Arrow Weapon System (AWS)

SUMMARY

- The Arrow Weapon System (AWS) conducted two flight-tests in the United States:
  - Flight-test-1 successfully intercepted a short-range liquid fueled target.
  - Flight-test-2 failed to intercept a longer-range target due to a failed component in the kill vehicle's propulsion system.

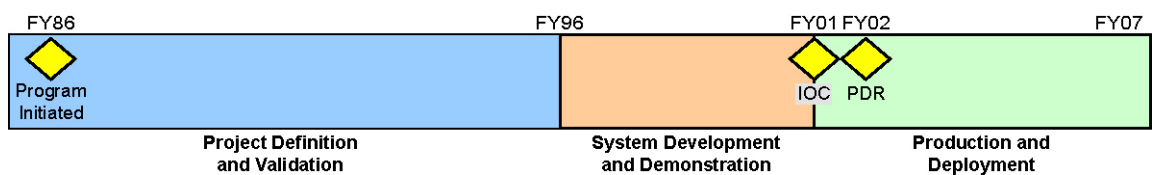## SYSTEM DESCRIPTION AND MISSION

Israel's AWS provides missile defense against short- and medium-range ballistic missiles. It consists of the Arrow II interceptor and launcher, the Green Pine fire control radar, the Citron Tree battle management center, and the Hazelnut Tree launch control center.

TEST AND EVALUATION ACTIVITY

Due to the smaller test ranges in Israel that limited all previous system testing, the AWS conducted two flight-tests in FY04 at the Point Mugu Naval Air Warfare Station in California. The larger Point Mugu test range can accommodate longer-range ballistic missile targets that are representative of the threat. These two flight-tests assessed AWS performance against longer-range targets than those tested previously. The first Point Mugu flight-test occurred July 29, 2004. The second flight occurred August 26, 2004.

In the first flight-test, the AWS successfully intercepted a unitary liquid-fueled ballistic missile.

TEST AND EVALUATION ASSESSMENT

In the first flight-test, the Arrow Weapon System successfully intercepted a unitary liquid-fueled ballistic missile. The second flight-test was against a more stressing, longer-range target with a separating reentry vehicle. The Arrow interceptor failed to hit the second target because of a malfunction in the kill vehicle's sustainer motor. The malfunction resulted in the loss of the kill vehicle's maneuver control. As a result, the kill vehicle's guidance sensor never entered the endgame to acquire the target. The program is currently investigating the cause of the malfunction.