

North Korea Biological Chronology

Last update: August 2012

This annotated chronology is based on the data sources that follow each entry. Public sources often provide conflicting information on classified military programs. In some cases we are unable to resolve these discrepancies, in others we have deliberately refrained from doing so to highlight the potential influence of false or misleading information as it appeared over time. In many cases, we are unable to independently verify claims. Hence in reviewing this chronology, readers should take into account the credibility of the sources employed here.

Inclusion in this chronology does not necessarily indicate that a particular development is of direct or indirect proliferation significance. Some entries provide international or domestic context for technological development and national policymaking. Moreover, some entries may refer to developments with positive consequences for nonproliferation

2012-1960's

April 2012

According to a report by South Korea's Ministry of National Defense entitled "Research on Verification Measures for North Korea's Biological Weapons," North Korea is capable of equipping its field artilleries, rocket launchers and mortars with biological weapons. The ministry assesses that anthrax, botulinum toxins, and smallpox pathogens are most likely to be weaponized. North Korea established the chemical defense brigade and platoon under the guidance of the Nuclear Chemical Defense Bureau. The official release date of the report is unknown. — Cho Byeong-wook, "군 '북, 생화학무기 13종... 방어책 강구' [Defense Ministry Devising Defense Measure Against 13 Types of Biological Weapons that North Korea Possesses]," *Segye Ilbo*, 23 April 2012, www.segye.com.

31 December 2011

An unclassified U.S. National Intelligence report claims that "North Korea has a biotechnology infrastructure that could support the production of various BW agents." The report also includes that North Korea possesses "dual-use facilities, as well as munitions industry" that are capable of weaponizing biological agents. Jagang Province is cited in the report as the main area for manufacturing biological and chemical weapons.

— United States Office of the Director of National Intelligence, "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions," 31 December 2011, www.dni.gov; "S. Korea Developing Defensive Measures Against N. Korean Chemical Attacks," *Yonhap News Agency*, 7 October 2011, www.yonhapnews.co.kr; J. Berkshire Miller, "North Korea's Other Weapons Threat," *The Diplomat*, 12 November 2011, www.thediplomat.com.

31 December 2010

South Korea's Ministry of National Defense releases its biennial white paper, which assesses that North Korea can "independently cultivate and produce biological weapons, including anthrax, smallpox, and cholera."

— "2010 Defense White Paper," Ministry of National Defense, Republic of Korea, 31 December 2010, www.mnd.go.kr.

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5 October 2009

Rep. Kim Ock-lee of the Grand National Party, citing a Ministry of Defense report, claims that North Korea possesses “13 types of viruses and germs.” These pathogens can cause diseases such as “cholera, pest, yellow fever, smallpox, eruptive typhus, typhoid fever and dysentery.” North Korea denies possessing any biological weapons.

— Kim Munk-yeong, “북, 생화학무기 5,000여 톤 보유 [North Korea in Possession of 5,000 tons of Chemical and Biological Weapons],” *YTN News*, 5 October 2009, www.ytn.co.kr; Jung Sung-ki, “N.Korea Has 13 Types of Biological Weapons,” *Korea Times*, 5 October 2009, www.koreatimes.co.kr; “Opportunities For U.S.-ROK Alliance Cooperation: New Issues on The Agenda,” The Brookings Institution Center for Northeast Asian Policy Studies and The Asia Foundation’s Center For U.S.-Korea Policy, 8 October 2009, www.asiafoundation.org.

24 July 2009

In an interview with *Al Jazeera*, North Korean defector Im Chun Yong claims that North Korea tested biological weapons on “mentally or physically deficient children” before his escape in 1999.

Previously, North Korean defector Yi Sun Ok made similar claims, saying that the state “has been using political prisoners and children as experimental test subjects,” after her defection in 1995. Another person who defected in 1994, Ahn Myong Chol, testified that Yoduk concentration camp has a human experimentation facility in its complex. According to Ahn, biological and chemical weapons are made in this facility. North Korea denies possessing chemical or biological weapons.

— Steve Chao, “N. Korea ‘Tests Weapons on Children’,” *Al Jazeera*, 24 July 2009, www.aljazeera.com; “North Korea’s Chemical and Biological Weapons Program,” *Asia Report N°167, International Crisis Group*, 18 June 2009, www.crisisgroup.org; Kang Cheol-hwan, “[조선데스크]북 수용소가 철폐되는 날 [Chosun Desk] The Day North Korean Concentration Camp Comes To an End,” *Chosun Ilbo*, 18 May 2011, www.chosun.com.

31 May 2008

At a regional defense forum hosted by the UK-based International Institute for Strategic Studies, South Korea’s defense minister stated that North Korea “continues to develop weapons of mass destruction such as nuclear, chemical, and biological weapons and missiles,” and that this poses a serious security threat to South Korea and other countries in the region.

—Yonhap News Agency, “South Korean Minister Calls for International Efforts on Terrorism, North Threats,” in BBC Monitoring, 31 May 2008, in Lexis-Nexis, <http://web.lexis-nexis.com>.

11 January 2007

In testimony before the U.S. Senate, Lieutenant General Michael Maples, Director of the U.S. Defense Intelligence Agency, reaffirms U.S. suspicions regarding North Korea’s weapons of mass destruction programs. With respect to biological weapons, Maples stated, “North Korea’s resources include a biotechnical infrastructure that could support the production of various biological agents.”

—Michael D. Maples, statement before US Senate Select Committee on Intelligence, “Current and Projected National Security Threats to the United States,” 11 January 2007, p.13.

14 September 2007

The U.S. Department of State releases the 2007 International Religious Freedom Report, which cited unconfirmed reports that North Korean prisoners detained for their religious beliefs may have been made human subjects for chemical and biological agent testing by the North Korean government. The report further notes that these allegations are very difficult to verify independently. Previous editions of the International Religious Freedom

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Report contain similar language.

—Bureau of Democracy, Human Rights and Labor, US Department of State, *International Religious Freedom Report 2007*, 14 September 2007, www.state.gov.

27 November 2007

A Taiwanese official announced that an investigation was underway on the Yicheng Company, a Taiwanese trading firm, on suspicion it had illegally exported an industrial filtering device to North Korea via China. The filtering device could be used in plutonium extraction and chemical and biological weapons manufacture.

—Debby Wu, "Taiwan Investigates Company for Allegedly Selling Nuclear-Related Equipment to North Korea," Associated Press, 27 November 2007, in Lexis-Nexis, www.lexisnexis.com.

17 February 2006

Japanese police raided about 10 locations, including the offices of the Tokyo-based trading company Seishin Soiji and the home of its president, on suspicion that the company illegally exported a freeze dryer to North Korea in September 2002. A freeze dryer is a dual-use item which may be used to preserve bacteria and produce biological weapons, and its export therefore would require a license from the Japanese Ministry of Economy, Trade and Industry.

—"Tokyo Trading Companies Raided Under Suspicion of Exporting WMD-Linked Device to DPRK," Tokyo Kyodo World Service, 17 February 2006, OSC Document FEA20060217019685; "Illicit Trafficking: Japanese Export Controls Under Scrutiny as Revelations of Illicit Transfers Continue," *International Export Control Observer*, March 2006, p. 9, <http://cns.miis.edu>.

15 July 2006

Following North Korea's 5 July 2006 test launchings of seven missiles, including a long-range Taepodong-2 missile, the UN Security Council unanimously passes Resolution 1695 condemning the launchings and imposing sanctions on the country. The resolution requires UN member states to "prevent missile and missile-related items, materials, goods and technology being transferred to DPRK's missile or WMD programs." The resolution also requires states to prevent the transfer of financial resources "in relation to DPRK's missile or WMD programs." North Korea immediately rejected the resolution.

—UN Security Council, Resolution 1695, 15 July 2006; Gerald Aziakou, "UN Unanimously Approves North Korea Sanctions," Agence France Presse, 15 July 2006, in Lexis-Nexis, www.lexisnexis.com.

10 August 2006

Japanese police arrest the former president of the Japanese trading firm Meisho Yoko. The man, Kim Yong Gun, is suspected of arranging the illegal 2002 export of a freeze dryer from Japan to North Korea via a Taiwanese intermediary trading firm in violation of Japanese export control laws. The freeze dryer could be used to manufacture biological weapons. According to Japanese police, Kim admitted to the crime.

—"Man Held Over Illegal Export to N. Korea," *The Daily Yomiuri* (Tokyo), 11 August 2006, in Lexis-Nexis, www.lexisnexis.com; "Asahi: Man Sold Pyongyang Restricted Device," *Asahi Shimbun* (Tokyo), 11 August 2006, OSC Document JPP200608119690.

14 October 2006

In response to North Korea's 6 October 2006 test of a nuclear device, the United Nations Security Council (UNSC) issues UNSC Resolution 1718. The resolution demands North Korea "abandon all other existing weapons of mass destruction and ballistic missile programme in a complete, verifiable and irreversible manner." The resolution imposed a series of sanctions on North Korea to inhibit its weapons programs and pressure the regime to comply

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with UNSC demands.

—UN Security Council Resolution 1718, 14 October 2006.

4 November 2006

According to a Tokyo newspaper report, North Korea utilized its financial holdings at Banco Delta Asia, a Macao-based bank, to pay for a Japanese freeze dryer which it received in 2002 from Japan in an illegal export operation. The freeze dryer is a dual-use item that could be used to produce biological weapons. The U.S. government had identified Banco Delta Asia's relationship with North Korea as enabling North Korea's counterfeiting and money laundering activities, and imposed sanctions on the bank in September 2005, which pressured the bank to freeze roughly \$24 million in North Korean assets.

—"Macau Bank Tied to DPRK WMD Projects; Funds Sent from Accounts to Japan in '02," *The Daily Yomiuri* (Tokyo), 4 November 2006, in Lexis-Nexis, www.lexisnexis.com; Daniel Pinkston and Dave Kim, "North Korea's Financial Network is the Target of Wide-Ranging Nonproliferation Sanctions," *WMD Insights*, December 2006/January 2007, p. 21, www.wmdinsights.com.

20 November 2006

In an address to the Sixth Biological Weapons Convention (BWC) Review Conference, U.S. Assistant Secretary of State John C. Rood accuses North Korea of supporting terrorism and violating its BWC obligations.

—John C. Rood, "Address by John C. Rood, Assistant Secretary of State for International Security and Nonproliferation, to the Sixth Biological Weapons Convention Review Conference (as Released by the US Mission in Geneva)," Federal News Service, 20 November 2006, in Lexis-Nexis, www.lexisnexis.com.

December 2006

In its 2006 Defense White Paper, the South Korean Ministry of Defense stated with respect to North Korea's chemical and biological weapons programs "that North Korea has been producing poison gas and biological weapons since the 1980s. It is believed that 2,500 to 5,000 tons of a variety of agents including nerve agents remain stored in a number of facilities...and that North Korea is able to produce biological weapons such as the bacteria of anthrax, smallpox, and cholera."

—Ministry of Defense, Republic of Korea, *2006 Defense White Paper* (English translation), May 2007, p. 74, www.mnd.go.kr; "White Paper Defines North Korea as 'Grave Threat,'" *The Korea Herald*, 29 December 2006, OSC Document KPP20061229971064.

4 February 2005

In its 2004 National Defense White Paper, South Korea analyzed the military capabilities of North Korea. With respect to chemical and biological weapons, the report states that North Korea currently appeared to have "approximately 2,500 to 5,000 tons of poisonous agents—nerve agents, blister agents, blood agents, nausea-producing gas, and tear gas produced at several chemical plants," further noted that North Korea "is capable of self-reliantly culturing and producing biological weapons such as anthrax, smallpox, and cholera."

—"ROK Defense White Paper 2004 Assesses DPRK Military Capabilities," *Kukpang Paekso' 2004* (Korean), 4 February 2005, translated in OSC Document KPG20050216000036.

17 September 2004

A Western journalist is allowed to visit several of North Korea's biotechnology laboratories in July 2004. According to his account, North Korean scientists are attempting to master advanced biotechnology techniques, including genetic engineering and somatic cloning. Some of the activities underway, such as the isolation of tetrodotoxin, a powerful neurotoxin produced by pufferfish, could potentially be employed in an offensive biological weapons

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program. However, the reporter observed that the biological research was carried out "in largely antiquated and poorly supplied facilities." In addition, some of the claims made by North Korean scientists, including the ability to clone rabbits from somatic cells, have not been independently confirmed.

—Richard Stone, "A Wary Pas de Deux," *Science* 305 (17 September 2004), p. 1696.

29 January 2003

In a radio broadcast, North Korea accuses the U.S. military of having used biological warfare agents, including the causative agents of plague, cholera, and typhoid, against North Korea in January 1952. The broadcast further claimed that the United States is developing new biological agents. No evidence to support the claims was provided.

—"North Korean Radio Accuses US of Using Chemical, Biological Weapons in Korea," BBC Monitoring International Reports, 29 January 2003, in Lexis-Nexis, www.lexisnexis.com.

18 May 2003

According to Japanese public safety and customs authorities, six Japanese trading companies associated with North Korean residents living in Japan received orders from North Korea since the late 1990s for products that could be used in the production of missiles and weapons of mass destruction, including chemical and biological weapons. Among the materials ordered were gas chromatography analyzers, vacuum freeze dryers, constant temperature incubation tanks, and stainless steels.

—"Six Japanese Firms Received Orders for WMD-Related Materials from DPRK," *Sankei Shimbun* (Tokyo), 19 May 2003, OSC Document JPP20030520000099.

4 June 2003

In testimony before the International Relations Committee of the U.S. House of Representatives, John R. Bolton, Under Secretary of State for Arms Control and International Security, characterized North Korea's programs in weapons of mass destruction and missile production as "a grave threat to regional and global security and a major challenge to the international nonproliferation regime." With respect to North Korea's BW program, Bolton stated, "the United States believes North Korea has a dedicated, national-level effort to achieve a biological weapons capability in violation of the BWC."

—John R. Bolton, testimony before the International Relations Committee, US House of Representatives, "US Efforts to Stop the Spread of Weapons of Mass Destruction," 4 June 2003, www.state.gov.

December 2003

In an unclassified report to the US Congress, the Director of Central Intelligence (DCI) assesses that North Korea has "pursued BW capabilities since the 1960s." The report also states that North Korea secured dual-use materials for its BW program, and may have BW agents and weapons ready to use.

—DCI Weapons Intelligence, Nonproliferation, and Arms Control Center, *Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions—Attachment A*, 1 July – 31 December 2003, pp. 5-6, www.cia.gov.

5 March 2002

General Thomas A. Schwartz, Commander in Chief of U.S. forces in Korea, testifies before the U.S. Senate. According to Gen. Schwartz: "North Korea has the capability to develop, produce and weaponize biological warfare agents. They can deploy missiles with chemical warheads and potentially have the ability to weaponize biological agents for missile delivery."

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—Thomas A. Schwartz, statement before the 107th Congress, Senate Armed Services Committee, 5 March 2002, p. 8.

6 May 2002

John R. Bolton, U.S. Under Secretary of State for Arms Control and International Security, describes North Korea's biological weapons capabilities before a speech to the Heritage Foundation in Washington, D.C. According to Mr. Bolton:

"North Korea has a dedicated, national-level effort to achieve a BW capability and has developed and produced, and may have weaponized, BW agents in violation of the [Biological and Toxin Weapons] Convention. Despite the fact that its citizens are starving, the leadership in Pyongyang has spent large sums of money to acquire the resources, including a biotechnology infrastructure, capable of producing infectious agents, toxins, and other crude biological weapons. It likely has the capability to produce sufficient quantities of biological agents for military purposes within weeks of deciding to do so, and has a variety of means at its disposal for delivering these deadly weapons."

—John R. Bolton, "Beyond the Axis of Evil: Additional Threats from Weapons of Mass Destruction," *Heritage Lectures*, No. 743, p. 3.

29 August 2002

In Seoul, John Bolton, U.S. Under Secretary of State for Arms Control and International Security, says that there is "little doubt that North Korea has a chemical weapons program and "one of the most robust offensive bioweapons programs on earth."

—Sang-Hun Choe, "Negotiator Says N. Korea Well-Armed," *Washington Post*, 29 August 2002, www.washingtonpost.com; Martin Nesirky, "U.S. Official Calls N. Korea 'Peddler' of Missile Technology," *Washington Post*, 30 August 2002, p. 17, www.washingtonpost.com.

February 2001

A Japanese report claimed there were "biological and chemical weapons production facilities in Hamhung and Chongju in addition to a central biological research institute, and it was confirmed that these production facilities are capable of producing and preserving more than one ton of about 15 types of bacteria per year such as cholera, anthrax bacillus, and spotted fever [i.e., typhus]."

—"The Actual Situation of North Korea's Biological and Chemical Weapons," *Foresight*, 17 February 2001, pp. 24-25, translated in FBIS.

September 2001

North Korea is believed to have stockpiled biological and chemical weapons under the auspices of a program run by the Nuclear-Chemical Defense Bureau that was founded in 1981.

—CNN Special, "War Against Terror," www.cnn.com, accessed on 17 April 2002.

18 October 2001

The DPRK claims that Japan, under the pretense of building defenses against chemical warfare, is in fact "making preparations for biological and chemical warfare."

—P'yongyang Korean Central Broadcasting Station, "Dangerous Forces of Aggression Attempting to Ignite Fuse of Biochemical War," 18 October 2001, transcribed in FBIS Document *KPP20011018000112*.

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29 October 2001

P'yongyang's Korean Central Broadcasting Station reports on past CBW research conducted in the United States, saying that "this shows how much the US warmongers have run amok recklessly to develop biochemical weapons. —Korean Central Broadcasting Station, "US Past Attempt to Develop Biochemical Weapons Denounced," in FBIS Document KPP20011029000084.

19 November 2001

According to undersecretary of state for arms control and international security, John R. Bolton, North Korea is among the states actively developing a program for biological weapons. Speaking before the Fifth Review Conference of the Biological Weapons Convention (BWC), Bolton states that North Korea has an ongoing program to weaponize biological agents at a national level. He believes that if the national authorities decided, the country could produce enough biological agents for conducting military operations within a matter of weeks. —"Bolton Says Iraq, North Korea Violate Biological Weapons Pact," US Department of State, www.usinfo.state.gov, accessed on 17 April 2002.

20 November 2001

ROK Defense Minister Kim Dong Shin tells the South Korean parliament that the DPRK possesses BW agents smallpox and anthrax, as well as the capability to use them as weapons. —Yonhap broadcast in English, transcribed in FBIS Document KPP20011120000003.

28 November 2001

South Korean military sources indicate that North Korea possesses 13 different types of BW agents, including the causative agents in anthrax, smallpox, cholera, plague, and typhus. —Kang Tong-Hyong, "Status of North Korea's Arsenal of Weapons of Mass Destruction," in Taehan Maeil, internet version, in FBIS Document *KPP20011127000106*.

May 2000

(Unclassified briefing, USFK J-2): "North Korea has the capability to develop, produce, and weaponize biological agents, to include bacterial spores causing anthrax and smallpox and bacteria causing plague and cholera." —Stephen Bradner, "North Korea's Strategy," 1 August 2000, paper presented at the third NPEC/Institute for National Security Studies/Army War College sponsored workshop on Comparative Strategies, 12-14 June 2000, Arlington, Virginia.

July 2000

South Korean press reported that North Korean Special Forces training included "...spreading horrifying skin diseases via toilet seats in public restrooms, including restrooms in expressway stations, subway stations, and railway stations; bacteriological warfare by disguising bacteria as a livestock epidemic; spreading contagious diseases using drinking water sources; and spreading chemical and bacteriological weapons via winds blowing to the south and balloons. However, it appears that Reconnaissance Bureau combatants are not subject to this training at present."

—Yi Yong-hun, "Analysis of Training Conditions of the North Korean Army's Special Units," Pukhan, 1 July 2000, pp. 102-07, translated in FBIS Document ID KPP20000720000043.

South Korean Ministry of National Defense, 1999 defense white paper, reports that "By 1980, [the DPRK] had succeeded in its experiments in bacteria and virus cultivation for biological weapons, and by the late 1980s

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completed live experiments with such weapons."

—From ROK MND, defense white paper, 1999, www.mnd.go.kr.

March 1999

Citing a book published in 1998, alleging the United States used BW in the Korean War, North Korea's UN Ambassador Li Hyong Chol urges the UN Security Council to "make an issue of the United States' use of biological and chemical weapons and large-scale massacres and abuse of the UN name (during the Korean War) in order to prevent their recurrence."

—Edith M. Lederer, "N. Korea: US Used Banned Weapons," AP Online, 10 March 1999.

13 June 1999

The New York Times reports that North Korean soldiers, according to a "Soviet defector," had been recently vaccinated against smallpox. This raises the possibility that North Korea has kept smallpox virus, and may have developed it into a biological weapon.

—William J. Broad and Judith Miller, "Government Report Says 3 Nations Hide Stocks of Smallpox," *New York Times*, 1999 June 13, p. 1.

October 1999

South Korea's Defense Ministry acknowledges that it had previously "underestimated North Korea's chemical and biological threat," warning that the DPRK now possesses "10 different kinds of weapons, including anthrax."

—George Wehrfritz and B.J. Lee, "Pyongyang's Arsenal Is Scarier Than You Think," *Newsweek*, 25 October 1999, p. 68.

October 1999

Report to the US House of Representatives states that "The DPRK BW effort is believed to have focuses on the traditional agents: plague, typhoid, cholera, anthrax, smallpox, yellow fever, botulinum toxin, and hemorrhagic fevers. There are no reliable public estimates of the DPRK's BW agent or munitions stockpile...It is generally assumed that, to the extent capable, the DPRK would seek to provide BW munitions for the same range of weapons as it does with chemical weapons."

—North Korea Advisory Group, Report to the Speaker, US House of Representatives, November 1999.

October 1999

Quoting the South Korean Ministry of National Defense, ROK parliamentary representative Lim Bok Kin claims that North Korea is able to produce 1,000 tons of anthrax bacteria per year, and half of Seoul's population could be injured or killed with 10kg of anthrax bacteria.

—Ju Yong-jung, "More Than 30% of North Korean Field Guns Are Capable of Loading Chemical Bombs," *Chosun Ilbo*, 1 October 1999.

1998

Book published by two North American authors alleged that the United States employed biological weapons in the Korean War.

—Stephen Endicott and Edward Hagerman, "The United States and Biological Warfare" (Bloomington, Indiana: Indiana University Press, 1998).

6 March 1998

US Undersecretary of Defense Walter B. Slocombe states that North Korea is "working on acquiring nuclear,

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chemical and biological weapons capability that poses a threat to Japan."

—"N Korean Weapons Threatening Japan: Slocombe," Jiji Press Ticker, 6 March 1998.

1997

North Korean defector Hwang Jang Yop tells the media that North Korea has an offensive BW program.

—Bill Gertz, "Hwang Says N. Korea Has Atomic Weapons; Pyongyang Called Off Planned Nuclear Test," *Washington Times*, 5 June 1997, p. A12.

May 1994

Citing an unidentified source, a report by the US Defense Intelligence Agency claims that Russia had sent smallpox virus to North Korea and Iraq, sometime in the late 1980s or early 1990s. No other nations were mentioned.

—William J. Broad and Judith Miller, "Government Report Says 3 Nations Hide Stocks of Smallpox," *New York Times*, June 13, 1999, p. 1.

9 June 1994

It is reported that organizations directly under the DPRK Nuclear and Chemical Defense Bureau are "cultivating infectious agents, such as cholera, bubonic plague, anthrax, and contagious hemorrhagic fever [this may be reference to the Korean Hemorrhagic fever]."

—"Nuclear, Chemical, Biological Warfare Research Detailed"] from *Naeoe Tongsin*, 9 June 1994, pp. B1-B4, translated in JPRS-TND-94-017, 8 September 1994, p. 5.

May 1993

Bermudez reports that the North Korean BW program has "focused on 13 different strains of bacteria including 'Yersinia pestis, Bacillus anthracis, Vibrio cholera 01, Salmonella typhi, and Clostridium botulinum.' South Korean sources suggest that the DPRK has even conducted biological weapons experiments on human subjects (i.e., political dissidents and other 'impure' elements)."

—Joseph S. Bermudez, Jr., "North Korea's Chemical and Biological Warfare Arsenal," *Jane's Intelligence Review*, Vol. 5, No. 5, May 1993, p. 228.

28 September 1993

North Korea denies allegations of ongoing BW activity: "The South Korean authorities blared that the North has not only produced chemical weapons but even produced 'viruses like cholera and [plague] for germ weapons' and 'made living-body tests.' Their unfounded, malicious propaganda well knows how doggedly they are trying to do harm to the DPRK."

—"Manufacture of Chemical Weapons' Is Fake," KCNA radio, 28 September 1993, transcribed in JPRS-TND-93-032, 12 October 1993, p. 41.

3 October 1993

In a further denial of possessing chemical or biological weapons, the Northern chair of the North-South Joint Military Committee, Kim Kwang Chin, issues the following on the DPRK Korean Central Broadcasting Network: "...the South Korean ruling bunch made an erroneous judgment. Being the direct victim of chemical and germ weapons, we opposed the development, production, and stockpiling of these weapons and strongly demanded their destruction."

—Kim Kwang Chin, "Press Statement," P'yŏngyang Korean Central Broadcasting Network, 3 October 1993, translated in JPRS-TND-93-032, 12 October 1993, pp. 41-42.

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24 October 1992

The South Korean Agency for National Security Planning reports that "North Korea has produced 13 types of pathogens including anthrax, [plague], cholera and typhoid at such facilities as the Workers Party's Central Biology Research Institute, the Preventive Military Medical Unit, and the [February] 25th Plant in Chŏngju, North Pyŏngan Province since the 1980s." The Agency also reports that "Considering the North is able to produce 200 tons of gelatin yearly, a substance used in culturing germs (and 2 percent of gelatin is required in germ culture), North Korea has the capacity to produce 1,000 tons of biological weapons per year. [The latter is in reference to the agar plant imported from former East Germany in 1984, at least according to reports.] Furthermore, at a time of war, it could use other facilities such as the Sunchŏn Vinalon Plant, the [Aoji-ri] Chemical Plant, the Yongsŏng Beer Plant, and the Heosan Beer Plant for the production of biological weapons."

—"*Pukhan Saenghua Hangmugi Shilch'ŏnbaech'i/Angibu Kukkambogo*" ["North Korea Operationally Deploys Biochemical Weapons"], *Segye Ilbo*, 24 October 1992, translated by Heung-Kook Park.

1990s

The DPRK's National Defense Research Institute and Medical Academy (NDRIMA) is reported to have researched pathogens such as anthrax, bubonic plague, and cholera.

—"Biological Weapons Program," Federation of American Scientists website, www.fas.org, accessed on 17 April 2001.

1980s

Actual production of BW agents, including the causative bacteria in cholera, typhoid (typhus?) and anthrax is reported to have begun.

—Pak Tong-sam, "How Far Has the DPRK's Development of Strategic Weapons Come?," *Pukhan*, January 1999, pp. 62-71, translated in FBIS Document ID: FTS19990121001655.

1984

Kim Il Sung visits former East Germany, from which loans and a turnkey plant for agar (growth media) are procured for North Korea

—Yi Son-ho, "North Korea's Technology for the Development of Weapons of Mass Destruction and Its Ability," *Pukhan*, November 1998, pp. 38-51, translated in FBIS Document *SK2111131598*.

1970s

Construction is completed of an underground BW research and development facility, probably in Onjong-ri (온종리), Sŏngch'on County (成川郡), South P'yŏngan province. This reported site for research, development, and testing of BW agents uses laboratory animals, specifically rodents (rats and rabbits).

—Yi Son-ho, "North Korea's Technology for the Development of Weapons of Mass Destruction and Its Ability," *Pukhan*, November 1998, pp. 38-51, translated in FBIS Document *SK2111131598*.

1968

The DPRK allegedly imports bacteria cultures, including *Bacillus anthracis* (anthrax), *Yersinia pestis* (plague) and *Vibrio cholerae* (cholera), presumably from culture collections in Japan.

—Pak Tong-sam, "How Far Has the DPRK's Development of Strategic Weapons Come?," *Pukhan*, January 1999, pp. 62-71, translated in FBIS Document ID: FTS19990121001655.

Early 1960s

Kim Il Sung orders the "concentrated development of biological weapons," noting that BW would be "most

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effective in war in the future."

—Pak Tong-sam, "How Far Has the DPRK's Development of Strategic Weapons Come?," Pukhan, January 1999, pp. 62-71, translated in FBIS Document ID: FTS19990121001655.

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