

# Democratization of air power

by GWYNNE DYER

Big shifts in the military balance happen quietly over many years, and then leap suddenly into focus when the shooting starts.

It happened to classic blitzkrieg tactics in the Arab-Israeli war of 1973, when both sides lost half their tanks, mostly to cheap, infantry-fired anti-tank missiles, in just three weeks. And it happened to 'air superiority', in the sense that it has been understood for the past 75 years, in Saudi Arabia last week.

Tanks ruled the battlefield from the German blitzkrieg of 1940 until 1973. Only more or better tanks could stop them. Tanks have got a lot more sophisticated since 1973, but so have the anti-tank weapons, which are a lot cheaper and therefore a lot more plentiful. There is no longer a single, simple equation for battlefield success.

Air superiority, the other main component of blitzkrieg, had a much longer run of success. The powers that could afford to design and build the most advanced combat aircraft controlled not only the sky but the land beneath it, and could batter weaker states into submission (NATO against Serbia, the U.S twice against Iraq, NATO again in Libya, etc.) with few casualties of their own.

Fast forward to September 2019 in Saudi Arabia. The oil-rich kingdom should be among the privileged, invulnerable few, for it has a very high-tech air force and the best air defences money can buy. It can also call on the immense power of the United States, which maintains military bases in a number of Gulf states and has promised to protect it. What could possibly go wrong?

What went wrong was a swarm of cheap drones and cruise missiles that the Saudis didn't even see coming. According to the Houthis rebels in Yemenis, who claim to have launched them, there were at least 10 Samad 3 drones (the Saudis say 18 drones hit the Abqaiq oil processing site) and an undisclosed number of Qasif K-2 cruise missiles (the Saudis say four cruise missiles struck the Khurais facility).

The Saudis didn't see them because they flew nap of the earth, so low they were hidden from Saudi radars. They were launched from three different sites, but timed to reach their targets simultaneously from three different angles. They took out half the oil-processing capability of the world's second-biggest producer for at least some weeks ? and the whole swarm of them only cost \$1 or \$2 million.

That's assuming they were built in low-wage Yemen. They'd cost twice that to build in Iran, and at least 10 times as much in the United States. But that's still pretty cheap when you consider that a single F-35 fighter costs \$122 million. You get a very capable airplane for your money, and a couple of them could do equal damage to those oil processing facilities ? but they wouldn't do a much better job.

They could also get shot down, which would be a very large amount of money (plus maybe the pilots' lives) down the drain. The drones and cruise missiles can also be shot down, of course, but they're cheap, they have no pilots, and if there are enough of them, some are likely to get through. If they don't get through today, send more tomorrow.

The big question that is finally going to be asked, in countries rich and poor, is why the air forces insist on buying ultra-expensive manned aircraft instead of flocks, swarms and fleets of small, cheap, disposable unmanned vehicles. The truth is that air forces are run by pilots, and they like to fly planes, but what happened in Saudi Arabia last week will finally give the civilian authorities arguments that the aviators cannot resist or ignore.

So the shift to primary reliance on unmanned aerial vehicles (UAVs) for offensive action will get underway at last, and the result will be the democratisation of air power. Only rich countries with a mastery of high technology can own F-35s. Even the smallest, poorest country (and some non-state actors too) can afford to build or buy a few thousand drones and a couple of hundred basic cruise missiles.

Democratization is a double-edged sword.