

# **Request For Proposal**

## **Launch Service For KARI CubeSats**

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**Korea Aerospace Research Institute**

**169-84 Gwahangno Yuseong-Gu, Daejeon, 305-806, South Korea**

## 1. Introduction

Korea Aerospace Research Institute (hereinafter referred to as 'KARI'), which is funded by government of Republic of Korea (hereinafter referred to as 'Korea') is now conducting CubeSat development contest for domestic university students. KARI has a plan to launch the CubeSats finally selected in this contest using launch service by government fund. This Request For Proposal (hereinafter referred to as 'RFP') document provides information and guide for the Bidders who want to provide launch service for KARI.

## 2. Statement of Work

The service of Contractor is to launch the following five (5) CubeSats for KARI and Bidders who want to be Contractor should propose launch services for all the five (5) CubeSats.

### 2.1. CubeSats to be Launched

For scientific purpose and new technology demonstration and verification, the CubeSats listed in the table 1 below will be launched.

**Table 1. CubeSats to be launched**

No.	Developer	Weight	Size	Orbit	Tentative Launch date
1)	Korea Aerospace University	About 4kg	3U	Polar Orbit/ Sun Synchronous orbit/ Altitude: 600~800 km	Q3-Q4 2015
2)	Yonsei University	About 4kg	3U		
3)	Kyunghee University	About 3.5kg	3U		
4)	Chosun University	About 1.5kg	1U		
5)	Chungnam University	About 3.5kg	3U		

※ Total mass of CubeSats can be changed a little bit.

### 2.2. Roles of Contractor

- 1) Contractor shall launch the CubeSats(refer to section 2.1) with space launch vehicle. The launch vehicle and the country where the launch will be performed (hereinafter 'launch country') shall be selected for the CubeSats which include ITAR(International Traffic in Arms Regulations) regulated components to be possible to launch.
- 2) Contractor shall provide KARI with CubeSat deployers(P-POD or ISI-POD) for protecting and separating CubeSats. This includes loan of test deployers to KARI for interface and environment test with CubeSats in Korea.
- 3) Contractor shall perform all the administrative work for launch, including Export/Import License and the authorization of Re-Export License from the United States Department of State based on ITAR (from Korea to launch country via the country of Contractor), which shall happen in the

country of Contractor and the country where the launch shall be performed.

- 4) Contractor shall perform integration and test of CubeSats with deployers in the facility of Contractor.
- 5) Contractor shall perform the transportation of CubeSats and related equipments from the facility of Contractor to the launch site where the launch is performed. This includes works of Export/Import License, the authorization of Re-Export License based on ITAR and custom work.
- 6) Contractor shall dispatch personnel to the launch site in launch and perform work needed for launch including overseeing the integration.
- 7) Contractor shall request and receive timely and properly the information (including the information for Re-Export License based on ITAR) which KARI should provide to Contractor.

### **2.3. Roles of KARI**

- 1) KARI shall provide the CubeSats to be launched to Contractor.
- 2) KARI shall provide timely and properly the information (including the information for Re-Export License based on ITAR) which Contractor requests.
- 3) KARI shall provide CubeSats complying with CubeSat standard.
- 4) KARI shall perform interface and environment test of CubeSats with the test deployers which were loaned by Contractor.
- 5) KARI shall transport CubeSats from Korea to the company of Contractor. This includes works of export/import license and custom work.

### **2.4. Responsibility for exceptions**

Contractor shall perform the following items and describe the reasons in detail on Proposal if can't do.

- 1) In the case of delay of launch, Contractor shall provide the next launch opportunity without the additional payment.
  - 2) In the case of failure of launch, Contractor shall provide next launch opportunity within two (2) years without additional payment.
  - 3) In the case that scheduled launch may not be performed by the delay of CubeSat development of Korea, KARI shall notify Contractor this fact of delay minimum six (6) months before the launch and Contractor shall provide next launch opportunity within one (1) year from the notification without additional payment.
- ※ In the case that launch day is changed, the date of re-launch shall be decided by mutual agreement between KARI and Contractor.
- ※ If Contractor can meet partially the above items depending on specific conditions, Contractor

should describe the conditions and constraints in the corresponding items in the compliance table of Proposal document. For example, time limit for the notification of development delay can be described.

## 2.5. Payment schedule

Cost will be paid as the table below and it can be adjusted on mutual agreement at contract.

**Table 2. Payment schedule**

No.	Milestone	Price	Expected date
1)	Effective Date of Contract (EDC)	5 %	Q1-Q2 2014
2)	Launch Reservation	15 %	Q2-Q3 2014
3)	CubeSats Delivery to Contractor	40 %	Q1-Q2 2015
4)	After Launch I	20 %	Q3-Q4 2015
5)	After Launch II	20 %	Q1-Q2 2016
Total		100 %	

In the case that KARI's budget is insufficient to launch all the CubeSats, Contractor shall launch the reduced number of CubeSats correspond to the given budget. In inevitable circumstance the payment of the contract can be stopped by KARI's decision.

## 3. Procedure of Bid and Contract

Procedure from the issue of RFP to the contract will be performed as the following sequences.

### 3.1. Issue of RFP

KARI will inform formally this bid on external procurement system of KARI and post RFP on it. The companies which reviewed RFP can ask questions to KARI by e-mail and may inform KARI whether the company will prepare Proposal or not.

### 3.2. Bidding

Bidders who want the contract of this service should make a proposal document and submit it to KARI by hand-carry or post (one(1) original and seven(7) copies).

#### 1) Qualification of Bidder

(1) Bidder shall be manufacturer of launch vehicle or provider of launch service who has Power of Attorney established by the manufacturer and notarized by public certificate.

(2) Bidder shall launch CubeSats which includes United States components obeying United States government export license policy.

#### 2) Bid bond

Bid bond is a critical requirement by Korean government regulation. Bidder shall establish a bid bond for KARI not later than the Bid Closing Date and submit the certificate to KARI along with its proposal.

- (1) The total amount of the bid bond shall be at least five (5) percent of the total bidding price.
  - (2) The bond shall remain valid until sixty (60) days after the Bid Closing Date.
  - (3) The bid bond shall be in the form of an irrevocable letter of credit established by first class bank and advised to KARI through 'Woori Bank' (Daejeon Branch at 1495 Dunsan-Dong Seo-Gu Daejeon, Korea TEL: +82-42-488-9704).
  - (4) The bond shall be available by KARI's draft at sight drawn on the bank, accompanied by the statement of KARI stating that Bidder has refused to enter into a contract with the terms and conditions in the proposal as amended, if any, that Bidder has hindered the fair bidding by fraud or misrepresentation, or that Bidder has withdrawn its proposal after the Bid Closing Date.
  - (5) The bid bond shall contain the substantial part of the terms and conditions of the bond, date of establishment, account, amount, payment terms, and date of expiry, etc.
  - (6) The bid bonds of the Bidders who are not selected as candidates of contract will be released upon the instructions of KARI without interest promptly after the evaluation of Proposal. The bid bonds of the candidates of contract will be likewise released to the corresponding Bidders when KARI decides not to enter into a contract with them.
- 3) Bid Closing Date : 31 July, 2014, 15:00 Korean Local Time
- 4) Submission items
- (1) Proposal (it should be made as the development method in section 4)
  - (2) Attachment 1. Quote
  - (3) Attachment 2. Certificates for launch service
  - (4) From attachment 3, documents in Bidder's free form can be attached.
- 5) Submission address
- Proposal should be sent to the address of section 5 item 1).
- 6) Remark
- (1) KARI does not provide to the Bidders the cost (including preparation, submittal and any subsequent clarification or negotiation activities) for the development of Proposal.
  - (2) KARI does not have any duty or responsibility for the Proposals submitted.
  - (3) Contents of RFP and Proposal should be maintained confidentially.
  - (4) The Proposal documents presented by Bidders become the property of KARI and are not

returned.

(5) Proposals shall be valid for six(6) months from the Bid Closing Date and upon KARI's request shall be extended for another six(6) months.

(6) Proposal should be arrived within the bid closing date.

(7) Bidder may withdraw its Proposal at any time before the Bid Closing Date in writing.

### 3.3. Selection of Contractor

- 1) KARI will evaluate of its own authority the proposals that Bidders submitted until the due date and inform those candidates who may become a Contractor.
- 2) According to the priorities of contract candidates, KARI with its own authority will select a Contractor by negotiating with the candidate of the highest priority about the price and adjustment for the proposed scope of works.
- 3) Negotiation with the highest priority shall be conducted in KARI in 15 days. If needed, upto another ten (10) days can be expanded.
- 4) If the negotiation breaks down with the candidate of the highest priority, KARI will negotiate with the next priority of candidates.
- 5) Major evaluation factors of RFP are the price, Proposal conformance, launch experiences, launch reliability and performance capability. Percentages of evaluation factors are as follows.

**Table 3. Evaluation factors**

Part	Evaluation factor	Description	Percent.
Technical part	Proposal Conformance	Conformance of Proposal with RFP	70 %
	Launch experiences	Launch services experiences of CubeSats and general satellites and	
	Launch reliability	Launch success rate of launch vehicle and launch site	
	Performance capability	Size and awareness of company	
Price Part	Price of service	Low price of service	30 %
Total			100 %

### 3.4. Contract

- 1) Expected date for contract : about 1~2 months after bid closing date

- 2) This contract follow the Korean laws and the Korean Commercial Arbitration Board in Seoul of Korea adjusts dispute if it arises.

#### 4. Development of Proposal

- 1) Bidder should develop Proposal only as the format presented at Attachment 1.
- 2) Proposal should use English language and SI units and currency should be expressed in U.S. dollars.
- 3) As the Attachment 1 of Proposal, Quote should be attached but the detailed items and their prices should be described in free format of Bidder.
- 4) As the Attachment 2 of Proposal, Certificates for launch service issued from the company of launch vehicle should be attached.
- 5) Documents which supplement Proposal can be attached in free format of Bidder. The examples are as following.
  - (1) Company brochure
  - (2) Experience and carrier in launch service
  - (3) Certificates for government approvals (e.g. export licenses)
  - (4) Information(including launch success rate) of Launch vehicles and launch date proposed
  - (5) Third Party Liability Insurance Certificate of Launch Vehicle
  - (6) Optional services
  - (7) Terms and conditions for contract

#### 5. Contact Information

In the contact information table below, the person of item 1) is for administration part and the persons of item 2) and 3) is for technical part.

**Table 4. Contact information**

No.	Name	Position	E-mail	Telephone	Fax.
1)	Jeon, In-Kyu	Senior Administrator	ikjeon@kari.re.kr	+82-42-860-2766	+82-42-860-2666
2)	Han, Sang-hyuk	Senior Researcher	shan@kari.re.kr	+82-42-860-3764	+82-42-870-3980
3)	Choi, Gi-Hyuk	Director	gchoi@kari.re.kr	+82-42-860-2217	+82-42-870-3980

**Table 4. (continued)**

No.	Division	Address
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1)	Purchasing Team, Infrastructure Management Division	Korea Aerospace Research Center (KARI) 169-84 Gwahangno, Yuseong-Gu, Daejeon, 305-806, South Korea
2)	Aerospace Future Technology Team, Future Convergence Technology Division, Convergence Technology Research Laboratory	
3)	Future Convergence Technology Division, Convergence Technology Research Laboratory	

## 6. Attachments

- 1) Proposal format
- 2) CubeSat contest information brochure

The end.