

Cutting through it

Dan Tye flies with The Blades

**60 air displays,
5000 miles,
4 aircraft,
150 transits
through
UK airspace...**

THE airspeed indicator sits on 130 knots as we scream round in a right hand turn after take off. I'm staring down on two gleaming blue Extras sitting four feet away from the wingtip. It's like they're held in place by some invisible forcefield. In just a few seconds Sywell aerodrome has swung into our 5 o'clock and I crane my neck around to watch as Blade 4 – flown by Myles Garland – flies the length of the 05 runway and lays down a stream of fluffy white smoke its entire length. Airfield departures don't get anymore exciting than this.

"I can see that smile from here Dan," says Andy Evans (Blade 3) from the rear seat as we turn base and wait for Blade 4 to catch us up.

Moments later he zooms in to view. He comes in so fast I think he's over-cooked it, but the Extra suddenly slows into perfect position. So he's done that more than a few times before then.

I'm flying with the team on their transit flight to put a display on at the Families Day at RAF Odiham. In the UK, airshows are the second most attended outdoor event after football with 10-12 million people watching. So far this season, these four aircraft have flown to 40 different airshows negotiating everything that UK airspace (and weather) has to throw at them.

Displaying is one thing but it's the transits between airfields – and in the same airspace us GA pilots often criticise for being too restrictive – that takes the real skill. I'm hoping to find some divine answer into exactly how they do it.

"Blades departing to the south, one thousand feet," calls Blade 1. "Blades, one two zero decimal nine... go!"



The team launches from their base at Sywell



Photos Jamie Hunter

Seconds later Andy calls in on the new frequency. "Blades check."

"Two"

"Three"

"Four"

"Blades Benson, Good Morning. We are four Extra 300's, one and three two POB, 2 and 4 one POB enroute from Sywell to Odiham Request Flight information Service."

"Roger Blades, identified. Flight Information Service, QNH 1015."

The Northamptonshire countryside blurs beneath us as we sit in the cruise at 140kt with the Extra's six cylinder Lycoming humming in front of us. The fields and trees still look lush and green as we've not had those baking hot days of sunshine yet. And don't the airshow organisers know this too. Southend was hit first with bad weather and then Fairford.

Numerous other GA fly-ins have also been cancelled. Nothing but cloud, rain and awkward crosswinds. Poor weather haunted last year's display season too.

"Most of the challenges we have with transits are down to weather," explains The Blades leader Andy Offer. "We plan on a map. We all have a map. We also plan with GPS and check NOTAMS. If the weather is OK then that plan works, but if the weather deteriorates it will try to push you off track."

Weather has regularly affected the team's best laid plans. Dave Slow (Blade 2) describes some conditions as "awful" adding, "Because we have no IF capability in the Extra we can't just pop through or above the cloud. We try various routes and eventually we can find a window in

the weather to make the display."

As former military pilots, the one thing the team has got ample amounts of is experience flying in bad weather. But they don't use any special techniques over and above the ones that are taught at PPL level.

Dave adds, "We're well practised at sticking our nose in to bad weather but the one unwritten rule is that you must always leave an escape route. We'd never push on through really marginal weather because if you did and then had to turn around you'd be flying straight back into it."

Back with the formation and we're just north of Silverstone race circuit (due to host the National Aerobatics Champs later this year and the World Champs next year). The team usually flies a straight line to a display but today they want to fly me through



Dave Slow and Andy Evans read through the route brief pack



Landrover packed up with jerry cans of Shell smoke oil

some of their signature display manoeuvres. The most exciting of these is the Hammerhead. The Blades is the only team in the world that does this – four aircraft flying line abreast then pull up into the vertical and then simultaneously stall turn to left.

“Blades, line abreast, go” calls Andy. I’m on the port side of the formation and watch the three other Extras to my right as they start diving to gain speed – 130kt, 140kt...

“Smoke on, go,” calls Andy and smoke trails rush out from the hot exhausts of all three aircraft. 160kt.

“B...laddeesss, puuullllll, go!” shouts Blade 1.

The ‘G’ comes on as all four of us go vertical. I’ve flown formation aerobatics in the RAF, but I’ve never seen three aircraft to my right as I’ve sighted the wingtip to check vertical.

“Rudderrr, go!”

We hang for a moment as I see three other aircraft, metres from our wingtip, begin a stall turn round through a cloud of billowing Shell Ondina smoke. I lose sight of them for a moment as we turn away but then look inside to see them again out to my left now, diving towards the ground. The trails of smoke stream upwards as we all accelerate, with our Extra making small corrections to stay in position... it’s like all three aircraft are on white bungee cords.

Throughout all this Blade 1 continues to direct the formation and keep absolute control. He calls everyone back together after the impromptu practice and turns us back on track for Odiham.

Every now and then I see Blade 1 pull the map

// WE USE MEMORY MAP FOR OUR ROUTINGS - WE’VE FOUND IT THE BEST FOR THE TASK

DAVE SLOW BLADE 2

up to eye level and watch him scan miles ahead for the next ground feature to fly towards. He’s completely aware of exactly what lies 20 miles ahead already. He also reminds the team to check fuel and engine T’s and P’s. He doesn’t just do this once then forget – it’s a regular cockpit work routine.

“24 minutes to go,” calls Blade 3 over the cockpit intercom as he updates me on the time left to run. With so many transits, how does the team keep on top of all the planning? It turns out that most of the map work is done way in advance. For this morning’s flight, there was no frantic drawing of lines and headings – instead each team member is given an A4 packet of information, which has a print out of the route on a map and landing chart.

Initially Blade 4 does all the logistics and timings of moving four aircraft from one place to the other. He then hands those plans to Blade 2 who works out the nitty gritty details. Blade 2 explains, “We always start from the target, which is the display, and then work backwards. We use Memory Map for routings – we’ve found it the best for task.”

“The big drivers are the slot times and the PPR

for the airfields. I’ll start from a OS 1:50,000 which I’ll draw a display map on. Planning a display has to be to CAP 403 rules so this stage requires real attention to detail. Blade 3 has even created his own software that lets us pull this up on screen and then add in the details we need.”

“Once I’ve done this I cross-reference the OS map with Google Earth or other satellite images because buildings could have been built since the OS map was drawn. I’ve saved myself from embarrassment with the CAA many a time by doing this first!”

When flying the route, the team still goes back to basics and works from a straight line drawn on the map with minute marks. Although they have headings to fly, Blade 2 explains that they don’t get tied down by staring at the DI; instead the route is driven by looking for ground features.

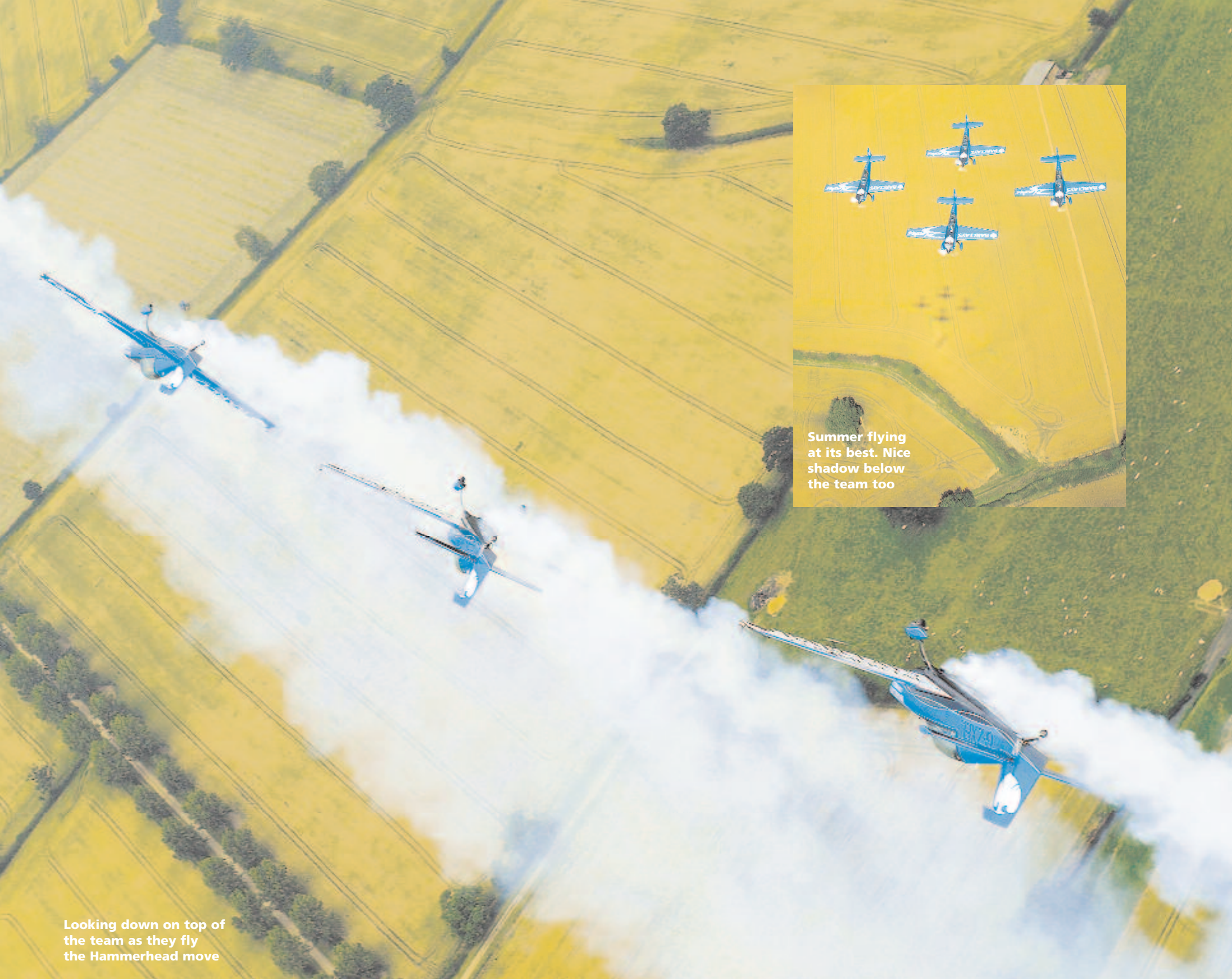
“The minute marks are very important though. It means if we do go off track or have to divert, we can use the stopwatch as an aid to see exactly where we should be and how we can get back on route.”

Another tip for GA pilots flying from airfield to airfield is to not draw the line directly to the overhead. The Blades tend to aim for a feature on a 3 mile line emanating from the centre of the runway. For them it allows time to descend down from height to run in for the display. For pilots like you and I, it gives us time to think about how we can fit in within the circuit before we find ourselves already on top of it.

The team does use GPS – a Garmin in each Extra – but they don’t rely on it for primary navigation and they’re all too aware of relying too much on



Most transits to and from displays are flown in box formation



Looking down on top of the team as they fly the Hammerhead move



Summer flying at its best. Nice shadow below the team too

electronics. Blade 2 says, "It's all about having a balance between the GPS and visual flying. From my experience of flying with GA pilots, they don't tend to look for those big features on the ground, you know, those 'drag-you-back-to-reality' features that give you the big picture. It's easy to fly GPS but you need that map for the idiot check."

So far The Blades' plan is working as the formation races past the Stokenchurch Mast.

"Ten minutes to run," says Blade 3 over the intercom.

I look ahead for Wycombe Air Park (which had a NOTAM for intense gliding activity). So far on route we'd come across a Cessna 152 and a Merlin helicopter. Any member of the formation can call out when spotting traffic. I keep my eye out for gliders as per the NOTAM. Instead I spot a CAP 10 left 10 o'clock low. Blade 4 lets out a stream of Ondina smoke to help the traffic spot us. We don't get any acknowledgement. In fact none,

of the traffic we see for the rest of the day does. A simple rock of the wings is all it takes. Perhaps they hadn't seen us at all?

Henley-on-Thames appears on the nose with the sprawling mass of Reading clearly in sight behind. Odiham is just 20 miles away now.

Blade 1 radios through, "Blades, one three one decimal three. Go."

Seconds later, "Blades, check."

"Two"

"Three"

"Four"

"Odiham Approach, Blades inbound for visual recovery."

"Blades identified. Squawk 3647. Contact Odiham Tower 122.1, QNH 1015."

I glance at my watch; 1319. We're easily going to make our 1330 arrival. We call up on tower frequency which then clears us for a run in and break. I'd flown these before as standard arrivals in the military but I was about to be treated

to one with a difference.

"Right Dan," Andy Evans says. "We'll be diving for the threshold, not below 100 feet and then pulling up into a loop in box formation. We'll then fly along the runway until the break. I'll go left first and then into a Derry turn to come right and join downwind. I'll tell you that now so you don't bang your head on the canopy," he says laughing.

I spot Odiham in the left 10 o'clock as Andy Offer leads us round for the 09 runway. I sit there wishing I could have control as Blade 3 flies us towards the threshold, speed building the time to 180 kts.

The smoke goes on.

"Blades, pull, go." The nose rises up through the threshold. I see the other three aircraft in the vertical before curving over the top of the loop. I strain my head back to look for the horizon and see the three smoke trails we've laid hanging below us in a perfect half circle. The threshold of Odiham's runway

grows bigger as we arc round to level out at 100ft. We hurtle down the length of 09 with some speed as Blade 1 breaks out first, then Blade 2 and then us with Blade 4 behind.

We turn finals as number three. I check my harness and toes are clear and tell Andy I'm ready for landing. He jokes back, "Got your gumshield in Dan?"

Like all of the Blades, Andy Evans had little previous experience flying taildraggers having come from a military background flying Hawks and Jaguars. "My first lesson was in a Piper Cub and then in a Cap 10C before I was let loose in the Extra," says Andy, "I was fine landing on grass but the first time on tarmac, I just thought, I won't be able to do this."

Today he shows that he can, with a nice greaser. We taxi to the south side where we refuel and then grab a lift over to the display briefing room. In the car, Blade 1 asks what kind of turn out we have. It's actually very

busy for a families day. Having come from the military, the team is all too aware of how important it is to support events like this. This particular display was paid for by Selex. This avionics company supplied nearly 60% of all the electronics and systems used on the Typhoon. Other displays are paid for by airshow organisers or private individuals – The Blades can even fly at your wedding or birthday.

From the commentator's position, I can see exactly how the show is progressing along with Kat Nicoll, who's been the team's public relations officer for three years. She also does the commentary which really adds to the 12-minute display. Bang on 1505 the team arrives overhead and launches into a fantastic show. Just a week previously the guys were flying non-stop every day at the week-long Farnborough Airshow. They had strict base heights there but at Odiham they can go right back down to proper display

Smoke on as the team overfly Henley-on-Thames



wave goodbye to crowd line at Odiham before flying a straight track back to Sywell. We fly a loose formation which lets the guys relax after a day flying in close proximity. Blade 3 lets me fly for a while too. I'd been itching to have a go since we took off that morning.

There's nothing fancy for the re-join at Sywell. Just a sensible, no nonsense join on right base. We land as number three and I watch as the two ahead land on Sywell's grass runway. Blade 2's tailwheel kicks up the chalk dust from the centre line.

We taxi outside The Blades' hangar. ZXCL goes in to have the mags checked after our dodgy engine start whilst the rest of the team set about re-filling the smoke systems. Not afraid of getting his hands dirty, and always leading by example, Andy Offer is next to the Shell Ondina oil drums hand pumping the liquid into jerry cans. It's hot and muggy now, and we're all starting to sweat. The team has now got nine displays in the next four days. I ask Blade 4 how he keeps going.

"There's a level of fitness we all have that helps us to get through," he says. "Most of the problems we could face can be overcome by proper planning though."

I finally get chance to quiz Blade 1 Andy Offer. But asking him to explain how he leads a team of four aircraft to so many displays is a bit like asking a magician to explain a trick – there's so much involved that in reality it's better to just watch them do it. Instead I ask how today fits in with the other transits they've flown. "Today typifies a normal Blades' summer, very busy and lots to do," he says.

"It's not been without the normal challenges as today we've had a photo shoot with another aircraft, a reporter with us, a fuel bowser that couldn't fill us up, getting delayed on the other side of the airfield, an aircraft that nearly didn't start and the trip to fetch the smoke hoses."

He starts to grin, "But tomorrow will be exactly the same, and that's the whole aim of the game." **GFI**

/// TODAY TYPIFIES A NORMAL BLADES' SUMMER; VERY BUSY AND LOTS TO DO

ANDY OFFER **BLADE 1**

authorisation heights of 30 feet above the ground. Their flying certainly draws some comments from some of the Chinook pilots present in the room. One says tongue-in-cheek, "That's just wrong", as Blade 1 and 4 fly simultaneous spins in the vertical and then hang the Extra on the prop.

Display over, myself and Kat head back across to meet the team after landing. We're delayed in crossing the runway as the airshow traffic attempts depart after their displays. Time ticks past and we worry that the guys are getting impatient waiting for us. We needn't have. The bowser's nozzle is too big for the Extra's fuel caps and the guys have created a makeshift funnel out of a plastic document folder. It takes 20 minutes to re-fuel each aircraft. Meanwhile, Blade 4 has got airborne on an errand to pick up some smoke hoses which were inadvertently left behind at Farnborough – even the best laid plans throw up the unexpected! As we were to find out first hand as we tried to start up

G-ZXCL to return to Sywell – it just didn't want to fire up. Six attempts later and the Extra finally growled into life. "That was lucky", says Blade 3. We both look across at Blade 1 who is grinning back at us, clearly imagining the faff if we hadn't got her started.

We launch as a three ship and



Hot, high and smoking. Blades 1 and 4 tumble round



The end of another day of displaying