

## Maltese Aerial Orthophotos

The latest complete set of orthophotos for the Maltese Islands is being produced by Datatrak IT Services Ltd. (DITSL).

Orthophotos are digital maps, derived from aerial photographs via a sophisticated technique called photogrammetry. DITSL uses their state-of-the-art in-house equipment and software to process aerial photographs and produce highly accurate maps. The process is relatively labour-intensive and requires experienced and skilled personnel.

Unlike aerial photographs, the resultant orthophotos are highly accurate and may be used to measure the terrain, such as agricultural field areas, built-up areas and road distances. Unprocessed aerial photos cannot be used to obtain such measurements since they are of low accuracy, due to the high levels of distortion caused during the aerial survey. Photogrammetry removes such distortions, and using elevation data of the terrain, produces digital maps from which ground features may be measured reliably.

DITSL's digital maps are available at a scale of 1:2500 with a ground resolution of 25 cm. They cover the entire Maltese Islands . Aerial photographs were acquired by DITSL in May 2001 and were scanned to very high resolutions to result in extremely high quality digital orthophotos.

These are not the first set of orthophotos created by DITSL. In 1998, DITSL produced a set of orthophotos, for MEPA's Mapping Unit. DITSL plans to continue producing new sets of orthophotos to have the latest reliable map dataset of the Maltese Islands .

Orthophotos have enormous potential and applications for the government, parastatal, private and academic sector. In fact, DITSL's orthophotos are also being used by various local clients such as the Lands Registry Department, Local Councils and the Water Services Corporation.

Other important datasets have been produced from these orthophotos, such as basemaps (survey maps), street data, local council boundaries, building outlines, agricultural field boundaries and 3-D terrain models. These datasets and orthophotos are crucial components of the Geographic Information Systems (GIS) developed by DITSL. DITSL also specialises in GIS solutions for its Clients using orthophotos as a basemap, and linking various databases such as address data, specifically collected in the field by DITSL. The qualified and dynamic team, led by Joe Fenech Conti , has a proven track record in both mapping and GIS with Government departments, parastatal organisations and private companies, both in Malta and internationally.

DITSL also offers satellite images of the Maltese Islands . It also offers images taken by the Ikonos satellite with a ground resolution of 1m. These images may be used to obtain land cover maps for the Maltese Islands . DITSL recently used satellite imagery to produce a series of high scale maps for municipal authorities in North Africa , and to complement its portfolio of international mapping projects in the Middle East & North Africa region.

Orthophotos for the Maltese Islands are on offer to the general public. Supplementary services such as land surveying, satellite imagery, 3-D views, digitising, plotting and scanning are also available. More information is available on DITSL's website [www.datatrak.ws](http://www.datatrak.ws), or by contacting Dr. Elaine Tabone Adami or Mr. Martin Scicluna on 233 18 400 or e-mail [geomatics@datatrakit.com.mt](mailto:geomatics@datatrakit.com.mt).

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