

**QAP-CSI015067371**  
**DTD 25 JAN 08**

**DEFENSE SUPPLY CENTER PHILADELPHIA**  
**QUALITY ASSURANCE PROVISION**

**NSN: 8475-01-506-7371**  
**P/N: 261002-10**

This Quality Assurance Provision (**QAP**) is to be used in conjunction with any orders/contracts for the cited **NSN**

FIRST ARTICLE REQUIREMENTS <i>(AFMCI 64-110, AFMCI 23-102 and FAR Part 9, Sub Part 9.3) (Additional Instructions on Page 3)</i>			1. DATE 20121207
2. P/R/MIPR NUMBER	3. PART NUMBER 261002-10	4. NSN 8475-01-506-7371MH	
5. FIRST ARTICLE QUANTITY THE FIRST ARTICLE IS _____ UNIT(S) OF LOT/ITEM <u>See Remarks</u> AND WILL BE: <input type="checkbox"/> PART OF PRODUCTION QUANTITY <input checked="" type="checkbox"/> IN ADDITION TO PRODUCTION QUANTITY			
6. ARTICLES <input type="checkbox"/> WILL <input checked="" type="checkbox"/> WILL NOT SERVE AS A MANUFACTURING STANDARD		7. LONG LEAD TIME ITEMS <input checked="" type="checkbox"/> REQUIRED <input type="checkbox"/> NOT REQUIRED <i>(See FAR 52.209-3 or -4, alternate II)</i>	
8. SPECIAL REQUIREMENT/PRODUCTION FACILITIES <i>(See FAR 52.209-3 or -4 Alternate I)</i> <input checked="" type="checkbox"/> REQUIRED <input type="checkbox"/> NOT REQUIRED "The First Article offered must be manufactured at the facilities in which that item is to be produced under the contract, or if the First Article is a component not manufactured by the contractor, such component must be manufactured at the facilities in which the component is to be produced for the contract. A certification to this effect must accompany each First Article which is offered."			
9. TEST/INSPECTION REQUIREMENTS A. <input checked="" type="checkbox"/> CONTRACTOR TESTING <input type="checkbox"/> GOVERNMENT TESTING Performance or other characteristics which the First Articles must meet are <u>Specified in ATP and EDL</u> B. The detailed technical requirements for First Article approval tests are contained in <u>ATP and EDL</u> <i>(Cite Spec and Para number)</i> C. <input checked="" type="checkbox"/> TEST PLAN REQUIRED (1) DD Form 1423 ELIN _____ (2) Delivery due <u>15</u> calendar days from date of contract. (3) Number of days for government approval/disapproval <u>15</u> days. D. Contractor's notification to ACO and <u>648 AESS/TASE</u> <i>(Requesting Activity)</i> of test time and location due <u>20</u> days prior to start of testing. E. <input checked="" type="checkbox"/> TEST REPORT REQUIRED (1) DD Form 1423 ELIN _____ (2) Due <u>60</u> calendar days from date of contract. (3) Forwarded to <u>648/ TASE abd 77 AESG/PSK</u> <u>7980 Lindbergh Landing,</u> <u>Brooks City Base, TX 78235</u> (4) Government written notice of approval/disapproval due <u>30</u> days after receipt of contractor's report.		F. FIRST ARTICLE DELIVERY: (1) Due within _____ calendar days from date contract. (2) Notify _____ calendar days prior to shipment. (3) Delivered to government at _____ _____ <i>(Set Forth Consignee and Address)</i> (4) Government written notice of approval/disapproval within _____ days after receipt of first article package. G. Estimated cost of government testing/inspection evaluation. \$ _____	
10. DISPOSITION OF FIRST ARTICLES <input checked="" type="checkbox"/> Approved First Articles will be forwarded to <u>648 AESS/ TASE</u> <input type="checkbox"/> _____ <i>(insert quantity)</i> . First Articles will be expended intesting. Residual components of disapproved First Articles <input type="checkbox"/> will be returned to the contractor/ <input type="checkbox"/> will be retained by _____ pending disposition instructions from the contractor. <input type="checkbox"/> First Articles will be installed on aircraft/equipment to determine proper fit/function. Approved article will remain on the aircraft/equipment and will not be forwarded to USAF Supply, but will be considered part of the contract quantity. <input type="checkbox"/> Disapproved First Articles will be returned to the contractor/ <input checked="" type="checkbox"/> will be retained by <u>648 AESS/TASE</u> pending disposition instructions from the contractor <input type="checkbox"/> On purchase requests designated as direct shipments the following disposition will apply. (NOTE: Always applicable on Foreign Military Sales (FMS)). a. Approved First Articles will be returned to the contractor for shipment with production item. b. Disposition of disapproved First Articles will remain the same as marked above. <input type="checkbox"/> Other Disposition: _____			

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<p>11. CONDITION(S) FOR WAIVER OF FIRST ARTICLE APPROVAL</p> <p>a. <input type="checkbox"/> Offerors who have previously furnished production quantities of the same or similar article to the prime contractor for delivery to the  <input type="checkbox"/> Government, <input type="checkbox"/> DoD, <input type="checkbox"/> Air Force.</p> <p>b. <input type="checkbox"/> Offerors currently in production of the same or similar article for a <input type="checkbox"/> Government, <input type="checkbox"/> DoD, <input type="checkbox"/> Air Force contract and who have received First Article approval under the existing contract.</p> <p>c. <input type="checkbox"/> Offerors who have previously furnished production quantities of the same or similar articles to the <input type="checkbox"/> Government, <input type="checkbox"/> DoD, <input type="checkbox"/> Air Force, provided articles thus furnished, have exhibited satisfactory performance in service in the opinion of the Air Force.</p> <p>d. <input type="checkbox"/> Provided not more than _____ months have elapsed since completion of the contract.</p> <p>e. <input checked="" type="checkbox"/> First Article testing will not be waived.</p> <p>f. <input checked="" type="checkbox"/> See Remarks in block 12 below.</p> <p><b>NOTE TO BUYER:</b> UNDER CONDITIONS A AND C ABOVE, THE COGNIZANT ENGINEERING ACTIVITY WILL DECIDE WHETHER OR NOT THE ITEM HAS EXHIBITED SATISFACTORY PERFORMANCE IN SERVICE AND PREPARE AND RETAIN SUPPORTING DOCUMENTATION TO FULLY JUSTIFY THIS DECISION. THE BUYER MUST SOLICIT DUAL PRICES (<i>That is, both with and without requirement for first article approval</i>) AND MUST FURNISH THE COGNIZANT ENGINEERING ACTIVITY WITH THE FOLLOWING INFORMATION ON THE PREVIOUSLY SUPPLIED ARTICLE:</p> <p style="text-align: center;">A. PROCURING OFFICE      B. CONTRACT NUMBER      C. DATE OF CONTRACT      D. SPECIFICATION NUMBER AND REVISION</p> <p>_____</p>		
<p>12. REMARKS</p> <p>ATAGS suits come in 11 different sizes. When procured, usually multiple sizes are bought under one contract. When multiple sizes are bought, it is unlikely a first article will be required for each size. Contact the cognizant engineer with the PR number as well as the sizes (part numbers, NSNs) and quantities to be procured, in order to determine the first article requirements. Obtaining a first article for each size will result in a waste of funds and man hours and will result in a unnecessary delay in first article approval.</p>		
<p>13. COGNIZANT ENG ORGANIZATION RESPONSIBLE FOR CONDUCTING AND/OR APPROVING TEST (<i>Name, Organization, Phone</i>)  Le Thai Huyen 648 ABESS/TASE, DSN 240-5127</p>	<p>14. PR INITIATOR (<i>Name, Organization, Phone</i>)</p>	

## INSTRUCTIONS FOR COMPLETION OF FIRST ARTICLE TEST REQUIREMENTS (AFMC Form 260)

BLOCKS 1 - 4 AND 14. WILL BE COMPLETED BY THE INITIATOR OF PURCHASE REQUEST.

BLOCKS 5 THRU 11, AND 13. WILL BE COMPLETED BY THE ENGINEER AND/OR EQUIPMENT SPECIALIST. IF LOCAL PURCHASE, INITIATOR OF PURCHASE REQUEST SHALL COMPLETE.

BLOCKS 1 THRU 4. SELF-EXPLANATORY

BLOCK 5. INSERT QUANTITY OF FIRST ARTICLE TO BE TESTED. INDICATE WHETHER THE FIRST ARTICLE ITEM IS PART OF OR IN ADDITION TO THE PRODUCTION QUANTITY. (*Normally the First Article in "Contractor Testing" are delivered (if not destroyed) with the production items.*) PER FAR 9.301 FIRST ARTICLE MEANS PREPRODUCTION MODELS/SAMPLES, INITIAL PRODUCTION SAMPLES, TEST SAMPLES, FIRST LOTS, PILOT MODELS OR PILOT LOTS.

BLOCK 6. INDICATE WHETHER OR NOT THE FIRST ARTICLE WILL SERVE AS A MANUFACTURING STANDARD. ( FAR 9.306(h)).

BLOCK 7. SEE FAR 52.209-3 OR -4, ALTERNATE II.

BLOCK 8. SEE FAR 9.308

BLOCK 9. MUST BE CHECKED TO INDICATE WHETHER THE CONTRACTOR OR THE GOVERNMENT IS TO PERFORM TESTING. (FAR 9.306)

A. THE SPECIFIC PARAGRAPH(S) OF THE SPECIFICATION MUST BE INCLUDED OR THE PARTICULAR REQUIREMENTS CITED.

B. THE SPECIFIC PARAGRAPH(S) OF THE SPECIFICATION MUST BE INCLUDED OR THE PARTICULAR REQUIREMENTS CITED.

C. THIS PARAGRAPH IS OPTIONAL AND IS REQUIRED ONLY WHEN A TEST PLAN IS REQUIRED. THE REQUIRED ENTRIES ARE SELF-EXPLANATORY.

D. THE "NUMBER OF DAYS" ENTRY SHOULD BE FAR ENOUGH IN ADVANCE OF THE TESTING TO PERMIT ANY GOVERNMENT REPRESENTATION AT THE TESTING SITE.

E. THIS PARAGRAPH IS SELF-EXPLANATORY. (*NOTE: All dates must be realistic and include adequate production and administrative lead times.*)

F. (1). THE DELIVERY DATE MUST BE REALISTIC AND INCLUDE ADEQUATE PRODUCTION AND ADMINISTRATIVE LEAD TIMES.

(2). THIS NOTIFICATION SHOULD BE NO LESS THAN TEN DAYS.

(3). ENTER ADDRESS WHERE FIRST ARTICLE IS TO BE DELIVERED FOR TESTING.

(4). THIRTY DAYS OR LONGER NOTIFICATION MUST BE CONSIDERED WHEN GOVERNMENT TESTING REQUIRES SPECIAL FIXTURE AND/OR AIRCRAFT.

G. THIS ESTIMATE SHOULD BE AS ACCURATE AS POSSIBLE AND INCLUDE GOVERNMENT LABOR COSTS FOR TESTS; TOOLS/TEST EQUIPMENT; GOVERNMENT TEST FACILITY USE; TDY COSTS, TRANSPORTATION OF FIRST ARTICLE TO TEST SITE; GOVERNMENT EVALUATION OF CONTRACTOR TEST REPORT; ETC.

BLOCK 10. APPLIES TO GOVERNMENT TESTING. APPLIES TO CONTRACTOR TEST ONLY IF ITEMS ARE NOT SUBMITTED AS PRODUCTION UNITS, IN THESE CASES CITE DISPOSITION.

BLOCK 11. SELF-EXPLANATORY. SIMILAR ARTICLES ARE THOSE WHICH, FOR PURPOSE OF MANUFACTURE, ARE SUBSTANTIALLY THE SAME AS THE ITEM BEING PURCHASED (*For example, items that differ only in size or in place of operation (i.e., left vs right side of aircraft).*)

BLOCK 12. SELF-EXPLANATORY.

BLOCK 13 AND 14. SELF-EXPLANATORY.

## QUALIFICATION REQUIREMENTS

FOR

### ADVANCED TECHNOLOGY ANTI-GRAVITY SUIT (ATAGS) (ANTI-G TROUSERS, PNEUMATIC CSU-22/P AND CSU-23/P)

#### I. APPLICATION

The qualification requirements specified herein apply to the following ATAGS:

##### Anti-G Trousers, Pneumatic CSU-22/P

Size	Part Number	NSN
EXTRA SMALL SHORT	P/N 261001-00	8475-01-455-0782
SMALL SHORT	P/N 261001-01	8475-01-442-4329
SMALL REGULAR	P/N 261001-02	8475-01-442-8403
SMALL LONG	P/N 261001-03	TBA
MEDIUM SHORT	P/N 261001-04	8475-01-442-8404
MEDIUM REGULAR	P/N 261001-05	8475-01-442-0712
MEDIUM LONG	P/N 261001-06	8475-01-442-0713
LARGE SHORT	P/N 261001-07	8475-01-455-0783
LARGE REGULAR	P/N 261001-08	8475-01-443-1565
LARGE LONG	P/N 261001-09	8475-01-442-0714
X LARGE LONG	P/N 261001-10	8475-01-455-0786

##### Anti-G Trousers, Pneumatic Type CSU-23/P

Size	Part Number	NSN
EXTRA SMALL SHORT	P/N 261002-00	8475-01-506-7355
SMALL SHORT	P/N 261002-01	8475-01-506-7357
SMALL REGULAR	P/N 261002-02	8475-01-506-7359
SMALL LONG	P/N 261002-03	8475-01-506-7361
MEDIUM SHORT	P/N 261002-04	8475-01-506-7362
MEDIUM REGULAR	P/N 261002-05	8475-01-506-7365
MEDIUM LONG	P/N 261002-06	8475-01-506-7366
LARGE SHORT	P/N 261002-07	8475-01-506-7367
LARGE REGULAR	P/N 261002-08	8475-01-506-7368
LARGE LONG	P/N 261002-09	8475-01-506-7369
X LARGE LONG	P/N 261002-10	8475-01-506-7371

Note: The CSU-22/P is the basic version, and the CSU-23/P is the F-22 version.

## II. PURPOSE

1. This document establishes the minimum qualification requirements that prospective sources (offerors) must satisfy in order to obtain engineering approval for ATAGS. After satisfying all qualification requirements, the offeror will be recognized as an approved Air Force source for the above listed ATAGS. Inclusion as an approved source:

- a. Does not in any way relieve the source of its contractual obligations to deliver products that comply with all specification requirements.
  - b. Does not guarantee acceptability of the products delivered under a contract.
  - c. Does not constitute a waiver of any requirement for inspection, for process control, or for maintenance of quality control procedures during production.
  - d. Does not constitute a waiver of materials testing, first article tests, production lot tests, acceptance tests, or any other tests required by the applicable specifications, drawings, or contract.
  - e. Does not guarantee Air Force contract awards.
2. The Air Force will not approve the offeror as an ATAGS source if he does not satisfy all qualification requirements listed herein for the item.

## III. HARDWARE DESCRIPTION

1. Function: As an integral part of the aircrew ensemble, the ATAGS provides aircrew members with improved protection against the effects of G-forces resulting from high-performance aircraft maneuvers.
2. Material: The ATAGS is composed of textiles, rubber material, and specified items as detailed per Garment Assembly, Anti-G Trousers, Pneumatic, Type CSU-22/P, Drawing Number 261001, and CSU-23/P, Drawing Number 261002.

## IV. JUSTIFICATION FOR QUALIFICATION REQUIREMENT

1. Criticality: The ATAGS is a critical life support item that protects aircrew members from the effects of a high-G environment by applying full-coverage pressure to the lower body, with the exception of the lower back, buttocks, groin, and feet area, to prevent vascular pooling of blood during periods of high positive G in the Z-axis. ATAGS may be used in all high-performance fighter/trainer aircraft and is a component of the aircrew ensemble, which is composed of various life support items that maximize the combat power and survivability of the warfighter. Proper ATAGS performance is critical to ensure optimum G protection for the aircrew, and strict compliance with specialized manufacturing processes is essential to ensure proper performance. Non-conformance to manufacturing drawings, specifications and specialized processes will cause

a failure that could result in mission degradation and/or G-loss of consciousness (GLOC), resulting in loss of life and/or aircraft.

2. Complexity: Because of the full-coverage design, production of the ATAGS requires specialized manufacturing processes, an understanding of complex garment sewing technology, and radio frequency (RF), ultrasonic, and thermal welding techniques. Additionally, sophisticated and rigorous quality assurance controls of materials, manufacturing techniques, and inspection processes are required to guarantee the successful and timely production of an acceptable, safe, and reliable ATAGS. Previous Government experience with ATAGS has shown that the bladder welding processes, when compared with the processes to manufacture the standard CSU-13B/P anti-G suit, are significantly more time consuming, complex, and costly for several reasons: up to 12 times more dies are required to seal the bladder; welding is more difficult due to the lighter bladder material; and the ATAGS has full-knee coverage.

#### V. CATEGORIES OF QUALIFICATIONS

1. There are two categories of qualification:

- Category I - The offeror has provided a full-coverage, lower body anti-G suit to the DoD within the past three years.
- Category II - The offeror has not produced nor ~~developed~~ full-coverage, lower body anti-G suit to the DoD within the past three years.

Note: Hereafter, the term "suit" refers to the full coverage, lower body anti-G suit produced by the offeror.

2. Qualification requirements vary for each category. The submission of any or all required information does not guarantee approval. Additional information, documentation, data, or samples may be required in either category to allow a complete, comprehensive evaluation of the offeror's capabilities. Regardless of the category, government personnel may visit the offeror's facility to observe its operations.

3. Qualification requirements require the offeror to provide samples for inspection, evaluation, and testing. The offeror's submission of information, documentation, data, and samples will be made at the offeror's expense. The government shall not be responsible for any material procured by the offeror prior to a contract award.

4. The offeror's submission of information, documentation, data, or samples must be accompanied by the original and one copy of the attached form, "Policy Agreement for Evaluation of Unsolicited Articles, Disclosures, Inventions, and Voluntary Proposals for Contract." No evaluation will be conducted unless and until this requirement is satisfied.

## VI. QUALIFICATION REQUIREMENTS FOR CATEGORY I QUALIFICATIONS

1. Offerors are required to submit documentation, reports, data, and samples for Air Force consideration. The submission of complete documentation is essential. If an offeror cannot provide all required information or acceptable equivalent data, the offeror must qualify under Category II requirements. The required submittals are as follows:

- a. Documentation describing the offeror's current management, technical, quality, and manufacturing capabilities. The description must also include the equipment, machinery, special tooling, fixtures, processes, and technical expertise that will be used in the fabrication, test, and shipment of the ATAGS.
- b. A list of major subvendors (including corporate address, manufacturing location and Federal Supply Code for Manufacturers) and a description of their current capabilities as related to the parts, components, or subassemblies they will be providing the offeror for the ATAGS.
- c. Evidence or certification that the offeror is the manufacturer for the entire suit previously provided to DoD.
- d. Evidence that the offeror has satisfactorily provided within the last three years or is currently providing production quantities of the suit to the DoD. This evidence may be in the form of contracts, purchase orders, shipping documents, and/or signed Material Inspection and Receiving Reports (DD Form 250).
- e. A complete list of all drawings, test procedures, and processes, including their revision levels, that the offeror has used in the production of its suit.
- f. A description of the offeror's quality program for both in-house and subvendors.

## VII. QUALIFICATION REQUIREMENTS FOR CATEGORY II

1. Offerors are required to submit documentation, reports, data, and samples. The submission of complete documentation is essential. Missing or incomplete data will disqualify offerors from consideration and source approval will be withheld. The required submittals for offerors who do not meet Category I qualifications are as follows:

- a. Documentation describing the offeror's current management, technical, quality, and manufacturing capabilities. The description must also include the equipment, machinery, special tooling, fixtures, processes, and technical expertise that will be used in the fabrication, test, and shipment of the ATAGS.
- b. A list of the major subvendors that will be used (including corporate address, manufacturing location and Federal Supply Code for Manufacturers) and a description of their current capabilities as related to the parts, components, or subassemblies they will

providing the offeror for the ATAGS. The description must also include the equipment, machinery, special tooling, fixtures, processes, technical capability and expertise the subvendor will use in the fabrication, test, and shipment of his parts, components, or subassemblies.

- c. A description of the offeror's quality program employed both in-house and by subvendors.
  - d. Written certification that the offeror has received a complete data package, including all drawings, test procedures, and processes, with the latest drawing revisions. The offeror will certify these drawings, test procedures, and processes will be used for the fabrication, test, and shipment of the ATAGS.
  - e. The offeror, at their own expense, will build and test the ATAGS as outlined in the technical data package (TDP), which consists of the following: Drawing Organization Chart, Anti-G Trousers, Pneumatic, Drawing Number 260000, Type CSU-22/P & CSU-23/P; Acceptance Test Procedures (ATP), MSF880/5-ATP-GEN-0, and Product Function Specification (PFS), Number 40470G-01KX-0.
    - (1) The offeror will build "tested samples" and "untested samples" as defined in the ATP.
    - (2) The offeror will perform testing and submit the data and a test report in accordance with the ATP.
    - (3) The offeror will submit certification that the tested and untested samples were built to the latest drawings.
    - (4) Upon completion of (1), (2), and (3), the offeror will provide the suits and bladder to the Government for evaluation. The items will not be returned.
2. The Government will inspect the items and compare them with the TDP. To be acceptable, the samples must successfully pass all the following requirements:
- a. The inspection will include, but not limited to: workmanship, materials, dimensions and bonding. Any difference between the items and the TDP may be cause for disapproval.
  - b. The Government will review the results of the testing. Non-compliance with the functional and performance requirements of the ATAGS may be cause for disapproval.
  - c. The Government may perform additional inspections, evaluations, and tests it deems necessary to ensure the ATAGS meets Air Force requirements. The items will not be returned.

Prepared by the ATAGS Team, 311 HSW/YACLM: Date: 5 Nov 01

[Signature]  
Program Manager

[Signature]  
Engineer

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Test & Evaluation

[Signature]  
Mr. Bud Glass, Senior Analyst

Approved by: [Signature] Date: 16 JAN 2002  
Mr. Alan [unclear] HSW/YAC