

Response to Item 9

- 9(a) - This research project involves experimenting with a 45° polarization transmitting antenna for the applicant's B-band cellular operation.

FCC rules currently specify only vertical (90°) transmit antenna orientation for cellular base station transmitters.

Cellular mobile stations typically operate with a 45° polarization, since most are using handheld subscriber sets that, (when held to the user's ear) are effectively at a 45° antenna orientation.

The applicant would like to demonstrate the benefit of 45° polarization such as reduced transmitter power requirements for Code Division Multiple Access (CDMA).

- 9(b) - Empirical measurement of radio frequency performance will be required for this project to determine benefit of 45° polarization.
- 9(c) - No cellular transmitting facilities in the applicant's service area currently operate with 45° polarization.