

# KIC 007286276

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007286276-01	OBS	No	1.486025	132.876948	42.6	4.205	9.5	8.4	1.74	6881	1.33	8273.05

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007286276-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

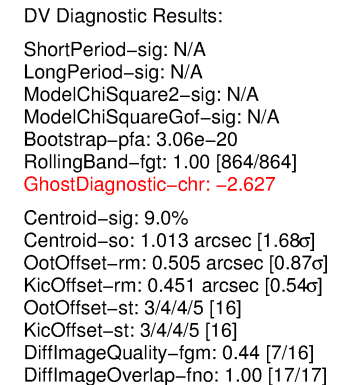
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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.

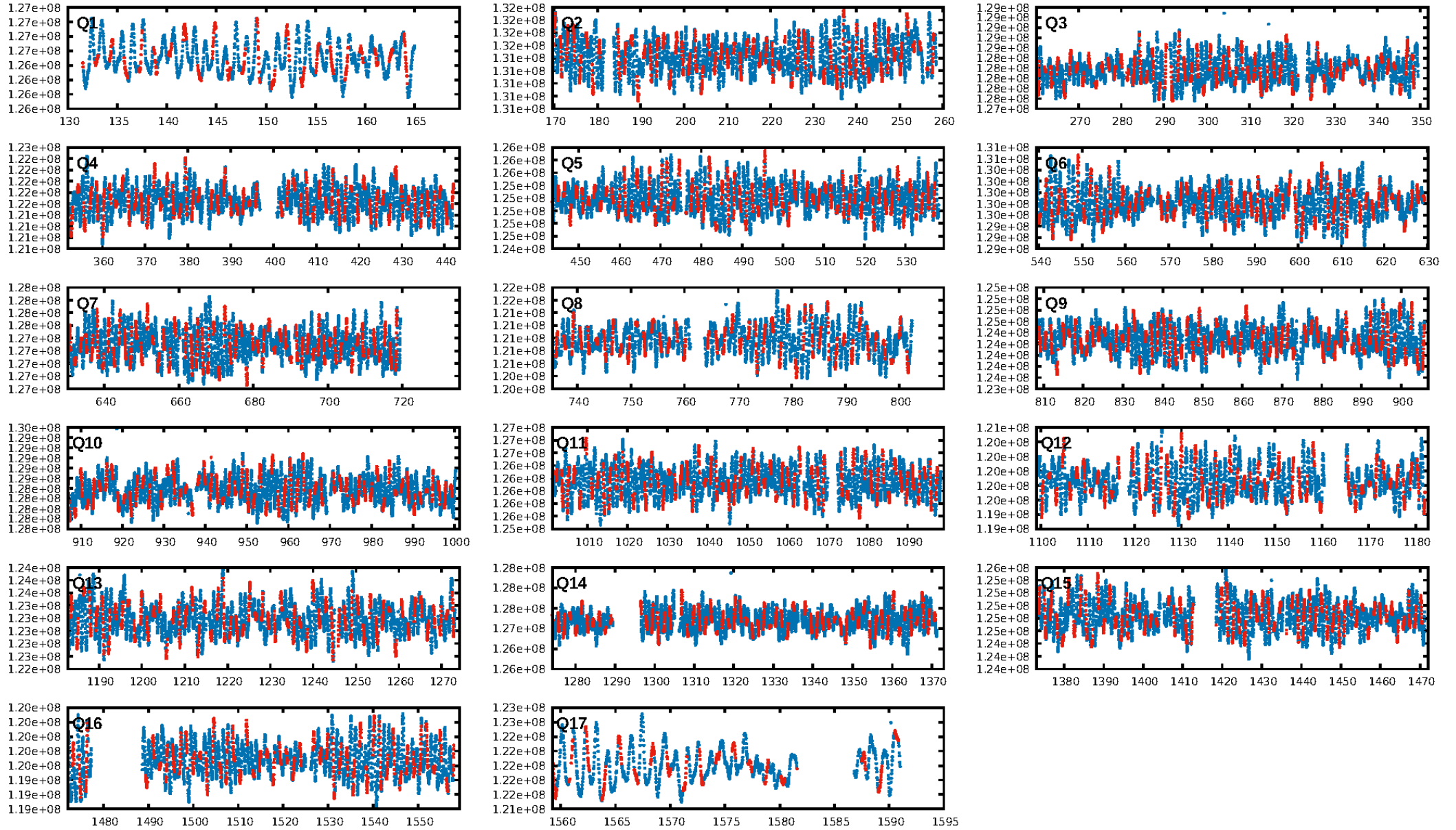
## Ephemeris Match Information For 007286276-01

No Significant Match Found

## KIC: 7286276    Candidate: 1 of 1    Period: 1.486 d

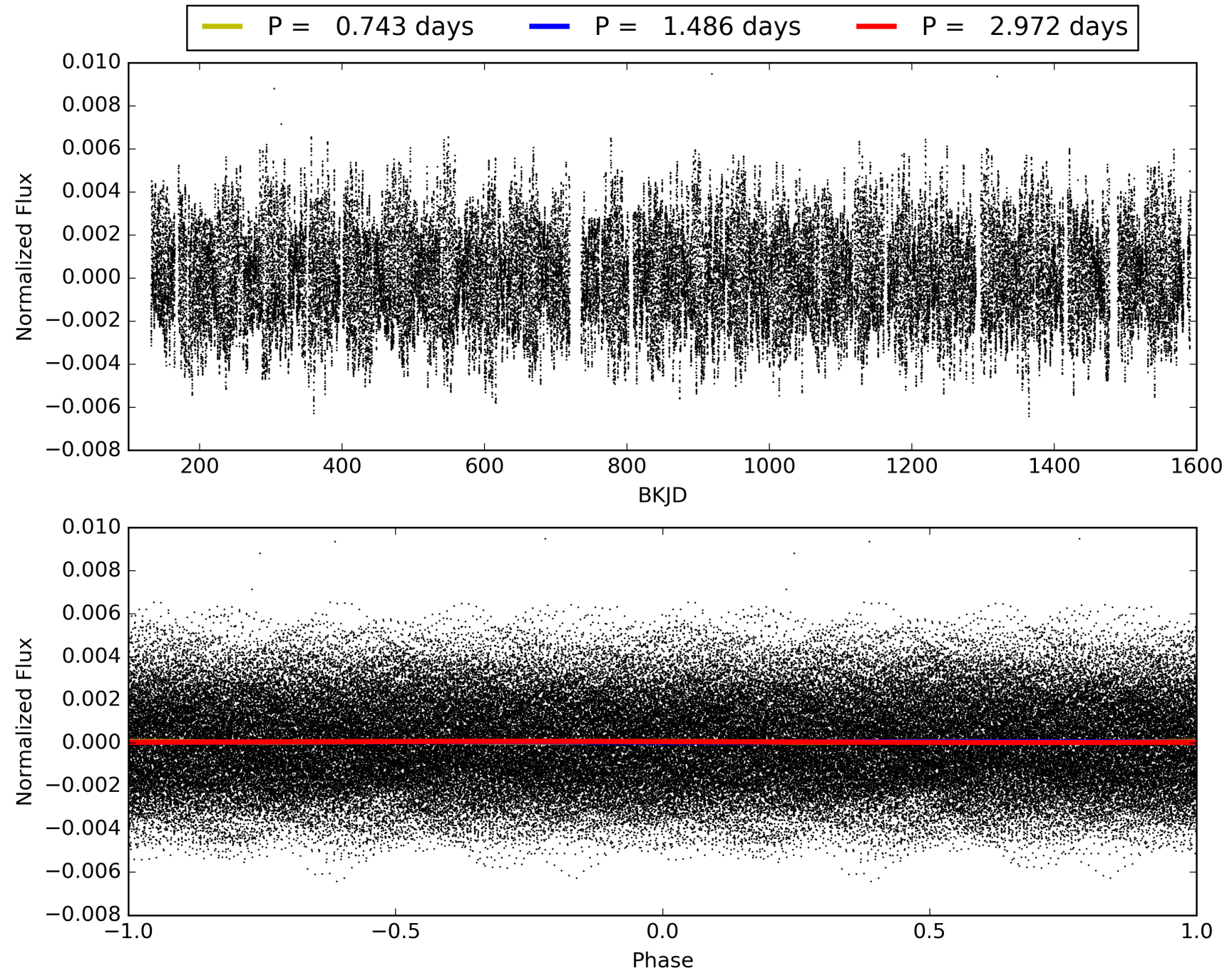


# TCE 007286276-01, PDC Light Curves



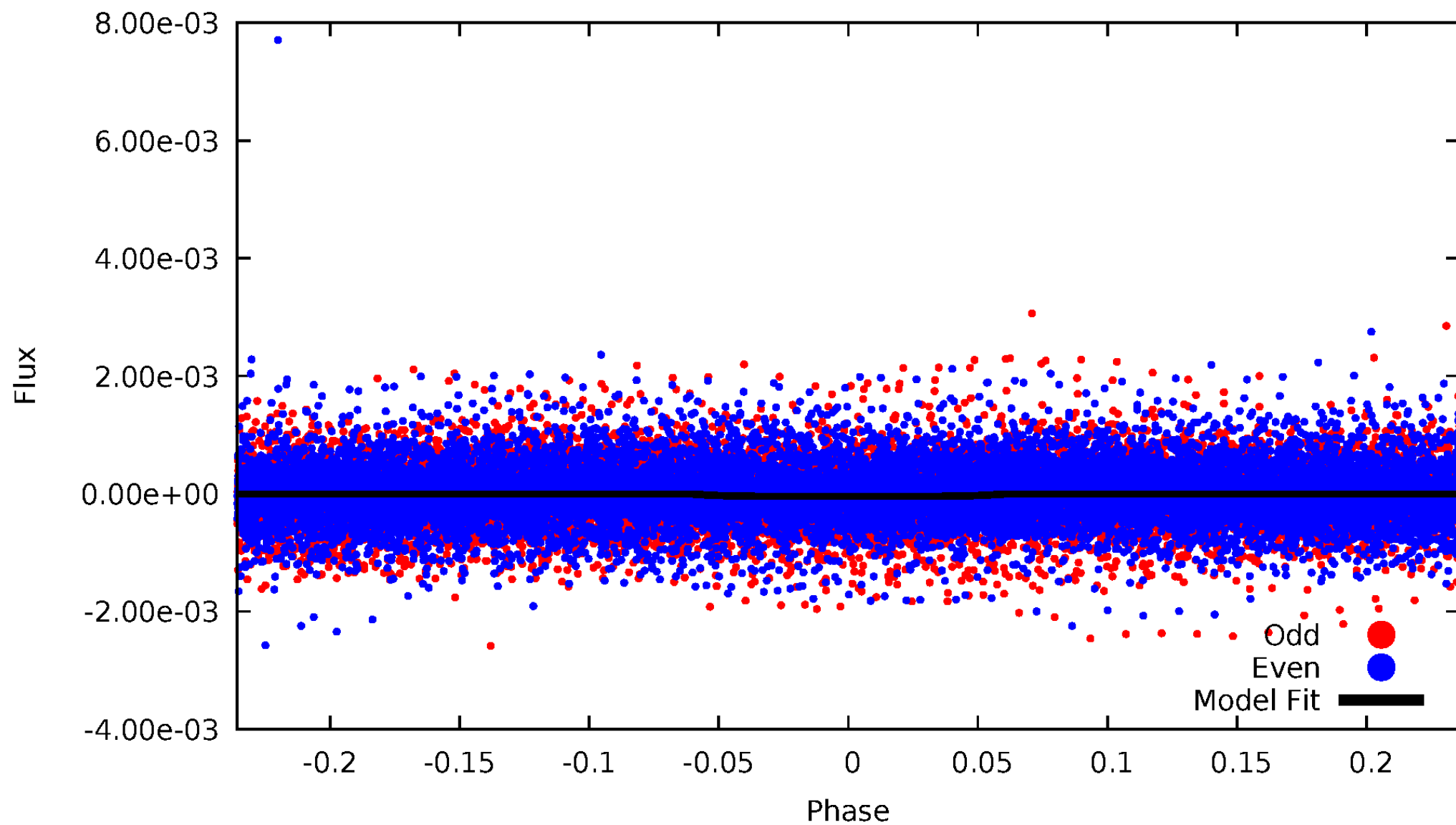


TCE 007286276-01



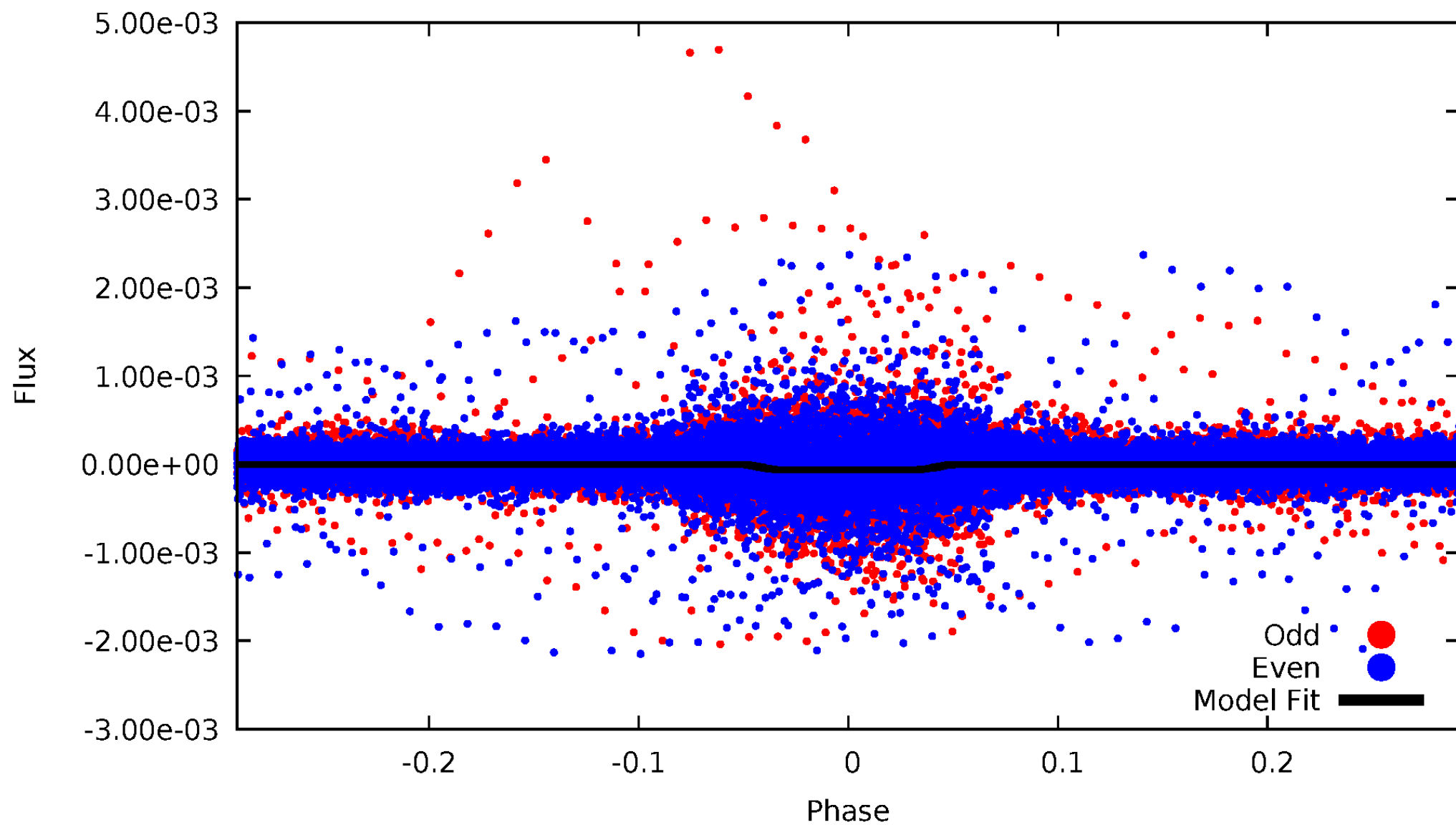
# DV Odd/Even

TCE 007286276-01



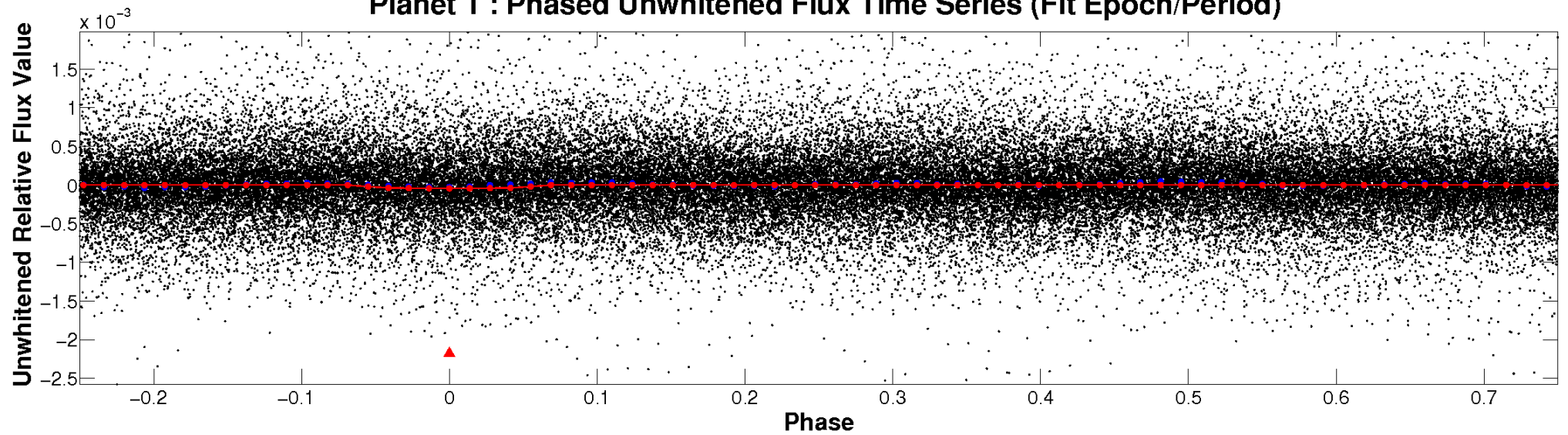
# ALT Odd/Even

TCE 007286276-01

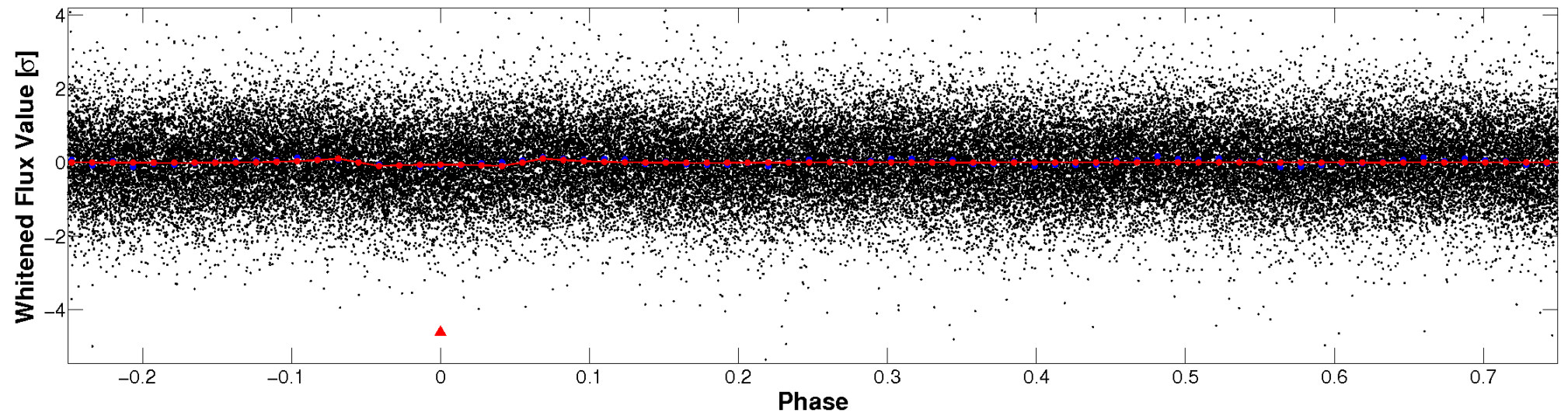


# Non-Whitened Vs. Whitened Light Curve

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



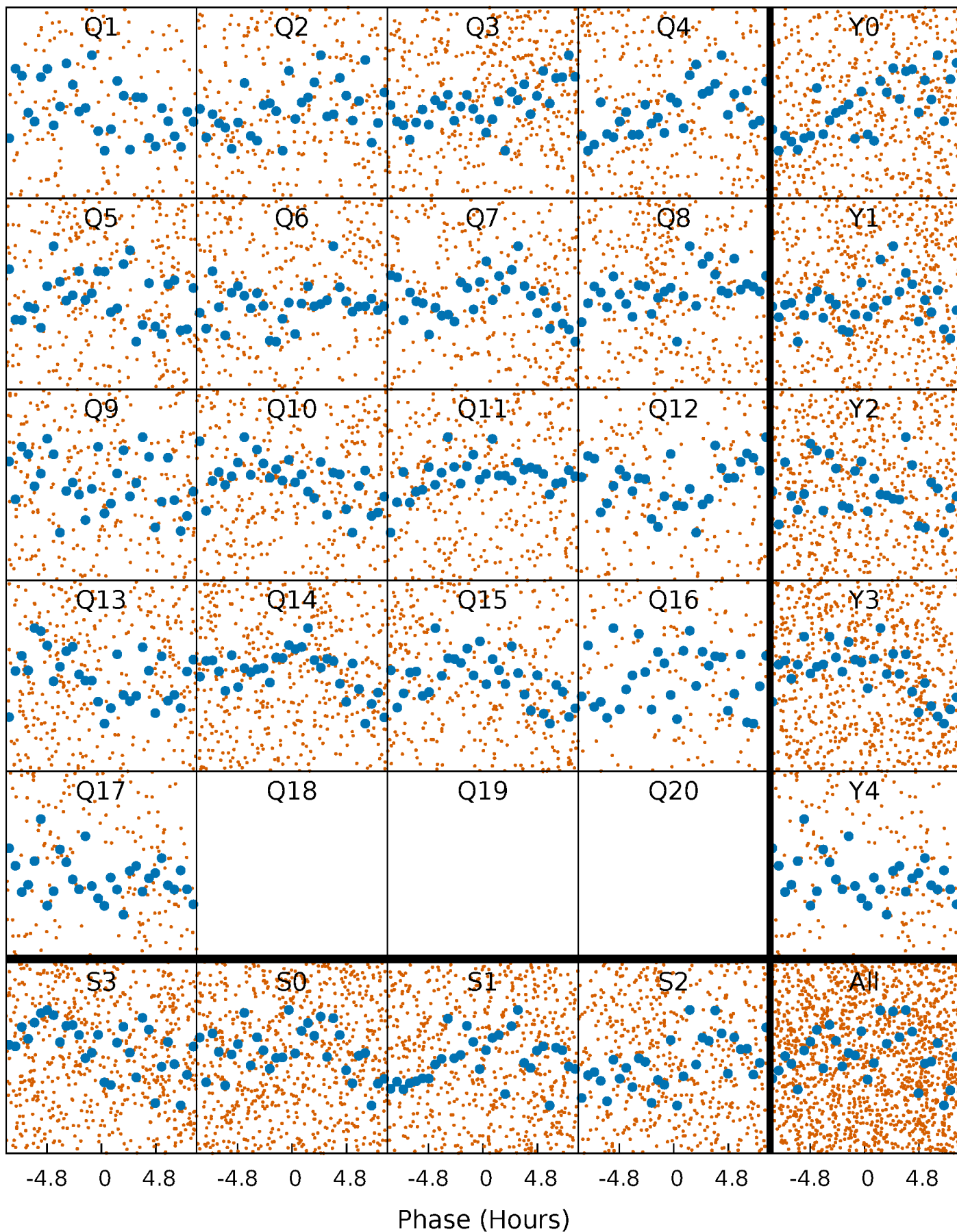
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

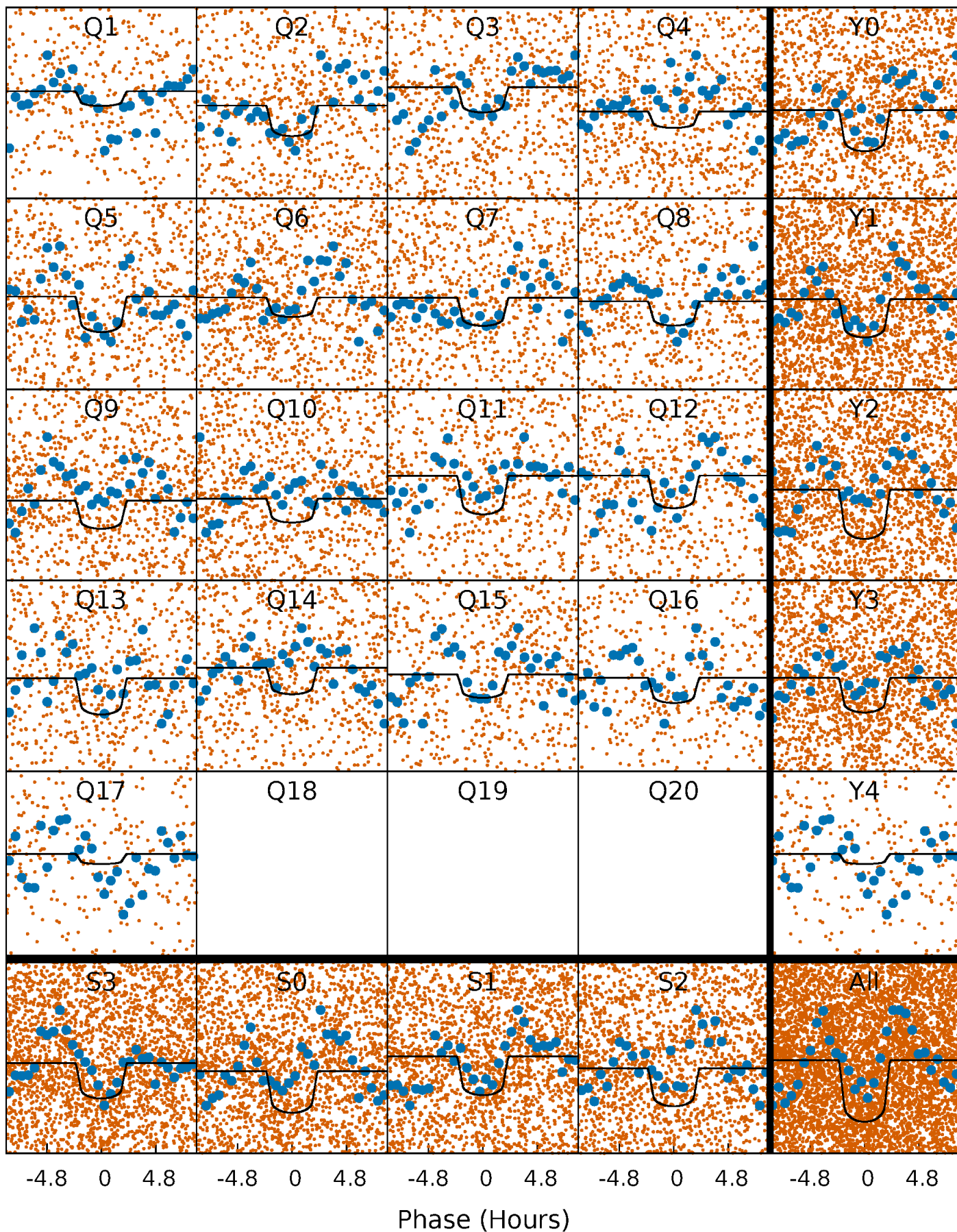
TCE 007286276-01 P= 1.486025 Days  $T_0=132.876948$  (BKJD)





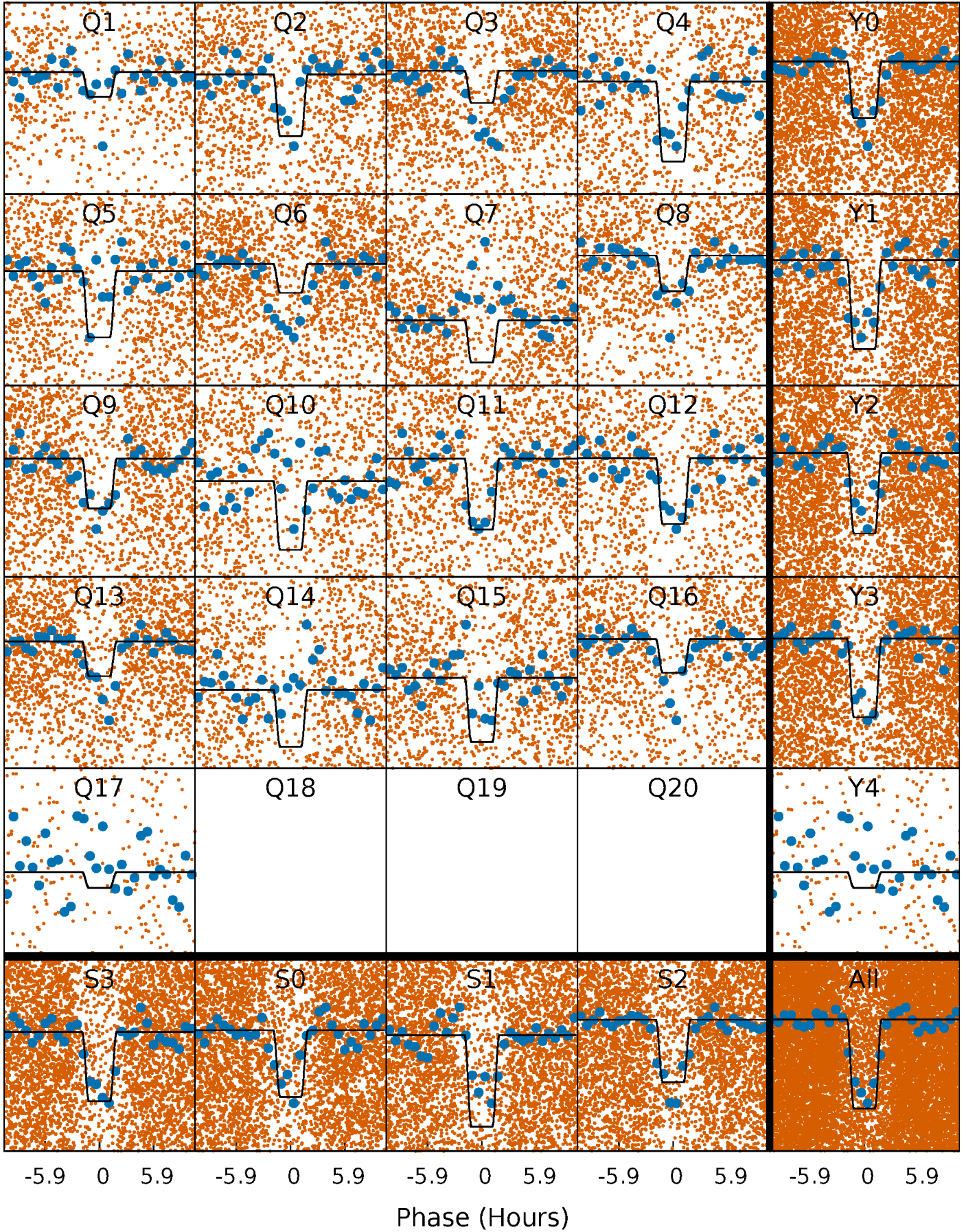
# DV Quarter-Phased Transit Curves

TCE 007286276-01 P= 1.486025 Days  $T_0=132.876948$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 007286276-01 P= 1.485981 Days  $T_0=132.889521$  (BKJD)

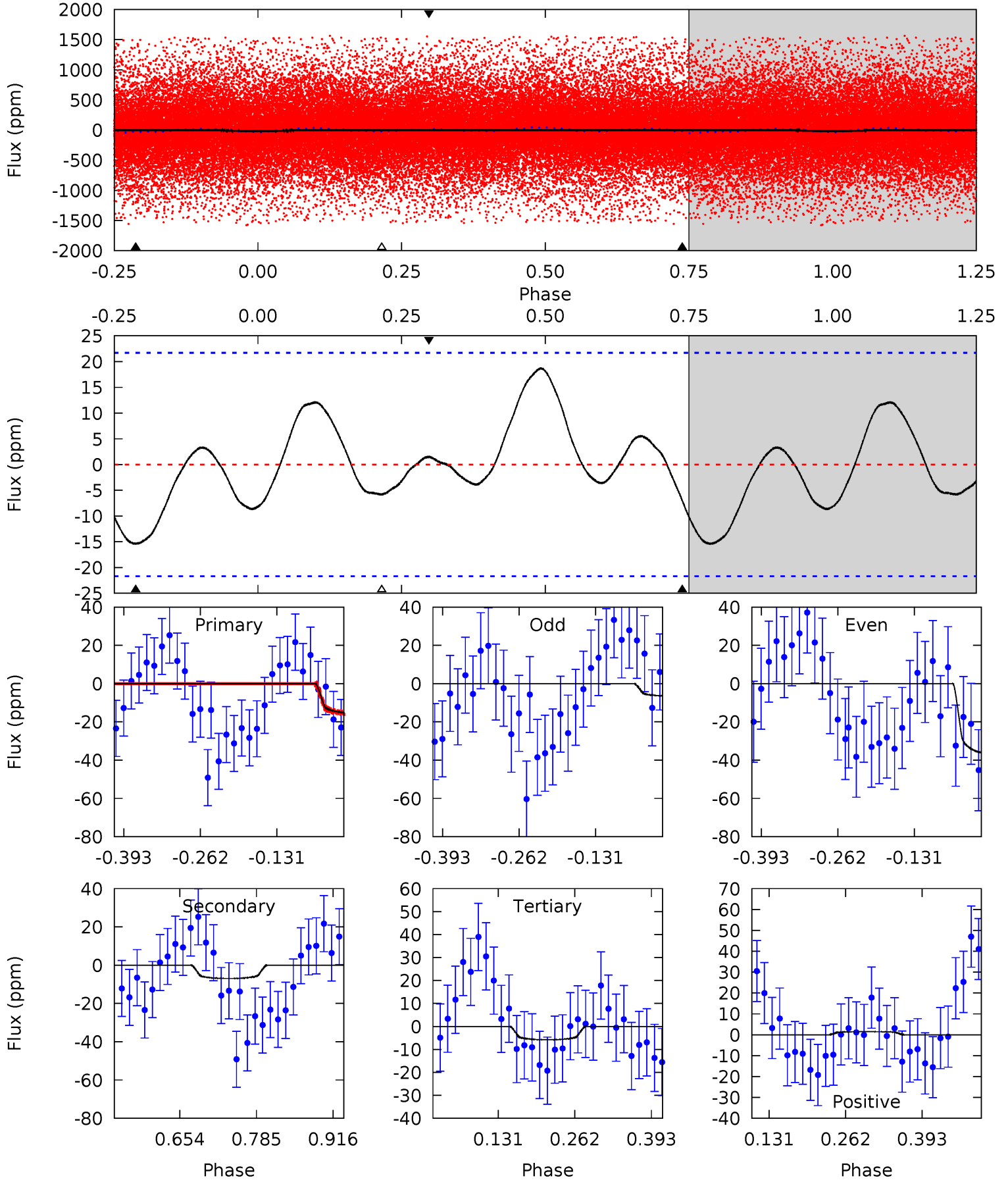




# DV Model-Shift Uniqueness Test

007286276-01, P = 1.486025 Days, E = 131.390923 Days

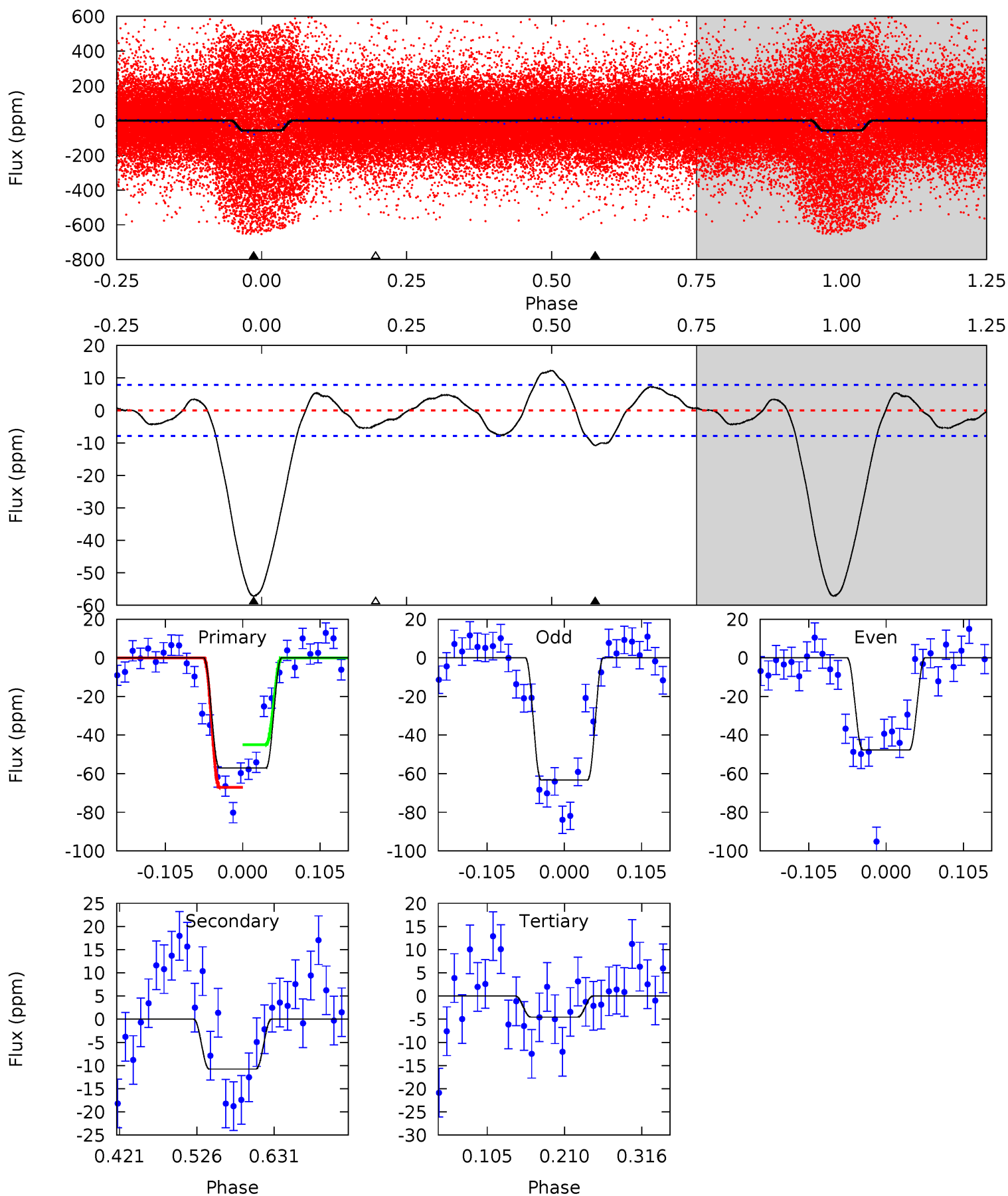
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.20	1.45	1.21	0.31	4.51	1.51	1.51	1.99	2.88	0.24	1.14	3.16	0.49	0.55	0.13



# Alt Model-Shift Uniqueness Test

007286276-01, P = 1.485981 Days, E = 131.403540 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
33.2	6.26	2.65	0	4.55	1.62	2.21	30.5	33.2	3.61	6.26	4.50	0.91	0.18	6.40





### Stellar Parameters For KIC 007286276

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6881^{+190}_{-238}$	$4.036^{+0.228}_{-0.123}$	$-0.500^{+0.250}_{-0.300}$	$1.735^{+0.383}_{-0.468}$	$1.194^{+0.193}_{-0.158}$	$0.322^{+0.436}_{-0.118}$
	+3%/-3%	+6%/-3%	+50%/-60%	+22%/-27%	+16%/-13%	+135%/-37%
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 007286276-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-7 \pm 5$	$1.30^{+0.34}_{-0.31}$	$3362^{+204}_{-258}$	$4214^{+724}_{-1336}$	$1.598^{+1.871}_{-1.199}$
Alt.	$-11 \pm 2$	$1.46^{+0.33}_{-0.31}$	$3358^{+237}_{-237}$	$4436^{+461}_{-352}$	$2.027^{+1.398}_{-0.724}$

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

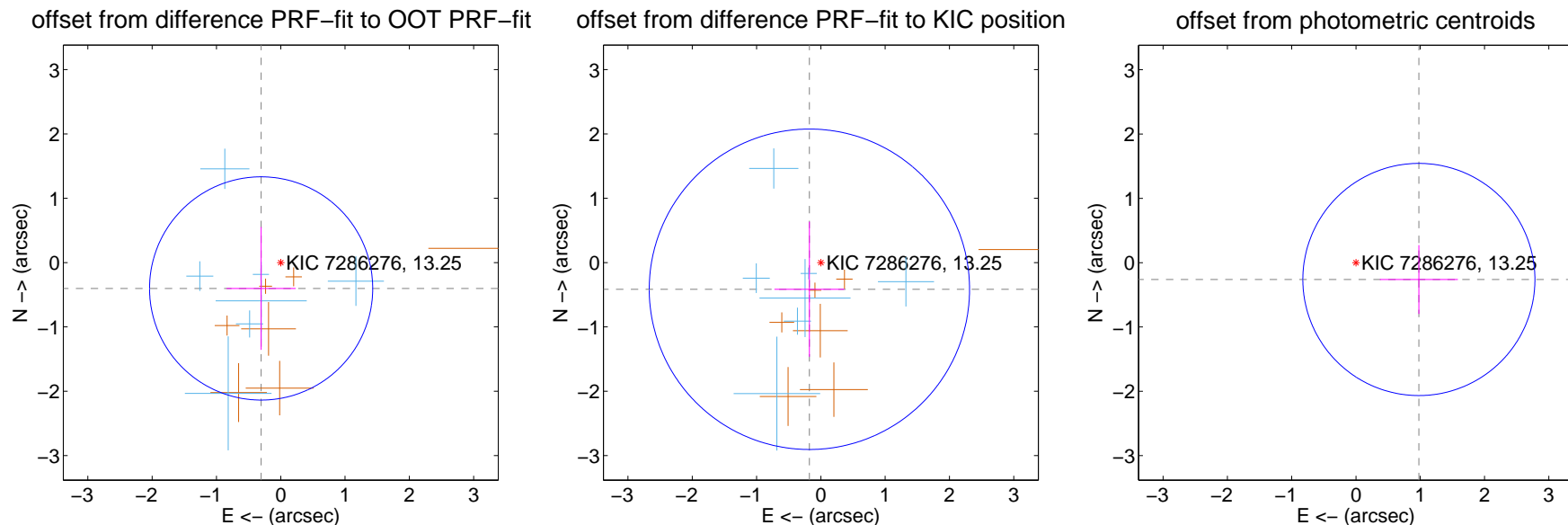
## DV Centroid Data

Supplemental centroid analysis for 007286276-01. Kepler magnitude: 13.25. Transit SNR 8.36

There are 7 quarters with good PRF difference image offsets

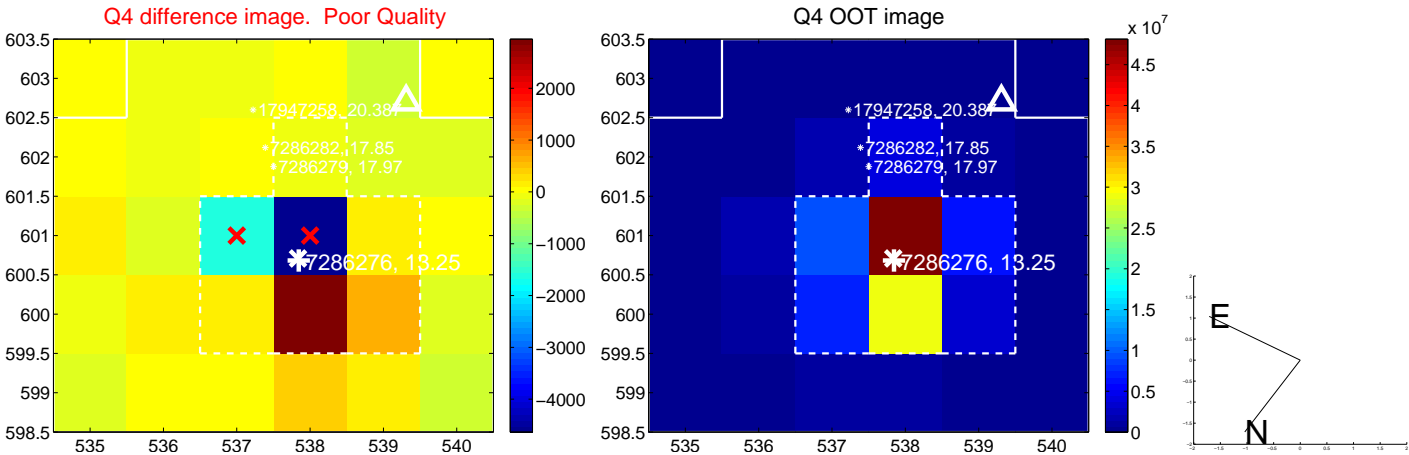
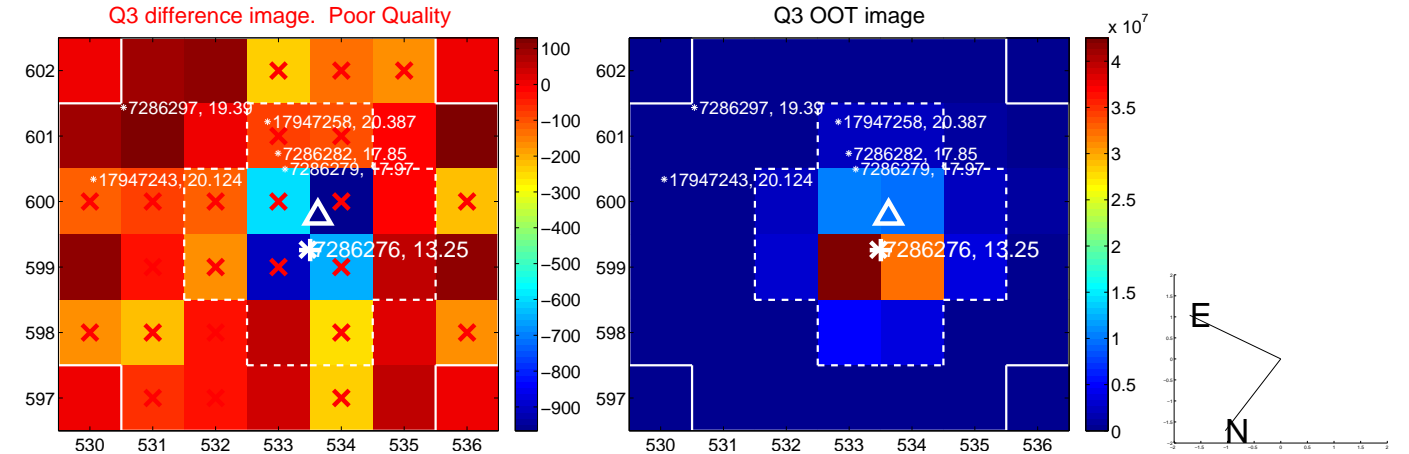
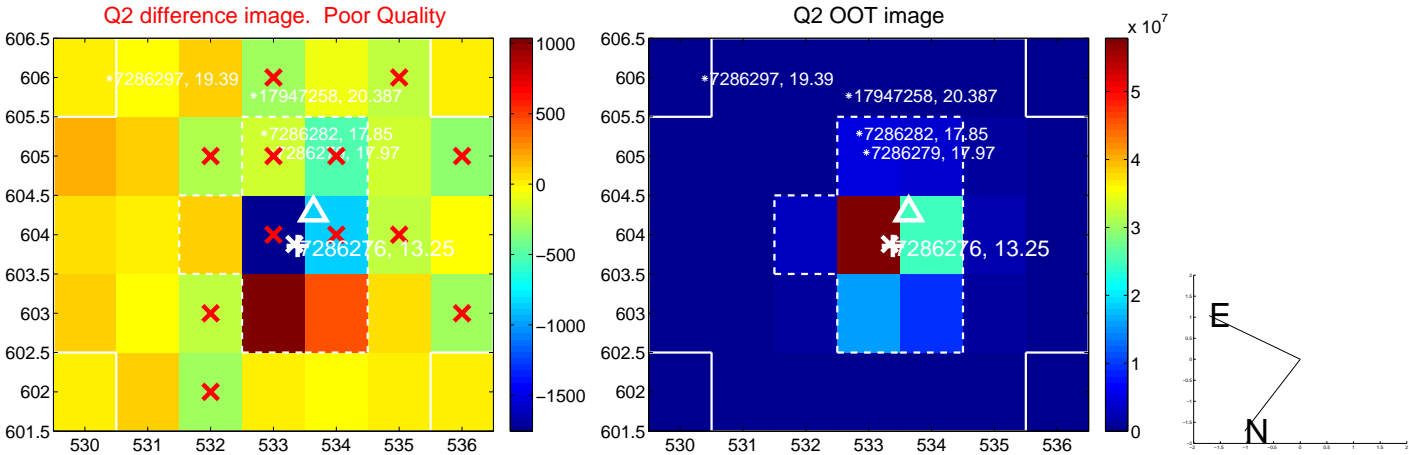
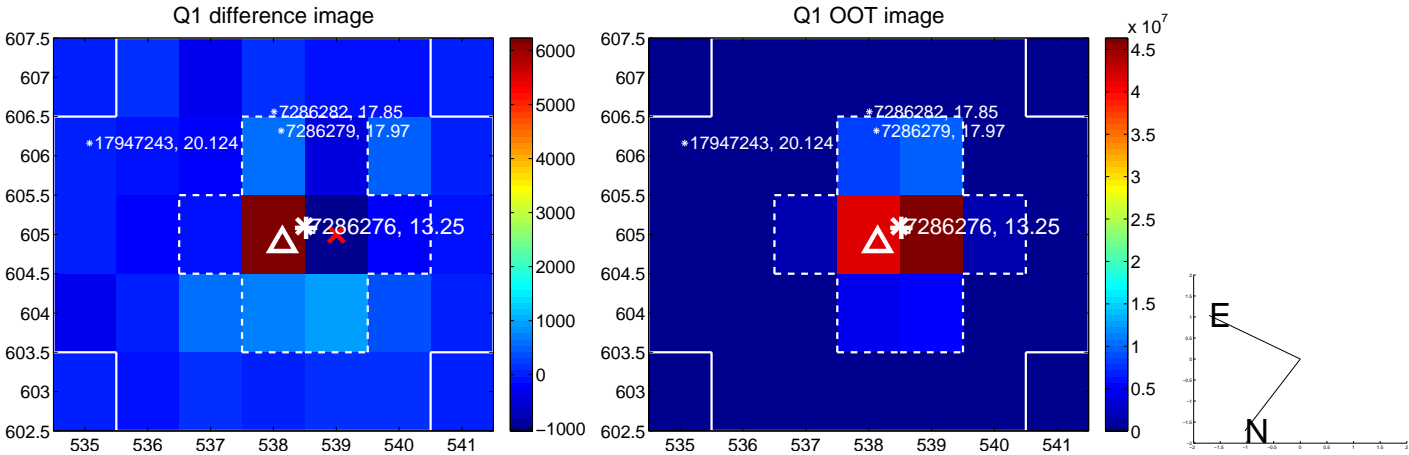
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.505 \pm 0.578$	0.87	$0.305 \pm 0.538$	$-0.402 \pm 0.954$
PRF-fit source offset from KIC position	$0.451 \pm 0.830$	0.54	$0.178 \pm 0.544$	$-0.415 \pm 1.050$
photometric centroid source offset	$1.01 \pm 0.60$	1.68	$-0.98 \pm 0.61$	$-0.26 \pm 0.53$

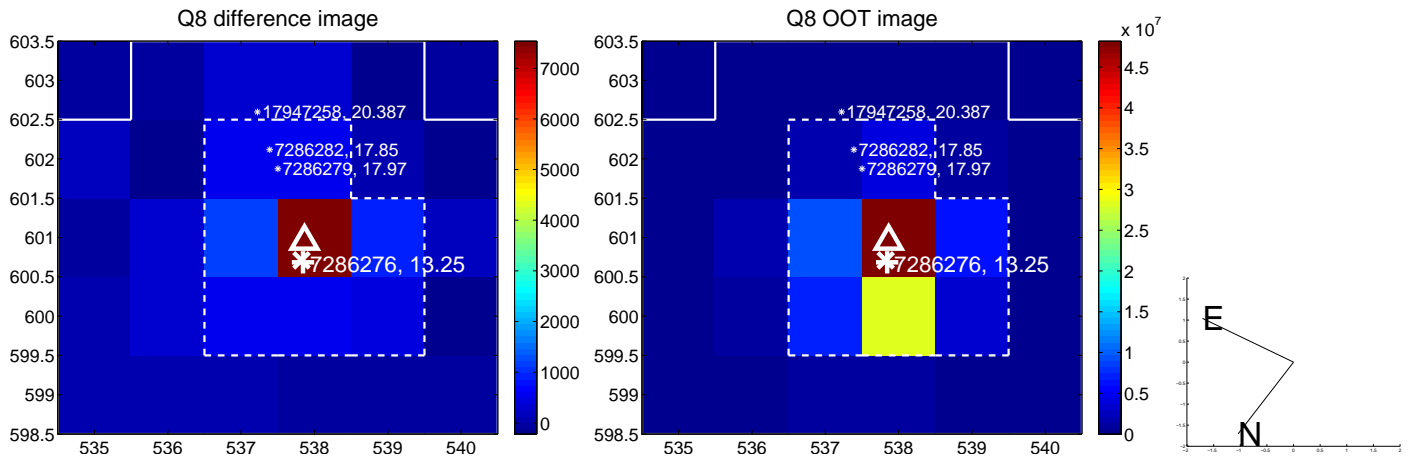
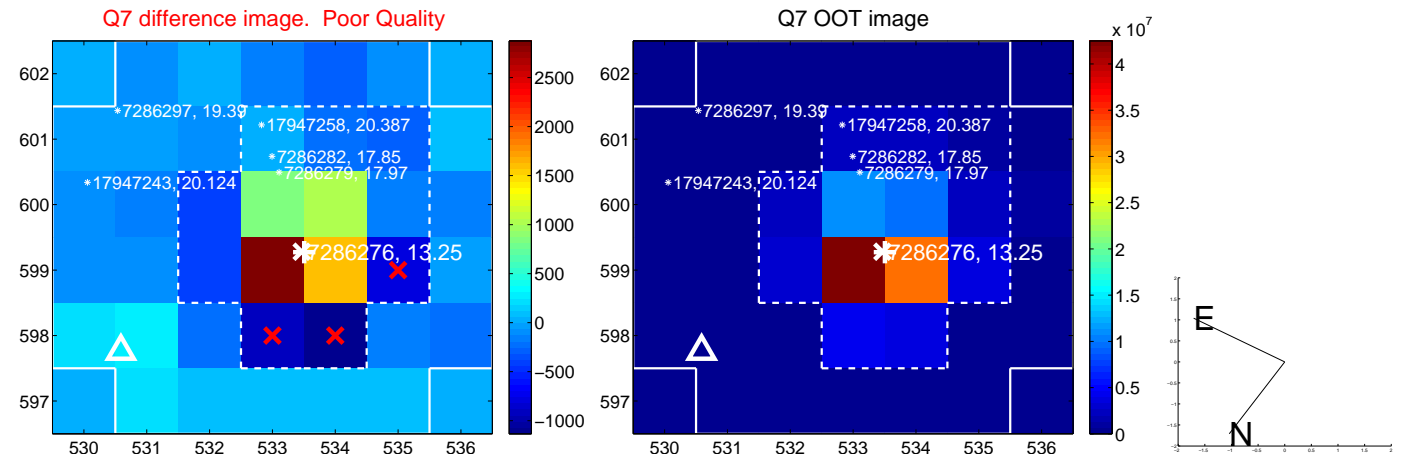
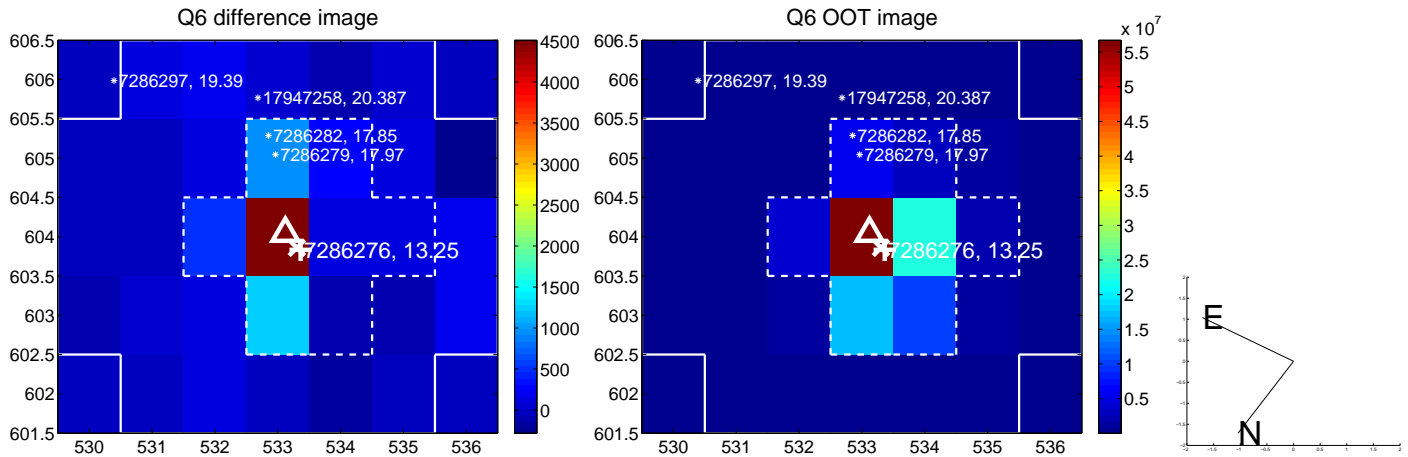
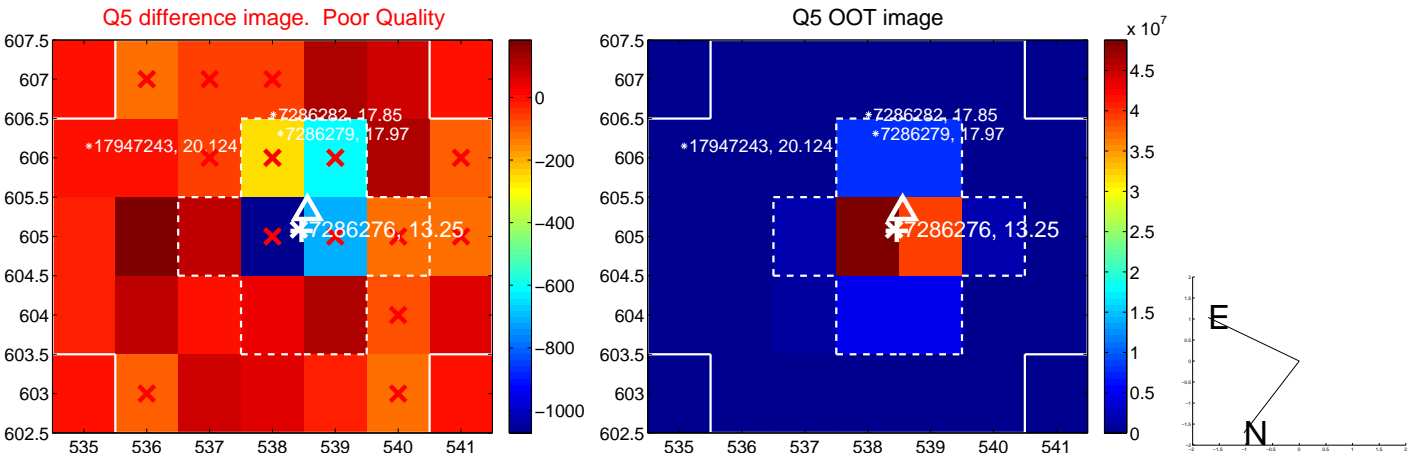


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

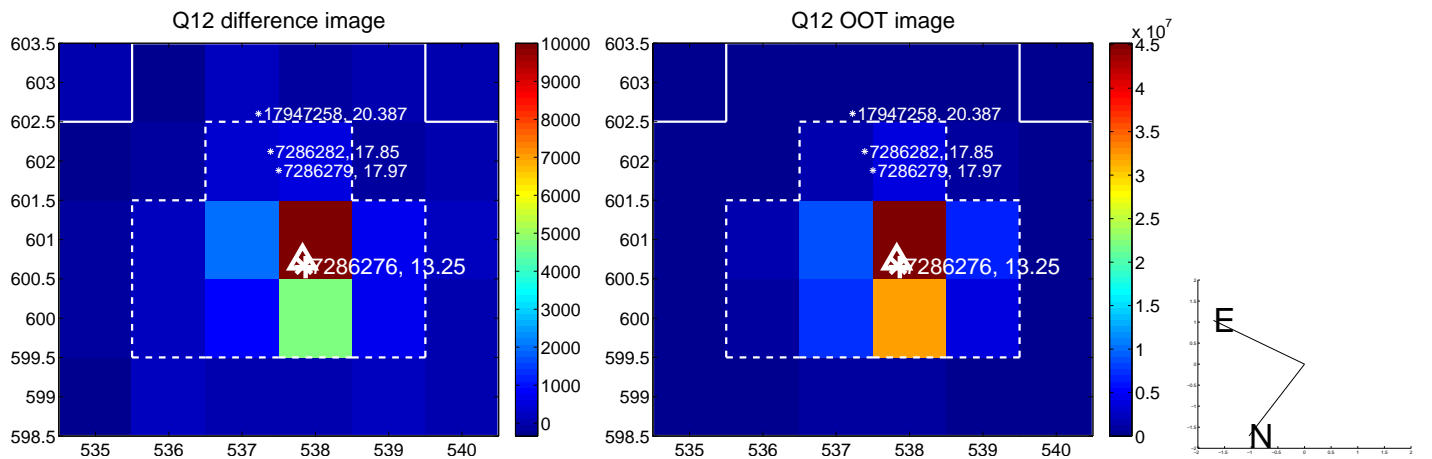
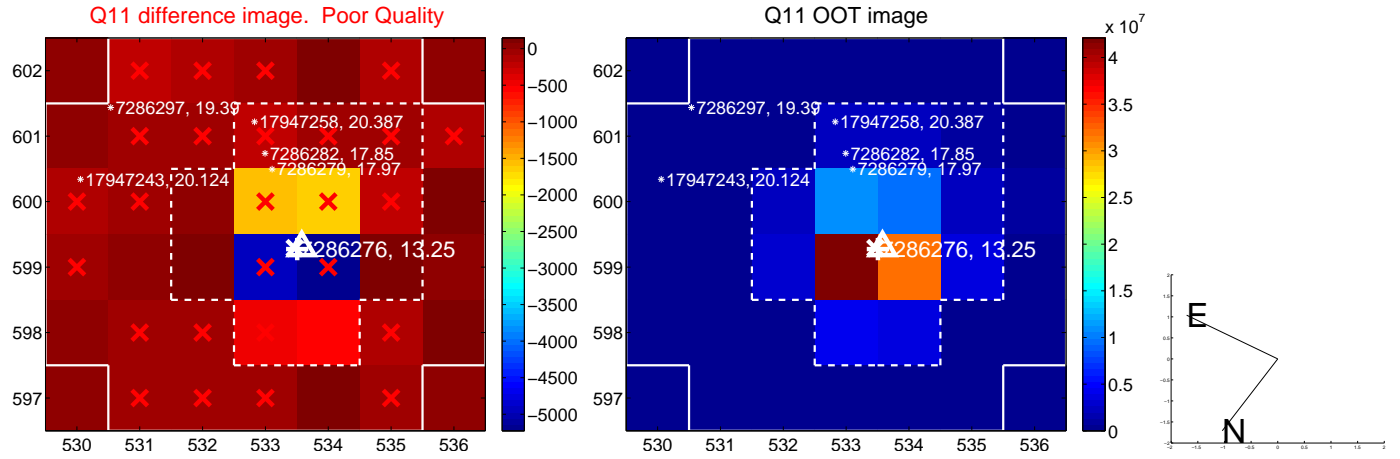
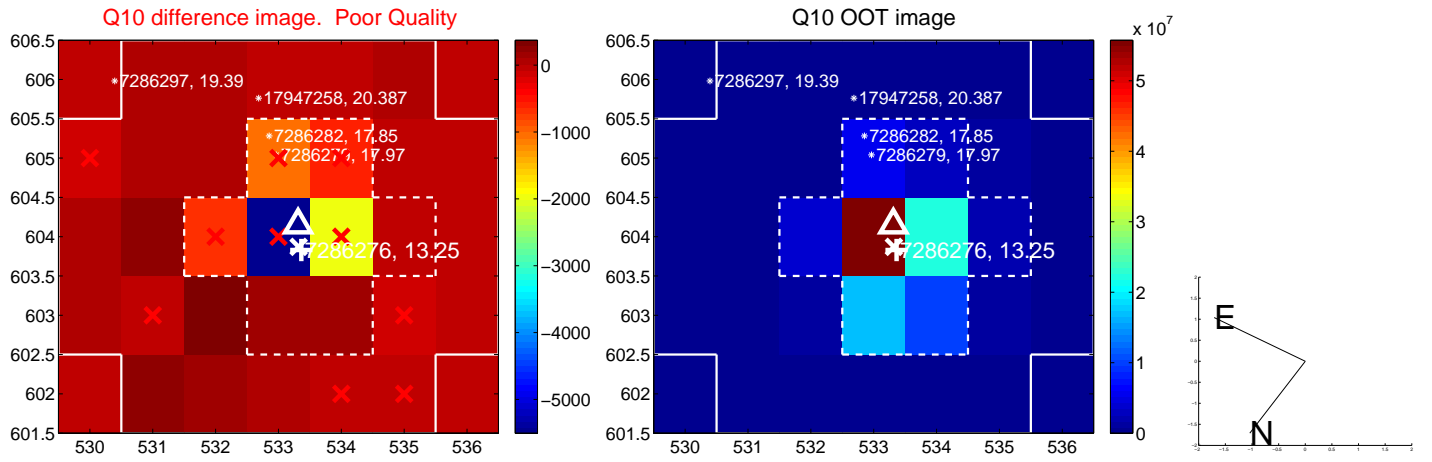
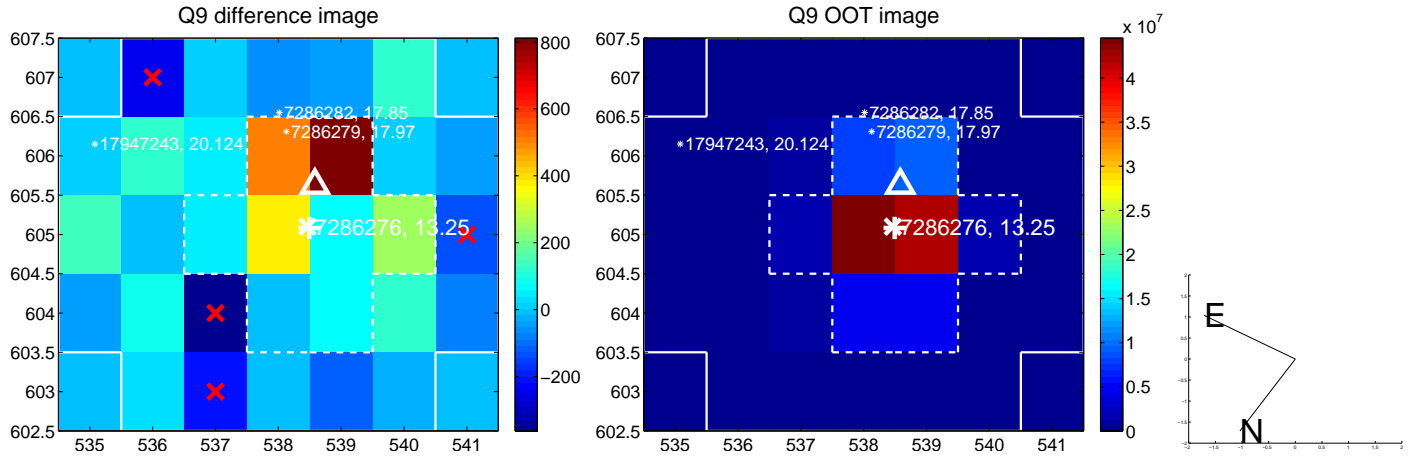


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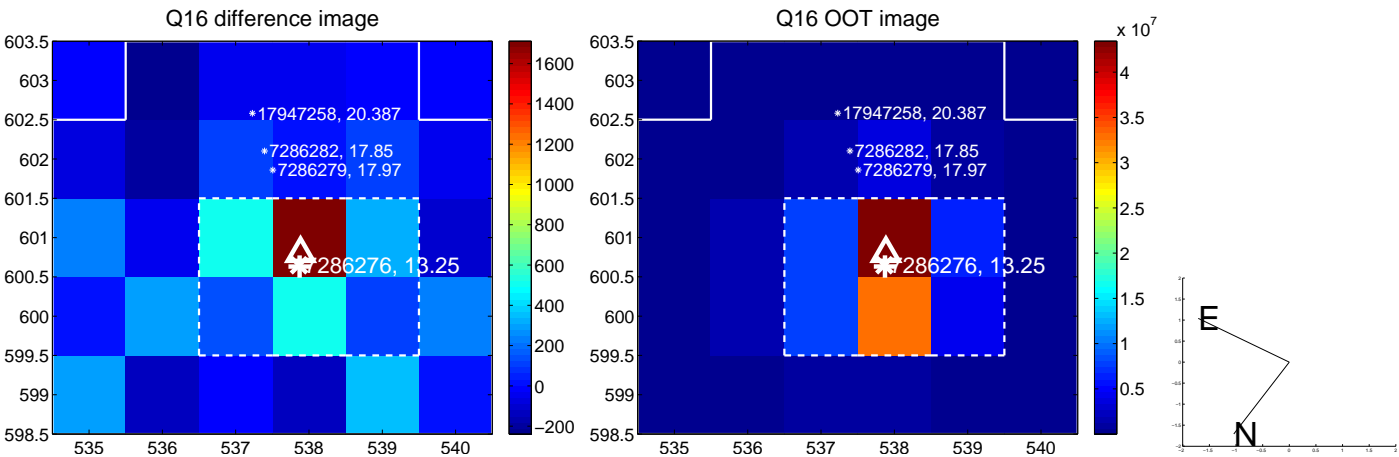
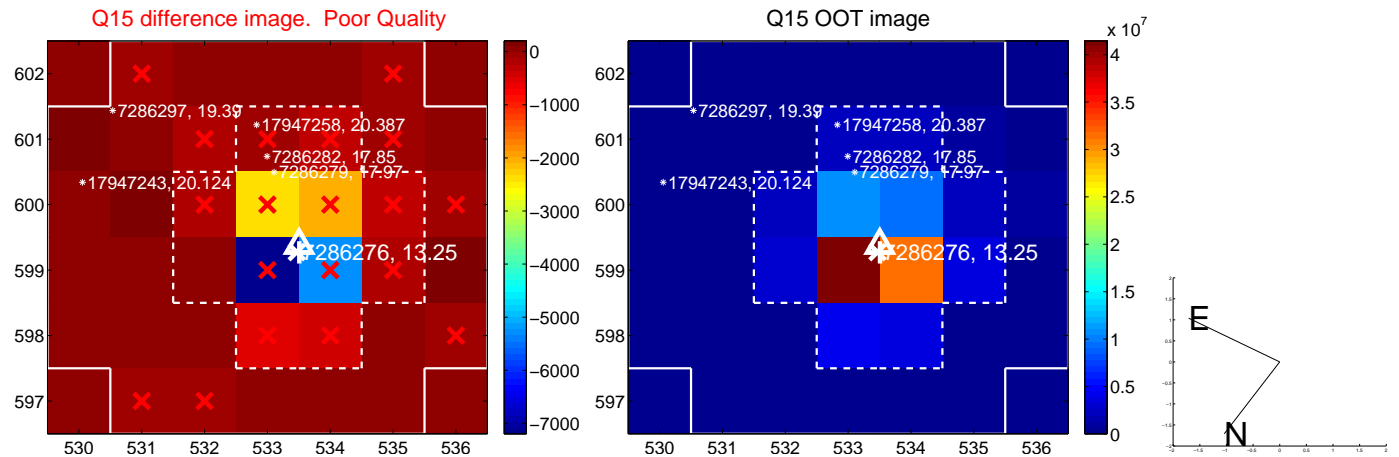
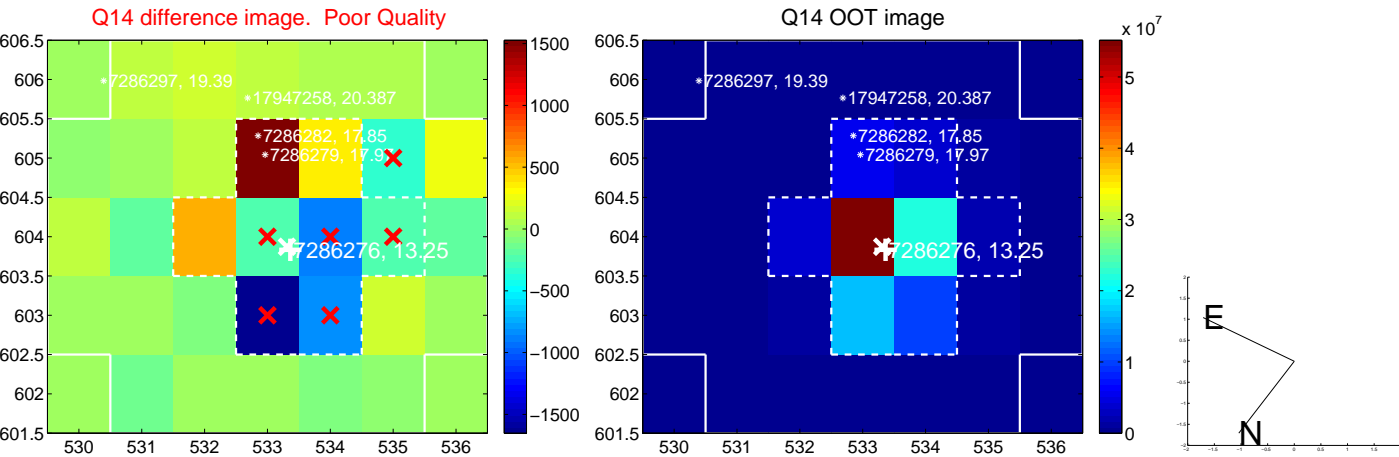
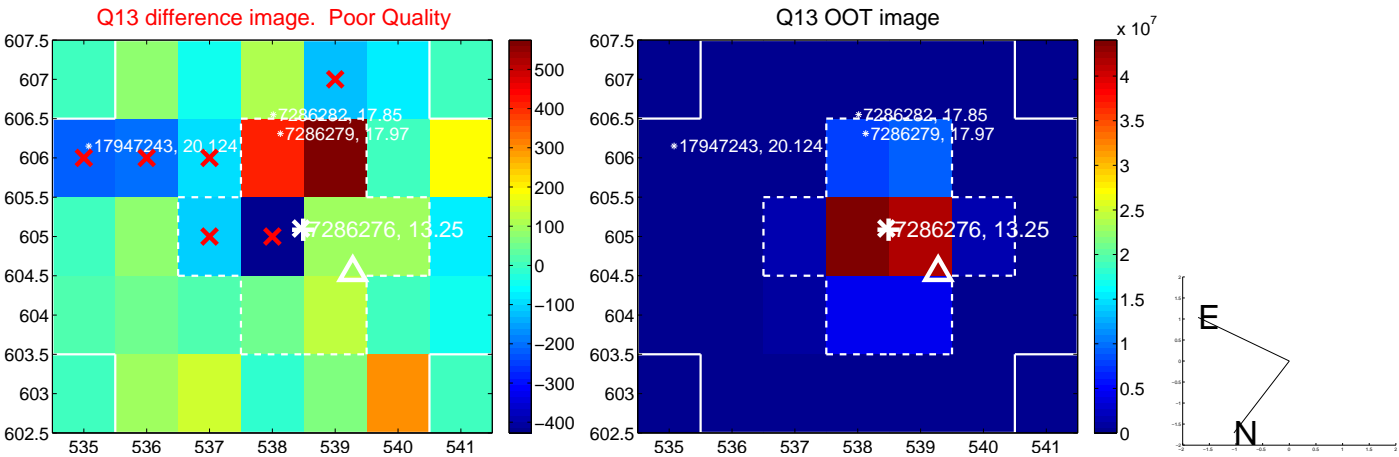




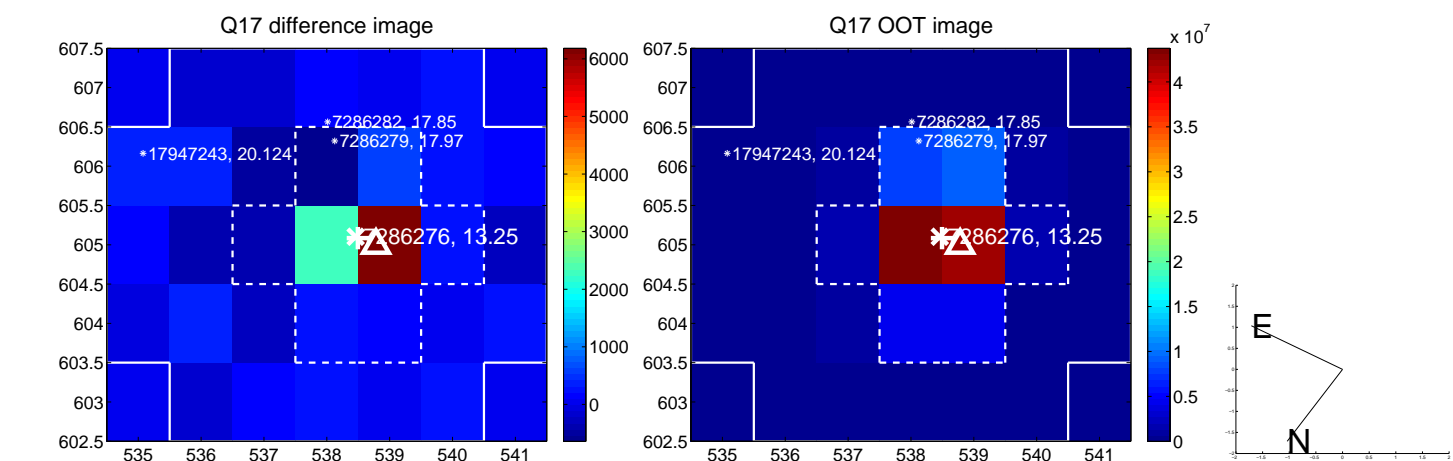
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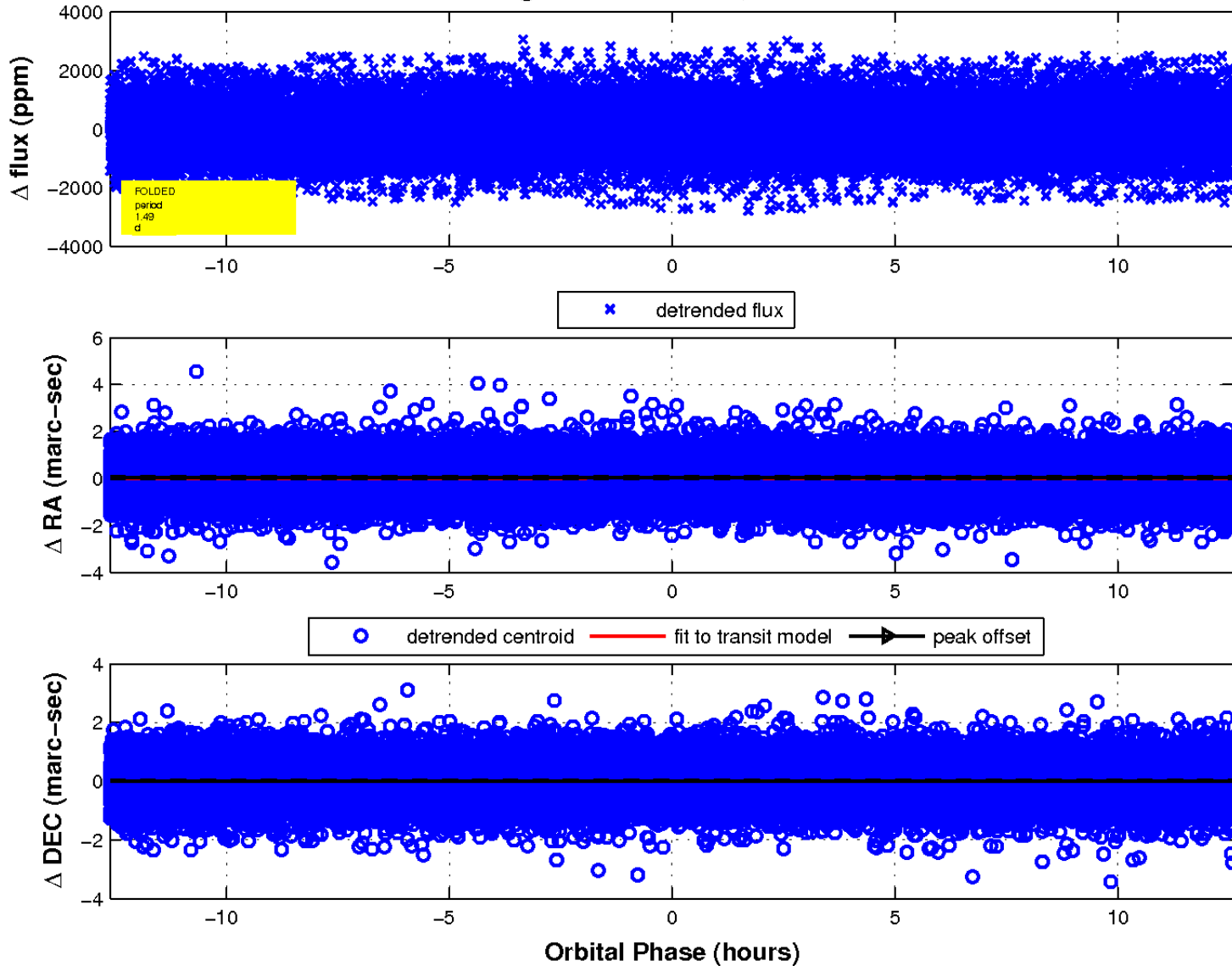
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white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

