

The interagency task group is composed of representatives from the National Mapping and Resource Information Authority (NAMRIA) and the Region IV-B office of the Department of Environment and Natural Resources (DENR). The group works with the Provincial Government of Marinduque and the National Historical Commission of the Philippines (NHCP) in carrying out its initiatives.

The NHCP has issued a certification recognizing the national significance of the Station Balanacan. A marker will be installed in the future. Activities are under way to expedite the technical and complete staff work for the presidential proclamation reserving a parcel of public land as the site of the Luzon Datum Origin National Historical Landmark.



NAMRIA Deputy Administrator Linda S.D. Papa and Director Jose Galo P. Isada Jr. discuss the Balanacan Project on 01 April 2009 with DENR Region IV-B RTD Lydia Lopez and former RED



Presentation of preservation efforts during the joint session of the Sangguniang



Presentation of preservation efforts to Governor Carmencita O. Reyes at the Session Hall of the Provincial Capitol of Marinduque on 16 August 2010



29 April 2009, DENR By the Bay,



24 September 2009, NAMRIA

The work to fully preserve a national edifice continues.



26 May 2010, NAMRIA



22 July 2010, NAMRIA



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Produced by the NAMRIA Media Production Division, Information Management Department, 16 August 2010

# Station Balanacan



Balanacan (Marinduque Province, O. W. Ferguson, 1906; 1907). On the highest hill at the northwest point of Marinduque Island. Salvaria Island in the entrance to Looc Bay bears N. 9° E., distant 3 kilometers, and the highest point of the western one of the two San Andres Islands bears 80° E., distant 3 kilometers. It is on the northwest end of the hill, 10 meters northwest of the highest point, and is in a commanding situation, seeing a hundred miles of the south coast of Luzon, much of the north and west coasts of Marinduque, the coast of Mindoro and other islands. Station mark is the center of a hole 1.5 centimeters in diameter and 6 centimeters deep, drilled at the center of a triangle 16 centimeters on a side, cut in a hard rock. Reference mark is on a hard, white boulder of about one cubic meter in volume, standing 80 centimeters above the ground and 90 centimeters higher than the station. The mark is a hole 1.5 centimeters in diameter and 8 centimeters deep, at the center of a cross cut on top of this stone. From the station, the reference mark is in azimuth 326° 34' and is distant 18.85 meters. (Maynard and Bond, *The Triangulation of the Philippine Islands*, 1927)



Luzon Datum Origin



## Historical Outline

The execution of the triangulation of the Philippine Islands extended over almost as long a time as the history of the American occupation in the Philippines.

The plan of the United States to survey the Philippine Islands began in March 1900 when a United States Coast and Geodetic Survey (USCGS) officer was sent to Manila with instructions to prepare a report on the existing cartographic conditions in the Philippines and to obtain all information necessary for the execution of geodetic, hydrographic, and topographic surveys in the country.

After the establishment of the sub-office known as the Manila Field Station, which was housed in the old *Intendencia* Building in the Walled City of Intramuros, the USCGS commenced fieldwork in the Philippine Islands in January 1901. At that time, an insurrection was in progress and the Islands were under military law. The field surveys were conducted under a joint agreement between the USCGS and the Insular Government.

From 1901 to 1911, the USCGS established several triangulation networks all over the country which had different origins. In 1911, these different networks on different datums and with different origins were consolidated into one

n a t i o n w i d e network and the Luzon Datum was established with triangulation station Balanacan as its datum origin. The Luzon Datum became the primary geodetic reference of all surveys in the Philippines.



Typical tower for triangulation measurement

## Station Balanacan

The Luzon Datum of 1911 was defined by station Balanacan as datum origin, using the station's astronomic latitude, longitude, and azimuth to station Baltazar and Clarke 1866 as reference ellipsoid. Mr. O.W. Ferguson established both stations with Mr. H.D. King as chief-of-party. Thus, a geodetic station is said to be in the Luzon Datum if it is connected by continuous triangulation from the Station Balanacan.



The old geodetic network

PRS92 network

The Philippine geodetic network (PGN), developed until 1946, consisted of narrow chains of second-order triangulation stations concentrated along the coastal areas for topographic and hydrographic surveys. The PGN was upgraded into the Philippine Reference System of 1992 (PRS92) through an Australian-assisted project from 1988 to 1991. To date, the Station Balanacan is the datum origin.

## Station Balanacan Preservation Initiatives

In view of the significance of Station Balanacan in the history of Philippine surveying and mapping, efforts to preserve it were initiated through an interagency collaboration. The preservation efforts also aim to develop the station as a domestic tourism site in order to ensure stewardship for its maintenance and protection and to create a high impact in the drive to generate awareness among the various stakeholders and their support to the Adopt-a-Mojon program of the PRS92 project.

The initiatives are the (1) *Declaration of the Station Balanacan, Luzon Datum Origin as National Historical Landmark*; (2) *Issuance of a Presidential Proclamation reserving a parcel of public land as the site of the Luzon Datum Origin National Historical Landmark*; and (3) *Site Development of the Luzon Datum Origin National Historical Landmark*.



Perspective of Balanacan



Station Balanacan

Station Balanacan mark is intact on a hill locally known as Mataas na Bundok (upper left) with reference marks nearby (right pictures)

