

Rate Gyro Calibration

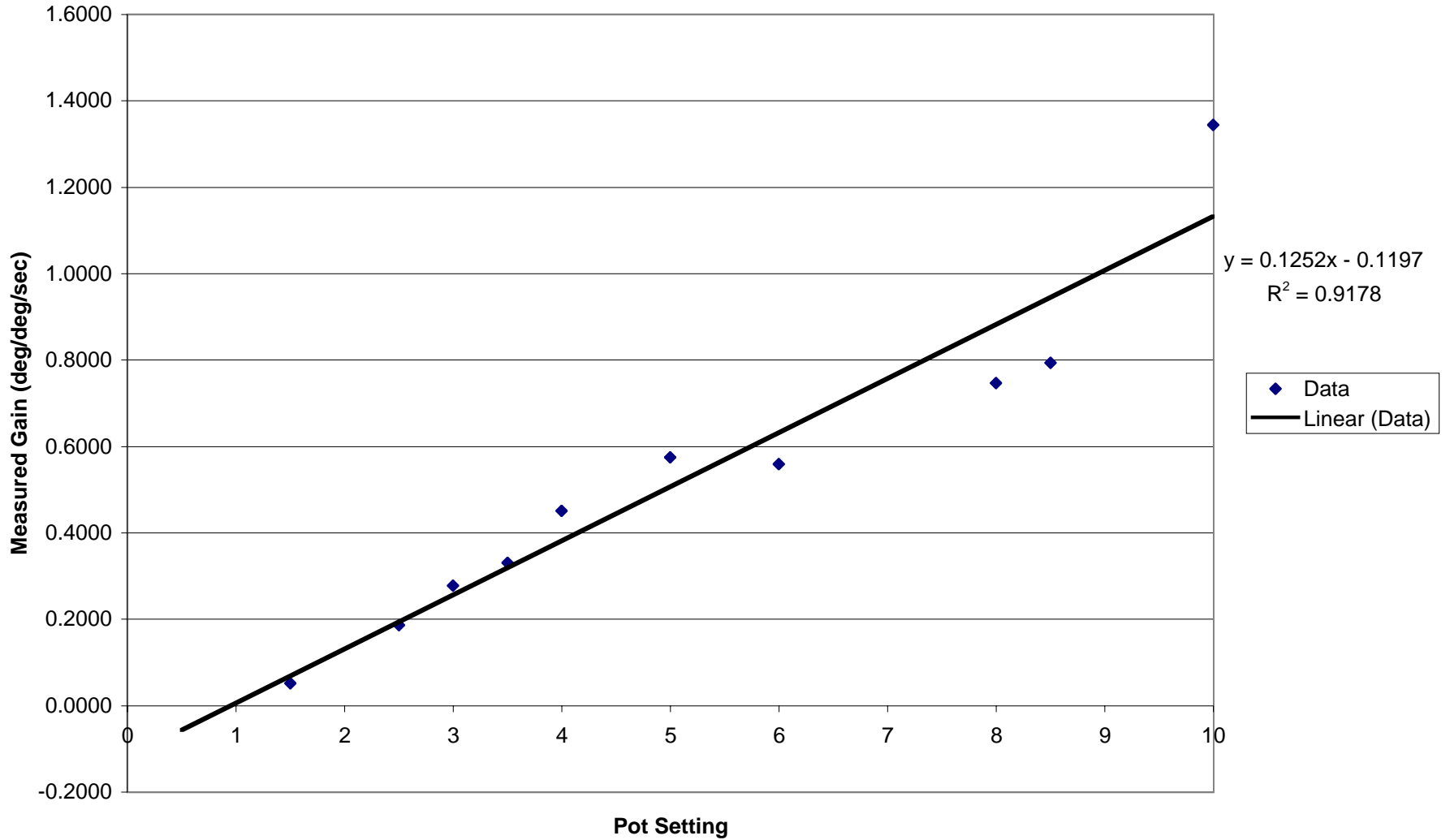
AirTronics SG-1 Rate Gyro

On the pages that follow are calibration curves for the Airtronics rate gyro. On the x-axis is a number from 0 to 10 indicating the dial setting on the #2 rate gyro gain potentiometer. On the y-axis is the rate gyro gain expressed in terms of servo rotational deflection (degrees) per angular rate (degrees per second).

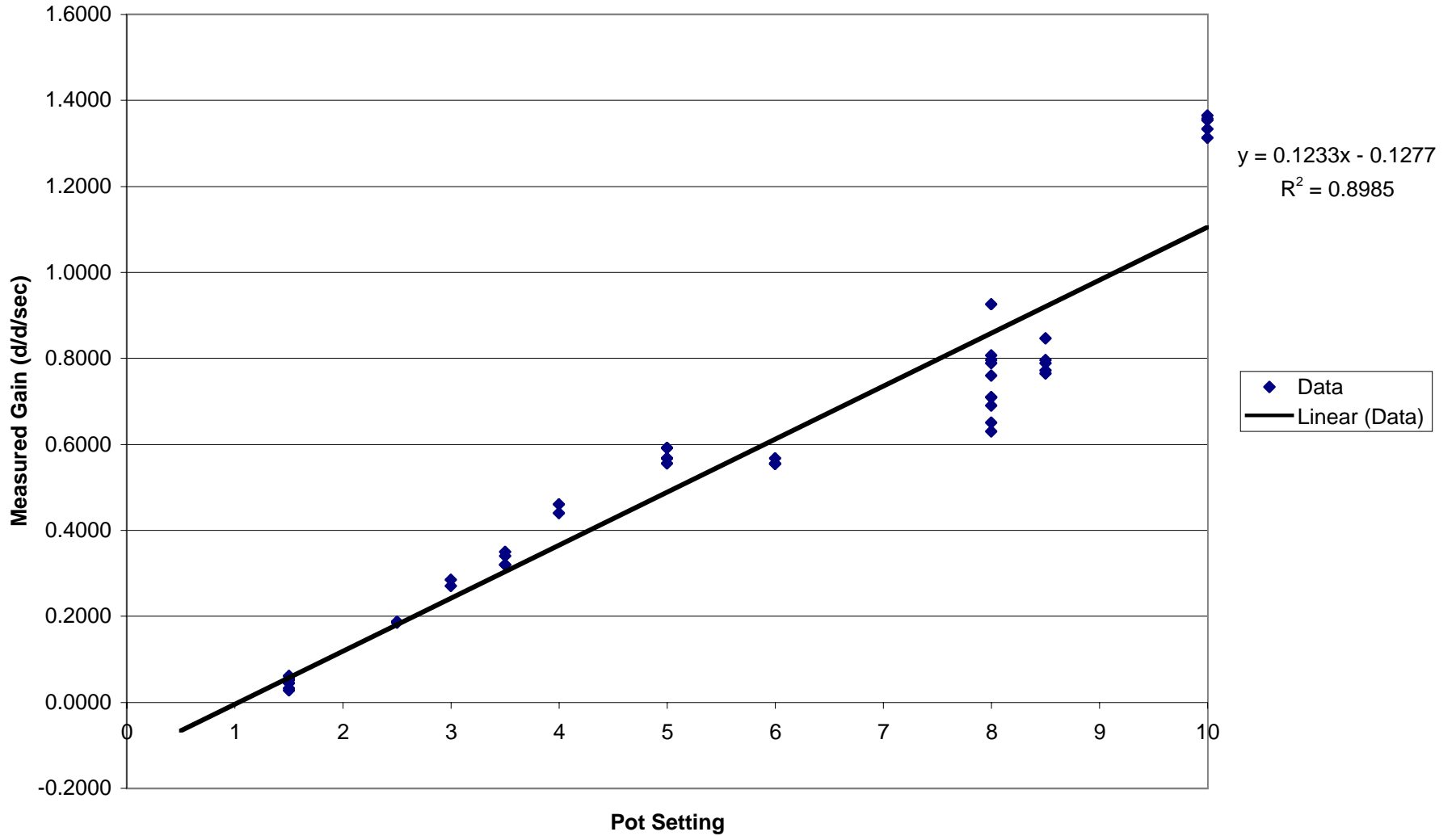
The #1 rate gyro gain potentiometer is always set to 0 and is used by the remote pilot to turn off the feedback action. The pilot does this by switching his landing gear switch on the transmitting box. If the gear switch is up, the #1 gain is selected (no feedback). If the gear switch is down, the #2 rate gyro gain potentiometer is selected.

Additional adjustment potentiometers on the AirTronics unit labeled L and R are set to maximum deflection.

SG1 Gyro-Pot Calibration Averaged Data



SG1 Gyro Pot Calibration Raw Data



Gyro Pot Calibration Data
11/19/00

Averaged Data

Pot Setting	Measured Gain
1.5	0.0515
2.5	0.1860
3	0.2770
3.5	0.3300
4	0.4500
5	0.5744
6	0.5585
8	0.7463
8.5	0.7929
10	1.3440

Raw Data

Pot Setting	Measured Gain
1.5	0.0510
1.5	0.0273
1.5	0.0530
1.5	0.0550
1.5	0.0440
1.5	0.0320
1.5	0.0610
2.5	0.1850
2.5	0.1870
4	0.4600
4	0.4400
3	0.2700
3	0.2840
3.5	0.3500
3.5	0.3400
3.5	0.3200
3.5	0.3200
5	0.5910
5	0.5674
5	0.5550
5	0.5674
5	0.5910
6	0.5670
6	0.5550
6	0.5535
8	0.9250
8	0.8059
8	0.7090
8	0.7090
8	0.7960
8	0.6900
8	0.7600
8	0.6500
8	0.7880
8	0.6300
8.5	0.8460
8.5	0.7710
8.5	0.7957
8.5	0.7638
8.5	0.7880
10	1.3330
10	1.3640
10	1.3540
10	1.3130
10	1.3570