

# KIC 011194032

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011194032-01	OBS	0348.01	28.511185	158.852382	1826.0	4.735	132.2	131.1	0.69	4687	3.41	7.57

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011194032-01	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.

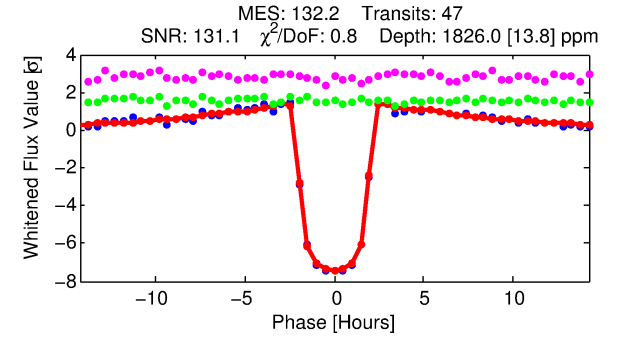
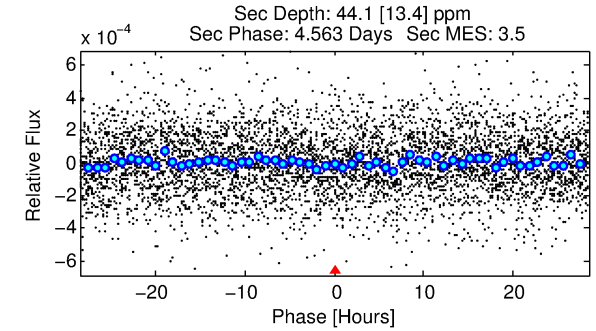
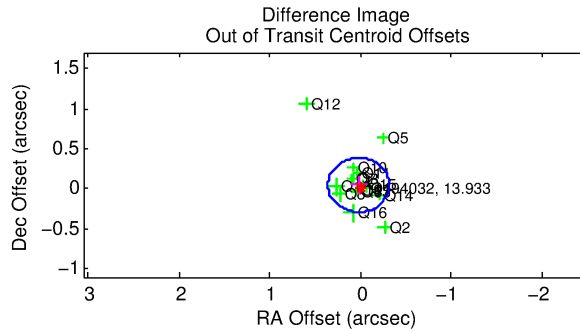
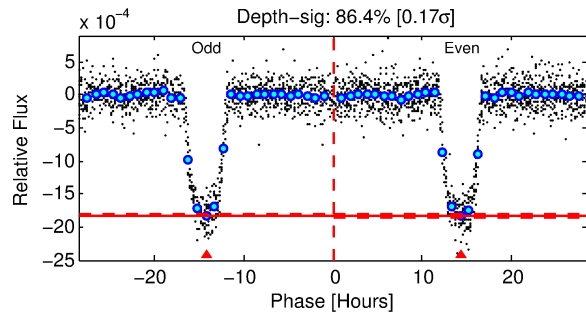
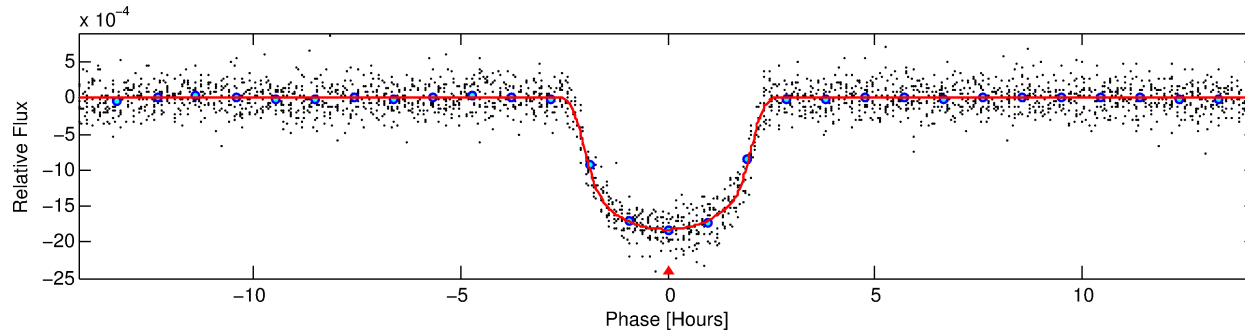
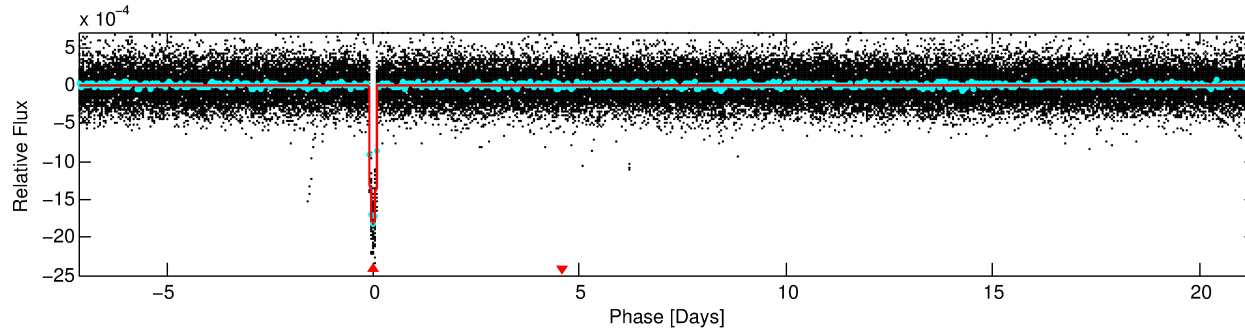
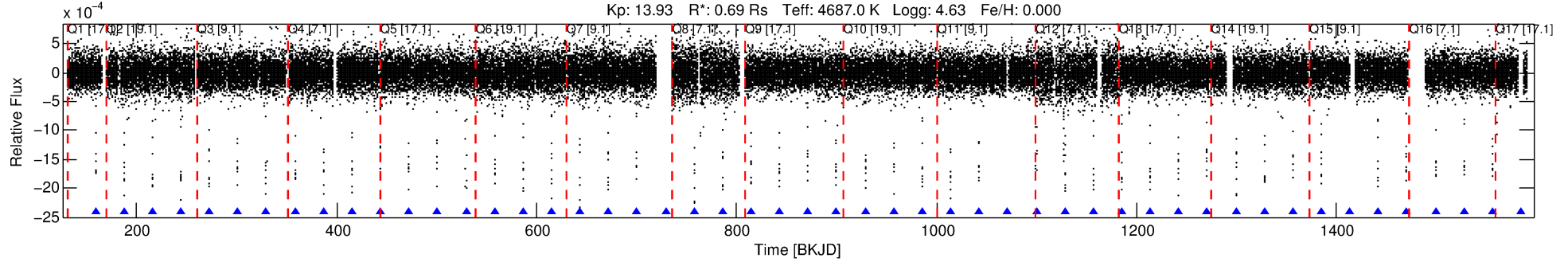
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011194032-01

No Significant Match Found

# DV One-Page Summary

KIC: 11194032 Candidate: 1 of 1 Period: 28.511 d  
KOI: K00348.01 Corr: 0.983



## DV Fit Results:

Period = 28.51119 [0.00002] d  
Epoch = 158.8524 [0.0007] BKJD  
Rp/R\* = 0.0452 [0.0008]  
a/R\* = 28.82 [1.56]  
b = 0.84 [0.02]  
Seff = 7.57 [0.80]  
Teq = 423 [11] K  
Rp = 3.41 [0.20] Re  
a = 0.1649 [0.0079] AU  
Ag = 56.92 [17.90] [3.12 $\sigma$ ]  
Teffp = 1796 [142] K [9.63 $\sigma$ ]

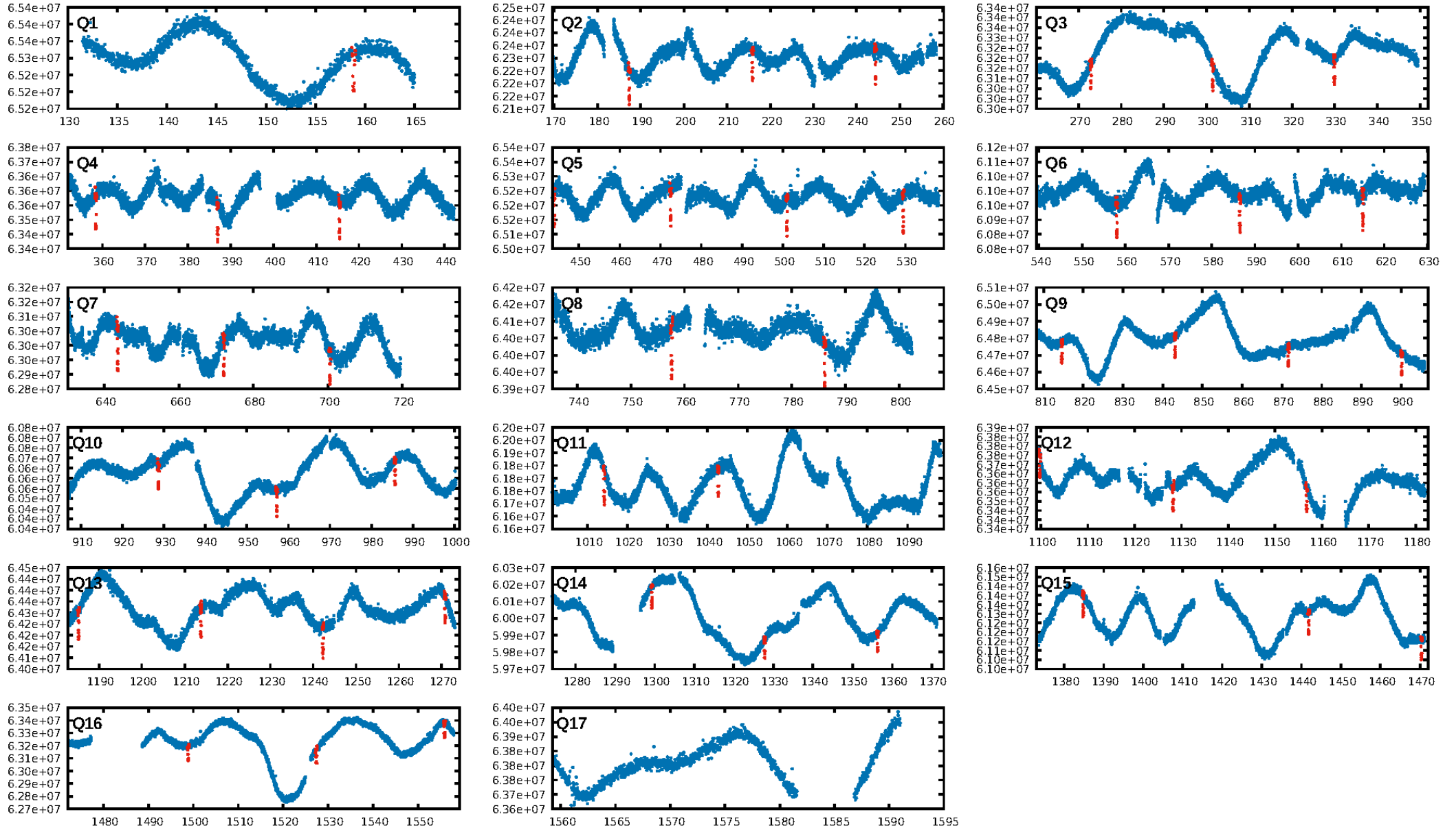
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 94.4%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: 0.00e+00  
RollingBand-fgt: 1.00 [46/46]  
GhostDiagnostic-chr: 4.167  
Centroid-sig: 46.1%  
Centroid-so: 0.417 arcsec [5.88 $\sigma$ ]  
OotOffset-rm: 0.049 arcsec [0.44 $\sigma$ ]  
KicOffset-rm: 0.269 arcsec [2.47 $\sigma$ ]  
OotOffset-st: 4/4/4/4 [16]  
KicOffset-st: 4/4/4/4 [16]  
DiffImageQuality-fgm: 1.00 [16/16]  
DiffImageOverlap-fno: 1.00 [16/16]

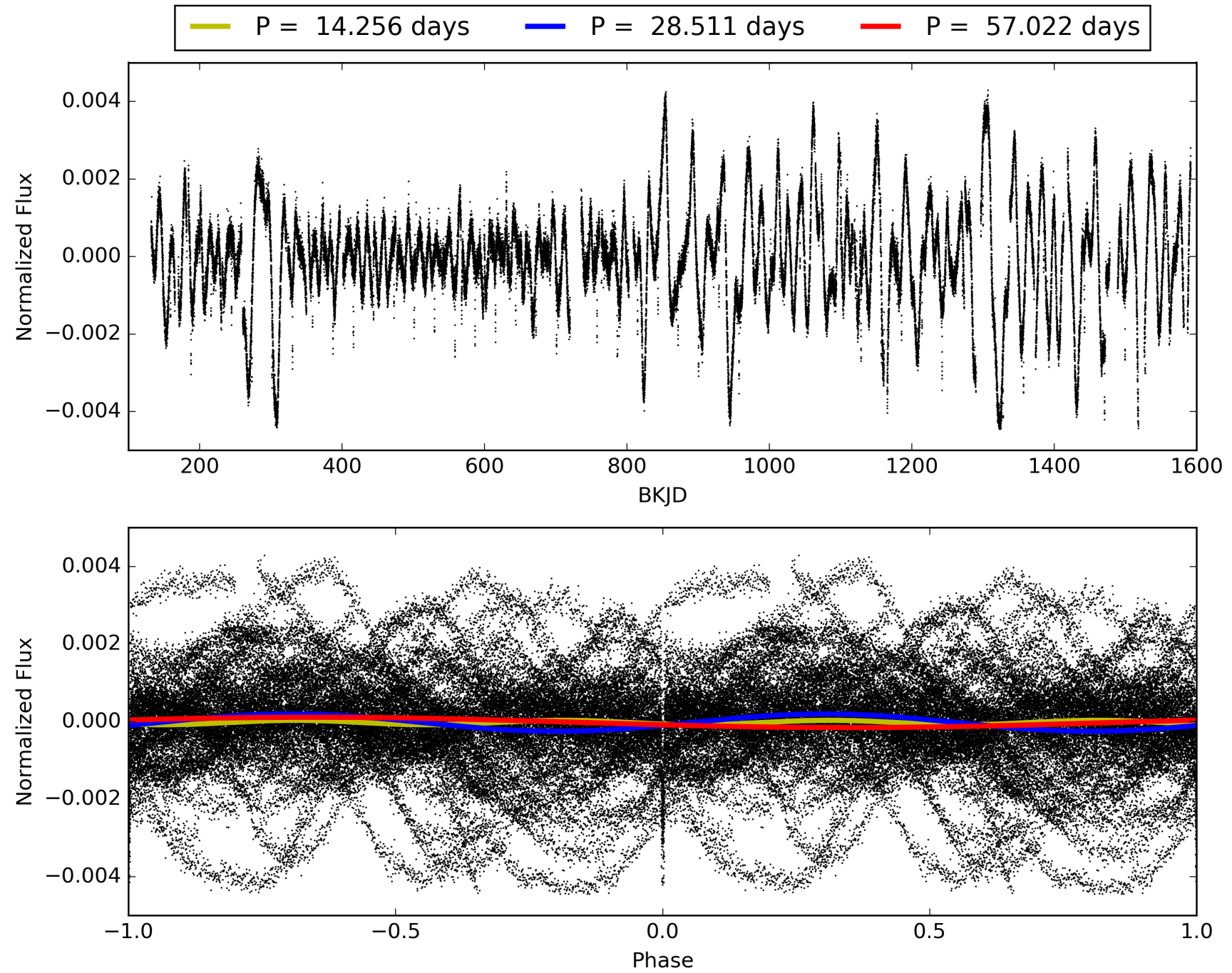
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:43:27 Z

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

# TCE 011194032-01, PDC Light Curves

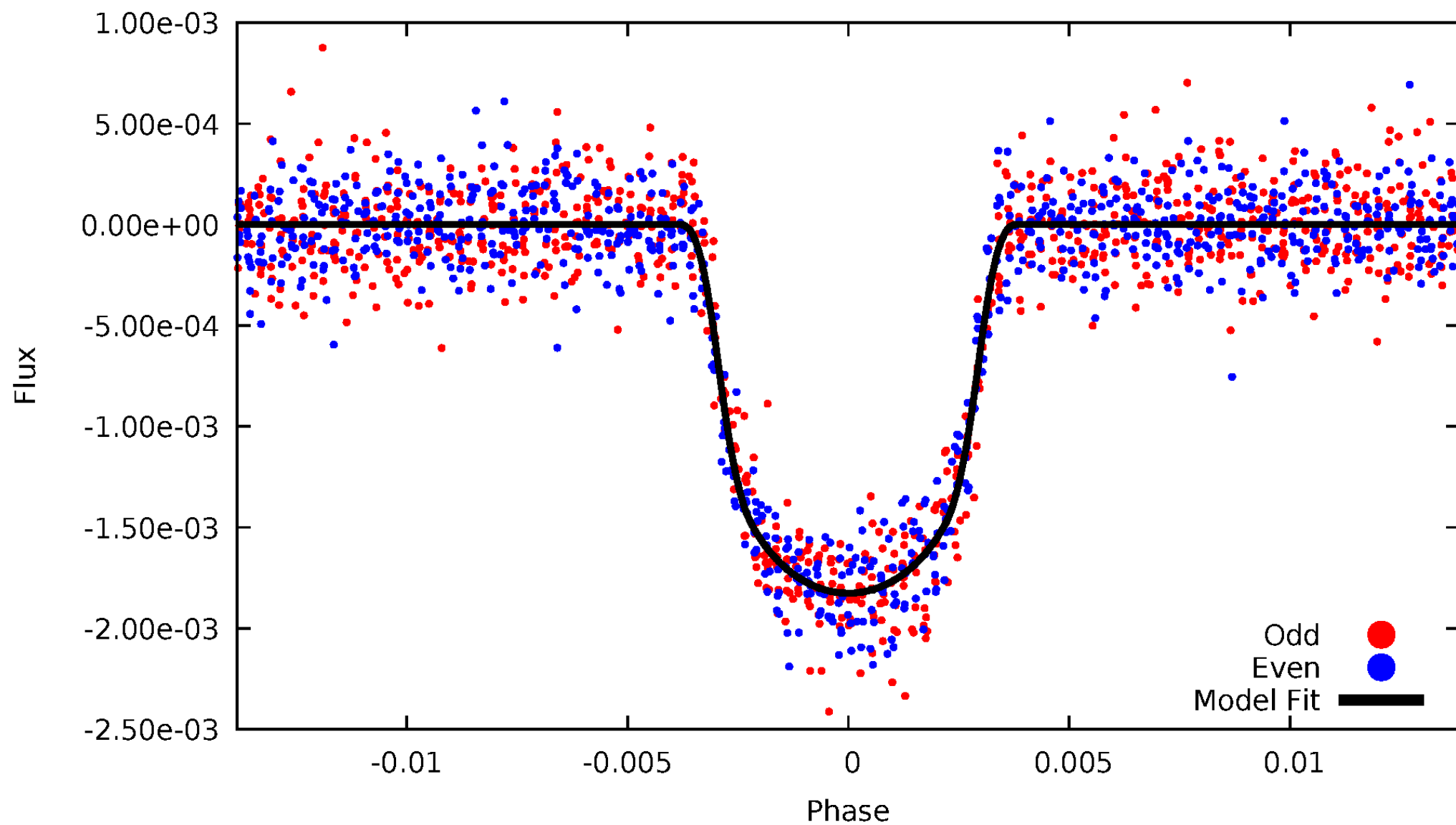


TCE 011194032-01



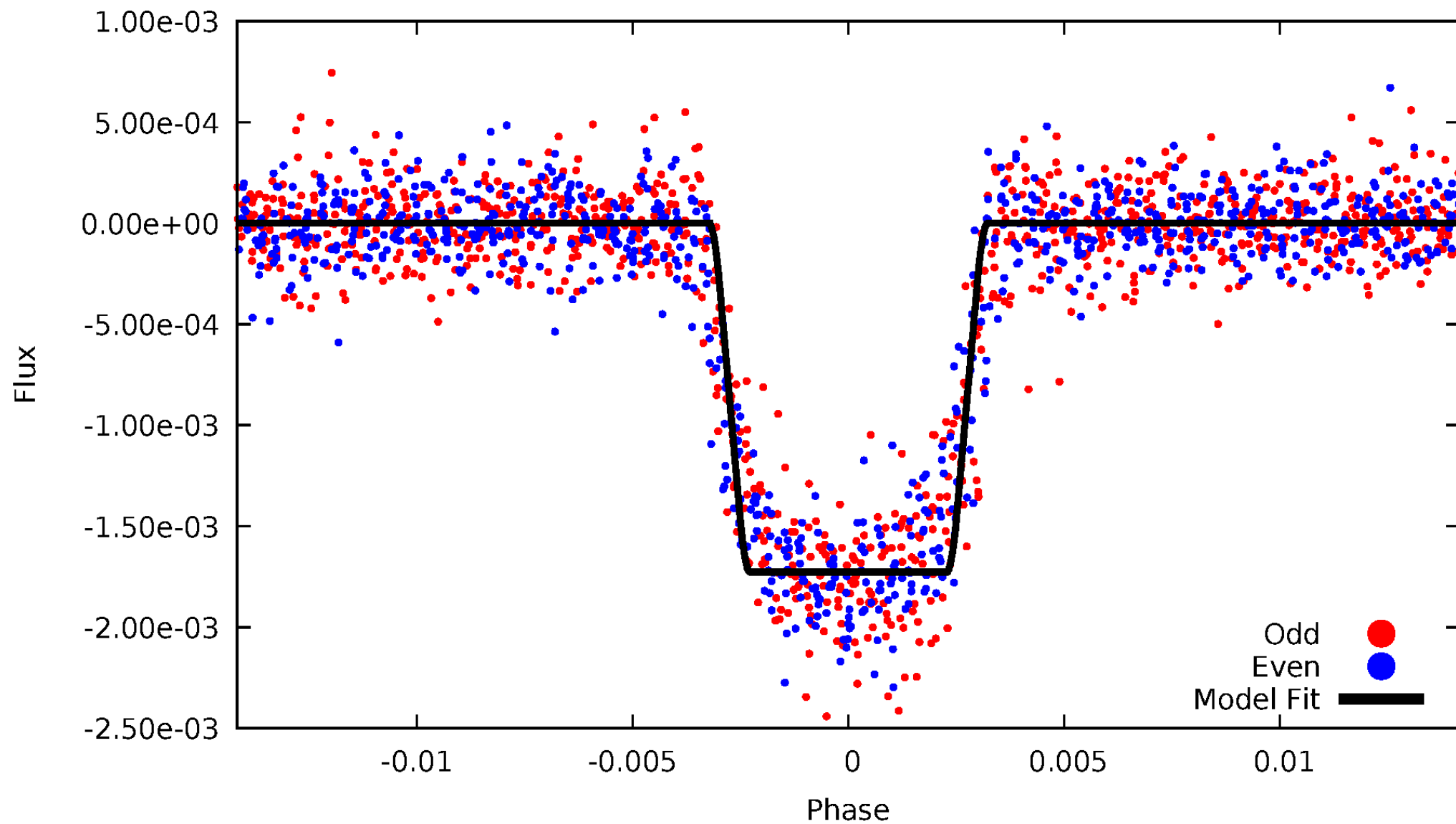
# DV Odd/Even

TCE 011194032-01



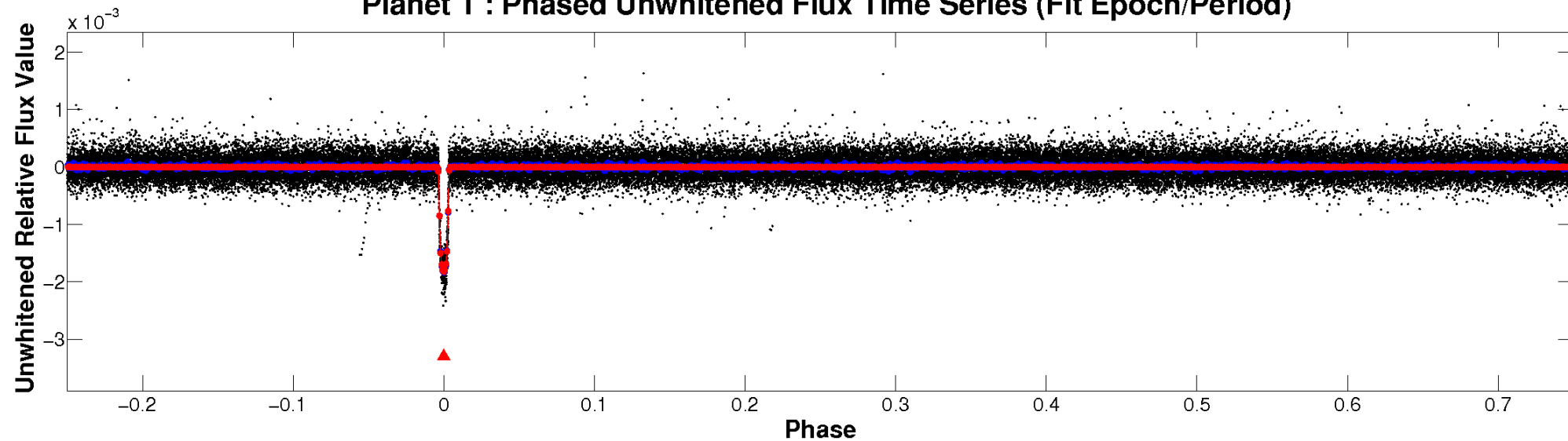
# ALT Odd/Even

TCE 011194032-01

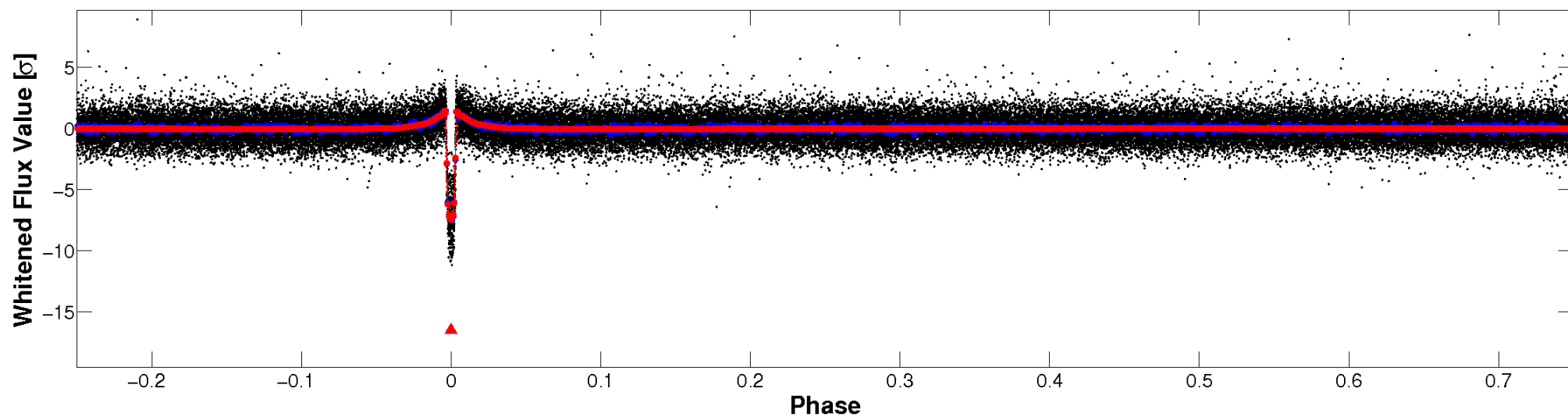


# Non-Whitened Vs. Whitened Light Curve

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



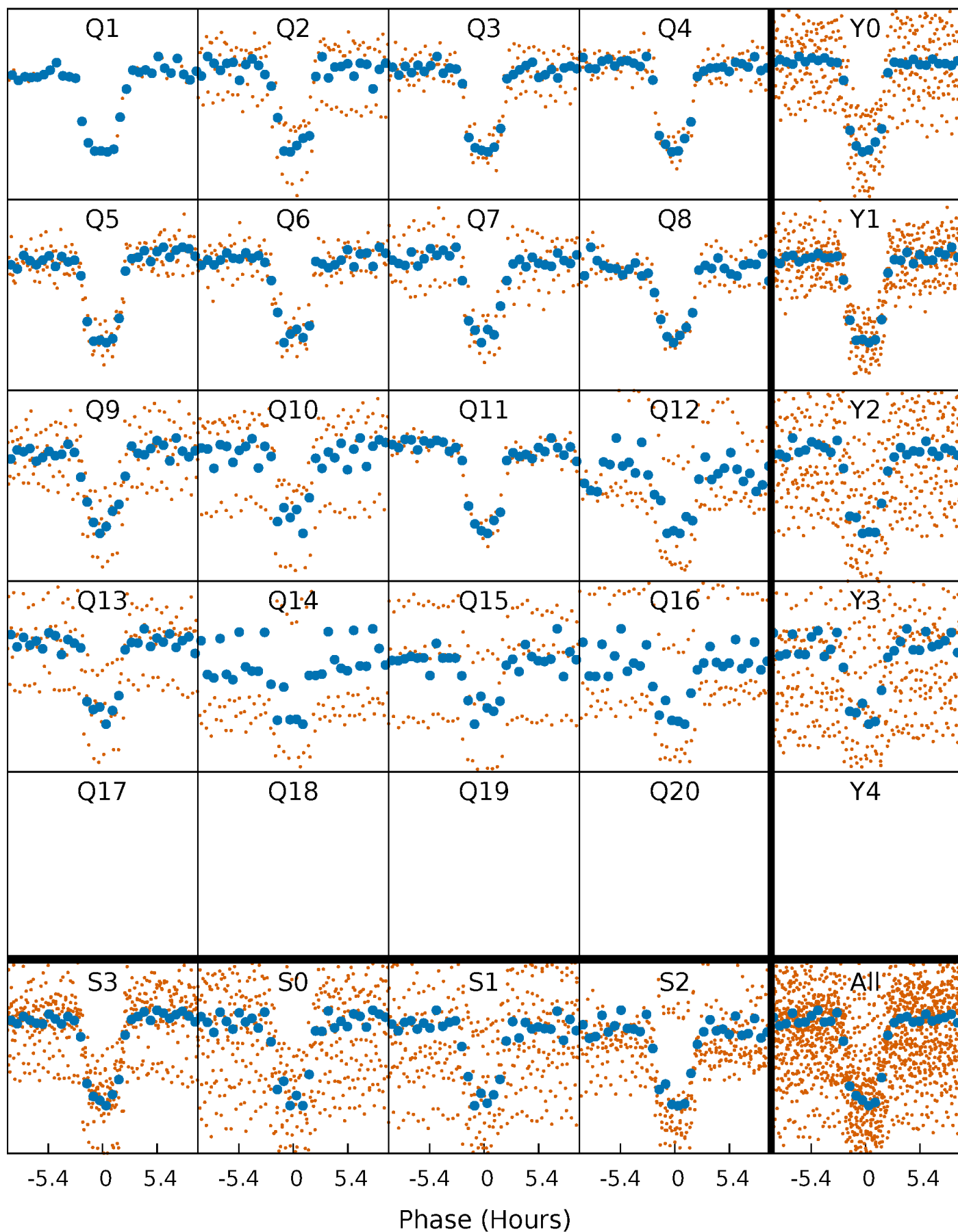
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

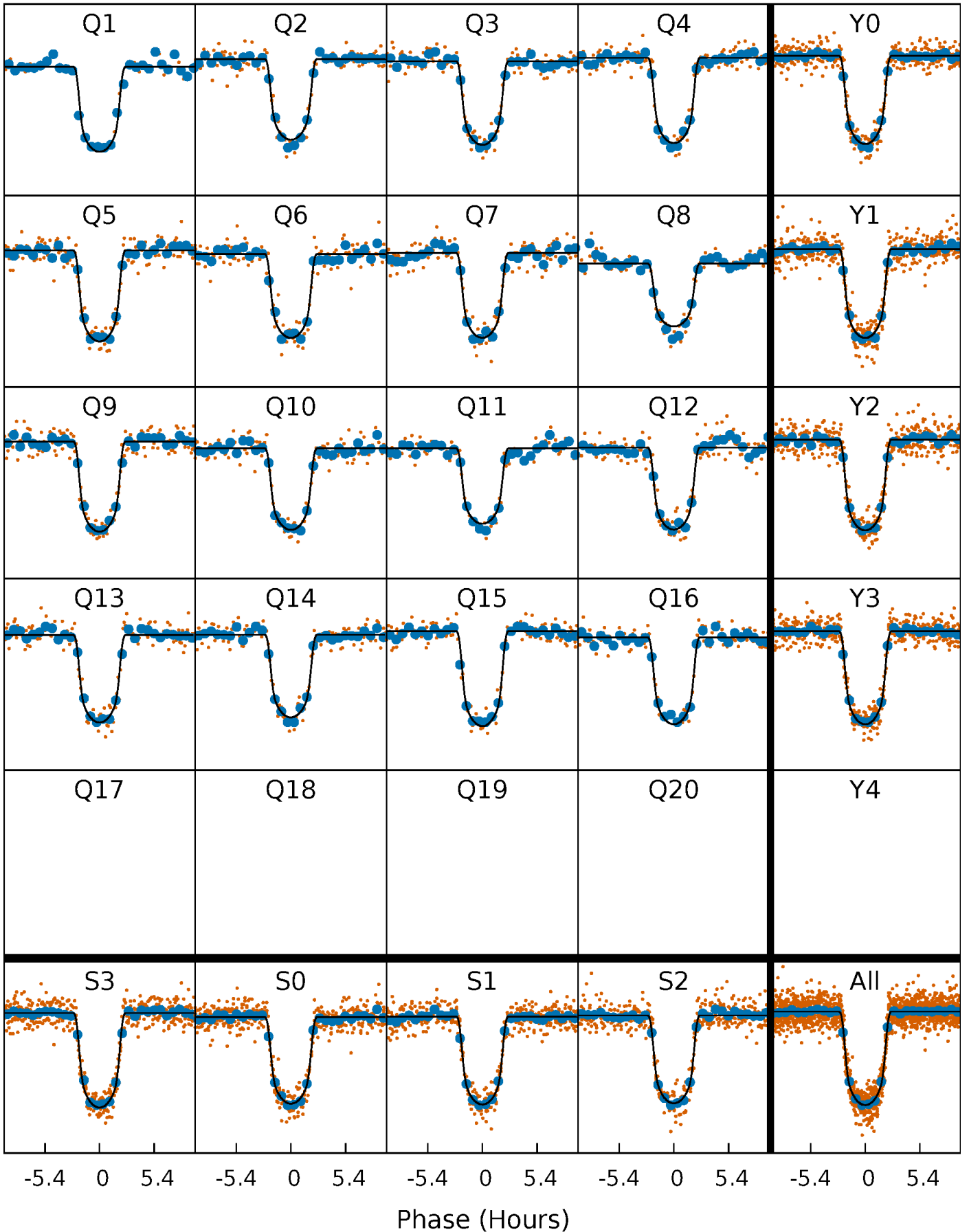
TCE 011194032-01 P= 28.511185 Days  $T_0=158.852382$  (BKJD)





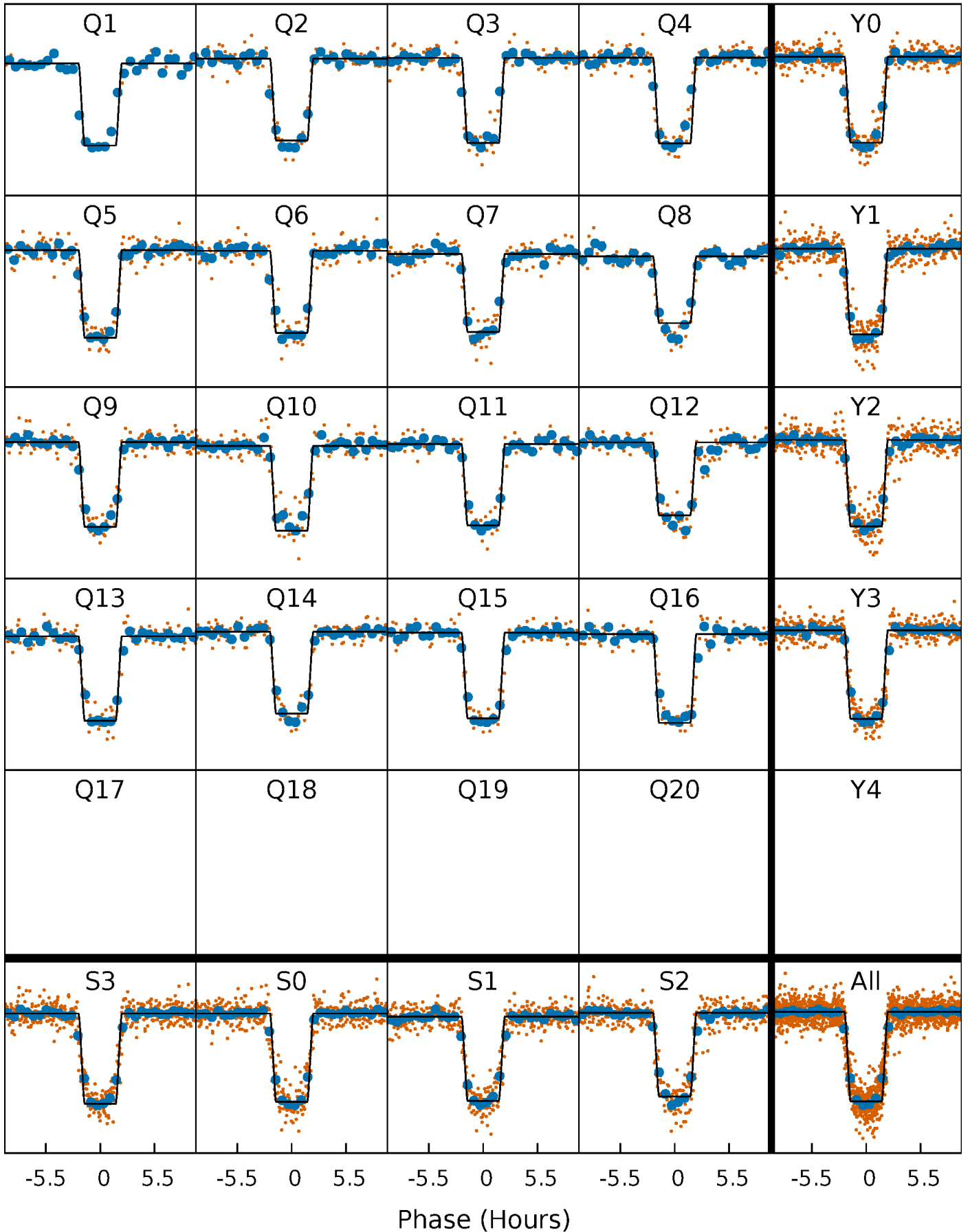
# DV Quarter-Phased Transit Curves

TCE 011194032-01   P= 28.511185 Days    $T_0=158.852382$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

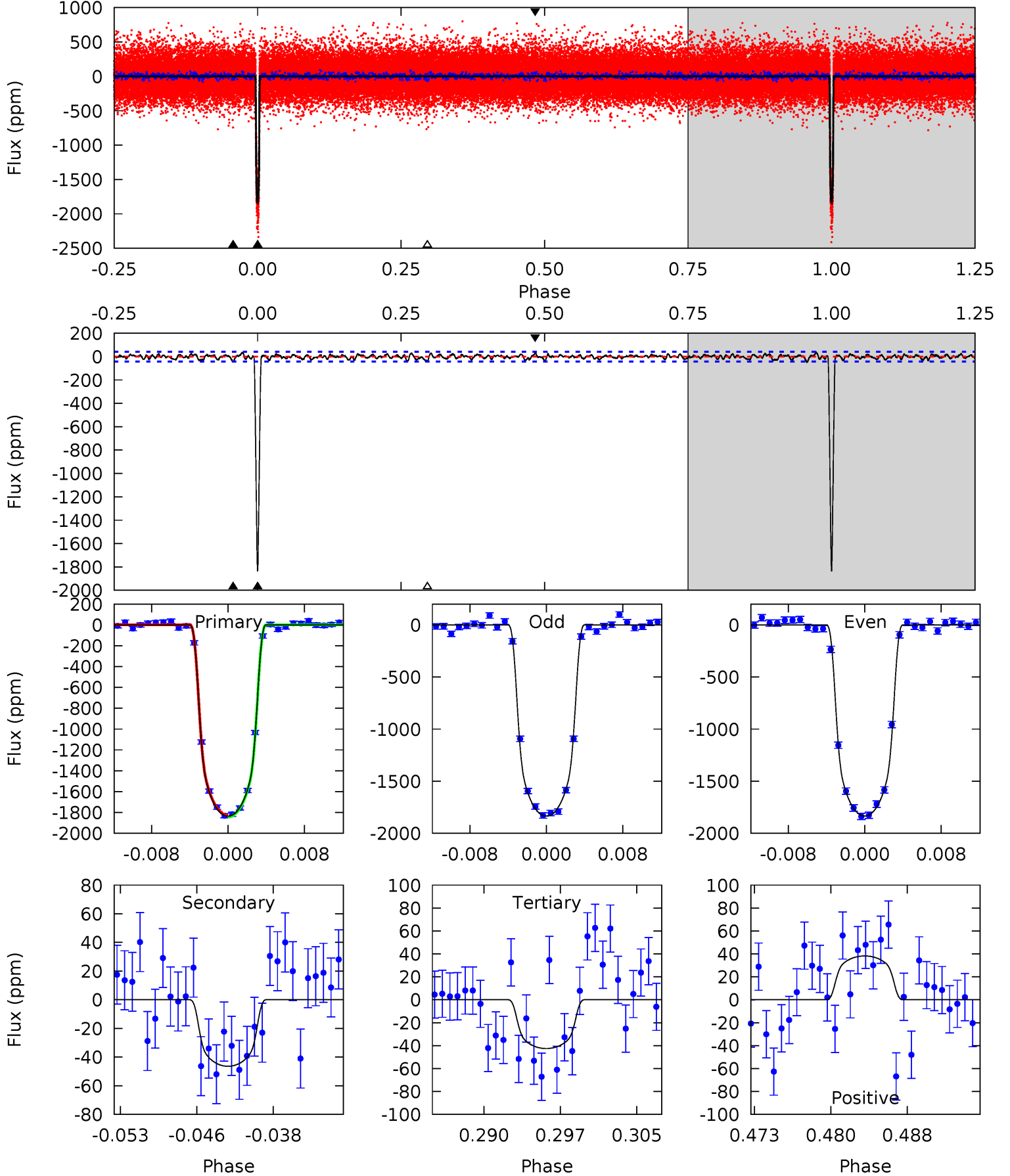
TCE 011194032-01 P= 28.510827 Days  $T_0=158.861818$  (BKJD)



# DV Model-Shift Uniqueness Test

011194032-01,  $P = 28.511185$  Days,  $E = 130.341197$  Days

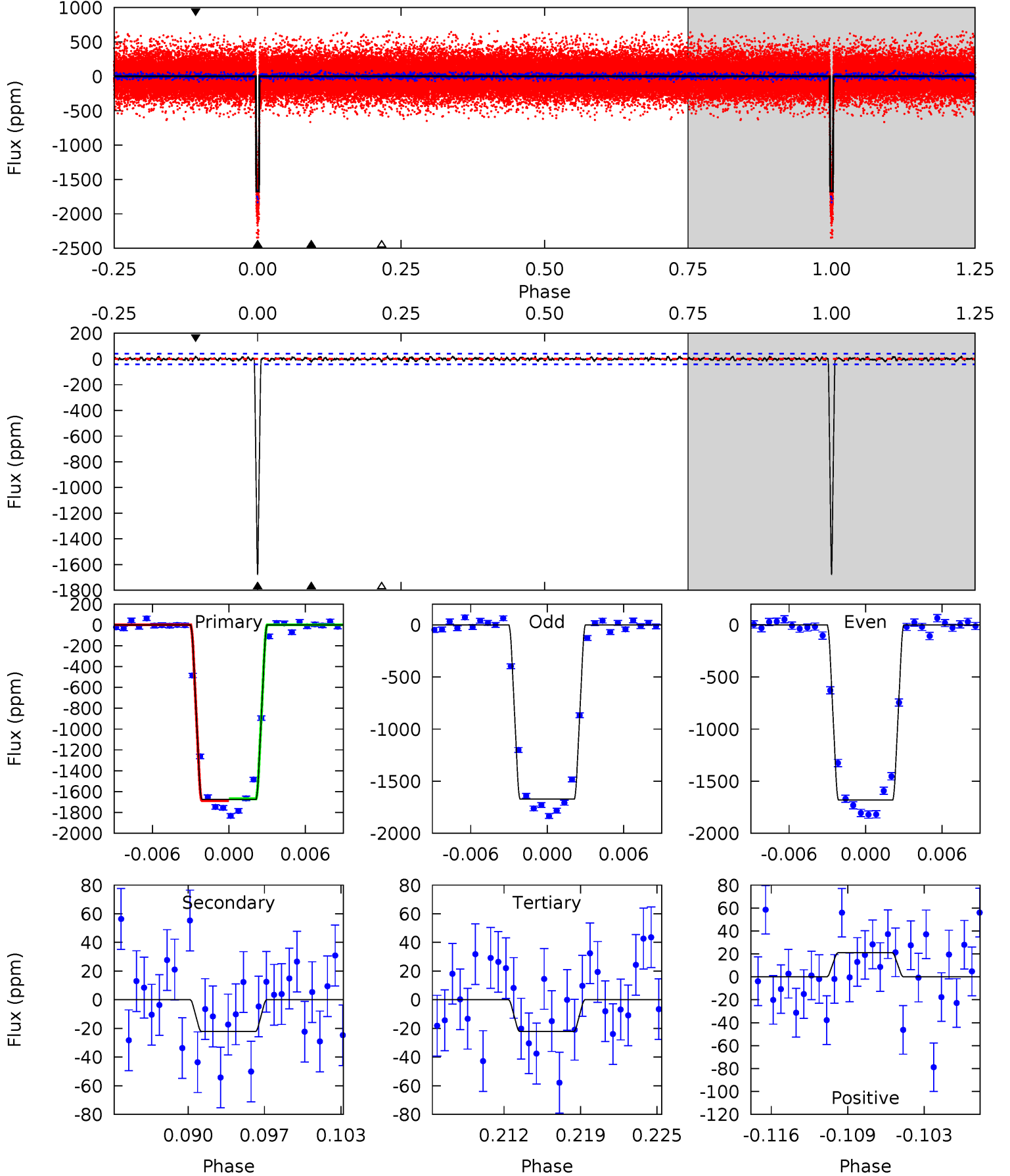
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
219.9	5.56	5.10	4.58	5.08	2.67	1.54	214.8	215.3	0.46	0.98	0.07	1.01	0.02	0.92



# Alt Model-Shift Uniqueness Test

011194032-01, P = 28.510827 Days, E = 130.350991 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
205.9	2.72	2.71	2.57	5.11	2.72	0.82	203.2	203.3	0.00	0.14	0.49	1.01	0.01	1.06



### Stellar Parameters For KIC 011194032

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$4687^{+93}_{-93}$	$4.627^{+0.015}_{-0.039}$	$0.000^{+0.150}_{-0.150}$	$0.690^{+0.039}_{-0.028}$	$0.748^{+0.032}_{-0.043}$	$3.202^{+0.268}_{-0.444}$
	+2%/-2%	+0%/-1%	+inf%/-inf%	+6%/-4%	+4%/-6%	+8%/-14%
Source	SPE57	SPE57	SPE57	DSEP		

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

### Secondary Eclipse Parameters for KIC 011194032-01 / KOI 0348.01

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-46 \pm 8$	$3.45^{+0.13}_{-0.11}$	$594^{+13}_{-13}$	$2583^{+60}_{-71}$	$58^{+11}_{-11}$
Alt.	$-22 \pm 8$	$3.17^{+0.12}_{-0.11}$	$594^{+14}_{-13}$	$2408^{+98}_{-126}$	$33^{+13}_{-12}$

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

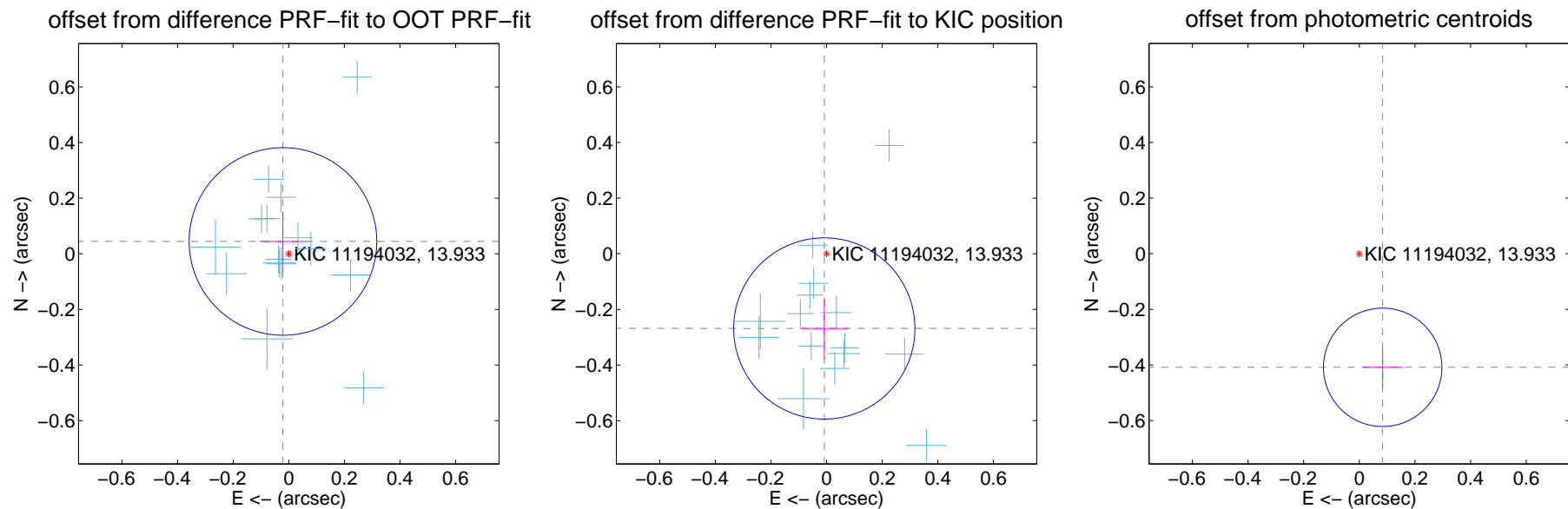
## DV Centroid Data

Supplemental centroid analysis for 011194032-01. Kepler magnitude: 13.93. Transit SNR 131.06

There are 16 quarters with good PRF difference image offsets

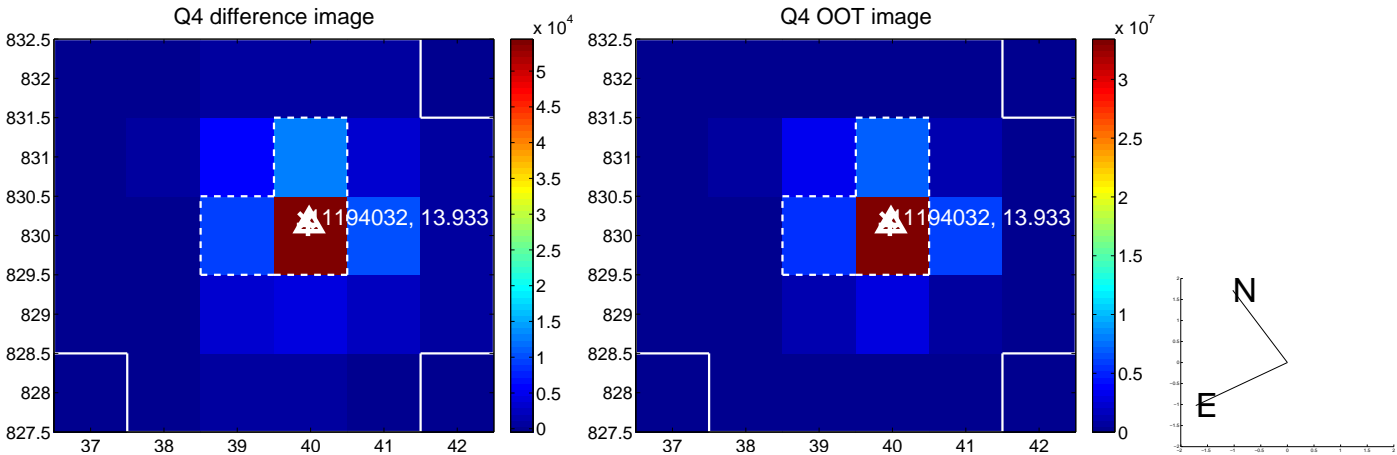
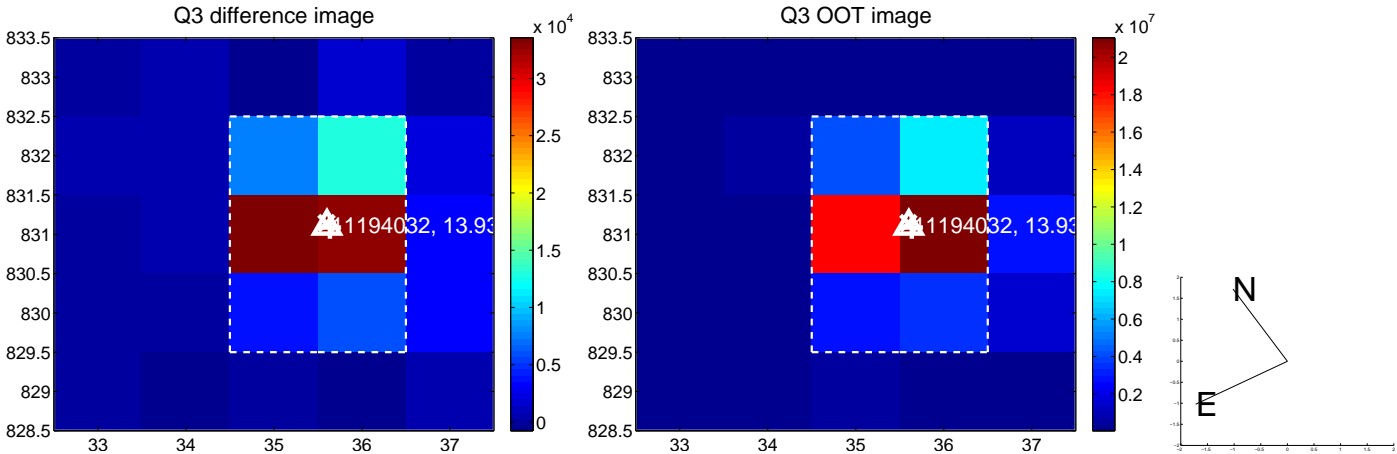
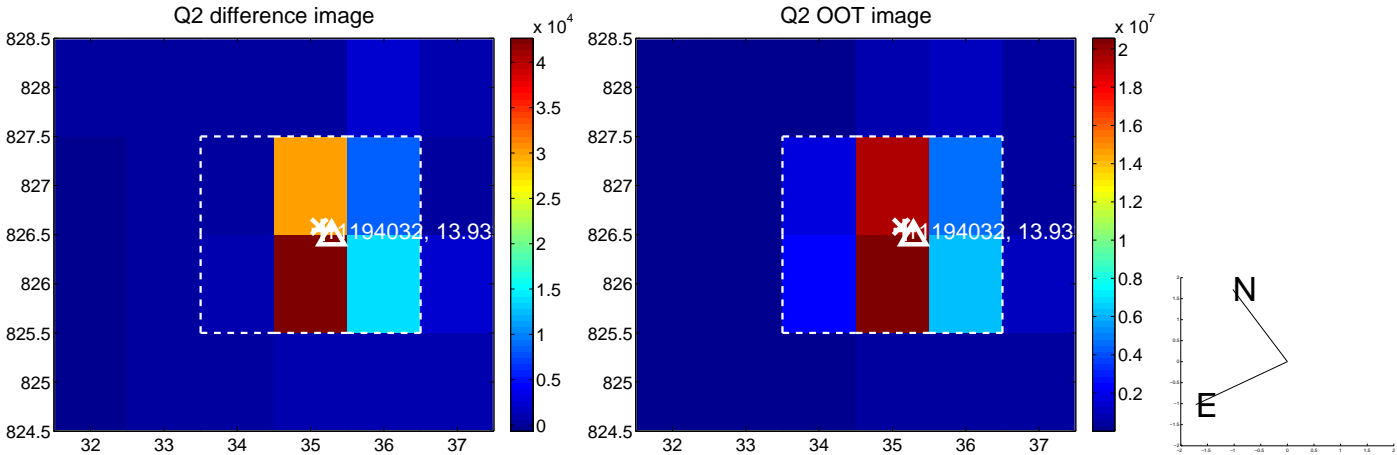
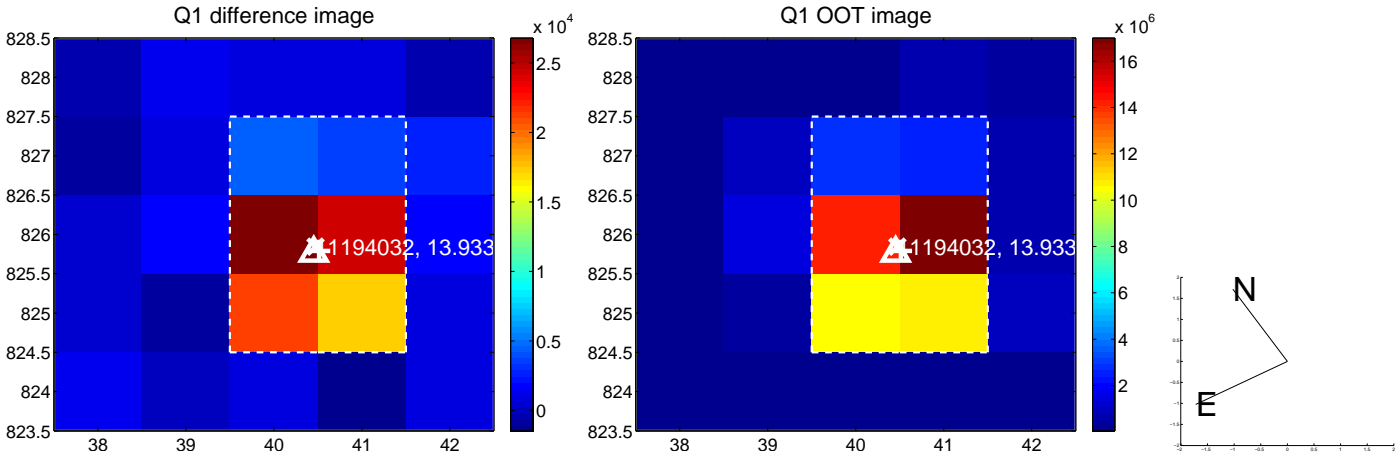
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.049 \pm 0.112$	0.44	$0.021 \pm 0.085$	$0.044 \pm 0.108$
PRF-fit source offset from KIC position	$0.269 \pm 0.109$	2.47	$0.008 \pm 0.085$	$-0.268 \pm 0.109$
photometric centroid source offset	$0.42 \pm 0.07$	5.88	$-0.08 \pm 0.07$	$-0.41 \pm 0.07$



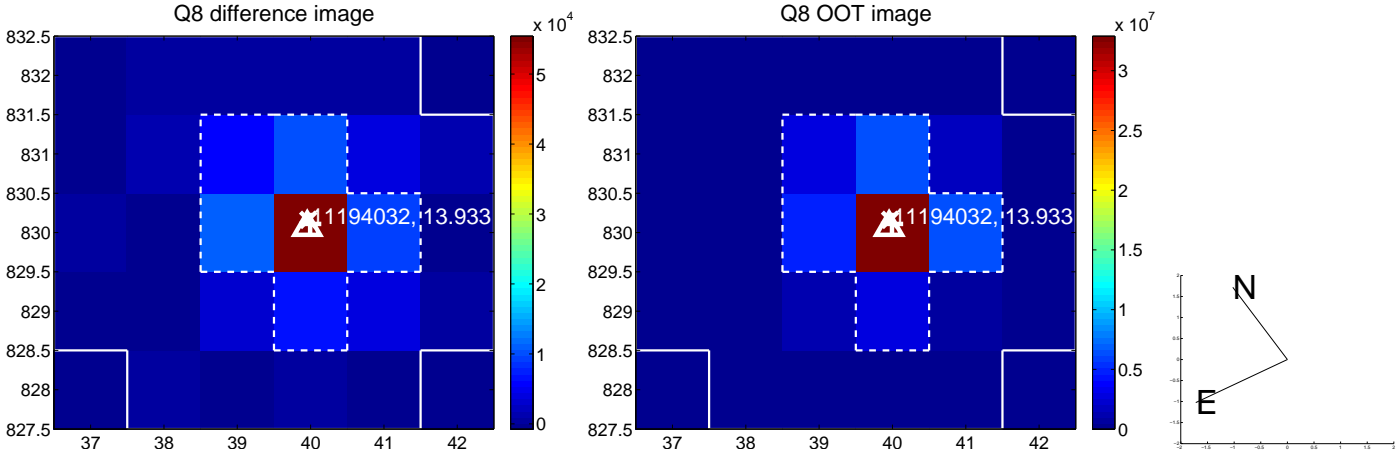
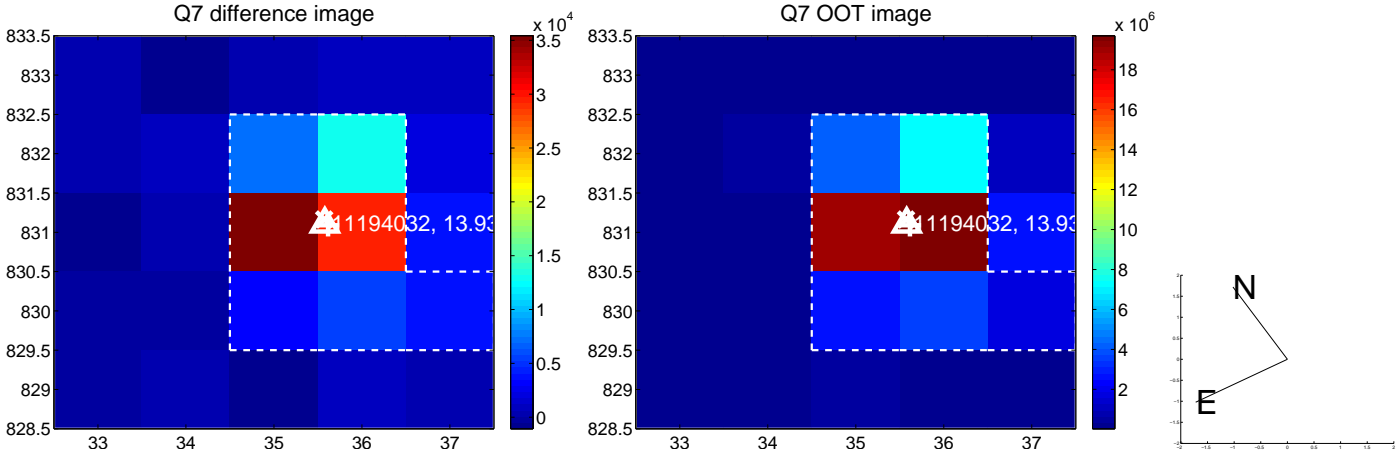
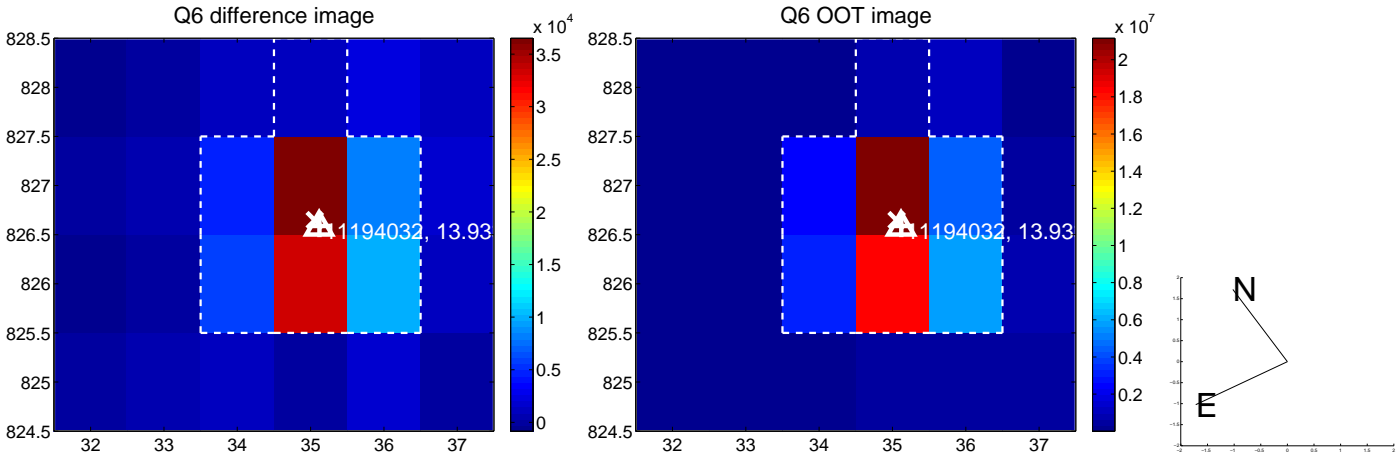
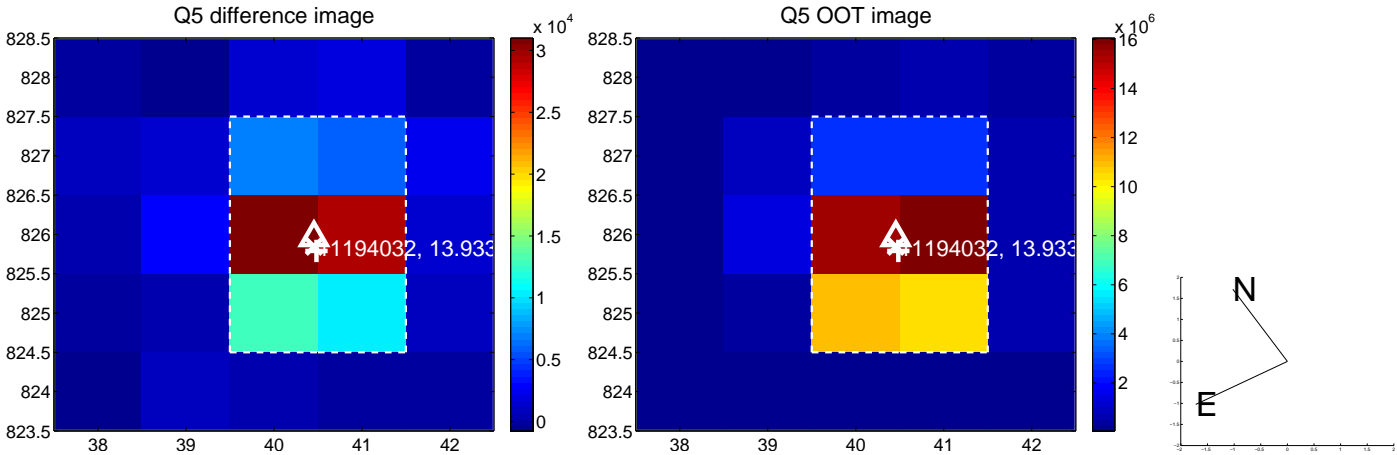
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

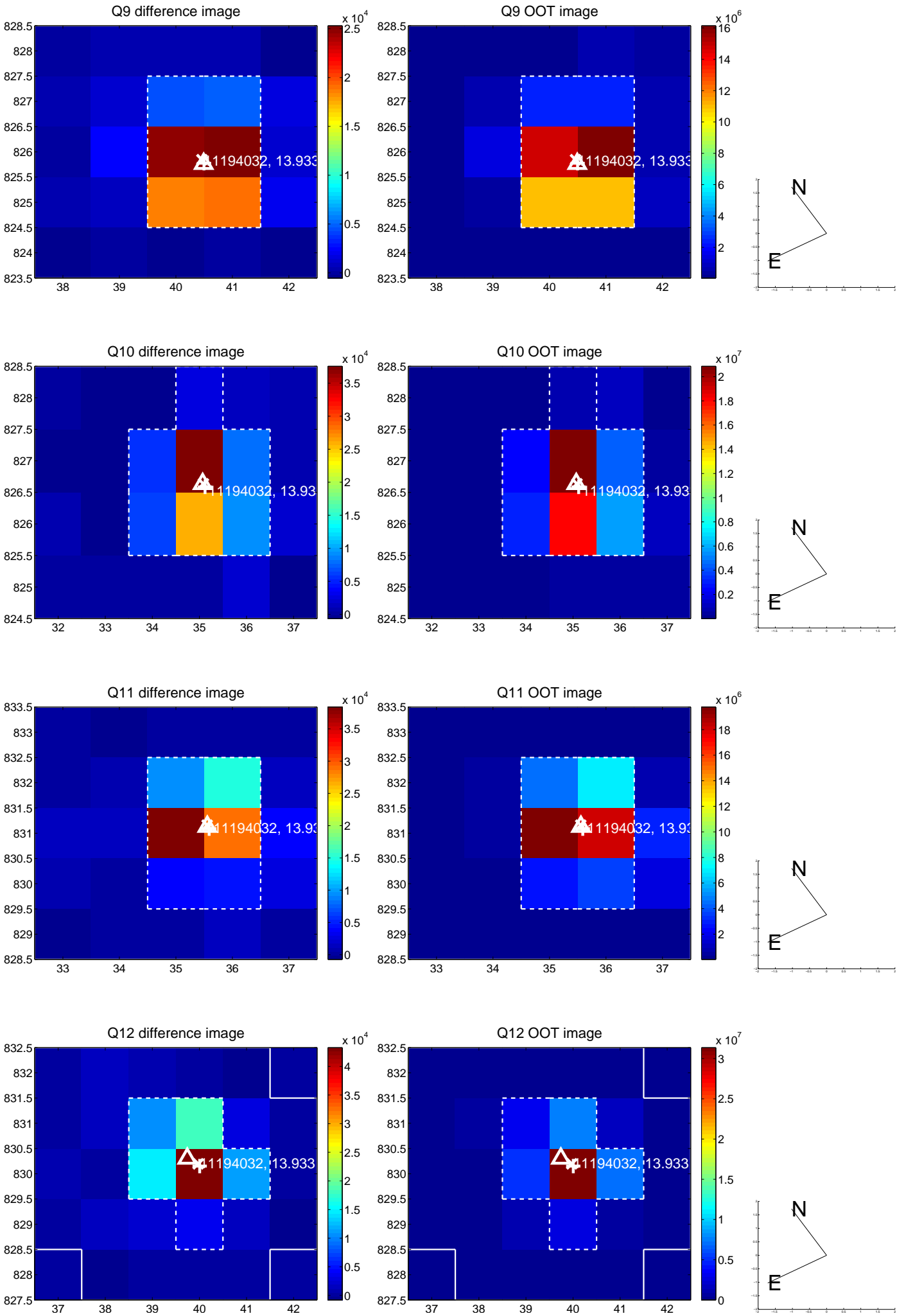




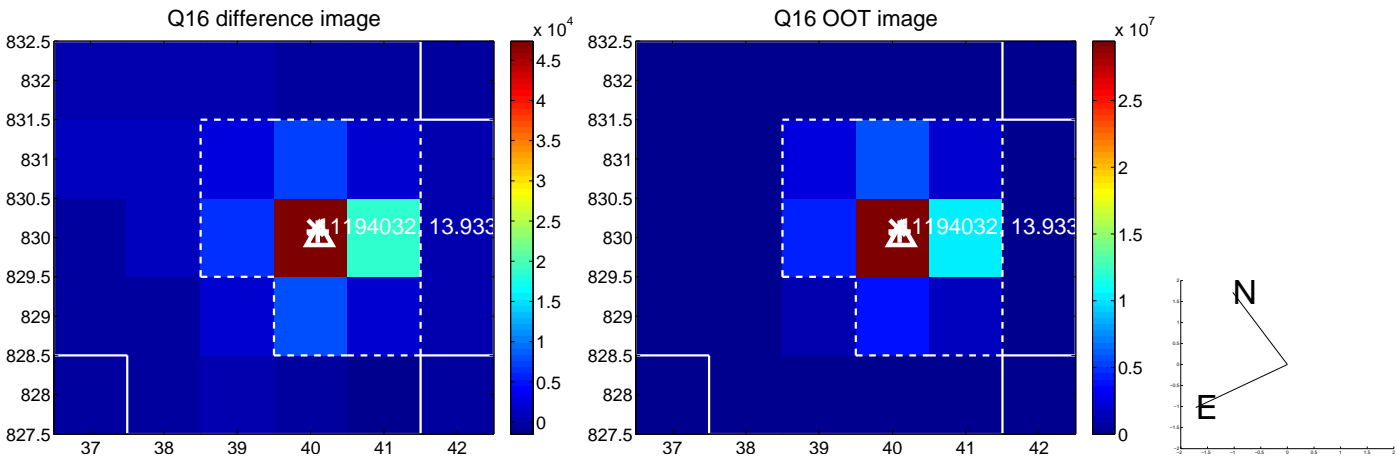
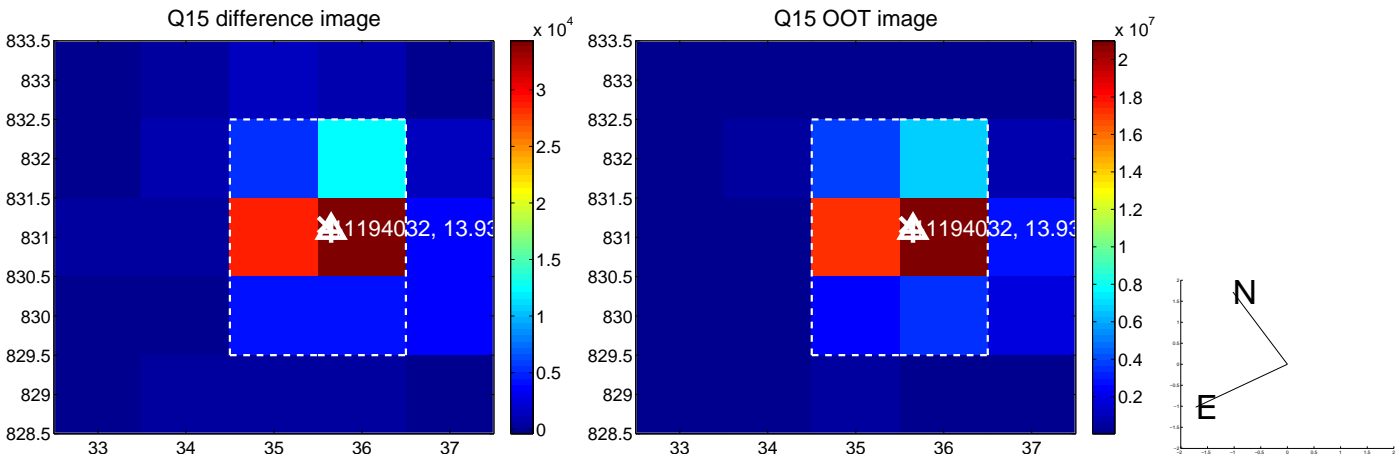
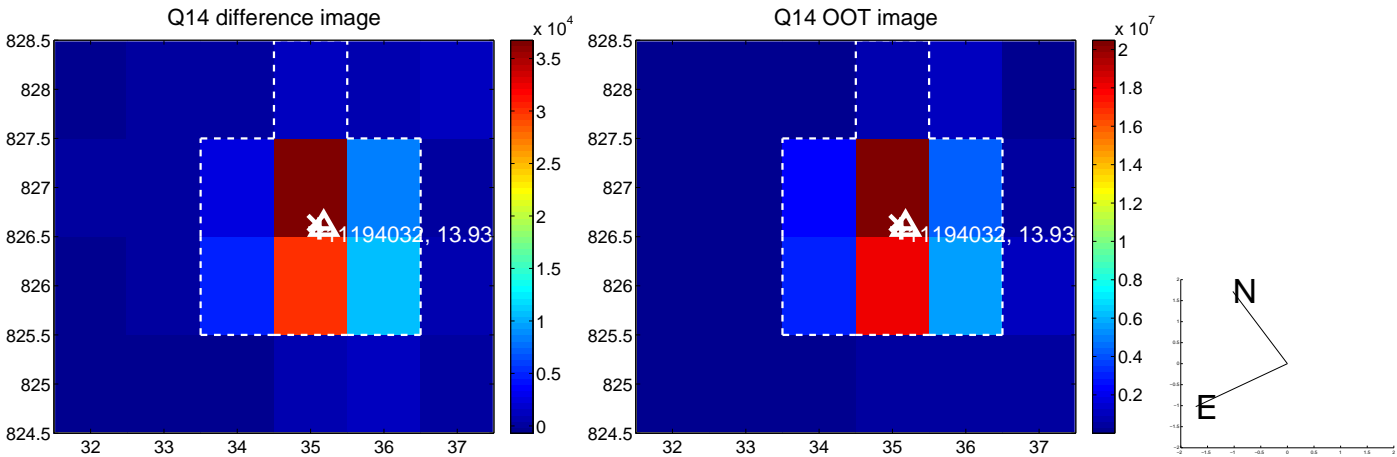
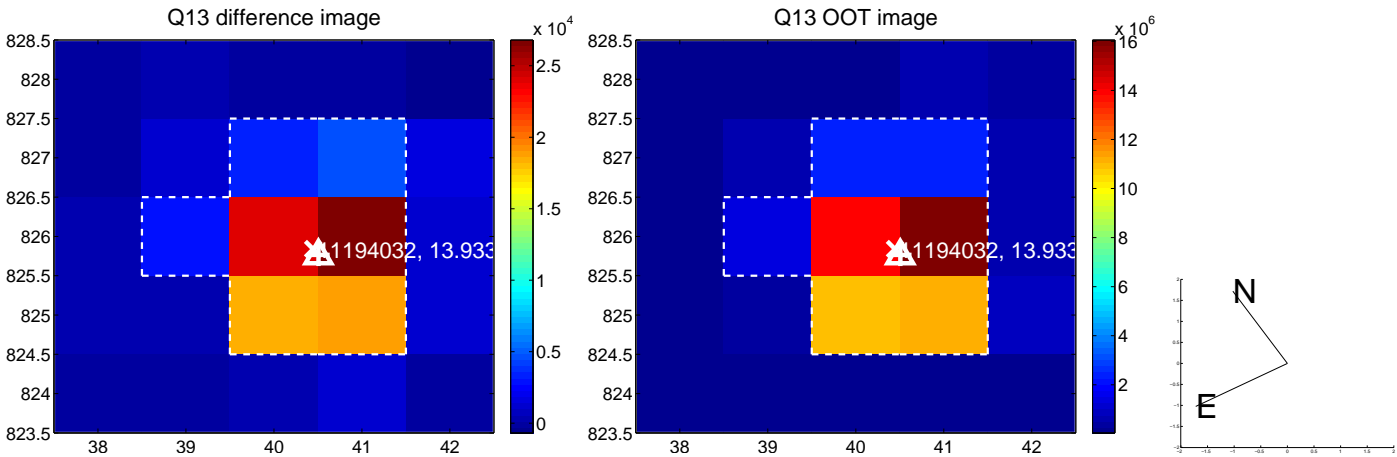
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



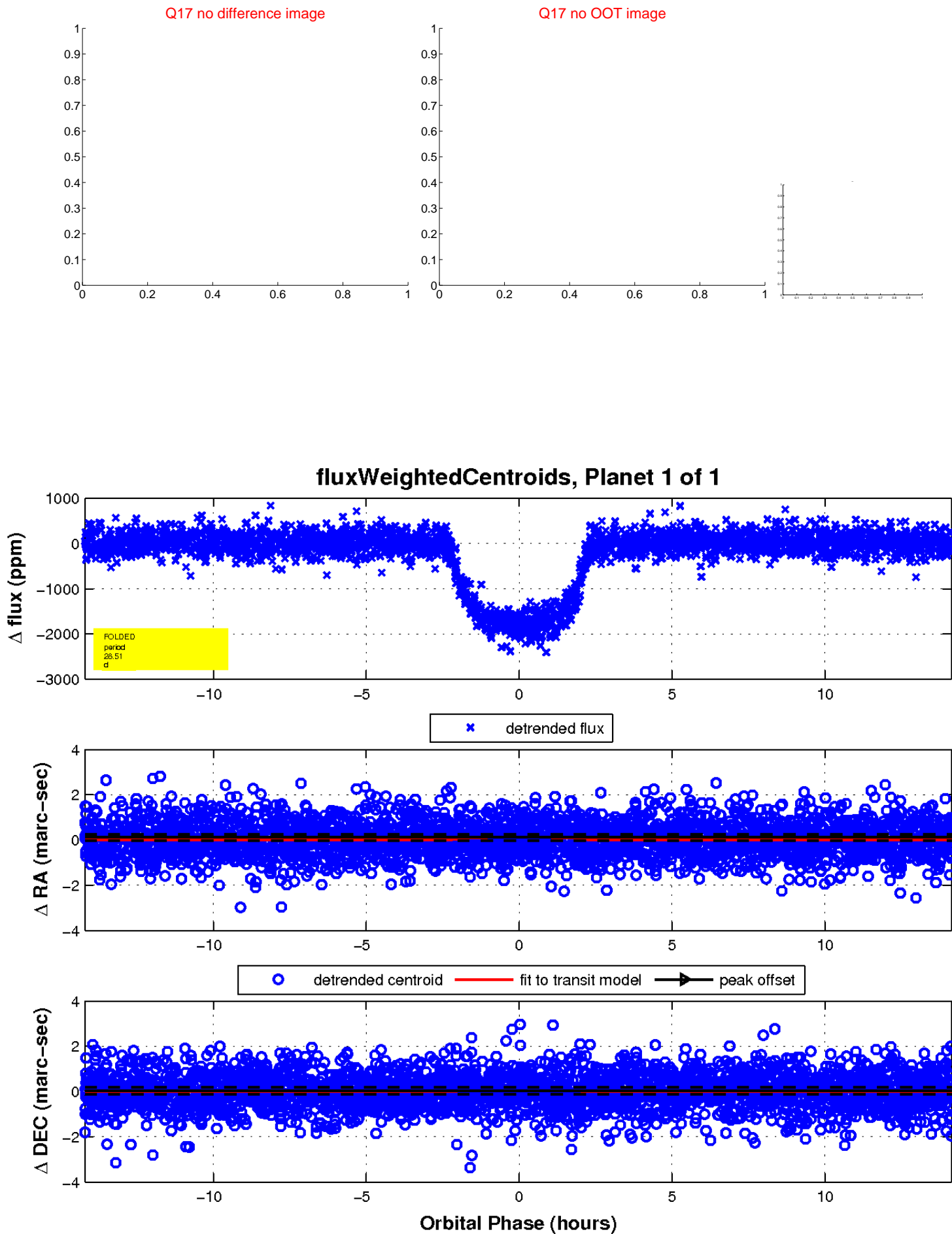
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UKIRT Image

Declination

