## 3. General Regulations 3.4 Determination of Airline Mileage

### 3.4.1 V\&H Coordinates Method

A. $\quad$ Message toll telephone rates between points (cities, villages or localities) are based on the airline distance between rate centers. The V\&H coordinates method is used to determine airline mileage. Under this method, vertical (v) and horizontal ( h ) grid lines have been established across the state of NY. A vertical coordinate and a horizontal coordinate have been computed mathematically for each rate center from its latitude and longitude location. The pair of V\&H coordinates locates a rate center and is used to determine airline mileages, at a particular intersection of an established vertical grid line with an established horizontal grid line for specific rate center V\&H coordinate pairs (refer to Part A, Exhibits 3.4.1-1 thru 3.4.1-4). The spacings between adjacent vertical grid lines and between adjacent horizontal grid lines represent a distance of one coordinate unit. This unit is the square root of 0.1 expressed in statute miles ( 1670 feet).

1. Each exchange is designated as a rate center; certain small villages or localities are assigned the same rates as adjacent rate centers with which they are closely associated for communication purposes by community of interest. In the NY Metropolitan exchange there are 33 rate centers of which 15 are in NYC, 9 in Westchester County, and 9 in Nassau County.
a. NY Metropolitan Exchange, NYC Zones- To be used for message toll telephone service of forty miles or less (refer to Exhibit 3.4.1-1).
B. Unless otherwise specified herein the distance between any two rate centers is determined as follows.
2. Obtain the V\&H coordinates of each rate center from Exhibits 3.4.1-1 thru 3.4.1-4.
3. Determine the numeric difference between the V coordinates of the two rate centers.
4. Determine the numeric difference between the H coordinates of the two rate centers.
5. Identify which of the two numeric differences determined in Sections 3.4.1B2 and 3.4.1B3 (i.e., either the V coordinate numeric difference or the H coordinate difference) is the larger and locate that same value in the appropriate exhibit (i.e., Exhibits 3.4.1-6 thru 3.4.1-15) under the column heading titled "Larger Difference". Having found the appropriate exhibit and larger difference numeric value, within that same exhibit, locate the smaller value as listed under the heading "Smaller Difference". Determine the airline distance between the rate centers by following across the row associated with the larger difference value, and simultaneously following vertically (i.e., down) the column associated with the smaller difference value until reaching a point of intersection. The value contained at the point of intersection is the airline distance between the specific rate centers.
a. Where a coordinate difference is not specifically shown in the exhibit, the next larger coordinate difference is used in determining the mileage.
