



State Comptroller Report | February 2023

National-Strategic Fields of Operation

The "Etgar" Program Administration – Observation Satellites in the Defense System



The "Etgar" Program Administration – Observation Satellites in the Defense System

Background

Since the beginning of the 1980s, the State of Israel has developed an independent and advanced technological capability in aerospace, knowledge, quality and skilled personnel in the industry and academia, and unique infrastructures. This ability has placed Israel at the world forefront of knowledge and activity of aerospace. Since the mid-1990s, the defense system¹ has operated an array of satellites for intelligence gathering from space, including observation satellites manufactured in Israel ("Blue & White"). Since 2008, Israel was caught in a continuous crisis in the aerospace array, mainly due to a lack of sufficient civilian and defense budget for its maintenance and promotion.

1 In this report – the Ministry of Defense (MoD) and the IDF.



Key Figures

several

"Ofek" satellites are operating in space in July 2022

several

satellite launches planned for 2022 and 2024

several hundred million NIS

the annual budget of the "Etgar" Program Administration for 2016–2024. This is compared to the IDF's recognition of the need to increase the annual budget

several hundred million NIS and several tens of millions of dollars

the average annual defense system budget for observation satellites in 2022–2027

12

years to develop and manufacture a specific "Ofek" satellite until its launch

several

launches were carried out by the State of Israel using "Blue & White" launchers; most were successful

Audit Actions










From November 2021 to July 2022, the State Comptroller's Office audited the defense system observation satellite array, including the national space program and the observation satellite array response to the operational need of the IDF and the Etgar Program Administration activity. The audit was conducted at the Ministry of Defense: in the CEO's bureau and the Etgar Program Administration; At the IDF: in the Office of the Chief of Staff, the Office of the Deputy Chief of Staff, the Planning Directorate, the Operations Directorate and the Air and Space Arm (the Air Force); At the government defense Industries: Israel Aerospace Industries Ltd. (IAI) and Rafael Advanced Combat Systems Ltd. (Rafael); And the National Security Council. Completion examinations were conducted at the Israel Space Agency (ISA) within the Ministry of Innovation, Science and Technology (Ministry of Science).

The Knesset State Audit Committee sub-committee decided not to bring this report in its entirety before the Knesset but to publish only parts thereof, to protect the state's security under Section 17 of the State Comptroller's Law, 1958 [Consolidated Version].



Key Findings

-  **The National Space Program** – about 14 years after the outbreak of the space crisis in Israel in 2008, no national policy in the civil and military space and no budgeted multi-year plan have been determined. The recommendations of 3 space field committees² in 2010–2016 were implemented partially or not implemented at all. Furthermore, ISA's budget for civilian space activities was increased to about NIS 60–80 million per year in 2012–2018, not in accordance with the recommendations of the above three committees to allocate about NIS 300 million per year for this activity.
-  **Policy and Regulation of Space Warfare** – although space warfare has become increasingly important over the years and is expected to continue in the future, Israel has no organization and regulation of space warfare at the national level.
-  **The Existing Response to the General Staff's Operational Need of Satellites** – specific gaps were found in this field.
-  **The Expected Response to the General Staff's Operational Need of Satellites** – by the 'Tnufa' Multi-Year Plan for 2020–2024, responding to the General Staff's operational need, requires a specific response. Still, this response was not budgeted. Starting from 2024, under some assumptions, a particular gap arises.
-  **The Budget for Observation Satellites** – specific gaps were found.
-  **The Ministry of Defense's Engagements in Observation Satellites** – the Ministry of Defense did not engage with IAI to develop and manufacture certain satellites. After the audit completion, in September 2022, the tender process carried out by the Ministry of Defense to select a company in a specific field has ended.
-  **Formulation of a Multi-Year Plan for Satellites** – despite the Minister of Defense's directive from July 2018 to the Directorate of Defense, Research & Development (DDR&D) and the Planning Directorate, and the directive of the Director General of the Ministry of Defense from November 2020 to the Planning Directorate, the Planning Directorate, in cooperation with the DDR&D, did not formulate a multi-year plan concerning satellites for 2025 onwards and did not arrange its budgeting. Furthermore, the defense system did not promote the plan to develop certain satellites.

² The President's Staff report from July 2010, the recommendations of the R&D Policy Committee from May 2015 and the Space Committee report from December 2016.



The Etgar Program Administration's Cooperation with Entities Operating in Satellites Array – the Etgar Program Administration operates and manages the satellites in the defense system in cooperation with the IDF and entities in the Ministry of Defense and IAI.

Key Recommendations



It is recommended that the National Security Council update the strategic work in the space field, which it began to implement in May 2019 and cooperate with the Israel Space Agency to bring it for discussion in the State Security Cabinet. This is to determine a national policy and to get the Cabinet's approval for a budgeted national space program. It is also recommended that the defense system and the National Security Council formulate a national concept on space warfare and regulate it at the national – both civilian, and military levels.



It is recommended that the Minister of Defense, the Chief of Staff, and the Director General of the Ministry of Defense form a budgeted multi-year plan for observation satellites in the defense system, providing answers to all technological, operational, and political aspects as part of the defense system's needs. It is also recommended that the Minister of Defense present to the Prime Minister and the State Security Cabinet the above multi-year plan and its short and long-term effects on the IDF's operations and the defense industries.



It is recommended that the Ministry of Defense and the Ministry of Finance examine the costs, implications, and benefits arising from the existing competition in Israel in a specific satellite array, including the scope of the required investments in infrastructure and the establishment of knowledge centers, considering that Rafael and IAI are government-owned companies.



It is recommended that the IDF, in cooperation with the Etgar Program Administration, examine the scope of the budget required for the Etgar Program Administration to provide the best response to the operational need and present the results of the examination to the Director General of the Ministry of Defense and the Deputy Chief of Staff.



Summary

Aerospace field is strategic for the State of Israel, and its importance to its national security has increased in recent years, given the changes in the international arena, the emerging and expanding threats, the challenges of intelligence gathering, and the IDF needs changes. The defense system operates several "Ofek" satellites.

Deficiencies were found by the audit, including the failure to determine a national policy in the civil and military space and a national space program and the lack of organization and regulation of space warfare at the national level. The audit also raised specific gaps in providing the required response to the IDF's satellite operational needs.

Given the importance of aerospace array to the State of Israel, it is recommended that the National Security Council, the Ministry of Defense, and the IDF formulate an overall aerospace concept (civilian and military) regarding the aerospace domain, determine what resources are required for the realization of this concept and present it to the State Security Cabinet.

