

# CASE STUDY – Radome Installation

**Project Type:** Radome and Tower Installation

**Client:** L3 Essco Communications

**End Client/Owner:** Etisalat

**Location:** Etisalat Building, Al Kifaf, Dubai.

**Brief:** Working as the 'Representative-Office' of L3 Essco Communications- Jaggard Wireless were approached to undertake the project management and contracting for the installation of an 18m diameter Radome which was to contain a 12m Steel platformed tower and 12m 'projecting' Pinnacle. All installations were to be undertaken on the roof of the Emirates Building at an approximate height of 160m.

**Scope of Works (SOW):** To project-manage for L3 Essco Communications all elements of in-country design, fabrication and installation as below-

- To design a 12m steel self-support tower with platform.
- Design a 12m pinnacle.
- Assist with the design and approval for the interface of the separate building, tower and radome elements.
- Construct the tower on site at ground level and lift into position on 160m rooftop.
- Install 12m pinnacle on the tower at a height of 172m.
- Construct the GRP Radome around the tower and pinnacle installation.

**Constraints:**

- Though the main building was structurally complete the site was still very congested with contractors and work traffic.
- The tower, pinnacle and radome were to be installed on the 33<sup>rd</sup> floor rooftop, at a height of approx 160m.
- Reliance on the site tower cranes could be problematic due to their high work load.



Picture used with permission of L3 Essco



Landing the Tower Platform



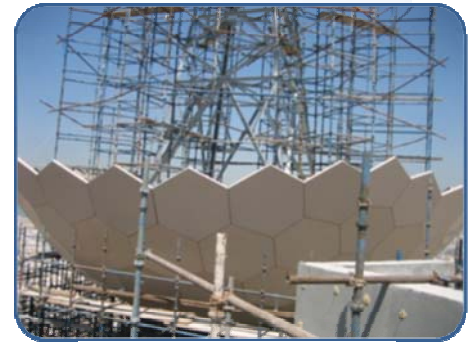
Tower installed on the 160m high rooftop

### **Method:**

Our experienced Draughtsmen and Structural Engineers designed, and gained approval for, a suitable tower and pinnacle ensuring that all elements were above spec and would marry together seamlessly after fabrication. L3 Essco Communications designed, fabricated and shipped the 18m GRP radome from their facility in Ireland ready for installation. The tower was erected at ground level on temporary foundations. Once complete the entire tower was lifted and positioned with the site Tower-Crane. The pinnacle was then positioned, fastened and guyed off. The radome was installed piece by piece by our Install crews.

### **Result:**

The main Installation works were successfully completed and the radome was 'capped' in September 2007. Etisalat Building complete with Radome now stands as one of Dubai's most iconic buildings.



Radome Installation underway



Closing the Radome around the Pinnacle



The completed Tower, Pinnacle and Radome



Jaggard IRATA climber at work

## **Jaggard Wireless Communications**

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