



MINISTRY OF DEFENCE

Military Aircraft Accident Summaries

MAAS 2/83

8 February 1983

MOD AIRCRAFT ACCIDENT INVOLVING ROYAL AIR FORCE JET PROVOST T3A XN643	
ADASTRAL LIBRARY	
ACC. No.	Date: 30 July 1981
PARENT	Parent Airfield: Royal Air Force Linton-on-Ouse, Nr York
CLASS	Place of Accident: 2 miles North of Snainton, N Yorks
AUT	Crew: One student pilot
GB. MOD. PR.	Casualties: One (minor)
DATE	4/3/83

CIRCUMSTANCES

1. On the afternoon of 30 July 1981 a student pilot at an early stage of his pilot training was briefed and authorised to carry out a solo general handling sortie which was to include basic aerobatics practice which is a necessary part of RAF Flying Training. In accordance with standard practice, in-flight emergencies, including engine malfunctions, were covered in the briefing and the student was reminded that he could always talk to the Duty Instructor on the radio if necessary.
2. With clear skies, a light wind and over 20 kms visibility the student climbed his aircraft to 9000 ft and commenced his aerobatics practice. Having carried out a number of successful stall turn manoeuvres and halfway through another one he heard a burbling sound, accompanied by a slight vibration, and decided that his engine had flamed-out. He attempted to relight the engine but was unsuccessful, possibly due to disturbed airflow in the engine intakes. The student then made an emergency call on the distress frequency but the ground station received only a carrier wave and not a voice signal. Nevertheless, they were able to offer him some assistance since he could receive them clearly and they were aware that the aircraft might be in an emergency. The student became so pre-occupied with the radio problem making various switch selections, that he was unable to make a further attempt to restart the engine and realised only just in time that he would have to eject. He aimed the aircraft into a clear area and at just below 1000 ft he ejected safely. The aircraft landed in a field and was damaged beyond repair. There were no civilian injuries but the aircraft caused some damage to crops.

CAUSE

3. The accident occurred because an inexperienced student pilot mishandled the controls during aerobatics practice. The result was that the airflow into the engine was so disturbed that the engine either surged or flamed out. The student diagnosed a flame-out and having attempted to relight his engine then, correctly, closed the fuel cock before making an emergency call on the radio. After this call he should have made a further attempt to relight the engine but he became so engrossed in the difficulties he was experiencing with communications that he neglected to carry out the correct drill. By the time he became aware of the situation he had no alternative but to eject from the aircraft.

COMMENT

4. Aerobatics do not normally present a problem to an engine, especially one as reliable as the Viper in the Jet Provost; however, it is possible to induce a malfunction, due to disturbed airflow, if the flying controls are mishandled, particularly at low speed as was probably the case here. Pilots are aware of this and are taught the symptoms and practise the recovery drill for both surge and flame-out. On this occasion a young pilot at an early stage of training was trying hard to improve his skill at aerobatics when he experienced an engine malfunction. Although he had been briefed on engine failures and had simulated them he would, nevertheless, have been under a great deal of stress - the more so as he experienced a radio problem as well: the cause of this could not be established but was possibly a transient fault in a control unit. It is not possible to give students practical experience of every emergency in a Jet Provost but thorough and regular ground instruction is given and great care is taken to keep to a minimum those risks which are inevitable in training. No major changes to training methods were necessary as a result of this accident but some minor adjustments to existing procedures have been ordered.

CLAIMS

5. The sum of £164.75 has been paid for damage to crops.

Issued by - Public Relations (Royal Air Force)
Ministry of Defence
Main Building
Whitehall
London SW1A 2HB
01-218-3253/4