

CHAPTER 1

NAVAL TRADITION

LEARNING OBJECTIVES

Learning objectives are stated at the beginning of each chapter. These learning objectives serve as a preview of the information you are expected to learn in the chapter. By successfully completing the nonresident training course (NRTC), you indicate you have met the objectives and have learned the information. The learning objectives for chapter 1 are listed below.

Upon completion of this chapter, you should be able to do the following:

1. Identify the challenges to United States sea power.
 2. Describe the mission of the U.S. Navy in peacetime and wartime.
 3. Describe the importance of naval presence, sea control, and power projection in carrying out the Navy's mission.
 4. Recognize the various theaters of operations for U.S. naval forces.
 5. Recognize the purpose and importance of arms control in maintaining a balance of power between the United States and the Union of Soviet Socialist Republics (U.S.S.R.).
 6. Compare the naval forces of the United States and the U.S.S.R.
 7. Describe the cause and effect of chemical warfare in the Middle East.
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Today the two major military superpowers in the world are the United States of America and the Union of Soviet Socialist Republics (U.S.S.R.). Both countries have large navies. They use their navies to meet the national interest and political goals of their countries. This chapter will provide an overview of the U.S. and Soviet navies and the Third World countries having an impact on world stability.

CHALLENGES TO U.S. SEA POWER

The naval affairs of the United States began with the war for independence, the American Revolution. On 13 October 1775 Congress passed legislation to purchase and arm two ships. This

legislation created, in effect, the Continental navy. Congress authorized two battalions of Marines on 10 November 1775. From these humble beginnings we have become a force of over 500,000 personnel and 500 ships capable of global power projection on a moment's notice.

NAVAL PRESENCE

Almost every U.S. sailor has experienced some type of major deployment. In the past several years, most deployments have been to areas of the world in which hostilities were in progress. Naval presence, by simple definition, is having a naval force in a specific location. We have been called on countless times in the past years to "show the flag." Deployments place naval forces

in positions to achieve three purposes. First, forces can engage the enemy promptly at the start of hostilities. Second, they can provide protection and support to friendly, allied, and U.S. forces in time of war. Third, they can stop the advance of the enemy as soon as possible. However, the positioning of these naval forces for warfare in sensitive areas of the world also provides a side benefit known as presence. Because of the international character of the high seas, deployed U.S. forces have a unique ability to make U.S. military presence known in a time of crisis. The United States can modify that presence to exert the degree and type of influence best suited to resolve the situation.

A show of force by U.S. naval warships can restore stability to a friendly nation that is unable to control a hostile situation. The U.S. fleet can remain out of sight, over the horizon, ready to respond in a matter of minutes to any crisis. Naval presence can be visible or invisible, large or small, forceful or peaceful, depending on what best suits U.S. interests.

Naval forces can remain in a crisis area for indefinite periods to communicate their capability for action. Ground and air forces can duplicate that capability only by landing or entering the sovereign air space of another nation.

We cannot consider the effectiveness of our naval presence separately from our warfare capability. To encourage friends, deter enemies, or influence neutrals, forces deployed to crisis areas must possess a fighting capability.

Our naval presence must also reflect the degree of U.S. interests in the area relative to the number of naval forces in the area. To be effective in the presence role, U.S. naval forces must reflect a ready combat capability to carry out their mission against ANY implied threat.

THE NAVY'S WARTIME MISSION

Should the United States fail in its peacetime efforts, the Navy must shift from a peacetime to a wartime posture. In its wartime posture, the Navy has two areas of responsibility. It must be able to function in a hostile environment, and it must be able to exercise sea control and power projection. Sea control and power projection are

essential to our use of the seas to support our national policies. The concepts of sea control and power projection are closely interrelated. A naval force must have some degree of sea control in the sea areas from which it is to project power, depending on the type of force to be used. However, a naval force must have the capability to project power before it can realize any degree of sea control.

Sea Control

Sea control is the basic function of the U.S. Navy. It involves control of designated air, surface, and subsurface areas. Sea control is of crucial importance to the U.S. strategy of using both oceans as barriers for defense and as avenues to extend our influence overseas. It does not imply simultaneous control over all 70 percent of the earth covered by international waters; it is a selective function, exercised only when and where necessary. Because of new technology developed in the United States and in other countries, total control of the seas for our use and the denial of the seas for the enemy's use are impossible. With continuing technological developments, such as the strategic defense initiative, total sea control is expected to become even more difficult.

Sea control assures the buildup and resupply of allied forces and the free flow of needed supplies. Sea control also enhances security for the nation's sea-based strategic deterrent.

We must have sea control to conduct sustained U.S. Army and U.S. Air Force operations abroad. Modern land warfare requires large quantities of supplies; most of them must be supplied by sea.

We maintain sea control by destroying or neutralizing hostile forces in maritime areas the United States must use. Hostile forces include aircraft, surface ships, and submarines that threaten U.S. or friendly forces operating in those areas.

The Navy achieves or supports sea control through the following operations:

1. Locating and destroying hostile naval combat units

2. Using geographic choke points to prevent enemy access to open oceans or specific areas
3. Clearing sea areas by using escorts to surround ships in transit, such as military or commercial convoys and amphibious or support forces
4. Using mines in areas such as harbor entrances and choke points

Carrier forces and Marine amphibious forces can project military power to ensure control of the high seas and the continued safe use of land areas essential to sea control. That entails destruction of enemy naval forces at their home bases or en route to those ocean areas the United States desires to protect. Power projection also includes destroying the supply lines of the enemy and preventing enemy forces from advancing within range to use their weapons against U.S. forces.

Power Projection

Power projection is the ability to project military power from the sea worldwide in a timely and precise manner to accomplish a given objective. Naval power projection, as an independent mission, is a means of supporting land or air campaigns. An essential element of power projection is the Navy's amphibious ships that carry U.S. ground forces to enemy shores.

Power projection covers a broad spectrum of offensive naval operations. These operations include nuclear response by fleet ballistic missile submarines and use of carrier-based aircraft and amphibious assault forces. They also include naval bombardment of enemy targets ashore in support of air or land campaigns.

Naval forces have unrestricted global mobility based on the traditional and time-honored concept of the free use of international seas. In many cases, naval forces can perform assigned missions while remaining beyond the range of the local enemy threat. The mobility of naval forces seriously complicates the enemy's detection and targeting capability. Mobility also permits the concentration of naval forces and the element of surprise.

Another major advantage of a naval force is that it can begin combat operations immediately upon reaching a crisis location. Land or air forces often require the construction of staging areas before they can begin combat operations. That is especially true when the conflict takes place in a remote location and when facilities needed for combat are unavailable. The United States is diminishing its military base structure overseas. Therefore, the ability of naval forces to arrive in an area fully prepared to conduct sustained combat operations has taken on added importance.

THEATERS OF OPERATIONS

The Soviet Union confines its power projection (fig. 1-1) to areas close to the Soviet Union with one exception. Soviet fleet ballistic missile submarines (nuclear propulsion) (SSBNs) patrol the sea area off the east coast of the United States.

The traditional U.S. Navy theaters of operations include Europe, the Middle East, Africa, the Far East, and the Americas. The continuing economic and political changes in those areas now and in the future will have an impact on the Navy's mission and goals.

Europe

With the fall of the Berlin Wall and the reunification of Germany, Europe has changed. Many of the old boundary lines that separated east and west have been removed, which has made travel between countries easier. Since the outcome of the changes in Europe is difficult to predict, let's look at some trends that have taken place over the last few years.

As the Warsaw Pact navies have been growing smaller, North Atlantic Treaty Organization (NATO) naval forces have been maintaining their size. NATO naval forces have also significantly upgraded their antisubmarine warfare, antisurface warfare, and air defense capability. The German navy replaced its F-104s with the Tornado and upgraded NATO's defense capability of the Baltic approaches. U.S. Navy and Marine upgrades include the F/A-18, F-14D, and AV-8B. The United States upgrade provides Supreme Allied Commander, Atlantic (SACLANT), with more offensive and defensive capability in the Norwegian and Mediterranean Seas.

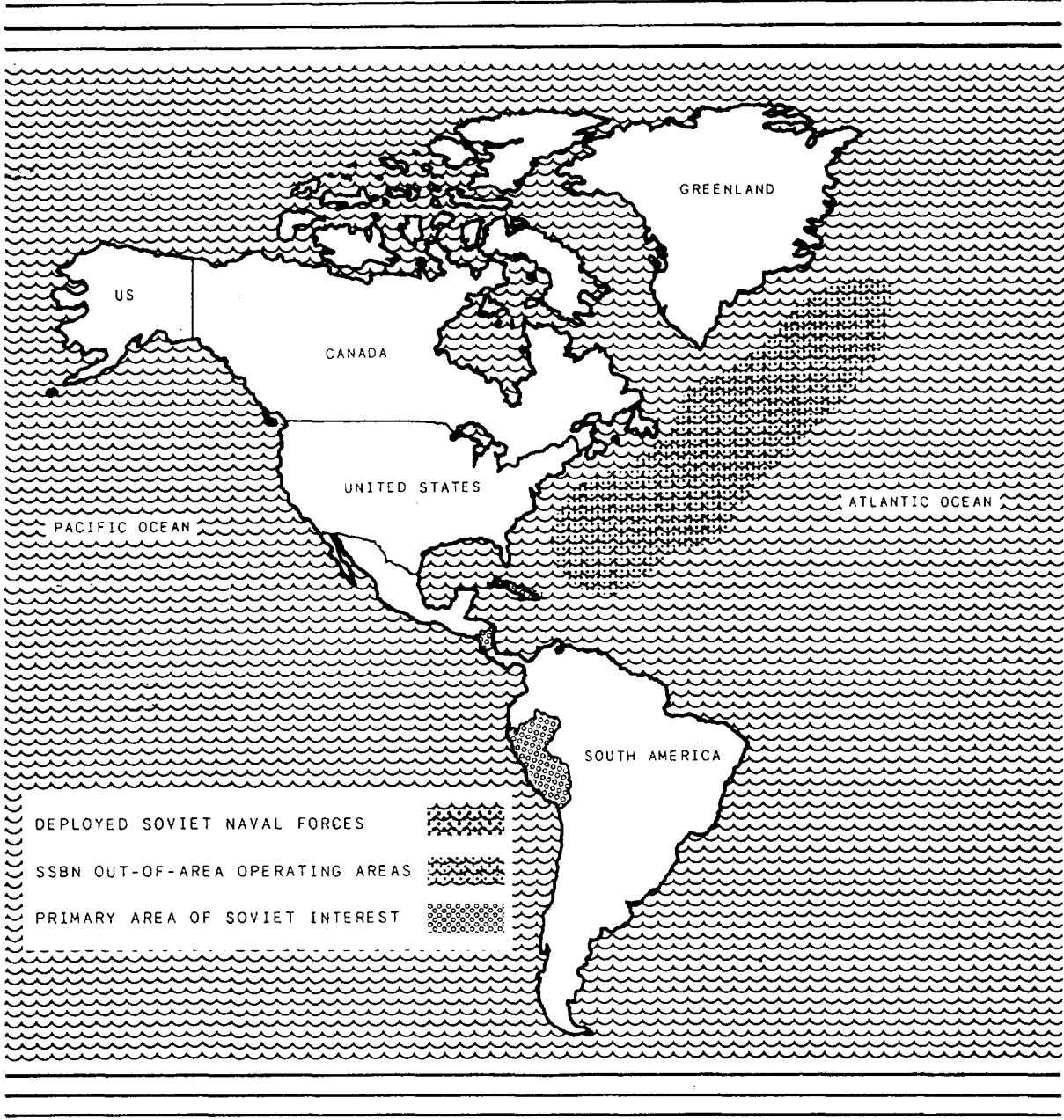


Figure 1-1 .Soviet global power projection.

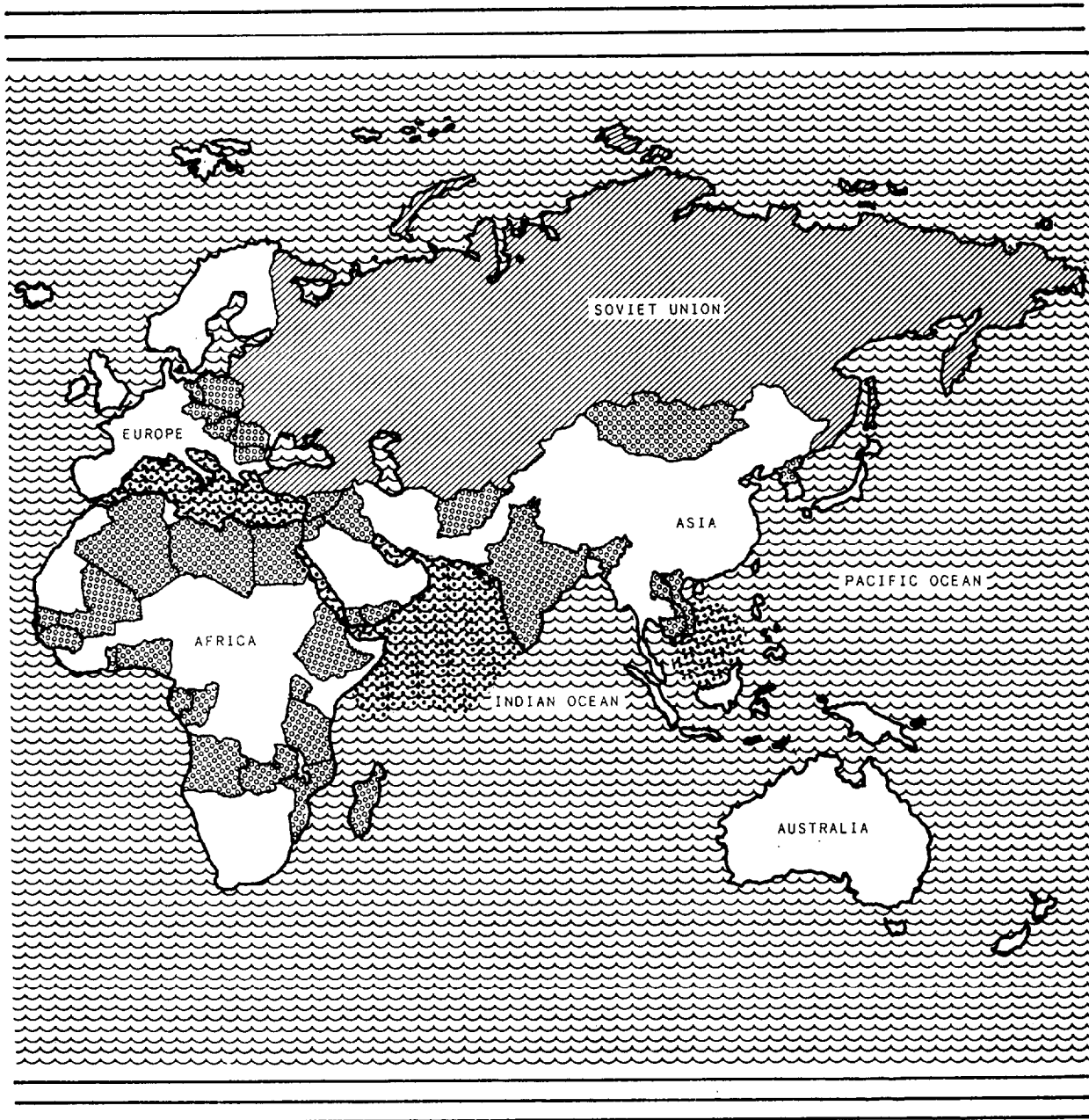
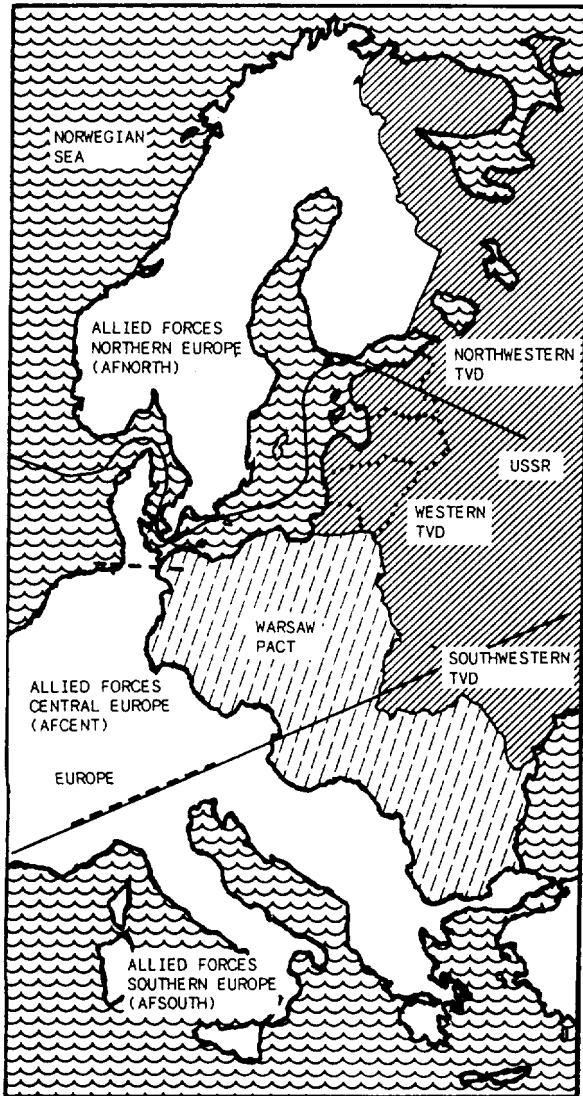


Figure 1-1.-Soviet global power projection-Continued.



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Figure 1-2.-NATO regions and Soviet theaters of operations.

NATO is divided into three areas of responsibilities: Allied Forces Northern Europe (AFNORTH), Allied Forces Central Europe (AFCENT), and Allied Forces Southern Europe (AFSOUTH) (fig. 1-2). The opposing Soviet forces are also divided into three areas of responsibility called theaters of operations (TVD). They are the Northwestern TVD, Western TVD, and Southern TVD.

The Warsaw Pact

Soviet President Mikhail Gorbachev has been, and plans to continue, making force cuts in

anticipation of future arms control talks. Although the Soviets may increase future withdrawals of troops from the European theater, they still have an impressive reserve and mobilization capacity. The Soviets are reducing their total force numbers and using the best of their excess equipment to modernize their remaining forces.

The Soviets have taken on a long-range strategic nuclear modernization program to comply with strategic arms reduction treaty constraints expected in the future. The Soviets are replacing their large, out-of-date missiles with newer, more efficient and accurate missile systems. The Soviets will continue to upgrade their land- and sea-based ballistic missiles and bombers.

As a whole, the Soviet Union is the maritime power (refer to figure 1-3 for assignment of Soviet forces) of the Warsaw Pact countries. The U.S. Navy's role in combating that threat is to limit the Soviet Northern and Black Sea Fleets in their ability to deploy. Surface ships and submarines stationed at Severodvinsk must transit the Barents Straits and one of three other choke points to enter the Atlantic Ocean. The Greenland-Iceland gap is the northern choke point, the Iceland-England gap is the middle choke point, and the Danish Strait is the southern choke point. These three choke points are the United States' and NATO's last line of containment for the Northern Fleet.

The Black Sea Fleet in Sevastopol will be much easier to contain in the event of hostilities. To enter the Atlantic Ocean, the Black Sea Fleet must transit the Turkish Straits. Turkey, a NATO member and ally of the United States, could contain the Black Sea Fleet by sinking a ship in the Turkish Straits.

Soviet ships on station in the Mediterranean must transit either the Strait of Gibraltar or the Suez Canal to enter open water. U.S. allies bordering both choke points makes containment of Soviet ships in the Mediterranean Sea far less difficult than restricting the Northern Fleet.

When evaluating the Soviet naval force and the challenge it presents, we would be wise to ask, What is the primary mission of the Soviet navy? Until 1953 we viewed support of land-based forces vice worldwide power projection as the primary mission of the Soviet Navy. Since 1953 the Soviets have been developing their navy into a force capable of worldwide power projection. The Soviets want the world to view their primary mission as worldwide power projection, when it is really the support of land-based forces. The Soviets have two basic problems in projecting that image. First, they have a shortage of maritime air

PACIFIC OCEAN FLEET		BLACK SEA FLEET	
VERTICAL/SHORT TAKE OFF AND LANDING (V/STOL) AIRCRAFT CARRIERS	2	V/STOL AIRCRAFT CARRIERS	0
LARGER PRINCIPAL SURFACE COMBATANTS	33	LARGER PRINCIPAL SURFACE COMBATANTS	32
SMALLER FRIGATES AND CORVETTES	34	SMALLER FRIGATES AND CORVETTES	33
MINE COUNTERMEASURES (MCM) SHIPS	26	MCM SHIPS	26
ASW/ASUW PATROL COMBATANTS	30	ASW/ASUW PATROL COMBATANTS	27
AMPHIBIOUS WARFARE SHIPS	19	AMPHIBIOUS WARFARE SHIPS	14
BALLISTIC MISSILE SUBMARINES	26	BALLISTIC MISSILE SUBMARINES	0
ATTACK SUBMARINES	83	ATTACK SUBMARINES	23
OTHER SUBMARINES	9	OTHER SUBMARINES	6
NAVAL AVIATION	480	NAVAL AVIATION	245
BALTIC FLEET		CASPIAN FLOTILLA	
V/STOL AIRCRAFT CARRIERS	0	V/STOL AIRCRAFT CARRIERS	0
LARGER PRINCIPAL SURFACE COMBATANTS	22	LARGER PRINCIPAL SURFACE COMBATANTS	0
SMALLER FRIGATES AND CORVETTES	25	SMALLER FRIGATES AND CORVETTES	5
MCM SHIPS	24	MCM SHIPS	11
ASW/ASUW PATROL COMBATANTS	40	ASW/ASUW PATROL COMBATANTS	2
AMPHIBIOUS WARFARE SHIPS	22	AMPHIBIOUS WARFARE SHIPS	15
BALLISTIC MISSILE SUBMARINES	4	BALLISTIC MISSILE SUBMARINES	0
ATTACK SUBMARINES	32	ATTACK SUBMARINES	0
OTHER SUBMARINES	1	OTHER SUBMARINES	0
NAVAL AVIATION	220	NAVAL AVIATION	0
NORTHERN FLEET		TOTAL SOVIET NAVAL FORCES	
V/STOL AIRCRAFT CARRIERS	2	V/STOL AIRCRAFT CARRIERS	4
LARGER PRINCIPAL SURFACE COMBATANTS	29	LARGER PRINCIPAL SURFACE COMBATANTS	122-126
SMALLER FRIGATES AND CORVETTES	34	SMALLER FRIGATES AND CORVETTES	131
MCM SHIPS	30	MCM SHIPS	114
ASW/ASUW PATROL COMBATANTS	20	ASW/ASUW PATROL COMBATANTS	119
AMPHIBIOUS WARFARE SHIPS	11	AMPHIBIOUS WARFARE SHIPS	81
BALLISTIC MISSILE SUBMARINES	39	BALLISTIC MISSILE SUBMARINES	69
ATTACK SUBMARINES	118	ATTACK SUBMARINES	261-263
OTHER SUBMARINES	18	OTHER SUBMARINES	34
NAVAL AVIATION	355	NAVAL AVIATION	1300
MEDITERRANEAN FLOTILLA			
LARGER PRINCIPAL SURFACE COMBATANTS	6-10		
ATTACK SUBMARINES	5-7		

Figure 1-3.-Assignment of Soviet naval forces.

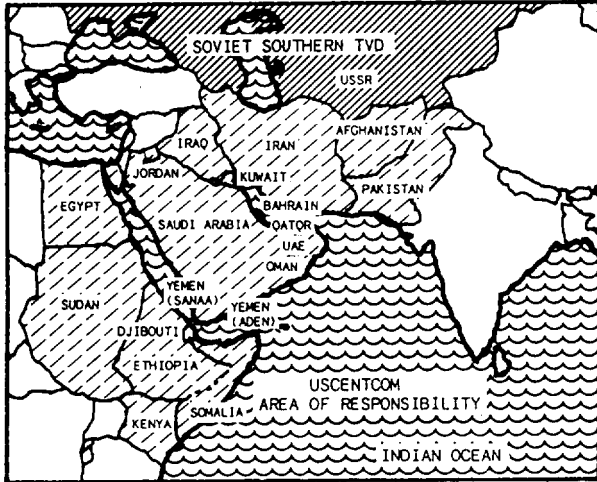


Figure 1-4. Middle East and Southwest Asia area of operation.

support when operating outside the range of land-base aircraft. Second, logistics support is generally supplied by their merchant fleet vice their navy.

Middle East and Southwest Asia

The Middle East and Southwest Asia (fig. 1-4) area of operation includes northeast Africa, the Arabian Peninsula, and the area of Asia bordering the Persian Gulf.

The large geographic area of the region provides for extremes of topography and climate. It has mountains higher than 24,000 feet and deserts below sea level. Temperatures range from 130°F or more to below freezing.

This region has many different cultural, ethnic, and religious groups. At present six major languages and hundreds of dialects are spoken in that region. The region and people have a history of conflict dating back to the Sumarians and the ancient city of Ur in southern Babylonia (southern Iraq).

CHOKES POINTS. —The Middle East and Southwest Asia are the principal sources of oil for the industrial countries. Located in the Persian Gulf region is 55 percent of the world's known oil reserves. Oil from this area becomes more important as the use of oil grows and the world's reserves decrease. Hostile countries could use the Strait of Gibraltar or the Suez Canal as choke points. That would disrupt international shipping between the Mediterranean Sea and the Indian

Ocean or between the oil-rich gulf states and the rest of the world.

About 10 percent of the world's sea trade passes through the Suez Canal at the choke point of Babel Mandeb. Most of the Persian Gulf oil passes through the choke point at the Strait of Hormuz. Persian Gulf states are expanding overland oil pipe routes to lessen the importance of commerce through the Straits of Hormuz. The overland oil pipes will connect to terminals outside the Persian Gulf.

POSSIBLE ADVERSARIES. —The United States' major goals in this region are to provide stability and unrestricted seaborne commerce and to ensure Western access to regional oil supplies. The United States also has strong ties to Israel and is committed to ensuring it remains strong and independent.

Recent examples of the willingness of the United States to commit assets to the region include ship escorts from 1987 to 1988 during the Iran-Iraq war. In August 1990 the United States committed a substantial naval force to the area in support of Operation Desert Shield and Desert Storm. The goal of these operations was to deter Iraq from attacking Saudi Arabia and to convince Iraq to withdraw from Kuwait. Total force commitment to Operation Desert Shield and Desert Storm included 6 carrier battle groups and 450,000 combat personnel.

CONTROL OF SHIPPING. —U.S. naval presence in the Middle East and Southwest Asia includes the Sixth Fleet in the Mediterranean Sea, naval units of the Sixth and Seventh Fleets in the Indian Ocean and Persian Gulf, and U.S. Central Command (USCENTCOM) forces. During peacetime our forces in the Mediterranean consist of 1 or 2 aircraft carriers, with roughly 100 embarked aircraft, or a battleship; supporting cruisers, destroyers, and frigates; amphibious ships; supply, fuel, and service ships; and nuclear submarines. The Sixth Fleet also includes a 2,000-member Marine Expeditionary Unit (special operations capable). USCENTCOM naval forces in the region, under Commander Middle East Forces, routinely include a command ship and four combatants. Additional forces available for USCENTCOM include 5 Army divisions and 2 brigades; 1 Marine Expeditionary Force (1 division and air wing); 21 Air Force tactical fighter squadrons; B-52 bombers; 3 carrier battle groups; 1 battleship surface action group; and 5 maritime patrol aircraft squadrons.

The routine standing force ensures international waterways remain open to shipping in the region and provides forward deployed U.S. forces during hostilities. The optional forces available to USCENTCOM are used in crisis situations. They were deployed in support of Operation Desert Shield when Iraq invaded Kuwait in August 1990.

Africa

Looking at the strategic importance of Africa, we need to divide Africa into northern Africa and southern Africa. From a naval viewpoint, northern Africa is important because it borders the Mediterranean Sea and the Red Sea. From an economic or strategic resources viewpoint, southern Africa is important because of the vast wealth in minerals it exports to developed countries.

NORTHERN AFRICA. —Countries receiving Soviet military aid in northern Africa include Guinea, Mali, Algeria, Libya, Egypt, and Ethiopia. Of those countries, only Libya has been openly hostile to the United States.

For many years Libya openly sponsored terrorist groups and carried out acts of aggression in the Gulf of Sidra. However, Libya has decreased its level of aggression since the U.S. Navy lead Operation El Dorado on 15 April 1986.

Operation El Dorado was a joint Air Force and Navy mission composed of strike aircraft based aboard the USS *America* (CV66) and USS *Coral Sea* (CV43) and F-111 Air Force bombers based in England. Using a high-speed, low-altitude approach, 12 Navy A-6Es struck the Benin airfield and Benghazi military barracks. At the same time, 12 F-111s struck the Aziziyah barracks, the Sidi Bilal terrorist training camp, and the Tripoli military airport. Navy and Marine F/A-18s destroyed surface-to-air missile sites, while Navy E-2Ds, Navy and Marine EA-6Bs, and Air Force F-11 1s provided electronic countermeasures and command and control support. Navy F-14s and F/A-18s were on station to provide fighter support.

The successful attack caught the Libyans by surprise. Except for sporadic surface-to-air missiles, the Libyans did not engage the U.S. strike force. The United States' display of force and stated willingness to strike again has played a major role in deterring Libyan President Muammar Muhammad al-Qaddafi from sponsoring further terrorist attacks against Americans.

The main mission of the Navy in the North African region is to keep the sea-lanes open. The secondary mission is to support interest and political goals in the region. The major challenger to U.S. sea power in the African theater of operations is the Soviet Union. Minor challengers include Libya (31-42 ships) and Guinea (2-3 ships).

SOUTHERN AFRICA. —The Soviets wish to increase their influence in southern Africa. Countries currently friendly to the Soviets include Tanzania, Mozambique, Zambia, Zimbabwe, Botswana, Angola, and Namibia.

STRATEGIC RESOURCES. —Africa is among the world's richest continents in known mineral wealth. It has a large share of the world's mineral resources in coal, petroleum, natural gas, uranium, radium, low-cost thorium, and other valuable ores.

The abundant natural resources available in Africa make it strategically important to Western nations. The Navy may now appear to have no role in this area except in the Mediterranean Sea and Red Sea. However, we may be called upon to support U.S. interest in the many regional conflicts happening in Africa. An example of one of the regional conflicts is the civil war in Liberia, on Africa's western coast. President Bush ordered a Marine amphibious group to that area in May 1990 to evacuate personnel. Through September 1990, the Marines evacuated more than 2,100 people, including over 200 U.S. citizens.

The Far East

Subic Bay Naval Base and Clark Air Base are strategically important to U.S. interests in the Far East. We could lose both bases because their leases must be periodically renegotiated with the Philippine government. These bases are on the sea-lanes and air routes to the Indian Ocean and the Persian Gulf. Both bases played a vital role in Operation Desert Shield. The bases also play a vital role in extending the range of U.S. forces. Much of the world's oil that travels by ship through the various straits in the Indonesian area are within range of U.S. bases in the Philippines.

The U.S. strategic objective in the East Asia and Pacific area is to deter war. Strategic strike capability, Pacific Command (PACOM) forces, bilateral defense treaties, forward deployment and basing, and weapons technology all contribute to deterrence in the region. If deterrence fails, the United States and the Soviet Union could become

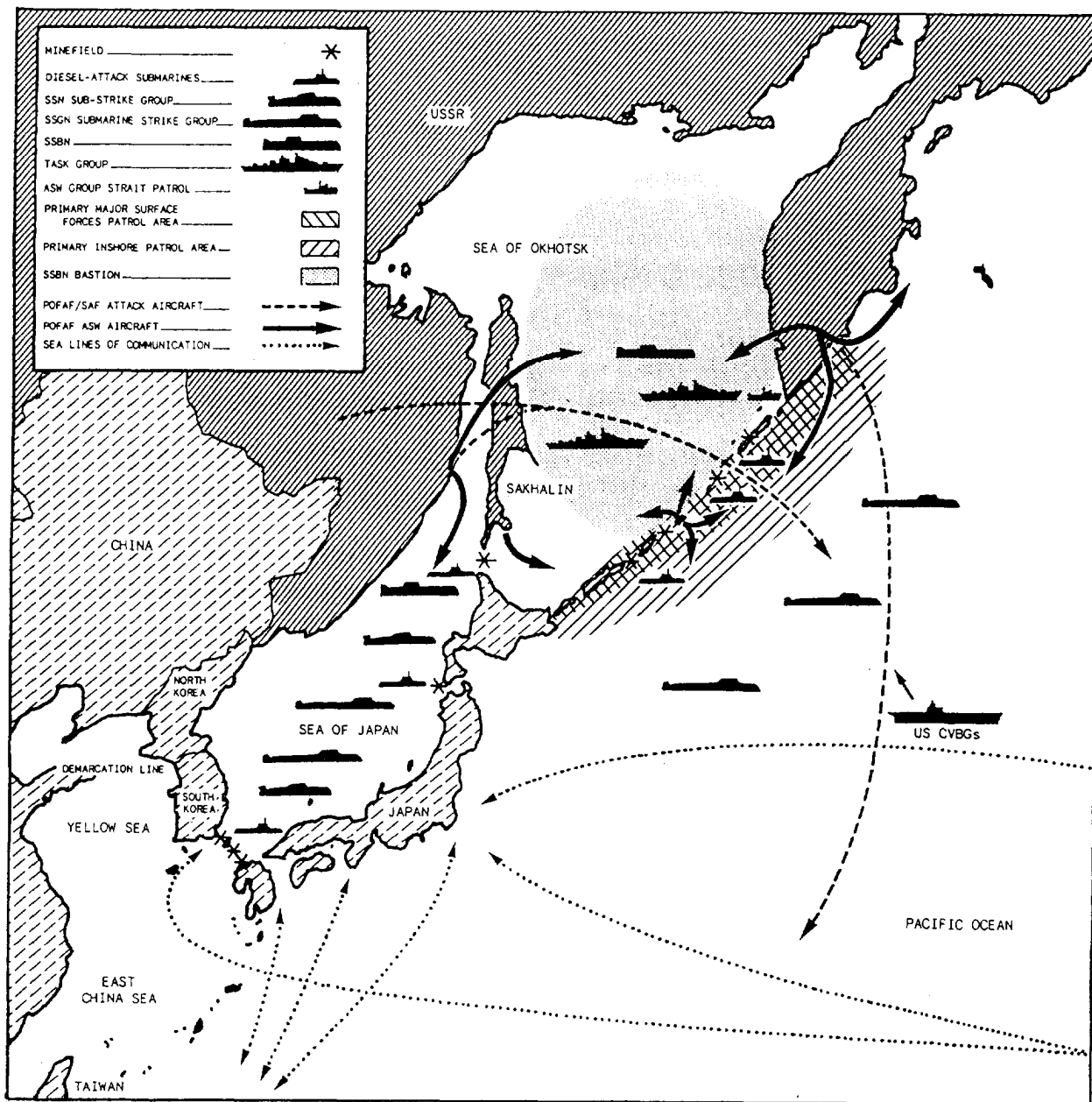


Figure 1-5.-Soviet operations in the Sea of Okhotsk and the Northwest Pacific.

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engaged in conflict, If that happens our mission will be to contain the Soviet Pacific Fleet in the Sea of Okhotsk and the Sea of Japan (fig. 1-5).

THE NUCLEAR THREAT

During the past the major nuclear powers have done a good job in managing the nuclear threat. However, newly emerging Third World countries

have engaged in an alarming trend of acquiring nuclear-capable ballistic missile systems. Saudi Arabia, Iraq, Iran, Pakistan, Libya, and other Middle Eastern countries are working hard to acquire nuclear capability. In contrast to the Third World countries, the United States, the NATO countries, and the Soviet Union are working to reduce the number of nuclear weapons in their arsenals.

Arms Control

The American quest for stability and the willingness of the Soviets to bargain have led to arms control negotiations. That is not a new effort. A history of arms control agreements exists between the two superpowers stretching back to 1959.

The first round of Strategic Arms Limitation Talks (SALT), concluded in 1972, produced the Antiballistic Missile (ABM) Treaty that severely restricts the deployment of ABM systems by either country. The SALT I also produced the Interim Agreement on Strategic Offensive Arms that placed limits on the number of strategic nuclear weapons. That agreement was to remain in effect for 5 years, but both countries pledged to abide by its provisions until further negotiations were concluded.

In 1974 both countries agreed to maintain an equal number of strategic delivery vehicles. Additionally, they agreed to sublimit the number of delivery vehicles they could equip with multiple independently targetable reentry vehicle (MIRV) warheads. Those agreements formed the basis for the SALT II agreement in 1979. SALT II continued the agreement of equal limits but lowered the level of limitation on strategic weapons delivery systems. That new agreement forced the Soviet Union to dismantle several hundred missile launchers. In addition, the SALT II agreement placed sublimits on MIRV ballistic missiles in general and on MIRV intercontinental ballistic missiles (ICBMs) in particular. A provision, which accompanies the basic treaty, imposes restraints on the development of new and more sophisticated weapons.

The United States sees arms control as an important complement to the strategy of deterrence. We are seeking to reach an agreement with the Soviet Union on a Strategic Arms Reduction Treaty (START). Our objective is to enhance strategic stability through equal and verifiable limitations on both sides. Despite some key differences on issues, we are confident an agreement can be reached.

In negotiations the United States will continue to try to limit American-Soviet competition in strategic nuclear forces. The United States will continue to pursue the basic objectives of strategic deterrence, adequate stability, and equivalence. That process began with the SALT I agreement and has progressed through the SALT II and START.

Present Posture

The Soviet navy could pose the greatest potential threat to the U.S. Navy. Realistically, however, small Third World navies now pose more of an actual threat to U.S. naval forces. Since the U.S. Navy is primarily prepared to engage the Soviet navy, we will compare U.S. and Soviet maritime missions.

The Soviet navy's primary mission is to be prepared to conduct strategic nuclear strikes from SSBNs operating in protected waters close to the Soviet Union. The key to carrying out that mission is strategic defense of seaward approaches to the Soviet Union. The Soviet navy, air force, and army will try to control the Soviet Union's peripheral seas and key land masses. The Soviets' aim in controlling these areas is to deny Western access to areas needed to threaten Soviet SSBNs. The Soviets usually create sea denial zones up to 2,000 kilometers from the Soviet mainland. The primary targets in the sea denial zones are sea-launched cruise-missile-equipped submarines, surface ships, and aircraft carriers.

Disruption of U.S. supply lines to Europe and Asia is another Soviet objective. The Soviets will attempt to interdict sea lines of communications (SLOC) and establish sea denial zones. During conflict the Soviets are expected to attack critical SLOCs that link the United States and its allies. The Soviet submarine force plays a primary role in the disruption of SLOCs.

The U.S. national security strategy is based on deterrence, forward defense, and collective security. Forward-deployed U.S. and allied combat ready naval forces can provide a visible deterrent to any country bordered by an ocean or a sea. These forces operate globally in support of bilateral and multilateral commitments and project military power in support of national policy and interest. U.S. naval forces have four primary peacetime objectives:

1. Defending the continental United States (CONUS) from attack
2. Assuring freedom of the seas and protecting important SLOCs from adversaries
3. Providing regional stability by supporting friends and deterring aggression
4. Functioning as a visible power projection force capable of responding to crises and low-intensity conflicts on short notice anywhere in the world

Should deterrence fail, the U.S. Navy's mission is the forward defense of the United States and its allies. The key objective is protection of SLOCs from the United States to Europe and Asia. To accomplish that objective, the U.S. Navy will engage Soviet naval forces in the Soviet "sea control" and "sea denial" zones. The overall objective of the engagement will be to remove the enemy's offensive and defensive capabilities and ensure freedom of the seas for the United States and its allies while deterring Soviet use of nuclear weapons at sea.

SUBMARINES. —The last U.S. diesel submarine, the USS *Blueback* (SS 581), was decommissioned on 1 October 1990. The remaining U.S. attack submarine force is composed of Sturgeon-, Skipjack-, Skate-, Permit-, and Los Angeles-class nuclear-powered submarines (SSNs). The United States SSBNs form the sea leg of the U.S. Trident nuclear deterrent. The SSBN force includes the Lafayette-, James Madison-, Benjamin Franklin-, and Ohio-class submarines (fig. 1-6).

The United States has a smaller, but more effective, submarine force than the Soviets because of a superior knowledge of submarine technology. That technology has resulted in superior submarine quieting systems, combat systems, and antisubmarine warfare (ASW) open ocean acoustic surveillance and detection systems. These systems enable the United States and its allies to maintain a superior technological and numerical advantage over the Soviet submarine force.

The principle Soviet platform for both offensive and defensive naval warfare is the submarine. The Soviets use the SSBN as their principle strategic platform. They use attack (SS and SSN) and cruise missile (SSGN) submarines to counter submarine and surface ship threats. The SS, SSN, and SSGN submarines are the primary threat to U.S. and allied sea lines of communications (SLOCs). The Soviet navy has the world's largest general-purpose submarine force, totaling about 300 active units. We expect the Soviets to decrease their submarine force in number during the 1990s and beyond. That decrease will occur as they replace older submarines with newer diesel and nuclear-powered submarines. The decrease in the total number of submarines will not lessen the threat of their submarine force because of improvements in design, stealth, and combat capability.

SURFACE SHIPS. —The Soviet Union and the U.S. naval surface forces have different missions (fig. 1-7). The Soviets are primarily a coastal navy emerging into a blue water fleet. The Soviets can provide only limited long-range power projection of surface forces or naval air superiority. These limitations result from their primary mission of providing protection to the mainland and defending the ballistic missile submarine force close to the mainland.

The principle weakness of the Soviet navy is its relative lack of priority in providing underway replenishment. The Soviets rely on their extensive merchant fleet to provide supplies to ships engaged in sustained long-range operations.

Another weakness of the Soviet surface navy is the lack of long-range air power like that provided by a U.S. carrier battle group. That situation will change somewhat as aircraft carriers now under construction are brought into service during the 1990s.

AIRCRAFT. —Soviet shipborne capable aircraft are primarily limited to helicopters and vertical/short takeoff and landing (V/STOL) aircraft. The Soviets are increasing their air capability with the introduction of the new Tbilisi-class aircraft carrier that will include the new Yak-41 V/STOL fighter and the Su-27 Flanker. Despite the introduction of that class of aircraft carrier, Soviet naval aviation (refer to table 1-1) will remain primarily a land-based force.

U.S. naval aviation (refer to table 1-2) is a versatile multimission force capable of providing fleet defense, ASW, and long-range strike and attack capability. The United States should continue to retain a significant advantage in seaborne air power for the foreseeable future.

CHEMICAL AND BIOLOGICAL WEAPONS

The increase of chemical and biological weapons has become a global problem. To date, more countries than ever have chemical and biological weapons. It is alarming that many of these countries are in areas of strategic importance to the United States. In the Middle East the problem is particularly acute.

Third World countries view the use of chemical and biological weapons differently than the United States. The United States' stance on chemical and biological weapons is "that it is abhorrent, reprehensible, and unacceptable that chemical weapons ever be used against the men

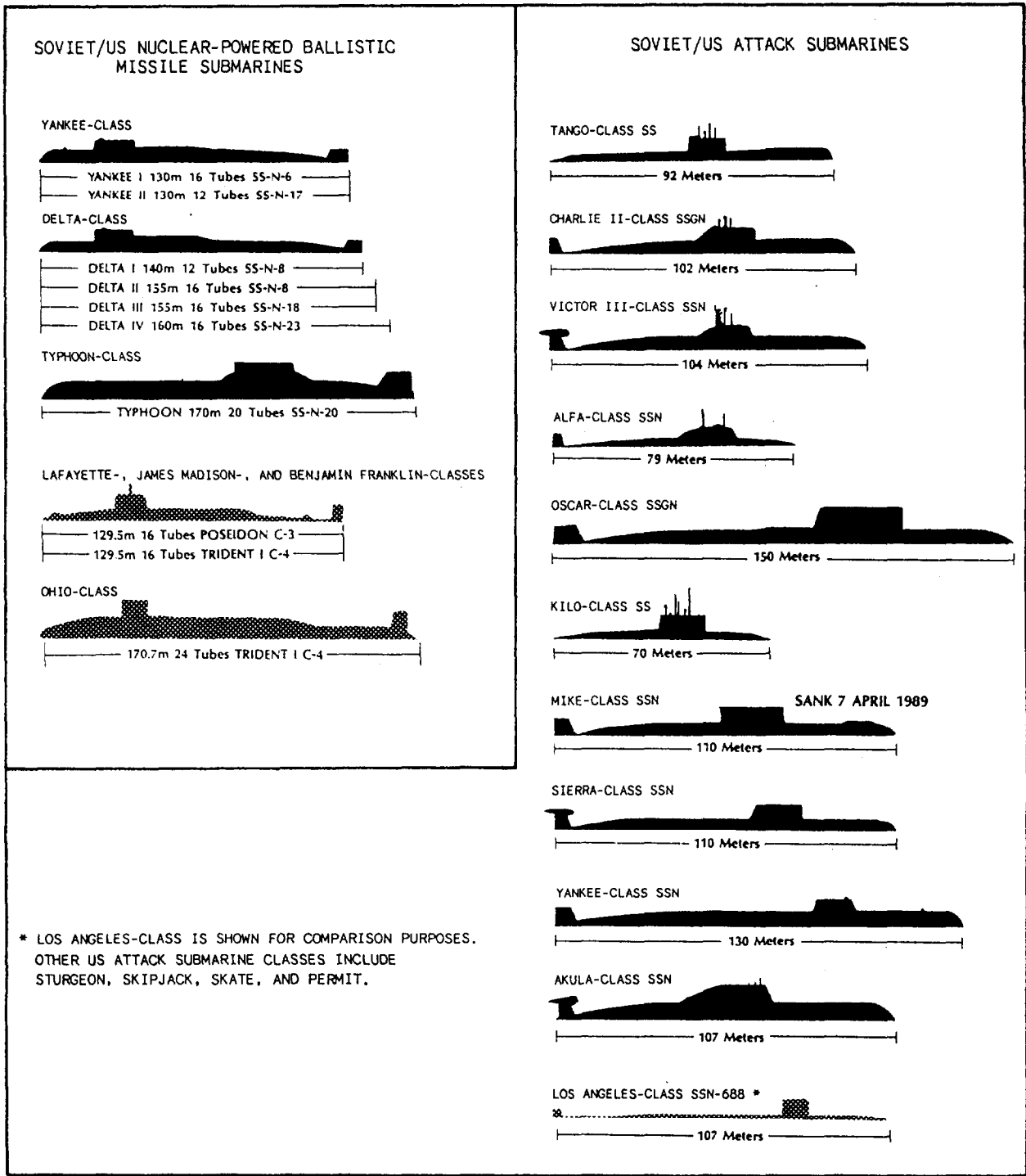


Figure 1-6. U.S. and Soviet submarine forces comparison.

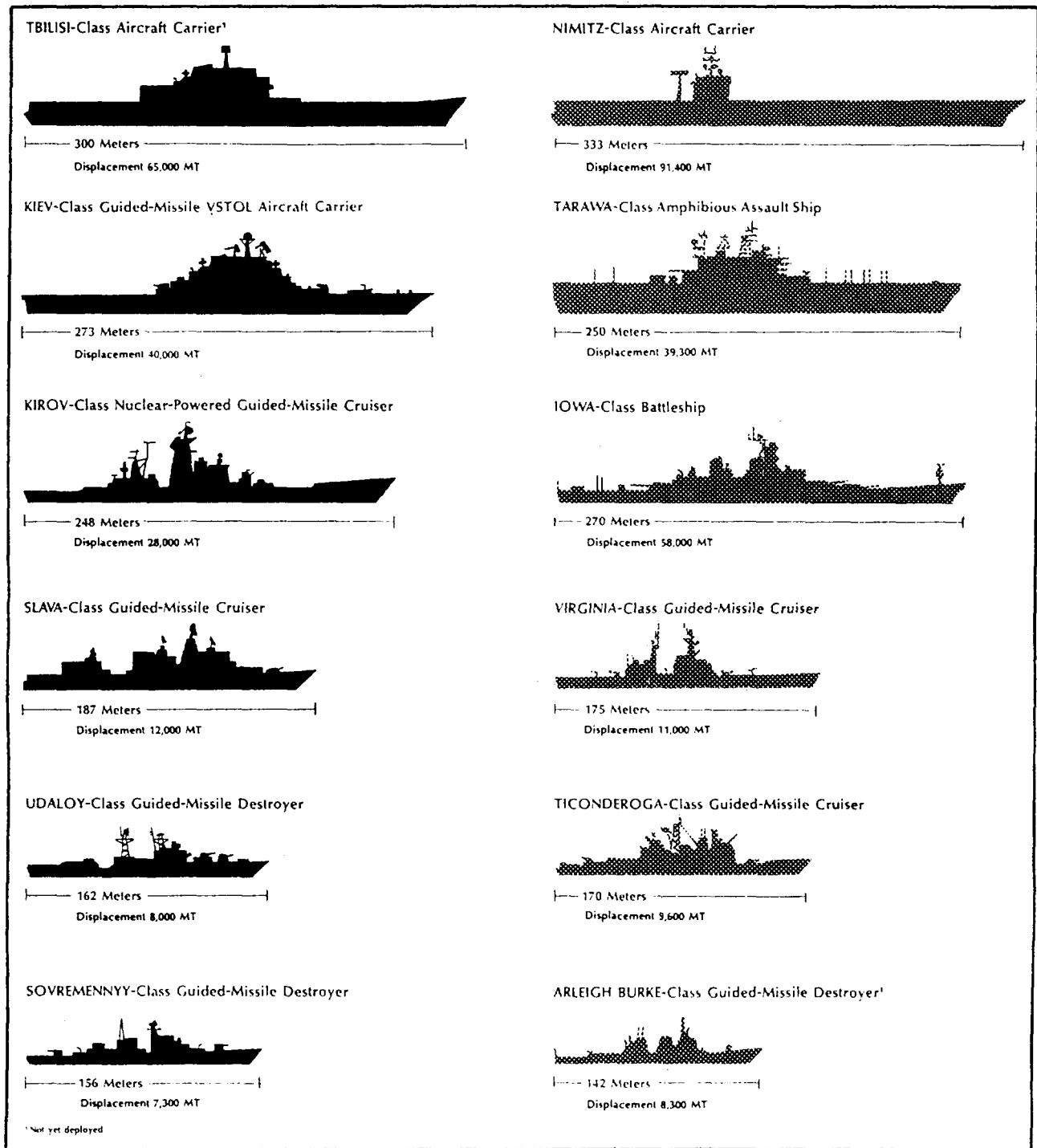


Figure 1-7.-Soviet Union and United States surface ship comparison.

Table 1-1.Soviet Naval Seaborne and Land-Based Aircraft

SOVIET NAVAL AIRCRAFT - Seaborne	
<u>TYPE</u>	<u>MISSION</u>
ka-25 Hormone*	ASW
ka-27/ka-29 Heli*	ASW
Mi-14BT Haze B*	Mine sweeping
MIG-29 Fulcrum	Fleet air defense
Su-27 Flanker	Fleet air defense
Yak-38 Forger Fighter	Attack
*Helicopter	
SOVIET NAVAL AIRCRAFT - Land-Based	
<u>TYPE</u>	<u>MISSION</u>
Mi-8 Hip*	Transport/assault/Electronic countermeasures (ECM)
Mi-14 PL/BT/PS Haze A/B*	ASW/assault
An-12 Cub	Intel/ECM
Be-12 Mail	Long-range ASW/Recon
Il-20 Coot A	Long-range Elint/Recon
Il-38 May	Long-range Recon/ASW
Su-17 Fitter C/D	Antiship/strike-support
Tu-16 Badger	Strike/attack/ECM/tanker/Recon
Tu-22 Binder	Recon/Intel/EW
Tu-22M Backfire B/C	Medium-range nuclear/conventional strike
Tu-95/Tu-142 Bear D/F/J	Long-range multimission
*Helicopter	

and women of the armed forces of the United States or its allies and that the United States will do all it can to prevent such use.” A statement made by the foreign minister of Syria is an example of the attitude of Third World countries. He said, “It is unacceptable, given continued Israeli occupation and the disequilibrium existing in our region, to adopt selective concepts and methods aimed at disarmament concerning only

Table 1-2.-U.S. Navy and Marine Corps Seaborne and Land-Based Aircraft

U.S. NAVAL AIRCRAFT - Seaborne	
<u>TYPE</u>	<u>MISSION</u>
UH-1N Twin Huey*	Support logistics**
AH-1J/T Sea Cobra*	Close support**
AH-1W Super Cobra*	Close support**
HH-46D/E, CH-46D/E, UH-46D/E*	Support/assault** /resupply
SH-2F Seasprite*	ASW
CH-53D Sea Stallion*	Assault/support/transport
CH-53E Super Stallion*	Transport **/support
SH-60B Seahawk*	Medium-range ASW
SH-3G/H Sea King*	Carrier battle group ASW/SAR
RH-53D Stallion*	Airborne mine countermeasures (AMCM)
MH-53E Sea Dragon*	AMCM
KA-6D Intruder Tanker	Tanker/Strike/Recon
A-6E Intruder	Strike/Recon
EA-6B Prowler	EW/Recon
E-2B/C Hawkeye	Air defense/strike op direction
F-14A/A Plus Tomcat	Fleet long-range air defense
S-3A Viking	ASW
S-3B Viking	ASW
A-4M Skyhawk	Strike**
F/A-18 Hornet	Strike
AV-8B Harrier II	Close support**
A-7E Corsair II	SAM suppression
*Helicopter	
**USMC	
U.S. NAVAL AIRCRAFT - Land-based	
<u>TYPE</u>	<u>MISSION</u>
B-52G Stratofortress#	Maritime support
KC-130F/R/T Hercules	Elint/TACAMO/tanker
EP-3E Orion	EW/Intel
P-3B/C Orion	ASW
E-6A Hermes/TACAMO	Communications
#Allocated to maritime support by USAF	

one kind of mass destruction weapon without taking into account the need of disarmament concerning other forms." Clearly, these countries consider chemical and biological weapons as an economical alternative to nuclear weapons. They are unwilling to talk of disarmament without linking chemical and biological weapons to nuclear weapons.

The rise of chemical and biological weapons in the Middle East has been linked to Israel and France. Israel and France were joint partners in a nuclear warhead development program from 1957 to 1959. France successfully tested a nuclear device in 1960. Israel used its connection with France to obtain a research reactor from France. Israel will neither confirm nor deny that it has nuclear weapons, but for many years Israel was thought to possess between 20 to 25 devices of 20-kiloton size. New evidence suggests that Israel has between 100 and 200 nuclear warheads and can produce thermonuclear devices. Israel also has weapons delivery systems in the form of aircraft, the Lance missile (mobile, 100-kilometer range), and the Jerico 2 missile (mobile, 1500-kilometer range).

In an attempt to decrease the number of nuclear weapons in the Middle East, countries in that region have conducted preemptive strikes on nuclear reactors. In September 1980 the Iranians led a strike against an Iraqi reactor at Osarik. The attack damaged the reactor but did not destroy it. The Israelis destroyed the Osarik reactor with an air strike in June 1981.

The chemical agent most likely to be used by countries desiring to produce chemical weapons is the nerve agent Tabun. (Refer to tables 1-3 and 1-4 for a description of chemical agents and defenses.)

Any country that has the capability of producing organophosphorus pesticides can easily produce Tabun. Other types of nerve agents are more difficult to produce, but could be done with help from industrialized countries. Countries in the Middle East with known or suspected chemical weapons capability include Israel, Egypt, Libya, Syria, Iran, and Iraq.

EMERGENCE OF THIRD WORLD COUNTRIES

Of the emerging Third World countries, Iran, Iraq, Libya, and Syria deserve a special look because of their past hostility toward the United States. More alarming than the past hostility towards the United States is the cavalier attitude

of the leaders of Iran, Iraq, and Libya in their use of chemical weapons.

Iran

Iran has been hostile toward the United States since radical, religious forces overthrew the government in 1979. Iran is an Islamic Republic with ties to the Soviet Union, from whom it buys many of its military weapons.

During the 8-year Iraq-Iran war, the United States supported Iraqi President Saddam Hussein in an attempt to topple the Iranian government. In a strange turn of events, the United States asked Iran for support of Operation Desert Shield.

Also during 1987 to 1988, U.S. warships ensured freedom of passage to tankers carrying oil through the Persian Gulf. U.S. forces engaged elements of the Iranian navy and attacked Iranian oil platforms in the Persian Gulf.

The Iranians have an arsenal of Soviet SS-1 (Scud-B) missiles and would like to develop their surface-to-surface missile capability. Iran wants to purchase the Chinese M-9 missile (600-kilometer range). The Iranians claim they can produce their own version of the SS-1. They have produced a version of the Chinese Type 53 artillery rocket, called the Oghab, that has a 40-kilometer range. Iran is also perfecting an unguided rocket called the Iran 130, which has a range of 130 kilometers. These missiles and rockets can be fitted with chemical warheads as well as conventional warheads. The United States believes Iran has a stockpile of mustard gas and phosgene and may be trying to obtain nerve gas.

Iraq

Iraq is a Soviet client state in the Middle East. From 1980 to 1990 Iraq built up its military until it became the sixth largest military power in the world. In August 1990 Iraq invaded Kuwait. The stated Iraqi reason for the invasion was a policy difference with Kuwait concerning the price and production quota of Kuwaiti oil. The United States intervened on behalf of Saudi Arabia to stop the Iraqi advance short of the Saudi oil fields.

Iraq is working to purchase the technology to build nuclear weapons. The customs agents of the United States and England have worked together to slow the Iraqi effort. They recently intercepted a shipment of electronic components, suitable for use in nuclear weapons, bound for Iraq.

Table 1-3. Properties of Chemical Agents

AGENTS	CHEMICAL AGENT SYMBOL	STATE AT 20°C	ODOR	RATE OF ACTION	PHYSIOLOGICAL ACTION	USE	PERSISTENCY
NERVE	Tabun GA	Colorless to brown liquid	Faintly fruity; none when pure	Very rapid	Cessation of breathing and death may follow.	Quick-action casualty agent	Depends upon munitions used and weather. Heavy splashed liquid persists 1 to 2 days under average weather conditions.
	Sarin GB	Colorless liquid	Almost none when pure	Very rapid	Cessation of breathing and death may follow.	Quick-action casualty agent	Evaporates at about the same rate as water. Depends upon munitions used and the weather.
	Soman GD	Colorless liquid	Fruity; camphor odor when pure	Very rapid	Cessation of breathing and death may follow.	Quick-action casualty agent	Depends upon munitions used and the weather. Heavily splashed liquid persists 1 to 2 days under average weather conditions.
	VX	Colorless liquid	Odorless	Rapid	Produces casualties when inhaled or absorbed.	Quick-action casualty agent	
BLISTER	Distilled mustard HD	Colorless to pale yellow liquid	Garlic	Delayed; hours to days	Blisters; destroys tissues; injures blood vessels.	Delayed-action casualty agent	Depends upon munition used and the weather. Heavily splashed liquid persists 1 to 2 days in concentrations to provide casualties of military significance under average weather conditions, and 1 week to several months under very cold conditions.
	Nitrogen mustard HN-1	Dark liquid	Fishy or musty	Skins effects delayed 12 hours or longer	Blisters; affects respiratory tract; destroys tissues; injures blood vessels.	Delayed-action casualty agent	Depends on munitions used and the weather. Somewhat shorter than duration of effectiveness for HD.
	Nitrogen mustard HN-2	Dark liquid	Soapy in low concentrations, fruity in high concentrations	Serious effects same for HD; minor effects sooner	Similar to HD. Broncho-pneumonia may occur after 24 hours.	Delayed-action casualty agent	
	Nitrogen mustard HN-3	Dark liquid	None if pure	Immediate effects on contact	Similar to HN-2.	Delayed-action casualty agent	Considerably longer than for HD.
	Phosgene oxide Dichloro- foroxime CX	Colorless solid or liquid	Sharp; penetrating	Rapid	Violently irritates mucous membranes of eyes and nose; forms welts rapidly.		Somewhat shorter than for HD. Very short duration under humid conditions.
	Lewisite L	Dry oily liquid	Variable may resemble geraniums	Prompt eye stinging; delayed blistering	Similar to HD plus may cause systemic poisoning.	Moderately delayed casualty agent	
	Mustard Lewisite mixture HL	Dark oily liquid	Garlic like	Immediate eye effect; skin effects 1/2 to 1 hour	Similar to HD plus may cause systemic poisoning.	Delayed-action casualty agent	Depends on munition used and the weather. Somewhat shorter than that of HD.
CHOKING	Phosgene CG	Colorless gas	New-mown hay; green corn	Immediate to 3 hours, depending upon concentration	Damages lungs.	Delayed-action casualty agent	Short, however, vapor may persist for some time in low places under calm or light winds and atmospheric conditions (Inversion).
	Diphosgene DP	Colorless liquid	New-mown hay; green corn	Immediate to 3 hours depending upon concentration	Damages lungs.	Delayed-action casualty agent	
	Chlorine CL	Yellow gas	Chlorine	Immediate	Damages lungs.	Quick-action casualty agent	
BLOOD	Cyanogen chloride CK	Colorless gas	Somewhat like AC	Rapid	Interferes with use of oxygen by body tissues.	Quick-actions casualty agent	Short, vapor may persist in jungle or forest for some time under suitable weather conditions.
	Hydrogen cyanide AC	Colorless gas or liquid	Bitter almonds	Very rapid	Interferes with use of oxygen by body tissues.	Quick-action casualty agent	Short; the agent is highly volatile and in the gaseous state it dissipates quickly in the air.

Table 1-4.—Defense against Chemical Agents

TYPE OF AGENT	U.S. AGENT EQUIVALENT	PHYSICAL CHARACTERISTICS	NORMAL MEANS OF DISSEMINATION	MEANS OF DETECTION	PROTECTION REQUIRED	PERSONNEL DECONTAMINATION	SYMPTOMS	SELF AID/ BUDDY-AID
NERVE	GA/Tabun GB/Sarin GD/Soman	Colorless.	Aerosol or vapor.	M256A1 and M256 Kits CWDD. CAM.	Protective mask and clothing.	None needed.	Difficult breathing convulsions, drooling, vomiting, dimmed vision.	Nerve agent antidote injection, i.e., 2-PAM Cl & atropine. Artificial respiration may be necessary.
	VX Thickened G-Agents		Liquid droplets.	All of the above plus M8 and M9 Paper.		Flush eyes with water Decontaminate skin with M258A1 Kit.		
BLISTER	HD/Mustard HN/Nitrogen L/Lewisite HL/Mustard-Lewisite CX/Phosgene Oxime	Pale yellow. Dark yellow. Dark, oily. Dark, oily. Colorless.	Liquid droplets.	M256A1 and M256 Kits. M8 and M9 Paper.	Protective mask and clothing.	Flush eyes with water. Decontaminate skin with M256A1 Kit.	HD & HN-No early symptoms. L & HL-searing of eyes & stinging of skin. CX-irritation of eyes & nose.	None.
	BLOOD	AC/Hydrogen Cyanide CK/Cyanogen Chloride	Vapor (Gas).	M256A1 and M256 Kits.	Protective mask.	None.	Incapacitates; kills if high concentration is inhaled.	None. Artificial respiration may be necessary.
CHOKING	CG/Phosgene	Colorless.	Vapor (Gas).	M256A1 and M256 Kits.	Protective mask.	None.	Damages and floods lungs.	None. For severe symptoms, avoid movement and keep warm.

The Iraqis have chemical weapons and have used them both inside their country and against Iran. Iran claimed to be victim to 253 chemical attacks during its war with Iraq. The United Nations investigated the Iranian claims and found evidence to confirm Iraq's widespread use of mustard gas and nerve agent GA (Tabun).

The Iraqis possess a stockpile of SS-1 (Scud-B) and Frog 7 missiles. They may also have the SS-12 missile, capable of carrying both nuclear and chemical warheads. The addition of the SS-12 missile has allowed Iraq to carry out long-range missile attacks against its enemies, including Israel. Iraq has developed two surface-to-surface missiles: the al-Husayn (650-kilometer range) and the al-Abos (900-kilometer range).

Libya

Libya openly sponsored terrorist attacks against U.S. military personnel in Europe. After the United States attacked Libya in response to a terrorist attack, terrorist attacks worldwide have decreased. Libya has not recently challenged the United States; however, it remains a threat because of its large chemical weapon capability.

Libya may have used chemical weapons against Chad in 1986. Libya has also drawn international attention over its efforts to secure nerve gas technology. German companies supplying Libya with technology unknowingly helped Libya develop its present chemical warfare capability.

Syria

Syria may be the United States' most formidable opponent in the Middle East because of its offensive chemical weapons capabilities. Syria is thought to own a wide range of chemical weapons including the nerve agent GB (Sarin).

The Syrian arsenal includes the Soviet SS-1, SS-12 (with warheads for chemical agents including nerve agent VX), and possibly the Chinese M-9 missiles.

SUMMARY

Over the last 200 years, the Navy has progressed from a small force of two ships to one of the largest navies in the world. The mission of the Navy includes naval presence, sea control, and power projection.

The Navy's traditional theaters of operations include Europe, the Middle East, Africa, the Far

East, and the Americas. These areas are changing, and the outcome of the changes could have an impact on the Navy's mission and goals.

The United States, NATO, and the Soviet Union have been negotiating treaties to reduce the amount of nuclear weapons they own. In contrast, many newly emerging Third World countries are trying to obtain the technology to produce chemical, biological, and nuclear weapons.

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