

# KIC 003525734

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
003525734-01	OBS	No	1.721318	132.511284	57.1	4.130	7.6	7.7	0.83	5726	0.72	886.18

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003525734-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

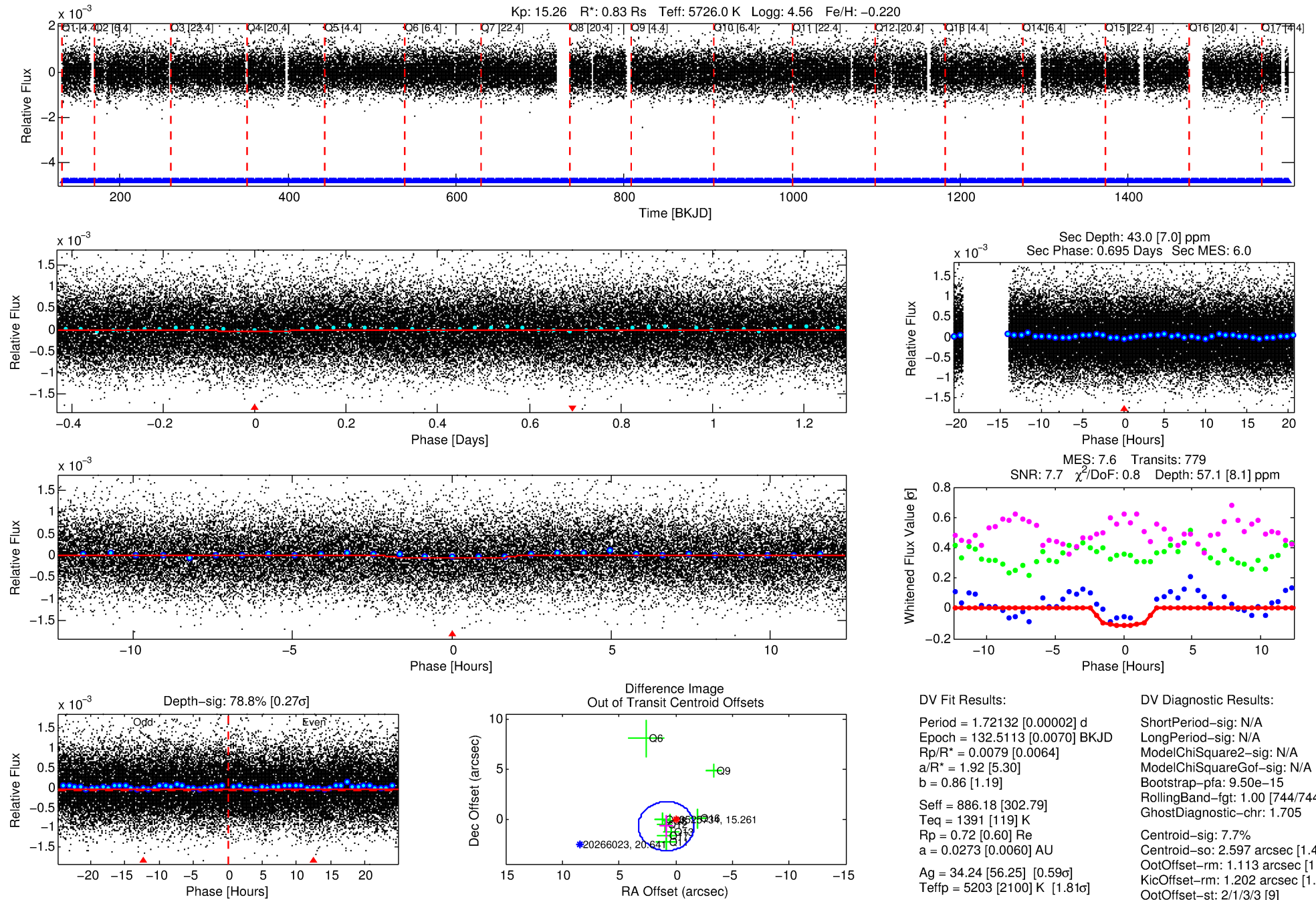
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 003525734-01

No Significant Match Found

# DV One-Page Summary

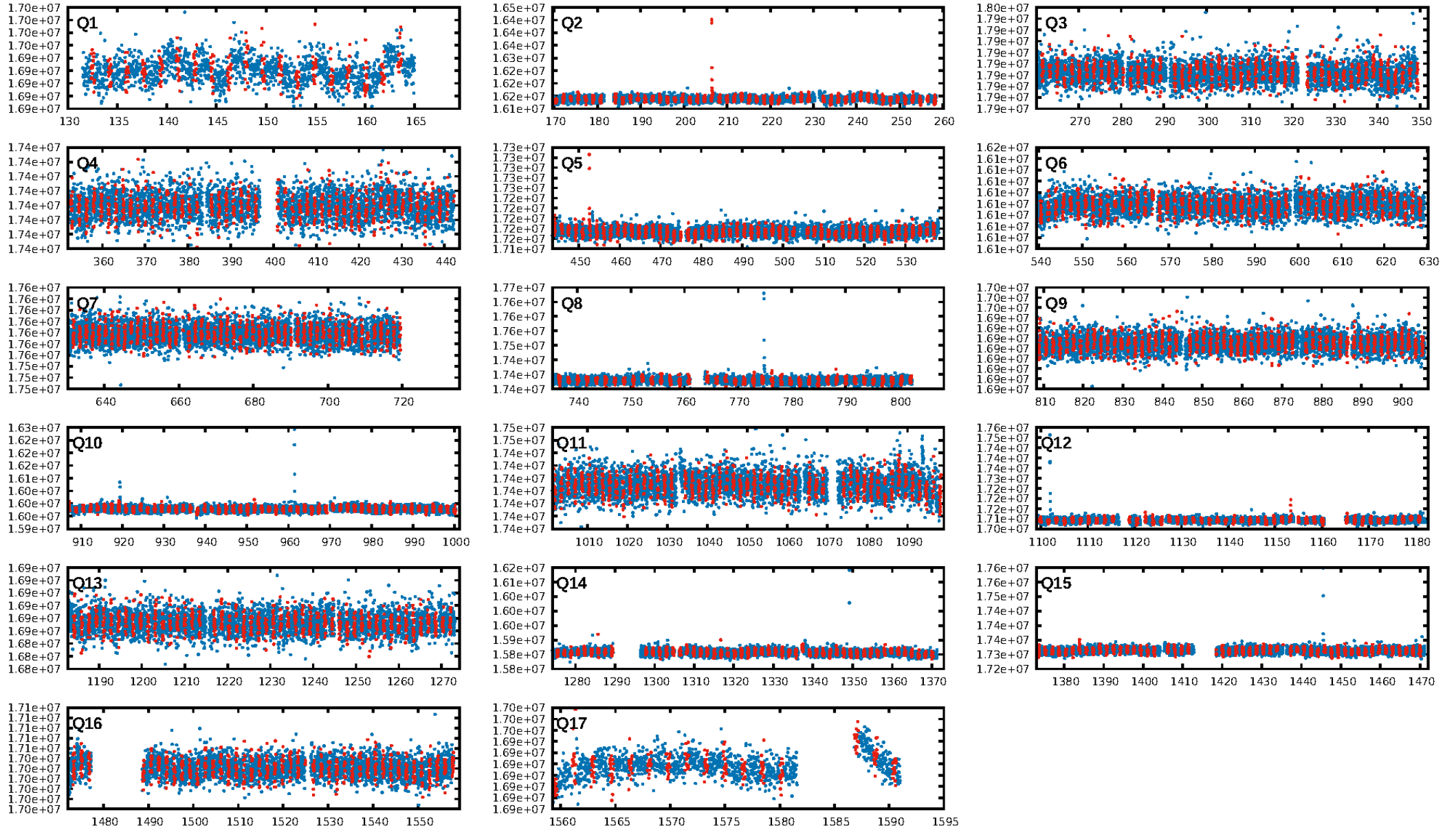
KIC: 3525734 Candidate: 1 of 1 Period: 1.721 d



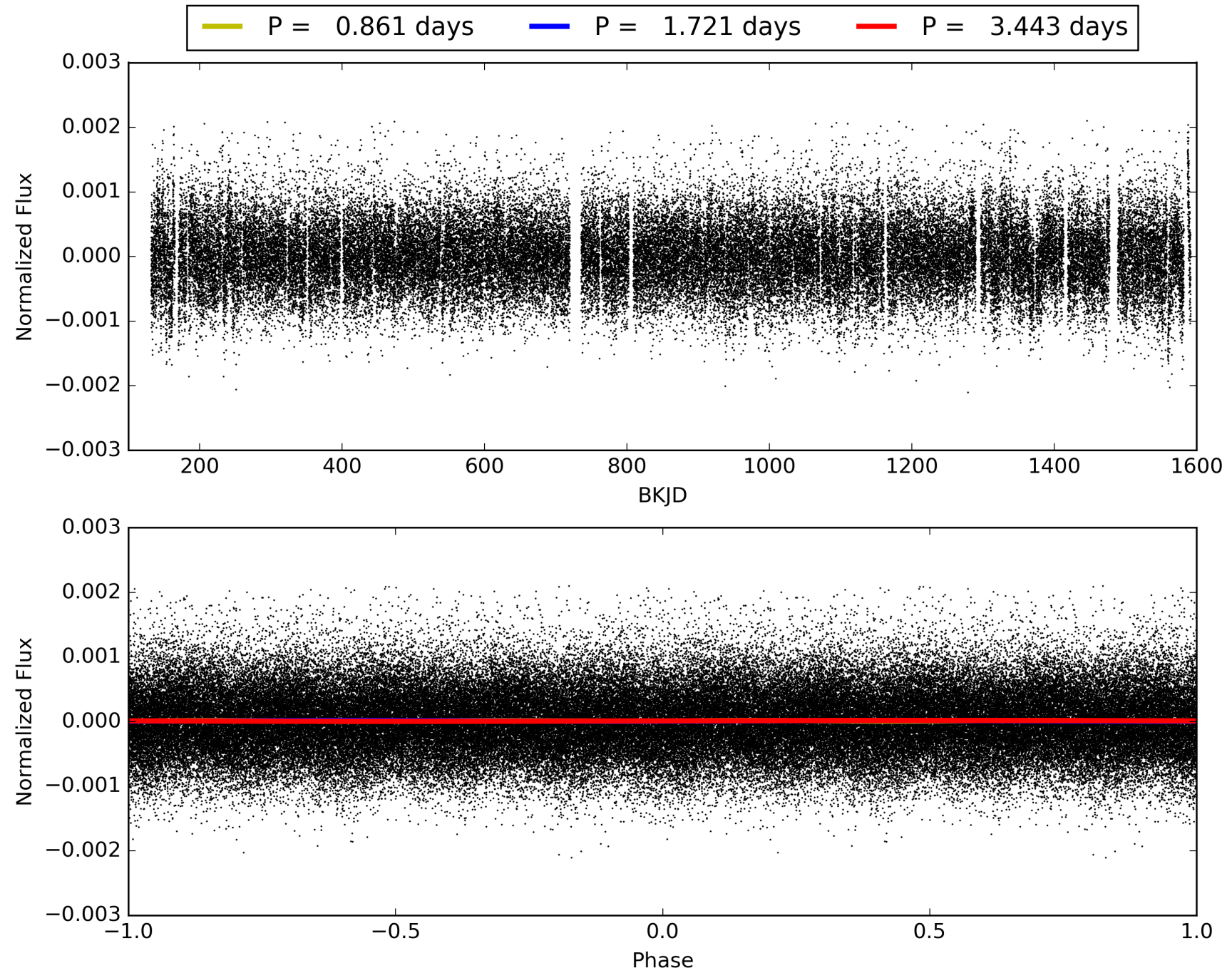
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:52:59 Z

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

# TCE 003525734-01, PDC Light Curves

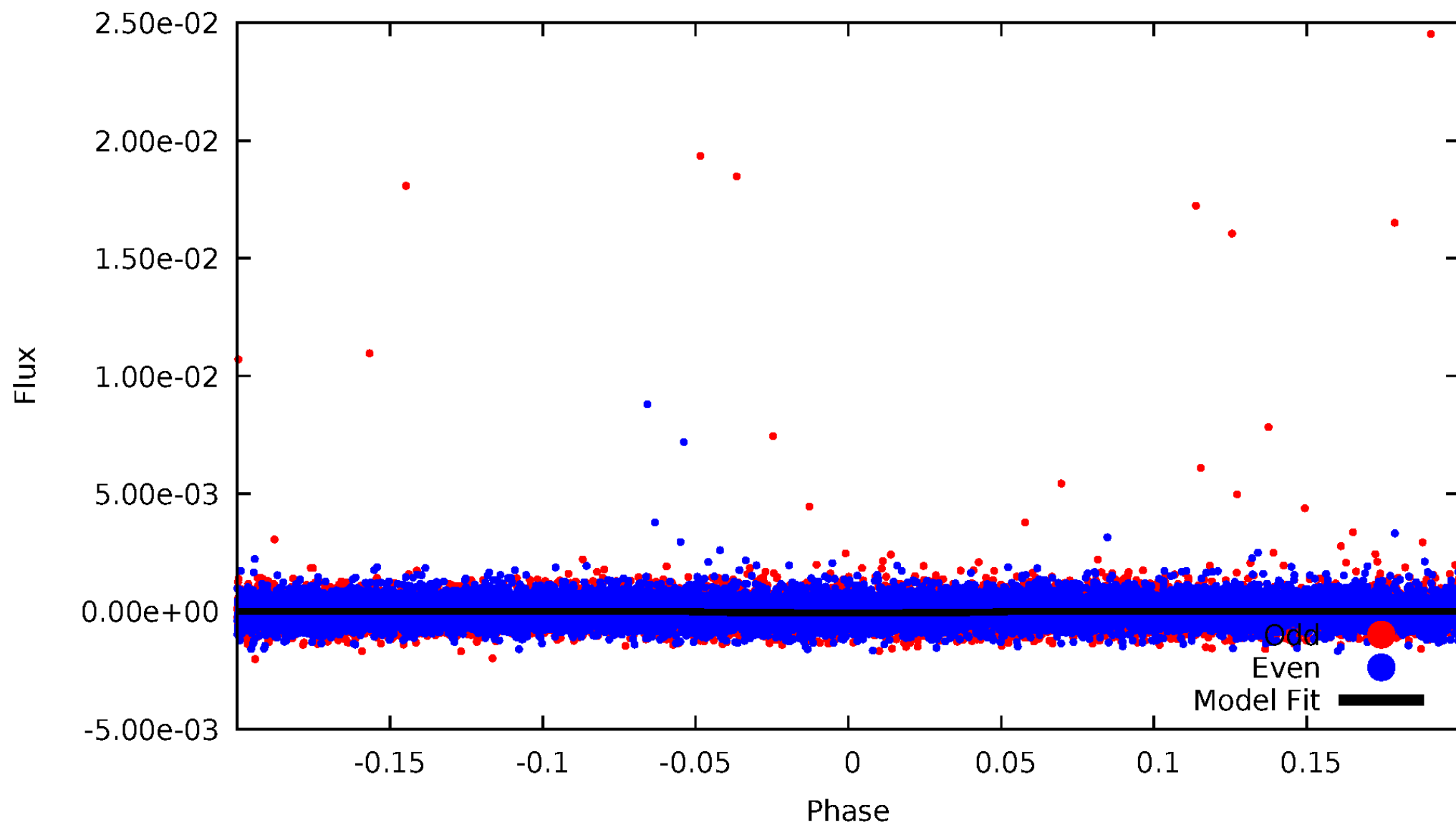


TCE 003525734-01



# DV Odd/Even

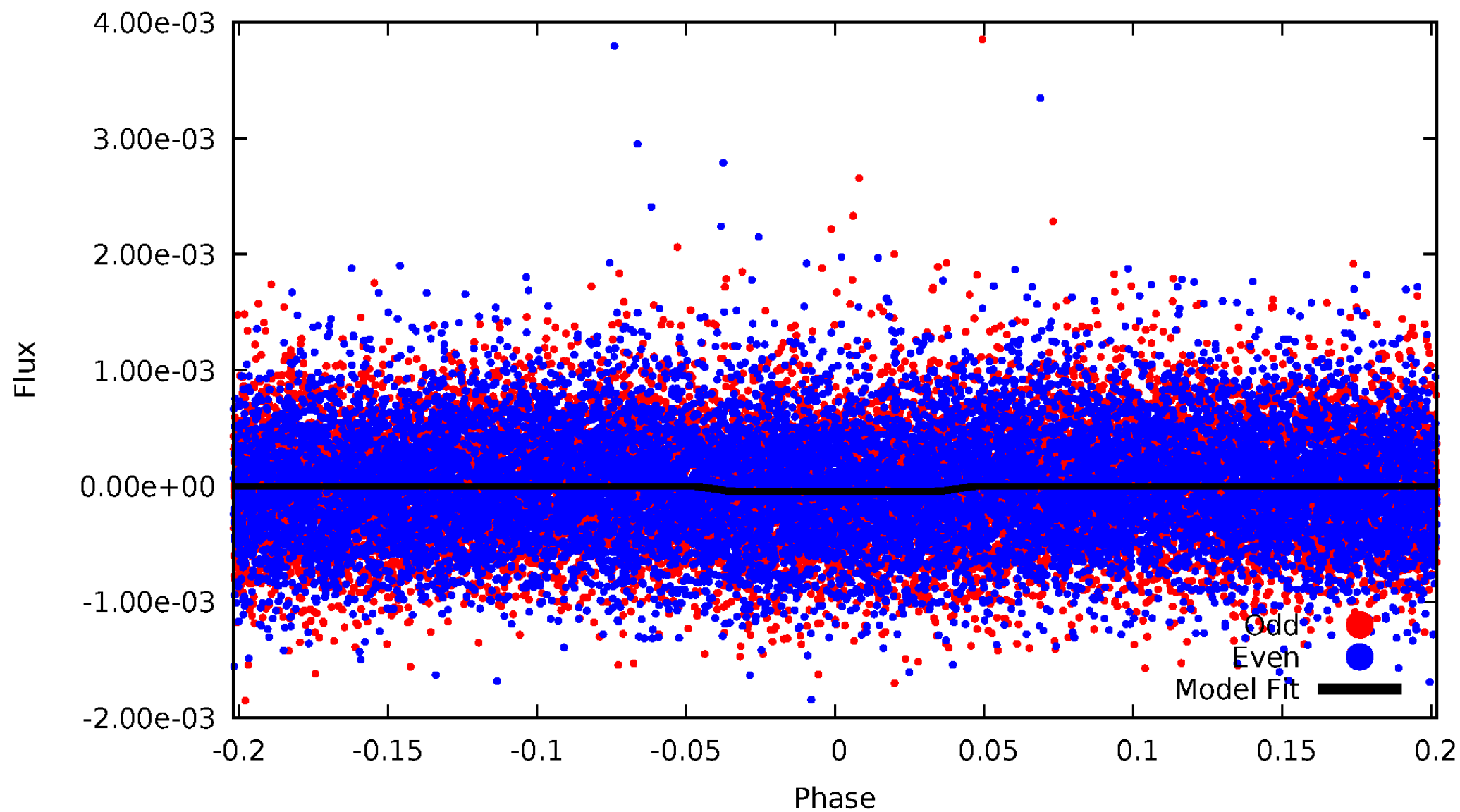
TCE 003525734-01





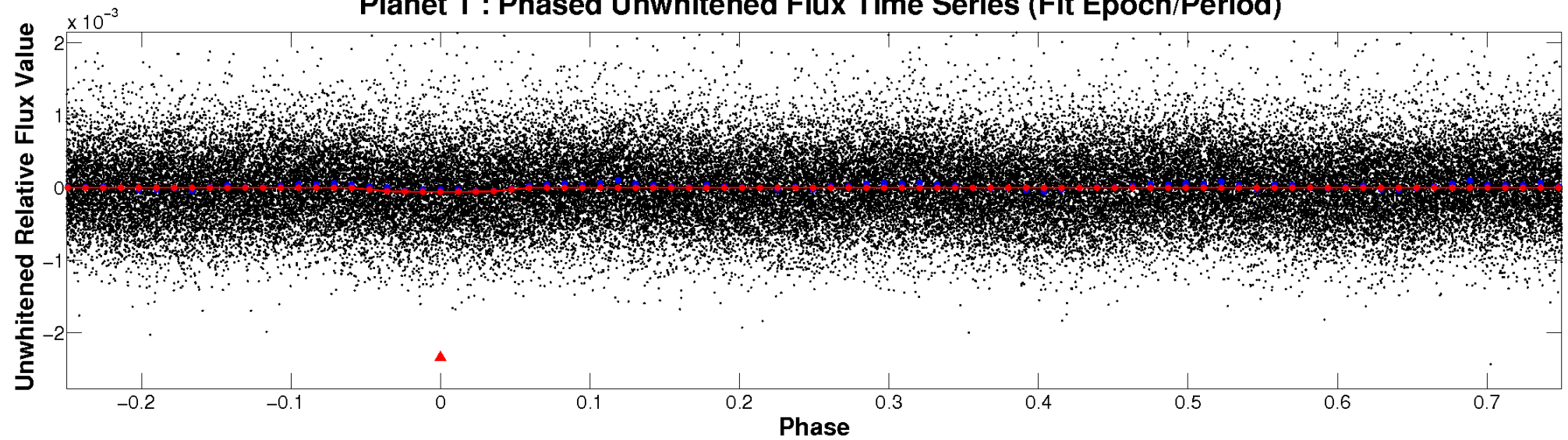
# ALT Odd/Even

TCE 003525734-01

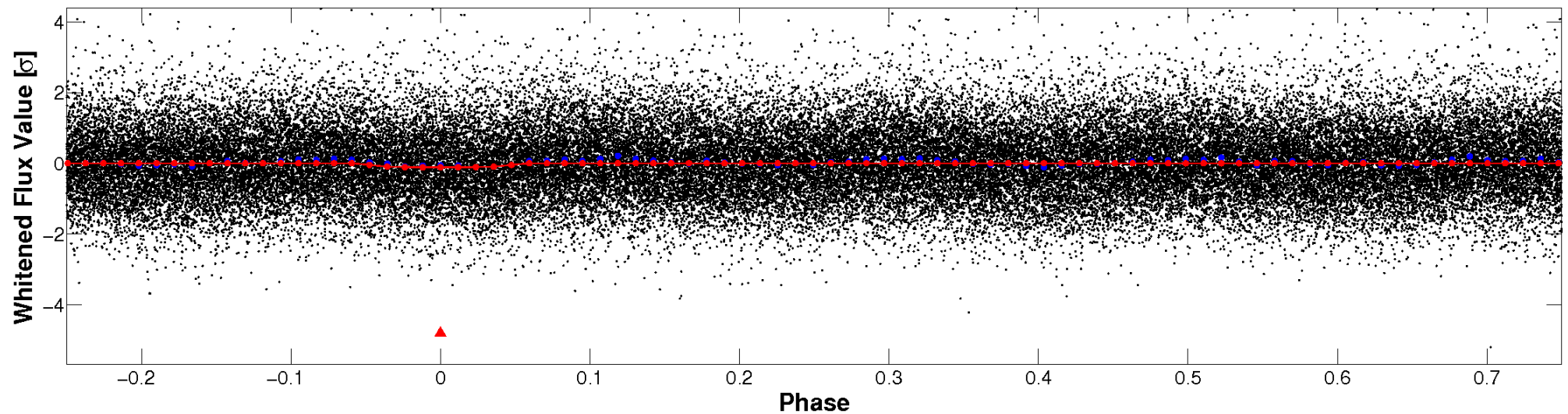


# Non-Whitened Vs. Whitened Light Curve

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

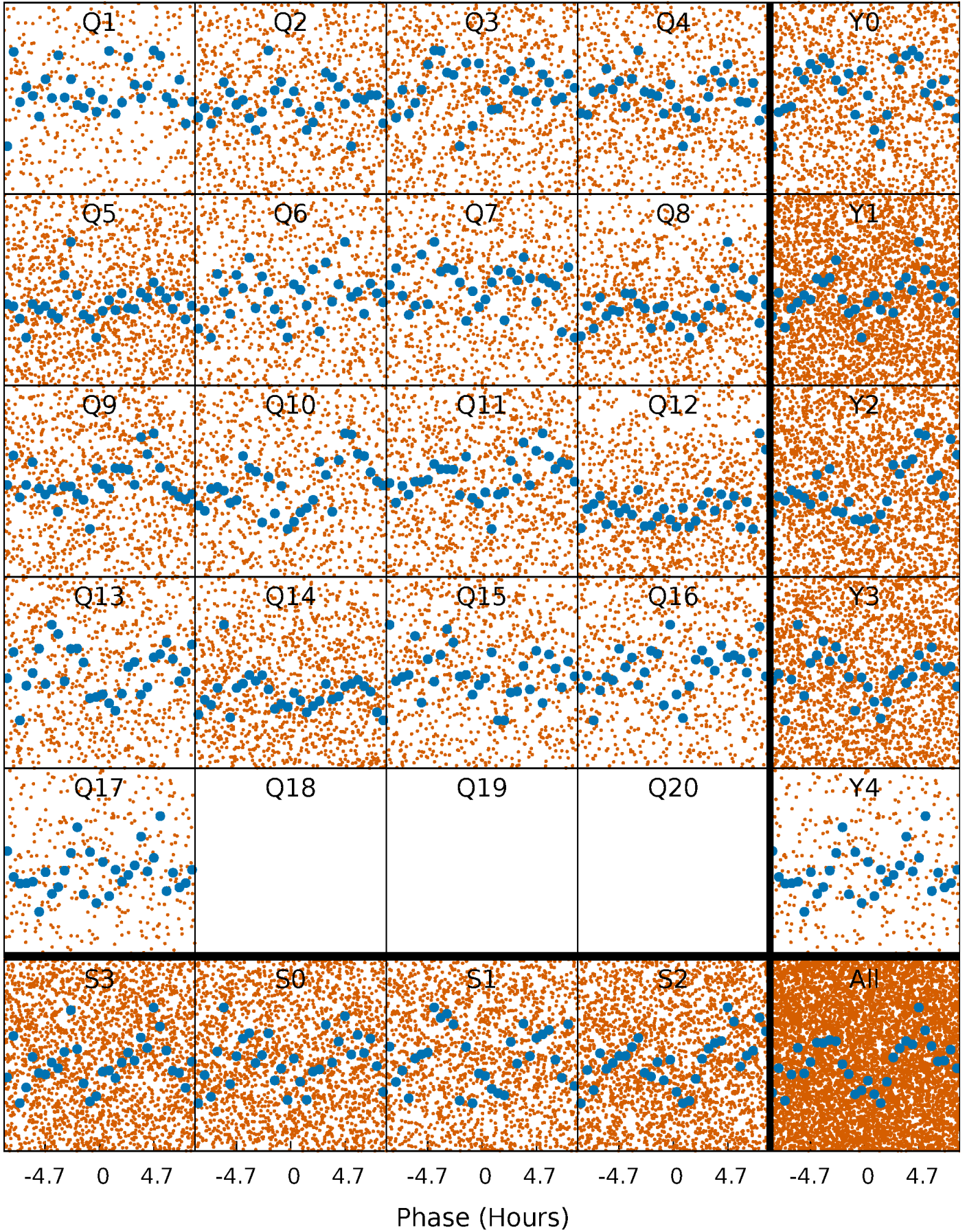


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

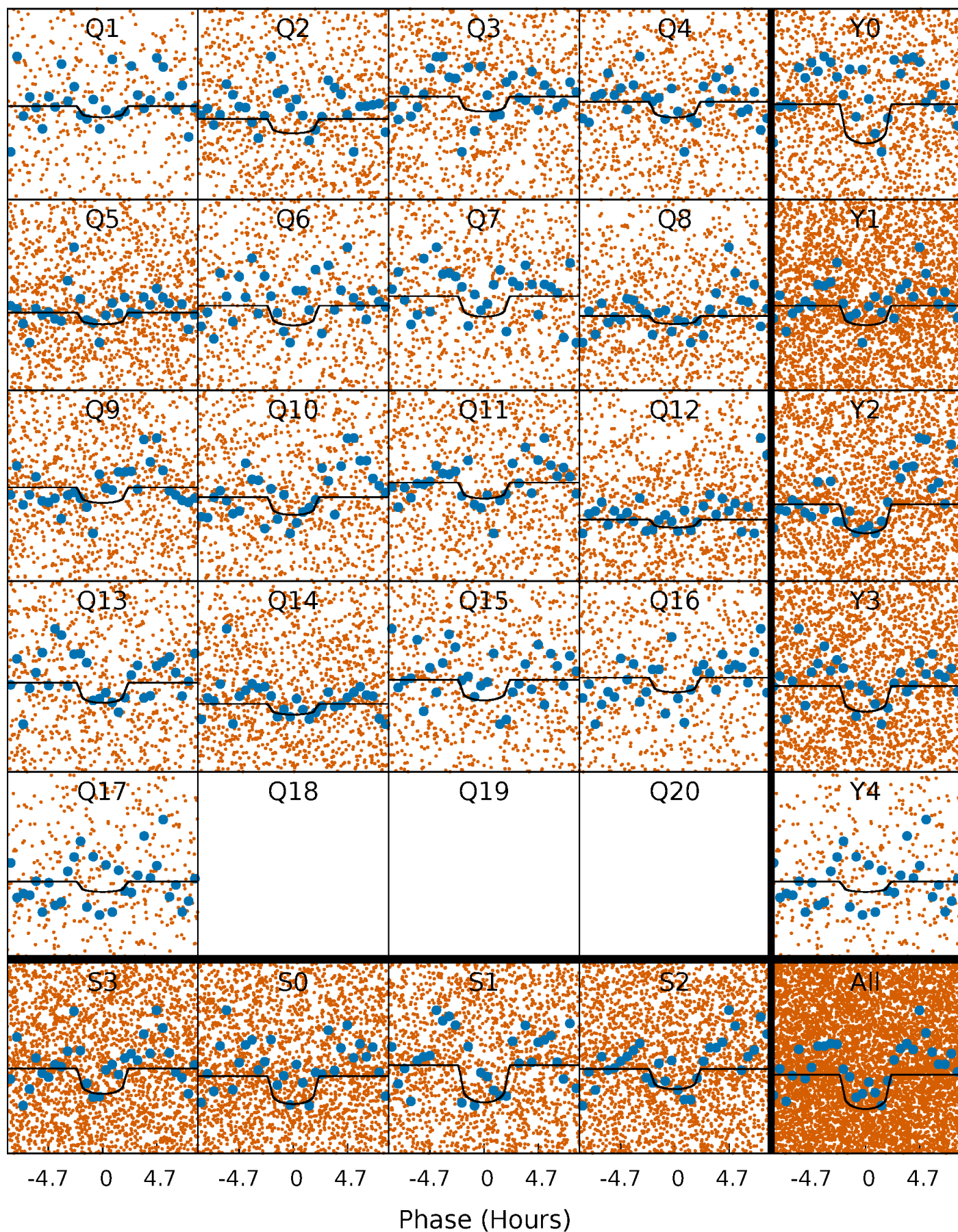
TCE 003525734-01 P= 1.721318 Days  $T_0=132.511284$  (BKJD)





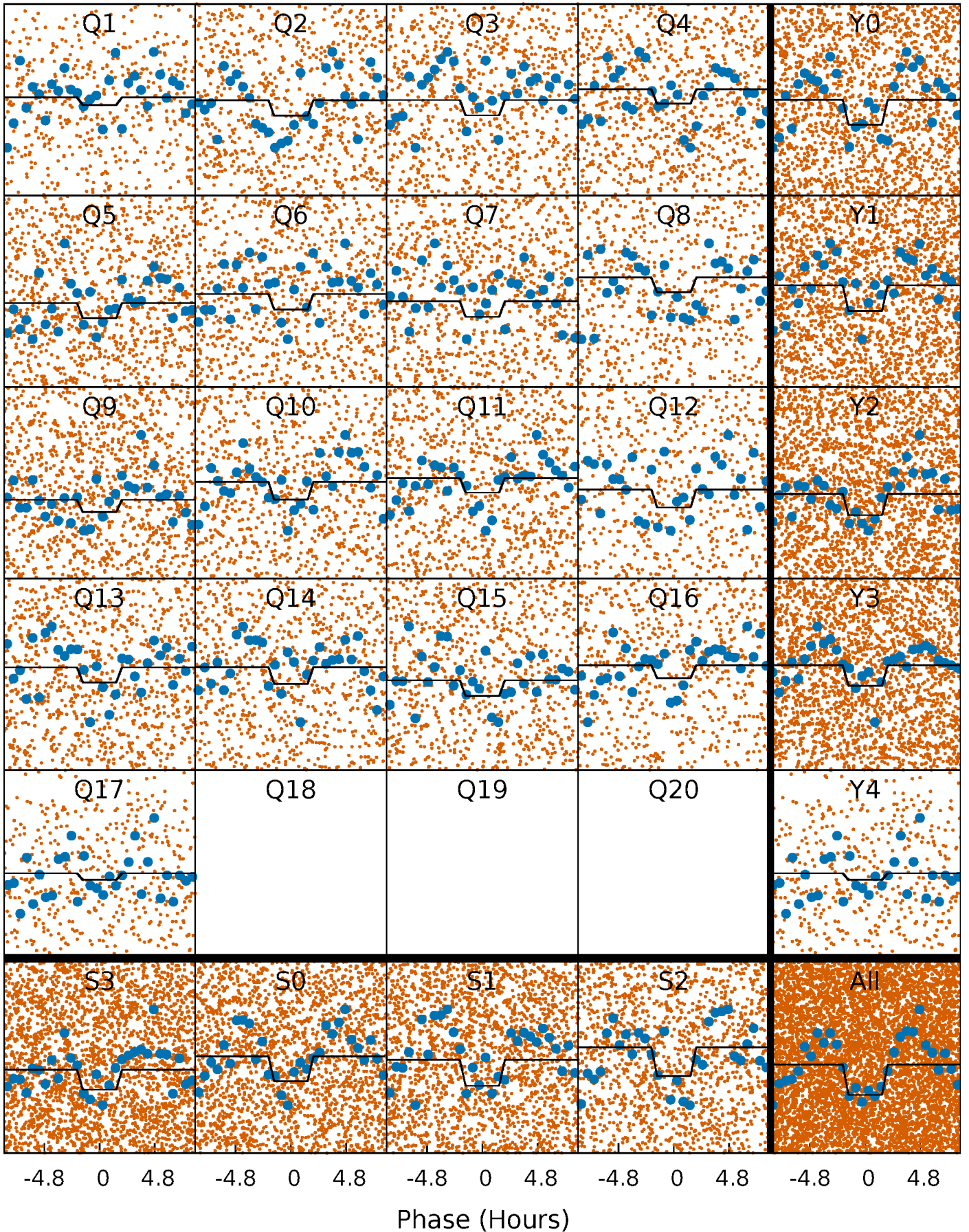
# DV Quarter-Phased Transit Curves

TCE 003525734-01 P= 1.721318 Days  $T_0=132.511284$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 003525734-01 P= 1.721373 Days  $T_0=132.493511$  (BKJD)

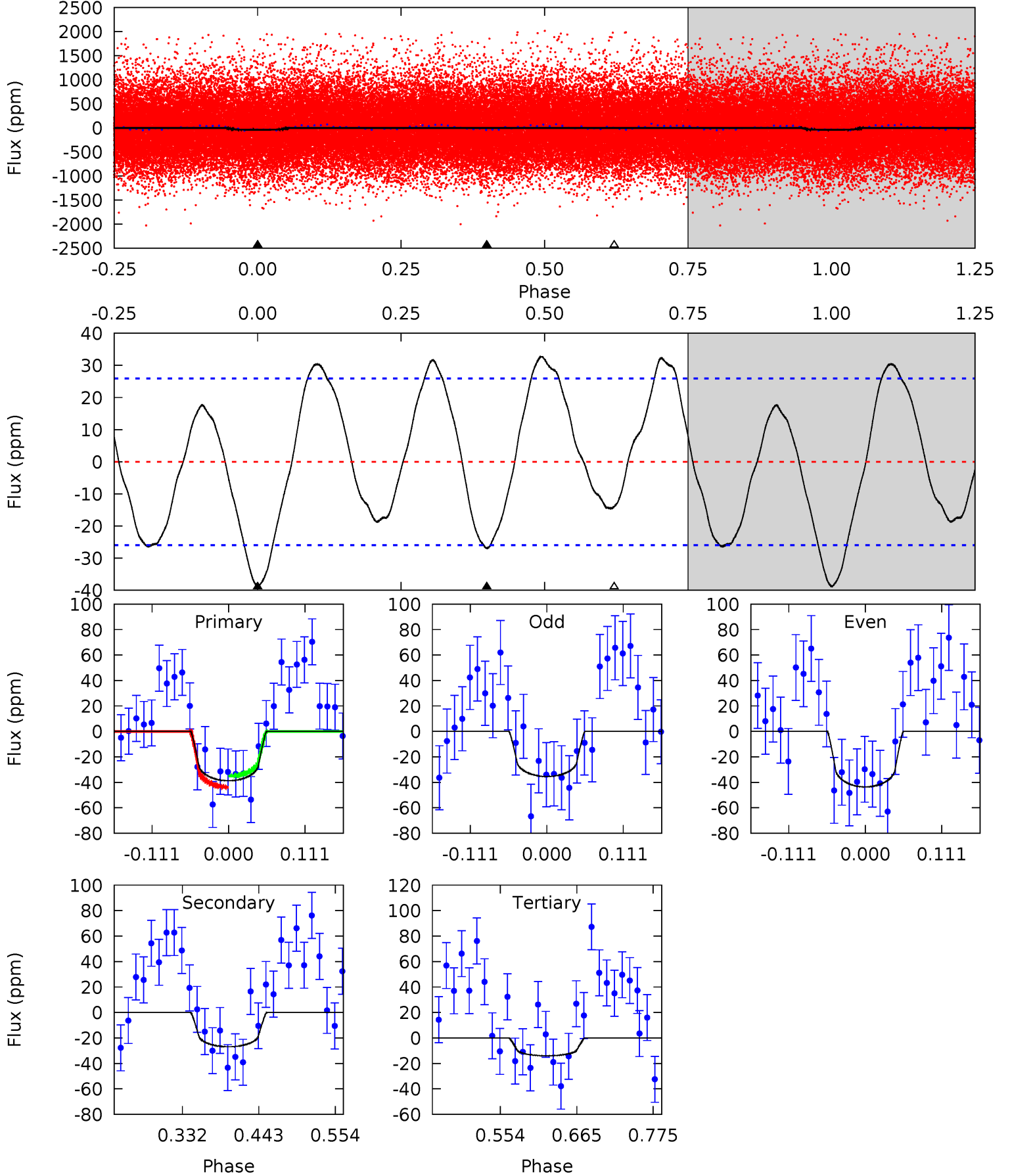




# DV Model-Shift Uniqueness Test

003525734-01, P = 1.721318 Days, E = 130.789966 Days

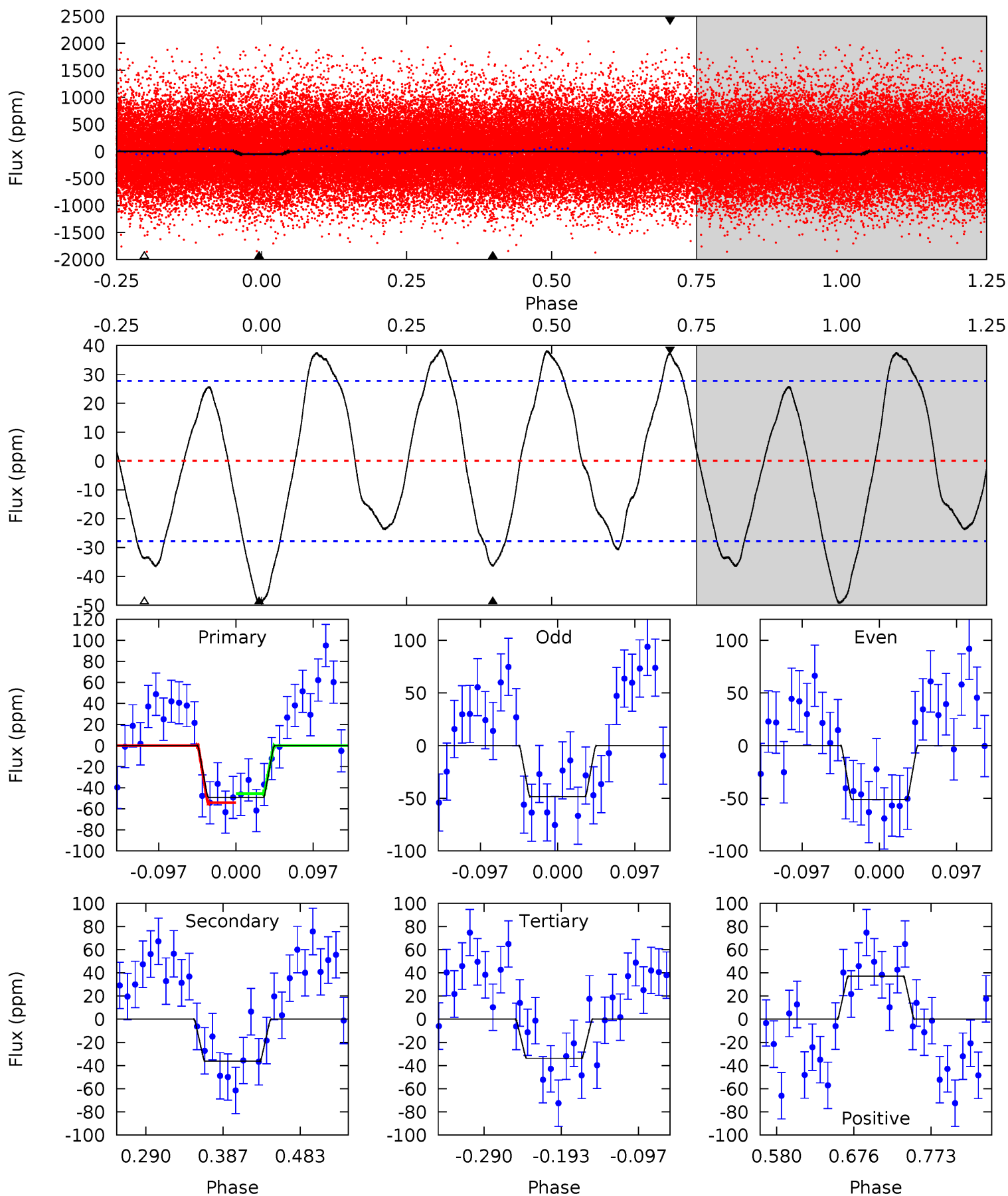
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.79	4.71	2.45	0	4.54	1.59	2.99	4.34	6.79	2.26	4.71	0.72	0.79	0.46	0.78



# Alt Model-Shift Uniqueness Test

003525734-01, P = 1.721373 Days, E = 130.772138 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
8.09	5.98	5.56	6.11	4.57	1.66	3.75	2.54	1.99	0.42	-0.13	0.22	0.83	0.44	0.71





### Stellar Parameters For KIC 003525734

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5726^{+158}_{-158}$	$4.564^{+0.042}_{-0.179}$	$-0.220^{+0.300}_{-0.300}$	$0.829^{+0.212}_{-0.071}$	$0.923^{+0.090}_{-0.110}$	$2.283^{+0.407}_{-1.106}$
	+3%/-3%	+1%/-4%	+136%/-136%	+26%/-9%	+10%/-12%	+18%/-48%
Source	PHO1	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 003525734-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-27 \pm 6$	$0.83^{+0.61}_{-0.51}$	$1982^{+121}_{-83}$	$4564^{+2393}_{-869}$	$16^{+83}_{-11}$
Alt.	$-36 \pm 6$	$0.73^{+0.55}_{-0.45}$	$1982^{+121}_{-77}$	$5094^{+3270}_{-1030}$	$28^{+160}_{-19}$

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

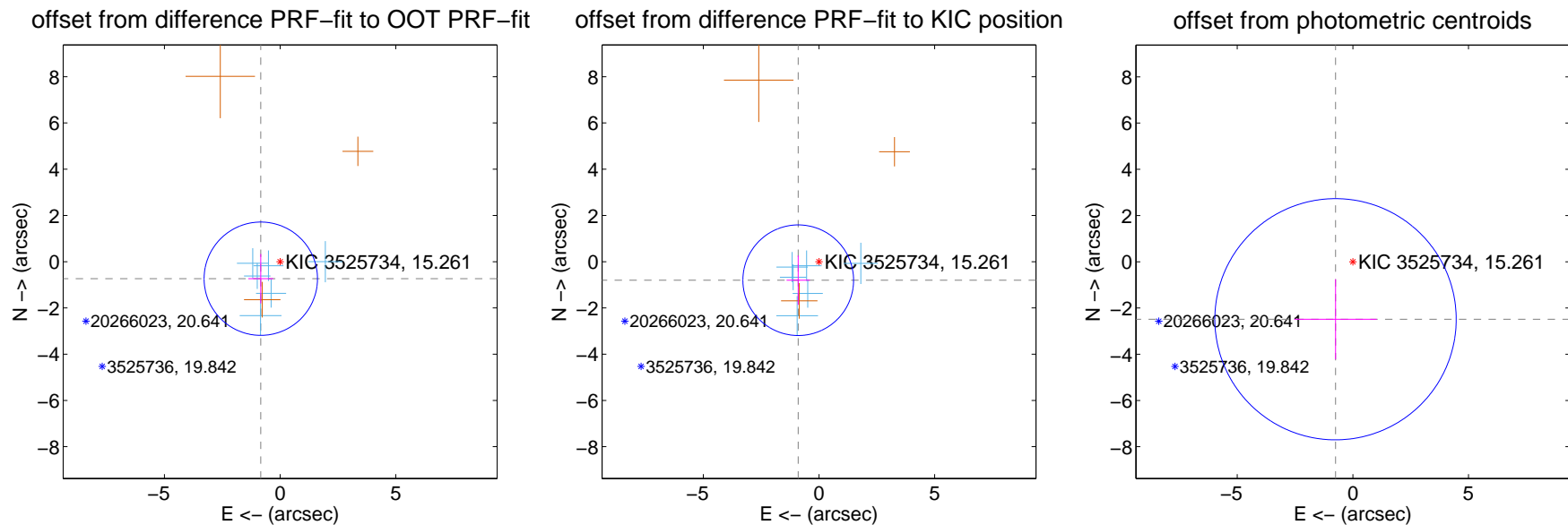
## DV Centroid Data

Supplemental centroid analysis for 003525734-01. Kepler magnitude: 15.26. Transit SNR 7.69

There are 6 quarters with good PRF difference image offsets

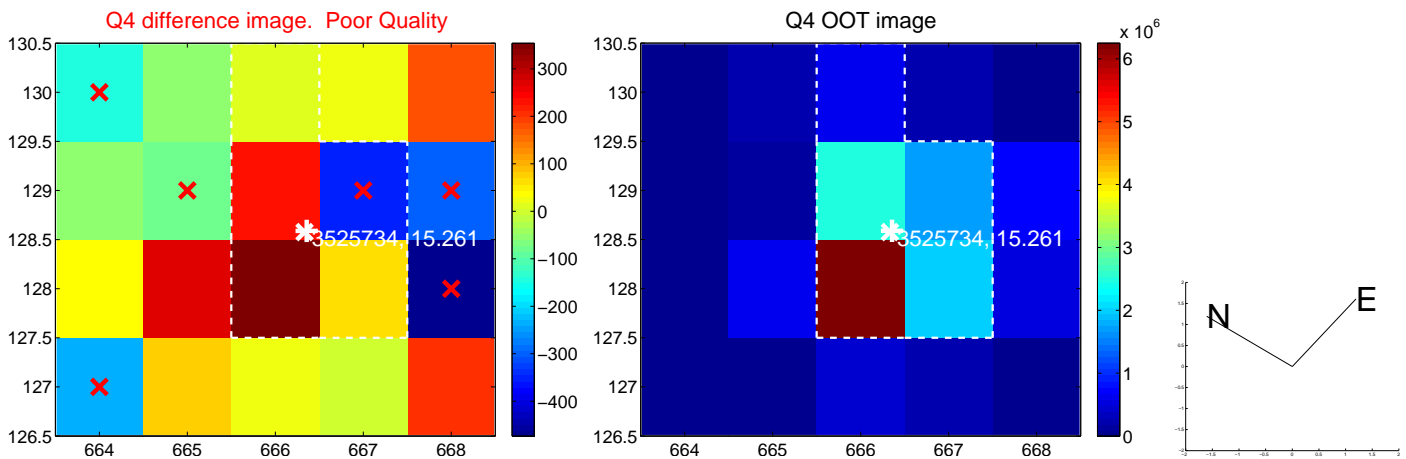
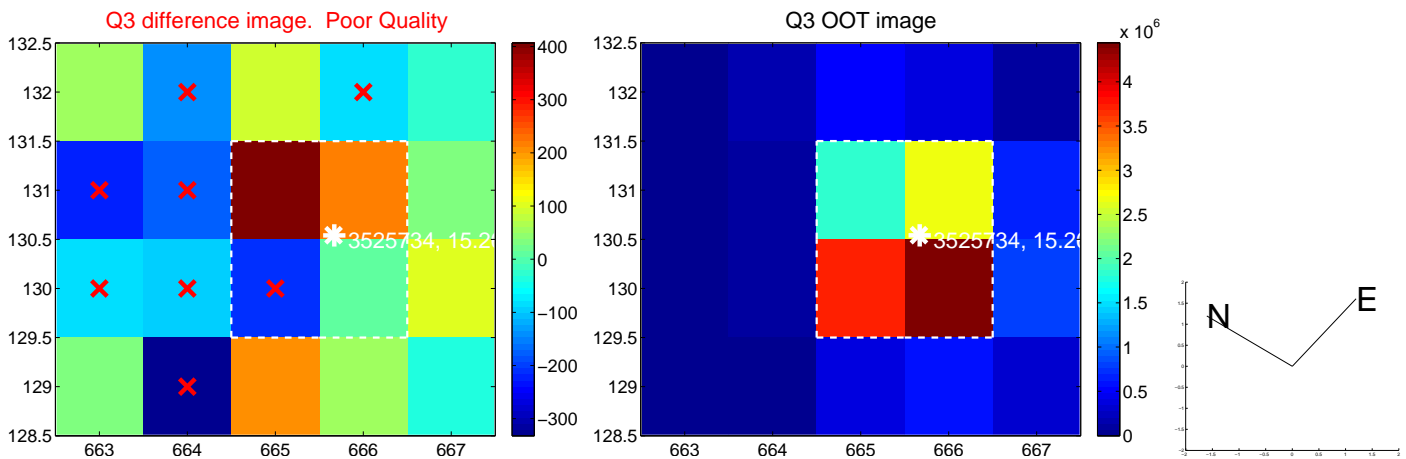
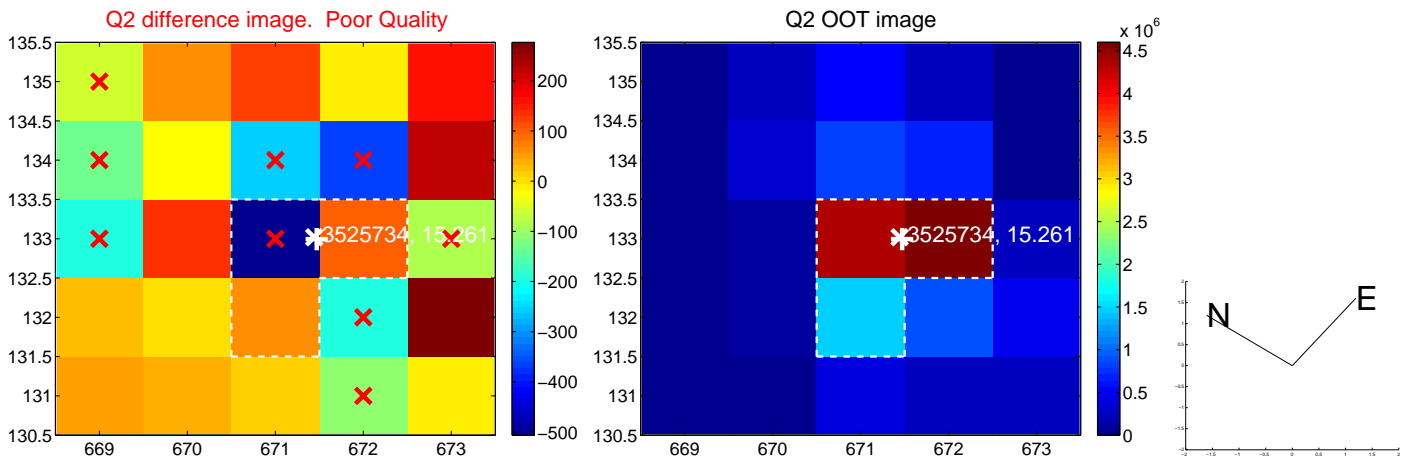
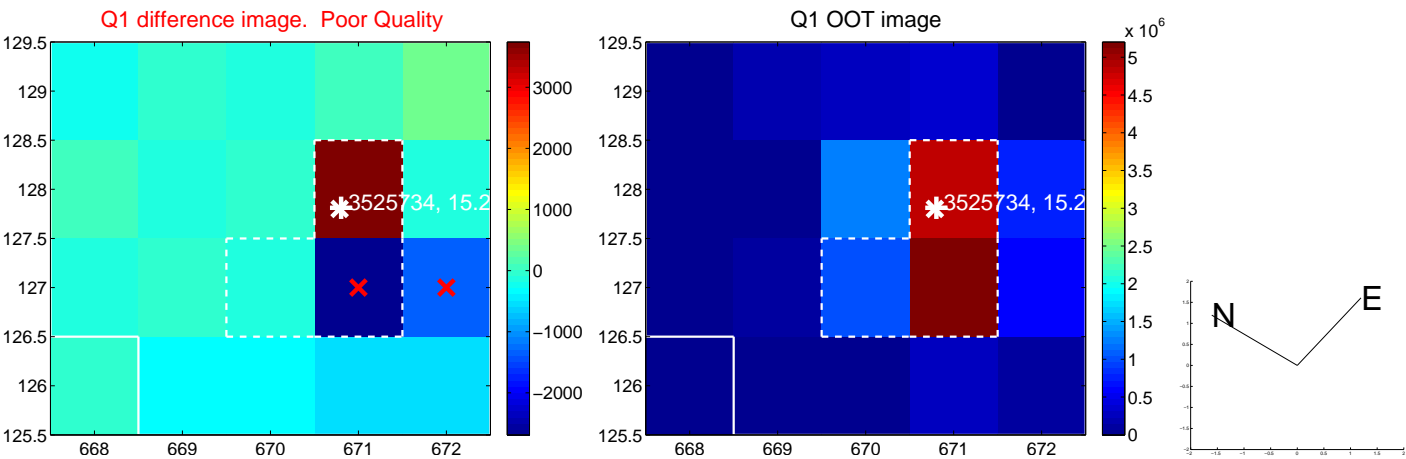
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.113 \pm 0.817$	1.36	$0.835 \pm 0.537$	$-0.736 \pm 1.067$
PRF-fit source offset from KIC position	$1.202 \pm 0.797$	1.51	$0.897 \pm 0.505$	$-0.801 \pm 1.065$
photometric centroid source offset	$2.60 \pm 1.74$	1.49	$0.75 \pm 1.78$	$-2.49 \pm 1.74$

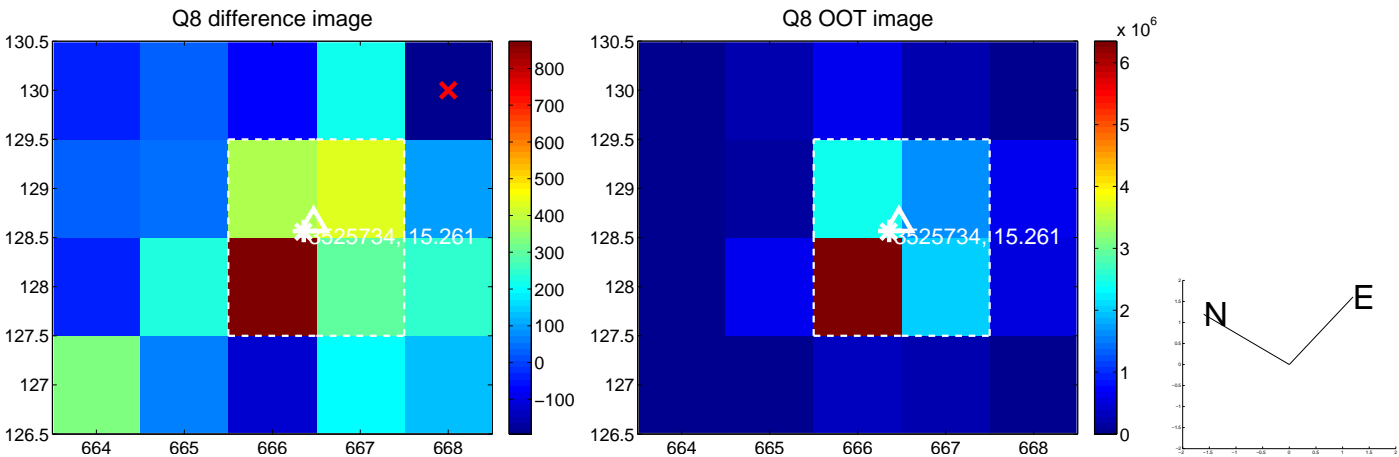
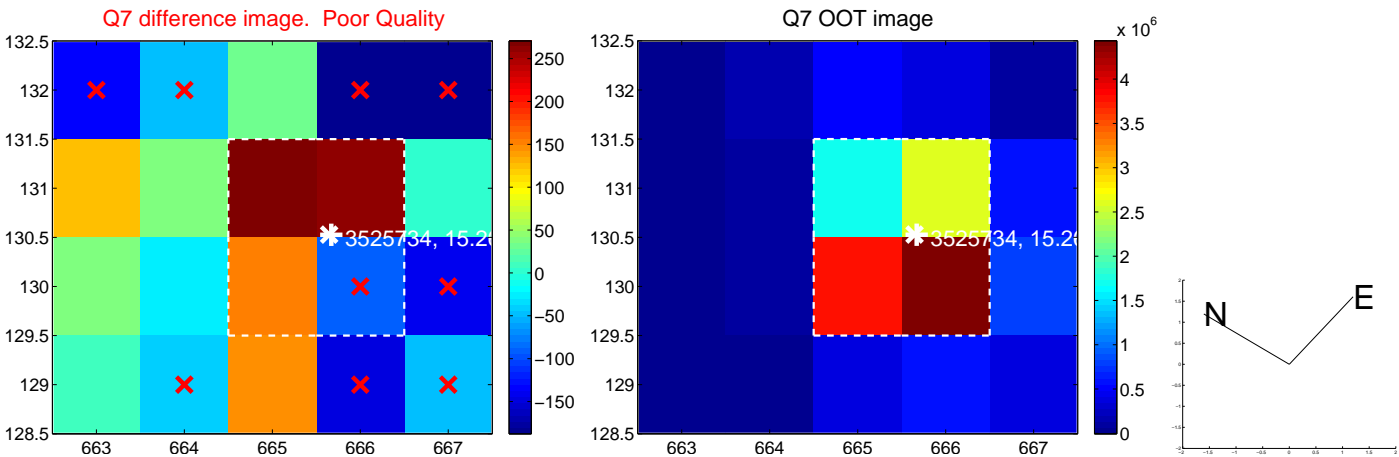
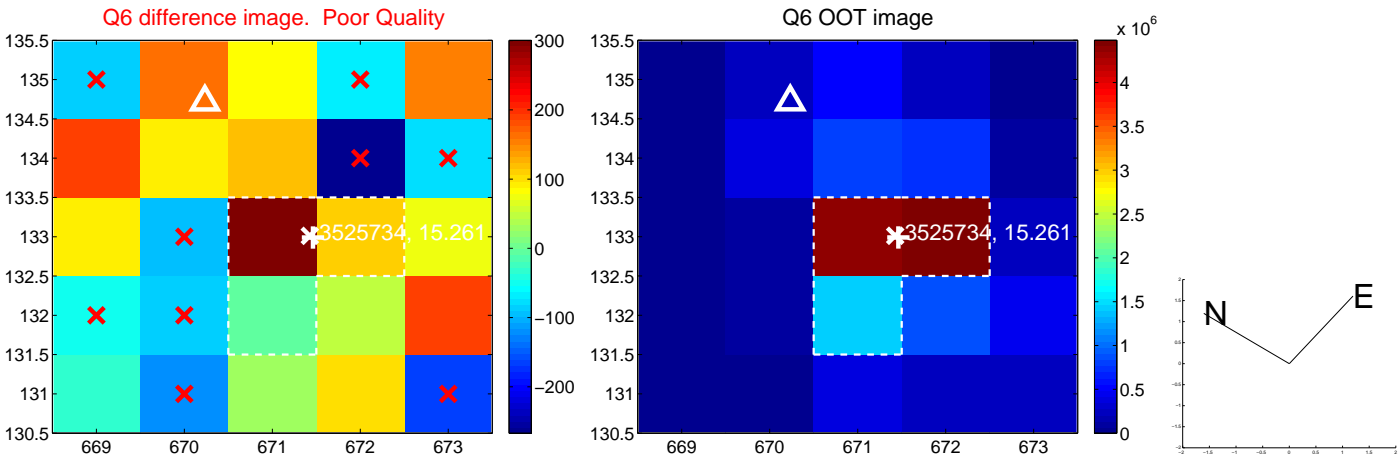
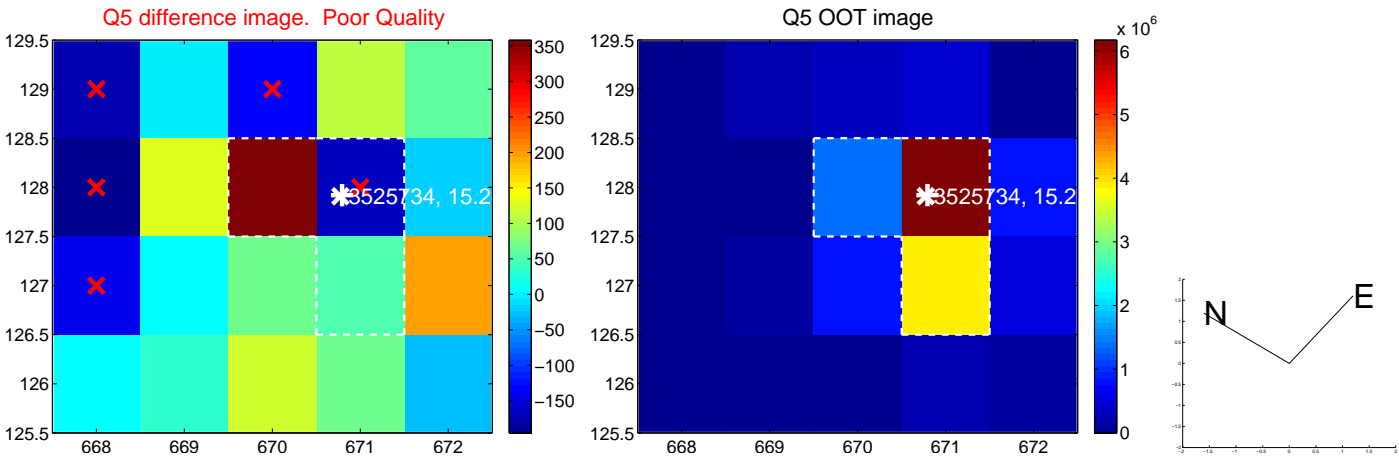


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

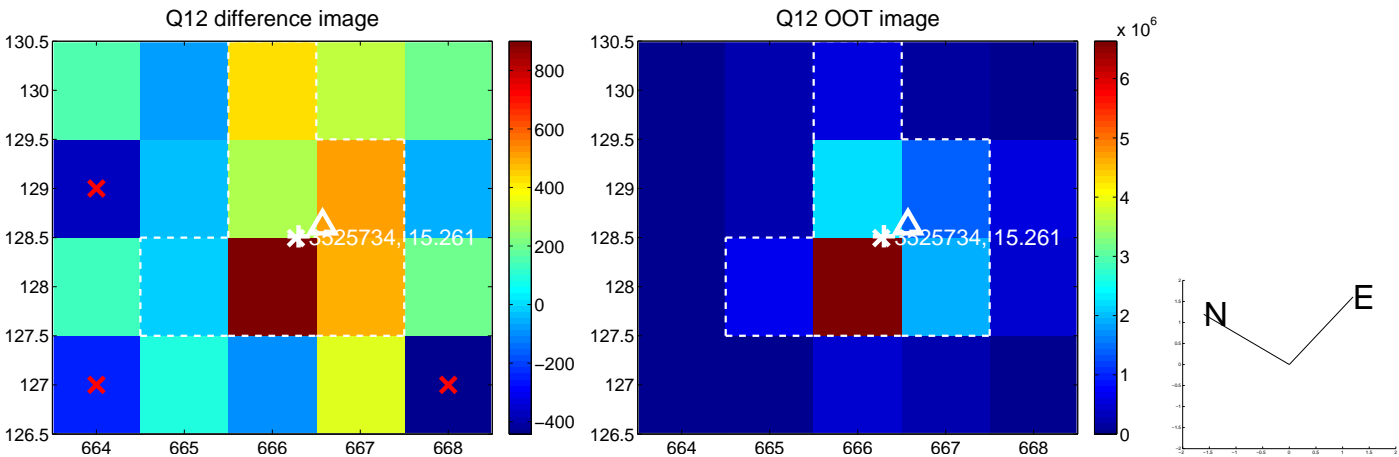
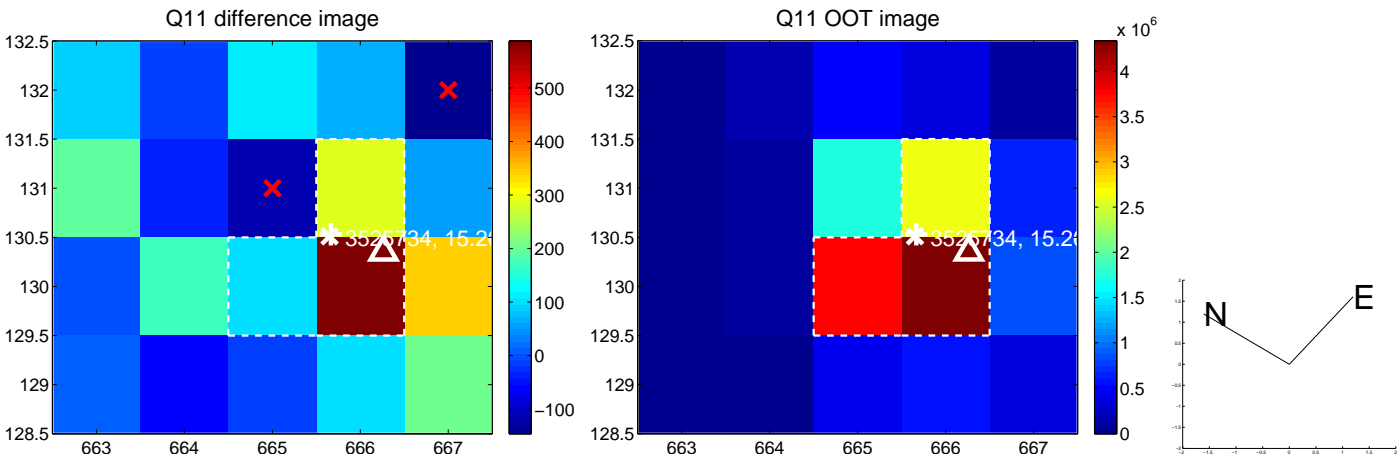
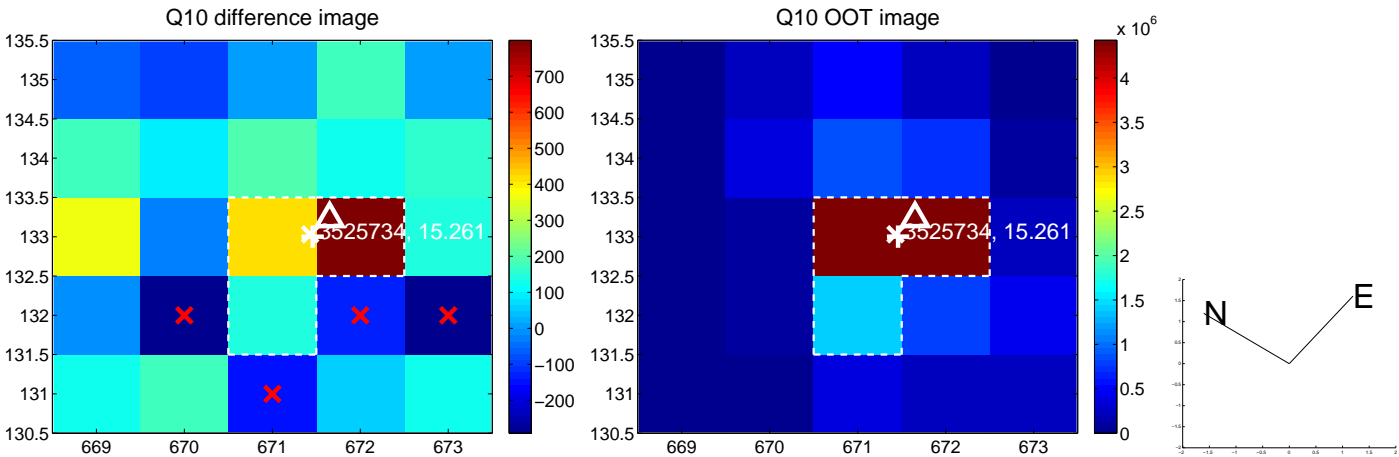
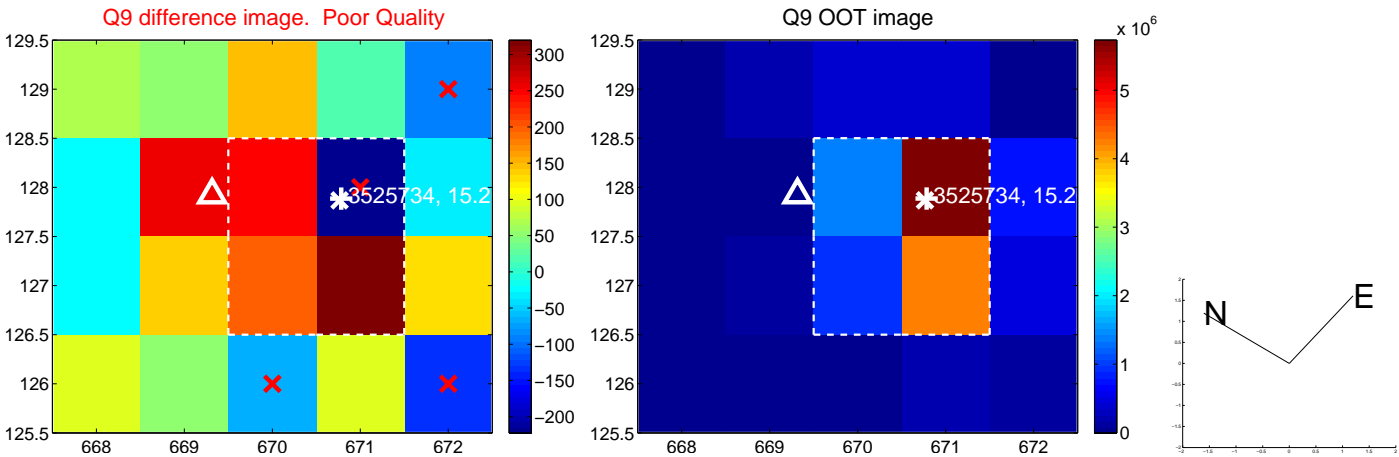


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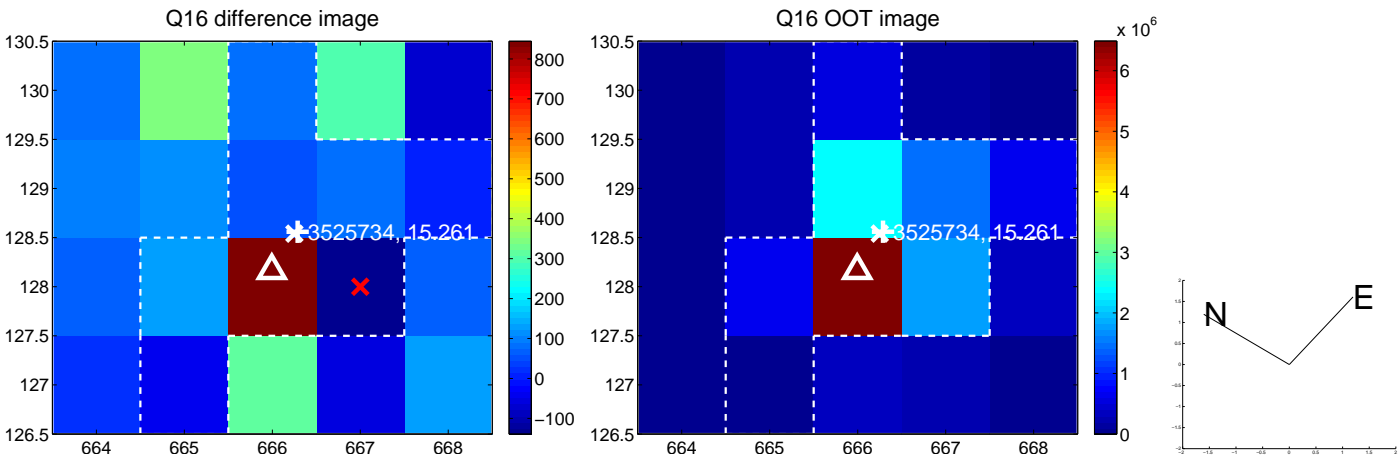
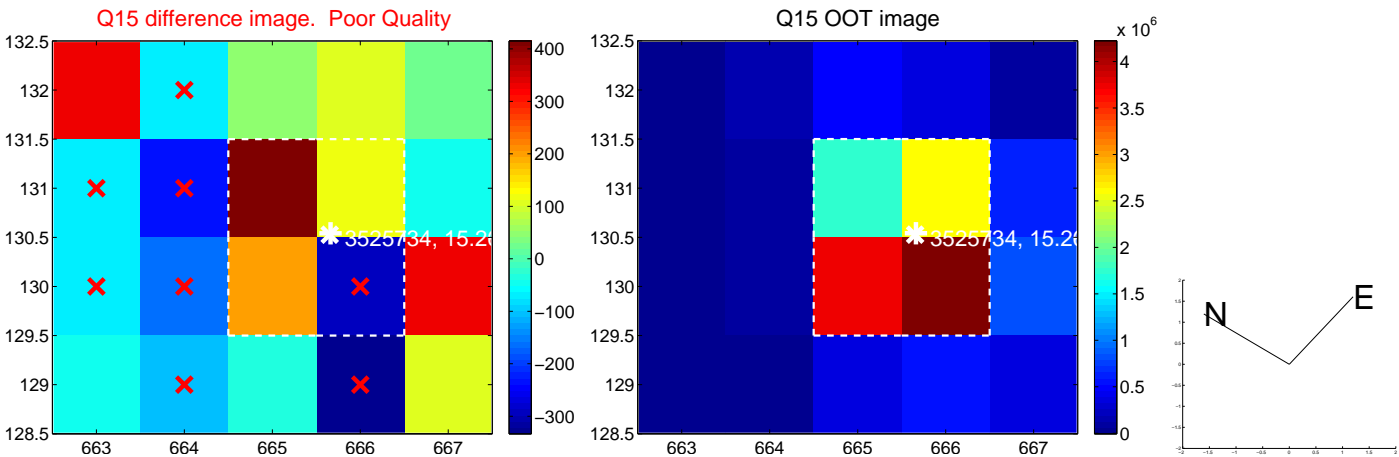
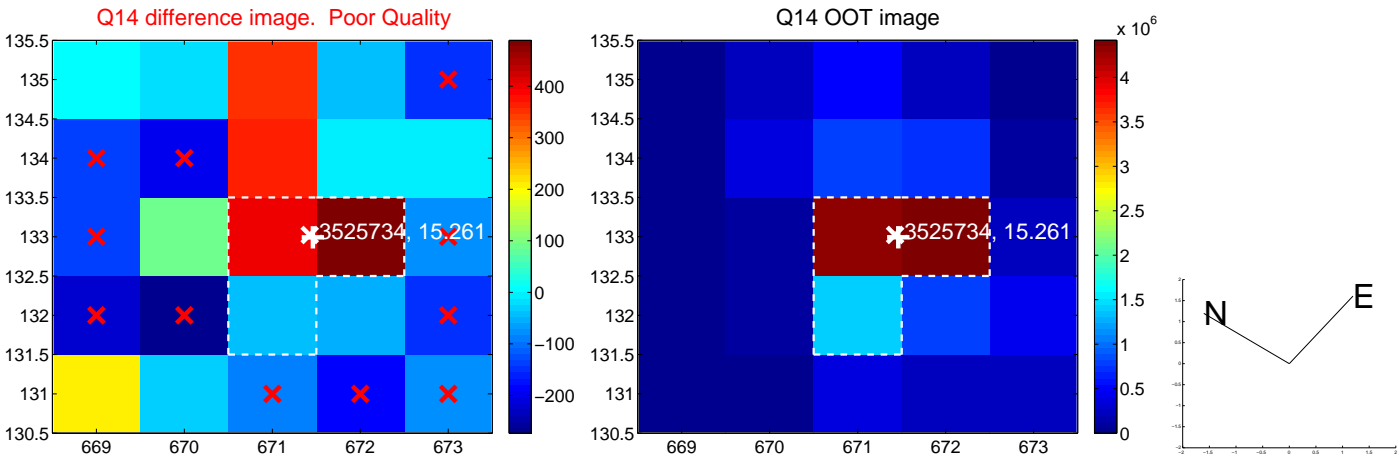
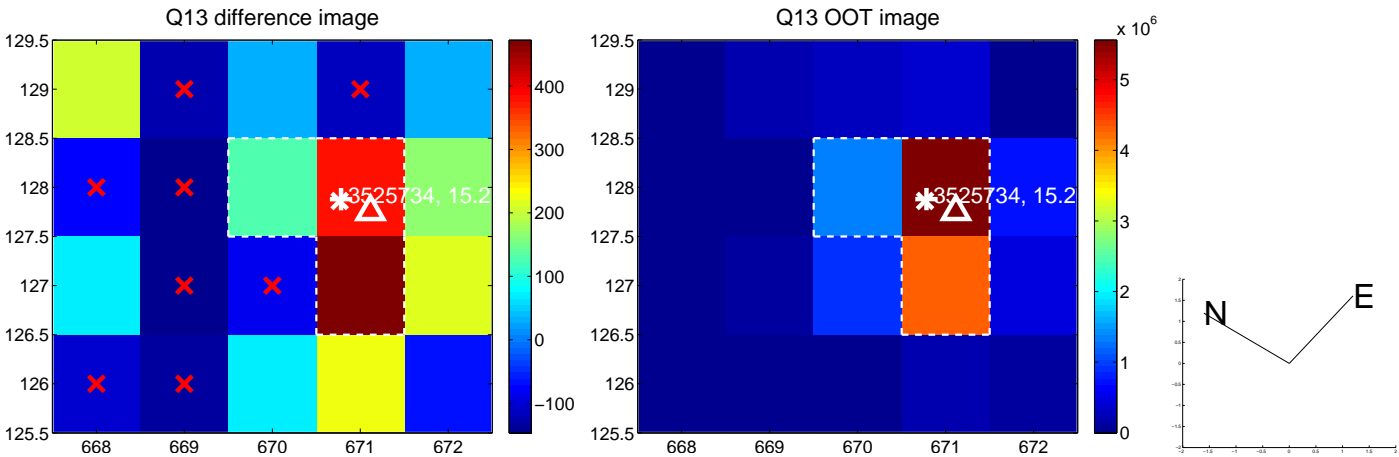




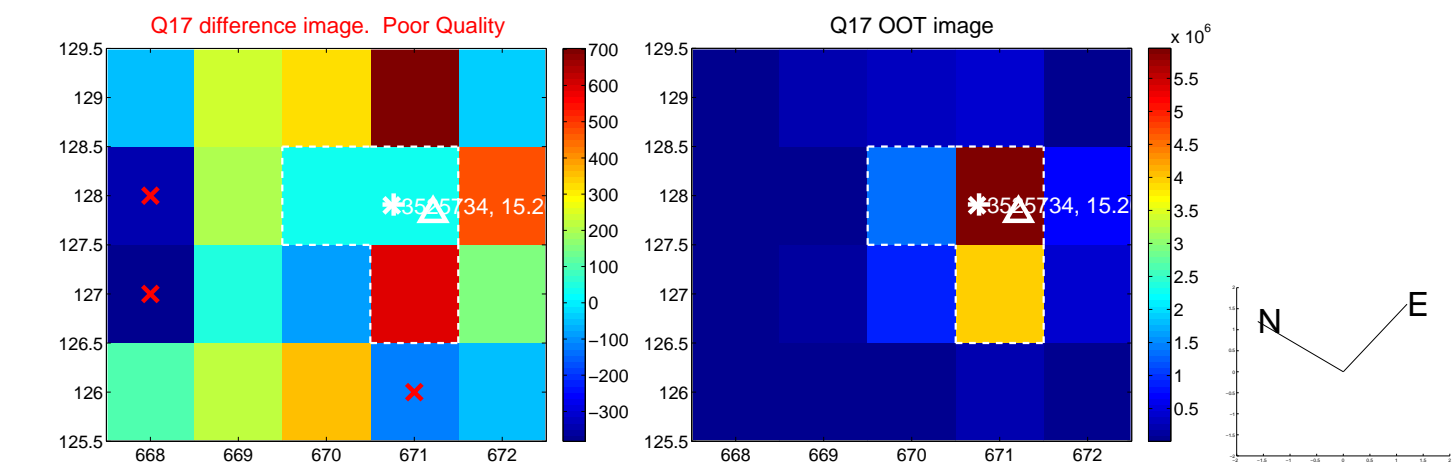
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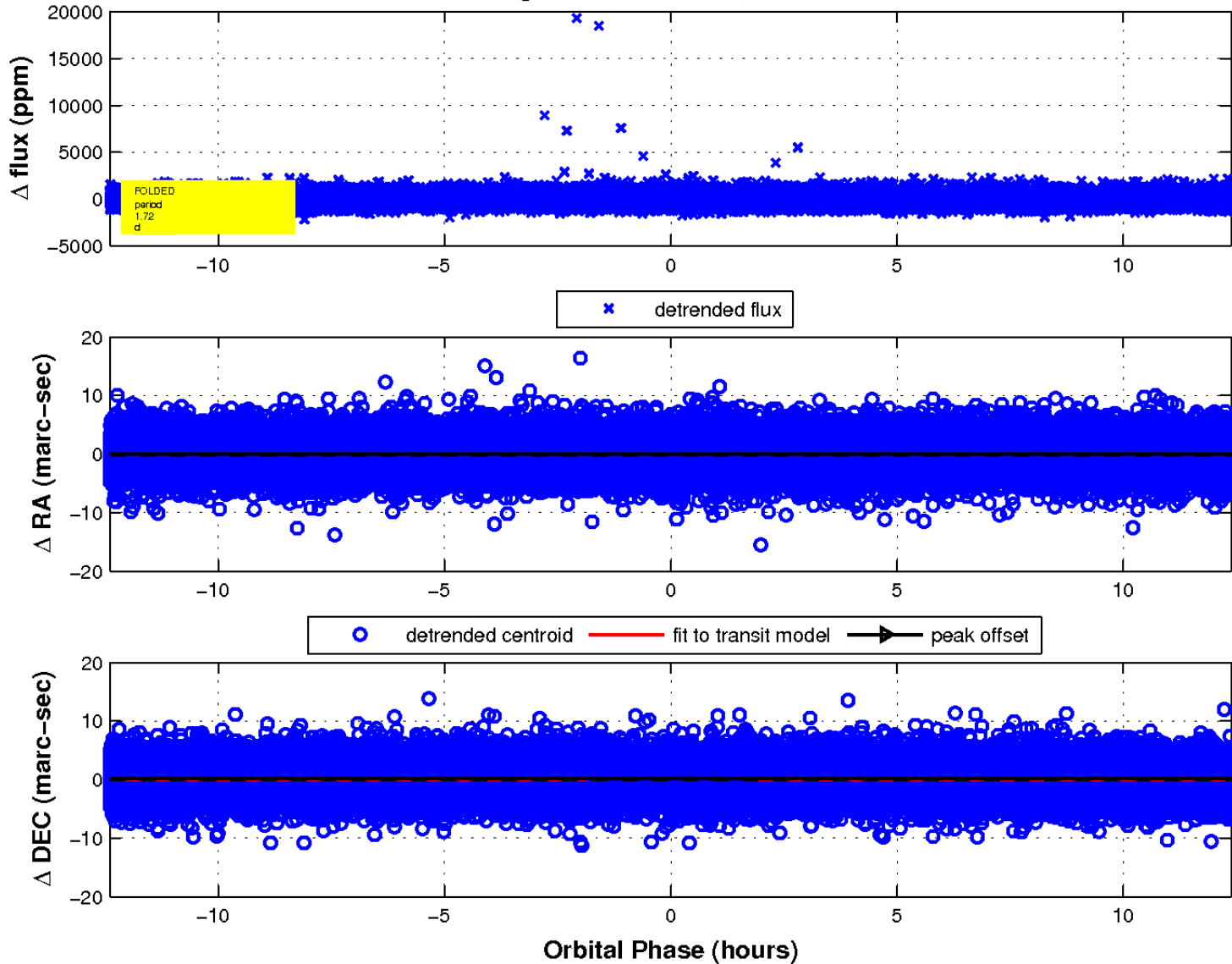
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

