

# KIC 008329748

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008329748-01	OBS	No	2.154854	132.757441	178.4	7.500	8.0	-1.0	1.11	6539	1.49	1820.02

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008329748-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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

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

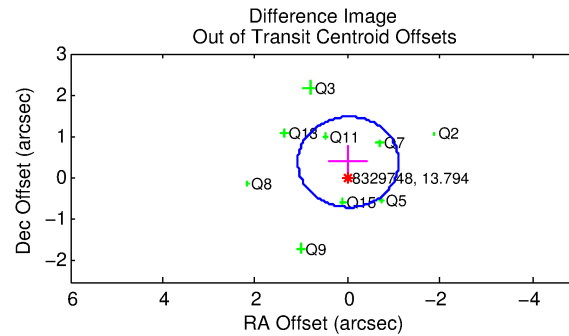
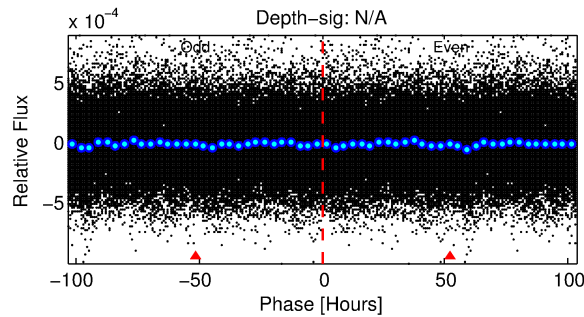
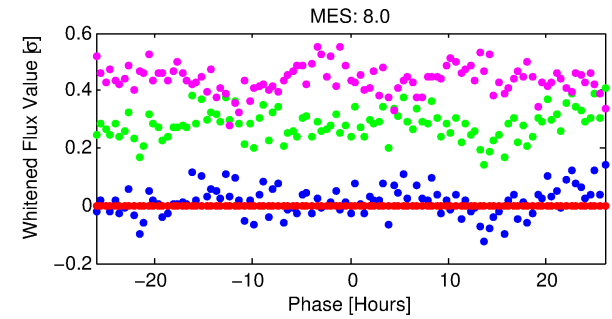
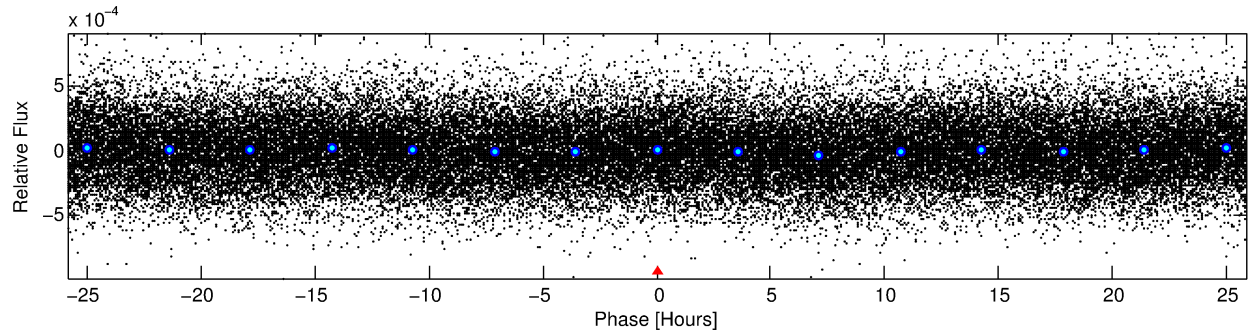
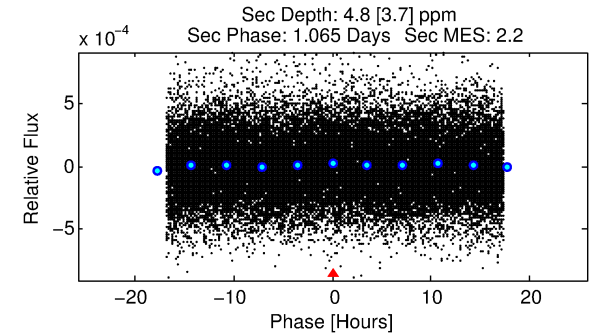
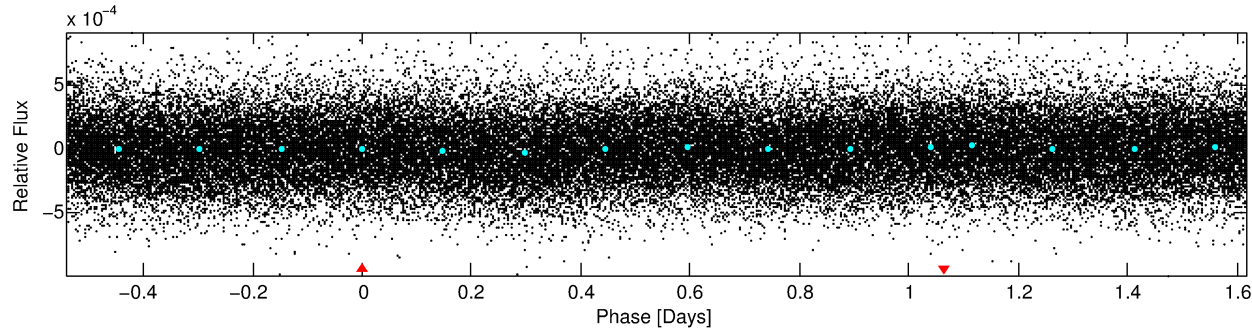
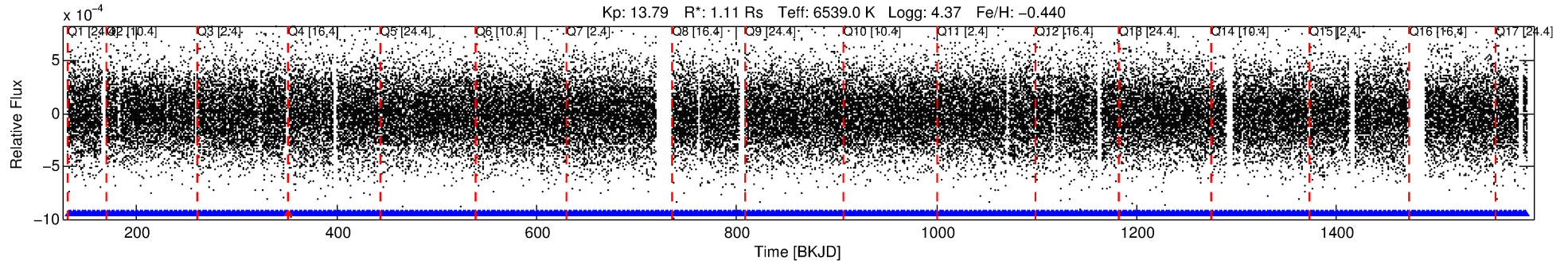
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008329748-01

No Significant Match Found

# DV One-Page Summary

KIC: 8329748 Candidate: 1 of 1 Period: 2.155 d



## TPS TCE Results:

Period = 2.15485 d  
Epoch = 132.7574 BKJD

DV fit results are unavailable

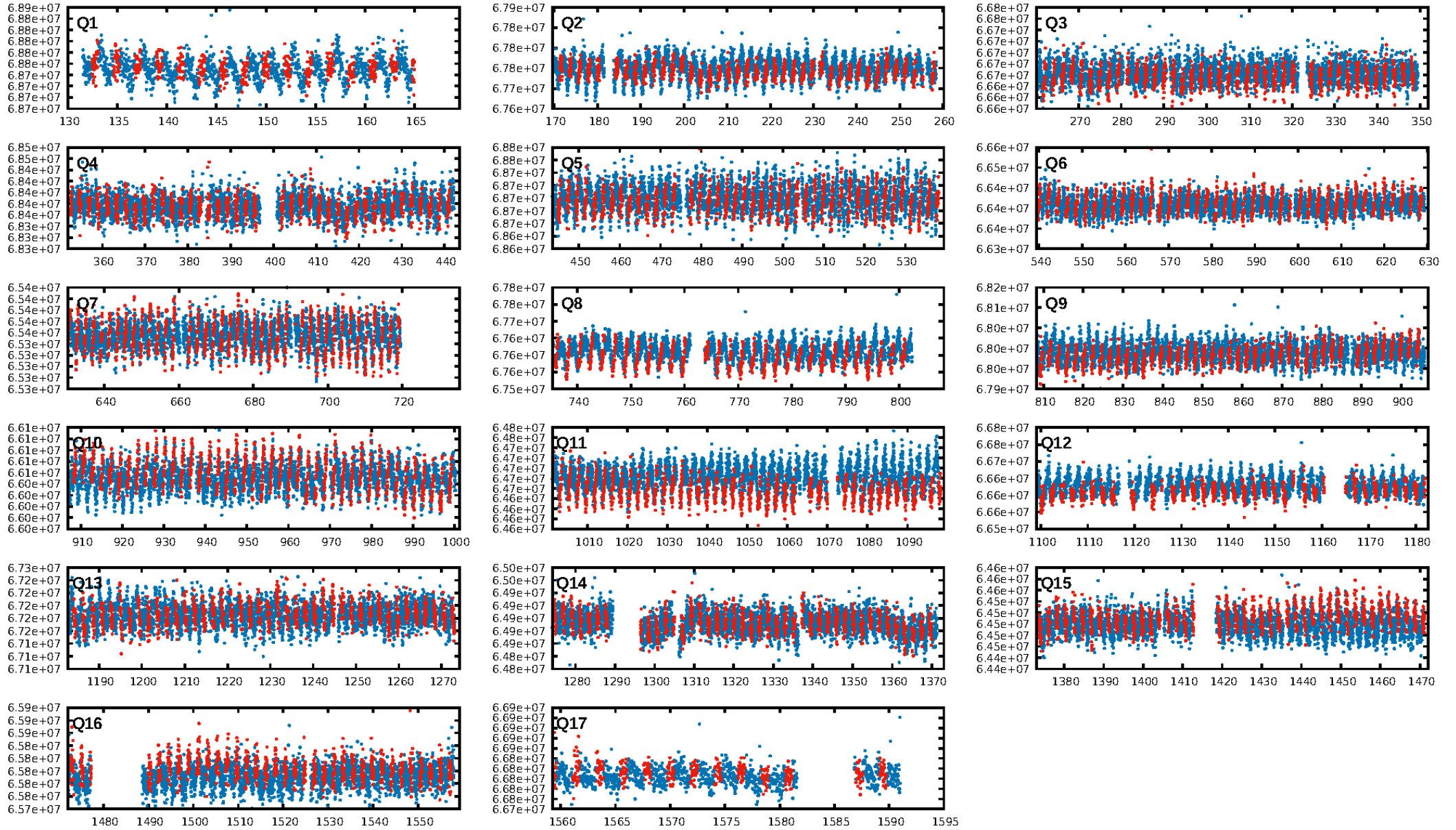
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 7.65e-13  
RollingBand-fgt: 1.00 [610/611]  
GhostDiagnostic-chr: 0.4696  
Centroid-sig: 2.8%  
Centroid-so: 0.277 arcsec [0.74σ]  
OotOffset-rm: 0.389 arcsec [1.07σ]  
KicOffset-rm: 0.414 arcsec [1.14σ]  
OotOffset-st: 1/4/1/3 [9]  
KicOffset-st: 1/4/1/3 [9]  
DiffImageQuality-fgm: 0.67 [6/9]  
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:16:33 Z

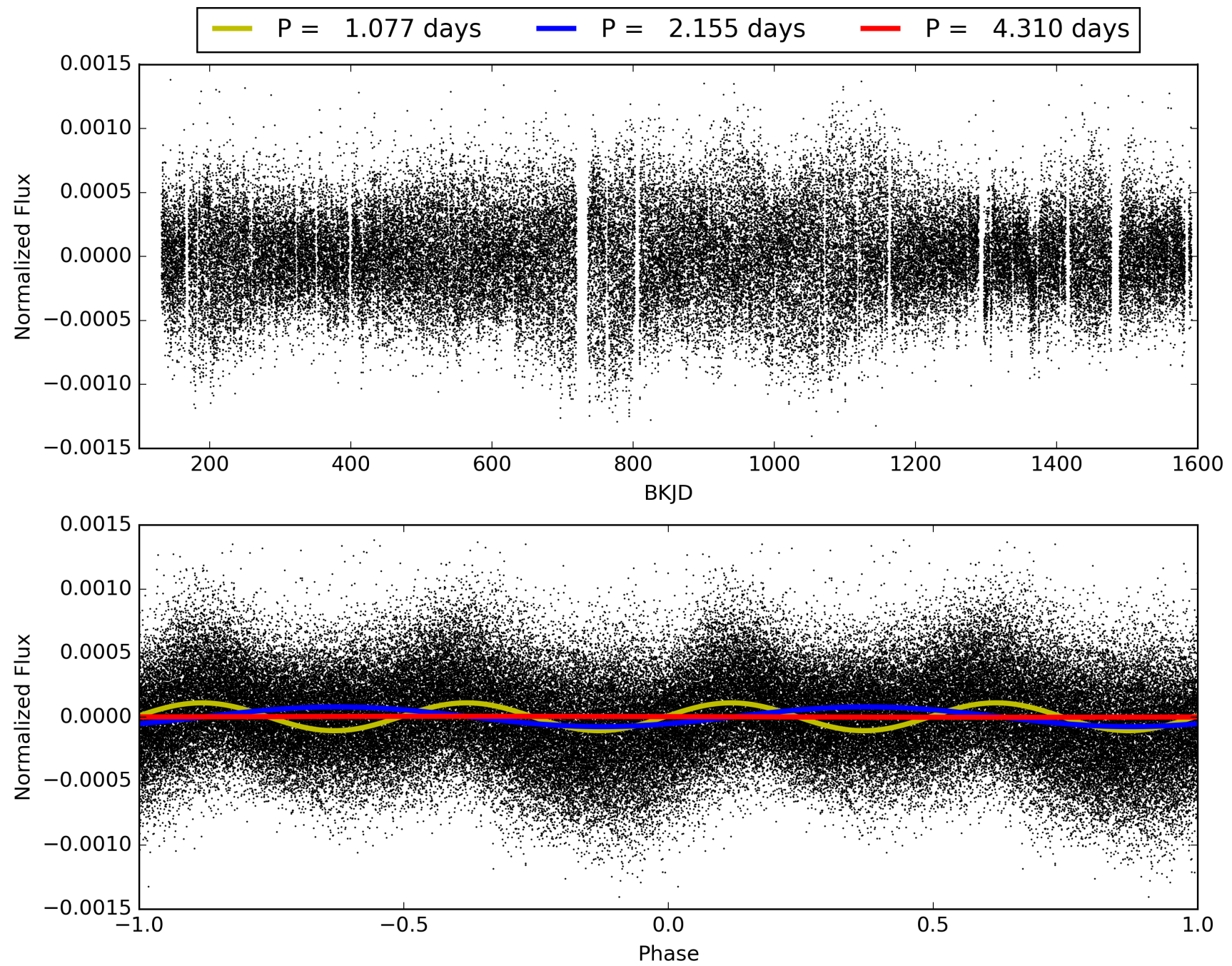
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 008329748-01, PDC Light Curves



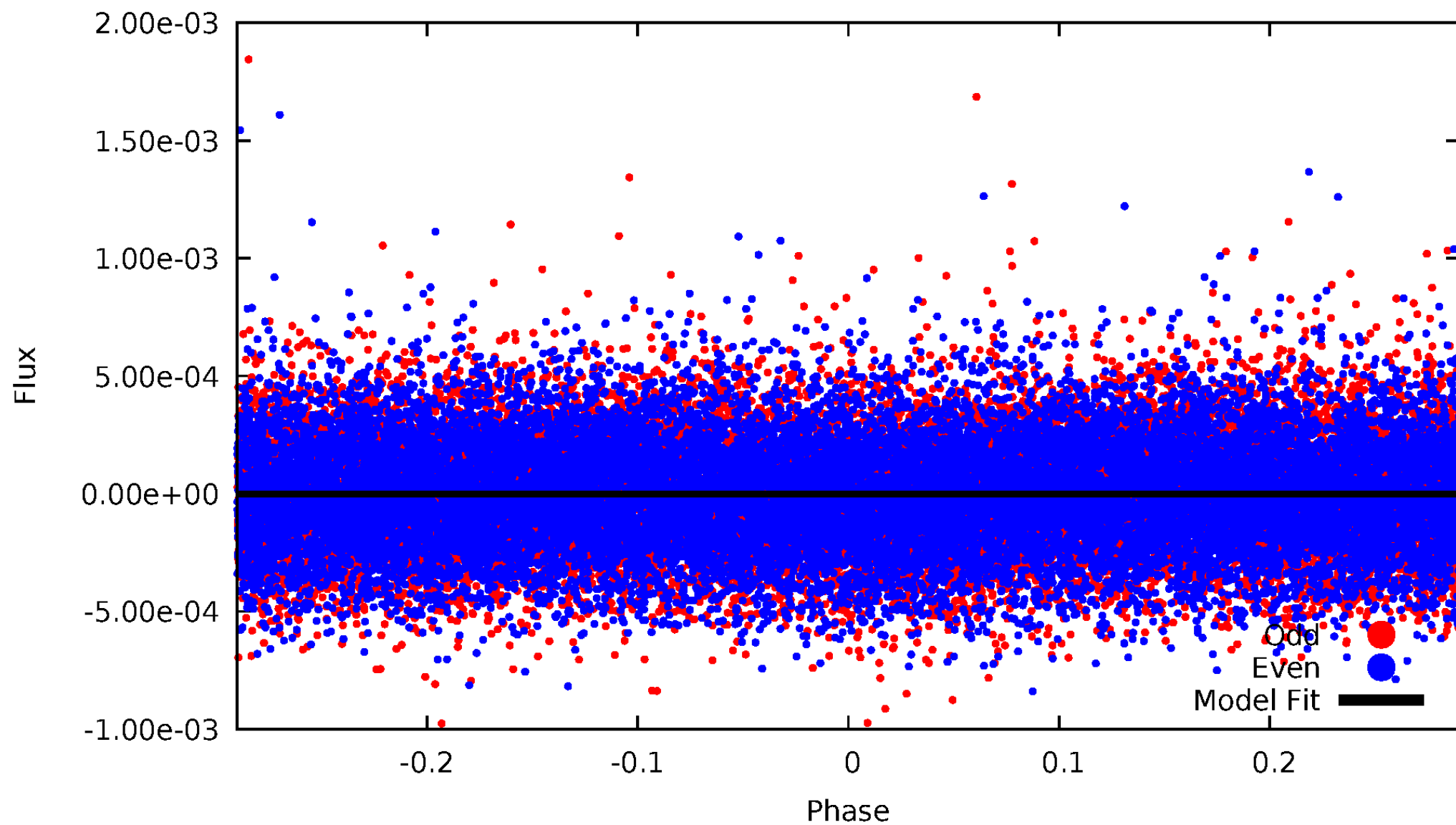


TCE 008329748-01



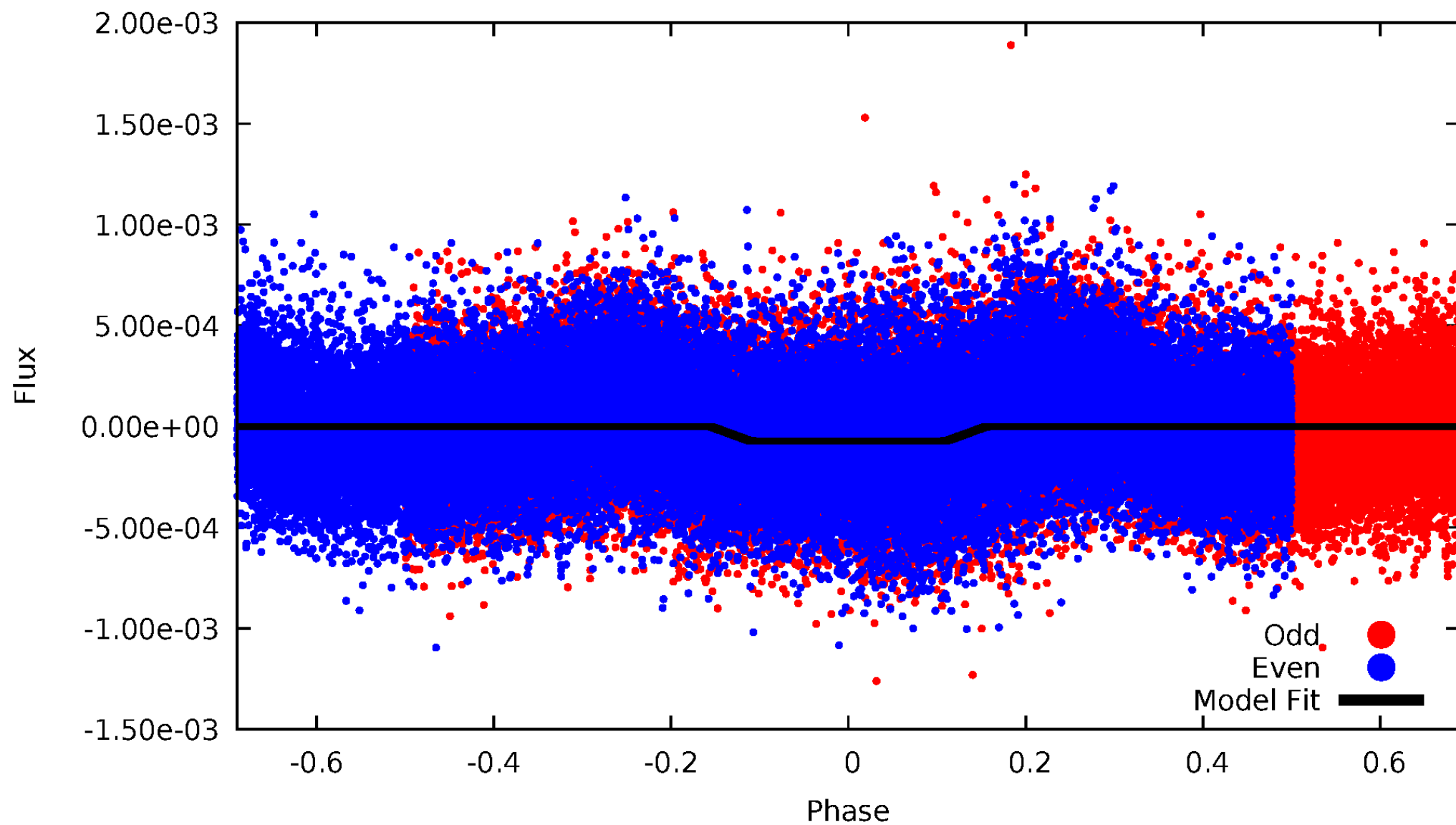
# DV Odd/Even

TCE 008329748-01

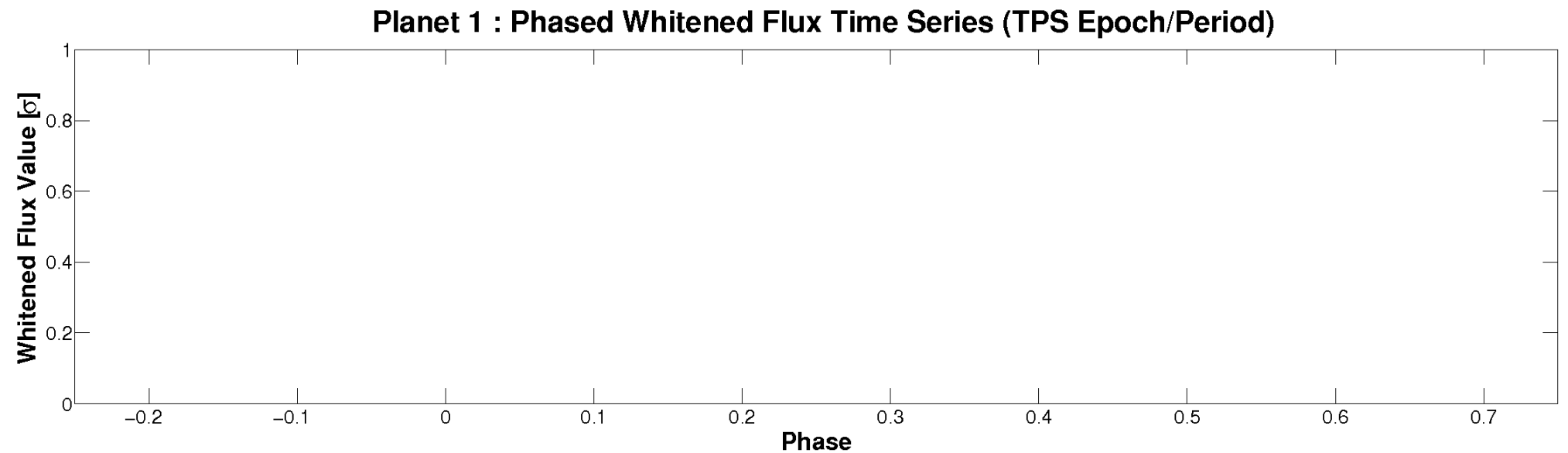
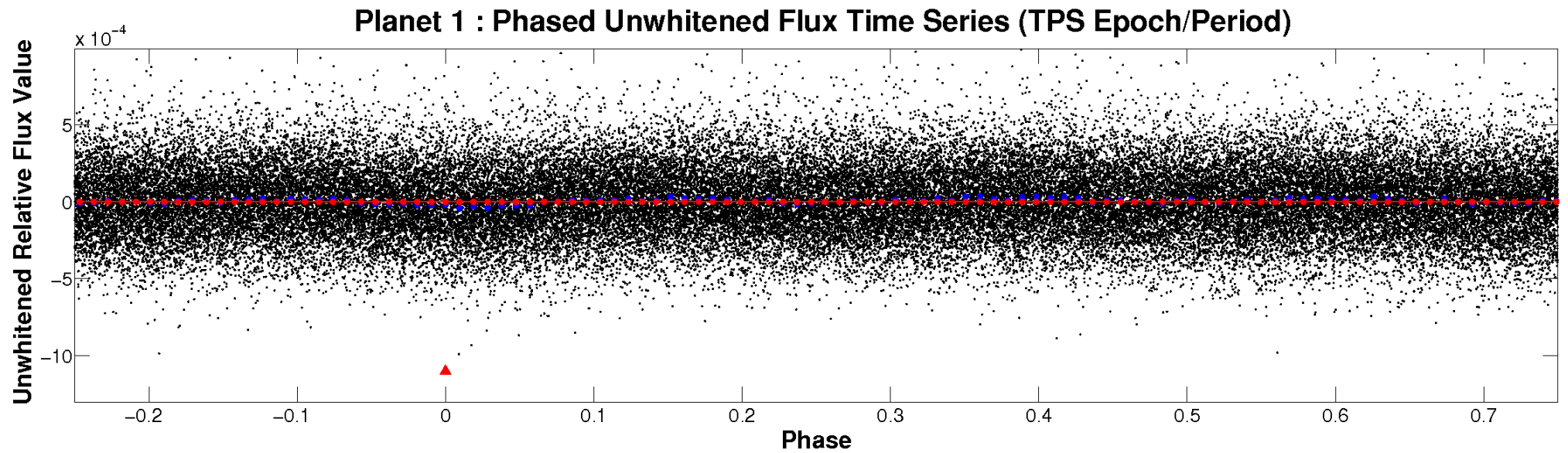


# ALT Odd/Even

TCE 008329748-01



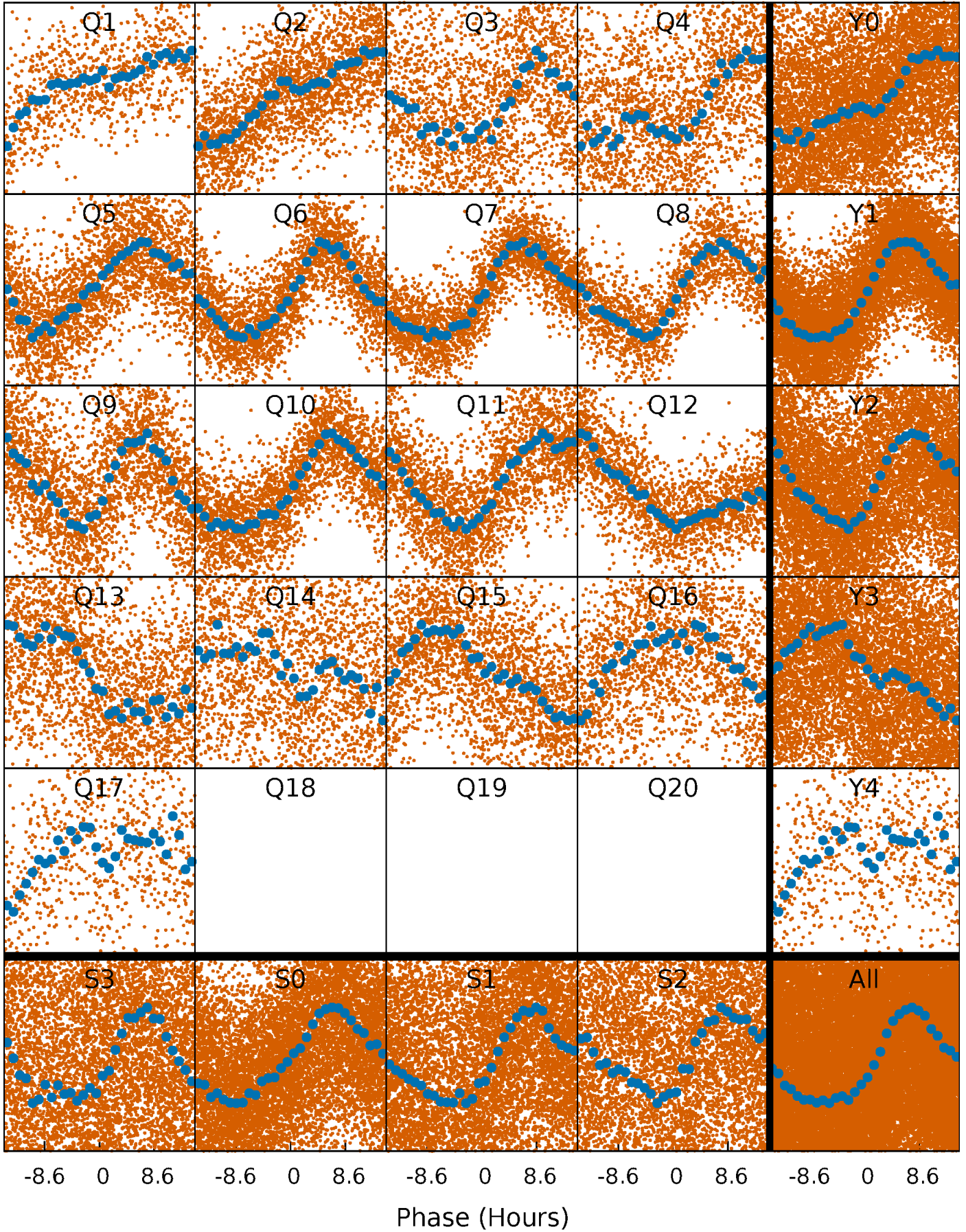
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

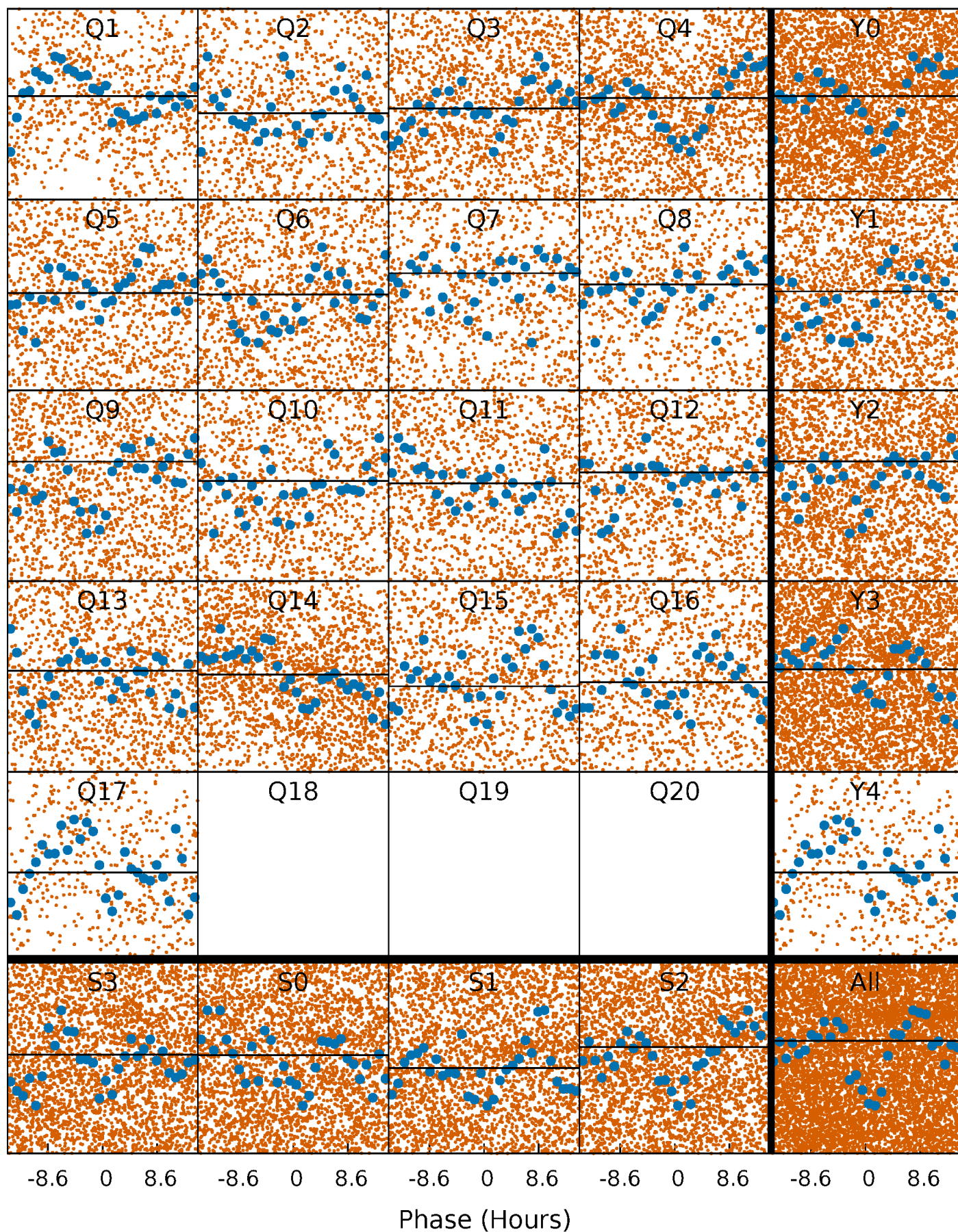
TCE 008329748-01 P= 2.154854 Days  $T_0=132.757441$  (BKJD)





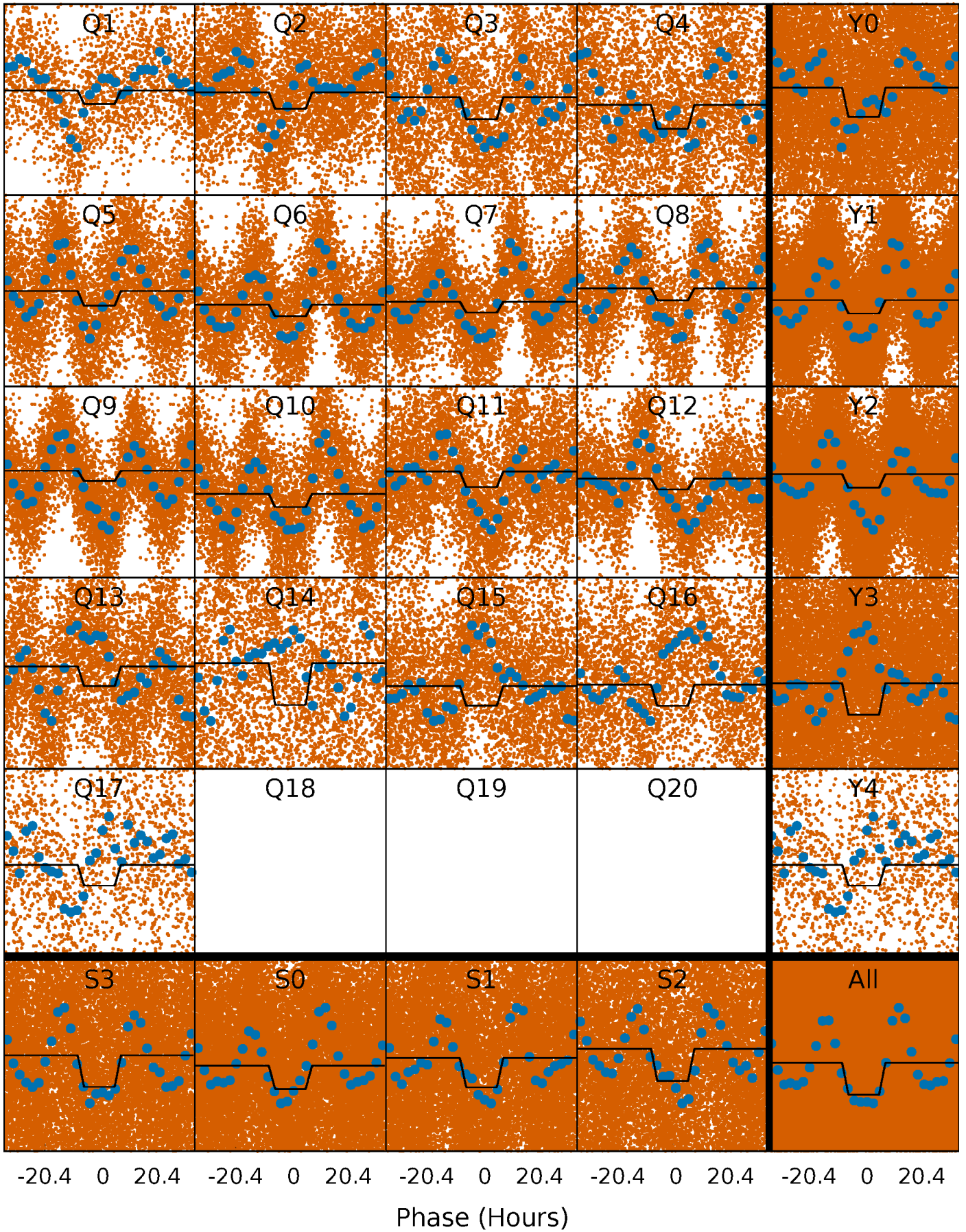
# DV Quarter-Phased Transit Curves

TCE 008329748-01 P= 2.154854 Days  $T_0=132.757441$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 008329748-01 P= 2.154854 Days  $T_0=132.493112$  (BKJD)

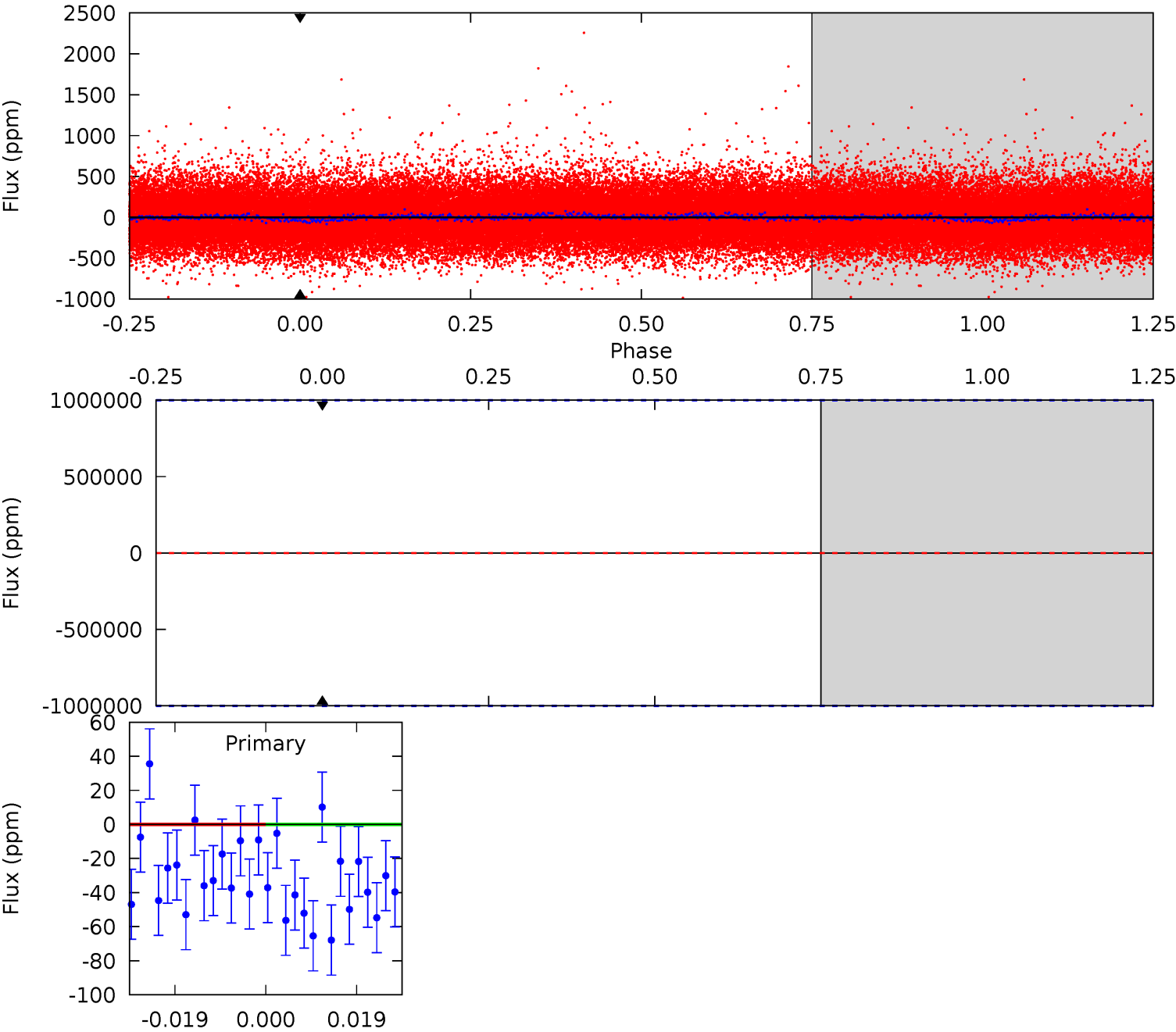




# DV Model-Shift Uniqueness Test

008329748-01, P = 2.154854 Days, E = 130.602587 Days

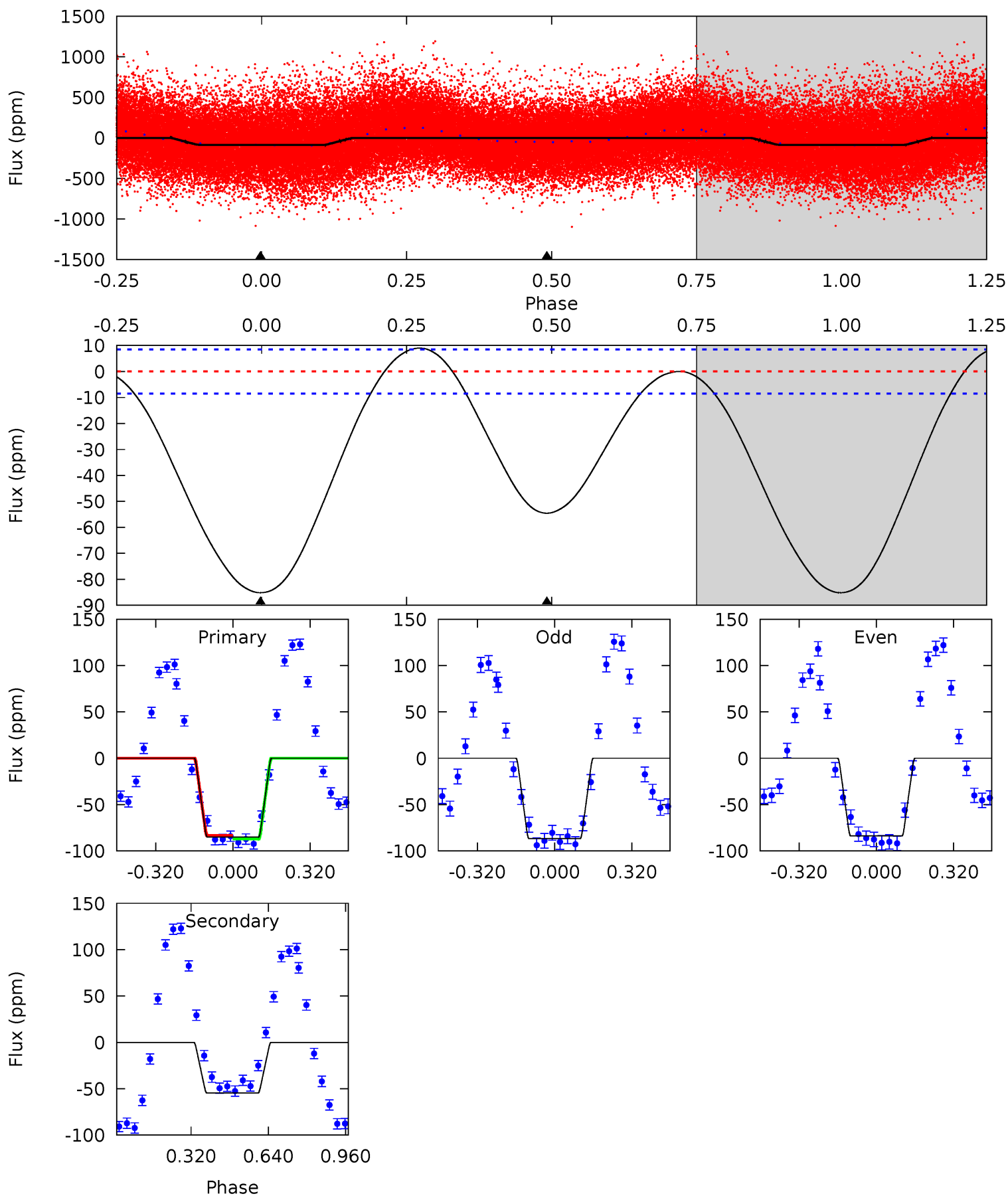
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

008329748-01, P = 2.154854 Days, E = 130.338258 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
43.3	27.7	0	0	4.31	0.99	2.43	43.3	43.3	27.7	27.7	0.71	0.82	0.10	0.94





### Stellar Parameters For KIC 008329748

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6539^{+157}_{-216}$	$4.372^{+0.084}_{-0.196}$	$-0.440^{+0.250}_{-0.300}$	$1.108^{+0.324}_{-0.162}$	$1.053^{+0.160}_{-0.131}$	$1.092^{+0.479}_{-0.537}$
	+2%/-3%	+2%/-4%	+57%/-68%	+29%/-15%	+15%/-12%	+44%/-49%
Source	PHO1	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 008329748-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 1000000$	$8.98^{+9.80}_{-6.29}$	$2365^{+163}_{-133}$	$4354^{+25482}_{-33442}$	$4.154^{+1383.830}_{-1259.994}$
Alt.	$-55 \pm 2$	$8.72^{+9.38}_{-5.78}$	$2352^{+183}_{-128}$	$2462^{+1418}_{-5039}$	$0.432^{+3.202}_{-0.332}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

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

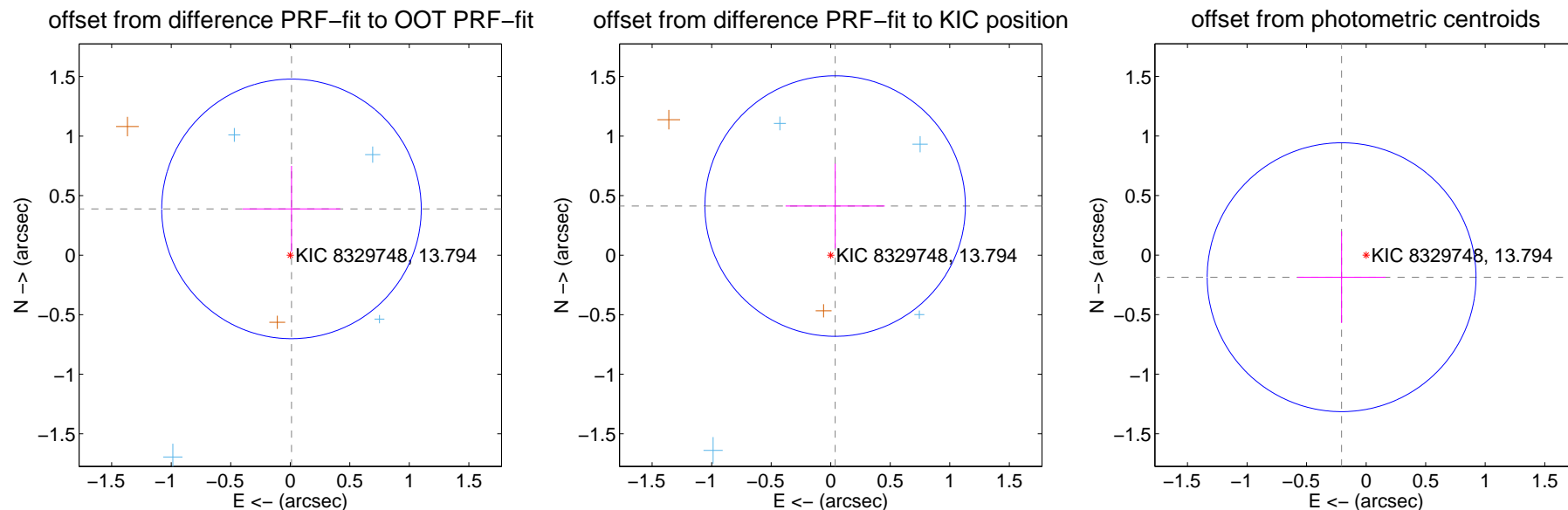
## DV Centroid Data

Supplemental centroid analysis for 008329748-01. Kepler magnitude: 13.79. Transit SNR -1.00

There are 6 quarters with good PRF difference image offsets

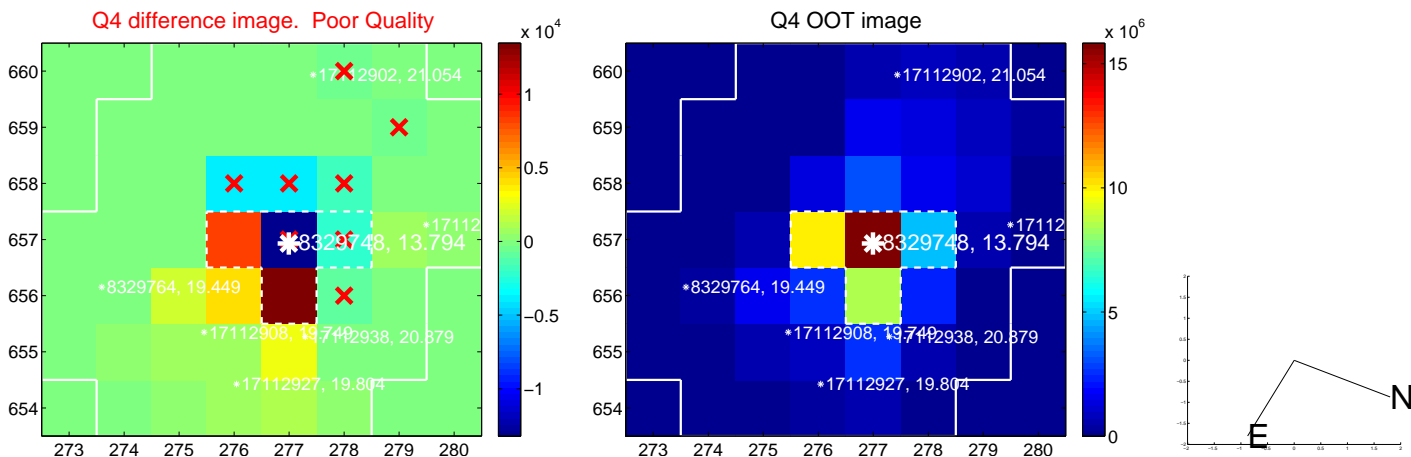
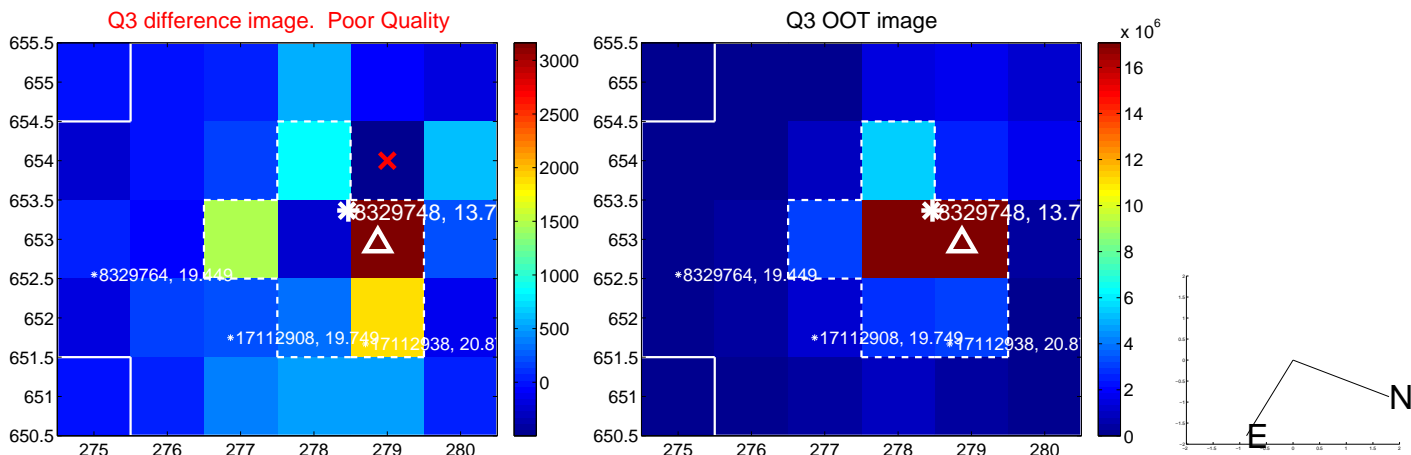
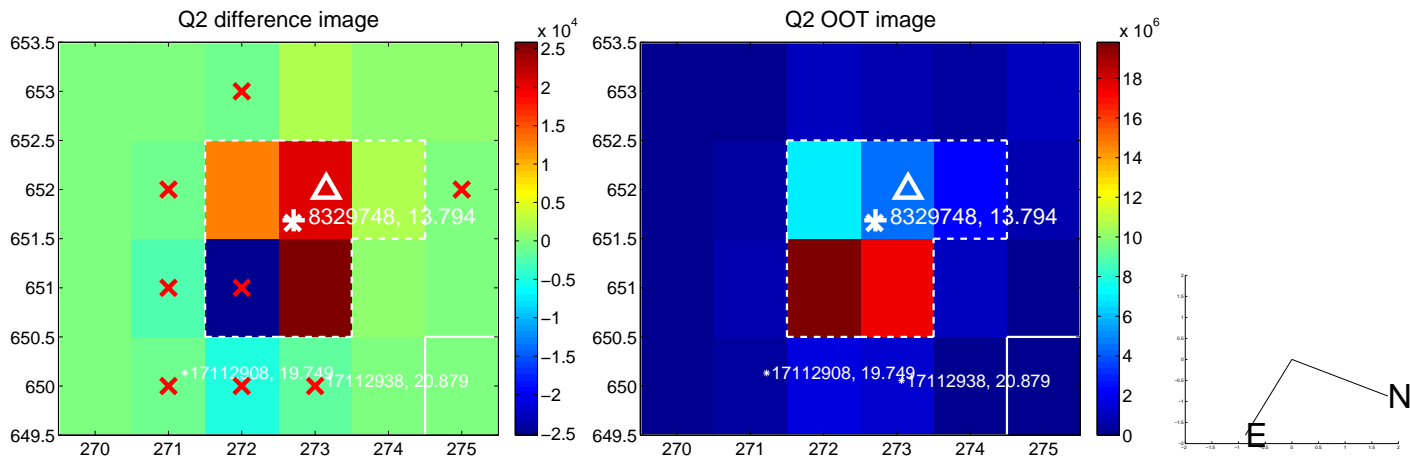
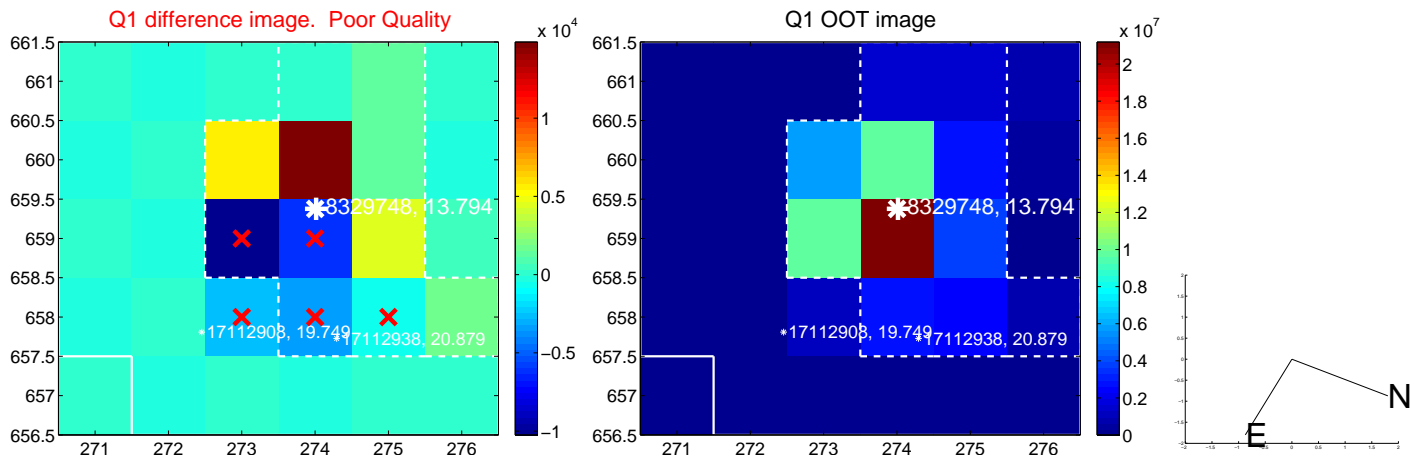
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.389 \pm 0.363$	1.07	$-0.010 \pm 0.410$	$0.389 \pm 0.361$
PRF-fit source offset from KIC position	$0.414 \pm 0.365$	1.14	$-0.037 \pm 0.416$	$0.412 \pm 0.356$
photometric centroid source offset	$0.28 \pm 0.38$	0.74	$0.21 \pm 0.37$	$-0.19 \pm 0.38$

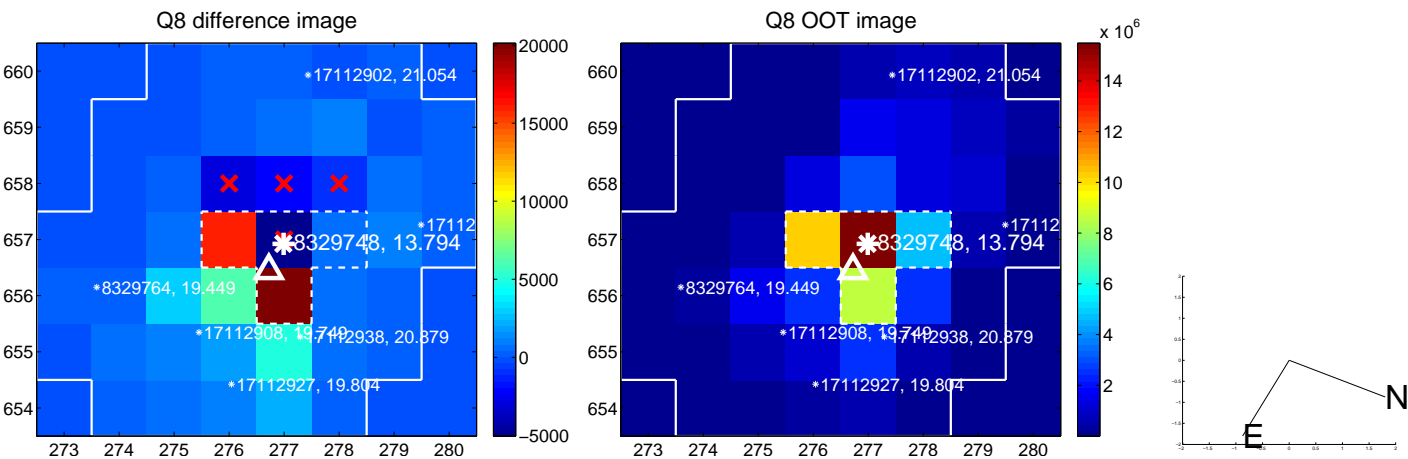
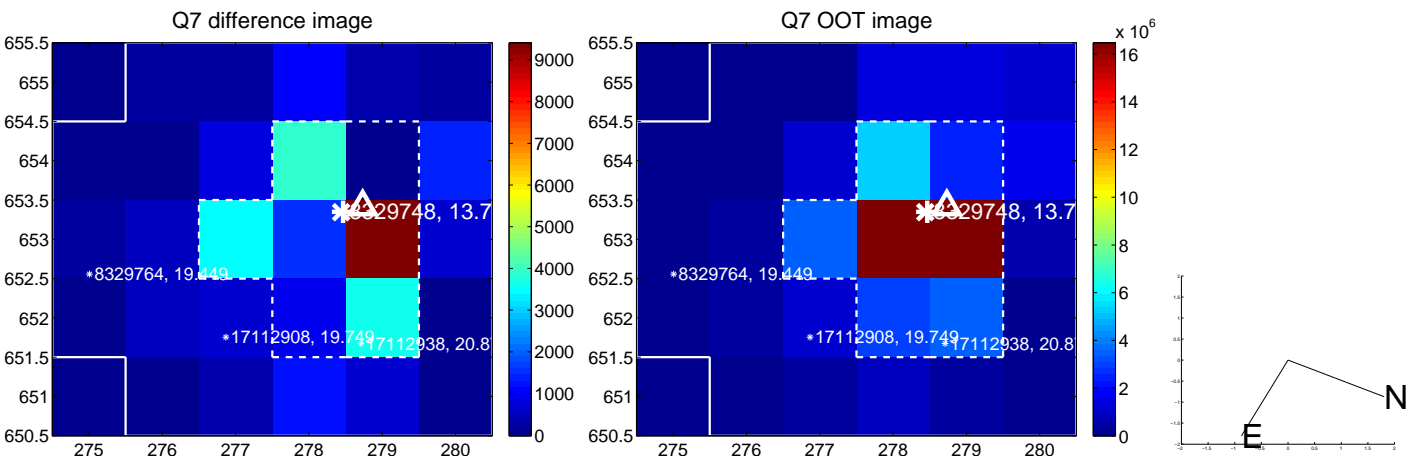
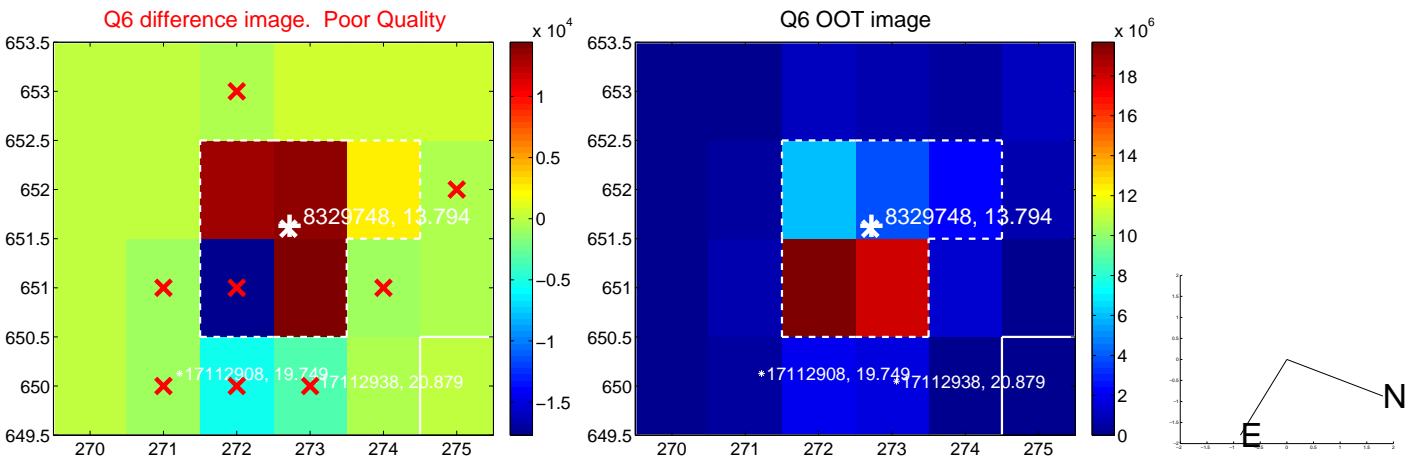
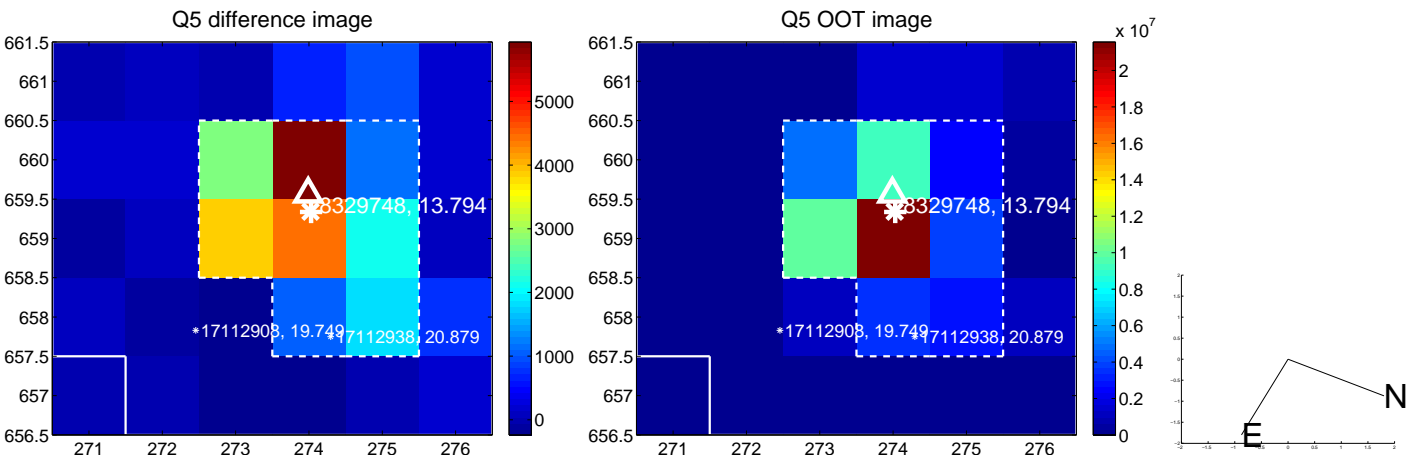


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

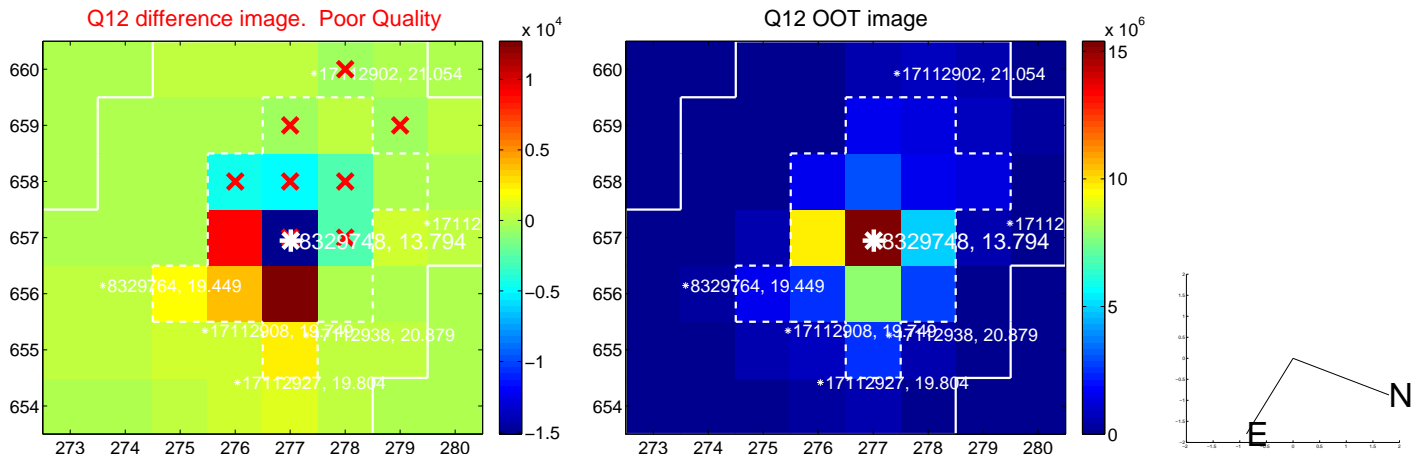
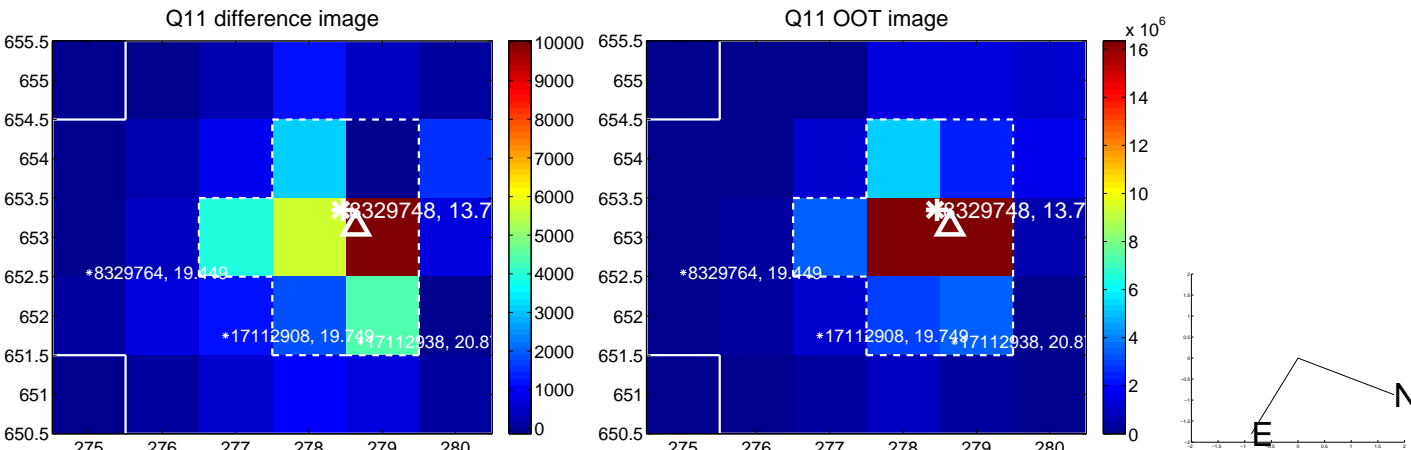
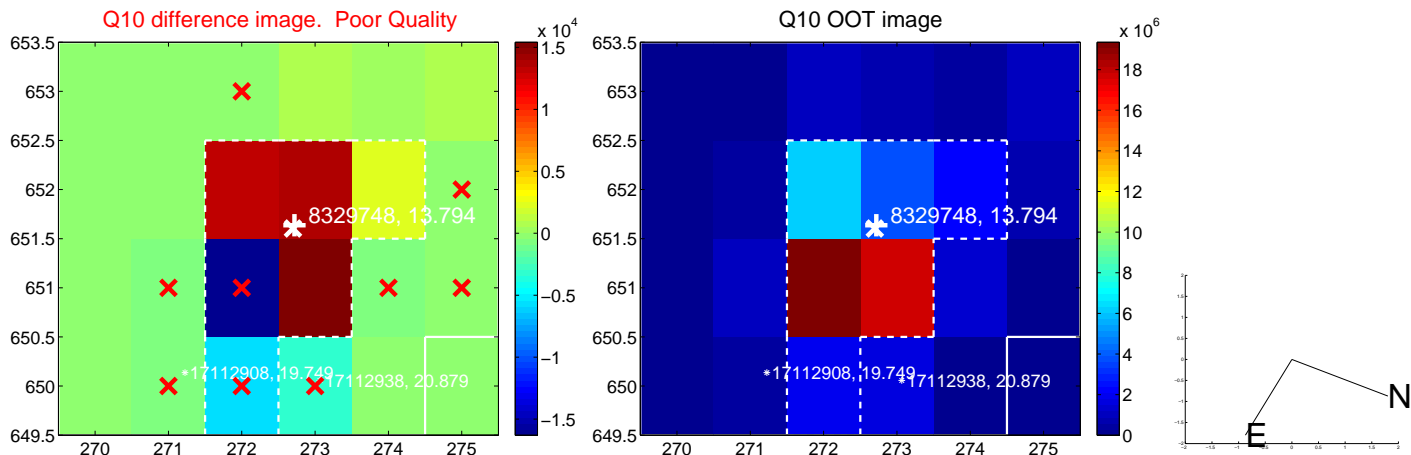
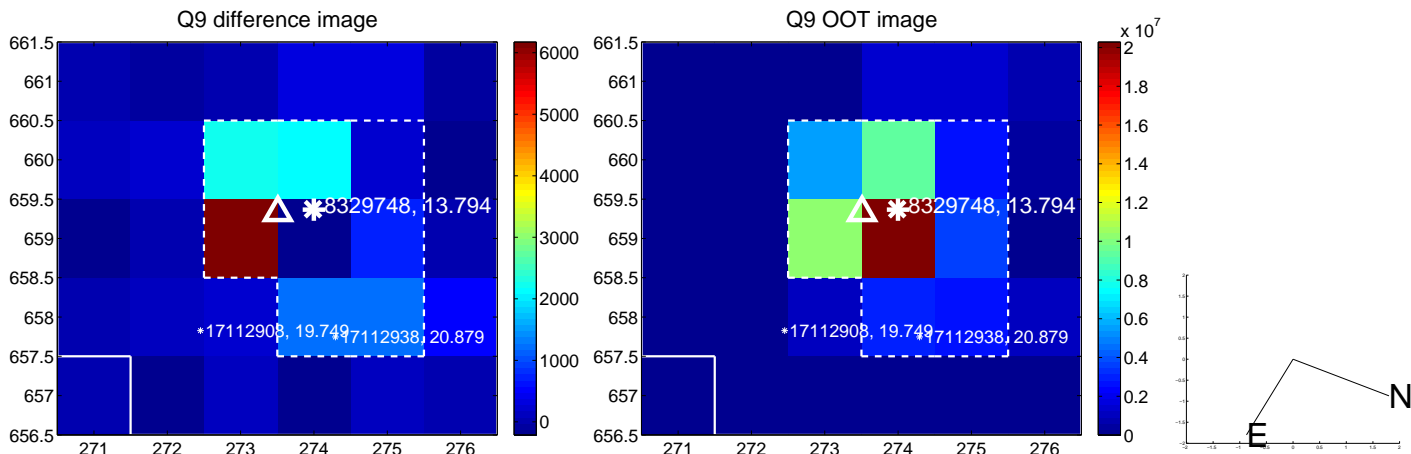


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

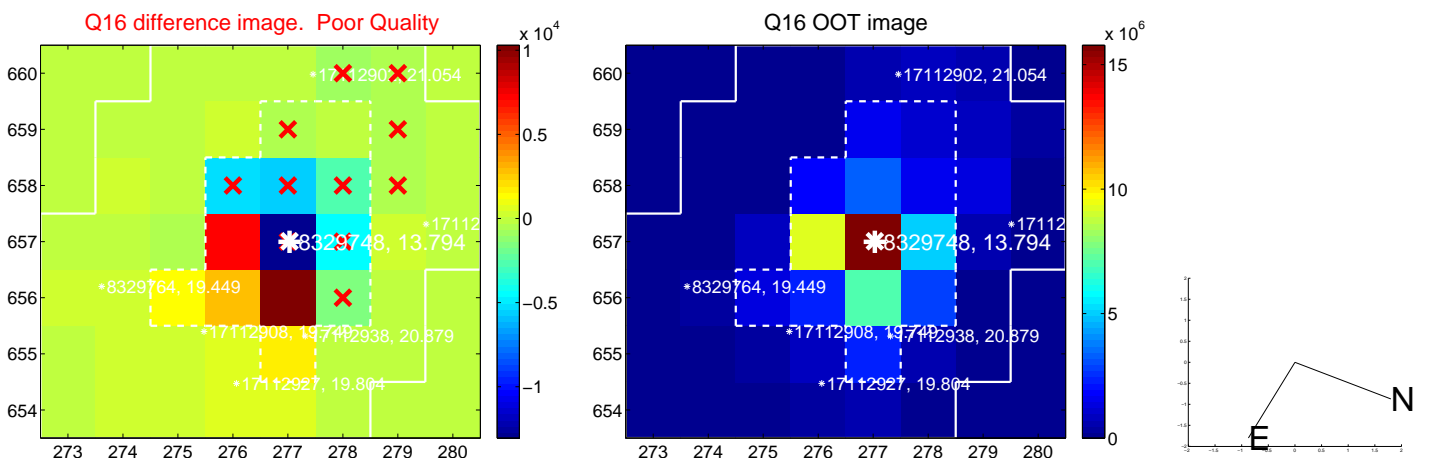
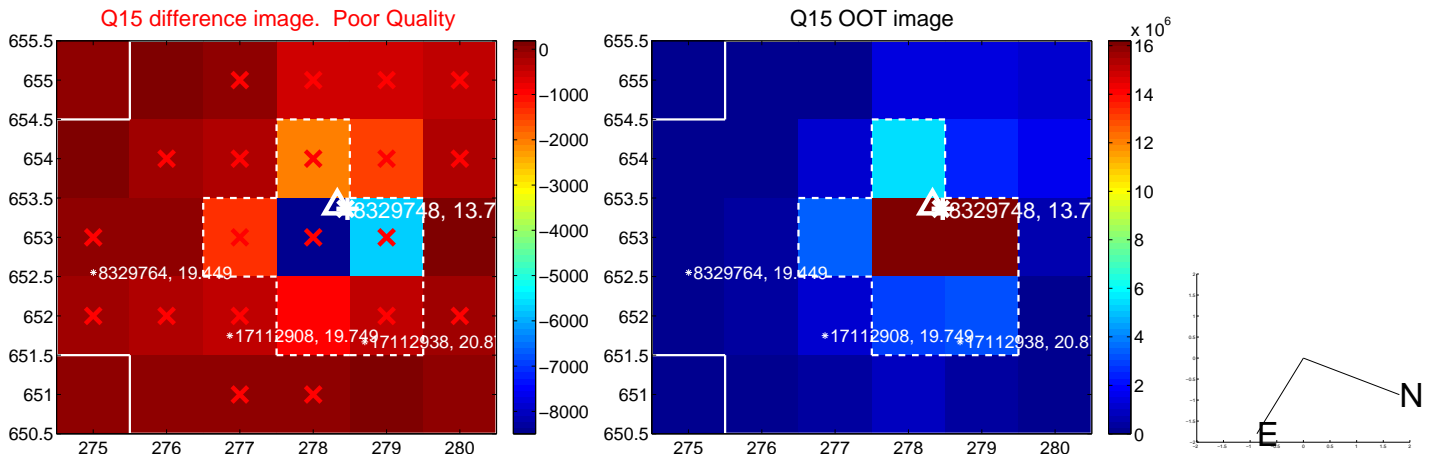
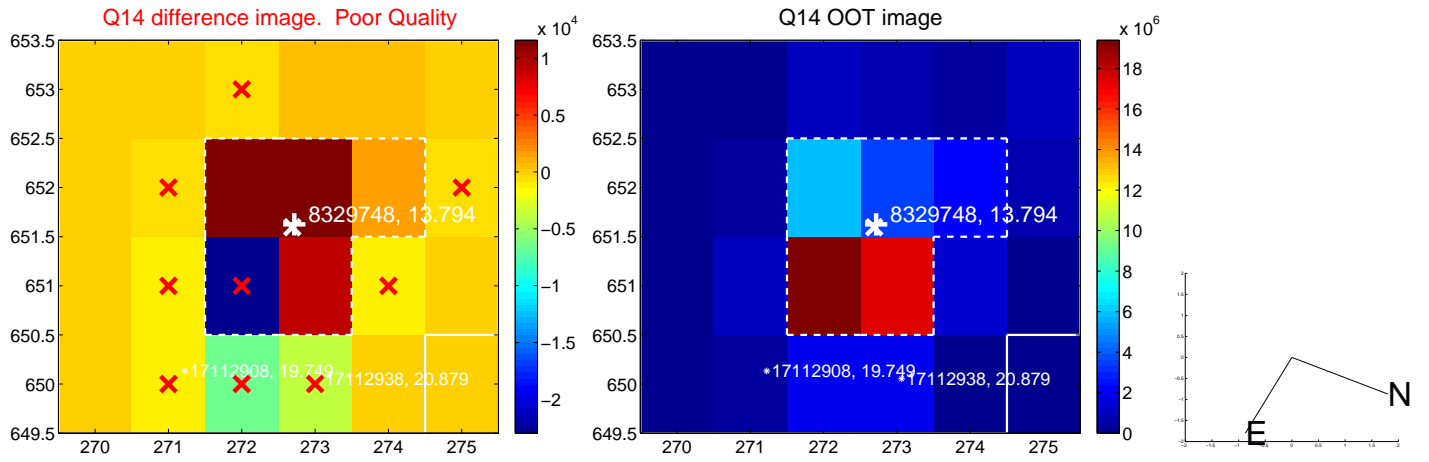
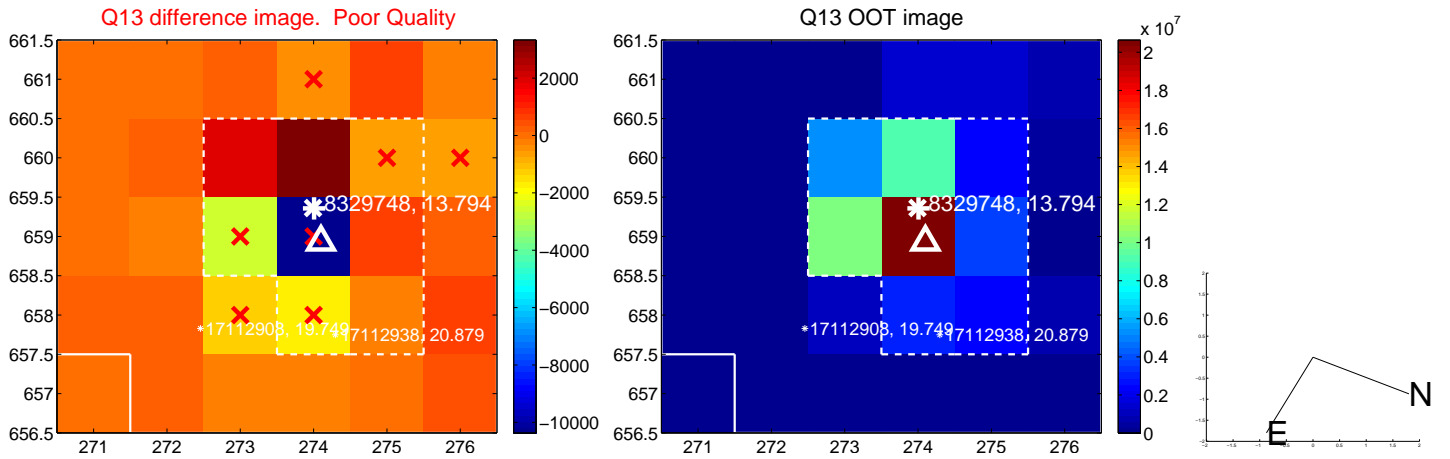




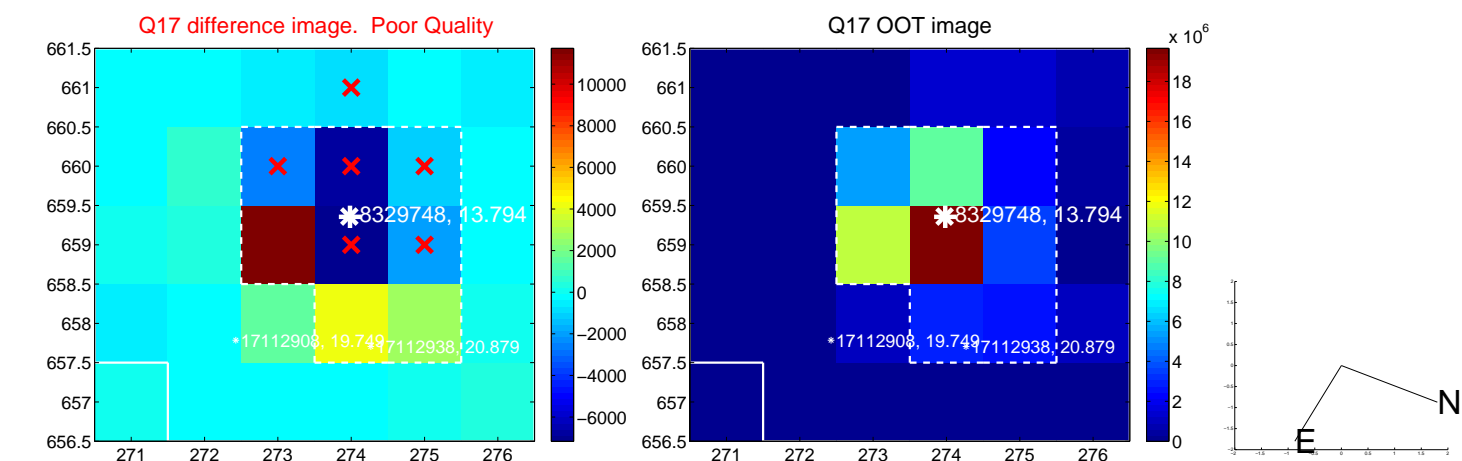
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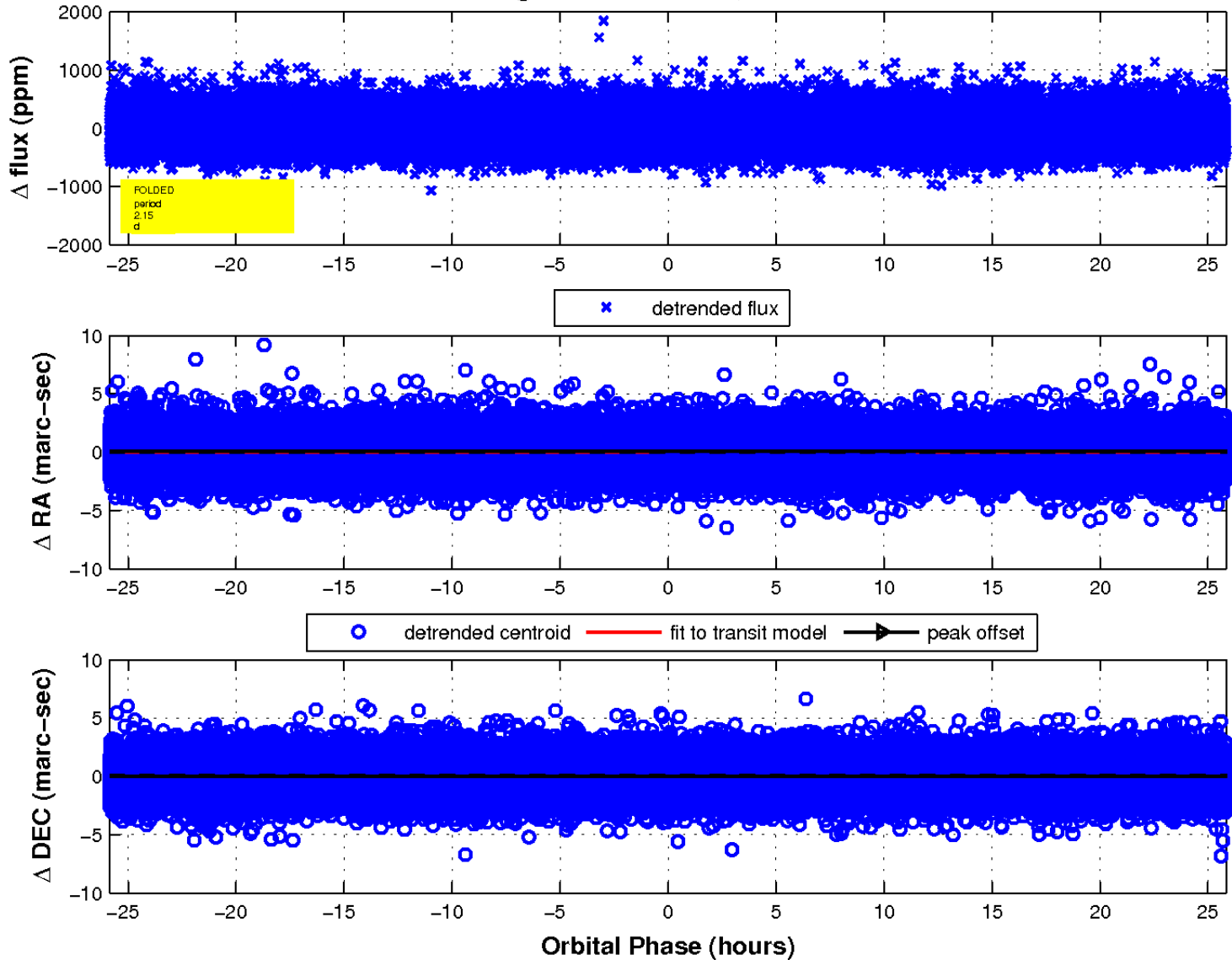
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

