



# THE DEFENSE MONITOR

The Center for Defense Information believes that strong social, economic, political, and military components and a healthy environment contribute equally to the nation's security. CDI opposes excessive expenditures for weapons and policies that increase the danger of war.

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I.S.S.N. # 0195-6450

Volume XXVIII, Number 8

1999

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## Toxic Bullets – An Update

Our previous Defense Monitor series included an article on the dispute about the use of Depleted Uranium (DU) in protective armor for tanks and in some munitions ranging in size from 20 to 120 mm.

Test results and studies suggest that DU's chemical properties as a heavy metal are more dangerous to humans than DU's radiological effects. In this, DU resembles lead and other heavy metals.

Now comes word that the U.S. Army's latest order for M-16 rifle ammunition specifies tungsten cartridges, not lead. While both are heavy metals, tungsten is considered to be less damaging to the environment than lead. But the U.S. has no domestic supply of tungsten.

Sources of tungsten are China, which has the world's largest deposits, Canada (number two), and the Commonwealth of Independent States. Austria, Bolivia, Peru and Portugal also produce tungsten.

Recycled tungsten will meet about 85% of what is needed for the "green" bullets, cutting new U.S. demand from outside suppliers. In addition, tungsten from fired green bullets can be

[\(continued on page 3\)](#)

## CIA vs. CDI: Does a Letter Make a Difference?

In early September the Central Intelligence Agency (CIA) released its analysis of "Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015."

Some in Congress saw this unclassified version as a rehash of past CIA pronouncements. One criticism is that the CIA did not take into account the conclusion of the Rumsfeld Commission report, issued in 1998, that the U.S. might have little or no warning about a new ballistic missile threat from a nation that currently has no ICBMs.

What was overlooked was the appraisal of the real threats to America, threats that place ballistic missiles in perspective as well as the current plans for the unneeded, technologically unproven, and potentially destabilizing National Missile Defense (NMD) system.

Since the days of Ronald Reagan's Star Wars national missile defense system, CDI has opposed the development of NMD, including the current version. So we were struck by the parallels between many of our arguments and statements in the CIA paper.

Below are a series of paired statements, randomly arranged, from the CIA and CDI. We challenge you to identify which

organization made which statement. In the end you may conclude that one letter – the "A" in CIA and the "D" in CDI – makes little difference. (Answers are on pg. 7.)

1a. Russia will maintain as many strategic missiles and associated nuclear warheads as it believes it can afford but well short of START I and II limitations.

1b. Russia today is a basket case militarily and economically.

2a. Unlike cruise missiles [a nation] cannot hide the testing of an ICBM.

2b. Countries practice denial and deception to hide or mask their intentions – for example, testing an ICBM as a space launch vehicle.

3a. There is a potential threat from rogue states which must be watched carefully. States with nuclear and chemical and biological weapons are only a threat when they possess delivery systems.

3b. Foreign non-state actors, including some terrorist or extremist groups, have used, possessed, or are interested in weapons of mass destruction.

[\(continued on page 2\)](#)

## Question:

***Which is the only Cabinet Level Department to get an inflation-adjusted funding increase for FY2000?***

*see page 7*

## Budget Gimmicks

"If we had passed an adequate budget resolution...we would not have had to resort to the kind of gimmicks that have been so distasteful to those of us on the committee...."

Rep. John Murtha  
Ranking Democrat  
House Defense Appropriations  
Subcommittee

### ("CIA" continued from page 1)

4a. Countries developing missiles view their regional concerns as one of the primary factors in tailoring their programs.

4b. India and Pakistan...have recently stepped up development of longer range ballistic missiles to threaten the other.

5a. Countries with emerging ICBM capabilities are likely to view their relatively few ICBMs more as weapons of deterrence and coercive diplomacy than as weapons of war.

5b. Other nations will pursue nuclear capabilities as both a deterrence and as a source of strength.

6a. Early progress on START III might actually accelerate reductions...which the Russians have already indicated they favor because of the money which the lower levels would save.

6b. Russia's strategic offensive forces are experiencing serious budget constraints but will remain the cornerstone of its military power.

7a. Foreign espionage and other collection efforts are likely to increase.

7b. That China seeks U.S. technology...and will employ spies to obtain it should come as no surprise.

8a. The Russian threat, although significantly reduced, will continue to be the most robust and lethal.

8b. Russian nuclear tipped missiles constitute the only real military threat to America.

9a. The danger of nuclear theft in Russia represents a serious threat to

U.S. national security, and efforts to combat the possibility of nuclear smuggling deserve a higher priority.

9b. A nuclear weapon might also be smuggled across a border or brought ashore covertly.

10a. Russia's deep economic troubles have severely undermined the nation's military and left its nuclear scientists unpaid and unemployed.

10b. An unauthorized or accidental launch of a Russian strategic missile is highly unlikely so long as current technical and procedural safeguards are in place.

11a. The North Koreans have shared information from their developments with Iran for its Shahab-3 and Shahab-4 and with Pakistan for its Ghauri missile. Because these missiles generally...are notoriously inaccurate they have limited military utility.

11b. North Korea, Iran, and Iraq would view their ICBMs more as strategic weapons of deterrence and coercive diplomacy than as weapons of war.

12a. A ship sailing into a port could provide secure delivery to limited locations, and a nuclear detonation, either in the ship or on the dock, could achieve the intended purpose.

12b. The proposed NMD system would not be effective against a suborbital launch from a surface ship or submarine.

13a. An NMD system does not address the more likely threats to the U.S. from terrorists using chemical or biological agents.

13b. Non-missile delivery options...probably would be more effective for disseminating biological warfare agents.

14a. Countries developing missiles also will respond to U.S. theater and national missile defenses by deploying larger forces, penetration aids, and countermeasures.

14b. A limited NMD system would be vulnerable both to ship-launched ballistic missiles and to offensive weapons equipped with countermeasures.

15a. China has only about 20 ICBMs; its doctrine requires only that it be able to hold a significant portion of an aggressor's population at risk.

15b. Unlike Russia, the Chinese have no more than 20 missiles capable of reaching American territory.

16a. The Chinese see a threat from U.S. plans to deploy a limited NMD against rogue nations and accidental launches of a few missiles.

16b. An unauthorized launch of a Chinese strategic missile is highly unlikely.

17a. The most troublesome scenario...is of a rogue state acquiring...an ICBM capability that would allow it to target the U.S. with a very small number of weapons.

17b. Several countries are technically capable of developing...platforms to launch short range ballistic missiles and medium range ballistic missiles or land-attack cruise missiles against the United States.

## Changing How We Fight Wars

"The nature of war has changed. The way we fight war has to change. You can trace America's adaptation to this new style of war all the way back to Korea. It goes back to the issue of balancing ends and means in warfare. The days of fighting a war for national survival, at least for the next decade or so, are over."

MGEN Robert Scales, Jr.  
Commandant, U.S. Army War College  
October 1999 National Journal

## Yesterday and Today

During the sometimes furious Senate debate over the post-World War II Marshall Plan, Senator Arthur Vandenberg (R-MI), who before the War was regarded as an isolationist, said:

"The greatest nation on earth either justifies or surrenders its leadership. We are entirely surrounded by calculated risks. I profoundly believe that the pending program is the best of those risks. I have no quarrel with those who disagree, because we are dealing with imponderables. I [cannot]...say to those who disagree that they have escaped to safety by rejecting or subverting this plan. They have simply fled to other risks, and I fear far greater ones. For myself, I can only say that I prefer my choice of responsibilities."

In the post-Cold War era the Senate confronted an equally grave choice in the Comprehensive Test Ban Treaty. Unfortunately, too many Senators lacked the vision of Senator Vandenberg.

## Last of the Big Time Spenders: U.S. Military Budget Still the World's Largest, and Growing

As the figures in the box show, no other country is in the same league as the United States in military spending.

### Consider the following...

At \$289 billion, the U.S. military budget is more than **five times larger** than that of Russia, the second largest spender.

It is more than **nineteen times** as large as the combined spending of the seven countries traditionally identified by the Pentagon as our most likely adversaries (Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria).

It is over seven times that of our ally, Japan, and more than eleven times that of Germany.

**The United States and its close allies spend more than the rest of the world combined**, accounting for 63% of all military spending. Together they spend over **thirty times** more than the seven rogue states.

The seven potential "enemies," plus Russia and China, spend \$106 billion, just over a third (37%) of the U.S. military budget.

Global military spending has declined from \$1.2 trillion in 1985 to \$785 billion in 1998. Meanwhile, the U.S. share of total military spending rose from 30% to 36% in Fiscal Year 1999.

Selected Countries	Military Budget (\$ in Billions)	Selected Countries	Military Budget (\$ in Billions)
United States	288.8	Turkey	8.9
Russia*	55.0	Australia	7.2
Japan	41.1	Netherlands	7.0
China*	37.5	Israel	6.7
United Kingdom	34.6	Canada	6.7
France	29.5	Spain	6.0
Germany	24.7	Iran	5.7
Saudi Arabia	18.4	Greece	3.8
Italy	16.2	Poland	3.2
South Korea	11.6	Norway	3.2
Taiwan	10.9	Kuwait	3.0
India	10.7	Syria	2.9
Brazil	10.3	Pakistan	2.7

Figures are for latest year available, usually 1999. Expenditures are used in a few cases where official budgets are significantly lower than actual spending.

\* 1998 Funding

Table Prepared by Center for Defense Information.

## Nuclear Weapons and Security

"I see no compelling reason why we should not unilaterally get rid of our nuclear weapons. To maintain them is costly and adds nothing to our security."

Paul H. Nitze

Former Ambassador-at-Large  
for Arms Control

October 28, 1999

### ("Bullets" continued from page 1)

reclaimed and recycled again, thereby further minimizing the requirement for tungsten.

Although starting small – ordering just one million rounds with tungsten cores this year – the potential for lead-free bullets is enormous as the Army says it ordered some 200 million rounds of ammunition in 1998.

If we can use tungsten to replace lead to minimize toxic exposure from M-16 rounds, we certainly should be able to find a replacement for larger caliber DU weapons.

# Conflict and



On Neptuno Street in Havana, vintage American cars that pre-date the 1961 U.S. trade embargo share the road with newer foreign models. While the hard times of "the Special Period" continue eight years after the loss of Soviet subsidies, limited economic reforms have led to a modest recovery.



In October 1999, a CDI-led delegation visited Cuba to produce a television program about the Cuban military's sizeable role in the economy. The group also met with Fidel Castro to discuss mutual security issues. He expressed a desire to cooperate with the U.S. on drug interdiction, stopping illegal migration, and resolving the war in Colombia. L-R: Castro, interpreter Juana Vera, CDI producer Jon Lottman, Dr. Alberto Coll of the U.S. Naval War College, and Admiral David Chandler (Ret.), U.S. Naval War College.



Havana's grand old buildings are being renovated at an impressive rate to attract a growing number of tourists - 1.7 million in 1998. A symbol of Cuba's new dollar economy, former doctor Ivan Oscar Vargas peddles tourists around in his bicycle taxi to earn much-coveted U.S. dollars. On a good day, he can make \$20 - about a month's salary for a doctor.

# C U B A

Recently members of CDI's staff took cameras into the streets of Cuba, where shaping people's lives has been years of internal conflict. The war have left a deadly legacy of landmines; Yugoslav and international military intervention to stop ethnic cleansing rather than bringing down Castro, may have helped stabilize the country.

The following are but a tiny sample of the rolls of video from the countries. If you would like to see (and hear) more, check out our winning video series, **America's Defense Monitor**.

- "Human Rights: Universal and Supreme" (Number 1316)
- "In The Shadow of Landmines" (Number 1317) of
- "The Cuban Military: An Economic Force" (Number 1318)

Text provided by Glen Baker (Cuba), Steve Sapienza

# CAMBODIA



Landmines and unexploded bombs deny Cambodians access to roads, farmland, woodlands, and water sources.



These improvised mines were made with American "bombies" dropped from B-52 bombers during the Vietnam War.

# Its Aftermath

Three troubled nations where the dominant experience is conflict and antagonism: Cambodia, where three decades of war have left a legacy of trauma; Bosnia and Kosovo, where troubles continue following the end of the conflict; and Cuba, where the 38-year U.S. trade embargo, has strengthened his country's resolve.

Each of the pictures taken by the staff who visited these three nations is available for purchase. You can order the relevant episode of CDI's award-winning video series, *Aftermath*, for \$29 each or all three for \$69. Ask for:

Episode 1314 on Kosovo/Yugoslavia;

Episode 1315 on Cambodia; and

Episode 1319 on Cuba.

Contact: (Cambodia), and Tomas Valasek (Kosovo).

## BODIA



Without any job skills, this 29 year old war veteran and landmine survivor now lives off handouts from tourists at the famed Angkor Wat temple.



A de-miner probes the earth for one of the estimated six million landmines that remain buried in Cambodia.



NEAR GNILJANE, KOSOVO: U.S. peacekeepers flank a man found with a card identifying him as a policeman in the unrecognized shadow government set up by the Kosovo Liberation Army. After an interrogation, he was let go — minus the controversial identification card.

## K O S O V O



POST OFFICE, PRISTINA, KOSOVO: NATO "smart" bombs lived up to their reputation in Pristina; only buildings with potential military use were destroyed. Elsewhere in Kosovo and Yugoslavia, we found evidence of cluster bomb damage to civilian areas and direct hits to civilian installations, such as hospitals.



SERB REFUGEES FROM KOSOVO: The end of the air war in June 1999 did not end the refugee crisis, it only reversed the flow. Ethnic Albanians returned home as tens of thousands of Serbs began fleeing from Kosovo. Some of those were guilty of violence against the ethnic Albanians but most, as these children, fled from senseless retaliatory attacks.

## Two Giant Steps Closer to A New Nuclear Arms Race

December 9-10, 1999, like December 7, 1941, may go down in history as days of infamy. On each day the U.S. revealed plans that were giant steps toward plunging the world into a new nuclear arms race.

Ironically, December 9 started out with just the opposite twist. That morning a coalition of arms-control advocates and members of Congress met at the National Press Club to urge the Administration to remove America's nuclear arsenal from its Cold War "hair-trigger" alert status. Senator Dale Bumpers, CDI's Director, pointed out to the assembled press corps that if the U.S. took the lead in de-alerting, we would be taking the moral high ground from which to seek reciprocity from Russia.

Such leadership would parallel the 1991 action by President Bush when he removed nuclear weapons from U.S. surface ships and Army units. One week after the President's announcement, Mikhail Gorbachev withdrew Soviet tactical nuclear weapons.

But the de-alerting initiative taken at the National Press Club was quickly overshadowed by an announcement that the Department of Energy (DoE) had decided to begin producing tritium at the Tennessee Valley Authority's (TVA) Watts Bar Nuclear Plant. Tritium is the gas used to enhance the explosive power of nuclear weapons. While it can deteriorate over time, the U.S. has more than enough tritium that it can recycle from nuclear warheads being dismantled. With START II, we would have even more tritium from the weapons that would be eliminated under that agreement.

Restarting tritium production (stopped in 1988) severely undercuts U.S. efforts to convince other countries to abide by the provisions of the Nuclear Non-Proliferation Treaty (NPT). Under the NPT, the U.S. and the other four nuclear weapons powers (Russia, China, France, and Great Britain), all of which ratified the NPT, agreed to take concrete steps to reduce nuclear arsenals. In return, other nations pledged to refrain from developing their own weapons. New tritium production by the United States, slated to begin in 2003, signals that the U.S. never intended to adhere to our NPT promise.

Furthermore, the use of the TVA plant to produce tritium breaks down a long-standing barrier separating civilian and military applications of nuclear energy. Mixing these uses tells other nations that they can do the same, which increases the chances that some nation will try to cheat by secretly producing weapons-grade material in a civilian reactor. This opens a veritable Pandora's box of nuclear proliferation.

One day after the tritium announcement came a report from a committee set up by Congress calling for increased spending on nuclear weapons. The panel, chaired by former Lawrence Livermore National Laboratory chief John Foster, recommended an immediate start on designing new nuclear warheads and building a new facility to produce plutonium "pits" (triggers) for these designs. The panel expressed concern about the

### Why We Sign International Agreements

"It is plainly smart to anticipate that some countries will try to cheat on their obligations. It is not smart to conclude – as some do – that if we can't guarantee perfect compliance with the rules we establish, we are better off not establishing rules at all."

Secretary of State Madeleine Albright

November 22, 1999

reliability of the current U.S. nuclear stockpile, a position at odds with DoE assurances that the reliability of weapons can be assured through the "stockpile stewardship" program.

These actions, together with the recent Senate rejection of the Comprehensive Test Ban Treaty and the drive for a National Missile Defense, can only raise suspicions about U.S. intentions. Other nations will draw the very reasonable conclusion that the real U.S. goal is to dominate the world – even if it risks prolonging and intensifying the nuclear arms race.

The timing of both the TVA announcement and the release of the Foster panel's recommendations is curious in that both came just as the Russian Duma was actively considering whether to vote on ratifying the START II Treaty. The United States should not be surprised that the Russian reaction was swift and sharp. These announcements strengthened Russian hard-liners in their ongoing efforts to scuttle the START II Treaty, end cooperation with the U.S. in neutralizing Russia's excess plutonium, and converting their ten nuclear cities into non-military production centers.

The cost of these actions to U.S. moral and political leadership may be very high. We can only hope that the costs do not include weakening the non-proliferation regime or putting more fingers on nuclear triggers.

### A Different World

"Fewer and fewer members of Congress today have any real interest in national security issues, and they don't appreciate that we live in a less dangerous, but far less predictable world."

Senator John McCain (R-AZ)

October 1999

National Journal

("What It All Means" continued from page 8)

nuclear power generators into materials for nuclear weapons.

Further compounding this misguided decision is the very recent recommendation by a congressionally appointed commission that the United States should commence the design of new nuclear weapons in our laboratories and construct a new plant to fabricate plutonium pits (triggers) for the new designs. New weapons designs and new plutonium pits fueled from a new source of tritium are guaranteed to shatter the non-proliferation regime which the United States worked so hard to strengthen by indefinitely extending the Non-Proliferation Treaty (NPT) in 1995.

Our timing could not be worse because the NPT will be the subject of a formal review conference in 2000. America's conduct constitutes a blatant rejection of the principles of the NPT by the world's foremost nuclear power. It is certain to provoke bitter protests and potential withdrawals by a number of key nations which have the clear capability to develop their own nuclear arsenals.

As if these provocations were not enough, the **Defense Monitor** has also reported at length on the negative effects of two other recent U.S. actions. The Senate's rejection of the Comprehensive Test Ban Treaty (CTBT) and the reckless effort to accelerate deployment of a National Missile Defense (NMD) system are two more signals that America is willing to return to the worst days of the Cold War nuclear arms race. Failure to ratify the CTBT is an open violation of the formal pledge the United States made in 1995 to achieve an end to all nuclear testing. Deployment of the NMD system now under development would constitute a direct violation of the Anti-Ballistic Missile Treaty.

It would be naive in the extreme to believe that China and Russia will not be vocal critics of all these regressive U.S. actions, but what is increasingly surprising is the criticism growing among America's closest friends and allies. In a remarkable breach of conventional diplomacy, the leaders of Germany, France, and Great Britain publicly appealed in the *New York Times* for the U.S. Senate to advise and consent to ratification of the CTBT. Similarly, major NATO allies have openly raised objections to the deployment of a NMD system on the grounds that it will threaten the strategic stability of the world's nuclear balance and risk a return to a dangerous competition in nuclear offensive weapons.

What does it all mean? The United States is engaged in a costly, dangerous effort to perpetuate its nuclear dominance at a level which far exceeds any rational military or political justification. In the process we are alienating friends and potential foes alike and isolating ourselves behind a shield of monstrous, useless nuclear weapons which threaten our own national security.

CDI pledges to continue our opposition to a return to the nightmarish days of the Cold War. With your help we can restore a measure of sanity to our military programs and thereby increase the security and well-being of our beloved nation.

## New at CDI...

### New Feature on CDI's Web Site.

"CDI Asia Forum" presents analyses of political and national security issues in Asia and the South Pacific. It highlights events "Behind the News" and presents an in-depth analysis of one major story. It also invites readers to respond to each issue with e-mails, which will be considered for inclusion in a "Your Responses" page. Look for it on our homepage at [www.cdi.org](http://www.cdi.org).

### IT'S HERE AT LAST -

CDI's 1999 Military Almanac. It has everything you need to know about the U.S. military. You'll find it one of the most enlightening documents you've ever read. Get copies for friends. Hard copy price is \$15, CD-ROM is \$20. Order today from the address on this Defense Monitor.

## Quiz Answers from page 2:

(CIA Quotes: 1a, 2b, 3b, 4a, 5a, 6b, 7a, 8a, 9b, 10b, 11b, 12a, 13b, 14a, 15a, 16b, 17b)

(CDI Quotes: 1b, 2a, 3a, 4b, 5b, 6a, 7b, 8b, 9a, 10a, 11a, 12b, 13a, 14b, 15b, 16a, 17a)

## Answer:

***The Defense Department. Its inflation-adjusted spending rose \$12.8 billion or 4.8%. All other Departments had their funding levels reduced.***

### What It All Means

In this issue of the **Defense Monitor** we report, as we have too often this year, that the United States is pursuing policies which threaten a return to the nuclear nightmares of the Cold War. Nothing makes this clearer than the report that America will resume production of tritium gas as fuel for thermonuclear weapons. Even worse, the Department of Energy has ordered the tritium to be produced in civilian power reactors operated by the Tennessee Valley Authority.

It cannot be overstated that by this one action America has signaled to the world that the United States is willing, for the first time, to use the peaceful application of nuclear energy to perpetuate our nuclear weapons dominance indefinitely. Equally important is that our action will implicitly encourage non-nuclear nations to convert the products of their

(continued on page 7)



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