

Mercury Propulsion System in Vedic Vimanas and Modern Spacecrafts

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ABSTRACT

Ancient Indian culture 7000 years ago knows how to create Vimanas to traverse the sky and beyond using a technology that NASA is still trying to harness today. There are many books and websites which forcefully and passionately assert that technologically advanced aircraft and spacecraft were in common use over the Indian subcontinent thousands of years ago. The sources also claim that advanced space propulsion technology being researched by NASA is in fact directly inspired by ancient flying machines. The references mentioned from Vedic texts such as Rig Veda, Yajur Veda, Srimad Bhagavatham, Ramayana, Mahabharatha, Vaimanika Shastra and Samarangana Suthradhara cites Vimanas that fly in air, water and land. They mention various propulsion including Mercury propulsion. Vaimanika Shastra provides complete manual for Design, Material selection, Manufacture, Operation, Space suits, Food, Tackling enemies, Becoming invisible etc. S.B.Talpade, Sanskrit scholar has designed and constructed an aircraft based on Vedic principles and demonstrated the first unmanned flight.

Key words : Vedic Vimanas; Mercury Propulsion; Rig Veda; Yajur Veda; Srimad Bhagavatham; Ramayana; Mahabharatha; Vaimanika Shastra; Samarangana Sutradhara.

1. Introduction

Wright brothers demonstrated on December 17th 1903 that it was possible for a manned, heavier than air machine to fly. But in 1895, eight years earlier, the Sanskrit scholar S.B.Talpade designed a basic aircraft called Marutsakthi based on Vedic technology and it took off unmanned before a large audience in the Chowpathy beach of Bombay. Talpade was the first creator of an aircraft in modern times [1].

Rocket technology was not available to place a spacecraft into a low orbit until the

launching of SPUTNIK-1 in October 1957 by USSR. The launch of SPUTNIK-I was followed by space race. In the last 50 years, USA, Russia and Europe has launched a variety of spacecrafts within the earth and then to other planets. During the Vedic period (10,000AD) in ancient India, the flying machine was called Ratha and later vimana. The Vimanas were used for travel from one place to another place, from one country to another and between the planets.

2. Propulsion Systems

Most of the spacecrafts orbit around earth, others orbit the sun or moon or other planets. The spacecraft need a means of moving through the space. To move from an orbit to another, the spacecraft has to escape the gravitational attraction of the planet and accelerate to a velocity sufficient to counteract the planet's gravitational pull or field. Such high acceleration requires a lot of energy. The journey of any spacecraft starts with rocket propelled vehicle which is the only means of overcoming the earth's gravitational field [2]. Propulsion system is required to move the spacecraft to further orbit.

2.1 Electric Propulsion

During the early days, chemical propulsion was used where the chemical reactions of the propellant is used to produce a flow of fast moving hot gas. Since the chemical thrusters are unable to generate high velocity and high impulse, electric propulsion (EPS) was developed. Electric propulsion is a generic name encompassing all the ways of accelerating a propellant using electric power. In the electric propulsion, the charged particles of the propellants are set in motion by electric field and magnetic field accelerates them. With electric field and magnetic field, the charged particles are accelerated and then ejected by the thrusters, thus producing the desired velocity and impulse [3]. Generic name is ion thruster.

Table I compares the performance of chemical propellants with electric ion propellant

Table 2.1 Comparison of Propellants

Propellants	Velocity Km/s	Specific impulse	Fuel Mass Kg
Solid	1	100	190,000
Bi chemicals	5	500	8,200
Ion Thruster	50	5000	620

2.2 Propellants

Following are the propellants used in electric propulsion.

- ❖ Mercury
- ❖ Xenon
- ❖ Argon
- ❖ Krypton
- ❖ Hydrogen

The thrusters are called after the propellants and method of acceleration as:

- ❖ Ion thrusters
- ❖ Hall thrusters
- ❖ Plasma thrusters

Ion and plasma thrusters are used in many spacecrafts for interplanetary missions [4]. Mercury vortex propulsion cited in Vedic texts is the forerunner for ion thrusters. The image of a hall thruster is shown in Fig.1

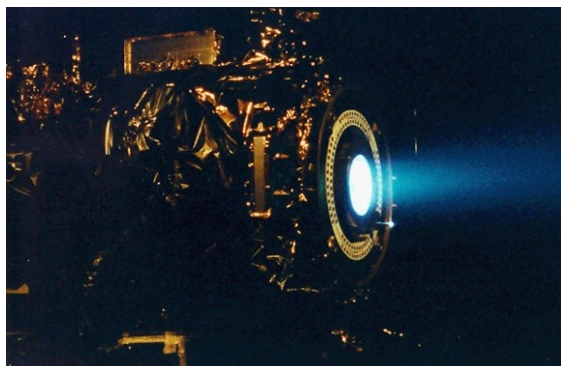


Fig.1 Hall thruster

2.3 NASAs Ion Engine

NASA (National Aeronautics and Space Administration) is trying to create an ion engine, a device that uses a stream of high velocity electrified particles instead of a blast of hot gases like in present jet engine. The future spacecraft engine planned by NASA uses mercury bombardment units powered by solar cells. The mercury propellant is vaporized, fed into the thruster discharge chamber, ionized, converted into plasma, and accelerated through small openings to pass out of the engine at velocities between 1200 to 3000 kilometers per minute. But, so far NASA is successful only to one pound of thrust which is inadequate. But 108 years ago, S.B.Talpade, a Sanskrit scholar of Bombay was able to use the knowledge of Vaimanika Shastra to produce sufficient thrust to lift his aircraft 1500 feet into the air.

2.4 Advantages of EPS

The advantages of EPS are as follows.

- ❖ Requires less propellants
- ❖ More efficient
- ❖ Propellant ejection is 20 times faster
- ❖ Regulates the impulse accurately
- ❖ Precise control of position and orientation of spacecraft

3. References from Vedic literatures

The following ancient literatures mention Vimanas (Ratha, air chariots, airplanes, spaceships and spacecrafts) and propulsion systems.

- ❖ Rig Veda
- ❖ Yajur Veda
- ❖ Srimad Bhagavatham
- ❖ Ramayana
- ❖ Mahabharata
- ❖ Vaimanika Sashttra
- ❖ Samarangana Sutradhara
- ❖ Manuscripts from Ashoka

A brief description is as follows.

3.1 Rig Veda

The Rig Veda, the oldest document of the human race includes references to the following types of Vimanas and propulsion [5].

- ❖ Jalayan

A vimana designed to operate in water and air (Rig Veda 6.58.3)

- ❖ Kaara

A vimana that operate in ground and water (Rig Veda 9.14.1)

- ❖ Tritala

A vimana consisting of three floors (Rig Veda 3.14.1)

- ❖ Tri Chakra Ratha

A three wheeled vimana designed to operate in air (Rig Veda 4.36.1)

- ❖ Vayu Ratha

A vimana powered by wind or gas (Rig Veda 5.41.6)

- ❖ Vidyut Ratha

A vimana powered by solar energy (Rig Veda 3.14.1).

Figure below shows a Rukma Vimana.



Fig.2 Rukma Vimana

3.2 Yajur Veda

Yajur Veda 10.19 quotes the following [6].

- ❖ Royal skilled engineers built sea boats propelled on water.
- ❖ Vimanas move and fly upward in the midst of clouds.
- ❖ Vimanas move as boats on water and fly over clouds.

3.3 Srimad Bhagavatham

Srimad Bhagavatham (sixth canto, para 3) describes king Citaketu traveling in the outer space on a brilliantly effulgent airplane given by Lord Vishnu saw Lord Shiva [7]. The arrows released by Lord Shiva appeared like fiery beams, emanating from the sun and covered the three residential Vimanas which could no longer be seen. The figure below shows an alien in the Vimana.



Fig.3. Alien in the Vimana

3.4 Ramayana

The seven greatest capital cities of Rama, developed fifteen thousand years ago in northern India and Pakistan was known as “The Seven Rishis Cities”. The people in the seven cities used different types of Vimanas such as double deck, circular shaped vimana with portholes and a dome.

They flew with the speed of sound and gave a melodious sound. The epic describes Vimanas of various shapes such as saucer shaped and long cylindrical shaped and various sizes such as Ahnihotra with two engines, elephant Vimanas with multi engines and others named after kingfisher, ibis and other animals. Generally Vimanas fall into two categories. Manmade spacecrafts that resemble aircraft and fly with birdlike wings [8]. Spacecrafts with unstreamlined structures fly in a mysterious manner and generally are not made by human beings. They have features of UFO’s. The epic cites Pushpaga Vimana with swan soared into the sky with loud noise with king Ravana, Sita and Trijatta to make Sita to see the battle field.

3.5 Mahabharata

Flying Vimanas were cited at 41 places in Mahabharata. The asura king Salva had an aerial vehicle called Saubha Vimana with which he attacked Dwaraka capital of Lord Krishna. He began to shower missiles and landed in the high seas. From one krosa (1500 meters) above the ground, Salva gave a

fierce fight with Krishna who threw a powerful chakra which hit the vimana in the middle and broke it into pieces. The damaged vimana fall in the sea. According to Drona parva, Vimanas are described as sphere shaped and move at great speed generated by mercury propulsion. The Vimanas moved like an UFO going up, down, backwards and forwards. Varna parva, section XLIII describes the aerial journey of Arjuna to Amravati, city of Indra. Arjuna observed Vimanas stationed properly, frequent landing and takeoff. Thousands of celestial Vimanas capable of going everywhere at will and stationed in proper place.

Hitler and the Nazi were interested in ancient India and Tibet and sent expeditions to both these places in order to gather esoteric evidence. It was from these people that the Nazis gained some of their scientific information. According to Drona parva, a vimana shaped like a sphere and fly along at great speed on a mighty wind generated by mercury propulsion [9]. It is possible that mercury did have something to do with propulsion or more possibly with guidance system. Soviet scientists have discovered age old instruments used in navigating cosmic vehicles. The devices are hemispherical objects of glass or porcelain ending in a cone with a drop of mercury inside.

3.6 Vaimanika Sastra

The world came to know the existence of the manuscript on Vimanas by Maharishi

Bharadwaja through the report of Shri K.P.N.Sastry, the Mysore representative of Press Trust of India in 1952. The Vaimanika Shastra, Science of Aeronautics is an early 20th century Sanskrit Text on Aeronautics obtained by mental channeling, about the construction of Vimanas, the chariots of the Gods. It contains 3000 shlokas in 8 chapters [10].

Lord Brahma, the chief demigod and engineer of the Universe have developed several Vimanas for other Gods and Demigods. These were in various natural shapes and incorporated the use of wings such as peacocks, eagle, swans etc. Other Vimanas were developed for human beings in the Earth by great seers of Vedic knowledge and aliens in other planets. In the course of time, there were three basic types of Vimanas. In Tretayuga, men were adopting in mantras. The Vimanas of that age were powered by means of knowledge of mantras. In Dvaparayuga, men had developed considerable knowledge of tantra or ritual. The Vimanas of this Yuga were powered by the use of tantric knowledge. In Kaliyuga, knowledge of both mantra and tantra are deficient. The Vimanas of this age are known as kritaka, artificial or mechanical. Vaimanika Shastra lists 25 variations of the mantrika Vimanas, 56 variations of tantrica Vimanas and 25 varieties of kritakash Vimanas. With regard to the shape and construction, there is not much difference. They differ only by propulsion.

The text contain flight manuals, aerial routes, procedures for normal and forced landings, instructions regarding the condition of the pilots, clothes to wear while flying, the food to eat, spare parts required, materials for craft manufacture, power supplies and so on. The text also contains instructions on avoiding enemy craft, to hear and see in enemy aircrafts, how to become invisible and tactics to avoid collisions with birds.

The Vaimanika Shastra describes the construction of mercury vortex engine. This is same as Vedic ion engine propelled by the use of mercury. Mercury engines were used in many Vimanas. In mercury engine, propellant tanks are filled with liquid air obtained from the atmosphere. The air is injected into expansion chamber and heated by mercury. The superheated M.H.D plasma air will expand through the nozzle. The strange ball of light surrounding the craft is the magneto hydrodynamic plasma, a hot re circulating air flow. The ball of light makes the craft to appear alive. When the ionized bubble of air surrounding craft or UFO is controlled, the ionization of the air may shift through every color of the spectrum, obscuring the aircraft from view and disappear.

When mercury is heated, it gives hot vapor which is poisonous. When radioactive mercury is heated, emit radiation and when leaked become dangerous to pilot and crew.

3.7 Manuscripts by Asoka

The Indian Emperor Asoka started a “Secret Society of the Nine Unknown Men”, great Indian scientists who catalogued the many sciences. Asoka kept their work secret because he was afraid that the advanced science catalogued by these men, culled from ancient Indian sources, would be used for the evil purpose of war. The “Nine unknown Men” wrote a total of nine books, presumably one each. One of the books is “The Secrets of Gravitation” which dealt with “Gravity Control”. It is kept in a secret library in India, Tibet or perhaps even in North America [11]. Years ago, the Chinese discovered some Sanskrit documents in Lhasa, Tibet and sent them to the University of Chandigarh for translation. As per Dr.Ruth Reyana of the University, the documents contain directions for building interstellar spaceships. The propulsion was “Anti-Gravitational”, a centrifugal force strong enough to counteract all gravitational pull. The manuscripts reveal the secrets of “Antima” the cap of invisibility and “Garima” the secret of becoming as heavy as a mountain.

3.8 Samarangana Sutradhara

Samarangana Sutradhara is a manuscript composed in Sanskrit by king Bhoja of Dhar in 11th century A.D. The treatise deals with technical subjects such as town planning, house architecture, temple architecture and sculptural arts together with Mudras, canons of painting. Samarangana Sutradhara is in

eighty three chapters with chapter thirty one specializing in the mechanical contrivances and yantras. The chapter is devoted to the construction and operation of several kinds of aircraft having various methods of propulsion [12].

King Bhoja used the Sanskrit term yantras often than the familiar term vimana. His knowledge was based on Hindu manuscripts which were ancient even in his time. Some of the techniques of manufacture described therein have been in use by British and American aircraft companies since World War 1 and found to be sound aeronautical principles even though described nearly a thousand years earlier in this old Sanskrit work. Several types of aerial machines were described and cover those vimana capable of flying into solar sphere and interstellar travel. The yantras body shall be strong and durable, made of light materials and the wings joined smoothly with invisible seams. It can carry passengers. It can also be made small and compact and move in silence. Certain aircraft described seem to be winged like modern airplane but it cannot go backwards nor did it can ascend or descend vertically. Inside the vimana, one must place the mercury engine and an Iron heating apparatus properly mounted beneath the engine. The figure below shows the operation of Mercury propulsion.

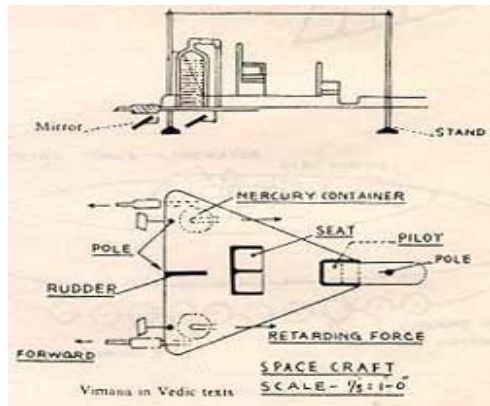


Fig.4.Mercury Propulsion

The pilot set the dual winged, drive whirlwind in motion and the pilot by means of mercury power may travel a great distance in the sky. There follows the description of a much larger, more complex Vimanas powered by four mercury engines.

4. Specialties of Pushpaga Vimana

The Pushpaga Vimana is often called Flying Palace. Pushpaga in Sanskrit means Flowers. It is the first flying Vimana mentioned in Hindu mythology. The Pushpaga Vimana was originally made by Maya for Kubera, the God of wealth, but was later stolen along with Lanka, by his half-brother, the demon king Ravana. The special characteristics of this Vimana is that whatever may be the number of people sitting in it, always there will be one more seat vacant i.e. if N passengers sit, there will be (N+1) seats. It was basically a Vimana that could soar the skies for long distances [13]. The figure below shows Pushpaga Vimana.



Fig.5.Pushpaga Vimana

5. Vimanas and UFOs

David Childress, in his book, *Vimana Aircraft of Ancient India & Atlantics* [] provided many reports, both recent and from the last few hundred years, that describes eye witness accounts of encounters with UFOs that are no different in size and shape than those described in these ancient Vedic texts. When the pilots are seen closer, they are human like, sometimes with an oriental appearance, in clothes that are relatively modern in style. In other reports, the craft may have alien type on board along with ordinary humans navigating the craft [14]. The UFOs that are seen around the world may not be from distant galaxy, but may be from a secret human society or even military installation. Many of the Vedic texts describe interplanetary travel. So even if these machines are from other planet, they may be using the same principle of propulsion that was described in the universal Vedic literature.

6. Ancient Vimanas in Time Well

A 5000 year old Vimana from ancient India was recently discovered in a cave stuck in a "Time Well" in Afghanistan in 2010 [15]. It caused the disappearance of eight American soldiers, likely incinerated, while trying to extract it from the cave. The report suggested that the Vimana is still activating and hence caused the death of 8 soldiers. The Figure below shows the soldiers entering the cave containing Time Well.

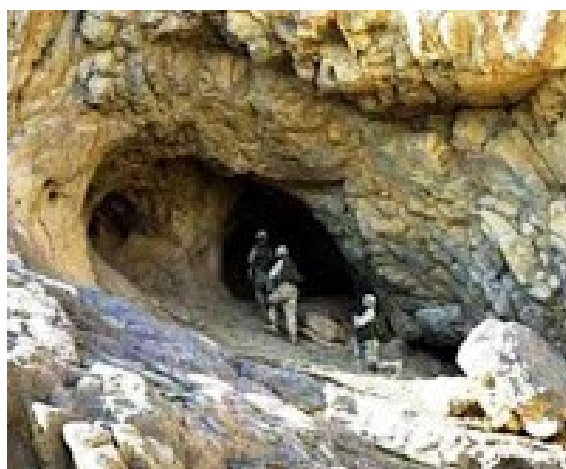


Fig. 6. Cave encasing Vimana in Time Well

A group of soldiers made the discovery on a mission in the desert of Afghanistan. The Vimana was protected by a strange energy barrier that was preventing the troops from extracting the Vimana.

An Electromagnetic Radiation – Gravity Field, postulated by Einstein appears to protect the Vimana in the Time Well. The unified Field theory is rumored to be behind the infamous American World War II experiment in teleportation called Philadelphia Experiment that in 1943 caused the sudden disappearance of US soldiers.

7. Conclusions

The Universal Vedic literatures cited provide basic information to design, construct and fly hovercraft, aircraft and spacecraft for interplanetary travel. Vaimanika Shastra and Samarangana Suthradhara provide material information required for interplanetary travel and reentry. Ion propulsion cited 10,000 years ago enable a spacecraft invisible to others. Tele-audio and Tele-dristi are excellent gift from Vedic manuscripts to modern world. The Space Agencies in India and abroad shall associate in applied research on the Vedic findings and progress in space travel.

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Sometimes when you innovate, you make mistakes. It is best to admit them quickly, and get on with improving your other innovations.

Steve Jobs