

CONTRACT DATA REQUIREMENTS LIST <i>(2 Data Items)</i>						Form Approved OMB No. 0704-0188		
<small>The public reporting burden for this collection of information is estimated to average 220 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 the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.</small>								
A. CONTRACT LINE ITEM NO.		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>NDTI</u>				
D. SYSTEM/ITEM C-5 / Bearing Retainer			E. CONTRACT/PR NO.		F. CONTRACTOR			
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM First Article Qualification Test Plan			3. SUBTITLE Bearing Retainer, P/N C5A27149 NSN 3110-00-463-9198				
4. AUTHORITY (Data Acquisition Document No.) DI-NDTI-81307			5. CONTRACT REFERENCE AFMC Form 260 Blk 9C, 12		6. REQUIRING OFFICE WR-ALC/LTEM			
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED D	10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION See Blk 16	14. DISTRIBUTION				
8. APP CODE A		11. AS OF DATE See Blk 16	13. DATE OF SUBSEQUENT SUBMISSION N/A	a. ADDRESSEE		b. COPIES		
<b>16. REMARKS</b> Blk 4: Test Plan shall be in accordance with MIL-HDBK-831 and shall cover pre-production/first article testing.  NOTE: If AFMC Form 260 specifies contractor to perform a destructive test, it is to be in conjunction with this test plan.  NOTE: If AFMC Form 260 specifies contractor to submit individual parts of an assembly for first article testing, the individual parts shall be captured in one report for the entire assembly.  Blk 11/Blk 12: Submit draft for approval 60 DAC award. Submit final copies 14 days after Government approval of the draft.  Reproducible copy of Test Plan shall be submitted as a searchable Adobe Acrobat PDF file on CD-ROM.				WR-ALC/LTEM				
				216 Ocmulgee Ct.				
				Robins AFB, GA				
				31098-1646				
				Paper Copy		1	1	
				Digital Data			1	
				DSC-RICHMOND				
				ATTN: JFP		1	1	
				15. TOTAL		2	2	1
				1. DATA ITEM NO. A002	2. TITLE OF DATA ITEM First Article Qualification Test Report			3. SUBTITLE Bearing Retainer, P/N C5A27149 NSN 3110-00-463-9198
4. AUTHORITY (Data Acquisition Document No.) DI-NDTI-80809B			5. CONTRACT REFERENCE AFMC Form 260 Blk 9E, 12		6. REQUIRING OFFICE WR-ALC/LTEM			
7. DD 250 REQ SD	9. DIST STATEMENT REQUIRED D	10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION See Blk 16	14. DISTRIBUTION				
8. APP CODE N/A		11. AS OF DATE Sec Blk 16	13. DATE OF SUBSEQUENT SUBMISSION N/A	a. ADDRESSEE		b. COPIES		
<b>16. REMARKS</b> Blk 4: Test Report shall be in accordance with MIL-HDBK-831 and shall cover pre-production/first article testing.  Test Report shall be certified by Government QAR (Reference MIL-HDBK-831 paragraph 4.1.4.2).  NOTE: If AFMC Form 260 specifies contractor to perform a destructive test, it is to be in conjunction with this test report.  NOTE: If AFMC Form 260 specifies contractor to submit individual parts of an assembly for first article testing, the individual parts shall be captured in one report for the entire assembly.  Blk 11/Blk 12: Report shall be submitted per contract schedule.  Blk 14: Reproducible copy of Test Report shall be submitted as a searchable Adobe Acrobat PDF file on CD-ROM.				WR-ALC/LTEM				
				216 Ocmulgee Ct.				
				Robins AFB, GA				
				31098-1646				
				Paper Copy			1	
				Digital Data			1	
				DSC-RICHMOND				
				ATTN: JFP			1	
				15. TOTAL		0	2	1
				G. PREPARED BY 		H. DATE	I. APPROVED BY	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

## 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 approval authority.

Item J. Date CDRL was approved.

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 generates 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 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 addressees 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 but 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 item 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 item 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 these 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 shall 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.

## SOURCE QUALIFICATION STATEMENT

AMSC C: These parts require engineering source approval by the control activity to assure the integrity of the part. An alternative source must qualify according to the design control activity's procedures as approved by the applicable government engineering activity, WR-ALC/LTEM

### SECTION A: ITEM IDENTIFICATION

NSN	PART NUMBER	NOMENCLATURE
NSL	C5A27119	Housing
NSL	C5A27120	Housing
NSL	C5A27121	Housing
NSL	C5A27122	Housing
NSL	C5A27123	Housing
NSL	C5A27124	Housing
NSL	C5A27125	Housing
NSL	C5A27126	Housing
NSL	C5A27129	Cover
NSL	C5A27130	Cover
NSL	C5A27131	Cover
NSL	C5A27132	Housing
NSL	C5A27133	Housing
NSL	C5A27134	Housing
NSL	C5A27135	Housing
NSL	C5A27136	Housing
NSL	C5A27137	Housing
NSL	C5A27138	Cover
NSL	C5A27139	Cover
NSL	C5A27140	Cover
NSL	C5A27141	Cover
3110-00-463-9198	C5A27148	Bearing Retainer
3040-00-435-0843	C5A27149	Gearshaft Assembly
3040-00-435-0844	C5A27150	Gearshaft Assembly
3040-00-435-0845	C5A27151	Gearshaft Assembly
3040-00-435-0846	C5A27152	Gearshaft Assembly
NSL	C5A27153	Shim Set
3020-00-179-6873	C5A27157	Gearshaft
3020-00-435-8735	C5A27158	Gearshaft
3020-00-179-6874	C5A27159	Gearshaft
NSL	C5A27160	Shim Set
NSL	C5A27161	Bearing Housing
NSL	C5A27162	Shim Set
3040-00-435-0847	C5A27163	Gearshaft
3040-00-435-0848	C5A27166	Gearshaft
NSL	C5A27167	Shim Set
3110-00-463-9199	C5A27168	Bearing Retainer

NSN	PART NUMBER	NOMENCLATURE
NSL	C5A27169	Bearing Housing
NSL	C5A27170	Bearing Housing
NSL	C5A27171	Bearing Housing
5365-00-420-2424	C5A27232	Spacer
3040-00-420-2414	C5A27233	Gearshaft
1680-00-420-2415	C5A27234	Seal Housing
NSL	C5A27235	Shim Set
1680-00-411-3082	C5A27236	Bearing Retainer
NSL	C5A27237	Shim Set
1680-00-400-3831	C5A27238	Spacer
NSL	C5A27239	Housing
NSL	C5A27240	Housing
NSL	C5A27241	Shim
NSL	C5A27568	Nameplate
NSL	C5A27587	Shipping Spacer
NSL	C5A27591	Shim Set
3040-00-435-0870	C5A27979	Gearshaft
3040-00-435-0871	C5A27980	Gearshaft
3040-00-435-0873	C5A27981	Gearshaft
NSL	C5A28223	Housing
NSL	C5A28224	Housing
1680-00-411-3125	C5A28856	Kit
1680-00-531-5873	C5A28857	Kit
1680-01-461-1008	C5A29245	Gearshaft Assembly

## SECTION B: JUSTIFICATION FOR ESTABLISHING A QUALIFICATION REQUIREMENT

The C-5 trailing edge flap system Actuator Drive Assembly provides direct power transmission to subsequent systems with a limited torque output to immediate components. The direct output delivers power at all times. Overload of the actuator output shaft will interrupt rotary motion of the output shaft in the direction of applied overload. Rotation of the output shaft will resume when the overload is removed. The above-mentioned part numbers are gears, housings and critical parts of the Actuator Drive Assembly. The gears mesh with other gears in the Actuator Drive Assembly on a continuous basis.

Gear manufacture requires strict control of processes to insure adherence to extremely close tolerances. Special machining equipment is required to produce the precisely aligned gear surfaces. Even slight mismatches in gear specifications can cause the gears in the end-item to wear much more quickly than normal. This would lead to premature failure of the end-item. More significant gear mismatches would cause the end-item to not work at all.

Consistent manufacturing processes are needed to insure that the gears are manufactured so that they all mesh properly when installed in the housings.

Failure of a flap gearbox would render the flap and slat system inoperative and could cause an asymmetric flap configuration that would result in an unsafe condition on takeoff or approach. Flight safety histories indicate that aircrew task saturation as a result of component failures dramatically increases the risk of an aircraft mishap if they occur in critical phases of flight.

**SECTION C: QUALIFICATION REQUIREMENTS**

Source approval information: Listed below are the minimum requirements necessary to become a qualified bidder on the gears listed above. Prospective contractors should report in accordance with MIL-HDBK-831.

- a. If a prospective bidder is currently qualified to make one or more of the following end items, then the bidder is automatically qualified to manufacture the associated gears and housings.

Stock Number (NSN)	Part Number	Nomenclature
1680-00-412-2735	5901-101E	Flap Gearbox Assy. (1ALH)
1680-00-412-2737	5901-102E	Flap Gearbox Assy. (1ARH)
1680-00-412-2736	5901-103E	Flap Gearbox Assy. (1BLH)
1680-00-412-2738	5901-104E	Flap Gearbox Assy. (1BRH)
1680-00-248-8553	5901-105D	Flap Gearbox Assy. (2ALH)
1680-00-248-8567	5901-106D	Flap Gearbox Assy. (2ARH)
1680-00-248-8549	5901-107D	Flap Gearbox Assy. (2BLH)
1680-00-248-8500	5901-108D	Flap Gearbox Assy. (2BRH)
1680-00-443-6443	5901-109D	Flap Gearbox Assy. (3ALH)
1680-00-454-6063	5901-110D	Flap Gearbox Assy. (3ARH)
1680-00-443-6445	5901-111D	Flap Gearbox Assy. (3BLH)
1680-00-443-6446	5901-112D	Flap Gearbox Assy. (3BRH)
1680-00-248-7641	5901-113D	Flap Gearbox Assy. (4-6ALH)
1680-00-248-7639	5901-114D	Flap Gearbox Assy. (4-6ARH)
1680-00-248-7638	5901-115D	Flap Gearbox Assy. (4-5BLH)
1680-00-248-7636	5901-116D	Flap Gearbox Assy. (4-5BRH)
1680-00-248-7634	5901-117E	Flap Gearbox Assy. (6BLH)
1680-00-248-8557	5901-118E	Flap Gearbox Assy. (6BRH)
1680-00-140-2529	5901-119D	Flap Step Gearbox Assy. (1ALH)
1680-00-140-2528	5901-120D	Flap Step Gearbox Assy. (1ALH)

**SECTION D: ESTIMATE OF THE TEST AND EVALUATION COSTS**

Not applicable; the prospective bidder must already be qualified to manufacture the Actuator Drive Assembly containing the subject gear.

SECTION E: GOVERNMENT CONTRACT

For information relating to the process of QBL qualification, contact WR-ALC/BC, 180 Page Road, Robins AFB GA 31098-1600, Phone 478-926-5873.

For information relating to the specific technical requirements specified for qualification, contact WR-ALC/LTEM, 216 Ocmulgee Court, Robins AFB, GA 31098-1646.

SECTION F: SIGNATURE BLOCK

SYSTEM ENGINEER \_\_\_\_\_

DATE \_\_\_\_\_

BRANCH CHIEF \_\_\_\_\_

DATE \_\_\_\_\_

DIVISION CHIEF \_\_\_\_\_

DATE \_\_\_\_\_

Consistent manufacturing processes are needed to ensure that the housings and gears are manufactured such that the gears mesh properly when installed in the housings.

Failure of a flap gearbox would render the flap and slat system inoperative and could cause an asymmetric flap configuration that would result in an unsafe condition on takeoff or approach. Flight safety histories indicate that aircrew task saturation as a result of component failures dramatically increases the risk of an aircraft mishap if they occur in critical phases of flight.

### SECTION C: QUALIFICATION REQUIREMENTS

Source approval information: Listed below are the minimum requirements necessary to become a qualified bidder on the gears listed above. Prospective contractors should report in accordance with MIL-HDBK-831.

1. A summary of the company's capabilities detailing a list of plant machinery, fixtures, and tooling. Test and inspection equipment to include a Coordinate Measuring Machine (CMM) or similar device for measuring high tolerance dimensions.
2. A quality control plan. Proof of ISO 9001 certification must be provided.
3. A detailed manufacturing plan describing, at a minimum, manufacturing and inspection processes to provide for:
  - a. Traceability of batch/lot for material, heat treatment, coatings and all tests/inspections.
  - b. Identification of material sources, including castings. Sources for raw material must be documented for each type of material called for in the assembly.
4. A Sub-vendor qualification and quality assurance process to ensure conformance to specifications on work performed by subcontractors.
5. The potential contractor must demonstrate the ability to manufacture similar critical flight control components, which are currently in use on a large commercial or military transport aircraft by providing the following information:
  - a. Part number & Drawing of similar item, Stock Number, Nomenclature, Aircraft used on
  - b. Contract number, procuring agency, contract value and number of assets shipped. The Air Force reserves the right to disqualify contractors who have had quality problems when delivering similar items to the government.
6. After qualification, the manufacturing plan, processes, vendor sources etc., will not be changed without approval of the WR-ALC engineering office (obtained through the contracting officer).

### SECTION D: ESTIMATE OF THE TEST AND EVALUATION COSTS

It is estimated that it will take a potential contractor three weeks to respond to the capability submission requirements.

It is estimated that it will take the government two weeks to evaluate the capabilities submission and respond to the contractor.

There are no costs associated with the governments' review of the capability submission.

SECTION E: GOVERNMENT CONTRACT

For information relating to the process of QBL qualification, contact WR-ALC/BC, 180 Page Road, Robins AFB GA 31098-1600, Phone 478-926-5873.

For information relating to the specific technical requirements specified for qualification, contact Jay Ostler, WR-ALC/LAES, 216 Ocmulgee Court, Robins AFB, GA 31098-1646, Phone 478-926-6864

SECTION F: SIGNATURE BLOCK

SYSTEM ENGINEER _____	DATE _____
BRANCH CHIEF _____	DATE _____
DIVISION CHIEF _____	DATE _____
IM SUPERVISOR _____	DATE _____
LASM BRANCH CHIEF _____	DATE _____
LAS DIVISON CHIEF _____	DATE _____
LA _____	DATE _____