

**BY ORDER OF THE COMMANDER
3RD WING (PACAF)**

3RD WING INSTRUCTION 10-703



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Operations

**ELECTRONIC WARFARE INTEGRATED
REPROGRAMMING (EWIR)**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFPD 10-7, *Information Operations*, and is used in conjunction with AFI 10-703, *Electronic Warfare Integrated Reprogramming (EWIR)* and SERENE BYTE/PACERWARE expanded procedures maintained by 3 MOS/MXOP, Wing Avionics Manager. It prescribes responsibilities and procedures for operations involving the electronic reprogramming of electronic combat (EC) systems onboard 3rd Wing (3 WG) assigned aircraft during higher headquarters exercise (SERENE BYTE), or real world tasking (PACER WARE). This instruction is applicable to: 3rd Wing Command Post (3 WG/CP), 3rd Maintenance Operations Squadron, 3rd Wing Avionics Manager (3 MOS/MXOP) and Maintenance Operations Control Center (3 MOS/MXOOC), Air Force Engineering and Technical Services (AFETS), 3rd Maintenance Group Quality Assurance (3 MXG/MXQ), 3rd Operations Support Squadron Weapons and Tactics Flight (3 OSS/OSK), 19th Aircraft Maintenance Unit (19 AMU), 90th Aircraft Maintenance Unit (90 AMU), 525th Aircraft Maintenance Unit (525 AMU), 517th Aircraft Maintenance Unit (517 AMU), 517th Airlift Squadron (517 AS), and 962nd Aircraft Maintenance Unit (962 AMU), 19th Fighter Squadron (19 FS), 90th Fighter Squadron (90 FS), 525th Fighter Squadron (525 FS), 962nd Airborne Air Control Squadron (962 AACS), 3rd Component Maintenance Squadron (3 CMS), 3rd Logistics Readiness Squadron (3 LRS), and Detachment 1, 353rd Combat Training Squadron (RED FLAG ALASKA) personnel. 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*. Route the AF Form 847 through the appropriate chain of command. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule

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SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. It improved EWIR and related processes to aerospace operations. Tasks assigned to 3 OSS/OSK, 3 MOS/ MXOP, 3 MOS/ MXOOC, 3 MXG/MXQ, 3 CMS/MXMV, 19 AMU, 517 AMU, 962 AMU, 3 WG/CP, and 90 FS, 525 FS, 962 AACS Electronic Combat Officers (ECO) are changed to reflect current operating procedures. Additional units formed since last revision is included.

1. Objectives:

- 1.1. Exercise electronic warfare (EW) reprogramming procedures for all reprogrammable electronic combat (EC) systems.
- 1.2. Validate local procedures for dissemination of emergency reprogramming.
- 1.3. Identify and report shortfalls in EC systems, associated support equipment, communications network, and operational/maintenance/communications procedures.

2. Responsibilities/Procedures. The 3rd Operations Support Squadron Weapons and Tactics Flight (3 OSS/OSK) is the OPR for all wing reprogramming activities.

2.1. The 3 OSS/OSK (3rd Operations Support Squadron Weapons and Tactics Flight) will:

2.1.1. Ensure a current SERENE BYTE/PACER WARE after-duty/weekend notification letter is on file at the 3rd Maintenance Operations Control Center (3 MOS/ MXOOC). Update letter annually or as required.

2.1.2. Notify 3rd Wing Commander (3 WG/CC), 3rd Operations Group Commander (3 OG/CC) and 3rd Maintenance Group Commander (3 MXG/CC) of SERENE BYTE/PACER WARE tasking. Brief changes in threat environment and effects of reprogramming on affected systems' operation and displays. Upon completion of briefing to 3 WG/CC, 3 OSS/OSK has the authorization to implement SERENE BYTE/PACER WARE tasking.

2.1.3. Notify 3 OSS/INO (Intel) and all affected squadron Weapons and Tactics Flights (DOW). Brief changes in threat environment and effects of reprogramming on affected systems' operation and displays.

2.1.4. Terminate Exercise (SERENE BYTE) and advise the 3 OG/CC and 3 MXG/CC of completion after notification from the 3rd Wing Avionics Manager (3 MOS/MXOP) that all required reprogramming actions have been completed, and all systems checks are documented successful/unsuccessful.

2.1.5. Notify ACC/A3IE and HQ PACAF/A3TW by classified unit loading message (ULM) when SERENE BYTE/PACER WARE is completed, or when it is determined the wing will be unable to comply in the allowed time. **NOTE:** During MINIMIZE conditions, other methods can be used.

2.1.6. Prepare and submit classified after action reports for reprogramming tasking to the appropriate agencies in accordance with worldwide SERENE BYTE exercise plan. **NOTE:** During MINIMIZE conditions, other methods can be used.

2.1.7. Maintain primary responsibility for maintaining the 3 WG PACERWARE electronic mailboxes.

2.1.8. Perform actions and responsibilities listed in the 3rd Wing SERENE BYTE/PACER WARE expanded procedures.

2.1.9. Chair meetings and other activities as part of the electronic warfare integrated reprogramming (EWIR) action team.

2.2. The 3rd Wing Avionics Manager (WAM) (3 MOS/MXOP) will:

2.2.1. Function as overall manager for the 3 WG SERENE BYTE/PACER WARE program.

2.2.2. Ensure all recipients of SERENE BYTE/PACER WARE message traffic (listed below) have a separate SERENE BYTE/PACER WARE message management letter on file at the 3 MOS/MXOOC and 3 MOS/MXOP. Letters will be updated quarterly. **NOTE:** During MINIMIZE conditions, other methods can be used.

2.2.2.1. 3 MOS/MXOOC.

2.2.2.2. Air Force Engineering and Technical Services (AFETS).

2.2.2.3. 3 MXG/MXQ.

2.2.2.4. 3 OSS/OSK.

2.2.2.5. 3 MOS.

2.2.2.6. 3 CMS/MXMV.

2.2.2.7. 3 OG.

2.2.2.8. 3 AMXS.

2.2.2.9. 19 AMU/MXAB.

2.2.2.10. 517 AMU/MXAW.

2.2.2.11. 962 AMU/MXAE.

2.2.2.12. DETACHMENT 1, 353rd Combat Training Squadron (RED FLAG AK).

2.2.3. Verify appropriate agencies assign a terminal area security officer (TASO) for the Multi-Service Electronic Warfare Data Distribution System (MSEWDDS). TASOs will be identified on the message management letter.

2.2.4. Track status and assist coordination of required support equipment, as needed.

2.2.5. Develop and maintain local procedures for implementation and documentation of SERENE BYTE/PACER WARE programs. Reference 3rd Wing SERENE BYTE/PACER WARE expanded procedures.

2.2.6. Immediately notify 3 OSS/OSK upon completion of all reprogramming actions along with successful/unsuccessful operational checks of all affected systems.

2.2.7. Collect and compile all unit after-action reports into a single after-action report. Collate time sequence records of each aircraft maintenance unit and 3 CMS organization's activities. This information will be provided along with problems encountered and suggestions for improvements. This after-action report will be sent via E-mail Word document to 3 OSS/OSK within two workdays of SERENE BYTE/PACER WARE completion in a classified format.

2.2.8. Participate in meetings and other activities as part of the EWIR action team.

2.3. The 3 MOS/ MXOOC (Maintenance Operations Control Center) will serve as the organizational and informational hub for reprogramming actions and will also:

2.3.1. Ensure 3 MOS/ MXOOC personnel are included on the Base Communication Center authorization letter for receipt of SERENE BYTE/PACERWARE message traffic from 3 WG/ CP.

2.3.2. Submit a message management letter containing a list of personnel authorized receipt of SERENE BYTE/PACER WARE messages to 3 MOS/MXOP and other agencies as required. TASOs will be identified on the message management letter. The list will be updated quarterly or as required.

2.3.3. Notify appropriate 3 WG agency personnel **IMMEDIATELY** upon receipt of a SERENE BYTE/PACERWARE message. Reference the 3rd Wing SERENE BYTE/PACER WARE expanded procedures and Emergency Action Checklist for guidance and actions.

2.3.4. During exercise/contingency operations the Maintenance Operations Control Center will pick up, or delegate pick up of SERENE BYTE/PACERWARE message traffic, if applicable.

2.3.5. Maintain a current copy of all organizational SB/PW Message Management letters.

2.3.6. Maintain a copy of the after-duty/weekend, and holiday notification document for affected organizations (reference attachment 1 of the 3rd WG SERENE BYTE/PACERWARE expanded procedures).

2.3.7. Submit an after-action report to 3 MOS/MXOP within 1 workday of SERENE BYTE/PACER WARE completion.

2.3.8. Participate in meetings and other activities as part of the EWIR action team.

2.4. The 3 MXG/MXQ (Quality Assurance) will:

2.4.1. Submit a message management letter containing a list of personnel authorized receipt of SERENE BYTE/PACER WARE messages to 3 MOS/MXOOC, 3 MOS/MXOP, 3 CMS/ MXMV and applicable AMU. TASOs will be identified on the message management letter. The list will be updated quarterly or as required.

2.4.2. Obtain SERENE BYTE/PACER WARE message traffic from applicable aircraft maintenance units (AMU)/maintenance operating center (MOC) and ensure reprogramming or time compliance technical order (TCTO) procedures are performed in accordance with applicable directives. Immediately notify 3 MOS/MXOP (WAM) of any procedural or equipment discrepancies.

2.4.3. Monitor reprogramming activities of AMUs and 3 CMS/MXMV. Immediately notify 3 MOS/ MXOP (WAM) upon completion of reprogramming evaluations/actions, along with successful or unsuccessful operational checks of affected systems.

2.4.4. Submit after-action report to 3 MOS/MXOP within 1 workday following completion of SERENE BYTE/PACER WARE operations, if applicable.

2.4.5. Perform actions and responsibilities listed in the 3rd Wing SERENE BYTE/PACER WARE expanded procedures.

2.4.6. Participate in meetings and other activities as part of the EWIR action team.

2.5. The 3 CMS/MXMV (Avionics Flight) will:

2.5.1. Submit a message management letter containing a list of personnel authorized receipt of SERENE BYTE/PACER WARE messages to 3 MOS/ MXOOC, 3 MOS/MXOP and applicable AMU. TASOs will be identified on the message management letter. List will be updated quarterly or as required.

2.5.2. Obtain message traffic and SB/PW data from 3 MOS/MXOOC or through the reprogramming centers (RC) MSEWDDS to perform in-shop reprogramming. Reprogramming can only be accomplished after authorization is received from 3 OSS/OSK representatives.

2.5.3. Coordinate with 19 AMU, 517 AMU, 353 CTS, or other applicable organization to transfer required assets to/from 3 CMS/MXMV for reprogramming.

2.5.4. Provide backup reprogramming for units unable to reprogram assets.

2.5.5. Immediately notify 3 MOS/MXOP, 3 MOS/MXOOC and 3 MXG/MXQ if unable to reprogram assets.

2.5.6. Coordinate with 3 LRS for issue of all affected supply assets requiring SERENE BYTE/ PACER WARE reprogramming, if applicable.

2.5.7. Immediately notify 3 MOS/MXOP and 3 MOS/MXOOC upon completion of all reprogramming actions. Submit after action report to 3 MOS/MXOP within 1 day following completion of SERENE BYTE/PACER WARE operations.

2.5.8. Perform actions and responsibilities listed in the 3rd Wing SERENE BYTE/PACER WARE expanded procedures.

2.5.9. Participate in meetings and other activities as part of the EWIR action team.

2.6. The 19 AMU, 517 AMU, and 962 AMU will:

2.6.1. Submit a message management letter containing a list of personnel authorized receipt of SERENE BYTE/PACER WARE messages to 3 MOS/ MXOOC, 3 MOS/MXOP and if applicable, 3 CMS/MXMV. TASOs will be identified on the message management letter. List will be updated quarterly or as required.

2.6.2. Obtain message traffic and SB/PW data from 3 MOS/MXOOC or through the RC's MSEWDDS to perform reprogramming. Reprogramming can only be accomplished after authorization is received from a 3 OSS/OSK representative.

- 2.6.3. Immediately notify 3 MOS/MXOP, 3 MOS/MXOOC and 3 MXG/MXQ if unable to reprogram assets.
- 2.6.4. Immediately notify 3 MOS/MXOP and 3 MOS/MXOOC upon completion of all reprogramming actions. Submit after action report to 3 MOS/MXOP within 1 day following completion of SERENE BYTE/PACER WARE operations.
- 2.6.5. Perform actions and responsibilities listed in the 3rd Wing SERENE BYTE/PACER WARE expanded procedures.
- 2.6.6. Participate in meetings and other activities as part of the EWIR Action Team.
- 2.7. The 517 AS, 19FS, 90 FS, 525 FS, and 962 AACS Electronic Combat Officers (ECO) will:
- 2.7.1. Inform 3 OSS/OSK of reception of SERENE BYTE/PACER WARE tasking. Brief the 3rd Wing ECO of changes in the threat environment and the effects of reprogramming on affected systems' operation and displays.
- 2.7.2. Perform actions and responsibilities listed in the 3rd Wing SERENE BYTE/PACER WARE expanded procedures.
- 2.7.3. Once contacted by Wing ECO, F-22 squadron ECOs will transfer files from Wing AFMSS to Squadron AFMSS and cut required number of aircrew DTC (only one DTC required for SERENE BYTE Exercise). If directed by Wing ECO, transfer files to maintenance personnel for loading of F-22A Mass Memory.
- 2.8. The 3 WG/CP will:
- 2.8.1. Monitor secure transmission channels for receiving wing reprogramming messages including, but not necessarily limited to 3 WG CP and 3 WG PACER WARE electronic mailboxes (AMHS). Ensure all command post personnel have authorization and access to these systems for round-the-clock monitoring.
- 2.8.2. Upon receiving a SERENE BYTE/PACERWARE Message, immediately start the notification process. Reference 3rd Wing SERENE BYTE/PACER WARE expanded procedures for guidance, actions and responsibilities.
- 2.8.3. Participate in meetings and other activities as part of the EWIR action team.

3. Prescribed and Adopted Forms.

3.1. Adopted Forms.

AF Form 847, *Recommendation for Change of Publication.*

3.2. Prescribed Forms.

No forms were prescribed by this publication.

THOMAS W. BERGESON, Colonel, USAF
Commander

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

AFPD 10-7, *Command and Control Warfare*, 6 September 2006.

AFI 10-703, *Electronic Warfare Integrated Reprogramming (EWIR)*, 30 November 2007.

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

Acronyms and Abbreviations

AFETS— Air Force Engineering and Technical Services.

AMHS— 3 WG PACER WARE Electronic Mailboxes.

AMU— Aircraft Maintenance Units.

DTC— Defense Training Classes.

EC— Electronic Combat.

ECO— Electronic Combat Officers.

EW— Electronic Warfare.

EWIR— Electronic Warfare Integrated Reprogramming.

MOC— Maintenance Operating Center.

MSEWDDS— Multi-Service Electronic Warfare Data Distribution System.

OPR— Office of Primary Responsibility.

PACER WARE— Real World Tasking.

RC— Reprogramming Center.

RDS— Records Disposition Schedule.

SERENE BYTE— Higher Headquarters Exercise.

TASO— Terminal Area Security Officer.

TCTO— Time Compliance Technical Order.

ULM— Unit Loading Message.

WAM— Wing Avionics Manager.