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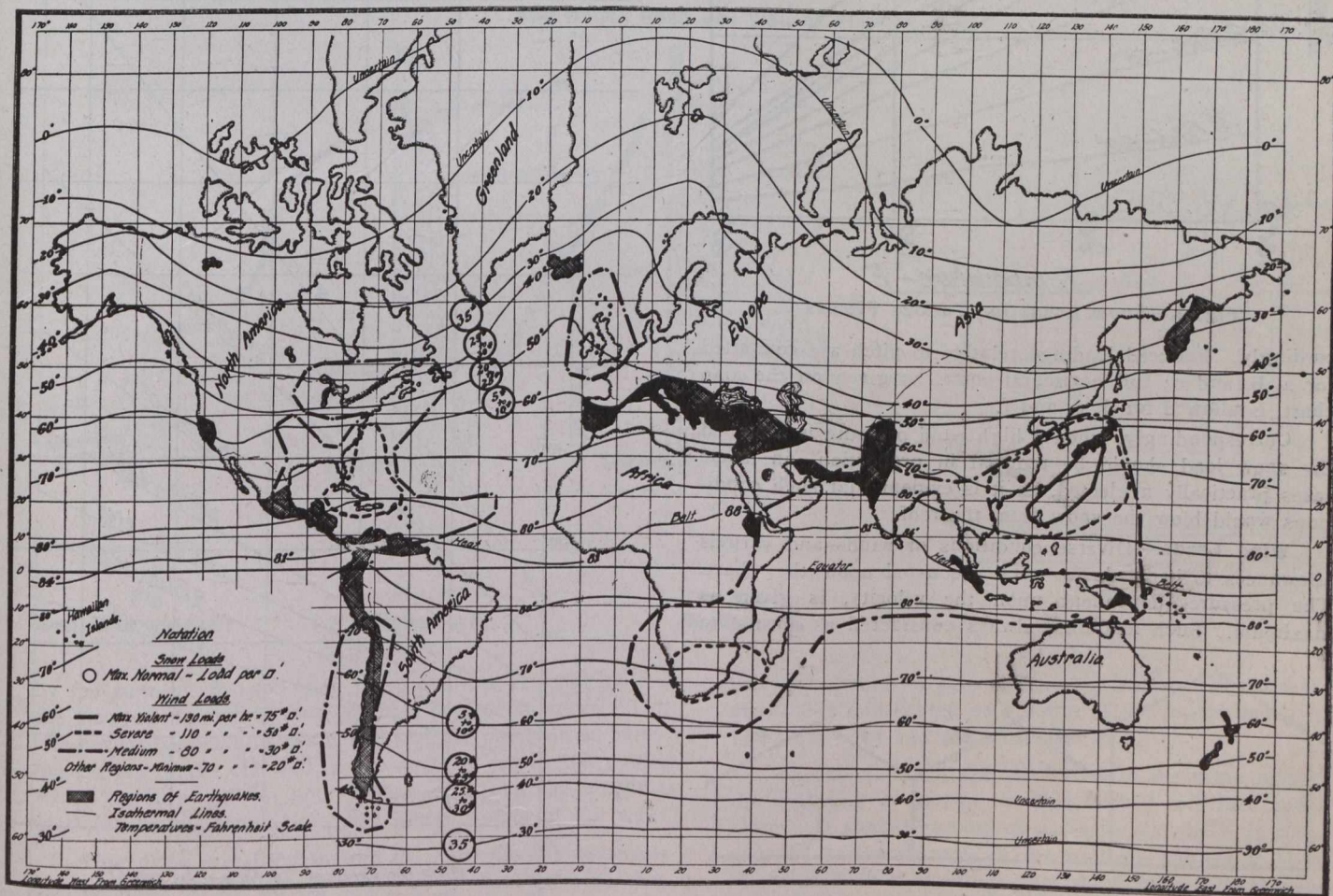
LOADING ASSUMPTIONS FOR STRUCTURAL DESIGN

By L. R. W. ALLISON.

Regional conditions of an extended period of time afford a basis for record which is vitally essential in computing loading assumptions for proposed structures. Variations in a specific locality covering many years would render a seasonable curve, if accurately plotted, comparatively uniform for the cycle average. Proper loadings for intelligent

composition permits of ready service. Additional loadings other than those dependent upon the elements are neglected, being, of course, features of construction that rest almost entirely upon the type of design and the particular purpose.

Snow Loads.—On the plotted temperature lines the normal horizontal snow load is given. This is maximum,



and comprehensive structural design, contingent with the elements, have been established for terms of latitude by practice.

Such assumptions plotted upon regional lines are shown in the accompanying chart of the world. This offers in concise form, sufficiently accurate for all practical purposes, the fundamental considerations in design execution, especially for export work. The utility of the chart is evidenced for any section of the habitable world, and the method of

and any reduction being proportional to the slope, the following formula is applicable:

S_n = normal snow load, pounds per sq. ft.

P = snow load for horizontal surface, pounds per sq. ft. (Obtained from chart).

a = angle of roof inclination with horizontal.

$$S_n = P (1 - \sin. a). \quad (1)$$