Whither The Marker Beacon?

Once upon a time—not that long ago, actually—ILS installations included at least one of something called a "marker beacon." These days, however, an ILS may or may not have one. What is a marker beacon, and where have they gone?

When considering the ILS, a marker beacon is a ground-based low-power transmitter used to advise the pilot of the aircraft's location along the ILS. The outer marker (OM), often incorporating an NDB-like compass locator (in which case it's referred to as a "locator outer marker," or LOM), indicates the glideslope interception altitude, signalling a descent should be initiated.

The middle marker (MM), in turn, indicates the missed approach point and is approximately where the approaching aircraft would be at the procedure's decision height when centered on the glideslope and localizer. An inner marker (IM) also may be installed approximately 1000 feet from the runway threshold on CAT II/III ILS installations.

Marker beacons generally are being phased out in the U.S. as combined ILS/DME installations take their place. Many CAT I ILS procedures in turn may substitute an intersection defined by radar, DME, an NDB bearing or a nearby VOR's radial in lieu of an OM or MM (see FAR 91.175).

