AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES 1 3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
0001	23-MAR-1999	57-1000-99	

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
CONTRACTING OFFICER NAVAL RESEARCH LABORATORY ATTN: CODE 3220J.MS WASHINGTON DC 20375-5326	N00173		

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, country, State and ZIP Code)*	(✓)	9A. AMENDMENT OF SOLICITATION NO.
TO ALL OFFERORS	X	N00173-98-R-MS01 9B. DATED *(SEE ITEM 11)* 22-FEB-1999
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED *(SEE ITEM 13)*
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [X] is extended, [ ] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer x submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103 (b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

See Page Two.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED

The purpose of this amendment is to answer questions received from potential offerors and extend the closing date to **April 14, 1999.**

Question 1. What is the lifetime requirement of this motor?

Answer 1: The lifetime of the motor is 10 hours.

Question 2. Are there any other requirement that would preclude using brushes? Example: Arcs are not allowed in potentially explosive environments.

Answer 2: There are no requirements that would preclude using brushes.

Question 3: Would there be any desire to integrate the control electronics into the motor package?

Answer 3: Control electronics may or may not be integrated, at the offeror's discretion. However, the electronics, integrated or not, will be counted in the total mass.

Question 4: Is there any guidance on the allowable or desired diameter of the motor package?

Answer 4: A Motor diameter of $\leq$ 2 cm is desired.

Question 5: Is there a requirement on the propeller shaft diameter?

Answer 5: There are no requirements on the propeller shaft diameter. A 2 mm shaft diameter is typical for this power level.

Question 6: What rpm is the 4 watts maximum power to be available?

Answer 6: There is no RPM specification for maximum power (4 watt) condition.

Question 7: Is an over voltage from nominal cruise voltage available to achieve this power if the speed is near or above 5000 rpm?

Answer 7: The maximum voltage is $\leq$ 6 volts (as stated in the statement of work)

Question 8: What efficiency is required at 4 watts for the maximum power?

Answer 8: An efficiency of $\geq$ 60% at 4 watts is required.

Question 9: Does the propeller provide air cooling for the motor?

Answer 9: Air cooling will be available from the propeller.

Question 10: Is the motor heat sunk to any structure?

Answer 10: The motor will not be heat sunk to any structure.

Question 11: What is the maximum total cost to the Government that would be considered reasonable for this project?

Answer 11: This requirement was previously solicited with an anticipated budget of $50,000 or less. This limit has been lifted. The government anticipates the competitive market will determine the reasonable cost for this project.

Question 12: Is fee or profit allowed on this proposal and what is the maximum reasonable limit?

Answer 12: The government anticipates award of a cost-plus-fixed-fee completion form contact. The statutory limitations on the fee are stated at FAR 15.404-4(c)(4). When applicable the NRL uses the procedures in DFARS Subpart 215.9 to establish the fee objective.

Question 13: Are the previous three contracts or subcontracts that are submitted as part of the "Past Performance Information" limited to government contracts or can it include private contracts?

Answer 13: The three contracts or subcontracts that are submitted as part of the Past Performance Information under part L-11 Volume I - Technical/Management Proposal can include government and private contracts.

Question 14: The Statement of work, Section 2.0(b) lists the following: Design point output power: $P_{design} \geq 2$ watts at system efficiency, $\eta_m \geq 80\%$. Does the efficiency value of 80% refer to the system or motor efficiency? Is this the efficiency at the design point?

Answer 14: The 80% refers to the system efficiency at the design point.

Question 15: Is it necessary for the propeller to go continuously through zero speed to reverse or can it stop momentarily before reversing?

Answer 15: The requirement for reversible direction of shaft rotation is to allow the use of dual, counter-rotating propellers (i.e. one right-handed and one left handed propeller on a single airframe). As such, the motor must be capable of either direction of rotation, but does not have to switch from one direction to the other in continuous operation.