

**BY ORDER OF THE COMMANDER
AIR FORCE SPACE COMMAND**



**AIR FORCE SPACE COMMAND
INSPECTION CHECKLIST 32-15**

1 SEPTEMBER 2000

Civil Engineering

**INTERCONTINENTAL BALLISTIC MISSILE
(ICBM) REAL PROPERTY SYSTEMS
ENGINEERING (UNIT)**

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OPR: CEF (SMSgt Johnny A. Zepeda)
Supersedes AFSPCCL32-0015, 2 Aug 99.

Certified by: CEP (Col Michael H. Schmidt)
Pages: 10
Distribution: F

This checklist reflects Command requirements for Civil Engineer units to prepare for and conduct internal reviews.

SUMMARY OF REVISIONS

This checklist has been revised to decrease the number of critical items and update cited references. A bar (|) indicates a revision from the previous edition.

1. References have been provided for each critical item. Critical items have been kept to a minimum and are related to public law, safety, security, fiscal responsibility, and/or mission accomplishment. While compliance with non-critical items is not rated, these items help gauge the effectiveness/ efficiency of the function.
2. This publication establishes a baseline checklist. The checklist will also be used by the Command IG during applicable assessments. Use the attached checklist as a guide only. AFSPC checklists **will not** be supplemented. Units produce their own standalone checklists as needed to ensure an effective and thorough review of the Civil Engineering Intercontinental Ballistic Missile Real Property Systems. Units are encouraged to contact the Command Functional OPR of this checklist to recommend additions and changes deemed necessary. See Attachment 1.

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The Civil Engineer

Attachment 1

ICBM REAL PROPERTY SYSTEMS ENGINEERING

Table A1.1. Checklist.

SECTION 1: BASE CIVIL ENGINEER			
MISSION STATEMENT: Support missile launch real property/real property installed equipment through quality engineering services.			
<i>NOTE:</i> All references are from AFSPCI32-1005, unless otherwise noted.			
1.1. CRITICAL ITEMS:	YES	NO	N/A
None			
1.2. NON-CRITICAL ITEMS:	YES	NO	N/A
1.2.1. Does the BCE ensure personnel in missile support authorizations are used for this purpose on a priority basis prior to performing other work? (Para 2.1.1)			
1.2.2. Does the BCE work with the SW Commander or designated representative on significant problems? (Para 2.1.2)			
1.2.3. Does the BCE ensure an adequate number of welders are assigned and certified to maintain equipment? (Para 2.1.4)			
1.2.4. Does the BCE ensure missile site structures and grounds not related to hardness, survivability, nuclear surety and launch are maintained per AFI32-1031? (Para 2.1.5)			
1.2.5. Does the BCE ensure Missile Alert Facility (MAF) water utilities are properly permitted for operation per State and Federal regulations? (Para 2.1.6)			
1.2.6. Does the Base Civil Engineer (BCE) ensure personnel supporting the Space Wing (SW) are provided non-technical training as determined locally? (Para 2.1.7, Table 4.1)			
SECTION 2: MISSILE ENGINEERING FLIGHT			
MISSION STATEMENT: Provide depot level maintenance support and assistance in resolving missile operation and maintenance problems.			
<i>NOTE:</i> All references are from AFSPCI32-1005, unless otherwise noted.			
2.1. CRITICAL ITEMS:	YES	NO	N/A
2.1.1. Does the Chief, Missile Engineering monitor the missile additive function to ensure equipment and facilities are maintained IAW AF Instructions, Civil Engineering Manuals (CEMs), weapon system criteria and configuration control, hardness and nuclear surety requirements? (Para 3.1.1.5)			

2.1.2. Does the Chief, Missile Engineering process immediate Facility Change Initiation Requests (FCIRs) which could result in personnel injury or damage to equipment within 24 hours? (Para 3.2.4.1)			
2.2. NON-CRITICAL ITEMS:			
	YES	NO	N/A
*2.2.1. Does the Chief, Missile Engineering approve all FCIRs, Facility Engineering Analysis Tests (FEAT) and RPIE Improvement Reports (AFSPC Form 272, RPIE Improvement Report)? (Para 3.1.1.1)			
2.2.2. Does the Chief, Missile Engineering ensure AFSPC Form 272 is forwarded to AFSPC CEF within 30 days of submittal? (Para 3.1.1.1)			
2.2.3. Does the Chief, Missile Engineering maintain a control log of all FCIR modifications in work or pending (e.g. FEATs, Master Change Logs (MCL), local projects, etc.) scheduling actions and assigns control numbers? (Para 3.1.1.2)			
2.2.4. Does the Chief, Missile Engineering ensure MCL completion packages are submitted to AFSPC CEF? (Para 3.1.1.3 and 3.2.9)			
2.2.5. Does the Chief, Missile Engineering review, evaluate and initiate suggestions requiring Central Engineering Control (CEC) action and forwards to AFSPC CEF? (Para 3.1.1.4 and 3.4.1)			
2.2.6. Does the Chief, Missile Engineering manage engineering designs for local projects/contracts and support special projects as directed by AFSPC CEF? (Para 3.1.1.6)			
2.2.7. Does the Chief, Missile Engineering ensure Work Information Management System (WIMS) Project by Contract Management System (PCMS) files are current? (Para 3.1.1.7)			
2.2.8. Does the Chief, Missile Engineering provide consulting and problem solving services for all agencies performing ICBM life extension work? (Para 3.1.1.8)			
2.2.9. Does the Chief, Missile Engineering investigate and take action in areas causing delay in the performance of MCLs, including material acquisition actions? (Para 3.1.1.9)			
2.2.10. Does the Chief, Missile Engineering perform acceptance inspections of modifications, and/or update of equipment per AFI21-105? (Para 3.1.1.12)			
2.2.11. Does the Chief Missile Engineering approve, develop and distribute local CEM interim technical data changes? (Para 3.1.1.13)			
2.2.12. Does the Chief, Missile Engineering approve requests to weld in ICBM facilities per TO 21M-LGM30F-12? (Para 3.1.1.15)			
2.2.13. Does the Chief, Missile Engineering notify power companies of power outages occurring at Missile Alert Facilities (MAFs) and Launch Facilities (LFs) and work with SW Missile Maintenance Operations Center (MMOC) to restore commercial power? (Para 3.1.1.16)			

2.2.14. Does the Chief, Missile Engineering review Time Compliance Technical Order (TCTO)/Master Change Log (MCL) status reports and reports discrepancies to the SW Plans Section? (Para 3.1.1.17)			
2.2.15. Does the Chief, Missile Engineering observe 5-year elevator inspections? (Para 3.1.1.18)			
2.2.16. Does the Chief, Missile Engineering resolve Material Deficiency Reports against equipment? (Para 3.1.1.19)			
2.2.17. Does the Chief, Contract, Surveillance and Inspection (CSI) monitor all life extension contracts performed on MAFs and LFs and reports discrepancies to the Missile Engineer? (Para 3.1.2.1)			
2.2.18. Does the Chief, CSI maintain an adequate number of trained and qualified inspectors to meet the needs of the contract effort? (Para 3.1.2.2)			
2.2.19. Does the Chief, Missile Engineering coordinate on proposed modifications to RP/RPIE with CEC when such modifications affect the operation of ICBM Support Equipment (SE), impact weapon systems safety, survivability, vulnerability, interface with underground security systems, or modify essential utility service to underground portions of the missile facilities? (Para 3.2.1.1)			
2.2.20. Does the Chief, Missile Engineering ensure changes to as-built drawings are updated and forwarded to AFSPC CEF on all projects? (Para 3.2.1.2 and 3.2.9)			
2.2.21. Does the Chief, Missile Engineering ensure disapproved, temporarily installed equipment/components have been removed? (Para 3.2.2.1)			
2.2.22. Does the Chief, Missile Engineering submit a AFSPC Form 272 for substitute parts within 30 days of installation? (Para 3.2.2.2)			
2.2.23. Does the Chief, Missile Engineering ensure FCIRs are reviewed for applicability, safety compliance, hardness, environmental impact, technical accuracy and compatibility with other Space Wings? (Para 3.2.4.1)			
2.2.24. Does the Chief, Missile Engineering ensure FCIRs are coordinated, documented and filed? (Para 3.2.4.2)			
2.2.25. Does the Chief, Missile Engineering ensure AF Form 719, Historical Record – Diesel-electric Generator and System (or computer generated equivalent) is prepared by the responsible shop for power generation maintenance? (Para 3.3.1.1)			

SECTION 3: OPERATIONS FLIGHT			
MISSION STATEMENT: Ensure missile coded personnel are properly trained to complete missile work orders.			
NOTE: All references are from AFSPCI32-1005, unless otherwise noted.			
3.1. CRITICAL ITEMS:	YES	NO	N/A
3.1.1. Does the Chief, Operations Flight initiate all requests for welding approval at missile facilities and ensures welding operations are conducted per TO 21M-LGM30F-12? (Para 4.1.1.6)			
3.2. NON-CRITICAL ITEMS:	YES	NO	N/A
3.2.1. Does the Chief, Operations Flight ensure BCE discrepancies, with a maintenance priority of 1 through 4, are reported to SW MMOC as soon as possible and that qualified personnel are available for emergency dispatch 24 hours a day? (Para 4.4.1.11 and 4.4.1.7)			
3.2.2. Does the Chief, Operations Flight ensure the effective use of available personnel to complete missile work orders and that assigned missile coded personnel have proper clearance and training to dispatch to LFs and MAFs? (Para 4.1)			
3.2.3. Does the Chief, Operations Flight support the Facility Manager (FM) program? (Para 4.1.1.2)			
3.2.4. Does the Chief, Operations Flight ensure assigned personnel understand and comply with weapon system safety rules? (Para 4.1.1.3)			
3.2.5. Does the Chief, Operations Flight review requests for depot maintenance assistance and make recommendations to the SW? (Para 4.1.1.4)			
3.2.6. Does the Chief, Operations Flight maintain adequate and updated technical data? (Para 4.1.1.5)			
3.2.7. Does the Chief, Operations Flight ensure SW scheduling and status review meetings are attended as directed locally? (Para 4.1.1.7)			
3.2.8. Does the Chief, Operations Flight inform missile engineering of equipment problems associated with priority 1 through 4 maintenance discrepancies? (Para 4.1.1.8)			
3.2.9. Does the Chief, Operations Flight ensure timelines for both military and civilians are adhered to when dispatching to the missile field? (Para 4.1.2.1 and 4.1.2.2)			
3.2.10. Does the Chief, Operations Flight ensure supervisors conduct training programs per AFI36-2201 and that personnel dispatching to MAFs and LFs receive the required non-technical training per table 4.1? (Para 4.1.3.1)			

3.2.11. Does the Chief, Operations Flight ensure the Utilities supervisor (formerly Water and Waste) maintains, reviews, and analyzes the Minuteman Water Utility Operator logs and ensure deviations are investigated and corrected? (Para 4.1.5.1 and 4.1.5.2)			
3.2.12. Does the Chief, Operations Flight ensure the Utilities supervisor maintains proper state permits for LF dewatering systems and the MAFs? (Para 4.1.5.4)			
3.2.13. Does the Chief, Operations Flight ensure requests for missile support maintenance are received by missile scheduling? (Para 4.4.1.1)			
3.2.14. Does the Chief, Operations Flight ensure work packages are built to ensure a full days work combining priority 7 work with higher priority work in coordination with the SW to ensure optimum planning, scheduling, and parts ordering? (Para 4.4.1.3 and 4.4.1.6)			
3.2.15. Does the Chief, Operations Flight ensure Civil Engineering (CE) personnel are scheduled to dispatch and work BCE discrepancies with the SW Periodic Maintenance Team (PMT) as necessary? (Para 4.4.1.8)			
3.2.16. Does the Chief, Operations Flight ensure appropriate reference documents are maintained to plan, schedule, and document equipment inspection, maintenance, or repair? (Para 4.4.1.9)			
3.2.17. Does the Chief, Operations Flight ensure the Expanded Minuteman Data Analysis System (EMDAS)/Improved Maintenance Management Program (IMMP) is utilized for all maintenance documentation unless an alternate method has been approved? (Para 4.4.2.1 and 4.4.2.3)			
3.2.18. Does the Chief, Operations Flight ensure work packages contain a current discrepancy list for each site to be visited and a work order for each job to be done? (Para 4.4.5.4)			
3.2.19. Does the Chief, Operations Flight ensure the long range forecast is provided to the SW for inclusion into the maintenance forecast? (Para 4.4.6)			
3.2.20. Does the Chief, Operations Flight ensure copies of the weekly schedule are provided to the SW for inclusion into the SW maintenance plan with additions and deletions reported to the SW as they become known? (Para 4.4.6.4)			
3.2.21. Does the Chief, Operations Flight ensure technicians are contacting missile scheduling upon completion of assigned tasks? (Para 4.4.7.2)			
3.2.22. Does the Chief, Operations Flight ensure missile scheduling complies with SW procedures during an ORI/LORI? (Para 4.4.7.3)			
3.2.23. Does the Chief, Operations Flight ensure that dispatching personnel brief/debrief with the SW MMOC and Missile Combat Crews (MCCs) as determined locally? (Para 4.4.7.4)			

3.2.24. Does the Chief, Operations Flight notify SW MMOC when work stoppages are projected or detected? (Para 4.5.1.6)			
3.2.25. Does the Chief, Operations Flight prepare budget inputs for weapon system parts/supplies and life extension work (including MCLs)? (Para 4.5.1.7)			
3.2.26. Does the Chief, Operations Flight ensure BCE material control requests all supplies/materials required to complete work orders accomplished by BCE? (Para 4.5.2.1)			
3.2.27. Does the Chief, Operations Flight ensure the Due In From Maintenance (DIFM) monitor manages DIFM and maintenance turnaround (TRN) as outlined in AFMAN23-110? (Para 4.5.3.1)			
3.2.28. Does the Chief, Operations Flight ensure all unserviceable assets generated by BCE and/or SW (when SW repair capability does not exist) are processed through BCE material control? (Para 4.5.3.4)			
3.2.29. Does the Chief, Operations Flight ensure repairable items are processed to the applicable shop/zone within two workdays of receipt by material control using an EMDAS/IMMP work order? (Para 4.5.3.8)			
3.2.30. Does the Chief, Operations Flight ensure the DIFM monitor performs monthly reconciliations with the BCE missile scheduler? (Para 4.5.5)			
3.2.31. Does the Chief, Operations Flight ensure materials/supplies are available to FMs to perform minor maintenance/repair when BCE dispatches are not justified? (Para 4.5.8)			
3.2.32. Does the Chief, Operations Flight ensure Minuteman and Peacekeeper weapon systems are managed by the life of system support concept? (Para 4.5.9)			

SECTION 4: CIVIL ENGINEERING MANUALS (CEM)

MISSION STATEMENT: Provide adequate and current technical data in support of field technicians to resolve maintenance problems.

NOTE: All references are from AFSPCI32-1005, unless otherwise noted.

4.1. CRITICAL ITEMS:	YES	NO	N/A
4.1.1. Does the Chief, Missile Engineering submit by priority message, emergency AFSPC Form 272s to initiate changes to CEMs correcting deficiencies which could result in fatal or serious injury to personnel, extensive damage/destruction of equipment or inability to achieve/maintain operational capability? (Para 5.1.5.1)			
4.1.2. Does the Chief, Missile Engineering ensure the reproduction and distribution of copies of initial message replies (to emergency AFSPC Form 272) to all account holders of the affected CEM? (Para 5.1.5.3)			

4.2. NON-CRITICAL ITEMS:	YES	NO	N/A
4.2.1. Does the Chief, Missile Engineering develop one-time technical data only when required and forwards a copy to AFSPC CEF? (Para 5.1.3)			
4.2.2. Does the Chief, Missile Engineering review AFSPC Form 272s and submit them to AFSPC CEF as required? (Para 5.1.4 and 5.1.5)			
4.2.3. Does the Chief, Missile Engineering ensure local Civil Engineering Manual Interim Changes (CEMICs) are developed in strict adherence to AFSPCI32-1005? (Para 5.1.6)			
4.2.4. Does the Chief, Missile Engineering ensure an adequate number of CEM libraries are maintained to permit sufficient access to engineering and maintenance personnel? (Para 5.2.1)			
4.2.5. Does the Chief, Missile Engineering ensure the master library contain a complete set of CEMs/publications applicable to the Wing? (Para 5.2.1.5)			
4.2.6. Does the Chief, Missile Engineering ensure CEMs are maintained per TO 00-5-2 and AFSPCI32-1005? (Para 3.1.1.11 and 5.2.1.6 through 5.2.1.8)			
4.2.7. Does the Chief, Missile Engineering ensure each MAF has the applicable 21-SM80-19 CEM and is it properly posted and current? (Para 5.2.1.9)			
4.2.8. Does the Chief, Missile Engineering process and maintain a master log showing the current status of AFSPC Form 272s? (Para 5.2.3)			
4.2.9. Does the Chief, Missile Engineering follow-up with SW Quality Assurance (QA) on AFSPC Form 272s not returned within 7 duty days? (Para 5.2.3.2)			
SECTION 5: FLOOD/SNOW CONTROL			
MISSION STATEMENT: Provide snow removal/flood control support through personnel and equipment.			
NOTE: All references are from AFSPCI32-1005, unless otherwise noted.			
5.1. CRITICAL ITEMS:	YES	NO	N/A
5.1.1. Does the BCE provide snow control personnel assets to ensure site accessibility and to preclude follow-on spring flooding? (Para 6.2)			
5.2. NON-CRITICAL ITEMS:	YES	NO	N/A
5.2.1. Does the BCE provide flood/snow control resources in support of the missile weapon system? (Para 2.1.3)			

<p>5.2.2. Does the Chief, Missile Engineering ensure that dispatching teams notify the SW or BCE of site drainage problems (e.g. obstructed drainage culverts, heavily silted ditches, obstructed man-proof barriers and ice/snow dams in ditches) and, if within their capability, take corrective measures and report any other requirements to the BCE for resolution? (Para 6.2.7)</p>			
<p>SECTION 6: MISSILE ACCESS ROADS</p>			
<p>MISSION STATEMENT: Ensure on base routes and AF-owned missile access routes are maintained per AF requirements.</p>			
<p>NOTE: All references are from AFSPCI32-1005, unless otherwise noted.</p>			
<p>6.1. CRITICAL ITEMS:</p>	<p>YES</p>	<p>NO</p>	<p>N/A</p>
<p>*6.1.1. Does the SW Commander (or designated Group Commander) and Missile Engineer confer and review pre-movement requirements prior to the use of an approved access route for a local missile movement? (Para 7.5)</p>			
<p>6.2. NON-CRITICAL ITEMS:</p>			
<p>6.2.1. Is the BCE maintaining on-base routes and AF-owned missile access roads? (Para 2.1.8)</p>			
<p>6.2.2. Does the Chief, Missile Engineering ensure the maintenance of roadways with AF funds is limited to gravel roads? (Para 7.1.2)</p>			
<p>6.2.3. Does the Chief, Missile Engineering initiate Extraordinary Maintenance (EM) requests if no alternate missile routes are available and the local agencies will not have the corrective action completed within an acceptable time frame? (Para 7.2.2)</p>			
<p>6.2.4. When required, does the Chief, Missile Engineering ensure sanding services through Extraordinary Snow Removal (ESR) are only requested for convoy movements? (Para 7.3.4)</p>			
<p>6.2.5. Does the Chief, Missile Engineering ensure proposed changes to Transporter Erector (TE) routes are properly justified and coordinated? (Para 7.4 and Table 7.1)</p>			
<p>6.2.6. Does the Chief, Missile Engineering use the bridge criteria in Table 7.2 to determine the adequacy of existing bridges on access roads to missile sites? (Para 7.7)</p>			

SECTION 7: MAINTENANCE OF MISSILE STRUCTURES AND GROUNDS

MISSION STATEMENT: Maintain missile site grounds and structures in support of missile maintenance through effective erosion and drainage control.

NOTE: All references are from AFSPCI32-1005, unless otherwise noted.

7.1. NON-CRITICAL ITEMS:	YES	NO	N/A
7.1.1. Does the BCE ensure missile site structures and grounds not related to hardness, survivability, sustainability, nuclear surety and launch are maintained per AFI32-1031? (Para 2.1.5)			
7.1.2. Does the BCE maintain the Hardened Intersite Cable System (HICS) right of ways? (Para 2.1.9)			
7.1.3. Does the BCE maintain missile site grounds within the security fence to a degree commensurate with the classification of semi-improved grounds per AFI31-101? (Para 8.2.1)			
7.1.4. Does BCE ensure vegetation within the fenced enclosure of the LF/MAF and sewage lagoons does not exceed a height of eight inches and ensure there is no vegetation growing on the service area? (Para 8.2.2)			
7.1.5. Does BCE maintain topography within the Improved Missile Physical Security System (IMPSS) surveillance area? (Para 8.2.3)			