

Coalition ships at Mina  
Salman for Southern  
Watch.

# The Limits of Seapower:

## Joint Warfare and Unity of Conflict

By COLIN S. GRAY

The theme of this article is hardly a new one; indeed it was well aired in the interwar years by Major-General Sir Frederick Maurice when he wrote:

*If, as the Field Service Regulations say, the prime object of the Army in war is "in cooperation with the Navy and the Air Force, to break down the resistance of the enemy's armed force in furtherance of the approved plan of campaign," it follows that the Army can be most effectively employed and our military power as a whole can be most effectively exercised when our Army is within comparatively easy reach of the coast. Therefore in choosing the object of a war, when we have any liberty of choice, that particular feature of our power must be ever in our minds, and we should be very chary of going far inland unless circumstances leave us no option in the matter.<sup>1</sup>*

Those words must have made particularly poignant reading in the last weeks of May 1940. Stated as a question, my theme

reappears as the challenge, "should Britain's strategy and forces have a maritime 'tilt?'"

It is politically correct, as well as strategically prudent, to observe that today the prevention, and if needs be the conduct, of war is both invariably *joint* (multiservice) and typically *combined* (multinational) in character. So much is true and even obvious. Rather less obvious is what this joint force truth implies for an ever more resource-constrained British military establishment. As always, the first challenge is to identify the right question.

The question is not how best to shape British policy, strategy, and military capabilities for the distinctly transitional conditions of the 1990s, essential though that is for immediate political cover. Rather it is how to shape policy, strategy, and military capabilities so that they both yield the necessary effect for the transitional period of the mid-1990s and provide a legacy for the future. Designs effected in this transitional period should be such as to provide a sound basis upon which the British strategic contribution to the next great balance-of-power struggle can be founded.

U.S. Navy (April Hatton)

History does not repeat itself, at least not in detail. Nonetheless, Britain in the mid-1990s, seen strategically, is more than casually reminiscent of Britain in the Locarno era of the mid-1920s. Often in defense debates assumptions about the relevant time dimension are an underrecognized factor molding attitudes and opinions. Is the problem for the defense planner one of the military serving foreign policy in the mid-1990s, or is it preservation of the ability to respond tolerably promptly to the strategic consequences of this period? For a related thought, I suggest that the challenge today is not to so reform NATO that it becomes

the defense planner must contend with five geographically distinctive dimensions of war

well crafted to cope with the unsettled conditions of the mid-1990s. The Alliance is far too important to risk expending its scarce political capital all but frivolously on Balkan quarrels. NATO should be reformed when we know how to reform it, which is to say when we can discern the shape of the return of threats to vital security interests.<sup>2</sup> The task is to keep the NATO framework sufficiently alive that it can be purposefully revived when bad times return, as surely they will.

#### Puzzles for Peace with Security

The strategic history of the 20<sup>th</sup> century can be deployed to illustrate many propositions, but one of the more striking contrasts is that between the complexity of the defense planner's world in the 1890s and today. A century ago the strategic world was two-dimensional, to ignore the faint glimmer of more extensive possibilities: land and the surface of the sea. By way of sharp contrast, the defense planner must contend with five geographically distinctive dimensions of war, as well as with what could amount to a nuclear "wild card" that could trump otherwise successful non-nuclear performance. Today, therefore, the designs of the defense planner must accommodate the possibilities of war on land, at sea, in the air, in space, and on the electro-magnetic spectrum. The need that

Julian Corbett recognized and underlined for war at sea and on land to be coordinated by preponderantly maritime or continental strategy<sup>3</sup> was frequently honored in the breach. How much more difficult it is today to coordinate defense plans for the expanded dimensions of war, and also to understand just what military prowess in one geographical medium implies for combat power elsewhere and for strategic effectiveness overall.

Contemporary seapower, for example, has so far coopted more maritime-relevant airpower that it is a matter of choice to distinguish where the one ends and the other begins. Slowly but inexorably seapower is recognizing also that it must coopt spacepower if it is to be fighting fit on the frontier of information-age warfare.<sup>4</sup> It is difficult to assess the relative military effectiveness, and hence the strategic potency, of seapower. Navies both fuse with air and space forces, as they always have done with modest-size amphibious assault forces, and are able to perform traditional naval tasks much more effectively because of the enabling action taken, say, in an air—and one day a space—campaign.

Defense analysis that declines to assume an end-to-end character and that has a noticeably truncated view of the sources of military effectiveness can fail to comprehend the joint nature of modern war. Sharp-end analysis, for example, of the strategic bombing campaigns conducted in Europe and Western Pacific during World War II, or of the air campaign against Iraq in 1991, can neglect to notice that those generally land-based air campaigns were, in effect, conducted as extensions of superior seapower.

Landpower, seapower, airpower, and spacepower are distinguishable, though the potency of each typically depends on the performance of one or more of the others; each (with the exception of spacepower) embraces well-established activities that would appear to belong more properly to another (for example, a navy with its own small army and air force); and each contributes more or less strategic effectiveness overall to the outcome of the authentically unified phenomena of deterrence and war. It is possible to recognize the uncertainty of margins between, say, seapower and airpower, or landpower and airpower, as well as the synergisms for improved performance that exist among geographically

---

Colin S. Gray is Director, Centre for Security Studies, and Professor of International Politics at the University of Hull. His many books include *The Leverage of Sea Power: The Strategic Advantage of Navies in War*.

specialized forces. It is also important, however, that appreciation of the scope for strategic choice should not be lost amidst wise-sounding military ecumenism.

Uncertain margins recognized, the synergism of jointness granted, there are possibilities for choice among geostrategic emphases that remain. The fact, for example, that warfare ultimately must have landward reference, and that navies since 1940–41 cannot perform their tasks absent a tolerably benign air environment (cover for their overhead flank), most emphatically does not mean that seapower or maritime strategy are bereft of identity or meaning. Even in the most challenging case for the tidy-minded theorist, that of superpower Cold War wherein land-based intercontinental ballistic missiles

each of the dimensions  
of war enhances the  
performance of the other

could threaten to function as long-range artillery menacing barrage attack against naval task forces, and sea-launched missiles could threaten to neutralize the most continental of target arrays, still it made sense to distinguish maritime from continental strategies.

J.F.C. Fuller insisted that of the principal characteristics of a weapon, its range of effective action was by far the most significant.<sup>5</sup> To discuss the limitations and advantages of seapower, it is essential to acknowledge first that both landpower and seapower can find the reach occasionally to grasp each other's center of gravity ashore and afloat. Second, there can be no evasion of the complication posed by the emergence of a mature airpower that truly has a global range (though not for a sustained campaign, as contrasted with a raid or two). It is usual to compare maritime with continental strategies, and similarly to think of national strategic-cultural orientation in terms of that binary choice. In the view of some commentators, however, a third choice has finally appeared. In early 1991 banners proclaiming that "Douhet was right!" were hung from some U.S. Air Force buildings. To cite the immortal words of the principal author of the air campaign in the Gulf War, "The world has just witnessed a new kind of warfare—hyperwar. It has seen airpower become dominant."<sup>6</sup>

In a slightly less triumphalist view, Edward Luttwak proclaimed that "airpower had finally done it."<sup>7</sup> Alternatively, to quote a leading historian and theorist, "airpower

execution caught up with airpower theory, as witnessed by the conduct and results of the Gulf War."<sup>8</sup> The theorists of airpower in America have continued to seek vindication of service independence in unmistakable evidence of the capacity to achieve decision in war by independent action in and from the air. This somewhat curious and strategically forlorn ambition may not be unique to air forces, but certainly it is strongly characteristic of them. The fact is that airpower is important in virtually all conflicts and very occasionally just might be a military executive agent for decisive success. More to the point, perhaps, airpower's potency over an increasing range of operational contexts (not just the desert or the sea on a clear day) implies a growing ability to function as the key force in either deterrence or defense,<sup>9</sup> the key force to which land, sea, and space elements strictly have only adjunct status. Yet the limitations and advantages of seapower find ample parallels in the actuality and even the potential of airpower. For example, Rear Admiral J.C. Wylie may not be entirely correct in writing that "the ultimate deterrent in war is the man on the scene with a gun,"<sup>10</sup> but one knows what he means and can appreciate what speed, altitude, and distance can mean for local control.

Politically, strategically, operationally, and tactically, each of the geographically distinctive dimensions of war enhances the performance of the other. Indeed, the strategic challenge often is to find ways to transmute success in one environment into good enough performance in one or more of the others. As Donald Kagan observed in the magisterial conclusion to his commentary on the Peloponnesian War,

... [the] war was one of those classic confrontations between a great landpower and a great naval power. Each entered the war hoping and expecting to keep its own element and to win a victory in a way that conformed to its strength at a relatively low cost. Within a few years events showed that victory would not be possible that way for either side. To win, each had to acquire the capacity to fight and succeed on the other's favorite domain.<sup>11</sup>

The virtues of jointness suggested by fashion and good manners as well as common sense can, however, be overstated. It is

true that because the seat of political purpose must rest on land, seapower, airpower, and spacepower typically will play enabling roles, which is to say roles that enable conflict to be concluded successfully on land. Contrary to the apparent implication of that point, however, advantage at sea, in the air, or in space quite literally may provide a decisive edge in war overall.

To grasp the joint nature of warfare is all very well, but general truths can be less than compelling when applied to particular historical choices in defense policy and planning. It is one thing to assert the essential unity of deterrence and war and the many synergisms that work among their different dimensions. It is quite another to know what that should mean for actual historical choices.<sup>12</sup> Not all policymakers and defense planners find much in Clausewitz's conclusion:

*Theory cannot equip the mind with formulas for solving problems, nor can it mark the narrow path on which the sole solution is supposed to lie by planting a hedge of principles on either side. But it can give the mind insight into the great mass of phenomena and of their relationships, then leave it free to rise into the higher realms of action.*<sup>13</sup>

Typical scholarly evasion, one might think. The scholar explains the structure of the problem and thereby helps educate the minds of those who must make discrete choices on policy, forces, or taking action. The great man was correct, of course, though not in a way that busy officials find useful. The rather bounded utility of Clausewitz's reasoning helps explain the longstanding popularity of the more positivist view of theorizing represented by Jomini,<sup>14</sup> a tradition continued by Mahan,<sup>15</sup> and—in our time—perpetuated by “stability theorists” from the intellectual stable of the RAND Corporation in the 1950s and after.<sup>16</sup>

The sheer complexity of the multidimensionality of warfare poses puzzles for peace and security. It may be true that the five dimensions of war function synergistically to enhance overall strategic effectiveness, but is it also useful? If everything enhances everything else, what should we buy? A helpful guide through what otherwise can be an impenetrable thicket of ideas on joint and combined operations lies in a sensible approach to a long familiar concept.

## Balanced Forces

That familiar concept contained in the credo of politically correct modern strategic thinking is balanced forces. “I believe in jointness, and in balanced forces that sometimes will be combined,” and so on and so forth. Rarely is it evident what is meant, let alone implied, by endorsing balanced forces. It sounds very much like a politician's concept. Few people are inclined or willing to stand up for *unbalanced* forces; indeed, if you are sufficiently careful in your lack of precision, you will never need to do so. In common with stability, the notion of balance can mean virtually whatever you wish it to mean. Since the superpowers negotiated off and on for over twenty years in SALT, then START, without benefit of an agreement on what was stabilizing and what was not,<sup>17</sup> perhaps the indeterminacy of balanced forces should not be cause for surprise. I will attempt to advance the argument by suggesting five non-exclusive meanings for the concept of balanced forces.

First, services need to be balanced for their external strategic integrity rather than for their internal beauty. The latter is not to be despised, but it stands to external integrity much as tactical prowess stands to strategic effect. Whatever their composition, the services exist primarily as more or less complex instruments of the grand strategy of the state; they are not funded to function as a well-oiled machine as an end in itself. Military power, therefore, should be balanced against best estimates of a nation's need for it. It is not for nothing that *mass*, or concentration, is cited as a principle of war: numbers matter. A naval establishment may be wonderfully balanced among its constituent parts—in a happily clockwork strategic universe—but there may be too little of it to deter, and if needs be to fight, the Queen's enemies.

Second, and to be more respectful of a clockwork universe, the services need to be balanced as a military machine. Land-based elements that conduct an air campaign may require the supply of fuel and ordnance by sea; naval forces operating far beyond ready sustenance from shore bases require the assistance of a fleet train,<sup>18</sup> et al. Whatever the mix chosen among environmentally specialized forces, whatever the trends in joint doctrine and combined operations, the military must *work* in combat if it is to serve national

or coalition security well enough. It is essential, however, that the understandable fascination in peacetime with the internal integrity of the services, so that they can work well tactically and operationally, should not obscure unduly their strategic function.

Third, the services need to be balanced against the calculated demands that could be placed on them across a more or less extensive range of conflict scenarios. This, most

armed forces should be balanced expediently for comfort and convenience in a strategic culture

profoundly, is a matter for judgment in foreign policy. It is not for the armed forces to try to decide how intensely the nation may be possibly engaged here or there in the future. Nonetheless, the services, suitably joint in orientation

and hopefully combined usefully with the forces of other polities, have to be developed so as to be balanced for deterrence or defense vis-à-vis several kinds of conflicts, most probably in diverse geographical contexts. The spectrum of conflict extends from unpleasantness that may attend humanitarian intervention, through local and regional quarrels, up to and including the appearance of yet another great balance-of-power struggle.

Fourth, the services should be balanced for tolerable fit with unique national strategic needs and preferences, as well to exploit national strengths and provide suitable cover for weaknesses. In other words, consistent with the generation of an adequate strategic effectiveness in support of overall foreign policy, British and other armed forces should be balanced expediently for comfort and convenience in a strategic culture: they should reflect a nation's geostrategic circumstances, traditions, habits of mind, and effective practices.<sup>19</sup> That may sound unduly conservative, even romantic, or both; really it is just prudent. One does not have to endorse, for example, a particular view of British strategic culture that Corbett derived significantly from studying the Seven Years War,<sup>20</sup> or that Basil Liddell Hart adopted in repudiating Britain's 1916–18<sup>21</sup> vintage continental role, in order to find value in the concept of a British way of war. Similarly, the exaggeration of the maritime dimension in British policy and grand strategy by Corbett and Liddell Hart should not blind us to the exaggeration of the continental dimension that one finds even in the

analyses of such distinguished scholars as Paul Kennedy and Michael Howard.<sup>22</sup> Even if we do not theorize about this century, assuredly we theorize from this century. This century has, of course, underlined the periodically appalling scale of the continental dimension to Britain's security problems.

Finally, armed forces need to be balanced by strategic reasoning rather than arithmetically. The principle of balance could suggest scales that measure equal weights. The nation should not invest in armed forces that are neatly balanced among themselves either in terms of resource inputs or even performance outputs. Who cares whether service (functional) budgets are arithmetically equal any more than whether or not British landpower, seapower, and airpower all generate like amounts of combat power? Such standards would be absurd. The armed forces need balance to meet the strategic demands of those conflicts that foreign policy insists they enter.

I have not suggested here that Britain's services should be so balanced for comfortable fit with dominant national strategic culture that they become massively specialized (over-specialized) for operations in and from one geographical environment only. Having said that, I must add that what might be called *full service* armies, navies, and air forces can provide an impressive flexibility in their ability to influence events in other environments. Often there are alternative military ways of performing tasks for foreign policy. Landpower, seapower, airpower, and one day spacepower are no more clearly mutually distinctive than are land powers, sea powers, or putatively air powers or space powers. Most polities have some land, sea, and airpower. The questions are how much of each, and is there a dominant geostrategic orientation for each?

It is useful to descend from the great abstractions to include two significant caveats. First, grand strategy, no matter how valid at its own elevated level of analysis, always is vulnerable to embarrassment in particular historical cases. Events that could produce conflicts in which Britain would decide it must join in some capacity would be no more random than pertinent foreign policy decisions. But the future can only be anticipated by classes of possibilities; it cannot be



HMS Gloucester alongside USS Niagara Falls during Desert Storm.

U.S. Navy (Rob Clare)



HMS Invincible during NATO exercise.

U.S. Navy (Raymond H. Turner II)



Royal Navy Harrier.

U.S. Navy (John Bouvia)

predicted in detail. One can always point to a truly exceptional conflict that might generate

strategic demands the nation could meet only by monumentally adaptive military practices. (One particularly clear example is the scale and duration of Britain's continental commitment in The Great War).<sup>23</sup> If so much is granted, still the nation should not, indeed politically could not, balance preparations to fit the emergence of what could amount to a truly *super* threat.<sup>24</sup>

The second caveat is that just because one identifies possible conflicts of interest to Britain, and just because competent military performance in those conflicts would require joint operations of a most testing kind, it does not follow necessarily that Britain either needs to intervene or would need to intervene with decisively effective *British* forces in all environments. These thoughts bring us to the subject that can be deferred no longer—policy guidance for defense planning.

### The Perils of Planning

I am enough of a positivist to be suspicious when I read that the *leitmotiv* for planning is the need to cope with the unexpected or manage uncertainty. It used to be said that the coronation of uncertainty as a strategic principle governing NATO's concept of flexible response was all too appropriate, given the confusion in our minds. If our response was unpredictable even to us, how much more uncertain must it seem to Soviet statesmen? It is very well to speak seemingly wisely and prudently about preparing for the unexpected, but what does, or should, that mean in terms that could lend themselves pragmatically to assist the defense planner? Where are the boundaries of the unexpected: an asteroid from space, a nuclear-armed Zhirinovsky insecurely in command of the Russian ship of state, a United States that decides it has done its duty often enough in this century for the balance of power and world order?

There is a wide menu of options for defense planning; there is probably a methodology to suit most tastes.<sup>25</sup> But planning methodologies lack a quality that is key to the purposeful integrity of the enterprise: namely, political guidance expressing foreign policy judgment has to be provided as an input for defense planning. Defense planning does not have integrity unto itself. There is no correct way to conduct defense policy and force planning, though the positivist defense rationalist in this writer persists, against the historical evidence, in believing that there are better as contrasted with worse ways for defense planners to proceed.

Field Marshall Sir Nigel Bagnall observed that, “over the centuries identifying a nation’s future strategic priorities has proved to be a very imprecise art, and as a result peacetime force structures have seldom proved relevant when put to the test of war.”<sup>26</sup> This a harsh judgment, yet probably correct and

there is no correct way to  
conduct force planning

certainly well worth worrying about. There is no elixir that a defense planner can imbibe that will allow him or her to distinguish the fanciful from the real future. Nonetheless, it is possible to offer some general thoughts that approximate in spirit, at least, what Clausewitz identified as the character and purpose of theory.

*Theory exists so that one need not start afresh each time sorting out the material and plowing through it, but will find it ready to hand and in good order. It is meant to educate the mind of the future commander or, more accurately, to guide him in his self-education, not to accompany him to the battlefield.*<sup>27</sup>

First, an approach suitable for dealing with the unexpected or uncertainty excludes foolish and impracticable pursuits of surprise avoidance. The future is full of surprises, some pleasant like the collapse of the Soviet empire and some unpleasant like the persistent violence of intra-Balkan hatreds, most of which carry little if any obvious meaning for British defense policy. However, although we cannot plan against surprise, we can plan against many of the worst of predictable surprise effects.<sup>28</sup> For example, the precise identity and timing of a modestly scaled but possibly not modestly armed ballistic missile threat to British forces or Britain itself cannot be predicted; we will be surprised in detail. Nonetheless, we can prepare prudently and

effectively to neutralize the effects of such surprise. The forms that conventional deterrence could assume include threats to take both offensive and direct defensive action.

Though history is inconveniently more than cyclical but less than arrow-like,<sup>29</sup> still a great deal about the future that should interest defense planners is identifiable in general terms. With a suitable bow to the fashionable chaos theory that alerts us to possible non-linearity in events,<sup>30</sup> the continuities in the conditions that shape strategy and statecraft are impressive and worth recalling. For the leading example, geography in all its aspects and implications for policy, as well as culture and the preferences it teaches and expresses, mean that planners and their political masters do not confront a *tabula rasa* when they wonder what the late 1990s may bring. It is instructive to identify what is known and unknown in useful detail in order to determine what information is available for planning. Needless to say, perhaps, you will be aware that it may be an *unknown* unknown that poses the most severe challenge. Nuclear planning was often troubled by the discovery of hitherto unknown or underappreciated weapon effects. Defense planners cannot know exactly what will be demanded of the military or when; but they should have a reasonable idea concerning the why, the where, the whom, and, even in general but still useful terms, the kind of what.

Second, it so happens that we do know important things about the security environment of the future. For example, bad times always return; perhaps the 1990s will disprove this dictum, but the smart money is on the continuing validity of the lessons from the better part of three millennia. Also, we know that the purportedly novel primacy of issues of economic and environmental (et al.) security over traditional areas of security almost surely reflects the confusion of an extraordinary, temporary period, for some permanent sea change in security. Of necessity, military power is built on economic power, but at any given historical juncture, military power will come up trumps: guns outrank fat purses.

Third, a British policymaker or defense planner cannot know precisely when, where, or by whom British interests will be in peril.

revolutions in military affairs  
are never precisely bounded

But, following as much of Sun Tzu's counsel as should prove practicable, he can know himself and his own society in advance of certain knowledge of the enemy.<sup>31</sup> He can specify the hierarchy of national interests—from those of a *survival* down to an *other* category—that, in descending order, are more and then less likely to require military support. It is interesting but not crucial for the defense planner to acquire an improved understanding of the unfolding character of the global security environment. The crucial question is what this unfolding character means for Britain. A national interest discriminator has to be applied by the makers of foreign policy.

Fourth, Britain remains very much a maritime nation. The international trade on which the prosperity of its industrial civilization depends is overwhelmingly, as it has always been, maritime international trade. For heavy or bulky goods, Mahan remains authoritative in his 1890 judgment that “both travel and traffic by water have always been easier and cheaper than by land.”<sup>32</sup> Married to the continuity of the seas and oceans and the continuing comparative advantage of sea transport in ton-mile costs, Britain's insular geostrategic condition all but ensures the necessity of a maritime framework for its foreign policy. Unless allies are logistically competent and accommodating, or the mission has the character of a special operation (which is to say it is very small in scale, brief, and stealthy), the center of gravity for British strategic effectiveness has to remain maritime.

Fifth, whatever statesmen may prefer by way of policy logic in guidance for their defense planners, there is, *après* Clausewitz, a grammar to military affairs that can and should impose itself on defense plans.<sup>33</sup> For example, if Luttwak was correct in his judgment that “airpower had finally done it” in the Gulf in 1991, what if anything does that imply for the relative weight of investment that airpower merits in our defense future? Although it is unwise to draw sweeping conclusions and to rewrite doctrine on the basis of one campaign that may or may not have lessons of wider validity, surely it would be unwise to ignore relationships visible in the latest active passage of arms on a large scale.

Because every war is waged in unique conditions, it does not follow that its military meaning is utterly distinctive.

The joint and combined warfare stories evolve. Defense planners need to monitor evidence and argument concerning the relative combat prowess and significance of the different dimensions of war and the different components to each dimension. A difficulty with revolutions in military affairs is that they are never historically precisely bounded, nor are they universal in their authority. Consider the longstanding debate over the survivability of surface ships.<sup>34</sup> Strategic, operational, and tactical contexts are everything. The tactical relationship between surface ships and their foes must alter with the political identities of adversaries (whose surface ships and whose weapons menace them?) and the highly variable geography of potential combat. Similarly, debate over the future of *heavy* land forces needs to be informed by awareness of trends in net tactical advantage as between armored fighting vehicles and their enemies (anti-tank guns, helicopters, infantry anti-tank missile systems, mines, and new unconventional weapons). But a general trend that plainly leans to the tank's disadvantage may well mean little in a particular place, at a particular time, against a particular enemy not well equipped to neutralize one's tanks and armored personnel carriers.

The strategic course of this century points out that defense planning is a perilous enterprise. More often than not, those providing defense guidance and planners themselves were significantly in error. This is not the place to explore why that should be, but it is the place to register the fact. Why were Field Marshal von Moltke (the elder) and Lord Kitchener so lonely in their prescience about the probable duration of the next European war? A systematic study of pre-war expectations would be a worthwhile enterprise—though probably it would reveal no common methodology for success, rather the statistical point that someone had to get it right!

#### Limitations and Advantages

Those who engage in public debate over strategy will be painfully aware of the significance of context (*viz.*, notional-theoretical,

services perform in joint and combined contexts precisely to offset limitations

political, strategic, operational, tactical) for authority of argument. Good ideas can instantly become bad ideas if they are shifted from a general concept of operations to alleged operational propositions. For example, would you charge far into the Norwegian Sea with irreplaceable carriers against a Cold War-era Soviet foe with its defenses unattired and fully prepared—in short, undertake a maritime Charge of the Light Brigade?<sup>35</sup> To win the battle of the context for debate most probably is to win the debate itself.

Each kind of geographically oriented force has distinctive limitations and advantages, albeit limitations and advantages of varying weight for different conflicts. The limitations of seapower are:

- ▼ essentially an enabling agent
- ▼ difficulty gripping continental foes
- ▼ strategically slow in operation
- ▼ tactically relatively slow
- ▼ high expense of platforms means few platforms, modest-scale distribution of value
- ▼ weather.

By contrast, the advantages granted by superior seapower are:

- ▼ flexibility, mobility, adaptability
- ▼ endurance on station
- ▼ enables global strategy
- ▼ noncommitting continuous presence
- ▼ places strategic frontier close to enemy's coastline
- ▼ provides means to bind together global coalition, provides interior lines of communication.

For the sake of comparison, similar lists can be developed for other forms of military power. Airpower includes the following disadvantages:

- ▼ gravity, expense to offset
- ▼ sophistication, expense, low numbers
- ▼ weather
- ▼ brevity of presence
- ▼ altitude—distance from the ultimate seat of action
- ▼ political boundaries in the air.

The advantages of airpower are:

- ▼ ubiquity, a global medium
- ▼ overhead, encompassing, *surrounding*, comprehensive flank, *high ground*
- ▼ range and reach
- ▼ speed of passage

- ▼ geographically unrestricted routing
- ▼ superior observation
- ▼ flexibility in concentration.

In thinking about the limitations and advantages which pertain in general terms to each form of military power, it can be instructive to attempt a four-way analysis. Specifically, land, sea, air, space, and nuclear forces can be analyzed in terms of what each capability can uniquely perform, cannot perform at all, tends to perform well, and tends to perform poorly. The services plan to perform in joint and combined contexts precisely to offset limitations. For Britain, if it is necessary to choose where the balance should be among geographically focused dimensions of war, the limits of seapower are more bearable, and culturally and strategically more tolerable, than would be the limits of landpower or airpower as the leading edge of military prowess.

This analysis has had as its center of gravity the issue of seapower in relation to landpower and airpower for Britain. The subject here is *not* the strategic utility of seapower versus landpower versus airpower versus spacepower, at some abstract, free-floating level of strategic assay. And, finally, the argument has avoided contention over sea control vis-à-vis power projection in good part because there is not much worthy of discussion in that realm. Jan Breemer is wrong. Naval strategy is not “dead,”<sup>36</sup> rather it is resting pending the next call to action when bad times return to world politics, as surely they will. JFQ

#### NOTES

<sup>1</sup> Frederick Maurice, *British Strategy: A Study of the Application of the Principles of War* (London: Constable, 1927), pp. 85–86.

<sup>2</sup> Charles L. Glaser, “Why NATO Is Still Best: Future Security Arrangements for Europe,” *International Security*, vol. 18, no. 1 (Summer 1993), pp. 5–50, generally is sound.

<sup>3</sup> Julian S. Corbett, *Some Principles of Maritime Strategy* (Annapolis: Naval Policy Institute, 1988; first published 1911).

<sup>4</sup> A thesis which I developed in “Vision for Naval Space Strategy,” *U.S. Naval Institute Proceedings*, vol. 120, no. 1 (January 1994), pp. 63–68.

<sup>5</sup> An argument advanced in J.F.C. Fuller, *Armament and History: A Study of the Influence of Armament on History from the Dawn of Classical Warfare to the Second World War* (London: Eyre and Spottiswoode, 1946).

<sup>6</sup> John A. Warden III, "Employing Air Power in the Twenty-First Century," in Richard H. Shultz, Jr., and Robert L. Pfaltzgraff, Jr., editors, *The Future of Air Power in the Aftermath of the Gulf War* (Maxwell Air Force Base, Ala.: Air University Press, July 1992), p. 81.

<sup>7</sup> Edward N. Luttwak, "Air Power in U.S. Military Strategy," in *ibid.*, p. 19.

<sup>8</sup> Richard P. Hallion, *Storm Over Iraq: Air Power and the Gulf War* (Washington: Smithsonian Institution, 1992), p. 7.

<sup>9</sup> John A. Warden III, *The Air Campaign: Planning for Combat* (Washington: Pergamon-Brassey's, 1989), pp. 6–9, 123–27.

<sup>10</sup> J.C. Wylie, *Military Strategy: A General Theory of Power Control* (Annapolis: Naval Institute Press, 1989; first published 1967), p. 72. Emphasis in original.

<sup>11</sup> Donald Kagan, *The Fall of the Athenian Empire* (Ithaca, N.Y.: Cornell University Press, 1987), p. 423.

<sup>12</sup> See Michael D. Hobkirk, *Land, Sea or Air? Military Priorities, Historical Choices* (New York: St. Martin's Press, 1992).

<sup>13</sup> Carl von Clausewitz, *On War*, edited and translated by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976; first published 1832), p. 578.

<sup>14</sup> Baron Antoine Henri de Jomini, *The Art of War* (London: Greenhill Books, 1992; first published in 1862). Michael I. Handel, *Masters of War: Sun Tzu, Clausewitz and Jomini* (London: Frank Cass, 1992), is useful.

<sup>15</sup> Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1660–1783* (London: Methuen, 1965; first published 1890).

<sup>16</sup> See Marc Trachtenberg, *History and Strategy* (Princeton: Princeton University Press, 1991), chapter 1; and Colin S. Gray, "The Holistic Strategist," *Global Affairs*, vol. 7, no. 1 (Winter 1992), pp. 171–82.

<sup>17</sup> "While negotiating START in 1987–91, the parties were not operating on any mutual understanding of the meaning of 'stability' . . . only at the final stages of talks did the Americans and Soviets arrive at a common definition of strategic stability, albeit a general and vague one." Alexei G.A. Arbatov, "We Could Have Done Better," *The Bulletin of Atomic Scientists*, vol. 47 (November 1991), p. 37.

<sup>18</sup> See Geoffrey Marcus, *Quiberon Bay: The Campaign in Home Waters, 1759* (London: Hollis and Carter, 1960), p. 66.

<sup>19</sup> See, for example, David French, *The British Way in Warfare, 1688–2000* (London: Unwin, Hyman, 1990). A more skeptical view is A.D. Harvey, *Collision of Empires: Britain in Three World Wars, 1793–1945* (London: Hambledon Press, 1992).

<sup>20</sup> Julian S. Corbett, *England in the Seven Years' War: A Study in Combined Strategy*, 2 vols. (London: Longmans, Green, 1907); and Corbett, *Some Principles of Maritime Strategy* (New York: AMS, 1972).

<sup>21</sup> Basil Liddell Hart, *The British Way in Warfare* (London: Faber and Faber, 1932), chapter 1, and *History of the First World War* (London: Pan Books, 1972).

<sup>22</sup> Paul M. Kennedy, *The Rise and Fall of British Naval Mastery* (New York: Charles Scribner's Sons, 1976); and Michael Howard, "The British Way in Warfare: A Reappraisal," in *The Causes of Wars and Other Essays* (London: Counterpoint, 1983), pp. 189–207. Kennedy more recently noted that "this further swing in the historiography [towards the continental aspect of British grand

strategy], if continued, suggests that the danger may soon, or already, be that scholars become too dismissive of the influence of sea power upon history and thus explain away the popularity of Mahan's ideas as being simply due to the heady expectations of that 'age of navalism' which occurred in the two decades prior to the First World War." "The Influence and the Limitations of Sea Power," *The International History Review*, vol. 10, no. 1 (February 1988), p. 7.

<sup>23</sup> See Michael Howard, *The Continental Commitment: The Dilemma of British Defence Policy in the Era of the Two World Wars* (London: Temple Smith, 1972), especially p. 57.

<sup>24</sup> This thought is pursued in my work entitled *Weapons Don't Make War: Policy, Strategy, and Military Technology* (Lawrence, Kans.: University Press of Kansas, 1993), pp. 95–99, "Super Threats."

<sup>25</sup> The contemporary bible comprises the three-volume set: Naval War College, *Fundamentals of Force Planning*, vol. 1: *Concepts*; vol. 2: *Defense Planning Cases*; vol. 3: *Strategy and Resources* (Newport, R.I.: Naval War College Press, 1990–92).

<sup>26</sup> Field Marshal Sir Nigel Bagnall, "Foreword" to Hobkirk, *Land, Sea or Air?*

<sup>27</sup> Clausewitz, *On War*, p. 141.

<sup>28</sup> Liddell Hart, *History of the First World War*, p. 325.

<sup>29</sup> I am grateful to Stephen Jay Gould, *Time's Arrow, Time's Cycle* (Cambridge: Harvard University Press, 1987).

<sup>30</sup> Amidst a still burgeoning literature, see David Ruelle, *Chance and Chaos* (Princeton: Princeton University Press, 1991); Stephen H. Killert, *In the Wake of Chaos: Unpredictable Order in Dynamical Systems* (Chicago: University of Chicago Press, 1993); and for a bold venture into strategic application, Stephen R. Mann, "Chaos Theory and Strategic Thought," *Parameters*, vol. 22, no. 3 (Autumn 1992), pp. 54–68.

<sup>31</sup> Sun Tzu, *The Art of War*, translated by Samuel B. Griffith (Oxford: Clarendon Press, 1963), p. 84. "When you are ignorant of the enemy but know yourself, your chances of winning or losing are equal."

<sup>32</sup> Mahan, *Influence*, p. 25.

<sup>33</sup> Clausewitz, *On War*, p. 605.

<sup>34</sup> For an unpersuasive yet trendy belief in an "empty ocean," see John Keegan, *The Price of Admiralty: The Evolution of Naval Warfare* (New York: Viking Penguin, 1989), pp. 266–75.

<sup>35</sup> See Jack Beatty, "In Harm's Way," *The Atlantic* (May 1987). Also, Robert S. Wood, "Fleet Renewal and Maritime Strategy in the 1980s," in John B. Hattendorf and Robert S. Jordan, editors, *Maritime Strategy and the Balance of Power: Britain and America in the Twentieth Century* (New York: St. Martin's Press, 1989), pp. 330–55, provides an effective reply.

<sup>36</sup> Jan Breemer, "Naval Strategy Is Dead," *U.S. Naval Institute Proceedings*, vol. 120, no. 2 (February 1994), pp. 49–53.