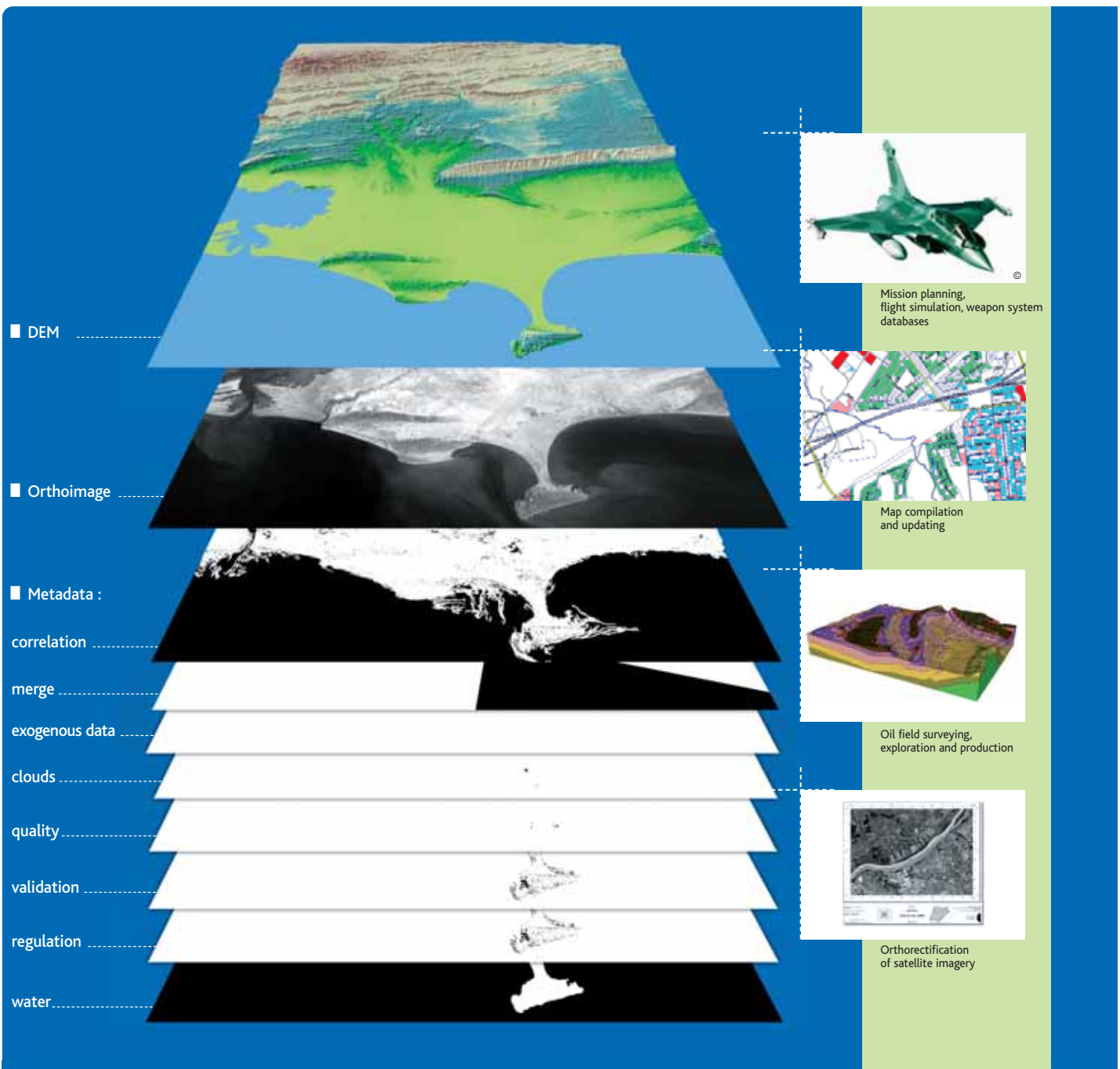




# Reference3D

The geographic reference system



Reference3D, a multilayer geocoded product



## What is Reference3D ?

Reference3D is a geocoded database containing three layers of information:

- A DTED level 2 **HRS DEM** (high-resolution stereoscopic)
- **GPS-compatible HRS orthoimages**
- **Quality and traceability metadata**

Reference3D is the keystone of any application that calls for very-high-accuracy elevation data.



Developed in partnership by Spot Image and the French survey and mapping agency (IGN), Reference3D is unrivalled in the world for:

- accuracy
- coverage, with more than **15 million km<sup>2</sup> already covered** (50 million by 2009)
- completeness, guaranteed 100 % in a one-degree-square tile.

No need for GCPs

Vertical accuracy		Horizontal accuracy	
CE 90%	RMS	CE 90%	RMS
10 m	7 m	15 m	10 m

## Unmatched performance

Reference3D is designed to meet the very strict specifications of French Defence users. The quality and traceability metadata provide information, at pixel level, on horizontal and vertical accuracy, source data, production processes and all corrections and checks.

This rigour makes Reference3D an excellent tool for building onboard databases for UAVs, missiles and aircraft, and for mission planning, well suited to **defence ministries** and **armament manufacturers**.

## An unlimited source of ground control points

Reference3D orthoimages provide ground control points accurate enough to ensure GPS compatibility: 16 m CE90 or 10 m RMS. They can be used to **orthorectify** imagery from most Earth observation satellites - e.g. Spot, Formosat-2, Kompsat-2, QuickBird, Ikonos, Envisat - when positional data are not available.

## Perfect data consistency

Reference3D provides finely detailed information and close registration of data layers for:

- rigorous matching of map data, for example in the **oil industry**
- compiling or **updating maps**
- checking existing databases

## A made-to-measure response

- **Easy to use:** geographic projection, WGS84 geodetic reference frame
- **Priced per km<sup>2</sup>** and framed to match your exact area of interest
- **Quick turnaround:** product covering approx. 500,000 km<sup>2</sup> ready in 3 months

## They chose Reference3D®

European Commission (JRC), French Defence Ministry, NGA, Total, United Nations

## Spot Image quality of service

*Spot Image, the commercial operator of the SPOT satellites since 1986, is extending its portfolio of 3D products and leveraging its experience to offer you more choice and make your projects a success. Our application domain experts and sales team are on hand to help you choose the right products and advise you on project implementation*

**For more information :**  
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[www.spotimage.com](http://www.spotimage.com)

France, Australia, Brazil, China, Japan, Mexico, Singapore,  
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