

**Aryabhata Research Institute of Observational Sciences (ARIES)  
MANORA PEAK, NAINITAL 263129**

**Phone: +91-05942-233734, 233735, Fax: +91-05942-233439**

**GLOBAL TENDER NOTICE**

Notice is hereby given to foreign / Indian manufacturers, for the supply of the Laser source as per given specifications in Tender notice. The Laser source is required for the high energy pulsed Lidar system at Aryabhata Research Institute of Observational Sciences (ARIES) Manora Peak, Nainital (An autonomous institution of the DST, Govt. of India). The Tender documents and terms and conditions for above mention item can be downloaded from [http://aries.ernet.in/ARIES\\_tender.html](http://aries.ernet.in/ARIES_tender.html)

**GENERAL CONDITIONS**

1. Tenders will be accepted up to 1700hrs on 14<sup>th</sup> May 2008 (Wednesday) There will be two bids, in the form of technical and financial bids, which should be submitted in separate sealed envelopes.

2. Technical bids shall be opened on 15 May 2008 (Thursday) at 1100 hrs and commercial bids shall be opened subsequently after finalizing the system based on technical bid, within a period of two weeks.

3. The tenders should be submitted with full details of equipment such as specifications, accessories and spare parts to be supplied along guaranteed delivery time. Relevant literatures should also be enclosed. The price of spare parts and Indian agents commission if any (in Indian rupees) should be indicated separately in the financial bid.

4- Tender should be addressed to **The Director, Aryabhata Research Institute of Observational Sciences (ARIES), Manora Peak, Nainital - 263129**

5. The equipment must be strictly as per specifications given hereunder. Documentary evidences that the supplier in question has been working satisfactory must accompany the tenders. A list of such customers with promised and actual dates of delivery of such type of equipments should be furnished for reference.

6. Installation and demonstration/presentation of equipment has to be done by the qualified engineer from the supplier at ARIES, Nainital and train the ARIES personnel for its operation and routine maintenance.

7. The validity of the tender should be at least for six months from the date of the tender. As far as possible full specifications have been quoted in the list given below, however, if any vendor desires further clarifications he may contact **Dr. P. Pant, ARIES, Manora Peak, Nainital, Phone: +91-5942-233734, 233735, Fax: +91-5942-233439, Mobile: +91-9412991721, E-mail: ppant @ aries.ernet.in**

8. Detailed operating manual in **ENGLISH** including trouble shooting and circuit schematics will have to be provided.
9. The rates should be quoted on CIF basis only.
10. Payment shall be made through L/C. 90% of the total value of the equipment will be released after receiving the consignment and 10% of the total value of the equipment will be kept as Security Deposit for warranty period or Performance Bank Guarantee of International Bank may be provided to ARIES valid for warranty period.
11. Please quote separately for the essential spare parts for next five years.
- 12-Agency commission/Technical Service Charges shall be paid only after the successful installation of laser source at ARIES, Nainital.
13. Details of warranty/extended warranty shall be clearly specified in the quotation.
14. After the warranty period annual maintenance contract (AMC) should be available at least for FIVE years. Please quote terms and condition for the AMC separately.
15. Director, ARIES reserves the right to accept or reject any or all the tenders without assigning any reason thereof.

### **MAJOR TECHNICAL SPECIFICATIONS**

Name of the equipment: **Q-Switched Nd-YAG Laser system along with 10X beam expander**, complete in all respect, having the following Broad Specifications

- 1- Output pulse energy:
  - (i) Between 1600 mJ-2000 mJ at 1064 nm (fundamental)
  - (ii) Between 800 mJ-1000 mJ at 532 nm (second harmonic)
  - (iii) Between 500 mJ-660 mJ at 355 nm (third harmonic)
- 2- Pulse repetition rate: 10Hz, 20 Hz, 30 Hz (selectable)
- 3- Pulse duration: ~ 7ns
- 4- Beam diameter: ~ 10 mm (at the exit window)
- 5- Beam divergence : < 0.5 mrad
- 6- Beam expander: Transmittance > 90%
- 7- Time jitter: < 0.5 ns
- 8- Energy stability:  $\pm 3\%$  or better (peak to peak 100% of shots)
- 9- Beam pointing stability: <  $\pm 50 \mu\text{rad}$
- 10- Electrical: 220-240 VAC/50Hz
- 11- Provision for external trigger output (TTL) for feeding to data acquisition system
- 12- Facility to monitor pulse power continuously

- 13- Cooling- Water cooled (in closed loop)
- 14- Computer interface (RS 232/USB) for monitoring the various parameters and health related to LASER source.
- 15- Necessary interface software should be supplied with LASER, compatibility with WIN-XP or higher versions.
- 16- Site details:

Lat, Long, Altitude:	29.4 °N, 79.5 °E, 1960 m above mean sea level.
Ambient temperature:	-2 to 35 °C
Relative humidity:	~ 40% to 99%

**Registrar, ARIES**