

# GIS Field-Researched Maps for Travelers



Terrain, an Athens-based cartographic company, is publishing the first detailed, large-scale maps (1:10,000 to 1:100,000) of Greece using GIS data exclusively acquired by mobile teams of cartographers. By foot, bike, auto and boat, Terrain surveyor teams, travelling with Ashtech MobileMapper 100 handheld smart GNSS receivers loaded with ArcPad, are mapping Greece in unprecedented rich detail, even its remotest regions.

According to Terrain's chief cartographer Fotis Reppas, "We actually go everywhere, walk all trails, drive all roads, and sail around each and every island recording every single sight of interest. We do not rely on digitalisation of satellite images. In large-scale maps, there is

no substitute for field research if you want a map that is both accurate and up-to-date." Reppas adds, "There is no way to tell, by satellite or aerial images alone, whether a dirt road is in good condition or whether a hiking trail, if visible at all, is clear and smooth. The processing of data from satellite images, if not cross-checked by ground survey, may lead to enormous mistakes or inaccuracies. For example, a stream may be mistaken for a road. We record about 20 line types, such as asphalt, cement, gravel, narrow street, footpath, and about 90 types of points of interest (POI), including for example castle, bus stop, thermal bath, camping, etc.

To record detailed field information, Terrain surveyors use MobileMapper 100 smart GNSS GIS receivers to achieve the desired one-metre real-time accuracy that requires no post-processing. "One metre accuracy, translates into extremely accurate paper maps, which we print on waterproof, rip-proof Polyart paper, even in the demanding scales of 1:20,000. But it is in digital maps that this high accuracy becomes really important, where, by applying the zoom-in you can have on your GPS screen a map in the scale of 1:1,000 or even larger." The MobileMapper 100 excellent reliability and long battery life are also important to Terrain. "We can't risk having to do a job twice because of faulty or untrustworthy equipment," says Reppas.

Terrain purchased the MobileMapper 100 receivers from the JGC Company, Ashtech master distributor in Greece.

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