Carrier Airpower in the Royal Navy during the Cold War

The International Strategic Context

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1. Introduction

Examining the international strategic context of carrier airpower in the Royal Navy during the Cold War immediately raises a question: what strategic context? The Navy’s international strategic context was contested or in a state of flux, often both, for most of the Cold War. The major contestant was the Royal Air Force (RAF). With both services seemingly able to deliver the same capabilities – air power – they competed over financial resources for what both considered their ‘capital’ weapon system – a principal bomber and aircraft carriers respectively. Almost immediately after 1945 this had a direct and lasting bearing on their strategic context, which became increasingly defined by what governments could afford, rather than what they wished to do. In other words, the fluctuating and declining economic situation forced governments to choose between possible strategic priorities.

For the Navy this was particularly problematic. The desire to control West Germany coupled with, and later superseded by, the ‘Soviet threat’ set one priority for the government – to tie the US permanently to the Continent as the guarantor of European and British security via the North Atlantic Treaty Organisation (NATO). Contrary to the RAF’s roles – in NATO and defence of UK airspace – the Navy’s NATO role was unclear after the advent of nuclear weapons, whose place in strategy and force structures was also uncertain until the 1960s. Its other reference point, the Empire, was disintegrating. Out of these tensions emerged an even more fundamental problem for the Navy.

With a fleet designed around aircraft carriers, escorts, which could also be deployed individually or in groups without a central carrier, became a threatened asset, too. In times of economic constraints the temptation was great to cut an escort fleet whose size did not necessarily need to be determined by its association with carriers or, worse, call into question the surface fleet as a whole. In 1966 the government cancelled CVA-01, the new general-purpose aircraft carrier, arguing that the Royal Navy could depend on the US Navy’s carrier support in global operations – in NATO this was already largely the case. Yet, small carriers with Sea Harriers and Sea King helicopters were deployed successfully on Invincible and the aged Hermes in the Falklands War in 1982 and by 1990 the Invincible class’s role in fleet air defence and amphibious operations received official acknowledgement.
From this brief survey emerge salient problems of British and naval defence planning during the Cold War, which are also at the heart of this paper: How should the Navy’s strategic context be defined? What role might carriers play in Britain’s strategic context, which combined the worst-case scenario of general war with the Soviet Union and a permanent political desire to claim a global role? What role could Britain afford to have carriers play, considering that other weapon systems might be more or equally strategically relevant? The paper assesses how and why specific answers to these questions evolved. One aspect, which the paper does not address, should be mentioned here - manpower. It was reduced twice quite drastically after 1945, with demobilisation and with the end of conscription in 1960, and has emerged periodically as a problem since. It did affect the procurement of large combatants, such as destroyer and carriers, which require a large complement of sailors with a mixed set of skills and remains relevant in the current environment.

1 Government Post-War Political Re-Orientation

Amidst the high degree of uncertainty in Britain’s external environment after 1945, Churchill’s notion of three circles of influence – the Empire (Commonwealth), the English speaking (Atlantic) circle and Europe – with Britain at their centre provided an explicit, and for decades an implicit, structure for British foreign relations and strategic priorities.¹ Into the 1960s governments associated with the Commonwealth the basis for economic development, independent leadership – with the US globally and in Europe outside the emerging institutions – as well as a sense of obligation towards Commonwealth countries.² Although the US expected Britain to lead in unifying Western Europe after 1945 and British governments supported European cooperation, they saw it as a US sponsored successor to British 19ᵗʰ century balance of power politics and focused on keeping emerging threats at bay.³ British policy towards Europe thus aimed at persuading the US to adopt and retain the role of

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‘security guarantor’, sharing leadership in NATO with Britain and protecting Britain’s freedom to play a global role. This posed considerable problems for alliance politics. Firstly, Britain could not afford to be seen to neglect its contributions to European security because of engagements elsewhere. Secondly, until the 1960s the US was strongly supportive of de-colonisation and only tolerated a global British role when it found Britain useful as an ally, who was willing to share the material burden of ideological opposition to the Soviet Union. In their perceptions of the Soviet threat outside Europe, however, the two differed. The notion that the Soviet Union might exploit a withdrawal of British armed forces from east of Suez and “fill the resulting vacuum” emerged during the Korean War. Yet, British concerns of the attendant risks focused on a host of internal and external de-stabilising factors that might emerge in a backlash against former imperial rule. Its military engagements outside the NATO area thus aimed firstly at preserving stability in the Commonwealth and only secondarily at curtailing Soviet influence there. The US on the other hand responded to an enemy image - an expansionist Soviet Union. Hence, Britain and the US could co-operate, but not necessarily due to the same order of priorities. In 1956 these subtle differences came to a head, but at the same time the groundwork was laid for co-operation between the two allies that suited them into the 1990s.

The Eden government, acting on the assumption of an independent global role, was not prepared for the US’s reaction to the military intervention over the Suez Canal. Uncertain about its role in the Middle East, the US was not inclined to indulge an ally, whose survival in Europe depended on the US, asserting a former role militarily in seeming disregard of the Soviet threat not only without informing its closest ally but also in collusion with France and Israel. Yet, the rapid withdrawal of British forces and Eden’s resignation assured US policy-makers of their veto power and Anglo-American relations were soon repaired. These events are intimately linked to the

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4 Christopher Bartlett remarked, that “in practice there were so many calls on the United States throughout the world that Washington easily fell back [after the Suez Crisis] into the habit of treating Britain as a modern ‘Figaro’, whose services could be called upon here, there and almost anywhere from Europe to South-East Asia”. Bartlett, The Special Relationship, p. 90.


decisions in the late 1960s to cancel CVA-01 and withdraw the forces from East of Suez. The Wilson government then argued, that due to "general limitations' on the role of Britain's 'major military capability outside Europe'" Britain would not again conduct major combat operations outside Europe without US consent or participation". This is sometimes interpreted as a loss of Britain’s ability to act independently. Yet, it is argued here that this official recognition of the decline was of lasting relevance not for its disabling, but for its enabling effects. From Suez emerged a mutual understanding about the US acting as a sponsor of Britain’s otherwise unsustainable global role – under the condition that this role was co-ordinated with the US and supported by continued US commitment to NATO - which British governments constantly aimed to reinforce during the Cold War. The intensification of Anglo-American nuclear co-operation in 1956, when increasing US openness acknowledged British advances in nuclear technology development, for example with the Skybolt agreement, supports this argument. As will be shown below, it also enabled the Royal Navy to make a significant contribution to NATO, which in turn allowed the surface fleet – with carriers – to be engaged globally.

Until 1966 British governments continued to declare their commitment to global military operations as a substantial part of external policy. The 1966 Statements on the Defence Estimates (SDE-66) contained the last official ‘East of Suez Strategy’, which recognised that direct threats to British survival and important economic interests outside Europe would not be most appropriately secured by armed forces or “alone justify heavy British defence expenditure.” What justified a presence outside Europe were Britain’s remaining obligations and interest in preserving global peace. Paradoxically, the US and Commonwealth states did seek to keep Britain committed to a larger degree at this point. Yet, for Britain a continued permanent presence and

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13 SDE-66, pt 1, Cmnd 2901, para. 16.
role in post-colonial conflicts was neither politically nor financially sustainable.\textsuperscript{15} Expenses had long been disproportionate to economic value and devaluation in 1967 accelerated the end of a major global peace-keeping role.\textsuperscript{16} US and Commonwealth desire to maintain the bases East of Suez found favour in the Foreign Office, but even the Chiefs of Staff concluded that the "disengagement made military and political sense".\textsuperscript{17} The question now is how these rather dynamic external conditions as well as the lagging economic situation affected defence and especially naval planning.

\section{Post-War Naval Disorientation?}

The Royal Navy emerged from World War II with a large fleet, including carriers for anti-submarine warfare (ASW), escort duties and amphibious operations.\textsuperscript{18} Much of the remaining 1940s was spent cutting back from wartime to what might be a suitable peacetime strength of the fleet. However, growing perceptions of Soviet hostility in Europe, the Soviet nuclear test in 1949 and the outbreak of the Korean War in 1950 soon adjusted assumptions about the required fleet strength upward, although mainly in mine counter-measures.\textsuperscript{19} This and the founding of NATO triggered an assessment of the foundations of British post-war strategy. The 1952 Global Strategy Paper (GSP-52) not only provides a useful snapshot of the defence staff's perceptions of and approaches to British defence policy at the time, but also already contained some of the lasting assumptions of British NATO policy.\textsuperscript{20} The paper focused on Russia, now a nuclear power, and to a lesser degree China as the principal threats to British and western security. It assumed that any Soviet transgression would have to be deterred

\textsuperscript{15} On British operations in former colonial areas see for example Michael Carver, \textit{War since 1945} (London: Weidenfeld and Nicolson, 1980).


by an allied, effectively US, strategy of massive retaliation, but aware of the inherent risks advocated complementary conventional deterrence. Apart from nuclear attack the Chiefs identified two main sources of maritime threat: a potentially equally serious "sustained mine offensive by aircraft and U-boats" and attacks by large cruisers and submarines on transatlantic shipping worldwide and also with aircraft in the North Sea. They acknowledged that Britain and NATO depended significantly more on global sea communications and transatlantic reinforcements than the Soviet Union, which had the added advantage of the initiative, and assumed that Allied forces had to be dispersed and able to make “maximum use of sea and air communications to give (them) full mobility.” Yet, the Navy’s only major specific wartime task was “to safeguard the sea communications of the United Kingdom and her Allies and to deny them to the enemy”. It would share these with allies, the US Navy being mainly responsible for the Atlantic and Commonwealth navies the rest of the world. Only one area was considered vital to British security - “the North Atlantic and the UK’s home waters”, but the Chiefs imposed the very significant condition that “provision for it must be conditioned by the probable nature and duration of future war.”

This linkage between naval operations and the probable nature and duration of a war with the Soviet Union was and continued to be of critical importance for the Navy’s NATO role and thus justification for new equipment, especially carriers. Concerned about NATO’s very high rearmament objectives for armies and air forces agreed at Lisbon in February 1952, the Chiefs declared that "a guiding principle in the rearmament programme should be to ensure survival in the short opening phase", as it was “economically impracticable to make the preparations necessary for a long war”. This became another lasting assumption of British defence planning during the Cold War for governments, the Army and the RAF; the Navy had to promote the

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21 D(52)26, para. 107.
22 D(52)26, para. 44.
23 D(52)26, para. 109 (quotation; emphasis added) and para 107.
24 D(52)26, para. 106.
25 D(52)26, para. 33; emphasis added. On the Lisbon goals see D(52)26, para. 7. - For the US “extended nuclear deterrence remained our primary strategic instrument in Europe ... after our NATO allies boggled at the 1952 Lisbon goals of some 96 divisions and 9000 aircraft proposed by the NATO military authorities as the minimum essential for conventional defense”. Robert W. Komer, Maritime Strategy or Coalition Defence? (Cambridge, Mass: Abt Books, 1987), p. 5
assumption of a long conventional phase when it sought to justify a balanced fleet in the NATO context.\textsuperscript{26}

The tasks the Navy signed up to in GSP-52 did not amount to a vital military NATO role for aircraft carriers and escorts. Even in a long opening phase, denying the Soviet Navy the use of the sea would have supported NATO operations, but not necessarily have made a decisive contribution to the outcome of a war.\textsuperscript{27} Convoy protection, another possible justification for a sizeable blue water navy built around carriers, was only explicitly mentioned with regard to East Coast convoy protection against air attack and mining and here the RAF could provide air support. Amphibious operations or the Royal Marines were not mentioned in GSP-52.\textsuperscript{28} In principle the Navy’s tasks could have required a three dimensional fleet. The Soviet airforce could certainly have threatened naval forces.\textsuperscript{29} With NATO in the defensive, the Navy would have required the ability to search and destroy already deployed Soviet forces threatening sea communications in a wide area, which implies the use of carrier groups. \textsuperscript{30} GSP-52, however, recommended counter-offensives, preferably air attacks at source, against Soviet airfields, submarine bases and mine depots. Yet, instead of assigning these to carriers, they became RAF responsibility.\textsuperscript{31} To make matters worse for the Navy, the Chiefs declared Britain could not “afford the American technique of building up large naval forces to support continental land battles”.\textsuperscript{32} They explicitly rejected the effectiveness of the forward based offensive role of US Navy’s carriers - strikes against land targets – which was central to NATO’s defence concept - and declared that whilst “the majority of the tasks envisaged could be more cheaply and


\textsuperscript{27} In traditional naval thought controlling sea communications is at the heart of naval contributions to the outcome of a war, because those who control sea communications can undermine the opponent militarily and even more importantly economically, but this presupposes that the opponent is dependent on the sea. Sir Julian Corbett, \textit{Some Principles of Maritime Strategy} (London: Conway Maritime Press, 1972, reprint), p. 97-100.


\textsuperscript{29} In the 1950s the Soviet Navy maintained a large and modern air arm of 40,000 aircraft. Polmar, \textit{Soviet Naval Power - Challenge for the 1970s}, p. 25.

\textsuperscript{30} The methods of gaining free use of the sea differed radically from those on the ground. Short of being able to seize territory it was necessary to eliminate the hostile naval forces themselves. Norman Friedman, ‘The Maritime Strategy and the Design of the US Fleet’, \textit{Comparative Strategy}, 6 (1987) 4, p. 425.

\textsuperscript{31} D(52)26, paras 108a and 96.

\textsuperscript{32} D(52)26, paras. 107 - 109; emphasis added.
satisfactorily carried out by shore-based aircraft”, the fleet should be designed around
the primary role of naval forces, to “keep open communications”.33
Under these parameters, a NATO role for carrier groups was at best minimal, at worst
non-existent. Yet, the Royal Navy did not hand over victory prematurely and arrived
at a double-truce with the RAF. In September 1952, two Fleet Carriers participated, as
members of the NATO Striking Fleet, in exercise Mainbrace, simulating a response to
an attack on Norway.34 By December 1953, the First Sea Lord and the Chief of the
Air Staff informally agreed that Fleet Carriers had to augment Bomber Command
forces, which could not necessarily strike targets in the North of the Soviet Union.
The Navy also argued that carrier-based aircraft were “better suited to mining in
northern waters.”35 Whilst this truce concerned the distribution of tasks in a NATO
counter-offensive, Admiral Crowe, USN, identified another truce on the question of
safeguarding the sea communications in the concept of 'broken backed warfare'
developed in 1954/55. It assumed that after an indecisive initial nuclear exchange
“hostilities would decline in intensity, though perhaps less so at sea than elsewhere,
and a period of broken-backed warfare would follow, during which the opposing sides
would seek to recover their strength, carrying on their struggle in the meantime at best
they might.”36 The concept might have justified a relatively large and sophisticated
fleet built around aircraft carriers in the NATO context, but it was short-lived. Still
with economic pressures growing, governments continued to measure the Navy’s,
especially the carrier’s utility, in the context of the worst-case scenario.
In 1955 the Navy responded to these challenges with the internally controversial
appointment of Earl Mountbatten of Burma as First Sea Lord in 1955.37 Perhaps his
most important contribution was making explicit - in politically and economically
temporarily acceptable terms - the Navy’s understanding of its role in Europe and
world-wide and the versatility of a three dimensional fleet built around carriers.38 A
year later Defence Minister Duncan Sandys took up office with the remit to cut
expenditure substantially. The 1957 defence review severely challenged the Navy.
Mountbatten’s predecessor was convinced Sandys considered aircraft carriers, naval

33 D(52)26, para. 47.
34 Eric J. Grove, Vanguard to Trident: British Naval Policy since World War II (Annapolis: Naval Institute
35 Grove, Vanguard to Trident, p. 107.
38 He even instructed the Navy to make this point wherever possible. First Sea Lord Newsletter, 13 December
1957, BA I300, cited in Ziegler, Mountbatten, p. 554.
aircraft, cruisers and, in peace, foreign stations unnecessary, because their roles could
be taken over by the RAF and as a war would be decided by nuclear weapons the
Navy was “a luxury the country (could) not afford”. Yet, Mountbatten came to a temporary understanding with Sandys about the surface fleet and carriers. Backed by the Chiefs of Staff, he persuaded Sandys that aircraft carriers were “an essential support to land forces east of Suez”, which moderated Sandys’ pre-conception that their only useful role was in ASW. He also set in motion other developments in support of aircraft carriers. The successful use of helicopters in the Suez crisis had stimulated plans to convert old aircraft carriers, 
\textit{HMS Bulwark} (1957) and \textit{HMS Albion} (1959), into commando carriers, equipped with helicopters and landing craft, for transporting Royal Marines. The Navy’s return to an East of Suez focus for the surface fleet temporarily allowed the Royal Marines to find themselves “in the novel position of being central to the Admiralty’s concerns.” The two dock landing ships \textit{Fearless} and \textit{Intrepid}, however, did not enter service until the mid-1960s.

The Navy’s and especially the carriers’ role in NATO was only settled after the review, which still maintained that “the role of the Navy in Global War is somewhat uncertain”, a phrase which “struck chill into every sailor”. The eventual agreement was that the Navy could retain aircraft carriers as long as they concentrated west of Suez on ASW and provided amphibious capabilities for operations East of Suez. For the time being, the Navy’s response – with government consent - to the challenge of what it was for was the establishment of a global peacekeeping force. However, this settlement did not amount to government commitment to retain or modernise aircraft carriers and they as well as the rest of the surface fleet continued to be under threat as long as the navy did not have an essential, not only supportive, role in NATO. Again, the groundwork for such a role was laid under Mountbatten with the procurement of nuclear powered submarines (SSN) and Polaris, although the Navy – like the RAF - was initially reluctant to accept Polaris and promoting SSN to Sandys was something

\begin{itemize}
\item[40] Ziegler, \textit{Mountbatten}, p. 552.
\item[41] Ziegler, \textit{Mountbatten}, p. 548.
\item[42] Grove, \textit{Vanguard to Trident}, p. 212.
\item[43] Grove, \textit{Vanguard to Trident}, p. 278.
\item[44] Ziegler, \textit{Mountbatten}, p. 552.
\item[45] Ziegler, \textit{Mountbatten}, p. 553.
\item[46] For a detailed examination of the development of the peacekeeping role see Grove, \textit{Vanguard to Trident}, chapter 5.
\end{itemize}
of a gamble.\textsuperscript{47} Sandys was so impressed with the first US SSN, \textit{Nautilus}, on a visit to Britain in 1957, that Mountbatten saw “a very real danger that he (would) decide that the nuclear-propelled submarine (had) made (their) present Navy completely obsolete.”\textsuperscript{48} Yet, it was Polaris and the development of an SSN fleet, which saved the balanced surface fleet and ultimately aircraft carriers. From the 1960s onwards they allowed Britain to demonstrate its naval commitment to NATO nuclear deterrence and ASW, the NATO duties Sandys had assigned to carriers and that became the focus of declared naval policy from 1970.\textsuperscript{49} They also had excellent political value in the transatlantic relationship, because they could be deployed against Soviet SSN and SSBN threatening the US.\textsuperscript{50} More immediately, they helped the Navy to avoid pressure from Sandys to spend resources on ASW aircraft which it sought to devote to the CVA-01 general-purpose design.\textsuperscript{51}

As events turned out, the emergence of SSN may have released existing carriers from NATO ASW duties, but this did not help justify CVA-01. As the battle between the RAF and the Navy over their future ‘capital’ weapon systems unfolded, Admiral Furse, Director-General, Aircraft, Admiralty, sought to establish a rationale in NATO and out-of-area. Although seeking to reassure the RAF by emphasising that naval targets would be entirely maritime, he also reclaimed the types of missions GSP-52 had not allocated to the Navy, attacks at source, as well as “support of allied landings and coastal operations”.\textsuperscript{52} In other arguments for CVA-01 in the 1960s, general deterrence of conflict was more prominent. The Admiralty stressed carriers could deploy "more subtly and less conspicuously than a strike wing and so perhaps provoke less and deter more."\textsuperscript{53} Christopher Mayhew, Minister of Defence for the Navy, declared that "by simply being in Far Eastern Waters, the Navy stops the war from

\begin{itemize}
\item[49] They were the most capable and invulnerable ASW trailing and defence systems with maritime patrol aircraft as a flexible detection system, in the case of Britain the latter would become RAF operated Nimrods. Donald C. Daniel, \textit{Anti-Submarine Warfare and Superpower Strategic Capability} (Basingstoke: Macmillan, IISS, 1986), p. 131.
\item[50] Grove, \textit{Vanguard to Trident}, p. 231. See also Daniel, \textit{Anti-Submarine Warfare}, p. 211f and p. 34
\item[51] Grove, \textit{Vanguard to Trident}, p. 211
\end{itemize}
spreading”.

HMS Bulwark, of course linked to the carriers’ East of Suez role, was introduced as an asset for extinguishing limited wars before they could spread and a striking force in preparation of amphibious landings against armed opposition.

By the mid-1960s, the Navy thus built the operational rationale for the carrier and surface fleet on amphibious operations and non-offensive suasion, as it would allow governments to exert influence through the presence of naval forces and their ability to react to emerging conflicts. - The US Navy in contrast focused for much of the Cold War on offensive, forward deployments of carriers for power projection in order to either be able to act before a conflict started or to escalate it on its own terms.

Yet, the RAF – in pursuit of the F-111 – countered that whilst the US might continue to be dependent on a British presence in the Indian Ocean on behalf of the west, the Royal Navy would have to accept its dependence on US carrier support for operations East of Suez. Future peacekeeping operations would no longer include amphibious landings against armed opposition, because “if peace is to be kept, it can be only at the invitation of the country seeking to be defended”.

In the unlikely event that convoy protection were required in a general war, SSN had an "increasing advantages over carrier-borne aircraft in detecting and destroying the new deep-lying enemy submarines". Carriers would require large and expensive overseas bases, whilst the decreased reaction time of the F-111 made naval forward basing unnecessary.

When Healey cancelled CVA-01, it appeared that the RAF had won the day against the Navvy’s weak argument and inability to play the system. For two reasons, it is difficult to attribute the loss of CVA-01 to any decisive factor other than the existing and prospective economic situation. Firstly, with the developing financial crisis it was only prudent for the government not to enter into major long-term financial commitments, quite apart from it being politically impossibility to privilege the Navy

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54 Quoted in ‘Navy may build two aircraft carriers’, Guardian, 16 October 1965.
56 Luttwak defined armed suasion as “all reactions, political or tactical, elicited by all parties – allies, adversaries, or neutrals - to the existence, display, manipulation, or symbolic use of any instrument of military power, whether or not such reactions reflect any deliberate intent of the deploying party” and distinguished between active and latent suasion Edward Luttwak, The Political Uses of Sea Power, Studies in International Affairs No. 23 (Baltimore, London: Johns Hopkins University Press, 1974), p. 11.
58 ‘Why we need carriers - by the Navy men (A. Wilson)’, Observer, 9 January 1966.
60 For a detailed examination of the ‘final showdown’ between the RAF and Navy see Grove, Vanguard to Trident, pp. 267 – 279. For the accusation that the Navy pursued an inadequate bureaucratic strategy, because it did not argue its case offensively enough see for example Commander 'Sharkey' Ward, Sea Harrier over the Falklands (London: Orion Paperback, 1993; first edition, 1992), p. 11.
over the RAF. Considering that the RAF also had to sacrifice the F-111 in 1968, the government could be accused of having spread the misery equally, but it was also facing a strategic choice - between the RAF’s NATO focused rationale and the Navy’s East of Suez focus – as each system had only limited benefits in the secondary theatre of operations. Given that the government was deeply committed to NATO and unofficially sought to maintain a global role, this was not a viable choice. By cancelling both systems, it forced both services to cut back their expectations and halted the procurement spiral, which tends to veer towards greater sophistication, risk and cost. CVA-01 was a case in point. Despite its merits, the design grew in size, cost and included so many complex innovations that the cancellation created the happiest day in the life of the design team project leader in the Ship Department. Without this jolt the Admiralty would not have considered a small carrier deploying Vertical/Short Take-Off and Landing (V/STOL) aircraft. The point is, however, that the decisions did not signify a break with the principle of global naval operations with carriers at the core of the surface fleet. Although an official reversal of the 1966 decision was not an option, in January 1967 the government announced that the service lives of existing carriers might be extended into the 1980s. The Six Day War nurtured new arguments for a mobile and flexible conventional intervention force and large carriers, but Healey declared in July 1967 that "the best type of defence for ships at sea in the period after our own aircraft carriers phase out will be a combination of naval vessels, helicopter-borne missiles, perhaps surface-to-surface missiles and land-based strike aircraft." In October 1969 he admitted, however, that some of his equipment decisions "may be proven mistaken".

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61 Few references to the utility of carriers in the NATO context are found during the first half of the 1960s. ‘Next carrier may be of 50,000 tons’, The Times, 11 June 1963. Pointing out the importance the USA attached to carrier operations The Times claimed in 1960 that "within the NATO concept of defence the role of the carrier is in no doubt". ‘New Carriers for Naval Aircraft’, The Times, 26 October 1960. The Daily Telegraph interpreted the expected allocation of funds for two new carriers in the 1962-63 Navy estimates as a demonstration of "the high degree of agreement existing between the 'senior' naval partners in NATO, the Royal Navy and the United States Navy”. ‘Two more carriers for Royal Navy’, Daily Telegraph, 20 November 1961.


63 The Admiralty had insisted on a 50,000 ton carrier with US Phantoms for CVA-01. ‘Next carrier may be of 50,000 tons’, The Times, 11 June 1963.


66 Quoted in ‘Why Britain will have no carriers,’ Flight International, 30 October 1969, p. 683.
3 Towards a New Fleet Configuration?

In 1966 the Navy was (not) looking forward to a gaping hole from about 1980 and First Sea Lord Admiral Varyl Begg established the Future Fleet Working Party (FFWP) for the redesign of the fleet in 1966. It is surprising how much the FFWP shaped the rationale for carriers and the surface fleet for the remainder of the Cold War. Tasked with elaborating operational concepts, structure and characteristics of the fleet into the 1980s, their declared aim was to maximise operational flexibility.\(^6^7\) The ‘Concept of Operations until the Early 1980s’ saw the risk of nuclear war as small and the Navy playing a global role in peace and war, independently and in various alliances, of which NATO was but one, to preserve stability and deter war (possibly with the UN), conduct joint exercises with allies and be prepared for sustained limited conflict without immediately available allied support.\(^6^8\) The US, although militarily stronger, was portrayed as a partner rather than a facilitator in the global context. Independent short, small-scale operations would be relatively regular, “less frequent larger scale operations” conducted with allies. In major operations of war, joint RAF-Naval operations would complement the “much greater deployment of force by (Britain’s) Allies”. The FFWP saw deterrence as a function of nuclear and conventional forces and its targets not so much the Warsaw Pact, but instability or armed conflict in general. The surface fleet had deterrence and peacekeeping roles in the global context. In the NATO context “S.S.N. and, in the final resort, Polaris” provided the deterrent.\(^6^9\)

Apart from recommending a high-low mix of capabilities for peace-keeping and conventional deterrence, the FFWP declared, interestingly in view of the preceding debates with the RAF, that if these concepts were not to be “tied inflexibly to the bombing of the mainland” after the closure of the bases East of Suez, the Navy was particularly well suited “to exert influence … by military means”.\(^7^0\) As the fleet’s main tasks were area control at sea, sea denial, shipping protection, other support activities and amphibious support, fleet configurations that led to specialisation or

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\(^6^7\) PRO, DEFE 24/234, FFWP/P(66)40, *Presentation to the Admiralty Board*, 9th May 1966, para. 7; emphasis added.

\(^6^8\) PRO, DEFE, 24/128, *Concept of Maritime Operations until the early 1980s*. All following quotes refer to this document until otherwise indicated.


\(^7^0\) PRO, DEFE, 24/128, *Concept of Maritime Operations until the early 1980s*. All following quotes refer to this document until otherwise indicated.
maximised capabilities in any alliance contexts were specifically excluded. The favoured configuration had a central large cruiser/carrier class which combined some of the functions lost with CVA-01, especially command and control, tactical air and anti-surface capabilities, with a commando (troop carrying) role for amphibious operations. A distinct advantage for operational flexibility would be the joint deployment of helicopters for ASW and airborne early warning (AEW) and fixed wing V/STOL aircraft (P. 1127), which were “very much more effective strike, probe and reconnaissance weapons than the helicopter” and could be “given a limited, but worth-while capability against shadowing/jamming aircraft”. The limited quality of the latter is interesting, because shadowing the Bear became a mainstay of the Navy’s official justification for the Sea Harrier in the 1970s. - The most economic and versatile hull size would be 18,500 tons, which would allow the Navy to deploy “the whole range of tactical air capability” it “required in its day-to-day peacekeeping task, including tactical airlift for amphibious operations”. The ships could come into service from 1976, with two operational East of Suez by 1980. As a measure of last resort the recommended number of six cruisers could be reduced to four. The FFWP’s final report retained this rationale, but stressed the need for the class also in NATO, where a reconnaissance/probe/strike capability was essential against Fast Patrol Boats (FPB) “including the ubiquitous KOMAR type”. As relying on RAF or US carrier support in all conceivable contingencies was not feasible, the cruiser/carrier design would offer a versatile, capable centre of a fleet able to implement the Concept of Maritime Operations. – Most of these specifications translated into the Invincible class.

NATO was not central to the FFWP’s deliberations, because Britain had “for several years accorded a lower priority to some aspects of general war than a number of her allies”, as it assumed an initial nuclear exchange would be “short, devastating and

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71 PRO, DEFE, 24/128, Concept of Maritime Operations until the early 1980s. All following quotes refer to this document until otherwise indicated.
73 PRO, DEFE 24/128, FFWP Report, 24th August 1966, paras. 8 – 11.
74 PRO, DEFE 24/128, FFWP Report, 24th August 1966, para. 12. In the cruiser/carrier option was not chosen, a more expensive alternative would be to plan for new cruisers and Landing Platforms Helicopter (LPH) to replace Albion and Bulwark. para 13.
78 PRO, DEFE 24/238, Final Report, 12th September 1966, para 132.
decisive”.\textsuperscript{79} In 1967, the year \textit{flexible response} was officially adopted, not very much had changed. Healey agreed that, whilst NATO assumed it required “a certain range of maritime capabilities”, Britain’s contribution “required essentially a \textit{political, rather than a military assessment}”, which would also depend on what would “be necessary for the \textit{political cohesion} of NATO.”\textsuperscript{80} – Again this definition of the surface fleet’s NATO role would persist for the rest of the Cold War.\textsuperscript{81} – Yet, several months later a NATO role seemed the only one left. The November 1967 devaluation triggered a new round of defence cuts and “henceforth NATO was to be the sole justification for British defence provision”.\textsuperscript{82} In January 1968 the Navy was instructed to reshape itself for a “primarily North Atlantic role without carriers”.\textsuperscript{83} In Admiral Richard Hill’s view, this “shift in strategic priorities …stands far and away ahead of any comparable post-war British development”.\textsuperscript{84} It gave the Treasury a yardstick for measuring defence expenditure, but was not greatly liked by the Foreign Office. It did not harm the other two services as much since they had firm stakes in NATO, but “posed grave risks to the Royal Navy as a balanced force capable of exerting sea power in a way it was accustomed to doing”.\textsuperscript{85} With the quick succession of further budget cuts, which struck even before the FFWP had reported, and the Admiralty’s reluctance to re-open the carrier case, the fate of future naval airpower was in limbo until the arrival of Admiral Le Fanu as First Sea Lord, a strong advocate of re-instating carriers.\textsuperscript{86} A naval lobby of middle ranking serving officers, especially former members of the FFWP, inside Whitehall and retired admirals on the outside supported this development.\textsuperscript{87} The latter’s arguments were located between global peacekeeping, including amphibious operations, and defensive suasion.\textsuperscript{88} There was even a suggestion to use Polaris SSBN in an ASW or
anti-surface-ship role or sell them to the Americans, if this allowed for the retention of the carriers.\textsuperscript{89} Admiral Moorer, Supreme Allied Commander Atlantic, affirmed NATO’s dependence on British carriers.\textsuperscript{90} Naval pilots had long backed the idea of V/STOL carriers, as their fate after fixed-wing flying in the Navy would be phased out was either to leave the service or be transferred to the RAF - a notion the Navy had always considered a "national disaster".\textsuperscript{91} Even the Air and Navy Leagues lent their joint support.\textsuperscript{92}

The final decision for the Sea Harrier was a long time coming, but this was not entirely due to RAF or government opposition. To the contrary, the outgoing Wilson government approved the ‘through-deck cruiser’ with the option of V/STOL deployment and authorised first contracts for lead items in the ship programme.\textsuperscript{93} Yet, the Naval Staff’s vision of a fixed-wing aircraft for reconnaissance at sea, defence against light opposition and strikes against lightly defended maritime targets required substantial innovations, the Staff’s concerns about their feasibility was substantiated in a joint RN-RAF study concluded in October 1969.\textsuperscript{94} In its wake, RAF opposition to the Navy’s aspirations did delay progress.\textsuperscript{95} The Navy had to ‘borrow’ Harriers for design studies from the RAF, who were at the time seeking funding of the Multi Role Combat Aircraft (MRCA, Tornado), the F-111 replacement. They could thus not be expected to support a maritime Harrier development until the Tornado was firmly on the books.\textsuperscript{96} However, although in October 1970 the Heath government decided that cost and manpower shortages only allowed Ark Royal to be refitted; Eagle would be scrapped in 1971, the strategic environment developed quite favourably to the Navy’s cause.

\textsuperscript{89} Buzzard ‘Defence Needs’, Letter to the editor. The Times had also questioned the wisdom of procuring Polaris SSBN ‘A question reopened’, \textit{The Times}, 12 June 1967.
\textsuperscript{90} ‘Moorer’s warning shakes up British (D. Wetttern), \textit{San Diego Union}, 21 April 1967.
\textsuperscript{91} ‘Navy-RAF clash over carrier cost (A. Wilson), \textit{Observer}, 2 January 1966.
\textsuperscript{94} ‘Vertical jet unsuitable for sea’, \textit{The Times}, 30 October 1969.
\textsuperscript{95} Jackson; Bramall, \textit{The Chiefs}, p. 374
\textsuperscript{96} The RAF also claimed that it could not release any Harrier aircraft for sea trials before it had completed training for the establishment of three Harrier squadrons in Germany. ‘Vertical jet unsuitable for sea’, \textit{The Times}, 30 October 1969; ‘More sea-time for Harrier?’, \textit{Flight International}, 4 December 1969.
4 The Reconstruction of a Global Role

Heath acknowledged the importance of NATO for British security and a palpable commitment to the alliance, especially as the Europeans were concerned about a decoupling of the US from Europe at the time. Yet, he revived the idea that Britain could play a global role in parallel with, rather than as an adjunct to, the US and created the context for the surface fleet to maintain a global peacekeeping role.\(^\text{97}\) The pay-offs from EEC membership would facilitate this.\(^\text{98}\) His government immediately put in place treaties of friendship with Bahrain, Qatar and the United Arab Emirates.\(^\text{99}\) They foresaw regular navy and air force visits and regular participation in regional exercises of the Central (CENTO) and South-East Asian Treaty Organisation (SEATO).\(^\text{100}\) In lieu of the base in Singapore the government finalised the Five Power Defence Agreement (FPDA) in April 1971.\(^\text{101}\) Lord Carrington saw this small pact as “a signal that we in Britain had not shrunk to sole and solitary preoccupation with our own home concerns and domestic security”.\(^\text{102}\) Part of the FPDA was the short-lived ANZUK Pact with Australia and New Zealand, which included naval contributions and visits from large warships.\(^\text{103}\) None of these engagements were justified with a view to the Soviet threat, rather than British interests, but in the Indian Ocean Heath considered a continued presence vital in view of the increased Soviet activity there.\(^\text{104}\) Apart from seeking to engage the US more strongly in the region, the government announced participation in a study group for future regional defence planning, since the "security of maritime trade routes in the South Atlantic and Indian Oceans was an issue of vital importance for a large number of Commonwealth countries."\(^\text{105}\)

The Navy, notably Admiral Sir Terrence Lewin, Vice Chief of the Naval Staff from 1971 to 1974, and previously second in command in the Far East Fleet, assured simultaneously that it maintained a global presence.\(^\text{106}\) Government and Foreign Office were highly supportive of Lewin’s idea that, compared to single ships, Group


\(^{98}\) E. Heath, *The Course of My Life*, p. 482.


\(^{100}\) Cmnd. (1970) 4521, para 5, p. 4.


Deployments would have much greater publicity impact and demonstrate “that Britain still had significant naval power which could, in the event, be deployed to help friendly states in time of need” or “to oppose threats to British interests, since it demonstrated that such a force would be a formidable opponent to tackle”\(^\text{107}\). Such groups could exercise on passage and with friendly forces, gaining self-confidence in the “ability to operate wherever and whenever required”\(^\text{108}\). For Lewin it was essential to be prepared for the unforeseen and for this “the capacity to deploy a significant force that could actually do warlike things, rather than simply be around, was immensely important”\(^\text{109}\). This reasoning is not far removed from that of the FFWP.

The first group deployed in 1973 for six months\(^\text{110}\). Group Deployments took place every year until the end of the Cold War, often combined with naval exercises either within alliances, such as CENTO, SEATO or the FPDA or with individual allies particularly in the Middle East and South-East Asia, but also in Latin America\(^\text{111}\). Despite the announcement in the Wilson government’s defence review of 1974-5, that Britain’s commitments to alliances other than NATO would be reduced, the Navy continued to participate in CENTO’s annual Midlink exercises. The Wilson government and the departments that had an interest in the surface fleet’s diplomatic role neither reduced nor abolished the deployments\(^\text{112}\). The biggest deployment since their inception sailed soon after the October 1974 election. It lasted for nine months, focused on the Indian Ocean, participated in Midlink and met with a smaller group around *Ark Royal* in Rio\(^\text{113}\). Group deployments did not necessarily meet with US Navy approval. Admiral Lewin, then C-in-C Fleet, visited one group repeatedly, including at US bases, where he found “great interest” but only “very general approval of the policies being followed”\(^\text{114}\). A few years later a US Admiral declared such deployment were detrimental to NATO’s maritime defence\(^\text{115}\). Indeed in 1977-78, when Guatemala threatened Belize, *Ark Royal* the only remaining contribution to the Atlantic Strike Fleet in NATO, was kept in readiness for despatch\(^\text{116}\).
internal paper the Royal Navy in turn portrayed the US Navy as a threat, urging that it should not be allowed to gain a monopoly on the higher reaches of maritime power in the Alliance.\textsuperscript{117}

Despite an ostensible focus on NATO, Labour’s 1974-75 defence review did not substantially change the strategic environment or the provisions made for NATO and global commitments. The review left the surface fleet, including the post-FFWP escort programme, largely untouched, but phased out older ships.\textsuperscript{118} It reduced the ability to perform opposed amphibious operations on a global scale, but maintained the functional capacity. By assigning the Royal Marines and amphibious forces to the Northern Flank, it granted the Navy, supported by the other two service Chiefs, the “credible operational ‘pegs’” it had sought for this capability.\textsuperscript{119} Salient is also that the government had announced before the review that SSN and the Invincible class would not be curtailed.\textsuperscript{120} The government finally approved the procurement of the Sea Harrier in May 1975.\textsuperscript{121} This was only possible, because major steps had already been taken since 1973, when Rolls Royce and Ferranti had been contracted to develop the Pegasus 104 engine, which essentially made the Sea Harrier feasible, and the radar respectively.\textsuperscript{122} The Navy could not have been successful in the Falklands War in 1982, if Thatcher’s predecessors had not believed in the need for Britain to put naval airpower to sea.

5 Carriers and the Global Role in the 1980s

Thatcher of course claimed that only after the Falklands and Cold War could the case for a versatile navy and naval airpower be made.\textsuperscript{123} However, from the outset her government sought to continue a global role. Francis Pym put forth ambitious plans for global military presence in the 1980 Defence White Paper, but this global role became more closely associated with NATO, or better, the US.\textsuperscript{124} The US had begun to demand that the European allies become more engaged in the Middle East, where the US was coming under pressure in Iran and with the outbreak of the Iran-Iraq War

\begin{thebibliography}{123}
\bibitem{117} Navy Department, MoD, \textit{The Role of the Royal Navy in a Changing World}, (January 1975).
\bibitem{118} Cmdn. (1973) 5231, I, para. 46, p. 16.
\bibitem{119} Jackson; Bramall, \textit{The Chiefs}, p. 379.
\bibitem{120} Roy Mason in the House of Commons, Hansard, 3 December 1974, 882, Col. 1355.
\bibitem{121} Mike Hirst, ‘Sea Harrier - Naval firepower with a difference,’ \textit{Flight International}, 2 September 1978, p. 845.
\bibitem{122} Roy Braybrook, \textit{Harrier and Sea Harrier} (London: Osprey, 1984), p. 92.
\end{thebibliography}
resented being the only ally protecting oil supply.\textsuperscript{125} In 1980 the Thatcher government announced that it would “give the strongest encouragement” to a NATO response to the global – as opposed to European - nature of the Soviet threat.\textsuperscript{126} This did of course not preclude independent British global policies, especially in the Gulf where Thatcher renewed ties with a range of countries. She later claimed that the ties prepared “co-operation when the Iran-Iraq War threatened Gulf shipping” and when Iraq invaded Kuwait. On the latter occasion they also allowed her to advise US President George Bush.\textsuperscript{127} The 1980-1 financial crisis put a halt on Pym’s plans, but a global role was by no means abandoned.

John Nott’s highly controversial defence design clearly reflected the underlying rationale.\textsuperscript{128} He affirmed not only the commitment to purchase Trident, build up the RAF’s ability to defend British airspace and retain the Army in Germany, but also decided that SSN were the most suitable asset in ASW. His position on aircraft carriers was linked to this and derived from an operational analysis paper, which had concluded that they were the least effective naval assets against Soviet submarines.\textsuperscript{129} Hence, SSN were to close off the 'choke points' in order to keep Soviet submarines and ships from deploying into the open ocean. The escort fleet would be cut to about 50 destroyers and frigates, with eight mothballed, in order to finance a fleet of 17 SSN.\textsuperscript{130} 

\textbf{Hermes,} the aged commando carrier, would be scrapped, the new \textit{Invincible} sold.\textsuperscript{131} The salient point is, these decisions enhanced the contribution to NATO ASW, ultimately supporting deterrence, but strictly speaking did not reduce the functional capability of the surface fleet’s air defence element at the time.\textsuperscript{132} Maintaining, not increasing to three, the number of operational carriers allowed cutting escorts, but also suggests that the surface fleet was still seen as a political contribution to NATO and, with the amphibious capabilities, useful for other foreign policy tasks. Nott’s explanation of his carrier decisions supports this interpretation.

\begin{itemize}
\item \textsuperscript{126} Cmnd. (1980) 7826, p. 41f, para. 411; emphasis added.
\item \textsuperscript{127} Thatcher, \textit{The Downing Street Years}, p.164, 816.
\item \textsuperscript{128} The United Kingdom Defence Programme: The Way Forward, (1980-81), Cmnd. 8288
\item \textsuperscript{129} Sir John Nott, \textit{Here Today, Gone Tomorrow - Recollections of an Errant Politician} (London: Politico’s, 2002), p. 228.
\item \textsuperscript{130} Cmnd. (1980-81) 8288, paras. 26, 29, p. 9f.
\item \textsuperscript{131} Cmnd. (1980-81) 8288, para. 27, p. 10. After the withdrawal of the offer to buy \textit{Invincible} the Australian government was still interested and contemplated buying a specially built ship of the class. \textit{Interavia AirLetter}, 15 July 1982 and 15 December 1982.
\item \textsuperscript{132} The Navy had one designated V/STOL carrier in service, \textit{Invincible}. \textit{Hermes} could be used in a V/STOL carrying capability, but was to be replaced by \textit{Illustrious} that year. \textit{Ark Royal} was expected in 1983.
\end{itemize}
He “did not see how we could afford three carriers in planning for a high-intensity war against the Soviets, nor how at that time we could afford to equip ourselves, in priority, for an out-of-area low-intensity war – not least because the protection of the carriers required a flotilla of supporting frigates, of which we had few in number anyhow”.\(^\text{133}\)

Nott excluded a global role for the surface fleet only as a priority in defence spending, not per se, as long as NATO preserved Britain’s immediate security. This seemed to consolidate a division of labour between the SSBN/SSN fleet’s contribution to NATO deterrence on the one hand and the surface fleet’s role as a foreign policy tool in the NATO, transatlantic and global context on the other hand. The Navy found the escort fleet cuts difficult to digest, but its response to the final document was more muted than in 1966.\(^\text{134}\) Nott’s view of the carriers’ main role in global engagements was, again, congruent with naval thinking, but it also triggered old fears that the lack of a significant NATO role might eventually mean that carriers would fall prey to budget cuts.\(^\text{135}\) Nott declared Britain intended to play a "special role" out of area, because "her own needs, outlook and interest gave her [this role] and a special duty in efforts of this kind".\(^\text{136}\) From 1982 the government would resume, after the brief moratorium, "the practice of sending a substantial naval task group on long detachment for visits and exercises in the South Atlantic, Caribbean, Indian Ocean or further east."\(^\text{137}\)

Particular use would be made of the new carriers and again, well-established patterns applied. The operations would be co-ordinated with "the United States and other allies, as well as with local countries with whom we have close defence relations."\(^\text{138}\)

The fact that the government not only designed, but also implemented its out of area plans speaks for the degree to which it relied on its ability to make nuclear deterrence and NATO’s political cohesion credible with SSBN, SSN, the British Army on the Rhine, RAF and the earmarked surface fleet contributions to NATO. The surface fleet had a major foreign policy role, because it was flexible, ocean-going and more loosely tied to NATO and the Thatcher governments of the 1980s utilised this as much, or even more so than their predecessors. Not only did the Navy exercise progressively

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\(^\text{133}\) Nott, *Here Today, Gone Tomorrow*, p. 229 (emphasis added).

\(^\text{134}\) Hill, *Lewin of Greenwich*, p. 337.

\(^\text{135}\) Nott, *Here Today, Gone Tomorrow*, p. 229 (emphasis added).

\(^\text{136}\) Cmnd. (1980-81) 8288, para. 32, p. 11.

\(^\text{137}\) Cmnd. (1980-81) 8288, para. 34, p. 11.

\(^\text{138}\) Cmnd. (1980-81) 8288, para. 34, p. 11.
less with NATO and more with non-NATO allies.\textsuperscript{139} It played the global role most successfully in the Falklands War, although not without significant support from the US and other allies.\textsuperscript{140} The Royal Navy was in combat more with the Argentinean air force than navy, as after the \textit{General Belgrano} had been sunk on May 2, the major Argentinean naval units stayed in territorial waters, but the trawler \textit{Narwal} was captured with the help of Sea Harriers and Sea Kings and fifty per cent of helicopter hours were flown on ASW missions.\textsuperscript{141} The Navy was particularly concerned about the Argentinean Air Forces mainland based supersonic fighters and Exocet missiles.\textsuperscript{142} Their long-range threat made the lack of ship-based AEW and dependence on RAF Nimrods very problematic.\textsuperscript{143} Sea King HAS2 helicopters could not be used in AEW, because they lacked over-the-horizon radar capability.\textsuperscript{144} Thus, in order to deter and intercept Argentinean aircraft, Sea Harriers set up Combat Air Patrols (CAP) with a contingent continuously on CAP station during daytime, but the limited number of Sea Harriers imposed defensive tactics and placed enormous strain on pilots and maintenance crews.\textsuperscript{145} Although the Navy had hoped to establish air superiority before the landing at San Carlos, Sea Harriers had to fight a war of attrition until the final phase of fighting.\textsuperscript{146} Yet, despite their numerical superiority no Harrier was shot down, whereas “Sea Harriers claimed 27 Argentine aircraft destroyed, of which 24 were fast jets.”\textsuperscript{147} The restricted Argentinean Air Force’s refuelling capabilities allowed British pilots to keep them at low altitudes where Harriers, which could also operate in bad

\textsuperscript{139} HC (1987-88) 309, p. 15, Q. 79 (Richard Mottram, Assistant Under Secretary of State (Programmes)).
\textsuperscript{140} On US aviation fuel supplies see Report from the House of Commons Defence Committee, \textit{The Handling of Press and Public Relations during the Falklands Conflict}, Session 1982-83, HC 17-II, Q 1146; on the importance of Ascension Sandy Woodward, “It Was A Bit Tight”, \textit{US Naval Institute Proceedings}.
\textsuperscript{141} HC (1986-87) 345-I, para. 217 and Evidence p. 15.
\textsuperscript{142} HC (1986-87) 345-I, para. 217 and Evidence p. 15.
weather, performed best.\textsuperscript{148} Equipped with an array of weapons and electronic systems, some supplied last minute, the US supplied Sidewinder AIM-9L air-to-air missiles was perhaps the most significant improvement of the Sea Harrier’s air-to-air combat capability.\textsuperscript{149} No matter how much the Navy had emphasised the role of the \textit{Invincible} class in ASW and of the Sea Harrier in shadowing the Bear in the 1970s, the Sea Harrier came into its own with CAP in the Falklands.\textsuperscript{150}

By the end of the Cold War the small carriers resembled more the capabilities Commander Powell, former Assistant Director Naval Air Warfare, had deemed vital in 1967. Although he had rejected V/STOL, he argued that the need for air superiority in amphibious operations and shipping protection required deployment of aircraft in AEW, air defence and strike roles, whereas the ship should accommodate command facilities, ASW helicopters and an early warning radar.\textsuperscript{151} Over about a decade the \textit{Invincible} class grew almost exactly into these capabilities, albeit at a lower scale. The Sea Harrier received a fighter, reconnaissance and strike capability.\textsuperscript{152} From 1976, the ski-jump allowed take off with a greater payload, night flights and adverse weather launches.\textsuperscript{153} Whilst compromises in had been made on helicopter guidance to submarines, the ship radar was progressively improved, in the 1980s the Sea Harrier received advanced air-to-air missiles and Sea Kings were fitted with Seaspray radars, providing an AEW capability, and in the early 1990s the Sea Harrier was given a look-down/shoot-down capability.\textsuperscript{154} The role of carriers in the Royal Navy had come full circle by December 1990, when the Deputy Under-Secretary of State (Policy)
declared that the *Invincible* class provided the functions of traditional aircraft carriers on a smaller scale; in future "three aircraft carriers would provide platforms for long-range air defence and command and control facilities for the ASW task groups" and "an aircraft carrier might also accompany the Amphibious Force".\(^{155}\)

### 6 Conclusions

The main challenges for the Navy and its carriers during the Cold War were a rapidly changing international strategic environment, especially in the first two decades, the advent of nuclear deterrence, the focus of government planning on the worst-case scenario - general war with the Soviet Union - and the consequent dependence on US commitment to NATO and European security. In the context of increasing constraints on the defence budget, these parameters forced governments to choose between major pieces of equipment, which in turn were linked to a prioritisation of possible strategic contexts. As conventional deterrence of limited conflict in the global context gave way to NATO as the strategic priority, the Navy was persistently challenged to define an essential NATO role. Before the 1960s this proved hardly possible, as such a role had to be based on carrier operations against land, which had been ruled out as a justification for new carrier procurement. At the same time, the Navy sought to avoid being tied down to ASW carrier operations, which might have reduced the carriers’ utility East of Suez, and threatened the general-purpose design of CVA-01. Only the advent of SSN and Polaris in the 1960s enabled the Navy to make significant contributions to NATO deterrence, ASW and in addition reinforce Anglo-American relations with their contributions to US security.

Although at that time the continued existence of carriers in the fleet was in grave doubt after the cancellation of CVA-01, the same government that had declared British carrier unnecessary set in motion the procurement of smaller carriers, the Invincible class. The reason for this was that despite the declared turn to NATO in late 1960s, all government in the 1970s and 1980s saw value in a surface fleet built around carriers for global foreign and security policy tasks. Before making provisions for the pursuit of a global role, it was however necessary to assure the US as the guarantor of British security through NATO of the unfailing commitment to the

Alliance. It was for this reason that the surface fleet and especially carriers had a low priority in British defence planning. However, during the 1970s governments rebuild or at least did not significantly reduce independent British global engagements and assured that a less sophisticated carrier capability was re-built. In the 1980s the same parameters remained, although now the global role became progressively closer associated with the US. This evolving political framework in which the surface fleet played a major role, for example with regular group deployments, allowed the Navy to preserve its operational philosophy of putting to sea a balanced fleet capable of exercising a range of peace and wartime roles up to the level of limited war worldwide, independently and as part of alliances.

The salient point is that the focus of declared government policy on the ‘Soviet threat’, the consequent importance of the NATO context coupled with the demands of nuclear deterrence, could have undermined the Navy’s position more substantially than it did. After the Suez Crisis and again after 1966-8 governments and Navy repeatedly forged a consensus on the utility of a surface fleet built around carriers in global operations. Complemented by the second Wilson Government’s decision to preserve the amphibious capability and its survival after the Nott review, this consensus allowed the Navy to emerge from the Cold War with the wide range of naval and maritime capabilities of a balanced fleet that could be developed, rather than having to be re-invented, for the post-Cold War strategic environment.