

# KIC 005095635

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005095635-01	OBS	2607.01	0.754458	131.965599	225.8	0.699	21.0	35.3	1.19	5561	2.20	4887.49

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005095635-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

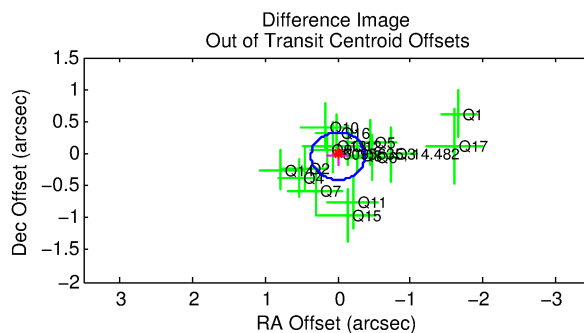
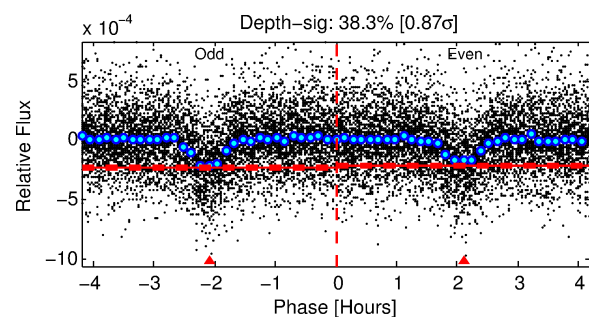
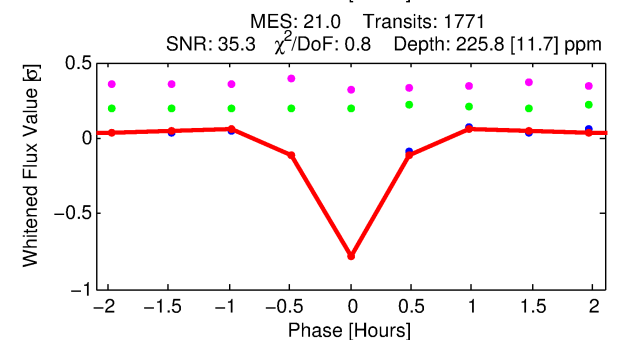
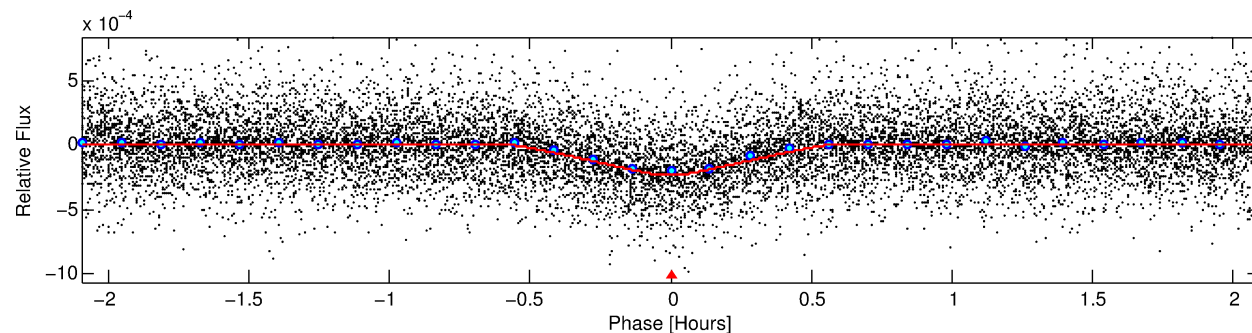
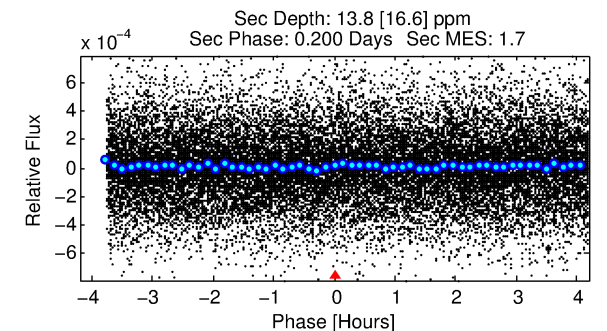
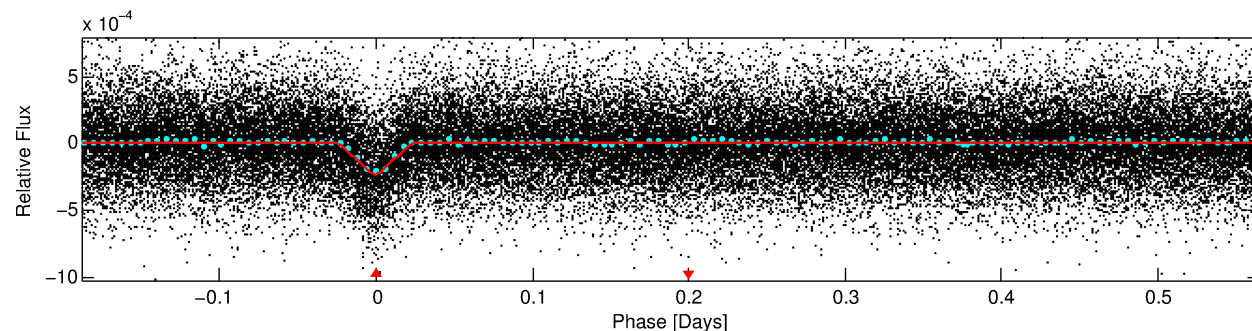
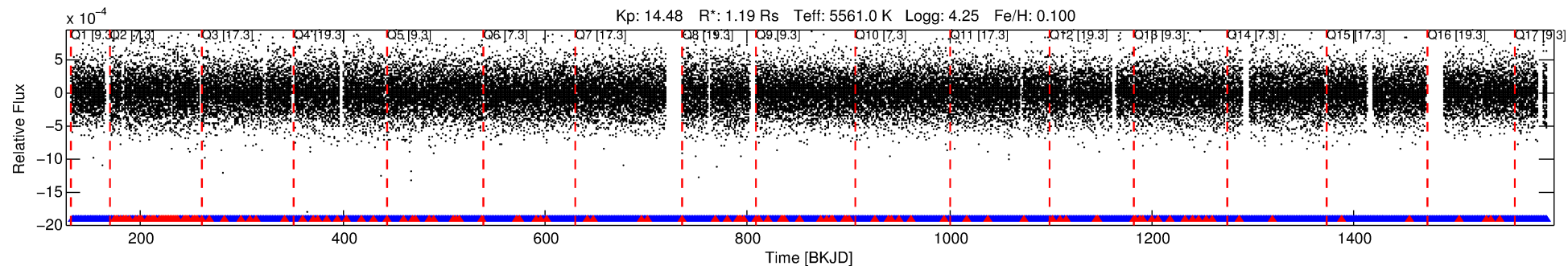
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005095635-01

No Significant Match Found

# DV One-Page Summary

KIC: 5095635 Candidate: 1 of 1 Period: 0.754 d  
KOI: K02607.01 Corr: 0.900



## DV Fit Results:

Period = 0.75446 [0.00000] d  
Epoch = 131.9656 [0.0004] BKJD  
Rp/R\* = 0.0169 [0.0032]  
a/R\* = 4.02 [3.14]  
b = 0.90 [0.18]  
Seff = 4887.49 [1473.21]  
Teq = 2132 [161] K  
Rp = 2.20 [0.59] Re  
a = 0.0158 [0.0029] AU  
Ag = 0.39 [0.51] [-1.20σ]  
Teffp = 2608 [824] K [0.57σ]

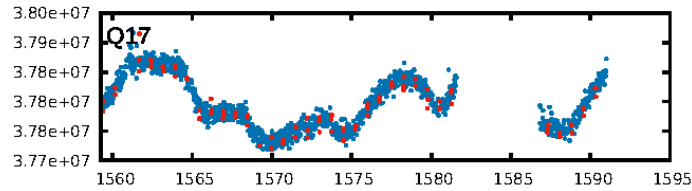
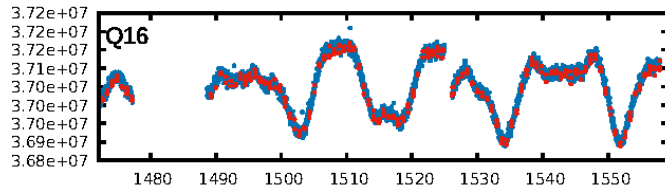
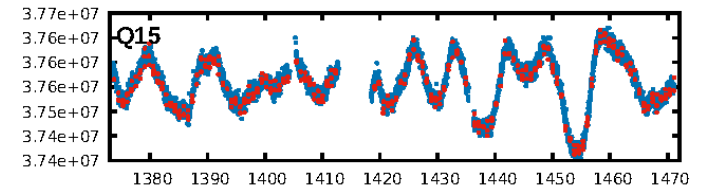
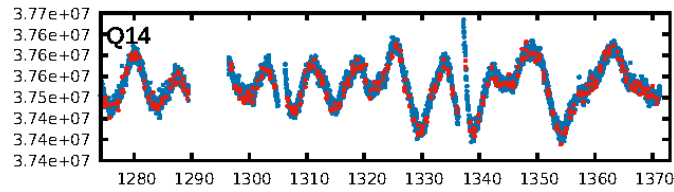
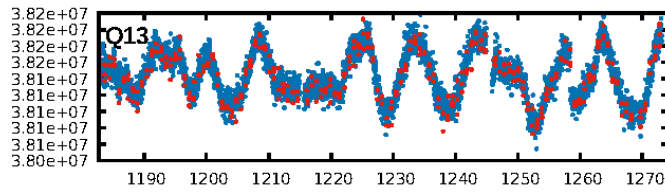
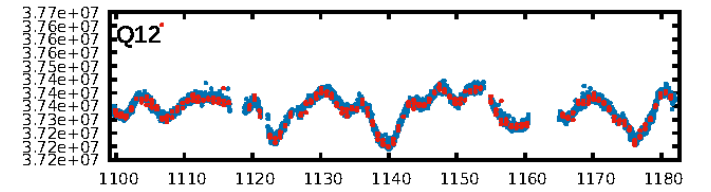
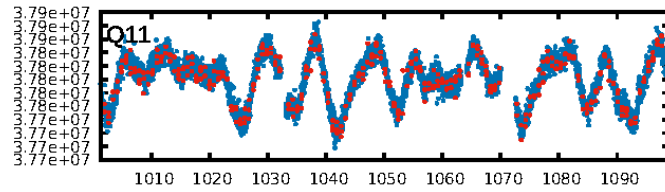
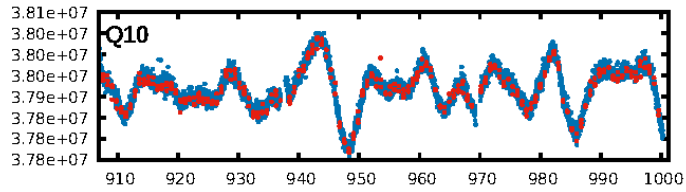
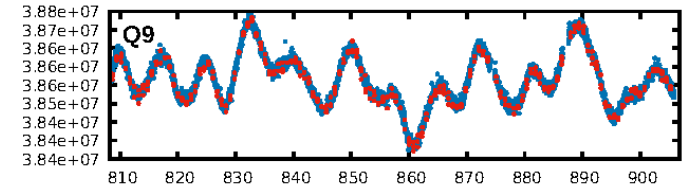
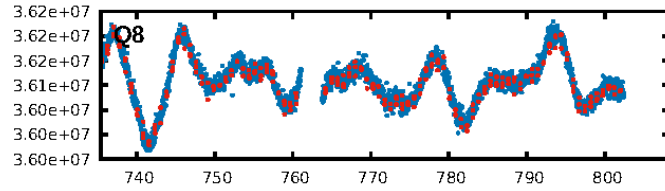
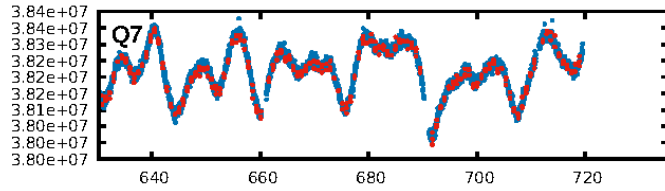
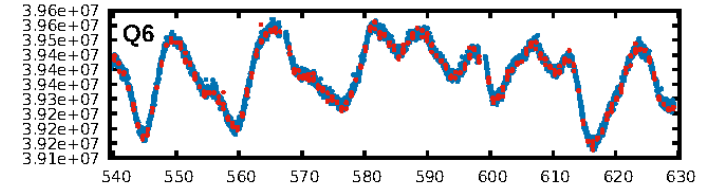
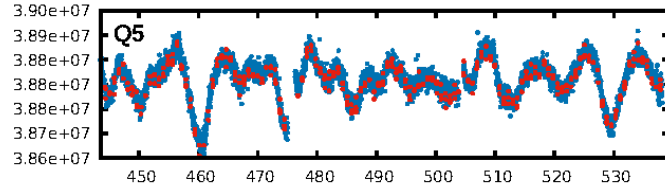
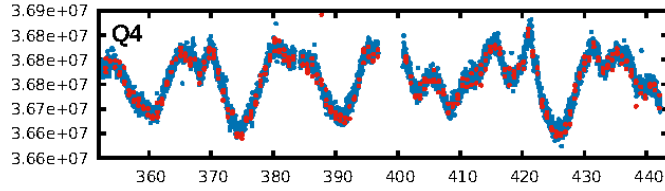
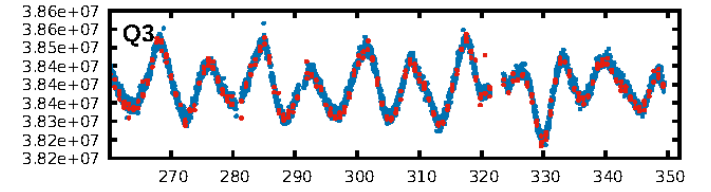
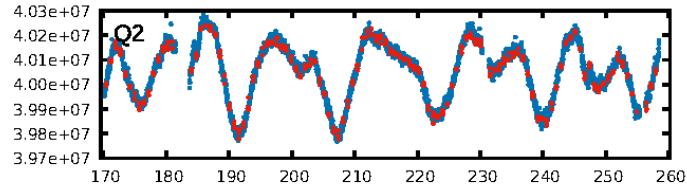
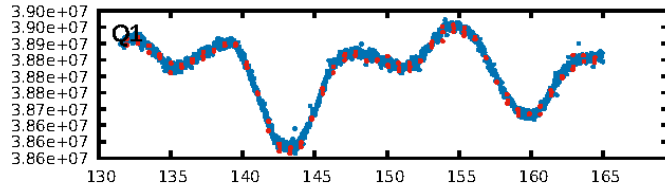
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 7.47e-89  
RollingBand-fgt: 0.92 [1554/1693]  
GhostDiagnostic-chr: 3.953  
Centroid-sig: 0.5%  
Centroid-so: 0.728 arcsec [2.42σ]  
OotOffset-rm: 0.040 arcsec [0.32σ]  
KicOffset-rm: 0.032 arcsec [0.25σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 1.00 [17/17]

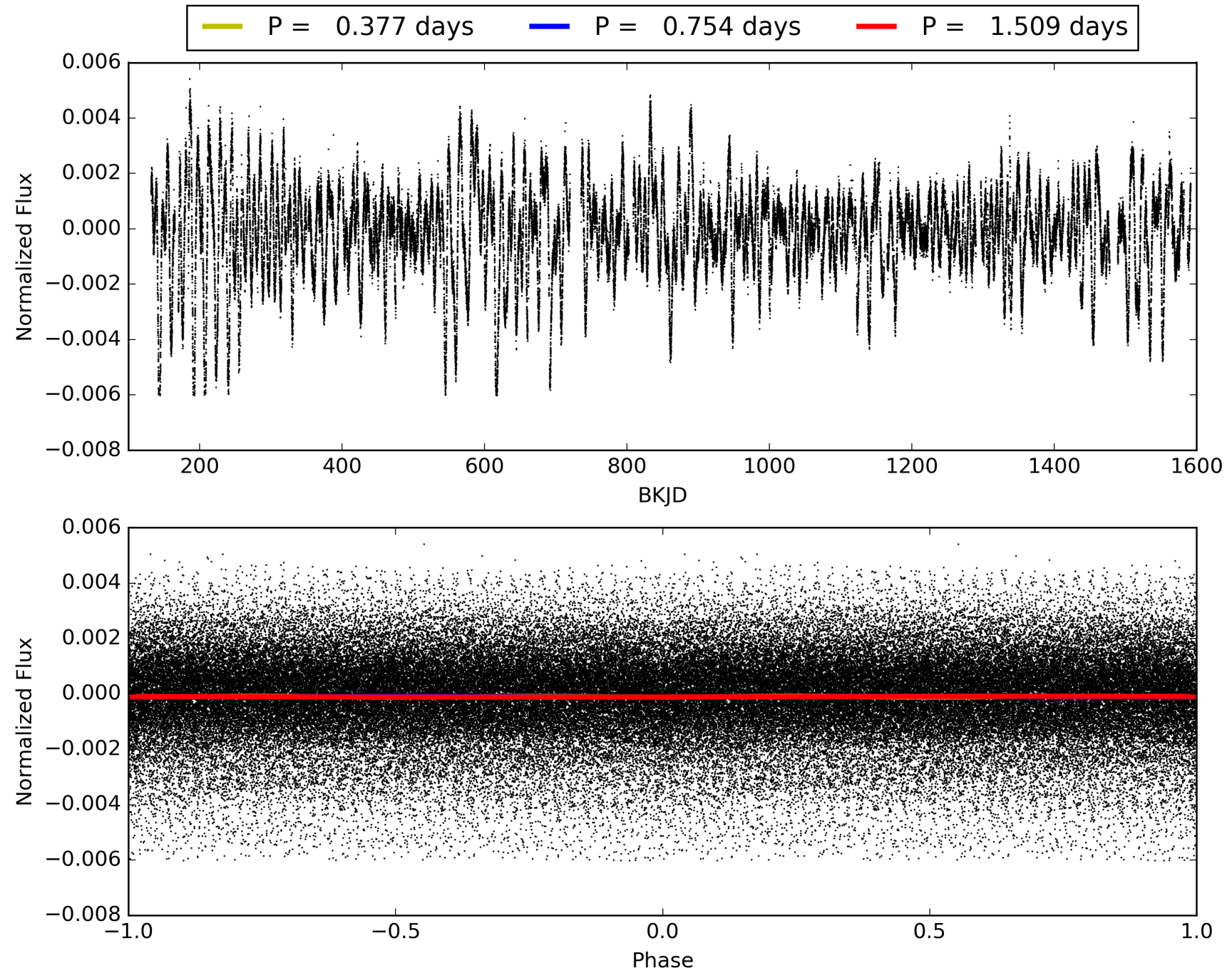
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:57:50 Z

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

# TCE 005095635-01, PDC Light Curves

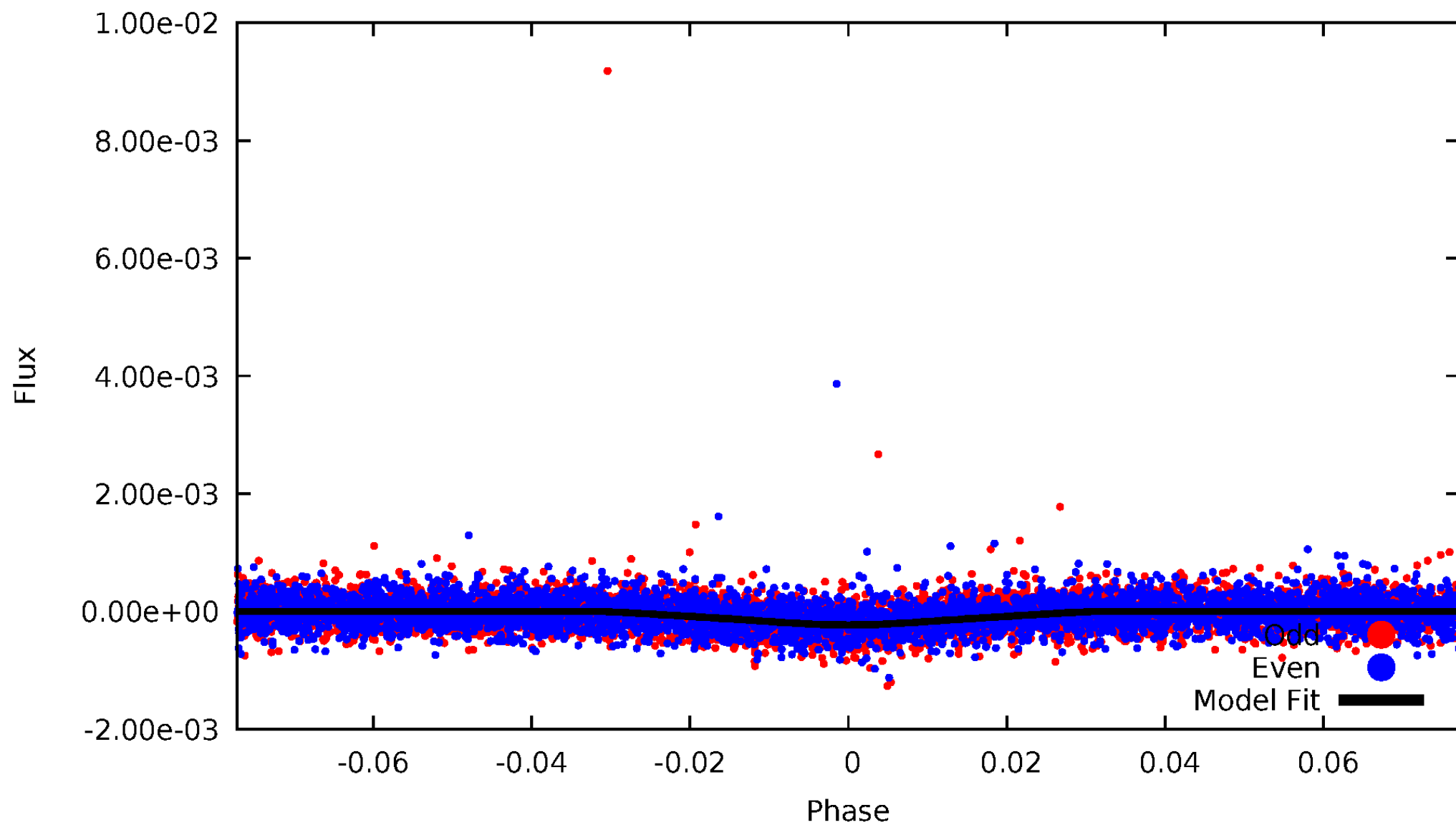


TCE 005095635-01



# DV Odd/Even

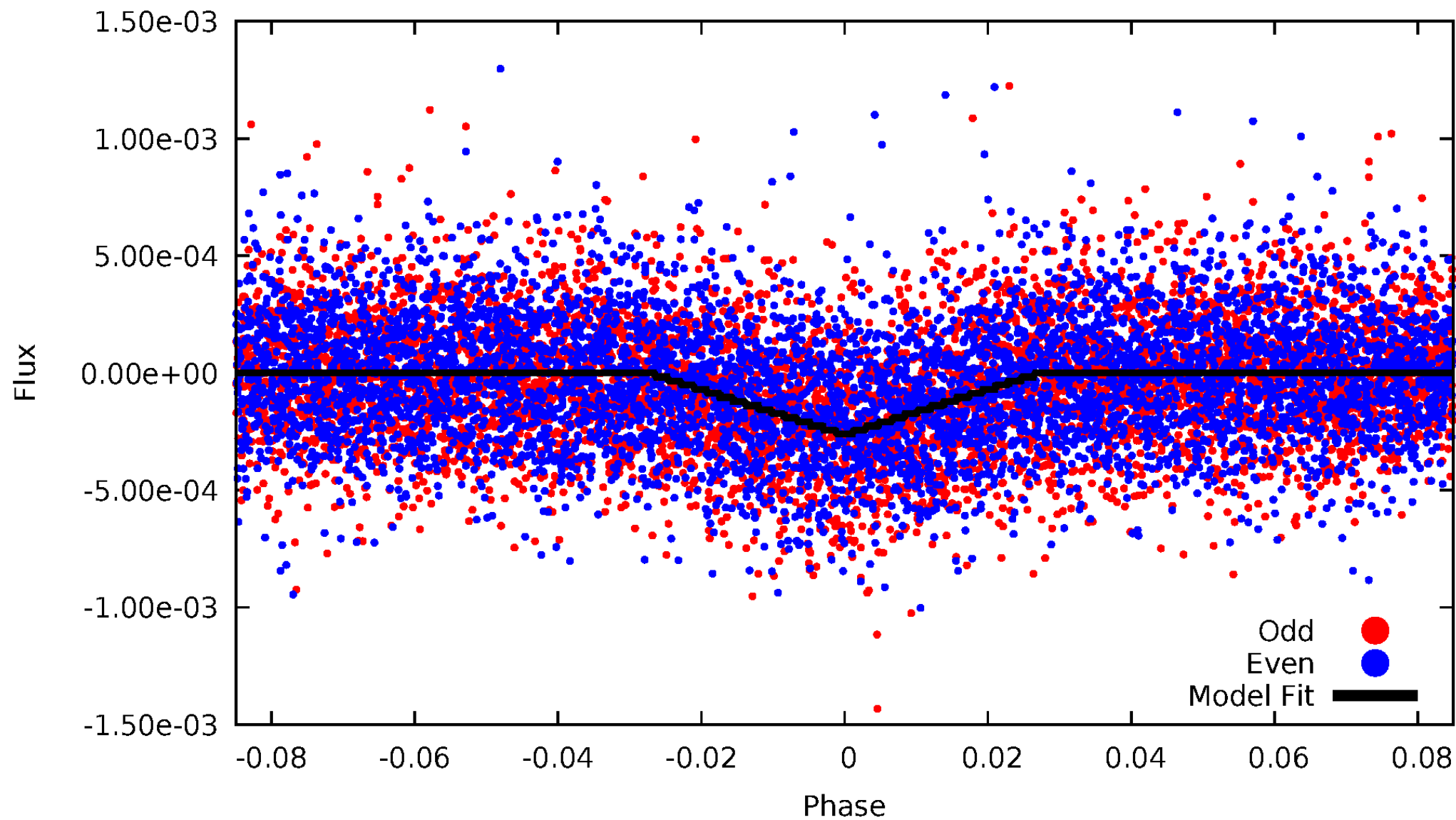
TCE 005095635-01



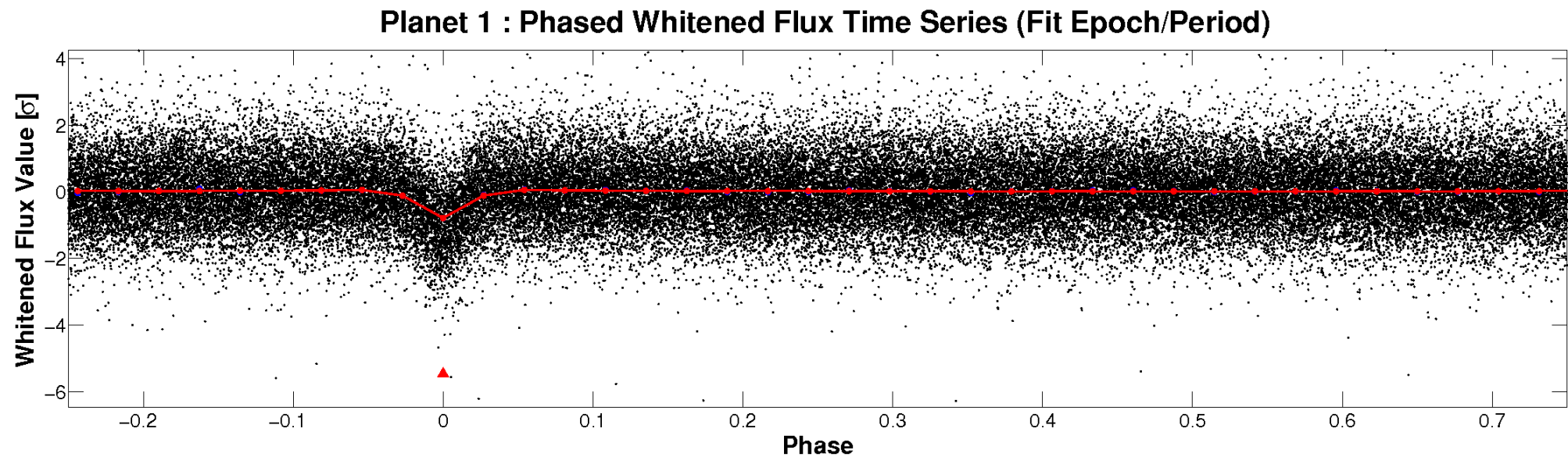
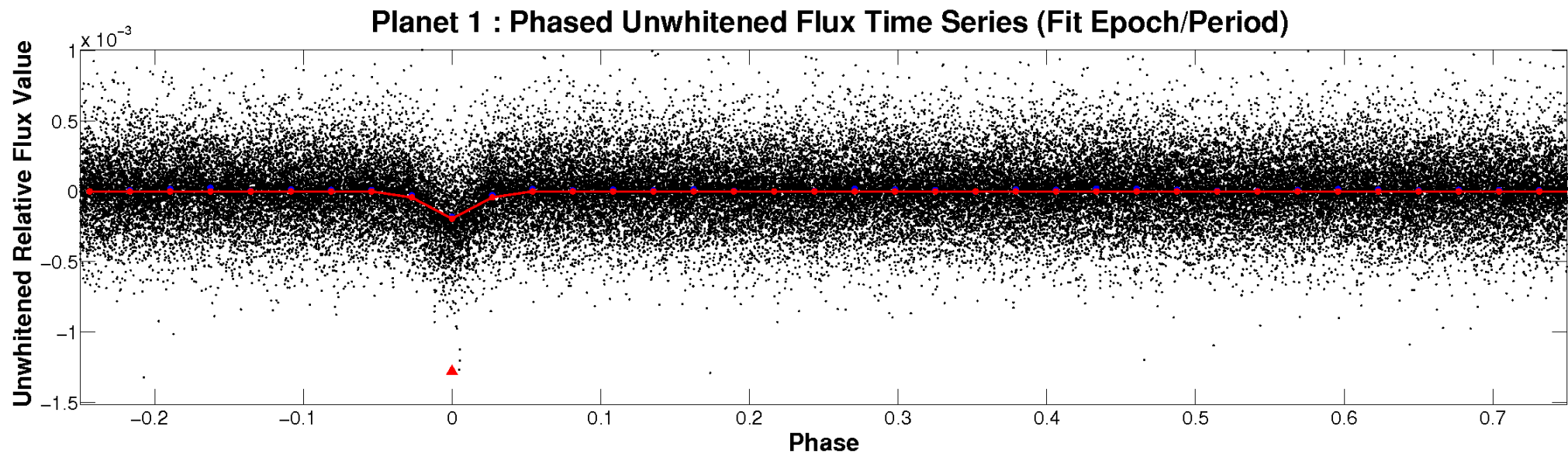


# ALT Odd/Even

TCE 005095635-01

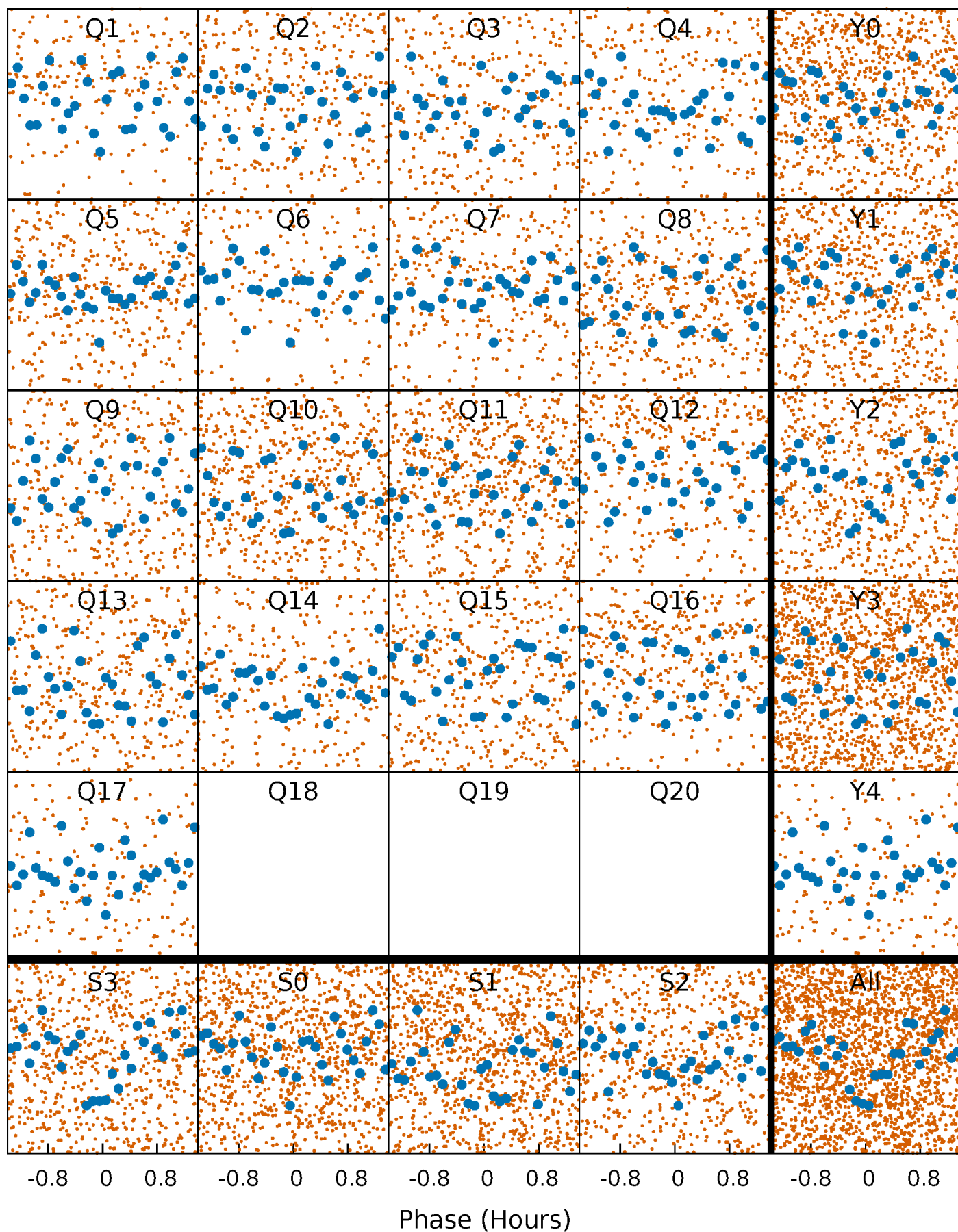


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

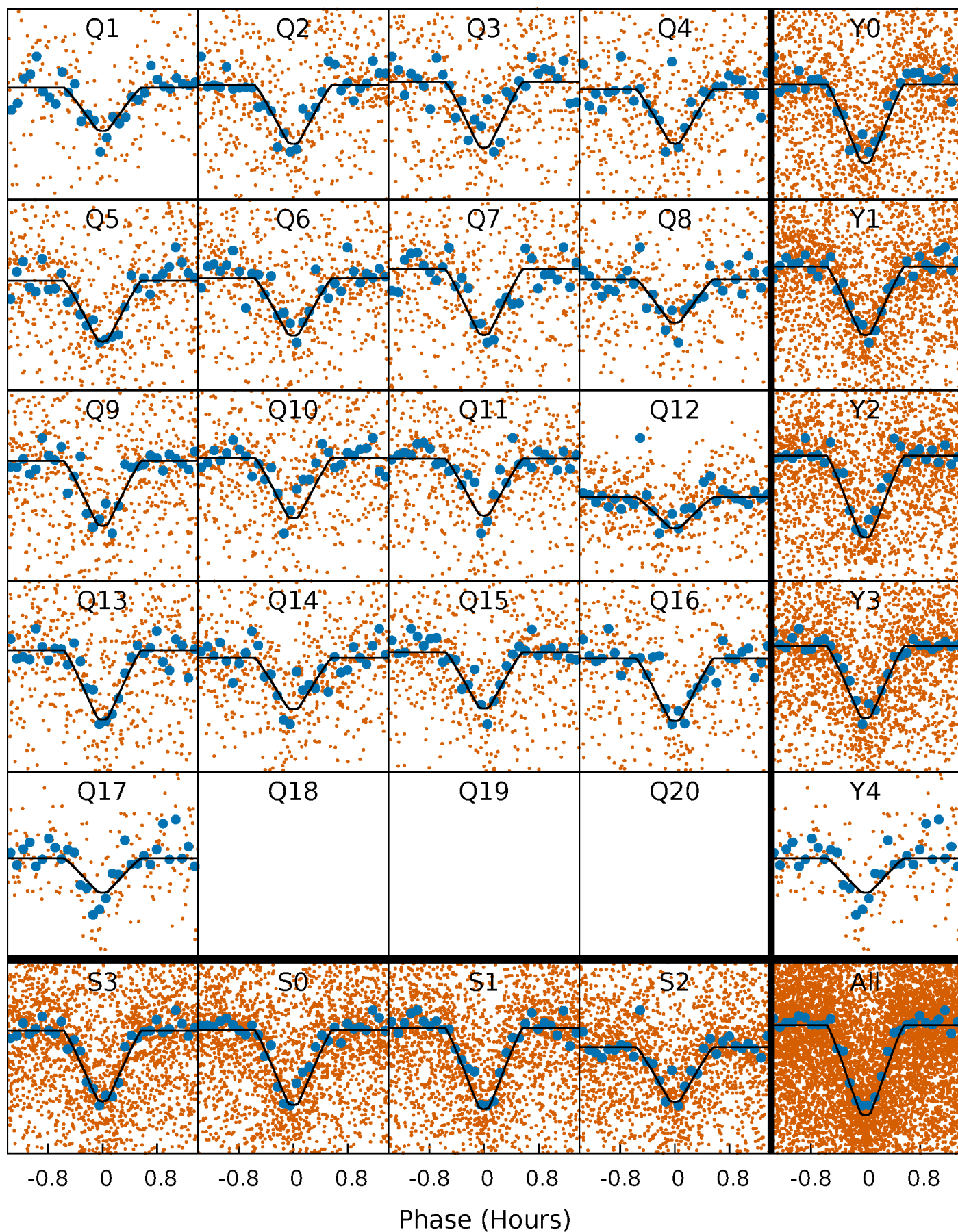
TCE 005095635-01 P= 0.754458 Days  $T_0=131.965599$  (BKJD)





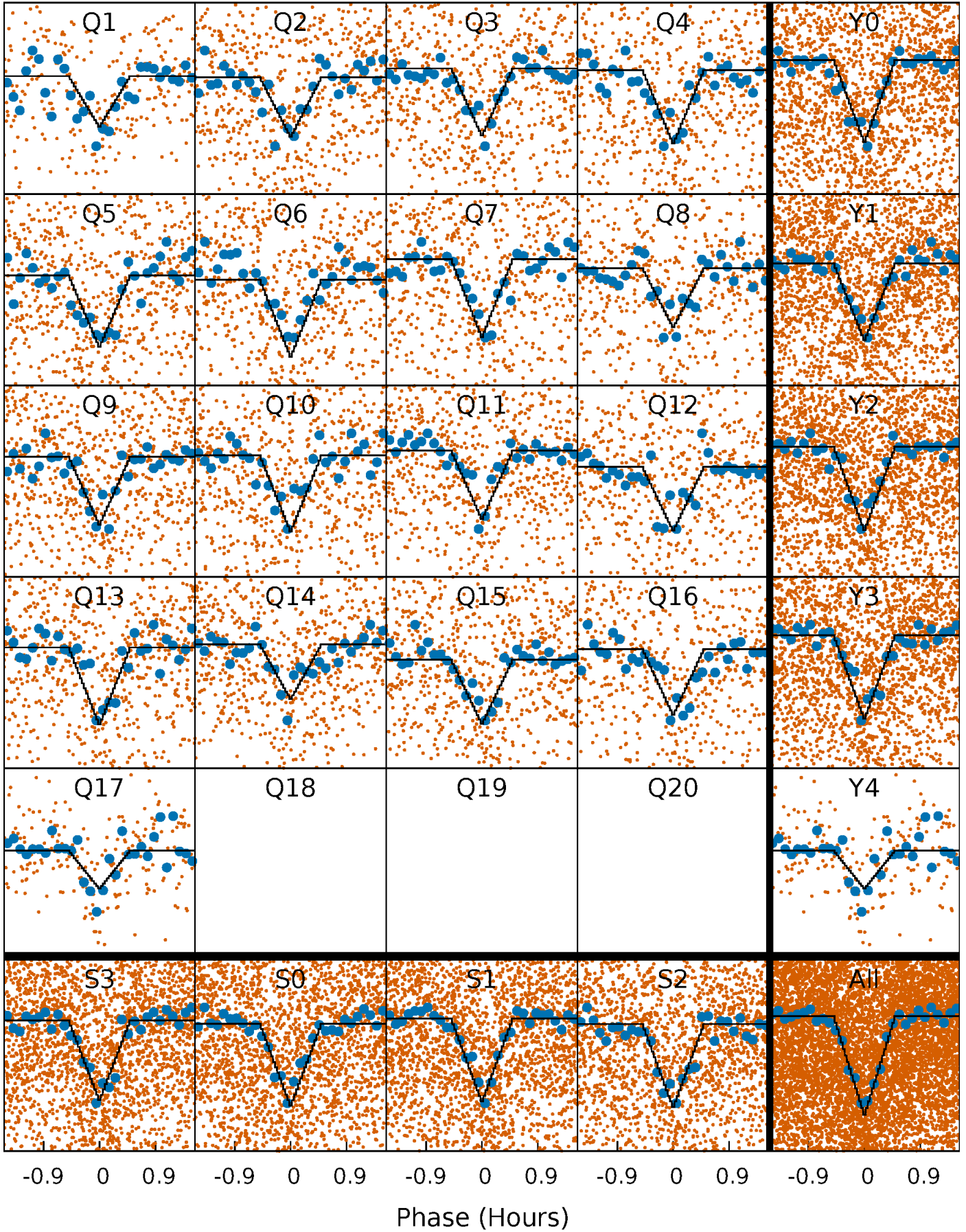
# DV Quarter-Phased Transit Curves

TCE 005095635-01 P= 0.754458 Days  $T_0=131.965599$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

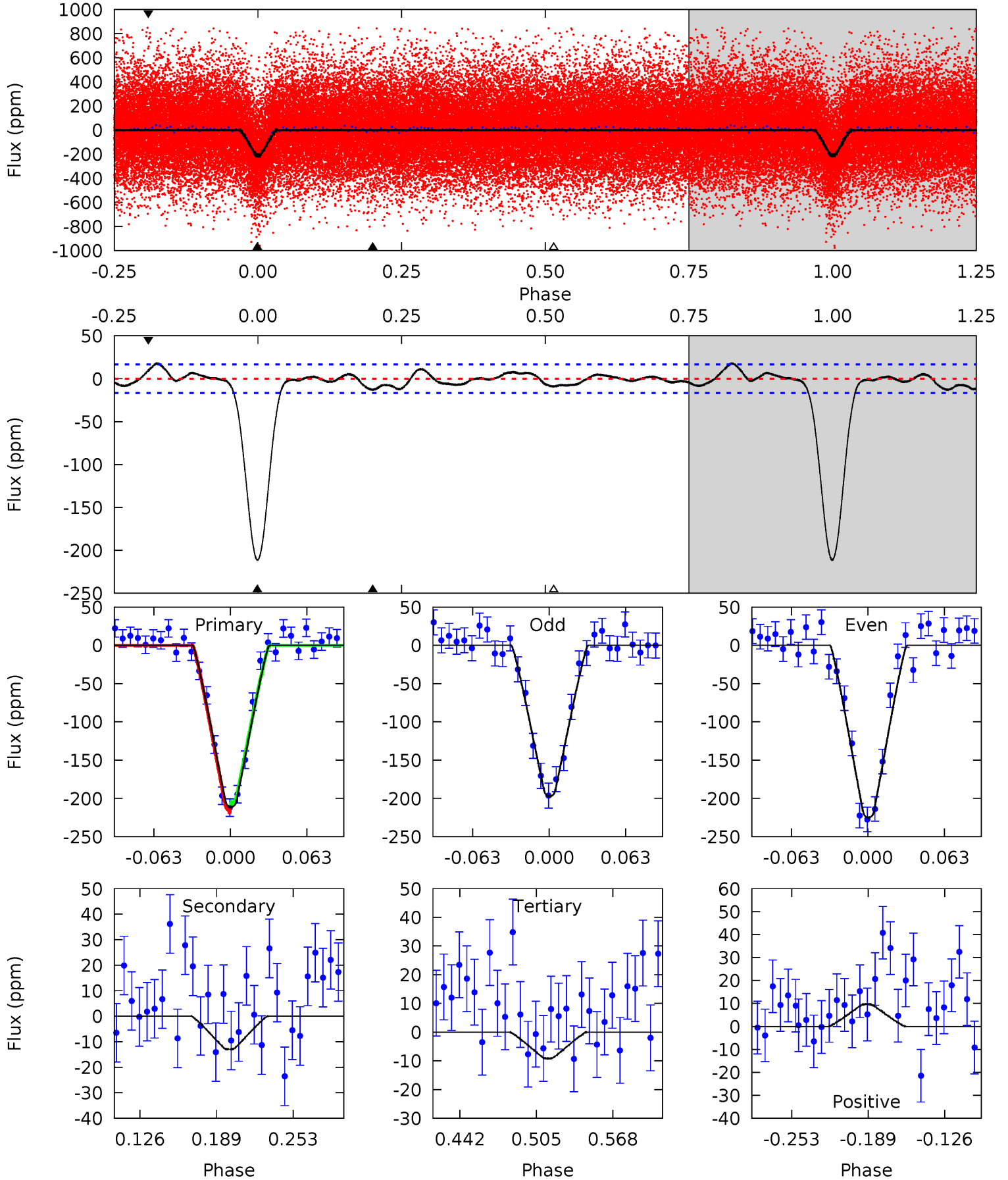
TCE 005095635-01 P= 0.754457 Days  $T_0=131.966477$  (BKJD)



# DV Model-Shift Uniqueness Test

005095635-01, P = 0.754458 Days, E = 131.211141 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
59.5	3.65	2.58	2.73	4.66	1.86	1.53	56.9	56.7	1.07	0.92	3.93	0.94	0.08	1.57

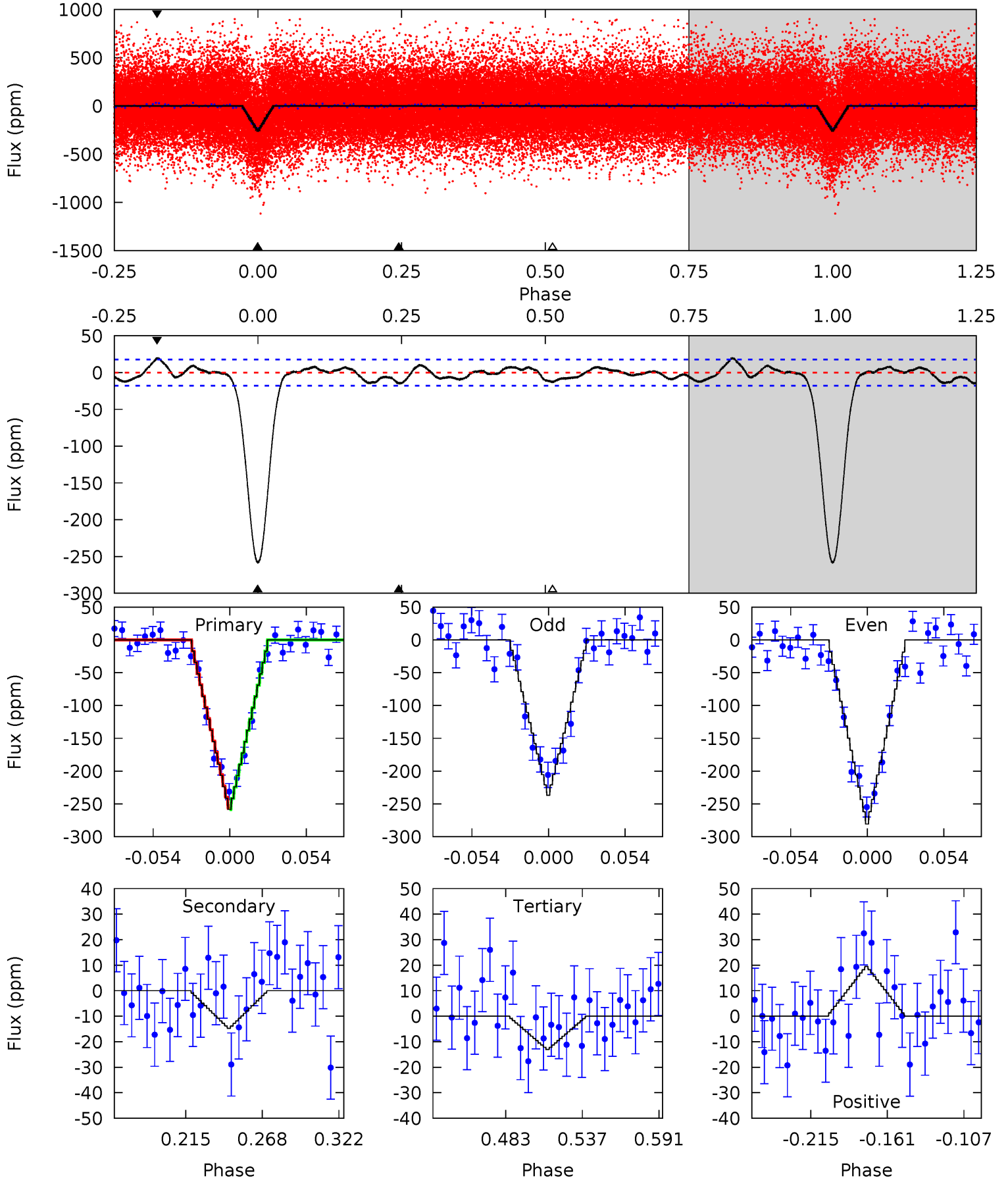




# Alt Model-Shift Uniqueness Test

005095635-01, P = 0.754457 Days, E = 131.212020 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
68.4	3.91	3.46	5.16	4.69	1.93	1.65	64.9	63.2	0.45	-1.26	5.79	0.96	0.07	0.26



### Stellar Parameters For KIC 005095635

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5561^{+83}_{-75}$	$4.250^{+0.174}_{-0.101}$	$0.100^{+0.150}_{-0.150}$	$1.193^{+0.185}_{-0.226}$	$0.925^{+0.072}_{-0.039}$	$0.767^{+0.676}_{-0.245}$
	+1%/-1%	+4%/-2%	+150%/-150%	+16%/-19%	+8%/-4%	+88%/-32%
Source	SPE90	SPE90	SPE90	DSEP		

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

### Secondary Eclipse Parameters for KIC 005095635-01 / KOI 2607.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-13 \pm 4$	$2.15^{+0.47}_{-0.48}$	$2970^{+135}_{-160}$	$2571^{+542}_{-5150}$	$0.379^{+0.293}_{-0.158}$
Alt.	$-15 \pm 4$	$2.04^{+0.46}_{-0.42}$	$2953^{+135}_{-148}$	$2857^{+417}_{-4645}$	$0.492^{+0.296}_{-0.194}$

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



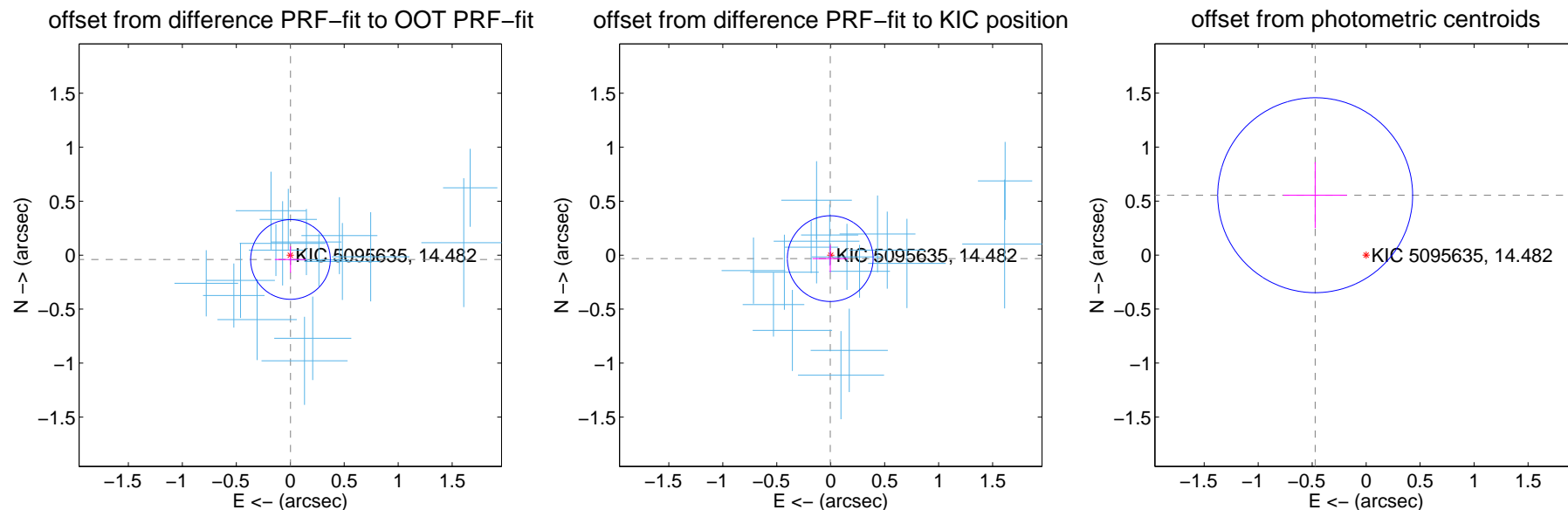
## DV Centroid Data

Supplemental centroid analysis for 005095635-01. Kepler magnitude: 14.48. Transit SNR 35.25

There are 17 quarters with good PRF difference image offsets

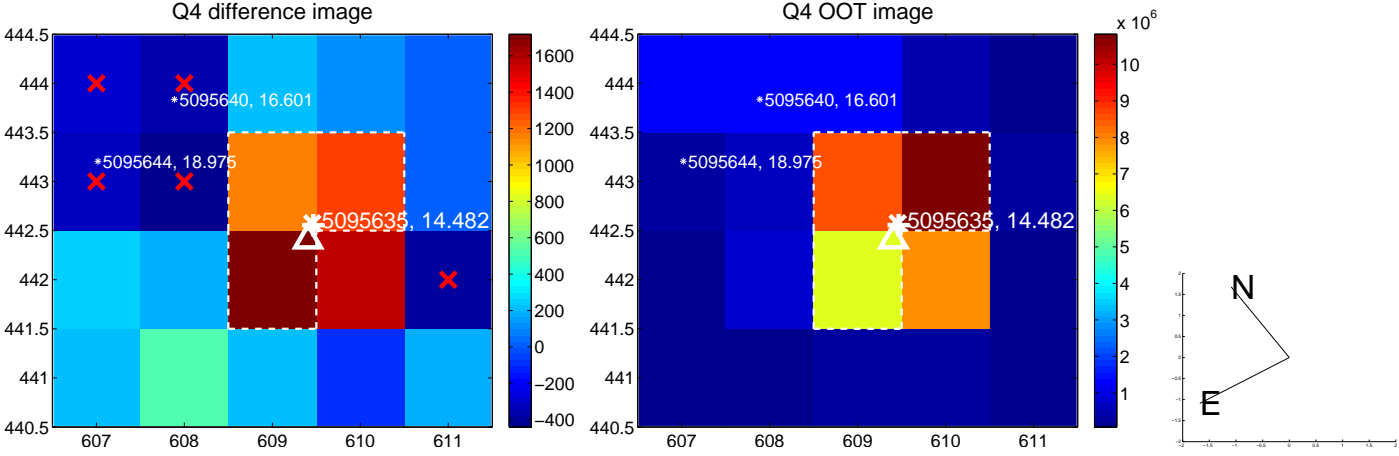
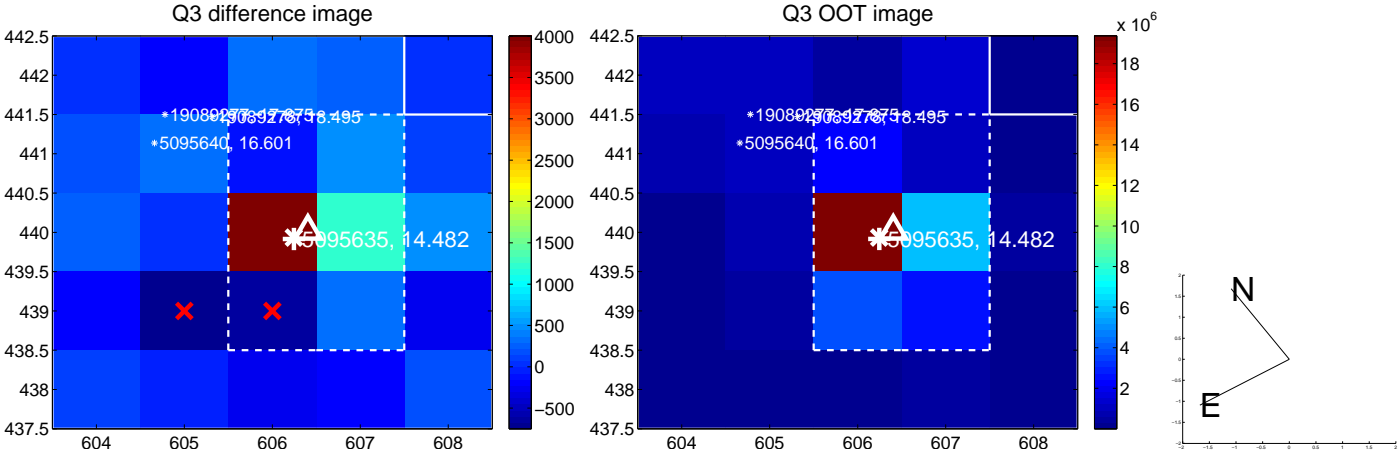
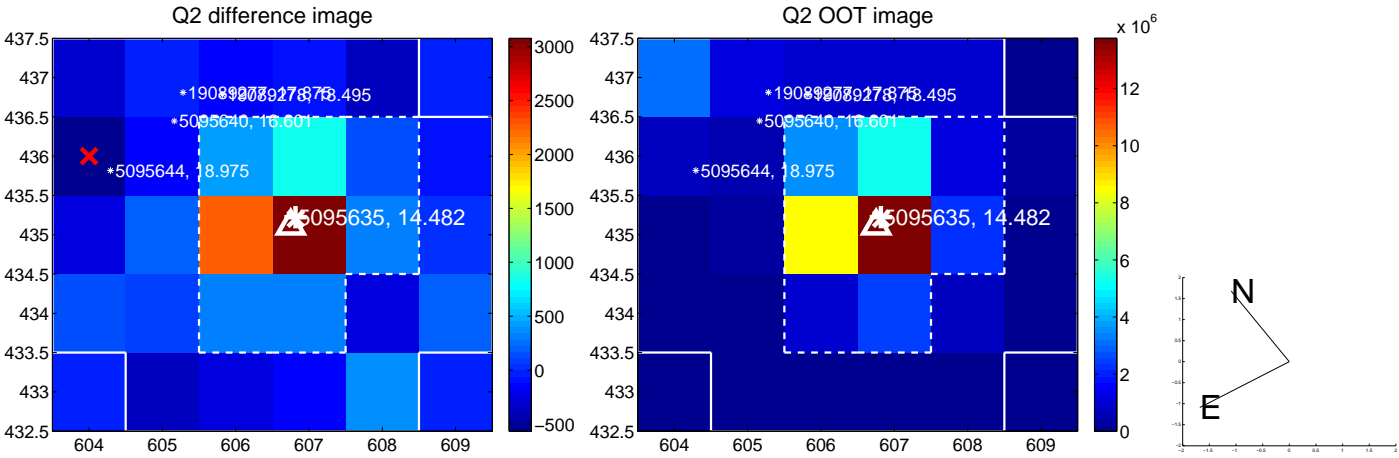
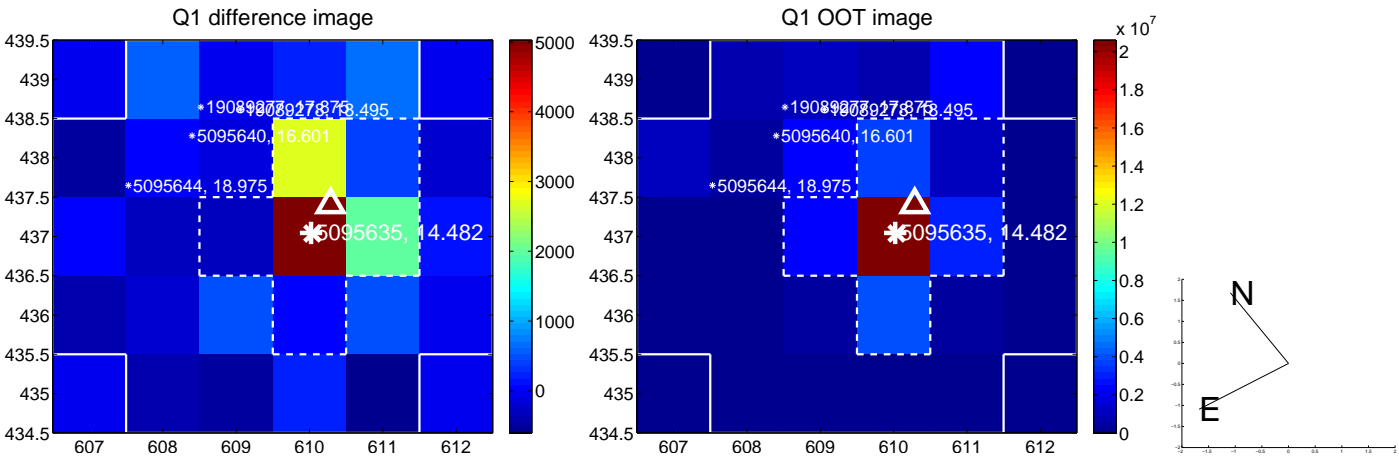
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.040 \pm 0.123$	0.32	$-0.002 \pm 0.145$	$-0.040 \pm 0.123$
PRF-fit source offset from KIC position	$0.032 \pm 0.132$	0.25	$0.005 \pm 0.164$	$-0.032 \pm 0.126$
photometric centroid source offset	$0.73 \pm 0.30$	2.42	$0.47 \pm 0.29$	$0.55 \pm 0.31$

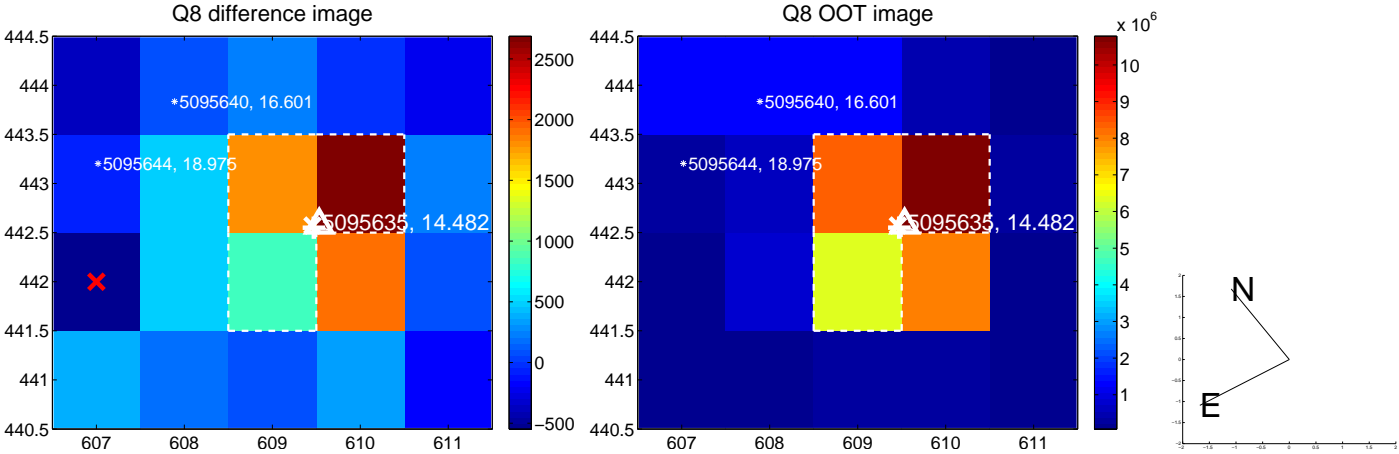
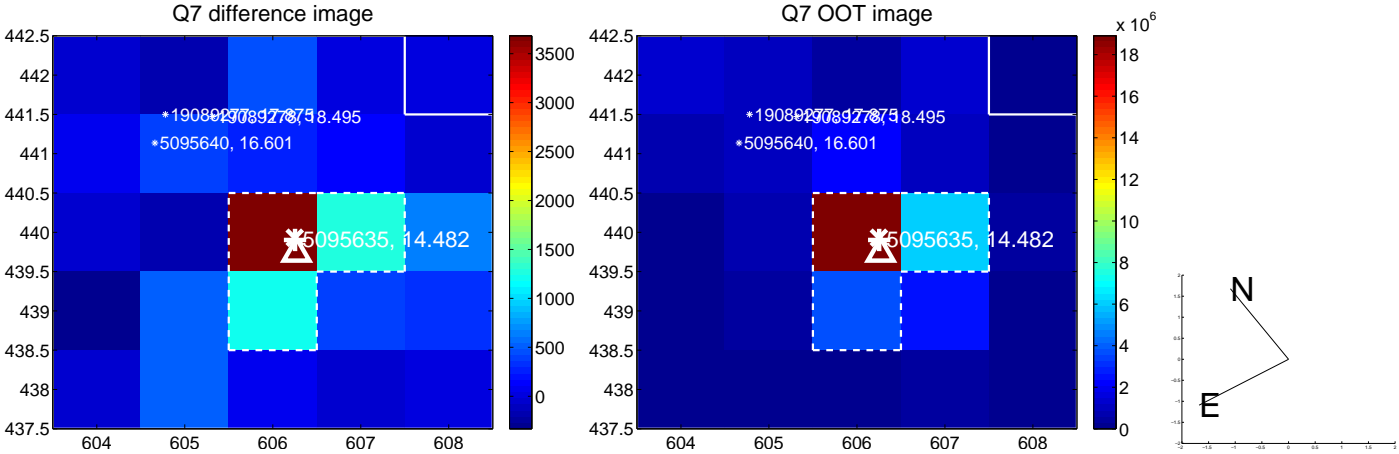
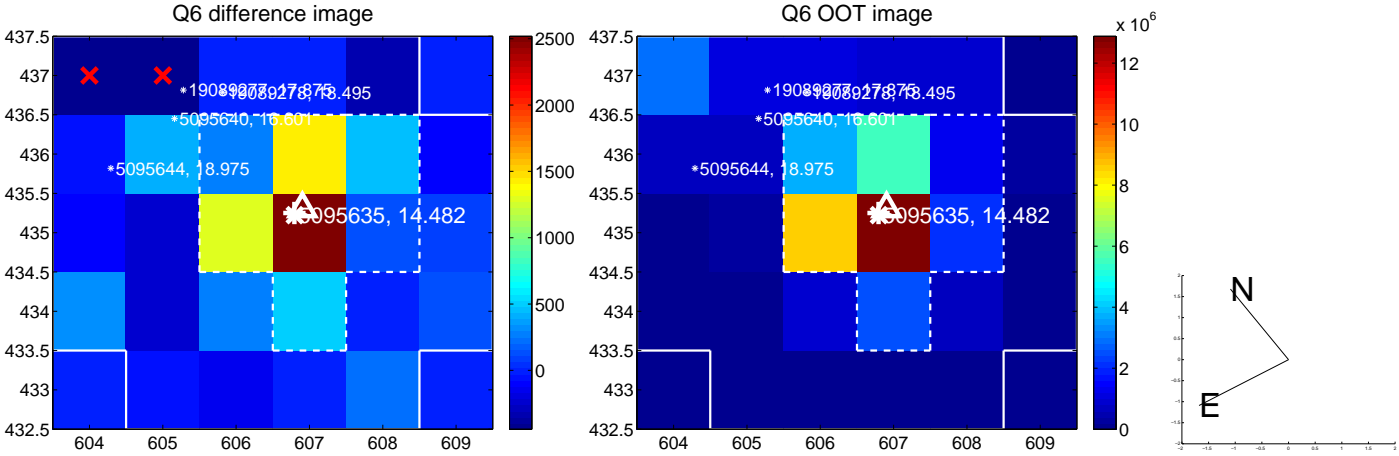
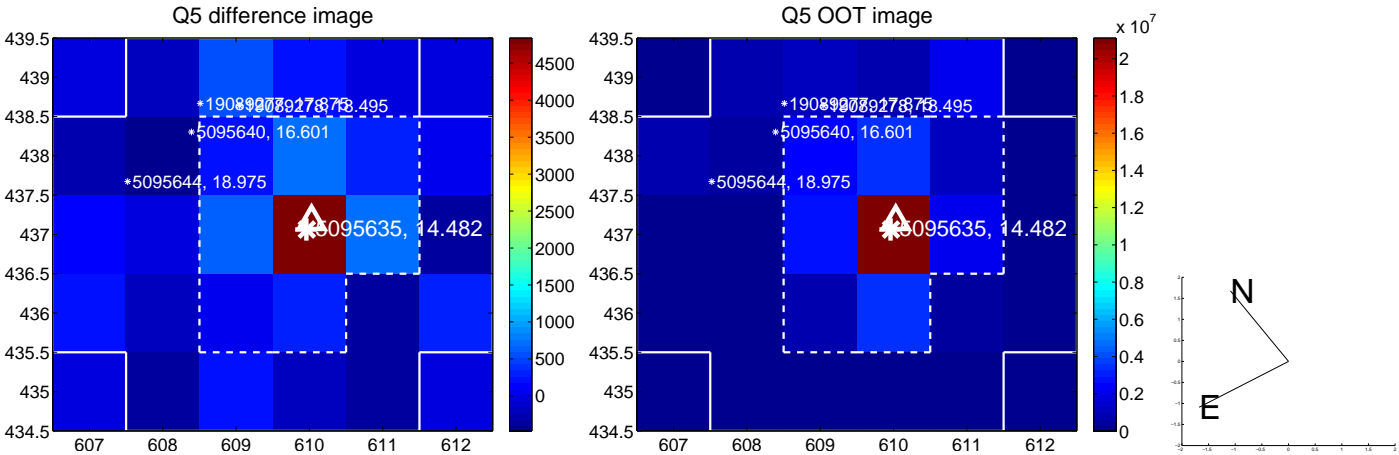


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

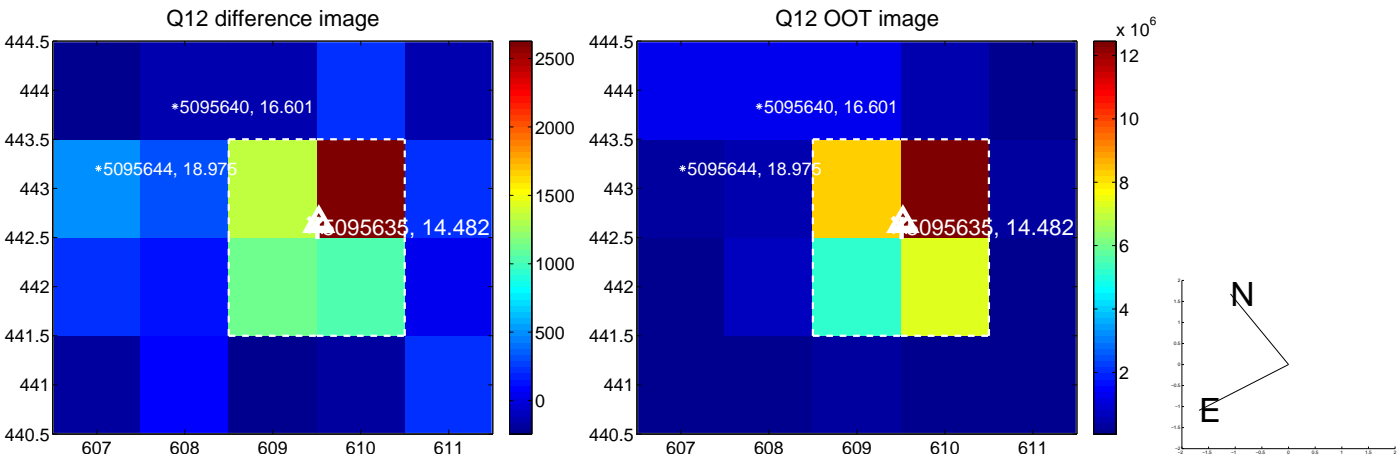
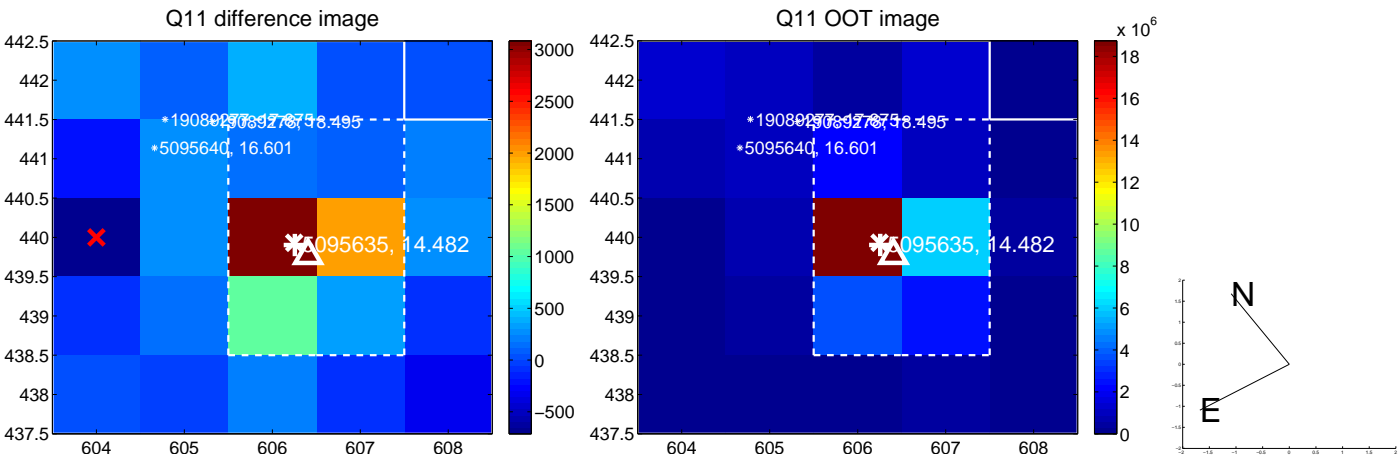
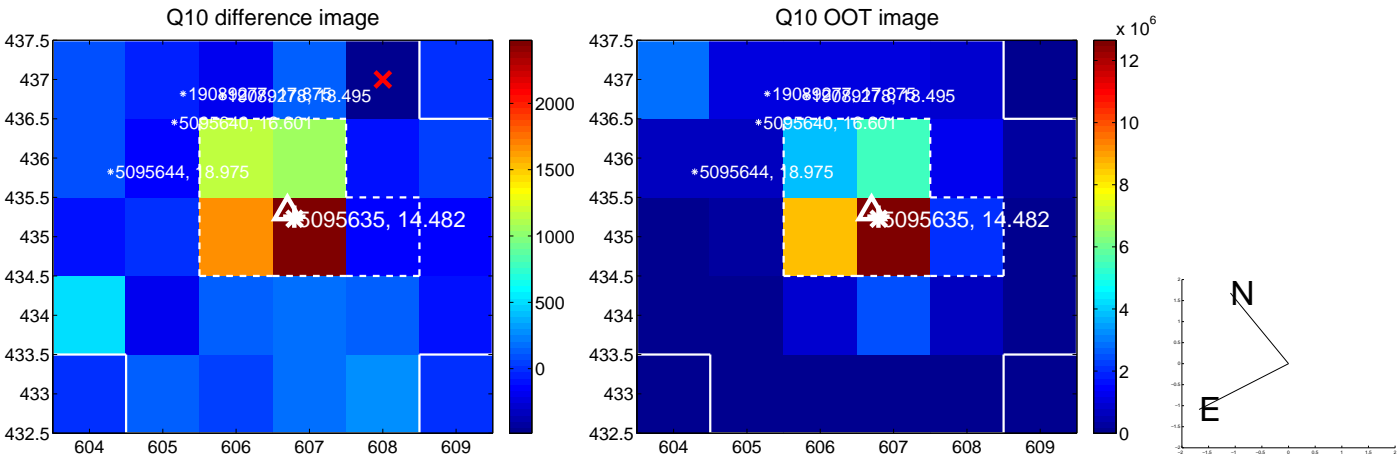
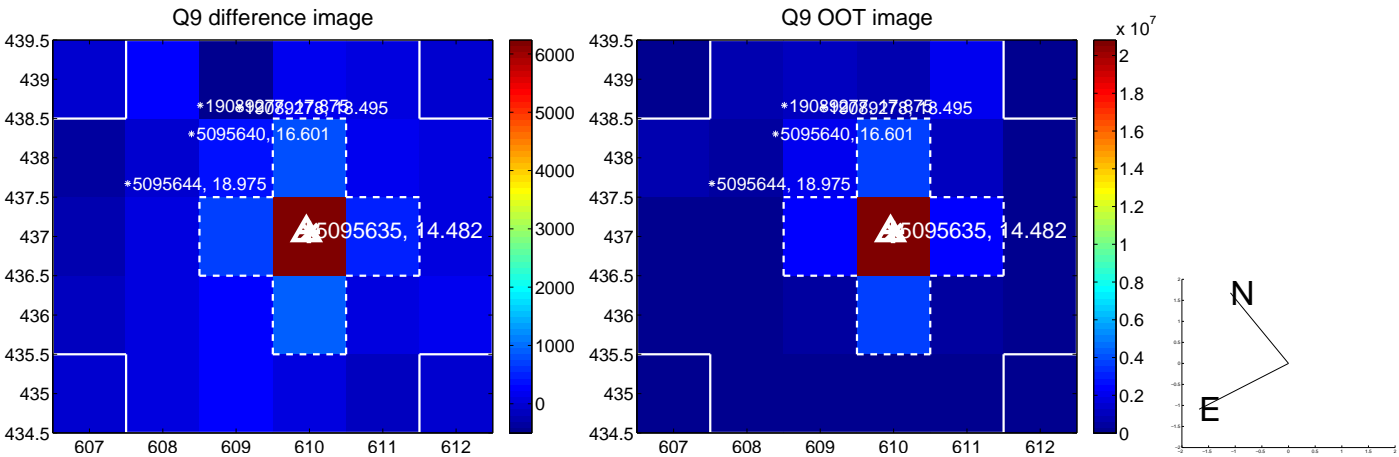
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



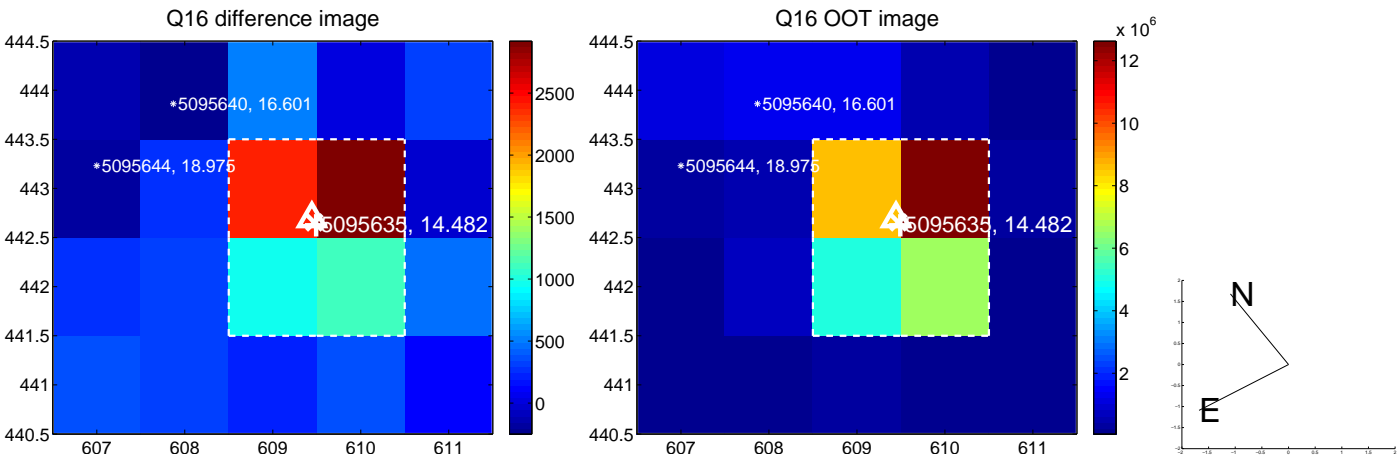
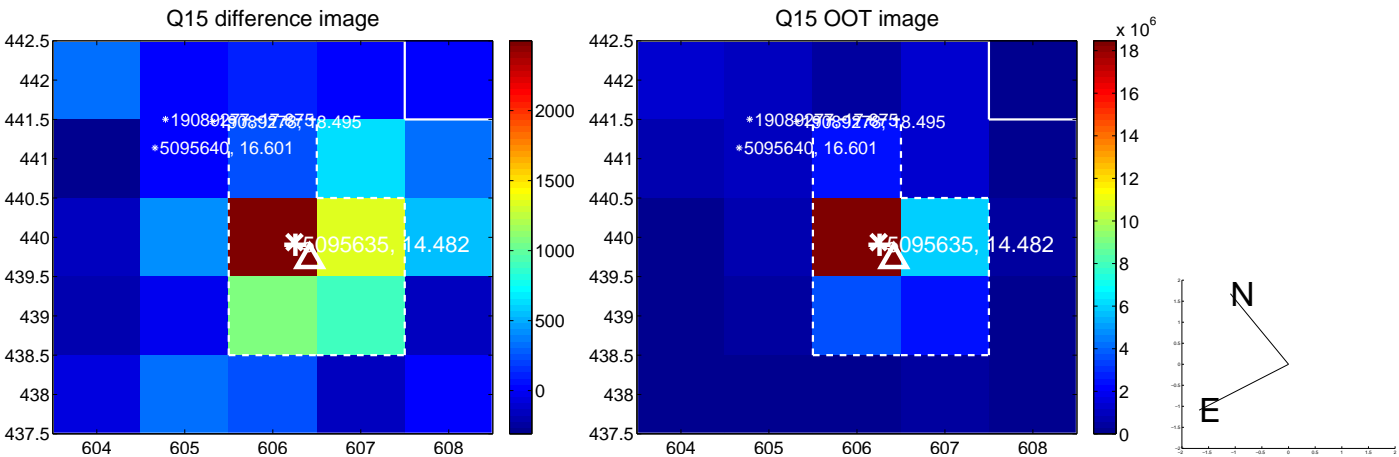
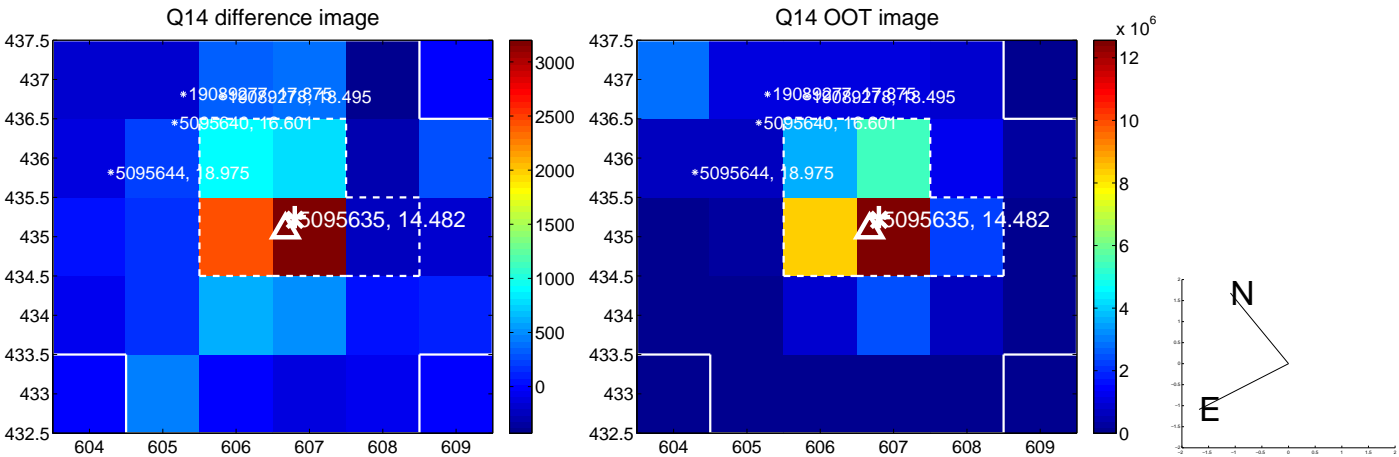
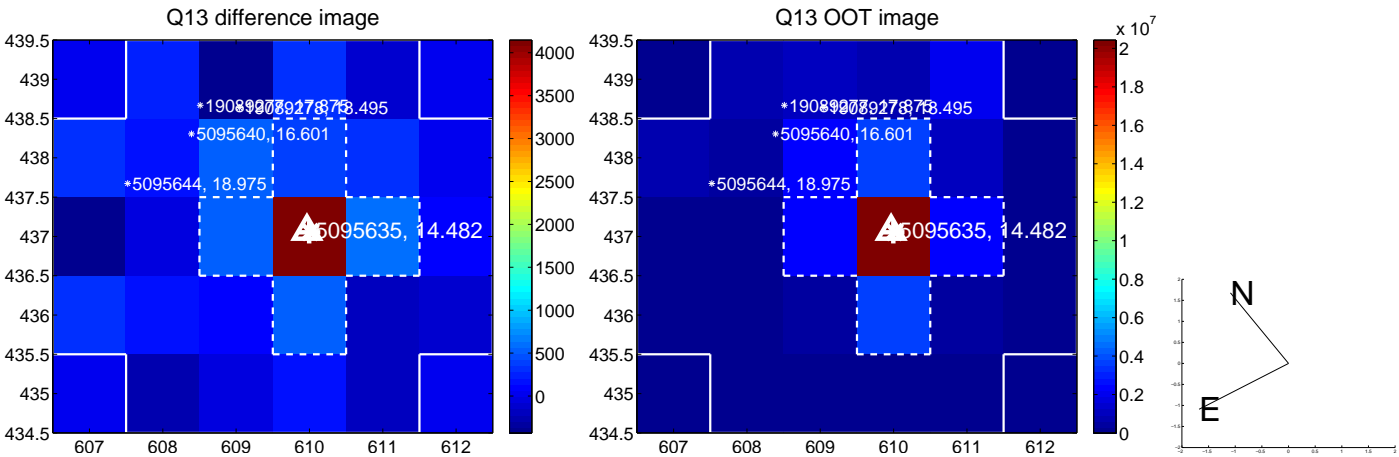
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white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

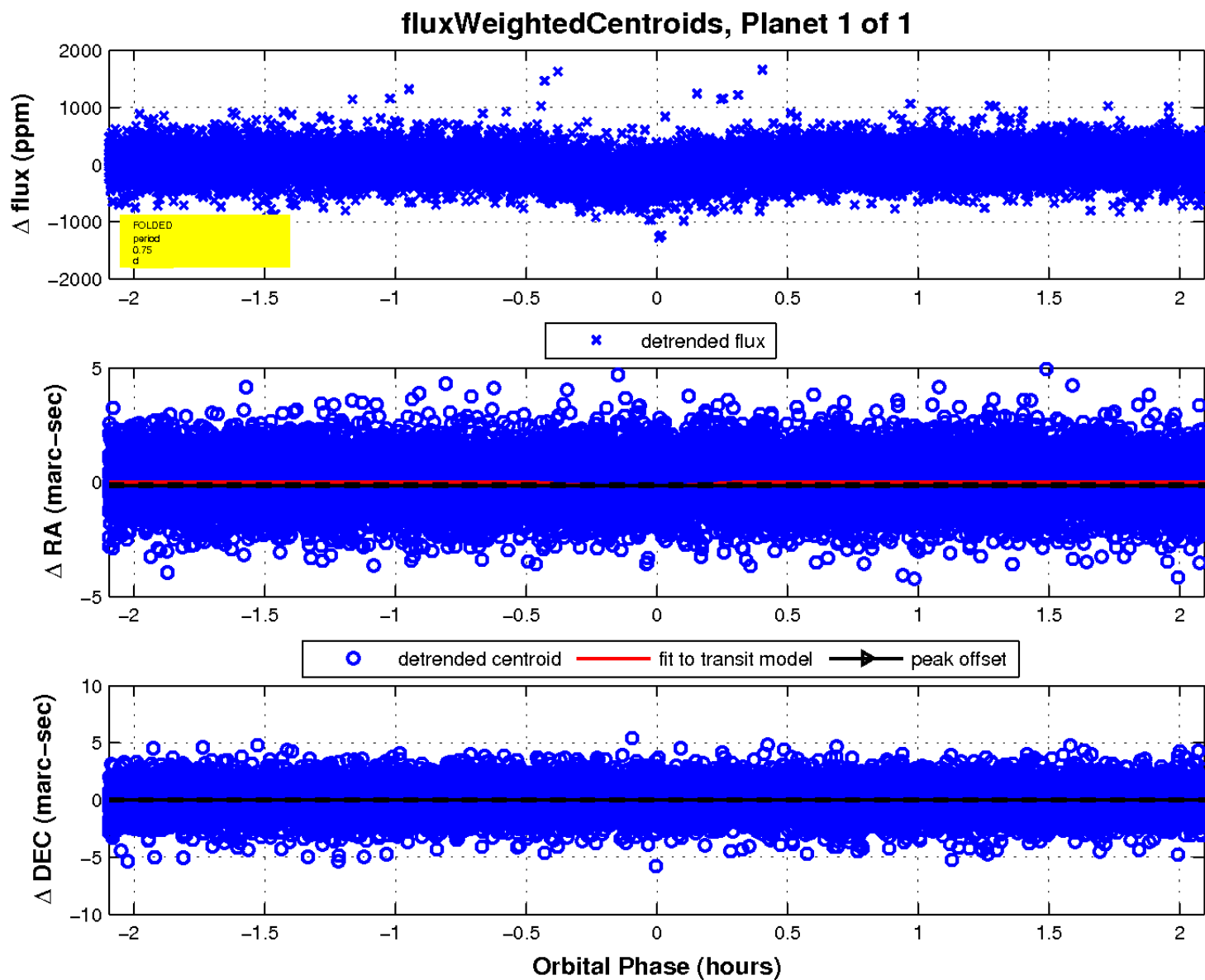
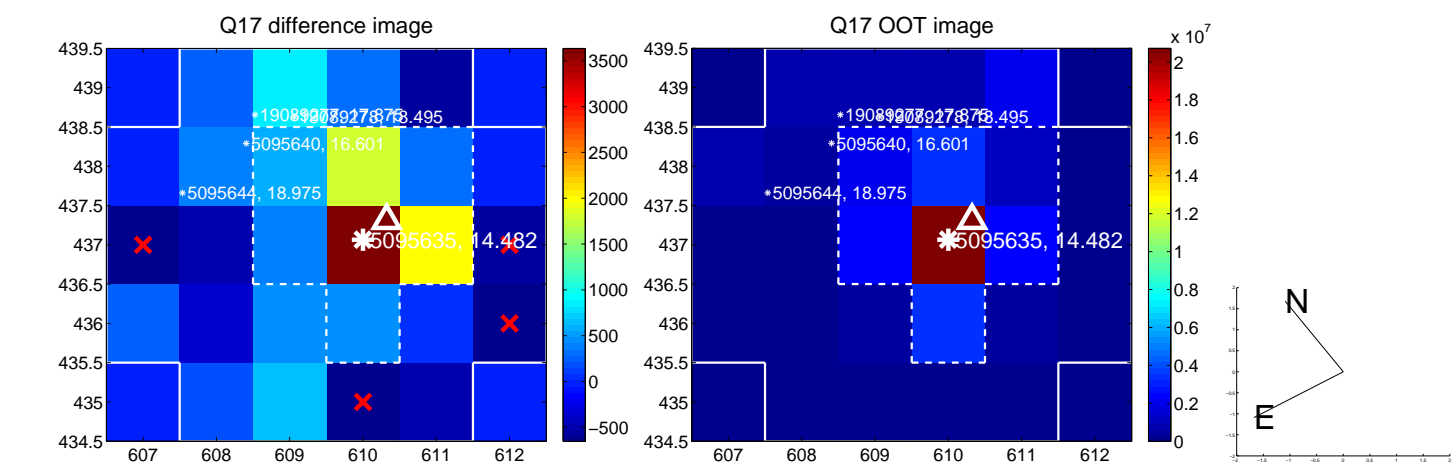


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





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



UKIRT Image

Declination

