

Periodic Detailed Inspection

VIADUCT OF MILLAU



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Owner:
CEVM

Constructor:
Setec
SNCF

Companies:
Eiffage TP
Eiffel
Forclum
Lafarge

Years:
Studies: September 2011
to March 2012
Works: December 2001 to
December 2004

Key features:
Length: 2 460 m
8 bays including 2 pillars of 221
m and 245 m
Multi-guyed steel deck semi-
range
The highest road bridge in the
world, which rises to 270 m
Designed for a lifespan of 120
years

Context

The viaduct is a cable-stayed bridge 2 460 m long. Supported by 7 pylons with 2 of 221 m and 245 m (world record), the deck allows the A75 to cross the Tarn valley at about 270 m high above the river. Its deck is 32 m wide accommodates 2 x two traffic lanes and two emergency routes.

Each seven pillars are extended by an 87 m high tower where 11 pairs of stay cables are anchored.



DIADES missions

Our mission was to conduct the first periodic detailed inspection of the life cycle of the Millau Viaduct, under the terms of the ITSEOA 2010 February 16, 2011.

Given the characteristics of this monumental construction, the means employed had to be adapted accordingly. Especially, the detailed inspection of the exterior faces of the pillars was performed using the U130 drone of DIADES, specifically developed by NOVADEM. Only in the control of the outer faces, in the split stacks of pillars was performed by rope workers.

The inspection of the underside of the deck has, meanwhile, been performed using an under-bridge platform unique in France.

As part of this PDI covers the dismantling of anchor caps has been made, acrobatic visits were necessary and testing video-endoscopies were carried out under the control and responsibility of DIADES.

Inspection from outside of the pillars by the DIADES Drone

As part of the inspection of the exterior pillars of the Millau viaduct, DIADES has developed a specific methodology for inspection by a drone based hardware and a specifically developed software suite DIA-MAP ® to plating the all the pictures collected and pathologies mapped on a 3D model of the structure.

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