

MOD Request for Information

**Section 1: Contract Title:**

Title attributed to the Contract by the Contracting Authority

****Country

****Town

****Title of notice

Section (DIO only)



**Section 2: Contracting Authority**

Name of Institution

****

MOD Organisation

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Integrated Project Team (IPT)
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Other Integrated Project Team (IPT): Click or tap here to enter text.

Official Name: Click or tap here to enter text.

National ID: (*In some European countries each contracting authority/entity is registered in 'Chambre de Commerce' and has a 'National ID'. This should only be entered if known.)*

Click or tap here to enter text.

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 Town: Bristol

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**Section 3: Object of the Request for Information:**

Contracting Authority's file Reference number: Click or tap here to enter text.

Weblink to where further documentation can be obtained: Click or tap here to enter text.

Short description of requirement:  Defence School of Aeronautical Engineering (DSAE) is looking to upgrade or replace Generic Flying Systems Trainers (GENFLY), also known as Hydraulic Systems Synthetic Trainers (HSST)

Time-limit (Date & Time) (by 12:00 on):

**30/09/2022**

Information requested: Please note that this is a Request For Information (RFI) only. This request is not a commitment by the Authority to launch a formal procurement process and the requirement, described below, is subject to change, the objective of this RFI is to explore existing solutions available in the market. Information shared at RFI may be shared at an Invitation to Tender (ITT) or Invitation to Negotiate (ITN) stage of procurement, if an ITT or ITN is pursued by the Authority. Information may be shared in relation to how the Requirement was prepared and developed. However, information, resulting from any RFI, marked 'Commercially Sensitive' by the respondent, will not be shared outside of the Authority. The Authority shall reserve the right to reject submissions marked as 'Commercially Sensitive'.

The Generic Flying Systems Trainer (GENFLY) manufactured by Pennant, maintained by Leonardo under the GTMS contract, has an OSD of Apr 2024. Beyond this date GENFLY will be unsupportable. Due to component obsolescence, the capability of GENFLY has slowly diminished from 4 to 2 assets over the past 5 years. The remaining 2 both have reduced functionality and require daily pre-use maintenance from contractors.

The requirement is to either upgrade the current systems or replace it with a suitable solution to continue delivery of this training element to the c416 students per annum (currently) The solution must be fully supportable for a minimum of 10 years. Synthetic trainers allow for transition from theoretical knowledge to "on aircraft" training within the safest environment possible. This hands-on experience provides the opportunity for students to undergo fundamental learning experiences that are difficult to achieve on Ground Training Aid Aircraft GTA(A) or within the classroom, such as; developing essential fault-finding skills, procedural maintenance training, zonal techniques, Electrical Wiring Interconnection Systems (EWIS) inspections and simulating cockpit fundamentals and cockpit entry procedures.

**The Authority is requesting information on:**

1. What COTS (Commercial Off-The-Shelf) and/or MOTS (Military Off-The-Shelf) options are available currently to replace the GENFLYs; are any modifications required; what are the ROM costs? ROM costs to include and be broken down as follows:
a. Licence (Options – 10 years and perpetual)
b. Ongoing support and maintenance for a period of 10 years minimum
c. Train the trainer package
d. Delivery, installation of the new GENFLYs
e. Disposal of the old GENFLYs (4)
2. What upgrade options will meet the Requirement? what are the ROM Costs (broken down as detailed above, where applicable)
3. If COTS option is not available, what options are available for further consideration to meet the requirement with further R&D?

**Key system requirements are as follows**:
- System should be physically representative of an air system although does not have to be to scale. System(s) could be delivered using multiple Hands On Trainer (HOT) modules/modular/Part Task Trainers (PTT) to meet the requirement.
- A/c systems within each trainer (depending on solution) must be integrated and reactive to one another. Faults replicated on specific a/c systems must translate across remaining systems representative of a real a/c.
- Student must be able to use circuit diagrams to identify the components within specific aircraft systems and physically locate components within the system.
- System uses a ‘Skin off’ structure to view and revise generic aircraft systems taught during classroom-based theory lessons.

**Systems should include as a minimum**:
- Simulated hydraulic power generation – use of electromechanical systems to simulate hydraulic power.
- Fixed wing flying control systems – must include moving a/c surfaces.
- Undercarriage and retardation systems.
- Ability to introduce system faults to enable student fault diagnosis.
- Simulated, ‘skin off’ cockpit with cockpit entry and space for 1 student and 1 instructor. This is to enable fault diagnosis within the cockpit environment. Controls and moving systems within the cockpit to be representative of real time a/c systems.
- Systems must work in accordance with current regulations (now Instructions for Sustaining Type Airworthiness (ISTA)) RA 5815 – Instructions for Sustaining Type Airworthiness (publishing.service.gov.uk), using current diagrams, descriptions, and operations to maintain the systems. Systems must be supported by training documentation for operation and maintenance, including fault inputs.
- Ability to carry out functional tests to confirm serviceability, identify faults and make observations to correctly identify symptoms, physically locate possible causes and eliminate any incorrect causes.
- Use the synthetic trainer to reinforce safety aspects including signs, safety persons, comms, danger areas and identification of moving areas.
- Instructor can should be able to use external controls to engage with systems, implement faults and control indications during tests.
- Able to support several different fault scenarios involving multiple faults.
- Surfaces and systems are representative of real aircraft and move as such, representing danger areas and allowance for realistic fault finding.
- Any involved software systems must meet the specification of modern IT systems and must be supportable up to 10 years. As a minimum this must be Windows 10 and be compliant with JSP440 regulations (RMADs, SCIDA etc.)
- System must be physically robust and reliable with anticipated operation of a minimum of 10 years. - Potential to re-use training airframes to meet the requirement. Currently held airframes at RAF Cosford include Jaguar, Hawk, Tornado.

**The instructor must be able to:**
- Operate the system as a single instructor – be able to complete all tasks whilst delivering instruction.
- Select and implement a number of faults from a library of fault scenarios– each fault scenario can be single or multiple faults.
- Easily and physically access system components at all times.

- Any responses should be sent via email to Matthew.Julier100@mod.gov.uk . Responses should be limited to 4 pages of A4 in pt11 Arial font, and be sent by 1200hrs on 30th September 2022.