

Comparison of Anemometers  
 - Sep. 1945 -

Sat. Sep. 12 - 12 M.

Friez	295.9 mi.
Ferguson	582.9

Sat. Sep. 12 - 15 min. before sunset

Friez	321.65
Ferguson	597.35
Friez 25.75 mi.	} Ratio 1.782
Ferg. 14.45 mi.	

Sun. Sep. 13, 1 p.m.

Friez	373.35
Ferguson	627.7

Thunder storm brewing

For 26 hrs. - Sep. 12-13. Very light winds.

Friez 77.45	} Ratio 1.729
Ferg. 44.8	

at 3.098 m. per hr. (3)

Mon. Sep. 14, 12 p.m.

Friez	459.85
Ferguson	697.2

Heavy wind afternoon of Sunday  
 at 3 m. per hr. (3)

Friez 86.50 mi.	} Ratio 1.2446
Ferg. 69.5	

Monday, Sep. 14 - 2 p.m.

X Error?	Friez	480.18
	Ferguson	704.9
	Friez 20.83 mi. } at 10 mi. peak. Ferg. 7.7 mi. } Ratio 2.64	

Instruments reset for new test with single register.

Monday, Sep. 14, 5:00 p.m.

Friez	820.7
Ferguson	720.2

Tuesday, Sep. 15, ~~12:05~~ 12:05 p.m.

Friez	909.95
Ferguson	795.5

For 19 hours,

at 4.7 m. peak,

Friez 89.25	} Ratio is 1.185
Ferg. 75.3	

Tuesday, Sep. 15, 2:40 p.m.

X	Friez	939.4
	Ferguson	824.1

Friez 29.45	} at 10.98 m. peak.
Ferg. 28.6	

Wed. Sep. 16, 12 M -

Friez  
Temp.

98.7 mi.  
964.2 mi.

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From 2:40 p.m. Tu. to 12 M. Wed -

Friez 147.3  
Temp. 140.1

at 7.098 mi. per hr.  
Ratio is 1.065

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From 12:05 p.m. Tu. to 12 M. Wed,

Friez 178.75  
Temp. 168.7

at 7.447 mi. per hr.  
Ratio is 1.059

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Thurs. Sep. 17, 12:10 p.m.

Friez  
Temp.

198.2  
65.1

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From 12 M. Wed. to 12:15 p.m. Thurs.

Friez 99.5 mi.  
Temp. 90.9 mi.

at 4.118 mi. per hr.  
Ratio is 1.094

Note - During 8 hrs. of 24 hrs. wind blew  
at rate of 6.4 mi. per hr.



During second 8 hrs. wind blew  
 at rate of approx. 2 mi. per hr.  
 Note } Therefore, possibly lower ratios than  
 expected because of higher rate of  
 wind during so long a period.

Provisional Table  
 for correcting Tengman Anemometer

3 mi.	Ratio	1.2446
* 3.098 "	"	1.729
4.118 "	"	1.094
4.7 "	"	1.185
7.008 "	"	1.065
7.447 "	"	1.059
10.98 "	"	1.03

* 2.1 mi.	Ratio	1.288
3.37 mi.	"	1.44

Friday, Sep. 18 - 12:20 p.m.,

Friez 273.2

Ferg. 123.6

From 12:10 p.m. Thurs. to 12:20 p.m. Fri.

Friez 75 mi.

Ferg. 58.5 mi.

At 3.1 mi. per hr.

Ratio is 1.288

Note -

First 12 hrs. velocity averaged  
4 mi. per hr. and first 8 hrs.  $5\frac{1}{2}$   
mi. per hr. Hence Ratio lower  
than for an evenly low wind of 3 mi.

Saturday, Sep. 19 - 12 M.

Friez 339.3

Ferg. 169.5

From 12:20 p.m. Fri. to 12 M. Sat.

Friez 66.1

Ferg. 45.9

At 3.37 mi. per hr.

Ratio is 1.44

Note -

Wind 5 mi. per hr. during  
first 4 hrs. Then low - calm for  
an hour at a time or 2 or 3 mi.  
per hr. Ratio therefore slightly  
higher than for previous 24 hrs.

## Wind Movement in Relation to Scale on Record Sheet

1 mm. on Sheet = ?

Tests - by Temp. Dial -

8 mm.	=	14.45 <sup>mi.</sup>	1 mm. = 1.8 mi.
14 mm.	=	30.35	" = 2.16
36 mm.	=	69.5	" = 1.93
3 mm.	=	7.7	" = 2.54
49 mm.	=	98.3	" = 2
85 mm.	=	168.7	" = 1.985
47 mm.	=	90.9	" = 1.93
27 mm.	=	58.5	" = 2.16
25 mm.	=	45.9	" = 1.83

The number of mm's covered by one revolution of cam is 49 rather than 50.8 or  $24\frac{1}{2}$  mm. on each leg of the movement. This will cause a slight error in computing wind movement from the record sheet.

Note - All readings should be reduced by Ratio table to U.S. anemometer standard.