Emergency Lighting System

Shown in operation at Washington National Airport is Stem-Lite, an emergency lighting system widely used by fire, police, ambulance and other emergency service departments. The lights—four floodlights which provide 2,000 watts of daytime-equivalent visibility and a high-intensity flashing beacon—can be elevated 10 feet above the roof of an emergency vehicle by means of an extendible mast. The higher elevation expands the effective radius of the floodlights and increases the beacon's visibility to several miles, affording extra warning time to approaching traffic. When not in use, the lights can be retracted into the compact rooftop housing pictured below. In addition to the lights, the Stem-Lite system includes a generator, which can also serve to power such emergency equipment as pumps and drills, and a dashboard-mounted control panel for switching the lights and extending/retracting the mast.

The spinoff element of the system is the mast, originally developed by SPAR Aerospace of Canada to allow extension and retraction of antennas on NASA spacecraft, including Mercury, Gemini, Apollo and a number of unmanned satellites. Known as Bi-Stem, the mast is still manufactured for spacecraft use by Astro Research Corporation, a SPAR subsidiary located in Carpinteria, California. The device was licensed to Super Vacuum Manufacturing Company, Loveland, Colorado, which produces the Stem-Lite emergency lighting system.