

# KIC 005269467

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005269467-01	OBS	1672.01	33.867796	137.515510	901.8	3.787	20.3	21.6	0.69	4564	2.50	5.70

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005269467-01	OBS	PC	0.99	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.

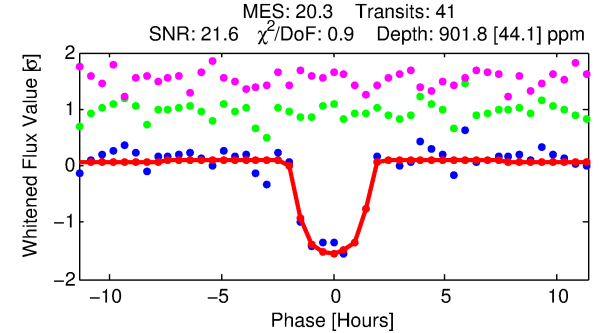
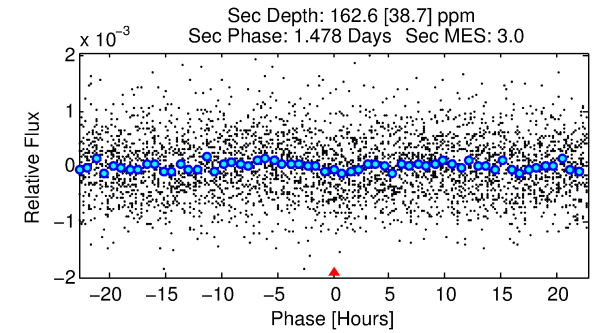
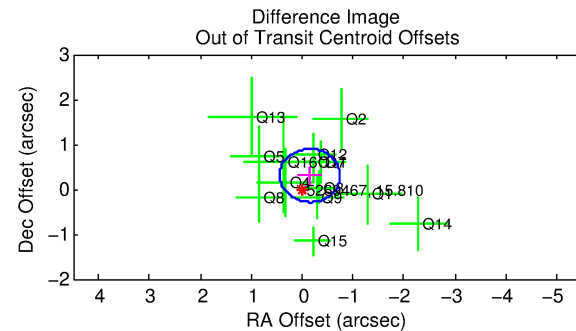
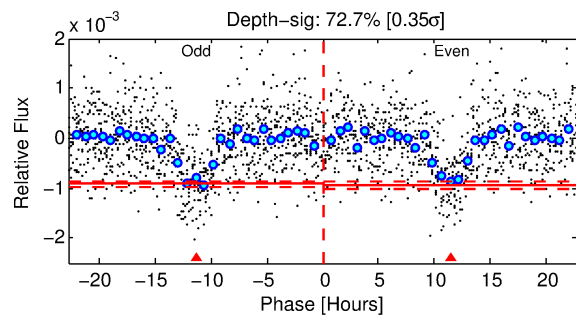
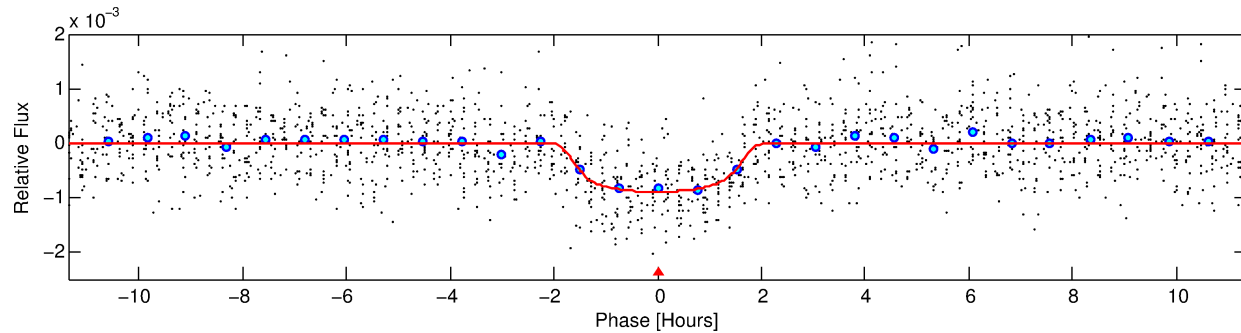
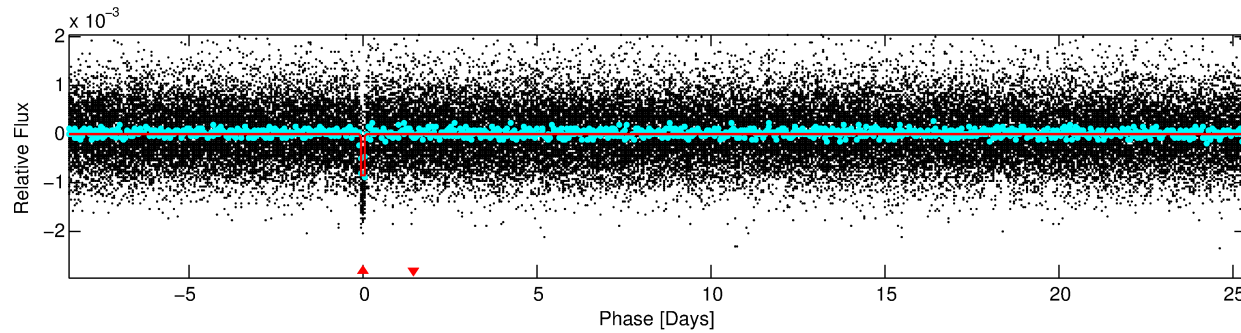
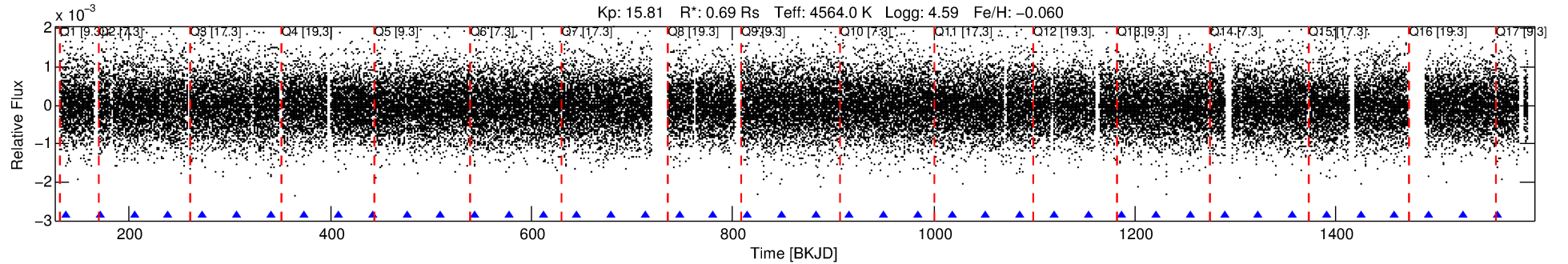
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005269467-01

No Significant Match Found

# DV One-Page Summary

KIC: 5269467 Candidate: 1 of 1 Period: 33.868 d  
KOI: K01672.01 Corr: 0.987



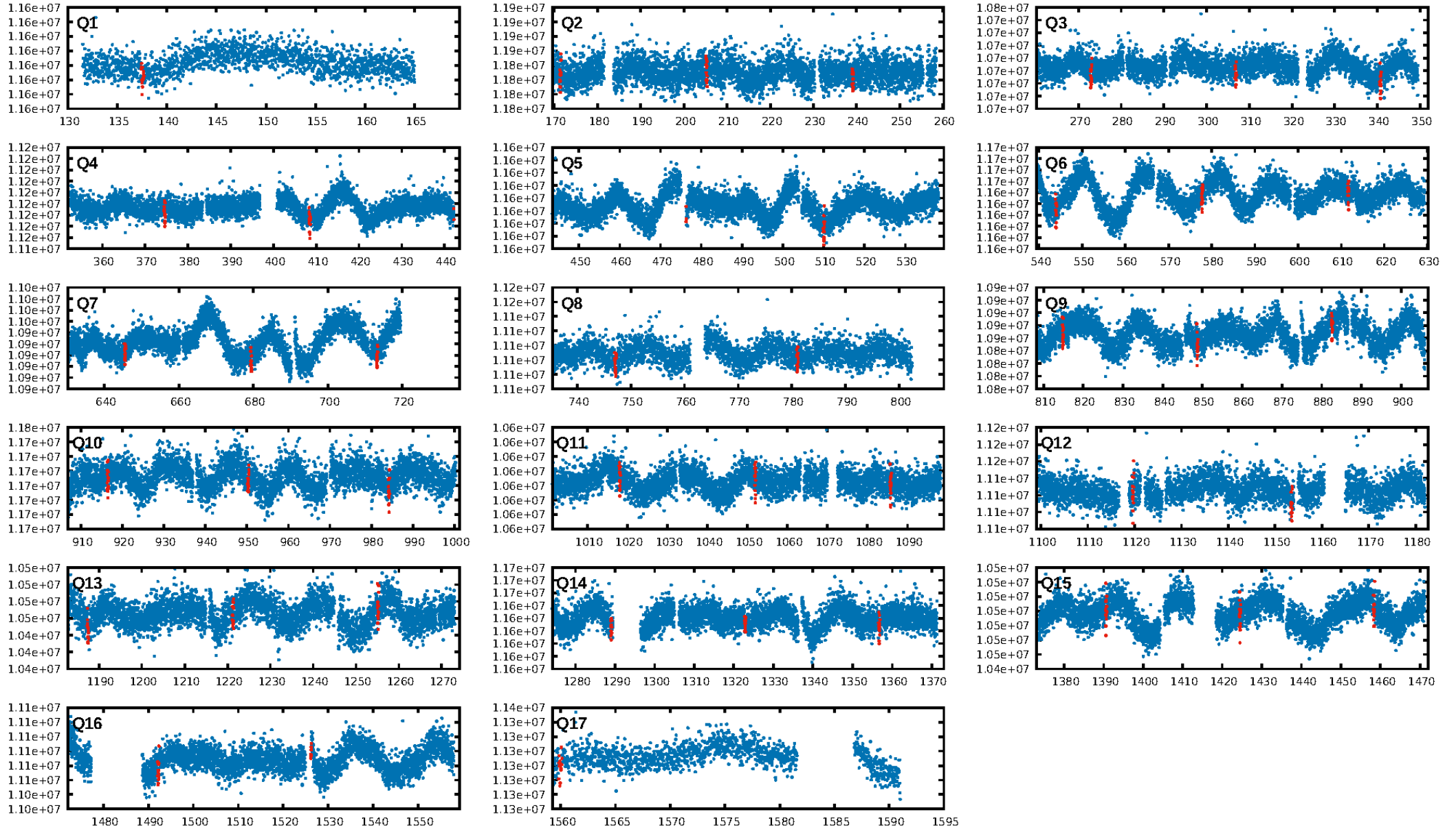
## DV Fit Results:

Period = 33.86780 [0.00016] d  
Epoch = 137.5155 [0.0040] BKJD  
Rp/R\* = 0.0331 [0.0049]  
a/R\* = 37.17 [18.83]  
b = 0.88 [0.14]  
Seff = 5.70 [0.87]  
Teq = 394 [15] K  
Rp = 2.50 [0.43] Re  
a = 0.1804 [0.0127] AU  
Ag = 467.05 [183.84] [2.54 $\sigma$ ]  
Teffp = 2832 [282] K [8.62 $\sigma$ ]

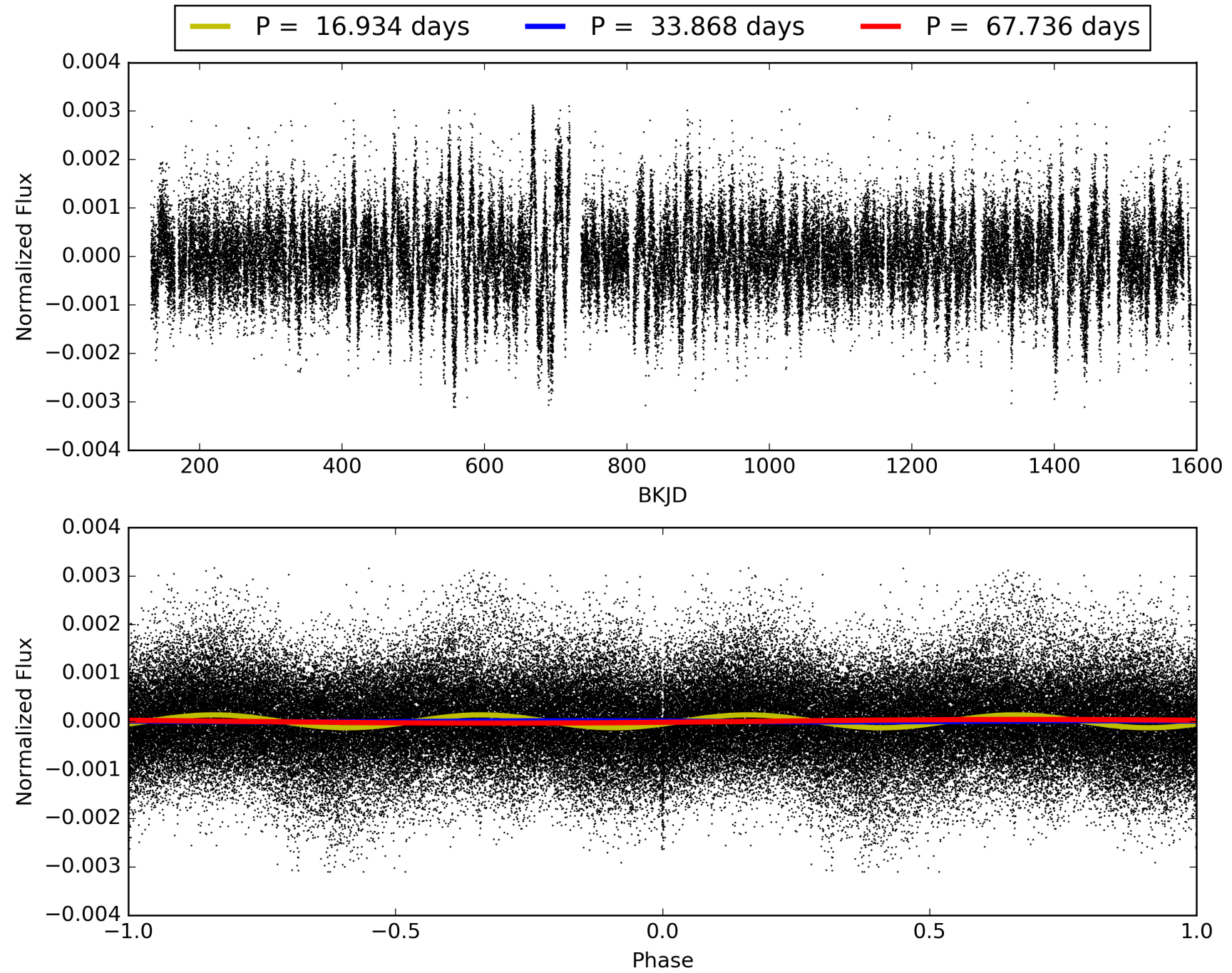
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 99.6%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: 4.90e-88  
RollingBand-fgt: 1.00 [39/39]  
GhostDiagnostic-chr: 3.311  
Centroid-sig: 1.4%  
Centroid-so: 0.440 arcsec [0.73 $\sigma$ ]  
OotOffset-rm: 0.335 arcsec [1.69 $\sigma$ ]  
KicOffset-rm: 0.191 arcsec [0.89 $\sigma$ ]  
OotOffset-st: 2/4/4/4 [14]  
KicOffset-st: 2/4/4/4 [14]  
DiffImageQuality-fgm: 1.00 [14/14]  
DiffImageOverlap-fno: 1.00 [16/16]

# TCE 005269467-01, PDC Light Curves

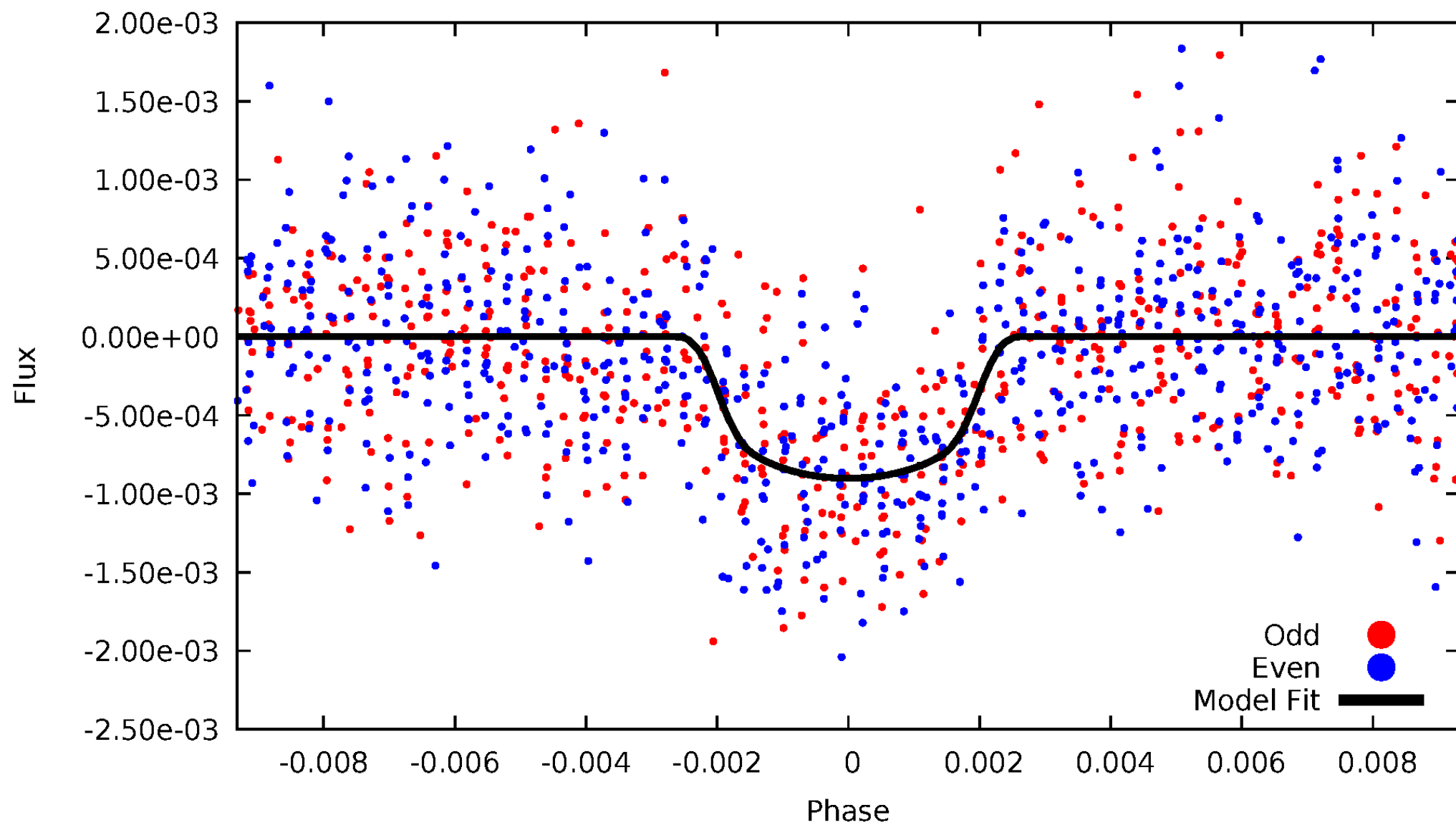


TCE 005269467-01



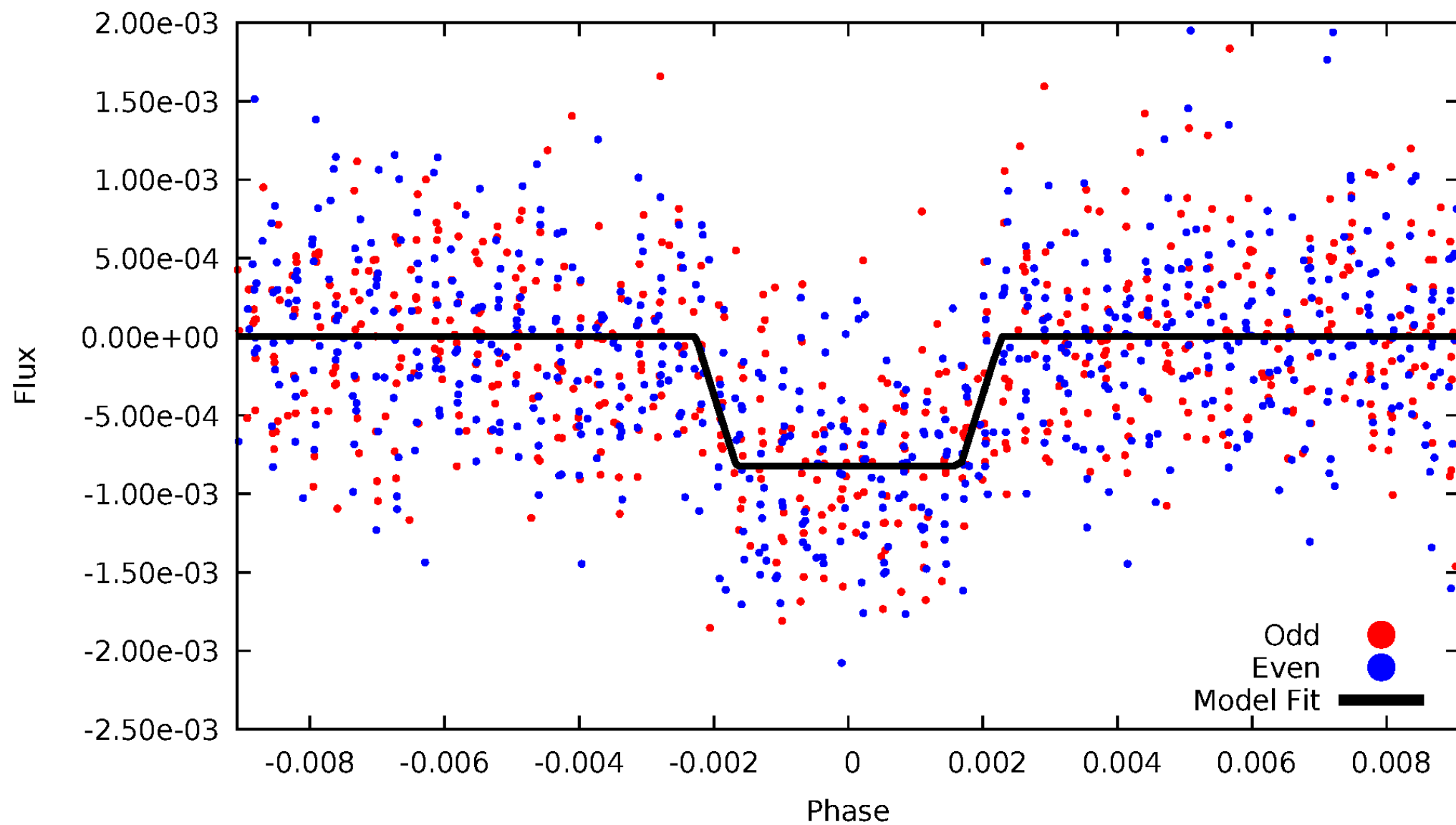
# DV Odd/Even

TCE 005269467-01



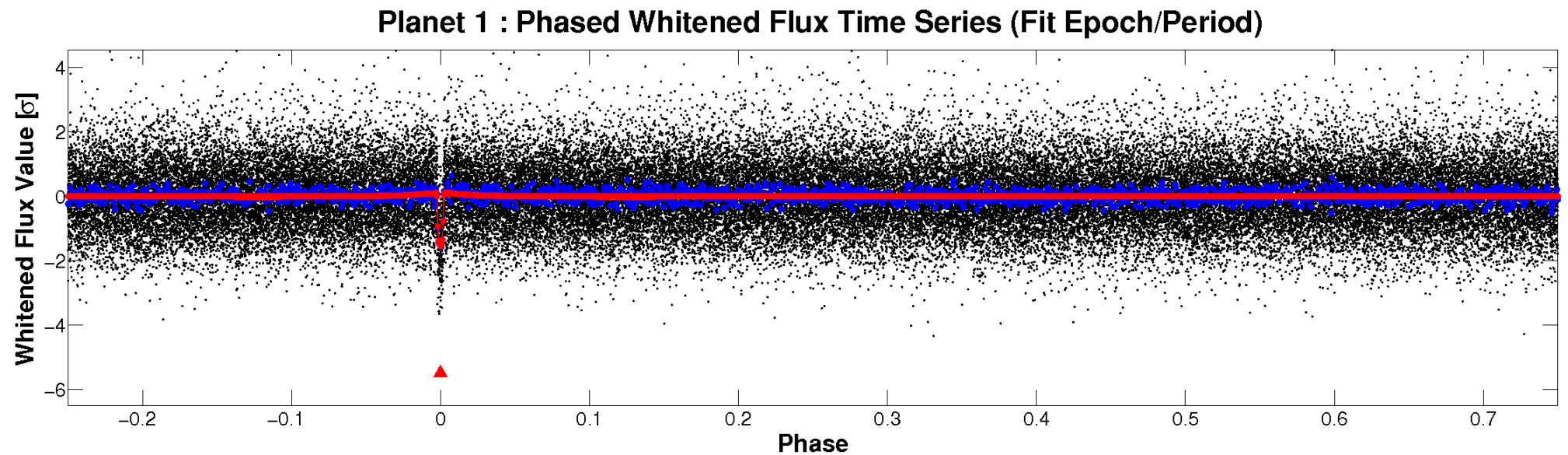
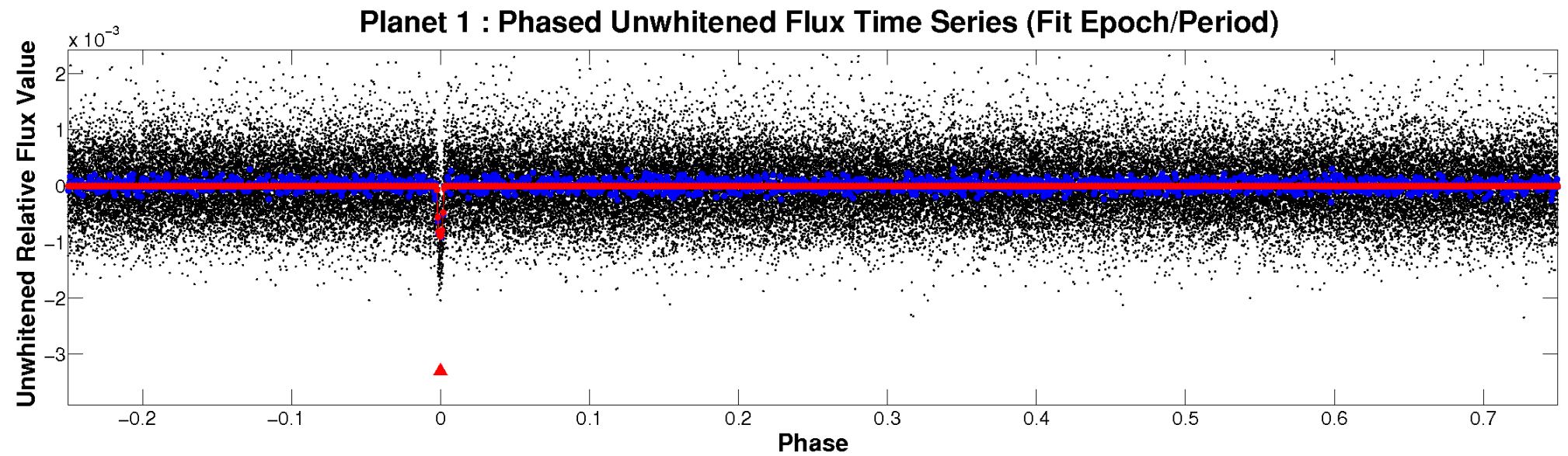
# ALT Odd/Even

TCE 005269467-01



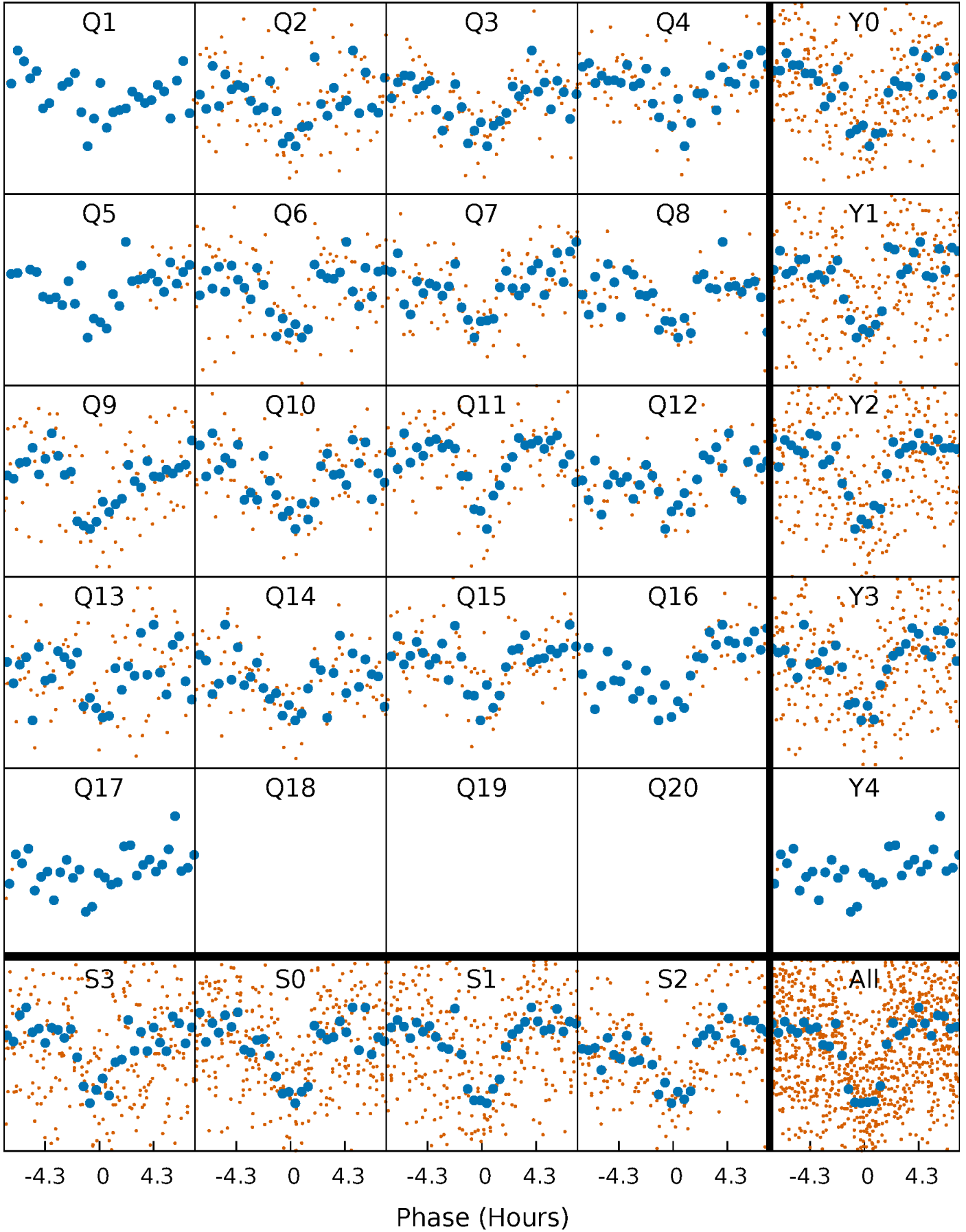


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

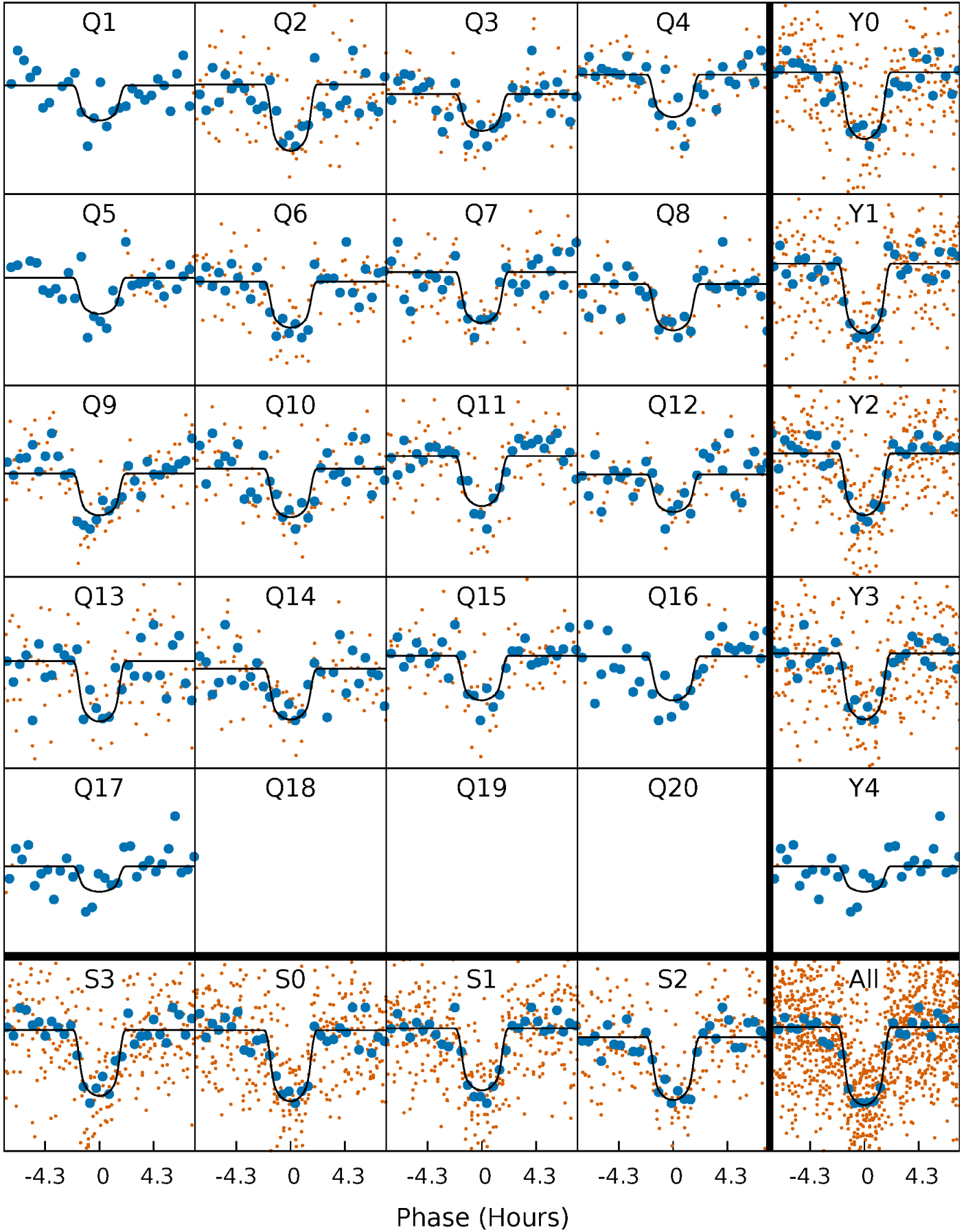
TCE 005269467-01 P= 33.867796 Days  $T_0=137.515510$  (BKJD)





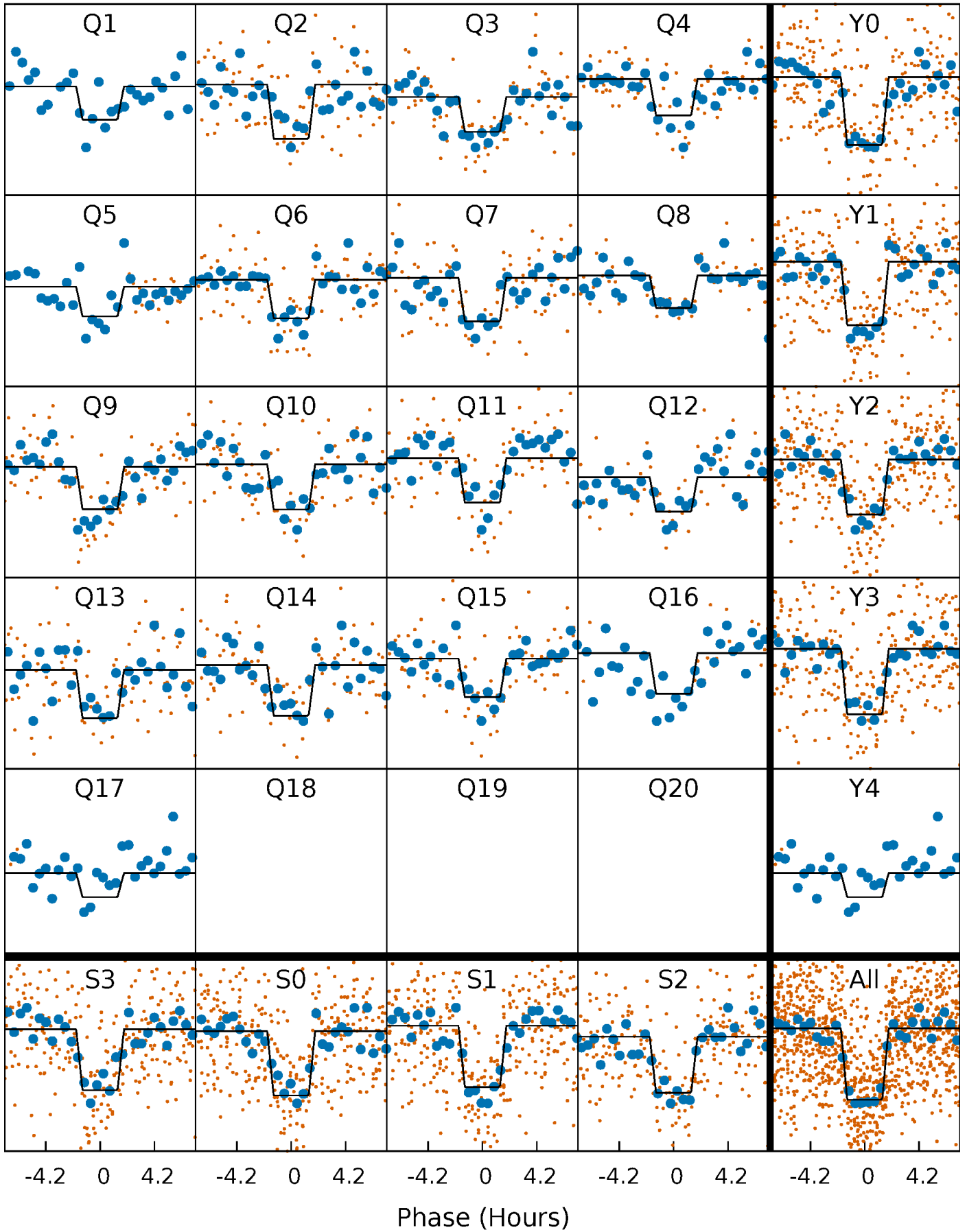
# DV Quarter-Phased Transit Curves

TCE 005269467-01 P= 33.867796 Days  $T_0=137.515510$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

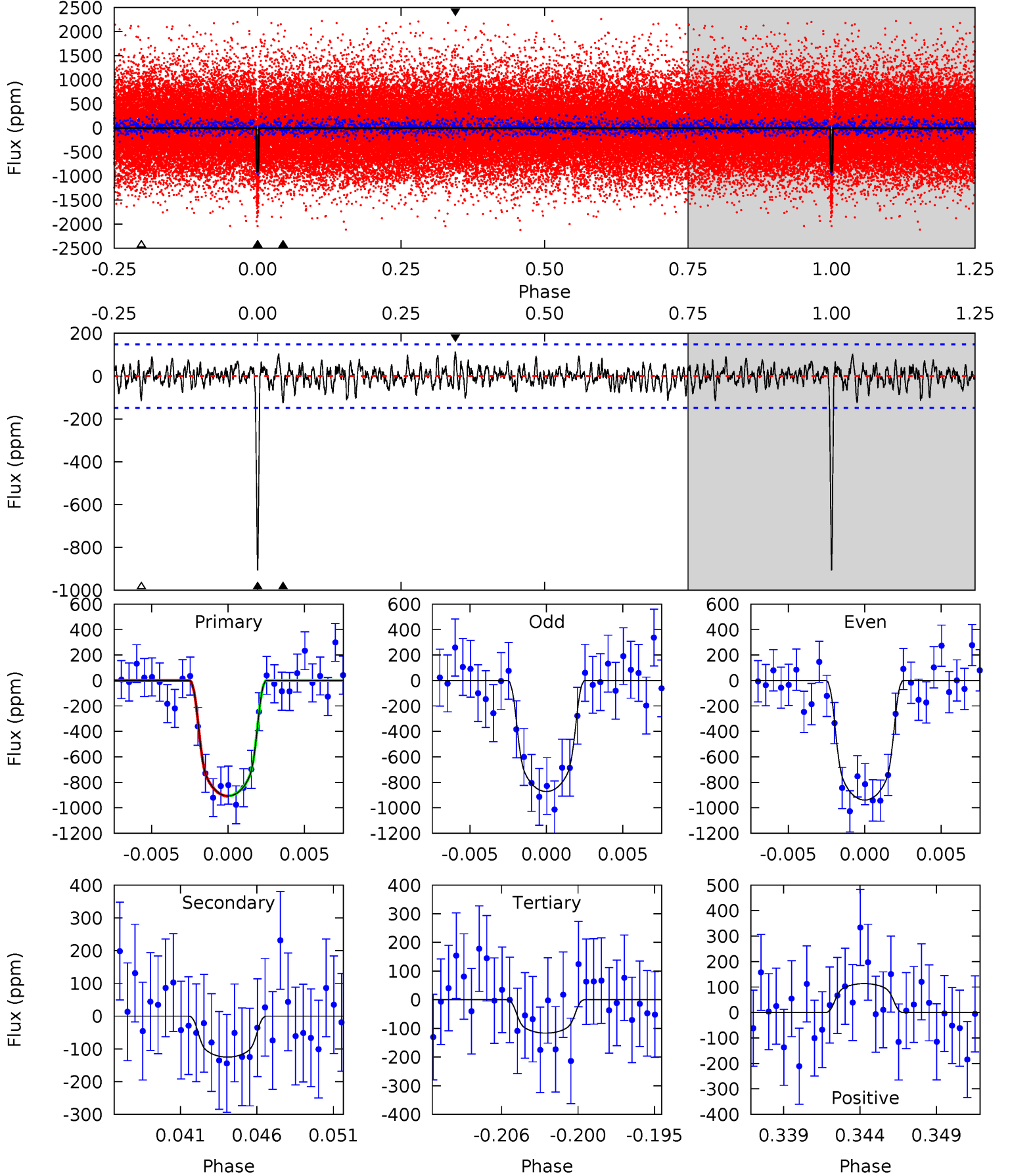
TCE 005269467-01 P= 33.867799 Days  $T_0=137.515310$  (BKJD)



# DV Model-Shift Uniqueness Test

005269467-01, P = 33.867796 Days, E = 103.647714 Days

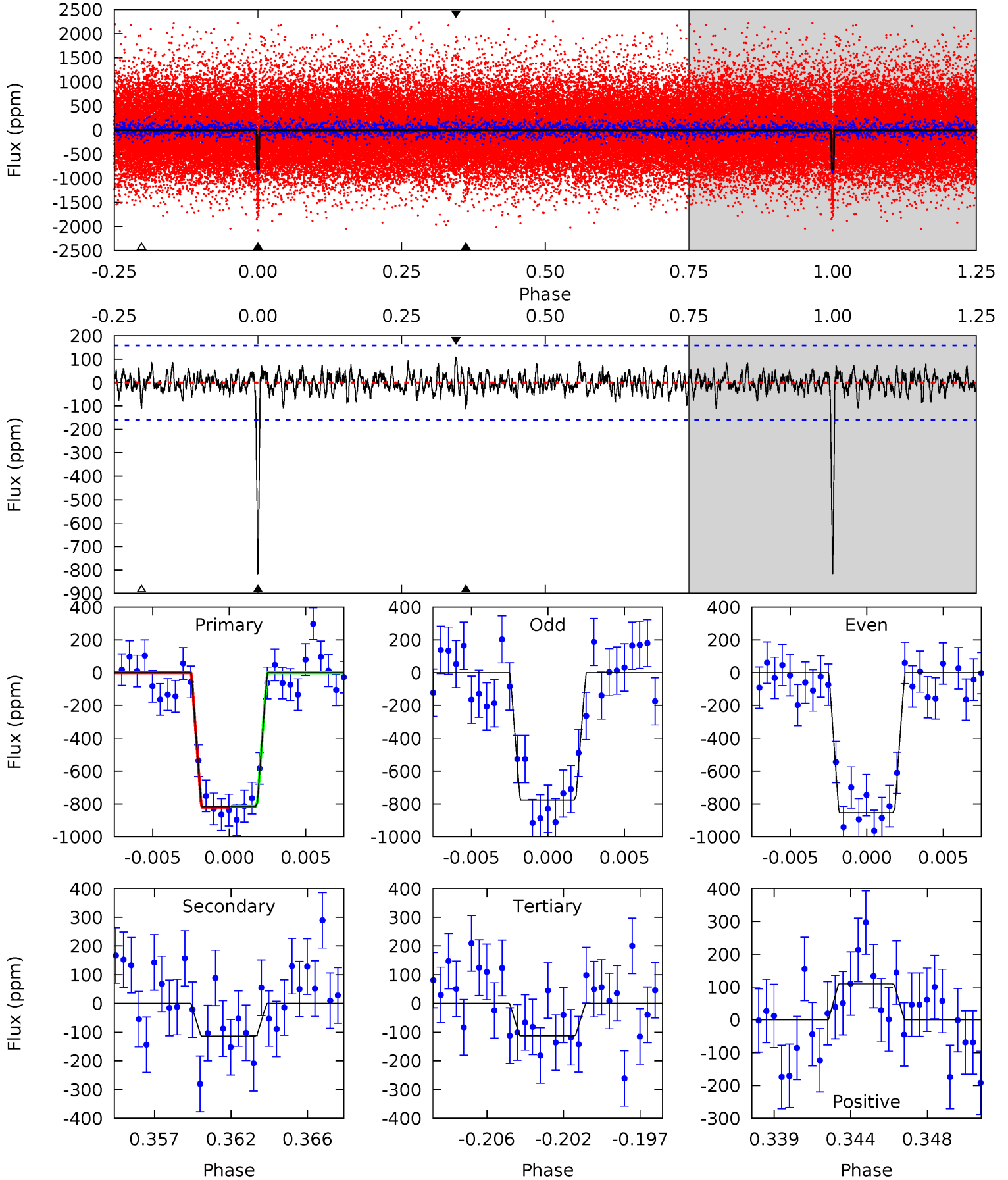
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.5	4.34	4.04	3.93	5.15	2.80	1.25	27.4	27.5	0.30	0.41	1.16	1.00	0.11	0.05



# Alt Model-Shift Uniqueness Test

005269467-01, P = 33.867799 Days, E = 103.647511 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
26.7	3.70	3.69	3.58	5.17	2.84	1.08	23.0	23.1	0.01	0.12	1.28	0.96	0.12	0.09



### Stellar Parameters For KIC 005269467

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	$4564^{+134}_{-134}$	$4.593^{+0.052}_{-0.024}$	$-0.060^{+0.300}_{-0.300}$	$0.691^{+0.044}_{-0.060}$	$0.683^{+0.066}_{-0.054}$	$2.915^{+0.680}_{-0.311}$
	+3%/-3%	+1%/-1%	+500%/-500%	+6%/-9%	+10%/-8%	+23%/-11%
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 005269467-01 / KOI 1672.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-125 \pm 29$	$2.46^{+0.41}_{-0.36}$	$546^{+18}_{-19}$	$3161^{+200}_{-186}$	$376^{+168}_{-126}$
Alt.	$-113 \pm 31$	$2.17^{+0.38}_{-0.36}$	$548^{+17}_{-18}$	$3236^{+238}_{-207}$	$431^{+242}_{-160}$

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

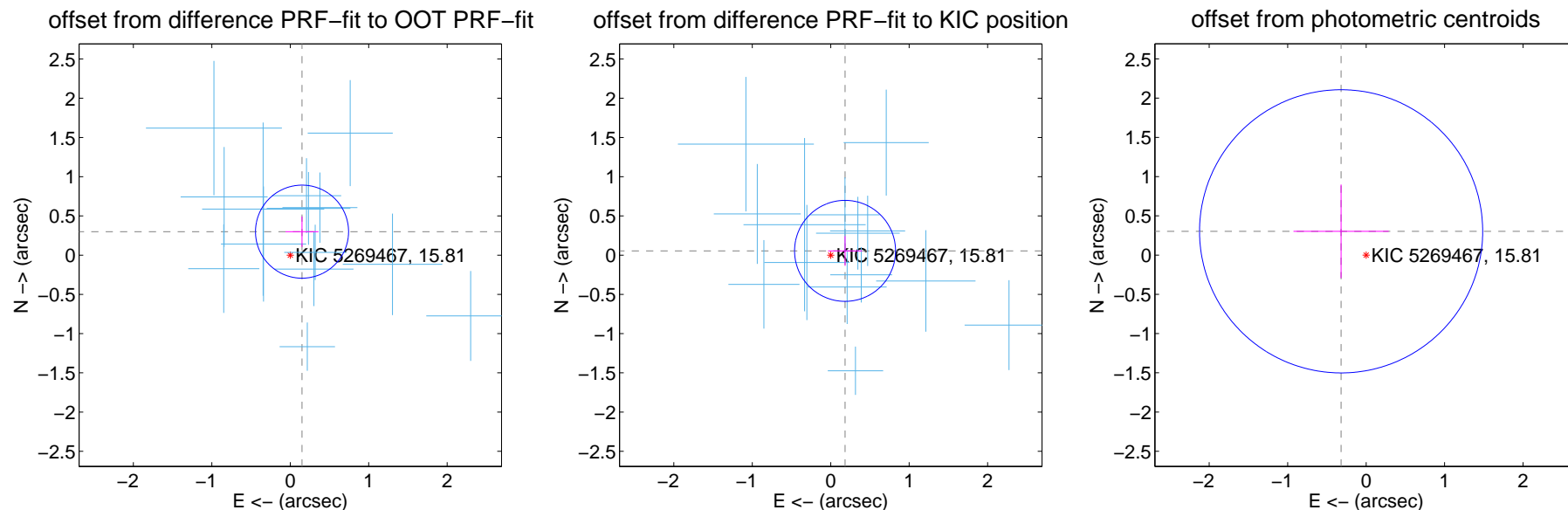
## DV Centroid Data

Supplemental centroid analysis for 005269467-01. Kepler magnitude: 15.81. Transit SNR 21.63

There are 14 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.335 \pm 0.198$	1.69	$-0.150 \pm 0.210$	$0.299 \pm 0.194$
PRF-fit source offset from KIC position	$0.191 \pm 0.215$	0.89	$-0.183 \pm 0.217$	$0.055 \pm 0.190$
photometric centroid source offset	$0.44 \pm 0.60$	0.73	$0.32 \pm 0.61$	$0.30 \pm 0.60$

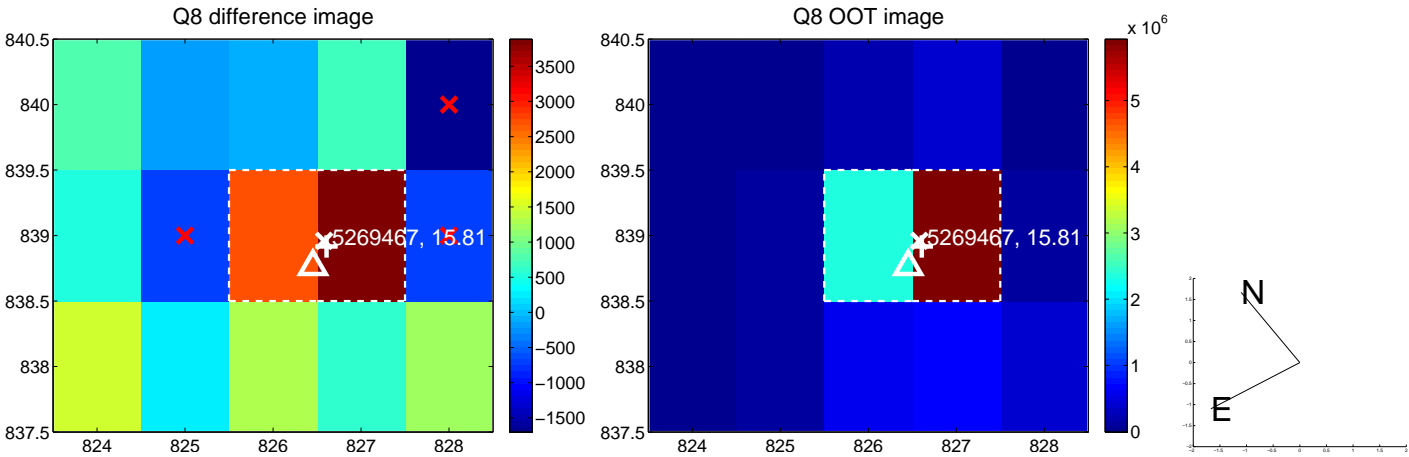
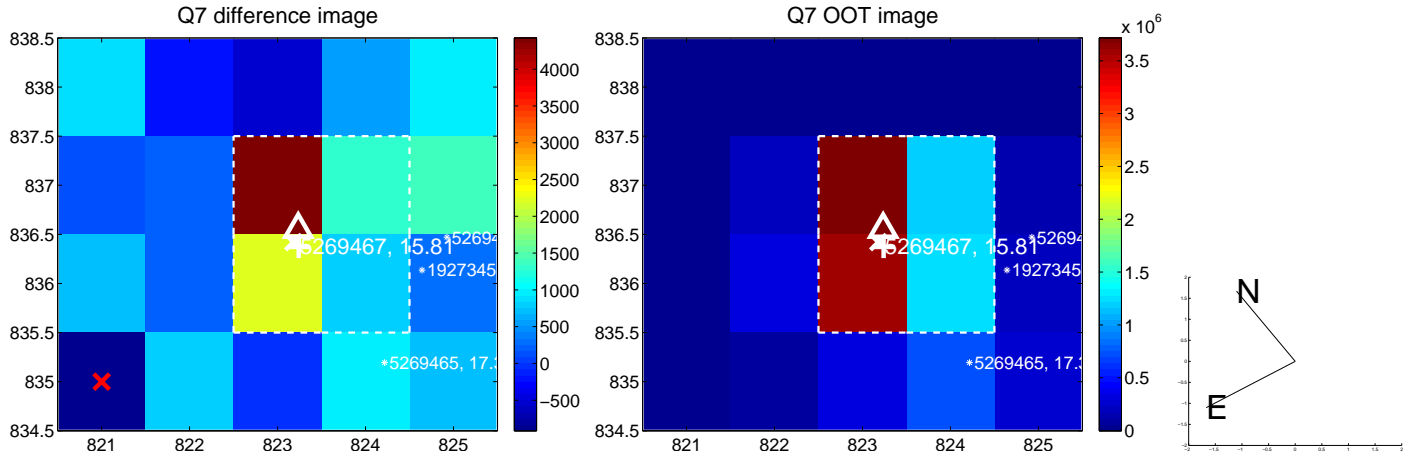
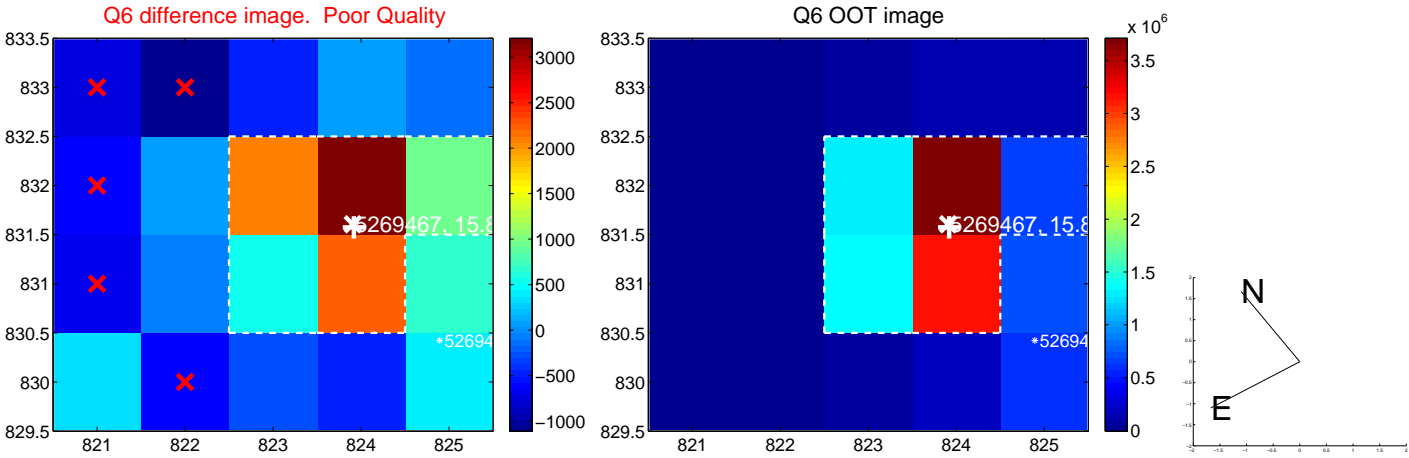
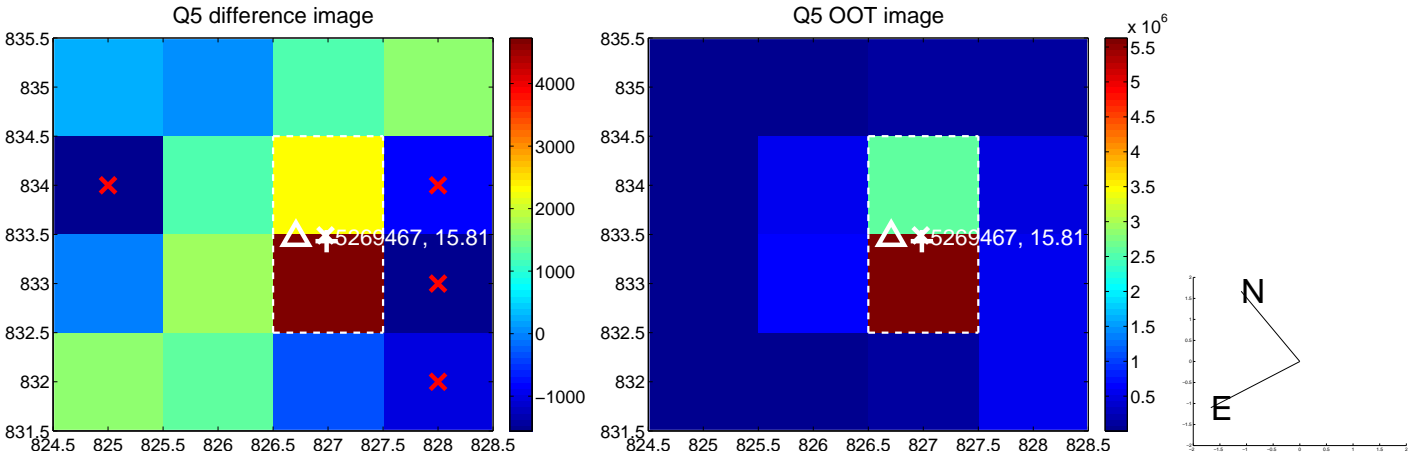


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

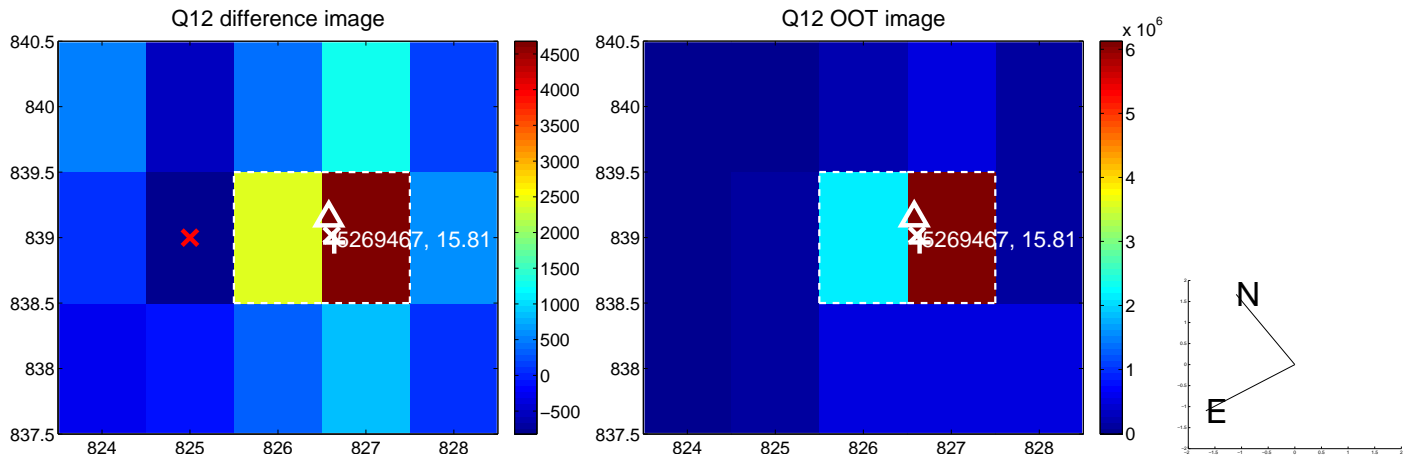
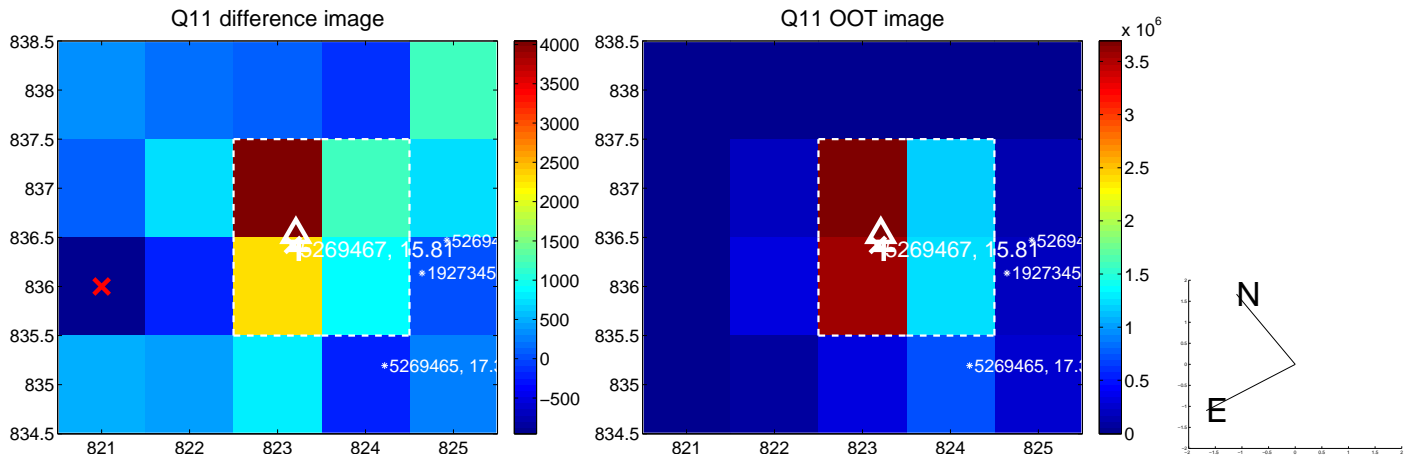
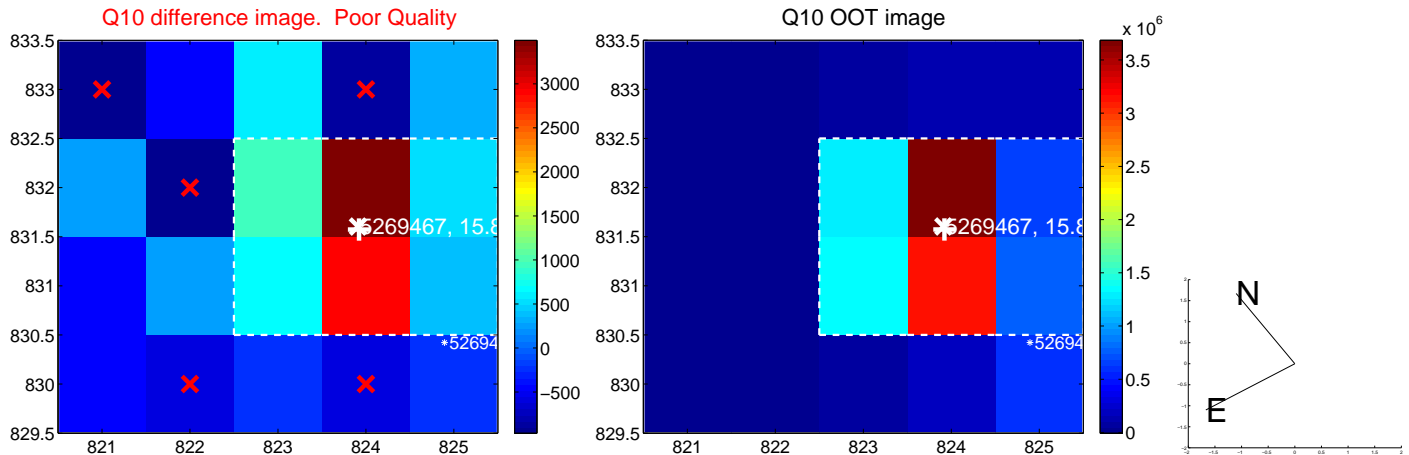
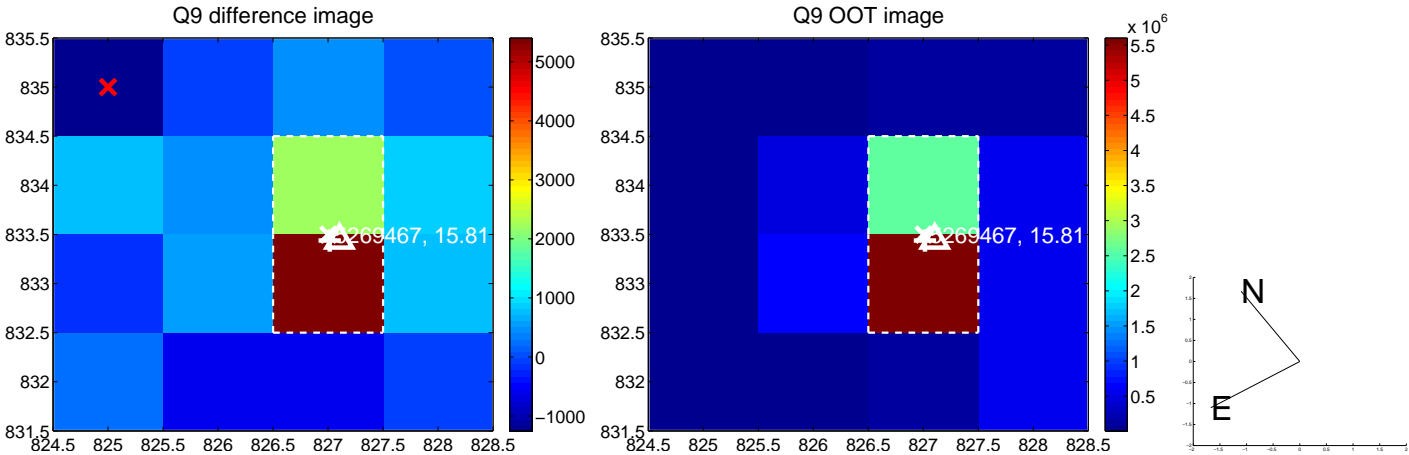




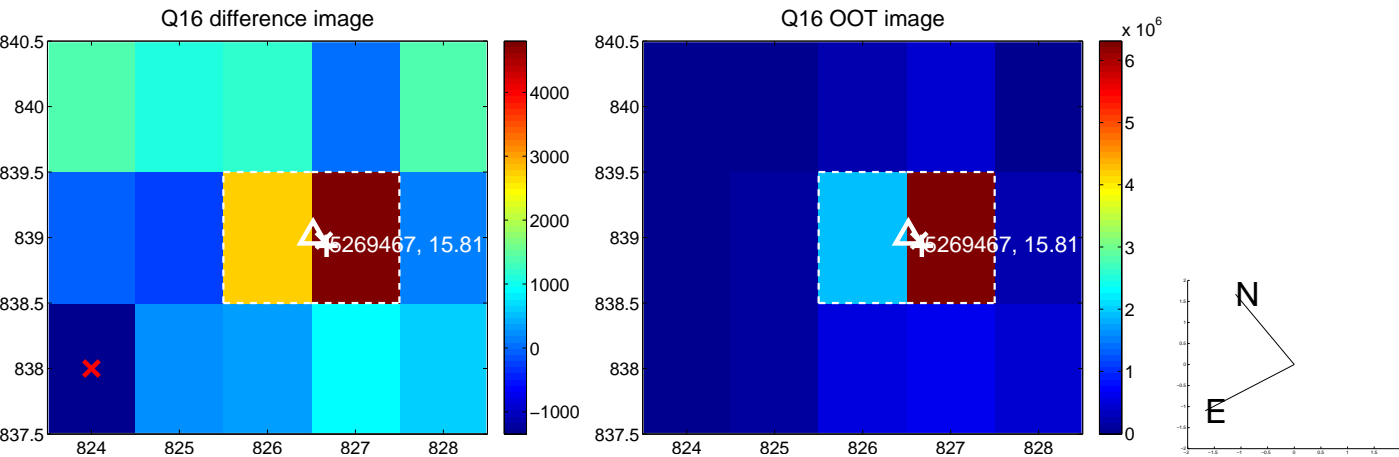
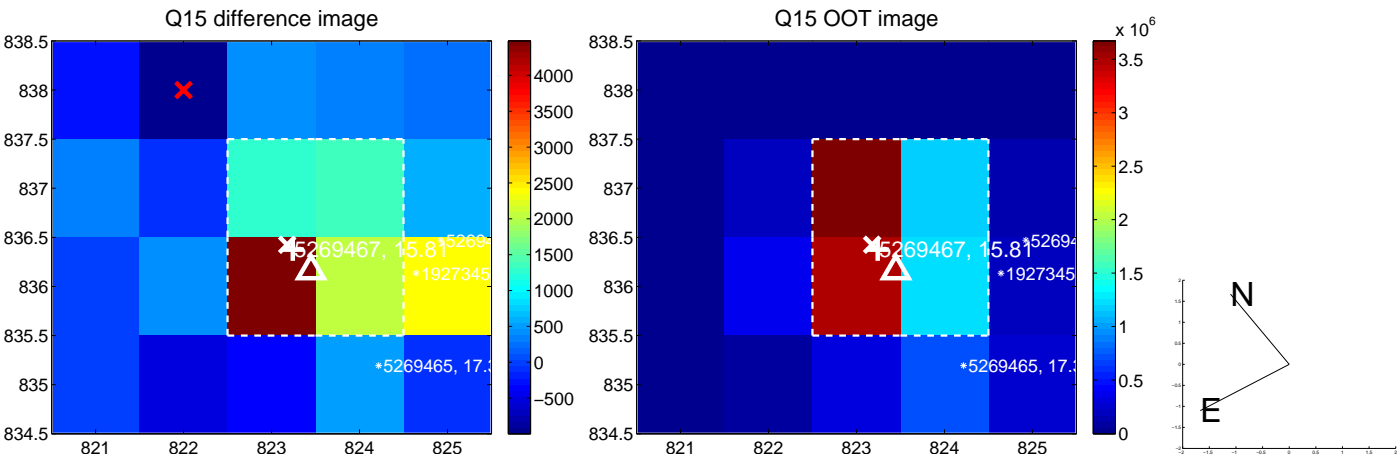
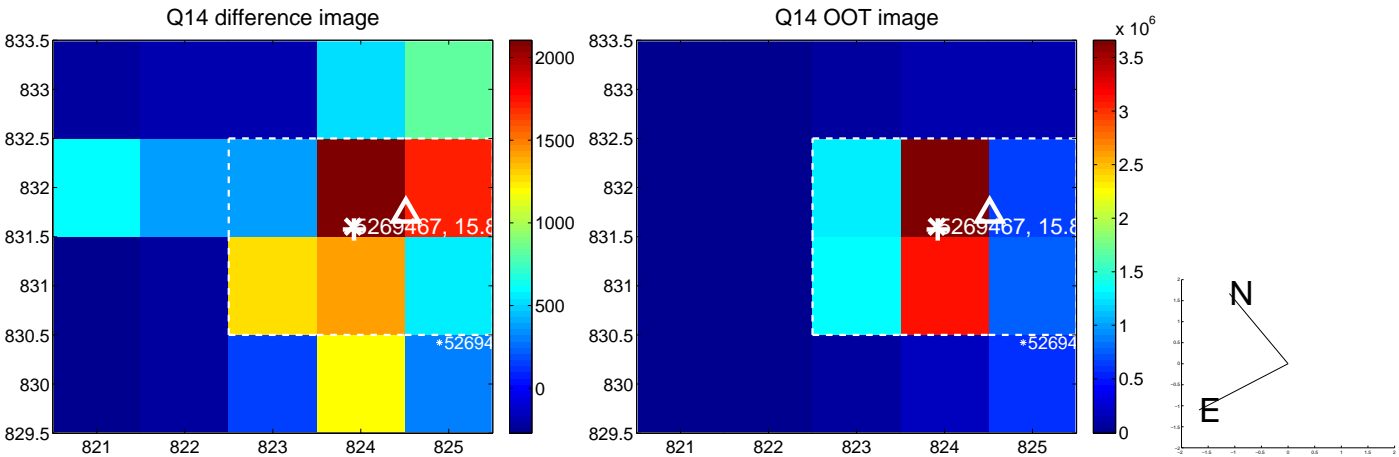
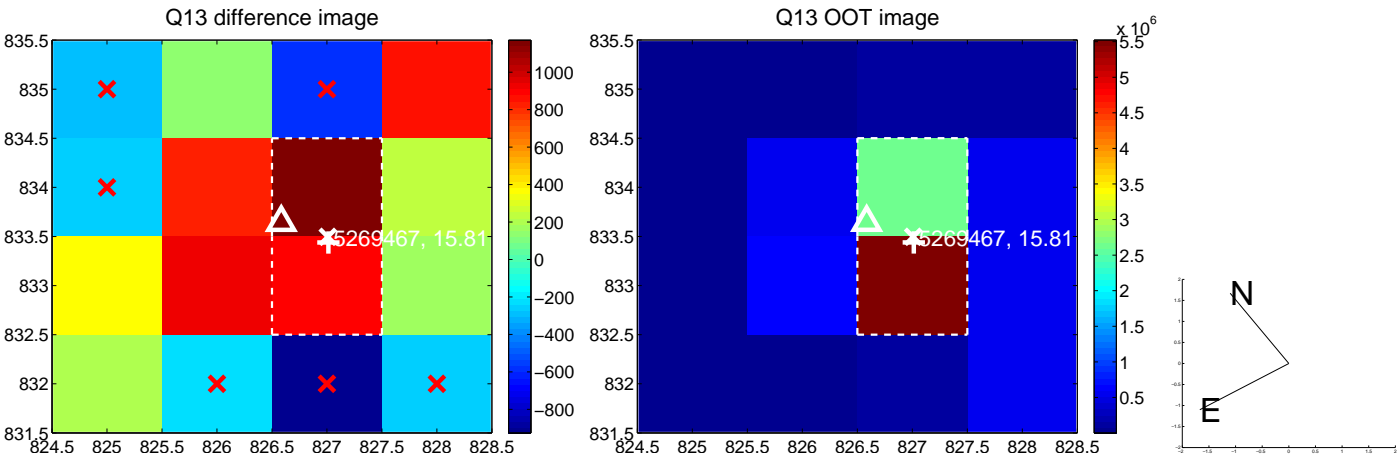
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



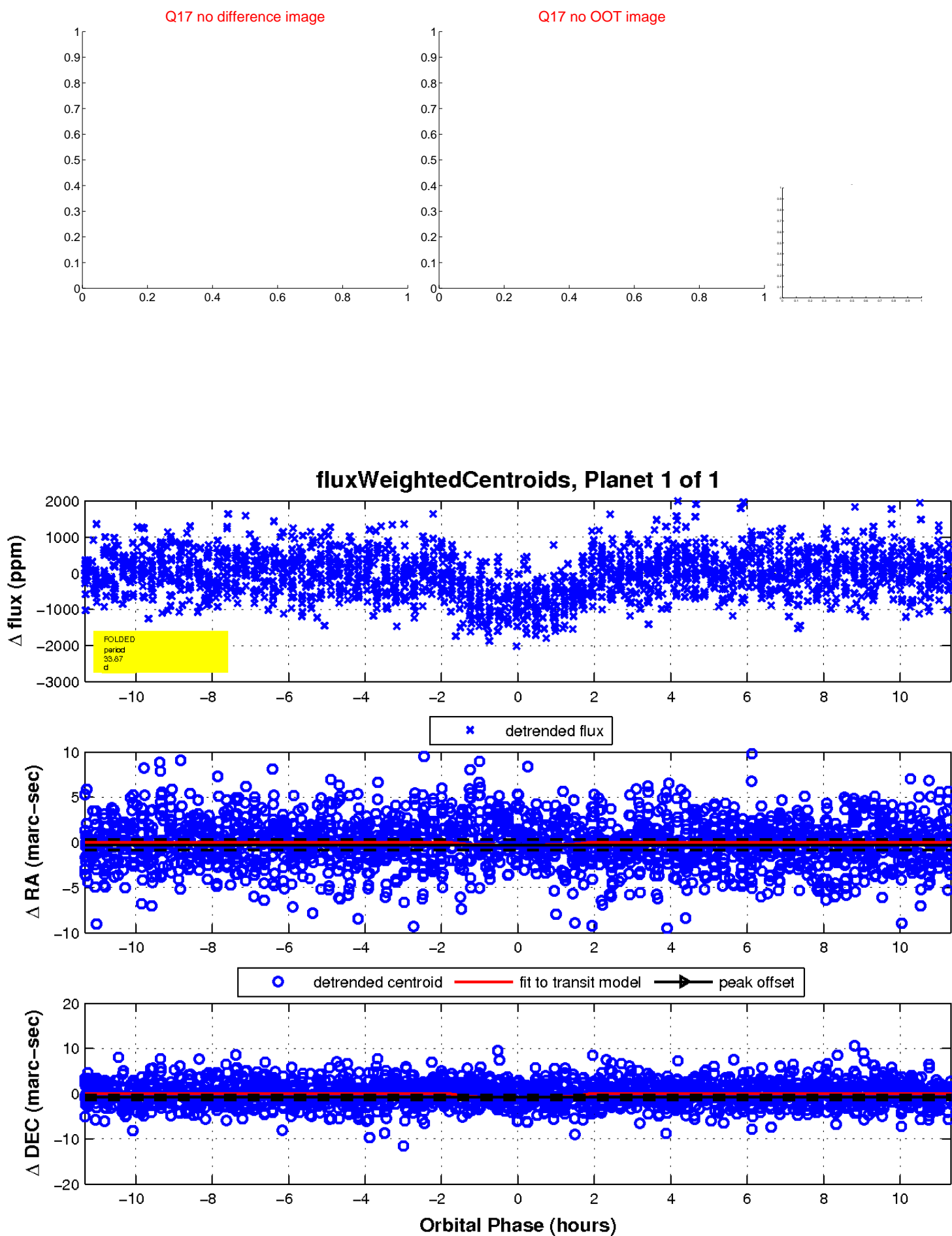
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



# UKIRT Image

Declination

