

Security

IFF MARK X (SIF) /MARK XII SYSTEMS  
SECURITY CLASSIFICATION

This regulation outlines security classification policy to be observed during the developmental, implemental, operational, and evolutionary phases of the Identification Friend or Foe (IFF) Mark X Selective Identification Feature (SIF)/Mark XII Systems Program. It applies to each Air Force, Army, Navy, Marine Corps, and Coast Guard activity that has responsibility for, or access to, IFF Mark X (SIF) and Mark XII Systems. It implements JCS SM-288-73, subject: Identification Friend or Foe Mark XII Security Classification Policy, 15 June 1973.

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**1. Terms Explained:**

a. The IFF Mark X (SIF) System. Equipments and ancillary items -- installed in airborne, seaborne or ground facilities -- that are specifically employed for a vehicle identification function. This system is not secure and may operate on Modes 1, 2, 3A (64 or 4096 codes), and C. The Mode C altitude reporting capability and Mode 4 synchronizer-monitor circuits may or may not be incorporated in the equipments.

b. The IFF Mark XII System. This system incorporates the IFF Mark X (SIF) system, plus the secure Mode 4 capability. That is, when the IFF Mark X (SIF) system outlined in a above is operated with Mode 4 circuitry and TSEC/KI-1A cryptographic equipment, it is redesignated as the IFF Mark XII system.

c. The TSEC/KI-1A Equipment. This equipment provides cryptographic security for Mode 4 of the IFF Mark XII system. It consists of two computers, as follows:

(1) The KIR-1A/TSEC Interrogator computer, which is used with land-based, seaborne, or airborne radar facilities; and

(2) The KIT-1A/TSEC Transponder computer, which is used on vehicles (for example, aircraft, ships, and submarines) which are subject to interrogation.

d. Identification Friend or Foe (IFF). This refers to electronic equipment used to identify friendly aircraft, ground vehicles, ships or submarines. The IFF Mark X (SIF)/MARK XII Systems employ a secondary radar system in which equipment carried by friendly forces automatically respond to interrogation from other suitably equipped friendly aircraft, ships, or ground forces by emitting pulses in a specific coded format, thereby identifying friendly forces.

e. A Secondary Radar System. A radar, using pulse coded interrogations, which is dependent upon automatic retransmission of pulse coded responses on the same or different radio frequency to derive range, bearing and/or height information.

Supersedes AFR 205-36/AR 380-165, 1 September 1972. (For summary of revised, deleted, or added material, see signature page.)

OPR: RDPE

DISTRIBUTION: (See page 4).

Type of Data Revealing Information	Classification	Declassification
(1) Tactical employment of Modes 1, 2, 3, and 4. Mark X (SIF) code tables for both tactical and nontactical general wartime employment are classified SECRET. Extracts of KI-1A key lists not exceeding six tables (7 days key) are permitted in accordance with KAM 225 ( )/TSEC Manual, and will be classified CONFIDENTIAL. When a code is radiated, it becomes unclassified (see figure 2, item(4))	SECRET	XGDS-2
(2) Use of Modes 3/a and C for air traffic control, or for search and rescue purposes (nontactical employment)	UNCLASSIFIED	NA
(3) Electronic warfare aspects of Mark X (SIF)/Mark XII systems	SECRET	XGDS-3
(4) Mark XII/Mode 4 Admissibility criteria	CONFIDENTIAL	XGDS-2
(5) Mark XII System operational capability data, and implementation priorities	SECRET	GDS
(6) Individual and collective aircraft and ground installation schedules, site surveys, and equipment delivery schedules	UNCLASSIFIED	NA
(7) Coordinates (location) of selected designated sites	SECRET	XGDS-3
(8) Mark XII operational plans	SECRET	XGDS-3
(9) Mark XII/Mode 4 system test results and evaluation, without cryptographic considerations	SECRET	GDS
(10) Mark XII/Mode 4 system test results and evaluation, with cryptographic considerations	SECRET	XGDS-2
(11) TSEC/KI- 1A equipment procurement planning, schedules, etc., excluding installation (see para 2a)	CONFIDENTIAL	GDS
(12) Mode 4 input/output data for TSEC/KI-1A equipment (see para 2a)	CONFIDENTIAL	XGDS-2
(13) Mode 4 input/output data for interfacing equipments	UNCLASSIFIED	NA
(14) Installation drawings (wiring and outlines)	UNCLASSIFIED	NA

\*Note: Effective date of general classification begins as follows :

GDS . . . . . begins with the date of issuance, or the date of previously assigned classification, whichever is earlier.

XGDS-3 . . . . . is automatically declassified 20 years after date classification is assigned.

XGDS-2 . . . . . is to be reviewed for declassification 30 years after date classification is assigned.

Figure 1. Security Classification Guidance – Type of Data Revealing Information.

f. The Selective Identification Feature (SIF). A capability incorporated in the IFF Mark X (SIF)/Mark XII systems which enables the transponder to reply to an interrogation on Modes 1, 2 and 3/A with a selectable or present code response, and the interrogator receiver to decode and display the replies.

g. Equipments. As used here complete transponders, interrogator-responders, synchronizers, encoders, decoders, specialized test equipment, major subassemblies and control boxes.

h. Ancillary Items. The interconnecting cables, terminal boxes, switches, control boxes (nonelectronic), indicating lights, antennas, and similar units.

**2. Security Classification and Distribution:**

a. TSEC/KI-1A Equipment and Associated Material. KAM 225( )/TSEC( ) entitled, "LIMITED MAINTENANCE MANUAL KIR-A/TSEC AND KIT-1A/TSEC," which is a CONFIDENTIAL document prepared and issued by the National Security Agency, through Communications Security (COMSEC) channels, provides classification and security criteria for the COMSEC components of the Mark XII system.

(1) This NSA document is to be distributed to, and held by, each person who is responsible for handling, storing, or performing maintenance on KI-1A equipment, as well as each person who is responsible for storing, issuing, or using the associated keying material (except on inflight aircraft).

(2) The US Coast Guard will determine its own internal distribution requirements of KAM 225( )/TSEC, but will adhere to this requirement.

b. Data and Equipments/Components. For guidance, see figures 1 and 2.

**3. Release of Information to Foreign Nationals and Governments.** Requests for the disclosure of classified or release of unclassified IFF Mark X (SIF)/MARK XII information or material to a foreign national or government will be coordinated with the Air Force.

a. Disclosure and release will be in accordance with guidelines established in the "National Policy and Procedures for the Disclosure of Classified Military Information to Foreign Governments and International Organizations" (National Disclosure Policy), and the following:

(1) For Air Force, see AFR 200-9.

(2) For Army, see AR 380-10 and AR 380-25.

(3) For Navy and the Marine Corps, see OPNAVINST 5510.48(D).

(4) For the Coast Guard, see Coast Guard Security Manual (CG- 444).

b. Any exception to the National Disclosure Policy is to be sponsored by the Service of primary interest on an individual case basis.

c. The disclosure and release of COMSEC information and material will be in accordance with D O D I C - 5 2 0 0 . 1 1 , 4 June 1963.

Type of Equipment	Classification	Declassification
(1) All IFF Mark X (SIF) and Mark XII equipments, with/without Mode 4 capability, and ancillary items, except as specifically identified below	UNCLASSIFIED	NA
(2) Evaluators or equipments with Mode 4 admissibility criteria, friend arithmetic components, or removable program connectors.		
(a) Installed so that the Mark XII evaluation function can be performed	CONFIDENTIAL	XGDS-2
(b) Removed so that the Mark XII evaluation function cannot be performed	UNCLASSIFIED	NA
(3) Internal elements (modules, circuit boards, etc.) that provide Mode 4 evaluation criteria		
(a) If element/equipment, by itself, discloses accept-reject criteria	CONFIDENTIAL	XGDS-2
(b) If no classified elements are installed in equipment, the equipment is	UNCLASSIFIED	NA
(c) Removable connectors that disclose accept-reject criteria when installed: The connector and equipment (when alone)	CONFIDENTIAL	XGDS-2
(d) Equipment assembly, when connector is installed (wire connected) in accordance with system or service instructions	UNCLASSIFIED	NA
(4) Transponder, with Modes 1, 2, and or 3/A codes selected. (Although Mode 2 codes have a longer period of applicability, they are considered equivalent to call signs and having been radiated, are not classified; thus Mode 2 settings need not be changed when the transponder is not in use)	CONFIDENTIAL	XGDS-2
(5) External viewing of KI-1A equipment	UNCLASSIFIED	NA
	UNCLASSIFIED	NA

\*Note: Effective date of general declassification schedule begins as explained in the note below Figure 1.

Figure 2. Security Classification Guidance – Type of Equipment.

Subject: "Communications Security Assistance to Foreign Governments."

**4. Preparing and Issuing Classification Guidance:**

a. Under DOD ISPR 5200.1R (see Section 4 of Chapter II), the office or official responsible for a system, program, or project will:

(1) Prepare a detailed classification guide for all elements of that system, program, or project, using the basic classification given here and in KAM 225( )/TSEC manual, as applicable.

(2) Use the DD Form 254, Contract Security Classification Specification, in a procurement action.

b. Army and Air Force will forward two copies of this classification guide (see a(1) above) through channels to the Office of Secretary of Defense (see paragraph 2-407, DOD ISPR 5200.1R), and to the following office:

- (1) Army, to HQ DA (DACE), Wash DC 20310.
- (2) Air Force to HQ USAF/RDPE, Wash DC 20330. (Air Force activities will also furnish a copy to each addressee listed in para 2-407, AFR 205-1, that are not listed in para 2-407 of the DOD ISPR 5200.1R.)

**5. Accounting Requirements.** Each Service will establish accounting procedures for controlling Mark XII equipment, including keying materials and the KIR-1A, KIT-1A and KIK-18, to provide for prompt interchange within and between the Services as operational requirements dictate.

**6. Changes in Classification.** Submit each recommended change in security classification, with comment, through channels, to HQ USAF/RDPE, Wash DC 20330, for review, staffing and publication.

BY ORDER OF THE SECRETARIES OF THE AIR FORCE, THE ARMY, THE NAVY, AND TRANSPORTATION

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#### SUMMARY OF REVISED, DELETED, OR ADDED MATERIAL

This revision applies to the Navy, Marine Corps, and US Coast Guard, as well as to the Army and the Air Force. It adds new instructions on preparing and issuing classification guidance which states requirements for distribution of the guides (para 4); states accounting requirements for expeditious interchange of Mark XII crypto-equipment (para 5); tells how to submit recommended changes to classification (para 6); and changes classification assignments.

#### DISTRIBUTION

##### AIR FORCE: S

ARMY: Active Army, ARNG, USAR: To be distributed in accordance with DA Form 12-9A requirements for AR, Security - B (Qty rqr block no. 327).

5801 Tabor Ave  
Phila, PA 19120

NAVY: SNDL C4F43, (Electronic Systems Test and Evaluation Detachment) (2) E3A, (Laboratory) (2)  
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Copy to 2005001/7000001, 003, 009, 012, 014, 027, 032, 034, 041, 042, 044, 046, 047, 096, 099, 100, 102, 112, 113, 144, 146, 148, 156, 158, 160, 161, 167/7150006, 010, 013, 019, 031, 077, 107/7225009, 027, 035, 042, 050, 051, 059/7230001, 016, 018, 019, 031, 077, 107/7225009, 027, 035, 942, 050, 051, 059/7230001, 016, 018, 019, 022/7256073/7801054/7855 (less 75 7855001, 002, 003, 004, 008, 011, 013, 015, 021, 038, 041, 052, 057) (1)  
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7000016, 142 (8) 8145001 (1) 8145004, 005 (2)