

Grids & Datums

REPUBLIC OF CAPE VERDE

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“In 1462, Portuguese settlers arrived at Santiago and founded Ribeira Grande (now Cidade Velha) the first permanent European settlement city in the tropics. In the 16th century, the archipelago prospered from the transatlantic slave trade. Pirates occasionally attacked the Portuguese settlements. Sir Francis Drake sacked Ribeira Grande in 1585. After a French attack in 1712, the city declined in importance relative to Praia, which became the capital in 1770. With the decline in the slave trade, Cape Verde’s early prosperity slowly vanished. However, the islands’ position astride mid-Atlantic shipping lanes made Cape Verde an ideal location for re-supplying ships. Because of its excellent harbor, Mindelo (on the island of São Vicente) became an important commercial center during the 19th century. Portugal changed Cape Verde’s status from a colony to an overseas province in 1951 in an attempt to blunt growing nationalism. On June 30, 1975, Cape Verdeans elected a National Assembly, which received the instruments of independence from Portugal on July 5, 1975” (*U.S. Dept. of State Background Note, 24 February 2010*). The coastline is

ellipsoid for this ersatz datum is probably based on the generalization that most West African colonies back then used that ellipsoid. However, we now know that the Portuguese were famous for actually using the Clarke 1866 ellipsoid for all of their crown colonies in the 19th and 20th centuries.

“The new republican regime of Portugal sought to counter the negative image of Portugal abroad which concerned the lack of its promotion of civilization and progress in their colonies. The Secretary-General of the Portuguese Geographic Missions (*Missão Geográfica*), Ernesto de Vasconcelos adopted on 11 December 1911 a ‘series of steps’ aimed at reversing that situation. Priority was given to the establishment of a geodetic triangulation network program in Angola, Moçambique, Cape Verde, and São Tome and Principe” (*In the 125 years of IICT Portuguese Science in the Tropics: African Project to the Emptying of Policies under the Third Republic, Manuel Lobato, IICT, Lisbon 2007*). The Portuguese Geographic Missions (*Missão Geográfica*) performed geodetic surveys and mapped using planetables and

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965 km, the terrain is steep, rugged, rocky, and volcanic; the lowest point is the Atlantic Ocean (0 m), and the highest point is Mt. Fogo (2,829 m), a volcano on Fogo Island (*World Factbook, 2010*).

Astro Stations are reported to include: Boa Entrada (village near Praia), Guido do Cavaleiro (mountain on São Antão), Monte Curral (in Espargos, on Sal), Monte Topona (660 m), and Monte Bissau (on São Nicolau). During WWII the United States Lake Survey, a branch of Army Map Service, computed a set of projection tables for the Cape Verde Islands Zone based on the Lambert Conical Orthomorphic projection in 1943. The chosen ellipsoid of reference was the Clarke 1880 where $a = 6,378,249.145$ m, and $1/f_f = 293.465$ “as given in the *Royal Geographical Society Technical Series No. 4*.” The secant Lambert zone had the following defining parameters: Latitude of Origin, $\phi_o = 15^\circ$ N, Central Meridian, $\lambda_o = 25^\circ$ West of Greenwich, Scale Factor at the Parallel of Origin, $m_o = 0.999365678$, and False Northing, FN = False Easting, FE = 300 km. The limits of the zone were: North: Parallel of 18° N; East: South along 100,000 meter Easting line of South Sahara Zone to parallel of 16° N., thence East along this parallel to 19° W., thence South along this meridian to 13° N.; South: Parallel of 13° N.; West: Meridian of 27° W. A test point provided on São Vicente Island is: $\phi = 16^\circ 43' 21.332''$ N, $\lambda = 25^\circ 00' 00.000''$ N, $X = 820,238.68$ m, $Y = 496,243.76$ m. The choice of the Clarke 1880

alidades in Cape Verde from 1918-1921 and from 1926-1932. The maps were published at scales of 1:30,000, 1:50,000, and 1:75,000 (*AS Missões Geodésicas na Comissão de Cartografia (1883-1936)*, Paula Cristina Santos, IICT, Lisbon, 2007).

A photogrammetric survey was started by the *Serviço Cartográfico do Exército* (Portuguese Army Map Service) for 1:25,000 scale mapping and is now completed. This map series is referenced to the International ellipsoid where $a = 6,378,288$ m, and $1/f_f = 297$. The only grid shown is the UTM, Zone 26N.



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Correction — July 2010 PE&RS

Figures 1 and 2 were inadvertently reversed in the Executive Director’s Report