

# KIC 011342880

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011342880-01	OBS	No	1.331546	131.647834	12.7	3.045	8.5	8.1	2.75	6867	1.24	19629.17

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011342880-01	OBS	FP	0.00	1	0	0	0	<del>SWEET_NTL</del> — <del>LPP_DV</del> — <del>CENT_SATURATED</del>

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

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

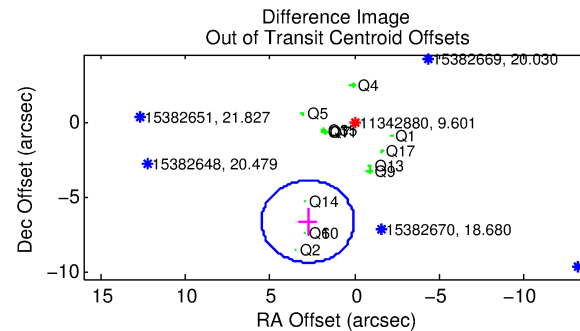
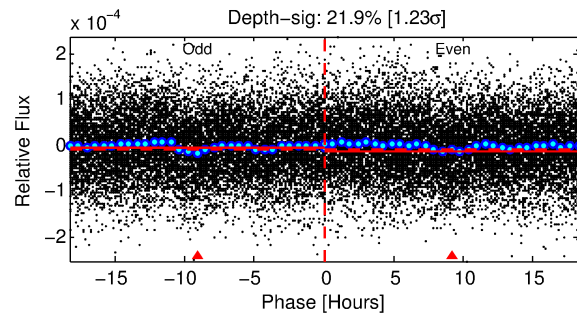
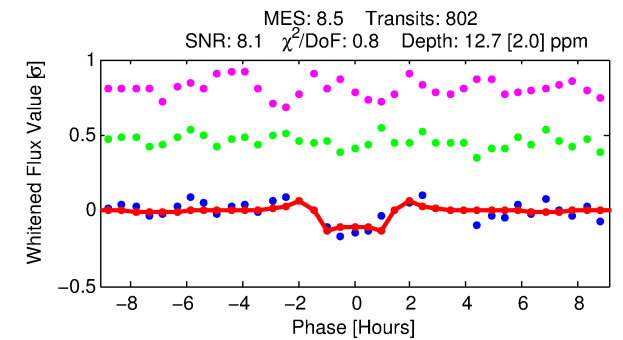
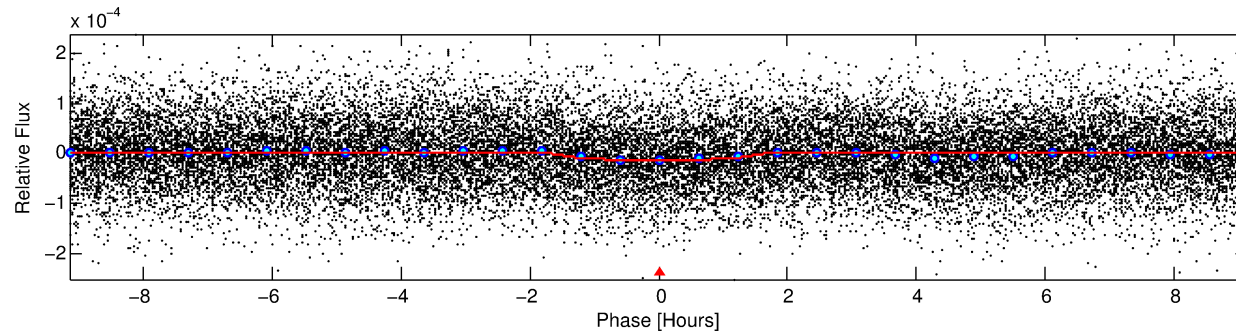
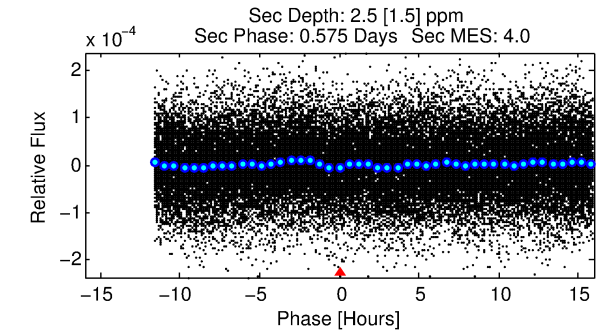
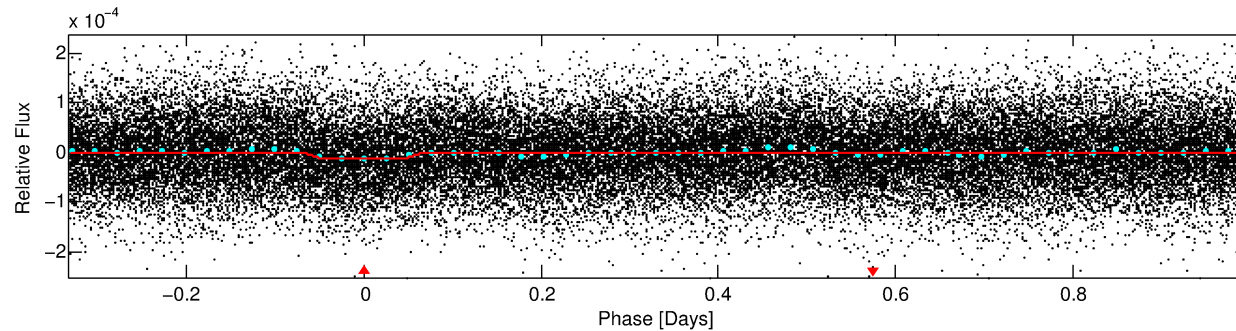
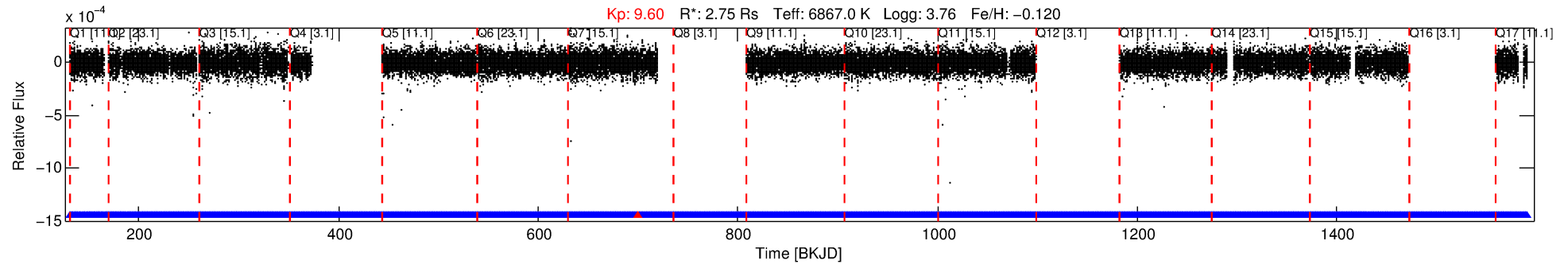
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011342880-01

No Significant Match Found

# DV One-Page Summary

KIC: 11342880 Candidate: 1 of 1 Period: 1.332 d



## DV Fit Results:

Period = 1.33155 [0.00001] d  
Epoch = 131.6478 [0.0025] BKJD  
Rp/R\* = 0.0041 [0.0008]  
a/R\* = 1.35 [0.67]  
b = 0.96 [0.08]  
Seff = 19629.17 [10020.78]  
Teq = 3018 [385] K  
Rp = 1.24 [0.49] Re  
a = 0.0278 [0.0089] AU  
Ag = 0.71 [0.61] [-0.48σ]  
Teffp = 4279 [759] K [1.48σ]

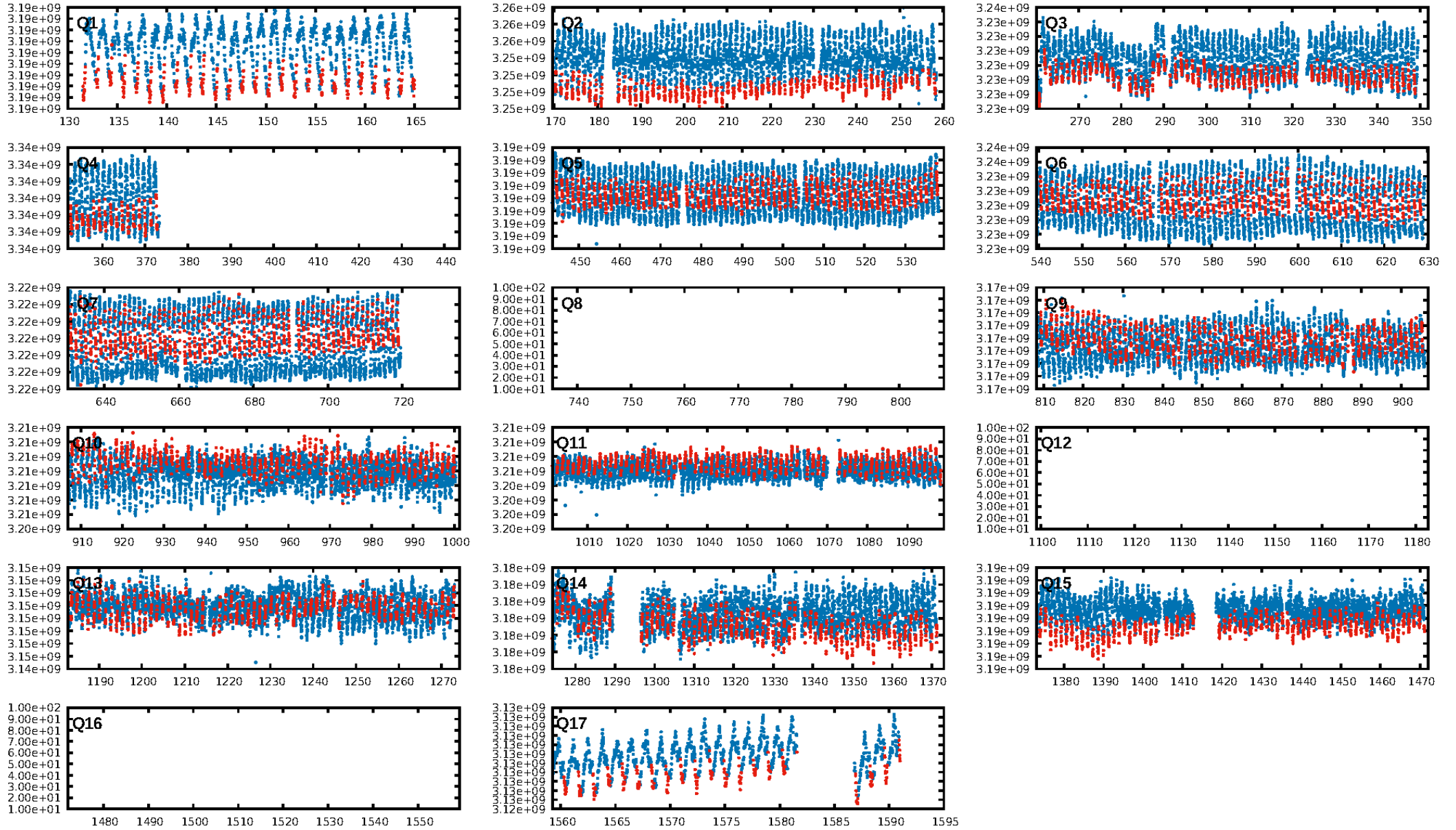
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 4.55e-14  
RollingBand-fgt: 1.00 [739/740]  
GhostDiagnostic-chr: N/A  
Centroid-sig: 0.1%  
Centroid-so: 3.057 arcsec [3.39σ]  
OotOffset-rm: 7.218 arcsec [7.91σ]  
KicOffset-rm: 9.440 arcsec [8.99σ]  
OotOffset-st: 4/4/1/5 [14]  
KicOffset-st: 4/4/1/5 [14]  
DiffImageQuality-fgm: 0.07 [1/14]  
DiffImageOverlap-fno: 1.00 [14/14]

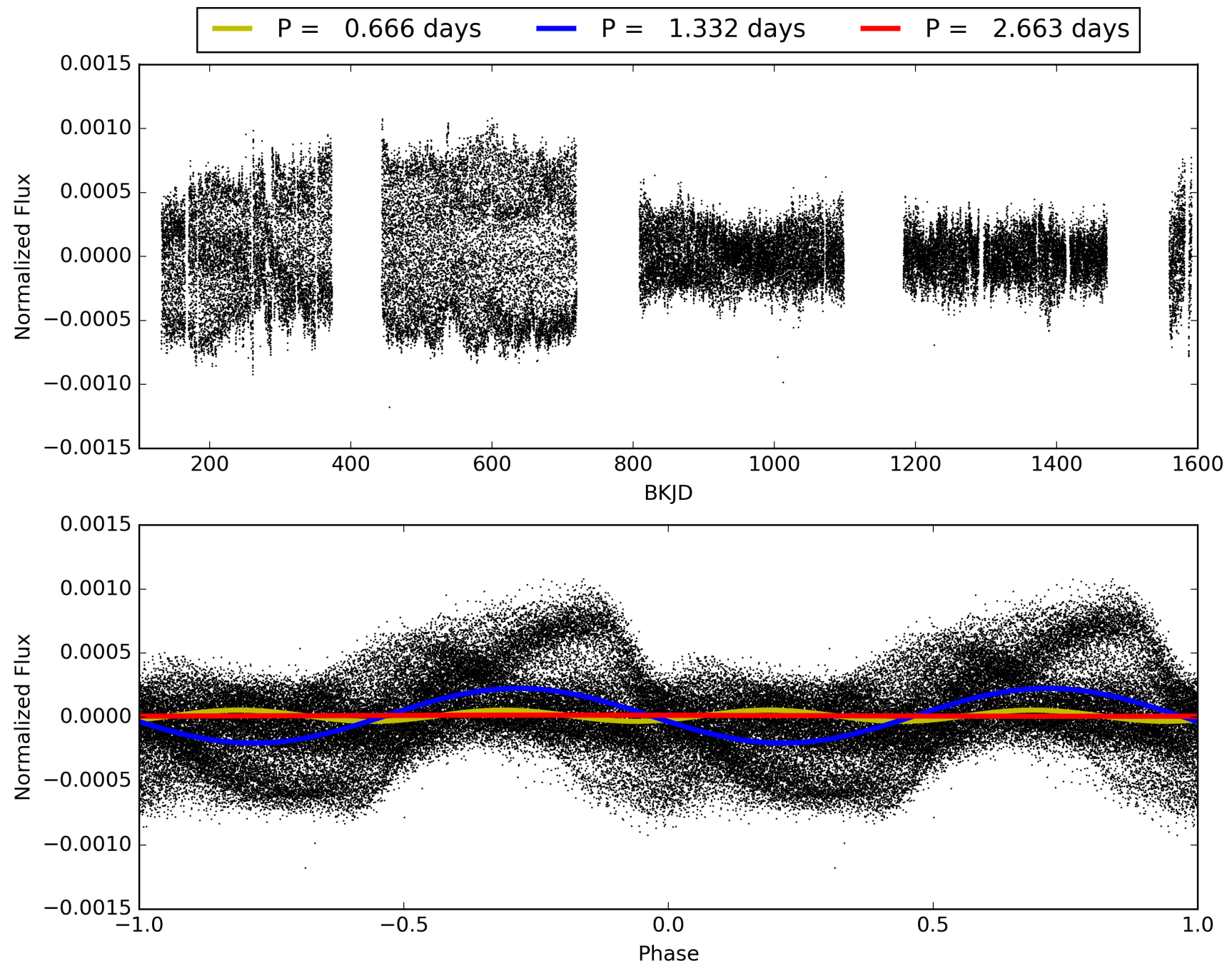
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:29:42 Z

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

# TCE 011342880-01, PDC Light Curves

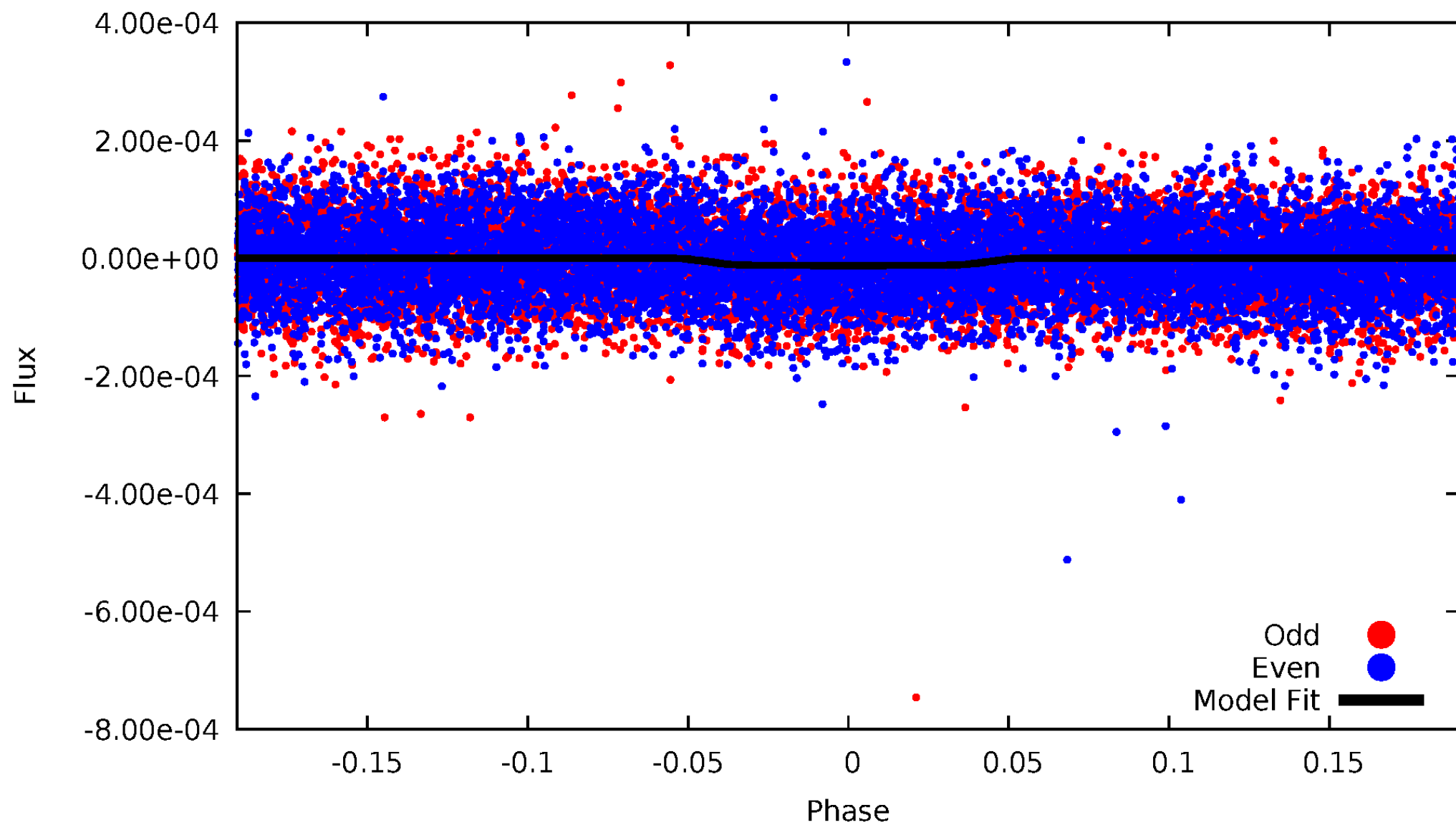


TCE 011342880-01



# DV Odd/Even

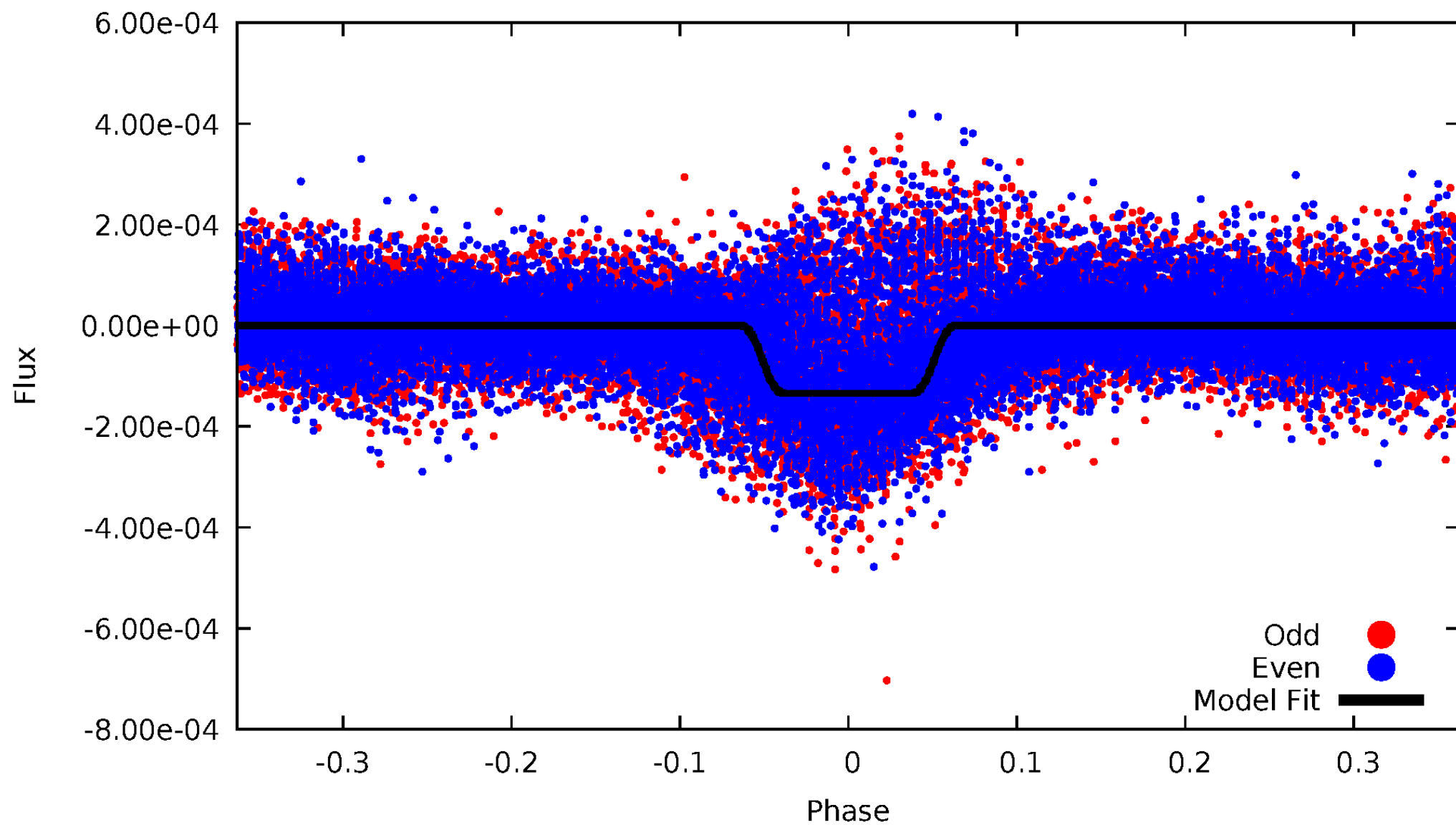
TCE 011342880-01



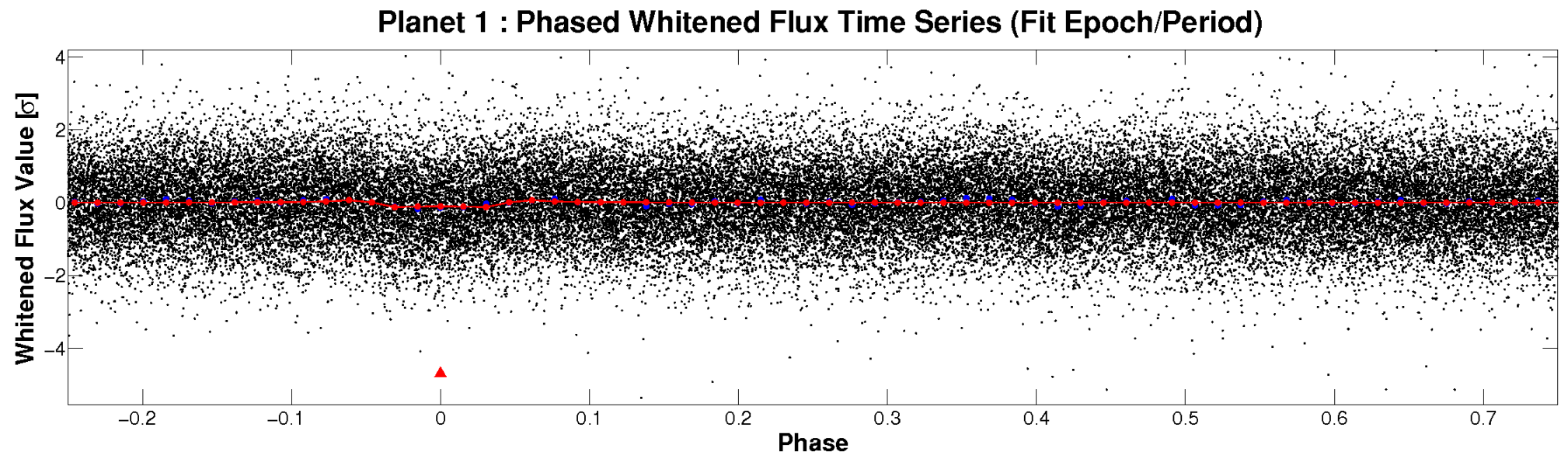
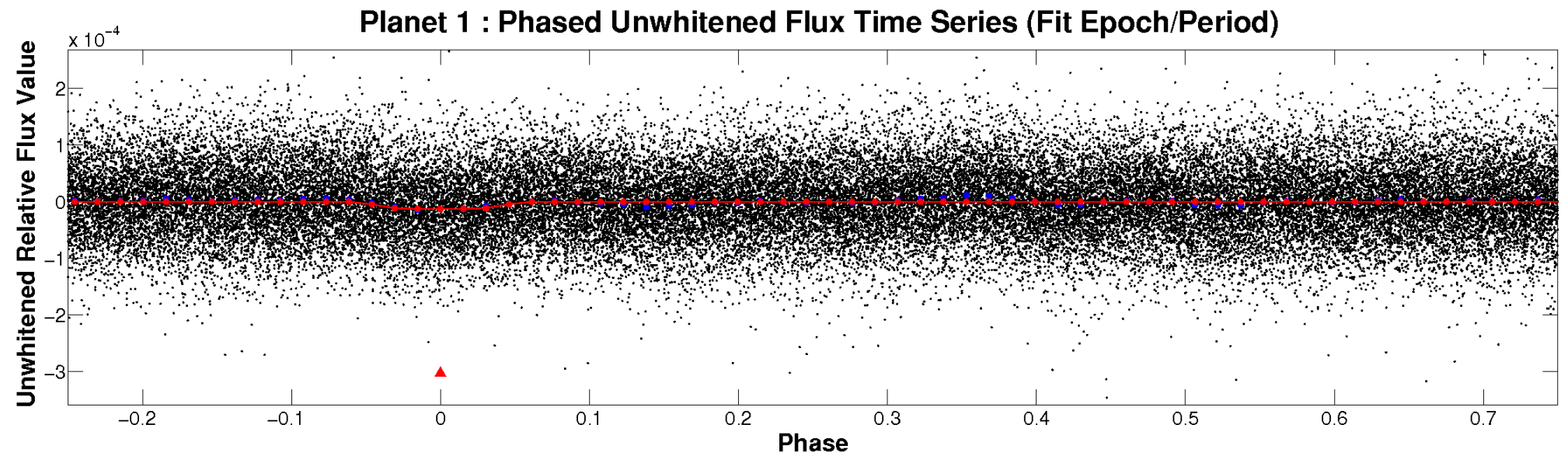


# ALT Odd/Even

TCE 011342880-01

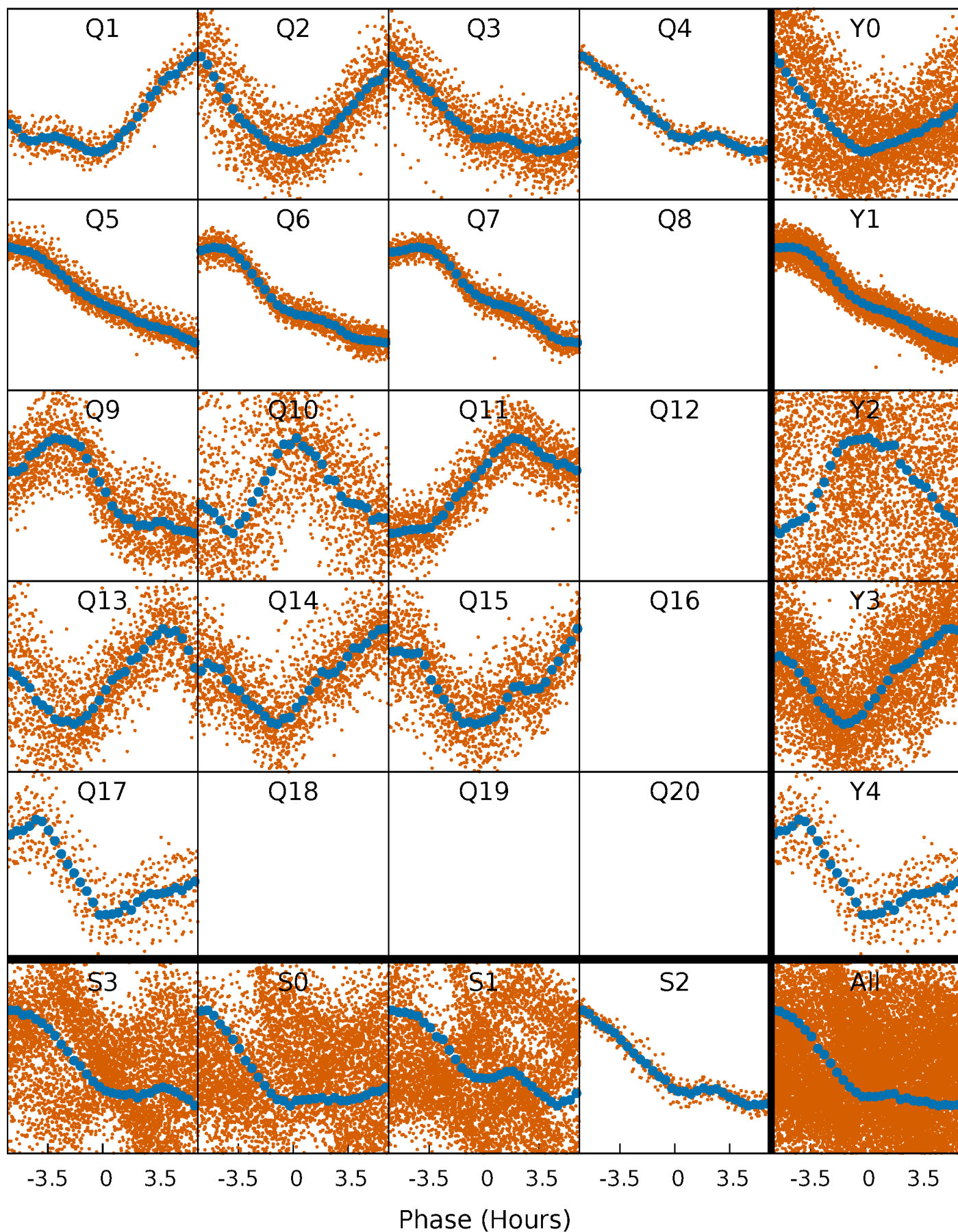


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

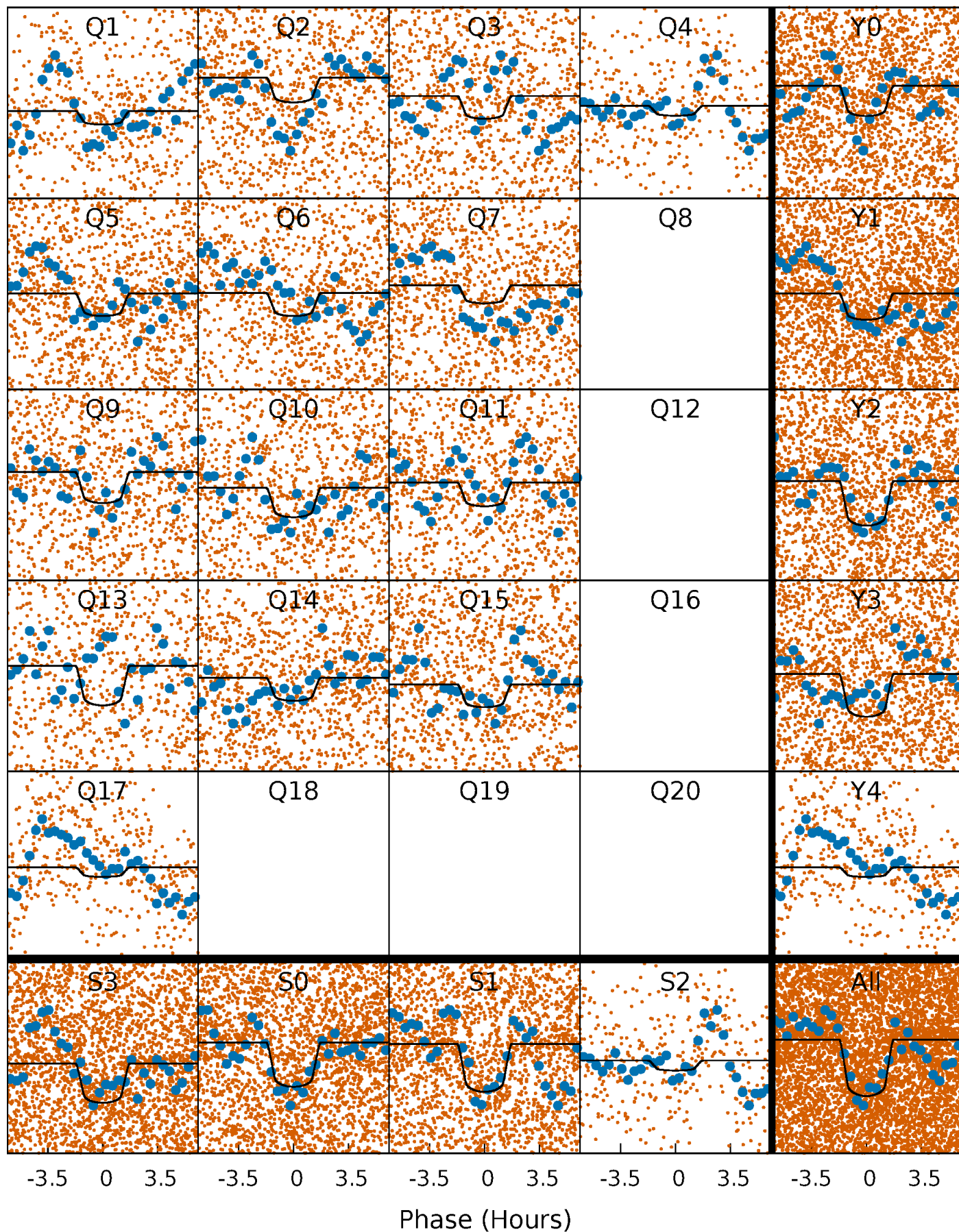
TCE 011342880-01 P= 1.331546 Days  $T_0=131.647834$  (BKJD)





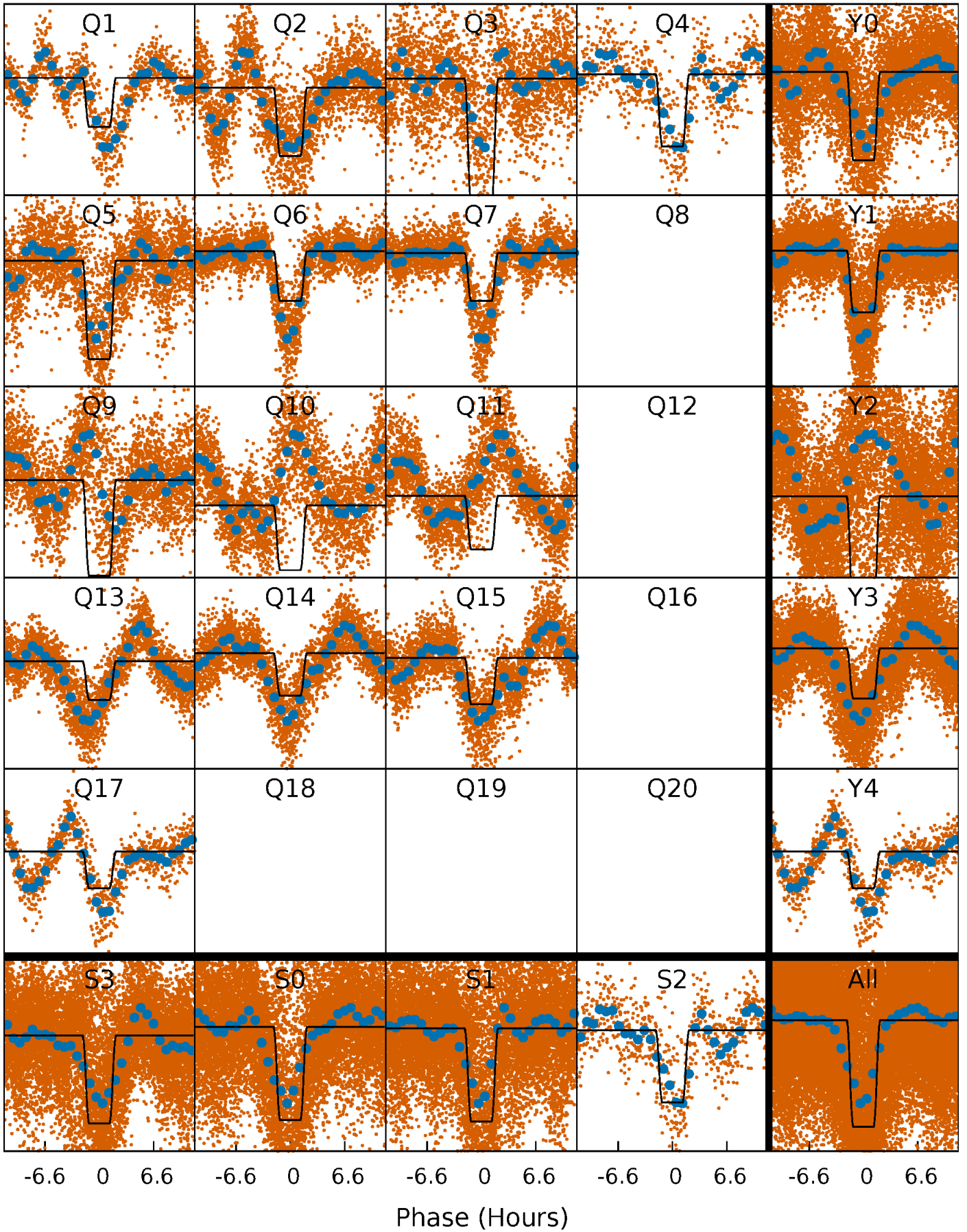
# DV Quarter-Phased Transit Curves

TCE 011342880-01 P= 1.331546 Days  $T_0=131.647834$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

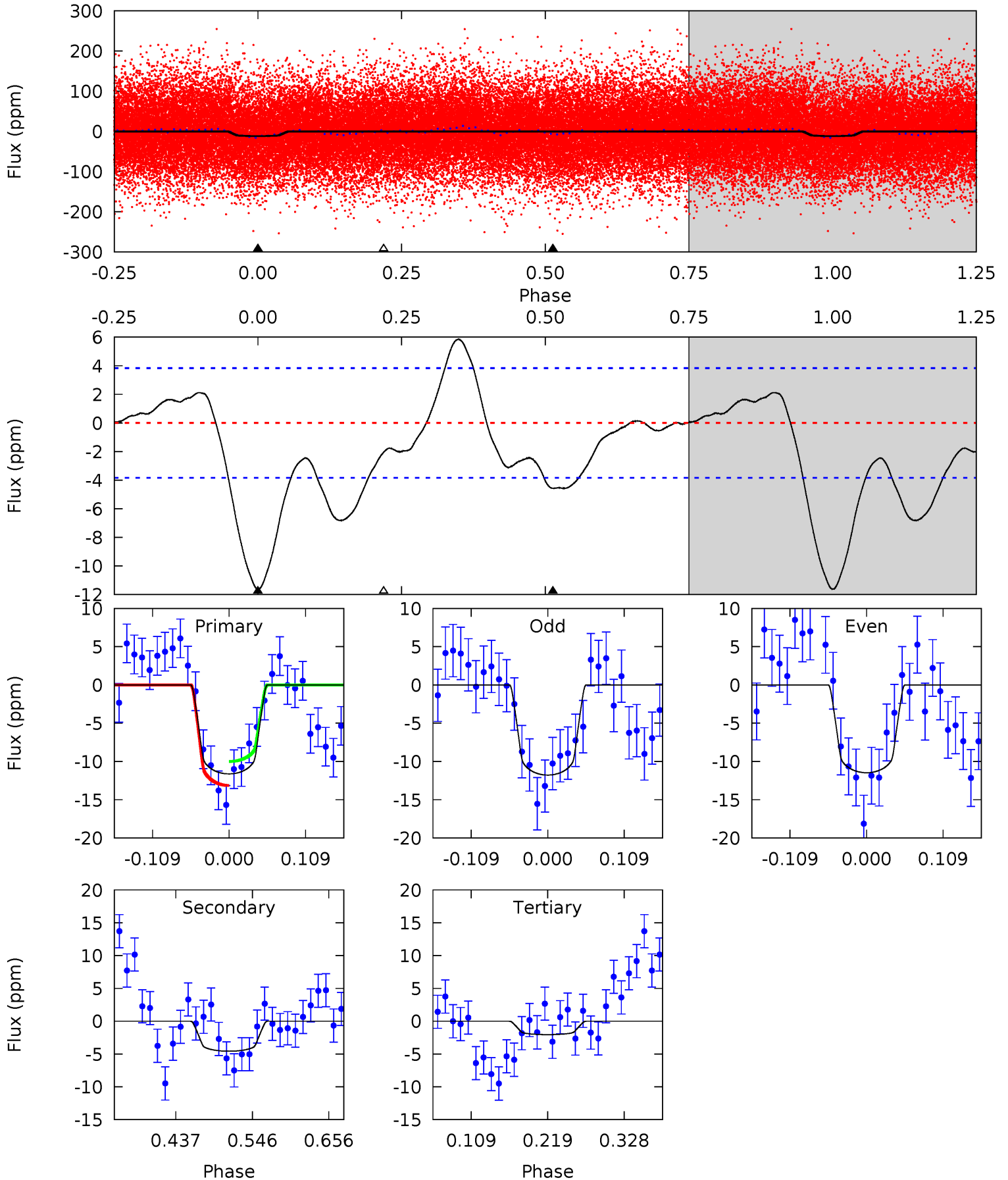
TCE 011342880-01 P= 1.331553 Days  $T_0=131.615609$  (BKJD)



# DV Model-Shift Uniqueness Test

011342880-01, P = 1.331546 Days, E = 130.316288 Days

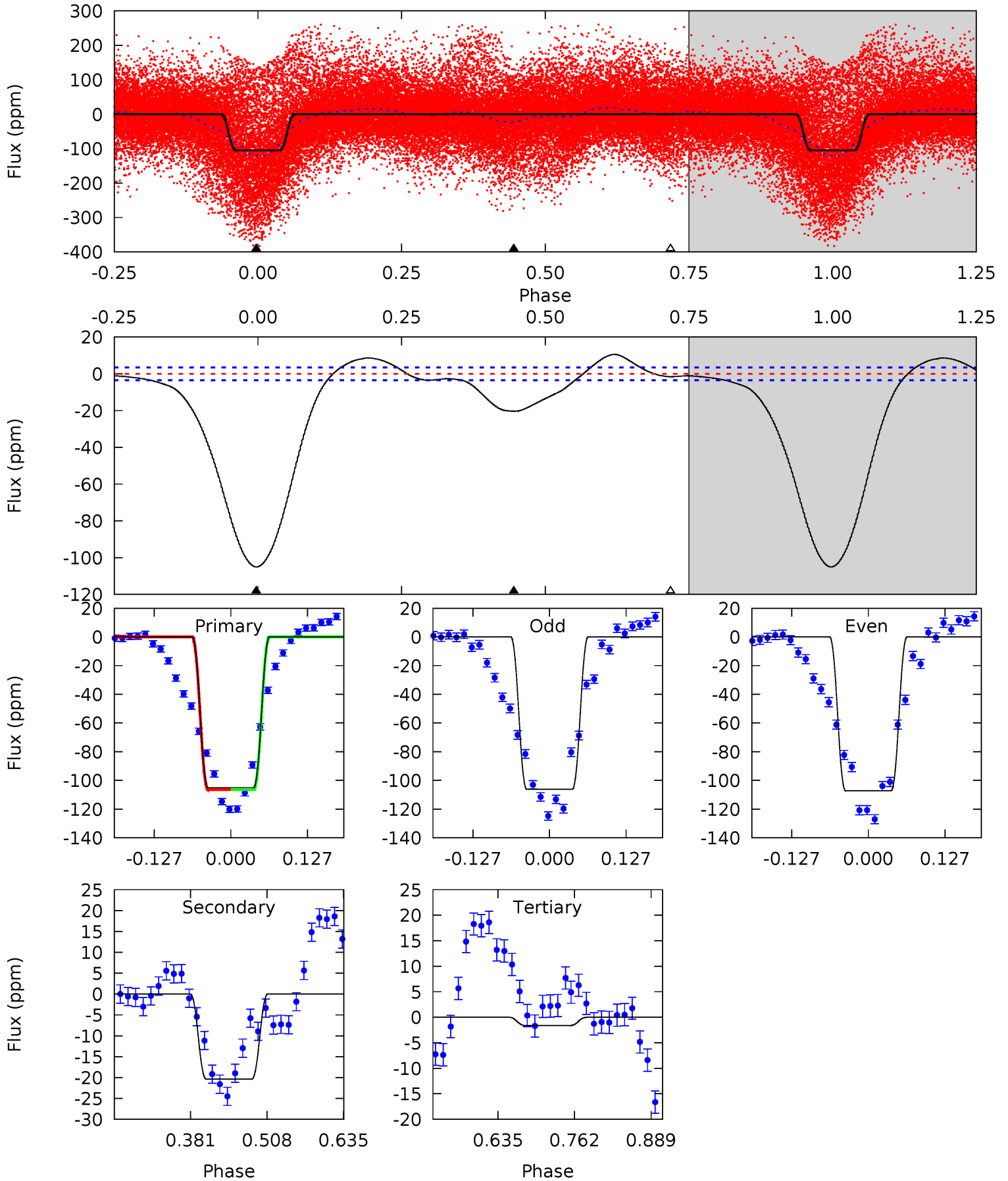
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	5.43	2.44	0	4.55	1.60	3.54	11.4	13.8	2.99	5.43	0.18	0.89	0.33	1.86



# Alt Model-Shift Uniqueness Test

011342880-01, P = 1.331553 Days, E = 130.284056 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
135.0	26.2	2.07	0	4.51	1.53	6.70	132.9	135.0	24.1	26.2	0.66	0.80	0.09	0.06





### Stellar Parameters For KIC 011342880

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6867^{+153}_{-204}$	$3.764^{+0.285}_{-0.095}$	$-0.120^{+0.300}_{-0.250}$	$2.755^{+0.485}_{-0.970}$	$1.607^{+0.232}_{-0.283}$	$0.108^{+0.207}_{-0.032}$
	+2%/-3%	+8%/-3%	+250%/-208%	+18%/-35%	+14%/-18%	+191%/-30%
Source	PHO1	FLK73	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 011342880-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-5 \pm 1$	$1.16^{+0.32}_{-0.29}$	$4145^{+235}_{-390}$	$4740^{+637}_{-461}$	$1.420^{+1.130}_{-0.537}$
Alt.	$-20 \pm 1$	$3.36^{+0.53}_{-0.59}$	$4133^{+243}_{-320}$	$4072^{+212}_{-239}$	$0.769^{+0.332}_{-0.172}$

$T_{\text{max}}$  = 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

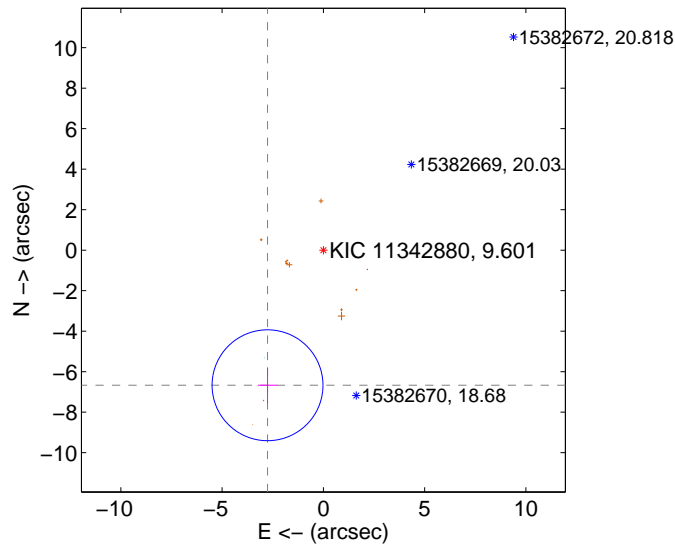
Supplemental centroid analysis for 011342880-01. **Kepler magnitude: 9.60.** Transit SNR 8.11

There are 1 quarters with good PRF difference image offsets

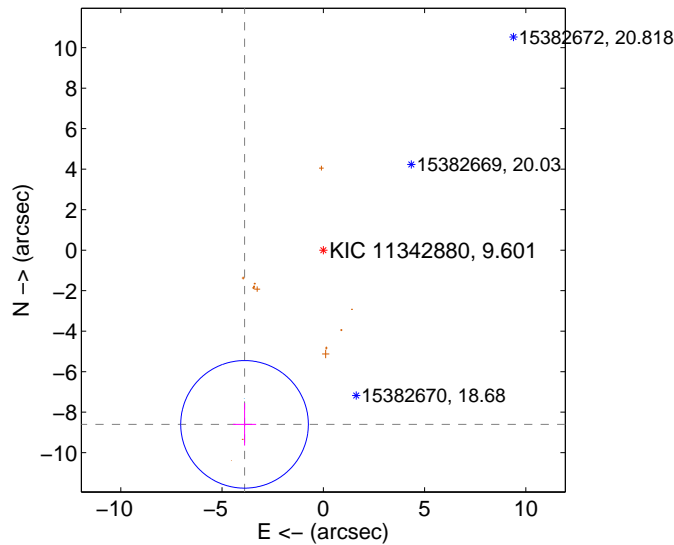
The OOT PRF centroid is offset from the target star catalog position by about 2.12 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b><math>7.218 \pm 0.913</math></b>	<b>7.91</b>	$2.757 \pm 0.481$	$-6.671 \pm 0.886$
PRF-fit source offset from KIC position	<b><math>9.440 \pm 1.050</math></b>	<b>8.99</b>	$3.890 \pm 0.572$	$-8.601 \pm 1.047$
photometric centroid source offset	<b><math>3.06 \pm 0.90</math></b>	<b>3.39</b>	$1.83 \pm 0.90$	$-2.45 \pm 0.90$

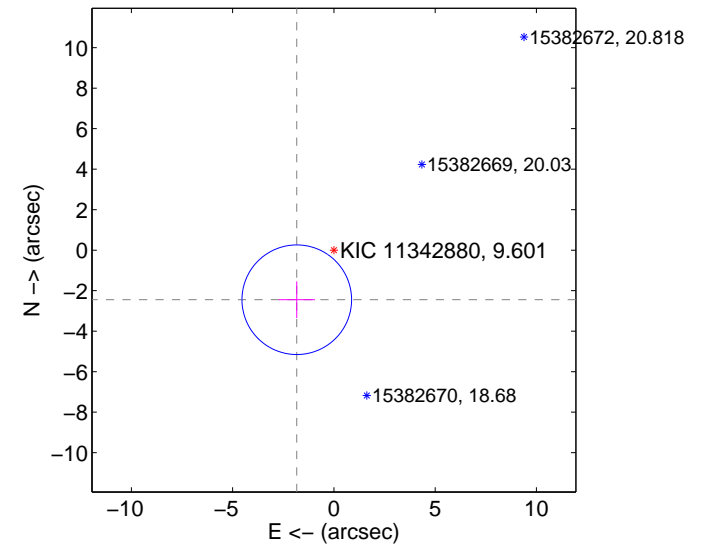
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

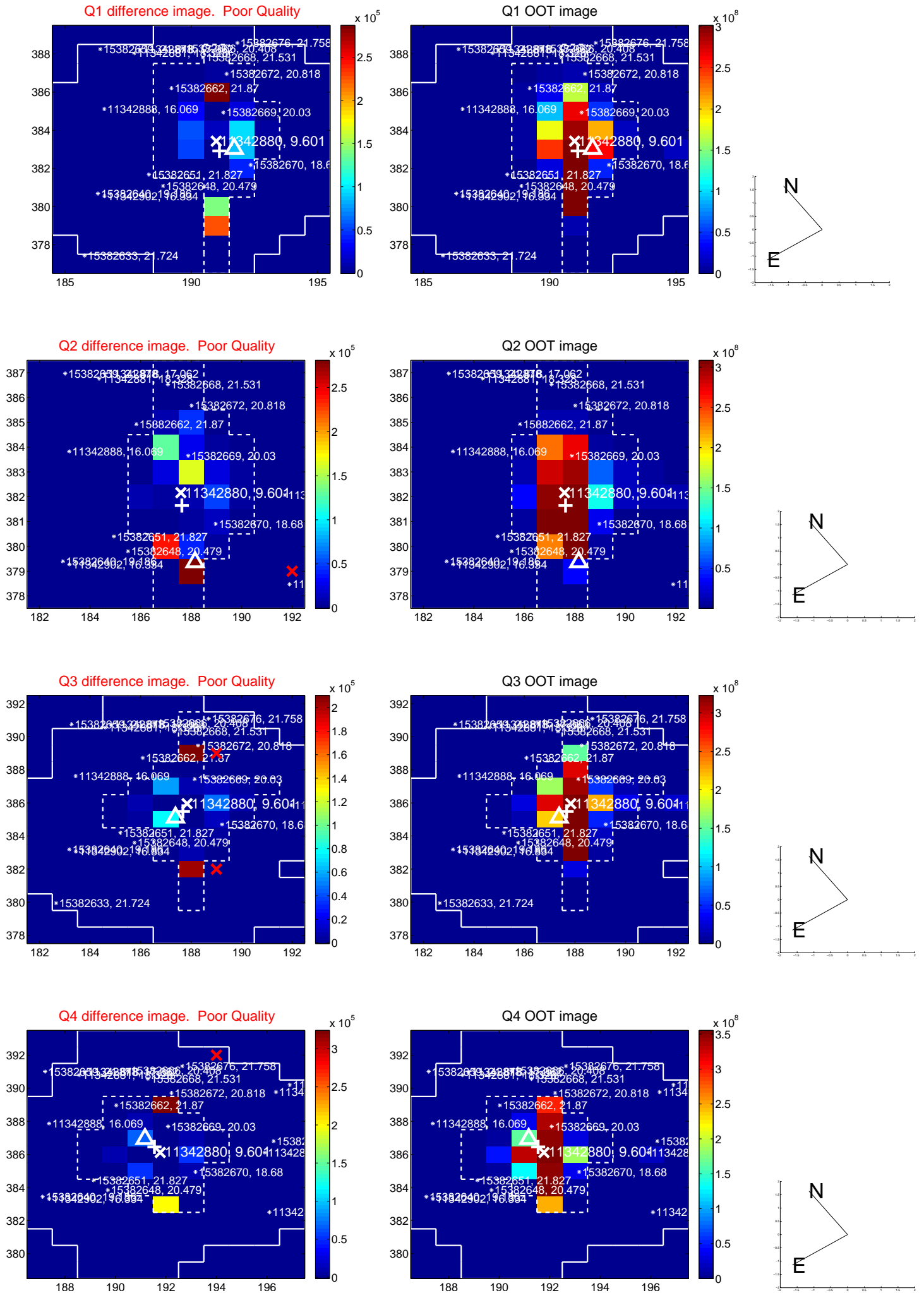


offset from photometric centroids

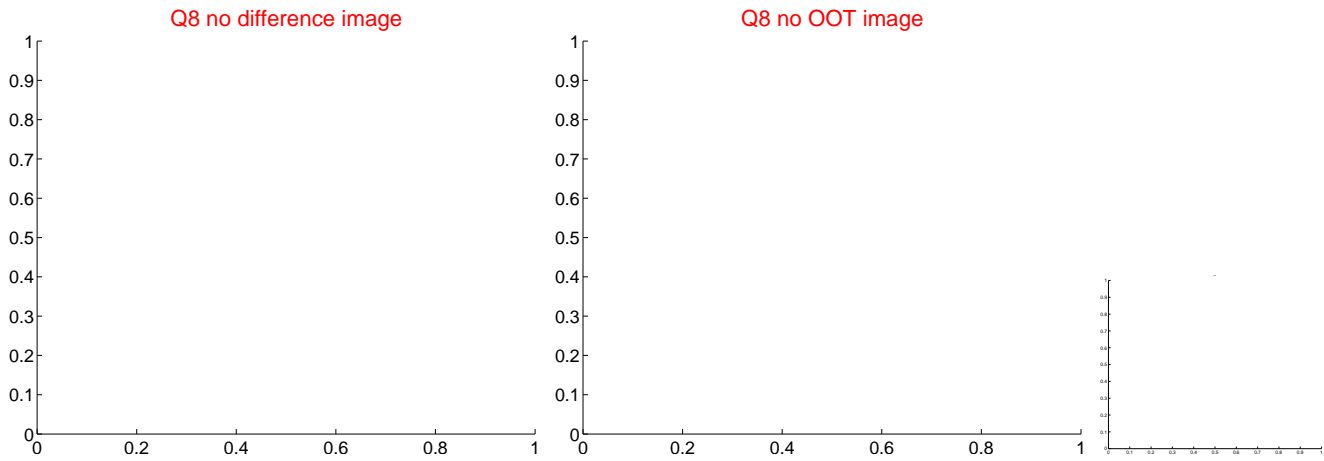
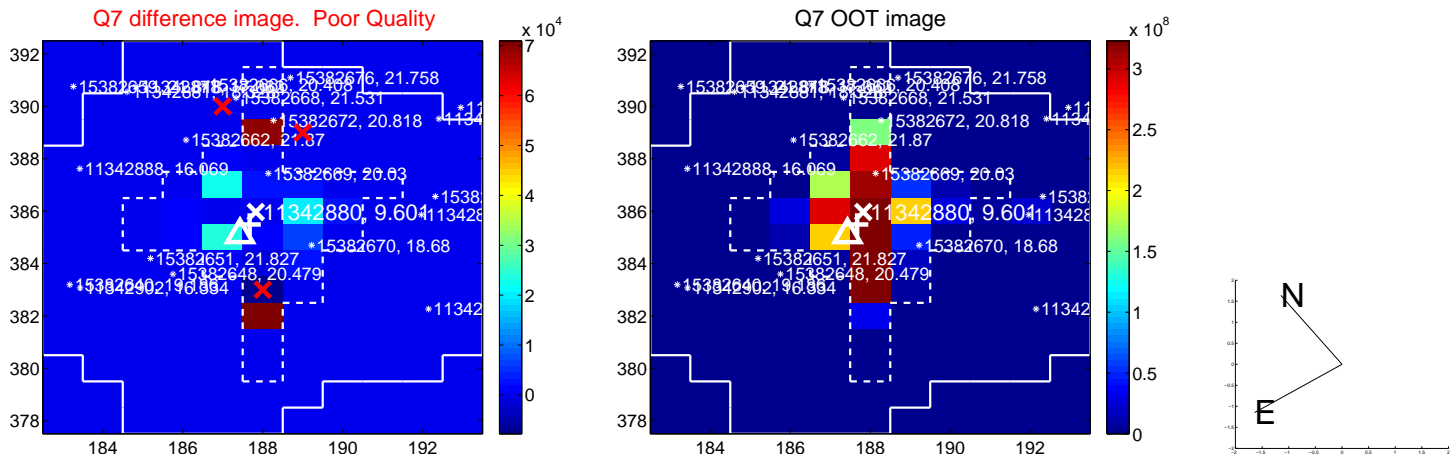
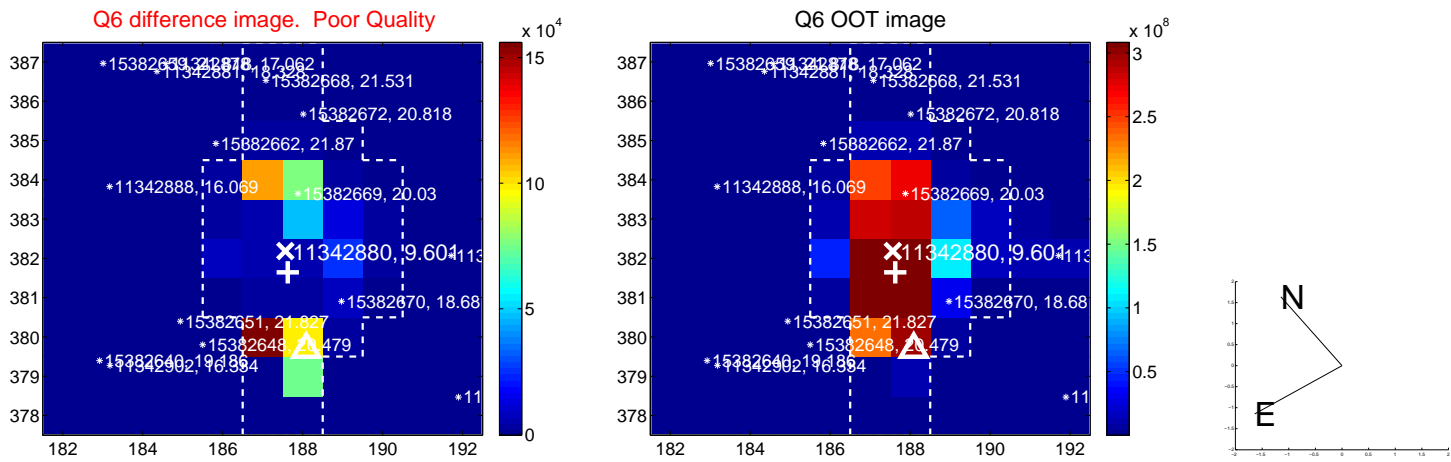
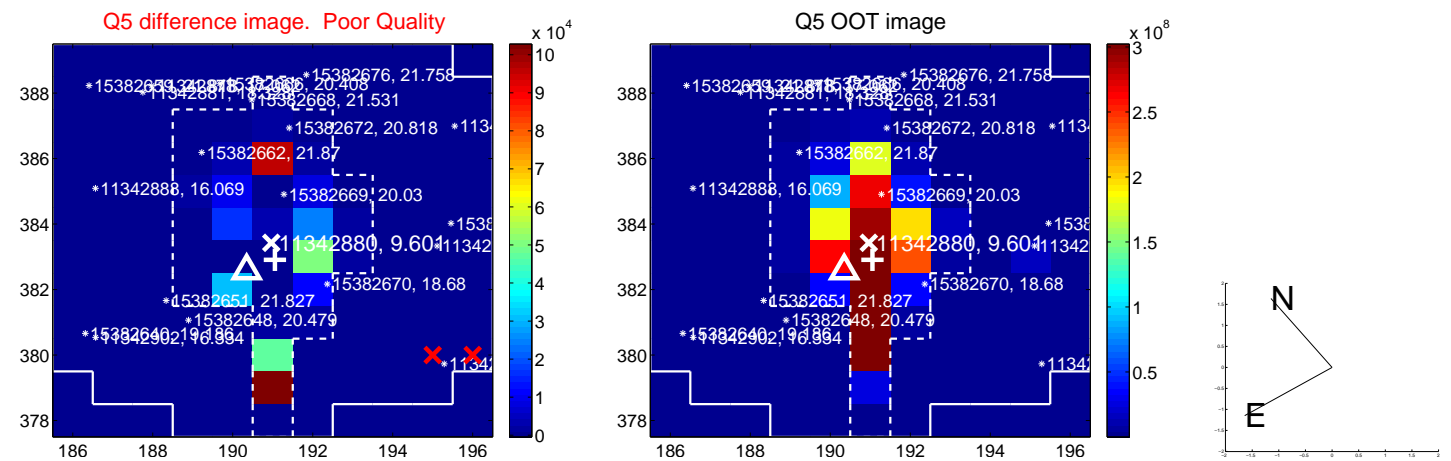


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

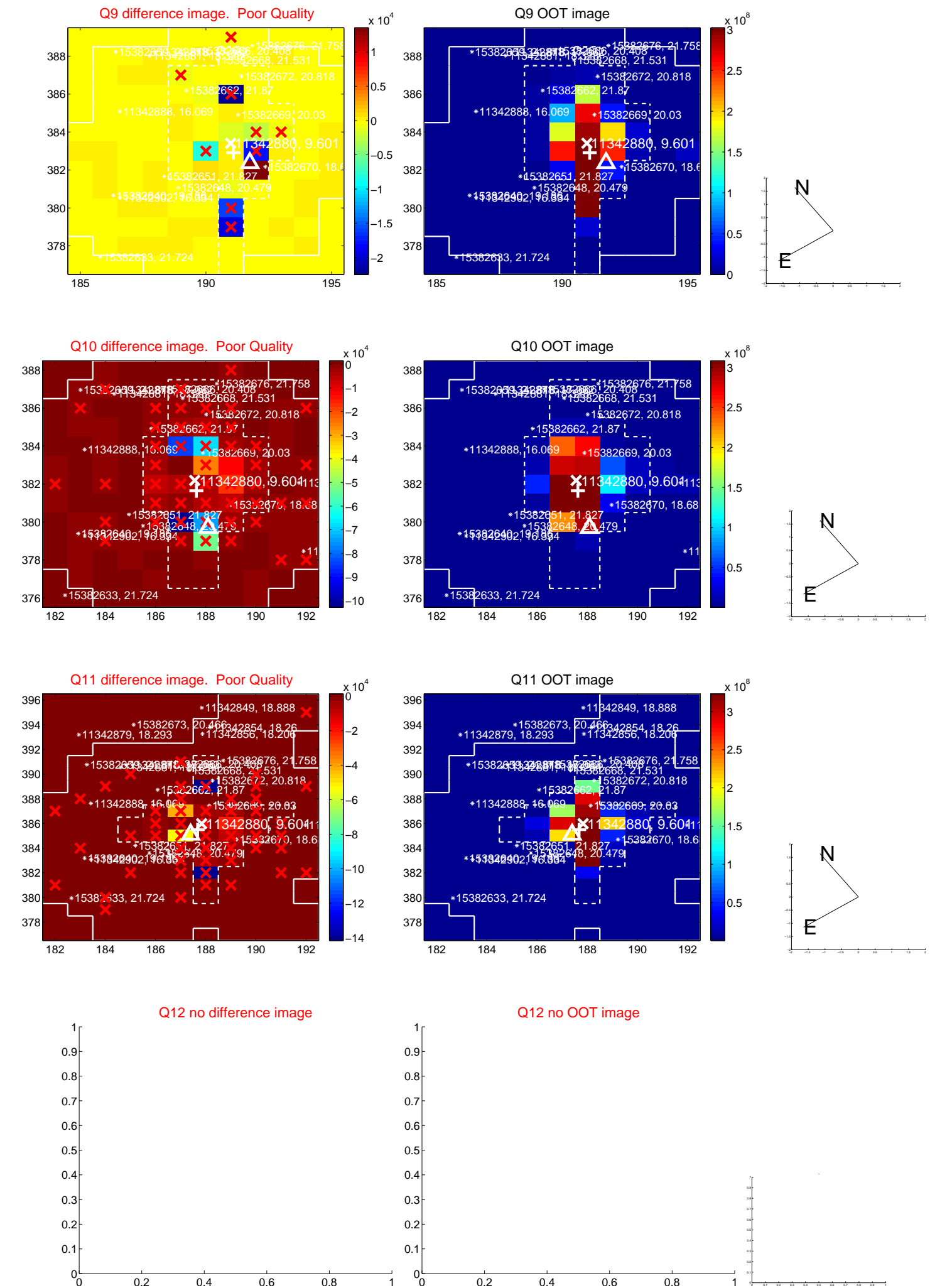
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



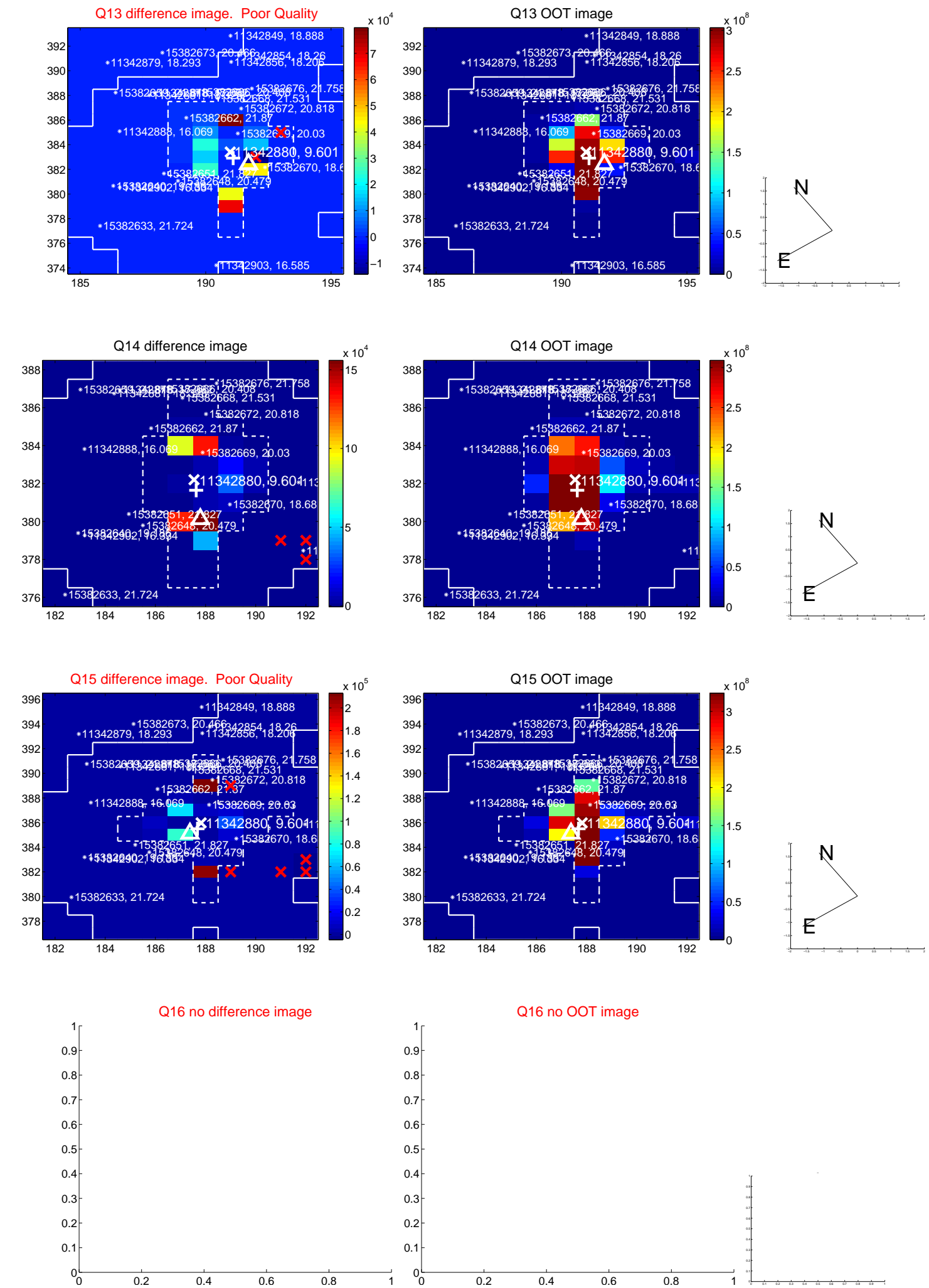
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

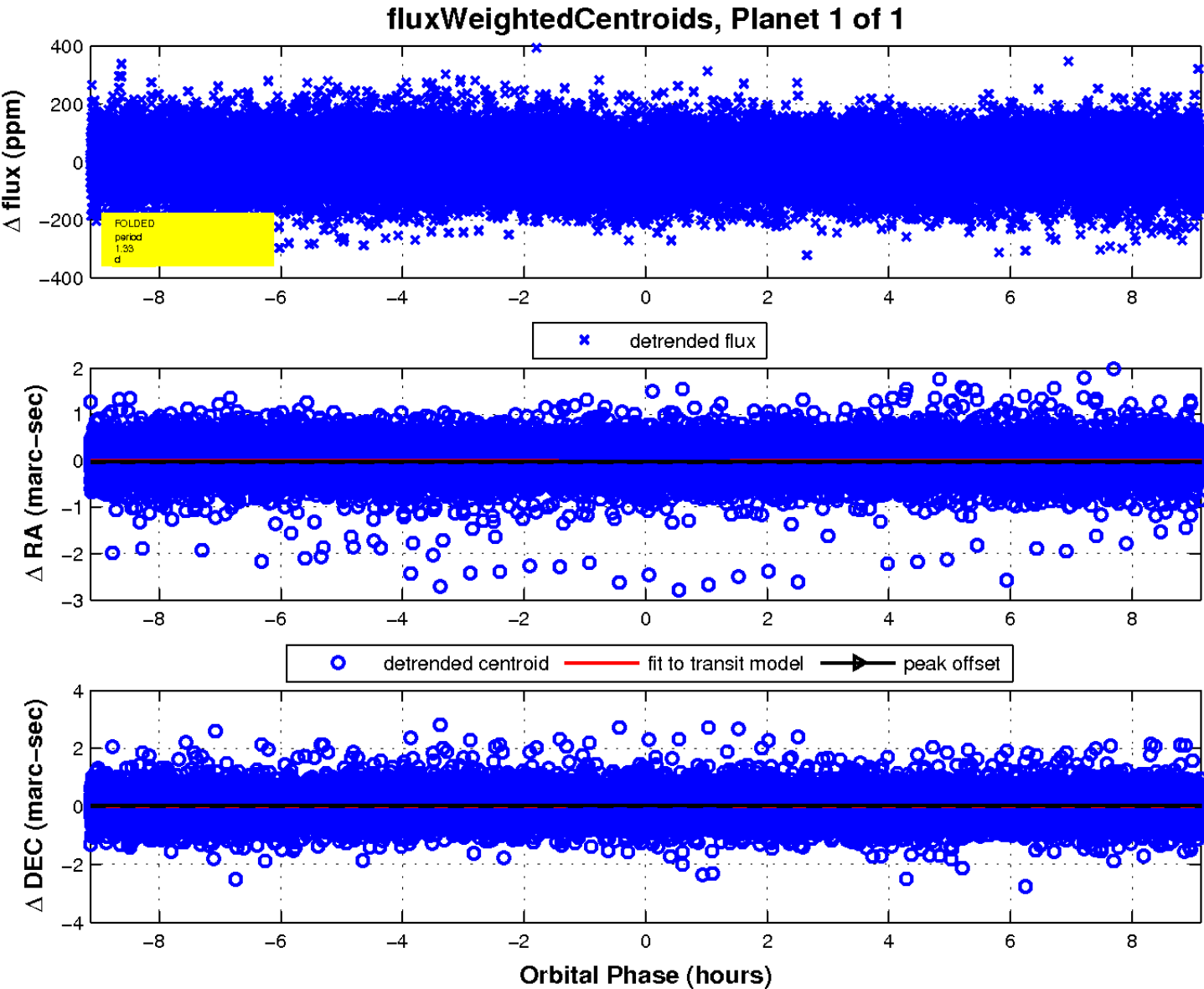
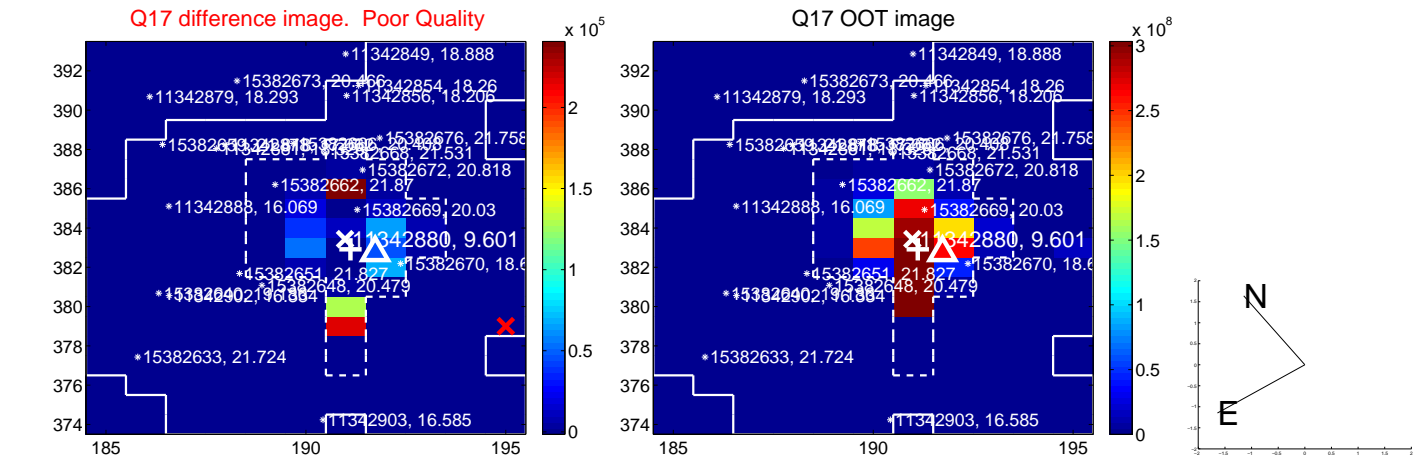


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





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



UKIRT Image

Declination

