



A CHRONOLOGY OF PRC MISSILE TRADE AND DEVELOPMENTS

by

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Once again Chinese missile exports are the subject of international concern. Recent reports indicate that the People's Republic of China (PRC) shipped chemicals suitable for production of solid-fuel missiles to Syria, and guidance systems for the M-11 missile to Pakistan.¹ In order to provide a basis for informed debate on the sensitive issue of China's missile export policy, the International Missile Proliferation (IMP) Project has compiled a chronology of "PRC Missile-Related Developments." The chronology is based on an extensive list of publicly available sources held by the IMP Project database, as well as on interview data from other sources.

¹See Elaine Sciolino and Eric Schmitt, "China Said to Sell Parts for Missiles," New York Times, 1/31/92, pp.A1, A2.

Summary of Missile Chronology

The following chronology focuses on two central issues: Chinese trade in missile systems and technology, and attempts by the U.S. and other countries to engage the Chinese on the missile proliferation issue. A brief review of the data leads to several general conclusions:

- Extensive Chinese missile cooperation with developing states -- in terms of sales of whole systems and subsystems, production assistance and technology transfer -- represents perhaps the world's most comprehensive program of providing missile know-how to such states.
- It is the *character* of China's missile-related exports, i.e., the proclivity for providing technical and manufacturing assistance, rather than the transfers of complete systems, that is a long-term cause for proliferation concern. China is assisting in the creation of new and powerful missile-*producing* states who, in turn, are likely to operate outside of any limitations (international or otherwise) on the sales of such systems. For example, after receiving vital aid from China for its cruise and ballistic missile production program, North Korea has become a prime supplier of missiles and missile technology to the Middle East, including sales to Syria, Libya, Iran, Egypt and possibly Iraq. Such second and third tier proliferation is particularly troublesome, both in terms of the limited options available for its control, and from the broader perspective of international stability.
- Unstable regions, including the Middle East, the Korean Peninsula and South Asia, constitute the primary markets for Chinese missile-related deliveries. These areas are in the midst of destabilizing arms races, where a history of solving political conflict by violent means has more recently combined with attempts to acquire weapons of mass destruction.

From the point of view of the U.S. government, Chinese missile exports are particularly troublesome because they are directed primarily to states which have in the past or currently threaten key U.S. allies and interests. Examples of such states include Libya, Iran, Iraq, Syria and North Korea.

- The United States has expended a tremendous amount of diplomatic and political capital in its attempts to restrain Chinese missile export practices. In 1991 alone, at least six separate trips by senior level officials, including Secretary of State Baker, were made to Beijing to discuss the issue, and the possibility exists that additional, unannounced trips were also made. National Security Advisor Scowcroft's controversial trip to Beijing in December of 1989 appears to have been motivated, at least in part, by U.S. attempts to stop the sale of M-9 missiles to Syria. Even Mikhail Gorbachev's May 1989 visit included an appeal to China not to sell its M-series missiles to either Syria or Libya.

In spite of these efforts and the imposition of U.S. sanctions, China has apparently continued its missile proliferation practices. One important reason these measures have failed was recently noted by China experts at Stanford University: U.S. officials who engage the Chinese on the issue are simply talking to the wrong people.¹ When the locus of decision-making falls on the intricate web of family-run corporations closely connected to the Central Military Commission (CMC), "agreements" on arms sales practices with Foreign Ministry officials carry little weight internally. Indeed, the go-ahead for the recent

¹ See John Lewis, Hua Di, and Xue Litai, "Beijing's Defense Establishment: Solving the Arms Export Enigma," International Security, Spring 1991 (Vol. 15, No.4), pp. 87-109.

reported sales to Syria and Pakistan would likely have come not from the Ministry of Aerospace Industry, under whose control the M-series missile factories are run, but rather from the CMC itself.²

- Chinese attitudes and motivations regarding missile exports must be taken into account in any policy-relevant discussion on the issue. The Chinese, and many other non-Chinese experts, claim that sales of missiles armed with conventional warheads are not inherently destabilizing; such systems become dangerous only when tipped with nuclear, biological or chemical warheads. Further, efforts to control China's weapons sales to the Middle East, at the same time western countries negotiate multi-billion dollar sales to the region, are seen by the Chinese as a glaring double standard. And finally, missile exports (and arms exports in general) are seen as a prime source of hard-currency earnings for the People's Liberation Army, which can be used to bolster defense budgets and to increase the wealth of well-connected arms entrepreneurs.

Sales to Syria and Pakistan

At the conclusion of his November 1991 trip to Beijing, Secretary of State Baker reported a Chinese commitment not to export M-9 missiles to Syria and M-11 missiles to Pakistan and to other countries, and to "observe the guidelines and parameters" of the Missile Technology Control Regime (MTCR). In return, the United States would agree to the removal of trade sanctions announced in June of last year.

There appears to be, however, a difference of opinion on just what the Chinese commitment entailed. Reporting on the Baker visit, the official New China News Agency said that on the export of missile technology, the Chinese side expressed its willingness to "observe the MTCR guidelines and parameters *in actual transfers*." The nuance of the phrase "in actual transfers" can only be guessed at, but would seem to cover the physical export of complete missile systems whose range and payload capabilities are circumscribed by the MTCR.³ In the case of exports of components and subsystems, including export of technical assistance, the MTCR is somewhat more ambiguous, and the Chinese *could* conceivably interpret the guidelines as not covering such transfers.

Whether or not the recent sales to either Syria or Pakistan technically violate the MTCR, or even the November "agreement" reached in Beijing, is not the most critical issue. What is more important is what effect such transfers could have on regional stability and the future spread of ballistic missiles and their technology. In the case of Pakistan, the overall effect would appear to be only marginal; the transfers to Syria, however, warrant closer evaluation.

From a strategic perspective, prior Chinese transfers to Pakistan of M-11 missiles and launchers, and now components, is not particularly troublesome. Although it appears likely that Pakistan will co-produce or license-produce the M-11,⁴ the missile's short range and relatively small payload indicate only a tactical use in any future conflict with India, and thus the impact of the system on the overall military balance in South Asia is limited. Of course secondary effects of an indigenous Pakistani M-11 production capability could include a heightened Indo-Pakistani missile race or future unregulated Pakistani missile exports.

² Interview data. This, however, does not necessarily mean the CMC had all relevant information regarding the sales. For instance, it is possible that proliferation dangers were downplayed by the Commission of Science, Technology and Industry for National Defense (COSTIND) in its reports to the CMC.

³ MTCR guidelines essentially prohibit the sale of missiles whose range exceeds 300km with a 500kg warhead, "as well as the specially designed production facilities and production equipment" for such systems.

⁴ Interview data.

The case of Syria is somewhat more nettlesome. What is clear is that Syria has embarked on a program to become an offensive missile power, thereby countering the ability of the Israeli Air Force to prevent Syrian attacks on its territory. Indeed, President Assad's robust missile arsenal of Soviet-made FROG-7s, SS-21s and Scuds, along with North Korean-produced Scuds, have placed him well on his way towards achieving that goal. However, what he lacks to date is an indigenous missile manufacturing capability. Given past Syrian difficulties in maintaining reliable supply routes,⁵ it is likely that this is the future course Assad has in mind.

Here China may be offering a helpful hand. China concluded a contract with Syria on the sale of the M-9 in 1987 but has thus far been unable -- due to some degree to U.S. pressure -- to deliver them. The Syrians provided financing for development of the system and made a down payment on their first order. The Chinese however, have already spent the money and now, in lieu of actual delivery of complete M-9 systems, must provide some missile-related service to the Syrians to fill their contractual obligations. Neither the Beijing Wan Yuan Industry Corporation (BWYIC), which controls M-9 production facilities, nor the Ministry of Aerospace Industry, under whose direction BWYIC falls, appear willing to pay the Syrians back in cash.⁶

In this context, *possible* reasons for the shipment to Syria of solid-fuel chemicals (reported in January 1992) become more apparent. The casting of solid-fuel motors is a complicated physical and chemical process, and requires a large body of empirical data on the properties of a particular fuel mix to predict its performance. The Syrians, although they have experience in chemical weapons production and are reportedly able to fit chemical warheads onto their Scud missiles, have no domestic defense industry to speak of and little or no experience in the casting of solid-fuel motors. In other words, equipment and facilities, along with technical expertise for the production of solid-fuel missiles, would have to be provided by outside sources. At this stage, the mere possession of solid-fuel chemicals means nothing unless the Syrians have assistance in using those chemicals to produce solid-fuel motors. Toward that end, a team from BWYIC, including at least one engineer and a financial analyst, has recently traveled to Syria on an information-gathering mission to analyze Syrian needs in the missile production area.⁷

Potential impacts of a Syrian missile production capability -- though perhaps a few years away -- could be profound. Able to produce missiles indigenously, the Syrians would no longer have to rely on outside suppliers who are subject to diplomatic pressure to discontinue sales. In terms of the military balance with Israel, a facility producing more accurate, longer-range systems could eventually provide Syria with an offensive capability to deal a severe blow to Israeli mobilization efforts in the event of any future conflict.⁸ Indeed, merely the Syrian possession of large numbers of sophisticated missiles would make conflict more likely, begun either by an Israeli preventive strike to remove the missile threat or by decreasing stability in crisis time by an enhanced Syrian first-strike capability.

⁵ Assad repeatedly requested SS-23 missiles from the Soviet Union, but was given shorter-range SS-21s; in 1988 he signed a "preliminary contract" with China for M-9s but thus far no missiles have been delivered; he has also recently had trouble getting the remaining shipments of his North Korean Scud order.

⁶ Interview data.

⁷ Interview data. The financial analyst may also have been sent to discuss the 1987 Syrian downpayment on the M-9.

⁸ For instance, massed conventional or chemical strikes against IDF reserve assembly points.

CHRONOLOGY OF PRC MISSILE TRADE AND DEVELOPMENTS*

Pre-1988

early
70s?

The People's Republic of China (PRC) provides North Korea with assistance in reorganizing Soviet-established maintenance and assembly programs for SA-2, SS-C-2b and FROG-5 (maintenance only) missiles. This is "quickly followed" by Chinese deliveries of reverse-engineered SA-2 (Chinese designator, HQ-2) and SS-N-2 (Chinese designator, HY-1) missiles.¹

Note: HY-1 is the precursor to the HY-2 'Silkworm'.

4/75

North Korea's Kim Il-sung travels to Beijing; Kim's Defense Minister Oh Jin U asks China to provide tactical ballistic missiles to North Korea. The Chinese do not have this class of ballistic missiles at the time, but the North Korean request stimulates their interest in developing such systems.²

late
1976

China agrees to support the 4/75 North Korean proposal; R&D program is approved. The missile, code-named DF-61, was to be a pre-packaged, liquid propellant single-stage mobile system with a 600 km range and a 1000 kg conventional warhead with guidance provided by a new PRC-developed gyro. The DF-61 was designed with a cluster munition warhead "from the outset" although a nuclear version was also designed for use only by the Chinese. The missile sale was intended as "purely a political deal" rather than an economic one. Egypt is involved in the project but only as an "interested observer."³

1978

The DF-61 project is aborted due to internal Chinese political considerations.⁴

1981?

Egypt transfers several Scud-Bs to North Korea for reverse-engineering. North Korea requests and receives PRC technical expertise in the areas of rocket engine design and production, metallurgy, and airframe technology.⁵

early
1980s

North Korea is producing, or assembling, all HY-2 Silkworm subsystems, except *PRC-provided* sustainer motors and guidance systems.⁶

5/84

The First Academy (Carrier Rocket Academy) of the Ministry of Space Industry [now the Ministry of Aerospace Industry] is assigned to develop a new ballistic missile, the M-9.⁷

1984

A group of Chinese ballistic missile specialists travels to Brazil and Argentina to lecture on missile technology; they also seek to promote sales of the DF-5 ICBM for use in space programs. The promotion fails however due to the potential customer's lack of hard currency.⁸

1985

China agrees to export to Brazil liquid-fuel and guidance technology in exchange for Brazilian expertise in solid-fuel technology. Brazilian engineers in China are shown "everything we wanted to see" according to General Hugo Piva, director of Brazil's missile program. Brazilian-Chinese cooperation ultimately results in the formation of INSCOM, a joint venture to market launch services to the developing world [see 4/4/89 entry].⁹

* *Note:* Entries in parentheses indicate report date; bolded entries indicate significant event.

1985-87

- 1985 A division of the the Ministry of Space Industry (Base 066, now a "independent missile research and industrial complex") begins design work on the M-11 ballistic missile.¹⁰
- 1985? Iran approaches the PRC and North Korea for ballistic missiles and missile technology.¹¹
- 6/85 Speaker of the Iranian Parliament Hashemi Rafsanjani travels to Beijing; as part of a large arms deal, China agrees to help Iran manufacture a 40 km-range artillery rocket similar to the Chinese Type-83 and called the 'Oghab' (Eagle) by Iran.¹²
- 7/85 Saudi Arabia and China agree "in principle" on \$2 billion CSS-2 sale after the United States refuses to sell the Saudis Lance missiles and F-15s. Prince Bandar bin Sultan in Beijing negotiates for the Saudis while Poly Technologies negotiates for the PRC.¹³
- 10/85 The First Academy (Carrier Rocket Academy) of the Ministry of Space Industry begins to formulate an overall design plan for the M-9.¹⁴
- 4/86 As "prime technical contractor", the Second Academy of the Ministry of Space Industry, begins work on the '8610', a short-range ballistic system developed from the HQ-2 surface-to-air missile.¹⁵
- Summer
1986 Iran receives the first of several shipments of HY-2 "Silkworm" anti-ship missile batteries from the PRC.¹⁶
- 11/86 The Ministry of Space Industry code names its new ballistic missile (M-9) the DF-15, which will be used by the Second Artillery Corps. An M-9 model is displayed at the Asian Defense exhibition in Beijing (before all of its design work is completed); existence of an "M-family" of ballistic missiles is disclosed.¹⁷
- 12/86 During the Basra offensive, Iran first makes use of Oghab surface-to-surface missiles (SSMs).¹⁸
- 2/87 Iran successfully test-fires Chinese-supplied Silkworm missiles.¹⁹
- 4/87 Brazilian officials report that many of the technologies used to improve the nation's missiles are coming from China.²⁰
- 6/87 In response to Reagan administration protests over the sale of Silkworms to Iran, Chinese officials deny the sale, saying the missiles are coming from North Korea. National Security Advisor Carlucci says that at least 20 of the missiles, "in the process of becoming operational," are in Iran with 20 more to follow. Carlucci adds that, "the Chinese say they are not doing it ... but they are coming from China."²¹

There appears to be some validity to Chinese claims that the missiles "are coming from North Korea." Joseph Bermudez reports that in a 6/87, \$500 million Iranian-North Korean arms deal, North Korea agreed to supply 90-100 'Scud-Bs' and an undertermined number of *North Korean-produced* Silkworms. First shipments began in 7/87 and continued throughout the year. However, as noted below [see 9/6/88 entry] the Chinese also continued to sell Silkworms to Iran.

- 6/87 According to sources in Tehran, Revolutionary Guards have been going to China regularly over the past two years for arms training. Unconfirmed reports indicate Iran may be on the verge of producing a "Chinese version" of the Soviet Scud-B.²²
- 9/87 Defense Secretary Weinberger sends his Chinese counterpart a "strongly worded" protest over Chinese deliveries of Silkworms to Iran. Meanwhile, a senior Chinese official says his government will try to prevent exports of Chinese weapons to other countries from being diverted to Iran.²³
- 10/22 After Chinese officials repeatedly ignore Reagan administration protests over Silkworm sales to Iran, Secretary Shultz orders that a U.S. plan to ease Chinese procurement of U.S. high-technology products be suspended. The action halts an interdepartmental review over the potential easing of restrictions on the sales of computers, electronic equipment and other items to China. The suspension does not affect the sale of \$500 million in avionics equipment for China's F-8 fighter, nor does it propose a cutback in currently allowable exports. The Chinese respond to the move by stating that, "The liberalization of high-tech export controls on China has nothing to do with the situation in the Gulf."
- The suspension is the first time the United States has acted against a third country it has accused of supplying arms to Iran. However, American business executives in China later say that the decision "has no substantial impact on what China can buy from American companies."
- Under Secretary of State Michael Armacost recently showed Chinese officials intelligence data, including photographs of ships loading Silkworms at Chinese ports and arriving on the same ship at the Iranian port of Bandar Abbaas. Iranian Silkworm missiles have been blamed for three attacks on targets in Kuwaiti waters in recent days.²⁴
- 10/27 U.S. intelligence reports claim that 100 Chinese ship-borne C-801 anti-ship missiles either have been delivered recently or may be on the way to Iran. Officials say Iran and the PRC are completing arrangements *through Hong Kong* for further shipments of Silkworm missiles [see 8/1/91 entry].²⁵
- 11/87 Israel reportedly signs a secret deal to supply advanced missile technology to China after an Israeli delegation travels to Beijing. The deal reportedly calls for supplying China with "advanced trajectory-corrected" missiles of unspecified designation [see 6/23/90 entry].²⁶
- A 4/87 Asian Survey article reports that over the last *eight years*, "hundreds of Israelis, including army generals, have been working in China on officially sanctioned projects, but that fact is never confirmed by government spokesmen in Beijing."²⁷
- early
11/87 Under Secretary of State Armacost travels to Beijing to protest Silkworm sales and to explain the administration's decision to suspend liberalization of some high-technology exports to China. Armacost meets with Foreign Minister Wu Xueqian, Deputy Prime Minister Zhu Zizhen and Deputy Prime Minister Tian Jiyun. Chinese tell Armacost they would take "strict measures" to prevent the diversion of the Silkworms to Iran.²⁸
- 11/87 U.S. intelligence satellites spot "*Chinese-made*" Silkworm missiles at North Korean port.²⁹

1987

- late
1987 First missiles of CSS-2 sale arrive in Saudi Arabia. Congressional sources say no evidence of acquisition or site construction was picked up before Fall 1987.³⁰
- late
1987 Syria enters into negotiations with the PRC on the purchase of M-9 missiles. At the same time, China pursues similar negotiations with Iran, Libya, and Pakistan.³¹
- 12/14 Satellite photographs reveal that Silkworm missiles spotted several weeks earlier at North Korean port are now gone, along with an Iranian ship used for previous Silkworm deliveries.³²
- 12/20 The spokesman for China's embassy in Washington says, "We have never sold Silkworms to Iran, and we have already taken measures to stop sales of Silkworm missiles on the international market."³³

1988

- 1988? China and signs a contract with Iraq to build a liquid propellant rocket engine testing facility. Design work is completed by First Academy engineers, but the onset of Persian Gulf tensions in 1990 ends the project.³⁴
- early
1/88 Silkworm missiles arrive in Iran. The missiles are determined to have been sent under an old contract, and thus "do not represent a continuing policy of Chinese missile sales."³⁵
- 1/88 U.S. intelligence confirms that Saudi Arabia is obtaining CSS-2s.³⁶
- 1/88 Iran's ambassador in Beijing claims Iran is producing its own Silkworm missiles. Earlier, Iranian Supreme Defense Council spokesman Hojatoislam Ali Akbar Hashemi Rafsanjani says Iran was manufacturing anti-ship missiles based on Soviet SS-N-2 Styx systems seized in 2/86 by Iran during capture of the Fao peninsula.³⁷
- early
1988 The M-11 is exhibited for the first time at Chile's FIDA Arms Show.³⁸
- early
1988 A "Mideast arms broker" signs a preliminary contract with China Great Wall Industry Corporation (CGWIC) to fit conventional warheads on Chinese unguided sounding rockets for shipment to Iran. The contract is cancelled however, when the Iran-Iraq war ends.³⁹
- 3/6 First time the United States directly confronts Saudi Arabia regarding the CSS-2 sale. Assistant Secretary of State Richard Murphy meets with Saudi ambassador Prince Bandar in Washington. Bandar tells Murphy the missiles are not nuclear-tipped; the Chinese had specifically modified the missile for Saudi Arabia to carry a conventional warhead.⁴⁰
- 3/9 Reagan administration begins relaxation of restrictions on export of high-technology products to China because it has determined China is no longer selling missiles to Iran. State Department announces it received pledge from China not to supply anti-ship missiles to Iran. Decision will expand COCOM list for products exportable to China without the need for a review process. In Washington, Chinese Foreign Minister Wu Xueian repeats longstanding Chinese denial of any involvement in weapons sales to Iran and says "there is no *direct* arms trade between China and Iran."⁴¹

- 3/88 Saudi CSS-2s are not yet fully operational.⁴²
- (3/31) Work in Iraqi weapon plants to upgrade Scud-Bs is being done with the probable help of Brazilian or Chinese engineers.⁴³
- early 4/88 Iranian Defense Minister, Brig.Gen. Mohammed Hoseyn Jolai, confirms that Iran is producing 130 km range ballistic missiles [Iran-130s] and that "80% of missiles raining down (on Iraq) are manufactured by our defense industries" [see 2/89 entry].⁴⁴
- 4/25 An Indian newspaper reports that Pakistan tests a "Chinese-assisted nuclear-capable" missile. Chinese involvement in Islamabad's missile program is the "key factor in the recent Pakistani rocket technological advances."⁴⁵
- 5/14 The PRC and Argentina sign a missile cooperation agreement during President Alfonsin's visit in Beijing. The agreement is for cooperation rather than the sale of missiles; China in return receives access to Argentine "research stations."⁴⁶
- (5/14) An Israeli Air Force source says Libya is seeking to acquire CSS-2s from China.⁴⁷
- (5/23) Congressional sources and Saudi experts say "Israeli experts working secretly in China were involved in improving CSS-2 guidance" and were helping in the nuclear to conventional warhead conversion process. The Israelis used fake Philippine passports traced to the Philippine consulate in Jeddah. Other reports suggest Israelis are working on other defense-related projects, including the development of tactical ballistic missiles.⁴⁸
- 6/1 PRC Foreign Ministry spokesman Li Zhaoxing denies reports that Chinese leaders agreed to supply Argentina with technology for producing anti-ship and medium-range missiles; claims no such agreement was even discussed. Li also says that "allegations about China's assistance in Pakistan's launching of a *medium-range* missile is utterly groundless."⁴⁹
- Note:* As John Lewis, Hua Di and Xue Litai point out, the U.S.-Western definition of "medium-range" missile differs significantly from the Chinese definition. To the United States, a medium-range system is one that can carry a 450 kg payload 260 km or more. To the Chinese, missiles are defined as short-range (less than 1000 km), medium-range (1000-3000 km), long-range (3000-8000 km) and intercontinental (over 8000 km).⁵⁰
- 6/17 The M-9 undergoes its first flight test; administration sources say "Chinese may have only tested it [M-9]" during weekend of 6/17-18. Chinese missile designer Hua Di reports that the Chinese signed a "preliminary contract" with Syria for sale of the M-9 *"before"* the missile's first test flight.⁵¹
- 6/22 State Department spokesman says the Reagan administration would view "with deep concern" the sale of Chinese ballistic missiles to Syria, although the United States has no information that a sale is "imminent." Spokesman notes that the United States has already raised general concern over ballistic missile proliferation with the PRC, and that Israel has asked the United States to use its influence with China to stop the sale.⁵²

- (6/24) Arab diplomats say Syria and Libya have been negotiating with Beijing to buy a "sophisticated short-range missile."⁵³
- 7/4 In an "indication that the United States has no intention of penalizing China over missile sales," the Reagan administration goes along with a COCOM decision to further relax restrictions on high-technology exports to China.⁵⁴
- 7/13 A senior State Department official says the United States has received unconfirmed reports that China is trying to sell the M-9 missile to Libya, Syria, Iran and Pakistan.⁵⁵
- 7/16 Secretary of State Shultz travels to Beijing but receives no assurances from the Chinese that they would curb sales of missiles to the Middle East. Shultz proposes "international consultations" to prevent missile proliferation, but Chinese do not accept. Although Shultz does not specifically bring up the Saudi CSS-2 sale or a prospective missile sale to Syria, Shultz says the "Chinese told me they had not made any sale of ballistic missiles to a country other than Saudi Arabia."
- American officials confirm that some American intelligence reports indicate that Syria and the PRC have "basically agreed" on a deal, but the United States has kept the information secret, in part to keep the source confidential.⁵⁶
- (7/23) It is likely the Iranians have received technical assistance and manufacturing equipment from China and North Korea for production of Iranian 'Scud-Bs'. However, the Chinese have never actually sold Scuds to Iran.⁵⁷
- 7/88 China agrees [formally(?); see 6/17 entry above] to sell Syria the M-9 missile.⁵⁸
- 7/88 China's Ministry of Astronautics signs agreement with Brazil's National Institute of Space Research (INPE), to develop two satellites. Another Brazilian firm, Orbita, discusses the exchange of rocket production technology with China.⁵⁹
- 8/88 Iraq begins to take delivery of perhaps several hundred C-601 anti-ship missiles, an air-launched version of the Silkworm [deliveries of C-601s continue over the next few years]. The Iraqis may have also received an extended- range variant, the C-611.⁶⁰
- Fall 1988 Ambassador H. Allen Holmes, Assistant Secretary of State for Politico-Military Affairs is sent to Beijing to discuss Chinese missile sales. He later says, "As a result of that discovery [CSS-2 sale] that led us to engage them [in the summer and fall of 1988] in a very steady series of conversations ... and the Chinese understood our concerns. There is no question about that."⁶¹
- 9/6 Secretary of Defense Carlucci travels to Beijing to meet with Deng Xiaoping and senior Chinese leaders for two days of talks that focus especially on missile sales; stopping the M-9 sale to Syria is reportedly a top priority issue. Deng tells Carlucci that China would "exercise restraint on missile sales because restraint may be warranted under certain conditions." Both PRC Minister of Defense and Deputy Chief of the General Staff agree to sell weapons only for "defensive purposes."
- Secretary Carlucci says he feels "fully satisfied" that China will behave in a "thoroughly responsible" way and that, "I think we are now at a point where we can hopefully put this issue behind us." Carlucci was reassured that China would not be selling more *intermediate-range*

missiles to the Middle East beyond those sold to Saudi Arabia. Carlucci notes that the talks were the best discussions the United States and China have had on the subject. PRC Minister of Defense Qin Jiwei says that he hopes "military development" between the two countries would continue.⁶²

Note: Despite U.S. assumptions that the "agreement" would restrict sales of Chinese missiles to sensitive areas, the Chinese continued to sell HY-2s (Silkworm) to Iran in 1988 and 1989.⁶³

9/88 Department of Defense sources confirm that North Korea "imports components and fabricates [Scud-B] missiles." The sources also refer to North Korean imports of rocket engine technology and guidance components from the PRC.⁶⁴

11/88 China Precision Machinery Import-Export Corporation (CPMIEC) displays several new types of tactical missiles for sale at China's Second International Defense Technology Exhibition, including the C-301 supersonic coast-to-ship missile, C-802 multi-purpose anti-ship missile, FM-80 surface-to-air missile system, HQ-2B surface-to-air missile and the M-9 ballistic missile.⁶⁵

1989

2/89 China is trying to sell the M-9 to Iran, and may be supplying the Iranians with the technology to produce a short-range ballistic missile, the Iran-130.⁶⁶

Note: By the end of 1987, the Iranians were already in the advanced stages of Iran-130 development; the missiles were first fired against Al-Amarah on 3/19/88.

early 1989 Pakistan successfully tests the Hatf-2 missile. The 300 km-range system is based on French (being largely a copy of France's Eridan sounding rocket developed in the late 1960s) and Chinese technology.⁶⁷

3/9 Western diplomats say China is assisting Iran to build a plant for manufacturing ballistic missiles, possibly with a 500 mile [810 km] range.⁶⁸

3/89 First official pictures appear of Pakistan's "indigenous" missiles: the Lance, a man-portable surface-to-air missile which Pakistani officials say incorporates 70% indigenous technology and 30% Chinese assistance, and the Hatf-2, which may have been developed with Chinese assistance.⁶⁹

4/4 After three years of secretive negotiations, Brazil's Avibras Aerospace Corporation signs agreement with China Great Wall Industry Corporation (CGWIC) to establish International Satellite Communication (INSCOM) to market launchings of space rockets and supply satellite tracking equipment to developing countries. Initial capital will total \$500,000. Avibras says the new firm will not develop new rockets for its customers and that the agreement does not contain any military objectives.⁷⁰

4/89 New Pakistani missiles are seen in public for the first time at Pakistan's Joint Services parade. The Hatf-2 mobile launcher is converted from an old UK-supplied 3.7 in (94 mm) anti-aircraft gun carriage.⁷¹

- 5/2 In Congressional testimony, missile expert Seth Carus notes that since the sale of CSS-2s to Saudi Arabia, "it appears China is no longer overtly marketing its M-series of missiles." Meanwhile, the Iranian missile program appears to rely heavily on Chinese technical expertise. Similarly, it is believed that the Scud-B missiles supplied to Iran by North Korea incorporated critical components made in China. Carus also comments that Pakistan is reported to have turned to China for technical assistance in making its new ballistic missiles.⁷²
- 5/2 Ambassador Holmes testifies that, "In nearly all of our high level contacts with the PRC in 1988 and so far in 1989, we have stressed the dangers of missile proliferation and sought Chinese restraint in their export programs. We believe the Chinese understand our concerns and hope they will show restraint in transfers of missiles and technology covered by the MTCR ... we are continuing to talk to them."
- Responding to Sen. McCain's question whether or not the Chinese have lived up to their "pledges" Holmes replies, "I am not quite sure what you mean by pledges, Senator, but we have had discussions with them, and they have told us ... that they intend to apply a responsible policy to this."⁷³
- 5/14-
5/16 During his state visit in Beijing, Gorbachev (along with other Soviet officials) raises the issue of Chinese efforts to sell M-series missiles to Syria and Libya. Chinese leaders are "unresponsive."⁷⁴
- 5/18 According to "specialized U.S. defense sources" Syria and the PRC sign M-9 agreement.⁷⁵
- 5/18 CIA Director William Webster tells the Senate Governmental Affairs Committee that China is "actively promoting" the export of shorter-range ballistic missiles with "a mix of financial and political objectives" motivating the sale. Webster includes a chart detailing the global spread of ballistic missiles, which notes Chinese assistance in development of Pakistan's Hatf-2 missile.⁷⁶
- 5/20 A Saudi Defense Ministry source says there is no truth whatsoever to the story that Saudi Arabia is financing a Syrian-PRC missile deal.⁷⁷
- 5/89 Libya agrees to finance the Syria-PRC M-9 deal. Out of the \$170 million deal, eighty missiles are to be transferred to Syria and 60 retained by Libya.
- However, a Cairo newspaper reports that Saudi Arabia and Syria have signed a 3-way agreement with the PRC to purchase M-9 missiles and Chinese long-range CSS-2s. Saudi Arabia reportedly will finance the entire deal [see also 5/18, 12/15 entries below].⁷⁸
- 6/89 Indications that the White House was considering lifting the suspension of shipment of communication satellites are dispelled when President Bush bans arms sales following the June crackdown on student demonstrators.⁷⁹
- (6/89) Recently, Libya has tried -- apparently unsuccessfully -- to secure the CSS-2 from China and a ballistic missile from a company [unnamed] in West Germany.⁸⁰
- 8/7 PRC Foreign Ministry spokesman denies a Mideast newspaper report that the PRC signed an agreement to supply M-9s to Syria.⁸¹

- 9/18 "Special military sources" say Iran is *currently* holding discussions with the PRC on joint production of the "M9-11" SSM series, which has a range of 300 to 450 km.⁸²
- (10/14) Iran-130 is of Chinese origin while Pakistan's Hatf-1 and Hatf-2 missiles have reportedly been developed with Chinese and West European technology.⁸³
- 11/8 At an Arms Control and Disarmament Agency-sponsored seminar, a senior administration official says the United States is concerned China may drop a commitment not to sell *medium-range* missiles or the technology to make them, but the official declined to be specific regarding Chinese export efforts. Other administration officials say they are aware of reports that China was selling missiles in the Middle East and elsewhere, but that there is conflicting information on what is actually for sale. The officials say there is no evidence that a deal has been consummated.
- Another senior official says that strains in U.S.-PRC relations following the June crackdown have hampered efforts to get China's clarification on its missile stance. A meeting in China on proliferation issues with American and Soviet officials was called off [meeting date not given].⁸⁴
- 11/89 China again denies that it has a deal with Syria for ballistic missiles.⁸⁵
- 12/9-10 National Security Assistant Skowcroft and Deputy Secretary of State Eagleburger travel to Beijing. President Bush apparently fears the United States would lose any hope of Chinese cooperation on issues like arms control if relations fail to improve. China offers general assurance that it would not sell *medium-range* missiles to the Middle East. However, American officials say the Chinese never define what they mean by medium-range. The Chinese also state that they would not sell M-9 missiles to Syria.⁸⁶
- 12/12 The PRC Foreign Ministry dismisses as "utterly groundless" reports that China was going to sell M-9 missiles to Syria. A press release states that, "Except its sale of a few missiles to Saudi Arabia, China has not sold, *and has no plans to sell*, any *medium-range* missile to any Mideast country." The Foreign Ministry also denies that the Skowcroft delegation was sent expressly to persuade China not to go through with any Syrian missile sale.⁸⁷
- (12/15) An Israeli source says Syria has tried to purchase 140 M-9 missiles from China, with funding supplied by *Libya*. The same source says that the parties signed a contract, but the deal has been held up by the recent Skowcroft visit to Beijing.⁸⁸
- 12/30 Israeli military sources report that Syria is apparently seeking North Korea's help in developing a new SSM, after U.S. pressure on China canceled a Sino-Syrian missile deal.⁸⁹

1990

- 1/25 U.S. Senator Jesse Helms introduces a bill which would terminate all U.S. assistance to Chinese aerospace programs.⁹⁰
- 1/90 A Pakistani military delegation, led by Gen. Aslam Beg, travels to Beijing to negotiate the purchase of M-9[?] missiles as part of more general discussions on expanding Sino-Pakistani defense cooperation.⁹¹

- 2/7 Amir Hammudi al-Sa'di, Under Secretary at Iraq's Ministry of Military Industrialization, denies that Iraq had sought help from China or any other country to produce the three-stage Al-abid satellite launch vehicle.⁹²
- 2/90 An unpublicized meeting is held between Under Secretary of State Bartholomew and China's Ambassador in Washington. In broad discussions over proliferation concerns, the United States seeks but fails to get assurances that China will not sell *medium-range* missiles. American officials have tried repeatedly to get the Chinese to agree to an internationally accepted definition of *medium-range*.⁹³
- 2/90 U.S.-based Collins General Aviation, a Rockwell subsidiary, has reached a licensing agreement with China National Aero-Technology Import and Export Corporation (CATIC). The agreement will mean the first Chinese domestic manufacture of electronic flight instrumentation systems. The deal awaits both U.S. and PRC government approval.⁹⁴
- 3/24 Foreign witnesses report two police-escorted convoys (on 3/24 and 3/26) of flatbed trucks carrying approximately two dozen missiles from the western side of Beijing toward the port of Tianjin. Western diplomats believe they were short-range missiles -- most probably 60 mile [97 km] range "M-1Bs" -- destined for Iran. However, some intelligence analysts say the reported convoy was not in fact headed towards Tianjin, and thus was not evidence of a missile sale.⁹⁵
- 3/27 The State Department issues a statement that in past U.S.-China discussions, the Chinese "have responded in ways that indicate they would not provide *intermediate-range* missiles to countries other than Saudi Arabia U.S. officials have made clear to the Chinese the risks attendant on proliferation of missiles of any range or missile technology to regional hot spots such as the Middle East."⁹⁶
- (3/30) Recent American intelligence reports say China may have agreed to supply Iran with short-range "8610" SSMs [the range of the '8610' is thought to be around 120 km]. There are also unconfirmed reports that China might be planning secret M-9 sales to Syria by routing them through South America, but U.S. officials say there is no evidence this has actually been done.⁹⁷
- 4/9 China denies reports that it has begun exporting *short-range* missiles to the Middle East. Beijing-based diplomats, however, say they believe the PRC has started selling short-range missiles, probably to Iran and Iraq. According to U.S. Naval intelligence reports, the PRC is planning to sell theater ballistic missiles, most likely *M-9s*, to Pakistan.⁹⁸
- 5/2 The White House announces a proposal to ease COCOM guidelines on sales of some high-technology goods to China and the Eastern bloc.⁹⁹
- (5/23) Libya is reportedly trying to buy the M-9 from China.¹⁰⁰
- 5/90 Saudi Arabia's CSS-2s become operational for the first time. Missile expert Aaron Karp reports that contrary to earlier beliefs, the Saudis have 120 (not 50-60) of the missiles. The two missile sites are located at Al-Joffer, 100 km south of Riyadh and Al-Sulaiyil, 600 km south of Riyadh. Each site is equipped with 4-6 unprotected launch pads.¹⁰¹
- late
5/90 The United States detects a shipment of some 50 Chinese short-range SSMs at the Iranian port of Bandar Abbas. The missiles were delivered by Chinese freighter.¹⁰²

early
6/90 The U.S. embassy in Beijing is instructed to ask the Chinese not to sell Libya so-called "precursor chemicals." Administration specialists say there is no firm proof a transaction has been made.¹⁰³

6/6 In testimony before Senate Foreign Relations committee, Kent Wiedeman (Director, Office of Chinese and Mongolian Affairs, State Department) says that the Bush administration is still trying to get China to accept an internationally agreed to definition of what constitutes a *medium-range* missile.¹⁰⁴

(6/25) According to Asian intelligence specialists, in recent years Israel has provided electronics and guidance systems needed by the PRC to upgrade its existing missile systems. Sources add that Israel may be supplying the PRC with engine technology to build combat aircraft.¹⁰⁵

(7/25) According to diplomatic sources in Cairo, the PRC has agreed to help Egypt modernize its surface-to-surface and surface-to-air missile production capabilities; the agreement will enable Egyptians to indigenously produce Scud-Bs. The Chinese will also provide a production line for more advanced versions of their Silkworm missile.¹⁰⁶

8/90 According to DIA reports, Chinese nuclear missile technicians begin to arrive in Saudi Arabia.

9/20 A North China Industries Corporation (NORINCO) subsidiary, China Wanbao Engineering Company (CWEC), reportedly supplies seven tons of lithium hydride to Iraq for \$15 million. CWEC literature says the company specializes in "construction of military and civil engineering products" including factories for the production of "various solid propellants of rocket and missile [sic]."

Lithium hydride is used in the production of missile fuel and nuclear weapons; The Independent reports that the Iraqis most likely want the rare chemical for ballistic missile fuel. China's Foreign Ministry calls the report "completely groundless"; NORINCO also denies the charge. Meanwhile, U.S. embassy personnel meet with Chinese officials to discuss NORINCO's activities.¹⁰⁷

late
11/90 A missile-fueling accident and fire at a Saudi base kills "about" 20 Chinese nationals.¹⁰⁸

12/90 According to the CIA, 30 mobile M-9 launchers and an unspecified number of missiles have been ordered by Syria, in a \$285 million deal with the PRC. The purchase was reportedly funded by Saudi Arabia.¹⁰⁹

12/90 Arab press reports claim Iran and China have signed a 10-year military technology transfer agreement which includes production of M-9 and M-11 missiles in Iran.¹¹⁰

1991

(1/91) According to U.S. sources, part of the \$2 billion in Gulf state aid payments (for Syria's contribution to U.N. forces in the area) is being used to buy SSMs. An Israeli official says North Korean "Scud-Cs" have already been purchased, apparently in addition to \$300 million worth of M-9s from China.¹¹¹

- (2/6) Brazilian technicians and engineers, working on Iraqi guidance systems, say "Space Research Center" consultation meetings in Baghdad included specialists from the United States, France, UK, USSR and China, in addition to Brazilian experts.¹¹²
- 2/19 U.S. officials say that China has not yet exported any of its new missiles.¹¹³
- 2/91 Additional Chinese technicians have arrived at Saudi missile bases from which Americans are barred.¹¹⁴
- 2/91-3/91 Following China's February delivery to Pakistan of M-11 missile launchers, the State Department's East Asian and Pacific Bureau writes a secret policy memorandum recommending that the President impose curbs on computer sales and satellite cooperation with China, and prohibit high-tech exports to Chinese companies selling missiles to Pakistan [see 5/27 entry].¹¹⁵
- (3/8) Syria and Libya have both pressed Beijing for access to M-9 and M-11 missiles.¹¹⁶
- 3/10-3/12 Assistant Secretary of State Richard Solomon travels to Beijing to protest China's missile sale to Pakistan. Solomon says, "There are many countries, and China is one, that have a defense industry that's [sic] pretty expensive. Obviously, sales abroad help to subsidize the domestic arms industry ... [but] the Chinese have indicated that they will honor those [MTCR] parameters." Solomon adds there is no evidence that China has completed a deal similar to the 1988 CSS-2 sale to Saudi Arabia.¹¹⁷
- 3/13 China's Vice-Foreign Minister Qi Huaiyuan tells Japanese counterpart Owado in Tokyo that Beijing is ready to cooperate with tighter controls on conventional arms -- not only ballistic missiles -- and would do so within the framework of the United Nations, rather than the MTCR.¹¹⁸
- (3/13) According to an American official, Syria purchased M-9s from China earlier this year, but none have been delivered.¹¹⁹
- 3/19-3/20 At the fourth meeting of the Missile Technology Control Regime (MTCR) in Tokyo, the Japanese agree to formally approach China regarding that country's membership in the MTCR.¹²⁰
- 3/27 PRC Foreign Minister Qian Qichen notes at a press conference that China has not signed the MTCR and did not attend the recent Tokyo meeting. He adds that, "Those countries that did not attend the meeting should not be called upon to assume corresponding obligations to an agreement reached among some other countries."¹²¹
- 3/91 Pentagon, intelligence and other sources say M-11 mobile missile launchers have arrived in Pakistan, along with dummy missile frames for practice launches. China "already has sold M-series missile technology to other nations." Along with Pakistan, Iran is a likely recipient of this technology.¹²²
- (3/91) North Korea and China are providing Iran with missile production assistance. According to Iran's Minister of Defense and Logistics, Iran has begun producing its own 500 mile [810 km] range SSMs.¹²³

- (4/15) An unconfirmed report states that the PRC helped develop chemical warheads for Saudi Arabia's 36 CSS-2 missiles.¹²⁴
- 4/23 In testimony before the Subcommittee on Technology and National Security of the Joint Economic Committee, Assistant Secretary of State Richard Clarke says that privately, "they [Chinese] have said they will take into account relevant international parameters on missiles and not sell *intermediate-range* missiles to the Middle East." This differs from the PRC's public stance of not being an original party to the MTCR and with an obligation to abide by the guidelines. Clarke adds that the administration has not yet seen proof of a sale to the Middle East of MTCR-range missiles by the Chinese.¹²⁵
- 4/25 PRC Foreign Ministry spokesman Wu Jianmin says reports of missile *aid* to Pakistan are "totally groundless"; he denies China is supplying Pakistan with *medium-range* missiles.¹²⁶
- 4/30 The first indications appear that President Bush will bar the sale of American components for Chinese communication satellites. The indications come after reports that China has provided a nuclear reactor to Algeria and has been planning to sell missiles to Pakistan.¹²⁷
- 4/91 China is "in the process" of selling 30 M-9 missiles to Syria. Saudi Arabia has also expressed interest in the M-9.
- Addressing the M-11 sale to Pakistan, a U.S. official says "there are indications of a substantial amount of activity [i.e., detection of a number of M-11 launch vehicles] between China and Pakistan relating to this missile. I can't say whether or not there is a record of actual delivery." Another senior administration official says the United States knows of no completed sales to Pakistan. Aside from previously reported dummy missile frames and missile launchers [see 3/91 entry], U.S. intelligence recently found that Pakistan "has started constructing mobile launchers" for the M-11. It was also discovered that Pakistani Air Force technicians are undergoing training in the PRC. The United States has protested the M-11 transaction to both nations.¹²⁸
- 5/5 Under Secretary of State Robert Kimmit travels to Beijing to discuss human rights, trade policy and weapons proliferation. Administration officials say the Chinese tell Kimmitt that a Chinese ballistic missile has been sold to Pakistan, but that no such missile has yet been supplied.¹²⁹
- 5/7 Admiral Brooks, Director of Naval Intelligence, testifies that the "PRC must export weapons systems to finance R&D, often selling new systems even before fielding them domestically ... [and the] technology associated with the 'M' family of missiles may have already been sold to several countries to bolster their indigenous efforts."¹³⁰
- 5/9? Foreign Ministry spokesman Wu Jianmin publicly rebukes U.S. position, saying in part that "China's policies ... will not be changed by external pressure."¹³¹
- 5/10 Marlin Fitzwater states that the reason for trade sanctions against China is that "certain activities of Chinese companies raise serious proliferation concerns ... [and] the U.S. is currently engaged in an intense dialogue with China on proliferation issues, aimed at encouraging China to observe internationally accepted guidelines on missile and missile-related technology exports." Actions against the PRC were reportedly proposed by Secretary of State Baker in a recent memo to the President. Baker sees the sanctions as a way of countering Congressional opposition to the MFN decision.¹³²

- 5/27 President Bush formally announces he will renew the PRC's MFN status, while at the same time announcing a ban on computer and satellite sales. The president states that, "For the sake of national security, we will ban technologies and equipment to any Chinese company found to violate rules outlawing transfers of missile technologies." Twenty pending licenses will be blocked for \$30 million worth of computers intended for China Precision Machinery Import-Export Corporation (CPMIEC). Numerous sources claim the ban on high-tech exports was triggered by CPMIEC's sale of M-11 components to Pakistan, presumably for local assembly.¹³³
- (5/28) A secret DIA study concludes that public statements from Beijing that it has refrained from selling ballistic missiles to the Middle East are not to be believed. Report says it is the "conscious policy of Chinese to covertly sell missiles to whomever can pay for them." The recent deal between China and Pakistan violates a 1988 PRC pledge to Secretary of Defense Carlucci that it would not sell any militarily significant technology to the developing world. Further, administration officials say China is building and continuing to supervise Silkworm and M-class missile production facilities near Isfahan, Iran.¹³⁴
- 5/30 A senior Israeli military official says Syria is estimated to be spending \$200-400 million to obtain a brigade of North Korean Scud-Cs and an unknown number of Chinese M-9s.¹³⁵
- 5/91 Syria and China agree at a secret meeting in Beijing on the M-9 missile sale.¹³⁶
- (5/91) U.S. intelligence claims to have found several missile launch sites in Pakistan which could accommodate M-11s. Pakistan denies reports of M-11 deliveries.¹³⁷
- 6/3-6/7 Senator Biden calls M-9 missile sale to Syria "the single most destabilizing potential development in the region." Biden drafts legislation that would withdraw China's MFN status if Chinese missile deals with Syria or Pakistan are completed.¹³⁸
- 6/6 Under Secretary of State Bartholomew testifies before Senate Foreign Relations Committee on alleged Chinese missile sales to Syria. Bartholomew says that in 1989, China had no plans to sell *medium-range* missiles to the Middle East and, "we're hoping that will continue to be the case." He notes that an M-9 sale to Syria would invoke Congressionally mandated sanctions contained in FY91 DoD Authorization Bill.¹³⁹
- 6/8 The PRC accepts President Bush's invitation to attend a Big Five conference on controlling weapon supplies to the Middle East. Under Secretary Bartholomew will lead the U.S. delegation.¹⁴⁰
- 6/8 Western diplomats in Beijing say the PRC may soon begin shipments of M-11s to Pakistan, M-9s to Syria, and perhaps missile shipments to other countries as well. The diplomats say it is unlikely that China can be prevented from transferring the M-11 to Pakistan, but that there is a better chance of preventing shipments to Syria.
- The M-9 and M-11 may have been developed with Syrian and Pakistani financing. Pakistanis and Syrians have been seen at various times at the sites where missile testing and development occurs.¹⁴¹

- 6/11 Several senior U.S. government experts say the Chinese M-9 deal with Syria remains intact; information supporting this has recently been obtained by military officials from allied countries.¹⁴²
- 6/12 Secretary Baker appears before the Senate Appropriations Subcommittee on Commerce, Justice and State and testifies that the U.S. government has no proof that China has delivered M-9 "or any other SSMs" to Syria. Baker also testifies that a delivery of M-9 or M-11 missiles would have "profound consequences" for U.S. relations with China.¹⁴³
- (6/13) Pakistan hopes to take delivery of M-11 missiles from China, despite U.S. objections. A Pakistani official says that, "Talks are going on at different levels, but they have not yet been finalized We don't know if we are going to get them, [but] we hope we will get them." He denies U.S. reports that Pakistan already has received M-11 launchers -- "The ones they have sighted are probably our Hatf launchers."¹⁴⁴
- Note:* It is extremely unlikely these missiles would be misidentified, as Hatf-1 and Hatf-2 launchers differ significantly from an M-11 launcher.
- 6/16 The White House implements a 5/27 decision to impose high-tech restraints on China "as a result of actions by entities in the PRC to transfer missile technology to other countries."¹⁴⁵
- (6/16) U.S. and Israeli intelligence reports allege that Chinese sales of M-9 missiles to Syria and M-11 missiles to Pakistan are imminent; also allege that China is helping Iran develop ballistic missiles. Western diplomats say completion of the deals "would be the last straw breaking normal and constructive contacts with China."¹⁴⁶
- 6/17-
6/19 Under Secretary Bartholomew travels to Beijing to discuss proliferation. Bartholomew holds 11 hours of talks with Vice Foreign Minister Liu Huaqiu, 1 hour 40 minute meeting with Vice-chairman of the Central Military Commission Gen. Liu Huaqing, and a meeting with Foreign Minister Qian Qichen. Bartholomew states that "We discussed at length the question of Chinese transfers of M-9 missiles to Syria and M-11 missiles to Pakistan," and expresses concern that such sales may be imminent. He reiterates Baker's statement that transfers of such systems would have "profound consequences" for bilateral relations.
- Chinese officials tell Bartholomew that they will "take a serious look at the NPT" and are studying whether to observe MTCR limits. However, the officials do not respond to American requests that China cancel the Syrian and Pakistani missile deals.¹⁴⁷
- 6/18 PRC Foreign Ministry spokesman Wu Jianmin tells reporters that "a very small number" of short-range missiles was sold to Pakistan, and claims that the M-11s had not been delivered up to mid-May 1991. Wu adds that the PRC has "never supplied any missiles to Syria" but refuses comment on the possibility of future sales of such weapons to that country.¹⁴⁸
- Note:* The spokesman drops 1989 phrase "nor do we plan to."
- 6/91
late
6/91 U.S. intelligence estimates say that Syria is expected to receive its first M-9s later this month.¹⁴⁹
- A Chinese ship carrying M-9s is being tracked to Cyprus from a factory in China. It is believed that the M-9s are destined for Syria. Intelligence officials also confirm that China delivered an

1991

unspecified number of CPMIEC-made M-9/M-11 missiles to Pakistan over the past six months. In a letter to the Washington Times, Chen Guoqing, press counsellor at the Chinese embassy in Washington, denies the report, calling the accusation of missile sales to Syria "sheer nonsense."¹⁵⁰

7/2-

7/15

Li Peng visits Syria, Egypt, Jordan, Iran, Saudi Arabia, and Kuwait. The 100-member strong Chinese delegation reportedly does not include any military officers. According to Japanese intelligence sources, Li Peng promises Syria that Beijing is willing to sell Damascus SSMs.

Iranian government sources say the PRC agrees to provide the necessary expertise and technology for completion of an Iranian nuclear reactor, which is part of a deal that will make the PRC Iran's biggest trader and arms supplier. During his stay in Iran, Li Peng visits military complexes northwest of *Ishfahan, where PRC and North Korean experts are assisting the Iranians in ballistic missile production.* The PRC will launch for Iran a space satellite "to help Iran in the fields of radio and television transmission and in reconnaissance and observation."¹⁵¹

7/10

According to Iranian exile sources, an Iranian delegation travels to China (and North Korea) to discuss "expanded deliveries" of ballistic missile and nuclear technologies.¹⁵²

7/19

Indian Defense Minister Shri P. V. Narasimha Murthy says Pakistan's acquisition of Chinese-made M-11s is posing a serious threat to India, and that the Indian government is taking "appropriate measures" to ensure full defense preparedness.¹⁵³

7/29

The Foreign Relations Authorization Act (S. 1433) passes in the Senate by 86-11 vote. It contains a provision aimed at China which would designate that in the case of non-market economies selling missile components, expertise or systems, sanctions will be taken against the government and not just against trading companies serving as government fronts for what must be government sanctioned activities.

The Act includes the Biden amendment, which adds a new section on "Chinese proliferation practices"; it calls for a Presidential report within 90 days of enactment on Chinese NBC and missile proliferation practices. The Brown amendment passes; it requires a report to the Congress and the public 45 days before China's MFN status is up for renewal. The report is to examine the PRC's proliferation policies over the past year, detail previous or possible M-series missile sales, and report on China's willingness to adhere to the MTCR. A conference is scheduled for 9/17/91.¹⁵⁴

(7/29)

Former State Department official says, "It was BCCI that financed and brokered Silkworm [probably means CSS-2] missiles that went to Saudi Arabia ... and these were equipped with sophisticated Israeli guidance systems. When you couldn't use direct government transfers or national banks, BCCI was there to hot-wire connections between Saudi Arabia, China, and Israel." The bank also helped transfer North Korean Scud-B missiles to Syria, a BCCI source says.¹⁵⁵

7/91

Assistant Secretary Solomon travels to Beijing; the results of his trip reportedly do not produce enough signs of possible progress in Sino-American relations to warrant a high profile visit of Secretary Baker.¹⁵⁶

8/1

In testimony before the Senate Foreign Relations Narcotics and Terrorism subcommittee, Senate investigator Jack Blum says *BCCI helped finance and ship North Korean Scud missiles to Syria,*

Chinese Silkworm missiles to the Middle East and handled payoffs and financing for other Chinese arms sales around the world.

William Triplett, senior staff member of the Senate Foreign Relations Committee, writes that of a reported \$400 million dollars the Chinese government held in the Bank of Credit and Commerce Hong Kong (BCCHK), several million dollars belonged to the Ministry of Aerospace Industry, the parent of CPMIEC.¹⁵⁷

8/5 Thomas Ward, SDI's Director of Security, Intelligence and Countermeasures says in the future, ballistic missile exporters such as China might offer to sell countermeasures accompanying their missiles to defeat anti-tactical ballistic missiles (ATBMs).¹⁵⁸

8/17 China announces it will sign the NPT.

(8/21) U.S. firm Alpha Lyracomm plans to purchase three communications satellites from Hughes for \$300 million, to be launched by the Chinese.

*Note: China Great Wall Industry Corporation is China's satellite launcher, the same firm covered by the President's 5/27 sanctions.*¹⁵⁹

(8/22) According to "foreign military intelligence reports," up to 24 M-9 missile launchers have been sighted in Syria.¹⁶⁰

8/91 Indian sources say nearly 60 M-11s have now been integrated into a Pakistani heavy missile brigade, with some 10 batteries functioning as long-range artillery and administered through the GHQ reserves of the Pakistan Army. Sources say the M-11 is designated the 'Hatf-3' in Pakistan service, is mounted on 8x8 TELs, and is possibly to be modified by Pakistan to carry five types of warheads: nuclear, pre-fragmented monolith, sub-munition bomblet, incendiary, and conventional HE.

U.S. intelligence sources in India are also quoted as claiming that Pakistan has received M-9s as well as M-11s in the past six months. Current PRC SSM production reportedly includes such "previously unmentioned ballistic missiles as the M-7 and M-18."¹⁶¹

Note: The Chinese have previously displayed the M-18; its existence is well-documented and widely known.

9/1/91 In response to a reduced Soviet military threat and requests by businesses for greater access to the China market, the United States has cut by half the number of high-technology goods requiring special licenses for export to China and former Eastern bloc countries. The decision was taken within the context of COCOM controls, and implements a proposal to ease COCOM restrictions first announced in 5/90.¹⁶²

early 9/91 Under Secretary of State Bartholomew travels to Beijing; he states that "We are continuing to pursue the questions that I raised the last time I was here [6/19/91]. I don't think we are at the point where there's anything more to be said ... and I would leave the matter right there."¹⁶³

- 9/28 In an interview with Al-Hayah, Foreign Minister Qian Qichen states that, with regards to arms sales to Syria, "... at this stage the PRC does not sell to them and they do not buy from the PRC."¹⁶⁴
- 10/14 A high-level Chinese delegation from the Ministry of Aerospace Industry visits NASA facilities to discuss the international space program. The head of the delegation speculates that China's Long March 3B, now under development, could be part of any future Chinese participation in the project.¹⁶⁵
- 11/15-
11/17 Secretary of State James Baker, along with Under Secretary Bartholomew and other U.S. officials, meet in Beijing with Chinese leaders to discuss trade, human rights and proliferation issues.
- Baker reports a Chinese commitment not to export the M-9 to Syria and the M-11 to Pakistan and to other countries, and, according to Baker, to "observe the guidelines and parameters" of the MTCR. The Chinese agree to the concessions in return for the lifting of sanctions first announced in June and, say U.S. sources, U.S. assistance on the PRC's entry into the GATT.
- Baker notes that both sides have the same understanding of the agreement, and that Qian Qichen had specifically acknowledged it covered the M-9 sale to Syria and the M-11 to Pakistan. Although there is no formal written agreement on the matter, Baker adds that both sides had gone over his press statement "word by word."
- There appears, however, to be some disagreement on just what was agreed upon at the meeting. The official New China News Agency, and later Beijing Review, reports that on the export of missile technology, the Chinese side expressed its willingness to "observe the MTCR guidelines and parameters in actual transfers."¹⁶⁶
- (11/91) International Defense Review reports that, since a Western imposed arms embargo against China in 1989, "Moscow has been quietly providing...rocket motors for the CC-2 satellite launch vehicle" along with other technology and hardware.¹⁶⁷
- 12/20 The U.S. announces that it intends to lift sanctions against China imposed in June of this year. State Department spokesman Richard Boucher notes that, "With China's commitment [on missile sales], the June missile sanctions will have served their purpose." Boucher adds that the U.S. was "awaiting further information from Beijing regarding the agreement through diplomatic channels. Once we have that, the administration plans to take the steps necessary to lift the sanctions."
- A State Department official says the U.S. has not yet decided whether to lift the ban on launching of U.S.-made satellites on Chinese carriers.¹⁶⁸

1992

- 1/15 In testimony before the Senate Governmental Affairs Committee, DCI Robert Gates note that Syria "appears to be seeking assistance from China and Western firms for an improved capability with CW [chemical weapon] or BW [biological weapon] warheads."¹⁶⁹
- 1/17 Administration officials reveal that China and the U.S. are "at loggerheads" over a U.S. demand that missile sales assurances made to Secretary Baker last November be put in writing. Sources indicate the U.S. understanding that the November agreement covered advanced missile sales to Iran was being questioned in "recent weeks" by the Chinese.¹⁷⁰

- 1/22 In testimony before the Senate Armed Services Committee, Gen. James Clapper, director of the Defense Intelligence Agency, reports that, "China is currently assisting many of the nations that we estimate will acquire a ballistic missile capability by the end of the decade."¹⁷¹
- 1/31 U.S. intelligence reports indicate that China has recently delivered up to 30 tons of [unspecified] chemicals needed to produce solid-fuel missiles, and has plans to ship an additional 60 tons in March or April. China has also delivered "guidance units" to Pakistan for M-11 missiles.¹⁷²

Cameron Binkley and Rafael Brinner contributed to this report.

ENDNOTES

Note: Full citations and copies of articles are available from the IMP Project.

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