

# F.A.S. PUBLIC INTEREST REPORT

Journal of the Federation of American Scientists (F.A.S.)

Volume 51, Number 5

September/October 1998

## MISSILE ENCIRCLEMENT: CHINA'S INTEREST IN MISSILE CONTROLS

No major nuclear power has been more responsible, in its nuclear doctrine and force posture, than the People's Republic of China. It announced, in 1964, along with its first nuclear test, that it would never use nuclear weapons first. And it proceeded to deploy a minimal force and to maintain it in a de-alerted fashion. A world that is trying to move toward lower levels of alert, and smaller nuclear forces, can learn from China. And, because China is both a nuclear power and a developing country, nations listen to it.

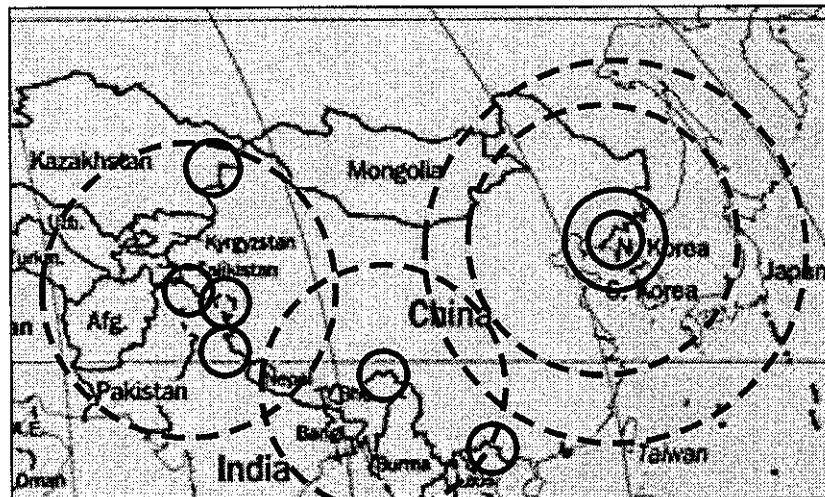
China itself has an ever greater regional stake in controls on ballistic missiles. North Korea, India, and Pakistan are developing nuclear capable missiles, and Beijing is increasingly in range. Further, China would much regret to see Japan and South Korea acquire missiles.

### The Long Term Dangers

In the longer run, China risks a kind of missile encirclement in which Central, Northeast, Southeast, and South Asian countries all develop or purchase missiles capable of an attack on China's capital. (In Central Asian states, this capability might be developed in response to a future perceived threat from

Russia.) And since missiles armed with weapons of mass destruction have become the "Great Equalizer," China could be transformed from a large nation with weak states on its periphery to a nation at the mercy of whatever violence may well up in the vast region in which it is situated.

Meanwhile, in the United States, the recent development of missiles in North Korea and Iran is encouraging U.S. development of ballistic missile defense and the potential spread of missile defenses (such as THAAD) against intermediate range missiles. Both possibilities are undesirable for China.



Current (—) and Future (---) Regional Missile Threats to China (See pages 9-12)

### Influencing New Doctrines

China has, also, a direct stake in global controls on ballistic missiles. If Russian and American missiles can be more fully controlled and de-alerted, China will be safer from inadvertent war between Russia and America and between either of them and China—three different possibilities.

Moreover, Chinese involvement in controls on ballistic missiles would give it a voice on issues of defenses against missiles. Arms control can complement the unilateral efforts of a military establishment.

China might be able to help the world develop

more civilized doctrines to regulate ballistic missiles—doctrines that might go beyond no first use of nuclear weapons to restraints on the targets to which missiles are aimed. For example, there could be a world-wide understanding not to be the first to strike cities with weapons of mass destruction and, more generally, not to use these weapons against civilian targets. And strategic forces should not be collocated with cities. Certainly, it should be agreed that capitals of nations ought never be targeted; this will maintain maximal ability to terminate wars. And China could declare that it would “never be the first, in any conflict, to fire missiles at another state.”

More generally, confidence building measures concerning missiles need to be discussed more intensively. In particular, China should ask to be included in the U.S.-Russian Exchange of Information on Missile Launches and Early Warning.

Today, China's missiles, ever more survivable, seem quite sufficient to ensure China's freedom from bullying or attacks by the major nuclear powers. The dangers to China have shifted to regional missile threats. With this in mind, we have prepared a worst case analysis of the emerging missile threat to China and some ideas of what China might do to manage it, including possible contributions to missile control regimes, discussed within, for Northeast Asia, South Asia, and Central Asia. Of course, China will know best what it wants to do. □ *Reviewed and Approved by the FAS Executive Committee.*

This newsletter was prepared by Jeremy J. Stone with the technical assistance of Charles Ferguson who also drafted pages 9-12. It will be presented at an ISODARCO arms control conference in Shanghai, China in October.

## FAS FUND

The Federation of American Scientists Fund, founded in 1971, is the 501 (c)(3) tax-deductible research and education arm of FAS.

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The *FAS Public Interest Report* (USPS 188-100) is published bi-monthly at 307 Mass. Ave., NE, Washington, D.C. 20002. Annual subscription \$25/year. Copyright © 1998 by the Federation of American Scientists.

Periodicals Postage Paid at Washington, D.C.

POSTMASTER: Send address changes to FAS, Public Interest Rep., 307 Massachusetts Avenue, NE, Washington, D.C. 20002.

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## CHINA'S MOTIVATIONS FOR REGIONAL MISSILE CONTROLS

*The Threat to Chinese Interests Arising from North Korean Missiles:* China has several reasons for wanting: to discourage the Democratic People's Republic of Korea's (DPRK) development of longer range missiles; to preclude the production of DPRK's tested medium range missile; and to seek a Northeast Asian Missile-Free Zone.

1). *To Discourage U.S. ABM Systems:* If not stopped, it seems likely that long-range DPRK missiles will, eventually, induce the United States to build an anti-ballistic missile system—perhaps within a decade. This could undermine the Chinese deterrent in the eyes of the Chinese military and force China to new missile-related expenditures.

2). *To Prevent DPRK Missiles from Catalyzing Missiles--or Anti-Missiles--in Japan, South Korea and Taiwan:* The goal of a longer range DPRK missile is to threaten to attack U.S. bases, and even the U.S. itself, so as to deter the U.S. from coming to the aid of South Korea in a war with the DPRK. If, somehow, the DPRK seemed successful in thus undermining the U.S.-Republic of Korea (ROK) alliance, South Korea would want its own missiles and anti-missiles. Indeed, if the U.S. commitment to the South were undermined, so also would be the U.S. commitment to Japan. Japanese missiles and anti-missiles might be the result. The same thing applies to Taiwan which would instantly acquire missiles if America were driven out of Asia.

3). *To Prevent the DPRK from Selling Missiles, Directly or Indirectly, to China's Neighbors:* It may not be an immediate problem for China if the DPRK sells missiles to Iran but what if, someday, it sold medium range missiles to Vietnam or to the former CIS states to the north of China or even to Taiwan. Chinese influence *might* prevent the DPRK from selling missiles to countries bordering China. But DPRK sales of missiles even to countries not neighboring China, such as Iran, could threaten China if these countries began to sell missiles (perhaps even improved versions of the missiles) to China's neighbors.

4). *To Prevent the DPRK from Initiating War on the Korean Peninsula:* Missiles are a rising weight in the North Korean threat to attack and/or to destroy the South if war breaks out. Since North Korea is failing economically, and refuses to soften its position toward the South, an eventual war between the South and the North cannot be precluded. Such a war is not in China's interest, and limits on missiles could help make the war less likely.

5). *To Prevent the DPRK from Holding China Hostage:* In an apocalyptic situation in which North Korea faced defeat in such a war, missiles owned by the DPRK might be used to blackmail China into providing more aid to the DPRK than China would like. The more missiles the DPRK has, armed perhaps with chemical or biological weapons if not nuclear ones, the more it provides an implicit threat to China. Kim Jong Il might tacitly or openly threaten *Gotterdammerung*.

### South Asian Missile Limitations

*China's Interest in Limiting Missiles in South Asia:* Limitations on missile numbers, characteristics or states of alert in a region composed of Pakistan, India and parts of China adjacent to South Asia could be valuable for China. Depending upon how they were formulated, they could:

1). *Slow the Growth of India's Threat to China:* The sooner India and Pakistan have missile limitations in place, the more limited will be the number of Indian missiles that can reach China. India and Pakistan have had three wars already and have a disputed zone in Kashmir that may provoke another war. If war broke out, anti-Chinese feeling in India is such that, India might, in extremis, threaten China--perhaps in anger at the destruction in India caused by Pakistani missiles which Indians believe were armed with Chinese help.

2). *Relieve China From Related Pakistani Requests:* In the absence of controls on missiles in South Asia, China may feel obliged to respond

favorably to any Pakistani requests for missile-related help it needs to keep up with an economically more powerful India. Help in these requests will hurt China's image in the U.S., and may sometimes violate the Missile Technology Control Regime (MTCR) rules which China has pledged to uphold.

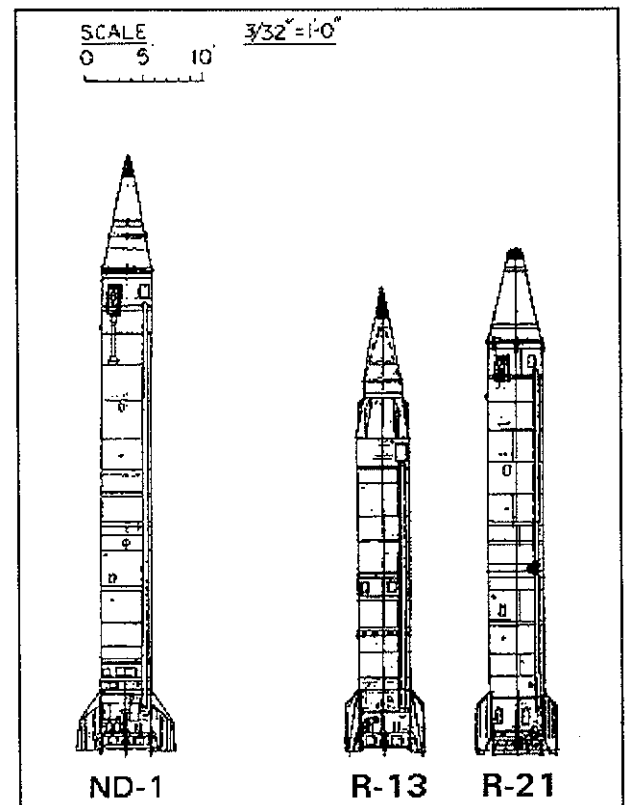
3). *Be a Good Neighbor to India and Pakistan:* China cannot be fully at peace with India so long as India and Pakistan are not at peace with each other. And this peace cannot be accomplished with a missile race raging in South Asia. Since this missile race cannot be ended without at least symbolic participation by China, China should--to be a good neighbor and bolster its relations with both Pakistan and India--show a willingness to help in some kind of regional missile freeze in numbers, quality or state of alert.

*China's Interest in Missile-Free Zones in Central Asia:* China's northwestern neighbors are in an early stage of nation development and their borders with Russia, and with each other, may be tested someday. They are often related ethnically with Chinese minorities who might ask for help. And the leadership of these Central Asian states may, from time to time, be prone to brinkmanship and hard to deter. While no particular current scenario shows danger to China, the number of future scenarios that might be large.

### China's Long Range Interest

*China's General Long Range Interest in a World-Wide Regime for Missiles and Missile Disarmament:* It is not in China's interest to have states abandon treaties and conventions that preclude weapons of mass destruction simply because they come to have the (missile) delivery systems to carry them. But there are further specific arguments:

1). *To Preserve China if World War Breaks Out:* As large as it is, China could be destroyed today by American or Russian missiles. It is in China's interest to move the world away from missiles, either in numbers or in states of alert, in America and Russia.



*It is believed that the DPRK's Nodong-1 is derived from the Soviet missiles, the R-13 and R-21. (Depicted in above drawing.)*

2). *To Equalize China's Missile Strength with That of Other States:* The elimination of nuclear armed missiles, albeit over a long period of time, has a tendency to equalize China's strength with that of America and Russia by reducing the stocks of their missiles. In the end, all would be equal--insofar as missiles armed with weapons of mass destruction were concerned--at zero. Of course, in this future era, each country could maintain bombers with which to deliver nuclear warheads. But bombers pose a much less dangerous threat.

3). *Help Advance World Nuclear Disarmament:* It is likely that the world will go through a phase of negotiated or *de facto* disarmament of missiles en route to zero-nuclear weapons. The threat of missile delivery of weapons of mass destruction will, otherwise, tend to preclude total nuclear disarmament. Since a world without nuclear weapons is in China's interest, it is in China's interest to assist the world on the road to missile disarmament. □

## WHAT COULD CHINA DO? THREE REGIONAL MISSILE CONTROL ZONES

*A Northeast Asian Missile-Free Zone:* China should consider proposing a (medium-range) missile-free zone in Northeast Asia including all of Korea, Japan and part of China. Two versions of China's contribution to such a zone—one with "interior basing" of Chinese missiles and one with missile-free outer-region zones—are shown on page 6. Interior basing is a major de-alerting step that keeps mobile missiles out of range of their targets. The proposal would be seen favorably, in the region and in Washington, as a signal of China's readiness to help create a missile-free Korea whenever the time is right as well as China's current interest in pursuing limits on the DPRK missile program.

As a further inducement to the creation of such a zone, China could offer not to be the first to use any kind of missiles, even conventional ones, in this zone. Such a proposal would provide a focal point, in any case, for missile restraints and might induce the U.S. Government to reflect on what contributions it might be willing to make to buy out North Korean missile capability to secure a Northeast Asian Missile-Free Zone.

Such a diplomatic initiative would at least create an atmosphere that was less conducive to the introduction of missiles and anti-missiles in the zone.

*A South Asian Missile Control Zone:* Because India explains its Agni missile program by pointing at a Chinese threat, it is politically impossible for India to agree on a missile control regime with

Pakistan without Chinese participation. The two maps shown on page 6 reflect two possible Chinese contributions to such a regime through moving Chinese medium-range missiles further from India.

China could also convene an annual tripartite conference of India, China, and Pakistan to discuss missile threats in the region and to provide an opportunity both for various confidence-building measures and for the pursuit of measures that would constrain the use of missiles. For example, it is possible that some kind of "no first use of missiles" doctrine, including conventionally armed missiles, could be agreed by all three countries—perhaps "no first use of missiles unless invaded." (Of course China and India have stronger positions on nuclear-armed missiles.)

Certainly "no first use of missiles against cities and against peaceful nuclear facilities or civilian infrastructure, such as dams" would be desirable akin to the 1992 Indian-Pakistani Agreement on Non-Attack on Nuclear Facilities. One can imagine communiqués agreeing to keep missiles at the lowest possible state of alert—with warheads removed from missiles under peacetime circumstances.

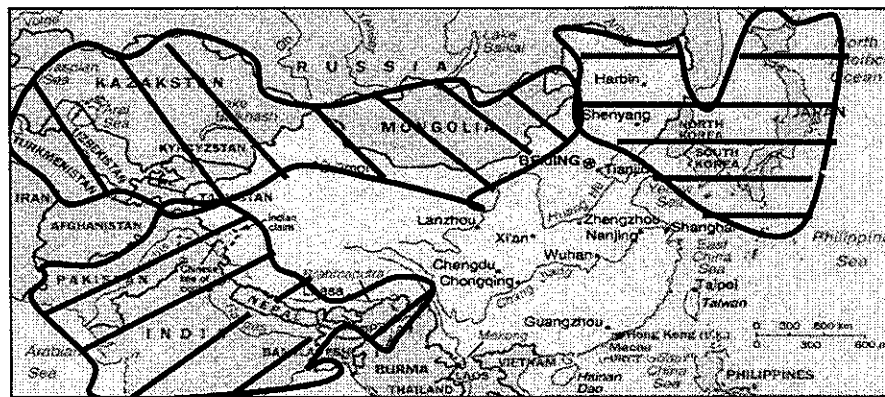
*A Negative-Security Assurance Declaratory Zone for China's Northwestern Tier:* For Central Asian countries, that have little or no effective missile capabilities, China could offer a "negative security assurance" that it would never use any kind of missile against a "non-missile state," i.e., a state that had foregone acquiring missiles. Russia could extend such an offer also. This would encourage, and lock in, Central Asian state policies not to acquire long-range missiles. China might further encourage such policies by moving medium-range missiles away from Central Asia as shown on page 6.




*China, the Superpowers, and the World:* China's 1964 pronouncement that it would never use nuclear weapons first might well be generalized, in the next century, as a "no-first-use of missiles" of any kind against any other country. Its threatened use of missiles against Taiwan, such as in March, 1996, would, no doubt, *if necessary*, be distinguished as a use against part of its own country. □ JJS

### THE ULTIMATE MISSILE CONTROL ZONE

An ultimate global missile control zone could be created through a process of regional missile-free zones which, after all, already effectively exist in Latin America, Africa, and Oceania. One process might involve the U.S. and Russia agreeing to a 50% reduction in ICBMs in return for a worldwide commitment to negotiate the remaining regional zones. The major powers would commit to eliminating the remainder of the ICBMs after the zones are in place. (See FAS Public Interest Report of May/June 1992 for a schematic draft.)

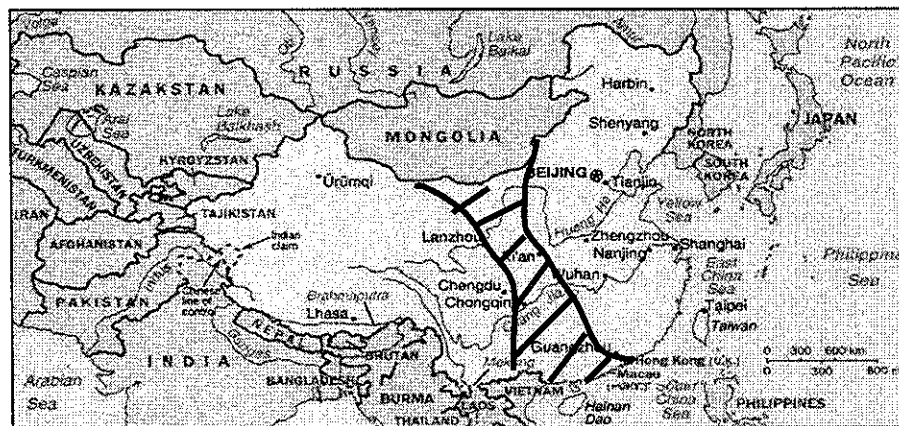
### Possible Medium-Range Ballistic Missile Control Zones Possibility A: China Contributes Missile-Free Outer Region Zones



-  Northeast Asian Zone (proposed to be missile-free)
-  Central Asian Zone (proposed to be missile-free or protected by missile-related negative security assurances)
-  South Asian Zone (designed to promote negotiated missile controls in India and Pakistan)

This map sketches three illustrative ballistic missile control zones in Northeast, South, and Central Asia. As China replaces its liquid-fueled, medium-range missiles, it could offer, in each case, to base the solid-fueled replacements, which are in any case mobile, outside the hatched zones. Thus China's contribution would be to keep its medium-range missiles a respectable distance away from its neighbors as a confidence-building measure. In return, China would seek missile-free areas in the Northeast zone, declaratory restraints in the Central Asian zone, and negotiated controls on missiles in the South Asian zone. (Medium-range missiles are defined as having ranges between 1,000 and 3,000 kilometers.)

### Possibility B: China Contributes Interior-Basing



This map shows that, after China replaces its liquid-fueled, medium-range missiles with shorter-range (1,800 km), solid-fueled, mobile missiles, there will be a substantial "interior zone" of China, each part of which is more than 1,800 km from any part of Japan or India (except for India's Northeast Territory), where basing would be non-threatening. This interior basing area is hatched. (If this missile basing proposal were contingent on keeping only the capitals, Tokyo and New Delhi, out of range, rather than Japan and India as a whole, the "interior zone" would be at least 1,000 km wider.) In particular, in the case of India and China, such "interior" deployment would eliminate any threat of one country's medium-range missiles attacking the other country's missiles on their bases – thus eliminating any danger of preemptive missile firings arising from reciprocal fear of attack.

## DEALING WITH THE DPRK: THE GRAND BARGAIN

The time may have come for a concerted effort by the United States, Japan, China, and South Korea, to craft a plausible comprehensive package proposal for the DPRK--a Grand Bargain--resolving not only missiles and bombs in North Korea but the state of war itself between the North and the South (and the United Nations) and the future economic prospects of North Korea.

There are many reasons to believe this might not work. But it seems worth a try if only because the other alternatives are likely to exhaust the patience of most participants. Much would depend upon whether China could be persuaded to take the lead. And most depends upon the attitude of Kim Jong Il. (At the moment it appears that Kim Jong Il plans to keep China at arms length and, in particular, that he will meet with few if any outsiders, having foregone becoming President.)

### The DPRK Today

The DPRK is an atomized society with no groups or factions permitted independent of the control of the Worker's Party and its leader Kim Jong Il. But the Party knows that the DPRK will not be attacked and, indeed, that many in South Korea fear--rather than hope for--the collapse of the North.

Therefore, the danger to the DPRK regime lies in internal unrest. And while this future unrest could be catalyzed by opening up to the outer world, that relaxation danger must be balanced against the current unrest that is being produced by the failing effort to maintain economic autarchy. Millions may have died from famine already. Agricultural and economic production continues to decline.

For the North, opening up is not so much an option as an eventual necessity. But if it is to open up, it will presumably want to know what the future might hold. So the idea of a Grand Bargain that includes economic benefits just might make sense to Kim Jong Il. The DPRK seems to have asked, in 1993, for a payoff from Israel of \$500,000,000 to \$1 billion for discontinuing missile sales to Iran.

For the impatient United States, anything less than a Grand Bargain hardly seems worth the diplo-

matic and political difficulties. It is increasingly difficult to imagine the United States "buying off" the DPRK, in response to on-going step-by-step blackmail.

Not to be forgotten in considering U.S. payments toward a Grand Bargain, the U.S. multi-billion dollar interest in avoiding expenditures on a missile defense system--one that might be catalyzed by the DPRK's missile program.

The Japanese, also, are unlikely to accept being blackmailed periodically about missiles and bombs. But faced with the costs and uncertainties of buying missile defense, the Japanese might be willing to offer reparations as part of an overall comprehensive Grand Bargain.

The older Chinese view that it needed a weak and friendly communist state "buffer" on its Yalu border must, by now, have been overtaken by apprehension concerning the erratic nature of the DPRK and by China's good relations with South Korea. A Grand Bargain would, among other things, stop the annual drain reflected in Chinese food aid.

### Could North Korea Provoke Japan?

Alternatively, China may someday face not only Japanese missile defenses but even a newly militarized Japan with its own missiles. *In sum, North Korea could awaken the sleeping giant of Japan.* The August 31 DPRK firing has already encouraged Japan to launch a satellite and thus move closer to a missile capability.

With the world under increasing economic stress, there is real question about how much cold cash the North Koreans could get as part of a peace treaty. The most important economic benefit to the DPRK of a Grand Bargain might come from the U.S. dropping the embargo which would unleash economic energies of the North Korean people and from Japanese reparations.

In its June 16, 1998 statement, the North Koreans linked a "discontinuation" of its missile program to U.S. troop withdrawals from Korea. Even this demand could be satisfied through a staged agreement.

The United States might ask for a discontinuation of the North's program of long-range missiles, and the sale of them, as part of a peace agreement. Meanwhile, the discontinuation of shorter range missiles (e.g., Scud missiles) designed for defense of the North (and/or use against the South) could be linked to the withdrawal of U.S. forces (along with whatever other conditions were required to make the South feel safe from attack).

### Secrets Undermine a Grand Bargain

The biggest difficulty in reaching any agreement with the North is its psychology. It does not accept any responsibility for the attitudes toward it by the South or the United States and simply sees the U.S. as "pursuing economic isolation of the DPRK for more than half a century." Based on its past behavior, it would have

no compunction about cheating on agreements if it could do so. And because the North Koreans are great diggers, and have even shoe factories under ground, it would be difficult to be sure that all missiles were known and accounted for without great cooperation. This cooperation runs against the grain of the North's penchant for complete secrecy. So agreements would have to be staged appropriately.

It is possible that the DPRK might simply collapse or, when it nears such a state, may simply replace Kim Jong Il with some other leader, perhaps making subsequent negotiation easier. But the DPRK has shown resilience and complete control of every

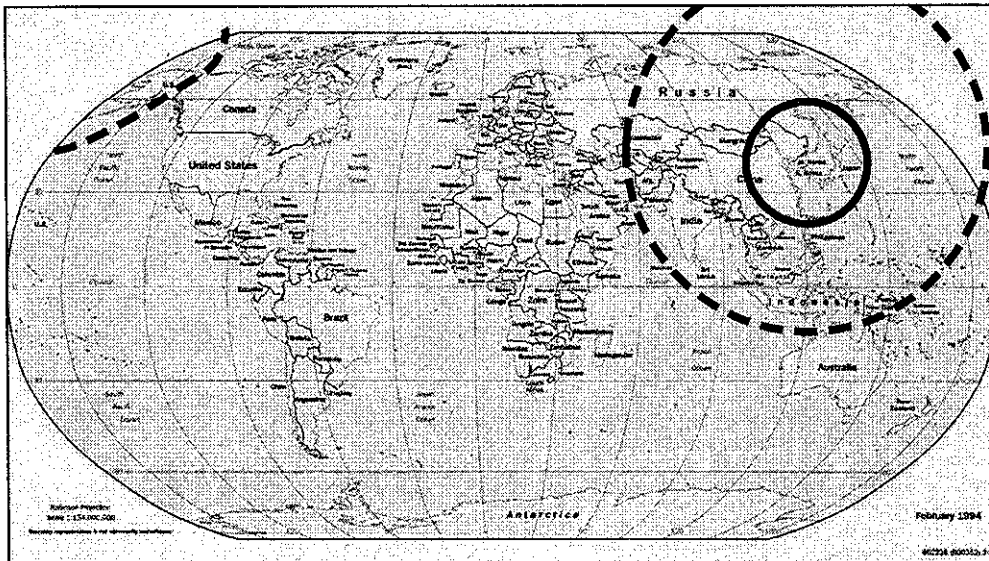
citizen. Internal resistance, at any level, is quite difficult. State control is so all-pervasive that coup plotting is almost impossible. Waiting is thus an uncertain strategy. And one important advantage of trying to negotiate a Grand Bargain, even while waiting, is the possible constructive effect such an effort might have on Kim Jong Il—and on his highest associates.

But how to start? One approach would be for China to take a lead by sounding out the other Governments as to what might be offered.

If China were unwilling to take a lead, a second possibility would be for the United States to seek a special envoy to see what kind of deal could be struck. This might be President Jimmy Carter, whose trip to Pyongyang in June 1994, helped defuse a state of tension.

But the most likely source of the diplomacy required for such a Grand

Bargain is China. China has the closest relationship with North Korea, the motivation of eliminating a drain on its resources, and the strong interest in forestalling missile defenses in both Japan and the United States. Above all, China backed the DPRK in the Korean War, and lost perhaps 1,000,000 Chinese men. It is, therefore, only appropriate that China be allowed by the DPRK to take a lead in the peace settlement. In dealing with North Korea, China should try to play the Korean War card. □ JJS



*This map shows the possible ranges of North Korea's recently tested Taepo Dong 1 (—) medium-range missile and the Taepo Dong 2 (- -) intermediate-range missile, which is under development.*



## A Worst Case Missile Threat to China

*Charles D. Ferguson*

According to a recent U.S. (Rumsfeld) Report, nations seeking to develop ballistic missiles could acquire the necessary knowledge faster and more secretly than in the past through increased access and use of information technology, such as the Internet. Moreover, increased cooperation among these nations could accelerate their ballistic missile programs further. The availability of missile equipment and technology has also grown through relaxation and lenient enforcement of export control laws, transfer of dual-use technology, and espionage, to name some important means. These factors complicate China's problems, as much as they do America's. In particular, China has the following missile-related problems with its neighbors (summarized in italics for each country or region).

### India--Determined to Develop a Deterrent

George Fernandes, India's Defense Minister, repeatedly stated before nuclear testing began that China is India's primary security concern. While Fernandes and other Indian officials have subsequently played down their remarks, India's threat to China is growing. On September 4, Fernandes announced that India will soon test a 3,000 km range missile, the Agni II, (which can reach Beijing) and will develop an anti-missile defense system.

In addition, India has recently tested the 2,000 km range Agni missile that could reach numerous Chinese cities as well as many of China's important nuclear facilities, such as Chengdu (Nuclear Power Institute of China), Mianyang (Chinese Academy of Engineering Physics, the "Los Alamos of China"), Heping (gaseous diffusion uranium enrichment plant), and Yibin (nuclear fuel component plant for processing plutonium), as well as military missile and air base sites, such as Tongdao, Kunming, and Jianshui. Like Japan, India has a space launch program adaptable to a long-range ballistic missile program. Unlike Japan, India's nascent space program would probably take longer to convert to military purposes.

Weaponization of India's nuclear devices will significantly raise the danger of its missile program,

and their recent nuclear tests were adequate to proceed with weaponization. According to General Eugene Habiger, former commander of United States Strategic Command, India and Pakistan will need three to five years (some analysts predict one year) to go from nuclear tests to nuclear-armed missiles. Although economic constraints would probably limit the size of India's missile arsenal, estimates of available Indian plutonium to produce weapons range from 65 to 90 bombs worth. Reprocessing capacity currently limits the growth of India's plutonium stockpile. However, India reportedly is constructing a commercial scale reprocessing facility at Kalpakkam, which could quadruple India's current rate of plutonium production. [*India could deploy nuclear-armed medium-range ballistic missiles within a year.*]

### North Korea (DPRK)--An Enigmatic Threat

On August 31, North Korea flight-tested its latest long-range missile, the two-stage Taepo Dong 1, which flew about 1,300 km partly over Japan with or without a disputed satellite third stage. The next day, Japan stated that it was suspending talks geared toward diplomatic ties with North Korea, stopping food shipments, and reconsidering a ballistic missile defense (BMD) system. On September 8, Russia's Itar-Tass news agency reported that North Korea plans a second missile launch soon.

Currently, the Department of Defense esti-

### Global or Regional MRBM Ban

After the U.S.-Soviet Intermediate-Range Nuclear Forces Treaty of 1987, there was discussion of enlarging it to a global ban on medium/intermediate range missiles. This important possibility could, perhaps, be approximated by an Asian region ban on such missiles. China could offer to give up land-based medium/intermediate range missiles in return for pledges from India, Pakistan, Japan and both Koreas to abandon these and any other missiles that could reach Beijing.

mates that North Korea possesses several hundred Scud Mod B (300 km range and 1,000 kg payload) and Scud Mod C (500 km range and 700 kg payload) missiles. North Korea has now tested two medium-range ballistic missiles, the Nodong (1,000 km range) and the Taepo Dong 1 (more than 1,500 km range), which, when deployed, could reach Beijing or Shanghai. Furthermore, North Korea is developing even longer range ballistic missiles, such as the Taepo Dong 2 (4,000 to 6,000 km range). The Taepo Dong 2, when operational, could reach all of China.

Some reports indicate that North Korea may have separated about one to two bombs worth of plutonium from Yongbyon. [*North Korea already poses a medium-range ballistic missile threat.*]

### **South Korea (ROK)--Dependent on the U.S.**

Although South Korea only has very short-range surface-to-air missiles, it could tap into its industrial base and technical expertise--in part associated with a desire to develop a space launch capability--to conduct a secret long-range missile development and production program.

While presently this scenario appears implausible because of United States security guarantees and a 1979 US-ROK accord (reaffirmed in 1990) to limit ballistic missiles to ranges less than 180 km, a perceived increased threat from North Korea has led the ROK to indicate that it may break from this accord. The ROK is applying for Missile Technology Control Regime (MTCR) membership and may use the MTCR as a way to withdraw from the U.S.-ROK accord and to develop longer range missiles.

#### **A U.N. RESOLUTION ON MISSILES?**

Perhaps the time has come for some State to introduce a resolution in the U.N. General Assembly seeking to stir interest in the control and eventual prohibition of ballistic missiles. The resolving clause of such a resolution could read something like this: "Resolved: As part of the world campaign to eliminate the possession and use of weapons of mass destruction, States are urged to develop ways to control, prohibit and eliminate the use of ballistic missiles for their delivery."

In 1994, the U.S. deployed Patriot anti-ballistic missiles (ABMs) in South Korea. Although the ROK has been disinclined to buy more Patriots, the U.S. has applied pressure for these sales, while discouraging the ROK from buying Russia's cheaper S-300 ABM. However, according to the *Korea Times*, the DPRK's recent missile test spurred the ROK's military to increase its development of the M-SAM, a theater missile defense (TMD) system based on the Russian S-300. The ROK wants to deploy the M-SAM by 2008.

In recent years, American officials have sought to shift more of the burden of supporting the 37,000 U.S. soldiers in South Korea, and since 1991, the ROK has expanded its cost-sharing for U.S. troops. However, a global economic slow down and increasing pressure from the U.S. to provide additional cost sharing could cause the ROK to reevaluate the presence of U.S. troops. Already, much of the South Korean public resents the ROK's inferior position in the U.S.-ROK alliance.

With a mature nuclear power industry and rich scientific talent, South Korea possesses the knowledge, skills, and nuclear material to develop nuclear weapons. However, to divert the fissile material into nuclear weapons, South Korea would have to circumvent International Atomic Energy Agency Safeguards or withdraw from the Non-Proliferation Treaty. [*South Korea could deploy medium-range ballistic missiles within a decade if the U.S.-ROK missile limitation accord broke down.*]

### **Japan--Eager for Defenses**

The Japanese press reports strong public support for BMD although Japan's military establishment may be reluctant. Presently, Japan deploys the Patriot ABM but expresses concern over its limited effectiveness. Japanese officials, however, have not been willing to spend the billions of dollars that the U.S. has requested in order for Japan to participate in advanced TMD research, such as THAAD (Theater High Altitude Area Defense). The recent North Korean missile test comes at a critical juncture because the Japanese will soon decide whether or not to allocate more money for TMD research and more DPRK tests could cause more problems.

Even slight changes, such as U.S. troop withdrawals, in the U.S.-Japan security arrangements could also foster deployment of TMD systems in Japan. For instance, in the July/August issue of *Foreign Affairs*, former Japanese Prime Minister Morihiro Hosokawa called for reforming this alliance by putting "America on notice that it [Japan] will not renew the agreement [to pay the costs of utilities, construction, and 24,000 civilian employees at U.S. bases] in 2000." Moreover, he writes, "The U.S. military presence should fade with this century's end." He cites Japanese polls that favor this position. If U.S. troops ever withdrew, the U.S. would probably feel obliged to accept Japan's request for advanced TMD.

Importantly, work on TMD systems goes forward in parallel with any such political developments. Therefore, Japan may demand an advanced TMD system regardless of its accuracy soon after amenable political changes occur.

The missiles of certain TMD systems-- used as offensive weapons-- may exceed the 300 km range threshold of the MTCR. As long as the payload does not exceed 500 kg, these missiles would fall under Category II of the MTCR and would most likely be transferred. For instance, THAAD's missiles could travel more than 1,000 km in a surface-to-surface mode, but their payload (kill-vehicle) is much less than the 500 kg threshold of Category I, the most restrictive category. Even if these missiles fall under Category I by surpassing the 300 km/500 kg limits, the recipient government, such as Japan, might gain access to them by pledging that they would be used responsibly and exclusively for missile defense.

### **Possible Effect of a Republican Administration**

If Republican attempts to dismantle the ABM Treaty are successful, the U.S. itself might develop and deploy even more advanced systems that it could transfer to Japan. According to the Heritage Foundation's view, only political will prevents the deployment of TMD systems, and the United States could soon deploy effective TMD systems.

Japan possesses space launch vehicle technology that it could easily convert to ballistic missile use within possibly a year after deciding to do so.

Japan's extensive nuclear industry contains tons of already separated reactor-grade plutonium, which could be used for nuclear weapons. Within a year of deciding to develop a nuclear weapon, Japan could acquire the weapons materials and a workable design by drawing upon available unclassified information and its technical expertise. [*Japan could develop medium-range, nuclear-armed ballistic missiles within one year.*]

### **Taiwan (ROC)--Looking for Break-Out**

Taiwan continues to flirt with declaring its independence. It could try to deploy long-range ballistic missiles. Already, it has experienced China's missile power during China's 1995 and 1996 missile firings near Taiwan.

U.S. aircraft carriers patrolled close to Taiwan to quell the 1996 missile tensions. After Japan signed the 1997 Japan-U.S. Acquisition and Cross-Servicing Agreement, a Japanese official stated that the U.S.-Japanese security zone includes the Taiwan Straits. However, Taiwan may fear not being able to rely on the U.S. presence. Presently, Taiwan owns some very short-range (130 km) Ching Feng missiles and may be developing longer-range missiles, such as the Tien Ma (950 km) and the Sky Spear (a modified surface-to-air missile with 300 km range), that could strike the mainland.

Recently, Taiwan deployed an indigenous TMD system, the Tien-kung. In January, Taiwan received 200 Patriot missiles from the U.S. Although Taiwan wants to acquire more advanced TMD systems, the U.S. hesitates in order to preserve friendly

### **A Unilateral Initiative With Regard to Taiwan**

If China decides to embark on a series of arms control initiatives involving missiles--as this FAS Report recommends--it might well want to consider a unilateral initiative for Taiwan. It could, for example, move the mobile short-range missiles that have previously threatened Taiwan back from its coast and out of range of Taiwan. This confidence-building measure would be designed to create a political atmosphere less conducive to Taiwan's purchase of missiles of its own.

relations with China. But, a Republican administration could follow the advice of Republican leader Robert Dole, who, in 1996, called for exporting THAAD to Japan, South Korea, and Taiwan, and of the conservative Heritage Foundation, which, in a 1995 study, called for deploying advanced TMD systems in East Asia.

### Vietnam--Can No Longer Be Chastised

Vietnam, an historic enemy of China, has only a few SCUD B missiles (300 km) that it received from the former Soviet Union and presumably has limited or no missile production capabilities. Because Vietnam is primarily concerned with economic development, it is unlikely to devote resources toward procuring long-range ballistic missiles for the foreseeable future. But in a world in which ballistic missiles are sold freely, any future Chinese conflicts with Vietnam--as in 1979 and 1987--would presumably lead Vietnam to begin buying missiles. The current disputes over oil or the Spratly (Nansha) Islands between China and Vietnam in the South China Sea could be a source of violence--as in the 1988 naval exchange near the Spratlys--that triggers Vietnam to procure missiles. [*Vietnam, if it felt threatened by China, might buy medium-range missiles from North*

*Korea, Iran, or India within a few years.*]

### Central Asian States--Possible Future Problems

The Central Asian states are poor, but they could conceivably have disputes with China, perhaps over the treatment of Muslim populations in China across their borders. In a world of cheap ballistic missiles, they might, if they felt threatened, buy some. Of course, they also might buy missiles for use against Russia and have them available for possible use against China as an inadvertent result. [*Central Asian states might purchase medium-range ballistic missiles within a few years if relations with Russia or China worsen.*]

#### Iranian Conference on Non-Renewable Energy

As part of its effort to open scientific exchange with Iran, FAS is sponsoring the 2<sup>nd</sup> International Non-Renewable Energy Sources Congress to be held in Tehran, December 12-17. FAS members wishing to participate should consult <http://www.iranpac.net.ir/~haghtlab> and send a registration fee no later than October 1.

**FAS PUBLIC INTEREST REPORT** (202) 546-3300  
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September/October 1998, Volume 51, No. 5

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