

**BY ORDER OF THE
509TH BOMB WING COMMANDER**

**WHITEMAN AIR FORCE BASE
INSTRUCTION 21-117**



9 APRIL 2013

Maintenance

**EQUIPMENT MAINTENANCE CLASSIFIED
DATA PURGE AND UPLOAD OF AVIONICS
LINE REPLACEABLE UNITS(LRU'S)**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive 21-1 *Air and Space Maintenance* and this instruction establishes procedures for Classified Data Purge (CDP) of avionics Line Replaceable Units (LRUs) after removal from the aircraft and prior to shipment off-base to repair facilities. It also covers the upload of software for LRUs returned to Whiteman Air Force Base. Procedures include handling and control of LRUs throughout maintenance actions, purging of classified data, uploading of software, and supply routing. Included references are Air Force Instruction (AFI) 31-401, *Managing the Information Security Program*, and the B-2 Program Security Classification Guide, and Technical Order 1B-2A-2-40GS-00-1, *System Integration*. This publication applies to 509th Maintenance Group (509 MXG) and the 509th Mission Support Group (509 MSG). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records* and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afirms/afirms/>.

1. OVERVIEW.

1.1. The 509th Maintenance Group Commander (509 MXG/CC) and the 509th Mission Support Group Commander (509 MSG/CC) are responsible for compliance with this instruction.

1.2. 509th Aircraft Maintenance Squadron (509 AMXS/CC) ensures assigned personnel comply with handling and control requirements of LRUs requiring classified data purge/software upload in accordance with this instruction.

1.3. 509th Logistics Readiness Squadron Commander (509 LRS/CC), ensures all assigned supply personnel responsible for handling LRUs requiring classified data purge/software upload comply with procedures in this instruction.

1.4. Classified Data Purge (CDP) Engineers are responsible for classified data purge, software upload and will perform required functions according to the terms of the Contractor-Inventory Control Point (C-ICP) contract. Specific roles of the CDP Engineers and their interaction with Whiteman AFB personnel in the control and handling of LRUs will be as specified in this instruction.

2. APPLICABILITY.

2.1. General LRU Applicability. The following type of LRUs may require software upload prior to installation on aircraft. These LRU's will also require classified data purge before they may be turned in to the repair cycle activity. For specific software classification levels, refer to TO 1B-2A-2-40GS-00-1, Table 1-6 and applicable interim operational supplements.

Table 2.1. General LRUs

Avionics Control Computer (ACC)	Disk Drive Unit (DDU)	Integrated Processor Unit (IPU)
Display Processor Unit (DPU)	Radar Data Processor (RDP)	ZSR-63 Pre-processor
Data Entry Panel (DEP)	Crash Survivability Memory Unit (CSMU)	Center Instrument Display Processor (CIDS)
Flight Control Computer (FCC) see 2.1.1	Radio Frequency Switching Unit (RFSU)	

2.1.1. The Confidential Flight Control Computers (FCCs) Operational Flight Program software will be loaded and purged by 509 MXS/Avionics Flight.

2.2. Specific sub-system nomenclature. The positions on-aircraft for each LRU and the nomenclature (when different) for that position are as follows:

Table 2.1.1. Specific Sub-System Nomenclature

Left DEP	Right DEP
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DPU 1 – 4	ZSR-63 Processor (ACC)
Flight Management/Control Processor Primary (ACC)	Flight Management/Control Processor Alternate (ACC)
Integrated Processor Unit Primary (IPU)	Integrated Processor Unit Alternate (IPU)
Air Vehicle Interface Processor Primary (ACC)	Air Vehicle Interface Processor Alternate (ACC)
Defensive Management Processor Primary (ACC)	Defensive Management Processor Alternate (ACC)
Stores Management Processor (ACC) Primary (ACC)	Stores Management Processor Alternate (ACC)
AINS Processor (ACC)	INS Processor (ACC)
Left TF/TA Processor (ACC)	Right TF/TA Processor (ACC)

2.3. Software Requirements. The specific classified data purge or software upload requirement for each unit will depend on the type of unit, position in which it is installed, mission load, and failure mode.

2.4. Types of data purge. There are two types of classified data purge that can be performed off-aircraft on avionics LRUs. The first is the purge of the Operational Flight Program (OFP) software and the second is purge of the classified data mission files that may remain in the unit as a result of a failure of the on-aircraft classified data erase function. Typically only the OFP will require classified data purge.

3. PROCEDURES FOR HANDLING AND CLASSIFIED DATA PURGE OF LRUS. 3.1 SPECIFIC AIRCRAFT MAINTENANCE PERSONNEL RESPONSIBILITIES

3.1. 1 Custody and accountability responsibilities. Once maintenance personnel have determined that they must remove an avionics LRU, the classification must be determined for proper handling. If is that LRU is classified, he or she must;

3.1.1. 1 Determine the classification level of the LRU. Using Technical Order 1B-2A-2-40GS-00-1, with applicable interim operational supplements, and the B-2 Security Classification Guide, technicians must evaluate the classification level of all LRUs that are to be transported to and from the aircraft and prior to asset turn in to the supply system. If unable to determine the specific software classification after an aircraft flight, the LRU is to be handled at the highest classification level. The maintenance technician will initiate DD Form 1907, Signature Tally Record or AFTO Form 310, Document Receipt and Destruction Certificate for the unit.

3.1.1.1.1. Top Secret level asset handling. Two personnel of appropriate clearance will escort the LRU to the CDP and remain in place until the LRU's custody is transferred to the CDP Engineer. Custody may be transferred to new escorts of the appropriate clearance level or a facility with equal security accreditation and annotated on an AFTO Form 310, Document Receipt and Destruction Certificate. Custody transfer must be documented and maintained until the part is sanitized by, or custody transferred to, the CDP Engineer.

3.1.1.1.2. LRU's requiring Classified Data Purge. The maintenance personnel removing the LRU from the aircraft will complete an AFTO Form 350, *Repairable Asset Tag* and two copies of the applicable equipment condition tags. IAW AFMAN 23-110, and AFI 31-401 Information Security Management, the AFTO Form 350 must include this statement as follows:

“This item is classified at (state specific classification level) and must be handled IAW AFI 31-401 and the B-2 Program Security Guide”

3.1.1.1.2.1. Classified LRU temporary storage. Once the LRU has been documented, the LRU must be controlled and escorted Building 43, Room 137. Access to this area is controlled by the 509th Aircraft Maintenance Squadron Electronic Warfare Element. Once the area is accessed, the CDP Engineer must be contacted immediately and the LRU to be purged must be signed in to the classified parts binder located near the entrance to the CDP room 137C. Classified parts requiring classified data purge will be stored in room 137 until they have been purged. This area is only cleared for open storage of up to Secret/SAR; all Top Secret level parts must be escorted by two Top Secret cleared personnel until custody is transferred to the CDP Engineer.

3.1.1.1.2.2. Documentation and disposition. After the LRU has been purged of classified data, CDP Engineer will stamp the AF Form 350 with the appropriate information stating the LRU has been sanitized and is ready to be turned in to the repair cycle. It is the responsibility of the individual avionics specialties to follow up and ensure their LRUs are turned in to supply in a timely manner. LRU's that cannot be purged or identified as having no CDP purge capability will be transferred to the CDP Engineer by DD Form 1907, Signature Tally Record or AFTO Form 310, Document Receipt and Destruction Certificate. The CDP Engineer will process the unit “paperwork only” out of Supply and ensure the unit is manifested by the Traffic Management Office (TMO) to the CDP Engineer's EY7040 SRAN account.

The CDP Engineer will coordinate the classified shipment to the appropriate purge facility.

3.1.1.1.2.3. Failed LRU's requiring PQDR. If the LRU is being turned in as a Product Quality Deficiency Report (PQDR) exhibit, it will be held in room 137 as a classified item until disposition instructions are received from the B-2 Systems Program Office (SPO). Do not purge LRU unless instructed by the SPO.

3.1.2. Deployed Operations. Maintenance technicians removing classified LRU's from aircraft at a deployed and/or TDY location should use the aircraft for return to home station. This method should be considered first and must be coordinated through deployed/or TDY maintenance supervision. If using the aircraft to return classified LRU's to home station is not an option, maintenance technicians removing classified LRUs from aircraft at a deployed and/or TDY location will turn parts over to cleared AMXS supply or LRS personnel for storage and transportation to home station. The maintenance technician will initiate DD Form 1907, Signature Tally Record or AFTO Form 310, Document Receipt and Destruction Certificate for the unit indicating the classification of the LRU and label with "Constance Surveillance Required" to accompany the LRU. **WARNING:** During exchange with supply or LRS personnel, the classification of the LRU will be discussed using the 1B-2A-40GS-00-1, Table 1-6 and B-2 Security Classification Guide to determine LRU classification and proper cleared storage facilities/approved transportation is available.

3.1.2.1. Specialist technicians will be contacted upon the LRU's arrival at home station and be processed into SAR storage. The LRU will be signed in and stored in the SAR storage area located in Building 43, Room 137, until the LRU is purged.

3.2. CLASSIFIED DATA PURGE FACILITY

3.2.1. The classified data purge facility (CDP) located in Bldg 43 within room 137C and is operated by a CDP Engineer during the hours of 0700 to 1600, Monday through Friday. The CDP Engineer will provide operation of the CDP outside of normal operating hours on an as required basis. The CDP Engineer will acknowledge receipt of the LRU and provide an estimated completion date. Appropriately cleared personnel must be in the CDP when a purge operation is performed as directed by the CDP Operating Instruction. The two-person rule will be adhered to when an LRU requires purge of Top Secret/SAR data. If only one appropriately cleared CDP Engineer is available, an appropriately cleared Air Force technician will act as the second person and witness the purge. When the classified data purge is complete, the CDP Engineer will remove any classification stickers located on the front of the unit (or side of the unit if equipped with carrying handles) and annotate on the AFTO Form 350 with the unclassified part number and national stock number (NSN). The engineer will also change the part number label on the unit to reflect the correct part number/NSN for an unclassified / un-programmed unit.

3.2.2. Procedures for software upload of LRU's. The following LRUs require software upload prior to installation on the aircraft:

Table 3.2.2. Software Upload of LRUs

Avionics Control Computer – Boot ROM	Display Processor Unit – Bootstrap
Flight Control Computers – Boot ROM and OFP	Center Instrument Display Processor (CIDS) OFP

3.2.3. Initial LRU Configuration tasks. When one of the LRUs listed above is returned to Whiteman AFB from a repair facility, it will be an un-programmed unit with no software loaded. The unit will be receipted by Supply and identified as a Functional Checklist item, requiring further action, prior to placement in stock as a “Serviceable” unit. Supply will generate a “C-deck” document number against the CDP’s (124CD) SPRAM account to facilitate the uploading of software. When necessary, 509 AMXS/MXA will provide the CDP Engineer with written direction to load a different block of software. This would occur when a new software configuration has been installed on the aircraft. When an LRU is issued to the CDP for software upload on a “C-deck” document number, the CDP Engineer will upload the correct software and install the appropriate part number label for that block of software on the unit. Appropriately cleared personnel must be in the CDP when an upload is performed. The CDP Engineer will classify the LRU per TO 1B-2A-2-40GS-00-1, Table 1-6 and applicable interim operational supplements, and the B-2 Security Classification Guide. The CDP Engineer will update the new stock number and provide DD 1574, Serviceable Material Tag, as required.

3.2.4. Firmware upload responsibilities. When an LRU requiring software upload is issued to maintenance for installation on an aircraft, maintenance technicians will transport the unit to the CDP facility for upload. The CDP engineer will perform the upload, install the appropriate part number and classification labels, and return the unit to maintenance technicians. Technicians are responsible for handling and controlling the unit as required by its current classification until it is installed on the aircraft. If a unit is uploaded on-aircraft, maintenance personnel performing the installation and upload are responsible for installing the proper classification and part number/NSN labels on the unit.

3.2.5. The ACC has a UV Programmable Read Only Memory (PROM) that must be removed from the unit to upload the boot ROM. The FCC has UV PROM cards that must be removed from the unit to upload both the boot ROM and the OFP. These units will require functional checks after programming and reinstallation of the UV PROM cards. The CDP Engineer will perform the functional check on the ACC.

3.3. ADDITIONAL SUPPORT REQUIREMENTS FOR CLASSIFIED DATA PURGE OPERATION:

3.3.1. The CDP Engineer is responsible, until transfer of software ownership to the government, for control and management of software programs required to load returned LRUs off-aircraft and the application/removal of any identification or classification markings.

3.3.2. Administration of the CDP function at Whiteman AFB is the responsibility of the Contractor-Inventory Control Point (C-ICP) contractor.

THOMAS A. BUSSIERE, Brigadier General, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 31-401, *Managing the Information Security Program*, 1 November 2005

AFMAN 33-363, *Management of Records*, 1 March 2008

AFPD 21-1, *Air and Space Maintenance*, 25 February 2003

Technical Order 1B-2A-2-40GS-00-1, *System Integration*, 18 March 2013

Prescribed Forms

No Forms Prescribed

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ACC—Avionics Control Computer

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRIMS—Air Force Information Management System

C-ICP—Contractor Inventory Control Point

CDP—Classified Data Purge

CIDS—Center Instrument Display Processor

CSMU—Crash Survivability Memory Unit

DDP—Disk Drive Unit

DEP—Data Entry Panel

DPU—Display Processor Unit

FCC—Flight Control Computer

IPU—Integrated Processor Unit

LRU—Line Replacement Unit

OFP—Operational Flight Program

OPR—Office of Primary Responsibility

PQDR—Product Quality Deficiency Report

RDP—Radar Data Processor

RFSU—Radio Frequency Switching Unit

SPO—Systems Programming Office

TMO—Traffic Management Office