

The 1st **Heaven Talk Award** (May 2014) will be presented to **Taipei Astronomical Museum** for its outstanding contribution to astronomy education and popularization of astronomy.

Major contributions of TAM to Education and Public Outreach

With Yuanshan Observatory as its predecessor, Taipei Astronomical Museum (TAM) was established in 1996 and is the leading institution of astronomical education and popularization in Taiwan. TAM is the first astronomical science museum in Taiwan equipped with Exhibition area, IMAX theater, 3-D theater, Observatory, Library, Cosmic Adventure (rail cars) and other facilities. Since its opening, the Museum has attracted over 15 million visitors. In addition to its fun and educational facilities, the Museum has offered a variety of demonstrative and teaching activities of astronomical events in collaboration with many domestic and foreign academic or educational institutions and media based on the management concept of diverse educational promotion. TAM's major contributions include

1. Having cumulated data of long-term observation

The observation and recording of sunspots began by Zhongshan Hall Observatory in 1947, and the results of the continuous observation have been used to establish the Taipei model; the Museum is one of the important stations for the Solar Influences Data Analysis Center (SIDC). These data are also used in research and teaching plans for several educational institutions. Yuanshan Observatory collaborated with Japan's Oriental Astronomical Association (OAA) to observe the fluctuations of the polar caps and the generation process of storms and large-scale topographic changes on Mars. The Museum helped International Lunar Occultation Centre (ILOC) to fill the observation gap at longitude 120° east in the western Pacific. Moreover, we also accumulated a lot of long-term data and photographs regarding meteor showers, solar and lunar eclipses and other astronomical events of importance.

2. Holding observing activities of important astronomical events to promote astronomical observations in Taiwan

The important events included "1985 Halley's Comet", "2000 and 2001 Leonids meteor showers", "2003 Mars Great Approaching", live broadcasting of "2004 Rovers Spirit and Opportunity landing on Mars", "2004 Cassini entering Saturn's orbit", "2006 Transit of Mercury", "2008 Xinjiang total solar eclipse", "2009 Yangtze total solar eclipse", "2009 Taiwan partial solar eclipse", "2012 Annular solar eclipse", "2012 Transit of Venus", etc. These events were held with the cooperation of domestic and foreign institutions, including: Academia Sinica Institute of Astronomy and Astrophysics, National Taiwan University, National Central University, etc., as well as NASA's Jet Propulsion Laboratory (JPL), Japan's Bisei Astronomical Observatory (BAO), China's National Astronomical Observatories, and so on.

3. Offering various camps and activities annually, organizing special exhibitions with special astronomical themes, and inviting scholars and experts to give scientific lectures

TAM held over 400 activities and camps each year, in which 55,000 people were attracted to participate. Astronomical exhibitions include themes such as: "Lunar rocks exhibition", "David Malin-From the Earth to the Universe" astrophotography exhibition, and so on. Experts and scholars were invited to give scientific lectures, such as "2003 Mars series", "2009 Total solar eclipse series", "2013 Comet series", etc.

4. Astronomical education in depth; popularizing astronomical observations

TAM has held the "Astronomy Proficiency Test" annually since 1978, which is the only astronomical proficiency test in Taiwan. Since 2006, TAM and the Taipei Amateur Astronomers Association have jointly organized "Messier Marathon" to encourage amateur astronomers to participate in the field of astronomical observation and enhance the ability to identify deep space objects. Since 2008, the TAM work team has traveled nearly 4,000 kilometers and established eight "Starlight Elementary Schools" for schools in remote areas; the team's job is to cultivate local star-loving kids by taking advantage of these schools' superior conditions for astronomical observation.

5. Astronomical publications and Information

Taiwan's first astronomical journal "Astronomy Communication" was founded in 1948 by Zhongshan Hall Observatory. In addition to the "Astronomical Almanac", "Taipei Starlight" (recognized as one of the Annual Outstanding Government Publications in 2002 and 2011), "Sunspots Annual Report", "Journal of Taipei Astronomical Museum", "1900~2050 Lunisolar Table" and "the Table of the Lunar Surface Topography", TAM also published various Learning Guides, Learning Sheets and Astronomical Events Posters. All journals are available in electronic format and accessible through free on-line service.

TAM is the pioneer of astronomical education in Taiwan in terms of its depth and breadth. We are planning to renew exhibition facilities, and look forward to providing more functions and greater efficiency of astronomical education after the completion of the software and hardware equipment, as well as the content.