

Appalachians varies from a low of 22 days to a high of 307 days. (The latter actually represents primarily low cloud occurrence at Mt. Washington.) In general, the greatest fog frequency is found to the west of the highest terrain and is due to orographic lift of predominantly westerly winds.

#### ATLANTIC AND GULF COASTS

These two coastal regions were at first treated separately, but because of the strong similarity of their fog-frequency distributions they have been combined into a single region (fig. 6). Both coasts display a moderately broad frequency distribution around a relatively high modal frequency. However, despite the wide variation in the proximity of stations to large bodies of water, the frequency spread is substantially less than that of either the Appalachian Mountain region or the West Coast areas—where irregular terrain creates more widely diverse, localized fog-producing conditions. The one extreme local influence in this area is found in the Nantucket-Block Island area where the heavy-fog frequency is about twice that of the other stations along these coasts.

#### 5. CONCLUSIONS

The regional histograms provide insight into both the variations of heavy-fog frequency from one point of the Country to another and the variability of frequencies within each region. However, they represent the spatial

distribution of fog frequencies only to the extent that reporting stations are representatively distributed within a region. This is not a restriction to interpretation of the histograms in terms of the frequency distribution of heavy fog at air terminals, since most of the observations were made at air terminals.

When all regions are combined into a single histogram of fog frequency (fig. 7), the significance of fog as an air-terminal hazard becomes apparent. Approximately 50 percent of the reporting stations (229 of the 256 represent air terminals) experience over 20 days per year with periods of one-fourth-mile visibility or less. Most of the extremely high frequency reports come from stations that are not air terminals, but the majority of the 244 stations reporting up to 70 days with heavy fogs are air terminals.

#### REFERENCES

- Byers, H. R., *General Meteorology*, McGraw-Hill Book Co., Inc., New York, 1959, 540 pp. (see p. 491).
- Court, A., and Gerston, R. D. "Fog Frequency in the United States," *The Geographical Review*, Vol. 56, No. 4, Oct. 1966, pp. 543-550.
- Haurwitz, B., and Austin, J. M., *Climatology*, McGraw-Hill Book Co., Inc., New York, 1944, 410 pp. (see Plates 12 and 13).
- Stone, R. G., "Fog in the United States and Adjacent Regions," *The Geographical Review*, Vol. 26, No. 1, Jan. 1936, pp. 111-134.
- U.S. Department of Agriculture, "Climate and Man," *Yearbook of Agriculture, 1941*, Washington, D.C., 1941, p. 737.
- Ward, R. D., *The Climates of the United States*, Ginn and Co., Boston, 1925, pp. 335-338.

[Received January 26, 1968; revised July 18, 1968]

#### CORRECTION NOTICE

Vol. 96, No. 1, Jan. 1968: p. 26, 2d paragraph, 3d line from bottom, F is to be read instead of E, and G instead of F; p. 28, 3d line after equation (4)  $\bar{u}_g$  instead of  $u_g$ , and 10th line after equation (4), release instead of reaseel; p. 30, fig. 11 caption,  $[\bar{u}][\bar{v}]$  instead of  $[u][v]$ .