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Cyberspace

CYBERSPACE SYSTEMS REQUIREMENTS PROCESS AND CYBERSPACE SYSTEMS INTEGRATOR GUIDANCE

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This Instruction is linked to MPTO 00-33A-1001, *General Cyberspace Support Activities Management Procedures and Practice Requirements*, and MPTO 00-33D-2002, *Cyberspace Engineering Installation Activities Management*. This instruction further defines MPTO 00-33D-3005, *Managing the Cyberspace Infrastructure with the Cyberspace Infrastructure Planning System (CIPS) Version 5*. This instruction establishes policies and procedures, and provides guidelines for Air National Guard (ANG) Cyberspace Systems Integrators (CSI) in planning Cyberspace Systems (also known as Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) and Communications and Information (C&I) systems requirements. All included references to CSI are understood to refer to the ANG Cyberspace Systems Integrator-Base Level (CSI-B) unless otherwise stated. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. This publication may not be supplemented at the wing level. NGB-A2/6W is the waiver authority for this publication to include non-tiered compliance items. The authorities to waive wing/unit level requirements in this publication are not applicable. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed of IAW Air Force Records Information Management System Records Disposition Schedule.

SUMMARY OF CHANGES

This document has been substantially revised and needs to be completely reviewed. Major changes include updating office symbols, hyper-links, and policy signature block to reflect current organizations.

Chapter 1

ROLES AND RESPONSIBILITIES

1.1. Purpose. This instruction implements cyberspace systems/equipment activity guidelines. The publication provides direction from NGB/A2/6 to ANG personnel; it identifies activities required to process ANG communications requirements. This instruction applies to personnel working in wing-level C&I systems plans and implementation. It applies to those who are required to plan, install, modify, relocate, or remove Air Force (AF) C&I systems. This instruction provides guidance in standardizing the planning and implementation of C&I systems.

1.2. Objectives. The primary objectives of this instruction are to define the purpose and procedures of the CSI program within the ANG, and to detail the roles and responsibilities of the CSI, assigned wing Communications Squadron/Communications Flights (CS/CF), and the National Guard Bureau (NGB) in the procedures for processing communications requirements within the ANG. This instruction outlines processes, roles, and responsibilities to ensure communications systems/equipment are serviceable and properly configured to meet mission requirements and are compliant with AF architecture and standards. This instruction further defines the processes, roles, and responsibilities identified in MPTO 00-33D-3005 as they apply to ANG. MPTO 00-33D-3005 details the use of the Cyberspace Infrastructure Planning System (CIPS) to document, fund, distribute, implement, and manage the cyberspace infrastructure.

1.3. ANG CSI Program.

1.3.1. The ANG CSI program is managed centrally by the ANG Command Cyberspace Systems Integrator (CSI-C) at NGB/A2/6W, and consists of twenty-seven ANG Base CSIs (CSI-B) personnel located at the fifteen ANG Engineering and Installation Squadrons (EIS).

1.3.2. Each CSI-B is responsible for supporting NGB/A2/6W designated ANG Wings and all the Geographically Separated Units (GSUs) that receive connectivity and IT services from those Wings. Each CSI-B is responsible for directly supporting the IT initiatives and cyberspace systems at their assigned locations.

1.3.3. A CSI council is established and comprised of eight (four primary, four backup) NGB/A2/6W appointed highly qualified CSI-Bs nominated by the field and the CSI-C. Each CSI council member acts as a regional point of contact (POC) and representative for multiple CSI-Bs to provide Tier-1 support for the less experienced CSI-B community and are principle advisors to the CSI-C. NGB/A2/6W will review the CSI Council Charter a minimum of every 3 years.

1.3.4. The main purpose of the CSI-B program is to provide field representation from NGB/A2/6W to each ANG Wing, ensuring all ANG cyberspace systems are consistently designed, implemented, and sustained. Cyberspace systems supported by the CSI program include, but are not limited to, voice switching systems, inside and outside plant infrastructure, networking equipment, long-haul connections, radio systems, and installation network warning systems.

1.4. Responsibilities.

1.4.1. **NGB/A26W will:**

1.4.1.1. Establish and manage downward directed cyber requirements.

1.4.1.2. Allocate funding to support the CSI program to include base visits, Site Activation Task Force (SATAF) visits, training, and required workshop attendance.

1.4.1.3. Ensure documentation to facilitate the completion of the Department of Defense (DoD) Risk Management Framework (RMF) is provided for all applicable downward directed Cyberspace systems.

1.4.1.4. Ensure CSI-B positions are maintained at acceptable fill rates and are performing the intended functions. Should it be determined an EIS is unable or unwilling to fill a position within an appropriate timeframe, A2/6W will work with A2/6C to have the position aligned under another EIS.

1.4.2. **NGB/A26 CSI-C will:**

1.4.2.1. Perform oversight of CSI Program activities.

1.4.2.1.1. Review procedural policies, required directives, and provide general guidance to stakeholders executing the ANG CSI program.

1.4.2.1.2. Develop and manage the Customer Support Questionnaire (CSQ) program for the CSI-Bs.

1.4.2.1.3. Develop and administer the ANG CSI travel and training budget.

1.4.2.1.4. Provide regular CSI-B updates on all downward directed requirement status, work plans, and other AF or NGB-A2/6W initiatives.

1.4.2.1.5. Coordinate with AF System Program Office and ANGRC HQ Staff Functional Area representatives to ensure programs are integrated within ANG and documented in CIPS.

1.4.2.1.6. Monitor major AF directed programs initiatives and demand signals to develop infrastructure program impact assessments.

1.4.2.1.7. Ensure consistency in ANG Wing cyber services through tracking base visits, trip reports, and CSI Customer Support Questionnaires (CSQ).

1.4.2.1.8. Annually review and update ANG Infrastructure Assessment (ANGIA) to ensure captured measurements will satisfy AF/ANG architecture goals and objectives.

1.4.2.1.9. Annually provide AF IMT 1768, Staff Summary Sheet template for Wing Endorsements to the CSI-Bs.

1.4.2.1.10. Annually provide CSI-B with physical visit checklist.

1.4.2.1.11. Review/track completion of ANG Wing Endorsement packages and provide CSI-C endorsement on the AF IMT 1768.

1.4.2.1.12. Coordinate a CSI training muster annually via workshop or by video teleconference (VTC) if funding does not permit onsite training.

1.4.2.1.13. Review technical solutions, identify trends, develop funding strategies, and support ANG implementation schedules.

1.4.2.2. Serve as the ANG functional administrator for all aspects of CIPS.

1.4.2.2.1. Represent ANG to CIPS PMO as working group representative.

1.4.2.2.2. Perform duties of ANG CIPS Organizational Node Administrator (ONA).

1.4.2.2.3. Create and manage annual Work Plans in CIPS to capture, validate, and fund initiatives and unfunded requests.

1.4.2.2.4. Forecast future Information Technology (IT) infrastructure work and identify ANG EI workload opportunities.

1.4.2.3. Provide technical assistance.

1.4.2.3.1. Act as a technical consultant to the ANGRC staff in defining and clarifying MAJCOM cyber requirements.

1.4.2.3.2. Regularly update CSI-Bs on status of ongoing and upcoming projects and initiatives.

1.4.2.3.3. Act as CSI-B avenue to receive Tier 2/3 technical assistance.

1.4.2.3.4. Consult with customer stakeholders to assess the impact of cyberspace initiatives and to identify emerging needs related to ANG assigned weapons systems.

1.4.2.3.5. Perform new initiative specification assessments of PMO and weapon system for discontinuities with AF/ANG architecture, interface requirements and identifying synergy opportunities.

1.4.2.4. Closely coordinate management of CSI-B workforce with host EIS Commanders and Detachment Commanders.

1.4.2.4.1. Create performance measures in January of each year based on observed CSI program execution needs identified in CSQs and positive and negative trends.

1.4.2.4.2. Provide performance measures to all CSI-B supervisors in February of each year.

1.4.2.4.3. Provide EIS CSI supervisor with the NGB-A2/6W assessment of their respective CSI-B performance related to this instruction and received CSQs to address deficiencies and reward excellence.

1.4.2.5. Coordinate with ANG CSI Council to conduct a complete review of the ANGI 17-104 annually and submit any required changes for publication.

1.4.3. **CSI-B Council will:**

1.4.3.1. Review the ANG CSI work to identify training needs.

1.4.3.2. Track completion of CSI Wing ANGIA and annual endorsement packages – report quarterly progress to CSI-C.

1.4.3.3. Support CSI-C effort to gather projected travel costs projection for all CSI-B planned travel.

1.4.3.4. Continually update inside plant (ISP) and outside plant (OSP) IGE tools and distribute to the CSI community.

1.4.3.5. Assist CSI-C in annotating CIPS work plan cost element funding.

1.4.4. **ANG Host CSI Commander will:**

1.4.4.1. Ensure that CSI-B personnel are directly reporting to the ANG Host CSI Commander or the Director of Operations.

1.4.4.2. Ensure all funded CSI-B positions are filled with highly qualified personnel that fulfill the CSI-B responsibilities identified in this instruction, MPTO 00-33A-1001 and MPTO 00-33D-3005. It is the responsibility of the EIS commander to ensure that the assignment of any additional duties or EIS operations do not detract from completing CSI duties as defined in this document and the CSI-B responsibilities are fulfilled without interruption in the event an assigned CSI-B is unavailable to perform duties for more than 45 consecutive days.

1.4.4.2.1. Coordinate performance plan measures with CSI-C prior to start of annual performance rating period.

1.4.4.2.2. Coordinate with the CSI-C at the end of each performance rating period to receive the NGB-A2/6W assessment of their respective CSI-B's performance and addresses performance to correct deficiencies and reward excellence.

1.4.5. **ANG CSI-B will:**

1.4.5.1. Report directly to the ANG Host CSI Commander or the Director of Operations.

1.4.5.2. Provide technical services to assigned ANG Wings and GSUs.

1.4.5.2.1. Collaborate with CS/CF Communications and Systems Information Officer (CSO) on any SATAF working group actions.

1.4.5.2.2. Consult with CS/CF CSO and SCX offices to identify requirements that address cyberspace system deficiencies (e.g., new or ANGIA discovered).

1.4.5.2.3. Provide technical communication engineering, planning, and sustainment services.

1.4.5.2.4. Provide guidance to base functions on fiscal responsibilities regarding cyberspace systems and coordinate with affected agencies as needed to pursue the most cost effective implementation methods for new systems and sustainment of existing equipment.

1.4.5.2.5. Advise CS/CF CSO cost element priority alignment and project timelines.

1.4.5.2.6. Meet with base Civil Engineering (CE) planners as a representative of NGB-A2/6W.

1.4.5.2.6.1. Attend base planning meetings when possible (i.e. Facility Utilization Boards (FUB) and Installation Development Planning meetings).

1.4.5.2.6.2. Review the communications portion of all SRM and Military Construction (MILCON) project design packages.

1.4.5.2.7. Facilitate implementation and sustainment of new and existing cyberspace systems between ANG CS/CF and NGB/A2/6W staff.

1.4.5.2.8. Provide/review (as appropriate):

1.4.5.2.8.1. Independent Government Estimates (IGE).

1.4.5.2.8.2. Statements of Work (SOW).

1.4.5.2.8.3. Performance Work Statements (PWS).

1.4.5.2.8.4. Project Support Agreements (PSA).

1.4.5.2.8.5. Statements of Objectives (SOO).

1.4.5.2.8.6. Quality Assurance Surveillance Plans (QASP).

1.4.5.3. Assist CS/CF work centers .

1.4.5.3.1. Requirement development.

1.4.5.3.2. Technical solutions development with SMEs and NGB-A2/6W engineers.

1.4.5.3.3. Completion of ANGIA.

1.4.5.3.4. Develop a transition strategy and solution for all cyberspace systems deficiencies identified in the ANGIA.

1.4.5.4. Provide Tier 1 CIPS support to ANG cyberspace customers.

1.4.5.4.1. Act as CIPS subject matter expert (SME) and mentor CS/CF personnel in Wing requirement development and submission (MPTO 00-33D-3005).

1.4.5.4.2. Establish CIPS requirement and cost element inputs.

1.4.5.4.3. Ensure solution implementations meet customer needs and adhere to AF cyberspace requirements.

1.4.5.4.4. Ensure that cost elements being considered for NGB funding work plans have supporting artifacts attached (e.g. IGCE, contractor submittals, quotes, etc). **Note**: Form 9's can be changed after submission and will not be accepted.

1.4.5.5. Coordinate with Wing contracting offices on behalf of CS/CF as needed to support acquisition planning and procurements.

1.4.5.6. Project Management.

1.4.5.6.1. Regularly contact NGB-A2/6W project managers to synchronize each Wing's project activities and timelines.

1.4.5.6.2. Coordinate with NGB-A2/6W project managers and engineers on behalf of assigned CS/CF to deploy and employ solutions.

1.4.5.6.3. Perform project management oversight for downward directed cyberspace programs at assigned wings.

1.4.5.7. Assist with communications transport management.

1.4.5.7.1. Monitor circuit tracking and long-haul comm connection validation actions to include voice, data, video, 911, and satellite phones.

1.4.5.7.2. Assist assigned CS/CF with new circuit actions to ensure registration and completion of NGB-A2/6W long haul comm installation coordination actions.

1.4.5.7.3. Assist assigned CS/CF offices with tracking and documenting radio and antenna support preventive maintenance inspection (PMI) actions.

1.4.5.7.3.1. Spectrum authorizations.

1.4.5.7.3.2. Flight-line radios.

1.4.5.7.3.3. Land mobile radios (LMR).

1.4.5.7.3.4. Antenna systems.

1.4.5.8. Communications System Installation Records (CSIR) and architecture records.

1.4.5.8.1. Conduct periodic actions as outlined in Atch 2 with assigned CS/CF to ensure all are maintained and current.

1.4.5.8.2. Completely review and update IT Baseline Architecture worksheet biannually.

1.4.5.8.3. Completely review and update architecture topology diagrams biannually.

1.4.5.9. Engineering Installation Squadron interface.

1.4.5.9.1. Provide project updates and status reports monthly to host EIS CC/CD.

1.4.5.9.2. Consider EIS workload as a preferred solution to fulfill assigned wings infrastructure requirements when possible, based on project scope, budget, and timeline. When an EIS is used, the CSI-B will coordinate with the EIS Project Manager on availability of organic support and to schedule implementation of EIS projects at assigned wings.

1.4.5.9.3. Coordinate organic selected installation method with the associated EI unit Program Manager to make the workload available to EI based on the process defined by the NGB-A2/6C EI Functional Area Manager.

1.4.6. **Communications Squadrons and Communications Flights.**

1.4.6.1. Identify, develop, document approval and validate communications requirements identified as CIPS communications shortfalls and implement in accordance with MPTO 00-33A-1001 and MPTO 00-33D-3005.

1.4.6.2. Document the existing conditions, shortfalls and mission impact for all commodities for respective wing-level ANGIAs in CIPS and CSIR records.

1.4.6.3. Provide all MILCON and SRM design review documents and DD Form 1391 and Allied Support AF Forms 332, to the CSI-B. Local SRM projects involving cyberspace systems infrastructure will also be provided to the CSI-B for review.

1.4.6.4. Develop and submit CIPS cost element(s) requiring funding to applicable work plans by utilizing the proper Program, Program Element Code, and FY information within the cost element. Cost elements attached to work plans must have supporting costing documentation (IGE, LOM, quote, etc.) to be considered for funding.

1.4.6.5. Coordinate annual CSI-B CIPS Endorsement briefings with Wing leadership IAW TO 00-33A-1001-WA-1, para 19.5.4.3.

1.4.6.6. Notify the CSI-B of Wing briefings related to cyberspace system changes, FUBs, SATAFs, construction design meetings, and downward directed program meetings.

Chapter 2

CYBERSPACE SYSTEMS INTEGRATOR PROGRAM

2.1. General. The CSI-B is responsible for providing assigned wings with technical engineering planning and consulting services, technical solutions development assistance, and cost estimates research to support major cyberspace systems initiatives. The ANG CSI-B collaborates with the Wing CS/CF, Civil Engineering (CE), and other base agencies to gather information required to support CIPS documentation.

2.1.1. The CSI-B is the ANG SME in the use of CIPS. To ensure consistency with the ANG plans and consistent application of CIPS Infrastructure Assessment guidance, the ANG CSI-B is the focal point for all technical solutions impacting the Wing cyberspace ITS.

2.2. Travel.

2.2.1. {CSI-B} Provide annual and quarterly estimated travel cost(s) to the CSI-C. The CSI-B's will submit their estimates for the upcoming quarter as directed by the CSI-C. These travel funds will be used for purposes identified on the CSI funds request submitted to NGB/A26W. **Note**: CSI travel may occur outside the scope of normal duty days. For example: Scheduled site visit occurs Monday through Thursday; CSI-B authorized travel days would be Sunday and Friday. Each wing should adjust as appropriate. CSI-C is approval authority for travel requirements (see 2.3.2.5.).

2.2.1.1. Identify calendar blackout dates (each supported site).

2.2.1.2. Identify recurring site visit candidate periods (each supported site: 2x / MOB, 1x / GSU, 1x / 1B1N tenant Wing).

2.2.1.3. Create/submit DTS Authorization (each site visit).

2.2.2. {CSI-B} Coordinate upcoming travel prior to travel (or virtual site visit).

2.2.2.1. Create/Send Arrival Notice to ensure key personnel will be available.

2.2.2.2. Create/Coordinate Agenda (include open action items identified from previous site visits).

2.2.3. {CSI-B} Complete site visit checklist per physical visit.

2.2.4. {CSI-B} Site Visit Closeout Actions - Complete a record of actions completed and suspense actions generated for all on-site and virtual site visits.

2.2.4.1. Conduct CC CIPS Endorsement Briefing(Annual).

2.2.4.2. Create Trip Report (each visit) [CSI-C will provide the trip report format].

2.2.4.2.1. Dates of visit.

2.2.4.2.2. Personnel contacted during the visit.

2.2.4.2.3. Action items requiring coordination with NGB/A2/6W Staff.

2.2.4.2.4. Downward directed requirements.

2.2.4.2.5. Current status of all construction projects.

2.2.4.2.6. Upward generated requirements.

2.2.4.2.7. Listing of items accomplished during the visit.

2.2.4.2.8. Current status of the ANGIA.

2.2.4.2.9. CIPS Endorsement status.

2.2.4.2.10. Action items and suspense dates from visit, to include POCs and due dates.

2.2.4.3. Create DTS Voucher (each site visit/TDY).

2.2.5. {CSI-B} Use VTC or other collaboration tools (e.g., DISA GVS or O365 TEAMS) to accomplish virtual site visits if travel funds are limited or to respond to unplanned needs. Virtual site visits will cover the same areas as an on-site visit. Multiple collaboration sessions may be required to complete the virtual site visit.

2.2.6. CS/CF SCXP Responsibilities Prior/During a CSI Visit:

2.2.6.1. Review CSI provided agenda.

2.2.6.2. Review the current status of all requirements in CIPS. Completed projects should have documentation attached and be closed out. Cost elements that are attached to work plans should be reviewed to ensure their costs are current and that they are applied to the correct work plan based on current FY.

2.2.6.3. Review for completeness, all annotated as-built drawings that show changes to the CSIRs and/or CIPS Visualization Component (CVC) database. Updating these records is a CS/CF responsibility (reference Technical Order (T.O.) 00-33A-1001). If assistance is needed in updating existing drawings, the CS/CF should coordinate with the CSI-B to request organic EI support.

2.2.6.4. Review CIPS work plans to ensure cost elements requiring NGB/A2/6 funding have been included.

2.2.6.5. Review requirements identified during the SATAF process. Verify requirement costs have been included in the SATAF financial plan.

2.2.6.6. The ANG CSI-B will maintain the CIPS database for the ANG wing or unit under the ANG major command section. The focus of the CSI-B is to ensure ANG interests are represented and documented in CIPS.

2.2.6.7. Coordinate with tenant organizations to ensure communication requirements are adequately addressed in CIPS.

2.2.7. Objectives to be accomplished during CSI-B site visit – CS/CF SCX.

2.2.7.1. Review agenda in CSI arrival message.

2.2.7.2. Review CIPS requirement status.

2.2.7.3. Verify work plan attached cost elements costs are current and applied to correct FY work plan.

2.2.7.4. Review annotated as-built CSIR drawings and/or CIPS Visualization Component (CVC) entries match existing conditions (MPTO 00-33A-1001).

2.2.7.5. Review SATAF related costs are included in the SATAF financial plan.

2.2.7.6. For tenant ANG Wings on RegAF or AFRC Installations, coordinate inclusion of ANG requirements in host Installation CIPS database and notify ANG CSI-B to ensure ANG included CIPS entries are properly included and submitted for funding.

2.2.7.7. Coordinate with tenant organizations on ANG MOBs to ensure communication requirements are adequately addressed in CIPS.

2.3. CSI Site Visits.

2.3.1. To maintain close contact with assigned Wings, the CSI-B must conduct site visits to assigned locations. The CSI-B uses these site visits to build relationships with base personnel, update awareness related to the communications systems capabilities/shortfalls and verify communication system installation records (CSIR).

2.3.2. At a minimum, the CSI-B will conduct site visits as follows:

2.3.2.1. Wings Objective quarterly, threshold is two on-site visits and two virtual visits.

2.3.2.2. GSUs annually.

2.3.2.3. One Base One Network (1B1N) Wings Objective quarterly, threshold is one on-site visit and three virtual visits.

2.3.2.4. Combat readiness training centers and remote locations (i.e. Guam, Hawaii, Alaska) semi-annual.

2.3.2.5. Site visit objectives will be four days onsite with a threshold of three days. Five to six days at remote locations.

2.3.2.6. If additional on-site visits are needed, host Wing may be required to provide travel funds.

2.3.3. Review projected SRM/MILCON in Project Data System (PDS) with CF/SCXP and CES/BCE.

2.3.4. Conduct spot check of CSIR records (see Atch 2 for CSIR specifications and frequency).

2.3.4.1. NIPR Data Center.

2.3.4.2. SIPR Data Center.

2.3.4.3. SECRET work areas.

2.3.4.4. Classified Open Storage Facilities (SCIF, SAPF, Collateral).

2.3.4.5. Outside Plant (OSP) MH-Duct Pathways.

2.3.4.6. Main Distribution Frame (MDF) & Building Entrance Facilities (EF) [incl. Grounding/Earthing].

2.3.4.7. Inside Plant (ISP) Cable Pathways.

2.3.4.8. Building Telecomm Equipment Rooms (TR/ER/TER) [incl. Grounding/Earthing].

2.3.4.9. Antenna Support Structures/Antennae [incl. Ground-plane Earthing].

2.3.4.10. Operational Technology, OT (ICS, SCADA, IoT).

2.3.5. Conduct key site stakeholder meetings.

2.3.5.1. MSG (CF/CES/SFS/LRS) [USAF/ANG project status updates].

2.3.5.2. OG (Base Ops, ATC).

2.3.5.3. MXG (CC/MOC).

2.3.5.4. MDG.

2.3.5.5. CC/Cmd Group (XP, Cmd Post, BDOC).

2.3.5.6. Hosted tenant unit(s).

2.3.5.7. GSU(s).

2.3.5.8. Host Unit (ANG Tenants, e.g., 1B1N support agreements).

2.3.6. Review CIPS requirement submissions with customer (CSO/BCE areas).

2.3.6.1. SCX, SCO, CES Work Center Interviews.

2.3.6.2. Mission Needs Statement (capability gap).

2.3.6.3. Mission Impact Statement (justification).

2.3.6.4. Broad Gauge ±25% Cost Estimate (initial and out year sustainment costs).

2.3.6.5. Update CIPS entries (CEs, Infrastructure Assessments, work plan submissions).

2.4. CIPS Endorsement.

2.4.1. The CSI-B will annually conduct a Wing CIPS Endorsement briefing to the Wing Commander. The purpose of the CIPS Endorsement is to inform the Wing Commander of the state of existing/projected cyberspace systems and infrastructure needs. The ultimate intent is to ensure the plan and priorities meet the needs of the Wing and that any alterations to existing systems are understood and supported by the Wing leadership. The ANG CSI-C will provide the AF Technical Order Form (AFTO 330), CIPS 5 Endorsement Checklist template and AF IMT 1768 package updates at the beginning of each fiscal year. At a minimum, the template will include NGB/A2/6W required signatures.

2.4.1.1. The CSI-B will generate AF IMT 1768 package supported by the signed AFTO 330, the CIPS Endorsement briefing, and a copy of the completed ANGIA.

2.4.1.2. Provide proposed endorsement package to CS/CF CSO for approval prior to briefing the Wing Commander.

2.4.1.3. Document CIPS Endorsement approval using AF IMT 1768, Staff Summary Sheet.

2.4.1.3.1. SCX endorses.

2.4.1.3.2. SCO endorses.

2.4.1.3.3. CSI-B validates.

2.4.1.3.4. CS/CC validates.

2.4.1.3.5. MSG/CC or MSG/CV recommends.

2.4.1.3.6. WG/CC or WG/CV approves.

2.4.1.4. Once the Endorsement package is endorsed send the package to the CSI-C for review and signature.

2.5. Site Activation Task Force (SATAF).

2.5.1. {CSI-B} Serve as NGB communications representative to the NGB-A5/8 SATAF Working Group. Attend SATAF virtual pre-site visit planning sessions, site visits, virtual site visits and recurring status calls for assigned Wings.

2.5.1.1. {CSI-B} Develop communication working group agenda, lead discussion of cyberspace systems topics and assist in writing the final SATAF Report.

2.5.1.2. {CSI-B} Provide SATAF report deliverables to NGB-A5/8 and the CSI-C in accordance with identified timelines.

2.5.1.3. {CSI-B} Ensure all required cyberspace systems needs are included in the SATAF financial plan.

2.5.1.4. {CSI-B} Ensure all SATAF communications action items are in CIPS with cost elements.

2.5.1.5. {CS/CF Plans Office} Coordinate with the CSI-B to track/report all open SATAF communications working group action items.

2.6. Technical Solutions, Broad-Gauge Costs, and Independent Government Estimates (IGE).

2.6.1. The CSI-B is responsible for providing or validating technical solutions and cost estimates for CIPS requirements generated at the Wing level. Cost elements developed at the early requirement stage are considered broad-gauge estimates (±25% accuracy) and are for budgetary purposes only. For a detailed cost, the CS/CF and CSI-B will conduct IGE market research.

2.6.2. The IGE represents the total maximum funding required to satisfy the acquisition and installation. The Wing Contracting office will use the IGE to evaluate solicited bid proposals.

2.7. Air National Guard Infrastructure Assessment (ANGIA).

2.7.1. The ANGIA provides a means for identifying cyberspace infrastructure shortfalls compared to target architecture defined in AF and ANG standards.

2.7.2. ANGIA deficiencies will be the source for a requirement and technical solution in CIPS. ANGIA corrections provided through a downward directed initiative will only require verifying cost elements to the requirement in CIPS.

2.7.2.1. ANGIA will be completed annually prior to assembly of Endorsement package.

2.7.2.2. ANGIA criteria used by the CSO and CSI-B will be defined each year by the CSI-C and CSI Council.

2.7.2.3. CSI-B will lead ANGIA completion.

2.7.2.4. CSI-B will coordinate with CS/CF SMEs to ensure accurate data collection.

2.8. MILCON, SRM, and Allied Support.

2.8.1. The CSI-B serves as a technical advisor to the CSO and the Base Civil Engineering function.

2.8.2. {CSI-B} Review all projected MILCON and SRM projects to identify communications needs and propose standards-based solutions associated with Wing CE construction initiatives (ANGETL 15-01-05).

2.8.3. {CS/CF CSO} Coordinate with Wing CE to track the status of all SRM and MILCON projects and get copies of all design drawings and DD Form 1391's to provide to the CSI-B.

2.8.4. {CS/CF CSO} Notify CSI-B of proposed associated CE work and estimated cost and projected construction award year using AF Form 332 or DD form 1391 as applicable.

2.8.5. {CS/CF CSO} Notify CSI-B of all construction planning and design review meetings as early as possible.

2.8.6. {CSI-B} Attend all MILCON/SRM planning and design review meetings in person or virtually.

2.8.7. {CSI-B} Review the 35, 65, and 95 percent MILCON/SRM design packages and provide comments and suggested changes needed to comply with DoD, AF, ANG and industry standards.

2.8.8. {CSI-B} Review and validate communication portion cost estimates of SRM projects.

2.8.9. {CSI-B} Verify SRM and MILCON renovation project user coordination where potential for mission specific requirements may not be satisfied by a typical communications design as detailed in ANG ETL, Whole Building Design Guides, or Unified Facility Criteria.

2.8.10. During the CIPS Endorsement process, the CSI-B will review the the status of CE projects with communications involvement with the Wing CE. This is to ensure CE initiatives identified in the briefing are complete and accurate.

2.8.11. For downward directed communications projects that will require allied support work to be completed by the wing CE office, the CSI-B will coordinate with CE to establish a cost for the allied support work to be completed. A requirement will be generated in CIPS with the cost element for the work to be completed being attached to the Allied Support work plan.

Chapter 3

CIPS CONVENTIONS

3.1. General. MPTO 00-33D-3005 identifies the AF communications requirements process. Only communications requirements impacting ANG Wing cyberspace infrastructure or being submitted for NGB funding will be required to be documented in CIPS. NGB/A2/6W will only consider requirements input in CIPS for future funding or out of cycle funding actions.

3.2. CIPS Naming Convention.

3.2.1. All CIPS requirements and cost elements will be titled using the MPTO 00-33D-3005, Tables 4-2 (Program Requirement Types) and 4-3 (Commodity Requirement Types).

3.3. CIPS Requirement Workflow.

3.3.1. All new cyberspace systems requirements will be processed in CIPS. The following list identifies who is responsible for each action in the CIPS requirement process.

3.3.2. Requirement:

3.3.2.1. Submit – CS/CF-SCX or CS/CF-SCO.

3.3.2.2. Cost element development – CSI-B or SCX.

3.3.2.3. Coordinate with customer to verify cost element meets needs – CS/CF-SCX or CS/CF-SCO.

3.3.2.4. Mark Ready for Approval – CS/CF-SCX or CS/CF-SCO.

3.3.2.5. Approve – CSO.

3.3.3. Funding strategy – CSO and CSI-B.

3.3.3.1. Ensure cost element available to work plan for requirement type – CS/CF-SCX or CSI-B.

3.3.3.2. Submit to wing Unfunded Request list – CS/CF-SCXP.

3.3.3.3. Indicate funding received – CS/CF-SCXP.

3.3.4. Implementation:

3.3.4.1. Create implementation plan and project binder – CS/CF-SCX or CSI-B.

3.3.4.2. Change cost element status to Implementation, Implementation in Progress, Completed – CS/CF-SCX.

3.3.5. Review all Wing CIPS requirements for compliance with AF/ANG specifications – CSI-B.

3.3.6. Develop downward directed requirement invitations for all ANG enterprise initiatives – NGB/A2/6W – CSI-C.

3.4. Cost Elements.

3.4.1. The CSI-B will coordinate with Functional Area Experts to develop an appropriate technical solution and IGE and route to the CS/CF for approval and determination of

implementation method (via contract, self-help, or organic/EIS as detailed in MPTO 00-33D-3005). Create cost elements using the following rules:

3.4.1.1. Separate cost element for each commodity.

3.4.1.2. Separate cost element for each FY.

3.4.1.3. Separate cost element for each funding source (ex A5 and A2/6W).

3.4.1.4. Separate cost element for allied support.

3.4.1.5. Separate organic/EIS cost elements and label appropriately as the beginning of the title of the cost element (e.g., ENG-DS-151ARW-Bldg20 ISP) see **paragraph 3.2** above.

3.4.1.5.1. Engineering manpower (ENG).

3.4.1.5.2. List of materials (LOM).

3.4.1.5.3. Installation manpower (INSTALL).

3.4.1.5.4. Allied support (AS).

3.4.2. Cost element naming will use the same content as the requirements they support with the descriptive title differentiating different infrastructure elements of the overall requirement.

3.5. Work Plans.

3.5.1. Use CIPS work plans to gather funding requests for both upward generated and downward directed requirements – NGB/A2/6W.

3.5.2. Open work plans for specified periods of time – CSI-C and CSI Council.

3.5.3. Submit cost elements to work plans in coordination with the CSI-B – CS/CF.

3.5.4. NGB/A2/6W will create all work plans for NGB, the work plans will include a detailed description of how wing level submissions are to be accomplished.

3.6. Contracting.

3.6.1. Only the designated contracting officer may negotiate with the contractor or modify the terms of the contract.

3.6.2. CSI-Bs are required to complete the Contracting Office Representative (COR) training as identified in **chapter 4** of this document, however ANG CSI-Bs will not be assigned the role of COR for any of their assigned wings. The training is required to allow CSIs to conduct required market research and development of cost elements, IGEs, and SOWs.

3.6.3. CSI-Bs are required to complete SOW training as identified in **chapter 4** of this document. If requested by the CSO, the CSI-B will review the SOW prior to submission to contracting. During the review, the CSI-B will ensure that the SOW addresses the AF and ANG architecture, has clearly stated deliverables, and identifies the performance of a QASP by the government.

Chapter 4

TRAINING POLICY GUIDANCE

4.1. General. CSI-B's require training in the following core areas: IT infrastructure, use of CIPS, project management processes, IT service management, acquisitions/fiscal law, and network cybersecurity. The CSI-C and CSI Council maintain a suggested list of potential CSI-B training that will be reviewed and updated as needed annually. CSI-B host unit commanders will ensure assigned CSI-Bs maintain proficiency.

4.2. Training Outlets.

4.2.1. The following computer-based training courses are on the Defense Acquisition University (DAU) website: **https://www.dau.edu/**.

4.2.1.1. CLC 222: Contracting Officer Representative – must be completed within 6 months from time of hire.

4.2.1.2. CLM 003: Overview of Acquisition Ethics – must be completed within 6 months from time of hire.

4.2.1.3. CLM 031: Improved Statements of Work – must be completed within 9 months from time of hire (must be completed before the CSI can develop acquisition package SOWs).

4.2.2. Initial CSI training – Lightening Force Academy (LFA) Project and Cyberspace Infrastructure Management (PCIM) Course.

4.2.3. -(CSI Council) CIPS training workshop – hosted quarterly through the CSI program.

4.2.4. -(CSI Council) Assist with instruction of PCIM course hosted at LFA.

4.3. Tracking Training. (CSI-C) Schedule and facilitate NGB-A2/6W directed CSI training in conjunction with CSI program review. **Tracking Training.** The CSI council will monitor aligned CSI-B proficiency training and identify specific individual CSI-B training deficiencies to the CSI-C.

KEITH G. MACDONALD, Major General, USAF
Commander, Air National Guard Readiness Center

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 33-322, *Records Management and Information Governance Program,* 23 March 2020

ANGETL 15-01-05, *Electrical and Communications Engineering*, 1 May 2015

MPTO 00-33A-1001, *General Cyberspace Support Activities Management Procedures and Practice Requirements,* 11 December 2023

MPTO 00-33D-2002-WA-1, *Methods and Procedures—Cyberspace Engineering Installation Activities Management,* 5 November 2020

MPTO 00-33D-3005, *Managing the Cyberspace Infrastructure with the Cyberspace Infrastructure Planning System (CIPS) Version 5*, 21 April 2022

Forms

AF Form 847, *Recommendation for Change of Publication*

AF IMT 1768, *Staff Summary Sheet*

AFTO 330, *CIPS 5 Endorsement Checklist*

DD Form 1391, *FY___ Military Construction Project Data*

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instruction

AFTO—AF Technical Order Form

ANG—Air National Guard

ANGIA—ANG Infrastructure Assessment

C&I—Communications and Information

C2—Command and Control

C4ISR—Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance

CE—Civil Engineering

CIPS—Cyberspace Infrastructure Planning System

COR—Contracting Office Representative

CS/CF—Communications Squadron/Communications Flight—

CSI—Cyberspace Systems Integrator

CSI-B—Cyberspace Systems Integrator-Base Level

CSI-C—Cyberspace Systems Integrator-Command

CSIR—Communications System Installation Record

CSO—Communications and Systems Information Officer

CSQ—Customer Support Questionnaire

CVC—CIPS Visualization Component

DAU—Defense Acquisition University

DTS—Defense Travel System

DoD—Department of Defense

EI—Engineering Installation

EIS—Engineering and Installation Squadron

ETL—Engineering Technical Letter

FUB—Facility Utilization Board

FOCA—Fiber Optic Cable Assembly

GSU—Geographically Separated Unit

IAW—In Accordance With

IGE—Independent Government Estimate

ISP—Inside Plant

ITS—Information Transport System

LFA—Lightning Force Academy

LMR—Land Mobile Radio

MDF—Main Distribution Frame

MILCON—Military Construction

NGB—National Guard Bureau

ONA—Organizational Node Administrator

OPR—Office of Primary Responsibility

OSP—Outside Plant

PCIM—Project and Cyberspace Infrastructure Management

PDS—Project Data System

PMI—Preventative Maintenance Inspection

POC—Point of Contact

PSA—Project Support Agreement

PWS—Performance Work Statement

QASP—Quality Assurance Surveillance Plan

RMF—Risk Management Framework

SATAF—Site Activation Task Force

SME—Subject Matter Expert

SOO—Statement of Objective

SOW—Statement of Work

SRM—Sustainment, Restoration and Modernization

T.O.—Technical Order

VTC—Virtual Teleconference

Attachment 2

COMMUNICATION SYSTEM INSTALLATION RECORDS (CSIR)

A2.1. Communication Systems Installation Record (CSIR) Inventory specification:

A2.1.1. diagram(s) showing building siting, antenna siting, and cable OSP cable pathways

A2.1.2. building envelope diagrams showing EF/TR/ER locations and ISP cable pathways

A2.1.3. EF/TR/ER reflected ceiling floor plans (including telecom backboard locations)

A2.1.4. equipment rack/cabinet face elevations (including telecom backboards)

A2.1.5. OSP and ISP cable pathways

A2.1.6. OSP/ISP cable usage/assignments

A2.1.7. OSP/ISP cable test records

A2.1.8. single point grounding system diagrams

A2.1.9. single point grounding test records

A2.2. CSIR Surveillance Frequency (Validate accuracy of CSIR documentation):

A2.2.1. Each visit:

A2.2.1.1. review CSIR inventory

A2.2.1.2. verify site plan shows all buildings, antenna siting, OSP cable pathways

A2.2.1.3. validate OSP Fiber Optic Cable Assembly (FOCA) inventory/usage documentation exists

A2.2.1.4. validate verified OSP FOCA test records exist

A2.2.1.5. verify building envelope and infrastructure spaces are shown for all manned buildings

A2.2.1.6. verify data center reflected ceiling plans are accurate

A2.2.1.7. verify data center rack/cabinet face elevations

A2.2.1.8. verify data center equipment inventory

A2.2.1.9. verify core node inventories

A2.2.2. Annually:

A2.2.2.1. verify building envelope and infrastructure spaces are shown for all manned buildings

A2.2.2.2. verify building drawings show EF backboard and rack face elevation diagrams

A2.2.2.3. verify building TR/ER reflected ceiling floor plan shows FPIs/equipment and backboards

A2.2.2.4. verify TR/ER backboard face elevation show cable terminations and grounding buss connections

A2.2.2.5. verify single point grounding has been inspected in past year

A2.2.2.6. verify OSP FOCA inventory/usage documentation exists

A2.2.2.7. verify OSP FOCA test records exist

A2.2.2.8. verify equipment rack/cabinet face elevation diagrams show all installed equipment

A2.2.2.9. verify non-core node inventories are complete

A2.2.2.10. validate verified ISP FO/Cu Cable usage/test records exist