BY ORDER OF THE COMMANDER
8TH FIGHTER WING

8TH FIGHTER WING INSTRUCTION
10-101

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Operations

ELECTRONIC WARFARE INTEGRATED REPROGRAMMING (EWIR)

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(Colonel James G. Sturgeon)

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This instruction implements **Air Force Policy Directive (AFPD) 38-6, *Mission Directives*.** It establishes Kunsan Air Base policy, assigns responsibilities, and defines procedures for reprogramming EW systems under peacetime and wartime conditions. It is applicable to all assigned personnel to the 8th Fighter Wing, Kunsan Air Base, Republic of Korea supporting aircraft EW systems. 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 Forms 847 from the field through the appropriate functional chain of command. 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 Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This interim change updates office symbols, phone numbers and publication dates. A margin bar (|) indicates newly revised material.

1. EWIR General Information and Objectives.

1.1. **General Information.** EW systems reprogramming is a result of operational deficiencies or a change in operational requirements. SB is an exercise of the emergency reprogramming process. PW is an actual reprogramming effort. Reprogramming includes modification of aircrew tactics, computer software, and may include changes to equipment settings. Changes will be dispatched to the 8 FW from HQ PACAF in the MXGt expedient manner in accordance with (IAW) AFI 10-703, *Electronic Warfare Integrated Reprogramming*. The Secret Internet Protocol Router Network (SIPRNET) is the primary method of receiving reprogramming data from the Multiservice Data Distribution System (MSDDS). A secure data connection using the STE-III is secondary. Units will proceed with reprogramming actions only upon receipt of implementation directions from MAJCOM and the 8th Operations Group Commander (8 OG/CC) approval. Expedient distribution and execution is critical to counter new or updated threats and ensure aircraft/aircrew survivability, therefore all actions contained in this instruction must be executed without delay.

2. SB/PW Message Information.

2.1. **The normal flow and definition of messages for a SB/PW are as follows:**

2.2. An initial message may alert the wing of an impending SB/PW event, or it could be no-notice with a System Impact Message (SIM) or Reprogramming Impact Message (RIM) arriving first.

2.3. A **SIM** describes parametric changes to threats and details what effect the changes will have on a particular aircraft system.

2.4. A **RIM may follow the SIM.** The RIM details how the Reprogramming Center (RC) plans to compensate for the change in the threat and how the reprogramming actions affect the system. A Time Compliance Technical Order (TCTO) or Maintenance Instruction Message (MIM) may also arrive that defines the reprogramming procedures for maintenance personnel.

2.5. Along **with the RIM, the data (reprogramming software) will be available on the MSDDS.** The MSDDS is a classified network that can be accessed through SIPRNET or a STE-III modem.

2.6. The **Implementation Message (IMP) is the authorization from HQ PACAF to reprogram the affected systems.** The IMP will be attached to the RIM and authorize loading unless further MAJCOM instruction is received. However, prior to reprogramming any 8 FW aircraft or alternate mission equipment, the 8 OSS/OSKE(8 FW Electronic Combat Pilot (ECP)) will brief the 8 OG/CC on the effect of the SB/PW. **Aircraft, HARM Targeting System(HTS), and Electronic Attack (EA) pods will not be reprogrammed without approval from the 8 OG/CC.**

2.7. The interval between messages can vary from a few hours, as in a PACAF SB exercise, to several months for a PW dealing with a routine software upgrade.

2.8. **The systems affected by SB/PW at Kunsan AB are:** ALR-56M Radar Warning Receiver (RWR) Set, ALE-50 Active Towed Decoy (ATD), ALE-47 Countermeasures Dispenser System (CMDS), ALQ-184 Electronic Attack Pod (EAP), HTS, and ALQ-188 EAP.

2.9. An 8 FW/PW PACER WARE inbox is available on SIPRNET to provide notification of SB/PW messages and applicable messages posted on MSDDS.

3. Objective.

3.1. To provide the 8 FW an expedient and accurate flow of information and actions in compliance with MAJCOM directed reprogramming.

3.2. The 8OSS/OSKE will notify 8 MXG Avionics Manager and 8 MXG/MXOC (Maintenance Operations Center) of a SB/PW within 30 minutes of 8 OG/CC approval.

3.3. The goal per AFI 90-201_ACCSUP_ADD_A, *Combat Aviation Operational Readiness Inspection*, 13 Jul 07, is for 8 FW Maintenance to accomplish the first aircraft SB/PW within two hours of notification from 8 MXG/MXOC.

3.4. Unless otherwise indicated, a SB exercise will involve the reprogramming of all units of a particular EW system per Aircraft Maintenance Unit/Pacer Ware objective as stated in 3.3.

4. SB/PW Message Notification Process.

4.1. **Peacetime Operations.**

4.1.1. 8 OSS/OSKE, 8 AMXS/MXA, and 8 FW/CP will check the 8 FW/PW PACER WARE account for PW messages daily.

4.1.2. If 8FW/CP receives an Emergency or Urgent PW message first, immediately contact the following two individuals in order: 8 OSS/OSKE and 8 MXG Avionics Manager. DO NOT leave a message on an answering machine or voicemail. If no contact can be made, notify 8 *OSS/OSK or designated representative and 8 MXG/MXOC. If 8FW/CP receives a Routine PW message first, contact the above individuals within normal duty hours, only.

4.1.3. Any other individual checking the PACER WARE account will contact 8 FW/CP if they receive a message that has not yet been disseminated.

4.1.4. If 8 OSS/OSKE is unavailable, 8 OSS/OSK will designate an alternate ECP from 8 FW SERENE BYTE/Pacer Ware Message Management Letter provided by 8 OSS/OSKE.

4.1.5. 8 OSS/OSKE (or designated alternate) will disseminate 8 OG/CC approvals for implementation to affected EW maintenance personnel and fighter squadrons.

4.2. **Exercise/Contingency Operations.**

4.2.1. During exercise or contingency operations, the 8 FW/PW PACER WARE inbox will be checked at least every 60 minutes by 8 FW/CP.

4.2.2. Upon receipt of the SB/PW message, 8 FW/CP will immediately contact the following two people in order: 8 OSS/OSKE and 8 MXG Avionics Manager. DO NOT leave a message on an answering machine or voicemail. If no contact can be made, notify the 8 FW Mission Director (MD) and 8 MXG/MXOC. The MD will locate and designate an alternate ECP from the 8 FW SERENE BYTE/Pacer Ware Message Management Letter provided by 8 OSS/OSKE and have the alternate ECP perform the duties of 8 OSS/OSKE.

4.2.3. Any other individual checking the PACER WARE account will contact 8 FW/CP if they receive a message that has not yet been disseminated.

4.2.4. The 8OSS/OSKE (or designated alternate) will coordinate with 8 MXG Avionics Manager and maintenance personnel to ensure dissemination of SB/PW messages. Once determined a valid message, the 8 OSS/OSKE, 8 OSS/OSK, or 8 MXG Avionics Manager will coordinate with 8 MXG/MXOC to run the SERENE BYTE/Pacer Ware checklist.

4.2.5. When maintenance units are notified of the SB/PW (RIM and/or MIM), they will download and print the reprogramming software from the MSDDS. The (VIPER) Memory Load Verifier (MLV) will be loaded with the new software at that time. However, reprogramming will not commence until the 8 OSS/OSKE (or Designated Alternate) and 8 OG/CC approves the reprogramming.

4.2.6. 8 OSS/OSKE or acting MD will disseminate 8 OG/CC approval instructions during exercise and contingency operations.

4.3. All units, peacetime or exercise/contingency, will compile their reprogramming times, pertinent actions, tail numbers, persons involved and problems encountered when reprogramming ceases and then pass this information to 8 OSS/OSKE as soon as practical.

5. 8 OSS/OSKE will:

5.1. Act as the focal point for all 8 FW EWIR activities and designate an alternate ECP.

5.2. Coordinate with 8 OSS/IN to develop Operational Change Requests (OCR) when required.

5.3. Provide a Message Management Letter (MML) to 8 CS/SCOSC and 8 FW/CP authorizing individuals (8 OSS/OSKE and alternates) to receive SB/PW message traffic for 8 OSS/OSK.

5.4. During exercise and contingency operations, provide MD with a list of ECP-qualified individuals.

5.5. Verify the MMLs are up to date once per quarter.

5.6. Review message addresses on incoming messages and update as required.

5.7. Upon receiving notification of reprogramming message traffic, determine urgency and applicability. Instruct 8 MXG Avionics Manager and 8 MXG/MXOC on the notification process based on message urgency and 8 OG/CC approval timeline.

5.8. Coordinate with 8 MXG/MXQ on which systems are affected by a SB/PW reprogramming message.

5.9. Download SB/PW files from the MSDDS for use as backups.

5.10. During contingency and exercise operations, notify the MD of received SB/PW message traffic and, if necessary to expedite the process, may directly pass the SB/PW message information to the 8 MXG/MXOC.

5.11. During contingency and exercise operations, provide briefing to 8 OSS/IN detailing SB/PW messages and expected impact on flying operations.

5.12. Write messages required by tasking, such as the Unit Load Message (ULM), when reprogramming is complete.

5.13. Ensure EW systems are returned to their original configuration or as directed by HQ PACAF after exercise termination.

5.14. Ensure deployed units have accurate points of contact and inform HQ PACAF/DOTW, USAFAWC/EC, 513 ETS, and WR-ALC/LNE of status.

5.15. Conduct an after action meeting, if required, to address concerns.

5.16. Compile a history of events and file the ULM and after action report to PACAF/DOTW.

5.17. Conduct as a minimum, quarterly SB/PW exercises. SB scenarios during an Operational Readiness Exercises (ORE) will count towards this requirement. SB scenarios should be coordinated through 53rd WG PW Administration at **53wg.pwadmin@afmc.af.smil** no later than two weeks prior to an exercise for proper coordination. Passing SB messages directly to the 8 FW/PW PACER WARE inbox or 8 FW/CP should only be done when all avenues to post to MSDDS have been exhausted. Passing SB messages directly to the 8 FW/CP negates desired learning objectives of proper communication and data flow among all involved.

5.18. Maintain an updated list of Operational Flight Program (OFP) versions after every SB/PW reprogramming action. In the case of exercises where several reprogramming efforts can happen, the updated list can wait until after the exercise.

6. 8 OSS/INW will:

6.1. During contingency and exercise operations, forward the 8 OSS/OSKE briefing detailing SB/PW messages to fighter squadron intelligence shops. Include SB/PW message information in the pre-mission brief and/or step brief in order to disseminate to all pilots prior to mission execution.

7. 35 FS/DOWE and 80 FS/DOWE will:

7.1. Act as alternates to 8 OSS/OSKE. Assume responsibilities as outlined in paragraph 5 when acting as 8 OSS/OSKE.

7.2. Ensure sufficient numbers of personnel have SIPRNET accounts with access to the 8 FW PW PACER WARE inbox.

7.3. Provide a MML to 8 CS/SCOSC authorizing individuals to receive SB/PW message traffic.

7.4. If 8 OSS/OSKE is unable to provide SB/PW briefings, coordinate with 8 OSS/IN to build briefings informing aircrews of changes.

7.5. Coordinate with Fighter Squadron Operation Supervisors to prioritize aircraft for reprogramming.

7.6. Coordinate with 8 AMXS/MXAAP/MXABP/MXAA/MXAB to set reprogramming priority.

8. 8 MXG Avionics Manager will:

8.1. Act as the secondary alternate to 8 OSS/OSKE. Assume responsibilities as outlined in paragraph 5 when acting as 8 OSS/OSKE.

8.2. Coordinate with 8 OSS/OSKE to produce the 8 FW SB/PW MML for receipt of classified message traffic.

8.3. Verify 8 MXG/MXOC SB/PW checklist is current quarterly.

8.4. Ensure appropriate permissions are maintained for the unit MSDDS access quarterly.

8.5. Coordinate between 8 OSS/OSKE, Fighter Squadron AMU's, 35 FS/DOWE, and 80 FS/DOWE for procedures/preparations for tasking.

8.6. Assist the 8 AMXS/MXAAS and MXABS with any reprogramming needs.

8.7. Review after action surveys for critical problems, discrepancies, etc. After reviews are complete forward surveys to the 8 OSS/OSKE.

9. The 8MXG/MXOC will:

9.1. Upon notification from 8 CS/SCOSC of SB/PW message traffic, contact in order listed on the Message Management Letter: 8 OSS/OSKE, 8 AMXS/MXA, 35 FS and 80 FS/DOWE, and 8 OG/CC. Stop at first contact. Additionally, call SNCO on duty.

9.2. Develop and maintain checklist procedures for immediate notification to 8 MXG, 35 FS, 80 FS, 8 MXS, and 8 AMXS in the event of a SB/PW message as instructed by the acting 8 OSS/OSKE, MD, or 8 OG/CC. Once determined a valid message from the 8 OSS/OSKE, 8 OSS/OSK, 8 MXG Avionics Manager, or 8 MXG/MXOC will run the SERENE BYTE/Pacer Ware checklist.

9.3. During exercise and contingency operations, coordinate with the appropriate 8 AMXS specialist expediter and 8 MXS/MXMV for all reprogramming start/stop times and overall completion times by using the tracking sheet found in the Serenebyte/Pacer Ware checklist.

9.4. Track times by aircraft tail number for all EW systems. Additionally, the HTS and ALQ-184 ECM Pods will be tracked by pod serial number.

9.5. Keep the MD updated on the reprogramming effort with reprogramming start/stop times, aircraft tail number and, when affected, the ALQ-184 ECM Pod serial number.

10. 8 AMXS/MXAAS and MXABS will:

10.1. Ensure sufficient numbers of personnel have SIPRNET accounts with access to the 8 FW PW PACER WARE inbox. Ensure personnel are authorized to read SB/PW messages.

10.2. Ensure sufficient numbers of personnel have MSDDS access and are properly trained to download messages and/or software.

10.3. Provide a MML to 8 CS/SCOSC authorizing individuals to receive SB/PW message traffic.

10.4. Upon notification from 8 MXG/MXOC, immediately dispatch personnel to access MSDDS and print out the message.

10.4.1. The acting 8 OSS/OSKE may directly deliver the message information to expedite the notification process.

10.5. In the event SIPRNET is down, send a runner to 8 CS/CSBB and obtain a printout of the message and download the applicable software.

10.6. For ALR-56M, ALE-47, ALQ-184, ALQ-188, HTS, and ALE-50 RIM/MIM, gain access to the MSDDS and download data, and prepare the VIPER for use.

10.6.1. Do not reprogram until 8 OG/CC approval is obtained.

10.7. Coordinate with 35 FS and 80 FS/DOWEs, MXAA/MXAB, and MXAAP/MXABP for reprogramming priority.

10.8. Track all start/stop times by aircraft tail number for all EW systems. Additionally, the HTS and ALQ-184 ECM Pod will be tracked by pod serial number. All start/stop times will be reported to 8 MXG/MXOC and 8 MXG Avionics Manager for tracking.

10.9. Annotate AFTO Form 781A, *Maintenance Discrepancy and Work Document*, for reprogramming action.

10.10. Notify the 8 MXG Avionics Manager of critical problems/delays in system reprogramming and upon reprogramming completion.

10.11. Track actions and record on after action survey (See Attachment 2). Send survey to 8 AMXS/MXA upon completion. Send survey **within 24 hours of completion** to the 8 OSS/OSKE.

11. 8 MXS/MXMV will:

11.1. Ensure sufficient numbers of personnel have SIPRNET accounts with access to the Avionics Flight SB/PW inbox (8 MXS/SB_PW). Ensure personnel are authorized to read SB/PW messages.

11.2. Ensure sufficient numbers of personnel have MSDDS access and are properly trained to download messages and/or software.

11.3. Provide a MML to 8 CS/SCOSC authorizing individuals to receive SB/PW message traffic.

11.4. Upon notification from 8 MXG/MXOC, immediately dispatch personnel to access MSDDS and print out the message.

11.4.1. The acting 8 OSS/OSKE may directly deliver the message information to expedite the notification process.

11.5. In the event SIPRNET is down, send a runner to 8 CS/SCOSC and obtain a printout of the message and download the applicable software.

11.6. Gain access to the MSDDS and download the data. For ALQ-184 RIM/MIM: Prep test station.

11.6.1. Do not reprogram until 8 OG/CC approval is obtained.

11.7. For ALQ-184track completions by pod serial number.

11.8. Report all start/stop times to 8 MXG/MXOC and 8 MXG Avionics Manager for tracking.

11.9. Notify 8 AMXS/MXA and 8 MXG Avionics Manager of critical problems/delays in system reprogramming and upon reprogramming completion.

11.10. Track actions and record after action survey (See Attachment 2). Send survey **within 24 hours of completion** to the 8 OSS/OSKE.

12. 8 FW/CP will:

12.1. Maintain a local checklist for 8 FW/CP personnel use when SB/PW messages are received. Ensure all personnel receive proper training in the SB/PW message process and can execute those procedures when required.

12.2. Upon receipt of a SB/PW message, immediately begin the notification process defined in paragraph 4 of this instruction. This applies to all messages, regardless of time or classification.

12.3. When reading message traffic information to anyone authorized to receive SB/PW messages, read only the **unclassified** subject line and date-time-group information over the phone. Also include the system affected **if unclassified.**

12.4. Track notification times and points of contact.

12.5. During exercises and contingencies, check the 8 FW/PW PACER WARE inbox at least every 60 minutes. During peacetime operations, the inbox will be checked daily.

13. Mission Director will:

13.1. During contingencies and exercises, if contacted for SB/PW messages, run the MD SB/PW checklist. Locate and designate an alternate ECP from the list of ECP-qualified individuals provided by 8 OSS/OSKE with the MML, and have the alternate ECP perform the duties of 8 OSS/OSKE (if required). Notify all agencies in an expedient manner.

13.2. Upon receipt of approval, coordinate with 8 OSS/OSKE and 8 OG/CC. Direct Fighter Squadron Operations Supervisor to coordinate with their respective ECP and the 8 MXG/MXOC to initiate reprogramming action.

S. CLINTON HINOTE, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 38-6, *Mission Directives,* 23 Dec 2014

AFI 10-703, *Electronic Warfare (EW) Integrated Reprogramming,* 4 Jun 2014 Incorporating Change 1, 22 Feb 2017

AFI 90-201_ACCSUP_ADD_A, *Combat Aviation Operational Inspection (ORI),* 13 July 2007 Incorporating Change 2, 3 March 2011

PACAF Standard Simulations, 14 Nov 2012

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

Abbreviations:

AFI—Air Force Instruction

AMU—Aircraft Maintenance Unit

ATD—Active Towed Decoy

CMDS—Countermeasures Dispenser Set

EA—Electronic Attack

EAP—Electronic Attack Pod

ECM—Electronic Countermeasures

ECP—Electronic Combat Pilot

EW—Electronic Warfare

EWIR—Electronic Warfare Integrated Reprogramming

HTS—HARM Targeting System

IAW—In Accordance With

IMP—Implementation Message

MAJCOM—Major Command

MIM—Maintenance Instruction Message

MD—Mission Director

MLV—Memory Load Verifier

MML—Message Management Letter

MOC—Maintenance Operations Center

MSDDS—Multiservice Data Distribution System

OCR—Operational Change Request

OFP—Operational Flight Program

ORE—Operational Readiness Exercise

PACAF—Pacific Air Forces

PW—PACER WARE

RC—Reprogramming Center

RIM—Reprogramming Impact Message

RWR—Radar Warning Receiver

SB—SERENE BYTE

SIM—System Impact Message

SIPRNET—Secret Internet Protocol Router Network

STE-III—Secure Terminal Equipment, III

TCTO—Time Compliance Technical Order

ULM—Unit Load Message

Attachment 2

OFFICE SYMBOLS/TELEPHONE LIST

Figure A2.1. Office Symbols/Telephone List.

Office Symbol	Office	Telephone Number
8 CS/SCOSC	Communications Focal Point	782-2666
8 FW/CP	Command Post	782-6000
8 MXG/CC	Maintenance Group Commander	782-7170
8 MXG/MXQ	Wing Avionics Manager	782-4030
8 MXG/MXOC	Maintenance Operations Center	782-0736
8 MXS/MXMV	Avionics Flight Chief	782-5292
8 MXS/MXMVE	Electronic Warfare Section	782-6111
8 AMXS/MXA	Maintenance Operations	782-6026
8 AMXS/MXAA	35th Aircraft Maintenance Chief	782-6459
8 AMXS/MXAAP	35th Production Superintendent	782-7404
8 AMXS/MXAAS	35th Specialist Flight	782-4559
8 AMXS/MXAB	80th Aircraft Maintenance Chief	782-4952
8 AMXS/MXABP	80th Production Superintendent	782-7271
8 AMXS/MXABS	80th Specialist Flight	782-6117
8 OG/CC	Operations Group Commander	782-8675
8 OSS/IN	Wing Intelligence	782-7182
8 OSS/OSK	Wing Weapons Officer	782-0783
8 OSS/OSKE	Wing Electronic Combat Pilot	782-0315
35 FS/DO	35th Operations Officer	782-4646
35 FS/DOWE	35th Electronic Combat Pilot	782-8185
80 FS/DO	80th Operations Officer	782-5100
80 FS/DOWE	80th Electronic Combat Pilot	782-4142

Attachment 3

AFTER ACTION SURVEY

A3.1. Complete one survey for each EW system affected. Complete applicable sections only. Return to 8 OSS/OSKE. Date: 1 Dec 20XX Office Symbol: 8 AMXS/XXX

Name: Amn N.E. Body Phone: 782-XXXX

Figure A3.1. EW System Involved:

TIME			ACTION TAKEN	AVERAGE TIME TO REPROGRAM ASSET
Start	**Stop**	**Event**		
08:00	0835	XXXX	XXXX	00:35

A3.2. Support Equipment Used/Serviceability:

A3.3. Problems and/or Lessons Learned:

A3.4. Recommendations:

A3.5. Actions Taken or Planned for Resolving Problems:

A3.6. Comments: