

Minutes of the meeting for Pre-bid of procurement of Drone/UAV held on 07/12/2018 at 11:00 AM in Committee room

Minutes of the meeting held on 07/12/2018 at 11:00 AM in Committee room FSI. The following members were present in the meeting:-

Forest Survey of India

1. Shri Arun Kumar, DD(FCM-II), Member, FSI, Dehradun
2. Shri Sanjay Kumar Agarwal, DD(SM), Member, FSI, Dehradun
3. Dr. Sunil Chandra, AD (FGD), Member, FSI, Dehradun
4. Shri A.K Saxena, AD(Accounts), Member, FSI, Dehradun
5. Shri Sanjay Rawat, AD(I/c), Member, FSI, Dehradun
6. Shri, Devi Singh, AD (I/c), Member, FSI, Dehradun
7. Smt. Neeta Sunil Goswami, AD(I/c), Member, FSI, Dehradun
8. Shri S.K Singh, AD(I/c), Member, FSI, Dehradun

Vendor

1. Shri Prasanna. S, Sr. GIS Analyst, Representative Sky Map Global India Pvt Ltd, Jaipur
2. Shri Piyush Tandon, Representative, Idea Forge Technologies Pvt. Ltd, Mumbai

Queries raised by Vendors

Page No.	Firm Name	Point Description mentioned in the tender	Pre-Bid Query	Clarification, Justification and amendment by FSI
01	Sky Map Global	a) 1 (One) number of Professional Survey Grade Unmanned Aerial Vehicle/drone for Large Scale Mapping. b) 1(One) number of standard survey grade Unmanned Aerial Vehicle/drone for large scale	Can anyone bid for single UAV?	Yes, anyone can bid for single UAV also

		mapping.		
02	Sky Map Global	Page No. 26 iv) Insurance Intimation/Cover (if any)	Transit insurance will be provided by us. Currently, there is no policy for drone insurance in India? What are parameter needs to be covered in the insurance? Who will renew the insurance policy every year?	Only transit insurance is required
03	Sky Map Global	Page No-26 vii) Source code of the application and keys of software.	Software product source code is Intellectual Property (IP) of OEM and will deliver to customer as product. Please clarify?	Delete the term source code at page no-26. Drone should be supplied along with software for mission planning and flight control software with threeyears maintenance/updation
04	Idea Forge Technologies Pvt.Ltd,		The weight of professional drone should not be more as well as payload capacity should not be heavy than 2 KG	The weight cannot be changed and it is kept as per our requirement
05	Idea Forge Technologies Pvt.Ltd,		To increase the camera resolution should be 15 Mega pixel for good digital image data, he also queried that payload should be replaceable in each of the Drones	It is preferable up to 12 Mega Pixel or more. As specified in the tender note no change will be made
06	Idea Forge Technologies Pvt.Ltd,	To be added	a) As per the Department of Industrial Planning and Promotion (DIPP), Ministry of commerce it is mandatory to have the Industrial Licenses for manufacturing of	Those equipment which has dual use both civilian and defence are exempted from Industrial licenses. (as clarified by Survey of India's Pre-bid conference for procurement of UAV's dt.5-10-2018)

			<p>UAV in India.</p> <p>b) Also, there is no direct connection between UAV operating guidelines issued by DGCA and Industrial License required for UAV manufacturing.</p>	
07	Idea Forge Technologies Pvt.Ltd,	Maximum body weight (MBW) - up to 8 Kg	<p>a) Such heavy systems will severely impact man portability hence operational efficiency. Considering that 8 Kg system coupled with battery, accessories and carrying cases etc. will easily cross 15 Kg system</p> <p>b) Allowing very high weighing system can promote poorly engineered, designed system</p> <p>c) We propose to have the MBW including batteries up to 3 kg</p>	No changes as per our requirement. The required body weight of UAV can be up to 8 Kg.
08	Idea Forge Technologies Pvt.Ltd,	Maximum take-off weight (MTOW) -Up to 10 Kg	<p>a) Our assumption is that MTOW is weight of UAV+ battery+sensor</p> <p>b) Such heavy systems will severely impact man portability hence operational efficiency. Considering that 8 kg system coupled with battery, accessories and carrying cases etc. will easily cross 15 kg per system</p> <p>c) The weight of typical</p>	No change as per our requirement

			<p>photogrammetry or multispectral camera with gimble and all connecting mechanism (including UAV battery) will not be more than 1500 gm in any case</p> <p>d) Request you to keep the MTOW to 1.5+ Kg of MBW</p>	
09	Idea Forge Technologies Pvt.Ltd,	Payload Capacity Up to 2kgs or more	<p>a) The expected UAV system is required to be used for high performance mapping applications.</p> <p>b) The expected area coverage in single flight is around 0.8 sq km</p> <p>c) By considering above parameters, it will not be possible for UAV to lift the payload of 2kgs or more</p> <p>d) We think this redundant clause and it is contrary to performance parameters expected from UAV for mapping purpose.</p> <p>e) We request you to remove this clause from the specification sheet</p>	No changes as per our requirement
10	Idea Forge Technologies Pvt.Ltd,	Sensor or Camera Preferably Replaceable payload(Camera) with one multispectral FIVE bands (Blue, Green Red, Red edge and NIR) Camera and one high resolution	<p>a)Both payloads should be replaceable(Request you to remove the word "Preferably")</p> <p>b) Making it mandatory compliance will ensure the compatibility</p>	Only replaceable payload is required (Firms should quote for both the cameras)

		RGB camera with minimum resolution 15 MP or more	c) Also, we would like to suggest that all payloads should be compatible with both grade of UAV's making the operations scalable and replicable without having any dependency on UAV or sensor	
11	Idea Forge Technologies Pvt.Ltd,	Format of Digital Image Data captured Geotagged JPEG/TIF/ up to 4K resolution videos	a) 4K resolution videos will not be applicable as videos capture is not part of the deliverables. b) Request you to consider the output format	No changes as per our requirement
12	Idea Forge Technologies Pvt.Ltd,	Payload Capacity Up to 1 kg or more	a) The expected UAV system is required to be used for high performance mapping applications. b) The expected area coverage in single flight is around 0.5 sq km. c) By considering above parameters, it will not be possible for UAV to lift the payload of 1 kgs or more d) We think this redundant clause and it is contrary to performance parameters expected from UAV for mapping purpose. e) We request you to remove this clause from the specification sheet.	The specification has been changed to preferably up to 1 Kg
13	Idea Forge Technologies	Sensor or Camera RGB camera with	a) As the application of RGB camera will	No changes as both are

	Pvt.Ltd,	minimum resolution 12 MP or more	be for mapping, we suggest keeping the resolution of 15 MP or more. b) Also, we would like to suggest that all payloads should be compatible with both grade of UAV's making the operations scalable and replicable without having any dependency on UAV or Sensor	different grades of UAV.
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