



Robert Domitrovich, Product Director
John Schumacher, Deputy Product Director

AH-64D/E TADS/PNVS: Protection of the TADS Display Unit (TDU and C-TDU)

TADS/PNVS

Maintainers/Operators:

If you are seeing trouble with screen degradation on TADS/PNVS TDU, what you are seeing is a breakdown in the polarization layer of the unit caused by sunlight exposure or solar radiation. The TDU has a polarization filter layer that is prone to degradation when exposed to solar radiation, heat and humidity. The degradation manifests itself as “Scratch Marks” followed by a “Halo” effect. Once this break down begins to occur, it will become progressively worse. The damage increases the absorption of ultraviolet energy therefore increasing the heating effect and loss of transparency. The potential mission impacts are threefold. The first is the polarizer failure reduces targeting display performance before the operator recognizes the degradation. The second is the ranges for detection, recognition, and identification is negatively impacted. The third is a complete failure of the TDU/C-TDU will cause the component to be non-mission capable resulting in significant aircraft mission impact. The problem is so acute that the current scrap rate for TDUs is 65% on all units that are turned in. Protecting the TDU from this type of damage is simple – Use the Cover. Supporting evidence from FMS users show that use of the cover mitigates or eliminates the degradation. The TDU cover (Part# 76502623-001) has been issued with every new aircraft coming off the production line since 2007 and is part of the aircraft flyaway gear. It is also included on the DA form 2408-17 Aircraft Inventory Record. A publication change is occurring on the next update for the Interactive Electronic Technical Manual (IETM) to add the remove/install instructions.

For any TADS/PNVS issues or assistance, you can contact the Apache Sensors Project Office POCs

Wayne Bubnick-
wayne.e.bubnick.ctr@mail.mil

Emily Austin
emily.k.austin2.civ@mail.mil



Pictures above: Damaged TDU, TDU cover in cockpit