

EXECUTIVE SUMMARY

AIRCRAFT ACCIDENT INVESTIGATION TARS, T/N 4221, Fort Huachuca, Arizona 9 May 2011

The mishap aerostat (MA) was launched on 6 May 2011 from Fort Huachuca, Arizona and was on station at 2256 ZULU (Z) (1556 local time) until the mishap. At approximately 2013Z on 9 May 2011, the MA's tether broke, causing the aerostat to breakaway. Shortly after the tether broke, the MA, tore apart in-flight causing the associated equipment to impact the ground and be destroyed with the loss valued at approximately \$8,819,487.86. There were no injuries and the accident caused minor damage to private property.

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

The Mishap Flight Director (MFD) assumed responsibility for the MA on 9 May 2011 at approximately 1300Z, after the Mishap Crew (MC) completed a changeover briefing. The MC was briefed that the forecast winds aloft and surface winds would approach the MA operational limits during their shift. As the day progressed, both winds aloft and surface winds exceeded operational limits as forecasted, causing tether tensions to exceed operational limits more than 40 times, starting at 1613Z. At approximately 2013Z, the MA's tether broke, causing the aerostat to breakaway.

There is also evidence that the MFD's interpretation of ITT's policy on how to increase Operational Availability (A_O) resulted in the MFD flying more aggressively than the four flight directors (FDs) interviewed would have, in that he did not consider recovering the MA until exceeding an operational limit. The four FDs that testified did not share the MFD's interpretation of ITT's policy and would have recovered the MA when they came on shift. The MFD's interpretation of ITT's policy directly led to his decision to not recover the MA early during his shift, which would have presumably avoided the breakaway, substantially contributed to the mishap.

The Accident Investigation Board President determined by clear and convincing evidence that the cause of the mishap was tether failure. The cause of the tether failure was not determined. This failure was most likely caused by a weakened tether from repeated high tensions during the mishap flight and/or during prior aerostat flights. Additionally, the Board President found by a preponderance of evidence that the MFD's interpretation of ITT's policy on how to increase A_O 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.