

Calculating Off-Centerline Distance to a Desired Value from Centerline Value at a Specific Distance

Figure 13-1: Key to Stability Classes

Surface Wind Speed (at 10 m), m/sec	Day			Night	
	Incoming Solar Radiation			Thinly Overcast or Low Cloud	
	Strong	Moderate	Slight	≥4/8	≤3/8
2	A	A-B	B		
2-3	A-B	B	C	E	F
3-5	B	B-C	C	D	E
5-6	C	C-D	D	D	D
6	C	D	D	D	D

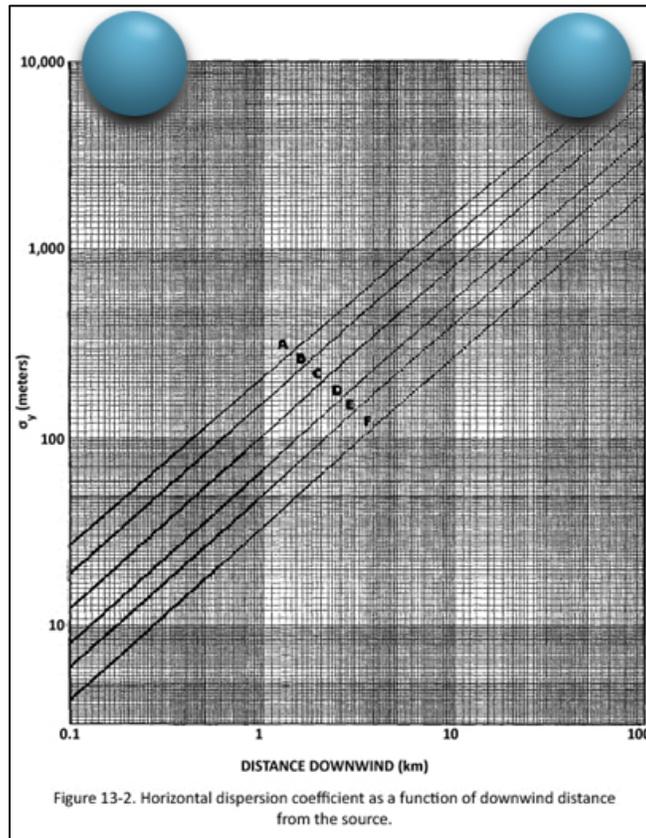
The neutral class, D, should be assumed for overcast conditions during day or night.

Figure 13-1 is used to estimate stability class, and displays the following information:

Surface Wind Conditions at 10 m (m/sec)	Daytime Conditions (insolation)			Night Conditions (cloudiness)	
	Strong	Moderate	Slight	Thin or ≥4/8	≤3/8
<2	A	A-B	B		
2 to 3	A-B	B	C	E	F
3 to 5	B	B-C	C	D	E
5 to 6	C	C-D	D	D	D
>6	C	D	D	D	D

The neutral class, D, should be assumed for overcast conditions during day or night.

Figure 13-2: Horizontal Dispersion Coefficient as a Function of Downwind Distance from the Source



This table is used to estimate σ_y . The log log graph is read along the bottom out to a desired distance (in km) up to the appropriate stability class line, then left to the σ_y value in meters.