

TMA CARGO TERMINAL



PROJECT NAME	TMA CARGO TERMINAL
LOCATION	BEIRUT INTERNATIONAL AIRPORT, LEBANON
CLIENT	TRANS MEDITERRANEAN AIRWAYS
CONSTRUCTION PERIOD	IN PHASES OVER 5 YEARS



Shortly after completion of this project, TMA (which was already a fast-growing cargo airline) became the world leader in air freight. MAC Construction's role was to convert an existing building and, by adding new extensions, turn it into a modern, dynamic cargo-handling and warehousing facility with the latest automatic conveyors and cargo-sorting equipment. The TMA cargo base thus became an important hub for air cargo transport throughout the Middle East.

- The project included the demolition of the previous facility and the modification of an existing warehouse building to use as administrative offices and pilot-training simulator facilities with complete communications and control system.



- Two structural steel cargo warehouses (each with an area of 5,000 square metres) were designed and built to accommodate transient cargo to various parts of the Middle East. The roof structure consisted of lightweight steel trusses and lightweight roof panels, thus achieving minimum column loading.
- The third stage included the construction of a cast-in-situ post-tensioned concrete warehouse having a roof system spanning 60 metres and 50 metres deep to house a state-of-the-art cargo-handling, transport, sorting and storage system. The 15-centimetre

concrete slab for the roof was carried by several drop beams (with cross sections of 2x2 and 2x1 metres). These beams were post-tensioned with a number of ½-inch bundled strands in a polyethylene sheathing 60 metres long and an Atlas tensioning system. The tensioning of these massive beams was very delicate, considering their lengths. A special high strength concrete mix free of chlorides was used.

- The whole area was then landscaped with special green areas and pedestrian zones as well as traffic lanes.

