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OPR: HQ AMC/SCXR
(Mr. Joseph N. Aylsworth)
Supersedes AFI 33-103 AMCS1, 6 May 1995

Certified by: HQ AMC/SCX
(Col Edward D. Seward)
Pages: 8
Distribution: F

AFI 33-103, 18 March 1999, is supplemented as follows: This supplement is applicable to all AMC personnel involved in the identification of communications and information systems requirements and development of technical solutions for non-developmental communications and information systems when projected program costs are \$15 million or less. It sets AMC policy and assigns responsibilities for documenting communications and information requirements and technical solutions. This supplement should be used in conjunction with other Air Force 33-series instructions, as supplemented by AMC. It does not apply to the Air National Guard or Air Force Reserve units. Submit recommended changes to this supplement to HQ AMC/SCXR.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

2.3. HQ AMC/SCXR is the focal point for defining and providing oversight of the process for documenting and obtaining technical solutions for requesting organizations' communications and information systems requirements.

2.8. (Added) AMC Computer Systems Squadron (CSS) provides technical solution support to the communications and information systems officer (CSO) through the AMC network operations and security center and AMC unique systems program managers.

2.9. (Added) AMC functional managers will ensure that communications and information requirements impacting their systems are validated through their respective functional management structure.

3.1. Requesting organizations, including HQ AMC directorates and field operating agencies (FOAs), will submit their requirements to the base CSO using the requirements document specified by the base CSO.

As a minimum, the requirements document must contain the information outlined in paragraph 3.1 of AFI 33-103. The base CSO will assign a sequential control number as described in AFI 33-103, Attachment 2.

3.2.1. Within AMC, the terms “requirements authorizing official” and “requester approval authority” (AF Form 3215-C4 **Systems Requirements Document**) are equivalent. At base level, the requesting organization's commander or appointed communications and information systems manager are designated to fulfill this role. Each AMC headquarters directorate and AMC FOA should appoint an appropriate branch chief to oversee the initiation and validation of their requirements.

3.2.1.1. (Added) Host base approval authority as used on the AF Form 3215 or blueprint phased implementation directive (BPID) is assigned to the wing commander and may be further delegated to the base CSO. The wing commander has authority to approve communications and information requirements whose projected life-cycle costs do not exceed \$1 million.

3.2.1.2. (Added) The Director of Communications and Information (HQ AMC/SC) is delegated authority to review and approve/validate AMC communications and information systems requirements with projected program costs of \$15 million or less. The Chief, Plans, Policy and Resources Division (HQ AMC/SCX) is delegated authority to review and approve/validate AMC communications and information systems requirements with projected life-cycle cost of \$5 million or less. The Chief, Financial Management and Requirements Branch (HQ AMC/SCXR) is delegated authority to review and approve/validate AMC communications and information systems requirements with projected life-cycle cost of \$1 million or less.

3.3. Each AMC base CSO will determine whether to adopt the AF Form 3215 or develop an alternative requirements document for local base usage. Any locally developed requirements document will be limited to requirements which may be approved at base level according to the authority delegated by this supplement.

3.3.1. (Added) The AF Form 3215 will be used for those requirements which must be approved through the MAJCOM CSO. Therefore, any communications and information systems requirement whose projected life-cycle cost exceeds \$1 million, impacts multiple AMC locations, or impacts an AMC unique system or another lead command's system will be forwarded along with a proposed technical solution to HQ AMC/SCXR. Include an economic analysis (EA) when expected investment costs exceed \$1 million if appropriated funds, or \$100,000 if transportation working capital funds (TWCF). Refer to paragraph [4.1](#) for EA guidance.

3.3.2. (Added) Requirements that are forwarded to HQ AMC/SCXR must contain coordination by senior level management of the requesting organization. The “requester approval authority” block of the AF Form 3215 will be used to document this coordination. For requirements generated by an AMC base level unit, signature by the unit commander is required. For requirements generated by HQ AMC staff and AMC FOAs, signature by the division chief of the respective functional communications and information systems focal point is required when the projected life-cycle cost exceeds \$1 million, otherwise branch chief signature is sufficient. Refer to paragraph [3.2.1](#).

3.3.3. (Added) The base CSO may also use the base C4 Systems Blueprint process to identify and document infrastructure requirements; i.e., changes to the base telephone and wire system, communications centers, and common user networks between buildings. However, the base CSO must ensure that the BPID provided by the base-level systems telecommunications engineering manager (STEM-B) contains sufficient information on which to base funding and implementation decisions. The BPID may be submit-

ted to HQ AMC/SCXR in lieu of an AF Form 3215 together with an EA, if required, for infrastructure requirements which exceed \$1 million.

3.4. (Added) The base CSO will develop and implement procedures to track and report the status of base level requirements to requesting organizations. HQ AMC/SCXR will provide status to the base CSO and requesting organization for those requirements forwarded for MAJCOM validation/approval.

3.5. (Added) AMC CSS/NOSS will develop and implement procedures to track and report status of AMC command systems, multi-base and AMC lab requirements to requesting organizations.

4. **The Technical Solution.** The base CSO should refer to AFI 33-112, *Automatic Data Processing Equipment*, for policy on the granting of waivers for any technical solution, which is not based on the use of DOD or Air Force ADPE infrastructure support contracts. Hardware and software acquisition and sustainment costs will be included as part of the technical solution. Show total annual costs by category for each year. Refer to **Attachment 6 (Added)** for a sample life-cycle costing spreadsheet, which documents projected acquisition and sustainment costs. Refer to AFI 65-601, Volume 1, Chapter 4, Section B, for information on correct appropriation for funding to acquire and maintain information processing equipment (IPE).

4.1. The functional office requesting communications and information systems requirements is responsible for determining the need for an EA and notifying the base-level financial analysis office, which can assist in preparing an EA. See paragraphs 1.3.5. and 1.3.6. of AFI 65-501 for specific responsibilities. If the project qualifies for TWCF Capital funding, the threshold for economic analyses is currently \$100,000 or greater.

4.2. Any modification to the technical solution by the requester after the requirement has been approved by the 'host base approval authority' must be coordinated with the appropriate funding activity and with the base CSO for architectural compliance. If the revised technical solution will increase the cost beyond the 20 percent threshold, the requirement must be reviewed and reapproved by the original approval authority. However, if the revised costing exceeds the delegated authority of the original approval authority, the revised requirement must be elevated to the appropriate delegated approval authority level.

5. **Developing the Technical Solution.** Base CSOs may request technical solution assistance from the AMC Network Systems Engineering Element which is part of the AMC CSS. Assistance provided includes requirement definition consulting service, infrastructure contract information and advice, coordination for presolution phase product evaluation, and research services for both vendor and product data. The AMC Network Systems Engineering Element (AMC CSS/NOSS) also provides telephonic assistance on technical and procedural difficulties. Technical solutions can be requested for:

- * Desktop and office automation systems
- * Mobile computing systems
- * Printing systems
- * Multimedia systems
- * Software
- * Wing LANs
- * Wireless LANs

5.1. The base CSO will ensure that technical solutions for routine requirements adequately identify the quantities/cost of all hardware and software and documents the expected operational and maintenance costs over the estimated system life.

5.2. Base CSOs will submit requirements impacting AMC unique systems for confirmation of proposed technical solution and approval to HQ AMC/SCXR. Provide an information copy to the appropriate STEM-B. Information on AMC unique systems may be found in the HQ AMC/SC information resource catalog (IRC) at sctaweb.scott.af.mil/IRC/.

5.2.1. (Added) HQ AMC/SCXR will coordinate with the appropriate program manager (PM) or system manager (SM) to obtain technical solutions for hardware add-ons to AMC systems. The PM/SM will specify the minimum configuration of equipment to be fully compatible with the AMC system. End user equipment; i.e., personal computers (PCs), printers, etc., are controlled configuration items for each system and can only be changed via the configuration management process and system configuration control board (CCB). The PM/SM will ensure each requirement is coordinated through the appropriate CCB before returning the technical solution to SCXR. The PM/SM should provide the technical solution and cost estimate within 10 working days of receipt of the request from SCXR.

5.2.1.1. (Added) Requirements to add or change existing software application functionality for which AMC CSS is the software development activity (SDA) should be processed as software change requests IAW AFI 33-114. Functional users should submit requests to the AMC system functional manager (HQ AMC/DOO/LGX/etc.) for screening and approval via the functional management and configuration management structures. Approved changes will be scheduled for incorporation into upcoming baselines and system software releases.

5.2.1.2. (Added) Requirements involving new software development may be submitted using an AF Form 3215 if the effort is realistically estimated as less than 1040 man-hours and/or less than 700 lines of code. Requirements should be fully documented IAW AFI 33-114 and submitted through the base CSO to HQ AMC/SCXR for evaluation by the AMC CSS. If the software development effort will exceed either threshold, it must be processed as a mission need statement in accordance with AFI 10-601.

5.3.1. Refer to AFI 10-901, paragraph 4, for information to access the lead command C4I systems list and equipment list on the Air Force Communications Agency (AFCA) worldwide web (www). Any requirement impacting either an AMC lead command system or another lead command's C4I systems should be validated at base level and forwarded to HQ AMC/SCXR for processing.

5.3.3. HQ AMC/SCYX serves as the AMC frequency management office. Base CSOs will contact this office for additional guidance and assistance concerning submission of frequency requests and Application for Equipment Frequency Allocations (DD Form 1494 **Application for Equipment Frequency Allocation-DoD General Information**). The user completes DD Form 1494 IAW the DD Form 1494 handbook and processes the request through the base installation frequency manager. AFI 33-118, Section C, paragraph 11.3, addresses DD Form 1494 processing lead times and foreign disclosure procedures.

5.3.4. HQ AMC/SCYV serves as the AMC visual information management office to review and validate all video teleconferencing (VTC) and video teletraining (VTT) requirements. Base CSOs may contact this office for additional guidance and assistance concerning submission of VTC/VTT requirements. Base CSOs should forward base validated requirements along with the operational concept to HQ AMC/SCXR for further processing through AFCA for a technical solution and approval in accordance with this supplement.

5.4. HQ AMC/SCYNC serves as the AMC commercial communications management office to review and validate all feeder requests for service (FRFS) for long-haul telecommunications services in accordance with policies of AFI 33-116. Base CSOs may contact this office for additional guidance and assistance concerning submission of FRFS.

5.4.1. (Added) Before submitting a FRFS to HQ AMC/SCYNC, the base CSO must ensure the request is supported by an appropriately approved and funded requirements document. The FRFS may only request service as identified in the approved technical solution of the requirements document. A copy of the approved requirements document should be retained with the FRFS.

5.4.2. (Added) All requirements for commercial satellite service; e.g., international maritime satellite (INMARSAT) should identify both the costs for purchase of equipment and for air time. INMARSAT terminals must be commissioned IAW AMCI 33-109, International Maritime Satellite Management, Policies, and Procedures.

6. **Allocating Resources.** It is the joint responsibility of the requesting organization's resource advisor/resource manager, the base comptroller, and the base CSO to ensure the proper type of funds are used. Projects approved and funded locally under the \$1 million threshold must be addressed at the base-level financial working group and financial management board to ensure all costs, including life-cycle costs, are considered. Follow HQ AMC/FM procedures to identify TWCF eligible and other unfunded communications and information requirements, and include a copy of the requirements document and technical solution to support the funding request.

7. **Implementing the Requirement.** The implementing organization should retain a copy of the approved requirements document, the technical solution and costing data on file throughout the life-cycle of the associated hardware/ software.

8. **Forms Prescribed.** AF Form 3215, **C4 Systems Requirements Document** (reverse), AMC Overprint, is prescribed for use. See Attachment 4 for supplemental guidance on preparing the AF Form 3215 and instructions for use of the AF Form 3215 (reverse). The use of the AF Form 3215 and the reverse sheet for local requirements is at the discretion of the base CSO; however, their use is mandatory for requirements which must be submitted to HQ AMC/SCXR for MAJCOM approval.

Add the following to Attachment 4

9. CSO's Proposed Solution/Alternatives: Describe the recommended course of action to satisfy the requirement. Describe other courses of action considered as possible alternatives to the proposed solution. Use attachments as required to list all required hardware/software by quantity and cost. Costing data should be summarized on a life-cycle spreadsheet as shown in **Attachment 6 (Added)**.

12. Requester Approval Authority: AMC base CSOs may elect to use this signature block when the requirement is first initiated by the user. In this instance, the technical solution which is prepared/obtained by the base CSO should be coordinated with the user before submission to the delegated host base approval authority.

13. Host Base Approval Authority: Designated as the wing commander. If further delegated by a base instruction, enter the individual possessing the delegated authority which is within the projected life-cycle cost of the requirement. Appropriate blocks should be checked to confirm availability of funds and approval/disapproval of the requirement and its technical solution. If requirement must be forwarded to HQ AMC for approval, line out 'APPROVED' and enter 'VAL' for validated.

14. MAJCOM Approval Authority: Approval by HQ AMC delegated authority will be documented on AF Form 3215 (reverse), AMC overprint.

15. (Added) C4 Systems Requirements Document (reverse): Use of the AF Form 3215, reverse, for local requirements is at the discretion of the base CSO; however, its use is mandatory for requirements that are forwarded to HQ AMC/SCXR for approval.

15.1. (Added) Cost Data/Projected Costs. Enter technical solution costing data in appropriate cost data category; i.e., communications, automation equipment, software, etc., with entries reflected in the appropriate projected cost column; i.e., first year cost, annual recurring cost. Extend sum of first year cost and annual recurring cost times expected life cycle (normally 5 years) in the life-cycle cost block. Lines 'K', 'L' and 'M' may be used for additional cost data categories not already defined in lines 'A' through 'J.' Use 'Totals' block to sum each column under projected costs.

15.2. (Added) Base CSO Comments. For requirements which are forwarded to HQ AMC, enter comment citing circumstance which requires approval by HQ AMC or another MAJCOM/FOA. For example: projected life-cycle costs exceed \$1 million delegated authority; requirement impacts an AMC unique system (identify which system); requirement impacts a system for which another MAJCOM is designated the lead command (identify system and appropriate lead command); etc. For locally approved requirements, use this block for any special comments or instructions to the user/implementer. For example: include any local instructions for processing Desk Top V contract orders; if technical solution is not based on use of AF or other DOD infrastructure contracts, cite the approved waiver; etc.

15.3. (Added) AMC SC Staff Comments. Reserved for use by HQ AMC/SCXR to enter recommendation concerning the approval of the proposed technical solution and costing data and to enter other information/instructions pertinent to the requirement.

15.4. (Added) MAJCOM Approval Authority Signature. Reserved for use by HQ AMC/SCXR to obtain approval by the delegated authority as designated in paragraph **3.2.1.2. (Added)** of this supplement.

Attachment 6 (Added)

PROJECTED LIFE-CYCLE COSTING SPREADSHEET

A6.1. (Added) Each communications and information requirements document shall have a life-cycle spreadsheet which projects all estimated costs over a minimum 5-year period or over the life-cycle period specified by the manufacturer or AFMC.

A6.2. (Added) List costing by appropriate expense element and by year the cost will be incurred. Example shows most commonly used expense elements. CSO should add/delete expense elements as required, depending on the specific requirement.

A6.3. (Added) Example illustrates a requirement for 100 Desktop V computers. In this case, the aggregate hardware cost is reflected against 3400 (O&M) 637 vice 3080 Capital Investment, since each computer was intended to primarily operate independently. The placement of the asterisks (* and **) indicate that the spreadsheet footnote comments apply to this requirement.

CSRD Scott 99-7500											
DATE: 16 Apr 99											
APPROP EXP ELEMENT	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	TOTALS
3400 (O&M) 49X											
Comm Services											
3400 (O&M) 568				11865	11865	11865					\$ 11,865
Govt Equip Maint											
3400 (O&M) 582											
Contract Svcs/Software											
3400 (O&M) 637 * **	239673										\$ 239,673
Purchases < 100K											
3080 Capital Investment											
Purchases > 100K											
3400 (O&M) 609		1200	1200	1200	1200	1200					\$ 6,000
Supplies											
3400 O&S Costs											
3500 O&S Costs											
TOTALS	239673	1200	1200	13065	13065	13065	0	0	0	0	\$ 257,538

*Per AFI 65-601, Volume 1, Chapter 4, Section B, the expense and investment threshold was applied individually to each PC since they primarily operate independently.

**Includes 2 percent surcharge on DT V orders.

NOTE: Costs are rounded to the nearest dollar.

WILLIAM T. LORD, Colonel, USAF
Director of Communications and Information