FLIGHT International, 3 January 1981 11

Bruggen Jaguar collision - pilot error
THE Royal Air Force Jaguar midair
collision at Bruggen, West Germany,
on May 28 was caused by the Number
Two aircraft breaking too early in a
four-aircraft formation run-in and
break. The four 17 Sqn Jaguars were returning to Bruggen, their home base, in Arrow formation (see diagram). In a standard break from arrow, the formation runs in along the line of the runway at 420kt and 500ft. The Number Two flies slightly below the lead, Number One. At the break point the leader pulls up posi-tively and, in this case, to the left, to position himself on the downwind leg at 1,000ft. Number Two waits for two or three seconds before starting to pull and turn. Three and Four follow Two with the same time-interval between each aircraft.
On this occasion, the leader broke normally and, when established in his turn, looked back and to his left. He saw the Number Two very close to him and getting closer. The leader

realised that a collision was imminent and attempted to take evasive action, but there was insufficient time for his aircraft to react. The two Jaguars col-lided and caught fire. The leader ejected and was uninjured, the Num-ber Two did not eject and was killed. One of the Jaguars (XX961 and XX964) crashed on the airfield and the other crashed into a wood just outside the airfield boundary.
The accident investigation team could not find any evidence of tech-nical malfunction of either aircraft prior to the collision. The team con-cluded that the Number Two broke formation early, at about the same time as the leader. It is possible that Number Two lost visual contact with the leader just before the break was called. The almost simultaneous break of the leader and Number Two placed
the Jaguars in unexpected relative positions with insufficient time for the Number Two to regain visual contact
and take avoiding action.

Below Four Jaguars of 6 Sqn demonstrate close Arrow formation

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BAe presses on with
Sea Eagle, Skyflash 2
BRITISH Aerospace Dynamics are continuing normally with their Sea Eagle air-launched anti-ship missile and Skyflash 2 air-to-air missile. Reports in the British Press have sug-gested that both programmes may be stopped as the UK Ministry of Defence (MoD) looks for ways to trim £200 million from next year's defence budget. The MoD has not yet decided on where the spending cuts will be made and no decision is likely in the near future. Including 1980 over-spend, the 1981 budget could be cut by £600 million, giving a 5 per cent real increase over two years.

PAH-1 into service

THE first of 212 MBB BO 105 PAH-1 anti-tank helicopters has been de-livered to the German Army. The helicopters, which each carry six Hot anti-tank missiles, are scheduled to be delivered by mid-1983 and will equip three anti-tank regiments attached to three Army corps. A further squadron of 21 PAH-ls will be attached to No 6 Panzergrenadier Division, Schleswig-Holstein, for special duties.
Each PAH-1 regiment will have 56 helicopters in two 28-aircraft squad-rons. Each squdaron will consist of four flights of seven PAH-ls. The regi-ments will be stationed in Nieder-sachen, Hessen and Bavaria. Unit price of the helicopter is quoted as DM3 -5 million (£760,000) and the total programme cost, as of October 31, is an estimated £200 million.

Sub-launched Tomahawk

A GENERAL DYNAMICS Tomahawk submarine-launched cruise missile failed to reach sustained flight on December 16 after being fired from the US Navy submarine Guitarro. The underwater boost charge fired and the missile cleared the surface, but the recovery parachute—only fitted to test rounds—opened. This was the 11th failure in 56 Tomahawk tests and the third in 12 from Guitarro.
In an earlier test a Tomahawk was fired successfully from a prototype vertical launching system. The test round transitioned to cruise flight and flew a simulated land-attack profile from the Navy's Pacific Missile Test Centre to the Utah test range. The launcher is being developed by Martin-Marietta for use with Standard, Asros and Tomahawk weapons.

McDonnell Douglas

VT X team grows
SPERRY has joined the McDonnell Douglas/British Aerospac e team formed for the US Navy's VTX-TS advanced pilot training competition. The company becomes the principal subcontractor for simulator training devices. McDonnell Douglas is prime contractor and has received two Navy study contracts, one for the BAe Hawk and one for a new design. Four other contracts have been let to Grumman/Beech, Lockheed/Dassault-Breguet/Dornier, Northrop/Vought and Rockwell. Two teams are to be selected next autumn for the proto-type phase. Planned in-service date for VTX-TS, which will replace T-2s and TA-4s, is 1989 but may be accel-erated to 1987.