ADDRESS BY THIRU BANWARILAL PUROHIT, HON'BLE GOVERNOR OF TAMIL NADU AT VALEDICTORY PROGRAMME ORGANISED BY THE ADHIYAMAAN ENGINEERING COLLEGE, HOSUR ON 08.10.2018

Anaivarukkum Maalai Vanakkam

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LADIES AND GENTLEMEN

I am happy to be participating in the Valedictory function of the Space Week Celebrations being organised here today by the Sathish Dhawan Space Centre of the Indian Space Research Organization.

The Sathish Dhawan Space Centre, Sriharikota has been organizing the "World Space Week (WSW)" between 04th and 10th October every year to commemorate the launching of first man made satellite in to space. The main objective of this event is to disseminate the benefits of Indian Space Programme not only to the scientific community & academia but also to the common public.

The practice of celebratings began with the World Space Week Association (WSWA) which first promoted the observance of "Space Week", to celebration the first Moon landing.

By 1999 Spaceweek had spread to over 15 nations, when the UN General Assembly declared "World Space Week" to be held every year from 4 to 10 October. The first celebration of the Space Week took place in 2000. The new World Space Week Association took responsibility to organize this event on behalf of the United Nations from then onwards.

The mission of World Space Week Association (WSWA) is to strengthen the link between space and society through public education, participation, and dialogue on the future of space activity using World Space Week as a focus.

To achieve this mission, the strategy of the Association is to observe UNdeclared World Space Week, 4-10 October annually, so as to efficiently focus global attention on space through widespread events that week and associated media coverage.

The Satish Dhawan Space Centre SHAR (SDSC SHAR), Sriharikota, the Spaceport of India, is one of the lead centres of Indian Space Research Organisation (ISRO), Department of Space (DOS), Government of India. The Centre provides world class launch base infrastructure for national and international customers in accomplishing diverse launch vehicle/satellite missions for remote sensing, communication, navigation & scientific purposes and is one among the best known names of the Spaceports of the world today.

The space centre, which was popularly known as SHAR (Sriharikota Range) was renamed as Satish Dhawan Space Centre SHAR on September 5, 2002, in fond memory of Prof. Satish Dhawan, former Chairman of ISRO.

The genesis of SDSC SHAR can be traced back to 1960s when the great visionary Dr. Vikram A Sarabhai embarked upon space research activities in the country and envisioned that "we must be second to none in the application of advanced technologies to the real problems of man and society". To venture on the indigenous development of satellites and their launch vehicles, it was decided to set up a rocket launch station on the East Coast of our country, far from populated areas. Features like a good launch azimuth corridor for various missions, nearness to the

equator (benefiting eastward launches) and large uninhabited area for a safety zone have made Sriharikota the ideal location for the spaceport. This spindle shaped island in SPSR Nellore district of Andhra Pradesh, situated in the backwater Pulicat Lake and sandwiched by Buckingham Canal on the West and Bay of Bengal on the East, was chosen in 1969 for setting up the rocket launch station of our country. The Mission of the ISRO is to

- Design and development of launch vehicles and related technologies for providing access to space.
- Design and development of satellites and related technologies for earth observation, communication, navigation, meteorology and space science.
- Indian National Satellite (INSAT) programme for meeting telecommunication, television broadcasting and developmental applications.
- Indian Remote Sensing Satellite (IRS) programme for management of natural resources and monitoring of environment using space based imagery.
- Space based Applications for Societal development.
- Research and Development in space science and planetary exploration.
 Satellites are classified into different types based on the purpose and size.

The various types of satellites include

- 1. Weather satellites
- 2. Communication satellites
- 3. Navigation satellites
- 4. Remote sensing satellites
- 5. Astronomical satellites
- Miniaturized satellites.

Weather satellites are mainly used to check the climate and weather conditions of the earth.

The communication satellite is a satellite that transmits the signals such as telephone, television, radio, internet signals over long distances. Electrical signal is used to transmit the information through the wire. However, electrical signal or electric current is not transmitted wirelessly because air is a pure insulator. Hence, it resists the flow of electric current or electrical signal. In order to transmit the information wirelessly, light signals or electromagnetic waves are used. However, light signals or electromagnetic waves cannot bend around the curvature of the earth.

Hence, in order to transmit the information or signal over long distances, a single satellite or multiple satellites are used to redirect the signals.

The navigation satellites determine the geographic location of ships, aircrafts, or any other object. The navigation satellite system with global coverage is called Global Navigation Satellite System.

Remote sensing satellites are mainly used to observe the earth from its orbit. These satellites detect the changes in the earth vegetation, ocean color, radiation from the earth surface.

Astronomical satellites are used to observe the distant galaxies, stars, planets, natural satellites, and other objects in the space.

The miniaturized satellites revolve around the earth just like the normal satellites. However, these satellites have low mass and small physical size. The mass of a miniaturized satellite is below 600 kg.

"One small step for a man; one giant leap for mankind." Neil Armstrong's words, broadcast to the world as he stepped onto the Moon in 1969, became a defining phrase of the 20th century. They marked the first time a human being stood on a world other than planet Earth.

But in almost 50 years since them only 12 people have walked on the Moon and none since 1972. No one has travelled any further than the far side of the Moon (400,171 km away) and we don't really look like doing so any time soon.

Spaceflight is prohibitively expensive. Rather than governments putting up the cash to fund it, future human space travel may depend on private enterprise instead.

The first 'space tourist' was Dennis Tito, an American who reportedly paid \$20 million for a seat on a Russian mission to the International Space Station in 2001. A similar sum (\$25m) from another American millionaire funded the first private spacecraft, Spaceship One, which successfully crossed the boundary into outer space in 2004.

In the same year, Virgin Galactic began accepting reservations for suborbital spaceflights and has since developed Spaceship Two to carry passengers to altitudes above 100 km. Another company, Xcor Aerospace, is building the Lynx, also intended to fly to 100 km.

It appears from all this that it may take many more years before travel into space barrier possible at an affordable cost. However the benefits of space

applications though the launch of Satellites are there for all to see. The Satellites are various types.

I congratulate the Sathish Dhawan Space Centre of ISRO for having take the efforts to organize the space week celebration for the benefits of the students and the public. I wish them well, may success greet them in all their endeavours.

Nandri Vanakkam....

Jai Hind....