Performance Requirements STUDY



Litton/PRC 1500 PRC Drive McLean, Virginia 22101

JUNE 1999

PERFORMANCE REQUIREMENTS STUDY

TABLE OF CONTENTS

Overview	1
Methodology	2
Commercial Items	3
Results	4
Conclusions	7
Appendix A – List of Solicitations	8
Appendix B – Lists of Referenced Specifications and Standards	9
Appendix C – Data Collection Sheets	16
LIST OF FIGURES	
Figure 1 – Example of a Combined Synopsis/Solicitation	3
Figure 2 – Summary of Data	4
Figure 3 – Distribution of Documents by Service	5
Figure 4 – Distribution of Document Types	5
Figure 5 – Breakout of Documents	6

PERFORMANCE REQUIREMENTS STUDY

OVERVIEW

The Department of Defense (DoD) has mounted a strong offensive in recent years to change the acquisition process in very fundamental ways. A major facet of the initiative has been to change the way requirements are expressed. The "how-to" design detail requirements that were standard in the past have been rejected in favor of requirements expressed in performance terms. The mission to change this very fundamental aspect of the acquisition process was begun in June 1994 and followed by a series of briefings, informative handbooks, and training courses designed first, to convince the acquisition community that the reforms were feasible and sensible, and second, to assist the community by providing guidance in how to implement these reforms.

In order to determine whether or not these efforts are succeeding, DoD must determine whether or not the wording of actual solicitations and the resultant contracts is being expressed in terms that promote these goals. To begin the process, Litton/PRC was asked to find the answers to the following questions:

- Are performance requirements being written?
- Are performance requirements finding their way into contracts?
- Is the use of performance requirements having the desired results in the acquisition process?

There is a great deal of anecdotal evidence that the need to express requirements in performance terms has spread throughout the acquisition community. Newsletters and journals have publicized inspiring success stories of specific programs that have adopted the new philosophy. The question remains, however, as to how deeply the change has penetrated.

Are Performance Requirements Being Written?

After examining a selected group of solicitations, we can say decisively "Yes." Almost without exception the solicitations we examined were devoid of "how-to" language. Where it was appropriate to specify, performance terms were used.

Are Performance Requirements Finding Their Way into Contracts?

Based on the requirements expressed in the solicitations, we would say that they are.

Is the Use of Performance Requirements Having the Desired Results In the Acquisition Process?

This question is much harder to answer. The answer will, obviously, be subjective. Again, there is much anecdotal evidence that in specific acquisitions the desired results—efficient procurements that capitalize on contractor initiative and commercially available technology—are being achieved.

For smaller, lower profile acquisitions there are fewer testimonials. For most of the solicitations that we examined in depth during this study, not enough time has elapsed to come to a judgement.

METHODOLOGY

After surveying the field anecdotally, we determined that it would be necessary to find a representative sample of solicitations to examine in depth. The *Commerce Business Daily* (CBD) was the logical choice as a source. We chose a week at random, June 15-19, 1998. After a somewhat frustrating attempt to examine the notices on the internet, we obtained hard copies to review. (The internet listings require multiple steps to see the actual text of an individual announcement. It is not possible to scroll through the notices one after the other.)

The Research and Development category was scrutinized first. Solicitations that clearly would not fall prey to the "how-to" syndrome (such as requirements for pure research) were automatically excluded. After this category (which was expected to be the most useful) was exhausted, we surveyed all the rest of the announcements looking for procurements that were more than requests for quotations but which were not development efforts.

After our initial review of the CBD notices for the chosen week, we decided to extend the period for a second week. We followed the same process for choosing solicitations to examine. We extended the period rather than choosing a second week at random because the latter course was not very practical. We had already ascertained that it was very difficult to obtain a complete set of solicitation materials for procurements that were being closed, and that it was impossible to get solicitations after the closing date. To pick a week "at random" after the June week that was our initial choice would have either limited us to a six week period in which to randomize, or required us to set a period of a reasonable length and run the risk of selecting, at random, a date that would require us to wait two or three months before we could collect the data. Extending the initial period seemed the more practical course of action.

Many of the solicitations that were of interest were combined synopsis/solicitation notices. Those were downloaded from the internet and were immediately available for scrutiny. See Figure 1 for a sample. Acquiring the others was much more complicated. Several were "fully available on the internet." In most cases the term *fully* was a complete misnomer. In some cases particular files were not available or could not be downloaded. In other cases the solicitation in question had been removed or was not yet posted. Attempts to get additional materials or information from human points of contact listed on internet web sites were not very successful. Some web sites were much better organized and more fully stocked than others. We embarked on this project when some of these organizations were just beginning the move to go online with their solicitations, and probably experienced more problems than later users will.

Those solicitations that we could not obtain over the internet (either because we couldn't download them or because they weren't available in that medium) were ordered by mail. Note that we were unable to obtain some solicitations that were available only on the internet but were not downloadable. In cases where we had been able to download crucial sections (like the statement of work) we retained the solicitation. Others we reluctantly abandoned.

In the final analysis we had about thirty solicitations to examine in depth. During the course of the investigation, for various reasons, an additional five were weeded out. This report is based on the language contained in twenty-five solicitations advertised in the CBD between June 15 and June 26, 1998.

WATER RESISTOJET FEED SYSTEM (Modification)



Category: A--Research and Development (PROCUREMENTS)

Date Published: June 15, 1998

Contact: AFFTC/PKAA Directorate of Contracting, 5 S. Wolfe Ave., Edwards AFB, CA 93524-1185 POC PATRICK TERRY, 805-277-3900x2246, CONTRACTING OFFICER, CATHI CLEVELAND, 805-277-3900x2232

Synopsis:

WATER RESISTOJET FEED SYSTEM (Modification) SOL F04611-98-R-0058 DUE 062698 This is a combined synopsis/solicitation for commercial items prepared in accordance with the format in FAR Subpart 12.6, as supplemented with additional information included in this notice. This announcement constitutes the only solicitation; proposals are being requested and a written solicitation will not be issued. The solicitation number is F04611-98-R-0058. This is a Request for Proposals. The solicitation document and incorporated provisions and clauses are those in effect through FAC 97-4 and DAC 91-13. This acquisition is unrestricted Standard industrial classification code: AC65. Small Business Size Standard: 1000 employees. The acquisition includes Contract Line Item Number(s): 0001, for Critical Design, fabrication, and testing of Water Resistojet Feed System. Design must be within the parameters shown in the attached drawings. Performance period is to begin 1 July 1998 and must be completed by 15 November 1998. Preliminary Design drawings and sketches are available on-line at http://afftc_pk.elan.af.mil/scripts/xindex.asp. For additional technical information please contact LT Jason Leduc (805)275-5908. FAR provision 52.212-1, Instructions to Offerors-Commercial applies. Offerors must include a completed copies of FAR provision 52.212-3, Offeror Representations and Certifications -- Commercial Items. FAR clause 52.212-4, Contract Terms and Conditions--Commercial Items, applies. FAR clause 52.212-5, Contract Terms and Conditions Required to Implement Statutes Or Executive Orders--Commercial Items, applies. Applicable FAR clauses cited in 52.212-5 are:52.222-26. Equal Opportunity; 52.225-35, Affirmative Action for Special Disabled and Vietnam Era Veterans; 52.222-36, Affirmative Action for Handicapped Workers; 52.222-37, Employment Reports on special Disabled Veterans and Veterans of the Vietnam Era. Addendum: 52.232-28, Electronic Funds Transfer Payment Methods DFAR clause 252.212-7001, Contract Terms and Conditions Required to Implement Statutes Applicable to Defense Acquisitions of Commercial Items applies. Applicable DFAR clauses cited in 252.212-7001 are: 252.225-7001, Buy American Act and Balance of Payments Program. The Defense Priorities and Allocations System (DPAS) rating is: Unrated. Proposals are due at the Air Force Flight Test Center, Directorate of Contracting, 5 S. Wolfe Ave, Edwards AFB, CA 93524-1185, on 29 July 1998. Fax to (805)275-7844. NOTES 23 AND 25 Apply. (W-162 SN210277) Email: terryp%nk@mhs.elan.af.mil URL: http://afftc_pk.w.an.af.mil/scripts/xindex.asp

Figure 1 – Example of a Combined Synopsis/Solicitation

COMMERCIAL ITEMS

Although it was not explicitly requested in the task description, we also looked for the commercial or nondevelopmental item approach. As part of our research we noted whether a preference for commercial items was expressed.

RESULTS

Of the 25 documents we used for this study, 9 were RFPs, 10 were Combined Synopsis/Solicitations, 2 were Program Research and Development Announcements (PRDA), 2 were Broad Area Announcements (BAA), 1 was a Statement of Work, and 1 was a Performance Description. One Air Force solicitation contained a Statement of Objectives. Figure 2 is a tabulated summary of the data collected.

	Performance Specifications Study		
	Data Compilation Sheet		
1.	Total solicitations/documents: <u>25</u>		
2.	Solicitation (document) type: Complete RFP* <u>9</u> , Combined Synopsis/Solicitation <u>10</u> , PRDA <u>2</u> , BAA <u>2</u> , SOW <u>1</u> , Performance Description <u>1</u> ,		
3.	Organization: Army <u>2</u> , Navy <u>10</u> , Marine Corps <u>2</u> , Air Force, <u>9</u> , Other DoD <u>2</u>		
4.	Solicitation for: a product <u>21</u> , a service <u>4</u>		
5.	Number of times military specifications identified:13; Number mandated:13; Number for guidance only:		
6.	Number of times performance specifications identified:13; Number mandated:13; Number for guidance only:		
7.	Number of times military standards identified **: <u>29</u> ; Number mandated: <u>19</u> ; Number for guidance only: <u>10</u> .		
8.	Number of times government, non-military standards identified: <u>8</u> ; Number mandated: <u>7</u> ; Number for guidance only: <u>1</u> .		
9.	Number of times non-government standards identified: <u>30</u> ; Number mandated: <u>23</u> ; Number for guidance only: <u>7</u> .		
10.	Number of product or service descriptions written in performance terms. <u>22</u>		
11.	Number of solicitations that expressed a preference for commercial or nondevelopmental items.		
* Includes 2 draft RFPs			
** One solicitation mandated 3 military handbooks and 6 Air Force instructions (included in count).			

Figure 2 - Summary of Data

The distribution of the documents by service was as follows: Army – 8 percent; Navy – 40 percent; Marine Corps – 8 percent; Air Force – 36 percent; and other DoD – 8 percent. Of the 25 documents, 4 were for services and 21 for products. Figure 3 presents the distribution.

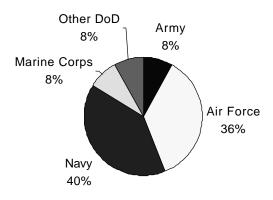


Figure 3 – Distribution of Documents by Service

While the PRDAs and the BAAs were announcements, like the Combined Synopsis/Solicitations, they also served as solicitations. The proportion of these types of solicitation to the total number of solicitations is not as large as our sample indicates. See Figure 4 for the distribution of document types. As discussed above, there were a number of RFPs that we attempted to obtain, but could not, whereas, all the Combined Synopsis/Solicitations and BAAs were easily obtained from the CBD.

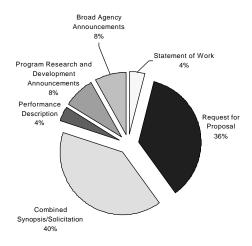


Figure 4 – Distribution of Document Types

In the categories of "government non-military standards" and "non-government standards" on the data compilation sheet (Figure 2) we did not count general references such as those that required that the contractor comply with federal and state environmental (or hazardous waste, or safety, etc.) provisions as referring to a requirement. We had no way of determining how many requirements documents were actually involved.

The distribution of military specifications among the documents was uneven. Only 3 documents called out military specifications of any kind, and 1 of those called out only performance specifications. The other 2 referenced service interface or system specifications. More documents referenced military standards, government non-military standards and non-government standards, but their numbers were not overly great. (24 percent, 16 percent, and 36 percent of the total documents respectively). Figure 5 provides a breakout of the number of the 25 documents that referenced specifications and standards.

Number of Documents Referring to Specifications and Standards	
Military Specifications	3
Performance Specifications	2
Military Standards	6
Government Non-military Standards 4	
Non-government Standards	9

Figure 5 – Breakout of Documents

The determination that a document was written in performance terms is, of course, a subjective judgment, but we attempted to be fairly harsh in that judgment. That is, if we erred it was probably in incorrectly excluding a document from the performance category. On the other hand, the determination that 17 documents expressed a preference for commercial or nondevelopmental items may be artificially low because, (1) we did not give credit to a document unless the preference was plainly stated, and (2) the 4 solicitations for *services* would not logically express a preference for *items*.

Each solicitation was counted as either a product or service solicitation, although in some cases there was overlap. Solicitations that required that services be delivered along with the hardware (e.g., installation or logistics support services) were counted as requirements for a product. Solicitations that were essentially for services but also required some hardware (e.g., a pager solicitation that required the contractor to provide pagers along with pager services) were counted as requirements for services.

CONCLUSIONS

Based on the limited, two-week sample of recent solicitations, or related documents, that we have analyzed, it appears that the acquisition reform initiatives are taking hold in the DoD acquisition community – particularly in the areas of writing performance requirements and avoiding the use of military specifications. In truth, we were a bit surprised by the results of the study. If asked at the start of the study what the results would be, we would have predicted that the solicitation announcements would reflect current acquisition policy, but when we looked deeply into the solicitations we would have found business was still being conducted the old way. This does not appear to be the case.

We were also surprised at the great differences in the accessibility and usefulness of the web sites we visited. On some we could very easily and quickly find and download the documents we wanted. On other sites it was virtually impossible. Many acquisitions organizations will have to greatly improve their automated capabilities before electronic commerce will be broadly successful in DoD.

APPENDIX A - LIST OF SOLICITATIONS

Here are the titles of the twenty-five solicitations that were examined in depth to determine to what extent performance requirements were being used in the acquisition process:

- 1. Airborne Triple-Deck Video Recorder
- 2. Bird Control Device
- 3. Diver and UUV System and Technologies for VSW/SZ MCM Missions
- 4. Echo Canceller Equipment
- 5. Electronic Warfare Requirement and Assessments Program, Part 1 of 2
- 6. Extra Large Deployable Aircraft Hangar System
- 7. Final Solicitation for Aircraft and Pilot Training
- 8. High Reliability Deformable Mirror
- 9. Horizontal Baler
- 10. HTS-OAS and FTS-FAF B T-1 Circuits
- 11. Hypersonic Weapons Technology Program
- 12. Integrated Target Planning Set
- 13. Intel Pentium Process Based Computer
- 14. Intermediate New Generation Army Targetry
- 15. Missile Components
- 16. Motor Procurement
- 17. Next Generation Small Loader Program
- 18. Pager Services
- 19. Provide, Install, and Test Northern TELECOM Intelligent Peripheral Equipment
- 20. Purchase of Remote Sensor Management Application
- 21. Reliability Testing
- 22. Self Contained Environmental Chamber
- 23. Upright Temperature/Altitude Chamber
- 24. Water Resistojet Feed System (Modification)
- 25. 2.75 Inch Extruded Composite Propellant Grain Inhibiting Technology

APPENDIX B – LISTS OF REFERENCED SPECIFICATIONS AND STANDARDS

A. List by Solicitation

1. Airborne Video Recorder

MIL-STD 704 E	Aircraft Electric Power Characteristics
MIL-STD 810 E	Environmental Test Methods and Engineering Guidelines
MIL-STD 461 D	Requirements for Control of Electromagnetic Interference
	Emissions and Susceptibility

[&]quot;shall comply with international standards for Hi-8 mm tape format"

6. Deployable Hangar

FED-STD-595B	"For description of color numbers"
MIL-STD 210 C	Climactic Information to Determine Design and Test Requirements for Military Systems and Equipment
MIL-STD 808 A	Finishes, Protective and Codes for Finishing Scheme for Ground and Ground Support Equipment
MIL-STD 810 E	Environmental Test Methods and Engineering Guidelines
MIL-STD 882 C	Systems Safety Program Requirements
MIL-STD 889 B	Dissimilar Materials
MIL-STD 1390 D	Level of Repair Analysis (LORA)
MIL-STD 1472 D	Human Engineering Design Criteria for Military Systems,
	Equipment and Facilities
MIL-STD 1510 B	Procedures for Use of Container Design Retrieval System (CDRS)
MIL-STD 2073-1C	DoD Standard Practice for Military Packaging (guidance only)
ACGIH Manual	Industrial Ventilation, A manual of recommended practice (Current Edition), American Conference of Governmental Industrial Hygienists
ANSI/ASCE 7-95	Minimum Design Standard for Buildings and Other Structures
ASTM E84-96a	Standard Test Method for Surface Burning Characteristics of Building Materials
ASTM E136-96a	Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750C
ISO 8879	Standard Generalized Markup Language
ISTA	International Safe Transit Association, Procedure 2 for Export
	Testing
NFPA 102	Assembly Seating, Tents, And Membrane Structures
NFPA 409	Aircraft Hangars

NFPA 701 Methods of Fire Test for Flame Resistant Textiles and Films

NFPA 780 Lightning Protection

UBC Standard 2-1 Non-combustible Material Test UBC Standard 31-1 Flame-retardant Membranes

7. Aircraft and Pilot Training

FAA TSO-129

National Aerospace Standard 411 or equivalent USMC CT-39G (system specification for aircraft being replaced. Requires "paint scheme equivalent to...")

10. HTS T-1 Circuits

Requirements for the Control of Electromagnetic Interference Emissions and Susceptibility, 11 January 1993
Electromagnetic Environmental Effects Requirements for Systems, 18 March 1997
Grounding, Bonding, and Shielding for Electronic Equipment and Facilities, 29 December 1987
General Guidelines for Electronic Equipment, 28 April 1995, Notice 1, 28 May 1997
Fire Protection for Facilities Engineering, design, and Construction, 10 June 1997
Occupational Safety and Health Standards
Protection of the Environment
50 th Space Wing Instruction 31-101, Physical security Program 20 December 1995
Air Force Instruction 31-101, Vol. 1, The Physical Security Program
Air Force Instruction 31-501, Personnel Security Program Management
AFSCF RTS Installation Design Criteria, 27 April 1984
Standard Interface Specification for AFSCN Balanced Wiring
Shriever Air Force Base Facilities Installation Standard, 01
September 1995, prepared by 50 LSS/SCT
Onizuka Air Force Base Installation Design Criteria, August 1995

[&]quot;outlets shall be Class 1, Division 2 rated and have a NEMA 5-20R configuration"

SATAF OI 800-2	Acquisition Management Consolidated Space Operations Center
	Installation/Modification Authorization and Tracking Process
	(CSOC Form 19), 02 June 1993
70HB96 or 70-96SB	National Fire Protection Association Standard, Part 70, National
	Electrical Code 1996, hard or soft bound version
AT&T TR 62411	AT&T Technical Reference 62411, 1983 and 1990 editions
NFPA 58-95	National Fire Protection Association Standard, Part 58; Storage
	and Handling or Liquefied Petroleum Gases
NFPA 780	National Fire Protection Association 780; Standard for the
	Installation of Lightning Protection Systems, 1995
NFPA 70, NEC	

13. Target Planning Set

"At a minimum the framework will be compatible with Windows (Windows 95 and NT) operating systems and UNIX operating systems"

17. Small Loader

FED-STD-595	Colors	
MIL-STD 461D	Requirements for the Control of Electromagnetic Emissions and Susceptibility	
MIL-STD-462D MIL-STD 1840 MIL-STD-38784	Measurement of Electromagnetic Interference Characteristics Automated Exchange of Technical Information, 26 June 1997 Standard Practice for Manuals, Technical: General Style and Format Requirements, 2 July 1995	
MIL-HDBK 1791 MIL-HDBK-1221	Designing for Internal Aerial Delivery in Fixed Wing Aircraft Evaluation of Commercial off-the-shelf (COTS) Manuals, 28 Aug 95 "The government will useas a guide for review and acceptance of all recommended commercial manuals."	
AFMAN 24-307	Procedures for Vehicle Maintenance Management	
FMVSS 105; Title 49, Part 571, 105 Federal Motor Vehicle Safety Standards (FMVSS) Hydraulic Brakes		
FMVSS 121; Title 49, Part 571, 121 Federal Motor Vehicle Safety Standards (FMVSS) Air Brakes		
NFPA 407	Standard for Aircraft Fuel Servicing	
SAE ARP 1247C	General Requirements for Aerospace Ground Support Equipment Motorized and Non-Motorized (or equivalent)	
SAE ARP 1328 SAE J336a	Aircraft Ground Support Equipment Vehicle Stability Analysis Sound Level for Truck Cab Interior	

SAE J366b SAE Z26.1	Exterior Sound Level for Heavy Trucks and Buses Safety Glazing Materials for Glazing Motor Vehicles for Operating on Land Highways
MIL-PRF-5096	Manuals, Technical: Inspection and Maintenance Requirements; Acceptance and Functional Check Flight Procedures and Checklists; Inspection Work Cards; and Checklists, Preparation of, 1 Mar 96
MIL-PRF-38769	Preparation of Work Unit Codes 1 Jul 96
MIL-PRF38793	Technical Manuals: Calibration Procedures-Preparation, 6 Feb 97
MIL-PRF-38804	Time Compliance Technical Orders-Preparation, 20 Jun 97
MIL-PRF-38807	Technical Manuals-Illustrated Parts Breakdown, 29 Nov 97
MIL-PRF-87929	Operations and Maintenance Instructions in Work Package Format, 1 Mar 96
MIL-PRF-87268	Manuals, Interactive Electronic Technical- General Content, Style, Format and User Interaction Requirements, 1 Oct 95
MIL-PRF-87269	Data base Revisable: Interactive Electronic Technical Manuals, For the Support of, 1 Oct 95
MIL-PRF-83495	Technical Manuals-On-Equipment Maintenance Manual Set, 16 Mar 98
MIL-PRF-28000A	Digital Representation for Communication of Product Data: IGES Application Protocols, 10 Feb 92
MIL-PRF-28001C	Markup Requirements and Generic Style Specifications for Exchange of Test and Its Presentation, 2 May 97
MIL-PRF-28003A	Digital Representation for Communication of Illustration Data CGM Application Profile, 15 Nov 91
MIL-PRF-28002	Raster Graphics Representation in Binary Format, Requirements for, 30 Sep 97
21. Reliability Testing	- -
MIL-HDBK-781	Reliability Test Methods Plans, and Environments for Engineering Development Qualification and Production, 1 Apr 96
MIL-STD-781	Reliability Testing for Engineering Development Qualification and Production (cancelled)

[&]quot;Clean room IAW FED-STD-209, Class 100,000 minimum"

23. <u>Upright Temperature/Altitude Chamber</u>

MIL-STD-810E Environmental Engineering Considerations and Laboratory Tests "shall ...conform to NFPA 70"

[&]quot;wiring...meet NEMA 3R standards"

[&]quot;evaporator shall meet A.S.H.R.A.E. Standards for low temperature application"

B. List by Document

29 CFR 40 CFR 50 SWI 31-101	Occupational Safety and Health Standards Protection of the Environment 50 th Space Wing Instruction 31-101, Physical security Program 20
70HB96 or 70-96SB	December 1995 National Fire Protection Association Standard, Part 70, National Electrical Code 1996, hard or soft bound version
ACGIH Manual	Industrial Ventilation, A manual of recommended practice (Current Edition), American Conference of Governmental Industrial Hygienists
AFI 31-101, Vol. 1 AFI 31-501 AFMAN 24-307	Air Force Instruction 31-101, Vol. 1, The Physical Security Program Air Force Instruction 31-501, Personnel Security Program Management Procedures for Vehicle Maintenance Management
AFSCF IDC-008	AFSCF RTS Installation Design Criteria, 27 April 1984
AFSCN SIS-000388	Standard Interface Specification for AFSCN Balanced Wiring
ANSI/ASCE 7-95	Minimum Design Standard for Buildings and Other Structures
ASTM E136-96a	Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750C
ASTM E84-96a	Standard Test Method for Surface Burning Characteristics of Building Materials
AT&T TR 62411	AT&T Technical Reference 62411, 1983 and 1990 editions
FAA TSO-129	
FED-STD-595	Colors (referenced in 2 solicitations)
FMVSS 105; Title 49	, Part 571, 105 Federal Motor Vehicle Safety Standards (FMVSS) Hydraulic Brakes
FMVSS 121; Title 49	, Part 571, 121 Federal Motor Vehicle Safety Standards (FMVSS) Air
,	Brakes
ISO 8879	Standard Generalized Markup Language
ISTA	International Safe Transit Association, Procedure 2 for Export Testing
MIL-HDBK 419A	Grounding, Bonding, and Shielding for Electronic Equipment and Facilities, 29 December 1987
MIL-HDBK 454	General Guidelines for Electronic Equipment, 28 April 1995, Notice 1, 28 May 1997
MIL-HDBK-1221	Evaluation of Commercial off-the-shelf (COTS) Manuals, 28 Aug 95 "The government will useas a guide for review and acceptance of all recommended commercial manuals."
MIL-HDBK-781	Reliability Test Methods Plans, and Environments for Engineering Development Qualification and Production, 1 Apr 96
MIL-HDBK 1008C	Fire Protection for Facilities Engineering, design, and Construction, 10 June 1997
MIL-HDBK 1791	Designing for Internal Aerial Delivery in Fixed Wing Aircraft
MIL-PRF-5096	Manuals, Technical: Inspection and Maintenance Requirements; Acceptance and Functional Check Flight Procedures and Checklists; Inspection Work Cards; and Checklists, Preparation of, 1 Mar 96

MIL-PRF-28000A	Digital Papracantation for Communication of Product Data: ICES
WIIL-PKF-20000A	Digital Representation for Communication of Product Data: IGES Application Protocols, 10 Feb 92
MIL-PRF-28001C	Markup Requirements and Generic Style Specifications for Exchange of
	Test and Its Presentation, 2 May 97
MIL-PRF-28002	Raster Graphics Representation in Binary Format, Requirements for, 30
	Sep 97 "Page image data files shall be in accordance with for raster
MIL DDE 20002 A	image files"
MIL-PRF-28003A	Digital Representation for Communication of Illustration Data CGM Application Profile, 15 Nov 91
MIL-PRF-38769	Preparation of Work Unit Codes 1 Jul 96
MIL-PRF-38807	Technical Manuals-Illustrated Parts Breakdown, 29 Nov 97
MIL-PRF-38804	Time Compliance Technical Orders-Preparation, 20 Jun 97
MIL-PRF-38793	Technical Manuals: Calibration Procedures-Preparation, 6 Feb 97
MIL-PRF-83495	Technical Manuals-On-Equipment Maintenance Manual Set, 16 Mar 98
MIL-PRF-87268	Manuals, Interactive Electronic Technical-General Content, Style, Format
MIL DDE 072.00	and User Interaction Requirements, 1 Oct 95
MIL-PRF-87269	Data Base Revisable: Interactive Electronic Technical Manuals, For the
MII DDE 97020	Support of, 1 Oct 95 Operations and Maintenance Instructions in Work Package Format, 1 Mar.
MIL-PRF-87929	Operations and Maintenance Instructions in Work Package Format, 1 Mar 96
MIL-STD-462D	Measurement of Electromagnetic Interference Characteristics
MIL-STD 210 C	Climactic Information to Determine Design and Test Requirements for
WILL STD 210 C	Military Systems and Equipment
MIL-STD 461D	Requirements for the Control of Electromagnetic Interference Emissions
	and Susceptibility, 11 January 1993 (referenced in 3 solicitations)
MIL-STD 464	Electromagnetic Environmental Effects Requirements for Systems, 18
	March 1997
MIL-STD-781	Reliability Testing for Engineering Development Qualification and
	Production
MIL-STD 808 A	Finishes, Protective and Codes for Finishing Scheme for Ground and
	Ground Support Equipment
MIL-STD 810 E	Environmental Test Methods and Engineering Guidelines (referenced in 3 solicitations)
MIL-STD 882 C	Systems Safety Program Requirements
MIL-STD 889 B	Dissimilar Materials
MIL-STD 1390 D	Level of Repair Analysis (LORA)
MIL-STD 1472 D	Human Engineering Design Criteria for Military Systems, Equipment and
	Facilities
MIL-STD 1510 B	Procedures for Use of Container Design Retrieval System (CDRS)
MIL-STD 1840C	Automated Exchange of Technical Information, 26 June 1997
MIL STD 2073-1C	DoD Standard Practice for Military Packaging
MIL-STD-38784	Standard Practice for Manuals, Technical: General Style and Format
Notion -1 A	Requirements, 2 July 1995
National Aerospace Standard 411 NFPA 102 Assembly Seating, Tents, And Membrane Structures	
INFFA 1UZ	Assembly Seating, Tents, And Membrane Structures

NFPA 407	Standard for Aircraft Fuel Servicing
NFPA 409	Aircraft Hangars
NFPA 58-95	National Fire Protection Association Standard, Part 58; Storage and
11111130 73	Handling or Liquefied Petroleum Gases
NFPA 70, NEC	Trainering of Enquence Fetroleum Gases
NFPA 701	Methods of Fire Test for Flame Resistant Textiles and Films
NFPA 780	National Fire Protection Association 780; Standard for the Installation of
11111700	Lightning Protection Systems, 1995
NFPA 780	Lightning Protection
OAS IDC-001	Onizuka Air Force Base Installation Design Criteria, August 1995
SAE ARP 1247C	General Requirements for Aerospace Ground Support Equipment
	Motorized and Non-Motorized
SAE ARP 1328	Aircraft Ground Support Equipment Vehicle Stability Analysis
SAE J336a	Sound Level for Truck Cab Interior
SAE J366b	Exterior Sound Level for Heavy Trucks and Buses
SAE Z26.1	Safety Glazing Materials for Glazing Motor Vehicles for Operating on
	Land Highways
SAFB FIS	Shriever Air Force Base Facilities Installation Standard, 01 September
	1995, prepared by 50 LSS/SCT
SATAF OI 800-2	Acquisition Management Consolidated Space Operations Center
	Installation/Modification Authorization and Tracking Process (CSOC Form
	19), 02 June 1993
STD 704 E	Aircraft Electric Power Characteristics
UBC Standard 2-1	Non-combustible Material Test
UBC Standard 31-1	Flame-retardant Membranes

[&]quot;evaporator shall meet A.S.H.R.A.E. Standards for low temperature application

USMC CT-39G

P/N:ME991: Encoder, MFR: Merlin, P/N: ME981; Signal Conditioning

Unit, MFR: Aydin Vector, P/N: PCU808."

[&]quot;outlets shall be Class 1, Division 2 rated and have a NEMA 5-20R configuration"

[&]quot;shall ...conform to NFPA 70"

[&]quot;shall comply with international standards for Hi-8 mm tape format"

[&]quot;Units shall be compatible electronically and electrically with Decoder, MFR: Merlin,

[&]quot;At a minimum the framework will be compatible with Windows (Windows 95 and NT) operating systems and UNIX operating systems"

[&]quot;wiring...meet NEMA 3R standards"

APPENDIX C – DATA COLLECTION SHEETS

The specific information gleaned from each of the twenty-five solicitations examined in depth is provided on the following pages.

Solicitation title: Airborne Triple-Deck Video Recorder
Solicitation number: SOL F044700-98Q1591
Solicitation (document) type: combined synopsis/solicitation
Date: 16 June 1998
Organization: Air Force
Solicitation for: X_ a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:3; Number mandated:3; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? <u>yes</u>

Solicitation title: Bird Control Device
Solicitation number: F34601-98-0071
Solicitation (document) type: RFP
Date: 23 July 1998
Organization: Air Force
Solicitation for: a product,X a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? N/A

Solicitation title: Diver and UUV System and Technologies for VSW/SZ MCM Missions
Solicitation number: SOL BAA-98-008
Solicitation (document) type: combined synopsis/ solicitation
Date: 25 June 1998
Organization: Navy
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? <u>no</u>

Solicitation title: Echo Canceller Equipment
Solicitation number: SOL DCA 100-98-R-0042
Solicitation (document) type: combined synopsis/solicitation
Date: 22 June 1998
Organization: Other DoD
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? ves

Solicitation title: Electronic Warfare Requirement and Assessments Program, Part 1 of 2
Solicitation number: SOL PRDA No. 98-05-SNK
Solicitation (document) type: combined synopsis/solicitation
Date: 16 June 1998
Organization: Air Force
Solicitation for: a product,X_ a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? N/A

Solicitation title: Extra Large Deployable Aircraft Hangar System
Solicitation number: DRFP FO 8626-98-DRFP-XLDAHS
Solicitation (document) type: Draft RFP
Date: 19 June 1998
Organization: Air Force
Solicitation for: <u>X</u> a product, <u>a service?</u>
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:9; Number mandated:0; Number for guidance only:9
Number of government, non-military standards identified:1; Number mandated:; Number for guidance only:1
Number of non-government standards identified:13; Number mandated:7; Number for guidance only:6
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? yes

Solicitation title: Final Solicitation for Aircraft and Pilot Training
Solicitation number: SOL N00019-98-R-0026
Solicitation (document) type: RFP
Date: 17 June 1998
Organization: United States Marine Corps
Solicitation for: X a product (the plane), a service (the pilot training)?
Number of military specifications identified:; Number mandated:; Number for guidance only:1
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:2; Number mandated:2; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? <u>yes</u>

Solicitation title: High Reliability Deformable Mirror
Solicitation number: PRDA No. 98-DO1
Solicitation (document) type: PRDA
Date: none given
Organization: Air Force
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms?yes
Was a preference for commercial or nondevelopmental items expressed? <u>yes</u>

Solicitation title: Horizontal Baler
Solicitation number: SOL N00244-98-Q-295
Solicitation (document) type: combined synopsis/solicitation
Date: 18 June 1998
Organization: Navy
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? yes

Solicitation title: HTS-OAS and FTS-FAF B T-1 Circuits
Solicitation number: DCA 200-98-R-0049
Solicitation (document) type: RFP
Date: 10 August 1998
Organization: Air Force
Solicitation for: X a product, a service? ("engineer, provide, install, test, and maintain twodigital circuits.")
Number of military specifications identified:1 (Air Force interface specification); Number mandated:1_; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified: $\underline{13*}$; Number mandated: $\underline{12}$; Number for guidance only: $\underline{\underline{1}}$.
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:5; Number mandated:3; Number for guidance only:2
Was the product or service description written in performance terms? <u>no</u>
Was a preference for commercial or nondevelopmental items expressed? <u>no</u>
* Includes three military handbooks, and six Air Force instructions

Solicitation title: Hypersonic Weapons Technology Program
Solicitation number: N 68936-BAA-98-005
Solicitation (document) type: RFP
Date: none given
Organization: Navy
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidanc only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? <u>N/A</u>

Solicitation title: Integrated Target Planning Set
Solicitation number: DSWA01-98-R-0026
Solicitation (document) type: RFP
Date: 2 April 1998
Organization: Other DoD
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? no

Solicitation title: Intel Pentium Process Based Computer
Solicitation number: SOL N00178-98-R-3056
Solicitation (document) type: combined synopsis/solicitation
Date: 17 June 1998
Organization: Navy
Solicitation for: <u>X</u> a product, <u>a service?</u>
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms?yes
Was a preference for commercial or nondevelopmental items expressed?yes

Solicitation title: Intermediate New Generation Army Targetry
Solicitation number: DAAE 20-98-R-0156
Solicitation (document) type: draft performance description
Date: 22 June 1998
Organization: Army
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms?yes
Was a preference for commercial or nondevelopmental items expressed? <u>yes</u>

Solicitation title: Missile Components
Solicitation number: SOL N00178-98-R-1065
Solicitation (document) type: combined synopsis/solicitation
Date: 26 June 1998
Organization: Navy
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms?no
Was a preference for commercial or nondevelopmental items expressed? no

Solicitation title: Motor Procurement
Solicitation number: FO4700-98-Q-1526
Solicitation (document) type: combined synopsis/solicitation
Date: 15 June 1998
Organization: Air Force
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? ves

Solicitation title: Next Generation Small Loader Program
Solicitation number: SOL F33657-98-R-0027
Solicitation (document) type: RFP
Date: 17 June 1998
Organization: Air Force
Solicitation for: X a product, a service?
Number of military specifications identified: _13; Number mandated: _13; Number for guidance only:
Number of performance specifications referenced:13; Number mandated:13; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:3; Number mandated:3; Number for guidance only:
Number of non-government standards identified: <u>6</u> ; Number mandated: <u>6</u> ; Number for guidance only:
Was the product or service description written in performance terms? <u>no</u>
Was a preference for commercial or nondevelopmental items expressed? <u>yes</u>

Solicitation title: Pager Services
Solicitation number: SOL N00178-98-R-1046
Solicitation (document) type: Draft RFP
Date: 18 June 1998
Organization: Navy
Solicitation for: a product, \underline{X} a service? ("an efficient and economical means for pager equipment and services")
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? ves

Solicitation title: Provide, Install, and Test Northern TELECOM Intelligent Peripheral Equipment
Solicitation number: N61339-980584
Solicitation (document) type: combined synopsis/solicitation
Date: 16 June 1998
Organization: Navy
Solicitation for: X a product, a service? (provide product and install and test)
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? ves

Solicitation title: Purchase of Remote Sensor Management System Application
Solicitation number: SOL M68909-98-R-1048
Solicitation (document) type: combined synopsis/solicitation
Date: 18 June 1998
Organization: United States Marine Corps
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? ves

Solicitation title: Reliability Testing
Solicitation number: SOLDAAB07-98-Q-B608
Solicitation (document) type: statement of work
Date: 18 June 1998
Organization: Army
Solicitation for: a product, _X a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:1; Number mandated:1; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? <u>no</u>

Solicitation title: Self Contained Environmental Chamber
Solicitation number: SOL N00244-98-Q-0246
Solicitation (document) type: combined synopsis/solicitation
Date: 16 June 1998
Organization: Navy
Solicitation for: <u>X</u> a product, <u>a service?</u>
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? <u>yes</u>

Solicitation title: Upright Temperature/Altitude Chamber
Solicitation number: N00174-98-R-0068
Solicitation (document) type: RFP
Date: 17 July 1998
Organization: Navy
Solicitation for: <u>X</u> a product, <u>a service?</u>
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:3; Number mandated:3; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? <u>yes</u>

Solicitation title: Water Resistojet Feed System (Modification)
Solicitation number: SOL F04611-98-R-0058
Solicitation (document) type: combined synopsis/solicitation
Date: 15 June 1998
Organization: Air Force
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? ves

Solicitation title: 2.75 Inch Extruded Composite Propellant Grain Inhibiting Technology
Solicitation number: SOL BAA-98-007
Solicitation (document) type: BAA
Date: 18 June 1998
Organization: Navy
Solicitation for: X a product, a service?
Number of military specifications identified:; Number mandated:; Number for guidance only:
Number of performance specifications referenced:; Number mandated:; Number for guidance only:
Number of military standards identified:; Number mandated:; Number for guidance only:
Number of government, non-military standards identified:; Number mandated:; Number for guidance only:
Number of non-government standards identified:; Number mandated:; Number for guidance only:
Was the product or service description written in performance terms? <u>yes</u>
Was a preference for commercial or nondevelopmental items expressed? <u>yes</u>