Time: Seconds since 2012 UT, on August 18th, 2004


Fig. 0.1. Shown are LMA sources for an IC flash at 2012:41 UT and the balloon track for roughly 30 min surrounding this time. (a) This plot shows altitude versus time and also defines the color versus time scale used for Figures 15b-15f. The upward initiation of the channel points to a negative IC leader in a normal polarity storm. (b) Shown is distance from LMA points to the balloon versus time. A major channel is seen to approach the balloon beginning at 41.32 s . Then, at around 41.5 s , a second surge of charge approaches along the same channel. (c) The solid dark line is the balloon track. At the time of the flash, the balloon is at the position indicated by the large black dot. (d) The source histogram points out the bilevel charge structure of the cloud. The lower negative charge is at 6 km , and the upper positive charge is at 9 km . (e) The plan view also shows the balloon track. The lightning channel clearly approaches the balloon from the north and east. (f) This plot most clearly shows that the channel descends on the balloon but remains above at all times. The IC flash at 2012:41 UT was not detectable by the NLDN.

