**PROJECT NO. IAF/15**

**BRIEF ON LONG RANGE AIR-AIR BEYOND VISUAL RANGE (BVR) MISSILES FOR EMPLOYMENT FROM FIGHTER AIRCRAFT OF THE IAF**

|  |  |
| --- | --- |
| 1. | **Name of Potential Project** |
|  | Long range Air-Air Beyond Visual Range (BVR) Missiles for employment from fighter aircraft of the IAF |
| 2. | **Brief about the project** |
|  | MoD, GoI intends to procure Air-Air BVR missiles. These missiles are proposed to be indigenously developed and manufactured under the Make category of the DPP-2016. |
| 3. | **Broad specifications / PSQRs which can be shared with the Industry** |
|  | **BVR Missile**  (a) The BVR missile should use latest technology to assure long range and superior ‘end game manoeuvring’/’No Escape Zone’.  (b) The missile should be able to engage the target at the ranges of at least 160 Km when launched at less than 2 M speed at a target with similar parameters.  (c) Missile design should allow rail as well as ejector launch.  (d) The missile should interface with the aircraft through 1553B interface bus for transfer of information to and from the aircraft and follow MIL STD 1760 for information exchange.  (e) The missile should have I level testing facility at bases and D level repair facility in IAF.  (f) The missile should be fitted with all-weather active radar proximity fuse to detect the target and provide a firing pulse to initiate detonation of the warhead.  (g) Data link transmitter to be exclusively designed and installed by the missile OEM on the launch aircraft. Data link receiver in the missile should provide a comical signal reception around the missile axis to the rear. The data link should preferably be two way data link operating in L band.  (h) Vendor should be able to integrate the missile on at least one fighter aircraft platform specified by the IAF during prototype development phase. Thereafter, the missile should be integrated on other platforms supporting the missile interface requirements.  (j) Missile should have own Inertial Navigation System (INS). The missile INS should be able to synchronize with the aircraft INS almost instantaneously.  (k) Missile should have seeker with Lock-On After Launch (LOAL) capability. Launch aircraft will support the missile in flight until seeker acquisition through data link. The seeker should be of latest technology with RF only or with RF+IR combination to assure better detection.  (l) The missile should be all weather and have capabilities of all aspect shoot up/down, multi target engagement, ‘fire and forget’ operation, data link, anti-jamming & jamming resistance capabilities.  (m) Missile should be able to function in two modes viz normal mode where the target data is provided by the launch aircraft via the data-link till the target acquisition by the missile seeker and Fire and Forget mode if necessary in tactical situation. |
| 4. | **Tentative quantity to be procured after successful prototype development** |
|  | 1. Immediate requirement: Approx 500 missiles with associated ‘I’ level and ‘D’ level facilities. 2. Recurring requirement: Spares sets and individual spares as per requirement. |
| 5. | **Tentative timeline for induction** |
|  | Year 2021 onwards |
| 6. | **Any other relevant information** |
|  | Nil |