



Parchin Site Update and Debate

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Iran has continued to modify the Parchin military site alleged to have been involved in the research and development of nuclear weapons. Modification activities continued or resumed after the July 14, 2015 finalization of the Joint Comprehensive Plan of Action (JCPOA). The extensive modifications that have taken place over the last three years represent a challenge for the IAEA to conduct effective verification, in particular to detect uranium and link it to the alleged nuclear weapons related activities. In this report, we also include our response to several recent criticisms of our analysis of Parchin. To substantiate our response, we sought the assessment of an independent expert in analyzing satellite imagery, who agreed with our analysis and subsequent response to these criticisms and in fact strengthened it.

An August 5, 2015, [Bloomberg article](#) revealed that the U.S. intelligence community had identified new activity at a suspect site within the Parchin military complex. The site is alleged to be the location of tests related to the development of nuclear weapons. One allegation concerns the testing of a uranium deuteride neutron initiator for a nuclear explosive carried out in a high explosive chamber. Such initiators contain tiny amounts of uranium, typically several grams. According to the Bloomberg report, “satellite imagery picked up by U.S. government assets in mid- and late July showed that Iran had moved bulldozers and other heavy machinery to the Parchin site.” The intelligence officials reportedly worried that “the Iranian government was working to clean up the site ahead of planned inspections” by the International Atomic Energy Agency (IAEA). The concern is that the activity could undermine the IAEA’s ability to conduct verification. Members of Congress who were briefed on the matter by intelligence officials confirmed the activity and the concern publicly and to Bloomberg.

In parallel to the Bloomberg article, we acquired and analyzed commercial satellite imagery of the Parchin site taken before and after the negotiation of the JCPOA between Iran and the P5+1, which was finalized on July 14, 2015. Imagery from July 26, 2015 [showed](#) new signs of activity that were absent from imagery taken right before the JCPOA was finalized. We highlighted that this renewed activity occurring after the signing of the JCPOA raised obvious concerns that Iran was conducting further sanitization efforts to defeat IAEA verification (see figure 1). This possible sanitization activity has been ongoing at Parchin since February 2012 and it started after the IAEA requested to visit this site.

On August 27, 2015, the IAEA [reported](#) in its Iran safeguards report that it had continued to observe “through satellite imagery, the presence of vehicles, equipment and probable construction materials” at a particular location at the Parchin military complex. The IAEA also observed that “a small extension to an existing building appears to have been constructed.” This finding supports ISIS’s August 5, 2015 analysis that Iran had renewed activities at Parchin soon after the July 14 signing of the JCPOA and the intelligence community’s identification of new activity.

The IAEA has regularly reported in its safeguards reports that Iran's modifications at the Parchin site undermine its ability to conduct effective verification. In practical terms, with such extensive modifications, the concern is that environmental sampling cannot both detect the presence of uranium and link that uranium to alleged work on nuclear weapons. This effort is now further complicated by the recent Iran/IAEA agreement on Parchin.

The IAEA and Iran have not made this agreement public, although the IAEA could release this agreement to member states under its existing rules. It should do so for the sake of transparency. The IAEA has stated that these types of agreements are typically confidential or secret. Under its mandates, the IAEA has over time applied a great deal of secrecy to safeguards information, including arrangements between it and states. However, in the case of Iran safeguards, the IAEA has been far more transparent about safeguards-related information and documents than in almost all other cases. Iran has complained about this transparency for years, accusing the IAEA of all sorts of violations of confidentiality in reports filed with the IAEA. Despite these protests, the IAEA has steadfastly acted to make Iranian/IAEA information available to member states and the media, because of the intense interest of the IAEA's Board of Governors, the United Nations Security Council resolutions on Iran, and world media. In that tradition, it is unusual to keep secret the Parchin deal.

Nonetheless, despite its confidentiality, key aspects of this agreement have become public. This agreement does not contain proprietary or security information. It does contain potentially embarrassing information, as this debate has shown. As discussed above, it varies with the transparency typically associated with the Iran case during the last decade. Given that the secrecy is unjustified to many, public revelations about this agreement are not surprising. Its contents have been revealed by members of Congress and investigative work by the Associated Press, which reviewed and transcribed the draft agreement and subsequently confirmed that the final agreement closely matches the draft one. Under this agreement, the IAEA will determine environmental sampling sites via Iranian-operated videotaping and without the physical presence of IAEA inspectors at the potential sampled locations. Moreover, the agreement allows the Iranians to collect the samples, again without the physical presence of inspectors, although the inspectors would choose the locations aided by the videos and likely other information. This arrangement is weaker than the IAEA's traditional method of taking environmental samples.

The new approach outlined in the Parchin agreement revealed by the Associated Press opens additional possibilities for Iran to defeat environmental sampling. In a situation where extensive modifications have occurred, environmental sampling is challenging. Choosing sampling locations requires great care, and videotaping may be inadequate to determine these locations effectively. Unclear is how the IAEA can expect to find vulnerabilities, such as inadequately painted surfaces, and determine remotely where to take a very limited number of samples. Defeating Iran's sanitization efforts is challenging if the inspectors are not physically present beforehand.

This approach also creates dangerous precedents, whether or not uranium is found. First, it sets a precedent for accessing other sites at Parchin or additional military facilities this fall as the IAEA seeks to resolve its concerns about Iran's alleged work on nuclear weapons. What happens if, during the implementation phase of the JCPOA, a new issue arises, and the IAEA again demands access to a site within the Parchin military complex? Would the same type of agreement apply here as well? Iran could also insist on the same type of arrangement at the other sites associated with the IAEA's investigation of past military nuclear activities. After Implementation Day under the JCPOA, Iran could also use this

Parchin precedent to demand a similar approach to environmental sampling if the IAEA requests access to a suspect military site. Although most would argue that Iran would not be justified in invoking this method after Implementation Day, Iran could nonetheless demand this arrangement. It would not be the first time Iran either violates safeguards or pushes the envelope of what is allowed under safeguards agreements. In a confrontation over access to a suspect military site, Iran could insist on this method and seek to gain the support of Europeans in any vote over enforcement of access under the JCPOA. To win, Iran would need to convince only one of the E3 (Britain, France, and Germany), assuming that Russia and China would likely side with Iran. These countries would face a very difficult trade-off: accepting this method, which the IAEA accepted on the highly controversial Parchin case, or losing growing and potentially lucrative business in Iran if sanctions snapped back. The pressure to accept an arrangement that was viewed as acceptable by the E3 earlier could overwhelm a U.S. push to snap back sanctions.

The Parchin agreement undermines arguments that the verification standards of implementing and carrying out the JCPOA will be as or more rigorous than other non-proliferation agreements. Nonetheless, we and many others hope that the impending sampling at Parchin can help resolve this contentious issue. However, we remain concerned that the Parchin agreement could be a presage of the undermining of the IAEA's ability by its December 15, 2015 deadline to address its concerns about past and possibly on-going Iranian work related to nuclear weapons. Later, the precedent of the Parchin deal could weaken the IAEA's ability to verify the JCPOA.

For all of these reasons, the IAEA needs to demonstrate during the next months as the JCPOA is implemented that it can access Iranian military sites and conduct effective verification of the allegations of Iran's past nuclear weapons work. A start is to release the Parchin agreement to member states, followed by gaining access to the suspect Parchin site, other military sites associated with past nuclear weapons work, and key scientists and engineers linked to those efforts. Weakened transparency measures now will only haunt the IAEA and P5+1 as the deal is implemented.

Revisiting Satellite Imagery Analysis of Parchin Site

Following the publication of our recent analysis, some supporters of the JCPOA raised several questions about our assessment and, by implication, the U.S. intelligence community report. We wanted to share our review of these criticisms or concerns, as they shed further light on the Parchin site and efforts to resolve this complicated issue. We found that many of these analysts were depending on the work of Robert Kelley, who several years ago was a consultant to ISIS and co-authored reports with ISIS staff. Staff have also cooperated with him on several technical issues over the past two decades, including on the aluminum tubes in 2002, where we agreed, and the Syrian reactor analysis in the fall of 2007, where we disagreed. Because of this past relationship, we have been reluctant to engage in direct criticism of him during the last few years. But because his work is so fundamental to many of the recent criticisms of our satellite analysis on Parchin, we felt no other choice but to publish a comprehensive review of his recent work on Parchin.

Our review also includes analysis of reporting by Jonathan Tirone of Bloomberg Business. It also touches on the erroneous claims that the foreign national linked to the Parchin site by the IAEA, namely V.V. Danilenko, was not knowledgeable about nuclear weapons and that his nanodiamond work did not rely in any way on nuclear weapons experience and knowledge.

Activity at Suspect Site vs. Roadwork Elsewhere: An Attempt to Deliberately Confuse?

The first misrepresentation of critics was frankly surprising and involved misidentifying what was at issue. They confused activity at the suspect site with activities relating to construction elsewhere. This mistake started innocently enough with the Iranian mission to the UN's statement that *"During the past week, and due to sinking in part of the road running opposite the Mamloo Dam, which is in the vicinity of the Parchin Military Complex but detached there from, extensive construction works have been underway to repair the road. These works required the use of heavy bulldozers and other heavy construction machinery in the area."*¹ Given that satellite imagery did not support this claim, we issued a [second report](#) in which we highlighted that the site linked to high explosive work related to nuclear weapons is about three kilometers south of the dam, meaning there are three kilometers worth of space, areas, locations, and parking lots to park vehicles between the dam and the site at issue (see figure 2). Given the large number of places between the suspect site and the dam where these vehicles could have been parked, we assessed that the Iranian claim did not make sense, i.e. that the construction vehicles were inadvertently parked at the suspect site despite their presence being sure to increase the concern of the IAEA and all the major governments of the world. We provided an example of a parking lot with 20 vehicles midway between the dam and the suspect site that would have been just as suitable for parking the vehicles and would not have raised any suspicion.² Jonathan Tirone at Bloomberg Business (not to be confused with the original Bloomberg article) initially [claimed](#) in a report that we called this parking lot north of the suspect site a site of concern. We did not. Tirone confused the vehicles present at the suspect site with this parking lot. The editors of Bloomberg Business on August 13 informed us in an email of their intention to correct the story and add our concerns, which they did. It is also worth noting that the Iranian road work claim did not explain the presence of activity on the roof of two buildings at the suspect site and a new extension to one of the buildings.

Robert Kelley's Trilogy of Wrong, Unsubstantiated, and Substandard Analysis

On August 12, 2015, Robert Kelley of the Stockholm International Peace Research Institute (SIPRI) published a misleading report in IHS Jane's 360. In this report, Kelley made a series of wrong and misleading statements. This article is no longer available online because it has been modified and re-published as an update. However, ISIS assessed the original article, and earlier ones in other publications, and following is a list of the wrong and misleading statements present in it:

- Kelley opened by stating that *"the US intelligence community has leaked fresh claims that Iran is attempting to 'sanitize' its Parchin weapons production facility ahead of inspections by the IAEA"* and concluded by stating that *"the timing of its release appeared to be part of a coordinated attempt to undermine confidence that Iran will adhere to its commitments under the Vienna agreement"* and finally judged these claims as *"an inept attempt to defame Iran."* (He goes even further in another [article](#), titled "Bad Intelligence Leading Us to War Again?" published by LobeLog on August 13, 2015.) Here, he tries to imply (and mischaracterize) the situation as an elaborate effort to start a war.) Kelley basically states that the information from

¹ Mission of the Islamic Republic of Iran to the United Nations – New York, Press Release, August 5, 2015, <http://iranun.org/en/2015/08/06/press-release-3/>.

² It is possible that the Iranian mission's statement was referring to the presence of heavy machinery, trucks, and vehicles present at a construction site northwest of the suspect site where a new large pad, a new building, and a new road are being constructed. However, it is unlikely that this is the activity the U.S. intelligence community was referring to since this construction has been ongoing since August 2014. Instead, it is likely that the mission used this construction site as an excuse for the presence of the heavy machinery and equipment detected by the intelligence community and reported to Congress. The ultimate purpose of this new construction is unknown.

the U.S. intelligence community was a non-sanctioned leak by intelligence officials to harm the JCPOA. In fact, the information was presented in briefings to the Hill and represented official U.S. analysis and concerns, subsequently supported by ISIS's and IAEA analysis. His insinuations were at best unsubstantiated and showed a poor understanding of the available information;

- Second, he tried to cast doubt that the site we had identified as the suspect building was the one of interest to the IAEA. We confirmed long ago with official sources when we first began acquiring and assessing imagery of the Parchin site that the building we identified was the correct one. Kelley states that the identification of the building was never confirmed by the IAEA or any government. He is wrong. Prior to our first publication on this site, a senior IAEA official confirmed the site as the correct one. Subsequently, many government officials have also confirmed the site as the correct one. Also, it is worth noting that satellite imagery signatures contained in the Annex to the 2011 IAEA report and subsequent reports match precisely those of the site we have identified. For example, paragraph 49 of the Annex to the 2011 report states that *"A large earth berm was subsequently constructed between the building containing the cylinder and a neighbouring building, indicating the probable use of high explosives in the chamber,"* and in the most recent report the IAEA observed that *"a small extension to an existing building appears to have been constructed."* Both these and many other signatures observed by the IAEA and published in its quarterly reports were also highlighted in our analyses. Therefore, we have high confidence that the site we identified is the correct one and view Kelley's comments at best as uninformed.
- Earlier, in a December 2014 [article](#), Kelley tried to argue that the location of the site was not compatible with the high security, safety, and remoteness needed for such a site. He claimed that the site is located next to a major highway, inside just the first level of security, and it is *"easily accessible to anyone who simply has business to conduct there without the kind of high-security clearances one might expect to approach the potentially sensitive chamber site."* None of these statements are true. An analysis of satellite imagery shows that the road is not a highway, rather a smaller road that, by the way, is heavily controlled by guards posted at evenly spaced towers all along the road. In addition to guarded entrance gates at the site, there are three checkpoints one needs to go through in order to access the site from the north and three checkpoints to access from the south (see figure 3). Again Kelley's analysis misses important characteristics of the site and is wrong.
- It is also worth noting that Kelley claims in the original Jane's article that an extension to a building (see figure 1) is simply a sunshade while imagery clearly shows it is not. It is a small annex to the building. This extension is likely the one discussed by the IAEA in its more recent safeguards report on Iran and the one ISIS first highlighted in a July 12, 2015 image.
- In the Jane's article, Kelley disputes the link between the activities that have taken place since 2012 and sanitization. Kelley argues that all the activities undertaken at the suspect site over the past years cannot be aimed at sanitization because *"attempting to sanitize a site this way is pointless because the IAEA relies on sensitive environmental sampling techniques that can find infinitesimal quantities of uranium particles."* For this reason, he dismisses the importance of the other signatures of activity taking place at the site. He ignores the IAEA's frequent statements of concern that the Parchin site alterations have been undermining its ability to conduct effective verification. He also ignores his experience at the IAEA which should have informed him that environmental sampling can be defeated by modifications. As a critic of the IAEA's sample taking at the Syrian reactor site, one has to wonder if his statement is really meant sarcastically. He is well known to have retired from the IAEA with negative views about aspects of the IAEA's work and personal resentments towards some senior officials in the IAEA.

At ISIS, we experienced his drive to carry on battles he lost while at the IAEA into the public debate after he retired and when he was a consultant;

In the LobeLog [article](#) mentioned above, Kelley tried another misleading strategy. This time, he focused on one signature present in our analysis, the type of the two vehicles parked at the suspect site, and stated that *“nothing else is going on anywhere else in the scene,”* despite the fact that we had pointed out new roof activity, a new extension to one of the buildings, signatures consistent with oil spills, and movement or small crates (all signatures that he had also pointed out in the first article). Kelley picked the vehicles out of all the other activity and asserted that they were passenger sedan automobiles or Jeeps commonly seen at Parchin, and were too small to move earth. In our analysis we stated that one vehicle presented signatures consistent with either a large vehicle or a small truck. Vehicles with similar signatures have been spotted at the site before. We then stated that the other vehicle presented signatures that were more consistent with a different type of vehicle, possibly a construction vehicle such as a bulldozer or a steamroller, because of the difference in height, width, color, and shape (larger front end). Moreover, the second vehicle does not appear to be of the same type. In its public statement (see above), Iran did not dispute that construction vehicles, including bulldozers, were parked at the suspect site at Parchin. By focusing on these vehicles in its statements, Iran implied that construction vehicles were at the suspect site. Kelley’s analysis that the vehicles are only sedans or Jeeps is not supported by the available information.

For the sake of argument, let us assume Kelley is correct that the vehicles at the site on July 26, 2015 were not construction vehicles. Is the analysis of one single image taken on July 26, 2015 sufficient to disprove the U.S. intelligence report that construction vehicles were at the site since the finalization of the JCPOA on July 14? We don’t think so. By August 4th, the Senate had already received an intelligence briefing highlighting activity at the site after July 14th. ISIS was only able to purchase commercial grade imagery dated July 12, 19, and 26. But construction vehicles could have been there on other days as well after July 14. Since U.S. intelligence agencies would have the site under near continuous surveillance, they would have imagery for many other days. This imagery is not available to Kelley, who mistakenly tries to use imagery from a few days to extrapolate to activities on all the other days when construction vehicles could have been there and there is no commercial imagery available. So, even if we are wrong about the construction vehicles on July 26, which we do not believe in any case, Kelley has not disproven the original Bloomberg report citing U.S. intelligence findings about construction vehicles at the site.

Likewise, on another issue, Kelley states that Iran has put pink insulation on the main suspect building; we assess that it was some type of tarp surrounding the building. An independent expert we consulted also believes that it was not pink insulation. He assessed that it was rather a membrane cover to contain the sanitization like a “tarp”. He thought it was likely semi-transparent pink plastic sheeting. But even if Kelley is right, the insulation makes the taking of samples on the old roof impossible. Kelley does not explain why Iran would be putting insulation on the outside of a finished building. Normally, insulation would be expected to be under a roof or outer structure of a building. If Kelley’s theory were true, there are only a few, albeit impractical, scenarios: the old roof and supporting walls were removed and carted away and then the insulation applied before putting on a new roof and outer walls, or somehow the insulation was put on top of the old roof and walls, and subsequently a new roof and walls were put over the insulation. In the former case, the old roof is gone and in the latter case, Iran would need to cut into the new roof structure, potentially damaging the roof and underlying structure. Such a possibility is unlikely to happen. We conclude that the tarp, or membrane, would allow Iran to conduct work hidden from view and contain sanitization efforts, and Kelley’s argument would mean in essence

that any uranium debris has been removed or has been covered by insulation and a new roof. Either way, the building has been modified in a significant manner that would undermine the ability of the IAEA to conduct effective verification. So, on balance, his criticism of our assertion about a tarp does not support his own view that sanitization has not occurred at the site.

On August 17, Kelley modified his first IHS Jane's 360 article. In this new version, he reiterates most of the above-mentioned misleading claims but, interestingly, corrects two points:

- He states that the article has been modified following our clarification of the argument regarding the significance of the vehicles parked at the parking lot north of the suspect site. Kelley had misrepresented this issue. (The Jane's 360 article's satellite image of this parking lot and its caption adds further evidence of the mistake.)
- He also modified the opening to state *"US government sources have leaked fresh claims that Iran is attempting to 'sanitize' its Parchin weapon production facility"* when he had previously stated the leak came from the intelligence community. So, is Kelley now implying that unspecified government officials are trying to sabotage the JCPOA (or even start a war, which he discusses in his article in the LobeLog?) Does he think the IAEA is also trying to do that by reporting on additional changes at the Parchin site in its latest safeguards report on Iran? We have to conclude that he is pandering to the supporters of the Iran deal who are concerned about a repeat of the Iraq war and its false premise of finding WMD in Iraq. However, Kelley offers no evidence of his claim, and is unable to identify who is trying to start this supposed war.
- He also dropped at least one insinuation that the site was not the correct one, retreating to the statement that neither the IAEA nor any government has confirmed "publicly" that the site is the right one. With regard to this backtracking, one has to ask if *Jane's* exercises journalistic integrity or is a purveyor of poor assessments. Kelley could have easily asked the IAEA or governments about this site, and Janes and LobeLog editors would be expected to ask for such confirmation, or at least ask us about why we thought this was the right site. We have never had trouble obtaining such confirmation. This episode adds weight to the criticism that these journals are publishing poorly reviewed, unreliable information.

Dangers of Extrapolating Information from a Partial Set of Imagery

This is not the first time some analysts have mistakenly extrapolated information from a partial set of imagery. Earlier some analysts falsely suggested that none of this activity at Parchin matters because Iran had never modified the west side of the main suspect building. More specifically, in an inaccurate and misleading Reuters [article](#) recently published by Yousaf Butt, Kelley stated that *"The fact that the building's immediate vicinity has been largely untouched on the west side strongly suggests that the purpose of the earth-moving operations was for construction and renovation work and not for 'sanitizing' the site by covering up contamination."* With only a small set of imagery available, they have asserted that this lack of activity west of the suspect building meant that Iran could not be sanitizing the site. These critics base their analysis on a small set of imagery, covering only a relatively few days in total, and refuse to consider that any clean-up activities could have happened on the vast number of days when commercial satellite imagery was not available. To further check out this claim, we decided to examine all of our imagery on Parchin. Given that we have been monitoring the site for several years we have access to a larger set of imagery of the site compared to Kelley and others. We compared an image of the site taken in August 2004 to another image from early 2013. The comparison shows substantial ground modification work, apparently including earth scraping and moving, occurring just west of the suspect building and outside the site perimeter (see figure 4). Iran could have conducted additional modification work, if needed, in the surrounding area, including on the western escarpment, on the many days when satellite imagery is unavailable. It should also be noted that sanitization work

does not need to leave long-term visible traces, as construction work can do. Thus, a historic analysis of imagery shows that modifications have occurred west of the suspect building and additional modifications could have occurred elsewhere west of the suspect site.

Danilenko and Urban Myths

Another case of poor analysis involves claims made by Gareth Porter concerning the former Soviet nuclear weapons expert V.V. Danilenko. The IAEA has linked him to designing the explosive chamber at the Parchin site and otherwise aiding Iranian high explosive work suspected to be linked to the development of nuclear weapons.³ Porter and a few others have tried to assert that Danilenko was ignorant of classified nuclear weapons information and data and that his work on creating nanodiamonds with high explosives did not involve knowledge of nuclear weapons. We have addressed his nuclear explosive background in an earlier report;⁴ here, we want to focus on his work on nanodiamonds. According to Danilenko himself, when discussing his work on nanodiamonds in the Soviet Union:

At that time, experiments aimed at methods for diamond synthesis were highly classified because they depended on considerable knowledge applicable to the design of nuclear weapons. For security reasons, the methods were initially contained only in secret reports from the VNIITF [Chelyabinsk-70]. Only in 1987 were parts of those reports forwarded to other members of the diamond club. (From Danilenko, V.V. (2004). On the History of the Discovery of Nanodiamond Synthesis, Physics of the Solid State, 46(4), 595-599. See ISIS report [here](#).

When asked about this quote, Gareth Porter emailed that he had not seen the full quote before. Based on Porter's extensive investment in claiming that Iran did not have a nuclear weapons program and that Danilenko was a nanodiamond expert who knew nothing about nuclear weapons, we would not expect Porter to acknowledge that this quote contradicts his findings. But his acknowledgement of not knowing this quote shows that his analysis was based on incomplete knowledge of Danilenko's writings and in particular on not knowing of Danilenko's statement that directly contradicts Porter's claims.

Conclusion

In conclusion, **we understand that the Parchin issue is heavily politicized at the moment with regard to the JCPOA. However, it is disturbing that several JCPOA supporters have distorted the available information and promoted flawed analysis.**

Getting to the bottom of what happened at the Parchin site and other issues related to the possible military dimensions of Iran's nuclear programs is a critical part of the implementation of the JCPOA, including sanctions relief on Implementation Day. The misguided and fumbled efforts by certain analysts and deal supporters only spread misinformation and complicate that implementation.

³ Mark Gorwitz, "Revisiting Vyacheslav Danilenko: His Origins in the Soviet Nuclear Weapons Complex," September 17, 2012, ISIS, http://isis-online.org/uploads/isis-reports/documents/Gorwitz_Revisiting_Vyacheslav_Danilenko_17Sept2012.pdf; David Albright and Robert Avagyan, Revisiting Danilenko and the Explosive Chamber at Parchin: A Review Based on Open Sources, September 17, 2012, ISIS Report, <http://isis-online.org/isis-reports/detail/revisiting-danilenko-and-the-explosive-chamber-at-parchin-a-review-based-on/8>.

⁴ "Revisiting Vyacheslav Danilenko: His Origins in the Soviet Nuclear Weapons Complex," op. cit.

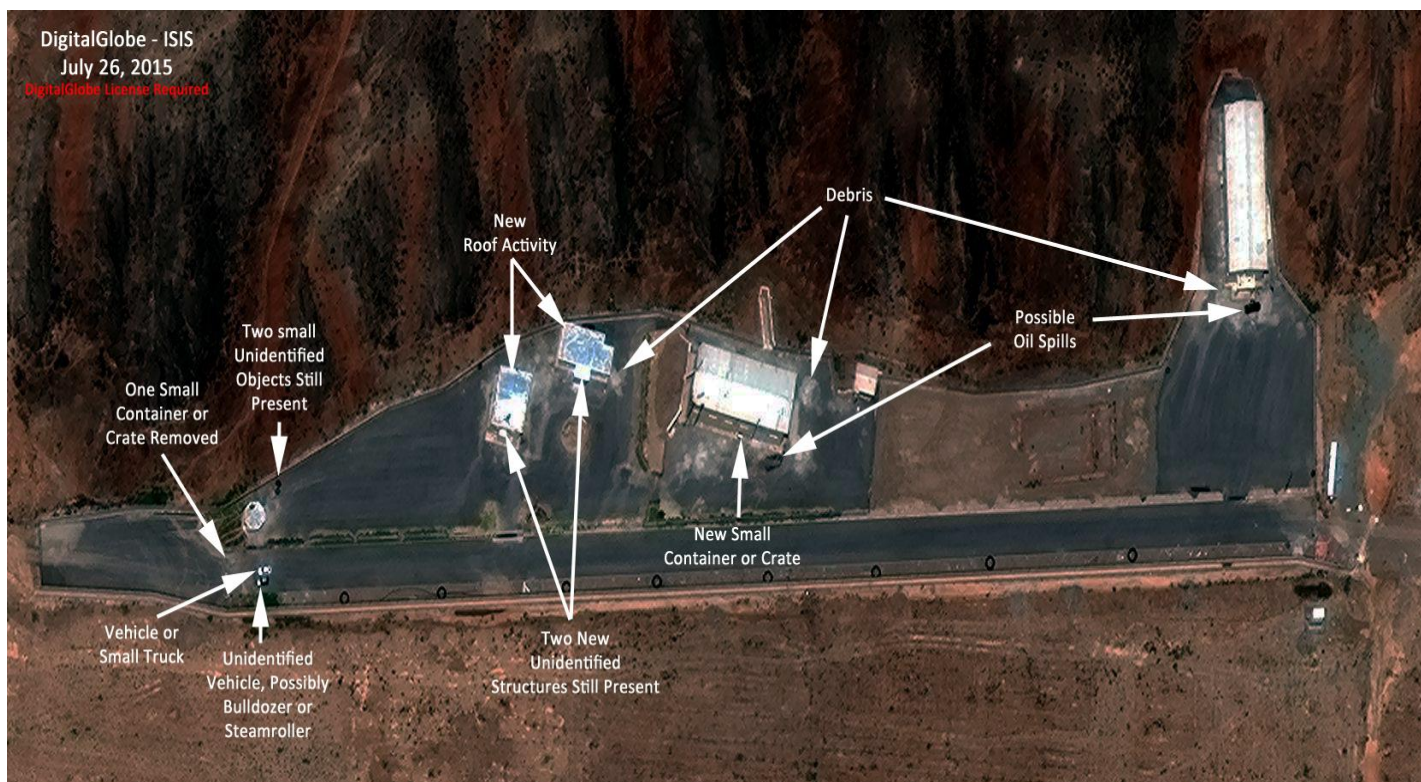


Figure 1. July 26, 2015 DigitalGlobe imagery showing renewed activity at a site at the Parchin Military Complex that has been linked to high explosive work related to the development of nuclear weapons.

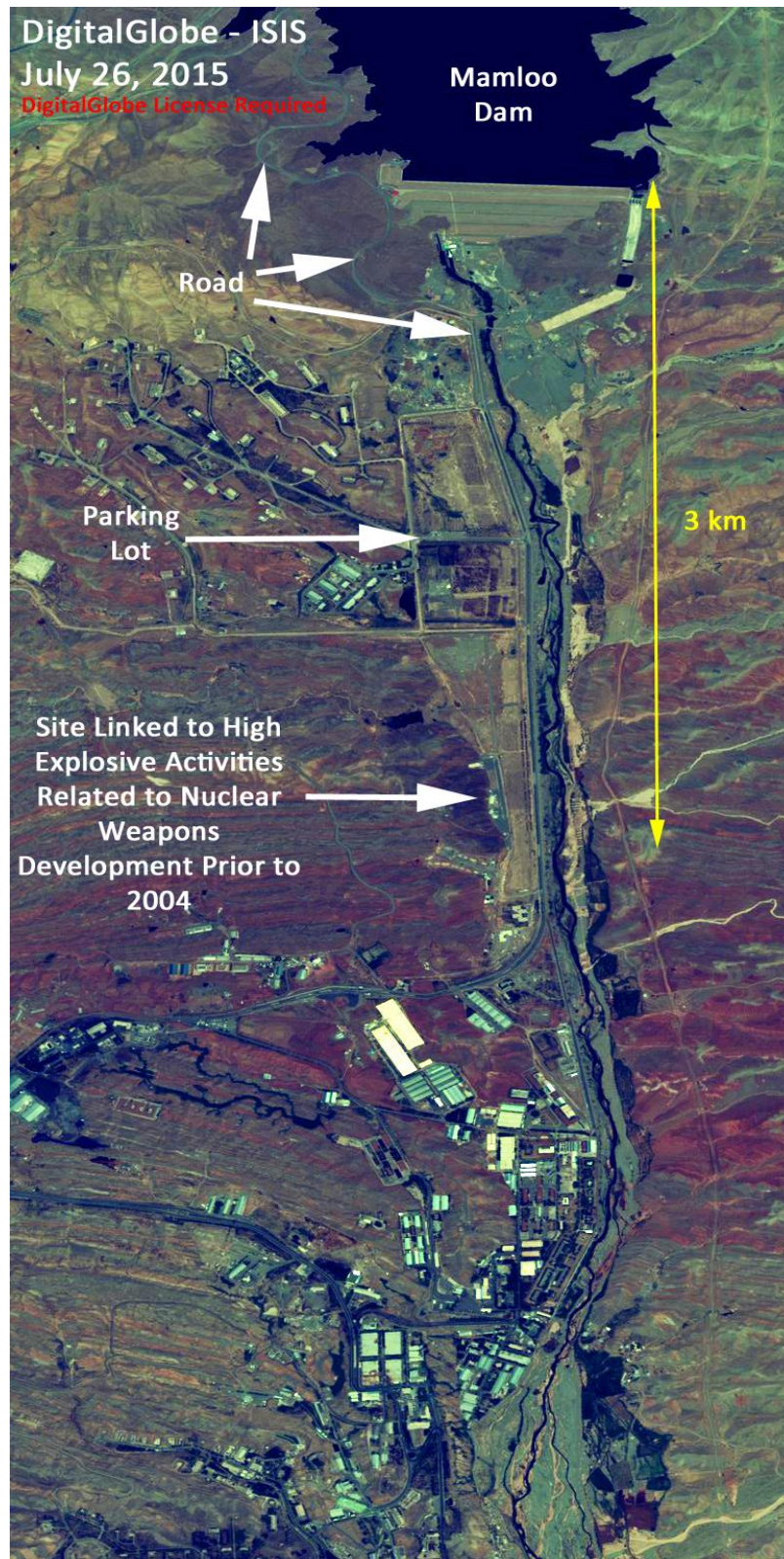


Figure 2. July 26, 2015 DigitalGlobe imagery showing the location of the suspect site, the dam, and a parking lot halfway between the suspect site and the dam at the Parchin Military Complex.

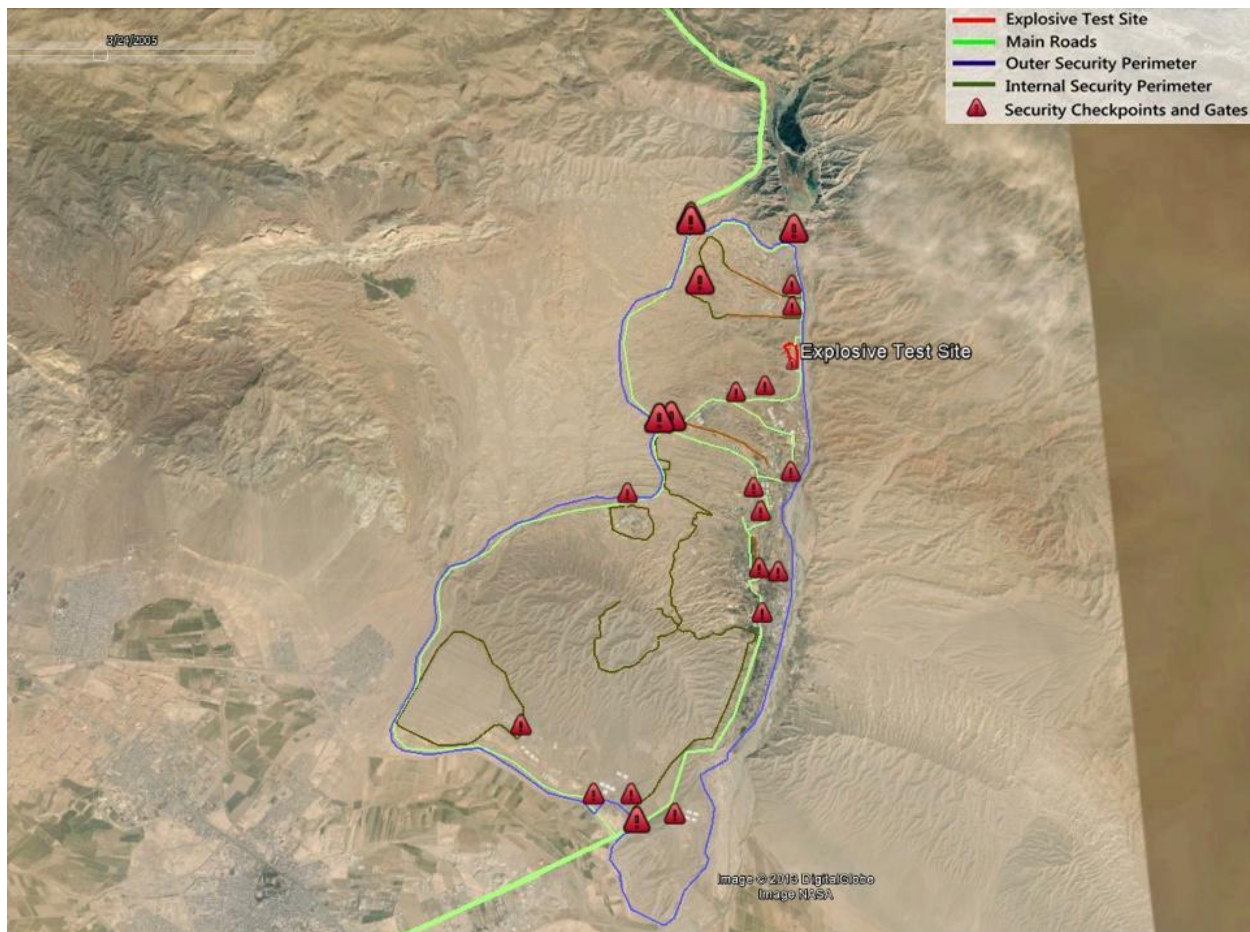


Figure 3. Image showing the security checkpoints throughout the Parchin Military Complex. This image clearly shows that Kelley's claim of minimal security to access the suspect site is false.



Figure 4. Imagery showing changes made to the west side (left) of the suspect building at the Parchin Military Complex between August 2004 and January 2013.