

Statement of Work

1.0 Scope. This Statement of Work (SOW) defines the efforts required to produce the products required by this solicitation in accordance with the Documents listed below. The items being purchased are entitled “TA-1()/PT”.

2.0 Applicable Documents. The following documents are applicable to the extent cited.

2.1 Military and Federal Stds

<u>Document No.</u>	<u>Document Title</u>	<u>Applicability</u>
MIL-STD- 13231	Marking of Electronic Items	Required
MIL-STD- 40051 A	DoD Standard Practice - Preparation of Digital Technical Information for Multi-Output Presentation of Technical Manuals	Required
MIL-STD- 196	Joint Electronics Type Designation System	Reference
FED-STD- 595	Colors Used in Government Procurement	Required
MIL-STD- 130L	Identification Marking of U. S. Military Property	Required

2.2 Military and Federal Specs

<u>Document No.</u>	<u>Document Title</u>	<u>Applicability</u>
MIL-F- 14072	Finishes for Ground Based Electronic Items	Required
MIL-PRF- 87268 A	Manuals, Interactive Electronic Technical General Content, Style, Format and User Interaction Requirements	Required

2.3 Other DoD Documents

<u>Document No.</u>	<u>Document Title</u>	<u>Applicability</u>
SM-C- 189372	Telephone Set TA-1/PT	Reference
SM-B- 143122	Microphone Cap	Reference
SM-B- 143123	Transmitter Cap	Reference
SM-B- 169034	Handset Cord Assembly	Reference
SM-B- 169076	Diaphragm Assembly	Reference
SM-D- 143140	Carrying Case	Reference
SM-C- 143845	Cover Assembly	Reference
SM-C- 143762	Cover Assembly	Reference
TM 11- 5805-243-13	Telephone Set TA-1/PT	Required
TM 11- 5805-243-23P	Telephone Set TA-1/PT	Reference

2.4 Com'l Documents

<u>Document No.</u>	<u>Document Title</u>	<u>Applicability</u>
NONE		

3.0 Requirements. The contractor shall produce the items in the quantity set forth in Section B of the schedule in accordance with Documents listed above and this SOW. In the event of a conflict between the requirements of this SOW and any drawings for the item on contract, the requirements of this SOW shall govern.

3.1. Requirements for Packaging.

3.1.1 Packaging – Preservation, packing, and marking shall be in accordance with Section ‘D’ of the Contract.

3.2. Requirements for Model (Test). The government furnished model(s) will conform to the government performance specification (See Appendix A to this SOW). Units delivered under this contract shall also conform to the government performance specification, but they are not required to be physically identical to the government furnished models. The model is provided by the government solely to aid in testing the equipment procured here-in. The model(s) will be loaned to the contractor in accordance with “Schedule of Government-Furnished Property” provision in Section H of this contract.

3.2.1. Performance Measurements. Within 60 days from receipt of the model(s) the contractor will measure the performance of the model(s) for compliance with the performance characteristics of the equipment, as specified in this contract (including the performance specification provided in this SOW). The model(s) will not be disassembled prior to performance measurements. However, removal of protective covers, cabinets, panels, etc., will be permitted for visual inspection of the interior, provided that wiring, connection, subassemblies and parts are not disturbed. No destructive testing will be performed. If necessary, the contractor will adjust or align the model(s) for optimum performance before recording final measurements, such that the model(s) meets specified performance parameters. The government engineer, if present, will view the performance measurements. (NOTE: The contractor is responsible for identifying and providing the appropriate test equipment to make performance measurements).

3.2.1.1. Notification. Notification of the date for commencement of performance measurements will be given in writing by the contractor to Commander, US Army Communication-Electronics Command, ATTN: AMSEL-LC-COM-C-CM, Fort Monmouth, New Jersey 07703-5000. This notification will be submitted at least 10 days prior to commencement of the measurements in order to permit a government engineer to be present during performance measurements on the model(s), if desired by the government. During the course of this contract the contractor shall notify the government (within 7 days) of any testing discrepancies with the “Test Requirements Documents”, the Government furnished model(s) and the contractors first article or first production units.

3.2.1.2. The contractor will document and maintain on file, for Government review, all interim and final test measurements including test results, test procedures (including measurement techniques), makes and models of measuring equipment, test dates and times, name(s) of test personnel, and nomenclature, type numbers and serial numbers of the units on which measurements were taken.

3.2.2. Upon completion of performance measurements, the contractor may disassemble the model(s) to use it for testing. If disassembled, the contractor will re-assemble the model(s) after contract completion. The models will be returned to the Government (at no expense) in operable condition at least equal to their condition as received by the contractor. Any destroyed or damaged components will be replaced by the contractor at no expense to the Government.

3.2.3. In case of conflict between the specified required characteristics of the equipment(s) and the measured performance of the model(s), the specified required characteristics shall govern.

3.3 Requirements for Item Marking (Gov't Performance Design Items).

3.3.1. Part Number Marking. Each item delivered under contract, along with each assembly, sub assembly, and module, shall be legibly marked with the appropriate part number and manufacturer's identification. Hardware such as screws, nuts, bolts, etc., need not be marked. The marking shall become permanently part of the item after it is applied, and can be applied using deformation, tag, rubber stamp with permanent characteristics, etc. The marking shall not interfere with proper operation of the item, and shall have no deleterious effect on the item. Any item deemed unsuitable for marking as outlined herein shall be identified to the Contracting Officer for resolution as to marking requirement. This requirement may be entirely met by existing marking requirements contained within the drawings or specifications cited in this contract. Each TA-1 shall have a nameplate, which shall include nomenclature, serial number, contract number, contractor cage code, part number, and NSN.

3.3.2. Serial Number Marking.

3.3.2.1. Each TA-1()/PT shall have a serial number applied in the place provided (generally on the nameplate/serial number plate) and an Unique Item Identifier (UID) per MIL-STD-130L. The contractor shall assign serial numbers starting with 0001 and continuing sequentially for the duration of the contract.

3.3.2.2. The contractor shall maintain an accurate, current list of serial numbers and UIDs for all manufactured items under this contract. Dates of manufacture, substitutions, shop changes, etc. shall be included on this list. The list shall be available for inspection by the PCO or government representative at any time during the life of the contract and for a period of 3 years following the completion of the contract.

3.4 REQUIREMENTS FOR TECHNICAL MANUAL (TM) CHANGES (OR NEW TM).

If the TA-1 units to be delivered under this contract will closely resemble the GFE units, the contractor shall make changes to TMs as described below:

TM 11-5805-243-13 Provide new figures and narrative to clearly identify any differences in configuration, operation, and maintenance applicable to the TA-1 units delivered under this contract.

TM 11-5805-243-23P If applicable, provide figures and parts lists to reflect TA-1 units delivered under this contract.

If the TA-1 units delivered under this contract will be significantly different from the GFE units, the contractor shall prepare and deliver new Technical Manuals in accordance with the bidder's proposed maintenance concept.

3.4.1 All changes shall be clearly identified in the delivered material, through "change bars" on the left margin of the page or as agreed between the Contractor and the Government. These Technical Manual changes shall be in accordance with this SOW, the DD1423 for DI-MISC-80711A, and the following Military Specifications:

- a. MIL-STD-40051A, Department of Defense Standard Practice, Technical Manual Preparation (Exclusive of style and format requirements)(tailored at SOW appendix/appendices entitled “TM Requirements Matrix”).
- b. MIL-PRF-87268A, Manuals, Interactive Electronic Technical, General Content, Style, Format, and User Interaction Requirements (tailored at SOW appendix entitled “Tailoring of MIL-PRF-87268A”).

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.			B. EXHIBIT		C. CATEGORY: TDP TM X OTHER		
D. SYSTEM/ITEM TA-1			E. CONTRACT/PR NO.		F. CONTRACTOR		
1. DATA ITEM NO.	2. TITLE OF DATA ITEM Scientific and Technical Reports			3. SUBTITLE TM Changes listed in SOW Para 3.4.1			
4. AUTHORITY (Data Acquisition Document No.) DI-MISC-80711A			5. CONTRACT REFERENCE SOW Para 3.4.1		6. REQUIRING OFFICE AMSEL-LC-COM-C-CM		
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED A	10. FREQUENCY ASREQ	12. DATE OF FIRST SUBMISSION SEE ITEM 16	14. DISTRIBUTION			
8. APP CODE A	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION SEE ITEM 16	a. ADDRESSEE	b. COPIES			
				Draft	Final		
				Reg	Repro		
16. REMARKS: <p>Item 4: Delete Block 10 of Data Item Description (DID) and prepare manual in accordance with this CDRL, the Statement of Work para 3.4, and attachments.</p> <p>Item 12: Digital Files for 30% In-Process Review (IPR) due by Letter of Transmittal 120 days after contract (DAC). Allow 30 days for government review/comments.</p> <p>Item 13: Digital Files for 70% In-Process Review due by Letter of Transmittal 270 DAC. Validated Digital Files for verification due 45 days before verification by Letter of Transmittal. Government review comments will be provided at verification. All final review/comments shall be incorporated into the Final Digital Files. Final Digital files and one printed proof copy due once by DD 250.</p> <p>The contractor shall deliver digital files for all technical manuals developed under this contract. For each TM, the contractor shall provide a complete set of all text and graphics files for the manual(s) in a native format that is compatible with the latest version of Microsoft Word for Windows, unless otherwise discussed with and approved by the government acceptance activity.</p> <p>The final delivery shall also include a complete TM in Adobe Acrobat searchable Portable Document Format (PDF).</p> <p>All digital files will be provided both by electronic submission, e.g., e-mail, FTP, etc., as arranged with the requiring office, and also by CD ROM or 100MB Zip disk, readable by computers running Microsoft Windows.</p>				<p>AMSEL-LC-COM-C-CM</p> <p>* 30% IPR DIG FILE</p> <p>* 70% IPR DIG FILE</p> <p>* VALIDATED DIG FILE</p> <p>* FINAL DIG FILE</p> <p>* PAPER FINAL</p>	0	0	0
				15. TOTAL	2	3	0
G. PREPARED BY Jon Vogel AMSEL-LC-COM-C-CM Electronic Engineer			H. DATE 11 / 13 / 03	I. APPROVED BY Howard Horn AMSEL-LC-COM-C-CM Acting Chief, Comm Mgt Branch		J. DATE 11 / 13 / 03	

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3.4.2 SOURCE DATA. The contractor shall develop the TM changes according to the following source data, which will be furnished to the contractor no later than the TM Change start-of-work meeting.

- Applicable ECOs/ECPs
- Existing manuals
- Existing digital files (if applicable)
- Maintenance Allocation Chart (MAC)
- Target audience descriptions
- Ozone Depletion Substance Prohibition Listing (with recommended alternatives) – if applicable

3.4.3 FRONT MATTER "BOILERPLATE" SOURCE DATA. The contractor shall incorporate the following boilerplate material (TM paragraph numbers are shown below), to be supplied by the government, in the front matter of each TM being changed. The government will provide this material no later than the TM start-of-work meeting, unless otherwise indicated.

- 1-2. Consolidated Index of Army Publications and Blank Forms
- 1-3. Maintenance Forms and Records
- 1-4. Reporting Equipment Improvements and Recommendations
- 1-5. Administrative Storage
- 1-6. Destruction of Army Materiel to Prevent Enemy Use

3.4.4 TM IN-PROCESS REVIEWS (IPRs). IPRs shall take place when 30% and 70% of the TM Change(s) have been developed. The contractor shall provide digital files of the material to be reviewed.

3.4.4.1 TM CHANGE VALIDATION. The contractor shall validate changed material at the contractor's facilities. Contractor personnel performing operating and maintenance procedures on the equipment during validation shall be independent of the contractor's TM preparation activity. Contractor validation records shall be subject to government inspection at any time during the contract without prior notice. The contractor shall notify the government in writing upon completion of the TM Change validation. The government reserves the right to witness the contractor validation.

3.4.5 INCORPORATION OF COMMENTS. AMSEL-LC-COM-C-CM is the government TM Change acceptance activity for this contract. The contractor shall incorporate all TM Change comments within scope of this contract provided to them by the government TM Change acceptance activity. If government activities other than the government TM Change acceptance activity provide TM Change comments, the contractor shall forward these comments to the government TM Change activity for disposition.

3.4.6 DELIVERY. For all technical manuals prepared under this contract, the contractor shall deliver digital files IAW DD Form 1423 for DI-MISC-80711A.

3.4.6.1 FINAL DIGITAL DELIVERY. The final digital delivery shall be a complete technical manual with all changes incorporated. The changes shall be indicated in the margin or otherwise so the changed data can be readily identified by the user.

3.4.6.2 FINAL PAPER DELIVERY. The final paper delivery shall be the change pages only, including transmittal page(s).

3.4.7 PACK-UP OF OPERATOR'S TMs WITH EQUIPMENT. If a TM containing operator's instructions is being changed under this contract AND the equipment is being delivered under this contract, the contractor shall pack one copy of the changed operator's TM with each equipment package.

3.4.8 OZONE DEPLETION. Maintenance procedures shall not use any substance known to cause ozone depletion (reference paragraph 3.4.2 Source Data).

3.4.9 RESIDUAL MATERIAL. The contractor shall package and deliver to the government all source material, defined as operating plans standard procedures, computer programs, and residual material to include computer disks, computer tapes, and all other media containing digital files developed to fulfill the requirements of this SOW. The contractor shall grant the government unlimited rights to any and all data and products under this SOW.

3.5. Requirements for Nomenclature Request. If applicable, the contractor shall prepare and submit Requests for Nomenclature (DD Form 61) in accordance with the DD Form 1423 for DI-CMAN-81254A and this SOW. Contractor may use MIL-STD-196 for guidance.

CONTRACT DATA REQUIREMENTS LIST <i>(1 Data Item)</i>					Form Approved OMB No. 0704-0188			
<small>Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA. 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for Contract/PR No. listed in Block E.</small>								
A. CONTRACT LINE ITEM NO.		B. EXHIBIT		C. CATEGORY: TDP TM OTHER CMAN				
D. SYSTEM/ITEM TA-1			E. CONTRACT/PR NO.		F. CONTRACTOR			
1. DATA ITEM NO.	2. TITLE OF DATA ITEM Request for Nomenclature (DD Form 61)		3. SUBTITLE					
4. AUTHORITY (Data Acquisition Document No.) DI-CMAN-81254A			5. CONTRACT REFERENCE SOW Para 3.5.		6. REQUIRING OFFICE AMSEL-LC-COM-C-CM			
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED N/A	10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION SEE ITEM 16		14. DISTRIBUTION			
8. APP CODE A		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION SEE ITEM 16		a. ADDRESSEE		b. COPIES	
16. REMARKS: Data Item Description (DID) DI-CMAN-81254A: All references to MIL-Specs and Stds are for guidance only. Item 12 and 13: The contractor shall submit draft DD61 60 DAC (if reqd). Government requires 30 days for review/ comment. Contractor shall submit final 30 days after receipt of Government comments.					AMSEL-LC-COM-C-CM	1	0	1
G. PREPARED BY Jon Vogel AMSEL-LC-COM-C-CM Electronic Engineer			H. DATE 11 / 13 / 03	I. APPROVED BY Howard Horn AMSEL-LC-COM-C-CM Acting Chief, Comm Mgt Branch			J. DATE 11 / 13 / 03	

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3.5.1 Nomenclature Assignment. The contractor shall submit a request for assignment of Government nomenclature when new materiel is designed, developed, assembled or constructed to become part of the U.S Army inventory.

3.5.2 Nomenclature Revision. The contractor shall submit requests for revision of Government nomenclature when:

- a. Design changes occur which affect the technical data or interchangeability of previously nomenclatured materiel.
- b. The security classification of the technical data for nomenclatured materiel has changed.
- c. The security classification of the equipment has changed.
- d. The Item Name or Type Designation has changed.

3.5.3 Nomenclature Cancellation. The contractor shall submit requests for cancellation of Government nomenclature when it is determined that the requirements for a nomenclature no longer exist. Cancelled nomenclature shall be reactivated only upon written approval of the Government Technical Activity cited in Block 6 of the DD Form 1423 for DI-CMAN-81254A.

3.6. Requirements for Final Inspection and Test. The contractor shall implement and maintain a Final Inspection and Test System that meets or exceeds the requirements established below. These requirements are commonly accepted practices employed by industry.

3.6.1 Quality System. The contractor shall establish/maintain an effective inspection and test system for final inspection and test of completed products.

3.6.2 Inspection and Testing Procedures. The contractor shall utilize documented procedures for final inspection and testing of finished products to ensure that all contract requirements are satisfied.

3.6.3 Inspection and Testing. The quality system shall assure that all final inspections and tests required to satisfy contract requirements are conducted.

3.6.4 Records. The contractor shall maintain adequate records of final inspections and tests to demonstrate that the product satisfies contract requirements.

3.6.5 Measuring, Testing, and Inspection Equipment. The contractor shall provide and maintain gages (including production tooling used for inspection purposes) and other measuring and testing equipment to assure that finished products conform to contract requirements. These devices shall be calibrated against certified measurement standards which are traceable back to national/international standards.

3.6.6 Inspection and Test Status. The contractor shall maintain a system for the identification of the final inspection and test status of all products.

3.6.7 Nonconforming Material. The contractor shall establish and maintain a system for controlling material which does not satisfy contract requirements, including procedures for its identification, segregation, and disposition (rework/repair, scrap, etc.).

3.6.8 Corrective Action. The contractor shall promptly act to correct nonconforming materials and processes to preclude the recurrence of the problem and to satisfy contract requirements.

3.6.9 Training Requirements. The contractor shall identify/provide for the training needs of their personnel performing inspections and tests.

3.6.10 Handling, Storage, Preservation, Packaging, and Shipping. The contractor shall control the handling, storage, preservation, packaging, and shipping to protect the quality of finished products.

3.7. Requirements for Contractor Performed First Article Testing.

3.7.1 General. The contractor shall perform First Article Testing (FAT) in accordance with FAR 52.209-3 (see Section I of this contract) and this SOW. As part of FAT, the contractor shall:

- a. Select the test unit(s) used for FAT from the first production lot.
- b. Develop the test procedures and plans necessary to demonstrate that these units conform to the requirements established by the applicable specification(s) and other technical data provided in this contract.(Para 3.7.4)
- c. Notify the Government and test the First Article units. (Para 3.7.5)
- d. Provide a First Article Test Report to the Government which documents the FAT results. (Para 3.7.6)
- e. Insure all equipment used to take performance readings for acceptance tests are kept within the performance parameters delineated by the manufacturer of that equipment. All equipment manufactured by the contractor shall be listed and the parameters established and maintained for this equipment also.

3.7.2 Test Requirements. The following test requirements shall be verified as part of FAT:

All requirements identified in paragraph 3 of Performance Specification (See Appendix A to this SOW).

If the contractor selects a plastic (lexan) handset housing and/or handset housing cover assembly (as identified in the reference drawings provided), the assembly shall be tested to verify that it will not degrade over time and that it is not susceptible to cracking/breakage due to expansion/contraction around mounting hardware. Alternatively, a five (5) year (or greater) warranty against such cracking/breakage may be offered.

3.7.3 Production of First Article Units. All FAT samples shall be assembled at the same location at which production units will be assembled, using the same parts, materials, and manufacturing processes to be employed for subsequent production.

3.7.4 Test Plan. The contractor shall prepare and submit a First Article Qualification Test Plan in accordance with DI-NDTI-81307 as implemented by the DD Form 1423 for DI-NDTI-81307. In addition to the information required by DI-NDTI-81307, this submission shall contain:

a. The delineation and allocation of tests to be performed on each of the First Article units and the order of such tests.

b. Step-by-step test procedures for each test and the data sheets (see 3.7.6.3) to be employed to document the results of testing.

c. Identification of required test facilities, equipment and personnel.

d. Test milestones schedules and the contractor's test readiness posture.

e. A table which cross references the paragraph number of the specification requirement (including a brief description of the requirement) and the associated paragraph number of the First Article Qualification Test Plan.

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<small>Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA, 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for Contract/PR No. listed in Block E.</small>							
A. CONTRACT LINE ITEM NO.		B. EXHIBIT		C. CATEGORY: TDP TM OTHER NDTI			
D. SYSTEM/ITEM TA-1			E. CONTRACT/PR NO.		F. CONTRACTOR		
1. DATA ITEM NO.	2. TITLE OF DATA ITEM First Article Qualification Test Plan			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.) DI-NDTI-81307			5. CONTRACT REFERENCE SOW Para 3.7.4.		6. REQUIRING OFFICE AMSEL-LC-COM-C-CM		
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED N/A	10. FREQUENCY ONE/P	12. DATE OF FIRST SUBMISSION 120 DAC	14. DISTRIBUTION			
8. APP CODE A	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION SEE ITEM 16		a. ADDRESSEE AMSEL-LC-COM-C-CM		b. COPIES	
						Draft	Final
					Reg	Repro	
16. REMARKS: Submit draft via LT. Government requires 30 days for review/comments. Submit final within 30 days of receipt of Government comments, via DD-250. Each draft and the final submission shall be delivered in Microsoft WORD format, or as an alternative, in "Rich Text Format", on standard 3-1/2 inch diskettes formatted in Microsoft DOS-readable 720KB or 1.44MB capacity. Alternative delivery media may be discussed with the Contracting Officer prior to delivery.							
				15. TOTAL ➔	1	1	0
G. PREPARED BY Jon Vogel AMSEL-LC-COM-C-CM Electronic Engineer			H. DATE 11 / 13 / 03	I. APPROVED BY Howard Horn AMSEL-LC-COM-C-CM Acting Chief, Comm Mgt Branch			J. DATE 11 / 13 / 03

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3.7.5 Notice of FAT Performance. As required by FAR 52.209-3, written notices concerning the time and location of FAT shall be furnished to the PCO, the Administrative Contracting Officer and the Government Technical Activity listed in Block 6 of the DD Form 1423 for DI-NDTI-80809B.

3.7.5.1 Selection of First Article Samples. When Initial Production FAT applies to this contract (i.e., when FAR 52.209-3 ALT I and ALT II are specified in Section I), FAT samples shall be selected at random from the initial production lot.

3.7.5.2 Reporting of FAT Failures. Reporting of FAT failures shall be by the FAT Report, in lieu of any other reporting requirements specified in this contract. In addition, FAT failures shall be verbally reported to the Government's Quality Assurance Representative (QAR) and Government Technical Activity listed in Block 6 of the DD Form 1423 for DI-NDTI-80809B within twenty four hours of occurrence.

3.7.6 FAT Report. A FAT Report shall be prepared and submitted in accordance with FAR 52.209-3 and DI-NDTI-80809B as implemented by the DD Form 1423 for DI-NDTI-80809B. The FAT Report shall be complete, accurate, and readable and shall provide sufficient data to determine that the hardware item meets all the requirements delineated in the contract. The report will include the following:

CONTRACT DATA REQUIREMENTS LIST <i>(1 Data Item)</i>					Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for Contract/PR No. listed in Block E.						
A. CONTRACT LINE ITEM NO.		B. EXHIBIT	C. CATEGORY: TDP TM OTHER NDTI			
D. SYSTEM/ITEM TA-1		E. CONTRACT/PR NO.		F. CONTRACTOR		
1. DATA ITEM NO.	2. TITLE OF DATA ITEM Test/Inspection Report		3. SUBTITLE First Article Test Report			
4. AUTHORITY (Data Acquisition Document No.) DI-NDTI-80809B		5. CONTRACT REFERENCE SOW Para 3.7.6.		6. REQUIRING OFFICE AMSEL-LC-COM-C-CM		
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY OTIME	12. DATE OF FIRST SUBMISSION 210 DAC	14. DISTRIBUTION		
8. APP CODE	N/A	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE		b. COPIES
16. REMARKS: Submit report of First Article Test results via DD 250. Submit revised report within 20 days after receipt of government comments. Government requires 30 days to provide comments/approval. All deliveries shall be in Microsoft WORD format, or as an alternative, in "Rich Text Format", on standard 3-1/2 inch diskettes formatted in Microsoft DOS-readable 720KB or 1.44MB capacity. Alternative delivery media may be discussed with the Contracting Officer prior to delivery.				AMSEL-LC-COM-C-CM	0	Final
						Reg
15. TOTAL				0	1	0
G. PREPARED BY Jon Vogel AMSEL-LC-COM-C-CM Electronic Engineer		H. DATE 11 / 13 / 03	I. APPROVED BY Howard Horn AMSEL-LC-COM-C-CM Acting Chief, Comm Mgt Branch		J. DATE 11 / 13 / 03	

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3.7.6.1. General Data.

- a. Contractor's name and address.
- b. Contract number.
- c. Nomenclature, type number and (if assigned) stock number of item represented by the First Article.
- d. Name and address of plant where First Article was fabricated and assembled.
- e. Place and date of performance of tests.
- f. Identification (including date) of applicable equipment specifications and associated amendments.
- g. Sample size or quantity submitted for test or inspection.

3.7.6.2 Cross Reference. A table which cross-references the paragraph numbers of the specification, the test procedures, and data sheet entry.

3.7.6.3 Test Results. Complete test results showing actual or quantitative observations and all required calculations. 'GO/NOGO' data is allowable (under certain circumstances) only with prior Government approval. Allowable tolerances for each parameter shall be presented. Test data should also include the date that the test was performed, name and signature of tester, name and signature of the Government verifier/witness (if applicable) and serial number of the equipment. Test results shall cite detailed qualitative and quantitative data results such as test categories, test conditions, test methods employed, and types of inspection and test equipment used during the test or inspection.

3.7.6.4 FAT Failures. FAT failures shall list all requirements not complied with during FAT. If none, this should be explicitly stated. For each requirement not met, a corrective action to remove the noncompliance will be proposed. This corrective action must include retest or other verification that the corrective action does remedy the problem/failure. The corrective action will address changes in design or manufacturing process which will preclude this deficiency in subsequent production units. Verified corrective action must be implemented prior to contractor entering into production.

3.7.6.5 FAT/Production Discrepancies. Any Government approved (see paragraph 3.7.3), difference between the parts, materials and processes used to manufacture FAT samples and production units shall be documented in the FAT report.

3.7.7 FAT Approval. FAT samples shall meet all contractual requirements or all variances shall be documented by Government approved waivers. First Article approval will be contingent upon the submission of a complete and acceptable FAT report to include verification of corrective action for reported FAT failures to include adequacy of identified changes to the design/manufacturing process.

3.7.8 FAT Samples and First Production Lot Inspection. If FAR 52.209-3 ALT II is specified in Section I, First Article units shall be utilized to satisfy initial production lot inspection requirements. If the quantity of First Article samples is less than that needed to satisfy first production lot sampling requirements, additional samples shall be selected at random from the production lot and inspected to meet first production lot acceptance requirements.

3.7.8.1 When Initial Production FAT (FAR 52.209-3 ALT I and ALT II) applies and additional units are tested to satisfy production acceptance requirements, failures for these additional units shall be reported as specified in this contract.

3.7.9. Disposition of First Article Samples. Upon successful completion of FAT, the contractor shall dispose of the FAT samples as follows:

3.7.9.1 One (1) sample shall be retained at the contractor's facility for use as a reference by the QAR.

3.7.9.2 One (1) sample shall be shipped to the Government for further testing purposes at the following address:

Commander, CECOM
ATTN: AMSEL-LC-COM-C-CM
Ft. Monmouth, NJ 07703

3.7.9.3 All remaining FAT samples may not be acceptable as production items. Those items which are not refurbishable shall not be delivered as production items. Items which are refurbishable and made fully compliant with contractual requirements shall be delivered as production items. The Government shall determine the acceptability of all FAT samples.

3.7.10 Production Test Procedures. Production test procedures used to test production units shall be identical to those used to test First Article samples. As a minimum, each production unit shall be tested for conformance to the operational and electrical requirements identified in the Performance Specification (Appendix A, paragraphs 3.3 and 3.4).

3.7.10.1 Once FAT is approved, proposed changes to the production test procedures will be submitted to the Government Technical Activity (see paragraph 3.7.5) for evaluation. Such submissions will provide complete justification for the change. Changes to the approved test procedures shall not be implemented without written Government approval.

3.7.10.2 Any notice of approval of test procedures or changes thereto shall not relieve the contractor from complying with all contractual requirements.

3.7.11 Use of FAT Samples as a Manufacturing Standard. The FAT samples shall NOT serve as a manufacturing standard.

3.8 Handset Breakage Warranty. If a plastic (lexan) handset housing and/or handset housing cover is selected, the contractor may offer a 5 year or greater warranty against cracking and breakage not caused by TA-1 misuse or abuse. The contractor shall address such a warranty in the proposal. If a warranty is not offered, the contractor shall perform testing to prove that cracking/breakage will not occur.

INSTRUCTIONS FOR COMPLETING DD FORM 1423
(See DoD 5010.12-M for detailed instructions)

FOR GOVERNMENT PERSONNEL

- ITEM A.** Self-explanatory.
- ITEM B.** Self-explanatory.
- ITEM C.** Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management", etc.
- ITEM D.** Enter name of system/item being acquired that data will support.
- ITEM E.** Self-explanatory (to be filled in after contract award).
- ITEM F.** Self-explanatory (to be filled in after contract award).
- ITEM G.** Signature of preparer of CDRL.
- ITEM H.** Date CDRL was prepared.
- ITEM I.** Signature of CDRL approving authority.
-
- ITEM 1.** See DoD FAR Supplement Subpart 4.71 for proper numbering.
- ITEM 2.** Enter title as it appears on data acquisition document cited in Item 4.
- ITEM 3.** Enter subtitle of data item for further definition of data item (optional entry).
- ITEM 4.** Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.
- ITEM 5.** Enter reference to tasking in contract that generated requirement for the data item (e.g., Statement of Work paragraph number).
- ITEM 6.** Enter technical office responsible for ensuring adequacy of the data item.
- ITEM 7.** Specify requirement for inspection/acceptance of the data item by the Government.
- ITEM 8.** Specify the requirement for approval of a draft before preparation of the final data item.
- ITEM 9.** For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DODD 5230.24)
- ITEM 10.** Specify number of times data items are to be delivered.
- ITEM 11.** Specify as-of date of data item, when applicable.
- ITEM 12.** Specify when first submittal is required.
- ITEM 13.** Specify when subsequent submittals are required, when applicable.
- ITEM 14.** Enter addresses and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.
- ITEM 15.** Enter total number of draft/final copies to be delivered.
- ITEM 16.** Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

- ITEM 17.** Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.
- a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.
- Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.
- b. Group II. Definition - Data which is essential to the performance of the primary contracted effort by the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.
- Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data items to the Government.
- c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.
- Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data items to the Government.
- d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying this data to the Government is minimal.
- Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.
-
- ITEM 18.** For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices should be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

Appendix A - Performance Specification

Telephone Set TA-1()/PT

1. Scope. This specification defines the performance characteristics of one type of portable sound powered telephone set designated Telephone Set TA-1/PT.

2. Applicable Documents. The following documents, of the issue in effect on the date of solicitation for proposal, form a part of this specification to the extent specified herein.

Specifications

MIL-F-14072 Finishes for Ground Based Electronic Equipment

Standards

MIL-STD-130L Identification Marking of U. S. Military Property

MIL-STD-13231 Marking of Electronic Items

Drawings (for reference only)

SM-C-189372 Telephone Set TA-1/PT

SM-B-143122 Microphone Cap

SM-B-143123 Transmitter Cap

SM-B-169034 Handset Cord Assembly

SM-B-169076 Diaphragm Assembly

SM-D-143140 Carrying Case

SC-C-143845 Cover Assembly

SC-C-143762 Cover Assembly

Technical Manuals

TM11-5805-243-13 Telephone Set TA-1/PT

3. Requirements.

3.1 Design, materials, and manufacturing processes. Unless otherwise specified, the design, materials, and manufacturing process selection shall be the responsibility of the contractor as long as all units delivered to the government meet the requirements of this document.

3.2 Major Components. The TA-1 shall consist of a Handset Assembly and a Carrying Case. The total weight (including case) shall not exceed 3.5 pounds. All drawings cited in this specification are for reference purposes only.

3.2.1 The Handset Assembly shall conform to the basic layout and dimensions of the Government furnished model and shall provide the following features:

Receiver Earpiece (to include moisture barrier)

Transmitter Mouthpiece (to include moisture barrier)

Visual In-coming Call Indicator (visually indicates presence of an in-coming call)

Ring Generator Lever (to signal distant party of intent to transmit)

Buzzer Volume Control (to allow the adjustment of the buzzer volume of an incoming call from off to maximum)

Press-to-talk Switch

Terminal Block Assembly (handset to field wire cord assembly, including connector and binding posts)

3.2.2 The Carrying Case shall house the handset and provide waterproof transport protection.

3.3 Operation. The TA-1 shall conform to the principles of operation as defined in TM11-5805-243-13 and shall be interoperable with prior models.

3.3.1 Transmit/Receive. The TA-1 shall transmit and receive intelligible, distortion-free voice signals without interference (for instance buzzing, rattling, screeching, or other spurious sounds) over the entire range of required operating frequencies (300-4000 Hz).

3.3.2 Operating Range. The TA-1 shall provide full operation over any length of WD-1/TT field wire up to 4 miles.

3.4 Electrical.

3.4.1 Earphone Element.

3.4.1.1 Frequency Response. The response of the earphone element throughout the voice frequency range shall be equal to or greater than the level specified in Figure 1.

3.4.1.2 Impedance. The input impedance at 1000 Hz shall be 600 ± 60 ohms.

3.4.1.3 Overload. There shall be no evidence of rattling or distortion in the earphone element when driven at a level of 5 mw throughout the frequency range of 500 to 2500 Hz.

3.4.1.4 Insulation Resistance. The element shall have a minimum insulation resistance of 5 Megohms between terminal and frame when measured at 500 VDC.

3.4.1.5 Magnetic Stability. The frequency response of the element shall not change by more than 4 db when subjected to 6 successive discharges of opposite polarity applied from terminal to terminal from a 10 microfarad capacitor charged to 130 volts.

3.4.2 Microphone Element.

3.4.2.1 Frequency Response. The response of the microphone element throughout the voice frequency range shall be equal to or greater than the level specified in Figure 2.

3.4.2.2 Impedance. The output impedance at 1000 Hz shall be 600 ± 60 ohms.

3.4.2.3 Insulation Resistance. The microphone shall have a minimum insulation resistance of 5 Megohms between terminal and frame when measured at 500 VDC.

3.4.2.4 Magnetic Stability. The frequency response of the microphone shall not change by more than 4 db when subjected to 6 successive discharges of opposite polarity applied from terminal to terminal from a 10 microfarad capacitor charged to 130 volts.

3.4.3 Generator Output. Operation of the generator lever shall produce a minimum of 30 vrms, 20 ± 5 Hz output over 4 miles of WD-1 field wire into a 1700 ohm load.

3.4.4 Ring Sensitivity. The audible and visual ring signals shall operate with a minimum input of 30 vrms at any frequency between 15 and 25 Hz.

3.4.5 Input Impedance. The input impedance at 20 Hz shall be 1800 ± 100 ohms.

3.4.6 All metal parts intended to be insulated from each other shall have a minimum insulation resistance of 100 Megohms at 500 VDC.

3.5 Finish. The exterior finish shall withstand the conditions cited in MIL-F-14072, type 1 (exposed). The exterior color of the handset shall be green 34088 per FED-STD-595. Caps, cord, terminal block, and generator/switch cover assemblies shall be lusterless black.

3.6 Marking. Marking shall conform to MIL-STD-13231 and each Handset Assembly shall be serially numbered. The contractor shall mark each unit with a Unique Identifier (UID) in accordance with MIL-STD-130L.

3.7 Interchangeability. The following items shall be interchangeable with those used in the Government furnished model:

Cover Assembly (SC-C-143845) (for Generator Lever)
Cover Assembly (SC-C-143762) (for Press-To-Talk Switch)
Transmitter Cap (SM-B-143123) and Diaphragm Assembly (SM-B-169076-GP1) (Microphone)
Microphone Cap (SM-B-143122) and Diaphragm Assembly (SM-B-169076-GP2) (Earphone)
Handset Cord Assembly (SM-B-169034)
Carrying Case (SM-D-143140)

3.8 Reliability. The TA-1 shall be capable of performing at least 500,000 transmit/receive operations without failure.

3.9 Safety. The handset assembly shall be free of hazardous burrs, nicks, sharp edges, foreign materials, or other imperfections posing physical danger to operators.

3.10 Service Conditions. The TA-1 shall be capable of operation, storage, and transportation in the following service conditions.

3.10.1 Temperature.

3.10.1.1 Operating. The TA-1 shall be operable without degradation in specified performance at temperatures from -65°F to $+150^{\circ}\text{F}$.

3.10.1.2 Storage and Transit. The TA-1 in storage or transit shall withstand ambient temperatures from -80°F to +160°F.

3.10.2 Humidity. The TA-1 shall be operable without degradation in specified performance and shall sustain no physical damage during and after prolonged exposure to extreme high humidity levels as encountered in tropical areas.

3.10.3 Altitude. The TA-1 shall be operable without degradation in specified performance at altitudes up to 10,000 feet above sea level. The TA-1 shall be capable of being stored without evidence of damage or deterioration at altitudes up to 25,000 feet above sea level.

3.10.4 Leakage. The TA-1 in its transit case shall be capable of being immersed in 3 feet of water for at least 2 hours. The transit case shall show no evidence of leakage and the handset assembly shall be fully operable after immersion.

3.10.5 Loose Cargo Transport. The TA-1 in its transit case shall be capable of being transported on ground vehicles as unrestrained cargo.

3.10.6 Shock. The TA-1 handset assembly shall be capable of being dropped from a height of 4 feet onto a 2-inch plywood backed by concrete surface without degradation in specified performance.

3.10.7 Blast. The TA-1 shall be operable with no more than a 3 db change in original measured frequency response of the microphone and earphone elements after being subjected to 30 blast impulses at a peak pressure of 9.5 pounds per square inch.

3.11 First Article. When specified in the contract, the contractor shall conduct First Article Testing and furnish First Article units in accordance with paragraph 4.2 below.

4. Verification.

4.1 Verification methods. Verification of requirements shall be in accordance with a contractor prepared, government approved Inspection Plan, to be submitted with the proposal. The inspection plan shall include all tests to be performed and any applicable sampling plans. As a minimum, the contractor shall perform First Article Testing to verify performance of all paragraph 3 requirements and production testing to verify all operational and electrical requirements.

4.2 First Article Testing.

4.2.1 First Article Units. The contractor shall provide sufficient first article units to perform all testing and meet the contractual delivery requirements. A minimum of 5 first article units shall be selected.

5. Packaging. For acquisition purposes, the packaging requirements shall be specified in the contract or order (see 6.2). When the actual packaging of material is to be performed by DOD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Points (ICPs) packaging activity within the Military Department of Defense Agency, or within the Military Department's System Command. Packaging data

retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. Notes.

6.1 Intended use. The TA-1/PT Telephone Set is used with a field wire network in forward areas. It can be used for communication with other field telephones or with a local battery switchboard.

6.2 Ordering data. Procurement documents should specify the following:

- a. The government approved inspection plan as cited in paragraph 4.1
- b. Packaging requirements – See 5.1.
- c. First article test requirements.
- d. Nomenclature requirement.

MINIMUM FREQUENCY RESPONSE REQUIREMENTS
FOR EARPHONE ELEMENT, TA-118()/PT

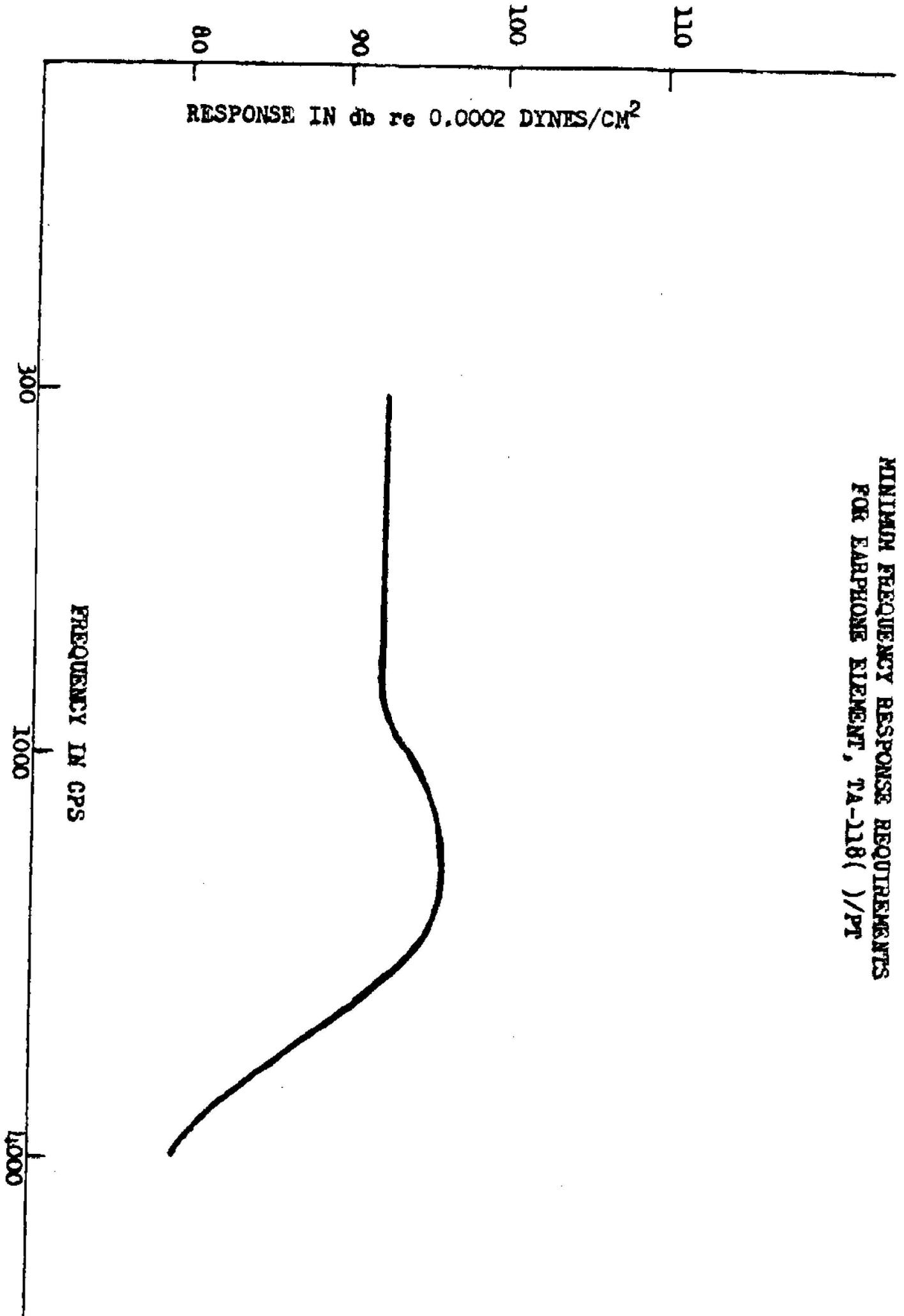


FIGURE 1

MINIMUM FREQUENCY RESPONSE REQUIREMENTS
FOR TRANSMITTER ELEMENT, TELEPHONE 7A-121 ()/P1

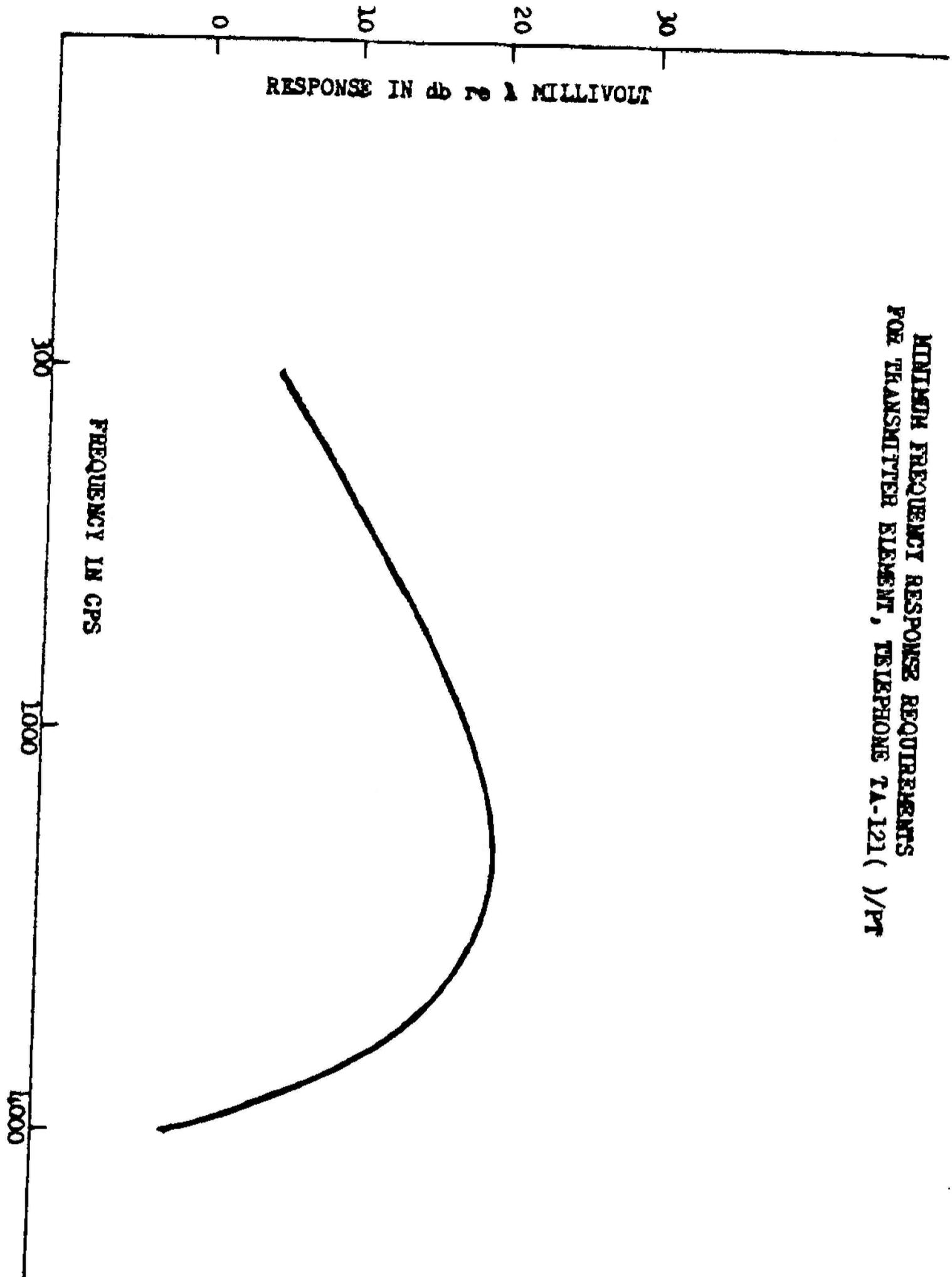


FIGURE 2