



**E. R. ZUMWALT, JR.**  
ADMIRAL, U. S. NAVY (RET.)

22 April 1985

The Honorable Bobbi Fiedler  
Congress of the United States  
House of Representatives  
1607 Longworth House Office Building  
Washington, D.C. 20515

Dear Congresswoman Fielder:

Recently I sent you a rebuttal of the testimony that RADM Gene LaRocque gave before your Committee. I am now forwarding to you an analysis of the inaccurate assertions of The Center for Defense Information in The Defense Monitor together with the accurate comments side by side.

Would it be possible to get this information disseminated in some way if it is too late to be included in the Hearing record?

All best wishes.

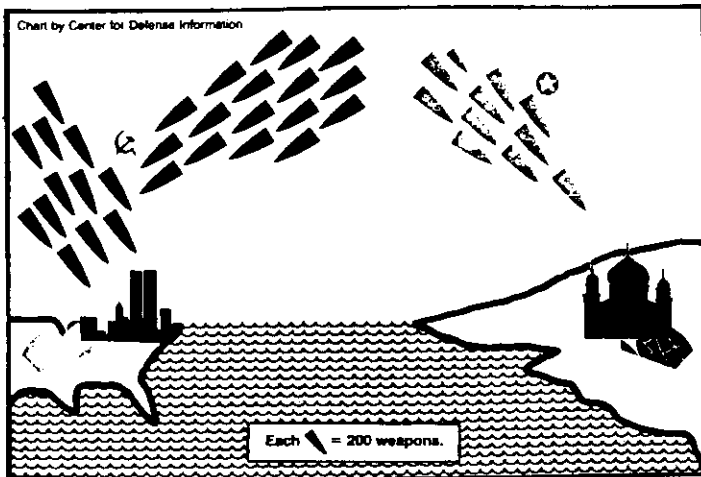
Sincerely,

E. R. Zumwalt, Jr.

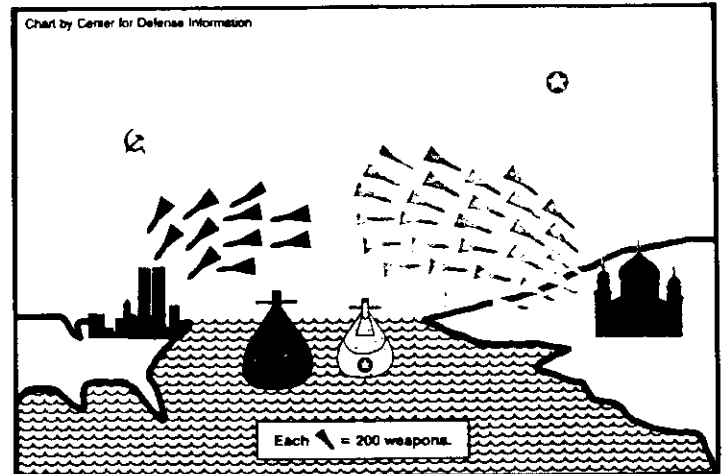
1500 Wilson Boulevard  
Arlington, Virginia 22209  
703/841-8960

Attachments

## Nuclear Weapons on Land-Based Missiles (ICBMs) U.S.S.R. 5800, U.S. 2100



## Nuclear Weapons on Strategic Submarines U.S.S.R. 2100, U.S. 5540



There will be no defense in this century, if ever. It makes no difference which side strikes first and which side retaliates. Both nations will be destroyed, utterly and completely. We are *mutually* inferior because there is no superiority in mutual destruction.



### Land-Based Missiles

- The number of Soviet intercontinental ballistic missiles (ICBMs) has declined. They have 1,398 now whereas nine years ago they had 1,600.
- The Soviets have larger missiles, with greater throw weight than U.S. missiles.
- U.S. weapons are smaller because they have miniaturized, computerized guidance packages, more efficient rocket engines, thinner but more effective heat shields, greater accuracy, and more compact, efficient hydrogen weapons.
- Ninety-five percent of Soviet missiles are old-fashioned, liquid-propelled ICBMs; they carry large nuclear weapons to compensate for inaccuracy.
- Overall, Soviet ICBMs are less reliable and less accurate than U.S. ICBMs.
- The Soviets are shifting gradually to more modern ICBMs, with smaller yield warheads—following

the U.S. lead.

- The U.S. has maintained a level of 1,000 Minuteman (MM) missiles, but has modernized them by replacing Minuteman I with MMII and MMIII. The U.S. also added 1,100 new weapons by MIRVing the Minuteman III, giving the United States a total of 2,100 nuclear weapons on land-based ICBMs.
- President Reagan ordered the dismantling of the Titan II missile. The thirty that now remain are not included in the 2,100 total since they will be phased out in the months ahead.
- The U.S. has completed hardening of Minuteman silos and installation of an improved guidance system which doubles accuracy.
- The U.S. has MIRVed 550 of its 1,000 MM ICBMs and has completed retrofitting 300 of these (900 nuclear weapons) with the MK12A warhead, doubling each weapon's explosive power and increasing lethality.
- U.S. solid fuel-propelled MM ICBMs can be launched against the Soviet Union well within the 30 minute time of flight of Soviet missiles. Therefore Soviet ICBMs launched against U.S. ICBMs might find only empty holes on arrival in the U.S. U.S. ICBMs constantly maintain a 98% alert rate. It is believed that the alert rate of liquid fueled Soviet ICBMs is much lower.
- It is possible to launch U.S.

ICBMs from airborne command posts should ground command centers be destroyed.



### Strategic Bombers

- The Soviet strategic bomber force of 170 planes still includes 100 old, slow, propeller aircraft.
- All 325 operational U.S. strategic bombers are modern high speed jet aircraft.
- Over 100 U.S. bombers are on continuous alert and would be airborne prior to Soviet missiles arriving on U.S. targets.
- In addition to strategic bombers,

### U.S. Nuclear Weapons: Most on Invulnerable Submarines

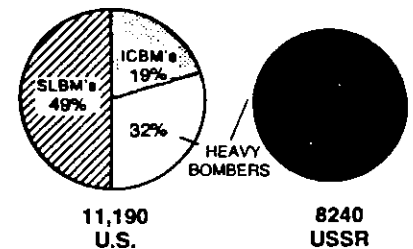
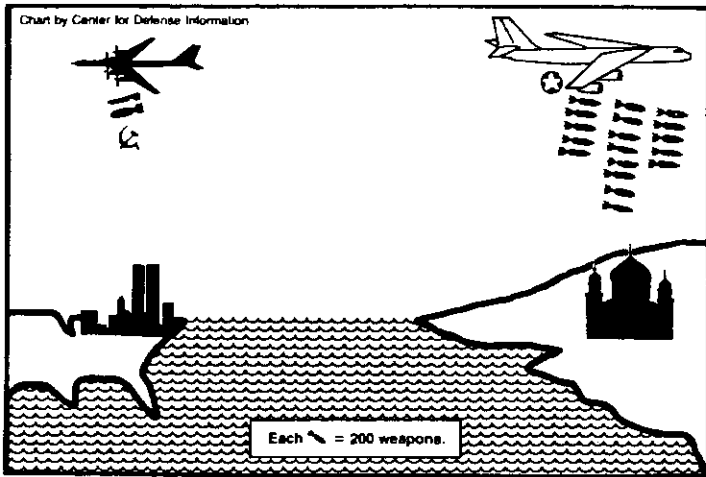


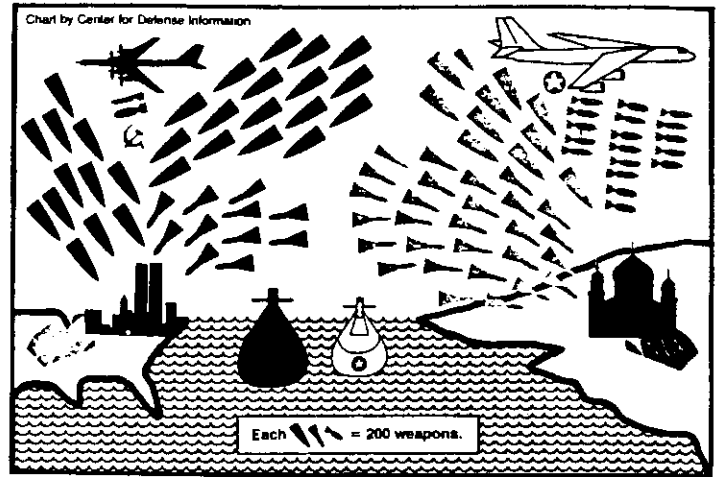
Chart updated from Pentagon Annual Report.

The U.S. has more nuclear weapons and a better mix of delivery vehicles—submarine launched ballistic missiles (SLBMs) and bombers are less vulnerable than ICBMs.

### Nuclear Weapons on Strategic Bombers U.S.S.R. 340, U.S. 3550



### Total Strategic Nuclear Weapons\* U.S.S.R. 8240, U.S. 11,190



the U.S. has over 400 strike aircraft which are equipped with nuclear weapons aboard its aircraft carriers.

- The U.S. will add over 3,000 nuclear-tipped air-launched cruise missiles over the next several years to enhance the destructive power of its strategic bomber force.

- One of the greatest advantages the U.S. has over the Soviet Union is its air refueling capability. The U.S. has over 600 KC-135 tankers to extend the ranges of its long-range bombers and other aircraft. The Soviets have 30 long-range tankers.

- The U.S. is further increasing its strategic mobility and air refueling capacity by buying new KC-10 tankers and re-engining 300 KC-135s.

#### Strategic Submarines

- The 62 Soviet ballistic missile submarines carry 936 missiles (with over 2,000 nuclear weapons) for war against the U.S., Western Europe and China.

- The Soviets maintain day and night more than 300 nuclear weapons at sea targeted against the U.S.

- The Soviets maintain a much smaller percentage of their strategic subs at sea than the U.S.

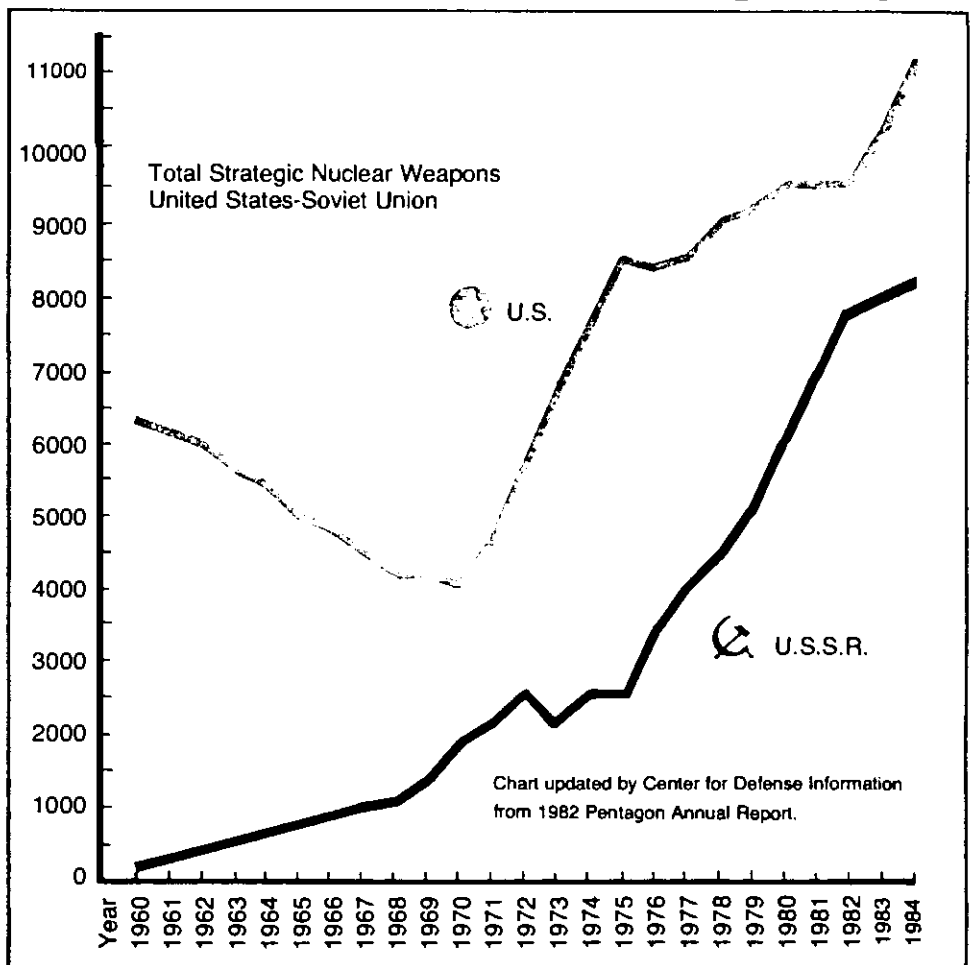
- The U.S. maintains nearly 60 percent of its 36 ballistic missile subs

at sea at all times (20 subs). This will be increased with the Trident's 65% patrol rate.

- The U.S. keeps 3,000 invulnerable nuclear weapons at sea to attack

\*Including other weapons, the U.S. can explode more than 13,000 nuclear weapons on the Soviets; they can explode about 8,500 on the U.S.

### U.S. Always Ahead of Soviets in Strategic Weapons



targets in the Soviet Union at all times.

- U.S. subs could conduct a protracted nuclear attack on Russia for over 3 months.

- "Just one of our relatively invulnerable Poseidon submarines—less than 2 percent of our total nuclear force of submarines, aircraft, and land-based missiles—carries enough warheads to destroy every large and medium-sized city in the Soviet Union. Our deterrent is overwhelming."

President Jimmy Carter  
January 23, 1979

- The U.S. has completed the retrofitting of Trident I missiles on 12 of 31 Poseidon subs. The weapons on these new missiles have 60% longer range, are 2½ times more powerful, and are more accurate than the weapons on the Poseidon missiles. The number of weapons on our 304 remaining Poseidon missiles is being selectively increased.

- Trident I missiles on 12 Poseidon and the first 8 Trident subs provide 3,000 new nuclear weapons for our strategic arsenal.

- Each Trident submarine, the first of which went on active patrol in October 1982, can carry enough weapons to target every Soviet city of over 100,000 people. The President's five-year plan calls for 16 Trident subs; the Navy wants 20-25.



### Theater Nuclear Forces

- The U.S. has about 6,000 nuclear weapons in Europe, plus others on ships and submarines.

- The U.S. has over 400 fighter bombers in Europe which can strike all Warsaw Pact nations with nuclear weapons.

- France and Great Britain have as many as 1,000 nuclear weapons of their own that can be exploded on the Soviet Union.

- 2,600 of the NATO and U.S. nuclear weapons in Europe can be exploded on the Soviet Union.

- The Soviet Union has been deploying SS-20 intermediate range missiles since 1977. It now has 378

### Where They Stand: Military Resources of NATO, Warsaw Pact and People's Republic of China

	NATO*	Warsaw Pact	China
<b>Population</b>	630 million	383 million	1 Billion
<b>GNP</b>	\$6,132 Billion	\$2,257 Billion	\$698 Billion
<b>Military Spending</b>	\$312 Billion	\$300 Billion	\$49 Billion
<b>Military Manpower</b>	5.9 million	4.7 million†	4 million
<b>Strategic Nuclear Weapons Total</b>	11,190	8,240	c. 200
<b>Nuclear Weapons</b>	26-31,000	18-23,000	200-300
<b>Tanks</b>	30,000	64,000	12,000
<b>Anti-Tank Weapons</b>	400,000+	Not Available	
<b>Other Armored Vehicles</b>	54,000	80,000	4,800
<b>Heavy Artillery</b>	24,000	48,000	16,700
<b>Combat Aircraft</b>	11,200	11,000	6,000
<b>Helicopters</b>	12,700	4,400	390
<b>Major Surface Warships</b>	477	314	44
<b>Attack Submarines</b>	241	299	106

\*NATO totals include France and Spain.

†Excludes border guards, internal security, railroad and construction troops.

Sources: NATO, ACDA, DOD, CIA, IJSS, CDI.

SS-20s with 3 warheads each (1,134 weapons) deployed. One-third of these face China.

- The Soviet Union also has 224 SS-4 medium-range missiles for a total of 602 MRBMs and IRBMs. This is about the same number of these types of missiles they had 10 years ago, though because the SS-20 is MIRVed they now carry more, but smaller, weapons.

- The Soviet MRBM/IRBM force has 1/3 less total megatonnage than it had in 1970.

- The U.S. has 108 medium-range Pershing Ia and Pershing II missiles based in West Germany. West Germany has 72 Pershing Ia missiles, but the U.S. retains custody of the nuclear warheads. France has 18 intermediate-range nuclear missiles of its own.

- The U.S., the U.S.S.R., France, and Britain all have a substantial number of nuclear weapons for combat in Europe. It is estimated that a combined total of over 15,000 weapons are available to fight a nuclear war in Europe.



### Verification Capabilities

- Both the U.S. and U.S.S.R. use a vast array of sophisticated and powerful intelligence gathering systems to survey each other regularly, thoroughly and accurately. These systems include photo-reconnaissance satellites, radars and other devices in space, on land, sea, and in the air, which monitor all aspects of weapon testing and deployments. U.S. satellites reportedly can photograph objects 6 inches or less in diameter. U.S. satellites also use infra-red scanning to monitor Soviet missiles.

- The Soviet Union is surrounded by U.S. monitoring stations.

- The U.S. does not depend only on the technical limits of satellite cameras. Electronic and computer techniques are also used to enhance the quality of pictures.

- Both civilian and military officials have repeatedly testified that the U.S. has the capability to adequately verify existing arms control treaties.

- The Soviet Union, the U.S., and Britain have agreed, in princi-

ple, on on-site inspection procedures to verify provisions of a comprehensive nuclear test ban.

**★ NATO/Warsaw Pact Comparisons**

- "It disappoints me to hear people talk about the overwhelming Soviet conventional military strength. We can defend the borders of Western Europe with what we have. I've never asked for a larger force. I do not think that conventional defense is anywhere near hopeless."

Gen. Frederick J. Kroesen  
Commander, U.S. Army-Europe  
March 1983

- The Warsaw Pact has 253 active divisions and NATO the equivalent of 143, including independent brigades. NATO divisions, however, are generally larger and more heavily armored. A U.S. armored division averages about 18,000 soldiers, 775 tanks and armored vehicles and 375 anti-tank missiles. An average Soviet tank division is comprised of 11,500 troops, 475 tanks and armored vehicles and 105 anti-tank missiles.

- A new official NATO estimate of NATO and Warsaw Pact forces actually available for combat in Europe gives the Pact 115 divisions and NATO 88 divisions. If French and Spanish forces are added, the two sides are nearly equal in Europe.

- NATO leads the Warsaw Pact in military spending, military manpower in uniform and total ground forces in Europe.

- "U.S. alliances are more reliable than those of the Soviet Union because they are built on mutual trust, common purpose, and strong commitment."

Joint Chiefs of Staff  
*Military Posture FY 1985*

- The Warsaw Pact has a better than 2-1 edge in total tank numbers but only a 1.62-1 advantage in main battle tanks in Europe.

- NATO has invested heavily in anti-tank weapons and leads the Warsaw Pact in both the quantity and quality of such weapons. NATO deploys over 50 varieties of anti-tank

weapons, a total of more than 400,000.

- NATO and the Warsaw Pact have approximately the same number of total combat aircraft.

- "U.S. tactical air forces retain a qualitative advantage over those of the Soviet Union in aircraft and weapons and, more importantly, in personnel and training."

Department of Defense  
*Soviet Military Power: 1984*

- The quality of NATO weapons and technologies, including computers, radar sensors, combat aircraft, cruise missiles and air-to-air missiles, exceeds that of the Warsaw Pact.

- "... the U.S. has maintained its lead in most of the basic technologies critical to defense..."

Richard D. DeLauer  
Undersecretary of Defense for  
Research & Engineering,  
February 1984

- "NATO forces are well trained and, given the full range of capabilities at their disposal, are capable of presenting a credible defense of Alliance territory."

1982 NATO Report



**Naval Comparisons**

- The U.S. and other NATO navies have twice the naval tonnage and several times the firepower of the

**"We Are the Threat"**

"We are the threat, not they. The submarines we have today are extraordinarily good. The Soviets have a paranoid fear of our attack submarines."

Admiral Kinnaird R. McKee  
March 15, 1984

**Every U.S. Trend Is Upward**

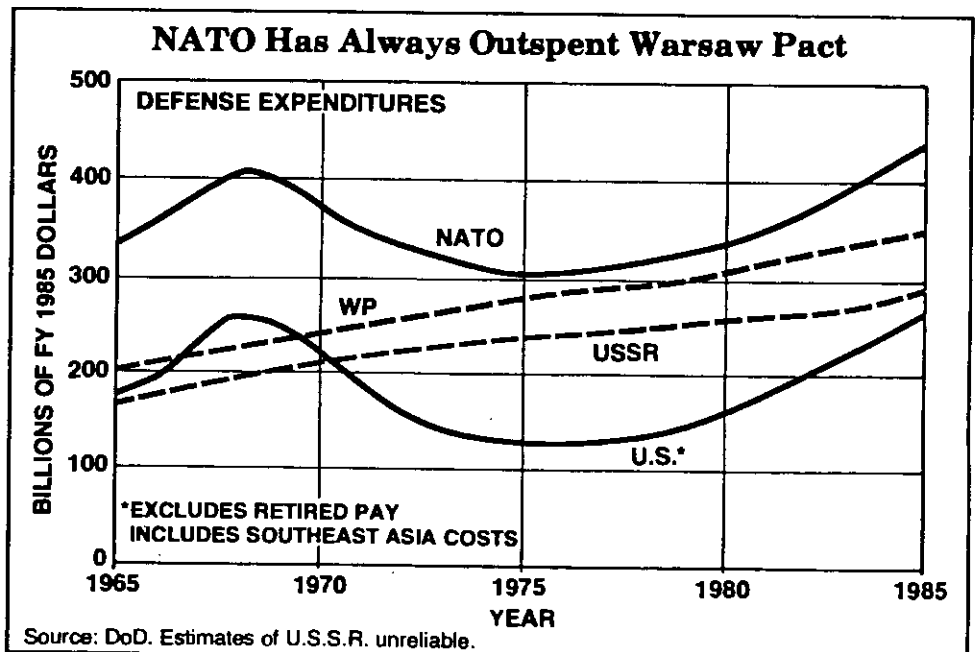
"I see every trend in my forces... going upward. We can match the Soviet increases in strength."

Admiral William Crowe  
Commander-in-chief  
U.S. Forces, Pacific  
December 21, 1983

combined Soviet and other Warsaw Pact navies.

- The Soviet Navy, which started far behind us, has been declining in size recently, not increasing. Soviet warship production has slowed. From 1980-82, the U.S. and its allies built 38 more warships displacing 230,000 more tons than the Soviet Union.

- NATO has 477 major surface combatants. The Warsaw Pact has 314. US warships spend twice as much time deployed in potential combat areas than do Soviet warships.



- The U.S. has 13 heavy aircraft carriers and our allies have 8 lighter carriers. The Soviets have no true aircraft carriers. They do have three Kiev-class ships which are more nearly comparable in size and aviation capabilities to the 12 U.S. amphibious assault ships.

- The U.S. Navy continues to be superior to the Soviet Navy in performance of critical missions such as strike, amphibious and anti-submarine warfare.

- The U.S. Navy has 561,700 personnel compared to 467,000 for the Soviet Navy.

- The U.S. has 195,300 marines; the Soviets only 14,500.

- The U.S. has 44 naval and 4 Marine bases around the world. The Soviet Navy has no bases outside Europe and regular access to limited naval facilities in only six countries.

- The Soviet Navy is divided into 4 widely dispersed fleets which must pass through narrow channels to reach the open ocean. The U.S. and its allies could close these channels using mines and numerous anti-submarine planes, ships and submarines.

- These factors lead Secretary of the Navy John Lehman to comment, "I am confident, as long as our principal maritime allies do not reduce

their capability, that we shall secure both flanks and the North Atlantic against the Soviets."

- "We have the upperhand today, in my opinion. The Air Force and the Navy in combination can do a significant job in Northeast Asia."

Admiral James Watkins  
Chief of Naval Operations  
March 1984

## \$

### Military Spending

- The Administration proposes spending 1.9 Trillion dollars over the next five years on the military. This means we will spend \$43 million every hour for the next five years. It will cost a total of more than \$20,000 for every taxpayer in America.

- The cost of new and often unnecessary weapons continues to escalate. The estimated cost for 87 major weapons systems is \$750 Billion.

- The U.S. and its NATO allies have outspent the Soviet/Warsaw Pact military forces for many years.

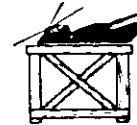
- The Administration's claim that the Soviets outspend the U.S. on military forces ignores the contribution of our military allies.

- Official estimates which compare U.S. and Soviet military spending use a C.I.A. methodology based

on costing out the Soviet military at U.S. prices. For example, the Soviets pay their soldiers less than 5 rubles (about \$8) per month. The U.S. pays its recruits more than \$500 per month. Yet, Soviet manpower costs are calculated at U.S. wages.

- Because the Soviets have twice as many soldiers as we do (the Soviets face twice as many NATO and Chinese troops as they have in their own forces), every one million dollars we put into pay increases for our troops shows up in U.S. estimates as a \$2 million increase in the Soviet budget.

- The CIA recently estimated that the average annual growth of Soviet military spending had slowed to only 2 percent a year since 1976. U.S. military spending has grown at a rate more than twice that over the same period.



### Weapons Exports

- During the past ten years, the United States sold or gave away \$150 Billion in weapons, military training and military construction to foreign nations.

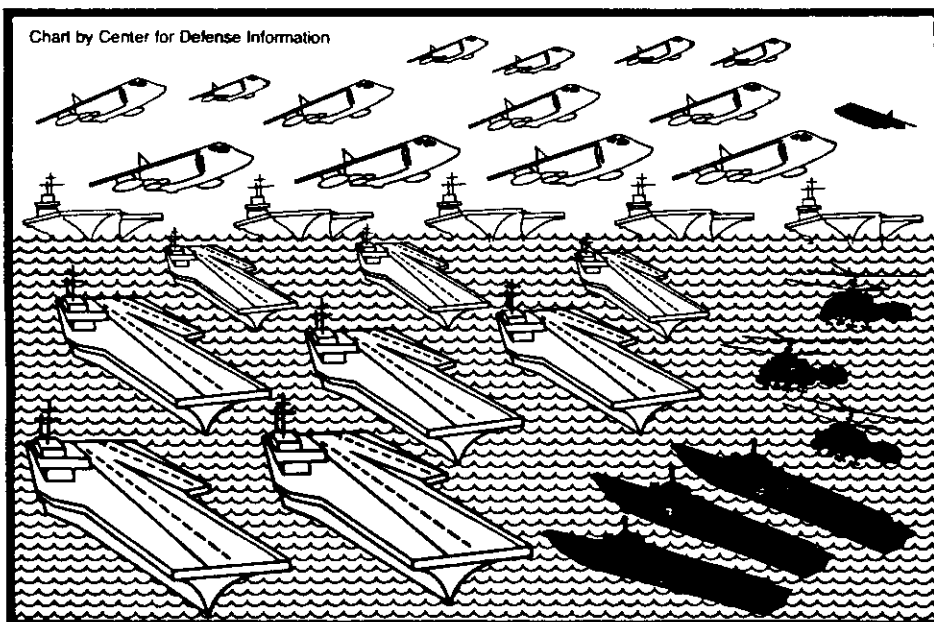
- American weapons export agreements worldwide in FY 1982 (President Reagan's first full fiscal year in office) totaled \$23.7 Billion, the highest export level for any nation ever. They declined to \$20.8 Billion in 1983.

- This year the United States will provide weapons and military training to more than 100 nations.

- According to present Administration predictions, during the four year period FY 1982-85 the United States will sell or give away more than \$85 Billion in weapons and military construction and training to foreign nations.

- Some of the biggest arms deals in the past few years include: 5 AWACS aircraft, 8 aerial refueling aircraft, Sidewinder missiles and fuel tanks for F-15 aircraft to Saudi Arabia (\$8.5 Billion); 160 F-16s to Turkey (\$4.2 Billion); 72 F/A-18s to Spain (\$3 Billion); 36 F-16s to South

## U.S.'s Overwhelming Naval Power: Aircraft Carriers and Naval Air



Korea (\$900 million); 75 F-16s to Israel (\$2.7 Billion); 40 F-16s to Pakistan (\$1.1 Billion).

- In 1983 the United States provided weapons and military training valued at \$3.2 Billion to 33 of the world's 50 military-dominated, repressive governments. The major recipients were Taiwan (\$784 million), Turkey (\$699 million), Lebanon (\$432 million), South Korea (\$409 million), Thailand (\$226 million), Pakistan (\$154 million), and El Salvador (\$103 million).

- In the late 1970s, the Soviet Union began to catch up to the United States as the leading supplier of weapons to the Third World. In 1980 and 1981 the U.S.S.R. for the first time surpassed the U.S. in both arms export agreements and deliveries to the Third World, but fell behind again in 1982 and 1983.

- Even in 1980 and 1981, the United States continued to be the leading supplier of weapons to the entire world, including developed nations.

- In 1982 and 1983, the United States signed \$24.4 Billion in arms agreements with the Third World, compared to \$16.7 Billion for the Soviet Union.

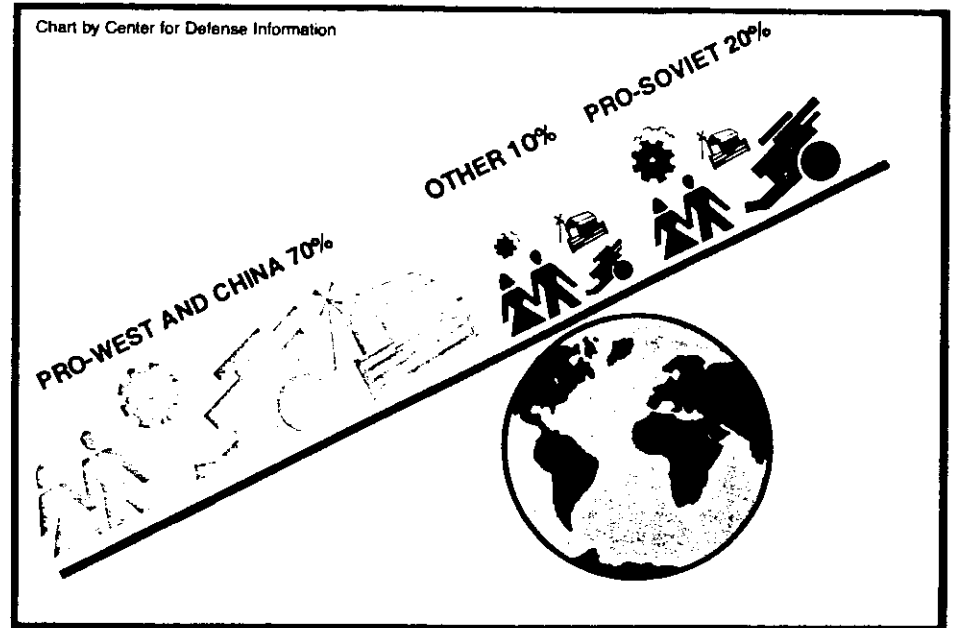
- U.S. arms shipments to Third World nations during the past decade include: more than 7,000 tanks and self-propelled guns; 13,600 armored personnel carriers; 8,300 artillery pieces; 350 combat ships; 5,000 combat aircraft; and 9,000 surface-to-air missiles.

- Soviet arms shipments to Third World nations during the past decade include: more than 14,000 tanks and self-propelled guns; 14,500 armored personnel carriers; 11,500 artillery pieces; 330 combat ships; 6,400 combat aircraft; and 26,000 surface-to-air missiles.

- The Soviet Union tends to ship larger quantities of older, less costly weapons than the United States and does not provide nearly as much military construction, training and other support services as the U.S.

- Non-communist nations supply far more weapons to the Third World than do communist nations—\$111

## Balance of World Power Favors U.S.



The Center for Defense Information, utilizing indexes of power developed by former C.I.A. official Ray Cline in his books on *World Power Trends*, has calculated this division of world power, based on demographic, geographic, economic, and military factors.

Billion versus \$68 Billion from 1979 to 1983.

- In 1983, non-communist nations accounted for 72% of arms agreements with the Third World, communist nations for 28%. The United States and the Soviet Union provided 39% and 17%, respectively.



### World Influence

- A comprehensive study of trends of Soviet world influence in 164 countries since World War II does not support perceptions of consistent Soviet advances and devastating U.S. setbacks.

- Outside Eastern Europe, Soviet influence has lacked staying power. Inability to accumulate influence in foreign countries over long periods is a dominant feature of Soviet world involvement.

- Starting from a very low base of political, economic and military involvement, the Soviets worked to increase their influence around the world. Starting with influence in 9% of the world's nations in 1945, they peaked at 14% in the late 1950's, and today have influence in 12% of the

world's nations. Of the 164 countries in the world today, the Soviets have significant influence in 19.

- The Soviets have been successful in gaining influence primarily among the world's poorest and most desperate countries.

- Soviet foreign involvement has to a large extent been shaped by indigenous conditions and the Soviets have been unable to command loyalty or obedience.

- Soviet setbacks in China, Indonesia, Egypt, India, and Iraq dwarf marginal Soviet advances in lesser countries.



### Race In Space

- "We are clearly ahead of the Soviets in overall space technology."

Dr. Robert Cooper

Director, Defense Advanced

Research Projects Agency, 1982

- Over the past ten years the Soviet Union has averaged 90 space launches per year. The United States has averaged 22 launches annually during the same period. Both countries, however, maintain about 110-120 operational satellites in orbit.

• This high Soviet launch rate indicates "a weakness rather than a strength," according to NASA Administrator James Beggs. "It means their satellites are less sophisticated than ours and require replacement more often. They don't have the life that ours do, and they are not multipurpose, as many of ours are."

• Since 1958 the U.S. has spent about \$165 Billion on space activities, peaking at 1% of GNP in 1966. Because the Soviets launch heavier hardware, according to the Congressional Research Service, "one could assume that their program is at least of the same magnitude as that of the United States at its former peak, and may be larger."

• "This not a numbers game; it is a capability game. We are just as capable as they are in most areas and much more capable in many others. We also spend our space money more

efficiently."

James Beggs

NASA Administrator, March 1984

• With its *Salyut* space station the Soviet Union has logged more man-days in space than has the United States. With its space shuttle the U.S. has the world's only reusable launch vehicle. The U.S. is now working on a space station and the Soviets on a space shuttle.

• The Soviet Union has conducted 20 tests of a rocket-launched co-orbital anti-satellite (ASAT) weapon, with only a 45% success rate overall. Their last test in June 1982 was a failure. In 1975 the U.S. dismantled its own rocket-launched ASAT and in 1984 began testing a far more capable air-launched, direct-ascent ASAT. The Soviet ASAT, says recently retired Air Force General Kelly Burke, "is not that good and not that intimidating."

### Force Level Calculator

**Who's ahead?** By simply sliding the "pull" card on CDI's colorful force level calculator you can quickly compare the strengths of NATO, the Warsaw Pact and China. Find out how our forces compare in the crucial measures of GNP, population, military budget, troops, total nuclear weapons, combat aircraft, tanks, anti-tank weapons, helicopters, submarines and major surface warships. The reverse side provides a similar comparison of U.S. and Soviet strengths.

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A PROJECT OF THE FUND FOR PEACE



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NON-PROFIT ORG.

An examination of

THE CENTER FOR DEFENSE INFORMATION'S

Fall 1984

presentation

of

THE U.S. - SOVIET MILITARY BALANCE

The assertions on the left are from The Defense Monitor, a publication of the Center for Defense Information. On the right are comments weighing their accuracy.

Assertion:

Comment:



### Total Nuclear Weapons

- The United States can explode more than 13,000 nuclear weapons on the Soviet Union; the Soviets can explode about 8,500 nuclear weapons on the United States.

- Of the 13,000 plus U.S. nuclear weapons capable of striking the Soviet Union, approximately 2,400 are on F-111s, F-4s, F-16s, A-6s, and A-7s and other "tactical" aircraft which could fly to the Soviet Union from Europe, Asia, or from aircraft carriers; over 11,000 are "strategic" nuclear weapons.

These figures are incorrect. The number of "SALT-accountable" strategic nuclear weapons on both sides (those actually deployed on launchers) is approximately 9,000-10,000. The total number of U.S. strategic nuclear weapons has remained relatively constant since 1974, while the Soviet total has jumped dramatically. Many Soviet theater nuclear weapons could be deployed to strike U.S. territory.

An inventory of the non-strategic nuclear forces (NSNF) on both sides shows a marked Soviet and Warsaw Pact superiority.

All U.S. NSNF are included in the U.S. total while all Soviet NSNF are not. Soviet nuclear forces targeted against our NATO allies are approximately three times as numerous and possess ten times the throwweight of all NATO non-strategic nuclear systems combined. Ignoring Soviet NSNF in the totals but including U.S. NSNF undermines Article 5 of the NATO Treaty which stipulates that "an armed attack against one... shall be considered an armed attack against them all."

- The Soviet Union has a very limited intercontinental bomber force, and has no forward bases from which "tactical" aircraft could reach the U.S.

- Of the Soviets' 8,500 weapons, 260 are on Backfire bombers which can only hit the U.S. if they fly at airliner speeds, on one-way missions. The remaining weapons are "strategic" nuclear weapons.

- Of the more than 11,000 U.S. "strategic" nuclear weapons, half are on submarines which are invulnerable, hidden beneath the ocean.

The Soviet intercontinental bomber force is far from "limited." In fact, the Soviets now have more intercontinentally-capable bombers (400+) than the United States (325). "Tactical" MiG aircraft stationed in Cuba are within striking range of the U.S.

This is false. The Soviets have more than 260 BACKFIRE bombers operationally deployed and each is capable of carrying more than one weapon.

The BACKFIRE is a strategic bomber with a definite intercontinental capability. According to Aviation Week and Space Technology, Interavia, and other authoritative aviation sources, it has a maximum range of over 5,000 miles and can be refueled in flight. It can carry a payload of greater than 20,000 pounds. In most respects, it is similar to the U.S. B-1 and as such it poses a formidable threat.

Several other critical facts are neglected:

- a) the operational range of the BACKFIRE can be extended by in-flight refueling;
- b) the lack of U.S. air defenses insures the BACKFIRE will have little difficulty reaching U.S. targets;
- c) the Soviets are developing 2 new types of strategic bombers -- one of which, the BLACKJACK, is larger than the B-1 and is being flight-tested. Production of the BEAR-H has begun. This bomber is also a cruise missile carrier.

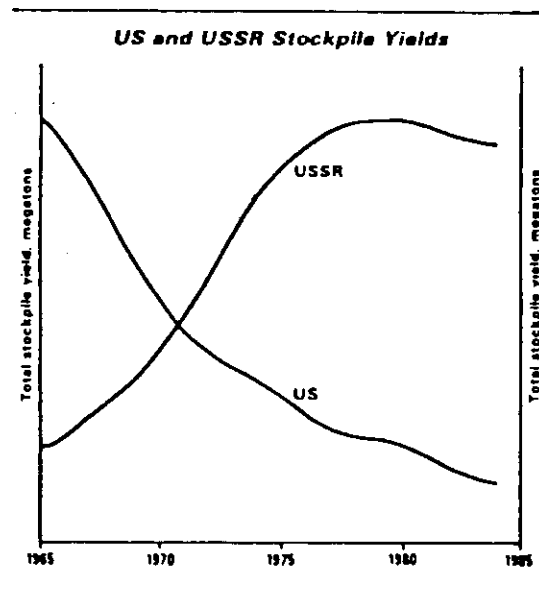
The active inventory of U.S. strategic nuclear submarines declined as all U.S. POLARIS submarines were retired. Because of this, the number of U.S. sea-launched ballistic missiles (SLBMs) reached an all-time low of 496 in 1982. Only recently have we begun to increase SLBM totals with the deployment of 5 TRIDENT submarines. U.S. SLBM levels, however, are still below the levels of a decade ago.

In addition, approximately one-half of all U.S. nuclear submarines are in port at any one time and are therefore vulnerable to destruction.

- Soviet "strategic" nuclear weapons carry about 8,000 megatons of explosive power compared to over 4,000 for the U.S. As the Soviets began to catch up with the U.S. in producing smaller, more accurate and efficient weapons, they, too, reduced their megatonnage.

This statement is misleading. Soviet strategic nuclear weapons carry over 10,000 megatons of explosive power compared to less than 4,000 megatons for the U.S. In ICBM megatonnage, the Soviets enjoy an advantage of over 4:1. Most U.S. megatonnage is in our bomber force, which is a slow and vulnerable second-strike force. Only Soviet ICBMs, which comprise 75% of the Soviet strategic force, which carry warheads much more powerful than ours, and which have short flight times, are first-strike weapons.

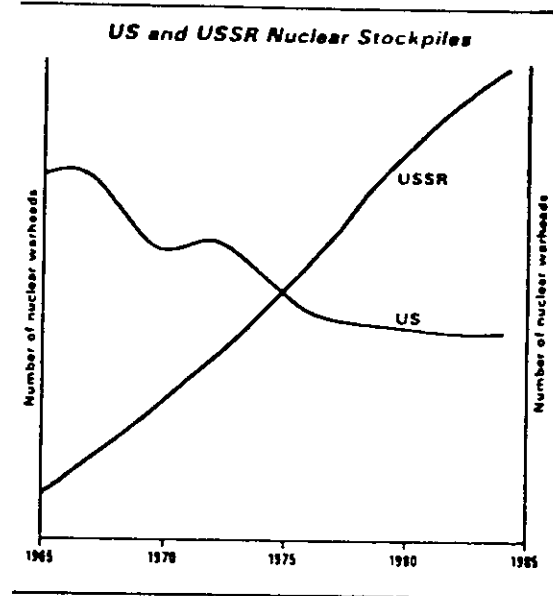
Currently, the U.S. is retiring TITAN ICBMs and is continuing to phase-out B-52s. While total U.S. megatonnage has declined considerably, Soviet megatonnage has risen dramatically, even as Soviet weapons have become more accurate. After a recent brief decline, total Soviet megatonnage is again rising.



- In addition to "strategic" nuclear weapons capable of hitting each others' homelands from long range, both the U.S. and the U.S.S.R. have thousands of "tactical" nuclear weapons within their conventional forces for use against ship convoys, tank formations, and other targets.

It is ironic that those who usually seek to blur the distinction between tactical nuclear weapons and strategic nuclear weapons by arguing that there can be no such thing as a "limited" nuclear war, here seek to divide the nuclear arsenal into just such categories. Of greater relevance is the fact that the total number of U.S. nuclear weapons has actually decreased since 1974. In the late 1970s, the U.S. actually withdrew more nuclear warheads from its arsenal than were added. The current total of U.S. nuclear warheads is lower now than it was in 1967 by some 8,000 weapons.

On the other hand, however, additions to the Soviet nuclear arsenal have been massive and rapid. Newer additions to the Soviet arsenal have not been offset by reductions of older Soviet systems. The Soviets have added over 4,000 new nuclear warheads to their strategic arsenal since the signing of SALT II in 1979 -- an increase of approximately 80%.



However, simply counting numbers ignores how each side plans its strategy. Since U.S. strategy is based on retaliation after a Soviet attack, what counts is the survivability of our nuclear forces, not simply our peacetime inventory. Currently, the survivability of U.S. nuclear forces, especially our land-based ICBMs, is dangerously low.

- The U.S. has conducted 761 nuclear test explosions since 1945, the U.S.S.R. 534.

- The fact is that neither country is superior in nuclear weapons. With more than 50,000 nuclear weapons in the combined arsenals, each side can destroy the other side many times over. There is no defense today.

There will be no defense in this century, if ever. It makes no difference which side strikes first and which side retaliates. Both nations will be destroyed, utterly and completely. We are *mutually* inferior because there is no superiority in mutual destruction.

This statement is misleading. In recent years, the Soviets have pursued a more aggressive testing program than the U.S., repeatedly violating the 150 KT Threshold Test Ban Treaty and venting radioactivity outside Soviet borders in violation of the Limited Test Ban Treaty.

In almost every important index of nuclear power, Soviet superiority is clearly evident. This includes numbers of warheads, megatonnage and throwweight. More importantly, the trends are continuing in the Soviets' favor.

Defense against ballistic missile attack is the reason for the Strategic Defense Initiative (SDI), which holds the greatest promise of reducing the threat posed by nuclear ballistic missiles.

The Soviets have never shared the U.S. notion of Mutual Assured Destruction and have deployed extensive strategic defenses.



## Land-Based Missiles

- The number of Soviet intercontinental ballistic missiles (ICBMs) has declined. They have 1,398 now whereas nine years ago they had 1,600.

- The Soviets have larger missiles, with greater throw weight than U.S. missiles.

- U.S. weapons are smaller because they have miniaturized, computerized guidance packages, more efficient rocket engines, thinner but more effective heat shields, greater accuracy, and more compact, efficient hydrogen weapons.

- Ninety-five percent of Soviet missiles are old-fashioned, liquid-propelled ICBMs; they carry large nuclear weapons to compensate for inaccuracy.

This assertion is misleading. The number of deployed Soviet ICBMs has remained constant for years and the Soviets have not agreed to any American proposals to reduce this level. It is also known that the Soviets have at least 1,000 additional ICBMs which are not deployed in silos and therefore are not counted by SALT. Soviet development of "cold-launch" techniques for ICBMs allows their silos to be reloaded with additional missiles. Furthermore, the Soviets produce over 100 new ICBMs each year. The United States, by contrast, has not produced any ICBMs since our only active production line was closed in 1977.

This statement is correct. The great throwweight asymmetry (4:1 in the Soviets' favor) has significant strategic implications because it allows the Soviets to increase the number of warheads on their ICBMs, their range, the number of decoys per missile, and to improve their guidance and accuracy.

This statement is misleading. The U.S. strategy of retaliation dictated smaller, less threatening weapons. The U.S. edge in technology, often cited as an American advantage, has all but disappeared. Soviet advances in guidance technology and accuracy have been astounding, as recent Soviet tests indicate, and have come more rapidly than the U.S. anticipated. Senior Pentagon officials, including the Secretary of Defense, have been forced to admit that in many cases Soviet missiles are now more accurate than their U.S. counterparts. Soviet development of large, accurate, MIRVed ICBMs supports the Soviets' counterforce strategy.

The most threatening Soviet ICBMs are fourth-generation systems (SS-17s, SS-18s, and SS-19s), most of which were built less than 5 years ago. These missiles are certainly not "old-fashioned." The Soviets' fifth-generation ICBMs now under development (the SS-24 and SS-25) are solid-fueled. Most U.S. ICBMs are between 5 and 20 years old. The U.S. does not have a single ICBM less than 5 years old.

Liquid-fueled missiles are no less deadly and destructive than solid-fueled missiles. Their accuracy has been improved substantially.

- Overall, Soviet ICBMs are less reliable and less accurate than U.S. ICBMs.

- The Soviets are shifting gradually to more modern ICBMs, with smaller yield warheads—following the U.S. lead.

- The U.S. has maintained a level of 1,000 Minuteman (MM) missiles, but has modernized them by replacing Minuteman I with MMII and MMIII. The U.S. also added 1,100 new weapons by MIRVing the Minuteman III, giving the United States a total of 2,100 nuclear weapons on land-based ICBMs.

- President Reagan ordered the dismantling of the Titan II missile. The thirty that now remain are not included in the 2,100 total since they will be phased out in the months ahead.

This statement is false. While the reliability of Soviet ICBMs remains a controversial topic, the Secretary of Defense has stated that "Soviet missiles are now more accurate than ours."

The Soviets have an aggressive ICBM modernization program under way which has been allowed to continue in spite of the "limits" of SALT I and SALT II. Currently, an entirely new fifth-generation of Soviet ICBMs is being developed and tested. These new ICBMs will be even deadlier than the current fourth-generation of Soviet ICBMs now deployed.

Soviet warheads also remain substantially larger than U.S. warheads. The largest U.S. ICBM warhead (on the TITAN missile), with a yield of 9 megatons, is now being dismantled.

The implication that the Soviets follow the lead of the U.S. is ludicrous. The Soviet Union did not reduce its nuclear stockpile, halt production of new ICBMs, dismantle its ABM system or reduce the level of its real defense spending. The U.S. did all of these.

The United States unilaterally stopped deploying ICBMs in 1967. Modernization of the MINUTEMAN ICBM force produced a more stable, more reliable, more secure and safer strategic deterrent. By MIRVing over half of the MINUTEMAN force, we actually decreased the yield of the warheads by over one-third.

Our current arsenal of MINUTEMAN ICBMs represents only our third generation of land-based missiles. Deployment of the MX would provide the U.S. with its first new ICBM in more than 20 years.

Our MINUTEMAN III ICBM carries only 3 warheads, compared to the Soviet SS-18 which carries 10-14, and the Soviet SS-19 which carries 6.

Because the Soviets have substantially more ICBM warheads with greater yields and comparable (in some cases better) accuracies, our ICBM force has become vulnerable.

Dismantling of TITAN ICBMs is proceeding at the rate of 1 missile every 1-2 months.

- The U.S. has completed hardening of Minuteman silos and installation of an improved guidance system which doubles accuracy.

- The U.S. has MIRVed 550 of its 1,000 MM ICBMs and has completed retrofitting 300 of these (900 nuclear weapons) with the MK12A warhead, doubling each weapon's explosive power and increasing lethality.

- U.S. solid fuel-propelled MM ICBMs can be launched against the Soviet Union well within the 30 minute time of flight of Soviet missiles. Therefore Soviet ICBMs launched against U.S. ICBMs might find only empty holes on arrival in the U.S. U.S. ICBMs constantly maintain a 98% alert rate. It is believed that the alert rate of liquid fueled Soviet ICBMs is much lower.

- It is possible to launch U.S. ICBMs from airborne command posts should ground command centers be destroyed.

Soviet advancements in technology since the completion of these programs, such as MIRVing and accuracy enhancements, have virtually nullified U.S. advances.

Our MIRV program ended in 1975. While it did increase the number of U.S. strategic nuclear warheads, it did not result in an increase in the total U.S. nuclear arsenal.

The MK 12A warhead has never been fully tested, since the United States is in unilateral compliance with the unratified Threshold Test Ban Treaty, which limits underground nuclear explosions to 150 kilotons (KT).

Any judgment regarding the adequacy of our strategic nuclear deterrent should not be based on our ability to launch missiles in the event of an attack warning -- a warning that could well be ambiguous. A "launch-on-warning" policy would be extremely dangerous since false warnings can and do occur.

To suggest that the United States launch first on the basis of only an attack warning is irresponsible folly and could have disastrous consequences. Failure to restore the survivability of our strategic nuclear forces makes the launch-on-warning option more attractive to some, but no less dangerous.

This, of course, becomes a moot point if our ICBMs are destroyed as well.

In the event of a Soviet first-strike, at least 95% of U.S. ICBMs could be destroyed by only a small fraction of the Soviet ICBM force. Our surviving forces would not constitute a credible retaliatory risk to superior Soviet forces held in reserve. Recent estimates of ICBM survivability made by the Air Force show that by 1989 a "well-executed Soviet attack" could destroy up to 99% of all U.S. ICBMs.



## Strategic Bombers

- The Soviet strategic bomber force of 170 planes still includes 100 old, slow, propeller aircraft.

- All 325 operational U.S. strategic bombers are modern high speed jet aircraft.

- Over 100 U.S. bombers are on continuous alert and would be airborne prior to Soviet missiles arriving on U.S. targets.

- In addition to strategic bombers, the U.S. has over 400 strike aircraft which are equipped with nuclear weapons aboard its aircraft carriers.

This statement undercounts the total number of Soviet strategic bombers by more than half. Currently, the Soviet strategic bomber force numbers over 400. This figure includes over 260 BACKFIRES which have definite intercontinental capability. The Soviets continue to build BACKFIRES at a rate in excess of their stated commitment of 30 per year.

In addition, the Soviets are developing two new types of strategic bombers -- the BLACK-JACK (larger than the U.S. B-1) and the BEAR-H. Both bombers will carry cruise missiles.

Because the United States has a negligible continental air defense, the value of Soviet bombers is increased, as is their probability of reaching U.S. targets.

It is incorrect to refer to our aging B-52 bombers as "modern" when the last one rolled off the assembly line in 1962. They are currently aging so fast that those taken out of service cannot be replaced for years to come. Many of the planes are older than the pilots flying them.

U.S. bombers are vulnerable to attack on the ground by Soviet ICBMs and SLBMs. Most would be destroyed in the event of a Soviet attack.

The current U.S. bomber alert rate is approximately 30%. Those surviving an initial Soviet attack would be obliged to penetrate Soviet air defenses which are the most extensive in the world, consisting of over 7,000 radars, 10,000 surface-to-air missile launchers and more than 1,200 interceptor aircraft.

The United States has no air defenses worthy of the name. Soviet bombers would have virtually a "free ride" to U.S. targets.

U.S. aircraft carriers are spread too thin for their strike aircraft to provide adequate support in the event of conflict. The carriers themselves must be survivable and the aircraft must contend with the extensive Soviet air defense network.

Of greater relevance is the fact that the Soviet Union and its Warsaw Pact allies far outnumber the United States and NATO in nuclear-capable tactical aircraft. In Europe alone, the Warsaw Pact has over 7,000 combat

aircraft compared to less than 3,000 for NATO -- an imbalance due to become even greater unless U.S. and NATO aircraft purchases increase dramatically.

The overall global total of Warsaw Pact aircraft is near 13,000.

- The U.S. will add over 3,000 nuclear-tipped air-launched cruise missiles over the next several years to enhance the destructive power of its strategic bomber force.

The air-launched cruise missile (ALCM) program has suffered repeated delays and cut-backs. Production of the ALCM was terminated at less than half of the originally-planned goal because of its vulnerability to Soviet air defenses. Less than 1,800 ALCMs will now be procured while work continues on a longer-range, radar-evading Advanced Cruise Missile (ACM).

The capability of the cruise missile has also been called into question by 3 separate, secret reports prepared by the GAO which concluded that they may not be accurate enough to hit their assigned targets in the Soviet Union. Flaws were found in the terrain contour matching guidance system (TERCOM) of the missile which demonstrated that the system's radar sensors are easily confused by snow on the ground, by seasonal changes as leaves come and go on trees, and by the monotonous expanses of the Russian flatlands known as the steppes. Other reports have cited problems with the cruise missile's engine, seriously hampering its maneuverability.

Even if these problems are corrected, cruise missiles, although they will improve U.S. capabilities, will not compensate for deficiencies in the U.S. ICBM force.

- One of the greatest advantages the U.S. has over the Soviet Union is its air refueling capability. The U.S. has over 600 KC-135 tankers to extend the ranges of its long-range bombers and other aircraft. The Soviets have 30 long-range tankers.

The U.S. air refueling capability, which must serve the Tactical Air Command as well as the Strategic Air Command, is in serious need of improvement. Our KC-135 tankers need to be re-engined for better performance.

Unfortunately, in the event of a European conflict, the Soviets would be in a better position to resupply, refuel, reinforce and communicate with their forces than we would with ours because of their geographical proximity to the area of conflict.

A 1984 NATO report states the following:

*The Warsaw Pact airlift capability is substantial. Soviet military transport aviation alone, consisting of over 610 long and medium-range aircraft, provides sufficient airlift to transport one complete airborne division and its equipment at any one time up to distances of 2 000 km. This capability can be supplemented in particular by Aeroflot civilian aircraft.*

- The U.S. is further increasing its strategic mobility and air refueling capacity by buying new KC-10 tankers and re-engining 300 KC-135s.



### Strategic Submarines

- The 62 Soviet ballistic missile submarines carry 936 missiles (with over 2,000 nuclear weapons) for war against the U.S., Western Europe and China.

- The Soviets maintain day and night more than 300 nuclear weapons at sea targeted against the U.S.

- The Soviets maintain a much smaller percentage of their strategic subs at sea than the U.S.

- The U.S. maintains nearly 60 percent of its 36 ballistic missile subs at sea at all times (20 subs). This will be increased with the Trident's 65% patrol rate.

- The U.S. keeps 3,000 invulnerable nuclear weapons at sea to attack targets in the Soviet Union at all times.

As General Thomas Ryan, Jr., Commander-in-Chief of the Military Airlift Command, recently told Congress: "Since 1974, at least 17 major mobility studies have compared established airlift requirements to capabilities. In every case, the findings were that airlift requirements far exceeded our capabilities."

Continued delays in funding of the C-17 airlifter will leave the United States deficient in airlift capabilities for years to come.

These totals refer to the number of "SALT-accountable" systems only. The Soviets currently have over 980 SLBMs in 79 submarines, including 45 SLBMs on 17 submarines which are not counted in the SALT agreements. The Soviets have, in the past, concealed their submarine construction work and have exceeded the SALT-allowable limit on strategic ballistic missile submarines.

With the addition of long-range cruise missiles deployed on Soviet surface ships and submarines, and the development of newer, MIRVed SLBMs, this figure appears to be a gross underestimate.

This is correct, but misleading. The range of all Soviet DELTA-class submarine-launched ballistic missiles is so great that they can strike U.S. territory even if launched from Soviet home waters. U.S. submarines, by contrast, must be "on station" before launching their missiles.

This statement appears essentially correct.

This figure is an overestimation, especially when readiness, transit times to and from "on-station" deployment, and control and communications uncertainties are considered. The submarine communications infrastructure is not invulnerable to attack.

- U.S. subs could conduct a protracted nuclear attack on Russia for over 3 months.

- "Just one of our relatively invulnerable Poseidon submarines—less than 2 percent of our total nuclear force of submarines, aircraft, and land-based missiles—carries enough warheads to destroy every large and medium-sized city in the Soviet Union. Our deterrent is overwhelming."

President Jimmy Carter  
January 23, 1979

- The U.S. has completed the retrofitting of Trident I missiles on 12 of 31 Poseidon subs. The weapons on these new missiles have 60% longer range, are 2½ times more powerful, and are more accurate than the weapons on the Poseidon missiles. The number of weapons on our 304 remaining Poseidon missiles is being selectively increased.

- Trident I missiles on 12 Poseidon and the first 8 Trident subs provide 3,000 new nuclear weapons for our strategic arsenal.

- Each Trident submarine, the first of which went on active patrol in October 1982, can carry enough weapons to target every Soviet city of over 100,000 people. The President's five-year plan calls for 16 Trident subs; the Navy wants 20-25.

How this determination is made is unclear. The assertion itself is meaningless without taking into account the nature of an attack and our capabilities and willingness to respond with a number of options.

Having the capability to do something does not mean that we plan to do it, that we must do it, or that we should do it.

This oft-cited remark by former President Carter is literally correct, but operationally false. Because of the distance between various Soviet cities and the limited distribution range of the POSEIDON's MIRVed warheads, a POSEIDON submarine cannot target more than a maximum of 16 Soviet cities -- one city for each of its missiles.

Furthermore, the remark is irrelevant to the issue of deterrence unless it is decided that such a response would be an appropriate and credible means of retaliation in the event of a Soviet attack.

This statement is misleading. The long-overdue modernization of our sea-based deterrent force to date has only partially offset the recent decommissioning of a greater number of sea-based launch platforms.

This again is misleading. Because of the current and currently planned rates of withdrawal, the U.S. nuclear stockpile will remain relatively constant for the foreseeable future.

Only 12 TRIDENTs have been authorized through FY 1985. All POSEIDON submarines will be phased out beginning in 1993. A force of only 16 TRIDENT submarines would result in a decline in SLBM launchers from the current total of 616 to 384 after the POSEIDONs are retired, unless other TRIDENTs are authorized and funded. Also, all strategic submarines are not on active patrol or "on station" simultaneously.



### Theater Nuclear Forces

- The U.S. has about 6,000 nuclear weapons in Europe, plus others on ships and submarines.

- The U.S. has over 400 fighter bombers in Europe which can strike all Warsaw Pact nations with nuclear weapons.

- France and Great Britain have as many as 1,000 nuclear weapons of their own that can be exploded on the Soviet Union.

- 2,600 of the NATO and U.S. nuclear weapons in Europe can be exploded on the Soviet Union.

- The Soviet Union has been deploying SS-20 intermediate range missiles since 1977. It now has 378 SS-20s with 3 warheads each (1,134 weapons) deployed. One-third of these face China.

This is correct, but it ignores the fact that the United States unilaterally withdrew 1,000 nuclear weapons from Europe in 1980. Furthermore, the United States plans to unilaterally withdraw an additional 1,400 European-based nuclear weapons in the next several years, reducing the NATO stockpile to about 4,600 -- its lowest level in 20 years.

Even if all 572 PERSHING II and GLCMs are installed in Europe as planned, 5 times as many nuclear warheads will have been removed from NATO's nuclear stockpile.

In addition, U.S. nuclear weapons in Europe now have only 25% of the yield of those deployed in 1960.

This assertion is true. However, these aircraft are highly concentrated and vulnerable to destruction on the ground. The Soviets and their Warsaw Pact allies have over 2,000 fighter-bombers in Europe capable of striking NATO territory with nuclear weapons.

The independent nuclear forces of France and Britain consist of less than 200 missiles and their value as a deterrent is limited to a narrow range of threats. The threat posed to each by the nuclear forces of the Soviet Union is tremendously greater than vice-versa.

This figure is inflated and ignores NATO's long-standing policy of retaliation after a Soviet first-strike. The corresponding figure for the number of Soviet nuclear weapons in Europe which can be exploded on NATO territory in a first-strike is, of course, much higher.

This figure is outdated. The Soviets currently have deployed at least 414 SS-20s with over 1,200 warheads. Each deployed SS-20 launcher also has at least 1 additional SS-20 missile. Since the SS-20 is mobile, it can be retargeted easily. It also has sufficient range to strike Western European targets from deployment sites near China.

The Soviets have continued to deploy SS-20s at the rate of 3 warheads per week, in spite of previous pledges to "freeze" these deployments. In addition, a newer successor missile to the SS-20 is being developed. SS-20s deployed in Asia also threaten Japan and other U.S. Pacific allies.

- The Soviet Union also has 224 SS-4 medium-range missiles for a total of 602 MRBMs and IRBMs. This is about the same number of these types of missiles they had 10 years ago, though because the SS-20 is MIRVed they now carry more, but smaller, weapons.

- The Soviet MRBM/IRBM force has 1/3 less total megatonnage than it had in 1970.

- The U.S. has 108 medium-range Pershing Ia and Pershing II missiles based in West Germany. West Germany has 72 Pershing Ia missiles, but the U.S. retains custody of the nuclear warheads. France has 18 intermediate-range nuclear missiles of its own.

- The U.S., the U.S.S.R., France, and Britain all have a substantial number of nuclear weapons for combat in Europe. It is estimated that a combined total of over 15,000 weapons are available to fight a nuclear war in Europe.

The number of deployed Soviet intermediate-range nuclear warheads has more than doubled since 1978. In addition, the Soviets maintain a massive force of shorter-range nuclear ballistic missiles, including some 750 FROG/SS-21s and a greater number of SS-12s, SS-22s, SS-23s and SCUD-Bs. Follow-ons to these systems are being developed.

Over 135 SS-22s have already been deployed in Eastern Europe and, according to Colonel General Nikolai Chervov, a member of the Soviet General Staff: "Everywhere outside the USSR where Soviet Army divisions are stationed, the appropriate missile units have tactical nuclear weapons with a range of up to 100 km."

This assertion is false when one considers that SS-20 launchers are reusable and have additional missiles for refire.

This is true. However, the capabilities of these systems in no way match those on the Soviet side. U.S. PERSHING Ia missiles cannot strike Soviet targets. These missiles are being replaced by PERSHING II missiles which, though capable of targeting the extreme western military districts of the Soviet Union, cannot strike Moscow.

The total number may be "substantial," but it is the balance between East and West which counts. According to NATO's 1984 report, NATO finds itself at a distinct disadvantage when compared to the force levels of the Warsaw Pact: "The Warsaw Pact shows a continuing build-up of their nuclear forces across the entire spectrum. In Europe, the Warsaw Pact has an advantage over NATO in all major categories of nuclear forces."



## Verification Capabilities

- Both the U.S. and U.S.S.R. use a vast array of sophisticated and powerful intelligence gathering systems to survey each other regularly, thoroughly and accurately. These systems include photo-reconnaissance satellites, radars and other devices in space, on land, sea, and in the air, which monitor all aspects of weapon testing and deployments. U.S. satellites reportedly can photograph objects 6 inches or less in diameter. U.S. satellites also use infra-red scanning to monitor Soviet missiles.

- The Soviet Union is surrounded by U.S. monitoring stations.

- The U.S. does not depend only on the technical limits of satellite cameras. Electronic and computer techniques are also used to enhance the quality of pictures.

- Both civilian and military officials have repeatedly testified that the U.S. has the capability to adequately verify existing arms control treaties.

- The Soviet Union, the U.S., and Britain have agreed, in principle, on on-site inspection procedures to verify provisions of a comprehensive nuclear test ban.

U.S. satellites, although quite capable, cannot monitor all aspects of weapons testing and development. Satellites are limited in what they can see by heavy cloud cover. Also, satellites cannot see through the roofs of buildings to see what is being built, stored or hidden inside, nor can they see inside the nose cone of a missile to determine how many warheads have been placed on it.

There is no practical way to have continuous coverage of important Soviet sites. The Soviets are well aware of our surveillance capabilities and have taken steps to circumvent them by engaging in deliberate concealment and deception techniques.

The Soviet Union is by no means "surrounded." If the Soviet Union were "surrounded" by American monitoring stations, the loss of U.S. facilities in Iran would have been inconsequential. However, loss of these stations removed for years our capability to monitor Soviet missile tests in the critical post-launch boost phase.

While the quality of satellite photography can be enhanced, satellites are still limited in what they can do by the inherent liabilities noted above.

The facts testify otherwise. Although over 60 Soviet arms control violations have been identified and credibly documented, in some cases the United States simply does not know what happened to Soviet systems such as the SS-7, SS-8, SS-9 and SS-11 ICBMs which were thought to have been dismantled. Officially confirmed Soviet violations of the SALT I Interim Agreement, the ABM Treaty, SALT II, the Biological Weapons Convention, the Limited Test Ban Treaty and the Geneva Protocol banning the use of chemical weapons highlight the need for effective American responses to blatant Soviet violations.

Agreeing in principle is easier than agreeing in practice. The Soviets have consistently rejected any and all U.S. proposals calling for on-site inspection.

## ★ NATO/Warsaw Pact Comparisons

- "It disappoints me to hear people talk about the overwhelming Soviet conventional military strength. We can defend the borders of Western Europe with what we have. I've never asked for a larger force. I do not think that conventional defense is anywhere near hopeless."

Gen. Frederick J. Kroesen  
Commander, U.S. Army-Europe  
March 1983

- The Warsaw Pact has 253 active divisions and NATO the equivalent of 143, including independent brigades. NATO divisions, however, are generally larger and more heavily armored. A U.S. armored division averages about 18,000 soldiers, 775 tanks and armored vehicles and 375 anti-tank missiles. An average Soviet tank division is comprised of 11,500 troops, 475 tanks and armored vehicles and 105 anti-tank missiles.

- A new official NATO estimate of NATO and Warsaw Pact forces actually available for combat in Europe gives the Pact 115 divisions and NATO 88 divisions. If French and Spanish forces are added, the two sides are nearly equal in Europe.

- NATO leads the Warsaw Pact in military spending, military manpower in uniform and total ground forces in Europe.

This quote is taken out of context. Gen. Kroesen's statement was predicated on the important assumption that promised reinforcements would arrive on time and that war reserve materiel would sustain combat for 30 days. However, Gen. Bernard Rogers, Supreme Allied Commander in Europe, informed Congress in 1984 that NATO's reserve stocks are severely below the minimum requirement of 30 days. In addition, Rogers concluded: "In my view, ACE's (Allied Command Europe's) current conventional posture does not provide our nations with adequate deterrence.... Although ACE gets stronger conventionally each year, the gap between the force capabilities of NATO and those of the Warsaw Pact gets wider each year...."

Although Warsaw Pact divisions normally contain fewer personnel than many NATO divisions, they contain more tanks and artillery, thereby obtaining similar combat power.

When fully reinforced forces are included, the number of Warsaw Pact divisions rises to 192, compared to NATO's 115. The Warsaw Pact total excludes about 16 divisions located in the 3 central Military Districts of Russia.

France and Spain, though members of NATO's political structure, do not participate in NATO's integrated military structure.

This assertion is only partially true. NATO does spend more than the Warsaw Pact, however, most of that spending goes to pay for personnel costs. Most Warsaw Pact spending goes for weaponry.

The Warsaw Pact has some 6 million military personnel in uniform, compared to NATO's 4½ million. In Europe, the Warsaw Pact has a standing force of some 4 million, compared to nearly 2.6 million for NATO.

NATO's 1984 report notes that for the Warsaw Pact "there are over 800,000 personnel with some military training enrolled in the national security forces. Warsaw Pact active

and reserve forces worldwide include 246 divisions plus 29 brigades, with 61,000 main battle tanks and air forces equipped with nearly 13,000 aircraft. Ground and air forces in Europe are forward deployed, well structured, positioned and prepared for offensive operations."

- "U.S. alliances are more reliable than those of the Soviet Union because they are built on mutual trust, common purpose, and strong commitment."

Joint Chiefs of Staff  
*Military Posture FY 1985*

- The Warsaw Pact has a better than 2-1 edge in total tank numbers but only a 1.62-1 advantage in main battle tanks in Europe.

- NATO has invested heavily in anti-tank weapons and leads the Warsaw Pact in both the quantity and quality of such weapons. NATO deploys over 50 varieties of anti-tank weapons, a total of more than 400,000.

- NATO and the Warsaw Pact have approximately the same number of total combat aircraft.

- "U.S. tactical air forces retain a qualitative advantage over those of the Soviet Union in aircraft and weapons and, more importantly, in personnel and training."

Department of Defense  
*Soviet Military Power: 1984*

This may be true, but the reliability of Warsaw Pact forces cannot be determined short of actual combat. Historically, the Soviets' Warsaw Pact allies have proven reliable and effective. It would be folly to base Western defense policy on an unprovable estimate of our adversaries' reliability in time of conflict.

The Warsaw Pact advantage in tanks is grossly understated. The Warsaw Pact has over 46,000 main battle tanks in Europe (at fully reinforced strength) compared to NATO's less than 18,000. While the NATO total has remained constant for years, the Warsaw Pact total has steadily increased.

Since anti-tank weapons are for use against tanks, not other anti-tank weapons, the relevant consideration is the number of anti-tank weapons per tank. In this respect, the Warsaw Pact maintains a decided advantage. However, in Europe, the Warsaw Pact has over 35,000 anti-tank guided weapons launchers compared to some 19,000 for NATO.

This statement is false. The overall global total of Warsaw Pact combat aircraft is nearly 13,000, compared to NATO which has slightly more than 11,000. However, more than 10,000 Warsaw Pact combat aircraft face Europe, compared to NATO's less than 3,000 in Europe.

With the deployment by the Soviets of advanced tactical aircraft such as the MiG-29, MiG-31, Su-24 and Su-27, this advantage can be expected to erode.

- The quality of NATO weapons and technologies, including computers, radar sensors, combat aircraft, cruise missiles and air-to-air missiles, exceeds that of the Warsaw Pact.

- "... the U.S. has maintained its lead in most of the basic technologies critical to defense. ..."

Richard D. DeLauer  
Undersecretary of Defense for  
Research & Engineering,  
February 1984

- "NATO forces are well trained and, given the full range of capabilities at their disposal, are capable of presenting a credible defense of Alliance territory."

1982 NATO Report



#### Naval Comparisons

- The U.S. and other NATO navies have twice the naval tonnage and several times the firepower of the combined Soviet and other Warsaw Pact navies.

This statement is not supported by the facts. The Soviet Union and Warsaw Pact have made tremendous qualitative as well as quantitative advances. As the International Institute for Strategic Studies notes in its latest analysis of the military balance: "...the West has largely lost the technological edge in conventional equipment which allowed NATO to believe that quality could substitute for numbers."

This quotation is incomplete. DeLauer notes that "...the U.S. has maintained its lead in most of the basic technologies critical to defense, although the Soviets are eroding the lead in many of the basic technologies where the U.S. now leads." Further, DeLauer concludes: "Even though the U.S. maintains its preeminence in most basic technology areas, its technology lead in deployed systems is steadily being eroded.... Consequently, the number of years the U.S. could maintain a technical advantage upon deployment of a new U.S. system has been markedly reduced."

This statement, taken alone, ignores the fact that the trends in the East-West military balance continue to move in favor of the Soviet Union and Warsaw Pact. The same 1982 official NATO report stated: "The numerical balance of forces has moved slowly but steadily in favor of the Warsaw Pact over the past two decades.... It is clear that the trend is dangerous." This conclusion was reinforced by NATO's 1984 report.

Total displacement tonnage is one of the few areas where the United States still maintains a lead over the USSR, but as a measure of military capability it is practically meaningless. During the past two decades, a major shift in the U.S.-Soviet naval balance has taken place in favor of the USSR.

The Soviet numerical advantage in naval forces 15 years ago was 1.5:1. Now, the overall numerical advantage of the Soviet Navy is 3.5:1, including coastal vessels, and its advantage in warships is 2.5:1. Approximate

numbers of Warsaw Pact naval forces expected to face NATO (excluding the Pacific Fleet) are shown below for 1971, 1981 and 1983 to provide a trend in quantitative changes:

### NATO AND WARSAW PACT MARITIME FORCES IN THE NORTH ATLANTIC AND SEAS BORDERING EUROPE

CATEGORY	NATO			WARSAW PACT		
	1971	1981	1983	1971	1981	1983
AIRCRAFT CARRIERS : VSTOL CARRIERS	9	7	10	-	-	-
KIEV CLASS SHIPS	-	-	-	-	2	2
HELICOPTER CARRIERS	6	2	-	2	2	2
CRUISERS	11	15	14	20	21	23
DESTROYERS AND FRIGATES	381	274	277	142	182	187
COASTAL ESCORTS AND FAST PATROL BOATS	180	167	192	553	551	515
AMPHIBIOUS SHIPS - OCEAN-GOING	24	41	44	7	16	19
- INDEPENDENT COASTAL CRAFT	62	69	69	190	155	174
MINE WARFARE SHIPS	349	257	273	374	360	378
TOTAL SUBMARINES (ALL TYPES)	195	190	197	248	258	246
- BALLISTIC MISSILE SUBMARINES	38 (1)	35 (1)	35 (1)	38 (1)	52 (1)	49 (1)
- LONG RANGE ATTACK SUBMARINES	72	60	67	115	149	142
- OTHER TYPES	85	95	95	95	57	55
- % SUBMARINES NUCLEAR POWERED	50 %	49 %	50 %	32 %	45 %	64 %
SEA-BASED TACTICAL ASW AND SUPPORT AIRCRAFT INCLUDING HELICOPTERS	801	712	685	36	146	181
LAND-BASED TACTICAL AND SUPPORT AIRCRAFT INCLUDING HELICOPTERS	112	180	366 (2)	521 (3)	719 (3)	700 (3)
LAND-BASED ANTI-SUBMARINE WARFARE FIXED-WING AIRCRAFT AND HELICOPTERS	471	450	454	225	179	228

(1) Also referred to in the section on nuclear forces

(2) For 1983, includes U.S. Marine Corps aircraft and helicopters

(3) About 300 of these are bombers

As the authoritative Jane's Fighting Ships has noted: "The present list of the Soviet fleet is impressive and the current building program will provide formidable reinforcement.... the Soviet fleet (is) far larger than would be needed for the defence of a nation with truly peaceful intentions...."

- The Soviet Navy, which started far behind us, has been declining in size recently, not increasing. Soviet warship production has slowed. From 1980-82, the U.S. and its allies built 38 more warships displacing 230,000 more tons than the Soviet Union.

- NATO has 477 major surface combatants. The Warsaw Pact has 314. US warships spend twice as much time deployed in potential combat areas than do Soviet warships.

- The U.S. has 13 heavy aircraft carriers and our allies have 8 lighter carriers. The Soviets have no true aircraft carriers. They do have three Kiev-class ships which are more nearly comparable in size and aviation capabilities to the 12 U.S. amphibious assault ships.

- The U.S. Navy continues to be superior to the Soviet Navy in performance of critical missions such as strike, amphibious and anti-submarine warfare.

In some cases, a decline in certain Soviet naval vessels has been the result of a shift in resource allocation designed to transform the Soviet Navy from a basically coastal defense force to a worldwide naval power, able to threaten vital sea lanes of supply and communication.

Soviet warship construction has emphasized quality over quantity. According to the Department of Defense: "The trend in Soviet major surface warship programs has been toward larger, technologically more sophisticated units." This includes construction of the first Soviet nuclear-powered surface warship -- the KIROV. These newer Soviet warships have "created a new flexibility and versatility for Soviet surface forces in carrying out deployed operations on a worldwide scale."

This is misleading. Critical sea-lanes of communication and supply must remain open for the United States to reinforce Europe and to sustain its forces. This necessitates a greater Allied effort. Even so, the Soviet Navy leads the U.S. Navy in principal surface combatants. Attainment of current force programming goals will only reduce, not eliminate, the Soviet advantage.

This is incorrect. Soviet construction of KIEV-class aircraft carriers is continuing (at least 4 have been built) and the Soviets are building their first nuclear-powered aircraft carrier, expected to displace some 65,000 tons.

In addition, the Soviets have 2 KIROV-class nuclear powered cruisers (a third unit is under construction) and another new guided-missile cruiser has been built. Known as the SLAVA, this cruiser is larger than any cruiser under construction by the United States. The Soviets have also completed 2 new destroyer-class ships: the SOVREMENNY and UDALOY guided missile destroyers.

The American lead in this area is tenuous at best. The Soviet ASW effort is impressive and Soviet mine warfare capabilities are far superior to those of the United States. According to Jane's, the Soviets have "the world's largest stockpile of sea mines of all kinds...."

Soviet sea-based naval aviation is also growing.

- The U.S. Navy has 561,700 personnel compared to 467,000 for the Soviet Navy.

- The U.S. has 195,300 marines; the Soviets only 14,500.

- The U.S. has 44 naval and 4 Marine bases around the world. The Soviet Navy has no bases outside Europe and regular access to limited naval facilities in only six countries.

- The Soviet Navy is divided into 4 widely dispersed fleets which must pass through narrow channels to reach the open ocean. The U.S. and its allies could close these channels using mines and numerous anti-submarine planes, ships and submarines.

- These factors lead Secretary of the Navy John Lehman to comment, "I am confident, as long as our principal maritime allies do not reduce their capability, that we shall secure both flanks and the North Atlantic against the Soviets."

- "We have the upperhand today, in my opinion. The Air Force and the Navy in combination can do a significant job in Northeast Asia."

Admiral James Watkins  
Chief of Naval Operations  
March 1984

These figures are essentially correct, but they ignore both sides' different strategic requirements, as well as the contrasting missions of the American and Soviet navies.

Again, the different strategic requirements and missions of both sides are ignored. The United States, as an island nation with foreign sources of supply to protect, requires a superior Navy and Marine contingent. The Soviet Union, a geographical land power with virtual self-sufficiency in strategic materials, requires no such force.

This is an incorrect assertion. The Soviets now have access to or control over air and naval facilities throughout Asia, Africa and the Caribbean, including bases in Ethiopia, Angola and Cuba. In addition, the Soviets have transformed Cam Ranh Bay, Vietnam, into the largest Soviet naval forward deployment base outside the Warsaw Pact.

The Soviet Navy could avoid being "bottled up" by deploying their fleets outside these choke points prior to the initiation of hostilities. Since Soviet naval strategy is oriented toward seizing the offensive, such pre-hostilities deployment seems likely.

Unfortunately, as Secretary Lehman told Congress, "...I would have to say that with the exception of France, the trend in all of the allied navies is disappointing. They are not keeping up sufficiently with modernization, with the ability to interoperate with us. They don't have the defenses to deal with the threats the Soviets are deploying."

Northeast Asia is only one of many areas where the U.S. has commitments. Secretary Lehman has stated: "We cannot today simultaneously meet the commitments we have in law in a general conventional war with the Soviets in the Far East, the northwest and northeast Pacific, the defense of the United States, Alaskan oil, the sea lanes through the Caribbean

the Rio Pact, the sea lanes to the NATO allies in Europe, the Middle East and the Arabian peninsula."

## **\$** Military Spending

- The Administration proposes spending 1.9 Trillion dollars over the next five years on the military. This means we will spend *\$43 million every hour* for the next five years. It will cost a total of more than \$20,000 for every taxpayer in America.

- The cost of new and often unnecessary weapons continues to escalate. The estimated cost for 87 major weapons systems is \$750 Billion.

- The U.S. and its NATO allies have outspent the Soviet/Warsaw Pact military forces for many years.

- The Administration's claim that the Soviets outspend the U.S. on military forces ignores the contribution of our military allies.

- Official estimates which compare U.S. and Soviet military spending use a C.I.A. methodology based on costing out the Soviet military at U.S. prices. For example, the Soviets pay their soldiers less than 5 rubles (about \$8) per month. The U.S. pays its recruits more than \$500 per month. Yet, Soviet manpower costs are calculated at U.S. wages.

The price of maintaining peace is always high. But it is less expensive than the price of failing to do so.

The levels of defense spending should be determined by the requirements of national security, and not by some contrived or artificial budgetary formula. Two-thirds of the defense budget goes to support existing assets, e.g., to pay salaries and increase readiness. Only one-third goes for the purchase of new arms and equipment.

The reasons for cost escalation are primarily related to the rate of inflation and time needed for procurement. As funding for programs is delayed, inflation invariably drives up the eventual costs of these programs. Incorporating important technological advances also adds to systems cost. Very little of this cost escalation is the result of cost-overruns.

Unfortunately, the Warsaw Pact has out-invested NATO for many years and, as a result, has fielded more equipment and materiel than NATO. Personnel costs are much cheaper for the Warsaw Pact. Most of their military spending goes for hardware. The opposite is true for NATO.

The contribution of our NATO allies to Western defense is, of course, important. However, allied contributions to the defense effort have lagged considerably and do not offset the discrepancy between U.S. and Soviet efforts and capabilities.

This statement is misleading. Soviet industrial inefficiencies make it relatively more costly for them to produce weapons than it is for us to produce weapons. Since some 89% of Soviet military spending goes for weaponry, our estimates of Soviet military spending generally underestimate the magnitude of their effort.

- Because the Soviets have twice as many soldiers as we do (the Soviets face twice as many NATO and Chinese troops as they have in their own forces), every one million dollars we put into pay increases for our troops shows up in U.S. estimates as a \$2 million increase in the Soviet budget.

This is incorrect. The CIA uses "constant dollars" instead of "current dollars," thereby factoring out the effects of pay raises and higher equipment costs caused by inflation. China is not a NATO ally and is not committed to assist in the defense of the Western Alliance.

- The CIA recently estimated that the average annual growth of Soviet military spending had slowed to only 2 percent a year since 1976. U.S. military spending has grown at a rate more than twice that over the same period.

This statement is misleading. Both the CIA and DIA (Defense Intelligence Agency) agree that the dollar costs of Soviet military procurement remain some 45% larger than those of the United States. DIA has stated that "Soviet military costs (in 1983)...may have increased faster than at any time since 1976," and "annual procurement costs are likely to continue to rise" as newer, more sophisticated weaponry enters the Soviet inventory during the next several years. DIA estimates that Soviet military procurement costs in 1983 rose between 5 and 8%.

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It should be noted that the above analysis is of an eight-page report by the Center for Defense Information and all of the errors and misinformation which it highlights are found in those eight pages.