

## EXECUTIVE SUMMARY

### AIRCRAFT ACCIDENT INVESTIGATION TARS, T/N 4222, Lajas, Puerto Rico 16 August 2011

The mishap aerostat (MA) was launched on 15 August 2011 from the Lajas Tethered Aerostat Radar System (TARS) Site, Puerto Rico at 1241 ZULU (Z) (0841 local time) and remained aloft until the mishap. At approximately 1637Z on 16 August 2011, a line of thunderstorms hit the site from the SE. Heavy winds blew the MA abruptly to the NW of the site, pulling the mishap winch truck (MWT) off of the pad and into an embankment at the site perimeter. The MA tether was pulled along a steel anti-fouling cable and snapped. The MA broke away, climbed to 7,000 feet and ruptured, causing the associated equipment to impact the ground and be destroyed with total loss and damage estimated at \$8,159,917.86. There were no injuries and no significant damage to private property. Clean up costs are pending for 71 gallons of spilled diesel fuel.

The TARS Program is managed by Air Combat Command's Acquisition Management and Integration Center (AMIC). ITT is the contractor responsible for operating and maintaining the Lajas TARS site, which is manned solely by ITT personnel.

The Mishap Flight Director (MFD) and Mishap Flight Crew (MFC) assumed responsibility for the MA on 16 August 2011 at approximately 1200Z, after completing a changeover briefing. The MFD was briefed that storms were forecast to occur after mid-day. At 1503Z, the MFD ordered an in-haul of the MA to the minimum operating altitude (MOA) of 2,100 feet. At 1535Z, the MFC received a watch for lightning within 10 and 20nm. By 1610Z, the nearest storms were at  $\alpha$  nm, the distance at which guidance requires an in-haul to the MOA.

At 1619Z, with the nearest storms developing at  $\beta$  nm, the distance at which guidance requires a recovery, the MFD ordered recovery of the MA. At 1621Z, the MFC requested to reposition the MWT based on new surface wind direction. The MWT was repositioned from 1626Z to 1629Z, but chock blocks were never put into place as required by applicable guidance. At 1630Z, the MFC commenced in-haul to recover MA from the MOA. At 1637Z, thunderstorms and heavy winds hit the site and triggered the mishap sequence.

The AIB President found by clear and convincing evidence that the cause of the mishap was the late decision to recover the MA. This decision, while in compliance with all applicable guidance, was not made with sufficient lead time to recover and moor the MA prior to the arrival of thunderstorms. Additionally, the AIB President found by a preponderance of evidence that the MWT chock blocks were not positioned in accordance with applicable guidance, which substantially contributed to the mishap.

*Under 10 U.S.C. § 2254(d), any opinion of the accident investigators as to the cause of, or the factors contributing to, the accident set forth in the accident investigation report may not be considered as evidence in any civil or criminal proceeding arising from the accident, nor may such information be considered an admission of liability of the United States or by any person referred to in those conclusions or statements.*