

## WIND PROFILE ANALYSIS DEFINITIONS

### **FAVORABLE PROFILE**

Wind speed increased with height; or , if a wind speed maximum (jet point) exists, it occurs above 3000 FT AGL; or wind speed is all less than 10 knots with little (4 kts or less ) change in speed between consecutive levels.

### **QUESTIONABLE PROFILE**

Wind speed is greater than 10 knots at all or most levels with little (4 kts or less) change in speed between consecutive levels; or a wind speed maximum (jet point) exists at 2000 to 3000 FT AGL. In the former case, leave as questionable unless the forecast conditions dictate otherwise. In the latter case, obtain the maximum wind speed value and multiply by 0.8. Find where the result lies on a plot of speed versus height (worksheet). If the value falls below **800 FT AGL**, qualify the profile as **unfavorable** (I-B, I-D, or I-F as appropriate). Otherwise the profile remains questionable.

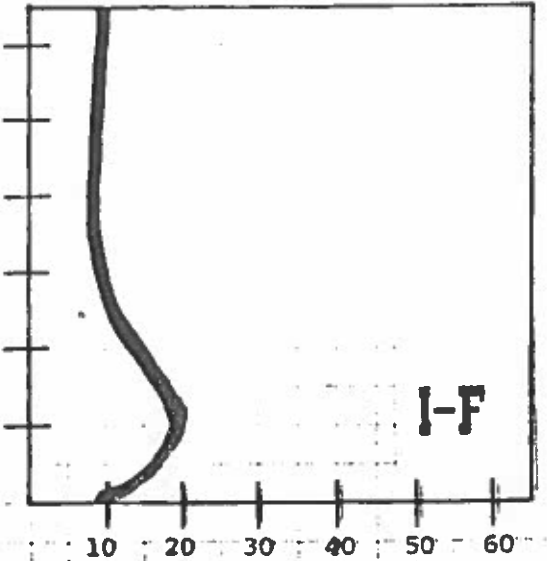
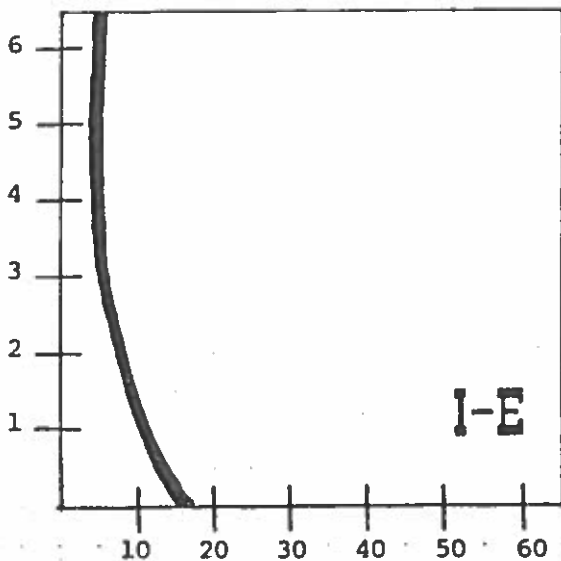
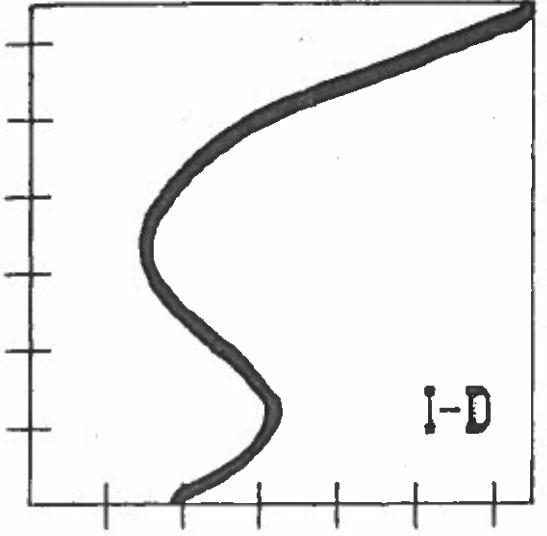
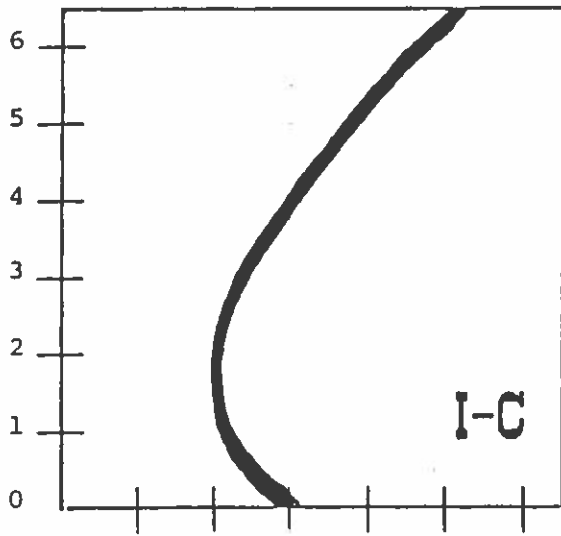
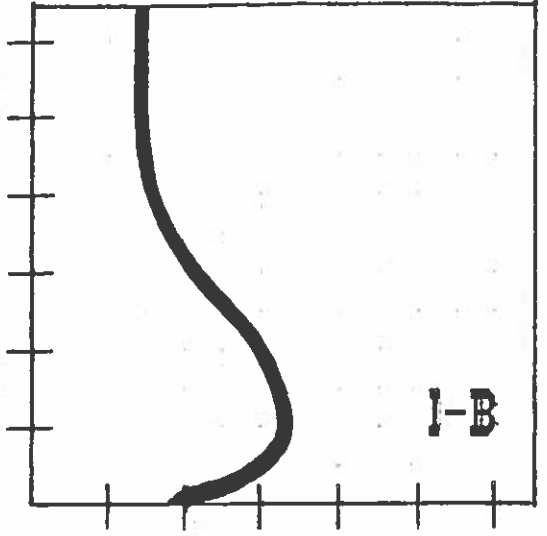
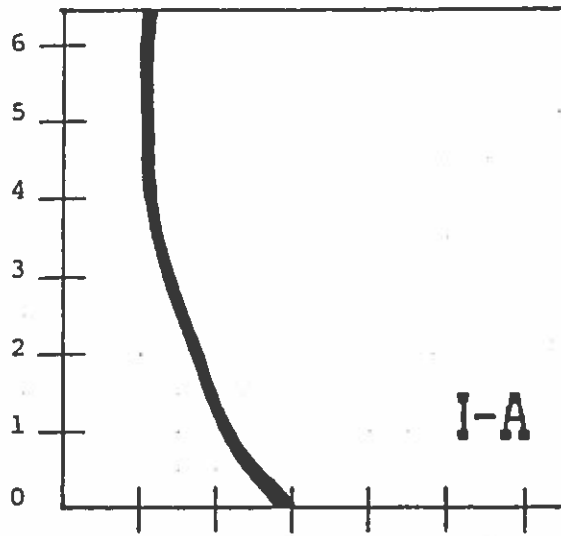
### **UNFAVORABLE PROFILE**

Wind speed maximum exists within 2000 FT AGL with speed decreasing by 5 knots or more aloft (from max to min). If the 5 knot threshold is not met, it can still be listed as unfavorable if it is certain that the wind speed maximum is not a result of air jetting at the top of a diurnal inversion. Similarly, if it is evident that the wind speed maximum is the result of jetting atop the diurnal inversion **and** the jet is likely to dissipate after inversion burnoff, qualify the profile as favorable.

Sometimes the FD wind output (FD2FA2) at 3 and 6 thousand feet will indicate whether a low level wind speed maximum is expected to persist during the day. If there is a large degree of uncertainty concerning the persistence of the low level jet during the day, list the profile as questionable and try to obtain additional data at a later time.

APPENDIX D: GENERAL DESCRIPTION KEY FOR ADVERSE WIND PROFILES

ALTITUDE - THOUSANDS OF FEET ABOVE THE GROUND



WIND SPEED - MILES PER HOUR