Our first task was to develop a base product to monitor the horizontal movement of insects. Our goal was to make a map of the maximum reflectivity observed by radar at low elevations that can be attributed to insects or precipitation, taking into advantage the fact that no precipitation was observed that night. What should be done would be to identify pixels contaminated by ground targets, mask them, and pick for each range and azimuth the strongest unmasked reflectivity remaining at low elevations. What would be a relatively simple process in many countries is complicated by the peculiarities of the Canadian radars’ scanning strategy: we have at our disposal a combination of sensitive scans at 24 elevation angles that can be ground clutter contaminated, and of less sensitive scans at only 4 low elevation angles that are mostly free of ground targets. We hence generated our base product as follows. First, we considered only data from the five lowest higher sensitivity unfiltered scans (−0.5°, −0.3°,−0.1°, 0.1°, and 0.3°) and from the three lowest lower sensitivity clutter-filtered scans (long range −0.5°, short range −0.5°, and short range −0.2°). The clutter pixels in the unfiltered scans are identified by an average clutter mask determined during clear weather, and replaced by the maximum of three lowest Doppler scans. Furthermore, high reflectivity values (greater than 25 dBZ) with low echo tops (lower than 2.5 km) over the ground are considered to be unfiltered ground targets and are replaced by an average of the reflectivity values from the immediate neighborhood. The strongest pixel for each of the five edited elevations is then chosen to be included in the final base product. Because insect density tends to be higher closer to the surface, the peak reflectivity among a set of angles is generally from the lowest angle, unless that angle is contaminated by clutter or affected by beam blockage.