High-Tech Archaeology Supports Quest for Noah's Ark: Can High-Resolution Satellite Imagery Certify One of Ancient History's Most Coveted Prizes?

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Can high-resolution satellite imagery certify one of ancient history's most coveted prizes?

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Thanks to the CSI-like exploits of a space-based Indiana Jones, a new age of discovery through high-resolution satellite archaeology was born when GeoEye's IKONOS satellite zoomed in on the ice cap of a remote mountain in northeastern Turkey on Oct. 5, 1999, during its calibration mission. IKONOS, the world's first commercial imaging satellite with 1-meter resolution, was in hot pursuit of solving an enduring ancient mystery—whether an intriguing, boat-shaped "object" partially submerged under the mountain's ice cap might be something of biblical proportions.

Indeed, Mt. Ararat is not your typical mountain. For thousands of years it has been reputed to be the resting place of Noah's Ark. According to the book of Genesis, the Ark landed on "the mountains of Ararat" after a global deluge.

Subsequent to its calibration mission, IKONOS flew three more successful missions over the Ararat Anomaly in 2000: Aug. 5, Aug. 11 and Sept. 13. The June-September timeframe is the best time to image Mt. Ararat because summer is generally when the greatest amount of melting of the ice cap occurs. Building upon the satellite archaeology foundation begun in 1999, IKONOS flew its most recent mission over the Anomaly in July 2005.

My analysis of these missions might provide a window into the future of satellite archaeology and intriguing details as to whether the 1,015-foot-long "object" at 15,300 feet on the northwest corner of Mt. Ararat's western plateau might be the remains of a priceless archaeological treasure.

An Able Explorer

As a technological threshold, it's important to note that IKONOS is superior to ground expeditions in two important aspects. Mt. Ararat's 17-square-mile ice cap (as deep as 300 feet of ice and snow in some places) and often thick cloud cover would pose a daunting task for a ground expedition to cover that much ground in search of a specific "object." It would take perhaps dozens of ground expeditions over several years to cover every square foot of the ice cap. Additionally, given the past geopolitical volatility of the Ararat area—a proverbial stone's throw from Iran and the former Soviet Union's border—and...
An Ancient Correlation with Modern Technology

The most significant development in my satellite archaeology project during the last two months has been the digital photo copy of the panoramic, copper-plate illustration of the entire Mt. Ararat area contained in the 1691 book by Sir John Chardin titled *The Travels of Sir John Chardin into Persia and the East Indies, Through the Black Sea, and the Country of Colchis, Chardin, a famous Marco Polo of his time, visited the Mt. Ararat area more than 300 years ago and drew a painstakingly detailed illustration. Most compellingly, Chardin, a French cultural traveler above reproach who influenced the likes of great philosophers like Montesquieu and Rousseau, drew a large “ship” at the same Anomaly location captured on film by the U.S. Air Force in 1949, and satellite imagery by IKONOS in 1999, 2000 and 2005, and QuickBird in 2003. Chardin’s “ship” is even pointed in the same north-south direction as the Anomaly and is even “tilting” down like the Anomaly. Seemingly, Chardin’s sketch of a “ship” might confirm the eye-brow lifting statements about Noah’s Ark made by three great secular authorities of antiquity. Berossus, a Babylonian historian, wrote in 275 B.C. of a “ship” being on Mt. Ararat. Writing in the first century A.D., the Jewish historian Flavius Josephus stated that part of a “vessel” stood on the mountain. Finally, even the famous explorer Marco Polo in the late 13th century on his way to China mentioned in his *Travels of Marco Polo* that Noah’s Ark was still visible on the “top” of Mt. Ararat.

I am deeply indebted to the world-class Mariners’ Museum in Newport News, Va., for taking the digital photo of Chardin’s illustration of Mt. Ararat from its original copy of his 1691 book and allowing me to release that “photo” in March 2006 to “Good Morning America” on ABC TV, CNN’s “American Morning” and Fox News Channel’s “Dayside” show for my guest appearances on those shows. The Chardin illustration, combined with the IKONOS and Quickbird satellite imagery, as well as the image from the U.S. Air Force’s aerial mission, make for a graphic case that the Mt. Ararat Anomaly just might be something of genuine intrigue.

—Porcher L. Taylor

Chardin’s sketch of a “Ship” on Mt. Ararat is consistent with historical statements about the Ark’s location on Mt. Ararat.


High-resolution satellite imagery confirms the Anomaly’s proportions compared to the Ark’s architectural diagram described in Genesis.

IKONOS' maiden flight in 1999 over Ararat constitutes the satellite’s first use as an archaeological tool. This introduces us to the first advantage of IKONOS over a ground expedition: broad, high-resolution imaging coverage of the entire mountain. Any anomalous “objects” anywhere on the mountain can be quickly discerned and analyzed by the well-trained eyes of satellite imagery analysts. In 1999, IKONOS began to rapidly strip away the veil of mystery and secrecy surrounding Mt. Ararat. Having no need to obtain a space-based expedition permit from the Turkish government or to be concerned about any geopolitical sensitivity with respect to Mt. Ararat’s triangulated location at the Turkish-Iranian-Armenian geographic corridor, IKONOS facility demonstrated its second technological advantage over a ground expedition. At amazing speed, 17,000 miles per hour, IKONOS’ “bird” zoomed in on the coordinates of the “object of interest” with clear, crisp imagery. Without even leaving the comfort of its PCs, members of my imagery analysis team around the United States were able to “walk” around the ice cap on Mt. Ararat in cyberspace.

IKONOS’ 1999 calibration mission seemed to confirm that the Anomaly Anomaly had the same ship-like features of the “object” in four declassified aerial photos taken by a U.S. Air Force plane on a low-level reconnaissance mission on June 17, 1949. The plane was flying parallel to Mt. Ararat at 14,000 feet. In 1995, I successfully solicited the Defense Intelligence Agency to release these aerial photos to me under the Freedom of Information Act. This was the first milestone in my satellite archaeology project, because it was the first time that the intelligence community had ever officially released any photographs of Mt. Ararat into the public domain. What hand through the IKONOS 1999 imagery and the 1949 aerial photos give “ship-like features” in the Anomaly Anomaly? Of the 1949 aerial imagery and the 1949 aerial photos give “ship-like features” in the Anomaly Anomaly were two distinct parallel lines about 10 feet apart that ran for about 200 feet. Interestingly, these lines were arcing with unusual symmetry, seemingly to hit at a bow or stern-like form. Although there was heavy ice and snow cover over the Anomaly in the 1949 ship-like shape running 1,015 feet beneath the ice and snow was fairly perceptible.

Prime Opportunities

With hopefully more favorable weather conditions on Mt. Ararat coming up in summer 2000, maybe, just maybe, the next IKONOS mission would shed more light on this ancient mystery. Indeed, Turkey was about to weather through its hottest summer in 60 years, with temperatures reaching 130 degrees melting highway asphalt—ideal conditions for ice-clad Mt. Ararat to reveal a bit more of its secrets. With its penetrating and discerning “eyes” of IKONOS. In March 2000, Insight on the News, the Washington Times Corp.’s weekly news magazine, contracted GeoEye to task IKONOS to fly three missions over the “object of interest” on Mt. Ararat.

Auspiciously, the hot weather in summer 2000 peeled back another layer of secrecy covering the “object.” Another thin, straight line running about 400 feet long was evident in the Aug. 5 image. It was “connected to” and ran parallel to an area that I call, for lack of a better word, the “deck” of the “ship-like object.” This time, much more of the “ship” was visible in the sub-surface ice. We were even more fortunate with the results of the Aug. 11, 2000, IKONOS mission over this deeply buried “object.” Some of the key pieces in this puzzle seemed to be falling into place. Both the 200- and 400-foot symmetrical lines were even more visible than ever. For the first time, the “deck” or “frame” area could be seen with relatively good detail. Significantly, I could see three more parallel lines running about 400 feet, connected by what appeared to be many cross-connecting lines. Although there was heavy cloud cover over the south end of the “object,” what was visibly suggested that these were “connecting” parallel lines continued toward the cloud-covered part of the “object.” There was a hint that these lines ended up in the form of a “bow-type” shape. Totally free of cloud-cover, Mt. Ararat on Sept. 13, 2000, granted us a great glimpse of the Anomaly.

11 mission seemed to be a little closer to being answered. The “bow shape” of the south end of the Anomaly was beginning to emerge more clearly, and the “deck” part of the Anomaly gave subtle hints that a “roof” structure might be covering parts of it. In July 2005, IKONOS broke through the clouds on Mt. Ararat and imaged the Anomaly again. Although there is heavy snow and ice cover on the Anomaly, the image confirmed that the “ship-like” shape of the Anomaly hasn’t changed in nearly 60 years, since the U.S. Air Force plane zeroed in on it in 1949.

On Feb. 1, 2003, DigitalGlobe’s Quickbird satellite zoomed in on the Anomaly at 2-foot resolution. This mission revealed that the Anomaly is very much “ship-shaped” and about 160 feet wide. This could be significant, because the Genesis architectural blueprint gives Noah’s Ark a 6:1 length-to-width ratio at 300 cubits in length and 50 cubits in width. At about 1,015 feet long and 160 feet wide, the Anomaly appears to fall into this biblical proportions ballpark. That could merely be a coincidence, but then again, maybe the Anomaly size has more secrets to reveal.

With the launch of IKONOS’ high-tech successor, GeoEye-1, in February 2007, my satellite archaeology project is poised to shed even greater high-tech light on an enigmatic ancient mystery. This new high-tech eye in the sky will have an astounding 4-meter resolution, nearly twice the resolution of IKONOS. At that time, perhaps Mt. Ararat will shed its greatest secret of all.