

47th IAA HISTORY OF ASTRONAUTICS SYMPOSIUM (E4)  
Scientific and Technical Histories (2)

Author: Mr. Tal Inbar

The Fisher Institute for Air and Space Strategic Studies, Israel, talinbar@fisherinstitute.org.il

NEW HORIZON: 25TH ANNIVERSARY OF ISRAEL'S FIRST SATELLITE, OFEK 1

**Abstract**

The paper will portray the history of Israel's first satellite, Ofek (Horizon) 1 that was indigenously designed, built and launched by Israel, which became the 8th nation to join the "space Club".

The paper will examine extensively the political, strategic and technological background of the satellite, and will highlight its role in Israel's vibrant space activities.

Built by the Israel Aerospace Industries, Horizon-1 was a demonstrating tool to prove and validates the engineering of the satellite's systems, and a stepping stone towards an operational remote sensing satellite. At the time, the launching was the high point of a process that had begun in 1983, with the establishment of the Israel Space Agency under the aegis of the Ministry of Science.

Ofek-1 could not have gotten off the ground without the earlier and simultaneous hi-tech developments in electronics, computers, electro-optics, and imaging techniques. The main contribution has been in the field of miniaturization, where Israeli engineers have made great progress. Lighter satellites are more efficient and save hundreds of thousands of dollars per launching. Thanks to the advances made by their colleagues in other fields, all the satellites produced by Israeli space scientists are noted for their light weight and small size.

The paper is a continuation of the author's works on the history of Israel's space program, especially the 2010 paper on the origins of the ABIR (Knight) program, and the 2012 paper on the satellite chief designer, Marcel Klajn.