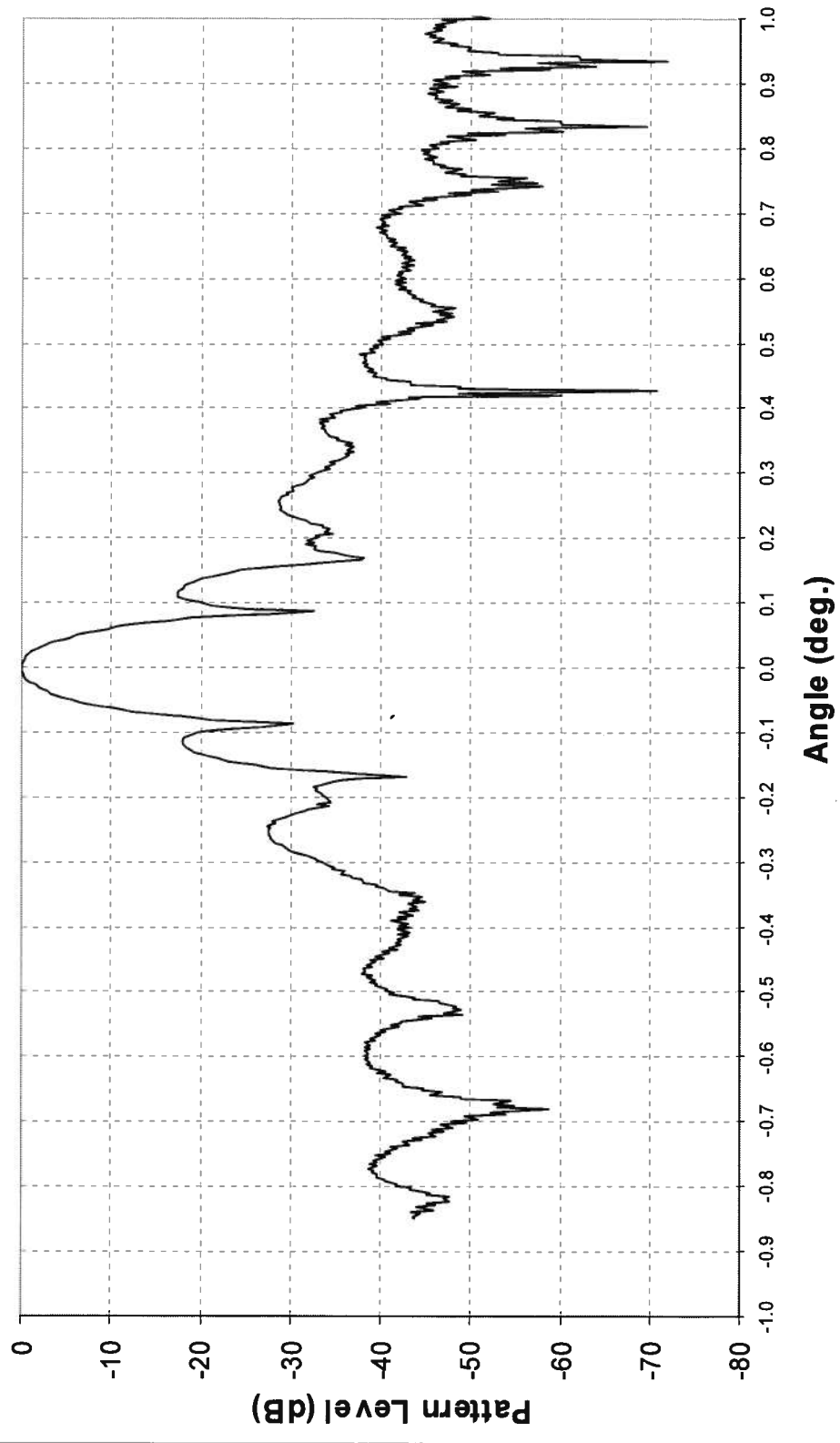


Figure	Frequency	Plane of Cut	Pattern Extent	Pattern
1	29.350 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol.
2	29.350 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol. & cross-pol.
3	29.350 GHz	Azimuth	$\pm 3^\circ$	Meas. co-pol.
4	29.350 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol.
5	29.350 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol.
6	29.350 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol. & cross-pol.
7	29.350 GHz	Elevation	$\pm 3^\circ$	Meas. co-pol.
8	29.350 GHz	Elevation	$\pm 10^\circ$	Meas. co-pol.
9	19.700 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol.
10	19.700 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol.
11	19.700 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol.
12	19.700 GHz	Elevation	$\pm 10^\circ$	Meas. co-pol.
13	29.350 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
14	29.350 GHz	Azimuth	$\pm 3^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
15	29.350 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
16	29.350 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
17	29.350 GHz	Elevation	$\pm 3^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
18	29.350 GHz	Elevation	$\pm 10^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
19	19.700 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
20	19.700 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
21	19.700 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )
22	19.700 GHz	Elevation	$\pm 10^\circ$	Meas. co-pol. ( <i>vs. pred.</i> )

Table 1: List of Measured Patterns For ViaSat 9.1m Antenna

Job:1195    Antenna: 9.1m    Comment: 5/18/06: Antenna focused at 29.35 GHz  
Freq: 29.350 GHz    Plane: Azimuth    Test port: RHCP-TX    Measured Pattern    AUT Gain: 65.020 dBi    Gain ref. point: HPA Flange

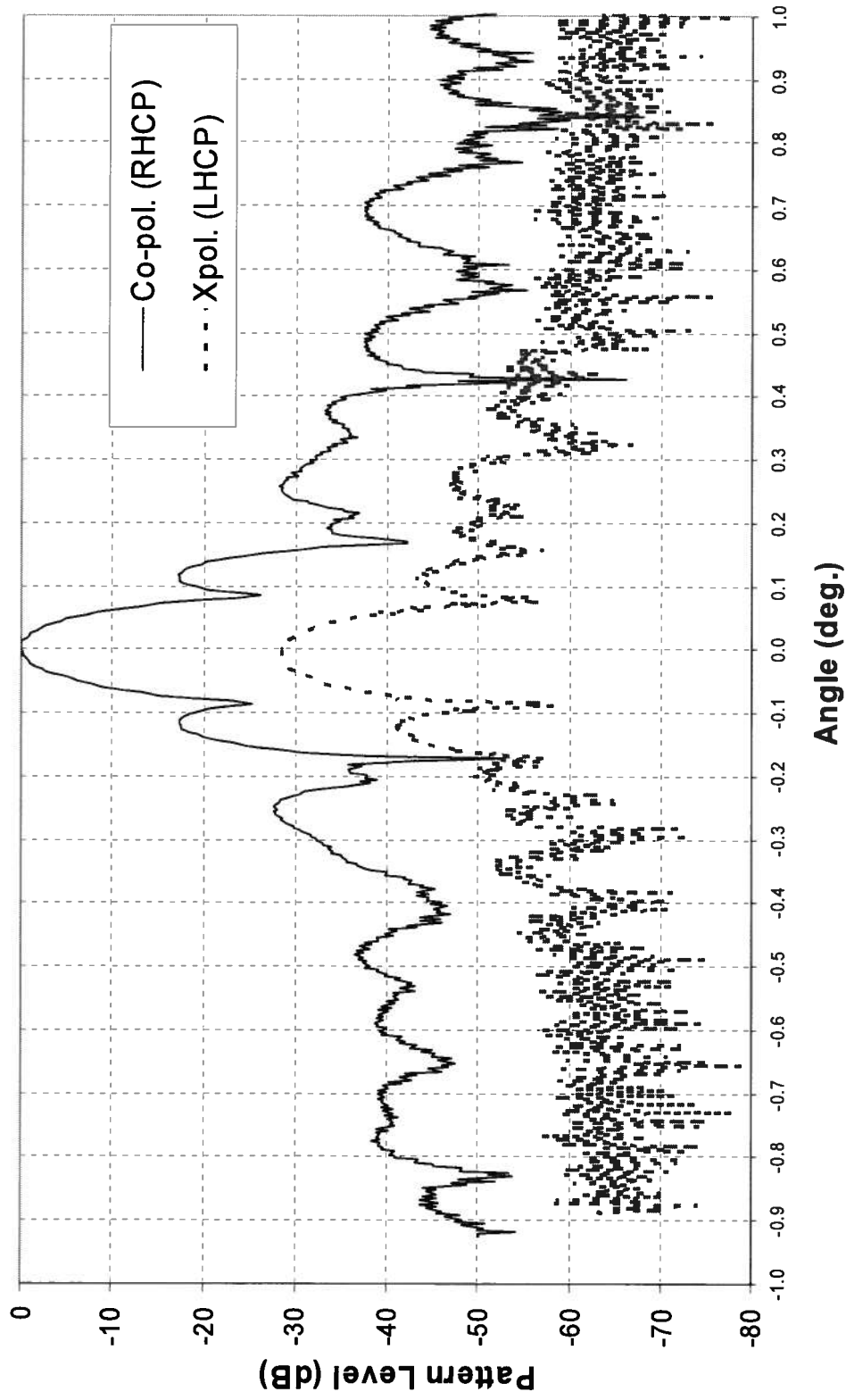


**Figure 1**  
**29.350 GHz, Azimuth,  $\pm 1^\circ$ , Meas. Co-pol**

Job:1195 Antenna: 9.1m Comment: 5/19/06: Antenna focused at 29.35 GHz

**Measured Pattern**

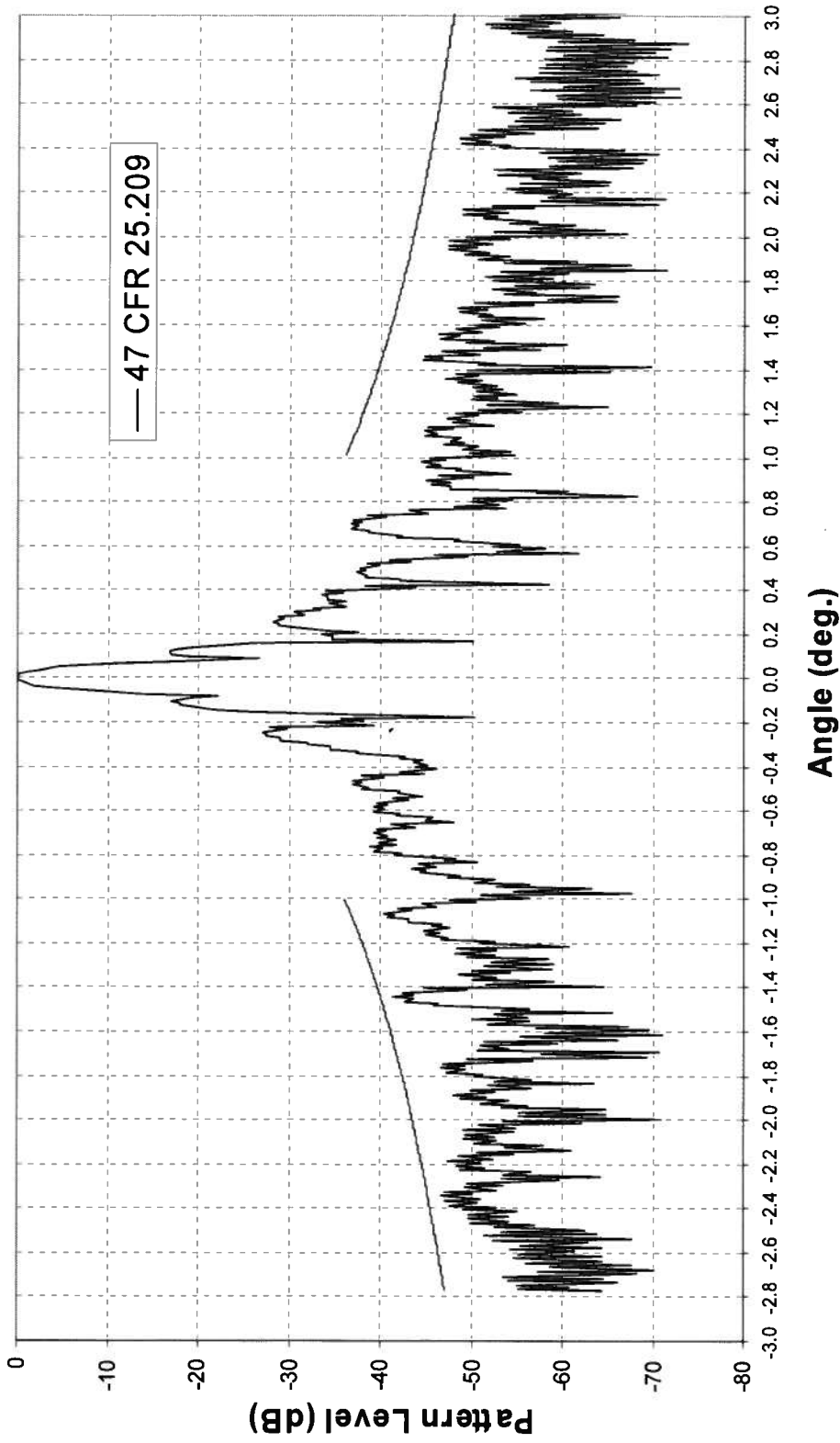
Freq: 29.350 GHz Plane: Azimuth Test port: RHCP-TX, LHCP-TX AUT Gain: 65.020 dBi Gain ref. point: HPA Flange



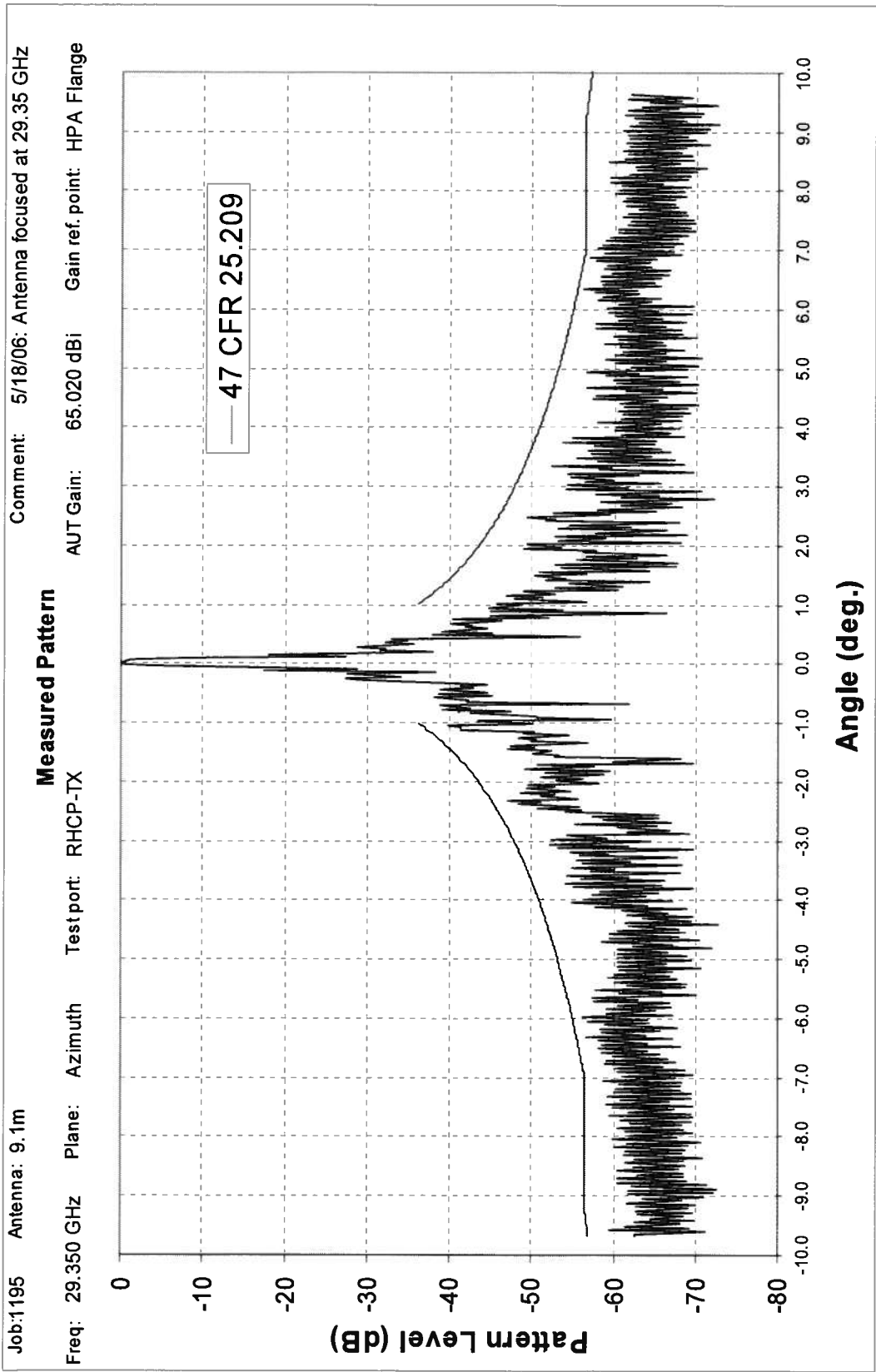
**Figure 2**  
**29.350 GHz, Azimuth, ±1°, Meas. Co-pol & Cross-pol.**

Job1195 Antenna: 9.1m Comment: 5/19/06: Antenna focused at 29.35 GHz  
Freq: 29.350 GHz Plane: Azimuth Testport: RHCP-TX AUT Gain: 65.020 dBi Gain ref. point: HPA Flange

**Measured Pattern**



**Figure 3**  
**29.350 GHz, Azimuth, ±3°, Meas. Co-pol.**

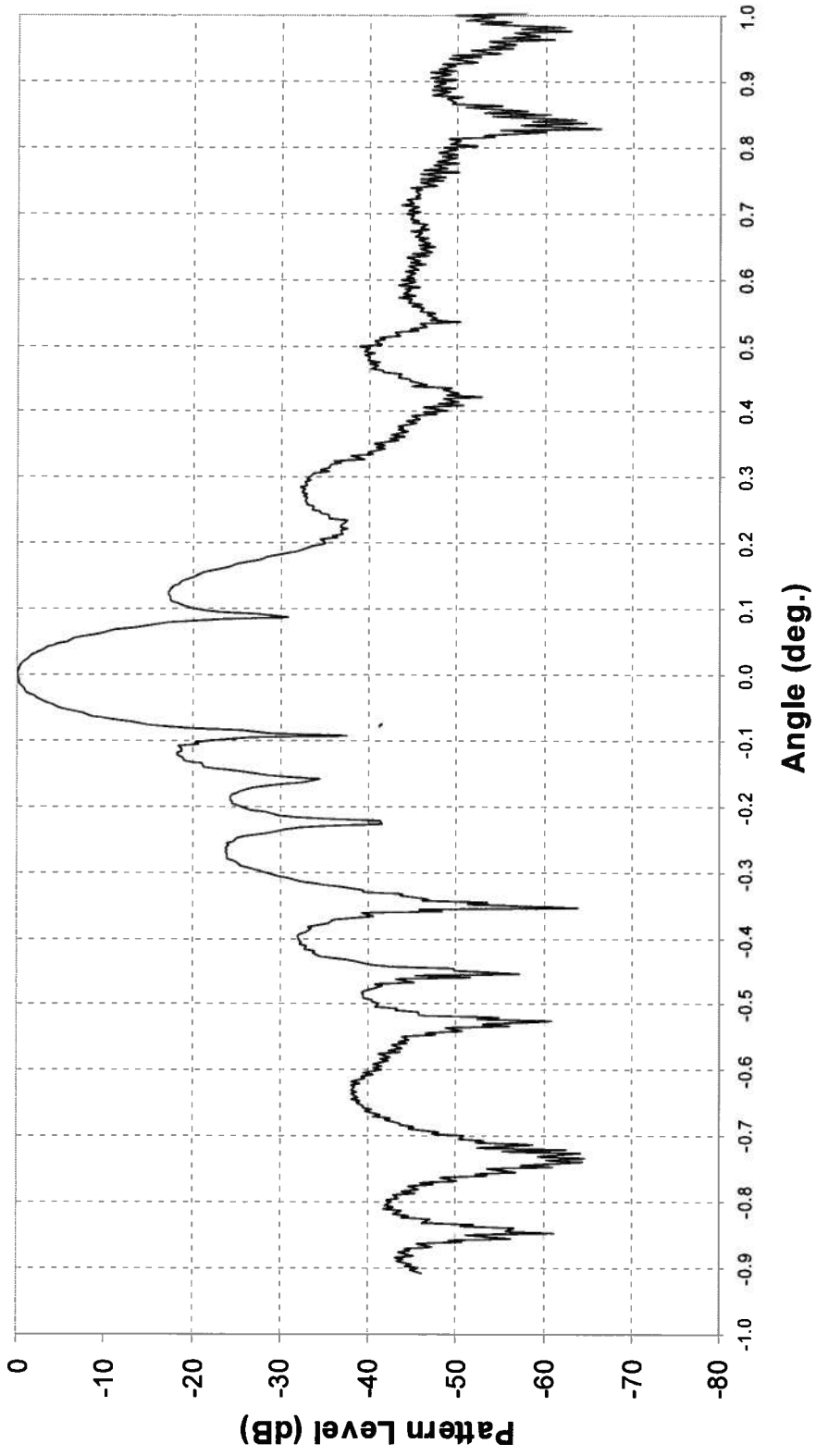


**Figure 4**  
**29.350 GHz, Azimuth,  $\pm 10^\circ$ . Meas. Co-pol.**

Job:1195 Antenna: 9.1m Comment: 5/18/06: Antenna focused at 29.35 GHz

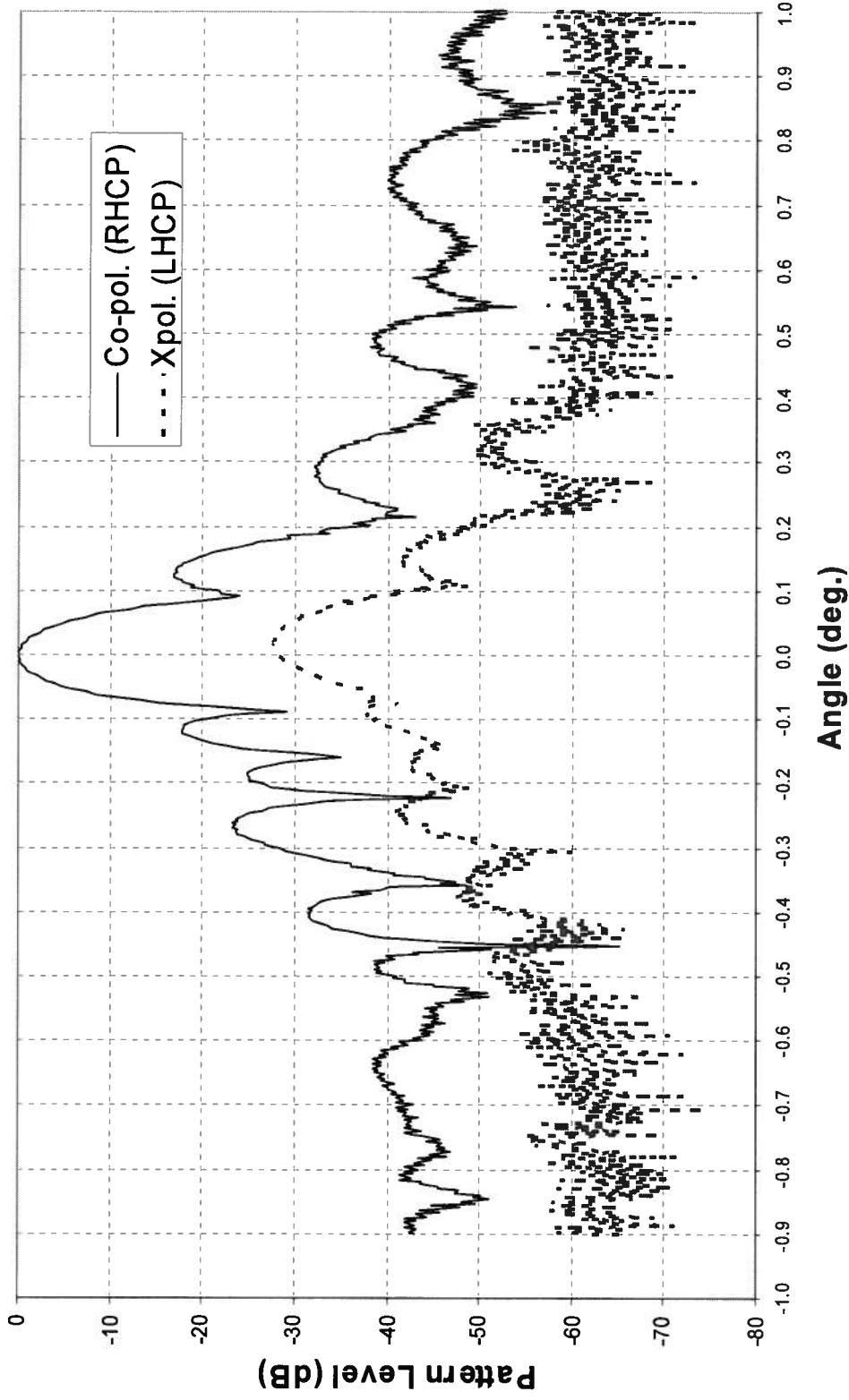
**Measured Pattern**

Freq: 29.350 GHz Plane: Elevation Test port: RHCP-TX AUT Gain: 65.020 dBi Gain ref. point: HPA Flange



**Figure 5**  
**29.350 GHz, Elevation, ±1°. Meas. Co-pol.**

Job:1195 Antenna: 9.1m Comment: 5/19/06: Antenna focused at 29.35 GHz  
Freq:29.350 GHz Plane: Elevation Test port: RHCP-TX, LHCP-TX Measured Pattern  
AUT Gain: 65.020 dBi Gain ref. point: HPA Flange

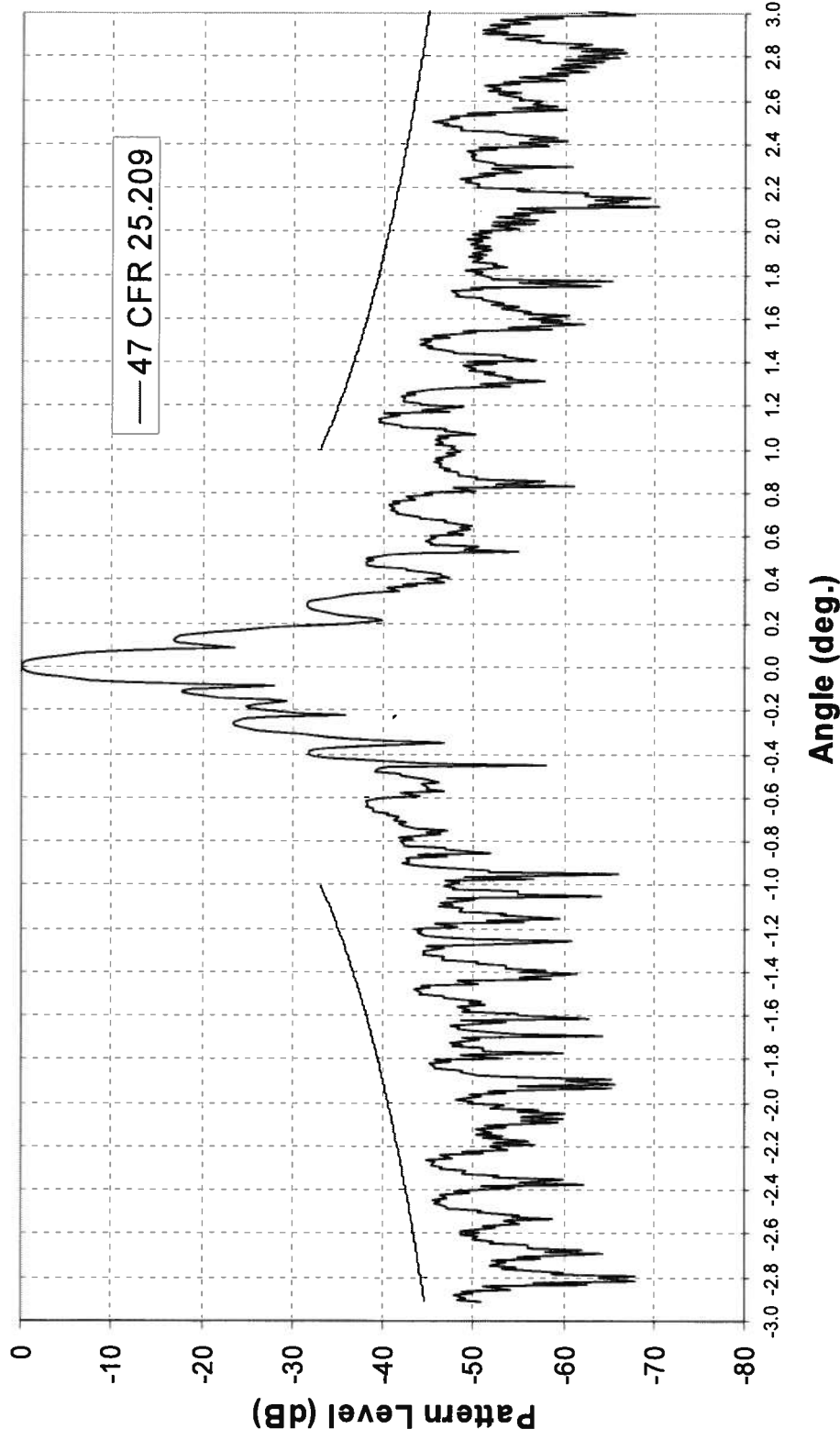


**Figure 6**  
**29.350 GHz, Elevation, ±1°. Meas. Co-pol. & Cross-pol.**

Job:1195    Antenna: 9.1m    Comment: 5/19/06: Antenna focused at 29.35 GHz

### Measured Pattern

Freq: 29.350 GHz    Plane: Elevation    Test port: RHCP-TX    AUT Gain: 65.020 dBi    Gain ref. point: HPA Flange



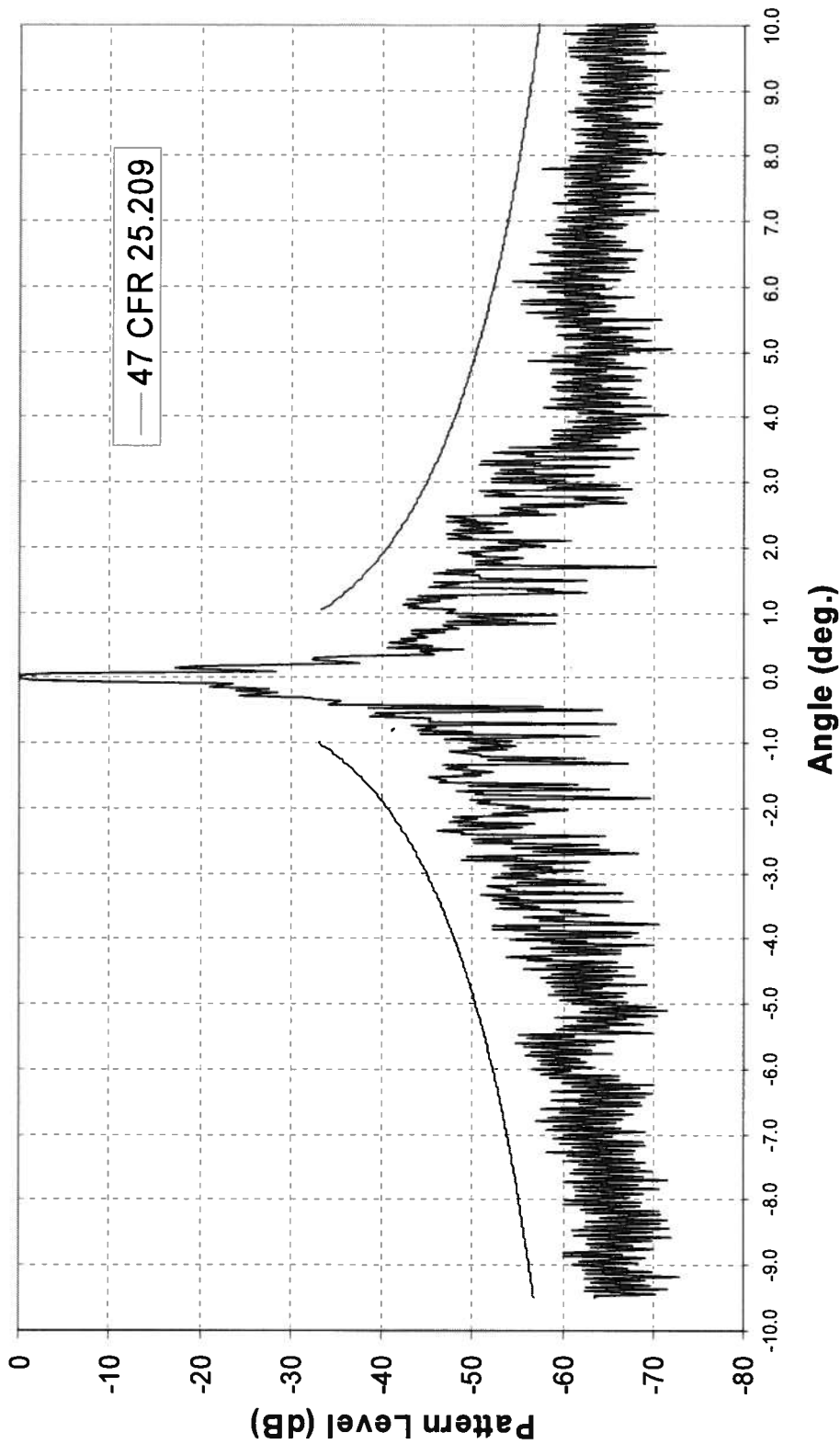
**Figure 7**  
**29.350 GHz, Elevation, ±3°. Meas. Co-pol.**



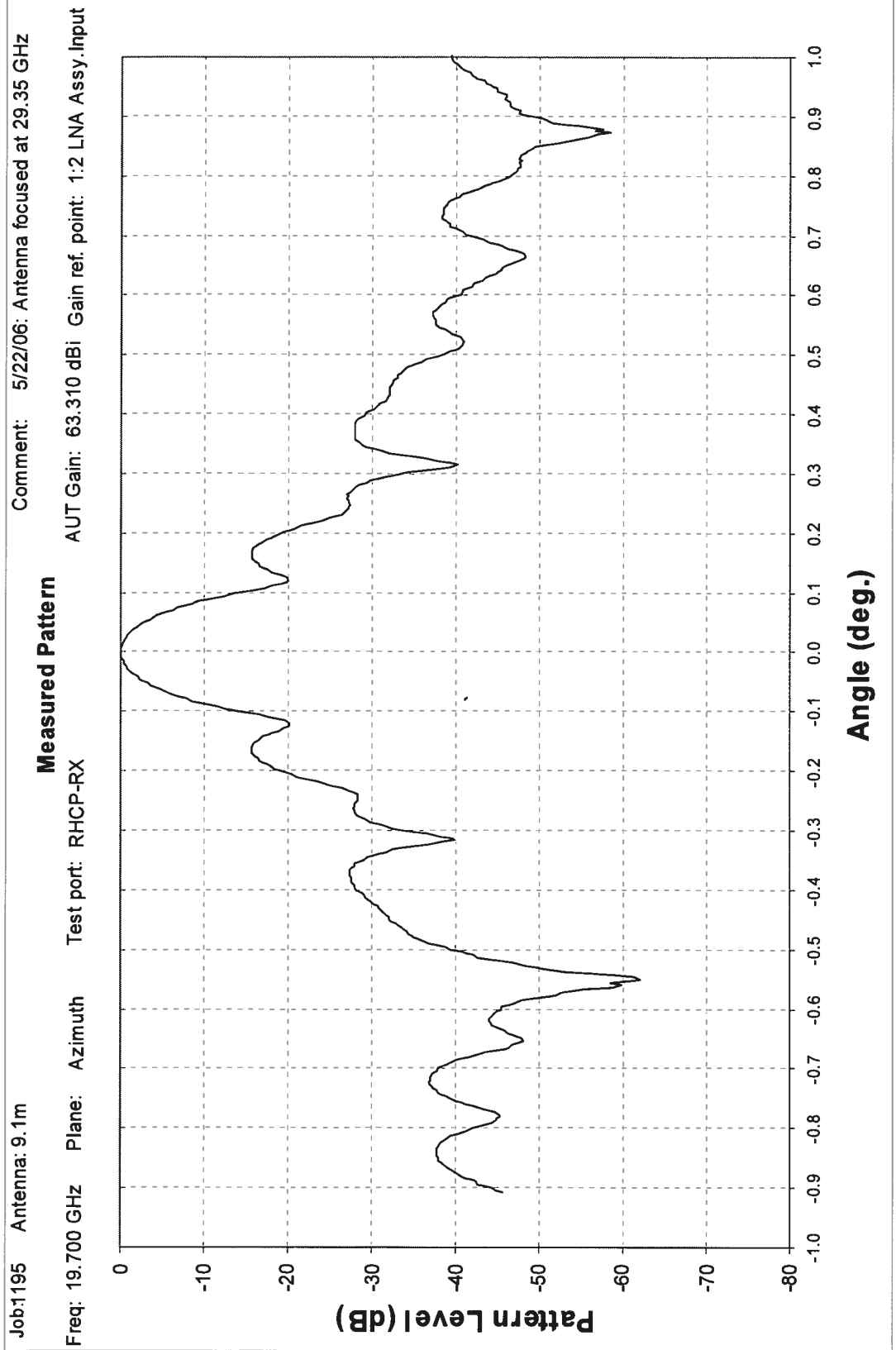
Job:195    Antenna: 9.1m    Comment: 5/18/06: Antenna focused at 29.35 GHz

### Measured Pattern

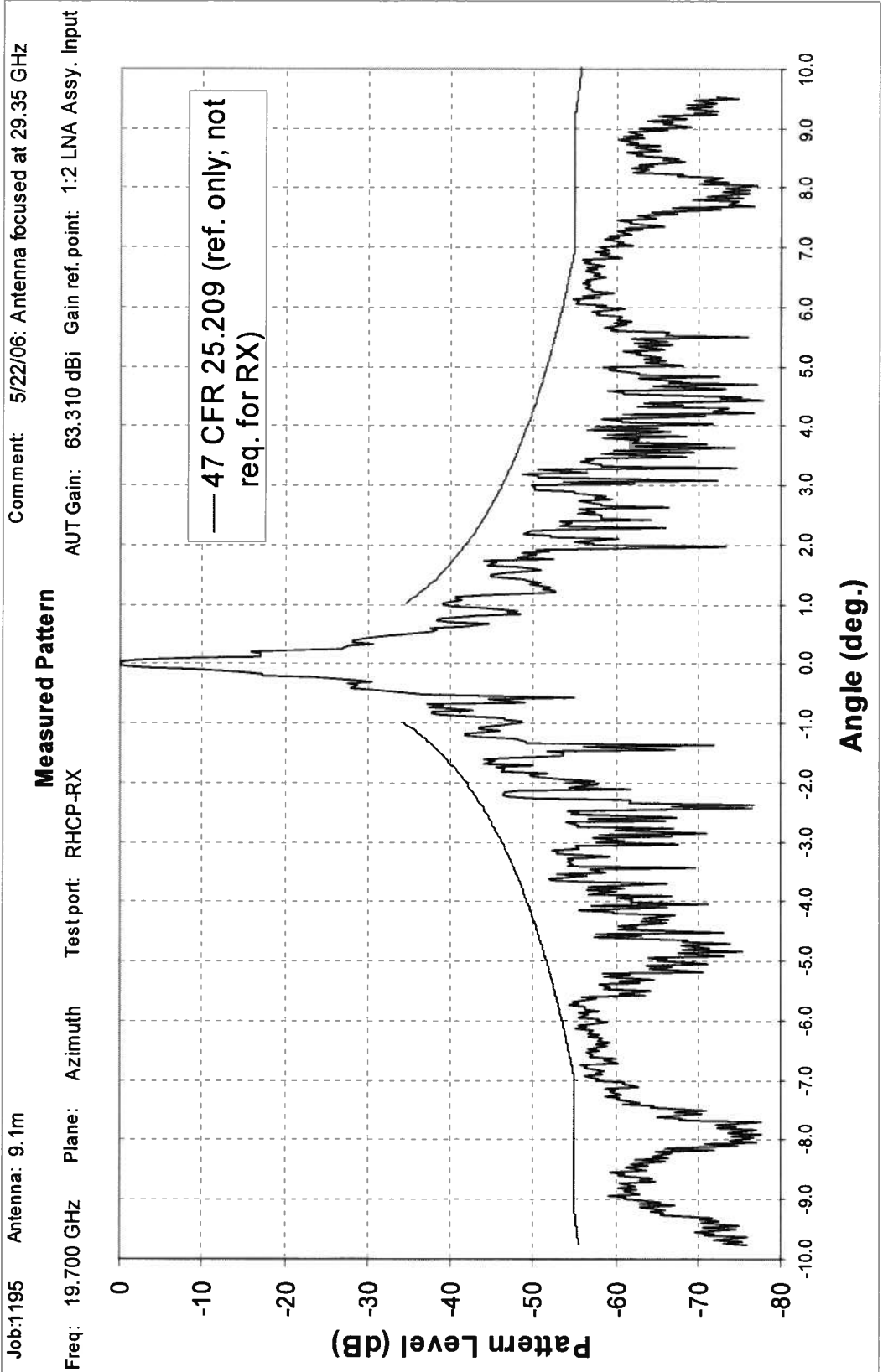
Freq: 29.350 GHz    Plane: Elevation    Test port: RHCP-TX    AUT Gain: 65.020 dBi    Gain ref. point: HPA Flange



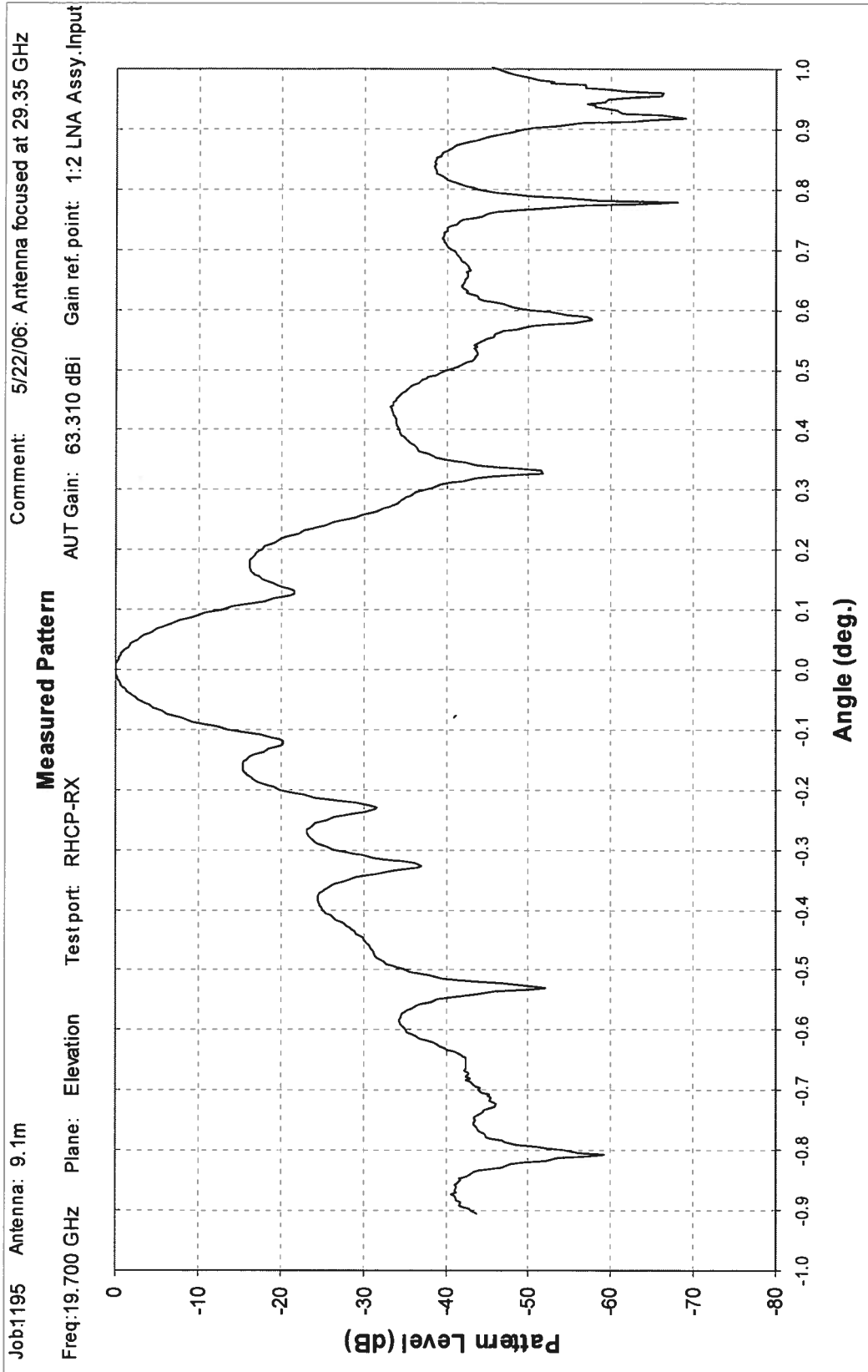
**Figure 8**  
**29.350 GHz, Elevation,  $\pm 10^\circ$ . Meas. Co-pol.**



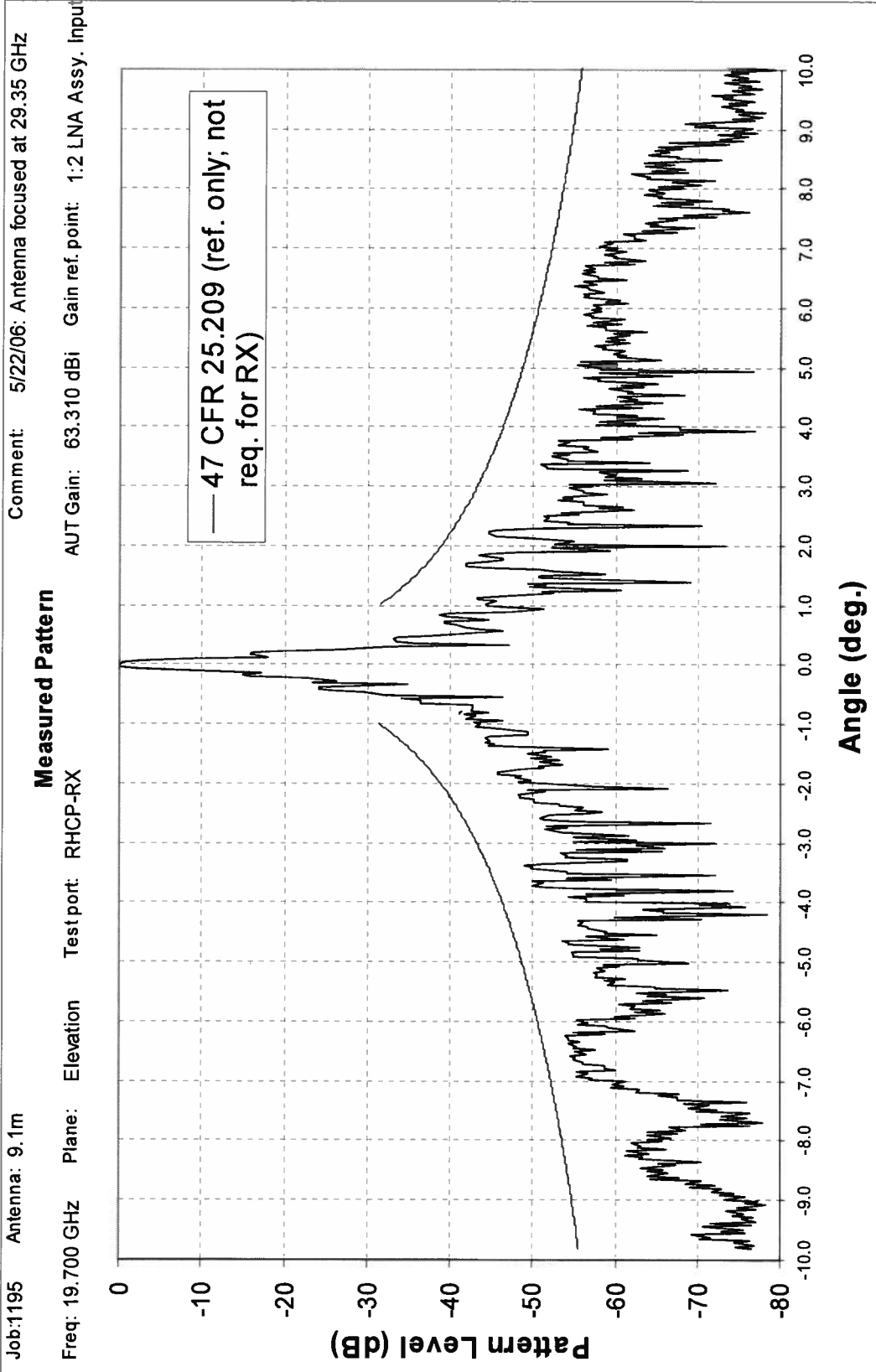
**Figure 9**  
19.700 GHz, Azimuth, ±1°. Meas. Co-pol.



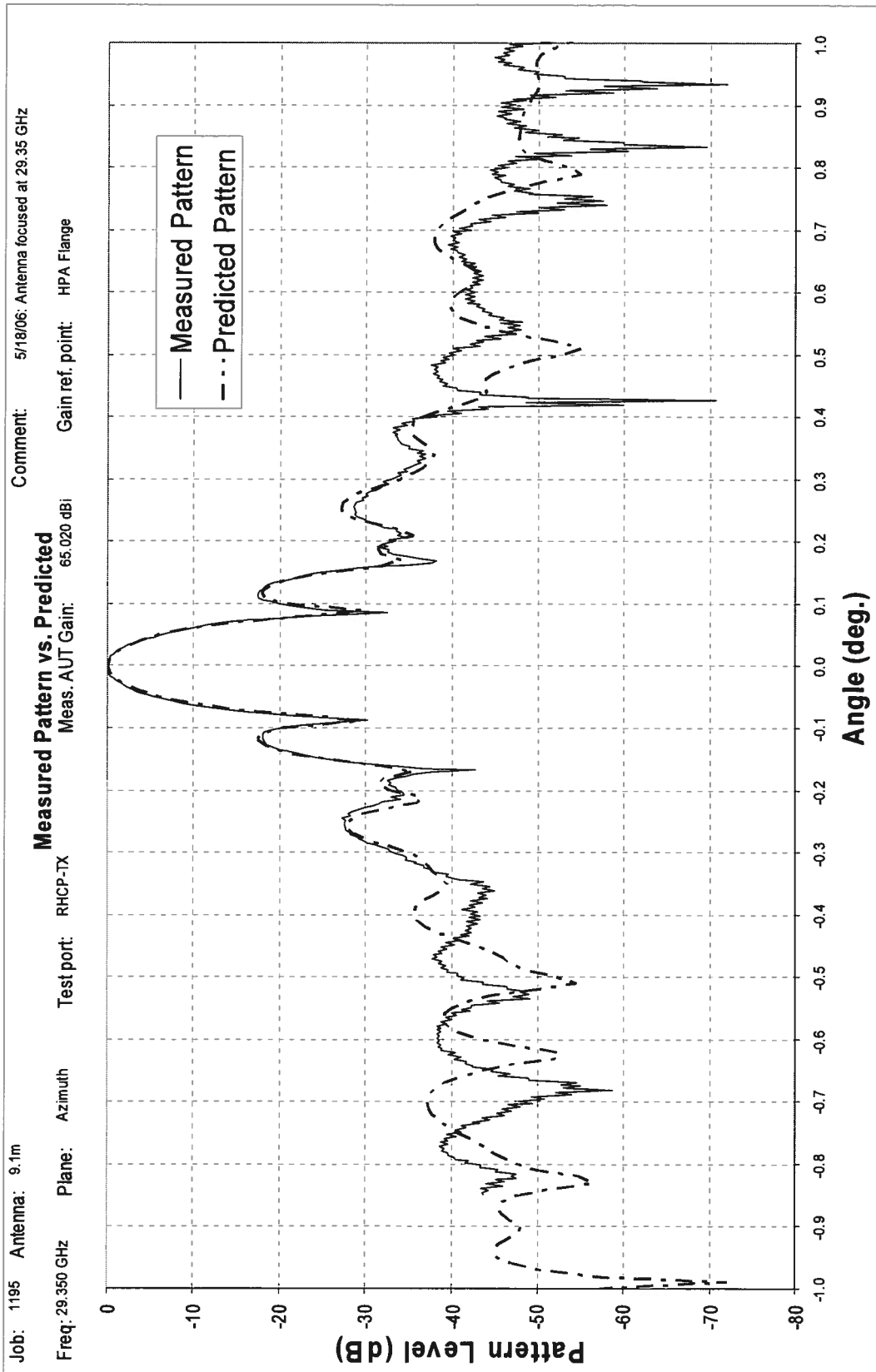
**Figure 10**  
**19.700 GHz, Azimuth, ±10°. Meas. Co-pol**



**Figure 11**  
19.700 GHz, Elevation, ±1°. Meas. Co-pol.



**Figure 12**  
**19.700 GHz, Elevation, ±10°. Meas. Co-pol.**



**Figure 13**  
**29.350 GHz, Azimuth,  $\pm 1^\circ$  Meas. Co-pol. (vs. pred.)**

Job: 1195 Antenna: 9.1m Comment: 5/19/06: Antenna focused at 29.35 GHz

### Measured Pattern vs. Predicted

Freq: 29.350 GHz Plane: Azimuth Test port: RHCP-TX Meas. AUT Gain: 65.020 dBi Gain ref. point: HPA Flange

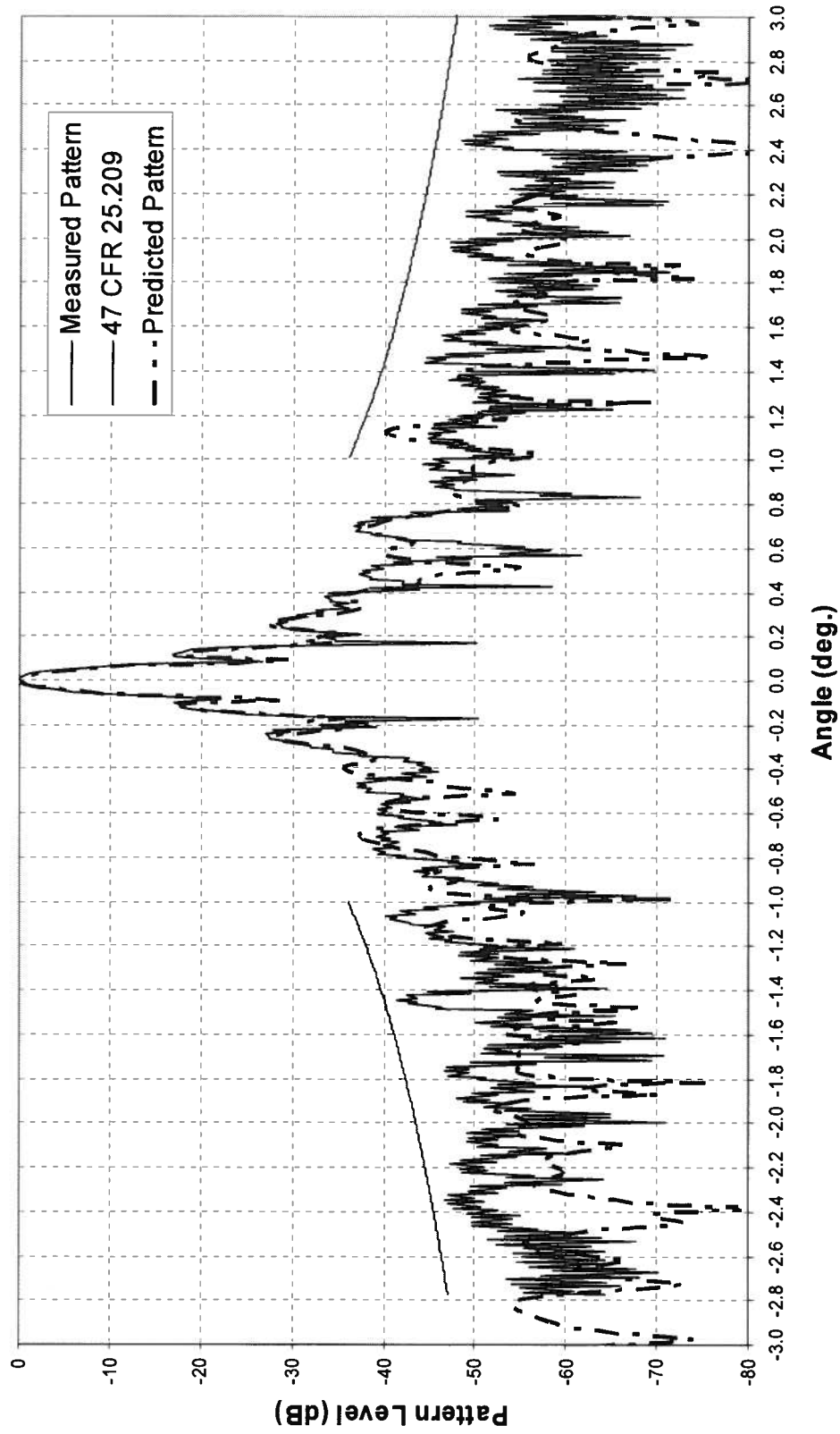
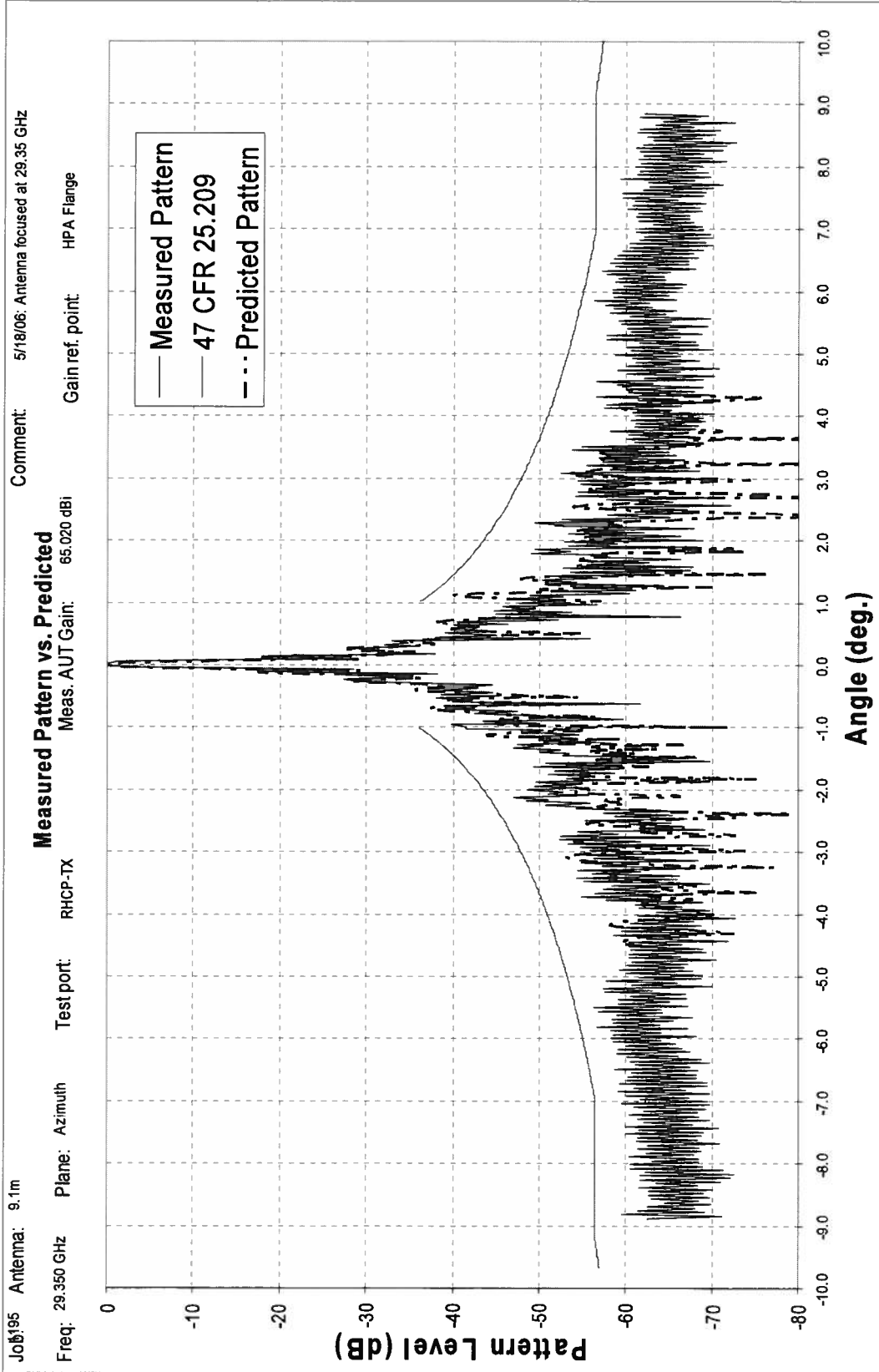
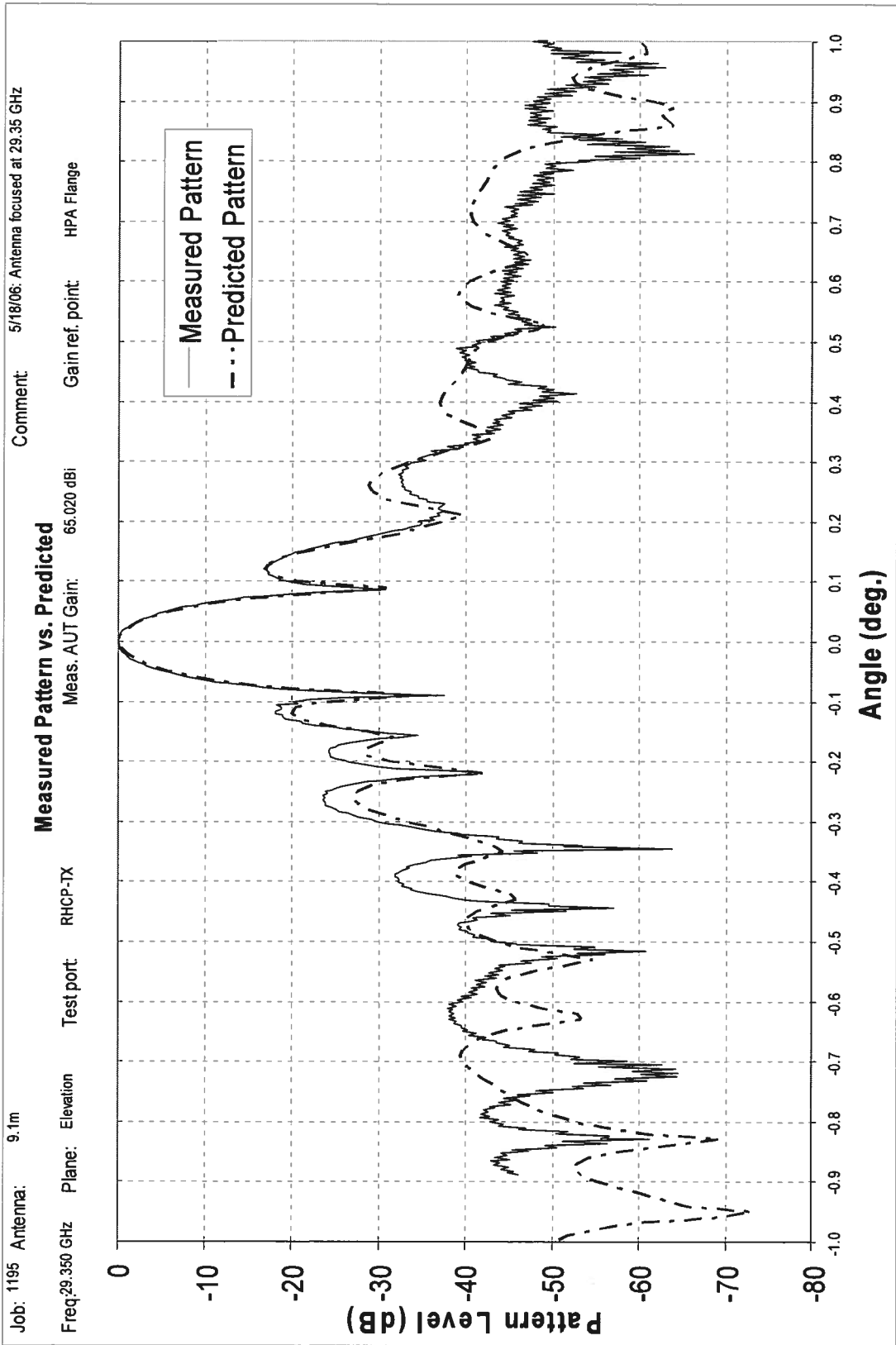


Figure 14  
29.350 GHz, Azimuth,  $\pm 3^\circ$ . Meas. Co-pol. (vs. pred.)



**Figure 15**  
**29.350 GHz, Azimuth,  $\pm 10^\circ$ . Meas. Co-pol. (vs. pred.)**



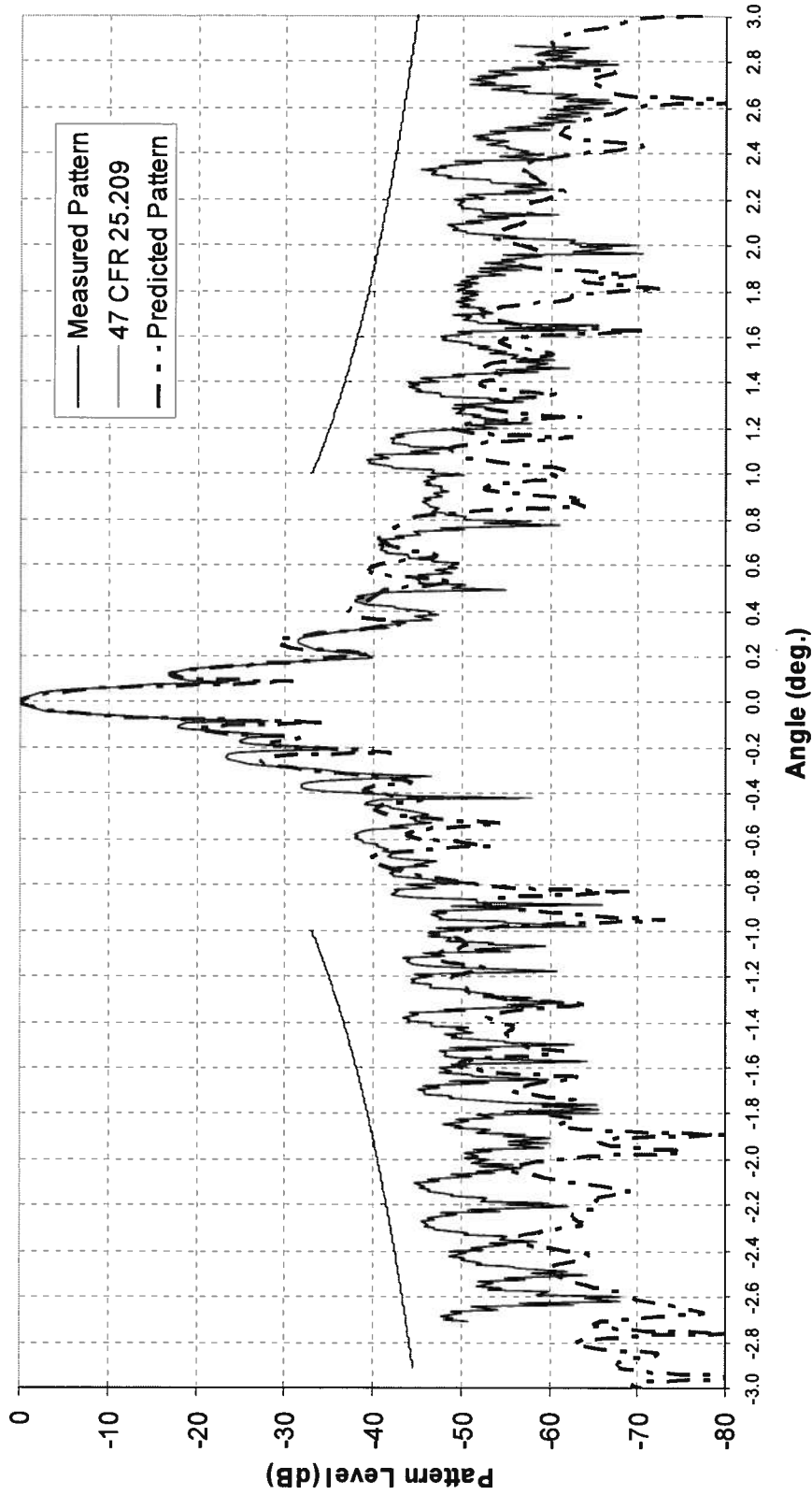


**Figure 16**  
**29.350 GHz, Elevation,  $\pm 1^\circ$ . Meas. Co-pol. (vs. pred.)**

Job: 1195Antenna: 9.1m Comment: 5/19/06: Antenna focused at 29.35 GHz

### Measured Pattern vs. Predicted

Freq: 29.350 GHzPlane: Elevation Testport: RHCP-TX Meas. AUT Gain: 65.020 dBi Gain ref. point: HPA Flange



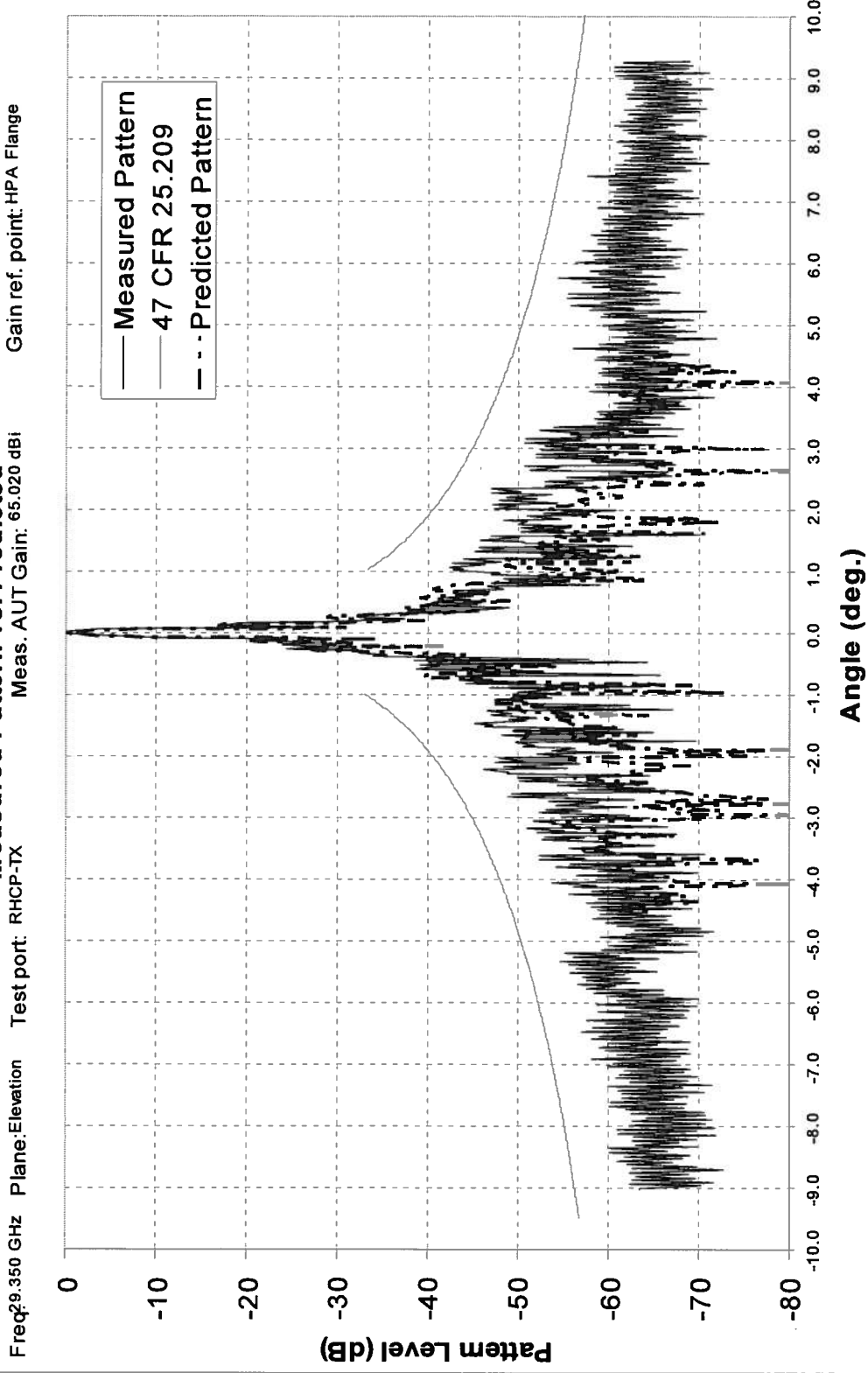
**Figure 17**  
**29.350 GHz, Elevation,  $\pm 3^\circ$ . Meas. Co-pol. (vs. pred.)**

Job: 1195 Antenna: 9.1m

Comment: 5/18/06: Antenna focused at 29.35 GHz

Meas. AUT Gain: 65.020 dBi Gain ref. point: HPA Flange

### Measured Pattern vs. Predicted

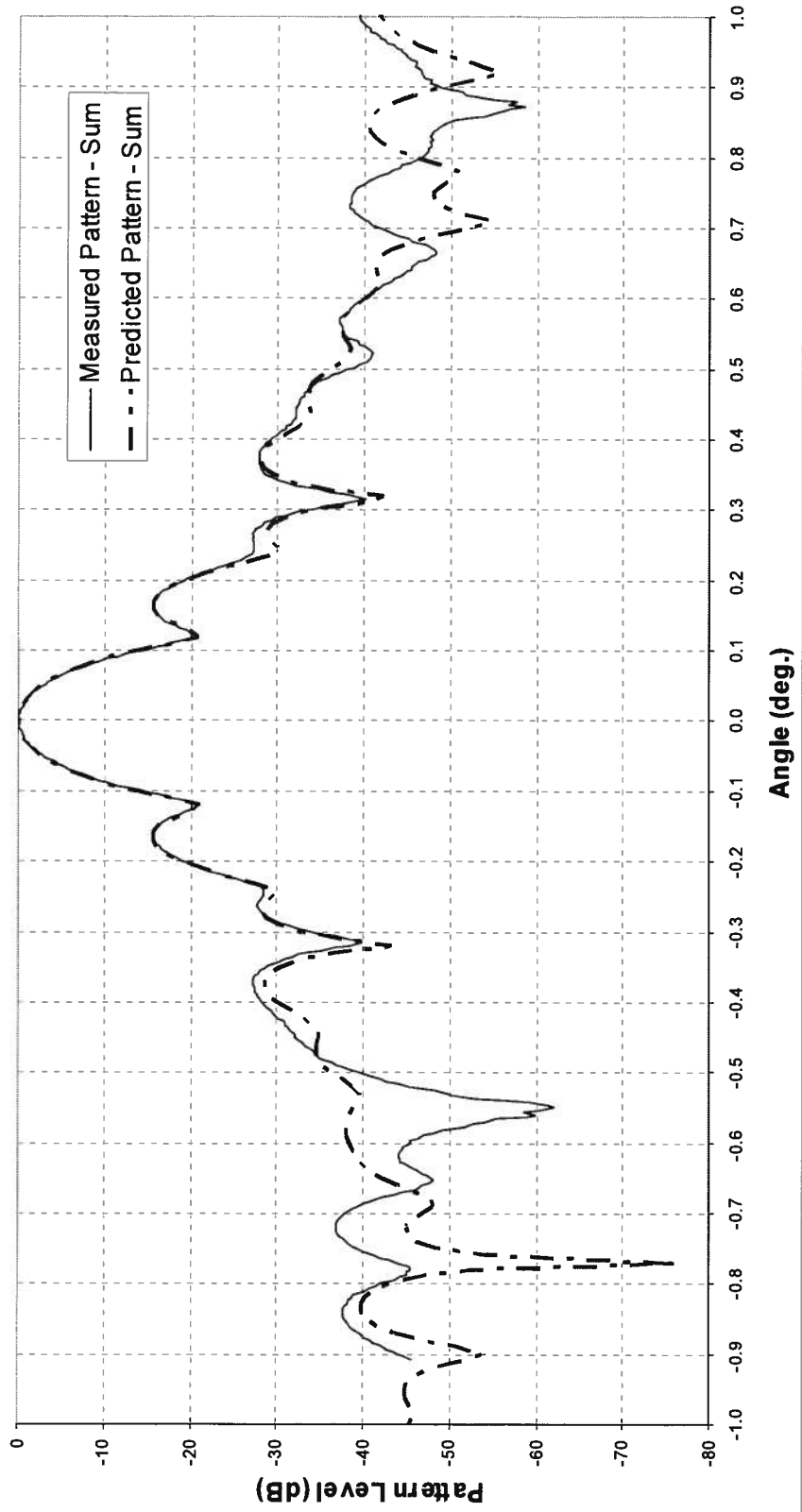


**Figure 18**  
**29.350 GHz, Elevation,  $\pm 10^\circ$ . Meas. Co-pol. (vs. pred.)**

Job: 1195 Antenna: 9.1m Comment: 5/22/06: Antenna focused at 29.35 GHz

**Measured Pattern vs. Predicted**

Freq: 19.700 GHz Plane: Azimuth Test port: RHCP-RX Meas. AUT Gain: 63.310 dBi Gain ref. point: 1:2 LNA Assy.Input

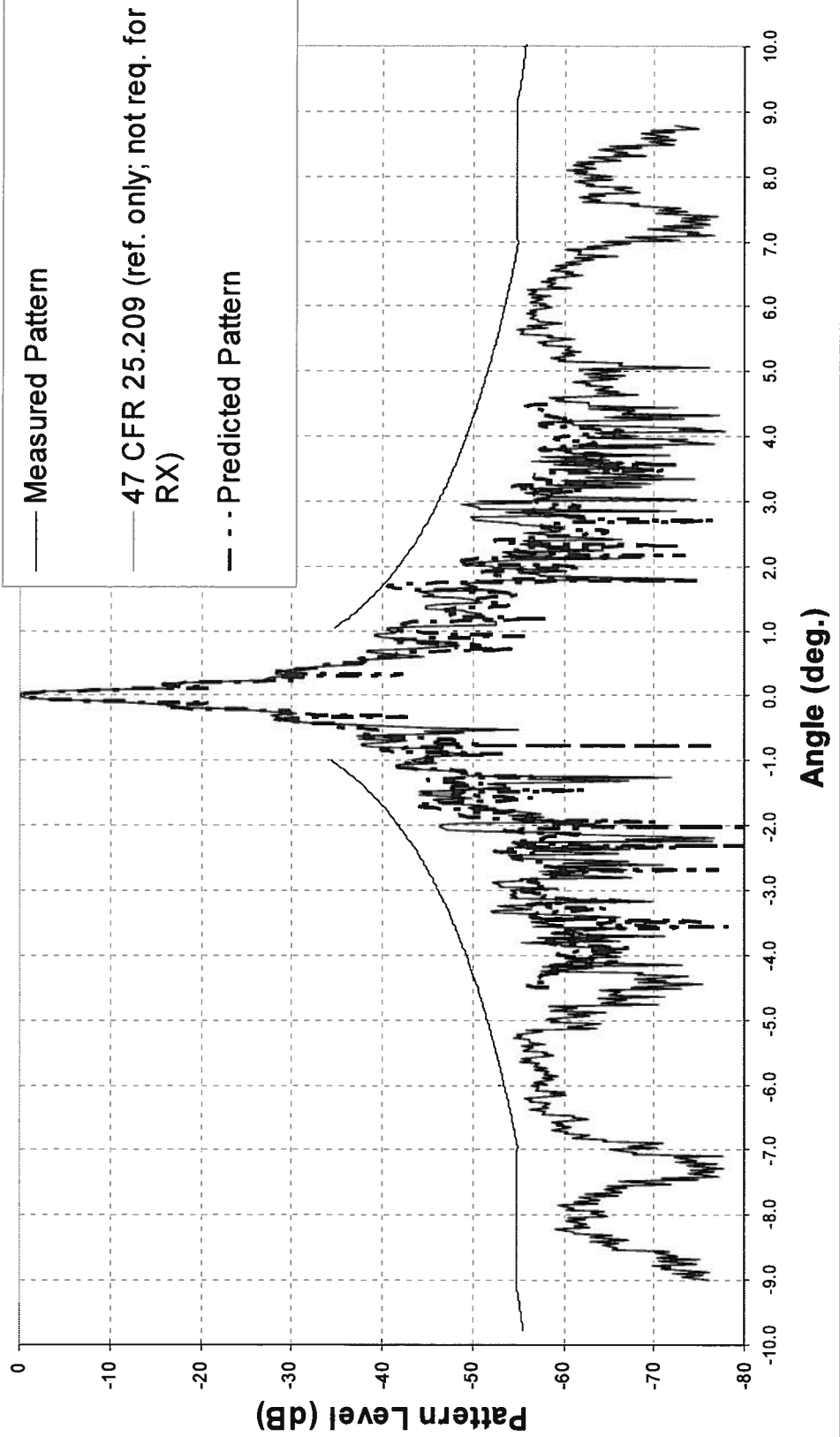


**Figure 19**  
**19.700 GHz, Azimuth, ±1°. Meas. Co-pol. (vs. pred.)**

Job: 1195 Antenna: 9.1m Comment: 5/22/06: Antenna focused at 29.35 GHz

### Measured Pattern vs. Predicted

Freq: 19.700 GHz Plane: Azimuth Test port: RHCP-RX Meas. AUT Gain: 63.370 dBi Gain ref.point: 1:2 LNA Assy. Input

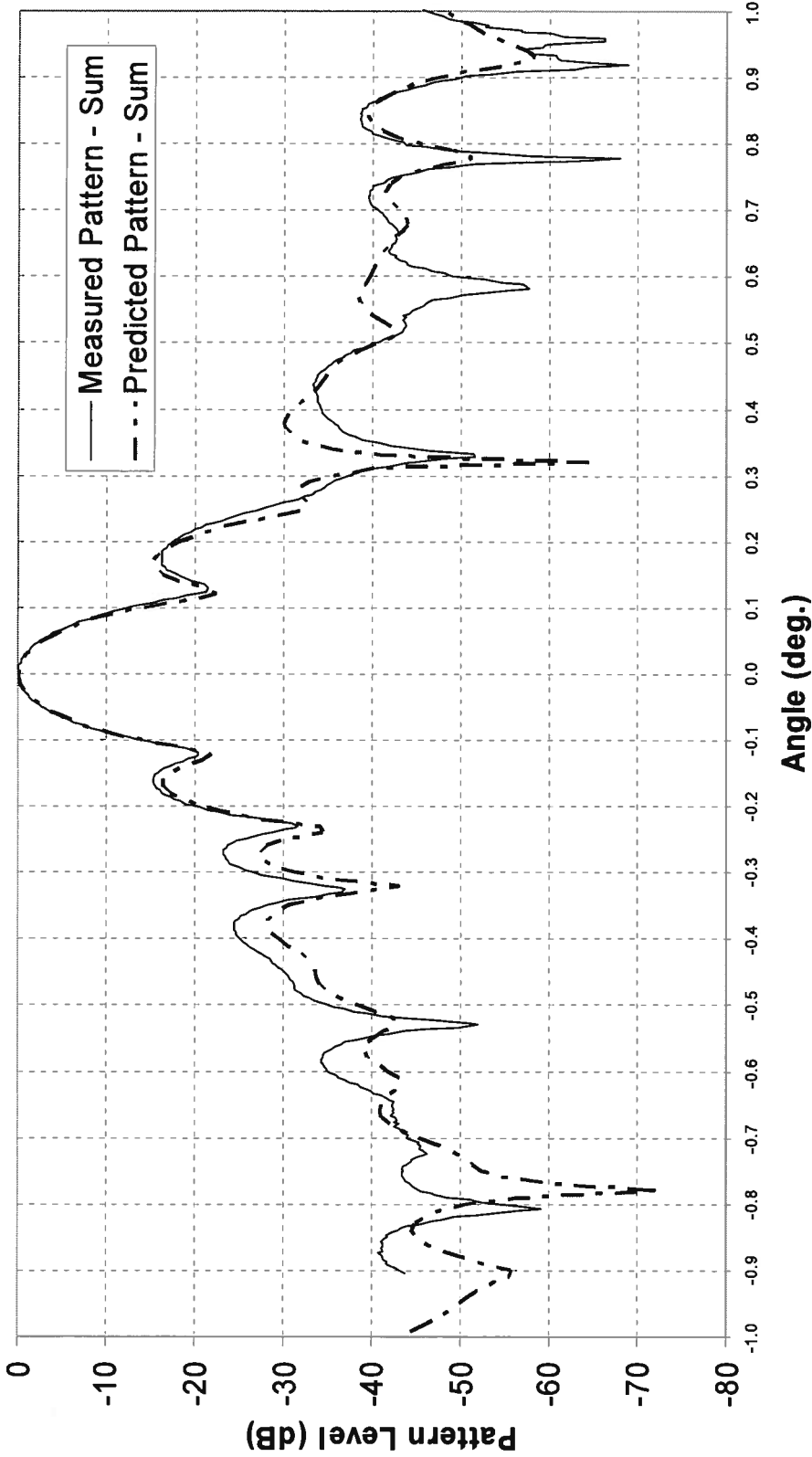


**Figure 20**  
**19.700 GHz, Azimuth,  $\pm 10^\circ$ . Meas. Co-pol. (vs. pred.)**

Job: 1195 Antenna: 9.1m Comment: 5/22/06: Antenna focused at 29.35 GHz

### Measured Pattern vs. Predicted

Freq: 19.700 GHz Plane: Elevation Test port: RHCP-RX Meas. AUT Gain: 63.310 dBi Gain ref. point: 1:2 LNA Assy.Input



**Figure 21**  
**19.700 GHz, Elevation,  $\pm 1^\circ$ . Meas. Co-pol. (vs. pred.)**

Job: 1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

### Measured Pattern vs. Predicted

Freq: 19.700 GHz Plane: Elevation Test port: RHCP-RX Meas. AUT Gain: 63.310 dBi Gain ref. point: 1:2 LNA Assy. Input

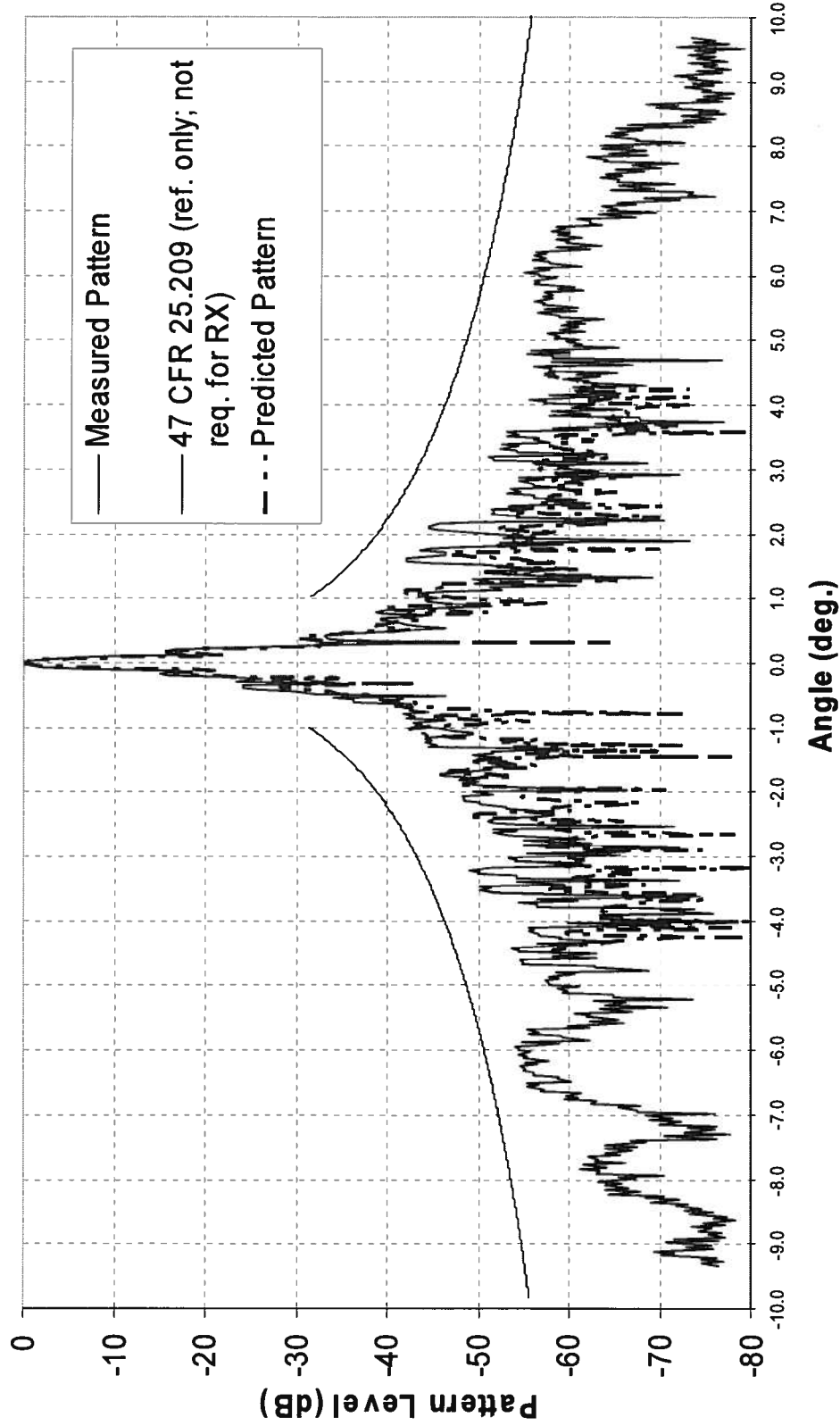


Figure 22  
19.700 GHz, Elevation,  $\pm 10^\circ$ . Meas. Co-pol. (vs. pred.)