

NAVY PROGRAMS

EA-6B Upgrades

SUMMARY

- Significant system upgrades involving operational testing are the Improved Capability (ICAP) III receiver modification and the Low Band Transmitter (LBT) jamming pod.
- ICAP III initial operational test and evaluation ended in October 2004 and the results are being analyzed. Significant improvements have been made since the 2003 operational assessment (OA), but a preliminary analysis indicates additional improvements are needed.
- LBT is in an OA. Key reliability numbers and performance requirements looked good in developmental testing.



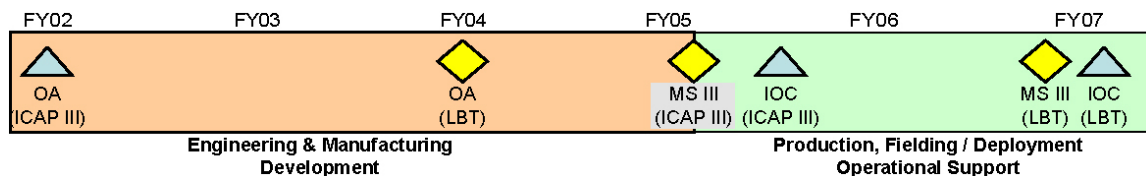
The EA-6B continues to undergo a number of upgrades culminating in the ICAP III selective reactive jamming capability with improved information displays and battle management capabilities.

SYSTEM DESCRIPTION

The EA-6B is a four-person, carrier capable, twin turbojet tactical aircraft. Its primary mission is the interception, analysis, identification, and jamming of radio frequency transmissions of enemy weapons control and communications. The crew includes one pilot and three electronic countermeasures officers. The EA-6B carries the ALQ-99 Tactical jamming System, which includes a receiver, processor, and various mission-configured jammer pods carried as external stores. The EA-6B has the USQ-113 Communications Jammer and may also be armed with the high-speed anti-radiation missile for enemy surface-to-air radar destruction and suppression. The EA-6B is a key contributor to the Suppression of Enemy Air Defenses Electronic Attack mission.

Operational since 1972, the EA-6B continues to undergo a number of upgrades culminating in the ICAP III selective reactive jamming capability. Ancillary improvements currently underway include a new LBT capability, a prototype Band 7/8 pod development, and minor USQ-113 communications jammer modifications.

TEST AND EVALUATION ACTIVITY



The Navy has been conducting ground and flight system testing on the new ICAP III receiver (AN/ALQ-218) since February 2002. A two-month OA involving 29 open-air range flight sorties completed in 2003. Operational Evaluation (OPEVAL) flights began in April 2004. OPEVAL consists of 15 Electronic Attack/Electronic Support flight sorties, participation in a large-scale joint exercise, and a two-week carrier deployment; all planned for completion by the end of 2004. A Milestone III decision is planned for 3QFY05.

NAVY PROGRAMS

The rebaselined LBT program began developmental tests in July 2004. Operational testing is being planned in two phases:

- OAs to be conducted during late 2004 and early 2006 to support a low-rate initial production of 20 ship sets.
- An OPEVAL, scheduled for January to March 2007, to support a Milestone III decision June 2007 for production of 208 ship sets.

Band 7/8 jammer pod tests were limited to in-plant design evaluations. A USQ-113 communications jammer test to verify the correction of some deficiencies was completed with satisfactory results on a limited number of corrections.

TEST AND EVALUATION ASSESSMENT

The ICAP III receiver upgrade's preliminary performance has been promising. The program's risk centers on its ability to provide accurate emitter geolocation in full azimuth coverage for high-speed anti-radiation missile targeting and the reactive jamming of selected hostile emitters. Testing indicates that the system is potentially effective and potentially suitable.

Many improvements have been made since the OA in 2003. Remaining high interest issues include built-in test, unreliable display monitors, false emitter detection rates, and the lack of a satisfactory mission planner. As with previous versions of ICAP, tactical concept development and further software refinements will continue after operational testing and initial fielding (late FY05). Recent changes to the acquisition strategy have not adversely affected test adequacy.

The LBT is being flown on the China Lake open-air range after successful developmental test flights at Naval Air Station Patuxent River, Maryland. The OA, started in September 2004, will be monitored carefully to ensure that planned reliability improvements have been achieved, and that the system's communication jamming capabilities are adequately tested. Initial reliability performance appears to be a significant improvement over existing pods.

There are testing restrictions with both LBT and USQ-113 systems in the lower frequency bands due to the impact on civilian sector usage of those frequency bands. This has limited and complicated testing in the past, and will continue to be a challenge in the future. Improvements in test capability in these lower frequencies are needed.