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Beyond the Cold War: Air Power Over a Flat Earth

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Biography: Air Vice-Marshal (Retd) Tony Mason had a distinguished Royal Air Force career, attending both the United States Air Forces's Air War College, Alabama and the RAF Staff College, Bracknell. He was Director of Defence Studies in 1976 and became Air Secretary in 1985. Retiring in 1989 he was made an honorary professor at the University of Birmingham and subsequently was a specialist air adviser to the House of Commons Defence Committee. An Honorary Fellow of the Royal Aeronautical Society and a Deputy Lord Lieutenant of Gloucestershire he was Leverhulme Airpower Research Director, at the Foundation for International Security.

Introduction

The End of the Cold War

At the beginning of 1991 the generals were restless in Moscow. They foresaw the end of Empire, renunciation of ideology and loss of status. Their armed forces remained in eastern Europe in large numbers; but now an embarrassment rather than the shock troops of a tightly controlled anti-western alliance. The Conventional Armed Forces in Europe (CFE) agreement was the symbol and the reunification of Germany the reality which in 1990 marked the ending of 45 years of confrontation between east and west.

It was difficult to see how even the most revanchist of authoritarian regimes in Moscow could reimpose its hegemony on the reawakening nationalities across its western frontiers. The USSR, in whatever future political form, would continue to be a great power, wielding little other than military influence, with a legitimate interest in European affairs. But now it lacked ideological credibility and, on land, the military disposition to threaten or intimidate western Europe. An introspective, disintegrating, bankrupt but heavily armed USSR could be a destabilising element, but it could not sustain its previous position as confrontational protagonist. The Cold War was ended.

The Cold War and Air Power

It is difficult to exaggerate the influence on air power which the Cold War exerted. At the end of World War II, the three great military powers with large air forces were the USA, UK and USSR. Subsequently, with rare exceptions, US military aviation technology set the benchmark for the rest of the world. In turn its evolution was driven by either the perception of threat from, or the need to retain advantage over, the USSR.

Air power has only existed since World War I, yet for three fifths of that time aircraft and weapons procurement, force structure, strategy, tactics and doctrine of the world's strongest nations developed in the perception that they would sooner or later be deployed with little warning against each other in a conflict with its epicentre in Europe. Defence budgets, even in those countries with worldwide interests or pretentions, were largely rationalised by reference to 'the threat' across the Inner German Border.

Conflicts which broke out virtually everywhere else in the world but Europe were regarded uneasily by the West, and especially by the USA, as distractions from the 'real' issues. The characterisations of the Korean War by General Omar Bradley as 'The wrong war, in the wrong place, at the wrong time' could have been repeated on many subsequent occasions. 'Lessons' from conflicts in the third world were those which could be read back onto the central stage. In the United States, the sectional interests of the Navy and the Marine Corps sustained procurement programmes for third world operations but they were generally peripheral and always placed in priority below those directly driven by 'The Threat'.

Air Power in the Cold War

Because the confrontation dissolved in rapprochement rather than exploding in violence it is only possible to examine what was expected of air power, rather than what it did or indeed could have achieved.

Nuclear Deterrence

Within 18 months of the ending of World War II, B29s of the USAAF similar to those which had dropped the atomic bomb on Hiroshima and Nagasaki were temporarily deployed to Europe after two C47 transports had been shot down over Yugoslavia by Soviet fighters. Two years later, in July 1948, three Groups of B29s were moved to Europe shortly after the beginning of the Berlin Airlift. It was believed at the time that the USSR had three million men under arms and 15,000 aircraft. The United States Joint Chiefs of Staff and the newly formed Western European Union Defence Organisation were agreed that there were insufficient ground troops and in theatre aircraft to counter such formidable Soviet strength. Deployment of the nuclear capable B29s was the first example in the confrontation of western air power being called upon to redress the quantitative imbalance in theatre. During the next 42 years the specific roles of air power were to fluctuate, but underlying them all was the assumption that western air power would redress a military imbalance which in several respects could always favour the Warsaw Pact.

The ad hoc deployment of the B29s evolved into the Strategic Air Command leg of the United States strategic deterrent triad. The regular presence of B52s in west European skies became a symbol of the US 'linkage' in NATO's strategy of flexible and appropriate response. Missile-carrying submarines were only visible when off patrol; intercontinental ballistic missiles in their Wyoming silos not at all. The alert state of the B52 fleet on the other hand resembled an international barometer, with a needle moving towards 'stormy' at the time of the Cuban crisis of 1962 and the Arab-Israeli conflict of 1973.

From the 1950s onwards, aircraft shared the responsibility for NATO's theatre nuclear capable weapon delivery. The persistent failure of the continental allies to raise sufficient ground forces to counter Warsaw Pact numerical superiority led to the inclusion of 'tactical' nuclear weapons in NATO's inventory. Strategic concepts were modified over the years but until 1990 the 'dual capable' aircraft allocated to SACEUR were not only among his most powerful weapon systems but also a potent symbol of alliance commitment to nuclear deterrence and, if necessary, riposte. The conceptual shift from the 'tripwire' of the 1950s to the post-1968 adoption of the NATO MC/3 strategy of flexible response modified the possible timing of western tactical nuclear use, but not the significance of its presence in a posture which sought to give an opponent no hope of conventional victory and every fear of unacceptable destruction and further escalation.

Conventional Warfighting

Whereas their nuclear roles remained relatively constant during the Cold War, the potential contribution of NATO's air forces to a war fighting strategy increased considerably in the later

years. The acquisition by the USSR of its own strategic and theatre nuclear weapons; a return by the Soviet general staff in the 1970s to concepts of highly mobile conventional warfare within an overall nuclear environment; a large-scale expansion of both quality and quantity in the Soviet Air Forces; the emergence and impact of high technology on western military aviation: all these factors combined to increase the contribution of air power to the posture and strategy of both alliances.

In 1948 the allied airlift had thwarted Stalin's attempt to starve Berlin into submission. By 1990 the ability of air power to strike, reinforce and redeploy at high speed, short notice and over long distances had become the major allied conventional counter to Soviet operational advantages. The Warsaw Pact possessed numerical superiority on the ground; concentrated armoured forces in close proximity across the inner German border; the advantage of time, place and extent in any outbreak of conflict; and contiguous breadth and depth for reinforcement and attack exploitation back across eastern Europe to the USSR.

On this side of the inner German border, the allied ground forces were outnumbered and not, in peacetime, deployed in their defensive positions. War time dispositions had to be met by redeployment of regular forces and mobilisation of reserves on the continent, across the Channel and from north America.

Not for nothing did NATO air power become known as 'the force of the first hours'. In crisis, and hopefully before the outbreak of conflict, air transports would redeploy men and equipment. The natural geographical obstacles of Atlantic, Channel, Skagerrak, Alps, Pyrenees, Adriatic and Aegean could only be overcome in the expected timescales by air. In the battle area, tactical air mobility, resupply and reinforcement would have to amplify those allied ground forces facing the Operational Manoeuvre Groups and their exploiting armoured echelons.

The Operational Manoeuvre Groups themselves had to be blunted, their supporting echelons interdicted, and their close air support destroyed. In classic air power terms, allied air supremacy had to be established to ensure that NATO aircraft could attack unimpeded, while denying the Warsaw Pact air forces their opportunities to contribute decisively to the land battle.

The USSR, since the earliest days in the Revolution, had fully grasped the significance of air power in modern warfare. Fortunately for the west, the evolution of Soviet offensive air power had been impeded by the pre-World War II purges, by Stalin's post-war concentration on air defence, by Khruschev's allocation of priorities to surface-to-surface missiles, and by consistently inferior aviation technology and military training. By the late 1980s however, the heavy investment in air power by the Brezhnev regime in the 1970s was beginning to pay dividends.

The Voroshilov General Staff Academy taught a comprehensive concept of pre-emptive air attack coordinated with a combined arms offensive to achieve and exploit air supremacy. Mig 29, SU 27, SU 24, TU 22M, TU 160 and several new helicopters had narrowed western technological advantage. The impact of perestroika and the Afghan experience appeared to be injecting a new operational realism into SAF combat training. In any conflict between east and west, the outcome could have been ultimately determined on the ground, but victory would have undoubtedly gone to the alliance whose air forces had been successful.

From the outset of the Cold War, air power had been the cornerstone of the allied deterrence posture; it was now also the key to war-fighting strategies on both sides. By 1990 the west still retained the advantage, but it would have been a fierce contest.

The Cold War had dominated the evolution of air power, but by 1990 the judgement of Marshal of the Royal Air Force Lord Tedder in 1947 was as valid as ever … 'although the methods of exercising air power will change, it will remain the dominant factor as long as power determines the fate of nations'.

The Impact of the Thaw

If the Cold War did drive the evolution of modern air power, and within it air power was the dominant military factor, it follows that the ending of the Cold War must have far reaching consequences for its future. Now however, the overriding influences are likely to stem from political and economic factors at least as much as from military technology or concepts.

Changing Circumstances

The most obvious change in the political environment is that the members of NATO no longer perceive the presence of a threat to their national existence or way of life. For the foreseeable future each can decide how much it wishes to invest in defence and how far it Is prepared to commit armed forces to conflicts beyond the NATO area. Most have already begun unilateral revisions of defence procurement and military structures. Moreover, not only is the threat perceived to have disintegrated, but with it the need to keep armed forces at an advanced level of defence readiness. There is no other potential enemy with the capability to strike suddenly at western Europe, although this assumption may be tempered among the alliance members of NATO's southern flank.

Future threats to international stability are not difficult to identify on any continent, including Europe. None however are likely to provoke conflict on the scale of that hitherto feared in the Cold War, when the resources of two superpowers and 21 other industrialised countries would have been committed. Nevertheless, while the scale may be reduced, the complexity and sophistication of future conflict will not be. The USSR has not foresworn commercially motivated arms sales, while western arms manufacturers will be seeking to make good their last Cold War markets. Meanwhile other countries will continue to develop their own indigenous arms industries. Third world countries, with few exceptions, may be unable to

sustain large-scale conflict for very long without external assistance, but the opening stages of such conflicts are increasingly likely to be dominated by state-of-the-art military technology.

Whatever the outcome of the Gulf crisis and the shape of future political structures in both Europe and the USSR, it is possible that multinational operations under either the United Nations or some other cooperative auspices will become more frequent. Thereby the incentive for any one country, including even the USA, to sustain forces large enough to support unilateral power projection worldwide, may diminish.

Among most Cold War participants, the incentive has already diminished and the search for 'peace dividends' has begun. Short of a worldwide catastrophe, it is unlikely that the Gulf crisis will do little more than temporarily deflect the search. If, as some economists predicted at the beginning of 1991, the world was moving towards economic recession, pressure in reducing expenditure on armed forces would be further increased.

Compared with all those factors conspiring to drive reductions in military expenditure, the impact of the CFE agreement on western armed forces is negligible, and on western air forces: nil. It should however be noted in passing that the Soviet Air Forces will continue to be numerically superior to those remaining in western Europe: unlike the future balance of forces on land.

In sum therefore, the environment for air power in 1991 is marked in the west by perceptions that armed forces can be reduced; that readiness can be relaxed; that while the need may arise to deploy military force, the absence of direct threat will permit choices in both principle and method of response; and that a peace dividend must be made available.

Implications for the Future

The last time there was such an international environment was before World War II. Much has changed since then, but in speculating about future developments in air power, it may be timely to look back occasionally to pre-Cold War days, if only to avoid repeating some earlier mistakes.

For example, with hindsight it is clear that the vision of the early air power theorists exceeded the technological capabilities of their age. Consequently, appreciations of the impact of air power tended to concentrate on its failure to meet expectations, rather than objectively on its dramatic and pervasive impact on modern war. Conversely, both expectation and reality were too often disdained by admirals and generals who did not understand air power but recognised threats to their own budgetary allocations when they saw them. Now, 60 years on, there is no excuse for either exaggeration or ignorance.

The evidence of World War II and numerous subsequent conflicts indicates that if the opposition has air power, then air supremacy is essential for the success of friendly forces on land or sea. If the opposition has no defence against air attack, he has little chance of

sustaining other operations. On the other hand, there is no conclusive evidence that sustained attacks on civilian targets will either bring down a government or destroy its capability to make war. The Blitz on Britain failed; the combined bomber offensive on Germany weakened Hitler's war effort and temporarily, as in Hamburg, demoralised sections of the population. The bombing of Hiroshima and Nagasaki abruptly ended the war in the Pacific but Japan was already preparing to sue for peace; the Linebacker II campaign over North Vietnam in 1972 appears to have accelerated the inclination of the Hanoi regime to negotiate.

In other words, the ability of any air force to win a war on its own is likely to remain in doubt – whatever the outcome of the Gulf crisis. There is one qualification to this generalisation. Several independent raids by the Israeli Air Force during the last decade in the Middle East, and by the United States on Libya in 1986 have demonstrated the capacity of modern air power to be used like a rapier against specific high value targets, when punitive action, rather than occupation of territory or longer military campaigns is considered politically appropriate. Generally, however, air power is seen as complementary to, and neither subordinate to nor independent of, operations on land and sea. Happily, in the United Kingdom at least, inter-service mistrust and misunderstanding have largely given way to positive and professional appreciation of the interrelationship between air power, diplomatic objectives and other kinds of military force.

Nonetheless, all governments, including that of the USA, are likely to face difficult choices in deciding where defence allocation priorities should lie, if only because it is not possible to identify any one dominating future threat source. Any force provision must be flexible, in that it could be employed in Europe or beyond. It must be capable of, and be seen to be capable of, delivering heavy and precise firepower against a wide range of targets in different environments in a short timescale. As far as possible it must be economical in manpower, not requiring large numbers at constant high states of readiness. Does that litany sound familiar to proponents of air power?

While the USSR no longer presents a threat in the manner of the Cold War, its retention of a powerful air force, larger than any European combination, leaves it with a potential military instrument to support diplomatic pressure, in exactly the same way that the Luftwaffe was given great prominence by Germany before 1939. In 15 years' time several countries beyond Europe could also have developed either aircraft with stand-off weapons or surface-to-surface missiles with the range to reach the UK.

Security of the home base must therefore remain the first priority. That should retain two components: protection and a deterrent capacity to exact unacceptable retribution on an aggressor.

Protection should be afforded by a combination of aircraft and surface-to-air missiles. The former must have the range to intercept aircraft beyond missile launch point and the

capacity to engage escorting fighters. The latter should be able to engage both aircraft and incoming surface-to-surface missiles. Bearing in mind the lead time for the introduction into service of major new systems, development of a new generation of fighters and missiles should not be postponed. The history of the F15, and the potential of European Fighter Aircraft (EFA), suggest that a fighter procured to defend the UK could be equally appropriate for the task of establishing local air supremacy should British ground and naval forces be deployed overseas.

The deterrent posture, complementing an effective defence, requires the retention of both conventional and nuclear offensive capability. Regardless of the future of the UK's SSBN force, dual capable aircraft will have a significant role to discharge. Extended by in-flight refuelling, equipped with stand-off conventional or nuclear weapons, a relatively small force of manned aircraft would be a highly visible military instrument.

Their retention in the UK in peacetime would be a declaration of defensive sufficiency, their deployment overseas in crisis a potential diplomatic signal, their actual conventional contribution to a localised conflict would be formidable. In a world threatened by nuclear proliferation the presence in theatre of dual capable aircraft could also redress a threatening local imbalance and discourage the employment of nuclear weapons in a third world conflict.

After the Falklands Crisis, a requirement for unilateral military action by the UK cannot be ruled out. More likely however is the projection of military force with partners. The partnership could be under the aegis of a European political authority, or the United Nations, or an ad hoc regional security grouping. Such a possibility has two implications for British air power. The first is one of scale. As in the Gulf crisis, British forces would be committed alongside those of other nationalities. Under circumstances already analysed, wherein the United Kingdom was not itself directly threatened, the government would have the freedom to decide the extent of the British contribution, ranging from a token presence to a large-scale deployment.

The second implication concerns the nature and source of air power to be made available for multi-national operations. For example, in the Gulf crisis RAF Tornadoes were refuelled en route to Saudi Arabia by British aircraft. Some support equipment however, was flown in USAF C5 transports. In theatre, reconnaissance and electronic warfare (EW) support was provided by the USAF and French Air Force.

When armed forces are reduced in quantity, not only must quality be sustained, but enhanced by every means of force multiplication. The inherent flexibility of air power is in itself a significant force multiplier, but only if the principle is converted into effective action. In-flight refuelling, reconnaissance, EW, multi-role training and valuable weapon fits are potent force multipliers, but all increase the costs of air power. The prospect of an increased proportion of multi-national operations invites the re-examination of peacetime multi-national operational cooperation.

There are two possible areas for such cooperation: high value roles such as airborne early warning, reconnaissance and EW; and large-scale common user activities such as in-flight refuelling, strategic and tactical transport. In the former case, the example of the NATO AWACs squadron should be studied. In the second the relationship between military transport forces, civilian airlines and reserve forces, within a multi-national framework such as Western European Union should be examined. There are obvious problems to be overcome: procurement source, national individual interests, national variations in training and force structures and by no means least, the principle of national control over valuable military assets in unforeseen contingencies. The alternative however may be an inability to provide for the force multiplication necessary to ensure the operational credibility of greatly reduced air forces.

Preparation for increased multi-national cooperation should be considered in conjunction with the implications of reduced main force readiness requirements. Not only does the ending of the Cold War entail an overall reduction in force levels, it reduces the proportion of the remainder required to be prepared to fly and fight at short notice. This in turn has extensive implications for squadron manning and operational training, although at the cost of breaks with recent practices and tradition.

Suppose for example that Operational Conversion Units (OCUs) were to be disbanded, and ab initio aircrew moved directly from advanced specialist training to squadrons. The training load on senior squadron aircrew would be increased, but there would no longer be extraction by the OCUs to reduce and dilute their numbers and crews would spend longer tours on the front line. In the event of a prolonged future crisis, the squadrons would have time to intensify training programmes and raise everyone's readiness states. In peacetime only a proportion of crews would need to maintain a combat readiness level of standards. They would man composite squadrons which would respond to unforeseen crises such as the Gulf or the Falklands. In this way, while training tasks on the squadrons would increase, the pressure to achieve it would be reduced, there would be a greater proportion of experienced crews to carry the load, and for every ab initio there would remain the incentive of achieving combat ready status. Meanwhile nominated crews would train regularly with their foreign colleagues in the multi-national force. Finally, such a structure would encourage greater flexibility in the employment of auxiliary or reserve aircrew because they would not be expected to sustain the combat readiness of their regular colleagues without concentrated pre-conflict training. Such ideas were not unknown before 1939.

Perhaps however, the greatest challenge to air power in the aftermath of the Cold War may lie in the stimulation of ideas. So much has changed that perennial air power issues, such as those touched on above, must be re-examined no matter how conclusive previous studies may have been. The arguments may be exactly the same, but their relative values will often have changed dramatically. For example, those who point to the ambivalence of the bomber offensive in World War II and deduce that strategic bombing is an obsolete concept have not

stopped to reflect on the significance of the Israeli attack on the Iraqi nuclear installations at Osirak in 1982. Conversely, there may be good operational and political reasons for re-evaluating offensive and defensive counter-air priorities. The greatest force multiplier of all is the power of creative thought. The fewer the available resources, the smaller the force, and the wider the range of the options the greater the need for objective, imaginative and far-sighted appraisals of what air power can and cannot do. The ending of the Cold War offers the first opportunity since 1945 for a reiteration of the fundamental principles of air power accompanied by a re-evaluation of their practical implications in a much wider world. In a period of stringent force reductions the question is not, 'Can we afford to "divert" scarce resources and high quality manpower to further training and broadening?'; but, 'How best can we allocate resources to further training and broadening which are now even more important'?

The ending of the Cold War must extend airmen's vision beyond European skies. If a 747 in 1991 can reach the other side of the world in 18 hours from Heathrow, by 2010 a military threat to the UK could be posed in the same dimension over a similar distance, in the same timescale. Rapid response, flexibility, long reach and concentration of force are not monopolies of British, or friendly air power. It is a truism that air travel has made the world shrink. There seems a reluctance in some quarters to accept that air power is having exactly the same impact on military operations.

The only certainty in forecasting the future of air power is that sooner or later the unpredictable will arise, and a response will be required. Military force will continue to be an arbiter of international disputes. In the foreseeable future, the unpredictable is likely to occur well beyond the confines of east-west confrontation. Air power will have a dominant role here also; at least as important as in the Cold War. If Britain wishes to exercise any influence on the outcome, or remain immune to its consequences, a post-Cold War Royal Air Force must be capable of protecting the home base, of deterring ill-considered hostility and probably within a multi-national framework, of supporting the forces of international order. In retrospect, preparing to cope with 'the threat' may have been a comparatively straightforward exercise.