

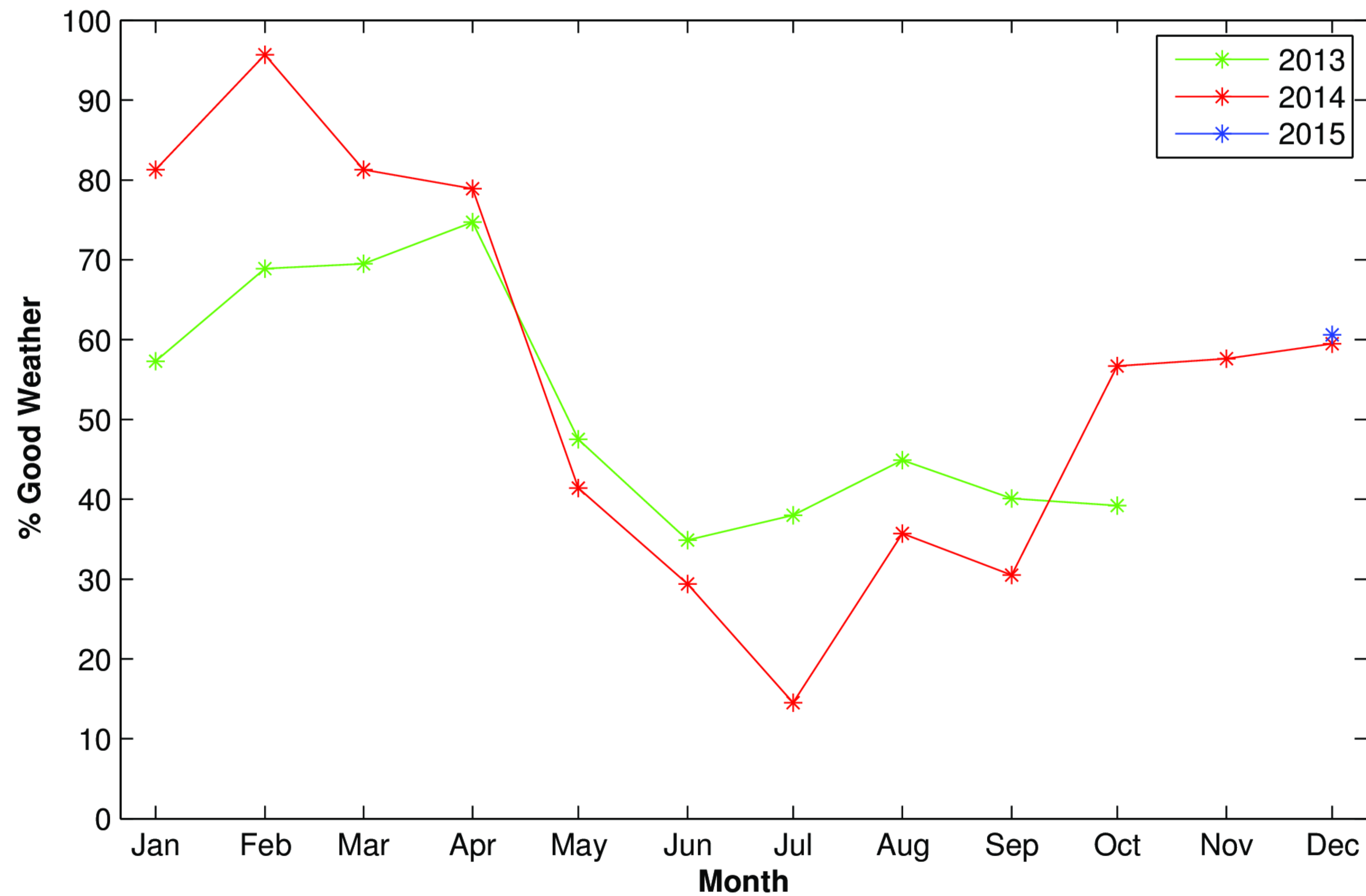
Two years of TIGRE:

weather, operations, efficiency...

José Nicolás González Pérez
Hamburger Sternwarte

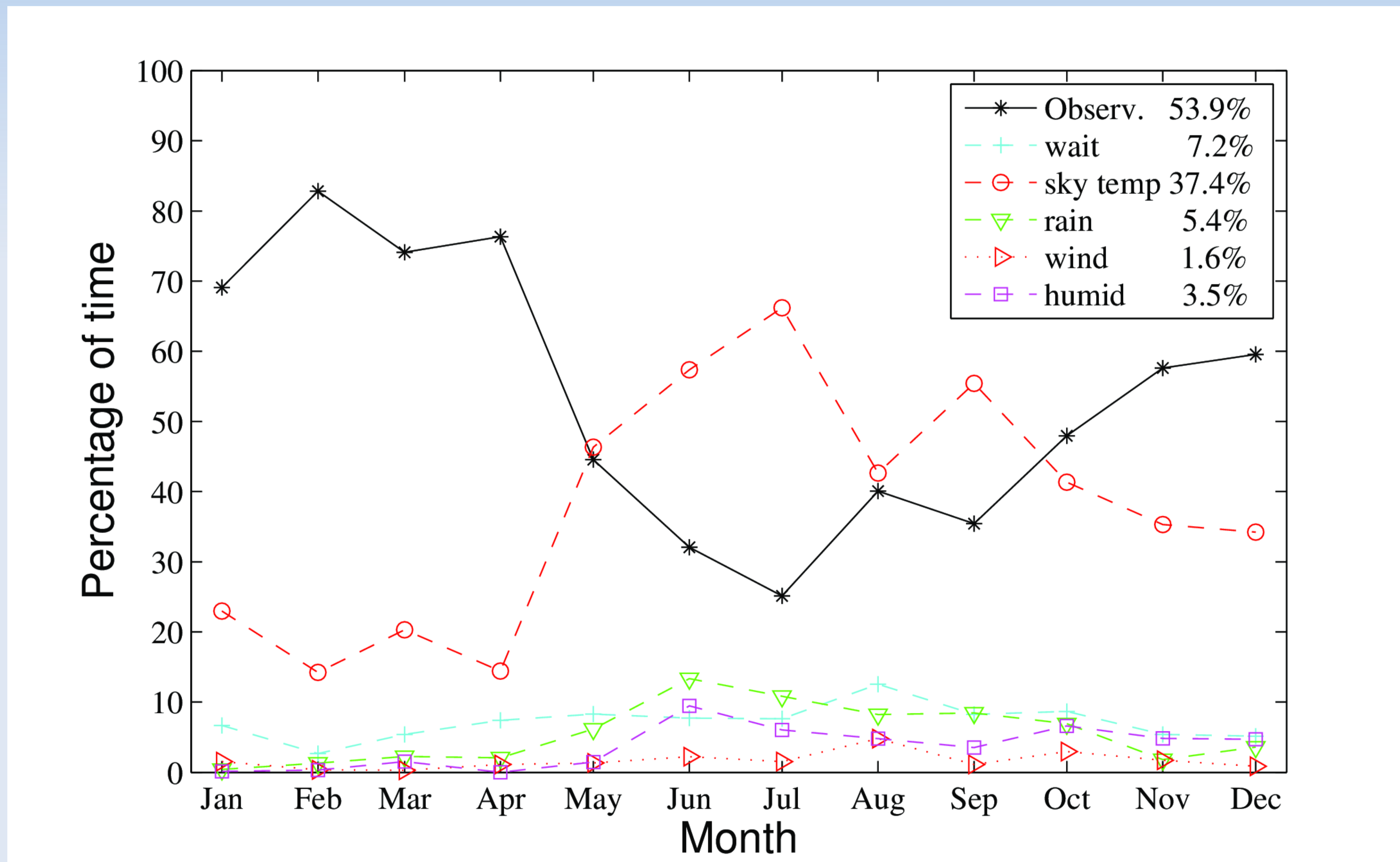
Weather

seasons



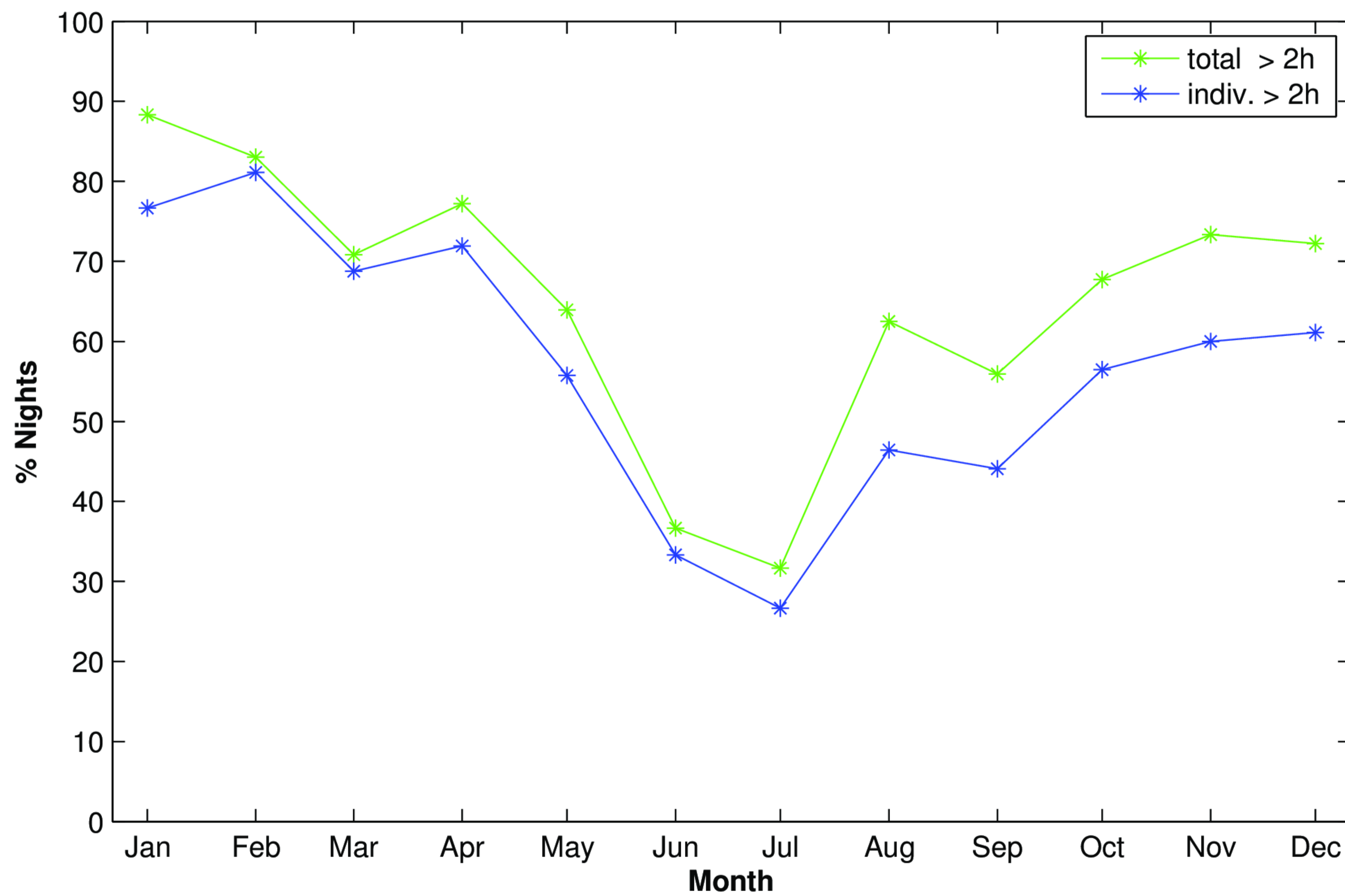
Weather

bad weather

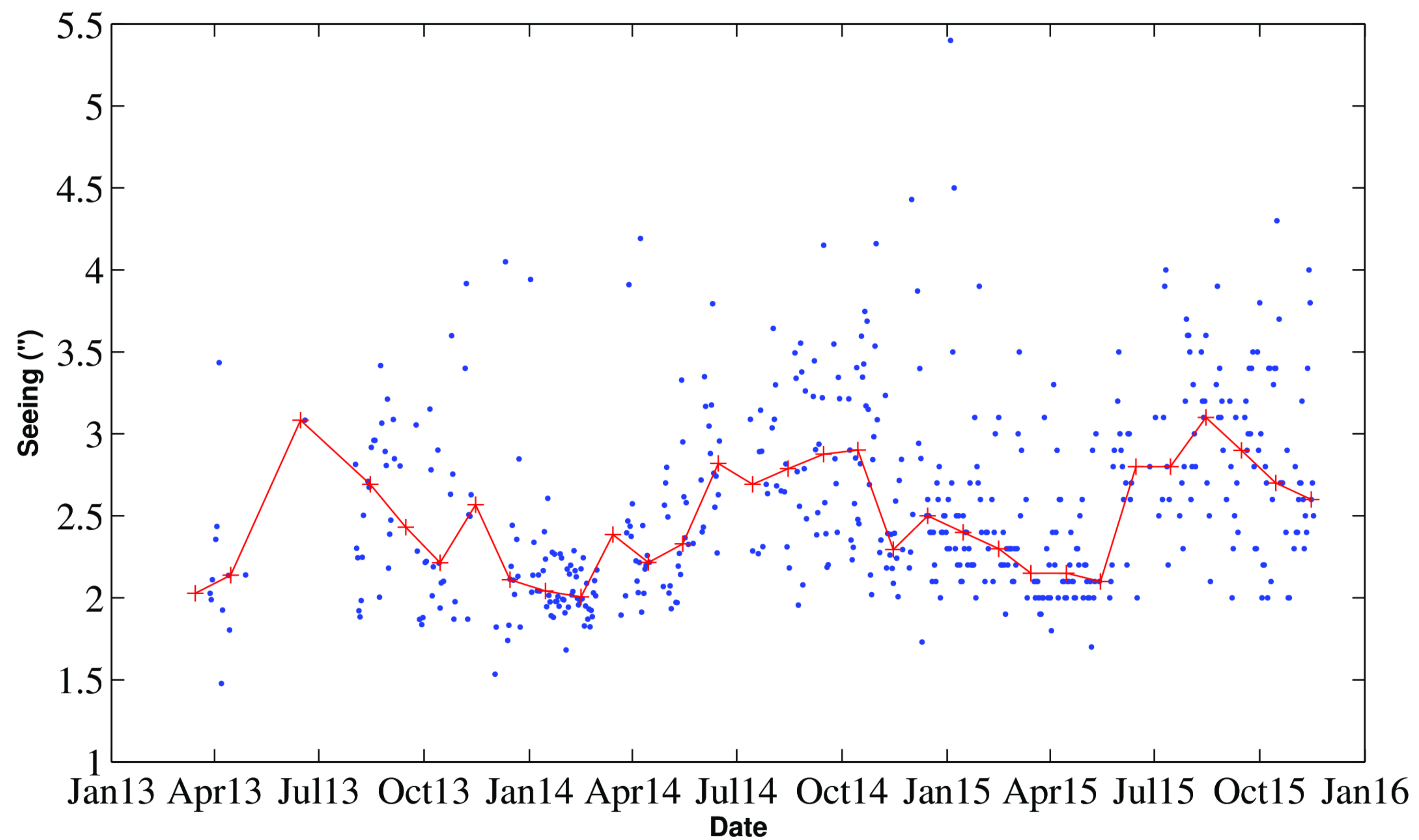


Weather

periods of good weather

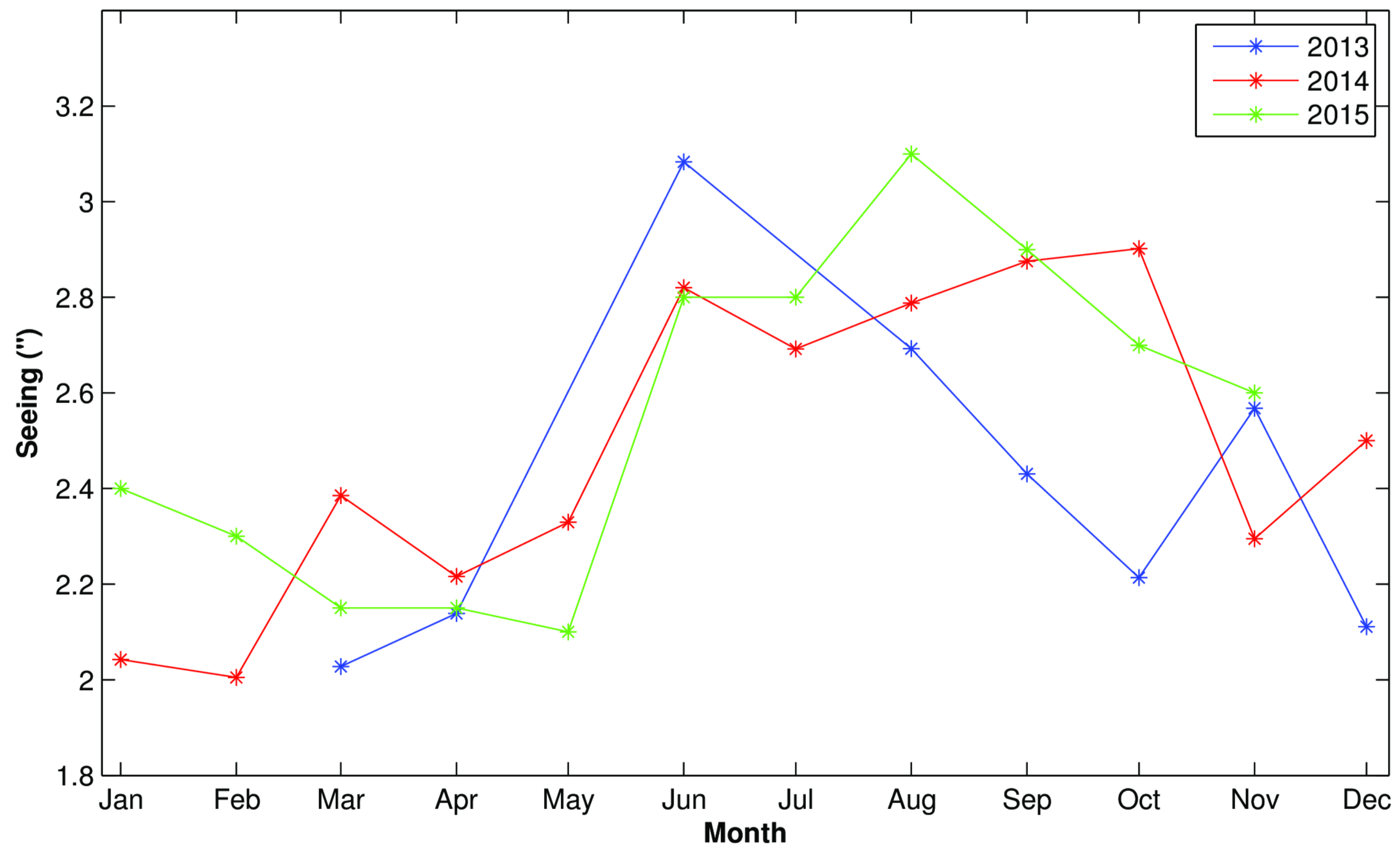


Seeing



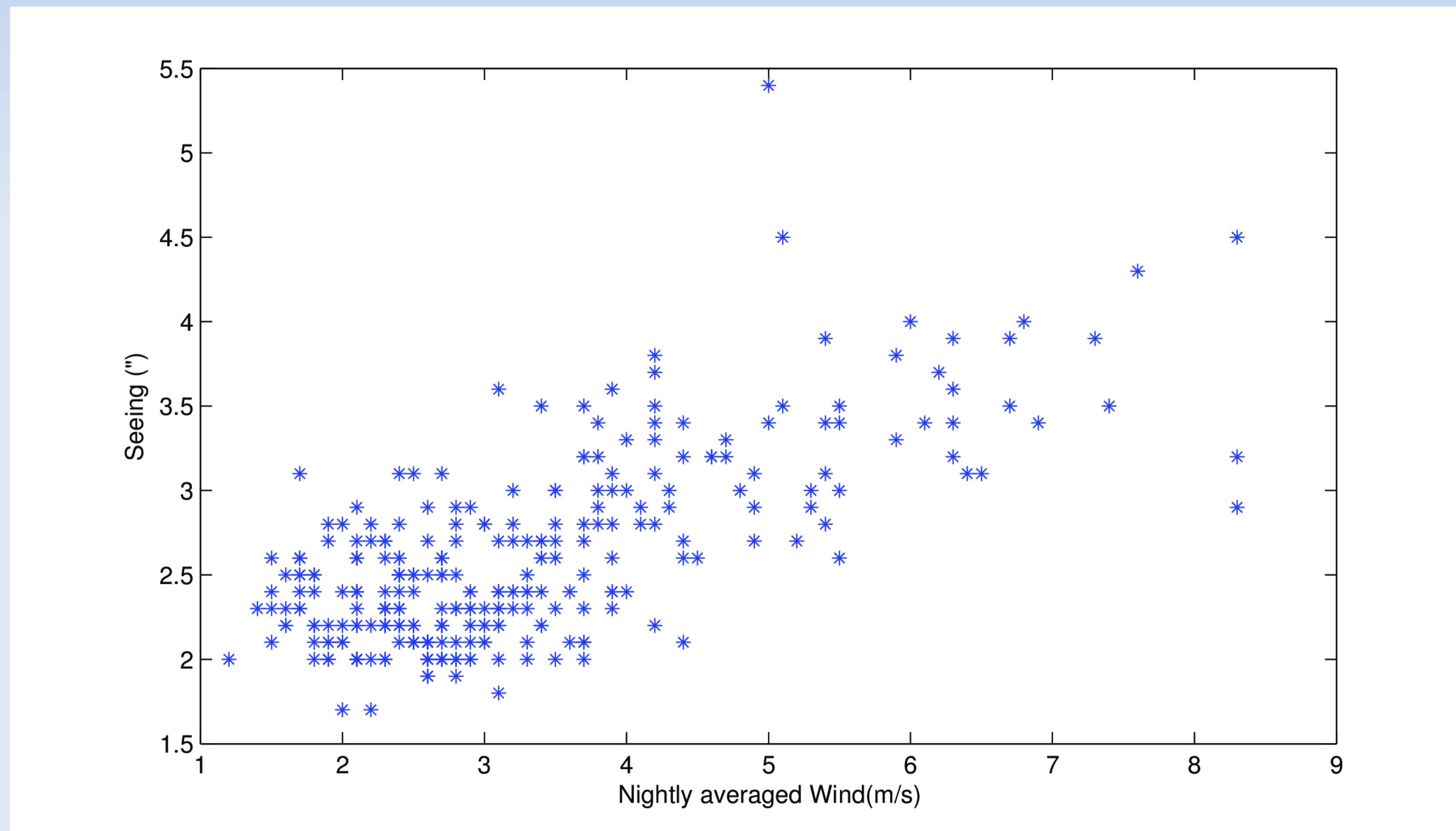
Seeing

monthly averages



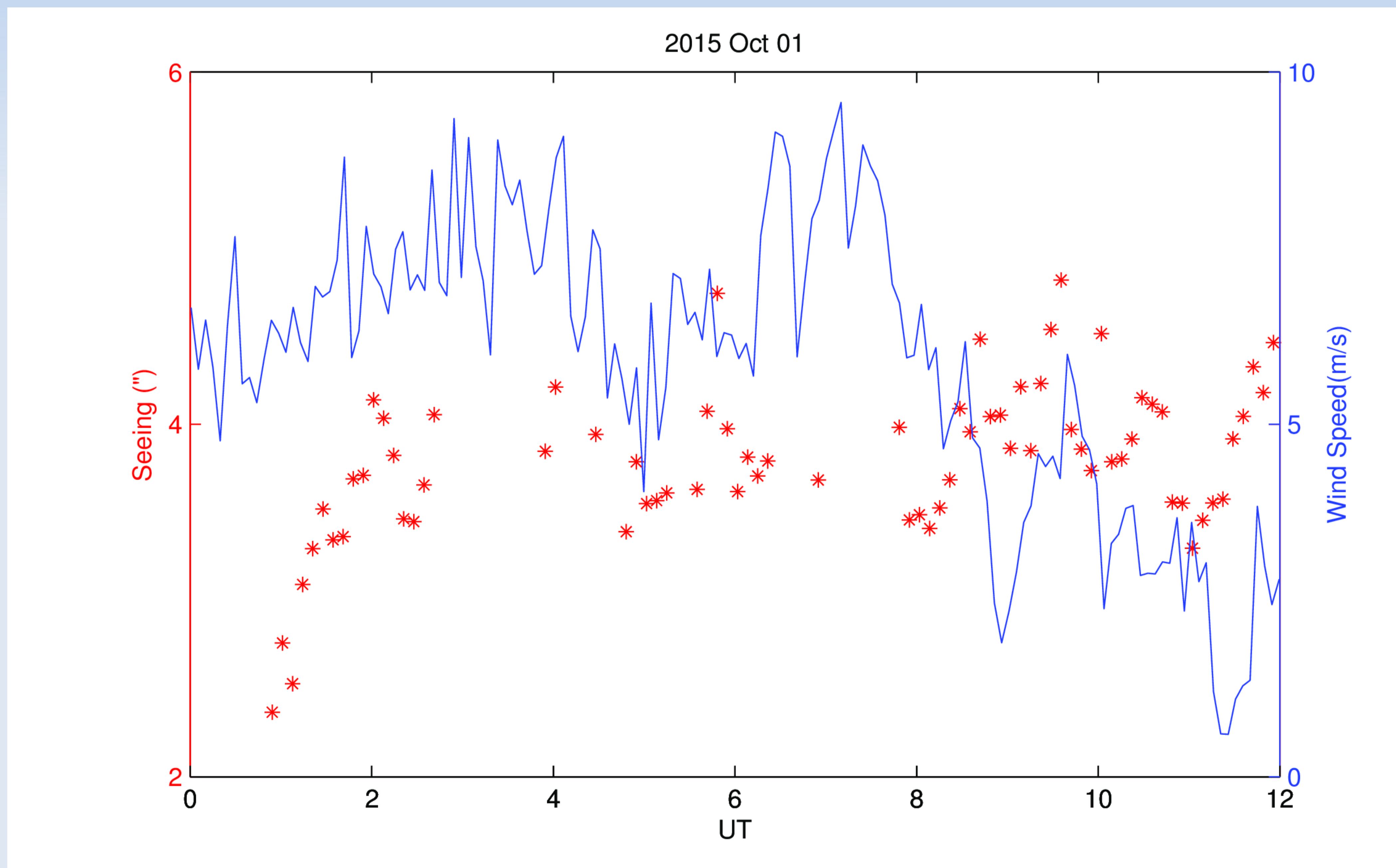
Seeing

relation between seeing and wind

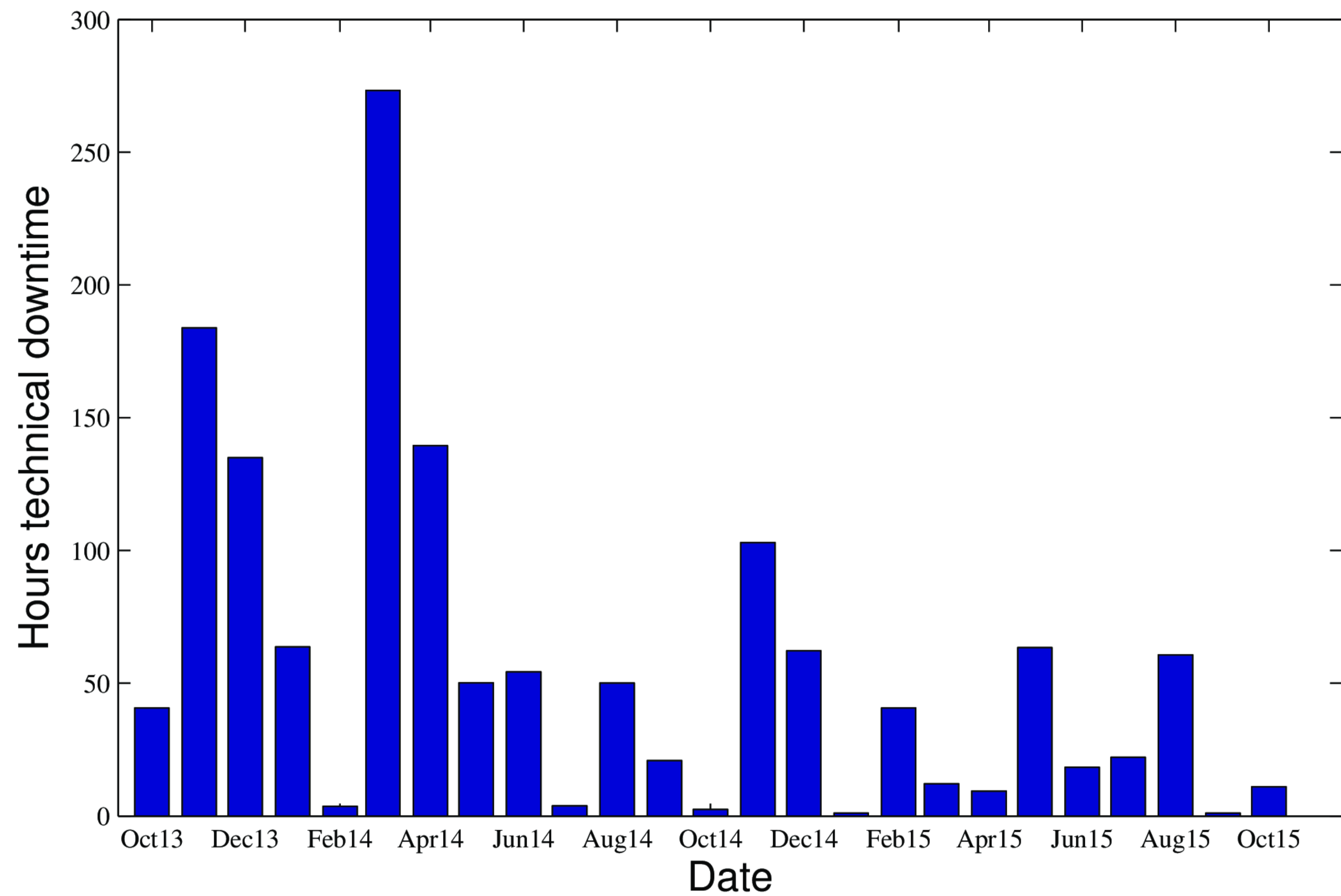


Seeing

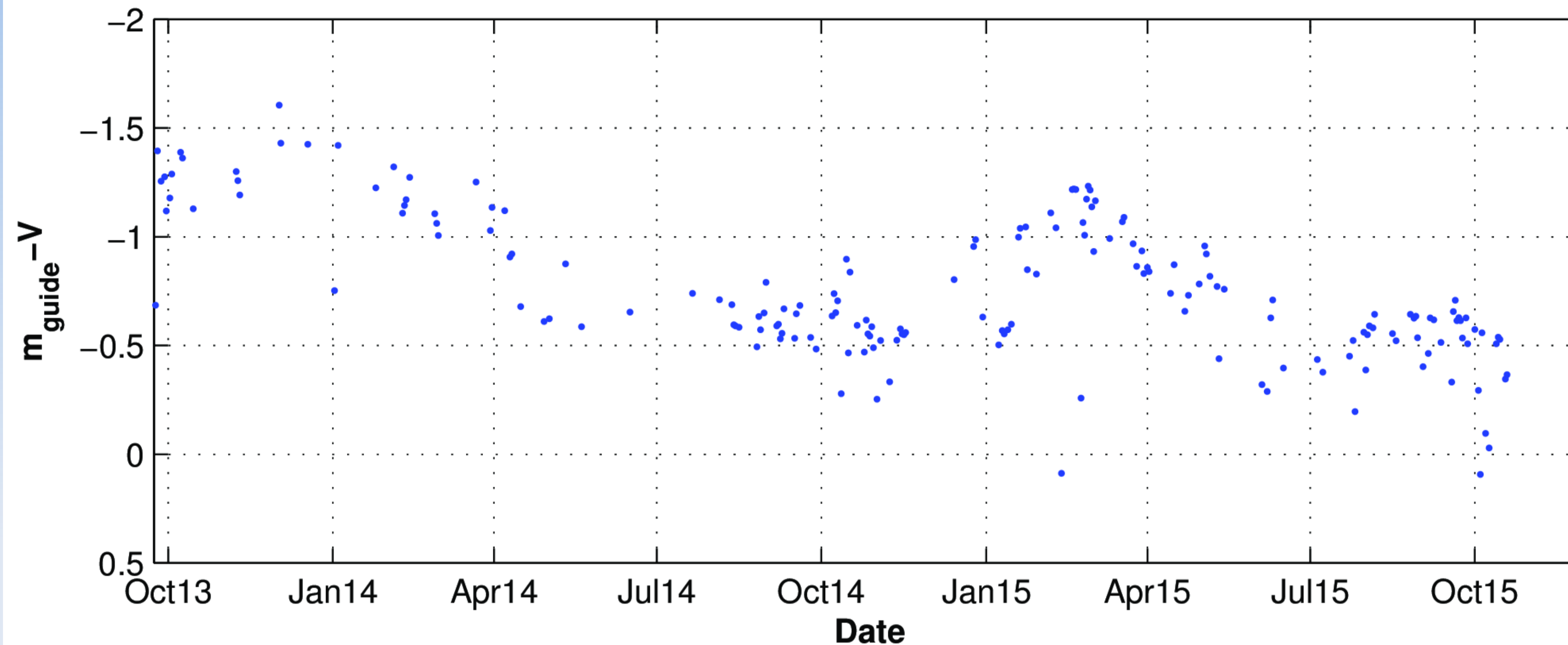
one windy night



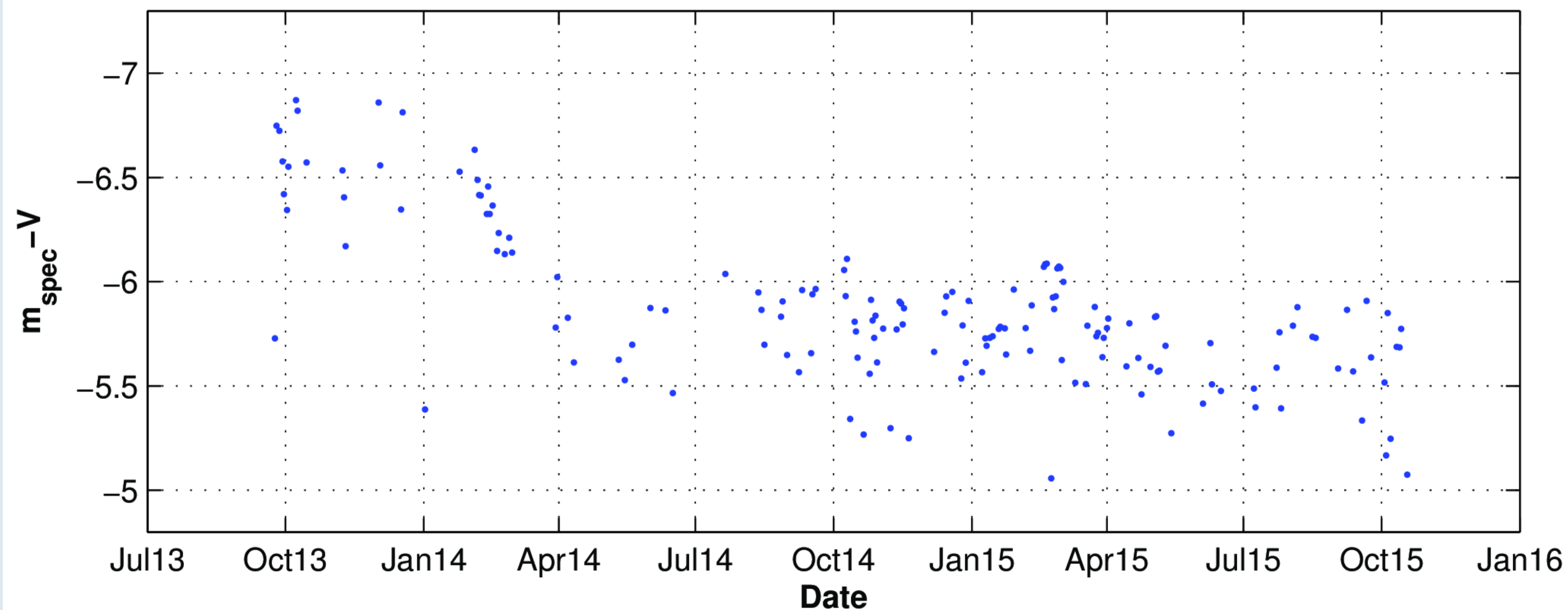
Technical Downtime



Optical efficiency



magnitude in the
guiding camera

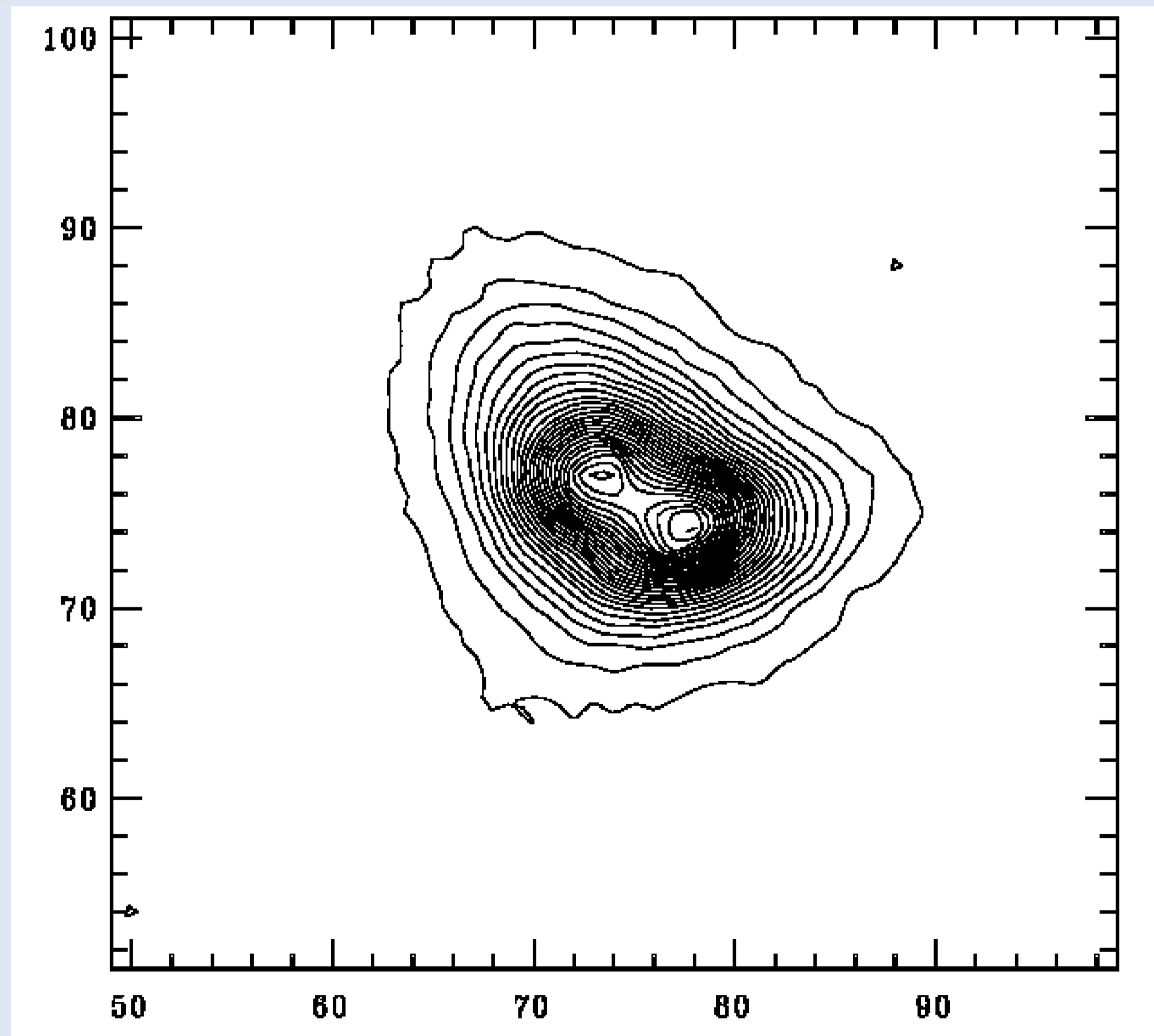


magnitude in the
spectrograph

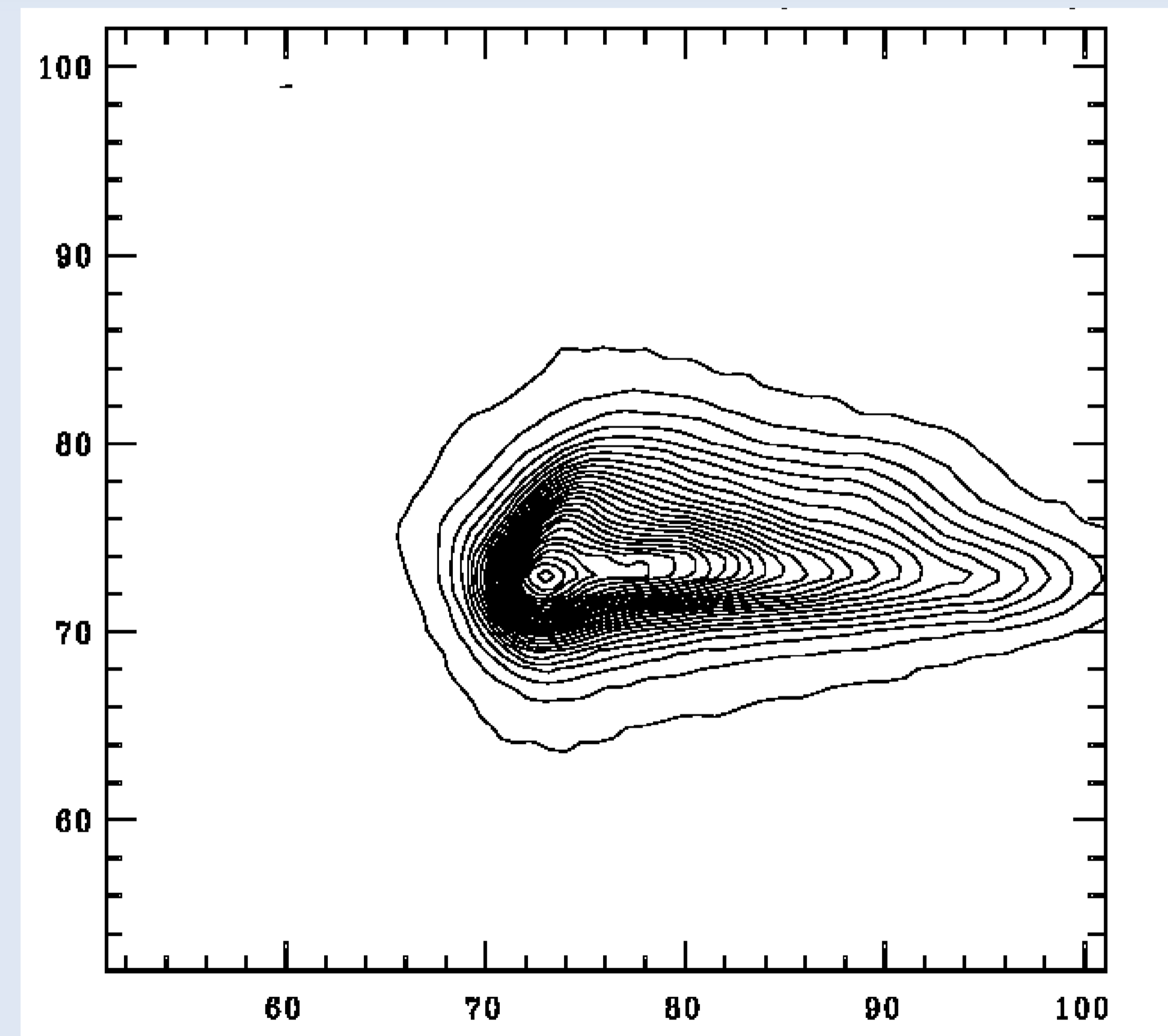
Optical efficiency

PSF

before March 2014



after March 2014



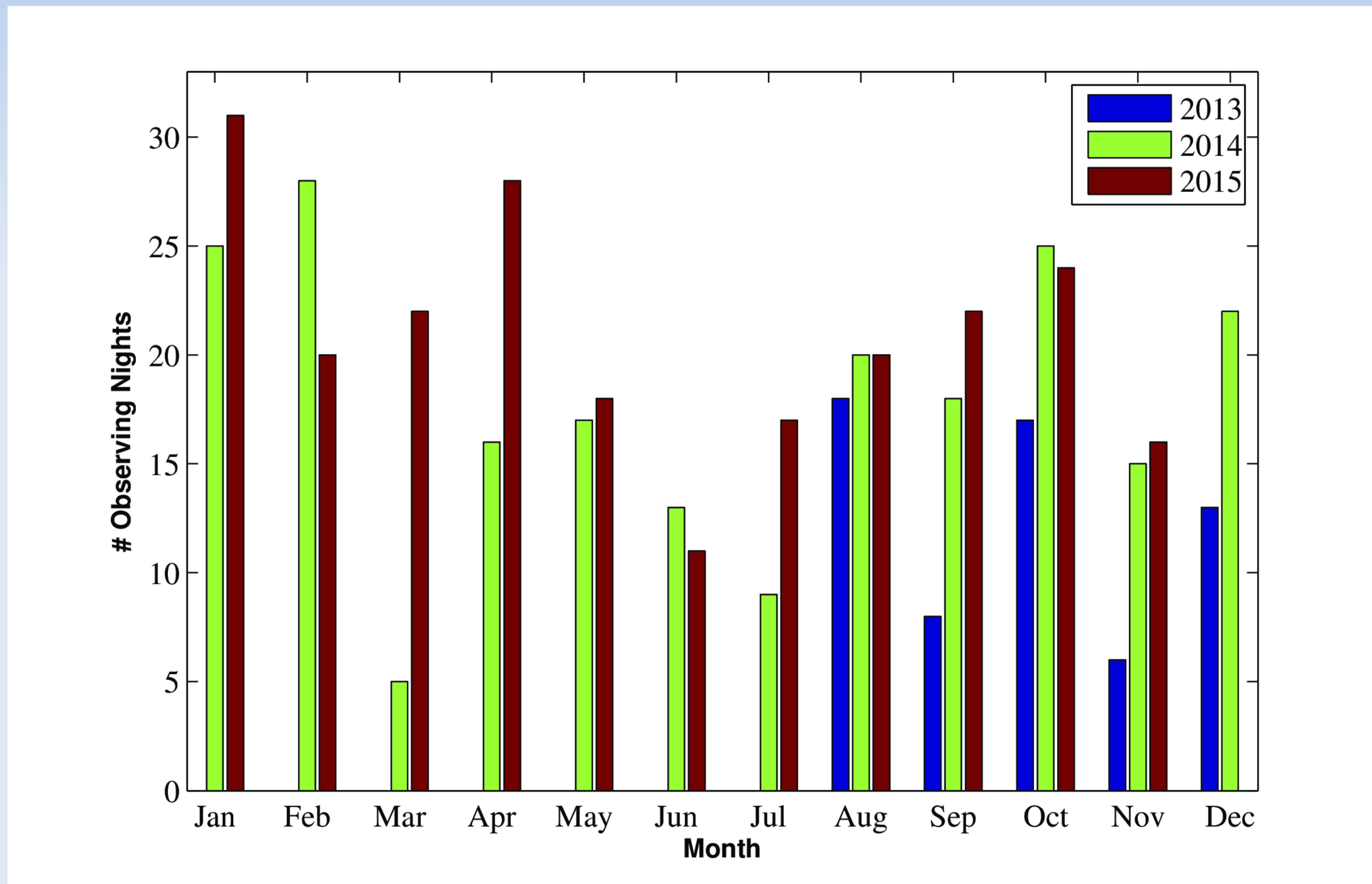
Optical efficiency

PSF: night Oct. 11th, 2015

- Very good night: estimated seeing $< 1''$
- Flux lost outside aperture $3'' \sim 46\%$
- Moffat PSF with $1''$ FWHM: only $\sim 13\%$

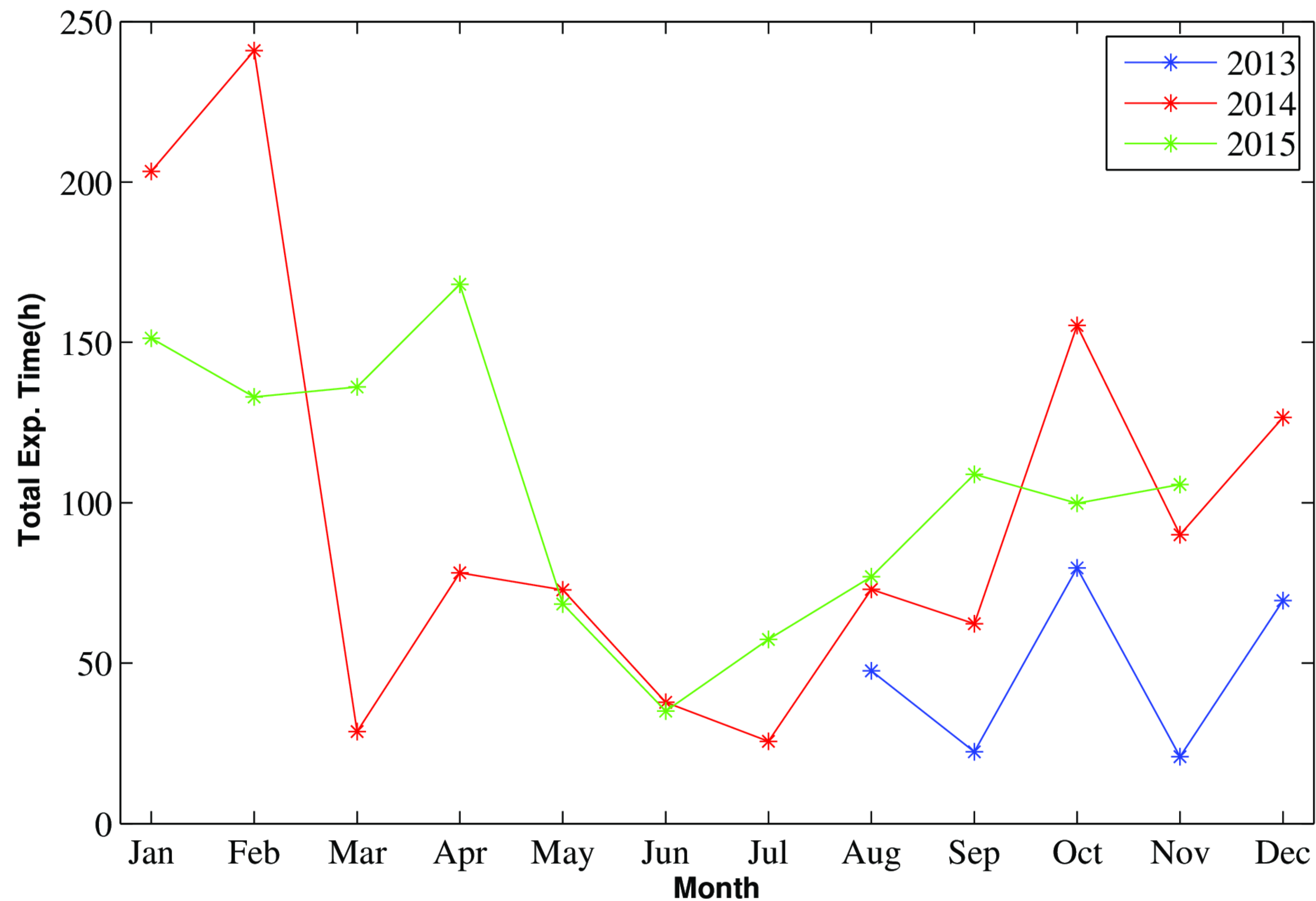
TIGRE observations

number of nights with observations



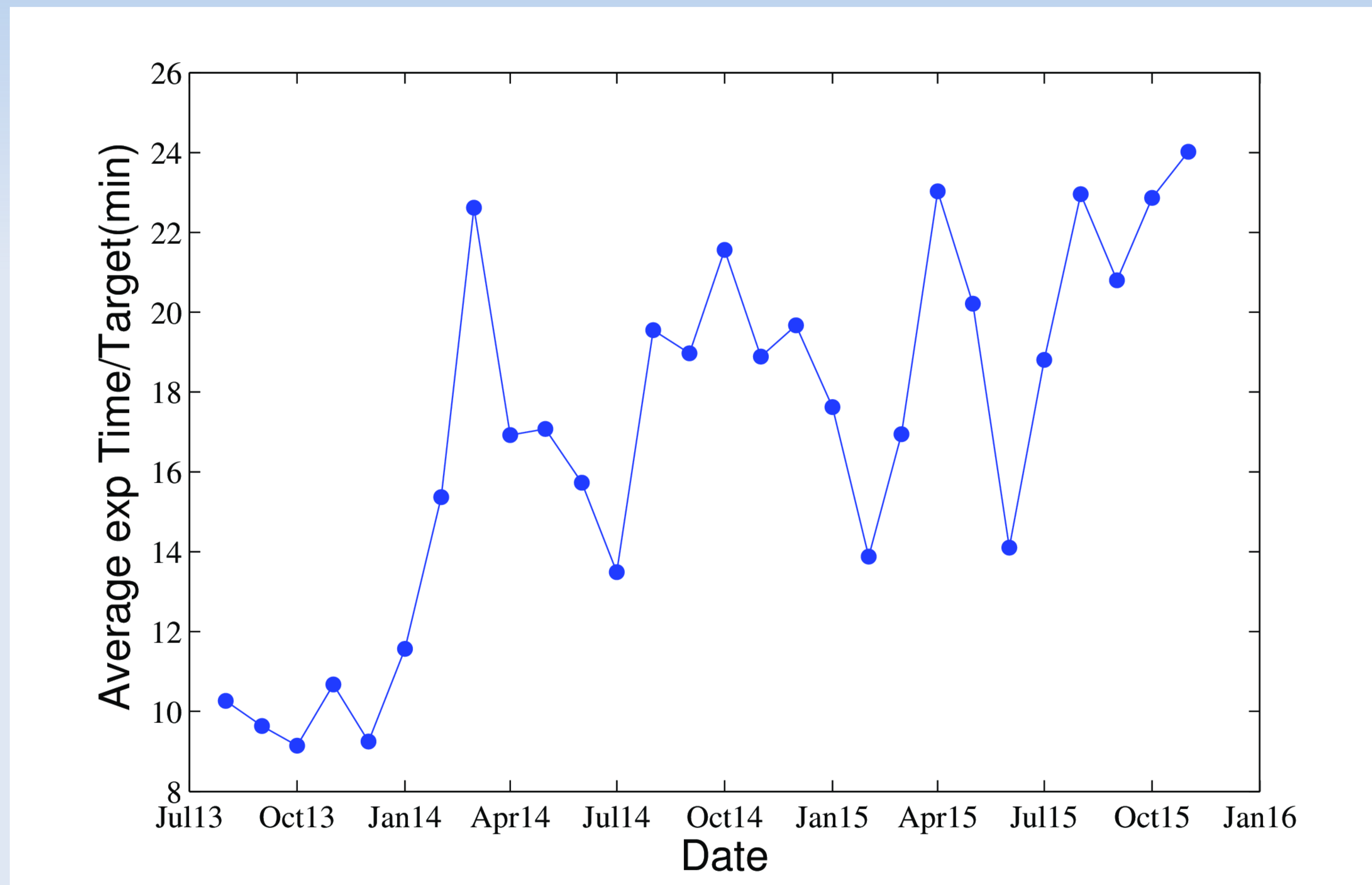
TIGRE observations

total exposure time



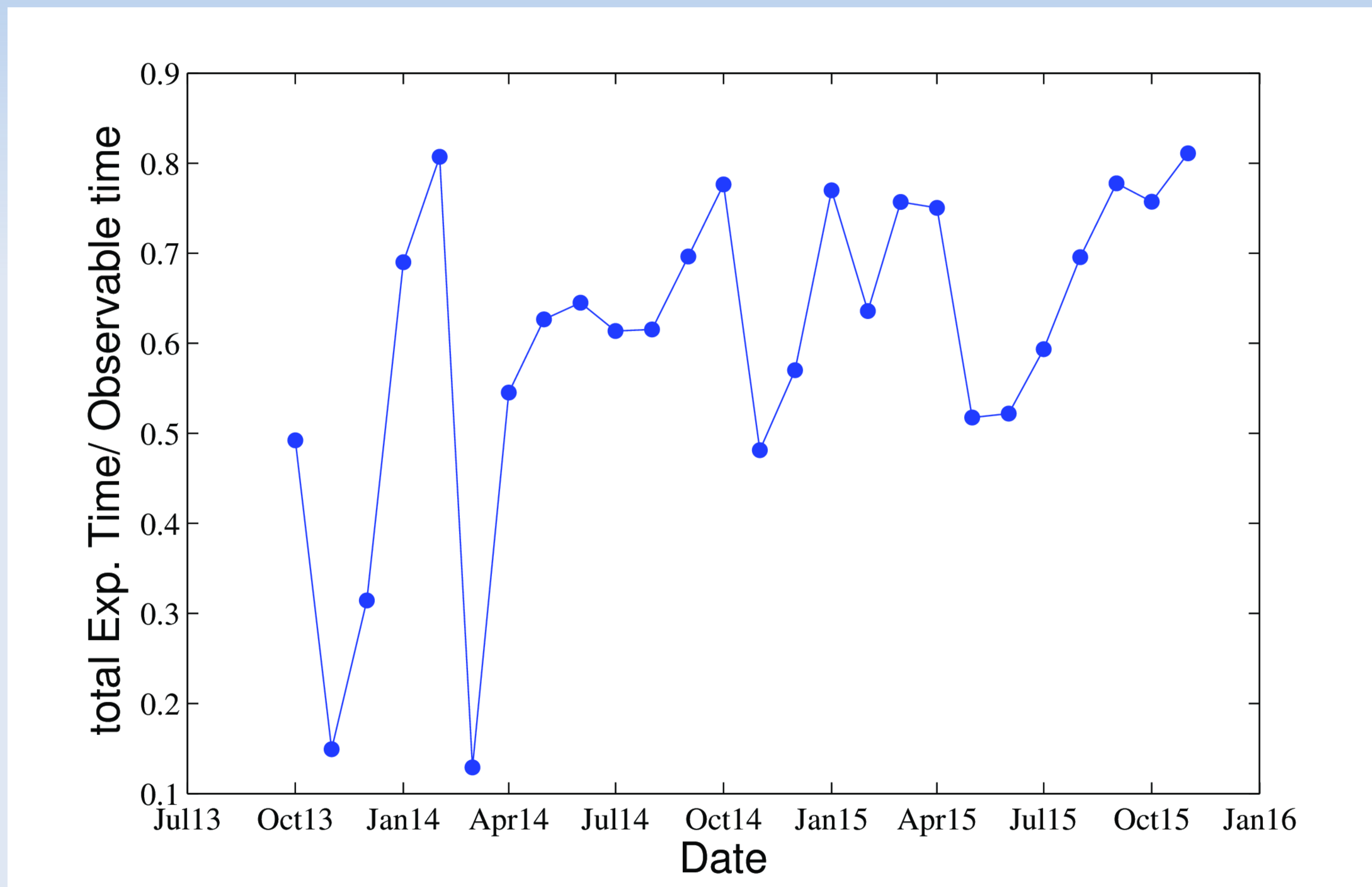
TIGRE observations

averaged exposure time per target



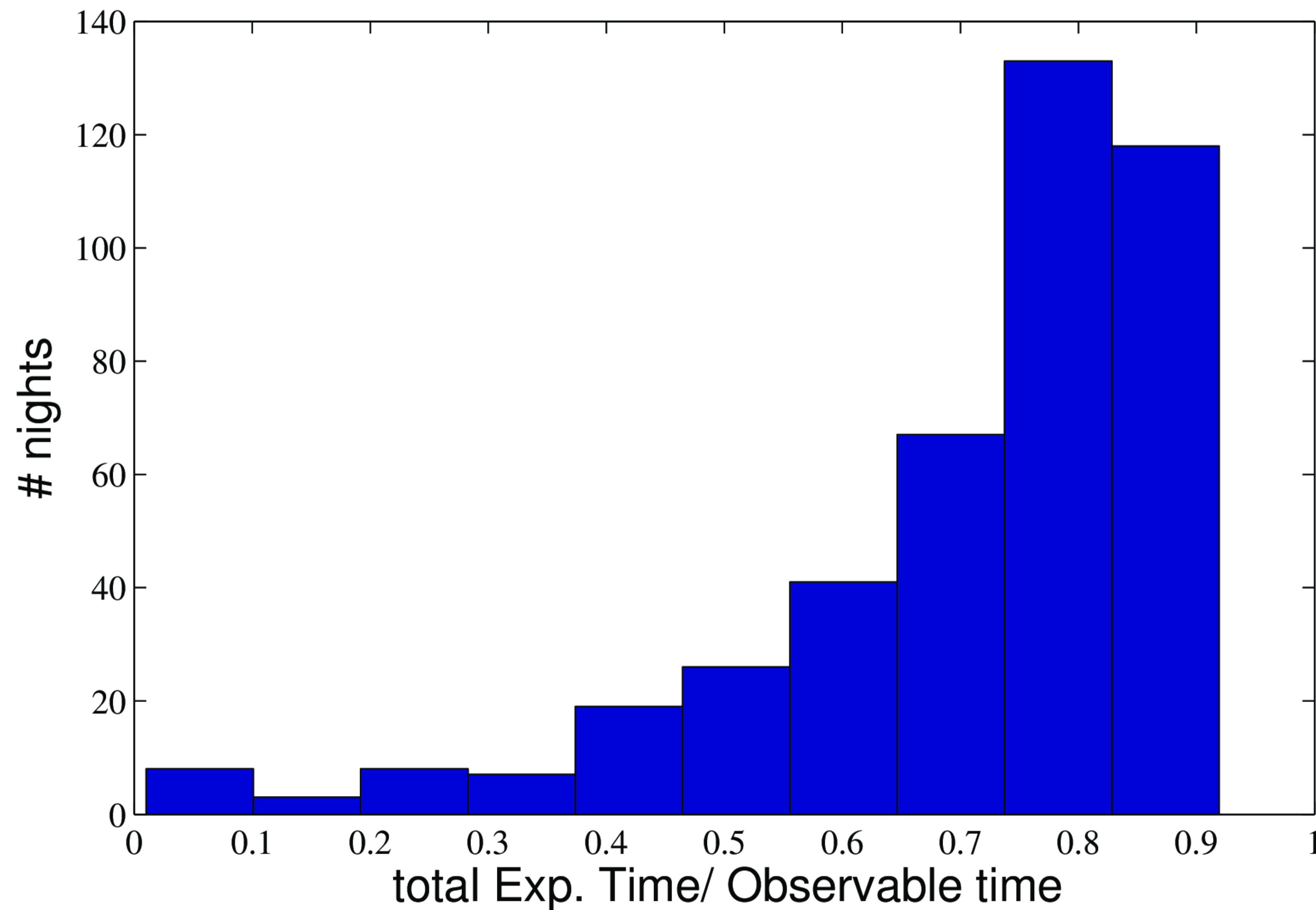
Operational efficiency

monthly averages



Operational efficiency

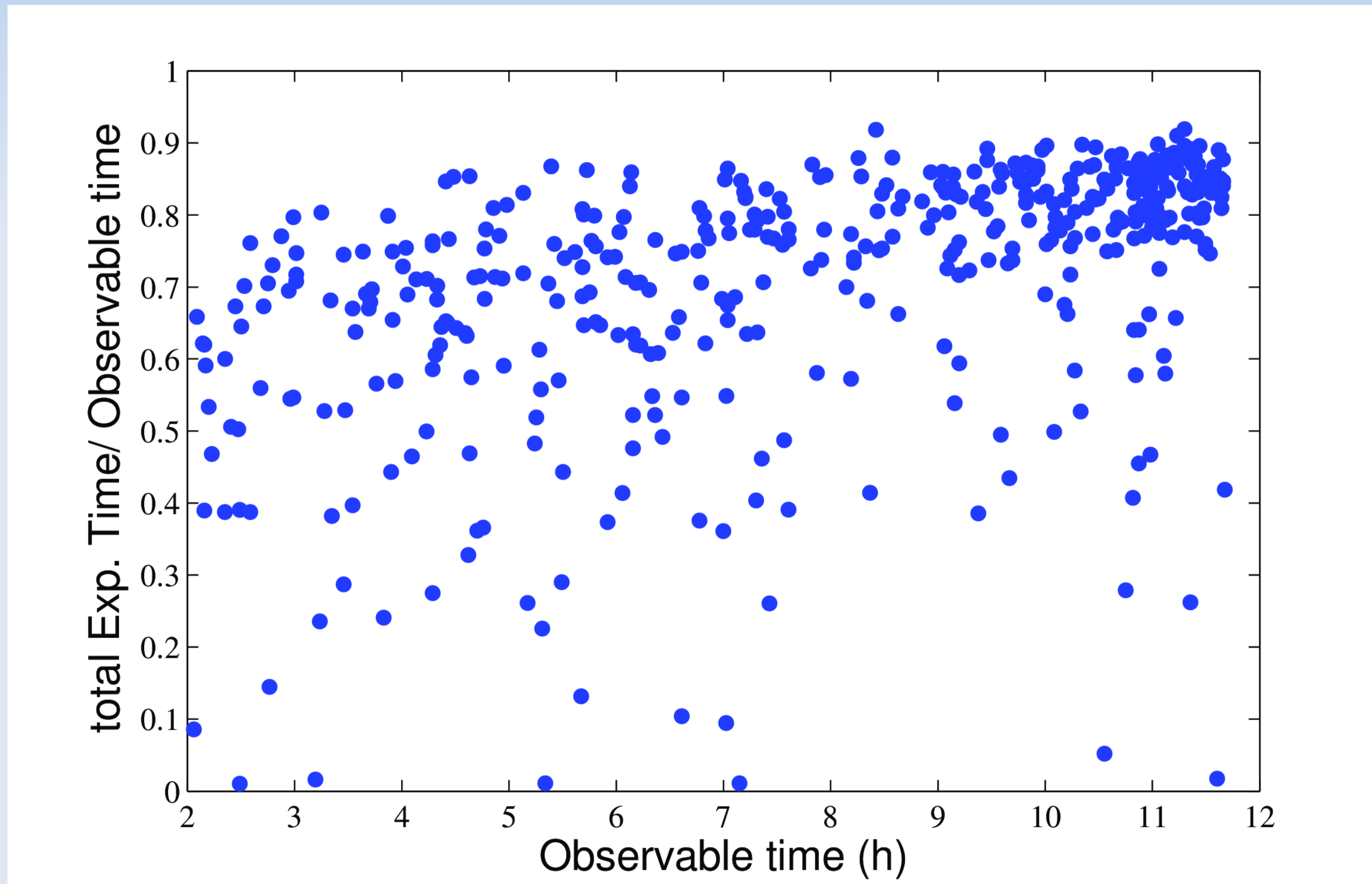
daily distribution



for 50% nights
efficiency > 0.75

Operational efficiency

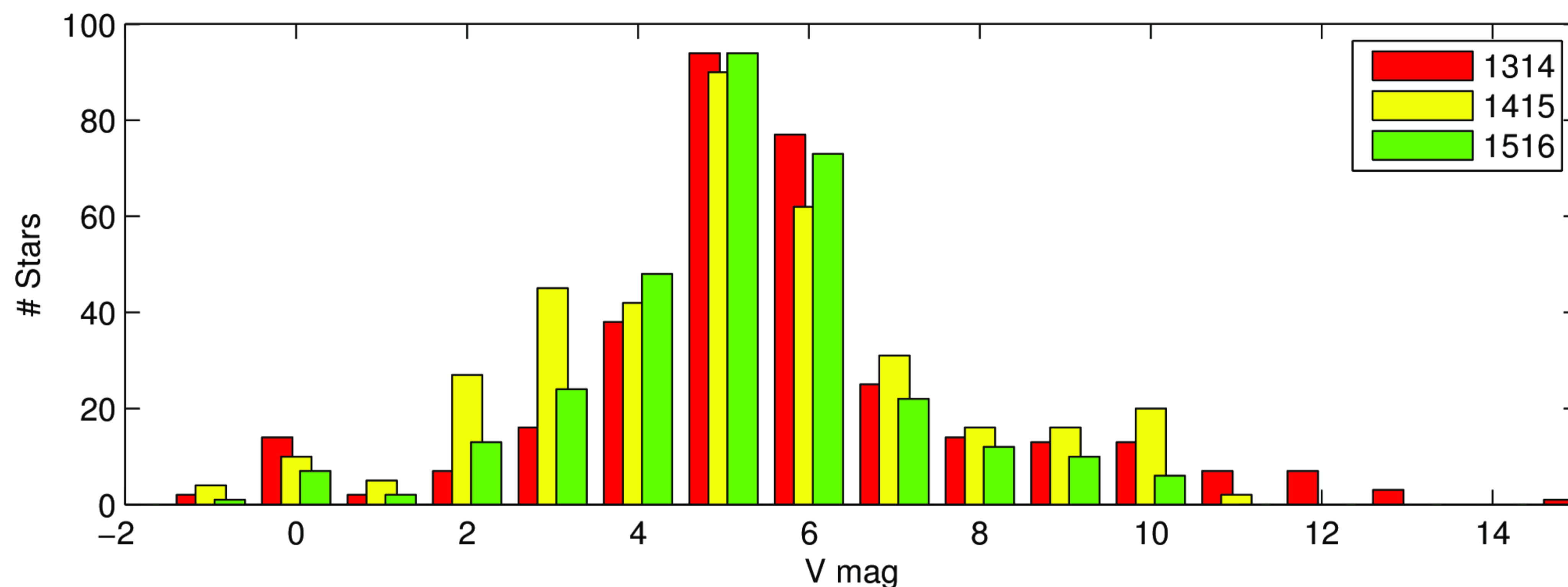
relation efficiency – good weather time



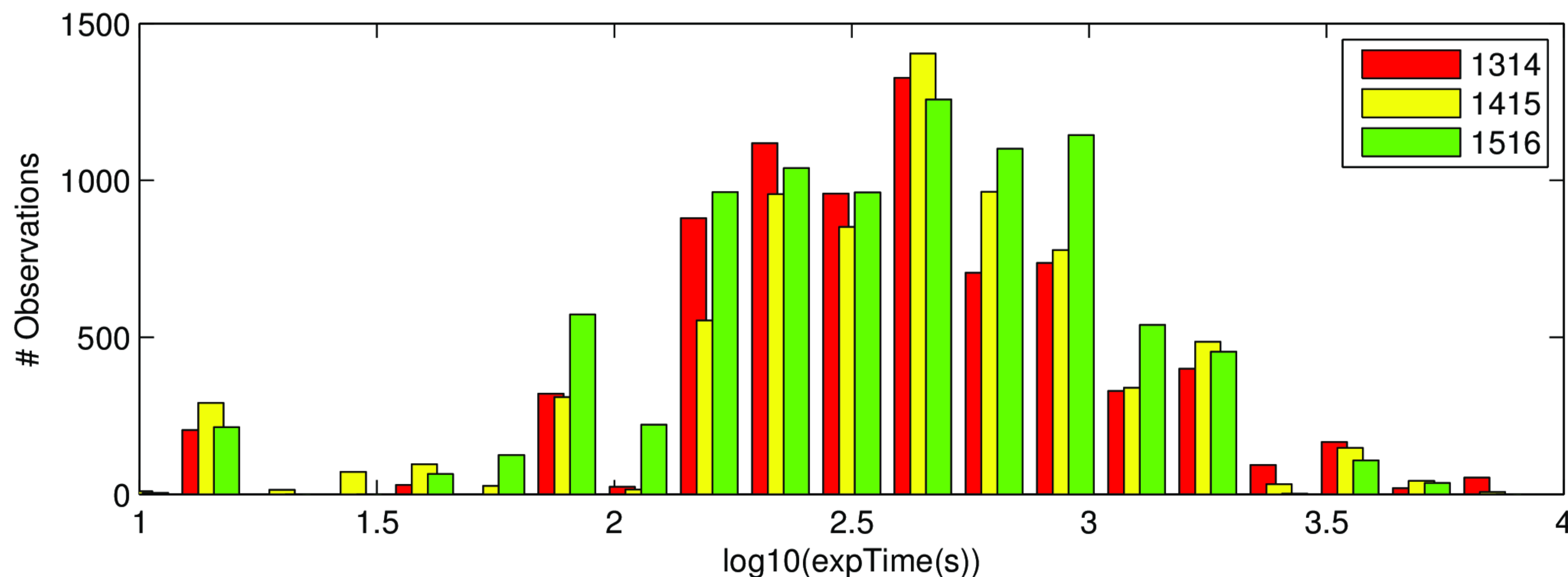
Statistic year/institute

	AO0	AO1	AO2
Total time	942.1 h	1241.7 h	382.7 h
Calibrations	4.8 %	7.2 %	4.5 %
Hamburg	70.3 %	72.7 %	67.5 %
Guanajuato	17.9 %	17.2 %	16.7 %
Liège	11.7 %	10.1 %	15.8 %

Proposals

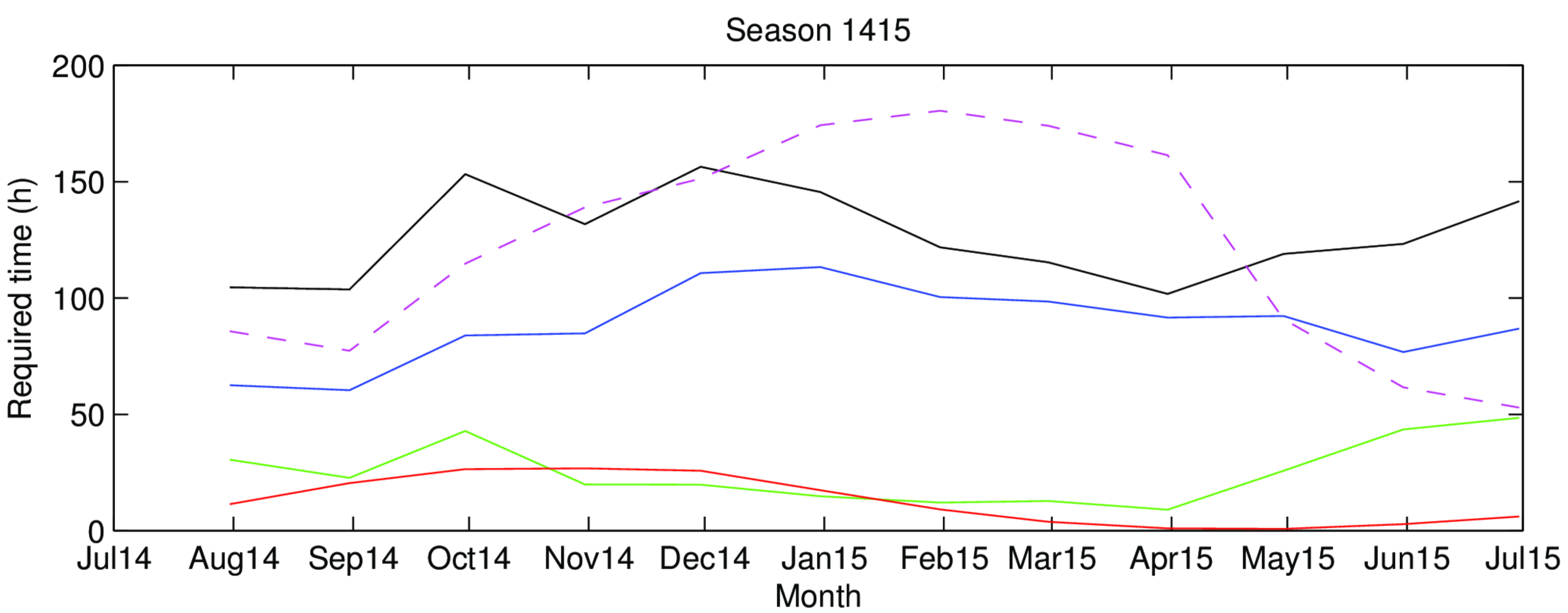


distribution of target magnitudes

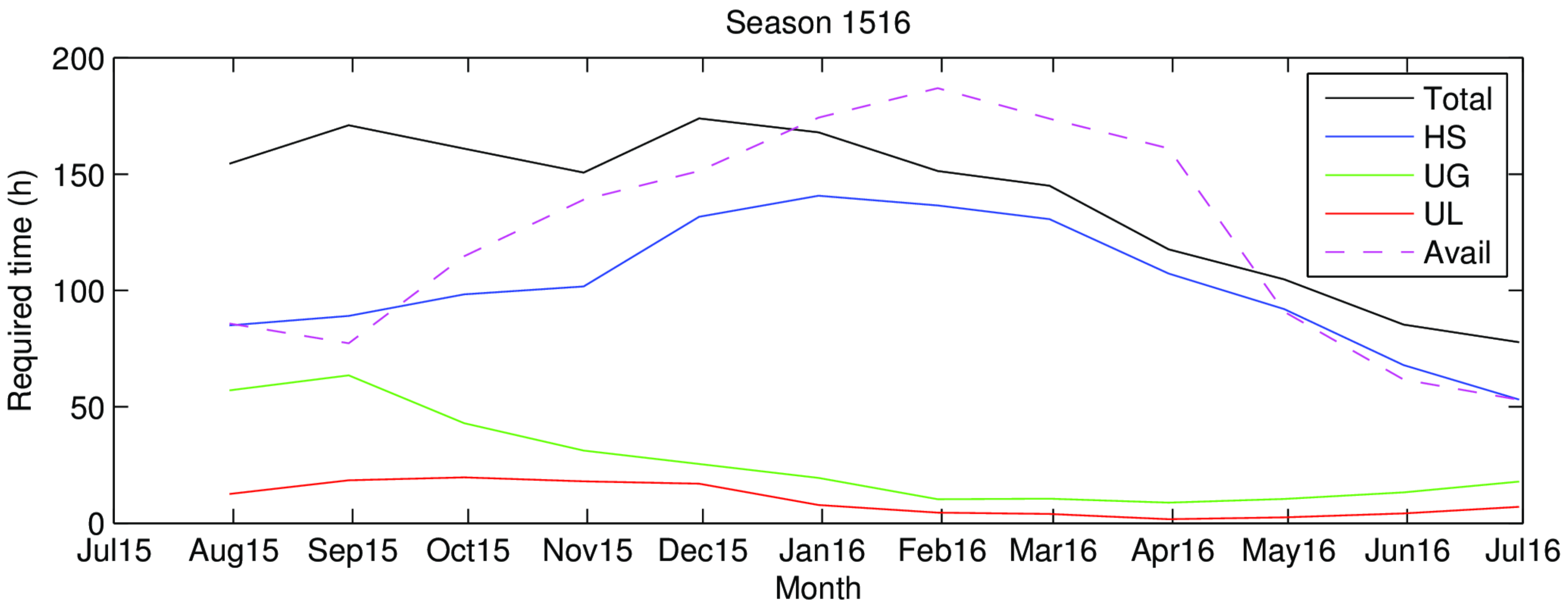


distribution of observation exposure times

Proposals



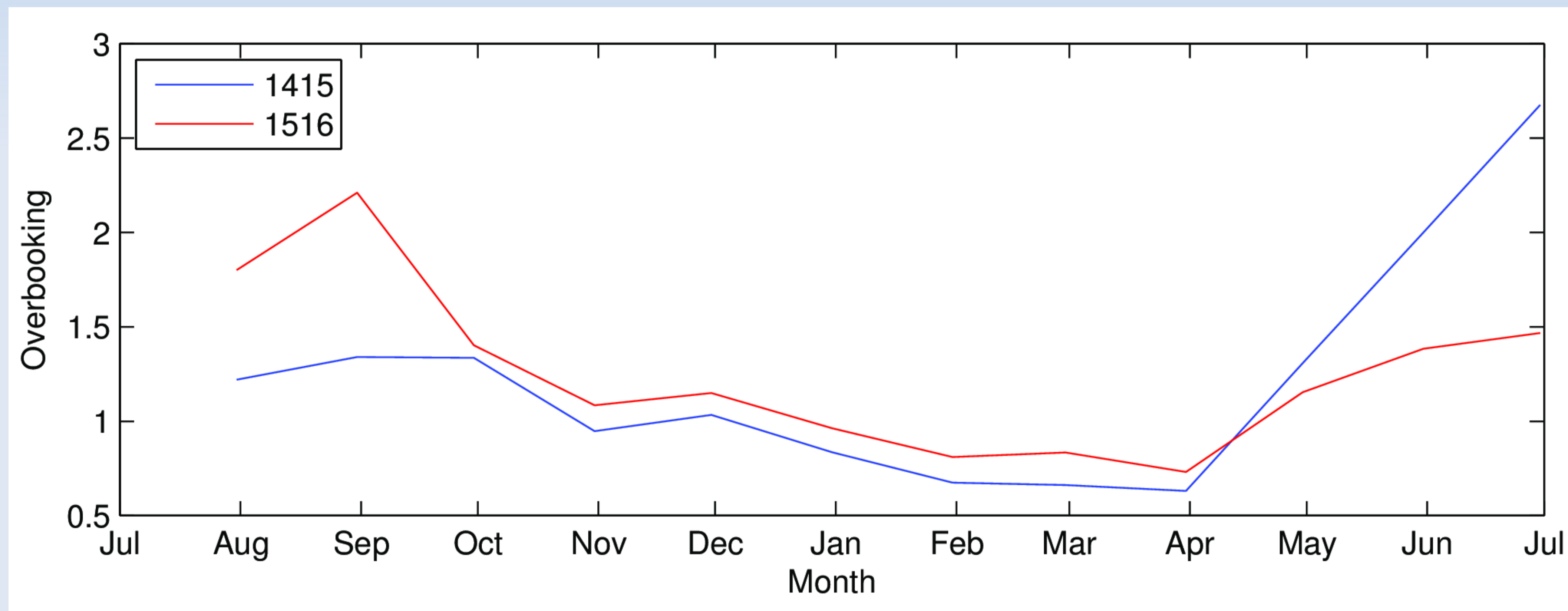
required time in season
AO1



required time in season
AO2

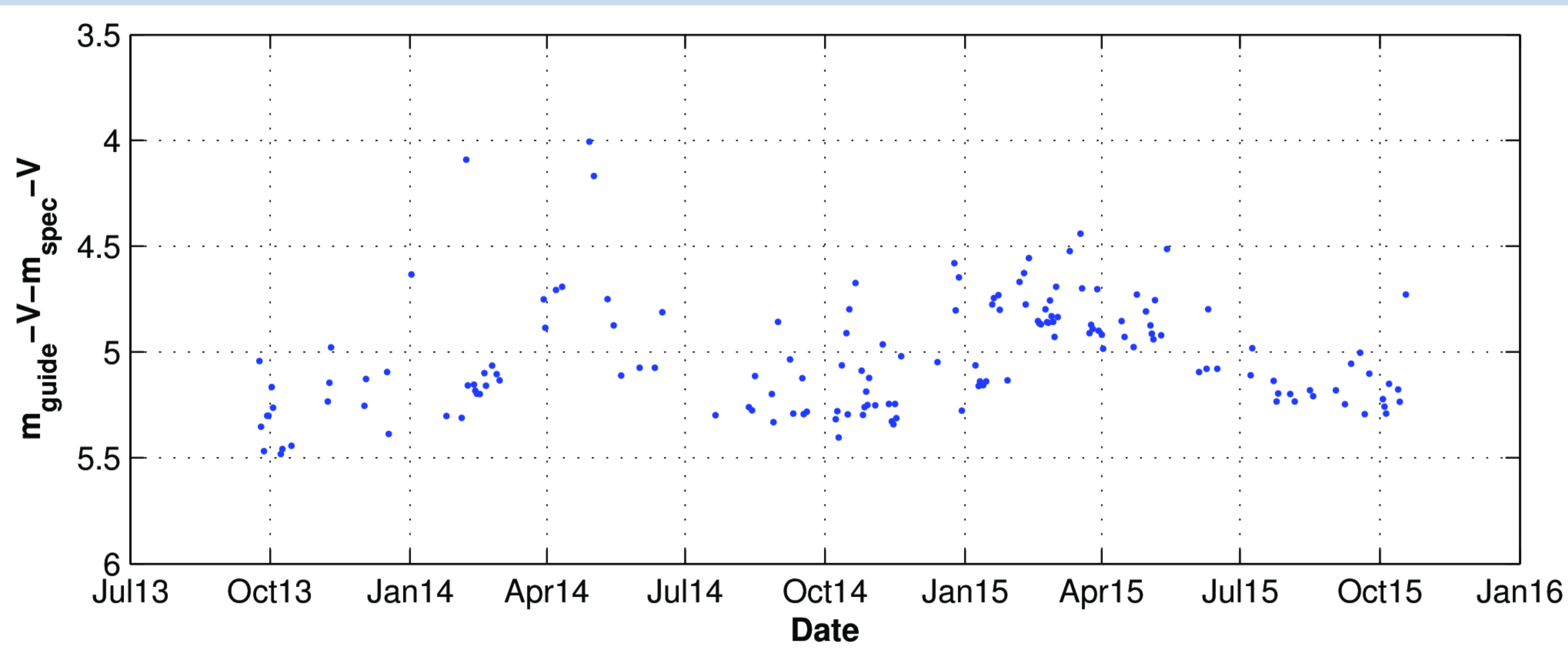
Proposals

overbooking



Thank you!

Optical efficiency



difference
spectrograph – guiding
camera

TIGRE observations

nightly distribution of objects and total exp. time

