

FIT TO DSR DATA

Construct reference, then fit to it

```
DSR <- DSR[DSR$TASX > 130, ]      # eliminate very slow measurements
DSR["AOAREF"] <- DSR$PITCH - (DSR$GGVSPD / DSR$TASX) * (180/pi)
FitSR <- lm (AOAREF ~ I(ADIFR/QCF), data=DSR, na.action=na.omit)
```

HERE IS THE RESULT SUMMARIZED FROM FitSR:

```
summary (FitSR)  ## try also anova(FitSR) -- analysis of variance
```

```
##
## Call:
## lm(formula = AOAREF ~ I(ADIFR/QCF), data = DSR, na.action = na.omit)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.50361 -0.06540  0.01884  0.07317  0.40743
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   4.396909   0.005641   779.5  <2e-16 ***
## I(ADIFR/QCF) 20.999847   0.068539   306.4  <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1204 on 1976 degrees of freedom
## Multiple R-squared:  0.9794, Adjusted R-squared:  0.9794
## F-statistic: 9.388e+04 on 1 and 1976 DF,  p-value: < 2.2e-16
```

Result: if $\text{RATIO} = \text{ADIFR} / \text{QCR}$,
 $\alpha = 4.397 + 21.00 * \text{RATIO}$
residual error 0.12°