

# KIC 005482603

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005482603-01	OBS	3199.01	3.882602	134.819998	47.3	2.485	8.5	9.1	1.00	5780	0.80	427.67

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005482603-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

**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 005482603-01

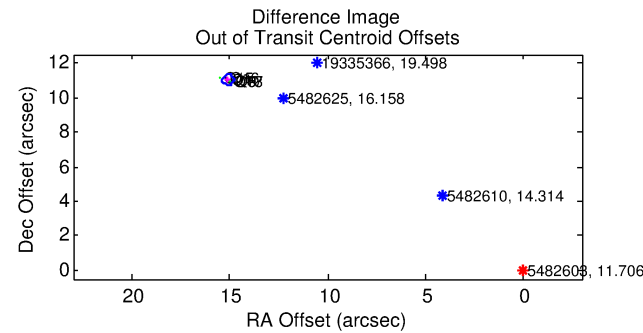
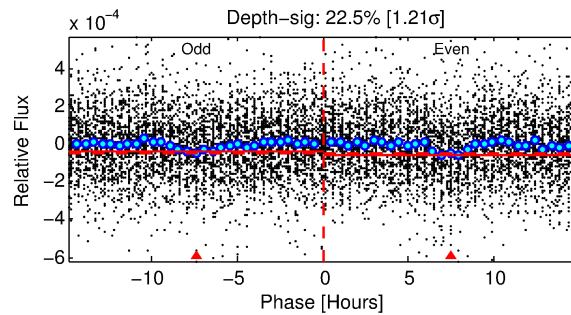
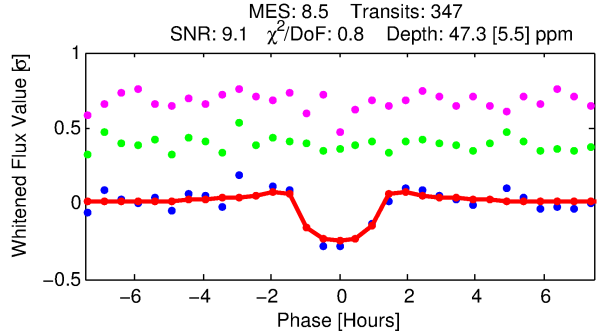
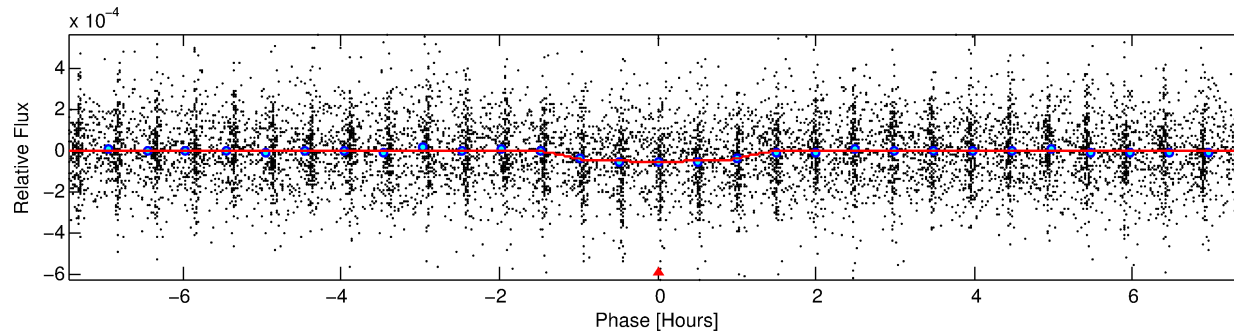
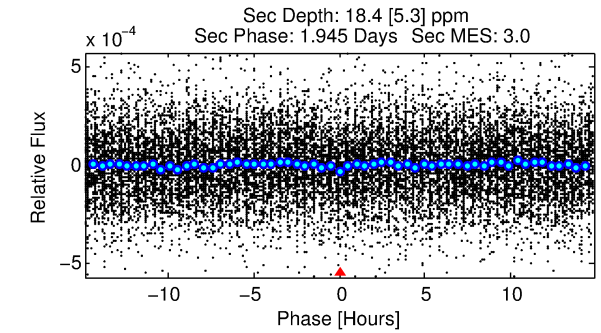
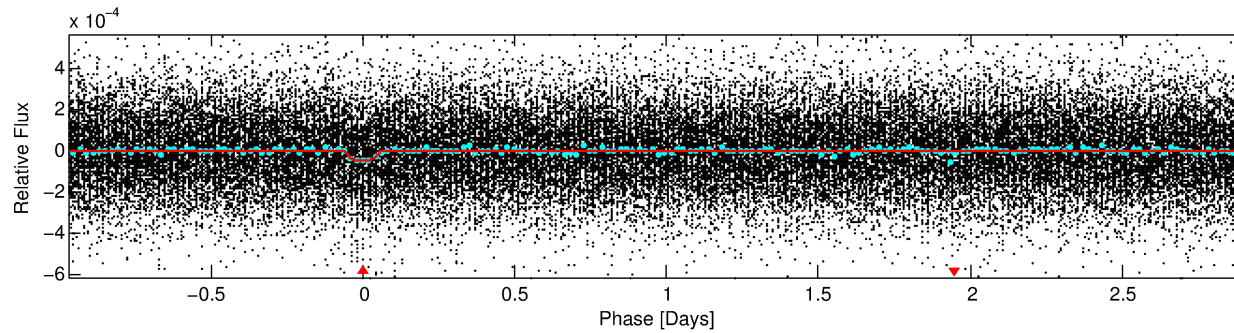
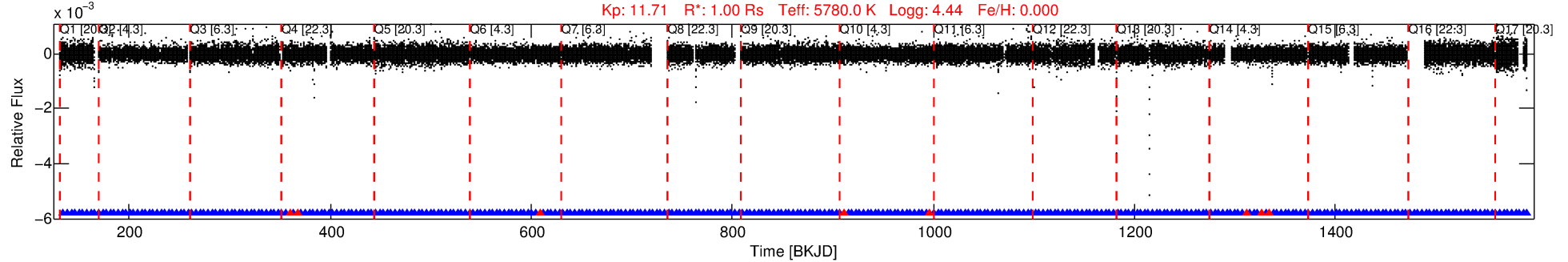
No Significant Match Found

# DV One-Page Summary

KIC: 5482603 Candidate: 1 of 1 Period: 3.883 d

KOI: K03199.01 Corr: 0.954

Kp: 11.71 R\*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



## DV Fit Results:

Period = 3.88260 [0.00003] d  
Epoch = 134.8200 [0.0043] BKJD  
Rp/R\* = 0.0073 [0.0035]  
a/R\* = 6.03 [12.90]  
b = 0.87 [0.60]  
Seff = 427.67 [0.00]  
Teff = 1160 [0] K  
Rp = 0.80 [0.38] Re  
a = 0.0484 [0.0000] AU  
Ag = 36.93 [36.54] [0.98σ]  
Teffp = 4420 [1093] K [2.98σ]

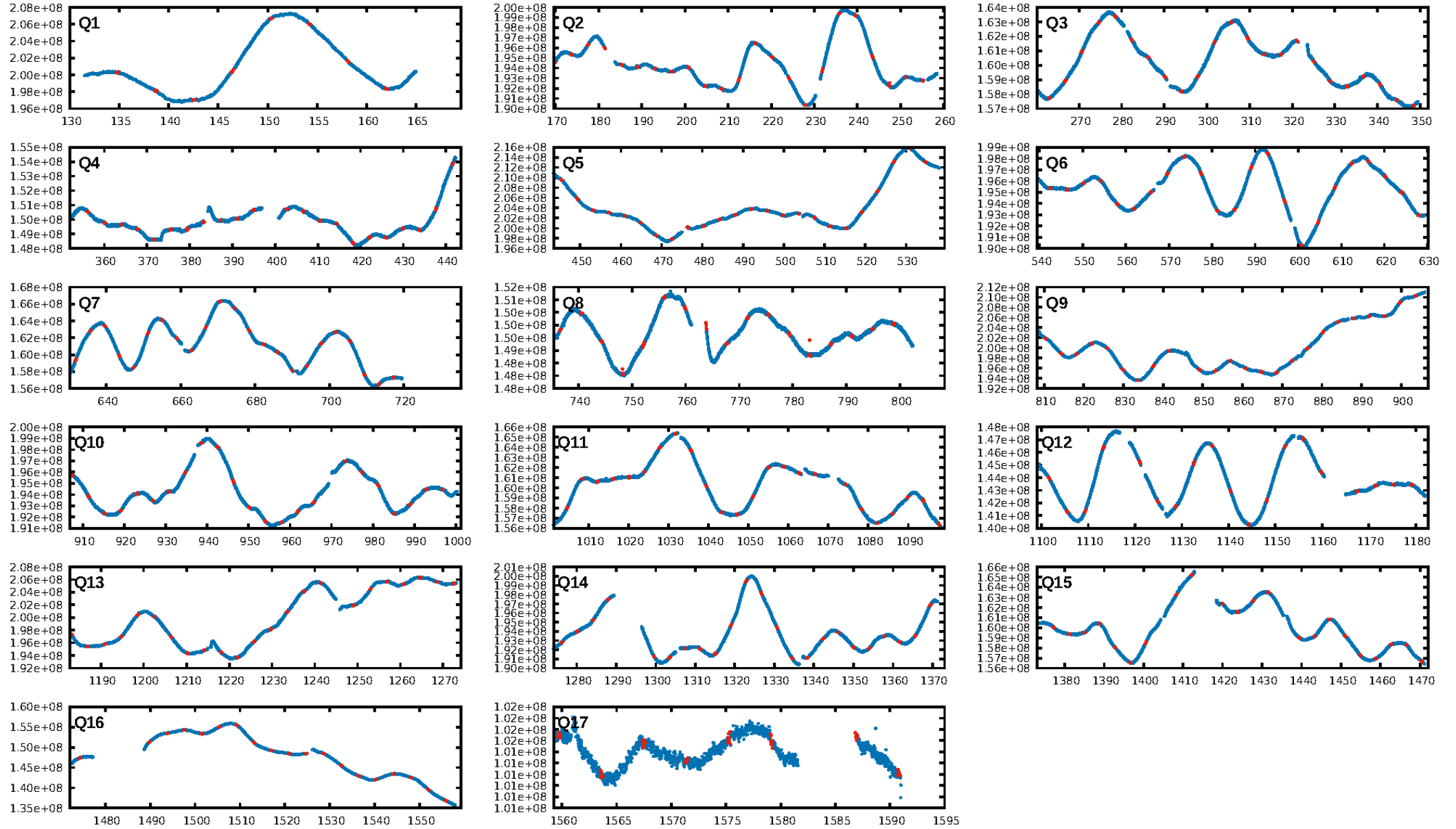
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 3.00e-16  
RollingBand-fgt: 0.98 [323/331]  
GhostDiagnostic-chr: -0.5588  
Centroid-sig: 0.0%  
Centroid-so: 37.421 arcsec [24.16σ]  
OotOffset-rm: 18.689 arcsec [181.50σ]  
KicOffset-rm: 15.698 arcsec [217.83σ]  
OotOffset-st: 0/1/1/5 [7]  
KicOffset-st: 0/1/1/5 [7]  
DiffImageQuality-fgm: 1.00 [7/7]  
DiffImageOverlap-fno: 1.00 [17/17]

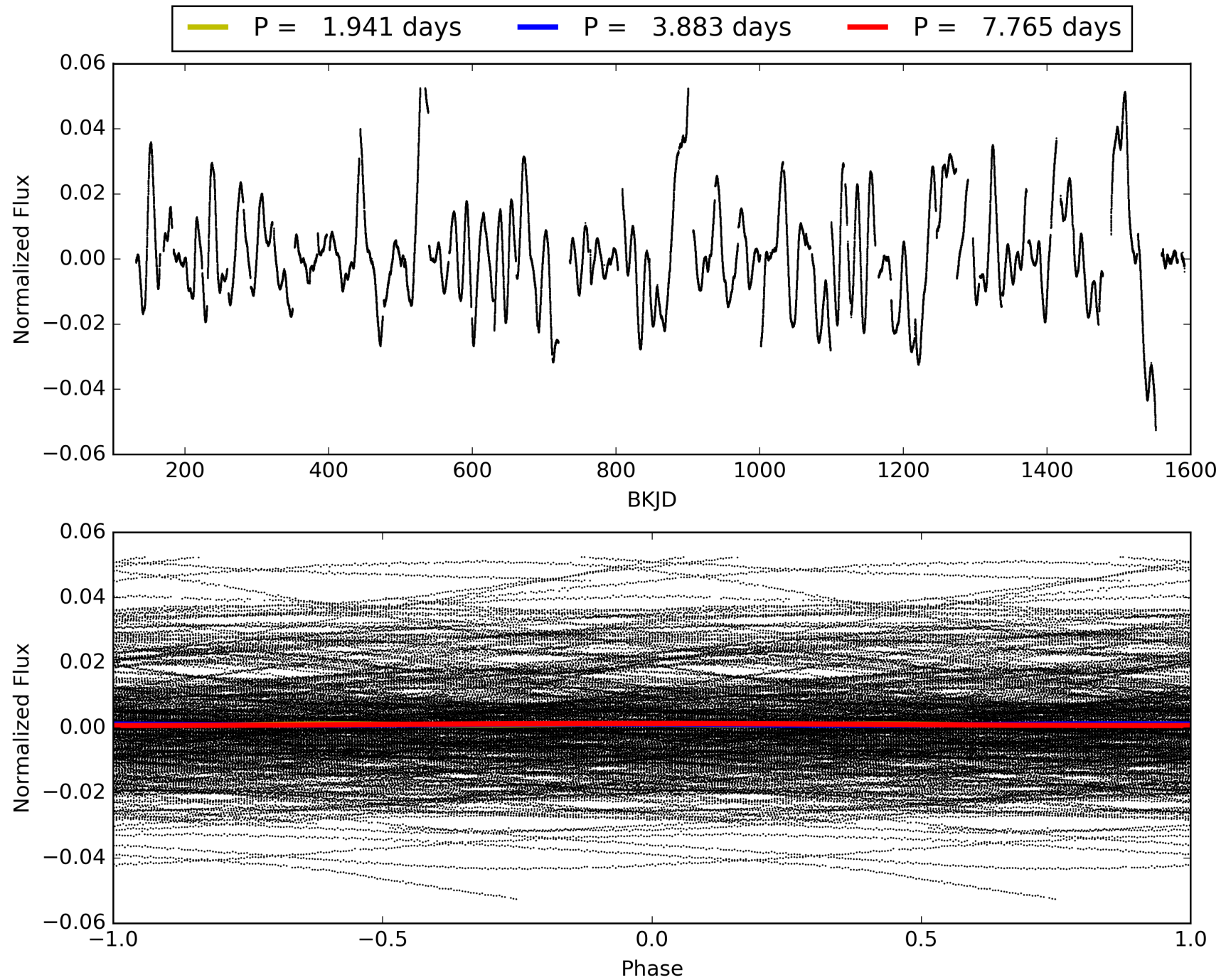
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:58:55 Z

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

# TCE 005482603-01, PDC Light Curves

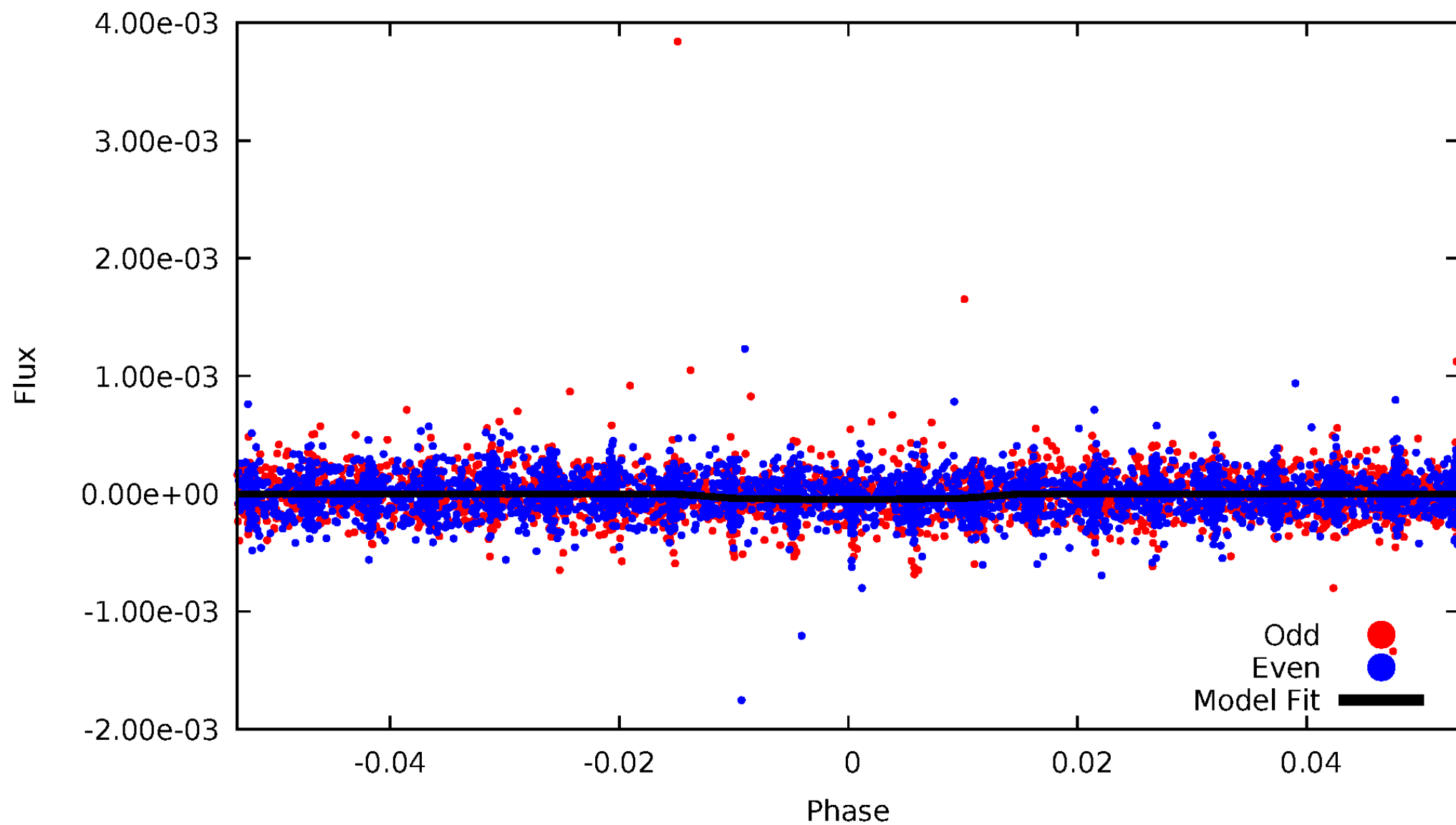


TCE 005482603-01



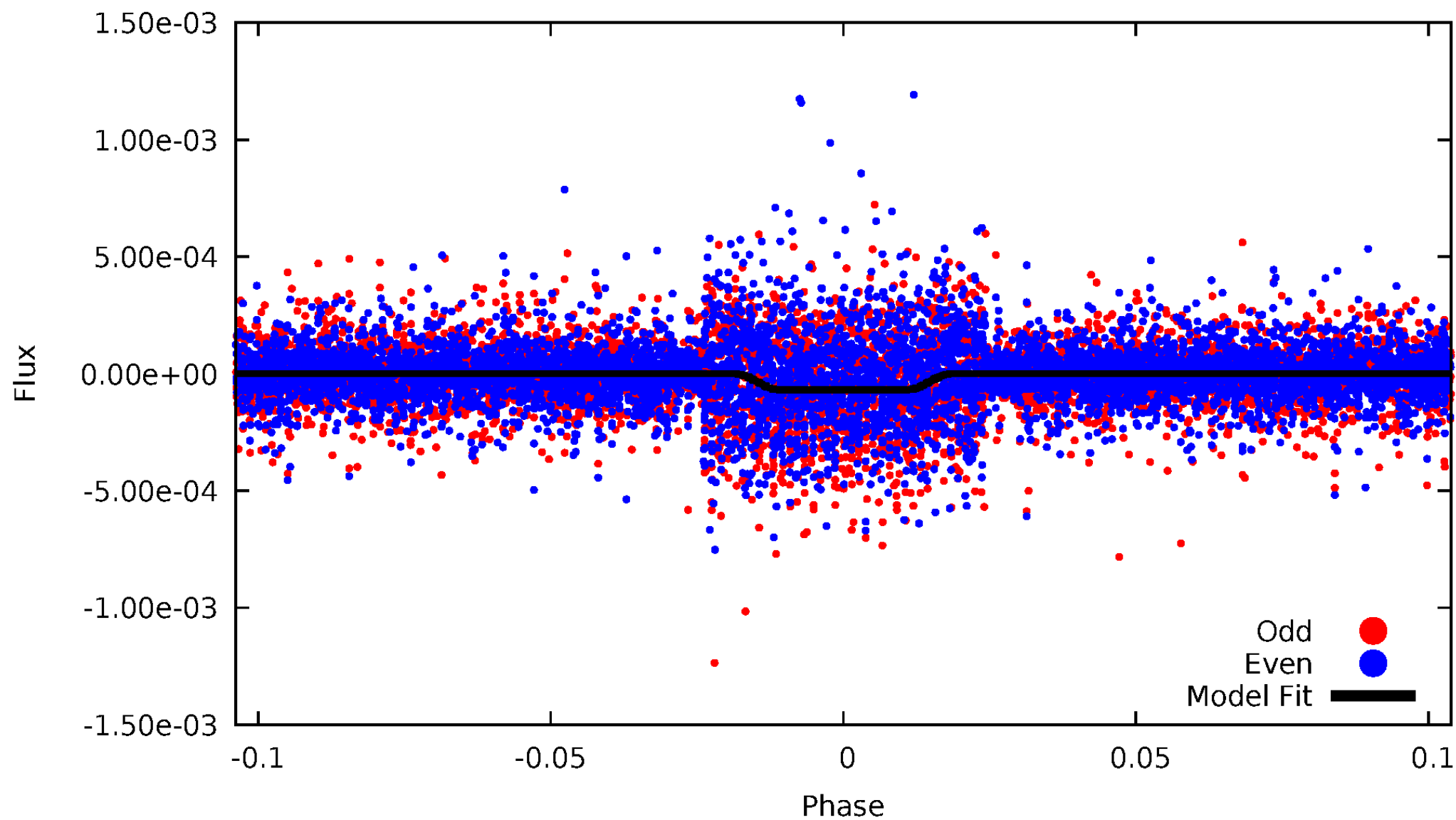
# DV Odd/Even

TCE 005482603-01



# ALT Odd/Even

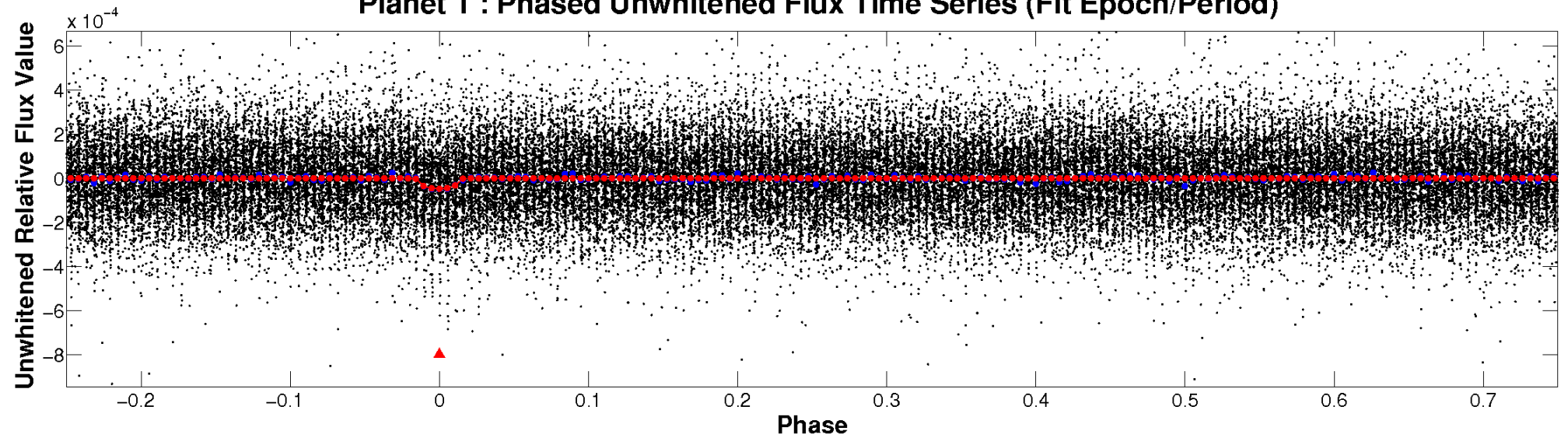
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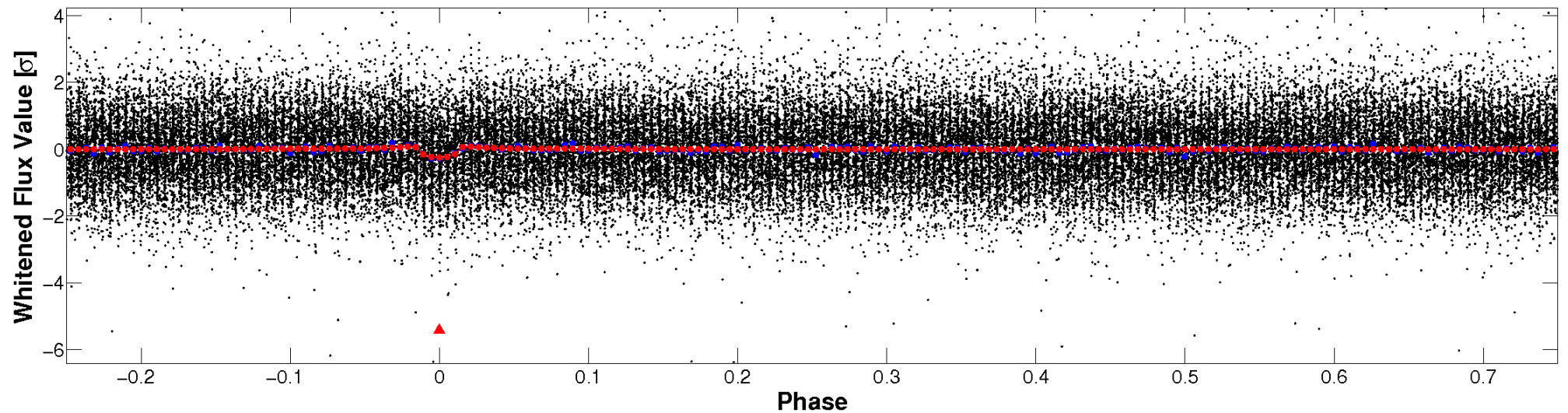


# Non-Whitened Vs. Whitened Light Curve

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

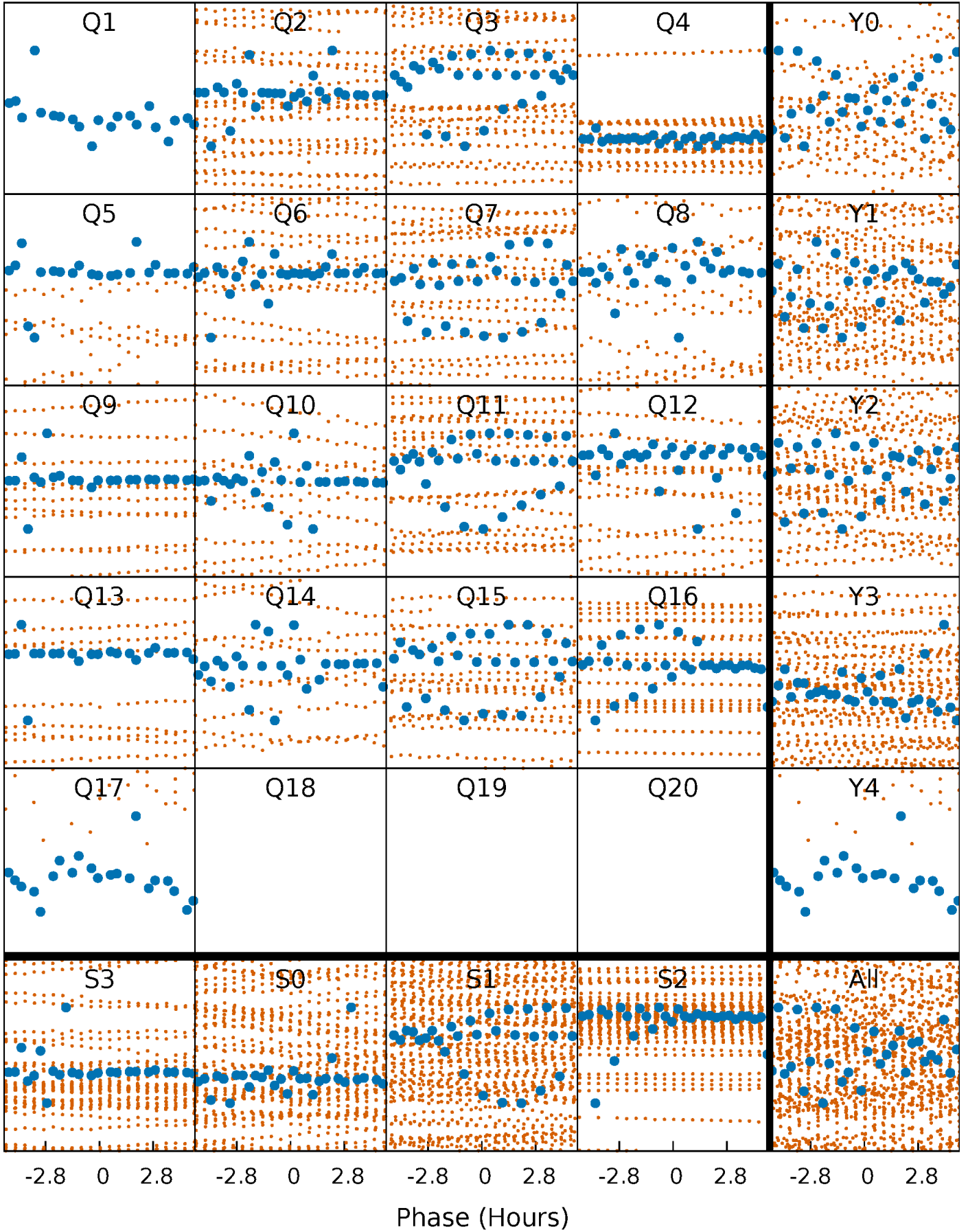


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

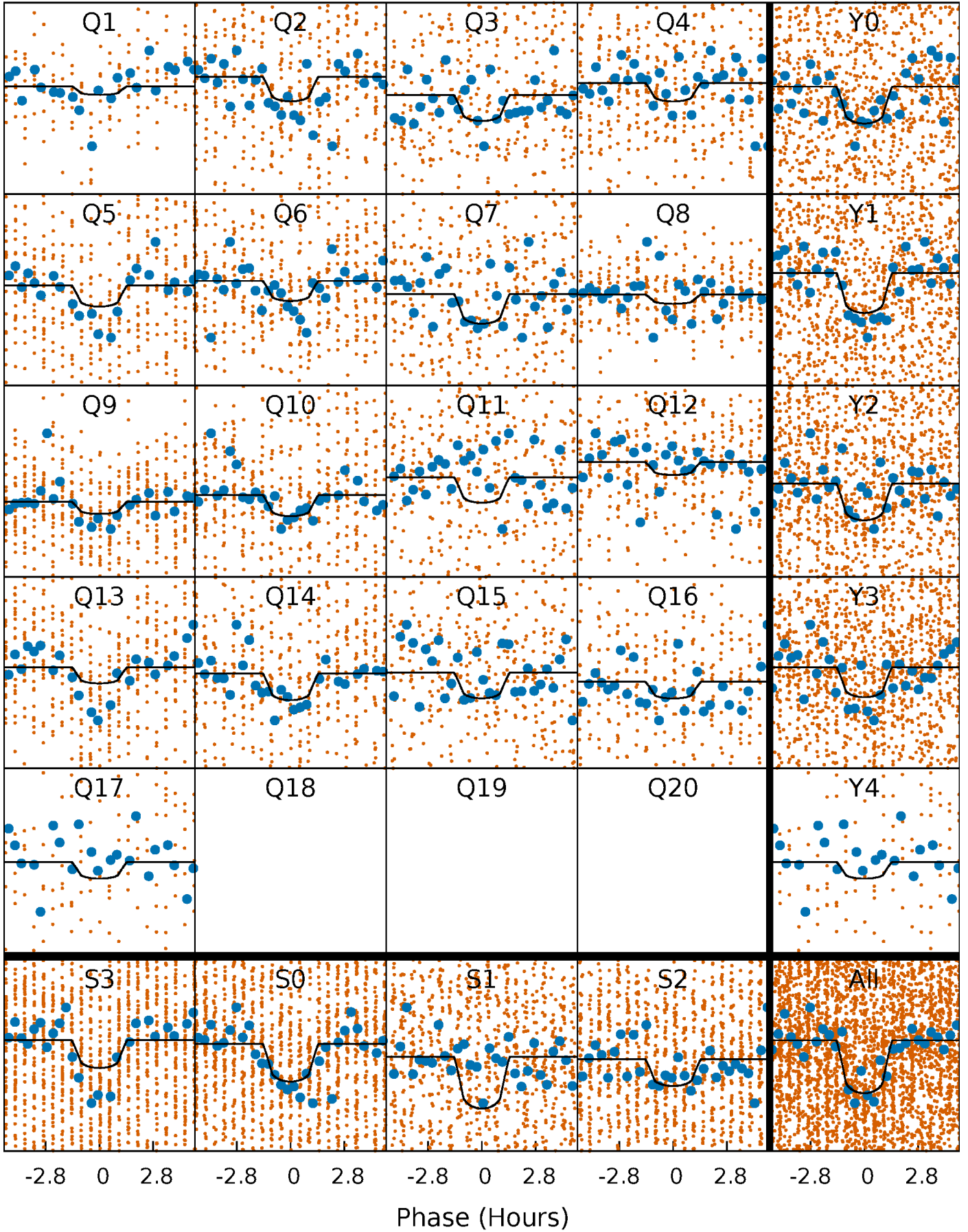
TCE 005482603-01   P= 3.882602 Days    $T_0=134.819998$  (BKJD)





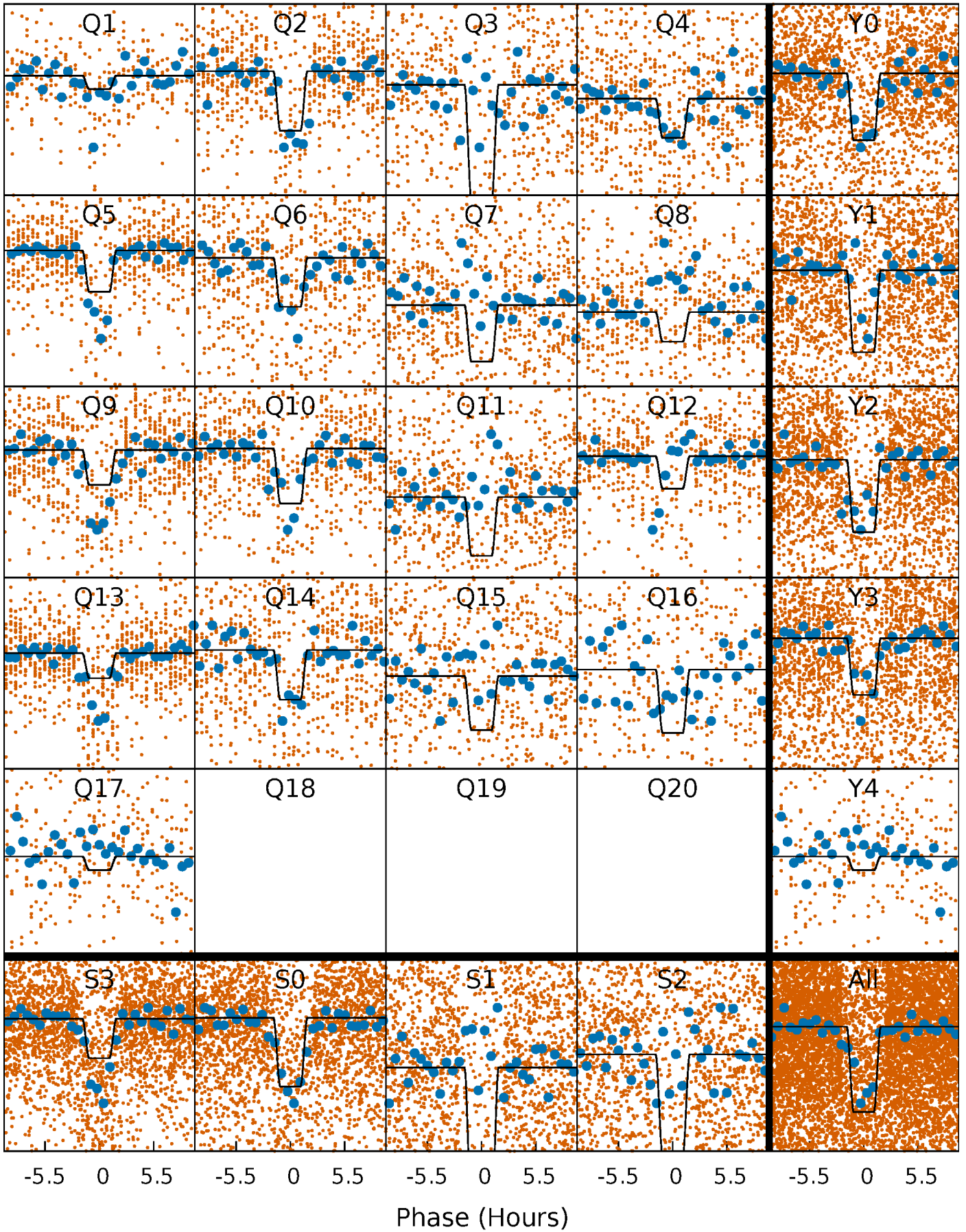
# DV Quarter-Phased Transit Curves

TCE 005482603-01 P= 3.882602 Days  $T_0=134.819998$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

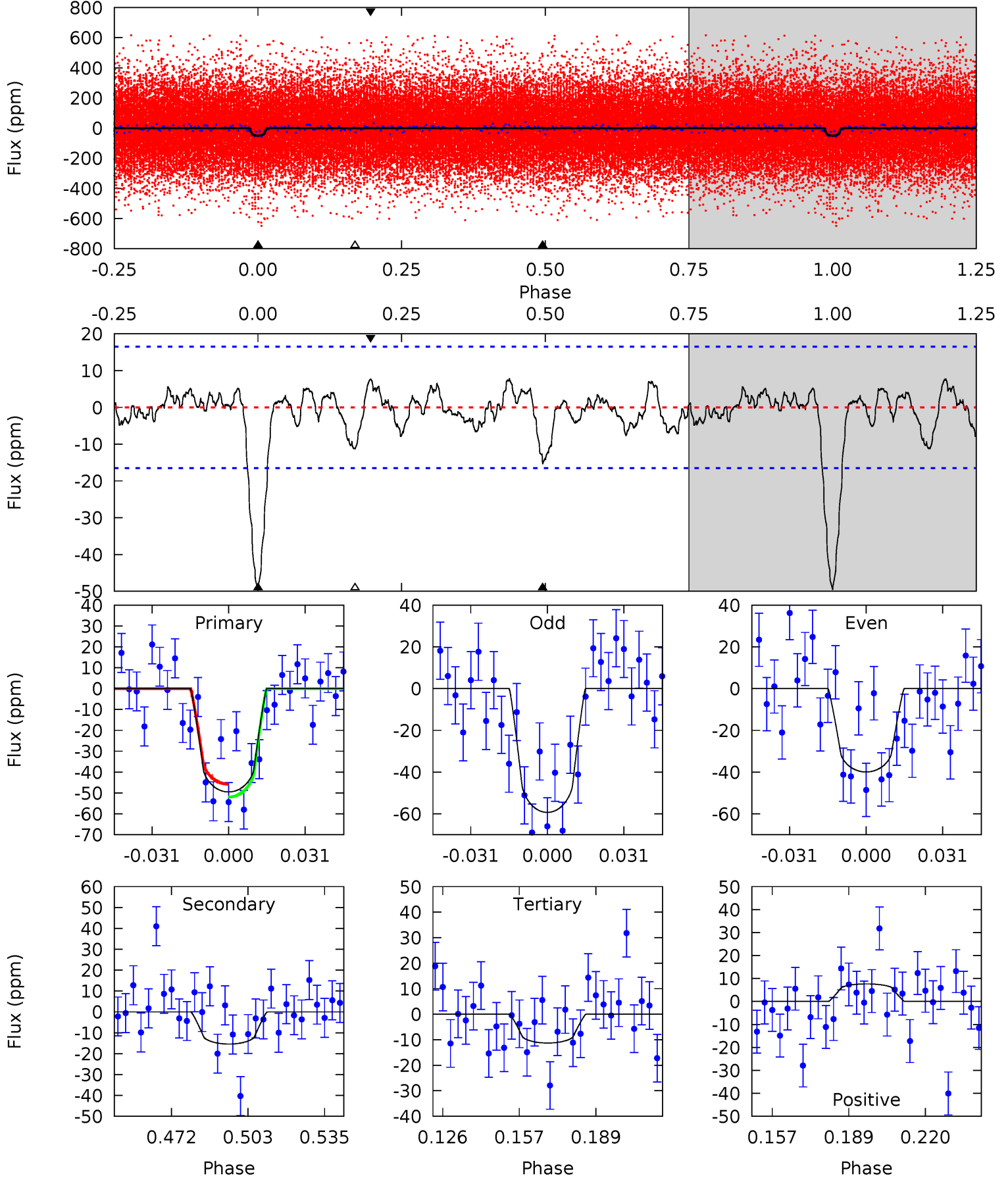
TCE 005482603-01 P= 3.882548 Days  $T_0=134.821553$  (BKJD)



# DV Model-Shift Uniqueness Test

005482603-01, P = 3.882602 Days, E = 130.937396 Days

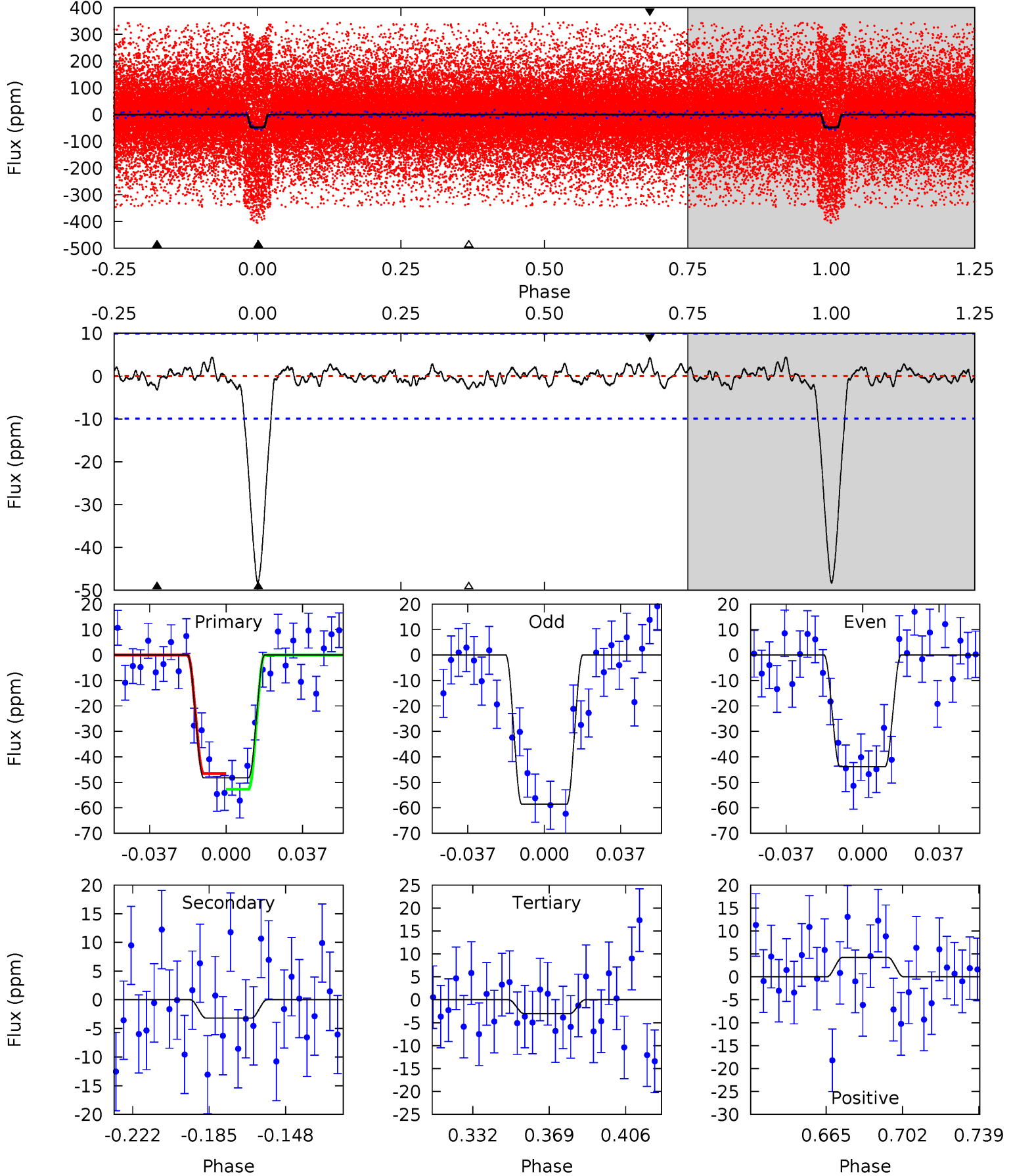
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	4.48	3.29	2.22	4.80	2.15	1.07	11.1	12.2	1.20	2.26	2.83	0.96	0.13	0.90



# Alt Model-Shift Uniqueness Test

005482603-01, P = 3.882548 Days, E = 130.939005 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
23.2	1.54	1.46	2.03	4.77	2.09	0.68	21.7	21.1	0.08	-0.49	3.56	0.90	0.08	1.48





### Stellar Parameters For KIC 005482603

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5780^{+1}_{-1}$	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

### Secondary Eclipse Parameters for KIC 005482603-01 / KOI 3199.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-15 \pm 3$	$0.79^{+0.40}_{-0.36}$	$1618^{+81}_{-79}$	$4437^{+1301}_{-634}$	$31^{+81}_{-18}$
Alt.	$-3 \pm 2$	$0.89^{+0.40}_{-0.35}$	$1619^{+87}_{-76}$	$3207^{+745}_{-552}$	$4.981^{+11.836}_{-3.448}$

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



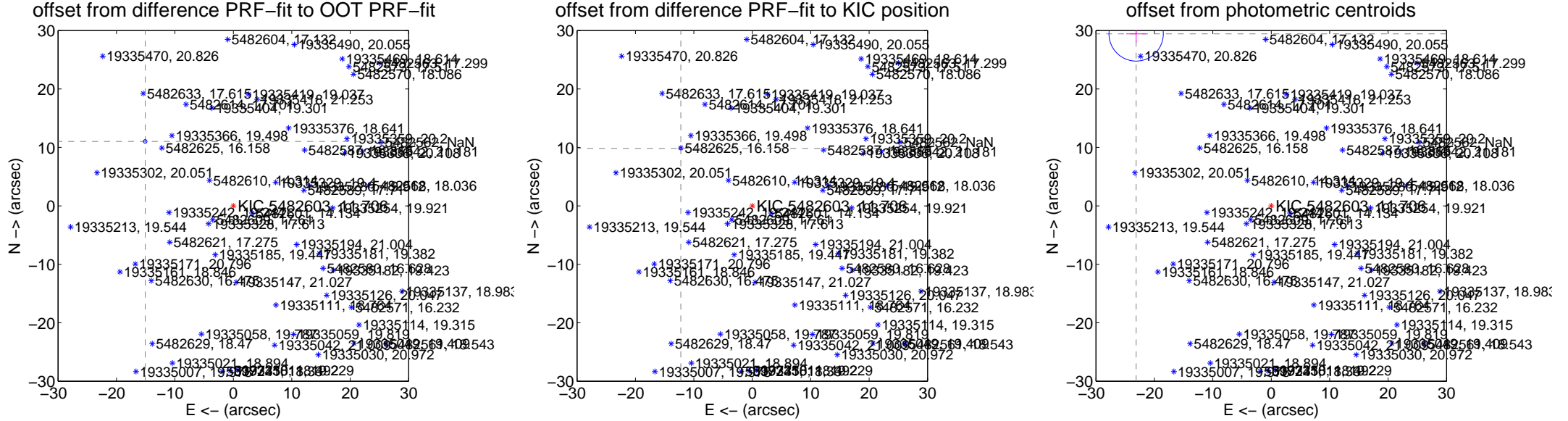
## DV Centroid Data

Supplemental centroid analysis for 005482603-01. **Kepler magnitude: 11.71.** Transit SNR 9.09

There are 7 quarters with good PRF difference image offsets

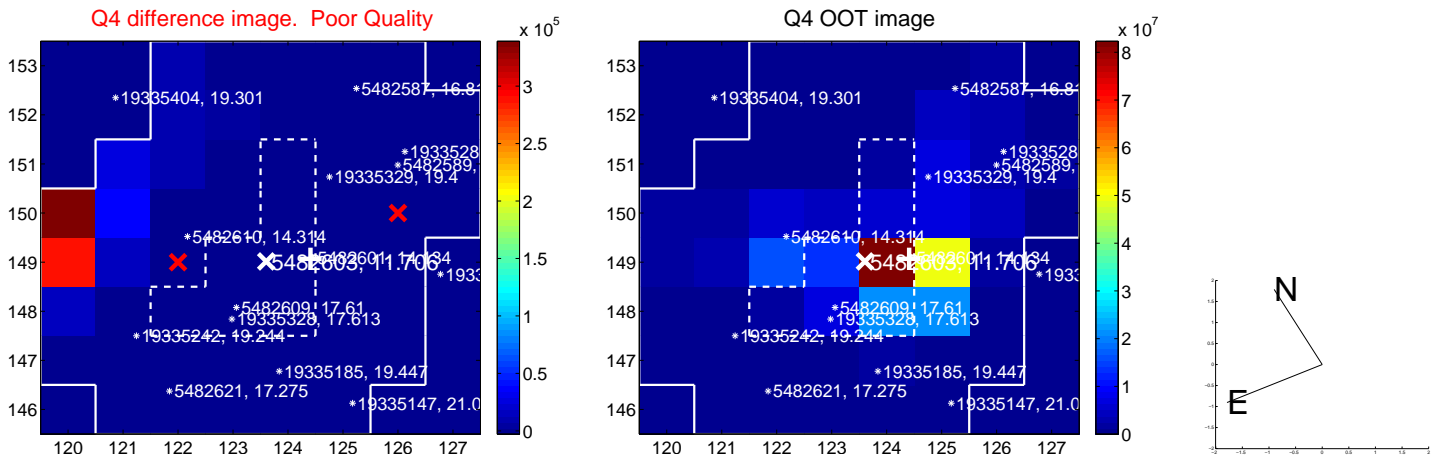
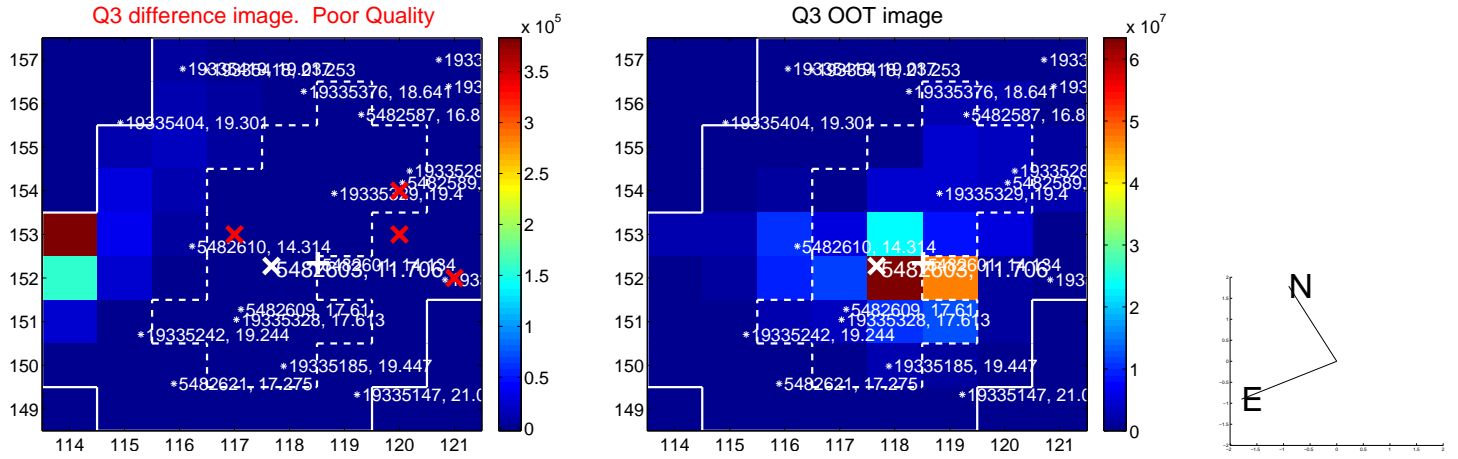
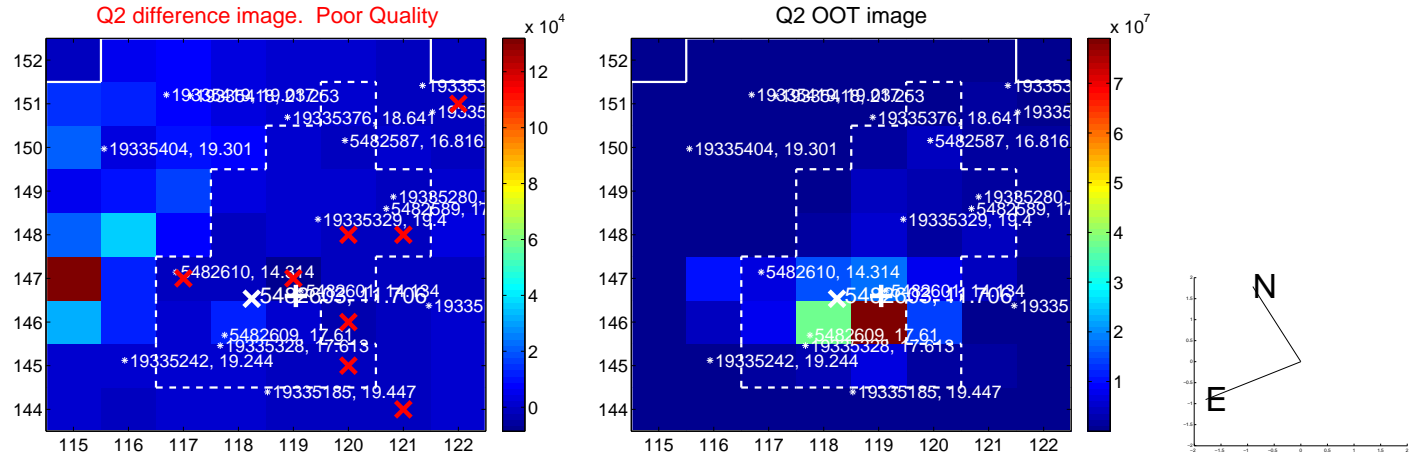
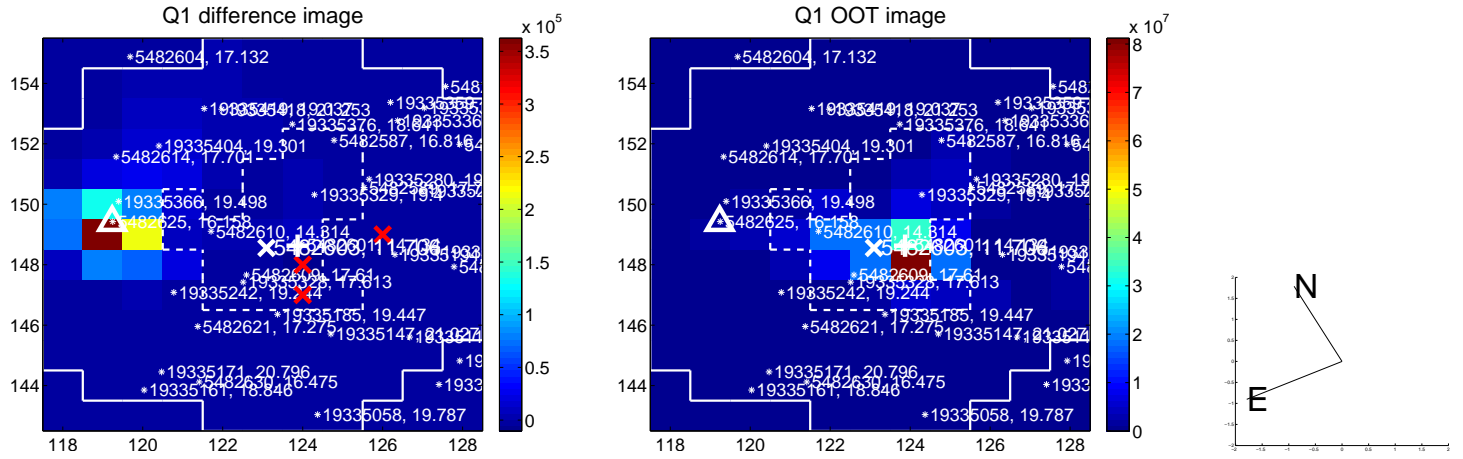
The OOT PRF centroid is offset from the target star catalog position by about 2.99 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b><math>18.689 \pm 0.103</math></b>	<b>181.50</b>	$15.088 \pm 0.099$	$11.029 \pm 0.076$
PRF-fit source offset from KIC position	<b><math>15.698 \pm 0.072</math></b>	<b>217.83</b>	$12.233 \pm 0.073$	$9.838 \pm 0.071$
photometric centroid source offset	<b><math>37.42 \pm 1.55</math></b>	<b>24.16</b>	$23.13 \pm 1.70$	$29.42 \pm 1.45$

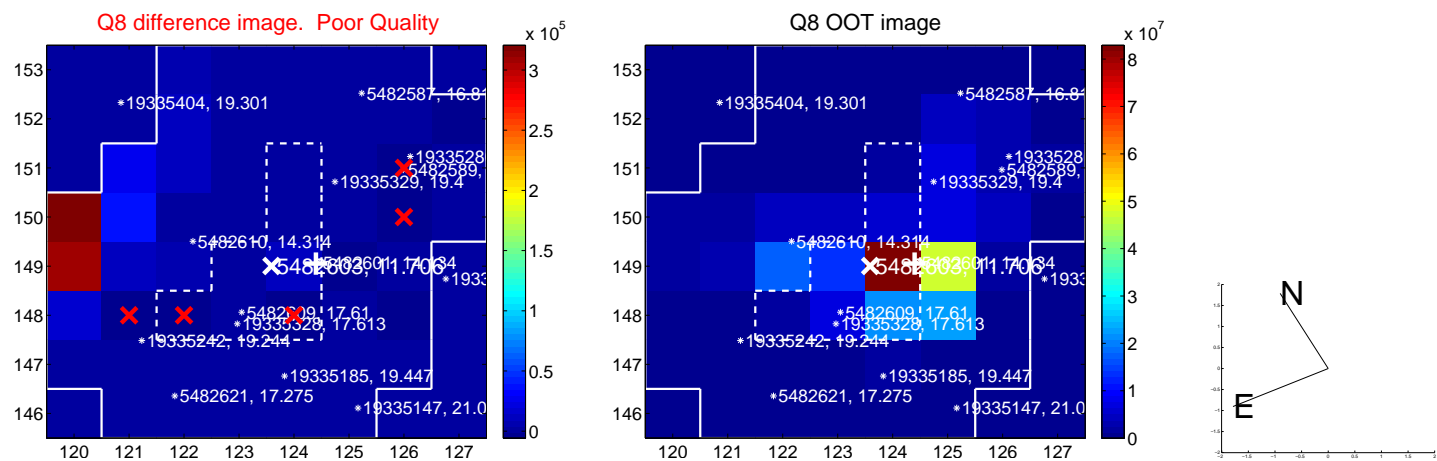
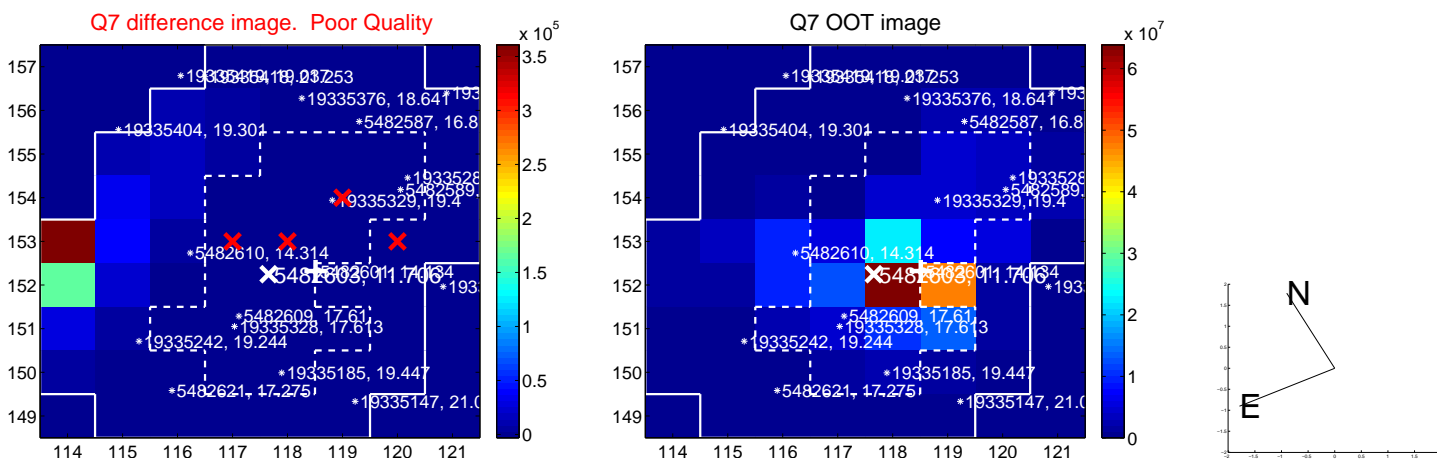
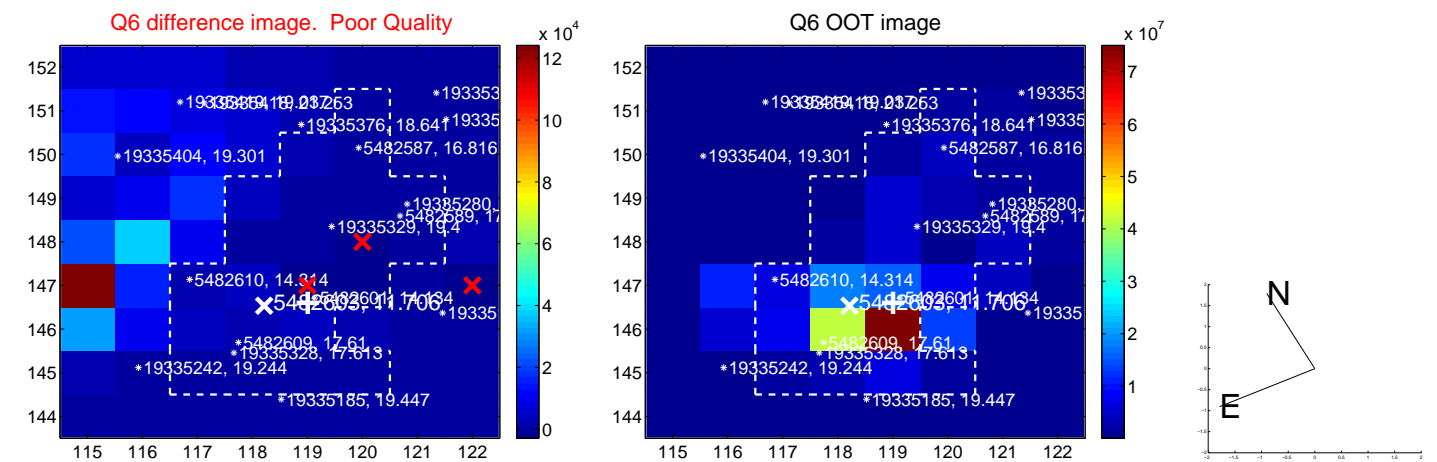
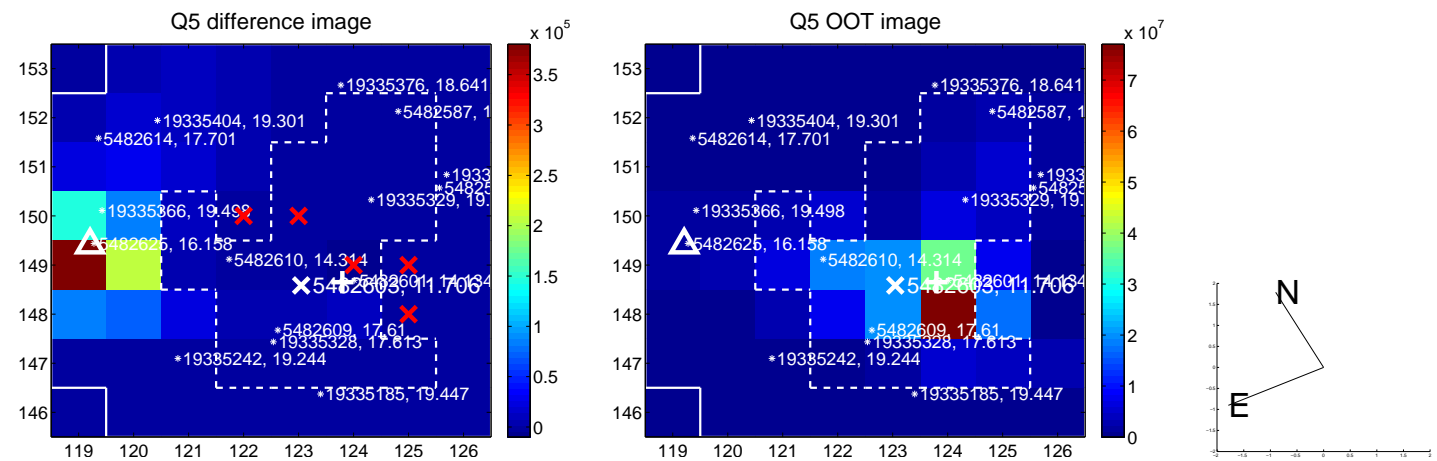


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

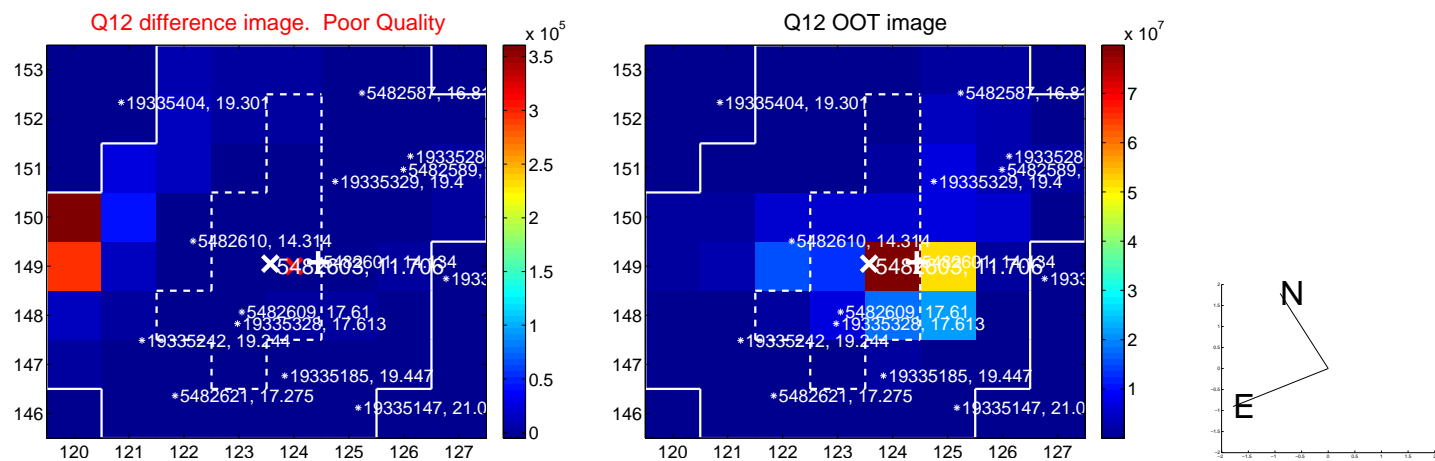
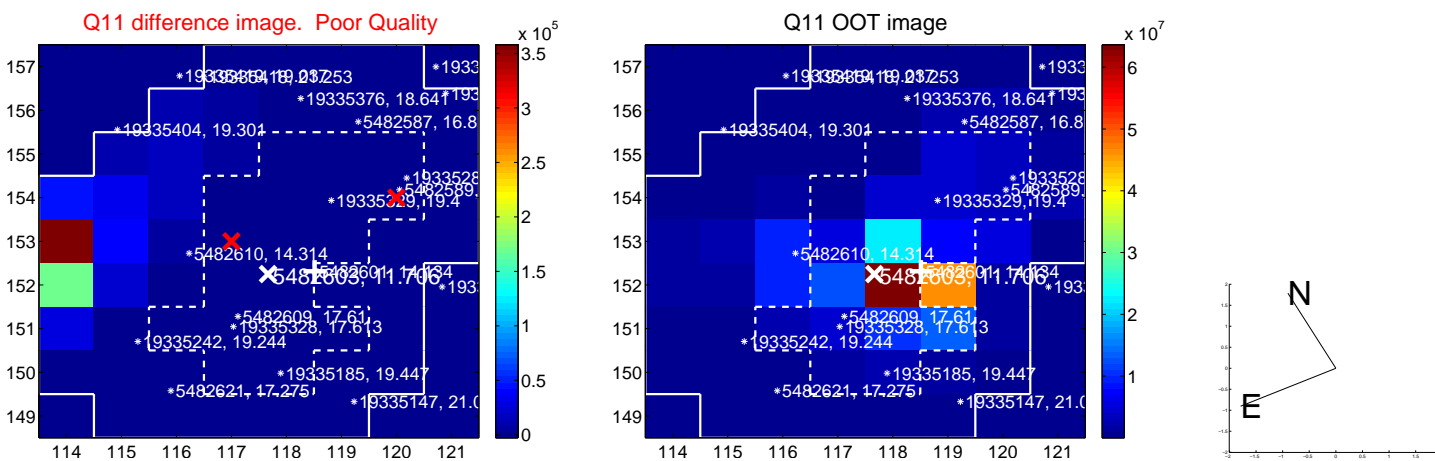
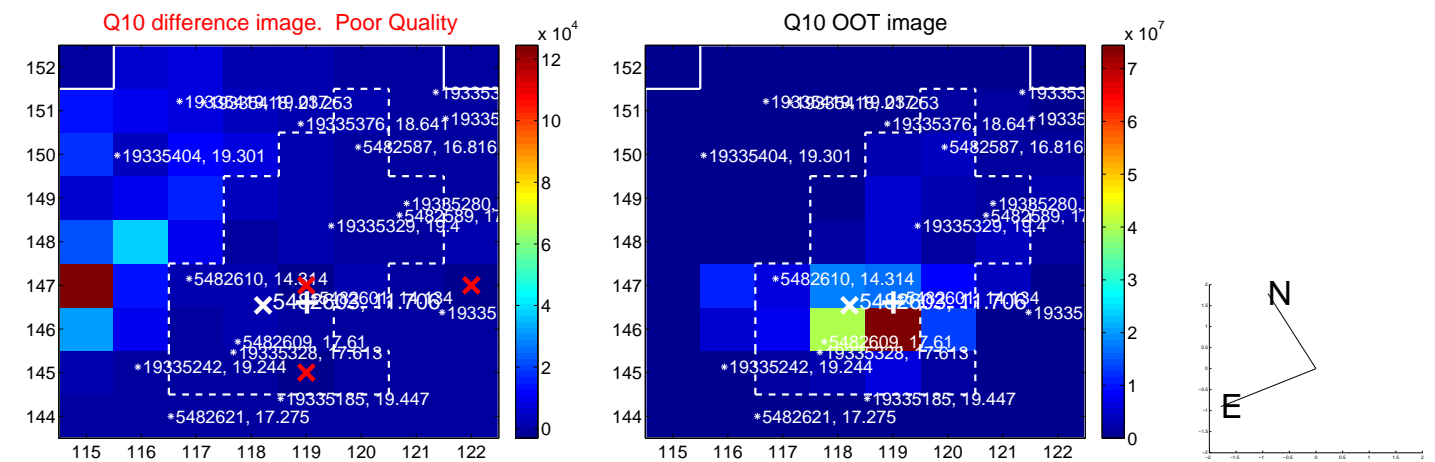
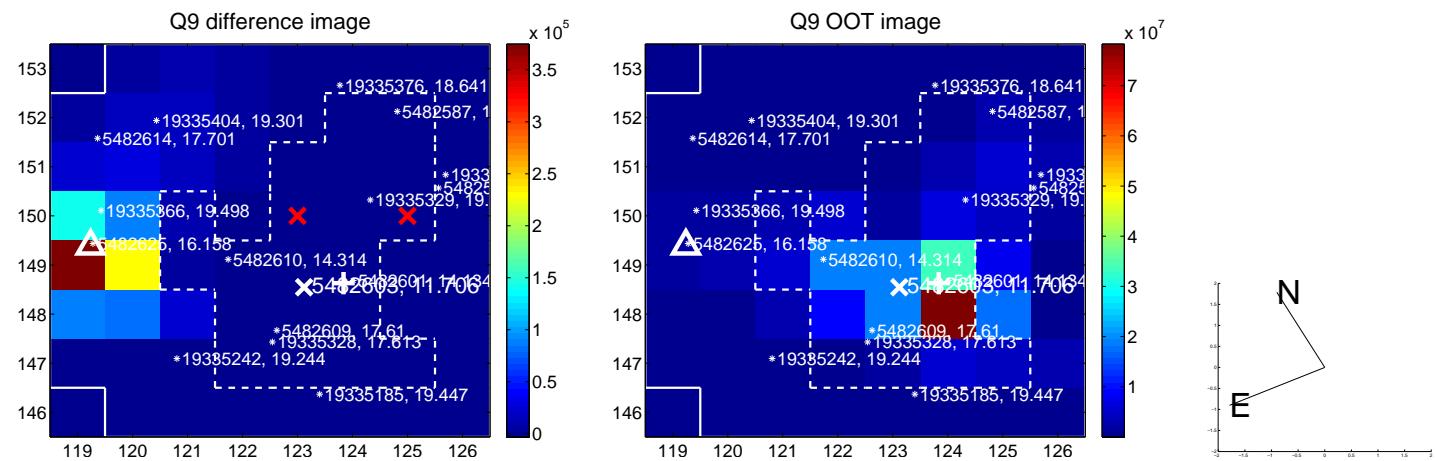
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



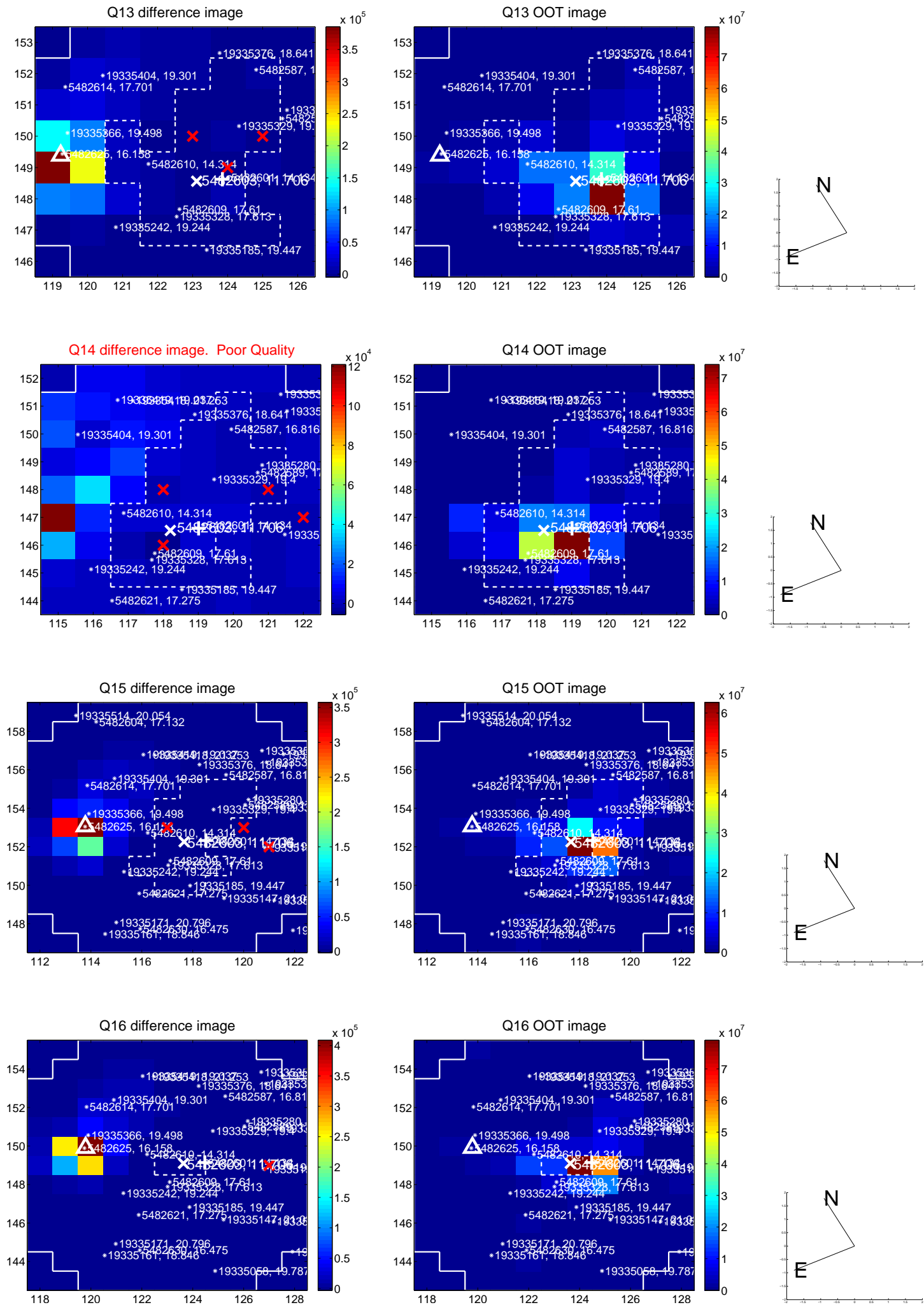
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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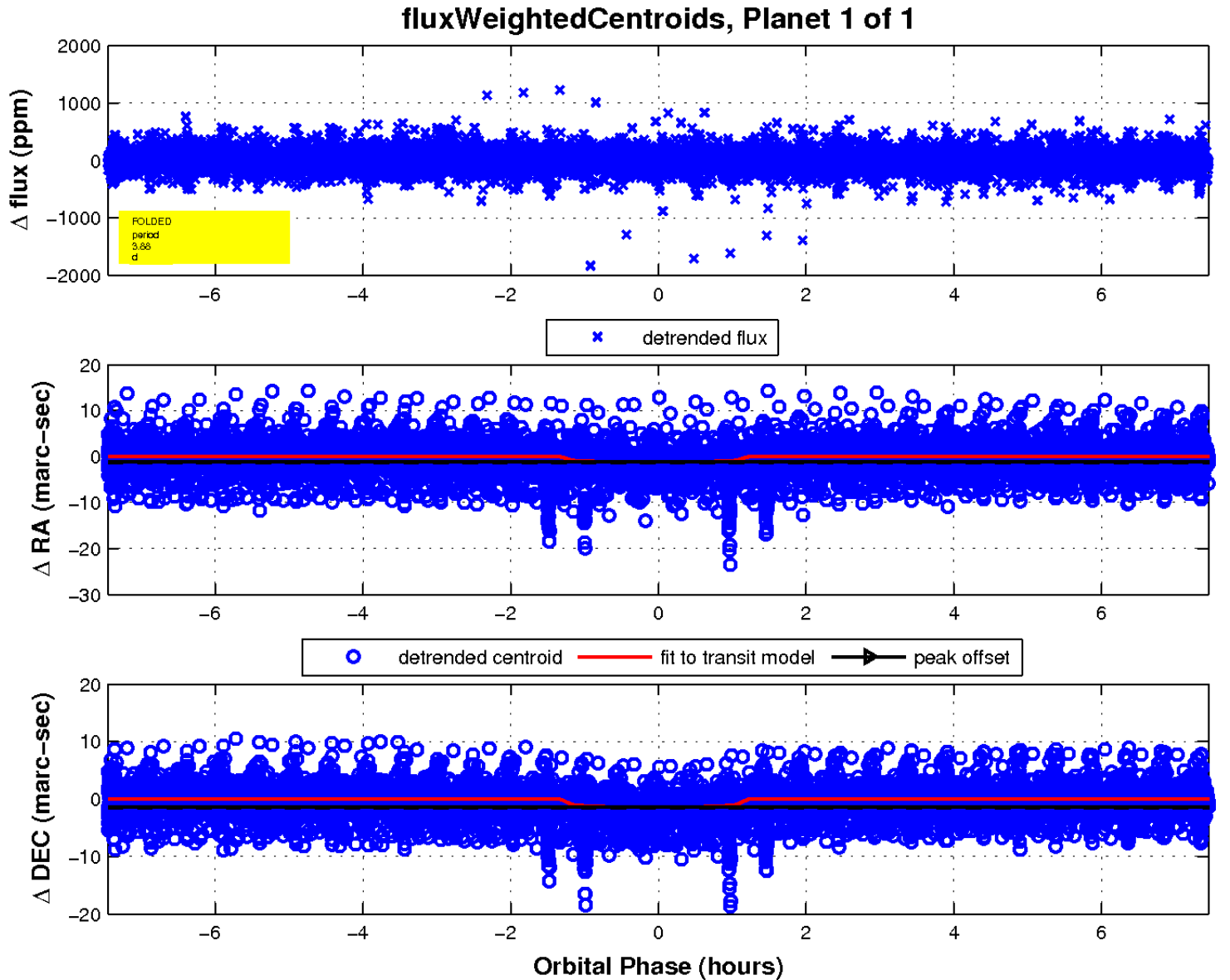
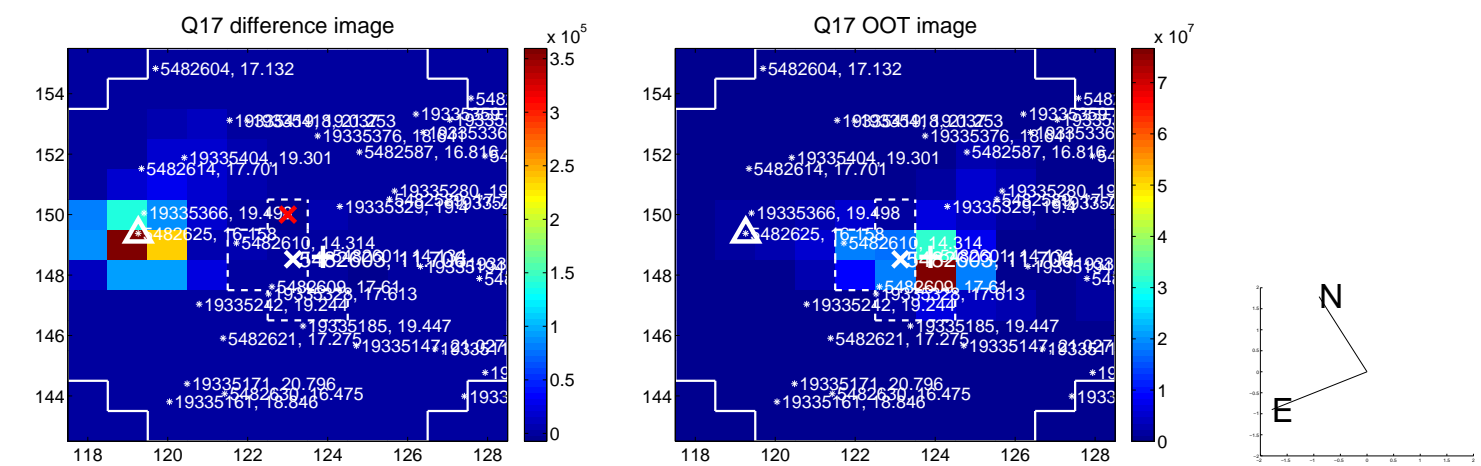


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





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



UKIRT Image

