

Ronald Reagan Presidential Library
Digital Library Collections

This is a PDF of a folder from our textual collections.

Collection: Executive Secretariat, National
Security Council: Country File
Folder Title: USSR (03/14/1984) (2 of 2)
Box: RAC Box 25

To see more digitized collections visit:

<https://www.reaganlibrary.gov/archives/digitized-textual-material>

To see all Ronald Reagan Presidential Library Inventories, visit:

<https://www.reaganlibrary.gov/archives/white-house-inventories>

Contact a reference archivist at: reagan.library@nara.gov

Citation Guidelines: <https://reaganlibrary.gov/archives/research-support/citation-guide>

National Archives Catalogue: <https://catalog.archives.gov/>

Last Updated: 02/06/2023

NAVAL WAR COLLEGE REVIEW



November - December 1983



The Naval War College Review was established in 1948 by the Chief of Naval Personnel in order that officers of the Navy and Marine Corps might receive some of the educational benefits available to the resident students at the Naval War College. The forthright and candid views of the authors are presented for the professional education of the readers. Articles published are related to the academic and professional activities of the Naval War College. They are drawn from a wide variety of sources in order to inform, to stimulate, and to challenge the readers, and to serve as a catalyst for new ideas. Articles are selected primarily on the basis of their intellectual and literary merits, usefulness and interest to servicewide readership, and timeliness. Reproduction of an article published in the Review requires the approval of the Editor, Naval War College Review, and the author. Reproduction of articles published in the Review is subject to the Copyright Act of 1976 and treaties of the United States, to the extent that they are applicable. Caution should be exercised in the case of those articles protected by copyright, as may be indicated by a copyright notice at the beginning of such articles. Review content is open to citation and other reference, in accordance with accepted academic research methods. The thoughts and opinions expressed in this publication are those of the authors and are not necessarily those of the Navy Department or the Naval War College.

Manuscripts must be submitted in typewritten form, double-spaced or triple-spaced. They are submitted at the sender's risk. The Naval War College Review neither offers nor makes compensation for articles accepted for publication and assumes no responsibility for the return of the material, although as a matter of practice every effort will be made to return manuscripts not accepted for publication. In submitting an article, the sender warrants that it is original, that it is the sender's property, and that it has not been published elsewhere.

Rear Admiral James E. Service, USN
President, Naval War College

Publisher Robert S. Wood
Editor Frank Uhlig, Jr.
Managing Editor Robert M. Laske
Editorial Assistant Mildred A. Imondi
Art Work, Production, and Composition Anthony Sarro
Roger Levesque
Eleanor C. Silvia
Carole Boiani
Edward McAndrew

The editorial offices of the Naval War College Review are located at the Naval War College, Newport, R.I., 02841. Published bimonthly, distribution is generally limited to: U.S. Navy, Marine Corps, and Coast Guard commands and activities; Regular and Reserve officers of the U.S. Navy, Marine Corps, and Coast Guard; military officers of other services, foreign officers, and civilians having a present or previous affiliation with the Naval War College; and selected U.S. Government officials. Correspondence concerning Review matters should be directed to its editorial offices. (Telephone: Area Code 401-841-2236/4552, Autovon - 948-2236/4552.) All other departments may be reached by calling 401-841-3089, autovon 948-3089.

CONTENTS

President's Notes 2
Not a Success—But a Triumph: 80 Years Since Kitty Hawk 4
By Richard K. Smith
Argentine Policy Motivations in the Falklands War and the Aftermath 21
By Commander Marshall Van Sant Hall, US Navy
Blitzkrieg from the Sea: Maneuver Warfare
and Amphibious Operations 37
By Captain Richard S. Moore, US Marine Corps
The Role of the Attack Submarines in Soviet Naval Theory 48
By Milan Vego
Should America Have a "War Press Act"? 65
By Captain James E. Wentz, US Navy
US Policy Opportunities 68
By Richard Pipes
Nuclear Deterrence to the End of the Century 75
By Michael Nacht
The SS-20: A Range of Choices 86
By Captain Jeffrey D. McCausland, US Army
In My View 97
Professional Reading 98
Reading About the Soviets—in English 98
By Norman Polmar
Book Reviews 106
Recent Books 123

Volume XXXVI, Number 6/Sequence 300

November-December 1983

Cover: Top—first flight 80 years ago; left—Orville and Wilbur Wright Belmont Park, Long Island, New York 1910; right—Wilbur at controls in machine #3 in 1909 (cover design by John Ramos, pictures courtesy of Smithsonian Institution).



President's Notes

The Naval War College was the site in October for the annual CinCs' Conference convened by the CNO, Admiral James D. Watkins. This year's session dealt with many of the major strategic and tactical issues of concern to the Navy's senior leadership and it did so in an unprecedented fashion—through war gaming. The Center for War Gaming (CWG), an element of Dr. Bob Wood's Center for Naval Warfare Studies, designed and staged a special game. Its purposes were to review maritime strategies through the lens of a global conflict and to examine each CinC's theater strategy in relation to an overall coherent maritime strategy. Styled as a seminar, the game afforded CNO and the CinCs (playing their real life roles) a series of discussion/decision points, each highlighting an important strategic concern. By spacing these points to cover periods of about 20 days, the Conference addressed strategic concerns from pre-hostilities deterrence measures through a protracted war.

The War Gaming Center's design encouraged the players to grapple with issues by highlighting the interrelationship not only of the maritime theaters, but also of the interdependencies of air, land, and sea campaigns. This game, as with any war game, was not designed to be predictive of what might actually confront us in an actual war; but the gaming technique is useful in "unpeeling" issues and looking into the variables or components that make a strategy practical or impractical.

While this event was new, gaming strategic concepts is not new to the CWG. The annual three-week Global War Game, of which the fifth was played this year, was the first attempt to explore broad strategic concerns against the backdrop of a worldwide conflict involving all theaters, land and sea. Within the last two years, a major effort has gone into the design and styling of new games to support development of new strategic theories being

posed by the War College's Strategic Studies Group. Six such games have been staged. The game styles are becoming as innovative as the strategies.

The CWG has prepared and played games to test maritime campaign plans for CinCPacFlt; to look at the maritime strategy to support operations in the Southern Region of Nato for CinCSouth; to examine contingency plans for CinCLant; and to review the strategies for management of multicrisis situations for the Under Secretary of Defense (Policy). Upcoming games on the CWG schedule will support strategic concerns of USNavCent, ComSeventhFlt and ComStrikFltLant. Games to look into POM issues for the OpNav staff are being developed as well. These pages will continue to report on this exciting program in support of the Navy's strategic and warfighting objectives.

JAMES E. SERVICE
Rear Admiral, US Navy
President, Naval War College

Not A Success—But a Triumph: 80 Years Since Kitty Hawk

by
Richard K. Smith

So easy it seemed,
Once found,
Which, yet unfound
Most would have thought
Impossible.

—John Milton,
Paradise Lost,
Bk. IV.

On the Saturday afternoon of 8 August 1908 a select group of some three dozen persons gathered on the green of the Hunadières race track near Le Mans, France. All had some association with aviation, such as it was. In 1908 aviation was less a science than a hope, it had more aspects of an expensive sport than any relationship to practical engineering. Nevertheless, there was a widespread conviction that mechanical flight was like a sun loitering beneath the horizon—dawn was inevitable—but when? These persons had assembled at Hunadières to witness a demonstration of Mr. Wilbur Wright's flying machine and most of them did not expect to see much.

Everyone knew that less than three dozen airplane flights had been made since Alberto Santos-Dumont's exciting exhibition of 23 October 1906 when he lunged through the air for seven seconds, covering a distance of 60 meters; and on 12 November he flew 220 meters in 21 seconds. But of course, these were the first successful flights ever made by a heavier-than-air flying machine. Other flights had been made since and their durations and distances had not been much greater—on 9 November 1907 Henri Farman flew for 74 seconds and over more than one kilometer. What is more, on 13 January 1908 Farman not only flew for 88 seconds but his flight described a complete circle and returned to its starting point, covering some 1,500 meters over the

ground. This was the first circular flight ever made. It won Farman a prize of 50,000 francs, equal to ten thousand American dollars; it demonstrated the airplane's promise as a means of practicable aerial navigation. *The Times* of London hailed it as "epoch making." To be sure, it is unlikely that Mr. Wright will surpass Henri Farman's performance.

As we know, Mr. Wright and his brother have claimed to have flown in 1903 and to have perfected their machine during 1904 and 1905. There is a wealth of superficial evidence which suggests that they have indeed flown, in fact many times, but no one has witnessed these alleged flights. That is, no persons of consequence. Mr. Wright brought this machine to France in 1907 and he planned to demonstrate it in that year, but it is said that he was afflicted by many commercial complications relating to the sale of the invention, and for the past year this machine was stored in a customs warehouse in Le Havre. He returned to France in May 1908, retrieved the machine from storage, and has since been preparing it for this demonstration.

It is a curious machine and not at all like those in Europe. The surface which provides vertical control is in front of the operator instead of being part of the empennage. The operator is seated between biplanes with the engine directly beside him. Most provocative, there is a seat for a second person—apparently for a *passenger*! Perhaps its most odd aspect is that it has no wheels. Instead, it rests on a carriage which rolls along a monorail of 50 meters. A cable joins the carriage to a weight of 720 kilograms which is suspended in a tower. When the weight is released it draws the carriage forward with swiftness, accelerating the machine—and presumably assists it to attain flight. By means of chain drives, the 30 horsepower engine turns two propellers mounted at the rear of the wings. The propellers rotate in opposite directions, a novelty achieved by twisting one of the chain drives. Most remarkable is that Mr. Wright states that he has never before operated this particular machine.

It is now a trifle after 6 p.m. and—*attendez vous!* Mr. Wright has started his *moteur*. Monsieur Ernst Archdeacon, the president of the Aero Club de France is now pointing out to his associates the faults in the Wright machine and—*attendez!* Mr. Wright has increased the speed of his engine. He has released the weight in the tower. The machine is moving forward! It has left the rail! It is skimming across the earth—at a height of one, two, three meters—*il vole!*

But the small racecourse is bounded by a high tree line and the machine is headed directly for the barrier. *Mon Dieu!* A crash is inevitable. *Mais non!* The machine is turning to the left. It is saved! *Mais non!* it is tilting over on its side; it is sliding out of the air to earth. *C'est fini!*—*Non! Non! Attendez! Néanmoins,* it continues to move in this unbelievably dangerous angle and it is coming about through 180 degrees. *Incroyable!* And its height above the ground is even increasing! It is passing over our heads! *Fantastique! Magnifique!*

Mr. Wright circles *again*. The small circle of his turns is made with the machine tilted to an unbelievable hazard. It should fall out of the sky, but it does not. Mr. Wright is returning to earth. He touches down to the sod with the lightness of a feather. It all started so quickly, was done with such ease, and is finished so suddenly. *Les toutes incroyable! Nous sommes battus! Nous n'existons pas! Les Wrights regner en maître!*

For a moment the spectators stood as if frozen. In the next instant they were running toward the airplane. Men's eyes were filled with tears, their throats choked with emotions; there were sounds but few intelligible words. They embraced Wilbur and, in the French custom, kissed him on both cheeks. The moment dissolved into a babble of marvelous excitement.

The Europeans were not surprised that Wilbur flew. After all, Glenn Curtiss in America and Farman, Blériot, and Delagrangé in France had been sputtering through the air in brief "flights" since 1907. What stunned Hunadières' spectators was how he flew—so effortlessly, rolling through breathtaking turns with such grace, obviously in absolute control, the machine being an extension of the man. This was flying as their imaginations thought it should be and, in a few seconds, Wilbur Wright showed them that their dreams were reality. What is more, from his dramatic mastery of the machine, it was manifest that the Wrights had been the masters of other men's dreams for some time. The Wrights' claims were true: *they had been flying for years!* The sun which they believed was procrastinating behind the horizon had long since been racing toward high noon, and its light was dazzling.

The flight's duration was 1.7 minutes, but in those 105 seconds, as the French aviator Louis Blériot put it, "a new era in mechanical flight has commenced—it is marvelous!" The *Compte De LaVaux*, a veteran balloonist and founder of the *Fédération Aéronautique Internationale*, described the Wright airplane as "this machine which has revolutionized the aviator's world." But it was the newspaper *Le Figaro* which seized the essence of the moment: "It was not merely a success, it was a triumph."

The eighth day of the eighth month of the eighth year of the 20th century framed Wilbur's moment, but it was the Wright brothers' finest hour.

A few days later on 3 September Orville Wright boarded a street car in Washington, DC, and traveled across the Potomac to Fort Meyer, Virginia, where he gave a similar demonstration. There was great excitement on the parade ground when Orville flew, but it did not approximate the hysterical enthusiasm which ran like wildfire throughout France and across Europe. The French newspapers splashed Wilbur's flights on their front pages; everything he did was news. The French were equally enthralled by Orville's flights 3,900 miles away in America. The American press treated Orville's Fort Meyer demonstrations as if they were a dull train wreck.¹

The respective national reactions to the Wrights' performances of 1908 set a curious precedent. From that day to this the Wrights' achievements have never been appreciated in the United States to the degree that they have in Great Britain and Europe. And there has always been a unique emotional bond between the French nation and its memory of Wilbur Wright.

At this point it may well be asked: but is it not 17 December 1903 and Kitty Hawk, North Carolina, which mark the Wrights' anniversary? Well, yes and no. History is invariably the product of a web of complexities, and anniversaries demand oversimplifications which permit speeches to be made in less than an hour. The Wrights' flights at Kitty Hawk in 1903 would have been impossible without what was done before, and they would have meant little without their work thereafter.

Popular American folklore continues to portray the Wrights as charming rustics who sold bicycles in Dayton, Ohio; they applied their "American genius" to the problem of flight and invented the airplane, succeeding where well-schooled men of science failed. Like most chauvinistic folklore, this popular legend holds few truths. More seriously, it does a terrible disservice to our memory of these two remarkable brothers.

In The Beginning Was The Toy

The Wrights' interest in flight apparently dates from a day in 1880 when their father made them a gift of a Pénaud *hélicoptère*. At this time Wilbur was 13 years old, Orville was nine. The Frenchman Alphonse Pénaud (1850-1880) designed and manufactured a series of ingenious model aircraft—helicopters, ornithopters, and airplanes—all of which were powered by twisted rubber bands which turned a propeller or a flapping device. It was Pénaud who originated the twisted rubber band as a source of motive power. His creations flew; one of his little airplanes flew for 11 seconds and some of his helicopters rose to 20 or even 50 feet, flitting about for as long as 26 seconds before fluttering to earth. Over the past 100 years hundreds of millions of model builders have built Pénaud machines, but few associate the origins of their pleasures with this Frenchman of the 19th century.

In later years the Wrights followed the gliding experiments of Otto Lilienthal in Germany during 1894-96. Although Lilienthal died as a result of a gliding accident on 8 August 1896, the brothers' interest in the subject only increased. Exhausting available literature on aeronautics, in May 1899 Wilbur wrote to the Smithsonian Institution for further information and the reply provided an extensive bibliography. They perceived the Smithsonian as their best source of information because of the experiments of its Secretary, Samuel P. Langley (1834-1906), in developing a flying

machine. Langley's work started in 1889, and in 1894 and 1896 he built large model airplanes powered by steam engines which made successful, if uncontrolled, flights of a few seconds. When Wilbur wrote to the Smithsonian it was generally known that Langley was working on a manned aircraft.

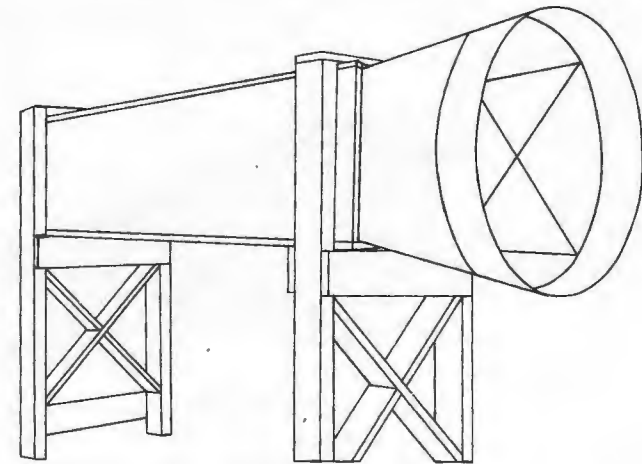
At this early date it already occurred to the Wrights that all efforts to develop flying machines had moved along one dimension only, the fore-and-aft axis of flight relative to altitude. There are three axes of flight: *pitch*, *yaw*, and *roll*. Thus far, would-be airmen had been concerned only with control in pitch; no one as yet had seriously addressed control in yaw and roll remained to be discovered. Lilienthal had sought lateral control by shifting the weight of his body, but the Wrights recognized this as a dead end. They perceived that lateral control, namely *control in yaw*, could be obtained aerodynamically by varying the angle of a wing's tips, the result being a variation in lift, and this should serve to provide balance and turn the machine. In that summer of 1899 they built a large kite, a biplane structure with a five-foot wingspan. The whole structure could be twisted, its wing tips flexed, controlled by separate cords. The kite's performance was satisfactory and they moved toward the design of a manned glider.

In 1900 they determined that favorable wind and vast areas of clear ground existed at Kitty Hawk on North Carolina's desolate Outer Banks. In September they traveled to Kitty Hawk with a biplane glider (17.5 ft. span; 165 ft.² wing area), which they flew as a kite—manned and unmanned—and in free flight. Their "flights" were of only a very few seconds' duration and in the month they spent there, their total flying time was three minutes. Admission of ignorance is the beginning of wisdom. The Wrights were never embarrassed by their ignorance, and at Kitty Hawk they discovered that they had much to learn.

In 1901 they returned to Kitty Hawk with a new glider (22 ft. span; 290 ft.²). It was another season of disappointments, frustrations, and new problems which they were hard put to identify. Two things were certain: (1) to date they had relied on Lilienthal's aerodynamic data and something was terribly wrong with it; and (2) their own idea of wing-warping to achieve lateral control wanted for something. After six weeks they returned to Dayton with suspicions of defeat.

Convinced that there were serious flaws in Lilienthal's data, they became determined to identify those flaws and determine what was correct, so in the winter of 1901-02 they built a wind tunnel. It was six feet long, its throat 16 inches square, and because their shop had no electricity (gaslight only), its fan was powered by a small internal combustion engine. The world's first wind tunnel was built by Francis H. Wenham (1824-1908) of England in 1871, and the brothers were familiar with his many published works. They tested more than 200 airfoils and wing configurations, determining that most published

data was far too optimistic. They devised airfoils of their own design and determined the virtues of high-aspect ratio, i.e. a wing platform of small width relative to its span.



WIND TUNNEL: Although the original Wright Wind Tunnel was "lost," this is an artistic version of a reconstructed model. (Artist: Gerard Lamothe, NWC.)

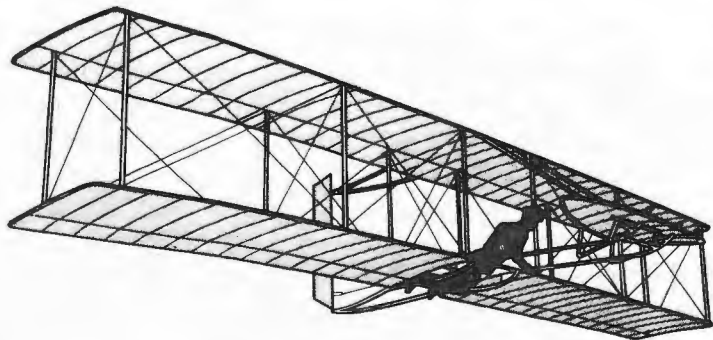
The Third Dimension of Flight

In August 1902 they returned to Kitty Hawk with a wholly new biplane glider (32 ft. span; 305 ft.²), which at this date was the largest glider in the world. Like their previous gliders, this one had its elevator surfaces in front of the wing. While this seems odd today, it provided the Wrights with an optical reference to the horizon and, aerodynamically, its position provided far more positive control than if it had been made part of a tail. Their experiences of 1901 suggested the need of a vertical stabilizer and the 1902 glider had a tail structure with two fixed stabilizers.

They spent two months at Kitty Hawk. Until this time they thought that their wing-warping should be enough to turn the glider. But it only seemed to initiate a turn, and then with confusing results. They finally decided that a rudder was necessary to aerodynamically balance and accelerate the machine through its turn, and the vertical stabilizers were changed to a single movable surface.

Now they had an elevator up front, aileron—results from their wing-warping, a tail with a rudder. Equally important, they had more than two years' experience behind them. They were now ready to fly. Whereas their two previous Kitty Hawk seasons had been filled with frustrating problems and relatively few flights, in 1902 they made more than a thousand successful gliding flights. The longest was 26 seconds over a distance of some 620 feet.

more than twice the length of a football field. During these flights they soon determined that a combination of rudder and wing-warping (ailerons) provided the best control, thereby discovering the third dimension of flight, namely *control in roll*.



Wright 1902 glider: During excessive banking, the original 1902 glider had an alarming tendency to fall off in a steep, diving turn—"well digging" as the Wrights termed it—due to drag caused by wing warping combined with fixed rudder leverage. They therefore modified the machine, replacing its fixed double rudder with a movable single rudder connected by cables to the pilot's hip cradle, which controlled wing warping. Complete control was thus at last attained.

The 1902 season was a phenomenal success. They had divined the three elements of control; it now remained to put a source of power in the machine so they could extend their flying time from seconds to minutes and test their findings at length. During the winter of 1902-03 they set about the creation of a powered airplane. Meanwhile, they considered their experiences of 1902 as sufficiently conclusive that on 23 March 1903 they applied for a patent on their "Flying Machine" and the principles of their control system. This is the basic Wright patent; its application antedates the first powered flights by nine months.

Although their 1903 airplane was essentially a scaled-up variant of the principles embodied in the 1902 glider, its construction proved to be far more complicated than anticipated.

They could find no engine of a remotely acceptable power-to-weight ratio; all available engines, however small, were much too heavy. They designed and built their own engine. It had an aluminum block with four separate cast iron cylinders, a 4-inch bore with 4-inch stroke, delivered 12 hp. at 1025 rpm, and weighed 180 lb.; the ratio is 15 lb. per hp.

The Wrights discovered that there was not the smallest body of technical data about the design of airplane propellers and that which related to marine propellers was useless. Realizing that an airplane propeller is practically an airfoil rotating around a fixed point, they used their airfoil data to design and manufacture their own propellers.

The *Flyer I* which they took to Kitty Hawk in 1903 was only a trifle more than a powered glider. However, this estimate is based on hindsight. In 1903 it was the world's first and only airplane, and every aspect of its creation was owed to the Wright brothers. It is sometimes said that they did everything except grow the trees which produced the wood for their airframe.

Success

It took weeks to assemble the machine and test its engine. Then the malign weather of an early winter swept out of the Atlantic, lashing the Outer Banks with 80-knot winds. Test runs revealed serious faults in the engine and its accessories; the propeller shafts had to be redesigned and taken back to Dayton for remanufacturing—not once, but twice.

On 14 December the weather cleared and the *Flyer I* was taken out for its first flight. Looking at history through the "wrong end of the tube," the Wright airplane seemed strange for its lack of a wheel landing gear. But the Wrights were extraordinarily rational men; they did not build their airplane to be rolled around the ground, they designed it to *fly*. And at this stage of development wheels were a complication they did not need. Instead, the airplane sat on a carriage on a 60-foot monorail laid in sections on the ground. The rail not only guided a takeoff, it reduced friction and eliminated the problem of uneven terrain. For landing, the airplane alighted on a pair of skids which were an inherent part of its airframe.

Wilbur made the flight of 14 December. After a 40-foot run the machine lifted clear of the rail. But Wilbur overcontrolled and climbed too steeply (this was also *his* first flight!); after 3.5 seconds and covering 112 feet in distance, the airplane settled to the ground with minor damage.

This "flight" would have been more than enough to please most would-be aviators of 1903. But not the Wrights. They were always their own toughest critics. They refused to count this experience as a "flight" and as a result little is ever heard of it.

Nevertheless, this apparently ephemeral experience was informative enough to Wilbur that he wrote to his parents that same evening: "There is no question of final success." And on the 15th Orville telegraphed their parents: "Success assured."

On 17 December, the date which is enshrined in the history books, they made four flights (see figure 1). What is noteworthy here is the number of four consecutively. No other would-be aviator of 1903-08 ever made four flight efforts in a single day, much less within three hours. What this reveals about the Wrights is that, from the first, they knew that everything was going as they had anticipated; they simply required a repetition of the experience to collect more data. What it says about the others is that one experience (maybe two), was enough to tell them that everything was terribly wrong, there was no point in pursuing the effort further. It was time

to go "back to the drawing boards." But the answer which these would-be aviators sought, and which the Wrights found, was not on any drawing board; it existed only in the experience of flight.

Figure 1
The Flights at Kitty Hawk, 17 December 1903

Flight No.	Pilot	Time of Day	Flight Duration, Seconds	Distance Over The Ground, Ft.
1.	Orville	10:35	12	120
2.	Wilbur	11:20	11	175
3.	Orville	11:40	15	200
4.	Wilbur	12:00	59	852

The Wrights planned on making at least one more flight this day, hoping to fly from their takeoff point near Kill Devil Hill to the tiny community of Kitty Hawk four miles away. This would have been a sensation. But a gust of wind seriously damaged the airplane. The season was late, winter was upon them, and they gave it up for 1903. They sent a telegram to their father: "Success four flights Thursday morning. All against twentyone mile wind started from level with engine power alone speed through air thirtyone miles longest 57 seconds inform press home Christmas." There are three noteworthy items here. One is the error of "57" for which should have been "59." Far more significant is the word "success." The Wright family never did a traffic among themselves in reciprocal fantasies, and when the brothers said "success" they meant "Success!"

As difficult as it may be for all later generations to fully appreciate, the Wrights' total of 97 seconds in the air confirmed for them all of their labors of the previous four years. They knew well that the *Flyer I* was not a practical airplane. But now they knew how to go ahead with such a vehicle, as they would in 1904 and 1905.

The third aspect of the telegram worth noting is in the words "inform press." The Wright family did inform the press and later the brothers sought to inform the press; yet their information was brushed aside.

A reason for the Wrights being given such short shrift is that only nine days before their success at Kitty Hawk, Professor Langley of the Smithsonian experienced disaster with his flying machine. Immediately after launching, it plunged into the Potomac River. Newspaper reporters who were present compared its flying characteristics to "a handful of mortar." And this was its *second* disaster; in October it had done the same thing. The Langley machine was an abortion of an airplane, an utter fiasco. It cost the US Government \$75,000, a substantial sum in a day when \$15 a week was good pay. If Professor Langley of the Smithsonian could not build a flying machine with

the resources of the US Government, who could believe that two young men from Ohio might have succeeded where Langley failed? December 1903 was no time for anyone to assert that they had created a successful flying machine. However, this does not explain the news media's treatment of the Wrights in years subsequent to 1903.

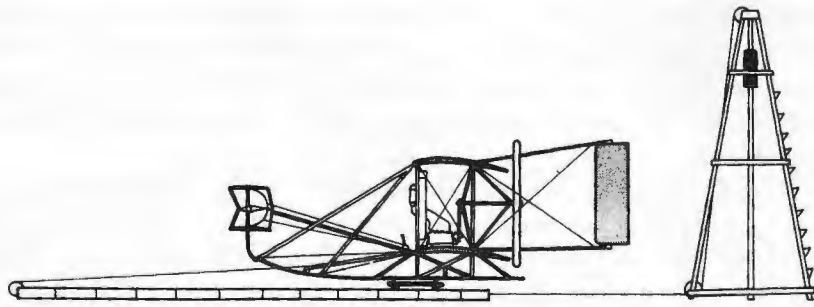
Until the 1920s when commercial radio broadcasting penetrated American life there were no news media, only a medium, and it was the newspaper. But if there had also been radio and television during 1903-1908, it can only be imagined that they would have made a greater hash of the dawn of mechanical flight. The press completely bungled the story of the Wrights, not only in 1903, but repeatedly during the five years of 1904-08. The relationship between the Wrights and the news medium of their day is one of the most grotesque stories of the 20th century and it was by no means the fault of the Wrights.

The Incredible Years

In 1904 the brothers built a new airplane, the *Flyer II*. Confident that they no longer needed the winds and space of Kitty Hawk, they sought an airfield nearby to Dayton. In 1904 Dayton's population was less than 100,000, it was not a city overflowing with anonymities; and the Wrights were among the city's better known and most respected businessmen. They went to Torrance Huffman, the president of Dayton's Fourth National Bank, and obtained his permission to use a 90-acre tract of pasture land he owned eight miles east of the city. Huffman was agreeable, and he did not charge the brothers a dime.

This piece of property (long since swallowed up by Wright-Patterson Air Force Base), was known as Huffman Prairie. It was sited between two well-traveled highways and adjacent to an interurban trolley line that ran between Dayton and the small town of Fairfield. The Wrights chose to erect a shed which was the base of their operations, and located nearby was a regular stop on the trolley line known as Simms Station. If they wanted to conduct their flying experiments in secrecy, they would have been hard put to choose a worse place.

In 1904 they made 105 flights, most of them being brief test flights of 30 seconds or less; but by the end of the season their total flying time was 45 minutes. Most of their flying was done after 1 September, their airplane performing badly when it performed at all in the hot, thin, and humid air of summer at Dayton's elevation of 715 feet above sea level. The fickleness of the wind inspired them to create their catapult, the "starting derrick" as they called it. On 20 September Wilbur flew the first 180-degree turn by a heavier-than-air flying machine, returning to the approximate point of his takeoff. Hereafter, circular flights were made with frequency. This was simply a matter of practicality; it avoided the necessity of having to drag the airplane back to its starting point.



Takeoff assistance: This sketch shows arrangement of the unique weight-and-derrick launching device first used in September 1904. Subsequent tower sizes, drop weights, and rail lengths varied somewhat. When the weight dropped, the machine was pulled rapidly along its rail, and, as it neared the end, the pilot raised the nose. At that instant the rope released itself and the airplane took off.

In the summer of 1905 they returned to Huffman Prairie with their new *Flyer III*. In external appearances it was not significantly different from its forebears, but many refinements had been worked into it and it was a far more versatile flying machine (see figure 2). The Wrights regarded the *Flyer III* as marking the end of their purely experimental efforts and historians are unequivocal in acclaiming it as the world's first practical airplane. Forty-nine flights were made, the longest by Wilbur who on 5 October flew 29 circuits of the field within 38 minutes. In this season they logged a total of three hours in the air.

Figure 2
The Wright Airplanes, 1903-1905

	Flyer I 1903	Flyer II 1904	Flyer III 1905
Gross Weight, lbs.	765	925	1,050
Tare	605	675	710
Disposable Load	160	250	340
Load: Tare	20:80	27:73	32:68
Wingspan, ft.	40'04"	40' 04"	40' 06"
Wing area, ft. ²	510	510	503
Wing loading lb./ft. ²	1.5	1.8	2.0
Horsepower	12	16	20
Power Loading lb./hp.	63.7	57.8	52.5

There is an aspect to these flights which is absolutely bizarre. All flying was done within sight of two highways and an interurban railway which had a trolley car passing every few hours. Literally hundreds of people saw the Wrights buzzing around the treetops of Huffman Prairie, and yet the world declined to take notice. Inevitably, stories traveled around Dayton by word-

of-mouth and dozens of persons were moved to call the newspapers, asking why there was no news about the flying machine at Simms Station. The editors refused to attach any importance to "rumors," they regarded such calls as a nuisance, and no reporters were given trolley fare for a trip to Simms Station.

Word nevertheless spread. There was a Mr. A.I. Root of Medina, Ohio, some 180 miles northeast of Dayton. He heard about the Wrights; he traveled to Huffman Prairie to verify the stories, and he was present when Wilbur flew the first 180-degree turn. Root was in the apiary business and was the publisher of a magazine called *Gleanings in Bee Culture*.² In its issue of 1 January 1905 he published an enthusiastic but thoughtful five-page article which described what he saw near Dayton and he discussed its portents. A copy of this article was sent to *The Scientific American* whose editors dismissed it with rudeness.

On 16 October the Wrights made their last flight of 1905's season and they did not fly again until two and one-half years later on 6 May 1908, when they refreshed their flying skills for that year's demonstrations. Why did they ground themselves for 931 days? The reasons are complex. Most important was that their patent (US No. 821,393), was still pending; it was not granted until 22 May 1906.³ Meanwhile, it was on file in the Patent Office where anyone could examine its data. The Wrights were confident that the patent data alone would not readily unlock their secret, which in truth was less an "invention" than a *discovery*; the data had to be combined with flight experience. But as they progressively mastered flight, they grew to appreciate the magnificent simplicity of their achievement. A person knowledgeable in the day's crude aeronautics might be able to combine the patent's information with careful observations of their flying, thereby unraveling enough of the mystery of mechanical flight to advance them to the position where the Wrights had been in 1902, maybe even 1903. This was a risk they could not afford to take.

In October 1905 the Wrights became aware of being spied upon. Whereas most spectators to their flying came forward and identified themselves, they began to notice men lurking at a distance who were observing their operations through binoculars. This was an inspiration toward secrecy. Concurrently, they were engaged in negotiations with the governments of France and Great Britain, and with the US War Department, for the sale of rights to their airplane. This was a convoluted, aggravating, and frustrating process of two years. And they were busied by building new demonstrator airplanes, one of which they took to France in 1907 and was left stranded in a warehouse for a year as the result of stalled business arrangements. Yet another machine was built for the US Army. And they were running their bicycle business. They had more than enough demanding activities to fill their days without commuting to Huffman Prairie.

Horsepower on a Barn Door

While the Wrights were mired in business affairs, aviation experienced a dramatic revival in Europe, initially in terms of the lighter-than-air airship, and then in efforts to develop an airplane. In anticipation of great events, the Fédération Aéronautique Internationale was created on 14 October 1905; it defined measures and established rules for "record flights" and provided observers to confirm performances as it still does more than three-quarters of a century later.

In 1906 Santos-Dumont made his celebrated uncontrolled lunges through the air and all Europe was certain that these were the world's first "flights" by a heavier-than-air machine. In 1907 Charles Voisin, Horatio Phillips, Louis Blériot, Henri Farman, and Robert Esnault-Pelterie started hopping through the air, all doing well to exercise a precarious control in pitch. Then in early 1908 Farman flew his sensational circles, stuttering through his turns like a pig on roller skates, turning by rudder alone; but he demonstrated a tenuous control in yaw. No one but the Wrights as yet had any conception of control in roll. Indeed, the very idea of deliberately rolling an airplane on its axis would have struck the Europeans as suicidal.

Whereas the Wrights first taught themselves how to fly by gliding, working out control systems in their gliders, and only then built their airplane, the Europeans and other Americans were building powered machines which by their calculations should be capable of flight, and then tried to determine how the machines might be flown. When it is appreciated that none of these men knew how to fly nor as yet had any conception of the proper technique, this "method" was infinitely more awkward than the Wrights'—and dangerous to life and limb.

The late Charles H. Gibbs-Smith (1909-1981), a British historian who devoted half his lifetime to the subject of early aviation, shrewdly observed that the Europeans treated their flying machines as they would an automobile. They suffered from a "chauffeur" mentality, expecting to gain altitude and then "drive" the airplane through the air in only two dimensions as they would along a highway. He divides the early aviators into "chauffeurs" and "fliers," and prior to 1909 there were only two "fliers" in the world: Wilbur and Orville Wright.

In 1901 Wilbur Wright remarked of flying: "If you are looking for perfect safety you will do well to sit on a fence and watch the birds, but if you really wish to learn you must mount a machine and become acquainted with its tricks by actual trial." In 1906 the Europeans started mounting their machines and by 1908 they were learning by trial. Wilbur also remarked that if enough horsepower was applied to a barn door, it would fly—for awhile, at least. European aero engines were far superior to the Wrights', often possessing more than twice as much horsepower. Whereas the Wrights taught themselves flight by gliding, the Europeans were learning how to fly by

dragging themselves through the air by horsepower. They would eventually, but inevitably, identify and resolve the problems which the Wrights had mastered by the end of 1902.

In the summer of 1908 the Wrights laid public claim to their great achievement none too soon. By 1909 or 1910 they would have achieved a public success, but it is unlikely that the experience could have been remotely similar to their triumph of 1908.

L'envoi Triste

The patent by which the Wrights set such great store proved to hold less joy than headaches and heartaches. They discovered that a patent does not provide ironclad protection, that it is only a little more than a license to sue, and they endured almost a decade of bitter litigation. The Wrights won all their lawsuits, only to discover that it was yet another matter to collect damages and royalties.

The Wrights' dilemma was in their own genius; they did not simply patent the "airplane"; in patenting the principles of their control system, they had patented *flight!* No one could build an airplane without infringing their patent and there was no practical means of keeping a discovery of such transcendence in a cage of legalisms. It was as futile as the efforts of Imperial Spain to build a fence around the discoveries of Christopher Columbus.

Wilbur died in 1912, only 45 years of age; Orville lived to see their airplane develop into a weapon of terrible portents during 1914-1918, to fly the oceans in years thereafter, establishing a global network of air transportation; and in 1945 he saw it become a vehicle of nuclear destruction. And in those same years he fought his own stubborn and lonely battle with the Smithsonian Institution against the latter's efforts to discount his and Wilbur's achievements.

Samuel P. Langley died in 1906 and those who succeeded to his place in the Smithsonian's red castle became determined to exaggerate his work in aeronautics for their own institutional glory. This could not be done without defaming the Wrights. In building their ridiculous case for Langley the Smithsonian's hierarchy even conspired with Glenn Curtiss, the Wrights' arch-rival and a defendant in the Wrights' most sensational patent suit which Curtiss lost. Curtiss engineered a well-publicized but wholly fraudulent demonstration which "proved" that the Langley machine *should* have flown in 1903, and the Smithsonian seized upon this alleged capability to give precedence to Langley. Well aware of the technical details, Orville could not possibly accept this.

This was a disgraceful affair, and as a result of a smug, self-serving bureaucracy's refusal to admit error, it dragged on for 32 years. It was not resolved to Orville's satisfaction until 1942.⁴

Meanwhile, in 1928 Congress moved to authorize the creation of a

memorial to the Wrights' flights at Kitty Hawk, a magnificent monument which was dedicated in 1932; however, private donations underwrote its design and construction. But the Smithsonian could not be budged from its position, and in 1928 Orville shipped the *Flyer I* aboard the liner *Minnewaska* to England on a long-term loan. On the 25th anniversary of their flights at Kitty Hawk the British were pleased to place the *Flyer I* on exhibit in a newly opened hall of the Science Museum in South Kensington, in ceremonies attended by King George V. The Smithsonian's selfish ignorance made the *Flyer I* an American treasure guarded by British wisdom for the next 20 years.

Although the dispute between Orville and the Smithsonian was settled in 1942, World War II made it inexpedient to return the artifact to the United States, and it was not returned until 1948. But even this was not a straightforward operation. Shipped as cargo aboard the Cunarder *Mauretania*, an American dock strike forced the liner to put into Halifax, Nova Scotia, where the airplane was off-loaded. The escort carrier USS *Palau* (CVE-122), transported the *Flyer I* to New York where on 19 November 1948, at the Bayonne Naval Annex, it finally returned to American soil.

On 17 December 1948 the *Flyer I* was formally placed on exhibit in the Smithsonian. Orville Wright was not present; he had died on 30 January 1948. No one should be moved to sentimental tears over Orville's absence. Both he and his brother regarded public ceremonies which honored their achievements as nuisances which they endured with polite silence. The brothers insisted upon the credits which were due them. That was a matter of accuracy and truth. But public ceremonies in which a corps of persons who had nothing to do with aviation carried on like a troop of dancing bears was quite another matter.⁵

Curiously, the efforts of agencies of the US Government to honor the memory of the Wrights have usually been convoluted when not shabby, backhanded, tardy, or ultimately degraded. The great Air Force installation near Dayton, Ohio, was originally named Wright Field in memory of the late Wilbur, but in 1948 this honor became compromised by the name of an obscure 1st lieutenant who had the bad luck to kill himself in a flying accident of 1918. In 1921 the Navy named its first seaplane tender the *Wright* (AV-1) in honor of the late Wilbur, but named its first aircraft carrier after the eminently unsuccessful Samuel Langley; and in 1943 a second *Langley* (CVL-27) was commissioned. The old seaplane tender was stricken after World War II and the name *Wright* was carried forward by the CVL-49, commissioned in 1947. As a ship type, the CVL had no enduring success; the *Wright* had a checkered career, and when decommissioned for a third and last time in 1970 she was functioning as a communications platform.

The Navy and the nation have never honored the Wright brothers by giving their name to a first-class aviation ship. In the rush to name ballistic missile submarines after "great Americans," the Wrights were overlooked.

This oversight is remarkable, perhaps not unusual, but it is fortuitous. Few things could be more bizarre than concealing the names of Wilbur and Orville Wright beneath forty fathoms of salt water. Although the naming of the Navy's ships has long since become disconnected from the nation's history and has degenerated into a noisy lottery among ephemeral political interests, perhaps in some year before the Wrights' 100th anniversary there will be launched a mighty aircraft carrier of some 90,000 tons which will bear the great name of *The Wright Brothers*. It is a gesture which is long overdue.

The Coattails of History

The final forms of recorded history often swing on the hinges of *ifs*. If the Wright Brothers had been killed in a train wreck while returning to Ohio in December 1903, and their airplane destroyed, the fate of their claims to flight would have been left in the memories of their few witnesses resident in the wilds of the Outer Banks; and today the souvenirs of their scientific and engineering labors would be regarded as no more than marvelous curiosities.

If Wilbur had died on 30 May 1908, instead of as he actually did on 30 May 1912, the demonstrations of 1908 could not possibly have happened as they did. Wilbur was always the prime mover in the brothers' unique relationship, both intellectually and as the man of action. Indeed, it is possible that Orville might have become so distraught (as he in fact did after Wilbur's death in 1912), that there might not have been any demonstration during that calendar year.

And if the brothers had not acted together when they did in 1908, other aviators, flailing their way through the air by brute power alone, would have inevitably discovered by experience the "third dimension" of flight, and the Wrights' meticulous work would have been placed at a discount, its unique achievement not illuminated until many years later. Even as events unfolded after the great excitement of 1908 drained away, the Wrights had more than enough difficulties in defending themselves against influential detractors who sought to defame their labors.

It may be said that in the summer of 1908 the Wrights had the wit to seize history by its coattails, transforming the garment's powerful threads into magnificent robes of investiture which legitimized the crown which became theirs at Kitty Hawk on 17 December 1903.

Notes

¹ Being made late in the day on the 3rd, Orville's flight could not be given treatment until the 4th. Being morning papers, *The New York Times* and *The Washington Post* put it on page one; the *Washington Evening Star* was an afternoon paper and when it went to press the news was "old" so it was buried on page 3. None thought Orville's demonstration was worth a word of editorial comment.

² The marvelous Root article is reprinted in full as an appendix to Charles H. Gibbs-Smith's *The Airplane; An Historical Survey of its Origins and Development* (London: H.M.S.O., 1960), pp. 235-239. The

magazine *Gleanings in Bee Culture* is still published by the A.I. Root Co. of Medina, Ohio; the year 1983 marks their 110th year in business.

3. Today anyone may obtain a copy of the Wright patent, *Flying Machine*, No. 821,393 (22 May 1906), by sending one dollar to the US Patent Office, 2021 Jefferson Davis Highway, Arlington, Va., 20231.

4. Fred C. Kelly, *The Wright Brothers: A Biography Authorized by Orville Wright* (New York: Harcourt, Brace, 1943), pp. 300-333, provides a good summary of the Smithsonian embroglio.

5. On 24 September 1908, when asked to make an after dinner speech in Paris, Wilbur stood up and said, "I know of only one bird, the parrot, who talks, and it can't fly very high"; and he sat down. This proved to be the Wrights' policy statement on contributing to the verbiage of public affairs.

A historian of flight, Dr. Richard K. Smith is the author of *The Airships Akron and Macon: Flying Aircraft Carriers of the United States Navy*, and the prize-winning *First Across: The U.S. Navy's Transatlantic Flight of 1919*, as well as of a number of articles and book reviews for this and other magazines; he teaches a course in the history of mechanical flight at the Embry-Riddle Aeronautical University Extension in Washington, DC.

— ψ —

Colonel Robert D. Heintz, Jr. Memorial Award in Marine Corps History

The Marine Corps Historical Foundation has announced the criteria for the fourth annual Colonel Robert D. Heintz, Jr. Memorial Award in Marine Corps History. The award will be \$1,000 for the best article pertinent to Marine Corps history published in this or other similar journals in 1983.

Colonel Heintz, the distinguished Marine Corps officer, journalist, and historian whom this award memorializes, died in May 1979. Probably the best known of his many published works is his history of the Marine Corps, *Soldiers of the Sea*. He was a founder of the Marine Corps Historical Foundation.

In keeping with Colonel Heintz's great breadth of interest, "Marine Corps history" is very broadly defined for purposes of this award and includes biography and contemporary events. The key consideration is that the candidate article be *pertinent* to US Marine Corps history.

Announcement of the award winner will be made in the spring of 1984. Readers, in addition to the editors, are encouraged to nominate articles of their choice. The address is:

Colonel Robert D. Heintz, Jr. Award Committee
Marine Corps Historical Foundation
Bldg. #58, WNY, Washington, DC 20374

Argentine Policy Motivations in the Falklands War and the Aftermath

by

Commander Marshall Van Sant Hall, US Navy

What will be the aftermath of the Falklands War? To answer this question one needs a perspective that so far has been wanting. As North Americans we have viewed the war from the "North" in an East-West context. Yet, as members of the Western Hemisphere community it behooves us to look at it as the Malvinas Islands War.

Most British war literature suggests that the Argentine government used the invasion to divert public attention from political repression and the country's worsening economic problems. But after the war General Galtieri claimed that socioeconomic problems were not a motive: "... getting into that [the Malvinas] was harder for me and the country than facing up to those problems."¹

Whether the invasion was a deliberate act of policy or ad hoc rests largely on the perceptions of Argentinian war objectives. The closest thing to a statement of war objective by a high official was made by Nicanor Costa Mendez, the Foreign Minister, on Argentine television on 15 April 1982. He said, "The meaning of Argentine presence in the islands is that Argentina controls an area in the South Atlantic, politically and economically."² By placing the Falklands and South Georgia within their South Atlantic setting, Mr. Mendez emphasized a geopolitical context. Argentine jurisdiction over the islands and their 200 nautical mile sea zones has two important applications within this context:

- Argentina would have increased the size of its patrimonial or historic sea and therefore its control over area fisheries and seabed mineral resources.
- Argentina would have stabilized its southern sea frontier in a strategic sense. The islands would have granted wider diplomatic and military options.

The seas around the Falklands and South Georgia contain significant fisheries, although hake and Atlantic cod have been overfished and require conservation.³ The most abundant marine creature of the area is the small shrimp-like krill which has considerable economic potential. During the past decade the Soviets, Japanese, and East Europeans, among other fishing nations, have been increasingly active in krill harvesting around the Falklands.⁴

The presence of mineral resources around the Falklands is unproven but other areas of the Argentine continental shelf are known to contain cobalt, zirconium, manganese, gold, silver, hydrocarbons, and phosphite for the production of fertilizer.⁵ The prospect for discovery of these minerals, particularly hydrocarbons, offshore of the Falklands is promising. A 1975 US Geological Survey report showed the Malvinas basin as a possible extension of the Magallanes basin from which Argentina produces oil and natural gas.

In 1976, a British survey team estimated that at least two years of seismic work and three years of exploratory drilling were required to make a close estimate of reserves and field size.⁶ No exploratory effort has proceeded because of the political dispute over sovereignty. Neither the Falklands Islands government nor the Argentines have been in the position to make acceptable unilateral offers of production licenses to oil companies. Argentina has developed other reserves of oil and natural gas to the point of near self-sufficiency.⁷ Should ample reserves of hydrocarbons be proven, success in the Falklands War might have enabled Argentina to expand its hydrocarbon operations to the point of export.

In addition to the control of resources the Falklands have special strategic and geopolitical value. The islands command all transpacific passages through the Strait of Magellan, the Beagle Channel, and the Drake Passage; as well, the Falklands command most South Atlantic passages to Antarctica. Seen against the panorama of Argentine affairs in the sub-Antarctic, control of the Falklands adds another dimension to regional influence. West of the Falklands, Argentina has had a heated dispute with Chile over three small islands at the entrance of the Beagle Channel. The Beagle Channel question has points in common with the Falklands dispute:

- both disputes involve islands which jurisdicit large sea zones;
- some 500 miles southward of both disputed areas are the overlapping Antarctic territorial claims of Argentina, Chile and Britain.

In both disputes hinges Argentina's future in the Antarctic. The Antarctic Treaty provides for a treaty review conference any time after 23 June 1991.⁸ Recent attention paid to Antarctic resources, notably krill and hydrocarbons, increases the chance that sovereignty in the Antarctic will be an important consideration in a new Antarctic regime. Therefore, jurisdictional control of the South Atlantic has some long-range implications for the Antarctic. This coupled with the timing of the last Falkland negotiations and failure in the Beagle Channel mediation process played heavily in Argentina's decision to invade.

In December 1977 Britain had delivered an arbitration ruling on the Beagle Channel dispute which favored Chile. Argentina's subsequent nullification of Britain's arbitration nearly brought on a war with Chile in December 1978. Armed conflict was avoided by an acceptance of the Pope's mediation, but not his binding arbitration in January 1979.

A little over fifteen months before the invasion of the Falklands, the Pope, in mediating the Beagle Channel dispute, forwarded a proposal to the governments of Chile and Argentina. While the proposal was not made public, subsequent mediation suggested clues as to its content. It appeared that the mediator wanted both parties to renew the 1972 General Treaty on the Juridical Settlement of Disputes—a ten-year treaty that was nearing expiration. Chile quickly indicated acceptance. Argentina found the proposal unpalatable because the Treaty required submission to legal arbitration.

Argentine leaders procrastinated in accepting the Pope's proposal possibly in the hope that the February 1982 Falklands talks would yield a timetable for obtaining sovereignty over the Falklands. This would have offered the Argentine leadership some latitude, if it became necessary, to approach a compromise on the Beagle Channel question. With the Malvinas problem favorably resolved, Argentina would have been able to command the approaches to Antarctic as well as contain Chilean expansion no matter what came of the Beagle Channel dispute. However, the clouded assumption that the British were ready to give up the Falklands made the Argentinian estimate defective. "With hindsight it can now be seen that two moves by the British government were interpreted by the Argentines to mean that there was no disposition in London to hold on to the Falkland Islands. Mr. Nicholas Ridley, a foreign office minister had raised with the islanders the idea of 'lease-back,' namely that Britain should lease the islands from the Argentine government. The islanders disliked the proposal intensely. In June of 1981 it was announced that HMS *Endurance*, the ice-patrol ship and sole Royal Navy vessel permanently stationed in the South Atlantic, would be withdrawn."⁹

The February Falklands talks produced nothing of substance. On 3 March 1982 the Argentine Foreign Ministry announced that unless the Falkland Islands issue was resolved quickly, the government would "put an end" to the negotiations and consider itself free to choose "a procedure which best suited its interests."¹⁰

Formal talks on the Falklands were at the 17 year point and nearing the 150th anniversary of British occupation. The Argentines fully expected to obtain sovereignty over the islands by entering into negotiations. One British author calls attention to the ". . . lack of political will in London either to solve the dispute once and for all in some deal with Buenos Aires or else accept full responsibility for the long-term security and prosperity of the islands."¹¹ To the Argentines it was prolonged, high-handed and maddening intransigence. It appeared that the British felt no need to decide a question which, although of little significance to the British, was a national priority for Argentines.

The Formation of Argentine Policy and Strategy

Argentina has protested British presence in the Falklands since 1834,¹²

but did not actively pursue sovereignty until the 1960s. In 1965 it sponsored UN Resolution 2065, which invited the British into negotiations, and in 1966 it claimed a 200 nautical mile territorial sea. The coincidence of an expansive territorial sea claim and active Falklands diplomacy suggests that Argentine policy was entering a new phase, a phase commensurate with Argentina's economic rise as a middle power.

Ten years later, the Commander in Chief of the Argentine Navy gave a speech on "Law of the Sea" from which he stated, "The worst that can befall a nation is to not be contemporary with its own historical period."¹³ He further said that Argentina's new historical period had already begun and that it was marked by a "revolution of the sea" which would allow an ". . . adjustment of the Republic's historical clock."¹⁴

The Argentines were awakening to a national identity that included vital interests in an "Argentine Sea." From the 1970s on, speeches given by government officials on the annual 10 June Malvinas Day have emphasized territorial integrity or geopolitical mutilation. A typical speech in 1978 said, "The distance across this sea separates, but at the same time unites us with the [Malvinas]."¹⁵

An underlying theme of Argentina's interest in the Falklands, and the sea, has long been national jurisdiction of the continental shelf. Although it is commonly accepted that continental shelf doctrine was born with the 1945 Truman Proclamation, the so-called "Argentinian School" first advocated claim to the continental shelf in 1916.¹⁶ Argentina's continental shelf doctrine draws heavily on ocean research conducted early in this century by the Swedish geologist Otto Nordenskjöld and the Scottish meteorologist William Bruce. Their findings show the "Antillean Loop" to be an extension of the Andean Mountain system. The Falklands and the more southerly island groups of South Georgia, the South Sandwich, the South Orkney and the South Shetland Islands, are the landed areas above water of this submarine ridge which later emerges as the Antarctic Andes. Argentina considers that since these island territories are part of the Andes and because they are joined to South America by the continental shelf, this amounts to prior claim.¹⁷ By a Presidential Decree of 1946, Argentina laid claim to this area as an epicontinental sea (the sea above the continental shelf) which has since been called "the largest claim ever made, since the times when Grotius' *mare liberum* prevailed for a maritime zone."¹⁸ The Falklands situated some 400 miles off Argentina's coast fell within this zone, as did the more southerly island groups.

Complementing this geographical logic is a historical-juridical argument. This argument invokes the *uti possidetis juris* rule of intra-American customary international law which holds the right of sovereignty over the Falklands to be an inheritance from the Spanish Empire. The *uti possidetis juris* doctrine, like the Monroe Doctrine, was specifically intended to forestall occupation by

European powers.¹⁹ Although the epicontinental sea claim was abandoned in 1966 in favor of a 200 nautical mile territorial sea jurisdiction, Argentina continued to put forward its claim to the Falklands and the other islands on the basis of geographical and *uti possidetis juris* arguments, and on an illegal occupation by the British.

The epicontinental sea right was abandoned because it was more a resource claim than a territorial claim. Nothing in the 1946 Presidential Decree indicated that the 1943 claim of a 12-mile territorial sea had been derogated or abandoned.²⁰ The impetus to abandon the epicontinental sea in favor of a 200 nautical mile territorial sea came in the wake of the First and Second United Nations Conferences on the Law of the Sea (UNCLOS I and II) held in Geneva in 1958 and 1960. The international community was unable to agree on the breadth of the territorial sea.²¹ The consequence of the failure to agree on this issue has been called a "gap in the law,"²² which led to a pattern of unilateral assertions by various nations for their sea claims.

Argentina's sea claim can be viewed as serving nationalistic interests but the cultural aspects of the assertion go deeper. It has been said of its unilateral sea claims that "The impact of cultural traditions is another force of considerable dimension . . . it becomes a matter of whether . . . [the nation] will seek to compete or to cooperate with its sister states in orchestrating new patterns for the law of the sea."²³ Admiral Massera discussed this issue in a speech given to members of the Buenos Aires Faculty of Law and Social Sciences titled "*Derecho del Mar*." The word *derecho* has a dual meaning of either law or right and the context determines whether *derecho del mar* means "law of the sea" or "right of the sea." Admiral Massera used both contexts. This would not have been effective except for the audience's predisposition to Spanish natural law. The concepts of law and rights, including international law and national rights, are reciprocal concepts in natural law much as they are in Spanish language. The natural law system presumes the fundamental perception of rights as a precondition to law where our system presumes arguments of evidence or precedent.

What difference does this make? Applied to Argentine policy and the sea it makes considerable difference. The Latin American version of maritime law is not about freedom of the seas and the historical antecedents that go before it. It is about the natural right that accrues to a coastal state to exercise jurisdiction over its patrimonial sea.

Although Admiral Massera's speech preceded the Falklands War it touched on a unique aspect of the war. He said that the discussion of Grotius' *mare liberum* and John Seldon's *mare clausum* would ". . . continue to infinity as men of the sea forever encounter new obligations."²⁴ The Falklands War was the first modern war to involve the establishment of a *mare clausum* as a potential outcome.

The Argentine Antarctic. Juan Carlos Puig sets forth a policy objective with some clarity with the statement, "Our country must maintain and intensify effective occupation of the sector . . . All compromise of political and military character must be avoided until a definitive determination of its politico-judicial status has proceeded."²⁵ The strategy is interwoven into Argentina's relations with its rival Antarctic claimants, Britain and Chile; and accordingly, it has been the dictum for Argentina's hard line against compromise in the Falklands and Beagle Channel disputes.

Argentines regard the antagonists in both disputes as interfering with their sovereign destiny in the Antarctic frontier. This frontier is put forward as claim to all Antarctic territories and their 200 nautical mile sea zones between 25° and 74° west longitude to the South Pole. The sector bounds the Antarctic Peninsula, the South Shetland Islands, and the South Orkney Islands. As shown in Figure 1, Argentina, Chile and Britain all claim the most desirable part of Antarctica which is the Antarctic Peninsula, plus the South Shetlands. Argentina and Britain both claim the South Orkney group.

The only area resource exploitable within the capability of current technology is krill. Krill are found in swarms in the upper 200 meters of the water column. They contain 61 percent protein which is similar in percentage to that found in lobster, beef or shrimp. Estimates of total stocks range from 1.25 to 6 billion metric tons. The sustainable annual harvest has been estimated as ranging from 60 to 150 million metric tons. This is from one to two and a half times the world fish catch.²⁶ Locations of maximum commercial interest are bounded by the overlapping claims of Argentina, Chile and Britain. Because krill are found in relatively shallow waters, the 200 nautical mile sea zones appending to Antarctic territory may have more immediate practical relevance than the territorial land claim.

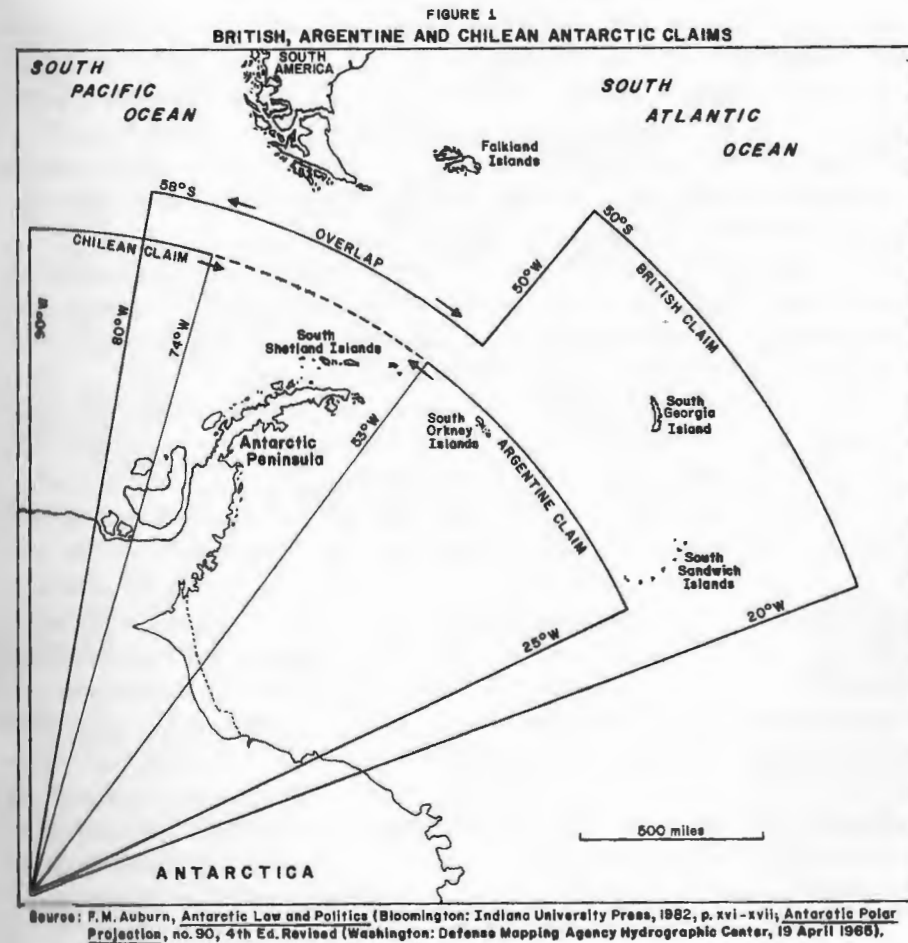
The Antarctica Treaty was intended to maintain the 1959 status quo.²⁷ It was based on the assumption that the area did not possess resources likely to be exploited in the near future. Argentina sees the rise of economic interests as eroding the rationale for the treaty. Argentina and the other parties signed the Treaty with a conditional understanding that became Treaty Article IV:

1. Nothing contained in the present Treaty shall be interpreted as:

(a) a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica;

(b) a renunciation or diminution of any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica; or otherwise;

(c) prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State's right of claim or basis of claim to territorial sovereignty in Antarctica.



Source: F. M. Auburn, *Antarctic Law and Politics* (Bloomington: Indiana University Press, 1982, p. xvi-xvii; *Antarctic Polar Projection*, no. 90, 4th Ed. Revised (Washington: Defense Mapping Agency Hydrographic Center, 19 April 1966).

2. No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force.²⁸

This article was deliberately drafted to enable states with conflicting interests to adopt differing views as to its meaning.²⁹ Argentina, as a serious territorial claimant, does not recognize Article IV's notion of *terra communis* as a perpetual condition of Antarctic politics. Argentina relies on Article IV as a practical instrument to preserve its territorial rights.

Rather far sighted was Argentina's argument, in concert with Chile and France, against the majority of the 1959 treaty participants who favored an indefinite treaty time span. Had the majority prevailed, the protection of claims afforded by Article IV would have been illusory.³⁰ The minority failed to achieve a fixed treaty period but an important compromise did result. The compromise is reflected in Article XII which allows any Consultative Party

the right to call a review conference of all Contracting Parties thirty years after the entry into force of the treaty. The treaty went into effect on 23 June 1961 which means that anytime after 23 June 1991 any party can present amendments. Any amendment presented would have to be approved by a majority of all parties. Unanimous consent is required for amendments to enter into force. Should a party fail to make effective its amendments it can opt out of the treaty and become an unbound third party.

The likelihood of post-1991 continuation of the treaty will then depend on the consent of parties to be bound. As noted earlier, the treaty was deliberately intended to maintain the status quo; a fundamental change in the situation could provide a ground for termination or withdrawal.³¹

Argentina has openly affirmed, in contravention of Article IV, that specific acts and activities carried out while the treaty is in force do strengthen claims to sovereignty. In 1973 President Lastiri and the entire Argentine cabinet flew to Marimbo Base which was then proclaimed Argentina's temporary capital. In 1978 the world's first Antarctic baby was born at Esperanza Base. Esperanza Base has also been the site of a wedding carried out by an official of the Argentine government. As specific instances for asserting sovereignty during the treaty period they are of little consequence. However, they do demonstrate Argentinian intentions and will by means of demonstrating occupation, Argentina intends to emerge from a treaty period in the strongest possible position. In the event of treaty termination, or withdrawal from the treaty, the mere continuation of Argentina's considerable activities would have relevance to the validity of claim under international law.³² Argentina's long-range objective is to emerge from the treaty period with a predominant presence in the Antarctic.

The Beagle Channel. The dispute centers on the three small islands of Picton, Nueva and Lennox which are clustered at the eastern entrance of the Beagle Channel as shown in Figure 2. These islands are not specifically mentioned in the Boundary Treaty of 1881 between Argentina and Chile and both nations have cited different interpretations of the treaty to support arguments. Argentina views Chile as aspiring to use the islands as a springboard for expansion into the South Atlantic and Antarctic. Such expansion would strengthen Chile's communication with the Antarctic Peninsula as well as its stature as an Antarctic nation. Chile could also use the islands to legally bottle up Argentina's second largest naval base at Ushuaia. If Chile were to successfully establish sovereignty over the islands the baseline demarcating Argentine-Chilean territorial seas would shift, and Argentine ships coming to and from Ushuaia would have to transit Chilean waters. Ushuaia, located within the Beagle Channel some fifty miles to the west of Picton Island is the staging and support center for Argentina's Antarctic stations.

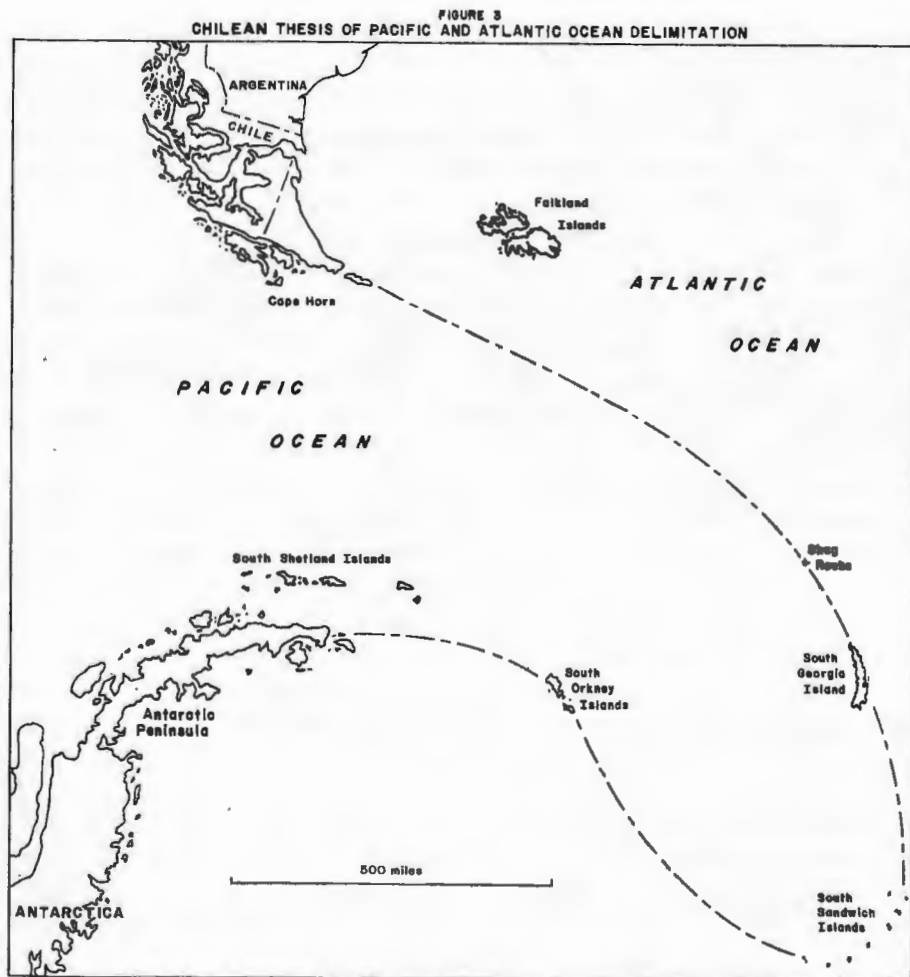


Source: Chilean-Argentine Relations: The Beagle Channel Controversy (Geneva: Afor, 1978), plate 1.

An underlying issue of the Beagle Channel is whether Picton, Nueva and Lennox are situated in Atlantic or Pacific waters. The 1919 London Conference fixed the delimitation of Atlantic and Pacific waters as the Cape Horn meridian. Chile's position is that this method has no geographic justification. Chile establishes its argument on the submerged Antillean loop "... which in forming an immense U opening to the west and extending to 28 degrees west longitude (that is to say 35 degrees more to the east than the southeastern extremity of Tierra del Fuego) constitutes the true delimitation of the Atlantic and Pacific Oceans."³³

In effect the Chilean thesis, illustrated in Figure 3, would deny Argentina most of its geographic claim by placing it in the Pacific Ocean. A fundamental principle of Argentine-Chilean relations has been the "oceanic principle." This principle came into force in 1893 as the Additional Protocol of the Treaty of 1881. It holds that "... Chile cannot claim any point towards the Atlantic nor can the Argentine Republic claim any point towards the Pacific."³⁴

In 1902 Argentina and Chile signed a General Treaty of Arbitration which bound them to submit all controversies to international arbitration. This led to the Agreement for Arbitration of 1971. In this agreement both parties accepted British arbitration of the Beagle Channel dispute wherein the British crown appointed a five member international court.



Argentina's basic argument implicit in the oceanic principle in the treaty of 1881 is that Chile could not claim any Atlantic territory. This argument stressed a vertical southern boundary. To lend coherence to the argument, "... the Beagle Channel was made to 'swerve' along Paso Picton and it assumed that the divisory criteria in the southern region had to be the Cape Horn meridian."³⁵ Argentina believed it had two supporting arguments: the *uti possidetis juris* link to the Cape Horn meridian and the aforementioned Additional Protocol of the Treaty of 1881.

Chile argued on the basis of the 1881 treaty text which attributes to Chile "all the islands to the south of Beagle Channel";³⁶ thus, Chile stressed the existence of a horizontal southern boundary. As an aside, the argument also handily supported Chile's view of the area to the south of Tierra del Fuego as part of the Pacific Ocean.

The court awarded Picton, Nueva and Lennox to Chile in February 1977. It rejected the validity of both the *uti possidetis juris* linkage to the Cape Horn meridian and the ability of the oceanic principle to govern the treaty of 1881. In doing so it accepted the validity of a horizontal southern boundary and may have lent legal credence to Chile's Pacific Ocean thesis.

Argentina declared the ruling null because of its "... serious, repeated and varied errors, omissions and abuses which are included in the arbitrators' decision, and which seriously damage Argentine rights and interests."³⁷ One Argentine official lashed out at former Argentine President Alejandro Lanusse for the unpardonable political error of allowing "... this problem to be submitted to a British arbiter, an unfriendly nation which always has tried to harm us and which aspires to part of our territory by force and with no rights at all."³⁸

Bilateral negotiations which followed Argentina's rejection of the arbitration soon broke down. Argentine and Chilean troops were massed in Tierra del Fuego and blackout exercises were carried out in Buenos Aires. The general tenor of the South American press was that "any future war between Argentina and Chile could almost immediately involve two other Latin American countries in the conflict: Bolivia and Peru. According to observers, Argentina, Bolivia and Peru would join in a kind of triple alliance against Chile in the event of any clash arising from the Beagle dispute."³⁹

In October 1978 the Presidents of Argentina and Bolivia took a formal step towards alliance by signing a communique which ratified their solidarity. The communique linked the Bolivian claim for an outlet to the Pacific—lost to Chile during the war of the Pacific in 1884—to the question of Argentina's sovereignty in the southwestern Atlantic, inclusive of the Beagle Channel and the Malvinas Islands.⁴⁰

The Argentine Armada deployed to Tierra del Fuego in November and was able to dominate the scene. The presence of Argentina's strike aircraft carrier, *ARA 25 de Mayo*, weighed heavily in the balance. The less capable Chilean Armada retired to the west and the following month tensions eased when both countries agreed to mediation by Pope John Paul II. The mediation proceeded behind closed doors in the Vatican amid occasional bland pronouncements on the friendly atmosphere of the talks.

A milestone of the mediation process was approaching in the form of a treaty expiration. On 5 April 1972 Argentina and Chile had signed a ten year General Treaty for the Juridical Settlement of Disputes. On 12 December 1980 the Pope forwarded a proposal which probably urged a renewal of the treaty as a framework for eventual resolution. Chile accepted but Argentina was noncommittal. Argentina was bound to find the treaty objectionable because Chile had already demonstrated the strength of its legal argument. It was in Argentina's interest to allow the treaty to expire; Argentina could then keep the dispute confined to bilateral discussion.

On the eve of the Falklands War, Argentina and Chile were apparently no closer to settlement of the dispute than they ever had been. In March 1982 Argentina quibbled with a note of protest to Chile concerning the remarks of a Chilean Under Secretary and asserted that Argentina maintained rights of navigation in the Beagle Channel. At the end of a response to the Argentine Ambassador, Chile's Director General for Foreign Policy said: "What the Under Secretary did say, what he meant, were the indubitable rights which Chile has south of the Beagle Channel as is clearly established in the 1881 Treaty signed by the two nations."⁴¹

In March 1982 it was obvious that years of negotiations on the two important issues of Argentine foreign relations were fruitless. In the eyes of the Argentinians, obvious relief was occupation of the Falklands. With Port Stanley as a new Antarctic support base, the problems of the Beagle Channel would largely disappear.

Aftermath

The events of the Falkland conflict have been reported fully and are best portrayed in the Argentine saga, *Martin Fierro*, by Jose Hernandez. The protagonist is a gaucho who exists within the dilemma between power and justice in the Pampa and becomes the heroic outlaw:

If one stands for it, he is a stupid gaucho;
If one doesn't stand for it, he is a bad gaucho.
Give him a lash! Give him the rod!
For this is what he needs . . . this is a gaucho's luck.
Let's go luck, let's go together.
Since together we were born so together we live
Without being able to separate ourselves from one another.
I will open the path we follow with my knife.⁴²

Argentina sought a peaceful balance between power and an ideal of justice for years, but, like *Martin Fierro*, finally took matters into its own hands. The result was a localized conflict with both sides seeking a solution without widening the war. During the conflict the international political context of the war changed and what emerged was the first north-south war of modern times. Within the OAS this was the war's real meaning, and it further highlighted the "south's" continuing economic problems.

Latin Americans characterize US continuing security policy as a fascination with East-West relationships at the expense of hemispheric interests. Our stance during the Falklands War was a signal to Latin America that the Malvinas War, a hemispheric issue, was being driven by East-West considerations of United States policy. In effect, the solidarity of OAS was a challenge to the East-West system of blocs and ideology.

Fence mending is unlikely to work unless the United States reorients its Latin American policy. As a community of developing nations, Latin Americans are economic pragmatists; they want to live better. The Buenos

Aires newspaper *Clarín* said it this way: "Even though theoretically the United States can do without all nations south of the Rio [Grande] because they are irrelevant from the viewpoint of East-West confrontation, it is equally true that any prospect for universal trade, in keeping with the great technological and business developments of this century, would have to take into account the need to integrate the people of underdeveloped nations into the market, and that in the interest of the United States this means the Latin American countries first of all."⁴³

A Latin American philosopher once wrote that North Americans "are always among us, even when they ignore us or turn their back on us. Their shadow covers the whole hemisphere. It is the shadow of a giant."⁴⁴ The challenge will be to face up to South American problems as distinct from traditional national security problems. What confronts our policy in South America is an economic order.

Hard Choices in the Antarctic. In a 1980 article entitled "Antarctica: the last great land rush on earth," M.J. Peterson wrote "sometime between now and 1991, the international community will have to consider creating a new legal regime for Antarctica."⁴⁵ The Falklands War underscores the need to solve the questions of Antarctic sovereignty and resources under international law. In any debate of Antarctic issues one bloc will represent the territorial claimants who want Antarctic division. This bloc would welcome a United States proclamation of title to the unclaimed "American sector,"⁴⁶ or a move to divide it with the Soviets as strengthening their position. The unclaimed sector is, however, the most inaccessible and least inviting area of the continent.⁴⁷

More likely, the United States will occupy the middle ground in the debate along with other treaty nations. The United States has in the past proposed an Antarctic condominium, or joint exercise of sovereignty. A consortium has also been proposed. Under consortium, Antarctic treaty parties would merge claims to jurisdiction over resource activities and regulate them jointly while otherwise leaving questions of sovereignty aside.⁴⁸

Claimant states have rejected both proposals. The consortium proposal is less objectionable from the claimant standpoint, however, and might be the shape of things to come. But, neither proposal would be acceptable to the Third World states of any prospective bloc that favors internationalization, such as was active during UNCLOS III. A similar bloc in Antarctic affairs could outnumber Antarctic treaty nations by six to one.

So far, most Third World countries have ignored Antarctic issues. During UNCLOS III there was no more than oral mention of Antarctic questions.⁴⁹ The Falklands War may focus more international attention on the Antarctic than before and, therefore, increase the likelihood of internationalization.

Danger in the Southern Cone: The Beagle Channel. On 15 September 1982 Argentina agreed to the Pope's proposal and renewed the General Treaty for the Juridical Settlement of Controversies with Chile. Argentina did not, however, renew the treaty's ten-year term. The treaty has been extended—until the mediation concludes in a final settlement, or until six months after the Pope declares that his mediation has ended.⁵⁰ By linking the life of the treaty to the length of the mediation process, Argentina put the burden of conflict avoidance on the mediator. Now the Pope has to solve the dispute to the satisfaction of both parties, probably impossible, or continue the mediation indefinitely.

The net result for Argentina is that it bought time. By renewing the treaty, Argentina has avoided a flare-up of the Beagle Channel issue during a low point in Argentine military preparedness and national morale. Final settlement of the Beagle Channel dispute probably depends upon the demarcation of Antarctic claims. Although Argentina and Chile may be able to arrive at some arrangement, agreement with Britain will be more difficult since the British claim is based upon discovery.

Until this Gordian knot is untied, the unstable geopolitical situation which culminated in the invasion of the Falklands will persist. In Pope John Paul II's mediation process between Argentina and Chile the United States can be a positive force. Washington took a good first step on 2 November 1982 by backing the UN General Assembly resolution which urged resumption of negotiations over the Falklands.⁵¹

Conclusion

From this discussion it is apparent that the issues that underlie the Falklands conflict are complicated and endemic to the greater area. That greater area, inclusive of the southern cone of South America and the Antarctic Peninsula, is a strategic transoceanic zone. Superpower tensions develop in such areas as events in and around the Horn of Africa, the Caribbean Basin, and the Mediterranean bear out.

A conflict of superpower interests in or near the southern extremity of South America appears remote at this time, nevertheless, some ominous preconditions to US-USSR friction in the area exist. First, it is an area of active regional antagonisms. The Falkland Islands and the Beagle Channel are loci of these antagonisms. Second, the United States and the USSR already have a presence in the Antarctic reaches of the area. Last, but most important, the governmental structures of the area are unstable.

The governments of Argentina and Chile have been historically anti-communist but these governments are essentially rootless. After new elections a new Argentine government will have to deal with the tensions of the Falklands conflict and the Beagle Channel dispute. There is little reason to believe that a new government will be fully relieved of its predecessors' ideological baggage.

It is not hard to imagine a new Argentine government accepting or even welcoming closer relations with Moscow. Such a prospect carries with it the likelihood of sizable arms transfers. Arms transfers to Argentina would represent more than mere political opportunity for the Soviets. It would also be a means of reducing the trade deficient brought about by large imports of Argentine grain in the last few years. The net effect would be a notable strategic development within the context of US-USSR relations.

There exists no easy solution to this congenital problem, but at this point the United States can best participate by resuming an even-handedness and encouraging a negotiated settlement over the Falklands sovereignty question. We must also be mindful, as we prepare for the coming Antarctic Treaty debates, of how Antarctic solutions might also contribute to a solution of the Beagle Channel dispute. Through such efforts we can contribute to regional stability, our best interest as a member of the Western Hemisphere community.

Notes

1. "Galtieri Gives Interview on Falklands War," Foreign Broadcast Information Service, *Daily Report*, Latin America, 17 September 1982, p. B4. Translated from weekly magazine *Siete Dias*.
2. "The Encircling Sea," *The Economist*, 24 April 1982, p. 14.
3. *The Falkland Islands: The Facts* (London: Foreign and Commonwealth Office, May 1982), p. 8.
4. M.J. Peterson, "Antarctica: The Last Great Land Rush on Earth," *International Organization*, Summer 1980, p. 383.
5. Emilio Eduardo Massera, "Derecho del Mar," *No Vamos a Combatir hasta la Muerte Vamos a Combatir hasta la Victoria*, v. I (Buenos Aires: Armada Republic Argentina, 1977), p. 19.
6. Bart Collins, "Political Cloud Stymies Falkland Search," *Oil and Gas Journal*, 26 July 1976, p. 77.
7. George Thomas Kurian, ed., "Argentina," *Encyclopedia of the Third World*, Revised Edition (New York: Facts on File, 1982), v. 1, p. 91.
8. F.M. Auburn, *Antarctic Law and Politics* (Bloomington: Indiana University Press, 1982), p. 143.
9. Christopher Dobson et al., *The Falklands Conflict* (Great Britain: Coronet Books, Hodder and Stoughton, 1982), p. 5.
10. Joan Pearce, "The Falkland Islands Negotiations, 1965-82," *The Falkland Islands Dispute: International Dimensions* (London: Royal Institute of International Affairs, April 1982), p. 3.
11. Lawrence Freedman, "The War of the Falkland Islands, 1982," *Foreign Affairs*, Fall 1982, p. 198.
12. E.W. Hunter Christie, *The Antarctic Problem* (London: Allen and Unwin, Ltd., 1951), p. 265.
13. Massera, *No Vamos a Combatir hasta la Muerte Vamos a Combatir hasta la Victoria*, p. 29.
14. *Ibid.*, p. 30.
15. Jose Maria Klix, "Day of Malvinas," U.S. Joint Publications Research Service, *Translations on Law of the Sea*, no. 81, JPRS 712524 (Washington: 21 July 1978), p. 41.
16. Alberto Szekely, *Latin America and the Development of the Law of the Sea*, v. I (New York: Oceana, 1976), p. 40; *The Continental Shelf: The Practice and Policy of the Latin American States with Special Reference to Chile, Ecuador, and Peru; A Study in International Relations* (Geneva: Droz, 1960), p. 42.
17. Christie, p. 264.
18. Szekely, v. I, p. 96.
19. Auburn, p. 49.
20. Szekely, v. I, p. 95.
21. *Ibid.*, pp. 297, 305.
22. *Ibid.*, p. 148.
23. George P. Smith II, *Restricting the Concept of Free Seas: Modern Maritime Laws Re-Evaluated* (New York: Krieger, 1980), p. 56.
24. Massera, p. 28.
25. Juan Carlos Puig, *La Antartida Argentina Ante el Derecho* (Buenos Aires: Roque Depalma, 1960), p. 245. Quota translated from Spanish.

Danger in the Southern Cone: The Beagle Channel. On 15 September 1982 Argentina agreed to the Pope's proposal and renewed the General Treaty for the Juridical Settlement of Controversies with Chile. Argentina did not, however, renew the treaty's ten-year term. The treaty has been extended—until the mediation concludes in a final settlement, or until six months after the Pope declares that his mediation has ended.⁵⁰ By linking the life of the treaty to the length of the mediation process, Argentina put the burden of conflict avoidance on the mediator. Now the Pope has to solve the dispute to the satisfaction of both parties, probably impossible, or continue the mediation indefinitely.

The net result for Argentina is that it bought time. By renewing the treaty, Argentina has avoided a flare-up of the Beagle Channel issue during a low point in Argentine military preparedness and national morale. Final settlement of the Beagle Channel dispute probably depends upon the demarcation of Antarctic claims. Although Argentina and Chile may be able to arrive at some arrangement, agreement with Britain will be more difficult since the British claim is based upon discovery.

Until this Gordian knot is untied, the unstable geopolitical situation which culminated in the invasion of the Falklands will persist. In Pope John Paul II's mediation process between Argentina and Chile the United States can be a positive force. Washington took a good first step on 2 November 1982 by backing the UN General Assembly resolution which urged resumption of negotiations over the Falklands.⁵¹

Conclusion

From this discussion it is apparent that the issues that underlie the Falklands conflict are complicated and endemic to the greater area. That greater area, inclusive of the southern cone of South America and the Antarctic Peninsula, is a strategic transoceanic zone. Superpower tensions develop in such areas as events in and around the Horn of Africa, the Caribbean Basin, and the Mediterranean bear out.

A conflict of superpower interests in or near the southern extremity of South America appears remote at this time, nevertheless, some ominous preconditions to US-USSR friction in the area exist. First, it is an area of active regional antagonisms. The Falkland Islands and the Beagle Channel are loci of these antagonisms. Second, the United States and the USSR already have a presence in the Antarctic reaches of the area. Last, but most important, the governmental structures of the area are unstable.

The governments of Argentina and Chile have been historically anti-communist but these governments are essentially rootless. After new elections a new Argentine government will have to deal with the tensions of the Falklands conflict and the Beagle Channel dispute. There is little reason to believe that a new government will be fully relieved of its predecessors' ideological baggage.

It is not hard to imagine a new Argentine government accepting or even welcoming closer relations with Moscow. Such a prospect carries with it the likelihood of sizable arms transfers. Arms transfers to Argentina would represent more than mere political opportunity for the Soviets. It would also be a means of reducing the trade deficient brought about by large imports of Argentine grain in the last few years. The net effect would be a notable strategic development within the context of US-USSR relations.

There exists no easy solution to this congenital problem, but at this point the United States can best participate by resuming an even-handedness and encouraging a negotiated settlement over the Falklands sovereignty question. We must also be mindful, as we prepare for the coming Antarctic Treaty debates, of how Antarctic solutions might also contribute to a solution of the Beagle Channel dispute. Through such efforts we can contribute to regional stability, our best interest as a member of the Western Hemisphere community.

Notes

1. "Galtieri Gives Interview on Falklands War," Foreign Broadcast Information Service, *Daily Report*, Latin America, 17 September 1982, p. B4. Translated from weekly magazine *Siete Dias*.
2. "The Encircling Sea," *The Economist*, 24 April 1982, p. 14.
3. *The Falkland Islands: The Facts* (London Foreign and Commonwealth Office, May 1982), p. 8.
4. M.J. Peterson, "Antarctica: The Last Great Land Rush on Earth," *International Organization*, Summer 1980, p. 383.
5. Emilio Eduardo Massera, "Derecho del Mar," *No Vamos a Combatir hasta la Muerte Vamos a Combatir hasta la Victoria*, v. I (Buenos Aires: Armada Republic Argentina, 1977), p. 19.
6. Bart Collins, "Political Cloud Stymies Falkland Search," *Oil and Gas Journal*, 26 July 1976, p. 77.
7. George Thomas Kurian, ed., "Argentina," *Encyclopedia of the Third World*, Revised Edition (New York: Facts on File, 1982), v. 1, p. 91.
8. F.M. Auburn, *Antarctic Law and Politics* (Bloomington: Indiana University Press, 1982), p. 143.
9. Christopher Dobson et al., *The Falklands Conflict* (Great Britain: Coronet Books, Hodder and Stoughton, 1982), p. 5.
10. Joan Pearce, "The Falkland Islands Negotiations, 1965-82," *The Falkland Islands Dispute: International Dimensions* (London: Royal Institute of International Affairs, April 1982), p. 3.
11. Lawrence Freedman, "The War of the Falkland Islands, 1982," *Foreign Affairs*, Fall 1982, p. 198.
12. E.W. Hunter Christie, *The Antarctic Problem* (London: Allen and Unwin, Ltd., 1951), p. 265.
13. Massera, *No Vamos a Combatir hasta la Muerte Vamos a Combatir hasta la Victoria*, p. 29.
14. *Ibid.*, p. 30.
15. Jose Maria Klux, "Day of Malvinas," U.S. Joint Publications Research Service, *Translations on Law of the Sea*, no. 81, JPRS 712524 (Washington: 21 July 1978), p. 41.
16. Alberto Szekely, *Latin America and the Development of the Law of the Sea*, v. I (New York: Oceana, 1976), p. 40; *The Continental Shelf: The Practice and Policy of the Latin American States with Special Reference to Chile, Ecuador, and Peru; A Study in International Relations* (Geneva: Droz, 1960), p. 42.
17. Christie, p. 264.
18. Szekely, v. I, p. 96.
19. Auburn, p. 49.
20. Szekely, v. I, p. 95.
21. *Ibid.*, pp. 297, 305.
22. *Ibid.*, p. 148.
23. George P. Smith II, *Restricting the Concept of Free Seas: Modern Maritime Laws Re-Evaluated* (New York: Krieger, 1980), p. 56.
24. Massera, p. 28.
25. Juan Carlos Puig, *La Antartida Argentina Ante el Derecho* (Buenos Aires: Roque Depalma, 1960), p. 245. Quote translated from Spanish.

26. Auburn, p. 61; J.E. Fraga, *Introducción a la Geopolítica Antártica* (Buenos Aires: Dirección Nacional del Antártico), pp. 54-57; V. Palermo, "Espacio Continental y Espacio Antártico," *Revista Escuela de Defensa Nacional*.
27. Peterson, p. 383.
28. Auburn, p. 144.
29. U.S. Treaties, etc., "Antarctic Treaty," *United States Treaties and Other International Agreements*, TIAS 4780 (Washington: US Dept of State, 1962) v. 12, pt. 1, p. 796.
30. Auburn, p. 104.
31. *Ibid.*, p. 142.
32. *Ibid.*, p. 144.
33. *Ibid.*, p. 107.
34. Manuel Hormazabal, *El Canal de "Beagle" es Territorio Chileno* (Santiago de Chile: Editorial Del Pacifico, 1970), p. 144. Quote translated from Spanish.
35. *Chilean-Argentine Relations: The Beagle Channel Controversy*, 2nd Ed. (Geneva: 1978), p. 88.
36. *Ibid.*, p. 121.
37. *Ibid.*, p. 84.
38. Oscar Antonio Montes, "Montes Issues Declaration Rejecting Ruling," U.S. Joint Publications Research Service, *Translations on Law of the Sea*, No. 71, JPRS 70818 (Washington: 22 March 1978), p. 75. Translated from Buenos Aires *Domestic Service* in Spanish 2300 GMT, 25 January 1978.
39. Jacinto Ausbruch Costafor, "Official Hits Carvajal's Beagle Channel Views," U.S. Joint Publications Research Service, *Translations on Law of the Sea*, No. 65, JPRS 70312 (Washington: 9 December 1977), p. 39. Translated from *Paris AFP* in Spanish, 0255 GMT, 24 November 1977.
40. "Beagle Channel Issue International Problem," U.S. Joint Publications Research Service, *Translations on Law of the Sea*, No. 88, JPRS 72285 (Washington: 22 November 1978), p. 52. Translated from Rio de Janeiro *Manchete* in Portuguese, 7 October 1977, pp. 92-93.
41. "Communique Confirms Solidarity," U.S. Joint Publications Research Service, *Translations on Law of the Sea*, No. 88, JPRS 72285 (Washington: 22 November 1978), p. 54. Translated from Buenos Aires TELAM in Spanish, 0155 GMT, 26 October 1972.
42. "Argentine Right to Use Beagle Channel Not Denied," Foreign Broadcast Information Service, *Daily Report*, Latin America, 19 March 1982, p. E1. Translated from Santiago Chile Domestic Service in Spanish, 1100 GMT, 18 March 1982.
43. Jose Hernandez, *Martin Fierro* (Buenos Aires: Ediciones "Jaguel," Garamond, 1974), p. 66. Quote translated from Spanish version.
44. "Dailies' Commentaries View Haig's Resignation," Foreign Broadcast Information Service, *Daily Report*, Latin America, 29 June 1982, p. B10. Translated from Buenos Aires *Clarín* in Spanish, 26 June 1982.
45. Octavio Paz, quoted by Robert A. Pastor, "Our Real Interests in Central America," *The Atlantic*, July 1982, p. 35.
46. Peterson, p. 377.
47. Auburn, p. 28.
48. *Ibid.*, p. 403.
49. Peterson, p. 397.
50. *Ibid.*, p. 403.
51. "Foreign Ministry Communique," Foreign Broadcast Information Service, *Daily Report*, Latin America, 16 September 1982, p. B1. Translated from Buenos Aires in Spanish DYN 1423, 15 September 1982.
52. Bernard D. Nossiter, "U.S. Backs Argentine Bid in U.N. on Falklands," *The New York Times*, 3 November 1982, p. A9.

Commander Marshall Van Sant Hall is a 1983 graduate of the Naval War College and is presently assigned to the office of the Chief of Naval Operations (Op-63).

— ψ —

Blitzkrieg From the Sea: Maneuver Warfare and Amphibious Operations*

by

Captain Richard S. Moore, US Marine Corps

Recent military events have reinforced a long-held naval belief in the necessity for a maritime nation to maintain an amphibious assault capability. The British reconquest of the Falklands again demonstrated the efficacy of amphibious forces, even when outnumbered and facing high technology, stand-off weapons. In the Middle East, Israeli Army units sliced into Lebanon using a combination of armored thrusts and amphibious bounds. Of equal significance to American military planners, the Rapid Deployment Force has recently been elevated to the status of a separate unified command, an action that has necessitated a reemphasis on amphibious operations unseen since the 1940s and Inchon. Changes predicted by the disciples of modern weapons development have not diminished the need to structure and deploy forces able to cross the seas and project power ashore.

Yet, if recent events have restated a long-known military fact, modern technology has raised serious, even fundamental, questions concerning the tactical costs of amphibious landings. In the Falklands, heavy casualties jolted the British and could well have been politically decisive had the Argentine forces been better led. Even in its weakness, Argentina shocked military observers by exacting a frightening toll on British shipping; the near-disastrous landing at Port Fitzroy provided a bloody lesson in the destructiveness of today's weapons.¹ Israeli amphibious forces, mindful of Russian-equipped Palestinians, remained closely tied to advancing inland columns; while Israeli soldiers and airmen displayed a healthy respect for PLO fighters armed with antitank and air defense missiles.² Today, planners at the newly established Central Command are grappling with problems echoing those encountered by the British and Israelis and revolving around one question—how best can amphibious landing forces be placed ashore in the face of almost revolutionary advancements in weapons capabilities?

The problem of getting forces ashore becomes more acute when one must deal with well-trained enemy forces bent on denying access to the shoreline. The basic requirements of an amphibious assault, long held to be vital to

*This article won the Admiral Richard G. Colbert Memorial prize, the essay judged to be the most professionally worthy of those submitted for the award.

success, may no longer be attainable. Unlike the Pacific landings of World War II, amphibious objective areas could prove to be impossible to isolate. Air and naval superiority in the objective area may only be achieved temporarily. Finally, enemy defenses and counterstrokes may prevent the landing force commander from methodically building up his combat power ashore before breaking out of his beachhead. Since the early months of 1943, naval planners have relied on these three basic requirements being met; indeed, current amphibious exercises assume that they have been. Unfortunately, the future may not be so generous. The amphibious problem has, regrettably, not kept pace with technological development. Newly procured Light Carrier Air Cushions and Joint Vertical experimental-type aircraft, if employed using traditional methods, will change nothing. The solution requires far more than the mere application of technology.

In recent years, military reformers have advocated an approach to land tactics that may offer an alternative. Adopted by the Army in its doctrinal bible, *FM 100-5*, maneuver warfare calls for tactics that target enemy cohesion and command, rather than physical assets.³ The prophets of maneuver warfare have largely ignored the amphibious dimensions of their ideas, and organizational separations between naval and land combat have tended to complicate the tenets of maneuver warfare. This essay will attempt to bridge that gap. Following a discussion of the concepts of maneuver warfare, current amphibious doctrine will be meshed with those concepts in the hope that new tactics and techniques may emerge. Success in such a venture could forestall a return to a Gallipoli-like syndrome.

Maneuver Warfare Concepts. The concept of maneuver warfare centers on the decision analysis done by retired Air Force Colonel John Boyd. First conceived in terms of air-to-air combat, Boyd developed a decision model based on four distinct steps—observation, orientation, decision, and action (OODA). Since every combat situation requires opponents to pass through a cycle of observing a situation, orienting towards it, deciding on a course of action, and then acting on that decision, Boyd postulated that victory would be achieved by the combatant who was able to complete this cycle at a faster tempo. The military force able to “get inside” an adversary’s loop, thus forcing him to react to vague images of surrounding events, creates turmoil within the enemy command. The subsequent confusion and disorientation would compound itself until the enemy, although probably not physically destroyed, proved incapable of continued effective resistance.⁴

Expanding on his theory, Boyd and other military analysts embarked on a detailed study of military history in order to find the means by which victorious armies were able to operate at a faster tempo than their enemies.⁵ The key elements proved to be relatively simple. Through three basic tools—(1) the focus of main effort, (2) surfaces and gaps, and (3) the

commander’s intent—military organizations from Napoleon’s Grand Army to the Israeli Defense Force have been able to secure victory, often against numerically and technically superior opponents. These three tools enabled victors to reduce the time needed to arrive at decisions and to act, thus creating situations in which their opponents faced rapidly changing and often multiple threats.⁶

The focus of main effort—what the Germans called the *schwerpunkt*—serves as the driving force in maneuver warfare. Like the objective of the familiar principles of war, the focus of main effort provides direction to a military operation. Yet, the *schwerpunkt* is more. It is a conceptual objective that aims at enemy weaknesses, be they physical, moral, or organizational. As such, the focus of main effort changes with the combat situation, constantly searching for a means to shatter the enemy’s cohesion. At Chancellorsville, Lee found it among the dining Federal troops of Hooker’s right flank. At the Battle of Leyte Gulf, Clifton Sprague’s *schwerpunkt* lay in the near suicidal charge of his destroyer escorts against the Imperial Japanese Navy’s mighty battleships, who retreated at the moment of victory, their nerve shattered by the fanatical Americans. In both cases the focus of main effort aimed at a vital enemy weakness only momentarily exposed.

Enemy weaknesses, however, are only important if discovered; therefore the second tool of maneuver warfare must be employed, that of surfaces and gaps. Quite simply, the search for surfaces and gaps requires small probing forces to seek out enemy frailties, bypassing or avoiding centers of resistance. The commander, once a gap is located, pushes his reserve forces forward to exploit the discovered crack. The enemy quickly becomes preoccupied with thwarting these probes. By using multiple axes, an attacker can confound his opponent. First used by the German Army in its 1918 Western Front offensives, and soon after delineated in Liddell Hart’s “expanding torrent” theory,⁷ the concept of surfaces and gaps became a critical tool in *blitzkrieg* tactics, accounting for many of the German Wehrmacht’s victories. During the US Navy’s Central Pacific drive of World War II, Marine assault forces employed this concept to drive through Japanese defenses, mopping up bypassed centers of resistance after securing the islands. Despite confined spaces, the Marines quickly disorganized Japanese defenses, significantly reducing their effectiveness.⁸

Neither the *schwerpunkt* nor its extension, the search for surfaces and gaps, can be successful if not controlled by the third tool of maneuver warfare, the commander’s intent. Distinct from confining restrictions symbolized by detailed map overlays, the commander’s intent acts as a binding glue, giving form to the amoebic movements of subordinates. The intent allows widely separated units, faced with unique situations, to act within the parameters of the commander’s wishes without sacrificing initiative and flexibility. The intent differs from mere statements of mission or objective, which are usually expressed in terms of terrain features or geographic locations, in that it

orients on the enemy. A subordinate commander, faced with a unique situation that requires a rapid decision, is thus able to act without specific orders or permission yet remain within his commander's overall scheme. Nelson's ships' captains, prior to the Battle of Trafalgar, clearly understood the intent of their commander after reading his orders, which stated, in part, that "the second in command will after my intentions are made known to him have the entire direction of his line to make the attack," and concluded with the instruction, as clear as it was stirring, "in case signals can neither be seen nor perfectly understood no captain can do very wrong if he places his ship alongside that of an enemy."⁹ Nelson understood the underlying principles of maneuver warfare.

The type of initiative inherent in maneuver warfare, necessary to generate enemy confusion, requires thorough integration of all arms. Not to be confused with the current concept of supporting arms, combined arms seek not to destroy targets, but to create situations in which an action taken to avoid the effects of one weapon quickly exposes the enemy to another. The recent Israeli use of ARM air-to-ground missiles against Syrian air defenses forced the Syrians to shut off pulse-emitting tracking radars. No sooner had they done so than Israeli aircraft, armed with conventional bombs, destroyed the dormant air defense positions. The Syrians faced destruction regardless of the action.¹⁰ Such use of combined arms, by creating multiple threats, produces a synergism far more deadly than that of supporting arms.

The basic tools of maneuver warfare, although vitally important, will be of only marginal utility if not applied with a thorough understanding of the concept of the operational art. Defined as the art of using tactics to strike at an enemy's strategic center of gravity, the operational art is a thought process that enables commanders to see through what has been often described as the fog of war. Concentrating on the whole combat action, a commander skilled in the operational art will be concerned with tactical events only if they impact on his ability to achieve his objectives. The mere seizure of a piece of terrain accomplishes little unless its seizure places the enemy in a disadvantageous position, not in the tactical sense but in the operational sense. Napoleon, perhaps the greatest master of the operational art, or what he called the *coup d'oeil*, suffered many tactical setbacks during the early hours of the Battle of Austerlitz, only to unleash his reserves on the Austrian center, greatly extended and weakened, at the critical moment. The Austrians, seeking to accumulate small tactical success in the hopes of rolling up Napoleon's army, had failed to look beyond their momentary victories. Napoleon, unperturbed by the Austrian advances, observed their dangerously thinned center and smashed it, routing the Austrian army in the process.¹¹

As can be seen in the preceding paragraphs, maneuver warfare possesses unique characteristics. Based on Boyd's OODA decision cycle, it combines the three tools—the focus of main effort, surfaces and gaps, and the

commander's intent—within the concept of the operational art. The result is a style of warfare that, while fluid and decentralized, maintains its orientation on the enemy's strategic weaknesses. In order for maneuver warfare to be successful, new tactics and techniques must be developed that will enable diverse elements to act and react faster than the enemy, creating confusion in the opponent's command structure by forcing him to react to multiple and indistinct images of the battle. Herein lies the critical challenge to practitioners of amphibious warfare.

Applying the Concepts. Modern amphibious doctrine traces its origins to the early years of the Depression, when a few marines at Quantico produced the first manual on landing operations. Tested and expanded in the ensuing years and combat proven in World War II, the principles of amphibious warfare have remained remarkably resilient in the face of changing technology and methods of warfare. Yet, today, amphibious doctrine faces serious challenges. Basic requirements for air superiority, objective area isolation, and methodical buildups ashore may no longer be attainable. Like any tactical doctrine faced with changing external conditions, amphibious doctrine must be capable of adapting new ideas to proven principles. The meshing of maneuver and amphibious warfare may provide such a synthesis to produce a new doctrine as devastating as that formulated fifty years ago at Quantico.

Before molding new tactics and techniques from this doctrinal synthesis, a more fundamental, operational examination of amphibious warfare is necessary. Conceptualizing amphibious landings in terms of the operational art reveals a glaring, and potentially disastrous, division between the so-called ship-to-shore movement and operations ashore.¹² By tactically separating the naval and the land components, amphibious forces have created a functional split that could seriously degrade their ability to create, and react to, rapidly changing situations. Command relationships have always been recognized as critical in an amphibious assault. Rarely, however, have they been based in the operational situation. Too often command structures have conformed to more static, and artificial, divisions of labor delineated by the high water mark. The amphibious landing must be viewed in its entirety. In doing so, naval and land forces become interchangeable components of an operational whole. The key factor in determining command relationships is the operational, not tactical, situation. Both naval and ground force commanders must understand this and be prepared to sacrifice short-term tactical goals to achieve operational objectives. Whether the amphibious task force or landing force commander controls elements of an amphibious landing will be wholly dependent upon what considerations, be they naval or ground, are critical to achieving operational objectives.

In developing the command relationships for an amphibious operation, every effort should be made to ensure total integration of all arms. Naval

gunfire, air support, artillery, as well as combat and service support units require mutual enhancement to be of maximum effectiveness. The current integrative means embodied in the Supporting Arms Coordination Center and the Fire Support Coordination Center, while able to reduce duplication and friction among combat support assets, fails to foster the type of operationally oriented combined arms structure necessary for maneuver warfare. While coordination is important, the ability to combine diverse elements, quickly shifting them to meet rapidly changing situations, is essential. A cruiser armed with Standard missiles may be placed under the operational control of the landing force commander to provide air defense for his forces ashore. In a different situation, land-based Hawk missile launchers could be assigned to the amphibious task force commander. Combined arms synergism cannot be restricted by more traditional, and too often parochial, combinations of weapons.

New command relationships based on an appreciation of the operational art are but the first step in integrating maneuver warfare and amphibious operations. Tactics and techniques must be developed that will retain the battle-proven principles of amphibious doctrine and apply them to the new realities of modern combat. Given today's surveillance capabilities, there is little likelihood that an amphibious task force will achieve strategic surprise. Yet, operational surprise, through the creation of multiple threats and the employment of new combat and logistic techniques is still quite possible, and following are some suggested techniques. It should be remembered that tactics and techniques are only tools with which to develop solutions to combat problems and thus are useless if considered as separate entities.

The operational significance of coastal waters has never been fully appreciated. Unlike inland terrain, with its hills, streams, forests, and various other obstacles, the ocean is relatively flat, even in weather conditions that often slow or stop land campaigns, offering amphibious forces a plain on which to conduct initial operations. The advantages offered by this plain can be exploited using new landing tactics based on multiple landing points and rapid shifting of forces. Instead of the relatively static and predictable broad landing beaches currently used, much narrower landing points of no more than tens of yards width offer an opportunity to seek out enemy weaknesses. By landing his forces across multiple landing points, perhaps in waves of companies, a commander retains the ability to develop situations while committing minimal forces. If successful, initial landing forces can be immediately reinforced by uncommitted units; if not, they can be quickly withdrawn and shifted to more successful landings. Such a concept proved highly successful during MacArthur's drive along the New Guinea coast in 1943 and 1944. Hamstrung by limited quantities of amphibious shipping, and unsure of Japanese defensive concentrations, the Seventh Amphibious Force

became expert at limited visibility landings across lightly defended landing points, rapidly reinforcing success and evacuating failures. Many of these landings faced enemy air and naval superiority.¹³ Orienting on the enemy, the amphibious commander of the next decade, equipped with Joint Vertical experimental-type aircraft and Light Carrier Air Cushions, will be capable of landing at several points along an enemy coastline, seeking out enemy weaknesses and shifting forces to exploit them. Such landings, undertaken at night or in limited visibility and coupled with feints and demonstrations, could prove devastating to the cohesion of enemy coastal defenses.

Effective control of forces landing over dispersed landing points can only be maintained through mission-type orders. Such orders, clearly stating the intent of the overall task force commander, as well as the amphibious and landing force commanders, allow dispersed units to act freely within the operational objective. More importantly, subordinate commanders can fully understand their role if required to shift to another landing point or to drive inland. The glue is the commander's intent, not geographic objectives, beachhead lines, or limits of advance. While these geographic control measures may be helpful in articulating intent, they should be guides, not unbreakable shackles. To adjust his focus of main effort or react to rapidly shifting circumstances, the commander cannot rely on detailed reports; instead he must position himself where he can see the developing situation. Radio lined spaces aboard ships will not provide the landing force commander with the type of information and control needed to get a "feel" for the battle. Placing himself well forward, he can assess the situation and allocate forces to influence the action while retaining operational flexibility and allowing maximum subordinate initiative at the tactical level. Despite appalling losses, marines seized Tarawa largely because Colonel Shoup established a command post ashore and assumed operational control, directing crucial landings of reinforcements. Inland, subordinate commanders fought the tactical battle, fully understanding the landing force mission. Throughout, the 2d Marine Division Commander, aboard the USS *Maryland*, merely watched.¹⁴

The flexibility and rapid response required of maneuver warfare mandates modifications in air, naval, and logistic support procedures. Traditional concepts of close air support face serious challenges from modern, mobile air defense systems. Heavy casualties among Israeli close air support aircraft in the Yom Kippur War of 1973 offers but one tragic example of the lethality of modern antiair weapons. Indeed, close air support, as currently practiced, may be obsolescent. While marine artillery units have grappled with the problems of flak suppression,¹⁵ the answer for vulnerable close air support aircraft may be conceptual rather than technical. One solution involves a combination of decentralized assignment of air assets and battlefield air interdiction. Decentralization can be achieved through a system of forward

operating bases and locations from which V/STOL aircraft and helicopter gunships are staged into the battle area. In place of mission assignment through a Direct Air Support Center, these aircraft are placed under tactical control of ground commanders. Refueling and rearmament are accomplished at the forward operating bases.¹⁶ In the amphibious assault, aircraft would stage initially from seaward platforms, such as LPHs, and would report to ground commanders using landing zones or, in the case of V/STOL aircraft, roadways. In this manner, local flak suppression can be accomplished with a minimum of lengthy coordination and expenditure of ammunition. A combination of attack helicopters and V/STOL aircraft can even provide mutual flak suppression. Currently, Marine Corps aviators are experimenting with elements of this decentralized close air support system with a high degree of success.¹⁷

Battlefield air interdiction provides effective air support to ground forces while largely freeing both air and ground units from detailed, and often restrictive, coordination procedures. Quite simply, battlefield air interdiction calls for conventional fixed-wing aircraft to attack targets beyond the Fire Support Coordination Line.¹⁸ Fully briefed on the ground commanders' intent, pilots flying such missions will be tasked with interdiction of enemy forces beyond the immediate zone of combat. Command centers, logistics elements, and reserve forces are lucrative targets for air attack, the resulting confusion and destruction degrading the enemy commander's ability to react to changing conditions in the ground battle. While battlefield air interdiction will require aviation units to develop tactics similar to those used by the Israelis in the Bequ'aa Valley, it offers a highly flexible and survivable operational alternative for attack aviation supporting amphibious landings.

Naval support of an amphibious landing, like aviation, must also become more flexible. As has been discussed, ships' captains may be required to temporarily come under the control of the landing force commander. To be truly effective, supporting ships require a thorough understanding of operations ashore, particularly the intent of the landing force commander. In the absence of specific orders, actions can then be taken to influence the operational, or even tactical, situation. The destroyer gunfire that decimated German emplacements on Omaha Beach on 6 June 1944—provided without specific request—clearly illustrates this point. Of equal significance, however, are those units directly involved in the landing who, unfortunately, often see their mission in very narrow terms. These elements, which include beachmasters, landing craft, and control craft, serve a vital function that can be made far more effective employing maneuver warfare concepts. Tasked with transporting assault troops and their supplies, these Navy units must become closely attuned to the operational situation ashore, particularly one involving multiple landings and offshore shifting of forces. They must view their mission in its operational context, and be ready to act as

the seaward extension of the landing force. The key rests in closely uniting naval and land forces, not only physically, but operationally.

One final aspect of amphibious operations must be discussed—logistics. No amount of tactical rejuvenation will survive if not supported logistically. Indeed, the tactical characteristics of maneuver warfare equally apply to logistics. In an amphibious assault, logistics plays a *crucial* role and is an essential element of the operational scheme. The current logistics doctrine of on-call resupply and gradual buildup in a Beachhead Support Area is inadequate. Too often clumsy and requiring establishment of a vulnerable supply base, amphibious logistics should, instead, be based on the principle of forward-push logistics, i.e., providing the commander with the type of fluid, operationally oriented logistics necessary to fight a maneuver warfare amphibious battle. Forward-push logistics, first employed successfully by the Germans and subsequently fine-tuned by the Israelis, demands that logisticians be as operationally oriented as combat commanders. Highly decentralized, this system of logistics operates without specific requests for resupply. Instead, ammunition, food, and other vital supplies are pushed forward in accordance with the tactical situation. Needs of combat units are predicted based on the level of combat intensity.¹⁹

In an amphibious landing, forward-push logistics centers on mobile loaded floating dumps and Tactical Logistics (TacLog) groups with expanded responsibilities. Preloading vehicles with combat-essential supplies and similarly organizing logistics and maintenance units largely erases the need for vulnerable dumps and installations ashore. TacLog groups, closely attuned to the situation ashore, then decide which logistics elements are required ashore and order them to land. Once across the beach, these elements are pushed forward by the shore party. Upon completion of their logistics mission, the mobile elements return to amphibious shipping for replenishment and reassignment in the floating reserve. These procedures can be modified to include both helicopter and fixed-wing logistics modules. Tactically, the concept of mobile logistics is undergoing evaluation;²⁰ its application in amphibious operations, however, necessitates that both naval and ground force components, from shipboard crews to forward combat elements, understand the operational aspects of logistics and remember that support must anticipate combat needs, rather than respond to them.

Conclusions and Recommendations. Combining maneuver and amphibious warfare impels a new way of thinking about a doctrine that, after nearly 50 years of existence, has become deep rooted in both the Navy and Marine Corps. Decentralized control, exploitation of enemy weaknesses, and an operational outlook that draws no distinction between land and sea characterize the maneuver warfare approach to amphibious landings. Like

any new military doctrine, maneuver warfare brings new tactics and techniques. Revamped close air support procedures, columnal, instead of linear assault waves storming narrow landing points, task organizations that cross service boundaries, and highly mobile combat logistics comprise a few of these means. Although new, none are revolutionary; indeed many are already being employed or evaluated. Of themselves, however, techniques are useless. They must be ensconced in the operational art, where they may be blended together. Herein lies the key to incorporating maneuver and amphibious warfare.

Such incorporation calls for education and training that develops technical proficiency in maneuver warfare skills and, of far more importance, initiative and boldness in those that must apply them. Training in combined arms integration, rather than supporting arms techniques, and tactical skills that seek enemy weakness, such as infiltration and night or limited visibility techniques, should be coupled with problems that seek innovation. Leaders at even the most junior levels must be encouraged to use their initiative in unplanned for circumstances. This applies equally to ground, air, and naval personnel. Understanding between diverse tactical elements stems from common approaches to problems based on initiative and daring, rather than common solutions. The excellence of the Wehrmacht in World War II rested largely in its innovative core of junior officers and NCOs, fully capable of independent action within the operational context of a combat situation.²¹

Innovativeness, coupled with a clear understanding of the operational art, is a function of education. New amphibious landing tactics and techniques based on maneuver are impotent if not executed by officers who possess intellectual ability. In the Navy and Marine Corps, much effort is spent learning technical details such as planning sequences and formats, but little is expended in developing minds that are able to think beyond their immediate surroundings. While technical expertise is important, its application demands far more than memorization and motor skills. The ability to view combat in terms of the operational art stems from careful intellectual preparation. Brigadier General J. C. Breckinridge, Commandant of the Marine Corps Schools in the early 1930s at the heyday of amphibious doctrinal development, wrote that the purpose of military education should be: ". . . to urge to be different, to be original, to encourage initiative, to stimulate a difference of opinion that will reason rather than copy; and never to adopt a precedent for no better reason than to copy it . . . Look ahead for progress, not back for precedent. Accept the precedent as a last resort."²² Blending maneuver and amphibious warfare requires such an educational approach.

The preceding pages have attempted to present an alternative doctrinal means with which amphibious forces may cope with modern combat. Historically, the principles of maneuver warfare have often resulted in victory. Quite simple in its basics, maneuver warfare offers a new

amphibious potential for the Navy and Marine Corps. Adoption of the tactics and techniques of maneuver warfare, however, necessitates a fundamental shift in intellectual attitudes and preparation. Parochial divisions between service components can no longer be tolerated. Commanders must trust subordinate initiative, delegating tactical responsibilities in order to concentrate on operational considerations. Success or failure of these principles rests in the training and education of those who execute them; detailed mastery of techniques must lead to more open examination of concepts. Maneuver warfare could easily restore the flexibility and devastating potential of amphibious warfare. In doing so, it cannot be reduced to hardbound precepts. In the end, successful amphibious landings will depend on the willingness of its practitioners to outfight, rather than outmuscle, the enemy.

Notes

1. *The Falklands Campaign: The Lessons* (London: HMSO, December 1982), pp. 10-12.
2. Chaim Herzog, *The Arab-Israeli Wars* (New York: Random House, 1982), pp. 233-251.
3. Dept. of the Army, *Operations, FM 100-5* (Washington: 1982), passim.
4. John Boyd, "Patterns of Conflict," Unpublished Outline, January 1981, pp. 1-6.
5. *Ibid.*, p. 6.
6. An excellent summary of maneuver warfare fundamentals can be found in William S. Lind, "Tactics in Maneuver Warfare," *Marine Corps Gazette*, September 1981, pp. 36-39.
7. B. H. Liddell Hart, "The 'Man in the Dark' Theory of Infantry Tactics and the 'Expanding Torrent' System of Attack," *Journal of the Royal United Service Institution*, February 1921, pp. 1-22, passim.
8. Jeter A. Isley and Philip A. Crowl, *The U.S. Marines and Amphibious War* (Princeton, N.J.: Princeton University Press, 1951), p. 285.
9. Nelson Memorandum quoted by E. B. Potter, ed, *Sea Power, A Naval History* (Englewood Cliffs, N.J.: Prentice-Hall, 1960), p. 163.
10. Discussions with Fire Support Coordination Officer, MAWTS-1, February 1983.
11. David G. Chandler, *The Campaigns of Napoleon* (New York: Macmillan, 1966), pp. 413-439.
12. US Navy, *Doctrine for Amphibious Operations, NWP 220(B)* (Washington: Dept. of the Navy), passim.
13. Daniel E. Barbey, *MacArthur's Amphibious Navy, Seventh Amphibious Force Operations, 1943-1945* (Annapolis: US Naval Institute, 1969), pp. 44, 79-80.
14. US Marine Corps, *U.S. Marine Corps Operations in World War II, Central Pacific Drive* (Washington: US Gov. Print. Off., 1966), pp. 53-71.
15. "Flak Suppression in a Sophisticated Threat Environment," 10th Marines Training Pamphlet, 25 July 1978, passim.
16. Jeremy G. Saye, "The Role of Close Air Support in Modern Warfare," Unpublished thesis, Air War College, Maxwell AFB, Ala., April 1979, pp. 23-27.
17. Marine Corps Development and Education Command, *Close Air Support Handbook, OH 5-4* (Quantico, Va: 1979), pp. 9, 75.
18. Saye, pp. 50-52.
19. Edward Luttwak and Dan Horowitz, *The Israeli Army* (New York: Harper and Row, 1975), p. 175.
20. Marine Corps Development and Education Command, *Mechanized Combined Arms Task Forces, MC 4TF, OH 9-3* (Quantico, Va: 1980), pp. 31-33.
21. John A. English, *A Perspective on Infantry* (New York: Praeger, 1981), p. 143. See also Martin van Geld, *Fighting Power: German and U.S. Army Performance, 1939-1945* (Westport, Conn.: Greenwood Press, 1983).
22. Letter from J. C. Breckinridge to Julian Smith, 21 November 1934.

Captain Richard S. Moore, USMC, is an instructor in the Political Science Department of the US Naval Academy in Annapolis.

The Role of the Attack Submarines in Soviet Naval Theory

by
Milan Vego

The Soviet Navy's principal striking force since the late 1930s has been its large submarine fleet. Submarines will likewise remain the navy's "basic" force in carrying numerous and diverse missions against the targets ashore and enemy naval forces. The Soviets distinguish submarines of (1) "strategic" and (2) "operational-tactical designation," respectively. The former includes all the ballistic missile-armed submarines (SSBNs/SSBs). Submarines of the "operational-tactical designation," or attack submarines as they are known in the US/Western navies, consist of all the cruise missile, and torpedo-armed submarines. Presently the Soviets have in service some 285 attack submarines (49 SSGNs, 18 SSGs, 62 SSNs, and 156 SSs), while an additional 85 SSs are kept in reserve. Although the number of attack submarines has decreased over the last two decades, the capabilities of the force have steadily increased, as larger numbers of nuclear-powered submarines were introduced into service. Also, attack submarines were assigned by the Soviets to carry out an ever greater number and diverse type of missions. Here, the changing Soviet perceptions over the past two decades in respect to the missions and capabilities of their attack submarines will be addressed in some detail. However, it should be stressed that the Soviet views on attack submarines' missions, as expressed by their admirals and leading naval theoreticians, should not be regarded as missions which were actually assigned at a particular time. Moreover, the Soviet claims concerning their attack submarines' capabilities should be qualified by the fact that despite the large number of submarines, the Soviets could not at any one time carry out all the assigned tasks simultaneously, nor do their submarines possess all the capabilities required to conduct missions effectively, especially in respect to ASW.

The Soviets have shown since the late 1920s a steady and very strong interest, both in theory and practice, in submarines as a weapon. The Soviet prewar naval theory regarded submarine forces as the *most important fleet arm*—to be employed in cooperation with major surface combatants, torpedo boats and land-based aviation for conducting strikes against the enemy naval

forces approaching "mine-artillery" positions established along the Soviet-controlled coast. Although many of the Soviet submarines were capable of being employed on the open ocean, they were then primarily intended for conducting tactical missions in close-in regions (coastal waters).¹

In the aftermath of the Great Patriotic War (1941-45) the Soviets perceived that the greatest potential threat to their homeland from across the sea represented the then huge US/Western amphibious lift capability and also strike carrier task forces. Therefore, a twenty-year "anti-amphibious" program was drawn up in 1945-46 which, in addition to a large number of surface combatants, envisaged the construction of about 1,200 submarines. By the early 1950s, however, the threat of a large-scale invasion of the USSR from across the sea had greatly decreased owing to the substantial decline in the capability of the US/Western amphibious forces. By then a new threat had emerged, with the introduction into service of the US carrier-based aircraft capable of carrying out strategic nuclear strikes deep into the Soviet-controlled territory.

However, because of the lack of effective platforms, it was not until the late 1950s that the Soviets were able to adopt a workable anticarrier concept. By then great advances achieved by the Soviets in missile technology, nuclear weaponry, submarine propulsion systems and electronics made it possible to introduce into service new types and classes of submarines, surface ships and aircraft capable of engaging heavily defended enemy formations on the sea from standoff ranges.

Submarines in the Soviet All-Out Nuclear War Doctrine (1960-65). As soon as the Soviet anticarrier concept had become firmly accepted and the corresponding naval construction and conversion program was underway, a new and potentially even more ominous threat to Soviet security emerged. The first US SSBN armed with the 1,200-nm-range Polaris SLBMs undertook its initial operational patrol in 1960. The Soviets' problem in countering this new and unprecedented threat was the lack of an adequate capability for carrying out open-ocean ASW, especially against a foe's fast and deep-running nuclear-powered submarines. The deployment of the US SSBNs was the primary factor behind a rather drastic change in the direction and scope of Soviet naval construction programs, which apparently took place in 1961-62. Given this situation the Soviets began to emphasize the rapid improvement of their grossly inadequate open-ocean ASW capabilities. The SSNs together with patrol aircraft were assigned the principal role in conducting open-ocean ASW. The Soviets at that time claimed that in a war on the sea "submarine battles will be one of the principal methods of defending the maritime perimeters against the penetration of enemy submarines."²

However, it was the Soviet war doctrine on the primacy of nuclear weapons, first announced in January 1960, which eventually brought about the most

profound changes in the navy's position within the mission structure of the Soviet armed forces. Soviet military doctrine in 1962 (a reflection of the army's original view) postulated that the navy's main tasks in a general war included (1) destruction of the enemy naval forces, with emphasis on anticarrier warfare (ACW), anti-SSBN and (2) interference with the enemy sea lines of communication (SLOC). A year later, the "destruction of coastal objectives" was interposed between these two missions. In contrast to the Soviet naval theoreticians, who by then already laid claim that one of the navy's primary wartime missions was to conduct strategic nuclear strikes, the army's view was that the need *might* arise for the navy's strategic forces to carry out such missions.³

Submarines and ASM-carrying aviation were assigned the principal role in carrying out all the navy's primary wartime tasks. The Soviet's military theoreticians then argued that because the main theater of naval operations in a general war will be oceans, and not "closed" (narrow) seas, submarines and naval aviation were to have enormous significance. In their view nuclear-powered submarines were to enable the Soviet Navy to accomplish the most complex tasks, specifically ACW and anti-SSBN, and to exert active influence upon the enemy SLOCs, "in the most distant regions of the oceanic theaters of military action."⁴ However, it was clear that the Soviets did not have then an adequate number of SSNs to carry out all the tasks enumerated here.

In the early 1960s the Soviet military theoreticians perceived that the most serious threat to their country from across the sea was posed by the US carrier-borne and nuclear-armed aircraft. Hence, one of the Soviet Navy's principal tasks from the very beginning of a general war was the destruction of the enemy carrier task forces poised to carry out surprise nuclear strikes against the most important coastal targets on the "socialist" countries' territory. The US/Western carrier task forces were to be attacked and destroyed before they reached their attacking positions by strikes carried out by the Soviet SSGNs/SSGs and ASM-armed bombers.⁵

In the early 1960s the Soviets postulated that in the case of a general war operations against the enemy SLOCs should be conducted on a large scale from the very outset. They also envisaged that such a conflict would be very short because of the high destructiveness of modern weapons. Consequently, the principal objectives of anti-SLOC were to be accomplished by nuclear strikes carried out by the strategic rocket forces (SRF) and ballistic missile-armed submarines (SSBNs/SSBs) against the enemy ports, naval bases, canals, narrows, straits and shipbuilding and ship-repairing industries. The destruction of convoys and high-speed transports sailing independently at sea was assigned to the Soviet attack submarines, and land-based aviation. The SSNs were considered as the most capable of carrying out anti-SLOC tasks on the open ocean, since they could concentrate rapidly on a selected part of

the enemy SLOCs. In the Soviet view the diesel-electric submarines were to be employed similarly as in World War II, that is, by forming mobile barriers or carrying out free search missions against the enemy merchant shipping.⁶

The Soviets then regarded nuclear-powered submarines as becoming the main striking force of not only their navy, but also in the navies of the "Anglo-American bloc." Thus, submarine warfare may become the principal form of naval operations in case of a general war. Admiral Sergei G. Gorshkov, despite his often repeated praise in respect to the capabilities of nuclear-powered submarines, clearly intended to build a balanced navy composed of both submarines and a large number of highly capable surface combatants. He stressed that although "modern submarines and missile-carrying aircraft comprise the principal striking force of the [Soviet] Navy and are the essence of its power" there must exist other forces both for "active defense against any enemy within the limits of the defense zone of a maritime theater and for [providing] the comprehensive support of the combat and operational activities of the main striking forces of the Navy." These forces included (1) missile-armed surface combatants, (2) mine warfare ships, (3) ASW aircraft, (4) merchant ships of "special designation," and (5) coastal (antiship cruise) missile units.⁷

Submarines in the Era of Transition (1966-70). By the mid-1960s Soviet military doctrine began to reflect an extension of hostilities for a conventional war phase in a general conflict. The cumulative effect of the strategic innovations subsequently introduced into the Soviet war doctrine was that the role and significance of the conventional forces, including the navy's general-purpose forces was greatly increased. Hence, the Soviets after more than a decade of anticarrier propaganda began to temper their criticism of large multipurpose carriers (CVs). Since the mid-1960s, in fact, they have progressively viewed CVs in an ever more positive light. But by the late 1960s changes in the Soviet war doctrine still remained rather insignificant, as far as the conventional forces were concerned. The Soviets still considered that a general war would be relatively short, although they admitted it was possible that a conflict could be drawn out and not be limited to just strategic nuclear strikes.⁸

The Soviet military theoreticians also continued to minimize the navy's role in conducting strategic strike missions. They regarded the navy's principal wartime mission to be (1) the destruction of the enemy naval forces, and (2) interference with the enemy oceanic and sea lines of communications. Within the broadly described task "destruction of the enemy naval forces," the Soviet Army still obviously regarded ACW as having greater significance than anti-SSBN.⁹

However, the Soviet Navy's view was very different, since it held that strategic nuclear strikes were one of its principal wartime missions. In the

late 1960s the Soviet naval theoreticians apparently considered anti-SSBN as the second most important naval mission. They maintained that the introduction of ballistic missile-armed submarines posed a genuinely national problem for the opponent subjected to their strikes. The Soviets argued that while in the past the principal objective in conducting ASW had been the protection of one's own SLOCs, presently "with all the importance of previous missions," the main aim is to prevent the strikes on the country's vitally important centers, and that meant ASW has assumed strategic significance.¹⁰

The SSNs then were regarded by the Soviets as the best suited weapon for neutralizing the threat posed by the enemy SSBNs. They argued that the SSNs equipped with advanced sensors would allow them to be successfully employed against enemy submarines. In an encounter between the two submarines fitted with equally capable sonars, the advantage "would lie with more quiet and vigilant submarine." The Soviets claimed that a submarine fully engaged in carrying out ASW search in an assigned patrolling area obviously had an advantage over the enemy submarine transiting to or from its operating area or conducting other than ASW tasks.¹¹

The Soviets also affirmed that their SSNs could successfully carry out ASW missions not only on the open ocean, but in the ice-covered waters as well. Since the Soviet surface ships and aviation face difficult problems in the polar areas—notably ice, frequent fogs in the summer and long polar winter nights—they could hardly be effectively employed in conducting ASW missions in these areas. Therefore, submarines capable of sailing under the ice-covered waters "should become the main force in the struggle with the enemy submarines in the Arctic region."¹²

The Soviets asserted that despite the appearance of nuclear-powered submarines, the conventionally powered submarines could still be employed in carrying out those missions for which it was "inexpedient to use the expensive nuclear-powered submarines." These tasks included the search for and destruction of the enemy submarines in coastal waters and in the regions remote from one's own [Soviet-controlled] coasts. The SSs were also regarded as useful in conducting both reconnaissance and strikes against the enemy convoys.¹³

The Soviets also argued that modern diesel-electric submarines fitted with high-capacity batteries and air regeneration plants could operate more freely and with greater success than their predecessors in World War II. Yet, they regarded the SSNs as being four times more effective than the SSs. The SSNs are especially well suited for conducting tracking missions and have an undisputed advantage over the SSs because the latter generate significant noise when sailing with snorkel. However, if an SS used electric motors only, it would be difficult for a SSN to detect it, and the "supremacy in detection will by no means always remain with the nuclear-powered submarine."¹⁴

In the late 1960s, ACW was regarded by the Soviet naval theoreticians as the navy's third most important wartime mission. They claimed that the introduction of nuclear-powered submarines armed with nuclear-tipped missiles enabled the navy to destroy enemy strike aircraft carriers. The Soviet Army's view, as expressed by the General Staff, was even stronger, since it was considered that "a most important" navy mission "right from the first minutes of a [general] war" was the destruction of the enemy aircraft carrier task forces. The Soviets apparently firmly believed that in carrying out ACW tasks, their SSGNs and ASM-carrying aircraft would be able to assume their missile-launching positions without entering the carrier task force's ASW and AAW defense zones. Then the principal objective would be to destroy the enemy aircraft carriers before they launched their strikes against the targets on the Soviet-controlled territory. The Soviets maintained that the carrier task forces were highly vulnerable to submarine and bomber attack during their ocean transit refueling on the high seas and when launching or recovering aircraft. In their view, not only aircraft carriers, but the ships in protective screen, underway replenishment groups, and the carriers' basing areas were to be destroyed too.¹⁵

The Soviets asserted that the SSGNs are less vulnerable than torpedo-armed submarines because of their high-speed underwater, deep-running capabilities and their ability to carry out strikes from standoff ranges, even while submerged; hence, they can successfully attack aircraft carriers and other surface combatants. Also, the Soviets maintained that although in World War II it had been necessary to employ several submarines in attacking a large surface ship, presently "any ship can be destroyed with one missile or torpedo having a nuclear warhead."¹⁶

In the late 1960s the Soviets still regarded anti-SLOC as one of the most important, (preceded only by the defeat of the enemy naval forces) navy wartime missions. Then it was postulated that interdiction of the enemy SLOCs (and disruption of air communications) must be undertaken on a large scale from the very start of a world war. The anti-SLOC tasks were to be accomplished principally through the nuclear strikes of the SRF, long-range aviation and ballistic missile-armed submarines against the enemy ports and shipping-related industries. Attack submarines and land-based bombers apparently were to play a secondary role in carrying out strikes against the enemy convoys and independently sailing transports on the sea.¹⁷

The Soviets also claimed that the experiences of past wars showed how the mass employment of mines can inflict serious damage to merchant shipping and also simplify the task of interdicting the enemy SLOCs. In their view, submarines possess great capabilities for conducting covert mining, torpedo-armed submarines in particular. They are capable of

late 1960s the Soviet naval theoreticians apparently considered anti-SSBN as the second most important naval mission. They maintained that the introduction of ballistic missile-armed submarines posed a genuinely national problem for the opponent subjected to their strikes. The Soviets argued that while in the past the principal objective in conducting ASW had been the protection of one's own SLOCs, presently "with all the importance of previous missions," the main aim is to prevent the strikes on the country's vitally important centers, and that meant ASW has assumed strategic significance.¹⁰

The SSNs then were regarded by the Soviets as the best suited weapon for neutralizing the threat posed by the enemy SSBNs. They argued that the SSNs equipped with advanced sensors would allow them to be successfully employed against enemy submarines. In an encounter between the two submarines fitted with equally capable sonars, the advantage "would lie with more quiet and vigilant submarine." The Soviets claimed that a submarine fully engaged in carrying out ASW search in an assigned patrolling area obviously had an advantage over the enemy submarine transiting to or from its operating area or conducting other than ASW tasks.¹¹

The Soviets also affirmed that their SSNs could successfully carry out ASW missions not only on the open ocean, but in the ice-covered waters as well. Since the Soviet surface ships and aviation face difficult problems in the polar areas—notably ice, frequent fogs in the summer and long polar winter nights—they could hardly be effectively employed in conducting ASW missions in these areas. Therefore, submarines capable of sailing under the ice-covered waters "should become the main force in the struggle with the enemy submarines in the Arctic region."¹²

The Soviets asserted that despite the appearance of nuclear-powered submarines, the conventionally powered submarines could still be employed in carrying out those missions for which it was "inexpedient to use the expensive nuclear-powered submarines." These tasks included the search for and destruction of the enemy submarines in coastal waters and in the regions remote from one's own [Soviet-controlled] coasts. The SSs were also regarded as useful in conducting both reconnaissance and strikes against the enemy convoys.¹³

The Soviets also argued that modern diesel-electric submarines fitted with high-capacity batteries and air regeneration plants could operate more freely and with greater success than their predecessors in World War II. Yet, they regarded the SSNs as being four times more effective than the SSs. The SSNs are especially well suited for conducting tracking missions and have an undisputed advantage over the SSs because the latter generate significant noise when sailing with snorkel. However, if an SS used electric motors only, it would be difficult for a SSN to detect it, and the "supremacy in detection will by no means always remain with the nuclear-powered submarine."¹⁴

In the late 1960s, ACW was regarded by the Soviet naval theoreticians as the navy's third most important wartime mission. They claimed that the introduction of nuclear-powered submarines armed with nuclear-tipped missiles enabled the navy to destroy enemy strike aircraft carriers. The Soviet Army's view, as expressed by the General Staff, was even stronger, since it was considered that "a most important" navy mission "right from the first minutes of a [general] war" was the destruction of the enemy aircraft carrier task forces. The Soviets apparently firmly believed that in carrying out ACW tasks, their SSGNs and ASM-carrying aircraft would be able to assume their missile-launching positions without entering the carrier task force's ASW and AAW defense zones. Then the principal objective would be to destroy the enemy aircraft carriers before they launched their strikes against the targets on the Soviet-controlled territory. The Soviets maintained that the carrier task forces were highly vulnerable to submarine and bomber attack during their ocean transit refueling on the high seas and when launching or recovering aircraft. In their view, not only aircraft carriers, but the ships in protective screen, underway replenishment groups, and the carriers' basing areas were to be destroyed too.¹⁵

The Soviets asserted that the SSGNs are less vulnerable than torpedo-armed submarines because of their high-speed underwater, deep-running capabilities and their ability to carry out strikes from standoff ranges, even while submerged; hence, they can successfully attack aircraft carriers and other surface combatants. Also, the Soviets maintained that although in World War II it had been necessary to employ several submarines in attacking a large surface ship, presently "any ship can be destroyed with one missile or torpedo having a nuclear warhead."¹⁶

In the late 1960s the Soviets still regarded anti-SLOC as one of the most important, (preceded only by the defeat of the enemy naval forces) navy wartime missions. Then it was postulated that interdiction of the enemy SLOCs (and disruption of air communications) must be undertaken on a large scale from the very start of a world war. The anti-SLOC tasks were to be accomplished principally through the nuclear strikes of the SRF, long-range aviation and ballistic missile-armed submarines against the enemy ports and shipping-related industries. Attack submarines and land-based bombers apparently were to play a secondary role in carrying out strikes against the enemy convoys and independently sailing transports on the sea.¹⁷

The Soviets also claimed that the experiences of past wars showed how the mass employment of mines can inflict serious damage to merchant shipping and also simplify the task of interdicting the enemy SLOCs. In their view, submarines possess great capabilities for conducting covert mining, torpedo-armed submarines in particular. They are capable of

creating a real mine threat by laying down mine barriers and "even minefields at the exits and entrances of [the enemy] naval bases and ports, and also in the coastal sectors of [the sea lines of] communications."¹⁸

By the late 1960s anti-SLOC had apparently been relegated to a secondary wartime mission. Rear Admiral K. A. Stalbo (who is regarded as a spokesman for Admiral Gorshkov's views) then asserted that the significance of warfare on oceanic communications has decreased in the nuclear-missile era, since the employment of nuclear weapons against enemy military-economic targets would cause damage several times greater than that inflicted by carrying out the most successful action against shipping.¹⁹ The reason for the apparent downgrading of anti-SLOC was that Soviet military doctrine in the late 1960s, although acknowledging the possibility of a general war to be fought initially with conventional weapons, still postulated that such a conflict would inevitably become all-out nuclear and very short.

The Attack Submarines' Role is Upgraded (1971-75). The Soviet views regarding the capabilities and combat employment of attack submarines, and particularly the SSNs, have undergone gradual but significant evolution since the early 1970s. The Soviets maintained that nuclear-powered submarines by incorporating the latest technology have become the most modern force of navies and combine "great striking power, high mobility, endurance, [and] stealth" and are difficult to detect. They claimed that the trend in the development of operational-tactical submarines was to acquire the capabilities for carrying out successfully ASW, anti-surface warfare (ASUW), and anti-SLOC tasks.²⁰

The role of the Soviet attack submarines in the 1960s regarding ASW has also increased. The Soviets then asserted that the experience of World War II showed that a defensive strategy against submarines was not successful in neutralizing the submarine menace. In their view success in ASW would be possible to achieve only by employing friendly forces both offensively and defensively and with attack submarines in the front line. The Soviets regarded the SSNs, due to their high speed, as capable of conducting ASW missions for the protection of surface warships, amphibious forces and convoys.²¹

The role and significance of attack submarines in ASW were further upgraded because of the introduction of the first *Delta*-class SSBN armed with the 4,000-nm-plus range SLBMs in 1972. Then the newly introduced "limited intercontinental strategic war" option envisaged the use of the Soviet land-based MIRVed ICBMs as counterforce weapons in conducting initial strikes, while the *Deltas* would serve for countervalue withholding and late-war bargaining. Hence, the Soviet SSBNs would have to be protected in their sanctuaries and operating areas, both in peacetime and for the duration of a general conflict.

After 1971, when the Soviet withholding strategy was apparently adopted, pro-SSBN gradually emerged as one of the Soviet Navy's principal missions. The pro-SSBN tasks can be accomplished effectively only by exercising full sea control in the SSBNs' sanctuaries and operating areas. Admiral Gorshkov claimed that both world wars have demonstrated the false opinion that the submarine, by virtue of the secrecy of its movements after leaving base can in itself ensure its own invulnerability. Hence, sea control on behalf of missile-armed submarines is not a secondary but a main goal, along with strategic strike itself and is to be carried out by using surface ships, aviation and general-purpose submarines as the first and main task from the very beginning of the war.²²

The Soviets moreover argued that attack submarines were increasingly included not only as part of naval formations and convoys at sea, but also in support of the combat patrols of strategic submarines (SSBNs/SSBs). The SSNs were considered the most suitable for carrying out pro-SSBN missions. The Soviets then maintained that a real threat to their own submarines would be the enemy submarines, and particularly the SSNs. In a battle underwater, the winners would be those who heard the enemy first and opened fire without delay. The Soviets also claimed that although the principal role in ASW was assigned to SSNs, they would never be capable of fully carrying out their missions alone. Hence, diverse ASW forces comprising submarines, surface ships, and aircraft would be required to be employed jointly.²³

Besides carrying out pro-SSBN and anti-SSBN, other principal missions of the Soviet attack submarines included: (1) destruction of the enemy surface combatants, primarily aircraft carriers, (2) merchant ships, (3) minelaying, (4) covert surveillance of assigned regions, and (5) secret landing of reconnaissance teams and sabotage groups.²⁴

Although it appears that the ACW remained in the early 1970s the principal objective in the Soviet ASUW concept, there were some substantial changes in respect to the forces employed in carrying out such tasks. Admiral Gorshkov then argued that because of the substantial qualitative changes in respect to the submarine armament, the destruction of the enemy surface ships at sea had become one of the primary objectives of the Soviet submarine forces. The Soviets claimed that there was no longer any region of the world's oceans where enemy major surface combatants would be able to avoid at the beginning of hostilities the powerful and sudden attack of submarine forces. However, they also recognized that due to the high speed and mobility of surface warships and their strong ASW and AAW defenses, additional difficulties would arise in carrying out strikes against them.²⁵

The Soviets maintained that modern means of reconnaissance and surveillance would allow the effective detection and tracking of the enemy ships on the open ocean. Thus, conditions were to be created for submarines

in obtaining favorable tactical positions for conducting strikes against the enemy warships in cooperation with other forces, particularly aviation. By employing missile, torpedo and mine weapons, submarine forces were to inflict devastating blows against the enemy major combatants at sea. The Soviets considered antiship missiles as the principal weapons for the destruction of the enemy surface ships. Admiral Gorshkov wrote that their appearance had brought a radical change in conducting naval warfare, and had made it possible to deliver powerful and accurate strikes from great distances against the enemy major surface combatants.²⁶

By the early 1970s a more balanced view had emerged regarding the relative value of antiship missiles and other submarine weapons, which in turn had some significant repercussions on the Soviet ASUW concept. By then the opinion apparently prevailed that the torpedo and mine have not lost their significance in combating surface warships. Consequently, the torpedo-armed submarines' role in conduct of ASUW has been enhanced. The Soviets claimed that the ability of modern attack submarines to penetrate the enemy's formation defenses has been greatly improved in comparison with their predecessors in World War II. Therefore, it could not be any longer argued "that the attack submarines may be ineffective against an enemy fleet."²⁷

By the early 1970s the Soviets concluded that because of the aircraft carrier's very strong and echeloned ASW defenses, it was not after all as vulnerable to submarine attack as their naval theoreticians had argued so incessantly in the 1960s. Yet, there was seemingly a consensus that ACW tasks could still be successfully carried out. The Soviets then regarded cruise missile-armed submarines as having several significant advantages over the SSNs/SSs when employed against enemy surface warships. For example, in order to fire their missiles successfully the SSGNs do not require a rigid tactical position—because of standoff ranges they can carry out strikes with their missiles without the need to engage forces in the protective screen. For such tasks, not only the SSGNs, but also SSGs could be successfully used. When the antiship missile is fitted with a nuclear warhead, a direct hit on the target is not needed, since all that is required is that the enemy warship is found within lethal radius of the nuclear burst. At the same time, the enemy would have an extremely difficult task in countering the missile attack and in destroying cruise missile-armed submarines deployed over the vast regions of the world's oceans.²⁸

The Soviets then maintained that in view of the SSNs' high speed underwater, which equals and in some cases exceeds that of major surface combatants, the SSNs are capable of "breaking through the protective screen of a target and attacking an objective from any direction. Then the SSNs can pursue and carry out attacks repeatedly and over an extended period of time right down to the total destruction of the enemy group of warships."²⁹

Since the early 1970s the Soviet military doctrine has continued its evolution toward acquiring new strategic options each envisaging ever greater duration of the conventional phase in the event of a general war. Hence, it was not surprising that the importance of anti-SLOC was steadily upgraded within the Soviet Navy's mission structure. From the early 1970s, there has been much emphasis by the Soviet naval theoreticians on sea blockade operations. The Soviets predicted that an intense struggle over maritime communications was to start from the very beginning of a war and that submarines, aviation, and surface combatants as well, would be employed in carrying out anti-SLOC campaigns. In conducting a sea blockade, the principal targets to be destroyed were to include both merchant shipping and naval vessels at sea and in ports, naval bases, shipping-related industries, and communication centers.³⁰

Admiral Gorshkov stressed that in World War II submarines were the principal force in conducting anti-SLOC campaigns and that they were to become even more so should a general war break out. At the same time he argued that the experiences of German and US anti-SLOC campaigns in World War II indicated that although they greatly weakened the economies of their respective opponents and had a definite influence upon the course of the military operations in the secondary theaters, the campaigns in both cases were not decisive factors in the war's outcome. In Gorshkov's view, although the struggle over oceanic communications in a general conflict will be almost worldwide in scope and will involve the main part of the belligerents' naval forces, it would have—because of the war's continental character—only secondary significance for the opposing side.³¹

The Soviets also continued to stress the value mines have as a weapon both against warships and merchant vessels. The attack submarines, but especially the SSNs were seemingly regarded as the most suitable minelaying platforms. The Soviets claimed that almost unlimited range of nuclear-powered submarines would enable them to pose a mine threat even in the most distant parts of the world's oceans. Although submarines do not have as large a mine-carrying capacity as surface ships, they enjoy great advantage in being capable of laying mines with a far greater degree of covertness and accuracy than other platforms. A submarine can approach the enemy coast covertly and conduct reconnaissance of the approaches to the bases and ports in order to determine precisely the route used by the enemy vessels or merchant ships, and then lay mines. In some cases a submarine could even observe the explosion after the enemy's ship struck one of its mines and then, if necessary, finish it off with torpedoes.³²

The Soviet naval theoreticians have emphasized time and again that although nuclear-powered submarines have become the navy's main striking force as it is known from history, the most powerful forces are not such that they can achieve success without the cooperation of other forces. Similarly,

Admiral Gorshkov said that a modern navy intending to conduct combat operations against a strong opponent on the sea, cannot be just a submarine navy. In his view, for underrating the value for support of submarine operations by aviation and surface ships, the Germans had paid dearly in both world wars. Admiral Gorshkov maintained that the principal reason for Nazi Germany's failure in the conduct of unrestricted submarine warfare was that submarines did not receive adequate support from other forces. The latter would have been able to carry out both reconnaissance and the destruction of the enemy ASW forces, as well as conducting strikes against the enemy ports and shipyards, and also the ships at sea. Hence, although the development of the Soviet submarine forces was to have the highest priority, not only submarines, but also surface warships of various designation would be required. Surface ships not only provide combat stability (survivability) to submarines, but are also intended to carry out a wide range of missions both in peacetime and wartime.³³ Obviously, the Soviets were determined to continue to build a balanced fleet, comprised of both large numbers of submarines and surface combatants.

Submarines in Soviet Naval Theory Since 1976. By the mid-1970s pro-SSBN had become, except for strategic nuclear strikes, one of the Soviet Navy's principal missions. Pro-SSBN was (and still is) considered a crucial element of the navy's strategic strike role. The SSNs armed with modern A/S weapons are regarded by the Soviets as the principal platform in conducting ASW missions. Owing to their (1) great covertness of action, (2) deep-running capabilities, and (3) greater detection range, the SSNs are regarded far superior to ASW surface ships in carrying out pro-SSBN missions. Hence, the Soviet SSNs were increasingly employed in support of combat patrols of strategic submarines, thus "substantially strengthening these forces, and significantly reducing the underwater threat to them."³⁴

The Soviets asserted that operational-tactical nuclear-powered submarines (SSNs) had taken over the leading role in the open-ocean ASW. They maintained that one of the basic, if not the principal mission of the SSNs is to track the enemy SSBNs in peacetime and to destroy them at the beginning of a general conflict. The SSNs were perceived as being the most effective platforms in carrying out surveillance and destruction of the enemy submarines in the open ocean. The Soviets claimed that the SSNs are capable of operating more covertly than other ASW forces in carrying out the tasks of (1) detection, (2) classification, (3) tracking, and (4) attack on the enemy SSBNs. They can conduct these missions either independently or when vectored by other forces.³⁵ However, the employment of the Soviet SSNs in an anti-SSBN role, despite apparent high priority given to it, has proven to be a most difficult task, since detection of the US/Western SSBNs is routinely impossible.

Significantly, the Soviets regarded the SSs as useful in carrying out ASW tasks, including those against the enemy nuclear-powered submarines. They argued that although the SSs are inferior to the latter with respect to speed and continuous underwater endurance, the SSs have (1) small dimensions, (2) a low self-generated noise level when running on the electric motors, (3) good sonar, and (4) effective A/S weapons. Yet the Soviet SSs have, with the exception of the Tangos and most likely the Kilos, a very short detection range sonar even when operating on their batteries. Further, there were some Soviet naval theoreticians who argued that the SSs are more vulnerable to enemy action than aviation and for a large part of the time they have to sail by using snorkel. The SSs are also very noisy when using diesels and can be detected at comparatively great distances.³⁶ Consequently, their usefulness as an ASW platform is limited, especially against the enemy nuclear-powered submarines.

By the mid-1970s the Soviets had apparently come to the conclusion that barring the long-sought technological breakthrough in submarine detection, search for and destruction of the enemy nuclear-powered submarines on the open ocean is virtually a hopeless task. Therefore, it was not surprising that the ACW, and ASUW in general, were relatively upgraded within the Soviet Navy's mission structure. Admiral Gorshkov wrote that besides ASW the main efforts of the Soviet Navy in a nuclear-missile war were to be concentrated on the destruction of the enemy carrier task forces. The cruise missile-armed submarines, and ASM-carrying strike bombers were then still considered as the principal forces in carrying out the ACW tasks. The Soviets claimed that the former were not required to break through the aircraft carrier's protective screen, since the missiles' range allows them to carry out strikes from long distances and from any direction. The same cruise missile-armed submarines were to pose the most complicated problem for the enemy ASW because they were to operate beyond the target's zone of direct screening.³⁷

By the late 1970s, however, there were apparently some divergent views among the Soviet naval theoreticians in regard to ACW. Vice Admiral K. A. Stalbo stressed that ACW missions will be very complex in carrying out, in view of the carrier's strong and deeply echeloned ASW and AAW defenses, and also because of its ability to withstand the effects of numerous hits by missiles, torpedoes and bombs. This prompted Rear Admiral A. Pushkin, Editor-in-Chief of *Morskoy Sbornik*, to propound a different view. Although he acknowledged that the aircraft carriers' defenses have been improved considerably in the postwar years, thus creating conditions in which it will be difficult for submarines to operate, the improvements in the tactical capabilities of submarines would enable submarines to carry out several successive strikes against the selected targets both independently and jointly with other forces. Also, the range of missions to be carried out by submarines

has been substantially expanded, thus transforming them into the principal offensive force in naval warfare "[even] against such large surface ships as modern [aircraft] carriers."³⁸

By 1980 Admiral Pushkin seemed to moderate his previously held optimistic views in regard to the submarines' employment against US carrier task forces. He then warned that there "should not be [any] illusion that it would be easy to attack and destroy [an aircraft] carrier." Apparently, Admiral Pushkin's greatest concern was the enemy SSNs, which often form a part of the aircraft carrier's protective screen. Their presence not only can hinder the execution of an attack (by the Soviet submarines) but also can disrupt it. Yet, Admiral Pushkin concluded that experiences of World War II showed how "skilled and purposeful operations by submarines led to the destruction of [aircraft] carriers even when they had a heavy escort."³⁹

We do not know yet the reasons for or the outcome of the Soviet debate on aircraft carriers. However, the Soviets apparently intend after the completion of the fourth and last *Kiev*-class V/STOL aircraft carrier (in 1984) to start with the construction of their first 60,000-70,000-ton nuclear-powered conventional take-off (CTOL) aircraft carrier. There is apparently a consensus among the Soviet naval theoreticians that their navy needs to build such large ships. Perhaps Admiral Pushkin and those who support his views, although recognizing the value of large aircraft carriers, nevertheless have tried to inject a cautionary note in assessing the carriers' potential. They most likely want to make sure that submarines will continue to have their consistently dominant role within the Soviet Navy in the years to come.

The Soviets continued to emphasize how valuable the SSNs are in carrying out the ASUW tasks, including ACW. Admiral Gorshkov asserted that the SSNs can close in with high speed on the enemy ships, track them for long periods of time, carry out attacks repeatedly, and then can be rapidly redeployed from one sector to another while successfully avoiding the enemy ASW forces. The Soviets at that time apparently regarded their SSNs as posing the greatest threat to the survivability of not only the enemy SSNs, but also all surface combatants. The SSN's speed will allow it to successfully penetrate the target's protective screen and then carry out the torpedo strike.⁴⁰ Despite these claims the Soviet SSNs will have great difficulty closing in on a CV or SSBN undetected since they are highly detectable themselves when sailing at high speed.

From the mid-1970s there have been unmistakable signs of the upgrading of anti-SLOC. This was also reflected in a spate of articles which then appeared in the Soviet naval and military journals concerning sea blockade operations. The Soviets argued, in contrast to their previous views, that anti-SLOC campaigns conducted during World War II exercised considerable influence upon the course of combat operations on the land front and also inflicted heavy damage upon the enemy's economy. The Soviets apparently implied

that in a general conflict the USSR should avoid Nazi Germany's mistake of not focusing the entire anti-SLOC efforts in the northern Atlantic. Consequently, they also regarded the German concept in conducting war against the enemy shipping—so-called "summary" tonnage, as practiced in both world wars—as false in its basic premise, and one which has suffered complete defeat. The Soviets postulated that the principal objective in future anti-SLOC campaigns instead should be the destruction of the enemy troop shipments, military cargo, strategic material and other material (economic shipping) during sea transit, and at port terminals with the simultaneous destruction of the shipping-related shore installations.⁴¹

The Soviets obviously consider the SSGNs/SSNs as having, in addition to land-based aviation, the principal role in conducting sea blockade operations. They asserted that anti-SLOC missions conducted with nuclear-powered submarines will be far more successful than those carried out in World War II. Nuclear-powered attack submarines by using their high-speed and deep-running capabilities will have a simpler task of breaking through the enemy convoys' defenses and then break away after they fire torpedoes. The Soviets apparently regard the SSs as still very effective in carrying out strikes against enemy merchant shipping, both close to the Soviet-controlled shores and in distant ocean regions.⁴²

The Soviet naval theoreticians stress that the potential of modern nuclear-powered submarines to disrupt merchant shipping has increased immeasurably and that "the classical method of protecting sea lines (of communications) is not effective enough." They pointed out that even with diesel-electric submarines in World War II, it was possible to choose the place, time and method of attack. They emphasize that "despite the development of methods of combating submarines . . . the problem of combating nuclear-powered submarines is still far from being resolved."⁴³

By the late 1970s the Soviets also emphasized that mines have acquired even greater significance and will find a wide use in sea blockade operations. Submarines continue to be regarded by the Soviets as the most potent minelaying platform for reasons already stated. Apparently Soviet submarines are intended, together with aviation, to conduct minelaying missions in the distant areas, while the surface ships remain (as before) the basic force in carrying out defensive minelaying in the Soviet-controlled coastal waters. Submarines will specifically be used to conduct secret mining of the enemy ports, narrows, and other areas heavily patrolled by the enemy forces.⁴⁴

The Soviets maintain that their nuclear-powered submarines presently in service have greatly enhanced offensive and defensive capabilities in comparison with those in the past, and they "can now operate confidently and effectively both against naval surface ships and submarines and against shore installations." They predict that combat activities at sea in the future are to have a global dimension. The Soviets also emphasize that a special

significance in the effective employment of naval forces, notably submarines will have "optimal combination of centralized and decentralized methods of control." Hence, there will be a need to assure "independence of tactical groups' commanders and in the action on the [open] ocean, and in some cases [even] commanders of ship's pairs in order to increase stability, of [command and] control."⁴⁵

Conclusions. Submarines had in the past and continue to have the single most important place in Soviet naval theory. Apart from ballistic missile-armed submarines which play an important role in the Soviet nuclear strategy, it is the operational-tactical submarines which are an indispensable element in conducting many Soviet Navy's principal wartime missions. Attack submarines, and above all those that are nuclear-powered, are undoubtedly the principal and probably the most effective part of the Soviet forces intended to carry out pro-/anti-SSBN, ASUW, and anti-SLOC tasks.

Apparently the Soviet SSGNs, together with the ASM-carrying bombers, as in the past still have the primary role in conduct of ASUW missions and ACW in particular. In recent years, there have been some inconclusive signs that the Soviets were becoming increasingly skeptical (particularly when compared with their highly optimistic tones prevalent in the 1960s) as to the complexity of ACW tasks facing their SSGNs.

The SSNs are thought by the Soviets to play a crucial role in the successful conduct of both pro-SSBNs and anti-SSBN missions. Also, their significance in carrying out ASUW tasks has steadily increased over the past decade. The anti-SLOC missions, despite being steadily upgraded in the 1970s, ranks third among the Soviet Navy's principal wartime missions. Yet, it is often forgotten that there is a very close interrelationship in the Soviet naval theory between ASUW and anti-SLOC. By successfully carrying out the former, there would be little difficulty in accomplishing the latter task. Also, anti-SLOC in itself includes the destruction of not only merchant shipping but naval vessels as well.

As for the foreseeable future, submarines and aviation are to remain, as the top Soviet naval leaders and theoreticians tell us, the principal forces of the Soviet Navy. Although the nuclear-powered submarines will still be regarded as the most important part, the Soviet diesel-electric submarines, unlike those in the US Navy, have and will continue to have a place in carrying out missions for which the SSNs are unsuitable or unavailable, such as in narrow seas and shallow waters, and in conduct of barrier operations close to the Soviet-controlled shores.

Finally, the Soviets remind us that they do not intend to repeat the mistakes which led to the failure of the German submarine warfare in both world wars. Hence, the Soviets intend to maintain, as they have in the past, the world's largest submarine fleet and to employ surface ships and aviation in providing full support of their submarines' combat employment.

1. Sergei G. Gorshkov, *Morskaya moshch' gosudarstva* (Sea Power of the State), (Moscow: Voenizdat 1976) pp. 227-228; A "mine-artillery position" (minno-artilleryskaya pozitsiya) is defined as the "aggregate of mine barriers, consisting of various types of mines and protected by fire from coastal artillery batteries with the aim of preventing the enemy warships from approaching the defended coast." *Sovetskaya Voenyaya Entsiklopediya* (The Soviet Military Encyclopedia), (Moscow: Voenizdat, 1978), v. 5, p. 298.
2. V.V. Belayev, "Kniga o podvodnykh lodkakh imperialisticheskikh gosudarstvov" (The Book on Submarines of the Imperialist States), *Morskoy Sbornik*, January 1961 p. 93.
3. V.D. Sokolovskiy, ed., et al., *Voenyaya Strategiya* (Military Strategy) (Moscow: Voenizdat, 1962). Translated as *Soviet Military Strategy* (Englewood Cliffs, N.J.: Prentice Hall, 1963), p. 423; *ibid.*, 2nd ed. 1963, pp. 396, 407.
4. *Ibid.*, p. 396; V.A. Lomov, *Sovetskaya Voenyaya Doktrina* (Soviet Military Doctrine), (Moscow: Nauka Press, 1963), p. 28.
5. *Soviet Military Strategy*, 2nd ed., pp. 397, 354.
6. *Ibid.*, 1st ed., p. 423.
7. *Ibid.*, 2nd ed., p. 422; Sergei G. Gorshkov, "Na strazhe mirnoga truda" (On Guard of Peaceful Labor), *Pravda* 28 July 1963.
8. A.A. Strokov, *Istoriya v Voenno Delo* (The History of Military Art) (Moscow: Voenizdat, 1965), p. 221.
9. Sokolovskiy, ed. Harriet F. Scott, trans. *Soviet Military Strategy* (Stanford, Calif.: Stanford Research Institute, 1971), pp. 363-365.
10. N.I. Suzdalev, *Podvodnyye lodki protiv podvodnykh lodok* (Submarines Against Submarines) (Moscow: Voenizdat, 1968) p. 25.
11. *Ibid.*, pp. 136-137, 156; A.I. Rodionov, *Udarnaya sila flota* (The Striking Power of the Fleet), (Moscow: DOSAAF Press, 1970), p. 37.
12. Suzdalev, p. 158.
13. N.A. Piterskiy, V. Achkasov, eds., *Boyevoy puty Sovetskogo Voenno-Morskogo Flota* (The Combat Road of the Soviet Navy) (Moscow: Voenizdat, 1967), p. 153.
14. Suzdalev, pp. 153, 155-156.
15. V.D. Yakovlev, *Sovetskiy Voenno-Morskiy Flot* (The Soviet Navy) 2nd ed. (Moscow: Voenizdat, 1968), pp. 66-67; V.D. Sokolovskiy, ed. *Militaer Strategie* (Military Strategy) (Cologne: Markus Verlag, 1969), p. 365.
16. Rodionov, p. 3.
17. Sokolovskiy, pp. 363, 365-366.
18. *Soviet Military Strategy*, 3d ed., p. 50.
19. K.A. Stalbo, concluding chapter in naval textbook entitled *Istoriya v Voenno-Morskoye Delo* (A History of Naval Art), S.E. Zakharov, ed. (Moscow: Voenizdat, 1969), p. 540.
20. N. Aleshkin, "Nekotorye tendentsii razvitiya voyenno-morskikh sil" (Some Trends in the Development of Naval Forces), *Morskoy Sbornik*, January 1972, p. 25; N. Shatrov, "Tendentsii razvitiya i primeneniya flotov" (Trends in the Development and Employment of Navies) *Voenyaya mysl*, January 1972, p. 46.
21. G. Kostev, "Bitva pod vodoy" (Battle Underwater), *Morskoy Sbornik*, March 1973, p. 38.
22. N. V'yunenko, "Nauchno-tekhnicheskaya revolyutsiya i flot" (The Scientific-Technical Revolution and the Fleet), *ibid.*, November 1973, p. 25.
23. Kostev, pp. 35-40; Shatrov, p. 46.
24. A.A. Kvitnitskiy, *Protivolodnochnoye oruzhiye i ego nositeli* (Anti-Submarine Weapons and Their Platforms), (Moscow: Voenizdat, 1973), p. 12.
25. Sergei G. Gorshkov, "Voenno morskoye floty v voynakh i mirovnaya vremya" (Navies in War and Peace), *Morskoy Sbornik*, February 1973, p. 21; Yu. Bol'shakov, "Podvodnykh lodki protiv krupnykh boyevy nadvodnykh korabl'e v more" (Submarines Against Major Surface Combatant Ships), *ibid.*, June 1972, p. 35; N. V'yunenko, "O nekotorykh tendentsiyakh v razvitiyi morskoy taktiki" (On Some Trends in the Development of Naval Tactics), *ibid.*, October 1975, p. 25.
26. Gorshkov, "Voenno morskoye floty" p. 21.
27. Bol'shakov, p. 35.
28. *Ibid.*, p. 34.
29. *Ibid.*
30. B. Balev, "Sea and Oceanic Communications and Warfare on Them," *Voenyaya mysl*, October 1971, p. 47.
31. Gorshkov, "Voenno morskoye floty" p. 28.
32. Rodionov, p. 43.

33. Balev, p. 47; N. Vlasov, "Vchera, segodnaya i zafta nadvodnykh korabli" (Yesterday, Today and Tomorrow of Surface Ships), *Morskoy Sbornik*, March 1974, pp. 22-23; Gorshkov, "Voyenno morskoye floty . . . ," pp. 20-21; *ibid.*, "Na moryakh i okeanskikh" (On the Seas and Oceans), *Pravda*, 30 July 1972.

34. B. Chizev and A. Zheludev, "Protivolodochnyye podvodniye lodki: taktika ikh deystviy" (Antisubmarine Submarines: the Tactics of their Employment), *Morskoy Sbornik*, March 1976, pp. 94-98; V'yunenko, "O nekotorykh tendentsiyakh . . . ," p. 21.

35. Chizev and Zheludev, p. 96; I. Kuzmin, "Razvedka atomnykh-raketnykh podvodnykh lodok" (Surveillance of Nuclear-Powered Submarines), *ibid.*, May 1979, p. 70.

36. Rodionov, 2nd ed., p. 13; Chizev and Zheludev, p. 96.

37. Chizev and Zheludev, p. 100; Gorshkov, *Morskaya moshch' gosudarstva* 1st ed. pp. 245, 242.

38. K.A. Stalbo, "Avionostsi vo vtoroy mirovoy voyne" (Aircraft Carriers in World War II), *Morskoy Sbornik*, January 1978, pp. 91-100; A. Pushkin, "Boyeviy deystviye amerikanskikh i yaponskikh podvodnykh lodok protiv avionostsev v period vtoroy mirovoy voyny" (Combat Operations against Aircraft Carriers by American and Japanese Submarines During World War II), *ibid.*, September 1979, pp. 11-26.

39. *Ibid.*, "Boyeviy deystviye nemetskikh podvodnykh lodok protiv avionostsev v period vtoroy mirovoy voyny" (German Submarine Operations Against Aircraft Carriers During World War II), *ibid.*, 6 June 1980, p. 20; Gorshkov, "Morskaya moshch' gosudarstv," pp. 245, 242.

40. Rodionov, 2nd ed., pp. 105-106.

41. G. Morozov and B. Krivinskiy, "Nekotorye uroki i vyvodi iz opyta bor'by na morskikh kommunikatsiyakh vo vtoroy mirovoy voyne" (Some Lessons and Conclusions of the Struggle on Sea (Lines of) Communications in World War II), *Morskoy Sbornik*, May 1976, pp. 27-28.

42. Rodionov, 2nd ed., p. 74; N. Smirnov, "Okean-shkola boyevoga masterstva" (The Ocean is a School of Combat Skill), *Tekhnika i Molodezh*, July 1977, pp. 2-3.

43. A. Pushkin, "Boyeviye deystviye podvodnykh lodok Germanii na kommunikatsiyakh u vostochnykh beregov Ameriki v 1942" (Combat Operations of German Submarines off the East Coast of America in 1942), *Morskoy Sbornik*, October 1982, p. 26.

44. V. Sysoyev, "Morskaya blokada" (Naval Blockade), *ibid.*, December 1976, p. 34; I. Bykhovskiy, "Ispol'zovaniye minnoga oruzhiya s podvodnykh lodok" (The Use of Mine Weapons from Submarines), *ibid.*, July 1977, pp. 27-28.

45. A. Pushkin, "Analiz opyta boyeviy deystviy podvodnykh lodok yaponii na tikhom okeany zgody vtoroy mirovoy voyny" (Analysis of the Experience of Combat Operations by Japanese Submarines in the Pacific During World War II), *ibid.*, December 1981, p. 34; G. Karmenok, "Upravlenie podvodnymi lodkami VMF pri deystviyakh na kommunikatsiyakh protivnika" (Control of Soviet Submarines in the Operations Against the Enemy (Sea Lines of) Communications), *ibid.*, May 1983, p. 26.

Dr. Milan Vego, at one time a Lieutenant Commander in the Yugoslavian Navy, writes extensively on Soviet naval affairs.

— ψ —

Should America Have A "War Press Act"?

by

Captain James E. Wentz, US Navy

Would the American public support the enactment of a War Press Act; parallel legislation to the War Powers Act?

Or, a Protection of (military) Information Act; as a balance to the Freedom of Information Act, with scope similar to the British Official Secrets Act?

These questions are relevant against the backdrop of our recent military experience in Grenada. On 25 October 1983 US forces, acting on the orders of their Commander in Chief, occupied Grenada. The island was closed to nonmilitary air and sea traffic and journalists were excluded from reporting on-scene action. The reasons for excluding reporters, according to Defense Secretary Caspar Weinberger, were fear for the safety of reporters and the desire of military commanders to preserve the secrecy of ongoing military operations.

Experienced military officers recognized additional reasons for excluding the press. On-scene newsmen require three vital assets to report a battlefield story, assets that are in short supply during the initial phase of a military operation. They are transportation, communications, and the precious time and attention of knowledgeable personnel to explain strategy, tactics, successes, setbacks, and human interest facts.

Usually, modern military operations are fast moving, with jeeps, helicopters, and armored personnel carriers speeding forces to tactical battle points. Even pencil-and-paper newsmen, unencumbered with video and audio gear, cannot be given personal transport, or assignment to the transport of a combat crew, without disruption to the operational flow of combat and support personnel. Until a military operation has stabilized and lives are no longer at great risk can the assignment of transport to nonmilitary functions be considered without impinging on a force's mission.

Once a story is gathered it takes a communications circuit, or a courier using operational transportation, to deliver the manuscript or film to the editorial offices of the publishing or broadcast organization. Military communications circuits and personnel must be taken away from operational duties in order to facilitate the filing of news copy. Editors in the United States, in competition with one another, expect on-scene correspondents to

overcome the problems and fighting men's objections to having copy transmitted over military circuits. Often, this leads to acrimonious confrontations between the on-scene reporter and the on-scene commander who controls the priority of outgoing messages. When more than one reporter is competing for use of limited communications facilities, the result is almost always bitter feelings. News media discontent joins enemy opposition in the problem matrix of the theater commander.

Even if the difficulties of transport and communications were overcome, the third factor needed to compose a battle news report—perspective and quotes from the mouths of battle participants—is both trying and burdensome for an on-scene commander to accommodate. Many military officers and enlisted men are uncomfortable in media encounters. They may be cool in combat but self-conscious in front of a microphone. The morale of men and the efficiency of battlefield operations is, in the view of many combat-tested veterans, impeded by the intrusion of reporters seeking interviews and broadcast worthy footage. Better, they think, that participants in the battle be left unhampered by outside distractions until the shooting subsides.

The New York Times editorial on Friday, 28 October 1983, decried the absence of newsmen during the initial phase of the Grenada campaign. It cited news coverage of several events during World War II as examples of courageous and responsible media reporting. Those examples took place several years after the commencement of hostilities, not during the critical first days of the action. In any event, WWII was a war in which press censorship was accepted and, in which, all elements of American society—including the news media—were involved in the preservation of America as a nation against the military might of the Axis powers. The editorial also implied that the presence of newsmen in Grenada would ensure objective, public scrutiny of administration actions.

While it is certain that the political process of the American system will ensure that the military actions ordered by the administration will be subjected to public debate, the American public might agree with the retired British reporter who stated that in times of crisis, "objectivity can come back in fashion when the shooting is over." The apparent national approval for the successful, and seemingly necessary security operation in Grenada, and the relatively small casualty figures for the operation, would seem to justify the policies adopted for the conduct of the campaign—including the initial exclusion of reporters.

Some journalism schools teach the definition of "news" as any event that has the element of conflict, catastrophe, controversy, or uniqueness. Everything else is "information" or human interest. US and foreign news organizations are highly competitive; company against company, editor against editor, reporter against reporter, anchorman against anchorman. They want to ferret out the *news* of a conflict, i.e., about equipment that does

not work or about poorly led units. Everyone wants to be first; with the announcement of the impending or unfolding news event and with follow-up facts, analysis and interpretation. Correspondents in a "hot," combat environment are no different. Their reputations, and livelihoods, and the prestige of their parent organizations, are at stake.

Unfortunately, to prevail in this highly charged environment, the press corps must intrude into the execution of military operations to gain, most importantly, the time and attention of personnel whose mindset should be exclusively devoted to achievement of tactical objectives and preservation of human life. The on-scene commander must expect his superiors to provide him with a combat environment that is devoid of distractions that might interfere with the swift execution of operations and lead to casualties. A reporter can follow a battle, gather material for his story, and withdraw while the marine or soldier must stay. The latter's attention should be riveted to the battle and covering his buddies on his flanks—not to how he will appear on 40 million television sets back home.

Military operations, and the news coverage of combat, have changed since Matthew Brady took his primitive camera onto Civil War battlefields, or since Walter Cronkite covered World War II action in Europe as a notebook-toting reporter for the United Press. The arrival of a CBS minicam team, either alone or headed by a modern day electronic Walter Cronkite, during any US combat operation, cannot help but cause disruption to the ongoing operations; no matter how much the celebrity newsman may wish differently. Multiply that hypothetical scene by the hundreds of correspondents who assembled to cover the Grenada operation and one can imagine the leadership problems facing NCOs and company commanders. Combat marines should have tunnel vision—they should focus solely on swift, victorious termination of hostilities with minimum casualties. Until the shooting subsides, political leaders, not men under fire, should be the center of media attention.

Is federal legislation needed to regulate news media access to the initial phase of a US military operation? Can American lives be saved, and the legitimate rights of a free press be protected, by tougher laws governing the dissemination of classified, military information? Has the time come to rethink the roles and responsibilities of the military and the media, during combat, in the electronic age? The author's responses are *yes, yes, yes*.

Captain Wentz, a former newspaperman, will soon leave the Naval War College to become a research scholar at the London School of Economics and Political Science.

US Policy Opportunities*

by
Richard Pipes

The year 1983 marks two-thirds of a century from the time when the Bolsheviks seized power in Russia. In the decades that have elapsed, US attitudes and policies toward the Soviet regime have undergone frequent changes. There were the initial fifteen years when Washington simply ignored the Communist state, as if expecting it to go away. There were the periods of rapprochement which on occasion (as during World War II and the early 1970s) bore all the marks of an alliance. There were also periods of aggressive containment of Soviet expansion that now and then came perilously close to the outbreak of hostilities. And yet, notwithstanding such seemingly extreme oscillations, there runs through the record of US policies toward the USSR one common thread: the virtually exclusive concentration of American policy-makers on Moscow's external behavior, or, as Ernest May has recently put it, on "events." US policies toward the Soviet Union have been and continue to be determined by Washington's evaluation of that country's behavior outside its own domain as being either "aggressive" or "restrained." When the USSR exercises "restraint" in its foreign policy, we respond with friendship and rewards. When it behaves "aggressively," we resort to punishments. In this calculating manner we seem to expect to tame the Soviet challenge.

As someone interested in intellectual history, I have often wondered about the philosophical underpinnings of such a foreign policy, and concluded that it is rooted in Watsonian "behaviorist" psychology, a theory particularly suited to America's predominantly commercial culture. For it was John B. Watson who introduced earlier in this century the principle that human conduct can be explained almost exclusively in terms of stimuli and responses and has nothing to do with "states of mind" which, in international relations, would consist of a country's political traditions, culture, and ideology. In the view of the behaviorist school, one simply adds or subtracts stimuli until the desired response is attained.

In one sense, such a behaviorist approach to the conduct of foreign relations is understandable. The only threat we face from the Soviet Union

and its dependencies derives from their external actions, namely, intimidation and overt aggression directed at us, our allies, and neutral powers. Much as Americans may dislike the internal policies of Communist regimes, they are not prepared to try to change them; indeed, we accorded the Soviet Union diplomatic recognition at the very time when it was setting in motion a most appalling internal bloodbath. We may condemn undemocratic regimes, whether of the so-called left or right variety, but we act against them only when they try to impose their systems on others. And then we seek to manipulate them with "stimuli" in the form of rewards and punishments.

It may be understandable, but is it sensible? Is human behavior, whether of an individual or of a government, really determined only by external stimuli and hence at the mercy of outside manipulators? Not only is this proposition questionable on its own merits but, as experience has shown in international relations, it does not serve well in practice either. One cannot divorce behavior from the nature of the behaving object, nor can one reasonably expect to secure the desired response merely by adding or withholding stimuli.

I do not propose to provide here an analysis of the causes of Soviet aggressiveness. But surely, before we can ask ourselves what policies are most likely to attenuate our problems with the USSR, we must be clear in our own mind where the problems lie. Let me, for my part, state emphatically that I do not believe—as many do—that the state of US-Soviet relations is primarily a function of US intentions and initiatives. We sometimes act as if US-Soviet relations were the by-product of controversies between "hawks" and "doves" in this country, with the Soviet Union relegated to the role of a concerned but passive party. As far as I can ascertain, the United States and the Soviet Union have no genuine conflicts of interest: neither territorial claims against each other, nor competition for markets nor—given the small role assigned to ideology in the American political culture—ideological differences that matter. The tensions between the two countries bear no resemblance to the ones that dominate Sino-Soviet relations or cause Arab-Israeli enmity. Ours is a purely artificial conflict initiated by Stalin as soon as the tide of World War II had turned in his favor for reasons imbedded in Soviet requirements and aspirations. Strictly speaking, there is nothing the United States can do (short of outright capitulation) to avert this enmity. As George Kennan once well expressed it, they hate us not for what we do but for what we are. Ever since it had become certain that the expectations of spontaneous world revolution which the Bolsheviks had entertained until 1920 or so would not be realized, the elite that lords it over Communist countries has had to find an external enemy to furnish it with internal legitimacy—to safeguard the privileges that it had monopolized, and to justify the disproportionate expenditures on the military establishment, whose essential function it is to protect this elite from its own people. For the

*Lecture given at the Naval War College annual Current Strategy Forum.

real enemy of every Communist regime resides within its own borders. To deflect this domestic hostility they require surrogate enemies elsewhere. In the interwar period they were the “Fascists” and since 1945 it has been the United States. If this assumption is correct, then the fundamental problem that we face in our dealings with the Soviet Union lies inside that country, i.e., in the “system” of which its external conduct is but a manifestation. To concentrate attention on and respond to conduct alone is to deal with symptoms instead of causes.

The practical difficulty here is that while our ability to influence internal conditions in the Soviet Union and other Communist countries is obviously extremely limited, it is not entirely absent. What I would like to plead for is a closer coordination of our policies vis-à-vis the USSR so as to take into account the effect our actions have not only on Russia’s international conduct but also on her internal developments.

As concerns the Soviet military threat, there is wide consensus in this country that it must be matched and neutralized, even if considerable disagreement exists as to the precise extent of the threat and the best ways of coping with it. Controversy over such issues is legitimate and proper. However, it is disconcerting to see responsible public figures approach the problem not in terms of the need, but of fiscal affordability. It is as if the competitor of our armed forces was Medicaid rather than the Red army. On the subject of the military threat, one only needs to stress that, given the uniquely advantageous geopolitical situation of Russia—which enables it to shift forces rapidly within its own confines from the frontiers of Western Europe to those of the Middle East and from there to East Asia—we are wise in not contesting Soviet superiority in land forces. But this forfeiture places on us the obligation of maintaining a comfortable margin of superiority on the sea and in the air, not to speak of credible deterrence in strategic forces. Credible, that is, to the Soviet High Command even if not necessarily to the American Association of Atomic Scientists.

The military threat is readily understood by most people, which is probably why governments that feel externally threatened tend to reduce the threat to military terms. But it would be a delusion to believe that by neutralizing the danger posed by Soviet armed might we would eliminate the Soviet threat altogether. One needs only to recall that in the immediate post-World War II years, when the United States enjoyed nuclear monopoly, the Soviet Union was in an exceptionally truculent mood.

To cope effectively with the Soviet threat, one has to understand its comprehensive character. Leninism-Stalinism, which continues to dominate Soviet thinking and behavior, is a doctrine that calls for the militarization of all aspects of life. It has been rightly observed that Lenin put Clausewitz on his head by treating politics as the pursuit of war by other means. This conception is a historic novelty to which the non-Communist world has had

great difficulty adjusting. In the Communist view, foreign policy (for which there exists, properly speaking, no Marxist theory) is the extension of class conflict onto the international arena. In the blunt words of D.B. Riazanov, a leading Russian Marxist of the 1920s, “the war of the proletarian state is a continuation of the revolution by other means.” In this view, struggles between nations represent the internationalization of struggles among classes; and since the class struggle must rage until it is finally resolved by the triumph of “classless” society, international conflict is equally unavoidable until the ultimate triumph of “socialism” around the globe. In this conflict, all instrumentalities must be employed because all of them are expressions of underlying productive relations: ideas as well as economic resources and political levers, not to speak of military force. Failure to grasp this essential feature of communism and exclusive concentration on the military threat has been the cause of the failure of numberless attempts to stem Communist aggression, from the Russian Civil War to the war in Vietnam. To act as if the challenge were exclusively military is to leave one’s flanks open to devastating nonmilitary assaults.

Adam Michnik, a leading theorist of Solidarity, opens one of his books with the startling statement: “The government under which I live has as its objective the establishment of dominion over human minds.” This is the view from the inside; but because in the Communist outlook the line separating internal from external policy is far less sharp than it is in our thinking, it applies in some measure to Soviet foreign policy as well. Inside their own realm, the Communist authorities seek to establish dominion over minds by controlling the flow of information; outside of it, where they lack this power, they do so by semantic manipulation and by setting the rules of international discourse in a manner that exclusively favors their cause. Let me illustrate what I mean.

The majority of Americans would probably define the cause they espouse and defend as that of freedom, broadly interpreted. But since in any contest over freedom the Soviets would obviously lose, Moscow has consciously striven—and to an astonishing degree succeeded—to define the East-West conflict as one pitting the forces of peace against those of war, or “nuclear holocaust.” Indeed, so successful has this campaign been that there is a certain embarrassment in the very mention of freedom as a national objective, as if it were a cause detrimental to peace.

Once this principle has been established as a frame of reference, several consequences follow:

- Peace can only be preserved by “détente,” defined as the antithesis of “cold war” and interpreted to mean the acceptance, among other things, of Communist-sponsored “wars of national liberation” in the Third World. Under such rules of the game, to raise the issue of the Soviet occupation of Afghanistan, for example, is tantamount to undercutting détente and risking nuclear holocaust, détente’s allegedly sole alternative.

- Arms control is the most effective means of preventing nuclear holocaust. It must, therefore, be entirely decoupled from any other issue adversely affecting US-Soviet relations. Acting on this principle, the Soviet Union endeavors, and in no small measure succeeds, in making arms control negotiations the nearly exclusive topic of bilateral relations between our two countries.

- The preservation of peace requires that Soviet and Soviet-dominated frontiers be recognized as permanent and inviolate, while the status of territories lying outside them is fluid and subject to change of ownership.

To counter this very dangerous psychological game, which has had profound effects on Western public opinion, two things are required: lucid thinking and the courage of one's convictions. Moscow is extremely sensitive to any attempts by the West to turn the ideological-psychological tables on it. This was demonstrated by its near hysterical reaction to President Reagan's statement in his London speech that Marxian laws of economic and political contradiction apply not to free market economies but to the Communist ones. We must refuse to adopt the one-sided rules of the game of international relations which Moscow seeks to impose, and if we are unable to change them, then we must at least insist that they apply with equal force to all parties. Peace, of course, is an overwhelmingly important objective, but it does not preclude other objectives and it is not an alternative to freedom. It must be made clear that we do not accept the Soviet definition of détente and that nuclear arms negotiations, essential as they are, do not require us to ignore Soviet outrages inside and outside Communist borders. The Brezhnev doctrine must be rejected without qualification. If the Soviet Union is free to seek a change in the *status quo* outside its domain, then its own domain is not secure either. It is inconsistent that the United States—which after World War II had urged with such persistence friendly West European countries to give their colonies freedom—should treat with solemn respect the Soviet Empire, a relic of Tsarist imperialism, and fail to recognize the national aspirations of its non-Russian inhabitants as a fundamental human right.

Our political leverage in dealings with a country which has no free opinion, is necessarily weak. To the extent that we may be said to have it, this leverage is negative in nature. It consists in doing nothing that might enhance the legitimacy of the Soviet dictatorship and its transient management, the kind of legitimacy that the regime has a difficult time securing from its own subjects. We should not sign accords that recognize as legitimate Soviet conquests in return for promises of liberalization that the regime cannot realize without undermining its authority. We should not engage in frenetic "dialogues" which allow Soviet diplomats to exploit natural differences of opinion that exist in free societies without fear of reciprocity. We should not seek "summits" for the sake of public relations because they project a false

sense of identity between dictators and duly elected officials, both of whom are deceptively called "Presidents." Accords, dialogues, and summits make sense only when they are conducted with good will on both sides and result in fair and implementable agreements. Under any other conditions, they serve mainly as instruments in Soviet psychological-ideological warfare.

The second opportunity we have to influence the Soviet system is through the exercise of prudence in East-West economic relations. It is said that the Soviet economy is in large measure self-sufficient. This proposition is correct but not entirely relevant. The importance of Western technology for the Soviet Union must be measured not in the share of imports in the overall economy but the role such imports play in certain of its critical sectors. Computers, semiconductors, or fiber optics may amount to relatively little in terms of the Soviet GNP, but they are essential to some industries, including those which produce directly for the military. As Anthony Sutton has shown in his exhaustive study, *Western Technology and Soviet Economic Development*, Western technology has played an important part in Soviet industrial development all along, from the early 1920s on, even in periods when the USSR pursued a policy of ostensible autarky. Importation of advanced technology permits the Soviet regime to avoid false starts, thus saving it both costs and time in the design of equipment.

But the importance of imports of technology and capital transcends for the Soviet Union such calculable advantages. The Soviet economy—essentially Stalinist in its design—is in deep systemic trouble, in part because of excessive centralization and in part because of the absence of adequate incentives for the work force. The consequence is an unremitting decline in the rate of growth of the GNP. The system stands in need of thoroughgoing reform. The Communist elite, however, fears it because reform will inevitably enhance the economic independence of the citizenry, thereby undermining the monopoly of economic resources on which the political power of the regime in the ultimate analysis rests. Assistance rendered to the Soviet Union to overcome its economic difficulties under the existing arrangement, inherited from Stalin, helps the Soviet elite out of its dilemma and shores up the very system which is the main source of Soviet aggressiveness. Thus, while on one hand we spend billions to match the Soviet military buildup in order to thwart Soviet expansion which the system generates, with the other—for the sake of relatively piddling commercial profits—we help keep the same system intact. The Soviet penchant for 1970s-style détente derives from the fact that it allows the Soviet leadership to eat its cake and have it too: to arm itself at a frenetic pace and instigate anti-Western movements in the Third World and, at the same time, using Western credits and technology, to keep Stalinism intact.

Self-imposed restraint in commercial and fiscal dealings with the Soviet Union will not bring that country to its knees; nor will it cause it to withdraw

accuracy multiple independently targetable reentry vehicles (MIRVs) that pose a theoretical capability to destroy the US land-based missile force, strategic bombers on the ground, and ballistic missile-carrying submarines (SSBNs) in port as well as to barrage those US SSBNs at sea whose locations can be roughly determined. Taking into account the increasingly capable Soviet submarine-launched ballistic missile (SLBM) force, worst case American planning would have to conclude that US command, control, communication, and intelligence (C³I) systems are also at risk. This missile buildup, coupled with a vigorous Soviet program in active and passive defenses and a set of military writings that emphasize nuclear warfighting, can only impress the American defense community that Soviet leaders are purposefully seeking the capabilities to fight and prevail in a nuclear war.

The American reaction, exemplified particularly in the Reagan administration's strategic modernization program, has been in part to emulate the Soviets. The acquisition of a prompt hard target kill capability on land and at sea, the budgetary rejuvenation of air defense and civil defense programs, the push to gain the "high frontier" of the military uses of space, and the explicit urging by President Reagan for the technical community to exploit advanced technologies so that the United States could be in a position to defend effectively against attacking ballistic missiles; these are all elements of a program designed to match, negate, or dominate emerging or projected Soviet capabilities. In the administration's own terms we face a "window of vulnerability" for the next several years—exactly for how long is not made clear—as a consequence of Soviet force deployments of the last decade. It is asserted, however, that once the fruits of the US strategic modernization program have materialized, presumably by the end of the 1980s, the window will not only be shut but the overall strategic advantage will return to American hands.

One need not be complacent about the significance of the Soviet nuclear buildup to at least qualify aspects of the American response. After all we now know that, in terms of actual targeting policy, the single integrated operational plan (SIOP) has for more than twenty years included a wide range of military as well as urban/industrial targets, albeit calling for a large number of weapons for each target set. Consequently, in contrast to many public assertions, the national command authorities have not faced the simple choice of authorizing strikes against Soviet population centers or doing nothing. In this light the doctrinal shifts from Schlesinger's limited nuclear options through the current declaratory policies represent incremental rather than fundamental changes. They reflect more the availability of enhanced technologies of precision than dramatic alterations in the attitudes of American leaders toward nuclear war.

Moreover, Soviet capabilities in at least two areas can be seriously questioned. The Soviet air defense systems, although highly formidable in

quantitative terms, may well be subject to extensive penetration using a combination of air-launched cruise missiles (ALCMs) and short-range attack missiles (SRAMs) carried by B-52s—eventually by B-1Bs and Stealth aircraft—that could attack targets in concentrated formations to create bomber corridors. Indeed, to the extent that the 1982 Israeli experience against Soviet surface-to-air missile systems (SAMS) in the Bekaa Valley in Lebanon is a guide, Soviet systems even when forming a layered defense are vulnerable to attack using a combination of drones, electronic countermeasures (ECMs), and attack aircraft. In addition, Soviet SSBNs must reach the open ocean from a few well-known exit areas that are closely monitored by US attack submarines. Given the continuing disparity in noise levels between Soviet and American submarines, it may well be that Soviet SSBNs are far more vulnerable to attack than the US Navy would lead us to believe.

On balance, it is probably accurate to characterize the prevailing view of the professional defense community as one of nervousness over how the Soviets might seek to exploit their temporary advantage in ICBM hard target kill capability. But the expectation is that such exploitation would be political in form rather than military and that the United States is moving in the right direction by acquiring forces that could deter a Soviet attack across a broad spectrum of threat.

These judgments are far from universally shared, however. Those who consider themselves members of the arms control community or are members of the nuclear freeze movement or who take a predominantly moral perspective on nuclear weapons issues hold fundamentally different views. While it is no simple task to summarize the perspectives of so many disparate groups they cluster around the following key points:

- Increased selectivity and flexibility lowers rather than raises the nuclear threshold. With the acquisition of such weapons nuclear warfighting becomes more thinkable and nuclear war itself more, not less, likely.
- Especially pernicious are prompt, hard target killing weapons systems such as the MX. Such weapons, it is argued, are only useful as first-strike weapons. Once struck initially, the United States would have no need for the prompt responsiveness of these weapons because the attackers would launch a third strike on warning and the second-strike forces would only destroy empty silos. (Destroying reload capability is not considered significant by those who hold this view.)
- The accumulation by the United States and the Soviet Union combined of roughly 50,000 nuclear weapons has produced an aggregate level of nuclear armaments completely beyond any rational political or military purpose. Putting aside the rationale for specific systems, there is a general sense that "enough is enough" and the process of disarmament should now commence.

From these critical perspectives, the rhetoric of the Reagan administration has produced public concern that the likelihood of nuclear war is increasing. Peace groups in Europe, freeze movements in the United States, and a variety of professional groups "for social responsibility" have been formed to call attention to the dangers of the US-Soviet nuclear arms buildup. Students from grade school to graduate school have become attentive to these issues and, for the most part, are highly skeptical of the necessity for the US strategic modernization program. Most importantly, much of the underlying policy assumptions of the Reagan policy has been criticized on moral grounds by the National Conference of Catholic Bishops. This is significant not only in itself but because it challenges the basic moral premise of those who initially criticized assured destruction.

Historically and for good reason the professional defense community has paid scant attention to the views of various nonspecialist groups on nuclear issues. With the notable exception of protests over atmospheric testing that led to the 1963 Limited Test Ban Treaty and the opposition to antiballistic missile (ABM) system deployments in New England in the late 1960s, the public has been largely uninvolved in the American nuclear weapons debate. Popularization of the nuclear debate, however, may now truly be underway. Whereas in the early 1970s one could point to the absence of published articles on nuclear-related issues as evidence that the public was "forgetting about the unthinkable,"² the subject is now debated routinely in all sorts of educational and community forums. George Quester, a well-published student of nuclear weapons policy, used to remark somewhat whimsically that American policy would be in difficulty when his grandmother inquired about the CEP (circular error probable) of an SS-9 Soviet ICBM! We are not far from this condition today.

Put simply, the concerned public and the defense community hold fundamentally different views on the consequences of acquiring prompt hard target kill capabilities, as illustrated in the matrix below.

By mobilizing politically the concerned public could generate sufficient congressional support to thwart procurement of elements of the strategic modernization program, especially the MX, as well as induce the administration to adopt more conciliatory arms control negotiating positions in both the Strategic Arms Reduction Talks (START) and the Intermediate Nuclear Force (INF) negotiations.

To be sure this matrix is a highly simplified abstraction of a complex reality, a reality which includes on the one hand former Director of Central Intelligence Stansfield Turner who characterizes the MX as "folly" and on the other hand many lay public supporters of President Reagan who strongly endorse the MX deployment. The matrix is nonetheless intended to convey the central tendencies of the two groups. Whereas the defense community focuses on Soviet prompt, hard target kill capabilities as the most pernicious

Deterrence Perception Matrix Capability

		Deterrence Perception Matrix Capability	
		PHT	AD
Community	DC	S	W
	CP	W	S
where	DC	=	defense community
	CP	=	concerned public
	PHT	=	prompt hard target kill capability
	AD	=	assured destruction capability
	S	=	deterrence perceived strong
	W	=	deterrence perceived weak

development of recent times, the concerned public is disturbed by the bilateral accumulation of nuclear weapons and by the perceived belligerence of the Reagan administration reflected both in declaratory policies and in weapons deployment decisions.

Admittedly we are all flying somewhat blind in trying to assess what deters Soviet decision-makers. Recall that it was in the period of the American nuclear monopoly that Soviet territorial acquisitions reached their peak. American nuclear superiority certainly did not prevent the initiation of the Korean War, the various Berlin crises, or the Cuban missile crisis, although the outcome of each may well have been influenced by the nuclear balance of forces. And since the Soviets were acknowledged to have reached nuclear parity with the United States in the early 1970s, we have witnessed only one serious rhetorical exercise of nuclear muscle—the shift to Defense Condition Three of US strategic nuclear forces during the 1973 Middle East War—and it is not at all clear what effect this exercise had on the Soviet decision not to intervene militarily against Israeli forces in the Sinai.

We have now lived roughly a decade since the Soviets gained the edge in most static indicators of the strategic nuclear forces and at least a few years since they established an advantage in ICBM countersilo kill capability. No political or military benefit of note has yet been derived by Moscow as a consequence. Although it is hazardous to project the future by extrapolating from the past, it just may be that there are sufficient numbers of invulnerable American weapons and the risks of nuclear war or even nuclear coercion are seen by the Soviet leadership as so great that the Soviet Union will simply be unable to translate its nuclear might into even modest political gain. However, some observers would disagree with this judgment, pointing to the growing fragmentation of the Nato Alliance as a product of Soviet nuclear superiority.

It is plausible to conclude that as long as the principal characteristic of the strategic nuclear balance remains one of offense dominance, a nuclear stalemate will remain in place. This stalemate will keep the probability of nuclear war between the superpowers exceedingly low and will also ensure the continuance of a pattern of US-Soviet military competition carried out by proxies with the deliberate avoidance of direct combat between Soviet and American forces even at the lowest levels of violence. Ironically, however, the concerned public is indeed increasingly concerned that this strenuous nuclear competition will lead by design or by accident to nuclear war. Based on an unscientific, nonrandom sampling of expert and public opinion, this author is convinced that the public assesses the probability of nuclear war in this century as substantial (10-30 percent), placing it several orders of magnitude greater than the judgments of most specialists.

If War Comes. If nuclear weapons should be used in a Soviet-American war, how might the war start and how might the weapons be used? Four scenarios can be cited: (1) bolt-out-of-the-blue; (2) escalation of a conventional war; (3) preemptive strike in a deep crisis; (4) accident.³ For the first to make any sense at all the Soviet leadership must be persuaded that a successful disarming first strike could be carried out with a very high probability of success. This is now infeasible. It would take a fundamental breakthrough in ASW technology to take on an air of reality. Despite the enormous sums expended to date, no combination of passive and active detection systems yet poses a serious threat to the United States' SSBN fleet. One fruitful area of work concerns the development of satellite-based detection systems that could scan vast ocean areas, detect SSBN locations, and then command strikes on these locations either by ICBM barrage attacks or by space-based directed energy weapons. Should a disarming first-strike capability be acquired, it would make strategic sense to restrict the attack to a counterforce mode so that there would be a limited incentive for the American leadership to respond with a countercity attack by whatever residual force survives the initial strike.

A different avenue for arriving at a bolt-out-of-the-blue attack would be if either side acquired a leak-proof defense. Here again the technology is simply not at hand. In the MIRV era, saturation attacks, the uses of decoys and ECM, and the vulnerability of BMD sensing devices make it exceedingly unlikely that a workable defense could be deployed to protect population centers or even hardened military targets from a sophisticated attack. This is not to deny, however, that BMD coupled with certain ICBM deployment patterns such as multiple protective shelters greatly reduce the cost-exchange calculations favoring the attacker. Technologies based on new physical principles, however, would have to be mastered and deployed before the offense-defense balance shifted from the former to the latter.

A third and more restrictive bolt-out-of-the-blue scenario, popularized by Paul Nitze, envisages a Soviet attack on US ICBMs, SAC aircraft, and SSBNs. A highly successful attack would still leave the United States with a residual force of perhaps 3,000 warheads based on the SSBNs at sea and on a few surviving ICBMs and long-range bombers. Nitze has argued with some persuasiveness that in such a situation the US national command authorities (NCA) would eschew countercity retaliatory attacks for fear of Soviet reprisals in a third strike. The absence of a credible counterforce and in particular countersilo retaliatory capability would leave the NCA with no adequate response. This logic can be questioned on several grounds: first, US countersilo retaliation would probably be of limited value since the Soviets would have to be expected to launch under attack having themselves already initiated nuclear war; second, a large number of military and industrial targets could be struck in retaliation that would be militarily effective and demonstrate American resolve to proceed up the ladder of nuclear escalation; and third, it seems implausible that the highly conservative and risk-averse Soviet leadership would gamble that Nitze's logic was fully embraced by the American President and that Moscow and other key Soviet assets would in fact be spared nuclear retaliation.

A variation on the bolt-out-of-the-blue theme concerns an initial Soviet strike on the United States' C³I system so that the NCA is uncertain of the nature of the attack. While this approach would surely complicate the US decision-making process if implemented successfully and could hamper greatly the American ability to respond effectively, the Soviets would nonetheless be supplying a formidable strategic warning to Washington and would in all probability be leaving the fate of their own society in the hands of their enemy. This must be seen as an extremely high-risk strategy in Moscow with a very uncertain payoff. On balance, a bolt-out-of-the-blue attack, even if restricted to a counterforce mode, would still call for the detonation of several thousand warheads to make any military sense (assuming, for example, two-on-one lay down attacks on ICBM fields). The risk that this would spread to countercity strikes and an all-out strategic nuclear exchange is significant and, therefore, this scenario while imaginable must be judged as highly improbable.

The use of nuclear weapons in the escalation of a conventional war raises somewhat different prospects. A conventional war in Europe initiated by a Warsaw Pact attack against Nato forces could produce at least three follow-on uses of nuclear weapons. Nato could, as former Secretary of State Haig suggested, launch a nuclear warning shot across the bow—a limited and highly discriminating attack against a single high-value Pact target or simply a high-altitude burst over the Baltic—early in the conflict to demonstrate resolve and to persuade Moscow to call a halt to hostilities before full-scale nuclear war ensues. In a more advanced stage, if Nato forces were clearly

being defeated, nuclear forces could be called upon both to interdict the attacking Pact armies and to strike second-echelon forces and other high-value targets in Eastern Europe. It should be noted however that various JCS and other gaming exercises indicate that Nato fails to gain from such a response once Warsaw Pact counterstrikes are taken into account. Finally, Soviet SS-20s and other prompt counterforce weapons could be used in either a preventive or preemptive fashion to disarm Nato of some in-theater nuclear escalatory capabilities, although whether this would ensure that the Soviets retain escalation control throughout the conflict is highly problematical.

Conceivably a US-Soviet conventional war that initiates outside the European theater (e.g., a Middle Eastern scenario in which Israel attacks Syrian SAM sites and kills Soviet advisers, the Soviets respond by striking at Israeli air forces, and American and Soviet forces come to blows protecting their ally's forces) could result in limited loss of life or in prolonged nonnuclear horizontal escalation without crossing the nuclear threshold. To the extent that the respective leaderships in Moscow and Washington sought to continue the conflict, it is indeed highly likely that they would seek to widen its scope at the conventional level rather than escalate to the use of nuclear weapons in the initial area of conflict since the former option would probably be seen as more easily controllable than the latter.

The notion of a preemptive strike in a deep crisis also raises serious obstacles for the attacker. A crisis usually implies a distinctive set of characteristics which set it apart from business as usual: (1) a pervasive sense that an important decision point has been reached and that the path subsequently chosen will have highly significant effects on future events; (2) a departure from utilizing standard operating procedures and a reliance instead on ad hoc decision-making processes; (3) a premium on specialized expertise to bring to bear on the problem; (4) a sense, as exemplified in the Cuban missile crisis, that the adversary must be given face-saving options to retreat rather than closing off all avenues but acts of desperation; (5) a general understanding that "time is of the essence" and that the issue must be dealt with immediately and should take priority over other pressing matters; (6) an understanding by some that a crisis cannot be merely an exercise in avoiding the "minefields" but could provide opportunities to realize gains or take initiatives not feasible under normal circumstances.

If an intense US-Soviet crisis develops over a political, military, or economic issue anywhere in the world two characteristics are likely to be prevalent: a heavy reliance on maintaining channels of communication to minimize the likelihood of misunderstanding and to convey both capabilities and intentions in a fashion designed to defuse the crisis and avoid war; and the generation of the nuclear and conventional forces to higher-than-normal alert status. While it might be assumed that the latter step could push the

leadership to a dangerous hair-trigger response, the opposite may well be true. For "generated" nuclear forces are markedly less vulnerable to counterforce attacks than when they are on a normal alert status. While such forces cannot remain at peak operating effectiveness indefinitely, their high alert status must reduce the adversary's confidence in carrying out a successful preemptive strike and this could well have salutary rather than destabilizing effects.

Accidental war, a matter of great concern in the 1950s and early 1960s, has since waned as a subject of inquiry at least within the American strategic community with the introduction of permissive action links and other means of enhanced control over nuclear weapon use. Nonetheless, as indicated by the relatively high failure rate of the NORAD early warning system, the launching of nuclear forces either because of a system malfunction or by unauthorized personnel cannot be ruled out. Under such unfortunate circumstances several attributes would clearly be desirable to possess: the ability to communicate to the adversary concerning the nature of the malfunction; an ability to recall, disarm, or destroy the delivery vehicle before it reaches its designated target; and, in the eventuality of a tit-for-tat response (à la the denouement of *Fail Safe*), the ability to respond to an accidental nuclear attack in a highly circumscribed fashion.

Is There a Substitute for Victory? General Douglas MacArthur observed that there is no substitute for victory. Does this maxim extend to nuclear war? While many publicists visualize the destruction of the planet once nuclear war begins, some nuclear strategists conceive of a postattack recovery phase with "winners" and "losers." Recognition of a Soviet civil defense effort designed to protect leadership, industry, and foodstuffs stimulated American assertions that a "war survivability gap" existed between the Soviet and American societies such that, in relative terms, the Soviet Union would suffer far fewer casualties and recover from nuclear war much more rapidly than the United States. The analytical basis for such assertions is highly suspect, however, given the uncertain effectiveness of evacuation procedures. In fact, of course, no one knows what such a world would look like. No one knows how national leaders will react when they realize (assuming they are alive) what the horror of nuclear war really means. Moreover, despite extensive modeling efforts, no one really knows what would be the degree of environmental damage—to the ozone layer and to plant life for example—as a consequence of the detonation in a highly compressed time period of several hundred or several thousand thermonuclear weapons.

If the scenarios cited above are any guide, defining victory after a full-scale thermonuclear exchange is of less interest than under more limited attack situations. It would seem plausible that nuclear war would most likely begin with the use of small numbers of weapons to achieve specific military and

political purposes. After some form of postattack assessment has been conducted there may well be enormous psychological and peer pressure on the leadership to terminate hostilities on the best or the least unfavorable terms, rather than march inexorably up the nuclear escalation ladder toward armageddon. After a few nuclear exchanges the original political and military purposes for initiating nuclear war may well be replaced by the intrinsic penchant for survival. And therefore a war termination status that could be defined as "non-loss" may become extraordinarily appealing if the only alternative is radioactive incineration. If the homelands of the superpowers are struck with even a small number of nuclear weapons the magnitude of the effort required to effectuate recovery will be enormous. The status quo ante could then become a compelling denouement. Because of the enormous destructive power of nuclear weapons, it does not necessarily follow that governments which have decided to cross the nuclear threshold will see nuclear escalation as the inexorable consequence of their initial acts. In the world of nuclear war, peace without conquest could indeed be a substitute for victory.

Desirable Assets. Given this examination of different perspectives on the risks of nuclear war, how it may start and how it might end, we are left with a few guidelines for policy and force posture:

- Nuclear war is very serious business and should be addressed in public only by the President in the most sober, respectful, and cautious of terms. Deviations from this public posture produce all sorts of political nervousness that, while understandable, can impede the conduct of a rational and informed strategic debate. Moreover, a serious and sustained commitment to nuclear arms control negotiations and agreements as part of a comprehensive national security strategy is essential in order to retain the necessary political consensus required to support a strategic force modernization program. Dual support for peace *and* strength is required to achieve either. This might be termed a "one sigma posture," reflecting that only modest deviations from the public mean are politically sustainable. As President Carter learned when relying too heavily on arms control negotiations and as President Reagan realized when emphasizing military preparedness too strenuously, the American people seek in game theoretic terms a "mixed" rather than a "pure" strategy.

- The public is much more influenced by declaratory policies than is the defense community. With this in mind, it is important to articulate defense priorities and a defense strategy rather than merely assert that more is better. Rhetoric concerning strategic inferiority is of limited long-term credibility even if a useful ploy in budgetary politics. Emphasis instead should be placed on the *process* of modernization, the need for *patience* in negotiations, and the *progress* that has been achieved in maintaining a stable nuclear balance.

- The dynamics of the arms competition are inherent in the US-Soviet rivalry. Nuclear forces are deployed: (1) as hedges against uncertainty; (2) as products of "technology push"; (3) as bargaining chips for arms control negotiations; (4) to compensate for weaknesses in conventional forces; (5) as a product of legislative politics and the budgetary process; and (6) as a product of the American electoral process, in addition to serving the interests of national strategy. Arms control agreements can, to a limited degree, bound the problem and provide a more stable strategic environment, but they cannot fundamentally transform either the competitive superpower relationship or the domestic political pressures in both countries that sustain the arms competition.

- The weapon systems most valuable for both deterrence and warfighting are largely invulnerable forces of high precision and control that can be used both to fulfill concrete and limited military missions and to convey explicit political statements. In this respect large numbers of relatively invulnerable, dispersed cruise missiles are highly preferable to small numbers of high-value prompt counterforce weapons whose deployment in vulnerable fixed silos do not strengthen deterrence, are of limited warfighting value if used in a retaliatory mode; and, besides, they are a highly valued target serving as a magnet for enemy warheads. Invulnerability and discrimination are the most desirable weapon systems attributes for both deterrence *and* warfighting. Systems deployed in a "use them or lose them" mode do not serve well either objective.

Notes

1. Fred Charles Ikle, "Can Nuclear Deterrence Last Out the Century?," *Foreign Affairs*, January 1973, pp. 267-285.

2. Rob Poarlberg, "Forgetting About the Unthinkable," *Foreign Policy*, Spring 1973, pp. 132-140.

3. Two forms of nuclear war initiation are not included. Catalytic war, in which a third party seeks to induce a Soviet-American nuclear exchange by initiating a nuclear strike on one superpower in the guise of the other is not addressed since contemporary reconnaissance and early warning systems have sufficient resolution to make this an extremely high-risk strategy for the third party. Moreover, acts of nuclear terrorism initiated by sub-state actors that somehow escalate to a US-Soviet conflict insist on a chain of logic considered too implausible to address further.

Mr. Michael Nacht is Associate Professor of Public Policy and Associate Director of the Kennedy School of Government's Center for Science and International Affairs at Harvard University; recently he also served as Acting Director of Harvard's Program on US-Japan Relations.

The SS-20: A Range of Choices

by

Captain Jeffrey D. McCausland, US Army

Winston Churchill's often quoted observation that the Soviet Union "is a riddle wrapped in a mystery inside an enigma" would appear to have some validity even today. In any case the confrontational nature of relations between the United States and the Soviet Union make it prudent to follow the good advice of an even older strategist, Sun Tzu, that it is necessary to "... know one's enemy" if success is to be assured.

The Soviet SS-20 missile system has in the words of Helmut Schmidt, "upset the military balance in Europe and created for itself an instrument of political pressure on the countries within the range of the SS-20, for which the West so far has no counterbalance."¹ The continued deployment of these missiles was the stimulus for Nato's decision to introduce cruise and Pershing 2 missiles on the European continent. If we are to confront this threat rationally and effectively, a thorough understanding of its potency is essential. It is equally indispensable if we are to negotiate any type of an arms control agreement which is consistent with US and Nato security requirements. My ambition here is to analyze the Soviet deployment of the SS-20 in terms of its capabilities and possible military application so as to ensure such an understanding.

SS-20 Capabilities

The Soviet SS-20 missile was first deployed in 1977. Its basic dimensions and characteristics are listed in the following chart:²

RANGE:	2700 nm/5000 km ^a
WARHEADS:	3
SOLID FUEL:	2 stages
CIRCULAR ERROR PROBABLE:	.26 nm
CURRENT INVENTORY:	350 ^b
YIELD:	Varies to 1.5 megaton

^aA study produced by General Dynamics has disputed this claim for the range of the SS-20. It states that the missile has a range of 3500 nm or 6500 km with 3 RVs or with a 1.5 mt warhead. It also described the missile as having a range of 4600 nm or 8500 km with a light 50 KT warhead.³

FIGURE 1

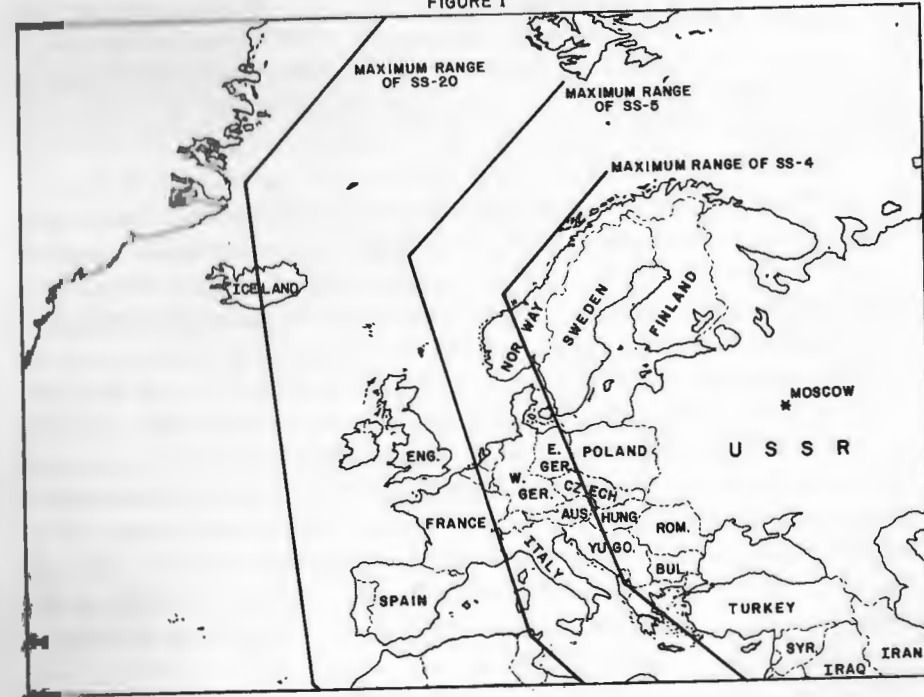
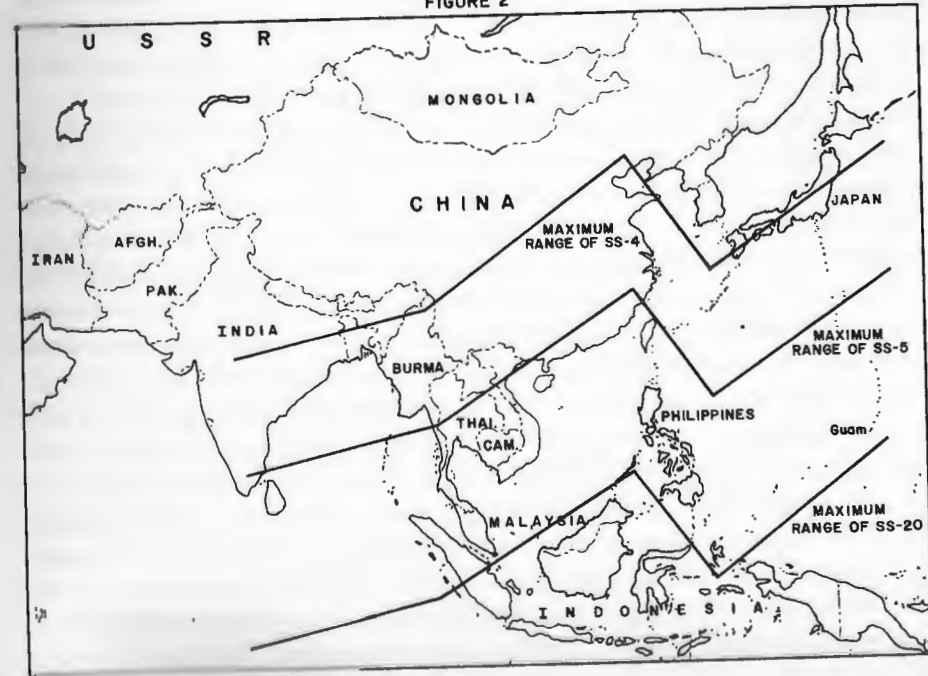


FIGURE 2



^bRecent reports have placed the number of SS-20 missiles at 350 (1,050 warheads). This coupled with the remaining SS-4 and SS-5 weapons yields a total of roughly 1,280 warheads deployed on these systems. Soviet production of the SS-20 has been accelerated to a level of one launcher per week which, if this rate is maintained, would give the Soviet Union approximately 400 SS-20 launchers by the fall of 1983 (the initial deployment period for new Nato systems.⁴)

In evaluations done by the International Institute for Strategic Studies, the SS-20 was rated 0.9 for survivability—the highest given any Soviet system—largely because the missile is mobile. It was rated 0.8 for reliability on the estimated likelihood that the system would function as designed. The SS-5 was rated 0.6 for survivability and 0.5 for reliability in the same report.⁵

The weapon is being deployed in areas general to the SS-4 and SS-5, and will replace those liquid-fueled systems first deployed in 1961 and 1964 respectively.⁶ The Far Eastern region of the Soviet Union was accorded priority in the early deployment of the SS-20.⁷ The planned deployment of the proposed missiles will apparently consist of one-third being placed in the Western Soviet Union, one-third on the Sino-Soviet border, and the remaining third to be deployed as a “swing force” which could be quickly moved to either area and used to strike targets in either Asia or Europe, depending on the situation.

The system's reported range varies from source to source, from a low of 4500 km to a high of 5500 km. Some analysts note that this variation may be largely a function of the size of the particular delivery package and thus the range could vary from weapon to weapon. In any case the improvement it gives Soviet forces in range over the older systems is graphically portrayed in the maps of Europe and Asia (see Figures 1 and 2). These maps were constructed by using the range of 5000 km and known SS-20 basing.

The weapon is designed with a refire capability; consequently in ascertaining the actual number of weapons deployed, the number of launchers will not necessarily give the accurate figure of total missiles. The MIRV and refire capability of the weapon will give the Warsaw Pact a distinct advantage over Nato in delivery systems with ranges beyond 600 km in the period up to 1988, and that is taking into consideration the completion of theater nuclear force modernization by Nato.⁸ As previously noted, the Soviet Union's current production rate will ensure approximately 400 SS-20s deployed by the fall of 1983 (the start date for Nato's deployment of GLCMs and Pershing 2). This will provide the Soviets with 1,200 additional warheads (considering 3 RVs per missile), or roughly twice the number they had with the SS-4 and SS-5. Its solid fuel system makes it much less cumbersome to prepare for launch than its SS-4 and SS-5 forbears and will also allow it to be positioned and launched much more quickly and surreptitiously.

With a CEP of only .26 nm, the SS-20 is a significant improvement over the SS-4 and SS-5 which have CEPs that, in some cases, exceed 1.0 nm. Given this

improvement certain SS-11 weapons can now be retargeted. The SS-11 inventory consists of 580 missiles with a range of 5,700 nautical miles.⁹ By releasing this weapon from its theater role, the Soviets have been able to redirect them to a strategic mission. The added SS-20 accuracy also contributes to Soviet strategic security by effectively countering the French Force de Frappe and any burgeoning Chinese capability. This is of particular importance to the Soviets because of the ability of the French and Chinese to strike the Soviet homeland and the deployment in the last year of new, more accurate French and Chinese weapons systems.

One should be reminded that CEP values are the results obtained through the observation of Soviet tests. Testing of such weapons is normally done in a very precise fashion in which the location of the launcher is scrupulously calculated to the most minute measurement. All procedures are carried out in a systematic fashion in order to obtain the best possible result. The weapon when used in combat, however, will undergo Clausewitz's “friction of war.” In this setting the weapons may be launched from areas that have not been precisely surveyed or may be subject to the normal errors common to humans when subjected to the rigors of exhaustion and terror common to the battlefield. In addition, the location and configuration of the target could be altered greatly if the attack is to take place after warning has been given and the opponent can take action to reduce damage. By this, the precise location of targets such as principal troop locations, command centers, and weapon sites (to name but a few) are known during peacetime, but once hostilities commence this information is subject to the errors of target acquisition. Thus the Soviet's choice of whether to begin the war with the use of these weapons is of critical importance, as use at the onset of hostilities will insure that crews are in the best possible condition, accurate information of launch and target locations is available, and the data will have been previously calculated and recalculated. Although, additional weapons could be used to compensate for mistakes that may occur and assure the same probability of success.

Besides the impressive capabilities already mentioned, the SS-20 provides the Soviets the opportunity to achieve a technological “breakout” through conversion to a SS-16 model by the addition of a third stage. This would increase the range of the system to over 9,000 km or about 5,700 miles,¹⁰ and could give the Soviets a deployable “MX” far in advance of any target date that the United States might now have for its system. However, analysts are skeptical of such upgrading because testing of the SS-16 has not been successful.¹¹ Nevertheless, the United States remains concerned as it has been reported that some SS-16s may be already intermixed with SS-20s at a silo complex near Novosibirsk where a weapon with greater range than the SS-20 makes sense.¹² Recent reports have alleged that the Soviets had deployed up to 200 SS-16 missiles in the northern region of the Soviet Union. With a range of some 6,000 nautical miles, this system could threaten targets

as far south as Omaha, Nebraska in the United States.¹³ Deploying the SS-16 at the same location with the SS-20 may be a ploy to avoid accusations of SALT II violations (the deployment of the SS-16 as a mobile ICBM is precluded by SALT II).

This could have profound consequences for Soviet capabilities and for an arms control agreement because it would be virtually impossible to verify a SS-16 ICBM inventory. The erector-launcher vehicle used for the SS-20 is compatible with the SS-16 which would facilitate the Soviet conversion from one missile to the other.¹⁴ In addition the canisters in which the missiles (SS-20 and SS-16) are transported can be made to look exactly alike.¹⁵ Most analysts discount reports that the SS-16 is currently deployed in a mobile mode though some think that it may be deployed in a few silos. If the Soviets could deploy the SS-20 while stockpiling enough third stages, they could increase the number of ICBM launchers available in a relatively short period of time.

The emphasis that the Soviets have placed on the SS-20 is further demonstrated by its development costs, which for over the last ten years has been one of the largest expenditures in the Soviet defense budget.¹⁶ The weapons' characteristics are in keeping with the principal tasks outlined for the strengthening of the Soviet Strategic Rocket Forces; which are to keep or increase the lead maintained over the United States in: payload, number of launchers, and land mobility of the system.¹⁷ Decisions on weapons procurement are made at the highest levels of the Soviet government, and the SS-20 is consistent with a developing strategy of producing weapons which are designed to fight and win a nuclear war and also ensure the seizure of European industrial technological assets intact, if possible, through reduced collateral damage.

Soviet officials have continued to downplay the significance of the SS-20 arguing that its deployment does not represent a quantum leap in Soviet capabilities but is only a long overdue modernization of obsolescent systems, namely the SS-4 and SS-5. This argument is substantiated by Lieutenant General Nikolai F. Chervov, Chief of the Directorate of the Soviet General Staff, who seems to fill a role as a spokesman on military affairs and coordination for arms control issues: "Obsolescent types of missiles have come to the end of their serviceable life and are being replaced by the SS-20 missiles, which are designed to carry out the same tasks. Of course, it would be strange if the new missiles were worse than the old ones, but their tasks and combat potential have remained basically the same."¹⁸ This point was further reiterated in the Soviet publication *The Threat to Europe*.¹⁹ However, the Soviet "logic" is fallacious for two reasons. First, the older SS-4 and SS-5 systems are fixed, vulnerable and inaccurate, with CEPs in excess of a mile. The mobile SS-20 system is obviously less vulnerable and with its improved CEP and range could be used for counterforce targeting for which older

systems were inadequate. Second, the Soviets do not seem to be retiring the older systems. Former Secretary of Defense Harold Brown in his last report to Congress noted that though some SS-4 and SS-5 missiles have been retired, "... a substantial number remain in service creating the impression that the SS-20 is augmenting and not replacing them."²⁰ Currently, 230 SS-4s and SS-5s are still operational.

As regards the future, two points are important in the evaluation of this weapon system's capabilities. First, any advances in technology that would provide for a SS-16-type conversion that would be compatible with the mobile SS-20 erector launcher must be closely monitored. Second, the simple fact that this is a *mobile* system cannot be overemphasized. The earlier charts are reminders of vast coverage this system can provide by movement of the launcher. It is worth noting that the deployment of Soviet missiles to Cuba in 1962 was discovered when US flights returned with photos of the construction of missile launching sites. This gave the United States time to react before the missiles became operational. In the case of the SS-20, such a luxury no longer exists.

Targeting and the SS-20. Soviet nuclear targeting doctrine is very straightforward. Once nuclear combat begins, atomic weapons are to be used with whatever intensity necessary to defeat the enemy.²¹ Their analysis is completely mission-oriented, and target categories are examined in the context of their contribution to a particular mission. Of first priority in the strategic mission is the defeat of the opposing military forces, in particular, the nuclear forces. Two factors weigh heavily here: first, the magnitude and likelihood of the target damaging Soviet vital interests; and second, the ease with which the target can be engaged and destroyed.²² The SS-20 with its increased range, payload, and accuracy can be expected to play a vital role in meeting these targeting objectives. Most Soviet analysts would agree with the summary of target analysis as stated by Major General Vasily I. Zemskov, former member of the Military Science Administration of the General Staff and current editor of *Military Thought*, in an article in *Voyenna mysl*: "The power of nuclear weapons will be concentrated above all toward destruction of the military-economic potential, defeat of the groupings of armed forces, and undermining of the morale of the population. Very important strategic missions of the armed forces can be the destruction of the largest industrial and administrative-political centers, power systems, and stocks of strategic raw materials; disorganization of the system of state and military control; destruction of the main groupings of troops, especially of the means of nuclear attack."²³

The targeting doctrine may have been altered to some degree to incorporate three concepts: efficiency in the use of weapons, limiting the targeting of cities to use political targeting or terror without having to

destroy the *prize* in the process, and the emergence, to some degree, of a Soviet "limited nuclear war" concept. The idea of efficiency in the use of nuclear warheads is consistent with the Soviet belief in the real possibility of using such weapons in combat. While many Western writers would argue that the weapons are self deterring—because of the wholesale destruction wrought by them—the Soviets have shown an interest in reducing the size of warheads used while decreasing the CEP to secure the same results. As one Soviet general officer put it: "Initial attention is given to the selection of those enemy targets against which strategic nuclear means could be best used. Depending on the features of the strike targets, a selection is made of the nuclear weapons carriers (strategic missile, missile-armed aircraft, submarines or surface craft) which could best and most rapidly execute the assigned mission with minimum expenditure of explosive power."²⁴

Some believe the development of such systems as the SS-20, Backfire bomber, and possible expansion to nuclear-capable field artillery is evidence that the Soviets are developing a concept of "limited nuclear operations." Recent evidence of how the Soviets have conducted major training exercise would also sustain this view.

The following table may be used as a guide to possible combat tasks, priorities, and related objectives. It reflects official military doctrine concerning operations enunciated in 1971 by Marshal Grechko and simulated in the global tactical exercise *Okean-75*. It has been condensed to include only those targets readily strikeable by the SS-20.

SOVIET OBJECTIVES AGAINST NATO FORCES IN A NUCLEAR WAR²⁵

Targeting Priority	Objectives	Combat Tasks
1	Destruction of enemy nuclear attack capability	US forward-based air carriers, US-West Pershing rocket bases, United States Air Force Europe, West German and British strike command nuclear-capable aircraft bases, Tanker bases in France. British and French ballistic rockets and submarines, nuclear storage sites in West Germany
2	Destruction or disruption of enemy control of state and military activities	All Command and Control facilities in Western Europe
3	Destruction or disruption of enemy troop basing system	US Seventh Army bases in West Germany Major ports of entry and supply, for example: Antwerp, Belgium, Hamburg, West Germany, Rota, Spain; Holy Loch, Scotland; Rhein Main, West Germany

Targeting Priority	Objectives	Combat Tasks
4	Destruction of enemy military-industrial support facilities	Tank farms in United Kingdom. Nuclear power reactors in UK, Belgium, and West Germany
5	Destruction and disruption of enemy rear services and transport	Nato highway, rail, barge "choke points," etc.

The table is consistent with the view of Sokolovskiy and others when he observed: "The main task of the attacking troops will be the annihilation of atomic artillery, missiles and tactical aviation throughout the enemy territory. The bases for these weapons are within range of operational tactical missiles and frontal aviation, and they can be readily eliminated by nuclear attacks."²⁶

Much available evidence seems to indicate that the Soviets would utilize nuclear weapons if hostilities began with the United States. While this point may be debatable, the fact that the Soviets have the capability to do so with some degree of precision is not. The critical question still remains as to when these weapons would be used. Would such strikes occur immediately or after Nato had had an opportunity to deploy and reinforce? As noted by the International Institute for Strategic Studies, warning time is critical to secure necessary reinforcements. If an attack should commence before they are in place, those coming by sea become much more uncertain and air reinforcements and their transit facilities will likely come under attack.²⁷

It is generally accepted that the Soviets will make every effort to allow Nato little notice. Their doctrine calls for striking first with a massive, in-depth nuclear strike which would attempt to isolate the battlefield and disrupt command control and communications; breach the main defenses, and destroy Nato's nuclear means of attack.²⁸ The need to strike first, especially against an enemy's nuclear weapons, is underscored in the following excerpt by a Soviet strategist: "A delay in the destruction of means of nuclear attack will permit the enemy to launch the nuclear strikes first and may lead to heavy losses and even to the defeat of the offensive. The 'accumulation' of such targets as nuclear weapons and waiting with the intention of destroying them subsequently is now absolutely inadmissible."²⁹

Should the Soviet Union decide to initiate hostilities in Europe with a nuclear strike, the SS-20 gives them the capability to make such an attack devastating. General Pierre Gallois, noted French strategist, has calculated that the Soviets could strike a crippling blow against Nato without using all the SS-20s they have available.³⁰ It is apparent that an attack upon the principal headquarters, airfields, and nuclear assets could be accomplished without using the entire SS-20 force. Such a "surgical" blow could nearly eliminate any capability that Nato might have to respond in kind, and thus

force the United States to respond with its central strategic forces or risk the loss of Nato.

This discussion has centered on the threat the SS-20 presents to Nato; however, it also threatens vital US interests in the Far East. The Soviets treat the China problem as unpredictable and do not discount irrational behavior by Beijing. Rather than depending upon deterrence based solely on an assured second-strike capability, the Soviets are prepared for a "pre-war" fighting posture which will confront a threatening aggressor with a high probability for annihilation and defeat.³¹

The Soviet Union has made it clear that in a war involving the USSR and China: they would make first use of nuclear weapons, they would make all necessary use of such weapons, and they would not fall victim to the trap of being drawn into the interior of China to wage a long and bloody "people's war."³² This "long-range" warfighting strategy is further supported by the deployment of the majority of the Chinese army, supply centers, etc. over 100 km from the border which places them effectively out of the range of short-ranged missiles. The ratio of Soviet theater nuclear forces to divisions of troops is also much larger than one finds in the Western USSR³³ which suggests that the majority of the offensive "punch" will be provided by longer range missiles.

The Chinese have deployed two small IRBM systems which have the capability of striking targets in the Western USSR. Additionally, in May of 1980 they tested the new CSSX-4, ICBM which has a range of 6,400 miles.³⁴ The Chinese have also made efforts to harden their silos, increase accuracy, and quicken reaction time.³⁵ In assessing the impact of this weapon's deployment upon the Eastern theater one fact must remain obvious: the balance of strategic power between the Soviets and the Chinese remains decisively in the Soviet's favor, so much that it is hard to imagine how the Chinese strategic vulnerability could be further degraded by the SS-20 deployment. Nevertheless, the SS-20 gives the Soviets a highly accurate and survivable system for future targeting against the Chinese. Furthermore, it allows them the ability to retarget some of their larger systems, such as the SS-11, to other targets in the Pacific should they become involved in a conflict with the United States. It may also serve to further political goals by encouraging China and other Asian states to seek accommodation with the USSR.

In the Far East it would seem likely that a Soviet surprise assault against the United States and China would include the following targets: Subic Bay and Clark Field in the Philippines, the fleet repair facilities in Japan, 8th Army HQ in Seoul, principal US bases on Guam and Okinawa, principal targets in China especially the Chinese nuclear facility at Lop Nor and local military assets in the Korea and Tsushima Straits which would hinder the exit of the Soviet fleet to the Pacific.

In attacking the targets listed the Soviets would be consistent with their

doctrine in isolating the battlefield strategically, wiping out those enemy nuclear forces capable of striking the USSR or its strategic lines of communication, using the SS-20 to exact gains through threats, such as, giving the Chinese reason to pause before entering a war between Nato and the Warsaw Pact, and paving the way for rapid advances by its conventional forces.

Conclusion. The SS-20 gives the Soviet Union an effective counterforce weapon for use in the European and Asian theaters. Developments in Soviet military doctrine seem to emphasize theater operations which further demonstrates the importance of this system.

The Soviet claim that the SS-20 is merely a modernization of existing intermediate range nuclear forces is wholly false. This is clearly demonstrated by their retention of large numbers of SS-4s and SS-5s and the improved range and accuracy of the SS-20. In addition, Soviet progress on this weapon may portend future threats to US security because of possible SS-16 conversion.

In an era of strategic parity, Soviet INF superiority is a potential political wedge between the United States and its allies. It can reduce allied certainty in US commitment while allowing the USSR an effective instrument to tacitly or actively encourage accommodation. It may increase the importance of conventional forces in view of Soviet dominance at theater levels. It is a system that threatens US national security both in Nato and the Far East and, as such, it must be closely monitored and its politico-military potential countered if we are to reduce our own vulnerability to its obvious potency.

Notes

1. Richard Burt, "NATO and Nuclear Deterrence," Arms Control Association Conference, Brussels, Belgium, 23 September 1981.
2. "The Balance of Theatre Nuclear Forces in Europe," *Air Force Magazine*, December 1980, p. 125.
3. William C. Ruchert, ed., *The World's Missile Systems* (Pomona, Calif.: General Dynamics, 1980), p. 280.
4. "NATO and the Warsaw Pact Force Comparison" published by NATO, May 1982, p. 49.
5. International Institute for Strategic Studies, *The Military Balance 1981-1982* (London: 1981), p. 218.
6. Office of the Secretary of Defense, *Soviet Military Power*, 1981.
7. "Soviet Nuclear Arsenal Continues to Proliferate," *Aviation Week and Space Technology*, 13 June 1980, p. 75.
8. National Defense University, *Proceedings of the National Security Affairs Conference 23-25 July 1979* (Washington: Ft. McNair, 1978), p. 38.
9. Phillip A. Peterson, "Flexibility: A Driving Force in Soviet Strategy," *Air Force Magazine*, March 1980, p. 97.
10. Gregory R. Copley, ed. *Defense Foreign Affairs Handbook* (Washington: Copley and Associates, S.A., 1980), p. 548.
11. Interview with Col. John Kelliher, Department of Strategy, National Defense University, Washington, D.C.
12. "SS16 Deployment Raises Senate Questions," *Aviation Week and Space Technology* 24 September 1979, p. 24.
13. Niles Lathem, "Soviet Secret Weapon Threatened U.S.," *New York Post*, 3 April 1982, p. 2; Rowland Evans and Robert Novak, "Soviet Freeze Warning," *Washington Post*, 5 April 1982, p. 5.

14. David Jones, ed. *Soviet Armed Forces Review Annual 1980* (Gulf Breeze, Fla.: Academic International Press, 1980), p. 5.
15. Edgar Ulsamer, "Moscow's Goal is Military Superiority," *Air Force Magazine*, March 1980, p. 48.
16. William T. Lee, *Soviet Defense Expenditures in an Era of SALT* (Washington: U.S. Strategic Institute, 1979), p. 18.
17. Lewis Allen Frank, *Soviet Nuclear Planning* (Washington: Enterprise Institute, 1977), p. 10.
18. Foreign Affairs and National Defense Division, Congressional Research Service, Library of Congress, *The Modernization of NATO's Long-Range Theater Nuclear Forces*, a report prepared for the Committee of Foreign Affairs, U.S. Congress, House (Washington: U.S. Govt. Print. Off., 1981) p. 42.
19. A. Solkinov, *The Threat to Europe* (Moscow: Progress Publishers, 1981), p. 19.
20. Secretary of Defense Harold Brown, *Report of the Secretary of Defense to the Congress on the FY 82 Budget* (Washington: U.S. Govt. Print. Off., 1981) p. 3.
21. Benjamin Lambeth, *Selective Nuclear Options in American and Soviet Strategic Policy* (Santa Monica, Calif.: Rand, 1976), p. 35.
22. Joseph Douglass and Amoretta Hoerber, *Soviet Strategy for Nuclear War* (Stanford University: Hoover Institute Press, 1979), p. 75.
23. *Ibid.*, p. 16.
24. Joseph Douglass, *Soviet Military Strategy in Europe* (New York: Pergamon Press, 1980), p. 57.
25. Frank, p. 12.
26. Marshall, V.D. Sokolovskiy, *Soviet Military Strategy*, translated by Harriet F. Scott (New York: Crane-Russak, 1975), p. 292.
27. National Defense University, p. 109.
28. James Quinlan, *Validity of a Tactical Nuclear Defense for NATO* (Carlisle, Pa.: US Army War College, 1977), p. 20.
29. Douglass, p. 168.
30. Interview with General d'Armee Aeriennne (ret.) Pierre Gallois, Paris, France, 24 June 1982.
31. Leon Goure, *The Role of Nuclear Forces in Current Soviet Strategy* (Miami: Center for Advanced International Studies, 1974), p. 5.
32. *Ibid.*, p. 20.
33. S.T. Cohen and W.C. Lyons, "A Comparison of U.S.-Allied and Soviet Tactical Nuclear Force Capabilities and Politics," *Orbis*, Spring 1975, p. 80.
34. Robert L. Pfaltzgraff, Jr., "China-Soviet Strategy and American Policy," *International Security*, Fall 1980, p. 33.
35. Paul H. Godwin, *The Chinese Tactical Air Force and Strategic Weapons Program: Development, Doctrine, and Strategy* (Maxwell AFB: Air University, 1978), p. 44.

Captain McCausland is an Assistant Professor in the Department of Social Sciences at the US Military Academy.

— ψ —

IN MY VIEW . . .



Ian Oliver

Vietnam Lessons

Professor Pappas's discussion on "The Academic Strategist and the Vietnam War" makes good points and is most suitable for seminar and classroom . . . His quotes from Clausewitz are right on target: strategy that leads to armed conflict must at least try to envisage fighting's bloodshed, destruction, terror, battlefield stench, and watery graves.

Professor Pappas correctly sees the North Vietnamese divisions as the prime factor, not any counterinsurgency concern, another misconception by the academics. He demonstrates a clear insight into the trends and influence of civilian strategists, political considerations, and the *ex post facto* perceptions of various analysts. Here again, this reader notes that most, if not all, such approaches were undertaken without first-hand battle experience.

He does not overlook the post-World War II concept of "gradualism"—a restriction which embittered the "troops" and is rejected as conflict doctrine by responsible senior military men. Robert McNamara has been credited—or accused—of being the author of that concept, but it is not fair to put the blame solely on his shoulders as many others obviously were involved. Gradualism was and remains an anathema to any military fighting man, for it *automatically concedes the initiative to the enemy*. That left our fighting men only to *react* to unpredictable enemy initiatives, defensively adjusting defenses as best they could.

And the media harping on the *no-win* theme played its part in the shameful wind-up of what began as a decent and noble objective.

Any assertion that the war was "un-winnable" is preposterous. With the fire power available on call, North Vietnam's economy could have been bombed and shelled to shreds, its ports could be closed (as they were, by aerial mining), its fields could have been flooded by dam and dike destruction and its people reduced to misery and hunger. With a devastated and isolated country behind them, the regular North Vietnamese divisions most certainly would have been ineffective.

There are many lessons to be learned from study of our Vietnam experience, but, in my opinion, the most important conviction which emerges is this: **If national decision commits the armed forces to active combat, then the armed forces must be given the mandate, the personnel, the arms, and the support needed to win in furtherance of a stated national objective.**

Robert B. Carney
Admiral, US Navy (Ret.)

PROFESSIONAL READING

Reading About the Soviets—in English

by

Norman Polmar*

At the end of World War II—almost four decades ago—Soviet dictator Josef Stalin initiated a massive naval buildup. The West knew little of the details of this buildup and there was a dearth of English-language writings on the Soviet Navy. Little of what was happening behind the “iron curtain” was known in the West and, in the opinion of many of the contemporary observers, little that was happening was worthy of note. That judgment was based more on the indications of the quality of Stalin’s fleet-building program and not the quantity, which was, in some respects, remarkable for any country in peacetime.

For the first two decades after the war only three major books were published. Mairin Mitchell’s *The Maritime History of Russia 848-1948* (London: Sidgwick and Jackson, 1949) had little coverage of the Soviet period. However, there were worthwhile discussions of naval and shipbuilding matters, and of the personalities that affected postwar developments.

More useful was M.G. Saunder’s *The Soviet Navy* (New York: Praeger, 1958), which comprised a set of essays by Western naval officers, analysts, and journalists. Saunders, a commander in the Royal Navy, provided a most valuable overview in his introduction to the book.

The first significant American effort in this field was Robert Waring Herrick’s *Soviet Naval Strategy* (Annapolis, Md.: US Naval Institute, 1968). With the subtitle “Fifty Years of Theory and Practice,” Herrick’s heavily annotated

work suggested that the Soviet Navy was defensively oriented. The book encountered significant opposition within the US Navy, which was attempting to rationalize new ships and aircraft on the basis of the emerging Soviet threat; especially the new missile-armed ships and nuclear submarines being produced under the direction of Admiral S.G. Gorshkov, who had become commander-in-chief of the navy and a deputy minister of defense in January 1956. Herrick, a retired US naval intelligence officer had, like Saunders, served in Moscow as an assistant attaché. A lengthy version of Herrick’s thesis was also published in the US Naval Institute’s annual *Naval Review* 1967.

Similar to the book situation, there were few articles on the Soviet Navy appearing in Western publications into the early 1960s, and those which did were mostly superficial or historical and, in some instances, both.

This situation began to change radically in the 1960s as the Soviet Navy significantly increased at-sea (out-of-area) operations, making their ships and aircraft more visible to Western observers. Also, enhanced Western intelligence collection activities provided Western navies with more information they could release about the Soviet fleet. A steady flow of books and articles on Soviet naval and maritime subjects began in the 1960s, and the flow continues unabated. In addition to the specific books listed below, the so-called “Dalhousie papers” are recommended reading. These are the published collections of papers presented at a series of conferences on the Soviet Navy chaired by Michael MccGwire, a formal Royal Navy intelligence officer, at Dalhousie University, Halifax. (MccGwire also served as an assistant naval attaché in Moscow.) The papers are by many of the leading Western analysts of Soviet naval developments and have been published as *Soviet Naval Developments: Capability and Context* (1973), *Soviet Naval Policy: Objectives and Constraints* (1975), and *Soviet Naval Influence: Domestic and Foreign Dimensions* (1977), all by Praeger, New York. Together, these volumes cover most aspects of the Soviet Navy, most of them in a scholarly manner.

Several years later MccGwire summarized his views in the May 1980 *Naval Review* issue of the Naval Institute *Proceedings* under the title “The Rationale for the Development of Soviet Seapower.” A complementary albeit different view is provided in a comprehensive article by Dr. Norman Friedman, “The Soviet Fleet in Transition” in the May 1983 *Naval Review* issue.

One other set of conference papers, while now somewhat dated, made a significant contribution to the understanding of Soviet naval issues. Published as *The Soviet Union in Europe and the Near East: Her Capabilities and Intentions* (London: Royal United Services Institute), this was the result of a seminar sponsored by Southampton University and the RUSI at Milford-on-Sea in March 1970.

Western Books. Among the books that appear to have significance in this field are:

Robert B. Bathurst, *Understanding the Soviet Navy: A Handbook* (Newport,

*Norman Polmar is a private consultant and author in the fields of US and Soviet naval matters.

R.I.: Naval War College Press, 1979), an effort to put the modern Soviet Navy into perspective as a navy and an institution; this soft-cover book is by a retired US Navy captain, a specialist in intelligence and Soviet politico-military affairs.

Alexander Boyd, *The Soviet Air Force Since 1918* (London: Macdonald and Jane's, 1977). This is the best of several general books on the Soviet air force; the subject is significant because of the position of Soviet naval aviation within the overall scheme of Soviet "air power."

James Cable, *Gunboat Diplomacy* (New York: Praeger, 1971). This is an excellent analysis of this subject with appropriate coverage of Soviet efforts; a revised edition appeared in 1981 (New York: St. Martin's Press).

John Erickson, *The Soviet High Command 1918-1941* (London: Macmillan, 1962). Professor Erickson, considered the dean of Soviet defense establishment analysts, covers the development of that establishment and the Soviet military philosophy behind it that continues to prevail today. Although Erickson's research and coverage of the Soviet Navy is limited, he has written a useful—but now quite dated—essay "The Soviet Naval High Command" for the May 1973 *Naval Review* issue of the *Proceedings*. Erickson's *Soviet Military Power* (Washington, D.C.: US Strategic Institute, 1973) is a soft-cover volume with a valuable overview of the Soviet armed forces. It is an updated version of the author's *Soviet Military Power* published by the RUSI in 1971.

David Fairhall, *Russian Sea Power* (Boston: Gambit, 1971). Fairhall, an English journalist, provides a highly readable account stressing Soviet commercial activities at sea. (The English edition's title, *Russia Looks to the Sea*, was closer to the mark; the American cover shows a Soviet submarine missile streaking skyward—an example of a misreading of the coverage of the book by the publisher.)

Robin Higham and Jacob W. Kipp, editors, *Soviet Aviation and Air Power* (Boulder, Colo.: Westview Press, 1977). This is a collection of essays on Soviet aviation, albeit mostly historical, with adequate mention of the naval air arm.

David R. Jones, editor, *The Military-Naval Encyclopedia of Russia and the Soviet Union* (Gulf Breeze, Fla.: Academic International Press). This ambitious project, relying extensively on Russian-language sources, is historically oriented, but does cover the post-World War II period. Three volumes (though ADP) have been published, with the articles mostly by members of the academic community.

John Jordan, *Soviet Warships* (London: Arms and Armour Press, 1983). The author has detailed and particularly well illustrated discussions of modern Soviet aircraft carriers, cruisers, and destroyers.

John Moore, *The Soviet Navy Today* (London: Macdonald and Jane's, 1975) sought to provide a single-volume overview of the Soviet Navy with basic information on Soviet ships and aircraft.

Norman Polmar, *Soviet Naval Power—Challenge for the 1970s* (New York: Crane, Russak, 1972). The second edition of a college text, by the author of this review, describes Soviet naval developments since World War II. The last chapter, "Alarmist versus Realist," seeks to bring perspective to the extreme positions put forth on the Soviet naval "threat."

Harriet Fast Scott and William Scott, *The Armed Forces of the USSR* (Boulder, Colo.: Westview Press, 1979). While not specifically emphasizing the Soviet Navy, and there are some errors in the naval section, this is a detailed and highly annotated description of the structure of the Soviet military establishment. They both served in the US embassy in Moscow, he for two tours as US Air Force attaché.

James D. Theberge, *Soviet Seapower in the Caribbean: Political and Strategic Implications* (New York: Praeger, 1972). This volume is limited in scope and to some extent overtaken by events, but explains Soviet naval efforts in this area and their significance.

Edward L. Warner III, *The Military in Contemporary Soviet Politics* (New York: Praeger, 1977). This "institutional analysis" is more philosophical than the Scotts' work, and covers more of the institutional factors. However, it is useful and heavily annotated.

US Department of Defense, *Soviet Military Power* (Washington, D.C.: US Govt. Print. Off., 1983). This is the second edition of a heavily illustrated, impressive exposition by the Secretary of Defense on the Soviet "threat." Produced to help support the Reagan administration's defense program, this "slick," soft-cover volume provides significant data on Soviet naval issues. (The first edition, a bit more sophomoric, was published in 1981).

US Navy, *Understanding Soviet Naval Developments* (Washington, D.C.: US Govt. Print. Off., 1981). This is the fourth edition of a basic reference book on the Soviet Navy, first published in 1974. Prepared by the US Director of Naval Intelligence and Chief of Information, this soft-cover book is an invaluable introduction to the subject. The book is also published in a hard-cover, updated edition by the Nautical & Aviation Publishing Co. (Annapolis, Md.).

Bruce W. Watson, *Red Navy at Sea* (Boulder, Colo.: Westview Press, 1982). Subtitled "Soviet Naval Operations on the High Seas, 1956-1980," this is an excellent description and assessment of Soviet fleet operations, with emphasis on port visits and their political-military significance. Watson is a commander in the US Navy.

Two other books are often cited in bibliographies of Soviet naval matters, Rear Admiral Ernest M. Eller's *The Soviet Sea Challenge* (Chicago: Crowl's Book Co., 1972) and Donald W. Mitchell's *A History of Russian and Soviet Sea Power* (New York: Macmillan, 1974). Eller, a former director of US Naval History tells little about the Soviets and much about the US Navy—past and present. The Mitchell book, a tome of more than 600 pages, has little to recommend it. Errors of fact and understanding abound in this work.

Soviet Writings. A number of books written in the Soviet Union addressing naval matters are readily available in English. Most significant are the writings of Admiral Gorshkov, who has directed the development of the Red fleet for almost three decades. While a prolific writer in Soviet journals, particular significance was attached to his 11 articles on "Navies in War and in Peace," originally published in *Morskoy Sbornik* [Naval Digest] in 1972-1973. Gorshkov explained the development of modern navies, rationalizing the need for the USSR to have a large, far-ranging fleet. These articles were, in turn, reprinted in the Naval Institute *Proceedings* in 1974 with each article accompanied by a commentary by a US naval officer. Subsequently, the Naval Institute published the articles and commentaries as the soft-cover book *Red Star Rising* (Annapolis, Md.: Naval Institute Press, 1974).

Gorshkov's "second" book, *The Sea Power of the State* (Annapolis, Md.: Naval Institute Press, 1979), expands his views of the importance of sea power to a nation, arguing that the Soviet Navy should have a dominant role in all areas of the world except Europe.

(A useful effort at placing Gorshkov and his view in perspective is German historian-author Dr. Jürgen Rohwer's "Admiral Gorshkov and the Influence of History Upon Sea Power" in the May 1981 *Naval Review* issue of the *Proceedings*.)

Nikita Khrushchev, *Khrushchev Remembers, The Last Testament* (Boston: Little, Brown, 1974). Khrushchev, who had appointed Gorshkov as Navy CinC, is reputed to have dictated two volumes of memoirs. This second volume provides major coverage of military developments during his tenure as First Secretary of the Communist Party (1953-1964), especially the chapter "The Navy," which gives his perspective of "The Fall of Admiral Kuznetsov" and "The Rise of Admiral Gorshkov."

V.D. Sokolovskiy, *Soviet Military Strategy* (Stanford, Calif.: Stanford Research Institute, 1975). This is the third edition of Marshal Sokolovskiy's modern classic, which provides a defense-level look at naval missions and requirements. The volume is edited and has a commentary and analysis of differences in the three editions by Harriet Fast Scott.

Although not dealing specifically with Soviet naval subjects, the reader should be aware of the "Soviet Military Thought" series, translated and published under the auspices of the US Air Force. These books are written largely by Soviet officers on a variety of national security and military subjects, among them military psychology and pedagogy, operational art and tactics, and the relationship of the Soviet state and the military. While heavily laden with political verbiage that makes them slow reading, these publications do convey the basis of Soviet military thinking. The translations are available in paperback from the US Government Printing Office.

The Soviets publish the monthly journal *Soviet Military Review* in several languages, including English. Although intended for foreign readers, it

contains numerous articles on naval subjects that also appear in internal Soviet publications.

Reference Works. The newest reference work in this area is the third edition of *Guide to the Soviet Navy* (Annapolis, Md.: Naval Institute Press, 1983), by the author of this review. The volume, which largely follows the format and style of the same author's *The Ships and Aircraft of the U.S. Fleet*, describes the ships, aircraft, personnel, organization, and shore establishment of the Soviet Navy as well as such related issues as missions and tactics, merchant marine, shipbuilding industry, etc. Two previous English-language editions were written by Messrs. Siegfried Breyer and Polmar (1977) and by Breyer (1970). The first edition, dated 1964, was published in German. It is now planned for publication in the new format at three-year intervals.

During the past few years *Combat Fleets of the World* (Annapolis, Md.: Naval Institute Press) has emerged as probably the best "annual" reference volume addressing the world's navies, especially the Soviet and Warsaw Pact fleets. This volume is adopted from the French *Flottes de Combat* and published every second year in English.

Weyer's Warships of the World is similarly published in English in alternate years (Annapolis, Md.: Nautical & Aviation Publishing Co.), being originally produced in German. While this is a highly "abbreviated" pocket-size book, it is a handy and relatively affordable volume.

Jane's Fighting Ships, published annually, continues as the largest and most expensive naval reference work (London: Jane's).

Valuable for descriptions of contemporary Soviet aircraft is *Jane's All the World's Aircraft* (London: Jane's Publishing Co.), edited by J.W.R. Taylor. And, while not an annual, a valuable reference for data on contemporary Soviet naval aircraft is Bill Sweetman's *Soviet Military Aircraft* (Novato, Calif.: Presidio Press, 1981).

A few recent reference volumes address Soviet merchant ships in detail. Ambrose Greenway's *Soviet Merchant Ships* (White Plains, N.Y.: Sheridan House, 1981) is a very useful book updated every few years. It provides brief discussions and characteristics of Soviet merchant, fishing, and research ships as well as icebreakers. Greenway also publishes a companion work, *Comecon Merchant Ships* (White Plains, N.Y.: Sheridan House, 1981), on the commercial fleets of the lesser East bloc powers.

Soviet Bloc Merchant Ships by Bruno Bock and Klaus Bock is the English-language edition (Annapolis, Md.: Naval Institute Press, 1981) of a German-language listing of Eastern bloc merchant ships. There are useful introductory discussions, but the ship listings are particularly austere with only small line drawings for illustration.

Congressional Hearings. The US Congress annually publishes the hearings

held by the various committees that consider defense programs. These include periodic briefings from the director of Naval Intelligence on Soviet naval matters as well as limited discussions by other senior naval officials. Of particular interest during the 1960s and 1970s were the statements of Admiral H.G. Rickover, at the time head of the US Navy's nuclear propulsion program, before various committees of the House and Senate and, especially, the Joint Committee on Atomic Energy.

Also during the 1970s the Congressional Research Service (CRS) prepared a series of compendiums entitled *Soviet Oceans Development* that were published by the Senate Committee on Commerce. These included essays on a variety of Soviet naval and maritime subjects.

Government Reports. Beyond the *Soviet Military Power* and *Understanding Soviet Naval Developments* cited above, less elaborate unclassified reports on various aspects of Soviet naval activity are published on occasion by the Central Intelligence Agency, Defense Intelligence Agency, and Center for Naval Analyses (CNA). The usefulness of these documents varies. Each agency has lists of these publications available.

Messrs. Robert Weinland, James McConnell, and Bradford Dismukes, senior CNA analysts, have produced several significant reports over the past few years as well as articles in various defense journals in this field.

Journals and Magazines. Since the early 1960s there has been a vast number of articles in the professional and public press on Soviet naval and maritime matters. The principal English-language journals addressing the subject are the *Proceedings* and *Naval War College Review* in the United States, and *Navy International* and *International Defense Review* in Europe.

During the 1970s the large *Naval Review*, which in 1970 began doubling as the May issue of the *Proceedings*, had a special feature on recent Soviet naval developments. These are most useful, having been written successively by Naval Academy Professor Robert Daly and Captain William Manthorpe. In the May 1978 *Naval Review* issue Manthorpe wrote an interesting article with the provocative title "The Influence of Being Russian on the Officers and Men of the Soviet Navy." Another comprehensive article on Soviet naval personnel is Captain James Kehoe's "Naval Officers: Ours and Theirs" in the February 1978 *Proceedings*, while Manthorpe has a short but incisive note on "Attaining Command at Sea—Soviet Style" in the November 1975 issue.

Several perceptive articles on Soviet military manpower—with significant implications for the Soviet Navy—have been authored by Dr. Ellen Jones of the Defense Intelligence Agency. Among them are "Soviet Military Manpower: Prospects in the 1980s" in *Strategic Review* (Fall 1981) and "Minorities in the Soviet Armed Forces" in *Comparative Strategy* (Vol. III, No. 4, 1982).

The *Proceedings* has also presented an excellent series of articles based on the comparative analyses of US and Soviet warship design by Captain Kehoe in "Destroyer Seakeeping: Ours and Theirs" (November 1973), "Warship Design: Ours and Theirs" (August 1975), and "U.S. and Soviet Ship Design Practices, 1950-1980" (May 1982 *Naval Review*). Kehoe and Kenneth Brower have also produced several articles on specific Soviet ship types for the *Proceedings* as has John Jordan in England for *Navy International*.

In addition to the above articles, the October 1982 issue of the *Proceedings* carried an unprecedented series of articles on the modern Soviet Navy written by Messrs. Polmar and Friedman (missions and tactics), Commander Dean Sedgwick (command and control), Lieutenant Kevin Lynch (sea-based aviation), Andrew Hull (surface forces), Dr. Milan Vego (attack submarines), Lieutenant Commander Gerry Thomas (Pacific Fleet), Robert Suggs (training), Captain Roger Barnett and Dr. Edward Lacey (*Morskoy Sbornik*), Brigadier General E.F. Black, (national leadership), Lieutenant Commander Ted Wile (mine warfare), Lieutenant Colonel Dominik Nargele (naval infantry), Captain Robert Wyman (Baltic Fleet), Captain Robert McKeown (merchant fleet), and A.D. Baker (ship types).

Some of these authors appear regularly in the *Proceedings* and other professional journals. Vego, a former Yugoslav officer, provided a detailed description of Soviet missile and torpedo boat tactics in "Tactical Employment of Soviet FPBs" in the June and July 1980 *Proceedings*, while some thoughts on Soviet ASW are found in Polmar's "Thinking About Soviet ASW," May 1976 *Naval Review Proceedings*, "Soviet ASW—highly capable or irrelevant?" *International Defense Review*, Number 5, 1979. These are mainly hardware-oriented articles. A useful discussion of how Admiral Gorshkov may use one of his most expensive pieces of hardware—the nuclear carrier now under construction—is found in Dr. Dov Zakheim's "A Carrier for Admiral Gorshkov" in the January-February 1982 *Naval War College Review*.

The *Proceedings* has also presented a detailed description of "Soviet Ship Types" by A.D. Baker published in November 1980, December 1980, and October 1982. Soviet ship names are addressed by Lieutenant Commander Charles E. Adams and A.D. Baker in "Soviet Naval Ship Names," *Proceedings*, July 1979, and Commander Tyrone G. Martin in "What's in a Name?" *Proceedings*, July 1974. Subjects on which relatively little has been written are the use of tactical nuclear weapons and electronic warfare at sea. Two excellent works are Captain Linton F. Brooks' "Tactical Nuclear Weapons: The Forgotten Facet of Naval Weapons" in the January 1980 *Proceedings*, and Lieutenant Commander Guy Thomas, "Soviet Radio Electronic Combat and the US Navy," in the *Naval War College Review*, July-August 1982. Friedman has also touched on the related command-and-control issues in "C³ War at Sea," *Proceedings*, May *Naval Review* 1977, as has Polmar in "Soviet C³," *Air Force Magazine*, June 1980. All have significance for dealing with the Soviets at sea.

Beyond articles on Soviet naval and maritime subjects that appear regularly in the *Proceedings*, *Naval War College Review*, and *Navy International*, there are relevant articles in the periodicals *Problems of Communism* (published by the US Information Agency), *Strategic Review* (US Strategic Institute), and the commercial publications *International Defense Review*, *Armada*, and *Naval Forces*. The annual March issue of *Air Force Magazine* is a Soviet Aerospace Almanac which contains a wide range of articles, some of which relate to naval activities.

Finally, the reader is recommended to the British magazines *Air International* and *Flight International* for details of Soviet naval aircraft.

“Willmott deals harshly with the reputations of a number of Allied and Japanese commanders. Two such cases are Gen. Douglas MacArthur and his so-called defense of Luzon and Adm. Chuichi Nagumo’s conduct of the Pearl Harbor attack. However, Willmott also shows that Allied failures in East Asia were not all caused by worthless commanders but also by the fact that except for the Americans the Allied governments did not have a strategy . . . and were thus overtaken by events.”

Willmott, H.P. *Empires in the Balance: Japanese and Allied Pacific Strategies to April 1942*. Annapolis, Md.: Naval Institute Press, 1982. 487pp. \$24.95

HP. Willmott’s *Empires in the Balance* is a brilliant analysis of the events leading up to the Second World War in the Pacific and the first five months of that conflict. There is no new information in *Empires in the Balance* and it is based entirely on secondary sources, but what Willmott has done is to break away from the narrow nationalist view of events at the beginning of the Pacific war. Instead, the author gives a broad analysis of the actions of both the Allies and the Japanese while portraying a number of events from very new and different points of view.

An example of Willmott’s original perspective can be seen in his assessment of Pearl Harbor. From the number of battleships sunk, the Japanese attack on Pearl Harbor was a success. But when this attack is placed in a wider historical context by Willmott, Pearl Harbor is the beginning of the Japanese road to defeat. First and most important, Pearl Harbor politically united the American people as nothing else could and made the utter and absolute defeat of Japan the major objective of the United States. Also, the Japanese muffed the attack itself by sinking for the most part only battleships and by not attacking Pearl Harbor again and again until it was

rendered useless as a military and naval base. By sinking the battleships at Pearl Harbor and no aircraft carriers, the Japanese ended the conflict within the US Navy between battleshipmen and aviators; for with no battleships, American task forces would have to be organized around aircraft carriers. By not destroying the military and naval installations at Pearl Harbor, the Japanese gave the Americans the means to base aircraft carrier task forces and submarines in Hawaii to conduct offensive operations in the Central and Western Pacific. Another example of how Willmott turns traditional concepts upside down is his analysis of the Japanese campaign in the Philippines and Bataan. It is commonly thought that the American defense of Bataan tied down a large number of Japanese forces which could have been used to better advantage elsewhere. Willmott shows conclusively, however, that after American air power had been destroyed and American naval forces withdrawn to the Dutch East Indies, American forces on Bataan and elsewhere in the Philippines did not affect Japanese operations at all even though the Americans outnumbered the Japanese two to one.

One of the most striking things that Willmott points out is the great economy of force employed by the Japanese in their conquest of European colonial empires in East Asia and the Western Pacific. The British defenders of Malaya outnumbered the Japanese attackers five to one; yet the Japanese, using such “secret” equipment as bicycles and the “unusual” tactic of turning the flanks of British positions, conquered Malaya and Singapore with ease. Willmott also points out that London and Washington reacted differently at the beginning of the war in the Pacific. As soon as the shooting began the Americans for the most part wrote off places such as the Philippines, Guam, and Wake Island. The British on the other hand reinforced places that were indefensible, such as Hong Kong, before the beginning of the fighting; and when the war with the Japanese began, they continued to throw good money after bad by large-scale reinforcement of such places as Singapore long after it should have been clear that the Japanese were going to conquer them. The British 18th Division was almost literally marched off transports at Singapore into Japanese prison camps.

Willmott deals harshly with the reputations of a number of Allied and Japanese commanders. Two such cases are Gen. Douglas MacArthur and his so-called defense of Luzon and Adm. Chuichi Nagumo’s conduct of the Pearl Harbor attack. However, Willmott also shows that Allied failures in East Asia were not all caused by worthless commanders but also by the fact that except for the Americans the Allied governments did not have a strategy for a Japanese war and were thus overtaken by events.

The book ends with the Japanese victorious everywhere but without any strategic options. As Willmott sees it, in the fifth month of the war the Japanese had only three strategic choices. Invade Australia, which would be a dead end. Attack the Americans in the Eastern Pacific, which is what the

Japanese did and suffered a defeat at Midway. Willmott suggests a third possible strategy for the Japanese: to mount an offensive in the Indian Ocean by taking Ceylon, bypassing India, and attacking the Persian Gulf region with the objective of destroying the Allied position in the Middle East.

Empires in the Balance is well written and intellectually demanding to the point where it is almost impossible to do it justice in a short review. It should be read by anyone who is interested in warfare. Although dust jacket endorsements are usually suspect, Antony Preston's comment on the dust jacket of *Empires in the Balance* is absolutely correct: "There is nothing quite like it in print."

DAVID SYRETT
Queens College
Flushing, New York

Potter, William C. *Nuclear Power and Nonproliferation: An Interdisciplinary Perspective*. Cambridge, Mass.: Oelschlager, Gunn & Hain, 1982. 304pp. \$25 paper \$9.95

The subject of the proliferation of nuclear weapons, and how proliferation may or may not relate to peaceful nuclear power production, is extremely complex. In order to give a coherent presentation of the field one must be able to deal with subjects as diverse as the technologies for nuclear power production and for plutonium reprocessing, political motivations for acquiring nuclear weapons, the history of attempts to control proliferation, competition in the international nuclear export market, and the trade and technology transfer policies of several major industrialized nations. Further, one must deal with the arcane policy debates within the United States over such concerns as the relative effectiveness of blanket policies of technology denial as compared to

more discriminating strategies in inhibiting proliferation.

Potter's intention is to give us such a presentation; he seeks "to provide a broad, interdisciplinary perspective on the major issues of nuclear power and proliferation. It is intended to serve as an introduction to the field and to provide a reference source for the non-specialist." To a great degree the volume satisfies these objectives in a very satisfactory way. Chapters are devoted to historical, technological, economic, and political aspects of both nuclear power and nonproliferation policies and strategies. Issues are summarized clearly and logically, and the political aspects of nonproliferation control strategies are discussed in a balanced way. *Balance* is too frequently lacking in discussions of nuclear power. To see it in Potter's book is a refreshing change from the many emotional, illogical, and above all impractical discussions that abound in other efforts in this area.

In brief, the author has achieved his objectives in a well-constructed, well-written text and the book is to be recommended from this point of view.

The specialist in this area will find items that he will want to debate. In his historical sections Potter argues that American reactions to nuclear weapons after World War II were to try to "put the genie back in the bottle" via policies of secrecy and denial, and that these policies lasted almost until 1954. Recent research has revealed that Eisenhower, among others, in fact decided very early on that the weapons capability would spread, that the US nuclear capability and weapons dominance was a temporary phenomenon that would degrade rapidly, and that there was not much time available to exploit it in terms of convincing others to develop its peaceful applications. When speaking of nuclear proliferation, Potter does not make a clear distinction between the ability to cause a nuclear explosion and the ability to create a nuclear weapon. The latter is far more difficult and significant than the former; comparison of the cases of India and China could be instructive on this point. The chapter on the economics of nuclear power contains a number of items of interest but in a jumbled order, and treats the issue generally at a broad level of overall demand for electricity and derivative demand for nuclear power. Surprisingly little attention is given to the factors which have increased the costs of nuclear-generated electricity over

the last decade, and decreased its attractiveness, beyond the effects of decreased demand for power generally.

However, these are less important than the question of what the United States should be doing to foster its nonproliferation goals. In this area we are left with a certain lack of satisfaction due perhaps to the very objectivity of the approach which, while commendable in itself, may obscure some important points. Consequently the reader will not find an answer to the key question of whether current US nonproliferation policy is likely to succeed.

To many, the US policies which crystallized during the late 1970s indicated a dangerously naive belief that unilateral US actions could "solve" the nuclear weapons proliferation problem. To a large degree those policies were based upon the belief that US strength in the nuclear field was so great that unilateral action would produce, and perhaps force, compliance of reluctant nations with US desires, and that US law would be accepted by other sovereign nations. These policies collided with the reality of the existence of other highly competent and competitive nuclear suppliers, and in fact unilateral US policy leverage was and is severely limited. In addition, President Carter's view of nuclear power as an energy resource of "last resort" created doubts as to US sincerity and reliability in the nuclear field, and further reduced US influence over others.

Potter reviews the national incen-

tives which drove several nations to develop a nuclear capability, and then raises the fundamental policy problem in a chapter which discusses strategies for control over further nuclear weapons proliferation. He reviews objectively the development of approaches to the nonproliferation problem, and goes to some length to lay out and categorize the various kinds of policy responses that one can take toward dealing with it. But in the end this part of the analysis remains as a catalog of disincentives to proliferation, without specific recommendations for US policy other than the conclusion that in such a complex field there is a "need to tailor nonproliferation measures to specific cases." So the reader who seeks the answer to "What should US nonproliferation policy be?" will not find the answer to his question in this volume.

Nevertheless, this does not distract from the substantial value of the book. While some scoping of possible corrective policy measures, and an assessment of the success of current approaches would add a useful speculative element to an objective work, they are not essential to the non-specialist who is looking for an overview of the field. The failures of certain previous lines of nonproliferation policy seem clear, and the necessity for future international consensus and actions (as opposed to further unilateral US action) should be apparent from this work.

In conclusion, we recommend this work, both for the specialist who will study and evaluate some of the

factors we have outlined above, and for the non-specialist who will find a good discussion of all sides of the problem but not a push in any particular policy direction.

WILLIAM G. DAVEY
ROBERT E. PENDLEY
Los Alamos National Laboratory

Johnson, Maxwell Orme. *The Military as an Instrument of U.S. Policy in Southwest Asia: The Rapid Deployment Joint Task Force, 1979-1982*. Boulder, Colo.: Westview Press, 1983. 134pp. \$16

Since its inception, the Rapid Deployment Joint Task Force (RDJTF) has been a topic of heated public debate. Proponents have pointed to it as a sign of US strength and resolve to maintain peace and stability in the politically volatile but vitally important Persian Gulf region. Opponents have attacked it as a military organization that is not rapid, not deployable, and not much of a force. In this volume Maxwell Orme Johnson attempts to cut through the rhetoric to present an objective view of the RDJTF.

Writing from the perspective of a career Marine officer, Major Johnson has done a credible job of presenting a balanced, objective discussion of a contentious issue. The strength of the book lies in his perceptive analysis of the development of the RDJTF and the Carter doctrine which preceded it. Contrary to a widely held public view, he points out that the RDJTF was not a hastily conceived reaction to the Soviet invasion of Afghanistan. Rather, it was a measured calculation

to the events in the region, a policy that had roots extending back to interagency studies and presidential directives dating from 1977. This, however, made it no less controversial. Owing to the varying perceptions of the threat it was organized to meet and the difficulties encountered in finding a regional home for it, the RDJTF has raised as many questions as it was purported to solve.

Major Johnson's examination of the RDJTF itself attempts to deal with these questions by analyzing its mission, organization, training, logistic-support deficiencies, and tactical doctrine. After recounting a series of significant deficiencies, he reaches an initial judgment that the RDJTF might not be capable of backing up America's commitment in the Persian Gulf. At the end of the book, however, he reaches a bottom-line conclusion that despite its acknowledged problems, "the RDJTF is a valuable instrument of American foreign policy and a capable military force." Unfortunately, the strength of this statement is significantly weakened by his analysis and earlier conflicting assertions which makes it quite possible for opponents of the concept, or more importantly potential adversaries, to disbelieve his base conclusion.

The key to the RDJTF's credibility is its ability to be employed quickly, but as Major Johnson points out, the most critical shortcoming of the unit is strategic mobility. He goes on to say that the only way the full RDJTF could be deployed now is for the president to use the Civil Reserve

Air Fleet. The resulting severe disruption of the civilian airline industry makes this a very difficult step to take. The key issue then becomes whether there would be sufficient domestic political support for such a presidential decision to employ the RDJTF in any contingency less than full confrontation with the Soviets. In addition, significant shortcomings in water, fuel, and the ability to evacuate the sick and wounded tend to support Johnson's initial judgment that "it appears that numerous tactical and logistic-support problems need to be resolved if the RDJTF is to be a capable military force."

One difficulty that readers may have with Major Johnson's book is the problem of unsubstantiated sources. Although for the most part he documents his work carefully, on several points he refers uncharacteristically to vague Pentagon, State, or White House sources. Although it is not widespread, it occurs often enough to be troubling to the scholar.

Overall, Major Johnson has produced a book that is easy to read, well-organized and understandable. Whether one is a casual observer or a serious student of military or foreign affairs, his book will provide an excellent introduction to the complex topic of the RDJTF.

WILLIAM F. HICKMAN
Lieutenant Commander, U.S. Navy

Flynn, Gregory, et. al. *The Internal Fabric of Western Security*, Totowa, N.J. Allenheld, Osmun, 1981. 250pp. \$32.50

Much has been written about the

"crisis" in Nato but few scholars offer any systematic evaluations of how the Western security dilemmas have evolved and still fewer identify the internal stresses in European political systems which affect the contribution individual states can make to Alliance defense programs. There is a direct relationship between European domestic crises and the chance of pursuing a vigorous foreign policy which recognizes the increasing challenge from the Soviet Union.

Foreign policy has played a dominant role in some recent European election campaigns, where Western defense commitments have been characterized as both threatening to the domestic economic welfare and endangering to East-West accord. Indeed, such arguments surfaced in Greece, Spain, and Portugal, where opposition parties crystallized formidable support around resolutions calling for the withdrawal from Nato or the reduction in (or total removal of) a number of US military bases. As a further illustration of this phenomenon, the December 1979 decision by the Nato Ministers to deploy 572 new intermediate-range nuclear systems in five Nato countries, has provoked a polarizing debate in those basing countries, seizing the national attention and eclipsing the generally dominant concern over the prospects for economic recovery during a global recession.

Under the auspices of the Atlantic Institute for International Affairs, Gregory Flynn and his colleagues have constructed an insightful and sophisticated assessment of the

dynamics of Western security in "an effort to broaden understanding of how domestic considerations have gained an influence over the security policy priorities of the Atlantic Allies." Flynn has written four chapters which provide a strong framework for analyzing the relationship between the "internal and external agendas" of the Allies. The analysis notes the effect of two unfortunately parallel developments—the emergence of the Soviet Union as a superpower and heightened internal tensions in Europe, provoked by the phenomenon of Eurocommunism and economic divergencies between the Nato states.

The best of the Flynn chapters "The Security Challenge: The External and Internal Agendas of the Alliance," astutely concludes that the security challenges facing Nato are unlikely to resemble those of the past and that the Alliance is not prepared to respond to these new challenges. As Flynn notes in another chapter there is no longer a consensus among the Allies on how best to approach Nato's security dilemmas, in part because there is a broad spectrum of opinion on the nature and degree of the Soviet challenge. Here, the reader would have benefited from a discussion of how the US-inspired policy of détente with the Soviet Union had affected Allied policy planning and why détente was likely to be more attractive to those allies who stood to benefit (in economic terms) from a more conciliatory posture towards Moscow.

The four case studies presented

(West Germany, France, Italy, and Great Britain) are well researched, providing both historical perspective and highlighting those factors which are unique to each particular case. Joseph Joffe's chapter is particularly useful as it describes West Germany's historic policy dilemma—détente vs defense. Joffe correctly concludes that West German foreign policy will continue to be the product of a struggle between two competing schools of thought, tied directly to the two major political parties in the Federal Republic—the Social Democrats (SPD) and the Christian Democrats (CDU).

Although it is imprudent to predict the direction of West German politics, the March electoral victory of the CDU (which seems to have stabilized Helmut Kohl's position as Chancellor) suggests that the conservative defense-oriented foreign policy espoused by Kohl has a greater attraction for the majority of the West German electorate than the SPD call for a renewed détente. More importantly, the vote appears to have been a rejection of Soviet attempts to sway German voters toward accepting the unilateralist approach of the Green party.

Laurence Martin's chapter on "British Defense Policy" provides a valuable analysis of the interaction between British domestic politics and defense spending, and in particular, the pernicious effect of a weak economy on defense planning.

While Flynn's book is valuable, it ignores a set of issues which, in my opinion, are likely to present Nato

with its greatest challenges—the security of the northern and southern flanks. These two regions (particularly the south) are isolated politically and militarily from Nato's concentration of power in the center. The southern flank nations are most vulnerable to Soviet pressure and are least likely to receive the level of rapid reinforcement which would be required to repel a Soviet military initiative. Also, three of those states—Spain, Greece, and Portugal—are reevaluating their contributions to and ultimately their membership in the Alliance. In addition, the sense of strategic partnership among the southern flank states has been weakened to the point where an attack on one may not be interpreted as an attack on all. That is, in the long run, the most potent threat to Nato's viability.

JED SNYDER
Woodrow Wilson International
Center for Scholars
Washington, DC

Robinson, Douglas and Keller, Charles. *UPSHIP! U.S. Navy Rigid Airships 1919-1935*. Annapolis, Md.: Naval Institute Press, 1982. 236pp. \$29.95

In 1934, the most modern passenger aircraft in the world was the Douglas DC-2, which could carry 14 passengers (strapped in small seats), over ranges of 1,200 miles. On other routes, however, commercial air travelers flew in luxury, with sleeping accommodations, dining rooms, and lounges, over ranges in excess of 8,000 miles. Such was the difference between the technological sophistica-

tion of the airplane and the airship in the 1930s. Aeronautical engineers worked within two distinct fields, heavier-than-air (HTS) and lighter-than-air (LTA). The HTA advocates could point to superior speed and ease of ground-handling as points in the favor of airplanes. The LTA designers stressed range, comfort, and cargo-carrying capability as the major advantages of airships. World War I had shown a place for both types of "flying machines," and the pioneering naval aviators experimented with both.

The US Naval Institute's new book *Up Ship* chronicles the development of US Navy rigid airships from 1919-1935. The book was written by Douglas Robinson and Charles Keller.

Robinson is best known as the author of two other excellent airship books *Giants in the Sky* and *The Zeppelin in Combat*. Keller is a computer engineer who has spent over 25 years researching the history of LTA flight. The book's title is derived from the classic terminology of all airship commanders, whose command "Up Ship!" signaled the ground crew to drop the landing lines and allow the buoyant ship to lift-off.

The book opens with a short review of Germany's use of rigid airships in World War I. (Rigid airships were constructed with an inner framework of girders and wires which maintained the ship's aerodynamic lines while flying at high speeds. The nonrigid airship maintains its shape solely with the internal

pressure of the lifting gas within its expandable envelope.)

The Germans experienced both successes and failures with their combat airships, but at the end of the war the successes had convinced American planners of the potential value of LTA craft. The Naval Appropriations Act of 1920 provided for the construction of one airship (ZR-1) in the United States and the purchase of one ship (ZR-2) from a foreign source.

The authors do a very thorough job of telling the story of the ill-fated ZR-2, the British-built airship which crashed on a test flight in England, killing 44 of 49 crewmen aboard. Following this disaster, the Americans concentrated on the construction of their own rigid, the USS *Shenandoah* (ZR-1). The authors dedicate three chapters to the construction, testing, and operation of the *Shenandoah*. They also devote a number of chapters to the ZR-3, a German-built rigid which was delivered to the United States as a war reparations payment. This very successful ship was christened USS *Los Angeles*, and has become the only US rigid to come to a "peaceful" end at the hands of a wrecking company rather than being destroyed in flight.

The one shortcoming of this generally excellent book is its rather brief coverage of the USS *Akron* (ZRS-4) and USS *Macon* (ZRS-5). These huge ships were 785 feet in length, 132 feet in diameter, and were lifted aloft by 6½ million cubic feet of helium. The most interesting feature of these sky

giants was an aircraft hangar built into the underside of each ship. These hangars could house up to five Curtiss Sparrow-Hawk aircraft (F9C-2) which could be launched and recovered in flight. In fact this procedure became so routine that the Sparrow Hawks were often flown with no landing gear other than the hook mechanism which allowed them to grasp the airship's "trapeze-style" recovery device. (By far the best book on the subject of these "flying aircraft carriers" is *The Akron and Macon: Flying Aircraft Carriers of the U.S. Navy* by Dr. Richard K. Smith. This fascinating book is available from the Naval Institute Press.)

Robinson and Keller provide a concise history of the *Akron* and *Macon*, including the loss of the *Akron* off New Jersey in 1933 and the abandonment at sea of the *Macon* off Point Sur, California, in 1935.

The loss of the *Akron* and *Macon* spelled the end of the Navy's experimentation with the rigid airship. Designs were drawn for a ZRCV of 10-million cubic feet capacity capable of carrying 27 dive bombers, but funds were never provided to develop the concept. At the time, 40 PBY flying boats could be purchased for the price of one rigid airship, and the Navy chose to concentrate on these, and on carrier-based, aircraft.

Some writers have speculated that a scouting fleet of rigid airships stationed on the West Coast and in Hawaii could have detected an approaching Japanese task force and

prevented the Pearl Harbor attack. Such speculation provides interesting food for thought, but the indisputable fact remains that rigid airships failed to find a place in the Navy arsenal, and were unable to compete with the rapidly developing technology of heavier-than-aircraft. They do stand, however, as symbols of the Navy's willingness to experiment with new concepts, and to search for better ways to do its job.

I recommend *Up Ship* as an excellent treatment of a little known chapter in naval aviation history.

JOHN E. JACKSON
Lieutenant Commander, Supply Corps, US Navy

Stockholm International Peace Research Institute. *Outer Space—A New Dimension of the Arms Race*. Cambridge, Mass.: Oelgeschlager, Gunn & Hain, 1982. 423pp. \$35

In 1978, SIPRI, the Stockholm International Peace Research Institute, published *Outer Space: Battlefield of the Future?* which I reviewed in this journal—saying that it was a useful book to those concerned with the technological fundamentals of military science, but that it left one looking for a better, more balanced text, without such a strident antimilitary line. In November 1981, SIPRI organized a symposium *Outer Space: A New Dimension of the Arms Race*. The outgrowth of this is a collection of the papers read at the symposium together with an abridged and updated version of the 1978 text as an introduction. Included are appendixes which include tables of all probable military satellites launched

between 1977 and 1981, and the six treaties concerning arms control in space.

Like most collections of papers from international conferences, this one suffers from the usual faults of highly variable quality of content, presentation and translation. Some of the translated papers regrettably are almost incomprehensible and others are dull. Those by K.D. McDonald on Satellite Navigation Systems—especially his enthusiastic description of the new NavStar GPS—and by G.E. Perry on the clever amateur detective work on Soviet military satellites by the British Kettering Group are excellent, as is the Sakata and Shimoda paper on Satellite Sensor Technology. Additionally some of the latter papers that propose new arms control measures for space, in a reasonable manner, are worth careful consideration. Nonetheless most of the collection is either difficult or worthless to read.

In abridging and updating his 1978 text, the editor, Bhupendra Jasani, has severely cut his previously useful dissertation on orbital dynamics, but added an interesting chapter on the characteristics of launch vehicles. Taken altogether this part of the book is less useful than the 1978 version. Those readers who are interested in military space technology and those who are active in the arms control field will probably find it worthwhile to read this book; in general, it left me once again looking for a better and more balanced text.

M.G.M.W. ELLIS
Commander, Royal Navy

Haestrup, Jørgen. *European Resistance Movements, 1939-1945: A Complete History*. Westport, Conn.: Meckler Books, 1981. 564pp. \$45

Resistance movements during World War II may be the least known of all the varied wartime activities, and part of the reason is that there are surprisingly few books in English on this subject. While many memoirs and biographies exist, along with books on resistance activity in particular countries, a comprehensive study of the European Resistance movements is hard to find. The reason, as Jørgen Haestrup has stated, is because of the paucity of records and documents that have survived. In the name of security, records and messages were seldom retained; the fewer the records the greater the security.

This volume by Jørgen Haestrup is the most comprehensive and informative work on the subject that has been produced. It is thoroughly researched and provides the most detailed study of resistance activities that has been done to date. Haestrup has included in his research journal articles, books, and documents in the Danish, Dutch, English, French, German, Norwegian, and Russian languages—and possibly one or more languages which this reviewer may have overlooked in the footnotes and bibliography. Included in *European Resistance Movements* are the following subjects: the formation of Resistance movements, civil disobedience (demonstrations, strikes,

passive resistance), intelligence, and paramilitary action (sabotage, assassinations, and partisan warfare).

Several important and critical questions about Resistance movements are raised and Haestrup tries to answer them as objectively and unemotionally as possible; he succeeds. For example, some military authorities have expressed doubts about the effectiveness of Resistance in the military actions of World War II. Haestrup agrees that it is not possible to measure the direct military contribution of Resistance movements. Yet Resistance forced the Germans in 1943 to retain 380,000 men in Norway, 360,000 in Yugoslavia, 40 divisions in France, and troops in other occupied areas while critical battles were taking place in the Soviet Union. Without Resistance many of these troops could have been at the Eastern Front.

In other Resistance efforts Haestrup has no doubts concerning the value of their contributions to the Allied cause. In intelligence gathering, sabotage, propaganda, escape and evasion efforts, and the safeguarding of downed pilots—in all of these areas vitally important support was provided for the war's success.

Of all of these contributions the most important appears to have been intelligence: the reporting of troop movements, of defense systems, and of special weapons manufacturing (Peenemunde). The Belgium Prime Minister, Hubert Pierlot said just before the Normandy invasion that for the Allied Supreme Command Belgium was like a glass house.

Haestrup observed that "France was honeycombed with espionage activities. Information leaked out of the country in a steady stream . . . the Germans' economic, political and military dispositions unfolded almost like an open book for Staffs in London."

Again, the sabotage efforts of the Resistance were of considerable value to the Allied cause but, nevertheless, the precise worth is hard to measure. Of what significance were the two actions taken by the Norwegian resisters in February 1943 and February 1944 which successfully prevented the Germans from obtaining heavy water? That these actions, and others of a similar nature and daring helped the allies cannot be disputed; whether they changed the course of the war may be endlessly argued.

Of critical significance for the success of the Resistance, as argued by Haestrup, was organization. Not only was effective organization necessary for carrying out operations but it was required for survival itself. "Resistance activity," he states, "depended upon an extremely high degree of organising ability . . . the effectiveness of resistance work increased proportionately with . . . a high level of organisation." In this respect Communist parties had an advantage over other groups since the Communists possessed an organization (sometimes with an underground section) prior to the outbreak of the war. All other groups had to create theirs after the occupation had begun. On the other hand, the

Communists did not begin their resistance activity until the Soviet Union was attacked by the Germans in June 1941.

What is brought out most graphically in this study was the increasing importance of technology for carrying out resistance work. The sophistication of the technology available to the Resistance grew greatly as the struggle continued during the war years. Communications became crucial; without the radio and other devices the struggle could hardly have been carried on. The airplane was absolutely essential. Air drops were needed for providing supplies, for moving people about, and for supporting special operations.

Resistance efforts differed greatly from one country to another. Geography, occupation policies, and national culture were among the reasons for these differences. In Yugoslavia the partisan forces numbered about 400,000 by 1944 and were organized into divisions. At times the fighting was carried on in conventional military battle. In Belgium, however, resistance concentrated on espionage; the illegal press; help to allied pilots making their way to the Free World; and the secret creation of underground forces. In the Soviet Union partisan activity was state directed and controlled. The British effort, carried out largely through the Special Operations Executive (SOE), worked closely with many of the Resistance groups on the continent.

European Resistance Movements has been translated from the original,

written in Danish. The translation seems to convey the author's views accurately and is certainly adequate in terms of clarity of expression. There is little of the awkwardness that is so common to most translations. However, the style, a product of translation or the original expression of the author, generally conceals the excitement and tension of the Resistance drama. For this reviewer the subject was constantly being analyzed in too clinical a manner and the drama had been excised. Nevertheless, this book contains the most complete story of the Resistance that has been told.

HENRY M. SCHREIBER
Naval War College

Shulimson, Jack. *U.S. Marines in Vietnam: An Expanding War, 1966*. Washington: Marine Corps History and Museums Division, 1982. 390pp. \$9

The Marine Corps began 1966 in South Vietnam with a 41,000-man Marine Amphibious Force firmly established in three coastal enclaves in the northernmost provinces. By the end of the year, the force would number nearly 70,000. Author Shulimson effectively shows, however, why US forces were no closer to winning their war at the year's end than at its beginning.

In his operational chronology, he demonstrates how marine staffs supported a low-intensity pacification program aimed at winning loyalty of the civil population through increased security and material aid. The marines did not intend to pursue

the enemy forces into the hinterland but merely sought to deny them their basis of support in the more densely populated coastal region. These adversary field forces, when discovered in the coastal areas, were attacked by marine air, artillery strikes and battalion-sized sweeps.

Such marine operational or grand tactical procedures never faced the acid test of time. Shulimson deftly narrates how marine commanders struggled to salvage their plans against pressure from the army dominated command in Saigon for major offensive strikes against major Vietcong and North Vietnamese army units. Simultaneously, the critical underpinning of marine pacification objectives deteriorated as the coup-ridden, paranoid, and ineffective South Vietnamese political and military structure began to crumble in local marine areas, principally Da Nang. These and other conditions robbed marine operations of any momentum and long-term effect. Moreover, marine commanders fell even more into the net of Washington and Saigon statisticians, devising reporting and even operating procedures to feed the statistical requirements in the most effective and optimistic fashion.

In one sense, this and the other operational narratives in the Marine Corps' 10-volume Vietnam series constitute a "cruise book," complete with commanders' names, lists of units involved in operations and a rich assembly of first-hand impressions from participants, generally removed some 15 years from the time

the actions occurred. It also includes descriptions of combat support and combat service support actions relevant to the ground war narrative and comments upon the roles of other marines in Saigon, with non-marine units and the Seventh Fleet amphibious forces. Presumably, a more subjective analysis of marine operations in Vietnam will follow in the separate topical series proposed by the Director of Marine Corps History and Museums.

Shulimson's chronicle does provide the grist for subjective analysis of the marines' war in Vietnam, often by inference, and it suggests courses of inquiry for future research. For instance, how may we use marine experiences to evaluate the American method of fighting a "colonial" war with one-year personnel rotation subdivided for officers into six-month field and staff tours, barring death, wound, or injury? How effective were marine tactics when they consisted of reinforcing small unit contacts with additional platoons and companies—nearly always at the point of contact—piling on supporting arms firepower and sweeping the battlefield the next day for weapons and bodies. This offensive-defensive operational genre compares not in the least with Clausewitz's concept of battle.

In the end, one closes this volume with a deep sense of sympathy for the participants and an equally deep foreboding. How does one explain the endurance of "can-do" optimism in the face of patently crippling operational conditions? Can these opera-

tional narratives influence the marine way of war in USMC schools and the staff colleges? Such is the highest calling of official history and it must be matched with institutional energy.

KENNETH W. ESTES
Major, US Marine Corps

Stewart-Smith, Geoffrey. *Global Collective Security in the 1980's*. London: Foreign Affairs, 1982. 142pp. \$18

Currently Nato's military strategists are wrestling with the dilemma of how to protect Western vital interests on the Eurasian continent without jeopardizing alliance economic and world order interests outside Europe, and to do this without raising the risk of nuclear war. To this end, a group of some 80 Ministers, Ambassadors, High Commissioners, and leaders in the field of strategic studies met in England in 1981 to discuss "A Global Strategy for the Defense of World Freedom." This book is the published proceedings of the conference.

In sixteen short articles, experts from 26 countries discuss the strategic problems associated with the perception that the Soviet challenge to Western interests is global, but Nato's response is not. Collectively, the conferees believe that the strength of the West lies in the freedom and vitality of its society and as such, there is room within this framework for individual differences. For example, retired Lt. Gen. Daniel O. Graham, US Air Force, calls for a bold move into space

which will negate the Soviet's buildup of strategic offensive nuclear weapons. This strategic space-based defense against the Soviet ICBM force has two key advantages over the current incremental approach based on the MX. First, it can be achieved in half the time (5 years vs. 10 years) and secondly, it can be achieved at roughly half the cost (\$35-50 billion).

Prince Hassan Ben Talal, of Jordan, writes that the threat to the Middle East/Southwest Asia region is not primarily that of a Soviet invasion, but of the "all too real threats to our freedom from sources other than the Soviet Union." He believes that the key military factor in the region is the need to establish a military balance of power between Israel and the Unified Arab Command (minus Egypt). The Crown Prince further believes that this can best be accomplished by a regional collective security arrangement which could be reinforced by a super or major power when appropriate. The Gulf Treaty Organization, the author believes, is a good beginning.

Dr. Richard Pipes offers some interesting ideas of how to cope with the Soviet propaganda threat. He argues that many Third World countries perceive the Soviet Union as the propagator of an international creed whose authority rests on the threat of encirclement by capitalism and on the historic mission of communism to ultimately achieve victory over the "evil" of the West. To counter this perception, Dr. Pipes urges the West not to treat the Soviet

Union as a superpower (which it is only in the military sense), but to treat it as a great power—nothing more. He also rejects the Soviet notion that it represents the vanguard of history and he would renounce the Brezhnev Doctrine as being invalid. Dr. Pipes advocates nothing less than changing the psychological rules of the game. By so doing, Dr. Pipes argues, the West will be able to formulate an effective policy towards Soviet expansionism, one that builds on the strengths of Western society and will not abandon the psychological field to Soviet propaganda.

Other writers advance the perspectives of their own countries vis-à-vis the Soviet threat. For example, representatives from Japan, Australia, and Malaysia are concerned in similar ways with the Soviet buildup of army and navy forces in their region. Japan, of course, is concerned with her northern islands and with the nuclear situation. Australia and Malaysia are concerned with the Soviet's relationship with Vietnam and with that country's apparent drive for hegemony in Southeast Asia. All are concerned with keeping the vital sea lanes open.

A major conclusion of the conference was that since the Soviets represent a global threat to Western interests and have apparently shifted the strategic center of gravity from Central Europe to the more volatile areas of the Third World, the West will be defeated piecemeal unless it formulates a global, unified Western response. Realizing that a legal global

treaty protecting Western interest would be impossible to negotiate, the conferees focused instead on establishing informal links in functional areas such as intelligence, command and control, collective strategic planning, joint naval operations, joint arms procurement, ASW, strategic mineral procurement, antipropaganda and antiterrorist warfare. All in all this brief volume is a useful appreciation of the Western interests outside Nato that require attention.

WILLIAM O. STAUDENMAIER
Colonel, US Army

Dallek, Robert. *The American Style of Foreign Policy: Cultural Politics and Foreign Affairs*. New York: Knopf, 1983. 313pp. \$16.95

There is an increasing tendency in our era to analyze great events by attempting to explicate the subconscious, psychological motives that helped form them. In this ambitious book, Robert Dallek has constructed a study of the diplomatic history of the United States in this century that might be labeled "psychohistory." He is concerned with the "non-rational influences" in American foreign policy, or the "hidden side" of US diplomatic history. By this, the UCLA professor means the underlying emotions and psychological reactions of the American domestic populace as they influenced the major foreign policy events and trends from the turn of the century to the mid-1970s. As Dallek comments in his introduction, "It is a study of undercurrents, of mood, tone, or milieu, of a climate of feeling that

almost imperceptibly insinuates itself into concrete ideas and actions."

While Dallek clearly admits the importance of the normal forms of economic, military, and political influence on events, his thesis in this work is that one important component that could explain many policy decisions and events is a kind of "cultural political influence" that affects planners and decision-makers. Obviously, quantifying such subliminal influences is challenging, and Dallek comments early that "these matters are not easily pinned down." Ultimately, the book fails convincingly to set out the case for such influence, at least to the degree implied by the author. Conceptually, it is difficult to quarrel with his basic thesis, but his effort makes clear the difficulty of presenting such influence in a consistent pattern of events.

The methodology in the book is straightforward, consisting of a chronological survey of major events and trends in 20th-century US diplomatic history. Dallek begins by analyzing the post-Spanish-American War debate over imperialism and the acquisition of overseas possessions, and concludes with the Nixon-Kissinger maneuvering at the end of the war in Vietnam. In between, the progressive years of Theodore Roosevelt and Woodrow Wilson, the inter-war years, the Second World War, and the administrations of Truman, Eisenhower, and Kennedy-Johnson are all briefly examined. In each of these periods, Dallek manages to develop some theories of "cultural politics" impacting on the events of the day. Some are far-fetched, such as

his description of the Kissinger-Nixon policy toward Southeast Asia as an "attempt to provide . . . roots" to a generation of college students by "celebrating the virtues of self-determination and autonomy." More convincing is his study of the early phenomena of imperialism at the turn of the century as an outgrowth of an American mass psychology of expansion into the world stage after the closing of the frontier. While some of his explanations are more solidly reasoned than others, all are provocative and interesting.

The major flaw in the work is its rather cursory, survey treatment of nearly 80 years of extremely complex diplomatic maneuver that took the United States from a rising force on the world stage to a dominant superpower with truly global concerns and commitments. Much of the book is taken up by briefly outlining the major events, and it often ends up sounding like an average graduate-level text on American diplomatic history. Perhaps Dallek would have been better advised to focus on two or three particularly meaningful events to demonstrate his thesis, rather than trying to cover such a large range of policy and history. This would have allowed him the luxury of more exhaustive study of a few scenarios, rather than skipping through so much territory. It would have been instructive to have included some information on the subliminal influence of other "nonrational" influences, such as the domestic press or organized religion, both of which are glossed over.

Dallek comments that his book is an effort to "encourage discussion and to highlight the need for ongoing investigation into the unilluminated side of the American foreign policy tradition." Fair enough, the impact of "cultural politics" is a part of understanding the formation of policy in this country. *The American Style of Foreign Policy* itself seems more style than substance in the final analysis. It asks important questions and puts forth some imaginative and occasion-

ally facile explanations, but does little to satisfy the reader with solid, innovative scholarship. Perhaps that is the nature of a very slippery beast. *The American Style of Foreign Policy* is an energetic treatment of one aspect of foreign policy formation, but it tends to leave the reader grasping for more solidly grounded conventional explanations for the events of the 20th century.

JAMES STAVRIDIS
Lieutenant Commander, US Navy

Recent Books

Selected Accessions of the Naval War College Library

Annotated by

George Scheck, Mary Ann Varoutsos and Jane Viti

Arbatov, Georgi A. and Oltmans, Willem. *The Soviet Viewpoint*. New York: Dodd, Mead, 1983. 219pp. \$13.95

The views of Georgi A. Arbatov on US-Soviet relations were recorded in this series of interviews conducted in English by Willem Oltmans. Professor Arbatov is the director of the Institute of the United States and Canadian Studies, a deputy of the USSR Supreme Soviet, and a consultant to Soviet leader Yuri Andropov. Conceding the limitations of projects such as this, Oltmans still feels that it offers a unique chance for Americans to see how they are perceived by a foremost specialist from the other side. The questions and answers cover the period from 1981 to the first half of the Reagan administration.

Berberoglu, Berch. *Turkey in Crisis: from State Capitalism to Neo-Colonialism*. London: Zed Press, 1982. 149pp. \$21.95

Writing from a leftist standpoint, Berberoglu examines the political economy of Third World countries using Turkey as a case in point. The study focuses on the development of Turkey's economy during the 20th century. Arranged chronologically, it deals with the origins of the Turkish nation, post-Depression economic development, and Turkey's transformation into a "neo-colonial" state after 1945.

Other issues considered include the implications of Turkey's possible entry into the European Economic Community; the relevance of Turkey's experience to other Third World countries; and the causes of the economic crises and political instability that have plagued that country in recent years.

Budyko, Mikhail I. *The Earth's Climate: Past and Future*. New York: Academic Press, 1982. 307pp. \$39.50

This study evaluates how human activities are affecting the climate. The urban climate, deforestation, irrigation, energy, and food production are some of the topics discussed. Information from research that has been conducted indicates that the conditions of the future climate will be drastically different from those of the contemporary climate. Budyko states that international understanding and cooperation is necessary in order to realistically predict distant future climate and to control the human impact upon the environment. An extensive, worldwide bibliography is included.

Davis, Paul K. and Williams, Cindy. *Improving the Military Content of Strategy Analysis Using Automated War Games: a Technical Approach and an Agenda for Research*. N-1894-DNA. Santa Monica, Calif.: Rand, 1982. 53pp. paper \$7.50

Until recently, it was felt that automated war games were not provided enough military content to be considered valuable. In this technical note, the Rand Strategy Assessment Center describes some new, tentative concepts being developed to provide that military content. Using analytic war plans combined with branched scripts, highly aggregated combat models can be created which will be employed to speed game play, examine numerous scenarios, and impose discipline on statements of assumption and rationale. The note concludes with an explanation of the design and implementation of RSAC's basic model, "Campaign," and an outline of some concepts requiring future research.

Druks, Herbert. *Truman and the Russians*. New York: Speller, 1981. 303pp. \$12.50

The history of American-Russian relations from 1945 to 1953 to a degree reflect the relationship between Russia and the rest of Europe over the last several centuries. Various European powers at different times frustrated Russian attempts at expansion, but by the end of World War II Russia was the most powerful nation on the continent. This study focuses on the role of President Truman in US relations with Russia; it is also a study of Republican criticism of Truman's policies. The purpose is to determine the validity of the criticisms and their effect on the Truman administration.

Dubofsky, Melvyn and Theoharis, Athan. *Imperial Democracy: the United States since 1945*. Englewood Cliffs, N.J.: Prentice-Hall, 1983. 278pp. paper \$14.95

In this political history of the United States, the authors, both historians, trace the development and character of American politics, diplomacy, and economics since 1945. It is their belief that a conflict has existed in the American political system since that time. At the end of World War II, the United States was the most powerful nation in the world. Through power and domination we gained direct control over the political and economic lives of other nations. Our role and responsibilities as a

global power soon came in conflict with the principles of a free and open democratic society. The message here is that the United States tried to assume two opposing roles at once, that of an imperial power and a democratic nation.

Goebbels, Joseph. *The Goebbels Diaries, 1939-1941*. New York: Putnam, 1983. 490pp. \$19.95

A prolific diarist from 1933 until his death by suicide in 1945, Hitler's Minister for Propaganda and Public Enlightenment took pains to assure the preservation of his journals. Many of the passages were eventually recovered, and some of the earlier and later sections have already been published in the West. During the years covered in this volume (edited and translated by Fred Taylor), Germany won a succession of victories throughout Europe. Goebbels meticulously records the progress of the war, demonstrating his close attention to detail, his unscrupulous manipulation of facts for propaganda purposes, and the iron control he exerted on every type of media at his disposal. At first, he appears insecure and depressed; later, he seems to exult in his power and influence, but his unswerving devotion to his Führer remained unchanged throughout these pages.

Goldman, Marshall I. *U.S.S.R. in Crisis: the Failure of an Economic System*. New York: Norton, 1983. 210pp. \$15.00

Economic crisis and failure are evident in virtually all sectors of the Soviet economy. The Soviets have become heavily dependent on foreign sources of meat and grain, steel production has dropped, and they trail far behind the Western nations in electronics and other branches of high technology. The problem, says Goldman, is that the economy is based upon an outdated Stalinist model of economic development. This study examines the background to the present predicament and the reasons why the Soviet leadership is reluctant to switch to a new model. Professor Goldman is associate director of the Russian Research Center at Harvard University and the author of several books on the Soviet Union and comparative economic systems.

Graham, Daniel O. *High Frontier: a New National Strategy*. Washington: High Frontier, 1982. 175pp. \$15.00

The High Frontier group was organized to develop a new national strategy based upon a previous study conducted by the nonprofit Heritage Foundation. This new strategy is premised on the military use of space and is seen as an alternative to the doctrine of Mutual Assured Destruction. Described as a "technological end-run on the Soviets," the authors envision a four-tier system consisting of a spaceborne defense to filter enemy missiles in their early flight stage; a second broader space protection system; a ground-based point defense system; and a fourth layer defined as civil defense. The system is seen as a spoiler, weakening the rationale for any preemptive first strike option.

Grayson, Benson L. *United States-Iranian Relations*. Washington: University Press of America, 1981. 189pp. \$19.50

The United States has shown interest in Iran for over 100 years and has followed a policy of maintaining the territorial integrity and pro-Western orientation of that

nation since the end of World War II. With the main emphasis on policy, this book traces the history of that interest from the early 1800s to the 1980 war between Iran and Iraq. While the overthrow of the Shah and establishment of the Iranian Islamic Republic were a shock to the perceptions of American policymakers, future planning will benefit from an understanding of the earlier period of contact between the two countries.

Hamilton, Nigel. *Monty, the Making of a General (1887-1942)*. New York: McGraw-Hill, 1981. 871pp. \$22.95

This lengthy work comprises the first part of a projected three-volume authorized biography of Field Marshal Viscount Montgomery of Alamein. The author, a personal friend of Montgomery's, relied heavily on letters, diaries, and unpublished documents to depict the events leading up to the Battle of Alamein. Hamilton scrutinizes Montgomery's family life, his education, military training, and career. An effort is made to analyze the factors which influenced the development of Montgomery's personality, including his relationship with his mother, his marriage to Betty Carver, and the effect of her premature death. In addition, a very complete discussion of his military service in India, France, England, and Northwest Africa is included.

Hanrahan, Brian and Fox, Robert. *'I Counted Them All Out and I Counted Them All Back'; the Battle for the Falklands*. London: British Broadcasting Corporation, 1982. 139pp. paper £-1.95

Published shortly after the battle for the Falklands, this concise volume brings together the dispatches broadcast by two British Broadcasting Corporation's special correspondents. Fox and Hanrahan accompanied the British forces from their departure from Portsmouth, England on 2 April 1982 to their final advance on Port Stanley on 15 June. In addition to the television and radio broadcasts, several interviews conducted during and after the operation and articles written in the aftermath of the battle are attached. Topics touched upon include lessons learned, the role of the wartime correspondent, censorship, and the future of the islands.

Harris, Robert. *Gotchal: the Media, the Government, and the Falklands Crisis*. Boston: Faber and Faber, 1983. 158pp. paper \$5.95

During a military crisis, the government attempts to control information in the interest of national security, while the media struggles to fulfill its obligation to inform the public. This is an account of the power of information and the struggle to control it which took place between the British media and the government during the Falkland Islands War. The Ministry of Defence is accused of controlling and manipulating information, and misleading journalists and broadcasters who subsequently suffered a loss of credibility in reporting the facts. Reporters, on the other hand, were accused of fabricating stories and embellishing the truth in order to create a "national drama." The result of this investigation into the "information war" is an interesting analysis of the implications of censorship and of the relationship between the government and the media in time of war.

Heiberg, William L. *The Sixteenth Nation: Spain's Role in NATO*. Washington: National Defense University Press, 1983. 78pp. paper \$4.50*

Spain joined Nato in 1982 as the 16th nation in the alliance. This study examines the benefits of Spanish membership for the future of Nato as well as the possible negative consequences if she should withdraw in the future. Increased military forces, new strategic options, and possible improved relations with other non-Nato nations are some of the benefits. If Spain were to withdraw due to a change in politics, the damage to the alliance could be costly.

*For sale by the Superintendent of Documents, US Government Printing Office, Washington, DC 20402.

Hoyt, Edwin P. *Submarines at War: the History of the American Silent Service*. New York: Stein and Day, 1983. 329pp. \$18.95

Hoyt traces the development of submersibles and submarines from the American Revolution to the era of nuclear-powered submarines. Our nation's first submersible, the USS *Turtle*, was developed by David Bushnell. When the craft was launched in 1776, an attempt was also made to attach a torpedo to the underside of the HMS *Eagle*, but the mission failed. Since that time improvements in construction, hull design, engines, equipment, and armament have made the submarine a formidable weapon.

Hsü, Immanuel C.Y. *China without Mao; the Search for a New Order*. New York: Oxford University Press, 1982. 212pp. \$19.95

Hsü, a professor of history at the University of California at Santa Barbara, analyzes the development of a new power structure and modernization program in post-Mao China. Emphasizing some of the ongoing problems of development such as lack of capital and trained personnel, he predicts only moderate progress by the year 2000. The largest portion of the text considers the political reversals which have marked the years 1976 to 1982. Beginning with the deaths of Mao Tse-tung and Chou En-lai in 1976, Hsü treats the succession crisis triggered by Mao's widow Chiang Ch'ing, the trial of the "Gang of Four," the normalization of relations with the United States, the "Four Modernizations," and prospects of reunification with Taiwan.

Johnson, A. Ross, *Poland in Crisis*. N-1891-AF. Santa Monica, Calif.: Rand, 1982. 57pp. paper \$7.50

This preliminary report consists of an analysis of the rise of the trade union Solidarity and its suppression under martial law in December 1981. An assessment is made of the significance of the crisis for both Soviet policy in Eastern Europe and for the future of the other Warsaw Pact nations. Part of Rand's "Soviet Vulnerabilities in Eastern Europe" study, this note addresses the economic, political, and military dimensions of the situation. It concludes that the Jaruzelski regime has yet to establish a stable system of rule, thus causing continuing tension. For instance, the involvement of the Polish military in internal affairs has resulted in its reduced participation in the Warsaw Pact, and the crisis in Poland has increased the prospect of heightened instability in the rest of Eastern Europe.

Johnson, Ronald J. *Geography and the State*. New York: St. Martin's Press, 1982. 283pp. \$27.50

This essay is premised on the theory that the nature of the state is not determined by the mode of production in that state, but that economic and political development occur simultaneously. Four main areas are examined: the relationship between state and accumulation; functions of the state; the role of the local state; and the evolution of the modern state alongside the capitalist mode of production. One of the conclusions is that the state was a development of a capitalist society, because it provided the conditions for successful accumulation by individuals.

Johnson, Vernon E. *Development of the National War College and Peer Institutions*. Ann Arbor: University Microfilms, 1982. 165pp. \$18.50

Originally written as a Ph.D. dissertation, this work is a comparative study of the development of the US senior service colleges and their relationships with one another. A main portion of the book concerns the growth of the earliest of these institutions, the Naval and Army War Colleges, which are considered similar, despite their interservice rivalry. However, each one developed a certain uniqueness, establishing a pattern followed by the newer service schools. In other sections, the book deals with such matters as curriculum development, instructional strategies, and the rationale for the existence of multiple senior service schools. It is a contention of the author that the National War College was intended to be at the pinnacle of the senior service schools; however, no school has yet to demonstrate a marked superiority over the others.

Kennan, George F. *The Nuclear Delusion: Soviet-American Relations in the Atomic Age*. New York: Pantheon, 1983. 208pp. \$13.95

George Kennan, a recognized scholar in the field of recent diplomatic history, is also well known for his famous "X" article whose influence led to the United States' containment policy toward the Soviet Union. This collection of essays, speeches, and policy statements represents his thinking on the issues of nuclear weapons proliferation and Soviet-American relations from 1950 to 1982. It is his belief that our foreign policy is based upon an unrealistic assessment of the Soviet Union. This has resulted in a military policy that relies heavily on nuclear weapons and thus perpetuates the dangerous arms race.

Lech, Raymond B. *All the Drowned Sailors*. New York: Stein and Day, 1982. 309pp. \$16.95

On 30 July 1945 at 12:05 a.m., the cruiser USS *Indianapolis* was torpedoed by a Japanese submarine and sank within 15 minutes. Four hundred of the 1,196 men on board went down with the ship and 800 abandoned her. Of those 800, only 316 survived. Because of radio difficulties, complacency, and carelessness, approximately 500 sailors died in the waters of the Philippine Sea. Basing his research on previously unavailable files, Mr. Lech retells the story of the *Indianapolis*, contending that there was a massive cover-up in the investigation of this tragedy.

Military Historical Research Grants

The US Army Military History Institute will award approximately six Advanced Research Grants for 1984. Each grant carries a stipend of \$500 to cover travel and living costs while conducting research in the USAMHI library, archives and special collections. Applicants must be scholars at the graduate or postgraduate level pursuing research topics in the field of military history of interest to the academic community, the US Army, and the US Army Military History Institute. Both civilian and active duty military personnel are encouraged to apply. The application deadline for grants to be awarded in 1984 is 1 January 1984. For information and application forms contact: Assistant Director for Historical Services, US Army Military History Institute, Carlisle Barracks, PA 17013.

Military or Naval Historical Award

An award of one thousand dollars for the best article on any facet of American military or naval history written in English and published during 1983 has been announced.

Publication may have been in either an American or foreign journal.

Named the Harold L. Peterson Award, the prize will be given to the successful author by the Eastern National Park & Monument Association. The association is a nonprofit educational group authorized by Congress to aid and promote the historical, scientific, and educational activities of the National Park Service. The late Harold L. Peterson was chief curator of the Park Service.

Nominations may be made by publishers, editors, authors, or interested parties on behalf of articles that deal not only with military or naval history directly, but also with economic, political, social, ecological, or cultural developments during a period of war or affecting military history between wars from the time of the settlement of North America until the present. Three clear copies of articles nominated must be received by the Executive Secretary of Eastern National Park & Monument Association, P.O. Box 671, Cooperstown, NY 13326, not later than 15 March 1984.

The Company of Military Historians annually appoints a panel of members to review all nominations and recommends three articles to Eastern National Park & Monument Association. After review by an *ad hoc* committee, the board of the association chooses the winner.

