NWP 3-22.5-FA18A/B/C/D PG (Rev. A) A1-F18AC-TAC-300

> TACTICAL MANUAL POCKET GUIDE

F/A-18 A/B/C/D AIRCRAFT

THIS PUBLICATION SUPERSEDES NWP 5-55-F/A-18 PG (REV. C) (A1-F18AC-TAC-300) DATED SEPTEMBER 1994 WITH CHANGE 4 DATED SEPTEMBER 1998.

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NWP 3-22.5-FA18A/B/C/D PG (Rev. A) A1-F18AC-TAC-300/(U)

# F/A-18A/B/C/D AIRCRAFT

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10	0	39	0	68	0
11	0	40	0	69	0
12	0	41	0	70	0
13	0	42	0	71	0
14	0	43	0	72	0
15	0	44	0	73	0
16	0	45	0	74	0
17	0	46	0	75	0
18	0	47	0	76	0
19	0	48	0	77	0
20	0	49	0	78	0
21	0	50	0	79	0
22	0	51	0	80	0
23	0	52	0	81	0
24	0	53	0	82	0
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## INTERIM CHANGE SUMMARY

The following Interim Changes have been canceled or previously incorporated in this manual:

INTERIM CHANGE NUMBER(S)	REMARKS/PURPOSE

The following Interim Changes have been incorporated in this Change/Revision:

INTERIM CHANGE NUMBER	REMARKS/PURPOSE

Interim Changes Outstanding - To be maintained by the custodian of this manual:

INTERIM CHANGE NUMBER	ORIGINATOR/DATE (or DATE/TIME GROUP)	PAGES AFFECTED	REMARKS/ PURPOSE

# **COMBAT CHECKS**

#### **PREFLIGHT**

- 1. SMP set
- 2. ALE-39 loadout/settings reset
- 3. VTR tape
- 4. Mode II check
- 5. IFF DIS/AUD/IR COOL

#### GROUND

- 1. WYPTS/SEQ/A-A WYPT
- 2. NCTR / RALT / BALT
- 3. Radar Attack DCLTR/CHAN/SETS/(training)
- 4. AZ/EL
- 5. SMS
  - a. (SIM)
  - b. Gun
  - c. SP tune/AM test
  - d. A/G PROG
  - e. WPN SEL
  - f. ◊
- 6. Smart weapons checks
- 7. Time SET
- 8. FLIR STBY

#### **AIRBORNE**

- 1. Cycle A/G Racks unlock
- 2. ALR-67/ALQ/FLIR ON
- 3. Check Radar CHAN/(SIM)/SETS/CAL
- 4. Bingo Bug SET
- 5. ALQ/ALR BIT
- 6. ACM modes/AIM-9/FLIR

#### (OP AREA)/POST TANKING

- 1. Master arm switch ARM (check SIM)
- 2. A/A TACAN
- 3. Contrails/environment
- 4. G-suit/valve/G-warm
- 5. RALT
- 6. SEL JETT
- 7. ALE Setup
- 8. Alpha check
- 9. Expendables Check
- 10. Smart weapons checks

#### **COMMIT/INGRESS**

- 1. Master arm switch ARM (check SIM)
- 2. IFF
- 3. ALQ REC/RPT/XMIT
- 4. EXT Lights
- 5. VTR

#### **RTF**

- 1. EXT lights
- 2. IFF
- 3. ALQ REC
- 4. Fuel Check/BINGO bug RESET
- 5. Master Arm switch SAFE
- 6. SEL JETT
- 7. Dispenser
- 8. Battle damage checks
- 9. ALQ/ALR/FLIR OFF

#### STORES INFORMATION

SMP codes with letters are only applicable to F/A-18C/Ds. Thoughout the table "n/a" means not applicable.

Designation	SMP	DDI	Stores	Wt. (lbs)
Empty Station	$00^{1}$	blank	No SUU-62 or -63 pylon mounted	0
<b>A/A37B-6E</b> MER-7	n/a	n/a	non-ZRF Multiple Ejector Rack for practice bombs, flares, and MLMs	200
<b>AAR-50</b> Nav FLIR pod	$00^{2/3}$	NFLR	AN/AAR-50 Thermal Imaging Navigation Set (TINS)	214
AAS-38 Tgt FLIR pod	$00^{2}$	FLIR	AN/AAS-38 FLIR AN/AAS-38A w/Lsr Tgt Desig/Rngfd (LTD/R) AN/AAS-38B w/Laser Spot Tracker (LST)	353 370 372
AIM-7 Sparrow III	84	$7F$ $7M$ $7M^4$ $7H^4$ $7H^4$ $7H^4$	CATM-7F-3: captive trainer AIM-7M: monopulse seeker ATM-7M: live trainer-telemetry 'warhead' AIM-7M (H-build): improved GCS AIM-7P: improved low altitude capability ATM-7P: live trainer-telemetry 'warhead'	510 509 509 510 509 509
<b>AIM-9</b> Sidewinder	81 <sup>5</sup> for all -9Ls 80 <sup>5</sup> for all -9Ms	9L 9M 9L/9M 9L/9M 9L/9M 9L/9M	AIM-9L-1: all-aspect AIM-9M-1, -3, -4, -6, -8: improved IRCCM NATM-9L/M-1: live trainer-smoke/flash NATM-9L/M-2: live trainer-telemetry CATM-9L/M-2, -4, -6, -8: captive trainer CATM-9L/M-2, -4, -6, -8: without fins/wings	196 196 200 196 195 163

For OFPs 91C, not required for later OFPs.
 Code for AYK-22 SMS only; not applicable for AYQ-9 SMS.
 Store not available on F/A-18A/B.
 AIM-7M (H-build) and AIM-7P initially displayed as '7M' and must be manually stepped to '7H'.
 With AYK-22 SMS these codes are used for wingtip-mounted missiles instead of the 1, 2, 3, or 4 codes used by the AYQ-9.

Authorized Wingtip Configurations & AYQ-9 SMP Codes								AYQ-9 Wii	ngtip DDI	Legends	
Right Sta. 9  →  ↓ Left Sta. 1	Empty	AIM-9M	CATM-9M	MATM-9M	AIM-9L	CATM-9L	NATM-9L	TACTS pod	$\begin{array}{c} \text{Station} \\ \rightarrow \\ \downarrow \text{Code} \end{array}$	Station 1	Station 9
Empty	0	1	1	1	2	2	2	6	0	-	-
AIM-9M	1	1	1	1	3	3	3	P	1	9 <b>M</b>	9 <b>M</b>
CATM-9M	1	1	1	1	3	3	3	1	2	9L	9L
NATM-9M	1	1	1	1	3	3	3	P	3	9 <b>M</b>	9L
AIM-9L	2	4	4	4	2	2	2	P	4	9L	9M
CATM-9L	2	4	4	4	2	2	2	2	5	TST	-
NATM-9L	2	4	4	4	2	2	2	P	6	-	TST
TACTS Pod	5	P	1	P	P	2	P	L			
	P = Prohibited configuration L = Logistic carriage only; use either SMP code 5 or 6										

# CAUTION

During simulated training (weapons not loaded), closing the hooks of BRU-32/A or VER (BRU-33/A) on outboard pylons is prohibited, when codes for weapons listed below and an AIM-9 wingtip code are entered on the armament computer.

Mk 83	GBU-16	AGM-84E
Mk 84	GBU-10	AGM-88
Mk 40	GBU-24	Mk 55
Mk 41		LAU-10
Mk 63		
Mk 64		
Mk 65		

Designation	SMP	DDI	Stores	Wt. (lbs)
Walleye I 1,000 lb EO-Guided Bomb	69	WEDL WEDL WEDL	Mk 21 ER/DL, Phase I Mk 29 ER/DL, Phase II Mk 34 ER/DL, Phase II Haze Penetrator	1,224 1,224 1,224
Walleye II 2,000 lb EOGB	69 <sup>1</sup>	WEDL WEDL WEDL	Mk 23 ER/DL, Phase I Mk 30 ER/DL, Phase II Mk 37 ER/DL, Phase II Haze Penetrator	2,415 2,415 2,415
Walleye Practice Guided Weapon (PGW) (without wings)	69	WEDL WEDL WEDL	Mk 27 cap. DL, Phase I Mk 38 cap. DL, Phase I Haze Penetrator Mk 39 cap. DL, Phase II Haze Penetrator	1,130 1,130 1,130
AGM-65	65	MAV MAV	AGM-65E: Laser Guided A/A37A-T9: TGM-65E: captive laser trainer	642 642
Maverick	$66^2$	MAVF MAVF	AGM-65F: imaging infrared guided CATM-65F: cap IIR trainer	669 669
ACM 04D	62	HPD	AGM-84D: Block 1C	$1,\!221^3$
AGM-84D Harpoon	63	THPD THPD THP	ATM-84D-1: exercise-telemetry 'warhead' ATM-84D-1A: exercise-inert warhead CATM-84D-1: inert captive trainer	$1,213^3  1,221^3  1,151$

 $<sup>^1</sup>$  Aircraft gross weight computation and 'in range' cues are unreliable.  $^2$  Not available with F/A-18A/B.  $^3$  Missiles fueled with JP10; those fueled with JP5 weigh 20 lbs less.

Designation	SMP	DDI	Stores	Wt. (lbs)
AGM-84E	67	SLAM	AGM-84E Standoff Land Attack Missile	1,366
SLAM	70	TSLM TSLM	ATM-84E-1C: exercise-telemetry 'warhead' CATM-84E-1C: captive trainer	1,360 1,360
AGM-84H	F0	SLMR	SLAM ER: CATM/Tactical	1480
SLAM ER	F0 F0	TSLR DL13	SLAM ER: telemetry AWW-13	1484 707
AGM-88 HARM	64	HARM	AGM-88A: Block II seekers CATM-88A: captive trainer AGM-88B: Block II & III seekers ATM-88B: live trainer, inert warhead CATM-88B: captive trainer AGM-88C: Block IV seekers CATM-88C: captive trainer	800
A T.M. 100		AM/AA <sup>3</sup>	AIM-120A, Adv. Med. Rng. Air-to-Air Msl.	347
AIM-120 AMRAAM	$F0^2$	$AM/AB^3$	AIM-120B (production improvements)	347
71111117171111		AM/AC <sup>3</sup>	AIM-120C (compressed carriage)	345
ADM-141 TALD	25 <sup>4</sup>	82P 82P	ADM-141A: active/passive RF aug. ADM-141B: chaff dispensing	400 382
AGM-154A JSOW	$F0^2  F0^2  91^5$	JSA TJSA 52	AGM-154A: 145 x BLU-97A/B CEM CATM-154A: Captive Flight Vehicle (CFV)	1030 1030

Not available with F/A-18A/B.
 NAWCWD-installed telemetry (TM) sections authorized.
 Codes on the left are for OFP 91C, those on the right are for OFP 11C and later.
 Stores forced to use 'best available' store codes and ballistics intended for other stores.
 For logistic carriage of AGM or CATM-154 when the MIL-STD-1760 umbilical is not connected.

Designation	SMP	DDI	Stores	Wt. (lbs)
			fuselage-mounted countermeasure dispensers DN/ALE-29A dispenser housing (w/carts) RR-129/AL chaff (30=08.9 lbs) RR-144/AL training chaff (30=08.9 lbs) RR-191/AL chaff/flare (30=13.1 lbs)	empty/full 9 / 18 <sup>1</sup> 9 / 18 <sup>1</sup> 9 / 22 <sup>1</sup>
ALE-39 or -47 Chaff Dispenser	n/a	n/a	MJU-8?B flare       (30=15.8 lbs)         MJU-8A/B decoy device       (30=15.8 lbs)         MJU-27/B flare       (30=18.0 lbs)         MJU-27A/B flare       (30=25.0 lbs)         SM-875/ALE flare simulator       (30=06.0 lbs)	9 / 25 <sup>1</sup> 9 / 25 <sup>1</sup> 9 / 27 <sup>1</sup> 9 / 34 <sup>1</sup> 9 / 15 <sup>1</sup>
			RT-1489/ALE Gen-X act payld (30=35.0 lbs)	9 / 441
ALQ-167 ECM Pod	24 <sup>2</sup> , 25 <sup>2</sup> , or 54 <sup>2</sup> for any	82B, 82P, or EWPD	ALQ-167(V)-10, -14, -15, -21, -25, -50, -52 ALQ-167(V)-11, -20 ALQ-167(V)-22 ALQ-167(V)-30: CV-qualified training pod ALQ-167(V)-31, -32, -40 ALQ-167(V)-33 ALQ-167(V)-61 ALQ-167(V)-70: CV-qualified TCP ALQ-167(V)-71: CV-qualified TCP	310 max 322 max 326 238 274 max 272 306 286 279
ASQ-173 LDT/Cam Pod	$00^{3}$	LST	AN/ASQ-173 Laser Detector (formerly Spot) Tracker/Strike Camera pod	165

Weight for one bucket, two (ALE-39) or four (ALE-47) buckets installed: each bucket contains 30 expendables.

For OFP 91C, use of code 24 or 25 is optional, but selected code must be unique for aircraft load. Use code 54 with later OFPs.

<sup>&</sup>lt;sup>3</sup> Code for AYK-22 SMS only; not applicable for AYQ-9 SMS.

Designation	SMP	DDI	Stores	Wt. (lbs)
ASQ T TACTS pod (Tactical Aircrew Combat Training System)	$80^1$ or $81^1$ non- wingtip pods $82^2$ wingtip pods	9M 9L TST	AN/ASQ T-11: P3A AN/ASQ T-13: P4 AN/ASQ T-16: Acft Inst Subsys, Internal <sup>3/4</sup> AN/ASQ T-17: P4A <sup>4</sup> AN/ASQ T-20: P4AX AN/ASQ T-25: P4AM <sup>5</sup> AN/ASQ T-27: P4B <sup>5</sup> AN/ASQ T-27(V)-1: P4BX <sup>5</sup> AN/ASQ T-29: P4AW <sup>4/5</sup> AN/ASQ T-29: P4AW <sup>4/5</sup> AN/ASQ T-31(V): AISI(K) <sup>3/4</sup>	127/193 <sup>6</sup> 120/186 <sup>6</sup> 32 122/188 <sup>6</sup> 124/190 <sup>6</sup> 123/189 <sup>6</sup> 127/193 <sup>6</sup> 127/193 <sup>6</sup> 128/178 <sup>7</sup> 31
<b>AWW-9B</b> Data Link pod	71	$rac{ m DLP^8}{ m DL9^9}$	Phase II AWW-9B for Walleyes & SLAM; Walleye interface only	645
AWW-13 Advance Data Link pod	71 F0 <sup>10</sup>	DLP <sup>8</sup> DL13 <sup>9</sup>	Phase II AWW-13 for Walleye & SLAM; both Walleye and MIL-STD-1760 interfaces	707

 $^{1}$  These codes are used for non-wingtip mounted pods with both the AYQ-9 and AYK-22 SMS.  $^{2}$  This code is used for wingtip pods with the AYK-22 SMS only: the AYQ-9 uses codes from sheet 1 of this figure.

Mounted in gun bay (no drag). Includes weight of AS-4319 antenna.

Carrier qualified.

USAF pods with MIL-STD-1760 data bus interface.
Weights without and with three external ballast weights (weights required for wingtip carriage).

Weights without and with only fore and aft external ballast weights (weights required for wingtip carriage).

F/A-18A/Bs. F/A-18C/Ds.

Not available with F/A-18A/Bs.

Designation	SMP	DDI	Stores	Wt. (lbs)
BDU-33 Practice bomb	$06^{1}$	76	BDU-33D/B: LD practice bomb carried on (I)MERs	25
	24 25 26 27	82B 82P 82BT 82PT	MAU-93 CFA, NTP, M904 or blunt nose MAU-93 CFA, NTP, TDD or ogive nose MAU-93 CFA, TP, M904 or blunt nose MAU-93 CFA, TP, TDD or ogive nose	$502^2$ $496^2$ $511^2$ $505^2$
BDU-45/B Inert Mk 82 w/side-mounted spotting charges	$     \begin{array}{r}       28 \\       29 \\       30^1 \\       30     \end{array} $	82X 82XT 82YT 82YT	Mk 15 Mod 6 Snakeye, NTP, LD/HD Mk 15 Mod 6A Snakeye, TP, LD/HD BSU-86 Retard NTP, pilot option LD/HD BSU-86 Retard, TP, pilot option LD/HD	$547^2  556^2  547^2  556^2$
	$     \begin{array}{r}       31^{1} \\       32^{1} \\       31 \\       32     \end{array} $	82SB 82SP 82SB 82SP	BSU-33 CFA, NTP, M904 or blunt nose BSU-33 CFA, NTP, TDD or ogive nose BSU-33 CFA, TP, M904 or blunt nose BSU-33 CFA, TP, TDD or ogive nose	$503^2 \ 497^2 \ 512^2 \ 506^2$
BDU-48 Practice bomb	08 98	48 48 <b>M</b>	BDU-48/B: HD practice bomb carried on (I)MERs. 08=conv, 98=mine	10
BDU-57	$33^{3/1}$	82LG	LGTR I (PAVE Way II simulator)	89
Blank-Off Panel	$00^{4}$	blank	Used when no stores are carried on stations 4/6.	12

 $<sup>^1</sup>$  Stores forced to use 'best available' store codes and ballistics intended for other stores. Weights include nose plug (blunt unless specified), warhead, fin, and 4 lbs tail fuze.  $^3$  Aircraft gross weight computation is unreliable.  $^4$  Code for AYK-22 SMS only; not applicable for AYQ-9 SMS.

Designation	SMP	DDI	Stores	Wt. (lbs)
	18 19	83BT 83PT	Mk 83 CFA, M904 or blunt nose Mk 83 CFA, TDD or ogive nose	$995^{2}$ $989^{2}$
<b>BLU-110A/B</b> 1,000 lb TP Bomb	$86^{1}$	40TF	MAU-91 Retard	1,056
	22	83CT	BSU-85 Retard, pilot option LD/HD	1,0312
	26 27	82BT 82PT	MAU-93 CFA, M904 or blunt nose MAU-93 CFA, TDD, or ogive nose	$515^2 \\ 509^2$
<b>BLU-111A/B</b> 500 lb TP Bomb	29 30	82XT 82YT	Mk 15 Mod 6A Snakeye LD/HD BSU-86 Retard, pilot option LD/HD	$\frac{560^2}{560^2}$
	31 32	82SB 82SP	BSU-33 CFA, M904 or blunt nose BSU-33 CFA, TDD or ogive nose	$516^2 \\ 510^2$
BRU-32/A	n/a	n/a	Non-ZRF SUU-62/-63 ejector rack	76
BRU-32A/A	n/a	n/a	ZRF SUU-62/-63 ejector rack	76
BRU-33/A VER	n/a	n/a	Non-ZRF Vertical Ejector Rack	175
BRU-33A/A CVER	n/a	n/a	ZRF Canted Vertical Ejector Rack	200
BRU-41/A IMER	n/a	n/a	ZRF Improved Multiple Ejector Rack	240
BRU-42/A ITER	n/a	n/a	ZRF Improved Triple Ejector Rack	124

 $<sup>^1</sup>$  Stores forced to use 'best available' store codes and ballistics intended for other stores.  $^2$  Weights include nose plug (blunt unless specified), warhead, fin, and 4 lbs tail fuze.

Designation	SMP	DDI	Stores	Wt. (lbs)
CBU-78 TP Gator	05	GATR GATR	CBU-78/B & CBU-78B/B: Mk 339 CBU-78A/B: FMU-140	491 494
CBU-99 TP Rockeye II	02	RET RET	CBU-99/B: Mk 339 CBU-99A/B: FMU-140	506 509
CBU-100 NTP Rockeye II	03	RE RE	CBU-100/B: Mk 339 CBU-100A/B: FMU-140	490 493
CNU-188 Baggage Pod	$\frac{24}{99^1}$	82B BAG	CNU-188/A: Converted AERO 1D fuel tank; bobtail (no fins) configuration only	195 empty 545 full
FPU-6/A External Fuel Tank	01	FUEL	315-gal elliptical, P/N suffix 1019 or 1021	2,448 JP5
FPU-8/A	01	FUEL	330-gal circular, P/N suffix 1005	2,530 JP5
External Fuel Tank	24	82B	For empty ferry on stations 2/8	290 empty
GBU-10 (Mk 84) LGB	15	84LG 84LG	NTP GBU-10D/B & E/B TP GBU-10D/B & E/B	$2,114^3 \ 2,153^3$
GBU-12 (Mk 82) LGB	33	82LG 82LG	NTP GBU-12C/B &D/B TP GBU-12C/B &D/B	$610^3 \ 619^3$
GBU-16 (Mk 83) LGB	23	83LG 83LG	NTP GBU-16A/B & B/B TP GBU-16A/B & B/B	$1,112^3$ $1,131^3$
GBU-24B/B Low Level LGB	$55^2 \\ 14^2$	GB24 84T	BLU-109A/B live or BLU-109A(D-1)/B inert TP warhead	2,396
GBU-31 JDAM	FO	J84 J109	Mk 84 variant BLU-109 variant	2046 2046
o Drivi	CO	JDAM	Training variant	2046

Store code 99 not valid with MC OFP 91C.
 With MC OFP 91C, store code 55 is not available; code 14 approximates weight and drag, but ballistics are unreliable.
 Weights reflects Mk 80 series warheads including a MXU-735 nose plug and a 4-lb tail fuze.

Designation	SMP	DDI	Stores	Wt. (lbs)
LAU-7 Launch Rail for AIM-9 or TACTS Pod	n/a	n/a	LAU-7/A through 163782 (Lot XI) LAU-7B/A from 163985 (Lot XII)	$   \begin{array}{c}     90^1 \\     90^1 \\     (2 = 180)   \end{array} $
LAU-10 4 x 5.0-inch Zuni Rocket Pod	$76^{2/3} \\ 77^{4/3}$	10S 10R	LAU-10C/A: NTP LAU-10D/A: TP Mk 71 Mod 0 or Mod 1 motors	$107^{5} \\ 136^{5}$
LAU-61 19 x 2.75-inch Rocket Pod	$72^{2/6} \\ 73^{4/6}$	61S 61R	LAU-61C/A, TP, Mk 66 motors only (nose fairing adds 5.7 pounds)	$160^{7}$
LAU-68 7 x 2.75-inch Rocket Pod	$74^{2/6} - 75^{4/6}$	68S 68R	LAU-68D/A, TP, Mk 66 motors only (nose fairing adds 2.0 pounds)	78 <sup>7</sup>
LAU-115/A Launcher Adapter	n/a	n/a	Wing pylon adapter for two LAU-7s (w/AIM-9s)	52
LAU-115A/A Launcher Adapter	n/a	n/a	Wing pylon adapter for two LAU-7s (w/AIM-9s), or LAU-127s (w/AIM-9s/-120s)	59
LAU-115C/A Launcher Adapter	n/a	n/a	LAU-115A/A with jettison adapter for AIM-7 or two LAU-127s (w/AIM-9s/-120s)	133 max

Weight of wingtip-mounted LAU-7s is included in basic aircraft gross weight.

<sup>&</sup>lt;sup>2</sup> Code required to match "Singles" mode pod intervalometer selection.

<sup>&</sup>lt;sup>3</sup> Ballistics assume a M414 fuze, Mk 63 warhead, and Mk 71 Mod 1 rocket motor.

<sup>4</sup> Code required to match "Ripple" mode pod intervalometer selection.

<sup>&</sup>lt;sup>5</sup> Empty pods without fairings, see A1-F18AE-TAC-020 figure I-1-11 for rocket weights.

Selection of motor type is made with the DDIs SMS display. Ballistics assume M151 with M427 fuze.
 Empty pods with tail fairings, see A1-F18AE-TAC-020 figure I-1-11 for rocket weights.

Designation	SMP	DDI	Stores	Wt. (lbs)
LAU-116 Sta 4/6 AIM Ejector	n/a	n/a	LAU-116/A for AIM-7 LAU-116A/A for AIM-7 or AIM-120	65 65
LAU-117 AGM-65 Launcher	n/a	n/a	LAU-117A(V)-2/A wing pylon adapter for one AGM-65 Maverick	135
LAU-118 AGM-88 Launcher	n/a	n/a	LAU-118(V)-1/A wing pylon adapter for one AGM-88 HARM	100
LAU-127A/A AIM Launcher	n/a	n/a	Pairs used with LAU-115 for AIM-9, AIM-120, or TACTS pod carriage	95 $(2 = 191)$
LUU-2 Paraflare	$28^{1}$ $29^{1}$ $30^{1}$	82X 82XT 82YT	LUU-2A/B 1.6 Mcp for 5 minutes, No CV ops. LUU-2B/B 2.0 Mcp for 4 minutes, CV ops OK.	30 30
M61 Internal Cannon	n/a	GUN GUN	M61A1 (to BuNo 164724) M61A2 light cannon (from BuNo 164725) Ammunition (weight for 578 rounds) M55 & M220 TP/TP Tracer M56 & M242 HEI/HEI Tracer PGU-27B & PGU-30/B TP/TP Tracer PGU-28/B SAPHEI	loaded/shot 324/155 324/155 334/155 331/155
Mk 20	02	RET RET	Mk 20 Mod 11: Mk 339 fuze TP Mk 20 Mod 9: FMU-140 fuze, TP	506 509
Rockeye II	03	RE	Mk 20 Mod 12: Mk 339 fuze, NTP	490

Use of the HD release option is required to close the aft solenoid and withdraw the arming lanyard. Aircraft gross weight computation will be unreliable. Use of SMP store code 28, 29, or 30 is optional, but selected code must be unique for aircraft load.

Designation	SMP	DDI	Stores	Wt. (lbs)
<b>15</b> 1 00	$36^{1}$	62TO	OA 48K <sup>2:</sup> Mk 15 Mod 6 Snakeye, NTP	$552^{3}$
Mk 36 Destructor	$35^{1/4}$	62XO	OA 51K <sup>2</sup> : Mk 16 paratail, NTP	$536^{3}$
2000140001	78	36	OA 54K <sup>2</sup> : BSU-86 retard, NTP	$552^{3}$
Mk 40	85	40F	OA 48K <sup>2</sup> : MAU-91 retard, NTP	$1,056^3$
Destructor	87	40C	OA 51K <sup>2</sup> : Mk 12 paratail, NTP	$1,003^3$
Mk 52 NTP Bottom Mine	91	52	OA 05K <sup>2</sup> : with fairing	1,063
Mk 55 NTP Bottom Mine	92	55	OA 04K <sup>2</sup> : with fairing	2,059
Mk 56 NTP Moored Mine	93	56	OA 06K <sup>3</sup> : with fairing Mod 0, OA 12: with fairing	2,210
Mk 58 MLM	$07^{5}$	106	Marine Location Marker: carried on bottom and outboard (I)MER stations	13
Mk 60 CAPTOR NTP Moored Mine	34	60	OA 01K <sup>3</sup> & 01Q <sup>3</sup> Mod 1. OA 01	2,354

<sup>&</sup>lt;sup>1</sup> Stores forced to use "best available" store codes and ballistics intended for other stores.

<sup>&</sup>lt;sup>2</sup> The Operational Assembly (OA) suffixes 'K' (Laying) and 'Q' (Mk 5 Marine Mammal recovery System or MMS) indicate inert exercise and training (E&T) mines, which do not have Mod numbers.

<sup>&</sup>lt;sup>3</sup> Weights reflect Mk 80 series warheads.

<sup>&</sup>lt;sup>4</sup> Not available with MC OFP 91C.

<sup>&</sup>lt;sup>5</sup> If using Mk 58s as part of a mixed (I)MER load, use the practice bombs SMP store code.

Designation	SMP	DDI	Stores	Wt. (lbs)
<b>Mk 62</b> Quickstrike Mine	$   \begin{array}{r}     36^{1} \\     36^{1} \\     36   \end{array} $	62TO 62TO 62TO	OA 03K <sup>2</sup> : Mk 15 Mod 6 Snakeye, NTP Mod 0, OA 03: Mk 15 Mod 6A Snakeye, NTP Mod 0, OA 03: Mk 15 Mod 6A Snakeye, TP	$552^3  552^3  561^3$
	$35^{1/4} \ 35^{1/4} \ 35^4$	62XO 62XO 62XO	OA 06/06K <sup>2</sup> : Mk 16 paratail, NTP Mod 0, OA 06: Mk 16 paratail, NTP Mod 0, OA 06: Mk 16 paratail, TP	$536^3  536^3  545^3$
	78 78 79	36 36 36T	OA 09K <sup>2</sup> : BSU-86 retard, NTP Mod 0, OA 09: BSU-86 retard, NTP Mod 0, OA 09: BSU-86 retard, TP	$552^3  552^3  561^3$
Mk 63	85 85 40	40F 40F 63TF	OA 03K <sup>2</sup> : MAU-91 retard, NTP Mod 0, OA 03: MAU-91 retard, NTP Mod 0, OA 03: MAU-91 retard, TP	$1,056^3$ $1,056^3$ $1,075^3$
Quickstrike Mine	87 87 42	40C 40C 63TC	OA 06K <sup>2</sup> : Mk 12 paratail, NTP Mod 0, OA 06: Mk 12 paratail, NTP Mod 0, OA 06: Mk 12 paratail, TP	$1,003^3$ $1,003^3$ $1,022^3$
<b>Mk 65</b> Quickstrike Mine	47	65	OA 01K <sup>2</sup> with fairing, NTP Mod 0: Mk 57 TDD, with fairing, TP OA 01/02: Mk 131/132 batteries Mod 1: Mk 58 TDD, with fairing, TP OA 01/02: Mk 131/132 batteries	2,446 2,402 2,314

Stores forced to use "best available" store codes and ballistics intended for other stores.
 Weights reflect Mk 80 series warheads.
 The Operational Assembly (OA) suffixes 'K' (Laying) and 'Q' (Mk 5 Marine Mammal recovery System or MMS) indicate inert exercise and training (E&T) mines, which do not have Mod numbers.
 Not available with MC OFP 91C.

Designation	SMP	DDI	Stores	Wt. (lbs)
Mk 76 Practice Bomb	06	76	Mk 76 Mod 5: LD practice bomb carried on (I)MERs	25
<b>Mk 77</b> Fire Bomb	21 21	77 77	Mod 4: 71 gal of gelled AVGAS Mod 5: 43 lbs imbiber beads + 63 gal of jet fuel	520 520
	24 25 26 27	82B 82P 82BT 82PT	MAU-93 CFA, NTP, M904 or blunt nose MAU-93 CFA, NTP, TDD or ogive nose MAU-93 CFA, TP, M904 or blunt nose MAU-93 CFA, TP, TDD or ogive nose	$513^{1}$ $507^{1}$ $522^{1}$ $516^{1}$
Mk 82 500-lb Bomb (Mod 1: NTP Mod 2: TP)	$     \begin{array}{r}       28 \\       29 \\       30^2 \\       30     \end{array} $	82X 82XT 82YT 82YT	Mk 15 Mod 6 Snakeye, NTP, LD/HD Mk 15 Mod 6A Snakeye, TP, LD/HD BSU-86 retard NTP, pilot option LD/HD BSU-86 retard, TP, pilot option LD/HD	558 <sup>1</sup> 567 <sup>1</sup> 558 <sup>1</sup> 567 <sup>1</sup>
	$     \begin{array}{r}       31^2 \\       32^2 \\       31 \\       32     \end{array} $	82SB 82SP 82SB 82SP	BSU-33 CFA, NTP, M904 or blunt nose BSU-33 CFA, NTP, TDD or ogive nose BSU-33 CFA, TP, M904 or blunt nose BSU-33 CFA, TP TDD or ogive nose	$514^{1} \\ 508^{1} \\ 523^{1} \\ 517^{1}$

 $<sup>^1</sup>$  Weights include nose plug (blunt unless specified otherwise), warhead, fin, and a 4-lbs tail fuze.  $^2$  Stores forced to use 'best available' store codes and ballistics intended for other stores.

Designation	SMP	DDI	Stores	Wt. (lbs)
Mk 83 1,000-lb Bomb	16 17 18 19	83B 83P 83BT 83PT	Mk 83 CFA, NTP, M904 or blunt nose Mk 83 CFA, NTP, TDD or ogive nose Mk 83 CFA, TP, M904 or blunt nose Mk 83 CFA, TP, TDD or ogive nose	$986^{1}$ $980^{1}$ $1,005^{1}$ $999^{1}$
(Mod 4: NTP Mod 5: TP)	$85^{3}$ $86^{3}$	40F 40TF	MAU-91 retard, NTP, HD only MAU-91 retard, TP, HD only	1,043 1,062
	$\frac{22^2}{22}$	83CT 83CT	BSU-85 retard, NTP, pilot option LD/HD BSU-85 retard, TP, pilot option LD/HD	$1,022^1 \ 1,041^1$
Mk 84 2,000-lb Bomb	13 14	84 84T	Mk 84 Mods 4/7, NTP, CFA Mk 84 Mods 3/5/6, TP, CFA	1,992 <sup>1</sup> 2,031 <sup>1</sup>
Mk 106 Practice Bomb	07	106	Mk 106 Mod 5: HD practice bomb carried on (I)MERs	5
SUU-62 Centerline pylon (w/BRU-32)	$00^{4}$	blank	SUU-62/A through 163782 (Lot XI) SUU-62/A from 163985 (Lot XII)	130 139
SUU-63 Wing pylon (w/BRU-32)	004	blank	SUU-63/A F/A-18A/Bs SUU-63A/A F/A-18C/Ds to 163782 (Lot XI) SUU-63A/A w/WPD-5 from 163985 (Lot XII) SUU-63C/A F/A-18C/Ds fm 165207 (Lot XIX)	275 277 314 311
TDU-32	n/a	n/a	TDU-32/B Tow Banner (w/ cable)	277

<sup>4</sup> For OFP 91C and 10A; not required for later OFPs.

 $<sup>^1</sup>$  Weights include nose plug (blunt unless specified otherwise), warhead, fin, and a 4-lb tail fuze. Stores forced to use 'best available' store codes and ballistics intended for other stores.  $^3$  Fuze codes of '0' must be used with this mine store code. M904 fuzing requires deliberate fuze arming wire configuration and DDI fuze option selection. Mine dud cueing invalid for bombs.

CODE	NOSE FUZE
Use 0	For Mines/Fire Bombs
0	No Fuze
1	M904-6
2	M904-10
3	Mk 43 (E)
4	Mk 43 (M)
5	Mk 339
6	Mechanical (other than M904,
	Mk 339, or FMU-140)
7	FMU140
8	M904-2
9	M904-4
$\mathbb{B}^1$	DSU-30/B

 $<sup>^{\</sup>rm 1}$  Not available with F/A-18A/B.

CODE	TAIL FUZE
Use 0	For Mines/Fire Bombs
0	No Fuze
1	Mk 344
2	Mk 376
3	FMU139
4	(Spare)
5	Mk 346
6	Mechanical (other than Mk 346)
7	(Spare)
8	(Spare)
9	(Spare)

# **AIR-TO-AIR WEAPONS**

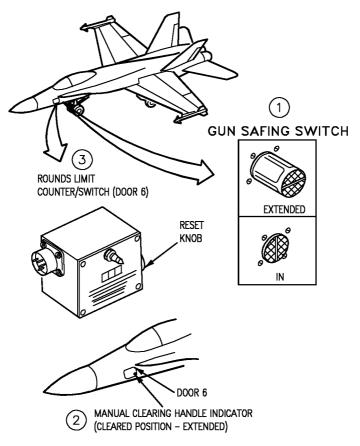
#### M61A1 EXTERIOR INSPECTION

## **Preflight Checks**

- 1. Gun electrical safety switch extended
- 2. Manual clearing handle in cleared position
- 3. Rounds limiter set (if applicable)
- 4. Gun electrical cannon plug connected
- 5. Ensure access door 6 closed, manual clearing handle indicator extended.

# Exterior Inspection

M61A1 GUN

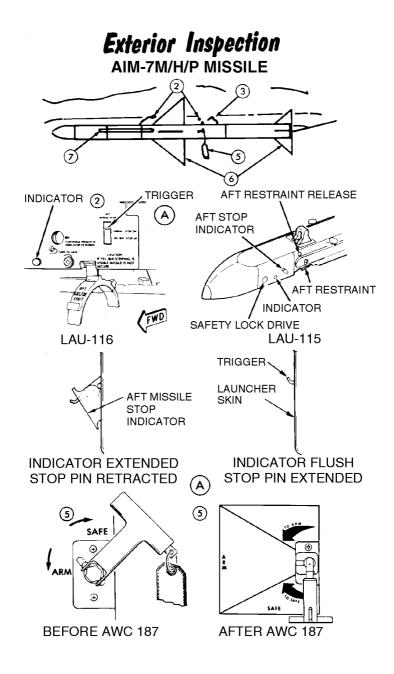


18AC-TAC-30-(8-1)13-CATI

## AIM-7M/H/P EXTERIOR INSPECTION

#### PREFLIGHT CHECKS

- 1. BRU-32 with LAU-115 installed:
  - a. Ground safety handle locked
  - b. Swaybraces seated
  - c. Cartridges installed; retainers/auxiliary cap tight
  - d. Launcher electrically connected
- 2. (Launchers) Safety release/lock drive in GREEN
- 3. (LAU-116) Aft missile stop indicator flush with launcher skin, trigger locked, and aft stop pin in full down position
- 4. Shear wafer mated to missile
- 5. Motor SAFE/ARM mechanism SAFE
- 6. Wings and fins secure
- 7. Fuze antenna strips and waveguide secure and not damaged
- 8. (LAU-115) SMP code set



#### AIM-9M EXTERIOR INSPECTION

#### **Preflight Checks**

- BRU-32/A with LAU-115/LAU-7 combination installed:
  - a. Ground safety handle locked
  - b. Swaybraces seated
  - c. Cartridges installed; retainers/auxiliary cap tight
  - d. Launcher electrically connected
- 2. Launcher detent wrench safety pin installed
- 3. Detent holddown pin installed
- 4. Motor safe/arm mechanism/selector SAFE (if applicable)
- 5. Dome protector installed
- 6. Umbilical connected to launcher
- 7. Target detector cover installed

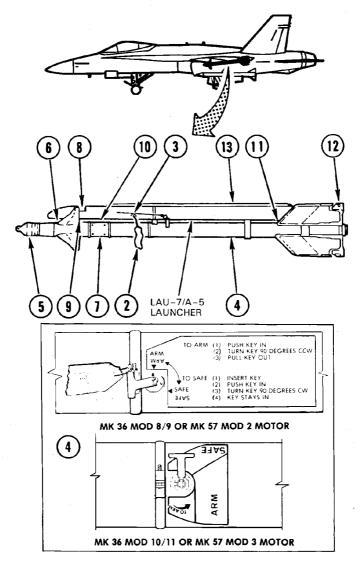
#### NOTE

When training missile is loaded, launcher umbilical block hooks will not engage missile umbilical block pins.

- 8. Hooks connected to umbilical block (if applicable)
- 9. Fin retainers engaged
- 10. Visually inspect detent lugs engaged around forward hanger and that the missile is restrained in both directions
- 11. From fore and aft positions, rock firmly upwards to ensure both sets of snubbers are firmly engaged
- 12. Rolleron covers removed
- 13. Aft fairing secure
- 14. SMP code set

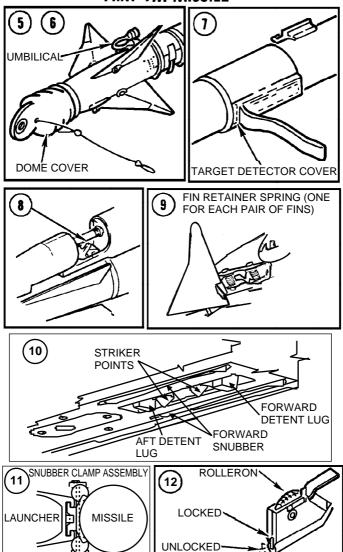
# Exterior Inspection

AIM-9M MISSILE



# Exterior Inspection

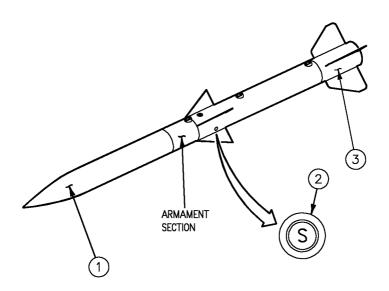
AIM-9M MISSILE



#### **AIM-120 EXTERIOR INSPECTION**

#### **PREFLIGHT CHECKS**

- 1. Missile nose section CLEAN, UNDAMAGED
- 2. AFD indicator SAFE INDICATION
- 3. Wings and fins CLEAN, UNDAMAGED



18AC-TAC-30-(18-1)13-CATI

# AIR-TO-GROUND WEAPONS

#### **WEAPON CODES**

Refer to Stores Information for weapon codes.

# **BOMBS NONRETARD/RETARD**

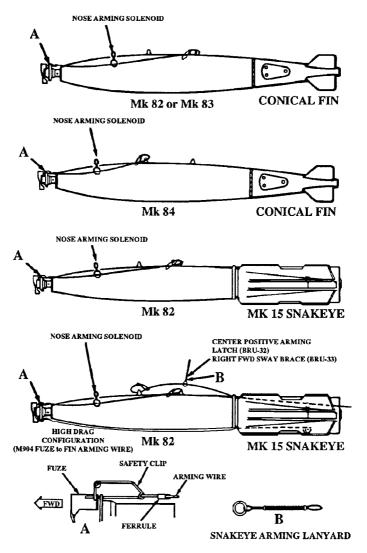
#### **Preflight Checks**

- 1. Ground safety handle(s) locked
- 2. Swaybraces seated
- 3. Cartridges installed; retainers/auxiliary cap tight
- 4. (VER) Adapter harness electrically connected
- 5. Arming wire(s) installed
- 6. Fuze set; safety pin/wire removed (if applicable)
- 7. (BSU-85/86) Fin release lanyard stowed/ connected
- 8. (Retard) Fin release band latch assembly safety pin removed
- 9. (Electric fuzing) Mk 122 safety switch lanyard attached to center positive arming latch
- 10. (FMU-139 Fuze) Preset functioning delay data marked on fin
- 11. SMP code set

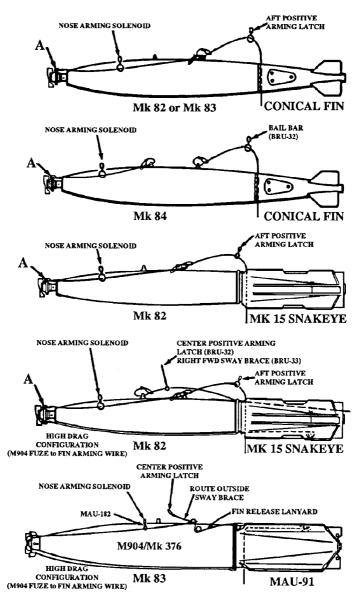
#### NOTE

- The FMU-139 electric tail fuze does not require arming wire.
- (BSU-85/86) Pilot option low/high drag with ZRF arming units only.

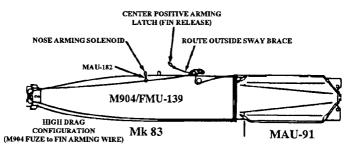
## Mk 80 Series Bombs



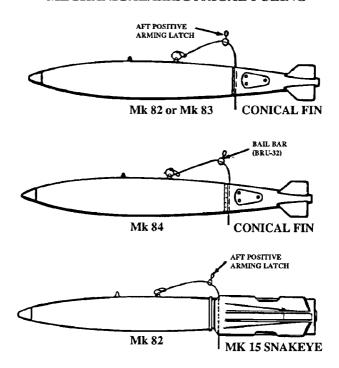
**MECHANICAL FUZE** 



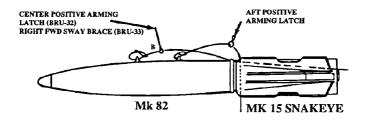
MECHANICAL/ELECTRICAL FUZING

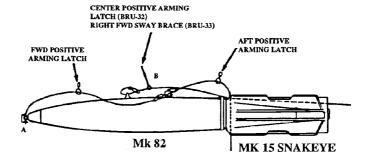


#### MECHANICAL/ELECTRICAL FUZING



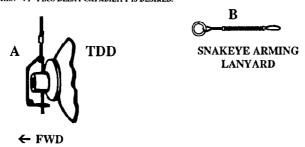
**ELECTRICAL FUZE** 





#### NOTE:

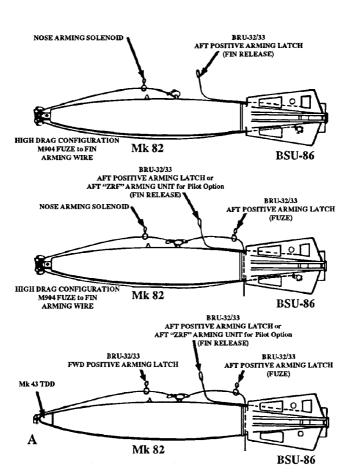
MK 43 TDD MECHANICALLY ACTIVATED ONLY WHEN "VT" PLUS DELAY CAPABILITY IS DESIRED.



## **ELECTRICAL FUZE**

#### NOTE: REGARDING NONRETARD

- · CONNECT FIN RELEASE LANYARD TO FIN STOWAGE CLIP
- · REMOVE FUZE TO FIN ARMING WIRE



## NOTE: REGARDING MK 43 TDD ELECTRICAL ACTIVATION

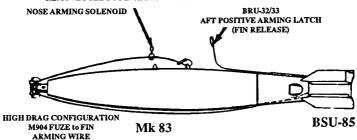
- DO NOT INSTALL ARMING WIRE
- · SHIPPING SAFETY CLIP REMAINS INSTALLED
- · WARNING TAG MUST BE REMOVED

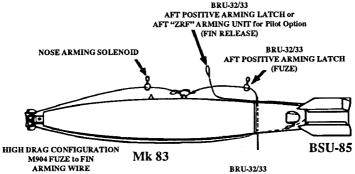
# MECHANICAL/ELECTRICAL FUZING Mk 82 with BSU-86 FIN

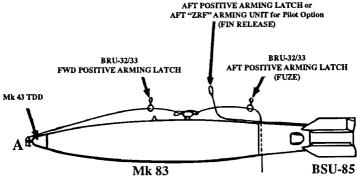
# NOTE: REGARDING NONRETARD CONNECT FIN RELEASE

· CONNECT FIN RELEASE LANYARD TO FIN STOWAGE CLIP

· REMOVE FUZE TO FIN ARMING WIRE







NOTE: REGARDING MK 43 TDD ELECTRICAL ACTIVATION

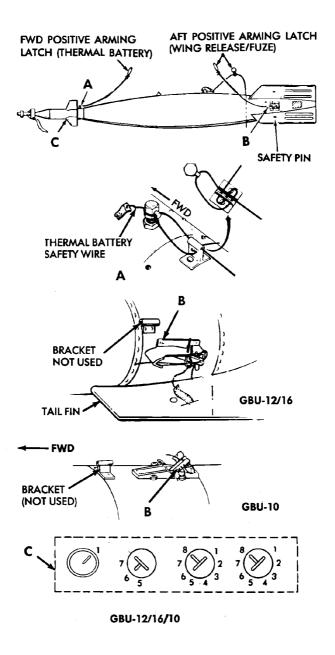
- · DO NOT INSTALL ARMING WIRE
- · SHIPPING SAFETY CLIP REMAINS INSTALLED
- · WARNING TAG MUST BE REMOVED

# MECHANICAL/ELECTRICAL FUZING Mk 83 with BSU-85 FIN

## GBU-12, -16, -10

## **Preflight Checks**

- 1. Ground safety handle locked
- 2. Swaybraces seated
- 3. Cartridges installed; retainers/auxiliary cap tight
- 4. Thermal battery firing pin assembly safety wire removed; arming cable properly installed.
- 5. Guidance fins secure and free to move
- 6. PRF code select switches set
- 7. Safety pins installed in latch release lever and wings; release lanyard properly installed.
- 8. Mk 122 safety switch lanyard attached to center positive arming latch.
- 9. (FMU-139 fuze) Present functioning delay data marked on fin.
- 10. SMP code set

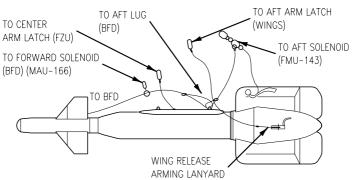


## **GBU-24**

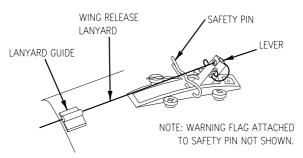
## **Preflight Checks**

- 1. Wing release safety pin installed.
- 2. AFG access cone secure.
- 3. Aft wing latch actuator bar and safety pin installed.
- 4. FMU-143E/B bomb fuze:
  - a. Check for proper lanyard routing (fuze/safe jettison lanyard attached to aft lug and clip, fuze lanyard attached to aft arming solenoid).
  - b. Check fuze arming time marked on AFG to validate that the proper fuze arming delay has been set.
  - c. Ensure all lanyards are free and are not caught between ejector feet and bomb body or wedged between bomb lugs and bomb rack hooks.
- 5. Check wing release lanyard laced through wing release lever (cut 3 to 6 inches from lever); check for proper routing to aft arm latch.
- 6. Check FZU-32B/B lanyard for proper routing to center arm latch.
- 7. Check BFD lanyard laced through BFD and lanyard guide; check proper routing to aft bomb lug and that lanyard is routed through the MAU-66 clip.
- 8. Check WGŪ-39/B inspection panels secure (2).
- 9. Check gyro level switch locked. If unlocked, reject for flight.
- 10. Check canards security (pull straight out).
- 11. Remove protective nose cover, ensure humidity indicator strip indicates satisfactory condition (green). If unsatisfactory (other than green), reject for flight.
- 12. WGU-39/B mission and code switches set.

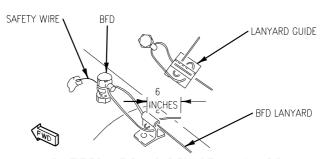
# GBU-24B/B



## ARMING LANYARD CONFIGURATION

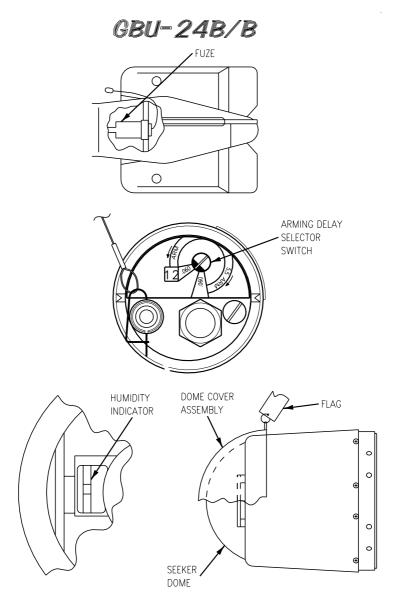


## WING RELEASE ARMING LANYARD



BATTERY FIRING DEVICE LANYARD

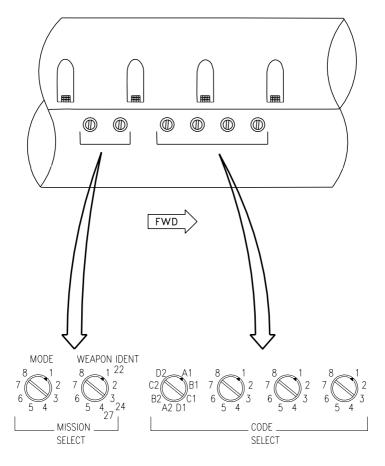
18AC-TAC-30-(22-1)16-CATI



18AC-TAC-30-(22-2)16-CATI

# GBU-24B/B

WGU-39/B GUIDANCE CONTROL UNIT

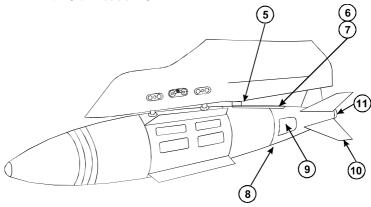


18AC-TAC-30-(22-3)16-CATI

## GBU-31 (JDAM)

### PREFLIGHT CHECKS

- 1. Ground safety handle LOCKED
- 2. Nose plug or DSU-33 INSTALLED
- 3. Strakes UNDAMAGED
- 4. Swaybraces SEATED
- 5. Cartridges INSTALLED
  - a. Retainers/auxiliary cap tight
- 6. Arming wires CHECK
  - a. JPF: No arming wires. MK-122 attached to center positive arming latch.
  - b. FMU-143/139: FZU-32 lanyard attached to center positive arming latch.
    Fuze arming lanyard through the aft lug to the arming unit.
- 7. 1760 connector SECURE and UNDAMAGED
- 8. 1760 umbilical tunnel SECURE
- 9. GPS coax cover SEALED
- 10. Tail assembly SECURE
- 11. Fuze settings VERIFY (secure access cover)
- 12. Fins CHECK
  - a. X configuration
  - b. Nominal freeplay
  - c. No movement
- 13. GPS antenna CLEAN and UNDAMAGED
- 14. SMP code SET



## **GBU-31 EMPLOYMENT**

#### POSTSTART CHECKS

- 1. MU ID VERIFY
- 2. Mission data download VERIFY
- 3. HOLD ALL or HOLD MU SELECT
- 4. JDAM BIT PERFORM
- 5. S/W SELECT
  - a. OFB166 (J-84) or OFC166 (J-109) VERIFY
- 6. GPS time VERIFY GOOD
- 7. Two-digit HERR/VERR VERIFY
- 8. INS control knob IFA
- 9. A/G master mode SELECT
- 10. Fuzing SET
- 11. J-84 or J-109 SELECT
- 12. PP or TOO SELECT
- 13. REL TYPE SELECT
  - a. MAN or AUTO LOFT SELECT
- 14. QTY SELECT
  - a. Box desired stations for quantity release
  - b. RTN SELECT (use STEP to move between weapons)
- 15. NO GPS KEYS and NO GPS DATA cues removed VERIFY
- 16. MSN SELECT
  - a. Mission data VERIFY
  - b. JPF settings VERIFY

c. Desired mission - SELECTED

#### NOTE

- As long as JDAM is not deselected, background power is applied to all JDAM weapons. This aids in fault detection and avoids the 2:30 wait by the GPS warmup timer. JDAM does not have to be deselected for catapult launch.
- Once QUANTITY RELEASE is selected, the STEP option will only step between weapons in the selected quantity.
- When editing a mission, once a terminal heading is defined, there is no means of clearing the heading to re-enter heading undefined mode.

#### **ENROUTE CHECKS**

- 1. A/G master mode SELECT
- 2. Priority station(s) READY VERIFY
- 3. EFUZE ON (JPF) or MFUZE TAIL (FMU-139/143) VERIFY
- 4. ALIGN QUAL 01 GOOD all stations CHECK
- 5. Maneuver for transfer alignment AS REQUIRED
- 6. MSN SELECT (to verify mission, if desired)

#### NOTE

Troubleshooting involving deselecting/reselecting JDAM within 3 minutes of intended weapon release can lead to mission failure due to GPS warmup countdown timer operation (2 min 30 sec delay).

## JDAM PREPLANNED DELIVERY

- 1. A/G master mode SELECT
- 2. ALN QUAL 01 GOOD VERIFY
- 3. Priority station(s) READY VERIFY
- 4. Master arm ARM

- 5. J-84 or J-109 not Xed on HUD VERIFY
- 6. Weapon release button PRESS

## JDAM TOO DELIVERY

### POSTLAUNCH CHECKS

- 1. Master arm switch SAFE
- 2. Safe escape from flight clearance COMPLY

## If JDAM remains on aircraft -

- 3. A/G or NAV master mode SELECT
- 4. J-84 or J-109 SELECT
- 5. ERASE SELECT
- 6. ACPT SELECT

#### POSTFLIGHT CHECKS

1. No "C" MSP codes remain - VERIFY

## **GBU-31 SIMULATED ATTACK**

#### PREFLIGHT CHECKS

- 1. For each empty station:
  - a. Fuze code (optional): 08 JPF
  - b. Store code: C0 JDAM
- 2. On BRU-32 ensure hooks CLOSED AOC is not enabled in JDAM training mode.

#### POST-START CHECKS

- 1. SMS inventories JDAM station SELECTED
- 2. JDAM indicates ULK-TEST-STBY-XFER
- 3. A/G master mode SELECTED
- 4. SIM SELECTED
- 5. JDAM SELECTED

#### If no bulk data on MU -

- 1. Mission data ENTER
- 2. JDAM checklist FOLLOW

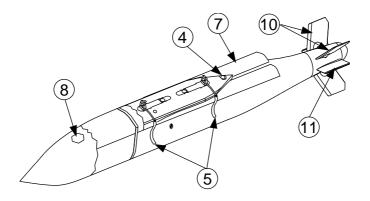
### NOTE

- JDAM ERASE option is not enabled in training mode.
- Transfer alignment does not occur in training mode. JDAM will always indicate ALN QUAL 01 GOOD.
- Weapon step and data freeze operate normal in training mode.
- If only one training JDAM station selected, deselecting/reselecting JDAM may be required after pickle.

## AGM-154A (JSOW)

### PREFLIGHT CHECKS

- 1. Ground safety handle LOCKED
- 2. Swaybraces SEATED
- 3. Cartridges INSTALLED a. Retainers/auxiliary cap TIGHT
- 4. Umbilical and umbilical bail CONNECTED
- 5. Suspension lug retaining pins (2) REMOVED
- 6. Weapon integrity CHECKa. No chips, cracks, or dents on any surface
- 7. Wings CHECK
  a. No chips, cracks, or defects
- 8. GPS antenna NO DAMAGE
- 9. (Telemetry rounds) TIK antennas NOT DAMAGED OR LOOSE
- 10. Fins ALIGNED and LOCKED
  - a. Parallel to missile and not damaged, defective, or loose
- Horizontal stabilizers CHECK
   a. Not damaged, loose, or misaligned
- 12. SMP code SET (F0)
- 13. MU INSTALL



## **AGM-154A EMPLOYMENT**

### POSTSTART CHECKS

- 1. MUMI CHECK
  - a. Good download (CDATA advisory)
- 2. Accurate ZULU date and time entered -CONFIRM
- 3. BIT/stores/station CHECK a. If WFAIL or WDEGD, perform IBIT
- 4. A/G master mode SELECT
- 5. Weapon SELECT
  - a. JSA or TJSA boxed
- 6. JSOW display SELECT
  - a. Select desired mode (PP, SL, T001, T002)
  - b. Select/edit desired MISSION for each weapon
  - c. Approximately 2 minutes after countdown time removed from JSOW/stores displays, confirm at least 1 SV ACQD. Check status of all loaded JSOW
    - (1) If no SVs ACQD, perform GPS troubleshooting procedures
  - d. HRM OVRD As desired (if applicable)
- 7. A/G master mode DESELECT

#### **EN ROUTE CHECKS**

- 1. A/G master mode SELECT
- 2. Weapon SELECT
  - a. JSA or TJSA boxed
- 3. BIT/stores/station CHECK a. If WFAIL or WDEGD, perform IBIT
- 4. JSOW display SELECT
  - a. Check JSOW display of all loaded weapons
  - b. Confirm desired mission selected for each weapon
  - c. ALN QUAL 01 GOOD
    - (1) If ALN QUAL not 01 GOOD, perform aircraft maneuvers to improve QUAL
  - d. SV ACQD 4 or more (if less than 4, JSOW performance may be degraded)

#### NOTE

Deselecting JSOW on the stores display removes power from all loaded weapons, requiring a repeat of the EN ROUTE Procedures.

## **LAUNCH CHECKS**

- 1. A/G master mode SELECT
- 2. TOO mission DESIGNATE TARGET
- 3. Master arm switch ARM
- 4. JSOW CHECK RDY

## In Range/In Zone -

5. Weapon release button - PRESS

#### NOTE

It takes up to 2 seconds from weapon release button actuation to weapon separation from the aircraft.

### AFTER LANDING CHECKS

- 1. Ensure aircraft and missile data is erased.
  - a. If HOLD ALL is not boxed on MUMI page, the aircraft automatically erases.
  - b. If HOLD ALL is boxed, data must be manually erased.
  - c. To erase missile data, box JSOW ERASE on stores display. ERASE appears beneath each station carrying JSOW.

#### TROUBLESHOOTING PROCEDURES

 If no GPS data or no GPS crypto keys are displayed on JSOW display or any other OCS anomalies are observed, rebox OCS on MUMI page. If OCS download unsuccessful, perform IBIT on weapon and then reattempt OCS download.

- 2. If JSOW indicates WDEGD or WFAIL, perform IBIT of weapon.
- 3. ALN QUAL must be better than 10 to acquire SVs. If ALN QUAL still does not decrease, deselect/reselect JSOW on stores page (deselect removes all power from weapon and reselect reinitializes weapon).
- 4. If JSOW is unable to acquire SVs and/or indicates a JAMMED status, perform the following:
  - a. Ensure JSOW GPS antenna is not obstructed. If aircraft GPS is receiving SVs, JSOW should be receiving SVs.
  - b. Ensure aircraft INS is aligning properly with position accuracy within 5 nm horizontal and 10K feet vertical. Aircraft INS should be on and aligned prior to selecting JSOW.
  - c. Ensure ZULU time is entered within 10 minutes of actual time and correct date is entered. If date and time are reentered, JSOW IBIT must be performed for weapon to accept new data. It may take up to 3 minutes for JSOW to acquire SVs following IBIT.
  - d. If still no SVs acquired, deselect/reselect JSOW on stores page.
  - e. If still no SVs acquired, GPS crypto keys or almanac data may be corrupted, requiring a new MU download from TAMPS.

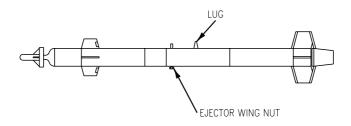
## LGTR

## **Preflight Checks**

- 1. Ensure LGTR unique practice bomb adapter brackets are attached to forward and aft swaybraces and the practice bomb restricter is attached to the gun piston assembly.
- 2. Check that the LGTR is securely attached to the MER/IMER or TER/ITER; canards must be free moving and undamaged.
- 3. Ensure the seeker dome cover is removed and the seeker dome is clean and undamaged.
- 4. Check that the laser code select switch is correctly set.
- 5. Ensure the ejector wing nut is removed and the ejector seats against the restricter.
- 6. Ensure that the signal marker is installed and the aft boattail is secure.



If the LGTR is released with the wing nut installed (i.e., a non-ejected release) weapon to aircraft impact is likely.



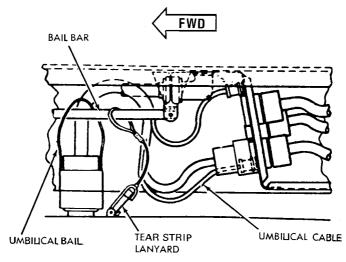
# LASER GUIDED TRAINING ROUND (LGTR)

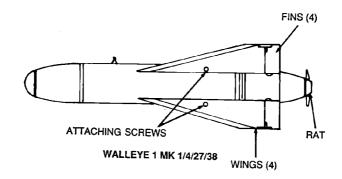
18AC-TAC-30-(23-1)16-CAT

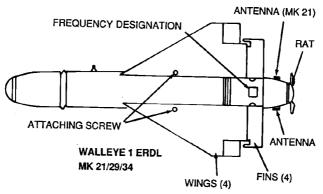
# WALLEYE I/I ER/DL AND WALLEYE II/II ER/DL PREFLIGHT CHECKS

- 1. Ground safety handle locked
- 2. Swaybraces seated
- 3. Cartridges installed; retainers/auxiliary cap tight
- 4. Umbilical, umbilical bail, and tear strip lanyard connected
- 5. RAT blades and antenna NOT damaged
- 6. Wings secure; attaching screws flush with wing skin
- 7. Fins installed, secure and rotate freely
- 8. (If applicable) Dome cover installed
- 9. Frequency code as desired and recorded
- 10. SMP code set

# Walleye Pylon Interface







NOTE: WALLEYE II NON
DATA LINK/ERDL
SIMILAR IN APPEARANCE

# WALLEYE I/II EMPLOYMENT

### POSTSTART CHECKS

- 1. Master arm switch SAFE
- 2. A/G master mode SELECT
- 3. Weapon SELECT a. WE boxed on stores display
- 4. Fuzing BRIEFED OPTION and BIT PAGE GO
- 5. Weapon video ADJUST
- 6. DSM-77B test COMPLETED
- 7. Weapon DESELECT a. WE unboxed

#### **EN ROUTE CHECK**

1.	Boresight check	- COMPLETED
	Azimuth error	mils L/R

### **TARGET AREA CHECKS**

- 1. A/G master mode SELECT
- 2. Weapon SELECT
  - a. WE boxed
- 3. Fuzing BRIEFED OPTION and BIT PAGE GO
- 4. HUD reticle ON TARGET
- 5. Weapon video target gate ON TARGET
- 6. Cage/uncage button UNCAGE
- 7. Master arm switch ARM
- 8. Weapon release button PRESS (followed by an evasive maneuver)

# WALLEYE I/II ER/DL EMPLOYMENT (SINGLE AIRCRAFT OPERATION)

## POSTSTART CHECKS

- 1. Master arm switch SAFE
- 2. A/G master mode SELECT
- 3. Weapon SELECT a. WEDL boxed
- 4. Fuzing BRIEFED OPTION and BIT PAGE GO
- 5. DSM-77B test COMPLETED
- 6. Data link pod and pod video SELECT
  - a. DL9, DL13 or DLP as applicable and PODVID boxed
- 7. Weapon frequency SELECT CHANNEL (Prebriefed or Manual)
- 8. RF option ON
  - a. VTR displayed
- 9. Cage/uncage button UNCAGE a. Target gate moves when uncaged
- 10. TDC PRESS and HOLD WHILE SLEWING IN ALL DIRECTIONS
  - a. MAP displayed at 1/2 size
- 11. Cage/uncage button CAGE
- 12. RF option OFF
  - a. VTR disappears

#### NOTE

To prevent VTR tape jamming, wait 30 seconds before deselecting A/G master mode.

13. A/G master mode - DESELECT

## **TARGET AREA CHECKS**

- 1. A/G master mode SELECT
- 2. Weapon SELECT
  - a. WEDL boxed
- 3. Fuzing BRIEFED OPTION and BIT PAGE GO
- 4. Data link pod and pod video SELECT

- a. DL9, DL13, DLP, or WEPD as applicable and PODVID boxed
- 5. Weapon frequency SELECT CHANNEL (prebriefed or manual)
- 6. HUD reticle ON TARGET
- 7. Weapon video target gate ON TARGET
- 8. Cage/uncage button UNCAGE
  - a. Weapon locks on target
  - b. If weapon does not lock on target
    - (1) TDC PRESS and HOLD, slewing target gate back to target
    - (2) TDC RELEASE (repeat steps (1) and (2) until lockon)
- 9. Master arm switch ARM
- 10. Weapon release button PRESS (followed by an evasive maneuver)
- 11. Aft antenna SELECT (if required) a. A ANT boxed
- 12. Target lockon MONITOR/UPDATE

# WALLEYE I/II ER/DL EMPLOYMENT (DUAL AIRCRAFT OPERATION)

## **POSTSTART CHECKS**

- 1. Master arm switch SAFE
- 2. A/G master mode SELECT
- 3. (weapon aircraft) Weapon SELECT a. WE DL boxed
- 4. (pod aircraft) Data link pod SELECT a. DL9, DL13, DLP, or WEPD as applicable
- 5. (pod aircraft) Frequency SELECT CHANNEL (prebriefed or manual)
- 6. (pod aircraft) RF option ON a. VTR displayed
- 7. Video display ADJUSTED
- 8. (weapon aircraft) DSM-77B and DSM-139 tests COMPLETED
- 9. (weapon aircraft) Weapon station DESELECT and RESELECT
  - a. PSI disappears
- 10. Data link marriage CHECK

Weapon aircraft performs data link check in conjunction with pod aircraft as follows:

- a. (pod aircraft) RF option ON
- b. (weapon aircraft) cage/uncage button UNCAGE
- c. (pod aircraft) TDC PRESS Check that crosshairs can be locked on new target and that MAP reduces in size
- d. (pod aircraft) PSI commands CHECK
- e. (weapon aircraft) Weapon station DESELECTED and RESELECT
  - (1) PSI removed
- 11. (Pod aircraft) RF option OFF
  - a. VTR disappears

## **NOTE**

To prevent VTR tape jamming, wait 30 seconds before deselecting A/G master mode.

- 12. (weapon aircraft) Fuzing PREBRIEFED OPTION and BIT PAGE GO
- 13. A/G master mode DESELECT

#### **EN ROUTE CHECK**

 (weapon aircraft) Boresight check -COMPLETED

#### TARGET AREA CHECKS

- 1. A/G master mode SELECT
- 2. (weapon aircraft) Weapon SELECT a. WE DL boxed
- 3. (pod aircraft) Data link pod SELECT
  - a. DL9, DL13, DLP, or WEPD as applicable boxed
    - b. Ensure correct channel selected
- 4. (weapon aircraft) Fuzing BRIEFED OPTION and BIT PAGE GO
- 5. (pod aircraft) Forward or aft antenna AS REQUIRED
- 6. (pod aircraft) RF option ON a. VTR appears

- 7. (pod aircraft) Sensor control switch (PSI) AS REQUIRED (prebriefed)
- 8. (weapon aircraft) HUD reticle ON TARGET
- 9. (weapon aircraft) Video target gate ON TARGET
- 10. (weapon aircraft) Cage/uncage button UNCAGE
  - a. Weapon locks on target, go to step 11
  - b. Weapon does not lock on target
    - (1) Cage weapon seeker and repeat steps 8 thru 10
- 11. (pod aircraft) PSI AS REQUIRED (prebriefed)
- 12. (weapon aircraft) Master arm switch ARM
- 13. (weapon aircraft) Weapon release button PRESS (followed by an evasive maneuver)
- 14. (pod aircraft) Weapon lockon MONITOR/ UPDATE

## WALLEYE I SIMULATED ATTACK

- 1. A/G master mode SELECT
- 2. Weapon SELECT
- 3. Master arm switch SAFE
- 4. SIM option SELECT
- 5. Fuzing BRIEFED OPTION and BIT PAGE GO
- 6. HUD reticle ON TARGET
- 7. Weapon video target gate ON TARGET
- 8. Cage/uncage button UNCAGE
- 9. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)

## When weapon release conditions are satisfied -

10. Weapon release button - PRESS (followed by an evasive maneuver)

## AFTER SIMULATED ATTACK

#### NOTE

If master arm switch - ARM is required (chaff/flare) or is inadvertently selected, ensure master arm switch - SAFE is selected following simulated attack and prior to deselecting SIM.

1. SIM option - DESELECT

# WALLEYE I ER/DL SIMULATED ATTACK (SINGLE AIRCRAFT OPERATION)

- 1. A/G master mode SELECT
- 2. Weapon SELECT
  - a. WE DL
- 3. Master arm SAFE
- 4. SIM option SELECT
- 5. Fuzing BRIEFED OPTION and BIT PAGE GO

- 6. Data link pod and pod video SELECT
  - a. PODVID DLP, DL9, DL13, or WEPD as applicable
- 7. Weapon frequency SELECT CHANNEL (Prebriefed or Manual)
- 8. HUD reticle ON TARGET
- 9. Weapon video target gate ON TARGET
- 10. Cage/uncage button UNCAGE
  - a. Weapon locks on target
  - b. If weapon does not lock on target
    - (1) TDC PRESS and HOLD, slewing target gate back to target
    - (2) TDC RELEASE Repeat steps (1) and (2) until lockon
- 11. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)

## When weapon release conditions are satisfied -

- 12. Weapon release button PRESS (followed by an evasive maneuver)
- 13. Aft antenna SELECT (if required)
- 14. Target lockon MONITOR/UPDATE

## AFTER SIMULATED ATTACK

#### NOTE

If master arm switch - ARM is required (chaff/flare) or is inadvertently selected, ensure master arm switch - SAFE is selected following simulated attack and prior to deselecting SIM.

1. SIM option - DESELECT

# WALLEYE I ER/DL SIMULATED ATTACK (DUAL AIRCRAFT OPERATION)

- 1. A/G master mode SELECT
- (weapon aircraft) Weapon SELECT a. WEDL boxed
- 3. (weapon aircraft) Master arm switch SAFE
- 4. (weapon aircraft) SIM option SELECT
- 5. (pod aircraft) Data link pod SELECTa. DLP, DL9, DL13, or WEPD as applicableb. Ensure correct channel selected
- 6. (weapon aircraft) Fuzing BRIEFED OPTION and BIT PAGE GO
- 7. (pod aircraft) Forward or aft antenna AS REQUIRED
- 8. (pod aircraft) RF option ON a. VTR appears

## When ready for weapon lockon -

- 9. (pod aircraft) Sensor control switch (PSI) AS REQUIRED (prebriefed)
- 10. (weapon aircraft) HUD reticle ON TARGET
- 11. (weapon aircraft) Weapon video target gate ON TARGET
- 12. (weapon aircraft) Cage/uncage button UNCAGE
  - a. Weapon locks on target, go to step 13
  - b. Weapon does not lock on target
    - (1) Cage weapon seeker and repeat steps 10 thru 12
- 13. (pod aircraft) PSI AS REQUIRED (prebriefed)
- 14. (weapon aircraft) Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)

## When ready for weapon release -

- 15. (weapon aircraft) Weapon release button PRESS (followed by an evasive maneuver)
- 16. (pod aircraft) Weapon lockon MONITOR/ UPDATE

## AFTER SIMULATED ATTACK

## NOTE

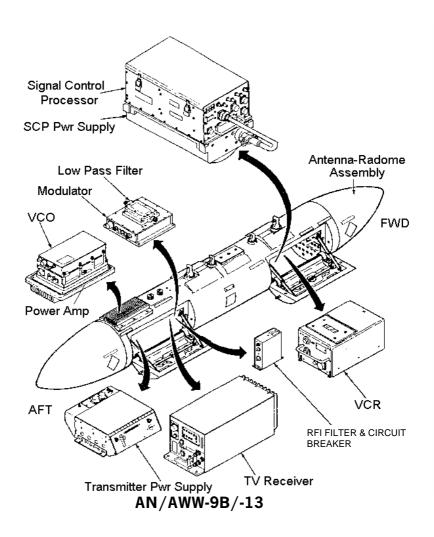
If master arm switch - ARM is required (chaff/flare) or is inadvertently selected, ensure master arm switch - SAFE is selected following simulated attack and prior to deselecting SIM.

1. SIM option - DESELECT

# AN/AWW-9B/-13 DATA LINK POD (Control-Monitor Set)

## PREFLIGHT CHECKS

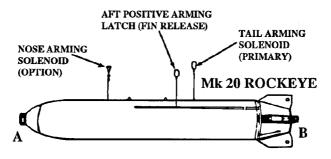
- 1. Ground safety handle in locked position
- 2. Sway braces seated
- 3. Cartridges installed/auxiliary cartridge cap tight
- 4. Umbilical cable and bail connected
- 5. Antenna radomes NOT damaged
- 6. Video tape installed, if desired (fwd access door)
- 7. (AN/AWW-9) Frequency code switch set as desired (aft access door)
- 8. (AN/AWW-13) BIT/Channel select set to 009
- 9. Pod power switch (CB1) ON (aft access door)
- 10. Aircraft mode switch set 2A/C
- 11. Pod access doors secured
- 12. SMP code set

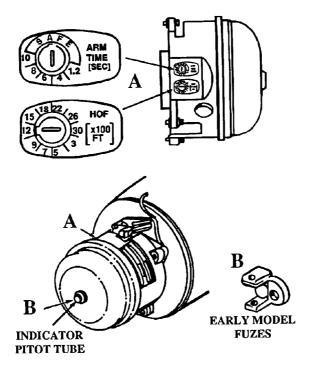


# CLUSTER BOMB UNITS (CBU) MK 20 ROCKEYE/CBU-78 GATOR

## **Preflight Checks**

- 1. Ground safety handle(s) locked
- 2. Swaybraces seated
- 3. Cartridges installed; retainers/auxiliary cap tight
- 4. (VER) Adapter harness electrically connected
- 5. Fuze:
  - a. Cover removed
  - b. Fuze functioning time set
  - c. Safety pin removed
  - d. Impeller band assembly retaining lanyard installed
- 6. Arming and fin release wire extractors installed
- 7. Fin:
  - a. Release band retaining lanyard installed
  - b. Release band safety pin removed
- 8. CBU-78:
  - a. Thermal battery firing device safety pin removed
  - b. SD selector switch set
- 9. SMP code set

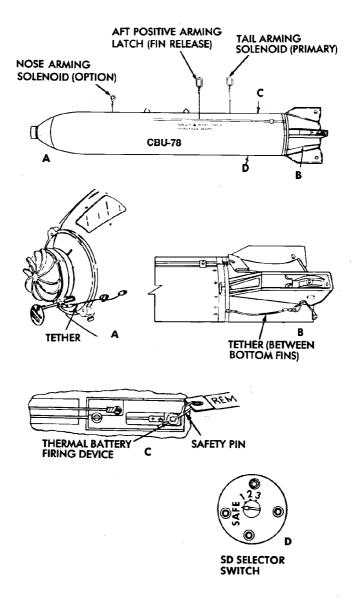




## **NOTE**

FUZE ARMED IF RED VISIBLE ON EXTENDED INDICATOR PITOT TUBE

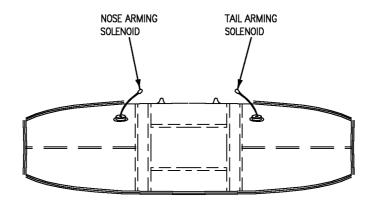
FMU-140/B FUZE INSPECTION

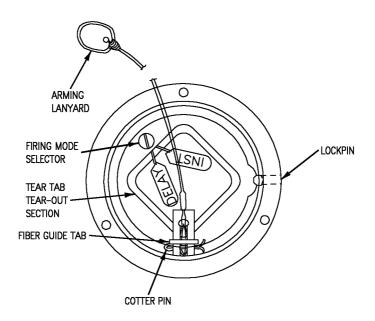


#### MK 77 FIRE BOMB

#### **Preflight Checks**

- 1. Ground safety handles in LOCKED position on loaded stations
- 2. Swaybraces properly seated
- 3. Cartridges installed in all loaded bomb racks; cartridge retainers and auxiliary cartridge cap tight (all stations)
- 4. Fire bomb not leaking or damaged
- 5. Arming lanyards properly routed and connected
- 6. Inspect Mk 13 initiator as follows:
  - a. Retaining rings tight
  - b. Tear out section of the initiator not damaged
  - c. Initiator firing mode selectors set
- 7. SMP codes set



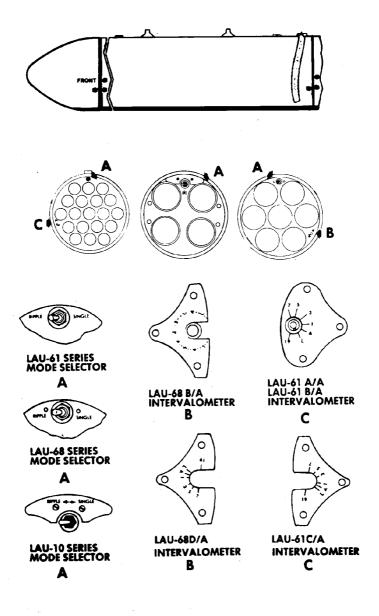


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#### **ROCKETS**

#### **Preflight Checks**

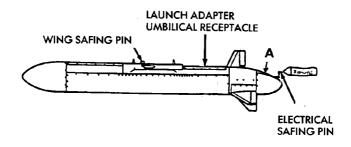
- 1. Ground safety handles locked
- 2. Swaybraces seated
- 3. Cartridges installed; retainers/auxiliary cap tight
- 4. VER adapter harness electrically connected
- 5. Launcher:
  - a. Safety pin installed
  - b. Not electrically connected
  - c. Mode selector switch set
  - d. (LAU-61/68) Intervalometer set to A
  - e. (LAU-10) Detent lift arms FIRE
- 6. (Mk 84 Chaff) Fuze set as desired
- 7. (If applicable) Fairings installed
- 8. SMP code set

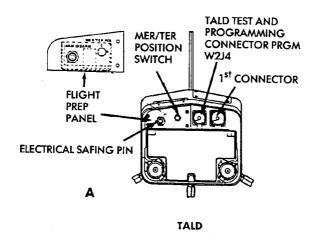


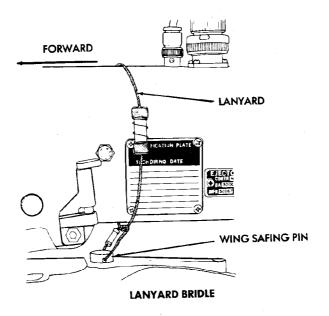
#### TALD

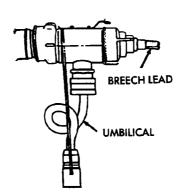
### **Preflight Checks**

- 1. Ground safety handle/safety stop lever locked
- 2. Swaybraces seated/adjusted
- 3. Cartridges installed; retainers/auxiliary cap/breech caps tight
- 4. BRU-42:
  - a. Adapter harness electrically connected
  - b. All unloaded suspension hooks open
- 5. TALD:
  - a. Electrical safing pin installed
  - b. MER/TER position switch set for station loaded
- 6. Wing safing pin installed; lanyard bridle attached to safing pin and rack
- 7. Launch adapter umbilical not connected to store
- 8. Cartridge and launch adapter installed in/on breech
- 9. SMP code set









**LAUNCH ADAPTER CABLE** 

## PYROTECHNICS LUU-2 FLARE/MK 58 MLM

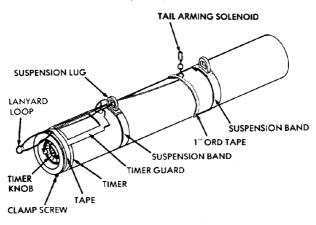
### **Preflight Checks**

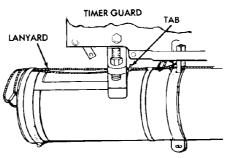
- 1. Ground safety handle/safety stop lever(s) locked
- 2. Swaybraces seated/adjusted
- 3. Cartridges installed; retainers/auxiliary cap/breech cap(s) tight
- 4. MER/BRU-41:
  - a. Adapter harness electrically connected
  - b. All unloaded suspension hooks open
  - c. Ejector feet positioned
  - d. (MER) Mode selector set
  - e. (MER) Electric safety pin installed
- 5. LUU-2:
  - a. Timer set
  - b. Lanyard loop connected to timer knob
  - c. Timer guard tab positioned behind swaybrace adapter bracket
  - d. Lanyard connected to tail solenoid
- 6. (Mk 58 MLM) Arming wire attached to BASB and pull ring
- 7. SMP code set

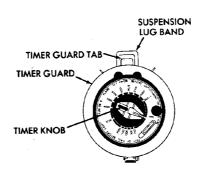
#### NOTE

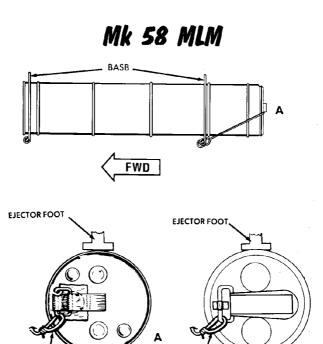
LUU-2s are only carried on the centerline and outboard MER stations.

## LUU-2 Flare









ARMING WIRE

MK 58 MOD 1

ARMING WIRE

MK 58 MOD 0

# PRACTICE BOMBS MK 76/BDU-33D/B/MK 106/BDU-48/B

#### **Preflight Checks**

- 1. Ground safety handle/safety stop lever(s) locked
- 2. Swaybraces seated/adjusted
- 3. Cartridges installed; retainers/auxiliary cap/breech cap(s) tight
- 4. MER/BRU-41:
  - a. Adapter harness electrically connected
  - b. All unloaded suspension hooks open
  - c. (MER) Mode selector set
  - d. (MER) Electrical safety pin installed
- 5. (BDU-33) Safety block with safety pin installed
- 6. (Mk 106) Firing device cotter pin and safety pin removed
- 7. SMP code set

## MINES MK 52/55/56/62/63/65

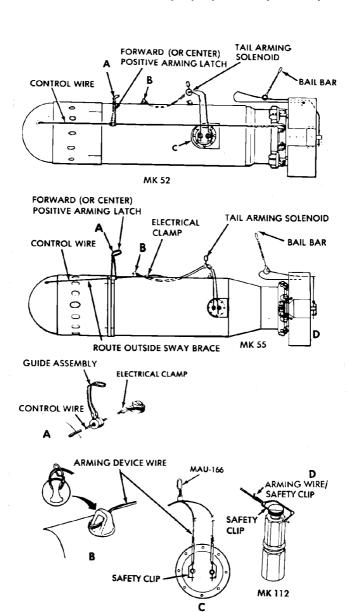
### **Preflight Checks**

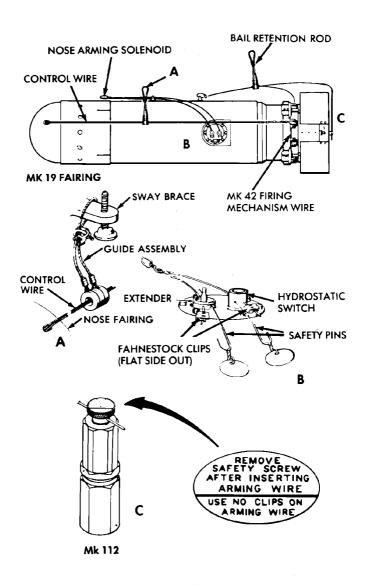
- 1. Ground safety handle locked
- 2. Swaybraces seated
- 3. Cartridges installed; retainers/auxiliary cap tight
- 4. Mk 52/55/56:
  - a. Parachute pack arming wire installed; safety pin/screw removed
  - b. (Mk 56) Safety pins removed from release pins
  - c. Arming wires installed
  - d. Arming device safety pin(s) removed
- 5. Mk 62/63/65:
  - a. Arming wires/lanyard installed
  - b. (Mk 62/63) Arming device safety wire removed
  - c. (Mk 62/Mk 15 fin) Fin release band latch assembly safety pin removed
  - d. (Mk 62/BSU-86 fin) Fin release lanyard connected
  - e. (Mk 63) Fin release lanyard and pin installed; safety pin removed
  - f. (Mk 65)
    - (1) Safety bar removed
    - (2) Altitude switch set LO

## WARNING

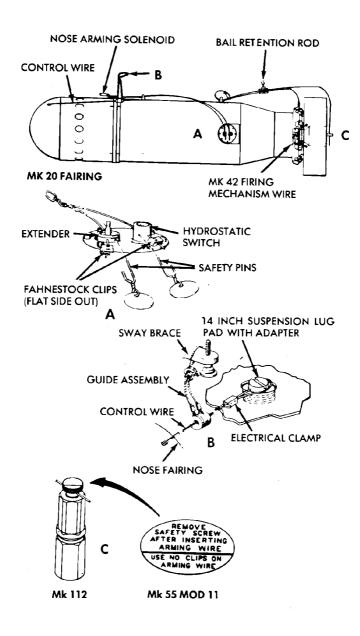
Do not stand directly behind a mine. The parapak is explosive (Mk 52/55/56/65).

6. SMP code set

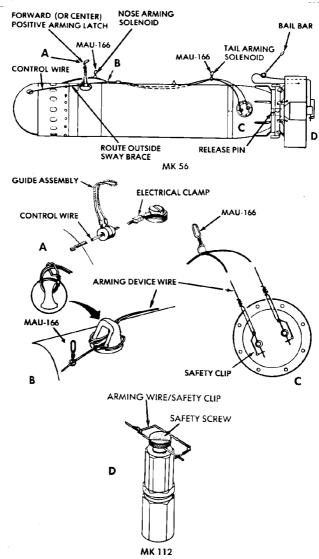




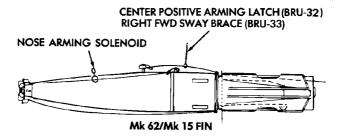
Mk 52 MOD 11

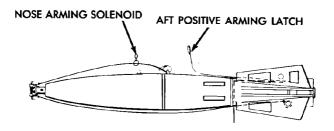


## Mines Mk 56

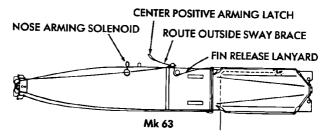


## Mines Mk 62/63

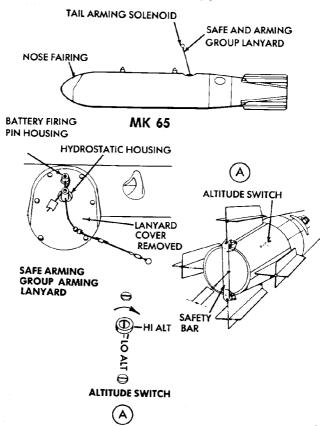




#### Mk 62/BSU-86 FIN



## Mines Mk 65



# MINES EMPLOYMENT/FLIGHT DIRECTOR MODE

#### POSTSTART CHECKS

- 1. Master arm switch SAFE
- 2. A/G master mode SELECT
- Weapon SELECT

   Weapon boxed on stores display
- 4. Program SELECT
- 5. FD SELECT
- 6. UFC SELECT
- 7. Fuzing, quantity, multiple, interval, bank angle ENTER
- 8. Course select switch SET BRIEFED RUN IN HDG

#### **TARGET AREA CHECKS**

- 1. A/G master mode SELECT
- Weapon SELECT

   Weapon boxed on stores display
- 3. D/L UNBOXED ON HI
- 4. VEC UNBOXED ON HI
- 5. Program CHECK
- 6. Course select CHECK
- 7. TDC AS DESIRED
- 8. TGT DESIGNATE
- 9. Course line steering ATTEMPT TO SET UP ON RUN IN HDG
- 10. A/P SELECT
- 11. CPL Colonize 15,000 feet prior to first impact
- 12. Master arm switch ARM
- 13. Weapon release button PRESS AND HOLD UNTIL FINAL RELEASE
- 14. A/P DISENGAGE

## **DESTRUCTORS MK 36/40 DST**

### **Preflight Checks**

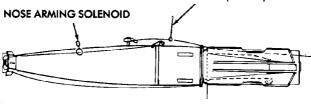
- 1. Ground safety handle locked
- 2. Swaybraces seated
- 3. Cartridges installed; retainers/auxiliary cap(s) tight
- 4. Arming wires installed
- 5. Arming device safety wire removed
- 6. (Mk 36/Mk 15 fin) Fin release band latch assembly safety pin removed
- 7. (Mk 36/BSU-86 fin) Fin release lanyard connected
- 8. (Mk 40/MAU-91) Fin release lanyard and pin installed; safety pin removed
- 9. SMP code set

#### NOTE

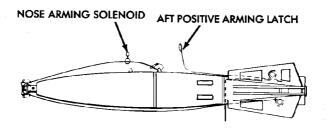
Line diagram illustrating arming cable rigging for the Mk 36 DST with Mk 16 tail section and Mk 40 DST with Mk 12 tail section to be provided.

## Destructors Mk 36/40 DST

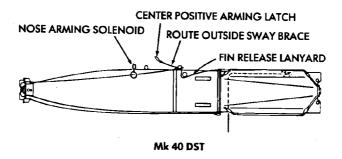
CENTER POSITIVE ARMING LATCH (BRU-32) RIGHT FWD SWAY BRACE (BRU-33)



Mk 36/Mk 15 FIN



Mk 36/BSU-86 FIN

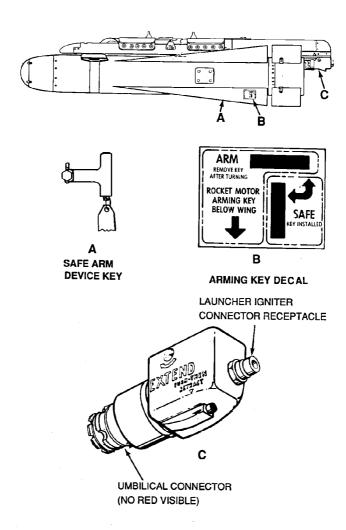


## **AIR-TO-GROUND MISSILES**

## AGM-65E/F MAVERICK PREFLIGHT CHECKS

- 1. BRU-32 with LAU-117 installed
  - a. Ground safety handle locked
  - b. Sway braces seated
  - c. Cartridges installed; retainers/auxiliary cap tight
  - d. Launcher electrically connected
- 2. Missile:
  - a. Safe/Arm device key SAFE
  - b. Umbilical connector mated NO RED VISIBLE
  - c. Ignitor cable NOT connected to launcher igniter connector receptacle
- 3. SMP code set

#### **AGM-65 MAVERICK**



#### **AGM-65E EMPLOYMENT**

#### WITH KNOWN TARGET LOCATION

- 1. A/G master mode SELECT
- 2. Select MAV display:

Caged display

Fuze option selected

Timing cue 30 seconds

MAV LOS triangle on HUD

- 3. Select UFC and enter LASER code(s)
- 4. Uncage missile full MAV video
- 5. Assign TDC to sensor
- 6. Designate target:

MAV LOS and TD diamond coincide .S appears on MAV display (if TGT designated with another sensor, i.e., NAVDSG).

When lock-on occurs, gimbal angle symbol replaced with solid box lock-on cue, S removed.

7. Lock-on:

Keyhole constraints LKD indication

IN RNG cue

- 8. Master arm switch ARM
- 9. Weapon release button ACTUATE

#### WITH UNKNOWN TARGET LOCATION

- 1. A/G master mode SELECT
- 2. Select MAV display:

Caged display

Fuze option selected

Timing cue 30 seconds

MAV LOS triangle on HUD

- 3. Select UFC and enter LASER code(s)
- 4. Uncage missile full MAV video
- 5. TDC assign to MAV
- 6. TDC DEPRESS

Scan mode entered, scan slew available.

When target detected, missile lock-on automatic.

7. Lock-on:

Keyhole constraints LKD indication IN RNG cue

- 8. Master arm ARM
- 9. Weapon release button ACTUATE

#### AGM-65F EMPLOYMENT

#### **SBST**

- 1. A/G master mode SELECT
- 2. IMAV on stores display SELECT 3-minute cool down time initiated
- 3. Assign TDC to HUD and designate TGT
- 4. IMAV UNCAGE
- 5. Assign TDC to IMAV
- 6. Designate TGT in crosshairs NO ACTION SLEW
- 7. Select SBST

  LOS triangle should overlay TD

  diamond on HUD
- 8. Master arm switch ARM
- 9. With IN RNG cue and steady pointing cross, weapon release button ACTUATE

#### **TBST**

- 1. A/G master mode SELECT
- 2. IMAV on stores display SELECT 3-minute cool down time initiated
- 3. Assign TDC to HUD and designate TGT
- 4. IMAV UNCAGE
- 5. Assign TDC to IMAV
- 6. Action slew and track designated TGT (release TDC for lock-on)
- 7. With steady pointing cross TBST PRESS LOS triangle should overlay TD diamond on HUD
- 8. Master arm switch ARM
- 9. With IN RNG cue and steady pointing cross, weapon release button ACTUATE

#### **VISUAL ATTACK**

- 1. A/G master mode SELECT
- 2. IMAV SELECT
  3-minute cool down time initiated.
- 3. Assign TDC to IMAV
- 4. Desired options SELECT
- 5. Master arm switch ARM
- 6. Action slew crosshairs to TGT
- 7. Establish aircraft in wings level attitude during designate.
- 8. Release TDC
- 9. With IN RNG cue and steady pointing cross, weapon release button ACTUATE

#### AGM-65E SIMULATED ATTACK

- 1. A/G master mode SELECT
- 2. Master arm switch SAFE
- 3. SIM option SELECT

#### WITH KNOWN TARGET LOCATION

1. Select MAV display:

Caged display
Fuze option selected
Timing cue 30 seconds

MAV LOS triangle on HUD

- 2. Select UFC and enter LASER code(s)
- 3. Uncage missile full MAV video
- 4. Assign TDC to sensor
- 5. Designate target:

MAV LOS and TD diamond coincide S appears on MAV display (if TGT designated with another sensor, i.e., NAVDSG) When lock-on occurs, gimbal angle symbol replaced with solid box lock-on cue, S removed

6. Lock-on:

Keyhole constraints LKD indication IN RNG cue

- 7. Master arm switch- simulate ARM (do not ARM unless required/desired for chaff/flare utilization)
- 8. Weapon release button PRESS

#### WITH UNKNOWN TARGET LOCATION

1. Select MAV display:

Caged display Fuze option selected Timing cue 30 seconds MAV LOS triangle on HUD

- 2. Select UFC and enter LASER code(s)
- 3. Uncage missile full MAV video
- 4. TDC assign to MAV

#### 5. TDC - PRESS

Scan mode entered, scan slew available. When target detected, missile lock-on automatic.

6. Lock-on:

Keyhole constraints LKD indication IN RNG cue

- 7. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)
- 8. Weapon release button ACTUATE

#### AFTER SIMULATED ATTACK

#### NOTE

If master arm switch - ARM is required (chaff/flare) or is inadvertently selected, ensure master arm switch - SAFE is selected following simulated attack and prior to deselecting SIM.

1. SIM option - DESELECT

#### AGM-65F SIMULATED ATTACK

- 1. A/G master mode SELECT
- 2. Master arm switch SAFE
- 3. SIM option SELECT

#### **SBST**

- 1. IMAV on stores display SELECT 3-minute cool down time initiated
- 2. Assign TDC to HUD and designate TGT
- 3. IMAV UNCAGE
- 4. Assign TDC to IMAV
- Designate TGT in crosshairs NO ACTION SLEW
- Select SBST
   LOS triangle should overlay TD diamond on HUD.
- 7. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)
- 8. With IN RNG cue and steady pointing cross, weapon release button PRESS

#### **TBST**

- 1. IMAV on stores display SELECT
  3-minute cool down time initiated
- 2. Assign TDC to HUD and designate TGT
- 3. IMAV UNCAGE
- 4. Assign TDC to IMAV
- 5. Action slew and track designated TGT (release TDC for lock-on)
- With steady pointing cross TBST PRESS LOS triangle should overlay TD diamond on HUD.
- 7. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)
- 8. With IN RNG cue and steady pointing cross, weapon release button PRESS

#### **VISUAL ATTACK**

- 1. IMAV SELECT 3-minute cool down time initiated.
- 2. Assign TDC to IMAV
- 3. Desired options SELECT
- 4. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)
- 5. Action slew crosshairs to TGT
- 6. Establish aircraft in wings level attitude during designate
- 7. Release TDC
- 8. With IN RNG cue and steady pointing cross, weapon release button PRESS

#### AFTER SIMULATED ATTACK

#### NOTE

If master arm switch - ARM is required (chaff/flare) or is inadvertently selected, ensure master arm switch - SAFE is selected following simulated attack and prior to deselecting SIM.

1. SIM option - DESELECT

#### **AGM-84 HARPOON PREFLIGHT CHECKS**

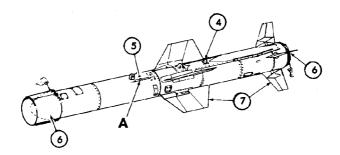
- 1. Ground safety handle locked
- 2. Swaybraces seated
- 3. Cartridges installed, retainers/auxiliary cap tight
- 4. Umbilical cable connected to missile

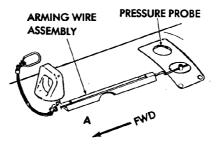


Logistic movement requires umbilical cable to be connected. Pressure probe arming lanyard MUST NOT be connected.

- 5. (If applicable) Pressure probe arming lanyard connected
- 6. Radome/IIR dome and exit covers removed
- 7. Wings and fins installed
- 8. SMP code set
- 9. Mission data loaded (SLAM)

### **AGM-84-HARPOON**





#### **AGM-84 EMPLOYMENT**

#### **INFLIGHT**

1. A/G master mode - SELECT

#### **AUX RELEASE**

- 1. Harpoon is indicating H+LKD
- 2. Select ENABLE on AUX release switch
- 3. Master Arm switch ARM
- 4. Select STORES or RACK/LCHR on selective jettison select button
- 5. Select HUNG store station on selective jettison select button
- 6. Press JETT center pushbutton on selective jettison knob

#### **R/BL LAUNCH MODE**

- 1. Select HPD on STORES display
- 2. Program MODE R/BL (target position/range known)
- 3. Select FLT LOW, MED, HIGH
- 4. Select TERM option POP, SKIM
- 5. Select SEEK SML, MED, LRG (seeker search pattern)
- 6. If LRG selected: LEFT, RIGHT, NORM, NEAR, FAR (OFFSET priority options)
- 7. Select HPTP if desired (WYPT used is current WYPT)
- 8. Complete targeting solution (RDR, D/L, FLIR, NAVDSG)
- 9. Check for IN ZONE cue
- 10. Master arm switch ARM
- 11. Weapon release button PRESS

#### **BOL LAUNCH MODE**

- 1. Select HPD on STORES display
- 2. Program MODE BOL (no range to target known)
- 3. Select FLT LOW, MED, HIGH
- 4. Select TERM option POP, SKIM
- 5. Select UFC: SRCH Seeker enable range DSTR - Missile destruct range BRG - Ordered missile bearing
- 6. Select HPTP if desired (WYPT used is current WYPT)
- 7. Select FXPT if desired (fixed point about the center of SRCH and DSTR)
- 8. Check for IN ZONE cue
- 9. Master arm switch ARM
- 10. Depress WEAPONS RELEASE button

#### LOS LAUNCH MODE

1. Select HPD on STORES display

OR.

- 2. Select STEP option to select LOS missile if HPD degraded
- 3. LOS cue on STORES display and HP LOS on HUD will flash for 40 seconds
- 4. Fly straight and level on bearing with intended target
- 5. Steady LOS or HP LOS cues
- 6. IN ZONE will always be displayed except for ALT cue conditions
- 7. Master arm switch ARM
- 8. Weapon release button PRESS

#### **AGM-84 SIMULATED ATTACK**

- 1. A/G master mode SELECT
- 2. Master arm switch SAFE
- 3. SIM option SELECT
- 4. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)

#### **R/BL LAUNCH MODE**

- 1. Select HPD on STORES display
- Program MODE R/BL (target position/range known)
- 3. Select FLT LOW, MED, HIGH
- 4. Select TERM option POP, SKIM
- 5. Select SEEK SML, MED, LRG (seeker search pattern)
- 6. If LRG selected: LEFT, RIGHT, NORM, NEAR, FAR (OFFSET priority options)
- 7. Select HPTP if desired (WYPT used is current WYPT)
- 8. Complete targeting solution (RDR, D/L, FLIR, NAVDSG)
- 9. Check for IN ZONE cue
- 10. Weapon release button PRESS

#### **BOL LAUNCH MODE**

- 1. Select HPD on STORES display
- Program MODE BOL (no range to target known)
- 3. Select FLT LOW, MED, HIGH
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- Select UFC: SRCH Seeker enable range DSTR - Missile destruct range BRG - Ordered missile bearing
- 6. Select HPTP if desired (WYPT used is current WYPT)
- 7. Select FXPT if desired (fixed point about the center of SRCH and DSTR)
- 8. Check for IN ZONE cue
- 9. Weapon release button PRESS

#### LOS LAUNCH MODE

1. Select HPD on STORES display

OR.

- 2. Select STEP option to select LOS missile if HPD degraded
- 3. LOS cue on STORES display and HP LOS on HUD will flash for 40 seconds
- 4. Fly straight and level on bearing with intended target
- 5. Steady LOS or HP LOS cues
- 6. IN ZONE is always displayed except for ALT cue conditions
- 7. Weapon release button PRESS

#### AFTER SIMULATED ATTACK

#### NOTE

If master arm switch - ARM is required (chaff/flare) or is inadvertently selected, ensure master arm switch- SAFE is selected following simulated attack and prior to deselecting SIM.

1. SIM option - DESELECT

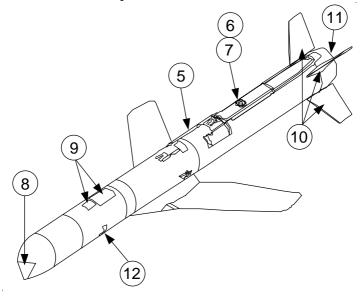
## **AGM-84E SLAM**

Refer to SLAM Pilot Checklist Guide.

## AGM-84H (SLAM ER)

#### PREFLIGHT CHECKS

- 1. Ground safety handle LOCKED
- 2. Swaybraces SEATED
- 3. Cartridges INSTALLED
- 4. Retainers/auxiliary cap TIGHT
- 5. Press probe arming lanyard CONNECTED
- 6. Adapter cable CONNECTED TO MISSILE
- 7. Adapter cable retainers CONNECTED TO BAIL BAR
- 8. Nose fairing window NO DAMAGE, DO NOT TOUCH
- 9. WDL & GPS antennas NO DAMAGE
- 10. Fins INSTALLED
- 11. Exhaust cover REMOVED
- 12. Air data probe cover REMOVED



#### **AGM-84H EMPLOYMENT**

#### POSTSTART CHECKS

The following checklist items apply to autonomous or COOP aircraft with SLMR and DL13.

#### **UFC**

1. ZTOD - ENTER

#### Stores Display

2. SLMR cue - VERIFY (IN TEST)
If SLAM ER does not inventory (1 SLMR does not appear), check umbilical connections. If still no inventory, turn generators and batteries off for 10 seconds, reapply power. If SLMR indicates HOLD, enter ZTOD and verify SLMR XFER and TEST.

#### **BIT Store Station Display**

- 3. SLMR timing cue DECREASING
- 4. DL13 cue IN TEST

## BIT Store Station Display (SLMR Timing = 0)

- SLMR/DL13 cue VERIFY GO
   If SLMR/DL13 do not indicate GO, perform SLMR/DL13 BIT.
- 6. A/G master mode SELECT

### Stores Display

- 7. SLMR option SELECT/BOX
- 8. DL13 option SELECT/BOX

## **SLMR Display**

- 9. PP/TOO mode SELECT
- 10. MSN VERIFY/SELECT

## DL13 Display

- 11. Pod configuration. VERIFY (PRE, CH/ID, DLPWR LO, ANT AFT) and coordinate XTMR ON/OFF with COOP DL13 aircraft.
- 12. XTMR (ON/OFF) option VERIFY VIDEO

13. SLMR, DL13, A/G - UNBOX

#### **DL13 POD ONLY POSTSTART CHECKS**

#### **BIT Store Station**

- DL13 cue VERIFY GO
   If SLMR/DL13 do not indicate GO, perform SLMR/DL13 BIT.
- 2. A/G master mode VERIFY/SELECT

#### Stores Display

3. DL13 option - SELECT/BOX

#### **DL13 Display**

- 4. Pod CONFIG VERIFY (PRE, CH/ID, DLPWR LO, ANT AFT) and coordinate XTMR ON/OFF with SLMR aircraft.
- XTMR (ON/OFF) option VERIFY VIDEO DSPLY If video signal is weak or absent, select MPWR HI option.
- 6. DL13/A/G UNBOX SV ACQD VERIFY

## **AGM-84H EMPLOYMENT**

#### PP OWNSHIP or CO-OP MISSION - LAUNCH AIRCRAFT

1. A/G master mode - SELECT

### **Stores Display**

- 2. SLMR SELECT/BOX
- 3. DL13 (if loaded) SELECT/BOX

### **DL13 Display**

4. Pod configuration - VERIFY (PRE, CH/ID, DLPWR LO, ANT AFT)

## **SLMR Display**

- 5. Mode SELECT PP
- 6. MSN VERIFY/SELECT
- 7. SV ACQD VERIFY

The number of satellites aguired should be  $\geq 3$ . If the mission is < 30 NM or GPS jamming is expected, then 4 is recommended.

- 8. Master arm switch- ARM
- 9. Pickle (at launch point) PRESS/HOLD
- Master arm switch OFF
   Turn immediately after launch to avoid a collision with SLAM ER.

#### **DL13 Display**

- 11. TDC ASSIGN TO DL13 DISPLAY
- 12. POST display VERIFY
- 13. TTV VERIFY COUNTDOWN
- 14. At Data Link Radiate CALL "GOOD VIDEO"
- 15. Change FOV CALL "GOOD CONTROL" If there are no HOTAS controls, ensure TDC is assigned and A/G is selected.
- 16. SLAM ER CONTROL TO IMPACT
- 17. SLMR/DL13/A/G UNBOX

#### PP CO-OP MISSION - CONTROL AIRCRAFT

1. A/G master mode - SELECT

### **Stores Display**

2. DL13 option - SELECT/BOX

## **DL13 Display**

- 3. WPN SELECT SLMR
- 4. DSPLY SELECT PRE
- 5. CH/ID SELECT/VERIFY
- 6. COOP SELECT
- 7. PP Mode SELECT
- 8. Ensure that SLMR is deselected (If SLMR loaded)
- 9. TTV ENTER ON UFC
- 10. ANT AS REQD
- 11. DLPWR SELECT HI

#### **Prior To Launch**

- 12. DSPLY SELECT POST
- 13. Start TTV SELECT AT LAUNCH
- 14. TDC ASSIGN TO DL13 DISPLAY
- 15. AT data link radiate CALL "GOOD VIDEO"
- 16. Change FOV CALL "GOOD CONTROL"

If there are no HOTAS controls, ensure TDC is assigned and A/G is selected.

- 17. SLAM ER CONTROL TO IMPACT
- 18. DL13/A/G UNBOX

#### **TOO OWNSHIP or CO-OP MISSION - LAUNCH AIRCRAFT**

Select SLMR 3 minutes prior to launch to ensure seeker cooldown on short range missions.

1. A/G master mode - SELECT

#### Stores Display

- 2. SLMR SELECT/BOX
- 3. DL13 (if loaded) SELECT/BOX

#### **DL13 Display**

4. Pod configuration - VERIFY (PRE, CH/ID, DLPWR LO, ANT AFT)

### **SLMR Display**

- 5. Mode SELECT PP
- 6. MSN VERIFY/SELECT
- 7. Designate target VERIFY COORDINATES and ELEVATION (Recommend NAV DESIGNATE for LAND and RDR LOCK for ASUW)
- 8. SV ACQD VERIFY
  The number of satellites aquired should be ≥3. If
  the mission is <30 nm or GPS jamming is
  expected then 4 is recommended.
- 9. Master arm switch ARM
- 10. Pickle (at launch point) PRESS/HOLD
- 11. Master arm switch SAFE
  Turn immediately after launch to avoid a collision with SLAM ER.

## **DL13 Display**

- 12. TDC/DC ASSIGN TO DL13 DISPLAY
- 13. POST Display VERIFY
- 14. At data link radiate CALL "GOOD VIDEO"
- 15. Change FOV CALL "GOOD CONTROL" If there are no HOTAS controls, ensure TDC is assigned and A/G is selected.

- 16. SLAM ER CONTROL TO IMPACT
- 17. SLMR/DL13/A/G UNBOX

#### TOO CO-OP MISSION - CONTROL AIRCRAFT

1. A/G master mode - SELECT

#### Stores Display

2. DL13 option - SELECT/BOX

#### **DL13 Display**

- 3. WPN SELECT SLMR
- 4. DSPLY SELECT PRE
- 5. CH/ID SELECT/VERIFY
- 6. COOP SELECT
- 7. LAND/ASUW SELECT
- 8. Ensure that SLMR is deselected (If SLMR is loaded)
- 9. RTT ENTER ON UFC
- 10. ANT AS REQD
- 11. DLPWR SELECT HI

#### **Prior To Launch**

- 12. DSPLY SELECT POST
- 13. Start TTV SELECT AT LAUNCH
- 14. TDC ASSIGN TO DL13 DISPLAY
- 15. AT data link radiate CALL "GOOD VIDEO"
- 16. Change FOV CALL "GOOD CONTROL"

  If there are no HOTAS controls, ensure TDC is assigned and A/G is selected.
- 17. SLAM ER CONTROL TO IMPACT
- 18. DL13/A/G UNBOX

#### **AGM-84H SIMULATED ATTACK**

#### PP OWNSHIP or CO-OP MISSION- LAUNCH AIRCRAFT

1. A/G master mode - SELECT

#### **Stores Display**

- 2. SIM mode SELECT/BOX
- 3. SLMR (TSLR) option SELECT/BOX
- 4. DL13 (if loaded) SELECT/BOX

#### DL13 Display

5. Pod configuration - VERIFY (PRE, CH/ID, DLPWR LO, ANT AFT)

#### SLMR Display

- 6. Mode SELECT PP
- 7. MSN VERIFY/SELECT
- 8. SV ACQD VERIFY
  The number of satellites aquired should be ≥3. If
  the mission is <30 NM or GPS jamming is
  expected then 4 is recommended.
- 9. MSIM (at launch point) SELECT

## **DL13 Display**

- 10. TDC/DC ASSIGN TO DL13 DISPLAY
- 11. POST display VERIFY
- 12. At data link radiate CALL "GOOD VIDEO"
- 13. Change FOV CALL "GOOD CONTROL"

  If there are no HOTAS controls, ensure TDC is assigned and A/G is selected.
- 14. SLAM ER CONTROL TO OVERFLY

## **SLMR Display**

- 15. MSIM UNBOX
  If performing additional sim flights, begin at step 5 and repeat process. Wait 5 seconds before performing step 16.
- 16. SLMR/ DL13/ A/G UNBOX

#### TOO CO-OP MISSION - CONTROL AIRCRAFT

1. A/G master mode - SELECT

#### Stores Display

2. DL13 option - SELECT/BOX

#### DL13 Display

- 3. WPN SELECT SLMR
- 4. DSPLY SELECT PRE
- 5. CH/ID SELECT/VERIFY
- 6. COOP SELECT
- 7. LAND/ASUW SELECT
- 8. Ensure that SLMR is deselected (If SLMR loaded)
- 9. RTT ENTER ON UFC
- 10. ANT AS REQD
- 11. DLPWR SELECT HI

#### Prior To or At MISM

- 12. DSPLY SELECT POST
- 13. Start RTT SELECT AT MISM
- 14. TDC ASSIGN TO DL13 DISPLAY
- 15. AT data link radiate CALL "GOOD VIDEO"
- 16. Change FOV CALL "GOOD CONTROL" If there are no HOTAS controls, ensure TDC is assigned and A/G is selected.
- 17. SLAM ER CONTROL TO OVERFLY
  If performing additional sim flights, begin at step
  4 and repeat process.
- 18. DL13/ A/G UNBOX

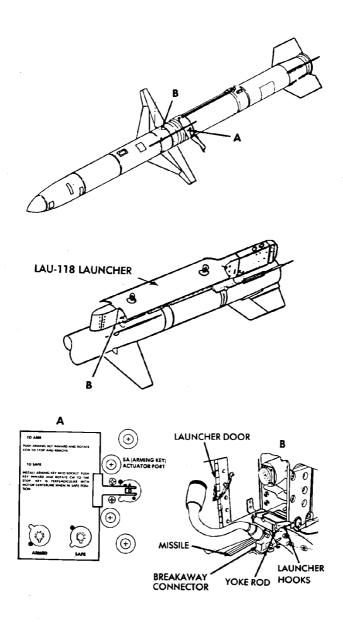
#### **AGM-88 HARM PREFLIGHT CHECKS**

- 1. BRU-32 with LAU-118 installed
  - a. Ground safety handle locked
  - b. Swaybraces seated
  - c. Cartridges installed (retainers/auxiliary cap tight)
  - d. Launcher electrically connected to aircraft
- 2. Missile:
  - a. SA device SAFE (arming key installed)
  - b. Umbilical NOT connected
  - c. Umbilical rod in umbilical fitting and secured
  - d. Wings and fins secured
- 3. SMP code set
- 4. Aircraft:
  - a. CLC latching fault indicator black is good (white is failed)
  - b. ALQ-126B latching fault indicator black is good (white is failed)

#### NOTE

Fault indicators are considered to be unreliable with external power or no power on the aircraft. The best method for determining equipment status is by conducting a BIT using cockpit controls with aircraft power.

c. Check RWR and DECM antennas for damage



#### **AGM-88 EMPLOYMENT**

#### POSTSTART CHECKS

The HARM stray voltage check and umbilical connection can be completed only after aircraft power is applied. The check can be performed in any designated area. The missile is not armed until the missile rocket motor has been armed. Arming can only be performed in the forward-firing ordnance arming area or on the catapult. Poststart pilot actions should generally be as follows:

 After engine start and in normal sequence with other avionics operations, turn on the RWR and DECM.

#### NOTE

On deck at ambient temperatures over 80°F, the RWR and DECM should be limited to 5 minutes power on to prevent damage from overheating.

- 2. When able, perform BIT on RWR, DECM, and SMS. HARM BIT cannot be done until the umbilical is connected.
- 3. Perform HARM stray voltage check and connect umbilical. The missile is still not armed.
- 4. Enter MC data (target class and type TOO mode; target number PB mode).
- 5. Perform HARM BIT, when able, on all missiles.
- 6. Check SID class for proper software.

#### INFLIGHT

- 1. A/G master mode SELECT
- 2. Weapon SELECT
- 3. Delivery mode SELECT

#### TOO Mode

- 1. SCAN option SELECTED (if desired)
- 2. LIMIT option SELECTED (if desired)
- 3. Range known/unknown SELECTED (as desired)
- 4. Target class SELECTED

#### To select desired priority target -

5. HARM sequence (RAID) button - PRESS

#### To hand off priority target data to HARM -

6. Cage/uncage button - PRESS

### When target is within launch range -

- 7. Master arm switch ARM
- 8. Weapon release button PRESS

#### **PB Mode**

- 1. Target DESIGNATE
- 2. Pullup option AS REQUIRED
- 3. Velocity vector ON ASL
- 4. Master arm switch ARM

## For an on-angle launch, when release cues appear on HUD and A/C RNG cue appears on HARM display

- 5. Weapon release button PRESS
- 6. Initiate a pullup while maintaining velocity vector on ASL
  - a. Release occurs when aircraft pullup cue intersects velocity vector

# For a hot pickle launch, when HARM pullup cue is coincident with the velocity vector on HUD and HRM RNG cue appears on HARM display -

- 5. Weapon release button PRESS
  - a. Release occurs at pickle

#### SP Mode

- 1. Observe SP target on RWR
- 2. LIMIT option SELECTED (if desired)

#### To select desired priority target -

3. HARM sequence (RAID) button - PRESS

## When a target is within launch range -

- 4. Master arm switch ARM
- 5. Weapon release button PRESS

#### SP PLBK Mode

- 1. Observe self-protect pullback indication on RWR
- 2. HARM OVRD option DESELECTED

## To select desired priority target -

3. HARM sequence (RAID) button - PRESS

### When target is within launch range -

- 4. Master arm switch ARM
- 5. Weapon release button -PRESS

#### **AGM-88 SIMULATED ATTACK**

- 1. A/G master mode SELECT
- 2. Weapon SELECT
- 3. Delivery mode SELECT
- 4. Master arm switch SAFE
- 5. SIM option SELECT
- 6. Delivery mode SELECT

#### **TOO Mode**

- 1. SCAN option SELECTED (if desired)
- 2. LIMIT option SELECTED (if desired)
- 3. Range known/unknown SELECTED (as desired)
- 4. Target class SELECTED

#### To select desired priority target -

5. HARM sequence (RAID) button - PRESS

### To hand off priority target data to HARM -

- 6. Cage/uncage button PRESS
- 7. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)

### When target is within launch range -

8. Weapon release button - PRESS

#### PB Mode

- 1. Enter target number via UFC
- 2. Target DESIGNATE
- 3. Pullup option AS REQUIRED
- 4. Velocity vector ON ASL
- 5. Master arm switch simulate ARM (do not ARM unless required/desired for chaff/flare utilization)

## For an on-angle launch, when release cues appear on HUD and A/C RNG cue appears on HARM display -

- 6. Weapon release button PRESS
- 7. Initiate a pullup while maintaining velocity vector on ASL
  - a. Simulated release occurs when aircraft pullup cue intersects velocity vector

# For a hot pickle launch, when the HARM pullup cue is coincident with the velocity vector and HRM RNG cue appears on HARM display -

- 6. Weapon release button PRESS
  - a. Simulated release occurs at pickle

#### SP Mode

- 1. Observe SP target on RWR
- 2. LIMIT option SELECTED (if desired)

#### To select desired priority target -

3. HARM sequence (RAID) button - PRESS

### When a target is within launch range -

- 4. Master arm simulate ARM (do not ARM unless required/desired for chaff/flare utilization)
- 5. Weapon release button PRESS

#### **SP PLBK Mode**

- 1. Observe self-protect pullback indication on RWR
- 2. HARM OVRD option DESELECTED

### To select desired priority target -

3. HARM sequence (RAID) button - PRESS

### When target is within launch range -

- 4. Master arm simulate ARM (do not ARM unless required/desired for chaff/flare utilization)
- 5. Weapon release button PRESS

#### AFTER SIMULATED ATTACK

#### NOTE

If master arm switch - ARM is required (chaff/flare) or is inadvertently selected, ensure master arm switch- SAFE is selected following simulated attack and prior to deselecting SIM.

1. SIM option - DESELECT

## **ECM EQUIPMENT**

#### **ALR-67 RWR PREFLIGHT**

#### NOTE

With MC OFP 09C or 11C and ALR-67E(V)2 OFP 22, functions of the ALR-67 may be controlled by the dedicated control panel or the EW display. At aircraft power up, control is assigned to the EW display. To use the control indicator to operate the ALR-67, the CRTL option on the ALR-67 data sublevel display must be deselected (unboxed).

#### **Built-In Test**

- 1. Power button ACTUATE ON
- 2. Volume, brightness, and intensity controls SET
- 3. BIT button ACTUATE
  - a. Status change tone; first BIT display. Identify threat library alphanumeric character and check that there are no failed units
  - Status change tone; second BIT display (if required)
  - c. Special alert tone; threat lights come on; third BIT display
  - d. MA tone; threat lights come on; fourth BIT display
  - e. ML tone; threat lights come on; fifth BIT display
  - f. Sixth, seventh, and eighth BIT displays are sequentially presented

#### NOTE

Actuating ALR-67 BIT pushbutton presents BIT information only, it <u>does not</u> initiate a BIT. The only way to initiate a BIT is to turn the system off and back on again.

4. Power - AS REQUIRED

## Built-In Test (MC OFP 09C or 11C and ALR-67E(V)2 OFP 22)

- 1. Power button ACTUATE ON
- 2. Volume, brightness, and intensity controls SET
- 3. Access EW format accessed by actuating the EW option on the Tac menu or by actuating the sensor control switch toward the MPCD and toggling through the display cycle (HSI/SA/EW).
- 4. Select ALR-67 option.

#### NOTE

When the BIT option is selected, BIT pages presented on the EW display are identical to the BIT pages presented on the azimuth indicator.

- 5. Select BIT option.
  - a. Status change tone; first BIT display. Identify threat library alphanumeric character and check that there are no failed units
  - b. Status change tone; second BIT display (if required)
  - c. Special alert tone; threat lights come on; third BIT display
  - d. MA tone; threat lights come on; fourth BIT display
  - e. ML tone; threat lights come on; fifth BIT display
  - f. Sixth, seventh, and eighth BIT displays are sequentially presented

#### NOTE

Actuating ALR-67 BIT option presents BIT information only, it <u>does not</u> initiate a BIT. The only way to initiate a BIT is to turn the system off and back on again.

- 6. ALR-67 trackfile criteria select via SA sensor sublevel
- 7. Power AS REQUIRED

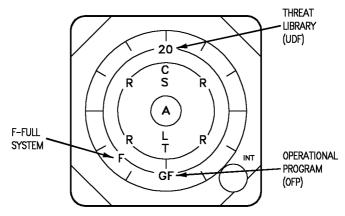
## **RWR BIT FAILURES**

SYMBOL	STATUS	SYSTEM IMPACT
A	Analyzer failure	Could be a minor or major problem depending on which components have failed. The system does not have to be shut down.
С	Indicator control panel failure	May not be able to change selected options
F	Full system capability	None
L	Low band failure	System cannot see C & D band threats
R	Quadrant receiver failure	Threat azimuth data is not reliable
G	Display failure	ADU inoperative
Т	Thermal overload	System is overheating and should be shutdown if tactically feasible
S	Special failure	Cannot see CW signals
HRM	Interface failure	Cannot talk to HARM

## **RWR BIT FAILURES**

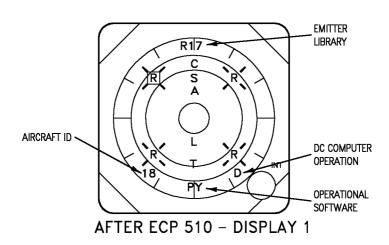
SYMBOL	STATUS	SYSTEM IMPACT	
HRMV	Interface video line failure	No real time target updates to HARM	
126	Hard interface failure	Cannot talk to ALQ- 126B; no jamming enhancements on the ADU	
126D	Degraded interface failure	No impact on ALR-67 or ALQ- 126B operation	
IBU	Interference blanker unit	ALR-67 look through time is reduced. System response times will be longer.	

## ALR-67 BIT Display



BEFORE ECP 510 - DISPLAY 1

ALL SYMBOLS NOT LABELED APPEAR ONLY WHEN A FAILURE IS DETECTED.



18AC-TAC-30-(13-1)13-CATI

## **ALQ-126 ECM SET PREFLIGHT**

- 1. ECM mode knob STBY
  - a. STBY light ON 2 4 minutes
  - b. STBY light OFF when warmup complete
- 2. ECM mode knob BIT
  - a. GO light ON when ECM set passes self test
  - b. NO GO light ON if ECM set fails self test
- 3. ECM mode knob STBY or OFF (as required)



Do not select REC or RPT/XMIT on the carrier.

- 4. JMR option SELECT
  - a. JMR BOXED
  - b. 126B displayed (on line)
  - c. RDY (no line through it)

#### **ALE-39 DISPENSING SYSTEM**

## F/A-18A/C Preflight

1. External Checks

Dispensing buckets - PRESENT and LOADED

- 2. Cockpit Checks
  - a. Check all program settings AS DESIRED
  - b. Ensure buckets have been correctly reset to -NUMBER ONE EJECTION TUBES

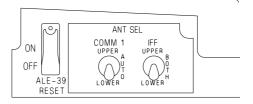
### F/A-18A/C Inflight

1. With weight-off-wheels and ALE-39 payload select knob in any position other than OFF, hold the remote reset switch (located on ANTENNA SELECT CONTROL PANEL) to ON for 5

seconds to reset the buckets back to the number one ejection tube.

#### NOTE

The remote reset switch resets the buckets back to the number one ejection tubes. Master arm switch must be in ARM (F/A-18 C/D only). This resets the buckets only and has no effect on the program settings.



ANTENNA SELECT CONTROL
PANEL

ADA534-12-1-021

The reset knob resets the buckets back to the number one ejection tubes. To correctly reset the buckets, the airplane must have ac power (external or internal) applied and the weight-on-wheels switch must be bypassed. Master arm switch must be in ARM (F/A-18C only). With the payload select knob in any position other than OFF, hold the reset knob to RESET for 5 seconds. This resets the buckets only and has no effect on the program settings. The program settings may be changed at any time with or without power applied.



Expendables will be dispensed on deck if throttle switch or any ECM dispense switch is activated with weight-on-wheels switch by-passed and power applied to ALE-39.

## F/A-18B/D Preflight

1. External Checks

Dispensing buckets - PRESENT and LOADED

- 2. Cockpit Checks
  - a. Check all program settings AS DESIRED

### F/A-18B/D Inflight

1. With weight-off-wheels and ALE-39 payload select knob in any position other than OFF, hold the reset knob to RESET for 5 seconds to reset the buckets back to the number one ejection tubes.

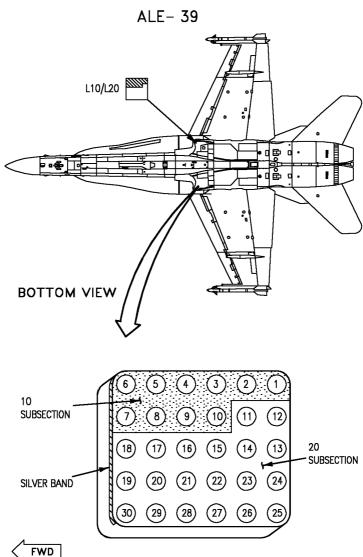
#### NOTE

The reset knob resets the buckets back to the number one ejection tubes. Master arm switch must be in ARM (F/A-18D only). This resets the buckets only and has no effect on the program settings. The program settings may be changed at any time.

#### **ALE-39 PROGRAMMER**

					С	F
B QTY	B INT	S QTY	S INT	QTY	L10	L20
	CH	AFF		F L		L O
	JAM	MER		A R E		
QTY		I	NTV	INTV	R10	R20
					F	С

## **Exterior Inspection**



18AC-TAC-30-(19-1)13-CATI

#### **ALE-47 DISPENSING SYSTEM**

#### Preflight

1. External Checks

Dispensing buckets - PRESENT and LOADED

- 2. Internal Checks
  - a. ALE-47 mode option STBY MODE
  - Expendable inventory status is reset to the MDF levels - LOAD option selected on PROG format.
  - c. Arm expendables ARM format
  - d. Select bingo levels BINGO format

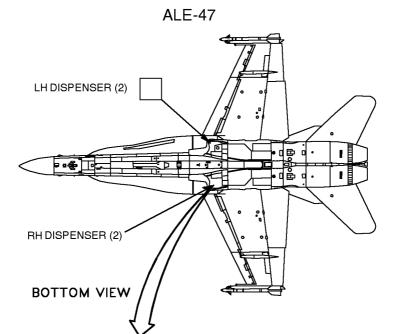
#### NOTE

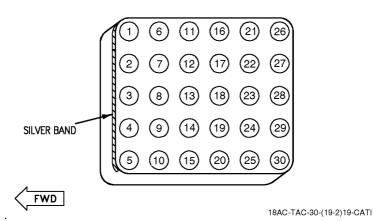
ALE-47 is in STBY mode while on deck and during take-off to prevent dispensing during the time the landing gear is up and locked.

## Inflight

- 1. Check all program settings AS DESIRED
- 2. ALE-47 STBY mode during landing to prevent dispensing during the time the landing gear is up and locked.

## Exterior Inspection

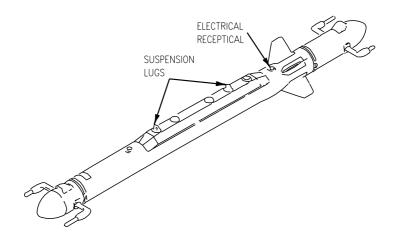




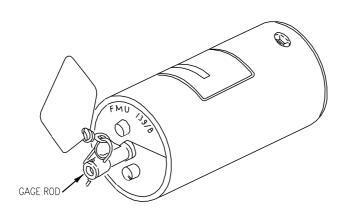
## **ALQ-167 PREFLIGHT**

- Ground safety handles in locked position on loaded stations
- 2. Sway braces seated
- 3. Cartridges not installed on AN/ALQ-167 station; cartridge retainers and auxiliary cartridge caps tight (all stations)
- 4. Adapter cable connected to pod
- 5. Suspension hooks open on unloaded stations
- 6. Verify proper code inputs inserted in weapons insertion panel for stores on stations loaded and verify all unloaded station codes are set as required

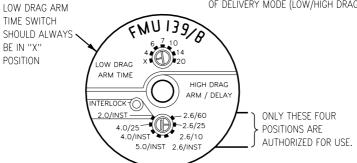
## ALQ-167



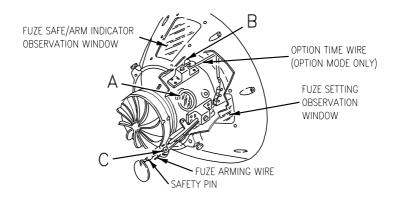
## **FUZE INSPECTIONS**

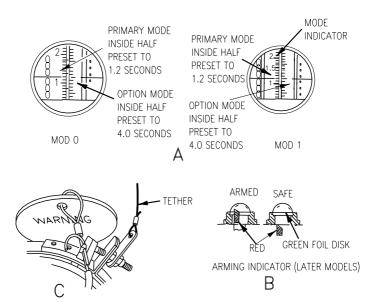


NOTE: DISREGARD 2.6 HIGH DRAG ARM TIME LABELING. ONE OF FOUR AUTHORIZED POSITIONS MUST ALWAYS BE SELECTED REGARDLESS OF DELIVERY MODE (LOW/HIGH DRAG)



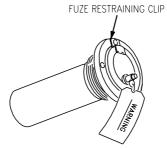
FMU-139 FUZE INSPECTION





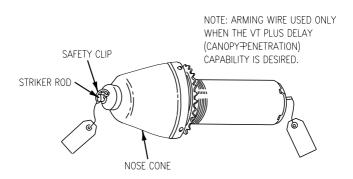
## MK 339 FUZE INSPECTION

18AC-TAC-30-(24-2)16-CATI



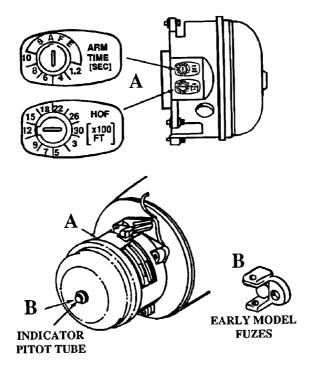
NOTE: RESTRICTED TO TRAINING USE IN INERT Mk 80 SERIES AND BDU-45 BOMBS ONLY.

## 376 FUZE INSPECTION



## MK 43 TDD INSPECTION

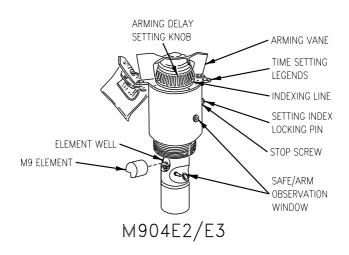
18AC-TAC-30-(24-3)22-CATI

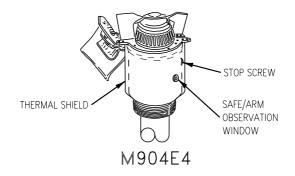


## **NOTE**

FUZE ARMED IF RED VISIBLE ON EXTENDED INDICATOR PITOT TUBE

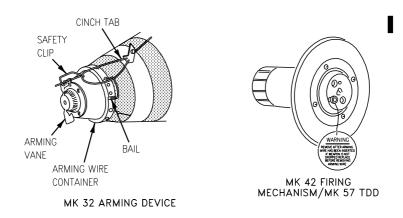
FMU-140/B FUZE INSPECTION



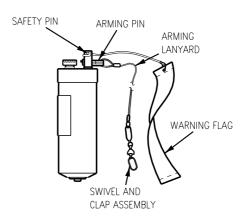


## M904 FUZE INSPECTION

18AC-TAC-30-(24-4)16-CATI



# DST/UNDERWATER MINE FUZE INSPECTION



## FMU-143 E/B FUZE INSPECTION

18AC-TAC-30-(24-5)16-CATI

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