

For the last several Farnborough International Air Shows, Global Hawk has graced the outside display. On the ground, not aloft.

This year, this correspondent had high hopes. Watchkeeper is cleared to fly in European civil airspace!

But where is the demo of it taking off and landing from the tarmac or even the grass alongside? Sadly it seems to have highly circumscribed permissions. It can fly from Boscombe Down over Salisbury Plain. And around Parc Aberporth. But not somewhere where ordinary folks can see it. Should be in-theatre next year, able to fly at 18,000 feet for 18 hours. At which height nobody will be able to see it!

So how about some interesting follow on questions? It has an arrestor hook. Run it off a carrier? Not yet discussed with MoD. Arm it? Part of studies of weapons mix requirements in theatre. CAS or rockets or what? Is that the rustle of long grass?

Thales are galloping along in the euro-UAV business. Its Project Lydian has already clocked over 35,000 flying hours. 24/7 coverage of Afghanistan 80% of the time. Which is good business when you're paid by the flying hour. Fun footage of naughty boys digging in IEDs and having their day spoiled by a flying visit from an F-16.

Taranis has been rolled out. Now there's a mean flying blade. But it's only a concept at the moment. ITAR free with the exception of a few fastenings. Stealthy, tiny radar cross section. Can fly a full shift at up to 40,000 feet, powered by the Hawk engine, awaiting targets of opportunity.

A real turn on was Mantis. A big boy. 22 metre wingspan, 18 metres long, 8 tonnes. Largest 2 engined UAV in the world. Looks a bit like a push-prop A10 tankbuster. Mean, with 4 dummy Paveways 4s and a brace of Brimstone. Concept to development in 19 months. Flies all day and all night. BAE Systems would love to put it into serial production.

If you want a UAV in a box, DRS/Finmeccanica has Neptune, marinised, its carrying case turning into a launcher. 4 hours at 8,000 feet, and in service for the past couple of years. With whom? Have to kill you if I tell you, and fully ITAR constrained to boot.

The un-American end of the group has over the hill, round the corner and man portable offerings. Johnny Taliban may have a towel on his head but he ain't stupid. His speed of reaction with new tactics and improvised kit is faster than our rate of development (who'd have thought he could make a wooden IED?) So how's he going to react when his cousin the shepherd discovers this grey bit of electronics on his hillside? Hit it with a rock so we know it's been found and stopped working, or throw a cloth over it so it still seems to be functioning but tells us nothing? Hm...

Chewing over SKY-Y and Falco MALEs (they would be, wouldn't they?) cogitating over bandwidth and processing, imaging and interpretation, sampling an extremely fine golden Livio Felluga, four big discussion points emerged.

First is that the development cycle seems to be about four years ♦ compare with 10-20 on manned aircraft. Moore's Law but a bit slower. But are tactics and attitudes in the senior echelons changing that fast?

Secondly, what's the difference between these things and short range missiles which are subject to international treaty? UAVs come home of course, but UCAVs may not especially if for high value targets their kinetic effect is both

explosive and momentum.

Thirdly, every man and his dog (and geeky kid in a garage) is into UAVs. JT's 2nd generation cousin somewhere in Europe may well be getting ideas. And at the same time, consolidation of R&D may pick up the pace of change, be better value for money, and most importantly, especially if utilising Galileo, completely ITAR free for markets at home and abroad.

And lastly ♦ for the moment ♦ the fighter jocks point out, reasonably, that UAVs aren't much cop in contested air space. How easy is that to change? DAS of course, maybe a short range air-to-air missile that would double as air-to-ground? Pushes a lot of buttons. The RAF is already training non-pilots as UAV operators. What does that do to career structures? Bears more thinking about, my light blue friends.