Wind tunnel AER stats for 1-AU

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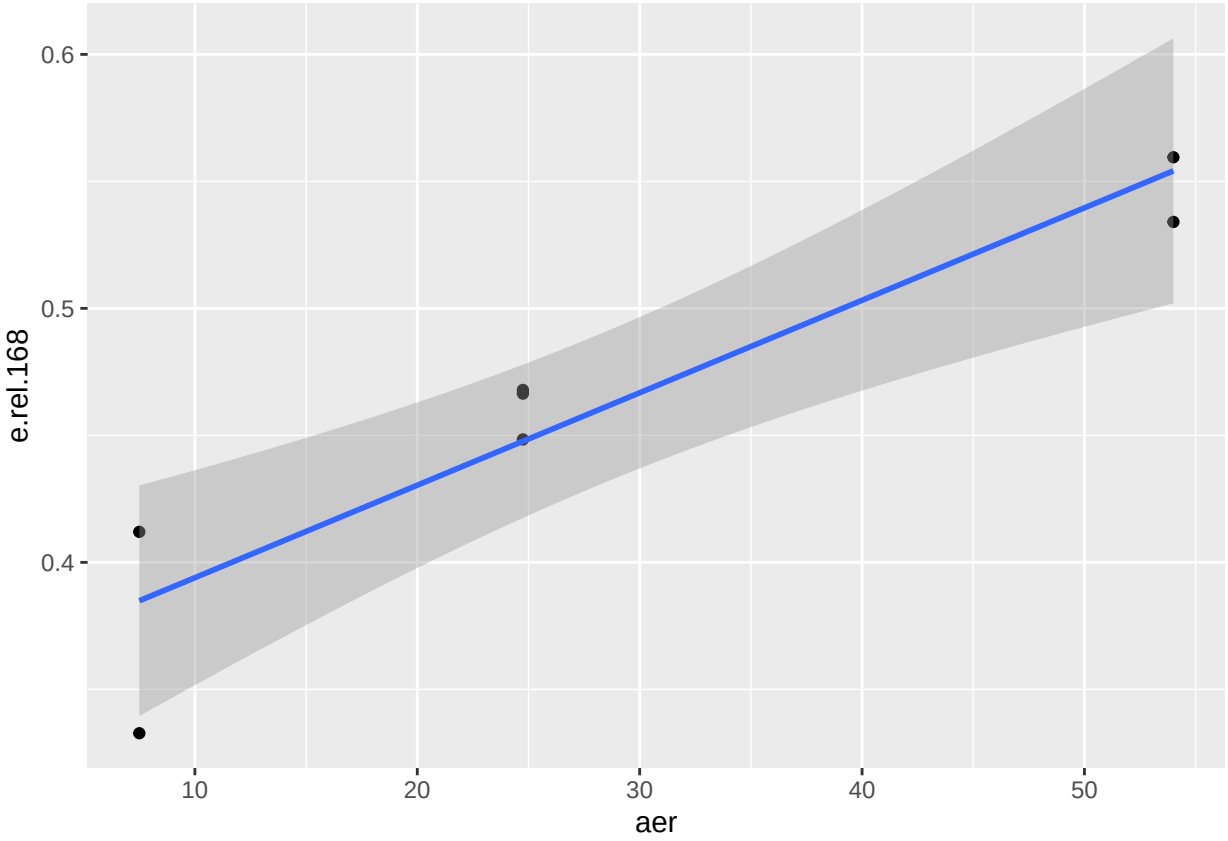
Take a look.

```
ggplot(pdat, aes(aer, e.rel.168)) +
  geom_point() + geom_smooth(method = lm)
```

```
## `geom_smooth()` using formula = 'y ~ x'
```



There is a clear response of emission to AER.

Apply linear model.

```
m1 <- lm(e.rel.168 ~ aer, data = pdat)
summary(m1)
```

```
##
## Call:
## lm(formula = e.rel.168 ~ aer, data = pdat)
##
```

```
## Residuals:
##          1          2          3          4          5          6          7
##  0.0271503  0.0187689  0.0007389 -0.0521397  0.0202189  0.0053564 -0.0200936
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 0.3575690  0.0215609  16.584 1.46e-05 ***
## aer         0.0036401  0.0006466   5.629  0.00245 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.0305 on 5 degrees of freedom
## Multiple R-squared:  0.8637, Adjusted R-squared:  0.8365
## F-statistic: 31.69 on 1 and 5 DF,  p-value: 0.002451
```

```
anova(m1)
```

```
## Analysis of Variance Table
##
## Response: e.rel.168
##           Df    Sum Sq   Mean Sq F value   Pr(>F)
## aer        1 0.0294680 0.0294680  31.688 0.002451 **
## Residuals  5 0.0046497 0.0009299
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
confint(m1)
```

```
##                   2.5 %      97.5 %
## (Intercept) 0.302144856 0.412993169
## aer         0.001977832 0.005302339
```

```
drop1(m1, test = 'F')
```

```
## Single term deletions
##
## Model:
## e.rel.168 ~ aer
##        Df Sum of Sq      RSS     AIC F value   Pr(>F)
## <none>              0.004650 -47.218
## aer     1  0.029468 0.034118 -35.267  31.688 0.002451 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

P = 0.0025 for AER effect.