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FBIS 50th Anniversary Note

To Our Consumers:

This year the Foreign Broadcast Information Service observes its 50th anniversary.

The service, first called the Foreign Broadcast Monitoring Service, was established in 1941 prior to the U.S. entry into World War II. At the time, a number of U.S. Government officials were concerned about the content of foreign radio broadcasts—a relatively new means of conveying information and propaganda across borders. On their advice, President Franklin D. Roosevelt in late February 1941 allotted money from his emergency fund to institute the recording, translating, transcribing, and analyzing of selected foreign broadcasts for the U.S. Government. During World War II the service demonstrated that monitoring was a fast, economical, and reliable way to follow overseas developments.

Today the Foreign Broadcast Information Service provides its consumers throughout the federal government, according to their diverse official interests, with information from a broad range of foreign public media. FBIS information also is available to readers outside of the government, through the National Technical Information Service. Objectivity, accuracy, and timeliness are our production watchwords.

We members of the current staff of FBIS extend our thanks to consumers for their interest in FBIS products. To past staffers we extend our thanks for helping the service reach this anniversary year. At the same time, we pledge our continued commitment to providing a useful information service.



R. W. Manners
Director
Foreign Broadcast Information Service

NUCLEAR DEVELOPMENTS

JPRS-TND-91-003

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SOUTH AFRICA

Report on ARMSCOR Deal With Iraq

Ministers Respond to Allegations

*MB2801163391 Johannesburg Domestic Service
in English 1600 GMT 28 Jan 91*

[Excerpts] ARMSCOR [Armaments Corporation of South Africa] has broken its usual silence on international arms sales by strongly rejecting a newspaper report on alleged links with Iraq. [passage omitted]

In his response to the allegations the minister of defense, General Magnus Malan, has strongly denied that South Africa delivered arms to Iraq in defiance of the UN embargo.

He said the other allegations in the newspaper report were ridiculous and devoid of all truth. He questioned the newspaper's motives in printing what he called lies, without any attempt to verify its claims.

In further government reaction the minister of foreign affairs, Mr. Pik Botha, said that the report was part of a campaign to discredit the South African Government.

More on Weapons Sales

*MB2901110391 Johannesburg THE STAR in English
29 Jan 91 p 1*

[Report by Alan Robinson, STAR Bureau: "SA 'Sold Howitzers to UAE'"]

[Text] London—South Africa is involved in extensive arms deals with another Middle Eastern country, according to evidence obtained by the usually reliable anti-apartheid watchdog body, Shipping Research Bureau.

The Dutch-based organisation, which normally monitors South Africa's oil imports, claims ARMSCOR [Armaments Corporation of South Africa] is involved in the sale of the fearsome G6 155-mm howitzers to the United Arab Emirates [UAE]. It says between 50 and 70 of these howitzers were sold to the UAE just a week after Iraq invaded Kuwait.

A spokesman for the Minister of Defence, Das Herbst, said yesterday that the same claim had appeared before in JANE's DEFENCE WEEKLY. At that time ARMSCOR had said that it was not policy to comment on arms sales and it did not intend departing from this policy on this question at this time.

The allegations about arms deals with the UAE coincided with the report in THE INDEPENDENT yesterday that ARMSCOR has also sold substantial supplies of 155-mm artillery shells to Iraq. THE INDEPENDENT says these shells can be fitted to Iraq's "super-gun" and are capable of delivering poison gas heads over a range of 45 kms.

The Shipping Research Bureau also reports that the UAE signed a contract as long ago as 1986 undertaking to buy from ARMSCOR the Hakim missile. The Hakim was apparently specially developed for the UAE by ARMSCOR and the U.S.-based International Signal and Control Corporation owned by James Guerin.

The G6 howitzers could have been "assembled" by Industrias Cardoen, controlled by Chilean arms dealer Carlos Cardoen, says the bureau.

"Mr. Cardoen assembles guns and markets them, and other South African weapons, as Chilean products. He has dealt extensively with Armscor and has been named in a great number of arms deals with the Gulf countries, such as Iraq and Saudi Arabia," it reports.

In its article, THE INDEPENDENT says Iraq has 100 of the South African-made GHN-45 artillery pieces "imported via Cardoen Industries of Chile."

It also quotes a press report as saying South Africa has invited the UAE to embark on joint production of the Rooivalk helicopter because it does not have sufficient funds of its own. The source of the report is a finding by the Oslo-based World Campaign Against Military and Nuclear Collaboration with South Africa.

In addition, the Shipping Research Bureau also claims that most oil-laden tankers heading for South African ports come from the UAE. In its table of supplying nations since 1979, it says 97 tankers/cargoes have had ports of departure in the UAE.

Other major suppliers from the Middle East are given as Saudi Arabia, Oman, Iran, Qatar and Egypt.

Evidence Continues To Mount on Arms Sales to Iraq

*MB0202142091 Johannesburg THE WEEKLY MAIL
in English 1-7 Feb 91 p 10*

[Report by Gavin Evans, Mark Geisser, and Arthur Gavshon: "Arms for Iraq: The Real Evidence"]

[Text] Evidence is mounting that South Africa continued its arms trade with Iraq after announcing in August 1990 that it had joined the international embargo against the Saddam regime.

British and American governments are taking this evidence seriously, and investigating reports of clandestine South African arms sales to Iraq before and after the United Nations banned trade with the Gulf state. Diplomatic sources say the matter has been raised with Pretoria.

Military sources said yesterday it was very probable that some of the 200 G5 mobile howitzers bought from Armscor [Armaments Corporation of South Africa] by Iraq have already been put to use in this week's land battles which saw at least 20 U.S. Marines dead over the past two days.

The illicit trade was first reported in THE WEEKLY MAIL two weeks ago, following reports in THE DAILY MAIL last August which exposed South Africa's arms links with Iraq.

THE WEEKLY MAIL has now discovered that although Foreign Affairs Minister Pik Botha announced that South Africa was joining the embargo on August 23 1990, the embargo was only gazetted more than 11 weeks later—on November 9—by Trade Minister Kent Durr.

In the interim South Africa repoted a record R[and]2.7-billion trade surplus in "unclassified exports" for October. Some economists believe that this was due to a massive arms sale, and speculate that it was a payment from Iraq.

This would explain why the embargo was only gazetted in November. Constitutional experts have verified for THE WEEKLY MAIL that, because South African law works by decree and not by proclamation, the embargo only became law once gazetted.

South African Defence Force arms experts and United Nations arms embargo enforcers agree it is unlikely South Africa would risk an arms sale to Iraq in December, after the embargo became law, as was claimed by THE INDEPENDENT.

THE INDEPENDENT also alleged that Saddam was paid by the South Africans on a visit to Zambia, and that shells adapted by South Africa to carry chemical war-heads were part of the sale.

Some of this has already been thrown into question. It is now clear Saddam never visited Zambia, and, says JANE'S DEFENCE WEEKLY South African correspondent Helmut Hietman, "South Africa does not have the capacity to adapt artillery shells for poison".

Defence Minister Magnus Malan has denied the INDEPENDENT report as "obvious and blatant lies". What is beyond doubt, however, is that South Africa did supply Iraq with the howitzers used to fire the artillery shells.

THE WEEKLY MAIL put this, and several other allegations, to Malan's communications director, Dr. Das Herbst, who replied that these had been dealt with in the minister's statement. In fact Malan pointedly did not address any of THE WEEKLY MAIL's allegations made over the past five months.

—South Africa has been trading arms for oil with Iraq since 1981

—South Africa supplied both sides in the Iran-Iraq war, until Iraq threatened to cancel its contract if Iran was still supplied. After that, trade continued only with Iraq.

—South Africa has now supplied both sides in the Gulf War, as it has recently sold 70 G6 heavy artillery systems to the United Arab Emirates

—Iraq recently bought an arsenal of weapons from Armscor, including the 200 G5s

—Iraq made a payment to South Africa in October 1990 that resulted in the uprecedented trade surplus of R2.7-billion in "unclassified exports"

—After August South Africa may still have been receiving money from arms sales to Iraq for deals concluded before the embargo came into effect.

This has been the approach taken by several European firms—notably in Germany and Austria—which continued military deliveries to Iraq for some time after the UN embargo came into force, justifying this by arguing they were merely fulfilling pre- embargo contracts.

The British and American governments, however, are evidently not entirely satisfied by the South African government's denials.

"We follow up all reports saying that arms are being supplied to Iraq," a British Foreign Office spokesman told THE WEEKLY MAIL.

Other British and American government officials in London said the issue of South African weapon and ammunition dealings with the Iraqis had been raised with the authorities in Pretoria.

Commenting on the allegations and denials, Democratic Party President's Councillor and security expert James Selfe said the problem lay in the web of secrecy surrounding South Africa's international arms sales.

"These things are specifically excluded from South Africa's foreign earnings calculations, so it's very difficult to verify allegations made.

"In future the solution lies in greater openness in this regard, because the present situation constantly puts the country in embarrassing positions—such as when we were accused of selling arms to Argentina during the Falklands war."

The Armaments Development and Production Act prohibits the disclosure of "any information in relation to the acquisition, supply, marketing, importation, export, development, manufacture, maintenance or repair of, or research in connection with armaments".

There are also over 150 companies which are exempt by ministerial decree from disclosing details of their operations—many of them involved with arms sales and purchases.

The United Nations arms embargo against South Africa was first imposed in 1963 and became mandatory in 1977. Since then, South Africa has become one of the 10 largest arms exporting countries in the world.

Among the countries where governments or companies or individuals businessmen are reported to have violated the embargo are Britain, France, the United States, Belgium, Italy, Germany, the Netherlands, Israel, Denmark, Iraq, Saudi Arabia, the United Arab Emirates, Chile, Argentina, Austria, Greece, Iran, Morocco, Zaire, Switzerland, Somalia and Taiwan.

Sources close to Armscor say that over the past three years countries in the Middle East have been South Africa's main arms clients.

Allegations of South African arms sales to Gulf countries first surfaced in 1983 when British arms dealer Ian Smalle, charged with illegally conspiring to export arms to Iran and Iraq, was reported as claiming that he was the United Kingdom representative of Armscor.

Last year, sources close to British intelligence claimed that South Africa swapped at least 100 G5s, together with Kukri missile systems, for \$1-billion-worth of Iraqi oil, and that this relationship was first set up in 1981.

It was also claimed that South Africa sold an unspecified number of G5s to Iran during its war with Iraq.

Nuclear Plant Clears Environmental Hurdle

*HK19121105 Hong Kong ZHONGGUO TONGXUN
SHE in Chinese 0638 GMT 14 Dec 90*

[Report: "The Environment-Protection Report on Qinshan Nuclear Power Plant Is Passed"—ZHONGGUO TONGXUN SHE headline]

[Text] Beijing, 14 Dec (ZHONGGUO TONGXUN SHE)—A report on the environmental effects of Qinshan Nuclear Power Plant has recently been adopted by the State Environmental Protection Bureau.

As the nuclear facilities of Qinshan Nuclear Power Plant have met the State's relevant standards guiding environmental protection, the State Environmental Protection Bureau has examined and officially adopted "The Report on the Environmental Effects of Qinshan Nuclear Power Plant's 300 Thousand-Kilowatt Set." The report holds that with expected environmental effects controllable under the limit set forth by the state, Qinshan Nuclear Power Plant is now provided with various grounds for nuclear fuel loading.

After six years of construction, Qinshan Nuclear Power Plant is expected to be completed and put into production next year. It will begin to generate electricity through a joint network the same year.

No New Nuclear Plants in Guangdong Planned

*91WP0065A Hong Kong SOUTH CHINA MORNING
POST in English 18 Dec 90 p 1*

[Article by Jacqueline Lee]

[Text] China had no plans to build any more nuclear power stations in Guangdong for another decade, the Secretary for Economic Services, Mrs Anson Chan Fang Onsang, said yesterday.

None of the 12 power plants being planned for the province would be nuclear facilities, she said.

Mrs Chan's message was intended to clear the air over reports that another two nuclear reactors might be built at Daya Bay, where a twin-reactor power station is under construction for commissioning in mid-1992.

Recent public statements by the senior management of Electricite de France that it had been invited to submit plans for new nuclear generating facilities in Guangdong, sparked worries among Hong Kong people who are already anxious about safety of the Daya Bay station.

Mrs Chan said: "We know from a recent visit by the Chinese Energy Minister, Mr Huang Yicheng, that the central Government is well aware of the strong feelings of Hong Kong people on this matter.

"We understand that the Chinese Government has not so far approved any plans for an additional nuclear power plant in Guangdong," she said.

Mrs Chan said she was briefed by the Guangdong Deputy Governor, Mr Kuang Ji, on energy plans for the province this decade during her visit there last week.

"Of the 12 power plants being planned, none will be nuclear power plants. Eight will be thermal and four hydro-electric," she said.

"In the long run nuclear energy is obviously an option that is available to the Chinese Government, but I'm sure they will wish to wait until they have experience of running Daya Bay."

Mrs Chan also pledged to help mend the public rift with China over funding of the Port and Airport Development Strategy (PADS) programme at a meeting with mainland experts on the programme next month.

"We'll try to clarify our financial strategy, and in particular, our reserve position and the fact that the future SAR [Special Administration Region] will inherit, in fact, a very strong financial position," she said.

It was hoped the meeting would be held before the Governor, Sir David Wilson, visited Beijing on 25 January, Mrs Chan said.

She refrained from a direct reply yesterday to whether the projects would drain Hong Kong's reserves but said she believed the differences could be resolved.

"Both the Chinese and Hong Kong governments shared a common aim of ensuring the prosperity and stability of Hong Kong."

INDONESIA

Environmentalists Caution on Safety of Nuclear Plant

BK22120847 Jakarta ANTARA in English 0733 GMT
22 Dec 90

[Text] Jakarta, Dec 22 (OANA-ANTARA)—A popular environmentalists group, Walhi, here Friday called on the government to stop the plan to construct the country's first nuclear power plant, saying that such a plant might contribute disasters far outweighing its benefits.

Ms. Emmy Hafild, Walhi's climate change program coordinator, said that there were too many examples of accidents in nuclear reactor stations having caused a wide range of disasters, daily Indonesian OBSERVER reported.

Her statement was supported by the non-government organization (NGO)'s energy working group coordinator Agus Pratamasari who said: our organization demands that the plan for construction of the nuclear power station be stopped until the whole nation reaches an understanding and becomes prepared to accept it.

He further said such a demand was reasonable as a nuclear power plant dealt with the fate of millions of Indonesians.

The government is now planning to build a nuclear power plant in Gunung Muria, Central Java province which is expected to be operational in 2003 by producing around 800 megawatts of electricity.

The government said the plant was necessary as Java, the country's most-populous island, would need 27,000 megawatts of electricity in 2015, when conventional power plants would only be able to produce about 20,000 megawatts of electricity.

A feasibility study on the plant's construction at present is still being carried out by the National Atomic Energy Board (BATAN) and is expected to be completed in 1994.

Ms. Hafild when supporting her arguments cited the example of several countries which began to express their uncertainty over the safety of nuclear power plant.

Japan, Germany, the United States and others have found out that nuclear power is not a safe substitute of energy reserve, she said adding that even the United Kingdom, which still had several operating reactors, was already thinking of reducing their numbers.

However, she said, all Walhi's staff members would also welcome dialogues and consultations with the government or other institutions about the issue so that a common perception could be reached.

NORTH KOREA

Chon In-chol Views Nuclear Issue

SK3001161691 Pyongyang KCNA in English
1520 GMT 30 Jan 91

[Text] Pyongyang January 30 (KCNA)—Chon In-chol, vice-minister of foreign affairs, who is heading our side's delegation to the first intergovernmental full-dress talks for the normalization of DPRK-Japan diplomatic relations, clarified our basic stand regarding the question of signing the nuclear safeguards accord in a news briefing at the end of the first-day's afternoon session.

Already at the preliminary talks we made it plain that signing the nuclear safeguards accord is not, by nature, a matter that should be discussed at the talks for the normalization of DPRK-Japan diplomatic relations, Chon In-chol said, and went on: however, we are going to clarify our stand on this issue as the Japanese side brought it forward again.

We have never refused to sign the nuclear safeguards accord, but we intend to sign it as early as possible.

A principled agreement has been reached between the International Atomic Energy Agency and us on the question of signing the accord, and we are ready to sign it any time.

The solution of this question is being delayed because the United States keeps a large number of nuclear weapons in South Korea and constantly threatening us with them.

If this nuclear threat to us is removed, we will immediately sign the accord.

We demanded that the United States remove the threat of nuclear attack on us, giving assurances that we would sign the nuclear safeguards accord.

The question remains unsolved as the United States stubbornly refuses to accept this just demand.

It must be recalled that even the International Atomic Energy Agency manifested its official view that its debate with us on the signing of the nuclear safeguards accord came to a close and "an early realization of nuclear inspection will depend on future negotiation between the DPRK and the United States."

We think it necessary to understand that the question of signing the nuclear safeguards accord on the part of our Republic is, in fact, under special circumstances which cannot be seen in any other country.

We joined the Nuclear Non-Proliferation Treaty in 1985.

This proceeded from our sincere desire to remove the nuclear threat on the Korean peninsula.

After joining the treaty we put forward a proposal to turn the Korean peninsula into a nuclear-free zone.

Since 1985 when we joined the Nuclear Non-Proliferation Treaty, the scale of the "Team Spirit" joint military exercises has expanded year after year and this is vivid proof that the nuclear threat of the United States to us has assumed more open and provocative nature.

In the specific case of our country, the question of signing the nuclear safeguards accord is not merely confined to the fulfilment of the legal obligation under the Nuclear Non-Proliferation Treaty but is inseparably linked with the vital question of defending the existence of the nation and the security of the state, we may say.

The Nuclear Non-Proliferation Treaty stipulates that its signatory is under obligation to sign the safeguards accord and, at the same time, has the right to defend its existence and the right to demand guarantee of its security.

The two aspects, the right and obligation, must be studied in a unified context and the legal obligation under the treaty cannot be fulfilled at the sacrifice of the vital legal rights concerning the existence of the nation and the security of the state.

These two aspects must be resolved in parallel under all circumstances.

Therefore, we rightly demanded that the United States give legalbinding assurances of non-use of nuclear weapons with legal binding in exchange for our signing of the safeguards agreement.

And we have proposed time and again negotiation between the DPRK and U.S. Governments on this question.

Our demand for U.S. security assurances of non-use of nuclear weapons with legal binding is by no means unreasonable but justifiable in the spirit of the Nuclear Non-Proliferation Treaty itself.

The United States, however, has refused to stop the nuclear arms race and continued the vertical nuclear proliferation, openly violating its treaty obligations.

It is only too natural that the DPRK which faces direct nuclear threat should demand a guarantee of non-use of nuclear weapons, when a majority of non-nuclear states which are not under nuclear threat demand an unconditional guarantee of non-use of nuclear weapons, saying that the United States' assurances to this effect are not clear.

It is not fortuitous that the view is gaining strength in the U.S. political circles that it is not unreasonable for the DPRK to refuse to sign the nuclear safeguards accord since the United States has deployed nuclear weapons in South Korea and the conversion of the Korean Peninsula into a nuclear-free zone will be a way of solving the problem of nuclear inspection.

The United States' unilateral demand that only we sign the nuclear safeguards accord and allow inspection will never be met because it is a high-handed act against our Republic. We would like to demand that the United States allow a simultaneous inspection of the U.S. nuclear weapons deployed in South Korea and our peaceful nuclear activities, if it is interested in our peaceful nuclear activities.

In conclusion, I am going to mention one problem we want to raise because the Japanese side has brought forward the problem of signing the nuclear safeguards accord.

Whether the problem of signing the nuclear safeguards accord is quickly solved between the DPRK and the International Atomic Energy Agency, or not, depends, in the final analysis, on the removal of a superpower's nuclear threat to a small non-nuclear state.

From this point of view, we consider that Japan, the first A- bomb victim, should not side with a superpower posing a nuclear threat or support its position but should naturally sympathize with and support the position of our Republic which is trying hard to avert the nuclear threat.

We think it wiser for the Japanese Government to sincerely advise the U.S. Government, its friend, to hold inter-governmental negotiation with the DPRK on the problem of the nuclear safeguards accord, than to ask us to discuss the problem of signing the accord.

We fully understand Japan's view that she has to pay attention to the problem of signing the nuclear safeguard accords because it is related to the problem of the security of Japan itself.

So, we think that it is the best way for the Japanese side to fully support our fair proposal for making the Korean peninsula a nuclear-free zone.

In view of the stand of Japan which laid down the non-nuclear three principles, it has no ground to fail to do so and this conforms with the interests of Japan, we think.

SOUTH KOREA

Information Provided on DPRK Scud Missiles

SK0202085791 Seoul YONHAP in English 0824 GMT
2 Feb 91

[Text] Seoul, Feb. 2 (OANA-YONHAP)—North Korea is capable of producing more than 50 surface-to-surface Scud-B missiles a year and has at least 12 launchers stationed near the truce line, a government official said Saturday.

The Scuds have a shooting range of nearly 300km, and military authorities here verified the presence of 12

mobile launchers about 40 to 50km north of the Demilitarized Zone [DMZ], the official, well-informed of inter-Korean affairs, said.

They are reported to be capable of carrying nuclear and chemical warheads, and there may be more of them yet undetected by authorities here.

North Korea is also equipped with more than 300 underground military fortresses that can produce mass munitions and hide more than 100 naval vessels and fighter jets, according to the official.

North Korea reportedly owns and already deployed approximately 30 SA-5 surface-to-air missiles with 300km shooting range, purchased from the Soviet Union, and can produce more than 100 SA-7 surface-to-air missiles with 5km range every year.

Production lines for surface-to-surface missiles have been built in the vicinity of Pyongyang in 1987 and are putting out more than 50 Scud-Bs per year, the official said.

Pyongyang, according to the official, began test firings from 1984.

The North Korean missiles, 11.5m-long and 85cm in diameter, has a 300km range. When fired from near the border, they can target as far down as northern provinces of both Cholla and Kyongsang.

Pyongyang also began to improve its Scud-Bs from 1988 to double its range to 600km and can probably deploy them in actual service from 1992. The new version would put the entire Korean Peninsula within range, the official claimed.

The report comes after a Friday's statement by the U.S. State Department registering deep concern at reports that North Korea sold Scud missiles to Iraq. The official said Pyongyang is believed to have sold more than 100 warheads to Iran during 1988.

The official also said North Korea built some 300 underground military bunkers from 1983, all within 5 to 10km distance from the buffer zone.

North Korean defectors were quoted as telling authorities here that the elaborate bunkers lie 100 meters below ground and are built in various shapes to accommodate ground, naval and aerial combat gears.

Underground fortresses, protected by steel doors 3-meters thick, are fully equipped with command centers, communications and hospital facilities with all other necessary living arrangements.

These secretive facilities can shelter soldiers, military supplies, more than 10 naval vessels and between 70 to 100 fighter planes from heavy aerial bombardment, the official said.

North Korea also has hundreds of underground storage compounds for munitions and fuel in non-frontal areas while hiding most of the ammunition factories for protection from bombings, the official said.

THAILAND

Minister Recommends Nuclear Power Plant Study

91WP0061A Bangkok BANGKOK POST in English
20 Dec 90 p 3

[Article: "Anuwat Calls for Nuclear Plant"]

[Excerpt] The Government should start a feasibility study on the possibility of building a nuclear power plant as an alternative energy source, Science Minister Anuwat Wattanapongsiri said yesterday.

"If we start now, the first nuclear power plant can be set up in 12 years," he said, adding the plant would generate 1,000 megawatts of electricity, or 10 per cent of the country's requirement.

Construction of new hydroelectric dams could not meet rapidly rising demand for electricity, he said.

He cited the planned Kaeng Krung Dam, which would generate only 80 megawatts of electricity and the Pak Moon Dam, which would produce only 100 megawatts.

In a bid to allay fears of radiation leaks, Dr. Anuwat said the new generation of nuclear power plants is quite safe and reliable.

Taiwan has six nuclear plants and South Korea has eight, he said. Indonesia has begun studying the possibility of building one.

He said a nuclear plant in the Philippines has not started operations because construction was sub-standard.

He said the Electricity Generating Authority of Thailand has already started a campaign to educate the public about the importance of alternative energy sources, particularly nuclear energy.

Dr. Anuwat said the giant Khong-Chi-Moon multi-billion baht power project has to be considered carefully because it will involve a huge investment. [passage omitted]

BULGARIA**City Council Proposes Removal of Nuclear Reactor**

*AU0102225491 Sofia DUMA in Bulgarian
29 Jan 91 p 1*

[Mariya Stoykova report]

[Text] At its session held on 28 January the Provisional Executive Committee of the Sofia City People's Council adopted a resolution to propose to the Council of Ministers that the nuclear reactor in the "Mladost" Municipality be eliminated.

The reactor was shut down as long ago as July 1989. At the moment a project is being prepared for its destruction, stated Professor Panchev of the Bulgarian Academy of Sciences.

In connection with the new housing policy that the Sofia City Council will implement, the Provisional Executive Committee has prepared proposals to the Council of Ministers on additions to or the repeal of legal acts concerning the allocation and sale of newly constructed apartments.

The main provisions advocated by the Sofia City People's Council envisage that the city council and municipalities will build and allocate housing only to meet the needs of citizens and families whose incomes are below the minimum living standard, for a circulating housing stock, and for compensating the owners of other properties.

The Sofia City Council proposes that municipal apartments should not be sold, but that government departments and state, municipal, private, and cooperative companies should assume commitments for their construction.

The Architecture and Construction Commission should draw up by 1 April instructions for the allocation and sale of municipal plots granted to government departments, for constructing housing for savings account holders in the State Savings Bank (with accounts on 20 April 1990) and for young families who are not socially underprivileged. Only building companies will take part in the sales of the plots by auction.

The Sofia City Council is setting up a special department to combat speculation. This department will include specialists in trade, price control, and fighting crime. It is intended to assist the Economic Militia and the prosecutor's office in detecting economic crimes.

Police Fear Theft of Radiation Sources

*AU0502142391 Sofia DUMA in Bulgarian
30 Jan 91 p 1*

[Plamen Enchev report: "Militia Specialist Claims Nuclear Terrorism Is Possible"]

[Text] Recently, attempts to steal sources of ionizing radiation have increased. However absurd it may seem, it is possible that unscrupulous people may use them as a means of terror, stated Captain Yordan Fotev of the Section for Control of Equipment Representing a Danger to the Public at the Militia Directorate.

A new trend in the work of this section is to investigate all cases of the misappropriation and incompetent use of radioactive sources.

At the end of 1990, the Telephone Equipment Plant in Bansko sent a container packed with fire detection equipment to Sofia. When the container was unloaded, four sensors and five monitoring units that contained sources of ionizing radiation were missing. In the view of the specialists, these instruments might present a danger to life and health, because it is most likely that they have fallen into the hands of incompetent persons. Captain Fotev said that the fire detection instruments, which contain small sources of ionizing radiation, might increase the overall level of background radiation, as well as causing secondary irradiation, which might lead to radiation sickness.

Some time ago, an enterprise of the foreign organization Gazstroymentazh shipped some flaw detectors to Bulgaria. However, these instruments failed to arrive at their destination. It is presumed that these were also stolen.

At the insistence of the militia, a small lead-shielded room was constructed at Sofia Airport. All shipments from abroad that contain radioactive isotopes needed by our industry pass through this room. In 1989, Captain Fotev found in this room a container filled with iodine-131, which had been supplied for medical purposes, but which no one had collected.

It is possible that terrorists might place stolen radioactive elements in public water supply sources and thus endanger the health of many people. There is an even greater risk of terrorists threatening people's health through ignorance and incompetence.

The Militia Directorate announced that anyone who has any information about the missing fire detection apparatus may ring the telephone number 82-29-85.

Danger From Radioactive Instruments Said Slight

*AU0502143191 Sofia DUMA in Bulgarian
31 Jan 91 p 1*

[Text] In connection with the report on DUMA of 30 January entitled "Militia Specialist Claims Nuclear Terrorism Is Possible," the editors have received the following additional statement from the Section for Control of Equipment Representing a Danger to the Public at the Militia Directorate:

Fire detection sensors contain minimum amounts of a radioactive substance that emits alpha-particles with a low penetrating ability, and accordingly cannot increase

the level of national background radiation even over short distances. A risk does exist if the source comes into contact with the skin or is swallowed. Because of the weak radiation effect, some countries, such as England, omit them from radiation control.

The radioactive sources in flaw detectors have a much higher degree of radioactivity and create a certain radiation danger for persons who handle them, especially people who are not qualified and informed.

An incompetent person handling the radioactive source of a flaw detector may suffer radiation sickness or serious radiation injuries, reads the statement.

CZECHOSLOVAKIA

Assembly, Government To Discuss Energy Plan

AU0102151191 Prague HOSPODARSKE NOVINY
in Czech 30 Jan 91 p 8

[Blanka Ruzickova article: "Making the Real Needs Clear"]

[Text] The Federal Ministry of the Environment has worked out the principles of the state policy on power production. These principles will soon be presented for discussion in the governments and in parliament.

The document represents a complete concept for energy production. The decision on this document will have to be passed in the context of its impact on our entire industry and ecology.

The principles of the state policy contain two scenarios for extreme conditions. The first one assumes that the drop in the gross national product will be stopped and the economic reform fully implemented after 1992. In this case, the internal consumption of primary energy resources should drop by six percent before 2005. The share of electric power [in the overall utilization of energy] will increase from 94 Terawatthours to 112 Terawatthours, while 19 to 21 billion square meters of natural gas and 11 to 13 million tonnes of crude oil will be imported annually. This alternative assumes that the first and second unit of the Temelin nuclear power plant will be put into operation and, should the two V-1 units in Jaslovske Bohunice Nuclear Power Plant be taken out of service, another 3,000 to 4,000 megawatts of the installed capacity of nuclear power plants will have to be used.

The second scenario anticipates that the drop in gross national product will stop only after 1997. Our consumption of primary energy sources would drop by 15.7 percent as of 2005, while the consumption of electric power would slightly increase to between 98 and 100 terawatthours. Gas imports will attain 16 to 18 billion square meters and crude oil imports 10 to 11 million tonnes per annum. The brown coal extraction will drop to between 40 and 45 million tonnes. After the construction of the first and second unit of the Temelin nuclear

power plant is finished, the installation of another 1,000 megawatts of electric power output from nuclear power plants is considered.

As Engineer Architect M. Riha, Czech deputy environment minister, said at the news conference recently, the draft principles undoubtedly respect ecological aspects as well. Despite this, the Czech Republic Ministry of the Environment has some comments to say regarding the draft documents and it wants to point to other alternative solutions. Basically, the ministry does not approve of the construction of new nuclear power plants on the Czech Republic's territory. In view of the knowledge of the risks linked with nuclear power plants and because there is a possibility of utilization of other sources of energy, no more nuclear power plants should be built in our republic after the construction of Mochovce and Temelin nuclear power plants is finished. Besides the danger linked with the operation of nuclear plants and the storage of radioactive waste material, the Czech Republic Ministry of the Environment points to the World Bank data that show that the production of electric power in brown coal power stations is less expensive than in nuclear power plants.

The concept does not emphasize enough the necessity of saving the sources of primary energy. The anticipated reduction of their consumption by 6 or 16 percent does not correspond to the trends seen in developed countries. The reduction of the consumption of primary resources—that is, larger savings—is anticipated to reach, for example, in Denmark and Austria 26 percent, in France 24 percent, and in Great Britain 23 percent. This is why, according to the opinion of the Czech Republic Ministry of the Environment, it is necessary to save up to 30 percent of this energy before 2005. Price and tax policies—that is, putting the price of all kinds of energy on a realistic basis and, in the initial stage, giving an advantage to the manufactures whose energy consumption is low—will have a decisive impact on when this goal will be reached. Identical attention will have to be paid to pertinent legislative provisions (strict technological standards meeting European standards) and the introduction of measuring and regulating appliances so that consumers will be motivated toward a consistent saving of energy.

Moreover, large reserves in alternative resources were not properly estimated. Besides a wider utilization of renewable resources (water, wind, solar energy, geothermal energy, biological gas, heating timber), this pertains, above all, to secondary energy (compressor stations, coke-oven gas, waste energy from metallurgical and chemical industry, etc.) whose potentials are not sufficiently utilized.

The concept, in fact, pays almost no attention to the utilization of the capacity of the existing energy resources. A radical modernization of heating plants and, above all, their transformation into plants producing simultaneously heat and electric power was

omitted in the study. "The idea of a combined production of heat and electric power was dropped in the 1950's and this illogical trend—that is, the construction of power stations utilizing the condensation cycle of water on one side and the construction of inefficient heating stations on the other—still continues," said Engineer Otakar Chlouba, representative from the South Bohemian Power Plants.

After the transformation of the existing heating plants production into a combined production [of power and heat] it is theoretically possible to attain the output of 512 megawatts of electric power. By introducing various modified gas and steam-and-gas cycles in the gas heating stations it would be possible, according to the Czech Republic Ministry of the Environment, to acquire almost another 500 megawatts of electric output.

According to presented data, it seems that the required increase of 1,000 Megawatts of electric power, as specified in the second alternative of the Principles of the Policy on Power Production, can be acquired by the mobilization of all existing resources, that is, without the necessity to build more nuclear power stations. The overall policy, however, must encourage, above all, the introduction of economic measures in energy consumption.

Calfa, Zhelev Discuss Nuclear Energy, Trade

*LD0502051191 Prague CTK in English 2118 GMT
4 Feb 91*

[Text] Prague Feb 4 (CTK)—Czechoslovak-Bulgarian cooperation in the sphere of nuclear energy and Czechoslovakia's huge surplus in mutual trade ranked high on the agenda of today's talks between Czechoslovak Prime Minister Marian Calfa and Bulgarian President Zhelyu Zhelev.

Bulgaria was one of buyers of Czechoslovakia's nuclear industry equipment. The future of relations in this sphere depends on Bulgaria's decision whether it will continue to use Soviet-type reactors in its nuclear program, Calfa told CTK.

Speaking about Czechoslovakia's surplus of 178 million transferable roubles in trade with Bulgaria, the prime minister said that effort will be made to liquidate it by means of goods supplies. At the end of the year the rest would be paid in convertible currency.

Calfa and Zhelev also dealt with tourism. Calfa proposed to exempt it from the general regime of accounting in free currencies and to use national currencies for a certain period. The Bulgarian said this would be temporarily possible, but a working group should specify it. Recently, the other countries of the former socialist bloc, with the exception of Hungary, decided to introduce accounting in convertible currencies, to which they switched over in mutual trade on January 1, 1991, also to the area of tourism.

Later in the day, the visiting Bulgarian president met with Czechoslovak parliament chairman Alexander Dubcek. Zhelev said that the newly elected Bulgarian Parliament had to apologize to Czechoslovakia for Bulgaria's participation in the Soviet-led invasion in 1968, because new relations between the two countries must be built on a pure basis.

The Bulgarian president, who arrived here for a two-day official friendly visit today, laid a wreath to the monument to St. Wenceslas in downtown Prague tonight, a symbolical place of the Czechoslovak people's struggle for freedom. He also shortly met with Bulgarians living in Czechoslovakia.

Zhelev also met with Czech Prime Minister Petr Pithart who said they spoke exclusively about the role of intellectuals in politics.

Bohunice Nuclear Power Plant Near 'Risk Point'

*AU3101180791 Prague CTK in English 1918 GMT
28 Jan 91*

[Text] Prague Jan 28 (CTK)—Czechoslovak Minister-Chairman of the Federal Committee for the Environment Josef Vavrousek said here today that the nuclear power plant at Jaslovské Bohunice, West Slovakia, is nearing the admissible risk point, but can be safely operated.

Speaking at a seminar on safety of the V-1 plant he gave assurances that should any danger be signalled, the Czechoslovak Atomic Energy Commission will order its immediate shutdown.

Vavrousek recalled that operation safety at the plant, which has two 440 Megawatt reactors, was examined by several expert commissions over the past months one Czechoslovak, one from Siemens of Germany, two from the International Atomic Energy Agency (IAEA) and one from Austria. The findings of the foreign commissions are identical with those of the Czechoslovak commission which were consulted with experts from Japan and France. (According to earlier information, the commissions recommended certain measures to be carried out at the plant to ensure its safe operation.) Only the stand of the Austrian commission is different, calling for the immediate closure of both reactors.

The Czechoslovak commission recommends to place V-1 on a special regime until the end of this year. Meanwhile, a decision is to be made on whether to reconstruct the plant to allow its safe operation possibly also after 1995.

The V-1 plant is the oldest in Czechoslovakia, having outdated Soviet equipment. That is why it has aroused massive opposition in neighborly Austria which is strictly antinuclear. The problem is the present nuclear reactors there are another two at Jaslovské Bohunice's plant V-2, and another plant is at Dukovany, South Moravia now account for 25 per cent of the aggregate

electricity generation in Czechoslovakia, and the share of nuclear power is to further grow. Thus far Czechoslovakia has been generating the bulk of electric power at thermal power plants which, however, are responsible for huge ecological damage.

Austria has recently offered to supply to Czechoslovakia some electric power to compensate for the loss which the shutdown of Jaslovske Bohunice would inflict upon the country. However, Czechoslovak Deputy Economy Minister Jan Jicha told the seminar that Austria can provide a mere 100 megawatts, and this only to the Czechoslovak border. (There are no lines crossing the Czechoslovak-Austrian border.) The remaining amount to fully compensate for the Jaslovske Bohunice capacity would have to be bought by Austria also from nuclear power plants in France, Germany or the Soviet Union, Jicha said.

HUNGARY

Environment Minister Queried on Radioactive Waste

AU3101143091 Budapest NEPSZABADSAG
in Hungarian 26 Jan 91 pp 1, 5

[Interview with Environmental Protection Minister Sandor K. Keresztes by Ferenc Hajba on 25 January; place not given: "Search for Radioactive Waste"; first three paragraphs are NEPSZABADSAG introduction]

[Text] Following in the footsteps of Vienna and Bratislava, on 25 January, Gyor was the meeting place for the building experts who are discussing various planning and development ideas concerning the Hungarian-Austrian-Czechoslovak border.

Sandor K. Keresztes spoke about the ecological duties involved in border cooperation. Commissioner Gyorgy Samsondi Kiss outlined the future profile of the area surrounding the Nagymaros water dam project, and Etele Barath, commissioner in charge of the planned Budapest-Vienna world exhibition, gave details of the philosophy behind Expo 1995.

Our correspondent in Gyor interviewed Sandor K. Keresztes during one of the breaks of the meeting.

[Hajba] According to the Austrian daily DIE PRESSE, a Hungarian enterprise has offered to take over 5,400 barrels of radioactive waste. How could the Environment Ministry give permission for this?

[Keresztes] In no way could it have given permission for this. I was also informed about this incident through press service reports on the DIE PRESSE article. On Thursday, 24 January, I asked Hungary's ambassador to Vienna to gather some official information from the Austrian Health Ministry, which was also mentioned in the DIE PRESSE article. For our part, we immediately began investigating the Hungarian enterprise to which

DIE PRESSE could be referring. So far, our investigations have been fruitless, and we have not received any official information from Vienna, either.

[Hajba] Could radioactive waste already have been transported into the country, behind the back of the Environment Ministry?

[Keresztes] This is impossible, both from a theoretical and a legal point of view.

[Hajba] From a practical point of view, illegally?

[Keresztes] I do not think so. Even if the signing of such a contract had escaped our attention; in accordance with international agreements, our customs officials would not have allowed dangerous waste material into Hungary.

[Hajba] Where could radioactive waste be stored in Hungary?

[Keresztes] There are temporary storage units in Paks and Borzsony for radioactive waste of small and medium activity. In connection with the closure of the Mecsek coal mine, we are looking for possibilities to store radioactive waste of a larger amount and greater activity. This investigation will also let us know whether Hungary is in a position to establish a new nuclear power station from an environmental point of view.

[Hajba] Unfortunately, Hungary also produces its own radioactive waste. Environmentalists in Ajka are demanding stricter measures than ever before to protect their town from the pollution of a nearby thermal power station. What is your opinion on that?

[Keresztes] It is true that the refuse from the power station is mostly radioactive. The amount of refuse produced by this power station does not constitute a danger in the short term; however, the modern storage of this refuse is actually an unsolved problem. In the near future, the Environmental Protection Ministry will deal with the safe storage of waste material from power stations.

[Hajba] According to MAGYAR HIRLAP, your ministry is not in the hands of experts—the newspaper bases itself on talks with the parliamentary faction of the Hungarian Democratic Forum. How do you reply to that statement?

[Keresztes] I am slowly getting used to the fact that every week, rumors spread about my dismissal. It is a well-known fact that I have had disputes with certain representatives of the Green movements in this country. The main reason behind these disputes is the fact that the Greens fail to recognize that our ministry cannot work with the same methods as movements, and that goals can only be reached on the basis of compromise.

[Hajba] Has anybody officially told you that your ministerial position is in danger?

[Keresztes] No.

Official Denies Existence of 'Radioactive Cloud'

*LD0702201191 Budapest MTI in English 1850 GMT
7 Feb 91*

[Text] Budapest, 7 February (MTI)—The chief of staff of the nuclear accident prevention government committee has given the following information to MTI:

Rumours have been circulating and causing alarm to the population of eastern Hungary, to the effect that precautionary measures are being introduced in Subcarpathia,

mainly to protect children, because of a radioactive cloud of unknown origin which has increased radiation to five times the permitted level.

The Hungarian authorities have received no such information as part of the agreement on rapid notification of nuclear accidents. In a special initiative on Thursday, the committee's secretariat, in cooperation with experts from the national radiological-biological research institute, took counts of the radiation in the Hungarian territory neighbouring Subcarpathia. The counts revealed that the radiation there was no higher than nationwide.

ARGENTINA

Iraq's Involvement in Condor II Project Viewed

91WC0062Z Buenos Aires SOMOS in Spanish
28 Jan 91 pp 1-4

[Report by Mario Baizan]

[Text] It was in Costa Rica, in September 1989, that Carlos Menem first learned directly of U.S. concern over the Condor II missile. George Bush brought up the issue after their first tennis match, alerting him to the possibility that the Argentine technology in the missile "will wind up in the hands of a dangerous madman like Saddam Husayn."

The issue had previously reached his office through top air force chiefs, who urged the president again and again to visit the Falda del Carmen military aircraft plant in Cordoba and to witness "the last accuracy test" of the "first Argentine missile."

Some hours after George Bush's remark, the president heard another disturbing warning from his foreign minister. In an informal chat with Domingo Cavallo, James Baker himself had suggested that the U.S. President's visit to Argentina, which was beginning to be planned around then, might not come to pass "unless there is a decision beforehand to suspend the Condor II project."

The Menem administration had already ordered the suspension of the contracts under which it was bound to various European companies to sell parts of the missile to Egyptian and German consortiums. A secret decree of 20 July 1990 had dissolved the company in charge of the operation, in spite of which the deal was allegedly still going through. According to sources in Argentine intelligence, "a recently formed consulting firm had begun buying all of the output of the Falda del Carmen plant from the air force in an attempt to keep the deal going."

It was not a small transaction (initially there was talk of selling \$3.2 billion worth of missiles), and perhaps for this very reason the most powerful figures in the Alfonsin administration were enthusiastic about it when the structure of the operation was proposed.

The idea was to develop the Condor II with capital from German and Egyptian companies, presumably triangulating with Iraq, so that it could be exported, after the usual mass production, to "countries with the economic capacity and a political need for this kind of weapon."

Argentine missiles were entering the sophisticated world of remote-controlled weaponry via companies that were in a position to arrange for everything "from financing to direct sales" with the people who are customarily interested in such deals.

According to U.S. and Israeli intelligence reports, the technology reached both Egypt and Iraq and helped to enhance their strategic arsenals.

Between September 1988 and March 1989, Argentina reportedly exported between 12 and 30 Condor-missile airframes to Egypt under contracts authorized by the Alfonsin administration.

U.S. intelligence sources do not believe that the Argentine missile arrived "whole" in Iraq (in other words, with one-hundred percent Argentine parts), but they also assert that the Tamuz I missile, which Saddam Husayn has not yet used in the Gulf war, could be "very similar" to the Condor II. The German company involved in the deal had managed to attach a "smart bomb" with "technology freely available on the international arms market," which would enable the missile to carry conventional, chemical, or nuclear warheads as far as 1,000 kilometers and with greater accuracy than the Soviet Scuds.

The top echelon of the Argentine Executive Branch underscores that the Alfonsin administration's decision to become involved in this transaction "is another example of a double-dealing foreign policy that, on the one hand, champions pacifism and, on the other, keeps selling arms to dangerous, antidemocratic regimes." In hushed tones it describes the Alfonsin-Caputo policy as "dangerously ambiguous vis-a-vis the international community."

Nevertheless, when the air force decided to become partners with Egyptian and German firms, arms sales to Iraq were very common in the West because at the time Saddam Husayn looked like "the best constraint" on Khomeyni and his fundamentalist crusade.

The Decrees

On 9 April 1985 the National Executive Branch issued secret decree 604/85 approving the Condor I and Condor II programs as part of an air force branching-out plan.

This decree validated a number of contracts that the Argentine Air Force and the company Tecnologia Aeroespacial S.A. (a "captive" firm of the air force) had signed with Ifat Corporation Ltd. (of the Egyptian Defense Ministry), Desintec S.A., and the German consortium CONSEN.

Under these contracts they agreed to export Condor II technology and raw materials.

In addition, the same decree validated other Defense Ministry resolutions, thus creating a very tight-knit circle of companies that were involved in the project and that were also parties to the transaction; what they supplied ranged from parts to know-how.

The "Condor connection" unleashed a veritable hunting expedition by Israeli intelligence services, which immediately realized the threat that the success of the transaction could pose to the defense of their country.

As in the best spy novels, the pressure redoubled both in Buenos Aires and in Monaco, where the offices of the German consortium that spearheaded the operation were located.

The office manager's car was blown up one morning in late 1987 as a warning.

Some months later, in July 1988, after a patient investigation the FBI arrested Egyptian Colonel Mohammed Abdella Mohammed in Baltimore on charges that he was sending back to Cairo a large wooden box that bore the innocent-sounding label "Air Force Club" but that actually contained "carbon-carbon," a sophisticated petrochemical fuel used in building "smart bombs" on the most advanced missiles.

By that time Washington and Tel Aviv knew that a plant called Factory 17 was—and still is—in operation on the outskirts of Cairo, building the Badsr 2000, an Egyptian version of the Condor II.

These countries were also aware (so much so that they revealed the fact through journals specializing in defense issues and through the testimony of noted professors) that Iraq had made headway in building its own missiles after taking receipt of the technology it was buying in Buenos Aires.

In October 1988, the Alfonsin administration got one of its harshest warnings from the White House on this matter. When Horacio Jaunarena visited Washington, both the State Department and the Defense Department, through then Pentagon Chief Frank Carlucci, mentioned the Condor II project and suggested to him that "for the good of Argentina's position in the world," testing of the missile should be called off, even though the Alfonsin administration said that it was solely for "peaceful and meteorological purposes."

A Condor for the World

According to information that American intelligence furnished to U.S. NEWS AND WORLD REPORT in July 1988, the project on which the Argentine Government had embarked would provide 200 Condor missiles each to Iraq and Egypt.

The same intelligence reports said that Iraq was financing "the entire project," adding that completion of it "would give Argentina a decisive strategic weapon in its confrontation with Great Britain over the Falkland Islands."

Horacio Jaunarena again heard official requests to halt the Condor II project in Tel Aviv in April 1989 while he was on an official visit to Israel, accompanied by Brigadier Crespo, who at the time was the air force chief of staff. Crespo, who was already the main proponent of the project in the Argentine Government, argued to his Israeli hosts that the missile had "peaceful and scientific purposes," but no one believed him. Israeli defense chiefs knew that two tough potential enemies, Egypt and

Iraq, were acquiring the capability to build a missile that posed a serious threat to their cities, and they reportedly went so far as to offer expanded military aid for the Argentine Armed Forces in exchange for an end to the Condor II project.

All of these warnings fell on deaf ears. In designing its foreign policy, the Radical Civic Union (UCR) administration also saw the Argentine missile project as a "message to the powerful up north" that Argentina was determined to "pursue an independent policy."

Moreover, the project represented, among other things, an independent source of funds for the air force, and one that would be safe from the vicissitudes of meager budget appropriations, in the effort to overhaul itself. None of the warnings about the ultimate destination of the parts or the technology of the Condor II were heeded by the Radical administration. At best the response was to deny that other governments were applying pressure (because they never used official communications to do so) and to put forth the same argument that the National Committee of the UCR had advanced when Foreign Minister Cavallo brought up the issue before congressional debate: "We have never signed a contract with the Iraqi Government or with Iraqi companies to transfer missile technology." This is true if we consider only the corporate structure that was behind the project and ignore the political connections of the venture.

According to a report from the Arms Control and Disarmament Agency, the following companies were involved in the project:

- The German consortium CONSEN, headquartered in Zug (Switzerland), which is an affiliate of the aerospace firm Messerschmidt-Boelkow-Blohm of Munich, Germany. This company, in turn, is part of the Daimler-Benz holding company of Stuttgart. The group's finance department had secured the financing in Baghdad through its Iraq-based firms.
- The Italian company SNIA, which is linked to the Fiat Group, according to Alan Friedman, an investigative reporter who published his report on the case in THE FINANCIAL TIMES of London.
- The German firm Desintec AG, which provided the raw material for the launch tubes.
- The Italian company R.A.T.A., which supplied the guidance and control equipment.

The residents of Falda del Carmen in Cordoba still remember the monumental construction work on the plant (4,000 workers were involved in "hollowing out" the slope of a mountain so that the plant could be built there) and the "German engineers" who came to work there every morning guarded by special air force contingents.

The accuracy tests of the missile in early 1988 confirmed a range of over 500 kilometers but also uncovered evidence that without a "smart bomb" the missile could hardly compete on the world market.

According to intelligence reports, the decision was then made to move ahead with the manufacture of "part of the missile" with the idea that the factories of "the partners" could complete the assembly of the missing parts.

The pressure that the Israeli services were putting on the project prompted Argentine Air Force intelligence to take "special precautions" more than once to prevent attacks designed to disable the project.

After Carlos Menem took office and in spite of the secret decree ordering the project put on ice, the U.S. and Israeli embassies more than once conveyed their "concerns" to top-level administration officials about "the clandestine export" of Condor Missile parts "to Middle East countries."

No one ever proved anything, but the rumor that was going around among officials in the president's office was that "Arabs who do not even speak Spanish" were boarding planes with "packages of very unusual size" that were not being subjected to the required checks.

The debate on whether to allow the Argentine ships in the Persian Gulf to provide logistic support renewed the argument between Radicals and Peronists on the issue. The administration used it to try and link the Radicals to Saddam Husayn.

When Former Foreign Minister Caputo learned that the Condor II project was being suspended, he demanded that his successor be called to testify before Congress and protested the move at length when Manzano mentioned the "Condor affair" during the debate in the Chamber of Deputies. He then immediately consulted with Raul Alconada Sempe and sent him off to speak with Brigadier Crespo.

Alconada Sempe soon returned with a response, and Caputo offered Crespo's testimony to "prove that Argentina never sold missiles to Iraq."

Meanwhile, the military experts consulted by SOMOS recommend that we monitor Saddam Husayn's missile war "very closely" if we want to find out how far the Condor technology got.

[Box, p 3]

UCR Pressures

The UCR's Raul Alconada Sempe, one of Raul Alfonsin's main operators and a deputy foreign minister in the UCR administration, replied thus to the charges of Domingo Cavallo and other administration officials:

- The only truth to their statements is that the Condor was built during our administration. This business of the financing and the joint project with Iraq is a fabrication.
- It is madness for them to try and put the Alfonsin administration in the dock today, when the only thing it wanted was to develop technology of our own.

- If the German or French companies had ties to the Iraqi Government, that is no longer of concern to us.
- This policy is a gesture of subservience by the Menem administration, which is seeking to establish itself among the developed countries and is agreeing to negotiate anything in return, even if the country's technology is involved.
- Menem is not bearing in mind that in recent years France, Germany, and the United States alike have been selling arms to someone whom they today call their enemy and are now trying to hold us accountable for Husayn's madness.

Juanarena Denies Condor II Sales to Iraq

PY3001231491 Buenos Aires BUENOS AIRES
HERALD in English 30 Jan 91 p 11

[Excerpts] (NA-DYN)—Former Defense Minister Horacio Jaunarena yesterday continued his exchange of accusations with Foreign Minister Domingo Cavallo over the alleged sale of Condor II missiles to Iraq by the Radical administration.

In a letter Cavallo sent Jaunarena which was distributed to the press last week, the future Economy Minister said he had evidence of sale of Argentine weapons to Iraq but Jaunarena said the accusation was "a total lie" and repeated what he had said several times before: That there was no such sale.

This time, however, he stressed that Cavallo's information on the alleged sale came from British intelligence.

Jaunarena stated that during the 1983-1989 Radical administration the British secret service was spreading false news about Argentine weapons sale to Iraq to bring the international support for Argentine Malvinas claims down and prevent Argentina from making scientific developments in arms technology.

The aide of ex-President Raul Alfonsin commented that "the fact that such a rumour would reach Cavallo in understandable. The fact that he could have believed it is alarming."

In his letter, Cavallo had pointed out that "the worst political mistake of your government on this issue was not to sell technology to Iraq, which was something many Western countries were doing at the time, but to allow the national territory to be used for the proliferation, production and sale of missiles which are strictly forbidden according to international law."

In relation to this last statement, Jaunarena underlined that "what the Radical government tried to do is to develop that technology by our own means, and from the moment we started doing that we received heavy pressure, especially from the United States government."

The ex-minister explained that in his opinion Argentina should renounce building missiles only if other countries agreed to do so too.

Jaunarena contended that Cavallo's accusations "are a move to divert public attention from the real issue today, which is the decision of the government to send Argentine troops to the Persian Gulf." [passage omitted]

Finally, the Argentine Commission of Solidarity with the Iraqi People carried out last night a rally "to repudiate the imperialistic aggression and to demand the immediate return of the Argentine vessels" operating in the Gulf area.

The Patriotic Movement of Liberation, which organized the rally together with the Revolutionary Communist Party and the People Labour Party, yesterday highlighted "the brave and firm decision of Iraqi President Saddam Husayn to recover part of his nation's territory and not to give in before the pressure of the international coalition which has started a genocide against the Iraqi people."

Ex-Air Force Chief Denies Iraqi Missile Deal

*PY0802230691 Buenos Aires NOTICIAS
ARGENTINAS in Spanish 1132 GMT 8 Feb 91*

[Text] Mendoza, 8 Feb (NA)—Retired Brigadier Ernesto Crespo, former Air Force chief, has stated here that "the Condor-2 project was never sold to Iraq," and he criticized former Foreign Minister Domingo Cavallo for "giving credence to ill-intentioned magazine reports and for not producing serious evidence."

Crespo, who was Air Force chief under the Radical Civic Union government, said Argentina and Egypt were involved in a project "using solid fuel, while Iraq's missiles use liquid fuel."

He said the United States, Germany, and France supplied Iraq, adding that "when dealing with extremely sensitive technology, there are countries which seek to supply those materials and which want to be the absolute authorities on those issues, and the United States is among them."

"In the opinion of those countries, technology, electronics, and vector control cannot be developed by our countries, so we must be limited to serving as suppliers of raw material," Brigadier Crespo told Aconcagua Television.

He said: "Cavallo is mistaken in blaming the previous government for the alleged sale of the Condor. When Alfonsin assumed office, the Condor-1 already existed and the Condor-2 was being developed."

BRAZIL

Photographic Satellite Research for Iraq Detailed

*PY0802144891 Sao Paulo FOLHA DE SAO PAULO
in Portuguese 6 Feb 91 p A 12*

[Text] The National Institute of Space Research (INPE) began research to develop a remote sensing satellite for

Iraq in October 1988. The project was banned by the Brazilian Foreign Ministry in April 1989 because the satellite could be used for military observation.

The Iraqi decision in 1988 to select Brazil for production of the satellite was made through a selection process that also involved Chinese and French companies. The total cost of the project was estimated at \$40 million. The intermediary for the deal with Brazil was Engexco [Specialized Engineers Exporting Company], which is the trading company for the Engesa [Specialized Engineers, Inc] group.

The first INPE experts to go to Iraq to begin the project were Engineers Mucio Pereira Dias, Cezar Celeste Ghizoni, Decio Castilho Ceballos, and Carlos Eduardo Santana. They worked with Iraqi technicians who had taken part in construction of the Arabsat communications satellite developed by the French company, Matra.

The approved project was based on the SSR-1 satellite model, which was the third satellite developed by the MECB [Brazilian Complete Space Mission] in 1981. The study had 18 months in which to make a 171 kg satellite with a polar orbit of about 600 km altitude that would take 16 days to go over the same point on the earth twice. The satellite would identify 20-meter objects.

The performance expected from the Iraqi satellite was practically the same as the U.S. Landsat-5 and French Spot, which sell photos of everywhere in the world. The so-called espionage satellites, such as the U.S. KH-12, can identify objects the size of a melon.

Despite the fact that these two satellites were not designed for military purposes, access to images of the Persian Gulf region from the Landsat-5 earth observation satellite and the Spot satellite is being restricted since the United Nations approved an embargo on Iraq last August.

Technicians Contribute to Iraqi Missile Technology

Consulting for Installation

*PY0802011891 Sao Paulo FOLHA DE SAO PAULO
in Portuguese 6 Feb 91 p A 12*

[By Mauricio Tuffani]

[Text] Between October 1988 and June 1990, Brazilian technicians indirectly contributed to improving the guidance system of Iraq's Scud-B missiles. The Brazilian experts' participation was channeled through the Sao Paulo-based ESCA company, for Automation and Control Systems Engineering [Engenharia de Sistemas de Controle e Automacao]. This company provided consulting services for the installation in Baghdad of a simulation laboratory for missile and satellite guidance and control.

In its original version, the Soviet-built Scud-B missile has a maximum range of 270 km. The Iraqis modified it and increased its range to nearly 600 km, making it possible to hit Tel Aviv in Israel and Riyadh in Saudi Arabia. Its warhead can be a nuclear, conventional, or chemical bomb.

Engineer Descartes de Souza Teixeira, 51, who coordinated the work for ESCA in Iraq, denied that the experts contracted by the company had been consulted by the Iraqis on how to improve the Scud missile. However, one of the experts who participated in the program affirmed that the consulting work allowed experts from the Iraqi Military Industrialization Ministry to obtain the knowledge necessary to improve the guidance system for land-to-land missiles.

"At a consultative meeting with Iraqi military experts, I answered several questions on missile guidance and control. Not only were their questions very unclear as to what they wanted to know, but they were very clear about their lack of knowledge on this matter," said Engineer Decio Castilho Ceballos, 39, head of the Control and Guidance Laboratory of the Space Research Institute (INPE) in Sao Jose dos Campos, 85 km north-east of Sao Paulo.

The INPE expert said his impression of the Iraqi technicians with whom he came in contact was that their training was deficient, even in some basic areas. "I do not believe our consulting work contributed to making the guidance system of the Iraqi version of the Scud missile more precise," Eng. Castilho Ceballos affirmed.

His impression of Iraqi technicians was reinforced by various Brazilian experts who worked on high-tech projects in Iraq. Eng. Rinaldo Baldini, 33, who now works for the Sao Paulo-based Light Metal Control Company and who gave a course on electronics through a contract with Engesa [Specialized Engineers, Inc.], said: "Despite their efforts and dedication, the Iraqi technicians needed 'full-time' tutoring."

Eng. Descartes de Souza Teixeira refused to reveal the names of Brazilian experts who worked for ESCA in Iraq. He also refused to give the number of experts who were contracted by the company for the installation of the laboratory, saying: "That is restricted information."

Retired Brigadier Hugo de Oliveira Piva, 64, president of the HOP consulting firm in Sao Jose dos Campos, said he does not believe Iraq has succeeded in establishing a guidance and control simulation laboratory. HOP's experts have been in Iraq working on developing technology for the air-to-air Piranha missile. Piva affirmed that the simulation tests would have had to have been conducted in Brazil to carry the development work further.

Training on Missile Guidance Systems

PY0702234491 Sao Paulo FOLHA DE SAO PAULO
in Portuguese 6 Feb 91 p A 12

[Local report by "MT"]

[Text] The training of the Iraqi military in missile guidance systems was not carried out only by Brazilian technicians. The Space Research Center consultation meetings in Baghdad also counted on the participation of specialists from the United States, France, England, China, Germany, and the USSR.

Engineer Decio Ceballos believes that his participation and that of other Brazilian technicians was a significant factor in improving the guidance system of the Scud-B. "I learned through the Iraqis themselves that they had had several similar meetings with specialists from other countries. Also, we Brazilians were a minority among the foreign technicians in Iraq," Ceballos said.

A high level of development in aerospace technology is not necessary to increase the range of a missile. It can be done through the use of a better quality fuel than the one being used. Another alternative which can be used with the previous one is to reduce the payload carried by the missile warhead. This was the method used by the Iraqis, according to evaluations made by analysts from several countries and reported by international press agencies.

French President Francois Mitterrand denied last month that the French enterprise Sagem had sold missile guidance equipment to Iraq. In its latest issue, the French magazine L'EXPRESS accused the Argentine enterprise Intesa of passing Sagem components to Iraq.

Extending Missile Range

PY0602182691 Madrid EFE in English 1818 GMT
6 Feb 91

[Text] Brasilia, Feb 6 (EFE)—Brazilian technicians helped Iraq extend the range of some of its Soviet Scud ballistic missiles so that they could be fired as far as Israel, a Brazilian newspaper reported Wednesday [6 February]. Technicians involved told the daily FOLHA DE SAO PAULO that they had worked on a project between October 1988 and June 1990 to extend the range of the Iraqi Scud-B missile from 270 km to 600 km.

Iraq has fired dozens of modified Scud rockets against Israel and Saudi Arabia killing several people since war broke out out in the Gulf on January 17.

The technicians were employed by a Sao Paulo-based company which had a contract with the Iraqi Armed Forces to design a simulator for the control and guidance of missile and satellite launchers. They said the Iraqis also had U.S., Chinese, British, French, German and Soviet experts working on military projects in Iraq.

Brazil in the past has also supplied the Iraqi Armed Forces with armored vehicles and rocket launchers.

EL SALVADOR**FMLN Confirms Intention To Return Missiles**

PA3101201791 (Clandestine) Radio Farabundo Marti in Spanish to El Salvador 0000 GMT 31 Jan 91

[Text] Attention, we have a last minute report. We stated in our newscast that the Farabundo Marti National Liberation Front [FMLN] has promised to return to the Nicaraguan Government the SAM missiles purchased from Sandinist officers. In connection with this news item—the return of these missiles by the FMLN to the Sandinist People's Army [EPS]—our sources have confirmed that this return will indeed take place. We are expecting an official communique from our leadership within the next few hours. We therefore ask that you pay attention to Radio Farabundo Marti broadcasts.

We Salvadorans began our struggle for liberation with just a few weapons, but we have built, with patience and discipline, a true national Army that is aware of its revolutionary commitment.

We Salvadorans have the right to acquire and use at the right moment all the weapons that will help the people achieve their aspirations for justice and social changes.

We will continue to shoot at the dictatorship's airplanes and helicopters using machine guns, rifles, and missiles, thus, exercising our legitimate right to defend ourselves.

The National Army for Democracy will keep to its commitment of pushing for a negotiated solution, and together with the people, we shall overcome!

Return of Some Missiles to Government**Seventeen Surface-to-Air Missiles**

PA0102202991 Managua Domestic Service in Spanish 1836 GMT 1 Feb 91

[Text] It was reported today that the Nicaraguan Government will receive some missiles from the Farabundo Marti National Liberation Front [FMLN] in Managua and San Salvador on 2 February.

The FMLN promised the government of President Violeta Barrios de Chamorro that it would return at least 17 surface-to-air missiles which had been stolen from Nicaraguan Army warehouses in October 1990.

In El Salvador, the missiles will be turned over to a government delegation made up of officials from the Nicaraguan Presidency, the Government Ministry, and the Nicaraguan Army, in the presence of Mexican Government officials who will certify the return.

The time and location of the return of missiles not removed from Nicaraguan territory has not been announced in Managua. Minister of the Presidency Antonio Lacayo has promised that it will be a public event, open to the press.

By obtaining this return, the Nicaraguan Government proves its firm willingness to help attain peace and demilitarization in the Central American region and to help find a negotiated solution to the situation in El Salvador.

Ceremony Covers Return of Missiles

PA0302011691

[Editorial Report] Managua Domestic Service in Spanish at 1923 GMT on 2 February begins live coverage of a ceremony in which representatives of the Farabundo Marti National Liberation Front (FMLN) will return eight missiles to the Nicaraguan authorities at the Mexican Embassy in Managua.

At 1923 GMT Mexican Ambassador Ricardo Galan Mendez begins reading a declaration. He reads the names of the representatives of the government, the FMLN, and the Sandinist People's Army (EPS) attending the ceremony and declares: "The FMLN has delivered to the Nicaraguan Government eight missiles with micro firing mechanisms. The specifications of the missiles will be verified once they are unpacked. After the cited specifications are corroborated, the Nicaraguan Government will receive this delivery accordingly."

The announcer says at 1925 GMT that the participants at the ceremony are moving toward and later unpacking the missiles. He describes the missiles and says that the photographers are taking pictures.

At 1930 GMT the announcer begins interviewing FMLN commander Marisol Galindo. When asked how many missiles the FMLN will return, Galindo replies: "We are going to return eight missiles here and nine in El Salvador." She adds that "the return of missiles is being done simultaneously in Morazan Department."

The announcer begins interviewing FMLN commander Maria Marta Valladares at 1932 GMT. She states that the FMLN will continue to defend itself and the war will not end until agreements have been reached. Valladares further states: "This is a rare occurrence within the Salvadoran peace process, but we still have missiles and we will continue to fire them." Commander Valladares continues: "The relations with the Sandinist National Liberation Front have not been adversely affected." She adds that "the negotiations were conducted with the Nicaraguan Government." When asked why the FMLN decided to return these highly effective missiles, Valladares states: "We decided to return these missiles because of political implications and pressures." She concludes by saying that this move "will not hinder our fighting capabilities."

At 1937 GMT the announcer begins interviewing Lt. Col. Manuel Guzman, who is receiving the missiles on behalf of the EPS. Lt. Col. Guzman reports on the value of the "four SAM-7 and four SAM-14 missiles received" and their effectiveness. The EPS officer concludes by

saying that the missiles are used against air attacks launched by planes flying at low altitudes.

An unidentified television reporter begins interviewing Government Ministry spokesman Frank Cesar at 1938 GMT. Cesar characterizes today's ceremony as the delivery of eight missiles by the FMLN. Cesar states: "This is a Nicaraguan Government's demonstration to contribute to the pacification of Central America and the attainment of a stable and long-lasting peace." He concludes by saying that probably next week military authorities will render their decision regarding the EPS officers who had sold the missiles to the FMLN.

Before the end of the live relay at 1941 GMT, the announcer advises listeners that the remaining missiles are "due to arrive at Nicaragua's International Airport at 1800 (0000 GMT)."

Salvadoran Seeks Cease-Fire, Negotiations

PA0302234691 Panama City ACAN in Spanish
2213 GMT 3 Feb 91

[Text] Managua, 2 Feb [date as received] (ACAN-EFE)—The General Command of the Salvadoran guerrillas today sent a letter to Nicaraguan President Violeta Chamorro. In the letter, it reiterates its willingness to attain a negotiated solution to the Salvadoran conflict.

In the letter, the Farabundo Marti National Liberation Front (FMLN) explained why it returned to the Nicaraguan Government 17 of the 28 missiles it illegally acquired from Sandinist servicemen in October 1990.

"The FMLN seeks a cease-fire that will end the war," the General Command stressed in the document, which was signed by one of its five members, Eduardo Sancho.

The insurgents told Chamorro of their intention to seek a "peaceful solution" to the war in El Salvador. In 11 years of war, nearly 40,000 have died, according to the Army, and over 70,000 have died, according to international humanitarian organizations.

In the letter, the rebels also stated that the United States should help bring about a "dialogue" that will lead to an "opening" in El Salvador.

The FMLN and the Salvadoran Government are holding a private dialogue, with the mediation of the United Nations, to try to end the conflict.

On 2 February, the FMLN turned over the missiles to Nicaraguan civilian and military officials in El Salvador and Nicaragua.

The other 11 missiles were not returned because the rebels fired them between 4 November and 31 December in six different locations in El Salvador, sources have reported.

The letter stated that "this politically resolves" the scandal that broke out when it was discovered that four officers of the Sandinist People's Army (EPS) supplied

the antiaircraft missiles to the rebels. Nevertheless, the rebels have warned that they have other missiles, such as the U.S.-made Redeye, bought from the disbanded Nicaraguan contras.

Comments of Defense Minister

PA0202140791 San Salvador Radio Cadena YSU
in Spanish 1730 GMT 1 Feb 91

[Text] Defense Minister General Rene Emilio Ponce has asserted that the Farabundo Marti National Liberation Front [FMLN] will only turn over some of the missiles to the Nicaraguan Government; the rest, he claims, will be kept as part of their sophisticated war equipment.

According to the high-ranking military officer, the turning over of the missiles can be considered the result of a break between the rebels and the Sandinist National Liberation Front [FSLN]. However, Ponce did not rule out that the return of the missiles could be an attempt to restore the FMLN's credibility, which was lost in the wake of the U.S. advisers' murder.

[Begin recording] [Ponce] I have the feeling that they are going to turn over a part of the missiles and are going to keep the rest, claiming that they only took some from the Sandinist People's Army's [EPS] inventory. According to the data we have, according to our sources of information, the FMLN still has more missiles.

[Reporter] General, do you think that this is a [words indistinct] break between the FMLN and the FSLN, or is this a formal break with the FSLN?

[Ponce] When the Nicaraguan Government announced that it had arrested the soldiers involved in the missiles sale, I predicted that this was the beginning of the break between the FMLN and FSLN. Let us hope that this is true, because if there is a break, an actual breakup and not just a formal breakup, between the FMLN and the EPS members, I think we are getting closer to attaining peace in El Salvador. In the political arena, I think that the FMLN is trying to recover some credibility that it lost abroad as a consequence of the murder of two U.S. advisers after they crashed in a helicopter in San Miguel. They want to make up for their error, they want to recover some degree of trust within the EPS, and they want to influence once again the international community.

In the military scenario, this definitely means that they are going to continue using an undetermined number of missiles against our aircraft. They continue to have a number of land-to-air missiles that they can use at any given time. [end recording]

Meanwhile, the defense minister said that studies are being carried out to determine the role of the paramilitary groups in the country. Some of the changes taking place within the institution are a necessity and must be respected, as these have been made within the Constitution.

[Begin recording] [Ponce, in progress]...initially said that the confidentiality that surrounds the process itself, the dialogue, at times does not permit explanations on what is being negotiated.

[Reporter] [Question indistinct]

[Ponce] As we have said, the corresponding studies are being carried out to determine the future role of these civil defense organizations to meet the community's needs. We are studying their future role. All of this is in compliance with our needs, the restructuring, and the changes which must be made within the Armed Forces. We cannot go against changes which are taking place regionally, nationally, and internationally. The Armed Forces cannot go against the tide of historical changes. We believe it is necessary to readjust our organization and carry out the reforms that would allow us to have a strong, professionally organized Armed Forces, and that in the future it will fulfill its role within a democratic community at peace. [end recording]

When questioned about the investigation being carried out on the massacre in El Zapote, the defense minister said that up to now everything seems to point to the fact that the murder of the peasants was due to a family feud, but he did not rule out there could be participation of some other sector. Meanwhile, the defense minister downplayed the UNTS leader's charges made against soldiers in this crime, reiterating, as President Cristiani did, that that group follows the FMLN's guidelines.

Nine Missiles Returned

PA0302034291 Mexico City NOTIMEX in Spanish
0027 GMT 3 Feb 91

[Text] Perquin, Morazan Department, El Salvador 2 Feb (NOTIMEX)—Rebel commander Jorge Melendez, also known as "Jonas," returned here today seven of the 28 anti-aircraft missiles—which the Salvadoran rebels received in October, 1990—to the Sandinist People's Army [EPS].

The town of Perquin, which means "Road of Live Coal" in the Lenca Indian language, was the place where the ceremony of the delivery of the SAM-7 and SAM-14 missiles as well as of the Redeye portable anti-aircraft missiles took place. According to the Farabundo Marti National Liberation Front [FMLN], these missiles were bought from the Nicaraguan "Contras."

The Nicaraguan delegation and the representatives of the Mexican Government who travelled to Perquin, located 203 km from San Salvador, to attest to the delivery were received by the residents of this area in Morazan Department, mostly peasants, carrying the flags of both countries.

The presence of a large number of well-armed guerrillas and of the surface-to-air missiles mixed with an atmosphere of popular festivities in this small town, located north of the Rio Torola. It reminded those present of the reality of war.

The SAM-7 and SAM-14 missiles that the FMLN returned to its original owner—including seven here, two in the Usulután Department, and eight more in Nicaragua—are all Soviet-made.

In turn, the Redeye missiles, with which the FMLN has vowed to continue its anti-aircraft war, were made in the United States and purchased for between \$15,000 and \$20,000 from the "contras," who had obtained them from the Pentagon when they were trying to defeat the Sandinist Government.

The electronic equipment installed on the dirt road near the main square allowed those present to closely follow the delivery ceremony and made a contrast with the destruction caused here and in several other towns during the 10 years of war.

The return of the anti-aircraft missiles, which the FMLN itself had recognized as one of its strategic weapons, has resulted in various interpretations. One interpretation describes this incident as a serious blow to the rebels because it may imply a deterioration of their relations with the Sandinists.

The rebels who attended this ceremony not only rejected this version, but they stressed that they "recognize and respect" the efforts of the Government and Army of Nicaragua to build "a real democracy."

Ricardo Wheelock Roman, chief of military intelligence of the EPS, presided over the Nicaraguan delegation, while the Government of Mexico was represented by Ambassador to El Salvador Hermilo Lopez Bassols and three other officials.

The speech by the rebels was filled with the contradictions seen here this afternoon. Within the framework of a prolonged war, these contradictions are part of the daily lives of Salvadorans.

The return of the missiles "does not represent the end of our anti-aircraft war," said a rebel, after he expressed the willingness of the FMLN to continue with the negotiations being carried out under the auspices of the United Nations. These negotiations resumed today in Mexico City.

At the conclusion of the ceremony, a peasant showed another peasant a local newspaper, which in its today's edition depicted a design of the three bombers with which the U.S. administration this week replaced those recently destroyed by the FMLN.

Return of Unused Missiles

PA0402192991 (Clandestine) Radio Farabundo Marti
in Spanish to El Salvador 0041 GMT 4 Feb 91

[Communique issued by the General Command of the Farabundo Marti National Liberation Front, FMLN, in El Salvador on 1 February]

[Text] The FMLN General Command reports that:

1. With regard to the return of the 28 anti-aircraft missiles belonging to the Sandinists People's Army [EPS], upon conclusion of negotiations with the Nicaraguan Government and the EPS, it was decided that the FMLN would return the unused missiles.

2. By this decision, the FMLN demonstrates its willingness to negotiate and its support for a political solution and peace. This action contrasts with the U.S. Government's decision to release military aid and with the delivery of new aircraft to the Salvadoran Armed Forces, after they have perpetrated yet another massacre, of 15 peasants on the outskirts of San Salvador. This position fully legitimates our use of military action in an attempt to bring the Salvadoran conflict to a just end.

3. Therefore, the FMLN reiterates its absolute right to own missiles—and it does own them—and all weapons necessary to fight the criminal Salvadoran military aircraft. Consequently, such aircraft will continue to be attacked on land and in the air until the Salvadoran and the U.S. Governments correct their policy. This policy continues to seek military supremacy, as opposed to entering, in good faith, into serious negotiations.

4. The return of these missiles to the Nicaraguan Government does not affect in any way the balance of military forces. In this regard, we state that we have missiles and other anti-aircraft weapons, therefore, the balance of military forces is not altered. This balance of forces has opened the door to possible negotiated solutions to the conflict.

5. We have committed ourselves to returning, within Nicaraguan territory, eight missiles, and within Salvadoran territory, nine missiles. We have also specified on what dates the 11 other missiles were fired. The FMLN has fired more missiles, but only 11 were fired from aforementioned group.

6. The FMLN carries out this action as a gesture of goodwill toward the Nicaraguan Government, hoping that it will contribute toward the adoption of constructive positions and efforts to attain peace in El Salvador. We expect this same attitude from the other Central American Governments.

[signed] FMLN General Command

El Salvador, 1 February 1991

Rebels View Missile Return

PA0402211491 (Clandestine) Radio Farabundo Marti
in Spanish to El Salvador 0000 GMT 4 Feb 91

[Station commentary]

[Text] The return of more than one dozen surface-to-air missiles to Nicaraguan authorities on 2 February has quickly enhanced the prestige of the Farabundo Marti National Liberation Front, FMLN, and emphasized its military strength. We delivered the missiles because we believe that the possession of missiles belonging to the

Sandinist People's Army was used by those who oppose this legitimate action as an excuse to increase their destabilizing actions in Nicaragua. Thus, the action has renewed the historical ties of friendship between the Sandinist National Liberation Front, FSLN, and the FMLN.

International delegations from the government level came to the zones controlled by our front in Morazan Department and witnessed new aspects of the FMLN's well-known belligerence. Politically speaking, the return of the missiles has been the most overwhelming expression of the dual power which exists in El Salvador, given the FMLN's existence, its territorial control, and its army.

Not only the Nicaraguan and Mexican delegates, but also the local and international media, saw with clear astonishment the supply of surface-to-air missiles that our Army has in the northeastern zone. The enemy's ineffectual high command would have liked nothing better than to snatch away that treasure, which was displayed at the main square of Perquin. The military high command had been rejoicing over the return of these missiles barely a few hours before, and it again reverted to a cynical action of banditry by seizing all of the media's recording and videos.

On the evening of 2 February, the generals were no longer rejoicing. They are now rubbing their eyes in wonder while they watch the recordings, which they seized from the media, that clearly show the might of our National Army for Democracy. The military should have discarded by now any illusions they had about sending their puny planes into the skies. It has been proved that the shipment of this handful of airplanes from the North Americans is merely a symbolic—but completely useless—action.

The outcome for the FMLN, following the return of the missiles on 2 February 1991, is further proof of our political and military might. This has been a good move that worsens the crisis for the military sector of El Salvador.

Salvadoran FMLN Returns Nicaraguan Missiles

PY0602150091 Moscow Radio Peace and Progress
in Spanish 0200 GMT 5 Feb 91

[Report by Valentin Mashkin]

[Text] The Salvadoran FMLN [Farabundo Marti National Liberation Front] has agreed to return to the Nicaraguan Army missiles taken from Nicaraguan arsenals. For those who are not familiar with this case, let me recall that the missiles were not taken by Salvadorans, but by a group of Nicaraguan officers. In any case, it is obvious that this group was associated with members of the Salvadoran guerrilla organization.

The operation [words indistinct] with a desire to help the guerrilla organization. The fact that this operation

received a great deal of attention is not surprising. It was not just a case of missiles being seized, but it was also a violation of a high-level Central American agreement that says the supply of weapons to irregular military organizations is prohibited. There were also other violations. In accordance with an agreement between the Soviet Union and the previous Nicaraguan government, the transfer of Soviet weapons to third parties is strictly prohibited.

Let us recall that our country suspended arms supplies in 1989, in compliance with the Central American presidents' decision to prohibit the supply of weapons to irregular groups. This is why the report that our ground-to-air missiles were taken indirectly to El Salvador created concern in our country. Furthermore, this operation was an outright violation of the Soviet-Nicaraguan agreement.

In view of this situation, it was legitimate for Soviet Government representatives to participate in the Nicaraguan commission that was created to investigate the seizure of Soviet missiles from the Sandinist Army's warehouses. The FMLN created a similar commission. The creation of these commissions shows that we are indeed living in new times, my friends. In the past, an event of this type would not have had any consequences. In this case, the people responsible for the operation were identified and the missiles are already being returned to their legitimate owners, the Nicaraguan Army.

The conclusion that can be drawn from this is that more civilized links are being established among the various parties in the Central American conflict and that this is the result of great progress on a new political mentality. One of the creators of this new mentality is—no boasting in saying it—the Soviet Union. Let me also recall that the Soviet Union is a firm supporter of achieving a solution to the Salvadoran armed conflict as soon as possible. We have stated this position several times, especially at the United Nations. Not only have we made statements in this regard, but Soviet diplomacy maintains contact with the two parties involved in a desire to help in the search for a peaceful solution to the conflict. The solution to the conflict can only be found by mutual concessions. It is impossible to solve conflicts without a civilized position of mutual respect.

NICARAGUA

Examines FMLN Decision To Return Missiles

PA3001222191 Managua BARRICADA in Spanish
30 Jan 91 pp 1, 12

[Text] The FMLN [Farabundo Marti National Liberation Front] has agreed to return to the Nicaraguan Government the missiles it had acquired surreptitiously, with the help of several EPS [Sandinist People's Army] officers, thereby ending a tense situation.

The agreement was reached after several meetings with government representatives and the EPS in which the FMLN commanders repeatedly refused to return the surface-to-air missiles.

BARRICADA has learned that FMLN representatives met several times with Foreign Minister Enrique Dreyfus, without reaching any agreement.

The president of the Republic ordered EPS Commander General Humberto Ortega Saavedra to meet with the FMLN representatives to try to solve the incident.

The Nicaraguan Government had warned that the Salvadoran community, which lives in Nicaragua and is linked to the guerrillas, might be ordered to leave the country. Gen. Ortega conveyed the government's message to the guerrillas. Guerrilla leaders and refugee leaders were pressured to leave the country if the Nicaraguan Government's demands were not met.

The National Directorate of the FSLN [Sandinist National Liberation Front], which maintains historical ties with the FMLN, also participated in the efforts to persuade the Salvadoran commanders to help redress the serious damage caused to the EPS' image.

Rebel political leaders, however, firmly refused the demand, claiming that the return of missiles would affect the morale of the men fighting the Salvadoran regime. They also claimed that the Nicaraguan demand would involve the ONUCA [United Nation Observer Group in Central America], which would be in charge of receiving the missiles. This would mean accepting an intervention that they do not agree with.

The FMLN leaders also said that the presence of missiles in rebel hands in El Salvador is an important element of pressure, particularly against the Salvadoran Air Force. They said that the missiles have contributed to the decrease in air attacks against the FMLN and the bombing of the civilian population.

Although the crisis is over, there is still some evidence of friction. Yesterday FSLN Commander Luis Carrion said: "We have considered this a disloyal act by the FMLN because it is not in line with the political relations and solidarity the FSLN has displayed toward them."

Carrion, however, said emphatically: "The FSLN will not forsake the Salvadoran people's just demands, claims, and calls for vindication."

Just yesterday, when asked about the reported closure of businesses and offices owned by Salvadorans in Nicaragua, Commander Carrion responded: "I am not sure. I do not know how to answer. Perhaps they can tell you more than I can."

In fact, a meeting that some people hoped would lead to a resolution of the conflict failed to take place when the FMLN General Command decided not to attend, thereby aggravating the conflict to such an extent that there was almost a break in relations with the FSLN.

But Carrion told the press emphatically yesterday: There was no break in relations. BARRICADA repeatedly tried to reach Gen. Ortega after hearing Carrion's words, but his office said that he was very busy and could not meet with us.

The sudden change of position on the part of the FMLN's political and military leaders led some diplomats—who are following the issue closely—to speculate. Some of them said that the decision to return the missiles was made only after the guerrillas had assured themselves that they would be able to obtain the same type of missiles through other channels.

A South American military expert said the Salvadoran guerrillas obtained Red-eye missiles that groups of Nicaraguan contras have been trying desperately to sell since May.

Therefore, it would seem that the U.S. Government is thus paying the price of the disorder that prevailed in the distribution of weapons to the contras over the past decade, since no U.S. agency has exact records of the missiles that were distributed to the troops of former National Guard Colonel Enrique Bermudez.

Lacayo Statements on Return of Missiles, FMLN

PA0502165291 Managua LA PRENSA in Spanish
4 Feb 91 pp 1, 8

[Text] A letter from the FMLN [Farabundo Marti National Liberation Front] to the Nicaraguan president, the report on the missiles fired by the Salvadoran guerrilla forces, and the ceremony for the delivery of assorted military material in El Salvador and Nicaragua revived this weekend Central America's hope for a prompt negotiated solution to the Salvadoran conflict, in which Nicaragua is willing to play a key role.

The above is surmised from the statements on the issue and the information revealed by Minister of the Presidency Antonio Lacayo yesterday at the airport before his departure to Washington, where—he announced—El Salvador is a topic in his agenda.

"Nicaragua is the result of a negotiated and peaceful solution, and we will do everything we can to seek a definite solution to the lengthy and painful conflict prevailing in the friendly Republic of El Salvador," the minister said, thus stating the country's role as mediator between the Salvadoran Government and the FMLN guerrilla forces.

The return of the 17 missiles is an important achievement that clearly proves the Nicaraguan Government's strict abidance by Central American agreements, the minister of the presidency said.

The minister said that this occurred following talks with the FMLN that began in late December, during which the Nicaraguan Government emphasized how unacceptable it was for FMLN and EPS [Sandinist People's Army] members to take those weapons from Nicaragua.

Lacayo revealed that the Nicaraguan Government has coordinated efforts with several organizations and friendly countries like Venezuela and Mexico so that the FMLN would realize the importance of returning those missiles for the Central American peace process.

The FMLN delivered a letter to President Chamorro at 1500 on 2 February in which they related the groups' decision to return the missiles and outlined their political plan.

According to Lacayo's comments at the airport, the Nicaraguan Government received the letter with satisfaction and recognized that "it proves the organization respects Violeta Chamorro's government and considers it a legitimately appointed government. The act of recognizing that the missiles belong to the Nicaraguan Government is also a responsible attitude."

The FMLN delivered 17 portable C-2M and C-3M surface-to-air missiles to the Nicaraguan Government. Nine of the missiles were delivered in ceremonies held at the towns of Perquin and Las Marias, Republic of El Salvador.

An additional eight missiles were delivered to the Mexican Embassy in Managua. All were part of the 28 missiles that were taken from the EPS warehouses late last year.

Antonio Lacayo on Debt, Stolen Missiles

PA0302002691 Managua Domestic Service in Spanish
1200 GMT 2 Feb 91

[Statement by Presidency Minister Antonio Lacayo during a working breakfast with local and foreign journalists at the Presidential Press and Information Directorate in Managua on 1 Feb; recorded—broadcast in progress]

[Excerpt]...Washington with members of the U.S. Congress, U.S. Administration, influential groups, religious groups, and several international financial groups about Nicaragua's outlook for 1991. Our goal is to increase the U. S. solidarity with Nicaragua and to ask U.S. authorities to mediate on our behalf so that other countries of the world will also send aid to Nicaragua—bearing in mind the meeting scheduled for 25 March, as a followup to the meeting that I presided over....[corrects himself] that I attended in Paris on 3-4 December.

The international community will hold a meeting to decide on its contribution to help Nicaragua solve the problem of its accrued debt with the World Bank and the Inter-American Development Bank [IDB]. More than one journalist—especially the foreign journalists—has said that we achieved nothing at the 3-4 December meeting in Paris. However, the purpose of the meeting was not to request aid, so the journalists are wrong. The purpose of the meeting was to start a round of talks that should conclude on 25 March, when the international

community will make a firm contribution so that Nicaragua can—we certainly hope—solve its accrued \$350-million debt with the World Bank and the IDB.

Thus, these organizations will be able to grant us more loans with favorable terms for several projects that we want to carry out in the country, such as the construction of secondary roads; the improvement of our agriculture, health, and education programs; and a series of projects that are usually financed by these multilateral organizations. As Washington is a place where there are obviously many different opinions and power is distributed throughout different forums and agencies, we are determined to meet and talk with each group for as long as necessary in order to guarantee that [word indistinct] is understood by all the different groups in that city, where the government's decisions are made.

We will talk with different committees—in the U.S. Senate and the House of Representatives—and some House leaders. We will meet with different U.S. authorities; we will visit the World Bank, the IDB, and the IMF; and we will hold meetings at the highest level. We will also hold talks with the so-called think tanks, meaning groups which formulate opinions; religious groups; and the media. Thus, even though the world's eyes are focused on the Persian Gulf war, we will remind them that there is a country called Nicaragua, which has come out of a war, which has managed to settle its differences through an electoral process; which is strengthening its democratic system through a reconciliation and consultation; and which requires the support of the United States and the international community to alleviate the terrible situation of the Nicaraguan people as a result of a war which lasted many years. The defense of its sovereignty was the main issue at the time and practically all of its resources were used in the war.

In addition to the report on the trip and its goals, I would also like to take this opportunity to state the Nicaraguan Government's satisfaction with the reply that we have received from the FMLN [Farabundo Marti National Liberation Front] concerning the demand from the Nicaraguan Government early in January. The government said that the missiles which were illegally removed from the Sandinist People's Army warehouses should be returned to those same warehouses. The information minister met with FMLN representatives early in January, and Army officials did the same thing. Following the Nicaraguan Government's demand, which I announced during a news conference held here at the Press and Information Directorate early in January, FMLN spokesmen announced this week that all the missiles left from a lot of approximately 28 that were apparently taken in October 1990 will be returned tomorrow.

The missiles obviously do not include those which have been fired. We will receive a detailed report giving the place and date on which they were used so that we may corroborate the information with the Salvadoran Government. Nevertheless, we believe that most of the missiles will be returned, meaning that only 10 or 11 were fired, so we expect that 16 or 17 missiles will be returned. Our government has made a positive contribution to the attainment of peace in El Salvador and Central America. It has made a positive contribution toward a negotiated solution to the Salvadoran conflict. The FMLN's attitude proves that, regardless of the interest that they may have in solving the Salvadoran conflict, they also must have respect for governments like ours. We believe that peace can be attained by talking and negotiating, finding solutions, and avoiding military solutions. [passage omitted]

BANGLADESH

Navy Carries Out Successful Guided Missile Test

*BK2001170091 Dhaka Domestic Service in English
1530 GMT 20 Jan 91*

[Text] The annual training exercise of Bangladesh Navy was concluded in the Bay of Bengal today. About 25 ships of various types took active part in the exercise. Chief of Naval Staff Rear Admiral Amir Ahmed Mustafa was on board BNS Osman to assess the effectiveness of the exercise. For the first time guided missile frigate BNS Osman successfully launched a guided missile and effectively hit the assigned target. The exercise was also witnessed by the Chief of Army Staff, Lieutenant General Mohammad Nuruddin Khan, Chief of Air Staff Air Vice Marshal Mumtazuddin Ahmed, principal staff officers, and other senior officers of the three services.

EGYPT

Israel's Nuclear 'Advantage'

*PM1102122891 Cairo AL-WAFD in Arabic
6 Feb 91 p 1*

[Chief Editor Jamal Badawi article: "What About Israel's Mass Destruction Weapons?"]

[Text] The Gulf war has highlighted the danger of the possession of mass destruction weapons; that is, nuclear, chemical, and bacteriological weapons, whose destructive power is not confined to military targets but also extends to civilian populations. Furthermore, nuclear fallout does not distinguish between military and civilian areas. The Iraqi dictator has previously used these devastating weapons in his war against Iran and also against his own Kurdish countrymen. The world's conscience was asleep then!! This conscience has suddenly awakened in the present war, and the United States has made it a prime objective to destroy Iraq's nuclear reactors and installations producing these mass destruction weapons.

But what about Israel's mass destruction weapons?

Israel was the first to produce such weapons and to introduce them to the Middle East. The well-known Israeli nuclear reactor at Dimona in the Negev has been operating for years without any control or accountability. Israel has also refused to sign the Nuclear Non-Proliferation Treaty, whereas Egypt has signed it. This gives Israel a nuclear advantage over Egypt.

There is no proof so far that Israel has produced this weapon in order to hit Iraq. Nor is there any proof that Saddam Husayn has intended to hit Israel with mass destruction weapons. A mutual awareness of the balance of nuclear terror must have emerged between them: This situation prevents any nuclear country from attacking another country for fear of immediate retaliation.

If the United States is now saying that it has succeeded in destroying Iraq's nuclear and chemical warfare installations, this means that Israel retains its nuclear advantage and that Egypt, Syria, and other Arab countries which have not yet entered the nuclear club will be in constant danger. In short, the entire region will be on the brink of a volcano.

If the United States is indeed serious about achieving stability, security, and peace in the region, it must immediately disarm Israel and make it sign the non-proliferation treaty, abide by the UN resolutions in this regard, and submit to international inspection.

Without that, there can be no security and peace. In fact, there will be scores of others like Saddam Husayn, who will face evil with evil, injustice with injustice—and whoever initiates this will be in the wrong.

Uranium Finds Expected To Increase Energy Sufficiency

*91AA0092A London AL-SHARQ AL-AWSAT in Arabic
14 Nov 90 p 10*

[Text] The Egyptian government has completed preparation of a plan for producing nuclear fuel from local raw materials to cover part of the needs of the national program for nuclear stations, which are estimated at about 10,000 tons of uranium during the next 10 years. That is the amount expected to be consumed by eight nuclear plants for generating electricity, each with a capacity of 1,000 megawatts, covering 40 percent of the electricity needed in Egypt until the year 2,000. The plan included a list of uranium sources in Egypt, and an estimate of the amount of it expected to be produced. Researchers from the nuclear energy agency, the agency for nuclear plants, and the academy for scientific research participated in the studies, which determined that the most important sources of uranium in Egypt are found in granite, sedimentary, and phosphate rock, and black sand.

The studies revealed the presence of uranium in granite rock in the eastern desert (east of the Nile River) in the granite belt between Qina and Safaja, extending to Qift and al-Qusayr in southern Egypt. This granite is known as "pink granite."

Research operations in 1970 had discovered the presence of uranium also in the Wadi 'Atallah region, and the presence of minerals secondary to uranium in the al-Masika and al-'Aridiyah regions which have become the most important regions for uranium reserves in Egypt. Therefore the agency for nuclear materials is now digging wells in these two regions to depths varying from 80 to 100 meters within the previously excavated mine tunnels to discover what the uranium concentrations in these regions are.

Uranium minerals also appear in pink granite rocks northwest of the city of al-Ghurdaqah on the Red Sea coast and the eastern desert. Studies are still going on in

the eastern Sinai peninsula and the Bahariyah oasis to discover any additional amount of the minerals that contain the element uranium or other radioactive elements.

The studies which were carried out for this purpose revealed that phosphate is considered a source of uranium, which is produced as a byproduct during the process of manufacturing phosphate fertilizers. Thus uranium can be extracted during the process of manufacturing phosphoric acid from raw phosphate, where the amount of uranium in this raw material is up to 100 parts per million.

The importance of phosphate as a source of uranium increases in view of the fact that in Egypt five companies are working to mine the raw material. They are: the Red Sea Phosphate Company; al-Nasr Phosphate Company; the Egyptian Financial and Industrial Company; Egypt Phosphate Company; and the Abu Za'bal Company for Fertilizers and Chemicals. Moreover, three companies are working in manufacturing phosphate fertilizers, namely the plants of Kafr al-Zayyat, Asyut, and Abu Za'bal.

The Abu Za'bal Company for Fertilizers and Chemicals serves as an open door for the agency for nuclear material with regard to extracting uranium whenever it is needed, because it is the only plant which is manufacturing phosphoric acid as an intermediary in the manufacture of triple superphosphate. The productive capacity of the Abu Za'bal plant is up to 70,000 tons of raw phosphate a year, and the company plans to double this production by 1992, thus doubling the uranium existing in it.

The studies estimate the amount of uranium derived from the manufacture of phosphate fertilizers under present circumstances to be about 15 tons a year. When the plants production is doubled, production is expected to reach 30 tons a year. The agency for nuclear materials—the one agency responsible for providing nuclear fuel—will oversee the installation and operation of a uranium production line in the Abu Za'bal plant for treating the plant's entire production of phosphoric acid to provide some nuclear fuel. It will also help to protect the environment from pollution from radioactive materials which remain in the phosphate or phosphoric acid and phosphate fertilizers.

On the other hand, a scientific study done by the international Oberstone [Ubirstun] company confirmed that it would be possible to economically exploit the black sands present on the northern coast to produce the minerals zircon, monazite, and rutile, minerals of interest to nuclear industries, and from which uranium can be extracted. The study, which the company did for the agency for nuclear materials, estimated the cost of the project at about \$24 million.

The study implies the existence of confirmed reserves of the black sands sufficient to operate the plant for 10 years, which is the hypothetical age of the plant's

machinery, and that the amount of this sand is 80 million cubic meters, containing 2 percent zircon, and 12 percent rutile. The project, which will start operations soon, intends to market these rare minerals commercially, in addition to obtaining uranium for local consumption.

Thus the plant can be operated economically, and the value of the production will cover the necessary costs of building and operation.

The black sands also contain other economic minerals, most importantly gold, cassiterite, magnetite, garnet, and almandite. In specific regions, the black sands contain up to 30 percent of these minerals, besides the rutile, zircon, and monazite, whereas the general percentage is 5 percent in the regions slated for commercial exploitation. Black sand reserves are considered to be unlimited, if underwater sands and sands in the sand dunes are taken into consideration.

Uranium is found in monazite at about 0.46 percent, and Egyptian monazite itself does not exceed 3 percent of the economic minerals in the black sands. Assuming that the plant treats a million tons of black sand containing 5 percent economic minerals, it would produce about 1,500 tons of monazite, containing seven tons of uranium.

Paper Argues Against Use of Mass Destruction Arms

*PM2901121591 Cairo AL-AHRAM AL-DUWALI
in Arabic 28 Jan 91 p 7*

[Editorial: "No to the Annihilation of Human Beings"]

[Text] There have been increasing statements recently by certain members of the international coalition about the need to completely destroy Iraq's military machine—a development which could, in the end, undermine the means to protect Arab national security. The war now raging in the Gulf has definitely taken a serious turn with the emergence of such statements and innuendos about the possibility of resorting to nonconventional arms in order to decide the war if Iraq uses chemical weapons. What we need to emphasize here is that we are opposed to the use of such weapons by the warring sides: whether by Iraq against Israel, or by the members of the international coalition against the Iraqi people. This is because recourse to such weapons means the annihilation of tens if not hundreds of thousands of human beings, with all the consequent environmental disasters whose effects will not go away with the end of the war. On the contrary, these effects will remain for a long time. You only have to look at the effects of the atomic bombs on the Japanese cities of Hiroshima and Nagasaki at the end of World War II, effects which are still with us today.

Therefore, the responsibility falls on the shoulders of both sides of the Gulf war. We hope that Iraq will not resort to using weapons of mass destruction, if they are in its possession, in order not to give members of the

international coalition the excuse to use their nonconventional weapons. The first victims will be the Iraqi people and perhaps other peoples of our Arab world.

INDIA

Indo-Japanese Seminar on Thorium Reported

91WD0388A Bombay *THE TIMES OF INDIA*
in English 11 Dec 90 p 5

[Text] Bombay, 10 Dec—India and Japan are to exchange information on thorium as an energy source.

A four-day seminar aimed at exchange of research experiences and results from studies in both countries on the thorium fuel cycle began here today under the joint auspices of the Indian Nuclear Society and the Atomic Energy Society of Japan.

India has large reserves of thorium and looks upon it as a fuel for its future nuclear programmes, when all the uranium reserves are exhausted.

Japan has neither uranium nor thorium, but has a very highly advanced industrial and technology base. It has sponsored a study, "Thorium as an energy source in the 21st century," for generating basic and new data on topics relating to the thorium fuel cycle, the organisers say.

The seminar was inaugurated by Dr R. Chidambaram, director of the Bhabha Atomic Research Centre and 120 scientists from India are participating.

While India's natural uranium reserves, at 70,000 tonnes, are somewhat limited, its thorium reserves are large (360,000 tonnes). This fact was well appreciated by Dr Homi Bhabha, founder of the Indian nuclear programme, who felt the country's long-term nuclear energy programme would have eventually to depend on thorium.

Since thorium does not contain any fissile component equivalent to the U-235 of natural uranium, the exploitation of thorium involves an additional step of first converting it into fissile U-233 by absorption of a neutron. This could be achieved in fast breeder reactors.

The conversion is followed by chemical processing of the irradiated thorium to extract the U-233, then fabrication of U-233 'enriched' thorium fuel elements, their use in a nuclear power reactor and reprocessing. The whole gamut of operations known as the fuel cycle is to be established technically and its economics worked out for utilising the material on a commercial scale.

Provision was made in the country's early research reactor CIRUS for irradiation of thorium oxide rods by using neutrons leaking away from the system. This was followed by establishment of a laboratory scale reprocessing facility for recovering the U-233. Further R&D efforts pertain to use of the separated U-233.

Last month an experimental reactor facility using U-233 as fuel—Purnima III—was commissioned at the BARC complex at Trombay, perhaps the only operating reactor in the world now to be fully fuelled with U-233. This fuel in solid form was earlier used in the 30 KW research reactor, Kamini, at the Indira Gandhi Centre for Atomic Research, at Kalpakkam near Madras. Purnima III is an experimental model of Kamini.

The Japanese study, aimed at spreading the country's long-term dependence on a variety of natural sources, is within the framework of the university system, and has been under way since 1980.

India and Japan, thus, have a commonality interest in the thorium fuel cycle.

Dr M. Srinivasan of BARC and Prof Itsuro Kumura, of Kyoto university, are co-convenors of the seminar.

Doubts Over Pakistan's Nuclear Stand

91WD0387A Madras *THE HINDU* in English
12 Dec 90 p 5

[Article by Kesava Menon]

[Text] Islamabad, 11 Dec—Even as the first round of talks between Washington and the newly formed Government here on the related issues of Pakistan's nuclear programme and resumption of U.S. aid has got underway, mixed signals are emanating from this country's ruling circles on the stand to take.

Officially, the Government opposes unilateral imposition of an international regime on its nuclear programme and has expressed its readiness to face the economic challenges which will be thrown up once the U.S. administration continues with its aid suspension. However, there appears to be some confusion on whether a face-saving solution should be sought or whether Pakistan should adhere to its present confrontationist line and declare itself a nuclear power.

There have been ample indications that Washington will resume civil and military aid suspended since October this year, only if Islamabad makes appropriate changes in its nuclear policy. The U.S. Ambassador to Pakistan, Mr Robert Oakley, has categorically stated that a country must not possess the components of a nuclear bomb, leave alone a fully assembled one, if it is to qualify for aid.

Though it is widely believed that Pakistan has already acquired nuclear bomb making capability (even local commentators have hinted that the country is only 'a few screw drives away'), the country's officialdom has maintained a carefully constructed ambiguity on the issue. It is insisting (as the President, Mr Ghulam Ishaq Khan, did on Sunday in talks with the Deputy Director General of the Department of Technical Cooperation of the International Atomic Energy Agency, Dr Bin Islam), that the nuclear programme is entirely for peaceful purposes.

It also refuses to accept international safeguards on the grounds that the country's security environment (meaning the threat from India) does not allow an abandonment of the weapon option. The pressure to throw open nuclear facilities for international inspection or other forms of safeguards is seen as an infringement on the nation's sovereignty while ambiguity about the existence or otherwise of the bomb has been fitted into the "doctrine of deterrence."

Secret deal: In this background nothing much was expected out of the visit to Islamabad by Ms Teresita Schaffer of the U.S. Department of State this week. Coinciding with her visit, Pakistan did agree to throw open one of its nuclear plants to inspection. The plant in question is only an appendage to a project already under a safeguards regime. But Islamabad has shown no inclination to relax its ban on external inspection of the A.Q. Khan laboratories in Kahuta or any of the other sensitive nuclear installations. There have been some reports in the media here of negotiations to have the administration agree to pull its programme back to the "March 90" level, though there is no information as to what this means.

It is said that a hard-line position is emerging within the ruling circles in Pakistan. THE DAWN recently carried a report citing two unnamed "establishment" figures who argued strongly in favour of Pakistan exploding a nuclear device. In their reading, the advantages for Pakistan in declaring its emergence as a nuclear power will more than outweigh its disadvantages. According to them, Pakistan will thus acquire the ultimate deterrent ability and could then divert scarce resources to putting its economy back on the rails.

Another possibility, the hardliners say, is that the reluctance on the part of Washington and its allies will soon give way to an anxiety to prevent Islamabad from exporting its nuclear expertise and this, in turn, will provide the incentive for resumption of aid.

'Export opium': As the aid suspension stands for the moment and as this affects civil development, military preparedness and narcotics control, certain other suggestions have been made. They sound bizarre but for the source which has made them. A retired Brigadier, reportedly a high official in one of the intelligence agencies, has suggested that Pakistan make use of its opium crop to offset the economic consequences of aid suspension. He said the crop could be processed and its medicinal derivatives exported, earning about \$12 billion. This could help the country acquire a substantial measure of self-reliance, he said.

Radio Reports Pakistani Nuclear 'Breakthrough'

BK0402094091 Delhi Domestic Service in English
0830 GMT 4 Feb 91

[Text] Pakistan has announced a major breakthrough in its nuclear program. According to Pakistan's Atomic Energy Commission, it has developed an indigenous

technique to recover uranium from sandy rocks. The availability of uranium will help step up Pakistan's nuclear activities.

Shekhar on Pakistan Nuclear Challenge

91WD0416A Calcutta THE TELEGRAPH
in English 8 Jan 91 p 4

[Excerpt] New Delhi, 7 Jan (UNI, PTI)—Pakistan cannot enter into any nuclear misadventure as India had the capability to meet any such challenge, the Prime Minister, Mr Chandra Shekhar, assured Parliament today.

Responding to members who sought clarification in the Rajya Sabha on the suo moto statement made by him on the fifth SAARC summit at Male, the Prime Minister firmly refused to divulge anything further saying that "we are not ready to discuss our nuclear programme."

Mr Chandra Shekhar said that the efforts made by both India and Pakistan at Male were a positive step towards "easing of tension in this region."

"We don't know about the nature of Pakistan's nuclear programme, but this does not mean we are scared," the Prime Minister said amidst thumping of desks by members.

Mr Chandra Shekhar said India would support any non-aggression treaty prohibiting both countries from attacking each other's nuclear installations. [passage omitted]

Shekhar Opposes Chemical, Nuclear Weapons Use

BK1102092791 Delhi Domestic Service in English
0830 GMT 11 Feb 91

[Text] The prime minister has expressed concern over the threat of use of nuclear and chemical weapons in the Gulf. Mr. Chandra Shekhar said if this happens, it will have an adverse impact on the environment in the region. He was inaugurating an Asian workshop on the International Geosphere-Biosphere Program [IGPB] in New Delhi today. The prime minister hoped that the leaders involved in the Gulf war will exercise restraint and refrain from using such weapons.

He called upon the scientists to help reorient development strategies to steer the world away from the adverse impacts of global environmental changes. The IGPB is a research effort directed at acquiring fundamental inside of the global systems which will help assess changes in the planet over the next 100 years.

Nuclear, Chemical Weapons in Gulf Opposed

BK1202160091 Delhi Domestic Service in English
1530 GMT 12 Feb 91

[Text] The prime minister, Mr. Chandra Shekhar, has cautioned the United States and its allies against the use

of nuclear or chemical weapons in the Gulf war. He said that it will be a misadventure and will go against the UN Charter. In an informal chat with newsmen at the conclusion of the two-day session of the National Youth Council in New Delhi today, he said such threats are fraught with grave danger to the entire humanity.

Asked whether the country will review its nuclear policy as suggested by the Congress-I president, Mr. Rajiv Gandhi, in the event of the United States using nuclear weapons, he said the country will be ready to meet any situation and the government will take steps accordingly.

Congress-I Threatens Revision of Nuclear Policy

BK1202062891 Delhi Doordarshan Television Network in English 1600 GMT 11 Feb 91

[Text] The Congress-I president, Mr. Rajiv Gandhi, has expressed grave concern over the threat of nuclear weapons to be possibly used by the multinational forces against Iraq in the Gulf war. In a letter to the prime minister, Mr. Chandra Shekhar, Mr. Gandhi said India should spearhead a worldwide campaign to arouse governmental and public opinion against any use of nuclear weapons. He urged the prime minister that India's permanent representative at the United Nations should be instructed to ensure that the expression—all necessary means—in the UN Security Council resolution does not authorize the multinational forces to use nuclear weapons in the Gulf war.

Elaborating the point, a Congress-I spokesman said that in such an eventuality India will be left with no other option except to convert its nuclear weapons capability into nuclear weapons capacity. The letter has been written in view of the hints of possible use of nuclear weapons in the Gulf war by the U.S. President and his aides.

Pant Says Nuclear Weapon Needed

91WD0386A New Delhi PATRIOT in English 25 Dec 90 p 1

[Text] Former defence minister K.C. Pant emphasised on Monday that India had no option but to possess a nuclear weapon in view of a nuclear threat from Pakistan.

A dangerous situation could develop rapidly if the requisite credible capabilities were not available to deter the (Pakistan) threat, the former defence minister said in a statement in the wake of Prime Minister Chandra Shekhar's statements made on the subject during the past couple of days.

Apparently, seeing in Mr Shekhar's statements an attempt to play down the threat (of use of nuclear weapon by Pakistan against India), Mr Pant, a senior Congress leader, demanded that it must be made clear that India will not allow emergence of an unfavourable balance of capabilities. "The nation also must be made

aware of the dangers of nuclear asymmetry—when one side has a capability well ahead of the other."

Referring to the Prime Minister's statement calling upon Pakistan not to resort to any misadventure, the former defence minister said, "it goes without saying that the warning (or 'friendly advice') against misadventure has to be backed by credible capability."

Mr Pant said stability in Indo-Pak relations required that the potential for miscalculation or misadventure should be eliminated. This was even more important in the nuclear dimension specially since the Pakistani Army chief had been emphasising nuclear deterrent capability as part of his country's national security policy.

The problem of potential threat from Pakistan's nuclear weapon capability, therefore, required to be addressed in detail at different levels.

Mr Pant said there was need to sensitise the nation, the institutions of the government (both military and civil) as well as the international community to the implications of Pakistan's nuclear weapon capabilities. The impact of the development on Indo-Pak relations will need to be assessed objectively. Active measures to test Pakistan's bonafides and intentions would be necessary.

The Congress leader warned that there was a serious risk that any attempt to play down the threat, however well meaning, could not only generate a false sense of security amongst our own people, but may well send wrong signals to people elsewhere. This, he said, could increase the risk of misadventure. Care will, therefore, have to be taken to ensure that wrong signals were not sent.

Mr Pant said in formulating our responses to the threat, it was vital to take into account the true nature of the threat. While the use of nuclear weapons undoubtedly represented the most critical and the gravest danger, the real role nuclear weapons had played since 1945 was in terms of political coercion through the threat of use of nuclear weapons. It had to be recognised that an implicit threat existed in the very possession of such weapons.

The Government must now address itself to the substantive issues involved in the situation resulting from this development. Steps were required to ensure that the posture—that is, the software of concepts and strategy, matches the hardware to provide a credible response.

Pelletron Accelerator at Nehru University

91WD0389A Bombay THE TIMES OF INDIA in English 21 Dec 90 p 9

[Text] New Delhi, 20 Dec—Nuclear researchers in Indian universities got a boost with the commissioning of an accelerator, comparable to the best in the world, exclusively for their use.

The accelerator, known as 15 U.D. pelletron, can accelerate almost any particle from the lightest atom, proton, to the heaviest ones such as uranium, to potentials up to

16 million electron volt (MEV). It was dedicated to the nation by the minister for human resources development, Mr Rajmangal Pandey.

This accelerator is the only one of its kind in India. However, such accelerators are available in some top universities abroad.

Housed in a 30-metre high tower, the accelerator is part of the nuclear science centre (NSC) which was set up in Jawaharlal Nehru University campus. The NSC is an autonomous society started by the University Grants Commission (UGC) to make available this sophisticated facility to all universities.

"Treat this facility as yours. All of you should make full use of the accelerator," said the UGC chairman, Prof Yash Pal, in his appeal to the university community on the occasion yesterday.

In early thirties, the first accelerator was made to probe the nucleus for its structure. Having found it very useful in understanding nuclear physics, scientists invented different accelerators for a variety of applications.

Particles or ions which are accelerated to very high potentials make ideal tools to probe deeper into nuclei of various materials and unravel the mystery behind their existence in that particular form.

Today accelerators are not confined to nuclear physics only. They are equally useful for researchers in basic, applied and inter-disciplinary field. They are used widely in atomic and molecular physics, astrophysics, material sciences, condensed matter physics, bio sciences, environmental sciences, forensic sciences, archaeology, geology, nuclear chemistry and medicine.

The pelletron at NSC is a versatile, heavy ion, tandem type of electrostatic accelerator. Negative ions are produced and pre-accelerated to about 400 kilo electron volts (KEV) and injected into a strong electrical field.

This electrical field is produced inside an accelerator tank filled with sulphur hexa fluoride (SF₆) insulating gas. At the centre of the tank is a terminal shell which is maintained at high voltage (16 MEV). The negative ions, on traversing through the accelerating tubes from the top of the tank to the positive terminal get accelerated.

On reaching the terminal, they pass through a stripper which strips the ions of their negative charge (electrons), thus transforming the negative ions into positive ions. As the terminal is at a positive potential, the positive ions are repelled away from it and thus are again accelerated to the ground potential to the bottom of the tank.

In this manner, the same terminal potential is used twice accelerate the ions. On exiting from the tank, the ions are bent by an analysing magnet in a horizontal plane. Then a switching magnet diverts the high energy beam into various beamlines to different experimental areas. The entire machine is computer-controlled.

Various research groups have already fabricated their experimental equipments indigenously and will make use of these high energy beams.

Work began to set up the accelerator in 1986 and it has been completed ahead of schedule within four years.

So far, accelerators were available only at the research centres of the department of atomic energy. Though, some of these were open to university researchers, the demand far outstripped the supply. A similar accelerator with the maximum potential of 14 MEV is currently being set up at the Tata Institute of Fundamental Research (TIFR), Bombay.

This is the beginning of a new trend. Such a facility, freely available to university researchers, will spur them to attain greater heights, said the doyen scientists, Dr Sudhir Pandya, former director of the Physical Research Laboratory, Ahmedabad, in a special lecture on the occasion.

The challenges are many. There are about 300 naturally occurring nuclei on the earth. However, it is possible to synthesise 6,000 more. Only 2,000 have been synthesised so far.

Police Detectives Seize Stolen Uranium

BK0302014191 Hong Kong AFP in English 2045 GMT 2 Feb 91

[Text] New Delhi, Feb 2 (AFP)—Police detectives arrested five Indians in New Delhi on Saturday and seized a substantial amount of uranium stolen from an atomic power plant in India's west, officials here said.

The suspects were caught with 800 grams (28 ounces) of uranium which they were planning to sell to foreigners for almost one million dollars, Police Crime Branch Chief A. Tiwari said.

They were believed to have purchased the uranium for 9,800 dollars from an individual in Eastern Bihar State, and had contacted the unnamed foreign buyers in the national capital's upscale southern district, he said.

Mr. Tiwari said a hunt was on for the foreigners in the city.

The uranium is believed to have been taken from the heavily guarded state-owned Tarapur Nuclear Power Plant in Maharashtra State, other detectives said.

Police officials did not disclose if the uranium was weapons-grade, nor did they reveal names or nationalities of the prospective buyers.

Kalpakkam Reactor Back in Operation

91WD0417A Bombay THE TIMES OF INDIA in English 9 Jan 91 p 19

[Text] Kalpakkam (Tamil Nadu), 8 Jan (PTI)—The Fast Breeder Test Reactor (FBTR) at the Indira Gandhi

Centre for Atomic Research (IGCAR) here is back to the operational mode after a three-week shut-down.

The IGCAR director, Dr S.R. Paranpje, has dismissed reports that said the reactor was "crippled."

"It is not correct to say the reactor is crippled," Dr Paranpje told a PTI correspondent visiting the FBTR, which had been restarted on 2 January.

The FBTR, which produced more fuel than it consumes, is the forerunner to the development of Fast Breeder Reactor (FBR) in the country's second stage nuclear power programme.

Dr Paranpje, who presented an elaborate update on the FBTR to demonstrate the viability of the test reactor, said though it was beset with several problems since it attained criticality in October 1985—delays in procurement of steam generators, damage to some sub-assemblies in a fuel-handling incident and a "noise pick-up" problem in the reactor's neutronic channels, "I feel confident now that we have solved all the problems."

He said it should be remembered that not one of these problems had resulted in any "derating" of the FBTR. This year, "I will produce 10 MW of thermal power" (and correspondingly three MW of electricity,) Dr Paranpje said.

(The FBTR though designed to produce 40 MW of thermal power and 13 MW of electrical power, can now generate only upto 10 MW of thermal power, given its "small core" of fuel at present. The replacement of the "small core fuel" by the "full core," earlier expected by 1991-end by the IGCAR, would now have to await June 1992.)

Dr Paranpje said in terms of time, the earlier the FBTRs were commissioned on a commercial scale, the better it would be for the country. "Delays in the FBTR have certainly affected the FBR programme, but it is not so critical or damaging to the programme, as long as we can build the FBRs by 2005-2010," Dr Paranpje added.

Dr Paranpje went on to explain that nobody in the world was willing to give India the FBR technology, in the context of India's stand not to sign the nuclear non-proliferation Treaty.

"Hence if we are going for a complex technology, we are bound to make mistakes," he said, adding, "You learn from time to time."

Dr Paranpje said there must be a distinction between the objectives of the nuclear energy programme, which was required for the country's progress, and the method of its implementation.

Observing that there could be criticism about the implementation aspect, Dr Paranpje said, "You must be most critical if there is an element of dishonesty. You censure

us if we make a mistake for the second time, but please be sympathetic to the programme as the country requires it," he added.

Explaining the problems encountered by the FBTR and the attempts to overcome them in the last few years, Mr S.P. Bhoje, station superintendent, FBTR, and Mr R.P. Kapur, technical services superintendent, said at present the Atomic Energy Regulatory Board (AERB) had given clearance for operating the reactor upto one MW of thermal power.

Mr Bhoje and Mr Kapoor said in the fuel handling incident in FBTR in May 1987, only one fuel sub-assembly was damaged, while 27 steel and nickel reflector sub-assemblies suffered "moderate deformations."

All these 28 sub-assemblies in the reactor had been replaced, besides rectifying the damaged fuel handling machine. At that time the reactor was in a shut-down state as all "fuel handling" in the FBTR could be done only after the reactor was shut down, they clarified.

The reactor vessel was thoroughly checked through ultrasonic inspection and there was no radioactive fallout due to this incident. All this repair work meeting stringent safety conditions, took two years and the reactor came back to operation in May 1989.

The reactor operated for three months after which it was beset with the problem of the "neutronic channels" picking up "spurious signals," leading to frequent shut downs, they said. This problem had also been completely overcome and the "earthing systems" improved in the plant. In 1990, no "tripping" of the reactor was encountered due to this problem, they added.

After coming back on stream in 1990, Mr Bhoje said the reactor had been run upto 500 KW thermal power level during August and September last year, and the operating time was as high as 80 per cent. The reactor operated continuously for about 13.5 days in September last.

Even as late as 11 December and 12 December last year, the reactor was operated, Mr Bhoje said. In non-problematic occasions also, Fast Breeder Reactors, are required to be shut down for 10 days for fuelling after a 50-day run, he added.

Dr Paranpje said shutting down the reactor for replacement of aging components, as was done in October 1989, was also nothing unusual in any reactor system.

Referring to the "corrosion and biogrowth" in the water lines, which provide cooling of equipment, Dr Paranpje said the origin of this problem had been traced and the defective lines cleaned or replaced.

Usefulness of Newly Tested Missile Noted*BK1102160391 Delhi Domestic Service in English
1530 GMT 11 Feb 91*

[Text] The third test firing of India's indigenously built surface-to-surface medium range missile, Prithvi [Earth], was successfully conducted today from the Sri-harikota Range in Andhra Pradesh. The missile is designed to perform the tactical battlefield support role. It will function with a high accuracy system to destroy various types of military targets behind the forward line of the battlefield.

Work To Begin on Tamil Nadu Nuclear Plant*BK1302044091 Delhi Domestic Service in English
0240 GMT 13 Feb 91*

[Text] Work on the proposed 2,000 megawatt nuclear power plant at Kudumulagumma in (Purumal) Valley at (Kattabaman) District of Tamil Nadu will begin this year. Disclosing this in Tuticorin, the atomic energy chairman, Dr. P.K. Iyengar, said the 7,000 crore rupee project scheduled for completion by 1998 is the safest one.

IRAN**Republic Likely To Buy North Korean Scuds***TA0102112091 (Clandestine) Iran's Flag of Freedom
Radio in Persian 0645 GMT 1 Feb 91*

[Text] Tehran political circles are saying that the Islamic Republic has contacted North Korea about the purchase of Scud missiles. Experts say that it is very likely that the Islamic Republic is purchasing these missiles for Iraq. After receiving delivery of the missiles, it will transfer them to Iraq. On the other hand, it is being said that the Islamic Republic intends to sell mobile missile launchers to Iraq.

Mass Production of Long-Range Missiles Planned*LD2901115491 Tehran IRNA in English 1101 GMT
29 Jan 91*

[Text] Tehran, Jan. 29, IRNA—Iran is to start mass production of long-range ground-to-ground missiles as of Monday, February 4, announced spokesman of the Ministry of Defence and Armed Forces Logistics, Hojjat ol-Eslam Alawi here Tuesday.

Hojatt ol-Eslam Alawi said the missiles which have high destructive power would be mass produced by the military industries of the Defence Ministry.

ISRAEL**Levi Says Germany Responsible for Iraqi Weapons***TA2401210991 Jerusalem Voice of Israel and IDF
Radio Network in Hebrew 2000 GMT 24 Jan 91*

[Text] Foreign Minister David Levi accused Germany of supplying conventional and chemical weapons to Iraq. At a joint news conference with his German colleague Hans-Dietrich Genscher, Minister Levi said that German aid to Israel would not write off Germany's responsibility for the arming of Iraq. He reiterated that Israel would retaliate for Iraq's attacks when and how it chooses.

German Foreign Minister Genscher said that Germany feels a moral responsibility for what has happened. He promised that his government would do everything possible to make sure that German arms would never be sold again to tyrannical regimes.

Proof of German Chemical Sales to Iraq Sought*TA0602144391 Jerusalem Voice of Israel and IDF
Radio Network in Hebrew 1400 GMT 6 Feb 91*

[Text] The German ambassador to Israel said today that for years, and until this day, Israeli defense elements have been relaying to Bonn information and proof on factories that illegally sold chemical substances and other weapons to Iraq. The information was relayed in order to allow the prosecution of German companies. He added that some of the information was in reply to requests by the German Government, but it was not always sufficient to press charges, because German law demands that very detailed proof be presented in such cases.

Our correspondent Mor Suliman reports that Ambassador Otto von der Gablentz was speaking before the Bnai Brith organization members in Jerusalem. He said that, even today, the Israeli and German Governments are still honestly interested in finding proof and punishing guilty companies.

JORDAN**Jordan Allegedly Storing Scud Missiles for Iraq***PM1302145791 London SAWT AL-KUWAYT
AL-DUWALI in Arabic 9 Feb 91 p 1*

[Unattributed report: "Do You Know?"]

[Text] Do you know that the Scud missiles used by Iraq since the 15th day of the war to date have been transported from Jordan and that a Western report identified and carried photographs of the trucks used for that purpose? According to Western information, more missiles are still stored in Jordan and the storage fees, estimated at tens of millions of dinars, are going to the king's entourage. The allied forces decision to regard the

Amman-Baghdad road as a military route and to attack it was made to prevent the missiles from reaching Baghdad.

Saudi Paper Claims Scud Missiles Hidden in Jordan

Depots for Missiles Found

NC2801085991 *Cairo MENA in Arabic* 0842 GMT
28 Jan 91

[Text] Riyadh, 28 Jan (MENA)—The Saudi newspaper AL-SHARQ AL-AWSAT has disclosed that there are depots for Iraqi Scud missiles inside Jordanian territory on the borders with Iraq. In today's edition, the paper cites informed diplomatic sources as saying that these missiles are transported at night to Iraqi territory in refrigerated trucks to conceal them from satellites monitoring the military operations theater.

Spokesman Denies Report

NC2801153691 *Amman Domestic Service in Arabic*
1500 GMT 28 Jan 91

[Text] Jordan's official spokesman has denied a report published in the London-based Saudi paper AL-SHARQ AL-AWSAT which claimed that Scud missiles are being transported at night from Jordan to Iraq aboard refrigerated trucks. The spokesman denounced the publication of such a fabricated report by AL-SHARQ AL-AWSAT, which knows full well that such a thing is technically and practically impossible in an area that is under the intense scrutiny of satellites and other advanced surveillance methods.

Jordan has also strongly denounced the dissemination of this report over Saudi radio, as this entails a clear provocation against it, and will take the necessary measures to follow up on this matter with Saudi authorities through diplomatic channels.

Saudi Position Questioned

JN2901093291 *Amman AL-DUSTUR in Arabic*
29 Jan 91 pp 1, 16

[Editorial: "Why This Instigation Against Jordan?"]

[Text] The so naively fabricated news published by the Saudi newspaper AL-SHARQ AL-AWSAT and carried by the official radio in Riyadh about Jordan's role in hitting Israel with Iraqi missiles arouses in us a sense of pity and regret for those who have lost sight of the right course and the wisdom of patience, and consequently, begun acting erratically and talking nonsense in a desperate bid to cover the faultiness of seeking the protection of foreigners as well as the scandal of placing themselves under the banner of the Crusader-colonialist alliance that is hostile to the deep-rooted aspirations of the sons of the Arab nation to freedom, unity, and salvation.

Hence, the constant campaigns by the official Saudi mass media against Jordan and its media are part of the instigation against the steadfastness of this lofty Arab fortress and also fall within the framework of current attempts to incite the forces of evil against Jordan, following a course of direct revenge against the patient, steadfast Jordanian people with the aim of imposing siege, isolation, and boycott on Jordan to get it to change its positions and convictions.

We preferred to rise above the level of all the accusations being leveled against us and we continued to adhere to reason and wisdom in dealing with differences among the brothers. Yet, some people, who have not understood the meaning of rising above the level of trivialities and polemics, are continuing their unjust campaigns against us as well as their miserable accusations against our political position and mass media to the point of direct instigation to strike at Jordan. Moreover, they are also calling on the Crusader-Zionist alliance to take revenge against us.

Since some brothers, whom God gave wealth more than wisdom, do not understand that Jordan's position cannot be bought or sold and that in this impregnable Islamic Arab fortress are men who fulfilled their promises to God, they should, while the gathering of infidels fails to achieve any of its premeditated goals against the nation's present and future, examine their conscience and resort to reason rather than passion for vengeance, in light of the Arab and Muslim state of affairs as a result of seeking the help of foreigners. This may stop the current slide toward the abyss, put an end to tampering with the fate of the entire Arab nation, and prevent history's severe judgment of those who have enabled the Crusaders, after 800 years, to return anew to the land of Arabism and Islam.

PAKISTAN

Nuclear Program Not Compromised for U.S. Aid

BK0102131191 *Karachi DAWN in English*
31 Jan 91 p 16

[Text] Lahore, Jan 30—Pakistan has refused to accept the fresh American interpretation of the Pressler Amendment under which Islamabad would not qualify for the U.S. assistance in case it had the components of a nuclear device. Previously, the U.S. President was required to certify only that Pakistan did not have a nuclear device.

The Chairman of Pakistan Atomic Energy Commission [PAEC], Munir Ahmad Khan, told a news conference here on Wednesday that the United States had been duly informed that "we'll never agree to the enlargement of the scope of this amendment or else Pakistan would have to close down even its research programme for peaceful application of the nuclear technology."

Pakistan, he insisted, does not have a nuclear device and it would never compromise its nuclear programme for the sake of American assistance. "We cannot roll back. We can't give up our right to acquire nuclear technology. Aid or no aid, there will be no change in our nuclear programme," Mr Munir Khan declared.

He said to the first instance the Pressler Amendment was discriminatory, because it was applicable only to Pakistan. Still, he said, Pakistan had done nothing so far which could attract this amendment or disqualify it for the American assistance. Nothing has changed since October, 1989, when the U.S. President issued certification for assistance to Pakistan.

The only change that has taken place, the PAEC chief said, was in the American attitude. "The problem is not technical but political. We have become politically expendable. The United States no longer gives Pakistan the priority and importance it has been giving it in the past."

He made it clear that Pakistan would not open its installations to international inspection, specially those built through local effort and resources.

About the future prospects, he said it was quite possible that the U.S. would review its position. What had already been achieved could not be undone. The U.S. would have to adjust itself to the situation.

In another context, Mr Munir Khan said the U.S. had accepted Pakistan's point of view that Nuclear proliferation was a regional issue and it could not be contained just by containing Pakistan. "This is a significant step and a positive one." He said the U.S. would like to bring India into the non-proliferation, and it was already trying to persuade the Soviet Union to exercise its influence on New Delhi.

About the ratification of Indo-Pakistan agreement not to attack each other's nuclear installations, the PAEC Chairman said this was in bilateral interest and both sides would gain from it.

He said with this agreement with India, Pakistan's nuclear installations had become safe against aerial attacks, but intercontinental missiles from any other country could still hit them.

Paper Criticizes U.S. Aid Cut

BK0202130291 Islamabad THE PAKISTAN TIMES in English 2 Feb 91 p 4

[Editorial: "The Nuclear Alternative"]

[Text] Chairman of the Pakistan Atomic Energy Commission, Mr. Munir Ahmed Khan, has reiterated Pakistan's stand that it would not compromise on its nuclear programme. Speaking in the context of stoppage of U.S. aid, he said the U.S. President had issued the required certification about Pakistan's peaceful nuclear energy

programme in October 1989 but it was incomprehensible why such a certification could not be issued in October 1990. He said Pakistan remained committed to a nuclear-free South Asia but at the same time it would never accept any unilateral restriction on its peaceful nuclear programme.

Serious energy shortfalls have in fact been a major hurdle in the way of agricultural and industrial growth in Pakistan. The gravity of the energy problem faced by the country can be gauged from the fact that Pakistan is at present producing only 4,500 to 5,300 megawatts of electricity annually while its minimum current energy demand is 8,600 megawatts. Obviously, hydel [hydro-electric] -power the mainstay of the country's energy needs—is patently insufficient to bridge the growing energy gap. The energy position in Pakistan is gradually getting worse as a result of the oil supply crisis developing in the wake of the Gulf war. There is, therefore, no option left for Pakistan but to tap the inexpensive and inexhaustible nuclear energy source. Incidentally, China and France have offered to supply Pakistan with a reactor each of 300 and 900 megawatts respectively. It is estimated that the proposed 9000-megawatt French plant, when installed, would reduce Pakistan's oil imports by some 1.3 million tons, thus effecting an annual saving of Rs.[Rupees] 4,000 to Rs. 5,000 million in foreign exchange.

Islamabad has always willingly offered to sign the NPT [Nonproliferation Treaty] simultaneously with its neighbour and expressed its acceptance of full-scale safeguards or any other non-discriminatory measures which would ensure that nuclear weapons do not enter our region. However, the response from India has been invariably negative. India, which exploded a "peaceful" nuclear device in 1974, has lately inducted in its naval arsenal nuclear submarines as well. Obviously, the international strictures and restrictions on the nuclear issue are wrongly directed at Pakistan. The stoppage of American aid to Pakistan is one such discriminatory measure.

UN Envoy Demands Total Nuclear Test Ban

BK11010949 Islamabad Domestic Service in Urdu 0200 GMT 11 Jan 91

[Text] At the United Nations, Pakistan has demanded the conversion of the pact on the partial ban on nuclear installations into a total ban. Addressing a two week conference on the 1963 pact banning nuclear weapons tests in space, upper space, and the ocean, Pakistan's representative Ahmad Kamal has said the stand adopted by his country for nonproliferation of atomic weapons is comprehensive in every aspect. We wish that the current stance to prevent the proliferation of nuclear arms to made effective and stable. Ahmad Kamal has said the regional aspect of the issue of arms control is already there. On the global level, Pakistan supports the signing of a nuclear test ban treaty immediately. At regional level, Pakistan has welcomed the steps for the establishment of nuclear free zones to keep various areas free

from nuclear weapons. He said Pakistan has taken several steps to make South Asia a nuclear-free zone.

New Uranium Mining Technique Developed

*BK0102124591 Karachi DAWN in English
31 Jan 91 p 1*

[Text] Lahore, Jan 30—The Chairman of Pakistan Atomic Energy Commission, Munir Ahmad Khan, told newsmen here on Wednesday that the Commission had developed a new and less expensive technique, called "solution mining", for recovery of uranium from low-grade deposits in sandy rocks, where traditional mining methods are not applicable.

The technique involves drilling a number of holes and injecting a suitable solution into the ore bodies. This solution dissolves the uranium contained in the rock. Afterwards, the uranium bearing solution is pumped out. The recovery of uranium is then carried out by ion exchange columns at the site.

This method is particularly useful for low-grade deposits or where construction of underground tunnels for ore mining is not feasible or is costly. This situation prevails in a number of areas in Pakistan, such as the Bannu Basin and the Sulaiman Range, where considerable deposits of uranium are present.

The Atomic Energy Minerals Centre at Lahore has carried out extensive research and development work for recovery of uranium, using the solution mining technique. It has constructed a pilot plant in an area bordering the NWFP [North-West Frontier Province] and Punjab and significant quantity of uranium has been recovered by this method.

Further work is being carried out to establish the essential economic and technical parameters, so that it can be applied on a large scale.

Similar methods have been successfully applied for mining of copper and uranium in other countries like the United States and China.

This technique will also be helpful in mining gold and copper from the Saindak project in Balochistan.

Nuclear Reactor Capacity Said Doubled

91AS0509A Karachi DAWN in English 16 Jan 91 p 4

[Article: "Nilore Nuclear Reactor Capacity Doubled"]

[Text] Karachi, Jan 15: A completely redesigned nuclear research reactor will be operational by July-August this year at the Pakistan Institute of Nuclear Science and Technology, Islamabad.

The reactor, called Pakistan Atomic Research Reactor (PARR-I), will have a capacity of 10 mw and has cost Rs 50 million.

The chairman of the Pakistan Atomic Energy Commission [PAEC], Mr. Munir Ahmad Khan, told newsmen here on Tuesday that the reactor would be able to produce more radio-isotopes.

The reactor, which has been designed by Pakistani scientists with fuel fabrication work carried out by China, will remain under the safeguards system of the International Atomic Energy Agency.

The old reactor of 5 mw capacity was given to Pakistan in 1965 and was located at Nilore near Islamabad. Operating for two-and-a-half decades, the reactor stopped functioning some two to three months ago and was completely dismantled.

The entire financing of the new reactor has been done by Pakistan's own resources.

The PAEC chairman announced that the nuclear power reactor at KANUPP in Karachi was operating safely and during January to December 1990, it sold 419 million kw hours of electricity at highly subsidised rates to the KESC. The revenue earned during the year was Rs 213 million.

Mr. Munir Ahmad Khan said the reactor had been inspected by IAEA experts to ascertain its safety.

He said negotiations were continuing with China for the supply of a 300 mw reactor to be set up at Chashma in the northern areas of the country. It will be the first reactor to be supplied by a Third World country to another Third World State.

The PAEC chairman said Pakistani experts would leave for China next month to settle technical issues to be followed by commercial details.

Mr. Munir Ahmed said Pakistan would soon resume discussions with France for the supply of a 950 mw reactor, also to be installed in Chashma.

YEMEN ARAB REPUBLIC

U.S. 'Threat' To Use Chemical Weapons Viewed

*EA1002172391 Aden Domestic Service in Arabic
1800 GMT 9 Feb 91*

[Ahmed Fad'aq commentary]

[Text] Dear listeners, the latest threat about the possibility of using nuclear [as heard] weapons against Iraq was made by the U.S. envoy to the disarmament conference in Geneva. He said that his country did not rule out the use of chemical weapons in the Gulf war if Iraq resorted to them first. This threat [word indistinct] the fears shown by the peoples of the region that the United States might embark on this savage action. This statement confirmed statements made earlier by U.S. civilian and military officials, including Dick Cheney, the U.S. defense secretary, and before him Quayle, the U.S. vice president.

These announcements disappoint people and countries, and deepen their concern. These announcements, which in essence constitute arrogance and [word indistinct], confirm to what extent the United States shows its lack of concern for international law and the dignity of nations, as well as disrespect for the lives of millions of human beings.

There is compelling evidence to make people believe in the seriousness of U.S. intentions, when they look at the destructive weapons delivered by U.S. and allied forces on Iraq and the resultant destruction of civil installations, houses, residential areas, and establishments, as well as the killing of hundreds of civilians.

Military observers have estimated that the quantity of bombs and rockets that have been dropped on Iraq far exceed the volume and strength of the two U.S. atomic bombs dropped on Hiroshima and Nagasaki, two Japanese towns, in World War II. In spite of the fact that these estimates may be right, the Iraqi people have succeeded in standing steadfastly against the weapons of destruction and death and continue their resistance to aggression. This has thrown the United States, and Britain in particular, as well as their allies, into confusion. This has impelled U.S. civil and military officials to hint at the use of chemical weapons.

Surely everybody must be convinced that this U.S. stand constitutes a threat to human life and international security, because it comes from a superpower which is already using its great might against a small developing country like Iraq. It is not hesitating to destroy it and annihilate the landmarks of its existence. It is a paradox that the United States voices this threat at a time when it pretends to the world that it is concerned about international peace and law and is working for the establishment of law and order and the protection of human life.

Nobody can be convinced about the credibility of the announced U.S. stands, whether in the United Nations or official statements, as long as threats to use nuclear weapons against Iraq are made every now and then, thus placing the peoples of the Arab nation in a state of expectation of receiving strikes from weapons of destruction and annihilation.

Iraqi Missile Launchers Said Deployed in Yemen

*PM0702154791 London AL-SHARQ AL-AWSAT
in Arabic 7 Feb 91 p1*

[Unattributed report: "Opposition Front Confirms: Iraqi Aircraft and Missile Launchers in Yemen"]

[Text] London, AL-SHARQ AL-AWSAT—Citing its own sources inside Yemen, the revolutionary front for the liberation of the Yemeni people has confirmed that large numbers of Iraqi military and civilian aircraft are now in special workshops [wurush] attached to the airports of Sanaa, Ta'iz, and al-Hudaydah under the supervision of a number of Iraqi officers and pilots, there since before the Iraqi invasion of Kuwait.

The front says that an Iraqi military brigade supervised the deployment of Iraqi missile launchers in mountainous areas in the north of the country.

In a statement, a copy of which it sent to AL-SHARQ AL-AWSAT office in London yesterday, the front accused the special security organ supervised by Muhammad 'Abdallah Salih, brother of the Yemeni president, of organizing the gun and grenade attacks on the residences of the U.S., Japanese, and Italian ambassadors in the Yemeni capital recently.

The front's statement says that Iraqi intelligence officers are currently supervising the training and armament of the republican guard and security forces directly attached to Yemeni President Lieutenant General 'Ali 'Abdallah Salih, along the same lines as the Republican Guards protecting Iraqi President Saddam Husayn's interests. The front's statement emphasized that the two Iraqi ships which docked at Aden port in August and which the Yemeni Government said were carrying Iraqi oil for the refinery and were not unloaded because of commitment to the sanction resolutions, were in fact carrying large quantities of sea mines.

The revolutionary front had accused the Yemeni president's special security organ of assassinating Shaykh Ahmad Nasir al-Dhahab and Yemeni struggler Husayn al-Qadi and of attempting to assassinate Ibrahim 'Ali al-Wazir in 1988.

Space Expert on U.S. Missile Tests

PM1102153191 Moscow IZVESTIYA in Russian
11 Feb 91 Union Edition p 4

[Interview with Colonel Aleksandr Ivanovich Radionov, leading specialist with the USSR Defense Ministry's Space Units, by correspondent V. Litovkin, under the "Details for IZVESTIYA" rubric; place and date not given: "Patriot for Space; United States Tests New Antimissile Unit"]

[Text] In late January the U.S. Army's Strategic Defense Command staged an experiment during which the ground-based ERIS [Exo-atmospheric Reentry Interceptor System] unit intercepted and destroyed over the Pacific a ballistic missile launched from Vandenberg AFB, California.

Our correspondent asked Colonel Aleksandr Ivanovich Radionov, a leading specialist with the USSR Defense Ministry's Space Units, to discuss the background to the experiment and just what the ERIS antimissile complex is.

[Radionov] The ERIS combat complex is a land-based nonnuclear antimissile interceptor designed to destroy strategic missile warheads at altitudes of between 800 km and 100 km and at a range of up to 4,500 km. It can also be used as an antisatellite system to hit spacecraft in low orbits. It comprises a two-stage solid-fuel rocket based on the Minuteman I ICBM and a deployable nose section equipped with a multispectral homing warhead. Work is also under way to develop [sozdaniye] a cluster warhead. Missiles are downed by a direct hit.

[Litovkin] Does this mean that a kind of Patriot has been developed for space?

[Radionov] Undoubtedly. It is expected that the ERIS complex could enter service with the U.S. Army in 1994-1996. It is planned to have up to 100 missiles on combat standby. Although U.S. specialists believe that such a quantity is hardly enough to intercept a massive nuclear missile strike, it is very effective as an antisatellite weapon: It could hit 60-85 percent of spacecraft in low orbits.

[Litovkin] Can we consider that the first step has been taken toward the development of SDI? If so, how will ICBM's be intercepted and destroyed? How will the precise warhead that poses a real threat be "chosen"? After all, the rest could be dummies.

[Radionov] Yes, we consider the development of this complex to be a real contribution to the SDI system. This, incidentally, was directly stated by the country's President, G. Bush, in his 29 January address to Congress. In his opinion, a strategic defense system should include space-based components to defend against unsanctioned ICBM launches, and land-based complexes to defend specific ground targets. ERIS is an indispensable part of this complex.

The U.S. military department has asked Congress for \$4.5 billion for the SDI program in 1992, and I think that, following the successful interception of the ICBM warhead, it will get the money.

The interception took place at an altitude of 160 km in the region of Kwajalein atoll. The interceptor warhead was not equipped with explosives. It was fitted with a special umbrella-like device 4.6 meters in diameter, which unfurled a few seconds before impact, ensnared the target like a net, and destroyed it. Another curious point is that the closing speed of target and interceptor at impact was six km a second! The process was monitored [kontrolirovalsya] from on board a specially equipped aircraft. Another aircraft was used to determine the meteorological situation in the test area.

During the 30 minutes between the missile's launch from Vandenberg air base and its landing in the region of Kwajalein Atoll, space-, air-, and land-based systems tracked the ICBM and established its trajectory parameters. Incidentally, you can follow this process on the [accompanying] diagram. Real-time (that is, second by second) information on this was received by the North American Air Defense Command in Colorado Springs, California [as published] to work out target designation as the missile was tracked.

The "choice" of the right warhead was made by multispectral sensors in the homing warhead. In short, the highest standard of technical problem-solving was demonstrated at all levels.

[Litovkin] Is our country capable of carrying out similar missions?

[Radionov] I do not think so....

Talks Urged To Solve Korean Nuclear Issue

SK0502033891 Moscow International Service in Korean
1100 GMT 3 Feb 91

[Commentary by station commentator (Girey Nihailov) from the "Focus on Asia" program]

[Text] There was no concurrence for the nuclear safety issue to be discussed at the Pyongyang talks. According to Tokyo's allegations, the nuclear safety issue has been one of the factors that obstructs the normalization of relations between the DPRK and Japan. The basis of the issue is as follows: Pyongyang signed the nuclear non-proliferation agreement in 1985. The DPRK does not, however, allow on-the-spot inspections of the nuclear facilities by the delegation of the International Atomic Energy Agency.

Dealing with the issue carefully, some countries, including Japan, are suspicious of Korea that it may have initiated work of developing the nuclear weapons.

Saying that U.S. nuclear weapons have been deployed in the south of the peninsula, Pyongyang has been adhering to its position. This is also grounds for argument. It is

natural that the existence of the unsettled issue should break up the mutual confidence on the peninsula. The proposal put forward by Pyongyang for turning the Korean peninsula into a nuclear-free zone is to solve the issue, which is being supported by many other countries, including the USSR, China, and countries that have nuclear weapons.

The Soviet Union is willing to be cooperative in supporting the proposal for turning the Korean peninsula into a nuclear-free zone. In view of a concerned party's position, establishing a nuclear-free zone is an important factor to reduce confrontation and tension on the Korean peninsula. It will also be a positive process on the Korean peninsula.

I would say this given the relationship between the ROK and the USSR, and between the ROK and China, which are actively proceeding, and given the talks between the DPRK and Japan for the normalization of the bilateral relations, and given dialogue between the North and the South.

There was no contact between Pyongyang and Washington. The nuclear safety issue on the Korean peninsula is a difficult problem to solve. The U.S. and North Korean delegations held talks in Beijing, but this is not enough. Pyongyang suggests that it will expand contacts with the United States.

At the upcoming talks between the DPRK and Japan, the Korean side is going to ask Japan to mediate the talks between Pyongyang and Washington in solving the nuclear safety issue. The improvement of dialogue between Washington and Pyongyang will play a key role in solving other problems. Unexpectedly, the issue of Team Spirit joint military exercise, which have been conducted by the United States and the ROK for many years, will be coordinated.

Although Washington and Seoul try to scale down the size of the military exercise, the DPRK continues to regard it as an infringement on their country's security. In short, solving the difficult problems on the Korean peninsula depends greatly on the United States' attitude. Because of this, it is very important for Washington and Pyongyang to initiate dialogue.

Spent Nuclear Fuel Storage Facility Plans Scored

914H0081A Moscow VODNYY TRANSPORT
in Russian 15 Dec 90 p 2

[Article by V. Blinov, VODNYY TRANSPORT correspondent: "Is It Worth Speaking Straight from the Shoulder?"]

[Text] "We don't need these nuclear power stations. Dear, I have a television set and I can watch with a candle..."—this protest made by an elderly citizen against nuclear power was recounted to me with a smile by A. Tumparov, director of the Atomflot technological repair enterprise.

Alas, today Andrey Ivanovich much more often does not smile, but spreads his hands in bewilderment: where can we get it?

It would appear that the Murmansk community, after the splash of a wave of protest against construction of a temporary storage for the wastes of spent nuclear fuel, has arrived, as it is now fashionable to say, at a consensus. By decision of the oblast Council of People's Deputies, an independent interdepartmental commission was created for expert evaluation of the radiation safety of the objects. For six months, specialists, deputies and representatives of the public made a meticulous study of the project, the technical approaches and the perspectives for burying the wastes at the Atomflot RTP [technical repair enterprise]. A special ecological expert examination was made to determine the expedience of continuing construction of the temporary storage facility. V. Perovskiy, the chief opponent, leading specialist of one of the head scientific research institutes of the Ministry of Atomic Power and industry and member of the USSR Nuclear Society, whose article in the oblast newspaper POLYARNAYA PRAVDA started the wave of protests, was invited to participate in this work. Then, three days before the affirmative conclusion on the expedience of continuing construction was issued, there was an unforeseen turn of events. The session of the Leninskiy Rayon Soviet of Murmansk made a categorical demand: cease construction!

They forgot or did not wish to invite specialists to this session. Only two members of the commission, V. Garin and Yu. Mayevskiy, fishermen by occupation—captain and bo'sun—without notifying their colleagues for verification, brought down on the rayon deputies all their scorching protest. Passions ran high.... At times, hardly any of the appointed members of the commission were found attending the business investigation of the results of the board of experts, which lasted for a whole week. From time to time, for an hour or so, they appeared and made those attending blush with questions like, how was nuclear fuel distilled along the pipes, attesting to a complete lack of understanding of the matter, and then they vanished. What can you add here: what could be more serious than radiation safety, and it can be turned into a game of chance....

The legality of the decision made—the ban—arouses obvious doubts. In the first place, the territory on which the Atomflot RTP is located is not under the jurisdiction of the Leninskiy raysovet, but belongs to the Northern Fleet. In the second place, the question was posed by the deputies of the oblast Soviet, and they, as was said, did not speak from the shoulder and make it possible for independent experts (incidentally, there were neither representatives of the Ministry of the Maritime Fleet and the shipping company, nor, moreover, of the base itself among them) to make a serious investigation of the question. Finally, in the process of the study, the only alternative—transferring the base to the Nerpa Shipyard or somewhere farther away—no longer arose. In the situation that formed, none of the initiators of the

protest could suggest other variants, suitable but not hypothetical, for the fate of the temporary storage. Even V. Perovski, the main, and most important—competent—opponent, said, definitely, after the analysis made: "...the rejection today of construction of the storage at the Atomflot RTP is suicide. The existing technology for refueling ships of the Murmansk Shipping Company that have nuclear-power units is quite safe and does not lead to ecological consequences".

As I was becoming familiar with the materials of the expert examination and the minutes of the work meetings of the commission, I could not stop thinking: "Well, what would it cost those rayon people's deputies, if they are so very alarmed, to visit Atomflot at least once and see with their own eyes the subject of the dispute, and at the same time realize how a hasty decision can turn out." After all, the ban can bring only new alarms and problems to the city, the national economy of the oblast and the country.

This is the chain of events that is building up. Unless the shore storage is turned over by 1993, the storages on the auxiliary ships will be overfilled. This means that all the navigation measures taken to increase the safety of storing wastes on the water, at the disposal of the Ministry of the Maritime Fleet, will stop corresponding to an actual degree of risk. Today the Lepse, which has served as its collector of radioactive wastes, is reliably isolated, behind the cape of Pinagoriya, from accidental collisions with passing ships. You will no longer be able to hide the existing overloaded waste collectors by 1993. Moreover, all nuclear-powered ships will have to be laid up—it will become simply impossible to refuel their reactors, there will be nowhere to turn over the spent fuel. The nuclear-powered fleet will get out—the icy route of the North Sea route will almost fade away. How the inhabitants of the country's Arctic front will survive without its cargoes, God alone knows. In a word, the threat of an accident to ships with nuclear fuel wastes, swinging on a surging wave of the bay, is not diminishing, but is growing, and our northern economy is being fundamentally damaged.

The deputies ought to visit the base and discover something else for themselves. It appears that the Atomflot RTP has... a shore storage of radioactive wastes. Solid. Such as the processing equipment of reactors and compartments, remnants of resins.... Incidentally, the storage has not been completely told about. It is an extremely complex modern production facility, at which the screen collector of a nuclear reactor can be replaced. Here, in a special oven—the pride of the workers, the last word in technical progress—the wastes that are hardest to utilize are turned into ash and sealed up in containers. This storage has been in existence for five years—no protest arose. After a careful check, a Goskomgidromet commission came to the conclusion: everything was according to the norm. So why are all the sparks flying: it appears that storing radioactive wastes on shore can be reliable.

This "discovery" once again assures us: the hullabaloo about the construction of the new storage does not correspond in degree to its actual danger for the citizens. In itself, the people's anxiety for the future is understandable and justified. This is the result of the rise in public awareness, requiring that all the curtains of secrecy surrounding the phenomena troubling the population be removed. It is a good thing that we stop taking everything on faith. There would not be such a splash of anxiety about the present and the future, if to this day the secret of the Atomflot RTP were not concealed "behind seven seals." Public control has already played its role. The independent commission, after giving a "good" on the whole for continuing construction, justifiably posed the question of making additional calculations concerning the seismic safety, the effect of a shock wave if there were an explosion. The commission, however, confirmed the need to continue work on creating a regional storage, and then permanent burial of radioactive wastes. This is correct: in a situation such as working with the atom, additional insurance can only be of use. But you must not talk straight from the shoulder!

The deputies should visit the service base of the nuclear-powered fleet. So far, school children and I have been the only ones to come on a tour here....

'Informator-1' Communications Satellite Launched

*LD3001111491 Moscow TASS in English 1102 GMT
30 Jan 91*

[Text] Moscow January 30 TASS—The Soviet Union launched a communications satellite, Informator-1, with the Kosmos booster rocket on January 29.

The satellite carries experimental equipment designed to ensure prompt communication and the collection and transmission of information in the interests of the Soviet Ministry of Geology, other branches of the national economy and the further development of amateur radio communication.

The satellite was put into an orbit with the following parameters:

- Initial period of revolution—104.8 minutes
- distance from the earth's surface—1,000 kilometers
- orbit inclination—83 degrees.

The equipment installed in the satellite is operating normally.

The coordinating and computer centre is processing incoming information.

Yazov Denies Radioactive Waste at Sominka

*LD0502143591 Moscow TASS International Service
in Russian 1331 GMT 5 Feb 91*

[By TASS correspondent Viktor Troyanovskiy]

[Text] Novgorod, 5 Feb (TASS)—"The burial and storage of radioactive waste and of waste of chemical

and bacteriological production, by subunits of the USSR Ministry of Defense, at the Sominka halt, Khvoyninskiy Rayon, Novgorod Oblast, has not been carried out and is not being carried out at the present time." One would like to hope that such a categorical answer by Dmitriy Yazov, USSR minister of defense and marshal of the soviet union, to a question by Vladimir Averkin, a USSR People's Deputy from Novgorod Oblast, would reassure the local population. Especially as it was corroborated by the conclusions of the commission made up of deputies from rayon and rural soviets and specialists. The research undertaken by them has shown that the concentration of radioactive

elements in the air and soil in the region of the Sominka halt corresponds to normal background level.

A topic from the "600 Seconds" television program, communicated to millions of television viewers, about radioactive waste being stored in a sand quarry in Sominka was the reason for villagers' alarm and the deputy's question. A sensation, fortunately, did not occur. But an intelligible answer from its author—the television journalist Aleksandr Nevzorov—has not yet been successfully received.

AUSTRIA

Eight Firms Suspected of Sanctions Violations

91WP0062A Vienna DER STANDARD in German
22 Jan 91 p 13

[Article by Lydia Ninz: "Iraq Embargo: Public Prosecutor Investigates"]

[Text] Eight Austrian firms were reported to the police by the Ministry of Economics. They are suspected of having violated the trade embargoes imposed on Iraq and Kuwait since August, and having delivered goods to those countries.

Although Minister Schuessel, upon inquiry by DER STANDARD, confirmed the reports to the police, he was not to be drawn out about details as to the number and names of the suspects. Only this much: "I have given orders that the suspicious circumstances reported here and abroad be directly passed on to the state prosecutors."

It nevertheless leaked out that statements of the facts of the case were lodged against, among others, the Styrian Tieber trading company, the Viennese "Stalco" firm, and LIM headquartered in the Burgenland. The Ministry of Justice has handed the matter over to the state prosecutors.

The manager of Stalco, Iraqi Dhia Aziz Ghanni, was stabbed to death by his compatriot Hamed Abdul Hassan in Vienna in July. The firm, a subsidiary of the Hamburg Stalco Industrieanlagen GmbH, is suspected of being a cover firm of the Iraqi secret service.

On Schuessel's list appears once again Oskar Schmidt's firm, LIM, against which a criminal complaint was lodged a year ago because of suspected illegal arms exports to Iraq.

The "overseas trader" (according to TREND, Schmidt's self-description) lately created a media furor not only because a business deal worth 237 million schillings went bust—a tire factory was to be built near Baghdad. Schmidt also made headlines with lucrative real estate deals (Palais Harrach).

Tieber is a Styrian trading company with 22 employees which supplies spare parts for machinery, and also chemicals. Helmut Sammer, authorized signatory, dismisses the complaint as "nonsense." "We strictly observe the embargo, we do not even have an exchange of letters with Iraq," he protested upon inquiry by DER STANDARD. A responsible manager of the firm accompanied Waldheim on his latest trip to the Gulf region.

"Those guys still owe us a total of 60 million schillings from the past, which are in part covered by the control bank. We would be crazy to provide supplies illegally and without reinsurance by the control bank," says Sammer indignantly.

In the case of chemical supplies (mainly for water purification), the company, already in the inquiry stage, examines whether they could be used to produce chemical weapons.

The managers risk jail terms of up to two years, or fines up to 360 daily rates. It would be even worse if they had infringed not only against the embargo, but also against the war materiel law with arms exports.

Since August, an ordinance by Schuessel prohibits supplying Iraq and Kuwait with goods. Specifically prohibited are not only weapons exports, which require a license anyway, but also supplies of pants buttons, for instance.

"With our liberal foreign trade regime, we are not in a position to oversee observance of this ordinance," admits Schuessel. "Except in the unlikely event of the firms' declaring Iraq and Kuwait as target countries. We must leave it to the state prosecutors to examine suspicious circumstances."

By contrast, only two weeks ago Schuessel's ministry claimed that the problem was under control. "The trade embargo is being observed 100 percent," DER STANDARD was told by ministry officials upon inquiry.

According to Schuessel, hints of suspicion regarding embargo violations came from abroad as well as at home. The present list must not be confused with U.S. senator Jesse Helms' "watch list" made public a few months ago, in which, based on media reports, he also listed 13 domestic companies which allegedly supplied Iraq, just before the embargo, with weapons or related installations.

Incident at Nuclear Plant Not Reported

AU2801142091 Vienna DER STANDARD in German
28 Jan 91 p 1

["bra" report: "Incident in Dukovany Nuclear Power Plant Hushed Up"]

[Text] Vienna—Even before the cable fires in the CSFR nuclear power plants of Bohunice and Dukovany, a very serious incident that was not reported to the Austrian authorities occurred in Dukovany last December.

On 4 December 1990, after a switchboard error in a transformer station, three blocs of the nuclear power plant that were in full-load operation only avoided a runaway situation with difficulty. This was reported by the Brno newspaper LIDOVA DEMOCRACIE on 22 January.

FRANCE

Iraq Warned Against Use of Chemical Weapons in War*LD1102102591 Paris Domestic Service in French
0700 GMT 11 Feb 91*

[Statement by Pierre Joxe; place and date not given—recorded]

[Text] Pierre Joxe last highlighted the role of France in the allied coalition on TF-1, Television Network. The defense minister said the land offensive against Iraq will be the subject of consultation between President Bush and his main allies. Pierre Joxe also justified the refusal of France to resort to chemical weapons:

[Begin Joxe recording] Our parents and we as children feared chemical war and we thought chemical war was finished. In fact, international treaties signed by France, as well as by Iraq and more than a hundred countries in the world, ban the use of chemical weapons. France chose not to have chemical weapons. If Iraq thinks it can treat the coalition's forces like it treated those unfortunate Kurds who were gassed in their village, or the troops of the Iranian army sometimes consisting of children, it will make a big mistake. So, the use of chemical weapons by the Iraqi army would be an extremely serious phenomenon, more at a political level—one can almost say philosophical level—than a military level. This is why France has several times warned Iraqi military leaders that those who use chemical weapons—and they could be allowed by their superior command—will take personal responsibility. Their military dividends will not be worth it. It is not through the use of chemical weapons that Iraq can try or hope to resist for a long time. [end recording]

Firm Denies Supplying Scud Guidance Equipment*AU3101104891 Paris AFP in English 1038 GMT
31 Jan 91*

[Text] Paris, Jan 31 (AFP)—The French SAGEM company has denied that it had supplied equipment that might have been used in the guidance system of Scud missiles being used by Iraq.

The company, the Societe d'Applications Generales d'Electricite et de Mecanique (SAGEM), said late on Wednesday: "We formally deny that we installed or directly or indirectly supplied any guidance equipment of any kind to Iraq." In a statement on Thursday the company said that since its activities had been questioned several times in the press, it was repeating its denial.

Schmitt on Iraqi Nuclear, Chemical Potential*PM2901141891 Paris LE MONDE in French
27-28 Jan 91 p 4*

[Unattributed report: "Iraq's Nuclear and Chemical Potential Has Been Virtually Destroyed"]

[Text] "The Iraqis' ability to arm their Scud missiles with chemical components has not been proved," French Armed Forces Chief of Staff General Maurice Schmitt explained in Paris on Friday 25 January. However, it is "certain" that the Iraqis can use chemical weapons "launched from the air or using artillery." "We have planned for that," he added, "we will fight in a chemical environment." He did not conceal the fact that "Iraq has an army comparable with the Bundeswehr with regard to tanks and planes with, in addition, chemical elements. You cannot defeat a military power of that scale in 24 hours."

According to Gen. Schmitt, "Iraq's nuclear potential has virtually been destroyed and its chemical potential reduced by three-fourths." This level of destruction also applies to Iraqi communications and air defense networks.

"Time is on our side," the chief of staff explained, "and it enables us to save human lives. Our soldiers know that and Saddam Husayn knows it. He is exhausting himself without being able to recuperate, without being able to use an air force that is literally disoriented."

Estimating that allied aircraft have flown between 800 and 1,000 sorties [as published] to attack Iraqi targets on the ground, Gen. Schmitt said: "We plan to fly the Mirage F1-CR planes based in Saudi Arabia soon." The Mirage F1-CR planes, which are reconnaissance planes, four of which are based at Al-Ahsa, were banned from flying after carrying out several espionage missions along the border with Kuwait: Their resemblance to the Mirage F1 planes France sold to Iraq justified that ban.

Gen. Schmitt specified that, in addition to those Mirage F1-CR planes—the French fighter planes in Saudi Arabia comprise 26 Jaguar attack planes and 12 Mirage 2000 air defense planes. According to the Armed Forces Public Relations and Information Service, France has made more than 150 air "sorties" over Kuwait and Iraq since the start of operation "Desert Storm."

Schmitt Dismisses Chemical, Nuclear Response*LD0402152891 Paris Antenne-2 Television Network
in French 1200 GMT 4 Feb 91*

[Text] General Schmitt, chief of staff of the Armed Forces, held his daily press briefing this morning. He gave his detailed assessment to correspondent Francois Cornet. Gen. Schmitt said, as you will see, we are on the eve of a 6 June [1944] phase.

[Begin recording] [Schmitt] We are in a phase similar to that before 6 June. As for how long we have to go until 6 June, you will understand me if I do not answer you today.

[Cornet] Do you think that the Iraqis will use chemical arms in this conflict?

[Schmitt] There is no question about it in my opinion. They will use them. We are ready for this possibility.

[Cornet] How will you riposte? With chemical or tactical nuclear arms?

[Schmitt] Neither, I think, although we could do so. This kind of decision is made by the allies at the highest level. In my opinion, this will not prove necessary despite the fact that it remains possible, especially for the three allies which have these kinds of arms—France, the United States, and Great Britain. In any case, I do not believe strongly in the effectiveness of an antiferocious chemical attack, but we are ready for it.

[Cornet] Another question concerning the coverage of this conflict by the media. Everybody is doing a bit of misinformation, and everybody is orientating his information as he wishes. As for the French forces, do you think you are capable precisely of improving on the reports of the special correspondents on location?

[Schmitt] Well, this requires a combined joint effort. Each—namely the special correspondents and we—have to put our share of goodwill in it. Special correspondents must understand that precisely in a pre-6 June phase there are things that cannot be said, and that we should, on a local basis maybe, make some contacts possible with our units so that the French people can see that our soldiers are holding up well. [end recording]

EDF Considers Converting Nuclear Plants to Gas
91WP0053A Paris LE MONDE in French
12 Dec 90 p 21

[Article by Veronique Maurus: "Major Change in Strategy for Equipping Power Plants: EDF May Convert Old Nuclear Plants to Gas"]

[Text] The EDF [French Electric Power Company] is thinking of converting its old nuclear power plants to natural gas. The idea may a priori appear absurd. It is, however, being studied very seriously by the company's directorate of equipment, whose new director is a defector from the French Gas Company [GDF]. This did not happen by chance, in view of the fact that it marks a complete reversal of EDF's equipment strategy.

After concentrating all their efforts for more than 20 years on replacing thermal electric power plants with nuclear power plants, EDF is planning henceforth to diversify its network of plants by utilizing all sources of energy and all available techniques, in order to meet the projected new demand between now and 1995. Without renouncing nuclear power—of which it had become one of the top specialists in the world—the company is in this way gradually leaving the nuclear "monoculture."

With a view to diversifying its electric power network, EDF is carrying out a number of studies, in particular the one undertaken in conjunction with the French Agency for Energy Management. That study explores the possibility of converting the old nuclear reactors in accordance with the so-called "repowering" techniques—to use electrical engineering jargon—and is expected to be

completed by next spring. It concerns all the old gas-graphite reactors that have either already been shut down—such as the one at Chinon—or are in the process of being shut down, such as those at Saint-Laurent-des-Eaux and Bugey.

"The idea," explains EDF President Pierre Delaporte, "is to reutilize the electrical portion of the old power plants—which wears out less slowly than the nuclear boilers—by introducing new sources of fuel supply and in particular by introducing gas turbines that operate in the so-called combined cycle mode."

The conversion of the Saint-Laurent-des-Eaux site—where the four nuclear blocks of 250 megawatts each would presumably have to be definitively shut down by 1995—offers an additional advantage because that site is located near the gas-storage site at Chemery.

The technical difficulties of such an operation, however, are not inconsiderable. It would, in fact, be the first time anywhere in the world that an old nuclear power plant has been converted to gas, inasmuch as the only known precedent was in the United States and involved a nuclear plant that had never been in operation. It remains to be seen at what price the gas required would be sold. The EDF and GDF [French Gas Company] have already held discussions on this thorny question, with the EDF desiring a preferential rate that is more or less pegged to the price of coal and the GDF arguing that it is dependent on its own suppliers and that deliveries would not be spread throughout the entire year but concentrated in certain peak-use periods.

Energy That Is Clean and Profitable

The power plants thus converted would not actually be intended to supply electricity for ordinary levels of consumption—as the nuclear plants do—but for consumption during peak or semi-peak periods. EDF—which has seen its "surplus capacity" used up by the increase in its sales—must meet the increasing demand for electricity during peak periods, given the fact that consumption rises in the winter because of electric heating. "By 1995 or 1996 our network will no longer be in a state of imbalance," Delaporte explains. "Over the next three years we must accordingly be prepared to make the investment that is necessary—among other things—to meet the demand during peak periods."

The fact is that gas—particularly with the new combined-cycle turbines—is a much more flexible source than nuclear fuel, and because it entails less burdensome investments remains profitable even for relatively brief periods of utilization (from 500 to 1,500 hours per year).

This is one of the reasons why the use of gas to produce electricity—a method already in widespread use in Japan—has been developed at a rapid pace over the past several years in the United States and in Europe. Gas—as a source of "clean" energy—has profited from the disappointing performance of nuclear fuel and coal in most Western countries.¹

Italy, which lacks nuclear power; the Netherlands, which is endowed with natural gas resources; and also Great Britain, Spain, Portugal, Belgium, and most of the EEC countries all have projects underway in this area. As a consequence, after having prohibited—at the height of the first oil shock—the construction of electric power plants fueled by gas, the European Community recently decided to rescind this directive with the aim of removing the obstacles to the expansion of the use of natural gas in the electric power sector.

It was difficult for France to remain totally outside this movement, even if the importance of the nuclear network restrains demand and leaves to "traditional" energy sources a role that is inevitably of only marginal importance.

This time, however, the movement appears to have been launched in France. In addition to conversion of the old nuclear sites, EDF and GDF are considering entering into a partnership to monitor the development in France of "cogeneration"—a technique already developed on the other side of the Atlantic that permits industrial users simultaneously to produce electricity and heat in a small installation fueled most often by gas. Finally, the construction of new gas-fueled electric power plants on new sites—still to be selected—is also under consideration.

The two firms have created a joint working group charged with studying possible applications of gas to electric power production; medium- and long-term requirements; and the location of the new units. "EDF and GDF will in the future have opportunities to cooperate other than in the sector of distribution," GDF President Francis Gutman explains.

Footnotes

1. LE MONDE will publish a report on gas in its forthcoming 18 December supplement "Economic Areas."

Blayais Plant Accident Contaminates Workers

91WP0053B Paris LE MONDE in French
6 Dec 90 p 47

[Text] Seven EDF [French Electric Power Company] workers at the Blayais nuclear power plant in Gironde Department were accidentally contaminated on Tuesday 4 December. According to the management, the accident occurred during the replacement of a defective leakproof joint on an airtight container intended for the transportation of radiated fuel to the reprocessing center at La Hague.

Twelve fuel components had just been loaded into the container when, as the management explains, "a check revealed a defect in the leakproofing of the cover joint, which had to be replaced." During this operation a hose became decoupled, releasing some contaminated air. According to the medical examinations made at the

plant, five workers received approximately one-thirtieth of the maximum permissible annual dose and the other two received one-tenth. All the workers have gone back to work. The EDF insists that the accident had "no effect on the outside environment."

GERMANY

German, U.S. Firms Accused of Iraq Arms Deals

Lax Export Controls, Dual-Use Technology

AU0502204191 Hamburg DER SPIEGEL in German
4 Feb 91 pp 33-35

[Unattributed report: "Nerves Laid Bare"]

[Text] The British engineer Chris Cowley was ecstatic. The plant was "absolutely brilliant," an "ideal construction," he stated enthusiastically. There was always sufficient money. He had never seen anything comparable anywhere in Europe.

That was how the weapons expert described the situation in the town on the Tigris, Mosul, a few months ago, where he participated in the largest military research program in the Middle East.

Thus, the Dr. Mabuses from the West [criminal scientist from German film] worked with their Iraqi assistants, shielded from nosy people, on the huge complex protected by missiles and guards. An Israeli Phantom aircraft was downed during a reconnaissance flight in 1986.

The Phantom aircraft could at least have provided pictures of the outside of the giant witches' kitchen comprised of 78 laboratories. In some research centers, chemical engineers and technicians allegedly experimented with nerve gas and culture mediums for biological weapons.

Antitank missiles were tested in firing tunnels, propellant charges for modified Scud-B missiles were developed, and small missiles and warheads with highly explosive ammunition were built. In other laboratories, nuclear physicians were developing plants for the construction of the atomic bomb, and ballistics experts experimented with a model of the legendary supergun. Cowley allegedly helped build the giant mortar [moerser] for the gun.

All that probably no longer exists. The project called Saad 16 was one of the main targets of the allied forces. Eyewitnesses spoke of particularly heavy damage.

However, the Mosul case has not yet been settled. The affair must now be dealt with legally, and that is taking place in the FRG. The main contractor of the project involving 1.6 billion German marks [DM] was the Bielefeld-based Gildemeister Projects GmbH company (Gipro), a subsidiary of the tool manufacturer Gildemeister AG.

Investigations of Gipro have been under way since March 1989. Innumerable files were examined at the public prosecutor's office in Bielefeld. The prosecutors checked over 1,600 individual contract items. In every individual case, officials had to examine whether the company had obtained an export permit.

The outcome of nearly two years of investigations will lead to an indictment. However, in view of the enormous volume of the investigations, the two offenses that will be prosecuted seem to be of a minor nature: There were no certificates for a computer with a spectrometer and a small computer.

As a matter of fact, the companies involved would already have been indicted, but the Bonn Economics Ministry, whose Federal Economic Office in Eschborn generously permitted the export with the exception of the computers, objected. The ministry in Bonn urged an extension of the indictment—a novelty in Germany's arms export policy.

The officials in the ministries adopted a new strategy. The negative certifications required for such exports were apparently merely a formal matter. The export of important parts was declared unobjectionable without lengthy procedures. It was easy to obtain export permits for so-called dual-use goods that can be used both for military and civilian purposes. Officially, they were always destined for research projects.

This was no coincidence and apparently not the deed of a corrupt or lazy official either. Saddam Husayn's pet project enjoyed large-scale support in Bonn. It is characteristic that the state-owned Fritz Werner Industrial Plants GmbH company had a good chance at getting the order for the Mosul project, which involved millions of marks, instead of Gildemeister. However, the Hesse-based company withdrew its offer shortly before the signing of the contract because it did not want to offend its good customer Iran.

Gipro has denied any evil intentions to this very day. That is somewhat nervy, because the deal was not exactly characterized by correctness. Measurements and weights were reduced in the export applications, and descriptions were changed. According to intelligence service agents, there were two different delivery lists in Iraq and in Germany, which caused confusion sometimes. The German list was much more general, and the list for Iraq included an exact description of the purpose. Documents show that it required numerous clarifications.

Sometimes Gipro simply changed the export documents and told the Iraqis: "The equipment that will actually be supplied will conform to the original contract." (DER SPIEGEL 5/1991)

The deal went off smoothly, despite a warning by Israel concerning the military character of the plant. The project was only stopped in 1987, and as of 1988 all applications submitted were rejected, and in May 1989

permits granted earlier were withdrawn. At that point, Saad 16 was already an exemplary military enterprise.

After the Bonn Foreign Ministry had submitted an expert report to the Public Prosecutor's Office, claiming that Germany's foreign relations were considerably damaged in two cases through Saad 16, the Economics Ministry finally intervened: In at least five major cases, including significant missile projects, the control authorities were deceived by Gipro. The enterprise obtained the export licenses by giving false indications.

The prosecutors were surprised about Bonn's objection. The public prosecutors think they know better. As a matter of fact, they are also in possession of the apparently falsified documents, but after careful examination of the files they came to the following conclusion: The documents furnish conclusive evidence that Bonn knew about the actual deliveries. If that is true, the government will have to draw the consequences and take actions concerning personnel.

The case also shows clearly that the subcontractors have nothing to fear if such a huge project is involved. As a matter of fact, charges have been brought against "Gildemeister and others," but none of the numerous German firms involved, or the 38 German companies that organized the training program in Mosul are facing punishment. The trial against "others" will be dropped.

The Daimler-Benz subsidiary, Messerschmidt-Boelkow-Blohm, in particular, which has fallen into disrepute internationally, comes off well. The reputation of the president of the Employers' Association, Klaus Murmann, will not be damaged either. As a matter of fact, the Sauer Informatic GmbH company from Neumuenster, managed by Murmann, supplied a DM10-million computer plant for the Saad 16 project.

The subcontractors affirm that they did not know exactly what kind of project it was. They did not know any details. Only Gipro was informed.

Some of the stockholders apparently believed that Gipro knew too much. Some of them withdrew from the project—naturally for economic reasons. First, the West German Provincial Bank sold its 10 percent share of stock to Gildemeister, and later the Murmann family also sold its 17 percent share, and finally the largest foreign stockholder, the U.S. company Litton Industries Inc. of Beverly Hills withdrew from the project.

The U.S. company bought stock from Gildemeister in 1984, the first year of the Mosul project, and offered his 14.3 percent on the stock exchange in 1989, two months after the opening of investigations. Litton had quadrupled the sum he originally invested in five years.

During the trial, more details that are unpleasant for the Americans may emerge. U.S. companies are involved in deals with Saddam's businessmen to a greater extent than originally assumed.

According to experts' estimates, U.S. enterprises delivered 40 percent of the high-tech equipment for the Saad 16 project. Renowned companies such as Hewlett Packard and Electronics Associates participated in the project. Despite the ban of the delivery of a large computer for Saad 16 issued by the U.S. Defense Department in 1986, the U.S. Commerce Department approved the delivery in February 1990.

Between October 1986 and August 1990 alone, the U.S. authority granted 500 permits for the export of dual-use goods to Iraq. The exports involved \$728 million and included highly sensitive goods, such as a flight simulator and high-tech electronics equipment.

The authorities in Bonn have for a long time been annoyed about the fact that the United States, which supplied satellite photographs to Saddam during the first Gulf war and which delivered a considerable portion of murderous hardware to Iraq, now constantly harps on German companies. Particularly the numerous U.S. allegations concerning alleged violations of the embargo have laid bare nerves in Bonn.

Thus, it was hardly a coincidence that a German television team appeared when a mass spectrometer made by the Thermo Jarell Ash Corporation from Massachusetts, destined for Iraq, was seized at Frankfurt Airport, and that the camera showed the shipping documents.

Sometimes it is even difficult for experts to maintain their orientation in view of the numerous shady dealings with Saddam. A sextant seems to be required. Thus, the Hamburg-based navigation company C. Plath is suspected of having built several gyro compasses for the Iraqi Scud-B missile. The order involved tens of millions of marks.

However, the enterprise, which is over 100 years old, pretends not to have known anything, and that strategy will probably also be adopted by its mother company, the former majority stockholder of Gildemeister: Litton Industries of Beverly Hills.

Havert Confirms Supplying Scuds

*LD0502131191 Hamburg DPA in German
1202 GMT 5 Feb 91*

[Excerpt] Neu-Isenburg (DPA)—The Havert company in Neu-Isenburg near Offenbach in Hesse today admitted having supplied material and equipment for the construction of the Iraqi Scud missiles. However, Managing Director Guenther Paul declared at a news conference that the company did not know that the project number 144/5 was the Iraqi missile project. "Do you think that a trade company each time asks the client what the material supplied can be used for," Paul said. Paul continued to deny having delivered valves to increase the range of Scud missiles. [passage omitted]

Sales to Iraq Reported

*AU0502153091 Hamburg DER SPIEGEL in German
4 Feb 91 p 34*

[Unattributed report: "Stay Out of It"]

[Text] "He is a strong man for whom it is worth fighting," entrepreneur Anton Eyerle, 67, says about Iraqi head of state Saddam Husayn. For years the former National Democratic Party politician Eyerle concluded comprehensive deals with the Iraqi military ("They are people who still have character").

In the office of the head of the Rhein-Bayern Fahrzeugbau in Kaufbeuren, Bavaria, there is a converted "people's receiver" [radio from the Third Reich]. On a tape recorder concealed there, Eyerle likes to replay booming speeches by Adolf Hitler. The gaunt Eyerle, who served in Hermann Goering's Luftwaffe, is enthusiastic about warlord Saddam: "This is as it was in my youth."

Such empathy has brought the Rhein-Bayern Fahrzeugbau, Gewerbestrasse 61, big business orders over the past 10 years. From the Allgaeu region, the medium-size enterprise delivered vehicles with "special superstructures" all over the world.

In 1982 the Iraqis ordered Rhein-Bayern to mount a box-like superstructure on normal Daimler-Benz trucks. It hid a battery of compressed-air bottles, which are controlled via an independent filling system. As the main contractor, the Munich company Bauer-Kompressoren delivered, with an official permit, the technical equipment for the "special bottle transporters" from Kaufbeuren.

Eyerle's business partners told him that the compressed air with a pressure of up to 350 bar is necessary for "airplane take-offs." In fact, the compressed air is used for the quick take-off of combat planes. Deliverer Eyerle claims that he learned about the military purpose of his vehicles only through a phone call by the Munich public prosecutor. In total, 175 Daimler-Benz vehicles with compressed-air bottles were delivered for the air war in the Gulf.

One year later Eyerle received another large-scale order from Baghdad. Against tough Italian competition, the former representative of truck constructor Magirus-Deutz mediated the delivery of 700 ambulances. A complete medical station for four patients was built on the chassis of cross-country Magirus-Deutz trucks for "extreme use."

Three prototypes of the four-wheel transporter were previously tested in northern Africa by the Magirus-Deutz vehicle concern from Ulm, which is called Iveco Magirus AG today. However, in the view of experts, the medical vehicles, which were marked with a red crescent for export, served completely different purposes: The robust vehicle is used for troop transports in the sands of

the desert. In 1988 Baghdad ordered another 263 ambulances. "The equipment," Rhein-Bayern says in its advertisement, "is coordinated individually with the client."

And, according to company head Eyerle, the most sensitive order to Rhein-Bayern also served purely civilian purposes. But he stalls: "Stay out of it." During a visit to Iraq, which Saddam's friend may visit without the visa that is usually necessary, he got to know the local representative of the Karl Kolb company from Hesse at the Baghdad International Hotel. The company for "scientific laboratory equipment" from Dreeich is accused by U.S. and German authorities of having participated in the construction of poison gas facilities in Iraq.

In March 1982 a leading employee of Rhein-Bayern went to Kolb in Dreeich at Eyerle's order. There he discussed with Iraq expert Klaus Fraenzel the equipment of eight mobile "toxicological laboratories." A person who was involved in the talks recalls that the Kolb associate did not want to give "any further details" about the use and purpose of the mobile chemical laboratories.

In the same year Iveco Magirus, as the general contractor, delivered to Kaufbeuren for the Iraq deal eight vehicles "with military varnish" and tires usable in the Sahara. The Eschborn Federal Economic Office had previously approved the export to Iraq.

With the assistance of an English Kolb engineer, who had come just for that purpose, the sand-colored 16-tonne Magirus trucks were equipped with a complete laboratory. According to an examination of the construction plans by the German Society for Chemical Apparatuses in Frankfurt, information available to DER SPIEGEL, they were "laboratories for standard analyses."

However, with this it is also possible to detect and investigate chemical and biological combat agents from nuclear, biological, and chemical troops. On the Rhein-Bayern premises, Bundeswehr experts looked at the eight poison laboratories, which cost 280,000 marks each and which were shipped via Bremen to Iraq in 1984. Eyerle: "My client was in Ulm. It was purely a domestic deal."

Nevertheless, shortly afterwards a Rhein-Bayern engineer repaired the water system of the chemical laboratories in Iraq, which were located at a closed military camp. Says Ernst-Ulrich Kuhlenschmidt of Iveco Magirus: "With this it is possible to analyze samples of air, water, soil, or foodstuffs."

Near the end of 1987 the human rights organization "Society for Endangered Peoples" in Goettingen passed on the first clues concerning the potential combat agent laboratories from the Allgaeu to the Darmstadt Public Prosecutor's Office, which filed the material away. Three years later the investigators went to Rhein-Bayern.

Ex-GDR Firms Accused

AU0502134591 Hamburg DIE WELT in German
5 Feb 91 p 5

[Ralf Freitag report: "Military Help for Iraq Also Came from Thuringia"]

[Excerpt] Bonn—Until last June, Iraq received large quantities of weapons and weapons components from enterprises in the former GDR, and—in particular from Thuringia—"equipment that can be used for combat," Matthias Buechner, chairman of the Thuringian group of New Forum and a deputy in the Erfurt legislature told DIE WELT yesterday.

Matschenz, the head of the exports department of the Engineering-Technical Foreign Trade GmbH [Ingenieurtechnische Aussenhandels-GmbH], confirmed to DIE WELT that field messes, repair and maintenance vans, as well as "large amounts of" communications field wires were delivered to Iraq in the past few years. However, there have not been direct weapons exports to Iraq. Engineering-Technical GmbH used to be one of the most important arms exporting enterprises of the former GDR. Matschenz admitted that last year the Dresden aircraft yard was still maintaining and repairing Iraqi MiG-21s and 23s.

At question time in the Thuringian body, Minister President Josef Fuchac expressed the suspicion that arms or arms components were supplied to Iraq from Thuringia. He mentioned the Carl-Zeiss-Jena company and the hunting weapons factory of Suhl.

The management of the Jena company has meanwhile stated that target systems for Soviet-made tanks, which the enterprise used to produce, as well as control systems for air-defense missiles were not supplied to Iraq. However, it was added that in the fall of 1989, "microscopes, measuring technology, and spare parts worth some 100,000 clearing marks" were supplied.

The manager of the Suhl weapons factory, Rolf Koelner, also denied supplying weapons to Iraq. [passage omitted]

GDR Supported Iraq's Chemical Weapons Armament

AU0502113091 Berlin DER MORGEN in German
1 Feb 91 p 4

[ADN report: "For Dollars the GDR Let Ethics Go Down the Drain"]

[Text] Berlin—From 1980-87, following the model of a poison gas facility of the National Peoples' Army [NVA] in Storkow in the GDR, East German experts built a chemical test site near Baghdad, where GDR military unscrupulously passed on their experience with chemical weapons. By means of the transfer of know-how Honcker's government, which was greedy for foreign currency from the very beginning, hoped to be able to

benefit from Iraq's "slumbering economic power." For Iraqi petrodollars the GDR let all ethics go down the drain.

"In the Arab area we have always had problems standing up to Western competitors," retired Colonel Herbert Mueller recalls, who was responsible until September 1990 for all GDR military attaches stationed outside Europe. In an interview with ADN, he denied however, that the NVA "armed" Saddam Husayn, whose "desires for aggression" were known to the GDR military.

Karlheinz Lohs, professor for disarmament and chemical weapons in Leipzig, does not believe this version. After a reception by the GDR military attache in Baghdad in spring 1972 he was invited by members of Husayn's general staff. "After my lecture a general stood up and said ... we Germans had so much experience in gassing Jews and what did I think of how this experience could be used for destroying Israel." The GDR Foreign Ministry never reacted to his report about this—as Lohs said—"shocking" incident.

Lohs probably did not properly read Honecker's mouth-piece NEUES DEUTSCHLAND. In October 1971 GDR Defense Minister Heinz Hoffmann returned from the first and only visit by a GDR military man to Iraq with great euphoria: "It was often said that our success was their success and the other way round. Everywhere it was stressed by the people we spoke to and, of course, also by us that the Middle East and Central Europe are two important areas of a unified struggle, the struggle against imperialism."

According to Mueller, Iraq subsequently demonstratively turned a cold shoulder to the GDR; for instance, the military visit was not returned. At the beginning of the war against Iran in 1980 "normal relations" were reestablished, which, however—and the chief military attache claimed not to have heard about this—also included the training of combat swimmers [Kampfschwimmer] in Iraq as well as aid for modernizing Soviet Scud-B missiles. "Of course, I cannot rule out that the State Security Service and Schalck-Golodkowski's Commercial Coordination organization also worked with Iraq, apart from us."

As insiders noticed, when leaving the NVA at the end of September, 1990 high-ranking NVA officers had to state in writing to the Bundeswehr that they would not talk about "sensitive service secrets."

The then management of the Engineering Technical Foreign Trade organization (ITA) also insisted on its "duty of secrecy" when the Kuwait crisis broke out. As an arms trading company, ITA was subordinate to Foreign Trade Minister Gerhard Beil, whose sphere of responsibility also officially included the Commercial Coordination empire. Until the end the GDR exported one-tenth of its arms production, which was not needed at home.

Reports on Aid to Iraqi Missile Program

DER SPIEGEL Report

AU2901221591 Hamburg DER SPIEGEL in German
28 Jan 91 pp 3, 4

[Unattributed report: "My Cousin in Baghdad"]

[Text] The rooms in the dreary high-rise office building in Neu-Isenburg looked like a missile workshop. The investigators found drawings of kerosene tanks, testing stands, propulsion parts, and stabilizers.

The investigators soon realized whose orders the technicians in the small town in southern Hesse were carrying out: The files contained 300 thick folders of correspondence with Arab countries. Saddam Husayn's weapons purchasers were their partners.

The question as to what service the Havert Consult Project Engineering company at 61 Herzogstrasse in Neu-Isenburg provided to dictator Husayn was easy to answer after a search of the stores last week: The investigators found a National People's Army leaflet. It contained instructions for the assembly of the Russian "Scud-B" missile—the model of the missiles with which Husayn is now terrifying Israel.

For nearly a decade the small enterprise apparently helped Iraq unimpeded to build its missiles. It was only one of many companies.

Intelligence services and governments are currently preparing lists of companies that participated in Iraq's Scud-B program. It has so far not been possible to determine the exact share of development aid from France, Italy, Great Britain, and Brazil. However, one thing is certain: The Germans were the most important helpers. Public prosecutors have meanwhile discovered blueprints for the complete Scud-B missile in the former GDR. Weapons specialists of the Federal Office for the Protection of the Constitution proceed from the assumption that the Soviet missiles were for years built in the former GDR for Iraq on the basis of such documents. If this is true, the vague estimates of the allies concerning Saddam's Scud arsenal are probably far too low.

As the Bonn Economics Ministry stated in a confidential report last August, in West Germany it was primarily "medium-sized German enterprises" which, with entrepreneurial spirit and business sense, helped place Israel within the range of Iraqi warheads.

West German companies competed with their offers to supply missile technology to the Arab dictator. The former weapons dealer, Friedrich Simon Heiner, for example, provided missile parts to Baghdad through the Inwako GmbH company in Bonn. Investigations are also under way against his Kiel partner, Klaus Weihe, who apparently wanted to supply tubes and machine parts to Iraq through a Jordanian firm last August before the embargo was imposed.

People know each other in this line of business. Heiner had contacts with a renowned company for navigation plants and electronic components, C. Plath KG in Hamburg. Customs investigators paid a visit to that company last September. It is believed to have been working on an order for the Iraqi missile program involving millions of German marks [DM].

The Hamburg enterprise is also suspected of having built gyrocompasses for the Iraqi Scud-B missiles. With the help of such compasses, the flight path of missiles can be corrected.

The company had declared the instruments as locating equipment for oil drilling. However, technicians were irritated by the fact that the assembly instructions were written in Russian.

An inquiry is also in process against the entrepreneur Werner Beaujean from Stutensee near Karlsruhe and the Tramic Industry Foreign Trade company near Neu-Isenburg. Manager Eberhard Hesse-Camozzi is believed to have organized missile deals with Iraq. The missiles were mainly built with the help of dealers. They bought parts from well-known concerns. Sometimes the big companies carried out such deals directly.

Thyssen Industrie AG, for example, wanted to supply 300 so-called two-component pumps for the propulsion of the Scud-B missile to Iraq. The pumps inject the different fuels into the motor of the missile. Thyssen Industrie had already built the first 25 turbo pumps at the Witten-Annen works and sent them to Baghdad.

However, in June 1990 the managers terminated the program. The deal had become too hot.

The Bochum public prosecutor is investigating that case now. It will probably be difficult for Ulrich Berntzen, a member of the managing board of Thyssen Industrie who is responsible for that area, to claim that he did not know anything because the drawings for the pumps came from Iraq, and the producers hardly had any doubt as to the future use of the equipment.

Saddam Husayn would hardly have been able to build his missiles without Western technology. Considerable expenditures were necessary to modernize the estimated 1,000 outdated missiles supplied by the Soviet Union and North Korea, which only had a range of 300 km and were not very accurate.

The Iraqi Scud missiles now have a range of 600 km, which is sufficient to threaten Israel. The "al-Husayn" is a modernized version.

A more sophisticated version is the "al-Abbas" missile, which allegedly has a range of 900 km. Such a range is possible because of special fuel tanks. These missiles are apparently also of German origin.

The codes 1728 and 144—the names of projects involving the conversion of the old Scuds—were known to several German companies. Most of the Scuds were

converted in the Iraqi town of al-Fallujah west of Baghdad where, according to information received by intelligence services, mainly North Koreans and GDR specialists assembled the missiles.

The fact that the Germans received so many orders was not only due to their high-class workmanship. It was also due to Lieutenant General Amir al-Saadi, who was in charge of all missiles and poison gas projects.

The deputy industry minister studied in the FRG in the sixties, speaks German fluently, and is married to a German. He organized the translation of most of the assembly instructions from Russian into German—as a reading aid for the helpers.

The friend of the Germans, al-Saadi, is also in charge of Project 395. That is the code for a project under which weapons specialists are trying at three worksites south-east of Baghdad to extend the two-stage "Condor II" missile developed by the Germans by another stage. However, the new super weapon (1,200 km range), which would have been able to transport small weights into space, was not yet completed when the war broke out.

No wish of the Iraqi ruler was apparently too megalomaniacal for the Germans to fulfill: Iraq even got construction drawings for the propulsion mechanism of the new European "Ariane" rocket, whose start is planned for 1995. The propulsion mechanism was built by Thyssen-Wagner in Dortmund.

Such deals were apparently made possible by the generosity with which FRG politicians and authorities viewed the transfer of technology to Iraq for many years. During the war with Iran, some even considered it opportune to support Saddam against the dangerous Iranian Khomeyni. West German authorities must have felt encouraged to loosen the controls of the arms export law when they heard the liberal economic expert Graf Lambsdorff swagger publicly about double standards of missiles deals.

"If your opinion would prevail, my late brother-in-law who helped the Americans fly to the moon, would be punished and imprisoned," the FDP [Free Democratic Party of Germany] leader told SPD [Social Democratic Party of Germany] Deputy Norbert Gansel in 1989, who criticized weapons exports.

Lambsdorff showed particular naivete when he defended weapons exports: "As is known, missiles can also be used for peaceful purposes. They can be used to launch satellites, for example."

What the Germans caused with their exports will probably not become completely clear until ground combat starts at the Kuwaiti border.

Baghdad will probably use BM-21 missile launchers. It is a terrible weapon. Arranged in batteries, they can launch 500 missiles within a very short period, completely

covering an area. Many of them are filled with poison gas, which was produced with German help.

The most recent findings have revealed that tens of thousands of shells and short-range missiles were filled with the deadly poison at the chemical plants of Samarra, which were essentially built by Germans.

At the plants supplied to Samarra by the Karl Kolb GmbH company from Dreieich in Hesse, the warfare agents tabun, mustard gas, and the blood cell poison prussic acid were produced over a period of at least three years. The quantity is estimated at 700 kg per shift; five liters are sufficient to fill one shell.

The filling plant is located 2 km from the poison gas plant, at the edge of the factory's premises. Shell bodies and small missiles (120 and 122.4 calibers) were filled with poison gas—with German high-class workmanship.

The Hamburg company Water Engineering Trading (W.E.T.) also supplied a screwing pipes plant to Samarra, suitable for opening and closing the missiles. Filling equipment worth DM7 million, also delivered by W.E.T., introduces the gas into the shell bodies.

Whereas the shells and missiles were formerly supplied with the teflon coating, known from space technology, Iraq soon started coating the missiles itself. The Lab Consult company in Hesse, which is closely linked with Karl Kolb GmbH, helped, by means of a coating machine, to seal the internal walls of the shells with the high-quality material halar.

The synthetic material, based on ethylene and chlorine fluorinated triethylene, shows high thermal and chemical resistance. Poison gas cannot leak from halar-coated containers and can be stored there for a long time.

The filling technology for poison gas shows particularly well how dependent the Iraqi military is on German supplies. Recent findings in Bonn have revealed that Saddam is not able to fill the large Scud-B warheads with poison gas because he has so far only received loading equipment for small missiles.

According to experts, that is why Saddam has so far not used poison gas against Israel.

However, poison gas missiles and shells have apparently been transported to the front in great quantities. Thanks to the Italian firm Snia Techint, a subsidiary of Dynamit Nobel, there has been no shortage of ammunition so far. The arms company is believed to have produced at least 25,000 122.4-mm missile bodies, which have reached Iraq via Jordan.

In Germany such deals are banned, but do not involve great risks. Despite the fact that several hundred dubious companies have supplied weapons to Iraq, a mere dozen of them will face trial. It is difficult for public prosecutors and courts to provide evidence.

Those charged with offenses spare no effort to cover up their lucrative deals. The public prosecutors were stunned by the tactics used by the management of the Gildemeister Engineering Works.

As the general contractor, the Gildemeister subsidiary, Projecta GmbH, established the largest military research center in the Middle East in the Iraqi town of Mosul. According to government findings, missiles and aircraft that can be used for military purposes and other military equipment are tested or developed at the complex, which is worth DM1.6 million.

The investigators have discovered bundles of documents on the project and on Gildemeister's involvement. The documents also prove the military nature of the deal. However, the managers continue to claim that "laboratories and workshops that can be compared with facilities in universities, technical training shops, and testing institutes" are involved.

A letter from 1985 to the Iraqi partner, which has been discovered recently, shows how Gildemeister tried to cover up the deal. Since the company did not get the export permit for a wind tunnel, in which multiple sonic speed can be simulated, the managers resorted to a trick. They simply changed the export documents and told the Iraqis: "The equipment that will be supplied will conform to the original contract." Now the public prosecutors not only have to prove that the wind tunnel was actually supplied, but they will also have to produce evidence during the trial expected to take place this year that the managers knew about the planned military use from the beginning.

That might be somewhat easier in the Ferrostaal case. The Essen-based concern supplied a gun factory to Taji in Iraq in 1987 as the general contractor. Since its completion in the summer of last year, 122- to 203-mm guns have been produced there.

As a matter of fact, the plant was officially declared a universal smithy. However, the Ferrostaal managers will not get away with assertions that they did not know about the planned use of the plant. The responsible Ferrostaal officials will be facing trial this summer. In this extremely rare case, a member of the management board will also appear in court. According to investigators' findings, Klaus von Menges is believed to be the person mainly responsible for the deal.

Authorities in Bavaria would hardly have prosecuted the managers. No matter how serious allegations were, all affairs involving weapons deals were settled quietly. The Messerschmidt-Boelkow-Blohm (MBB) weapons company, with a DM70 million share, was Gildemeister's most important subcontractor in Mosul. However, investigations have not been initiated against MBB.

MBB's supply of helicopters to Iraq—equipped with guns in Spain—not result in any consequences either. Despite the fact that the concern had an 11-percent share in the Spanish company Casa, the managers from

Munich pretend not to have known anything about the transaction. MBB displayed the same attitude in connection with the export of blueprints for the production of the fuel-air explosive (FAE), which has the explosive power of a small atomic bomb. Studies on the dangerous weapon reached MBB via the United States and Switzerland.

The concern tested the explosive and passed on the blueprints to a small Bavarian partner company. From there the documents reached Baghdad via Egypt.

At the military show in Baghdad in 1989, Saddam proudly presented his first FAE bombs. MBB was able to carry out some of the weapons deals quite legally. Through the German-French sales company Euromissiles (MBB, 50 percent share) Saddam Husayn bought his 5,000 antitank missiles and 166 "Hot" rocket launchers and 4,550 "Milan" twin systems.

Baghdad ordered 1,050 German-French "Roland" anti-aircraft missiles. The trade with this partly French company did not even fall under German export law.

Many German supplies for another weapons sector—the Iraqi research into bacteriological weapons—were entirely unobjectionable from a legal point of view. West German companies specialized in laboratory equipment supplied to Baghdad, for example, culture media for breeding plague, cholera, and anthrax. Even minor quantities of mycotoxins, which can cause cancer even when strongly diluted, might have been supplied without authorization. Restrictions were imposed only just over a year ago.

No wonder that in view of such a booming business with Iraq, the infamous Chilean arms company, Cardoen, was lured into going to Germany. With capital from Swiss numbered accounts, company chief Carlos Cardoen founded the shipping agency Cifco in Bremen. Starting in the summer of 1989, Cifco supplied a complete plant for bomb fuses to Iraq.

Matrix Churchill of Coventry, England, which was controlled by Iraqi front men, was an important customer of Cifco's. Since the customs authorities of Bremen had the reputation of being very lax, Matrix sent all important machinery to Baghdad via Bremen.

The cover company Cifco was closely observed only after urgent entreaties by British customs authorities. Even that did not prevent that strange shipping agency—where lawyer Rudolf Monnerjahn (SPD), a deputy in the Bremen parliament, served as an authorizing authority for a long time—from supplying machinery components to Chile even during the Iraq embargo. It is not expected that those goods are still there.

Owner Carlos Cardoen is a close friend of Saddam Husayn's, whom he refers to as "my cousin in Baghdad." Before the war the Chilean, with his branch in Bremen, did about 90 percent of his business with Baghdad.

For example, for his "cousin" he set up a plant for "cluster bombs," which are able to spit out 240 mini warheads in midair, thus—according to a company leaflet—"widely destroying" an area of 50,000 square meters.

Cardoen does not understand why he is now being charged with those deliveries. His motto is that "making weapons" is nothing but "applied engineering." It sounds as if he picked up that slogan in Germany.

Minister Confirms Aid

*LD3001134891 Hamburg DPA in German 1159 GMT
30 Jan 91*

[Text] Bonn (DPA)—The Federal minister of economic affairs has confirmed that German firms collaborated on the upgrading of Soviet Scud missiles in Iraq. The results of the state prosecutor's investigation, however, can not be anticipated. This happened without the knowledge of the Federal Government. The export authorities were possibly deceived, said a spokesman for the ministry on Wednesday in response to questions.

The television magazine program "Panorama" reported on Tuesday [29 January] evening that Bonn gave guarantees for the missile projects in Iraq. The Economic Affairs Ministry spokesman said that, in the case mentioned by "Panorama," the firm gave false information. In 1988 it had received guarantees for the production of 35 compressed air devices, the export of which to Iraq required no license at the time. It was only after the deal had been completed in 1989 that it came out that the project was a military one.

TV Program Cited

*LD2901200291 Hamburg DPA in German 1815 GMT
29 Jan 91*

[Text] Hamburg (DPA)—The modernization and upgrading of Iraqi Scud missiles was promoted by the Federal Government through guarantees, the television magazine program Panorama has claimed. Services by German companies for the Iraqi dictator Saddam Husayn were covered by Bonn with a Hermes [export credit] guarantee, the NDR [North German Radio] reported on Tuesday evening.

According to Panorama, Iraq would not have been able to upgrade the Soviet Scud missile in such a way that it could reach Israel without the help of German firms. Since the middle of 1988 Baghdad has given our contracts to Federal German firms, especially to so-called technology dealers. At least 20 German firms have supplied valves, intake jets, pumps and pressure tanks, as well as production and testing equipment, among other things, for Husayn's missile project.

According to Panorama, since August 1989 the Federal Ministry of Economic Affairs, the Federal Office of the Economy in Eschborn—which is responsible for granting export licenses—and the Federal Intelligence Service

have known that project numbers given in business papers were in fact code numbers for an Iraqi missile program. In spite of this knowledge, the Eschborn office, in isolated instances, granted licences for some of the parts ordered from Germany by Iraq, even after autumn 1989.

A confidential paper from the Bonn Foreign Ministry of 4 January 1990, which is in the hands of Panorama, proves the Federal Government's share of responsibility for the export of missile technology to Iraq. According to this, the Federal Intelligence Service had information showing that a "manufacturing risk guarantee" (Hermes guarantee) for some 1.5 million German marks was granted. This happened with the consent of the minister of finance and in agreement with the minister of economic cooperation.

Intelligence Reports Say Iraqi Deals Continue

AU1002205391 Frankfurt/Main FRANKFURTER ALLGEMEINE in German 9 Feb 91 p 12

[Report by "K.B.": "Intelligence Services Provide More Information on Deals With Iraq"]

[Text] Bonn, 8 February—Bonn continues to receive, at irregular intervals, information from intelligence services that German companies are allegedly trying to break the UN-mandated embargo against Iraq. The information is addressed to the Federal Finance Ministry as the highest authority of the customs investigation offices, to the Federal Economics Ministry, or to the Federal Chancellor's Office. Upon an inquiry by FRANKFURTER ALLGEMEINE, Lutz Stavenhagen, minister of state in the Chancellor's Office responsible for the intelligence services, says that a total of 132 leads, above all from U.S. and British services, have been received. He says that by November, about 50 had been received, by mid-January, 87, and by early February, 110 reports had been received. Stavenhagen confirms that in close cooperation with the Federal Government, the responsible authorities pursue every case thoroughly and quickly, even if there is just a very slight suspicion. Out of the 132 leads, 50 have been discarded because the companies had obviously come under suspicion without reason. The public prosecutors have started investigations in 10 cases.

In addition to the 10 cases being investigated because of the violation of the UN-mandated embargo (with the type of goods being of no importance), the public prosecutors have started investigations in more than 30 cases of companies and employees who are accused of having illegally supplied, in the eighties and earlier, material and documents for arms projects. The investigations by the responsible authorities have clearly intensified the suspicion in this respect.

Officials in the Economics and Finance Ministries have rejected the impression that there are official lists of companies that are suspected or accused of having broken the embargo. Both ministries say that there are

no such lists. As soon as new leads are received, they are dealt with by the responsible authorities. The Federal Government adheres to its policy not to name the suspected and accused. It says that during the investigation procedures, it is up to the public prosecutors to give or withhold names. The Federal Government cannot take part in it, officials in the Economics and Finance Ministries say. The public prosecutors are also careful about making public statements, apparently intent upon carrying out investigations undisturbed and systematically. However, the Darmstadt public prosecutors said that the Havert Industrial Trading Company in Neu-Isenburg was trying to initiate deliveries to Iraq after the embargo had been imposed. Meanwhile, the public prosecutors reportedly consider the reproach that Havert allegedly broke the embargo, irrelevant.

In their investigations on violations of the embargo, the public prosecutors no longer differentiate between administrative offenses and punishable offenses. In every investigation procedure that has been initiated, the public prosecutors assume that they are dealing with a punishable offense. Every violation of the embargo—be it only an attempt to dodge the embargo—is considered so serious that it cannot just be punished as an administrative offense. With that approach, the prosecutors are confirmed by the cabinet's decisions of 6 February on tighter export controls and punishments. The government draft says: "Anyone who violates economic sanctions that have been mandated by the UN Security Council according to Chapter VII of the UN Charter and have been incorporated into the Foreign Trade and Payments Law of the Federal Republic, shall be liable to a term of imprisonment of between one year and ten years. In less serious cases, the punishment shall be a term of imprisonment not exceeding three years or a fine. Any attempt to do so shall be punishable."

The investigations on the basis of intelligence reports are difficult. The intelligence services information come from surveillance of telecommunications traffic between Iraq and the rest of the world. The information is obtained from telephone conversations and telex messages. However, many of the reports that are received in Bonn are distorted and garbled. Often, it takes a lot of time to establish a connection between the names of firms mentioned by foreign intelligence services, and German companies. Some of the mentioned firms could not be identified. In the telecommunications traffic between the Federal Republic and Iraq, a large number of subscribers are not German companies, but Iraqi stockholders in the Federal Republic. The intelligence reports also mention business negotiations over products that do not fit into the delivery program of a given mentioned company. For instance, according to intelligence reports, a German steel and technology company allegedly tried to supply milk powder to Iraq. Even the commercial supply of foodstuffs for emergency cases falls under the embargo. Only humanitarian shipments that are supplied free of charge are permitted.

Like the governments of other traditional trading partners of Iraq, the Federal Government has expressed satisfaction with the fact that as compared to earlier sanctions, the embargo has shown it is still having an effect. The main supplier countries of Iraq prior to the embargo were the United States, accounting for 11.4 percent of Iraq's imports; the Federal Republic, accounting for 11.3 percent; Japan, accounting for 4.8 percent; and France, accounting for 4.6 percent. Even though the flow of urgently required goods to Iraq was not interrupted prior to the outbreak of the war, it was nevertheless insufficient. There were food supply bottlenecks in Iraq, which led to considerably increased prices. Shortly following the embargo, the intelligence services and export business observers noted that there are weak points are all along the Iraqi-Syrian and the Iraqi-Jordanian borders; there are indications that in individual cases, goods on which Iraq depends continue to flow across those borders.

Business circles assume that the transshipment places for such goods could be in Belgium, Greece, and Portugal. Export business circles believe that if that is true, it shows how important it is to create uniform conditions for export controls in all countries of the European Community. However, some EC Commission members say that a uniform control system is only possible with implementation of the Common Market. Economics Minister Juergen Moelleman plans to intensify his negotiations with the commission and all EC members on the standardization of controls and punishments of violations.

Company Developed Missile Engine Testing for Iraq

AU1102111491 Hamburg DER SPIEGEL in German
11 Feb 91 pp 16-17

[Unattributed report: "Plans to Baghdad"]

[Text] The Karlsruhe Public Prosecutor's Office has obviously found an important helper of Saddam Husayn in the Anlagen Bau Contor company in Stutensee-Blankenloch. Engineer Holger Beaujean's company developed a complete testing facility for missile engines for Iraq. It is a mixing plant for various liquids, including inhibited red fuming nitric acid, kerosene, and UDMH (unsymmetric dimethylhydrazine). According to experts, UDMH is primarily used for missile fuel. The project was ordered by Transmerkur, a mailbox company in Liechtenstein. The Iraqis are behind Transmerkur. The partners in the deal camouflaged the facility—delivery price 1.848 billion German marks—as a "complete mixing station" for the "petrochemical industry." The investigators also found the textbook formula for Scud fuel in the plans. Beaujean, who rejects the accusations, met his Iraqi business partners in August 1990. The investigators are sure that "the plans accompanied him to the Middle East.

Article Urges Export Regulations Changes

AU1102111891 Hamburg DER SPIEGEL in German
11 Feb 91 p 16

[Unattributed report: "Loose Regulations"]

[Text] Concerning the planned tightening of export restrictions for arms deliveries, the associates of Bonn Economics Minister Juergen Moelleman (Free Democratic Party of Germany) will have to change some regulations, which they have just put into force: Moelleman's predecessor Helmut Haussmann committed a serious mistake last November regarding the amendment to the clause that applies to nuclear exports. Right in the middle of the Gulf crisis, the officials did not make the list more restrictive, as they claimed, but liberalized it. Thus, the new version (Federal Gazette of 15 December 1990) no longer lists, for instance, special steel and accessories necessary to build uranium centrifuges, such as gas supply and ejection systems. Thus, they are automatically exempt from permits. Such equipment has been highly coveted in Pakistan and in Iraq for years, because Uranium-238 can be produced with the centrifuges.

Press Views Tightening of Export Control Law

AU0702145091 Cologne Deutschlandfunk Network
in German 0605 GMT 7 Feb 91

[From the press review]

[Text] The daily DIE WELT comments as follows on the provisions decided by the FRG Government for harsher action against the illegal arms trade: The new laws can make the illegal export of arms only more difficult, but they will probably not be able to stop it once and for all. Unscrupulous profiteers have always found loopholes they could use. The fact that Bonn has now decided on energetic steps will, of course, help only to a certain extent to improve the damaged German reputation abroad. In the eyes of the U.S. and Israeli public the Germans have become guilty. The Germans must try to regain trust. The laws passed by the Cabinet are a beginning, DIE WELT says.

In FRANKFURTER RUNDSCHAU we read: The new provisions are already waste paper. What happens if in some weeks or months new, completely different export practices come to light, which is certainly likely? Which consequences are conceivable if, for instance, in the near future part of the Kurdish people are oppressed or even destroyed with weapons that were legally delivered to the NATO ally Turkey? New moral indignation will erupt at the arms producers, who are today called criminals by the same Bonn politicians who pampered them a short time ago. Whoever is serious about the phrase that war must never again start from German soil must cut back on the legal mass production of armament products and their export, FRANKFURTER RUNDSCHAU demands.

BRAUNSCHWEIGER ZEITUNG expounds the following standpoint: The cleanest way would be to forego all arms deliveries in general. But this is more easily written than is enforced against the tough opposition of trade unions and shop stewards. At least, the ban on deliveries of arms to areas of tension should be imposed more strictly. Of course, not even the opposition wants to see this matter in such a narrow way if it concerns Israel. Thus, at least the violations of the UN embargo should be punished more strictly. However, the data protectors will object to the powers given to the Customs Criminal Investigation Office. The measure that promises most success is a financial one: rigorous seizing of illegal profits, BRAUNSCHWEIGER ZEITUNG believes.

UNITED KINGDOM

Hurd Warns of Possible Chemical Attack by Iraq

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in English 1445 GMT 3 Feb 91

[By James Hardy]

[Text] Foreign Secretary Douglas Hurd warned today that Iraq could be forced to use chemical weapons because its other military options were being gradually ruled out. He insisted that the removal of chemical, biological and nuclear weapons from the Gulf region must now be a high priority of establishing lasting peace after the war. But he declined to be drawn on how long the conflict might continue and when the ground battle would start.

Mr. Hurd again warned that the war might not stop at the borders of Kuwait if Saddam's forces continued to threaten the allies, but he hinted that Britain might be prepared to return to the UN Security Council if it was thought necessary to widen the action sanctioned under its existing resolutions. Whatever the outcome the peace, which would have to be Arab led, was going to be very complicated, he said on BBC Radio 4's The World This Weekend programme.

Asked if Saddam would use chemical weapons he said: "I have always thought it between likely and probable, that is just over a 50 percent chance. Because he is a man who is throwing into battle week by week the different gambling cards which he has. "We have had terrorism. We have Scuds against Israel, we have Scuds against Riyadh, we have had the oil slick, we have had now also the limited ground attack into Saudi Arabia and if one looks at what he has still got in his hands, if he has the possibility of producing chemical weapons which would actually work the temptation on him to use them must be increasing. What we have said and we must continue to say is simply to undertake very clearly that the response will be a massive one."

Mr. Hurd said it was impossible to judge in advance at what stage the war would be deemed to be over. "We would all just have to judge how free Kuwait was, that is the purpose of the UN resolutions," he said. "We would have to judge at the time what condition Saddam Husayn was in, what he was saying, what his troops were doing, what the prospects were, whether Kuwait was in fact free."

He stressed that the allied unity of purpose was now "very great" but did not rule out further debate in the Security Council. "We all the time need to keep an eye on the Security Council and when it would be sensible to take a further initiative, but I don't think there is any case for that at the moment," he said. When the time comes it will not be very difficult to take that decision and to get agreement on that decision. What is difficult is to speculate in advance what one might do in particular circumstances."

Mr. Hurd said there was no intention of breaking up Iraq, changing its borders or of Western powers attempting to impose a post-war government of their choice. He repeated assurances that British troops would not be left in the region once hostilities were over. "There will be an immediate aftermath during which there will be a strong instinct, both in the U.S. and in Britain, to bring troops home and that will happen," he said. "There is no intention or wish either in the U.S. or in Britain or in France... to keep them there any longer than is necessary." If the Arab powers wished for a continued British presence it was quite possible that ships, aircraft or equipment might be deployed to a limited extent.

The concentration had to be on obtaining an Arab-led peace which eventually had to take into account the problems of Israel, including the acceptance that the Jewish state had to be allowed to remain secure inside its own borders. While the Palestinians had made a "grievous mistake" in supporting Saddam, their claims too needed to be recognised.

On the issue of future arms control, Mr. Hurd said any state which felt threatened would understandably seek to arm itself. It was therefore essential to reduce tensions and anxieties by removing weapons of mass destruction. "One thing we are all anxious about is particularly the terrible weapons—nuclear, chemical, biological—and how we are to push away and get rid of the anxiety that the possession of these weapons causes," he said. "This is a very difficult area, not least because of the potential of Israel and the difficulty of reaching any kind of agreement which did not include Israel."

Conventional arms were a "separate problem" but there was undoubtedly a will to deal with chemical, biological and nuclear weapons. But Mr. Hurd warned: "One of the problems of this crisis is expectations are greatly roused...people will expect a great deal out of peace and some of those expectations will be unrealistic."