



## DEFENSE SECURITY COOPERATION AGENCY

2800 DEFENSE PENTAGON  
WASHINGTON, D.C. 20301-2800

07 MAR 2018

MEMORANDUM FOR DEPUTY UNDER SECRETARY OF THE AIR FORCE FOR  
INTERNATIONAL AFFAIRS  
DEPUTY ASSISTANT SECRETARY OF THE ARMY FOR  
DEFENSE EXPORTS AND COOPERATION  
DEPUTY ASSISTANT SECRETARY OF THE NAVY FOR  
INTERNATIONAL PROGRAMS  
DIRECTOR, DEFENSE CONTRACT MANAGEMENT AGENCY  
DIRECTOR FOR SECURITY ASSISTANCE, DEFENSE FINANCE  
AND ACCOUNTING SERVICE – INDIANAPOLIS OPERATIONS  
DIRECTOR, DEFENSE INFORMATION SYSTEMS AGENCY  
DIRECTOR, DEFENSE LOGISTICS AGENCY  
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SERVICE  
DIRECTOR, DEFENSE THREAT REDUCTION AGENCY  
DIRECTOR, NATIONAL GEOSPATIAL-INTELLIGENCE  
AGENCY  
DEPUTY DIRECTOR FOR INFORMATION ASSURANCE,  
NATIONAL SECURITY AGENCY

SUBJECT: Information on Identification, Friend or Foe (IFF) Systems, DSCA Policy 18-14  
[SAMM E-Change 367]

Reference: (a) CJCSI 6510.06C, Communications Security Releases to Foreign Nations,  
November 8, 2013

(b) DSCA Manual 5105.38-M, Security Assistance Management Manual, C3.7.4.6.

(c) DoD AIMS 03-1000B AMD 1, Technical Standard for the ATCRBS/IFF/Mark  
XIIA Electronic Identification and Military Implementation of Mode S

(d) DSCA Policy 11-40, "Information on Identification, Friend, or Foe (IFF)  
Systems," DSCA October 21, 2011

This policy memorandum supersedes the previous policy in reference (d).

IFF systems are sensitive devices that emit signals used to identify whether a platform is friendly or unknown to help prevent fratricide. IFF Mode 4, part of the Mark XII system, was designed in the 1950s to provide a secure military IFF capability. A Mark XII system is comprised of transponders and interrogators, each with a cryptographic device (either embedded or external). Mark XII IFF Mode 4 system will remain operational until 2020, when it will be replaced by the Mark XIIA IFF Mode 5 system.

IFF Mode 5 is part of the Mark XIIA system and will utilize new or upgraded interrogators and transponders, as well as new cryptographic devices (either embedded or external). The Mark XIIA (IFF Mode 4/5) equipment is dual IFF Mode 4 and 5 capable and is compatible with legacy IFF systems. The IFF Mode 5 provides improved performance with new higher capacity waveforms, a modern cryptographic algorithm and processor, optional asynchronous position reporting, and time-dependent authentication.

Mark XIIA Mode 5 waveform is the future standard for all military transponders and interrogators. Mode 4 will remain operational until expiration of IFF Mode 4 Keying Material in the year 2020. Mark XIIA Mode 5 Full Operational Capability (FOC) is planned for 2020. At FOC, operations will be relegated to Modes 1, 2 and 3/A, C, S, and 5. Nations may utilize a mixed Mode 4 and Mode 5 operational environment until Mode 4 expiration in 2020. Both Mark XII IFF Mode 4 and Mark XIIA IFF Mode 4/5 systems are considered significant military equipment (SME).

Release of IFF Mode 4/5 capability to foreign governments must be handled according to the COMSEC release process of reference (a) as described in reference (b). The IFF Mode 4/5 is typically approved on a general release basis, which means it is not tied to a specific quantity or platform. Transfers of Mark XIIA IFF Mode 4/5 systems are based on validated interoperability requirements.

Mark XIIA equipment/functionality includes all Mark XII modes, including IFF Mode 4. Mark XIIA IFF Mode 5 is designed to cause less interference with Civil ATC, and supports the goal of unrestricted use for training and operational missions. IFF transponders/interrogators also include civil air traffic control (ATC) modes, which do not require COMSEC to operate.

To reflect the transition from IFF Mode 4 to IFF Mode 5, Chapter 3 and Appendix 6 of the SAMM will be updated as per the attachment.

If you have any questions concerning this guidance, please contact DSCA-STR/WPN C4I International Programs Mr. Chris King, [Christopher.S.King26.civ@mail.mil](mailto:Christopher.S.King26.civ@mail.mil), (703) 697-9963 or Mr. Rob Sprout, [Robert.H.Sprout.civ@mail.mil](mailto:Robert.H.Sprout.civ@mail.mil), (703) 697-9817. For general questions concerning the SAMM, please contact DSCA-STR/SPI, Mr. Kent Bell, [Eddie.K.Bell.civ@mail.mil](mailto:Eddie.K.Bell.civ@mail.mil), or (703) 697-9054.



Holly Haverstick  
Acting Principal Director  
Strategy

Attachments:  
As stated

cc:

STATE/PM-RSAT

AFRICOM

CENTCOM

EUCOM

JFCOM

NORTHCOM

PACOM

SOCOM

SOUTHCOM

TRANSCOM

USASAC

SATFA TRADOC

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NETSAFA

AFSAC

AFSAT

MDA

DISCS

**SECURITY ASSISTANCE MANAGEMENT MANUAL (SAMM), E-CHANGE 367**

1. Revise and renumber C3.7.4.6. and subsequent sections as follows:

**C3.7.5. Identification, Friend or Foe (IFF) Systems.**

C3.7.5.1. Definition. IFF systems are sensitive identification devices that emit signals used to identify whether a platform is friendly or unknown to help prevent fratricide.

C3.7.5.2. IFF Release Requirements. Release of U.S. manufactured IFF Mode 4/5 capability to foreign governments must be handled according to the COMSEC release process of CJCSI 6510.06C, Communications Security Releases to Foreign Nations. IFF Mode 4/5 is typically approved on a general release basis for U.S. manufactured platforms, which means it is not tied to a specific quantity or platform. A release in specific approval, as outlined in reference (a), is required for U.S. manufactured IFF Mode 4/5 systems' integration into non U.S. manufactured platforms. Transfers of Mark XIIA IFF Mode 4/5 systems are based on validated interoperability requirements.

**Table C3.T8. IFF Release Coordination Responsibilities**

<b>Organization</b>	<b>Responsibility</b>
DSCA	<ul style="list-style-type: none"> <li>Review LOA prior to offering, to ensure appropriate reviews have been accomplished and approvals are in place.</li> </ul>
Implementing Agencies (IA)	<ul style="list-style-type: none"> <li>Only offer IFF Mode 4/5 on LOAs for approved countries. Prior to offering an LOA for IFF Mode 4/5, request approval from NSA to sell associated COMSEC equipment.</li> <li>Upon identification of appropriate IFF system for platform, ensure DoD AIMS PO has certified the platform and IFF system or that platform and system certification is planned for in the LOA.</li> </ul>
National Security Agency (NSA)	<ul style="list-style-type: none"> <li>Review and process COMSEC release requests in accordance with applicable release processes.</li> <li>Provide "approval to sell" letters to Implementing Agencies (IA) for IFF COMSEC devices.</li> <li>Provide IFF Mode 5 Operational and Test Keying Material, as authorized via standard key management distribution process.</li> </ul>
DoD Air Traffic Control Radar Beacon System IFF Mark XII/XIIA Systems (AIMS) Program Office	<ul style="list-style-type: none"> <li>Evaluate platforms and systems for compliance with relevant standards; and certify compliant systems.</li> <li>Confirm that NATO-approved third-party certification agencies meet AIMS standards for conducting platform certifications.</li> </ul>
Purchaser	<ul style="list-style-type: none"> <li>Nations National Distribution Authority (NDA) or COMSEC custodians should request COMSEC Keying Material from the</li> </ul>

Organization	Responsibility
	controlling authority, i.e., Joint COMSEC Management Office (JCMO), MacDill Air Force Base, FL.

C3.7.5.2.1. IFF systems that use classified military information are subject to disclosure review and approval as defined in the NDP-1. Per NDP-1, approvals for release of U.S. classified data are mandatory before an LOA can be offered to a purchaser.

C3.7.5.2.2. The DoD Air Traffic Control Radar Beacon System (ATCRBS), Identification Friend or Foe (IFF), Mark XII/XIIA, Systems (AIMS) Program Office (PO) or a NATO-approved, AIMS-compliant certification agency, is responsible for ensuring Mark XIIA systems and platforms are certified to the interoperability requirements specified in the DoD AIMS 03-1000 series standards. There are two levels of certification. The first level is for the actual equipment or “box” including transponders and interrogators, and the second level is for the installed performance or “Platform Certification.” Program managers selling IFF equipment through FMS must ensure that the system and platform are certified by AIMS or a NATO-approved, AIMS-compliant certification agency.

C3.7.5.2.3. COMSEC Keying Material. COMSEC Accounts obtain IFF Mode 4 Keying Material from the Controlling Authority, the Joint COMSEC Management Office (JCMO).

C3.7.5.2.3.1. IFF Mode 5 Test Keying Material is currently available for platforms in the integration and test phase. COMSEC Accounts request IFF Mode 5 Test Keying Material from the National Security Agency.

C3.7.5.2.3.2. IFF Mode 5 Operational Keying Material release and issuing procedures will be determined after IFF Mode 5 is in operational use by U.S. forces.

C3.7.5.3. All LOAs for the provision of IFF Mode 4/5 systems shall clearly identify the IFF system components in an LOA note. The LOA note shall also clearly state whether or not the platform for an IFF system has been or will be certified as meeting AIMS standards.

2. Add the following note to Appendix 6 of the SAMM:

**Identification of Friend or Foe (IFF) Certification**

<b>Note Usage</b>
Mandatory for FMS and BPC LOAs that include IFF equipment. Mandatory for Amendments and Modifications that add IFF equipment.
<b>References</b>
<a href="#">SAMM Chapter 3</a>
<b>Note Input Responsibility</b>
CWD

**Note Text**

“This weapon system has been or will be certified by the DoD AIMS Program Office or a NATO-approved, AIMS compliant certification agency to ensure interoperability and baseline performance prior to Mode 5 operations. The DoD AIMS PO maintains copies of certification letters for weapon systems that have been certified, as well as certification plans for those weapon systems yet to be certified.”