

including DAS Controller; Series 1223 Laser Warning Receiver (LWR) and Data Transfer Unit; Vican 78 Series 455 Countermeasures Dispensing System (CMDS); and AN/AAR-57 Missile Warning System (MWS). The AN/AAR-57 Missile Warning System (MWS) is the only U.S. component of the HIDAS system. Thus, it is the only sub-system of HIDAS for which we have a concern for sensitivity of technology.

a. Sky Guardian 2000 RWR is an ultra-broad band digital Radar Warning Receiver with a built in Defensive Aids Suite Controller. Sky Guardian 2000 RWR consists of 1 each RWR Receiver Processor, 4 each of Quadrant Receiver, and 2 each of Anti Vibration Mounts. Advanced hardware and software processing extracts emitter information from the dense electromagnetic spectrum. Highly sensitive, it provides the vital situational awareness needed on the battlefield. User-programmability with over 4000 entries, it provides the capability to adapt to the mission.

b. The Series 1223 Laser Warning Receiver represents technology advancement necessary for today's battlefield aircraft. Series 1223 LWR consists of 4 each of Sensor Head Unit, 1 each of Data Transfer Unit, and 1 each of PC Card. With extremely high sensitivity, its specialized detectors provide detection of very low power threats including all types of Beamrider systems as well as the higher power types of laser threat system. User-programmability with over 1000 entries, it provides the capability to adapt to the mission.

c. Vican 78 Series 455 CMDS provides both Chaff and Flare capability. Series 455 CMDS consists of 2 each of CMDS Countermeasures Dispenser, 1 each of CMDS Chaff Dispenser Unit, 1 each of Safety Disarm Unit, and 1 each of Pin and Flag. Being fully programmable, dispense sequences can be tailored to the mission. Dispensing can be automatic, semi automatic or manual and the sequences are adaptive in flight to the aircraft dynamics. The chaff dispenser accommodates mini-block chaff allowing 64 'shot' from the single dispenser, which is aimed at the tail rotor to aid 'blooming'.

d. AN/AAR-57 MWS is a U.S. tri-service developed passive Missile Warning System. AN/AAR-57 MWS consists of 1 each of Countermeasures Receiver, 4 each of Sensor Assembly Electro-Optic Missile Sensor (EOMS), and 1 each of User Data Module. The AN/AAR-57 passively detects missile plume energy, tracks multiple energy sources and classifies each source as a lethal missile, non-lethal missile (not intercepting the aircraft) or clutter. Its very fine angle-of-arrival (AOA) capability delivers rapid and accurate hand-off to cue an IRCM pointing/tracking subsystem or for the deployment of chaff, and or flares for missile defense. Fine AOA processing provides detection ranges nearly double that of existing fielded passive systems and greatly reduces false alarm rates. This provides all weather, all-altitude operation while protecting against multiple simultaneous engagements in dense clutter environments. The AN/AAR-57 has already been released to numerous countries. The risk management factor also is low. Disclosure of the advanced technology, if compromised, will not constitute an unreasonable risk to the United States.

3. In summary, HIDAS provides: Improved aircraft survivability through – a prioritized and co-ordinated, timely response to multiple threats. Improved situational awareness through – a single, integrated cockpit display of the combined sensor inputs; reduced false alarm rates through correlation of data. Improved mission effectiveness through – reduced crew workload through automated, effective and efficient use of countermeasures; user control and re-programmability at the flight line. Improved supportability through – integrated mission dependent data preparation and up loading; recording and analysis of detected emitters and countermeasures activity; integrated BIT and a reduced number of LRUs.