

# **China and the Middle East**

## *The Quest for Influence*

*Edited by*  
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# ***Chinese Policies on Arms Control and Proliferation in the Middle East\****

**Gerald Steinberg**

*Among the major powers* China has always been the most removed from arms control and non-proliferation activities. In contrast to the US and Russia, it has not been involved in any of the strategic nuclear reduction talks and agreements, such as Strategic Arms Limitation Talks (SALT), Strategic Arms Reductions Talks/Treaty (START), Intermediate-range Nuclear Forces (INF), and Anti-Ballistic Missile Treaty (ABM). This is, in part, a reflection of its relatively small arsenal as well as the fact that for many years, it was isolated and played a relatively limited role in international diplomacy.

Historically, China was a target of major arms limitation initiatives, including the early stages of the Nuclear Non-Proliferation Treaty (NPT). After its first nuclear test in 1964, China has gradually developed its nuclear capabilities, including the deployment of intercontinental ballistic missiles. During this period, the Chinese government's declaratory policy supported nuclear proliferation as a means of 'breaking the hegemony of the superpowers'.<sup>1</sup> As China's defence industries and technological sector developed, commercial factors have also become more important. This is particularly true of nuclear and missile related technologies, and in the past decade, the role of the Chinese military-industrial complex in such exports has increased. As in the case of other arms exporters, the changes following the end of the Cold War have led to an intensified search for new markets.

Technology transfer from China has been most blatantly visible in the case of Pakistan, and this technology provided an important foundation for the Pakistani missile and nuclear weapons programme. For China, the Middle East has been and continues to be a major source of income and the primary market for advanced military technologies. China, like other weapons producers, has sought to increase its share of exports to this region. In addition to the sales of conventional weapons to both Iran and Iraq, in the late eighties, China transferred a number of long-range

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<sup>1</sup> 'Engaging China on Non-proliferation', Testimony of Robert J. Einhorn, Deputy Assistant Secretary of State for Non-proliferation Before the Subcommittee on International Security, Proliferation, and Federal Services Senate Committee on Governmental Affairs, 10 April 1997.

ballistic missiles to Saudi Arabia, signalling a fundamental change in the rate of missile proliferation in the Middle East.

In 1991, China undertook the construction of an unsafeguarded research reactor in Algeria, which, like China, was not an NPT signatory at the time.<sup>2</sup> It was not involved in the activities of the Nuclear Suppliers Group (NSG), or in other supplier regimes and as the only nuclear power outside the NSG, China has become one of the major suppliers of dual-use nuclear technology.<sup>3</sup> As will be discussed later, China has extensive links with Iran which include the transfer of nuclear and missile technology, and this has led to a series of confrontations with the US government.

In some cases, the available evidence indicates that China has not been an entirely unrestrained proliferator as it rejected attempts by Libya to obtain nuclear weapons.<sup>4</sup> In recent years, Chinese policy has undergone a sea change from 'detachment' to 'active participation'.<sup>5</sup> Indeed, Chinese leaders claim to be deeply committed to the principles of non-proliferation, and in terms of declaratory policy, have come closer to the international norms. In a detailed policy statement, a Chinese official asserted that Beijing 'is keenly aware of its ineluctable responsibility toward international arms control and disarmament. . . . It shares the major concern of the world community over the danger of the spread of weapons of mass destruction, and wants to work with other nuclear-weapon states toward WMD non-proliferation'.<sup>6</sup>

In 1992, China ratified the NPT, committing itself to seek IAEA approval and safeguards on any exports of nuclear reactors and other major facilities covered under the NPT/IAEA system. In May 1996, it formally announced that it would not provide further assistance to nuclear facilities which were not subject to full IAEA safeguards.<sup>7</sup> On 17 October 1997, in the wake of intense American pressure, China also joined the NSG (also known as the Zangger Committee or the NPT Exporters

<sup>2</sup> The existence of the 15 MW heavy water reactor located at Ayn Oussera, 250 km south of Algiers, was kept secret, and was discovered shortly before completion by US reconnaissance satellites in 1991. The reactor is reportedly capable of producing from 2 to 4 kg of plutonium annually, and some analysts speculate that it might be expanded to 60 mwt in order to increase the rate of production. Following international pressure, Algeria ratified the NPT in 1995 and accepted full scope safeguards. See Leonard Spector, Mark McDonough and Evan Medeiros, *Tracking Nuclear Proliferation* (Washington: Carnegie Endowment for International Peace, 1995), p. 180; Vipin Gupta, 'Algeria's Nuclear Ambitions', *International Defence Review*, April 1992, p. 329.

<sup>3</sup> Russia is a member of the NSG, but continues to supply reactors and other technology to 'rogue' states such as Iran, and has recently agreed to provide a large 'research reactor' to Syria. David Makovsky, 'Iran Negotiating with Russia for a Reactor', *Ha'aretz*, 18 February 1998 (<http://www3.haaretz.co.il/eng>).

<sup>4</sup> Shai Feldman, *Nuclear Weapons and Arms Control in the Middle East* (Cambridge, MA: The MIT Press, 1997), pp. 63–64.

<sup>5</sup> Wang Ling, 'Whither Arms Control?', *Contemporary International Relations* (Beijing), Vol. 7, No. 3, March 1997, cited in Guang Pan, 'China's Success in the Middle East', *Middle East Quarterly*, Vol. 4, No. 4, December 1997, p. 39.

<sup>6</sup> Wenguang Shao, 'WMD Proliferation in Asia: A Chinese Perspective', in William H. Lewis and Stuart E. Johnson (Eds), *Weapons of Mass Destruction: New Perspectives on Counter Proliferation* (Fort McNair, Washington: National Defence University Press, 1995), p. 135.

<sup>7</sup> *SIPRI Yearbook 1997: World Armaments and Disarmaments* (Oxford: Oxford University Press, 1997), p. 351.

Committee.)<sup>8</sup> In addition, China was among the original signatories and has since ratified the Chemical Weapons Convention, indicating a growing involvement in the global system of non-proliferation agreements.

However, China has not joined the Australia Group (regulating trade in chemicals) or the Missile Technology Control Regime (MTCR), but on various occasions and in response to American pressure, it has indicated an increased willingness to abide by some of the limitations. To date, Beijing has also rejected invitations to join the 33-nation Wassenaar Arrangement on limiting the sale of unsafeguarded dual-use technologies. China is a signatory to the 1972 Biological Weapons Convention, but the absence of verification mechanisms makes it difficult to verify compliance.

Thus, in global terms, China's arms control and non-proliferation policies can be described as ambivalent or contradictory. On a declaratory basis, the government is formally committed to the objectives of non-proliferation, and has agreed to participate in the major multilateral frameworks. This marks a major change in comparison to the declaratory policies of the previous decades. At the same time, in its behaviour and implementation of these policies, China, like Russia, has often been willing to allow the transfer of weapons and dual-use technology and facilities that most other members of the various suppliers' regimes have prohibited. According to the director of the US Central Intelligence Agency, China is the principal supplier of weapons of mass destruction and missile technology to the world.<sup>9</sup>

Chinese behaviour can be explained in terms of the difficulties of the central government in imposing its regulations on decentralised organisations with large budgets which are independent and relatively powerful. This is particularly true with respect to the military-industrial complex, which continues to pursue what it sees as its own and Chinese national interests through arms and technology sales. As in the case of Russia, the ability of the central government to control critical actors in this process is unclear, and the possibility that it lacks the willingness to impose restrictions and limitations on them cannot be discounted.

As noted, the Middle East is one the most active areas for the transfer of this problematic and often destabilising technology. Chinese arms sales and assistance to Pakistan, particularly with respect to the development of the Ghauri ballistic missile and its nuclear weapons programme is highly problematic and a source of conflict, particularly in relation to the United States and India. However, the role of China in South Asia is beyond the scope of this paper. China also has political interests in developing close relations with the major petroleum exporters of the Persian Gulf. One way to develop these relations is through the sale of advanced weapons and technologies not available from other sources.

<sup>8</sup> 'China's Nuclear and Nuclear Related Dual-use Export Controls', US State Department Fact Sheet, Washington DC, 4 February 1998.

<sup>9</sup> Director of Central Intelligence Report to Congress, 'The Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions', June 1997, p. 5, cited in *The Proliferation Primer, International Security, Proliferation, and Federal Services Subcommittee, United States Senate Committee on Governmental Affairs, A Majority Report—January 1998* (<http://www.fas.org/spp/starwars/congress/1998.t/prolifbk/part01.htm>).

China's links with Iran are both political and economic. They began during the Shah's regime and result, in part, from the perception that Iran could serve 'as a bulwark against perceived Soviet expansionist aims toward the Persian Gulf...'. These links continued after the Islamic revolution, and during the Iran–Iraq War, China was one of Iran's 'closest international partners'.<sup>10</sup> As will be seen later, China is also supplying military technology for the Syrian missile and WMD programmes, including chemical weapons. Although the evidence regarding sales to Libya is uncertain, Frank Gaffney reports that a series of bilateral cooperation agreements and high level visits suggest that China 'is helping to make the Libyan threat ever more formidable'.<sup>11</sup>

Although China sent its representatives to the early meetings of the Middle East multilateral working group on Arms Control and Regional Security (ACRS), created at the Madrid Peace Conference in October 1991, they did not play an active role.<sup>12</sup> Other states, including Russia, Canada, Australia and the members of the European Union, took the initiative for organising workshops and demonstration projects within the ACRS framework, but China did not become involved. Indeed, the export of Chinese technology (as well as Russian and North Korean systems) for the WMD and missile programmes of countries such as Iran and Syria, which are not participating in the process, exacerbated the instability in the region and served to undermine the goals of the ACRS. Thus, China continues to be a major source of concern in the area of arms control and proliferation in the Middle East.

In the wake of the recent nuclear tests of India and Pakistan, upsetting the nuclear equilibrium that had prevailed for the past twenty-four years (since the initial Indian test in 1974), Chinese leaders may be reconsidering their policies. It would seem that widespread proliferation of missiles and nuclear weapons in the Middle East would not serve Chinese interests. The spread of such weapons to groups and states that may pose a threat to China, particular through Iran, may become a source of concern, leading to greater Chinese willingness to block destabilising transfers of technology to Iran and other rogue states in the Middle East.

## CHINA AND THE NUCLEAR SUPPLIERS REGIME

The multilateral efforts to control the proliferation of nuclear weapons are based on a suppliers regime that was formed three decades ago. During most of this period, and until very recently, China was not a party to this regime, which consists primarily of the 1968 NPT, the Zangger Committee and the Nuclear Suppliers Group. In 1970, following the entry into force of the Nuclear Non-Proliferation Treaty, a group of

<sup>10</sup> Bates Gill, 'Chinese Arms Exports to Iran', *China Report*, Vol. 34, Nos 3 & 4, July–December 1998.

<sup>11</sup> Frank J. Gaffney, Jr, 'China Arms the Rogues', *Middle East Quarterly*, Vol. 4, No. 3, September 1997, p. 37.

<sup>12</sup> For a detailed study of the ACRS process, see Gerald Steinberg, 'Arms Control and Regional Security in the Middle East', *Survival*, Spring 1994, pp. 126–41; Bruce W. Jentleson, 'The Middle East Arms Control and Regional Security (ACRS) Talks: Progress, Problems, Prospects', *Policy Paper 26*, Institute on Global Conflict and Cooperation, University of California, 1996.

signatories met to consider the implementation of the limitations on the transfer of nuclear facilities (reactors, enrichment and separation plants) and related materials to non-nuclear weapons states, as specified in Article III, paragraph 2 of the Treaty. This group came to be known as the Zangger Committee, and in 1974, the members adopted export guidelines covering a list of items (the 'trigger list', formally adopted in INFCIRC/209).

The Zangger Committee has met twice a year, and the trigger list of export limited items is updated periodically. Following the Iraqi aggression, in 1993, additional enrichment technologies were added including electro-magnetic isotope separation (EMIS).<sup>13</sup> In addition, a major effort was made to bring in the remaining suppliers that were outside the regime, including China.

In 1974, following the Indian nuclear test and other developments, the US government convened a meeting of major nuclear suppliers in an effort to extend the scope of agreed limitations to include dual-use technologies in the nuclear sphere, not covered under the Zangger list. The Nuclear Suppliers Group, also known as the London Suppliers Group, included France, which was neither an NPT signatory nor was a member of the Zangger Committee.<sup>14</sup>

As a result of both the Zangger Committee and the NSG, the transfer of technology, facilities and materials slowed down in the late seventies and through most of the eighties, particularly to Asia and South America. However, the guidelines did not prevent Iraq from acquiring what was loosely described as 'dual-use technology' necessary to develop nuclear weapons. Indeed, in this area, the guidelines were largely ineffective and billions of dollars worth of such technology was sold without any safeguards. In 1991, the NSG met again (after a hiatus of ten years) and adopted the list of technologies that had been added by the Zangger Committee, and in 1993, the NSG list was expanded to include uranium conversion plants and equipment.<sup>15</sup>

Between 1970, when the NPT entered into force, China was one of an increasingly declining number of non-NPT signatories. In the eighties, there were numerous reports of substantial Chinese assistance to the Pakistani nuclear programme.<sup>16</sup> This led to American pressure on China to change its policies, and in 1984, China publicly declared that it would not contribute to the proliferation of nuclear weapons and would seek IAEA safeguards on its nuclear exports. However, China continued to provide 'weapons-related aid to Pakistan' and exported materials and facilities for weapons production to other countries. The Iraqi uranium enrichment programme was apparently based on Chinese technology.<sup>17</sup> However, there was little, if any, visible impact on Chinese behaviour, and the range of transfers grew, between 1985 and 1987, China began to provide technical assistance to Iran.<sup>18</sup> In November 1991,

<sup>13</sup> Spector, McDonough and Medeiros, *op. cit.*, p. 180.

<sup>14</sup> Leonard Spector, *Nuclear Ambitions: The Spread of Nuclear Weapons, 1989-1990* (Boulder, Colorado: Westview Press, 1990), pp. 433-36.

<sup>15</sup> Spector, McDonough and Medeiros, *op. cit.*, p. 182.

<sup>16</sup> Spector, *op. cit.*, p. 42.

<sup>17</sup> 'Iraq and the Bomb', *MidEast Markets*, 11 December 1989, cited in Spector, *op. cit.*, fn. 45, pp. 43 and 312.

<sup>18</sup> Kenneth Katzman, 'Iran: Military Relation with China', *CRS Report*, 26 June 1996, p. 1.



China agreed to sell a 30 kw neutron source research reactor to Syria. Although the approval of the IAEA was sought and received in March 1992, the details of the facility and its current status are unknown.<sup>19</sup>

In 1992, following the announcement of France's decision to ratify the NPT, China also ratified this treaty, committing itself to seek IAEA approval and safeguards on any exports of nuclear reactors and other major facilities covered under the NPT/IAEA system. However, Chinese policy regarding the transfer of dual-use nuclear technology, both to NPT signatories, such as Iran, and non-signatories, such as Pakistan did not change suddenly. China has been a major supplier of technology for Iran's civilian nuclear programme (following Russia). China is constructing a zero power reactor and a factory to manufacture zirconium cladding for nuclear fuel rods.<sup>20</sup> It has also supplied nuclear technicians and equipment to assist in the construction of an Iranian nuclear plant near Isfahan that will be able to produce 'uranium products that can be used to make fissile material for nuclear weapons'.<sup>21</sup>

Following intense American pressure, a spokesman of the Chinese Foreign Ministry denied reports that China was involved in building an enrichment plant in Iran, and declared that China had never exported any sensitive reprocessing, uranium enrichment or heavy water production technology or equipment. He stated that 'there isn't any nuclear cooperation between China and Iran that is not under the safeguard of the International Atomic Energy Agency'.<sup>22</sup>

On 11 May 1996, the Chinese government formally announced that it would not provide further assistance to nuclear facilities which were not subject to full IAEA safeguards.<sup>23</sup> A year later in May 1997, China's State Council issued a statement entitled '*Circular on Strict Implementation of China's Nuclear Export Policy*', which covered the export of nuclear and nuclear related dual-use items on an interim basis. In this detailed and unprecedented statement, the Council declared that this directive:

1. Applies to all governmental and non-governmental entities in China.
2. States that nuclear materials, nuclear equipment and related technology, non-nuclear materials for reactors, and nuclear related dual-use equipment, materials and technologies on China's export list may not be supplied to or used in facilities not under IAEA safeguards.
3. Covers technology in all forms, including exchanges of personnel and information.
4. Requires exporters of nuclear related dual-use items to non-NPT countries:  
(a) to seek prior confirmation from China's Atomic Energy Authority of the

<sup>19</sup> Allison Kaplan, 'Huge Buildup of Weapons Flooding the Middle East', *The Jerusalem Post*, 16 June 1992, p. 14; see also Feldman, *op. cit.*, p. 67.

<sup>20</sup> *Background Briefing by Senior Administration Officials* (The White House, Office of the Press Secretary, 29 October 1997).

<sup>21</sup> Bill Gertz, 'Navy Finds that China is Top Illicit Arms Supplier to Iran, Iraq', *The Washington Times*, 2 September 1997.

<sup>22</sup> *Non-Proliferation Review*, Vol. 3, No. 2, Winter 1996, p. 109.

<sup>23</sup> *SIPRI Yearbook 1997: World Armaments and Disarmaments* (Oxford: Oxford University Press, 1997), p. 351.

IAEA safeguards status of nuclear facilities in the recipient country; and (b) to seek end-user certificates from the importing government along with assurances that the relevant equipment or cooperation will not be re-transferred to unsafeguarded nuclear facilities.

5. The associated control list (issued in June 1997) is substantively identical to the dual-use control list adopted by the Nuclear Suppliers Group (published in IAEA INFCIRC 254, Part II).<sup>24</sup>

In September 1997, immediately preceding a scheduled summit meeting between Chinese and American leaders, China issued more specific nuclear export control regulations beyond the dual-use technologies covered in the earlier declaration. These additions:

1. Provide that all nuclear exports are under the control of the State Atomic Energy Agency which will examine all nuclear export applications and refer them to other appropriate agencies as necessary.
2. Include a control list substantively identical to the 'trigger list' adopted by the Nuclear Suppliers Group (published in IAEA INFCIRC 254, Part I).
3. State that only units designated by the State Council are permitted to engage in such exports.
4. Give the Chinese government the right to suspend exports if the recipient country violates its commitments or there is a danger of nuclear proliferation.
5. Require recipient governments to provide assurances of peaceful use, IAEA safeguards, no re-transfer to third parties without Chinese government approval, and physical protection of nuclear material.
6. Establish authority for taking criminal, civil or administrative actions against violators of the regulations.<sup>25</sup>

When China joined the Zangger Committee in October 1997, its representative Ambassador Li Changhe outlined the Chinese government's new declaratory policy on nuclear related dual-use technologies. Exports, he declared, would be based on three principles: (a) peaceful applications only; (b) acceptance of IAEA safeguards; and (c) no transfers to third parties without the consent of the Chinese government. Any assistance for nuclear explosives or related information would be forbidden and he added that the Chinese central government would ban the export of an item not

<sup>24</sup> INFCIRC 254 dates from July 1992, and consists of guidelines for the transfer of dual-use technology to non-nuclear weapon states for unsafeguarded nuclear facilities or in nuclear explosive activity. Such facilities would include enrichment and reprocessing plants that are outside of the IAEA verification system. This document also prohibits transfers 'when there is an unacceptable risk of diversion... or when the transfers are contrary to the objective of averting the proliferation of nuclear weapons'. Spector, McDonough and Medeiros, *op. cit.*, p. 182. However, for states that have signed the NPT but are suspected of developing an illicit weapons programme, such as Iraq and, more recently, Iran, the limitations are minimal and less comprehensive than those under the NSG or Zangger trigger lists.

<sup>25</sup> 'China's Nuclear and Nuclear Related Dual-use Export Controls', *op. cit.*

on a control list if there was reason to believe that the transfer of technology could contribute to nuclear proliferation.<sup>26</sup>

While the implementation of this policy was unclear following its announcement, formal dual-use export control regulations and a list of technologies to be covered were expected to be issued in mid-1998. In his opening statement to the Zangger Committee, the Chinese representative stressed that China's export controls include a 'catch-all' authority whereby exports which violate the export control principles, or pose a proliferation risk, whether or not they are on a control list, will be denied export licenses.<sup>27</sup>

This strategy seemed to be linked to Chinese President Jiang Zemin's visit to Washington in October 1997, and the summit meeting with President Clinton. Nuclear technology was among the most salient issues on the agenda; the Chinese leader sought approval for the bilateral Peaceful Nuclear Cooperation Agreement that was originally signed in 1985 but did not take effect due to China's export policy and the June 1989 Tiananmen Square massacre. Under this agreement, US firms and institutions would be allowed to provide technology and assistance to the Chinese civil nuclear power programme. The Chinese declarations regarding nuclear exports (both with respect to the Zangger Committee and the pledge to end nuclear cooperation with Iran) led the Clinton Administration to agree to implement this agreement.

In contrast, the US Congress continues to be very critical of the administration's policy and many Congress members expressed dissatisfaction with the lack of verification regarding the Chinese pledges prior to the administration's decision to authorise the sale of commercial nuclear technology.<sup>28</sup> Critics note that the Chinese leadership continues its activities behind the facade that the technology being transferred to Iran is 'of a completely peaceful nature and is not at all military'.<sup>29</sup> However, the US Congress did not intervene in the implementation of the bilateral Peaceful Nuclear Cooperation Agreement.

Meanwhile, there was enough evidence that these declaratory policies would not lead to substantive changes. During the summit in October 1997, the US National Security Agency reportedly discovered that China had signed an agreement to sell Iran 'material that could be used for developing a nuclear weapon'.<sup>30</sup> The material, it was reported, included hundreds of tons of anhydrous hydrogen fluoride, used for refining uranium ore into gas, and for increasing the concentration of fissionable U-235. The US waited till February 1998 to confront China about the agreement. When it did, Chinese officials argued that the material, also known as hydrofluoric acid, was not on the list of controlled nuclear substances maintained by the international arms control authorities. Earlier, China had reportedly agreed

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*

<sup>28</sup> Bill Gertz, 'Missiles in Iran of Concern to State', *The Washington Times*, 11 September 1997.

<sup>29</sup> Radio Views 'Chinese Ties after Clinton's "Defeat"', *FBIS-NES-95-119*, Tehran, *Voice of the Islamic Republic of Iran First Programme Network in Persian*, 21 June 1995.

<sup>30</sup> 'China had Deal to Sell Iran Material for Nuclear Weapon', *Associated Press*, 13 March 1998.

to sell Iran a plant to produce uranium hexafluoride plant, but this was another agreement that was not implemented following intense American pressure.<sup>31</sup> Senior Chinese officials once again assured their American counterparts that the sale would not occur.<sup>32</sup>

#### THE MTCR

The Missile Technology Control Regime (MTCR) was initially prompted by American concerns regarding the potential for ballistic missile proliferation among the outcast states in the Middle East such as Iraq, Iran, Syria and Libya, as well as in areas of tension, such as South Asia. Ballistic missiles were viewed as delivery vehicles for nuclear weapons and were thus a source of concern in the light of efforts to curb nuclear proliferation. The spread of ballistic missile capabilities in regions of conflict, particularly the Middle East and South Asia, was seen as a major additional source of instability, increasing the radius of potential conflict as well as the lethality.

During the late seventies, the US Arms Control and Disarmament Agency sponsored the initial examination of policy options. These later became the basis for negotiations between the Reagan Administration and the other members of the G-7 (the group of seven major industrial states).<sup>33</sup> In 1987, these negotiations resulted in what is officially termed a 'non-binding voluntary arrangement' that is 'designed to limit the risk of nuclear proliferation by controlling the transfer of equipment and technology that could contribute to the development and production of nuclear-capable, unmanned delivery systems'.<sup>34</sup> Under its original terms, the MTCR covered missiles capable of delivering a payload of 500 kg or more to distances of or greater than 300 km.

These parameters reflected the minimum weight of an unsophisticated nuclear warhead, and the 'strategic distances in the most compact theatres where nuclear-armed missile might be used'.<sup>35</sup> In addition, shorter range, smaller payload systems were readily available, and efforts to control the transfer of this technology were viewed as unrealistic. However, in the Middle East, these distances, and even smaller ranges, are indeed of strategic significance, and missiles or other means of delivery with ranges of under 300 km are classified as strategic systems.

The first MTCR arrangement included an annex consisting of two categories which specified technologies to be controlled, based on equipment and materials 'relevant

<sup>31</sup> Jonathan Rynhold, 'China's Cautious New Pragmatism in the Middle East', *Survival*, Vol. 38, No. 3, Autumn 1996, p. 107.

<sup>32</sup> 'China had Deal to Sell Iran Material for Nuclear Weapon', *op. cit.*

<sup>33</sup> Wyn Q. Bowen, 'US Policy on Ballistic Missile Proliferation: The MTCR's First Decade (1987-1997)', *The Non-Proliferation Review*, Fall 1997, p. 23.

<sup>34</sup> United States Department of State Press Briefing (extract), 'Missile Technology Control Regime', 16 April 1987, in *Current Documents, United States Department of State* (Washington, DC: United States Government Printing Office, 1987), p. 75.

<sup>35</sup> *Ibid.*

to missile development, production and operation'.<sup>36</sup> Under Category I, items that were directly and clearly related to rapid missile proliferation were included, as well as related production facilities for these systems.<sup>37</sup> Category II consisted of 'dual-use' technologies, whose application to missile production was possible.<sup>38</sup>

The proliferation of chemical and biological capabilities led to increased concern regarding the potential use of ballistic missiles for delivering chemical and biological weapons (CBW), and in 1993, the MTCR limits were extended to cover delivery systems for all forms of weapons of mass destruction. In addition, the detailed listing of prohibited technologies was supplemented by an agreement that members would base their policies on a 'strong presumption' to deny an export request if the technology in question is 'intended' for use in a system to deliver weapons of mass destruction. Since chemical and biological warheads would be effective in missiles with shorter ranges and smaller payloads, this meant that additional systems below the initial 500 kg/300 km limits were now formally included in the MTCR controls. The extended definition went beyond ballistic missiles to include remotely-piloted vehicles and other potential delivery systems for non-conventional weapons.<sup>39</sup>

As membership of the MTCR grew to 29 by December 1997 and its scope widened, the 'rogue suppliers'—China, Russia and North Korea—became a major source of concern. During the eighties, China emerged as a major supplier of advanced weapons, including missiles, to the Middle East. In June 1985, the then Iranian parliament speaker Ali Akbar Hashemi-Rafsanjani visited Beijing and signed agreements regarding the sale of missile technology. During 1987–88, China reportedly assisted Iran in the construction of the infrastructure needed to design, build and test ballistic missiles and to extend their range.<sup>40</sup> In March 1988, it was reported that Beijing had sold a number of long range ballistic missiles (2,700 km range DF-3 or CSS-2 IRBMs) to Saudi Arabia.<sup>41</sup> Ten years later, as these missiles were believed to be inoperational, reports of Saudi negotiations with China for replacement systems were published.<sup>42</sup> In 1989, Iran purchased several dozen CSS-8 surface-to-surface missiles (a converted SA-2 surface-to-air missile) from China, and the two states signed an agreement for the sale of M-9 missiles (based on the Chinese DF-15, also known as the CSS-6 with a range of 600 km), though these were never delivered.

<sup>36</sup> United States Arms Control and Disarmament Agency, *The Missile Technology Control Regime: Fact Sheet* (Washington, DC: United States Arms Control and Disarmament Agency, 17 May 1993), p. 1.

<sup>37</sup> Bowen, *op. cit.*, p. 24; *The Missile Technology Control Regime: Fact Sheet, op. cit.*, p. 1; and Richard Dean Burns, *Encyclopaedia of Arms Control and Disarmament*, Vol. III (New York: Charles Scribner's Son, 1993), p. 1475.

<sup>38</sup> *Current Documents*, p. 76, cited in Bowen, *op. cit.*, p. 24.

<sup>39</sup> Deborah Orza, 'A Chronology of the Missile Technology Control Regime', *The Non-Proliferation Review*, Vol. 1, No. 2, Winter 1994, p. 66; Aaron Karp, 'Ballistic Missile Proliferation', in *SIPRI Yearbook 1990: World Armaments and Disarmaments* (Oxford: Oxford University Press, 1990).

<sup>40</sup> Katzman, *op. cit.*, p. 1.

<sup>41</sup> OPR (Riyadh), 19 March 1988, in *FBIS-NES-88-054*, 'Statement on the Purchase of Chinese-made Missiles', 21 March 1988, cited in Bowen, *op. cit.*, p. 25.

<sup>42</sup> Philip Finnegan, 'Saudis Study Missile Buy to Replace Ageing Arsenal', *Defence News*, 17–23 March 1997, p. 40.

The assessment of the degree of Chinese assistance for the production of missiles in Iran, as distinct from the provision of complete missiles, is more difficult, partly because of the incremental nature of this technology transfer, and partly because there is extensive Russian assistance for these efforts. China reportedly provided materials, components (such as gyroscopes and accelerometers), engineering assistance and missile test technology to Iran, and is assisting Iran in the development of several short range solid fuel missiles (which could be used in longer range systems).<sup>43</sup>

Indeed, as most other states capable of supplying missiles and related technology began to restrict their exports under the MTCR, China (as well as North Korea and Russia) greatly increased their sales. In the case of China, there are a number of factors that account for this surge of missile and technology transfers. As in the case of exports of nuclear technology, these factors include economic incentives, the furtherance of external political objectives, and domestic political/organisational factors. In particular, the fragmented political and military decision-making system in China was a major factor in allowing the 'Chinese weapons export/import entities—which were responsible for selling missile technology—to function with relative impunity'.<sup>44</sup>

In December 1990, in response to these Chinese exports (as well as Russian plans to sell advanced technology to India, ostensibly for use in Indian space launchers) the US Congress passed the Enhanced Proliferation Control Initiative (EPCI). Under this legislation, the US government was required to impose sanctions on American as well as foreign 'persons, companies, or any other entities that participated in MTCR-prohibited activities'.<sup>45</sup> The Bush Administration opposed the 1990 EPCI measure, citing 'the need to maintain flexibility in US foreign policy and to balance competing national interests',<sup>46</sup> but it became law despite these objections.

Shortly afterwards, the US government began to press Russia and China to conform to the MTCR regulations, and began to impose limited sanctions. There were intense contacts between Beijing and Washington over this issue, and in 1992, the Chinese government agreed in writing (in contrast to the earlier Russian oral declaration) that it would comply with the MTCR guidelines. However, these were less restrictive requirements than those accepted by full members of the regime, as

<sup>43</sup> Michael Eisenstadt, 'US Policy and Chinese Proliferation to Iran: A Small Leap Forward?', *Policywatch*, 253 (The Washington Institute for Near East Policy), 1997.

<sup>44</sup> See John Lewis, Hua Di and Xue Litai, 'Beijing's Defence Establishment: Solving the Arms Export Enigma', *International Security*, No. 15, Spring 1991, p. 97, cited in Bowen, *op. cit.*, p. 33.

<sup>45</sup> Sanctions imposed for Category I violations are more stringent than those for Category II violations. Depending on the severity of the violation, sanctions imposed include various combinations of the following: and denial of certain or all types of US export licenses; denial of certain or all import rights into the US; and denial of certain or all contracting rights with the US government. See 'Title XVII: Missile Technology Controls, National Defence Authorisation Act for the Fiscal Year 1991', *Public Law 101-510, 101st Congress, 1st Session, November 5, 1990, United States Statute at Large 1990* (Washington, DC: United States Government Printing Office, 1991), pp. 1389-2352, cited in Bowen, *op. cit.*, p. 26.

<sup>46</sup> Bowen, *op. cit.*, fn. 43, citing Michael R. Gordon, 'Clash Erupts on Ways to Halt Spread of Missiles', *New York Times*, 1 November 1989, p. A10; David Silverberg, 'MTCR Proposals Expected to Ignite Friction in Congress, among Allies', *Defence News*, 4 September 1989, pp. 31-32.

they included only the initial MTCR Guidelines and Annex of 1987 and not the revisions.<sup>47</sup> Nevertheless, the Bush Administration agreed to lift sanctions imposed on Chinese institutions that had been involved in transferring M-11 missile technology to Pakistan.<sup>48</sup>

However, there was evidence that Chinese policies had not changed, leading to renewed sanctions and more discussions. In 1993, evidence surfaced of Iranian production of Scud-C missiles, apparently with Chinese and North Korean assistance. In 1994, the Clinton Administration agreed to lift sanctions in return for an explicit Chinese pledge not to export surface-to-surface missiles 'featuring the primary parameters of the MTCR'.<sup>49</sup> This commitment is more explicit than the earlier commitment, including a pledge not to export particular missiles to other countries. However, China still does not accept the revised guidelines and annex of the MTCR.<sup>50</sup>

Thus, Chinese sales of missile related technology to Iran, Iraq, Syria and Egypt continue. China has provided extensive assistance in the development of missile production facilities, particularly for the Isfahan plant (near the nuclear plant), which is Iran's largest such plant, as well as in the Semnan facility for solid fuel fabrication. Although Chinese officials forcefully asserted that China did not provide assistance in the production of medium range ballistic missiles to Iran, they did not explicitly deny involvement in the Isfahan plant and analysts note that the Chinese definition of 'medium range' is different from the western understanding. Since the Chinese limited their pledge to 'the primary parameters of the MTCR', this may be seen as applicable only to Category 1 items (direct production facilities), and not to dual-use technologies. If this is the case, the US government received a very limited *quid pro quo* in return for lifting sanctions.

Throughout this period, the revelations and the American government's responses indicate the degree to which Chinese policies continue to be a source of tension in this relationship.

1. In January 1995, a US court found that export control regulations had been violated in the shipment of ammonium perchlorate, a highly explosive chemical used in manufacturing rocket fuel, from China to Iraq via Amman, Jordan.<sup>51</sup>
2. In May 1995, a Central Intelligence Agency study concluded that China had 'delivered dozens, perhaps hundreds, of missile guidance systems and computerised machine tools to Iran...'. Other sources maintained that rocket propellants ingredients were provided as well.<sup>52</sup>

<sup>47</sup> *Export Controls: Some Controls over Missile-Related Technology Exports to China are Weak*, Letter Report, 17 April 1995, GAO/NSIAD-95-82, p. 1.

<sup>48</sup> See 'Imposition of Missile Proliferation Sanctions against Chinese and Pakistani Entities', *Federal Register*, Vol. 56, No. 137, 17 July 1991, p. 32601; Office of the Press Secretary, The White House, *Fact Sheet: China Trade*, 16 June 1991, pp. 1-2.

<sup>49</sup> Michael McCurry, Office of the Spokesman, United States Department of State, August 25, 1991, *China/Pakistan: M-11 Missile Sanctions*, cited in Bowen, *op. cit.*, p. 31.

<sup>50</sup> *Export Controls: Some Controls over Missile-Related Technology Exports to China are Weak*, *op. cit.*

<sup>51</sup> *Report to Congress of the United States, The White House, Office of the Press Secretary, March 21, 1995.*

<sup>52</sup> Katzman, *op. cit.*, p. 1.

3. China reportedly assisted Egypt in upgrading its domestic missile production facilities, including an improved version of the SA-67 SAM (known as the 'Ayn al-Saqr'),<sup>53</sup> in improving the indigenously built Scud-B SSM, and the licensed production of Silkworm Anti-Ship Missiles.<sup>54</sup>
4. In 1996, China delivered equipment to Iran as part of a programme to modify and extend the range of HY-2 anti-ship missiles,<sup>55</sup> and telemetry equipment for sending and collecting data during flight tests.<sup>56</sup> In late November 1996, Iran reportedly tested an indigenously upgraded Chinese Silkworm missile during naval exercises.<sup>57</sup>
5. In 1997, reports were published that Great Wall Industries were supplying key missile testing technology to Iran,<sup>58</sup> and that Iranian and Syrian companies were cooperating in upgrading Scud-C missiles using technology purchased from China.<sup>59</sup> According to a RAND report, Beijing granted Iran a license to produce Chinese versions of the FROG and SCUD-B Soviet SSMs.<sup>60</sup>
6. There is evidence of Iranian development of short-range ballistic missiles as part of a joint programme with China involving rocket motors and test equipment. Iranian missile technicians reportedly visited China to observe a ground test of a 450 mm diameter rocket motor to be used in the NP-110 solid fuel missile. The missile programme also involves Iran's use or acquisition of Chinese X-ray equipment, which is used for examining solid fuel missile casings. The China Precision Engineering Institute New Technology Corp signed an agreement with Iran's Defence Industries Organisation for the sale of gyroscopes, accelerometers and test equipment.<sup>61</sup>
7. China is reportedly discussing the sale or joint production of a 300 km two stage solid fuel missile known as the M-11. In September 1992, the Iranian embassy in Beijing announced an agreement on the purchase of 500 M-11 missiles. However, this agreement was cancelled, modified, or postponed, apparently in response to US pressure. This announcement coincided with President Bush's decision to sell Taiwan 150 F-156 combat aircraft (linked to Bush's re-election campaign), and thus, the initial response from Beijing may have been a reflection of pique with the US policy.
8. China is also reported to be working closely with Iran in the construction of two missile systems with ranges up to 2000 km that could be fielded within two

<sup>53</sup> Richard Bitzinger, *Chinese Arms Production and Sales to the Third World* (Sacramento, CA: RAND Publications, 1991), p. 10.

<sup>54</sup> *Ibid.*, p. 13.

<sup>55</sup> Bill Gertz, 'China Joins Forces with Iran on Short-range Missile', *The Washington Times*, 17 June 1997.

<sup>56</sup> Gertz, 'Navy Finds that China is Top Illicit Arms Supplier to Iran, Iraq', *op. cit.*

<sup>57</sup> Kenneth Katzman, 'Iran: Current Developments and US Policy', *CRS Issue Brief for Congress*, 2 January 1997.

<sup>58</sup> Bill Gertz, 'Russia, China Aid Iran's Missile Programme', *The Washington Times*, 10 September 1997.

<sup>59</sup> 'Iran, Syria: Weapons Development Called Part of Defence Pact', *Al-Sharq al-Awsat* (London), 11 March 1997, pp. 1 and 4.

<sup>60</sup> Bitzinger, *op. cit.*, p. 13.

<sup>61</sup> Gertz, 'China Joins Forces with Iran on Short-range Missile', *op. cit.*



to three years. An Israeli intelligence report identified one Chinese company that is assisting Iran's *Sheehab-3* and *Sheehab-4* (sometimes known as *Zelzal*) missile programmes. The missiles are expected to have ranges of up to 1500 km and 2000 km, respectively, and a prototype could be ready in two to three years.<sup>62</sup>

9. In May 1998, China was reported to have transferred 1,000 tons of special steel to Iran 'amid suspicion that it is being used, at least in part, for Tehran's missile programme'. This steel may also be used for the construction of centrifuge uranium enrichment plants for the Iranian nuclear programme, indicating the path adopted by Pakistan.<sup>63</sup>

As a result of the Chinese export policy, there was increasing pressure from the American government for sanctions and other actions designed to force the leadership in Beijing to reduce or end these transfers. The Office of Naval Intelligence (ONI) reported that the Chinese transfer of military and dual-use technology to Iran allows Tehran to develop 'one of the most active WMD programmes in the Third World, and [it] is taking place in a region of great strategic importance to the United States'.<sup>64</sup> The ONI report also noted that China tried to ship chemicals for missile fuel to Iraq,<sup>65</sup> and sold lithium hydride to Libya and Iraq, a chemical used in manufacturing nerve agents as well as for missile fuel.<sup>66</sup>

The CIA reported that China is 'the most significant supplier of WMD [weapons of mass destruction] goods and technology to foreign countries'. This claim was supported by the fact that China was 'the primary source of nuclear-related equipment and technology to Pakistan and a key supplier to Iran' in 1996.<sup>67</sup>

The Department of Defence report on *Proliferation of Weapons of Mass Destruction* (1997) was more ambivalent and diplomatic. The authors praised China for its

... willingness to adopt a more responsible supply policy by adhering to international non-proliferation norms like the Nuclear Non-Proliferation Treaty (NPT), by ratifying the Chemical Weapons Convention (CWC), and by reaffirming to the United States its pledge to abide by the basic terms of the Missile Technology Control Regime (MTCR) regarding ballistic missile sales.

Nevertheless, the report goes on to add, '... the continued willingness of Chinese firms to engage in nuclear, chemical, and missile cooperation with countries of serious proliferation concern, such as Pakistan and Iran, presents security concerns in many regions where the United States has national interests at stake'.<sup>68</sup>

<sup>62</sup> Gertz, 'Missiles in Iran of Concern to State', *op. cit.*

<sup>63</sup> David Makovsky, 'Missiles Feared as China Sends Steel to Tehran: Netanyahu said to have Raised the Issue in His Talks this Week with Beijing Leaders', *Ha'aretz*, 29 May 1998.

<sup>64</sup> Gertz, 'Navy Finds that China is Top Illicit Arms Supplier to Iran, Iraq', *op. cit.*

<sup>65</sup> *Ibid.*

<sup>66</sup> Birzinger, *op. cit.*, p. 13.

<sup>67</sup> Gertz, 'Navy Finds that China is Top Illicit Arms Supplier to Iran, Iraq', *op. cit.*

<sup>68</sup> *The Regional Proliferation Challenge* (Washington, DC: US Department of Defence, 1997), p. 4.

In the wake of this evidence, the US State Department was reported to be 'very concerned', and the Clinton Administration issued a number of diplomatic protest notes seeking to curb Chinese support for the missile programme. These protests seemed to have had no impact, and the Clinton Administration decided to refrain from imposing sanctions in order to prevent a crisis in the Sino-US relations. National Security Adviser Samuel Berger justified this decision, claiming that China has 'moved toward the international community with respect to embrace of international regimes involving non-proliferation', but admitted that 'there are still some problems with their nuclear cooperation with Iran'.<sup>69</sup>

As in the case of nuclear exports, prior to the October 1997 Washington summit, the Clinton Administration pressed China to again pledge to 'implement export controls, ... and to halt nuclear and missile cooperation with Iran'.<sup>70</sup> A few months later, the US Secretary of Defence William Cohen discussed these issues again during a visit to Beijing, and reported that the Chinese officials, including President Jiang Zemin, had agreed to stop the delivery of anti-ship cruise missiles and other missile related technology. The US government also publicised the earlier decision by China against transferring the single stage solid-fuelled M-9 missile to Syria.<sup>71</sup> However, analysts cite CIA reports of Chinese sales of guidance equipment related to M-11 missiles to Syria.<sup>72</sup>

As noted earlier, China has pledged to abide by the MTCR (but not the broader revised guidelines and annex),<sup>73</sup> but the Chinese are critical of the fact that it only covers missile technology, which is the main Chinese export, while there are no limits on the export of fighter aircraft technology, which is the major item of American and European exports.<sup>74</sup> In November 1995, China's Vice Minister of Foreign Affairs Liu Huaqi said, 'Ballistic missiles per se are not weapons of mass destruction, but rather a carrier vehicle. Likewise, fighter aircraft are also a carrier vehicle that can carry nuclear, biological, and chemical weapons. . . (Not) limiting fighter plane exports is clearly double standard'.<sup>75</sup> Thus, it is clear that China is not likely to change its policies unless the costs of continuing the export of missile related technology far outweigh the benefits.<sup>76</sup>

In early 1998, the US government altered its policies in an effort to secure greater cooperation from China in limiting such dual-use exports of missile technology, particularly to the Middle East. The Clinton Administration reportedly offered cooperative ventures with China in commercial and scientific space activities if China accepted

<sup>69</sup> *Press Briefing by Secretary of State Madeleine Albright and National Security Advisor Sandy Berger* (The White House, Office of the Press Secretary, 29 October 1997).

<sup>70</sup> Steven Erlanger 'US Says China Vows to Stop Sending Iran Anti-Ship Cruise Missiles', *New York Times*, 18 October 1997.

<sup>71</sup> *Reuters*, 'US Says China Cancelled Syria Missile Deal', 16 October 1997.

<sup>72</sup> Gaffney, Jr, *op. cit.*, p. 36.

<sup>73</sup> *Export Controls: Some Controls over Missile-Related Technology Exports to China are Weak, op. cit.*

<sup>74</sup> Bates Gill and Matthew Stephenson, 'Search for Common Ground: Breaking the Sino-US Non-Proliferation Stalemate', *Arms Control Today*, September 1996, pp. 17-18.

<sup>75</sup> *Xiandai Junshi* (Beijing), 11 November 1995; in *FBIS-CHI-95-246*, 11 November 1995.

<sup>76</sup> Gill and Stephenson, *op. cit.*, pp. 17-18.

formal membership of the MTCR.<sup>77</sup> However, according to Chinese sources, the US has opposed China's formal entry, apparently fearing that China would use its access to the technology provided by membership to acquire military technology.<sup>78</sup> In addition, an investigation regarding the link between funds provided to the 1996 Clinton re-election campaign and pressures for approval for the sale of sensitive American satellite equipment (from Loral Space & Communications) that could be used to improve Chinese missiles and MIRVs (and also be transferred to third parties) has complicated all these US decisions.<sup>79</sup> A change in the political balance and atmosphere in Washington could lead to increased American pressure and a return to sanctions with respect to Chinese willingness to transfer dual-use or missile technology to Iran and other states in the region.

During this period, Israel also attempted to initiate bilateral talks on this issue with China. In 1991, before the establishment of formal diplomatic relations, Defence Minister Arens visited Beijing and raised the issue of Chinese arms and technology sales to the Middle East. Following the ceremony formally establishing diplomatic relations in 1992 in Beijing, Foreign Minister David Levy met Chinese Premier Li Peng and Foreign Minister Qian Qichen and the first issue on the agenda was China's arms sales to the Middle East. In particular, they discussed the Chinese nuclear reactor sale to Algeria and the M-9 missile deal with Syria. The Israeli delegation was not convinced of its success, and Levy noted the Chinese feeling 'it is inconceivable that the US and Europe are allowed to sell (arms), and it cannot'.<sup>80</sup>

In October 1993, Prime Minister Yitzhak Rabin visited China, and many such issues were discussed, particularly the growing Chinese assistance for the Iranian nuclear and missile development programmes.<sup>81</sup> In May 1998, Benjamin Netanyahu visited Beijing again, and after meetings with Prime Minister Zhu Rongji and President Jiang Zemin, declared that they had given him an 'absolute commitment' that 'they are not providing Iran with nuclear weapons technology and will not in the future' and that China would not provide Iran with materials that could be used to produce nerve gas.<sup>82</sup>

## CHEMICAL AND BIOLOGICAL WEAPONS

Global non-proliferation norms and suppliers regimes are less developed in the areas of chemical and biological weapons, as compared to nuclear and missile technology. However, in the past decade, these areas have received greater attention, beginning

<sup>77</sup> Bill Gertz, 'US may Help China on Missiles', *The Washington Times* (Internet edition), 18 March 1998; 'Selling Missiles to China', Editorial, *The Washington Times*, 23 March 1998 (which includes the text of the alleged NSC memo proposing this agreement).

<sup>78</sup> Pan, *op. cit.*, p. 39.

<sup>79</sup> Jeff Gerth and John M. Broder, 'The White House Dismissed Warnings on China Satellite Deal', *New York Times* (Internet edition), 1 June 1998.

<sup>80</sup> David Makovsky, 'China-Israel Talks Today after Compact Signed', *The Jerusalem Post*, 24 January 1992.

<sup>81</sup> 'China Shies Away from Major Role', *The Jerusalem Post*, 12 October 1993; Michal Yudelman, 'Rabin, Zivili to China: Stop Arming Iran', *Jerusalem Post*, 8 August 1993.

<sup>82</sup> Amnon Barzilai, 'China to Netanyahu: No Nuclear Aid to Iran', *Ha'aretz*, 27 May 1998.

with the Australia Group, which formed the basis for a chemical weapons suppliers regime, and extending to the Chemical Weapons Convention, which came into force in April 1997.

China has a very large chemical industry and, as in the case of nuclear and missile systems, components and dual-use technologies, there is significant evidence of Chinese assistance for the chemical and biological weapons programmes of Iraq, Iran and other states of the Middle East. In 1996, US sources reported that Chinese firms were involved in providing technology to Iran's chemical weapons programme, and that China is 'Iran's principal source of chemical weapons precursors as well as production technology'.<sup>83</sup> On 21 November 1996, *The Washington Times*, quoting a CIA report, said that China had recently exported nearly 400 tons of chemicals for possible use in producing nerve agents.<sup>84</sup> In 1993 the US stopped a Chinese ship headed for Iran, under the assumption that this ship was carrying chemical weapons related materials but subsequent search did not reveal any such materials. Other sources also reported Chinese assistance in terms of both infrastructure for building chemical plants and some of the necessary precursors for mustard gas production at the Marvdasht centre in Fars Province and for the production of poly-acryl corp for chemical weapons near Isfahan. Although China formally adopted a series of export controls in December 1995 with supplements in 1997, analysts note that 'not all facets of the Chinese chemical industry' are under close scrutiny or complete control of the central government in Beijing.<sup>85</sup>

US Deputy Assistant of State Robert Einhorn declared that Washington was deeply concerned 'by the discrepancy between these positive steps and substantial information available to us that various Chinese entities have transferred chemical precursors, chemical production equipment, and production technology to Iran, which we expect will use them in its chemical weapons programme, one of the most active in the world today'. As in the case of formal declarations regarding the adoption of nuclear and missile technology export controls, in the case of chemical materials and facilities, too, there is a wide gap between implementation and declarations.<sup>86</sup> In May 1997, the US government imposed sanctions on Chinese companies for selling chemical weapons equipment and materials to Iran.<sup>87</sup> Critics of the US policy argue, 'even this modest step was taken only when the administration needed to demonstrate concern about China's proliferation in the context of a congressional debate over the renewal of most favoured nation status for China'.<sup>88</sup>

<sup>83</sup> *The Washington Post*, 8 March 1996, A26, cited in Michael Eisenstadt, *Iranian Military Power: Capabilities and Intentions* (Washington, DC: Washington Institute for Near East Policy, 1996), p. 26.

<sup>84</sup> Katzman, 'Iran: Current Developments and US Policy', citing *The Washington Post*, 8 March 1996 and *The Washington Times*, 21 November 1996.

<sup>85</sup> Mitchel Wallestein, 'China and Proliferation: A Path not Taken?', *Survival*, Vol. 38, No. 3, 1996, p. 161.

<sup>86</sup> Testimony by Robert J. Einhorn, Deputy Assistant Secretary of State for Non-proliferation, Before the Subcommittee on International Security, Proliferation, and Federal Services, Senate Committee on Governmental Affairs, 10 April 1997.

<sup>87</sup> Bill Gertz, 'Iran gets Chemical Weapons Help from China', *The Washington Times*, 2 November 1997.

<sup>88</sup> Gaffney, *op. cit.*, p. 34.

These reports continued in 1997; despite the entry into force of the CWC and international pressure to end assistance in this area. A US intelligence report included a reference to a Chinese supplied plant for 'glass-lined equipment', although there were other reports that the final delivery of raw materials needed for operating the plant as well as chemical weapons materials was temporarily stalled by the Beijing government. This dual-use factory was built by the Nanjing Chemical and Industrial Group, one of three Chinese companies sanctioned by the Clinton Administration in May for selling chemical weapons equipment and materials to Iran. The report also identified a Chinese company named Q Chen as 'a major supplier of glass-lined equipment and chemicals to Iran's chemical weapons programme' that was linked to China's North Chemical Industries Corporation (NOCINCO). 'Chen and NOCINCO have been major suppliers of IMACO since its emergence in early 1995'. NOCINCO has been identified as having delivered several hundred tons of carbon disulphide, an ingredient in nerve agents.<sup>89</sup>

#### OUTLOOK FOR THE FUTURE

A number of factors explain China's continuing sales of dual-use and military technology linked to the proliferation of weapons of mass destruction in the Middle East. First, the pragmatic basis for Chinese policy means that arms and technology sales are seen largely in terms of economic and political benefits that accrue from them. In the Middle East, in general, and in the major oil producing states in particular (Iran, Iraq and Saudi Arabia), China, like many other states, uses these exports to ensure access to petroleum. The increased activity reflects, in part, that its growing dependency on imports of oil will increase significantly.<sup>90</sup>

Furthermore, the Chinese government argues that its sales of weapons and technology amount to a fraction of the total flow to the region. Pan Guang noted, 'China's arms constitute only a very small proportion of the arms entering Middle East countries, far less than those from the United States, the former USSR, France, or Britain'.<sup>91</sup>

Beijing also views missile and WMD sales to radical states in the Middle East, such as Iran and Iraq, as a form of retaliation against western arms sales to Taiwan. In July 1991, following the Gulf War, representatives from the five permanent members of the UN Security Council (and also the five major arms suppliers to the Middle East) met in Paris to consider agreed limitations and 'rules of the game' on weapons and technology transfers. China formally supported this initiative, on the condition that the limitations be 'comprehensive, balanced, and effective'.<sup>92</sup> During a press conference held in July 1991 in Cairo, Premier Li Peng called for agreed limits on 'all kinds of weapons' and 'without the practice of exercising control over some particular

<sup>89</sup> Gertz, 'Iran gets Chemical Weapons Help from China', *op. cit.*

<sup>90</sup> Pan, *op. cit.*, p. 38.

<sup>91</sup> *Ibid.*

<sup>92</sup> *Ibid.*, p. 39.

countries while relaxing control over other countries'.<sup>93</sup> A second meeting in October led to the proposal of 'Guidelines for Conventional Arms Transfers'.<sup>94</sup> However, in the wake of President Bush's decision to sell 150 F-16 aircraft to Taiwan, China withdrew from this stillborn exercise.

To the degree that past behaviour is an indication, China is likely to continue to combine an aggressive export policy, particularly with respect to dual-use technologies, and declaratory policies that are designed to conform to US pressures. At times, and under specific conditions, the Chinese leadership may seek to slow down or prevent certain transactions, particularly when such exports are likely to evoke sanctions from the US government. However, in the past, these limitations have been temporary and narrowly confined to specific agreements, rather than part of a broader reassessment of technology transfer and export policies. As before, the US government's attention and pressures can be expected to be sporadic and inconsistent as commercial and political factors opposing sanctions tend to dominate in the long term. Thus, the Chinese government can continue to generally ignore, evade and wait-out sanctions, while continuing to receive the benefits of arms sales and exceptionality in the context of the supplier regimes.

In May 1998, India detonated five nuclear test explosions, including thermonuclear and low yield devices, and declared itself as a nuclear power. This was followed by a number of Pakistani nuclear tests, and declarations regarding the impact of an 'Islamic bomb' on the Middle East. Pakistan, which received much of its technology and facilities from China, is now seen by some as a potential source of similar assistance to Iran, thus continuing the chain of proliferation.

These events came as a shock to the nuclear non-proliferation regime and endangered the future of the regime. Suddenly, China has a nuclear armed rival in its neighbourhood. Among the reasons cited by India for its decision to go nuclear, was the Chinese assistance to Pakistan's nuclear weapons and ballistic missile programmes. China's immediate environment has become highly unstable, with the increasing likelihood of a nuclear exchange. Further, the possibility of an accelerated Iranian nuclear acquisition programme leading to widespread instability in the Middle East is also perceived by Beijing as contrary to Chinese security interests.

It is possible that China may reassess the significance of the non-proliferation and export control regimes, and realise that by exempting itself from these mechanisms, it is contributing to international instability and also endangering its own vital national interests. Policy makers in Beijing may realise that a nuclear Iran could eventually be a threat to China.

In early June 1998, the five permanent members of the UN Security Council and the five recognised nuclear weapons states under the NPT called an emergency meeting in Geneva which was convened by the Chinese Foreign Minister. In contrast to the meetings of the P-5 after the 1991 Gulf War, these powers expressed grave concern and the pressures for increasing the strength of the sanctions systems were

<sup>93</sup> *Press Release from Chinese Embassy, Cairo, No. 011/91, 17 July 1991, cited in Pan, op. cit., p. 39.*

<sup>94</sup> *Ian Anthony et al., 'The Trade in Major Conventional Arms', in SIPRI Yearbook 1992: World Armaments and Disarmaments (Oxford: Oxford University Press, 1992), pp. 293-94.*

likely to lead to broader agreement, designed to prevent the chain of proliferation from extending beyond Pakistan and India.

In a broader sense, as the number of states that abide by the supplier regimes rises, the exceptional states will become increasingly isolated, and this has a growing cost. China, Russia and North Korea are the only states that permit the sale of dual-use technologies and WMD components to the 'rogue' or 'outcast' states of the Middle East. This association with rogue states which are the source of regional instability, supporting terrorism and opposing the Arab–Israeli peace process leads to the political isolation of the suppliers as well. In the case of North Korea, the impact is minimal, since the regime in Pyongyang is an isolated rogue state itself. However, to the degree that China seeks international acceptance as a major and responsible power, such behaviour and policies are detrimental to long-term goals.

Second, the ability of the US government and the 'China lobby' to find ways to overlook Chinese violations of export control and non-proliferation requirements may be declining. With each Sino–US summit, Beijing's behaviour and not merely its declaratory policies are coming under increasing scrutiny. The Republican dominated Congress has been critical of the Clinton Administration's decision to implement the 1985 bilateral nuclear technology agreement while evidence shows that China has not been willing to end its sales of military and dual-use technologies.<sup>95</sup> Additional violations of global non-proliferation and export control norms are likely to bring increased use of sanctions through the legislative process and mechanism imposed on the Administration. In early 1998, Congressional critics of the Clinton Administration's unwillingness to impose sanctions on Russia for the export of missile and nuclear technology to Iran began to consider additional sanctions on Russia, and the same pattern may be seen with respect to China.

Finally, developments in the Chinese decision-making structure are enabling the central government to assess the costs and benefits of such technology exports at an earlier stage, providing a potential for greater control over interests that seek to increase or maintain exports to the oil exporting states in the Middle East. The steady increase in the information available to the central government regarding negotiations of questionable export contracts allows for intervention at a relatively early stage, particularly with respect to the construction of facilities, such as production plants, that are built in stages over a relatively long period. The question is whether the government is willing to use this information and its ability to exert control. If the political and economic costs of supplying technology are high, China will reconsider its actions and policies in this sphere.

<sup>95</sup> See, for example, Gaffney, *op. cit.*