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Rama's Bow and Arrow in New form in Striking a Target

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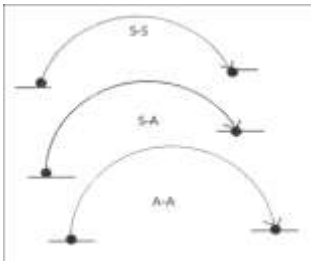
The term 'missile' can be well compared to a bow and arrow of the historic reign of the Ramayana-Mahabharata that were often used as a war equipment. This piece of equipment which was often used to target other objects . The term missile derives its name from 'Mission' or to complete a task as such it won't be wrong to mention that it has derived its origin during the battle of the Pandavas or the epic battle mentioned in Ramayana.

Even though Meghnad was a seasoned warrior well trained in the art of bow and arrow, he was slayed by Laxman during his meditation and as history speaks Laxman was helped by Chaturja. Can we really deduce the proper ethics of a battle from here? Similar case are well seen in todays war torn world, specially in the boundaries between two countries. Now we will use the term 'missile' in place of tools of war. In today's world we find the usage of bow and arrows between the tribal Indians or 'Adivasis' .

The missiles can be used in three major ways –
1.Land to land
2.Land to air
3.Air to air



India's missile usage may be well said to be a combination of aerospace thrusting and missile technology as per Indian National Ballistic Missile(ICMB) which has already been active for more than four decades. For peaceful aerospace research purposes different states of the world often takes an active part in the South Asian Nuclear Missile Treaty.
Indian missile workspace or the Defence Research and Development Organisation (DRDO) has its headquarters at Defence Metallurgical Research and Laboratory (DMRL, Hyderabad) and are known to often sponsor CSIR Labs and other universities in the same field.

Principle of Working : As per Newtons third Law , " To each action there's an equal and opposite reaction " is the basic principle behind its working. Now we can mention a rocket as an launch vehicle only when it enters the orbit of any celestial bodies or any other pay load of same kind and if the payload is an warhead only then we'll call it a missile.
The world powers who have the capability to launch a missile in case of a war are India, Pakistan , Japan , Israel, Iraq, Iran, South Korea, North Korea, Argentina, Australia, Brazil, Canada, China, Taiwan, France, Germany, Norway, Russia, Siberia, South Africa, Sweden, England, America,etc.

I. VARIOUS PARTS OF MISSILE

Manufacture of missile's dome –When a missile travels very fast at its target the dome is subjected to extreme heat by creating friction between the dome and the air atoms. On the other hand, when used as a missile seeker the electronic equipment must remain invisible to the incoming electromagnetic waves i.e.: the dome must be created in such an way such that it remains in equilibrium with the high temperature. Often AION, Aluminum OxyNitride which is used at the front of the missile.

This special substance has a special characteristic in that it is transparent to UV-visible light between (0.7 to 5.15) micron and is , which helps its usage in the missile guidance system.

AIon has a cubic spinel structure and has a spinel lattice with O and N. AION can be both octahedral and tetrahedral with a vacancy at the Octahedral position. On the other hand if the trivalent cation of Al spinel structure occupies the tetrahedral site, the AION can be said to be inverse spinel.

AION's composition can be identified as 5AlN.9Al2O3 and is formed when alumina and aluminum nitride mixture is heated above 1700 C and can take time up to 24 hours. This component has an theoretical density of 3.71 gm/cc. In some compositions different additives are added like La^2O^3,MgO,BN to increase the theoretical density and optical transparency.

This work was done in the High Temperature Materials & Tracer Lab,CSIR Central Glass & Ceramic Research Institute Jadavpur, Kolkata, an initiative of Ministry of Defence. The project was headed b y Dr. A P J Abdul Kalam who can also be said to be a more of a philosopher and less scientist at the letter part of his life.At that point of time he was scientific Advisor to P.M. and during this projects when he came to CGCRI to review the progress of the project came to my laboratory and after introduction enquired about my work In 1982 he as the Director DRDO he inisited 5 missiles Jatha, Nag , Prithi , Akash, Trisul and Agni during his duration of 10 years at DRDO. As such he was awarded with the title of 'Janak'. Of missile programme of India.

II. NUCLEAR MISSILE

It is also a simple missile where in an separate compartment nuclear fission leading to a nuclear bomb which is taking place and thus used as an weapon. Here a Fission/Fusion reaction takes place which produces tremendous power approximately equal to 20,000 tons of TNT. In 1945 Japan's bombardment of Hiroshima and Nagasaki produced enough thrust equal to 15 – 22 kilo tons TNT.

Just like that if an nuclear reactive equipment is projected as an weapon it will called an nuclear missile.

Besides the nuclear bomb, a nuclear missile containg with high quantity of radio isotope and consequality higuge radio activity and high level nuclear waste.

A nuclear missile in this way if some nuclear entity is plased in to a missile and if it is the word head it will then turn into a nuclear missile.Appart form this a nuclear bomb or if radio isotopes and high level nuclear waves from which emanating the high level nuclear radation can Also be a part of a nuclear missile.A nuclear missile may be compaired with an arrow coated with poision.

India's Missile carriers which have been included in denfence as are follws

1. 1995 Prithi to Indian Army
2. 2001 K-15 to Indian Nevy
3. 2004 Agni to Indian Nevy
4. 2009 Brohmos to self defense army
5. 2012 to air forced
6. Nag into Army

India's defence department grants about billions of dollars and crores of rupees on research on these missiles and other ballistics to supports of Ministry of defence establishments.

An imaginary political history : If we go back to the 19th century and assume Netaji Subhash Chandra (the prime minister of Azad Hind Fauz as well as Defenced and Finence Minister) had well equipped even nuclear missile andthat would have been projected at Great Britain and Japan could have been avenged .

As a result India's Independence would be accelerated and the supreme power at Delhi would

be established with the person does not required to be mentioned.

Application:

Application of missile in constructive field:In case of dilapidated monuments which are beyond renovation like mosqus temples miners so on and so forth can be demolished and can be utiised in making alternate objects like park gardens etc.

- In destructive affair : To attack opponent country whether it is enriched or not with nuclear arsenal which must be done with consent of defence and Home Ministry.

A file photograph of Missile Agni

Translated from Bengali by Ms. Somdatta Rudra, Student, First year, Dept. of Chemistry, University of Burdwan, W.B.

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