

SECTION III

NORMAL OPERATING PROCEDURES

3-1. SCOPE.

3-2. This section contains the normal operating procedures for the missile combat crew (MCC). Where there is a variance of RPIE systems and equipment parameters between this manual and SAC CEM support manuals, the SAC CEM range of operation will apply. Normal operating procedures consist of crew administrative procedures, alert status monitoring, and launch exercise countdown procedures.

3-3. CREW ADMINISTRATIVE PROCEDURES.

3-4. Crew administrative procedures are the administrative procedures normally performed by the MCC during an alert tour of duty at the launch complex. Also included are procedures utilized in the event of security violations requiring immediate action, and any scheduled special activities. These procedures consist of crew inspection, pre-departure briefing, entry procedures, changeover procedures, operations/special activities briefings, personnel control, contingency actions, wearing of side arms, and exit procedures.

3-5. CREW INSPECTION. (See figure 3-1.)

3-6. The MCCC will perform crew inspection prior to the pre-departure briefing, and will then report the status of his inspection to the unit operations officer or his designated representative of the pre-departure briefing.

3-7. PRE-DEPARTURE CREW BRIEFING.

3-8. The unit operations officer or his designated representative will conduct a general crew briefing, covering operational requirements, general intelligence items, administrative matters, and general unit policies requiring explanation.

3-9. COMPLEX ENTRY PROCEDURES (Operational bases).

3-10. Following the pre-departure crew briefing and after obtaining the key and code, the crew will depart for the complex. At the complex, the crew member with the key and code will call the launch control center from the phone located at the complex entrance. Using approved key and code procedures, the crew member will identify himself to the MCC on duty. The crew will then proceed to the portal entry and request clearance into the control center. The last individual will insure that the portal entrance is properly secured. All crew members will then assemble in the upper level of the control center for the changeover briefing by the duty MCCC.

3-11. CREW SHIFT CHANGE BRIEFING. (See figure 3-2.)

3-12. This briefing will be a formal briefing conducted at the launch complex prior to shift changeover. Both the offgoing and the oncoming crew will attend. The MCCC of the crew being relieved will conduct the briefing, explaining the status of the complex, maintenance being performed and to be performed, the present DEFCON status,

STEP	PROCEDURE
1	Roll call..... Performed MCCC ascertains that all crew members are present.
2	Uniform and appearance..... Checked MCCC checks personnel to insure that crew members are in prescribed white coveralls, and that coveralls are clean and in serviceable condition.
3	Security badges and safety accessories..... Checked The MCCC inspects crew members for the following items: SAC Form 138, hard hats, dog-tags (on chain), safety shoes, and ear plugs (as applicable).

Figure 3-1. Crew Inspection

STEP	PROCEDURE
1	Launchers status..... Briefed
	<p>The duty MCCC will brief the oncoming crew on the status of the launchers, on or off alert, what maintenance was performed, and status of equipment in the launch emplacements.</p>
2	Maintenance..... Briefed
	<p>The duty MCCC will brief the oncoming crew on the status of the maintenance in progress and what maintenance is programmed for the oncoming crew.</p>
3	Power house status..... Briefed
	<p>The duty MCCC will brief the oncoming crew on the status of the power house and insure that the power house is ready for changeover.</p>
4	DEFCON..... Briefed
	<p>The duty MCCC briefs the oncoming MCC on the present DEFCON status.</p>

Figure 3-2. Crew Changeover Briefing Procedures

and any other items that may affect the normal status of the complex. SACM 50-16 establishes the requirements and contains detailed procedures for this briefing.

3-13. CREW OPERATIONS BRIEFING.

3-14. At the beginning of each alert duty shift, the MCCC will conduct a formal briefing at the launch complex for the purpose of insuring proper crew coordination in the event of an actual EWO execution or a no-advance-notice type exercise. All MCC members will be present. SACM 50-16 establishes the requirement and contains detailed procedures for this briefing. Following this briefing the relief crew is dismissed by the MCCC for individual changeover.

3-15. INDIVIDUAL CHANGEOVER.

3-16. All MCC members perform an individual changeover with their counterparts, transferring and checking documents, reviewing forms, and receiving a more comprehensive briefing on the equipment status than was given at the crew shift change briefing. Figure 3-3 lists the abbreviated procedures for each individual changeover, and figure 3-4 lists the amplified procedures.

3-17. ACTIVITY COORDINATION BRIEFING.

3-18. This is a formal briefing conducted at the launch complex under the supervision of the site commander or his designated representative prior to any operations or maintenance activities other than actual EWO launch operations. Required MCC members and maintenance personnel will be present. Emphasis will be placed on safety, proper operation of systems involved, and emergency procedures. AMF 66-1 and SAC SUP 1 establishes the requirement and contains detailed procedures and responsibilities for this briefing.

3-19. SAFETY. The buddy system will be utilized whenever anyone enters the propellant terminal and missile silo or whenever performing work on hazardous equipment in any area.

3-20. Hard hats are required to be worn in all areas of the complex except the control center, power house, and Levels III and IV of the equipment terminal. In addition, hard hats will be worn in any area where overhead work is being conducted. Chin straps will be fastened whenever loss of hard hat is probable.

3-21. Protective clothing is required when working on hazardous equipment or with any toxic or cryogenic propellants.

3-22. Smoking is allowed in designated areas only. No tobacco or spark producing materials are permitted beyond tunnel junction 10.

3-23. Personnel will be briefed on the location of escape and emergency equipment. SKA-PAKS will be readily available when in the launcher area.

3-24. Headsets are to be checked for proper working order and must be carried or readily available in all areas beyond tunnel junction 10.

(Text continued on page 3-15.)

STEP	PROCEDURE
<u>MISSILE LAUNCH OFFICER</u>	
1	Equipment status..... Checked
2	Positive control materials..... Checked
3	Technical orders..... Checked
4	Crew changeover checklist completed..... Reported
5	Control room..... Cleared
6	Strike timing sheets..... Transferred
7	PCE/PCCD..... Transferred
8	Command post..... Notified
9	Resumption of alert..... Announced
<u>GUIDANCE ELECTRONICS OFFICER</u>	
1	Equipment status..... Checked
2	Positive control materials..... Checked
3	Technical orders..... Checked
4	Index of refraction..... Checked
5	Antenna alignment printout..... Checked
6	Communication status..... Checked
7	Inventory trajectory materials..... Completed
8	GEO ready for PCE/PCCD changeover..... Reported
9	PCE/PCCD changeover..... Completed
10	Command post (MCCC only)..... Notified
<u>BALLISTIC MISSILE ANALYST TECHNICIAN</u>	
1	Equipment status..... Received
2	Positive control materials..... Checked

Figure 3-3. Individual Changeover, Abbreviated Checklist Procedures
(Sheet 1 of 2)

STEP	PROCEDURE
3	Technical orders..... Checked
4	Changeover complete..... Reported
5	Forms..... Reviewed
<u>MISSILE MAINTENANCE TECHNICIAN</u>	
1	Maintenance status..... Briefed
2	Launcher and propellant system status..... Checked
3	Launcher area access keys..... Available
4	Fire control and safety briefing guides..... Checked
5	Changeover complete..... Reported
6	AFTO forms..... Reviewed
<u>ELECTRICAL POWER PRODUCTION TECHNICIAN</u>	
Note	
<p>The offgoing senior EPPT will insure that the power generation equipment, logs, charts, and status boards are properly prepared for crew changeover (if applicable). The oncoming senior EPPT will be responsible for power production crew changeover in the power house.</p>	
1	Briefing by offgoing senior EPPT..... Accomplished
2	Power house walk-through inspection..... Accomplished
3	Briefing by power house supervisor..... Accomplished
4	Crew changeover and equipment status to MLO..... Reported
5	Facilities personnel..... Briefed

Figure 3-3. Individual Changeover, Abbreviated Checklist Procedures
(Sheet 2 of 2)

STEP	PROCEDURE
<p><u>MISSILE LAUNCH OFFICER</u></p>	
1	<p>Equipment status..... Checked</p> <p>The oncoming MLO, together with the offgoing MLO, checks the equipment status and launch control console for overall status of the weapon system. In addition, a status check of the other complexes is accomplished at the alternate command post.</p>
2	<p>Positive control materials..... Checked</p> <p>The MLO checks the copy decode and pre-decode formats and insures that KAA-29 is current and the current 6-hour block is exposed. The following days KAA-29 will be below the current one. KLI 12/TSEC should be located with the KAA-29. The MLO will check the current KAC 65 with the decode side up, as well as the next KAC 65 (below). Cleanliness of the fast reaction checklist will also be insured.</p>
3	<p>Technical orders..... Checked</p> <p>The necessary technical orders required to perform missile combat crew duties will be available and current.</p>
4	<p>Crew changeover checklist completed..... Reported</p> <p>All crew members will report the completion of their changeover checklists. The MLO will not proceed to the following task until all crew members have reported in.</p>
5	<p>Control room..... Cleared</p> <p>The MLO directs the BMAT to evacuate all unauthorized personnel from the control room, and to prevent entry of unauthorized personnel during PCE/PCCD changeover.</p>
6	<p>Strike timing sheets..... Transferred</p> <p>The MLO will inventory the strike timing sheets and sign for their receipt in conjunction with the PCE/PCCD changeover.</p>
7	<p>PCE/PCCD..... Transferred</p>

Figure 3-4. Individual Changeover, Amplified Checklist Procedures
(Sheet 1 of 8)

STEP	PROCEDURE
	<p><u>MISSILE LAUNCH OFFICER (Continued)</u></p>
<p>7 (CONT)</p>	<p>The PCE/PCCD changeover will be accomplished in accordance with SACM 55-2, volume III. Missile combat crew members will wear sidearms whenever the PCE/PCCD is in their possession.</p>
<p>8</p>	<p>Command post..... Notified</p> <p>The MCCC will notify the command post after PCE/PCCD transfer with the following information:</p> <p>Name _____ Crew number _____. The PCE/PCCD has been received, condition is satisfactory, SAC Form 647 has been signed and witnessed at _____ Z.</p>
<p>9</p>	<p>Assumption of alert..... Announced</p> <p>Using the public address system, the MLO announces, "Crew _____ relieved. Crew _____ is now on duty."</p>
	<p><u>GUIDANCE ELECTRONICS OFFICER</u></p>
<p>1</p>	<p>Equipment status..... Checked</p> <p>GEO checks AFTO forms 207 and 209 for any limitations to system operation and determines what maintenance is in progress or scheduled.</p>
<p>2</p>	<p>Positive control materials..... Checked</p> <p>GEO checks copy decode and pre-decode formats, insures that KAA-29 is current and the 6-hour block is exposed, and that the next days KAA-29 is kept under the current one. KLI-12/TSEC should be located with the KAA-29. The GEO also checks current KAC-65 with decode side up and next days KAC-65 under the current one. Fast reaction checklists are spot checked for cleanliness.</p>
<p>3</p>	<p>Technical orders..... Checked</p> <p>The necessary technical orders required to perform missile combat crew duties will be available and current.</p>

Figure 3-4. Individual Changeover, Amplified Checklist Procedures
(Sheet 2 of 8)

STEP	PROCEDURE
<p><u>GUIDANCE ELECTRONICS OFFICER</u> (Continued)</p>	
4	<p>Index of refraction..... Checked</p> <p>GEO insures that the index of refraction calculator and log is present and that the latest index of refraction is recorded on the missile guidance console.</p>
5	<p>Antenna alignment printout..... Checked</p> <p>GEO insures that the current antenna alignment is posted on the missile guidance console.</p>
6	<p>Communication status..... Checked</p> <p>GEO checks that operational radios are on and set to proper frequency (for HF radio, this includes selecting antenna and upper or lower side band as directed), checks call signs needed and insures that the current voice call sign list (VCSL) is present, and checks status of PAS (SAC and numbered AF) and PAS recorders.</p>
7	<p>Inventory trajectory materials..... Completed</p> <p>The trajectory material listed on the SAC form 151 will be inventoried and the SAC form 151 initialed and signed by GEO.</p>
8	<p>GEO ready for PCE/PCCD changeover..... Reported</p> <p>The GEO will report that he is ready for PCE/PCCD changeover after he has accomplished the preceding steps.</p>
9	<p>PCE/PCCD changeover..... Completed</p> <p>PCE/PCCD changeover will be accomplished in accordance with SACM 55-2, volume III. Missile combat crew members will wear sidearms whenever the PCE/PCCD is in their possession.</p>
10	<p>Command post (MCCC only)..... Notified</p> <p>If the GEO is the missile combat crew commander, he will be responsible for notifying the unit command post in accordance with SACM 55-18.</p>

Figure 3-4. Individual Changeover, Amplified Checklist Procedures
(Sheet 3 of 8)

STEP	PROCEDURE
<u>BALLISTIC MISSILE ANALYSIS TECHNICIAN</u>	
1	<p>Equipment status..... Received</p> <p>The offgoing BMAT will brief the oncoming BMAT on all equipment discrepancies that will adversely affect launch capability. He will identify all discrepancies on safety items, any maintenance in progress, any maintenance that is scheduled, and the reason for any red, amber or abnormal indication on the launch complex facilities console.</p>
2	<p>Positive control materials..... Checked</p> <p>The oncoming BMAT will insure that the following materials are available and current: Copy decode formats, KAA 29 (active and next day), KAC 65 (active and next day), pre-decode format, KLI 12/TSEC and fast reaction checklists.</p>
3	<p>Technical orders..... Checked</p> <p>The oncoming BMAT will insure that all technical orders required to perform missile combat crew duties are available and current.</p>
4	<p>Changeover complete..... Reported</p> <p>When the oncoming BMAT has satisfied all the above requirements, he will report his changeover complete to the MCCC.</p>
5	<p>Forms..... Reviewed</p> <p>As soon as possible after reporting to MLO, the oncoming BMAT will review applicable AFTO Form 209 entries for agreement with status received from the offgoing BMAT. The BMAT will check for correct symbol in AFTO form 207, and will have release signed (if applicable) by MCCC being relieved. After completion of the above items, the oncoming BMAT will brief the MLO on all conditions that could adversely affect a launch. At this time the necessary AFTO forms will be presented to the MCCC for review and exceptional release.</p>

Figure 3-4. Individual Changeover, Amplified Checklist Procedures
(Sheet 4 of 8)

STEP	PROCEDURE
<u>MISSILE MAINTENANCE TECHNICIAN</u>	
1	<p>Maintenance status..... Briefed</p> <p>When maintenance is in progress at the time of changeover, the status of system(s) and launcher area(s) affected will be briefed. Current TCTO/ modification status is checked to determine any new configuration changes to the weapon system.</p>
2	<p>Launcher and propellant system status..... Checked</p> <p>The offgoing MMT briefs oncoming MMT on the overall status of each launcher and propellant system. Propellant system commodities will be reviewed for minimum level requirements.</p>
3	<p>Launcher area access keys..... Available</p> <p>The location of the access keys is ascertained in order to perform required alert status monitoring functions.</p>
4	<p>Fire control and safety briefing guides..... Checked</p> <p>MMT will insure that briefing guides are current.</p>
5	<p>Changeover complete..... Reported</p> <p>The MMT reports to the MLO that his individual changeover is complete. The MLO is advised of discrepancies and recommended corrective actions (if required).</p>
6	<p>AFTO forms..... Reviewed</p> <p>As soon as possible after changeover, all required forms are reviewed to obtain knowledge of maintenance status. Particular attention is given to red X items. Documented items are compared against briefed items.</p>

Figure 3-4. Individual Changeover, Amplified Checklist Procedures
(Sheet 5 of 8)

STEP	PROCEDURE
6 (CONT)	<p data-bbox="300 199 974 231"><u>MISSILE MAINTENANCE TECHNICIAN (Continued)</u></p> <p data-bbox="812 262 876 294">Note</p> <p data-bbox="479 325 1307 514">As soon as possible after reporting to the MLO, the MMT will conduct the fire control and safety briefing. The MMT will insure that the fire control team members are knowledgeable in prescribed team duties. Fire control team members will assist in checking the following equipment:</p> <ul style="list-style-type: none"> <li data-bbox="511 556 1161 619">a. Asbestos suits with suspenders/belts (3 pair) and asbestos gloves (3 pair) <li data-bbox="511 651 933 682">b. Asbestos hoods (3 each) <li data-bbox="511 714 901 745">c. Safety belts (2 each) <li data-bbox="511 777 933 808">d. Gox Analyzer (portable) <li data-bbox="511 840 1096 903">e. Nylon life line (10 feet minimum) (2 each) <li data-bbox="511 934 1112 997">f. Self contained breathing apparatus (1 per team member) <p data-bbox="300 1039 909 1071"><u>ELECTRICAL POWER PRODUCTION TECHNICIAN</u></p> <p data-bbox="812 1102 876 1134">Note</p> <p data-bbox="479 1165 1226 1354">The offgoing senior EPPT will insure that the power generation equipment, logs, charts, and status boards (if applicable) are properly prepared for crew changeover. The senior oncoming EPPT will be responsible for power production crew changeover in the power house.</p> <p data-bbox="203 1386 1388 1417">1 Briefing by offgoing senior EPPT..... Accomplished</p> <p data-bbox="332 1449 1112 1575">The offgoing senior EPPT will insure all required personnel and forms are available for changeover. The offgoing senior EPPT will review with his oncoming counterpart the following items:</p> <ul style="list-style-type: none"> <li data-bbox="365 1606 584 1638">a. AFTO forms <li data-bbox="365 1669 487 1701">b. Logs

Figure 3-4. Individual Changeover, Amplified Checklist Procedures
(Sheet 6 of 8)

STEP	PROCEDURE
<p>1 (CONT)</p>	<p><u>ELECTRICAL POWER PRODUCTION TECHNICIAN (Continued)</u></p> <ul style="list-style-type: none"> c. Charts d. Status boards e. Switchgear f. Fuel g. Lubrication h. Vapor phase i. Starting air compressor j. Generator k. Exciters l. Deep well pumps m. Treated water system n. Chillers o. Utility air compressor
<p>2</p>	<p>Power house walk through inspection..... Accomplished</p> <p>The EPPT and his counterpart will visually check BOI seals and general condition of the power generation equipment.</p>
<p>3</p>	<p>Briefing by power house supervisor..... Received</p> <p>The power house supervisor will brief the oncoming EPPT on what maintenance is scheduled and how it could affect the operation during a launch or exercise.</p>
<p>4</p>	<p>Crew changeover and equipment status to MLO..... Reported</p> <p>The EPPT will contact the control center and inform the MLO of the following:</p> <ul style="list-style-type: none"> a. Crew changeover completed b. Power house status

Figure 3-4. Individual Changeover, Amplified Checklist Procedures
(Sheet 7 of 8)

STEP	PROCEDURE
5	<p><u>ELECTRICAL POWER PRODUCTION TECHNICIAN</u> (Continued)</p> <p>Facilities personnel..... Briefed</p> <p>The senior EPPT will brief the missile facilities team as to their duties during EWO countdown.</p>

Figure 3-4. Individual Changeover, Amplified Checklist Procedures
(Sheet 8 of 8)

(Text continued from page 3-4.)

3-25. Personnel will be briefed on the primary and secondary escape routes. The primary route is through the portal silo. The secondary route is through the escape hatch at tunnel junction 13.

3-26. FIRE TEAM. The fire team is comprised of the launch crew MMT and two facility team members. After the operations/special activities briefing, the MMT will brief the facility team members on fire fighting duties.

3-27. ALERT ASSIGNMENT (EWO). The site commander or MCCC will designate alert assignments as follows:

a. Maintenance personnel will report to maintenance officer or supervisor in maintenance ready room.

b. Guards will implement 190 plan.

c. Cooks remain in mess hall.

3-28. COMMUNICATION PROCEDURES. For any alert, MCC and maintenance monitor will check in on countdown maintenance net. When contacting control center, report name, location, and job assignment of person requiring entry to a specific area. The emergency phones will be used in the event of actual emergencies only.

3-29. CREW PROCEDURES AND COORDINATION. The alert status monitoring will be conducted by designated individuals and directed by the MCCC and in accordance with applicable technical data.

3-30. The maintenance officer or supervisor will brief the personnel on scheduled maintenance and will keep the MCCC informed as to progress of maintenance being performed. During any alert, the maintenance monitor will check in to the MCCC on the maintenance net and give the status of maintenance being performed and personnel involved.

3-31. The complex commander or supervisor will insure that all maintenance personnel have proper technical data, tools, clothing and have been briefed on safety and hazardous conditions prior to dispatch.

3-32. TRAINING. The MCCC or maintenance supervisor will brief crew members on training to be accomplished during the duty shift.

3-33. SPECIAL ACTIVITIES BRIEFING.

3-34. The special activities briefing will only be given when a special activity is scheduled. In this situation the site commander, duty crew and the facilities maintenance personnel will attend. The briefing will be conducted by the site commander with special subjects augmented by other responsible personnel. The special activities briefing will consist of, but not be limited to, the following items:

a. Sequence of events.

b. Procedures; the activity to be accomplished and personnel required.

- c. Special instructions; controller peculiar items and fast reaction messages.
- d. Communications; site net assignments and communications in commission status.
- e. Coordination; weather, VIP's expected (if any) and higher headquarters commitments.
- f. Technical data available and current.
- g. Back out procedures to be utilized in event of malfunctioning equipment during the activity or in event of an EWO commitment.
- h. Specialized briefings on safety, standardization, (if applicable), and fire control.

3-35. PERSONNEL CONTROL.

3-36. This procedure is designed to control the movement of personnel within the complex. The MCCC will control the access of all personnel to the alert launchers. The maintenance officer or supervisor will control the access of all personnel to the launchers that are not on alert. A member of the MCC will log movement of personnel in and out of all alert launchers. The maintenance officer or supervisor will assign someone to maintain a log of personnel movement in and out of all launchers not on alert.

3-37. REPORTING PROCEDURES. Each individual will contact the control center prior to entering or departing an alert launch emplacement or the antenna terminal/silo. A supervisor may report for individuals assigned to his team. For movement from one area to another, such as from the missile silo to equipment terminal, each individual will keep the control center advised of his movements (alert launchers only). Individuals will report their name, destination, task to be performed, and effect on the weapon system.

3-38. Whenever personnel enter the missile silo, the control center will be notified and the AUTO FOG DISABLE on the LCFC will be pressed to amber. Personnel will then press FAIL DRY at the missile silo entrance to lighted. When departing the missile silo, personnel will notify the control center, the AUTO FOG DISABLE will be pressed to not lighted, and FAIL WET at the silo entrance will be pressed to lighted.

3-39. CONTINGENCY PROCEDURES.

3-40. Contingency procedures will consist primarily of required actions necessitated by broken arrow, bent spear, and dull sword, seven high/redskin. In the event of an accident or incident involving a nuclear warhead, the MCCC directs appropriate actions as listed in figure 3-5. In an exercise, the MCCC will insure that initial announcements to the agencies concerned identifies the nuclear incident as simulated or practice.

3-41. BROKEN ARROW (nuclear accident). An unexpected event involving nuclear weapons or AEC components that results in detonation (nuclear or non-nuclear), radio-active contamination, loss or destruction of AEC components or a public hazard is defined as broken arrow. T.O. II-N-41 contains definitions of nuclear and non-nuclear components.

STEP	PROCEDURE
	<p>Note</p> <p>It is mandatory that no one be permitted to move, test, inspect, change or destroy evidence until the accident investigators arrive, or until a release is given by the accident board president or wing director of safety. The site commander or MCCC may initiate an assessment of the damage.</p>
8	<p>Time of incident (local time)..... Reported</p> <p>After initial emergency actions are completed, the above report and all following reports will be provided to the wing command post (if applicable).</p>
9	Location (site and specific area)..... Reported
10	Access point established (location and time)..... Reported
11	1500 foot cordon established and guards posted..... Verified
12	Name, rank, location of on-scene coordinator..... Reported
13	Personnel injured, degree of injury and disposition (names, if available)..... Reported
14	Equipment/item(s) involved..... Reported
15	Degree of damage..... Reported
16	EWO capability..... Reported
17	Activity in progress at time of incident..... Reported
18	Probable cause such as material deficiency, or human error..... Reported
19	Weather conditions (including wind direction)..... Reported
20	Status of weapon system and present local time..... Reported
	<p>Note</p> <p>When problem is resolved and the situation returns to routine status, the complex is returned to normal alert.</p>
21	Return above ground warning system to normal..... Accomplished

Figure 3-5. Broken Arrow, Bent Spear, and Dull Sword Procedures (Sheet 2 of 3)

STEP	PROCEDURE
22	Termination of emergency condition..... Announced
23	Wing command post..... Notified Report to wing command post when site has returned to normal alert.

Figure 3-5. Broken Arrow, Bent Spear, and Dull Sword Procedures (Sheet 3 of 3)

3-42. **BENT SPEAR** (nuclear incident). An unexpected event that results in damage, malfunction or failure of a nuclear weapon or component to the extent that rework or complete replacement by AEC is necessary to render the weapon safe is defined as bent spear. In addition, bent spear may be an event which requires examination of nuclear weapon(s) or component(s) by the AEC to insure operational capability and nuclear safety.

3-43. **DULL SWORD** (nuclear safety deficiency). An unexpected event or procedure that could contribute to a nuclear accident/incident as a result of nuclear safety deficiencies is defined as dull sword. These deficiencies are as follows:

a. Damage to a nuclear weapon that USAF field units are authorized to correct, such as bent fins or scratches.

b. A deliberate unauthorized act which degrades the reliability, safety, or security of nuclear weapons.

c. Failure/malfunction of handling, loading, storage, maintenance, transportation, and test equipment.

d. Damage/malfunction of suspension and release systems when a nuclear weapon is involved.

e. Lightning strikes on missile, or ground handling equipment loaded with a nuclear weapon; or any time the commander suspects that lightning has degraded the safety or reliability of a nuclear weapon system.

f. Failure of personnel to adhere to established nuclear safety procedures.

g. Circumstances affecting nuclear safety that are deemed reportable by the MCCC.

3-44. **SEVEN HIGH/REDSKIN NOTIFICATION SYSTEM.**

3-45. The initial onset of widespread and coordinated sabotage or covert action could indicate the initiation of a surprise enemy attack of major magnitude against this nation. The most essential item of the notification system is the speed with which valid seven high and redskin reports reach higher headquarters. These reports must be associated strictly and solely with threats to the elements of the retaliatory strike force and its capability to launch. All personnel performing duty at the complex have initial responsibility to report to the MCCC upon detection of an incident that falls within the seven high/redskin category. Personnel will call the MCCC directly, inform him of the condition, and provide a complete description of the incident and its location. The MCCC will then take immediate action in accordance with figure 3-6.

3-46. **SEVEN HIGH.** Seven high is a spontaneous oral report transmitted with high priority from base or unit level up the chain of command to signify that an extraordinary event has occurred which appears to be capable of adversely affecting the capability to launch, and the person detecting it could not clearly and immediately rule out a possibility of sabotage or covert action.

STEP	PROCEDURE
	<p>REPORTING METHODS:</p> <p>Primary communications dial _____</p> <p>Secondary communications dial _____</p> <p>Tertiary communications non-tactical radio net _____ (dial numbers will be written in for easy reference).</p>
1	<p>Seven high or redskin condition..... Received</p> <p>Any individual performing duty at the sites will initially report to the MCCC any incident falling in this category.</p>
2	<p>Launch complex..... Alerted</p> <p>The MCCC alerts personnel so they can increase security alertness and perform a thorough search of the area.</p>
3	<p>CSC/command post..... Notified</p> <p>The MCCC notifies the CSC/command post of the conditions and events at the complex.</p>
4	<p>Personnel briefed and dispatched..... Accomplished</p> <p>MCCC briefs personnel and dispatches them to the scene of the incident.</p>
5	<p>Evaluate condition and record findings..... Accomplished</p> <p>MCCC evaluates conditions based on reports, and records all pertinent information.</p>
6	<p>Based on evaluation; cancellation, upgrade condition, or continue condition..... Requested</p>
7	<p>Assistance (if necessary)..... Requested</p>
8	<p>Action taken under step 6 above, to CSC/command post..... Reported</p>
9	<p>Site personnel advised of action taken under step 6 above..... Notified</p>

Figure 3-6. Seven High/Redskin Notification Procedures

3-47. REDSKIN. A redskin report signifies one or more of the following:

a. That an event capable of adversely affecting the capability to launch has been detected and rapid investigation has revealed enemy sabotage action.

b. That an event capable of adversely affecting the capability to launch has occurred which is of such a serious and suspicious nature, that even without investigation, enemy sabotage or covert action appears highly probable.

c. That the wing is implementing annex A (sabotage alert) to operations plan 190-____.

3-48. SERIOUS ILLNESS OR INJURY.

3-49. To insure prompt and positive action by responsible personnel in the event of a serious illness or injury at missile sites, it is necessary for the illness or injury to be reported to the MCCC immediately. The MCCC will evaluate the incident and take immediate corrective action in accordance with figure 3-7.

3-50. SEVERE WEATHER REPORT PROCEDURE.

3-51. When severe weather develops at the site, the MCCC on duty will forward all pertinent known information to the unit command post, utilizing figure 3-8 as a guide.

3-52. Deleted.

3-53. Deleted.

3-54. EXIT PROCEDURES (Operational Bases).

3-55. After completion of crew changeover the offgoing crew will assemble in the lower level of the control center and proceed to the revolving portal. When all crew members are at the revolving portal a member of the offgoing crew will call the on-duty crew to have the door unlocked. The offgoing crew will then proceed through the door. The last man through the door will call the on-duty crew to report the portal area is secured and to request permission to depart the area. The off going crew then proceeds to the fence gate where they call the on-duty crew to have the fence gate unlocked. After passing through and locking the gate, the offgoing crew will report to the on-duty crew that exiting is complete, the gate is locked, and the crew is departing the site.

3-56. RADAR SURVEILLANCE SYSTEM (Anti-intrusion) (See figures 1-71 thru 1-76).

3-57. The AN/TPS-39(V) radar surveillance system procedures include starting and stopping procedures, operating procedures, system functions, and security functions required for MCCC radar surveillance.

STEP	PROCEDURE
	<p>Note</p> <p>This procedure can be implemented by any responsible person in the control center who receives a report of serious injury or illness. Upon receipt of a report of this nature, dispatch the medically trained first aid man to the scene immediately.</p>
1	<p>Report of findings..... Received</p> <p>A report of the findings from the trained first aid man or other person at the scene is received in the control center.</p>
2	<p>Flight surgeon and command post..... Notified</p> <p>The flight surgeon and the command post are notified of the nature of the injury or illness.</p>
	<p>Note</p> <p>After duty hours call EXT. _____ Medical officer of the day.</p>
3	<p>Course of action instructions..... Received</p> <p>The course of action to be taken for the patient(s) is received from the flight surgeon or medical officer of the day (OD).</p>
4	<p>Action taken or directed..... Completed</p> <p>The course of action received is accomplished as outlined by the flight surgeon or medical OD.</p>
5	<p>Contact command post for assistance..... Contacted (Direct line or EXT. _____).</p> <p>The command post is contacted and requests made for type of transportation, number of personnel to be transported and the destination (base dispensary or general hospital.)</p>
6	<p>Time of incident..... Reported</p> <p>Command post is provided the above information, and all following task reports, after initial actions have been taken to care for and evacuate patient(s).</p>

Figure 3-7. Serious Injury or Illness Checklist Procedure (Sheet 1 of 2)

STEP	PROCEDURE
7	Personnel involved and extent of injuries (name, rank, position)..... Reported
8	Probable cause (material deficiency, human error)..... Reported
9	Replacement personnel (if necessary)..... Requested
10	Estimated effect on EWO capability..... Reported
11	Name, rank, position of replacement individual..... Reported

Figure 3-7. Serious Injury or Illness Checklist Procedure (Sheet 2 of 2)

STEP	PROCEDURE
	<u>WEATHER REPORT CHECKLIST</u>
1	This is _____ (CP-SITE)
2	Type of weather (tornado, hail, winds) _____
3	Damage incurred (if any) _____ _____
4	Effect on EWO capability (if known) _____
5	Estimated time to repair damage _____ _____
6	Immediate assistance required and from whom _____ _____
7	Personnel status (casualties) _____ _____
8	Other information, remarks, or requirements _____ _____
9	Command post notified _____ _____

Figure 3-8. Severe Weather Report Procedure

3-58. STARTING PROCEDURE. To turn on the equipment, insert the proper fuses into their respective holders.

3-59. STOPPING PROCEDURE. To stop the equipment, remove the fuses. See figures 1-72 and 1-75 for fuse locations.

WWW.CHROMEHOOVES.NET

Note

If primary power to the system is turned off, the emergency batteries will automatically continue system operation. Only removal of the fuses will stop the equipment.

3-60. OPERATING PROCEDURES. When an alarm signal is generated, the SYSTEM RESET pushbutton on the annunciator panel is pressed to reset the equipment. If the alarm continues for more than 60 seconds after the system has been reset, the surveillance area will be investigated for intruders. The alarm bell is silenced by pressing the BELL OFF pushbutton on the annunciator panel; however the ALARM indication on the annunciator panel will remain lighted until the equipment is reset. If it is determined that the alarm was not caused by an intruder or other object that by its size and speed of movement could simulate a human intruder, the SYSTEM RESET pushbutton should be pressed again. If the alarm continues for more than 60 seconds after the SYSTEM RESET pushbutton is pressed, assume that there is a malfunction in the equipment, and perform maintenance procedures.

3-61. SYSTEM FUNCTIONS. After an intrusion alarm has been investigated, either one of two reset switches located on the receiver group case and the annunciator panel can be used to reset the system. When the reset switch located on the receiver group is closed, an input signal is supplied to the reset delay circuit. The reset delay circuit delays the system reset long enough to allow the investigating guard to leave the surveillance area. At the end of the delay period (approximately 60 seconds), the reset delay circuit supplies a reset signal to the annunciator. The reset switch on the annunciator provides an instantaneous reset of the system, and is connected to the receiver in such a way that it bypasses the delay circuit. After a system test, it is not necessary to delay a reset. For this reason a long reset period disable circuit is provided in the receiver. The system test relay energizes this circuit at the time a system test is initiated.

3-62. The annunciator circuits and components indicate the condition of the AN/TPS-39(V) system. An annunciator power supply and battery pack provide power for the annunciator. A remote alarm bell and an alarm indicator, located on the control console, are also operated from the annunciator.

3-63. The annunciator contains an alarm tone receiver for each remote receiver in the system. Also included are an alarm gate, a SYSTEM TEST pushbutton switch, a SYSTEM RESET pushbutton switch, a BELL OFF pushbutton switch, a one-shot multi-vibrator, and relays to control the alarm bell and light.

3-64. A set of three indicators, (red, green, and amber) and a SECURE/ACCESS switch are provided on the front panel of the annunciator for each remote receiver. These indicators are controlled by a relay and the SECURE/ACCESS switch. During the time the tone signal is received from the tone oscillator in the remote receiver, the relay is energized and the green SAFE indicator is lighted signifying

WWW.CHROMEHOOVES.NET

a secure condition. When the SECURE/ACCESS switch is set to ACCESS, the green indicator goes out and the amber ACCESS indicator lights amber. If the tone from the remote receiver is interrupted, the relay connected to the tone receiver is de-energized, and the red ALARM indicator lights denoting a possible intrusion.

3-65. A BELL OFF pushbutton on the annunciator panel enables operating personnel to turn off the alarm bell. The indicators, (one on the control console indicating an alarm, and one on the annunciator indicating which receiver caused the alarm) are not affected by the BELL OFF pushbutton.

3-66. The SECURE/ACCESS switch disables the alarm signal from the tone receiver. When the switch is in the ACCESS position, a secure input is provided to the alarm gate regardless of the condition of the remote receiver. This enables operating personnel to enter the surveillance area without causing an alarm.

3-67. The SYSTEM TEST pushbutton located on the annunciator panel initiates a system test. The SYSTEM TEST switch is common to all remote receivers in the system. To check a specific receiver for proper operation, the SECURE/ACCESS switches for the other receivers in the system are set to ACCESS. This disables the alarm inputs from these receivers. Thus, when the SYSTEM TEST pushbutton is pressed, operating personnel can determine that the alarm was caused by the receiver under test. The receiver resets automatically if it is operating properly.

3-68. The SYSTEM RESET pushbutton enables operating personnel to reset the system at the annunciator instead of at the remote receiver.

3-69. SYSTEM FAIL-SAFE CAPABILITY. The AN/TPS-39(V) radar surveillance system is designed to be fail-safe. If a system malfunction occurs, an alarm is indicated requiring guard personnel to investigate and reset the equipment. Thus the restricted area is not left without detection coverage during a system malfunction.

3-70. The receiver utilizes a fail-safe circuit to detect a transmitter malfunction and provide an alarm signal to the annunciator. The annunciator circuits are designed to detect receiver malfunctions. If the tone signal from any remote receiver in the system is not received by the appropriate tone receiver, the tone receiver furnishes an alarm input to the alarm gate. Relays in the annunciator are connected in the normally energized position. In this manner, if the relay fails, it becomes de-energized and provides an alarm input to the alarm gate.

3-71. SECURITY PROCEDURES.

3-72. The monitoring panel for the anti-intrusion alarm system will be under the surveillance and control of the MCCC or his deputy at all times. The MCCC will also control access in accordance with command code control procedures.

3-73. A member of the missile combat crew located in the launch control center will be assigned the responsibility of access controller. This MCC member will monitor the anti-intrusion alarm system, as well as the surface surveillance TV, where it is installed, and will notify CSC at the support base if he needs assistance to determine causes of alarms.

3-74. Upon receiving notification from the access controller at the site, CSC at the support base will inform the MCCC at the site to be visited, the composition, purpose, departure time, and mode of transportation of visitor(s). Upon arrival at the access gate the visitor calls the MCCC to announce his arrival. The MCCC or

his designated representative will determine if the individual(s) are those who have been announced by CSC or whether a duress condition exists. Upon favorable completion of this pre-emptory identification the MCCC or his representative will activate the gate unlocking mechanism and monitor the relocking of the access gate after visitor(s) have entered the site.

3-75. During no-notice inspections, the command post controller will advise the MCCC of the name, rank, AFSC and the inspector's SAC form 138 number. The MCCC will authenticate the call from the command post. Upon arrival, the inspector will call the MCCC from the access gate telephone and identify himself. The MCCC will dispatch a crew member to the access gate to check the inspector's credentials and then notify the MCCC that the inspector is as represented. The MCCC will then immediately release the access gate lock to admit the inspector.

3-76. Should an individual requesting access fail to properly identify himself or should the duress code be passed, the MCCC will immediately transmit a seven high report to CSC at the support base. If mobile maintenance team members are close by, the MCCC will direct them to apprehend the individual(s) concerned. Should the seven high report be resolved, the MCCC will call in a cancellation of same to CSC so the mobile strike team (MST) may be recalled.

3-77. Upon departure of an individual from the underground complex, the MCCC will not release the lock on the inner door of the entrapment area until the entrapment area has been viewed by the TV camera to determine that it is unoccupied. Should access control equipment (door controls and TV) be inoperative due to failure of components or loss of power, one of the combat crew members will go the access control station to identify persons desiring access.

3-78. Whenever a site is softened, access to the site will be controlled by a surface guard under the direction of the MCCC.

3-79. Whenever command defense force (CDF) guards are manning a complex, they will maintain radio contact with the MCCC by way of portable radios.

3-80. The MCCC must establish procedures to insure that uncleared contractor personnel do not have access to classified components or information. Pictures of individual utility contractors who have a requirement for frequent access to the complex will be provided so the MCCC can positively identify them prior to authorizing access. MCCC will be responsible for determining the qualifications and/or requirement for access of contractor personnel who do not process through the code control center. The MCCC will notify CSC at the support base of the presence and departure of contractor personnel.

3-81. When the anti-intrusion alarm system initiates an alarm condition, the MCCC or his representative will perform the following procedures:

- a. Press the alarm reset pushbutton to clear the alarm.
- b. Immediately notify CSC at support base of a seven high condition.
- c. Insure all blast doors are closed and locked.
- d. Check the portal entrapment area on the TV monitor to see if anyone is attempting to enter the complex.

e. Where surface TV coverage is available, scan the surface area as a means of determining the cause of the alarm.

f. Notify any mobile maintenance team known to be in the area and request that they ascertain the security status of the surface of the complex.

g. When the MST or mobile maintenance team arrives at the access gate and are properly identified, open the gate on receipt of the code word so they may search the surface.

h. When the MST or mobile maintenance team has searched the surface area and is assured there are no unauthorized persons or obvious sabotage devices, the chief of the MST or mobile maintenance team will contact wht MCCC either by radio or the portal telephone and advise the MCCC the security status of the surface. The MCCC will again identify the caller and if satisfied there is no duress, dispatch a member of the MCC to the surface to technically survey the surface area to insure again that nothing on the surface has been disturbed.

i. Notify CSC that the seven high is cleared.

j. If the alarm condition is determined to be caused by equipment failure the MCCC will:

(1) Turn off the faulty equipment.

(2) Notify CSC of the faulty equipment situation and request surface guards be posted.

(3) Notify communications-maintenance of the equipment failure and request immediate corrective action.

(4) Direct the two man MST that responded to the original alarm that they must remain at the complex until relieved by the CDF guards for surface protection during the alarm maintenance.

(5) Upon re-instatement of the alarm equipment, notify CSC that the equipment is operational and surface guards may be relieved.

3-82. If the person requesting access to the site passes the duress code word to the MCCC during initial identification procedure on the telephone at the access gate, the MCCC will perform the following procedures:

a. Immediately notify CSC that the duress condition exists (seven high).

b. Release the outer access gate lock and request the visitor to proceed to entrapment portal for further identification.

c. When contacted the second time from the outer door to the entrapment area, request verification of the visitor's identity and ask for the code word. If duress code is again passed (if duress still exists) the locking device for the outer door to entrapment area should be released so visitor and anyone with him may enter the entrapment area where they can be seen on the closed circuit TV.

d. Do not release locking device on inner entrapment door until completely satisfied no duress condition exists.

- e. Lock the outer door of entrapment area.
- f. Offer the visitor some excuse for not opening the inner door.
- g. If uncertain as to duress condition, hold the visitor and/or other persons in the entrapment area until MST arrives.

3-83. ALERT STATUS MONITORING.

3-84. To insure immediate launch execution capability and to ascertain complete status of the weapon system, alert status monitoring procedures will be performed on the weapon system by each changeover or shift replacement crew and/or at intervals as directed. In addition to these required procedures, maintenance assistance may be rendered by combat crew personnel when applicable, provided such assistance does not interfere with EWO commitments. Normal console monitoring, equipment status monitoring, and general complex functions will be accomplished during normal tour of duty. Figures 3-9 thru 3-14 list procedures for each combat crew member to perform as an integral part of maintaining alert status. Other data checks included in alert status monitoring are weather information, index of refraction, and launch site targeting.

3-85. WEATHER INFORMATION.

3-86. This procedure provides for transmittal of current weather information from the unit command post to all launch control centers. Current weather information will include sky and cloud condition, visibility, millibar reading, wind particulars, and any other weather hazards. The information will be entered on weather charts (figure 3-15) located at each site. A 24-hour forecast will be provided daily. Current weather information will be provided at the following times:

- a. Sunrise plus 1 hour
- b. 1200 hours
- c. Sunset plus 1 hour
- d. 2400 hours

3-87. INDEX OF REFRACTION.

3-88. Provisions are made in the guidance countdown checklist for inserting the current index of refraction. The index of refraction is computed at four specified times daily and it is necessary that the current index of refraction be readily available at the missile guidance console.

3-89. PROCEDURES. (See figure 3-16.) Uncorrected atmospheric pressures will be obtained from the unit command post at one hour after sunrise, noon, one hour after sunset and midnight.

3-90. The correction factor, to be applied to the uncorrected atmospheric pressure, will be maintained at the individual sites. This correction factor will be used to correct the local weather station atmospheric pressure for the difference in elevation of the individual sites.

(Text continued on page 3-89.)