

sensor/seeker, and an adaptable warhead system the results are a highly capable weapon system that puts all fixed-soft, mobile and relocatable targets at risk. LOCAAS offers numerous benefits to the battle managers. Launch platforms will be held out of harms way due to the standoff capability. Platforms carrying twelve LOCAAS units have the lethal capability of 6 platforms each carrying two 'Maverick' missiles. The increase in sortie effectiveness should increase the tempo of the conflict as well.

LOCAAS houses a Laser Detection and Ranging (LADAR) seeker developed to accurately and autonomously acquire, classify, and track targets during the attack. With this capability, LOCAAS scans the battlefield, finds potential targets, and then switches into a "track" mode to differentiate between tanks, trucks, missile launchers and radar sites. Once the LADAR unit determines a valid target the computer selects the appropriate kill mechanism to maximize the lethal effectiveness. The multi-mode, shaped-charge warhead can selectively fire an armor penetrating 'long-rod' if the target is heavily armored, such as a battle tank. If the target is lightly armored or protected by reactive armor the warhead can select a penetrating 'aero-stable slug'. Finally, if the target is 'soft' or thin-skinned like a surface-to-air missile launcher, radar site, or theater ballistic missile, the warhead can operate in a fragmentation mode to distribute lethal fragments over a large area. This unique warhead achieves the three modes of operation by selectively detonating high explosive behind a copper plate. One mode forms the plate into a long rod. The second mode forms the aero-stable slug and the third mode causes the plate to break into multiple fragments.

The LOCAAS, shown in Figure 1, is 30 inches (76.2 cm) long and weighs approximately 100-

lbs (45.4 kg). A miniature turbo-jet engine provides 100 nautical miles (185.2 km) range and the ability to search over large areas. The small size provides the ability to package numerous LOCASS units in current and future delivery platforms.

Warhead tests have been completed successfully. Seeker testing is ongoing. A short non-powered flight test has demonstrated the autonomous search, acquisition, target-classification and attack modes. All-up flight tests will occur within the next couple of years. Completion of the LOCAAS development will provide the warfighter a very effective munition to defeat advancing mechanized troops as well as perform missions to suppress enemy air defenses during the early phases of a conflict and open the paths for air-to-surface munitions like the small smart bomb described next.

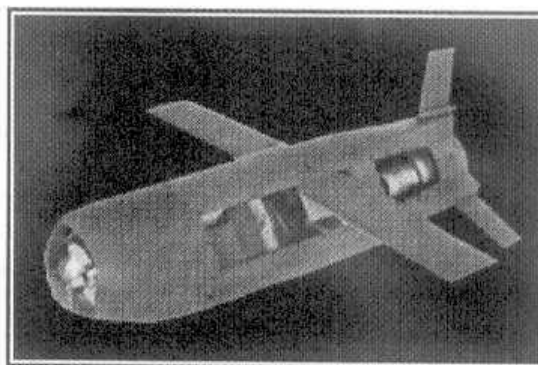


Figure 1. Full Scale Model of LOCAAS

3.2 250-lb (113.5 kg) Penetrator

At the time of this writing, the operational capability of a 250-lb (113.5 kg) Small Smart Bomb (SSB) concept had recently been demonstrated under the Miniaturized Munition Technology Demonstration Program conducted at Wright Laboratory Armament Directorate (WL/MN), Eglin Air Force Base, Florida. The Miniaturized Munition Technology Demonstration (MMTD) program