

Army aviation

I'm grateful to my colleague Michael Clifford for suggesting this topic for me today, because I haven't taken the opportunity to think about Army aviation in its totality before, though I've had something to say about most aspects of it in various forums. When I started to ponder what I'd say today, I realised that in substantial measure I'd have to do a survey of the various elements—simply because there's no obvious strategic plan for Army aviation. In fact, from where I sit, force structure planning and project definition for Army aviation looks like a bit of a mess.

Lest that sound a bit harsh, let me say that most of the elements work okay in practice, albeit with a question mark still hovering over a couple. And let me add that some of the more egregious problems weren't Army's fault. But it's hard to see much coherence across the spectrum of capabilities and projects. And given that Army spent the period 1999 - 2014 pretty much continuously on operation, the fact that it didn't manage to have its own utility and armed reconnaissance helicopters in theatre in Afghanistan, often relying on coalition air support instead, suggests that it wasn't all as it might have been.

Multi-role helicopters

Let's start with some of the more problematic areas—but unfortunately also the most important. Army's primary battlefield helicopters were both poor choices, and for multiple reasons. Let's start with the MRH-90 multi-role helicopter. This one started off as a contender for the replacement for the S70 Blackhawks, at a time when 'rationalisation' was the flavour of the month. The idea behind the plan was to reduce the number of types of helicopters in the ADF's inventory in order to reduce the overall cost of ownership, with the side benefit of creating an internationally competitive aerospace industry sector. Each new type brings with it a new set of fixed costs and a new supply chain, so rationalisation made good sense. If the Army and Navy could have helicopters with a high degree of commonality and shared supply chains, it'd cut down the overall cost. So far, so good. In fact, that's preaching to the choir as far as I'm concerned—marginal costs are preferable to new fixed costs in most circumstances.

Now fast forward to the present day, and we find the Navy is in the process of taking delivery of 24 new Romeo model Seahawk combat helicopters from the United States, while the Army continues to operate its Black Hawks as DMO (there's still one of those today, right?) and the contractor (Australian Aerospace, a subsidiary of Airbus Helicopters) continues to work to get the MRH90s up to speed.

It seems that the MRH-90 will come good in time, and I note that it has been doing some trial work on the new Canberra class ships.

Let me read you what the Army website says:

The MRH90 is one of the most advanced tactical troop transport helicopters of the 21st Century. As a multi-role helicopter, the MRH90 can undertake troop transport, search and rescue, special operations and counter-terrorism missions.

Amen, brother. And that's how the MRH was sold originally. But it's not the story that comes through when talking to anyone who has been working closely with the beast. As I said, I think it'll get there, but it has proven to be much more of a developmental effort than many expected. And it's not the helo that Army recommended to government, to be fair. Alas—and this is often the case when industry policy trumps defence's own requirements—the industry part of the rationalisation plan took on a life of its own at the cost of ADF capability, at least in the short term.

And there's a strong preference for a different platform than MRH-90 for the counter-terrorism role, either keeping the Blackhawk for that role or moving to something else again—a move that would further diversify the ADF's fleet. That view has been around for as long as I've been paying attention, and it's a view Army expressed when the MRH-90 decision was made. In other words, despite considerable investment of time and money, no rationalisation has been achieved. Rather than a Seahawk/Black Hawk fleet, or one based on a combination of Airbus land and marine helicopters, we'll have variants of each for the foreseeable future, as well as the multiple other helicopter types in the ADF inventory. When the dust settled, all we'd managed to do is retire the Navy's Seakings and establish a degree of cross-service commonality with the MRH-90.

ARH

Let me turn to the Tiger ARH. The project delivering it is well over seven years late. At the time the decision to acquire it, the Apache was in service with American and other forces and ready to go. The National Audit Office tells us that the problem was a misclassification of the aircraft as off the shelf when it was in fact developmental and required significant systems integration. (It's not alone there—the MRH90 was also far less mature than believed at the time as well and there are examples in other domains). Let's pause for a moment and contemplate what that means. Billions of taxpayers' dollars were committed without a proper appreciation of the technological immaturity of the equipment sought. Are we really so lazy and naïve as to 'buy off the brochure' rather than do our own basic due diligence?

Fortunately, some sterling work from the project team, industry and Army has got the aircraft to where the ADF wants it to be, though it is an orphan in terms of configuration compared to Tigers elsewhere. When it comes time to upgrade the aircraft (according to the most recent public DCP sometime around 2020) we'll have to decide whether to continue to develop our own baseline capability or move in a different direction—either way it'll be expensive.

Lest you think I'm picking on Army here, Navy made this error once too, when it originally configured its Bravo model Seahawks with systems not found in its American counterparts. The result over time was a steady decline in supportability of the onboard systems and a decline in combat effectiveness. When it came time for a major upgrade, the costs and complexities were in the too hard basket and the effectiveness of the aircraft in ASW and ASuW had become pretty marginal. Actually, that error was repeated with naval helicopters in the Super Seasprite fiasco, only that time the unique configuration proved too hard to even get the aircraft into service the first time around.

One thought I'll mention before moving on from the Tiger is that while we were still faffing round with ours, the French had theirs in Afghanistan, Libya and Mali flying combat missions. That suggests that the problem locally wasn't so much the airframe as the systems architecture we were trying to

fit it into. There's a lot to be said for uniformity of comms and data architectures, a point I'll come back to.

Unmanned aviation

UAVs are one area where the Army can't blame others for missed opportunities. Army wasn't especially imaginative or adaptable in its approach to force development around UAVs. In fact, if it hadn't been for the operational imperatives in Afghanistan, I wonder if Army would still be trying to frame and meet its requirements for Land 129, the original project for a tactical UAV capability. For those who came in late, that was quite a saga. The story is told in ASPI's 2009/10 budget brief, but it was essentially a case of overreach of ambition, specifications that couldn't be met, irreconcilable technical problems and, eventually, project cancellation.

In the meantime, in an admirable case of learning by doing, Army got its hands on ScanEagle and the man-portable Skylark, and discovered that you can do a lot with less in this space. When the larger and largely contractor supported Heron was added to the ADF mix, it suddenly looked like a pretty handy suite of UAVs that were well suited to the type of operations Army was being called on to do.

What was missing from the mix was an armed UAV that could provide a persistent armed reconnaissance and flying fire support role. All the noises around an armed drone capability suggest that we might not be far off acquiring such a system. That makes sense, but let me sound a couple of cautions. First, there's a risk that armed drones will become to be seen as an adjunct to Air Force strike capability. I think that would be a mistake. Australia is not the United States and I don't think we'd want to be in the same game. Australian armed drones make most sense as part of Army's conops, regardless of who's operating them. Second, I think it'd be a shame if a new fleet of large long-endurance drones took the focus away from exploring how low cost smaller systems can be used effectively.

Amphibious aviation

One of the challenges for Army more broadly over the next few years will be working out what its amphibious capability will look like, and how it will work with Navy. Working up embarked aviation operations will be only one among many things Army will have to sort out. It's not so much a force structure problem, so I won't say a lot about it, other than to note if there's one place a rationalised helicopter force with overlapping logistics chains would be useful it would be on a ship. We'll have to some extent with Navy's MRH90 utility helicopters alongside Army's, but if we want to add ASW helicopters to the mix there'll be little commonality. *C'est la vie.*

Here's what we should do

In summary, when we look at Army's aviation force structure, we see a mixture of the good, the not-so-good and the 'time will tell'. And it has all come together in a bit of a fly by the seat of your pants way (and at a painfully slow pace). While most of the key decisions that will shape Army aviation for the next couple of decades have already been made, there are still some decision points ahead—UAVs and the long-term future of the ARH come to mind. It's worth thinking about what a strategic plan for Army aviation would look like. I don't think it's too hard. The Army—in fact the ADF more broadly—needs to be able to do a couple of things well.

First, it needs to be well-connected to the rest of the ADF—not exactly a tear down the front page conclusion when ‘network centric’ and ‘jointery’ have been catch phrases for a couple of decades. But it hasn’t obviously been factored highly into some decisions—I’m thinking ARH is particular. While I understand that things are progressing much better now, they really ought to be, and it certainly wasn’t a ‘plug and play’ force element off the shelf. But intra-ADF connectivity, including tactical data links between all of the combat platforms should be a no-brainer. That’s especially true for operations in our near neighbourhood, where Australia will almost certainly be in the lead.

Second, Army needs to be able to get to coalition operations and plug into American and NATO compatible networks at the very least. And it needs to be able to take its own aviation along, confident that it can work with partners. At the risk of provoking inter-service envy, the way Air Force plugged into the operations over Iraq recently was seriously impressive. It very much hit the ground running, with both with its combat and support elements working well with coalition partners.

There’s two broad ways to achieve those goals. One is to try to develop an open architecture approach to communications and data transfer, and make sure that all future platforms meet the specifications required for them to work together seamlessly. That’s the hard way, especially if we continue to source major platforms from suppliers on different continents, then try to make them work with a combat management system sourced from somewhere else again. And that’s only part of the solution—having platforms that are compatible with the supply chains of partners for in-theatre support is also a real bonus.

The easier way is to source our platforms from the same place, so that connectivity and compatibility is pretty much built in. I might be starting to sound a bit like a broken record, but there’s a lot to be said for sourcing materiel from the US as a default position, and buying established and mature platforms through FMS works best of all. I have two main reasons for saying that. The first is what happens when we do. The second is what happens when we don’t. Look at the record of FMS Air Force purchases—they’re on time, on budget and work when we get them. The Super Hornets were first into Iraq (with C-17s in support) and didn’t miss a beat. Now look at the long and winding road that has been Army’s helicopter acquisition and is only now inching towards fit for purpose. Except, of course, for the Chinook upgrade, which was—you guessed it—an FMS buy.

But if you want to feel a bit better about Army’s helicopter experience, spare a thought for Navy’s Super Seasprites. After that particular fiasco, pretty much anything looks good. But there’s every reason to think that the Romeo acquisition is tracking nicely—and no reason it shouldn’t, given that the bird is already in service in numbers with the USN. The only way we could get it wrong would be to fiddle with it and make it an Australian-unique orphan.

Incidentally, I understand that we tried to do exactly that, and were actually thinking about removing the Hawklink data system that lets the helo exchange data with the surface fleet because we don’t have Hawklink fitted combatants. Of course the right answer is to make sure the Navy’s future ships all have it, but having it onboard in any case makes sense if there are American ships around. Thankfully the Americans and Lockheed Martin talked us out of that one.

And that’s the final reason to look to the US and FMS as a default position. Anywhere we go beyond the immediate neighbourhood, we’re likely to be working with American forces. Being able to plug

into their C2 and logistics systems just makes sense, and makes everyone's life easier. So if we keep our kit at the same baseline as American forces, we'll be well ahead in the interoperability stakes. And given that the Navy and Air Force are pretty much on the path of maximal interoperability with the US anyway, moving the Army in the same direction would also make for ADF interoperability.

The argument that's sometimes raised against an 'FMS first' policy is the need for competition to ensure value for money for the Commonwealth. To that I'd simply say that time is money too, as well as forgone capability, and we've spent a lot of time and foregone quite a bit of capability on purchases from elsewhere. It's hard to do the accounting, but I suspect the ledger is actually well in the red in the name of competition, so I don't know what has been gained.

Just so I don't close on a single note, let me observe that there's one thing the Americans don't do especially well, and that's the 'cheap and cheerful' low end solution. And in the unmanned space, especially in the tactical ISR space, there's a lot to be said for keeping requirements down, generation times fast and experimenting new ways of doing things with small and cheap systems—and you can afford a lot more of them. I hope that moving the ADF into the world of Triton and Reaper doesn't mean that Army loses influence in the UAV space, because there's a lot of scope for good work.