



North Korea *Kyo-hwa-so* No. 12, Jöngö-ri

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THE COMMITTEE FOR
HUMAN RIGHTS IN NORTH KOREA
북한인권위원회



ALLSOURCE ANALYSIS



North Korea: Imagery Analysis of *Kyo-hwa-so* No. 12, Jöngö-ri



Location:

Hoeryöng-si, Hamgyöng-bukto

Coordinates:

42.209410 N, 129.755100 E

Date of Report:

August 29, 2016

Date of Imagery:

High resolution: July 12, 2003 through May 24, 2015

Landsat: May 27, 1976 through June 6, 1984

Declassified KH-4: April 7, 1967

Size of Facility:

23,600 square meters (28,230 square yards)

188 meters by 128 meters (205 yards by 139 yards)

Overview of North Korea's Prison Camp System

North Korea has a complex variety of facilities for detention and forced labor. The two large-scale facilities that are both usually termed "prison camps" in English are termed *kwan-li-so* and *kyo-hwa-so* in Korean. *Kyo-hwa-so* are re-education prison labor camps, and *kwan-li-so* are penal labor colonies.

Kwan-li-so are, with one exception, sprawling encampments that encompass mountain ranges and valleys deep in the interior of central and north-central North Korea and are surrounded by barbed wire fences and guard towers. These penal labor colonies are administered by the powerful State Security Department (or Agency).

In addition to *kwan-li-so* political prison camps, North Korea also operates prison labor camps called *kyo-hwa-so*. *Kyo-hwa-so* labor camps are "serious crimes" re-education prison camps, sometimes appearing in satellite photographs as a number of buildings surrounded by typical prison walls, and sometimes appearing as prison camps with widely separated prison sections surrounded by barbed wire and guard towers.

What the *kyo-hwa-so* prison camps share with the *kwan-li-so* prison camps are extremely brutal conditions. The brutality

affects both those convicted of actual offenses and those sentenced for essentially political offenses. A state can deprive its citizens of their liberty for what are universally regarded as criminal acts. A state may not, under contemporary international norms and standards, fail to provide food to those unjustly, or even justly, deprived of their liberty or subject them to forced labor so intense and dangerous that it leads to widespread deaths in detention.¹

Based on research conducted by the Committee for Human Rights in North Korea (HRNK), five trends have defined the human rights situation under the Kim Jong-un regime: 1) an intensive crackdown on attempted defections; 2) an aggressive purge of senior officials, aimed to consolidate the leader's grip on power; 3) a "restructuring" of the political prison camp system, with some facilities, closer to the border with China, being shut down, while inland facilities have been expanded; 4) disproportionate oppression of women, who have assumed primary responsibility for the survival of their families; thus, women represent the majority of those arrested for perceived wrongdoing at the "jangmadang" markets, or for "illegally"

1. Hawkr, David. *The Hidden Gulag IV: Gender Repression and Prisoner Disappearances*, (Washington, D.C.: HRNK 2015), pp. 12-27, (hereafter: *HG4*) available at https://www.hrnk.org/uploads/pdfs/Hawkr_Hidden-Gulag4_FINAL.pdf.

crossing the border; and 5) the sustained, if not increased, economic importance of the political prison camps.

HRNK calls upon the government of the Democratic People's Republic of Korea (DPRK) to:

- ▶ Increase the quantity and variety of food provisions to its prisoners to ensure they do not starve to death or become malnourished. All people have a right to food.
- ▶ Improve the working conditions in its mines by having and practicing safety standards and ventilating the mines. Also, reduce the number of hours per day that prisoners must work in the mines, and give them additional food and water for difficult manual labor.
- ▶ Ensure that waste run-off from mining does not contaminate fresh water sources for people in and around the mines and detention facilities as this may lead to serious health and environmental problems.
- ▶ Continue to grant mass amnesty in order to reduce the overcrowding in prison cells. This will reduce the number of deaths and sickness in detention.
- ▶ Allow the ICRC to have immediate, full, and genuine access to all detention facilities in the DPRK.
- ▶ Comply with the Standard Minimum Rules for Treatment of Prisoners.



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Introduction

As part of a joint undertaking with HRNK to use satellite imagery to shed light on human suffering in the DPRK (more commonly known as North Korea), AllSource Analysis (hereafter AllSource) has been monitoring activity at prison facilities throughout North Korea. This report details activity at a facility that is commonly identified as *Kyo-hwa-so* No. 12, but is also known as Jöngö-ri, Camp No. 12, or Jeongori *Kyo-hwa-so* No. 12.²

Executive Summary

For this report, AllSource analyzed pan-sharpened multispectral satellite imagery of *Kyo-hwa-so* No. 12 and its immediate environs collected by DigitalGlobe, Airbus Defense and Space, and NASA's EO-1 from July 12, 2003 through May 24, 2015, NASA's Landsat from May 27, 1976 through June 06, 1984, and USGS declassified KH-4 from April 7, 1967 (Figure 1). Imagery analysis confirms that the area is a *kyo-hwa-so* (re-education prison labor camp) and provides an understanding of its operational status based on the presence and changes in a number of physical features:

2. Jöngö-ri is frequently spelled as Chöngö-ri.

- ▶ Entrance and checkpoint
- ▶ Housing and agricultural support facilities and activity
- ▶ Internal arrangement
- ▶ Mining activity
- ▶ Miscellaneous activity
- ▶ Road network
- ▶ Security.

Based on analysis of these features, *Kyo-hwa-so* No. 12 is an operational prison camp that is, by North Korean standards, a small and well-maintained facility, as indicated by general activity and maintenance in and immediately surrounding the camp. This analysis also supports former prisoner and other reports that *Kyo-hwa-so* No. 12's economic activity is focused on light industry, agriculture, and mining.

It is important to reiterate the analytical caution presented in previous reports (such as *North Korea: Imagery Analysis Camp 16* and *North Korea's Camp No. 25 Update*) produced by HRNK and AllSource. North Korean officials, especially those within the Korean People's Army and the internal security organizations, clearly understand the importance of implementing camouflage, concealment, and deception (CCD) procedures to mask their operations and intentions. It would

be reasonable to assume that they have done so here.³

Location and Organization

Kyo-hwa-so No. 12 is a *kyo-hwa-so* under the control of the Prisons Bureau of the Ministry of People's Security, which is directly under the National Defense Commission. Specifically, it is under the control of the ministry's North Hamgyong Provincial Bureau.⁴ The camp is located approximately 490 kilometers (km) northeast of the capital city of P'yöngyang and approximately 25 km south of Hoeryöng-si. Specifically, it consists of two primary facilities located in two valleys on the northwest slopes of the Sin-bong (mountain) (Figure 2). The

first facility is the walled prison facility located at the confluence of two unnamed streams and incorporates the two small villages of Musal-li (Musan-dong) and Kolchön'gö-ri. It derives one of its more commonly used names of Jöngö-ri *Kyo-hwa-so* No. 12 from a shortened version of Kolchön'gö-ri. Adding to this confusion is the fact that the larger and more well-known town of Jön'gö-ri is 2.5 km to the southwest. The second facility is a copper mine located in a small branch valley a short distance south of the prison facility.

Based on analysis of historical Landsat satellite imagery, *Kyo-hwa-so* No. 12 appears to have been established between 1980 and 1983.⁵ It was established in an area that had historically been involved in agricultural (i.e., orchards, beans, potatoes, and corn) and logging since at least the late 1960s. Recent high-resolution satellite imagery confirms escapee

3. Bermudez Jr., Joseph S., Dinville, Andy and Eley, Mike. *Imagery Analysis of Camp 16*, (Washington, D.C.: The Committee for Human Rights in North Korea [HRNK], 2015) available at https://www.hrnk.org/uploads/pdfs/ASA_HRNK_Camp16_v8_full-res_FINAL_12_15_15.pdf and Bermudez Jr., Joseph S. *Imagery Analysis: North Korea's Camp No. 15, Update*, (Washington, D.C.: HRNK, 2014) available at <http://hrnk.org/uploads/pdfs/Camp%2025%20Update%20Good.pdf>.

4. KINU *White Paper on Human Rights in North Korea 2016*, (Seoul: Korea Institute for National Unification, April 25, 2016), pp. 79-81, (hereafter: *KINU2016*) available at http://www.kinu.or.kr/report/report_03_01.jsp?page=1&num=43&mode=view&file=8&text=8order=8dir=8bid=DATA04&ses=.

5. Landsat imagery used for this determination includes: LM21240311976148FAK07 (May 27, 1976), LM21240311977268AAA05 (September 25, 1977), LM31240311978200AAA02 (July 19, 1978), LM21240311979150AAA06 (May 30, 1979), LM21240311980253HAJ00 (September 09, 1980), LM21240311981121HAJ00 (May 01, 1981), LM31240311982179HAJ07 (June 28, 1982), LM41150311983290HAJ00 (October 17, 1983), and LT51150311984173HAJ00 (June 06, 1984).



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reports that the camp has added light industry and mining to its list of activities and that the original walled prison facility was expanded to its present size with the addition of an attached walled compound to handle an increased female population. Numerous small- and medium-sized cultivated fields, which were created by logging activities, are located throughout the area. Additionally, there are several small mining activities, most of which appear to have been abandoned.

The camp appears to be connected to the regional electric power grid via buried high voltage power transmission cables that run from the town of Jön'gö-ri area to a substation at the camp's mining facility. It is connected to the national rail network via the stations at Jön'gö-ri 2.5 km southwest and P'ungsal-li 4.3 km north of the facility. With the exception of an unused grass airfield at Punyöng, 21.5 km south of the facility, the closest air facility is the Korean People's Air Force Söngam-ni Air Base located 60 km to the south. This is a training base. Based on its mission, organization, and location, it almost certainly provides no support to *Kyo-hwa-so* No. 12.

Imagery Analysis

For analytical purposes, the camp is divided into 15 discrete locations or activities that provide insight into changes to the facility and its environs during the time period under study (Figure 3).⁶

Area 1, Security

Since *Kyo-hwa-so* No. 12 is a small walled prison facility in a remote mountain valley, it does not have an extended patrolled security perimeter, as do North Korea's *kwan-li-so*.⁷ At least one former

6. The following sources were used throughout this section: Hawlr, David. *The Hidden Gulag* Second Edition, (Washington, D.C.: HRNK, 2003), pp. 85-89, 107 and 227, (hereafter: HG2) available at http://www.hrnk.org/uploads/pdfs/HRNK_HiddenGulag2_Web_5-18.pdf; HG4, pp. 12-27; KINU White Paper on Human Rights in North Korea 2014, (Seoul: Korea Institute for National Unification, July 2014), pp. 139-143, (hereafter: KINU2014) available at www.kinu.or.kr/eng/pub/; KINU White Paper on Human Rights in North Korea 2015, (Seoul: Korea Institute for National Unification, September 2015), pp. 80-84, (hereafter: KINU2015) available at www.kinu.or.kr/eng/pub/; and Report of the Commission of Inquiry on Human Rights in the Democratic People's Republic of Korea, A/HRC/25/CRP.1, (New York: UN Human Rights Council, 7 February 2014), pp. 65-66 and 199, available at <http://www.ohchr.org/Documents/HRBodies/HRCouncil/CoIDPRK/Report/A.HRC.25.CRP.1.ENG.doc>.

7. HG2, pp. 85-89.

detainee indicates that there are small remote guard positions on the ridges surrounding the valley in which *Kyo-hwa-so* No. 12 is located.⁸ With the exception of one possible guard position that appears to have been present since 2003, none of these have been identified (Figure 4). Several important activities, such as a mine processing facility and a mine portal and worker housing compound, do, however, have guard positions (Figure 5).

There is a main entrance and checkpoint astride the only road leading into the valley. The walled prison facility occupies a generally rectangular-shaped area that measures approximately 188 meters by 128 meters (205 yards by 139 yards) and encompasses 2.360 hectares (28,230 square yards). It has approximately three-meter-high walls, four elevated guard positions, and two exterior entrances.

Area 2, Main Entrance and Checkpoint

The main facility entrance and checkpoint to the valley housing *Kyo-hwa-so* No. 12 is located approximately 1.9 km to the northwest of the facility astride the only road leading to the area. In 2003, the entrance and checkpoint consisted of only a small building (Figure 6). By 2008,

8. HG2, pp. 85-89.

this had been expanded to three buildings including a checkpoint, barracks, and administration buildings. Between 2009 and 2012, these buildings received new roofs (Figure 7).

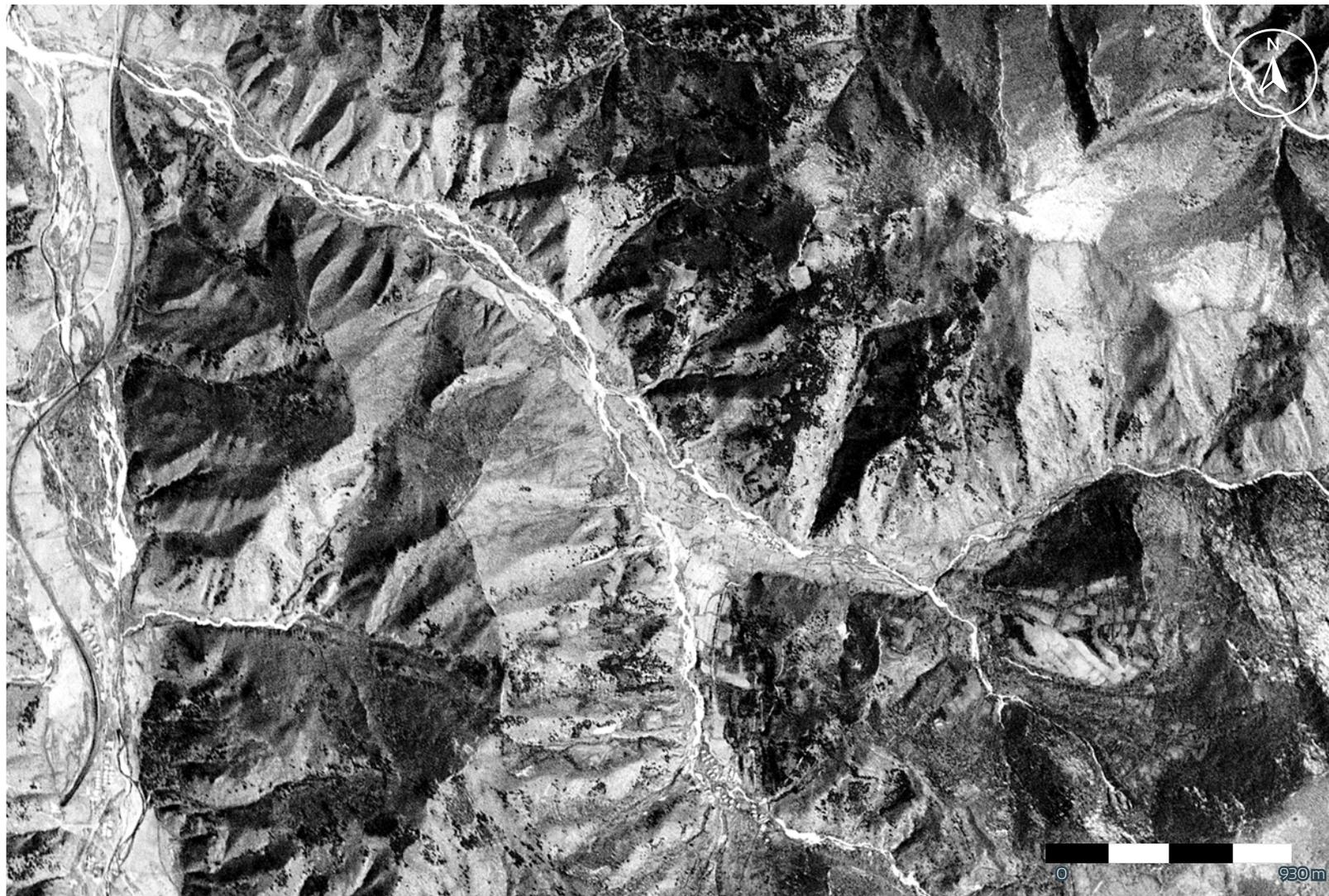
Area 3, Musal-li

The village of Musal-li (Musan-dong) is located approximately 1.2 km southeast of the main facility entrance and checkpoint, astride a small stream that runs through it. The area consists of approximately 28 housing units and a small partially enclosed compound, accessed from a small bridge across the stream, on the north side of the stream. This compound is similar to those seen throughout North Korea that house small military, para-military, or security units, although a firm determination cannot be made at this time.

There have been a small number of minor changes to the village between 2003 and 2015 (Figure 8). For example, between February 2012 and February 2013, three buildings were razed and the road through the village was improved. All such changes, however, are typical of what is seen in rural North Korea.



Figure 1



Overview of the *Kyo-hwa-so* No. 12 area, as seen with a declassified Top Secret KH-4 satellite image dated April 7, 1967, superimposed on a June 30, 2015 image. (42.2102 N, 129.7536 E)

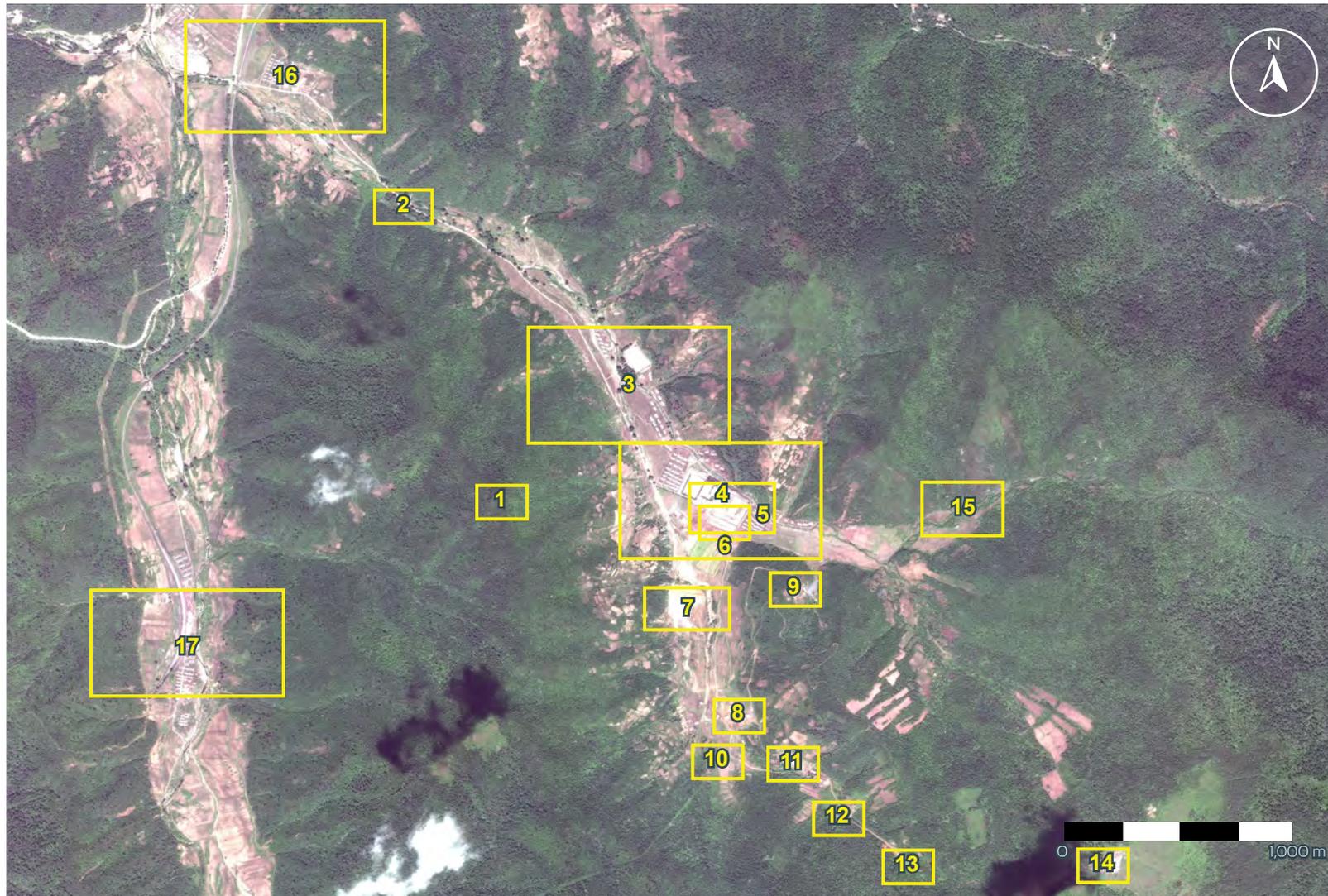


Figure 2

Overview of the *Kyo-hwa-so* No. 12 area, June 30, 2015. (42.2102 N, 129.7536 E)



Figure 3



Kyo-hwa-so No. 12 report areas. (42.2102 N, 129.7536 E)



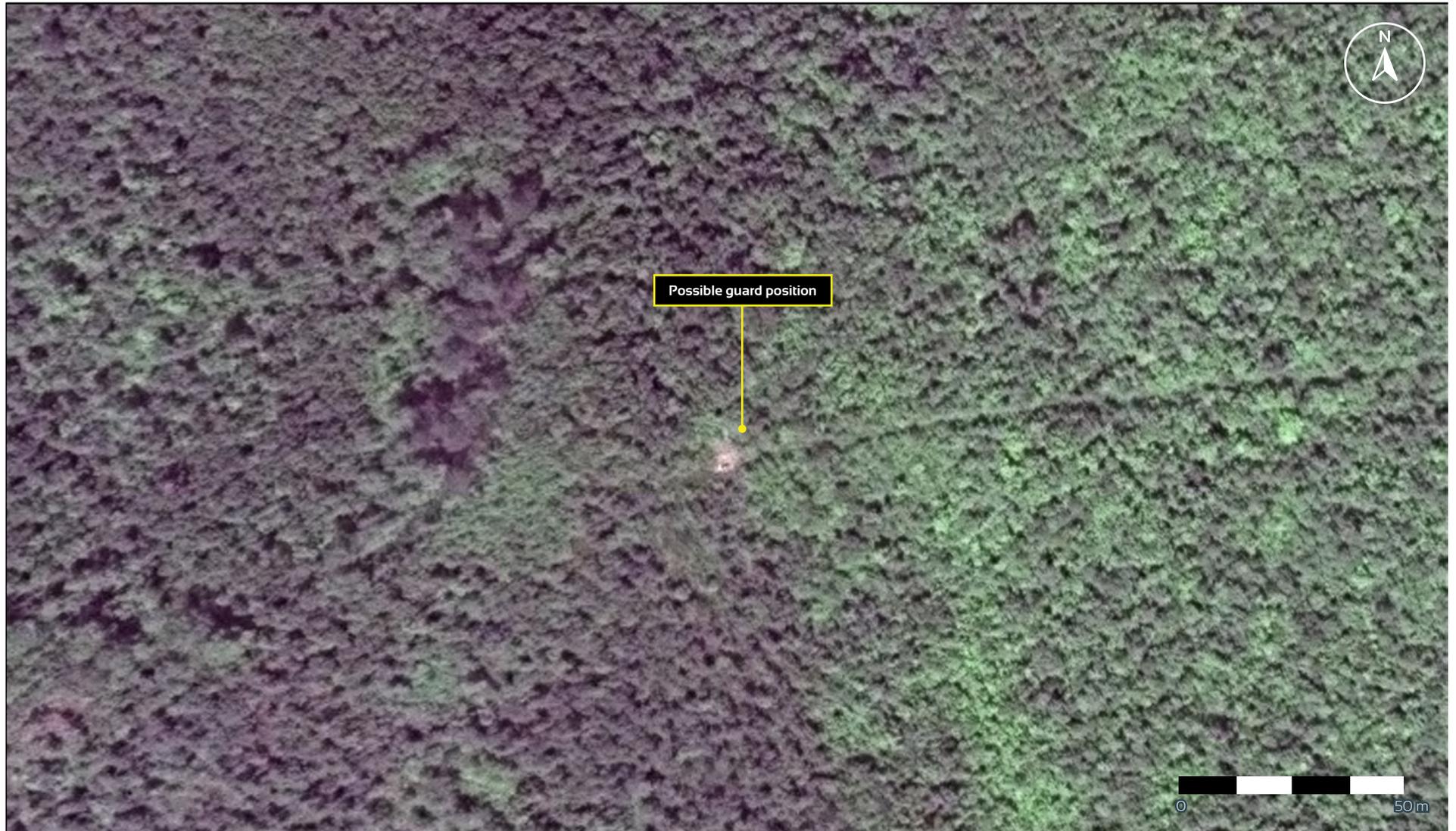
Figure 4



Area 1 - Possible guard position on the ridge to the west of *Kyo-hwa-so* No. 12, July 12, 2003. (42.2095 N, 129.7421 E)



Figure 5



Area 1 - Possible guard position on the ridge to the west of *Kyo-hwa-so* No. 12, June 30, 2015. (42.2095 N, 129.7421 E)



Figure 6



Area 2 - Main entrance and checkpoint, July 12, 2003. (42.2218 N, 129.7380 E)



Figure 7



Area 2 - Main entrance and checkpoint, June 30, 2015. (42.2218 N, 129.7380 E)



Figure 8



Area 3 - The village of Musal-li (Musan-dong), June 30, 2015. (129.7515 N, 42.2139 E)



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Areas 4-6, Headquarters, Prison, and Support Facilities

The administrative and security headquarters, prison, and support facilities of *Kyo-hwa-so* No. 12 are located 1.9 kilometers south of the main facility entrance and checkpoint. These appear to have been established between 1980 and 1983 on the site of the old farming village of Kolchön'gö-ri. If North Korea followed practices seen elsewhere at the time the village was razed, the original inhabitants were likely moved to new housing nearby.

These facilities occupy an irregular shaped area that measures approximately 860 meters by 390 meters (940 yards by 426 yards) and encompasses approximately 23.715 hectares (283, 629 square yards). For analytical purposes, this area can be divided into four functional subcomponents:

- ▶ Housing
- ▶ Administration and security
- ▶ Agricultural support
- ▶ Walled prison.

There were a total of 65 housing units located immediately adjacent to the walled prison as of June 2015. These were distributed as follows: 29 (of which

one is partially complete) to the north, 22 to the south, and 14 scattered along the northern bank of the adjacent stream. These housing units are very likely for the camp's various managers, senior party officials, and senior security officials and their families. A few of the structures on the eastern edge of this area, on the north side of the stream, may have been from the original Kolchön'gö-ri village. A small number of minor changes (e.g., the construction of a small walled agricultural compound as of February 2012) have occurred in this area during the period of study, however, all of these are typical of what is expected to be seen during the normal course of operating such a facility in rural North Korea.

Adjacent to the northwest wall of the prison are two compounds that house the camp's administration and security headquarters, local Korean Workers' Party offices, guard barracks, support staff, and support buildings (including a school for children). Directly to the west of the prison are two small agricultural support compounds—both of which are walled in. The first consists of greenhouses, stables, and livestock pens. The second compound is for storage (Figure 9, Figure

10, Figure 11, Figure 12).

This area is connected to the regional power grid via above ground power lines coming from the camp's sole substation near the mining facility to the south.

The original prison facility occupies a generally rectangular shaped area that measures approximately 142 meters by 128 meters (155 yards by 139 yards) and encompasses approximately 1.818 hectares (21,738 square yards). Satellite imagery generally supports former prisoner descriptions of changes to the internal layout of the main prison compound and the fact that there have been changes to the various buildings (Figure 13). Former detainee Kim Won-gil identifies a furniture and a tool factory as the primary light industries operated by prisoners in the main prison.⁹ According to Kim and other former inmates, both factories are reportedly the responsibility of prisoner Work Unit 1. In addition to this description of the internal layout, satellite imagery shows several small garden plots and what likely is a small courtyard for small animals and fowl.¹⁰

9. HG2, pp. 85-89.

10. Ibid.

According to the KINU *White Paper on Human Rights in North Korea* 2016, prisoners at *Kyo-hwa-so* No. 12 are grouped into five divisions. Male prisoners are assigned to Divisions 1, 2, 4, and 5, whereas female prisoners are assigned to Division 3. Each division is sub-divided into units. Division 1 has approximately 12 units. Divisions 2 and 3 each have around 10 units, while Division 4 has around 4 units, and Division 5 has around 3 units. There is also a unit of undernourished prisoners.¹¹

According to former detainees, female prisoners were introduced to *Kyo-hwa-so* No. 12 starting in late 2007 and soon numbered approximately 1,000, of whom approximately 80% had reportedly been forcibly repatriated back to North Korea from China.¹² Former prisoners report that though these female prisoners were originally housed in the main prison, as their numbers increased, an annex or "Women's Section" (Division 3) was constructed prior to 2010 (Figure 14).¹³

11. KINU2016, pp. 81-82.

12. HG4, pp. 12-27.

13. It should be noted that as written some former prisoner accounts confuse the original construction of female housing within the main prison compound during 2007-2008 with the construc-



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Satellite imagery more closely identifies the construction of the “Women’s Section” to the period between February and August 2009. This rectangular walled annex measures approximately 46 meters by 128 meters (50 yards by 139 yards) and encompasses approximately .6 hectares (7,000 square yards). Unlike the original prison compound, the “Women’s Section” does not have any visible garden plots.

Former prisoners report that this Women’s Section has a division leader, a secretary, doctor, three female managers, and is “...divided into work units for tree and log cutting, agricultural production (beans, potatoes, and corn), livestock or animal husbandry, cooking (for the prisoners), which are the typical prison work units, plus a wig-making unit and an eyelash-making unit.”¹⁴ These same reports contain detailed information concerning the internal layout of the women’s section and, while satellite imagery cannot determine the precision of these statements, the overall layout and dimensions provided very closely match the imagery.¹⁵

tion of the separate “Women’s Compound” during February-August 2009.

14. Ibid. p. 17.

15. *KINU2016*, pp. 81-82.

In its present configuration, the expanded prison facility itself occupies a generally rectangular shaped area that measures approximately 188 meters by 128 meters (205 yards by 139 yards) and encompasses 2.406 hectares (28,780 square yards).¹⁶ It is surrounded by an approximately three-meter-high wall with two entrances (one for the main compound and one for the annex). There is no gate connecting the two compounds. Built into the wall are four elevated guard positions, one of which may have been abandoned as it no longer has a roof (Figure 15).

Former detainees have reported different population figures over time for *Kyo-hwa-so* No. 12. For example, 1,300-1,500 during 1998-1999, 1,700 during 2003-2006, and 5,000 (1,000 women and 4,000 men) during 2008-2010. Although satellite imagery cannot confirm former detainee population estimates, the physical footprint of the prison suggests that if the more recent figures are even somewhat accurate, then the facility is overcrowded by most foreign standards.

Areas 7-11, Mining Activity

Satellite imagery collected from 2002 through 2015 confirms former prisoner

16. These measurements should be viewed as close approximations since the facility is not a rectangle with 90° corners and they were derived from 50 cm ground sample distance satellite imagery.

reports about the presence of a copper mine in the valley south of *Kyo-hwa-so* No. 12 (Figure 16). This mining facility consists of four major components: a waste pond, mine processing buildings, mine and prisoner housing, and support buildings.¹⁷ Former detainee Kim Won-gil identifies the mining activities to be the responsibility of prisoner Work Units 4, 5, and 6.¹⁸

At the entrance to the valley, 300 meters south of *Kyo-hwa-so* No. 12, is a waste pond covering 2.128 hectares (25,450 square yards) for the mine processing facility. This pond is impounded by an earthen dam erected from mine waste. Raw waste is delivered to the pond via ditch and pipe. Here it settles and then is dredged out and used to reinforce the dam. Sitting on the dam is a drag-line excavator that dredges the pond and maintains the dam. Given the visible condition of the waste pond and dam and proximity to the nearby stream, it is

17. At least one former detainee has reported that in addition to copper mining, *Kyo-hwa-so* No. 12 was involved in the extraction of limestone. *KINU2014*, pp. 139-143. Another report states that the mine separates copper and gold out of the ore. *2015 White Paper on North Korean Human Rights*, (Seoul: Database Center for North Korean Human Rights, December 2015), p. 426.

18. *HG2*, pp. 85-89. *KINU2015*, pp. 80-84 appears to provide a somewhat different description of the Work Units.

likely that contaminants are present in the water downstream. This, in turn, raises the concern for possible health issues for persons living and working along the stream. On the south side of the waste pond is an approximately 4.3-meters-tall and 2-meters-wide structure that may be an abandoned guard tower or a smoke-stack from a razed structure.

Approximately 570 meters south of the waste pond is a small ore processing facility consisting of a storage tank, four processing buildings, and eight support and housing structures (Figure 17). This facility was surrounded by a security fence and three guard positions from 2003 to 2010 when the security fence was moved closer to the buildings. Between May and June 2015, it appears that the security fence may have been removed. Mine ore cars bring ore extracted from the nearby mine to the processing facility, where it is dumped, via a 370-meters-long electrified mine railway. Here the processing facility crushes the ore and produces copper products that are shipped out by truck (possibly to the rail station at P’ungsal-li, approximately 11 km to the north).

Between July and September 2011, a road was built connecting the processing facility to a mine 1.2 kilometers to the northeast. This mine appears to have



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been established in 2010, and to have been dormant soon after the road was completed, as the tailings pile appears to have remained of consistent size and shape since late 2011 (Figure 18).

Electricity for all the activities within the *Kyo-hwa-so* No. 12 area is provided via a small electric substation 180 meters south of the processing facility (Figure 19). Approximately 200 meters south and uphill of the ore processing facility is the mine portal and prisoner housing compound and a group of support buildings (Figure 20). The compound is approximately 135 meters long and 40 meters wide and covers .500 hectares (5,980 square yards). It is surrounded by a three-to-four-meter-wide triple wire security fence that is approximately three meters high and two guard buildings. This compound consists of a mine portal, large prisoner housing building, and three support buildings/sheds. It has two entrances—one for the mine ore carts and one for personnel/vehicles. Sometime between December 2010 and February 2013, the prisoner housing building was modified and currently measures 9.5 meters wide by 94 meters long. It is presently not possible to calculate the number of prisoners being housed within the building, as the details of the interior

layout are not available. Immediately south of the prisoner housing compound are several housing or support structures. It is interesting to note that though some former detainees from *Kyo-hwa-so* No. 12 make mention of prisoners from the main prison working at the mine, none has mentioned the mining activities specifically or this prisoner housing compound.

Area 12, Secure Explosives Facility

Approximately 230 meters south of the prisoner housing compound is a secured bermed facility, measuring 64 meters by 48 meters (69 yards by 52 yards), that is surrounded by a wire security fence and guard tower (Figure 21). This facility has two storehouses for explosives used in the mine and is typical of those seen at other mines throughout North Korea.

Area 13, Walled Compound

Approximately 800 meters up the valley from the explosives storehouses is a small walled compound measuring approximately 13 meters by 12 meters (14 yards by 12 yards) and containing one small building (Figure 22). Given its location and proximity to the agricultural fields spreading out to the south, it may be used for tool storage and/or a guard position when prisoners are at work in the fields.

Area 14, Razed Mining Facility

Approximately 800 meters to the east of the previous building, in a spreading agricultural area, are the remains of a small prison mining facility that was present in 2003. This activity consisted of an irregularly-shaped compound measuring approximately 83 meters by 85 meters (90 yards by 92 yards) and encompassing .597 hectares (7,140 square yards). It was surrounded by a double wire security fence with a single entrance, one external guard position, and approximately five buildings. Immediately adjacent to it was the mine portal, several support buildings, and a tailings pile. By December 2008, the facility had been partially razed. By February 2012, it had been completely razed. Between April 2014 and May 2015, what appears to be a livestock confinement building was constructed, and livestock can be seen near the stream below the mine tailings pile (Figure 23, Figure 24).

Area 15, Other Agricultural and Mining Activities

As noted above, examination of satellite imagery reveals the presence of numerous small and medium-sized cultivated fields located throughout the area (Figure 25). It is likely that many of

these were created by logging activities and, according to former prisoner statements, maintained by *Kyo-hwa-so* No. 12 prisoners. A former detainee identifies these agricultural activities to be the responsibility of prisoner Work Units 2 and 3, and the mining activities to be the responsibility of prisoner Work Units 4, 5, and 6.¹⁹ Additionally, there are several small mining and possibly quarrying activities throughout the area, almost all of which appear to be inactive or abandoned.

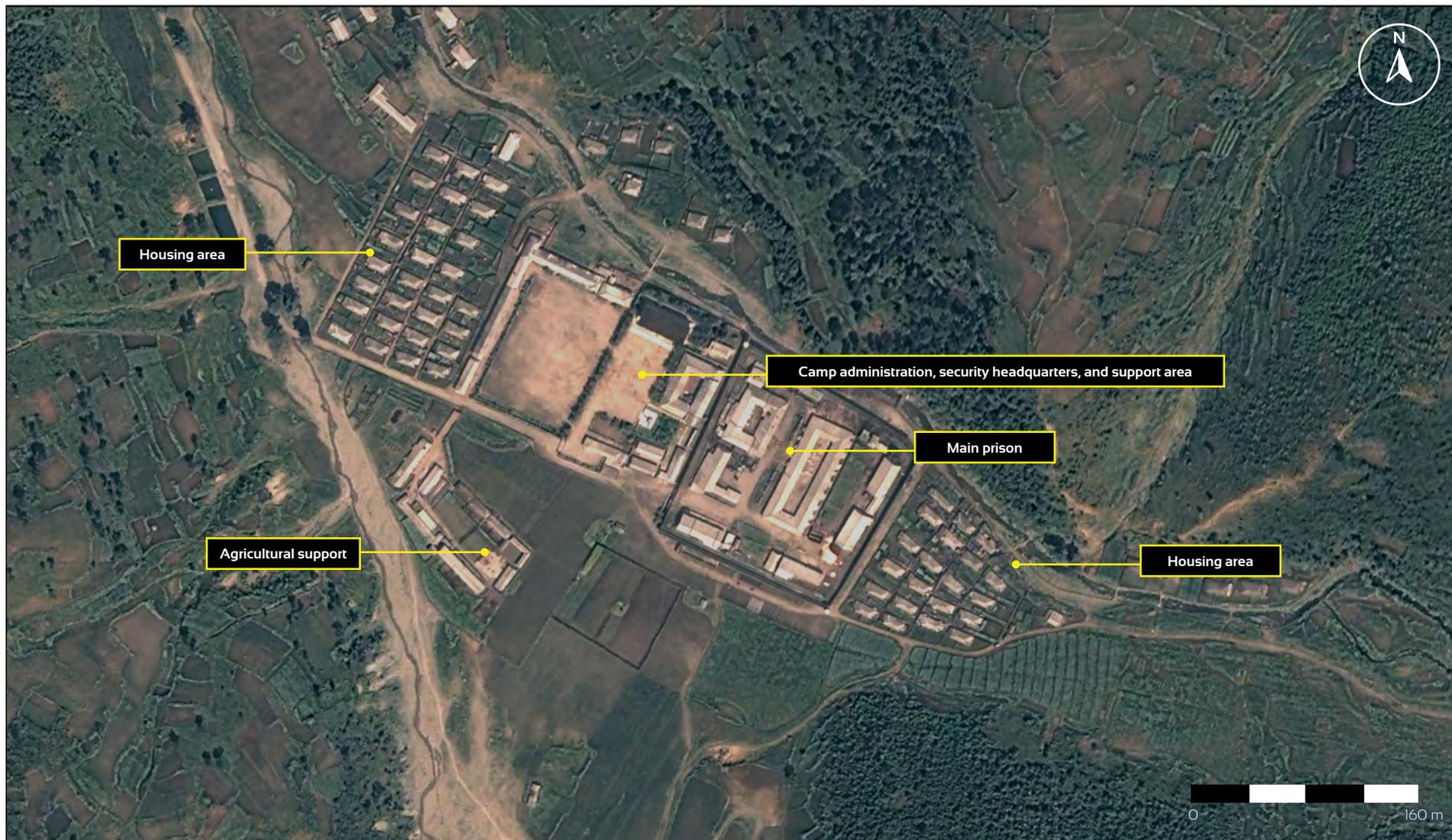
Area 16, Housing Area

At the point where the *Kyo-hwa-so* No. 12 road exits the valley and crosses the Hoeryöng-chön at Susang-dong, there is a small housing area (Figure 26). Between 2003 and 2008, the road past the area and leading to *Kyo-hwa-so* No. 12 was straightened and improved. Between February 2012 and February 2013, the road was washed out by flooding and never rebuilt. During this latter time period, the agricultural support area and threshing house were enlarged. As of June 2015, this area contained 39 housing units, a threshing house, and several agricultural support buildings. It is unclear if this area is related to *Kyo-hwa-so* No. 12.

¹⁹. HG2, pp. 85-89.



Figure 9



Area 4 - Kyo-hwa-so No. 12 administration, security, and main prison area, July 12, 2003. (42.2104 N, 129.7548 E)



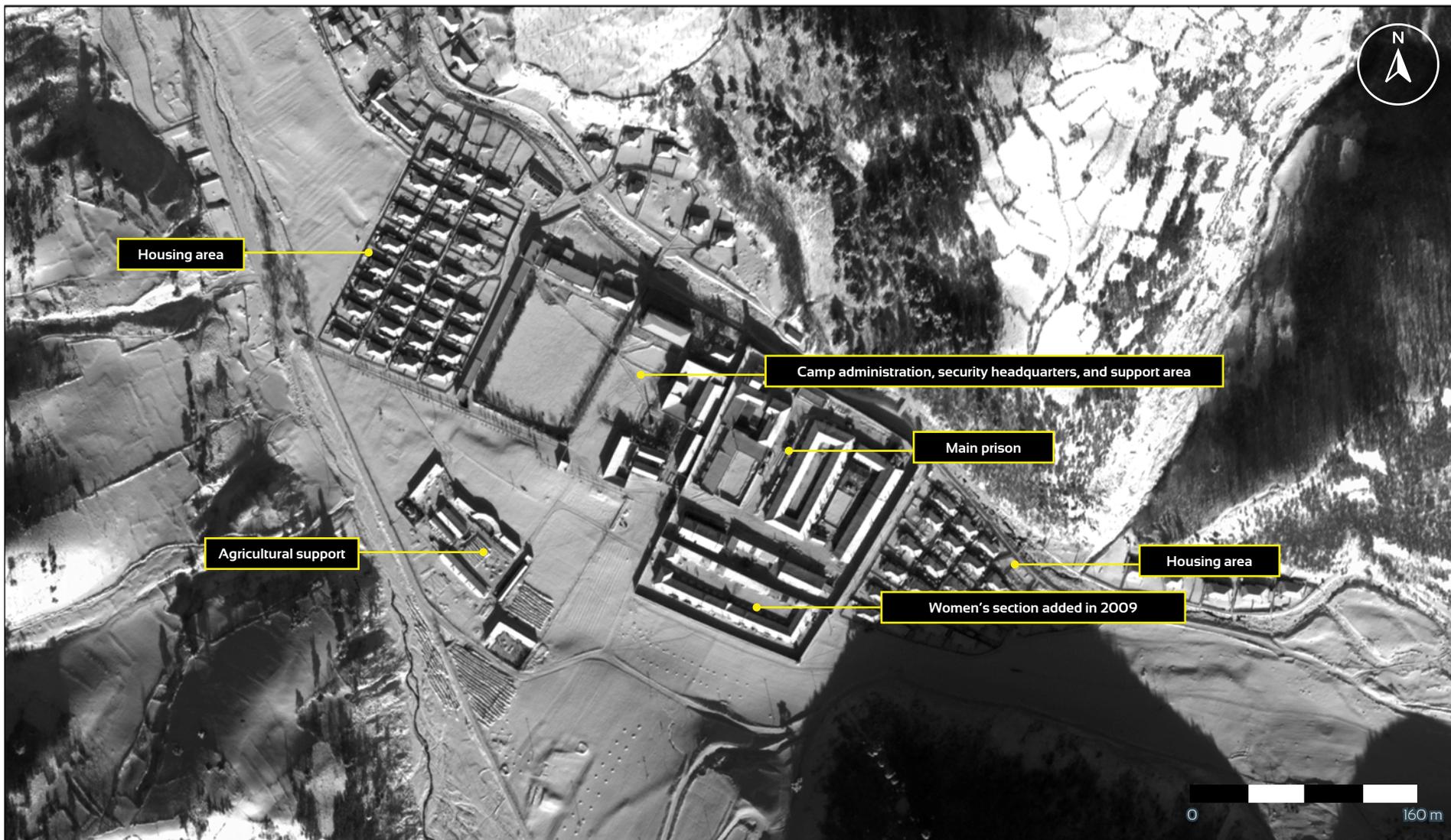
Figure 10



Area 4 - Kyo-hwa-so No. 12 administration, security, and main prison area, December 26, 2008. (42.2104 N, 129.7548 E)



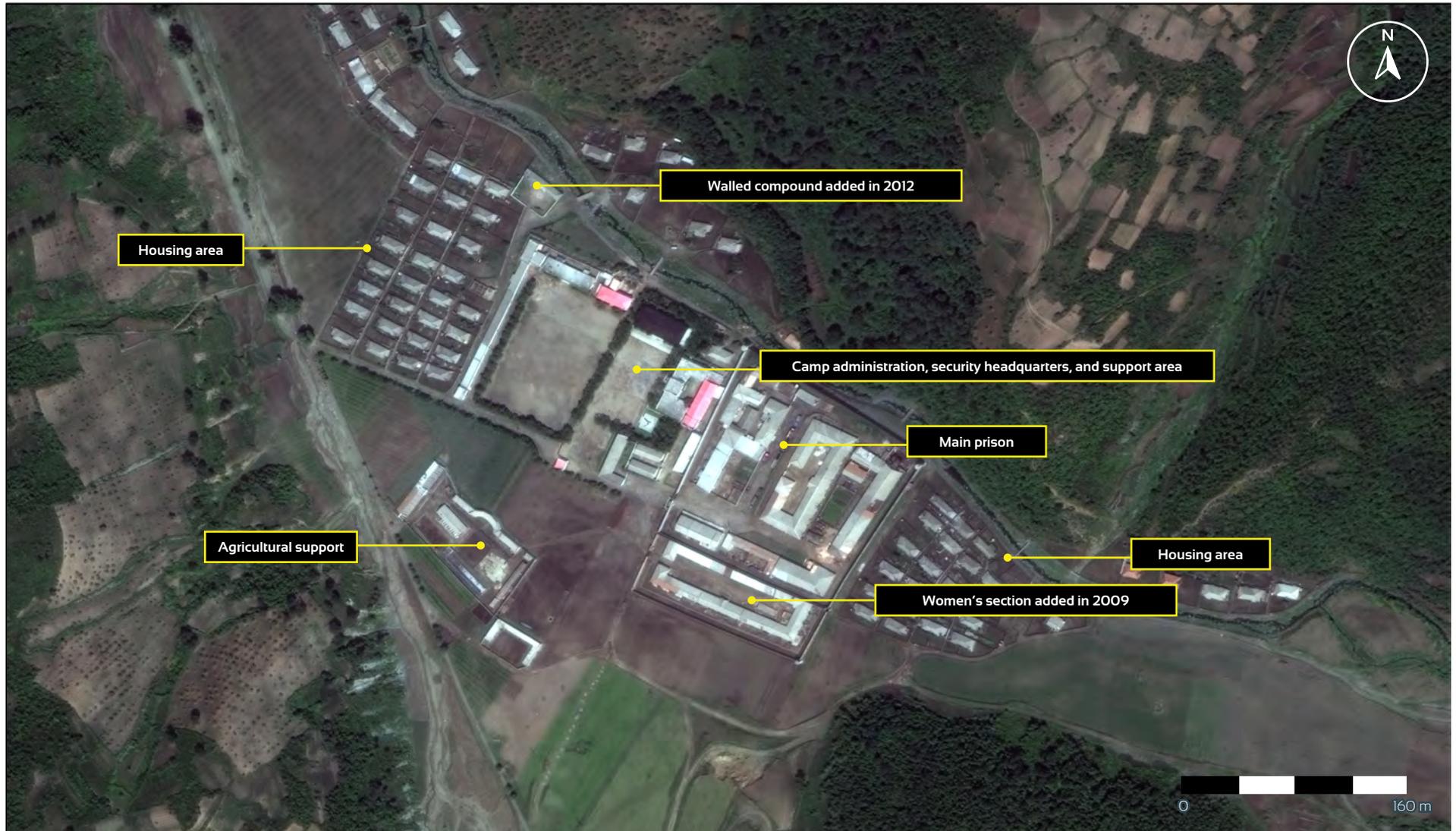
Figure 11



Area 4 - Kyo-hwa-so No. 12 administration, security, and main prison area, December 9, 2010. (42.2104 N, 129.7548 E)



Figure 12



Area 4 - Kyo-hwa-so No. 12 administration, security, and main prison area, June 30, 2015. (42.2104 N, 129.7548 E)



Figure 13



Area 5 - Kyo-hwa-so No. 12's main prison facility, June 30, 2015. (42.2099 N, 129.7557 E)



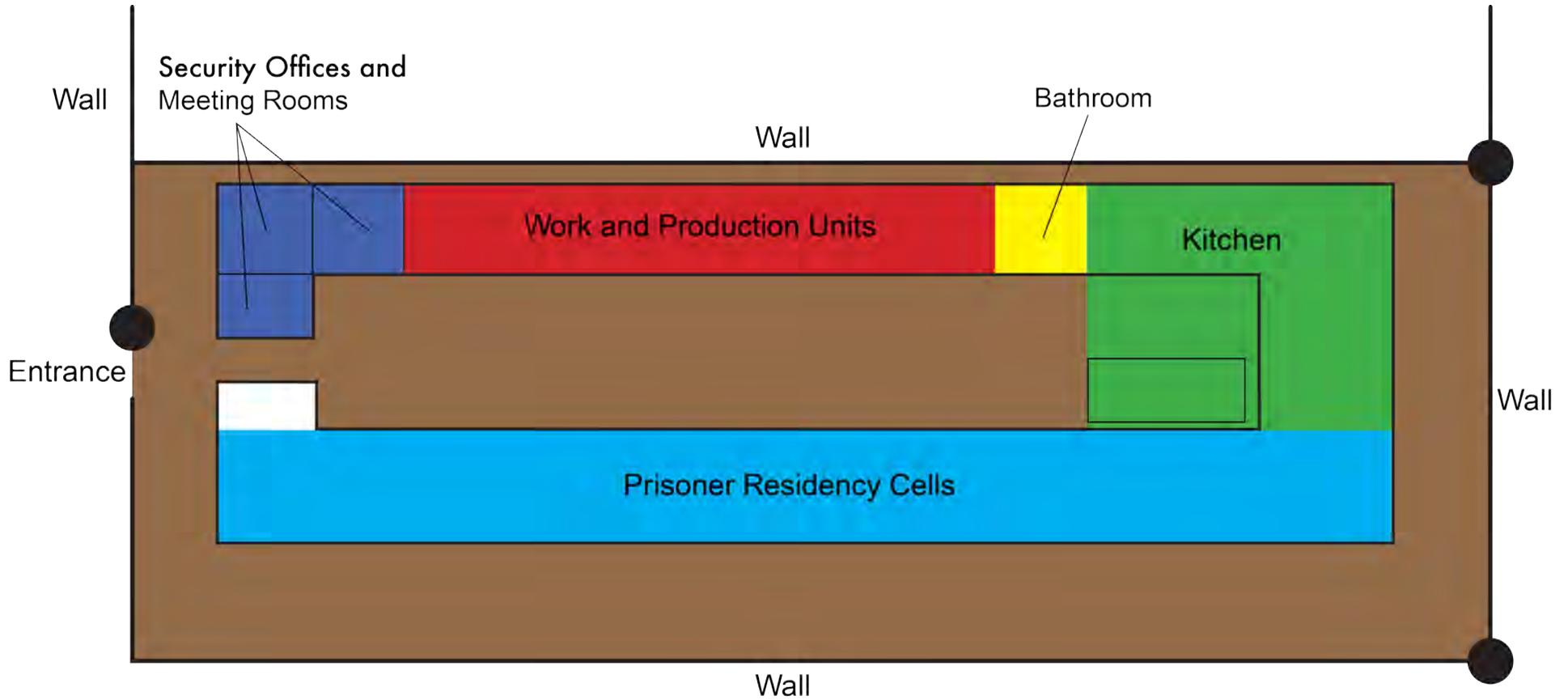
Figure 14



Area 6 - *Kyo-hwa-so* No. 12's "Women's Section," June 30, 2015. (42.2091 N, 129.7552 E)



Figure 15



Area 6 - Composite graphic of *Kyo-hwa-so* No. 12 Jöngö-ri "Women's Section" by Rosa Park, HRNK. (42.2091 N, 129.7552 E)



Figure 16



Area 7 - Copper mine waste pond, June 30, 2015. (42.2064 N, 129.7529 E)



Figure 17



Area 8 - Ore processing facility, June 30, 2015. (42.2014 N, 129.7552 E)



Figure 18



Area 9 - Dormant mine, June 30, 2015. (42.2061 N, 129.7592 E)



Figure 19



Area 10 - Electric substation, June 30, 2015. (42.2061 N, 129.7592 E)



Figure 20



Area 11 - Mine portal and prisoner housing, June 30, 2015. (42.1993 N, 129.7586 E)



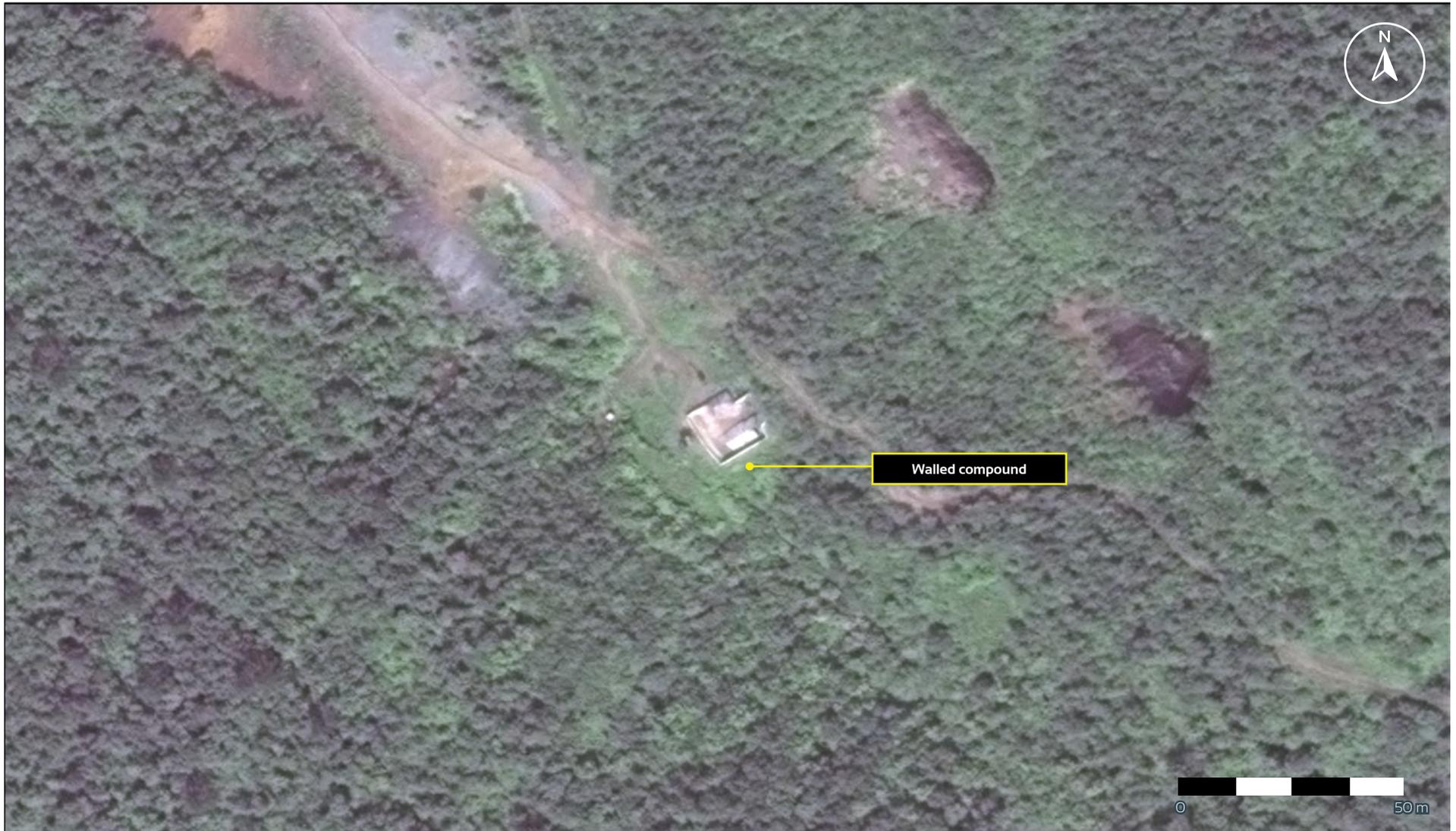
Figure 21



Area 12 - Secured explosives storehouse, June 30, 2015. (42.1972 N, 129.7602 E)



Figure 22



Area 13 - Walled compound, June 30, 2015. (42.1950 N, 129.7638 E)



Figure 23



Area 14 - Prison mine activity, July 12, 2003. (42.1948 N, 129.7738 E)



Figure 24



Area 14 - Livestock confinement building and abandoned prison mine activity, June 30, 2015. (42.1948 N, 129.7738 E)



Figure 25



Area 15 - Small mining and agricultural activities like those shown here are scattered around *Kyo-hwa-so* No. 12, June 30, 2015. (42.2099 N, 129.7672 E)



Figure 26



Area 16 - Housing area near Susang-dong at the beginning of the road that leads to *Kyo-hwa-so* No. 12, June 30, 2015. (42.2275 N, 129.7321 E)



North Korea: Imagery Analysis of *Kyo-hwa-so* No. 12, Jöngö-ri

Area 17, Jöngö-ri Rail Station

The camp is connected to the national rail network via the stations at P'ungsal-li, 4.3 km north of the facility, and the town of Jöngö-ri, 2.5 km southwest (Figure 27).

Assessment

Observations and analysis derived from satellite imagery collected by DigitalGlobe, Airbus Defense and Space, NASA's EO-1 from July 12, 2003 through May 24, 2015, NASA's Landsat from May 27, 1976 through June 6, 1984, and USGS declassified KH-4, combined with former prisoner statements and other publicly available information, indicate that:

- ▶ The *Kyo-hwa-so* No. 12 prison facility was established between 1980 and 1983 and has operated as such since that time.
- ▶ The prison was expanded between February and August 2009 with the addition of a rectangular walled annex for female prisoners. By North Korean standards, *Kyo-hwa-so* No. 12 is a small and well-maintained facility as is indicated by agricultural activity, mining activity, and maintenance in and around the camp's various facilities.
- ▶ Prisoners detained at the camp are engaged in light industrial, agricultural, mining, and to a lesser degree, logging activities.
- ▶ Sometime prior to 2009, the camp's population increased as is evidenced by the construction of an annex for female prisoners between February and August 2009.
- ▶ At the same time, the administrative, support, and guard populations likely increased only slightly as is indicated by only very minor changes to the housing infrastructure.
- ▶ The administrative, barracks, housing, light industrial, and support structures throughout the camp appear to be well maintained and in relatively good repair. Additionally, the grounds around these structures and the road network supporting them are well maintained.
- ▶ The few livestock facilities within the camp are well maintained and show only minor signs of change.
- ▶ The camp appears to be connected to the regional electric power grid via buried high voltage power transmission cables that run from the town of Jön'gö-ri to a substation at the camp's mining facility. From here, power is distributed to various camp buildings via above ground power lines.

Recommendations

Continued monitoring of *Kyo-hwa-so* No. 12 is recommended to develop an objective baseline understanding of the camp's activities, maintain an evidentiary catalog of physical changes at the facility, update its status, develop more conclusive evidence of prisoner population size, and assist with the identification of possible human rights abuses.



Figure 27



Area 17 - Rail station at the town of Jön'gö-ri, June 30, 2015. (42.2056 N, 129.7266 E)



North Korea: Imagery Analysis of *Kyo-hwa-so* No. 12, Jöngö-ri

Gazetteer

Location	Latitude (N)	Longitude (E)
<i>Kyo-hwa-so</i> No. 12	42.209410	129.755100
Chön'göri-yök (Rail station)	42.205000	129.725278
Hoeryöng-si	42.442778	129.750833
Jöngö-ri (Town)	42.203056	129.724722
Kalmadök	42.187500	129.743889
Kolchön'gö-ri	42.208889	129.755278
Musal-li (Musan-dong)	42.211667	129.752222
P'ungsal-li	42.253333	129.758333
Sin-bong	42.194167	129.790278
Susang-dong	42.234167	129.735556



THE COMMITTEE FOR
HUMAN RIGHTS IN NORTH KOREA
북한인권위원회

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