

# KIC 005462692

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005462692-01	OBS	No	0.548954	131.730016	81.8	3.237	14.2	14.4	1.65	7521	1.73	34391.14

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005462692-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

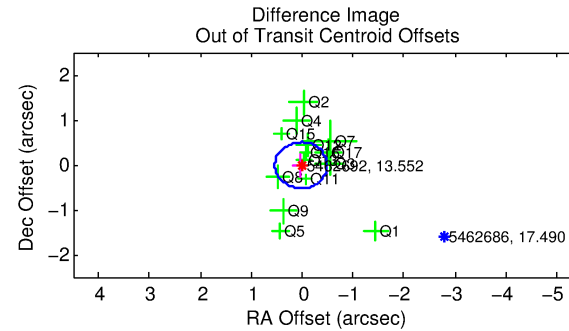
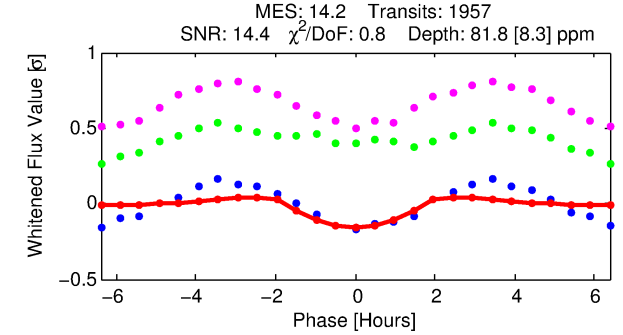
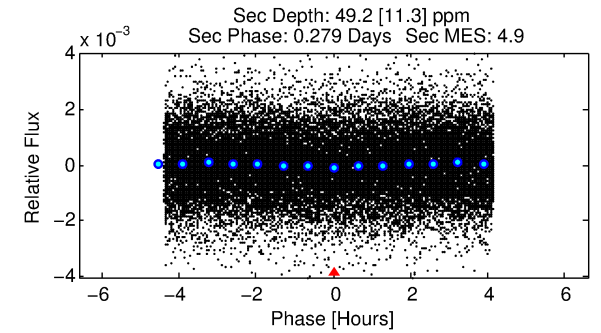
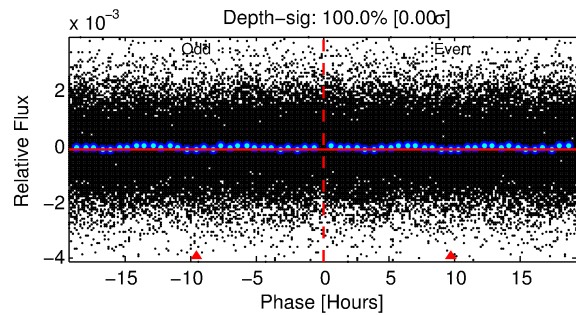
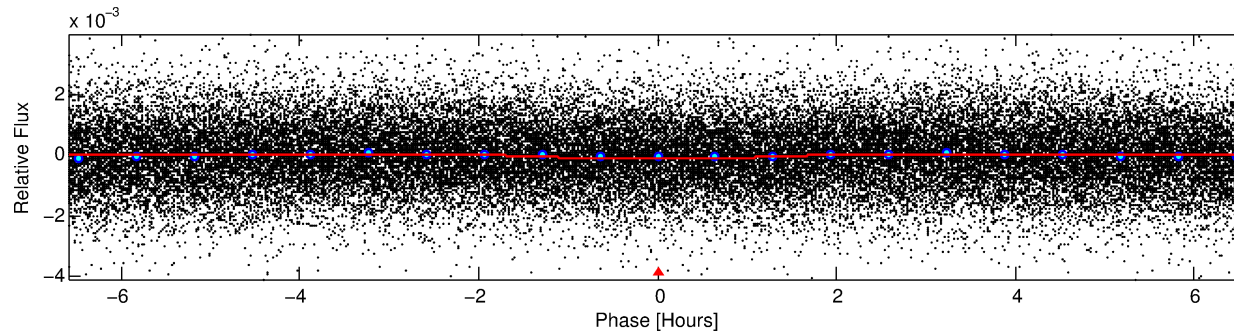
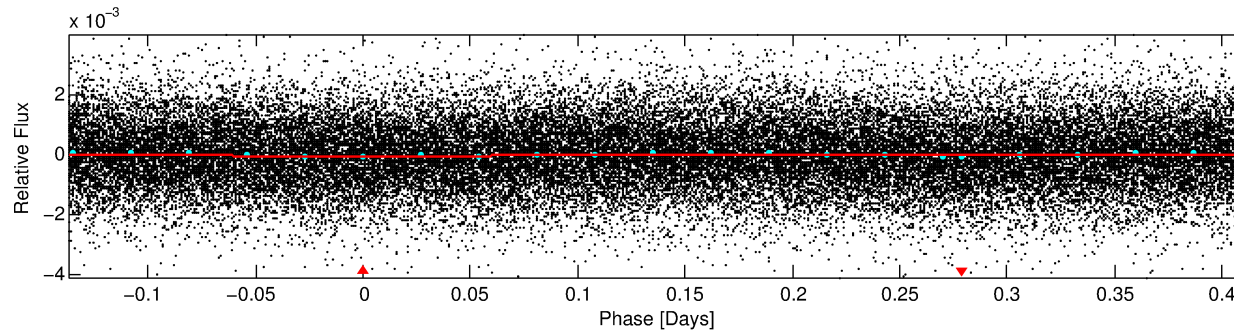
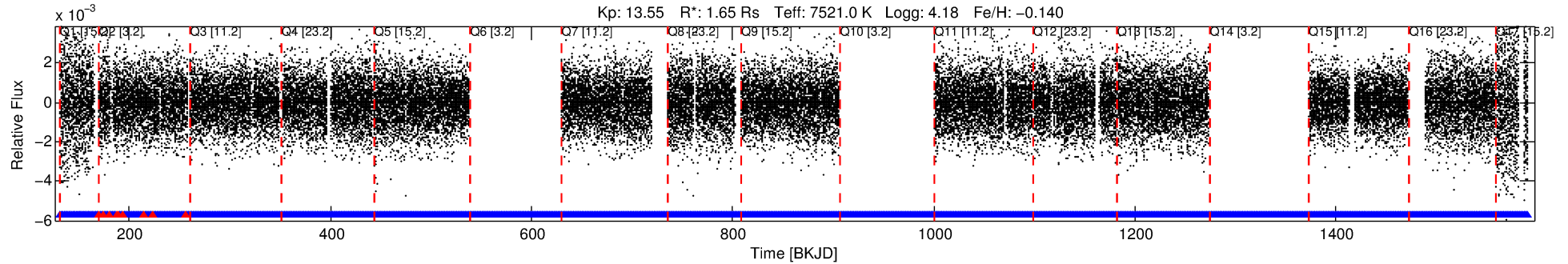
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005462692-01

No Significant Match Found

# DV One-Page Summary

KIC: 5462692 Candidate: 1 of 1 Period: 0.549 d



## DV Fit Results:

Period = 0.54895 [0.00001] d  
Epoch = 131.7300 [0.0028] BKJD  
Rp/R\* = 0.0096 [0.0067]  
a/R\* = 1.11 [0.96]  
b = 0.90 [0.96]  
Seff = 34391.14 [13640.29]  
Teq = 3472 [344] K  
Rp = 1.73 [1.34] Re  
a = 0.0151 [0.0039] AU  
Ag = 2.05 [3.00] [0.35σ]  
Teffp = 6427 [2295] K [1.27σ]

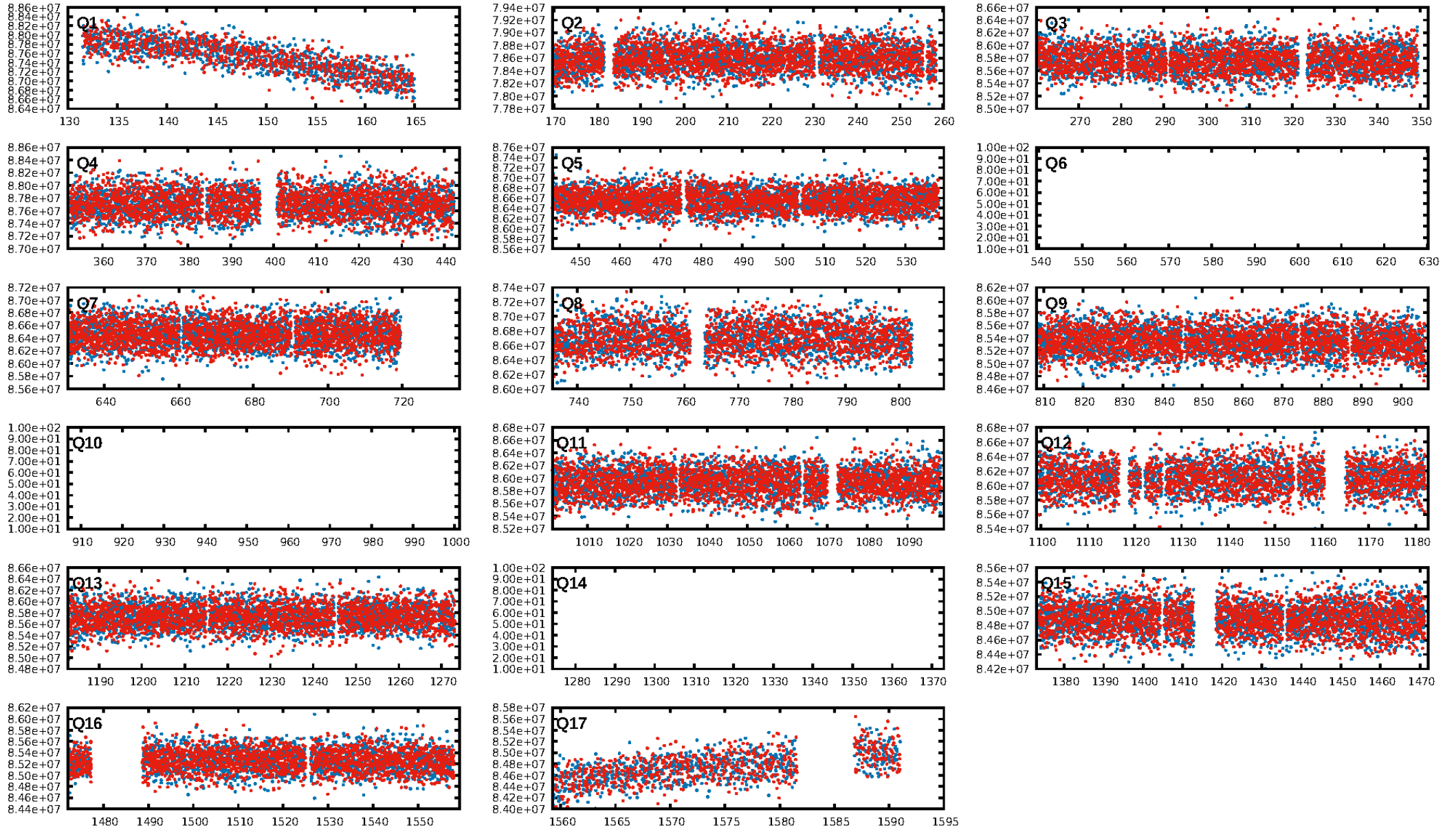
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 7.93e-43  
RollingBand-fgt: 1.00 [1838/1847]  
GhostDiagnostic-chr: 2.715  
Centroid-sig: 3.5%  
Centroid-so: 0.365 arcsec [1.53σ]  
OotOffset-rm: 0.026 arcsec [0.15σ]  
KicOffset-rm: 0.126 arcsec [0.63σ]  
OotOffset-st: 1/4/4/5 [14]  
KicOffset-st: 1/4/4/5 [14]  
DiffImageQuality-fgm: 0.93 [13/14]  
DiffImageOverlap-fno: 1.00 [14/14]

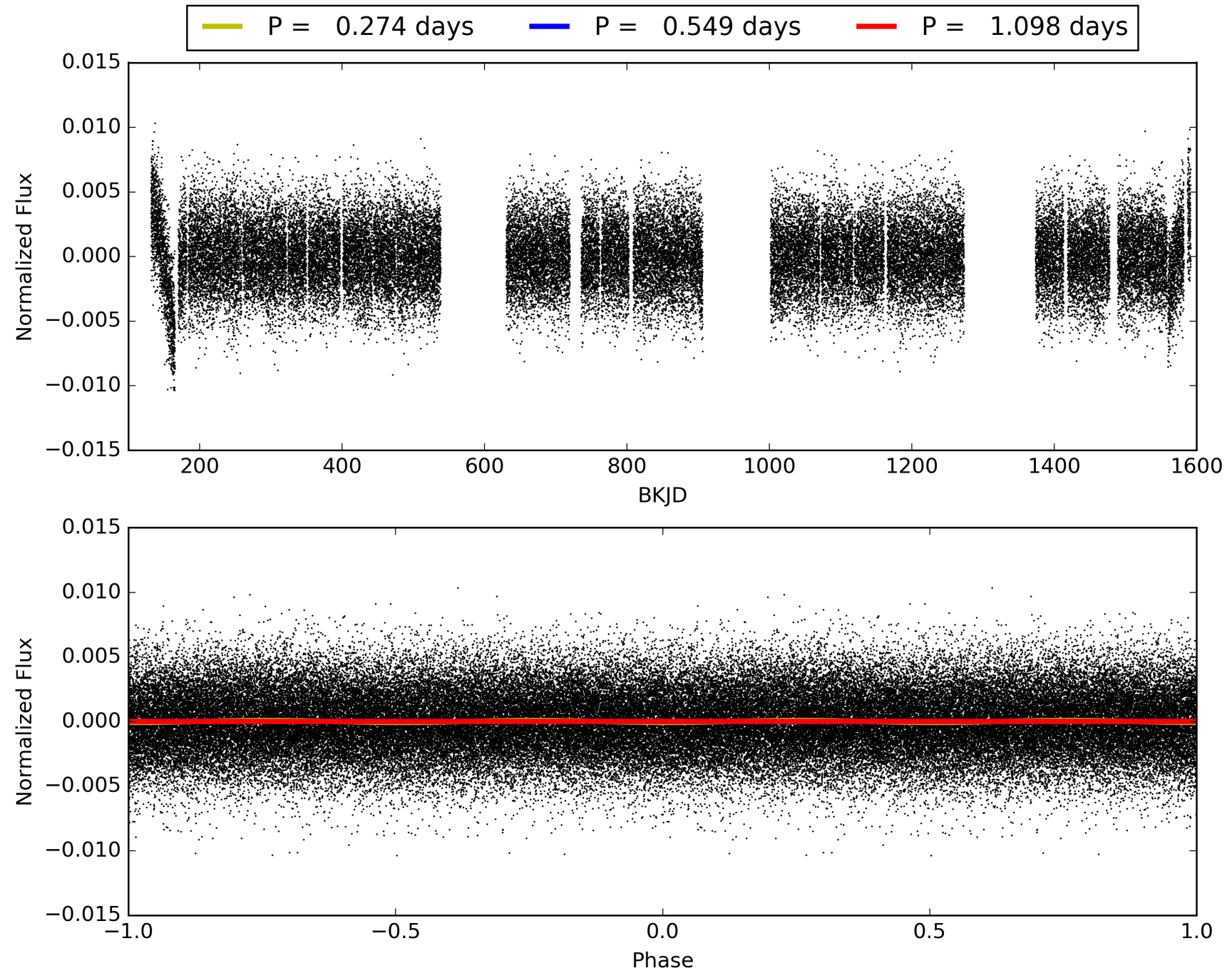
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:54:12 Z

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

# TCE 005462692-01, PDC Light Curves



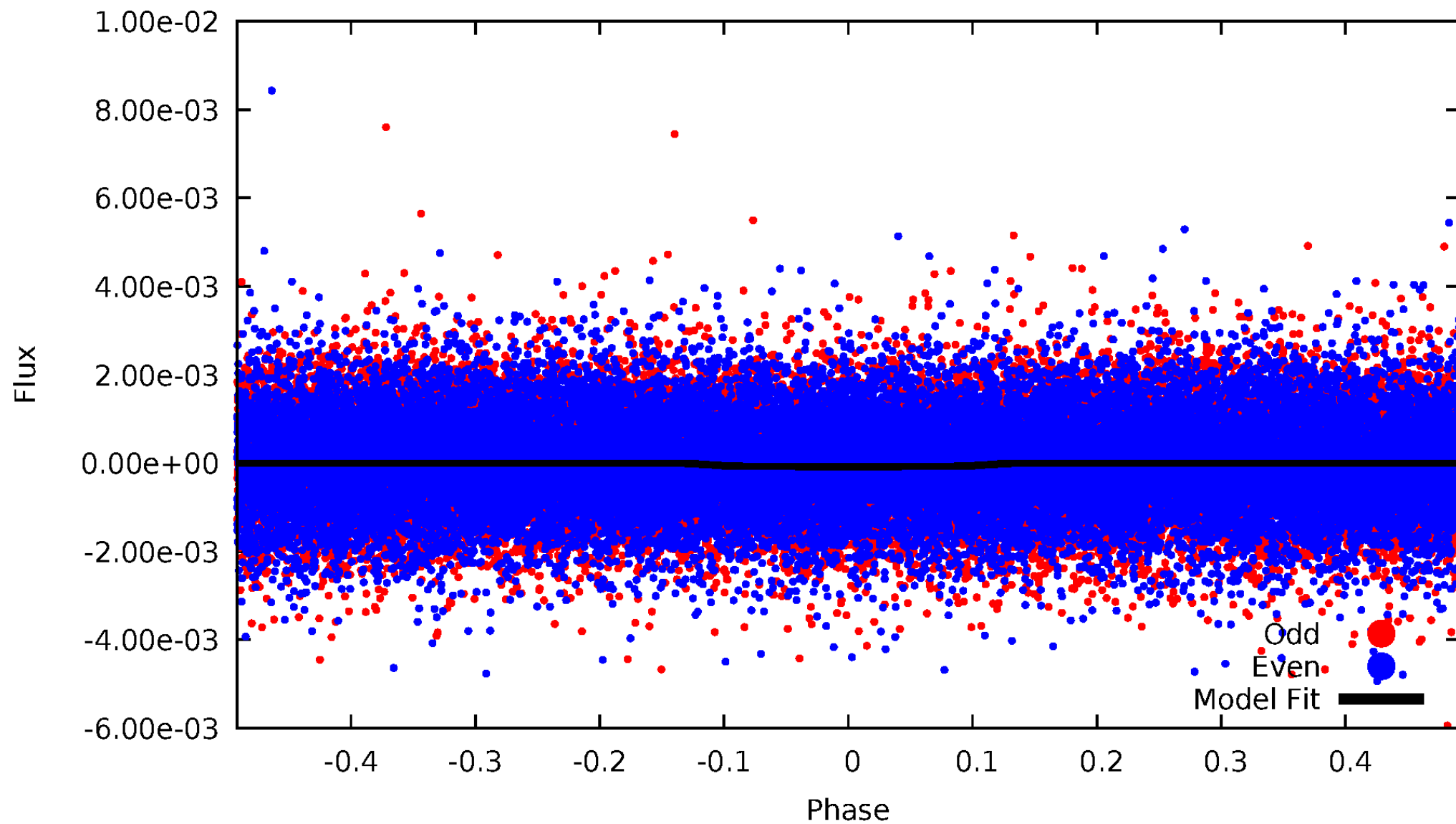
TCE 005462692-01





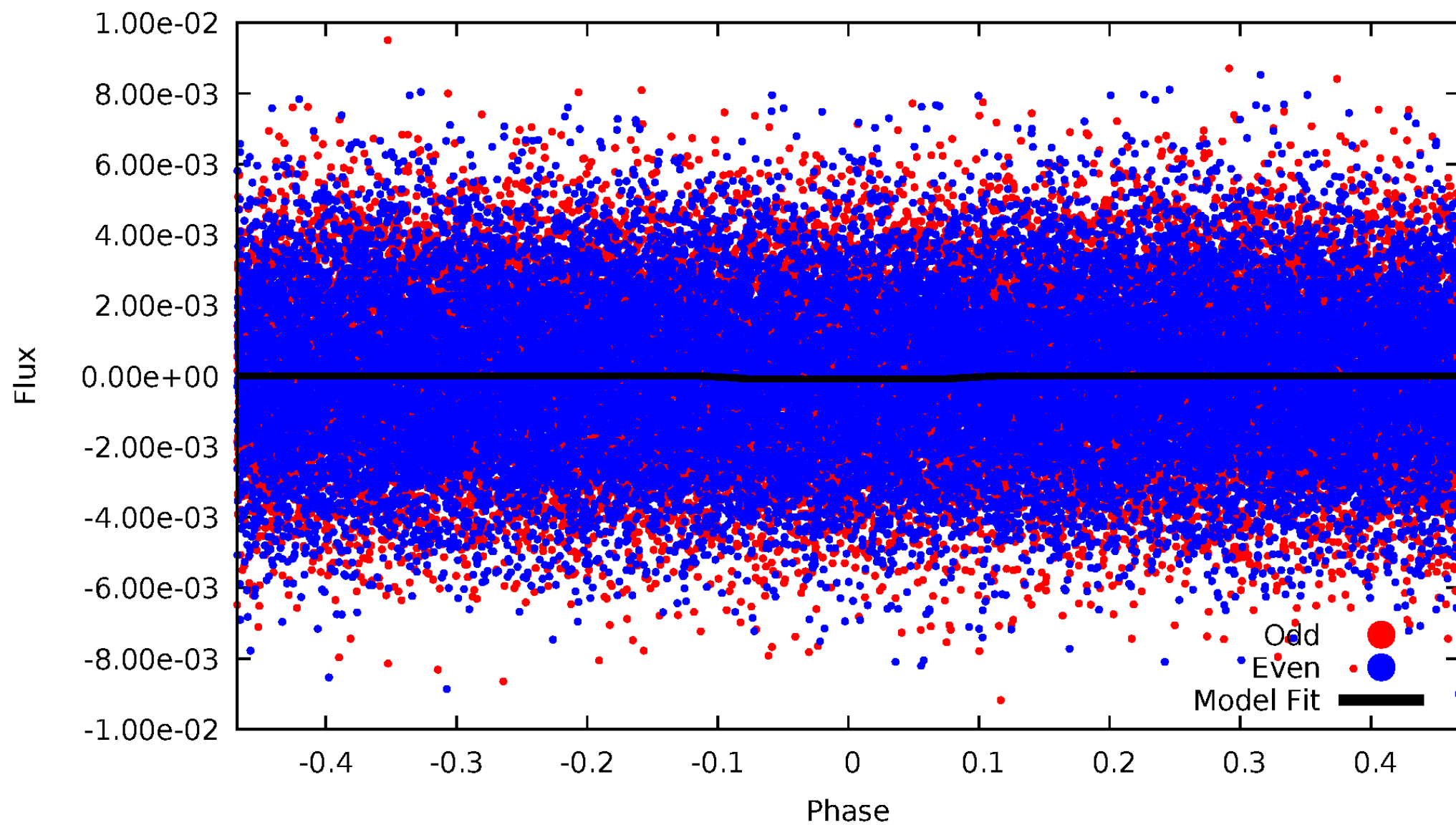
# DV Odd/Even

TCE 005462692-01

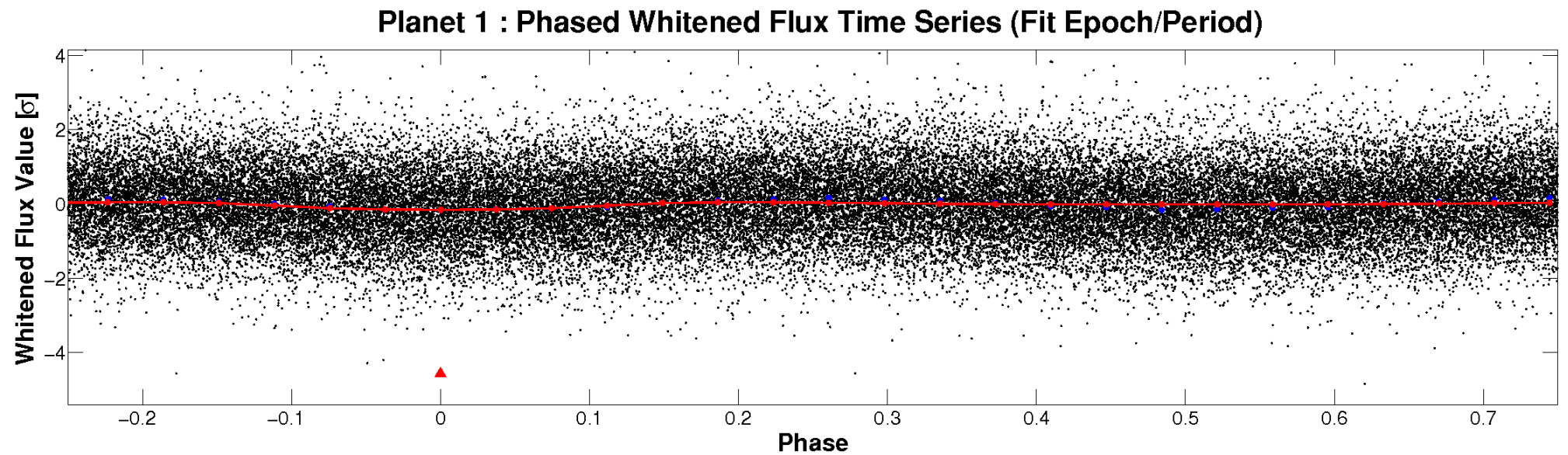
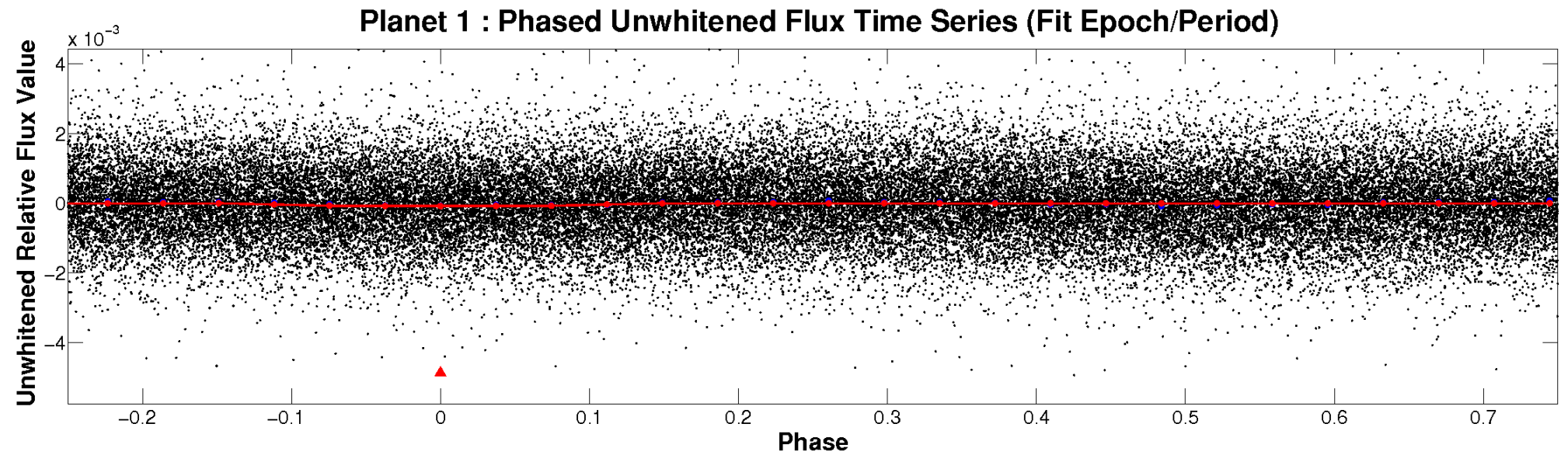


# ALT Odd/Even

TCE 005462692-01

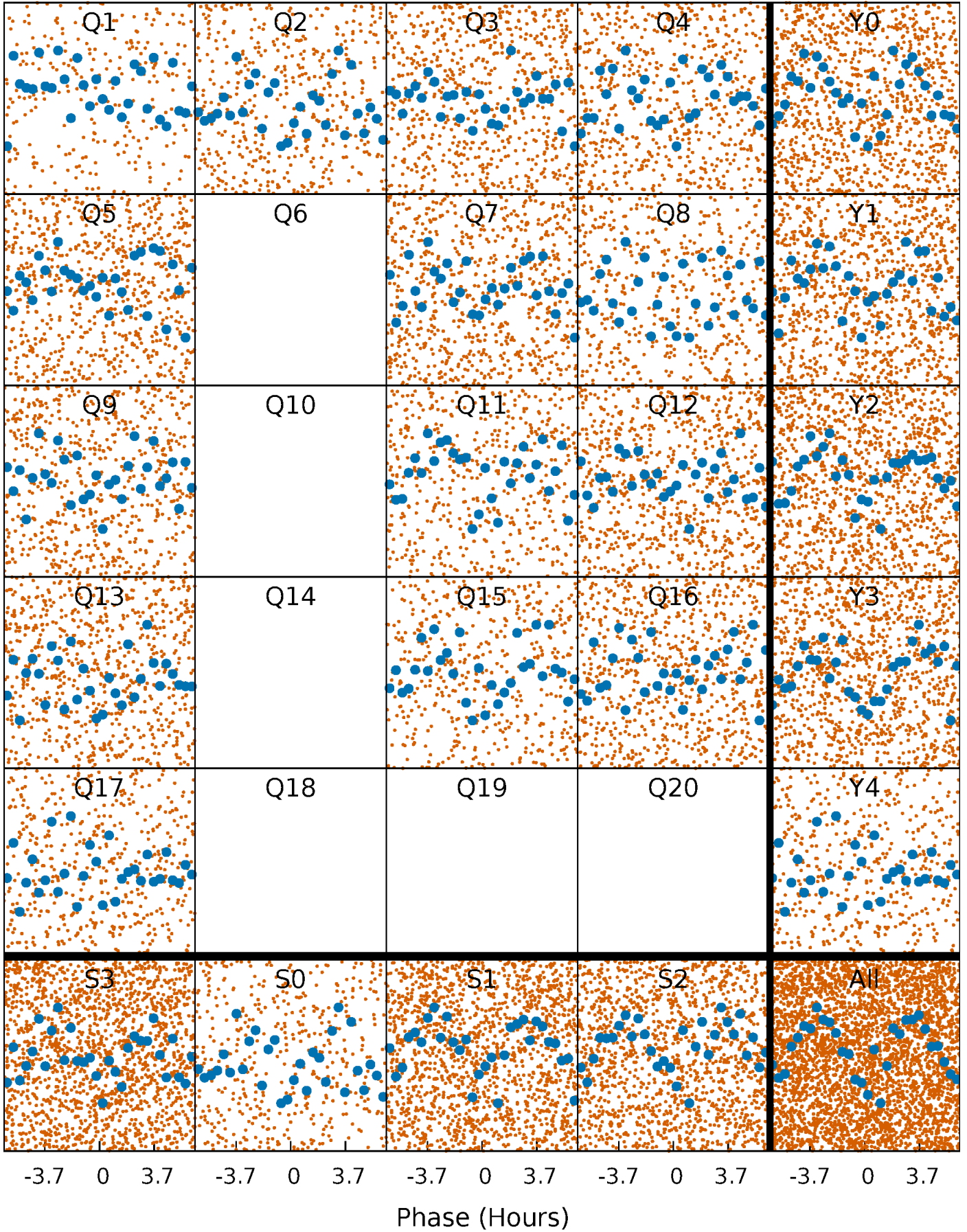


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

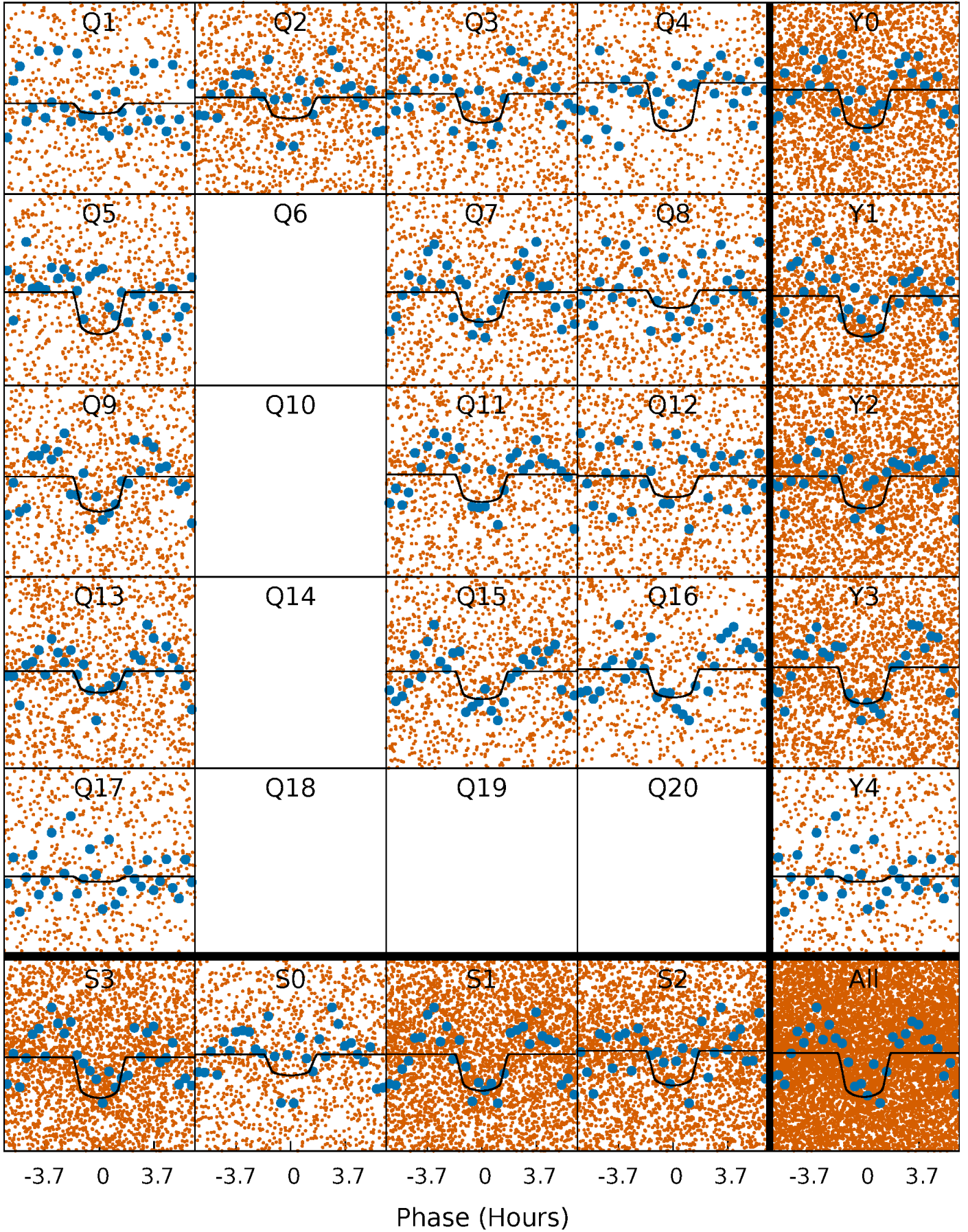
TCE 005462692-01   P= 0.548954 Days    $T_0=131.730016$  (BKJD)





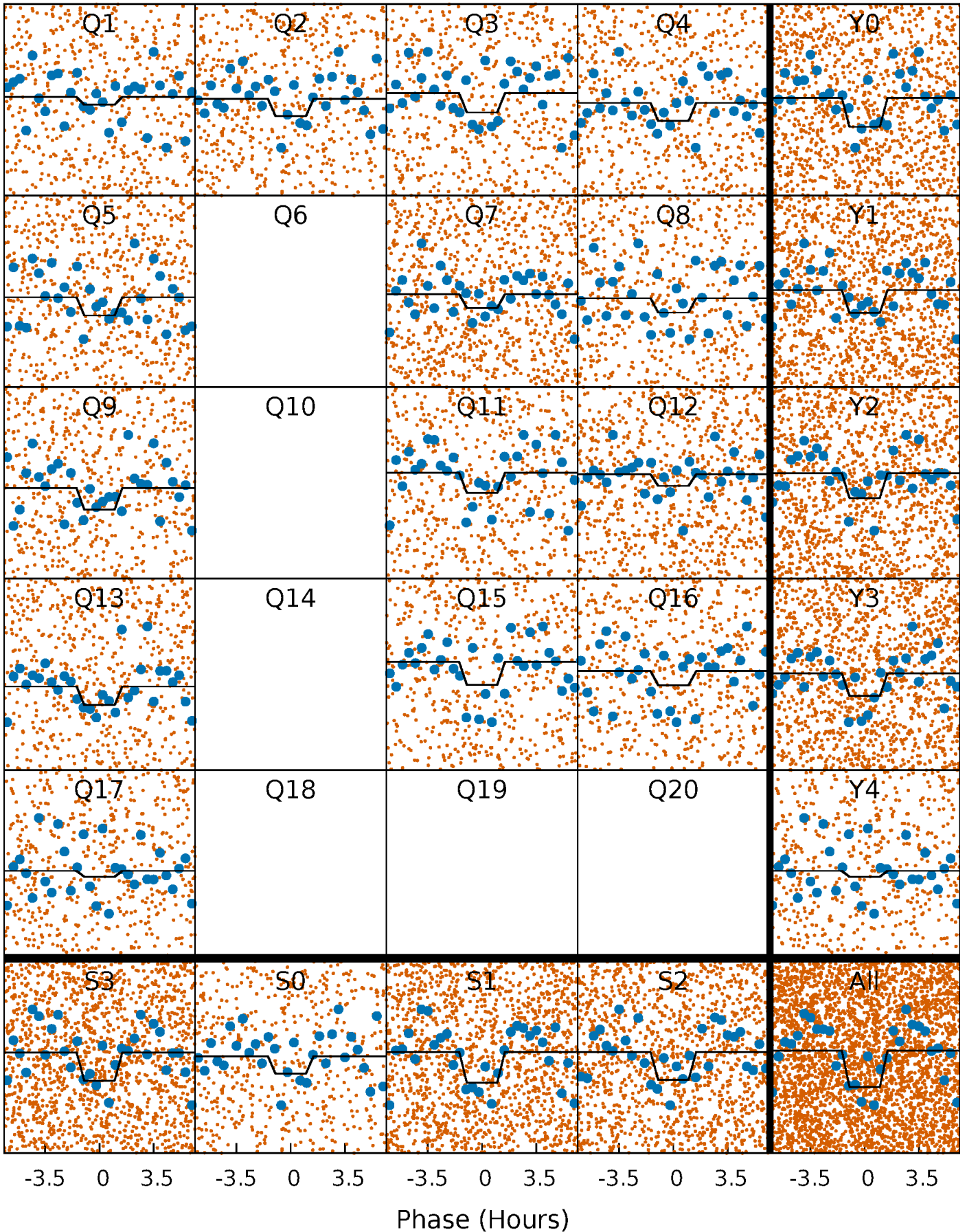
# DV Quarter-Phased Transit Curves

TCE 005462692-01   P= 0.548954 Days    $T_0=131.730016$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

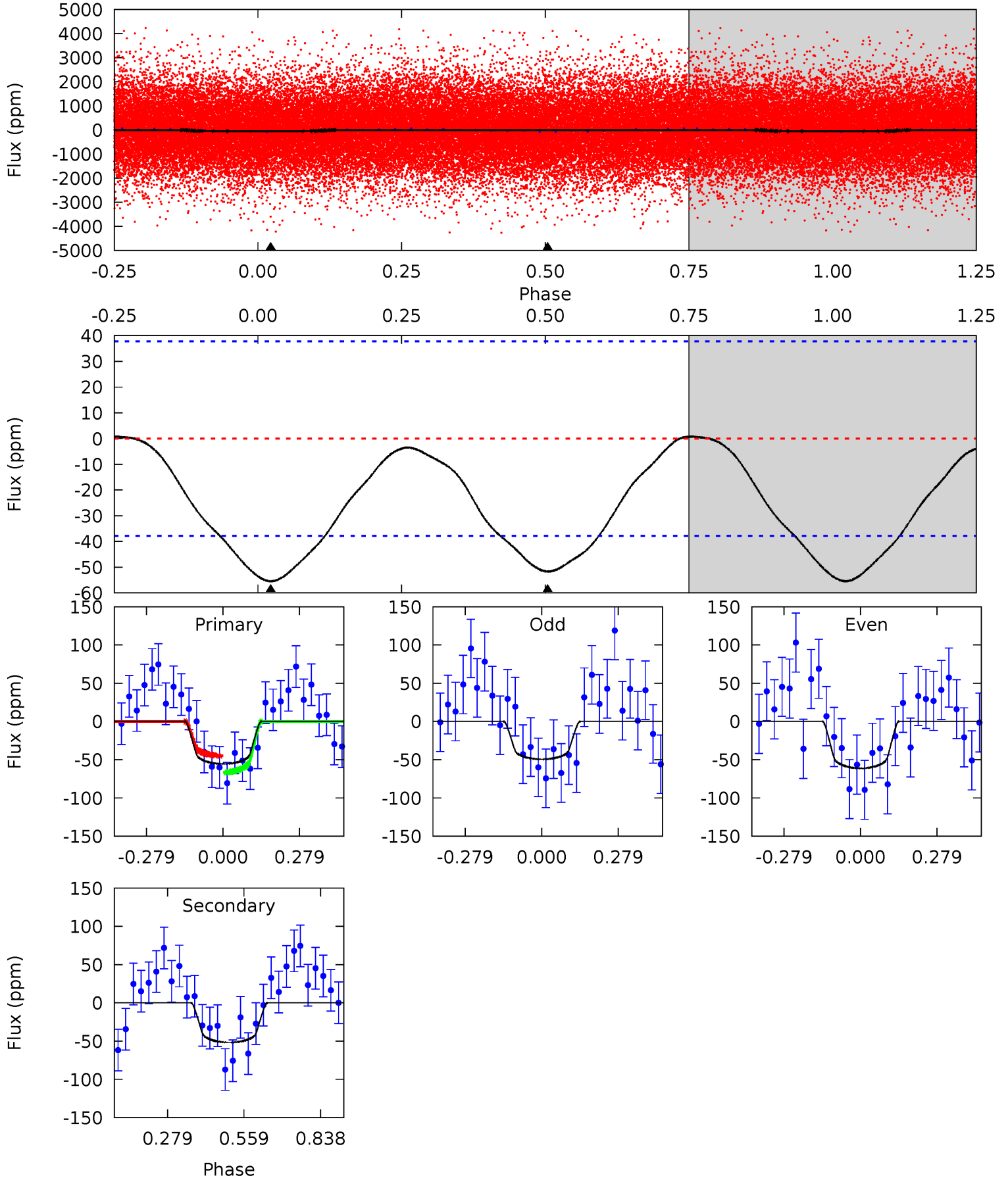
TCE 005462692-01 P= 0.548962 Days  $T_0=131.733274$  (BKJD)



# DV Model-Shift Uniqueness Test

005462692-01, P = 0.548954 Days, E = 131.181062 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
6.38	5.95	0	0	4.34	1.08	0.22	6.38	6.38	5.95	5.95	0.68	0.90	0.01	1.26

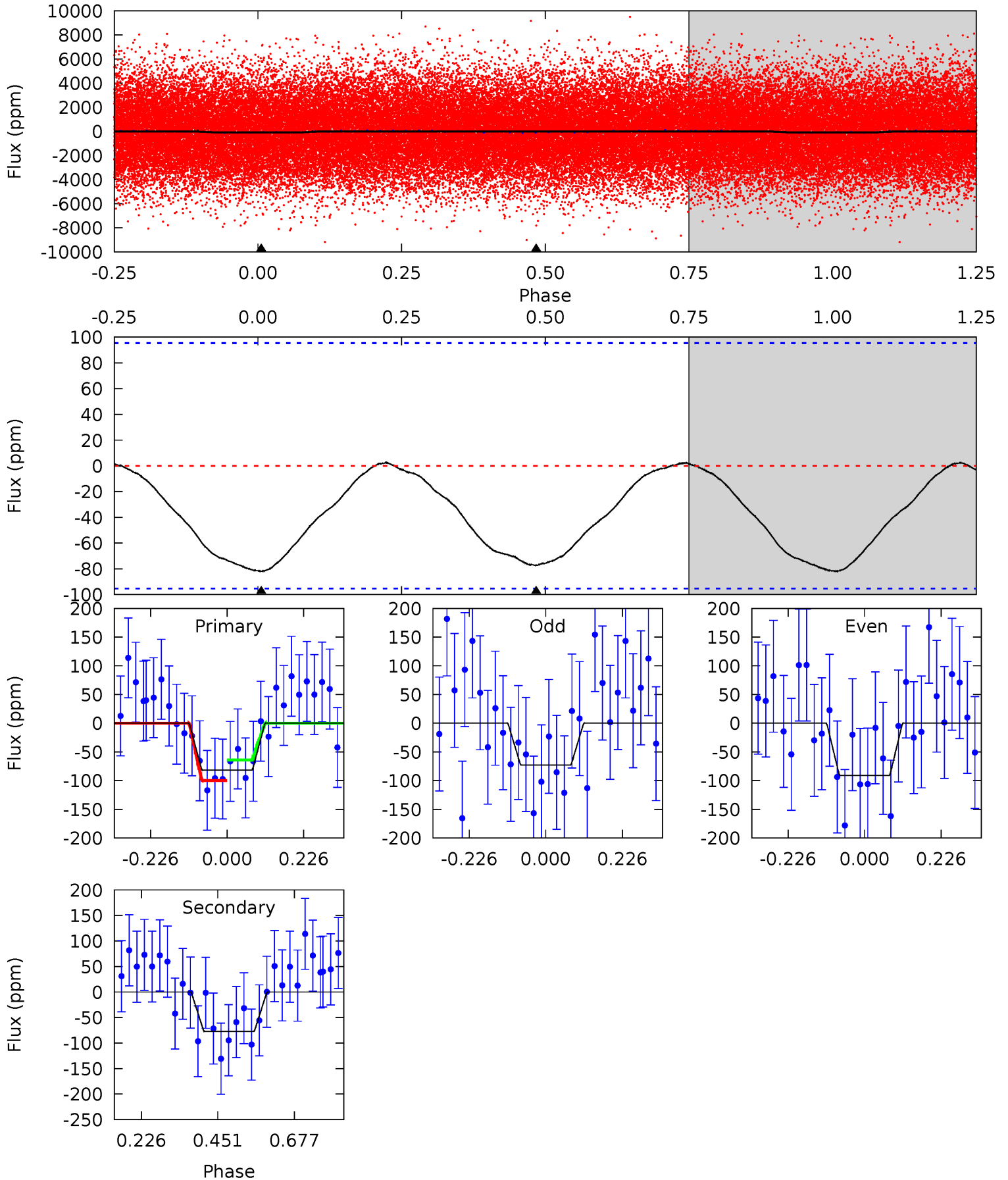




# Alt Model-Shift Uniqueness Test

005462692-01, P = 0.548962 Days, E = 131.184312 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
3.77	3.56	0	0	4.39	1.21	0.09	3.77	3.77	3.56	3.56	0.42	0.99	0.03	0.83





### Stellar Parameters For KIC 005462692

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7521^{+235}_{-314}$	$4.183^{+0.109}_{-0.186}$	$-0.140^{+0.200}_{-0.350}$	$1.651^{+0.542}_{-0.292}$	$1.510^{+0.220}_{-0.220}$	$0.473^{+0.289}_{-0.241}$
	+3%/-4%	+3%/-4%	+143%/-250%	+33%/-18%	+15%/-15%	+61%/-51%
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 005462692-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-52 \pm 9$	$1.86^{+1.16}_{-1.07}$	$4890^{+341}_{-299}$	$5966^{+4065}_{-1549}$	$1.865^{+7.925}_{-1.184}$
Alt.	$-77 \pm 22$	$1.76^{+1.31}_{-1.04}$	$4880^{+374}_{-289}$	$6879^{+6519}_{-1925}$	$3.019^{+15.525}_{-2.036}$

$T_{\text{max}}$  = 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  $A_{\text{obs}} \gg 1.0$

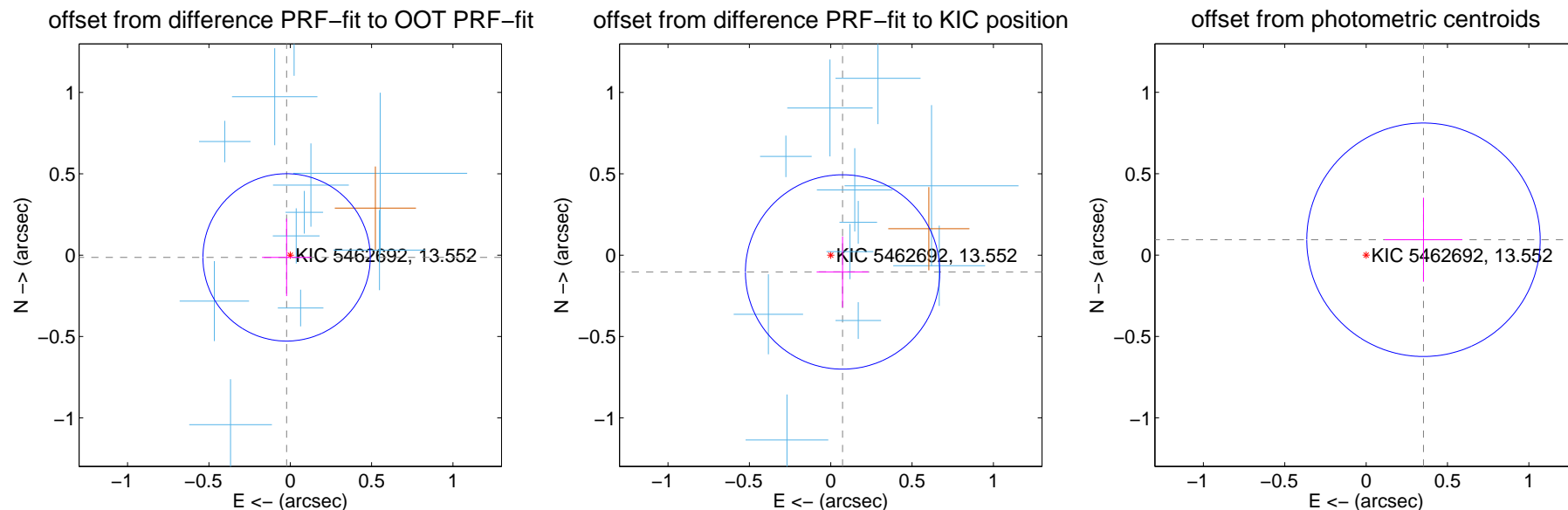
## DV Centroid Data

Supplemental centroid analysis for 005462692-01. Kepler magnitude: 13.55. Transit SNR 14.38

There are 13 quarters with good PRF difference image offsets

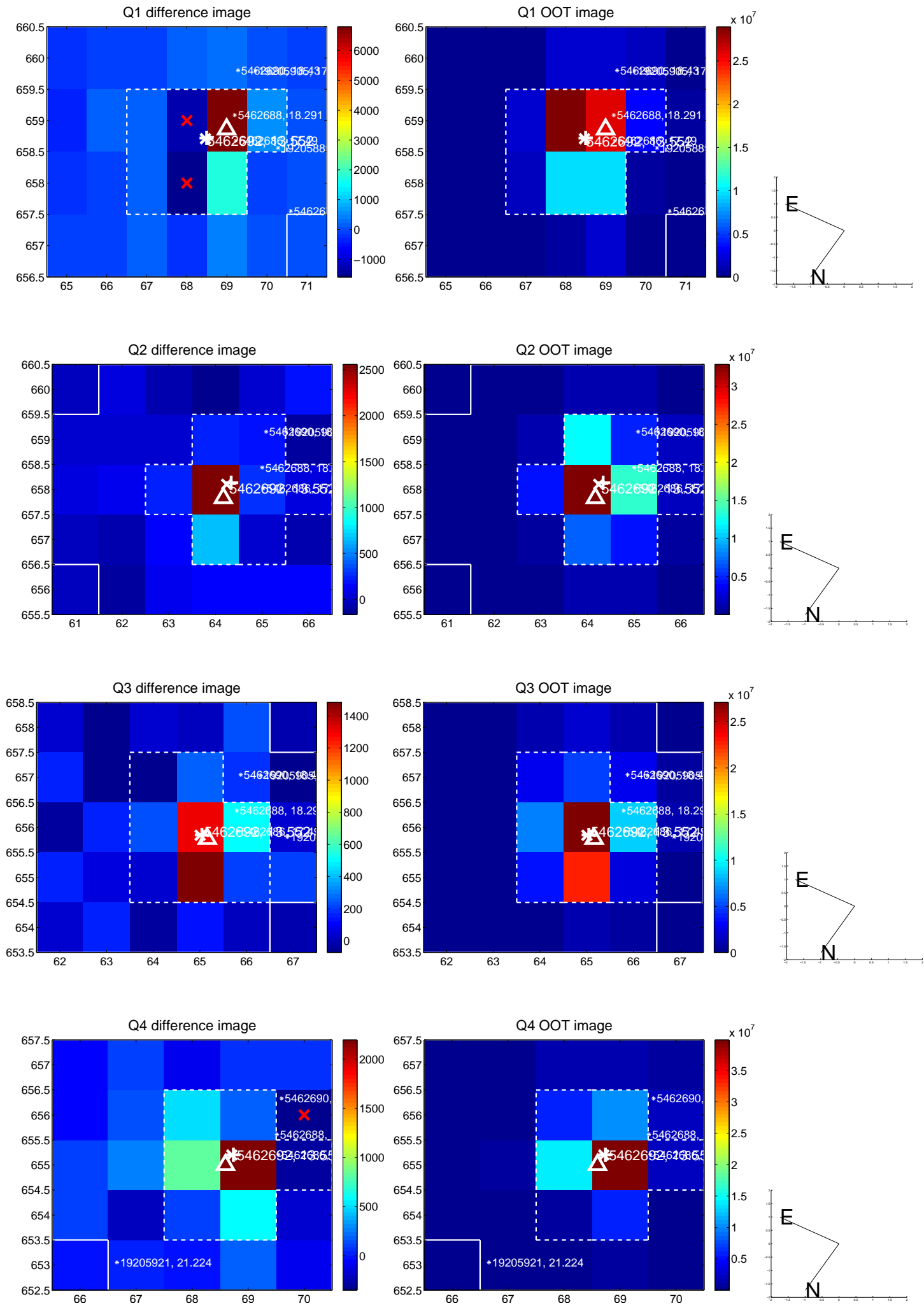
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.026 \pm 0.171$	0.15	$0.023 \pm 0.151$	$-0.014 \pm 0.238$
PRF-fit source offset from KIC position	$0.126 \pm 0.199$	0.63	$-0.073 \pm 0.159$	$-0.103 \pm 0.217$
photometric centroid source offset	$0.36 \pm 0.24$	1.53	$-0.35 \pm 0.24$	$0.09 \pm 0.26$

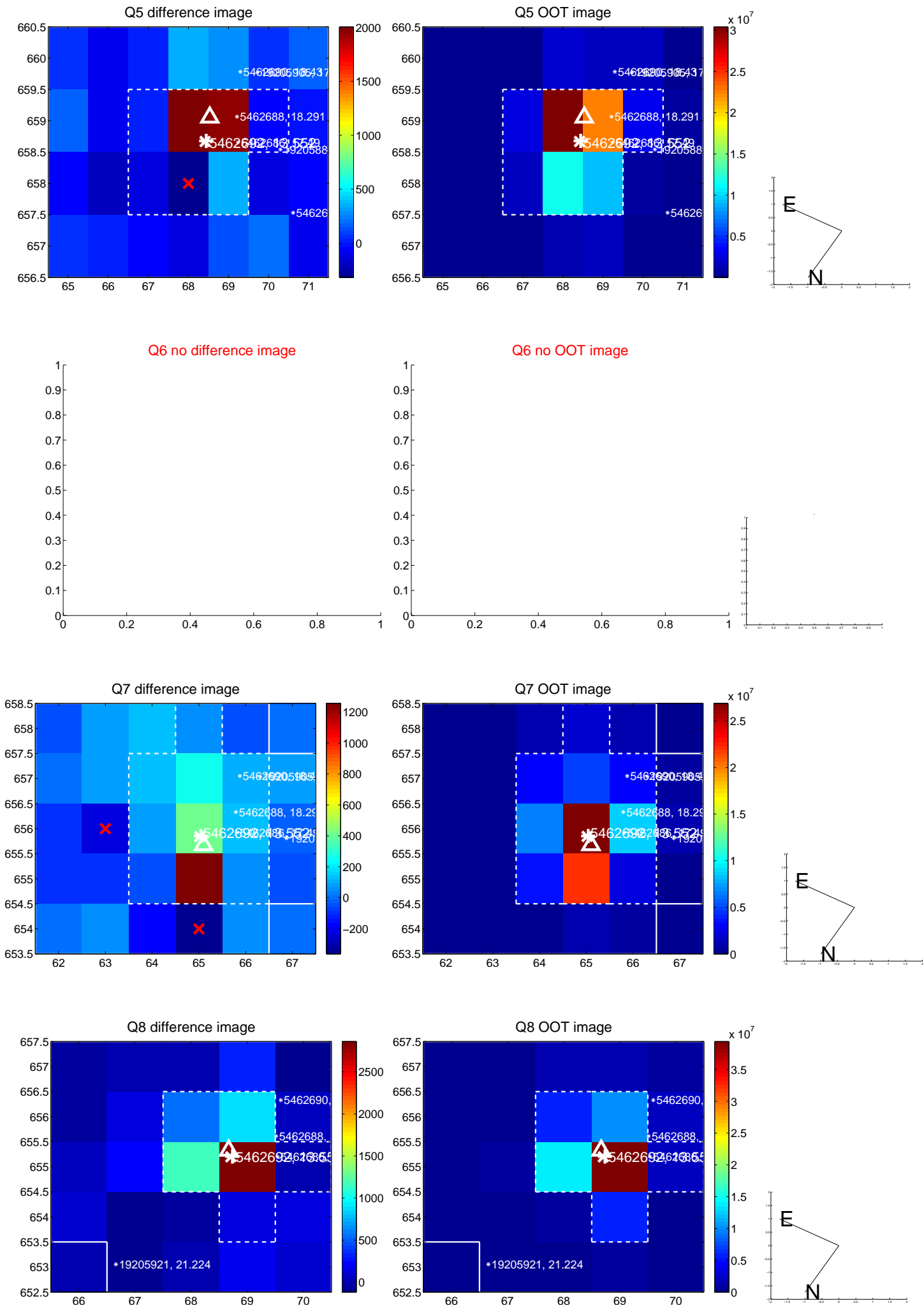


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: 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.

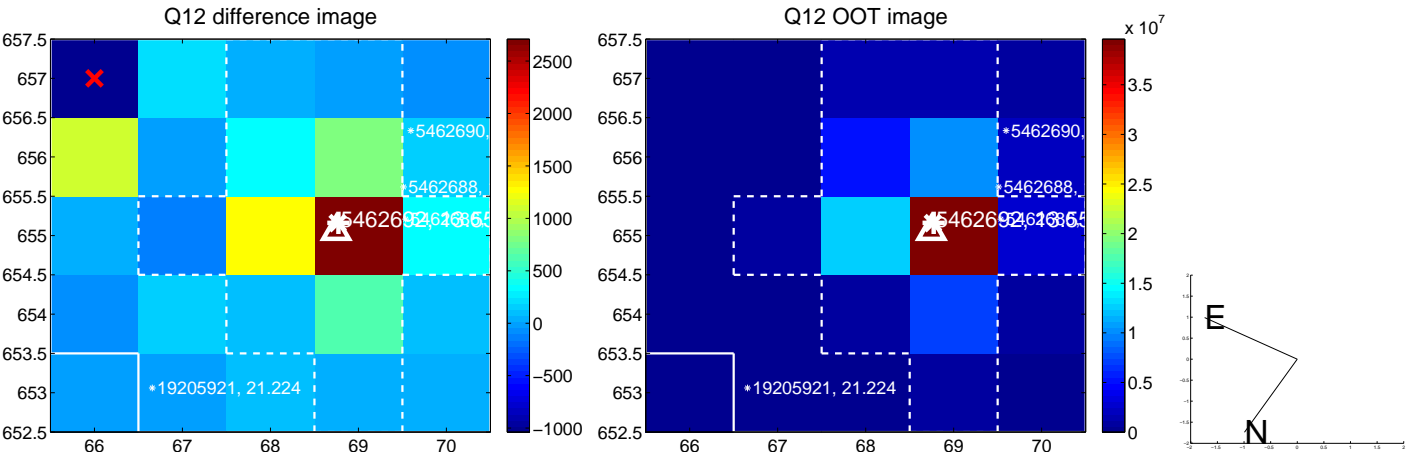
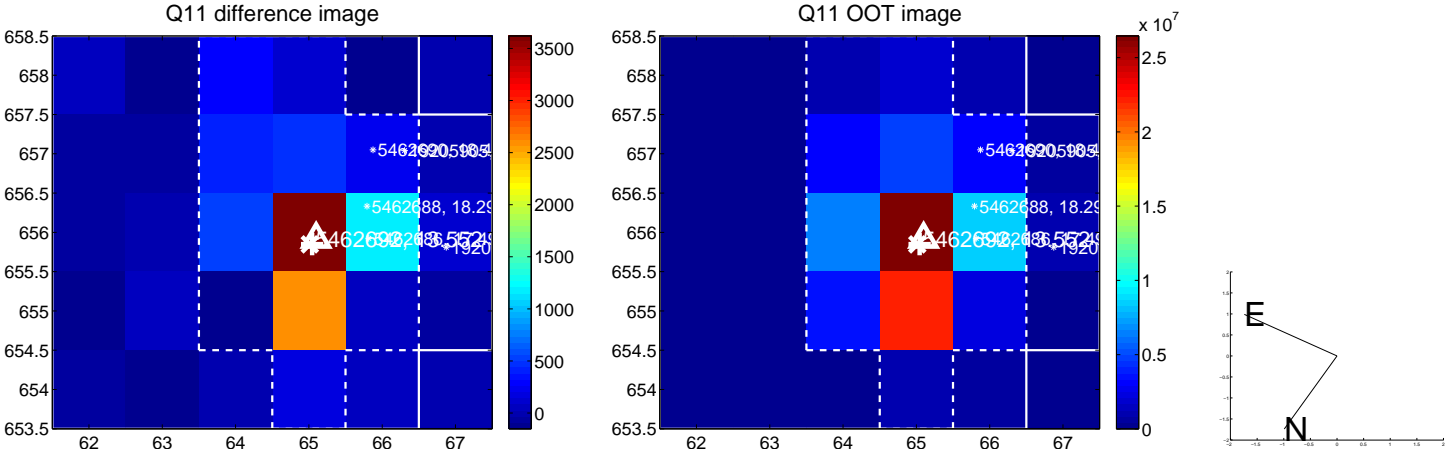
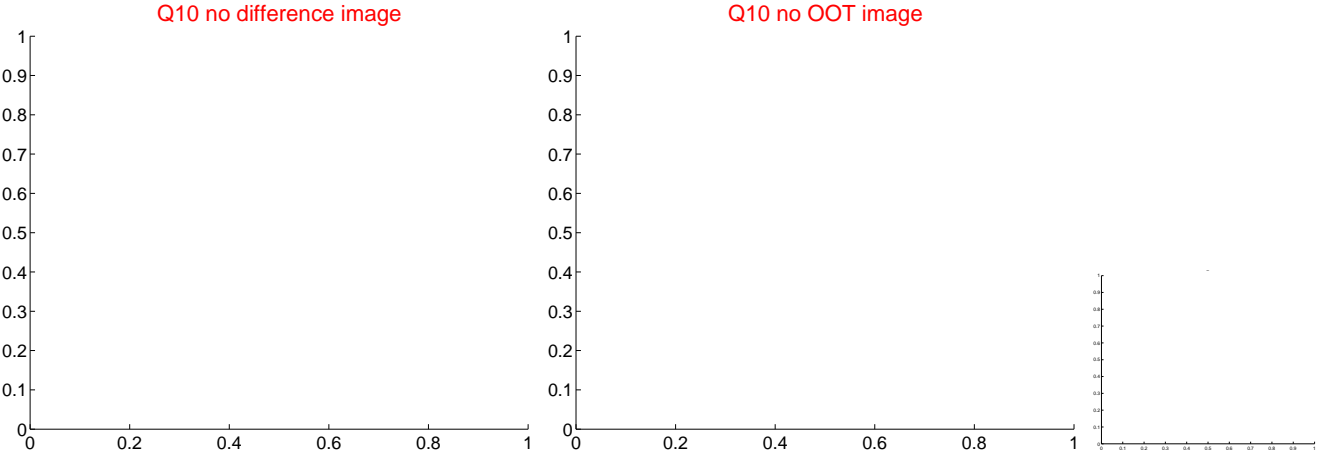
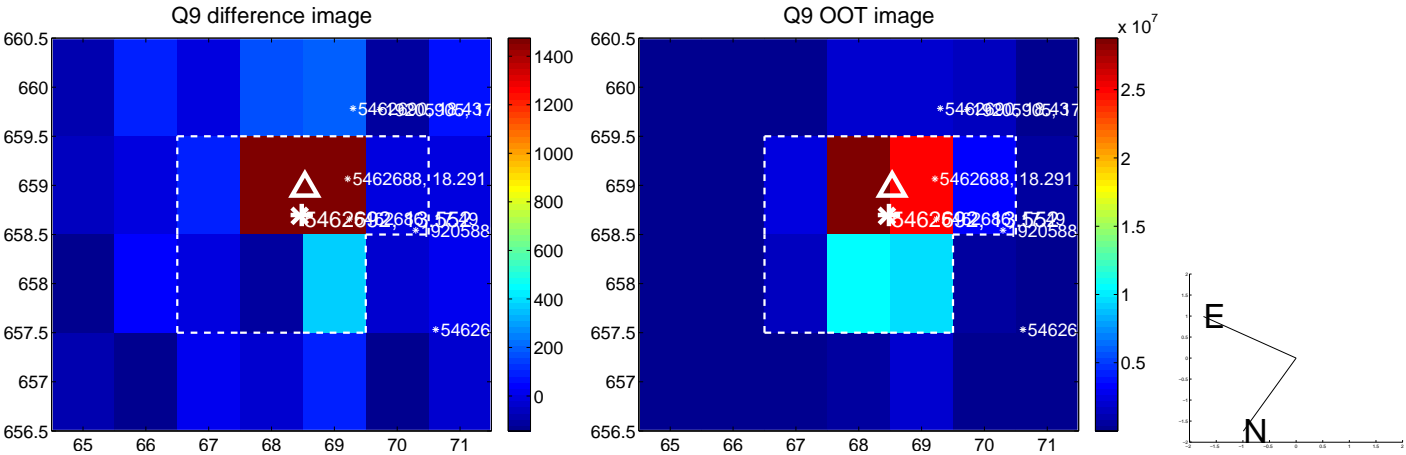


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

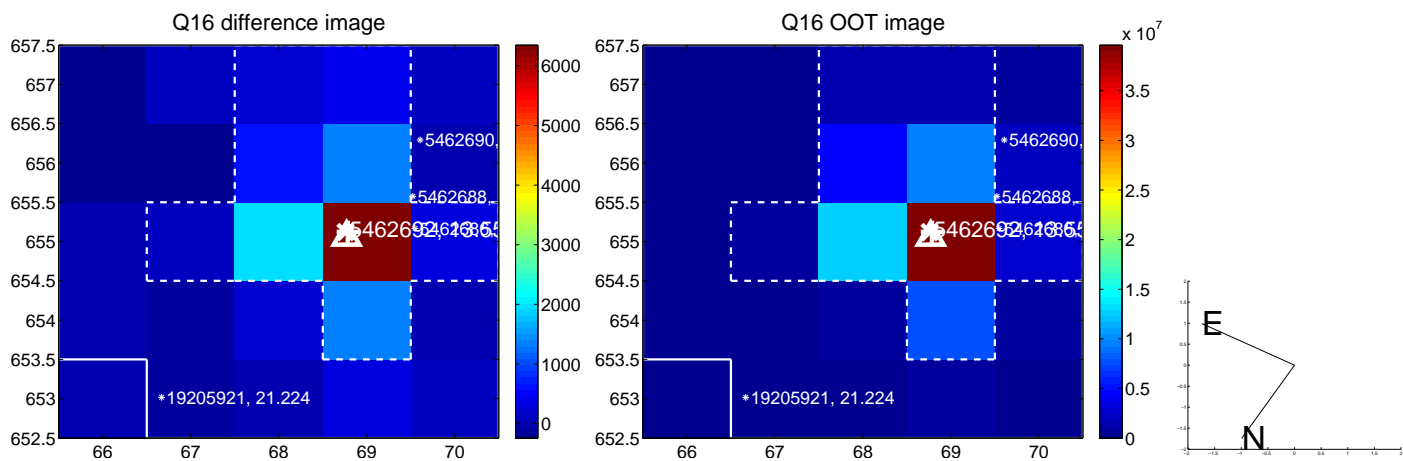
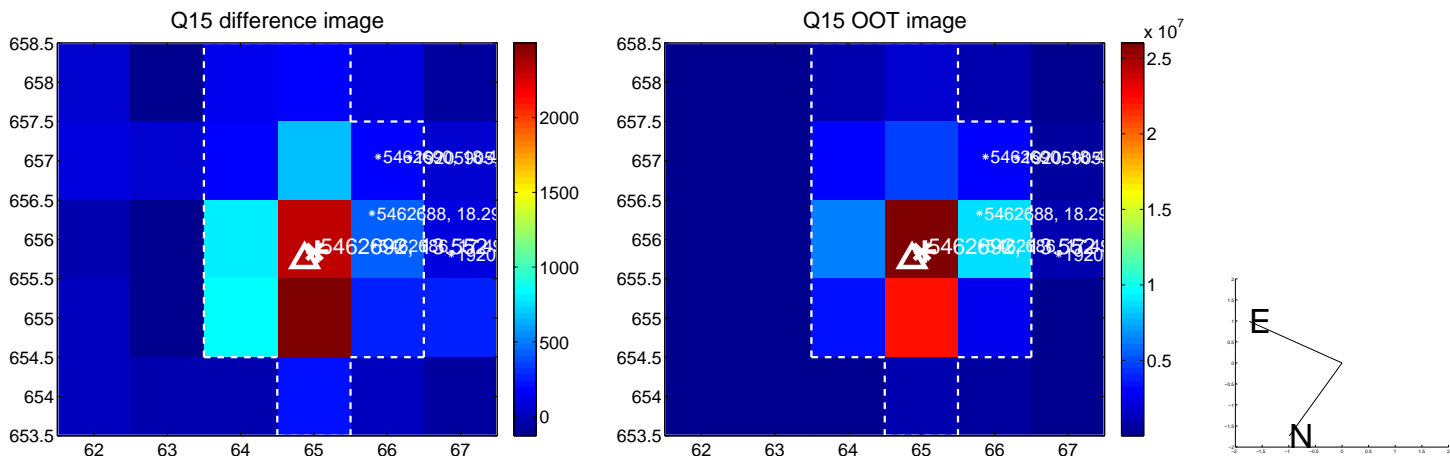
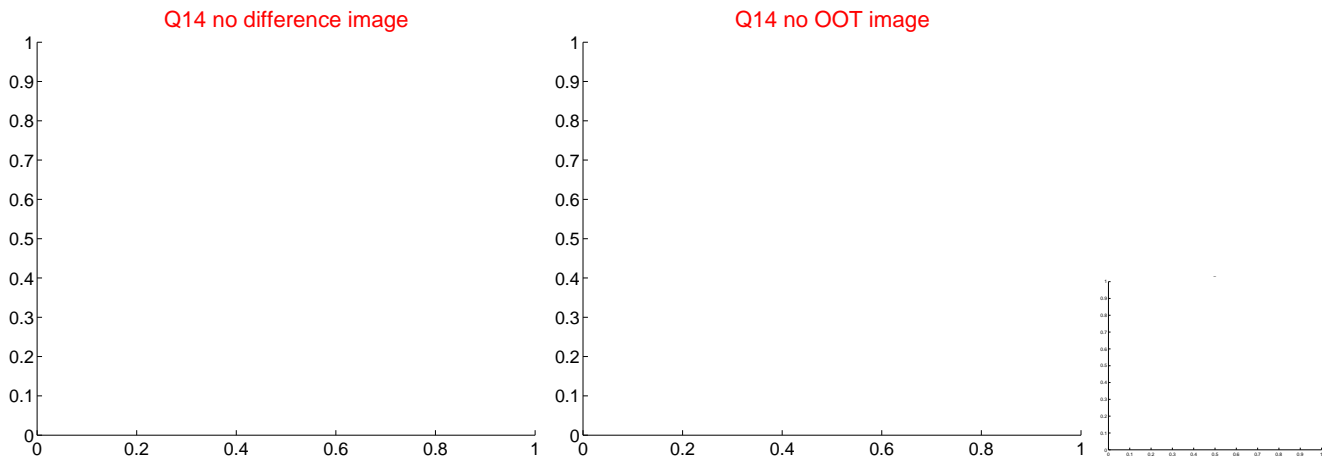
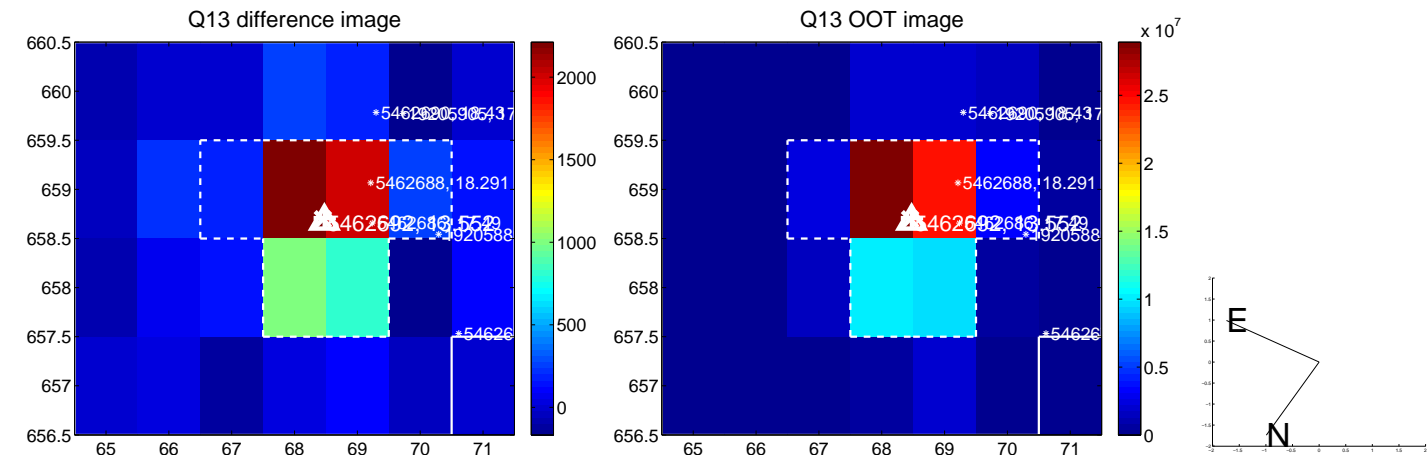




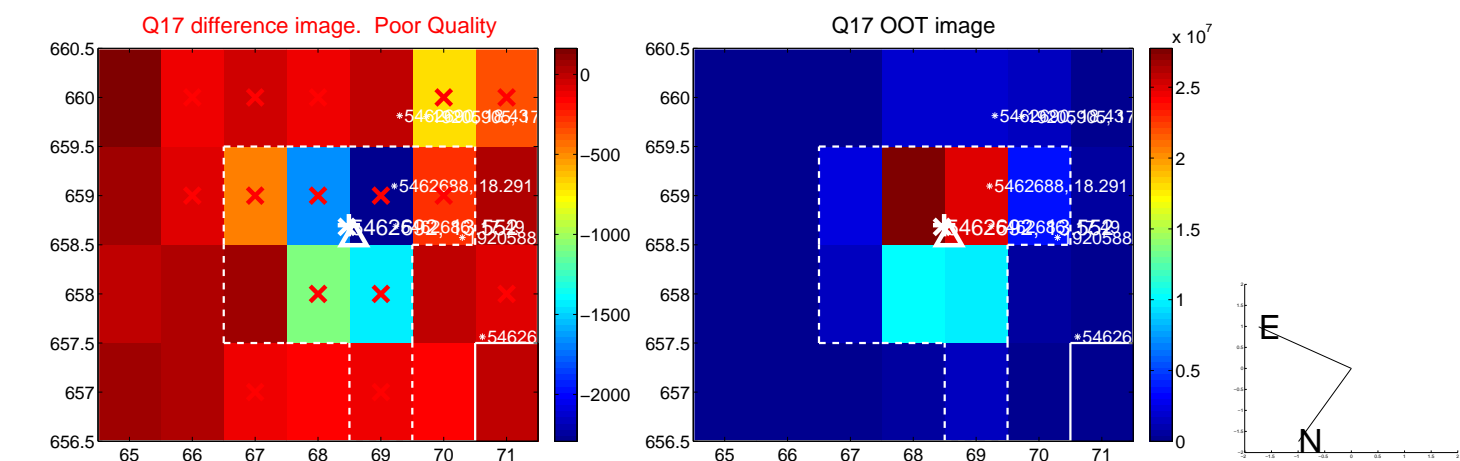
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



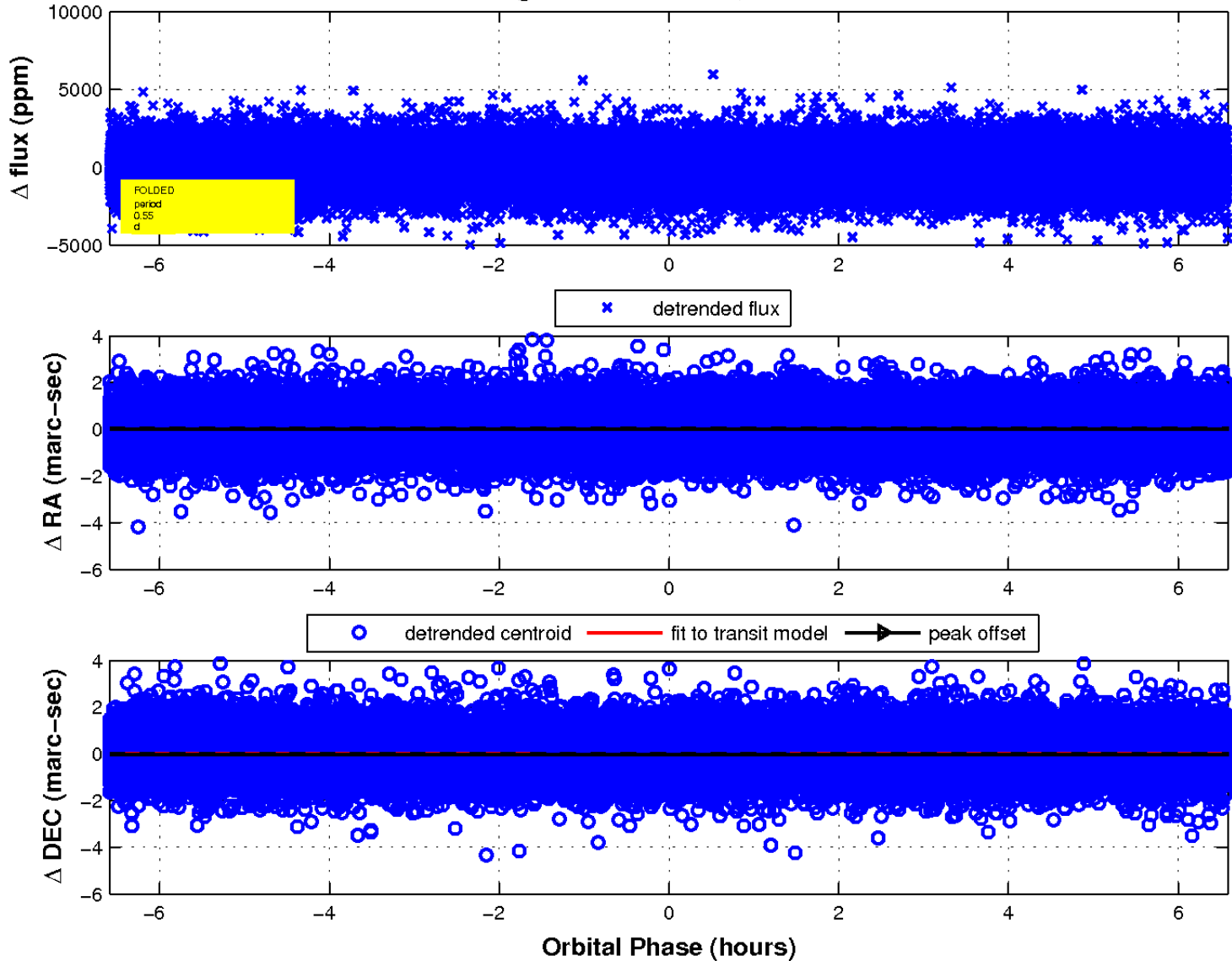
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

