

# KIC 005880770

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005880770-01	OBS	No	3.321831	132.798423	5.8	36.298	8.0	9.7	2.53	9434	0.62	13404.63

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005880770-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_FEW_MEAS

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

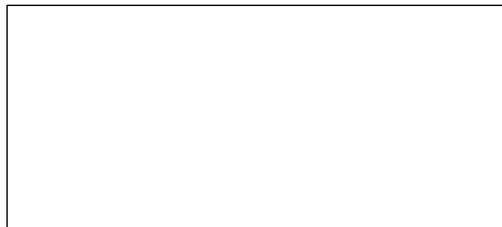
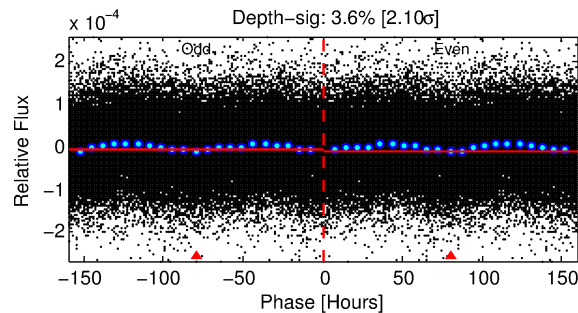
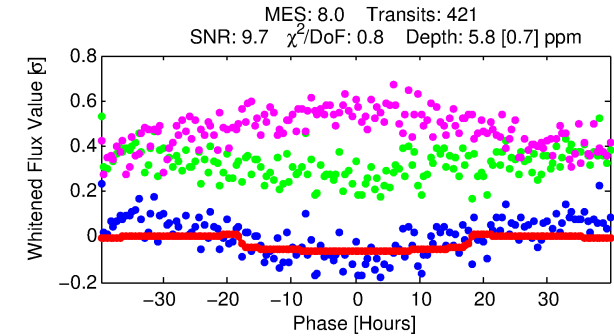
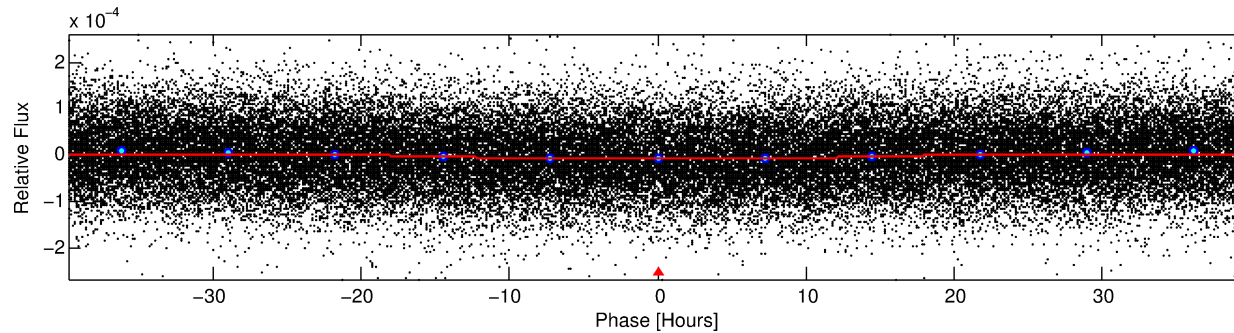
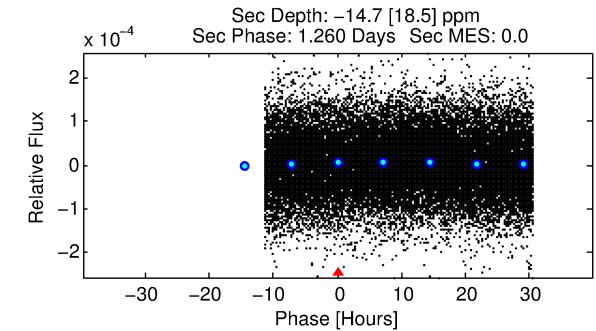
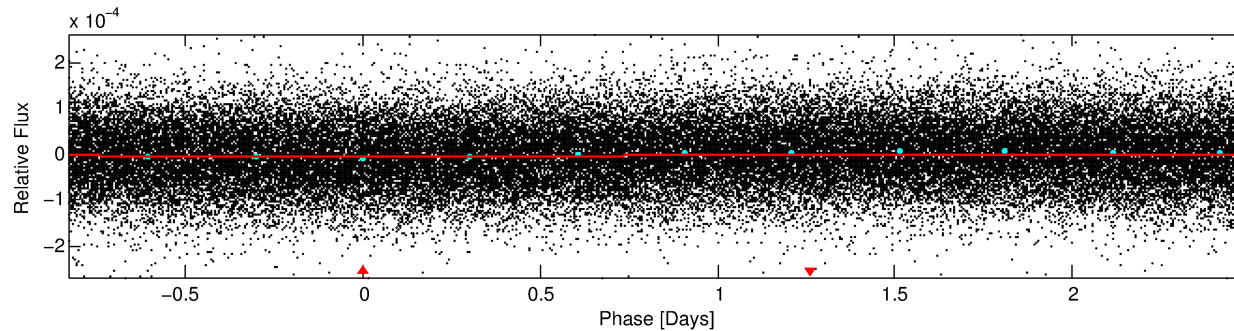
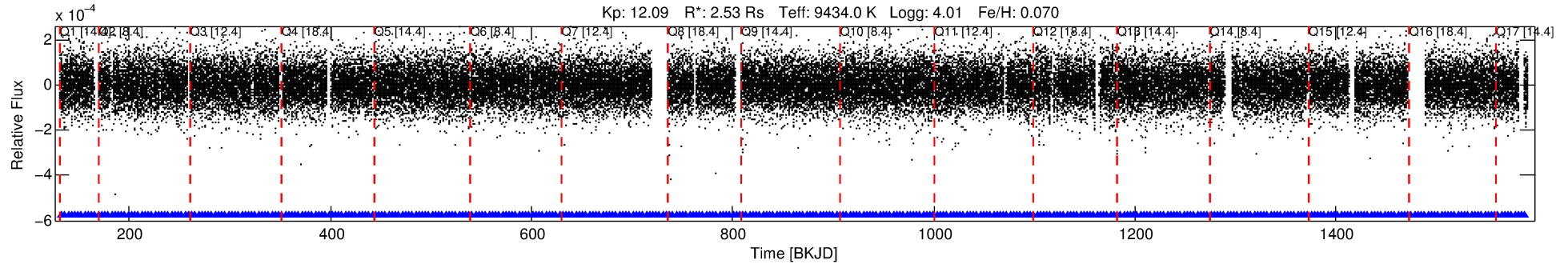
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005880770-01

No Significant Match Found

# DV One-Page Summary

KIC: 5880770 Candidate: 1 of 1 Period: 3.322 d



## DV Fit Results:

Period = 3.32183 [0.00011] d  
Epoch = 132.7984 [0.0214] BKJD  
Rp/R\* = 0.0023 [0.0011]  
a/R\* = 1.01 [0.08]  
b = 0.02 [208.72]  
Seff = 13404.63 [6266.37]  
Teq = 2744 [321] K  
Rp = 0.63 [0.38] Re  
a = 0.0582 [0.0176] AU  
Ag = N/A  
Teffp = N/A

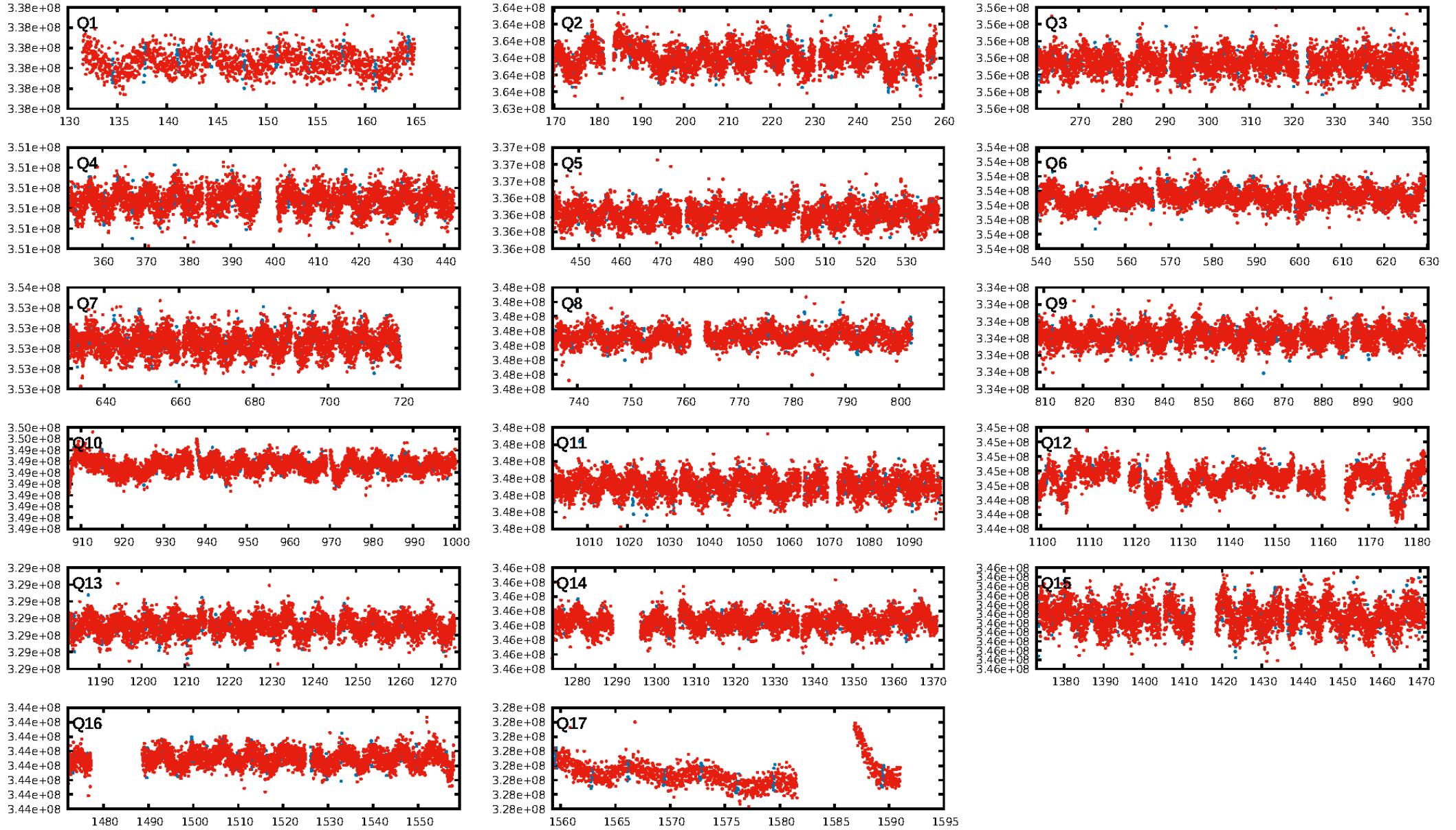
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [402/402]  
GhostDiagnostic-chr: 7.847  
Centroid-sig: 0.1%  
Centroid-so: 1.941 arcsec [1.74σ]  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0/0 [0]  
KicOffset-st: 0/0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fno: 1.00 [17/17]

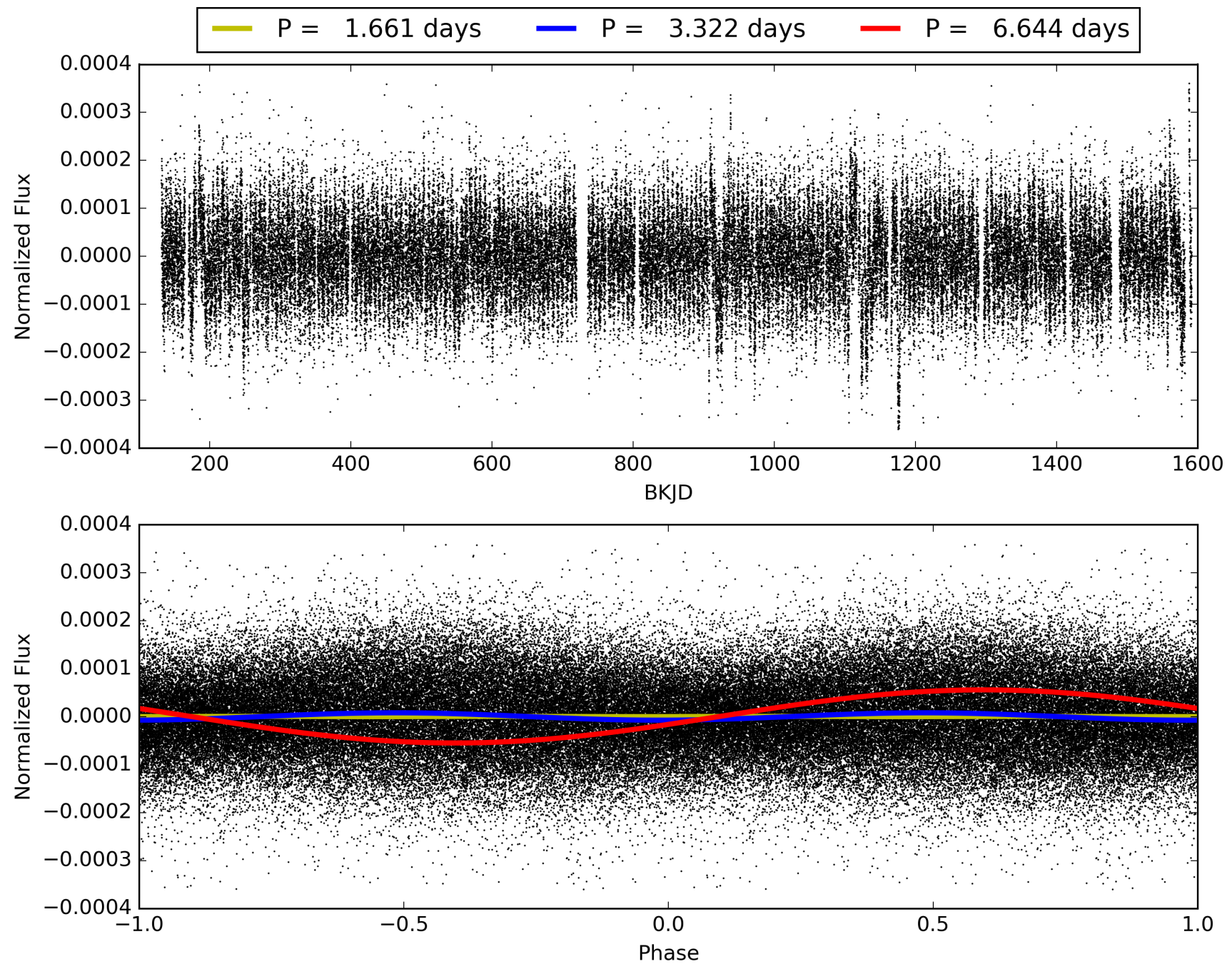
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:29:19 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 005880770-01, PDC Light Curves

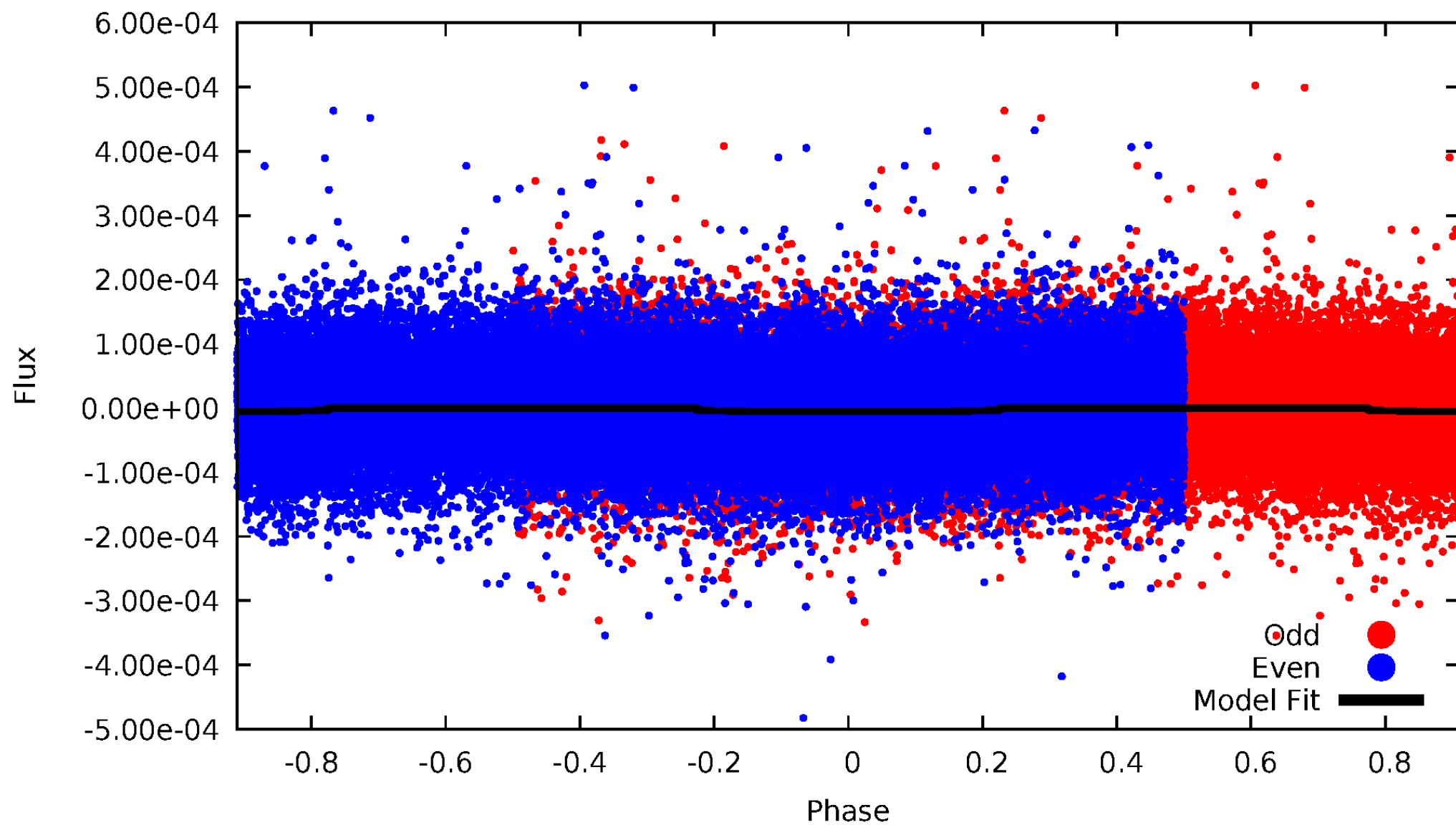


TCE 005880770-01



# DV Odd/Even

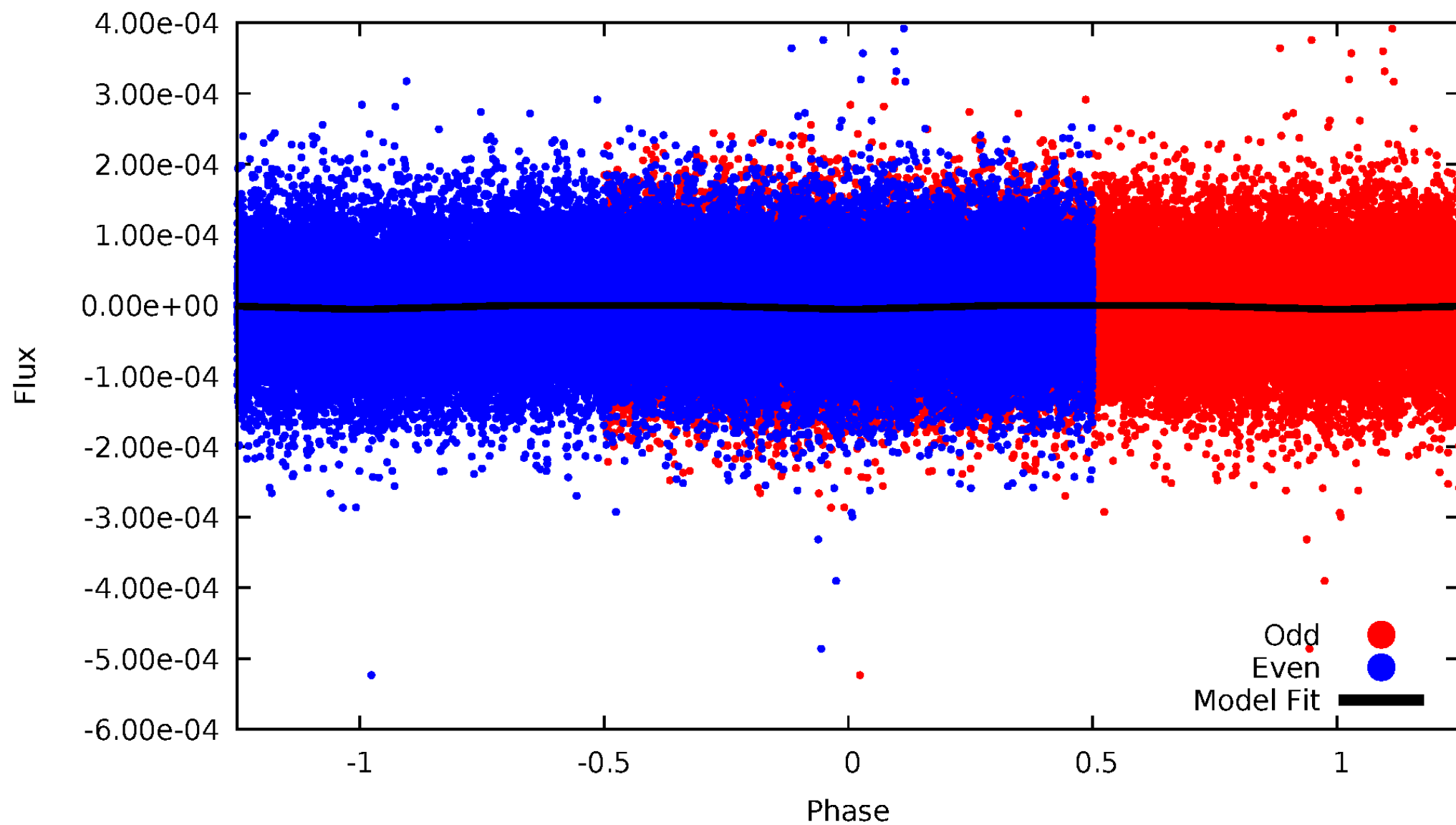
TCE 005880770-01





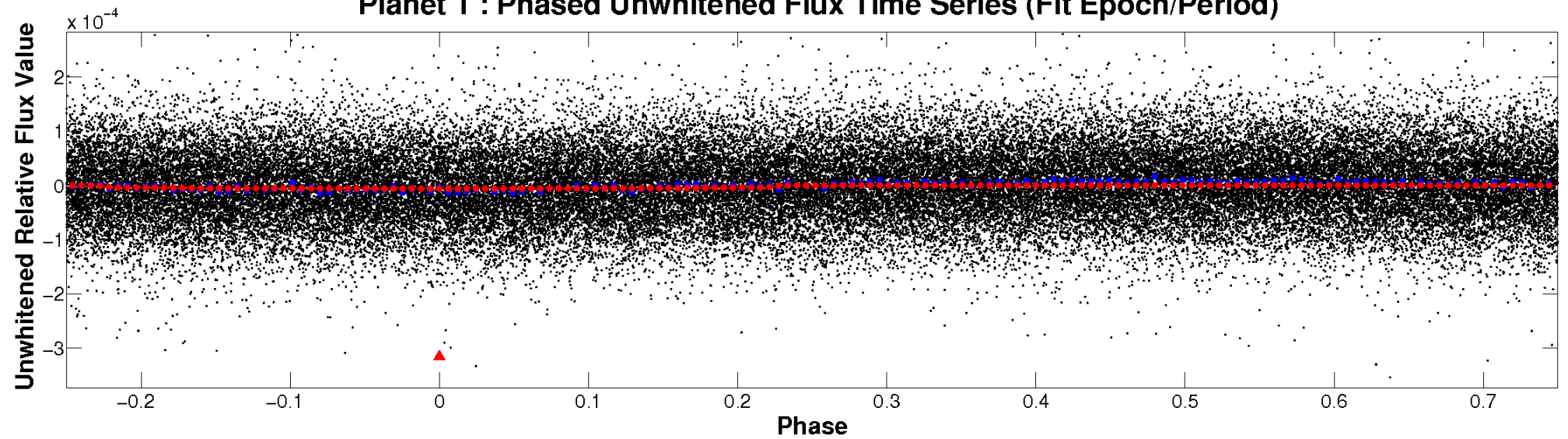
# ALT Odd/Even

TCE 005880770-01

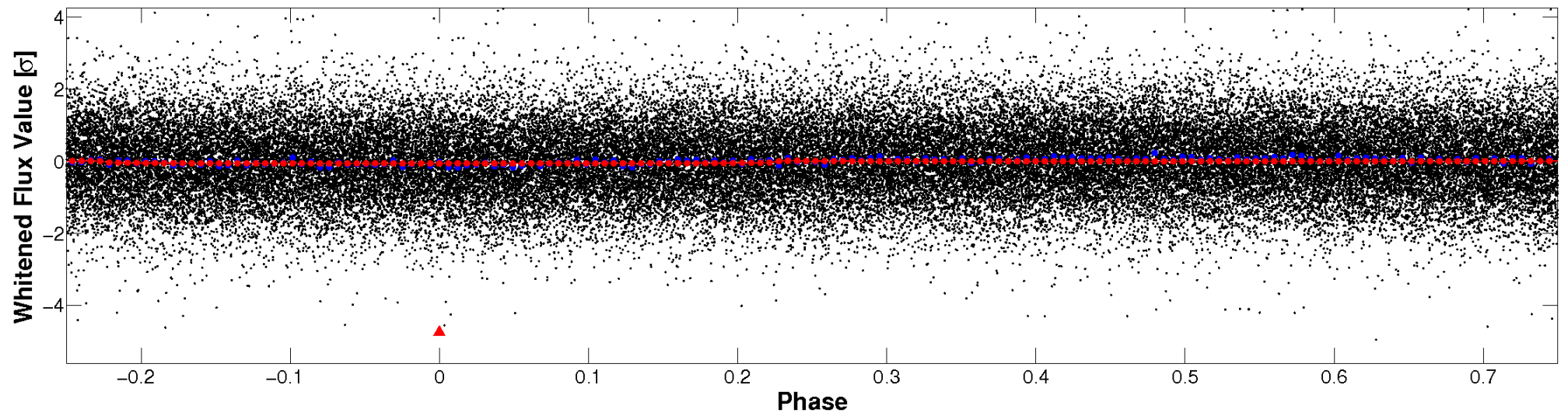


# Non-Whitened Vs. Whitened Light Curve

**Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)**

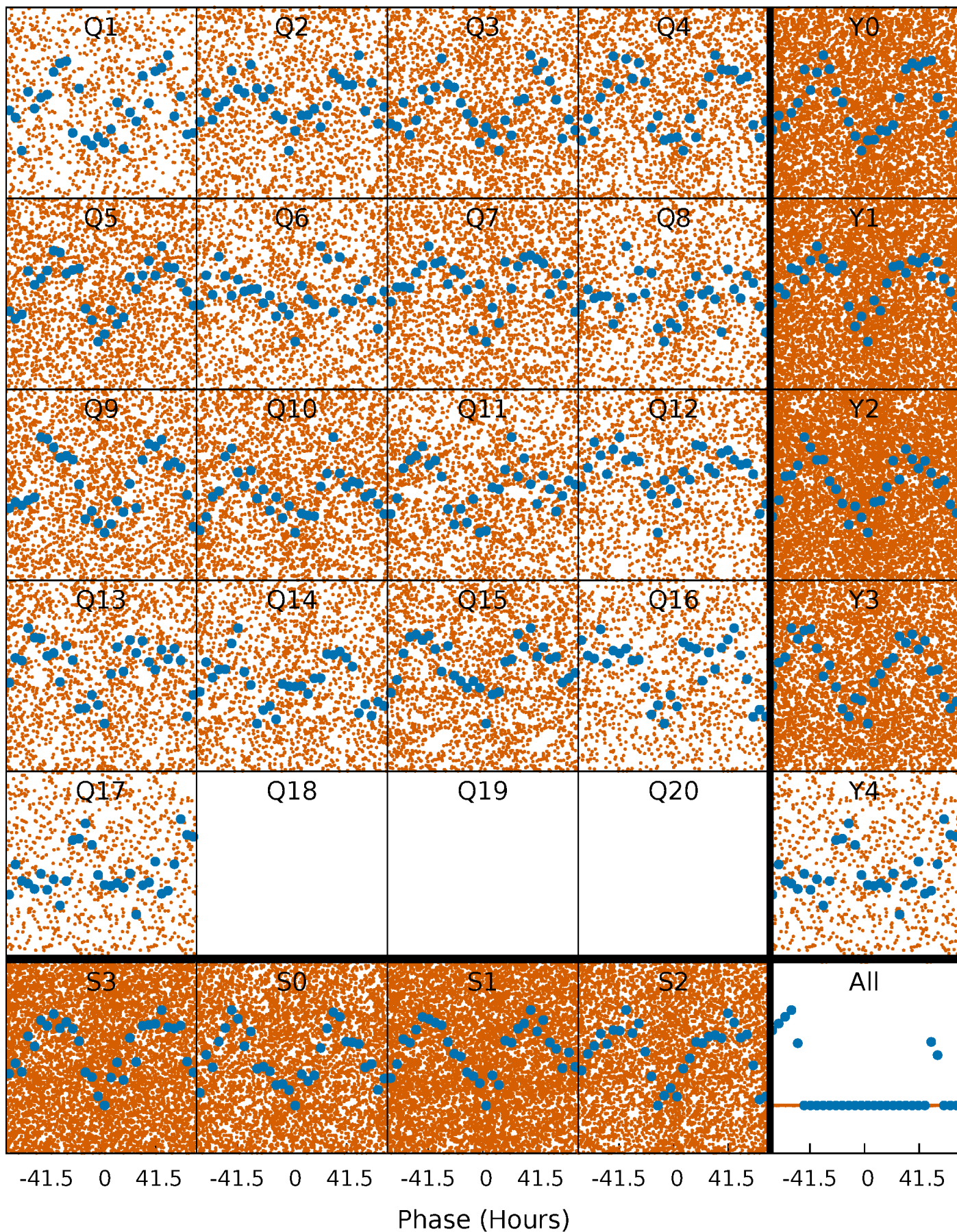


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

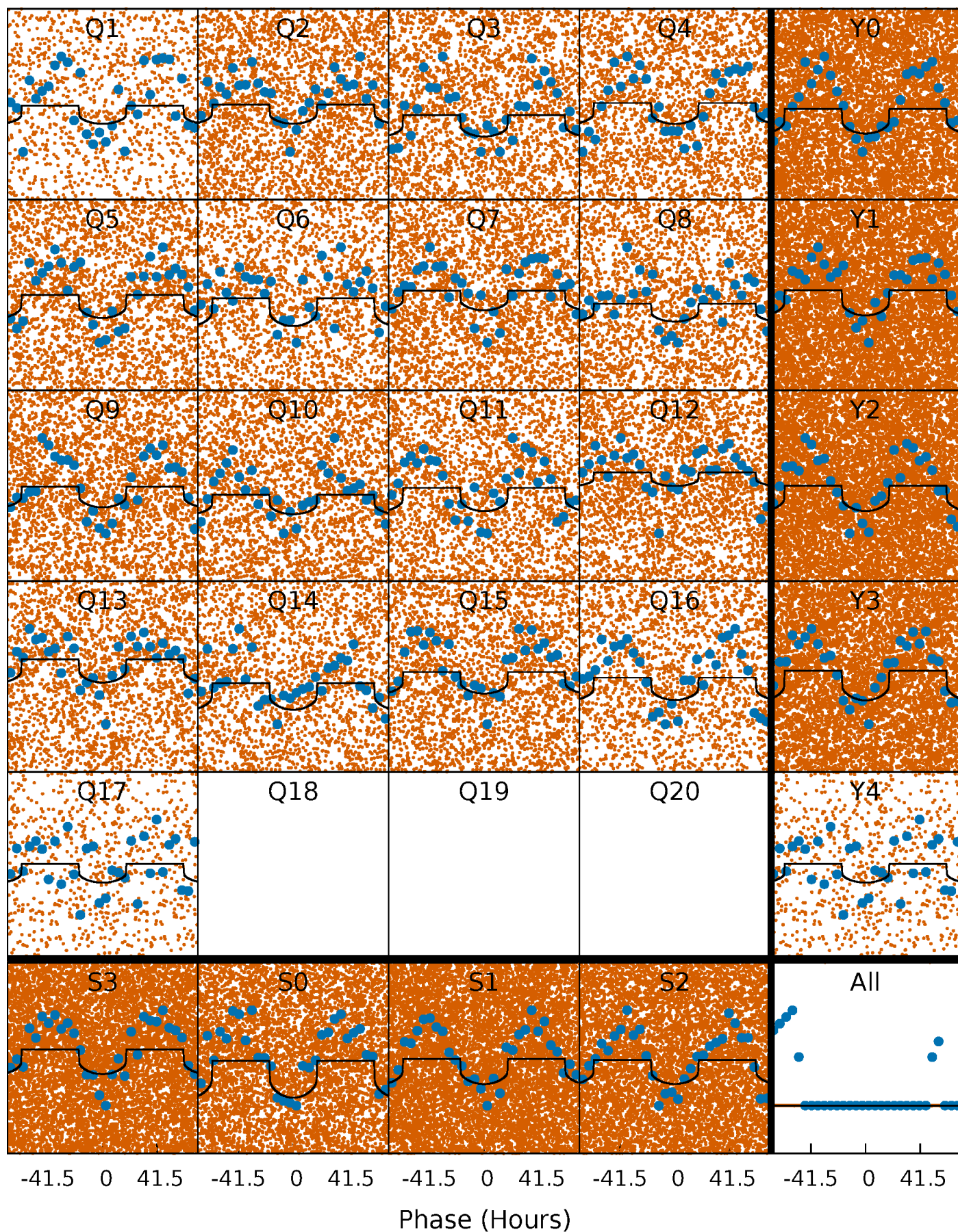
TCE 005880770-01 P= 3.321831 Days  $T_0=132.798423$  (BKJD)





# DV Quarter-Phased Transit Curves

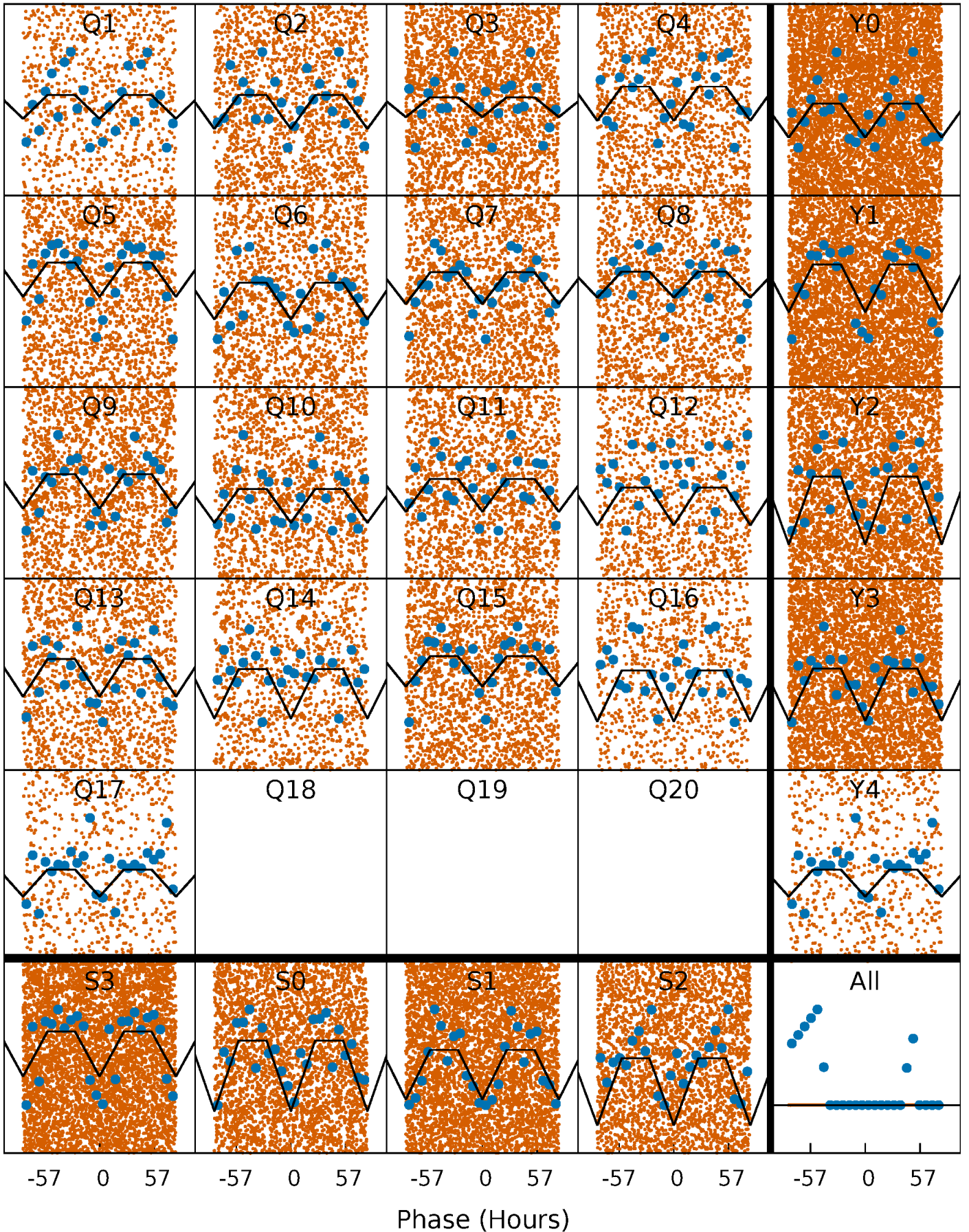
TCE 005880770-01 P= 3.321831 Days  $T_0=132.798423$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

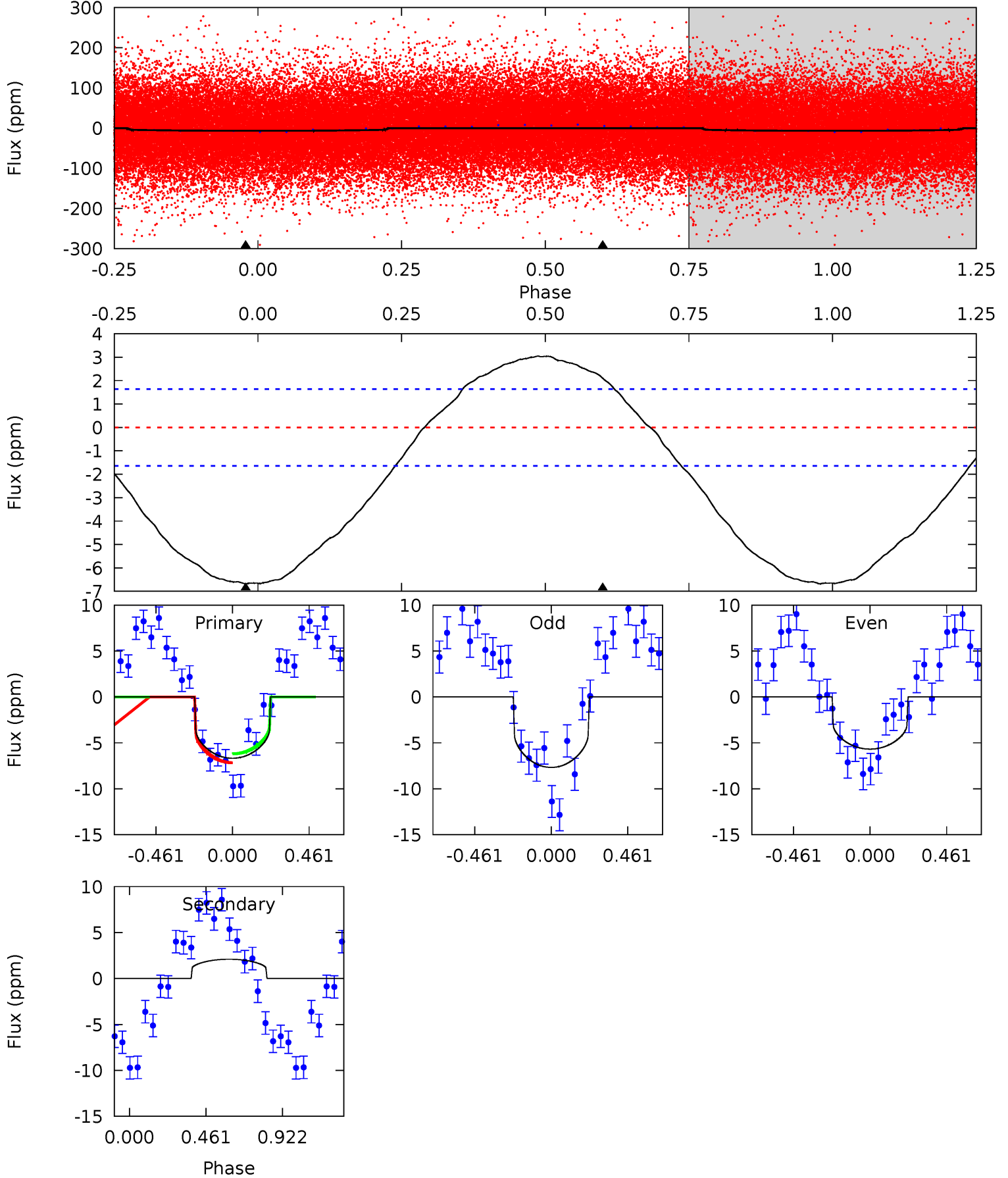
TCE 005880770-01 P= 3.322021 Days  $T_0=132.757374$  (BKJD)



# DV Model-Shift Uniqueness Test

005880770-01, P = 3.321831 Days, E = 129.476592 Days

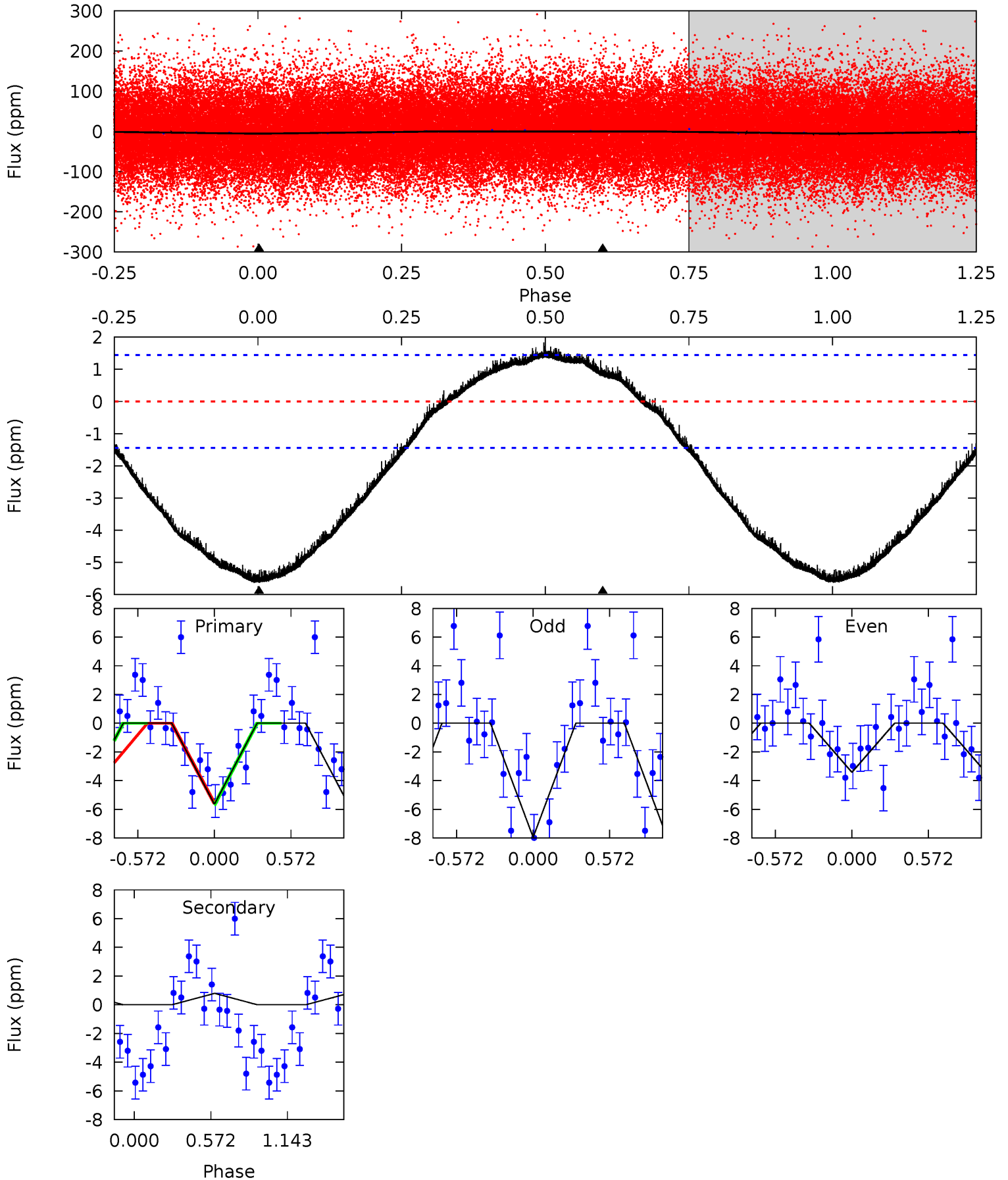
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	-5.41	0	0	4.23	0.74	2.18	17.2	17.2	-5.41	-5.41	2.55	1.07	0.31	1.24



# Alt Model-Shift Uniqueness Test

005880770-01, P = 3.322021 Days, E = 129.435353 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	-2.30	0	0	4.18	0.57	1.21	16.3	16.3	-2.30	-2.30	6.49	0.92	0.25	0.16





### Stellar Parameters For KIC 005880770

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$9434^{+301}_{-451}$	$4.009^{+0.226}_{-0.185}$	$0.070^{+0.150}_{-0.650}$	$2.530^{+0.856}_{-0.942}$	$2.384^{+0.377}_{-0.700}$	$0.207^{+0.312}_{-0.110}$
	+3%/-5%	+6%/-5%	+214%/-929%	+34%/-37%	+16%/-29%	+150%/-53%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 005880770-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$2 \pm 0$	$0.63^{+0.32}_{-0.31}$	$3806^{+331}_{-357}$	$-7031^{+1303}_{-3796}$	$-9.573^{+5.418}_{-28.859}$
Alt.	$1 \pm 0$	$0.65^{+0.36}_{-0.31}$	$3826^{+329}_{-366}$	$-5347^{+813}_{-1951}$	$-2.993^{+1.856}_{-8.672}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature  
 $T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )  
 $A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

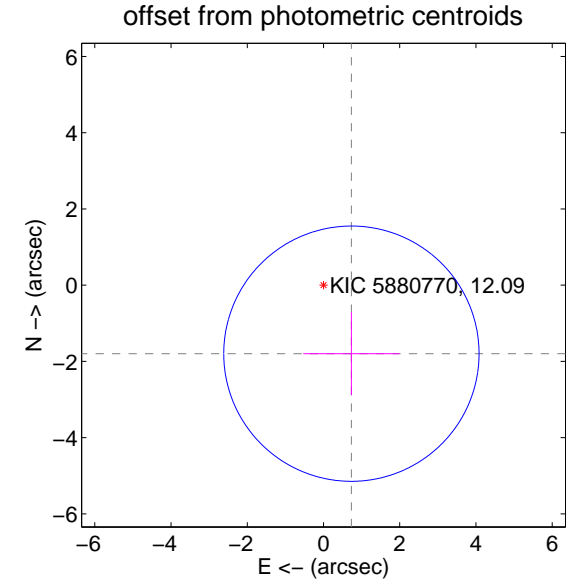
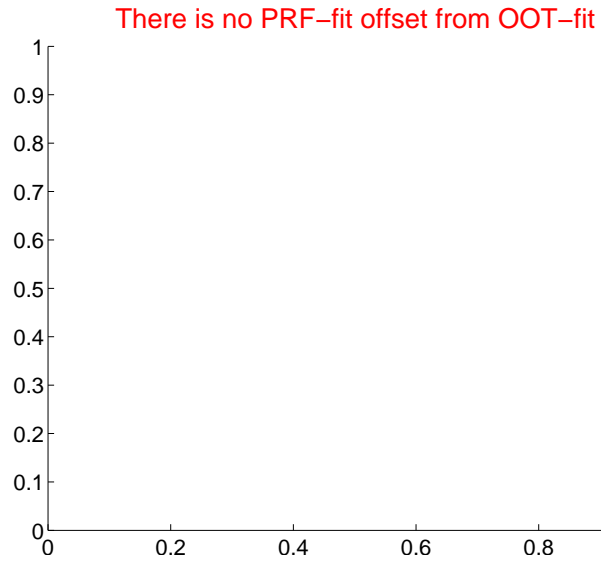
## DV Centroid Data

Supplemental centroid analysis for 005880770-01. Kepler magnitude: 12.09. Transit SNR 9.73

There are 0 quarters with good PRF difference image offsets

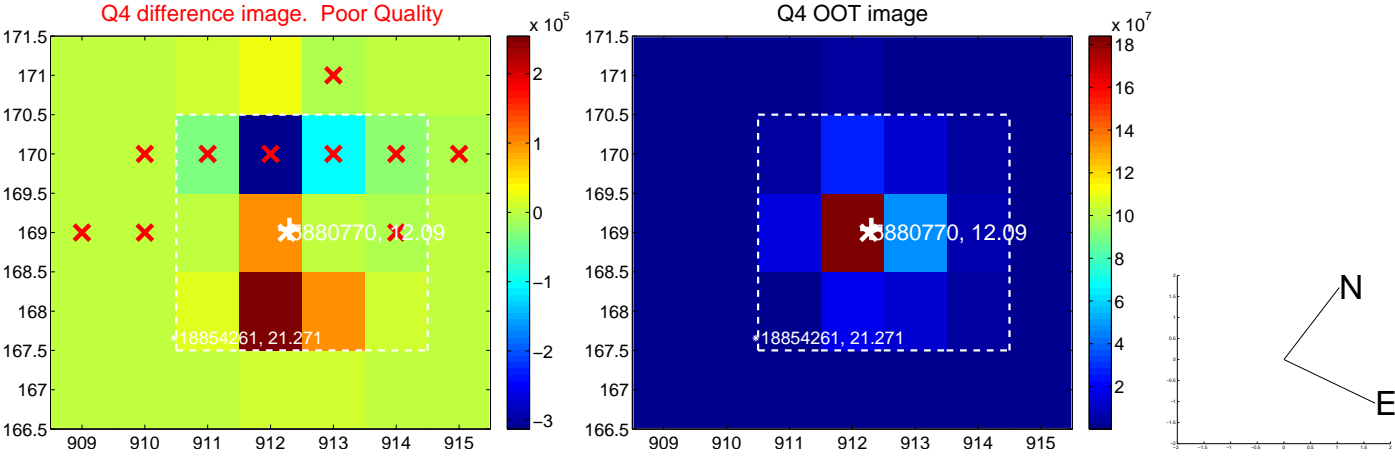
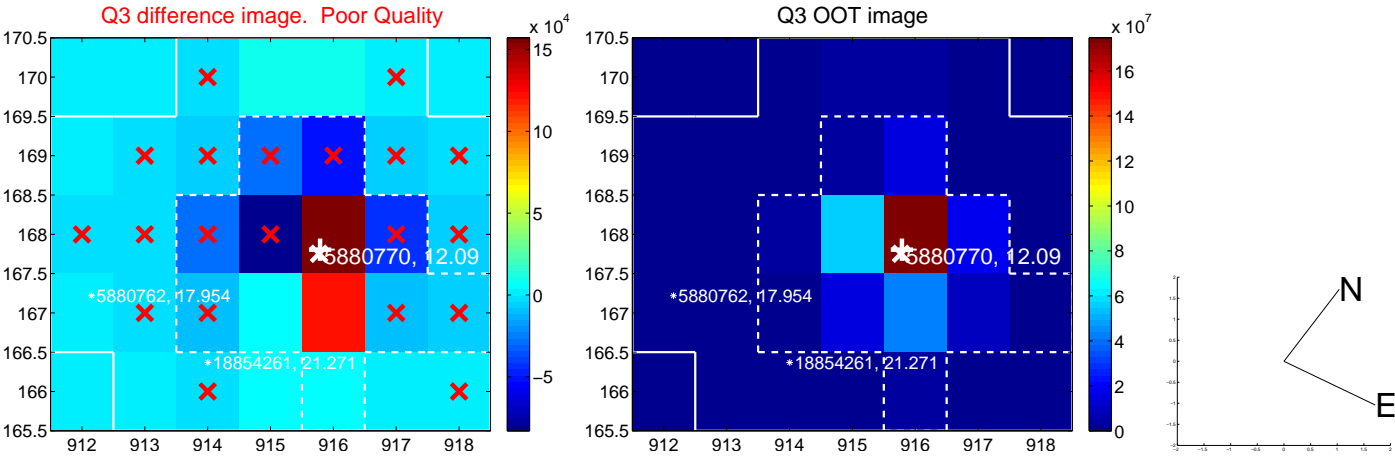
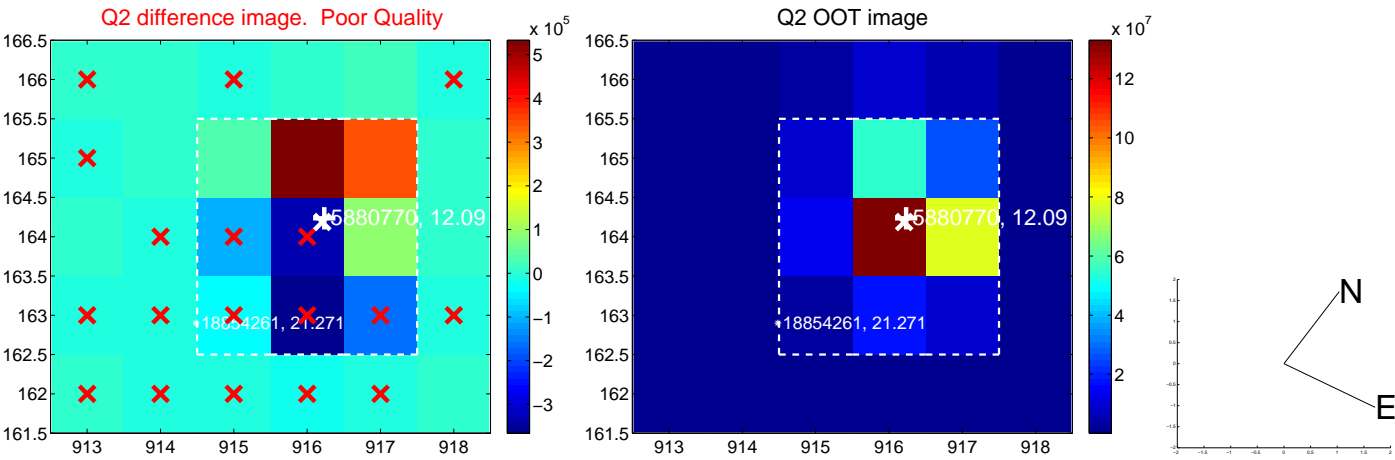
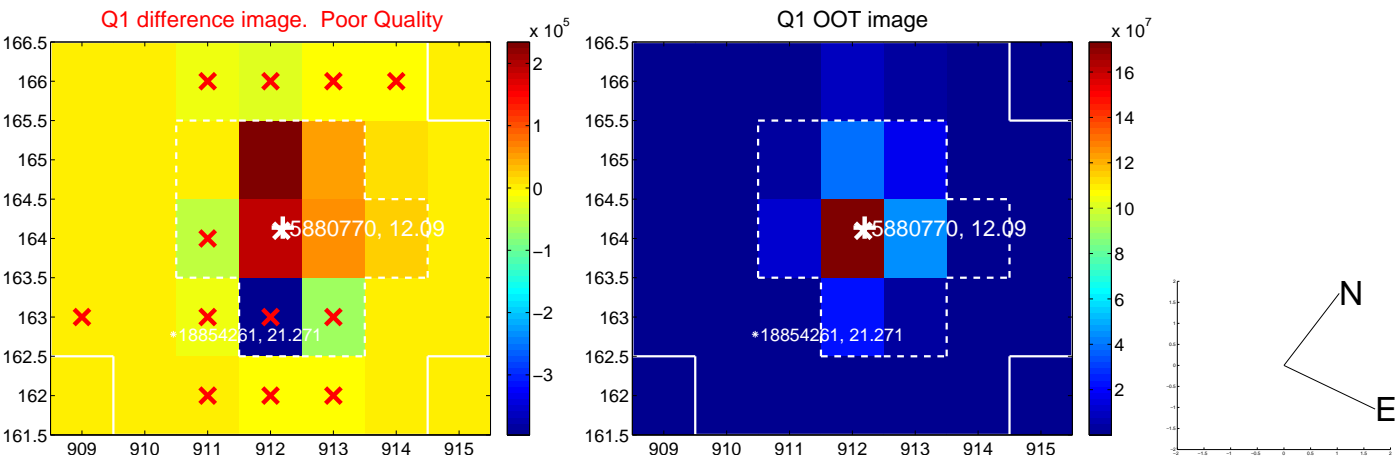
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	$1.94 \pm 1.12$	1.74	$-0.73 \pm 1.26$	$-1.80 \pm 1.09$

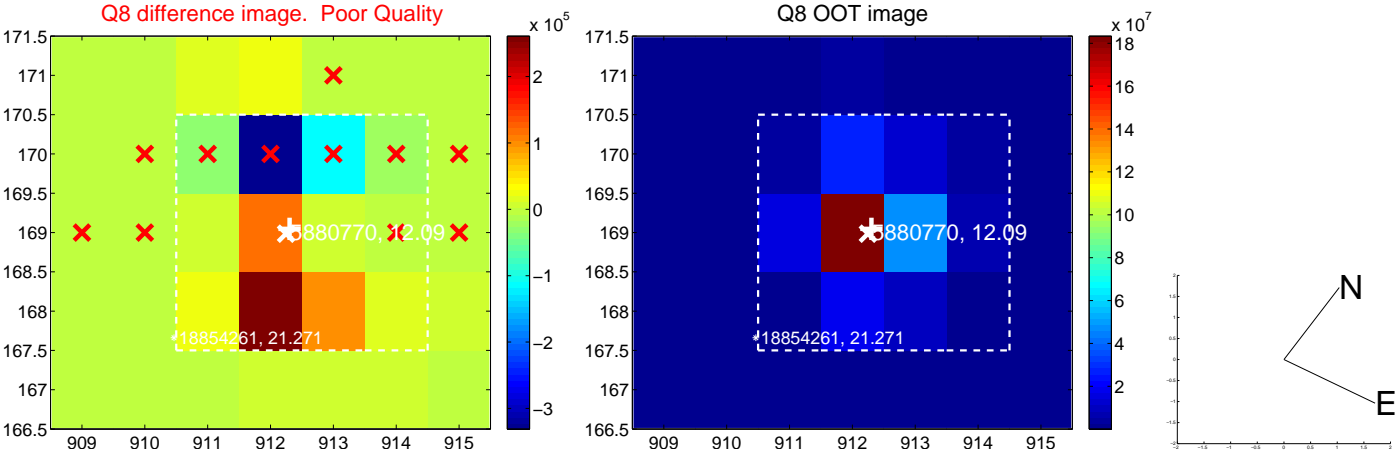
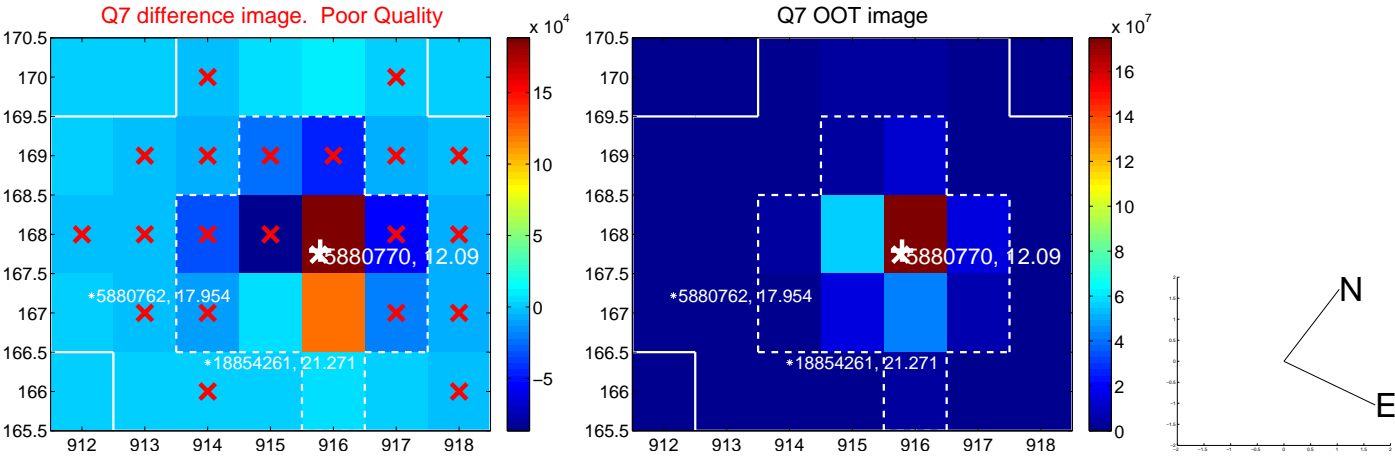
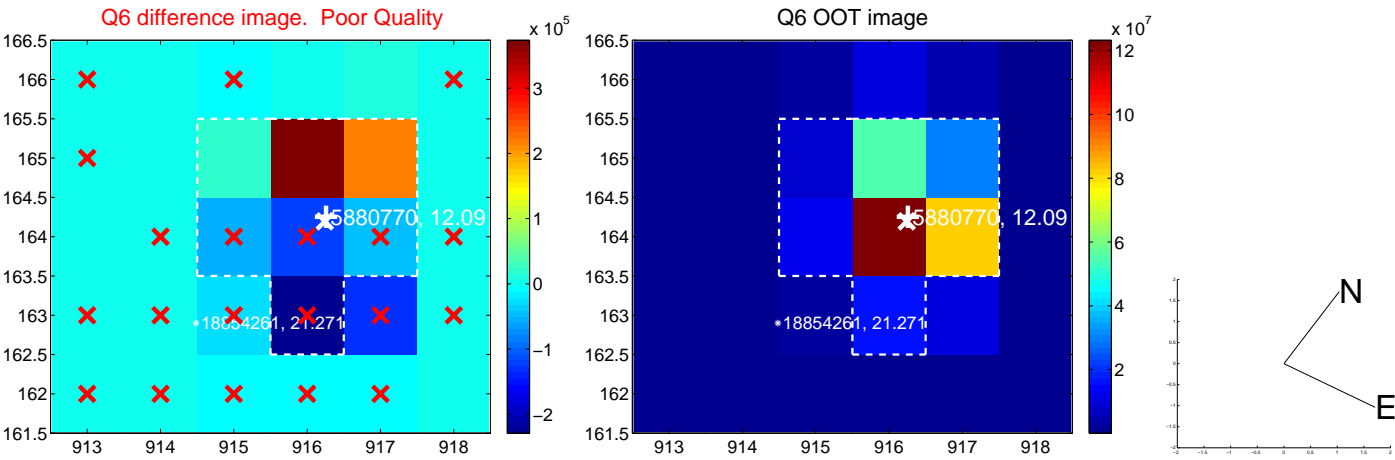
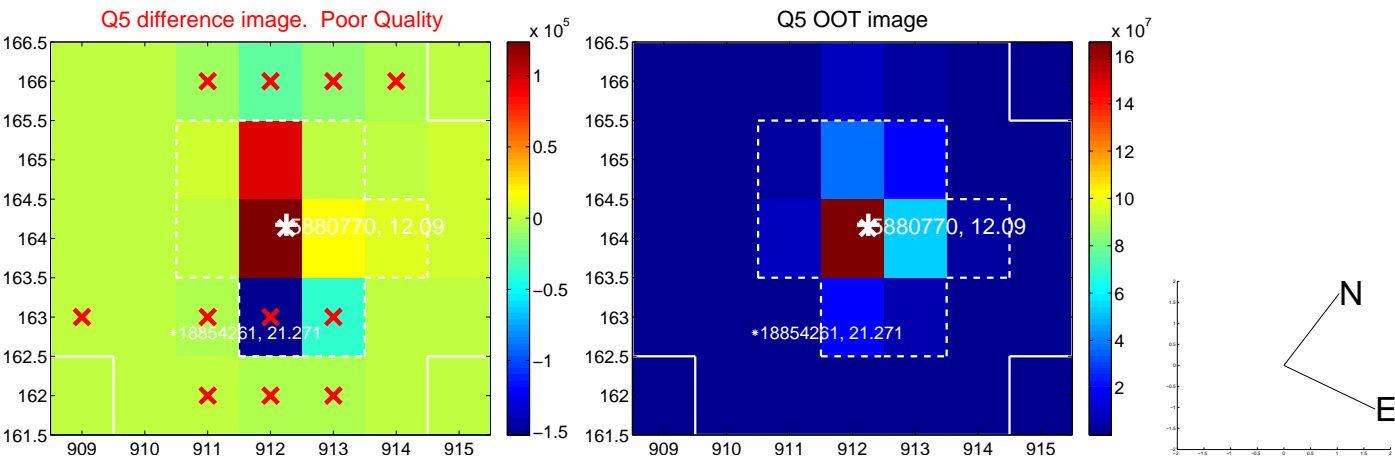


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

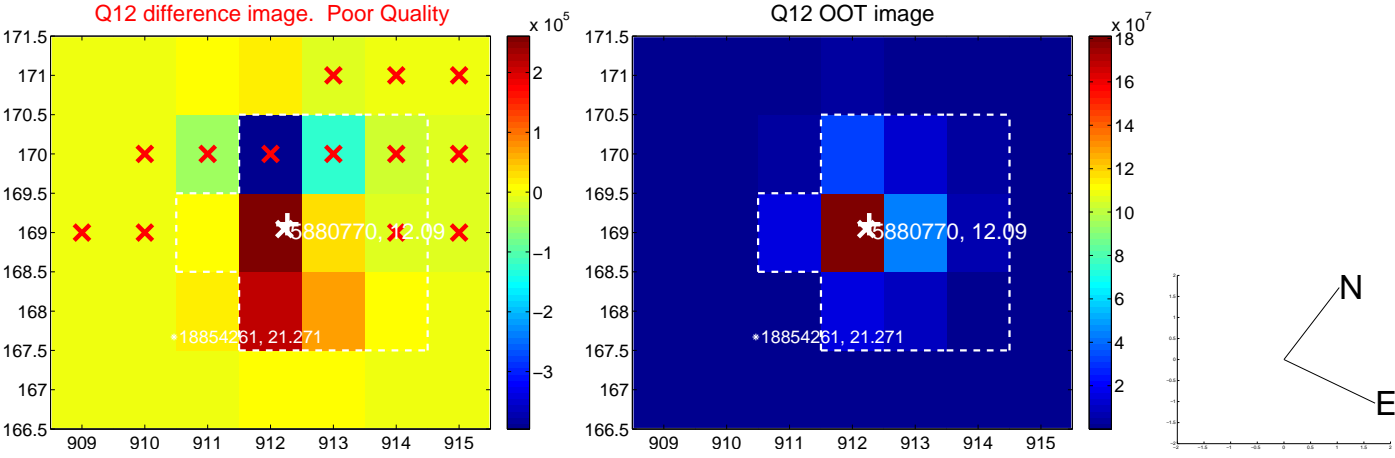
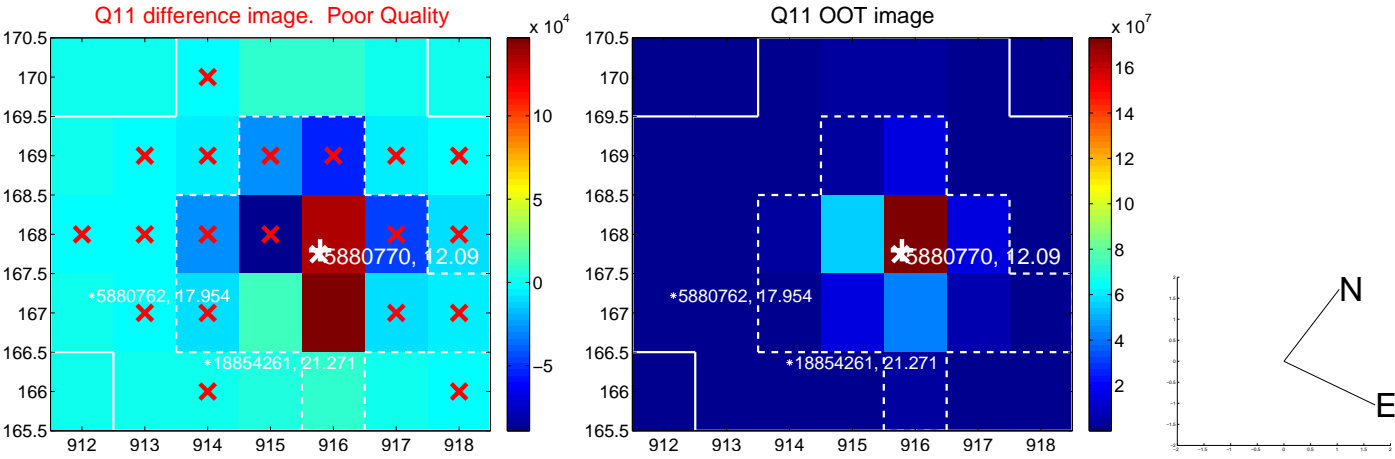
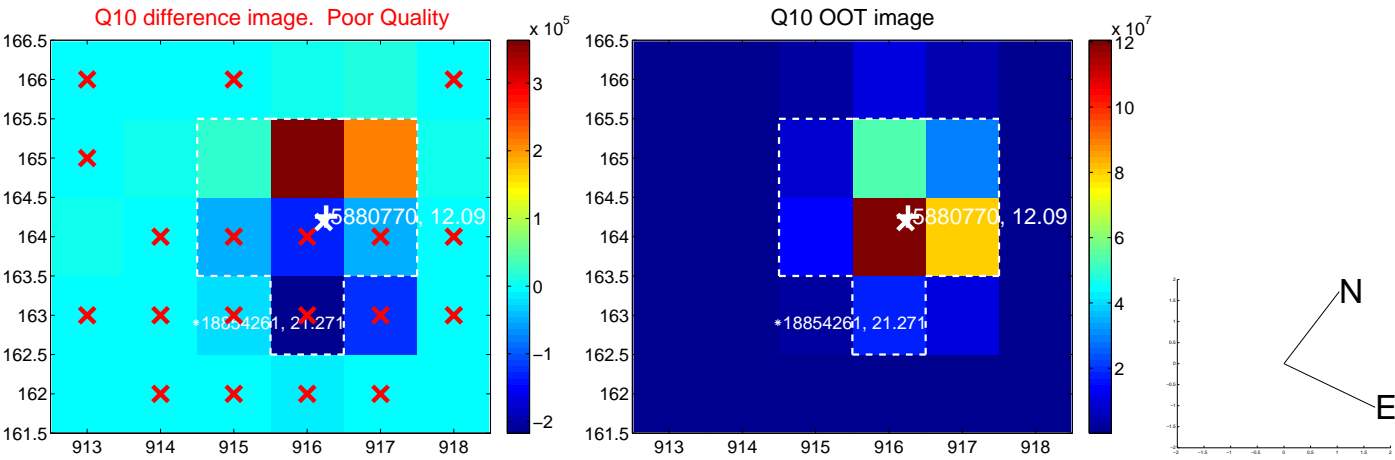
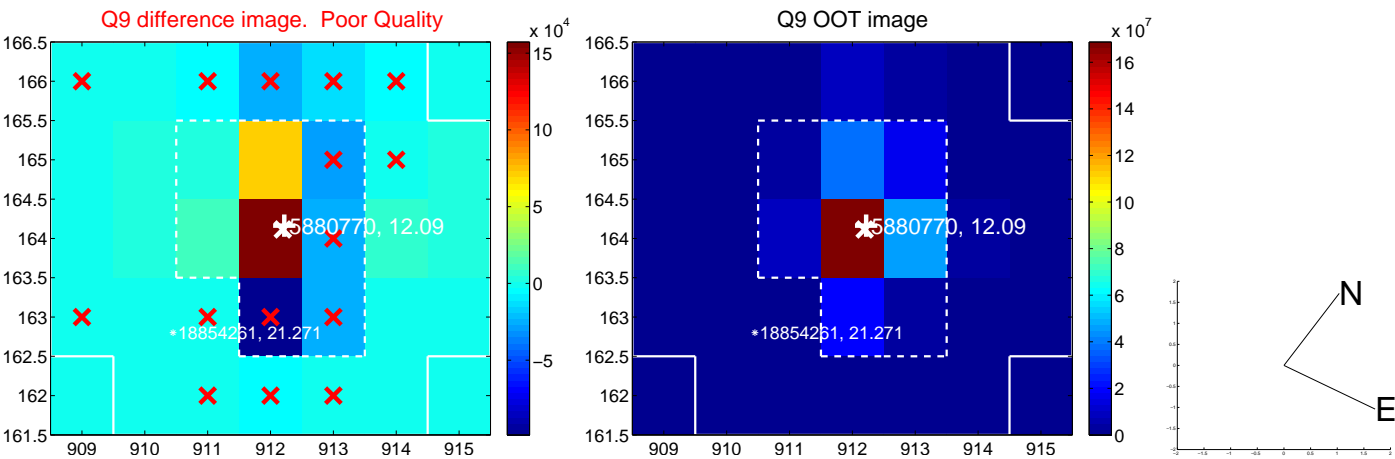


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

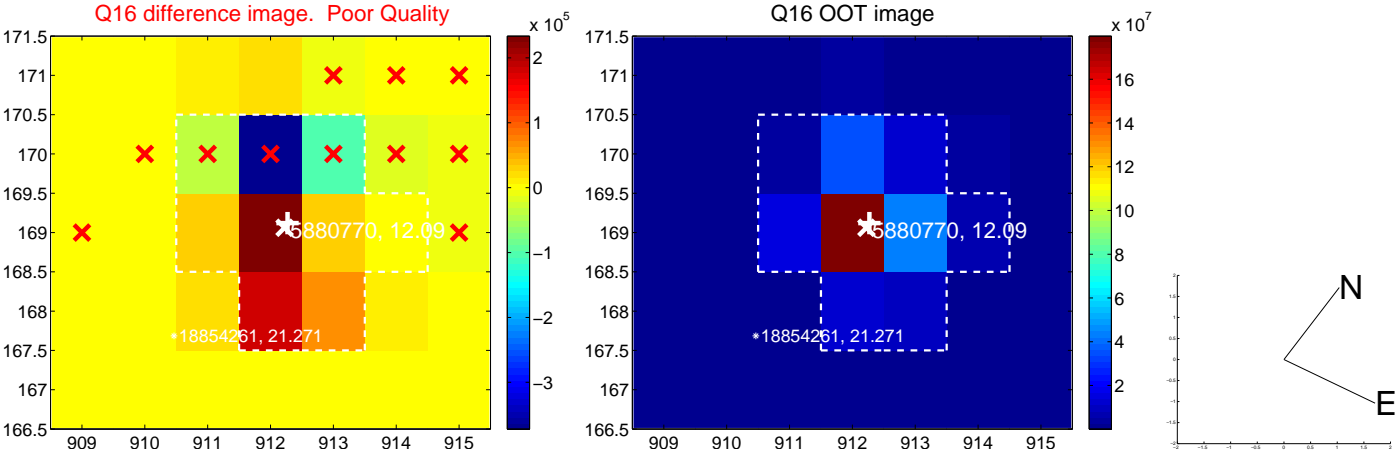
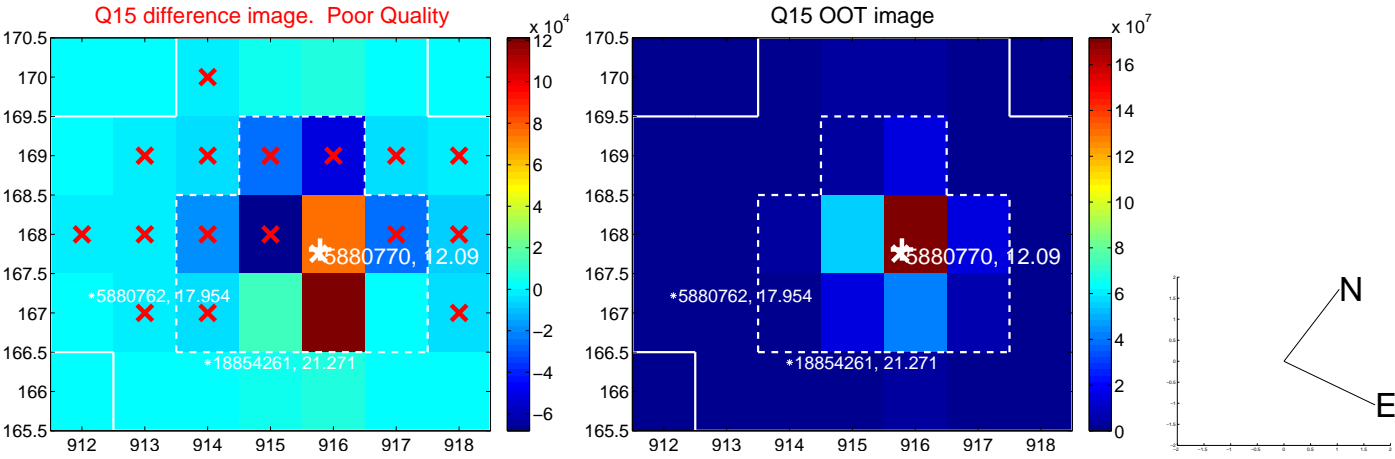
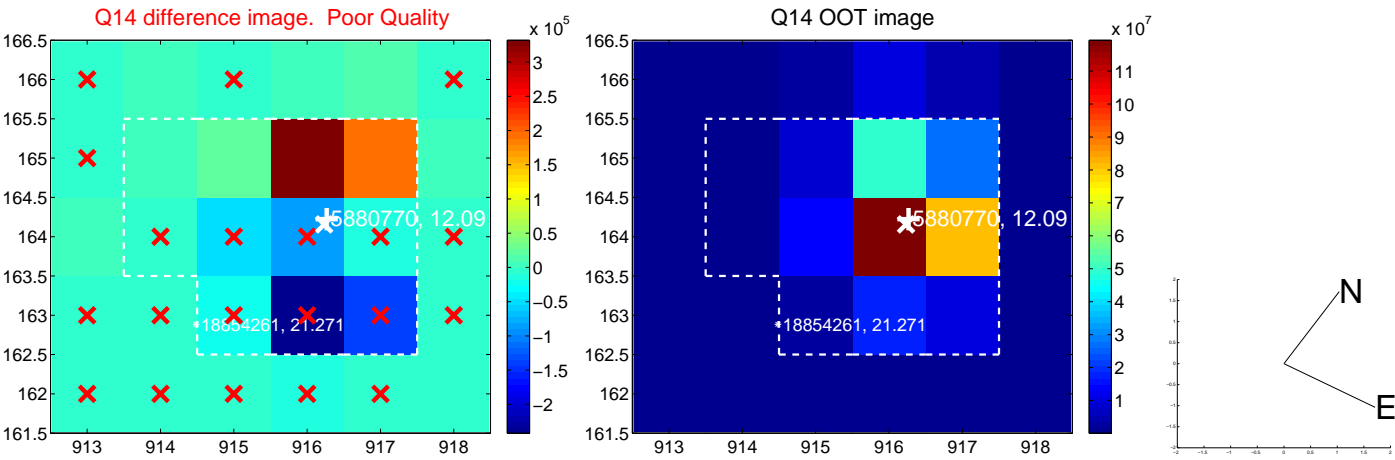
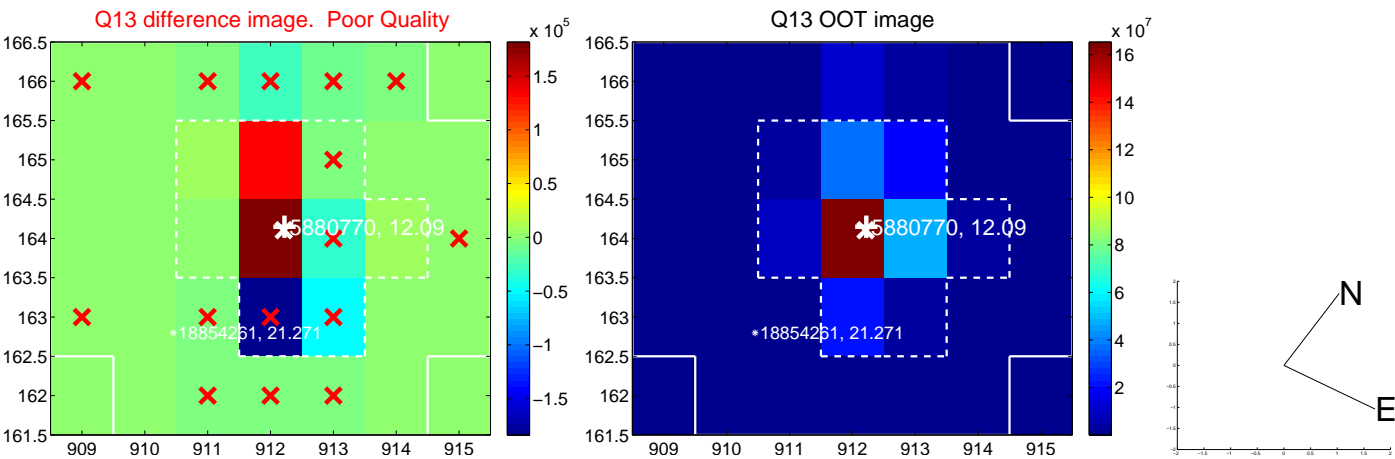




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





UKIRT Image

