

Yak 52, LY-AMU, Yak 50, G-BWYK

AAIB Bulletin No: 7/98 Ref: EW/G98/04/02 Category: 1.3

Aircraft Type and Registration:	(i) Yak 52, LY-AMU (ii) Yak 50, G-BWYK
No & Type of Engines:	(i) 1 Vedeneyev M-14P piston engine (ii) 1 Vedeneyev M-14P piston engine
Year of Manufacture:	(i) 1983 (ii) 1981
Date & Time (UTC):	8 April 1998 at 1630 hrs
Location:	Overhead Boreham Airfield, Essex
Type of Flight:	(i) Formation Aerobatic Training (ii) Formation Aerobatic Training
Persons on Board:	(i) Crew - 1 - Passengers - None (ii) Crew - 1 - Passengers - None
Injuries:	(i) Crew - None - Passengers - N/A (ii) Crew - None - Passengers - N/A
Nature of Damage:	(i) About 30% of right elevator structure/skin destroyed (ii) Damage to propeller
Commander's Licence:	(i) Airline Transport Pilot's Licence (ii) Airline Transport Pilot's Licence
Commander's Age:	(i) 35 years (ii) 47 years
Commander's Flying Experience:	(i) 7,760 hours (of which 250 were on type) Last 90 days - 130 hours Last 28 days - 50 hours

(ii) 7,000 hours (of which 7 were on type)

Last 90 days - 100 hours

Last 28 days - 25 hours

Information Source:

Aircraft Accident Report Form submitted by the pilot

The accident occurred during a training session for a seven aircraft formation aerobatic display: the pilot of 'MU' was the formation leader and the pilot of 'YK' the No 6. The manoeuvre involved was a "1/2 Cuban" performed in line astern with No 6 following the leader. This had been carried out without incident on a previous practice and was considered safe if No 6 dropped back from close formation before the leader applied forward elevator at the 45° inverted line and rolled erect.

On the accident flight, the leader and No 6 were joined by Nos 2 and 3 to make a Box formation at 1,500 feet agl. The formation then pulled up and, as planned, Nos 2 and 3 broke just before the vertical leaving the leader and No 6 in line astern. As the leader made a 'check' call to tell the No 6 that the roll out was about to begin he felt and heard 3 impacts at the rear of the aircraft. With some difficulty he rolled the aircraft erect and told No 6 that a collision had occurred. The No 6 acknowledged and reported that he had no evident vibration despite a brief propeller impact. He also told the leader that about a third of 'MUs' right elevator was missing.

The No 6 returned to North Weald Airfield and landed without incident. The leader carried out a handling check which revealed no problems apart from a slight elevator buffet. He then landed without incident from a flapless approach.

The accident was attributed to the fact that No 6 was too close to the leader when he rolled erect. In a frank and honest report, the leader considered that he had contributed to the accident by not re-stressing the need for the No 6 to drop back from close line astern before the roll erect started, during the pre-flight briefing.