

CHECKLIST
LAUNCH OPERATIONS
MISSILE COMBAT CREW
TECHNICIAN NO. 2

USAF SERIES
TM 76A
GUIDED MISSILE
AF 09(603)43014

PUBLISHED UNDER AUTHORITY OF
THE SECRETARY OF THE AIR FORCE

Reproduction for nonmilitary use of the information or illustrations contained in this publication is not permitted without specific approval of the issuing service. The policy for use of Classified Publications is established for the Air Force in AFR 205-1.

INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

LIST OF EFFECTIVE PAGES

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page.

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 28,
CONSISTING OF THE FOLLOWING:

Page No.	Issue
Title	Original
A	Original
i	Original
ii Blank	Original
1-1 thru 1-5	Original
1-6 Blank	Original
2-1 thru 2-5	Original
2-6 Blank	Original
3-1 thru 3-5	Original
3-6 Blank	Original
4-1 thru 4-5	Original
4-6 Blank	Original

* The asterisk indicates pages changed, added, or deleted by the current change.

ADDITIONAL COPIES OF THIS PUBLICATION
MAY BE OBTAINED AS FOLLOWS:

USAF
A

USAF ACTIVITIES.—In accordance with T.O. 00-5-2.

INTRODUCTION

This document contains condensed checklists for Technician No. 2 only. These condensed checklists are prepared from the master checklists contained in T. O. 21-TM76A-1-1. The checklists are functions listed in the sequence in which they are to be performed.

The checklists are arranged in a 2-column, demand-response type format. Demands are listed in the left-hand column and responses to the demands are given in the right-hand column. If a particular function is supported by detailed operating instructions, it will be indicated by a paragraph reference following the function. This paragraph reference is to a particular paragraph of detailed operating instructions contained in T. O. 21-TM76A-1-1 (Section III). Technician No. 2 must be thoroughly familiar with these detailed operating instructions prior to performing any checklist operation. The blank lines following the responses are provided as check spaces.

Certain functions which Technician No. 2 must perform may require assistance from other Missile Combat Crew (MCC) personnel. The extreme left-hand column of each checklist will list the number of the Technician(s) required to assist in performing that function.

The checklist pages contain the following identification data: a) weapon system designation, b) technical order number, c) latest technical order publication date, and d) page number. The RFT Readiness Checklist contains the individual function for Technician No. 2 from table 2-1 of T. O. 21-TM76A-1-1, the Verification Readiness Checklist from table 2-2, the Countdown Readiness Checklist from table 2-3, and the Alert Countdown Checklist from table 2-4.

The Missile Combat Crew Commander (MCCC) will initiate and control all operations pertaining to an emergency. The Missile Combat Crew Commander will alert all Missile Combat Crew personnel of an emergency and each technician must report to the Missile Combat Crew by the Site Intercommunication System.

TECHNICIAN NO. 2

LAUNCH AREA

RFT READINESS CHECKLIST

OPERATION 1.NOTE

For this and remaining operations, insure safety in Launch Area.

Start and energize Diesel Generator if directed by MCCC (para. 3-26).

1. Commercial power ON _____
2. Generator selector switch AS APPLICABLE _____

NOTE

Complex No. 1 will normally be assigned generator No. 1.

3. Generator start switch for 3 seconds DEPRESS _____
4. Generator indicator lamp ON _____

CAUTION

Do not operate starter for more than 30 seconds at a time.

Transfer from commercial to diesel power (para. 3-27).

NOTE

Perform the following steps only if Diesel Generator has been started and operating for a minimum of 30 seconds.

CAUTION

When placing generator/commercial power selector switch to position 2, pause at center position 3 seconds to allow commercial power to drop out. Rapid transfer can result in burned out diodes in the PDCU.

TECHNICIAN NO. 2

LAUNCH AREA

RFT READINESS CHECKLIST (cont)

OPERATION 1 (cont).

1. Generator/commercial power selector switch POSITION 2 _____
2. POWER SOURCE circuit breaker DIESEL _____

1 Start and idle backup Power Pack (Assist) (para. 3-28).

NOTE

Do not perform any of the following steps until notified by Technician No. 1.

1. EMERGENCY POWER OFF switch on backup Power Pack ELEC PWR NORMAL _____
2. All switches on electrical panels of backup Power Pack OFF _____
3. AUXILIARY POWER switch on Pneumatic Control Panel OFF _____

CAUTION

Air pressure gauge must indicate a minimum of 90 psi before proceeding.

4. MM-1 engine SHUT DOWN _____
5. PTO switch IN _____
6. MM-1 engine RESTART _____
7. Service brake pedal DEPRESSED _____
8. Transmission gear selector THIRD _____
9. MM-1 engine 1000 RPM _____
10. Ground cable of backup Power Pack CONNECTED _____
11. Truck power cable between MM-1 and backup Power Pack CONNECTED _____

NOTE

The cables disconnected in steps 12 thru 15 are to be given to Technician No. 1 for connection to backup Power Pack.

TECHNICIAN NO. 2

LAUNCH AREA

RFT READINESS CHECKLIST (cont)

OPERATION 1 (cont)

12. 400-cycle power cable connected
to LAPP J103 DISCONNECT _____
13. 28-v d-c power cable connected
to LAPP J102 DISCONNECT _____
14. Relay control cable connected
to LAPP J100 DISCONNECT _____
15. Truck power cable connected
to LAPP J101 DISCONNECT _____
16. Service brake pedal DEPRESS _____
17. REMOTE THROTTLE to
MAX. RPM INFORM TECH NO. 1 _____
18. Service brake pedal RELEASE _____
19. 60-cycle AUX. power cable P51
at LAPP J51 DISCONNECT _____
20. 60-cycle AUX. power cable P51
at backup Power Pack J51 CONNECT _____
21. 60-cycle AUX. power cable
connected INFORM TECH NO. 1 _____
22. Hydraulic hose connections ASSIST TECH 1 _____

OPERATION 2

Perform RFT check on Missile No. 4 (para. 3-32).

NOTE

Do not perform test unless READY TO
TEST indicator lamp is on.

WARNING

If READY TO TEST indicator lamp goes on
and SAFE TO FIRE indicator lamp does not
go on, place MISSILE POWER switch for
that Missile OFF.

1. METER BALANCE switch DEPRESS _____
2. METER BALANCE CONTROL for
zero on meter ADJUST _____

TECHNICIAN NO. 2

LAUNCH AREA

RFT READINESS CHECKLIST (cont)

OPERATION 2 (cont)

3. LAT-LONG switch LAT _____
4. Meter GREEN BAND _____
5. LAT-LONG switch LONG _____
6. Meter GREEN BAND _____
7. METER BALANCE CONTROL
for zero on meter ADJUST _____
8. STEP FUNCTION switch UP (HOLD) _____
9. Meter indicates to left, not more
than 6 INSURE _____
10. STEP FUNCTION switch RELEASE _____
11. Meter ZERO _____
12. LAT-LONG switch CENTER _____
13. CTR INT GO switch DEPRESS _____
14. START & RECYCLE switch DEPRESS _____
15. MISSILE ENGINE START SELECTOR
READY Indicator lamp ON _____

Check launch bias on all Missiles (para. 3-49).

1. Horizontal Stabilizer intersects painted black
line on Vertical Stabilizer CHECK _____

OPERATION 3.

Transfer from diesel to commercial power if applicable
(para. 3-45).

CAUTION

When placing generator/commercial
power selector switch to position 1,
pause at center position 3 seconds to
allow diesel power to drop out. Rapid
transfer can result in burned out diodes
in the PDCU.

1. Generator/commercial power
selector switch POSITION 1 _____
2. POWER SOURCE circuit breaker, UTILITY _____

TECHNICIAN NO. 2

LAUNCH AREA

RFT READINESS CHECKLIST (cont)

OPERATION 3.

Shut down Diesel Generator if operating (para. 3-46).

1. Generator/commercial power
selector switch POSITION 1 _____
2. Generator stop switch for
5-10 seconds DEPRESS _____
3. Generator indicator lamp OFF _____

END OF RFT READINESS CHECKLIST

TECHNICIAN NO. 2

LAUNCH AREA

VERIFICATION READINESS CHECKLIST

OPERATION 1.NOTE

For this and remaining operations, insure safety in Launch Area.

Start and energize Diesel Generator if requested by MCCC (para. 3-26).

1. Commercial power ON _____
2. Generator selector switch AS APPLICABLE _____

NOTE

Complex No. 1 will normally be assigned generator No. 1.

3. Generator start switch for 3 seconds . . . DEPRESS _____
4. Generator indicator lamp ON _____

CAUTION

Do not operate starter for more than 30 seconds at a time.

Transfer from commercial to diesel power (para. 3-27).

NOTE

Perform the following steps only if Diesel Generator has been started and operating for a minimum of 30 seconds.

CAUTION

When placing generator/commercial power selector switch to position 2, pause at center position 3 seconds to allow commercial power to drop out. Rapid transfer can result in burned out diodes in the PDCU.

TECHNICIAN NO. 2

LAUNCH AREA

VERIFICATION READINESS CHECKLIST (cont)

OPERATION 1 (cont).

1. Generator/commercial power selector switch POSITION 2 _____
 2. POWER SOURCE circuit breaker. DIESEL _____
- 1 Start and idle backup Power Pack (Assist) (para. 3-28).

NOTE

Do not perform any of the following steps until notified by Technician No. 1.

1. EMERGENCY POWER OFF switch on backup Power Pack ELEC PWR NORMAL _____
2. All switches on electrical panels of backup Power Pack OFF _____
3. AUXILIARY POWER switch on Pneumatic Control Panel OFF _____

CAUTION

Air pressure gauge must indicate a minimum of 90 psi before proceeding.

4. MM-1 engine SHUT DOWN _____
5. PTO switch IN _____
6. MM-1 engine RESTART _____
7. Service brake pedal DEPRESSED _____
8. Transmission gear selector THIRD _____
9. MM-1 engine 1000 RPM _____
10. Ground cable of backup Power Pack CONNECTED _____
11. Truck power cable between MM-1 and backup Power Pack CONNECTED _____

NOTE

The cables disconnected in steps 12 thru 15 are to be given to Technician No. 1 for connection to backup Power Pack.

TECHNICIAN NO. 2

LAUNCH AREA

VERIFICATION READINESS CHECKLIST (cont)

OPERATION 1 (cont).

12. 400-cycle power cable connected
to LAPP J103 DISCONNECT _____
13. 28-v d-c power cable connected
to LAPP J102 DISCONNECT _____
14. Relay control cable connected
to LAPP J100 DISCONNECT _____
15. Truck power cable connected
to LAPP J101 DISCONNECT _____
16. Service brake pedal DEPRESS _____
17. REMOTE THROTTLE to
MAX. RPM INFORM TECH NO. 1 _____
18. Service brake pedal RELEASE _____
19. 60-cycle AUX. power cable P51
at LAPP J51 DISCONNECT _____
20. 60-cycle AUX. power cable P51
at backup Power Pack J51 CONNECT _____
21. 60-cycle AUX. power cable
connected INFORM TECH NO. 1 _____
22. Hydraulic hose connections ASSIST _____

OPERATION 2.

Perform RFT check as directed (para. 3-32).

NOTE

Do not perform test unless READY TO
TEST indicator lamp is on.

WARNING

If READY TO TEST indicator lamp goes
on and SAFE TO FIRE indicator lamp does
not go on, place MISSILE POWER switch
for that Missile OFF.

1. METER BALANCE switch DEPRESS _____
2. METER BALANCE CONTROL for
zero on meter ADJUST _____

TECHNICIAN NO. 2

LAUNCH AREA

VERIFICATION READINESS CHECKLIST (cont)

OPERATION 2 (cont).

- | | | | |
|-----|---|------------|-------|
| 3. | LAT-LONG switch | LAT | _____ |
| 4. | Meter | GREEN BAND | _____ |
| 5. | LAT-LONG switch | LONG | _____ |
| 6. | Meter | GREEN BAND | _____ |
| 7. | METER BALANCE CONTROL for
zero on meter | ADJUST | _____ |
| 8. | STEP FUNCTION switch | UP (HOLD) | _____ |
| 9. | Meter indicates to left, not
more than 6 | INSURE | _____ |
| 10. | STEP FUNCTION switch | RELEASE | _____ |
| 11. | Meter | ZERO | _____ |
| 12. | LAT-LONG switch | CENTER | _____ |
| 13. | CTR INT GO switch | DEPRESS | _____ |
| 14. | START & RECYCLE switch | DEPRESS | _____ |
| 15. | MISSILE ENGINE START SELECTOR
READY Indicator lamp | ON | _____ |

Check launch bias on all Missiles (para. 3-49).

- | | | | |
|----|---|-------|-------|
| 1. | Horizontal Stabilizer intersects painted black
line on Vertical Stabilizer | CHECK | _____ |
|----|---|-------|-------|

OPERATION 3.

(Eff. II) Proceed to Launch Pad and insure RFT squib circuit indicator lamp is on. Notify CCC of condition.

Transfer from diesel to commercial power if applicable (para. 3-45).

CAUTION

When placing generator/commercial power selector switch to position 1, pause at center position for 3 seconds to allow diesel power to drop out. Rapid transfer can result in burned out diodes in the PDCU.

- | | | | |
|----|---|------------|-------|
| 1. | Generator/commercial power
selector switch | POSITION 1 | _____ |
|----|---|------------|-------|

TECHNICIAN NO. 2

LAUNCH AREA

VERIFICATION READINESS CHECKLIST (cont)

OPERATION 3 (cont).

2. POWER SOURCE circuit breaker UTILITY _____

Shut down Diesel Generator if operating (para. 3-46).

1. Generator/commercial power
selector switch POSITION 1 _____2. Generator stop switch for
5-10 seconds DEPRESS _____

3. Generator indicator lamp OFF _____

END OF VERIFICATION READINESS CHECKLIST

TECHNICIAN NO. 2

LAUNCH AREA

COUNTDOWN READINESS CHECKLIST

OPERATION 1.NOTE

For this and remaining operations, insure safety in Launch Area.

Obtain and insert Safety and Arming plug in UOB. Start and energize Diesel Generator if requested by MCCC (para. 3-26).

1. Commercial power ON _____
2. Generator selector switch AS APPLICABLE _____

NOTE

Complex No. 1 will normally be assigned generator No. 1.

3. Generator start switch for 3 seconds DEPRESS _____
4. Generator indicator lamp ON _____

CAUTION

Do not operate starter for more than 30 seconds at a time.

Transfer from commercial to diesel power (para. 3-27).

NOTE

Perform the following steps only if Diesel Generator has been started and operating for a minimum of 30 seconds.

CAUTION

When placing generator/commercial power selector switch to position 2, pause at center position 3 seconds to allow commercial power to drop out. Rapid transfer can result in burned out diodes in the PDCU.

TECHNICIAN NO. 2

LAUNCH AREA

COUNTDOWN READINESS CHECKLIST (cont)

OPERATION 1 (cont).

1. Generator/commercial power selector switch POSITION 2 _____
2. POWER SOURCE circuit breaker DIESEL _____

- 1 Start and idle backup Power Pack (Assist) (para. 3-28).

NOTE

Do not perform any of the following steps until notified by Technician No. 1.

1. EMERGENCY POWER OFF switch on backup Power Pack ELEC PWR NORMAL _____
2. All switches on electrical panels of backup Power Pack OFF _____
3. AUXILIARY POWER switch on Pneumatic Control Panel OFF _____

CAUTION

Air pressure gauge must indicate a minimum of 90 psi before proceeding.

4. MM-1 engine SHUT DOWN _____
5. PTO switch IN _____
6. MM-1 engine RESTART _____
7. Service brake pedal DEPRESSED _____
8. Transmission gear selector THIRD _____
9. MM-1 engine 1000 RPM _____
10. Ground cable of backup Power Pack CONNECTED _____
11. Truck power cable between MM-1 and backup Power Pack CONNECTED _____

NOTE

The cables disconnected in steps 12 thru 15 are to be given to Technician No. 1 for connection to backup Power Pack.

TECHNICIAN NO. 2

LAUNCH AREA

COUNTDOWN READINESS CHECKLIST (cont)

OPERATION 1 (cont).

- | | |
|---|-------------------------|
| 12. 400-cycle power cable connected
to LAPP J103 | DISCONNECT _____ |
| 13. 28-v d-c power cable connected
to LAPP J102 | DISCONNECT _____ |
| 14. Relay control cable connected
to LAPP J100 | DISCONNECT _____ |
| 15. Truck power cable connected
to LAPP J101 | DISCONNECT _____ |
| 16. Service brake pedal | DEPRESS _____ |
| 17. REMOTE THROTTLE to
MAX. RPM | INFORM TECH NO. 1 _____ |
| 18. Service brake pedal | RELEASE _____ |
| 19. 60-cycle AUX. power cable P51
at LAPP J51 | DISCONNECT _____ |
| 20. 60-cycle AUX. power cable P51
at backup Power Pack J51 | CONNECT _____ |
| 21. 60-cycle AUX. power cable
connected | INFORM TECH NO. 1 _____ |
| 22. Hydraulic hose connections | ASSIST _____ |

OPERATION 2.

Perform RFT check as directed (para. 3-32).

NOTE

Do not perform test unless READY TO
TEST indicator lamp is on.

WARNING

If READY TO TEST indicator lamp goes on
and SAFE TO FIRE indicator lamp does not
go on, place MISSILE POWER switch for
that Missile OFF.

TECHNICIAN NO. 2

LAUNCH AREA

COUNTDOWN READINESS CHECKLIST (cont)

OPERATION 2 (cont).

1. METER BALANCE switch DEPRESS _____
2. METER BALANCE CONTROL
for zero on meter ADJUST _____
3. LAT-LONG switch LAT _____
4. Meter GREEN BAND _____
5. LAT-LONG switch LONG _____
6. Meter GREEN BAND _____
7. METER BALANCE CONTROL
for zero on meter ADJUST _____
8. STEP FUNCTION switch UP (HOLD) _____
9. Meter indicates to left, not more than 6 . . INSURE _____
10. STEP FUNCTION switch RELEASE _____
11. Meter ZERO _____
12. LAT-LONG switch CENTER _____
13. CTR INT GO switch DEPRESS _____
14. START & RECYCLE switch DEPRESS _____
15. MISSILE ENGINE START SELECTOR
READY Indicator lamp ON _____

OPERATION 4.

(SIMULATE) Operate LEU (para. 3-39).

1. Crank cover OPEN _____
2. Crank TURN CW _____

Repeat Operation 4 as directed.

OPERATION 5.

Transfer from diesel to commercial power (para. 3-45).

CAUTION

When placing generator/commercial power selector switch to position 1, pause at center position for 3 seconds, to allow diesel power to drop out. Rapid transfer can result in burned out diodes in the PDCU.

TECHNICIAN NO. 2

LAUNCH AREA

COUNTDOWN READINESS CHECKLIST (cont)

OPERATION 5 (cont).

1. Generator/commercial power
selector switch POSITION 1 _____
2. POWER SOURCE circuit breaker UTILITY _____

Shut down Diesel Generator if operating (para. 3-46).

1. Generator/commercial power
selector switch. POSITION 1 _____
2. Generator stop switch for
5-10 seconds DEPRESS _____
3. Generator indicator lamp. OFF _____

END OF COUNTDOWN READINESS CHECKLIST

TECHNICIAN NO. 2

LAUNCH AREA

ALERT COUNTDOWN CHECKLIST

OPERATION 1.

Start and energize Diesel Generator (para. 3-26).

NOTE

For this and remaining operations, insure safety in Launch Area.

1. Commercial power ON _____
2. Generator selector switch . . . AS APPLICABLE _____

NOTE

Complex No. 1 will normally be assigned generator No. 1.

3. Generator start switch for
3 seconds DEPRESS _____
4. Generator indicator lamp ON _____

CAUTION

Do not operate starter for more than 30 seconds at a time.

Transfer from commercial to diesel power (para. 3-27).

NOTE

Perform the following steps only if Diesel Generator has been started and operating for a minimum of 30 seconds.

TECHNICIAN NO. 2

LAUNCH AREA

ALERT COUNTDOWN CHECKLIST (cont)

OPERATION 1 (cont).**CAUTION**

When placing generator/commercial power selector switch to position 2, pause at center position 3 seconds to allow commercial power to drop out. Rapid transfer can result in burned out diodes in the PDCU.

1. Generator/commercial power selector switch POSITION 2 _____
2. POWER SOURCE circuit breaker DIESEL _____

- 1 Start and idle backup Power Pack (Assist) (para. 3-28).

NOTE

Do not perform any of the following steps until notified by Technician No. 1.

1. EMERGENCY POWER OFF switch on backup Power Pack ELEC PWR
NORMAL _____
2. All switches on electrical panels of backup Power Pack OFF _____
3. AUXILIARY POWER switch on Pneumatic Control Panel OFF _____

CAUTION

Air pressure gauge must indicate a minimum of 90 psi before proceeding.

4. MM-1 engine SHUT DOWN _____
5. PTO switch IN _____
6. MM-1 engine RESTART _____
7. Service brake pedal DEPRESSED _____
8. Transmission gear selector THIRD _____
9. MM-1 engine 1000 RPM _____
10. Ground cable of backup Power Pack CONNECTED _____
11. Truck power cable between MM-1 and backup Power Pack CONNECTED _____

TECHNICIAN NO. 1

LAUNCH AREA

ALERT COUNTDOWN CHECKLIST (cont)

OPERATION 1 (cont).NOTE

The cables disconnected in steps 12 thru 15 are to be given to Technician No. 1 for connection to backup Power Pack.

12. 400-cycle power cable
connected to LAPP J103 DISCONNECT _____
13. 28-v d-c power cable
connected to LAPP J102 DISCONNECT _____
14. Relay control cable con-
nected to LAPP J100. DISCONNECT _____
15. Truck power cable con-
nected to LAPP J101. DISCONNECT _____
16. Service brake pedal DEPRESS _____
17. REMOTE THROTTLE
to MAX. RPM INFORM TECH NO. 1 _____
18. Service brake pedal RELEASE _____
19. 60-cycle AUX. power
cable P51 at LAPP J51 DISCONNECT _____
20. 60-cycle AUX. power
cable at backup Power
Pack J51. CONNECT _____
21. 60-cycle AUX. power
cable connected INFORM TECH NO. 1 _____
22. Hydraulic hose
connections. ASSIST _____

OPERATION-2.

Remove missile breather door dust covers as directed.

Perform RFT check as directed (para. 3-32).

NOTE

Do not perform test unless READY TO TEST indicator lamp is on.

TECHNICIAN NO. 2

LAUNCH AREA

ALERT COUNTDOWN CHECKLIST (cont)OPERATION 2 (cont).**WARNING**

If READY TO TEST indicator lamp goes on and SAFE TO FIRE indicator lamp does not go on, place MISSILE POWER for that Missile OFF.

1. METER BALANCE switch DEPRESS _____
2. METER BALANCE CONTROL
for zero on meter ADJUST _____
3. LAT-LONG switch LAT _____
4. Meter GREEN BAND _____
5. LAT-LONG switch LONG _____
6. Meter GREEN BAND _____
7. METER BALANCE CONTROL
for zero on meter ADJUST _____
8. STEP FUNCTION switch UP (HOLD) _____
9. Meter indicates to left,
not more than 6 INSURE _____
10. STEP FUNCTION switch RELEASE _____
11. Meter ZERO _____
12. LAT-LONG switch CENTER _____
13. CTR INT GO switch DEPRESS _____
14. START & RECYCLE switch DEPRESS _____
15. MISSILE ENGINE START
SELECTOR READY
indicator lamp ON _____

OPERATION 3.

Monitor indicator lamps on T-1500 (d, para. 3-31).

TECHNICIAN NO. 2

LAUNCH AREA

ALERT COUNTDOWN CHECKLIST (cont)

OPERATION 4.

Operate LEU (para. 3-39).

1. Crank cover OPEN _____
2. Crank TURN CW _____

Repeat Operations 3 and 4 for remaining Missiles.

OPERATION 5.

Transfer from diesel to commercial power (para. 3-45).

CAUTION

When placing generator/commercial power selector switch to position 1, pause at center position for 3 seconds to allow diesel power to drop out. Rapid transfer can result in burned out diodes in the PDCU.

1. Generator/commercial power selector switch POSITION 1 _____
2. POWER SOURCE circuit breaker UTILITY _____

Shut down Diesel Generator (para. 3-46).

1. Generator/commercial power selector switch POSITION 1 _____
2. Generator stop switch for 5-10 seconds DEPRESS _____
3. Generator indicator lamp OFF _____

END OF ALERT COUNTDOWN CHECKLIST