MISSILE DEFENSE AGENCY

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Airborne Laser (ABL) Conducts Extended Flight Test

EDWARDS AIR FORCE BASE, Calif. – YAL-1A, the Airborne Laser (ABL) aircraft, flew for 2 hours and 31 minutes over this installation on Thursday, December 9, completing an earlier flight cut short because of a faulty instrument reading. The flight was part of a continuing series to reestablish airworthiness – a requirement since the aircraft has been out of service for almost two years for modifications and installation of ABL's complex beam control system.

The plane first flew on Dec. 3, a shorter flight than originally planned. The mission was abbreviated when the crew decided to return to base to evaluate anomalous instrumentation readings. Within hours, inspectors found the source of the instrumentation issues and cleared the way for Thursday's flight. There was no repeat of the anomalies during the December 9 flight.

While the aircraft was flying, engineers in the System Integration Lab were preparing for the second lasing test of the megawatt-class Chemical Oxygen Iodine Laser (COIL). The six COIL modules, linked as a single unit, were fired for the first time on Nov. 10, producing photons that make up the powerful beam. If held on the target long enough, the beam will produce a structural failure on the missile's metal skin, destroying the missile before it can release its warhead.

ABL, which is under the management of the Missile Defense Agency (MDA), is one of the boost-phase segments of the overall missile defense plan to make the United States, its allies and its deployed troops safe from ballistic missile attack.

PHOTO CAPTION: The Airborne Laser (ABL) aircraft, YAL-1A, flew for 2 hours and 31 minutes on Thursday, December 9, completing a flight that earlier was cut short because of faulty instrument readings. There was no repeat of the instrumentation errors that kept the December 3 flight to 22 minutes. Thursday's flight was conducted over the sprawling Edwards Air Force Base range 90 miles east of Los Angeles. Flights will continue for several months while engineers test the ABL system's beam control system. USAF photo.

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