# BY ORDER OF THE COMMANDER SPANGDAHLEM AB (USAFE)



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Operations
ELECTRONIC WARFARE
INTEGRATED REPROGRAMMING
(EWIR) PROCEDURES

# COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This publication implements Air Force Policy Directive (AFPD) 10-7, Information Operations. It establishes procedures for a timely, accurate, and effective response to the Electronic Warfare Integrated Reprogramming (EWIR) process in accordance with (IAW) Air Force Instruction (AFI) 10-703, Electronic Warfare Integrated Reprogramming. It applies to all 52d Fighter Wing (52) FW) organizations with electronic warfare communication responsibilities. This publication may be supplemented at any level, but all supplements must be routed to the Office of Primary Responsibility (OPR) listed above for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the OPR listed above using the AF Form 847, Recommendation for Change of Publication; route AF Forms 847 from the field through the appropriate chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, Publications and Forms Management, Table 1.1 for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. 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

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# **SUMMARY OF CHANGES**

This document has been completely revised and must be reviewed in its entirety. Major changes include adding 52 FW supported systems, a contact flow chart, removing references to previous squadrons, and clarifying roles and responsibilities.

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## GENERAL.

- 1.1. EWIR is a communication intensive process, demanding close interaction with numerous wing agencies and is directed by the 52nd Operations Support Squadron Wing Weapons and Tactics (52 OSS/WINW), Electronic Combat Pilot (ECP), or designated fighter squadron (FS) alternate. The 52 OSS/WINW alternate is the 480th FS ECP. This instruction governs how the 52 FW will respond to an EWIR Message.
- 1.2. EWIR is developed and implemented through PACER WARE (PW) and SERENE BYTE (SB) Messages from the Air Warfare Center (AWC) and HQ USAFE/A3TW. PACER WARE is the unclassified term for an actual change, or notification of a deficiency, to an Electronic Warfare (EW) system. SERENE BYTE is the unclassified term for an exercise change or deficiency notification to an EW system.
- 1.3. Once the reprogramming center (RC) determines there is a threat change that impacts a current EW system, they report the impact, the effect on the EW system, an interim course of action (COA), and recommended COA. This information is passed to the affected units, the MAJCOM, and JFACC/CFACC in the form of a System Impact Message (SIM). If changing the EW system mission data (MD) and/or operational flight program (OFP) is the determined COA, it will be tested as coordinated by the Electronic Warfare Coordination Cell (EWCC). If the MAJCOM A3 and/or EWCC decide to install the software, along with previous coordination with RCs, they authorize the installation using an Implementation Message (IMP). Installation instructions for MD, and MD bundled with an OFP, are typically in the form of a Maintenance Instruction Message (MIM) or embedded in a Reprogramming Impact Message (RIM). Upon MAJCOM approval to implement or release software for fielding, notification will be distributed through classified organizational PW SIPRNET email accounts and MSDDS.
- **1.4.** Successful EWIR implementation requires constant communication between all participants. During PW or SB reprogramming, all units must maintain contact with the 52 OSS/OSK ECP or alternate.
- 1.5. For detailed specifics on EWIR Message types, reference AFI 10-703.
- **1.6.** The **52** FW currently supports the following EW systems. If in doubt which messages apply, contact the 52 OSS/OSK Wing ECP, 480th FS ECP, or the Wing Avionics Manager (WAM) for clarification.
  - 1.6.1. ASQ-213 (HTS)
  - 1.6.2. ALIC
  - 1.6.3. Threat Symbology Table (TST)
  - 1.6.4. AGM-88 High Speed Anti-Radiation Missile (HARM)
  - 1.6.5. ALQ-131
  - 1.6.6. ALQ-188
  - 1.6.7. ALR-56M
  - 1.6.8. ALE-47

- 1.6.9. ALE-50
- 1.6.10. ADM-160B/C/C-1MALD
- 1.6.11. AGM-158A/B (JASSM/JASSM-ER)

## NOTIFICATION FLOW

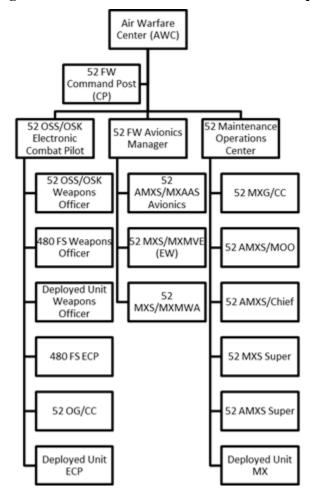
- 2.1. Use the flow chart below following an EWIR message notification (Figure 1).
- 2.2. The Electronic Combat Pilot (ECP) and Wing Avionics Manager will maintain the "52nd FW PACER WARE/SERENE BYTE Recall Roster" on the PACER WARE Database website

(https://wwwmil.53wg.eglin.af.mil/PacerWare/Login.aspx?ReturnUrl=%2fpacerware%2f <u>Default.aspx&AspxAutoDetectCookieSupport=1</u>). This website will send a NIPR and SIPR email notifying a PACER WARE has dropped. At a minimum, this distro will include the:

- 2.2.1. 52FW/CP
- 2.2.2. 52FW WAM
- 2.2.3. WAM designated assistants
- 2.2.4. 52 OSS/WINW Wing ECP
- 2.2.5. 52 OSS/WINW Weapons Officer
- 2.2.6. 480th FS ECP
- 2.2.7. 480th FS Weapons Officer
- 2.2.8. 480th FS/DO
- 2.2.9. 480th FS/CC
- 2.2.10. 52 AMXS/MOO
- 2.2.11. 52 AMXS/Chief
- 2.2.12. 52 OSS/DO
- 2.2.13. 52 OSS/CC
- 2.2.14. 52 OG/DCC
- 2.2.15. 52 OG/CC
- 2.3. The Wing ECP, or the 480th FS ECP, will maintain the 52 FW PW recall roster with the 52 FW Command Post. The Command Post is intended as a backup to the PACER WARE Database website. For any PACER WARE message affecting the systems listed above, the Command Post will send a NIPR email to every individual on the distro. For ROUTINE, or URGENT messages, the Command Post will call the Fighter Squadron to contact the ECP or his/her assistant during normal duty hours. For EMERGENCY messages, the Command Post will call the below distro, starting with the Wing ECP, regardless of the duty day. Only the unclassified title will be passed over the telephone.
  - 2.3.1. 52FW WAM
  - 2.3.2. WAM designated assistants
  - 2.3.3. 52 OSS/WINW Wing ECP

- 2.3.4. 52 OSS/WINW Chief Weapon's and Tactic's Officer
- 2.3.5. 480th FS ECP
- 2.3.6. 480th FS Weapons Officer
- 2.3.7. 480th FS/DO
- 2.3.8. 480th FS/CC
- 2.3.9. 52 AMXS/MOO
- 2.3.10. 52 AMXS/Chief
- 2.3.11. 52 OSS/DO
- 2.3.12. 52 OSS/CC
- 2.3.13. 52 OG/DCC
- 2.3.14. 52 OG/CC

Figure 2.1. EWIR Contact Flow Chart Example



## EWIR PROCESS & RESPONSE.

- **3.1.** Following notification, the Wing ECP will review the message and submit a recommendation to the Chief Weapons and Tactic's Officer or the 480th FS Weapons Officer. The Wing ECP will then take the assessment from the Chief Weapon's and Tactic's Officer to the 52 OG/CC. If the 52 OG/CC is not available, the Wing ECP will contact the 52 OG/DCC for approval.
- 3.2. If the 52 OG/CC disapproves implementation, the Wing ECP will send a NIPR email to the "52nd FW PACER WARE Notification Distribution List" stating that the 52nd FW will not implement the PACER WARE message. The Wing ECP will also send a SIPR email detailing the reason.
- 3.3. If the 52 OG/CC approves implementation, the Wing ECP will send a NIPR email to the "52nd FW PACER WARE Notification Distribution List" stating that the 52nd FW will implement the PACER WARE message. The Wing ECP will also send a SIPR email detailing an action plan for implementing the message.
- **3.4.** EWIR messages fall into one of three categories; ROUTINE, URGENT, OR EMERGENCY (combat operations). The 52nd FW will adhere to the implementation timeline outlined in Paragraph 3.6 of AFI 10-703.
  - 3.4.1. Comply with ROUTINE message instructions in a timely manner during duty hours. These actions may be scheduled around the daily training/maintenance schedule.
  - 3.4.2. Comply with URGENT message instructions first opportunity during normal duty hours. These actions take precedence over other activities until complete.
  - 3.4.3. Compliance with EMERGENCY message will be determined by the 52 OG/CC. He/she may determine if training, or operational missions, can, or cannot, be flown without reprogramming actions.
- **3.5.** The primary means of passing EWIR message specifics is electronically. If an office requiring the message cannot download it using secure electronic means, they are responsible for dispatching a courier to pick up the EWIR message from another base agency. They will prioritize the 52 MXG/MXQA (WAM), 52 OSS/WINW, and the 480th FS offices.
- 3.6. When the Wing ECP, or WAM confirms the implementation of the PW, or SB, the Wing ECP will report PW/SB compliance to their MAJCOM using the Unit Loading Message (ULM) within 72 hours of completion, indicating implementation status and issues affecting 100% aircraft upload. Use the template found on the classified MSDDS website (EWIR\_OPS\_PW\_MSG\_Templates library) and send to USAFE/A3TW when complete.
- 3.7. The 480th FS ECP will then publish a Pilot Read File to notify Pilots what the PW message effects.

## RESPONSIBILITIES.

# 4.1. This instruction and its attachments are chronological and not necessarily in order of responsibility.

# 4.2. 52 FW Command Post (52 FW/CP) will:

- 4.2.1. Ensure all CP controllers are familiar with this publication and have access or organizational email accounts.
- 4.2.2. Monitor 52 FW/CP organizational email accounts (NIPRNET / SIPRNET) for SB/PW notification traffic 24 hrs/day.
- 4.2.3. Immediately notify the WAM and the Wing ECP or 480th FS ECP of an EWIR message.
- 4.2.4. Operate IAW this instruction and **Attachment 2**.

# 4.3. The Wing ECP (or 480th FS ECP) will:

- 4.3.1. Act as primary coordinator and point of contact (POC) for all 52 FW reprogramming activities. This includes reprogramming of deployed aircraft, if required.
- 4.3.2. Have a working knowledge of the parent regulation AFI 10-703.
- 4.3.3. Ensure the 52 OG/CC, along with each squadron ECP are aware of EWIR documents and procedures.
- 4.3.4. Act as the OPR for this EWIR Instruction and distribute changes.
- 4.3.5. Maintain a MSDDS PW account in 52 OSS/WINW for daily PW/SB notification. All messages in this account will be verified with the 52 FW/CP account if not previously received from them.
- 4.3.6. Assemble and chair the EWIR action team, if required.
- 4.3.7. Keep pilots informed on current and reprogrammed EW equipment and their capabilities by publishing a Weapons Read File on the contents of the latest messages.
- 4.3.8. Conduct local exercises to maintain continuity of the EWIR system, as required.
- 4.3.9. Review pilot and intelligence inputs to include Operational Reports and Mission Reports (MISREPs) for potential EW system deficiencies and prepare an Operational Change Request (OCR) when discrepancies are identified IAW the template found on the classified MSDDS website (EWIR\_OPS\_PW\_MSG\_Templates library).
- 4.3.10. Operate IAW with this instruction, AFI 10-703, and Attachments 3.

## 4.4. 52 FW Maintenance Operations Center (MOC) will:

- 4.4.1. Ensure all MOC personnel are aware of applicable EWIR documents and procedures.
- 4.4.2. Monitor 52 MXG/MOC organizational email accounts (NIPRNET / SIPRNET) for SB/PW notification traffic.

- 4.4.3. Run Check Sheet 33 of Local Checklist (LCL-52MXG-201, 52d Maintenance Group Procedural check sheets) for notifying the appropriate organizations.
- 4.4.4. Operate IAW Attachment 4.

# 4.5. 52 MXS Electronic Warfare Systems (EWS) Section will:

- 4.5.1. Ensure all appropriate supervisors review applicable EWIR documents.
- 4.5.2. Implement EWIR changes only when directed by the Wing ECP, 480th FS ECP, or the WAM.
- 4.5.3. Advise the WAM on PW / SB actions at the beginning and completion of each reprogramming activity.
- 4.5.4. Notify all reprogramming events to the WAM within 12 hours of reprogramming termination.
- 4.5.5. Operate IAW **Attachment 5**.

## **4.6. 52 AMXS/AMU** will:

- 4.6.1. Ensure all production superintendents and EW shop personnel review applicable EWIR documents.
- 4.6.2. Attend the EWIR action team coordination meeting at the beginning of each reprogramming activity, if required.
- 4.6.3. Coordinate all aircraft configuration changes with the MOC, the WAM, and the Wing ECP.
- 4.6.4. Operate IAW Attachment 6.

# 4.7. The Wing ECP, 480th FS ECP, and 480th FS Alternate ECP will:

- 4.7.1. Maintain an MSDDS account and check weekly for any updates.
- 4.7.2. Be familiar with all applicable PW and SB EWIR documents, procedures and Operating Instructions.
- 4.7.3. Monitor reprogramming activity for their squadron and coordinate with the Wing ECP and the WAM.
- 4.7.4. Notify squadron Intelligence personnel and pilots of applicable changes to EW systems and publish the weapons read file created by the Wing ECP.
- 4.7.5. Submit after-action report inputs to applicable AMU representative for their report IAW **Para.** A6.1.16.
- 4.7.6. Operate IAW Attachment 7.

# 4.8. 52 OSS and 480 FS Intelligence will:

- 4.8.1. Ensure affected intelligence personnel review applicable EW system changes.
- 4.8.2. Be able to brief pilots on EW equipment capabilities and limitations against varying threats.

- 4.8.3. Provide the Wing ECP, squadron intelligence and ECPs with threat changes that impact EW systems.
- 4.8.4. Operate IAW Attachment 8.

# 4.9. The Wing Avionics Manager (WAM).

- 4.9.1. Maintain an MSDDS account and check for any updates twice a week.
- 4.9.2. Be familiar with all applicable PW and SB EWIR documents, procedures and Operating Instructions.
- 4.9.3. Monitor reprogramming activity for MXG and coordinate with the 52 OSS/OSK ECP and 480 FS ECP.
- 4.9.4. Coordinate with the Wing ECP to assemble an EWIR action team, if required
- 4.9.5. Have a working knowledge of the parent regulation AFI 10-703
- 4.9.6. Conduct local exercises to maintain continuity of the EWIR system, as required.
- 4.9.7. Operate IAW with this instruction and Attachments 10.

KRISTOFFER R. SMITH, Colonel, USAF Commander, 52d Operations Group

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

# References

AFI 10-703, Electronic Warfare Integrated Reprogramming, 4 June 2014

AFPD 10-7, Information Operations, 4 August 2014

## **Prescribed Forms**

None

# **Adopted Forms**

AF Form 847, Recommendation for Change of Publication

# Abbreviations and Acronyms

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFPD**—Air Force Policy Directive

AMU—Aircraft Maintenance Unit

**AWC**—Air Warfare Center

MXS—Maintenance Squadron

**CP**—Command Post

**DAT**—Data Message

**DMS**—Defense Messaging System

**ECM**—Electronic Counter-Measure

**ECP**—Electronic Combat Pilot

**EW**—Electronic Warfare

**EWS**—Electronic Warfare Systems

**FS**—Fighter Squadron

FW—Fighter Wing

**HQ**—Head Quarters United States Air Forces in Europe

**IMP**—Implementation Message

**IN**—Intelligence

MAJCOM—Major Command

MISREP—Mission Report

**MOC**—Maintenance Operations Center

MSDDS—Multi-Service Data Distribution System

OCR—Operational Change Request

**OG**—Operations Group

**OSK**—Wing Weapons and Tactics

**OSS**—Operational Support Squadron

**OT&E**—Operational Test and Evaluation

**POC**—Point of Contact

PW-Pacer Ware

**RIM**—Reprogramming Impact Message

SB—Serene Byte

**SIM**—System Impact Message

**ULM**—Unit Loading Message

USAFE/A3TW—USAFE Weapons and Tactic

# **52 FW COMMAND POST EWIR RESPONSIBILITIES**

- **A2.1.** Reference **Figure 1**, page 3, for notification flow. Use the EWIR recall roster for specific names and phone numbers.
- **A2.2.** Email all messages immediately after they are received.
- A2.3. For ROUTINE or URGENT messages, make contact by telephone during normal duty hours.
- **A2.4.** For EMERGENCY messages during combat operations, make contact by telephone and email regardless of the time of day.
- **A2.5.** Electronically forward (NIPRNET/SIPRNET) each PW and SB message to the Wing ECP and the WAM.
- **A2.6.** Record the date and time of message receipt and notification of the Wing ECP and the WAM.

# 52 OSS/WINW WING ECP (OR ALTERNATE) PROCEDURES FOR EWIR

- **A3.1.** The Wing ECP is responsible for the Electronic Warfare (EW) systems listed in **Paragraph 1.5** and will notify the appropriate 52 FW agencies with changes to these systems. In addition, the Wing ECP will notify and assist the ECP of any USAF units deployed to the 52 FW affected by a PW Message. When USAF CAF units deploy to the 52 FW in support of contingency operations, the Wing ECP will update **Paragraph 1.5** to reflect a current listing of EW systems deployed to the 52 FW.
- **A3.2.** In the Wing ECP's absence, the 480th FS ECP will assume these responsibilities. The Wing ECP will train and prepare all alternates to assume all EWIR responsibilities in case of their absence. The Wing ECP will provide the 52 FW/CP a list of alternate personnel to contact in his/her absence.
- **A3.3.** Reference **Figure 1**, page 3, for notification flow.
- **A3.4.** The Wing ECP will notify the 52 OG/CC, EWIR messages. Further, during all EWIR implementations, the Wing ECP will, as required, provide MXG/CC, and OSS/CC of all pertinent periodic status updates. Likewise, the Wing ECP will ensure the 480th FS Weapon's Officer and/or 480th FS ECP are informed of the latest EW changes immediately especially before EWIR implementation occurs.
- A3.5. When notified of a RIM, the Wing ECP will contact HQ USAFE/A3TW and ask if an IMP will follow. If HQ USAFE/A3TW confirms an IMP will follow then the Wing ECP will ask HQ USAFE/A3TW to send the unclassified portion of the IMP via unclassified email directly to the Wing ECP. When received the Wing ECP will respond to this IMP as described in Paragraph 4 of this instruction.
- **A3.6.** For PW messages that affect the 52 FW, the Wing ECP will publish a Weapons Read File describing the impact on our tactics or EW systems. The Wing ECP will work with 52 OSS/WIN to update smart packs with the latest EW changes if required.
- **A3.7.** The Wing ECP will file and catalog electronically all pertinent EWIR messages on the appropriately-classified network under the 52 OSS/WINW folder.
- **A3.8.** Ensure that all aircraft and pods are returned to their original configuration after a SB exercise.
- **A3.9.** Route OCRs to USAFE/A3TW, if required.
- **A3.10.** ECP (or alternate) checklist:
  - A3.10.1. Confirm the priority of the message and affected aircraft with MOC.
  - A3.10.2. For after-hours notification of EMERGENCY priority messages, proceed immediately to wing weapons and start the procedures outlined below. In the event an alternate is called and does not have access to the vault door, have the 52 FW/CP contact someone within 52 OSS/WIN for entry.
    - A3.10.2.1. EMERGENCY precedence messages may require a recall of required personnel and may be considered an emergency action during combat operations. Immediately begin reprogramming actions.

- A3.10.2.2. For messages of URGENT precedence, notify the MOC, the WAM and squadron ECPs that reprogramming will begin first opportunity during normal duty hours. These actions take precedence over other activities until complete.
- A3.10.2.3. For messages of ROUTINE precedence, notify affected organizations and comply with any instructions in a timely manner during duty hours. These actions may schedule around the daily training/maintenance schedule.
- A3.10.3. Obtain the EWIR message via MSDDS or DMS to confirm same as CP message.
- A3.10.4. Call USAFE/A3TW and request approval for implementation.
  - A3.10.4.1. This will be verbal approval if an IMP message has not been received.
  - A3.10.4.2. For exercises, ask for the reprogramming timeline the 52 FW will be held to once the IMP message is received (i.e. first jet reprogrammed within X hours, all aircraft reprogrammed within X hours).
- A3.10.5. Inform the 52 OG/CC of potential reprogramming. Request their verbal approval in order to immediately begin implementation once the IMP is received.
- A3.10.6. Once IMP message received, notify affected parties IAW the flow chart in **Paragraph 2** using the EWIR recall roster and direct the reprogramming (to include off-station aircraft).
- A3.10.7. Direct all reprogramming activities and remain in contact with the participating unit(s). Distribute EWIR messages to the MOC, affected fighter squadron ECP(s), and affected AMU(s) (if they do not have access to the MSDDS).
- A3.10.8. Brief the Wing and Squadron intelligence sections on the system changes.
- A3.10.9. Inform the squadron ECPs to brief all pilots on EWIR actions that affect EW system performance or operation.
- A3.10.10. Prepare a classified memo summarizing the EW system changes. Email to the squadron ECPs to include in the squadron Weapons Read File.
  - A3.10.10.1. Start a chronological events log. At a minimum include:
  - A3.10.10.2. Date and time of message, distribution, and receipt of all reprogramming messages.
  - A3.10.10.3. Date and time USAFE/A3TW authorizes implementation.
  - A3.10.10.4. Date and time reprogramming begins on each system involved.
  - A3.10.10.5. Date and time reprogramming completed on each system.
  - A3.10.10.6. All problems encountered with suggestions for improvement.

## **52 MXG MOC PROCEDURES FOR EWIR**

- **A4.1.** Upon notification from the Wing ECP or the WAM, the MOC will notify the 52 MXS Production Superintendent and AMU Superintendent if a message affecting the ALQ-131 pod is received. The MOC will notify AMU Superintendent if a message affecting ALR-56M or ALE-47 is received. The MOC will notify the 52 MXG/CC if any message affecting ALR-56M, ASQ-213, HTS, ALIC, ALE-47, MALD, or ALE-50 is received.
- **A4.2.** The MOC will maintain a EWIR recall roster supplied by the Wing ECP, AMU, the WAM, and 52 MXS for after duty hour's notification.
- **A4.3.** The MOC will initiate implementation of EWIR changes by direction of the Wing ECP or the WAM and direct implementation of check sheet 33, LCL-52MXG-201, through the AMU Production Superintendent.
- **A4.4.** The MOC will maintain a chronological events log. The log will contain reprogramming start and completion times, important date and time groups of exercise events, tail numbers of aircraft reprogrammed, a detailed explanation of problems encountered, and any other relevant remarks. MOC will record the time and name of each person notified.
- **A4.5.** The MOC will compile all information and submit to the WAM an electronic format no later than 12 hours after exercise/reprogramming completion.

## **52 MXS EWS FOR EWIR**

- **A5.1.** When the EWS Section is tasked with a SB or PW reprogramming, speed and coordination are crucial. MSDDS is the primary means of message receipt, but the EWS Section may need to contact the WAM for reprogramming information.
  - A5.1.1. The EWS Section will maintain a current letter with the WAM listing individuals authorized to receive SB and PW messages and data products.
  - A5.1.2. The EWS Section will ensure adequate numbers of individuals on all shifts have access to the MSDDS for reprogramming issues.
- **A5.2.** Upon notification of a reprogramming change, the EWS Section will contact the WAM to coordinate a EWIR action team meeting, if requested.
- **A5.3.** The EWS Section will maintain a message folder for EWIR messages and a chronological log of EWIR events. The chronological log will contain important date and time groups of exercise events (initial notification, receipt of data, start of reprogramming, completion times, etc.) with a detailed explanation of events and problems encountered.
- **A5.4.** During the reprogramming, the EWS:
  - A5.4.1. Comply with all messages directing maintenance actions.
  - A5.4.2. Verify all software reprogramming changes by performing operational and functional check IAW applicable technical orders.
  - A5.4.3. Report all discrepancies or problems to the WAM as soon as practical.
- **A5.5.** At termination of reprogramming, the EWS Section will submit a report of the reprogramming event or exercise to the WAM within 12 hours to include: chronological events log, description of problems encountered, and recommendations for improvement.
- **A5.6.** Assist the WAM with returning ALQ-131 pods to their original configuration after a SB exercise.

## 52 AMXS/AMU PROCEDURES FOR EWIR

- **A6.1.** AMU EWIR Reprogramming Procedures.
  - A6.1.1. The AMU Avionics flight will provide the MOC and the Wing ECP a current POC roster for non-duty hour notification and authorizing classified EWIR message receipt.
  - A6.1.2. The AMU Avionics flight will ensure adequate numbers of individuals on all shifts have access to MSDDS for reprogramming issues. A SIPRNET account will be maintained at the AMU for this purpose.
    - A6.1.2.1. MSDDS will be considered the primary method of receiving reprogramming data, when available. If squadron operations are unable to assist in downloading data from MSDDS, the Wing ECP or WAM will be considered an alternate means of coordinating EWIR data receipt.
  - A6.1.3. Upon notification of EWIR, the AMU will contact the Wing ECP or WAM to coordinate a EWIR action team meeting or receive specific instructions and guidance.
  - A6.1.4. Those units able to download and access files on MSDDS will notify the WAM of data receipt.
  - A6.1.5. Download reprogramming data from MSDDS or pick up the data disk from the Wing ECP or WAM. Do not start reprogramming procedures until the IMP is received and communicated through the WAM or verbally received from the MOC.
  - A6.1.6. The AMU will start a chronological events log. The log will contain date and times of events (initial notification, receipt of data, start reprogramming, aircraft tail numbers, and completion times) and a detailed explanation of problems encountered and suggestions for improvement.
  - A6.1.7. Reprogramming personnel will coordinate the affected systems and aircraft tail numbers. This coordination will include the Wing ECP, Production Superintendent, the WAM and the MOC.
    - A6.1.7.1. Aircraft prioritization will take into account specific EWIR sortie requirements, if required.
    - A6.1.7.2. All Aircraft in a formation will be configured with the same software. There should not be a formation launched with two reprogrammed jets, and two non-reprogrammed jets.
  - A6.1.8. Once implementation is authorized, check reprogramming equipment status and configure the required aircraft. The Wing ECP will provide required guidance to units clearly specifying time criteria and required actions. Note: EURO LIGHTNING generation requirements may not allow a full 12 hours to reprogram, however, these scenarios should call for a limited number of assets.
  - A6.1.9. AMU personnel will ensure the aircraft AFTO Form 781A, Maintenance Discrepancy and Work Document, indicates reprogramming of affected EW systems and Software configuration(e.g. "ALQ-131 reprogrammed to MT#/PT#").

- A6.1.10. When an ALQ-131 Electronic Counter-Measure (ECM) pod is loaded with a combat tape, the AFTO Form 781A will be documented as an INFO entry with the following information: "ECM Combat Tape MT#/PT#loaded. **DO NOT TRANSMIT WITHOUT DIRECTION FROM HIGHER HQ. FLY IN STANDBY ONLY**." Retain this note until the ECM pod is downloaded or reprogrammed back to training settings. This note will be entered into the discrepancy block.
  - A6.1.10.1. AMU personnel will change the ALQ-131 ECM pod side panel placards to show the reprogramming setting (Mission Tape/Power Management Tape numbers and date loaded). THIS ENTRY IS MADE WITH A GREASE PENCIL.
  - A6.1.10.2. During exercises, do not reprogram ECM pods that are not on aircraft unless directed by the WAM.
- A6.1.11. For ALR-56M, make an INFO entry in the AFTO Form 781A as follows: "ALR-56M reprogrammed to ."
- A6.1.12. The AMU will notify the MOC of start time, completion time and aircraft tail number.
- A6.1.13. Coordinate with the Wing ECP and MOC to arrange reprogramming of deployed aircraft.
- A6.1.14. At termination of a reprogramming exercise (SB), coordinate with the Wing ECP or 480th FS ECP, Production Supervisor, the WAM and MOC to reprogram the affected systems back to original settings. Mark the ECM pods with the training Mission Tape and Power Management Tape numbers and annotate in the aircraft AFTO Form 781A.
- A6.1.15. Notify the Production Supervisor, MOC, and WAM of completion.
- A6.1.16. At termination of reprogramming, MOC will submit a report of the reprogramming event or exercise to the WAM within 12 hours to include:
  - A6.1.16.1. Date/time notified of reprogramming and implementation authorization
  - A6.1.16.2. Date/time affected aircraft were configured.
  - A6.1.16.3. If sorties were flown with reprogrammed equipment, the AMU will provide: A6.1.16.3.1. Line number.
    - A6.1.16.3.2. Tail number.
    - A6.1.16.3.3. System discrepancies.
    - A6.1.16.3.4. Takeoff and land time (if discrepancies are reported).
    - A6.1.16.3.5. Any problems encountered and recommendations for improvement. Also include any inputs from FS/ECP.
- A6.2. Equipment.
- **A6.3.** AMU avionics and weapons sections are responsible for maintaining reprogramming equipment used during PW and SB and keeping the Wing ECP and WAM informed of equipment status. All non-functional equipment will be repaired at the earliest available time. Keep the WAM advised of all equipment shortfalls.

A6.3.1. Avionics and weapons personnel must ensure functional reprogramming equipment is packed for both exercises and real world deployments.

## 480 FS ECP PROCEDURES FOR EWIR

#### **A7.1.** 480th FS ECP EWIR Procedures:

- A7.1.1. Communication between the 480th FS ECP, the Wing ECP, and the WAM is critical to a timely and successful PW or SB reprogramming.
- A7.1.2. It is essential that each FS maintain qualified ECPs to ensure reprogramming expertise exists for both deployed and home station operations.
  - A7.1.2.1. The unit ECP should attend the Fighter Electronic Combat Officers Course (FECOC). Participation in other advanced EW courses is highly desired.
  - A7.1.2.2. During exercises, each FS operations section will identify an "on call" ECP to act as a focal point for all EWIR actions.
- **A7.2.** The unit ECP should maintain the squadron's MSDDS account and ensure that an appropriate number of alternates have access to and understand usage of MSDDS.
- **A7.3.** During reprogramming the ECP will:
  - A7.3.1. Provide the Wing ECP with after-hours contact information for the 480th FS ECP and an alternate.
  - A7.3.2. Work closely with the AMU avionics personnel to gain a working knowledge of how the programming is accomplished.
  - A7.3.3. Upon notification of reprogramming, act as the squadron coordinator for implementation.
    - A7.3.3.1. Distribute PW and SB messages and data disks to avionics personnel, if required.
    - A7.3.3.2. The 480th FS ECP will provide avionics and munitions flight personnel assistance with downloading appropriate tapes and files from MSDDS, as required.
    - A7.3.3.3. Immediately notify the Production Superintendent and Avionics representatives to begin reprogramming after receiving implementation authority from the Wing ECP.
    - A7.3.3.4. Notify the Wing ECP of all reprogramming events and any problems encountered.
- A7.4. Ensure that all pods are returned to their original configuration following a SB exercise.
- A7.5. Assume the Wing ECP responsibilities, if required (see Para. 4.3 and Attachment 3).
- A7.6. Participate as a member of the EWIR action team, if directed by the Wing ECP.
  - A7.6.1. Operational Change Request (OCR) Procedures:
  - A7.6.2. Squadron ECPs will ensure pilots are aware of OCR procedures for identifying new threats, system deficiencies and requesting system improvements.
  - A7.6.3. Route OCRs through 52 OSS/WINW IAW the template found on the classified MSDDS website (EWIR\_OPS\_PW\_MSG\_Templates library ).

## 52 OSS INTELLIGENCE PROCEDURES FOR EWIR

# **A8.1.** 52 OSS/WIN Procedures During EWIR.

- A8.1.1. When the 52 FW responds to an EW reprogramming commitment, 52 OSS/WIN is responsible for threat monitoring and mission report (MISREP) collection and distribution throughout the process.
- A8.1.2. 52 OSS/WIN will coordinate with the Wing ECP on flight validation results from missions.
- A8.1.3. At the termination of reprogramming or exercise, 52 OSS/WIN will submit a description of problems encountered, lessons learned and suggestions for improvement to the Wing ECP within 12 hours, if required.

## **A8.2.** At all times, 52 OSS/WIN will:

- A8.2.1. Monitor threat parameter and tactics changes from all intelligence dissemination systems or exercise inputs.
- A8.2.2. Include threat changes involving EW systems in pilot intelligence briefings.
- A8.2.3. Evaluate EWIR changes with the Wing ECP for impact to EW equipment settings or tactical employment of EW equipment.
- A8.2.4. If evaluation of a MISREP indicates enemy system changes or a change to our system processing (symbology or warnings), ensure the Wing ECP and pilots are aware of the changes.
- A8.2.5. Send a copy of operationally relevant MISREP messages to the Wing ECP and squadron ECPs.
- A8.2.6. Aid the Wing ECP in preparation of required OCR.

#### EWIR MESSAGE DESIGNATION STANDARDS

Figure A9.1. EWIR Message Designation Standards, Part I

Example:

OCR ALR-56M PW 95 AWF001

(1) (2)

(3) (4) (5.6)

(1) Type of Message:

TVR: Threat Change Validation Request

TVM: Threat Change Validation Message

OCR: Operational Change Request

TIM: Threat Impact Message

EDD: Estimated Distribution Date Message

RIM: Reprogramming Impact Message

MIM: Maintenance Instruction Message

TCTO: Time Compliance Technical Order

DAT: Data Message

IMP: Implementation Message

ULM: Unit Loading Message

SIM: System Impact Message

STM: Status Message

RAM: Release Authorization Message (Foreign Military Sales Only)

RRM: Request for Release Message (Foreign Military Sales Only)

RTM: Request for Transmission Message (Foreign Military Sales Only)

- (2) Equipment Designation: Do not use slashes (/) (for example, ALR-56Mand so forth). Include software and mission data version identifier if required (for example, ALQ-131 BK II RP). Include three-letter command or nation identifier for multi-command and multi-national systems (for example, ALQ-172(V)2-50X(SOC)).
- (3) Situation Code: Two letter designation for: actual changes (PW PACER WARE); quarterly exercises (Q1 through Q4); annual exercise (SB - SERENE BYTE); tests (T1, T2, T3...); others in specified two-letter code.
- (4) Calendar Year Designator: Two number designations for the current calendar year (for example, 95 for 1995, 96 for 1996, and so forth).

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Figure A9.2. EWIR Message Designation Standards, Part II

(5) Originator's Designation: ACC Air Combat Command AWC (ETS) Air Warfare Center, 513 Engineering and Test Squadron **EWC** AFIWC USA HO USAF AWI USAFAWC 36 ETS/EEB (FMS Programs) AWF USAFAWC 68 ECG (USAF Programs) CEN CENTAF PCF PACAF SO1 SOCOS, DET 1 (APHASIC) SUF SOUTHAF SOC AFSOC AFE USAFE WLA Wright Labs RLI WR-ALC/LNI RLN Warner Robins Air Logistics Center AMC Air Mobility Command ANG Air National Guard

Unit Codes: Codes for individual units are based on their distinctive unit aircraft identification markings (tail codes). Provisional units and units without tail codes generate an originator identifier with their aircraft identification markings (tail codes - SP = Spangdahlem). Provisional units and units without tail codes generate an identifier with their Major Command (MAJCOM).

Three-Digit Sequence Number Designation: Number each message sequentially by system and message type (for example, 001 for the first ALR-56M OCR, 002 for the next ALR-56M OCR, and so on). NOTE: The first RIM for an ALQ-131 reprogramming action will also be 001. Do not attempt to follow other originators' numbering sequences.

Subject Line Classification: Classify the subject line IAW the classification of the material within the subject line. For ease of communication it is suggested to keep the subject line UNCLASSIFIED.

For further guidance on EWIR message designation standards see AFI 10-703.

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## 52 FW WING AVIONICS MANAGER PROCEDURES FOR EWIR

- **A10.1.** The WAM is responsible for the Electronic Warfare (EW) systems listed in **Paragraph 1.5** and will notify the appropriate 52 MXG agencies with changes to these systems.
- **A10.2.** The communication between the 480th FS ECP, the Wing ECP, and the WAM is critical to a timely and successful SB or PW reprogramming
- **A10.3.** It is essential that the WAM coordinates with AMU Avionics and MXS EWS sections to maintain qualified technicians to ensure reprogramming expertise exists within the 52 MXG.
  - A10.3.1. The WAM, alongside the AMU Avionics flight chiefs, will work with educating Avionics technicians regarding all reprogramming actions to maintain proficiency.
- **A10.4.** In the WAM's absence, the alternate WAM will assume these responsibilities. The WAM will train and prepare all alternates to assume all EWIR responsibilities in case of their absence. The WAM will provide the 52 FW/CP and the Wing ECP a list of alternate personnel to contact in his/her absence.
- **A10.5.** Reference Figure 1, page 4, for notification flow.
- **A10.6.** The WAM will notify the 52 AMU Avionics, 52 MXS EWS, and 52 MXS/MXMWA of all applicable EWIR messages.
  - A10.6.1. Distribute PW and SB messages and data disks to avionics personnel or Ammo personnel, if required.
- A10.7. Ensure that all aircraft and pods are returned to their original configuration after a SB exercise.
- **A10.8.** Assemble and chair the 52 MXG EWIR action team, if required.
- A10.9. WAM (or alternate) checklist:
  - A10.9.1. Confirm the priority of the message and affected aircraft with MOC.
  - A10.9.2. For after-hours notification of EMERGENCY priority messages, proceed immediately to the WAM office and start the procedures outlined below.
    - A10.9.2.1. EMERGENCY precedence messages may require a recall of required personnel and may be considered an emergency action during combat operations. Immediately contact the ECP for applicability of the EWIR message and coordinate the reprogramming actions.
    - A10.9.2.2. For messages of URGENT precedence, notify the MOC that reprogramming will begin first opportunity during normal duty hours. These actions take precedence over other activities until complete.
    - A10.9.2.3. For messages of ROUTINE precedence, notify the affected 52 MXG organizations and comply with instructions in a timely manner during duty hours. These actions may schedule around the daily training/maintenance schedule.