

ISIS Imagery Brief: Further Construction at Arak 40 MW Heavy Water Reactor

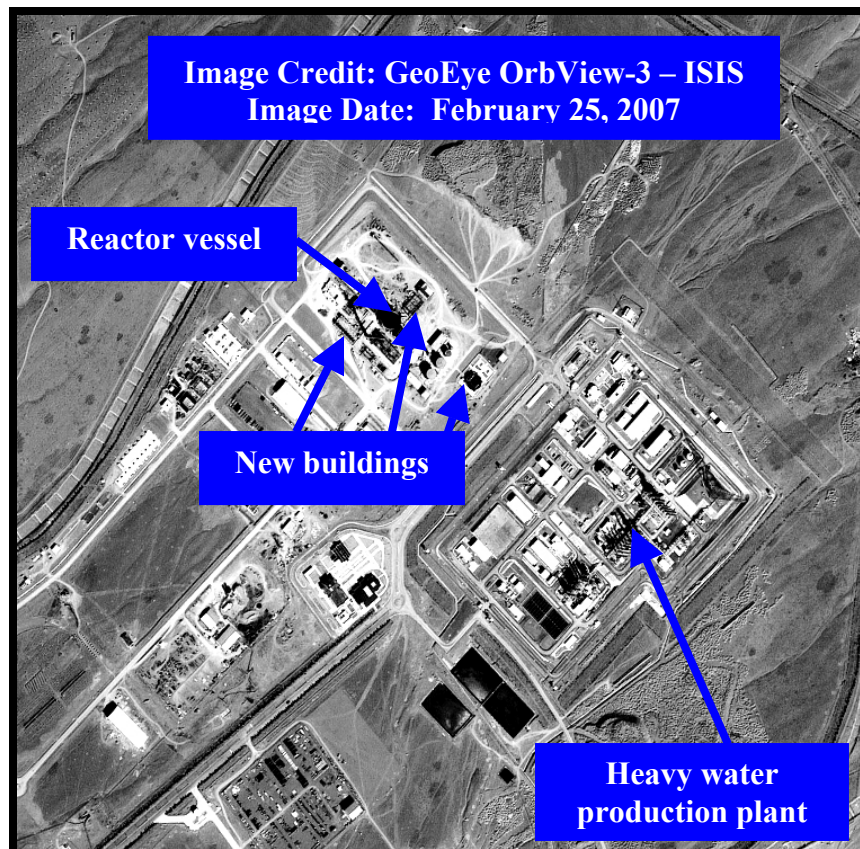
David Albright and Paul Brannan

March 20, 2007

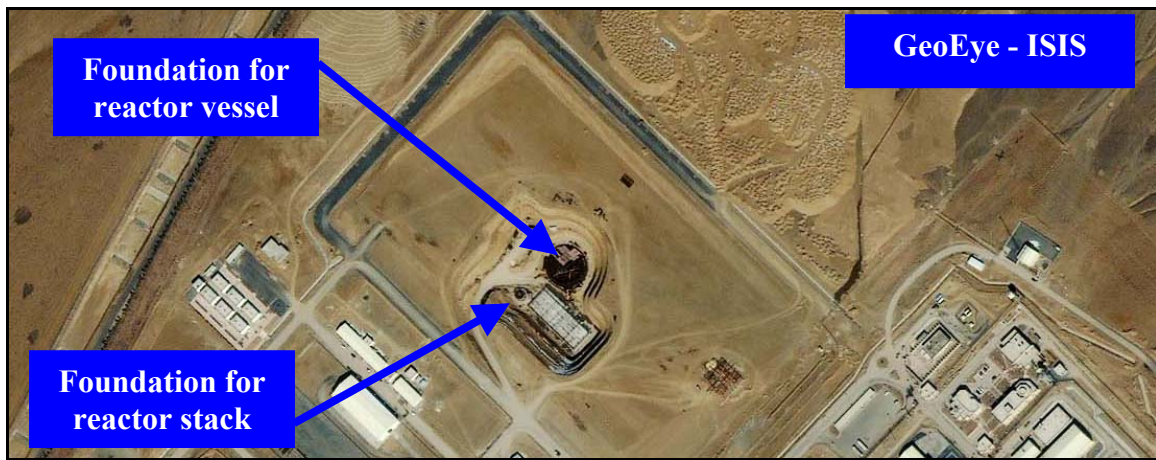
The Institute for Science and International Security (ISIS)

ISIS has obtained recent commercial imagery from GeoEye's OrbView-3 satellite of the Arak heavy water reactor and adjacent heavy water production plant in Iran. The imagery from February 25, 2007 shows further construction of buildings adjacent to the reactor vessel. Iran continues to build the 40 MW heavy water reactor at Arak, despite repeated international requests that Iran discontinue this project. Iranian officials have stated that the reactor is scheduled to be completed in 2009, although this schedule could be delayed for a few years due to problems in building and starting up such a reactor.

When fully operational, the reactor is estimated to be able to produce about 9 kilograms of weapon-grade plutonium per year, enough for one or two nuclear weapons per year. Iran has told the IAEA that it does not intend to build reprocessing facilities to separate plutonium from this reactor. It did state that it was planning to build hot cells to separate "long-lived radioisotopes," but said that it was having problems obtaining the necessary manipulators and lead glass windows. IAEA investigations into Iran's past reprocessing activities continue, despite decreased cooperation from Iran.



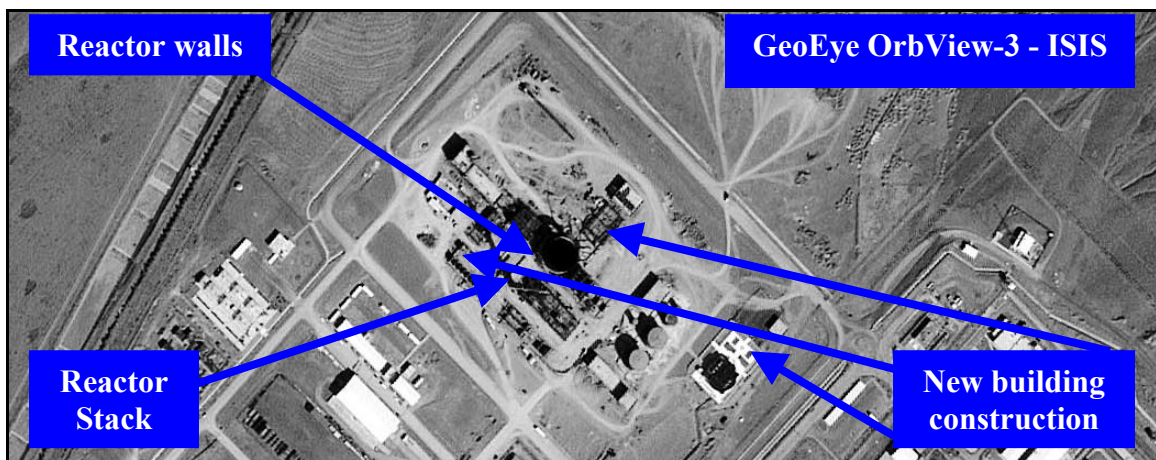
The following images show that Iran is working steadily to construct the Arak reactor. In the last two years, Iran has constructed both the reactor walls and stack. In the last year, Iran has begun construction on several buildings adjacent to the reactor walls and stack.



February 17, 2005



March 26, 2006



February 25, 2007