

# KIC 006928906

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006928906-01	OBS	3242.01	1.549592	132.459654	9.4	14.050	11.5	8.4	2.80	7382	0.87	19341.31

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006928906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

**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.

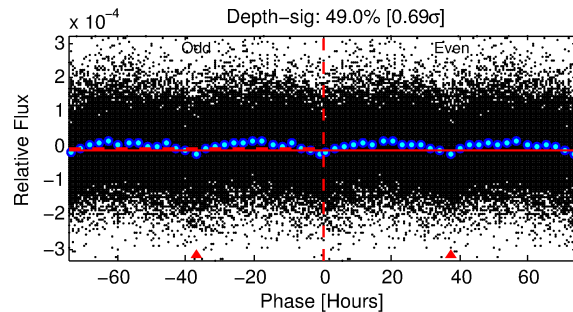
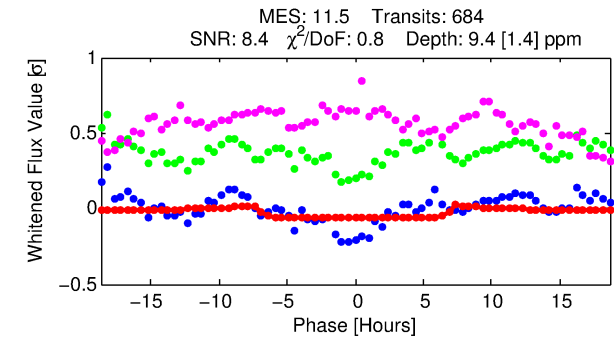
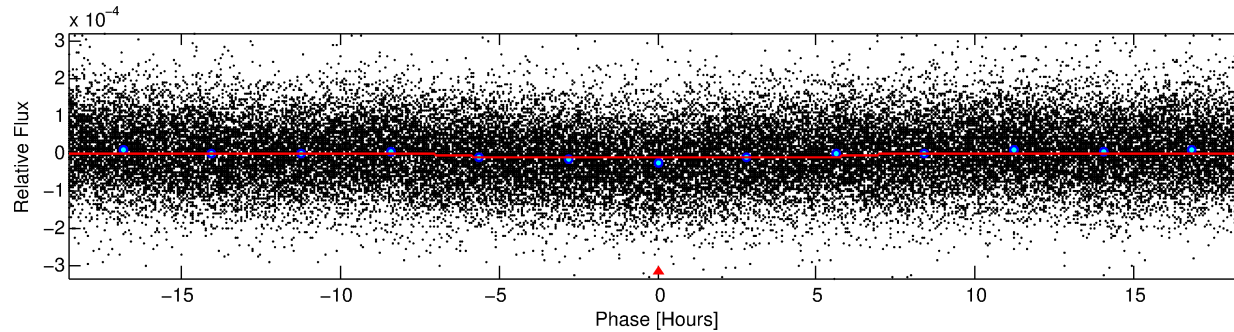
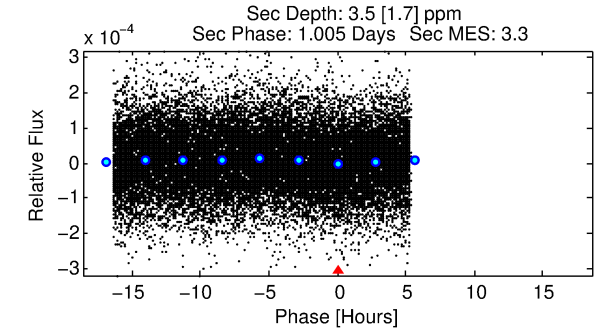
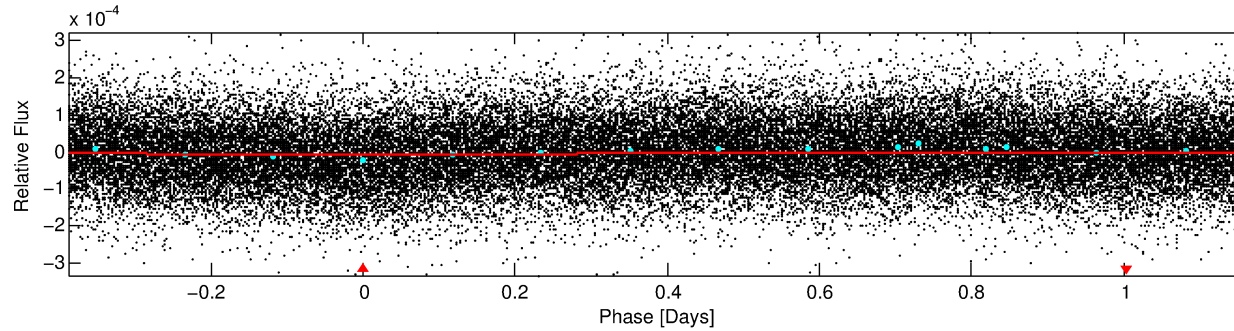
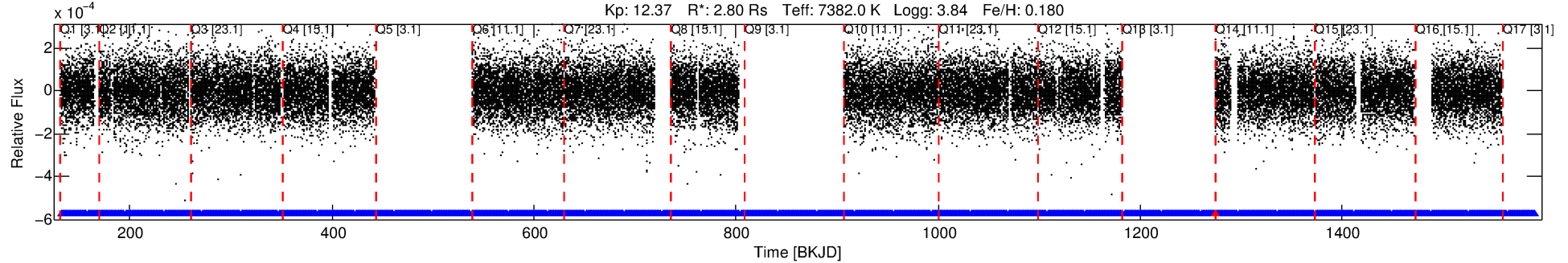
## Ephemeris Match Information For 006928906-01

No Significant Match Found

# DV One-Page Summary

KIC: 6928906 Candidate: 1 of 1 Period: 1.550 d  
KOI: K03242 Corr: No Ephemeris Match

Kp: 12.37 R\*: 2.80 Rs Teff: 7382.0 K Logg: 3.84 Fe/H: 0.180



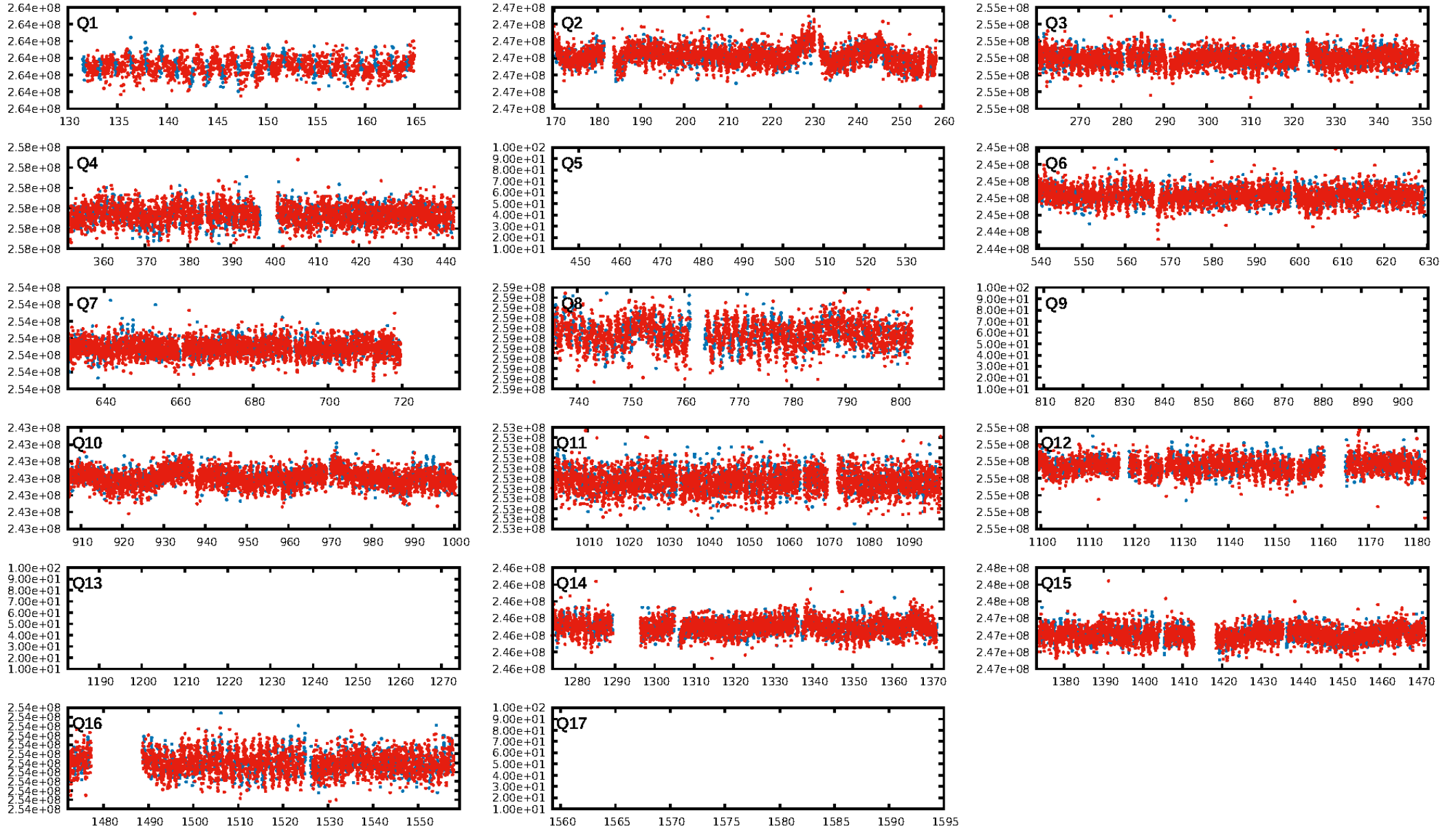
## DV Fit Results:

Period = 1.54959 [0.00003] d  
Epoch = 132.4597 [0.0091] BKJD  
Rp/R\* = 0.0028 [0.0021]  
a/R\* = 1.08 [0.69]  
b = 0.02 [256.56]  
Seff = 19341.31 [10910.78]  
Teq = 3007 [424] K  
Rp = 0.87 [0.72] Re  
a = 0.0329 [0.0115] AU  
Ag = 2.77 [4.52] [0.39σ]  
Teffp = 5998 [2331] K [1.26σ]

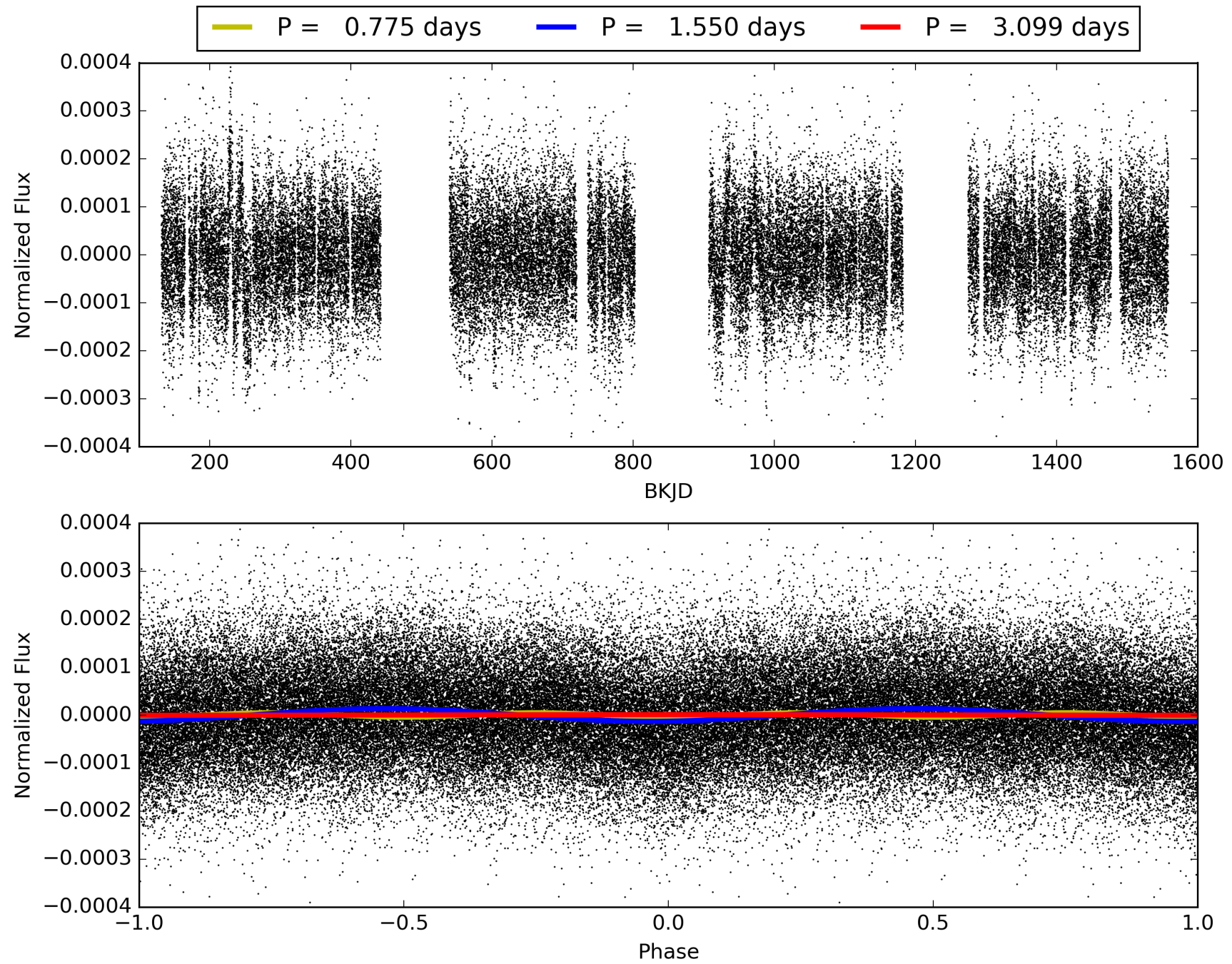
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [661/662]  
GhostDiagnostic-chr: 2.028  
Centroid-sig: 93.7%  
Centroid-so: 0.128 arcsec [0.11σ]  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0/0 [0]  
KicOffset-st: 0/0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fno: 1.00 [13/13]

# TCE 006928906-01, PDC Light Curves

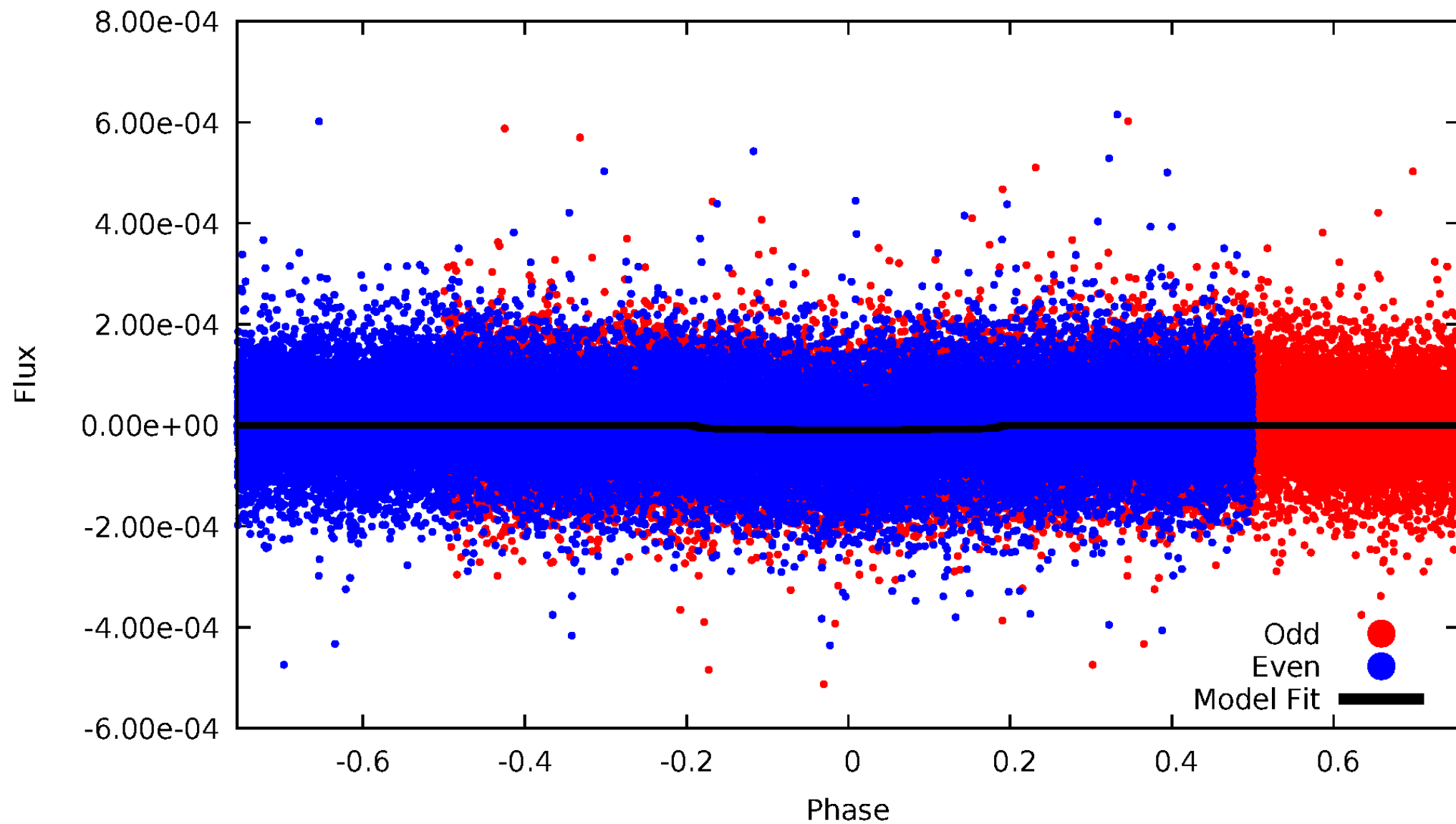


TCE 006928906-01



# DV Odd/Even

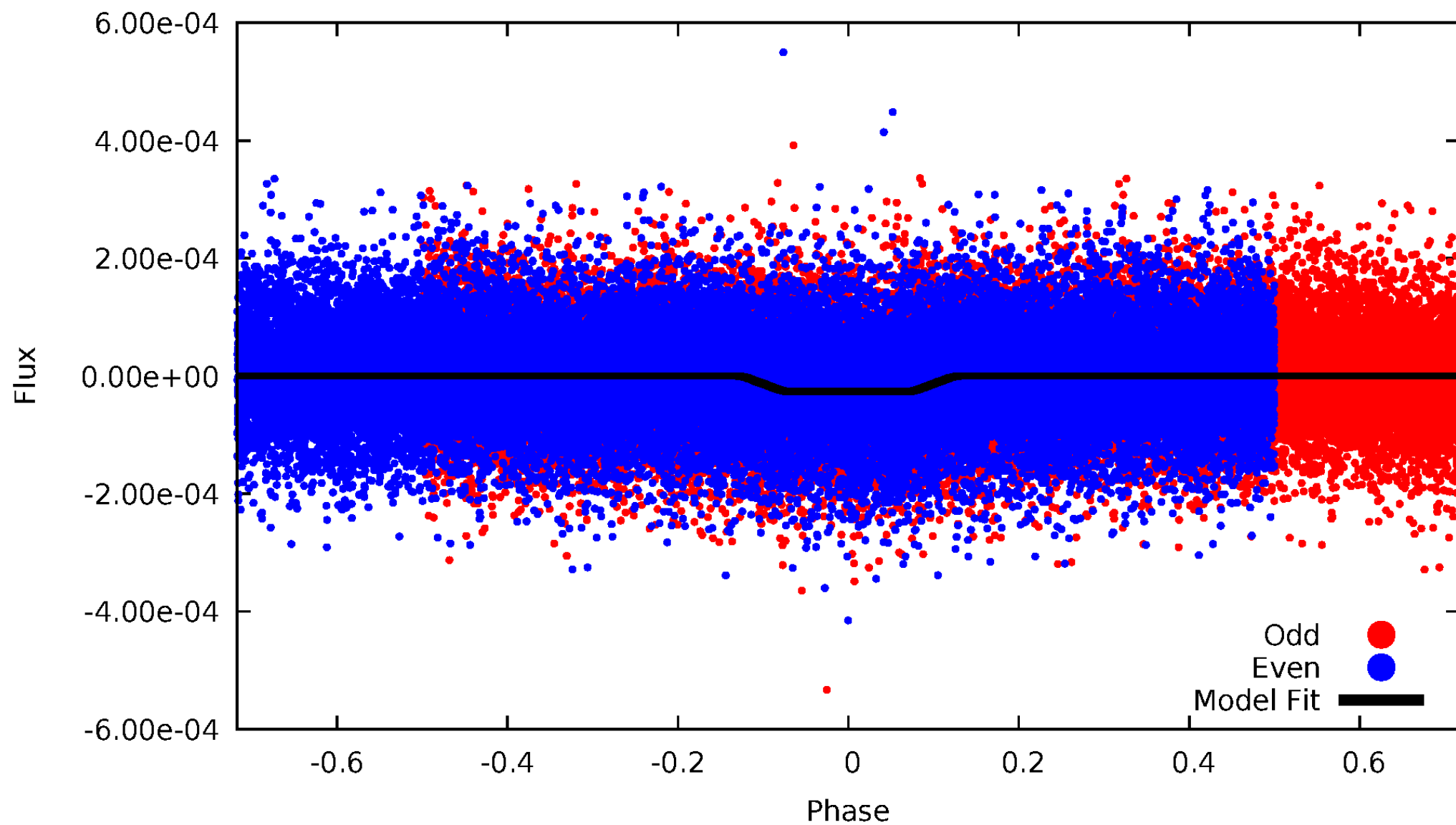
TCE 006928906-01





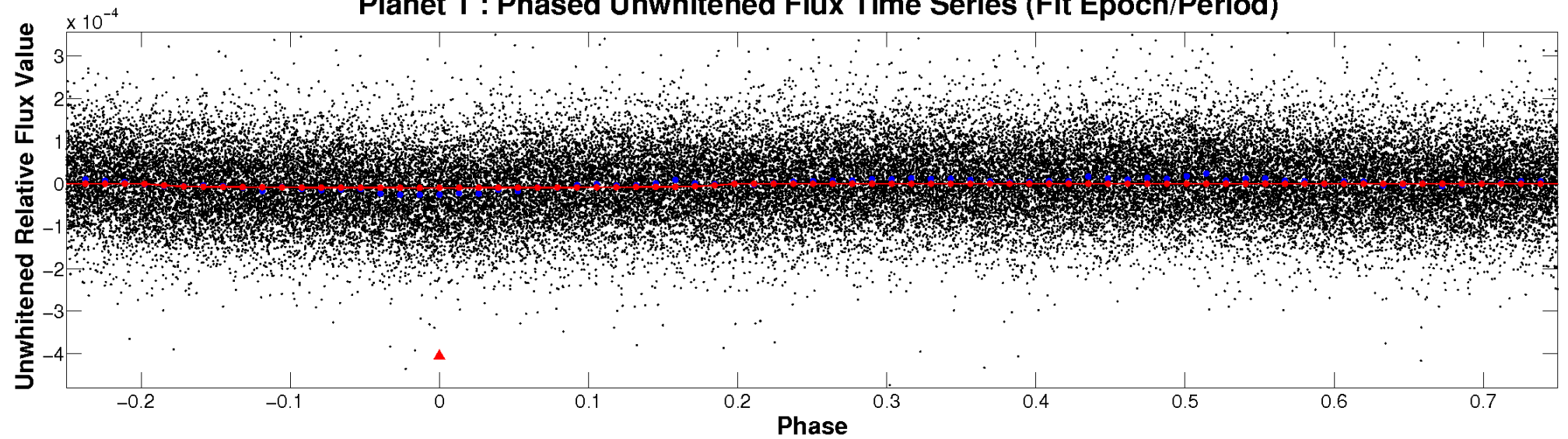
# ALT Odd/Even

TCE 006928906-01

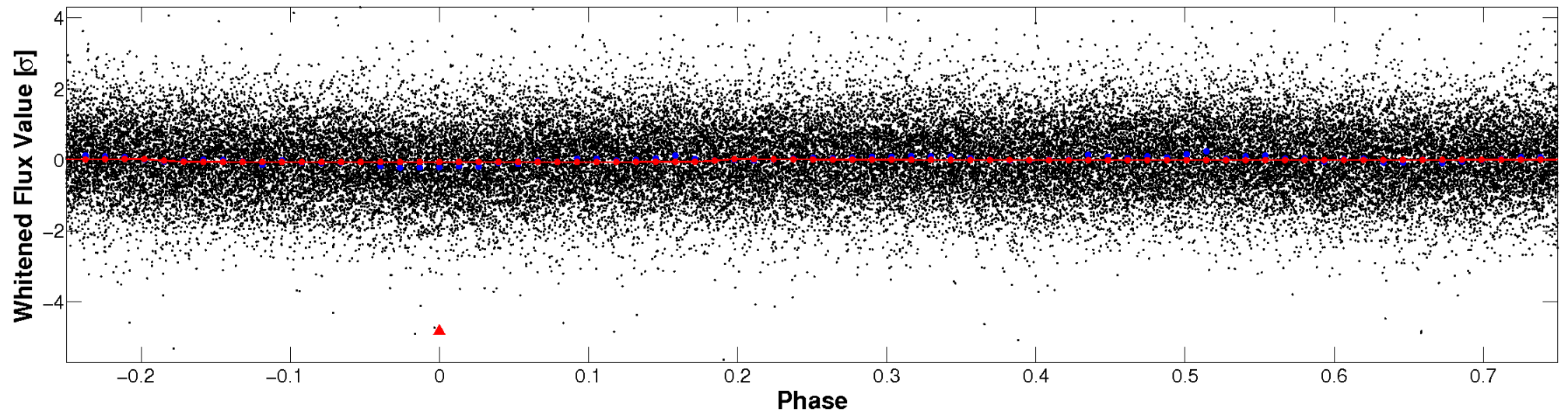


# Non-Whitened Vs. Whitened Light Curve

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

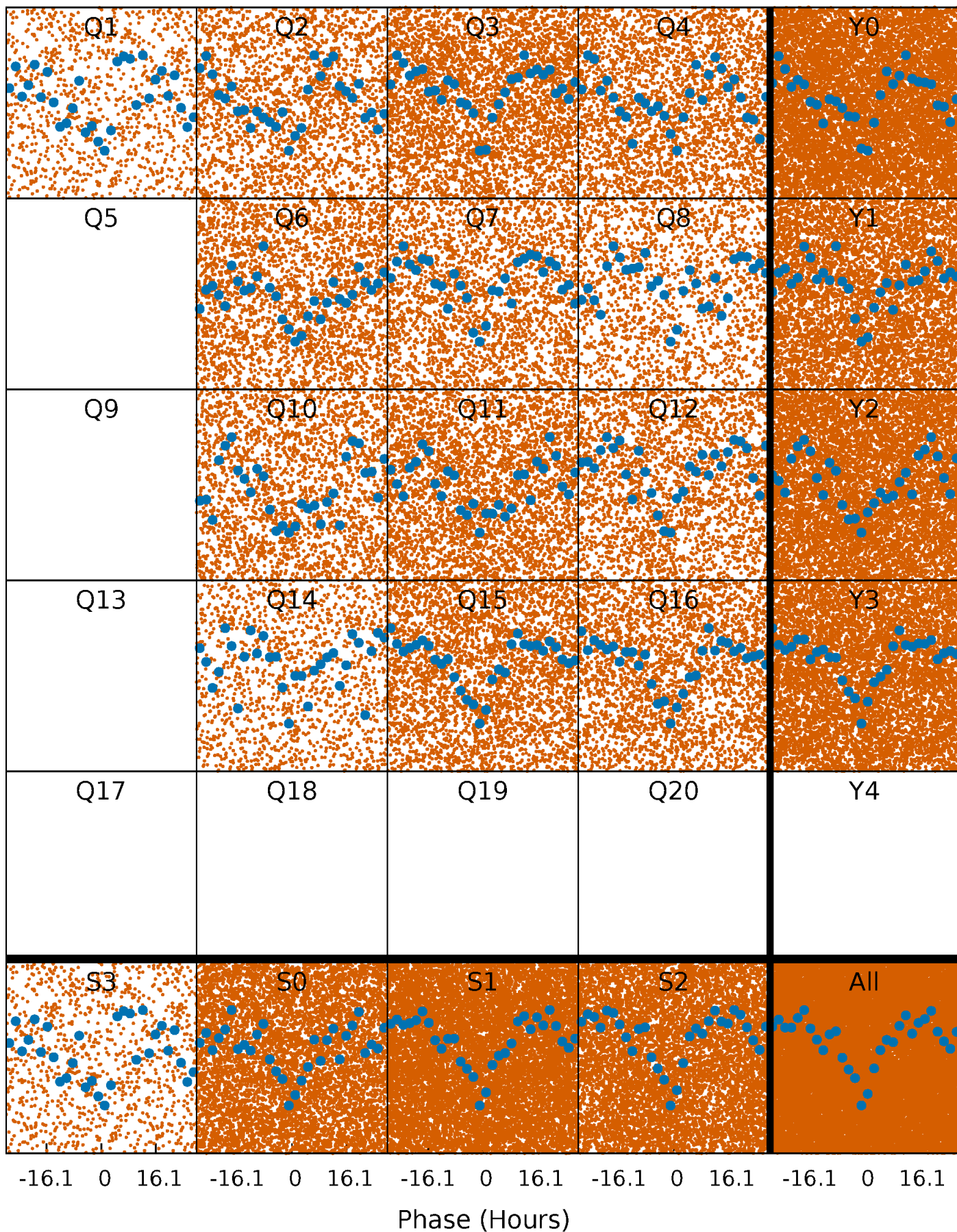


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

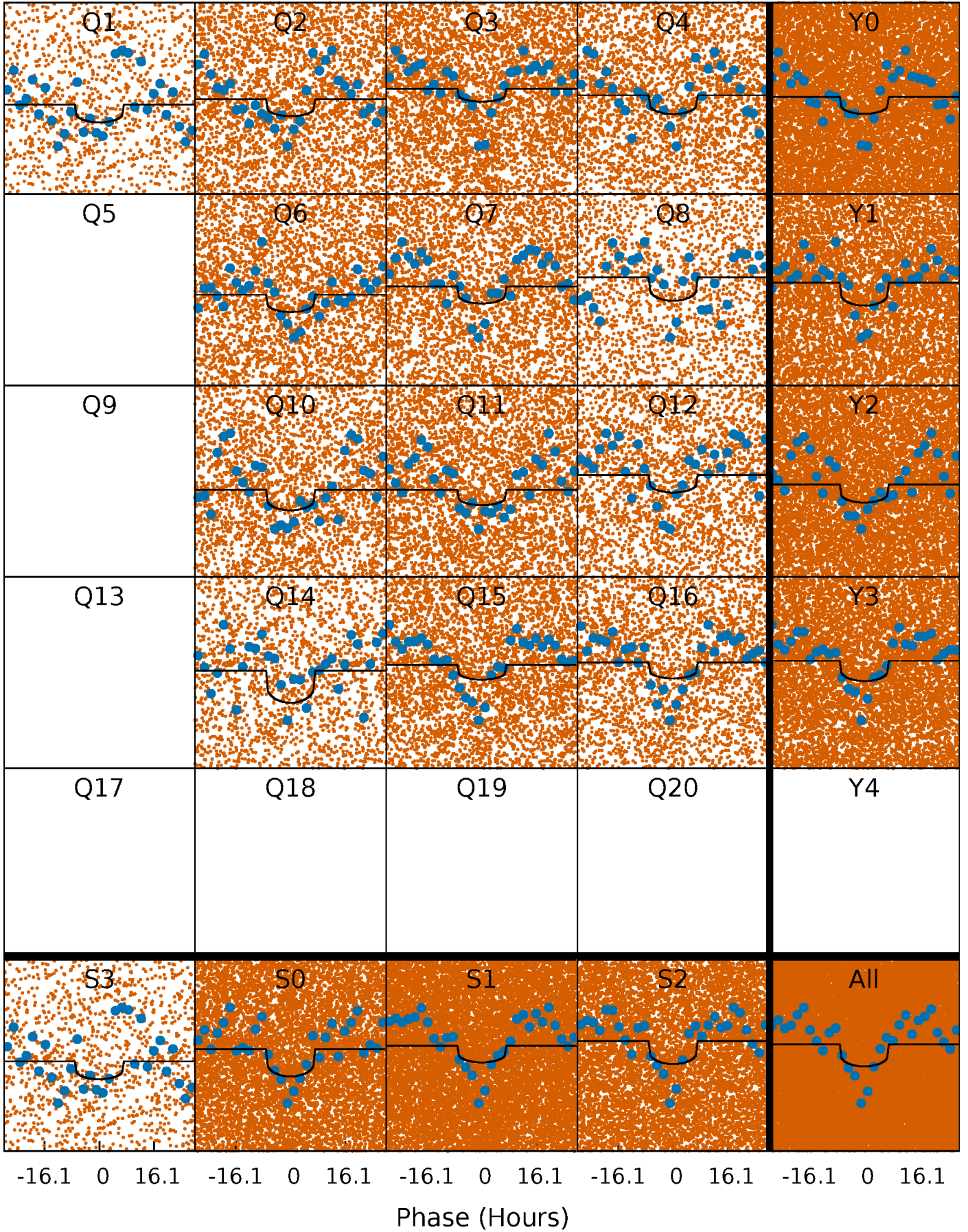
TCE 006928906-01 P= 1.549592 Days  $T_0=132.459654$  (BKJD)





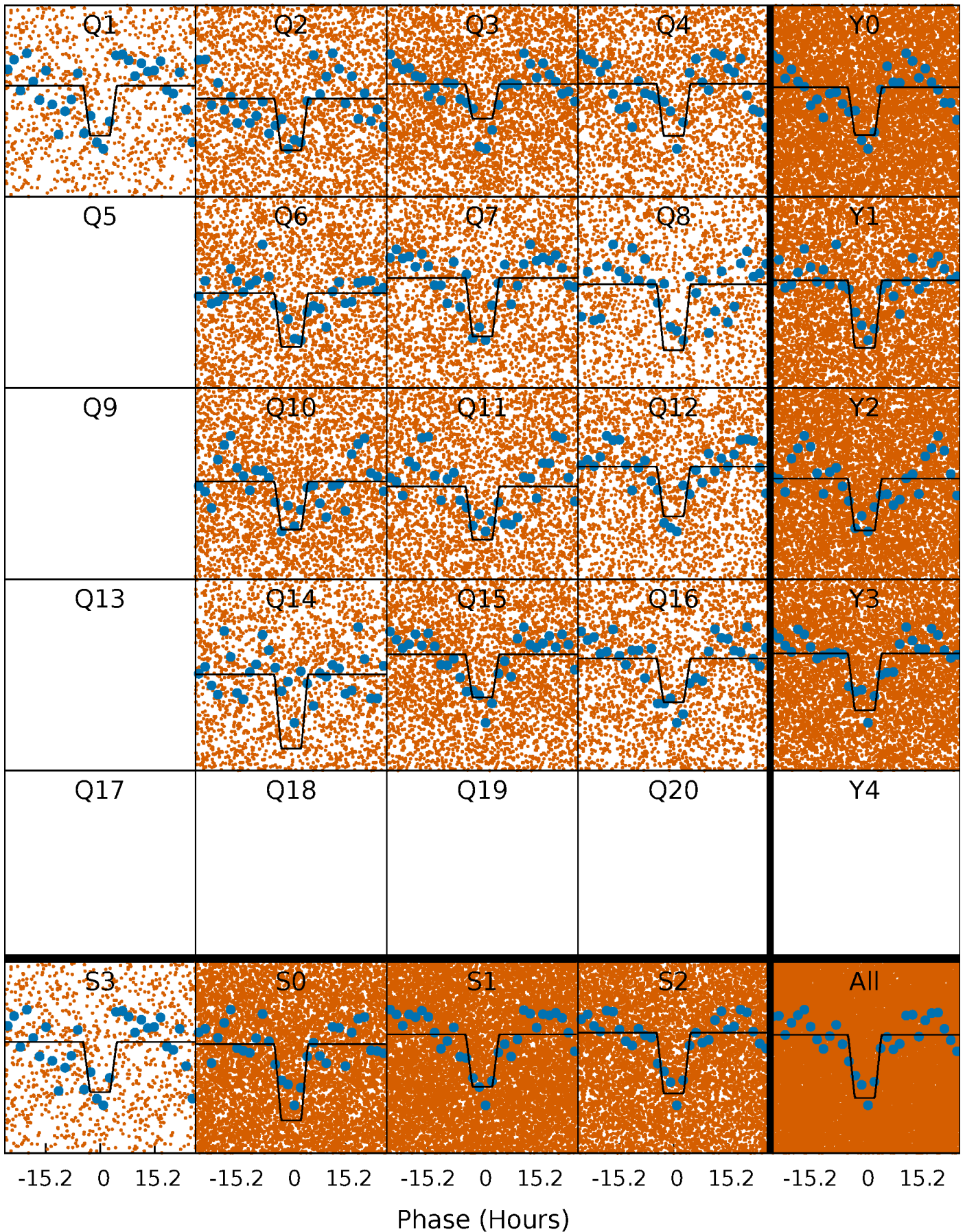
# DV Quarter-Phased Transit Curves

TCE 006928906-01   P= 1.549592 Days    $T_0=132.459654$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 006928906-01 P= 1.549509 Days  $T_0=132.458156$  (BKJD)

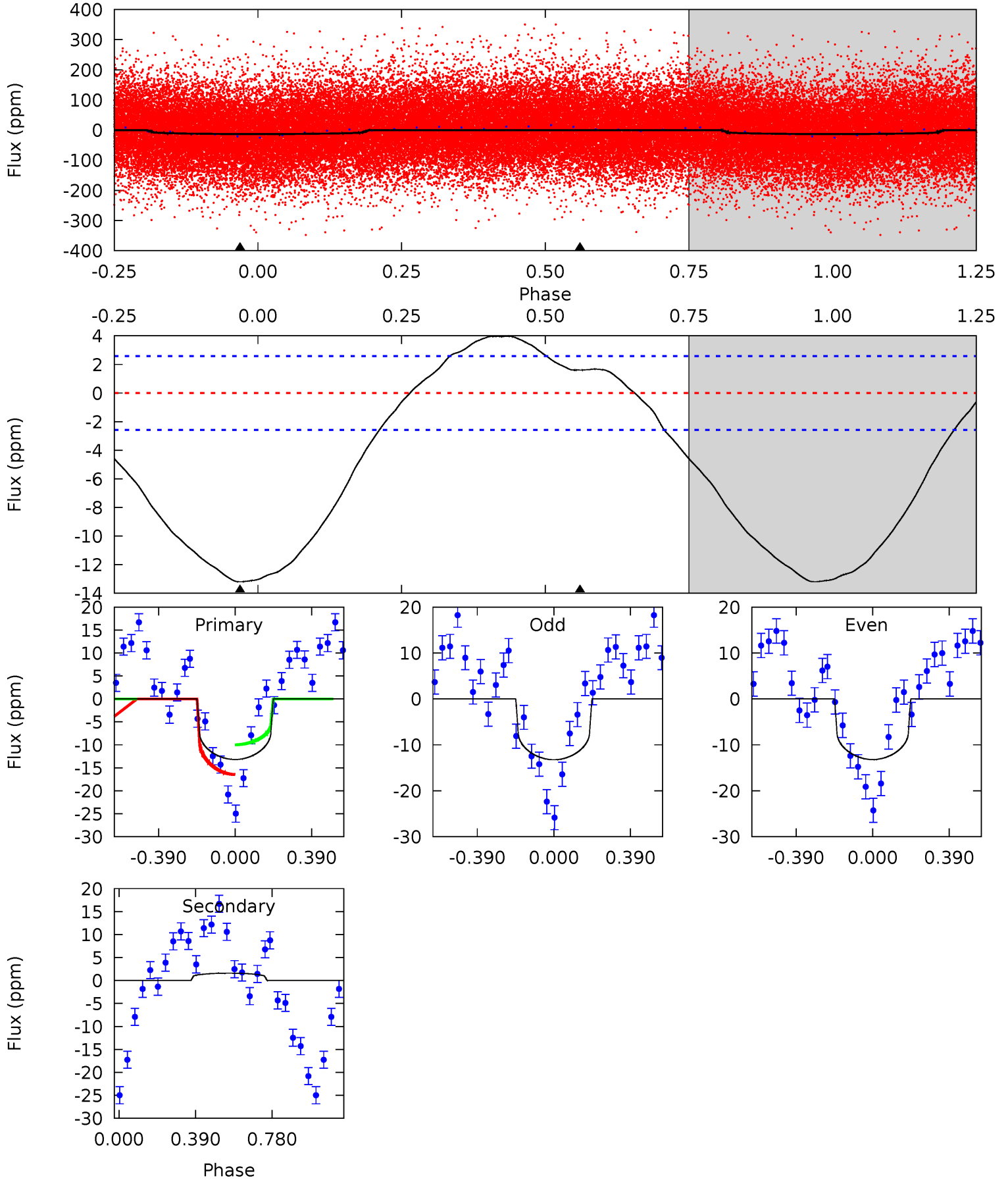




# DV Model-Shift Uniqueness Test

006928906-01, P = 1.549592 Days, E = 130.910062 Days

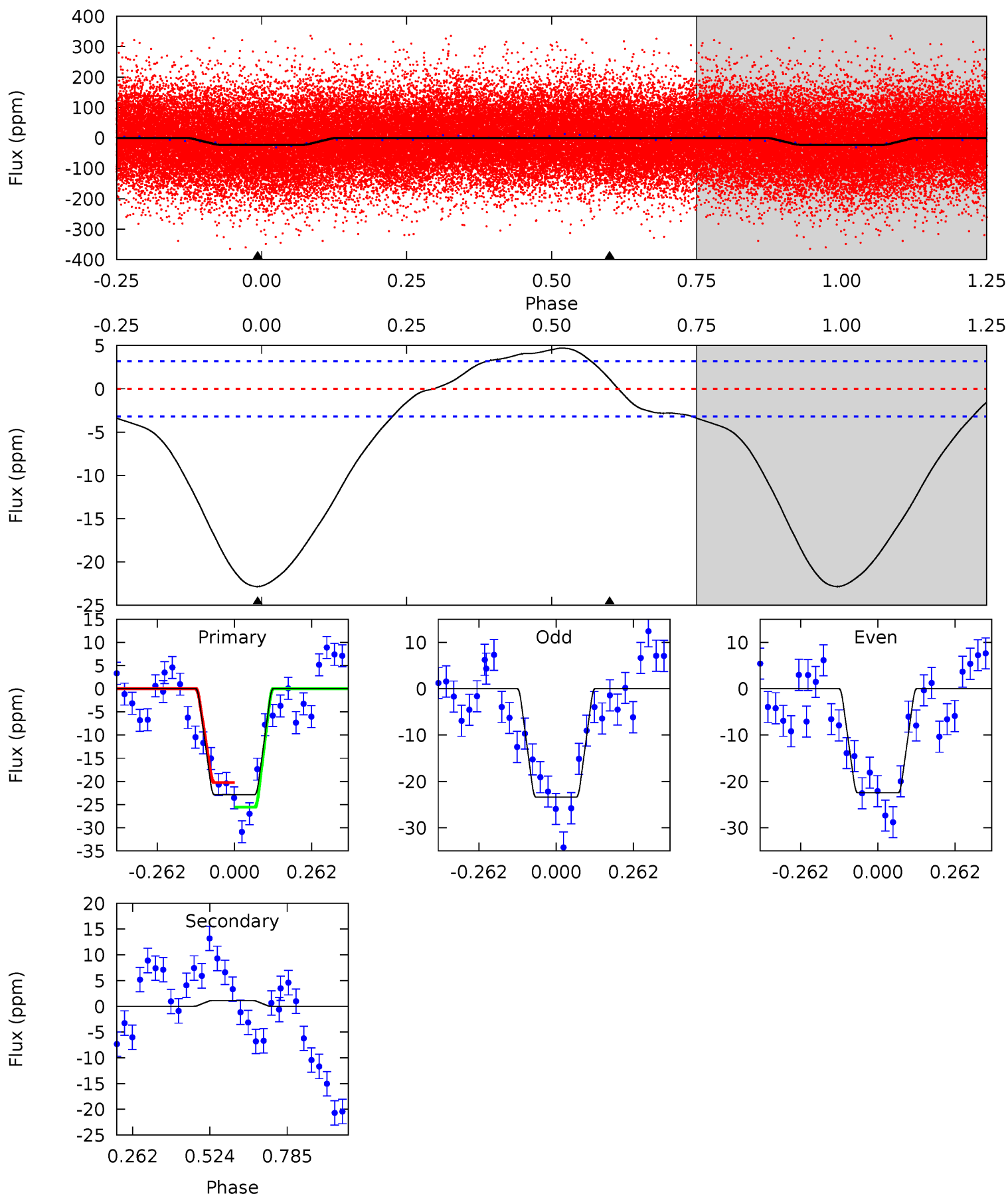
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.9	-2.65	0	0	4.27	0.86	2.05	21.9	21.9	-2.65	-2.65	0.04	0.92	0.23	5.47



# Alt Model-Shift Uniqueness Test

006928906-01, P = 1.549509 Days, E = 130.908647 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
31.1	-1.52	0	0	4.36	1.12	1.17	31.1	31.1	-1.52	-1.52	0.62	0.90	0.17	3.67





### Stellar Parameters For KIC 006928906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$7382^{+206}_{-353}$	$3.838^{+0.301}_{-0.129}$	$0.180^{+0.150}_{-0.350}$	$2.804^{+0.471}_{-1.098}$	$1.976^{+0.084}_{-0.476}$	$0.126^{+0.292}_{-0.041}$
	+3%/-5%	+8%/-3%	+83%/-194%	+17%/-39%	+4%/-24%	+231%/-32%
Source	KIC0	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 006928906-01 / KOI 3242.01

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$2\pm 1$	$0.85^{+0.63}_{-0.51}$	$4116^{+307}_{-394}$	$-4979^{+672}_{-2274}$	$-1.169^{+0.793}_{-6.294}$
Alt.	$1\pm 1$	$1.44^{+0.75}_{-0.58}$	$4112^{+285}_{-402}$	$-4199^{+385}_{-647}$	$-0.269^{+0.192}_{-0.744}$

$T_{max}$  = 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

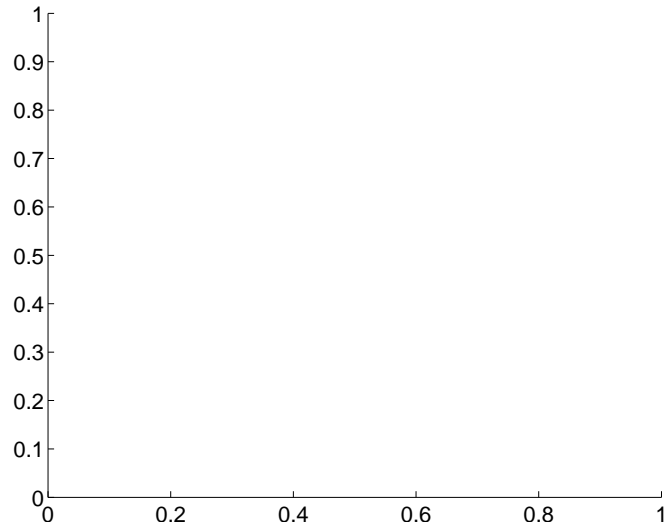
Supplemental centroid analysis for 006928906-01. Kepler magnitude: 12.37. Transit SNR 8.42

There are 0 quarters with good PRF difference image offsets

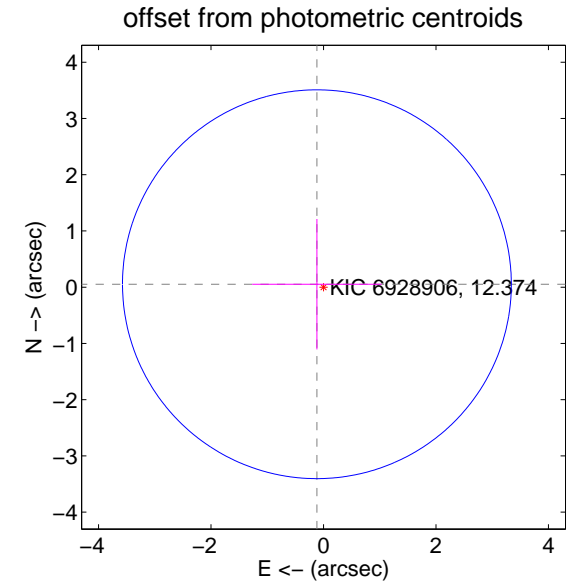
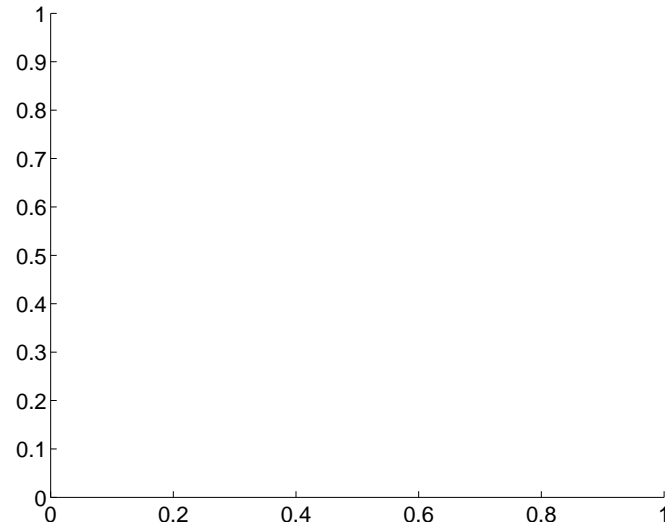
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	$0.13 \pm 1.15$	0.11	$0.12 \pm 1.15$	$0.05 \pm 1.16$

There is no PRF-fit offset from OOT-fit

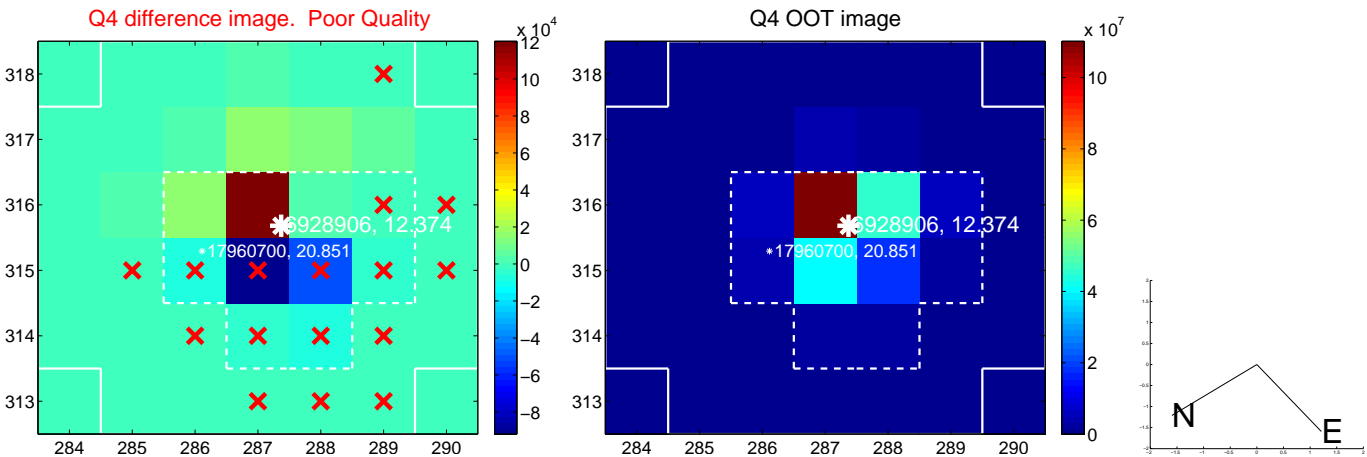
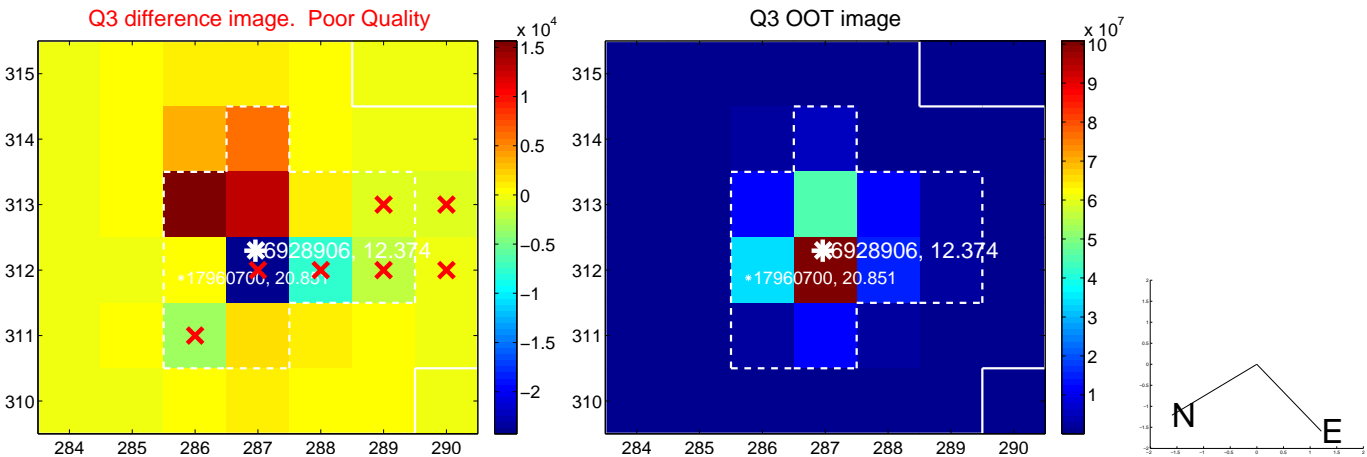
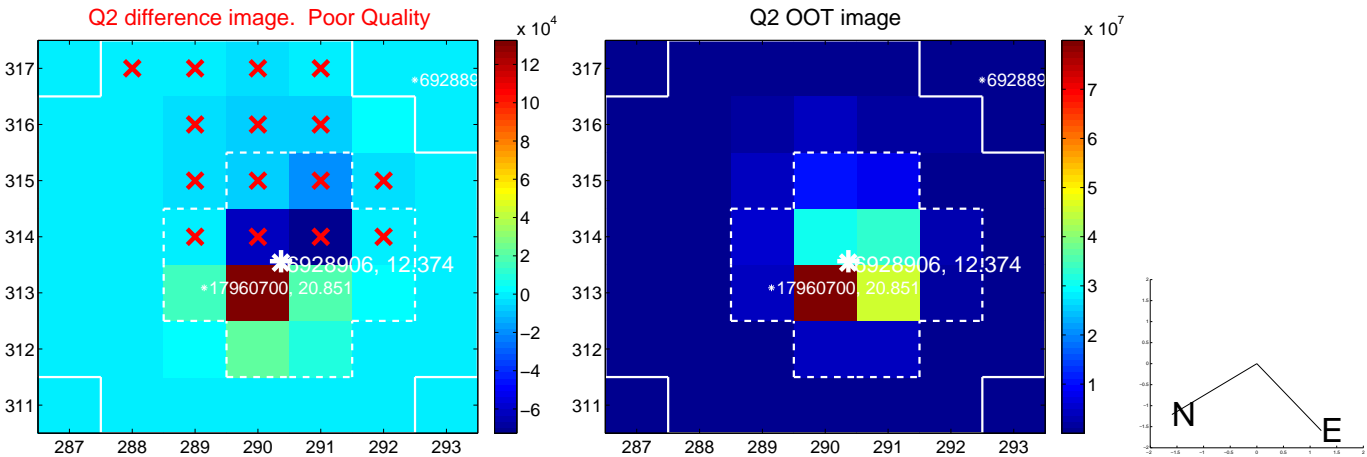
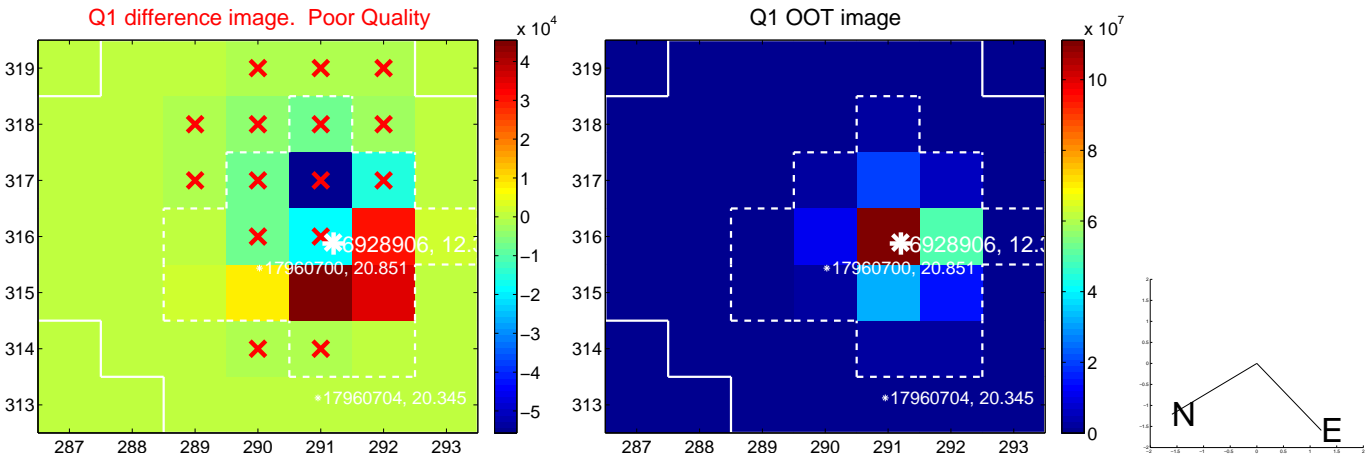


There is no PRF-fit offset from KIC

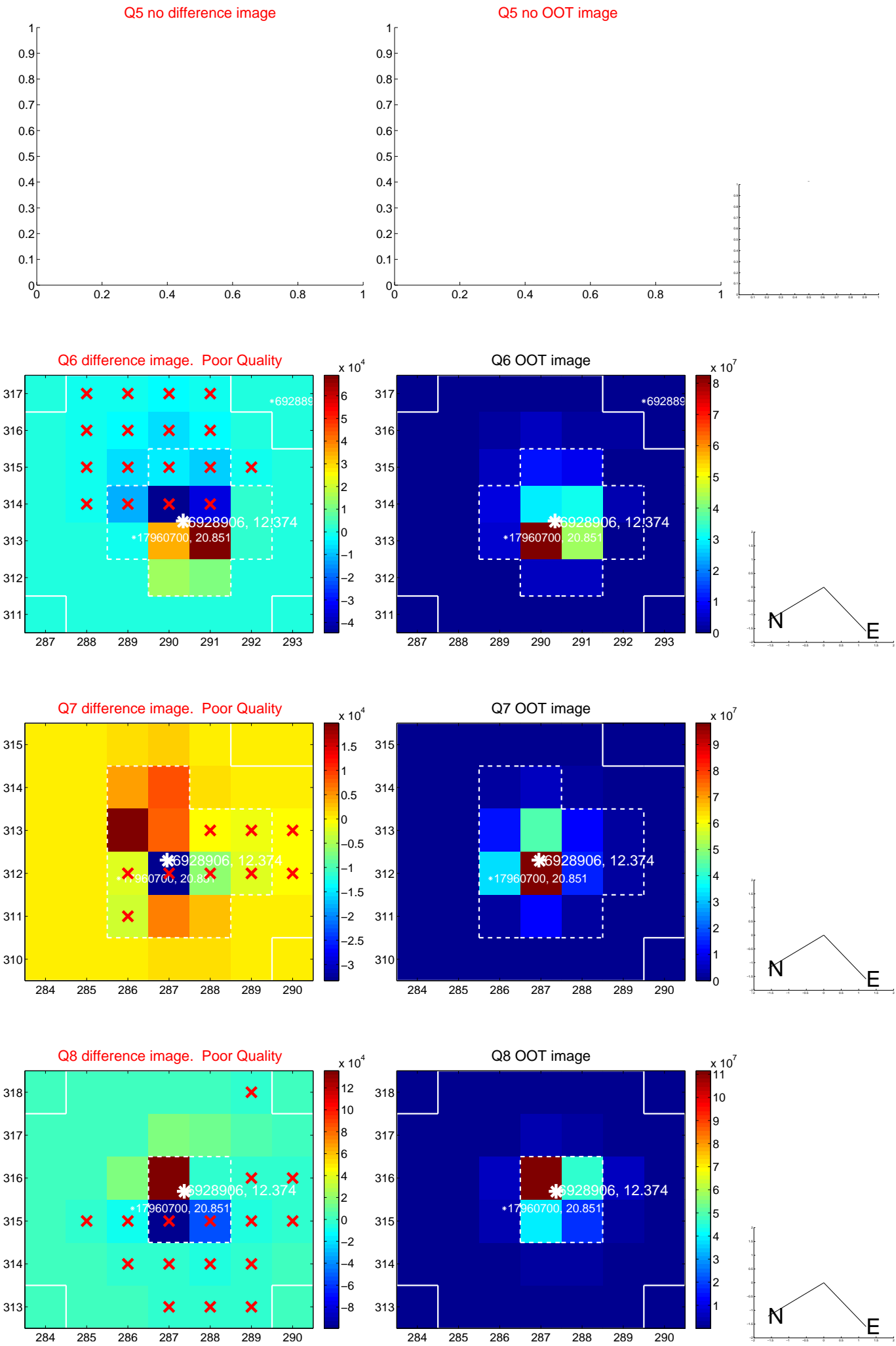


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

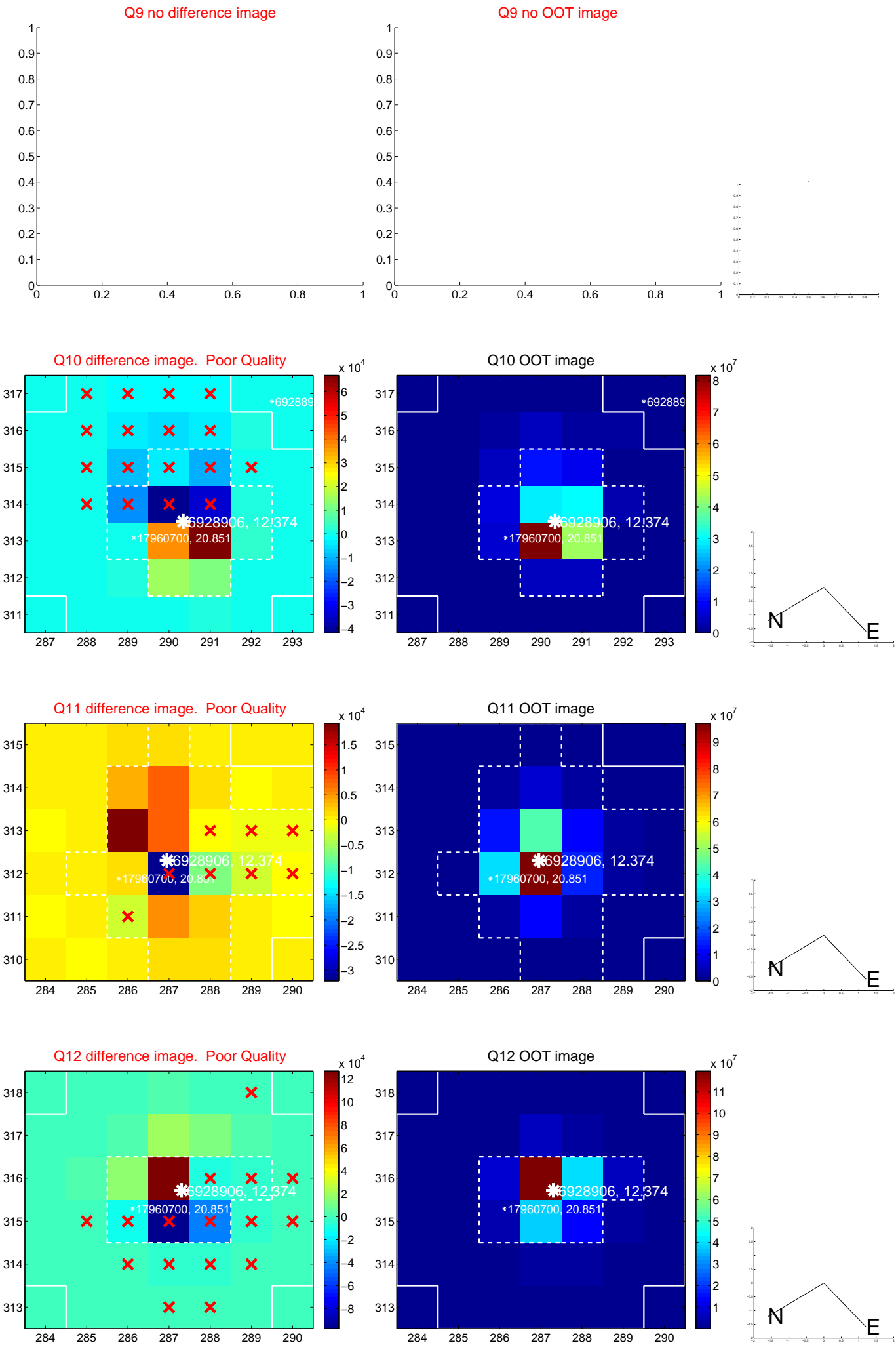


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

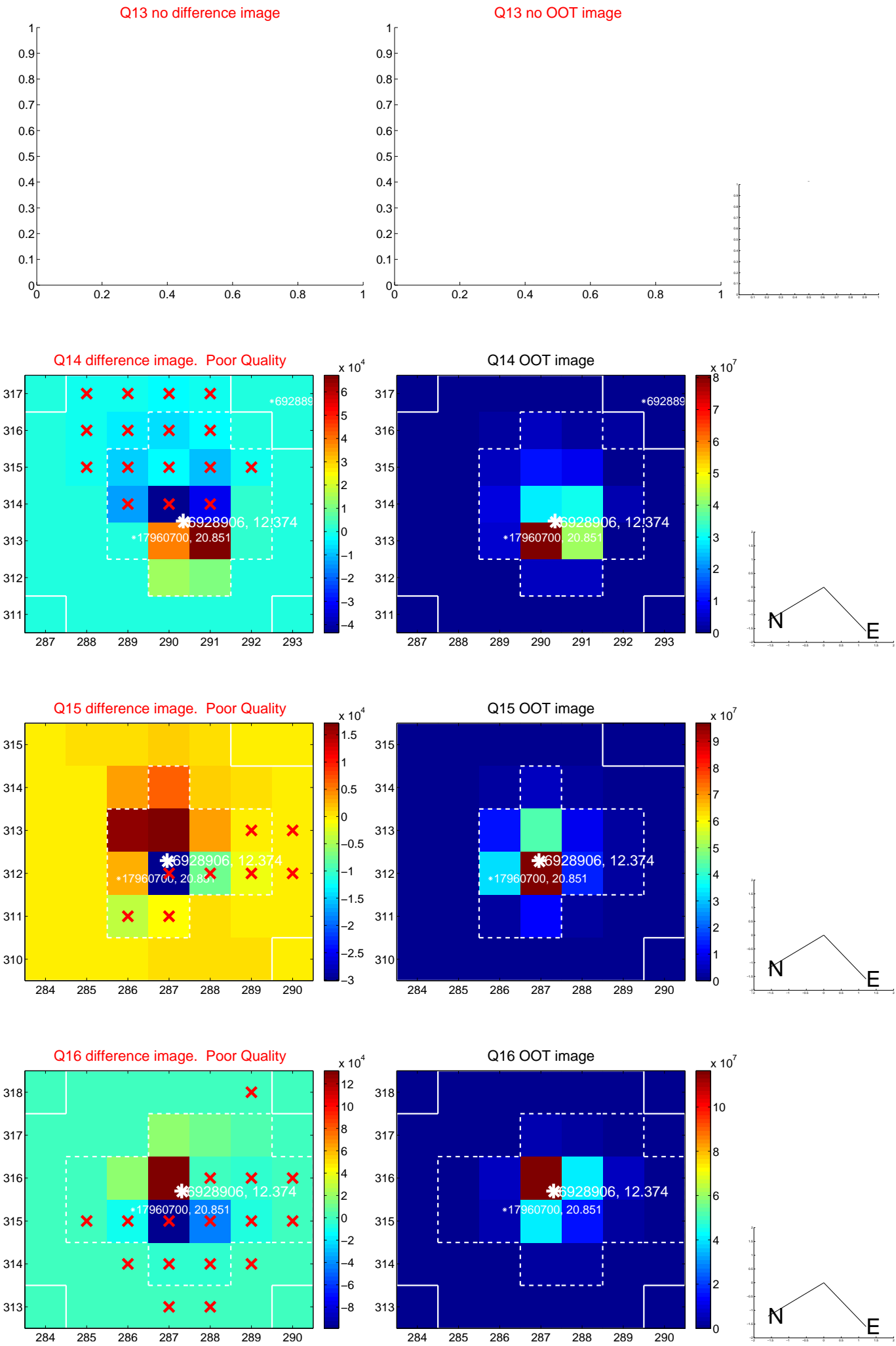




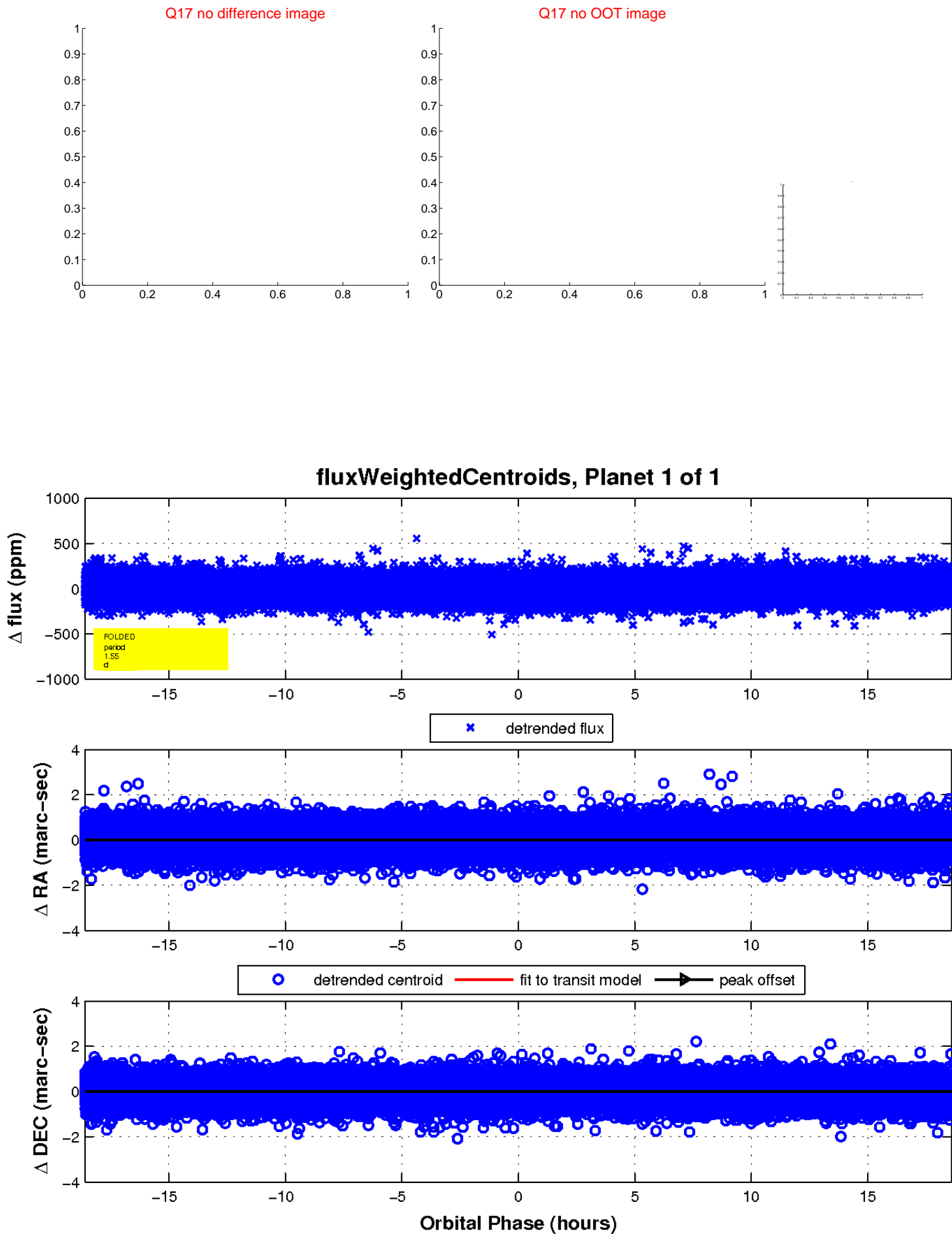
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

