

14

(14) dlm. ACC/SM-YEM/78.

KL International Airport,
Subang, Selangor.

8th. June. 1978.

The Managing Director,
Penerbangan Mados Johor,
12-C, Combe Hill,
Johor Bahru, Johor.

Tuan,

ACCIDENT TO CESSNA 150 SM-YEM.

1. We write to advise that investigations into the accident to your Cessna 150 Aerobat SM-YEM on 10th. April, 1978 has now been completed. The following findings and recommendations are forwarded to you for your necessary action.

FACTUAL INFORMATION/INVESTIGATION.

2. Flight Authorization. As of 06 April, 1978, a new Company directive was issued whereby "all flights other than Aerial Agricultural and Charter flights must be authorized only by HH BMJ, HH Tengku Ibrahim or Capt. T. Othman". This ruling also applied to any flights conducted for the purpose of visits to the aerial ag operating area or for training. It is understood that "authorization" in this new directive actually means "prior permission" and/or "approval" only need be obtained from the three nominated executives. It is further understood that the directive is issued basically to provide some measure of control over the allocation of Company aircraft for private pleasure or social flights, including flights for personal continuation flying training. The directive cannot imply otherwise. "Authorization" conveys a host of other meanings in aviation circles including air legislation. With all respect to His Highnesses, only certain individuals with several years of flying experience, the right aviation qualifications and sufficient management aviation skills may "authorize" flights. Individuals usually nominated to "authorize" flights are senior experienced Company Chief Pilots or Ops Managers, and/or Training/Check captains. These are usually approved by DCA, and the functions of same would be far below the purview of those expected of His Highnesses.

3. There appears to be no proper supervision, briefing/debriefing or "authorization" as such for this flight. The pilot flew with a strong downwind tailwind component on a grassstrip that was muddy, soft and slippery. The pilot was merely given permission to make the flight which is reported as a training flight. There is inconclusive evidence, to prove otherwise as might seem the case. Regrettably, this accident now chalks up for Mados's records its third aircraft accident of which two have been total write-offs since it began flying activities in late 1976. It is a record that Penerbangan Mados cannot now be proud of or to ignore.

4. Conduct of Flight. The pilot held a valid licence and was given permission to carry out a personal continuation training flight on 9M-YEM on the afternoon of 10 Apr 78, in accordance with the new Company directive. He took off in fine weather at 1555 hrs, and commenced practising some circuits and landings with one passenger. This passenger had earlier been given some flying experience, and illegal instruction by another Company pilot who was neither rated nor licenced to do so. The pilot has since been the subject of separate disciplinary action for this and other associated breaches of the Regulations.
5. The pilot carried out a series of circuits and landings at the polo ground. His circuit pattern was such that there was a tail wind component of some 10 knots. He elected to carry out a full-stop landing after the seventh circuit. He reported a "sudden change of wind" which caused him to float the aircraft a considerable distance down the landing strip to execute his landing. He then elected to "go round" and in doing so inadvertently selected "flaps Up" instead of "flaps 20" from the fully down position. He reported the aircraft sank to the grass strip, skidded, deviated from its landing path, and subsequently impacted with the stables situated along one end of the polo ground strip.
6. Injuries. Both the pilot and his passenger sustained injuries consistent with unrestrained shoulder harnesses. It is considered that had the shoulder harnesses been used on this occasion, there is the possibility that both the pilot and his passenger would ^{have} received minimal injuries.
7. Wreckage. The aircraft was totally damaged as a result of impact with the stable. Altimeter settings on one altimeter was set at 1007 mbs (+200 ft) and the other was at 1011 mbs (-80 ft). The accelerometer showed readings of +8.5 g and - 5 g. This indicates the aircraft must have hit the stables with considerable force and still under power. The flaps were in the fully up position. The aircraft heading on impact was 192 degs indicating the aircraft had skidded and severed through at least approximately 60/70 degs from its original landing run heading. One ASI was broken consistent with the head injury sustained by the passenger. Both control column wheels were also collapsed and broken.
8. Penerbangan Madras Johor, the pilot and his passenger were extremely fortunate that the aircraft did not catch fire after impact. It is considered doubtful whether this accident would have been survivable as it was if the aircraft had caught fire because of the lack of any apparent fire fighting or crash rescue facilities at the polo ground. Johore ATC were also not advised of any details concerning the flight.
9. Polo Ground grass-strip. The polo ground grass strip was examined for initial touch-down, rolling, braking and skid marks during the investigation. The surface of the grass-strip was found to be extremely muddy and slippery in most areas. There was evidence of a single wheel mark from the estimated first point of touch-down up to the first run of approximately 200 feet. There were no wheel markings for the next 50 feet indicating the aircraft most likely "bounced" or "lifted off" momentarily at this point. Double wheel markings were then evident for the next 200 feet, the markings indicating more and more severe braking until the aircraft hit the stables. During this part of the the landing run, it is considered likely that braking action was minimal and the aircraft merely skidded and slewed on the mud and grass surface in a half-controlled fashion. Each wheel mark was no less than 18 inches in width and some 3 to 4 inches ^{deep} in the last 100 feet run. The marks indicate the pilot most likely attempted to swing the aircraft round to the right in an arc to avoid hitting the stables whilst simultaneously attempting to bring the aircraft to a stop. This he failed miserably.

His attempts were rendered ineffective mainly because of the poor, raw condition of the grass/mud surface. That turned out into a handsome overshoot and impact into the stables with considerable speed and force.

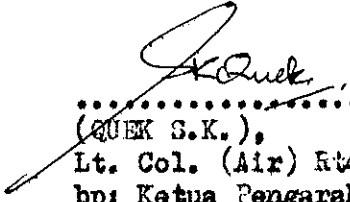
CONCLUSIONS/RECOMMENDATIONS.

10. It is concluded that the accident was caused by poor pilot application of judgement and skills during the critical phases of landing. The pilot subsequently allowed the aircraft to collide with the stables in a sort of half-controlled crash.

11. Penerbangan Mados is requested to comply with the following requirements failing which action may be taken to withdraw DCA approval of use of the C150 and C206 fixed wing aircraft for private pleasure flying purposes. This action would be necessary in order to ensure not only the safety of those flying in the aircraft but also the general public at large.

- (a) All private flying including pilot continuation training must be properly "authorised" and supervised by suitably senior qualified, experienced Company pilots with the exception of HH RMJ who flies with a senior, experienced company pilot at all times.
- (b) No passengers are to be carried on all training flights.
- (c) Shoulder harnesses are to be ^{put on} and made secure prior to take-offs and landings on all flights, whether for private flying, training or hire and reward flights.
- (d) All training flights are to be conducted at Senai airport where adequate fire fighting and crash rescue facilities are readily available. The polo ground airstrip may be used for first ^{the} take-offs and last landings of the day only, depending on condition of the grass strip due to weather. (See DCA report on visit to Penerbangan Mados, Johore - (7) dlm. JPA/GPU4/29 dated 28th. Jun 77)
- (e) No formal flying instruction is to be given to any passengers except by those experienced pilots, rated and licenced, to do so.
- (f) No passenger is to be given any flying instruction unless he/she holds a valid, approved DCA Student Pilot's Licence.
- (g) Johore ATC is to be advised in advance of all flights intended to be originated from the polo ground for search and crash rescue purposes, and in cases of conflicting traffic.
- (h) The pilot involved in the accident is suspended from all flying w.e.f. 10 Apr 78 to 10 Jun 78. He has been formally advised.
- (j) The pilot involved in giving ^{earlier} flying instruction in contravention of the Regulations is suspended from all flying w.e.f. 16 May 78 to 16th. Jun 78. He has also been formally advised.

12. The Department of Civil Aviation thanks HH RMJ and Capt. T. Othman for kindly making all the necessary arrangements at P.M. on 11 Apr 78 to facilitate the successful completion of the investigation.


.....
(QUEK S.K.),
Lt. Col. (Air) Rtd.,
bp: Ketua Pengarah,
Jabatan Penerbangan Awam,
Malaysia.

s.k.

- (1) Ketua Pengarah,
Jabatan Penerbangan Awam,
Malaysia.
- (2) Chief Inspector of Accidents/Safety,
Jabatan Penerbangan Awam, Malaysia.
- (3) Airworthiness Unit,
Jabatan Penerbangan Awam, Malaysia.
- (4) Pengurus Lapangan Terbang,
Lapangan Terbang Senai,
Johore.
- (5) Leonard Felice Tesoriero's File.
- (6) Ismail bin Bakar's File.

14

(14) dlm. ACC/SM-YEM/78.

KL International Airport,
Subang, Selangor.

8th. June. 1978.

The Managing Director,
Penerbangan Mados Johor,
12-C, Combe Hill,
Johor Bahru, Johor.

Tuan,

ACCIDENT TO CESSNA 150 SM-YEM.

1. We write to advise that investigations into the accident to your Cessna 150 Aerobat SM-YEM on 10th. April, 1978 has now been completed. The following findings and recommendations are forwarded to you for your necessary action.

FACTUAL INFORMATION/INVESTIGATION.

2. Flight Authorization. As of 06 April, 1978, a new Company directive was issued whereby "all flights other than Aerial Agricultural and Charter flights must be authorized only by MH MBJ, MH Tunjua Ibrahim or Capt. T. Othman". This ruling also applied to any flights conducted for the purpose of visits to the aerial ag operating area or for training. It is understood that "authorization" in this new directive actually means "prior permission" and/or "approval" only need be obtained from the three nominated executives. It is further understood that the directive is issued basically to provide some measure of control over the allocation of Company aircraft for private pleasure or social flights, including flights for personal continuation, flying training. The directive cannot imply otherwise. "Authorization" conveys a host of other meanings in aviation circles including air legislation. With all respect to His Highnesses, only certain individuals with several years of flying experience, the right aviation qualifications and sufficient management aviation skills may "authorize" flights. Individuals usually nominated to "authorize" flights are senior experienced Company Chief Pilots or Ops Managers, and/or Training/Check captains. These are usually approved by DCA, and the functions of same would be far below the purview of those expected of His Highnesses.

3. There appears to be no proper supervision, briefing/debriefing or "authorization" as such for this flight. The pilot flew with a strong down-wind tailwind component on a grassstrip that was muddy, soft and slippery. The pilot was merely given permission to make the flight which is reported as a training flight. There is inconclusive evidence, to prove otherwise as might seem the case. Regrettably, this accident now chalks up for Mados's records its third aircraft accident of which two have been total write-offs since it began flying activities in late 1976. It is a record that Penerbangan Mados cannot now be proud of or to ignore.

4. Conduct of Flight. The pilot held a valid licence and was given permission to carry out a personal continuation training flight on 9M-YM on the afternoon of 10 Apr 78, in accordance with the new Company directive. He took off in fine weather at 1555 hrs, and commenced practising some circuits and landings with one passenger. This passenger had earlier been given some flying experience, and illegal instruction by another Company pilot who was neither rated nor licensed to do so. The pilot has since been the subject of separate disciplinary action for this and other associated breaches of the Regulations.
5. The pilot carried out a series of circuits and landings at the polo ground. His circuit pattern was such that there was a tail wind component of some 10 knots. He elected to carry out a full-stop landing after the seventh circuit. He reported a "sudden change of wind" which caused him to float the aircraft a considerable distance down the landing strip to execute his landing. He then elected to "go round" and in doing so inadvertently selected "flaps Up" instead of "flaps 20" from the fully down position. He reported the aircraft sank to the grass strip, skidded, deviated from its landing path, and subsequently impacted with the stables situated along one end of the polo ground strip.
6. Injuries. Both the pilot and his passenger sustained injuries consistent with unrestrained shoulder harnesses. It is considered that had the shoulder harnesses been used on this occasion, there is the possibility that both the pilot and his passenger would have received minimal injuries.
7. Breakage. The aircraft was totally damaged as a result of impact with the stable. Altimeter settings on one altimeter was set at 1007 mbs (+200 ft) and the other was at 1011 mbs (-80 ft). The accelerometer showed readings of +8.5 g and - 5 g. This indicates the aircraft must have hit the stables with considerable force and still under power. The flaps were in the fully up position. The aircraft heading on impact was 192 degs indicating the aircraft had skidded and severed through at least approximately 60/70 degs from its original landing run heading. One ASI was broken consistent with the head injury sustained by the passenger. Both control column wheels were also collapsed and broken.
8. Penerbangan Madas Johor, the pilot and his passenger were extremely fortunate that the aircraft did not catch fire after impact. It is considered doubtful whether this accident would have been survivable as it was if the aircraft had caught fire because of the lack of any apparent fire fighting or crash rescue facilities at the polo ground. Johore ATC were also not advised of any details concerning the flight.
9. Polo Ground grass-strip. The polo ground grass strip was examined for initial touch-down, rolling, braking and skid marks during the investigation. The surface of the grass-strip was found to be extremely muddy and slippery in most areas. There was evidence of a single wheel mark from the estimated first point of touch-down up to the first run of approximately 200 feet. There were no wheel markings for the next 50 feet indicating the aircraft most likely "bounced" or "lifted off" momentarily at this point. Double wheel markings were then evident for the next 200 feet, the markings indicating more and more severe braking until the aircraft hit the stables. During this part of the the landing run, it is considered likely that braking action was minimal and the aircraft merely skidded and slid on the mud and grass surface in a half-controlled fashion. Each wheel mark was no less than 18 inches in width and some 3 to 4 inches deep in the last 100 feet run. The marks indicate the pilot most likely attempted to swing the aircraft round to the right in an arc to avoid hitting the stables whilst simultaneously attempting to bring the aircraft to a stop. This he failed miserably.

His attempts were rendered ineffective mainly because of the poor, raw condition of the grass/mud surface. That turned out into a handsome overshoot and impact into the stables with considerable speed and force.

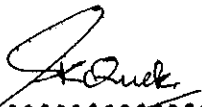
CONCLUSIONS/RECOMMENDATIONS.

10. It is concluded that the accident was caused by poor pilot application of judgement and skills during the critical phases of landing. The pilot subsequently allowed the aircraft to collide with the stables in a sort of half-controlled crash.

11. Penerbangan Mados is requested to comply with the following requirements failing which action may be taken to withdraw DCA approval of use of the C150 and C206 fixed wing aircraft for private pleasure flying purposes. This action would be necessary in order to ensure not only the safety of those flying in the aircraft but also the general public at large.

- (a) All private flying including pilot continuation training must be properly "authorised" and supervised by suitably senior qualified, experienced Company pilots with the exception of HH RMJ who flies with a senior, experienced company pilot at all times.
- (b) No passengers are to be carried on all training flights.
- (c) Shoulder harnesses are to be ^{put on} and made secure prior to take-offs and landings on all flights, whether for private flying, training or hire and reward flights.
- (d) All training flights are to be conducted at Senai airport where adequate fire fighting and crash rescue facilities are readily available. The polo ground airstrip may be used for first take-offs and last landings of the day only, depending on ^{the} condition of the grass strip due to weather. (See DCA report on visit to Penerbangan Mados, Johore - (7) dlm. JPA/GPU4/29 dated 28th. Jun 77)
- (e) No formal flying instruction is to be given to any passengers except by those experienced pilots, rated and licenced, to do so.
- (f) No passenger is to be given any flying instruction unless he/she holds a valid, approved DCA Student Pilot's Licence.
- (g) Johore ATC is to be advised in advance of all flights intended to be originated from the polo ground for search and crash rescue purposes, and in cases of conflicting traffic.
- (h) The pilot involved in the accident is suspended from all flying w.e.f. 10 Apr 78 to 10 Jun 78. He has been formally advised.
- (j) The pilot involved in giving ^{earlier} flying instruction in contravention of the Regulations is suspended from all flying w.e.f. 16 May 78 to 16th. Jun 78. He has also been formally advised.

12. The Department of Civil Aviation thanks HH RMJ and Capt. T. Othman for kindly making all the necessary arrangements at P.M. on 11 Apr 78 to facilitate the successful completion of the investigation.


.....
(QUEK S.K.),
Lt. Col. (Air) Rtd.,
bp: Ketua Pengarah,
Jabatan Penerbangan Awam,
Malaysia.

s.k.

- (1) Ketua Pengarah,
Jabatan Penerbangan Awam,
Malaysia.
- (2) Chief Inspector of Accidents/Safety,
Jabatan Penerbangan Awam, Malaysia.
- (3) Airworthiness Unit,
Jabatan Penerbangan Awam, Malaysia.
- (4) Pengurus Lapangan Terbang,
Lapangan Terbang Senai,
Johore.
- (5) Leonard Felice Tesoriero's File.
- (6) Ismail bin Bakar's File.