The Seaborne/Airborne Concept: Littoral Manoeuvre in the 1960s?

This paper examines the seaborne/airborne concept, an approach to expeditionary warfare developed in Britain in the early 1960s. It identifies the strategic challenges that forced Britain to reassess its approach to the projection of power overseas and identifies the ways in which the new concept sought to meet these challenges. The ‘lessons’ learned from experience at Suez (1956) and Kuwait (1961) and their impact on procurement and on inter-service relations is addressed. The paper also examines modern British doctrine for maritime expeditionary warfare and argues that contemporary concepts such as ‘Littoral Manoeuvre’ reflect the basic principles established in the 1960s.

Since the end of the Cold War the British Royal Navy has undergone a major shift in priority away from planning for sustained ‘blue-water’ sea control operations against the Soviet Navy to a focus on power projection within a littoral environment.¹ This has supported the broader shift within British defence policy away from the defence of Europe in Europe towards a focus on dealing with crises at the point of origin.² This new focus has brought renewed interest in expeditionary operations. These changes have been reflected in the doctrine and procurement of all three services and in a growing emphasis on joint (i.e. inter-service) capabilities. The Royal Navy has been particularly keen to embrace this change in priorities, claiming that the enduring attributes of maritime forces make them particularly suitable for use in expeditionary operations. This is reflected in the latest edition of British Maritime Doctrine and in recent and planned enhancements to the navy’s power projection capabilities.³ Prominent amongst the latter are the construction of new amphibious vessels to replace the previous generation of ships built in the 1960s and plans to build two new large aircraft carriers. With a likely displacement of around 60,000 tons these ships could be almost three times the size of navy’s current Invincible-class aircraft carriers.
The provision of new equipment has been matched by the development of new ideas about the way in which Britain’s armed forces will conduct expeditionary operations, notable amongst these is the navy’s new concept of Littoral Manoeuvre.

It is not the first time that the British armed forces have had to re-adjust their focus away from warfighting in Europe towards expeditionary operations further afield. Equally, it is not the first time that they have sought to develop new approaches to the conduct of such operations in order to exploit the potential of joint forces to achieve decisive effect overseas. In the early 1960s the British developed a ‘seaborne/airborne concept’ in order to provide new and better means of conducting limited expeditionary operations in response to diverse threats and challenges beyond Europe. In many senses the basic logic that underlay this concept was the same as that articulated by the doctrine writers of today. Despite this, the seaborne/airborne concept has been largely forgotten. Numerous authors have examined the general policy that this concept was designed to support. The concept itself has escaped serious attention. This paper will examine the seaborne/airborne concept within the context of British defence requirements in the 1960s. It will consider the degree to which the concept enabled the armed forces to meet these requirements. The paper will also assess the degree to which modern British doctrine, and in particular the concept of Littoral Manoeuvre, represents a radical departure or an evolutionary development from this older concept.

**The Future Navy Process**

The future of the Royal Navy is currently being examined under what the Navy Board describes as a Future Navy Process. This consists of three elements: the Future Navy
sets out the military strategic concept for the navy in the period 2020 and beyond; the Future Maritime Operational Concept identifies how UK maritime forces will fight; while the Naval Strategic Plan outlines plans for the next 15 years, providing a ‘routemap’ for the delivery of the first two elements. The Future Navy articulates a need to deliver a ‘balanced and rapidly deployable Joint expeditionary warfighting capability, to counter conventional and asymmetric threats in areas of strategic interest to the UK’. It emphasises a need to achieve global reach and presence and to be fully interoperable with other services. There is recognition that future operations are likely to be joint and multi-national and to cater for small to medium-scale contingencies. The over-riding requirement is for versatility in order to be able to cater for an unpredictable strategic environment. At the heart of this concept is the idea that the navy can provide a Versatile Maritime Force where a variety of platforms and systems will exploit the potential offered by a networked enabled capability to achieve an effects based approach. Designed to operate in conjunction with joint forces, at extended range and in response to a diverse range of challenges the Versatile Maritime Force must be ‘operationally agile, demonstrating responsiveness, robustness, flexibility, and adaptability’.  

Under the Future Maritime Operational Concept the navy will have four key roles: Maritime Force Projection; Theatre Entry; Flexible Global Reach; UK Maritime Security; and, Networked C4ISR. The first three roles revolve around the use of joint expeditionary forces to achieve decisive effect on, and from, the sea. Maritime Force Projection is further divided into two sub-categories, Maritime Strike and Littoral Manoeuvre. As the name suggests, Maritime Strike revolves around the use of sea based capabilities to strike targets at sea and ashore. Littoral Manoeuvre involves the
use of the littoral as an operational manoeuvre space from which a sea-based joint amphibious force can threaten, or apply and sustain, force ashore. It reflects an apparently new approach to amphibious operations whereby new technology is linked to modern concepts of manoeuvre warfare to enhance the potential of sea based forces to achieve decisive effects ashore. In many respects Littoral Manoeuvre represents a British adaptation of existing US Marine Corps concepts such as Operational Maneuver from the Sea and, more recently, Expeditionary Maneuver Warfare. This is particularly notable at the tactical level in the emphasis placed on sea basing, operations ‘over-the-horizon’ and in ship-to-objective manoeuvre.

Littoral Manoeuvre aims to cater for a forward deployed, combat ready and self-sustaining force with an assault echelon of a tailored brigade or less. This force should be capable of securing theatre entry in a non-benign environment and without reliance on conventional reception facilities. It is claimed that an integrated force package of Maritime Strike and Littoral Manoeuvre capabilities could ‘poise for extended periods, demonstrating political intent, prepared for rapid coercive intervention across the spectrum of military tasks, yet without prescribing subsequent committal of force’. A particular advantage of such a force would be that, being sea based, it would ‘have the considerable advantage in conflict of a reduced land footprint and a lesser reliance on [host nation support] and over-flight rights.’ Notwithstanding the above, there is recognition that the concept will draw upon joint assets and its application is not confined to the navy or marines. There is also recognition that developments in maritime doctrine must be co-ordinated with the air and land equivalents.
Littoral Manoeuvre and the wider operational concept that it contributes to were prompted by a combination of opportunity and need. The former relates to the ability to reallocate resources away from old Cold War priorities and to harness new developments that have enhanced the manoeuvre and strike potential of conventional forces. The latter relates to the need to develop military options to meet a diverse range of limited military challenges that are likely to occur beyond Europe. These could range from disaster relief to non-combatant evacuations, peace support operations through to medium or large scale operations such as the recent interventions in Afghanistan (2001) and Iraq (2003). There is an acceptance that the latter will only be conducted in conjunction with the US. These developments are not unprecedented. The British went through a similar process in the late 1950s when a perceived reduction in the likelihood of conventional war in Europe provided an opportunity to re-allocate resources to expeditionary capabilities at a time when the government was becoming increasingly concerned by instability in Africa and Asia, particularly in the region ‘east of Suez’. At the same time, the failure of British arms during the 1956 Suez Crisis, allied to the impending loss of many overseas bases, brought a pressing need to develop new means of projecting British military power.

No End of a Lesson

On 26 July 1956 President Nasser of Egypt nationalised the Suez Canal. Over three months later British and French forces, in transparent collusion with Israel, launched a major joint operation to secure control of the canal and, it was hoped, prompt the downfall of Nasser. The result was a fiasco. A combination of diplomatic and financial pressure forced Britain to halt operations within hours of the seaborne
landing on 6 November. The operation, code-named *Musketeer*, failed to achieve any of its objectives. The British were humiliated. Faced with an unexpected crisis requiring an expeditionary operation the British armed forces had been found wanting. There were insufficient forces available in July to provide a rapid and effective response to the act of nationalisation. The time needed to cobble together such a capability provided ample opportunity for domestic and international opposition to military action to mount. It was the end of September before the armed forces were ready to act; by which time it was probably already too late. The actual tactical conduct of *Musketeer* could have been considered competent if it had occurred in a political vacuum. It was not as it did not. The pedestrian pace of operations, including five days of air operations before the first troops parachuted into Port Said on 5 November, maximised the potential for the government to be subjected to intolerable pressure.¹⁵

The Suez crisis cruelly exposed how ill equipped Britain was to conduct expeditionary operations at short notice. Neither the airborne brigade (16ᵗʰ Independent Brigade Group) nor its amphibious equivalent (No. 3 Commando Brigade, Royal Marines) was available to operate in their primary role at short notice. The aircraft and amphibious ships required to land these forces were old, obsolescent and not available in sufficient numbers or, in the case of landing ships and craft, at short notice. *Musketeer* demonstrated that British attitudes towards airborne and amphibious operations had not kept pace with the times. In the case of the former, French airborne forces were better equipped, better trained and more experienced. French commanders identified British caution, including a reluctance to use their airborne forces in a daring fashion, as one of the reasons for the failure of the
Since 1945 British policy towards amphibious operations had focused on raiding and on the need to prepare for large scale operations in the later stages of a major war. Limited intervention in circumstances short of all-out war had not been emphasised. It is therefore not surprising that the amphibious landing at Port Said was more reminiscent of the slow, methodical approach required during the Second World War than the type of rapid and flexible operation that might have brought success within an acceptable timeframe. As Major General James Moulton RM later noted, it was ‘...a lash-up of half-forgotten ideas of the Second World War, more apt to an old comrades parade than to modern war’. One enterprising aspect of the operation, the first ever use of helicopters in an amphibious assault, was more groundbreaking in a theoretical than a practical sense. The helicopters, operating from two light aircraft carriers, landed their marines on the beach, in the same place that old fashioned landing craft would have put them, albeit more quickly and without the need to get their boots wet. Suggestions that they could be used in a more innovative fashion were rejected.

Even more worrying than the tactical deficiencies evident during Musketeer were the shortcomings within Britain’s overall strategy for responding to crises overseas. British defence policy beyond Europe remained wedded to the use of a string of overseas bases. Many of these proved useless in 1956, either because they were in the wrong place or because, in the heat of a crisis, political interference limited their use. The governments of Jordan, Libya and Ceylon all refused to allow the British to use established facilities within their territory to support operations against Egypt. There were also serious doubts about the long-term future of many existing bases. It is noteworthy that Nasser nationalised the Suez Canal a matter of days after the last
British troops withdrew from the old base in the Suez Canal Zone. This base, once considered vital to Britain’s strategic interests, had had to be abandoned in the face of intense Egyptian opposition to the presence of British troops and facilities on their soil. Only the most myopic observer could fail to appreciate that similar problems could be experienced with the remaining British bases on non-sovereign territory. The loss of facilities in Iraq after the revolution in that state in 1958 only served to reinforce this point.

**British Strategy in the Sixties**

Even prior to the Suez crisis British defence planners had begun to believe that a change in overall priority was required. From the time of the 1952 Global Strategy Paper Britain had placed an emphasis on deterring war in Europe using nuclear weapons rather than defending it with conventional forces. The Chiefs of Staff increasingly believed that a major war against the Soviet Union was unlikely but should it occur, it would involve the use of nuclear weapons at an early stage. As such it was important to prevent the outbreak of a major war through deterrence, but the means of actually fighting such a war could receive a low priority. At the same time they recognised that there was an increased danger of instability and small-scale hostilities as Cold War tensions combined with the impact of de-colonisation to ferment trouble overseas. In contrast to the views expressed in the Global Strategy Paper, by 1956 there was also an appreciation that nuclear weapons could play, at best, only a peripheral role in deterring limited conflict beyond Europe. In such conditions, and with the loss of the base at Suez, planning focused on the establishment of a central strategic reserve that could respond to crises overseas. The
events of 1956 reinforced the logic of this. The 1957 Defence Review announced that the central strategic reserve would be better funded and receive greater emphasis than static garrisons. Strategic mobility would be exploited to provide flexible military options with smaller and, for the first time since 1939, fully professional armed forces.\textsuperscript{22}

The Admiralty were already aware of such developments and the First Sea Lord, Admiral Mountbatten, had taken steps to evaluate the role of the navy in such circumstances.\textsuperscript{23} In June 1956, prior to the Suez crisis, the Board of Admiralty approved proposals to reduce the emphasis placed on major war contingencies and to improve capabilities to meet limited challenges overseas. This resulted, in July 1956, in a concept for the *Future Role of the Navy*, whereby the navy would support British interests overseas through the deployment of a task force built around an aircraft carrier, a helicopter equipped commando carrier, a cruiser and four destroyers.\textsuperscript{24} The debacle at Suez reinforced these developments and this was reflected in the 1957 Defence Review.\textsuperscript{25} The navy’s new priorities were codified in the famous ‘*Autumn Naval Rethink*’ of 1957.\textsuperscript{26}

In June 1959 the Prime Minister, Harold Macmillan, established a ‘*Future Policy*’ committee under the chairmanship of the Cabinet Secretary, Norman Brook.\textsuperscript{27} The military used the guidelines established by the committee to inform their own major study into the requirements for ‘*British Strategy in the Sixties*’.\textsuperscript{28} The following criteria were adopted for strategy short of major war:
1. land forces would nowhere be engaged on a scale greater than a reinforced
brigade group

2. no major operation would be undertaken in more than one theatre at a
time, and not more often than once in a period of two years in any one
theatre

3. any period of intense fighting was unlikely to be prolonged, a matter of
weeks rather than months.

It was recognised that in circumstances where British forces intervened there would
be occasions when points of entry would be in hostile hands, ‘requiring us to face
opposition to establish ourselves’. The Chiefs of Staff did not believe, however, that
they would be required to attempt full-scale assaults against heavy opposition without
the assistance of allies.\textsuperscript{29}

Operation *Musketeer* had demonstrated the danger of using old and outdated
equipment and techniques in expeditionary operations. A number of study groups
were set up to examine the requirement for new amphibious shipping. Plans for the
replacement of the existing vessels were influenced by the experience of *Musketeer*
and by a close liaison with the US Marine Corps. In both cases this pointed towards
the use of helicopters from aircraft carrier-type vessels. As a result, in 1957 the Navy
announced the conversion of HMS *Bulwark*, a light fleet carrier, into a helicopter
equipped ‘commando carrier’. This was followed in 1962 by the similar conversion of
*Bulwark*’s sister ship, HMS *Albion*. The commando ships, as they were known from
1962, were designed to embark a Royal Marine Commando unit and 16 medium lift
helicopters. The embarked force was later expanded to include additional support
elements and a battery of 105-mm guns. The ships were to be able to provide complete administrative support for their embarked force in combat for 14 days at intensive rates, and for 42 days at reduced rates.\textsuperscript{30}

By the nature of their design, and the lift limitations of their helicopters\textsuperscript{31}, the commando ships provided a relatively lightly armed military force somewhat akin to a parachute battalion, albeit with more reliable logistic support and better tactical mobility. A more balanced lift capacity was to be provided by two new assault ships (LPDs) and six Landing Ship, Logistic (LSL). Once they entered service these vessels would provide improved, speed, endurance and habitability compared to the old ships that they replaced. They were designed specifically to support an expeditionary strategy in which the requirement for speed and flexibility was paramount but where there was still a need to land balanced forces, including heavy armoured fighting vehicles, without the use of conventional port facilities.\textsuperscript{32} The LPDs, HMS \textit{Fearless} and \textit{Intrepid}, entered service in 1965 and 1967 respectively followed by the six LSLs between 1964 and 1967.

Air transport capabilities were also enhanced. Some improvements pre-dated \textit{Musketeer}, including the introduction of new Blackburn Beverley and de Havilland Comet aircraft. In the years that followed 1956 the older aircraft of RAF Transport Command were replaced with the introduction of increased numbers of more modern types including the Bristol Britannia (1959), the Hawker Siddely Argosy (1961), the Short Belfast (1966), the BAC VC10 (1966) and the Hawker Siddely Andover (1966). In 1967 the RAF took possession of their first US-built Lockhead C-130 \textit{Hercules}.\textsuperscript{33} By 1962 Transport Command possessed 141 fixed-wing transport aircraft and 54
helicopters. Three years later its commander-in-chief, Air Marshal Sir Kenneth Cross, reported that his headquarters controlled 18 stations, 12,227 RAF personnel, 2,600 civilians and around 200 aircraft. The expansion in capabilities was matched by an increase in joint exercises. Whereas there had only been three airborne and air-transport exercises in 1956, there were 45 in 1959. Transport Command was responsible for providing parachute training from the army. In 1960 there were 36,000 parachute jumps from their aircraft and the army’s training programme for 1960-1 included over one hundred air-mobility exercises. In order to facilitate closer cooperation with the army it was decided to concentrate the Command’s tactical elements into a single group. As a result No.38 Group was created in 1960. In 1962 this Group was reinforced by the addition of two squadrons of Hunter fighter/ground attack aircraft. It could now provide close air support in addition to tactical transport. According to Air Marshal Cross the result was a ‘powerful UK based tactical group… “exportable” to any part of the world’. He anticipated No. 38 Group operating as part of a Joint Tactical Task Force in conjunction with the navy’s aircraft carriers and troops from the army’s strategic reserve.

There was little point in buying new equipment and generating new capabilities without also updating the way in which the armed forces operated. Thus, while the Admiralty studied the requirement for new amphibious ships and craft, Amphibious Warfare Headquarters (AWHQ) and the Joint Services Amphibious Warfare Centre (JSAWC) at Poole undertook a review of amphibious techniques. Within both organisations there was an appreciation that the review could not be conducted in a vacuum. It also needed to take into account the planned expansion of air-transport capabilities. Responsibility in this field lay with the Land/Air Warfare Committee.
and the School of Land/Air Warfare at Old Sarum. The acceptance that the air and maritime aspects of expeditionary operations needed to be considered together led to increasing liaison between the establishments at Poole and Old Sarum. The result was the development of a new concept of operations described as the seaborne/airborne/land concept or, more frequently, simply the seaborne/airborne concept. In 1960 AWHQ and the JSAWC presented and discussed the new concept at the staff colleges, on Senior Officer’s courses and at appropriate operational commands. It was recognised that the concept would be most effective after 1965 by which time it was expected that new equipment would support its application. Nevertheless, the Chief of Amphibious Warfare believed that it was equally applicable with the existing force structure.41

The concept was explicitly joint, it being recognised that the only way to maintain an adequate balance and level of force was for air-transported and amphibious forces to operate together as part of a single-team. As such there was recognition that a fully integrated inter-service approach was required to promulgate and direct new policy.42 As a result AWHQ and the Land/Air Warfare Committee were disbanded, being replaced by a new Joint Warfare Committee (JWC). The JWC was composed of senior representatives from each service and was charged with the direction and coordination of joint tactical doctrines, techniques, procedures and training requirements and for all aspects of seaborne/airborne operations short of global war, excluding essentially single service matters. The JWC was supported by a Joint Warfare Staff and by a number of sub-committees. The first director of the Joint Warfare Staff was Major-General Houghton RM. Houghton had been Chief of Amphibious Warfare until that post was abolished with the creation of the JWC. A Joint Warfare
Establishment was formed to replace the separate Joint Services Amphibious Warfare Centre and the School of Land/Air Warfare. Institutional structures were thus adapted to meet the requirement for ‘jointery’.  

**The Seaborne/Airborne Concept**

The new seaborne/airborne concept of operations was designed to enable a rapid and flexible response to unforeseen crises overseas. It emphasised a requirement for greater mobility by sea and air in order to meet the challenge of conducting expeditionary warfare in a highly politicised environment and with a reduced reliance on fixed bases. In such circumstances a small but adaptable military force that could be made available at the appropriate time and place was more relevant than larger, more capable forces that were difficult to deploy within an acceptable time-scale. The lessons of *Musketeer* had been learnt. For military force to be useful it had to be useable. However, speed and deployability on their own were not enough. The concept had to provide for the kind of forces that would be strong enough to prevail in the types of operation that were envisaged. These could involve operations against ‘moderate’ opposition equipped with Soviet weaponry including tanks.

According to the Joint Planning Staff, the seaborne/airborne concept was designed to meet the following requirement:

> …the rapid concentration of land forces, with naval and air offensive and transport support, and their introduction into areas remote from main bases. The operations could vary from an unopposed entry to a combined
air and seaborne assault, though assault against a heavily defended coastline is not contemplated. As long warning periods could not be relied upon there was an expectation that the initial response to any crisis would be met by forces maintained within theatre and that some land forces were likely to be stationed afloat. The majority of follow-on forces would arrive by air from the UK, although heavy equipment would have to come by sea. Troops arriving by air would rely on stockpiled equipment maintained in likely areas of operations. There would therefore continue to be a requirement for some form of base within the theatre, if not actually within the immediate locality of the crisis. The maintenance of a permanent floating stockpile independent of local shore facilities does not appear to have been entertained seriously.

The British did have some experience of maintaining floating stockpiles. From 1960 half a squadron of Centurion tanks was kept afloat in the Persian Gulf in a Landing Ship Tank (LST) in order to be available for operations in Kuwait at short notice. The remainder of the squadron was maintained in Aden and, with a second LST, was able to rotate with the forces in the Gulf in order to maintain a permanent deployment. The crews were deployed with their tanks, except in the summer when it was sometimes necessary to leave the tanks crews ashore as some of the LSTs were not air conditioned. It was not felt conducive to the fitness or morale of the soldiers to leave them sweltering in the confined space of such ships. The sailors, of course, did not get a choice in the matter. In such circumstances the tanks crews stayed in Aden and could be flown forward to join the LST and their vehicles at Bahrain should the need arise. This tiresome deployment was necessary because the Kuwaiti government
would not allow the tanks to be stockpiled on Kuwaiti soil, presumably due to the political fallout that would be associated with too overt a reliance on British military assistance. Unfortunately, the slow speed of the old LSTs meant that tanks held ashore at Aden could not be made available in Kuwait at short notice, hence the creation of the ‘Seaborne Tank Force’. This force alleviated the problems associated with the lack of a forward base in Kuwait but it could not completely remove the requirement for facilities within theatre.  

The need to be able to respond rapidly did not just apply to Kuwait. There was a realisation that future operations were likely to require a speedy reaction in situations where the enemy held the initiative. In 1962 the Joint Warfare Staff prepared detailed notes on the seaborne/airborne concept, explaining that:

In the present concept of limited war our forces must be ready to counter sudden enemy intervention in a country that is neutral or friendly to us. The enemy will have the initiative and will be able to strike at the time and place he chooses. Even if his moves can be foreseen, our forces may not be able to land before his active intervention, for political reasons. The requirement is for a force that can act quickly and is ready to fight immediately in an area that may be far from its base; and that has the fighting power and mobility to take offensive action and get quick results to prevent the war from extending or from escalating to global war.

Under the seaborne/airborne concept the sea and air transported elements of an expeditionary force would each provide capabilities best suited to their own
characteristics and to the kind of operations expected. In essence, air transport offered
a means of transporting troops and light equipment very quickly over long distance.
Sea transport provided heavy lift capability and was free from the problems of staging
and over-flight rights that were associated with long-range military air transport. It
was hoped that in ideal circumstances air and sea elements would arrive
simultaneously and in close proximity. As this could not be guaranteed each element
would need to be able to operate independently in the initial stages of an operation,
and thus each element needed to be as balanced as possible. This was easier for the
sea based element as air transported forces lacked the ability to land heavy equipment
and armour.

Under this concept forces were required to be able to land over open beaches, through
small ports or at improvised airstrips. Conventional harbour and airport facilities
could not be counted on, as they were extremely vulnerable to enemy action. Even in
intervention in support of an ally such facilities could be closed due to strikes,
sabotage, panic or for unforeseen political reasons. Speed and flexibility of response
were seen as attributes that could be exploited to defeat an opponent before they had
sufficient time to consolidate their defences, reducing the requirement to conduct
major assault landings:

A deliberate assault will take time to prepare, and this delay may favour the
enemy more than ourselves, for political as well as military reasons. It may
often be best to land immediately before the enemy can consolidate his
position and while he is off balance after a quick advance. Both air
transported and amphibious forces must be able to fight their way in against such light defences as the enemy will have had time to prepare.

Given the uncertain and rapidly evolving nature of likely operations there was recognition that it would not always be possible to know until a few hours before the event whether or not a landing would be opposed. In such circumstances it was important to be able to land in a fighting posture.⁴⁹ This was not a concept for strategic transport; it was a concept for expeditionary warfare.

The seaborne/airborne concept articulated a new approach to the conduct of expeditionary operations that supported a change in British strategy. Notwithstanding the planned enhancement of resources in this field, the seaborne/airborne concept essentially represented a better way of using existing capabilities. The concept provided for a change in priority and an emphasis on joint operations, but in most senses at the tactical level it represented an evolutionary rather than revolutionary development. The concept articulated an approach to amphibious warfare that avoided the focus on raiding and on large-scale assaults in Europe that had dominated British thinking since 1945.⁵⁰ Nevertheless, tactical methods still remained focused on securing a beachhead before breaking out to secure the operation’s objectives. The assault would still be conducted by infantry, armour and supporting arms landed in conventional landing craft from ships anchored offshore. The use of helicopters did add a new aspect to such operations, but the primary role of such aircraft would be to support the seaborne landing by securing flanks, high ground or exit points or by helping to suppress defences such as enemy gun emplacements. Helicopter forces could also offer a means of reinforcing a beachhead rapidly in response to
developments ashore. Airborne forces could fulfil similar functions, although they were unable to fulfil the role of floating reserve. The main role of the helicopter was thus focused on the beachhead in support of more conventional amphibious forces. There was an appreciation that, in the right circumstances, helicopter landed troops could provide a rapid and flexible intervention capability on their own. Moreover, the Joint Warfare Staff did recognise that helicopters might be used to land troops inland directly at the objective itself. However, they noted the vulnerability of the aircraft and also of troops deployed in such a manner if heavier sea-landed forces were not able to provide rapid support.\textsuperscript{51} Such an approach might be suitable where the scale of opposition was light, such as at Tanganyika in 1964\textsuperscript{52}, or where amphibious forces were being deployed in support of any ally\textsuperscript{53}, it would be dangerous against a well-equipped opponent.

The Joint Warfare Staff summarised the concept in the following terms:

\begin{quote}
The seaborne/airborne concept envisages amphibious and air transported troops landing at short notice and operating as a single team, each providing the forces best suited to its means. They will land simultaneously, if possible, but each force must be balanced to enable it to operate independently for a while; and both forces must be ready to fight their way in.\textsuperscript{54}
\end{quote}

There was also a requirement for the force to have sound logistical support, something that was liable to be challenging in the absence of host nation support or local base facilities. In November 1961 Major-General Moulton RM presented a
Crookenden’s opinion may have been influenced by the fact that the airborne forces he commanded could only conduct parachute landings from short or medium range transport aircraft. They were thus not altogether suitable for use in a strategy where, in future, Britain might have only one permanent base east of Suez. The most likely candidate for this facility was Australia, thousands of miles from many potential trouble spots. Perhaps naturally, he also believed in the superior tactical value of parachute forces compared to the helicopter borne alternative that could be deployed from the sea. He claimed that only airborne forces had a true assault capability by day or night and that helicopters would be too expensive to risk in an actual assault landing. His conclusions in this respect flew in the face of recent British and American experience. In response a US Marine Corps officer noted that parachute troops possessed very poor battlefield mobility compared with an amphibious force and that US experience suggested that helicopters could be used very effectively against modern forces, to a depth inland of 100 miles in the initial assault.  

Crookenden was not alone in his scepticism about the helicopter. Moulton later
recalled that the Commandant of the Army Staff College had criticised the new concept of operations when it was presented at Camberley, defending the airborne role and claiming that helicopters were very vulnerable. The Commandant, General Sir Nigel Poett, had commanded the 5th Parachute Brigade in north-west Europe in 1944-45. The RAF was also concerned about the navy’s new interest in helicopters and commando carriers. Their concern appears to have been less focused on the tactical value or otherwise of the combination, but rather on a fear that this represented the ‘first step’ by the navy into a transport role that they believed was their own. The seaborne/airborne concept was joint in ethos; the reactions to it sometimes were not.

The principles outlined in the seaborne/airborne concept were eventually incorporated into a new, multiple volume Manual of Joint Warfare. The various volumes were produced by the Joint Warfare Staff in conjunction with the Service Ministries and the Joint Warfare Establishment before gaining approval from the Joint Warfare Committee. The first edition of the Manual was issued in February 1964. The Manual of Joint Warfare incorporated all aspects of land/air warfare, amphibious operations and all other aspects of joint operations in non-nuclear warfare beyond Europe. As such its focus went beyond that of the seaborne/airborne concept. Nevertheless, the concept informed those writing the Manual. The Manual was updated a number of times during the 1960s. A revised first edition was issued in November 1965, a second edition was issued in April 1967 and this was replaced by a third edition in March 1970. By 1970 the Manual of Joint Warfare was no longer focused on non-nuclear operations beyond Europe, it now included all aspects of joint warfare. In this respect it reflected the shift within British defence policy towards a re-focus on war in
Europe and on the requirement, inherent within Nato’s new concept of Flexible Response, to consider a mix of conventional and nuclear options.\textsuperscript{58}

\textbf{A Concept Vindicated?}

It was not long before the ideas that lay behind the seaborne/airborne concept received their first real test. In late June 1961 the British government feared that Iraq might invade its newly independent neighbour, Kuwait. Evidence in support of this thesis was, at best, scant. Nevertheless, the British were able to persuade the Amir of Kuwait that he was in imminent danger and on 30 June he issued a formal request for British military support.\textsuperscript{59} It was therefore decided to initiate the existing plan for support to Kuwait, Reinforced Theatre Plan \textit{Vantage}. The previous day the Cabinet Defence Committee had authorised a number of precautionary military moves in order to improve readiness. As a result the marines of No. 42 Commando were landed in Kuwait by helicopters from HMS \textit{Bulwark} at around 0900 on 1 July. The marines were joined later that day by half a squadron of tanks from the LST HMS \textit{Striker}, by a platoon of marines from a frigate offshore and by two companies of infantry flown forward from Bahrain. They were supported by two squadrons of Hunter fighter/ground attack aircraft that had deployed to Bahrain the previous day.\textsuperscript{60} Kuwait was only just within the radius of action of the Hunters at Bahrain so during the course of 1 July 10 aircraft were flown forward and operated from the new civilian airport in Kuwait. Air, maritime and land forces were rushed to the Gulf. The build-up of land forces was completed on 9 July, by which time there were 5,668 British military personnel in Kuwait. These were supported by two squadrons of Hunters and half a squadron of Shackletons at Bahrain, a squadron of Canberra bombers at
Sharjah, a number of Canberra photo-reconnaissance aircraft and numerous transport aircraft. The Royal Navy had a fleet offshore that contained an aircraft carrier, a commando carrier, five escort vessels and almost the entire Amphibious Warfare Squadron.\(^6^1\)

In the face of this display of military muscle the Iraqis did not attack. That they may never have had any intention of attacking is somewhat beside the point. Whatever the truth of the situation, Iraq was seen to be deterred. Five years after the debacle at Suez the British armed forces had provided the government with a notable diplomatic success, apparently demonstrating that Britain was a reliable ally in possession of modern military capabilities. The Minister of Defence, Harold Watkinson, saw the operation as a vindication of his support for amphibious capabilities and expressed this opinion to his Cabinet Colleagues as early as 3 July.\(^6^2\) In their report on *Vantage* the Joint Planning Staff stated that it had been *‘highly successful as a military exercise in that it tested, under operational conditions, our capacity to concentrate an effective military force over considerable distances in a very short time.’* They believed that the operation supported the seaborne/airborne concept and the Chiefs of Staff approved this conclusion.\(^6^3\)

In many senses the operation demonstrated the validity of many of the assumptions that lay behind the seaborne/airborne concept. It also demonstrated the limitations of existing capabilities. *Vantage* depended for success on the rapid deployment of sufficient British forces to either deter an Iraqi attack, or to hold off an attack long enough for reinforcements to arrive. Kuwait lacked the armed forces, topography or strategic depth to resist an Iraqi invasion for very long. Unfortunately, for political
reasons, the British were unable to base or stockpile significant forces or equipment in Kuwait. To make matters worse, it was accepted within Whitehall that, should Iraq succeed in gaining control of Kuwait, it would not be possible to eject them by force. It was not that such an operation would be impossible militarily, but rather than it would take so long to mount an assault operation on the scale required that political circumstances would make it unrealistic. The British were therefore reliant on sufficient early warning to allow them to deploy to Kuwait in advance of any attack. The events of June 1961 demonstrated that such early warning could be hard to secure with any degree of certainty. As a result Vantage was enacted without any clear or unambiguous signal that an Iraqi invasion was impending. The British could not afford to wait. Speed was vital; it would not be sufficient. The force deployed to Kuwait had to be credible enough to deter invasion, hence the balance of air and sea transported forces. It was hoped that the air element would arrive first, supported by the Seaborne Tank Force and with heavy equipment and logistic support coming by sea from stockpiles at Bahrain and Aden.

In reality the British response was quick, it could hardly be described as balanced. Indeed, in the first days of the operation, surely the most likely time for any Iraqi attack to materialise, it is difficult to see how the British/Kuwaiti forces could have stemmed any serious enemy advance. The key problem facing the British was the failure of the air transport plan. At the outset of the crisis both Sudan and Turkey refused to allow British aircraft to use their airspace in order to fly to Kuwait. In conjunction with the existing ban on such flights by Egypt, Syria, Iraq and Saudi Arabia this meant that there was no easy way of deploying into theatre British forces from Cyprus, the UK or Europe. Both Turkey and Sudan relaxed the bans on 1 July,
although Turkey re-instituted theirs on 4 July. The manner in which other states could hinder or even halt the movement of troops by air was evident. In desperation the British were forced to ignore the ban, and with it international law, to allow RAF Canberra bombers to re-deploy from Germany via Sudan. There were also covert over-flights of Saudi territory.\textsuperscript{67}

Once the political obstacles facing the airlift were overcome, and in the absence of any Iraqi action against the airfields in Kuwait, the airlift was very effective. A total of 71 RAF transport aircraft were employed, in addition to 17 chartered airliners and three aircraft from the Royal Rhodesian Air Force. The majority of troops deployed to Kuwait arrived by air.\textsuperscript{68} There were questions about the impact of extreme heat on troops transported directly from the UK to the Middle East, although these were rather downplayed by the official report on \textit{Vantage}.\textsuperscript{69} Unfortunately, troops airlifted into Kuwait often arrived without key pieces of equipment and all were critically short of transport. An Army Operational Research Group, sent to Kuwait to investigate matters, decided that British forces were so short of transport that they were incapable of anything but a static defensive battle. Indeed, the one unit that had arrived ready to fight was No.42 Commando, landed by HMS \textit{Bulwark}.\textsuperscript{70} The rather chaotic nature of the air lift was, in part, a result of a decision to prioritise the movement of fighting troops at the expense of the administrative staff who would have managed the unloading and distribution of in-coming cargo. This decision was taken due to the urgent need to boost the fighting forces in Kuwait. It was exacerbated by the primitive unloading facilities at the newly completed airfield that was made available to the British. Such considerations were unlikely to be unique to \textit{Vantage}.  

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Perhaps even more worrying than the above was the fact that, despite the existence of airfield facilities in Kuwait and established bases at Bahrain and Aden, the RAF was unable to secure a satisfactory air defence environment prior to the arrival of the aircraft carrier HMS *Victorious*. Political restrictions on pre-emptive air strikes meant that the Iraqi airfields could not be attacked prior to an Iraqi attack on Kuwait, thus ceding the initiative in any air battle to the Iraqi air force. This placed a premium on an efficient air defence system. With only two squadrons of Hunter fighter/ground attack aircraft in range and reliant on HM Ships for radar cover, the RAF was not able to provide this. It is difficult to dispute Air Chief Marshal Sir David Lee’s conclusion that, prior to the arrival of HMS *Victorious*, air defence ‘could have posed almost insuperable problems for the two Hunter Squadrons’. 71 This conclusion is particularly damning given that *Vantage* was a pre-planned operation, with considerable host nation support conducted in reasonable proximity to existing RAF airfields at Bahrain and Sharjah. Such benign circumstances could not be relied upon in every situation.

Maritime forces were less susceptible to political restrictions and were by their very nature deployable and sustainable without undue reliance on land facilities. Able to exploit the politically neutral medium of the sea, key ships were deployed unobtrusively off Kuwait prior to the request for intervention. Critical amongst these were HMS *Bulwark* and the LST HMS *Striker* from the Seaborne Tank Force. Without these vessels the early stages of *Vantage* would have been a shambles. They provided the only significant military force in Kuwait on 1 July. Unlike the troops arriving by air, Bulwark’s marines arrived fully equipped, with their own transport and ready to fight. Intelligent pre-positioning facilitated the timely arrival of *Striker*,
Bulwark and their embarked forces.\textsuperscript{72} Other maritime assets took longer to arrive. There was only one frigate off Kuwait until the arrival of HMS Loch Fyne on 5 July. This reduced the fire support that could be provided to the forces ashore and complicated sea control operations. The aircraft carrier HMS Victorious, critical to the establishment of a favourable air situation around Kuwait, did not arrive until 9 July. There had been no mine counter-measures capability in the Gulf before July. Consequently, the ships of the 108\textsuperscript{th} Minesweeping Squadron were deployed from Malta. They did not arrive until 21 July, three weeks after the Kuwaiti request for assistance. In the context of Vantage, this was far too slow. The British Commander-in-Chief, Middle East, Air Marshal Sir Charles Elworthy, was correct in his assessment that in the event of an attack the operation would probably have been over before all of the Royal Navy ships arrived in theatre.\textsuperscript{73}

\textbf{Competing Visions: Seaborne or Airborne?}

In the early 1960s the Admiralty’s concept for the future Royal Navy was driven by a need to cater for expeditionary operations east of Suez along the lines identified by the seaborne/airborne concept. Expeditionary warfare became the main role for the fleet.\textsuperscript{74} A combination of amphibious groups and aircraft carriers, supported by the full range of naval capabilities, would be used to deploy power overseas. The Admiralty emphasised the joint credentials of their views, developing a concept for a ‘Joint Services Seaborne Force’ where maritime, air and land forces operated in partnership. In this way it would be possible to generate robust intervention capabilities well suited to British needs into the 1970s. The construction of new, large aircraft carriers was central to this approach. These, it was claimed, were not designed to remove the requirement for land based aircraft, but were to complement the
capabilities that could be provided by long-range air power. It should be noted that while this approach was joint in nature, it did imply a substantial investment in specifically maritime capabilities.\textsuperscript{75}

The RAF adopted a rather different approach. There appears to have been an almost reflex opposition to the navy’s plan for large aircraft carriers. The Air Ministry was willing to accept the construction of very small carriers with limited capabilities but was viscerally opposed to the large, powerful strike carriers that the Admiralty insisted upon. The latter did not claim that new aircraft carriers would remove the need for land-based aircraft. However, such ships could pose a threat to the RAF’s own plans to update their own long-range strike force by consuming a significant proportion of the defence budget. The Air Ministry was willing to tolerate ships that were optimised for local air defence and close air support. They would not accept the requirement for more capable vessels able to conduct strike operations at extended range. This role, they believed, could and should be conducted by land-based aircraft alone. As such, the RAF developed an alternative to the Joint Services Seaborne Force. This was based on the use of long range aircraft from a series of notional island bases. Such bases were to be constructed on British administered territories. Use of these bases, it was claimed, would allow intervention by an infantry brigade group at ranges of up to 1,000 miles. In circumstances where reception facilities were not available a parachute battalion could conduct an assault landing to secure entry points. There was no place for aircraft carriers or major amphibious forces within this concept, although there would be a requirement for seaborne lift for follow-on support. The RAF plan was significantly less joint that it’s naval alternative.\textsuperscript{76}
The RAF island base strategy did not provide for a very convincing intervention capability. The Royal Navy argued that it lacked strategic reality, political feasibility and military practicality and that the use of such a strategy could support the Joint Services Seaborne Force, it could not replace it.\(^77\) It is difficult to disagree with this assessment. The inability of the island base strategy to provide the kind of balanced, expeditionary capabilities then envisaged ensured its failure. Without the assets envisaged in the Admiralty’s scheme it would not be possible to land balanced forces without conventional port facilities, not would it be possible to secure a satisfactory air defence environment beyond the vicinity of established bases. Such bases could not move to meet unforeseen contingencies. It is noteworthy that the navy’s plan sought to reduce reliance on overseas bases. The RAF scheme sought to compensate for the loss of bases through the construction of new facilities. The government was not convinced. On 30 July 1963 the Cabinet approved the construction of a new aircraft carrier of about 50,000 tons. The navy planned to call this ship HMS *Queen Elizabeth* and were confident enough to decide on a name for a sister ship.\(^78\)

The Air Ministry lost the case on merit. The joint approach advocated by the Admiralty could meet the need for the type of operation envisaged by the seaborne/airborne concept. The island base strategy could not. Famously, however, the new aircraft carrier did not progress beyond the drawing board. In 1966 it was decided to cancel this ship, and to phase out the existing fleet of aircraft carriers in the 1970s. In future land-based aircraft would fulfil all of the strike, air-defence and reconnaissance roles east of Suez. In support of this the RAF was to receive 50 F-111 aircraft.\(^79\) This has sometimes been portrayed as a victory of the RAF’s vision over that of the navy. The reality is slightly different. It may be true that a rather unholy
alliance between the RAF and the Treasury helped to convince the Minister of Defence that aircraft carriers did not represent value for money.\textsuperscript{80} However, the decision to cancel plans for HMS Queen Elizabeth were not so much based on the belief that land-based aircraft could cater for all of the roles that this ship had been intended to fulfil. Rather, the belief was that land-based aircraft could fulfil such roles as were likely to remain in the 1970s.

The key decision of 1966 was not the cancellation of the aircraft carrier, it was the acceptance by the British government that, beyond a brief transitional period, Britain would no longer aspire to maintain the kind of robust, independent expeditionary capability that had been previously been envisaged. With commitments reduced, there would not be any requirement to conduct landings against sophisticated opposition beyond the range of land based aircraft and without the aid of allies. Britain would no longer seek to provide another country with military assistance unless that country provided the facilities to make such assistance effective in time.\textsuperscript{81} The full range of capabilities anticipated by the seaborne/airborne concept was no longer necessary. For a time it was hoped that a combination of air and sea transport supported by long-range, land based strike and reconnaissance aircraft would allow Britain to retain a useful, if limited, military capability east of Suez. Unfortunately continuing economic difficulties brought further cuts until in 1968 it was decided to withdraw almost all British forces from east of Suez and to re-focus on NATO tasks.\textsuperscript{82} Like the new carrier, the RAF’s F-111s were cancelled. Once again expeditionary warfare became a peripheral activity for the British armed forces. This was to remain the case until the end of the Cold War presented the armed forces with new challenges and new opportunities.
Unity is Strength? In retrospect the seaborne/airborne concept appears to have been well suited to British defence needs, as they were perceived in the early 1960s. The concept articulated an approach to expeditionary operations that emphasised the need to exploit the different capabilities of air and sea transported forces in order to develop a robust intervention capability able to cater for a wide range of circumstances. The concept was based on a recognition that political imperatives would impinge on military plans. Seaborne and airborne forces would need to be available at short notice and be able to operate without undue reliance on local base facilities or on host nation support. Given the potential of enemy forces, subversive activity or political circumstances to deny access, they would also need the ability to fight their way in, albeit not against the strongest opposition without the aid of allies. Operation Vantage illustrated the necessity for the kind of capabilities identified by the concept. Later plans and operations, such as intervention in Tanganyika in 1964 or the various plans to intervene in Zanzibar, also in 1964, further demonstrated the value of mobile and flexible forces able to respond effectively to unforeseen challenges. It was the mid-to-late 1960s before the amphibious and air transport capabilities that were required to support the seaborne/airborne reached maturity and the concept was been incorporated into a new Manual of Joint Warfare. Unfortunately by this time the policy that the concept had been designed to support had begun to change. This did not invalidate the logic of the seaborne/airborne concept, but it did make it appear less relevant to British defence needs.
Expeditionary operations were to remain out of vogue in British defence policy until the end of the Cold War prompted another change in strategic priorities. Once again the armed forces in general, and the navy in particular, sought to define a ‘new’ role for themselves providing flexible military options beyond Europe. At the strategic and operational levels there are obvious similarities between the principles that lay behind the seaborne concept and those articulated by the Royal Navy today. Both approaches focus on the need to maintain flexible forces to deal with unpredictable challenges. Both also stress the requirement for a joint approach to achieve a synergy between land, sea and air forces, and place an emphasis on maintaining specialist capabilities at high readiness. Both approaches also require significant investment in new equipment. Both the seaborne/airborne concept and Littoral Manoeuvre focus on the need to provide intervention in small and medium scale operations with an acceptance that large scale operations against sophisticated opposition will only be countenanced with the assistance of allies.

The basic arguments deployed in support of the modern Royal Navy’s plans for Maritime Force Projection are remarkably similar to those employed by a different generation of planners in the 1960s. The terminology has changed, but the ability of the navy to provide ‘maritime strike’ and ‘littoral manoeuvre’ through the medium of a balanced and therefore versatile maritime force including powerful new aircraft carriers and amphibious task groups lay at the heart of the Joint Services Seaborne Force concept. The basic attributes that enabled this approach also enable the navy’s current plans. Littoral Manoeuvre’s emphasis on creating a forward deployed, combat ready, self-sustaining capability able to operate without recourse to host nation support and focused on an assault echelon of up to a brigade is extremely
reminiscent of the older concept. At a tactical level the similarities appear less evident. Littoral Manoeuvre is founded upon an ability to exploit the potential of cutting-edge technology that was simply not available in the 1960s. In their modern senses network enabled capabilities, sea basing, over the horizon operations and ship to objective manoeuvre were not options forty years ago. It remains to be seen if they will become truly effective in the future. Nevertheless, modern tactical and technological developments serve mainly to enhance the basic manoeuvre and strike potential that maritime forces have always enjoyed and that the seaborne/airborne concept supported. In this sense the latest developments in the field of expeditionary warfare fit comfortably within a framework established almost half a century ago.

Perhaps the most innovative aspect of the seaborne/airborne concept was the emphasis that it placed on joint operations. This was reflected in the concept itself and in the institutional structures that resulted from it. Unfortunately it was not possible to eradicate the impact of single service priorities from the defence policy process. The seaborne/airborne concept and the focus on joint expeditionary warfare fostered much co-operation between the services. It also fostered intense rivalry, particularly between the navy and the RAF. Lord Carrington, First Lord of the Admiralty in the early 1960s, noted how bitter this quarrel became and suggested that ‘...a number of air marshals could hardly go to sleep at night without making sure that there wasn’t an admiral under the bed, and vice versa’. It would be naïve to assume that single-service priorities do not still influence defence policy. However, since the 1990s there has been an overt emphasis on promoting ‘jointery’ within the armed forces. This has been reflected in the creation of joint doctrine, joint organisations and joint institutions. One must hope that this time around the services will be able to overcome
their various rivalries and jealousies to make the twenty-first century descendants of the seaborne/airborne concept truly effective.


2. In the 1998 Strategic Defence Review the Minister of Defence, George Robertson, stated that ‘In the post Cold War world we must be prepared to go to the crisis, rather than have the crisis come to us’, Strategic Defence Review: Modern Forces for the Modern World, (London: HMSO, 1998).


5. British Maritime Doctrine, pp.204-207. The timeframe quoted in BR1806 is 2015 however, the latest online version of these documents identifies 2020 and beyond as the relevant timeframe for the Future Maritime Operational Concept. The Future Navy Paper, Future Maritime Operational Concept, and The Naval Strategic Plan
are all available online from RN Reference Site, http://www.rnreference.mod.uk/. Downloaded on 20 July 2005.


7. Future Maritime Operational Concept.

8. C4ISR refers to command, control, communications, computing, information, surveillance and reconnaissance.


13. ‘East of Suez’ was a rather vague cover-all term that encompassed the Indian Ocean littoral, including the Persian Gulf, and extended as far east as Hong Kong.

14. This heading was inspired by Anthony Nutting’s account of the Suez Crisis, No End of a Lesson. The Story of Suez, (London: Constable, 1967). Nutting resigned his position as Minister of State at the Foreign Office due to his opposition to government policy during the crisis.


17. British policy towards amphibious operations post-1945 was influenced by recent experience during the war. This implied a need for small-scale raiding from the outbreak of war and large scale operations at a later date once allied resources had been mobilised and enemy strength degraded. For further details see Ian Speller, *The Role of Amphibious Warfare in British Defence Policy, 1945-1956*, (Basingstoke: Palgrave, 2001).

18. Major-General J.L. Moulton, ‘Bases or Fighting Forces?’, in *Brassey’s Annual. The Armed Forces Year-Book, 1964* (London: William Clowes & Sons, 1964) p.149. Moulton had commanded No.3 Commando Brigade in the early 1950s and in 1957 became Chief of Amphibious Warfare. In this capacity he was instrumental in the development of the seaborne/airborne concept.

19. It had originally been intended to use the helicopters to land the marines of No. 45 Commando at Raswa to the south of Port Said where they would secure vital bridges required for the breakout down the canal. This was cancelled due to a fear about the vulnerability of helicopters operating in this novel role flying into a defended area. In the event, French parachute forces secured the bridges after a daring low-level drop. Vice-Admiral Power had suggested landing No.45 Commando by helicopter in support of the British airborne forces landed at Gamil
airfield on 5 November, raising the possibility that, thus reinforced, the paratroops could have taken Port Said a day before the seaborne landing scheduled for the following morning. The idea was rejected. Churchill Archives Centre, Cambridge: MANP, Memoirs of Admiral Sir Manley Power, p.102.

20. British forces were withdrawn from Egypt under the terms of the 1954 Anglo-Egyptian Treaty.

21. For example, see NA: DEFE 5/59, COS (55) 176, 25 July 1955.


27. Dockrill, Britain’s Retreat, p.28.


31. The commando ships were initially equipped with Whirlwind helicopters that could only lift a very limited load. These were later replaced with the far more capable Wessex.


34. 23 Britannias, 11 Comets, 48 Hastings, 28 Beverleys, 27 Twin Pioneers, four Pembroke, 26 Whirlwinds, ten Sycamores and 18 Belvederes. The Whirlwind, Sycamore and Belvedere were helicopters. Ibid.


36. Wynn, *Forged in War*, p.121.

37. Ibid., p.128.


39. NA: DEFE 5/87, COS (58) 283, 12 Dec 1958. Amphibious Warfare Headquarters was an inter-service headquarters based in London. Under the command of the Chief of Amphibious Warfare it was responsible for the development of policy and new techniques pertaining to amphibious warfare. For further details see Speller, *The Role of Amphibious Warfare*.

40. The Land/Air Warfare Committee had responsibility for formulating joint policy on all matters relating to land/air warfare and was composed by the Vice Chief of the Imperial General Staff, the Vice Chief of the Air Staff, other less senior representatives from the War Office and the Air Ministry and a representative from the Admiralty.

41. NA: DEFE 5/110, COS (61) 12, 13 Jan 1961.


44. COS (61) 180.

45. Ibid.

46. The seaborne tank force consisted of ageing Royal Navy LSTs from the Amphibious Warfare Squadron. These vessels had had air conditioning fitted prior to deployment to the Middle East in June 1960. Unfortunately it was not possible to keep two such vessels available permanently. When two RN ships could not be made available an LST operated by the army and manned by civilian crew was employed. Army LSTs, while the same basic design as the RN LSTs, did not have air conditioning.


49. Ibid.


51. DEFE 2/2074, ch. 10.

52. In January 1964 marines from No.45 Commando were landed by helicopters from the aircraft carrier HMS *Centaur* directly at a barracks held by mutinous Tanganyikan soldiers. Supported by gunfire from a destroyer offshore they were

53. During Operation *Vantage* in 1961 it had originally been intended to land marines from HMS *Bulwark* inland at a defensive feature, the Multla ridge rather than at the airfield that they actually deployed to. This plan was abandoned due to a fear that Kuwaiti soldiers already stationed at the ridge might mistake them for Iraqis and open fire.

54. DEFE 2/2074.


57. NA: AIR 9/2135, brief prepared for the Chief of the Air Staff prior to discussion by the Chiefs of Staff Committee of the *Future Role of the Navy* (COS (56) 280) in 1956.


60. No. 8 and No. 208 Squadrons re-deployed from Aden and Nairobi respectively.


64. There were some ways around this problem. Half a squadron of tanks were maintained in Kuwait for use by British forces should the need arise. These tanks were owned by the Kuwaitis, reducing the political problem associated with the permanent presence of British forces on Kuwaiti soil.


66. Political restrictions on Canberra photo-reconnaissance flights over Iraqi territory made it difficult to decide subsequently whether any attack had been planned. Certainly no compelling evidence was found to support the idea that an attack had been imminent.

68. COS (61) 378.


70. WO 32/20721, pp. 8-13 + 29.


72. HMS Bulwark had been ordered to proceed from Karachi to Kuwait on 28 June. HMS Striker, in company with the headquarters ship HMS Meon, was ordered to Kuwait the following day. All of the vessels were instructed to remain out of sight of land, available to act at short notice should the need arise. Bulwark was based at Singapore and was not permanently assigned to Vantage. It was at Karachi en route to the Gulf to conduct hot weather trials. Its presence in the region in the immediate aftermath of Kuwaiti independence may not have been entirely coincidental although, usefully, it could be portrayed as such.

73. COS (61) 378.


76. For details of the island strategy, sometimes referred to as the ‘island stance’, see NA: AIR 8/2354.

77. NA: AIR 20/11423, report by Vice Admiral Frewen (Vice Chief of the Naval Staff) sent to Peter Thorneycroft (Minister of Defence) 9 Jan 1963.

78. The second ship would have been called HMS *Duke of Edinburgh*. As these names were not made public the carrier was known by the designation CVA-01, it is referred to as such in most of the literature. NA: ADM 1/29044.

79. The F-111 was chosen to replace the RAF’s ageing Canberra bombers after the British designed TSR2 was cancelled in April 1965.


83. ‘Unity is Strength’ is the motto of the UK Joint Services Command and Staff College, established in 1997 after the amalgamation of the three separate staff colleges.

85. The modern Royal Navy describes these attributes as: access, mobility, versatility, sustained reach, resilience, lift capacity, poise and leverage. *British Maritime Doctrine*, pp. 28-34.