

# KIC 006526568

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006526568-01	OBS	No	1.633344	132.082884	7.0	15.512	9.9	4.6	1.82	6919	0.49	7291.59

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006526568-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_FEW_MEAS

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

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

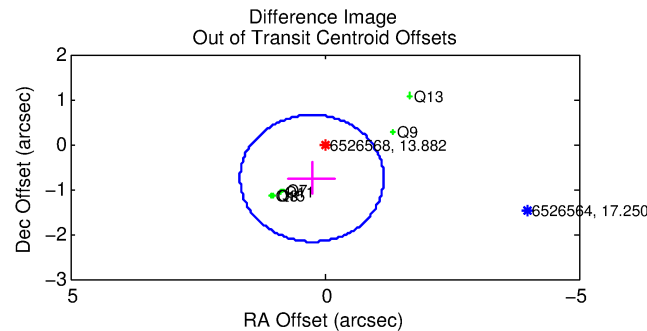
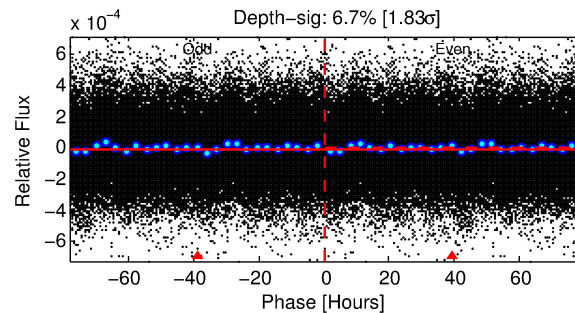
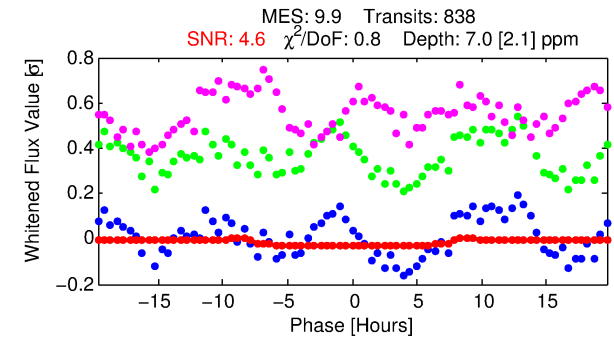
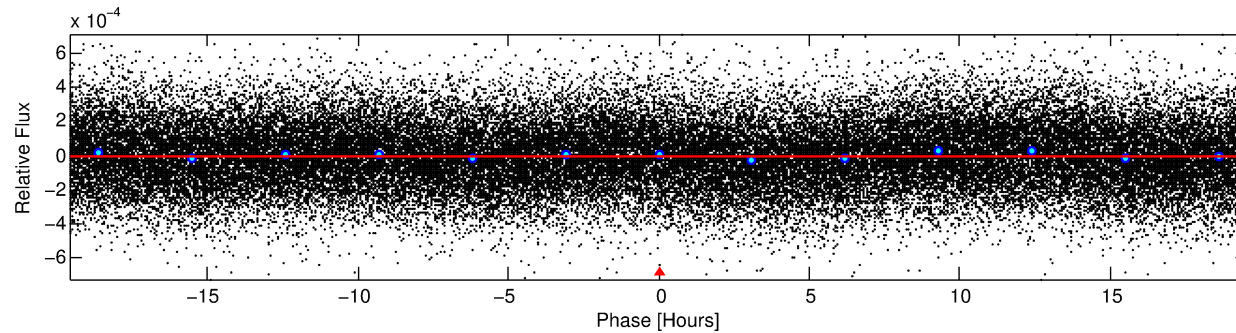
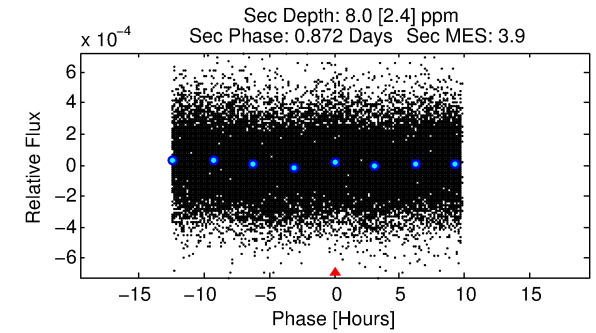
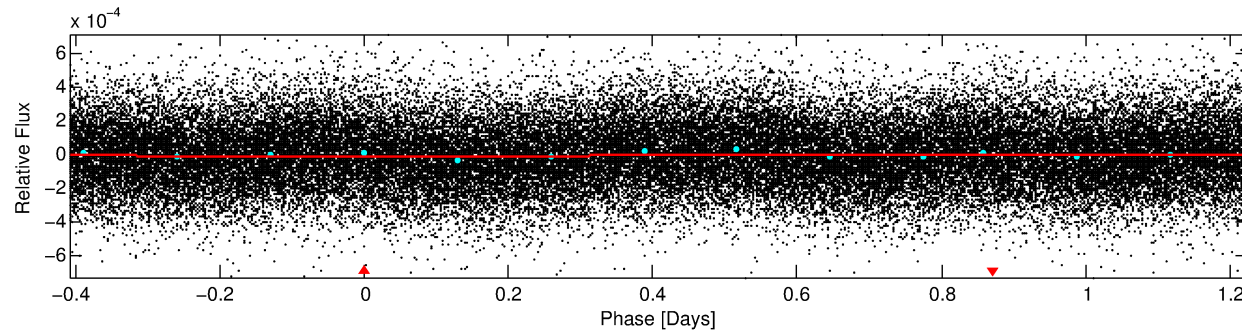
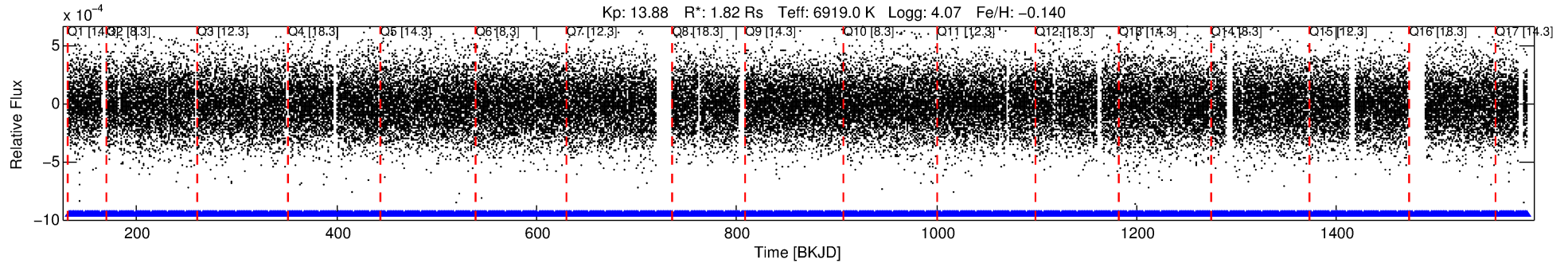
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006526568-01

No Significant Match Found

# DV One-Page Summary

KIC: 6526568 Candidate: 1 of 1 Period: 1.633 d



## DV Fit Results:

Period = 1.63334 [0.00009] d  
Epoch = 132.0829 [0.0269] BKJD  
Rp/R\* = 0.0025 [0.0055]  
a/R\* = 1.06 [1.36]  
b = 0.25 [48.47]  
Seff = 7291.59 [1864.81]  
Teq = 2356 [151] K  
Rp = 0.49 [1.10] Re  
a = 0.0306 [0.0050] AU  
Ag = 17.07 [76.36] [0.21σ]  
Teffp = 7405 [8271] K [0.61σ]

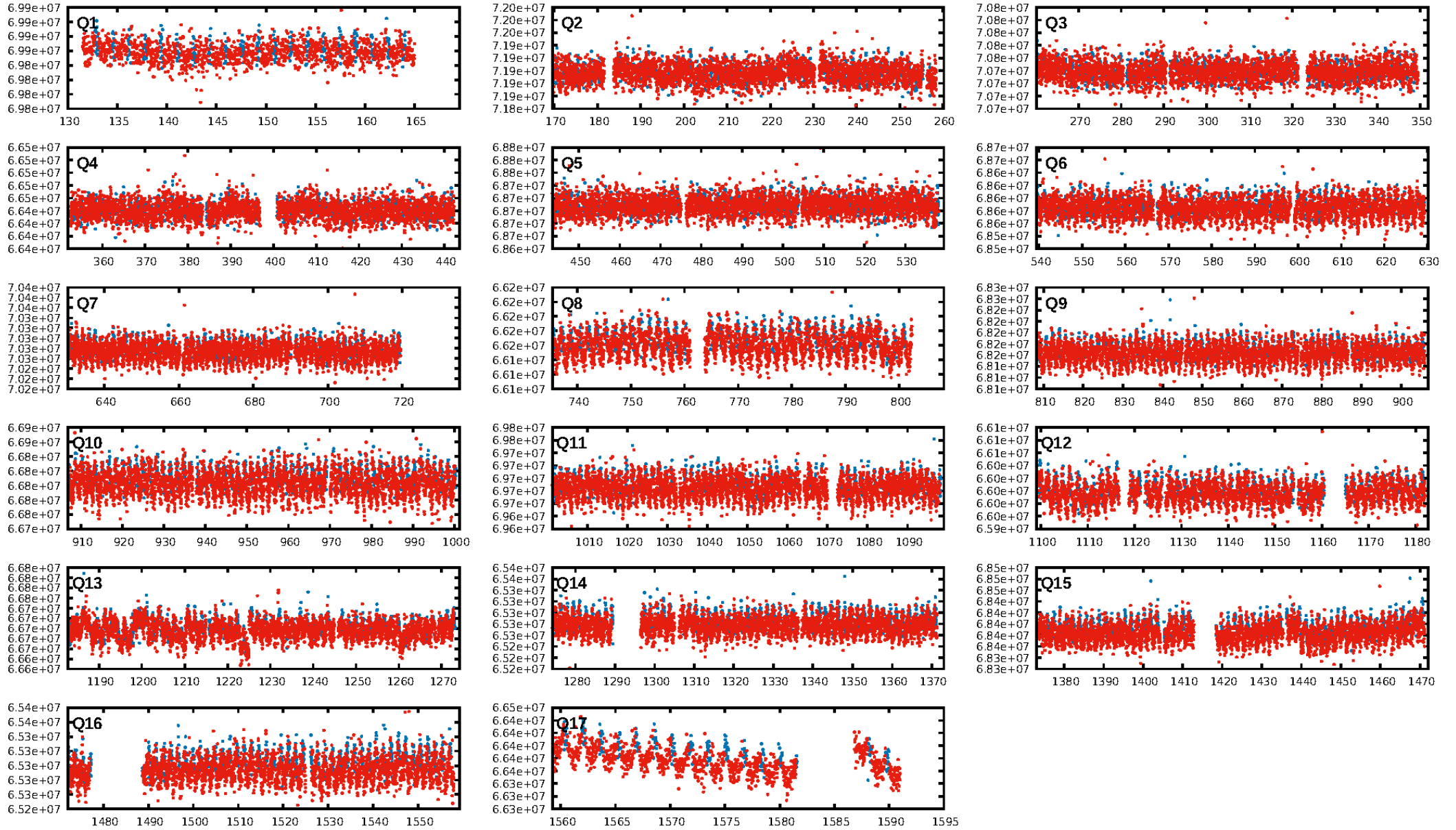
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [800/800]  
GhostDiagnostic-chr: 0.2694  
Centroid-sig: 0.0%  
Centroid-so: 6.545 arcsec [2.90σ]  
OotOffset-rm: 0.800 arcsec [1.70σ]  
KicOffset-rm: 1.005 arcsec [2.81σ]  
OotOffset-st: 0/4/0/2 [6]  
KicOffset-st: 0/4/0/2 [6]  
DiffImageQuality-fgm: 1.00 [6/6]  
DiffImageOverlap-fno: 1.00 [17/17]

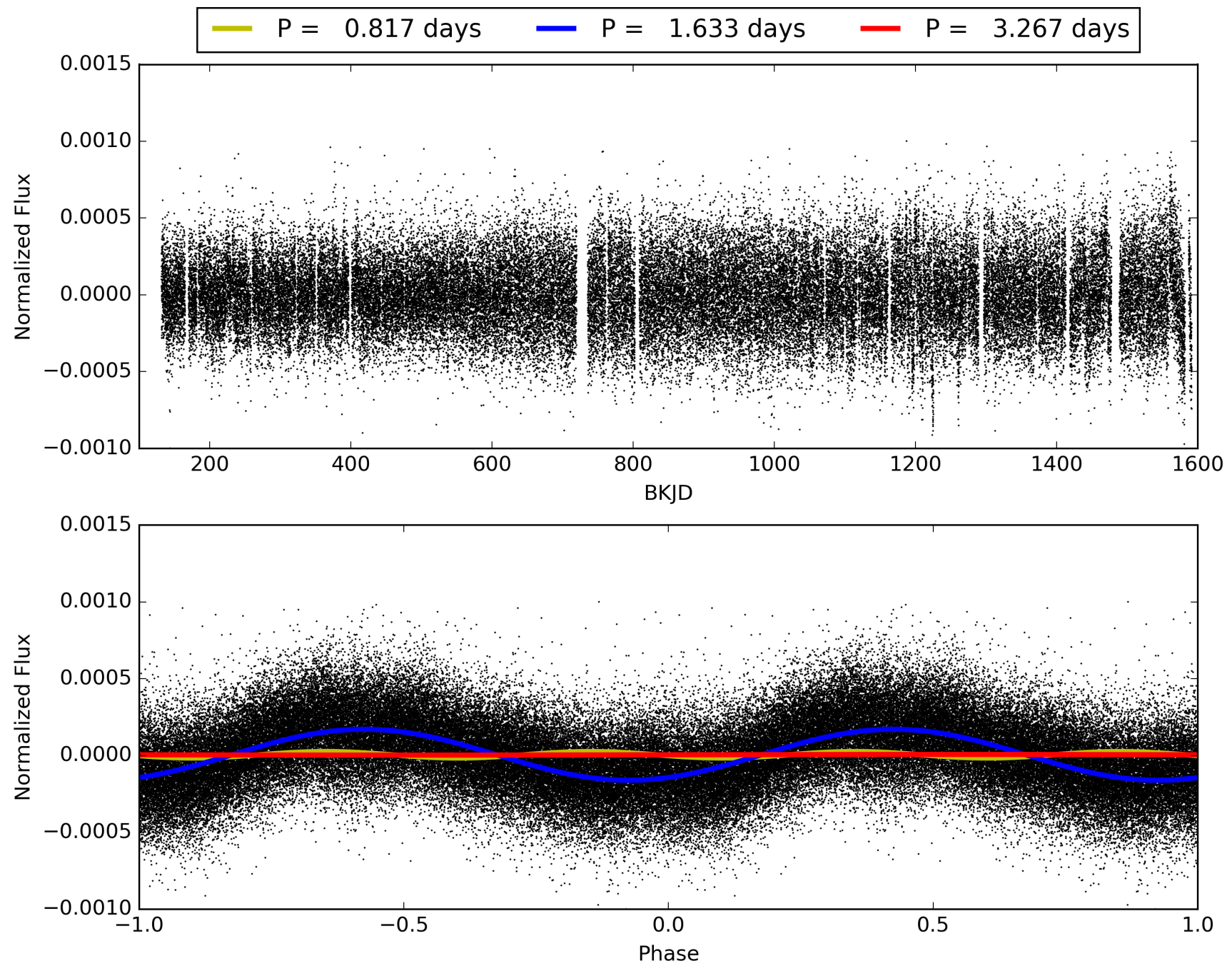
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:41:42 Z

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

# TCE 006526568-01, PDC Light Curves



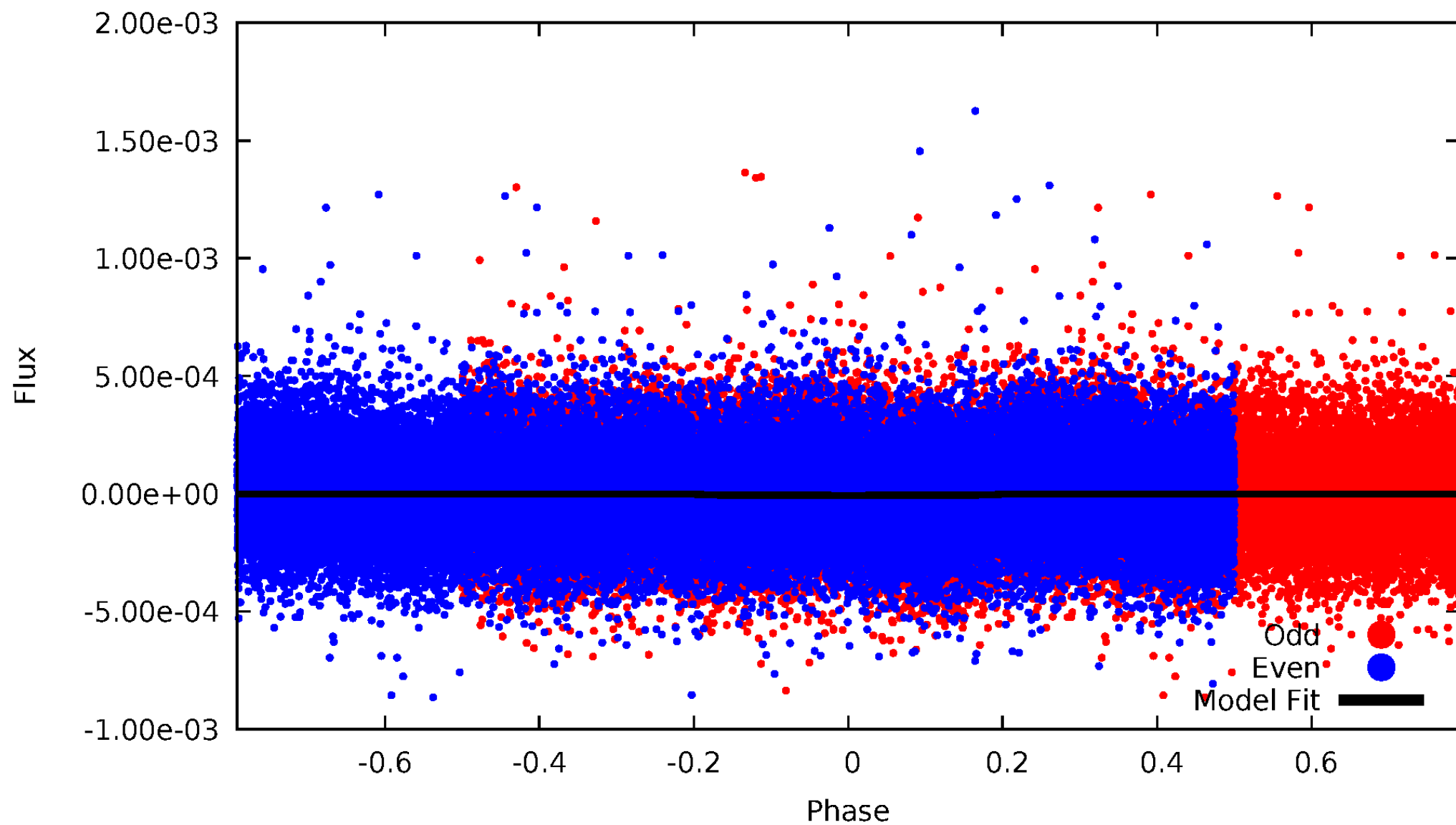
TCE 006526568-01





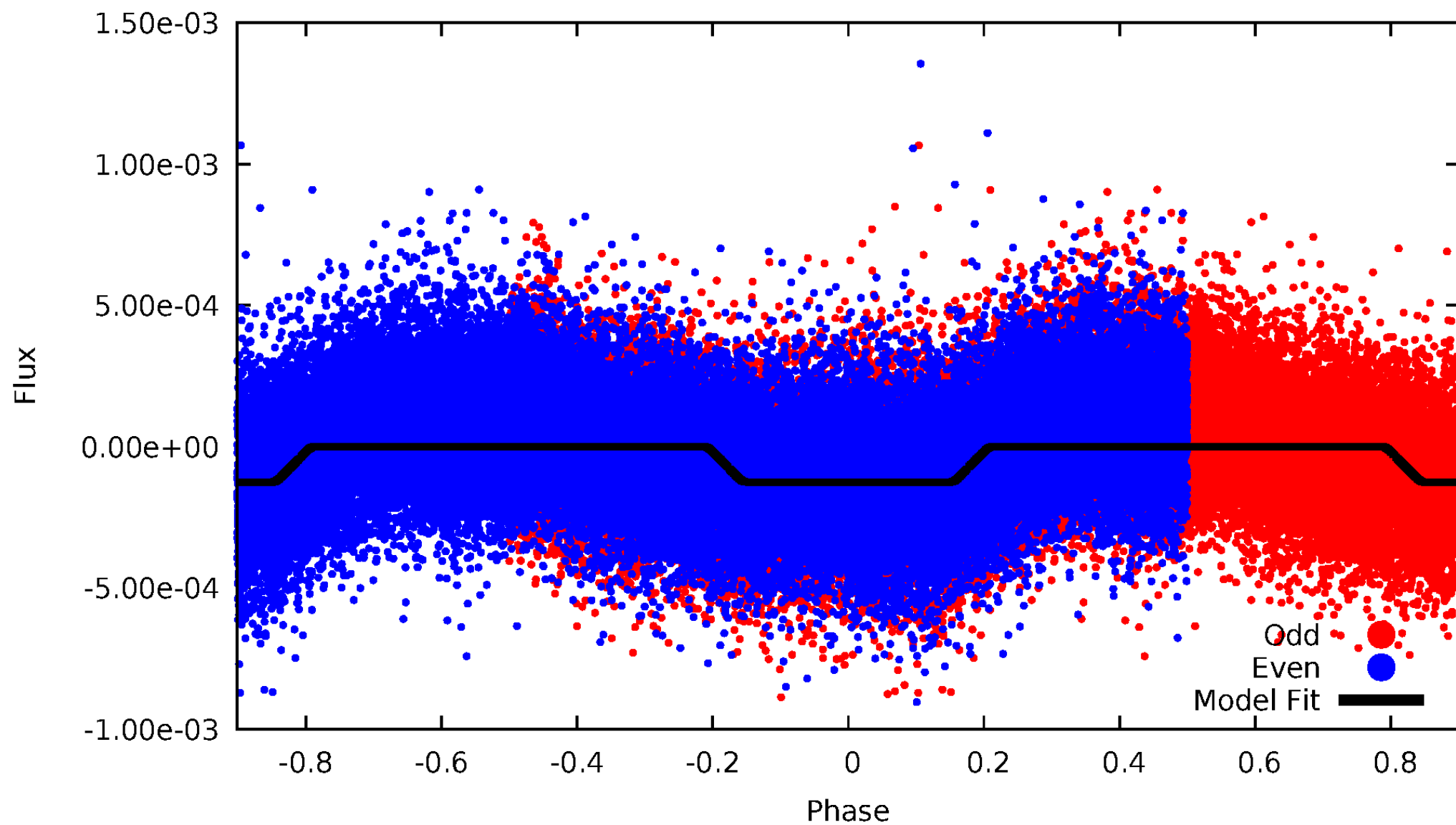
# DV Odd/Even

TCE 006526568-01



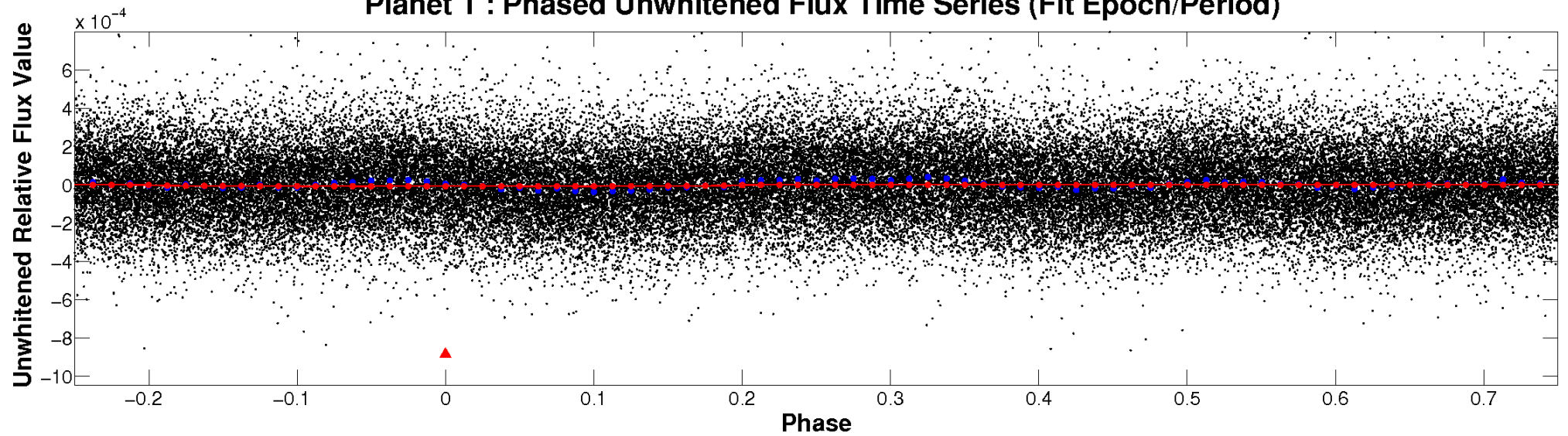
# ALT Odd/Even

TCE 006526568-01

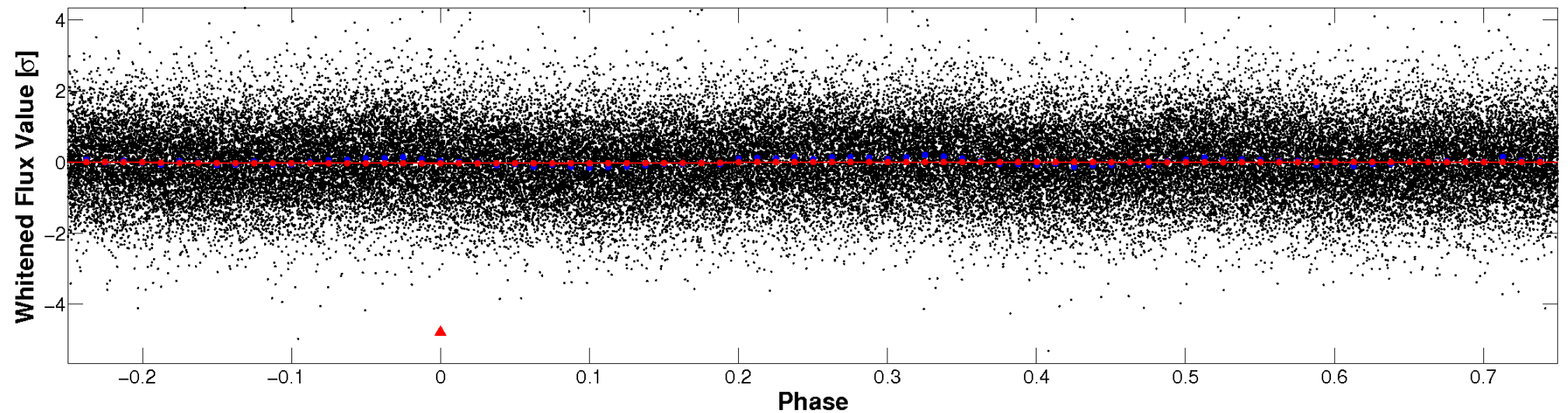


# Non-Whitened Vs. Whitened Light Curve

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

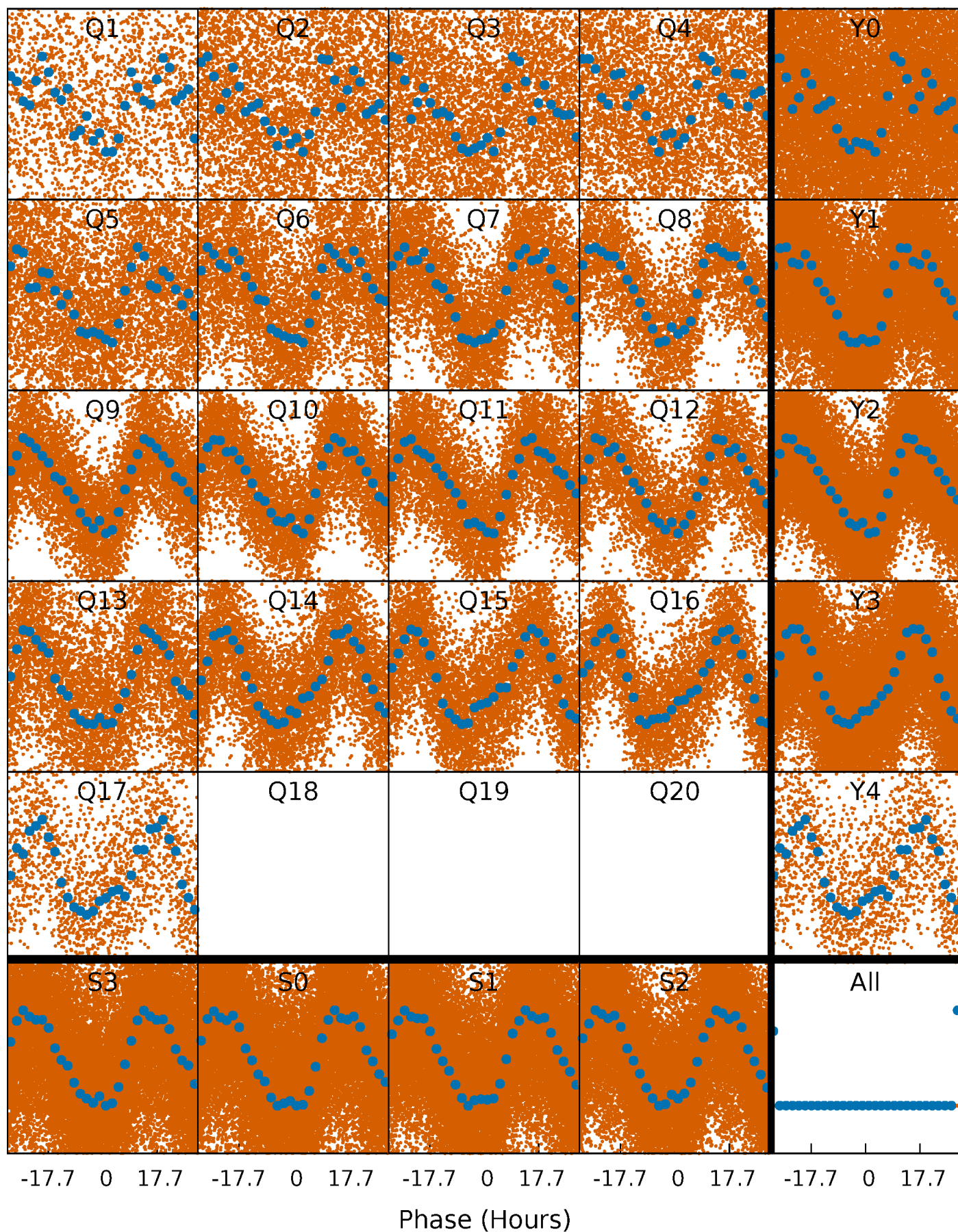


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

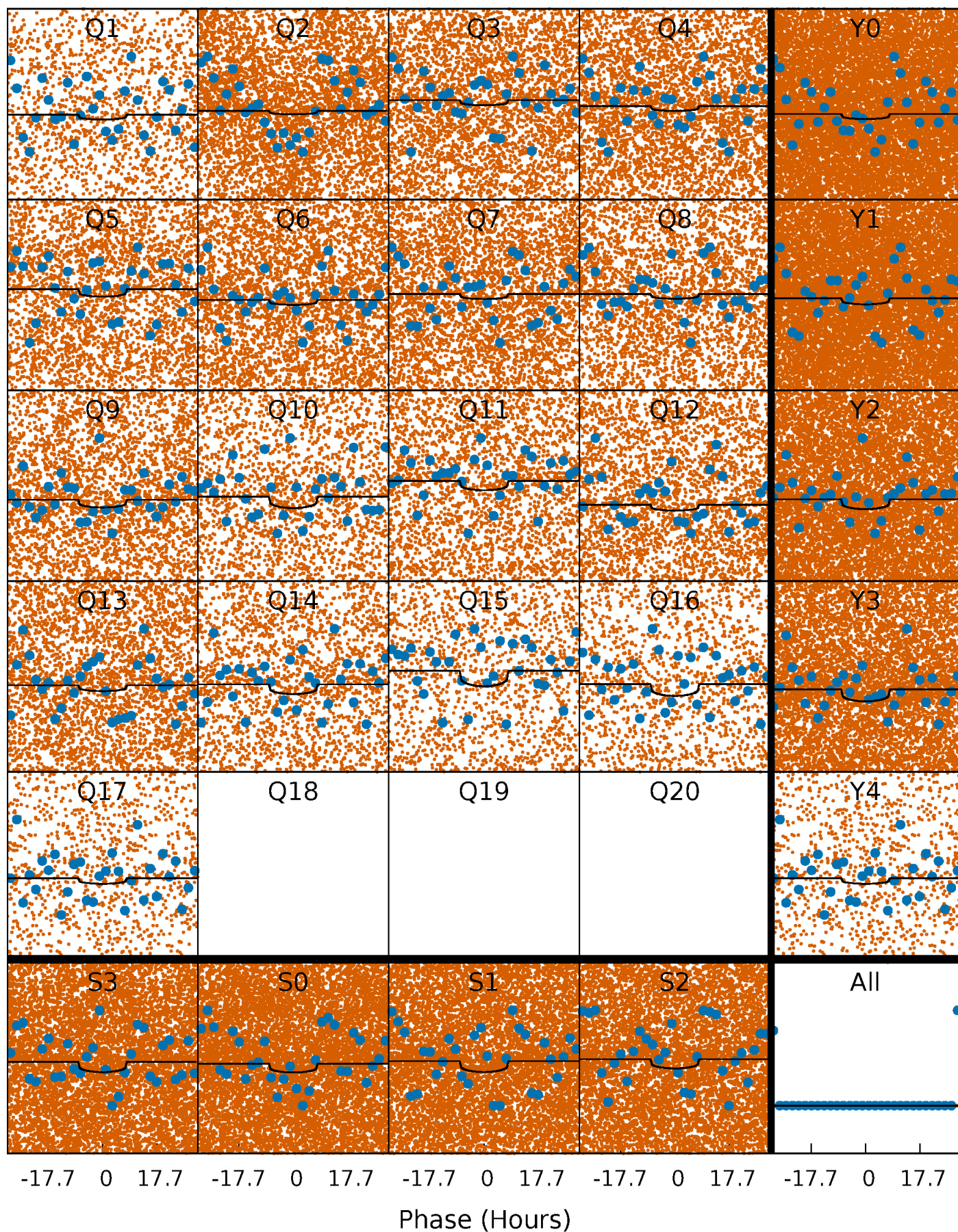
TCE 006526568-01 P= 1.633344 Days  $T_0=132.082884$  (BKJD)





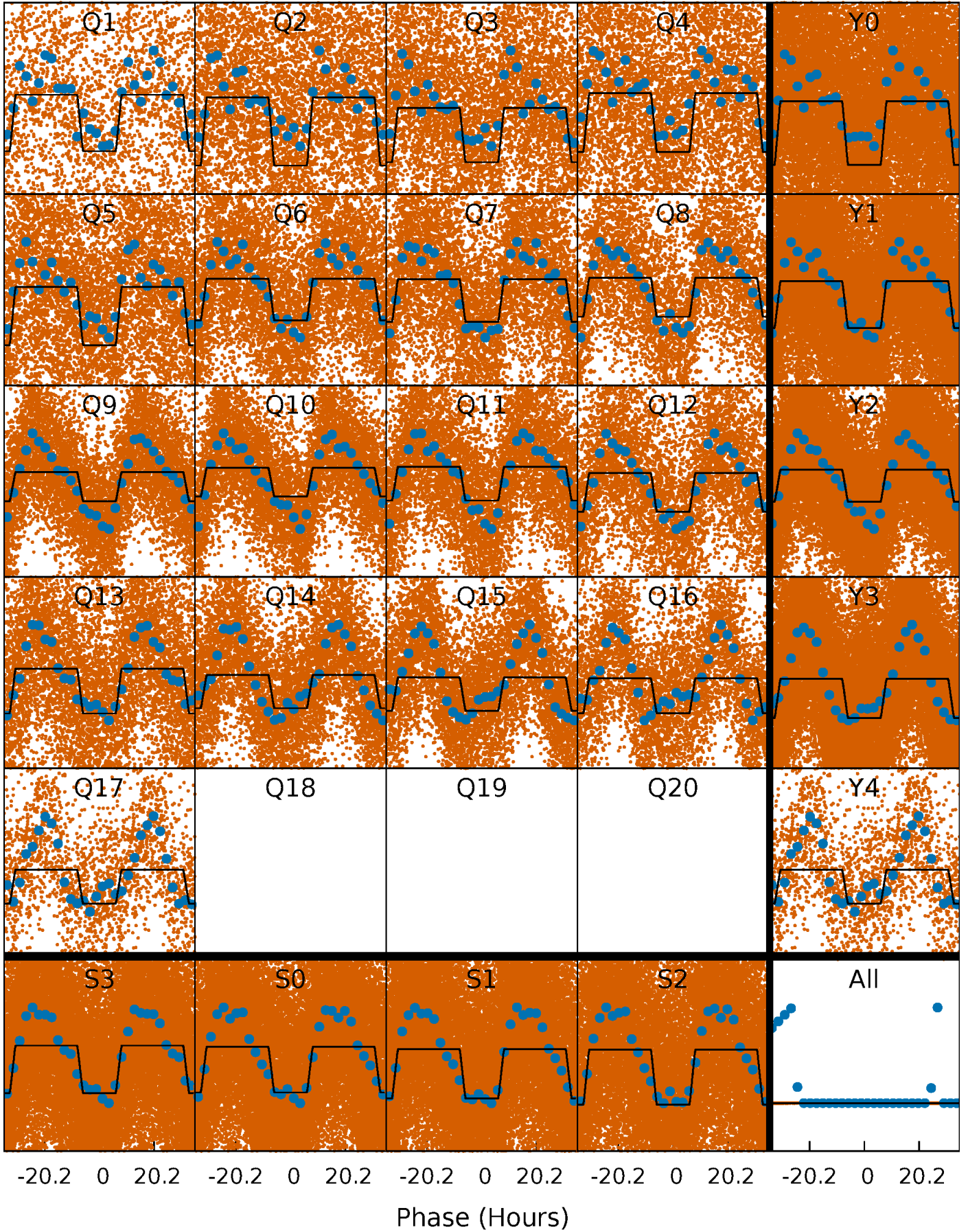
# DV Quarter-Phased Transit Curves

TCE 006526568-01 P= 1.633344 Days  $T_0=132.082884$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 006526568-01 P= 1.633339 Days  $T_0=132.061608$  (BKJD)

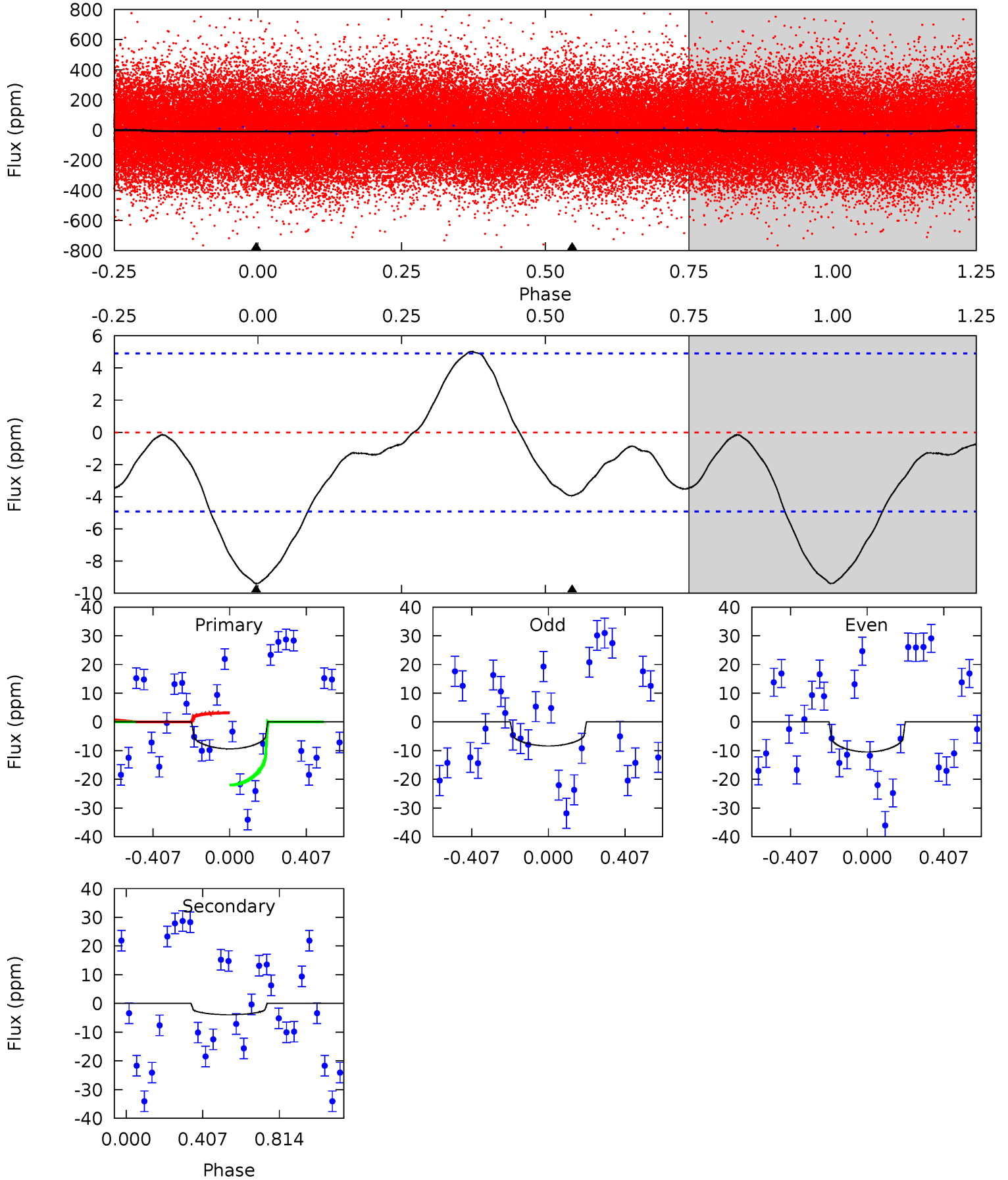




# DV Model-Shift Uniqueness Test

006526568-01, P = 1.633344 Days, E = 130.449540 Days

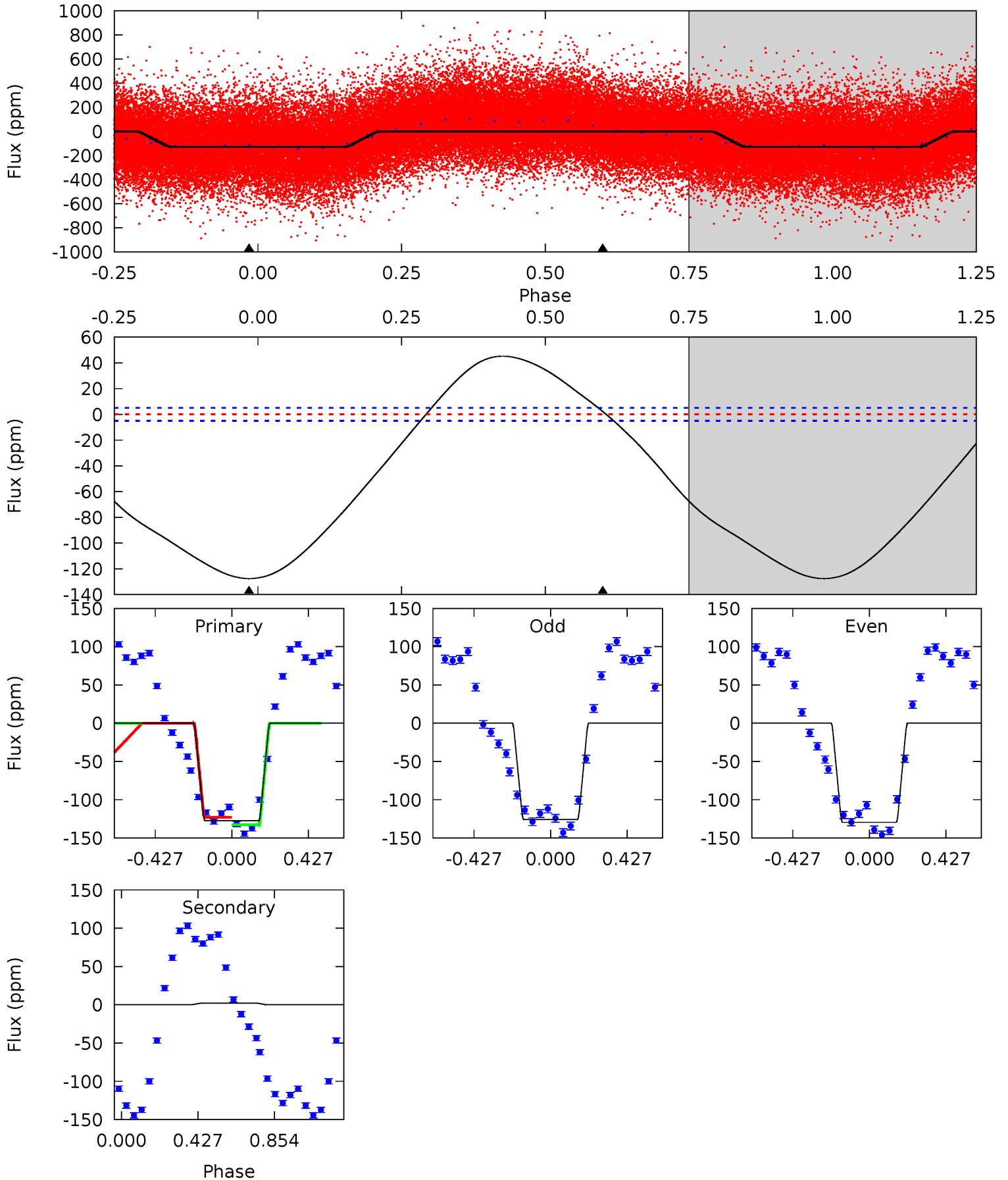
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.15	3.42	0	0	4.26	0.83	1.11	8.15	8.15	3.42	3.42	0.90	1.25	0.35	8.08



# Alt Model-Shift Uniqueness Test

006526568-01, P = 1.633339 Days, E = 130.428269 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
107.8	-1.85	0	0	4.25	0.79	13.1	107.8	107.8	-1.85	-1.85	1.56	1.02	0.26	4.27





### Stellar Parameters For KIC 006526568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6919^{+72}_{-83}$	$4.072^{+0.143}_{-0.117}$	$-0.140^{+0.150}_{-0.150}$	$1.823^{+0.334}_{-0.334}$	$1.433^{+0.116}_{-0.116}$	$0.333^{+0.231}_{-0.116}$
	+1%/-1%	+4%/-3%	+107%/-107%	+18%/-18%	+8%/-8%	+69%/-35%
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 006526568-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-4 \pm 1$	$0.93^{+0.94}_{-0.65}$	$3282^{+155}_{-164}$	$4435^{+3878}_{-1309}$	$2.240^{+23.803}_{-1.688}$
Alt.	$2 \pm 1$	$2.24^{+1.10}_{-1.04}$	$3283^{+156}_{-150}$	$-3535^{+198}_{-472}$	$-0.204^{+0.140}_{-0.547}$

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

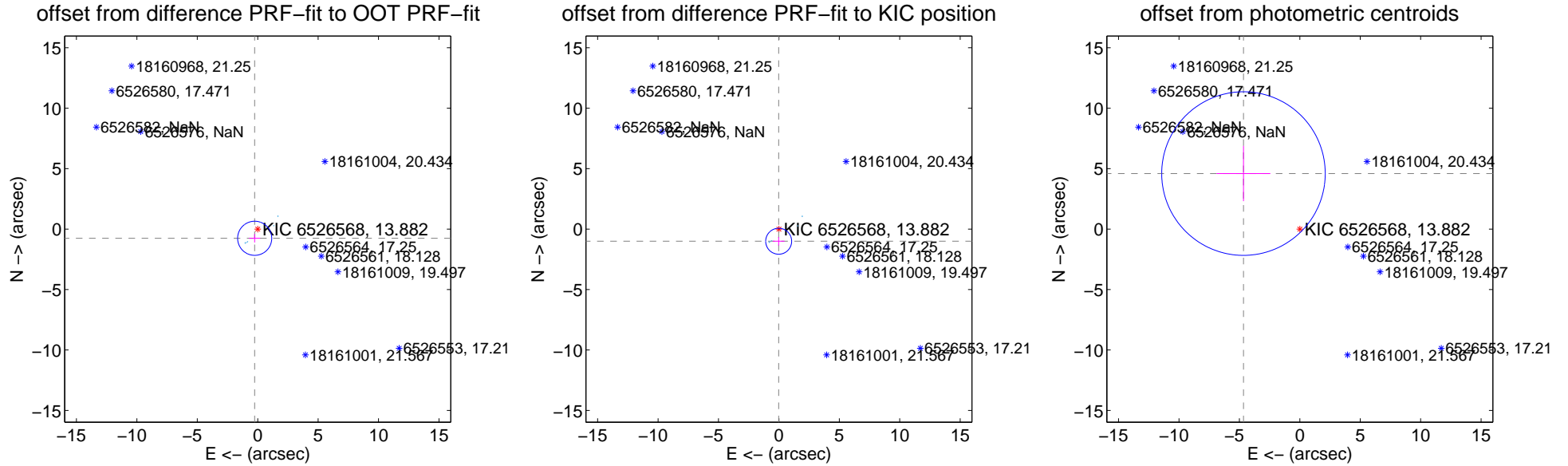
## DV Centroid Data

Supplemental centroid analysis for 006526568-01. Kepler magnitude: 13.88. Transit SNR 4.58

There are 6 quarters with good PRF difference image offsets

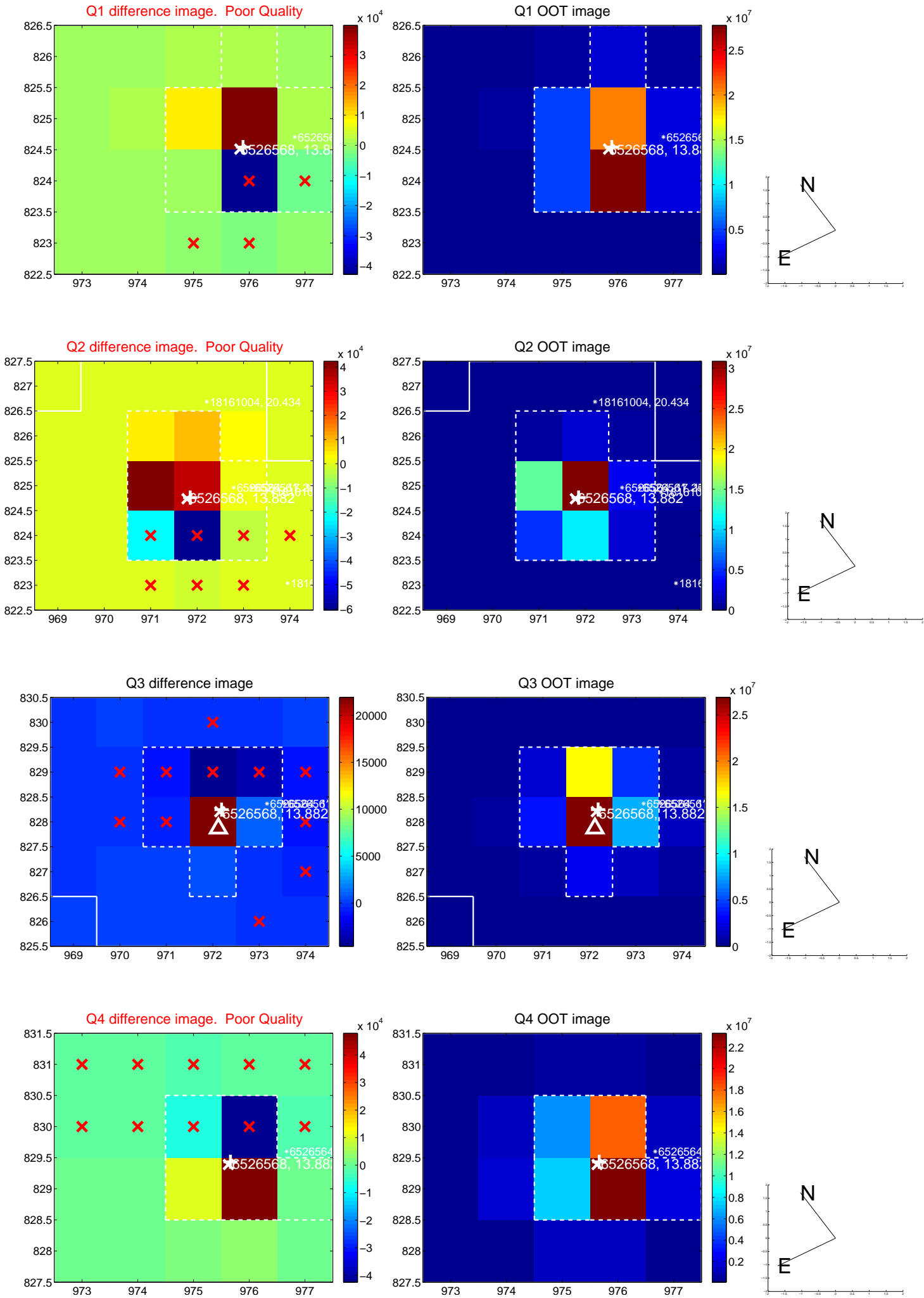
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.800 \pm 0.470$	1.70	$0.250 \pm 0.461$	$-0.760 \pm 0.348$
PRF-fit source offset from KIC position	$1.005 \pm 0.358$	2.81	$0.020 \pm 0.483$	$-1.005 \pm 0.349$
photometric centroid source offset	$6.55 \pm 2.26$	2.90	$4.66 \pm 2.22$	$4.59 \pm 2.29$

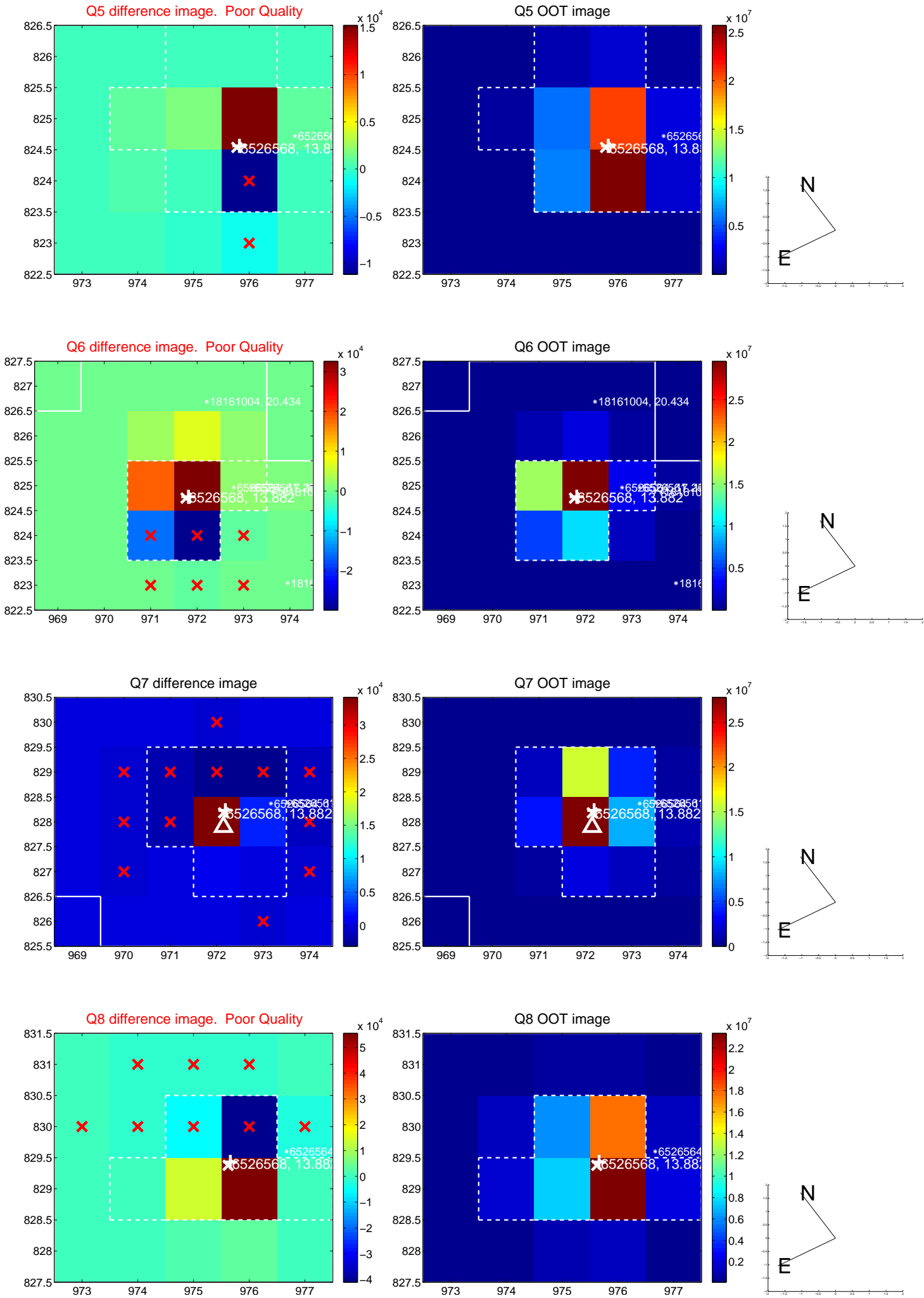


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

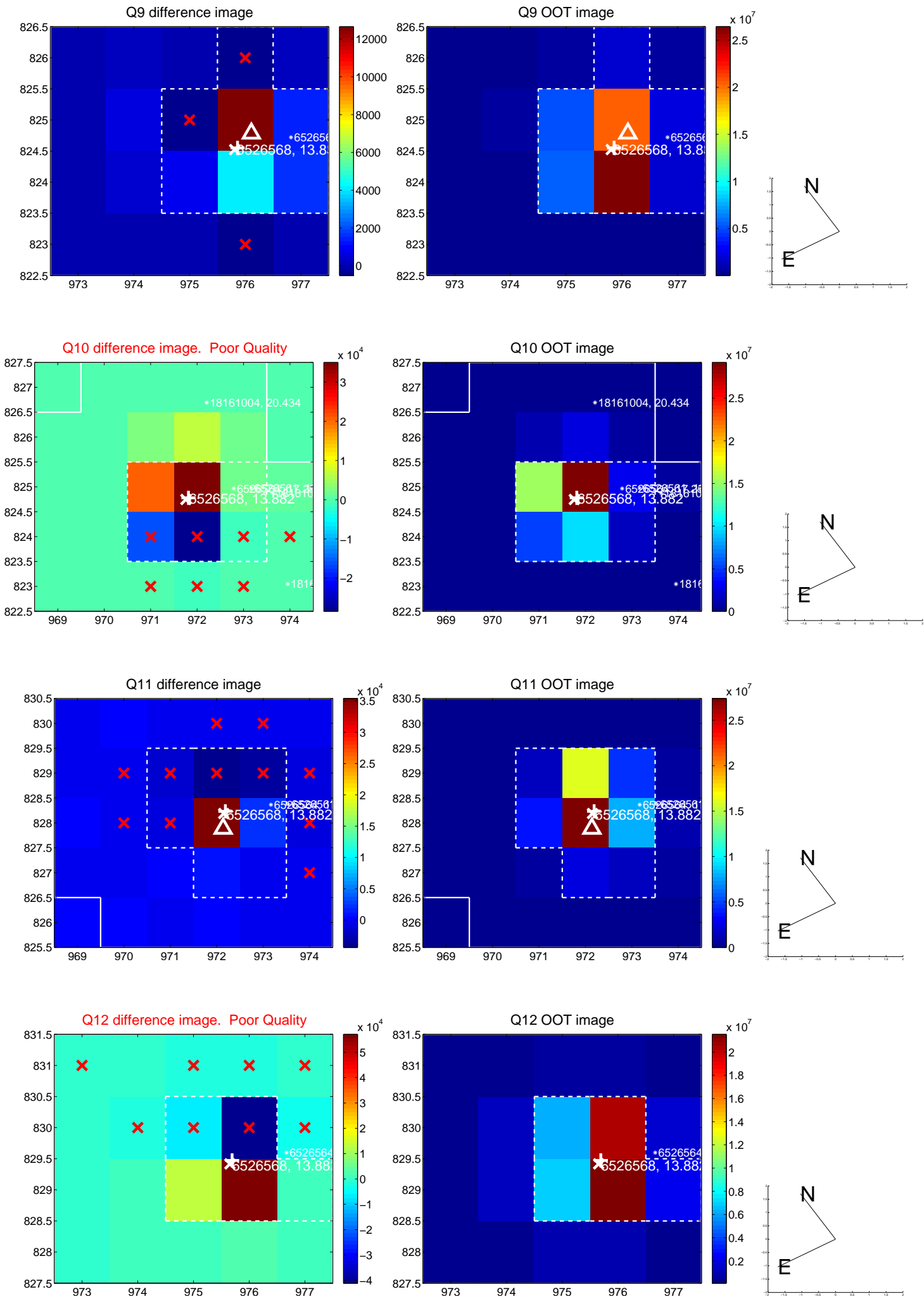


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

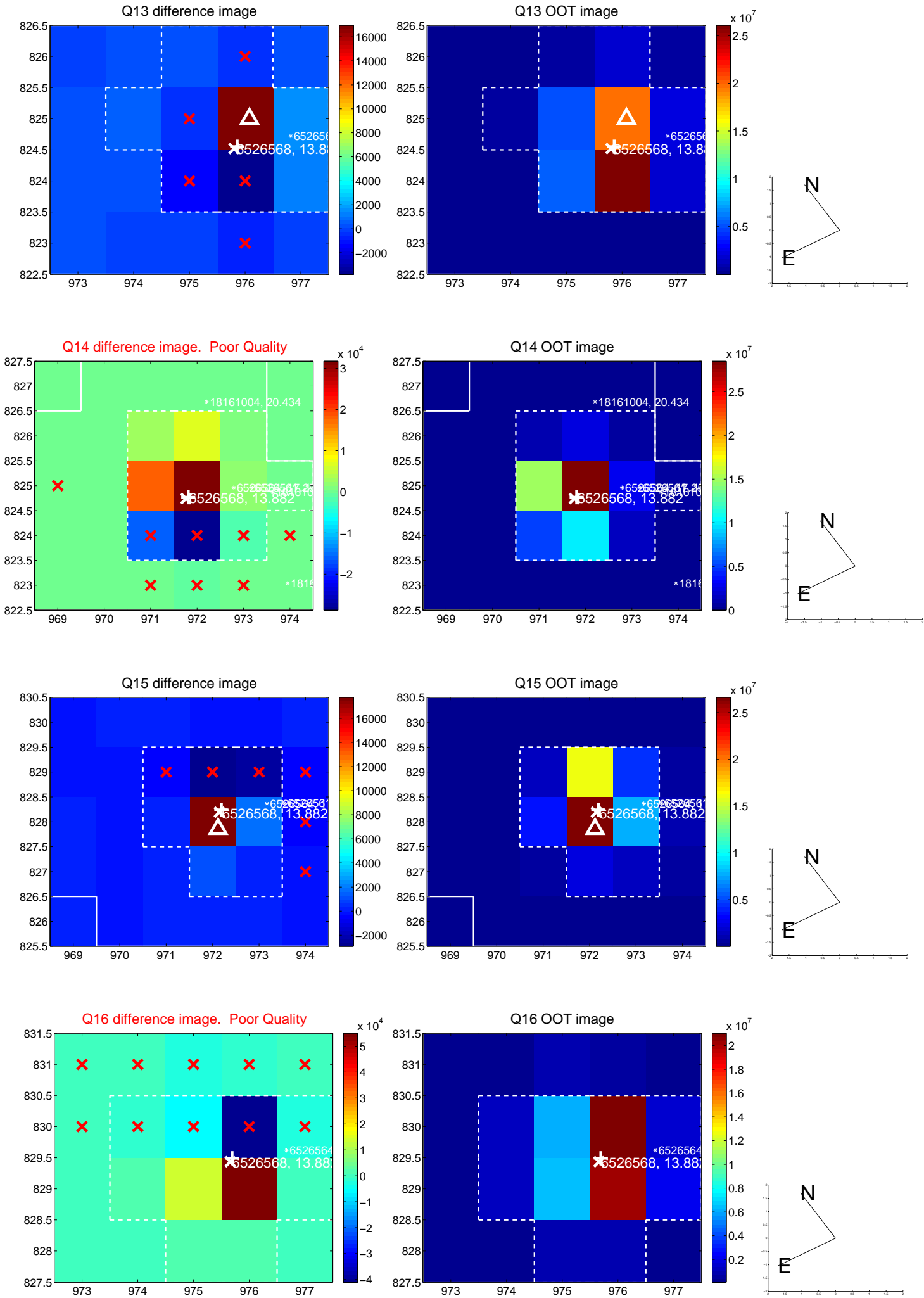




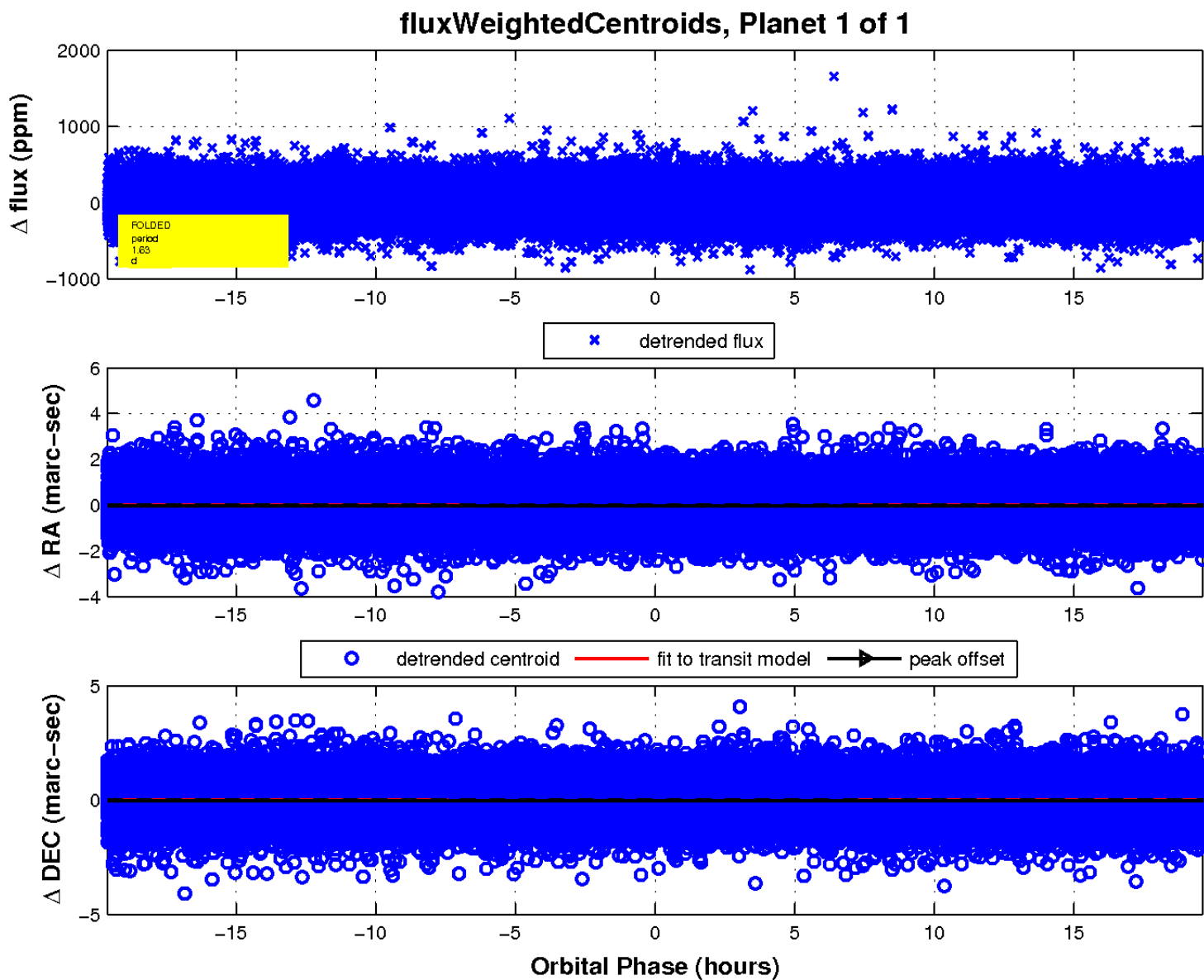
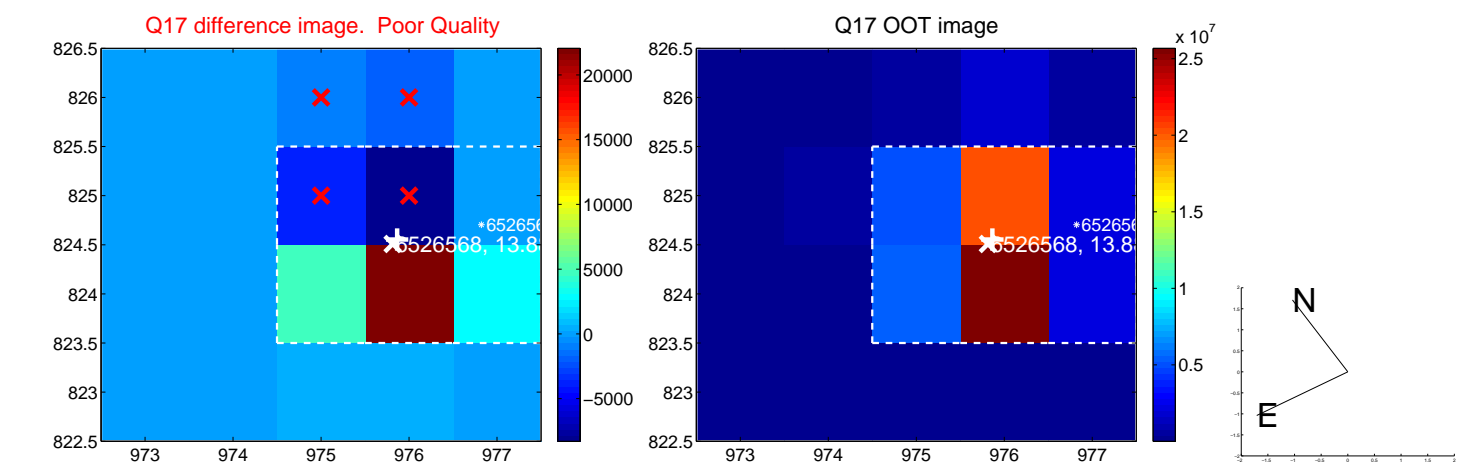
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

