The region of present-day Greece was occupied in the Paleolithic period, and Indo-European invasions began about 2000 B.C. Ancient Greece was never unified, but the city-states of Athens and Sparta dominated while other cities shifted alliances over the centuries. Alexander the Great conquered most of the Mediterranean region and spread Greek culture throughout the known world. However, Greece was conquered by Rome in 146 B.C., and by 1456 A.D. Greece was completely under the Ottoman Turk Empire. Greece won its independence from Turkey in the war of 1821-1829, and celebrates its Independence Day on 25 March (1821). The former Kingdom of Greece is now a parliamentary republic; the monarchy was rejected by referendum on 08 December 1974. Greece is slightly larger than the state of Alabama, and it is bordered by Albania (282 km), Bulgaria (494 km), Turkey (206 km), and Macedonia (246 km). The lowest point in Greece is the Mediterranean Sea, and the highest point is Mount Olympus (2,917 m).

In 1889, the Greek Army Geographical Service was formed, and classical triangulation commenced immediately. The agency name was later changed to the Hellenic Military Geographical Service (HMGS). The initial starting point for the triangulation was the Old Athens Observatory where $\Phi = 37^\circ 58' 20.1''$ North, $\Lambda = 23^\circ 42' 58.5''$ East of Greenwich, and was referenced to the Bessel 1841 ellipsoid where the semi-major axis $a = 6,377,397$ 155 meters and the reciprocal of flattening $1/f = 299.1528128$. The Yeograpiki Ipiresia Stratoú map series at 1:20,000 scale was produced from 1926 through 1947, and had the Greek Military Grid shown on some sheets. The series covered the northern border and scattered strategic areas throughout Greece. The Greek Military Grid was based on the Hatt Azimuthal Equidistant projection, a system originally presented on the sphere by Guillaume Postel. Hatt was the hydrographer of the French Navy, and later taught at a university in Paris. Apparently he made quite an impression on a Greek student because the Hatt projection, used by the French Navy for local grids of hydrographic surveys, became the national grid system of Greece in the 20th century.
Conical Orthomorphic where the central meridian was Athens (24° 59' 40" East of Greenwich), the latitude of origin was 35° N, the scale factor at origin was 1.0 (by definition of a tangent zone), the False Easting was 200 km, and the False Northing was 100 km.

There is a new reference system used in Greece nowadays. It is called the Greek Geodetic Reference System of 1987 (GGRS87) where $\Phi_0 = 38° 04' 33.8107"$ North, $\Lambda_0 = 23° 55' 51.0095"$ East of Greenwich, $N_0 = 7.0$ m, and the new Greek Grid is based on the Transverse Mercator projection (presumably Gauss-Krüger) where $\phi_0 = 0°$, $\lambda_0 = 24°$ E, the False Easting = 500 km, and the scale factor at origin ($m_0$) = 0.9996. Generally, I have serious doubts concerning any “new” grid system that uses some non-standard variant of the UTM Grid, but I understand that this particular one was devised by Professor Veis of the Technical University of Athens. If Professor Veis approved of this new grid, then there certainly must be a valid technical reason for the curious parameters chosen. Thanks for the above parameters go to Yannis Yanniris, a photogrammetrist in Athens.

The National Imagery and Mapping Agency (NIMA) has published datum shift parameters from the European Datum of 1950 in Greece to the WGS84 Datum where $\Delta X = -84$ m, $\Delta Y = -95$ m, and $\Delta Z = -130$ m; however, this solution is based on only two points and the accuracy of the components is stated to be ±25 m. Users interested in geodetic applications of GPS in Greece should read the NIMA notice published next to my column in PE&RS October, 2002. The European Petroleum Studies Group has published shift parameters from GGRS87 to WGS84 as being $\Delta X = -199.87$ m, $\Delta Y = +74.79$ m, and $\Delta Z = +246.62$ m. The EPSG published no accuracy estimates for their parameters, so caveat emptor.

Cliff Mugnier teaches Surveying, Geodesy, and Photogrammetry at Louisiana State University. He is the Chief of Geodesy at LSU’s Center for GeoInformatics (Dept. of Civil and Environmental Engineering), and his geodetic research is mainly in the subsidence of Louisiana and in Grids and Datums of the world. He is a Board-certified Photogrammetrist and Mapping Scientist (GIS/LIS), and he has extensive experience in the practice of Forensic Photogrammetry.

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