

Grids & Datums

COMMONWEALTH OF DOMINICA

by Clifford J. Mugnier, C.P., C.M.S.

“Dominica’s first inhabitants, the Ortoroids, arrived from South America around 3100 *B.C.*, and lasted on the island until around 400 *B.C.* Next came the Arawaks, who settled in about 400 *A.D.* By 1400, the Kalinago or “Caribs,” moved (canibal) aggressively up the Caribbean from South America, eliminating the Arawak from the region, including Dominica. When Columbus ushered in the era of colonization to Dominica in 1493, the same fate that befell the Arawaks would threaten the Caribs. Ignoring the Kalinago name of “Waitukubuli,” Columbus renamed the island Dominica as he first made landfall on a Sunday. The Caribs successfully resisted efforts of Spanish colonization, but the British and French followed from the 1600s on, battling each other, and the Caribs, to claim the Island. Through the many battles and ravaged by disease, the Caribs gradually lost control of the island, fleeing back to South America. However, today approximately 2,000 Caribs remain on the island, most living in the Carib Territory in northeast Dominica. You may note that many of village names in and around Dominica are a mix of Carib, French and English, reflecting the power struggles of the last 500 years. On November 3rd 1978, the island was finally granted its independence from Britain” (*Discover Dominica Authority*® 2012).

Dominica is bordered by Guadeloupe (*PE&RS*, March 2000) to the north and by Martinique (*PE&RS*, November 2007) to the south. Slightly more than four times the size of Washington, D.C., the lowest point is the Caribbean Sea (0 m), and the highest point is Morne Diablotins (1,447 m) (*Google Earth*, 2012). The Commonwealth of Dominica passed legislation on 25 August 1981 declaring its claim to its territorial sea of 12 nautical miles, its Exclusive Economic Zone (EEZ) of 200 nautical miles and enabling legislation for straight baselines. (*See Shore and Sea Boundaries, Vols. 1 & 2, 1962, Aaron Shalowitz Vol. 3, 2000, anon. – Ed.*) Maritime boundaries with France (Guadeloupe and Martinique), were agreed to on 23 December 1988.

The first geodetic survey of the island was performed after WWII. The island local datum origin is in Pointe Michel (*Google Earth*, 2012) at Position M.12 where: $\Phi_o = 15^\circ 15' 25.74''N$, $\Lambda_o = 61^\circ 23' 10.85''W$, $\alpha_o = 346^\circ 55' 22.8''$ from north to Morne Daniel (*probably in Roseau – Ed.*). The ellipsoid of reference is the Clarke 1880 where: $a = 6,378,249.145$ m and $1/f = 293.465$. The British West Indies “BWI Grid” for Dominica is based on the Gauss-Krüger Transverse Mercator where the central meridian, $\lambda_o = 62^\circ W$, the latitude of origin $\phi_o = \text{equator}$, the scale factor at the latitude of origin $m_o = 0.9995$, False Easting = 400 km, and False Northing = nil. The reference source for this is *Island of Dominica, British West Indies, Directorate of Colonial Surveys, Bushy Park, 1947*, courtesy of John W. Hager, personal com-

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munication, 15 Nov. 2009. The first edition of topographic maps for Dominica was produced by the Directorate of Colonial Surveys in three 1:25,000 scale sheets in 1961 from aerial photography flown in 1956. In 1996, the U.S. National Geodetic Survey (NGS) visited the island and performed GPS observations at the airport, but all observations were made only at newly-monumented positions by NGS. No local control on the Dominica 1945 Datum were collocated by NGS. There is no currently published information to transform Dominica 1945 Datum to any other datum.



The contents of this column reflect the views of the author, who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the American Society for Photogrammetry and Remote Sensing and/or the Louisiana State University Center for Geoinformatics (C⁴G).