



Source: Arms Control Association

DEFENSE NEWS/ Jerold Council

"Two-thirds reduction is great. We're all for that," Sen. Carl Levin, D-Mich., said during a Jan. 7 confirmation hearing for Defense Secretary-designate Les Aspin. "But that doesn't reduce the number of warheads that are out there by two-thirds. Quite the opposite. The numbers stay the same, and the two-thirds which are now off alert are put in a position where they're less secure."

Roughly half of the U.S. nuclear warheads permitted under START II would be deployed at sea while 100 long-range bombers could be converted to conventional roles, according to treaty documents and private estimates.

Both sides made last-minute compromises that cleared the way for completing the treaty that was signed in Moscow on Jan. 3. U.S. negotiators acceded to Moscow's request to retain 90 SS-18 missile silos. The 10-warhead missiles must be destroyed under START II, analysts said, and cement will be poured into the silos to prevent reloading.

Russian negotiators also gained an extension of a

ventional roles while 94 B-52Hs are expected to carry nuclear air-launched cruise missiles or radar-evading Advanced Cruise Missiles with nuclear warheads. A 20-plane fleet of B-2 bombers is expected to be deployed with nuclear bombs.

START II's verification provisions will allow, for the first time, inspectors to confirm weapon loads carried by the other side's strategic bombers. The provision allows Russian inspectors their closest look at the B-2 bomber, but the United States will be able to conceal most of the plane with shrouds.

U.S. inspectors also will be able to observe SS-18 silo conversion and missile destruction procedures.

Dunbar Lockwood, an analyst with the Washington-based Arms Control Association, estimated the number of weapons carried by U.S. strategic bombers would decline from 3,700 warheads to 1,272 warheads, or 36 percent of the total permitted under START II.

The United States also would be able to reconvert

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# U.S. Explores Russian Mind-Control Technology

By BARBARA OPALL  
Defense News Staff Writer

WASHINGTON — The Russian government is perfecting mind-control technology developed in the 1970s that could be used to hone fighting capabilities of friendly forces while demoralizing and disabling opposing troops.

Known as acoustic psycho-correction, the capability to control minds and alter behavior of civilians and soldiers may soon be shared with U.S. military, medical and political officials, according to U.S. and Russian sources.

The sources say the Russian government, in the spirit of im-

proved U.S.-Russian relations, is beginning to lift the veil of secrecy surrounding the technology.

The Russian capability, demonstrated in a series of laboratory experiments dating back to the mid-1970s, could be used to suppress riots, control dissidents, demoralize or disable opposing forces and enhance the performance of friendly special operations teams, sources say.

Pioneered by the government-funded Department of Psycho-Correction at the Moscow Medical Academy, acoustic psycho-correction involves the transmission of specific commands via static or white noise

bands into the human subconscious without upsetting other intellectual functions. Experts said laboratory demonstrations have shown encouraging results after exposure of less than one minute.

Moreover, decades of research and investment of untold millions of rubles in the process of psycho-correction has produced the ability to alter behavior on willing and unwilling subjects, the experts add.

In an effort to restrict potential misuse of this capability, Russian senior research scientists, diplomats, military officers and officials of the Russian Ministry of Higher Education, Science &

Technology Policy are beginning to provide limited demonstrations for their U.S. counterparts.

Further evaluations of key technologies in the United States are being planned, as are discussions aimed at creating a framework for bringing the issue under bilateral or multilateral controls,

U.S. and Russian sources said.

An undated paper by the Psychor Center, a Moscow-based group affiliated with the Department of Psycho-Correction at the Moscow Medical Academy, acknowledges the potential danger of this capability. The Russian ex-

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## Correction

A page three article in the Dec. 14-20 issue about agreement on the European Fighter Aircraft development incorrectly stated that the new EFA design called for

dramatically scaled down combat and radar systems. A family of EFA variants will be developed allowing each country to choose the level of sophistication it can afford.

# U.S., Russia Hope To Safeguard Mind-Control Techniques

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erts, including George Kotov, a former KGB general now serving in a senior government ministry post, present in their report a list of software and hardware associated with their psycho-correction program that could be procured for as little as \$80,000.

"As far as it has become possible to probe and correct psychic contents of human beings despite their will and consciousness by instrumental means . . . results having been achieved can get out of [our] control and be used with inhumane purposes of manipulating psyche," the paper states.

The Russian authors note that "World opinion is not ready for dealing appropriately with the problems coming from the possibility of direct access to the human mind." Therefore, the Russian authors have proposed a bilateral Center for Psycho-technologies where U.S. and Russian authorities could monitor and re-

strict the emerging capabilities.

Janet Morris of the Global Strategy Council, a Washington-based think tank established by Ray Cline, former Central Intelligence Agency deputy director, is a key U.S. liaison between Russian and U.S. officials.

In a Dec. 15 interview, Morris said she and the Richmond, Va.-based International Healthline Corp. have briefed senior U.S. intelligence and Army officials about the Russian capabilities, which Morris said could include hand-held devices for purposes of special operations, crowd control and antipersonnel actions. Healthline Corp. is evaluating Russian health care technologies and will underwrite Russian demonstrations in the United States.

"We talked about using this to screen and prepare special operations personnel for extremely difficult missions and ways in which this could be integrated into doctrine for [psychological

operations]," Morris said.

She said Army officials were concerned about the capability being directed against armored systems and personnel through electronic communications links. Ground troops, she said, risk exposure to bone-conducting sound waves that cannot be offset by earplugs or other current protective gear. Morris added that U.S. countermeasures could include sound cancellation, a complex process that involves broadcasting oppositely phased wave forms in precisely matched frequencies.

Maj. Pete Keating, a U.S. Army spokesman, said senior Army officials had expressed interest in reviewing Russian capabilities but that repeated plans to schedule visits to the former Soviet Union were rejected by Donald Atwood, deputy secretary of defense. Keating said he was unfamiliar with the mind-control technology and could not discuss

specific details.

U.S. sources said government officials and leaders from the business and medical communities will consider Russian offers to place the mind-control capability under bilateral controls.

At least one senior U.S. senator, government intelligence officials and the U.S. Army's Office for Operations, Plans and Force Development are interested in reviewing the Russian capabilities, U.S. sources said.

In addition, International Healthline Corp. is planning to bring a team of Russian specialists here within the next couple of months to demonstrate the capability, company President Jim Hovis said in a Dec. 2 interview.

Meanwhile, the U.S. Army's Armament Research, Development & Engineering Center is conducting a one-year study of acoustic beam technology that may mirror some of the effects reported by the Russians.

Army spokesman Bill Harris said Dec. 3 the command awarded the one-year study contract to Scientific Applications & Research Associates of Huntington Beach, Calif. Related research is being conducted at the Moscow-based Andreev Institute, U.S. and Russian sources said.

Despite the growing interest in a capability traditionally reserved for science fiction novels and cinema, industry and academic experts are cautious and skeptical about its potential battlefield use.

"This is not something that strikes me as requiring high-level attention," Raymond Garthoff, a defense and intelligence analyst at the Washington-based Brookings Institution, said in a Dec. 2 interview.

Morris contends that the capability has been demonstrated in the laboratory in Russia and should be placed under international restrictions at the earliest possible opportunity.

## French Government Links Firms To Make Them More Competitive

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"The immediate benefits of common research and development are small, and the long-term



On Dec. 29, the government also shifted 20 percent of its 99 percent stake in Aerospatiale to Credit Lyonnais, the nationalized

## Aspin Staff Members To Fill Pentagon Posts

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■ Determining the future U.S. force structure and America's role in U.N. peacekeep-

is unclear exactly what job he will get. Sources said Smith's broad defense experience makes him well-suited to head