

A speech by Air Chief Marshal Sir Andrew Pulford

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Title: Maintaining Dominant Combat Power in Fiscal Austerity

Introduction

General Vaitsis, fellow air chiefs, ladies and gentlemen, thank you for your warm welcome. This is, I believe, the first time that the Chief of the Royal Air Force has participated in this annual conference. I am delighted to be here and it is an honour to present to you today.

I have certainly been set a difficult task but it is a relevant one for many of us, and a challenge I will do my best to meet. In short, I intend to offer a UK perspective on how to maintain dominant combat air power during periods of fiscal austerity. My comments will merely sign-post the larger themes that we can then expand on during questions.

My central argument is as follows. Financially restrictive climates are not new but the context in which air forces seek to maintain a competitive military advantage is. To keep that advantage in the future, air forces will need to do what they have done pretty successfully up to now – adapt, innovate and collaborate.

The UK's Strategic Defence and Security Reviews, the most recent of which reported in November last year, is the lens through which I will examine the issue. In the first part, I will look back to pick out some enduring themes and then, in the 2nd part, I will look forward and identify what the Royal Air Force is thinking about today.

I will highlight 5 key themes. My one caveat is that this is a personal perspective highly contextual to the Royal Air Force and the UK, but one which will, I hope, have broader resonance for conference delegates here today.

Air power's 'connection' to the Nation

My first enduring theme is air power's 'connection' to the Nation because dominant combat air power cannot be attained unless there is a direct link to the nation it serves.

Let me set the scene. The full impact of the global financial crisis of 2008 was still being felt as UK Defence considered the desired outcome of its 2010 Review. Within the Ministry of Defence, a £38 Billion 'black-hole' in its 10-year budget¹ – the result of misguided management and over-optimistic planning assumptions – needed to be addressed.

The MOD needed to put its house in order, and quickly. The three most significant casualties were very public and very emotional to those involved: the 'deletion' of the Harrier GR9 ground-attack force; 'deletion' of the Nimrod MRA4 maritime patrol aircraft before it had even entered service; and, a 17% drawdown of regular Royal Air Force manpower.² All as we were about to start operations over Libya while supporting major UK operations in Afghanistan.

¹ For a fuller explanation of the financial situation facing the MOD in 2010 see: Louth, J. *SDSR 2015: Doubts about Affordability and Dependency*. (RUSI News brief) <https://rusi.org/publication/newsbrief/sdsr-2015-doubts-about-affordability-and-dependency> accessed 29 Jan 16.

² See Fact Sheet 8: Future Force 2020 – Royal Air Force (Part of the SDRS 2010 Briefing Pack) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/62490/Factsheet8-RoyalAirForce.pdf accessed 29 Jan 16.

However painful they were, it is clear that this Review did something quite fundamental; it 'reconnected' UK Defence and UK air power with the ambition of the Nation because it forced us to collectively face the harsh reality in front of us. It balanced the military ambition of the MOD and the politicians and the senior military leadership with the resources available.

This healthy dialogue continues today, which, in turn, aligns the UK's air power with national aspirations. It seems strange to think that UK Defence had not always acted with such responsibility; but it hadn't.

In sum, combat power, whether dominant or not, must go hand in glove with National ambition and it will always be shaped by prevailing economic circumstances.

Investing in Defence capability is a political choice

My second theme is linked – investing in Defence capability is ultimately a political choice.

What emerged from the 2010 Review, in addition to the very public cuts, was strong Government support for sustained investment in certain Defence capabilities, despite the challenging financial climate. The Royal Air Force benefited from this support for the planned substantial recapitalisation of its equipment.

Influencing decision-takers is, always, of course key, but without reforming the MOD's ineffective practises, standards and behaviours our influence would have been reduced. An independent Review conducted by Lord Levene was hard-hitting at the time but now,

4 years after it reported, we can see a remarkable transformation.³ Disaggregation of capability planning from the Ministry to the Front Line Commands, wherever possible and appropriate, means that I now 'own' more of the problem and therefore more of the solutions. I can drive innovation, incentivise good behaviour and promote efficiencies because I can now reinvest anything that I save.

Critically, I seek to influence investment by offering viable solutions based on sound logic - backed by evidence - presented in a calm, transparent way and recognising that it is Government that will ultimately decide.

The 2015 Review was certainly approached this way and whilst an improved economic picture no doubt played a part in a positive outcome, I feel our responsible approach did too. The point is this: without putting your own house in order first, you can't argue convincingly for outcomes that might lead to dominant combat power.

The rising importance of partnerships and alliances

Another very clear picture that emerged from the 2010 and 2015 Reviews is my third theme, namely, the UK's view that partnerships and alliances – in their many forms – would be at the centre of our defence and security.

I will focus on the more visible, external developments to show this. The Lancaster House Treaty signed just a few days after the 2010 Review has a conventional and nuclear element. The final validation of the UK/French Combined Joint Expeditionary

³ See Lord Levene of Portsoken's 4th Annual Report to the Secretary of State on Defence Reform https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/490187/Defence_Reform_Levene_Fourth_Annual_Review_Report_Nov_2015.pdf accessed 29 Jan 16.

Force (UK/FR CJEF) capable of tackling the 'most dangerous' missions will be realised later this year.

Other initiatives included: the creation of the UK Joint Expeditionary Force (UK JEF) with support from the Northern Group of nations;⁴ the UK's impending leadership of the NATO Very High Readiness Joint Task Force (VJTF);⁵ and, increased UK participation in NATO's Baltic Air Policing mission, to name but a few.

Less visible but equally as significant are the UK's full adoption of NATO doctrine as its default and its increased procurement of NATO IT systems. Both are strong statements of an increased appetite for interoperability with partners.

A key internal dimension is our adoption of a Whole Force approach. That is, using a combination of regulars, reserves, civil servants and contractors to deliver Defence outputs. Manpower costs consume 1/3rd of our Defence budget and there are a great many outputs that can be delivered more efficiently using a non-regular, Whole Force model. It is not how these outputs are delivered, but that they are delivered that is important. I have some good examples I can share during questions if required.⁶

My message - partnerships and alliances are increasingly key to our future combat power.

⁴ The Northern Group comprises 12 nations – Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, the Netherlands, Norway, Poland, Sweden and the UK – formed to promote more effective defence and security cooperation in northern Europe. See: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/478933/52309_Cm_9161_NSS_SD_Review_web_only.pdf accessed 29 Jan 16.

⁵ The UK will lead the NATO VJTF in 2017.

⁶ For example, the delivery of Air Mobility at RAF Brize Norton and the delivery of advanced flying training at RAF Valley are exemplars of the Whole Force approach in action.

So much for recent history.

Our overarching conference theme is *Shaping the Future of Air Power*. Let me now highlight a couple of the things we are thinking about today as we anticipate our next Review in five years' time.

The priceless value of human capital [and its contribution to the Conceptual Component]

A good deal of what the Royal Air Force has achieved in its comparatively short history is because of the quality of its people. Since 1990, they have been engaged continuously on operations whilst transforming from a largely static Cold War air force to one that is highly mobile and globally responsive. And so my 4th theme is the priceless value of human capital – the people.

Our doctrine describes Fighting Power as derived from the intersection of 3 Components - the Physical, Moral and Conceptual.⁷ If we put aside for one moment the Moral Component, it is self-evident that when the Physical Component – or *what we fight with* – is put under pressure, the Conceptual Component – the *how we fight* or, more accurately, the intellectual foundations on which an air force is built – takes on heightened importance.

⁷ See Joint Doctrine Publication 0-01 (JDP 0-01) (5th Edition), dated November 2014 (MOD) p25.

Conceptual innovation is a key strand of this.⁸ It is people that: conceive the operational concept; design the 'fighting system'; run the acquisition process; and, exploit the equipment. And therefore it is sustained investment in our human capital that will help to preserve a dominant competitive edge.

The challenge today is to find sufficient people of the required high quality, recruit them and then keep them for long enough to make a difference. As technology-based organisations, air forces are particularly susceptible to skills shortages in Science, Technology, Engineering and Mathematics – what we call the STEM disciplines.⁹ Thus we are in an intense competition for people and our future Human Resource policies must reflect this.¹⁰

The issue arises because of a complex mix of demographics, societal changes, globalisation and proliferation of technology, to name but a few. This is changing the character of warfare and to overcome it our people will need to constantly adapt, innovate and collaborate if we are to be successful in generating air power effects wherever and whenever they are required.

This is why last year I launched my *Thinking to Win* initiative. Its main objective is to reignite our conceptual innovation by placing the Conceptual Component of Fighting Power at the heart of the Royal Air Force of 2020 and beyond. It is my view that this aspect of my Service is not as healthy as it should be and I intend to address that – for

⁸ The *Thinking To Win* Programme defines *Conceptual Innovation* as: to apply ideas, new to the RAF, that deliver step changes in power and performance; conceptual innovation is at the heart of all we do.

⁹ Science, Technology, Engineering and Mathematics (STEM)

¹⁰ For example, solutions might include introduction of lateral recruitment and easier in-out-in-out flows as part of recruitment and retention planning.

all the reasons I have outlined – so that we can be as successful in our next 100 years as we were in our first.

My message is clear – we must cherish and nurture our people carefully for without it, our chances of success are slim indeed.

Acquisition reform can be a 'capability' in its own right

My fifth and final theme is acquisition reform which, if done effectively today, can become a 'capability' in its own right tomorrow.

We are in a tightening, descending spiral of acquisition effectiveness. The global defence aerospace industry is shrinking because smaller orders are driving higher unit costs. Commercial enterprise, not Defence manufacturers, are now leading exploitation of new technologies, which then proliferate widely and rapidly thanks to our interconnected World. This is our new acquisition context.

So what can we do about it? First we must acknowledge this paradigm shift is occurring and let go of our legacy approaches. Only then can we embrace our new situation and adapt. This is a conceptual and cultural challenge and people are central to a successful outcome.¹¹

Once we clearly identify 'what needs to be done' we can adopt new acquisition strategies¹² that allow an 'informed' air force to act at the optimum time to implement

¹¹ For example, the Defence Growth Partnership not only talks to acquisition reform but also partnerships, economics and National ambition.

¹² For example, the Future Air and Space Operating Concept Primer (FASOC-P) (2015, MOD) describes a '*Lead, Watch and Follow*' strategy which recognises that for some technologies only the military can

new operational concepts and gain advantage. And this must be done whilst supporting both our major aircraft platforms with a 50-year lifespan, and rapidly adopting those of the future which may have a lifespan of only 5 days, or even 5 hours.

This puts a premium on focused investment in Science & Technology and Research & Development, collaborating where you can to minimise cost outlay and to maximise re-use potential of any 'breakthroughs' that you make.

There is unlikely to be a 'silver bullet' solution. We may need to accept that the competitive advantage we now seek is analogous to that which defines elite athletic performers;¹³ that is, it will likely be one of fine margins and finite duration.

Acquisition reform will not be easy but it is necessary; get it right and it becomes a 'capability' in itself that can deliver dominant combat power when it is needed.

Conclusion

In conclusion, this UK perspective is very much a personal one. The 5 themes I have identified are the ones that seem important to me; they are neither exhaustive nor, perhaps, original. But they do resonate with me. You may also think them quite obvious. But if they are, why have we consistently not done them justice?

lead primary investment in order to achieve a disruptive effect. However, for the majority of emerging technologies, Research and Development will occur independently and the military can follow these technologies in order to adapt and adopt related capabilities. But where there is not a clear exploitation pathway or such a pathway is unaffordable, the military can continue to watch until the situation becomes more favourable.

¹³ For example, Sir Clive Woodward's strategy for the England Rugby Union team at the 2003 Rugby World Cup where a 1/2 percent here and 1% there made all the difference. Also see Defense One's reporting on a recent speech by USAF Gen. Paul Selva at The Brookings Institute which made a similar point with respect to the US' 3rd Offset Strategy: <http://www.defensenews.com/story/defense/policy-budget/budget/2016/01/23/terminator-conundrum-pentagon-weighs-ethics-pairing-deadly-force-ai/79205722/> accessed 29 Jan 16.

Financial austerity is not new. Are our challenges any greater than those faced by Trenchard in 1919, or Tedder in 1946? I would argue they are not. But they are our challenges. Our responsibility is to take the best decisions we can today so that those who follow might be successful tomorrow.

By adapting, innovating, and collaborating, I believe we have a chance to maintain dominant combat power whatever the financial climate.

Thank you.