REQUEST FOR INFORMATION FOR PROCUREMENT OF WAR GAMING CENTRE FOR IAF

1. The Ministry of Defence, Government of India, intends to procure a War Gaming Centre for IAF.

2. This Request for Information (RFI) consists of two parts as indicated below:-

(a) <u>Part I.</u> The first part of the RFI incorporates a few general, operational and performance characteristics and features that should be met by the system. A few important technical parameters are also mentioned.

(b) <u>Part II.</u> The second part of the RFI states the methodology of seeking response of vendors.

<u>PART- I</u>

3. <u>The Intended Use of Equipment (Operational Requirements).</u> The War Gaming Centre is required to generate scenario and simulation at strategic and operational levels.

4. <u>Important Technical Parameters</u>. The general, operational and technical requirements are as placed at Annexures I, II and III respectively.

5. Vendor should confirm that following conditions are acceptable:-

(a) The solicitation of offers will be as per 'Single Stage-Two Bid System'. It implies that a 'Request for Proposal' (RFP) would be issued soliciting the technical and commercial offers together, but in two separate sealed envelopes. The validity of commercial offers would be at least 18 months from the date of submission of offers.

(b) The technical offer would be evaluated by a Technical Evaluation Committee (TEC) to check its compliance with RFP.

(c) The equipment of the TEC cleared vendors would be put through a trial evaluation in India on a 'No Cost No Commitment' basis. A staff evaluation would be carried out by Service Headquarters (SHQ) to analyse the results and shortlist the vendors.

(d) After clearance by the evaluation teams, a Contract Negotiations Committee would decide the lowest cost bidder (L1) from amongst the technically compliant offers and conclude the appropriate contract.

(e) Vendor would be bound to provide product support in terms of a comprehensive Maintenance contract for time period and terms and conditions specified in the RFP.

(f) The vendor would be required to accept the general conditions of contract given in the Standard Contract Document at Chapter V of DPP 2011 placed on <u>www.mod.nic.in</u>.

(g) <u>Offset.</u> The vendor will need to undertake offset contracts amounting to 30% of the value of commercial proposals, if applicable.

(h) <u>Integrity Pact.</u> An integrity pact along with appropriate EMD would need to be submitted, if applicable.

(j) <u>Performance cum Warranty Bonds</u>. Performance Bond and Warranty Bond are required to be submitted after signing of contract as per provisions of DPP 2011.

PART-II

6. <u>Procedure for Response</u>

(a) Vendors must fill the form of response as given in Annexure E of Chapter I of DPP 2011. Apart from filling details about company, details about the exact product meeting the generic technical specifications (defined in Annexure) should be carefully furnished. Additional literature on the system can also be attached with the reply. The RFI is to seek information on products that are available with the vendor. Deviations in parameters are acceptable at this stage and flexibility is possible. Other additional features if available may be indicated as optional equipment.

(b) The filled form should be dispatched to under mentioned address:

PD ASR (Room No 460) Air HQ (Vayu Bhawan) Rafi Marg New Delhi-110106 Fax 011-23011836

7. The Government of India invites responses to this request only from Original Equipment Manufacturers (OEM) / authorised Vendors/Government Sponsored Export Agencies (applicable in the case of countries where domestic laws do not permit direct export by OEMs). A confirmation to this effect is requested in the response. The end user of the equipment is Indian Air Force.

8. Vendor is to clearly state in his proposal, if the system is already in use or under development and state the plan and timelines for providing the system. Necessary Government clearances would need to be obtained, where applicable, by the vendor for supply of the equipment to Government of India.

9. The vendor is to attach detailed technical specifications of the equipment being offered. The expected date of response is within six weeks from the date of receipt of this RFI. For planning and budgeting, the Vendor is requested to provide a rough order of magnitude cost of the system under following options:

(a) Cost for direct purchase of the system.

(b) Cost for an annual comprehensive (including all spares) maintenance support along with terms and conditions for the performance based support.

10. This information is being issued with no financial commitment and the Ministry of Defence reserves the right to change or vary any part thereof at any stage. The Government of India also reserves the right to withdraw it should it be so necessary at any stage. The acquisition process would be carried out under the provisions of DPP-2011. Kindly acknowledge receipt of the RFI.

<u>Annexure – I</u> (Refers to Para 4)

GENERAL REQUIREMENTS

1. System should be able to generate scenario and simulation at strategic and operational levels. The facility should have capability to play the war game in coordination with or independently from varied locations across the country.

2. The system should have the capability of populating different scenarios at strategic level in conjunction with other agencies both military and civil at national level.

3. The system should have the capability of populating war gaming tools and scenario painting at the operational level. The system is required to have seamless integration with existing tactical war gaming tools and packages in the Indian Armed Forces.

4. System must be capable to undertake the specifications of a bank of scenarios and objectives (including secondary ones) of various types for use in all planned exercises. It should also have additional data fields to cater for future inductions of aircraft and systems.

5. System should be capable of playing numerous sides including neutrals and planning high number of contingencies and missions.

6. Should be capable of providing and incorporating Out of Area Contingencies.

7. In view of the fast pace of technological advancements, the system should have the capability for regular upgradation and real time technical support.

8. System must be based on open source GIS and be compatible to commercial GIS system for Interoperability.

9. System must be capable of generating probabilities of success depending on certain human degradation factors like experience level, fatigue, etc.

10. <u>Army/ Naval Forces Deployment.</u> Should be capable of deploying Army and Naval forces and factor them in overall simulation model. Capability to show relative movement of these forces would help in planning and execution of joint operations.

11. System should be interoperable with existing tactical level war games and other tools of the IAF.

12. Project would be executed as a turnkey project with all associated infrastructure as deemed necessary for a main hub and upto six command level nodes.

13. The system should incorporate ops, maint and adm aspects in scenario building, simulation and result generation in both low resolution and high resolution models at any stage. The acquisition process would be carried out under the provisions of DPP-2011.

<u>Annexure - II</u> (Refers to Para 4)

OPERATIONAL REQUIREMENTS

1. **General Functions.** The model must be capable of following functions:-

- (a) Strategic/ Operational Doctrinal Selection.
- (b) Integration of aero space elements.
- (c) Execution of game in real/ turbo time.
- (d) Access to Simulation Rule book.

(e) Upgradation in the future. Either by providing source code alongwith software tools and training to use the tools as part of system or by supporting upgradations by the user for 10 years.

2. <u>Capabilities.</u> The following capabilities must exist in this War Gaming and Simulation model:-

(a) Painting scenarios any where in the world and be capable of handling multiple teams and neutrals with provision to increase the number of teams in the future, if so desired.

3. The War gaming and Simulation model should also be able to cater for the following:-

(a) Must be capable of addressing higher level issues of application of air power and allow the players to learn higher level issues of application of air power. The system should be capable of explicitly defining the situation.

(b) Must be transparent in displaying its reasoning for generating outcomes from air action similar to decision support systems and expert systems. Its operational analysis models used for the purpose must be substantiated by study and not based upon mere probability figures arbitrarily fed into the system.

(c) The system should be able to populate data base with ease and be scalable.

(d) The system design model should be able to inject an element of uncertainty during the execution of the war game.

(e) The system should allow the IAF to explore the role and potential effects of human behaviour and human decisions.

(f) The system design should be capable of either stochastic or determination with either low resolution or high resolution model depending upon the needs of the user.

(g) Providing the environment for exploring future system integration with legacy systems.

4. Providing an environment for exploring Concepts of Operations for new systems before they enter service.

5. Exploring new Tactics, Techniques and Procedures in a risk free environment.

6. Providing evidence of the existence of future capability issues, especially in joint operations.

7. System of systems integration issues across organisational boundaries needs to be addressed in the proposed model.

8. The cases or algorithms used to represent the results of engagements must be sufficiently robust to account for the range of results that could be expected in the assessment process.

9. The model should be capable of including qualitative factors also in the overall gaming methodology.

10. The model should also include command and control formulation in the simulation model.

11. Scheduler to process all models and rules as per the game time lines and ensure that all relevant functions have been carried out as per plans before presenting the outcome of the simulation cycle.

12. Scenario generation tool for creating initial game setting.

13. Capability to simulate joint (Army-Air, Navy-Air, as well as tri-services) operational environment.

<u>Annexure - III</u> (Refers to Para 4)

TECHNICAL REQUIREMENTS

1. Should be built in an open-ended architecture and on a modular basis. It should have object oriented modelling.

2. Software platforms should be the latest and cater for future requirements for at least 10 years. The database should permit storage of a large amount of data and fast data retrieval. The software should cater for an increase in the number of terminals.

3. Software application and database should be capable of being stored on Storage Area Network with suitable disaster recovery plan.

4. The architecture of the System inclusive of the database should be open ended and such that it would be possible to field modules independently or in groups as part different simulating environments.

5. The software should have set of different user-levels to provide different degrees of access to the game structure.

6. Quality characteristics for the product like interoperability, maintainability, scalability, portability.

7. Compatible with the existing network of the IAF and accessible to the network monitoring system.

8. Game communication module based on mail messaging, VOIP and video telephony riding on the existing AFNET.

9. Complete end user hardware to be provided by the vendor. Hardware support and upgradation must be provided for at least 10 years.

10. Software and hardware training - Initial training to the system administrators and game managers and continuous training on quarterly basis to the changing pool of end users on site.

11. Warranty – For at least 2 years and as per the standards terms of reference.