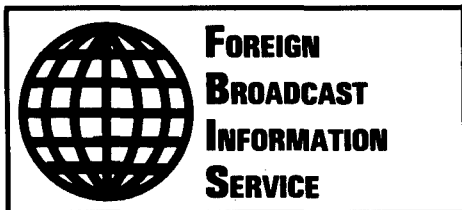


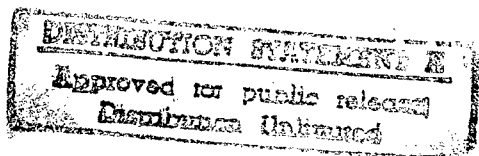
JPRS-TND-93-017
7 June 1993



JPRS Report

Proliferation Issues

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PROLIFERATION ISSUES

JPRS-TND-93-017

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7 June 1993

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Spokesman Plays Down Influence in DPRK Nuclear Row

HK0306085893 Hong Kong AFP in English 0843 GMT 3 Jun 93

[Text] Beijing, June 3 (AFP)—The Chinese Government said Thursday it could only play a limited role in trying to reverse North Korea's apparently imminent withdrawal from the nuclear Non-Proliferation Treaty (NPT). "China's role in this respect is limited," Foreign Ministry spokesman Wu Jianmin told a press briefing. The nuclear issue was mainly between North Korea and the United States, the International Atomic Energy Agency (IAEA) and South Korea, he added.

North Korea has said it will quit the NPT on June 12 after it refused to accept IAEA inspections of nuclear facilities suspected of trying to produce a nuclear weapon.

U.S. Government officials say Beijing has been helpful in trying to resolve the potentially destabilizing situation on the Korean peninsula, but Thursday's statement seemed to indicate China felt it had done all possible.

After the collapse of the Soviet Union, Beijing remains the only major supporter of the Stalinist government in Pyongyang, but even that relationship has been strained in the past year.

Ongoing U.S.-North Korean talks in New York are seemingly deadlocked, but the Chinese spokesman still held out some hope for a breakthrough. "We sincerely hope that progress can be made in the negotiations between the two sides and we hope that the negotiations will yield positive results so that there will be an appropriate solution to the issue of nuclear inspection," he said.

Qian Qichen Comments on Korean Nuclear Issue

SK2905080393 Beijing China Radio International in Korean 1110 GMT 28 May 93

[Excerpts] In a news conference in Seoul on 27 May, Chinese Vice Premier and Foreign Minister Qian Qichen said that his visit to the ROK was successful. [passage omitted]

Regarding the nuclear issue of the Korean peninsula, Vice Premier Qian Qichen said: "China opposes the existence of nuclear weapons on the Korean peninsula and agrees to the denuclearization of the peninsula."

He said: "The nuclear inspection issue of North Korea [choson pukchuk] is an issue between North Korea and the International Atomic Energy Agency [IAEA]. Accordingly, I hope that the two sides will resolve the issue through negotiations."

He also said: "China opposes neither mobilizing pressure to resolve this issue nor referring it to the UN Security Council."

Vice Premier Qian Qichen said: "I agree that dialogue on the nuclear issue of the Korean peninsula should be held between Korea and the United States, between South and North Korea, and between North Korea and the

IAEA. I hope that they will make progress in resolving the issue through dialogue." [passage omitted]

Civilians Benefit From Nuclear, Chemical Research

OW0306020193 Beijing XINHUA in English 0134 GMT 3 Jun 93

[Text] Beijing, June 3 (XINHUA)—Chinese civilians are benefiting from a number of research achievements by the Chinese Academy of Military Medical Sciences.

A whole range of technology, equipment and protective measures to fight against nuclear radiation has been developed to treat people injured in the nuclear industry or in environmental disasters.

Some anti-radiation medicines developed by the academy have been designated by the National Nuclear Safety Administration for use in China's nuclear power stations.

The academy has also set up an emergency medical relief center to deal with nuclear accidents.

In the course of study against chemical weapons, the academy has developed an injection to cope with organophosphorus insecticide poisoning.

In addition, the academy aims to serve civilians better with its achievements in microbiology, sterilization, immunology and antibiotics.

Daya Bay Power Plant's 1st Unit Loaded With Nuclear Fuel

OW0206081893 Beijing XINHUA in English 0732 GMT 2 Jun 93

[Text] Shenzhen, June 2 (XINHUA)—The first generating unit of the Daya Bay nuclear power plant in south China's Guangdong Province completed the loading of nuclear fuels Tuesday [2 June].

According to the scheduled requirement, the generating unit will be jointly supported by the Guangdong and Jiulong grids to carry out a critical test after being loaded with fuel, then it will join the grid to generate electricity, raise the power and undertake trial operation.

It is expected to officially go into commercial operation by the end of this year after passing tests.

An official of the Daya Bay Nuclear Power Plant said that the plant's construction and preparation for production are proceeding well.

The installation, tests and preparation for production of the first generating unit before being loaded with nuclear fuels earlier passed strict examination and appraisal by the National Nuclear Safety Administration, the State Environmental Protection Bureau and the China National Nuclear Corporation respectively.

On May 28, strictly following operational procedures, workers began to load nuclear fuels into the generating unit.

REGIONAL AFFAIRS

Qian Qichen, Muto Discuss Regional Security Issues

OW2905141693 Tokyo KYODO in English 1353 GMT 29 May 93

Excerpts] Tokyo, May 29 KYODO—Chinese Foreign Minister Qian Qichen on Saturday [29 May] praised Japan's peacekeeping role in Cambodia, but urged the country not to neglect Asian concerns about its history of militaristic expansion, Foreign Ministry officials said. Qian, who arrived earlier in the day for a four-day official visit, also agreed in three hours of talks with Japanese counterpart Kabun Muto to Muto's proposal for a Sino-Japanese dialogue on security issues. [passage omitted]

Officials said Qian, who is also a deputy premier, agreed to Muto's proposal to begin a bilateral dialogue on regional security issues in the post-Cold War era as a means of boosting mutual confidence and enhancing stability in the region. But the Chinese foreign minister did not immediately agree to Muto's idea of a new bilateral forum for such a dialogue, they said.

While agreeing on the importance of discussing security issues, Qian said perhaps existing bilateral forums could be utilized rather than setting up a new venue for the purpose. Muto said the proposed talks would include senior officials of the two countries' Foreign Ministries, and possibly defense officials.

Qian was quoted as saying China considers it premature to start building new structures for a broader regional dialogue on security. He said bilateral security dialogues should begin first.

On the issue of North Korea's suspected program to develop nuclear weapons, officials said Muto and Qian agreed on the need for continued efforts to persuade Pyongyang to reverse its decision to withdraw from the Nuclear Non-Proliferation Treaty (NPT). The decision, effective on June 12, was announced after an ultimatum by the International Atomic Energy Agency (IAEA) calling on North Korea to open two suspected nuclear facilities for inspection.

Officials said the two foreign ministers shared a hope that progress on the nuclear issue will be achieved in upcoming high-level talks between Washington and Pyongyang so that expected moves in the United Nations Security Council to impose sanctions can be staved off. China remains opposed to any economic sanctions against North Korea. Earlier this month, it prevented the Security Council from inserting a threat of sanctions against North Korea into a resolution calling on Pyongyang to "reconsider" its decision to pull out of the NPT.

Officials said Muto called on China to cooperate further in international efforts to stem the proliferation of weapons of mass destruction, as well as missiles and missile technology. Qian also reiterated China's insistence that any international controls on weapons and

weapons exports must be "rational, comprehensive, and balanced" before it will agree to them. He vowed that China, as a member of the NPT, will not transfer nuclear weapons technology to nonnuclear countries.

Officials said the Chinese foreign minister turned down Muto's request that China halt nuclear weapons tests, saying such tests are kept to a minimum and are less frequent than those of other nuclear powers. [passage omitted]

JAPAN

PRC Urged To Honor Nuclear Obligations

OW0106050593 Tokyo KYODO in English 0451 GMT 1 Jun 93

[Text] Tokyo, June 1 KYODO—Prime Minister Kiichi Miyazawa urged China Tuesday to honor its special responsibilities as a nuclear power by checking the spread of weapons of mass destruction, Foreign Ministry officials said. Officials said Miyazawa made the request during some 40 minutes of talks with Chinese Foreign Minister Qian Qichen, who arrived Saturday on a four-day official visit.

The request followed Foreign Minister Kabun Muto's urging in talks Saturday with Qian that China accede to the 28-member London guidelines, which govern exports of nuclear fuel and components that could be used for nuclear weapons development.

Some Western countries have criticized China for exporting nuclear technology to countries which have not concluded a comprehensive safeguards agreement with the International Atomic Energy Agency.

Officials said Miyazawa "reminded" Qian that as a nuclear power and a member of the nuclear non-proliferation treaty (NPT), China has a special responsibility to exert efforts to stem the proliferation of nuclear weapons.

On North Korea's decision to withdraw from the NPT, Miyazawa was quoted as saying it is an extremely serious issue from the standpoint of Japan's security.

Qian replied that China also attaches great importance to the matter as it wants to see a nuclear-free Korean peninsula. He said his visits over the past week to Japan and South Korea are part of China's efforts to tackle the problem.

Officials said Qian invited Miyazawa to pay an official visit to China.

Spent Fuel To Be Removed From Nuclear-Powered Ship

OW2805041193 Tokyo KYODO in English 0341 GMT 28 May 93

[Text] Aomori, May 28 KYODO—The Japan Atomic Energy Research Institute began an operation Friday [28

May] to remove spent fuel from the reactor of Japan's first and only nuclear-powered ship.

There are 32 sets of rods of spent nuclear fuel in the reactor of the 8,242-ton Mutsu, with each weighing about 120 kilograms, institute officials said.

On Friday, one spent nuclear fuel rod was to be removed and placed in a special container, officials said. The vessel is now berthed at Sekinehama port in Mutsu, Aomori Prefecture, northeastern Japan.

The institute will continue the operation by July removing one set of rods each day. The removed spent nuclear fuel will be transported around 2000 to a reprocessing facility in Tokai, Ibaraki Prefecture, the officials said.

The Mutsu ended its duty as a nuclear experiment vessel in January 1992, after completing tests at its home port in Mutsu.

The vessel, launched in 1969 and completed the following year, went to sea only four times.

The hull will be used for a large-scale oceanographic vessel, scheduled for completion possibly in 1997.

The marine observation ship, equipped with an unmanned diving craft for deep-sea exploration and a radio-controlled helicopter, will travel the world.

NORTH KOREA

Nuclear Researcher on North's Effort To Make Bomb

SK2805093693 Seoul WOLGAN CHOSON in Korean May 93 pp 342-346.

[An interview with Yi Chang-kon, researcher at the Korea Atomic Energy Research Institute, by Kang In-son: "Unification Will Become Difficult If North Korea Acquires a Nuclear Weapon"]

[Text] Traces of High-Explosive Tests Deliberately Left Exposed

[Kang] IAEA analysis of chemical waste samples provided by North Korea do not coincide with what North Korea has reported to the IAEA. It is said that the technology involved in such analysis is not that complex. If that is the case, was it not North Korea's intention to deliberately notify the international community of its reprocessing? In other words, from the very beginning North Korea has been pursuing nuclear development with the intention of utilizing it as a political card.

[Yi] Such a possibility exists. There is one other area that is incomprehensible: the remnants of high-explosive tests in the vicinity of the atomic energy research facility located in Yongbyon. The shock from such a high-explosive test is great. In an institute where precision research is taking place, the flight of just one helicopter overhead is enough to shake a table. Would there be a need to conduct high-explosive tests with similarly great vibrations so close to a research institute? There are many other facilities where such tests could have been

conducted and they also could have been conducted underground. One cannot help but reach the conclusion that high-explosive tests that would leave such traces were conducted deliberately so that they could be seen.

[Kang] The IAEA is said to have installed surveillance cameras after conducting ad hoc inspections of the atomic reactor and reprocessing facilities at Yongbyon. If that is the case, then any further reprocessing at those facilities is supposedly impossible. Do you believe that there are other reprocessing facilities in North Korea in addition to those at Yongbyon?

[Yi] IAEA surveillance cameras are said to take four photos per minute. This is an estimate, since the actual number of photographs taken is kept secret by the IAEA. Because these cameras are not connected to the power supply but run on batteries instead, inspectors of the IAEA must go directly and change the film and the batteries.

However, I feel that there are reprocessing facilities in North Korea other than those at Yongbyon. There is a possibility that the North has focused world attention on Yongbyon while there are other such facilities elsewhere. The possibility of this has already been proven in the case of Iraq.

There is one other possibility: North Korea has enriched uranium using centrifugal separation. There are two methods by which nuclear bombs may be produced: reprocessing spent nuclear facility to over 99 percent plutonium; enriching uranium and building the bomb.

Comparing these two methods, the method of extracting plutonium is similar to carrying a backpack to transport goods, while enriching uranium is similar to transporting materials on a conveyor belt. The advantage of uranium enrichment is that it can be done continuously and in large quantities. It also contributes greatly to technological development. In the recently revealed case of South Africa's secret nuclear development, an atomic bomb was built utilizing the uranium enrichment method.

Enriching Uranium Through Centrifugal Separation

[Kang] But aren't uranium enrichment facilities extremely large?

[Yi] The most utilized enrichment method up until now has been gas diffusion. This requires large facilities as well as a large quantity of water and electricity. Centrifugal separation, however, does not have as great a requirement. Of course, even with centrifugal separation the scale of facilities needed is still greater than that for reprocessing facilities. However, I still believe that North Korea has enriched uranium by centrifugal separation.

The last time that the IAEA inspection team visited North Korea, they reportedly found a tunnel 150 meters in length that North Korea had not reported. At the end of this tunnel was a room 40 meters in length, 10 meters in width, and 6 meters in height. When the room was entered, only the North Koreans carried flashlights.

Thus the IAEA inspection team was unable to see the inside of the tunnel in any detail and was therefore unable to confirm whether the room was connected to any power lines. When the IAEA asked what purpose the room was for, the North Koreans responded, "It is a location to where our scientists could flee should the U.S. imperialists bomb us." Taking into consideration their average height, however, there is no reason for such a facility to be six meters high. Some infer that this room was designed to place chemical facilities in. There are also possibly other rooms in addition to this one.

[Kang] If there is yet another reprocessing facility in addition to Yongbyon, then spent nuclear fuel would have to be transported there to extract the plutonium. Can spent nuclear fuel be easily transported?

[Yi] First, because spent nuclear fuel emits heat, there must be some means by which to cool the fuel in transit. Second, there must be facilities to shield the nuclear radiation. Up to this point, the technology involved in either of these two requirements is not that difficult. Third, in the case of advanced countries, the nuclear fuel must be protected in case it is dropped from a height of nine meters or more. However, as long as the first and second requisites above are guaranteed, there is no absolute necessity for the third.

With the length of nuclear fuel in North Korea's atomic reactor being under one meter, it would be easy to secretly cart off nuclear fuel to another location because transporting it is no big problem.

[Kang] Do you believe that North Korea has hidden an atomic reactor underground?

[Yi] Although reprocessing facilities may be placed underground, there are many problems in placing an atomic reactor underground. First, emergency procedures cannot be prepared well. People must be able to evacuate the facility quickly. That is impossible in an underground facility. There are also great transportation costs. Also, because heat is emitted, the temperature difference between the location of the reactor and the surrounding areas can be easily identified by satellites.

Uranium Mines at Pyongsan, Hwanghae Province

[Kang] Is there not, however, a lack of evidence that North Korea has enriched uranium?

[Yi] There had been mention that four to five years ago, North Korea bought some materials related to centrifugal separation from Japan and Europe. There is also a mine in Pyongsan, Hwanghae Province, from which good quality uranium may be obtained. There are an exceptionally large number of buildings in this vicinity. For merely a mine, there is no need for such a large number of buildings. It is thus surmised that uranium reprocessing facilities may be there. There has also been a rumor that these facilities have recently been moved to North Pyongan Province.

[Kang] There are increasing assertions within our government that North Korea has finally awakened to the

fact that "nuclear development does not greatly assist in the stability of the regime" and that they appear to be trying to turn nuclear development into a nuclear card. Even the United States essentially appears to be lowering its estimations of North Korea's nuclear capabilities, saying, "The atomic reactor at Yongbyon and the radiochemistry laboratories have come under IAEA inspection, and even if there were other facilities, they are likely small scale." However, there appear to be many people within the field of technology who state that North Korea will not abandon its deep attachment to nuclear weapons development.

[Yi] There is a tendency among technicians to focus on their work regardless of policy or strategy. Those in North Korea who are in charge of nuclear development would appear inclined to do likewise. I believe that it is excessively optimistic to think that North Korea would abandon nuclear weapons development because of political pressure. With nuclear development being an initiative undertaken to preserve the regime of Kim Il-song and Kim Chong-il, I believe that they will definitely build a nuclear weapon regardless of the sacrifices suffered.

First, once one sets off on this path, one eventually comes to a point where one must cross a bridge of no return. Once that point is passed, there is no retreating even if one knows it is worthless to continue. Inasmuch as nuclear development is a project that the North Korean regime has pursued with tenacity for 30 years, I believe that there is little possibility of change.

[Kang] How can we respond if given a worst-case scenario in which North Korea has constructed a nuclear weapon?

[Yi] I believe that economic sanctions have the greatest potential. North Korea's first vulnerability is oil. Also, the North would suffer a severe blow should they be unable to import parts such as those needed for weapons imported from the Soviet Union. Since parts must constantly be replaced not only on weapons but also in machines, regular industry as well as the defense industry will suffer severe hardships.

In India's case, even though they developed a nuclear weapon, they were unable to use it. When conflicts arose with China and with Pakistan, India was unable to effectively use nuclear weapons. India had to incur many costs for developing nuclear weapons. First, because the entirety of their elite was focused on nuclear development, other industrial sectors suffered. After nuclear development succeeded, India was unable to acquire technical information or materials from abroad. All Indian scientists abroad were deported, and India was criticized whenever there was an international conference. On the domestic economic side, inflation and unemployment worsened, and the regime eventually collapsed.

A Nuclear Weapon Is the Greatest Obstacle to Unification

[Kang] To produce a nuclear weapon, one must first succeed in plutonium reprocessing. At the same time, research must be carried out on high-explosive devices. Do you believe that North Korea could have made a nuclear bomb after conducting research in these two areas, synthesizing them, and not even conduct one test in the process of making the bomb? Granted there was the case of Israel who did not conduct tests.

[Yi] It is said that Israel obtained results through convincing computer simulations. I believe that it would be difficult for North Korea, however, even when one considers their considerable levels of technology in metallurgy and machine engineering.

When Edison invented the filament, for example, he is said to have conducted 6,600 tests. When the nuclear bomb was made in the United States, the most eminent scientists were gathered and conducted a similar number of tests. One can guess just how difficult it would be based on these examples. If these tests are conducted underground, then they could be detected with a seismograph.

[Kang] If North Korea does obtain a nuclear weapon, then would not unification become more difficult?

[Yi] Most likely. Peter Hayes stated: "If North Korea has a nuclear weapon, then it will become a decisive and perhaps permanent obstacle on the road to unification. A stronger peripheral country would likely launch a pre-emptive strike against them." In that regard, North Korea's nuclear policy is detrimental to both unification and to the Korean race.

[Kang] There are some who advocate South Korea's securing nuclear sovereignty as well.

[Yi] We receive no real benefit by gaining nuclear sovereignty. This is even more so the case of a nation like ours that has an externally dependent economic structure. Such research has already been undertaken in Australia. Their conclusion was: "Australia is a nation dependent on exports. If we should acquire nuclear weapons, other nations would likely not import Australian goods. Thus acquiring nuclear weapons is not in the national interest."

When this research was conducted in Australia 17 years ago, academicians in defense-related fields asserted the following: "From 1939 until the mid-1970s, there have been some 200 international conflicts. The average amount of time from the initial conflict between two countries to the first squeezing of a trigger is 14.3 months. Since it would be impossible for Australia to pursue nuclear development in peacetime, it would only be possible to develop nuclear weapons should a conflict arise with another nation. This would take at least five years, exceeding the 14.3-month time requirement. Nuclear development therefore becomes meaningless and it is more desirable to use the weapon of trade to supplement security."

There is also little possibility for a nation such as Australia with expansive territory and a small population to attack another country. The only issue then becomes invasion by an outside power. Possibilities are slim that in such a case Australia would use nuclear weapons in Australia. Australia, therefore, decided to forget nuclear development since it was meaningless.

SOUTH KOREA

ROK Comments on Nuclear Cooperation With DPRK

Representative Suggests Joint ROK-DPRK Nuclear Development

*SK2905033093 Seoul THE KOREA HERALD
in English 29 May 93 p 2*

[By staff reporter Yi Song-yol]

[Text] Is it wise for South Korea to give up nuclear reprocessing facilities when keeping them would help this resources-poor country generate nuclear energy at a much lower cost?

Though ex-President No Tae-u declared in November 1991 that South Korea would not develop nuclear reprocessing facilities, a senior ruling Democratic Liberal Party lawmaker attracted attention by suggesting that South Korea should reconsider No's decision to ensure the effective and peaceful use of nuclear energy.

"As the nation will need more nuclear power stations in years to come, we cannot continue to depend on foreign countries for nuclear fuel. We also know that we could generate nuclear power at a lower cost if we have reprocessing facilities," said Rep. Chong Chea-mun, chairman of the National Assembly Foreign Affairs-National Unification Committee, yesterday.

In an interview with THE KOREA HERALD, Chong hinted that No did not need to declare that Seoul would not possess reprocessing facilities when calling for a nuclear-free Korean peninsula. At the time, No vowed not to develop nuclear fuel reprocessing and enrichment facilities, not to mention nuclear weapons, and declared that South Korea will use nuclear energy solely for peaceful purposes. No also called on Pyongyang to scrap reprocessing facilities.

Chong noted, however, that Japan has a considerable amount of plutonium in store and possesses the technology needed to reprocess it to meet the growing demand of its nuclear power stations.

If the nation had reprocessing facilities, it would also reduce the problems surrounding nuclear waste, Chong noted.

Chong, 57, a close aide of President Kim Yong-sam, also said Seoul is willing to cooperate with Pyongyang once it seeks to develop nuclear energy solely for peaceful use. Chong became a lawmaker in 1985 after he joined Kim Young-sam's then opposition party as his diplomatic affairs secretary.

"If Pyongyang's efforts are aimed at the peaceful use of nuclear energy, North Korea should ask for cooperation from us or some foreign countries having advanced nuclear technology. However, they are trying to hide their nuclear facilities," said Chong, proposing the joint development of nuclear energy for peaceful purpose.

"Unfortunately, it is obvious that the North has already developed a crude reprocessing plant" in a bid to produce nuclear weapons, Chong said.

He said that it seems to him that the North has already produced or is expected to produce nuclear weapons in the near future, as even physics students are able to make a Hiroshima-type bomb in the laboratory.

When the North produces nuclear weapons, it will only be a matter of time until Japan gains nuclear arms, and then the South would be surrounded by nuclear powers, Chong said.

Chong noted that the North has already violated the inter-Korean denuclearization agreement signed in December, 1991, saying that the National Assembly should declare the agreement nullified if Pyongyang does not return to the Nuclear Nonproliferation Treaty (NPT) by the deadline of June 12.

The inter-Korean denuclearization agreement stated that neither side would produce or possess nuclear weapons, or possess reprocessing and uranium enrichment facilities.

Commenting on Tuesday's North Korean proposal for an exchange of special presidential envoys for talks on an inter-Korea summit, Chong said, "The government should be careful not to be used by the North, as has happened before."

He said the proposal may be "a maneuver to evade mounting international pressure against its nuclear program."

"Pyongyang ought to first accept the special inspections of the International Atomic Energy Agency (IAEA)," he said, adding that Seoul doesn't have to shrink from inter-Korea dialogue, though.

Chong also suggested that the existing cease-fire treaty between the U.N. forces and Communist North Korea

and China signed at the end of the Korean War (1950-1953) be converted to a peace pact, saying that the United States and China should be requested to lead the way on this matter.

"If that was done, Washington could then establish a trade representative in Pyongyang in a bid to improve relations between the two countries and induce openness in the North," Chong said.

"It would be a good way to help solve the problems of North Korean nuclear program and the lingering Cold War on the Korean Peninsula," he noted.

Chong said Pyongyang's Scud missiles, as well as its nuclear program, pose a serious threat to the security of Northeast Asia. Chong's parliamentary committee adopted a resolution in March and mid-May calling on the North to return to the NPT and accept IAEA inspections.

President Calls for 'Broader Viewpoint'

SK0306071593 Seoul YONHAP in English 0647 GMT
3 Jun 93

[Text] Seoul, June 3 (YONHAP)—President Kim Yong-sam called Thursday [3 Jun] for South and North Korea to establish a commonwealth during his tenure in order to realize unification this century.

"Therefore, it is urgent for the North to return to the Nuclear Non-Proliferation Treaty and accept nuclear inspections by the International Atomic Energy Agency (IAEA) and inter-Korean mutual inspections so that it can be cleared of suspicions," Kim said.

He issued the call while appointing 30 presidential unification advisers, including Min Kwan-sik, a former education minister.

"I have also instructed the cabinet to cope with the nuclear issue from a broader viewpoint regardless of the format of contacts with North Korea in light of the urgency and gravity of the issue," he told his new advisers.

Building a new Korea was tantamount to building a unified, advanced and democratic country, Kim said.

"Unification will inevitably provide a crucial moment for the nation to rise again, therefore it is a historical task of importance that should be realized within this century," he said.

BOSNIA-HERZEGOVINA

Serbs Claim Muslim Forces Using Banned Chemical Agent

AU0206145893 Belgrade Radio Beograd Network in Serbo-Croatian 1300 GMT 2 Jun 93

[Miso Vujovic report from Cajnice]

[Text] The fighting around Gorazde, the biggest bastion of Islam in the lower part of the Drina basin, is continuing with the same ferocity for the seventh day. According to Lieutenant Rade Danilovic, commander of the Cajnice Brigade, the strong Muslim forces carried out a fierce artillery attack on the Cerovo Guvno and Medena Glavica from the Oglocevo last night and this morning. The attack caused considerable material damage, especially in the village of Miljeno, where a pipe and wire factory and several houses suffered damaged. Fortunately, no one was killed or wounded.

In the fighting, the Muslim extremists used a chemical agent, (?fermin), against the Serbian forces on the front defense lines. This agent is banned with all international conventions. After strong artillery fire, the enemy launched a strong infantry attack early this morning. The attack was supported with artillery fire. The Serb

defenders repelled the attack by the so-called Army of Bosnia-Herzegovina, as they have all others so far.

SLOVAKIA

Part of Nuclear Power Station To Shut Down

AU2805121893 Prague CTK in English 1839 GMT 26 May 93

[Text] Kosice, East Slovakia May 26 (CTK)—Two military Universities will be preserved in Slovakia - in Liptovsky Mikulas, Central Slovakia, and in Kosice, the Slovak Defense Ministry's State Secretary Igor Urban said at a meeting at Technical University in Kosice today.

Slovak environment minister Jozef Zlocha said that one bloc of the Jaslovske Bohunice, Western Slovakia, nuclear power plant will be put out of operation. The other two blocs have been considered good by domestic and foreign experts, Zlocha stressed.

The first bloc of the nuclear power plant in Mochovce, West Slovakia, now under construction, is to be put into operation in 1994, Zlocha said.

A suitable location for permanent storage of the Slovak nuclear power plants' waste is currently being sought in cooperation with a French partner, Zlocha said.

BRAZIL

Angra II Completion Sparks Controversy

93SM0243Z Rio de Janeiro MANCHETE
in Portuguese 3 Apr 93 pp 44-47

[Article: 'Blackout: Could Brazil Be Left in the Dark?' by Denise Assis]

[Text] Inflation, rent, school tuition, and health insurance are the concerns of the average Brazilian in the Southeast and he now faces yet another problem: the threat of a blackout that could affect about 15 million people, all at once. A two-hour plunge into darkness during the first week of March gave those who live in Rio de Janeiro and Espiritu Santo states an idea of the vulnerability of the supply of electricity in the region. The solution, experts say, lies at the water's edge—in the tourist paradise of Angra dos Reis, 150 km from Rio. It might be the Angra-2 nuclear plant, now all wrapped up and well-guarded at the cost of \$10 million a month for maintenance alone.

The Angra-2 nuclear plant would add 1,300 megawatts to the 5,500 now supplied to the region by Furnas Electric Power Plants, Inc. It makes ecologists' blood boil in indignation, but it has just received the green light from President Itamar Franco, who decided in favor of completion, according to Furnas President Marcelo Siqueira, "after consulting the four ministers and the sectors associated, in one way or another, with the project."

Last week, as Furnas President Marcelo Siqueira reported, President Itamar Franco authorized the transfer of all the funds from the German financing agreement that were earmarked for the Angra-2 project, so that the plant, where 80 percent of the physical facilities are ready, can be finished. (In charge of construction is the firm KWU-Kraftwerk). Already, \$4.3 billion has been spent on it—all that remains is assembly. Completion will cost \$1.377 billion, of which \$600 million will come from Furnas and the rest from the finance agreement signed with Germany.

To the coordinator of the Science and Culture Forum of the Federal University of Rio de Janeiro (UFRJ), physicist Luiz Pinguelli Rosa, "this is a subject that needs to be opened to exhaustive public debate. Perhaps a blue-ribbon commission should be created to analyze the risks involved in nuclear plants and report to the public, which would then decide whether completion really is the answer, or whether the equipment should simply be sold off and the matter forgotten."

Marcelo Siqueira, however, is enthusiastic. He thinks finishing the project represents Brazil's definitive entry "into the First World" in terms of energy supply, besides ensuring Espiritu Santo and Rio de Janeiro that they will no longer be at the mercy of Mother Nature and, therefore, a blackout, something that strikes terror into the hearts of owners of meat-packing plants and restaurants—and even the ordinary housewife who, to escape the voracity of inflation, has built up a supply of frozen food.

Experts think that knowing there is a solution is better than having to constantly worry about the next blackout, as Rio residents did for a week. Involved in the construction of Angra-2 since the first concrete piles were driven, engineer Jose Eduardo Costa Mattos, chief of the construction department, uses the 13,000 tons of equipment (87 percent imported), distributed among 33 sheds, to support his argument in favor of completing it.

"This maintenance alone requires specialized labor, to vacuum-pack each component. It is very expensive. It would be cheaper to finish it," he argues. "You have to remember that the 1,300 megawatts that Angra-2 will generate in the future would cost \$2.6 billion if the government had to produce it at hydroelectric plants."

The two lines that broke down in the first week of March—the ones that connect the Cachoeira Paulista substation to the Furnas system—plus the power from Angra-1, account for the 5,200 megawatts consumed by the two states of Rio de Janeiro and Espiritu Santo. Angra-2 would meet 30 percent of the needs of those consumers if it were to be ready in 1997, as the experts predict. This would greatly increase the reserves for situations like the one that just happened. There are skeptics, however, who imagine an apocalyptic scenario, with a band of Homer Simpsons blundering through their work day and compromising the safety of the plant. Just hearing people talk about the possibility of the two contraptions running at full capacity makes them tremble. This resistance brings a smile to the lips of Pedro Figueiredo, superintendent and coordinator of thermonuclear production at Angra-1 and Angra-2. "Before work began on Angra-1," he recalled—"Furnas set up a radiobiology lab to make a complete survey of the flora and fauna in the region. The plant has been running for 11 years now, and since then we have been monitoring these species without finding any changes caused by radioactivity. The flora and fauna are still unaffected."

But the public's fears are not completely unfounded. Not even the superintendent tries to gloss over the technical defects that have arisen at Angra-1 since it went on stream in 1985, to generate 626 megawatts. Brazil opted, in planning its nuclear power program, for plants that use enriched uranium as fuel, cooled by water in a generator composed of 8,000 pipes lined with a nickel-based alloy—Iconel 600—that is not very durable. Over time, chinks develop in this material, furnished by Westinghouse, and the pipes have to be plugged so that the radioactive material does not escape into the cylindrical building that houses the reactor. This cylinder is lined with a 30-mm layer of special steel that completely contains it, and the building has 70-cm thick concrete walls. Contrary to what most of the public believes, a nuclear power plant cannot explode like a bomb, since the kind of uranium used as fuel makes an atomic explosion physically impossible. After having sold Brazil a pig in a poke—the Iconel 600—Westinghouse was sued, but the country lost the case in the Paris Chamber of Commerce "certainly because there was corruption," suspects Pinguelli Rosa. Superintendent Pedro Figueiredo reports that Westinghouse, despite being

admittedly wrong, paid a mere \$8 million for the damage; the losses assessed and sought in the French court amounted to \$115 million.

To correct the defects in Angra-1, says the superintendent, the plant is forced to shut down once a year for maintenance. Already, 200 pipes have been plugged in 11 years of operation. During the first five years, 20 pipes were plugged; the rest had to be done in a single year. Maintenance is done in the control room, where technicians monitor the performance of the plant on site, 24 hours a day. Despite all this, the possibility of an accident at Angra-1 is fairly remote, as physicist Luiz Pinguelli admits. Engineer Costa Mattos says the odds are one in 10 million. At Angra-2, the Iconel-600 was replaced with Incoloy-800, a tougher alloy. "When we changed the material, we also replaced the guts of the generator," Pedro Figueiredo explained. According to Pinguelli Rosa, this was a good thing since scientists from Greenpeace have recently discovered that the model used at Angra-1 developed a fissure in the reactor head, aggravating the risk of an accident. Another defect mentioned by Pinguelli is the thickness of the concrete walls; in the physicist's opinion, these should have followed the measurements used in Germany: 1.80 cm. These risks, however, were discounted by engineer Costa Mattos, who opted for a more daring layout for Angra-2—a reactor building in the shape of a sphere.

Until Angra-2 begins operations, an accident simulator is functioning 1 km away from the plant. There, German, Swiss, and Spanish experts are being trained in courses that raise \$1 million a year for Furnas. They use an exact reproduction of the new plant's control room where, by pushing a button, they can shut it down completely or partially. Judging by the serenity with which the technicians and engineers move about their task of ensuring the total safety of the two plants, there is nothing to fear. Except possibly more blackouts, if Angra-2 does not go on stream.

Current Status of Angra-Related Factories Viewed
93SM0245Z Sao Paulo ISTOE in Portuguese 21 Apr 93
pp 52-53

[Article: "A Bar for Veras"]

[Text] *Concerning the Brazil-Germany Nuclear Agreement, with which we were going to challenge the super-powers.*

In 1975, as part of the major agreement signed with Germany to develop a stem-to-stern nuclear industry in Brazil—one comprising everything from uranium prospecting and mining to the establishment of a reactor industry—the Geisel administration announced a five-year plan for training 1,254 experts on nuclear energy. Tomas Veras was one of those citizens, and in our story he was approaching the table where engineer Costa Mattos was having lunch with two reporters.

Costa Mattos, a 40-year-old military engineer born in Recife, Pernambuco, is in charge of the construction of Angra 2, the first plant to be set up as part of the

agreement with Germany. The scene we are describing took place in the dining hall of state-owned Furnas, the company responsible for construction, on Brava Beach two km from the plant site. Engineer Veras had once worked for Nuclep (Nuclebras Heavy Equipment, Inc.), the huge industrial plant where there are machine tools capable of machining parts measuring six meters in diameter and weighing 600 metric tons, examples being the vessels in which nuclear reactions take place.

But Nuclep, which cost \$300 million, survives today by doing "odd jobs": it is the storage site for a good portion of the \$2 billion worth of equipment bought from Germany for Angra 2 and Angra 3, and it works on the development of submarines for the Navy. And it has laid off most of its employees. Veras is one of them.

Veras owns a quality control service firm in Rio de Janeiro. He had been in Matos' office recently looking for service work to perform. He did not find any. Now he was complaining. Basically in broader terms:

"Hell, Matos! You closed the bar! We no longer have a right to anything! We built this place here with our own hands."

Veras, short and squat with a red face, was completely devastated. Costa Mattos explained to him that he had had nothing to do with the decision to close the bar, and after Veras left, he spoke to the reporters about the life of that plucky man. The two of them had shown up on Itacrna Beach together near 20 years earlier to bring our country the technical wonder known as atomic energy.

Geisel was head of Petrobras before being named president in 1974. He was a soldier of "Greater Brazil," and he had tried to turn Petrobras into a multinational like Esso and Shell: abandoning exploration in Brazil, he had gone off in search of petroleum abroad. It was a disaster. The oil crisis caused Brazil's bill for crude oil imports to jump from \$300 million in 1970 to \$3 billion in 1974.

One of the major plans during the first year of Geisel's administration was so-called Plan 90, a forecast of energy consumption over the following 15 years. Completed in December 1974, it predicted what the nuclear agreement with the Germans was already preparing for: the need to obtain from 3,000 to 4,000 megawatts of nuclear power per year—from two or three plants like Angra 2—beginning in 1988. It was all based on the assumption that the "miracle" would continue until 1990: that the Brazilian economy would grow by between 8 and 11 percent per year during that period. (On average, the Brazilian economy has grown at one-third the rate over the past two decades.)

Plan 90 was the ideological basis for awarding contracts for equipment and construction work at Angra 2 and

Angra 3 and various hydroelectric plants. The four Sao Paulo hydroelectric plants planned during that period—Porto Primavera, Rosana, Tres Irmaos, and Taquarucu—were originally supposed to cost \$2.5 billion. So far, nearly \$8 billion has been spent on those four plants alone, most of it in the form of interest paid for extending the loans. The turbines for Porto Primavera have been in storage at Ilha Solteira for years.

In that flat lowland area, the remains of the nuclear agreement stand out like a stranded ocean liner.

Construction of the Angra 2 plant is the part of the agreement that is being pushed forward with the most hope. That gigantic sphere, built with plates of German steel, has been set up and covered with a massive concrete cupola to form a cavern 56 meters in diameter where the atomic reactor will be safe from accidents like the one in Chernobyl. Work came to a standstill in 1979, and the construction timetable has now been revised to get things moving again. But it is not being followed. At the worksite for completing Angra 1 and starting Angra 2 in 1979, there were 13,000 employees. Today there are 1,200 workers building Angra 2.

Angra 3 is a flooded crater dug into the rock. In it stands a giant crane belonging to the Andrade Gutierrez firm and waiting to be rescued. Practically all the equipment for Angra 3 is on hand now that Siemens has shipped to Brazil 3,000 metric tons of parts that had been held in the port of Hamburg for years. But no one knows what to do with them; there has even been talk of selling them to Iran.

Nuclei (Nuclebras Isotope Enrichment, Inc.), a uranium enrichment plant in Resende, is where we supposedly had our ace up the sleeve: that is where Brazil, along with Germany, was going to develop the original jet nozzle system of preparing fuel-grade uranium despite U.S. and Soviet opposition. Nuclei today is a complete factory in mothballs—and it cost half a billion dollars. The most probable solution will be for the government to abandon the jet nozzle system and use part of the plant's equipment in the Navy's nuclear project. The Navy has just announced victory in the area of traditional uranium enrichment technology.

Set up at Nuclei are the structures that were to make the jet nozzle system work: two "cascades"—those series of ingenious machines and their luminous tubes of special silver-plated aluminum with parts diamond-machined to a tolerance of 1 micron (1/1,000 of a millimeter). In those cascades, gasified natural uranium would have been increasingly "enriched" into uranium 235, the atom that is essential for the German type of reactor. The process was tested in Germany at the start of the agreement with the construction of a single-stage facility by Nustep, a firm organized with 50-percent Brazilian capital and 50-percent German capital and now dissolved. Based on that stage, the Germans designed the 24

stages in the two cascades installed in Resende. They also designed another factory known as the Element Separation Plant (FES) for building the remaining stages needed for the process: 464 of them.

Neither Nuclei nor the FES ever went into operation. The result is that a complete cascade has never been tested industrially.

Nuclep is almost at a standstill. What remains of Geisel's nuclear dream is the FEC [Fuel Element Factory] and Nuclen. The FEC is the plant for producing fuel elements. Located next door to Nuclei, it manufactures capsules that cover the enriched uranium pellets inside the reactor. Those capsules are very thin tubes four meters high and are made of an alloy of zirconium, a special element allowing passage of the neutrons emitted by the uranium atoms that are split during the nuclear chain reaction. Neutrons heat the water inside the reactor vessel.

Engineer Mauricio Valim do Val, 49, is managing director of the FEC and the FES. He dismantled the FES and reorganized it to save it from total collapse. With its high-precision machines—including a \$2-million diamond grinding wheel—he now machines parts for the Brazilian satellite project, for example.

He has performed a minor miracle with the FEC: it now engages in the extremely complex machining of the top and bottom assemblies that give structure to the fuel rod assembly. And it may begin supplying those parts to German Siemens before this year is out.

Nuclen (Nuclebras Engineering, Inc.), which was supposed to have trained people for the Brazilian nuclear program, is providing engineers for the German nuclear program. Germany employs Brazilians on its projects at home and abroad. Brazilian nuclear experts are currently operating Siemens reactors in Taiwan. The only thing is that Siemens does not pay the Brazilian Government the same amount that it charged for stationing its technicians in Brazil when it promised to transfer nuclear technology: a German cost \$100,000 per year back then; now a Brazilian can be had for under \$60,000.

When General Geisel's administration took office, Brazil's foreign debt totaled \$12 billion (it had tripled between 1968 and 1973) and was owed basically by the private sector, chiefly subsidiaries of multinationals that had brought a tremendous quantity of machinery into the country during the time of the "miracle." When the Geisel administration left office, the debt was owed by the state, and it was five times higher. And the entry of foreign equipment into the country had fallen from 40 percent of all machinery installed during the time of the miracle to half that amount.

The miracle had been performed at a time when international interest rates were reaching their lowest levels in the history of capitalism. Beginning in 1975, those rates began to rise and then reached their highest levels ever.

INDIA

Threat From PRC Nuclear Acquisitions Examined

93WC0056A Madras *THE HINDU* in English
9 Mar 93 p 8

[Article by C. Raja Mohan: "China and S. Asian Arms Control"]

[Excerpts] The public assessment of the worldwide proliferation of nuclear and other weapons of mass destruction presented by the Central Intelligence Agency recently, before a Senate Committee, is of some significance to the Indian calculus on national security and the determination of India's arms control posture. Two of the most important elements of the current trends in proliferation suggested by the CIA Director, Mr. James Woolsey, relate to China.

China is emerging as a major beneficiary of the proliferation of advanced strategic technologies as well as being a prime source of nuclear and missile proliferation in our neighbourhood. Both these aspects of Chinese proliferation deeply affect our security. [passage omitted]

China and Russia are recognised nuclear weapon powers under the Nuclear Non-proliferation Treaty (NPT). And the NPT in its wisdom permits the transfer of nuclear weapons and technology between nuclear weapon States. The problem is not really a legal one. It is a strategic one relating to a fundamental transformation of Chinese nuclear and missile capabilities as China grabs a slice of the Russian nuclear military industrial complex. As an enduring fit develops between a cash-poor but technology-rich Russia and a technology-poor but cash-rich China, India, Japan, Korea, Vietnam and the ASEAN would have to come to terms with the enormous expansion of Chinese strategic/nuclear capabilities.

The American worries are only partly related to the problem of the sudden expansion of Chinese nuclear/missile capabilities. It is also apprehensive that once China acquires sensitive technologies relating to nuclear weapons and missiles it would pass them on to the countries in West Asia, thus significantly complicating all plans for a stable and secure West Asia. These concerns on proliferation from China are not exaggerated given the Chinese record of recent transfers of nuclear and missile technologies in our neighbourhood.

It appears that any hope that after joining the Nuclear Non-Proliferation Treaty and endorsing the Missile Technology Control Regime, China would exercise greater restraint on its strategic exports appears to have been dashed. [passage omitted]

India's rejection of the NPT is now thoroughly vindicated. Until now India has argued that the NPT is flawed on the basis of first principles of equity and justice. India's rejection of the NPT must henceforth be on the grounds of "effectiveness" and on the more straightforward considerations of national security.

Many in the U.S. now favour a South Asian regional non-proliferation regime rather than force the NPT

down India's throat. India, however, has continued to argue that it could only participate in global disarmament. This tension between regionalism and globalism is rhetorical and now serves little diplomatic purpose. The key issue for India is not whether it is regional or global. The question we must ask ourselves is: Does the proposal advance our national security or make it worse? Is it feasible and verifiable?

For example, Washington has been proposing a regional agreement between India and Pakistan to end the production of weapons-useable fissionable material. India on the other hand has been proposing a global freeze in the production of uranium and plutonium for weapons purposes. Much of the last round of Indo-U.S. dialogue on non-proliferation in Washington during last November was focussed on this issue. But the real questions relate to whether such agreements can be effective and verifiable.

An Indo-Pak agreement on ending fissionable material production is of little value if Pakistan can continue to get nuclear cooperation from China. Such an agreement can always be circumvented by Chinese supply of nuclear material to Pakistan. According to a recent study of the U.S. Congressional Research Service on Chinese nuclear and missile proliferation, China in the past has given Pakistan enough enriched uranium to fuel two nuclear weapons. A purely regional agreement on freeze between India and Pakistan could never know with assurance that such transfers will not take place.

Some American arms control experts have also been suggesting a regional nuclear test ban between India and Pakistan. They believe such a measure could be a useful confidence-building measure between the two countries. This proposal, too, fails to meet the criterion of verifiability. There have been reports in the Western media over the years that Pakistan could have exploded a nuclear test device in China. An agreement not to test in South Asia may not be of much value, if Pakistan is free to test in China or continues to get nuclear weapon designs and technology from Beijing.

Clearly, most of the regional nuclear arms control proposals such as a nuclear weapon free zone, regional freeze, a bilateral test ban are inadequate in the context of Sino-Pak nuclear cooperation. Now, we have on the authority of the CIA the continuing nuclear nexus between Islamabad and Beijing. This implies that without effective limitations on China's own nuclear weapon programme, there is little possibility for serious regional arms control in Asia. Only agreements that cover all the three countries—China, India and Pakistan—on an equal basis can be entertained in New Delhi.

New Realism May Facilitate Talks With U.S.

93WP0159A Madras *THE HINDU* in English
15 Apr 93 p 8

[Article by C. Raja Mohan: "Towards Nuclear Realpolitik"]

[Text] Is the charade of non-proliferation over? For the American policy on non-proliferation there has been a surprising run of good luck after the Gulf War, with France, China and South Africa joining the Nuclear Non-Proliferation Treaty [NPT]. But with North Korea now threatening to get out of the NPT, the inherent contradictions of the current nuclear regime have come into sharp focus. There is a growing body of thought in the United States looking at the non-proliferation problem from the standpoint of strategic realism.

At the formal level, Washington emphasises the beefing up of the current international regime on nuclear non-proliferation. The declared policy objectives of the United States are the following: mobilising additional signatures on the NPT and work for its indefinite extension in 1995, strengthening the safeguards mechanisms of the International Atomic Energy Agency (IAEA); tightening export control policies; expanding non-proliferation conditionalities on economic assistance; and encouraging regional arms control.

Although there is broad support for these policy objectives in the American defence and foreign policy establishments, there are enough realists willing to acknowledge the limits of these policies and looking at the strategic problems of the world after nuclear proliferation. The emerging nuclear realism is based on a number of ideas.

First is that nuclear weapons are here to stay for the foreseeable future. The talk of their abolition is seen as Utopian, not because it is impossible to organise their elimination, but the overriding sense that they remain indispensable to American national security.

The second premise is that it would be unwise for the United States to go below the currently planned level of 3,500 to 4,000 nuclear warheads to be reached when the present arms control agreements with the former Soviet Union would have been implemented by the early years of the next decade.

Third, it is recognised that there are serious obstacles to the implementation of the two strategic arms limitation agreements, START I & II, entered into by the Bush administration. A lot hinges on the ability to get Ukraine and Kazakhstan to abide by the START I treaty and join the NPT as non-nuclear weapons States. Washington is bent on hustling Kiev and Alma Ata into a nuclear strip tease, but is yet to succeed.

Skeptics have argued that the current policy gambles too much on a hope for permanent cooperative behaviour from Moscow, and wonder whether it would not be far more sensible for the U.S. to let a nuclear Ukraine serve as a local balance against a Russia that remains unpredictable. As Mr. Pat Buchanan, the noted right-wing commentator and the Republican challenger to President Bush in the last election put it: "Who can plausibly tell the Ukrainian people they are better off relying on Russia's goodwill than their own deterrent?"

Fourth, the realists go along with Mr. Zbigniew Brzezinski, the former National Security Adviser to President Jimmy Carter, who said in a recent television interview, "We have to face the very sad fact that non-proliferation basically is dead."

The realists draw a number of lessons from the recent nuclear developments: The proliferation of nuclear weapons is inevitable. The current policies of non-proliferation could at best slow the process, but cannot prevent it. Even countries with modest technical and industrial capabilities can acquire nuclear weapons.

Treaty commitments not to acquire nuclear weapons are not reliable as Iraq has shown. North Korea has demonstrated that it is perfectly legal to walk out of the existing legal commitments not to acquire nuclear weapons. The Chinese arms control behaviour shows that obligations undertaken by States not to help other States acquire nuclear weapons are not always honoured. The present non-proliferation regime does this to address the demand side of nuclear proliferation, which is rooted in the insecurity of medium powers with ambitions for regional power and influence. Some of these States may have also begun to recognise that a nuclear deterrent is an indispensable component of independent foreign policy and strategic autonomy.

In relation to South Asia, some of the realists have argued that it is no longer possible to denuclearise the Indian subcontinent. Elaborating on this in a recent talk at the Stimson Centre in Washington, Mr. Richard Haass, a senior official in the National Security Council of the Bush administration, suggested that avoidance of war and working out measures for nuclear restraint may be the only way forward in the subcontinent.

The noted analyst of nuclear proliferation, Mr. Lewis Dunn, has emphasised the importance of the United States providing "nuclear stability assistance" to the emerging nuclear nations to ensure that these States do not drift into an unwanted nuclear exchange. In a recent article in *Washington Quarterly*, Mr. Gregory Giles develops the argument of Mr. Lewis Dunn:

"Where rollback is less realistic expectation, safety and security assistance should take a more active role. Specifically, it is highly unlikely that Israel will dismantle its stockpile of nuclear weapons in the near future. This magnifies the importance of safeguarding that stockpile until the political environment improves. A discreet provision of ESD and PAL technology by the United States, for example, would go far toward that end. The United States should be prepared to give similar assistance to Pakistan and India in the event that on-going non-proliferation efforts fail." (ESDs are environment sensing devices in nuclear weapons that ensure that explosions take place only in predetermined environments. PALs are permissive action links that block nuclear weapons use until proper codes have been entered.)

Mr. Peter Feaver in an analysis of nuclear command and control in the emerging nuclear States in a recent issue of

the prestigious journal, *International Security*, likens nuclear safety assistance to the current approach to combat the AIDS epidemic. Given the impossibility or prohibiting sexual promiscuity, the distribution of condoms has become the only rational preventive measure in the battle against AIDS; similarly if the spread of nuclear weapons cannot be ruled out by a fiat, it makes sense to give technology to new nuclear States to avoid accidental and unintended nuclear exchanges.

The biggest challenge to future American policy according to the realists would be in adapting to the strategic consequences of nuclear proliferation in various regions, essentially in Eurasia. According to a recent RAND Corporation report, Washington most certainly will be faced with nuclear armed regional adversaries. Although those adversaries would not be able to reach mainland United States with their nuclear weapons, they could deter the U.S. actions in the region by their ability to threaten American allies and forward deployed forces. The questions that trouble American strategic community are the following: If Saddam Hussein had nuclear weapons, would the United States have gone ahead with the liberation of Kuwait? How can the U.S. guarantee security in the Gulf, if an asserted Iran is armed with nuclear weapons?

The American strategic community is looking at the different options of pre-emption, deterrence, and defence against the regional nuclear adversaries. All these options are fraught with technical, military and political difficulties. But the emerging debate on how to ensure security in a world of many nuclear armed States may indeed be far more significant than the one on how to prevent nuclear proliferation.

The emerging nuclear realism in the United States opens an opportunity for New Delhi and Washington to debate the nuclear issue in a more honest manner than they have until now. If Washington shed its official non-proliferation fundamentalism, and New Delhi drops its formal disarmament theology, they may discover useful strands of convergence in managing peace in a nuclear Asia. Both have high stakes in achieving a stable nuclear balance of power in the region and deterring atomic adventurism. India could begin the process at the unofficial level by engaging in a dialogue with the nuclear realists in the United States.

Pakistan's Nuclear Admission Puts Pressure on India

93WP0162A *New Delhi PATRIOT in English*
27 Mar 93 p 4

[Editorial: "Nuclear Game-plan"]

[Text] Pakistan's Foreign Minister Mohammed Sadique Kanju and its ambassador to the US, Mrs. Abida Hussain, have made statements admitting that Pakistan has nuclear weapons. Pakistan's nuclear weapon capability is part of a chorus the Pakistani government has been singing for a long time in its effort to redefine its nuclear image. Pakistan is now keen to win international

recognition as a state having nuclear capability. The number of warheads it can deploy is variously estimated. Hence ever since 1986, when Dr. M. Qadir Khan, in an interview, first let the nuclear cat out of the bag, Pakistan has been carrying out a concerted campaign to make the international community accept its nuclear weapon capability as a fait accompli. Disclosures such as the latest one, being part of its definitive strategy in this regard, are significant not in their substance as much as in their timing. Thus, while continuing to remain vague about the actual nuclear weaponisation, such revelations have invariably come at a time of heightened tensions with India. And though this could easily suggest their cautionary intent towards India, they appear to be directed more for the West's consumption. That most of these admissions were made before the American press only confirms such a conclusion. By brandishing its nuclear threat during periods of heightened Indo-Pak hostilities, Islamabad obviously wants to convince Western powers of the threat of a nuclear holocaust in the subcontinent in the hope that this would persuade the West to pressure India to sign the NPT or push through some other regional arrangement. India, with considerable nuclear capability, since 1946, decided as a matter of policy to forswear n-weaponry. Pakistan, driven by its megalomania and lack of compunction about military use of nuclear power, obtained blueprints and sensitive equipments by stealth and clandestine trade. It wishes to use to its advantage the convergence of its interests with those of the US in forcing India to sign the NPT. Indeed the fact that over all these years the US accepted Pakistan's declaration of its nuclear chastity at face value even as Islamabad proceeded to assemble its bomb in a most devious manner makes one suspect whether the two had not colluded to be able to arm-twist India into accepting a nuclear regulatory mechanism. The latest Pakistani revelations have been made with a view to exploiting the Clinton administration's commitment to nuclear non-proliferation as one of its major foreign policy goals. Besides, the emergence of an Islamic grouping stretching from Turkey to Central and South Asia has aggravated US worries of a nuclear Islamic bloc. By drawing Western media attention towards its nuclear status and at the same time showing its willingness to sign the NPT, Islamabad wishes to put New Delhi on the mat. With Pakistani disclosures once again exposing the fallacy of a US policy of parity between India and Pakistan to promote nuclear non-proliferation, New Delhi should re-examine whether the present security policy is adequate for India's strategic defence.

Defense Ministry Report Stresses Nuclear Buildup

93WP0160A *Bombay THE TIMES OF INDIA in English* 9 Apr 93 p 13

[Excerpt] New Delhi, April 8 (PTI). Pakistan has developed "considerable nuclear capabilities" with the requisite means to deliver nuclear weapons and there is no

let-up in that country's continued sponsorship of terrorism in Kashmir and Punjab posing serious security concerns to India.

Outlining this security threat, the annual report of the defence ministry placed before Parliament says another noteworthy development was the conspicuous rapid military build-up by Iran presenting the possibility of Iranian assistance to Pakistan in a future conflict situation.

The report says that the Iranian build-up with particular emphasis on missile arsenal, air force and force projection capabilities and acquisition of submarines had created a disquiet in the region. It also calls for extra vigilance on possible transfer of nuclear weapons technology and materials by the Commonwealth of Independent States to some of India's neighbors.

The report cautions that Pakistan which had been pursuing a clandestine nuclear weapons programme for two decades had moved towards a more explicit weapons status. "Various Pakistani government authorities have directly or indirectly accepted that Pakistan has acquired the capability of making a nuclear bomb".

This admission in the background of a total denial in the past was an indication that Pakistan has developed considerable nuclear capabilities, the report says.

With the American acquired F-16 and French Mirage 2000 jet aircraft, Pakistan had the requisite capability to deliver nuclear weapons, the report says adding that, even though proliferation of nuclear weapons and associated delivery system continued to be a source of serious concern to Indian national security, the existing international instrumentation had proved inadequate in dealing with the problem. [passage omitted]

Nuclear Dialogue Begun With Japan, Others

93WP0161A Madras *THE HINDU* in English 5 Apr 93 p 9

[Excerpts] New Delhi, April 4. In just about a month after India and Japan first engaged themselves in a discussion at the official level on issues concerning proliferation, arms control and regional security, the two countries virtually raised the dialogue to the plane of foreign secretaries on these critical security matters.

The initiative for this is understood to have been taken by the Japanese side.

At the two-day Indian-Japan annual foreign secretary-level conference that concluded last Friday, Japan is believed to have widened the scope of talks to include nuclear non-proliferation and arms control, particularly in the context of the perceived nuclearisation of South Asia and the nuclear non-proliferation treaty (NPT). Generally, the annual exercise confines itself to a bilateral agenda.

This time, however, according to informed sources, questions of international security took up nearly half the discussion time, though bilateral concerns were not over-shadowed.

The development is not at all unwelcome to India. After rejecting the U.S. proposal for a five-nation regional dialogue on nuclear non-proliferation last year, this country has sought to broaden the nuclear debate beyond the countries of the region and the two super-powers in the belief that nuclear weapons cannot be deemed to be regional issues, and must necessarily be seen internationally on account of their worldwide ramification.

As a part of this exercise, besides two rounds of foreign secretary-level talks with the U.S., India has already commenced one-to-one dialogue with the U.K., France and Russia on the question of nuclear weapons in the context of the signing of the NPT that India, quite appropriately, continues to resist, especially since the 25-year-old treaty is itself up for a review in two years' time.

Later this year, India hopes Germany too would be brought into a one-to-one discussion with it on the nuclear weapons question. This was agreed upon when Chancellor Helmut Kohl was here in February last.

The basic purpose of these discussions is to persuade the major powers that the NPT is a discriminatory arrangement, and to work toward devising mechanisms that would make it equitable when it is reviewed in 1995.

Talks with Japan are part of this primary agenda which is not even halfway met if the nuclear dialogue is confined to the South Asia region, meaning primarily Pakistan. [passage omitted]

In the course of discussions, the Japanese team that was led by the country's Vice Minister for Foreign Affairs, is understood to have made it clear that it was perfectly happy to live with a Chinese nuclear asymmetry in its neighbourhood so long as it enjoyed the U.S. nuclear umbrella.

This, of course, constitutes a key difference between the Indian and the Japanese perceptions, for India is not prepared to do the same, not that it is under the nuclear shelter of any weapons power.

The point, however, is that India would be distrustful of any such umbrella, even if it were to be offered one. The independent development of this country's nuclear programme, even when the Indo-Soviet treaty of Peace and Friendship existed and the USSR had not ceased to be, is a pointer to this. This is believed to have been conveyed to the Japanese side.

Of course, when the U.S. nuclear umbrella was unfurled on it after the Second World War, Japan was in no position to refuse it. Fortunately, India has not been in such a predicament. Indian policy-makers also point out in discussions that Japan signed the NPT in 1974, six years after the treaty came into being, underlining the strength of the internal debate in Japan on the question.

Despite the Miyazawa doctrine, that debate cannot be regarded as being extinct even now. For these reasons too, Japan becomes a significant interlocutor for India

on issues of international security, though current Japanese positions are, in the main, indistinguishable from those of the U.S. on both nuclear proliferation and the U.S.-promoted international missiles control regime. At the talks here, Japan is understood to have made this also quite apparent.

Japan—unlike the U.S., Britain, France and Russia—of course, agrees with the Indian view—and this was reiterated here—that the NPT is a discriminatory treaty, but

unlike India it believes that the NPT be accepted, as it is the only mechanism available to conceptually confine nuclear proliferation.

The India-Japan security dialogue is still in its infancy, and policy-makers on both sides are only just getting to be aware of each other's compulsions at first hand. Nevertheless, Japan is understood to have thrown up tentative proposals to which India is yet to respond.

COMMONWEALTH OF INDEPENDENT STATES

Conference Views Dual-Purpose Technologies, Restrictions

LD0306121193 Moscow Russian Television Network in Russian 1000 GMT 3 Jun 93

[From the "Vesti" newscast]

[Text] CIS countries signed an accord in Minsk on 26 June 1992 on controlling raw materials, components, equipment, technologies, and services which could be used to develop weapons of mass destruction. A CIS conference on the nonproliferation of dual-purpose technologies opened at the Russian Foreign Ministry today.

[Correspondent A. Filippov] Delegations from Russia, Ukraine, Belarus, Kazakhstan, and Armenia have gathered to develop a joint system for monitoring the export of such technologies. For the time being, because of Cocom [Coordinating Committee for Multilateral Export Controls] bans, Commonwealth countries are losing millions. They cannot launch satellites for Western customers or purchase the latest computers, medicines, vaccines, chemicals, or technologies to produce them because these products are on international restriction lists, the Commonwealth borders are transparent, and Western partners cannot be sure that these products will not be resold to potential aggressors or terrorists.

To prevent this Russia has drawn up national lists of restrictions which will be handed to former Union republics at the conference so that they can develop their own systems of export controls.

This will help the CIS to integrate into the world community. Russian Deputy Foreign Minister Grigoriy Berdennikov said in an interview with a "Vesti" correspondent that the nonproliferation of dual-purpose technologies is very important since we all are interested in keeping peace. [video shows conference; shot of a page with the heading "List of equipment, materials, and technologies used for developing missiles which can be exported under license and supervision" which describes itemized missile systems with a range of 300 km and over; interview with Berdennikov]

RUSSIA

START II Seen Compromising Country's Security

MK0106133093 Moscow FEDERATSIYA in Russian No 60, 1 Jun 93 (signed to press 31 May) p 7

[Aleksandr Mitrofanov report under the "Follow-Up" rubric: "A Farewell to Arms of Retaliation?"]

[Text] The START II treaty hastily signed at the very beginning of last January by Presidents George Bush and Boris Yeltsin has been under discussion in Russia for five months (and in the United States was approved virtually without any doubt expressed).

The main themes that cause differences among specialists have already become a commonplace: Whether

Russia retains enough nuclear weapons after the destruction of the strategic missiles subject to reductions? Whether the nuclear weapons delivery vehicles (land-based, submarine-based, and missile-armed aircraft carrier-based) of the two sides are equivalent? Whether the two sides are in equal position to build up the strategic offensive weapons on different types of delivery vehicles in the event that one of them should withdraw from the treaty? What is the economic advisability of retaining Russia's current nuclear potential (or, simply speaking, what is cheaper—to keep the missiles or to dismantle them)? Whether the United States provides sufficient technical and financial assistance if the document is ratified and the weapons subject to reductions begin to be destroyed in practice? It is around these problems that the argument between Major General V. Belous and his opponent, O. Cherkovets, is unfolding (see FEDERATSIYA No. 57 of 1993).

What is the most important thing here? Obviously, not quantitative, but qualitative characteristics of the treaty, what O. Cherkovets is actually writing about in his article. Different structures of the two countries' delivery vehicles make it qualitatively impossible to cut our land-based SS-18 missiles even if quantitative equality is ensured with regard to the remaining weapons (3,000 to 3,500), because the U.S. arsenal is dominated by missiles based on submarines, missile-armed ships, and aircraft. The permission for Russia to increase the number of submarine-based missiles by 50 percent does not change much, because they have yet to be built against the backdrop of the collapse of the military-industrial sector, to say nothing of the need to obtain geopolitical conditions equal to those enjoyed by the United States for the use of missile-armed submarines in seas and oceans, which is effectively impossible.

The permission we were given to keep the SS-18's provided they are converted into single-warhead missiles (that is to say, each missile will have a single nuclear warhead instead of six to 10 now) makes for us no difference, either. What we see here is a classical example of quantitative changes evolving into qualitative ones. The thing is that intercepting one single-warhead missile (or a string of them) is a relatively easy job for an American air-defense system. However, intercepting six to ten independently targeted warheads, even if they are launched by one SS-18 missile, is virtually impossible, because the difficulties of the requisite computer calculations will grow geometrically. The more so if tens or hundreds of SS-18's are launched at one time. This is why our SS-18's have turned into a constant "headache" for American strategists, which was metaphorically described by V. Belous.

Both at present and in the foreseeable future, the United States has neither technical nor mathematical means to neutralize the Russian SS-18's. And even the much-vaunted SDI program is incapable of saving them from the "Satan"—SS-18's, which, for us, are just the opposite, "the guardian angels." The technical difficulties related to the creation of SDI are well known (because of

the need to launch into the outer space a large number of military missile satellites, satellites equipped with laser weapons, "nuclear-pumped" satellites and so forth). What is less known is that these systems that intercept enemy missiles rely on such mathematical software for the precision targeting on numerous movable objects that America lacks now and is unlikely ever to get. The thing is that the fastest supercomputers can work efficiently only with the requisite software, and software is a special form of mathematical equilibria that describe in detail well-known physical processes. So, present-day mathematics cannot give a precise description of the movement of four or more bodies seen via radars, if they move with different accelerations and at the same time rotate in relation to each other. Since an SS-18 may launch as many as 10 independently targeted warheads at one time, with each of them having a complex, preprogrammed trajectory, determining this trajectory via U.S. air-defense systems is simply impossible. Therefore, not all the warheads approaching their targets can be intercepted and destroyed. This is why SS-18's can justifiably be considered a retaliatory weapon that ensures the ineluctability of a counterstrike and, therefore, is capable of deterring any aggressor from the temptation to invade Russia.

There has also been few reports highlighting the fact that SDI was initially designed for fighting mobile missiles on the ground and at sea, especially for striking submarines with nuclear weapons on board since they can be seen from outer space as if it were the palm of your hand (thanks to water's optical effect: the deeper the submarine, the larger target it presents for a strike from space). As soon as technical matters related to laser-targeting space missiles on underwater targets (and these are readily soluble problems), the submarines will cease to be the most invulnerable type of missile carriers. The economic and technical superiority of the United States and all NATO will enable them to implement SDI for the purpose of destroying our submarines faster than Russia is able to double its undersea fleet in conditions of the social-economic and political crisis. So much for "maintaining parity!"

As many authors before him, V. Belous uses the term "unprecedented" to describe the scale of missile and nuclear warhead cuts. What is it that is so "unprecedented" in START II? What prevented the former leadership of the USSR, or the Russian Federation, to conclude "unprecedented" treaties before? Is "unprecedented" so good per se? Why is it that a significant positive sense is being attached to this term?

There are "unprecedented" and "unprecedented." The burning of the temple of Artemis in Ethesus in the fourth century A.D. by Herostratos was also unprecedented for that time. Over 2,000 years afterward, disguised behind high-flown rhetoric about "unprecedented arms reductions," former USSR President M. Gorbachev and his inner circle have, keeping this secret from the people and the army, liquidated the unique Oka missile system with

a range of up to 400 km without receiving any compensation from the United States. Under the rustle of fine words about "the new world order" and "universal values of mankind" they have given the United States free of charge 70,000 sq km of the richest sea shelf in the Far East—this is also an unprecedented fact.

This is why questions related to this "unprecedented" nature are extremely important and answers to them are not mere rhetoric, but amount to the guarantee of our national security. Unfortunately, as they admire the fact of "strategic disarmament," its advocates avoid an elementary calculation of what it can lead to in the event of yet another sudden heightening of tensions in the world (and it is an axiom that anything can happen in international affairs).

We believe that strategic disarmament in conditions of unprecedented national humiliation (here, as a matter of fact, this term is very apt) has never lead to improving the security of any state. Nor will Russia's security be strengthened by the current talks with the United States as long as the country is in ruins, as long as the people are growing more and more impoverished and the country's economy continues to break up. In a situation like this, it is especially important to recall that they pay heed to Russia as a great power, or pretend to do so, as long as it has a weapon of retaliation—elusive strategic missiles, our multiwarhead "guardian angels." As soon as they turn into single-warhead ones, Russia will be addressed in the language of ultimatums as was the case with Iraq or with the former Yugoslavia. But it will be too late then to look for those responsible. This is why it is better to stop now and not to play with fire, particularly if it is nuclear.

Russia Comments on DPRK's NPT Position

Nuclear 'Adventurism' Viewed

93WP0166A Moscow ROSSIYA in Russian No 20,
12-18 May 93 (signed to press 11 May 93) p 5

[Article by Andrey Danilin: "The Nuclear Games of 'Dear Leader'"]

[Excerpts] **Until the leaders of North Korea decided to withdraw from the Treaty on the Nonproliferation of Nuclear Weapons, no signatory had dared to take this step. The bad example could be contagious.**

Pyongyang does not have many friends and allies abroad, and now even this small group might be reduced substantially. The reason is the North Korean Government's decision on the withdrawal of the country from the Treaty on the Nonproliferation of Nuclear Weapons. Not one of the treaty's signatories has ever dared to take this step. The DPRK Government announcement said the decision was dictated by the need to "defend supreme national interests" and described the decision as "a natural act of self-defense in response to the incendiary nuclear intrigues of the United States and the unjust actions of certain groups in the IAEA [International Atomic Energy Authority] Secretariat." The statement is worded in standard cliches, but it was the

implications of the step that Pyongyang took, and not the wording of its statement, that shocked the foreign public and focused attention on the North Korean nuclear program. [passage omitted]

Pyongyang's nuclear program is less important than the fact that North Korea's bad example might be contagious. This, in turn, would seriously jeopardize the nuclear disarmament process and the efforts to reinforce security guarantees in the world. That is why it is not surprising that international sanctions against the DPRK began to be discussed as soon as Pyongyang announced its decision. [passage omitted]

Some experts believe that Pyongyang's announcement was only a tactical maneuver and that the DPRK will return to the safety of the treaty shortly. It is difficult to say whether this is true, but one thing is clear: The man behind the decision to withdraw from the treaty is none other than the son and official heir of "great ruler" Kim Il-song—"dear leader" Kim Chong-il.

The thirst for political adventure is in the younger Kim's blood. Even in his youth he loved to rattle the saber. Informed sources say that he was behind the bloody incident in the demilitarized zone between North and South Korea in 1976, when DPRK soldiers killed two American officers with axes. After that incident "Ruler Senior" pushed his son into the background, but so much water has flowed under the bridge since that time. Today Kim Chong-il is the effective leader of North Korea—effective, but not legal. This is why many analysts are inclined to view the DPRK decision to withdraw from the Treaty on the Nonproliferation of Nuclear Weapons as an indication of Pyongyang's new policy line, designed to isolate the country from the outside world as much as possible during the period of the formal transfer of power from "Ruler Senior" to "Ruler Junior." [passage omitted]

Kim Chong-il Responsible for NPT Withdrawal, 2 Jun 93

SK0206012293 Seoul YONHAP in English 0107 GMT 2 Jun 93

[Text] Moscow, June 1 (YONHAP)—North Korea's withdrawal from the Nuclear Non-Proliferation Treaty (NPT) was decided by Kim Chong-il, and his father, President Kim Il-song, only found out afterward, Russia's top intelligence official said Tuesday.

Evgeniy Primakov, head of the Russian Intelligence Service, said the junior Kim gave final approval for Pyongyang's announcement it was leaving the NPT in March and his father wasn't involved in the decision.

Kim Chong-il's camp was taking a major role in decision-making while Kim Il-song and other members of the old guard were gradually withdrawing from the playground, Primakov said.

He predicted that the junior Kim would have to take full responsibility if North Korea got into a difficult situation as a result of its withdrawal from the NPT, and said

his absence from military-related events although he is the supreme commander of the People's Army is not totally irrelevant to this.

Primakov strongly hinted at U.N. sanctions if Pyongyang did not retract its withdrawal from the NPT, which takes effect on June 12, saying that "it would be inevitable to seek a countermeasure in a difference perspective should North Korea stick to its decision to pull out from the NPT."

'All' Nuclear Weapons Removed From Northern Fleet Ships

PM0406102193 Moscow Ostankino Television First Channel Network in Russian 1400 GMT 1 Jun 93

[From the "Novosti" newscast: Video report by V. Anuchin and A. Uchinin, identified by caption; figures in brackets denote broadcast time in GMT in hours, minutes, and seconds]

[Excerpt] [141404] [Anuchin] [Video opens with shot of harbor] The Northern Fleet's 60-year history comprises pages of heroic feats, valor, and glory. I will cite just one figure—89 seamen were awarded the title Hero of the Soviet Union during World War II and, as a sign of gratitude to those who defended the Polar Region during those harsh times, the bronze statue of a sailor was erected overlooking the gulf. Today, the Northern Fleet comprises combat ships which fly the St. Andrew's banner, and modern nuclear submarines like this one which is returning to its home base after almost three months at sea. Incidentally, there are no nuclear weapons on board this submarine. The fact is that all such weapons have been removed from all submarines and ships. [passage omitted]

Nuclear Power Minister Interviewed

LD0406001893 Moscow Russian Television Network in Russian 1934 GMT 3 Jun 93

[Interview with V. N. Mikhaylov, Russian minister for Nuclear Power Engineering, by correspondent Aleksandr Peslyak; place and date not given; From the "X" program—recorded]

[Text] [Caption reads: "Is nuclear disarmament safe?"] [Peslyak] Some time ago in our commentaries we spoke about the problems of nuclear danger in conditions of nuclear disarmament. The minister agreed to reply to a number of questions:

[Begin recording] [Peslyak] Where is the money coming from? Was there any before? Is there any now? Were any credits granted at any time, and are any credits being granted now, including from abroad?

[Mikhaylov] I'll begin by saying that the dismantling of nuclear munitions is carried out by enterprises of the Ministry of Nuclear Power Engineering, precisely those enterprises which previously produced this type of munitions. It must be said that the process of dismantling was developed virtually in parallel with the development of new models of nuclear weapons. Since the service period

of nuclear munitions is from 10 to 20 years, then naturally over that period we were always carrying out the dismantling of nuclear munitions but not on a large scale. Carrying out this process on a large scale began in 1987 and the scale of dismantling nuclear munitions increased particularly over the past two years.

I could cite figures indicating that, whereas at the start of 1986 we had over 40,000 nuclear munitions of all types, absolutely, for all arms of the forces, today this number has decreased by virtually 15,000 nuclear munitions. Considerable work on dismantling has been carried out over the past year, 1992. The scale of this process is very great.

[Caption reads: "In 1993, 20 percent more nuclear munitions will be rendered harmless than in 1992, when about 3,000 nuclear munitions were dismantled"]

What problems are there? Well, this was always a state program and it was financed from the state budget. The amounts being received are miserly and we are maintaining these enterprises on starvation rations. We have only four such enterprises which previously engaged in producing the relevant munitions and now in dismantling them.

[Caption reads: "The average pay of those working at enterprises of the Ministry of Nuclear Power Engineering of the Russian Federation is 39,000 rubles (R) per month, and for those occupied in dismantling nuclear munitions, R28,000 per month"; video shows missile being dismantled]

I would like to add that the process of dismantling is a very complicated one. Some people might think that it is simply a matter of carrying out all the operations in reverse order. Not at all. First of all, on training models from which nuclear active materials and chemical explosives are absent, the process of dismantling is fully described along with possible situations which could arise during dismantling.

The process of dismantling the nuclear munition is an operation which is not only difficult from an engineering and technical point of view, but is also very dangerous because the nuclear munitions have been in storage, in military units, for 10, 15, 17, or 20 years. Microscopic cracks and microscopic defects appear in many parts and assemblies.

There is also another problem. We do not have good storage facilities for the active materials which are removed and in the first instance for plutonium-239. Well, naturally, you can ask what the ministry was doing, why the question was not raised in good time about storage facilities and why we did not build them.

[Peslyak] These questions are being raised not so much by me as by the Russian Nuclear Inspectorate.

[Mikhaylov] I will give a very simple reply to this question. The question of storage facilities was raised in 1987. We knocked on every door to get finance for these storage facilities. We proposed building modern facilities which would provide the appropriate micro-climate

inside, ensure the safety of these materials in case of accidents including fires, and so on. Well, there was no money. The provision of finance was delayed and virtually today, just this year, we intend to complete the design for such a storage facility.

It is the practice, and not just in our country, that such global political decisions are made, as a rule, without taking account of the technical aspects. So, in 1990 I approached the Americans about a possible joint construction of storage facilities. Moreover, the ice moved here and there appeared the so-called (Nanalogor) Fund, which amounts to 400 million dollars that is directed towards assisting the safe dismantling, transport to the place of dismantling, and the storage of active nuclear materials.

But unfortunately, this process dragged on. There were the agreements to be signed. There was criticism from the Supreme Soviet. You know what happened at our recent congresses. The assistance, itself, has not been very effective today. Take the question of designs. They allocated, in accordance with an agreement between the Nuclear Ministry and the U.S. Defense Department, 15 million dollars. But this was for designing their section which they will give to us, concerning ensuring the safety of containers and checking for the presence of nuclear active materials, a diagnostic system costing 15 million dollars.

We do not receive a cent from this and it must be said that Russia has not received a cent from the (Nanalogor) Fund. Well, I am speaking for the Ministry of Nuclear Power Engineering. Everything is allocated to the U.S. research workers and industrialists. Well, they will do some part of the project. This will be no bad thing. Although for 15 million dollars Russia could complete the whole project. But we estimate that that part comprises about 10-15 percent of the whole project.

Apart from that, we have signed an agreement. When I say we I mean the Nuclear Ministry and the U.S. Defense Department on the supply of 45,000 containers to store nuclear active materials, plutonium, and uranium which are removed. The containers, themselves, are also very complicated engineering constructions and should ensure the safety of these materials. Such a container costs from 1,000 to 1,500 dollars; we gave the Americans our designs. At first we exchanged designs. The United States and the specialists acknowledged that our designs were better. They satisfy not only the requirements of IAEA but also all the specific demands made by us and by the Americans in transporting such materials. They undertook to produce 200 containers for us. I would like to stress 200 even though in 1992, alone, we made 10,000 such containers for the use of our munitions, to store uranium and plutonium. This year we are also making 10,000.

[Peslyak] How is the supervision carried out? Missiles are taken out of service, they are gradually, or not

gradually, taken away to the place where they will be destroyed. Who keeps an eye on this process?

[Mikhaylov] The Ministry of Nuclear Power Engineering is responsible for the dismantling of nuclear munitions. That is, we do not remove the missiles, themselves, this is done by other civilian departments together with the Defense Ministry. We receive from the Defense Ministry the warhead to take to our works and this section comes to us complete.

The state nuclear inspectorate or the Russian nuclear inspectorate is responsible, mainly, so far, for peaceful activity in the sphere of the peaceful use of nuclear energy—nuclear power stations, transport installations. As far as concerns military equipment, no country has relevant structures apart from the Defense Ministry—I am referring to the nuclear powers—and ministries which carry out, or bodies which carry out and produce these nuclear munitions.

Well, as far as concerns some sort of international monitoring, permitting access by other specialists, particularly monitoring by public organizations, this is largely ruled out today as Russia has signed the Treaty on the Nonproliferation of Nuclear Weapons and nuclear technologies.

[Peslyak] The Clinton Administration is still deciding the question of whether to begin or develop a new five-year program at the end of the present nuclear-testing moratorium.

[Mikhaylov] On nuclear tests?

[Peslyak] Yes, for 15 explosions. The number one question is whether there will be a similar or an asymmetrical response on our part, or are you now working on...[changes thought] are you perhaps doing something for peaceful purposes? It is no coincidence that in a few days' time an international conference on halting all nuclear testing is opening in Sweden. [Video shows model of the first hydrogen bomb. Caption says: "About 120 underground nuclear explosions were carried out in the USSR just for peaceful purposes"]

[Mikhaylov] We are making preparations in case, if the Americans after 1 July begin nuclear testing, Russia is forced to begin conducting tests. I have long said, ever since I became a deputy minister, back in 1989, that the number of tests needed to be substantially reduced. We do not need the 15 or 16 tests a year on average that we and also the Americans were conducting. Three or four tests would suffice. Today it is a question of two or three nuclear explosions a year being necessary to maintain research development work on the safety of nuclear weapons, especially above all in peacetime.

The issue is at present being tackled of seeing that there is no dispersal of any material such as plutonium-239 in any situation, in any unregulated situation. This is a more complex and difficult matter, and it may be resolved by the use of special means and special chemical explosive.

Therefore, in case the Americans carry out tests after 1 July—their plans for the current year are to carry out 15-16 tests—we are making plans. I do not know what the decision of the president, the Supreme Soviet, and the government will be, but naturally our ministry, and I as the minister responsible for this area of activity, are making preparations. [end recording]

[Unidentified announcer] As the Ministry of Nuclear Power Engineering stated in its response, we are awaiting a response from the Ministry of Defense.

Official Says Moratorium on Nuclear Tests To Be Permanent

LD0306113793 Moscow Radio Moscow World Service in English 1100 GMT 3 Jun 93

[Text] Moscow is ready to make its moratorium on nuclear tests permanent. This was said by the head of the Russian Foreign Ministry Department on Disarmament, Oleg Sokolov, in a Radio Moscow interview.

The term of the American moratorium on nuclear explosions expires on 1st July.

Speaking in this context, Sokolov expressed Russia's readiness to begin consultations with the United States on the matter. In his opinion, talks on a complete ban on tests conducted within the framework of the Geneva conference on disarmament should be stepped up.

The spokesman of the Russian Foreign Ministry supported a French proposal to discuss the problem by all the five nuclear powers.

LITHUANIA

Missing Atomic Fuel Cassette Said at Ignalina Station

WS2805145493 Vilnius RESPUBLIKA in Lithuanian 19 May 93 No. 94 p 3

[Article by newspaper correspondent Ruta Skatikaite: "Shortage in One Place and Excess in Another"]

[Text] The search for the missing cassette with unused atomic fuel is continuing at the Ignalina nuclear power station. The inventory of the total amount of nuclear fuel suggests that the cassette may be lying somewhere at the station itself. V. Zimin, chief of the reactor department, comments on the results of the inventory:

"A repeated accounting shows that one unused cassette is missing, while there is an excess of one among the waste cassettes. Thus, the general balance indicates no shortages. The unused cassette may have found itself among the waste ones by mistake. Our task now is to find it there. We will search for it by checking the numbers at three places—the basin, the reactor, and the 102-piece waste fuel containers."

Radioactive Beryllium Transferred to Special Depository

*OW2805193193 Moscow BALTFAX in English
1804 GMT 28 May 93*

[Following item transmitted via KYODO]

[Text] The radioactive beryllium accidentally found last week in the Lithuanian Stock Innovations Bank in Vilnius is transferred to the special depository of the Physics Institute.

Lithuanian newspapers today reported that experts discovered radioactive emanation coming from only several of the 20 containers kept in the bank. In the bank's rooms, there have not been registered any excesses of the radioactive background. The net weight of the metal estimated at \$12 million was 4 tons.

Natural beryllium is not radioactive, though it is used in nuclear reactors. After some time, the beryllium parts engaged in radioactive processes become radioactive. The head of the radiometric lab of the Environmental Department, Stasys Motiejunas, the metal found in the bank may be some nuclear power station's waste.

In an interview with the "Respublika" newspaper, Senior Engineer of the Ignalinsk nuclear power station Gennadiy Negrivoda said that his station did not use beryllium. In his words, they were used in reactors of another satellite type.

The newspaper said that the dangerous cargo belonging to the Moscow company AMT Trading Ltd. was delivered to Lithuania last June from the Urals by plane, and deposited in the bank for a short term.

As was reported earlier, the Lithuanian Interior Ministry has launched criminal proceedings on the case of illegal purchasing, keeping and transferring radioactive substances.

UKRAINE

Parliament Discusses START I

Government Sets Conditions on Disarmament

*MK2905113093 Moscow NEZAVISIMAYA GAZETA
in Russian 29 May 93 p 1*

[Vladimir Skachko report under "Nuclear Weapons" rubric: "Will Ukraine Become a Nonnuclear State? Ratification of START 1 Postponed Again"]

[Text] Addressing a meeting with journalists at the Ukrainian national press club, Boris Tarasyuk, chairman of the national committee on disarmament and deputy foreign minister of Ukraine, stated that the deputies were to have considered the START 1 Treaty, the Lisbon protocol, and the treaty on nuclear nonproliferation on 20 and 21 May 1993, but that this was prevented by the events surrounding the government. According to Boris Tarasyuk, the said documents are ready and will necessarily be considered in parliament in June. This statement, however, appears problematical, first, given the mood of the deputies who are demanding a nuclear status for Ukraine, and second, in view

of the fact that so far the draft military doctrine has not been adopted. Moreover, Tarasyuk himself pointed out that the documents are ready for examination but that the matter now rests with the deputies. According to Tarasyuk, the deputies are setting four main conditions for the ratification of these documents: provision of security guarantees, compensation for tactical and strategic nuclear weapons, assistance in financing the disarmament process and ensuring the inspection and monitoring of the missiles located in Ukraine without delay, and also oversight of the dismantling and destruction of nuclear weapons. Boris Tarasyuk specially stressed that Ukraine did not transfer to Russia tactical nuclear weapons last spring but took them away for dismantling and destruction. According to Boris Tarasyuk, the cost of the nuclear disarmament process is \$2.8 billion. As is known, Ukrainian Defense Minister Konstantin Morozov cited a different figure—\$3 billion. Furthermore, Boris Tarasyuk confirmed that during the visit to Ukraine by U.S. diplomat Strobe Talbott, the United States demonstrated full understanding of Ukraine's position with regard to its demand of compensation for theater nuclear weapons.

Continuing, Boris Tarasyuk proceeded to brief those present on the fundamental provisions of the basic directions of Ukraine's foreign political activity and the Ukrainian initiative on creating a European collective security system that was advanced by Leonid Kravchuk last February in Switzerland. According to Tarasyuk, Ukraine proceeds from the premise that after the disintegration of the Warsaw Pact, a security vacuum has emerged in central and eastern Europe which is made worse by the fact that NATO is in no particular hurry to admit the new states into its ranks. The newly independent states, in the deputy minister's opinion, have common problems. These include their own security owing to growing mutual contradictions, the rights of ethnic minorities, and problems arising from the disintegration of the socialist economic space. Therefore Ukraine has come out with the proposal to create a central-east European stability and security area (CEESSA) which would not be a cordon sanitaire around Russia but would serve as a link between Russia and Western Europe in building a broad transatlantic security system from Vancouver to Vladivostok, in other words in the so-called CSCE region. The motto of this plan is: security for one via security for all.

Boris Tarasyuk said that Ukraine's initiative has been received with interest in Hungary, Poland, Slovakia, and Moldova. In the opinion of Ukraine, the CEESSA could include the states in the European part of the former USSR and countries of eastern and central Europe. This space, according to Tarasyuk, would be not a union of states, nor a new military-political bloc, but a mechanism for broad bilateral and multilateral consultations both for settling disputes and for preventing new conflicts. Ukraine itself, according to Tarasyuk, cannot participate in any bloc since it has proclaimed its neutrality. Tarasyuk said that Ukraine sees four main conditions for its own security: first, mobile and combat-worthy national armed forces; second, bilateral relations guaranteeing security; third, the creation of a European

collective security system; and fourth, the provision of security guarantees by the nuclear powers. The deputy minister reported that Ukraine has already received texts of the Declaration "On Guaranteeing Ukraine's Security" from Great Britain, France, Russia, and the United States. China has also agreed to provide such a declaration. In Boris Tarasyuk's opinion, Ukraine would prefer not declarations but rather a multilateral treaty-type legally binding document, but the nuclear powers would not agree.

The position of the Ukrainian Ministry of Foreign Affairs is this: If parliament makes a decision to seek the signing of such a legally binding document, the Foreign Ministry will implement that line. In addition, Boris Tarasyuk said that Ukraine is so far not content with either the texts of the declaration "on security guarantees" or with the fact that the nuclear powers are ready to promulgate them only after the Ukrainian parliament has ratified the nuclear disarmament documents. Ukraine wants these declarations to be signed before these documents are considered in the Supreme Soviet. The declarations should guarantee nonaggression against Ukraine both with nuclear and conventional weapons, exclusion of economic and political pressure, and respect for territorial integrity and the inviolability of borders. Furthermore, Ukraine would very much like to get acquainted with the mechanism of realization of these guarantees.

Judging by Boris Tarasyuk's words, one could understand that failure to meet these conditions could prevent the deputies from passing a positive ruling on the nuclear disarmament documents.

Kravchuk, Zlenko Urge START I Ratification

*AU0406114093 Paris AFP in English 1110 GMT
4 Jun 93*

[Laure Delrieu report]

[Excerpt] Kiev, June 4 (AFP)—Ukrainian President Leonid Kravchuk on Friday said he hoped lawmakers would ratify the START I nuclear treaty after Prime Minister Leonid Kuchma proposed that Ukraine maintain a temporary nuclear status.

"We hope that the result of the current debate will be promising," Kravchuk was quoted by Interfax news agency as saying at the outset of a meeting with Russian Foreign Minister Andrei Kozyrev dispatched here for talks on the Black Sea Fleet.

Kravchuk and Ukrainian Foreign Minister Anatoly Zlenko have urged lawmakers, who began a crucial debate here on Thursday on ratification of START I, to approve the treaty or else face international isolation.

Kuchma however later told deputies at a closed-door session that Ukraine should ratify START I but maintain a temporary nuclear status, deputy Evgen Griniv told AFP.

The deputy said that Kuchma agreed with lawmakers who claim that Ukraine should keep its 46 SS-24 intercontinental ballistic missiles but give up the 130 SS-19s, a decision which they say would be in line with the provisions of START I.

The START I treaty, signed in July 1991 between the former Soviet Union and the United States, calls for a one-third reduction in strategic nuclear arms.

Ukrainian approval of the accord is necessary for implementation of the more ambitious START II agreement signed in January.

Ukraine, which possesses 176 strategic nuclear missiles, is the only one of four nuclear armed states to emerge from the Soviet Union that has failed to ratify the START I treaty despite its pledges to become a nonnuclear state. The other three republics are Belarus, Russia, and Kazakhstan.

The Ukrainian parliament's delay in ratifying the accord pending financial aid for dismantling the missiles and security guarantees has sparked concern in western capitals on Kiev's intentions, and U.S. Defense Secretary Les Aspin is due here on Sunday.

Kozyrev asked Kravchuk if his position in favor of ratification of START I was made clear to lawmakers, to which the Ukrainian leader answered: "Absolutely clear", according to Interfax.

Kravchuk said that there was a whole range of views on the issue in parliament, adding that "some are well thought out, others not."

Griniv, a deputy representing the west Ukrainian city of Lvov, said that lawmakers held the view that Ukraine could not declare itself nonnuclear until it receives full security guarantees "either by becoming a member of NATO (North Atlantic Treaty Organization) or through bilateral alliances with other nuclear powers."

"Leonid Kuchma has shown that he shares the concerns of lawmakers and has admitted that we have no assurances about Russia's intentions," the deputy added. [passage omitted]

Zlenko Addresses SupSov on Treaties

*LD0306212693 Kiev Radio Ukraine World Service
in Ukrainian 0812 GMT 3 Jun 93*

[Speech by Ukrainian Foreign Minister Anatoly Zlenko to a session of the Ukrainian Supreme Soviet in Kiev—live]

[Text] Esteemed Chairman, Esteemed People's Deputies: The issue that today's session of the Supreme Council is discussing undoubtedly has an unusually important significance for the future fate of Ukraine, for guaranteeing its military, economic, and ecological

safety, and for determining its place among the civilized nations of the world. We are discussing whether Ukraine will be a nonnuclear state; that is, one that does not possess nuclear weapons.

Ukraine's parliament, it seems, has already given its unequivocal answer to this in a number of its decisions. The Ukrainian Government has acted in accordance with the implementation of the decisions of the Supreme Council. A thorough analysis of the aspects of all possible results of Ukraine's participation in two fundamental agreements in the area of the limitation of armaments and disarmament—specifically, the START 1 treaty and the Nuclear Nonproliferation Treaty—preceded this.

The results of this analysis—which we have carried out without interruptions and in close cooperation with our leading experts, also following the signing of the Lisbon Protocol—testifies to the fact that both the ratification of the START Treaty and joining the Nuclear Nonproliferation Treaty will be in Ukraine's national interest. During the course of almost a year following the signing of the Lisbon Protocol on 23 May 1992, the issue of participating in these treaties was discussed by Ukraine's National Security Council, Ukraine's Defense Council, at hearings of the working group, and in Supreme Council commissions. Ukraine's and the foreign states' mass media have paid much attention to this issue. Experts and scientists discussed it at international meetings and seminars. In a word, it would not be an exaggeration to say that probably no other political issue attracted as much attention from the political leadership and from Ukraine's people as the issue of accession to the Nuclear Nonproliferation Treaty and the ratification of the START 1 Treaty.

In summing up the results of these discussions, the majority of the experts came to unequivocal conclusions. Today, I would like to acquaint members of the Supreme Council with these conclusions, as well as with an analysis of the foreign political effects of the possible alternatives to Ukraine's nuclear strategy.

First, the singularity of the situation that Ukraine found itself in following the former USSR's collapse and the declaration of the intention to become a nonnuclear state—even in the future—lies in the absence of defining Ukraine as a nuclear or a nonnuclear state in accordance with the provisions of the Nuclear Nonproliferation Treaty through the accession to this treaty. Practically, Ukraine inherited nuclear weapons located on its territory. However, as the experts stress in connection with the fact that control over these weapons never belonged to Ukraine, in their opinion, it cannot be regarded as a nuclear state in the clear sense of the word.

As is known, the right of ownership envisages the presence of at least three basic conditions: possession, utilization, and disposal of the object of ownership. In reality, Ukraine never had the possibility to make use of nuclear weapons, despite the declaration concerning the presence of Ukraine's nuclear weapons. It is possible that, at first glance, this seems not such an essential

argument, but it is impossible not to reckon with it as the generally accepted principle envisaged by the START Treaty.

Second, one can suppose that Ukraine, as a legal successor to the former Soviet Union, could continue the USSR's participation in the Nuclear Nonproliferation Treaty as a state in possession of nuclear weapons. This would be the only legal facility, from the judicial point of view, for our country to join the circle of the so-called recognized nuclear states—in other words, to become a party to the Nuclear Nonproliferation Treaty through nuclear status.

I will remind you that, in accordance with Article 9 of the treaty, a state in possession of nuclear weapons is a state that has developed and tested nuclear weapons or another nuclear explosive device before 1 January 1967. In the opinion of Ukrainian international lawyers, Ukraine—as a legal successor state to the USSR—meets such a definition, and one can suppose the possibility of recognizing Ukraine as a nuclear state.

Initially, however, we would have to solve all the legal and technical issues with the Joint Command of the Strategic Nuclear Forces of the CIS—which, in effect, means with Russia—concerning the implementation of the possibility to use one's own property.

Third, there is an opinion that nuclear weapons give an almost absolute guarantee of security to the state, of territorial security, and of the inviolability of borders. On one hand, this is actually true. Nuclear weapons are the most effective means of containment, especially in the conditions of strategic parity that existed between the USSR and the United States of America for 30 years and that practically made it impossible to use armed force in solving disputes between nuclear states.

The question is as follows: Are there now in Ukraine the necessary conditions for it to be able to be a nuclear state and to maintain in a combat and safe state the nuclear arsenal deployed on its territory? The question of Ukraine having a real possibility of not only declaring itself a nuclear state but of providing and supporting that status materially was focused on by Ukraine's nuclear scientists, its leading specialists, during their analysis.

Fourth, as the specialists state, in order for Ukraine to have efficient and safe nuclear weapons, it is necessary to start with creating Ukraine's own relevant infrastructure, without which nuclear weapons can become a threat to its own people. It is known that nuclear warheads are extremely complex mechanisms to create.

Many-thousand strong collectives of highly qualified scientists and technicians work at this in nuclear states.

The nuclear complexes where such specialists work consist of at least seven (?main) elements:

1. A relevant scientific and technological base;
2. An industrial base for production of nuclear materials—of highly enriched uranium and plutonium, first of all;

3. An industrial base for production of nuclear warheads and their maintenance under necessary conditions;
4. An industrial base for production of means to transport nuclear weapons;
5. An infrastructure that would provide transport, technical servicing, safe storage, and physical protection of nuclear warheads;
6. An infrastructure for combat servicing of nuclear weapons; and
7. Test grounds for testing nuclear warheads. The majority of these elements—incidentally, the very dirty ones in ecological terms—are unavailable in Ukraine. According to the calculations by relevant scientific and research establishments of Ukraine, to create them would cost 62 billion to 100 billion dollars. While some of them could be created at the expense of many years of extraordinary, [word indistinct] efforts by the whole Ukrainian nation—involving enormous costs—carrying out nuclear tests on the territory of Ukraine is absolutely out of the question.

I will remind you, incidentally, that the creation of the United States' nuclear weapons cost more than 100 billion dollars, according to the prices of that time. The former USSR spent approximately 1 trillion rubles in 1950's prices on creating and developing nuclear weapons. Naturally, Ukraine's economy cannot bear such a burden today. Fifth, such an infrastructure is also necessary in order to keep those nuclear warheads that Ukraine inherited from the former USSR in a safe condition. Each of them has a guaranteed period of not more than 10-12 years, after which they are subject to dismantling and full reprocessing. The ecologically very dangerous [word indistinct] explosive devices that are utilized in modern nuclear warheads have an even shorter guarantee period.

Our military experts know that the prevailing majority of the warheads deployed on Ukraine's territory have already exhausted a considerable part of their shelf life. Russia has not been sending these components to Ukraine over the course of almost a year now, and there is not much hope for counting on this happening in the future. Even those enterprises that assembled the warheads will not undertake to dismantle them after the end of the guarantee period. That is extremely dangerous.

The problem of reliably rendering harmless—that is, to dismantle and reprocess ecologically safely—nuclear warheads will soon acquire an urgent nature. It is becoming impossible to simply leave the existing nuclear weapons in Ukraine like this.

Sixth, a separate problem is that of the 130 liquid fuel RS-18 missiles, and the 76 deployed in Ukraine [as heard]. It is well known that the components of the fuel of these missiles—and heptyl, in particular—are very toxic and persistent [stiykyy]. They are similar to combat poisonous substances—chemical weapons—in this. The guarantee period for these missiles to be combat ready more or less safely will soon end.

These missiles are now already posing a real ecological threat to Ukraine, and this threat will continue to increase all the more. There is still no efficient technology, neutralization, and further utilization of heptyl. Under any conditions, however, we will need to resolve this problem in the near future. So, everyone is convinced that one will not have to count on some other nation helping a nuclear Ukraine on this issue. [as heard]

Seventh, a detailed analysis of the development of recent events around the subject of nuclear weapons in Ukraine shows that the reaction of other countries will be unequivocally and sharply negative if Ukraine departs from its policy of attaining a nonnuclear status in the future. A reduction in the volume of Ukraine's economic, financial, scientific, and technical relations with other states, a halt in economic and humanitarian assistance from the West, the application of various types of sanctions and restrictions—including the imposition of a trade embargo and even a blockade—can certainly be expected.

This is conditioned by the real interests of western states—the majority of which are resolutely against the increase under any conditions of the constant quantity of acknowledged nuclear states. The capability of western states and the world community to undertake the most resolute measures is demonstrated, in particular, by the nature of sanctions adopted against Iraq and Yugoslavia. Although the situation regarding Ukraine will differ in essence, there is no doubt that in the West, and not only in the West, the attitude toward Ukraine's attempts to become a nuclear state will be resolutely negative.

Even if all-embracing sanctions are not used against Ukraine, we have been given to understand that access to any kind of cooperation and exchanges in the sphere of developed technologies will be barred to us. Delivery of nuclear fuel for Ukrainian nuclear electric power stations will end. All trade and financial preferences and advantages, which are natural for normal interstate relations, will be canceled.

Next, on the basis of an all-embracing analysis, specialists have shown that the alternative to nuclear weapons, from the point of view of ensuring Ukraine's national safety, is a complex of measures, the implementation of which, under current conditions, will more efficiently and reliably guarantee Ukraine's national security in a broad and realistic sense.

There is the specific example of the former Soviet Union, which was the most powerful nuclear state in the world.

As you know, however, nuclear weapons did not keep it from falling apart. For Ukraine, normal friendly relations with all of its neighbors—the high priority of developing political, economic, and scientific-technical relations with the United States and other countries of the West; the creation of conditions for foreign investments; deep economic reforms on the principles of a market economy; further democratization of society; and, above all, our domestic political stability—all of

these are the ingredients of guarantees of Ukraine's national security. They have become possible on the condition that Ukraine acquires the status of a state that does not possess nuclear weapons.

Ninth, esteemed people's deputies, we are now heading for ratification of START and joining the Nuclear Non-proliferation Treaty. In this regard, the Ministry of Foreign Affairs—under the instruction of the president of Ukraine—is doing intensive work to ensure that, before these documents become effective, Ukraine has: first, guarantees of its national security from nuclear states; second, obligations from the United States and other western countries regarding financial assistance with liquidation of nuclear weapons; third, fair compensation for nuclear components of the tactical warheads withdrawn from the territory of Ukraine, as well as of the strategic offensive weapons—if a decision is made to disassemble and to reprocess them at Russian enterprises; and, help in solving certain ecological problems.

As for security guarantees for Ukraine, it involves the adoption by nuclear states of a political legal document that would confirm their obligation regarding the unacceptability of any use of force on the part of nuclear states. Naturally, such obligations by themselves do not guarantee Ukraine's security, but they will have an important political significance.

We have received preliminary texts of such guarantees from the United States, Great Britain, the Russian Federation, France, and China. They are in the form of unilateral political obligations of those states in relation to Ukraine. Consultations with the specified states on this subject continue. The issue of financial assistance to Ukraine in elimination of nuclear weapons is a subject of permanent negotiations, which have already been held with the United States during many months. Those issues are also touched upon at consultations with other western states. Some of them have expressed readiness to grant us real help altogether.

The United States is currently prepared to allocate 175 million dollars for these purposes, as well as to give 10 million dollars to create a scientific and technological center in Kiev. Naturally, that sum does not cover the whole expense. It far from covers the whole expense that Ukraine will suffer from the implementation of START. However, we believe that, with time, the expenses will be eliminated, both at the expense of additional allocations on the part of the United States and at the expense of other western countries involved in this. In any case, one can say that the understanding of those issues grows.

As for use of the nuclear components of the warheads deployed in Ukraine, we have managed to receive an assurance from the United States that it will not draw up contracts with Russia—in accordance with the agreements already signed by those states to the total amount of over 11 billion dollars—until Russia and Ukraine reach an agreement on fair compensation to Ukraine for those components. A whole number of measures to do with the elimination of strategic offensive weapons and,

in particular, with the RS-18 liquid fuel rockets, are also to assist in solving the future ecological problems that Ukraine faces. I am talking about developing or getting from the United States and Great Britain a technology to utilize with regard to highly toxic substances, which can be used not only for liquidation of heptyl but also of various types of chemical waste and other toxic substances. Exchange of opinions on these issues has already taken place at various levels.

Tenth, in the course of the last few months, tense negotiations with Russia have been under way on a wide range of issues connected with nuclear weapons located on Ukraine's territory. Two rounds of these negotiations have been held already. They testify to the fact that, at the negotiations, the Russian side is setting the goal of forcing Ukraine to transfer strategic nuclear forces and, most of all, the strategic nuclear warheads deployed on its territory to Russian jurisdiction to the appropriate (complete and) under the subordination of Russia's Defense Ministry.

Under these conditions, Russia is prepared to agree to the granting to Ukraine of certain compensations for nuclear weapon components that are being withdrawn from the territory of Ukraine to Russia for their dismantling and destruction. Regarding this, the Russian side is categorically refusing to discuss the issue of utilization of such materials from tactical warheads that were withdrawn from Ukraine in May of last year. At the negotiations, the Russian delegation is pursuing a policy of brutal pressure and is attaching the settlement of the issue of guaranteeing nuclear safety of strategic nuclear forces deployed in Ukraine to the recognition on Ukraine's part of the Russian Federation's right of ownership over all nuclear weapons located in Ukraine. We cannot agree to this, insofar as it concerns the issue of sovereignty and Ukraine's economic interests. At the same time, it is obvious that the absence of a final decision on the part of the Supreme Council as to Ukraine's nonnuclear status does not facilitate the course of these negotiations and is leading to a situation where we will remain without any assistance on the part of the international community.

Next, of course, the START negotiations were held without the participation of Ukraine, and the START Treaty does not entirely correspond with our interests. A statement by the Supreme Council of Ukraine in connection with ratifying the treaty could reflect Ukraine's positions.

The main aspect of the START Treaty—which Ukraine is to ratify together with acceding to the Nuclear Non-proliferation Treaty in accordance with the Lisbon Protocol—is that quite a protracted term, seven years, is established by the agreement in order to achieve the reduction and limitation of strategic offensive weapons. There are no serious objections raised by anyone against this term, which was determined by a universally recognized international document to eliminate nuclear weapons deployed in Ukraine. There should be enough time to reinforce the statehood of Ukraine, to reform its

economy, to establish and consolidate a civic society, and to incorporate Ukraine fully in a family of the world's civilized nations.

Esteemed people's deputies, the time has already come today to adopt a definitive attitude toward the issue of ratifying the START Treaty and acceding to the Nuclear Nonproliferation Treaty. Harm to Ukraine's national interests, caused by further delaying the adoption of a relevant decision, is increasingly greater. Indeed, Ukraine's image as an unreliable participant in international communication and a militarily and excessively ambitious state has been created by the mass media in the past months—which has not been done without incitement by (?statesmen) from both our western partners and our close neighbors.

Accordingly, we are damaging our positive reputation as a stable state, while we deserve this reputation more than any one of the former USSR legal successor states. We are also losing time required for establishing and further developing political relations with the states that are (?effectively) interested in the existence of a strong, economically developed and independent Ukraine. It is exactly these relations of equal partnership in the field of security that can and must be a reliable foundation of Ukraine's external security.

The significance of the choice the Supreme Council is faced with is truly historic and will determine the future of Ukraine. We cannot afford to make a mistake, for we are hardly given any time to rectify it.

Thank you for your attention.

Transfer of Tactical Nuclear Weapons to Russia 'Mistake'

*WS0406080693 Kiev UNIAN in Ukrainian 1800 GMT
3 Jun 93*

[Text] The Ukrainian Supreme Soviet has begun discussing the START I and the Nuclear Nonproliferation Treaties [NPT], which have been submitted for ratification. Ukrainian Foreign Minister Anatoliy Zlenko made a speech and said that Ukraine needs some \$62 to \$100 million for the creation of its own infrastructure for nuclear arms maintenance. Supreme Soviet Deputy Chairman Vasyl Durdynets underlined the necessity of

multilateral negotiations for regulating mutual claims and preparing the basis for the ratification. Vasyl Durdynets pointed out that the transfer of tactical nuclear weapons from Ukraine to Russia was a mistake. During the discussion which was held behind closed doors, the deputies emphasized the importance of separate discussions of START I and the NPT.

Kravchuk Submits Draft Military Doctrine on Nuclear Status

*WS3105075893 Kiev UNIAR in Ukrainian 1424 GMT
28 May 93*

[Excerpts] Kiev, 27 May—UNIAR has received documents on the debates of the Ukrainian Supreme Council commission on military issues and state security devoted to drafting the Ukrainian military doctrine. [passage omitted]

The provisions of the president's draft stating that Ukraine will comply with nonnuclear principles—not to accept, manufacture, or purchase nuclear weapons—provoke heated debates. The commission turned down a provision proposed by Larysa Skoryk which considered nuclear weapons as a security guarantee. It partially accepted a suggestion by Oleksandr Moroz that the draft doctrine envision the gradual mutual [not further specified] destruction of nuclear weapons. Bohdan Horyn came up with the following passage, also accepted in part: "Due to the present circumstances, Ukraine has become de jure and de facto a nuclear state, which according to the previously declared intentions, strives to become a nonnuclear state in the future, provided that it receives security guarantees and compensation for the physical value [vartist fizychna]. The commission approved the following wording of part 1.3 ('Attitude of Ukraine Toward Nuclear and Other Mass Destruction Weapons'): Having become an owner of nuclear and other mass destruction weapons due to historically conditioned reasons inherited from the former USSR, Ukraine will never sanction their utilization, and abandons the threat of this utilization in its foreign policy. Ukraine is intent on becoming a nonnuclear state in the future."

It was proposed that the draft military doctrine be discussed at an open session of the Ukrainian Supreme Soviet, since it is not a classified document.

TURKEY

Asil Nadir Said Trading in Russian Uranium

NC2805131493 *Istanbul AYDINLIK in Turkish*
25 May 93 p 13 (tentative)

[Text] Istanbul/Baku—Some 6 kg of enriched uranium originating from Uzbekistan's capital Tashkent entered Turkey through the Aralik border gate in Kars Province on 11 March 1993. It is said that just a few people in this business, such as Asil Nadir and Adnan Khashoggi, market such an extremely important material as uranium, which only states can buy.

The uranium was transported overland to Grozny, the capital of Chechen-Ingush Republic. It was then taken to Nakhichevan via Georgia then to Istanbul. In Nakhichevan, Muammer Elioglu supervised the passage of the uranium to Turkey. Elioglu is the influential member of the Azerbaijani People's Front in Nakhichevan. The Aralik border gate is controlled by the nationalist [Ulkucu] mafia and Elioglu acts as a go-between for them.

Enver Altayli, the former chief inspector of Nationalist Action Party [MHP] European Affairs, directs the uranium trade. Altayli, who is known for his ties with the CIA and MIT [Turkish Intelligence Organization], is acting as the chief adviser to Uzbek President Islam Karimov. Because of his new job, Altayli secured an extremely important position in the Turkic republics. Altayli, who uses MHP militants as a strike force, became a gang leader in the Russian mafia by using the Turkish branch of Gladio. [alleged secret anticommunist organization set up by NATO during the Cold War]

Altayli moves about freely in Chechen-Ingush. He is reportedly getting ready to set up a political party in Uzbekistan and prefers to conduct his covert business from the Chechen Autonomous Republic. The nationalist mafia has set up headquarters at Grozny.

Alaatin Uluc, Baku correspondent for ORTADOGU [Middle East], is also involved in this traffic. Before being sent to Azerbaijan, Uluc was TURKIYE's correspondent in Cyprus. Yaksim [no surname given] is yet another member of the Cyprus-connected counterterrorist organization [alleged government body that fights the PKK] active in the Caucasus. He was sent to the Iranian Azerbaijan in 1989 after being trained by Colonel Yalcin Satiroglu, head of the Cypriot Civilian Affairs Department. Yaksim is now in Nakhichevan.

Yet another gang leader in the nationalist mafia in Baku is Eldar [no surname given], who has many former KGB elements working for him. Eldar also participated in the uranium trade. He is now working to set up a bank in Moscow in the name of Altayli's group.

Nadir Decorated by Queen

The nationalist mafia that has taken over the leadership of the Russian mafia is encountering no difficulty in gold, narcotics, and weapons smuggling.

The nationalist mafia is only being used to transport the uranium. Only a few people known in this market can sell the extremely important enriched uranium that is used to make nuclear weapons. The signs are that they are Asil Nadir and Khashoggi.

The nationalist mafia, an extension of the Turkish Gladio, reportedly prefers to work with Nadir.

Until the Gulf war, Nadir scored his successes by selling American and British-made arms to Iraq, Libya, and Eastern Bloc countries under UN and NATO embargo. Nadir was rewarded for his efforts by a medal from the British queen.

Nadir was removed from the scene during the Gulf crisis on a charge that he was getting ready to sell the Soviets an advanced microchip used to make nuclear weapons. At the same time, the United States disposed of Yeoryios Koskotas and Khashoggi, who were involved in similar activities in the Middle East, by sending them to jail. When new balances emerged in the Caucasus and the Middle East, Khashoggi and then Nadir were brought back into the market.

Yesterday's AYDINLIK quoted a source close to Nadir as saying that Nadir's lawyer Aziz Mentés went to Grozny, the capital of Chechen-Ingush Autonomous Republic. The source added: "Mentes did not go to Grozny in connection with Nadir's escape, but to market uranium."

Mentes, who is described as "capo of all capos" in north Cyprus, is Asil Nadir's right-hand man. He owns the Kibris Iktisat Bankasi [Cyprus Economic Bank], which is organizing the transfer of Nadir's money. Thanks to Mentés, Nadir's property in Cyprus was not turned over to Polly Peck's receivers. Mentés is known in Cyprus as a lawyer who organizes all sorts of dirty affairs.

The Russian State Knows of the Situation

The Russian Federation's authorities also confirmed that the nationalist mafia, which has its roots in Turkey, is engaged in the uranium trade. The Russian authorities blame Chechen leader Dzhokhar Dudayev, who recently visited the TRNC [Turkish Republic of Northern Cyprus] twice. He was hosted by Aziz Mentés. Afterward, Mentés said he would go to Grozny to open a branch of the Cyprus Economic Bank. Russian diplomats ascertained that Mentés has links with the Chechen mafia.

A Russian journalist told AYDINLIK that Russian Federation officials have revealed that the Russian mafia, headed by Chechens, trades in uranium and that last year, a lot of enriched uranium in Kazakhstan ended up in the Russian mafia's hands. The journalist also said that the Russian press reported the ties between the Russian mafia and the nationalist mafia, which has roots in Turkey.

Some \$1 million was spent to transport the enriched uranium. Answers are now being sought as to which country bought the enriched uranium that was taken to Istanbul.

[The following "text" of "an expert opinion" appears in a box next to the item: "Nuclear engineer Tanzer Turker, who works in the Nuclear Engineering Department of the

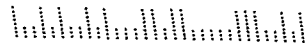
Cekmece Nuclear Research and Education Center, spoke to AYDINLIK. Turker said: "There is an ongoing trade in enriched uranium. A large amount of enriched uranium at Russian Army depots is being stolen and sold. The stolen uranium is sold in the form of metal plates or bars. The price changes according to the customer.""]

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