The Japanese Wartime Atomic Energy and Weapons Research Program – Seishin (Chongjin), northern Korea. 1938 - 1984



PURPOSE:

The purpose of this paper is to create and stimulate conversation and encourage the exchange of ideas and information on the subject of Japan's WWII-Era nuclear energy and weapons research program.

BOTTOM LINE UP FRONT

During WWII the city of Seishin (modern day Chongjin, North Korea) located on the Korean Peninsula alone, with the support of other facilities, possessed all the required facilities, installations, and capabilities necessary to build a uranium enrichment, advanced uranium milling facility, pile or reactor; however unlikely the latter two.

Located in the city of Seishin was the steel producing industries, the concrete, the electronics, and other facilities and support functions, required to support such a task. The area had access to tremendous sources of electrical power with additional electrical power production resources under-construction nearby, and others located further away, and soon to come on-line.

It is likely that the suspect uranium production facility was located entirely underground. Some such facilities are known to have been constructed west of the city in the nearby mountains. It is unknown to this day just exactly what those facilities were, but they were important to the Japanese. During and throughout WWII, the facility was heavily defended by strong Japanese military forces.

It is possible that what was constructed in that area during the war was no more than a centralized command post or some form of military fortress, however no remains of such a facility resembling a command post or fortress aboveground exists in that area.

MAIN SOURCES:

The information presented below is used to support the statements offered above.

- The author of this paper assumes the reader is somewhat familiar with the Japanese atomic energy and research programs of the period 1938-1945. Some recommended sources:
 - o Grunden, Walter E. Hungnam and the Japanese atomic bomb: Recent historiography of a postwar Myth. Intelligence and National Security. Volume 13, Issue 2, 1998.
 - o Grunden, Walter E. Secret Weapons & World War II, Japan in the Shadow of Big Science. University Press of Kansas. Wichita State University. 2005.
 - Grunden, Walter E. From Hungnam to Yongbyon: Myths and Facts Concerning the Origins of North Korea's Nuclear Program. Associate Professor Department of History Bowling Green State University Bowling Green, OH. August 7, 2013
 - Grunden, Walter E., Mark Walker and Masakatsu Yamazaki. Wartime Nuclear Weapons Research in Germany and Japan. Osiris. 2nd Series, Vol. 20, Politics and Science in Wartime: Comparative International Perspectives on the Kaiser Wilhelm Institute (2005),
 - Rhodes, Richard. Dark Sun: The Making of the Hydrogen Bomb. Simon & Schuster. New York.
 1995.
 - Shapley, Deborah. THE JAPANESE A-BOMB. Nuclear Weapons History: Japan's Wartime Bomb Projects Revealed. 13 Jan 1978.
 - An edited and abridged version of Shapely's article can be found at Appendix 1.
 - Snell, David. Japan Developed Atom Bomb; Russia Grabbed Scientists. Constitution. Atlanta, Georgia. 3 Oct 1946.
 - David Snell's entire article can be found at Appendix 2.
 - Wilcox, Robert K. Japan's Secret War: Japan's Race against Time to build its Own Atomic Bomb.
 Marlowe & Company, New York. Copyright 1995
 - Wilcox, Robert K. Japan's Secret War: How Japan's Race to Build its Own Atomic Bomb Provided the Groundwork for North Korea's Nuclear Program. Third Edition: Revised and Updated – 10 December 2019

The author of this paper and other projects concerning the Japanese atomic energy and research programs of the period 1936 -1945 are available free on the internet and include:

- Rider, Dwight. Hog Wild-1945: The True Story of How the Soviets Stole and Reverse-Engineered the American B-29 Bomber. 2013.
- Rider, Dwight R. and Eric DeLaBarre. Tsetusuo Wakabayashi, Revealed. 2014.
- Rider, Dwight R. Burn before Reading: The Japanese Atomic Bomb Program, the Battles of the Chosin Reservoir, and the Cave at Koto-ri. The Cell. 2016

CAVEATS AND WARNINGS.

- It is not the purpose of this work to re-write the materials presented by other authors in their publications.
- Where possible, materials are copied as accurately as possible as found in their publications.
 - o The authors of those materials are properly credited.
 - o Their writings are held within quotation marks.
- The source for each quote presented herein is presented as a footnote to the quote.
 - o In some cases, while the "source" listed may be a secondary citation, the actual source of the information cited herein is contained therein.
 - Where the information can be easily located by searches conducted through the internet or numerous other sources are available, that information is not sourced.
- Italics are used throughout the text to emphasize select information.
- The author of this material bears sole ownership/copyright and is responsible for the comments and conclusions contained herein.
 - Such comments and conclusions are so marked.
- The information presented below is arranged as best as possible in chronological order, with specific internal headings, under broad categories.
- Japanese place-names for the areas mentioned herein are used in the paper through the end of the Japanese Occupation of Korea, 1905-1945.
 - o Korean place-names are used from the period of 2 September 1945 to the present.
 - Where area place-names are contained within quoted materials, as bracketed by quotation marks, the place-names used in that presentation are presented as written.

Where military rank abbreviations were found in the materials copied, for simplicity the author has expanded such abbreviations to their full spelling.

Readers of this work are encouraged to read the material contain herein, conduct further research where possible and if desired, and draw their own conclusions.

This paper is considered a draft and is open to the addition of more information.

• Please forward any additional input or comments to Dwight R. Rider at: dwrider24@gmail.com

GUIDE TO PLACE- AND COUNTRY-NAMES:

Country Names:

Democratic People's Republic of Korea (DPRK) Republic of Korea (ROK).

Japanese place-name	- Korean place-name	- Present Location
Eian (Eiian)	Hwasong	DPRK
Genzan	Wonsan	DPRK
Heijo	Pyongyang	DPRK
Keijo	Seoul	ROK
Kanko	Hungnam	DPRK
Konan	Hamhung	DPRK
Odetsin	Odaejin	DRPK
Rashin	Rajin-Songbon	DPRK
Seishin (Seisin)	Chongjin	DPRK
Unknown	Kujang	DPRK
Yuki (Iuki)	Unggi	DPRK

ERA: 1938 TO 1940.

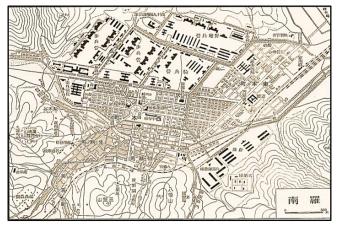
The Imperial Japanese Army 19th Infantry Division was headquartered in Ranam (Nanam), eight miles south of Seishin. There the Japanese built a planned city based on a rectangular street grid.

• The Imperial Japanese Army 19th Infantry Division consisted of the 37th and 38th Infantry Brigades.

Ranam served as a base of operations for Japanese espionage and intelligence operations against the Soviet Union and Manchuria.¹ Ranam was one of many such locations.

Seishin was home to the largest White Russian community in Korea.

- This community was known as the "Novina." ²
- The Novina was operated by George Yankovsky, often referred to as "Asia's Greatest Tiger Hunter."
- The Novina lasted nineteen years, from 1926 to 1945, during which numerous White Russians across East Asia visited the location for rest and vacation.
- During the Japanese Occupation of Korea, the Japanese treated Yankovsky preferentially; allowing him to own land, trade supplies, operate his tourist resort, and trek through military areas in return for supplying the Japanese army, paying taxes, and helping keep order among the Koreans. 4



Map of Ranam - circa 1930

- Unfortunately for Yankovsky, the Soviet Red Army invading northern Korea in August of 1945 were less-than enthusiastic about his fieldom near Seishin.
 - In the end, the Yankovsky family scattered; some to prisons in Siberia, some worked for SMERSH, others worked for US intelligence efforts operating in 1945 Keijo (Seoul), Korea.

Following the Manchurian Incident in 1931 and the foundation of the State of Manchuria in 1932, the Empire of Japan requisitioned all Chinese railways and postal administration services within the territory, in order to establish a national railway system for the new state. ⁶ The task of managing and expanding the main transportation systems of the State of Manchuria, consisting mainly of 2968.5 kilometers of the National Railway of Manchuria (NRM), were consigned, through the mediation of the Kwantung Army, to the South Manchuria Railroad (SMR) in 1933. ⁷ Later that same year the management of the North Korean Railway (NKR), including the harbors of Chongjin and Yuki (Sonbong), were entrusted to the SMR, this time through a consignment made by the Korean Governor. ⁸ With the addition of NKR lines to the network, and the simultaneous development of the port of Rajin, the SMR gained a connecting route through the eastern part of Korea to Japan. ⁹ The development of this route through the East Sea (Sea of Japan) led to a decline in the importance of the port facilities of Dairen, China, which had been the main port of entry of Kwantung Army to that country since the SMR's foundation in 1906. ¹⁰

¹ Mercado, Stephen C. The Shadow Warriors of Nakano: A History of the Imperial Japanese Army's Elite Intelligence School. Brassey's, Inc. Washington D.C. 2002.

² Suh, Dae-Sook. Korean Studies. New Pacific Currents. Center for Korean Studies. University of Hawaii. Honolulu, Hawaii. 1994.

³ Suh, Dae-Sook. Korean Studies. New Pacific Currents. Center for Korean Studies. University of Hawaii. Honolulu, Hawaii. 1994.

⁴ Suh, Dae-Sook. Korean Studies. New Pacific Currents. Center for Korean Studies. University of Hawaii. Honolulu, Hawaii. 1994.

⁵ Suh, Dae-Sook, Korean Studies, New Pacific Currents, Center for Korean Studies, University of Hawaii, Honolulu, Hawaii, 1994.

⁶ Mantetsu-kai (1986) Minami Manshu Tetsudo Kabushiki Kaisha Dai 4 Ji 10 Nenshi (The Fourth 10 years of the South Manchuria Railway Company), Ryukei Shosha, Tokyo.

⁷ Yasutomi, A. Tyotatsu to Shikin Tonyu wo Chushin ni (The finance and investment of the South Manchuria Railway Company), Jinmon Gakuho (The Journal of Humanities), the Institute for Research in Humanities, Kyoto University. 1995.

⁸ Mantetsu-kai (1986) Minami Manshu Tetsudo Kabushiki Kaisha Dai 4 Ji 10 Nenshi (The Fourth 10 years of the South Manchuria Railway Company), Ryukei Shosha, Tokyo.

⁹ Mantetsu-kai (2007) Mantetsu 40 Nenshi (The 40 years of the South Manchuria Railway Company), Yoshikawa Kobundo, Tokyo.

¹⁰ Mantetsu-kai (2007) Mantetsu 40 Nenshi (The 40 years of the South Manchuria Railway Company), Yoshikawa Kobundo, Tokyo.

During the Japanese Occupation of Korea, Nippon Seitetsu KK and Mitubishi Kwogyo KK built the Japan Iron Works and Mitsubishi Iron Company respectively, large iron and steel mills in the city of Seishin, northern Korea. 11

- These plants were reported as producing the bulk of some 1,000,000 metric tons of Korean iron.
- The Mitsubishi Iron Company also produced nickel. ¹³

The town of Ranam was annexed to Seishin in 1940, politically elevating the political status of the town of Seishin to that of a city.

German engineers visited the Mitsubishi facilities at Seishin and some stayed for the duration of the war. 14

- There is no evidence that these engineers, unlike the German naval personnel at Penang, Malaysia, were arrested or imprisoned by the Japanese after the fall of Germany on 8 May 1945.
- There are no records of captured German personnel being repatriated from Korea in the various records at the National Archives, concerning Japan's POW camps on the peninsula during the war. ¹⁵
- After the collapse of Nazi Germany in May of 1945, it seems that none of the German engineers at Seishin or other locations in Korea were taken prisoner-of-war.



РНОТО 50—Seishin—TARGET 13 Seishin Harbor.

ERA: WORLD WAR TWO - THE GREAT PACIFIC WAR

"By early 1945, Suzuki Tatsusaburo had made some progress, developing five uranium separators in a hangar-like building at the Sumitomo plant just outside Osaka. But a March 12 B-29 raid had knocked out all the electricity and water lines to the plant. The research team had decided to find a new location. They chose Seishin (Japanese for Chongjin) in Korea; Korea, Suzuki had believed, might be safe from the bombing. According to Jerome Cohen, a Harvard law professor and East Asian expert, the Osaka plant 'was completely dismantled in the spring of 1945 – part of the equipment reached Seishin, some was sunk, and at the end of the war some remained in crates to be shipped." ¹⁶

COMMENT: Exactly "what" these separators were; whether they were thermal diffusion columns, centrifuges, cyclotrons, mass spectrometers, etc., remains unknown.

COMMENT: The connection between the wartime facilities, industries and research facilities that were located in wartime Osaka, Japan and those located in Seishin, Korea that prompted Suzuki to move the Japanese uranium facility to Seishin remain unclear.

¹¹ Air Objective Folder Korea Areas. Seishin-Rashin Region. Korea Areas, Nos. 84.1, 2, 3, 4, 5, 6, 7. 8. Index of Targets b Number, Classification and Name. Summary and Evaluation of Seishin-Rashin Region. Office of the Assistant Chief of Air Staff, Intelligence, Washington DC. Issused August 12, 1944.

¹² Air Objective Folder Korea Areas. Seishin-Rashin Region. Korea Areas, Nos. 84.1, 2, 3, 4, 5, 6, 7. 8. Index of Targets b Number, Classification and Name. Summary and Evaluation of Seishin-Rashin Region. Office of the Assistant Chief of Air Staff, Intelligence, Washington DC. Issused August 12, 1944.

¹³ Air Objective Folder Korea Areas. Seishin-Rashin Region. Korea Areas, Nos. 84.1, 2, 3, 4, 5, 6, 7. 8. Index of Targets b Number, Classification and Name. Summary and Evaluation of Seishin-Rashin Region. Office of the Assistant Chief of Air Staff, Intelligence, Washington DC. Issused August 12. 1944.

¹⁴ Akira, Kudo. Japanese-German Business Relations: cooperation and rivalry in the inter-war period. Routledge, New York. 1998

¹⁵ Preliminary Japanese POW Camp List. Developed for War Crimes Trials Proceedings. http://www.mansell.com/pow_resources/camplists/rg331-box%201321-jap%20pow%20camps.htm

¹⁶ Thompson, Robert Smith. Empires on the Pacific: World War II and the Struggle for Mastery of Asia. Basic Books. 2001.

COMMENT: The lack of constant and continuous shipments of such "separators" suggests that what was being shipped to Chongjin from Fukuoka were complete units or at worst, "models."

COMMENT: It is likely that the Mitsubishi facilities in Chongjin were locally capable of reproducing on a mass scale, duplicates of the models sent form Japan.

COMMENT: The "several" shipments, suggests that each shipment consisted of a "new" or "updated" sample of the model sent. ¹⁷

COMMENT: As it is known that pilot-scale facilities for such separators, at least those based upon the thermal diffusion process, existed during the war at Saitama, the Tokyo RIKEN facility and were destroyed by US bombing attacks in April 1945, it is likely that the facilities built at Chongjin during the war were of a larger scale. ¹⁸

- This "larger scale" suggests an "industrial-level process."
- The pilot-scale Japanese thermal diffusion systems set up at Osaka Imperial University survived the war intact.

Unlike Konan, where the city was mostly owned and operated by Nichitsu as part of its interests on the peninsula, Seishin was largely a "Mitsubishi" enterprise. ¹⁹

- "The basic design for Mitsubishi Mining's Chongjin Smeltery was completed in mid-1937, and construction began in1938. Mitsubishi Mining called in specialists from the entire Mitsubishi-Konzern to work the project. ²⁰ Construction of the equipment was directed by a team of engineers from Mitsubishi Kaköki. ²¹ The large part of the workers was assumed to be transferees from the same company's Musan Mine located not far away." ²²
- "No.1 Kiln began operations on 4 May 1939, and on 28 July the firing ceremony for No.2 Kiln took place."
- "The inventor of the Renn Process and the highest authority on it, Johannsen, visited Chongjin in late August 1939."²⁴
- "In 1945 there were, throughout the world, thirty-eight rotary kilns in operation, with a combined total annual production capacity of 1 million tons. After the war, all such facilities inside Germany were dismantled. The kilns in Korea and China met the same fate, and they were taken away to the Soviet Union." ²⁵

"The origin of the Nanam Divisional District Unit is traceable to the 19th Depot (Training) Division, which at Nanam had been responsible for training recruits for tactical commands. When this training division itself was reorganized in March 1945 into the 79th Infantry Division, its training center was left in the hands of small units, actually training cadres. Seventeenth Area Army was confronted with organizing into one command not only these small training units but also the numerous nearby garrison units that were responsible for guarding important installations such as railroad stations and power stations. The number of these garrison units had increased with the rise of tension in Manchuria and Korea. On 20 April Seventeenth Area Army ordered the new 79th Division to organize the Nanam Divisional District Unit, not only with existing units but also with new ones yet to be formed. Thus, the components of the Nanam Unit had two types of missions--those of training and of maintaining peace and

¹⁷ Thompson, Robert Smith. Empires on the Pacific: World War II and the Struggle for Mastery of Asia. Basic Books. 2001.

¹⁸ Mass, Ad and Hans Hooijmaijers. Scientific Research in World War II. What scientists did in the War. Routledge. New York. 2009.

KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994/11
 Johannsen and Grusonwerk, 15. September 1939, HA Krupp, WA 105/8. As cited in KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994.

²¹ Grusonwerk, Voss an, 9 January 1939, HA Krupp, WA105/6. As cited in KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994/11.

 ²² KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994/11
 ²³ Grusonwerk, Voss an, 9 January 1939, HA Krupp, WA105/6. As cited in KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994/11.

²⁴ KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994/11.

²⁵ KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994/11.

order--which were to be assumed by the Nanam Unit itself as its principal functions. Other divisional district units in Korea had substantially the same missions." 26

"Because Korea was considered imperial territory, the problem of the chain of command there had been a perplexing one for some time. This was particularly true in northern Korea where the boundary of the expeditionary Kwantung Army was contiguous to that of the imperial forces in Korea. The problem was aggravated by the gradual extension, beginning on 18 September 1944, of Kwantung Army's responsibilities into northern Korea. Briefly, the Korea Army had been reorganized on 6 February 1945 into the Seventeenth Area Army, a tactical command, and the Korea Administrative Defense Army, a peace and order command. Simultaneously, the Seventeenth Area Army had been directed to give primary attention to operational preparations in southern Korea. Although this had the effect of leaving operational preparations in northern Korea in the hands of the Kwantung Army commander-in-chief, and led to the deployment of Thirty-fourth Army there, it did not totally eliminate Seventeenth Area Army's jurisdiction. The exact limits of the jurisdiction of each command were not clear, although Kwantung Army had authority to issue orders to the commander in Korea in matters relating to operational preparations in northern Korea. In any event, Kwantung Army had always felt that should war break out with the USSR it should be given tactical control of all forces in Korea."

During the latter part of WWII US B-29s mined the port of Seishin.

- The last mining mission, number 305, to Korea was flown on the night of 1 August 1945.
- The Korean ports of Rashin and Seishin were the most heavily mined, with 420 and 208 mines respectively. ²⁸

COMMENT: According to Japanese sources interviewed after WWII, the mining of Seishin by US aircraft was somewhat ineffective. ²⁹

"The commander of the Nanam Divisional District Unit was Lieutenant General Sokichi Nishiwaki. His chief of staff was Colonel Yutaka Shirakawa. Although the Nanam Unit was approximately division size, though not structurally, the wide dispersal of its components gave it less unity than that expected in a division. The strength of training elements was approximately 10,426 that of guard units about 8,841, while that of tactical units was about 1,500." 30

"Because of the wide dispersal of units, General Nishiwaki organized most of his command into two sub-districts, the Nanam Sub-district Command under Major General Hiroshi Takumi, and the Hamhung Sub-district Command under Major General Yoshisada Imaizumi. Each sub-district was further subdivided and these subdivisions assumed the name either of its commander or of the town near which it was located. The main training elements of the Nanam Unit were the 1st and 2d Infantry Depot Units, the artillery, engineer, transport units (all structurally regiments), and signal unit (structurally a company). The guard units were of two classifications, those that had been inexistence at the time of the Nanam Units organization, and those newly organized. Of the former there were five-the 141st through 145th Guard Battalions; of the latter there were eleven-the 401st through 403d, the 405th, the 408th through 410th, the 451st and 452d, and the 461st and 462d Specially Established Guard Battalions." 31

²⁶ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army, 1950.

²⁷ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

²⁸ THE UNITED STATES STRATEGIC BOMBING SURVEY. The War against Japanese Transportation. 1941-1945. Transportation Division May 1947. U. S. SUPERINTENDENT OF DOCUMENTS, 21 JAN 1948.

²⁹ INTERROGATION NAV NO. 54. USSBS NO. 226. MINE COUNTER-MEASURES. United States Strategic Bombing Survey [PACIFIC]. NAVAL ANALYSIS DIVISION. Interrogations of Japanese Officials. OPNAV-P-03-100.

³⁰ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

³¹ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

"General Takumi had in his Nanam Sub-district Command five detachments: his own, the (Colonel) Yamane Detachment, the Chongjin Garrison Unit, the (Colonel) Nodai Detachment, and the Kwangjuryong Garrison Unit. General Imaizumi had two detachments in his Hamhung Sub-district Command. Besides his own at Songin, he had a Hamhung-Hungnam Guard Detachment stationed between those two towns." ³²

"The tactical units, all of which were retained under the direct command of the Nanam Unit headquarters, consisted of the 65th Independent AAA Battery, the 2d Battery of the 85th Independent AAA Battalion, one battery of the 46th Independent AAA Battalion, and the 131st Independent Engineer Battalion. The logistical units were also retained under the direct command of the headquarters. Principal among these was the North Korea Branch of the 1st Shipping Transport Command which was responsible for coastal shipping operations; it had signal and depot elements for its support, and artillery elements for its defense. Other logistical units were: the 39th Land Duty Unit, the 37th Air Signal Unit, and an element of the Signal Unit of Imperial General Headquarters." ³³

COMMENT: The 1st Shipping Transport Command was one of the units responsible for shipping uranium, uranium bearing ores and refined uranium for further enrichment and processing, back and forth between China, Japan, Korea and Manchuria.

"Since the Nanam Unit was essentially a non-tactical command--although it was given several tactical units--it was initially assigned to the Korea Administrative Defense Army rather than to the Seventeenth Area Army. These two armies had joint jurisdiction in Korea, the former over civilian defense, the latter over operational preparations; both were commanded by Lieutenant General Yoshio Kozuki." 34

COMMENT: Note that the Nanam Unit was not a tactical unit; meaning that it was not a combat unit and probably fulfilled other, as yet, unknown responsibilities. The Imperial Japanese Army did field technical units and research laboratories such as Unit 731, its biological warfare research component. Obviously however the fact remains that, whatever its role, the Nanam Unit was too large an organization with too many people assigned to write off or go unmentioned in the official Japanese history of the war.

"Under the Kwantung Army commander's authority to issue orders to General Kozuki's commands in matters relating to operational preparations, Thirty-fourth Army in early August notified the Nanam Unit to be prepared to assume two operational missions (for administrative matters, the Nanam Unit remained under the jurisdiction of the Korea Administrative Defense Army). These missions were to prevent an enemy amphibious landing in the Chongjin area, and to check any enemy attempts to make an overland drive in the area between Chongjin and Hongwon. Ever since the main body of the 79th Division had departed the Nanam area in June and its headquarters in late July, such operational missions had been anticipated. Although the 137th Division was then being organized in this area, it was not to complete its organization until a few days before the outbreak of hostilities, and in any event was scheduled for deployment elsewhere." ³⁵

On 9 August 1945 (the date of the supposed test of a Japanese atomic weapon off the coast of Konan [Hamhung]), the Daito Maru, an oiler, of the Imperial Japanese Army was torpedoed by a Soviet Ilyushin DB-3 aircraft 24 kilometers (15 miles) south southeast of Seishin, Korea. The aerial torpedo hit the Daito Maru on its starboard side in the No. 3 hold and broke her keel. The ship's captain ordered the ship back to Seishin where it was beached and sank later that day.

³² U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

³³ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

³⁴ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

³⁵ Ú.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

"General Nishiwaki, with a view to guarding the Chongjin area against Soviet invasion, ordered his Chongjin Garrison Unit too occupy previously constructed positions on the Chongjin Peninsula, the Yamane Detachment to occupy the sector about five miles west of Chongjin, and the Takumi Detachment to defend Nanam by deploying elements both east and west of the city. He also ordered the Kwangjuryong Garrison Unit, which consisted mainly of the 2d Company of the 1st Infantry Depot Unit, to defend Kwangjuryong Pass. At the same time he deployed the Nodal Detachment at Kyongsong, and ordered General Imaizumi's Sub-district Command to defend Songjin, Hamhung, and Hungnam. Headquarters remained at Nanam." 36

"On 14 June1945, Kwantung Army Headquarters held a meeting at Hsinking with commanders of its major subordinate commands and gave them the following estimate of the enemy situation:

• Soviet forces are expected to start the invasion of Manchuria in concert with the imminent U.S. landing on the Japanese homeland or southern Korea. The invasion is expected to begin before mid-winter, but not earlier than September." ³⁷

"Only at Antung, near the Manchuria-Korea border, had the construction of positions been actually begun. In other areas the delivery of fortification materials to the construction sites was delayed; furthermore, the organization of units designated to perform this work had not been completed, and units from China had not yet arrived. In many cases, laborers to assist military units, though ready to work, could not be assigned to duties because the military units themselves had not arrived. Moreover, by the time the military units did become available the Area Army was in the midst of preparations for a training program in the Mukden area. (Scheduled to last one week, this program did not begin until 8 August, and had to be suspended with the outbreak of hostilities on the following day)." 38

"By orders issued on 17 June 1945, Imperial General Headquarters dissolved the Thirty-fourth Army, assigning its units to the Sixth Area Army in China, and its headquarters to the Kwantung Army. At the same time it ordered the Thirty-fourth Army Headquarters, then in Hankow where it had been organized on 22 July 1944, to proceed to its new station in Hamhung, northern Korea." ³⁹

Thirty-fourth Army Order-Of-Battle:

"The order-of-battle issued to Thirty-fourth Army on 17 June consisted of the following components.

- Thirty-fourth Army Headquarters.
- 59th Division.
- 137th Division.
- 133d Independent Mixed Brigade.
- 11th Independent Field Artillery Battalion.
- Mutanchiang Heavy Artillery Regiment.
- 15th Mortar Battalion.
- Yonghung (Eiko) Bay Fortress Garrison Unit (regimental size) Artillery Unit.
 - o 462d Specially Established Garrison Battalion.
- 56th Signal Regiment.
- 115th Independent Motor Transport Battalion.
- 107th Specially Established Construction Duty Company.
- 127th Specially Established Sea Duty Company.

³⁶ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

³⁷ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

³⁸ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

³⁹ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

• 179th Line of Communications Hospital." ⁴⁰

"Not all of the "assigned units were in Korea at the time the order of battle was issued. Some, like the 59th Division, were en route from China. Others, like the Mutanchiang Heavy Artillery Regiment, the 133d Independent Mixed Brigade, and the 15th Mortar Battalion were deployed in other areas. (These three units actually never joined). Furthermore, some units had not yet been formed." ⁴¹

COMMENT: That units remained to be formed, suggests that while arms and ammunition to support those troops was on-hand and available to the Sixth Area Army in China, the final muster of Japanese and Koreans in the area of Chongjin, Korea had yet to occur. This meant that a large pool of available manpower, involved in some other activity which granted them deferment from military service, existed within the Chongjin area that had yet to be tapped by the Imperial Japanese Army. The source of their deferment remains unknown.

"The 59th Division crossed the China-Manchurian border on 19 July and reached its station at Hamhung several days later; its strength was approximately 15,000. In China it had acquired some combat experience. The 137th Division was assigned on 30 July; its strength was somewhat less than 10,000, consisting mainly of recruits obtained during the final mass mobilization in Manchuria. It was not until a few days before hostilities began-possibly by 2 or 3 August that the Army got tactical control of its main body." ⁴²

COMMENT: Note that the Japanese Army moving into the area did not have tactical control of its own Army.

"Lieutenant General Senichi Kushibuchi and some of his staff officers immediately flew to Hsinking, arriving there on the 19th. After studying the operational plans of Kwantung Army for several days, General Kushibuchi and his party went to Seoul for conferences, mainly on logistics, with the Seventeenth Area Army Commander, finally reaching Hamhung on. 12 July, where they immediately began operational preparations. Meanwhile, the rest of the headquarters departed Hankow in late June and, traveling by train (Hankow-Peiping and Peiping-Mukden Railways), arrived in Hamhung in late July." ⁴³

"The missions given Thirty-fourth Army by the Kwantung Army were to secure strategic points in the vicinity of Hamhung against the enemy expected to advance southward from Hamyong-pukto Province, and to check an enemy advance to Seoul and Pyongyang. The Army was also directed to protect the Kanggye area with some of its elements." 44

COMMENT: As with the city of Chongjin, the city of Kanggye is also suspected of holding special facilities related to the Japanese atomic energy and weapons research program and its biological warfare programs, none of which were to be left to the invading Soviet Union.

"To secure the strategic points in the Hamhung area, Thirty-fourth Army deployed the main bodies of the 59th and 137th Division in the hills southwest of Hamhung. (These hills, between ten and fifteen miles inland, more or less paralleled the east coast. Through the coastal plain ran a railroad and a good dirt road). The hill positions, if attacked, were to be defended to the end. In the event the enemy decided to by-pass them and advance south-ward toward Wonsan through the coastal plain, the Army was to launch an offensive to prevent the enemy's passage. Although the Army deployed no elements in the Kanggye area, it kept one battalion of the 59th Division in readiness

⁴⁰ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁴¹ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

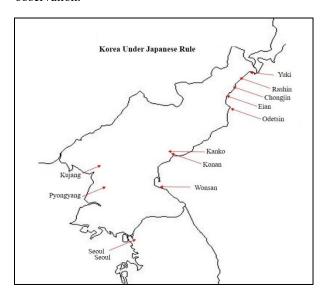
⁴² U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁴³ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁴⁴ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

north of Hamhung under its direct command, and planned to send it to the Kanggye area in the event the enemy expanded hostilities to that sector. The Army also assigned operational missions to the Nanam Divisional District Unit." ⁴⁵

"As soon as Thirty-fourth Army began to assume actual control of its main forces in late July it directed that the construction of fortifications be begun. Because of the shortage of equipment and materials, however, progress was slow. To help in this construction work, Kwantung Army ordered two of its construction battalions to proceed to Korea, but these did not arrive until the war's end. What work was done was designed mainly as a protection against tank and artillery attacks. In this connection, in selecting positions for first line defenses, all units were instructed to avoid if possible the rising ground where the plain joins the hills, because of the vulnerability of such areas to enemy observation." 46



"Early in August 1945, Kwantung Army recommended that the following chain of command apply in northern Korea: the Thirty-fourth Army should be placed under the tactical control of the Seventeenth Area Army, while continuing to be supplied principally by the Kwantung Army; the Nanam Divisional District Unit should be placed under the tactical command of Thirty-fourth Army. It further recommended that the zone of responsibility of Thirty-fourth Army consist of the four northern provinces of Korea (Hamyong-pukto, Hamyong-namdo, Pyonganpukto, and Pyongan-namdo), except the northern part of Hamyong-pukto (including the port of Najin) earlier assigned to the Third Army's 79th Division. These recommendations remained in abeyance until the war started, at which time Imperial General Headquarters placed Seventeenth Area Army completely under Kwantung Army's control." 47

COMMENT: It should be noted that in his 1946 article, Japan Developed Atom Bomb: Russia Grabbed Scientists, David Snell never said that the production facilities associated with the Japanese atomic energy or bomb program were located at Konan, only in the "mountain vastness near the Northern Korean coastal city of Konan." ⁴⁸

- David Snell's entire article can be found at Appendix 2.
- In the Korean language the word, "near," is a relative term.

COMMENT: In his article David Snell also never mentioned Nichitsu, the Konzern's fertilizer plants, or the Noguchi Shigatau interests located in Konan, Korea. ⁴⁹

• David Snell's entire article can be found at Appendix 2.

Graphite:

In 1934, Japanese Occupied Korea produced 28 percent of the world's graphite.

• Crystalline flake graphite was available in Korea. ⁵⁰

⁴⁵ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁴⁶ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁴⁷ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁴⁸ Snell, David. Japan Developed Atom Bomb; Russia Grabbed Scientists. Constitution. Atlanta, Georgia. 3 Oct 1946.

⁴⁹ Snell, David, Japan Developed Atom Bomb; Russia Grabbed Scientists, Constitution, Atlanta, Georgia, 3 Oct 1946.

⁵⁰ Schumpeter, E.B. *Japanese Economic History* 1930-1960. Janet Hunter. Volume III. The Industrialization of Japan and Manchukuo 1930-1940. Routledge Books, London and New York. 1940.

- Some graphite was mined in Kujang (present-day Kujang County, North Korea), Korea but the type of graphite mined there is unknown. ⁵¹
 - o The graphite mines at Kujang continue to operate today.
- The production of reactor grade graphite does not appear to have been beyond the capabilities of either the Nichitsu or Mitsubishi interests then located on the Korean Peninsula in 1942.
 - As Dr. Bunsaku Arakatsu noted on 17 October 1945, the Japanese were aware of the possible use
 of graphite as a moderator in the construction of a reactor and were also aware of the existence of
 plutonium. ⁵²

Heavy water:

In 1935 Fritz Hansgirg filed a US patent application for a heavy water production process he developed at the Nichitsu Nitrogenous Fertilizer Plant located in Konan, Korea. ⁵³

- Prior to Hansgirg's process, the Konan plant had been capable of producing heavy water, in vast amounts, larger than even the Norwegian Norsk Hydro Plant.
 - As there was no US Army investigation of the activities of the Konan plant postwar, it remains unclear if the Konan plant ever produced heavy water or in what quantities.
 - Quantities of heavy water found the office of Bunsaku Arakatsu at Osaka Imperial University during postwar US Army investigations of Japan's atomic energy and weapons program were eventually traced to the Nobeoka Laboratory of the Nichitsu plant in Nobeokal Japan. 555
 - Bunsaku Arakatsu was knowledgeable of the potential use of heavy water to build a hydrogen bomb as he stated in an interview on 15 October 1945. 56



COMMENT: If the Japanese had built a reactor or a pile in Korea during the war, the peninsula possessed sufficient graphite of the correct type necessary to produce reactor-grade graphite along with deposits of uranium. Heavy water if used, was available through the Nichitsu Nitrogenous Fertilizer Plant at Konan, and two additional heavy water plants located along the Yalu River at Chongsu and Manpo in northwestern Korea. The latter two of these plants have been largely ignored by historians and other analysts researching the history of the current North Korean nuclear weapons program.

ERA - Soviet Attack into Northern Korea.

Seishin was a fortified district with 4,000 officers and men, protected from the sea by coastal artillery

- Seishin was one of only five Japanese "fortresses" in Korea...
 - o The five were: Seishin, Odetsin, Genzan, Rashin and Yuki Konan was not a fortress.
- These ports were guarded by powerful coast artillery.

⁵¹ Korean War 9th Infantry Regiment - History - November 1950 2nd Infantry Division Korean War Project Record: USA-81 Folder: 070005 Box: 07 File: 05 National Archives and Records Administration College Park, Maryland Records: United States Army Unit Name: Second Infantry Division Record Group: RG407 Editor: Hal Barker Korean War Project P.O. Box 180190 Dallas, TX 75218-0190 http://www.koreanwar.org
⁵² "Historical Sketch of the Scientific Field Survey in Hiroshima Several Days after the Bombing" by Prof Sakae Shimizu, 1982, published by Bulletin of the Institute for Chemical Research, Kyoto University, Volume 60, (2), 1982.

⁵³ Hansgirg, Fritz. United States Patent Office. Production of Water Enriched with Heavy Water. Patent Number 2,134,249. 25 October 1938.

Hansgirg, Fritz. United States Patent Office. Production of Water Enriched with Heavy Water. Patent Number 2,134,249.
 October 1938.
 "Abstract of attached report submitted by Mr. Saburō Tashirō, Director of Noguchi kenkyujō," U.S. National Archives, College Park, Md., RG 331, Entry 224, Box 2, Folder #14: "Heavy Water."

⁵⁶ Foremost Jap Physicist Thinks Russia Already Has Atom Bomb. Page 5. The Austin American. Monday, October 15, 1945.

• The most-fortified area was Seishin, with a garrison of up to 4,000 and strong coastal defenses. 57

"On 9 August Soviet forces were reported to be attacking along various fronts of Manchuria and to have crossed into Korea near Kyonghung. It was not until the 13th, however, that they engaged elements of the Nanam Divisional District Unit. The initial attack took the form of an amphibious assault at Chongjin." ⁵⁸

The Soviet assault into Korea in August 1945 was conducted onto the peninsula in one of four ways; overland, by air, by para-soldiers, or by sea. ⁵⁹

Yuki, Rashin and Seishin were attacked by Soviet air strikes and naval forces on 9 August 1945.

- Soviet forces occupying Yuki and Rashin on 9 August 1945, now began to advance southward to Seishin...not Konan. ⁶⁰
- Yuki, Rashin, Seishin, Genzan, and Konan were also attacked by overland forces. 61

The Soviets attack into Korea was conducted against these cities or areas of northern Korea in this order: Yuki (Unggi), Rashin (Rajin-Songbon), Eian (Yongpo), Seishin, Genzan (Wonsan), and Konan. ⁶²

- Only three of these cities were attacked by para-soldiers: Eian, Seishin and Konan. ⁶³
- There is information to suggest that the plant at Eian was involved in providing precursor uranium enriched by burning high-uranium content coal and producing uranium metal to be sent to Japan. ⁶⁴
 - o Only Eian was attacked solely by para-soldiers. 65

"On the 10th [of August 1945] the Nanam Divisional District was placed directly under Thirty-fourth Army, but it is uncertain as to whether it [the Nanam Divisional District] ever received this order. However, at the time it was given operational missions, it was informed that in the event of hostilities it would be assigned to Thirty-fourth Army. (The same order assigned Seventeenth Area Army to Kwantung Army, and the Thirty-fourth Army to Seventeenth Area Army)." ⁶⁶

"At noon of 13 August the Soviets put ashore approximately 600 men on the beaches of Chongjin harbor. This assault was supported by another landing, presumably by a company size unit, north of the Chongjin peninsula. These two landings placed the enemy at both sides of the peninsula's neck." ⁶⁷

"The Soviet land offensive was supported by two fleets. The Pacific fleet, based at Vladivostok and consisting of one cruiser, eight destroyers, ninety submarines, and sixty torpedo boats, moved to disrupt Kwantung Army's

⁵⁷ Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁵⁸ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁵⁹ Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁶⁰ Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁶¹ Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁶² Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁶³ Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁶⁴ Record Group 331, Stack Area 290, Row 24, Compartment 02. Shelf 1. Entry 224, Box 2. US National Archives, Adelphi, Maryland,

⁶⁵ Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁶⁶ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁶⁷ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

maritime transportation. On the 11th this naval force supported amphibious landings at Najin, and on the 14th Chongjin, both on the northeast coast of Korea." ⁶⁸

"The other naval force employed was the Amur River Fleet which consisted of twenty gunboats and forty armed river patrol boats; this force supported the river crossings of the 2d Far East Area Army." ⁶⁹

"According to an article printed in a Japanese magazine on the eighth anniversary of the Soviet invasion of Manchuria, this landing (as well as the one at Najin on the 10th) was supported by the Soviet Pacific Fleet which was based at Vladivostok and commanded by Admiral Yumasheyev. This fleet consisted of one cruiser, eight destroyers, ninety submarines, and sixty torpedo boats. Simultaneous with the land invasion of Manchuria this fleet moved to disrupt Kwantung Army's maritime transportation. (Asiatic Mainland Affairs pp 39-40, 1 Aug 53, published in Tokyo, Japan, by the Asiatic Mainland Research Institute which is composed largely of ex-military men. A translation of this article is in the files of MHS, HQ AFFE)." ⁷⁰

"The Chongjin garrison, whose old 75-mm mountain guns had previously attacked the landing craft, immediately engaged the enemy. At the same time the Yamane and Takumi Detachments left their defense positions, respectively west and south of Chongjin, and hurried towards the city, and the 145th Guard Battalion, under orders of the Nanam Unit Headquarters, departed Hoeryong and hastened to reinforce the left flank of the Yamane Detachment." ⁷¹

COMMENT: The Yamane Detachment was located west of the city in the area of the Sudusu power station construction project. The 145th Guard Battalion departed their position at Hoeryong to reinforce the Yamane Detachment, not Chongjin. ⁷²

"After landing, the enemy quickly began to attack the Chongjin peninsula's defenses from the rear, meanwhile attempting to join forces across the peninsula's neck. After joining forces, the enemy left small elements on the peninsula to wipe out remaining resistance, and began advancing his main body westward toward Yusong and southward to Chongjin city. Meanwhile, one enemy element that had succeeded in advancing to the southern part of Chongjin was encountered by the Takumi Detachment and was annihilated by it." ⁷³

When the Soviet Union attacked into Manchuria and Korea, they had a list of Japanese facilities supposedly "involved" in Japan's interest in atomic energy or weapons, located in Manchuria, China and Korea. ⁷⁴

- The Nationalist Chinese also had this list and the two the Soviets and Nationalists in the post-war period each sought to occupy, control and operate these facilities. ⁷⁵
- The Chinese communists, mostly agrarian and unable to read, used the papers and the equipment found at the facilities they occupied, to cook their rice. ⁷⁶

⁶⁸ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁶⁹ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁷⁰ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁷¹ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁷² U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁷³ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁷⁴ RG 226. Records of the Office of Strategic Services. Records of the Research and Analysis Branch — Entry 210: Previously Withdrawn Sources and Methods Files. Box 320. Document Number/Subject Ramona Summary Report from Shanghai, China, January 28, 1946, 5 pp. ⁷⁵ RG 226. Records of the Office of Strategic Services. Records of the Research and Analysis Branch — Entry 210: Previously Withdrawn Sources and Methods Files. Box 320. Document Number/Subject Ramona Summary Report from Shanghai, China, January 28, 1946, 5 pp. ⁷⁶ RG 226. Records of the Office of Strategic Services. Records of the Research and Analysis Branch — Entry 210: Previously Withdrawn Sources and Methods Files. Box 320. Document Number/Subject Ramona Summary Report from Shanghai, China, January 28, 1946, 5 pp.

The Soviet intelligence group, SMERSH, operated throughout Seishin once the city was taken by the Red Army. 77

 It was SMERSH that removed uranium oxides and ores from Germany's Auer Plant, and German physicists from Germany after WWII. 78

Soviet Naval forces, Marines, landed in small groups at Seishin on 13 August 1945 and were met and pinned to their beachhead by stiff Japanese opposition.

- Much of the reported "stiff" opposition was probably the result of a lack of actual planning and preparation for the landing and engagement of Japanese forces by the immediate Soviet invasion leadership.
- 13-16 August 1945 Seishin port (Korea). 355th Separate Marine Battalion, 13th Separate Marine Brigade. 335th Rifle Division was ready for landing. 1 destroyer, 8 patrol vessels, 7 minesweepers, 6 patrol boats, 18 torpedo-boats, 12 landing vessels, 7 transport vessels, 261 airplanes stood by. On 13th August the forward and recon detachments landed on the piers of the port, on 14 and 15 August 1945 the 355th Battalion and 13th Brigade Naval aviation conducted 400 combat sorties against Seishin. On 16th August the city and port were liberated.

Soviet para-soldiers landed at Seishin on 14 August.

- The Soviet operation against Seishin was the largest Soviet naval action conducted against the Japanese during the entire war.
- The main assault by the 355th Naval Infantry Battalion, arrived on 14 August.
- The 13th Naval Infantry Brigade landed at Seishin on 15 August 1945.

"By daybreak of the 14th the enemy had formed a front near the perimeter of the city. The Yamane and Takumi Detachments pressed against this front and, fighting in the streets, they succeeding in breaking through at various places, but were unable to reach the north side of Chongjin." 80

"At midnight of 14 August, the enemy landed a division size force at Chongjin harbor. In view of this major landing, General Nishiwaki ordered the Yamane and Takumi Detachments to disengage the enemy and return to their original defense positions." 81

COMMENT: The Takumi and Yamane Detachments returned to their original defensive positions, south and west of the city respectively. ⁸²

"In the northernmost positions of the Nanam Unit, meanwhile, the Kwangjuryong Garrison Unit on the 14th reported that it was being confronted by an enemy armored force of about brigade size which presumably had entered Korea near Kyonghung on the 9th. Its subsequent actions were not learned." ⁸³

⁷⁷ FAR OUTLIERS. EXPLORING MIGRANTS, EXILES, EXPATRIATES, AND OUT-OF-THE-WAY PEOPLES, PLACES, AND TIMES, MOSTLY IN THE ASIA-PACIFIC REGION. http://faroutliers.blogspot.com/2003/12/prewar-russian-community-in-korea.html

⁷⁸ Oleyniko, Pavel V. German Scientists in the Soviet Atomic Project. The Nonproliferation Review, Summer, 2000.

⁷⁹ Glantz, David M. *Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945.* U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁸⁰ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

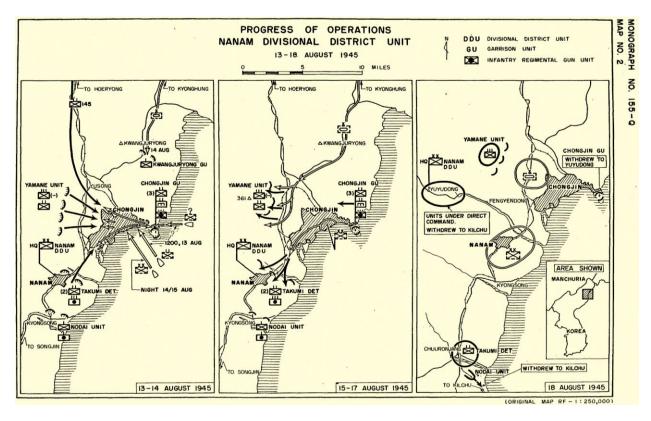
⁸¹ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁸² U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁸³ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

The Japanese fought the Soviet Red Army to a standstill inside Seishin – the only such success the Japanese had against the Soviet Red Army during their short war. ⁸⁴

- The Japanese constantly committed fresh reinforcements into the battle.
- Japanese counterattacks against the Soviet beachhead at Seishin were so vicious that they threatened to turn back the Russian landing.
- The Japanese rushed more reinforcements to the area.
 - The Soviets of the 355th Marine Battalion repelled over a dozen night assaults before taking the city two days later.
 - Two Soviet minesweepers, Lend Lease Admiral class units, T-279 and T-524, were lost on 14 August to US mines laid by B-29s off Korea.
 - They were the only admitted Soviet naval losses.
 - An additional three Soviet merchantmen were lost off of Seishin.



"Nanam Divisional District Headquarters had lost contact with higher headquarters due to the severance of communications, and was unaware of the Imperial Rescript of 15 August. Its force continued to engage the enemy from the 16th to the 18th and by holding previously prepared defense positions, it checked the enemy's south-ward advance. On the morning of 18 August, General Nishiwaki decided to move his troops to the vicinity of Kilchu, about sixty miles south of Chongjin. At about 1800 hours, while en route, a staff officer of the Korea Administrative Defense Army joined there treating columns, bringing word of the cease-fire order." 85

COMMENT: Kilchu is the location of modern-day North Korea's nuclear weapons test site.

"Upon learning of the Imperial Rescript on 15 August, Army headquarters ordered all its subordinate commands to cease hostilities. Actually, since no elements of the Army had engaged in operations, other than the Nanam

⁸⁴ Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁸⁵ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

Divisional District Unit this order, for all practical purposes applied only to the Nanam Unit which was fighting in the vicinity of Chongjin and did not halt operations until the 18th." ⁸⁶

The Japanese made their final stand about 12 miles west of Seishin being attacked from two directions by Soviet forces advancing westward from the port of Seishin, and southward by Soviet forces advancing from Najin and Rashin. 87

COMMENT: It is doubtful that the Soviets advancing from the east, south and north would have sought to defeat the Japanese at this specific location unless they had some previous intelligence suggesting the presence of some "defendable" position located in the mountains west of Seishin.

In the Battle of Seishin, the Japanese lost more than 3,000 officers and men and a large quantity of armaments and equipment. Hundreds of Soviet officers and men were awarded orders and medals. ⁸⁸

• The steadfastness and courage of the 355th self-contained Marine battalion won it the honorary title of Guard Battalion, with 566 of the battalion's personnel being awarded war decorations, including the. Soviet Union's highest decoration, the title of Hero of the Soviet Union. That title was awarded to Major M. P. Barabolko, Captain M. I. Kochetkov, Senior Sergeant N. G. Markclov, and Sergeant K. P. Birulya. The title was awarded as a posthumous decoration to privates Ya I. Beliavev and M. N. Tsukanova. ⁸⁹

COMMENT: Militaries concentrate on "objectives" and do not simply "meet" on the battlefield. The Soviets concentrated their forces on Seishin for some reason that remains unknown. While post-war the Soviets list their "objective" as preventing the Japanese Army from escaping to Japan, or reinforcing Seishin from Japan, that objective could have been accomplished by Soviet air- or sea-power alone. Note that of all the battles fought by the Soviets in Korea against the Japanese, they rarely present their objectives. What was the objective of a para-soldier attack into Eian? The facilities at Eian were also heavily involved in the Japanese atomic weapons and energy research program. Why no paratroop attack into Pyongyang?

There were several accounts of the battle for Seishin published by the Soviet Union in the years after the war. Most are filled with language from the Cold War Era. The following was extracted from Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989. p 14-17 "APPLICATION OF NORTHERN FLEET EXPERIENCE TO PACIFIC THEATER."

• "With the war against the Germans in the Far North now over, the detachment stood down. But even while German forces were defending their homeland, the Soviet Union was planning its entry into the war with Japan. The first transfer of naval special operations forces to the new theater occurred in March of 1945, when three squad leaders were sent to the Amur River flotilla. 90 A week after the German defeat in May, Leonov's detachment was alerted for re-stationing to the Pacific Fleet. 91 A selection was made of the young and healthy men, leaving behind those whose wounds were disabling, and others who were

⁸⁶ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

⁸⁷ Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁸⁸ Glantz, David M. *Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945.* U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

⁸⁹ USSR'S ROLE IN LIBERATING KOREA AFTER WWII PRAISED Moscow ASIA AND AFRICA TODAY in English No 1, Jan-Feb 86 pp 28-31 [Article by Georgy Plotnikov: "The Soviet Armed Forces Liberation Mission in Korea"].

⁹⁰ Babikov, Na vostocinom, 6 and 17. The existence of a reconnaissance detachment in the Amur River flotilla can be established from Geroi sovetskogo soyuza: Kratkiy biogra/icheskii slovar' [Heroes of the soviet union: short biographical dictionary), (Moscow: Voyenizdat, 1987), 805. The entry for S. M. Kuznetsov lists him as "commander, 71st Special Purpose Detachment [otryadosobogo naznacheniya] of the Amur river flotilla." As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

⁹¹ Babikov, Na *vostochnom*, 6 and 17. The existence of a reconnaissance detachment in the Amur River flotilla can be established from *Geroi sovetskogo soyuza: Kratkiy biogra/icheskii slovar'* [Heroes of the soviet union: short biographical dictionary), (Moscow: Voyenizdat, 1987), 805. The entry for S. M. Kuznetsov lists him as "commander, 71st Special Purpose Detachment [*otryadosobogo naznacheniya*] of the Amur river flotilla." As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

reservists or nearing the end of their term of service. The remaining group of approximately forty-four men left Polyarnyy in the last week of May, and arrived in Vladivostok on 12 June, having ridden the entire distance by railroad." ⁹²

COMMENT: The "Leonov" mentioned in this article was one Viktor Leonov a two-time recipient of the award, Hero of the Soviet Union.

- Leonov was born in Zaraysk about 135 kilometers southeast of Moscow where his father was a gardener and member of the Communist Party. In 1931 Leonov traveled to Moscow becoming an apprentice at a factory specializing in metal fabrication and becoming a member of the Young Communist League.
- Leonov joined the Red Navy in 1937. He was assigned to a submarine training detachment and then transferred to a repair station in the Northern Fleet at Polyarnyy and was there when the WWII began in 1941. At the beginning of the war he volunteered for the 4th Special Volunteer Sailor detachment where he would become a Naval Scout. He rose through the ranks to be the commander of the 4th Special Volunteer Detachment, a unit of 70 veterans initially confined to small scale reconnaissance missions, platoon sized insertions by sea and on occasion overland into Finland and later Norway. The unit was eventually assigned to sabotage missions and prisoner snatch operations for interrogation purposes. Later the unit was renamed the 181st Special Reconnaissance Detachment.
- O In April 1942, landing his men from fast torpedo boats, Leonov secured the landing of the 12th Marine Brigade on enemy territory, during which his detachment killed over 60 Germans. In October 1944 Leonov led an operation to neutralize a heavily defended German coastal artillery emplacement at Cape Krestovy. Leonov led a company in a secret landing further along the coast before undertaking a two-day cross-country march to Cape Krestovy. There they captured a battery of 8.8 cm dual purpose guns and used them in their defense to repel a counterattack and to shell the main gun position, forcing the Germans to destroy the coastal guns for fear of them falling into Soviet hands. For this action Leonov was awarded Hero of the Soviet Union.
- When the European conflict ended, Sr. Lt. Leonov was sent east to fight the Japanese. In mid-August 1945 he landed with 140 men, under the command of Capt. Kulebyakin, on a Japanese airfield at Wonsan, not realizing they were opposed by over 3,500 enemy soldiers.
- Sr. Lt. Viktor Leonov received his second Hero of the Soviet Union on 14 September 1945.
 During the war Leonov lost only nine men under his direct command, most on the assault at Cape Krestovyi (seven) until the end of the war against Japan (two).
- o Leonov entered the Naval Reserve in 1956 and later retired as a Captain 2nd rank.
- His World War II experiences as a Soviet Naval Scout were recounted in his popular memoir "Blood on the Shores."
- The Soviet Naval Scouts have been compared to the US Navy SEALs and were a forerunner to the Soviet Special Ops forces "Spetsnaz." Leonov died on 7 October 2003 in Moscow.
- "The Pacific Fleet already had a reconnaissance force established by Lieutenant Colonel N. A. Inzartsev, who as discussed above had earlier commanded the detachment in the Northern Fleet. The "Northerners" made up one-third of the combined detachment, giving it a total strength of approximately 130 men. Leonov became the new commander, and quickly organized the detachment into two platoons and a support section. He placed "Northerners" in all leadership positions down to squad level, and distributed the remainder of his veterans evenly throughout the unit. On 19 June the detachment moved to a barracks on Russian Island, in the entrance to the bay at Vladivostok. Here they could live and train in relative isolation." ⁹³

⁹² Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

⁹³ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

- "In the six-week period between reorganization and combat employment, the 140th Reconnaissance Detachment of Headquarters, Pacific Fleet trained in a variety of individual and collective tasks. ⁹⁴ The
 - "Easterners" had served generally from twelve to eighteen months, but had not experienced any combat. Leonov built his training program around physical conditioning, movement techniques, the use of various types of vessels for amphibious landings, map reading, urban combat skills, and recognition of enemy weapons signatures and uniforms." ⁹⁵
- "The detachment's first mission was to land in the Korean port Unggi, to seize and hold a beachhead until reinforcements arrived. 96 (Map 4) The 25th Army of Marshal K. A. Meretskov's 1st Far Eastern Front was attacking southward along the coast, though there is no evidence that Leonov coordinated his plans with any ground force units. Coming behind Leonov would be a battalion of naval infantry, with several additional battalions available if needed. On 9-10 August Soviet naval air and surface units attacked Japanese installations in the port. ⁹⁷ Leonov's detachment landed at the docks in the afternoon of 11 August. unopposed. They quickly moved into the city on pre-assigned axes, through the commercial district into the residential areas."98



• "Without firing a shot, Leonov's men occupied defensive positions near the railroad station, and using Korean interpreters who had accompanied the landing force, made contact with the local civilians. From them it was learned that the Japanese garrison of approximately 2,000 men had abandoned the city early that morning. While the detachment consolidated their defensive positions, Leonov, his political officer, and one of the Korean interpreters conducted a

⁹⁴ Babikov, Na vostochnon, 26-28. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

⁹⁵ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., Istoriya utoroy mirovoy voyny 1939-1945 [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., Krasnoznarnennyytikhookeanskii flot [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

⁹⁶ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnemyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989 pp. 37-62. All four landing sites have both Japanese and Korean names, as follows: Iuki-Unggi; Rasin-Najin; Seisin-Ch'ongjin; and Genzan-Wonsan. This paper will use the Korean names. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

⁹⁷ L. N. Vnotchenko, *Pobeda* no *Dal'nem Vostoke* [Victory in the Far East] (Moscow: Voyenizdat, 1971), 270. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

⁹⁸ Two Soviet sources have maps of the combat in Ch'ongjin) Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

⁹⁹ Babikov, Na vostochnom, 47. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

clandestine meeting with a Soviet agent, who had been inserted into Unggi prior to the outbreak of hostilities. ¹⁰⁰ This agent gave Leonov valuable information on the Japanese forces still in the area." ¹⁰¹

COMMENT: Note that Soviet agents had been long-since inserted into Korea and had probably detected and reported back to the USSR any Japanese facilities conducting experimental work on atomic energy and weapons research located on the Korean Peninsula.

- "Leonov's men remained in their positions through the night, disturbed only once by a small group of Japanese troops probing their perimeter. Early in the morning a forward detachment of the 393rd Rifle Division, 25th Army, approached the city along the main road from the north. Leonov went out to meet this column, and in the early morning darkness coordinated with its commander on the capture of the detachment's subsequent objective, the port of Najin, several kilometers farther down the coast. At this same time a company of naval infantrymen landed in two patrol torpedo boats, and relieved the reconnaissance detachment in place. Leonov and his men boarded their own boats at midday on 12 August and proceeded to their next objective." 103
- "The detachment's mission in Najin was the same: reconnoiter the port, determine the enemy strength and intentions, and capture a beachhead for the follow-on force. 104 Once again their landing was preceded by naval air and surface bombardment. On the way into the harbor, the detachment received small arms fire from two small islands, but without effect. The men went ashore at the docks, and quickly moved into the city. One platoon secured the railroad station, military barracks, and industrial area of the port, while the other moved along the shore. The detachment met light resistance from Japanese infantry rearguards. The interrogation of Korean civilians revealed the recent retreat of the Japanese garrison, which Leonov reported to fleet headquarters by radio. In reply, fleet ordered him to make contact with a company of naval infantry landed nearby, turn control of the port over to them, and return to base. The detachment arrived back at its base on the evening of 12 August." 105
- "After just several hours of rest, at 0500 hours on 13 August the detachment was alerted to its next mission, a landing in the Korean port Chongjin. Along with a company of naval infantry, the detachment was to land in the port, occupy a beachhead, and hold it until the arrival of the main force, a brigade of naval infantry. 106 The composite detachment was commanded by Colonel A. Z. Denisin, chief of the

¹⁰⁰ Ibid., 52. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰¹ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰² Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰³ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰⁴ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰⁵ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰⁶ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US

intelligence section of the fleet. After some four hours at sea, the combined force entered Chongjin harbor, still smoking from Soviet naval air and torpedo boat attacks. At around noon Leonov's men landed at the commercial docks, and the naval infantrymen at the naval piers." 107

COMMENT: Note the mention of Soviet intelligence oversight of military operations on the Korean Peninsula.

"Although not opposed at the water's edge, Leonov's men soon encountered fierce resistance, and began a running battle which lasted until the morning of 15 August. Leonov's force initially fought alone, isolated from the naval infantry company. The two forces finally joined together about twelve hours after landing. During this first night of combat, Colonel Denisin and a three-man security team slipped away from the detachment and clandestinely met with one or more of his agents." 108

COMMENT: Again, there is the mention of previously inserted Soviet intelligence assets onto the Korean Peninsula. Such assets were unlikely to have been inserted just prior to the Soviet invasion as such agents would have likely been detected, suggesting a longer-term Soviet espionage program against the Japanese in Korea. The

reasons for such an espionage program remain unclear as militarily, Soviet forces in the Russian Far East Military District greatly outnumbered those of Japan. Long before WWII the Soviet interest in the US centered not on military or political intelligence but industrial intelligence.

- "The first reinforcements, the 355th Naval Infantry Battalion, landed early on the morning of 14 August in the eastern side of the harbor, and engaged large numbers of Japanese troops, who otherwise would have pressed in on Leonov and his men. On 14 August the reconnaissance detachment and the naval infantry company continued to hold on, though forced to retreat back toward the docks. During the night of 14-15 August, their ammunition nearly exhausted, they were literally defending the docks, with Japanese infantry only 80-100 yards away. At around 0100 hours, two Soviet naval vessels appeared in the harbor. and reinforced the beleaguered force with naval gunfire."
- from the Northern Fleet, took Leonov and two men aboard ship to help his gunners adjust fire into the Japanese positions. After the initial volleys drove the Japanese away

"The captain of the frigate, an acquaintance of Leonov from the dock area, fire adjustment parties from the two vessels came ashore and were escorted inland by Leonov's men. The reconnaissance detachment thus was able to expand the beachhead before dawn, when the 13th Naval Infantry Brigade arrived. As this brigade disembarked in the harbor, Leonov provided scouts to guide them into the city. Army ground forces arrived from the north on 16 August." 110

Army, SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰⁷ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., Krasnoznarnennyytikhookeanskii flot [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army, SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰⁸ Babikov, Na uostochnom, 122. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹⁰⁹ Babikov, Na uostochnom, 157. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office, U.S. Army Combined Arms Center, Fort Leavenworth, Kansas. December 1989.

¹¹⁰ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin); V. I. Achkasov, et al., Istoriva utoroy mirovoy voyny 1939-1945 [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., Krasnoznarnennyytikhookeanskii flot [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US

- "In just over forty-eight hours of intense combat, Leonov had lost three killed and seven wounded in his detachment. Leonov received his second, and one of his platoon leaders, Makar Babikov, his first award of Hero of the Soviet Union for their actions in Chongjin. The detachment returned to their base at Vladivostok for rest and preparation for their final operation." 111
- "On 19 August the reconnaissance detachment departed for Chongjin, the staging area for a large amphibious assault on the Korean port Wonsan. Leonov's men left Chongjin on the evening of 20 August, accompanied by a representative of the intelligence section of the fleet, Lieutenant Colonel Inzartsev, and a small group of engineer troops with mine detectors. For this mission Leonov's detachment was subordinated to the chief of staff of the 13th Naval Infantry Brigade, which comprised the bulk of the main follow-on force. The mission of the total assault force was to move quickly and secretly to the port, capture it along with its nearby airfield, force the Japanese garrison to capitulate, and then disarm and intern it. Enemy ships were not to be permitted to leave the harbor.¹¹² The reconnaissance detachment was, as before, the forward detachment for the main body."

COMMENT: Note the mention of intelligence oversight of Soviet operational military activities as conducted on the Korean Peninsula.

- "Leonov's detachment entered the harbor at Wonsan and landed at its west end at 0900 hours on 21 August, unopposed.¹¹⁴ Leonov took the support platoon and one squad from each line platoon and moved off into the center of the city. Arriving at the Japanese military headquarters, he and his political officer sat down at a table with a group of Japanese officers, and demanded a signed act of capitulation be published to the entire Japanese garrison. The discussion ended with the Japanese officers deferring to their senior commanders, an admiral and an army colonel. Knowing that Inzartsev with another platoon was moving toward the garrison, Leonov took his men off to secure the bank, the post office, and the telegraph office."
- "The platoon accompanied by Lieutenant Colonel Inzartsev moved directly to the Japanese garrison headquarters, where they encountered a Japanese colonel. Surrounded by armed Japanese soldiers, the Soviet officers delivered an oral surrender ultimatum to the Japanese officer, who politely accepted it and agreed to relay it to his superior officer. Inzartsev invited the Japanese side to send representatives to the harbor to discuss the capitulation with the assault force commander at an agreed upon time four hours hence. The scouts withdrew with their small force to the docks." 116

Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹¹ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹² Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹³ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹⁴ Babikov discusses the events in Wonsan in *Na vostochnom*, 194-231, aiad in *Morskie*, 88-109. Leonov gives his account in *Gotov 'ya*, 38-49. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹⁵ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹⁶ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US

- "At approximately 1500 hours, the Soviet main assault force commander, Captain 1st Rank Studenichnikov [0-6 equivalent], and the naval infantry brigade commander came into port. After Inzartsev reported the course of the negotiations, Studenichnikov ordered the entire assault force to enter the harbor, but remain aboard ship. The deadline for the Japanese delegation to arrive in the harbor passed. Studenichnikov ordered Leonov to go with a small force to the Japanese garrison headquarters and bring the senior officers back to the ship." 117
- "Leonov took two squads from each platoon and returned to the garrison headquarters. After some discussion, during which Leonov reiterated the Soviet demand for unconditional capitulation, he escorted a Japanese admiral, a colonel, and several staff officers back to Studenichnikov's flagship in the harbor. While the Japanese command group was detained in this manner, Japanese military units in the city began to move toward the harbor. With a naval infantry company which had just landed in another part of the harbor, Leonov's detachment made a show of force in the waterfront area, enough to cause the Japanese units to withdraw back into the city. Aboard ship, Studenichnikov finally convinced the Japanese commanders of the need to capitulate, in order to avoid further bloodshed." 118
- "Concerned lest the Japanese garrison attempt during the night to withdraw units and equipment away from the city toward the south, Leonov sent a demolitions group with a squad from his detachment by patrol torpedo boat to a point south of the harbor, where the railroad line passed along the coast. There his men blew up a bridge, cutting the line and thus preventing its use." 119
- "There still remained the matter of the nearby Japanese airfield. One attempt to occupy it with a company of naval infantry had already failed. On 22 August Leonov moved his full detachment to the shore adjoining the airfield on eight torpedo boats. 120 The men jumped off into shallow water, walked up onto the shore adjacent to all the airfield fuel and ammunition storage facilities, and quickly secured them. From this position his men could also control the landing field with their fires. Armed with automatic weapons, and supported by the thirty-two heavy machineguns of the torpedo boats, Leonov's 140-man detachment was a formidable force." 121
- "The Japanese sent officer parliamentaries out to meet the force, and Leonov with ten men returned with them to the airfield headquarters. Accompanying Leonov in this group was Captain 3rd Rank Kulebyakin, a representative of the fleet staff. The Japanese airfield commander, a colonel, and the two Soviet officers engaged in a forty-minute exchange, which can aptly be characterized as a psychological stand-off. The Soviets finally convinced the Japanese officer to surrender his forces, which totaled nearly five thousand men." 123

Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹⁷ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹⁸ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹¹⁹ Babikov, Na vostochnom, 217. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²⁰ Leonov, *Gotov'sya*, 42-44. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²¹ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²² Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²³ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., Istoriya utoroy mirovoy voyny 1939-1945

• "The Soviets finally convinced the Japanese officer to surrender his forces, which totaled nearly five thousand men. Leonov and his men returned to the harbor in Wonsan. On 23 August the detachment and a small naval infantry force landed on one of the islands in the harbor to disarm the garrison there. 124 Three days later, the detachment was ordered to return to its base at Vladivostok. In a manner appropriate to such a unique assemblage of sailors, Leonov's detachment crewed and sailed a trophy Japanese vessel back to their base." 125

Additionally, from: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989. p 17

 "While they were crossing the Sea of Japan, fleet headquarters radioed them the news that the 140th Reconnaissance Detachment of Headquarters, Pacific Fleet, had been designated "guards" status." ¹²⁶

Material produced by: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989. p 17

- WARTIME EXPERIENCE AS AN INDICATOR OF CURRENT CAPABILITIES
 - "From this detailed and somewhat lengthy description of the combat employment of the reconnaissance detachments of Northern and Pacific fleets, one can reasonably conclude that they were indeed special operations forces. Analysis of several aspects of their organization, personnel, and combat



Red Army Troops entering Korea - August 1945

operations further establishes these forces as historical precursors for what is now called Soviet naval spetsnaz." ¹²⁷

Material produced by: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989. p 18-19

• "It is important to recognize that although both the Northern and Pacific fleet detachments came out of the same personnel base, beginning with Lieutenant Colonel Inzartsev and extending to the core of combat

[[]History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., Krasnoznarnennyytikhookeanskii flot [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²⁴ Babikov, *Na vostochnom*, 227. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²⁵ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²⁶ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²⁷ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

experienced personnel, they were employed in a somewhat different manner. The presence of covert Soviet agents in two Korean ports suggests the existence of an element in the Pacific Fleet analogous to Sutvagin's mixed Soviet-Norwegian platoon. But there is no trace of such a structure in Soviet sources. The Pacific Fleet reconnaissance detachment never went deep inland, and did not conduct operations into Japanese rear areas. These differences in organization and mission reflect a Soviet penchant for tailoring forces to a specific theater of military operations. The detachment in the Northern Fleet was born out of a specific need, and was developed and modified to respond to particular requirements of the mission, the enemy, and the terrain. When the detachment moved to the Pacific theater, it quickly adapted to the changed conditions." 128

COMMENT: Note that the admission of ongoing intelligence activity within the Soviet of the Korean Peninsula is admitted in Soviet-era literature about the Red Army's invasion of Korea but no details are ever given.

"The use of the reconnaissance detachment as a means to contact covert intelligence agents in northern Korea is instructive. It goes beyond the exploitation of a sympathetic local population for information on the enemy, and reflects a high degree of confidence in the political reliability of Leonov and his men. Leonov's role in negotiating the capitulation of Japanese forces in Wonsan is also significant. Although he was not designated as a plenipotentiary of the fleet commander, he acted in the role of one, duplicating in

> SOVIET RED ARMY ATTACK INTO KOREA – AUGSUST 1945

many ways the activities of colonels and generals in the ground forces, who at this same time were negotiating with Japanese garrison commanders in the major cities of Manchuria. This political dimension is a startling addition to the repertoire of the unit." 129

COMMENT: "The use of the reconnaissance detachment as a means to contact covert intelligence agents in northern Korea is instructive. It goes beyond the exploitation of a sympathetic local population for information on the enemy, and reflects a high degree of confidence in the political reliability of Leonov and his men." 130

Material produced by: Gebhardt, James F. Major. US Army, SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II.

Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989. p 19 "All the landings in northern Korea employed fast boats. Other delivery means included walking, skiing,

parachuting, and landing of amphibious aircraft on lakes." 131

Rashin – 9 August 1945

Seishin – 15-16 August 1945

Major Battles

¹²⁸ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., Istoriya utoroy mirovoy voyny 1939-1945 [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., Krasnoznarnennyytikhookeanskii flot [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army, SOVIET NAVAL SPECIAL PURPOSE FORCES; ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹²⁹ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., Istoriya utoroy mirovoy voyny 1939-1945 [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., Krasnoznarnennyytikhookeanskii flot [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army, SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹³⁰ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., Istoriya utoroy mirovoy voyny 1939-1945 [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., Krasnoznarnennyytikhookeanskii flot [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army, SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹³¹ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., Istoriya utoroy mirovoy voyny 1939-1945 [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., Krasnoznarnennyytikhookeanskii flot [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

- "In the Pacific Fleet detachment, interpreters who spoke Korean and Japanese were attached to the force for all four landings." 132
- "Although it has been mentioned already in connection with the language skills, the employment of foreign nationals is significant. Norwegian communists fleeing the German occupation brought with them a knowledge of the terrain, locales, and customs that few Soviet citizens could possess. ¹³³ In the Far East, it is possible that the Soviet covert agents which were inserted into Unggi and Chongjin were also foreign nationals, and thus able to maintain cover in the Korean/Japanese population." ¹³⁴

COMMENT: "In the Far East, it is possible that the Soviet covert agents which were inserted into Unggi and Chongjin were also foreign nationals, and thus able to maintain cover in the Korean/Japanese population." ¹³⁵

According to a Soviet report of the battle:

- "When the Japanese launched their counter-attack, they were supported by an armored train. The train was very cautious, constantly moving from place to place, under the protection of the port buildings. But a few salvoes from our naval guns finished it off. Those guns also destroyed a train transferring troops to the battlefield. More than half the carriages of the train were destroyed." 136
- "At about 04:00 on August 15, warships that had followed minesweepers from Vladivostok entered Chongjin harbor, bringing the second echelon of the landing force, the 13th Marine Brigade, to the moorages. The main body of the Brigade fought hard to crush the enemy's stubborn resistance and soon advanced to the outer lines of the enemy defenses. The Soviet troops seized the enemy's first line of defense and approached the second line, but even with effective air and naval support, the second echelon of the landing force also failed to overcome the enemy resistance at once because artillery support was not strong enough. Only at 05:00 on August 16 did artillery and mortar fire arrive at Chongjin. As it came into the harbor, the transport Nogin struck two US made mines, putting it out of control. Soon afterwards, another Soviet transport, the Dalstroi, had a similar accident, but the crews of the two vessels did not panic. They led the ships to moorages and unloaded the weapons and ammunition, even though they had to work under enemy fire." 137

COMMENT: Why were the Soviets unwilling to use their ship-to-shore artillery to dislodge the Japanese defending the port?

• "With artillery pieces and mortars at their disposal, the 355th self-contained Marine battalion and units of the 13th Marine Brigade, supported by aviation and naval guns, took the final offensive in the morning of August 16. In the course of operations conducted jointly by Marine units, aviation and warships of the Pacific Fleet, the Japanese fortifications around the Seishin naval base were breached. In the afternoon of August 16, units of the 393rd Infantry Division of the 25th Army approached Chongjin from the North, - a

¹³² Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹³³ At least one of these Norwegians worked for Soviet intelligence after World War [I. Selmer Nilsen, a member of the mixed Soviet-Norwegian platoon in 1943, assisted the Soviets in tracking the flights of the U-2 reconnaissance aircraft into the airfield at Bodo in 1960.
See P. E. Vatne, Jeg Var Russisk Spion-Historien om Selmer' Nilsen [I was a Russian spy-the story of Selmer Nilsen], (Oslo: H. Aschehoug & Co., 1981). As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989

¹³⁴ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

¹³⁵ Two Soviet sources have maps of the combat in Ch'ongjin (Seisin): V. I. Achkasov, et al., *Istoriya utoroy mirovoy voyny 1939-1945* [History of the Second World War 1939-1945], vol. 11 (Moscow: Voyenizdat, 1980), following 256; and S. E. Zakharov et al., *Krasnoznarnennyytikhookeanskii flot* [Red Banner Pacific Fleet] (Moscow: Voyenizdat, 1973), 183. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989.

 ¹³⁶ USSR Report. INTERNATIONAL AFFAIRS. FOREIGN BROADCAST INFORMATION SERVICE. JPRS-UIA-86-020. 28 APRIL 1986.
 137 USSR Report. INTERNATIONAL AFFAIRS. FOREIGN BROADCAST INFORMATION SERVICE. JPRS-UIA-86-020. 28 APRIL 1986.

and this definitely tipped the balance of the battle in favor of the Soviet forces, which soon completed the liberation of Chongjin." ¹³⁸

"Upon learning of the Imperial Rescript on 15 August, Army headquarters ordered all its subordinate commands to cease hostilities. Actually, since no elements of the Army had engaged in operations, other than the Nanam Divisional District Unit this order, for all practical purposes applied only to the Nanam Unit which was fighting in the vicinity of Chongjin and did not halt operations until the 18th." ¹³⁹

"Under the Kwantung Army commander's authority to issue orders to General Kozuki's commands in matters, relating to operational preparations, Thirty-fourth Army in early August notified the Nanam Unit to be prepared to assume two operational missions. (For administrative matters, the Nanam Unit remained under the jurisdiction of the Korea Administrative Defense Army). These missions were to prevent an enemy amphibious landing in the Chongjin area, and to check any enemy attempts to make an overland drive in the area between Chongjin and Hongwon." 140

COMMENT: For reasons never fully explained, the Japanese had divided their forces to support two entirely separate objectives, limiting their ability to mass their forces to repel the Soviet invasion.

"General Nishiwaki, with a view to guarding the Chongjin area against Soviet invasion, ordered his Chongjin Garrison Unit to occupy previously constructed positions on the Chongjin Peninsula, the Yamane Detachment to occupy the sector about five miles west of Chongjin, and the Takumi Detachment to defend Nanam by deploying elements both east and west of the city. He also ordered the Kwangjuryong Garrison Unit, which consisted mainly of the 2nd Company of the 1st Infantry Depot Unit, to defend Kwangjuryong Pass." 141

COMMENT: Kwangjuryong Pass is located to the west of the area of the Japanese final stand.

- "At noon of 13 August the Soviets put ashore approximately 600 men on the beaches of Chongjin harbor. This assault was supported by another landing, presumably by a company size unit, north of the Chongjin peninsula. These two landings placed the enemy at both sides of the peninsula's neck." 142
- "The Chongjin garrison, whose old 75-mm mountain guns had previously attacked the landing craft, immediately engaged the enemy. At the same time the Yamane and Takumi Detachments left their defense positions, respectively west and south of Chongjin, and hurried towards the city, and the 145th Guard Battalion, under orders of the Nanam Unit Headquarters, departed Hoeryong and hastened to reinforce the left flank of the Yamane Detachment." ¹⁴³
- "After landing, the enemy quickly began to attack the Chongjin peninsula's defenses from the rear, meanwhile attempting to join forces across the peninsula's neck. After joining forces the enemy left small elements on the peninsula to wipe out remaining resistance, and began advancing his main body westward toward Yusong and southward to Chongjin city. Meanwhile, one enemy element that had succeeded in

¹³⁸ USSR Report. INTERNATIONAL AFFAIRS. FOREIGN BROADCAST INFORMATION SERVICE. JPRS-UIA-86-020. 28 APRIL 1986. ¹³⁹ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴⁰U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴¹U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴²U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴³ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

- advancing to the southern part of Chongjin was encountered by the Takumi Detachment and was annihilated by it." 144
- "On the morning of 19 August, General Nishiwaki, accompanied by his chief of staff, Colonel Shirakawa, met with a Soviet division commander at Nanam. As a result of this conference a formal ceasefire agreement was reached." 145
- "The next day the Chongjin Garrison Unit was disarmed at Yuyudong, Fengyendong, and Chuuronjang, and later was assembled at the Nanam Drill Grounds. On the 22nd the unit was marched to Komusan, arriving on the 22nd. Quarters were provided in the dormitory of the cement plant or in the semi-cave shelters which had been built around the primary school." ¹⁴⁶
- "The Songjin Detachment and the Hamhung Guard Unit were disarmed at their positions. The Songjin Detachment moved to Nanam to join the main force of the Divisional District, and then, in compliance with a Soviet Army directive, moved to Hamhung." 147
- "Personnel of the Nanam Divisional District Unit interned at Komusan numbered 5,700, including 669
 Korean soldiers; those of Kwantung Army units about 800. All these personnel were organized into six
 labor battalions, each consisting of 1,000 men, and were sent to Soviet territory beginning in October.
 About 500 men, considered surplus to the labor battalions, were moved to the Puryong Internment Camp."

Japanese Emperor Hirohito only decided, on 14 August, after the fall of Seishin to surrender.

"Cease-fire negotiations were conducted between the commander of the Pyongyang Divisional District and Lieutenant Colonel Rakon of the Soviet Army shortly after the latter's arrival at the Pyongyang airfield. Later, when Soviet Army Headquarters arrived, all Japanese units were ordered to assemble in the Chuul area. There, one regiment was quartered at the Mitsui Airplane Factory, some units at the primary school; others had to bivouac. Later some units were provided quarters in the barracks formerly used by infantry noncommissioned officer candidates, while division headquarters moved to the building of the Ordnance and Intendance Departments of the Divisional District. Later, a third change in billeting arrangements in Chuul was made: officers were interned in the Migundang Barracks; men in the Samhamni Barracks. All arms, ammunition, and other material were confiscated, including a huge quantity of clothing and provisions which the Japanese had earlier distributed among Koreans." 149

COMMENT: The Chuul area was reportedly the location of a uranium mining operation. NFI on the Migundang Barracks, Samhamni Barracks or the Mitsui Airplane Factory.

"While the Soviets demanded that all Japanese forces in Korea north of latitude 38 degrees be assembled at Komusan as prisoners of war, the Japanese representatives insisted on assembling at other places, less remote to transport and supply routes, and eventually made the Soviets agree to this. The reason for insisting on this point was that Komusan, a small hamlet, had no reserve supplies, and the railway line to the north where provisions were

¹⁴⁴ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴⁵ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴⁶U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴⁷U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴⁸U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

¹⁴⁹U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

stored had been destroyed. This meant that assembling large forces in Komusan would inevitably result in logistical hard-ships and possibly lead to starvation." 150

"The areas proposed for assembly by the Japanese representatives were Nanam (for the majority of the Nanam Divisional District Unit), Hamhung and Wonsan (for Thirty-fourth Army and divisional district units in the vicinity of Hamhung), and Pyongyang (for units in Pyongan-pukto and Pyongan-namdo provinces). Upon completion of these negotiations at Yenchi, the Army commander and his party returned to Hamhung on 22 August, accompanied by a Soviet lieutenant colonel, a major, and a captain." ¹⁵¹

"After the cease fire, Koreans openly oppressed the Japanese; governmental organs had become totally impotent even prior to the arrival of Soviet occupation forces. Immediately after the war ended, the Army, fearing Korean rioting, had posted troops of two infantry battalions at about ten key points in the Hamhung vicinity. The Army did not feel, however, that this action would be adequate to protect Japanese residents. As an additional measure, therefore, it released all draftees who had relatives in Korea and Eastern Manchuria so that they could go home and protect their families." ¹⁵²

"In direct contravention to the agreement reached at Yenchi the Soviet lieutenant colonel on 24 August directed that all Japanese forces north of latitude 38 be assembled at Komusan. Army head-quarters, pointing out that the Twenty-fifth Army chief of staff had agreed at Yenchi to assembly at the three points requested by the Japanese, insisted that the Thirty-fourth, Army assemble in the Hamhung vicinity. The Soviet officer rejected this flatly. Nevertheless, Army headquarters adhered to the Yenchi agreement, and repudiated the lieutenant colonels' directive. Subsequently four conferences were held--at noon and at 1800 of the 24th, and at 0900 and noon of the 25th--but no satisfactory solution was found. Finally, at 1600 hours of the 25th, when General Chushchakov, commander of the Soviet Twenty-fifth Army, arrived at Hamhung by plane, Army headquarters took up the matter with him. He reaffirmed the agreement reached at Yenchi, but it was apparent that neither he nor the Soviet lieutenant colonel had had any knowledge of the details of the Yenchi negotiations." ¹⁵³

COMMENT: This was a common feature within the Soviet Red Army; few of its officers knew anything about any previous agreements made by its earlier commanders.

"Army headquarters explained to Soviet officials the difficulties in matters of food, clothing, and shelter that would arise from internment at one place, emphasizing that if many troops became sick or died from malnutrition or inadequate sanitary conditions caused by internment at one place, the Soviet Union would be subject to attack by world opinion for its inhumanitarianism. Finally, the Soviet Army's assistant chief of staff, a major general, approved internment at the twelve places designated by Japanese representatives. As a result, Japanese troops were able to live with little anxiety about food and clothing during their two months of internment life in Korea. Meanwhile, Soviet authorities directed that control of all Japanese forces in the Hamhung area be consolidated under the commander of the Thirty-fourth Army. Accordingly, Army headquarters took charge of the air units at Yonpo and Togwon, the naval units at Wonsan, and naval personnel who had supervised powder production at the Korean Nitrogen Company in Hungnam. However, because of the disruption of signal communication, both the army and navy units at Wonsan could not be controlled. Furthermore, naval personnel at Hungnam deserted." ¹⁵⁴

¹⁵⁰ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

¹⁵¹U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

¹⁵² U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

¹⁵³U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

¹⁵⁴ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

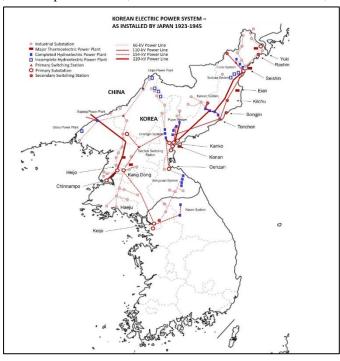
COMMENT: The mention of naval personnel supervising powder production at the Korean Nitrogen Fertilizer Company (Nichitsu) at Hamhung is an interesting aside as that heretofore, naval personnel of the Imperial Japanese Navy were only known to have been involved with the coal-fuel hydrogenation process at the Hongu facility a few miles away from the main plant Nichitsu. Black powder was used in America's to slam together the two separate pieces of uranium contained in the Atomic bomb dropped over Hiroshima. The Fat Man design, used over Nagasaki, employed compacted and shaped explosives to compress the plutonium contained within the bomb to achieve critical mass. That the Japanese navy was heavily involved in Japan's atomic energy and weapons program, and otherwise supervising the production of explosives at the Nichitsu plant at Hamhung is telling. The final question here is, why were those of the Imperial Japanese Navy accused of desertion? Why had they abandoned their posts? Were the naval personnel assigned to that even actually Imperial Japanese Navy sailors?

"Disarmament of Japanese troops began on 26 August. On that date, the problem of where to assemble Japanese forces again erupted. This time, however, the problem concerned only troops of the Thirty-fourth Army, and arose out of Soviet instructions to assemble at the Pupyong maneuver area, about thirty kilometers south of Hamhung. Since Pupyong could accommodate only about 2,000, and had poor facilities, it would be difficult to subsist there,

particularly in the cold season. Army headquarters requested that units be interned at the twelve places, between Hamhung and Pupyong, at which they were then stationed. The Soviets did not agree to this. Particular objection was raised by the lieutenant colonel who had created the earlier problem. He strongly insisted on internment in one place." ¹⁵⁵

"The Army commander and all other general officers of the Army were taken by plane to the Maritime Province at the end of August. Most of the other officers were interned at the Chongpyong Primary School. They were nominally under the control of Colonel Tamura, chief of the Hamhung Railway Branch, who was the senior officer, but actually took directions from the staff officers of Thirty-fourth Army." 156

COMMENT: A Japanese named "Tamura" was reportedly involved in the Japanese atomic bomb project in Korea. The development of the Japanese Continental Railway Bureau had been a result of the Japanese war in China. During the war the



Continental Railway Bureau was in charge of the construction and expansion of the Japanese rail system across China, Korea and Manchuria. It controlled the movement of all men and materiel in support of the Japanese war in China. It is possible, but unknown at this time, that the Continental Railway Bureau would have had the experience, similar to the US Army Corps of Engineers, to manage and have applied the resources available to Japan in its effort to produce an atomic bomb.

"The next day the Chongjin Garrison Unit was disarmed at Yuyudong, Fengyendong, and Chuuronjang, and later was assembled at the Nanam Drill Grounds. On the 22d the unit was marched to Komusan, arriving on the 22d.

¹⁵⁵ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

¹⁵⁶U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

Quarters were provided in the dormitory of the cement plant or in the semi-cave shelters which had been built around the primary school." 157

"The Songjin Detachment and the Hamhung Guard Unit were disarmed at their positions. The Songjin Detachment moved to Nanam to join the main force of the Divisional District, and then, in compliance with a Soviet Army directive, moved to Hamhung." ¹⁵⁸

"Personnel of the Nanam Divisional District Unit interned at Komusan numbered 5,700, including 669 Korean soldiers; those of Kwantung Army units about 800. All these personnel were organized into six labor battalions, each consisting of 1,000 men, and were sent to Soviet territory beginning in October. About 500 men, considered surplus to the labor battalions, were moved to the Puryong Internment Camp." ¹⁵⁹

During WWII the US Army Air Corps took aerial imagery of the area of Seishin and maps of the city were produced suggesting that imagery taken during the early 1940s area does, or did at one time exist.

COMMENT: The map above represents the Korean electric power system as installed by the Japanese at end of WWII – August 1945. At that time the Sodusu Cascade was referred to, as the "Seitosui System," and was listed as "incomplete" on several postwar maps. Note also that the map also shows Seishin to be the location of a "primary substation" and the location of a "major thermoelectric plant."

COMMENT: Power stations in a cascade are usually numbered sequentially from the first station where water enters the system from the storage reservoir, to the last where the remaining energy contained in the water has been extracted and then exits the system.

The geographic coordinates given for the location of the three power plants of the Sodusu Cascade, as contained in the Pauley Report to President Truman were: 160

- 41° 55' 00" N 129° 30' 00" E
- 41° 55' 00" N 129° 41' 00" E
- 41° 51' 00" N 129° 43' 00" E

ERA: IMMEDIATE AFTERMATH-WWII

Soviet forces in Chongjin (Seishin) dismantle much of the Seishin Iron and Steel Works and ship its plants into the Soviet Union. ¹⁶¹

The Sodusu Cascade is reported to have been completed by the Japanese in 1945. The cascade, consisting of three separate power stations, was reported by the Japanese to have a total capacity of 455 MW. ¹⁶²

The Sodusu Hydroelectric Power Station Number 2, located about twelve miles west of Chongjin is first mentioned in the Pauley Report of 1946. ¹⁶³

"On 6 July 1949, N. Fedorenko reported to Vyshinsky that "According to the data communicated to us by General Sologubovsky at the Administration of Foreign Relations (MVS), in accordance with the resolution of the Council of Ministers of the USSR, there are in Korea: 65 naval craft at the port of Seisin, including torpedo boats, anti-submarine craft and other vessels, 2 naval units at the port of Genzan and 6 at the port of Rasin. There are 3,530

¹⁵⁷ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

¹⁵⁸ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army. 1950.

¹⁵⁹ U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. Distributed by the Office of the Chief of Military History, Department of the Army, 1950.

¹⁶⁰ Pauley, Edwin. Report on Japanese Assets in Soviet-Occupied Korea to the President of the United States. June, 1946 "The Pauley Report" ¹⁶¹ Lee, Bong. The Unfinished War: Korea. Algora Publishing, New York, 2001.

¹⁶² Pauley, Edwin. Report on Japanese Assets in Soviet-Occupied Korea to the President of the United States. June, 1946 "The Pauley Report."¹⁶³ Pauley, Edwin. Report on Japanese Assets in Soviet-Occupied Korea to the President of the United States. June, 1946 "The Pauley Report."

[Soviet military] personnel, plus 264 civilians. In the cities of Seisin, Kanko, Ranan and Pyongyang there are various technical groups, mostly workers in communications, totaling 326 persons. In addition, there are 239 military advisers." (AVP RF, Fond 7, Opis 22, Delo 235, Papka 37.) The naval presence at Seisin was to be temporary, as stipulated in one of the agreements signed by the DPRK and USSR in Moscow in March 1949." ¹⁶⁴

COMMENT: Note that many of the Japanese personnel at held at Chongjin were described as "technical groups."

"Reflecting the two primary interests listed above, in March 1949 Moscow concluded eleven agreements with the newly created DPRK. These concerned economic and cultural cooperation; technical assistance and extension of credit to North Korea; commodity circulation and payments; payments for deliveries of goods outside the agreement of 31 July 1948; conditions for the work of Soviet specialists sent to North Korea and North Korean specialists sent to the USSR for practical training in industrial/technical work; the temporary stationing of a Soviet naval unit at the port of Seisin; establishment of a Soviet trade representative in the DPRK; construction of a railway line from the Kraskino Primorskoi station to a station of the Khonio Severo-Koreiski Railway; and the establishment of regular air links between the USSR and DPRK. Apparently reflecting continued concern to avoid alarming the Americans over developments in Korea, all of these agreements were classified secret except the agreement on economic and cultural cooperation." ¹⁶⁶

COMMENT: Many of the postwar Soviet-North Korean agreements centered on the presence of Soviet personnel in the city of Chongjin. This postwar relationship centered on Chongjin and continued through the collapse of the former Soviet Union and reemergence of Russia as a world power.

Soviet naval forces remained at Chongjin through at least 1949 if not later. ¹⁶⁷

"In his meticulously researched book on the Army's role in the Manhattan Project, Vincent Jones states that by mid-1945, transmission facilities at CEW [Clinton Engineering Works] could provide electrical power up to 310 megawatts (MW), of which 200 MW were for the Y-12 electromagnetic separation plant. Jones states that peak consumption for any extended period during the war occurred in August, 1945, when the electricity used by all facilities for the month totaled about 200 million kilowatt-hours (MkWh). Jones' figures are internally consistent: 200 MkWh over a 31-day month (744 hours) gives an average power of (200 MkWh/744 h) = 0.269 MkW = 269 MW." Jones' 169

The exact reason for the construction of the Sodusu Cascade during the period of the Japanese occupation of Korea remains unknown. Why it was constructed entirely underground also remains unknown. It is suspected that the power produced by the cascade would have supported nearby Japanese industries located in and around Chongjin, however those industries were operating near capacity as early as 1940. It is further likely that extensive underground tunnels and purpose-built chambers lie adjacent to, or within, the Sodusu Number Two hydroelectric power plant and connect the second power station to the third, or Sodusu March 17 Power Station. Such tunnels and chambers would support the suspected functions held within, and perhaps house the people associated with that

¹⁶⁴ Cited in SOVIET AIMS IN KOREA AND THE ORIGINS OF THE KOREAN WAR, 1945-1950: NEW EVIDENCE FROM RUSSIAN ARCHIVES KATHRYN WEATHERSBY Florida State University Working Paper No. 8.

¹⁶⁵ The texts of these agreements are found in AVP RF, Fond 07, Opis 22, Delo 234, Papka 37, and AVP RF, Fond 17, Opis 22, Delo 238, Papka 37. Cited in SOVIET AIMS IN KOREA AND THE ORIGINS OF THE KOREAN WAR, 1945-1950: NEW EVIDENCE FROM RUSSIAN ARCHIVES KATHRYN WEATHERSBY Florida State University Working Paper No. 8.

¹⁶⁶ On 18 April 1949, N. Fedorenko sent Vyshinsky a draft of a telegram to Shtykov in Pyongyang communicating to him that the agreements should not be widely discussed or published in the press. AVP RF, Fond 07, Opis 22, Delo 234, Papka 37. Cited in SOVIET AIMS IN KOREA AND THE ORIGINS OF THE KOREAN WAR, 1945-1950: NEW EVIDENCE FROM RUSSIAN ARCHIVES KATHRYN WEATHERSBY Florida State University Working Paper No. 8.

¹⁶⁷ DOCUMENT NO. 1 [Source: Archive of the President of the Russian Federation (AP RF), Fond (F.) 3, Opis (Op.) 65, Delo (D.) 775, pp. 74-76. Translated for NKIDP by Gary Goldberg].

https://www.wilsoncenter.org/sites/default/files/NKIDP_Document_Reader__New_Evidence_on_the_Korean_War.pdf

¹⁶⁸ V. C. Jones. Manhattan: The Army and the Atomic Bomb (Washington: Center of Military History, United States Army, 1985), p. 391. https://ia700404.us.archive.org/11/items/manhattanarmyato00jone/manhattanarmyato00jone.pdf

¹⁶⁹ Reed, Cameron. Kilowatts to Kilotons: Wartime Electricity Use at Oak Ridge. American Physical Society. 2016. https://www.aps.org/units/fhp/newsletters/spring2015/oak-ridge.cfm

operation. As planned, the Sodusu and Kokai Cacades (189 MW) would have, in 1945, represented "excess electrical power generating capacity." 170

The Kokai hydroelectric system in the Kanggye area was reported as the most nearly complete of the considerable number of installations originally planned by the Japanese. ¹⁷¹

Later US reports of 1946 list the Sodusu power plants as "under construction."

- Power Station Number 1 was listed as 20% complete. ¹⁷²
- Power Station Number 2 was listed as simply "incomplete." ¹⁷³
- Power Station Number 3 lists "three units in use" 174

Additional reports contained in Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland, reveal that:

- The Sodu-su River is a tributary of the Tuman (Tumen) River which forms much of the northeastern border dividing North Korea from China and Russia.
- The construction of the power stations entailed damming the Sodusu River which flowed north into the Tumen, and reversing its flow southward, then towards the east through a series of underground tunnels. There the water was then fed into the first of three hydroelectric power plants forming the Sodusu Cascade much like the Changjin Cascade had been constructed duing the 1930s. 175
- The Sodusu Cascade was owned by the Korea Electric Power Company. ¹⁷⁶
 - The Korea Electric Power Company was an affiliate, a creation of Nichitsu Nippon Nitrogen Fertilizer. ¹⁷⁷
- The dam across the Sodusu River was 377 meters long and 107 meters high. ¹⁷⁸
- The dam contained 900,000 cubic meters of concrete. 179
- The three known power stations were constructed and connected hydraulically in a series; water entering Power Plant Number 1 was fed by tunnel into Power Plant Number 2 and then to Power Plant Number 3 forming a cascade. ¹⁸⁰
 - o Its available capacity (reservoir) stood at 340,000,000 cubic meters. ¹⁸¹
 - o The reservoir's surface area measured 191.1 square kilometers. ¹⁸²
 - o The power station's operating head (creating pressure to operate its turbines) was 35 meters. ¹⁸³

¹⁷⁰ Eckert, Carter J. Offspring of Empire: The Koch'ang Kims and the Colonial Origins of Korean Capitalism, 1876-1945. University of Washington Press, Seattle and London. 1991.

¹⁷¹ Central Intelligence Agency Office of Current Intelligence 6046, 1 July 1952.

¹⁷² Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

¹⁷³ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

¹⁷⁴ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

¹⁷⁵ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

¹⁷⁶ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

¹⁷⁷ Simpo, Hirohiko. Overseas Business Activities of Japanese Companies in the Prewar Period: The Japanese Style Foreign Investment in the Prewar Period. Osaka Sangyo University, Japan. 23 August 2008

¹⁷⁸ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁷⁹ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

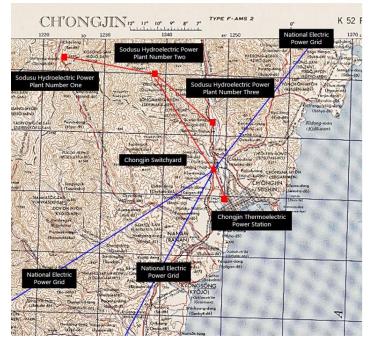
¹⁸⁰ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁸¹ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁸² Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁸³ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

- Water was supplied from the reservoir to the cascade through a circular section pressure tunnel (underground) that measured 51,300 meters in length. ¹⁸⁴
- Power Station Number 1 is listed as located at Wonpong, Samsa Village, Musan District, Hamgyong-pukto. 185
 - Yung Dong, Kyongoung village, Kyongsaung District, Hamgyong-pukto.
 - This notation may actually refer to Power Station Number 4 which was reported to exist in the 1980s.
 - The plant's rated production capacity stood at 148,000 KVA. 186
 - The plant held four turbinegenerator sets; three in operation, one held in reserve.
 - The inner diameter of the pipe feeding the plant was 4.8 meters. ¹⁸⁸



Inset: US Army Map of the Changjin Area – Circa 1944 with Power System Overlaid

- Power Station Number 2 was located a Samker-ri in the village of Sukmak, Puryong District, Hamgyongpukto. ¹⁸⁹
 - o The plant was located entirely underground. ¹⁹⁰
 - o The plant's rated production capacity stood at 148,000 KVA. 191
 - o The plant held four turbine-generator sets; three in operation, one held in reserve. 192
 - The underground water tunnel extending from Power Station Number 1 to Power Station Number 2 was about 15 km in length. ¹⁹³
 - o Power Station Number 2, a secret facility, may have also been fed through an entirely additional, and separate underground water tunnel extending directly from the Sodusu River. ¹⁹⁴

¹⁸⁴ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁸⁵ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁸⁶ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁸⁷ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁸⁸ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁸⁹ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹⁰ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹¹ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹² Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹³ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹⁴ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

- Power Station Number 2 is located at or near where the Japanese, the Yamane Detachment with the Kwangjuryong Garrison Unit made its final stand just outside Chongjin after the end, of WWII
- Power Station Number 3 was located at Suwondong, Sung Mak village, in Puryong District, Hamgyongpukto.
 - The plant was located entirely underground. ¹⁹⁶
 - Power station number three was fed through a tunnel from the tailrace (the water exiting) power station number two. ¹⁹⁷
 - The tunnel extended a distance of 4,446 meters and was 4.30 meters in diameter. ¹⁹⁸
 - The plant held three turbine-generator sets rated at 14,000 kilowatts each. ¹⁹⁹

COMMENT: Why the Japanese would build the Sodusu power stations entirely underground is not completely clear at this point. As the plants and their underground aqueducts were built during wartime, it would appear on the surface that the Japanese were interested in the physical security of the system: Perhaps protection from attack. That line of reasoning does not however apply to any other electrical Japanese power system then under construction in Japan, Korea or Manchuria before, or during the war. If security was the reason these power stations were built underground, why weren't all other such power stations in planning, or under construction during the war also built below ground? Neither the Supung, Unpo, Kokai or Kyosen systems, all planned before or during the war, and under construction or completed at war's end, were built underground. Even in the aftermath of the Korean War, when the entire country had been devastated by UN bombing, North Korea; continuing or completing the construction of Japanese power stations began during the Japanese Occupation, did not place those plants underground. Costs would appear to be a factor.

During the construction of the Fusen-ko Cascade by Noguchi interests before the war, the Fusen Hydroelectric Power Plant Number One was built into solid bedrock. To position the plant, 15,695 cubic yards of rock was excavated from the construction site. 200 The costs of removing so much rock and bedrock to locate the first power station of the Fusen Cascade might suggest a cost savings in placing future power stations underground, however the construction of an underground facility often comes with greater costs when one considers the cost of additional and aboveground support facilities. Unexpected geologic defects with the underground facility's overburden could also increase the overall cost of construction and continued maintenance. The post-war history of underground hydroelectric power facilities and their association with nuclear materials production and reactors also adds to the suspicion that the Japanese created, and left such a facility in Chongjin.

Few nations have sought to build hydroelectric power stations underground. Usually such power plants are suspected of housing atomic or nuclear research facilities. This includes hydroelectric power stations in the Former Soviet Union, North Korea, People's Republic of China, Burma, and so on. Most often these facilities are suspected of housing uranium gas centrifuge facilities (a post-WWII creation, but suggested by Bunsaku Arakatsu for uranium enrichment in 1942) or reactors.²⁰¹ A key signature of the existence of such facilities is the need for redundant sources of electrical power. Equipment used in the enrichment of uranium can suffer serious and costly damage due

¹⁹⁵ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹⁶ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹⁷ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹⁸ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

¹⁹⁹ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland

²⁰⁰ Electric Power of Korea. Strategic Engineering Study. S.E.S. 157. Engineer Research Office. North Atlantic Division. Corps of Engineers. Office, Chief of Engineers, U.S. Army. February 1945. Record Group 331. Stack Area 290. Row 21. Compartment 22. Shelf 5. SCAP. General Subject File. 1943-1945. Box 8345. Folder – Korea 7. NND775019. The U.S. National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001.

²⁰¹ Myanmar and the Two Koreas: Dangers and Opportunities. April 11, 2011. http://uskoreainstitute.org/wpcontent/uploads/2011/05/Transcript_Myanmar2Koreas_041111.pdf

Centrifuges and Nuclear Weapon Proliferation. Federation of Atomic Scientist. https://fas.org/issues/nonproliferation-counterproliferation/

to the unexpected loss of electrical power. The Stuxnet attack against the Iranian nuclear program is believed to have destroyed 984 centrifuges at Iran's uranium enrichment facility in Natanz. ²⁰²

To ensure that such damage does not occur, facilities supporting a uranium enrichment process are usually connected electrically to several separate sources (power plants) of electrical power when operating. Usually, due to its stability, this means sources of hydroelectric and not thermoelectric power. Connections to substations and switching stations alone are meaningless if there is no redundancy in the sources of electrical power.

The primary method used to ensure this stable source of reliable electrical power is to build into the electrical power infrastructure supporting that facility a level of electrical power redundancy. This redundancy can be comprised of:

- A single-circuit distribution level power line supported by back-up emergency generators.
- Multiple sets of distribution-level single-circuit power lines.
- A single double-circuit distribution-level power line.
- Multiple sets of distribution-level double-circuit power lines.
- The installation of multiple layers of emergency diesel electric power generators.
- Ideally, this level of redundancy would be connected back to:
 - o A regional or distribution-level network substation.
 - o Multiple regional or distribution-level network substations.
 - o A national-level substation that steps power down to regional grid-level voltages for the facility in question.
 - o A nearby regional or national-level hydroelectric or thermoelectric power plant.
 - A purpose-built emergency power diesel electric generator(s).

Like most of the industrialized world, the Japanese electric power grid built in Korea was initially constructed to support the industrial facilities developed by Japan's zaibatsu or Konzerns as they expanded their business interests from Japan onto the Korean Peninsula, in the 1920s and 1930s. The most prominent of these was the electrochemical facilities of Nichitsu – the Japan Nitrogen Fertilizer Company – that established itself in the northern Korean town of Konan on Korea's northwestern coast.

- In 1926 Nichitsu established the Chosen Suiryoku Tenki Kabushiki Kaisha the Korean Water Power Corporation to develop the hydroelectric power potential of the Pujon River. Under the venture Nichitsu halted and reversed the southward flow of the Pujon River, forcing the water south into a system of underground aqueducts. These tunnels in-turn fed water into to a series of power plants, one feeding into the next; a cascade located on the eastern face of North Korea's Jangbaik Mountains.²⁰³
- The first of three hydroelectric plants comprising the cascade was completed in November 1929.
 - o That single plant alone generated 65,000 kilowatts.
- In 1927 Nichitsu created Chosen Chisso the Korean Nitrogen Fertilizer Corporation the first of a number of large-scale electro-chemical industries to be developed by Noguchi along Korea's northeastern coast. Construction on the Chosen Chisso Hiryo Kaisha (the Japanese Carborundum and Carbide Factory or Nichitsu), the centerpiece of Chosen Chisso began in 1928. Two months after the completion of the first power plant of the Pujon Cascade, November 1929, Chosen Chisso began operations.
 - o It was the largest such complex within the Imperial Japanese Empire and was reportedly, as of 1930, the largest such plant in the world exceeded only in size by Du Pont in the US.
 - o When Japan's war with the U.S. began in 1941, the plant was already 13-years old.
- In time Nichitsu also developed the hydroelectric power resources of the Changjin River, creating, once again, a hydroelectric cascade that harnessed the river's power for the Nichitsu industries located in and around Konan. For this project the Japanese again forced a northward flowing river to flow southward into a new series of underground aqueducts feeding another cascade, this one located on the east face of the Jangbaik Mountains.

²⁰² Brain Krebs, "Cyber Incident Blamed for Nuclear Power Plant Shutdown" Washington Post, June 5, 2008. http://www.washingtonpost.com/wp-dyn/content/article/2008/06/05/AR2008060501958.html

²⁰³ Strategic Engineering Study, S.E.S. 157, Electric Power of Korea. Prepared by the Engineer Research Office, North Atlantic Division, Corps of Engineers. Strategic Intelligence Branch, Military Intelligence Division Office, Chief of Engineers. U.S. Army. February 1945. NND775019. The U.S. National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001.

Initially the Pujon Cascade was connected to Nichitsu industries along the coast of northwestern Korea, through a 66-kilovolt (kV) network of transmission lines. With the construction of the Changjin Cascade, the 66-kV transmission system was upgraded to a 110-kV transmission system. In the 1930s, the transmission systems supporting the Pujon and Changjin Cascades were connected to other hydro- and thermoelectric plants, first in northwestern Korea, then across the peninsula to power systems operating along the Yalu River separating Korea from China.

This transmission system later formed the basis for the peninsula's national electric power grid. As most hydroelectric power stations are constructed in areas where there are steep valleys to contain reservoirs, and are usually located far from the consumer of the electric power they generate, a transmission system is essential in moving that power from the area where it was created, to the area where it is needed. By the late 1930s the Japanese had overlaid a 154-kv system to the 110-kV system supporting the northwestern section of Korea to extend power to Heijo, Keijo and the rest of the Korean Peninsula. During WWII the Japanese conducted studies of the 154-kV system and converted much of the Korean national grid extending across the peninsula to support a 220-kV transmission system. The 110-kV system as installed by the Japanese remained in use through the war. In the postwar period, much of the 154-kV system remained in use. Due to the large voltage fluctuations along national grids, few nuclear materials production facilities are ever tied directly to the national gird. Most production facilities are tied instead to the national gird only through a system of substations that support local distribution grids – usually 66-kV.

Unlike all other Japanese power stations built in Korea at that time, the Sodusu Number Two, as planned, completed or not during WWII, or afterwards by North Korea was the only plant on the peninsula that had that level of redundancy. All other plants in Korea were either constructed as standalone plants connected directly to a major industry and then to the national grid, or connected in "series," one to the other. According to the map of the area produced after the war and shown above, the Sodusu plant could also be supported by a thermoelectric plant shown located in, Chongjin. In addition, Sodusu Number Two was also supported by the national grid. This represents an unusual level of redundancy – fully five separate layers.

As with the city of Hamhung, Edwin Pauley was not allowed by the Soviet Union, which controlled the area of northeastern Korea, to inspect the any of the facilities or industries located in and around Chongjin. ²⁰⁴

Pauley never visually inspected the Sodusu power system.²⁰⁵

COMMENT: There is no easily available information to suggest that there has ever been any mention of the Sodusu Cascade in Soviet Cold War literature after their initial admission of its existence in 1945. That does not mean that the Sodusu plants was never written about in the Soviet Union, just that there is no easily available information of that information.

Pauley also specifically asked of the Soviets if the equipment at the Sodusu power station was still intact or if it had been removed. The Soviets replied that it was all still there. 206

There is no mention of the Sodusu Cascade in the available North Korean press until the late 1970s.

 North Korean discussed completion of construction on the Number 1 and Number 2 power stations in press release in late 1977 (and possibly earlier). ²⁰⁷

"Kim Jong Suk, Kim Il Song's first wife apparently agitated against Japanese management at the site of the Sodusu power plant contraction as early as 1939." 208

• "Kim Jong Suk personally went to the homeland on several occasions leading a small unit. In the homeland, she met the hardcore members of the party and ARF organizations in the Yonsa and Musan areas, organizations the work of which she had helped several times, and told them to hasten the

²⁰⁴ Pauley, Edwin. Report on Japanese Assets in Soviet-Occupied Korea to the President of the United States. June, 1946 "The Pauley Report"

²⁰⁵ Pauley, Edwin. Report on Japanese Assets in Soviet-Occupied Korea to the President of the United States. June, 1946 "The Pauley Report"

²⁰⁶ Pauley, Edwin. Report on Japanese Assets in Soviet-Occupied Korea to the President of the United States. June, 1946 "The Pauley Report"

²⁰⁷ JPRS 70470, 12 January 1978, Translations on North Korea. No. 569.

²⁰⁸ Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

- preparations for an all people resistance. Her guidance on those days to the Sodusu branch organization of the ARF was a good example of her example of her wisdom in overcoming difficulties and turning misfortune into a blessing." ²⁰⁹
- "From 1939, under the guidance of Kim Jong Suk, the branch organization had conducted go slow strikes and sabotage of structures and machinery, and won victory in a strike. The worker's shock brigade played a big role in the strike. The organization was planning and ready for an armed revolt." ²¹⁰

According to North Korea's biography of Kim Jong Suk, Kim Il Song's first wife, the Japanese ceased construction of the Sodusu power plant system during the war. ²¹¹

• Being driven into a tight corner by the vigorous struggle of the workers and having sacrificed tremendous human and material resources in the Pacific War and the Sino-Japanese War, the Japanese imperialist decided to stop the construction of the Sodusu Hydroelectric Power Station, and began to conscript the workers there for the construction of a hydroelectric power station on the Tongno River (the present-day Jangja River—Tr.), and airports and naval bases in southern Korea. In this way, they attempted to concentrate manpower at some urgent projects of military importance and, at the same time, disperse the united revolutionary forces." 212

The Tongno Gang (River) Hydroelectric Station was, or is, a "base of dam" hydroelectric power station located on the Tongno River, a tributary of the Yalu River dividing North Korea from China.

- The reservoir feeding the power plant has a capacity of 433,000,000 cubic meters with a surface area of 28 square kilometers. ²¹³
- The plant's operating head (distance of water fall creating the pressure to turn its turbine-generator sets) was 51.7 meters. ²¹⁴
- At the end of WWII, the plant was listed as 70% complete. ²¹⁵
- The dam creating the plant's dam was 360 meters long and 53 meters in height. ²¹⁶
- The plant was built to house three turbine-generator sets, each set rated at 30,000 kW.
- The plant's capacity was 90 MW. ²¹⁷
 - Two of these sets were on-hand at the end of WWII. ²¹⁸

According to the North Korean publication "Kim Jong Suk; The Anti-Japanese Heroine," by Kim Ok Sun, dated 1997 and published by the Foreign Languages Publishing Hour in Pyongyang, Korea:

"She (Kim Jong Suk) first referred conduct organizational and political work boldly to rally workers into
organizations by planting hardcore members of the ARF organizations in construction sites such as
waterway tunnels and the dam of the Sodusu hydroelectric power station and other projects, where large
numbers of workers were concentrated." ²¹⁹

COMMENT: "Waterway tunnels" suggests that much of the plant's construction was located underground.

²⁰⁹ Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

²¹⁰ Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

²¹¹ Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

²¹² Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

²¹³ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

²¹⁴ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

²¹⁵ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

²¹⁶ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

²¹⁷ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

²¹⁸ Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Adelphi, Maryland.

²¹⁹ Kim Ok Sun/ Kim Jong Suk; The Anti-Japanese Heroine," and published by the Foreign Languages Publishing Hour in Pyongyang, Korea. 1997

Regarding Hamhung, Kim Song Suk:

- "channeled great efforts into the work of building up the secret base in the Sinhung area. This work was extremely significant in expanding Party and ARF organizations and various other anti-Japanese mass organizations in Hamhung, Hungnam and other areas on the east coast where Japanese munitions industries were concentrated, and, particularly, in transforming labour unions and peasant unions along long revolutionary lines, and thoroughly preparing patriotic-minded people politically and ideologically." ²²⁰
- "As a result, working class organizations were expanded in the areas of Sinhung, Hungnam, and Hamhung, and the work of building up the secret base in the Sinhung area was promoted successfully." ²²¹

COMMENT: Note that Kim Jong Suk was not at Hamhung, but at Sinhung (Shinhun), at the base of the Funchilin Pass that leads to the area of the Chosin Reservoir.

COMMENT: The cave where the Japanese supposedly assembled its "atomic" bomb was located in the area of the Chosin Reservoir.

Kim Jong Suk's "formal" return to North Korea was held at – Chongjin. Most of her work in Korea immediately after the fall of Japan was conducted not in Pyongyang, not in Hamhung, but at Chongjin. ²²²

To further confound what is known, Kim Il Sung himself did not return to Korea through Pyongyang, Hamhung or Chongjin, but at Wonsan where he landed on 19 Sept 1945.

• Numerous sources.

"On a mid-December day in 1945, Comrade Kim Jong Suk visited the Puryong Metallurgical Works." 223

• No further information.

In 1949, Stalin ordered Soviet naval authorities in Chongjin to dismantle the Soviet naval base in that city and for the Soviet air force liaisons in Pyongyang to return home. ²²⁴

- South Korean forces entering the city in 1950 would find Soviet uniforms in many of the homes they occupied.
- Soviet uniforms were also found in Hamhung by US forces and through the entire area up to the Changjin Reservoir.
 - Sources: Numerous.

After the outbreak of the Korean War, Korean scientist Yi Sung Ki (Ri Sung Ki, Ri Sung Gi, Lee Sung Ki) defects to North Korea. ²²⁵

- During the Korean War he "conducted research on the industrialization of Vinylon in a laboratory built in a
 great cave carved out of a mountain in Chongsu-ri, Yanggang Province. Although located in a cave, the
 facility included such facilities as sleeping quarters, a dining room, and bath, and recreation room. Despite
 wartime conditions, the cave was supplied with the equipment and reagents necessary for research."
 - This was subsequently corrected to reflect the location of the "cave in the area of the Chosin Reservoir. ²²⁷
- Yi established his laboratory in Yanggang—do in 1951. ²²⁸

²²⁰ Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

²²¹ Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

²²² Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

²²³ Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

²²⁴ New Evidence on the Korean War Edited by James Person June 2010. NORTH KOREA INTERNATIONAL DOCUMENTATION PROJECT. Prepared for the conference: New Documents and New Histories: Twenty-First Century Perspectives on the Korean War June 16-17, 2010 Harry S. Truman Presidential Library Independence. Missouri

²²⁵ DPRK Scientist Yi Sung-ki Profiled. Tojyo Gendai Chosen no Kagakushatachi. 18 February 1997

²²⁶ DPRK Scientist Yi Sung-ki Profiled. Tojyo Gendai Chosen no Kagakushatachi. 18 February 1997

²²⁷ DPRK Scientist Yi Sung-ki Profiled. Tojyo Gendai Chosen no Kagakushatachi. 18 February 1997

²²⁸ DPRK Scientist Yi Sung-ki Profiled. Tojyo Gendai Chosen no Kagakushatachi. 18 February 1997

- In 1952 Yi met with Ch'oe Sam-yol, a graduate of Tohoku Imperial University who, prior to the liberation, had served as a researcher with the Institute of Physical and Chemical Research (RIKEN), then served as deputy chief of the Academy of Science at the time of its establishment. ²²⁹
 - o Kim Chi-chng who graduated from Mathematics Faculty of Tokyo Imperial University and served as a professor at the Yonhui Special School and would built the foundation for mathematics in the Republic; Kim Chong-hui, who graduated from the Veterinary Faculty of Hokkaido Imperial University, served as chief of a livestock experimental station in Pusan (Unit 100 and Unit 731 of the Japanese Biological Warfare Program) after the liberation of Korea, the head of the Central Livestock Experimental Center (who would conduct biological warfare tests of US POWs during the Korean War) and Kim Yang-ha a graduate who received a doctorate from, the Tokyo Imperial University and engaged in research at the Institute of Physical and Chemical Research (RIKEN) also met with Yi during the war. ²³⁰
- North Korea began production of Vinylon in 1954.
- Construction of a plant to produce Vinylon began in 1961.
 - o The February Vinylon Integrated Enterprise is located in the Sap'o area of Hamhung and is the largest integrated chemical industry plant in North Korea.
 - O This plant was built in 1936 to serve as the basic plant for the carbide industry, producing chemicals such as nitrolime fertilizer, acetic acid, arsenic, octane, and butanol. From 1961, the plant was expanded into an organic chemical industrial complex by the addition of a new vinylon fiber factory using carbide-acetylene as the raw materials. At present, the plant produces vinylon fiber, polyvinyl chloride (P.V.C.) synthetic resin (annual production capacity of each product: 50,000 tons), agricultural chemicals (2-4-D, PCP), caustic soda, (morpholine?) fiber (production started in October 1981, annual production: 10,000 tons), and various dyes. ²³¹
 - The vinylon factory was either built within, or atop the former Nichitsu Nitrogen Fertilizer Plant.
- Yi was one of the first North Korean scientists to be educated at the Soviet Joint Atomic Research Institute at Dubna in 1956. ²³³
- Yi Sung-ki later was subsequently the chief of the Hamhung Branch of the North Korean Academy of Science. His primary responsibility at Hamhung was to consolidate the various research efforts being conducted in the Hamhung District. ²³⁴
- Yi is also reported to have been the first director of North Korea's Atomic Energy Agency.
 - o Numerous sources.

ERA: KOREAN WAR

ARTICLE: Air Strikes May Have Hit Red Atom Plants

TOKYO, Aug. 23 (Wednesday) (INS) US Navy Headquarters in Tokyo today announced its participation in a campaign to destroy North Korean industrial facilities with possible links to the Russian atomic program.

The Navy announcement followed a powerful air blow Tuesday in which B-29 Superforts dropped 500 tons of bombs at Chongjin, North Korean deep-water port 40 miles southwest of the Soviet-Siberian Border. It was believed the B-29 strike may have knocked out industrial facilities important to Russian atomic research and production.

The Navy's announcement said a United States destroyer's report "indicates highly successful bombardment of Chongjin the night of Aug. 20."

The destroyer's targets were listed as the Mitsubishi iron works, railroad spur yards, harbor installations, warehouses and one radio station. Chongjin's railway connects with the Siberian rail line to Vladivostok.

²²⁹ DPRK Scientist Yi Sung-ki Profiled. Tojyo Gendai Chosen no Kagakushatachi. 18 February 1997

²³⁰ DPRK Scientist Yi Sung-ki Profiled. Tojyo Gendai Chosen no Kagakushatachi. 18 February 1997

²³¹ Korean Affairs Report, No. 224. JOINT PUBLICATIONS RESEARCH SERVICE ARLINGTON VA– 1982.

²³² Kim Tae Ho. Li Seung Ki's Research and Industrialization of Vinalon in North Korea: An Example of the Appropriation of the Colonial Heritage

²³³ A. Kovsh Initial Stage of North Korea's Nuclear Program Development. http://www.spbiiran.nw.ru/wp-content/uploads/2015/03/selection-111.pdf

²³⁴ DPRK Scientist Yi Sung-ki Profiled. Tojyo Gendai Chosen no Kagakushatachi. 18 February 1997

An Air Force communiqué said the B-29s struck "heavy blows" against military and industrial targets in Chongiin.

The planes flew to within 40 miles of the Siberian border in daylight raids from Okinawa and Japanese bases in following up Monday attacks in which the B-29s dropped 200 tons of bombs on Pyongyang and Seoul.

The heavy strike on Chongjin supplied further evidence that American strategic bombing is destroying an important section of Communist Asia's industrial plant.

There was a belief in Tokyo that this is even shattering plants used by the Russians in atomic research and production.

The Konan fertilizer and explosives plants, the first target hit by Maj. Gen. Emmett (Rosie) O'Donnell's Superforts, have long been the object of intense Allied intelligence interest. Belief now exists, that these plants may have been linked with the Russian atomic program.

The Konan industrial targets have been blasted three times by the B-29s. During one raid bombers flying 15,000 feet above the target were rocked by a series of explosions believed to be from underground glycerin tanks.

Konan's explosive plants have been estimated as 85 per cent destroyed and the Air Force is systematically wiping out other gigantic plants built by the Japanese and believed utilized by the Russians.

Long Beach Independent Long Beach 12, California Wednesday, Aug. 23, 1950 Vol 12. No 339

ARTICLE: Identify Ore Plant in Korea

Washington, D.C. (UP) An informed source said Wednesday that the vast and strange looking plant found by US forces at Hungnam in North Korea probably was a Soviet uranium ore processing plant.

This source added, however, that the plant does not produce atomic explosives.

Apparently, the Hungnam facility, situated in an area of North Korea where there are many chemical plants, was a part of the long chain of industrial processes through which uranium ore must go before it reaches the refined metallic form used in atomic production reactors.

Conversion of this metal into explosives for the Soviet atomic bomb project presumably is accomplished at plants inside the USSR.

The US atomic energy commission knew about the Hungnam plant, the informed source said, before it got into the news reports.

He hinted that it knows of at least one other similar facility in North Korea.

The AEC, it was learned, is not excited about the Army's find and does not intend to send any of its officials to North Korea.

Waterloo Daily Courier Waterloo, Iowa, Wednesday, October 25, 1950

COMMENT: Where was the "one other similar facility in North Korea?"

COMMENT: Though the AEC stated that it did not intend to send any of its officials to North there is evidence to suggest that "someone" did arrive in the area of Hamhung in early November 1950.

ARTICLE: Allies Study Korean 'Fort' For Atom Hint Machinery, Wire Indicate Atomic Research Project

HUNGNAM, North Korea Oct 25 (UP) US Intelligence officers seeking evidence of a Russian atomic research project here today found a heavily guarded concrete structure full of fantastic electrical equipment. No responsible official is prepared to say there is any basis to reports of local civilians that the Russians carried on atomic research here, and the massive building heavily sandbagged against bombs is shrouded with mystery.

The monstrous machines inside the building apparently were undamaged by allied bombings that rocked this North Korean port city. The machines, screened from the eyes of North Koreans, defied the limited technical knowledge of the Intelligence officers.

THE SOUTH Korean First Corps in its spectacular drive up the rugged East coast captured a prime military target in taking Hungnam, a sprawling industrial center spread for two miles along the Sea of Japan. But it was generally believed the First Corps had captured more than that.

Three separate strings of high voltage power towers lead into town from hydroelectric plants in the northern mountains. Most of the buildings were ordinary factories with machinery easily recognizable as that which turned out munitions or other war products.

But as I inspected this war-ravaged area with an American military adviser to the South Korean Army we came to one factory that completely stumped us.

COMMENT: Note the slip into "first person."

THE ENTIRE factory was surrounded by a triple fence. There were two layers of barbed wire and one high voltage electric barrier.

Inside that area was a section surrounded by another triple electric fence and ringed by guard huts. There we found a huge building, resembling a Kansas City grain elevator, 60 feet high with a folding metal door 40 feet high.

Behind the strange building was a compound 100 yards long and 50 yard's wide, crowded with the greatest concentration of high voltage electrical wiring I have ever seen. Steel beams and great glass insulators supported power cables thick as a man's wrist. They led to two huge machines which seemed to be the nerve center of the intricate setup.

EACH MACHINE was built like a massive square bottle made of thick layers of hard metal. Each was about 25 feet high and 10 feet thick. Massive glass insulators poked from the top toward the electrical maze. Six pipes like gas lines fed into it from one side and a drain pipe led from the bottom into a sludge trench running thru the compound.

The Lima New

Full Leased Wire Service of the Associated Press, United Press and International News Lima Ohio.

Wednesday, October 25, 1950

Vol. 66-No. 294

ARTICLE: US Is Unexcited by Soviet Atom Plant in Korea

By Joseph L. Mylar

WASHINGTON, Oct. 26. (AP) Observers here doubted that capture of a Soviet atomic plant in North Korea would hurt seriously Russia's A-bomb Project.

An authoritative source said the big industrial facility found at Hungnam probably was a processing plant where uranium ore was put through one of the many early stages which precede conversion of the refined "feed material" into atomic explosives.

Presumably, this source said, the Hungnam process was just one of many...more or less duplicate operations carried out at widely scattered installations.

Knew About Plant

The Atomic Energy Commission here apparently knew about the Hungnam plant, and perhaps another in North Korea, before it got into the news. It did not appear to regard the "discovery" as sensational. News, of the plant's existence did, however, supply the American public with an idea of the scope of Russia's atomic project.

United States intelligence may know the location of Russia's main atomic plants—the places where explosives are made and bombs put together. But officials will not admit it. They do not want Russia to know how much, or how little, they know.

Page 4

The Modesto Bee.

Thursday, October 26, 1950

COMMENT: Several days later the US Army retracted much of its previous statements and downplayed the earlier events in North Korea.

ARTICLE: Might Be Uranium Processing Plant

WASHINGTON, Oct. 26. (UP) An informed source said yesterday that the vast and strange-looking plant found by US forces at Hungnam in North Korea probably was a Soviet uranium ore processing plant. This source added, however, that the plant does not produce atomic explosives. It also said the US Atomic Energy Commission has known about the Hungnam plant and is not excited about the Army's find. It does not intend to send any of its officials to North Korea to inspect the plant.

Page Two Section B Santa Fe, New Mexican Thursday, October 26, 1950

During the US occupation of Hamhung and Hungnam, several large underground facilities were located.

- Underground munitions storage facility (report dated 1949).²³⁵
- North Korean Hungnam Laboratory (report dated 1951).²³⁶
- Hungnam Chemical Factory Research Laboratory (report dated 1949).²³⁷

COMMENT: To save time, request more information before pursuing these reports as finding them is tricky. There are at least three different indexes...

Underground facilities in the area of Hamhung and Hungnam are also noted in:

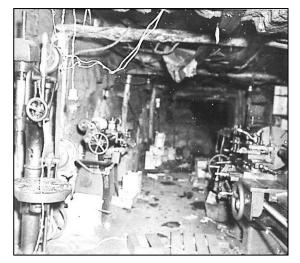
- Soviet Tech in Hungnam Factory (reported dated 1950).²³⁸
- BW Bomb Developed Alleged Hungnam Lab ((reported dated 1950). 239

COMMENT: Due to the large number of Unit 731 personnel captured in the area of Hamhung/Hungnam by the Soviets in August 1945, it is possible that these "laboratories" served some function within the Japanese biological warfare program.

COMMENT: To save time, request more information before pursuing these reports as finding them is tricky.

During the Korean War in the rush to secure North Korea:

- On 25 November 1950 the 1st and 18th Regiments of the ROKA First Division advanced into Chongjin.²⁴⁰
 - They found the city deserted. ²⁴¹
 - US forces in the form of the 7th Infantry Division were now ordered to proceed north to Chongiin. ²⁴²
 - From Chongjin the 7th was ordered to advance west. ²⁴³
- The ROKA First Division occupied Chongjin for less than 24 hours when forces of the People's Republic of China launched an attack across the broad front of UN forces. 244
 - Heavy fighting in the city of Chongjin forced the ROK First and Third Divisions to withdraw southward. 245



Underground Munitions Plant near Konan. 15 November 1950 - Image 1st Marine Division, U.S. National Archives

²³⁵ Record Group 319: Records of the Army Staff, National Archives. Adelphi Maryland.

²³⁶ Record Group 319: Records of the Army Staff, National Archives. Adelphi Maryland.

²³⁷ Record Group 319: Records of the Army Staff, National Archives. Adelphi Maryland.

²³⁸ Record Group 319: Records of the Army Staff, National Archives. Adelphi Maryland.

²³⁹ Record Group 319: Records of the Army Staff, National Archives. Adelphi Maryland.

²⁴⁰ Korea Institute of Military History. The Korean War, Volume One and Two. University of Nebraska Press. Lincoln and London. 2001

²⁴¹ Korea Institute of Military History, The Korean War, Volume One and Two, University of Nebraska Press, Lincoln and London, 2001

²⁴² Korea Institute of Military History. The Korean War, Volume One and Two. University of Nebraska Press. Lincoln and London. 2001

 ²⁴³ Korea Institute of Military History. The Korean War, Volume One and Two. University of Nebraska Press. Lincoln and London. 2001
 ²⁴⁴ Korea Institute of Military History. The Korean War, Volume One and Two. University of Nebraska Press. Lincoln and London. 2001

²⁴⁵ Korea Institute of Military History. The Korean War, Volume One and Two. University of Nebraska Press. Lincoln and London. 2001

- No US or ROK forces ever reached the area west of the city or the location where the forces of the Imperial Japanese Army made its final stand in August 1945.
- Chinese forces now occupied the area of the Sodusu Cascade, specifically its second and third power stations. ²⁴⁶
- As of the 23rd of November 1950, the only major North Korean unit actively engaged in defending the front against the US/UN advance was the North Korean IV Corps, consisting of only one division and two brigades, and they were located in the mountains to the west of Chongjin. ²⁴⁷

COMMENT: Aerial imagery of the area Chongjin or the Sodusu power station taken during Korean War if it exists, would be available at the national archives.

On the western side of Korea, US forces had crossed the Ch'ongch'on River near the town of Kujang, just south of the Japanese graphite plant that occupied the east bank of the river. US forces were in possession of the factory and graphite mines but did not have time to exploit the factory for intelligence purposes. ²⁴⁸

- US forces were advancing through Kujang toward Kanggye.
 - Kanggye was not the objective of the US Eighth Army's attack northward to the Yalu but such forces were nonetheless advancing toward the city. ²⁴⁹

After US forces had advanced toward Pyongyang in early October 1950, Kim Il Sung had relocated the seat of his government to Kanggye.

- Kanggye was also the location of Japan's WWII-era biological warfare programs, most notably Unit 731, withdrawal facilities prepared in Korea for relocation of its experimental facilities at Ping Fan beginning in 1943.
 - These facilities were prepared by the Japanese in 1943 under the threat of a possible Soviet invasion of Manchuria. ²⁵⁰
 - Detachments of Unit 731 were also transferred to Tonghua, near the Korean border and north of Kanggye, from Ping Fan as late as 19 August 1945. ²⁵¹
 - The loss of Manchuria had been predicted by Japanese war games held in 1940 as the event that would end a war with Great Britain and the US. ²⁵²
 - The Japanese believed that they would continue to govern the Korean Peninsula postwar. ²⁵³

Upon the fall of Pyongyang and the North Korean government's move to Kanggye, the North Korean government also set up a temporary government office/seat in Tonghua, China.

- Tonghua also served as the Japanese Army redoubt in its short war with the Soviet Union and the alternate capital of the Pu Yi government of Japan's creation, Manchukuo. Japanese troops held out in the area into 1946. ²⁵⁴
- On 9 August 1945 the Japanese Kwantung Army transferred its headquarters and the seat of the Manchukuo government to Tonghua and abandoned the defense of Manchukuo. ²⁵⁵
- Kanggye was also the location of several Noguchi interests to include machine assembly factories, underground munitions plants, and hydroelectric power stations. ²⁵⁶

²⁴⁶ Korea Institute of Military History, The Korean War, Volume One and Two, University of Nebraska Press, Lincoln and London, 2001

²⁴⁷ Ebb and Flow, November 1950-July 1951. The United States Army in the Korean War. Center of Military History. United States Army. 1990.

²⁴⁸ Korean War 9th Infantry Regiment - History - November 1950. 2nd Infantry Division. National Archives and Records Administration College Park, Maryland Records: United States Army Unit Name: Second Infantry Division Record Group: RG407

²⁴⁹ Korea Institute of Military History. The Korean War, Volume One and Two. University of Nebraska Press. Lincoln and London. 2001

²⁵⁰ Williams, Peter and David Wallace. Unit 731, Japan's Secret Biological Warfare in World War II. The Free Press. New York. 1989

²⁵¹ Akiyama x. Special Detachment 731. - Moscow: Foreign Literature Publishing House, 1958. - 152. / Translated from the Japanese M. A. Gusev, VA Zlomanova, AG Ryabkina, NN Tulinova . Akiyama H., Tokushu Butai Nanasanichi . - Tokyo: Tokyo: San'ichi shobo, 1956.

²⁵² Japanese Monograph No. 45, History of Imperial General Headquarters Army Section.

 ²⁵³ Japanese Monograph No. 45, History of Imperial General Headquarters Army Section.
 ²⁵⁴ The Bonds of Brotherhood: New Evidence on Sino–North Korean Exchanges, 1950–1954 Adam Cathcart, Charles Kraus Journal of Cold War Studies, Volume 13, Number 3, Summer 2011, pp. 27-51 (Article).

²⁵⁵ Mayumi Itoh. Pioneers of Sino-Japanese Relations Liao and Takasaki. PALGRAVE MACMILLAN, New York, 2012.

²⁵⁶ Harden, Blaine.The Great Leader and the Fighter Pilot: The True Story of the Tyrant Who Created North Korea and the Young Lieutenant Who Stole His Way to Freedom." Viking Press. 2015

- A large battle took place on 3 February 1946 near Tonghua between Korean nationalists who had fled into China during the Japanese Occupation of Korea, and remnants of the Japanese Imperial Army still occupying that part of China. 257
- On 15 October 1950 Hamhung fell to South Korea forces.
- On 4 November 1950 the 2nd Battalion, 7th Marines relieves the ROKA 18th Regiment, 1st ROKA at Sinhung, below the Funchilin Pass, ²⁵⁸
- The following, extracted from US Marines Operations in Korea, 1950-1953, Volume III, The Chosin Reservoir Campaign by Lynn Montross, recounting the violence serves as an indicator of Chinese interest in preventing US Marines from entering the area of the Chosin Reservoir Plateau. The actions described below took place in the area of Sinhung, just below Funchilin Pass, the gateway to the Chosin Reservoir, the area where the cave, that the Japanese allegedly assembled their version of the atomic bomb, was located (the location of the cave will be covered in a follow-on analit).
 - "The ROK regiment took 16 Chinese prisoners in all. They were identified as belonging to two regiments of the 124th CCF Division, one of the three divisions of the 42nd CCF Army. This force had crossed the Yalu about 16 October, according to POW testimony, and moved southward without being observed into the Chosin Reservoir area during the following ten days."²⁵⁹
 - "The capture by the 26th ROK Regt. of 16 POWs identified as being members of the 124th CCF Division . . . would seem to indicate that the CCF has decided to intervene in the Korean War. It would indicate, also, that this reinforcement is being affected by unit rather than by piecemeal replacement from volunteer cadres. However, until more definite information is obtained it must be presumed that the CCF has not yet decided on full scale intervention." 260
 - "The ROKs, upon learning that they would be relieved shortly by the 7th Marines, withdrew from advance positions near Sudong to a valley junction about four miles south of that town. Here, at 0600 on 2 November, they were hit by an enemy "counterattack" which, since it was of about twoplatoon strength and of only 30 minutes duration, amounted really to a CCF combat patrol action,"
 - "Shortly after this clash, Lieutenant Colonel Raymond G. Davis' 1st Battalion, 7th Marines, moved out of the regimental assembly area and marched toward the ROK lines at Majon-dong in route column. Major Webb D. Sawyer's 2nd Battalion followed at an interval of 500 yards, while overhead the Corsairs of VMF-312 orbited on station for reconnaissance and close air support missions." 262
 - "At 2300, Davis' 1st Battalion reported itself under attack from the right flank, the enemy apparently descending the higher slopes of Hill 727. This announcement was somewhat premature, as the Marines of Company A were merely experiencing the infiltration and probing that precede almost every Communist assault. At 2400, 2/7 reported two enemy battalions on the left flank. During the first hour of 3 November, sobering messages were received from Litzenberg's northernmost units. What had begun at 2300 as a staccato of small-arms fire swelled in volume by imperceptible degrees until Hills 698 and 727 were engulfed in a ceaseless din. And by 0100 the 1st and 2nd Battalions of the 7th Marines bent under the weight of a full-scale attack on both flanks." 263
 - "Shortly after the battle was joined high on the hillsides, Marines at Able Company's CP heard the clanking sounds of a tracked vehicle on the MSR to the north. When the machine passed the rocket section at the roadblock without incident, they dropped their guards momentarily, believing it to be a friendly bulldozer. The big vehicle rumbled into the CP and stopped, one headlight glaring at exposed mortar crews and headquarters personnel." 264

²⁵⁷ Cathcart, Adam. Nationalism and Ethnic Identity in the Sino-Korean Border Region of Yanbian, 1945–1950. Korean Studies Volume 34, 2010. pp. 25-53

²⁵⁸ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁵⁹ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁶⁰ Montross, Lynn, US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign, 1957

²⁶¹ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁶² Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁶³ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁶⁴ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

- "Tank!" shouted Staff Sergeant Donald T. Jones, section chief of Able Company's 60mm mortars. 265
- It was a Russian T-34, one of the five remaining to the 344th North Korean Tank Regiment, supporting the 124th CCF Division. The troops at the roadblock had been caught napping. 266
- "Not long after this astounding foray, the fighting on Hills 698 and 727 spread down to the MSR. The 1st and 2nd Platoons of Company A, pressed now from three directions and suffering heavy casualties, retracted to the 3rd Platoon positions at the tip of the spur. Some of the men were cut off and forced back on the Baker Company elements east of the MSR. Ultimately, one of the two Company B platoons in this area was driven down to the low ground, and the other forced to fall back. Later they counterattacked and recovered their foxholes." ²⁶⁷
- "West of the MSR, the remainder of Company B fought off assaults on its left flank and rear by Chinese who had skirted around Charlie Company's advance positions.16 Lieutenant Colonel Davis sent the battalion reserve, Lieutenant Graeber's 2nd Platoon of Baker, to reinforce the hardpressed left platoon. Attempting to lead his men across the MSR, Graeber found the route effectively blocked by the enemy in the river bed." 268
- O "Dawn of 3 November revealed a confused and alarming situation in the valley south of Sudong. Enemy troops shared the low ground with Marine elements between the 1st and 2nd Battalion CPs, and they had blown out a section of the MSR in this locale. The 2nd Battalion's commander later remarked, "When daylight came, we found that we were in a dickens of a mess. The rifle companies were well up in the hills, and the Chinese were occupying the terrain between the CP and the companies." ²⁶⁹
- "Colonel Litzenberg was aware of the probability of further resistance along the road, since on 3 November Marine air had reported approximately 300 enemy trucks—in groups of 15 or 20—on the move south of the Chosin Reservoir. At dawn of 4 November, after a night of relative calm around the old perimeter, he ordered his subordinates to conduct vigorous patrolling preparatory to continuing the advance." ²⁷⁰

COMMENT: In the subsequent Battles of the Chosin Reservoir the Chinese would lose approximately 60,000 soldiers in forcing US troops out of the area of the reservoir and back to Hamhung. Why?

"Chairman: Zakharov came for a talk. He was worried about the danger that the enemy may attack Wonsan Harbor to obstruct the rear lines of our advance to the south. I told him of our strategic intentions and our campaign's tentative plans to cross the 38th Parallel. (I) also explained that the operations of Song [Shilun]'s Army in this campaign to include liberation all the way to Seishin [Cheongjin] and Wonsan. If Song's Army continues to advance south after its rest and reorganization, the 19th Army will move to Seishin, Wonsan and Pyongyang in mid-January for garrison duty [occupation]." ²⁷¹

COMMENT: Is it possible that the Communist Chinese, after their disastrous treatment of Japanese scientific facilities and scientists at the end of WWII in Manchuria (reveal in RAMONA), were now making up for lost time by occupying any previously existing Japanese scientific facilities located in North Korea (Chongjin, Hamhung, Kanggye, etc.) during the Korean War? ²⁷²

²⁶⁵ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁶⁶ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁶⁷ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁶⁸ Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957
 Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III. The Chosin Reservoir Campaign. 1957

²⁷¹ DOCUMENT NO. 30 Letter from Zhou Enlai to Mao Zedong, 9 December 1950 [Source: Jianguo yilai Zhou Enlai wengao (Zhou Enlai's Manuscripts since the Founding of the PRC), vol. 3, Zhonggong zhongyang wenxian yanjiushi (CPC Central Historical Documents Research Office) and Zhongyang dang'anguan (Central Archives), eds., (Beijing: Zhongyang wenxian chubanshe, 2008), p.613. Translated by Jingxia

Yang and Douglas Stiffler

272 Record Group 226. Stack 250. Row 64. Compartment 33. Shelf 2. Entry 211. Title: Previously withheld. Box 34. Folder 001. 21 December

²⁷² Record Group 226. Stack 250. Row 64. Compartment 33. Shelf 2. Entry 211. Title: Previously withheld. Box 34. Folder 001. 21 December 1945 – 18 October 1946.

Despite the reported completion of the Sodusu Cascade in 1945; the listing of the power stations in post-war investigations of Japanese assets in Korea; details of their construction to include turbine-generator sets and locations, during the Korean War the cascade was never attacked by the US or its allies. ²⁷³

- The Kokai Cascade was also never attacked. ²⁷⁴
- The attack upon the North Korean power system began on 24 June 1952 when, supposedly, over 90 percent of the North's power system was destroyed.
- Attacks were also made against a "power system" at Puryong, near Chongjin. This may have been an attack on the Sodusu Cascade; however, it remains unclear. ²⁷⁵
 - The attacks took place on 3 July 1952 by carrier fighter-bombers assigned to the USS Philippine Sea. ²⁷⁶

ARTICLE: Captured Red Korean Tells of Uranium Sent to Russia

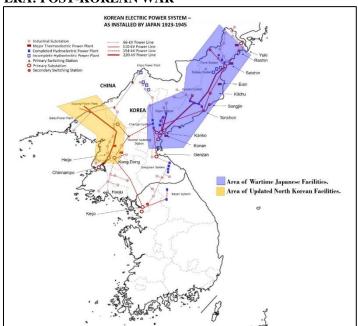
PUSAN, Korea, (AP) A captured North Korean official said Friday atom bomb materials were shipped from Red Korea to Russia and China in the past three years.

Chi Tae Yong, former chief of North Korea's general affairs section, told a South Korean investigating committee that the materials—Monazite and Tantalite—contained 0.1 and 0.9 per cent uranium. He said the ore came from mines in Northeast Korea.

The former Red official said Russian engineers supervised the mining operations and labor was conscripted.

Walla Walla Union-Bulletin Evening Edition May 4, 1951

ERA: POST-KOREAN WAR



Post-Korean War the former Soviet Union, currently Russia, and the Peoples' Republic of China maintain consulates in Chongjin.

Construction of "a" Sodusu power plant receives mention in other press as early as 1971, however the announced project is described as a "thermal power station." ²⁷⁷

The "Chongjin Thermal Power Station" was built with Soviet help with the goal of supply power to the Kim Chaek Iron and Steel Complex (the Chongjin Iron and Steel Works as built by Mitsubishi between 1939 and 1942). Construction started in 1974 but was interrupted. Construction was restarted in November 1980. In 1984 the first two generators went into service. The third generator was completed in 1986. ²⁷⁸

In the book, "The North Korean Nuclear Program: Security, Strategy, and New

²⁷³ Pauley, Edwin. Report on Japanese Assets in Soviet-Occupied Korea to the President of the United States. June, 1946 "The Pauley Report"²⁷⁴ Central Intelligence Agency Office of Current Intelligence 6046, 1 July 1952

²⁷⁵ Central Intelligence Agency. Office of Current Intelligence. 8023, 28 July 1952. See also: United States Pacific Fleet. Air Force. Carrier Air Group Eleven. CVG-11/A16-14. Serial: 031. 8 July 1952

²⁷⁶ Central Intelligence Agency. Office of Current Intelligence. 8023, 28 July 1952. See also: United States Pacific Fleet. Air Force. Carrier Air Group Eleven. CVG-11/A16-14. Serial: 031. 8 July 1952

²⁷⁷ Quarterly Economic Review. China, Hong Kong, North Korea. No. 2-1971. The Economist Intelligence Unit http://contentz.mkt5049.com/lp/43888/373118/sample-report-china-hk-j-korea-no3-1971_1.pdf

²⁷⁸ Rainer Dormels (2014). Profiles of the cities of DPR Korea - Chongjin. Academy of Korean Studies (KSPS)

Perspectives from Russia." Edited by James Clay Moltz and Alexadre Y. Mansourov. Published by Routledge in 2000, the turbine-generator sets installed at the Sodusu Cascade were produced by FRG, Austria. 279

• Research into "FRG," suggests that the turbine-generator sets were built by East Germany and exported to North Korea through Austria.

COMMENT: The unique geography of the Korean Peninsula, with its mountainous spine extending southward near the center of peninsula, led the Japanese to develop an electrical power grid much resembling a "wishbone;" basically two separate grids, one on the east-side of the peninsula, and one on the west, separated by mountains and connected to each other near the center of the country. Most suspected Japanese-constructed atomic research facilities were located on the more industrialized northeastern coast of Korea; most of North Korea's present-day suspect or identified nuclear facilities lie along the western coastal plains of the country. It is likely that, in the mid-to-late 1980s, as North Korea began its push to develop a nuclear weapon capability, that the former Japanese facilities were dismantled, re-designed, improved and rebuilt along the route of the former Japanese constructed western grid.

The Sodusu Cascade's three power stations, in addition to a fourth such power plant, are further mentioned by the Nautilus Institute in their publication titled "The Foundations of Energy Security for the DPRK: 1990-2009 Energy Balances, Engagement Options, and Future Paths for Energy and Economic Redevelopment." ²⁸⁰

The Nautilus report lists the power stations and their completion dates as follows: ²⁸¹

- Sodusu Number 1 1974
- o Sodusu Number 2 1978
- Sodusu Number 3 1982
- Sodusu Number 4 1990

Other sources state that construction of the Sodusu Cascade began only in 1959 with Chinese assistance. At some point construction was interrupted. ²⁸²

- This source states that in 1967 the Chinese began construction again and completed the dam supporting the cascade, which was reportedly completed by the Japanese in 1944 or 1945. ²⁸³
- This source gives the completion date of each plant as: ²⁸⁴
 - Sodusu Number 1 1972
 - o Sodusu Number 2 1976
 - Sodusu Number 3 1982

COMMENT: The completion of a second or additional dam, as reports of the Chinese construction effort of 1967 suggests a requirement for additional electric power or the need for additional water for cooling....

The total production capacity of the four plants in the Sodusu Cascade is reported at various times between 420 and 510 MW. 285

Satellite imagery of 1964 and available at the National Archives indicate the presence of a large-scale underground facility in the area that had been constructed at some earlier point.

²⁷⁹ See also: Choi Su Young (1993), Study of the Present State of Energy Supply in North Korea, Research Institute for National Unification (RINU), Seoul, (ROK).

²⁸⁰ "The Foundations of Energy Security for the DPRK: 1990-2009 Energy Balances, Engagement Options, and Future Paths for Energy and Economic Redevelopment." http://nautilus.org/wp-content/uploads/2012/12/ATTACHMENTS-1990-2009-DPRK-ENERGY-BALANCES-ENGAGEMENT-OPTIONS-UPDATED-2012.pdf

²⁸¹ "The Foundations of Energy Security for the DPRK: 1990-2009 Energy Balances, Engagement Options, and Future Paths for Energy and Economic Redevelopment." http://nautilus.org/wp-content/uploads/2012/12/ATTACHMENTS-1990-2009-DPRK-ENERGY-BALANCES-ENGAGEMENT-OPTIONS-UPDATED-2012.pdf

²⁸² Rainer Dormels (2014). Profiles of the cities of DPR Korea – Chongjin. Academy of Korean Studies (KSPS)

²⁸³ Rainer Dormels (2014). Profiles of the cities of DPR Korea – Chongjin. Academy of Korean Studies (KSPS)

²⁸⁴ Rainer Dormels (2014). Profiles of the cities of DPR Korea – Chongjin. Academy of Korean Studies (KSPS)

²⁸⁵ "The Foundations of Energy Security for the DPRK: 1990-2009 Energy Balances, Engagement Options, and Future Paths for Energy and Economic Redevelopment." http://nautilus.org/wp-content/uploads/2012/12/ATTACHMENTS-1990-2009-DPRK-ENERGY-BALANCES-ENGAGEMENT-OPTIONS-UPDATED-2012.pdf

1995: Leaders of the VI Corps, based in Chongjin, planned to seize key facilities in the city, gain the support of the VII Corps in Hamhung, and March on Pyongyang. The plotters were arrested before they could execute their plan.

The city of Chongjin was opened to foreign visitors in 2010.

ARTICLE: Japanese make trip to N.K. burial site. KYODO ²⁸⁶

CHONGJIN, NORTH KOREA – Japanese visitors paid their respects Sunday at a site near the port of Chongjin in northeast North Korea for relatives who perished, many in a Soviet labor camp, after the end of World War II and the end of Japan's colonial rule of the peninsula.

The 11 members in the group — Kita Izoku Renraku Kai — which includes Japanese who lived in the area that is now part of North Korea, seek to retrieve the remains of those who perished in Komusan, north of Chongjin. Where the Soviet prison stood is now just a cornfield.

It is believed the site holds the remains of some 3,300 Japanese soldiers and security personnel who died in the Soviet camp.

Historians say the inmates were captured near the border with China and the Soviet Union after Japan's August 1945 defeat in World War II and sent to work in labor camps.

It is the fifth visit allowed for Japanese relatives since North Korea allowed a tour last August on humanitarian grounds to study burial sites.

The delegation will also inspect other burial sites in eastern cities, including Bupyong and Hamhung, during the trip through June 25.

The purpose of the mission is to study sites believed to hold the remains of Japanese so they can be repatriated and arrange future visits by relatives.

The trip to the North was originally scheduled for April but postponed twice amid heightened tension between the North and South Korea, Japan and the United States.

About 34,600 Japanese are believed to have died of hunger and disease in the final phase of the war and in the chaos that followed in the northern part of the Korean Peninsula, according to Japanese government data. The remains of 13,000 people have been repatriated to Japan.

ARTICLE: 4 Japanese visit burial site of WWII remains in N. Korea 287

Four Japanese nationals on Wednesday visited a site believed to contain the remains of about 2,000 Japanese soldiers and security personnel who died at a prison camp in the northern part of the Korean Peninsula around the end of World War II.

The four, bereaved family members of those who lost their lives in what is now North Korea, prayed for the soul of the dead as they offered incense sticks at the site in Komusan, north of Chongjin in northeastern North Korea.

Though none of the four's relatives are buried in the Komusan site, Shigeru Kimura, 80, said, "I offered my condolences to those who died in sorrow and regret."

Kimura is visiting North Korea with his brother Yukihiro, 71. Earlier Wednesday, they visited a neighboring area of where they used to live in Chongjin. Their father died in the city.

A group of nine Japanese, including the four, arrived in Pyongyang on Tuesday for a weeklong visit to North Korea. Five others are visiting different locations.

According to Japanese government data, about 34,600 Japanese are believed to have died of hunger and disease around the end of World War II in the northern part of the Korean Peninsula.

These people had either lived there or were on their way back to Japan from places such as then Japanese-occupied Manchuria in northeastern China, as well as Siberia where they were forced by the then Soviet Union to serve at labor camps following Japan's defeat in World War II.

The Korean Peninsula was under Japan's rule from 1910 to 1945.

The remains of 13,000 people have been repatriated to Japan.

²⁸⁶ Japanese make trip to N.K. burial site. The Japan Times. http://www.japantimes.co.jp/news/2013/06/18/national/japanese-make-trip-to-n-k-burial-site/#.Vql0KyorKM8

²⁸⁷ 4 Japanese visit burial site of WWII remains in N. Korea. CHONGJIN, North Korea, Kyodo News. 24 October http://myemail.constantcontact.com/4-Japanese-visit-burial-site-of-WWII-remains-in-N--Korea.html?soid=1103590107335&aid=JOBmEN6sGKQ

ARTICLE: Japanese delegation inspects possible burial site of WWII soldiers, civilians in North Korea ²⁸⁸

A group of Japanese visited Komusan in North Hamgyong Province, North Korea on Sunday to inspect a site believed to have been the burial site of Japanese soldiers and civilians. The group named Kita Izoku Renraku Kai is composed of eleven members who once lived in North Korea when the Peninsula was still under the Japanese Imperial rule, and advocates the recovery of their relatives' remains. The site inspection was the fifth visit concerning the search for Japanese burial sites since North Korea allowed such tours on humanitarian grounds back in August.

Director Jo Hui Song of the Institute of History in North Korea's Academy of Social Sciences said a housing complex was once built in the site, which is now a cornfield. Jo, who also leads the research concerning the Japanese remains, said the bodies were buried on a hill at the backyard of the complex. About 3,300 Japanese soldiers and civilians died in a Soviet-ran prison camp in Komusan, which is north of provincial capital Chongjin.

Besides the relatives' desire to repatriate the remains, residents of Komusan also want the Japanese government to dig out the bodies. "Unless the government takes action soon, the Japanese family members [of those buried] and local residents who know about the situation [of the camp] will all be dead in 10 years," said Jo, who finds it "unreasonable" if the Japanese government leaves the remains as they are. The group's visit was initially scheduled back in April but has been changed due to the tensions in the region. Other places, including Bupyong and Hamhung, are also scheduled to be inspected by the group in partnership with the Association for Interchange between Korea and Japan.

²⁸⁸ Japanese delegation inspects possible burial site of WWII soldiers, civilians in North Korea. JDP. 17 Jun 2013. http://japandailypress.com/japanese-delegation-inspects-possible-burial-site-of-wwii-soldiers-civilians-in-north-korea-1730700/

APPENDIX 1:

Japan Developed Atom Bomb: Russia Grabbed Scientists Copyright 1946 by the Atlanta Constitution and David Snell Actual Test Was Success²⁸⁹

Japan developed and successfully tested an atomic bomb three days prior to the end of the war.

She destroyed unfinished atomic bombs, secret papers and her atomic bomb plans only hours before the advance units of the Russian Army moved into Konan, Korea, site of the project.

Japanese scientists who developed the bomb are now in Moscow, prisoners of the Russians. They were tortured by their captors seeking atomic "know-how."

The Konan area is under rigid Russian control. They permit no American to visit the area. Once, even after the war, an American B-29 Superfortress en route to Konan was shot down by four Russian Yak fighters from nearby Hammung Airfield.

I learned this information from a Japanese officer, who said he was in charge of counter intelligence at the Konan project before the fall of Japan. He gave names, dates, facts and figures on the Japanese atomic project, which I submitted to United States Army Intelligence in Seoul. The War Department is withholding much of the information. To protect the man that told me this story, and at the request of the Army, he is here given a pseudonym, Captain Tsetusuo Wakabayashi.

The story may throw light on Stalin's recent statement that America will not long have a monopoly on atomic weapons. Possibly also helps explains the stand taken by Henry A. Wallace. Perhaps also, it will help explain the heretofore unaccountable stalling of the Japanese in accepting our surrender terms as the Allies agreed to allow Hirohito to continue as puppet emperor. And perhaps it will throw light new light on the shooting down by the Russians of our B-29 on Aug. 29, 1945, in the Konan area.

When told this story, I was an agent with the Twenty-Fourth Criminal Investigation Department, operating in Korea. I was able to interview Captain Wakabayashi, not as an investigator or as a member of the armed forces, but as a newspaperman. He was advised and understood thoroughly, that he was speaking for publication.

He was in Seoul, en route to Japan as a repatriate. The interview took place in a former Shinto temple on a mount overlooking Korea's capital city. The shrine had been converted into an hotel for transient Japanese en route to their homeland.

Since V-J Day wisps of information have drifted into the hands of U.S. Army Intelligence of the existence of a gigantic and mystery-shrouded industrial project operated during the closing months of the war in a mountain vastness near the Northern Korean coastal city of Konan. It was near here that Japan's uranium supply was said to exist.

This, the most complete account of activities at Konan to reach American ears, is believed to be the first time Japanese silence has been broken on the subject.

In a cave in a mountain near Konan, men worked against time, in final assembly of genzai bakuden, Japan's name for the atomic bomb. It was August 10, 1945 (Japanese time), only four days after an atomic bomb flashed in the sky over Hiroshima, and five days before Japan surrendered.

To the north, Russian hordes were spilling into Manchuria.



Shortly after midnight of that day a convoy of Japanese trucks moved from the mouth of the cave, past watchful sentries. The trucks wound through valleys, past sleeping farm villages. It was August, and frogs in the mud of terraced rice paddies sang in a still night. In the cool predawn Japanese scientists and engineers loaded genzai bakudan aboard a ship in Konan.

Off the coast near an inlet in the Sea of Japan more frantic preparations were under way. All that day and night ancient ships, junks and fishing vessels moved into the anchorage.

Before dawn on Aug. 12 a robot launch chugged through the ships at anchor and beached itself on the inlet. Its passenger was genzai bakudan. A clock ticked.

The observers were 20 miles away. This waiting was difficult and strange to men who had worked relentlessly so long who knew their job had been completed too late.

OBSERVORS BLINDED BY FLASH

The light in the east where Japan lay grew brighter. The moment the sun peeped over the sea there was a burst of light at the anchorage blinding the observers who wore welders' glasses. The ball of fire was estimated to be 1,000 yards in diameter. A multicolored cloud of vapors boiled toward the heavens then mushroomed in the stratosphere.

The churn of water and vapor obscured the vessels directly under the burst. Ships and junks on the fringe burned fiercely at anchor. When the atmosphere cleared slightly the observers could detect several vessels had vanished.

Genzai bakudan in that moment had matched the brilliance of the rising sun in the east.

Japan had perfected and successfully tested an atomic bomb as cataclysmic as those that withered Hiroshima and Nagasaki.

The time was short. The war was roaring to its climax. The advancing Russians would arrive at Konan before the weapon could be mounted in the ready Kamikaze planes to be thrown against any attempted landing by American troops on Japan's shores.

It was a difficult decision. But it had to be made.

The observers sped across the water, back to Konan. With the advance units of the Russian Army only hours away, the final scene of this gotterdammerung began. The scientists and engineers smashed machines, and destroyed partially completed genzai bakudan.

Before Russian columns reached Konan, dynamite sealed the secrets of the cave. But the Russians had come so quickly that the scientists could not escape.

This is the story told me by Captain Wakabayashi.

Japan's struggle to produce and atomic weapon began in 1938, when German and Japanese scientists met to discuss a possible military use of energy locked in the atom.

No technical information was exchanged, only theories.

In 1940 the Nishina Laboratory of the Institute of Physical and Chemical Research in Tokyo had built one of the largest cyclotrons in the world. (Cyclotrons found in Tokyo by the invading Yanks were destroyed).

THOUGHT ATOMIC BOMB RISKY

The scientists continued to study atomic theory during the early days of the war, but it was not until the Unites States began to carry the war to Japan that they were able to interest the Government in

a full-scale atomic project. Heretofore, the Government had considered such a venture too risky and too expensive. During the years following Pearl Harbor, Japan's militarists believed the Unites States could be defeated without the use of atomic weapons.

When task forces and invasion spearheads brought the war ever closer to the Japanese mainland, the Japanese Navy undertook the production of the atomic bomb as defense against amphibious operations. Atomic bombs were to be flown against Allied ships in Kamikaze suicide planes.

Captain Wakabayashi estimated the area of total destruction of the bomb at one square mile.

The project was started at Nagoya, but its removal to Korea was necessitated when the B-29's began to lash industrial cities on the mainland of Japan.

"I consider the B-29 the primary weapon in the defeat of Japan" Captain Wakabayashi declared. "The B-29 caused our project to be moved to Korea. We lost three months in the transfer. We would have had genzai bakudan three months earlier if it had not been for the B-29."

The Korean project was staffed by about 40,000 Japanese workers, of whom approximately 25,000 were trained engineers and scientists. The organization of the plant was set up so that the workers were restricted to their areas. The inner sanctum of the plant was deep in a cave. Here only 400 specialists worked.

KEPT IN DARK ON EACH OTHER'S WORK

One scientist was master director of the entire project. Six others, all eminent Japanese scientists were in charge of six phases of the bomb's production. Each of these six men were kept in ignorance of the work of the other five. (Names of these scientists are withheld by Army censorship).

The Russian's took most of the trained personnel prisoner, including the seven key men. One of the seven escaped in June, 1946, and fled to the American zone of occupation in Korea. U.S. Army Intelligence interrogated this man. Captain Wakabayashi talked to him in Seoul. The scientist told of having been tortured by the Russians. He said all seven were tortured.

Captain Wakabayashi said he learned from this scientist that the other six had been removed to Moscow.

"The Russians thrust burning splinters under the fingertips of these men. They poured water into their nasal passages. Our Japanese scientists will suffer death before they disclose their secrets to the Russians," he declared.

Captain Wakabayashi said the Russians are making and extensive study of the Konan region.

When Edwin Pauley of the War Reparations Committee, inspected Northern Korea, he was allowed to see only certain areas, and was kept under rigid Russian supervision.

On Aug. 29, 1945, an American B-29 headed for Konan with a cargo of food and medical supplies, to be dropped over an Allied prisoner of war camp there. Four Russian Yak fighters from nearby Hammung Airfield circled the B-29 and signaled the pilot to land on the Hammung strip.

PILOT REFUSES; REDS FIRE

Lt. Joseph H. Queen of Ashland, KY., pilot, refused to do so because the field was small, and headed back toward the Saipan base, to return "when things got straightened out with the Russians." Ten miles off the coast the Yak fighters opened fire and shot the B-29 down. None of the crew of 12 men were injured, although a Russian fighter strafed but missed Radio Operator Douglas Arthur.

The Russian later told Lt. Queen they saw the American markings but "weren't sure." because sometimes the Germans used American markings and they thought the Japs might too. This was nearly two weeks after the war ended.

Captain Wakabayashi said the Japanese Counter Intelligence Corps at least a year before the atom bombing of Hiroshima learned there was a vast and mysterious project in the mountains of the eastern part of the United States. (Presumably the Manhattan project at Oak Ridge, Tennessee). They believed, but were not sure, that atomic weapons were being produced there.

On the other hand, he said, Allied Intelligence must have know [sic] of the atomic project at Konan, because of the perfect timing of the Hiroshima bombing only six days before the long-scheduled Japanese naval test.

Perhaps here is the answer to moralists who question the decision of the United States to drop an atomic bomb.

The Japanese office, the interpreter and I sipped aromatic green tea as Captain Wakabayashi unfolded his great and perhaps world-shaking story. His eyes flashed with pride behind the black-rimmed glassed. When the interview ended, he ushered us to the door and bowed very low.

APPENDIX 2:

Nuclear Weapons History: Japan's Wartime Bomb Projects Revealed Deborah Shapley

Science, 13 Jan 1978,

This is an abridged and slightly edited version of the article appearing in Science, 13 Jan 1978, pp. 152-157]

A little-publicized chapter in the history of atomic weapons is the Japanese effort to develop an atomic bomb during World War II. The effort centered on Japan's university physics laboratories, and its chief figure was Yoshio Nishina, who was Japan's leading scientist and a physicist of international stature.

Much has been written about how the United States and Britain during the war were concerned that the Germans, who had discovered atomic fission in the 1930's, would develop the world's first superbomb based on this principle. Indeed, the German wartime atomic research effort was a major rationale for the Manhattan Project in the United States.

But in the case of Japan it seems that no one in the U.S. government took the possibility of a Japanese atomic bomb project seriously.

Still more curious is the curtain of silence which the Japanese themselves seem to have pulled over the subject, and which they have kept tightly drawn since the war. Even the Americans who interrogated Nishina concluded that Japan had had no atomic bomb project.

Even today in Japan, when historians tell Japanese that there was such a project, many Japanese react with disbelief. Japan's postwar official policy, that she does not and never will seek to be a nuclear-armed country, seems to have inhibited discussion of the project. Japan's wartime atomic research, in Japan, has become a social secret.

The effort is documented in two authoritative Japanese histories. One is a history of science and technology in Japan of which volume 13, published in 1970, deals with science and technology during World War II. The second is a social history of science, by Tetu Hirosige, published in 1973, that has an entire chapter devoted to the wartime science mobilization, including among other things, atomic research. Nishina died in 1951 and there is no known account by him of his wartime activities. But there are other firsthand accounts, notably the diary of Masa Takeuchi, a worker at Nishina's laboratory who was assigned to the thermal diffusion project, and a memoir of Bunsabe Arakatsu, a physicist from Kyoto.

These materials have been collected independently by Herbert F. York, Jr., director of the Program in Science, Technology and Public Affairs at the University of California at San Diego, and Charles Weiner, professor of history of science at the Massachusetts Institute of Technology (M.I.T.). Weiner is now completing a full-scale historical study of the subject.

It is no surprise that physicists in Japan were tempted, around 1940, to study the military applications of fission. Throughout the 1930's, Japan had kept pace with the exciting developments in physics -- with theory in Europe and experimental techniques in the United States. Nishina spent several years in Copenhagen in the laboratory of Niels Bohr.

The Japanese also became schooled in the techniques of the cyclotron, through a small machine built at the Riken, Nishina's laboratory in Tokyo, and by sending a much younger physicist, Ryokichi Sagane, to Berkely to work under E.O. Lawrence. Lawrence arranged for the contribution of a 200-ton magnet for a second cyclotron at the Riken. The cyclotron was not finished until 8 years later, shortly before the war's end.

While Japanese physics at the outset of the war was strong enough to carry researchers naturally into the problem of the fission weapon, it was "too brittle," to bring the project to a successful conclusion. Nishina, Sagane, and some others were clearly world class physicists; but Japanese physics included a "comparatively large number of non-advanced fields."

Scientists Suggest Project

The scientists themselves initiated atomic bomb research in September 1940. Army sponsorship was arranged, and "fairly large-scale research" began at the Riken "from December, 1940."

The years 1940 and 1941 were a period of intense military interest in the possibilities of atomic weapons. In 1941, Prime Minister and War Minister Hideki Tojo's order for investigation of the possibilities for a fission weapon were passed on to the Riken.

But in the first of what was to be a series of uncoordinated orders to the scientists, the Navy also engaged the Riken's services, and launched an inquiry into the feasibility of the weapon in late 1942. This led to the "Physics Colloquium," a galaxy of Japan's leading scientists who met for ten sessions between December 1942 and March 1943, to investigate the feasibility of Japan's achieving a weapon.

The Colloquium's conclusion, relayed to the Navy in March 1943, was that an atomic bomb would be impossible "even" for the United States for the current war. Another account says that it estimated Japan would need "ten years" to develop such a weapon. So, it seems that the scientists viewed the project as extremely long term at best, or, as one of them would later write: "if not for this war then in time for the next one."

On the other hand, the military viewed the bombs as something to be pursued immediately, although it often did not back up this commitment with resources. The planners of Pearl Harbor, it is known, assumed that the war in the Pacific would be short, brutal, and brilliant. They believed that America, then being irrevocably drawn into hostilities in Europe, would retreat quickly from fighting on a second front in the Pacific.

It is well established that another faction in the Japanese government was restrained and realistic, and probably this element took a wait-and-see attitude, and relegated the problem to the scientists. But the zealots were still there. A new book, Enola Gay*, quotes the physicist Tsunesabo Asada's recollection that discussions of the subject right after Pearl Harbor were characterized by a "mood of blind patriotism" and "promises of generous funding."

Arakatsu, writing after the war, said he did atomic bomb research to prevent young scientists from being sent to fight and die. Takeuchi, in his diary, which was also compiled after Japan had surrendered, says that he did the research only when ordered, and that other Riken scientists were equally unenthusiastic.

However well these rationales suited the postwar climate of opinion, there is evidence that the actual situation was different. At several junctures when the scientists might well have closed down the work altogether -- for they knew better than anyone how great were the odds against success -- they kept the work going.

September 1940 had been one such juncture; March 1943 was another. Following the physics colloquium's negative report, the Navy branch that had sponsored it lost interest in the atomic bomb. But Nishina managed to keep the Riken atomic research going. The Army, which had been funding the work since December 1940, became the sole sponsor of Riken atomic research.

But this was by no means the beginning of coordination among the military. Just as the Naval Institute of Technology bowed out of support of atomic research in March 1943, another Navy branch, the Fleet Administration Center, was sponsoring another group of researchers at Kyoto University, under Arakatsu, to work toward an atomic bomb.

The Kyoto project began in 1942 and was enlarged with a grant of 600,000 yen in 1943. Among other things, the money went to construct a cyclotron at Kyoto University. But the military's commitment to the work -- however strong in spirit -- was not backed up with material aid.

Takeuchi's diary also indicates that atomic research at the Riken was anything but coordinated. Takeuchi complains that although he was told to consider the possibility of separating uranium by electromagnetic means, Miyamoto, who had developed such a method, had gone to another university. So Takeuchi gave up on electromagnetic separation because he couldn't have Miyamoto around to help. Similarly, although Takeuchi found gaseous thermal diffusion "the most promising" method, Eiichi Takeda, who had done small-scale thermal diffusion work using a glass column, was not assigned to the project. So, Takeuchi had to start from scratch.

After much delay and red tape, the apparatus was ready in a separate building in early 1945. It took Takeuchi 18 months to do this work, whereas physicists in the United States were able to set up comparable or larger experiments in a matter of weeks.

In April 1945, as the gaseous thermal diffusion apparatus and the cyclotron were finally working together in an experimental mode, the building housing the apparatus -- but not the cyclotron -- was ruined in the American bomber raids over Toko. The wrecking of their experiment caused the scientists to give up on their atomic research - that is, until after Hiroshima.

After Hiroshima, the government seems to have become interested yet again in having an atomic bomb. According to one account, the morning after the bomb was dropped, Nishina was summoned and asked first whether the bomb could have been atomic and "whether Japan could have one in six months."

Nishina was flown over Hiroshima on 8 August. The pattern of destruction and the presence of radiation convinced him the bomb had been an atomic one. Arakatsu reached a similar conclusion when he was flown over the city on 10 August.

After Hiroshima, the scientists at the Riken resumed their atomic studies, but with a different goal, namely to learn about the effects of the weapons at Hiroshima and Nagasaki. Philip Morrison, now of M.I.T., who served on the Manhattan Project, and arrived in Japan on the first day of the American occupation, recalled what he found when he visited the Japanese scientists.

Nishina was "guarded and self-contained...impassive and almost antagonistic," toward the arriving Americans. On the other hand, many other Japanese physicists seemed to welcome the Americans with "rueful pleasure." Morrison recalls that the feelings of internationalism, of a bond among physicists, seemed to reestablish itself between the Americans and Japanese – with the exception of Nishina. And as for whether Japan had been developing an atomic weapon, he recalls, "they didn't talk about it and we didn't ask about it much."

The Riken buildings and laboratories "looked frayed, unrenovated, starved of attention." In places, work had just stopped and people had gone away. "As we looked around, we concluded this could not have been the site of a Japanese Manhattan Project."

It is not surprising that U.S. scientists visiting Japan who knew firsthand the "panoply" of installations and people that was the American Manhattan Project, concluded that the Japanese could not have had a comparable project.

So, it went in the fall of 1945. Visiting American scientists were sympathetic to Japanese "colleagues" and tended to find no evidence of a bomb project. The Japanese were silent to their American military interrogators; thus the military, by and large, also found no evidence of such a project.

The Joint Chiefs of Staff ordered on 30 October that all research facilities and equipment "on atomic energy and related subjects be seized." "No research … on atomic energy shall be permitted in Japan."

On 24 to 26 November 1945, on orders from General Groves' office, which oversaw the Manhattan Project, American military teams proceeded to hack Japan's five cyclotrons, including the two at Riken, to pieces. The remains were dumped into the sea.

In the furor which arose in the United States, scientists' and citizens' groups protested to the Secretary of War. For the most part they were told that the destruction order had been a mistake. But this confession of error only whetted the appetites of many of the scientists, who had now become embroiled in a fight for future civilian control of atomic energy. The destruction of the cyclotrons was used to show how insensitive the military would be to the special needs of science and scientists.

Admiral Nakamura "Talks"

But was the destruction completely mindless?

There is a U.S. Army document, dated before the order to destroy the cyclotrons, in which a Rear Admiral Nakamura reports in detail on atomic bomb research conducted during the war at Kyoto University. Among other things, it says that the project included the construction of a cyclotron.

So far there is no evidence that the report reached Groves' office. But its existence suggests that some Americans learned of the wartime atomic research and concluded that the cyclotrons should be destroyed.

On 31 December when Lee DuBridge, director of the M.I.T. Radiation Laboratory, wrote to the acting secretary of war on behalf of the scientific community, suggesting that U.S. scientists restore "at least Dr. Nishina's 60-inch [cyclotron]" in view of the great loss to physics and the world. Acting Secretary of War Kenneth C. Royall replied:

It is unsound to intimate that scientists are citizens of the world alone, are internationalist and not loyal to their native lands and are never willing participants in the ambitions of dictators or tyrants. The evidence to the contrary is too overwhelming for the American public to accept this thesis, for modern war is scientific and total war in toto. Without the scientist or the technical worker, the terrible instruments of destruction of the present day would not have been possible. In the interests of the country and of the American scientists themselves, I believe you should exert your influence to prevent any campaign for the restoration of a cyclotron to the Japs at this time.

The Riken was dissolved "as a result of the defeat," although Nishina later raised money to reestablish it on a different footing. Elsewhere in Japan, physicists were restrained from atomic research, and allowed only to work on applications to biology and medicine. But without the big equipment to support pioneering work, Japanese physics did not retain the prominence it had in the 1930's.

Could the Japanese have had an atomic bomb in World War II? All the historians, Japanese and American, echo the conclusion of the Physics Colloquium, that Japan did not have the uranium, resources, or organization for a full-scale Manhattan-style project. So, the danger--as turned out to be the case with the Germans--was not a real one.

But the historical importance of the project lies not in the fact that Japan failed but that she tried, and that Japan's postwar attitude that she, as the one nation victimized by atomic weapons, is above seeking to acquire them for herself, is not historically accurate. The historical record shows -- on the basis of the eagerness of her military and the willing cooperation of her scientists -- that if other factors had made a bomb possible, the leadership -- which by the end of the war were placing their own youth in torpedoes to home them on the advancing U.S. fleet -- would not have hesitated to use the bomb against the United States. -- Deborah Shapley

*G. Thomas and M.M. Witts, Enola Gay (Stein & Day, Briarcliff Manor, N.Y., 1977).

Insert (p. 153:2). Nuclear Weapons History: Japan's Wartime Bomb Projects Revealed By Deborah Shapley

Derek de Solla Price, Avalon Professor of the History of Science at Yale, with Eri Yagi Shizume, a Yale graduate student, investigated Japan's wartime atomic bomb effort and published a letter in the Bulletin of the Atomic Scientists in 1962, seeking more information on the project. But none was forthcoming. Price believes the effort was serious enough to "change the moral and ethical relationship between Japan and the United States."

"Japan's attempt to acquire an atomic weapon during the World War II changes the moral and ethical relationship between Japan and the United States that has grown up over the use of the atomic bomb against Japan. The story has been that the Americans were guilty and the Japanese were innocent and blameless; that the Americans developed this terrible new weapon and proceeded to commit an atomic rape of the then-helpless Japanese."

"But the fact that the Japanese were trying to develop the bomb, too, means that America was in an arms race with Japan as much as she was with Germany."

BIBLIOGRAPHY

"Abstract of attached report submitted by Mr. Saburō Tashirō, Director of Noguchi kenkyujō," U.S. National Archives, College Park, Md., RG 331, Entry 224, Box 2, Folder #14: "Heavy Water."

Air Objective Folder Korea Areas. Seishin-Rashin Region. Korea Areas, Nos. 84.1, 2, 3, 4, 5, 6, 7. 8. Index of Targets b Number, Classification and Name. Summary and Evaluation of Seishin-Rashin Region. Office of the Assistant Chief of Air Staff, Intelligence, Washington DC. Issused August 12, 1944.

Akira, Kudo. Japanese-German Business Relations: cooperation and rivalry in the inter-war period. Routledge, New York. 1998

Akiyama x. Special Detachment 731. - Moscow: Foreign Literature Publishing House, 1958. - 152. / Translated from the Japanese M. A. Gusev, VA Zlomanova, AG Ryabkina, NN Tulinova . ≡ Akiyama H ., Tokushu Butai Nanasanichi . - Tokyo: Tokyo: San'ichi shobo, 1956.

AVP RF, Fond 07, Opis 22, Delo 234, Papka 37, and AVP RF, Fond 17, Opis 22, Delo 238, Papka 37. Cited in SOVIET AIMS IN KOREA AND THE ORIGINS OF THE KOREAN WAR, 1945-1950: NEW EVIDENCE FROM RUSSIAN ARCHIVES KATHRYN WEATHERSBY Florida State University Working Paper No. 8

Babikov,Na vostochnom, The existence of a reconnaissance detachment in the Amur River flotilla can be established from Geroi sovetskogo soyuza: Kratkiy biogra/icheskii slovar' [Heroes of the soviet union: short biographical dictionary), (Moscow: Voyenizdat,1987), 805. The entry for S. M. Kuznetsov lists him as "commander, 71st Special Purpose Detachment [otryadosobogo naznacheniya] of theAmur river flotilla." As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989

Babikov discusses the events in Wonsan in Na vostochnom, 194-231, aiad in Morskie, 88-109. Leonov gives his account in Gotov 'ya, 38-49. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989

Cathcart, Adam. Nationalism and Ethnic Identity in the Sino-Korean Border Region of Yanbian, 1945–1950. Korean Studies, Volume 34, 2010. pp. 25-53

Central Intelligence Agency Office of Current Intelligence 6046, 1 July 1952

Centrifuges and Nuclear Weapon Proliferation. Federation of Atomic Scientist. https://fas.org/issues/nonproliferation-counterproliferation/nuclear-fuel-cycle/uranium-enrichment-gas-centrifuge-technology/centrifuges-nuclear-weapon-proliferation/

Choi Su Young (1993), Study of the Present State of Energy Supply in North Korea, Research Institute for National Unification (RINU), Seoul, (ROK).

DOCUMENT NO. 1 [Source: Archive of the President of the Russian Federation (AP RF), Fond (F.) 3, Opis (Op.) 65, Delo (D.) 775, pp. 74-76. Translated for NKIDP by Gary Goldberg] https://www.wilsoncenter.org/sites/default/files/NKIDP_Document_Reader_New_Evidence_on_the_Korean_War.pdf

DOCUMENT NO. 30 Letter from Zhou Enlai to Mao Zedong, 9 December 1950 [Source: Jianguo yilai Zhou Enlai wengao (Zhou Enlai's Manuscripts since the Founding of the PRC), vol. 3, Zhonggong zhongyang wenxian yanjiushi (CPC Central Historical Documents Research Office) and Zhongyang dang'anguan (Central Archives), eds., (Beijing: Zhongyang wenxian chubanshe, 2008), p.613. Translated by Jingxia Yang and Douglas Stiffler.]

DPRK Scientist Yi Sung-ki Profiled. Tojyo Gendai Chosen no Kagakushatachi. 18 February 1997

Ebb and Flow, November 1950-July 1951. The United States Army in the Korean War. Center of Military History. United States Army. 1990.

Eckert, Carter J. Offspring of Empire: The Koch'ang Kims and the Colonial Origins of Korean Capitalism, 1876-1945. University of Washington Press, Seattle and London. 1991.

Electric Power of Korea. Strategic Engineering Study. S.E.S. 157. Engineer Research Office. North Atlantic Division. Corps of Engineers. Office, Chief of Engineers, U.S. Army. February 1945. Record Group 331. Stack Area 290. Row 21. Compartment 22. Shelf 5. SCAP. General Subject File. 1943-1945. Box 8345. Folder – Korea 7. NND775019. The U.S. National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001.

FAR OUTLIERS. EXPLORING MIGRANTS, EXILES, EXPATRIATES, AND OUT-OF-THE-WAY PEOPLES, PLACES, AND TIMES, MOSTLY IN THE ASIA-PACIFIC REGION. http://faroutliers.blogspot.com/2003/12/prewar-russian-community-in-korea.html

Foremost Jap Physicist Thinks Russia Already Has Atom Bomb. Page 5. The Austin American. Monday, October 15, 1945

Glantz, David M. Leavenworth Papers. Number 7. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 66027. February 1983.

Grusonwerk, Voss an, 9 January 1939, HA Krupp, WA105/6. As cited in KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994/11

Hansgirg, Fritz. United States Patent Office. Production of Water Enriched with Heavy Water. Patent Number 2,134,249. 25 October 1938

Harden, Blaine. The Great Leader and the Fighter Pilot: The True Story of the Tyrant Who Created North Korea and the Young Lieutenant Who Stole His Way to Freedom." Viking Press. 2015

"Historical Sketch of the Scientific Field Survey in Hiroshima Several Days after the Bombing" by Prof Sakae Shimizu, 1982, published by Bulletin of the Institute for Chemical Research, Kyoto University, Volume 60, (2), 1982.

INTERROGATION NAV NO. 54. USSBS NO. 226. MINE COUNTER-MEASURES. United States Strategic Bombing Survey [PACIFIC]. NAVAL ANALYSIS DIVISION. Interrogations of Japanese Officials. OPNAV-P-03-100

Japanese delegation inspects possible burial site of WWII soldiers, civilians in North Korea. JDP. 17 Jun 2013. http://japandailypress.com/japanese-delegation-inspects-possible-burial-site-of-wwii-soldiers-civilians-in-north-korea-1730700/

Japanese make trip to N.K. burial site. The Japan Times. http://www.japantimes.co.jp/news/2013/06/18/national/japanese-make-trip-to-n-k-burial-site/#.Vql0KyorKM8

Japanese Monograph No. 45, History of Imperial General Headquarters Army Section.

Johannsen an Grusonwerk, 15.September 1939, HA Krupp, WA 105/8. As cited in KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994

Jones, V. C. Manhattan: The Army and the Atomic Bomb (Washington: Center of Military History, United States Army, 1985). https://ia700404.us.archive.org/11/items/manhattanarmyato00jone/manhattanarmyato00jone.pdf

Kim Jong Suk. Biography. http://www.gamadilavoce.it/marco03.pdf

Kim Ok Sun/ Kim Jong Suk; The Anti-Japanese Heroine," and published by the Foreign Languages Publishing Hour in Pyongyang, Korea. 1997

Kim Tae Ho. Li Seung Ki's Research and Industrialization of Vinalon in North Korea: An Example of the Appropriation of the Colonial Heritage

Korea Institute of Military History. The Korean War, Volume One and Two. University of Nebraska Press. Lincoln and London. 2001

Korean Affairs Report, No. 224. JOINT PUBLICATIONS RESEARCH SERVICE ARLINGTON VA-1982.

Korean War 9th Infantry Regiment - History - November 1950 2nd Infantry Division Korean War Project Record: USA-81 Folder: 070005 Box: 07 File: 05 National Archives and Records Administration College Park, Maryland Records: United States Army Unit Name: Second Infantry Division Record Group: RG407 Editor: Hal Barker Korean War Project P.O. Box 180190 Dallas, TX 75218-0190 http://www.koreanwar.org

Kovsh, A. Initial Stage of North Korea's Nuclear Program Developmey http://www.spbiiran.nw.ru/wp-content/uploads/2015/03/selection-111.pdf

Krebs, Brian. "Cyber Incident Blamed for Nuclear Power Plant Shutdown" Washington Post, June 5, 2008. http://www.washingtonpost.com/wp-dyn/content/article/2008/06/05/AR2008060501958.html

KUDO, Akira. The Transfer of Leading-edge Technology to Japan: The Krupp-Renn Process. Japanese Yearbook on Business History-1994/11

Lee, Bong. The Unfinished War: Korea. Algora Publishing, New York. 2001

Leonov, Gotov'sya, 42-44. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989

Mantetsu-kai (1986) Minami Manshu Tetsudo Kabushiki Kaisha Dai 4 Ji 10 Nenshi (The Fourth 10 years of the South Manchuria Railway Company), Ryukei Shosha, Tokyo.

Mantetsu-kai (2007) Mantetsu 40 Nenshi (The 40 years of the South Manchuria Railway Company), Yoshikawa Kobundo, Tokyo.

Mass, Ad. and Hans Hooijmaijers. Scientific Research in World War II. What scientists did in the war. Routledge. New York. 2009

Mayumi Itoh. Pioneers of Sino-Japanese Relations Liao and Takasaki. PALGRAVE MACMILLAN. New York. 2012.

Mercado, Stephen C. The Shadow Warriors of Nakano: A History of the Imperial Japanese Army's Elite Intelligence School. Brassey's, Inc. Washington D.C. 2002.

Montross, Lynn. US Marines Operations in Korea, 1950-1953, Volume III, The Chosin Reservir Campaign. 1957

Myanmar and the Two Koreas: Dangers and Opportunities. April 11, 2011. http://uskoreainstitute.org/wp-content/uploads/2011/05/Transcript_Myanmar2Koreas_041111.pdf

New Evidence on the Korean War Edited by James Person June 2010. NORTH KOREA INTERNATIONAL DOCUMENTATION PROJECT. Prepared for the conference: New Documents and New Histories: Twenty-First

Century Perspectives on the Korean War June 16-17, 2010 Harry S. Truman Presidential Library Independence, Missouri

Oleyniko, Pavel V. German Scientists in the Soviet Atomic Project. The Nonproliferation Review, Summer, 200

Pauley, Edwin. Report on Japanese Assets in Soviet-Occupied Korea to the President of the United States. June, 1946 "The Pauley Report"

Preliminary Japanese POW Camp List. Developed for War Crimes Trials Proceedings. http://www.mansell.com/pow_resources/camplists/rg331-box%201321-jap%20pow%20camps.htm

PRS 70470, 12 January 1978, Translations on North Korea. No. 569.

Quarterly Economic Review. China, Hong Kong, North Korea. No. 2-1971. The Economist Intelligence Unit http://contentz.mkt5049.com/lp/43888/373118/sample-report-china-hk-j-korea-no3-1971 1.pdf

Rainer Dormels (2014). Profiles of the cities of DPR Korea – Chongjin. Academy of Korean Studies (KSPS).

Record Group 226. Stack 250. Row 64. Compartment 33. Shelf 2. Entry 211. Title: Previously withheld. Box 34. Folder 001. 21 December 1945 – 18 October 1946.

Record Group 319: Records of the Army Staff, National Archives. Adelphi Maryland.

Record Group 331, Stack Area 290, Row 24, Compartment 02. Shelf 1. Entry 224, Box 2. US National Archives, Aldelphi, Maryland.

Record Group 496, Section 290, Row 46, Compartment 6. Shelf 4-7. Entry 53, Box 354. G-2 WDI Division, Library, Intelligence Reports. US National Archives, Aldelphi, Maryland.

Reed, Cameron. Kilowatts to Kilotons: Wartime Electricity Use at Oak Ridge. American Physical Society. 2016. https://www.aps.org/units/fhp/newsletters/spring2015/oak-ridge.cfm

RG 226. Records of the Office of Strategic Services. Records of the Research and Analysis Branch — Entry 210: Previously Withdrawn Sources and Methods Files. Box 320. Document Number/Subject Ramona Summary Report from Shanghai, China, January 28, 1946, 5 pp.

Schumpeter, E.B. Japanese Economic History 1930-1960. Janet Hunter. Volume III. The Industrialization of Japan and Manchukuo 1930-1940. Routledge Books, London and New York. 1940.

Snell, David. Japan Developed Atom Bomb; Russia Grabbed Scientists. Constitution. Atlanta, Georgia. 3 Oct 1946.

Suh, Dae-Sook. Korean Studies. New Pacific Currents. Center for Korean Studies. Univeristy of Hawaii. Honolulu, Hawaii. 1994

The Bonds of Brotherhood: New Evidence on Sino–North Korean Exchanges, 1950–1954 Adam Cathcart, Charles Kraus Journal of Cold War Studies, Volume 13, Number 3, Summer 2011, pp. 27-51 (Article).

"The Foundations of Energy Security for the DPRK: 1990-2009 Energy Balances, Engagement Options, and Future Paths for Energy and Economic Redevelopment." http://nautilus.org/wp-content/uploads/2012/12/ATTACHMENTS-1990-2009-DPRK-ENERGY-BALANCES-ENGAGEMENT-OPTIONS-UPDATED-2012.pdf

THE UNITED STATES STRATEGIC BOMBING SURVEY. The War against Japanese Transportation. 1941-1945. Transportation Division May 1947. U. S. SUPERINTENDENT OF DOCUMENTS, 21 JAN 1948

Thompson, Robert Smith. Empires on the Pacific: World War II and the Struggle for Mastery of Asia. Basic Books. 2001.

United States Pacific Fleet. Air Force. Carrier Air Group Eleven. CVG-11/A16-14. Serial: 031. 8 July 1952

U.S. Army Forces Far East. Military History Section. Record of Operations against Soviet Russia on Northern and Western Fronts of Manchuria, and in Northern Korea (August 1945). Japanese monograph no. 155. 1950. Distributed by the Office of the Chief of Military History, Department of the Army.

USSR Report. INTERNATIONAL AFFAIRS. FOREIGN BROADCAST INFORMATION SERVICE. JPRS-UIA-86-020. 28 APRIL 1986

USSR'S ROLE IN LIBERATING KOREA AFTER WWII PRAISED Moscow ASIA AND AFRICA TODAY in English No 1, Jan-Feb 86 pp 28-31 [Article by Georgy Plotnikov: "The Soviet Armed Forces Liberation Mission in Korea"]

Vnotchenko, L. N. Pobeda no Dal'nem Vostoke [Victory in the Far East] (Moscow: Voyenizdat, 1971), 270. As cited in: Gebhardt, James F. Major. US Army. SOVIET NAVAL SPECIAL PURPOSE FORCES: ORIGINS AND OPERATIONS IN WORLD WAR II. Soviet Army Studies Office. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas. December 1989

Wilcox, Robert K. Japan's Secret War: Japan's Race against Time to build its Own Atomic Bomb. Marlowe & Company, New York. Copyright 1985.

Wilcox, Robert K. Japan's Secret War: Japan's Race against Time to build its Own Atomic Bomb. Marlowe & Company, New York. Copyright 1995.

Williams, Peter and David Wallace. Unit 731, Japan's Secret Biological Warfare in World War II. The Free Press. New York. 1989

Yasutomi, A. Tyotatsu to Shikin Tonyu wo Chushin ni (The finance and investment of the South Manchuria Railway Company), Jinmon Gakuho (The Journal of Humanities), the Institute for Research in Humanities, Kyoto University. 1995

4 Japanese visit burial site of WWII remains in N. Korea. CHONGJIN, North Korea, Kyodo News. 24 October http://myemail.constantcontact.com/4-Japanese-visit-burial-site-of-WWII-remains-in-N--Korea.html?soid=1103590107335&aid=JOBmEN6sGKQ

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