

# KIC 006132064

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006132064-01	OBS	No	5.773761	136.676367	19.0	39.179	9.3	7.0	2.37	6449	1.06	1733.52

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006132064-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

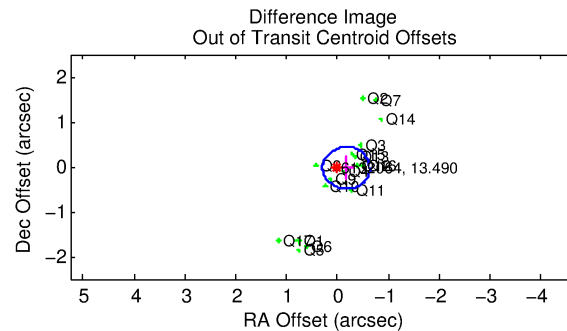
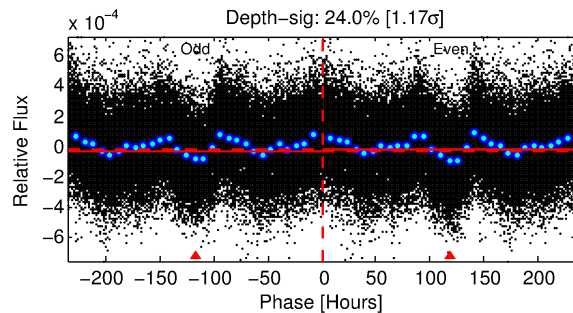
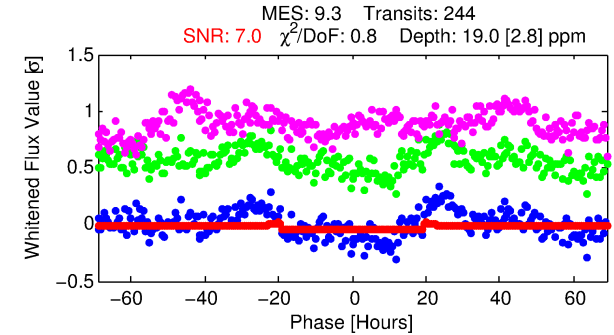
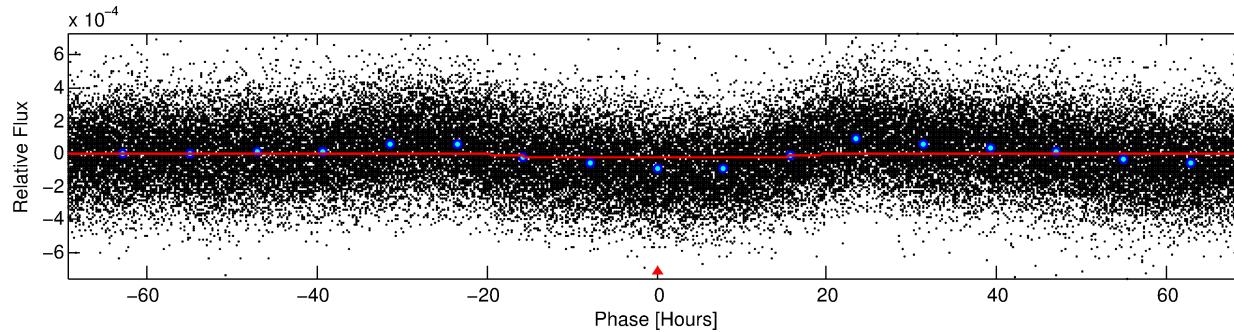
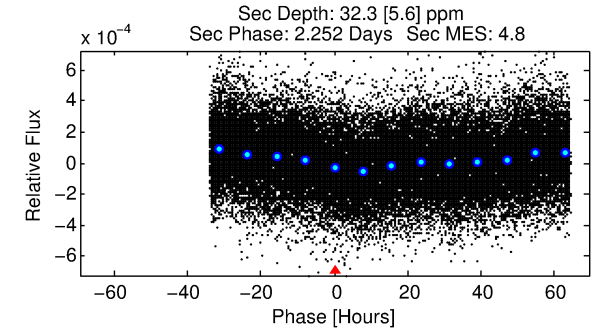
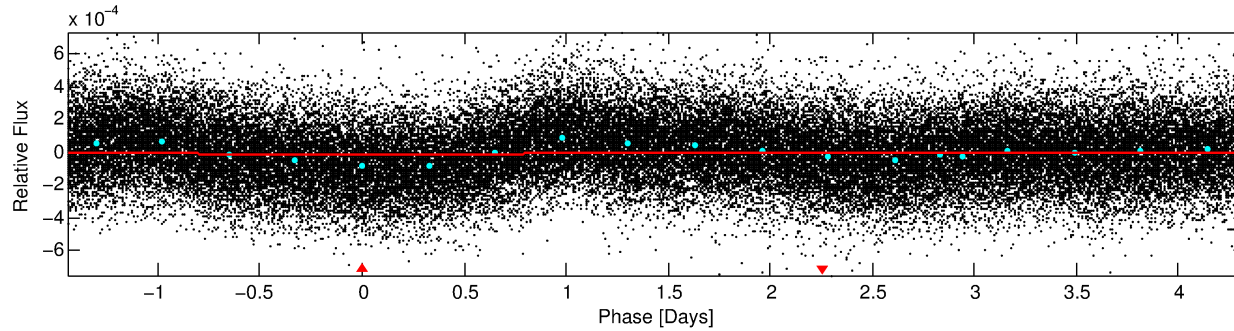
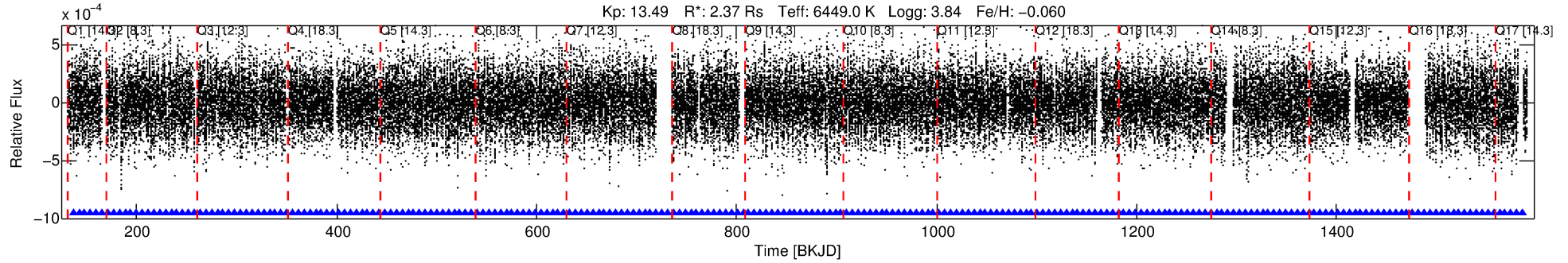
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006132064-01

No Significant Match Found

# DV One-Page Summary

KIC: 6132064 Candidate: 1 of 1 Period: 5.774 d



## DV Fit Results:

Period = 5.77376 [0.00019] d  
Epoch = 136.6764 [0.0240] BKJD  
Rp/R\* = 0.0041 [0.0027]  
a/R\* = 1.23 [1.48]  
b = 0.48 [5.66]  
Seff = 1733.52 [609.39]  
Teff = 1645 [145] K  
Rp = 1.06 [0.73] Re  
a = 0.0707 [0.0156] AU  
Ag = 78.79 [106.16] [0.73σ]  
Teffp = 7579 [2468] K [2.40σ]

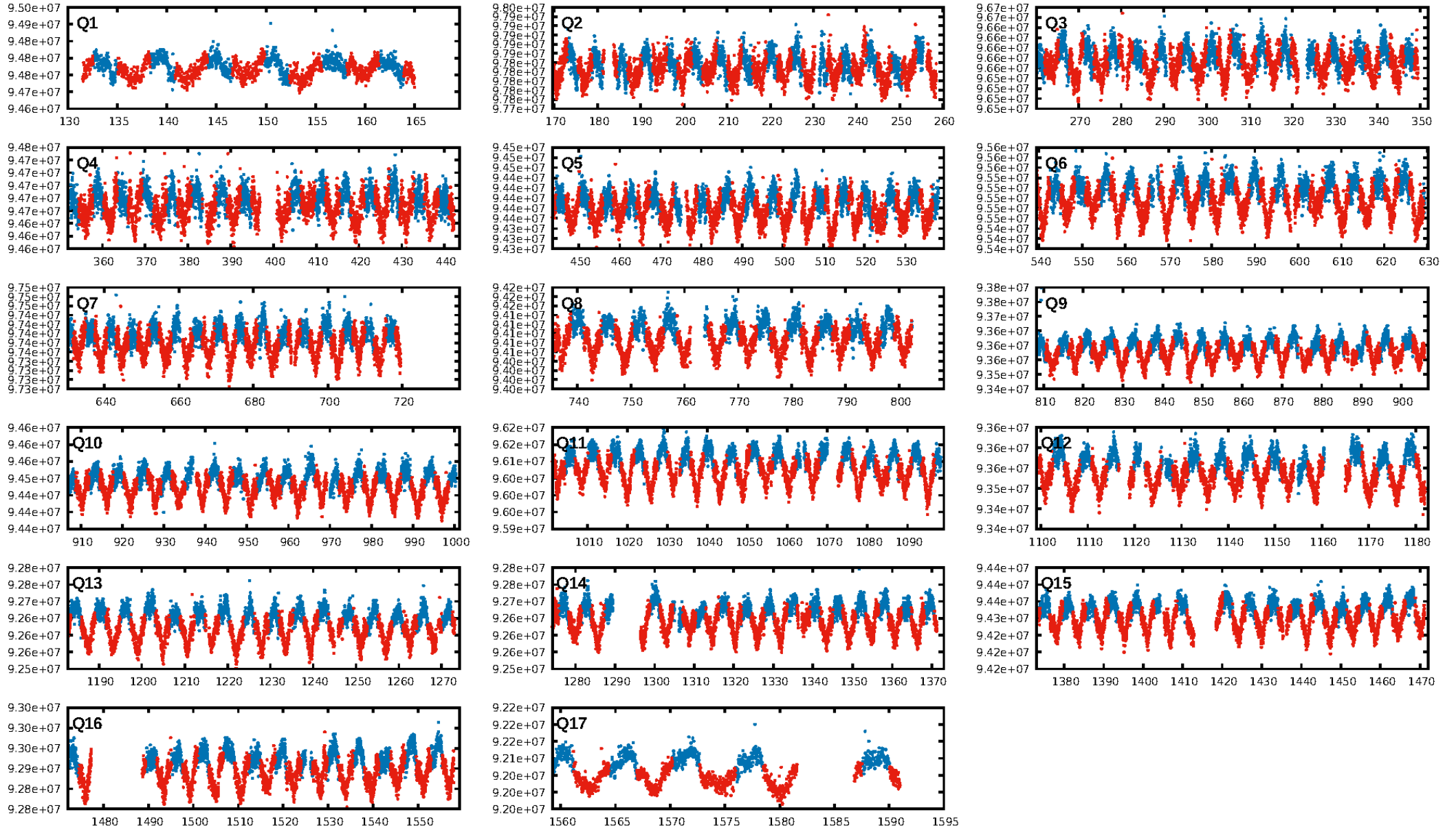
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 7.39e-33  
RollingBand-fgt: 1.00 [232/232]  
GhostDiagnostic-chr: 1.838  
Centroid-sig: 97.9%  
Centroid-so: 0.296 arcsec [0.34σ]  
OotOffset-rm: 0.175 arcsec [1.13σ]  
KicOffset-rm: 0.262 arcsec [0.90σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 1.00 [17/17]

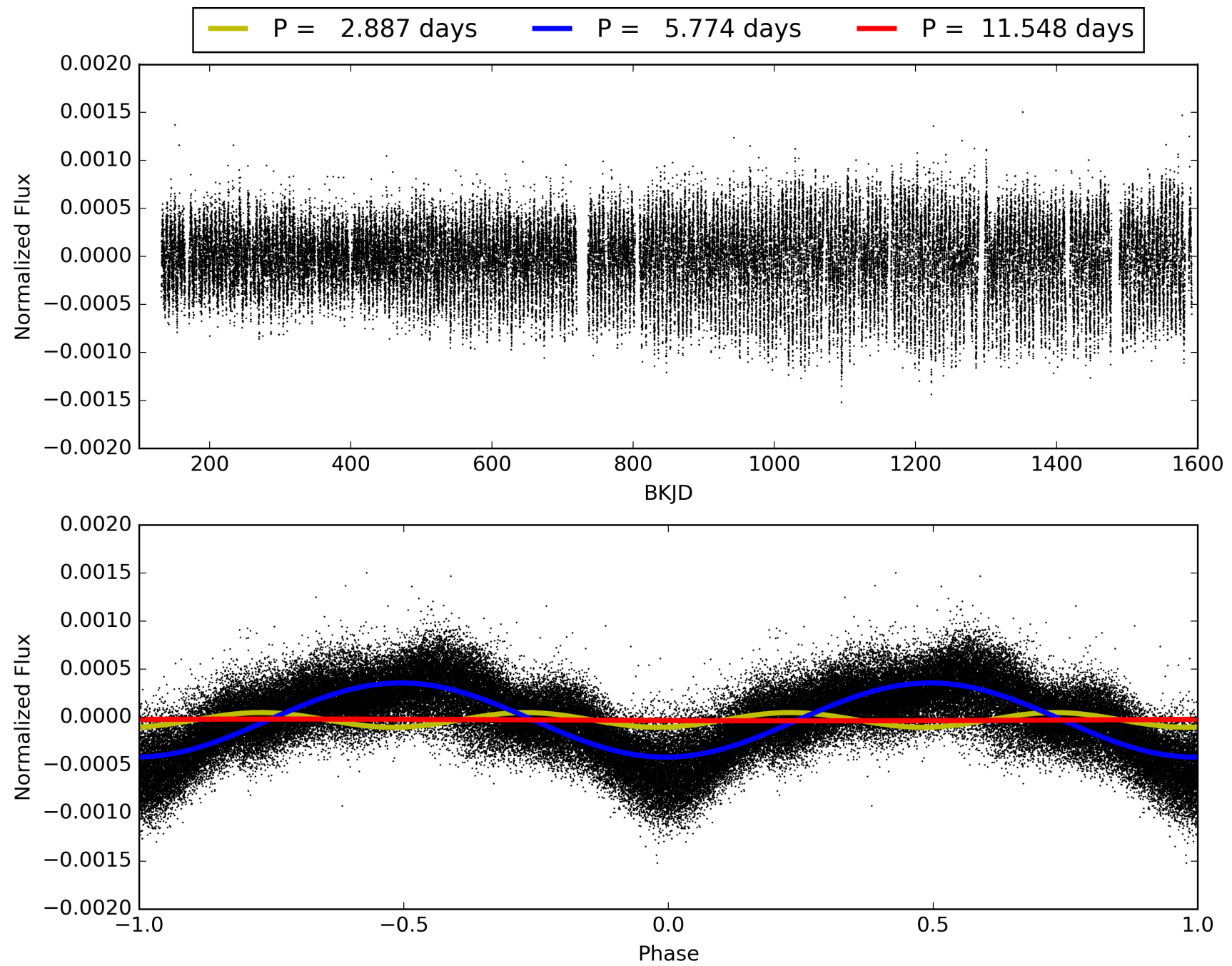
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:53:47 Z

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

# TCE 006132064-01, PDC Light Curves

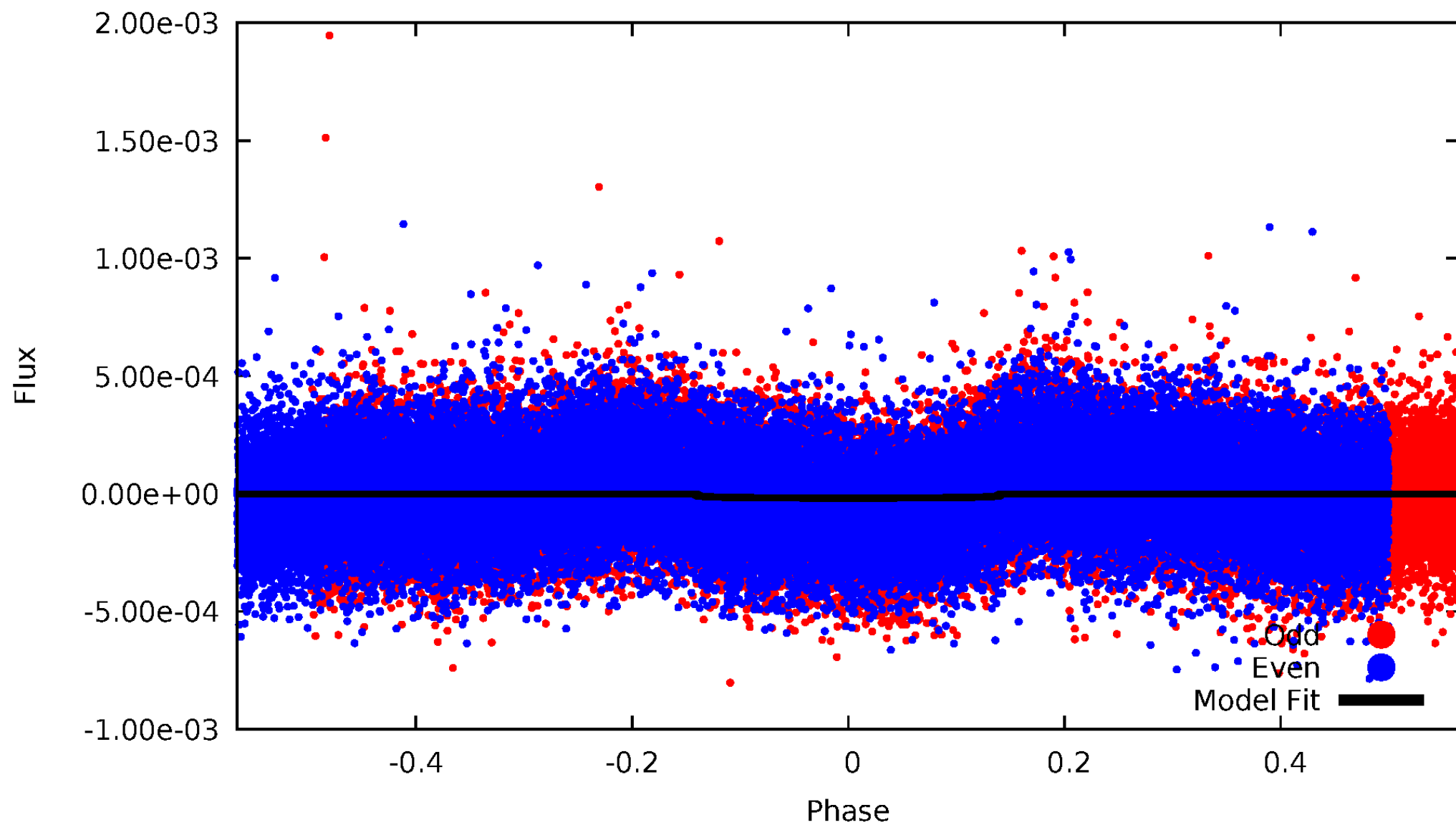


TCE 006132064-01



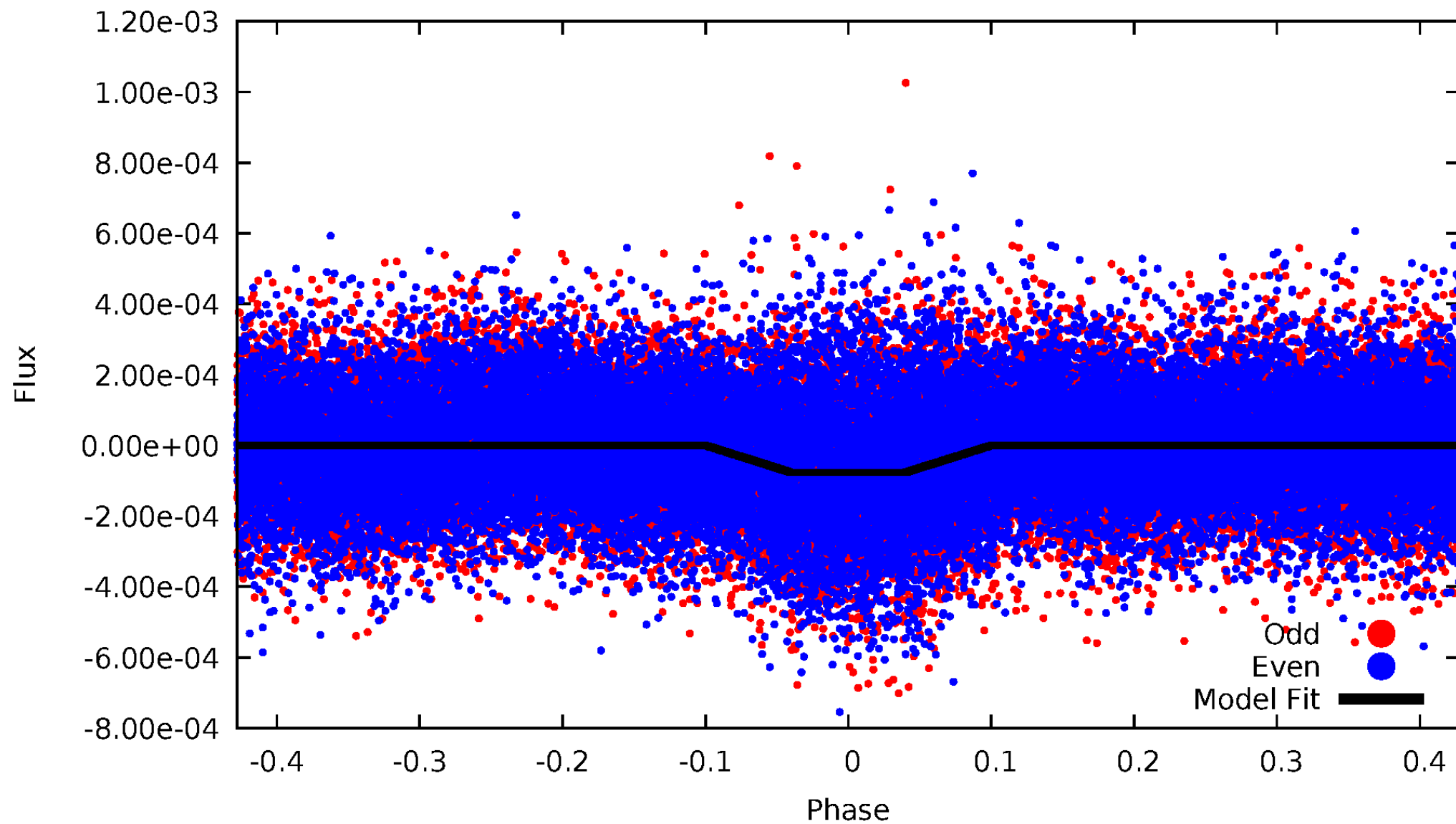
# DV Odd/Even

TCE 006132064-01



# ALT Odd/Even

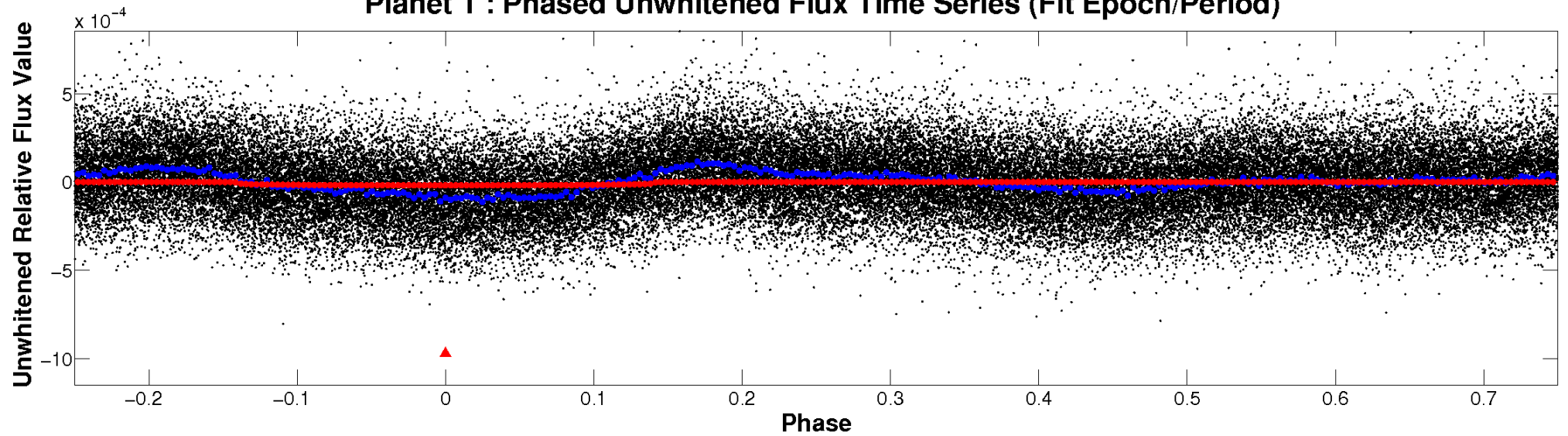
TCE 006132064-01



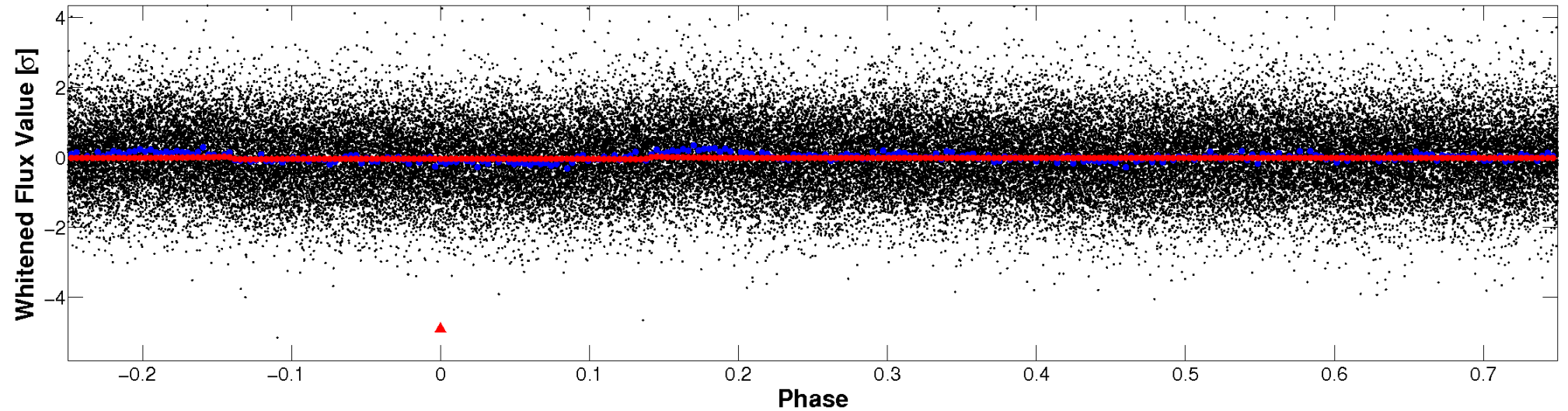


# Non-Whitened Vs. Whitened Light Curve

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

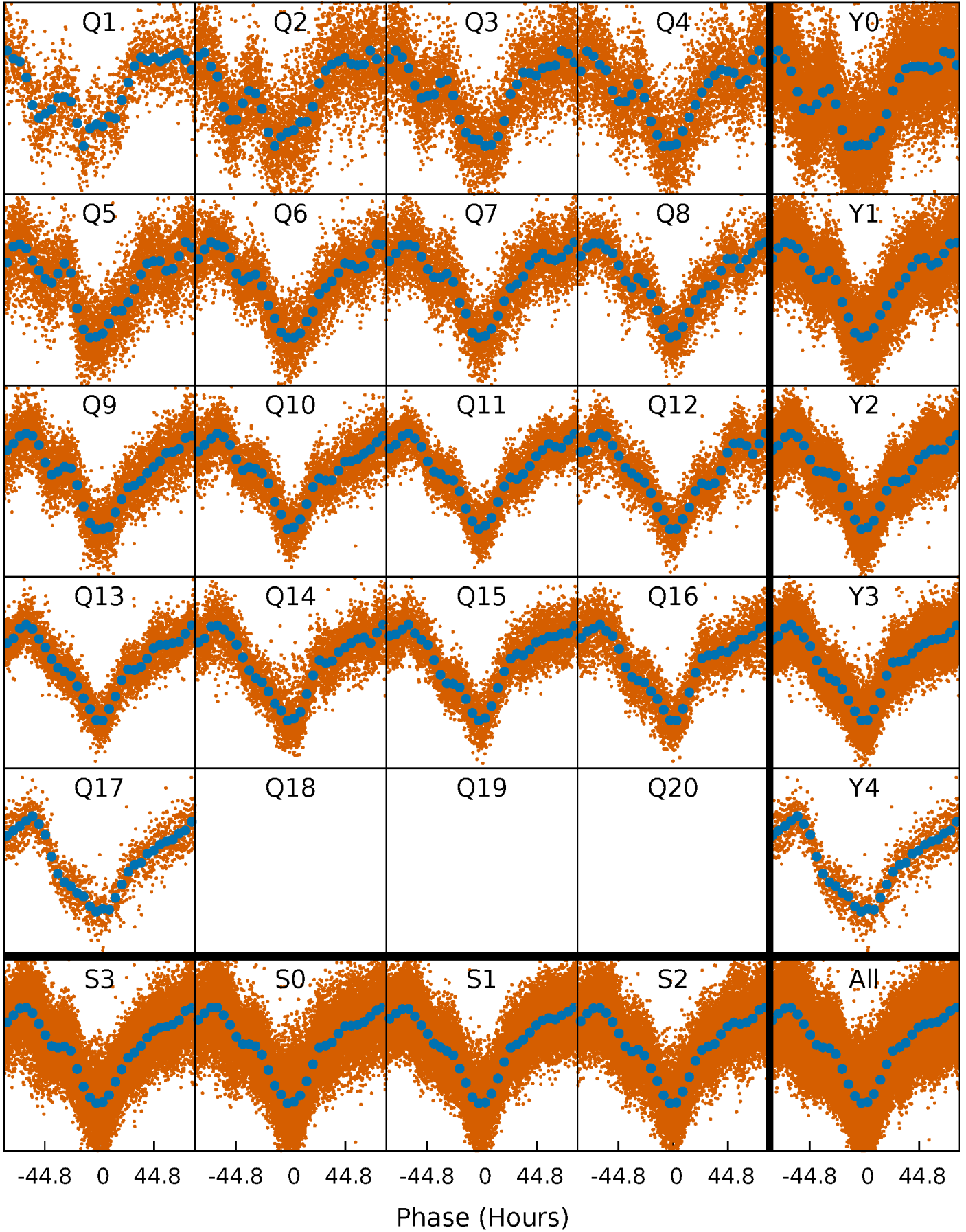


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

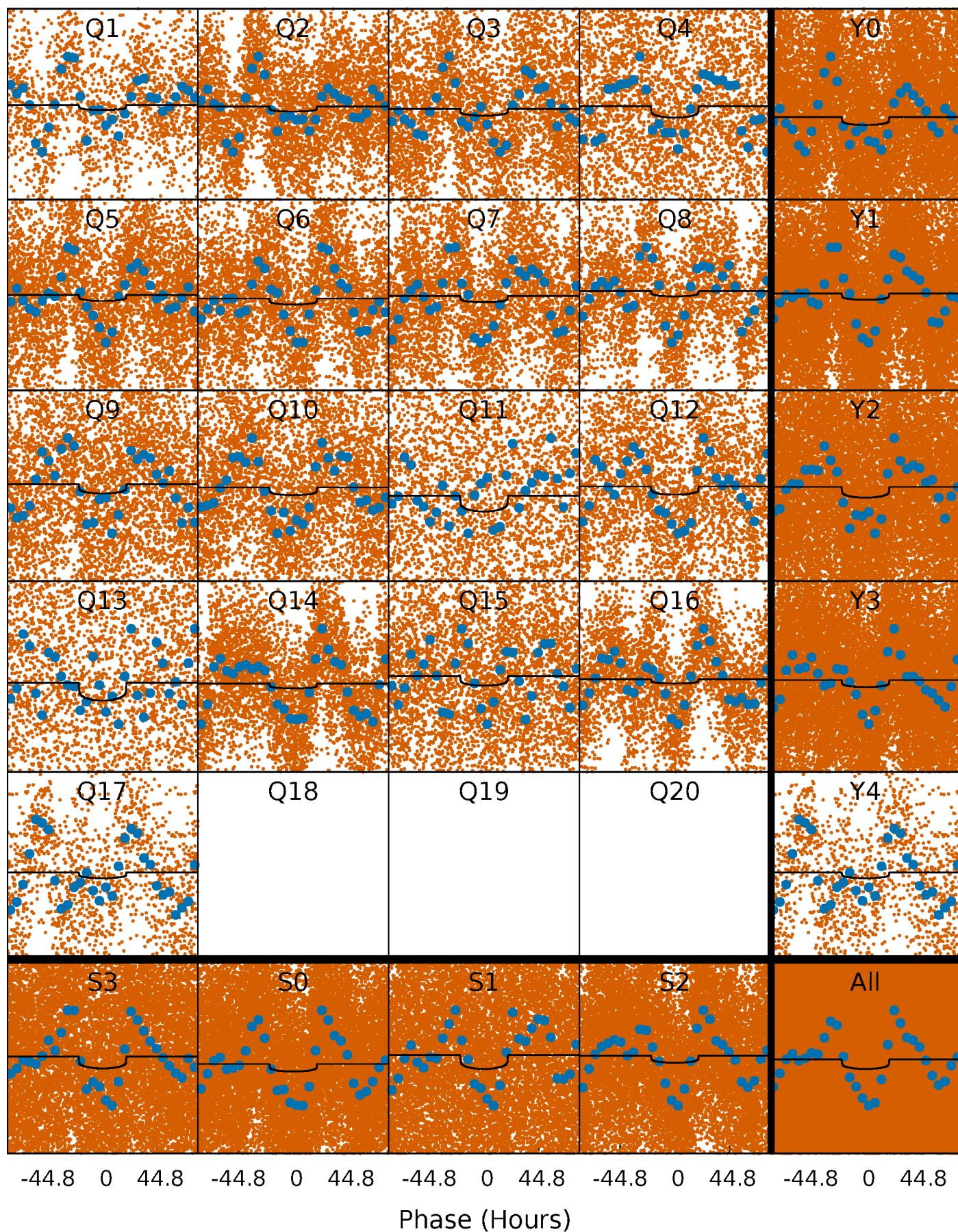
TCE 006132064-01 P= 5.773761 Days  $T_0=136.676367$  (BKJD)





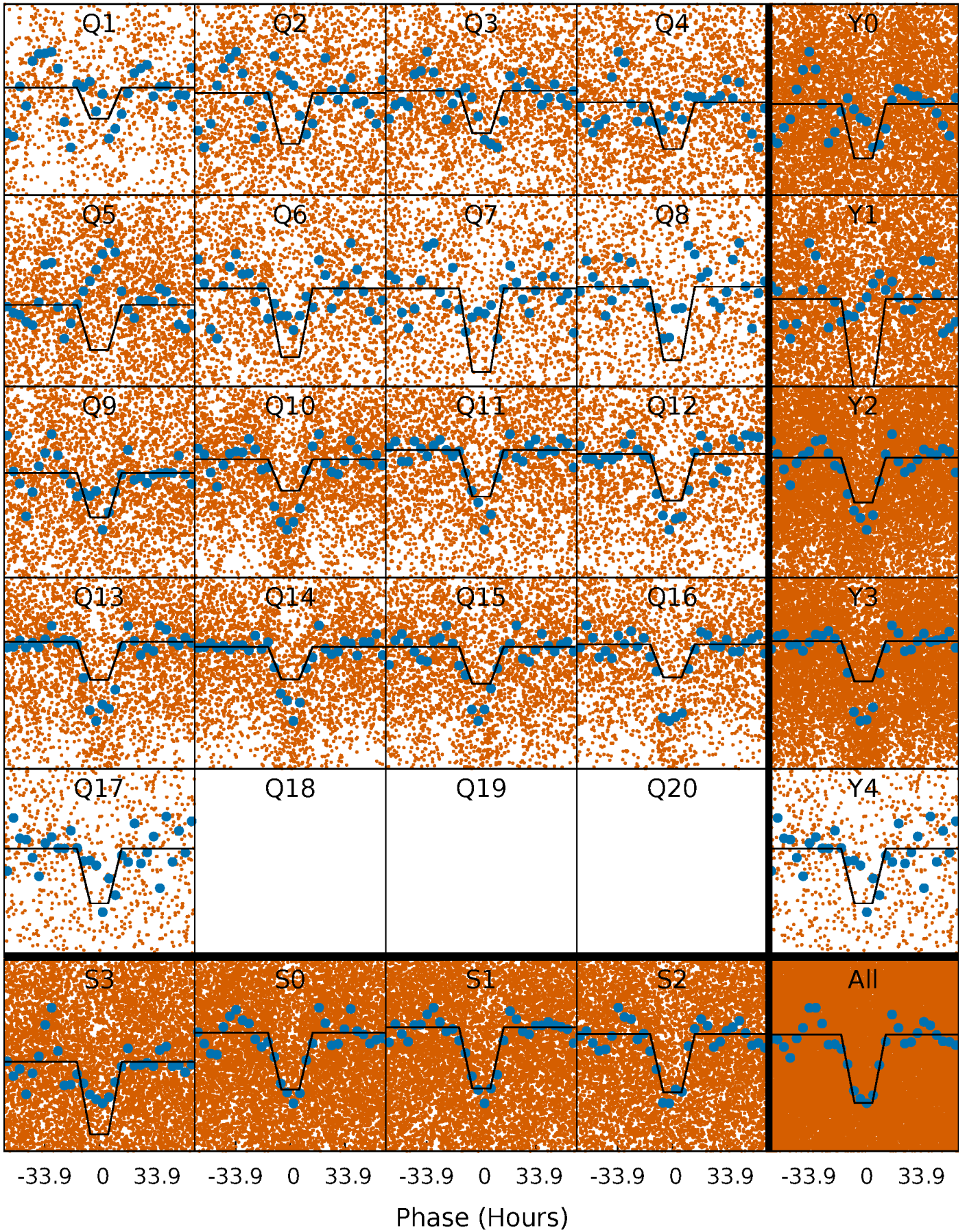
# DV Quarter-Phased Transit Curves

TCE 006132064-01 P= 5.773761 Days  $T_0=136.676367$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 006132064-01 P= 5.773739 Days  $T_0=136.903398$  (BKJD)

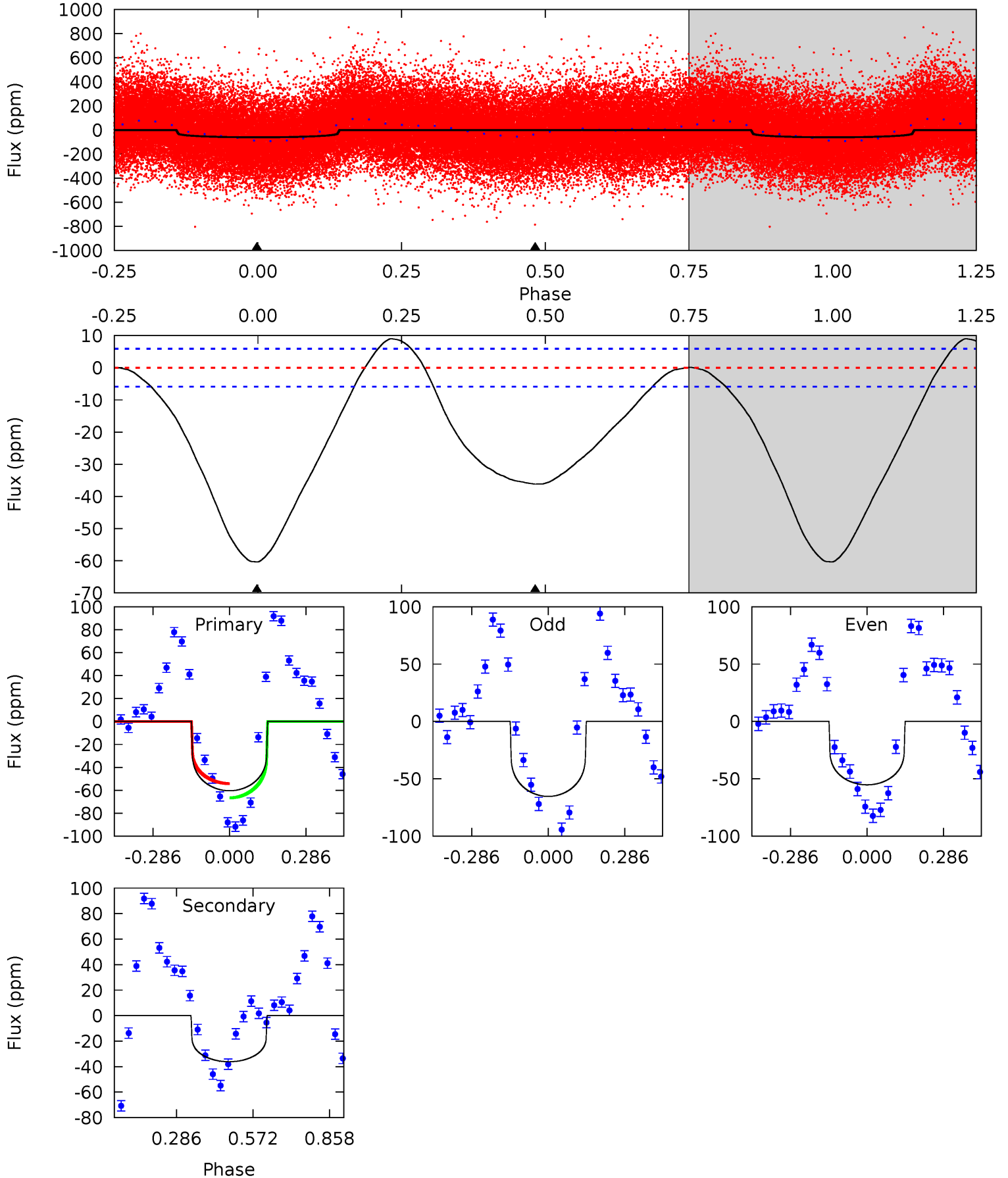




# DV Model-Shift Uniqueness Test

006132064-01, P = 5.773761 Days, E = 130.902606 Days

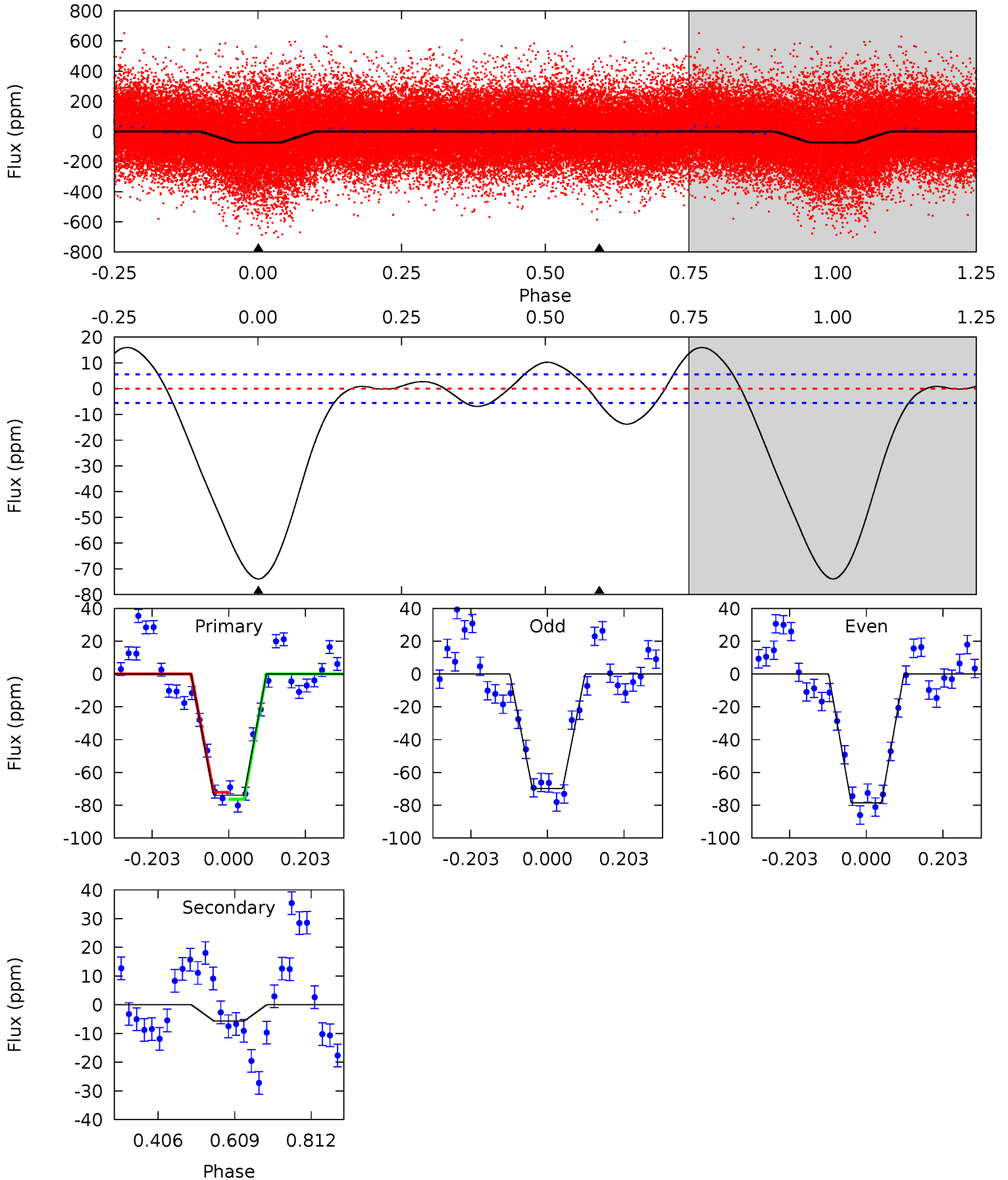
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.5	26.7	0	0	4.34	1.07	3.21	44.5	44.5	26.7	26.7	3.71	1.02	0.13	4.59



# Alt Model-Shift Uniqueness Test

006132064-01, P = 5.773739 Days, E = 131.129659 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
58.8	4.51	0	0	4.41	1.27	2.64	58.8	58.8	4.51	4.51	3.45	0.86	0.18	1.70



### Stellar Parameters For KIC 006132064

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$\rho_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6449^{+77}_{-77}$	$3.841^{+0.203}_{-0.087}$	$-0.060^{+0.150}_{-0.150}$	$2.366^{+0.402}_{-0.552}$	$1.418^{+0.181}_{-0.163}$	$0.151^{+0.174}_{-0.048}$
	+1%/-1%	+5%/-2%	+250%/-250%	+17%/-23%	+13%/-11%	+115%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 006132064-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-36 \pm 1$	$1.02^{+0.65}_{-0.54}$	$2270^{+96}_{-143}$	$7912^{+6239}_{-1806}$	$97^{+353}_{-61}$
Alt.	$-6 \pm 1$	$2.18^{+0.71}_{-0.69}$	$2275^{+99}_{-135}$	$3708^{+531}_{-394}$	$3.321^{+3.782}_{-1.571}$

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



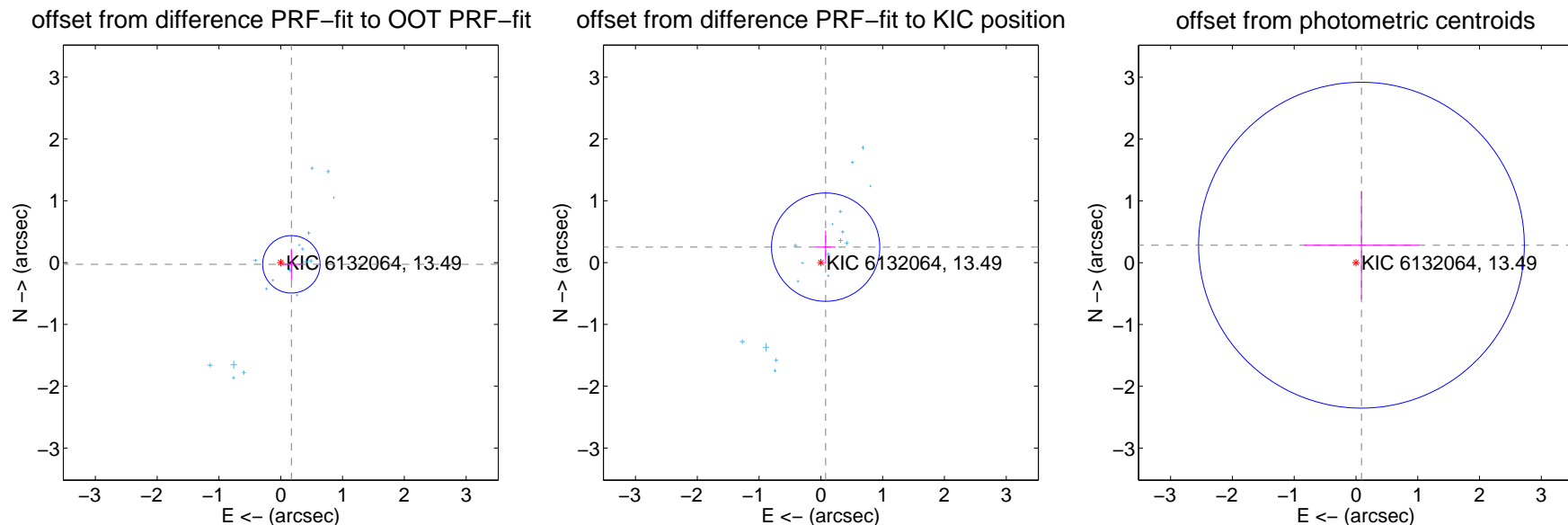
## DV Centroid Data

Supplemental centroid analysis for 006132064-01. Kepler magnitude: 13.49. Transit SNR 6.96

There are 17 quarters with good PRF difference image offsets

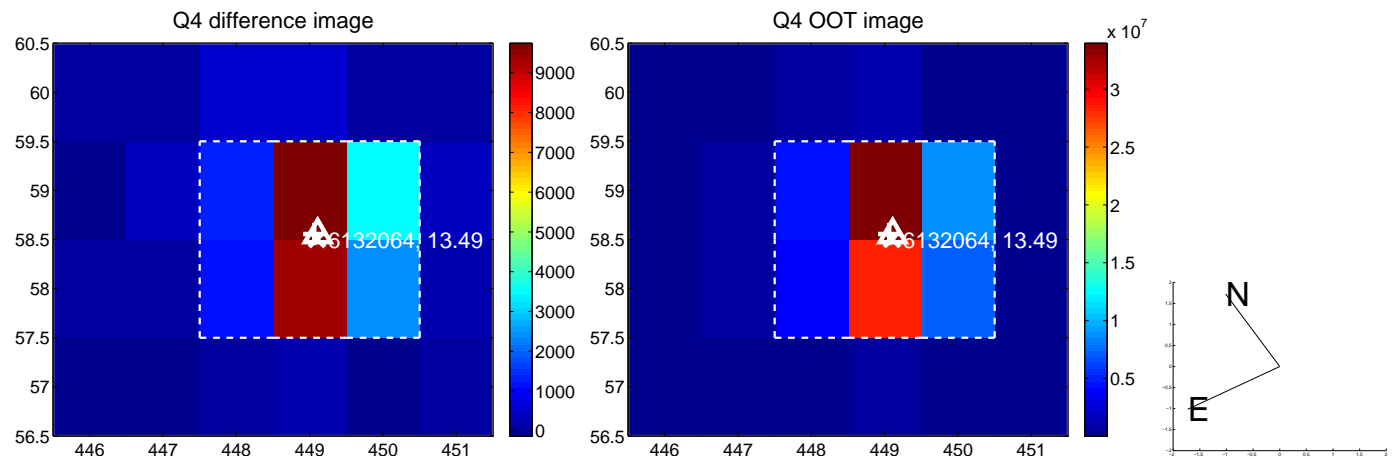
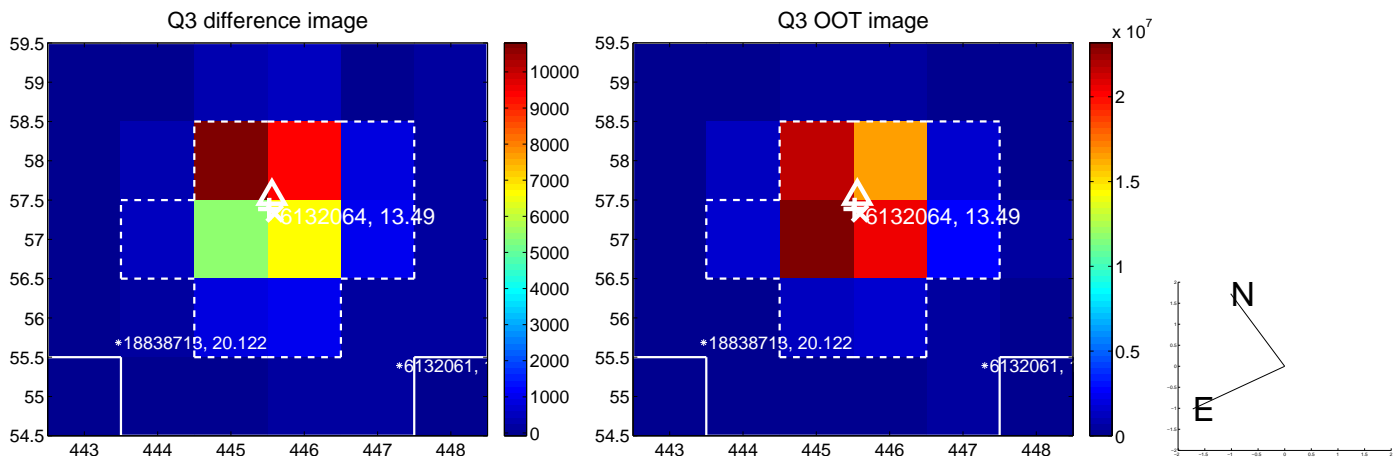
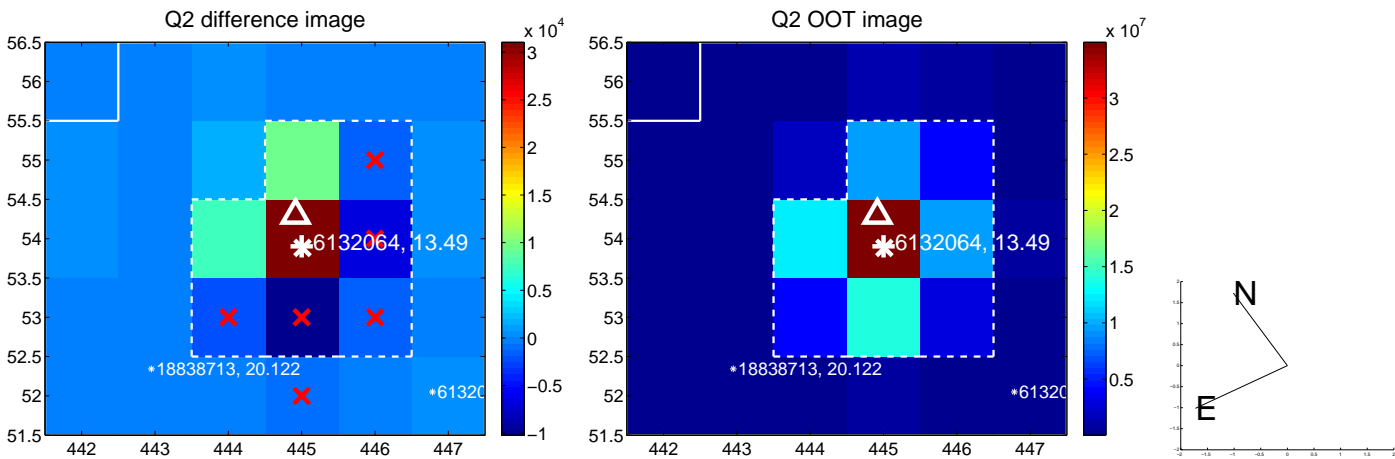
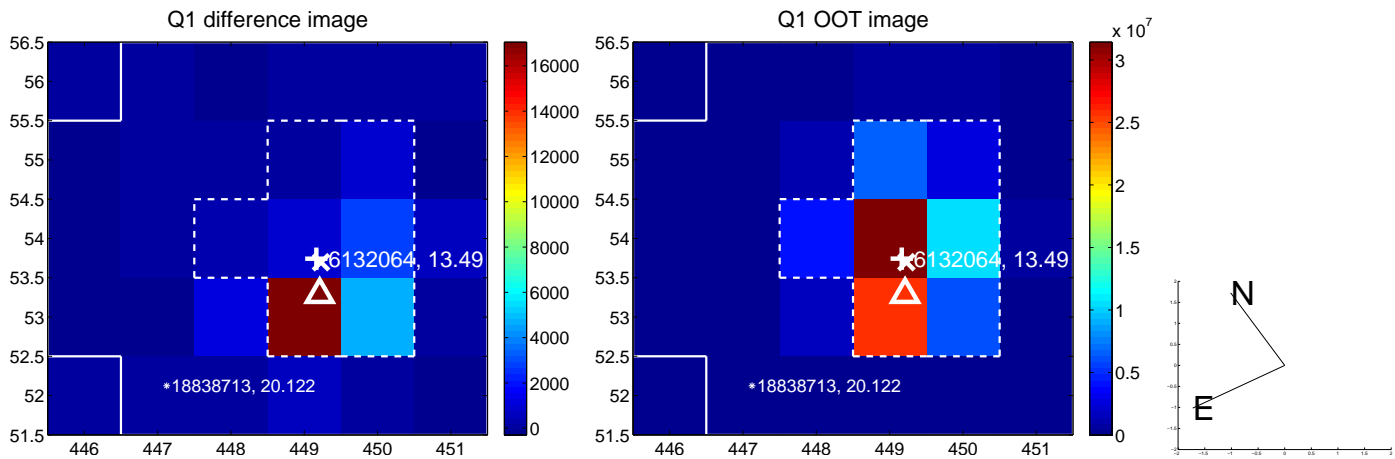
The direct PRF centroid is offset from the target star catalog position by about 0.40 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.175 \pm 0.155$	1.13	$-0.172 \pm 0.152$	$-0.028 \pm 0.252$
PRF-fit source offset from KIC position	$0.262 \pm 0.292$	0.90	$-0.077 \pm 0.159$	$0.250 \pm 0.265$
photometric centroid source offset	$0.30 \pm 0.88$	0.34	$-0.09 \pm 0.93$	$0.28 \pm 0.87$

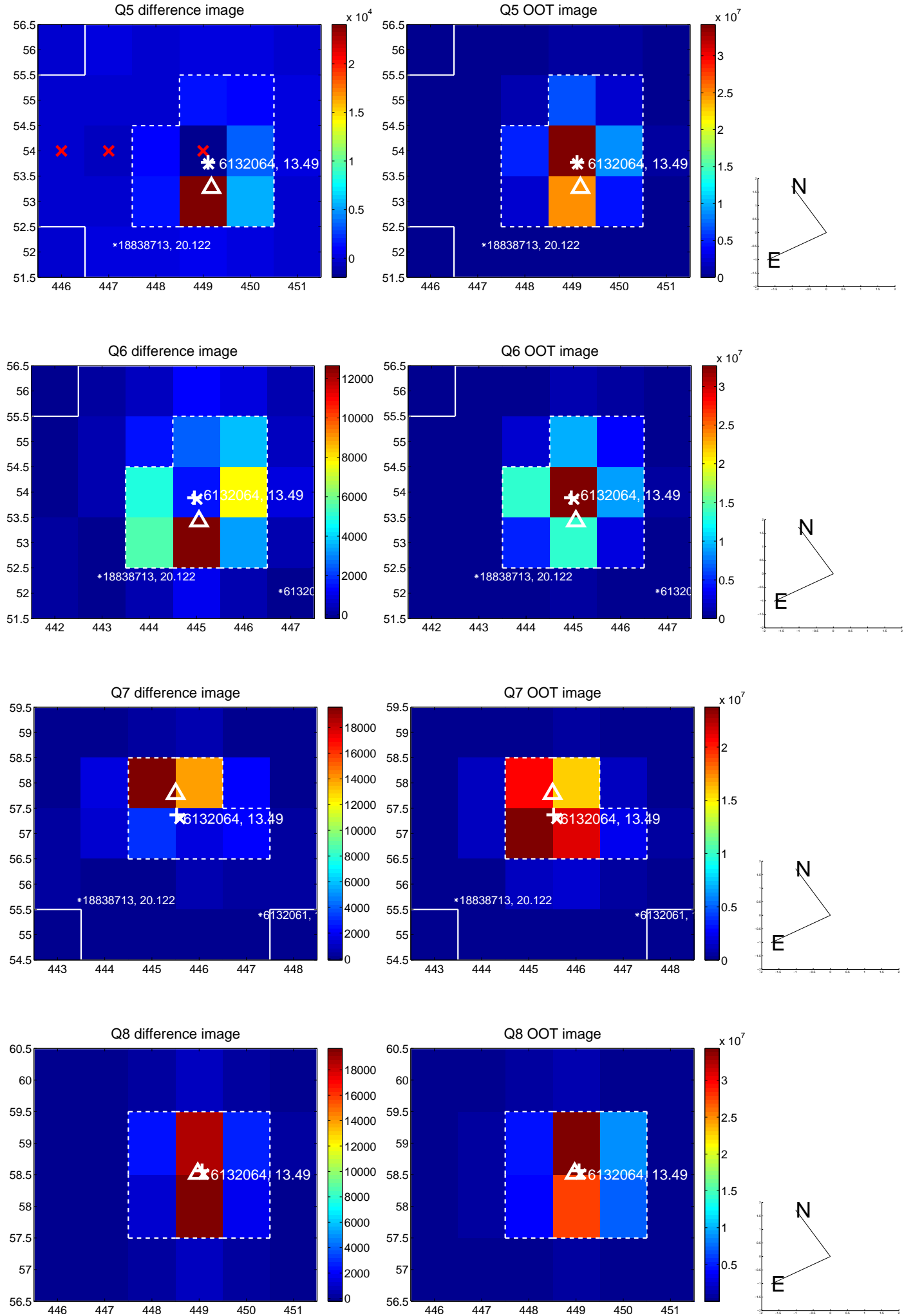


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

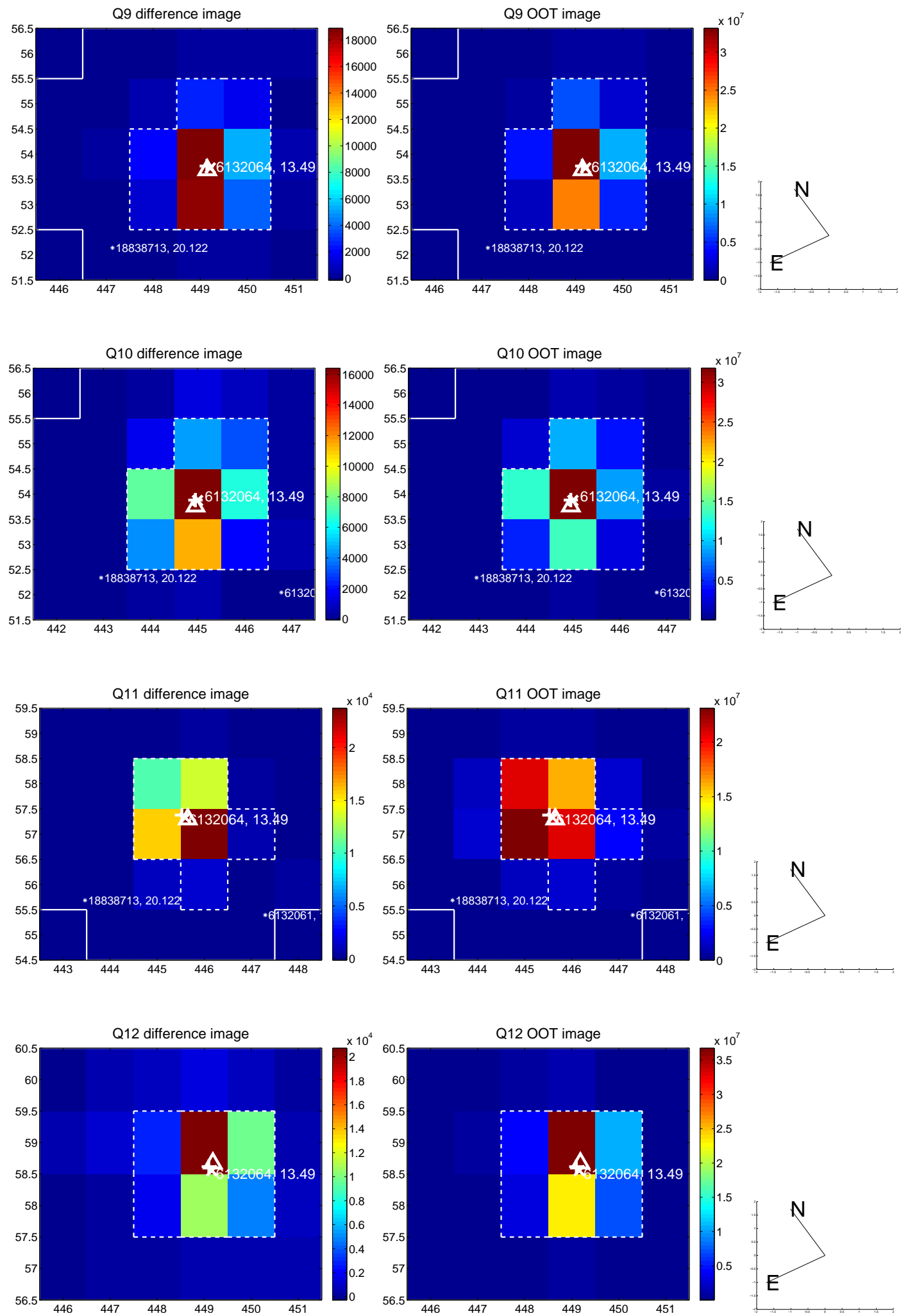
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



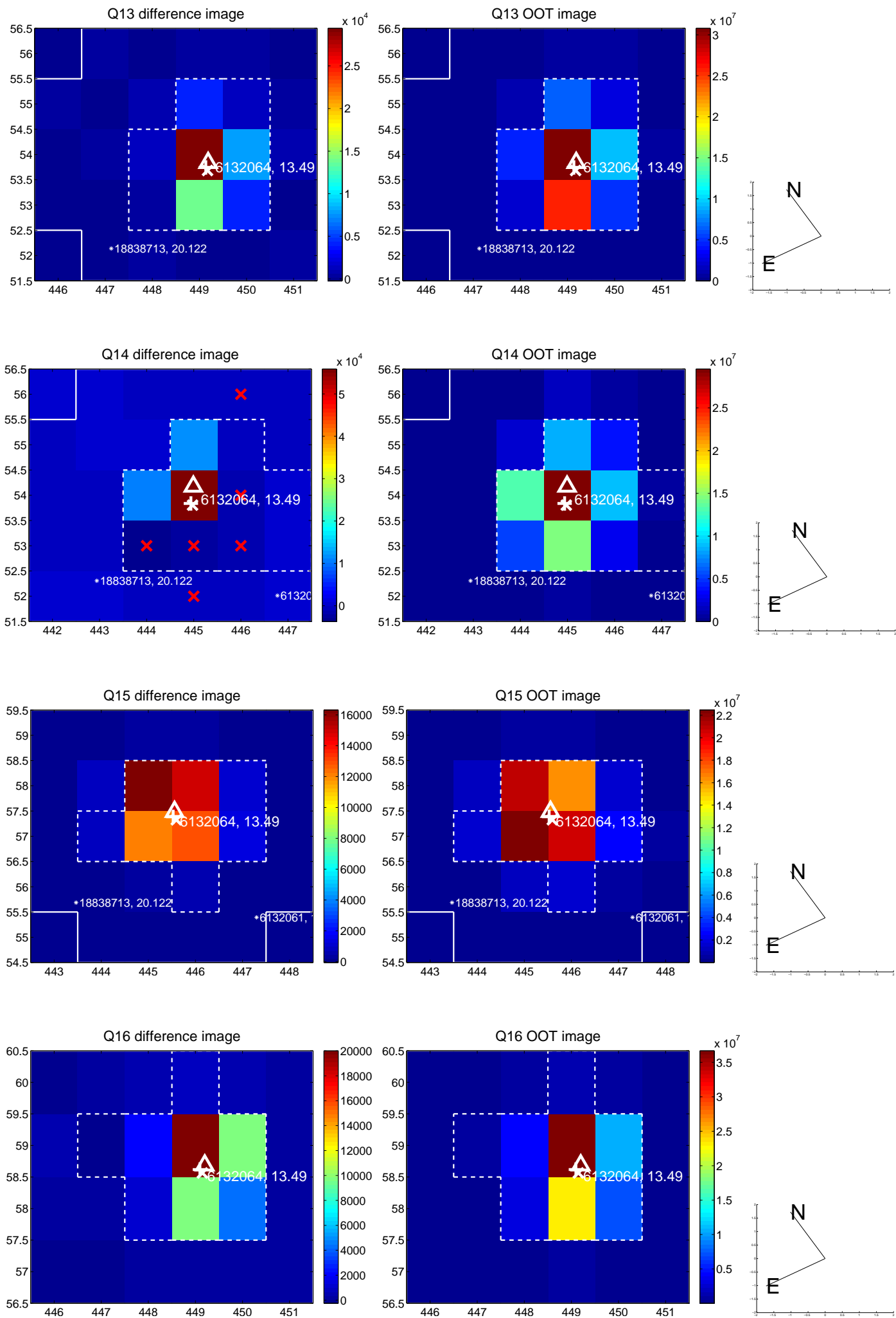
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

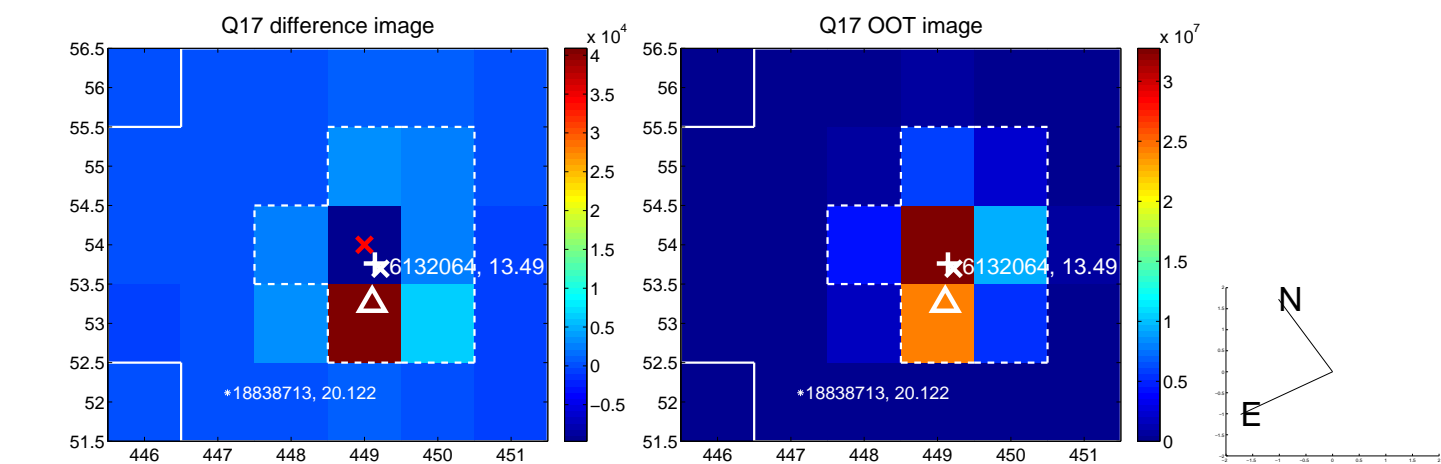


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

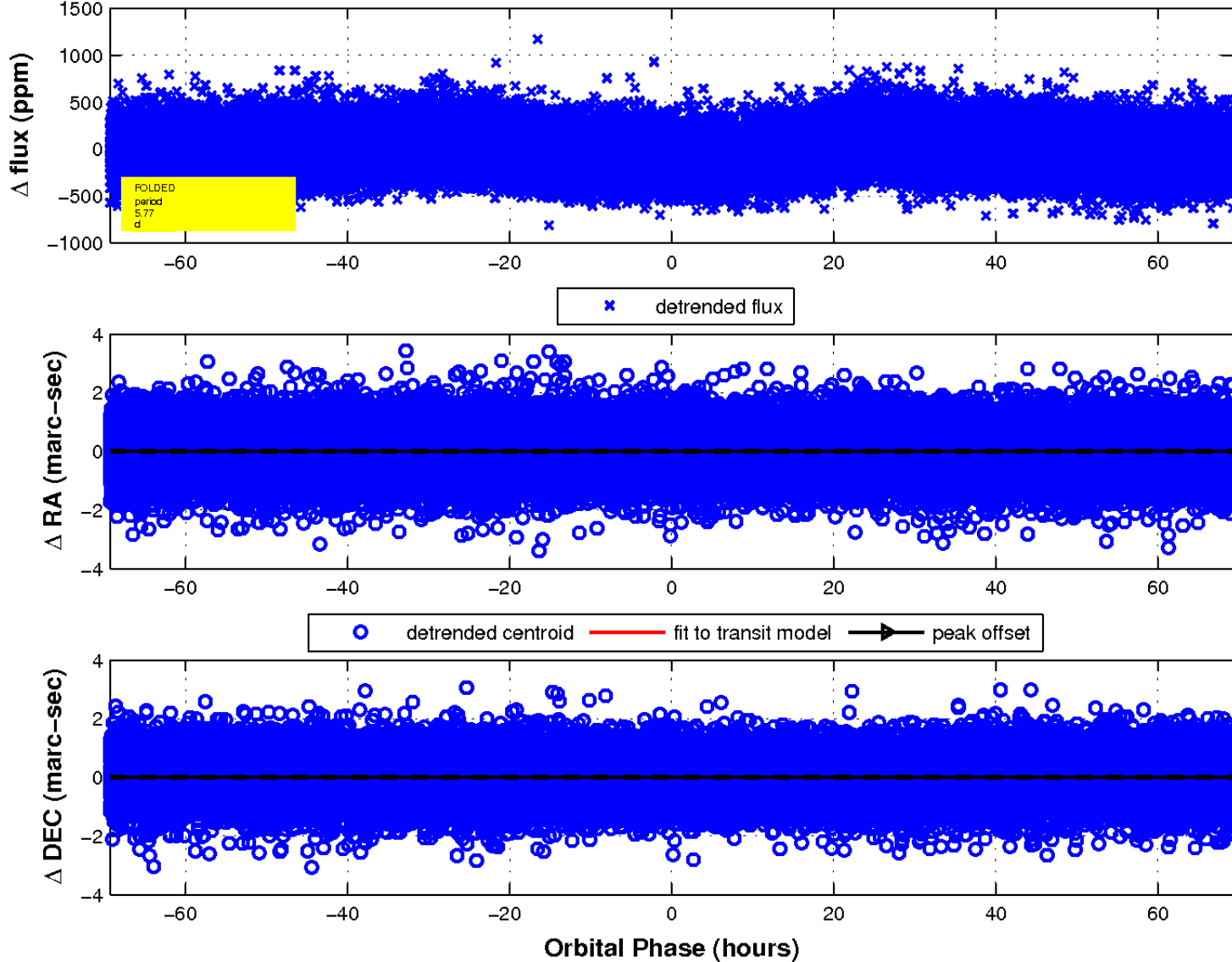




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

