

## **SYRIA UPDATE: SUSPECTED REACTOR SITE DISMANTLED**

DAVID ALBRIGHT, PAUL BRANNAN, AND JACQUELINE SHIRE  
THE INSTITUTE FOR SCIENCE AND INTERNATIONAL SECURITY  
OCTOBER 25, 2007

ISIS has obtained commercial satellite imagery from DigitalGlobe taken on October 24, 2007 that shows the suspected reactor construction building completely removed and the ground scraped (Figure 2). [ISIS released a report on October 23, 2007](#) that featured DigitalGlobe imagery from August 10, 2007 showing the suspected reactor construction site of the September 6, 2007 Israeli raid inside Syria. A comparison of these two images effectively confirms that this site was indeed the target of the Israeli raid (Figures 1 through 6).

The pump house and secondary structure still remain in the October 24, 2007 imagery, but the suspected reactor building has been razed to the ground (Figures 2 and 6). Dismantling and removing the building at such a rapid pace dramatically complicates any inspection of the facilities and suggests that Syria may be trying to hide what was there. Iraq followed a similar strategy in the 1991 after the first Gulf War, though eventually the International Atomic Energy Agency (IAEA) and UN inspectors pieced together a full picture of Iraq's activities. Iran razed the site at Lavizan and insisted that no prohibited nuclear activity was conducted at the facility.

Tractors or bulldozers can be seen in the October 24 imagery where the suspected reactor building once stood. Scrape marks can be seen around the razed part of the site. There also appears to be a trench in the October 24, 2007 imagery that is better defined than in the August 10, 2007 imagery. This trench may be more visible as a result of the Syrians digging up buried pipelines running from the pump station to the now-gone suspected reactor construction building. Because of a more prominent shadow in the October 24, 2007 imagery, there appears to be evidence of an underground portion of the suspect reactor building.

### **Safeguards Issues**

An important question is whether Syria may be in violation of its agreements with the International Atomic Energy Agency. Syria is a member of the Nonproliferation Treaty (NPT) and maintains what are known as full-scope IAEA safeguards. Syria signed the NPT in July 1968 when the Treaty opened for signature, and ratified it two months later on September 24, 1968. It concluded a safeguards agreement with the IAEA on May 18, 1992, which "safeguards" a single small nuclear research reactor on Damascus.

Syria is not an adherent to the Additional Protocol, which establishes more comprehensive reporting requirements and inspection rights for the IAEA. The terms of precisely how Syria's safeguards agreement is implemented are set forth in what are

known as "subsidiary arrangements." Neither the safeguards agreement nor the subsidiary arrangements are public documents.

Nevertheless, countries with full-scope safeguards agreements are obligated to provide the IAEA with so-called "design information" about nuclear facilities that they plan to construct. According to the IAEA Safeguards Glossary ([http://www-pub.iaea.org/MTCD/publications/PDF/nvs-3-cd/PDF/NVS3\\_prn.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/nvs-3-cd/PDF/NVS3_prn.pdf)), design information for new facilities "is to be provided by the State as early as possible before nuclear material is introduced into a new facility." In addition, states are "to provide preliminary information on any new nuclear facility as soon as the decision is taken to construct, or to authorize the construction of, the facility, and to provide further information on the safeguards relevant features of facility design early in the stages of project definition, preliminary design, construction and commissioning."

Regardless of whether Syria is an adherent to the Additional Protocol, it had an obligation to inform the IAEA of its decision to construct any new nuclear facility.

There is reportedly debate now among those familiar with safeguards implementation over how serious a violation this amounts to, in the absence of nuclear material being present at the site. Iran informed the IAEA in April 2007 that it will not notify the Agency of work on new facilities until six months before nuclear material is to be introduced, thereby reverting to an outdated, 1976 safeguards protocol. There is no public record of Syria similarly amending its safeguards obligations. Further, the IAEA noted in the case of Iran that such obligations cannot be amended unilaterally.



**Figure 1. Overview of suspected reactor site before September 6, 2007**



**Figure 2. Overview of suspected reactor site after September 6, 2007**

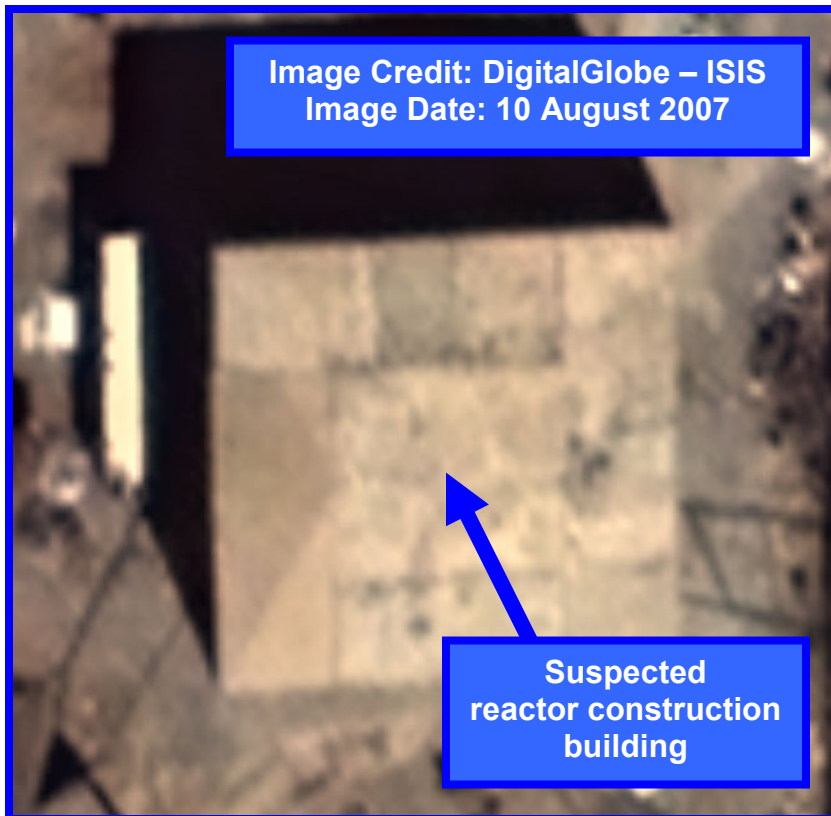


Figure 3. Suspected reactor construction building before September 6, 2007 Israeli raid.

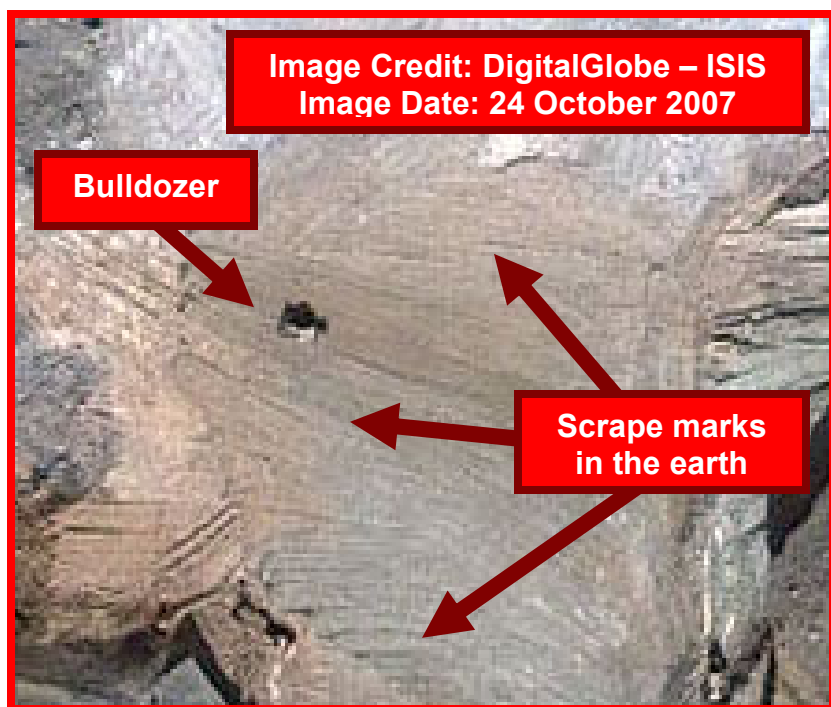


Figure 4. Suspected reactor construction building dismantled.

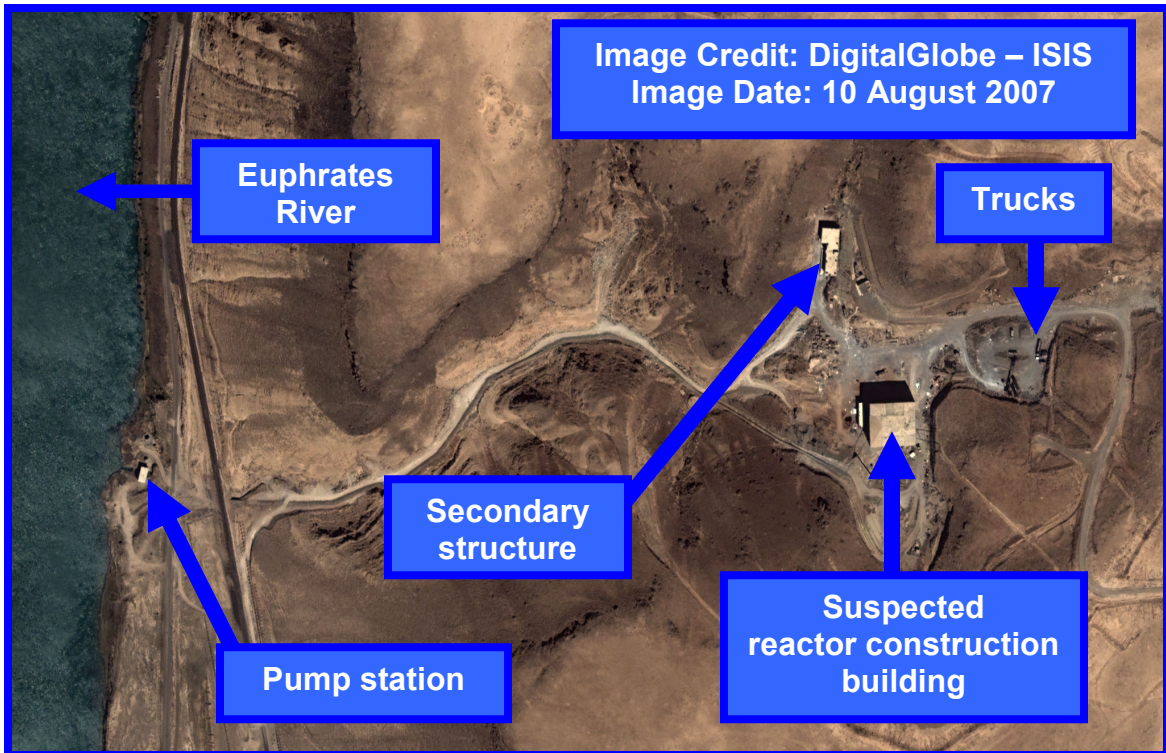


Figure 5. Before the September 6, 2007 Israeli Raid.

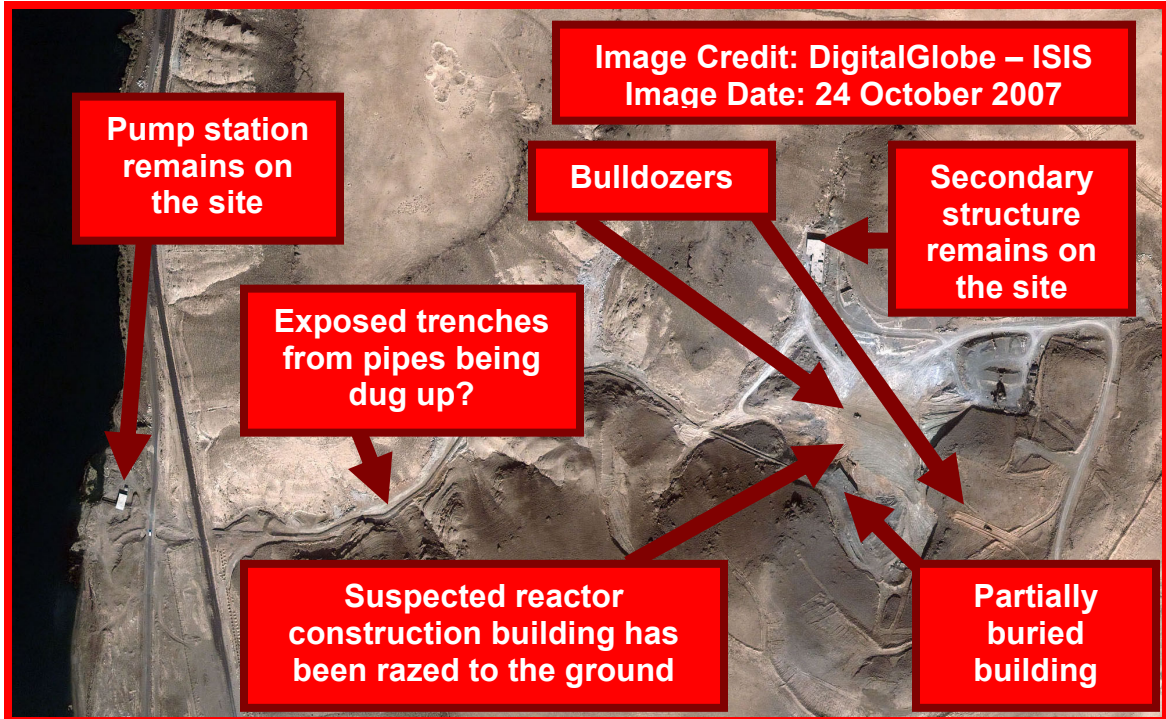


Figure 6. After the September 6, 2007 Israeli raid.