Aids to navigation specialist Almarin has carried out the design, manufacture and supply of two beacons for the access channel to Manzanillo Bay in the province of Colon (Panamá). The Spanish contractor Delta 9 awarded this project to Almarin, which involved the design and supply of 16 metre focal plane ALT7 model towers, with corresponding lights, AIS systems and photovoltaic energy systems.

These towers have been built to mark the entrance to the port of Manzanillo under the request of the Panamá Maritime Authority (APM). Delta 9 removed the old towers with the subsequent conditioning of concrete bases and installed the new towers provided by Almarin. Delta 9 is a company specialising in concrete infrastructures and has a strong presence in Panamá.

Almarin assisted in the testing and commissioning of the equipment, which is currently operating. Due to the size of the product and the difficult access to the outer moles, the towers were manufactured in modules of 600 kg for easy transport and installation.

Designed according to Eurocode 1 & 3 and to meet IALA recommendations, the towers were manufactured from hot dip galvanized S275 JR structural steel. An internal ladder with lifeline provides access to the upper 2 x 2 metre rectangular platform, equipped with GRP grating floor, where all the equipment is installed.

**About Almarin**

Almarin specializes in the design, supply and installation of equipment used in aids to navigation. The company manufactures high quality products that can be adapted to the customers’ environment and operational requirements. Based in Barcelona Almarin is part of the Lindley Group, which has more than 80 years’ experience in the port, maritime and industrial areas.