
Descriptive Statistics

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\END.DBF

Variable Name is AREA

N	= 44	Missing or Deleted	= 0
Mean	= 9.57955	St. Dev (n-1)	= 21.6253
Median	= 2.50	St. Dev (n)	= 21.37814
Minimum	= 0.25	S.E.M.	= 3.26014
Maximum	= 121.00	Variance	= 467.65341
Sum	= 421.50	Coef. Var.	= 2.25744

Percentiles:

0.0%	= 0.25	Minimum
0.5%	= 0.25	
2.5%	= 0.25	
10.0%	= 0.25	
25.0%	= 1.00	Quartile
50.0%	= 2.50	Median
75.0%	= 7.4375	Quartile
90.0%	= 24.75	
97.5%	= 115.0313	
99.5%	= 121.00	
100.0%	= 121.00	Maximum

Tukey Five Number Summary:

Minimum	= 0.25
Fourth	= 1.00
Median	= 2.50
Fourth	= 7.375
Maximum	= 121.00

Test for normality results:
D = .343 p <= 0.001

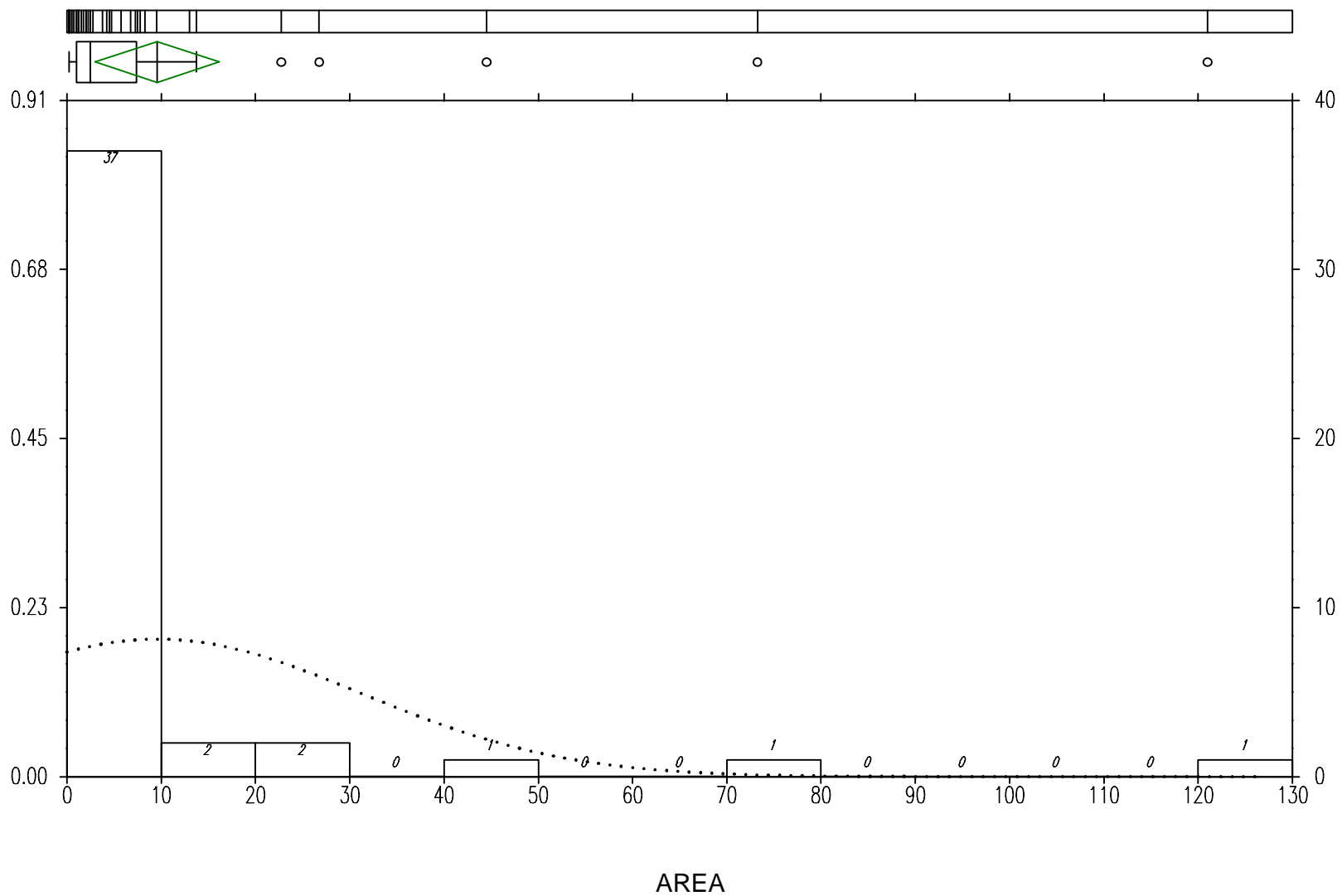
Five number summary was calculated using the technique from UNDERSTANDING ROBUST AND EXPLORATORY DATA ANALYSIS by Hoaglin, Mosteller And Tukey. See complete reference in WINKS manual.

Confidence Intervals about the mean:

80 % C.I. based on a t(43) critical value of 1.31 is (5.30877, 13.85032)
90 % C.I. based on a t(43) critical value of 1.69 is (4.06992, 15.08918)
95 % C.I. based on a t(43) critical value of 2.02 is (2.99407, 16.16502)
98 % C.I. based on a t(43) critical value of 2.42 is (1.69002, 17.46907)
99 % C.I. based on a t(43) critical value of 2.7 is (0.77718, 18.38191)

The normality test suggests that the data are not normally distributed. The test for normality is a modified Kolmogorov-Smirnov test based on papers by Lilliefors and Dallal & Wilkinson. References in latenews.txt.

Endicott Horizon – Closure Areas



Descriptive Statistics

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\END.DBF

Variable Name is HEIGHT

N	= 44	Missing or Deleted	= 0
Mean	= 111.56591	St. Dev (n-1)	= 148.37901
Median	= 65.75	St. Dev (n)	= 146.68319
Minimum	= 3.20	S.E.M.	= 22.36898
Maximum	= 702.00	Variance	= 22016.33064
Sum	= 4908.90002	Coef. Var.	= 1.32997

Percentiles:

0.0%	= 3.20	Minimum
0.5%	= 3.20	
2.5%	= 3.275	
10.0%	= 7.70	
25.0%	= 14.725	Quartile
50.0%	= 65.75	Median
75.0%	= 149.75	Quartile
90.0%	= 286.85	
97.5%	= 689.4751	
99.5%	= 702.00	
100.0%	= 702.00	Maximum

Tukey Five Number Summary:

Minimum	= 3.20
Fourth	= 15.55
Median	= 65.75
Fourth	= 149.70
Maximum	= 702.00

Test for normality results:
D = .233 p <= 0.001

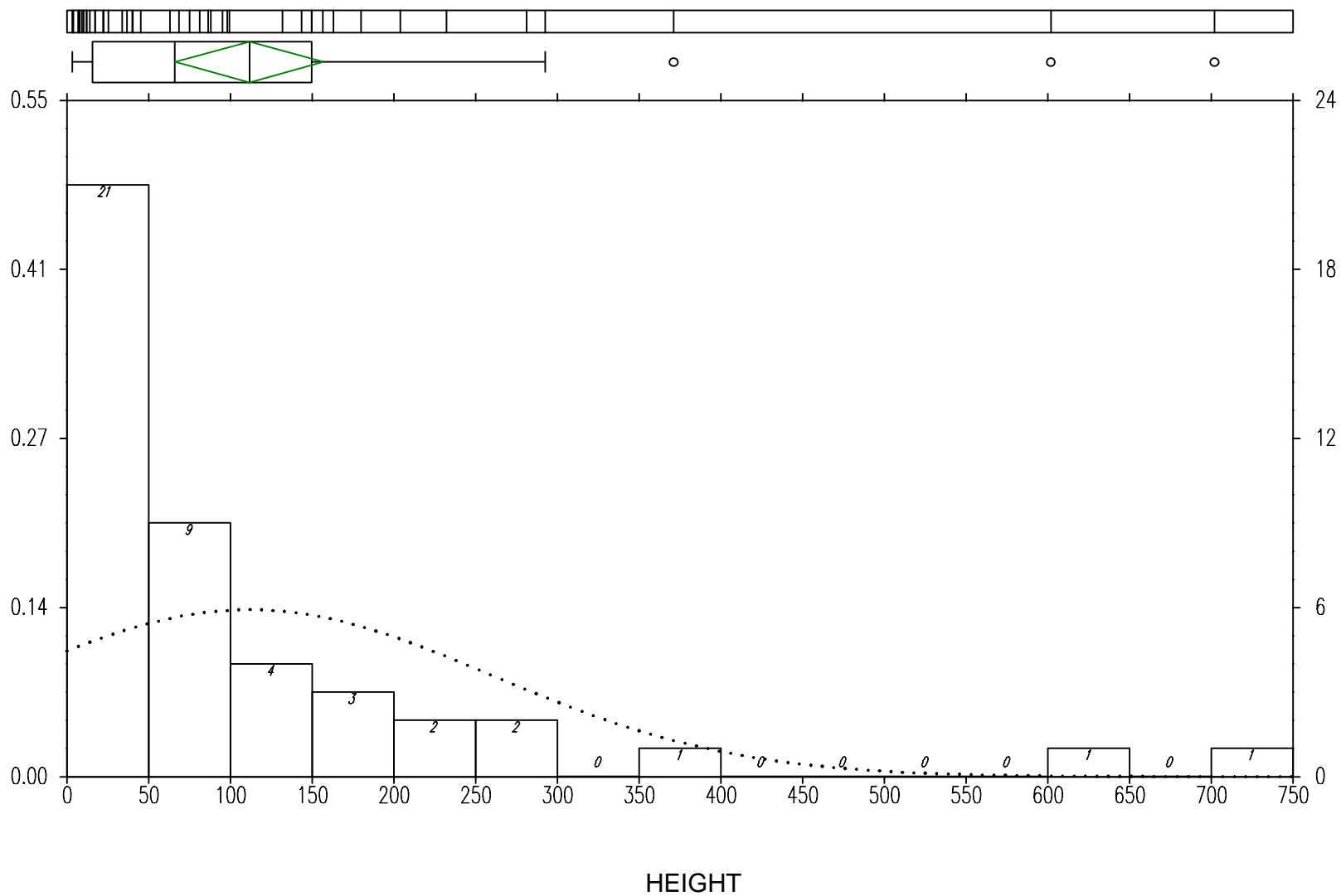
Five number summary was calculated using the technique from UNDERSTANDING ROBUST AND EXPLORATORY DATA ANALYSIS by Hoaglin, Mosteller And Tukey. See complete reference in WINKS manual.

Confidence Intervals about the mean:

80 % C.I.	based on a t(43) critical value of 1.31 is (82.26255, 140.86927)
90 % C.I.	based on a t(43) critical value of 1.69 is (73.76234, 149.36948)
95 % C.I.	based on a t(43) critical value of 2.02 is (66.38058, 156.75124)
98 % C.I.	based on a t(43) critical value of 2.42 is (57.43298, 165.69883)
99 % C.I.	based on a t(43) critical value of 2.7 is (51.16967, 171.96215)

The normality test suggests that the data are not normally distributed. The test for normality is a modified Kolmogorov-Smirnov test based on papers by Lilliefors and Dallal & Wilkinson. References in latenews.txt.

Endicott - Closure Heights



 Linear Regression and Correlation

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\END.DBF

Dependent variable is HEIGHT, 1 independent variables, 44 cases.

Variable	Coefficient	St. Error	t-value	p(2 tail)
Intercept	62.082848	16.324956	3.8029412	<.001
AREA	5.1654916	.6968638	7.4124841	<.001

R-Square = 0.5668 Adjusted R-Square = 0.5564

Analysis of Variance to Test Regression Relation

Source	Sum of Sqs	df	Mean Sq	F	p-value
Regression	536557.02	1	536557.02	54.94492	<.001
Error	410145.2	42	9765.3618		
Total	946702.22	43			

A low p-value suggests that the dependent variable HEIGHT may be linearly related to independent variable(s).

MEAN X =	9.58	S.D. X =	21.625	CORR XSS =	20109.1
MEAN Y =	111.566	S.D. Y =	148.379	CORR YSS =	946702.3
REGRESSION MS=	536557.021	RESIDUAL MS=	9765.362		

Pearson's r (Correlation Coefficient)= 0.7528

The linear regression equation is:

$$\text{HEIGHT} = 62.08285 + 5.165492 * \text{AREA}$$

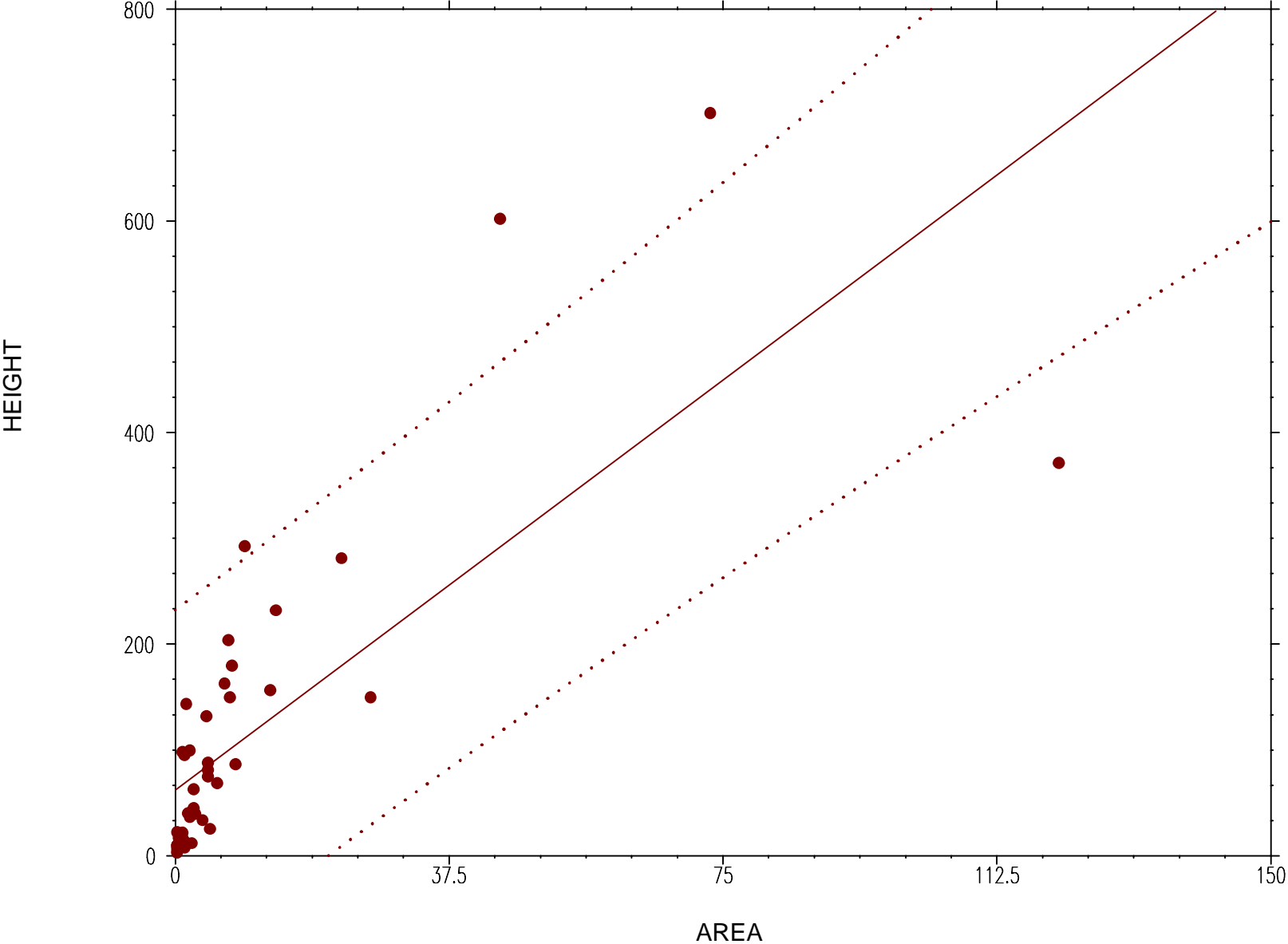
Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0 (two-tailed test)

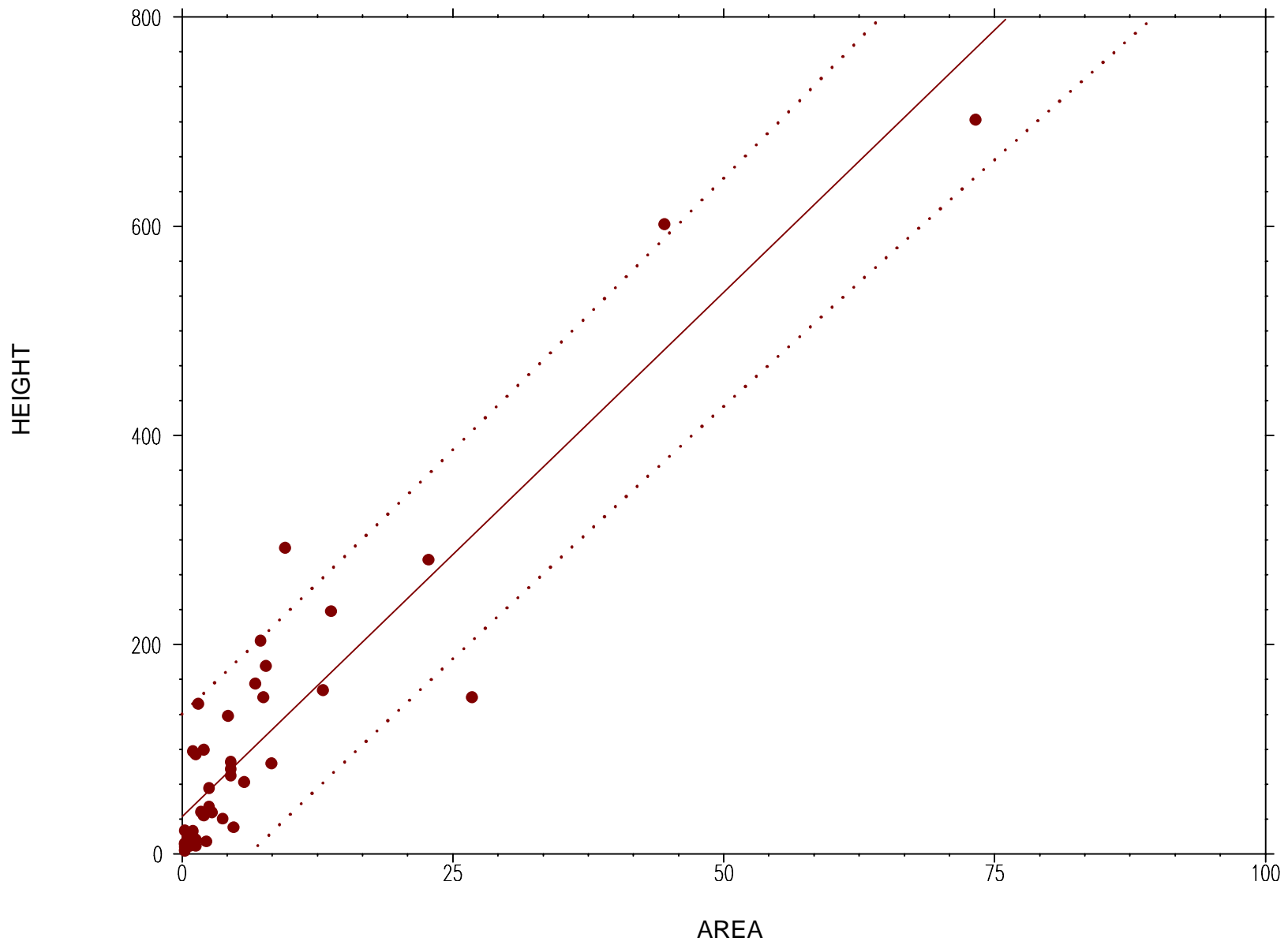
t = 7.41 with 42 degrees of freedom p <= .001

Note: A low p-value implies that the slope does not = 0.

Endicott - Area vs Height



Endicott – Area vs Height – one data point removed



Correlation Coefficients D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\END.DBF

Variables used : AREA and HEIGHT

Number of cases used: 44

Pearson's r (Correlations Coefficient) = 0.7528 R-Square = 0.5668

Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0

(Pearson's) t = 7.412484 with 42 d.f. p < 0.001
(A low p-value implies that the slope does not = 0.)

Spearman's Rank Correlation Coefficient = 0.8643

(Spearman's) t = 11.13486 with 42 d.f. p < 0.001

 Linear Regression and Correlation

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\END.DBF

Dependent variable is LOGHEIGHT, 1 independent variables, 44 cases.

Variable	Coefficient	St. Error	t-value	p(2 tail)
Intercept	3.1817412	.1206511	26.371426	<.001
LOGAREA	.7571151	.0651743	11.616771	<.001

R-Square = 0.7626 Adjusted R-Square = 0.757

Analysis of Variance to Test Regression Relation

Source	Sum of Sqs	df	Mean Sq	F	p-value
Regression	62.747518	1	62.747518	134.94936	<.001
Error	19.528776	42	.4649709		
Total	82.276294	43			

A low p-value suggests that the dependent variable LOGHEIGHT may be linearly related to independent variable(s).

MEAN X =	.969	S.D. X =	1.596	CORR XSS =	109.464
MEAN Y =	3.915	S.D. Y =	1.383	CORR YSS =	82.276
REGRESSION MS=	62.748	RESIDUAL MS=		.465	

Pearson's r (Correlation Coefficient)= 0.8733

The linear regression equation is:

$$\text{LOGHEIGHT} = 3.181741 + .7571151 * \text{LOGAREA}$$

Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0 (two-tailed test)

t = 11.62 with 42 degrees of freedom p <= .001

Note: A low p-value implies that the slope does not = 0.

Endicott - log area vs log height

