

KIC 007115237

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})
007115237-01	OBS	No	0.566782	131.829944	607.9	2.000	10.6	-1.0	0.77	5305	1.87	2924.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007115237-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_NOFITS—HALO_GHOST—EPHEM_MATCH

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 for comment definitions.

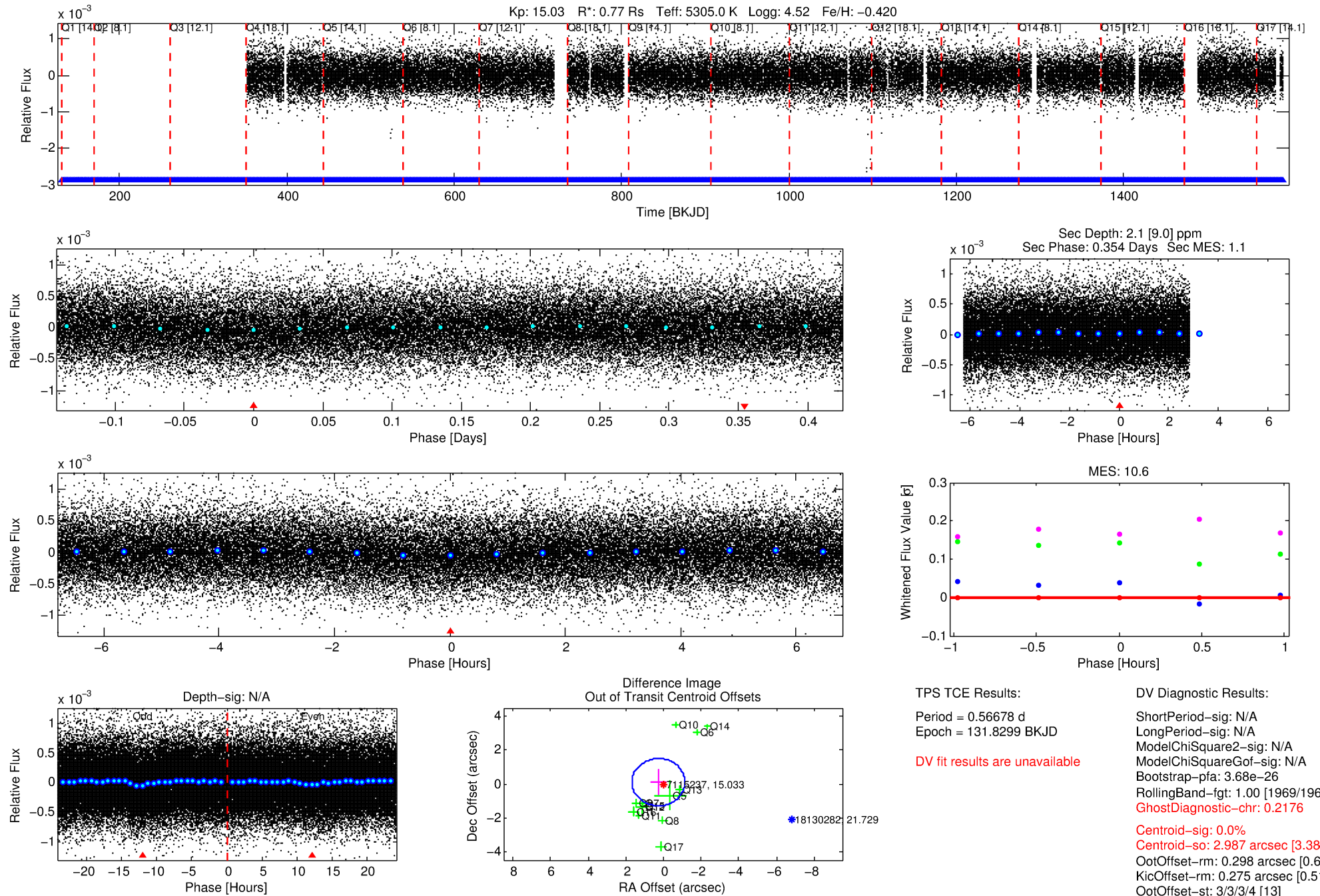
Ephemeris Match Information For 007115237-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007115237-01	7115237	RR-Lyr-pri	7198959	1:1	1196.1	-2	-301	7.86	15.03	1025.20	Direct-PRF	0	3.23	18.52

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

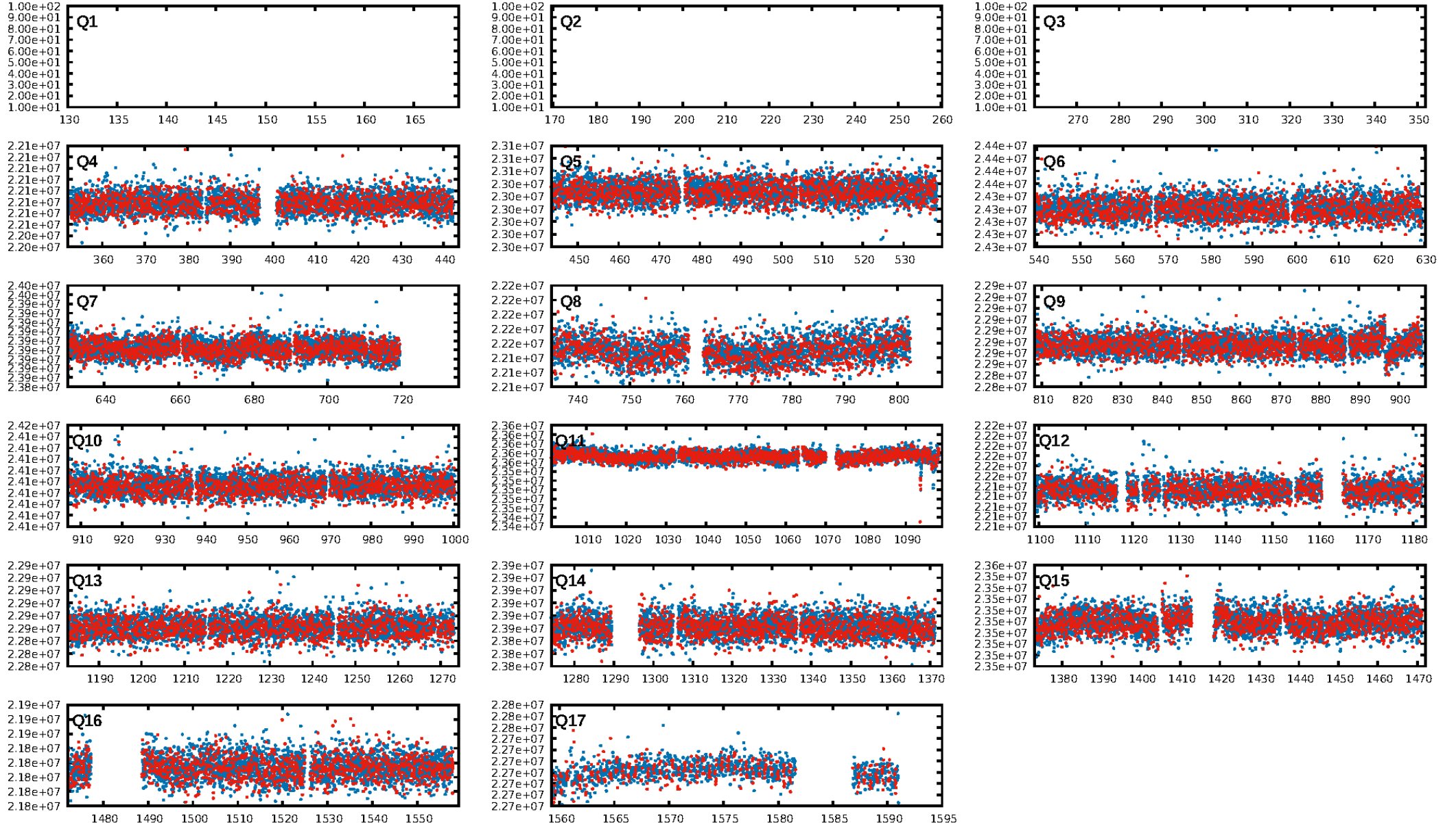
KIC: 7115237 Candidate: 1 of 1 Period: 0.567 d



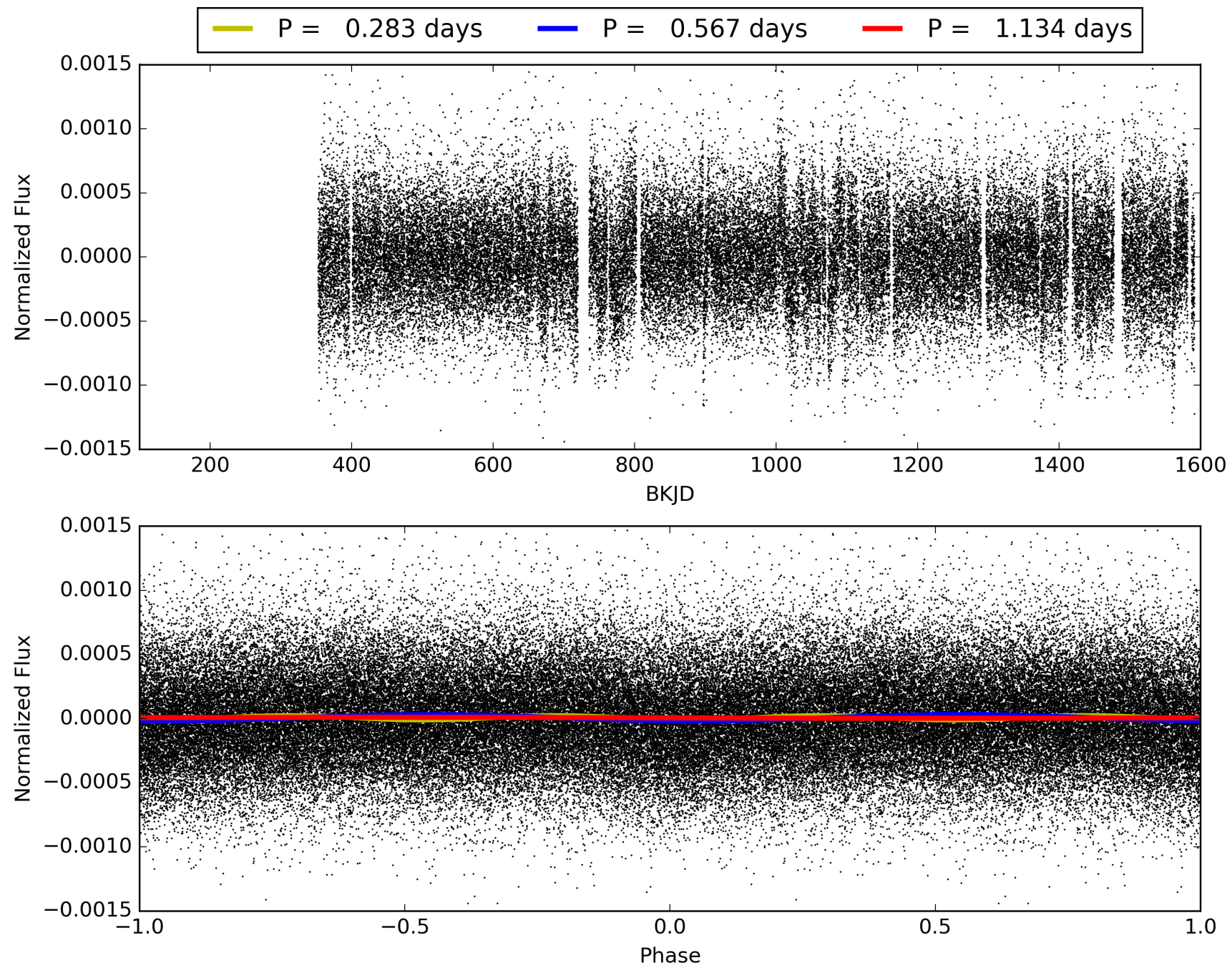
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:52:24 Z

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

TCE 007115237-01, PDC Light Curves

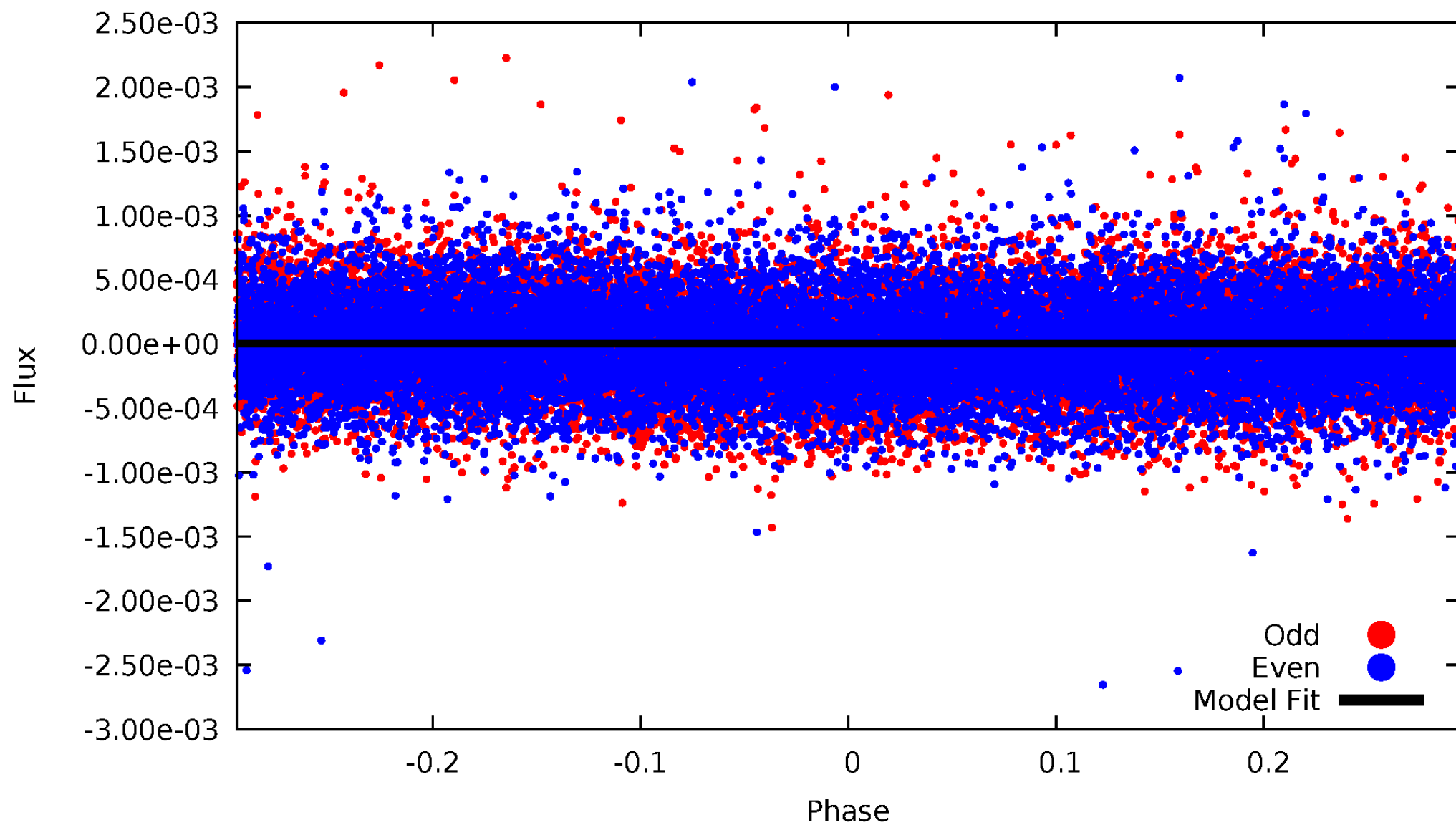


TCE 007115237-01



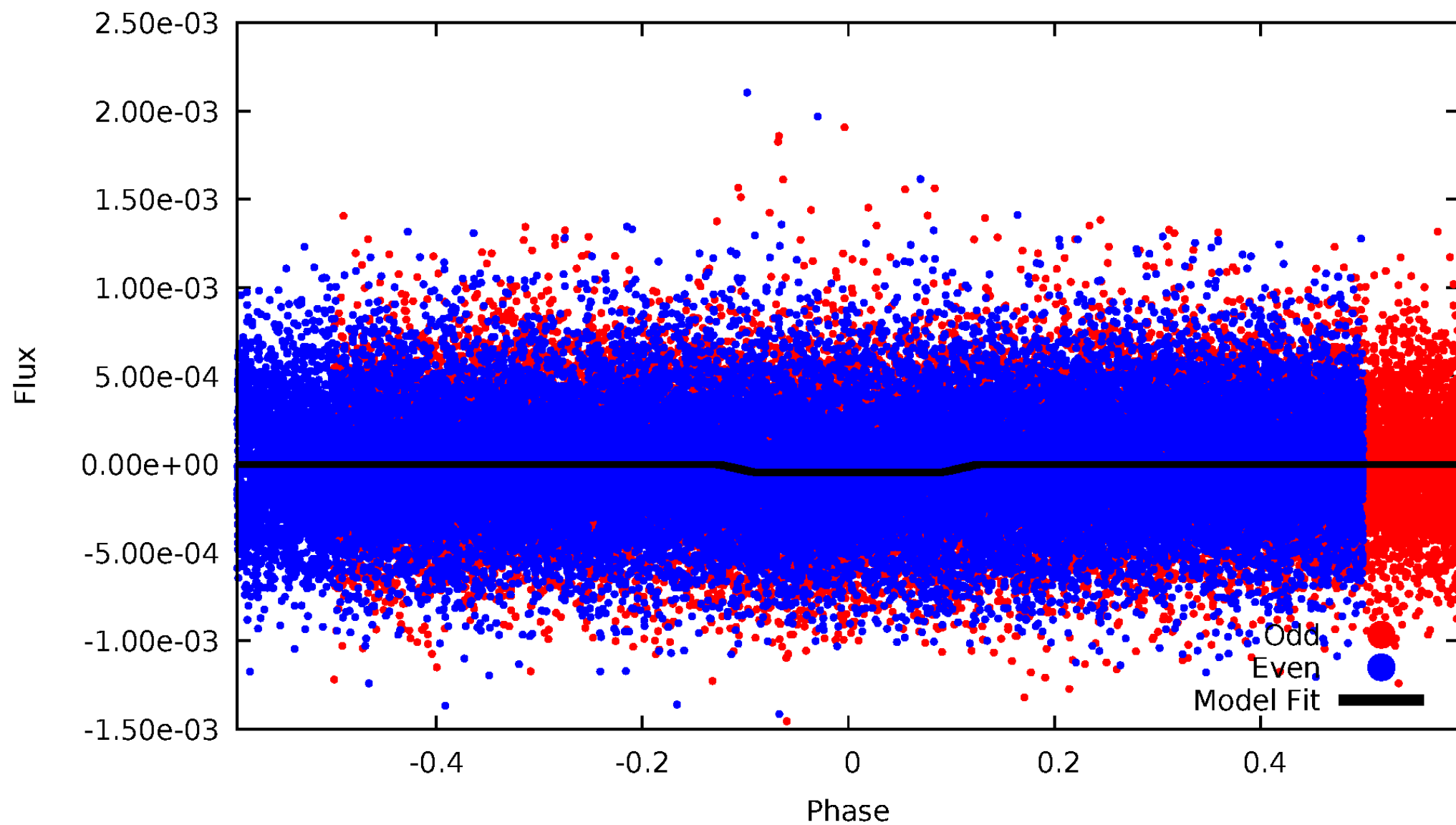
DV Odd/Even

TCE 007115237-01

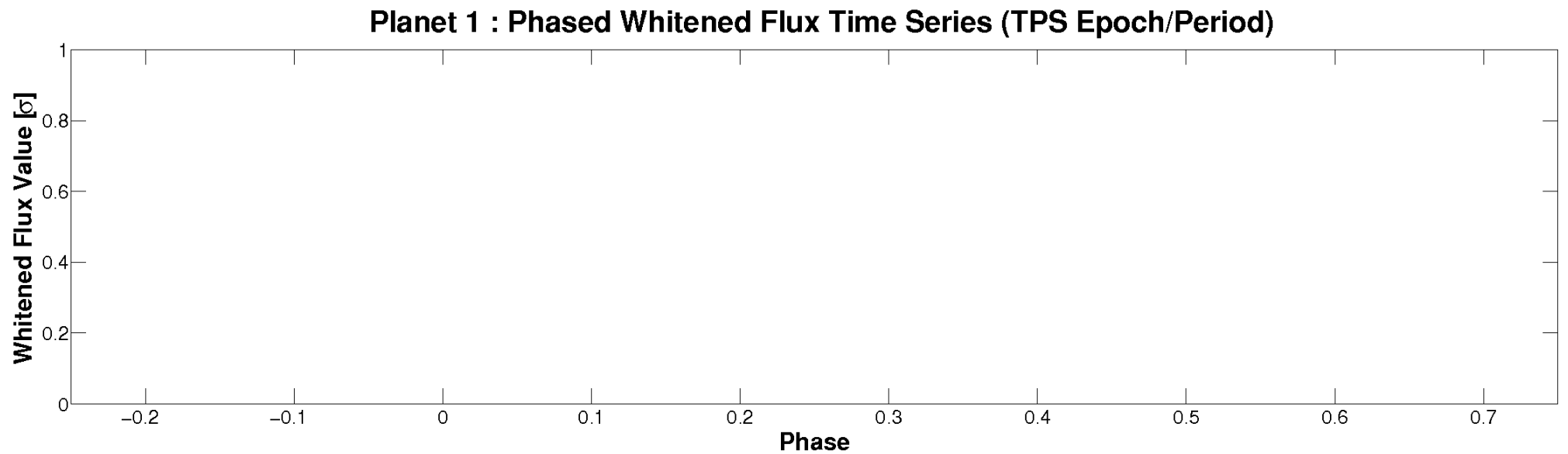
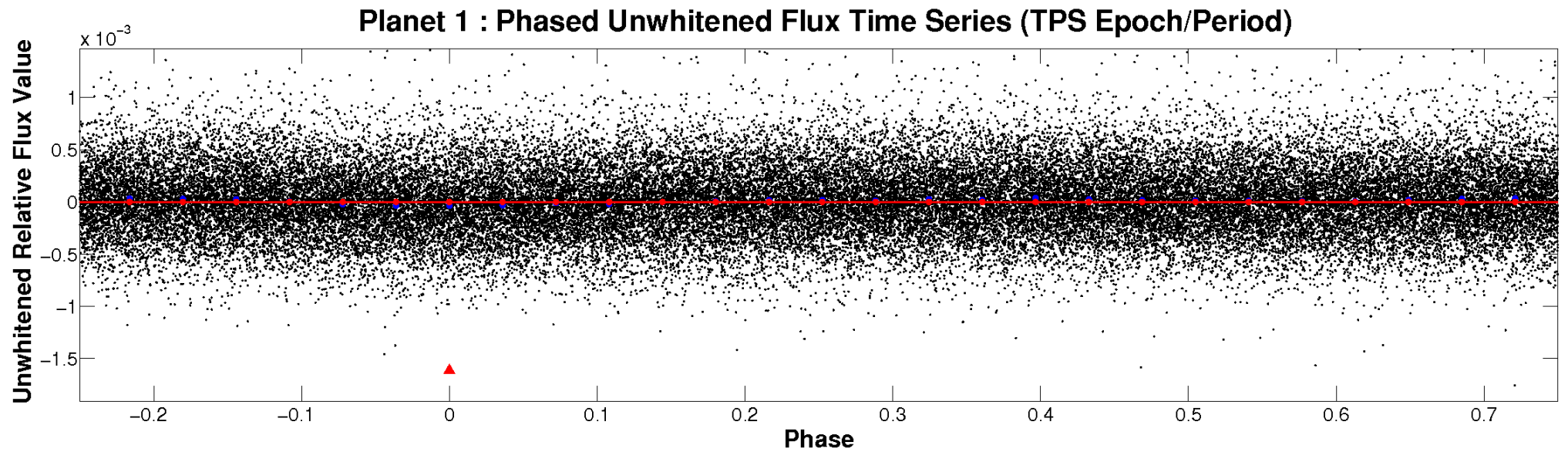


ALT Odd/Even

TCE 007115237-01

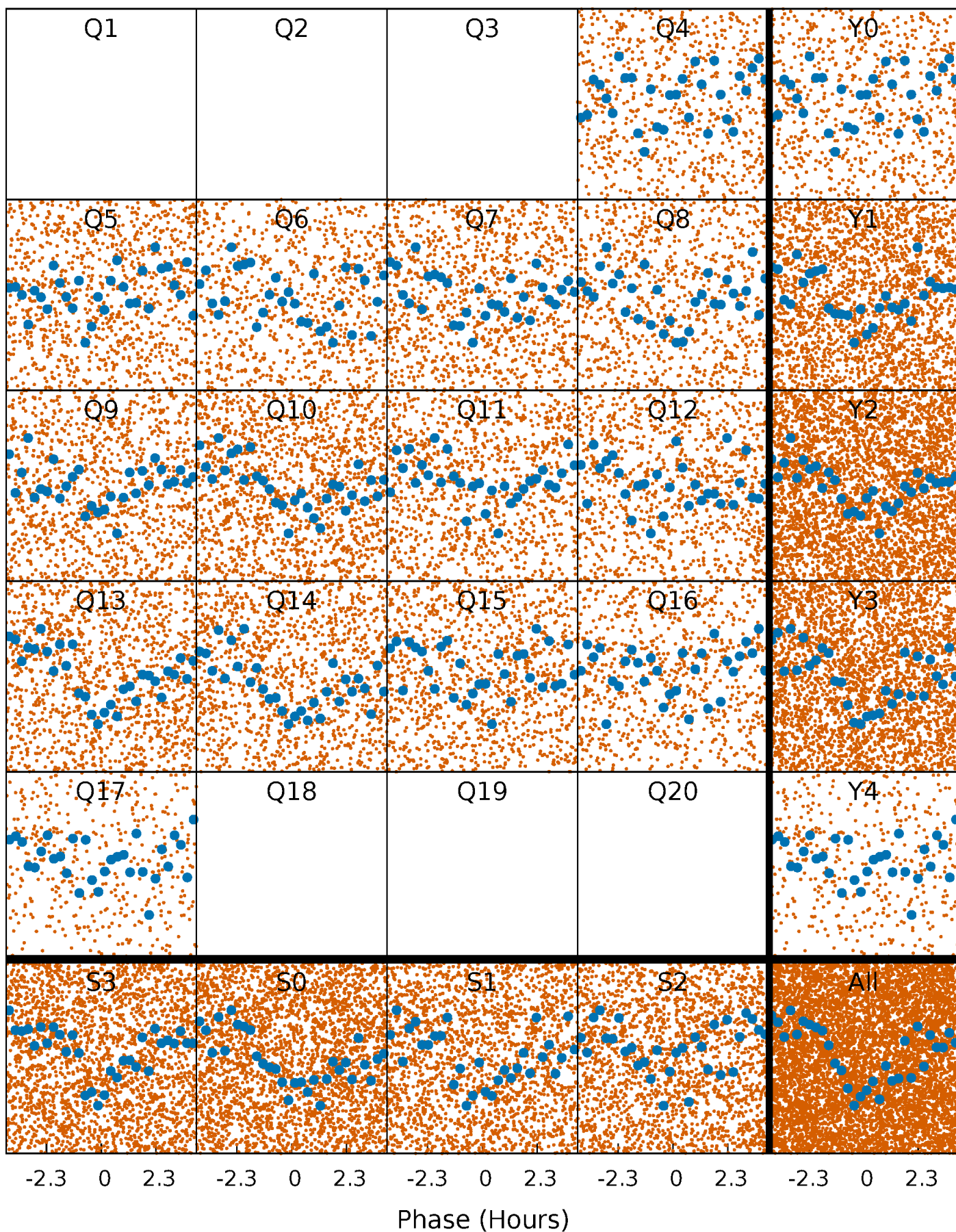


Non-Whitened Vs. Whitened Light Curve



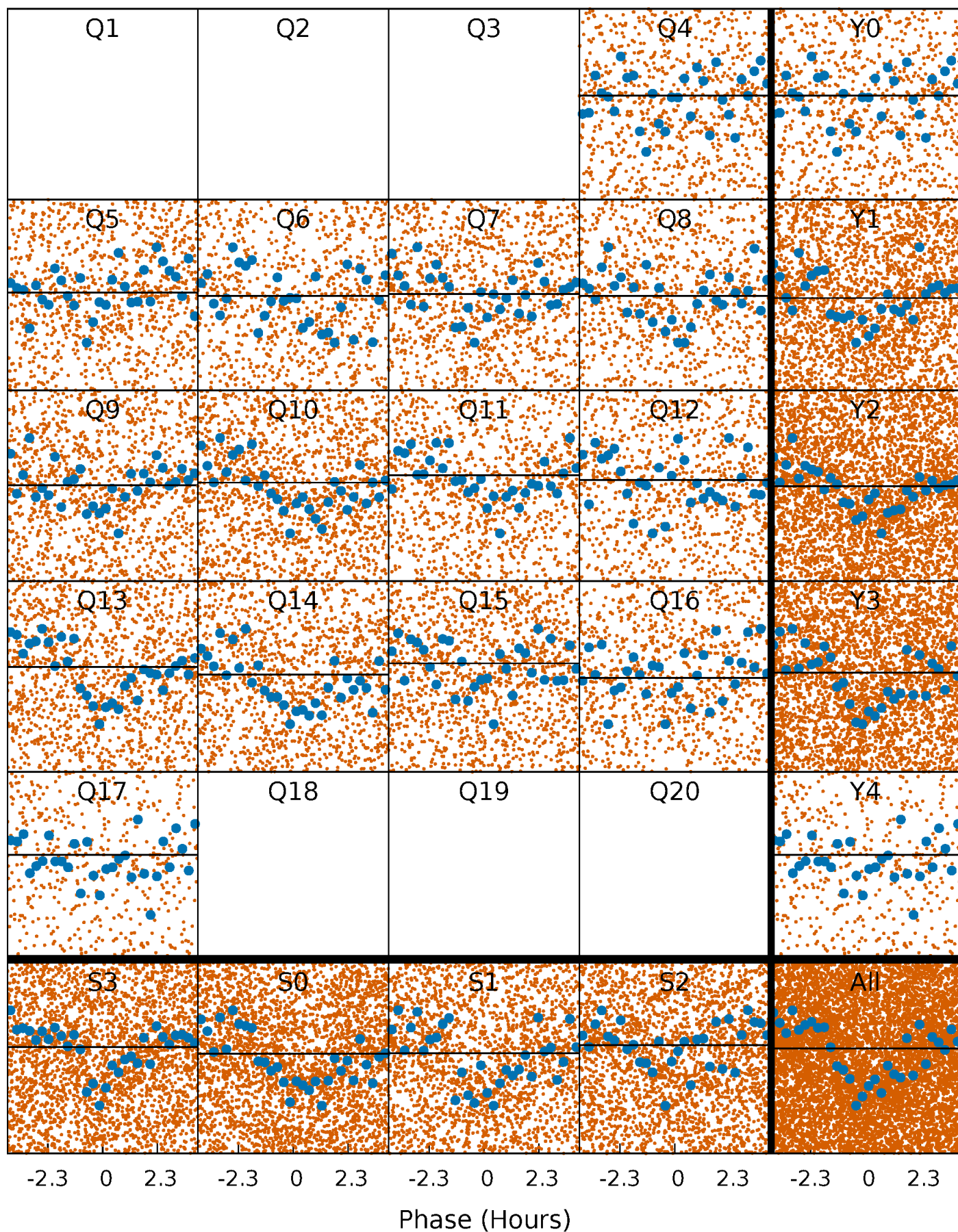
PDC Quarter-Phased Transit Curves

TCE 007115237-01 P= 0.566782 Days $T_0=131.829944$ (BKJD)



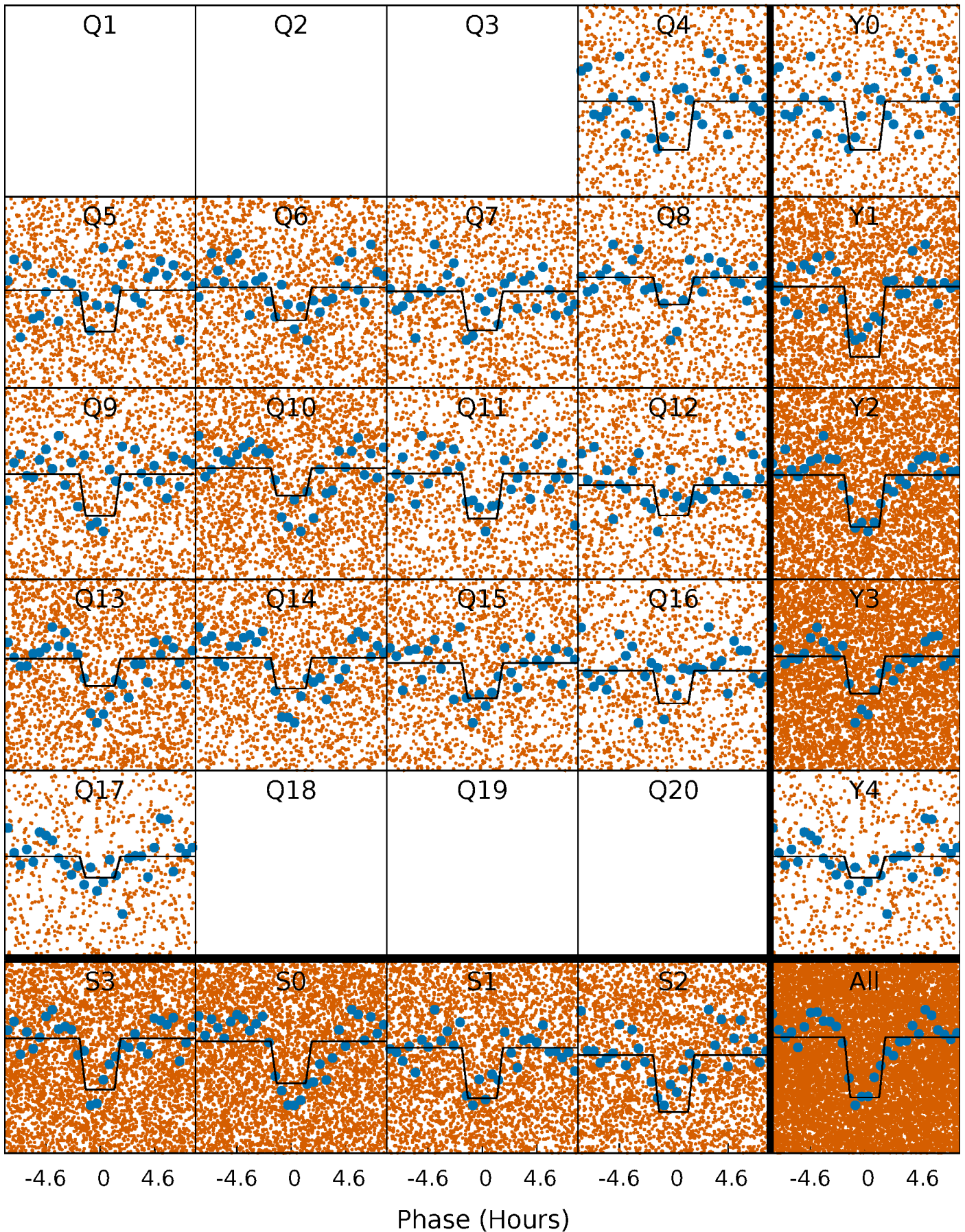
DV Quarter-Phased Transit Curves

TCE 007115237-01 P= 0.566782 Days $T_0=131.829944$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

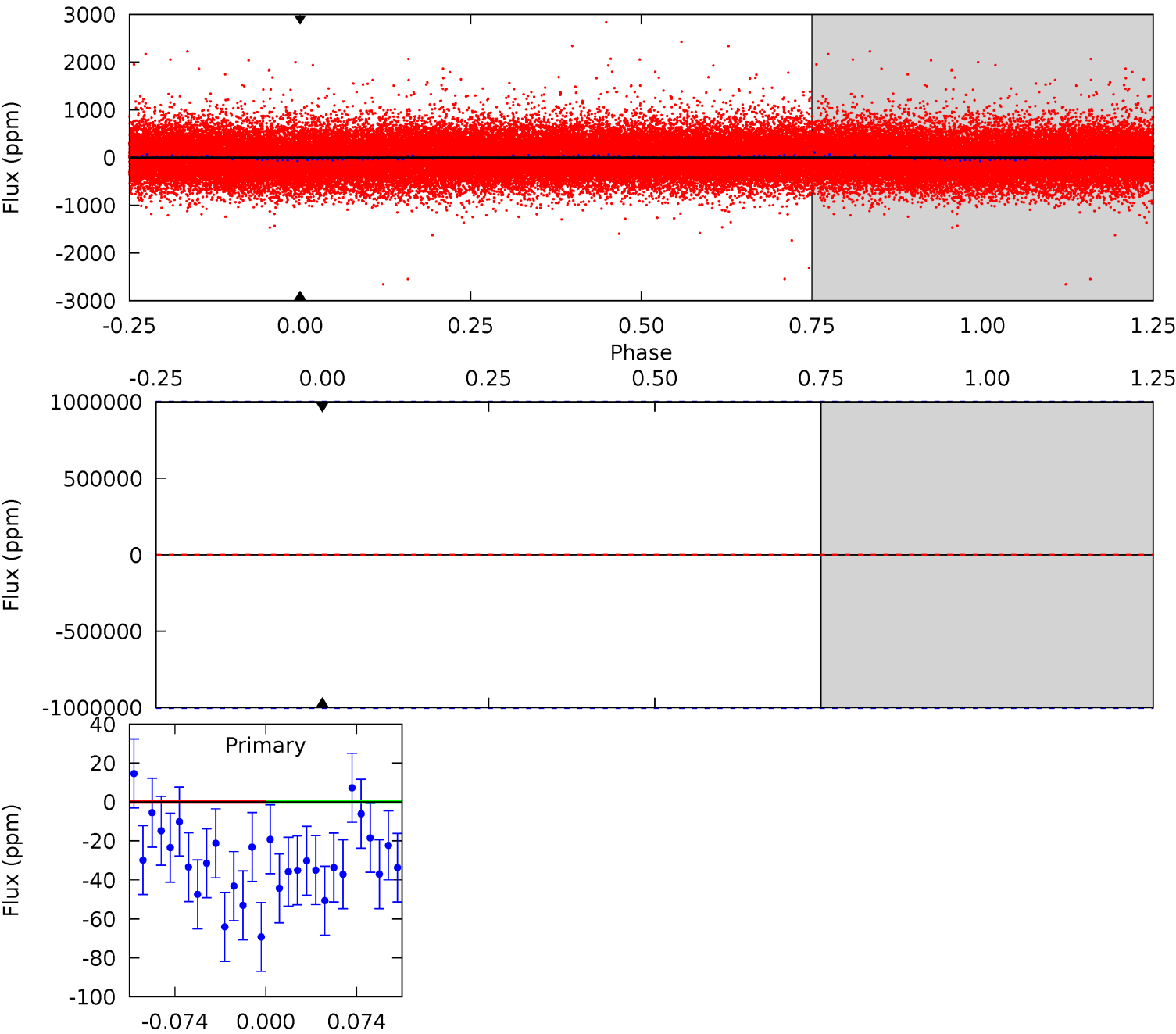
TCE 007115237-01 P= 0.566782 Days $T_0=131.843014$ (BKJD)



DV Model-Shift Uniqueness Test

007115237-01, P = 0.566782 Days, E = 131.829944 Days

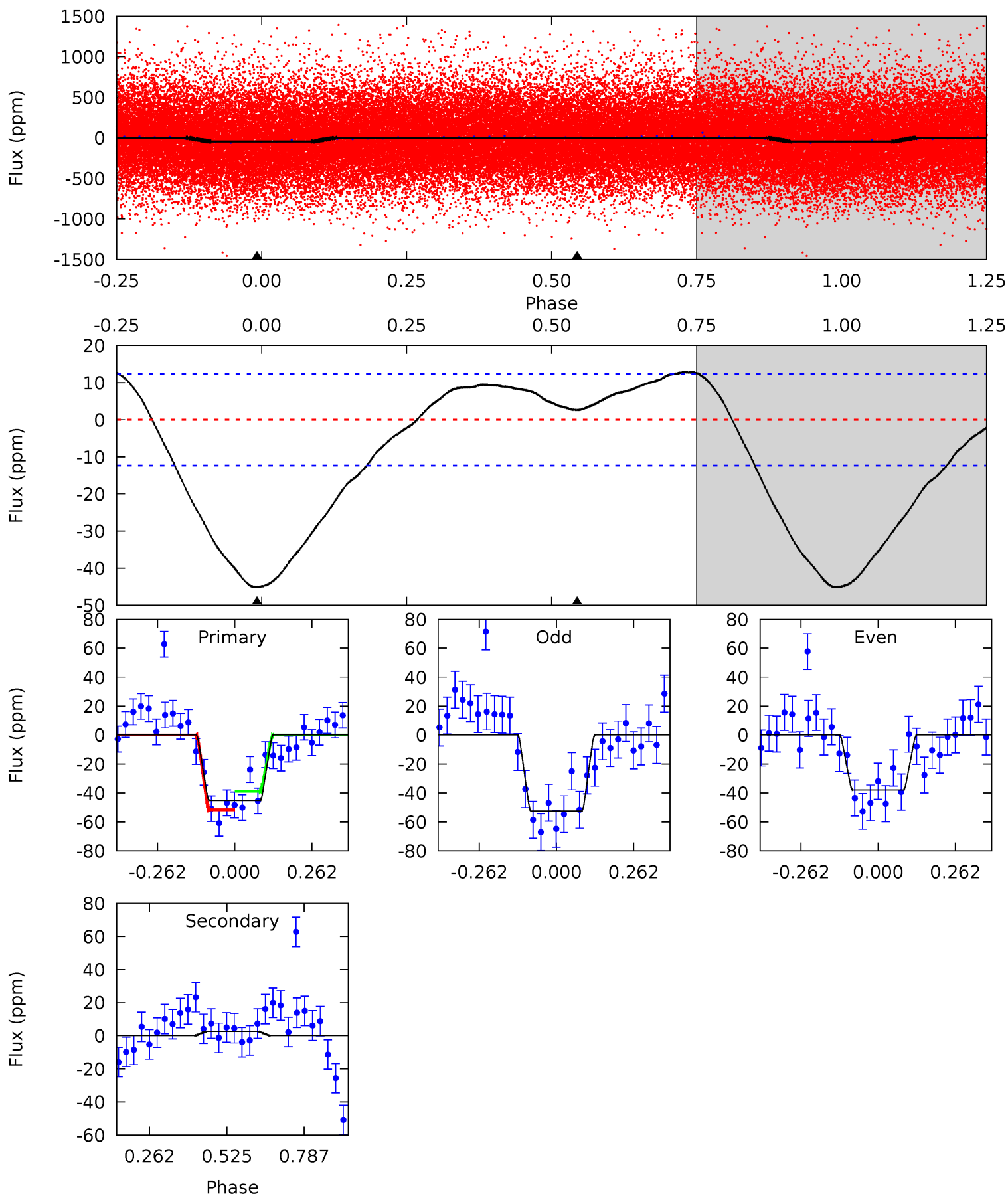
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007115237-01, P = 0.566782 Days, E = 131.843014 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	-0.90	0	0	4.36	1.12	1.35	15.9	15.9	-0.90	-0.90	2.59	0.96	0.22	2.28



Stellar Parameters For KIC 007115237

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5305^{+204}_{-186}	$4.520^{+0.095}_{-0.095}$	$-0.420^{+0.350}_{-0.300}$	$0.770^{+0.107}_{-0.096}$	$0.717^{+0.106}_{-0.049}$	$2.208^{+0.907}_{-0.642}$
	+4%/-4%	+2%/-2%	+83%/-71%	+14%/-12%	+15%/-7%	+41%/-29%
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 007115237-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$6.69^{+6.61}_{-4.77}$	2625^{+149}_{-135}	-3997^{+20310}_{-12892}	$-2.060^{+339.434}_{-366.237}$
Alt.	3 ± 3	$6.21^{+6.25}_{-4.29}$	2634^{+131}_{-141}	-2878^{+100}_{-116}	$-0.003^{+0.004}_{-0.036}$

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 $A_{obs} \gg 1.0$

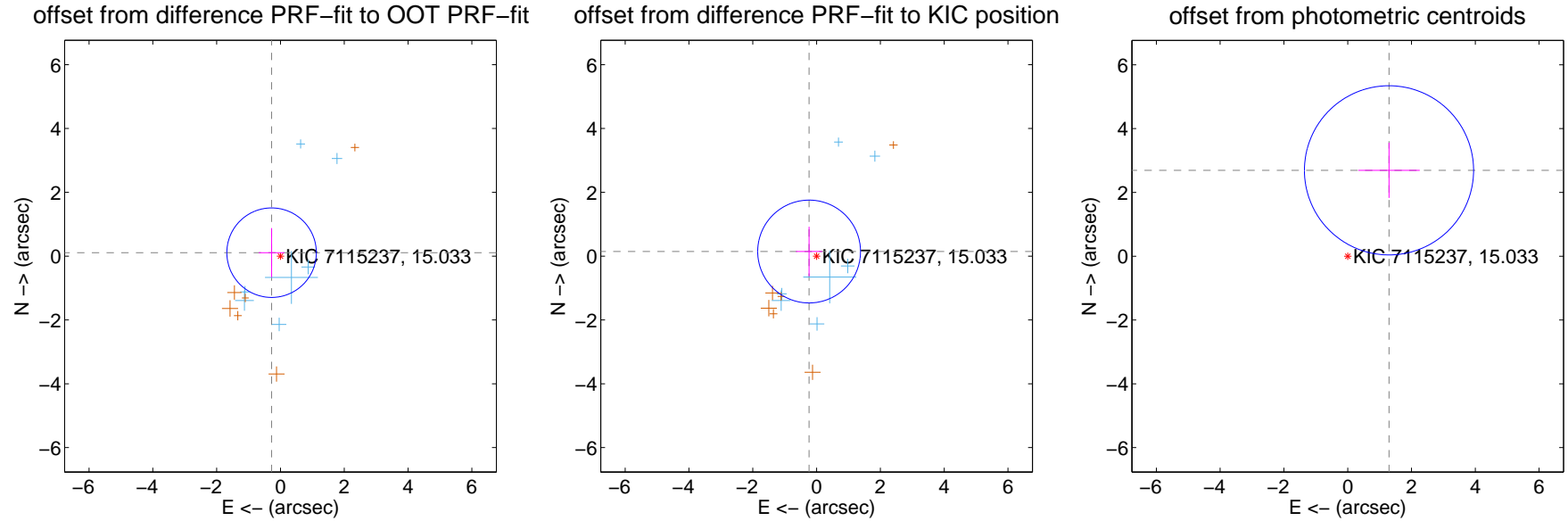
DV Centroid Data

Supplemental centroid analysis for 007115237-01. Kepler magnitude: 15.03. Transit SNR -1.00

There are 7 quarters with good PRF difference image offsets

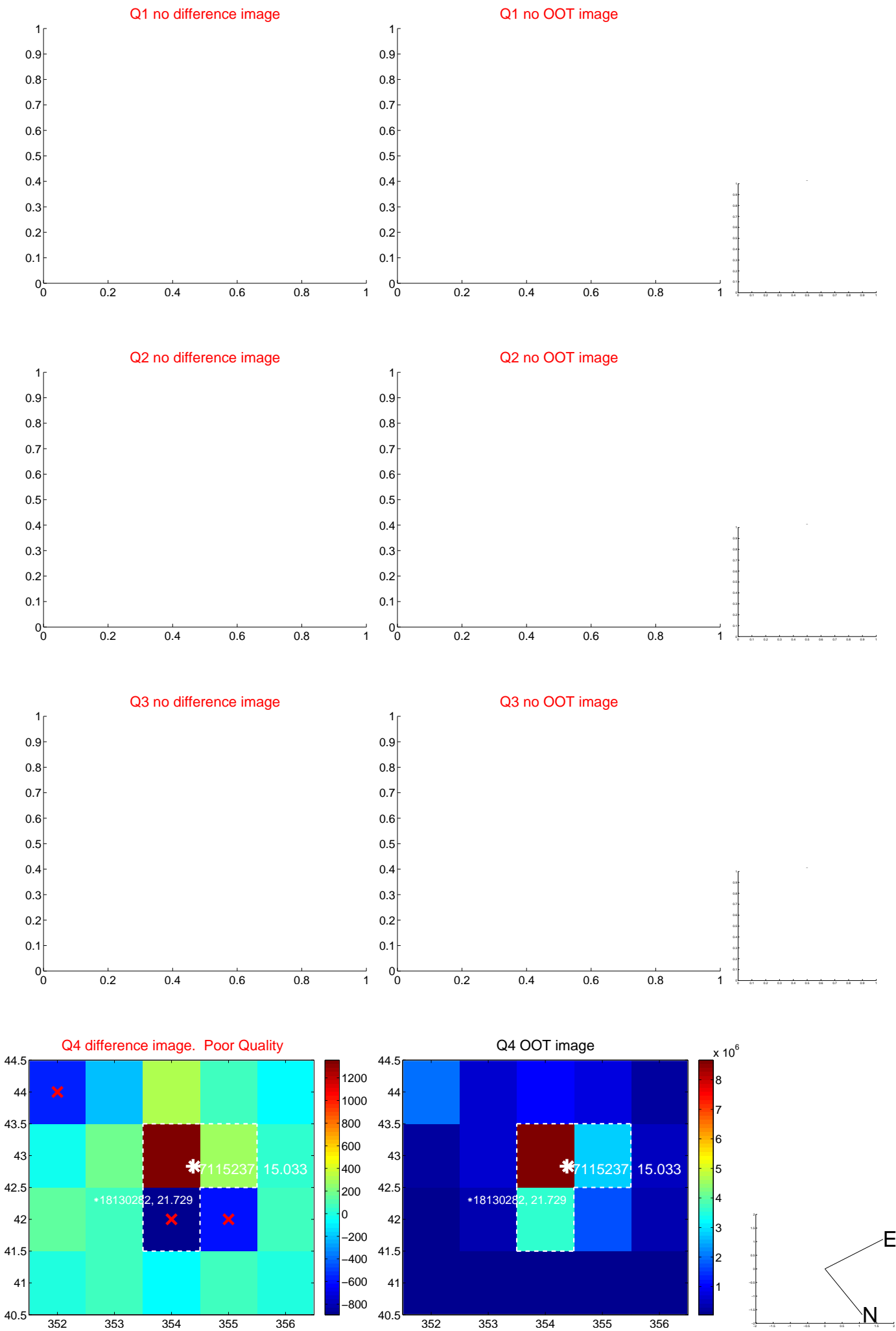
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.298 ± 0.467	0.64	0.278 ± 0.403	0.108 ± 0.770
PRF-fit source offset from KIC position	0.275 ± 0.537	0.51	0.234 ± 0.412	0.144 ± 0.775
photometric centroid source offset	2.99 ± 0.88	3.38	-1.29 ± 0.96	2.69 ± 0.86

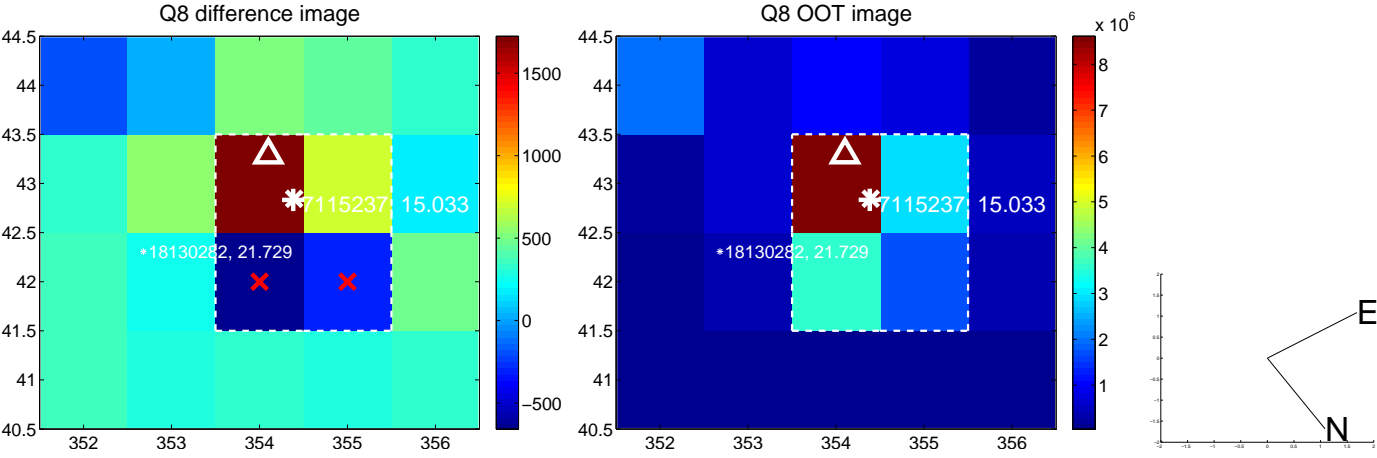
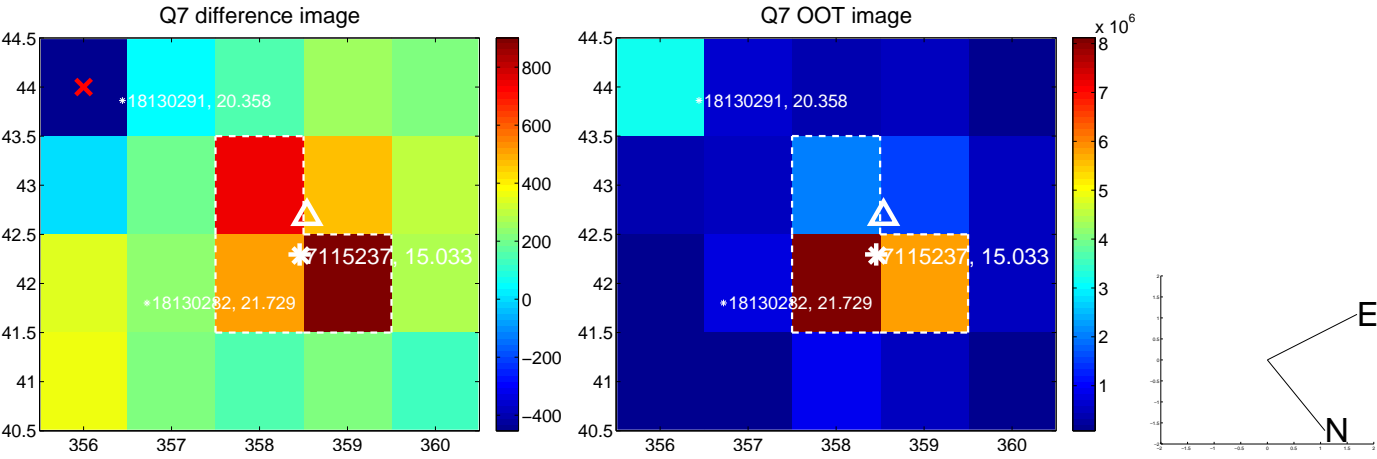
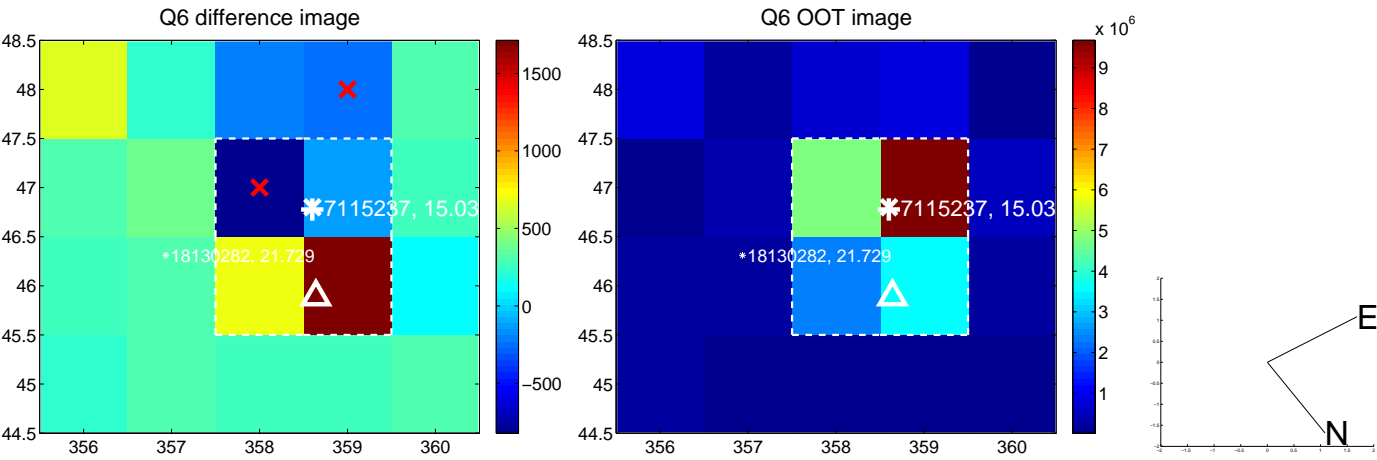
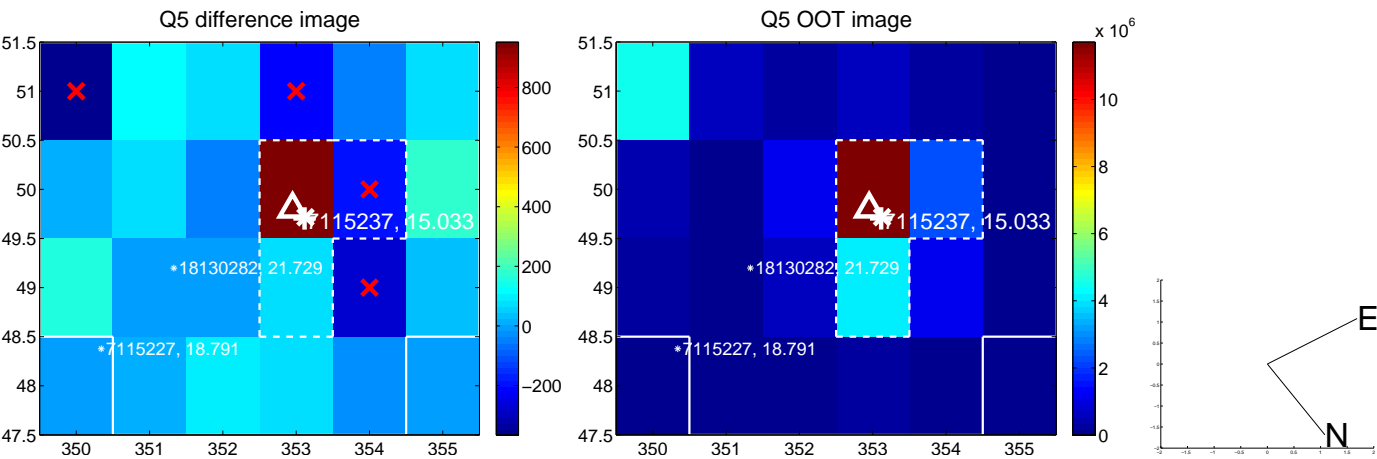


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

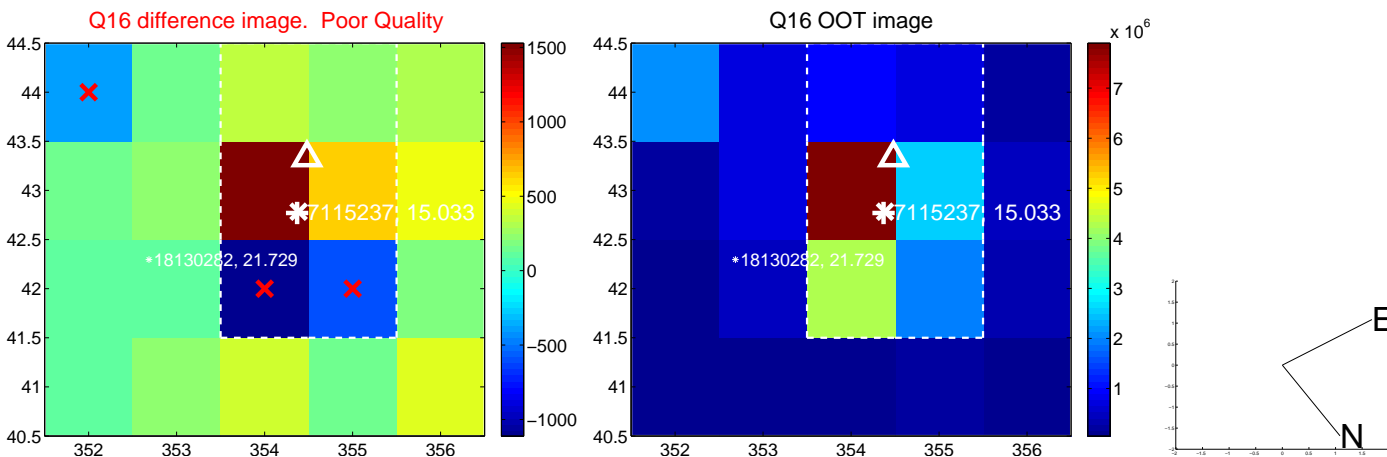
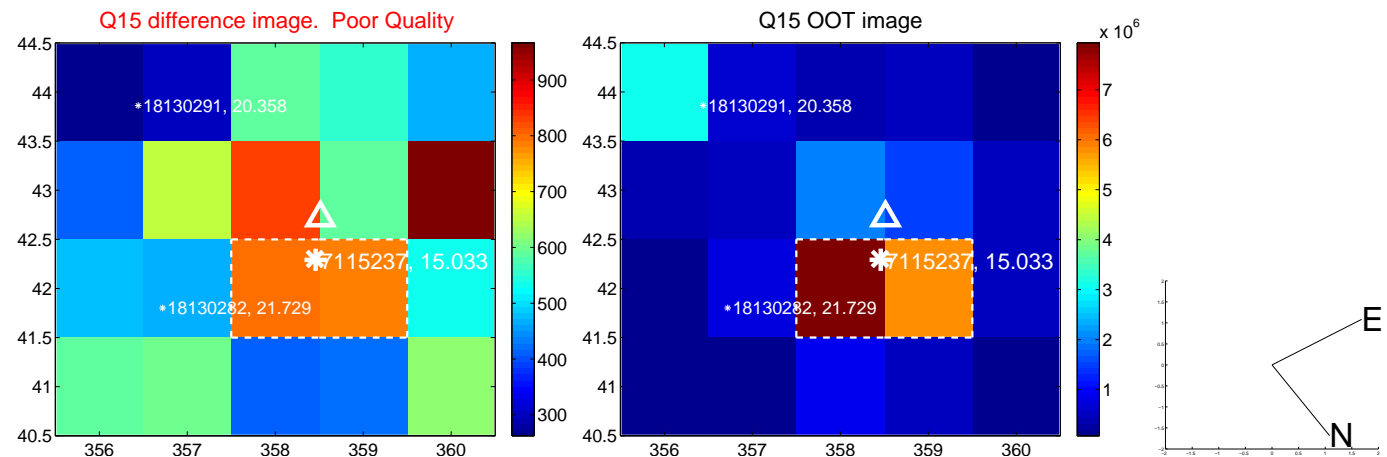
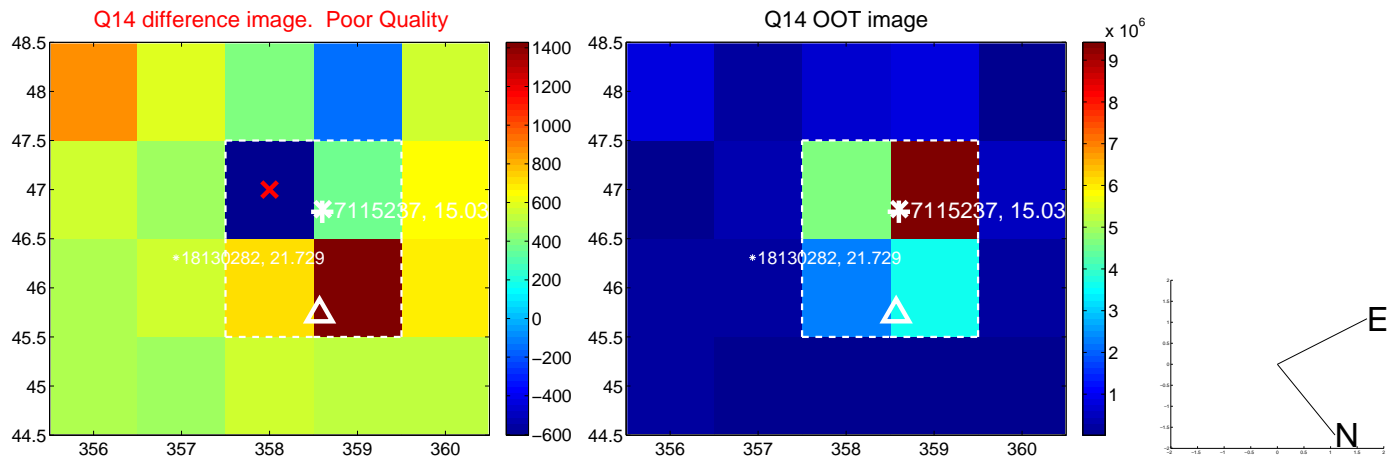
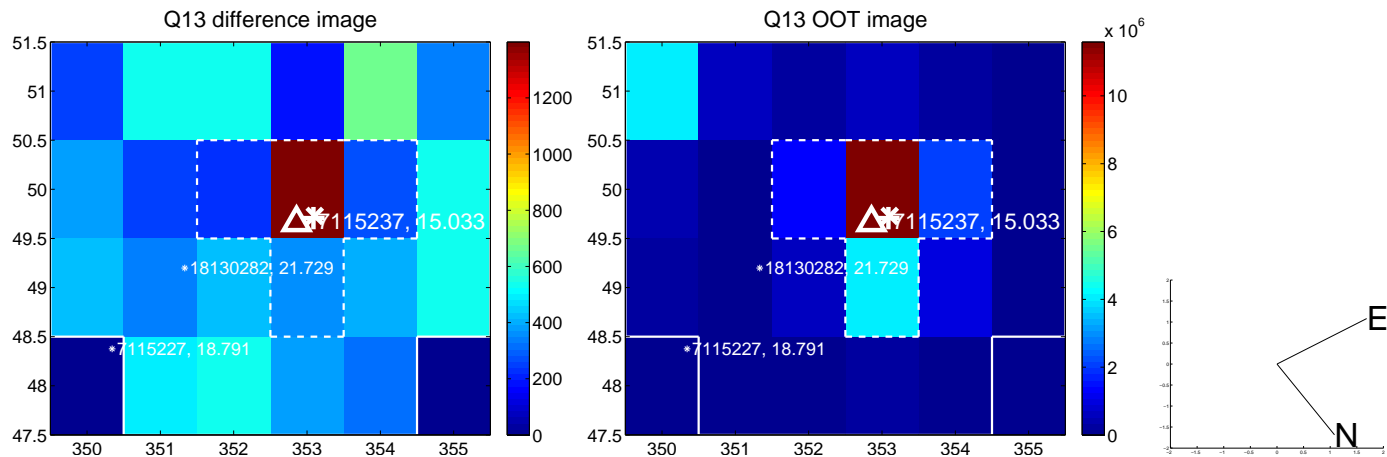
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



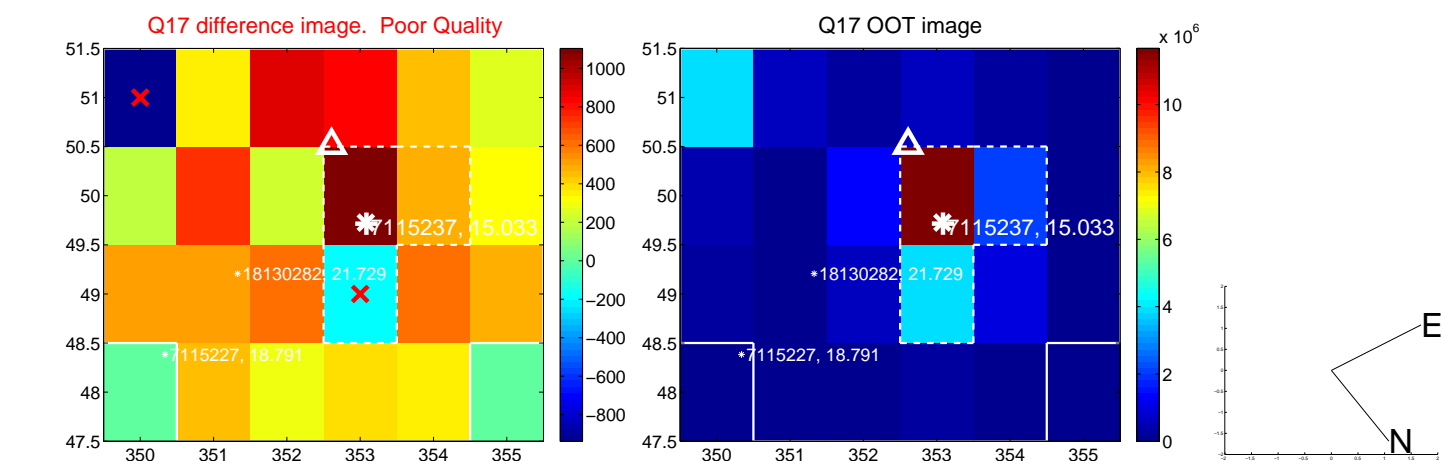
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



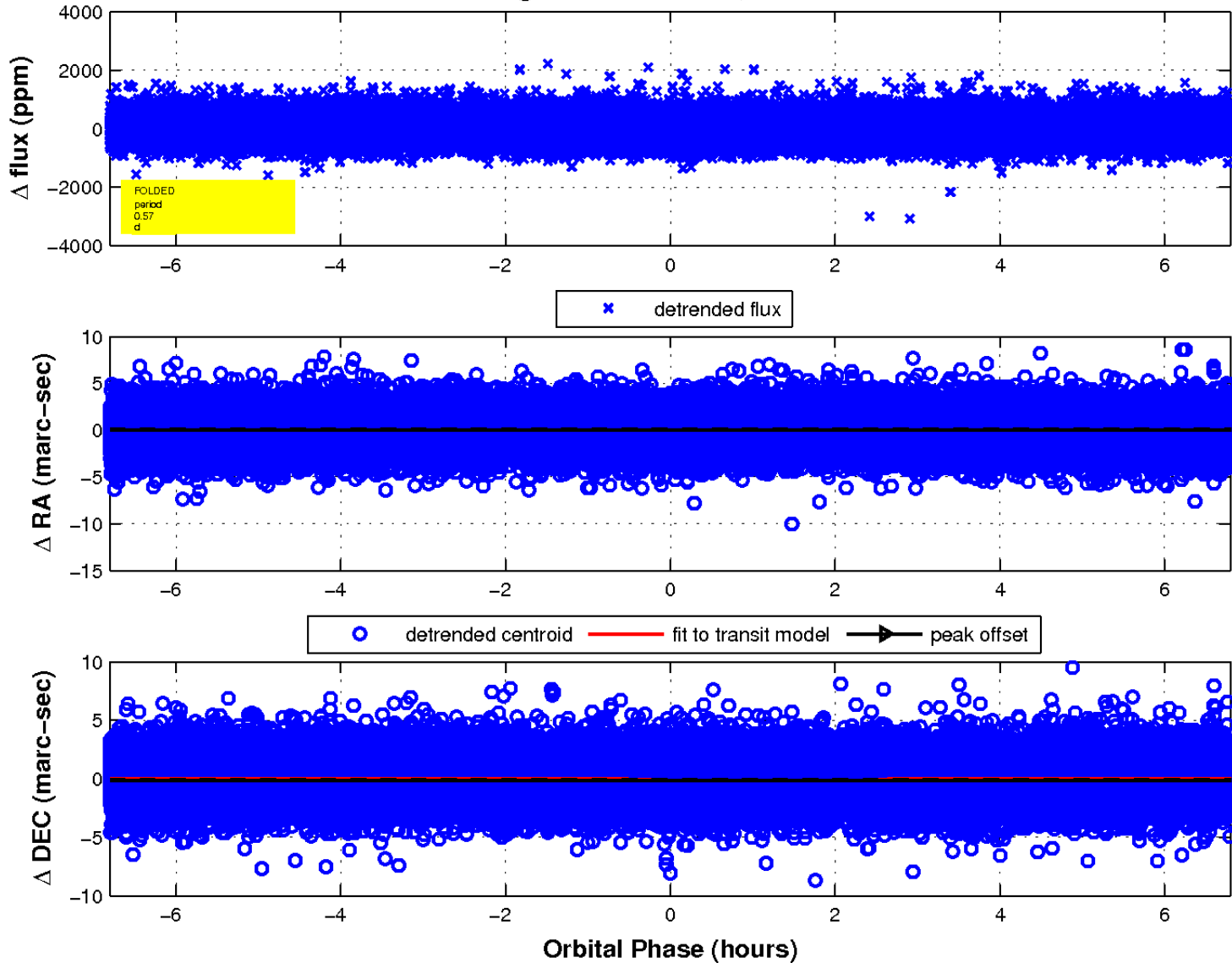
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

