

Qatar Completes Aerial Photography Survey to Update Digital Maps



The aerial survey system for upgrading digital maps of Qatar has become operational. Under the aerial surveys project for Qatar, the mission of aerial photography covering all parts of the country and Halul Island to take 20cm-accurate evaluative aerial photographs has been completed as the basis for updating the digital linear maps of the country.

The photography work took place from 30 March to 20 April 2022. The project is being implemented by the Geographical Survey System (GIS) Center of the Ministry of Municipality.

It is planned to provide all state institutions with aerial photographs and updated digital maps during July 2022, to be used within the activities and projects of the FIFA World Cup Qatar 2022 events. They could be used later in all other projects of the state in various fields such as planning, education, health, Ministry of Interior services, supporting decision-making and infrastructure development of the country, among others.

Integration with Other Geospatial Data Sources

The aerial surveys and remote sensing using manned aircraft by GIS Center are aimed at achieving integration with other data sources that the centre is currently using, such as satellite images, mobile field surveys and drones.

The project is being implemented through [Khatib and Alami](#) after a tender was awarded by the Ministry's Grand Tenders Committee to supply the project's equipment and devices, including manned aircraft, modern drones, cameras, remote sensing and specialized computers.

This work is considered the beginning of the operation of the aerial surveys system for Qatar, which was recently received by the Ministry of Municipality, represented by the [GIS Center](#), as the national entity responsible for all works of updating the digital maps of Qatar and managing the country's aerial survey system.

The system consists of a dual-engine manned-aircraft specialized in aerial photography and remote sensing, along with all the equipment that will be installed on the aircraft for aerial survey, such as cameras, remote sensors and computers for aerial surveys, in addition to providing qualified operators for said devices and the rest of the technical cadres specialized in this field.



Dhows moored in front of the skyline of Doha.

Oblique Aerial Images and 3D Models

The centre's role is to provide basic geographical maps and digital topographic databases, establish and maintain geodetic networks and related services, and as part of the plan to develop national standards and specifications related to geographic information systems at the state level through the centre's cadres without the assistance of companies from outside.

Carrying out aerial surveys and remote sensing using manned aircraft comes in integration with other data sources currently used, such as satellite images, mobile field surveys and drones.

The products of this important development include the processing and taking accurate aerial images, oblique aerial images, linear data, 3D model data, digital elevation model (DEM), remote sensing, Lidar data, bathymetric survey data for bathymetry, marine survey and hyperspectral imaging.

Source: *The Peninsula* (thepeninsulaqatar.com)

