

KIC 007117485

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
007117485-01	OBS	7816.01	0.566788	131.821610	860.8	2.000	8.5	-1.0	0.78	5894	2.30	4081.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117485-01	OBS	FP	0.00	0	0	1	1	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.

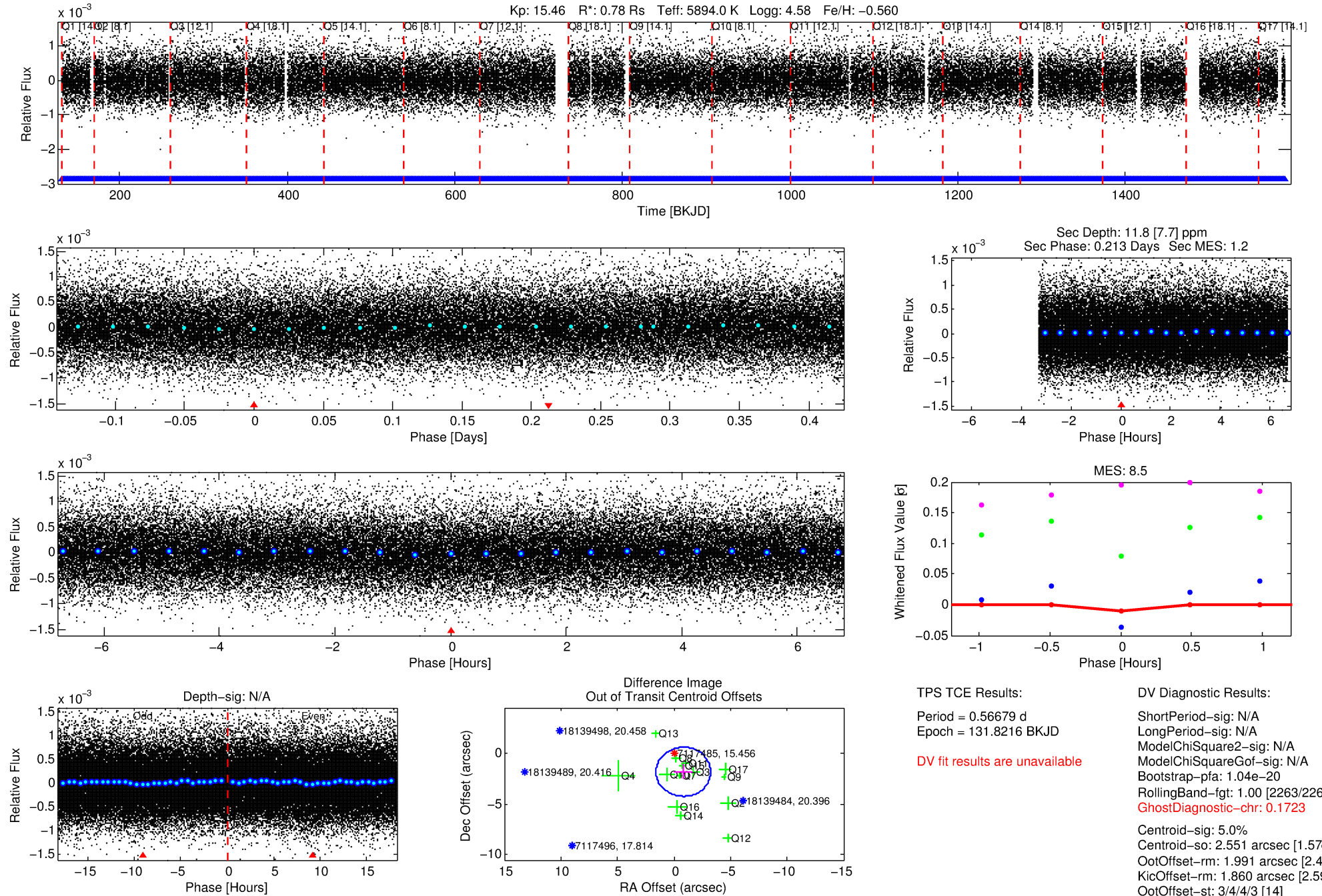
Ephemeris Match Information For 007117485-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
007117485-01	7117485	RR-Lyr-pri	7198959	1:1	1092.1	252	108	7.86	15.45	723.92	Direct-PRF	0	1.93	19.33

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ 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 σ_P < 5.0 and σ_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

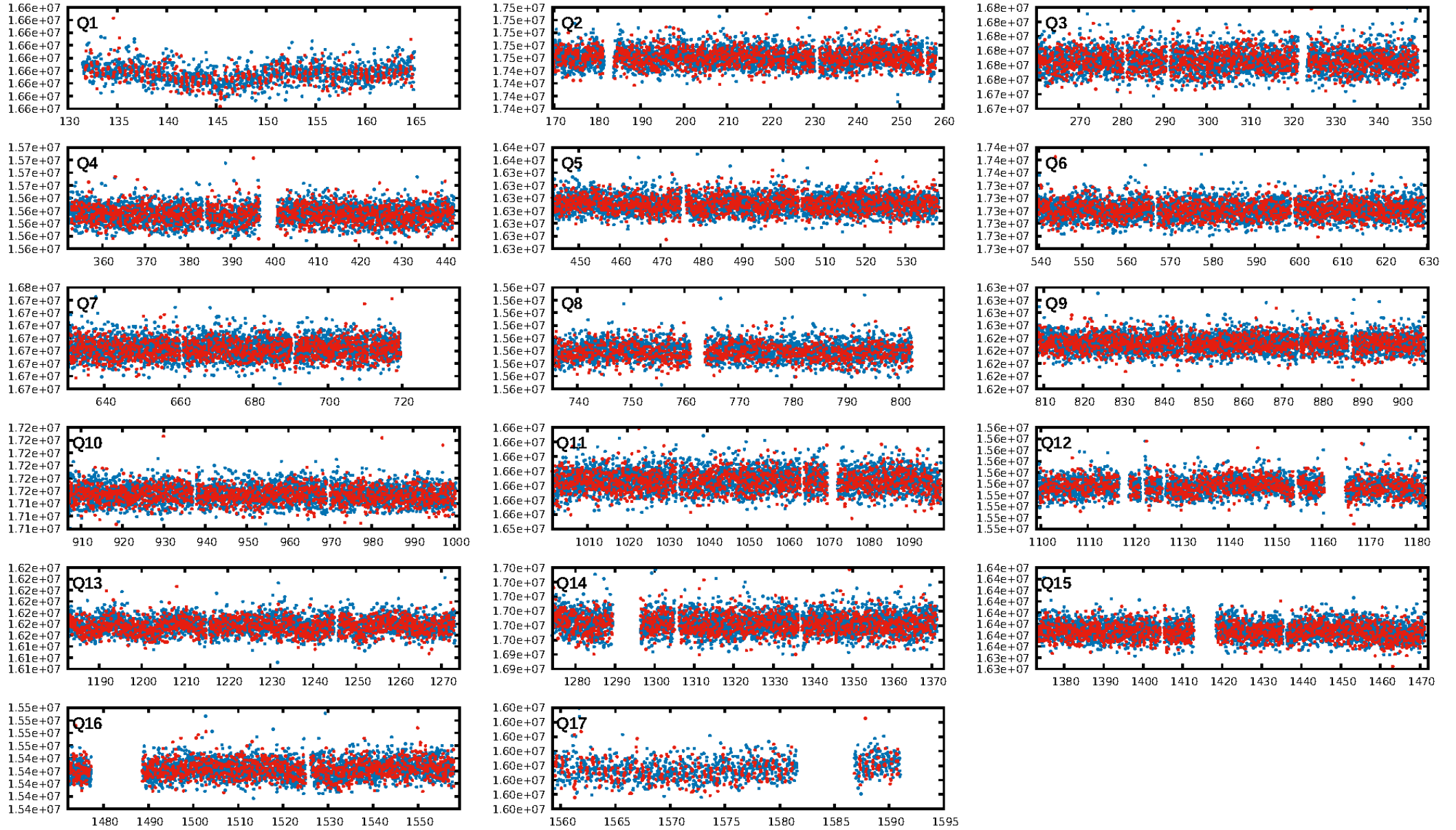
KIC: 7117485 Candidate: 1 of 1 Period: 0.567 d



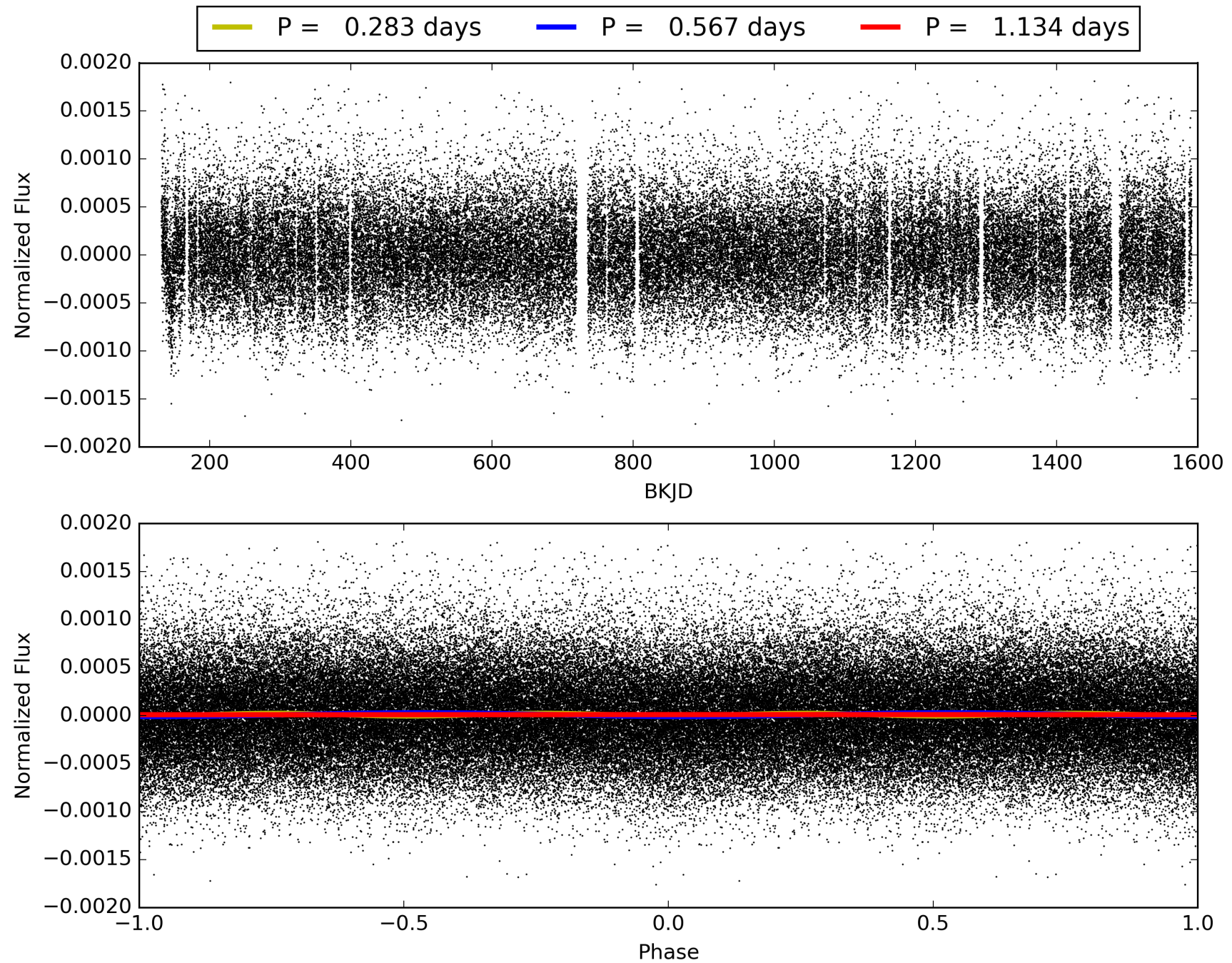
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:11:14 Z

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

TCE 007117485-01, PDC Light Curves

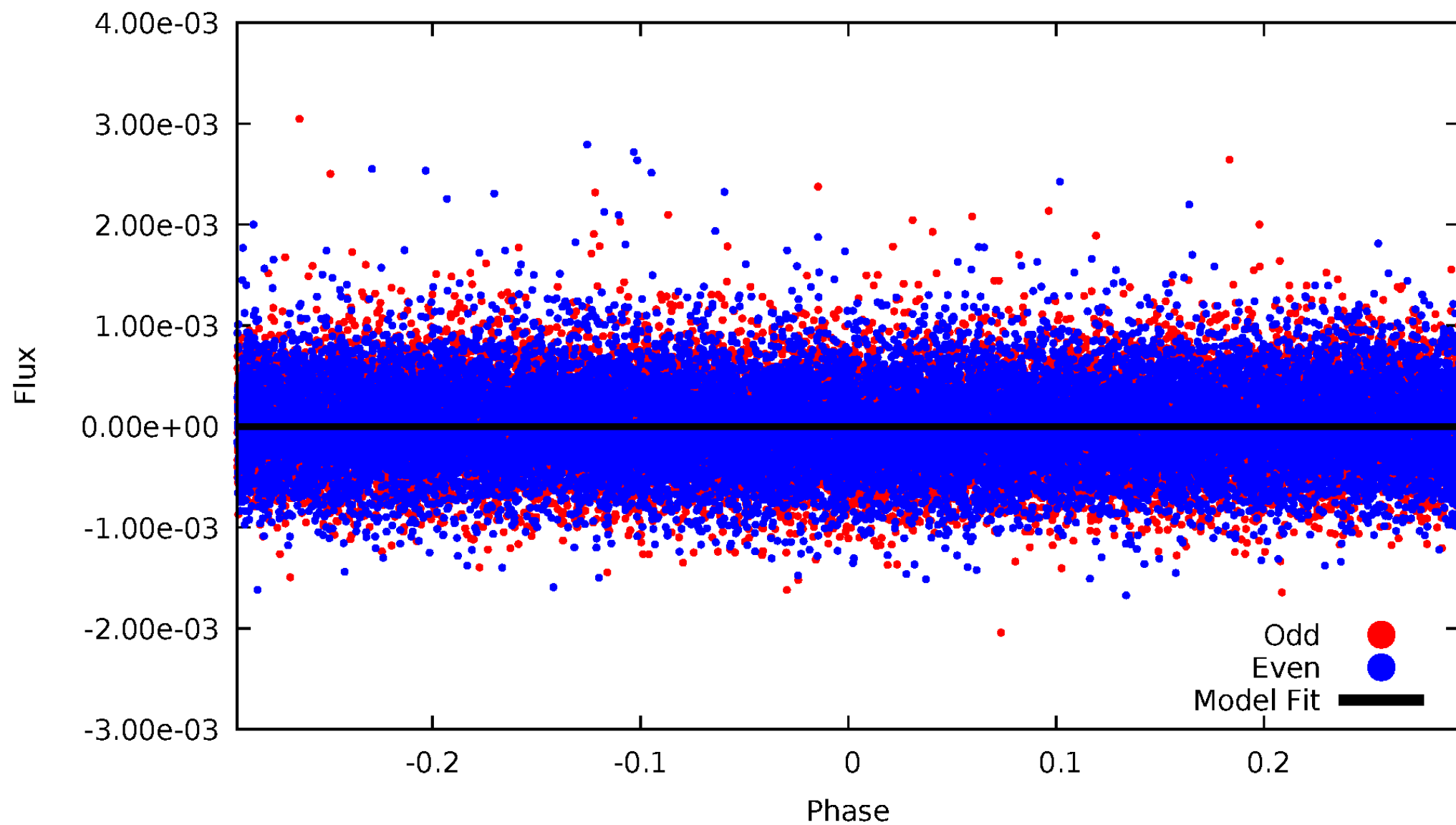


TCE 007117485-01



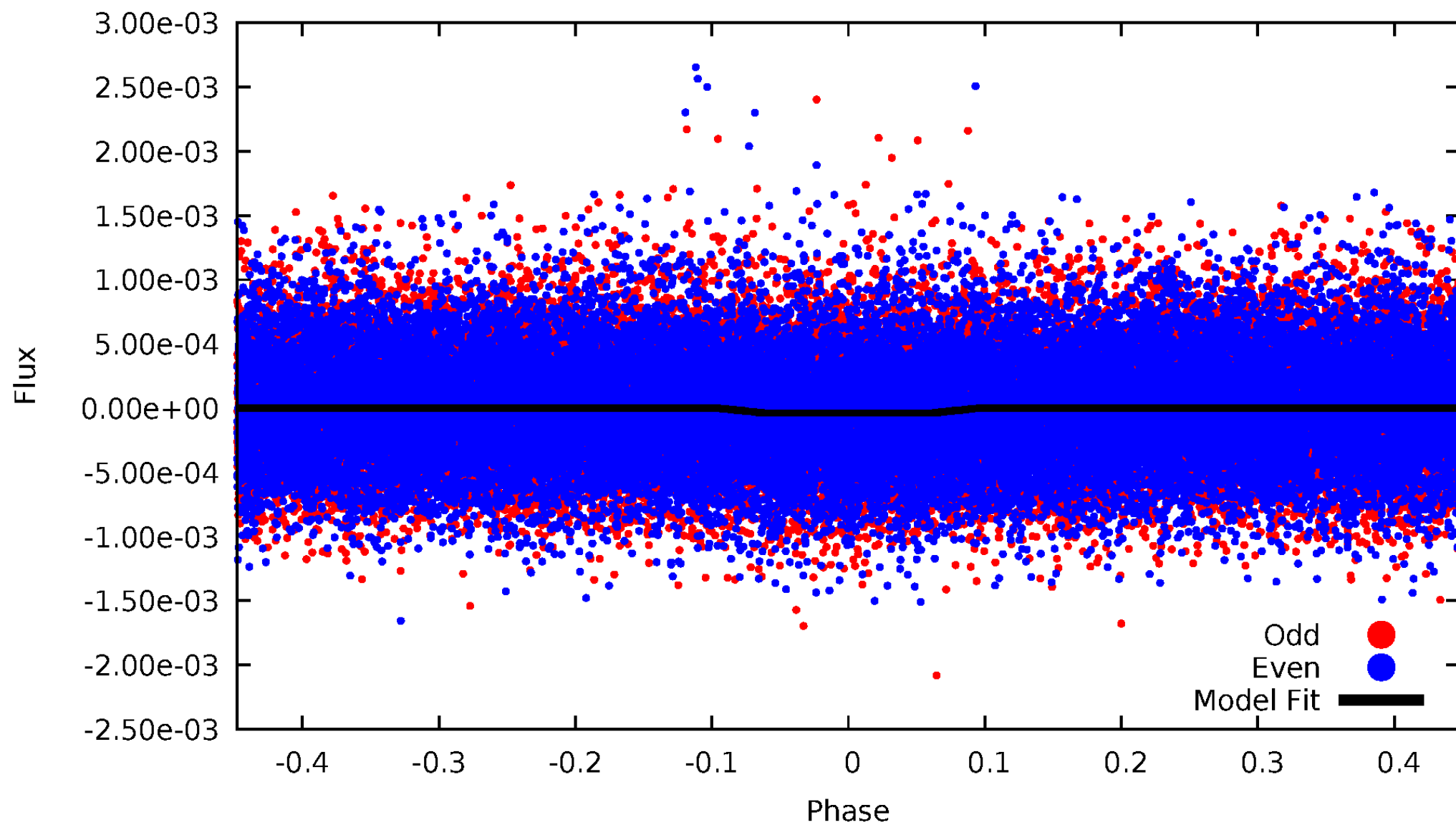
DV Odd/Even

TCE 007117485-01

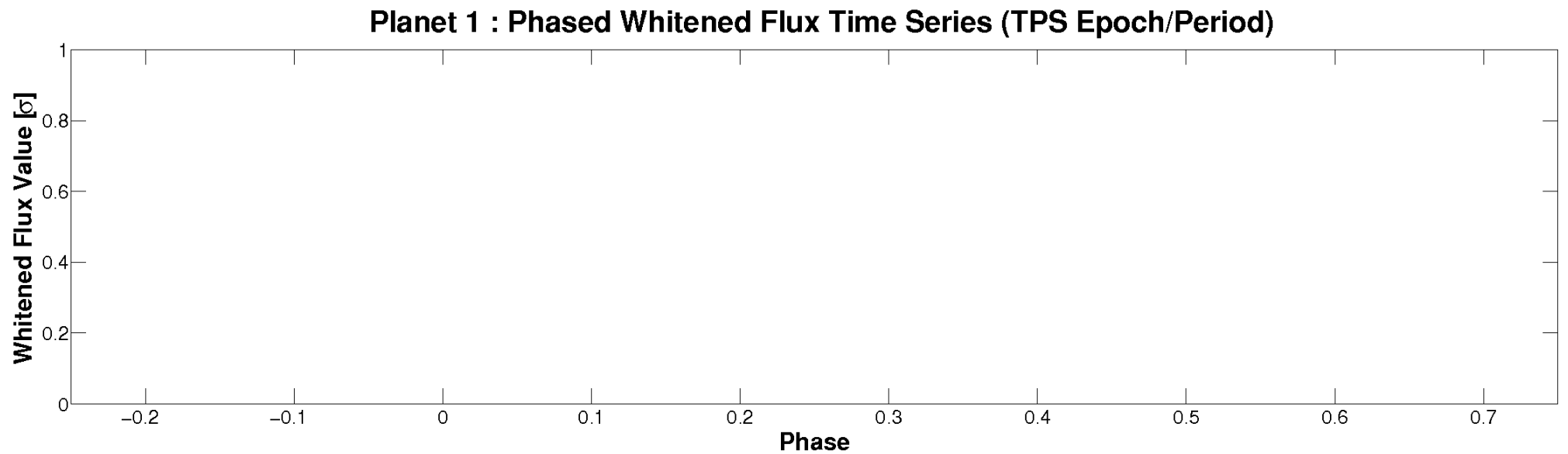
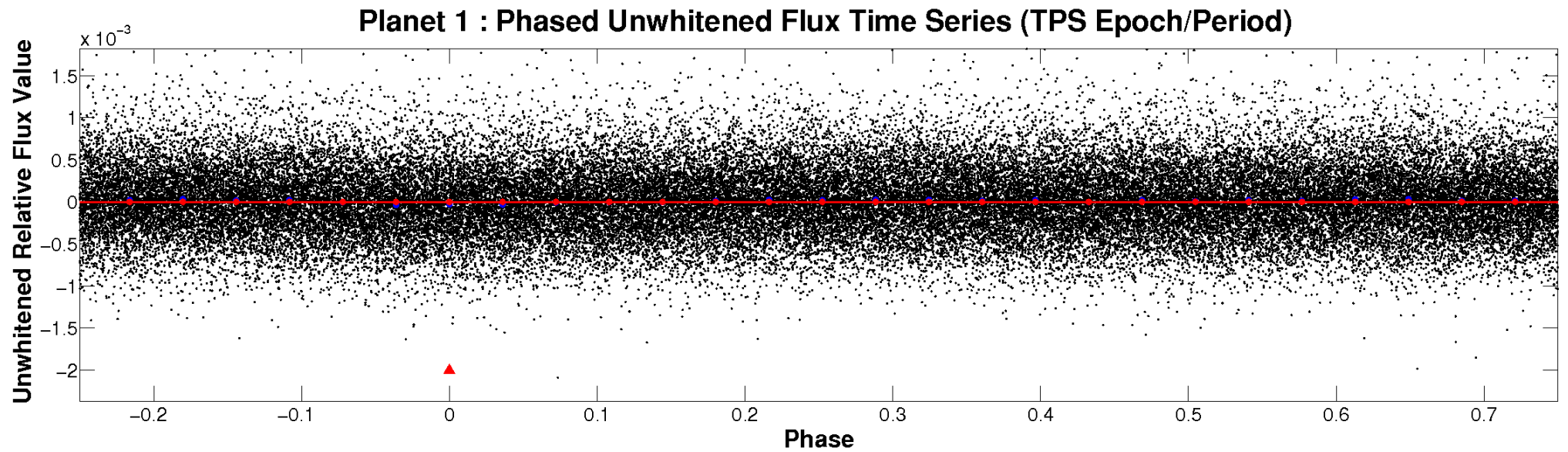


ALT Odd/Even

TCE 007117485-01

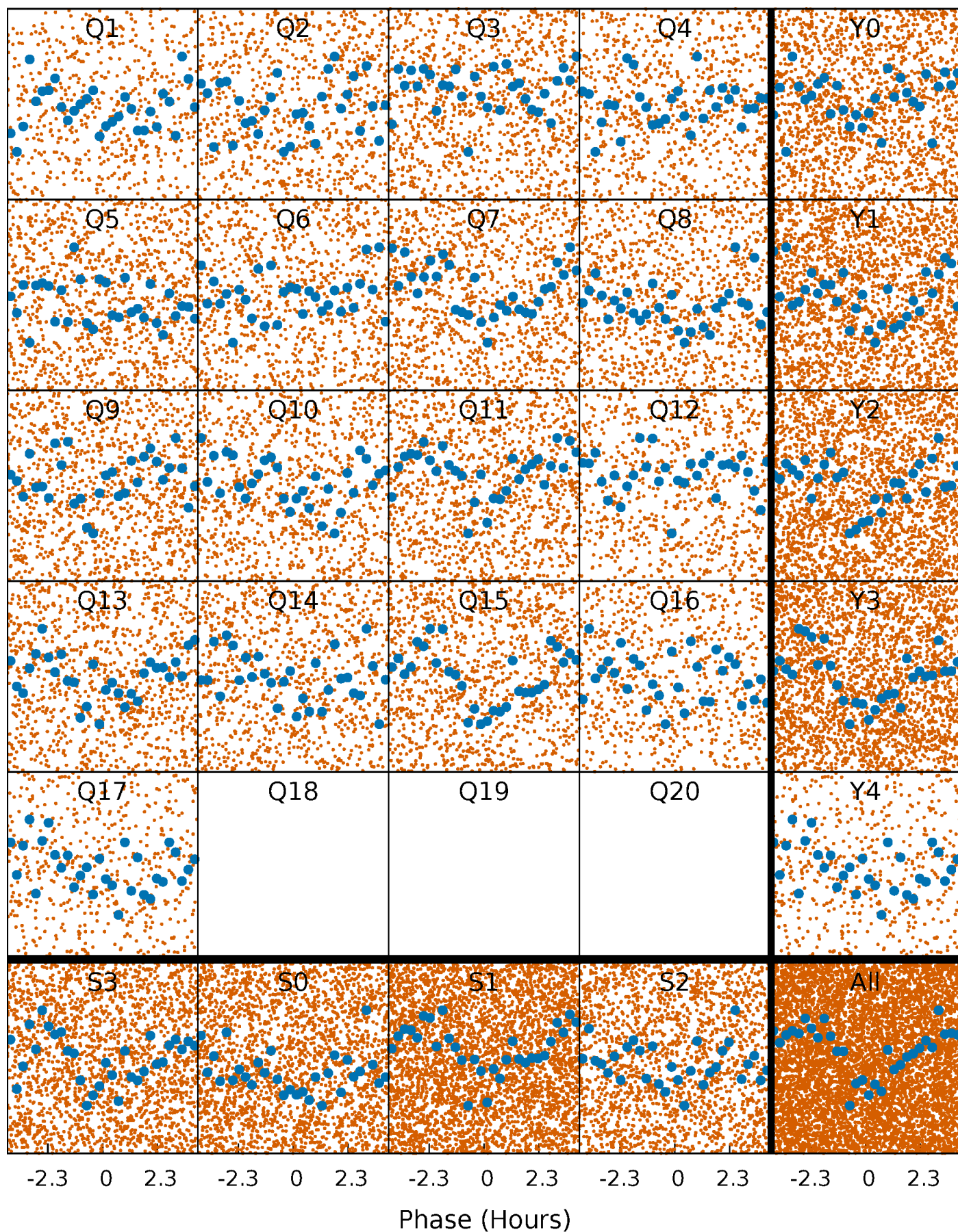


Non-Whitened Vs. Whitened Light Curve



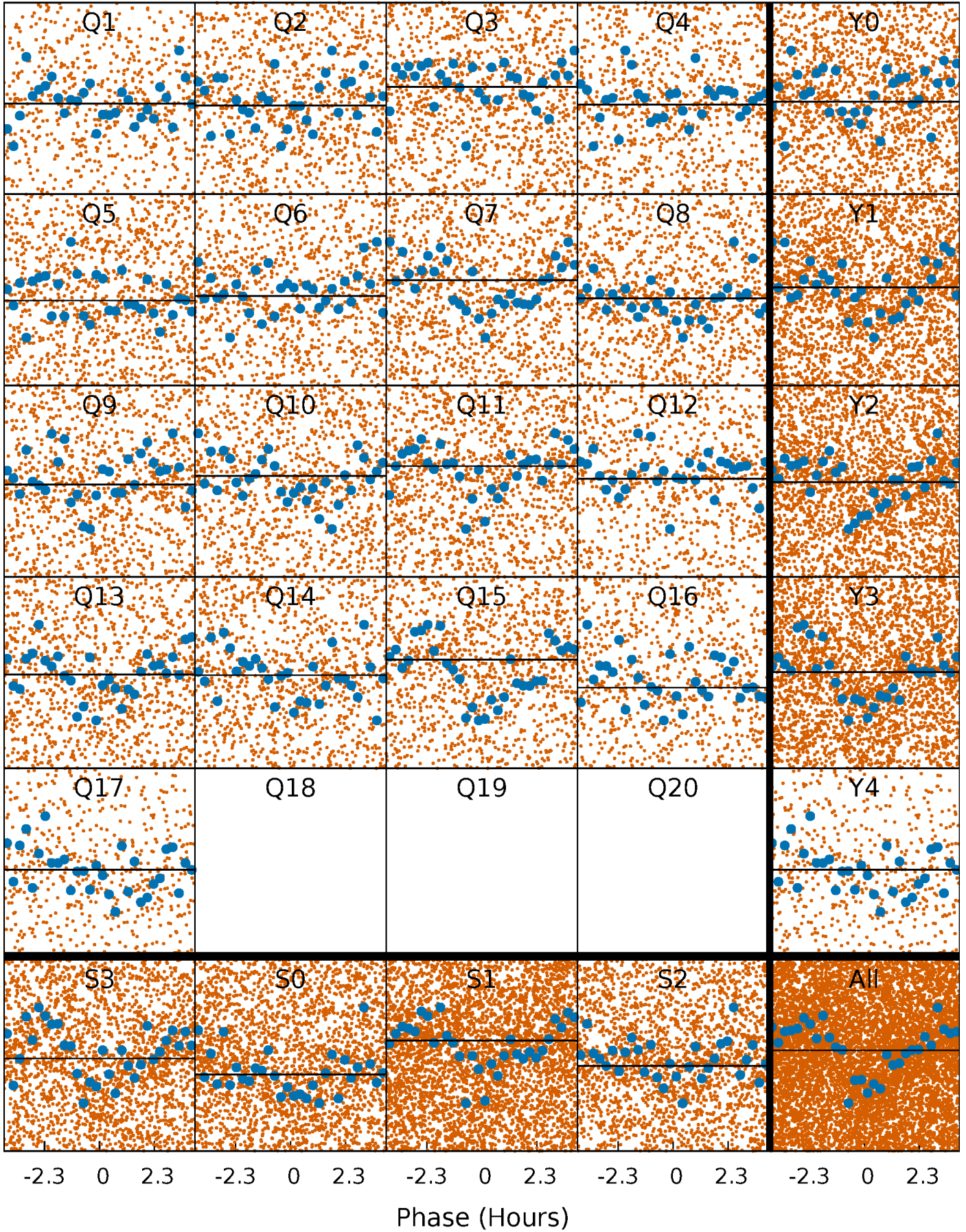
PDC Quarter-Phased Transit Curves

TCE 007117485-01 P= 0.566788 Days $T_0=131.821610$ (BKJD)



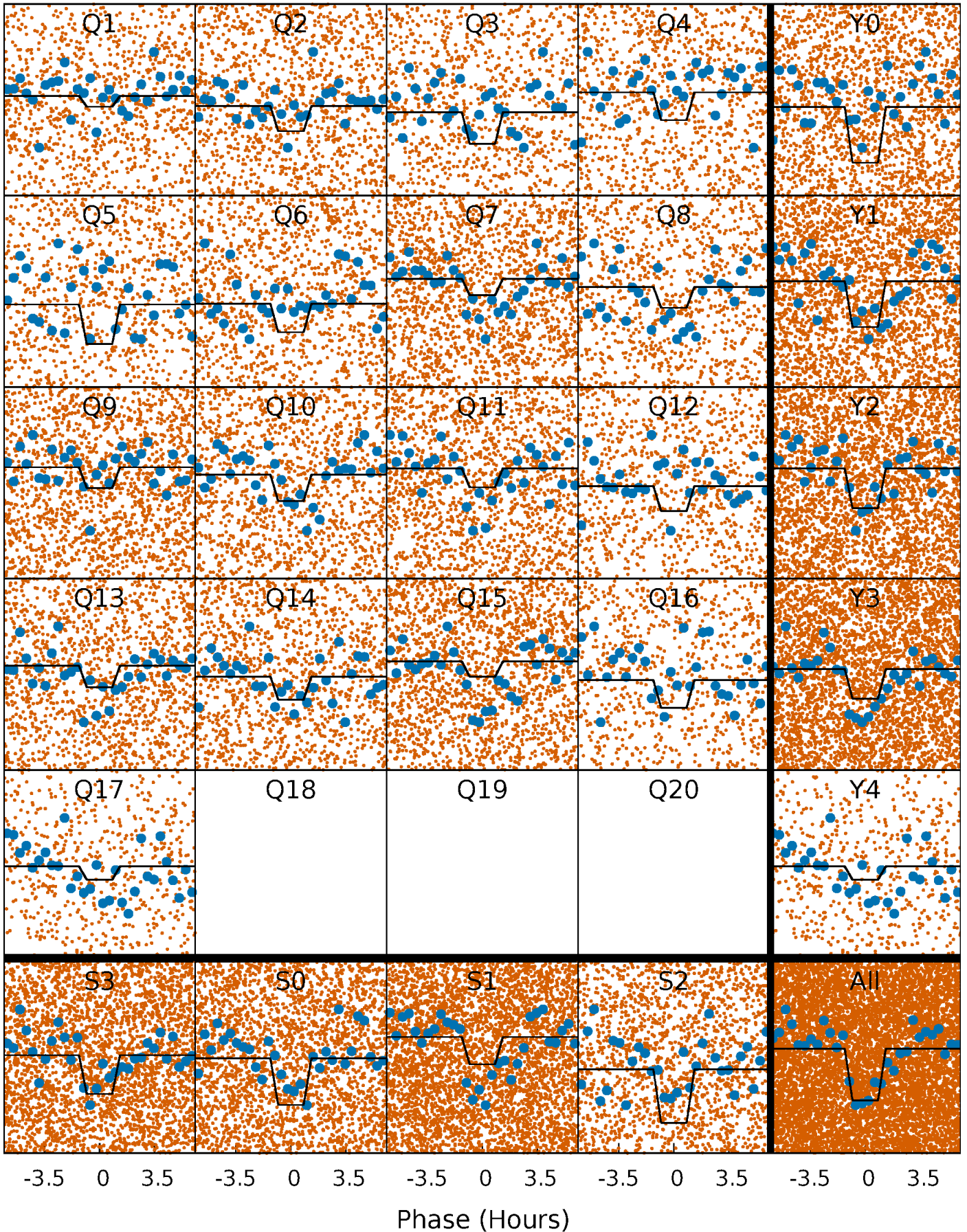
DV Quarter-Phased Transit Curves

TCE 007117485-01 P= 0.566788 Days $T_0=131.821610$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

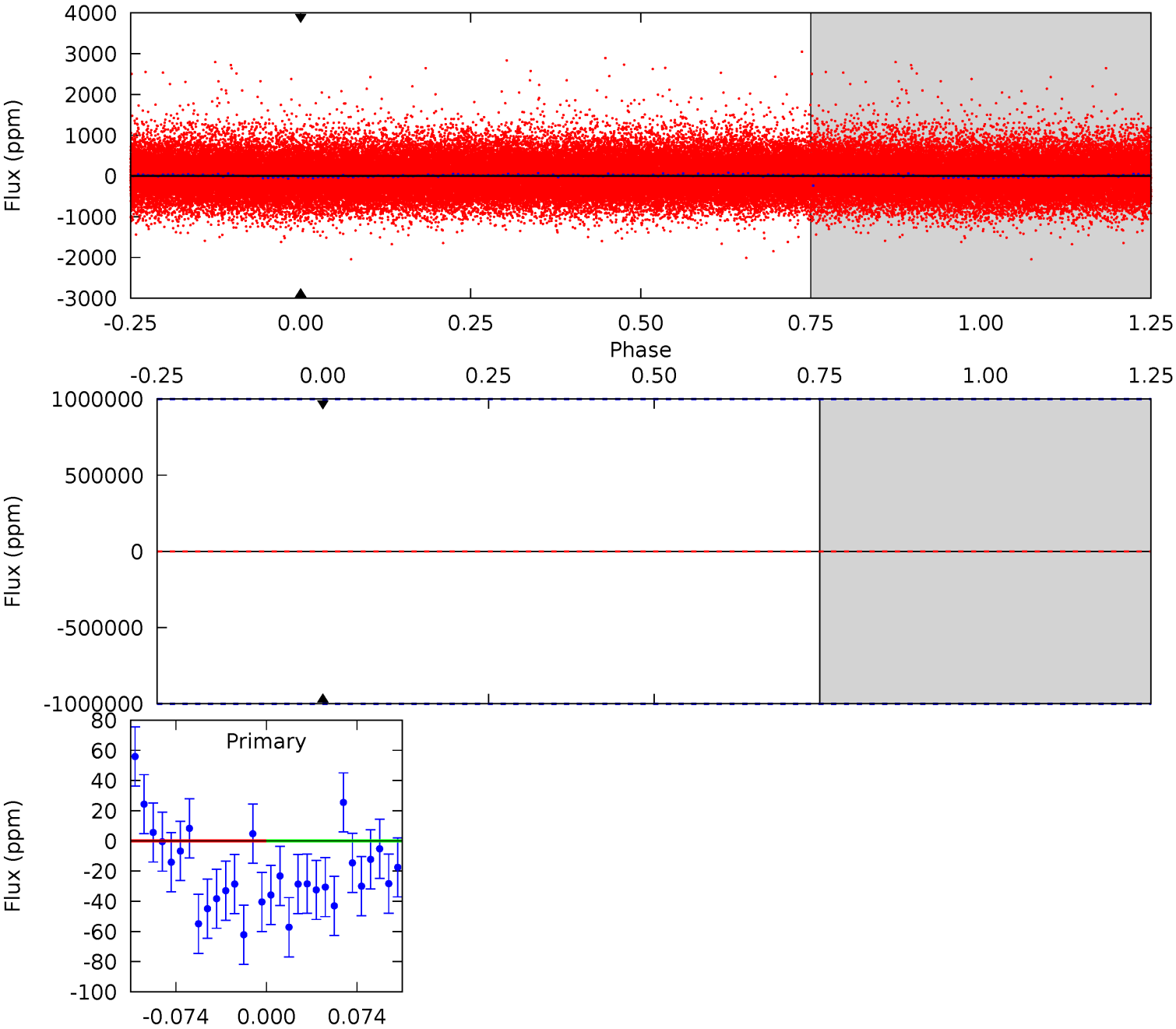
TCE 007117485-01 P= 0.566788 Days $T_0=131.826532$ (BKJD)



DV Model-Shift Uniqueness Test

007117485-01, P = 0.566788 Days, E = 131.254822 Days

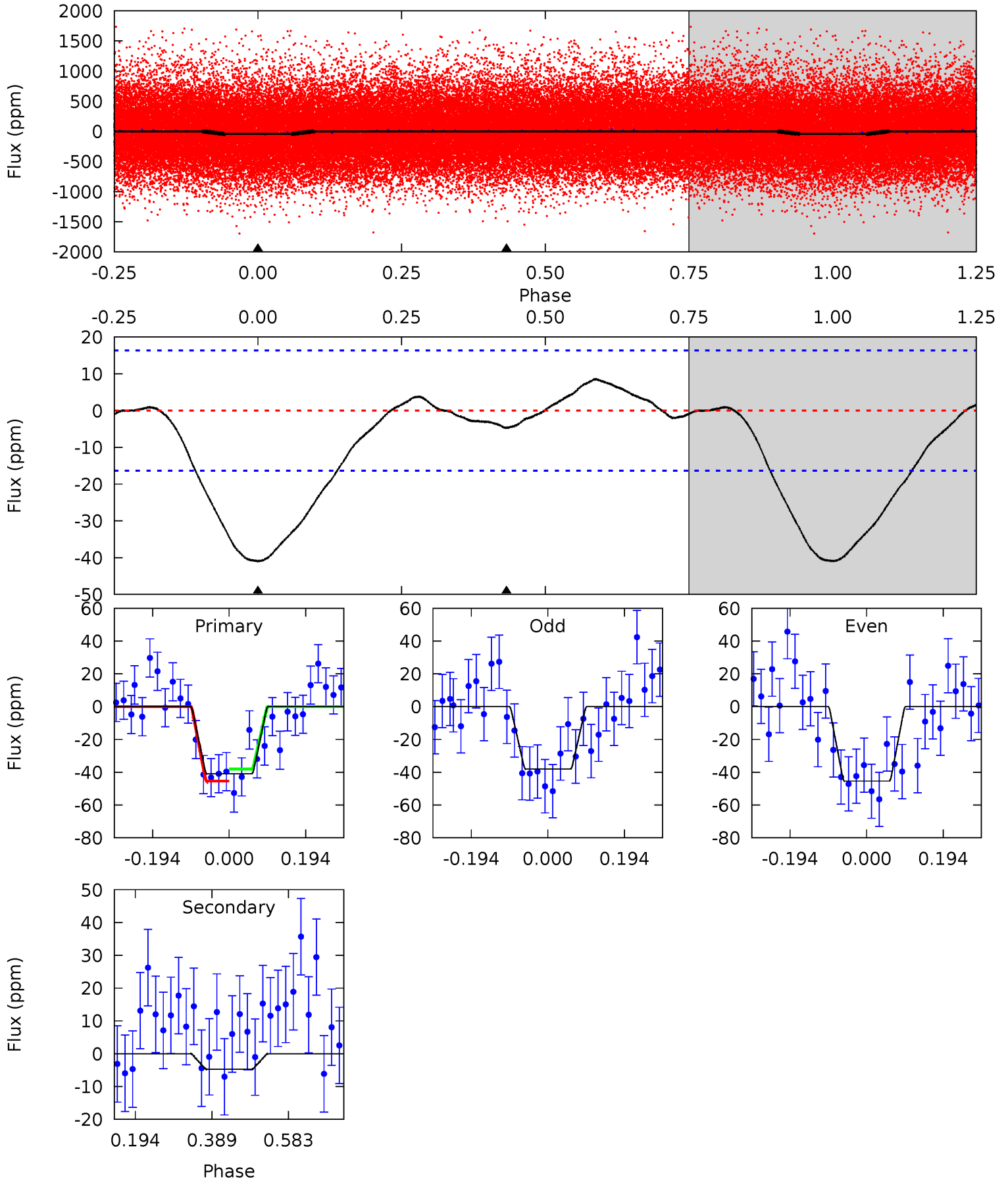
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007117485-01, P = 0.566788 Days, E = 131.259744 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	1.29	0	0	4.42	1.30	0.72	11.1	11.1	1.29	1.29	1.00	0.95	0.17	1.00



Stellar Parameters For KIC 007117485

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5894^{+159}_{-177}	$4.585^{+0.040}_{-0.160}$	$-0.560^{+0.300}_{-0.300}$	$0.784^{+0.182}_{-0.061}$	$0.863^{+0.079}_{-0.096}$	$2.526^{+0.493}_{-1.099}$
	+3%/-3%	+1%/-3%	+54%/-54%	+23%/-8%	+9%/-11%	+20%/-44%
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 007117485-01 / KOI 7816.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$7.10^{+7.31}_{-4.89}$	2895^{+154}_{-118}	-4763^{+22461}_{-15900}	$-3.254^{+241.048}_{-321.057}$
Alt.	-5 ± 4	$5.61^{+6.86}_{-3.94}$	2898^{+168}_{-127}	-2991^{+223}_{-126}	$0.009^{+0.123}_{-0.008}$

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

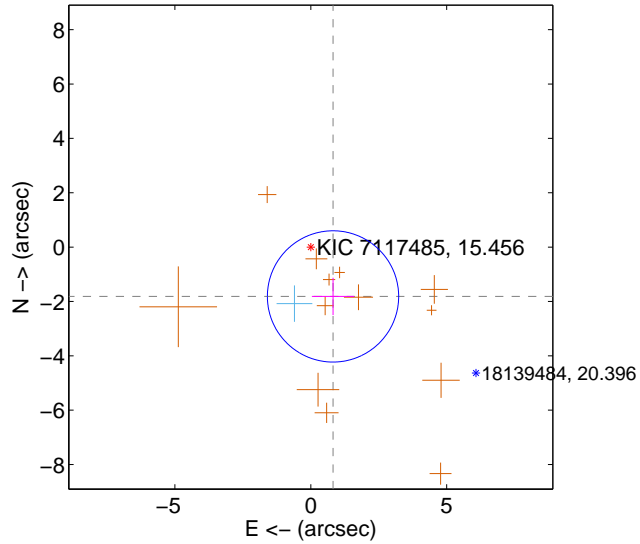
Supplemental centroid analysis for 007117485-01. Kepler magnitude: 15.46. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

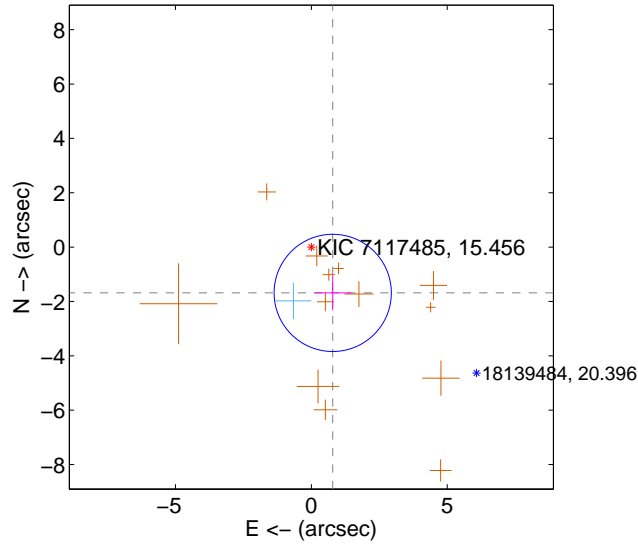
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.991 ± 0.805	2.47	-0.819 ± 0.778	-1.815 ± 0.688
PRF-fit source offset from KIC position	1.860 ± 0.719	2.59	-0.787 ± 0.678	-1.685 ± 0.645
photometric centroid source offset	2.55 ± 1.62	1.57	-2.14 ± 1.63	-1.39 ± 1.61

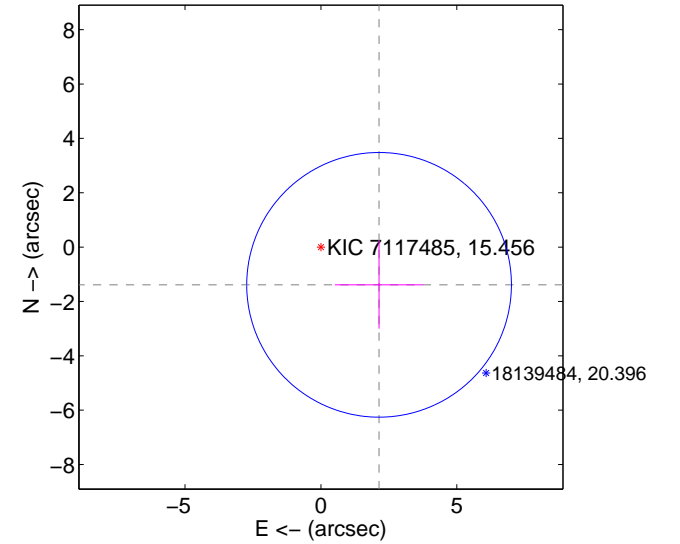
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

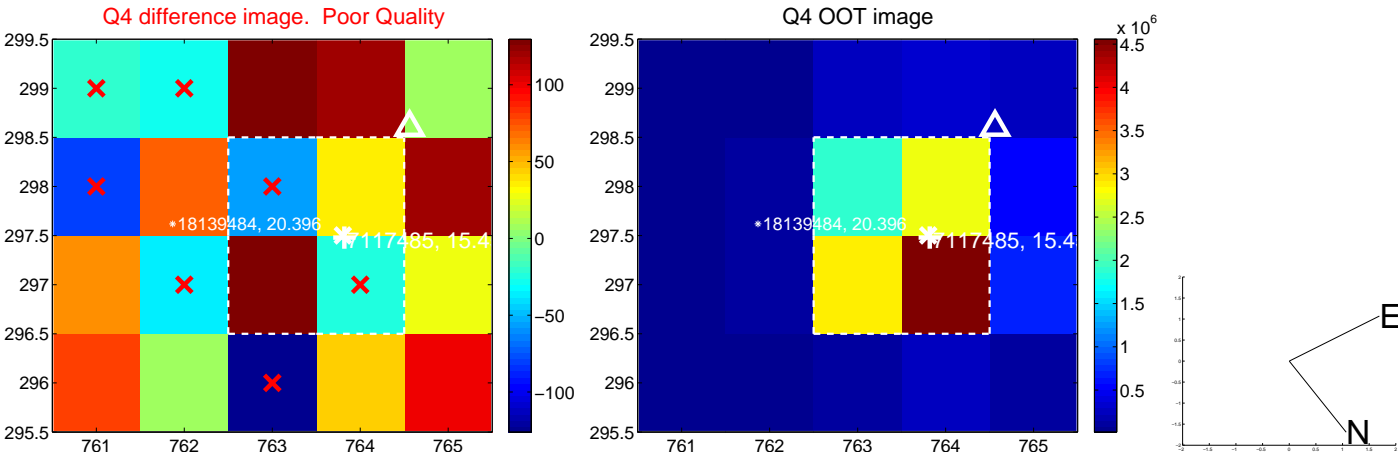
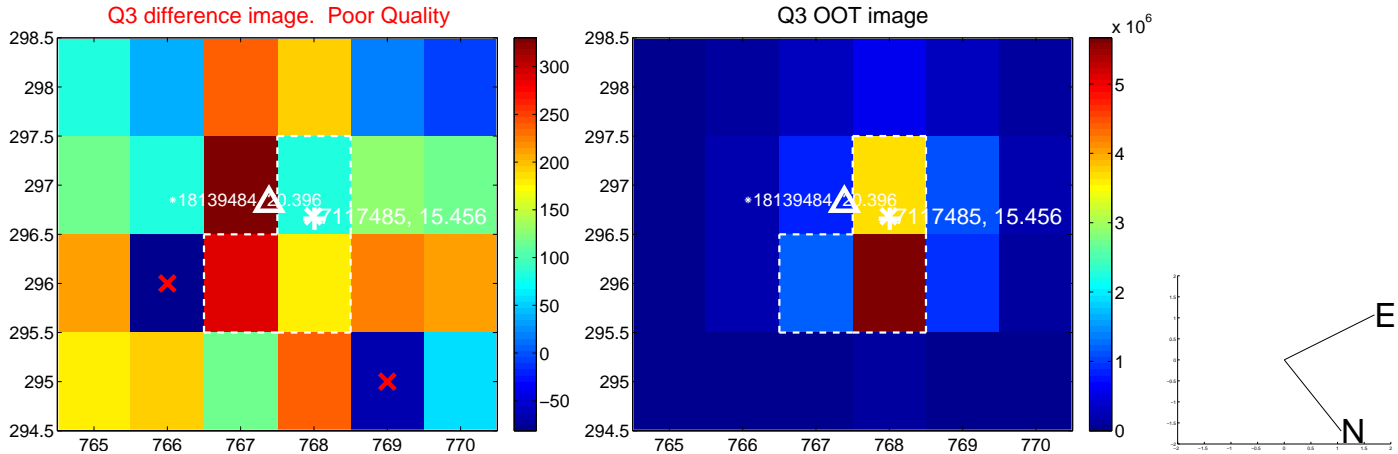
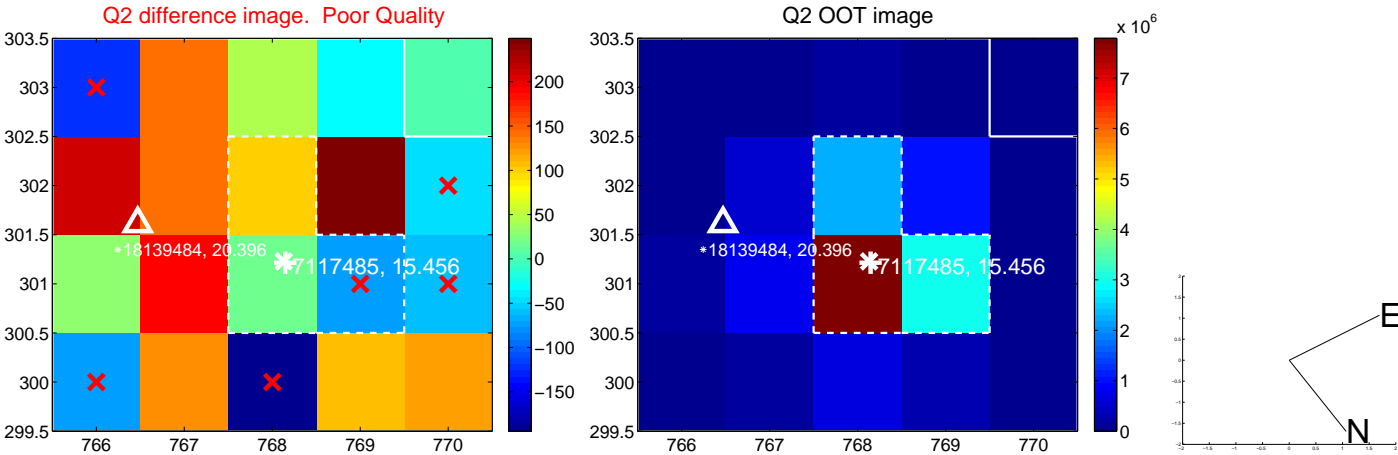
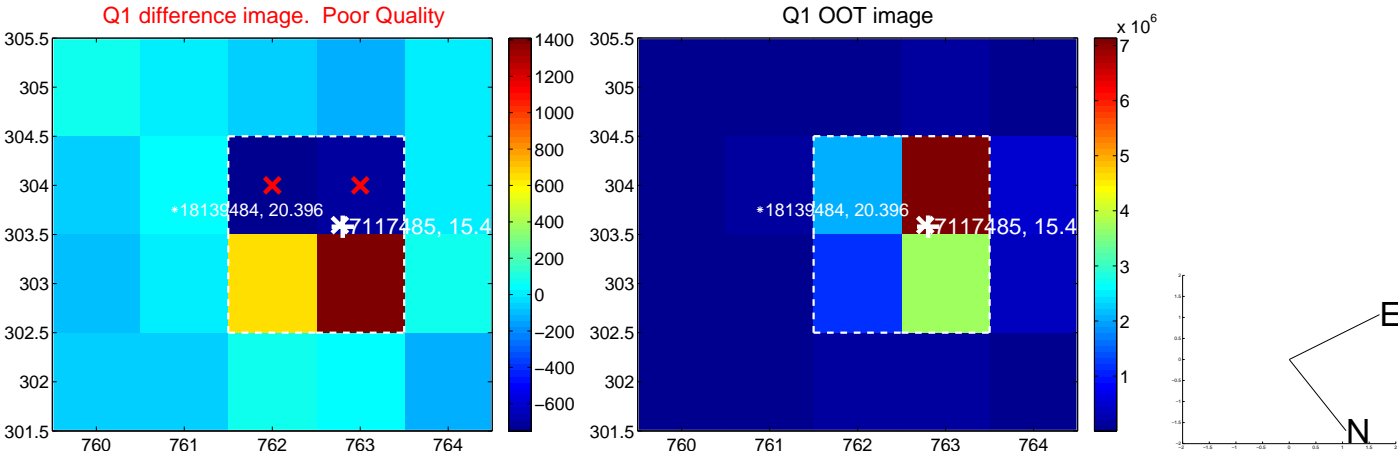


offset from photometric centroids

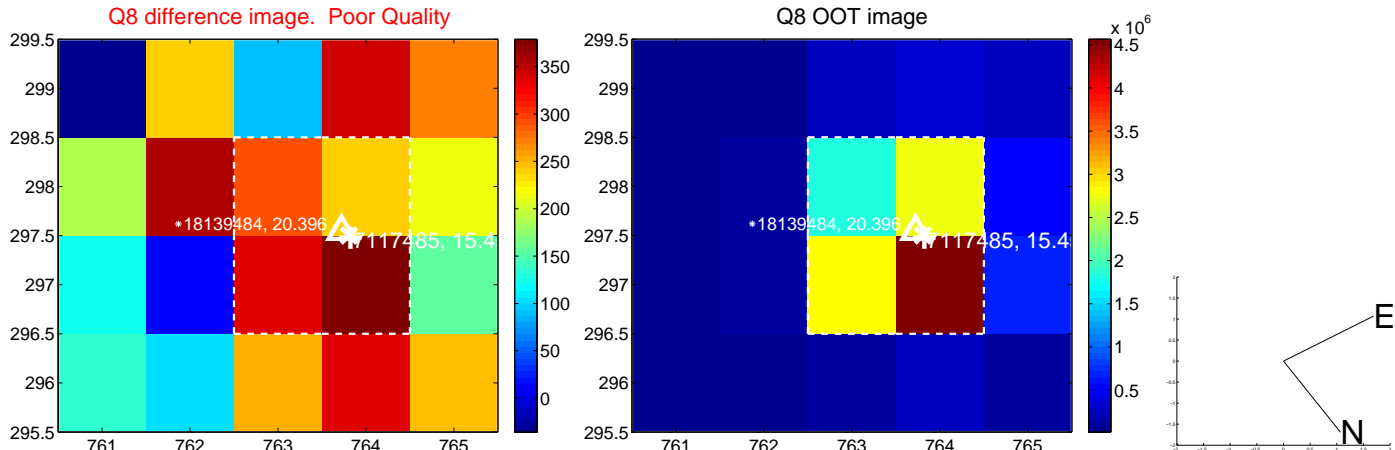
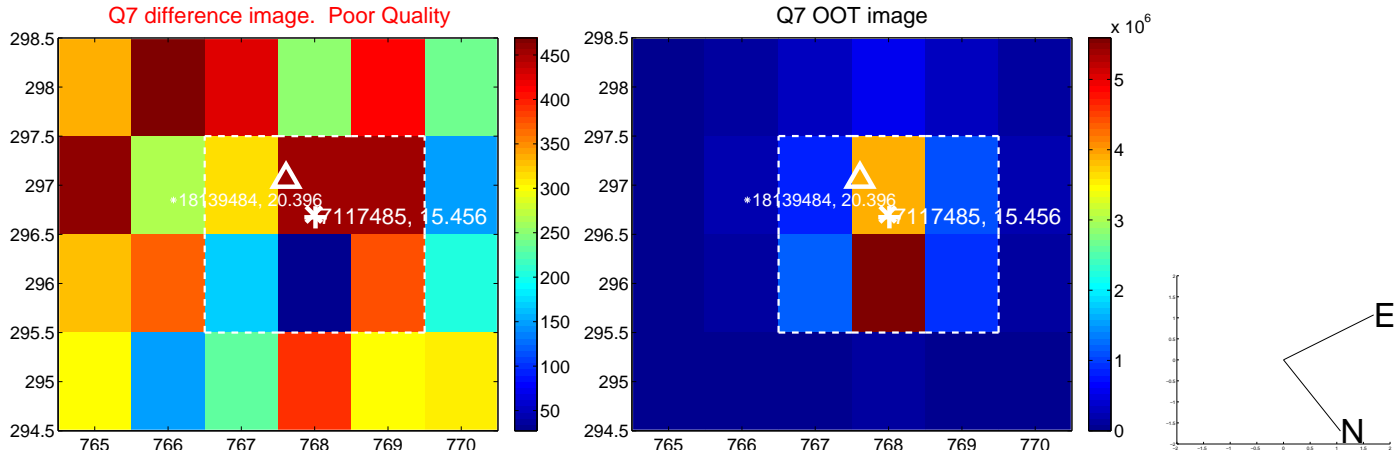
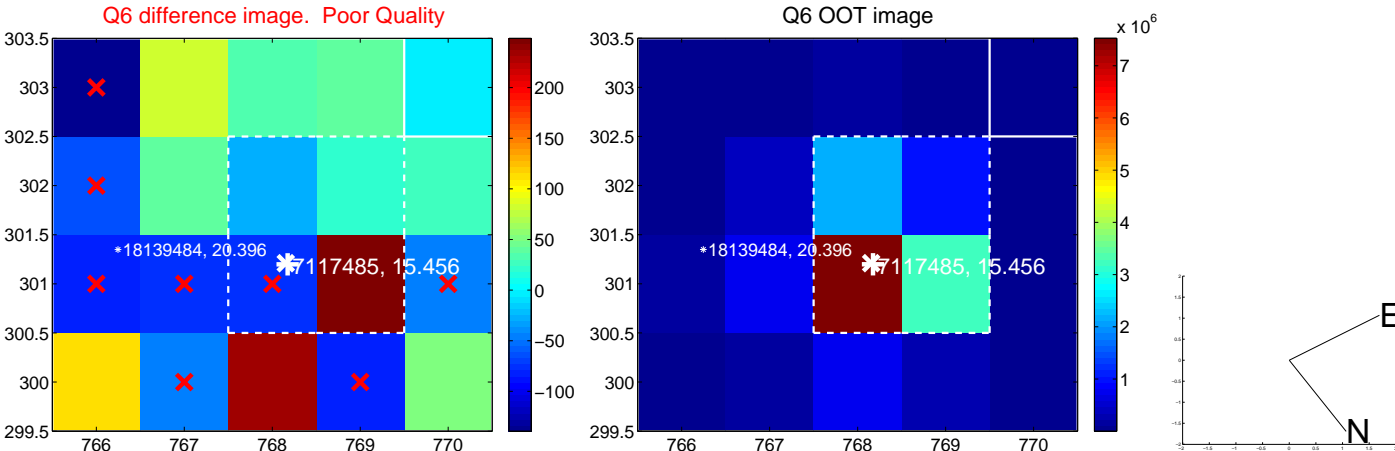
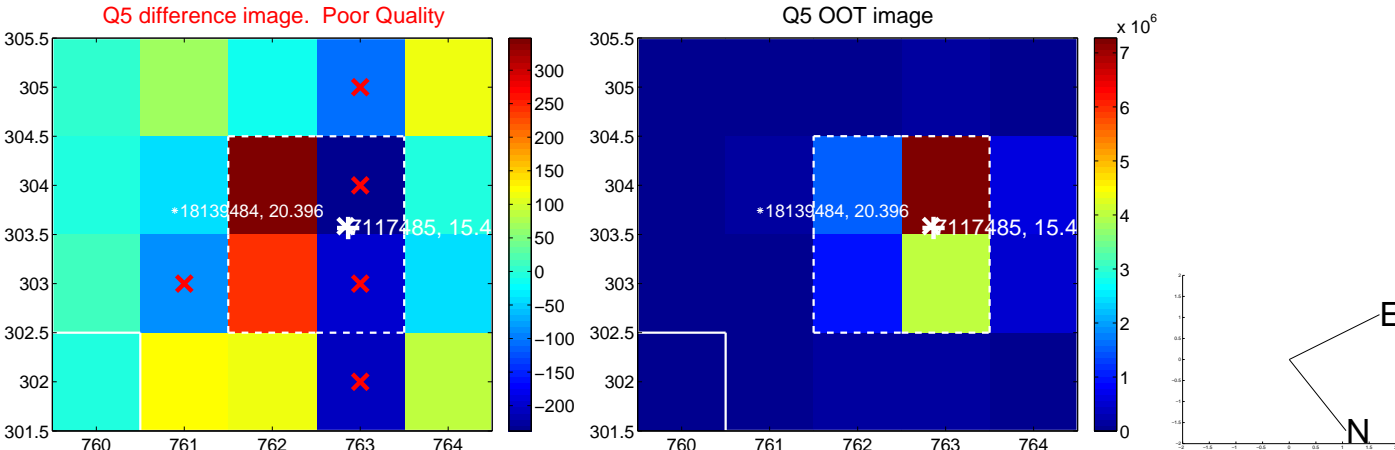


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

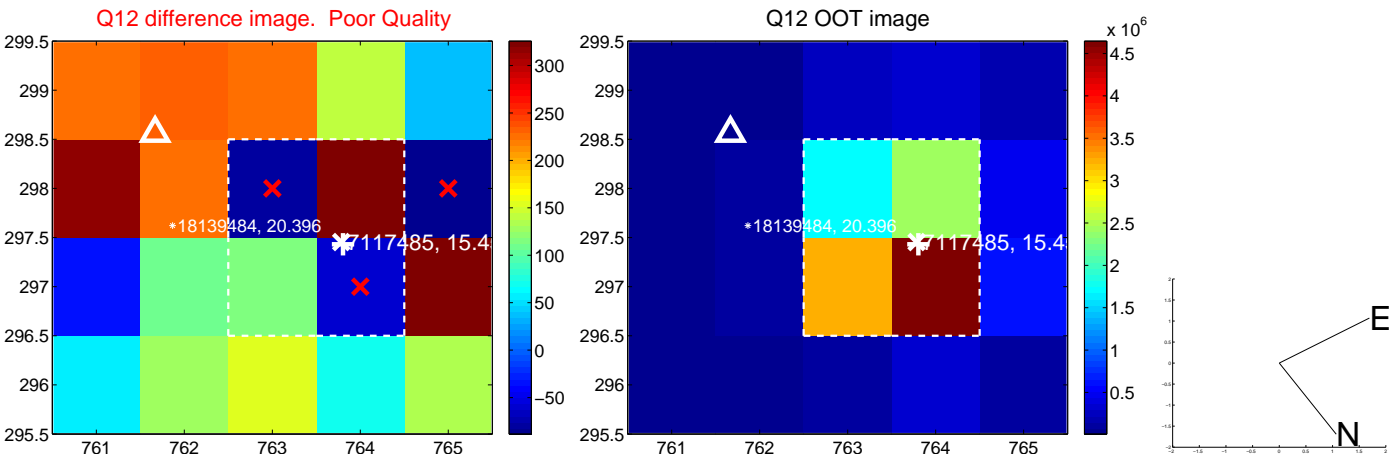
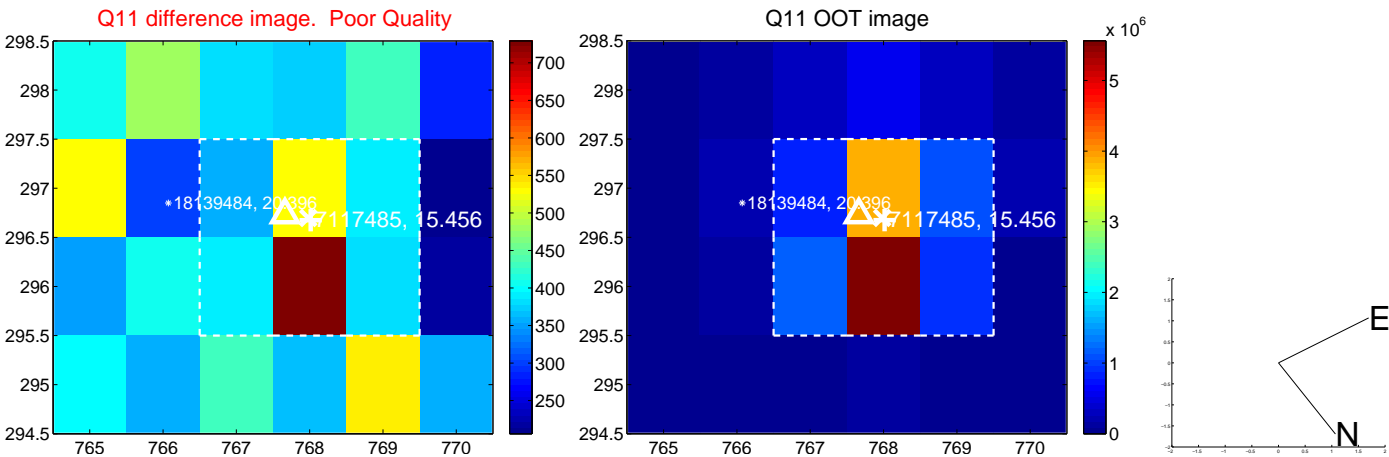
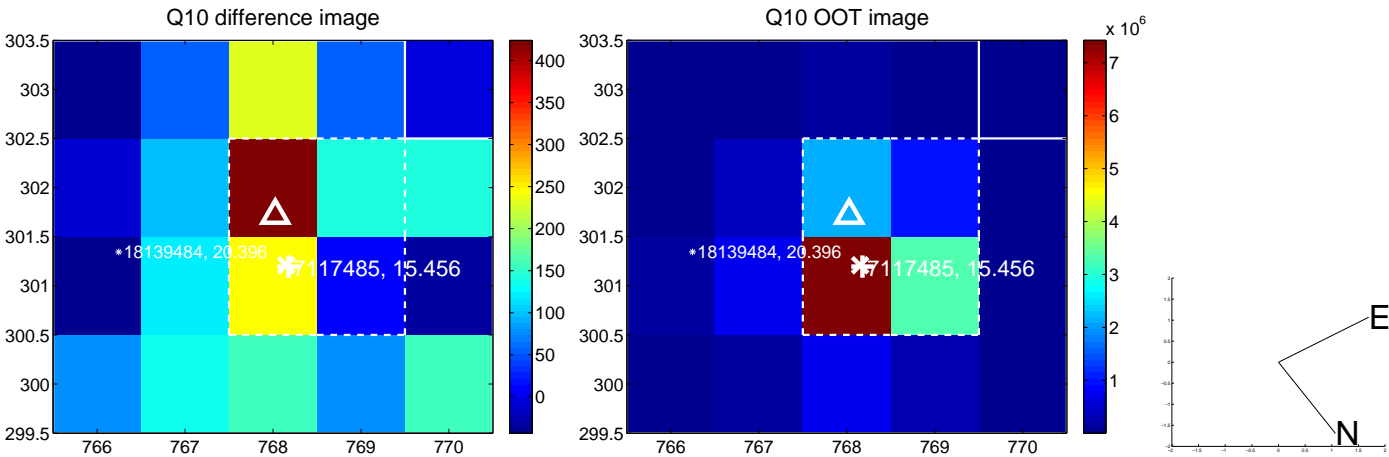
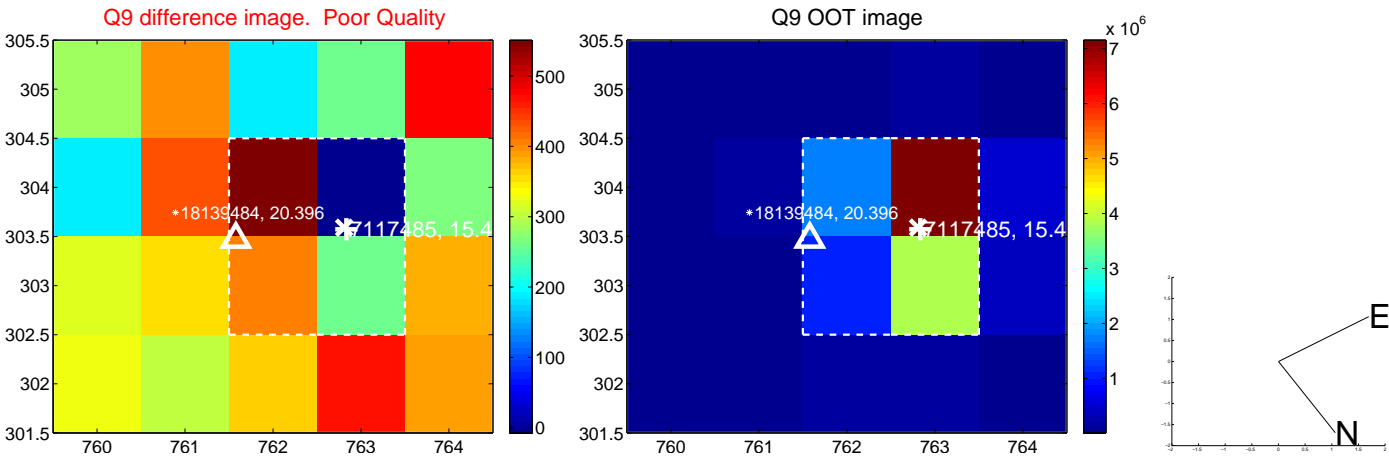
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



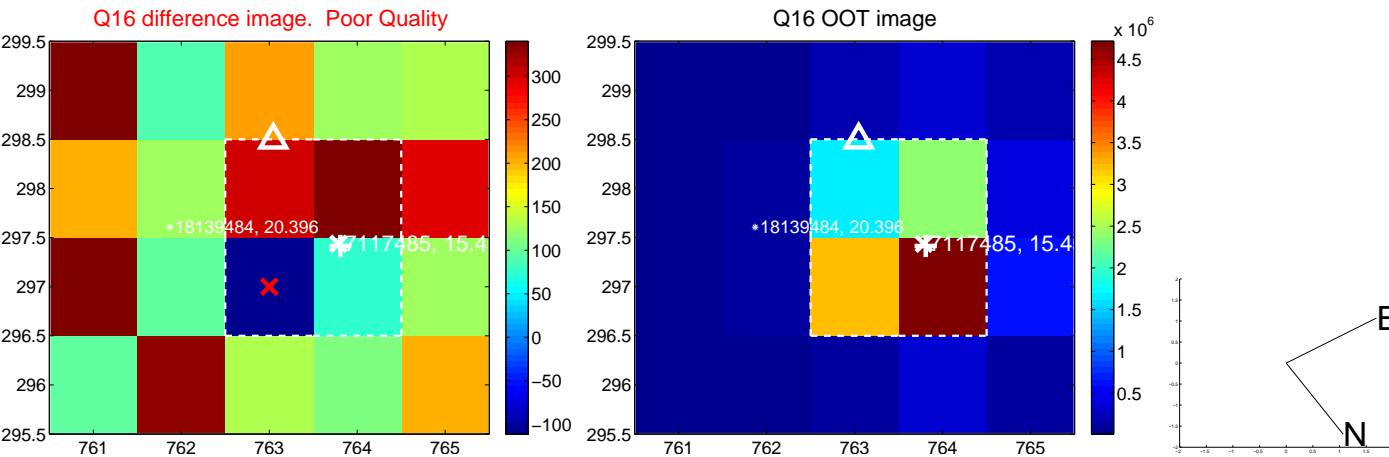
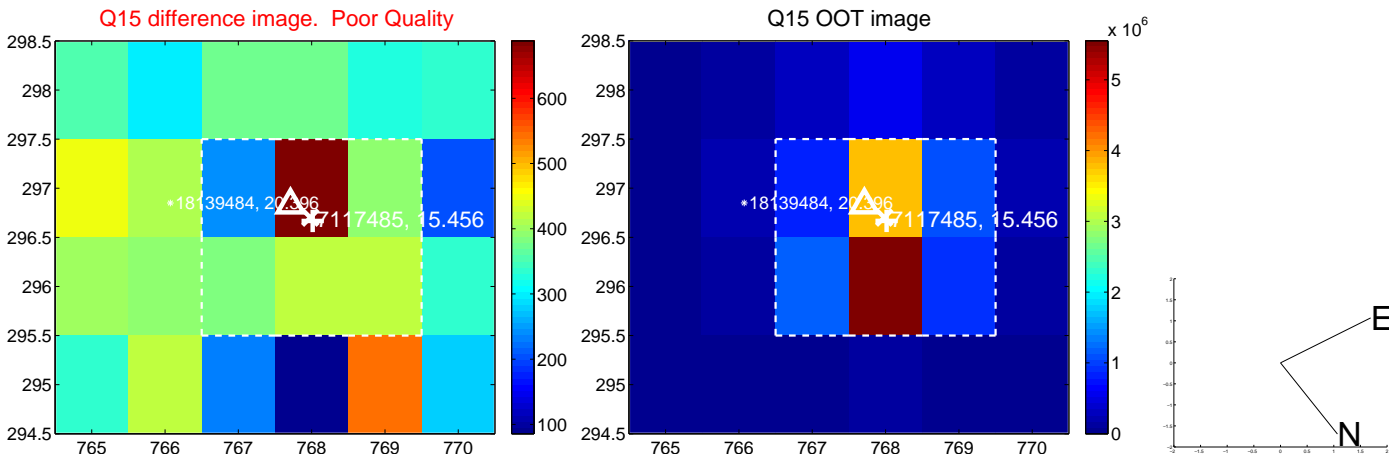
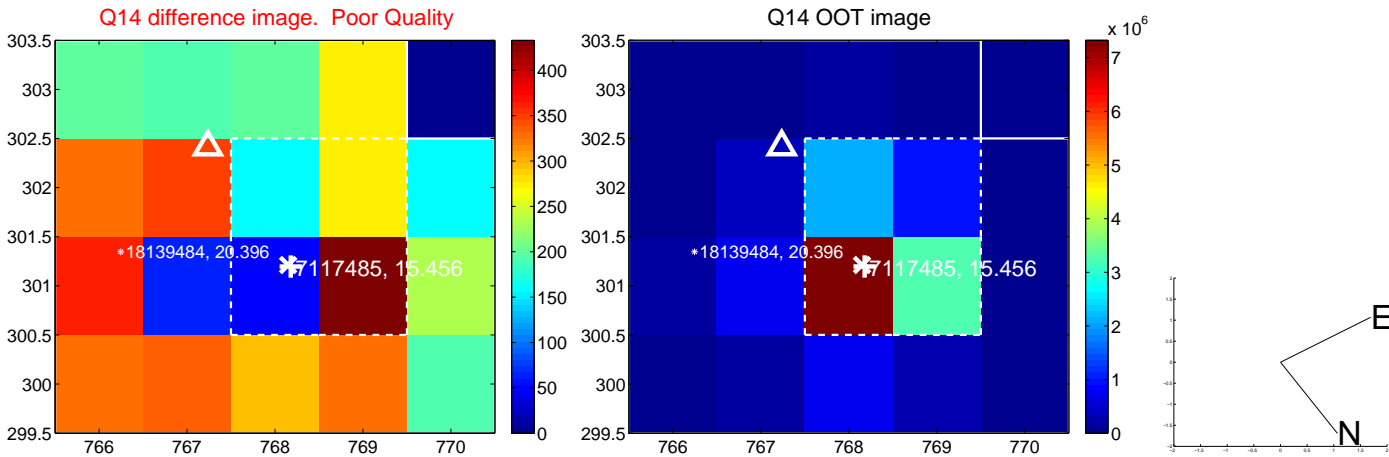
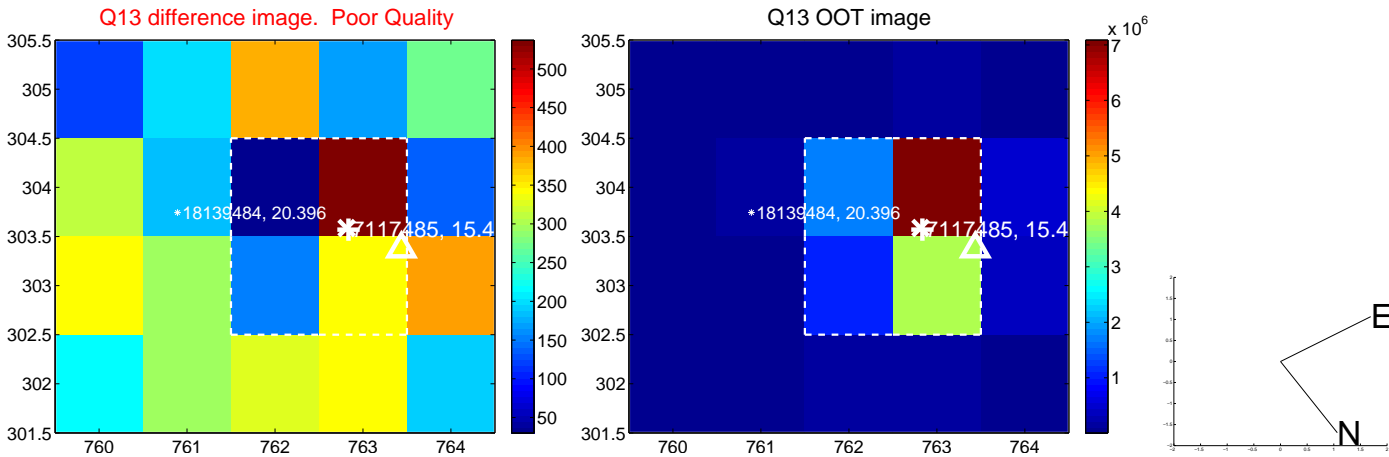
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



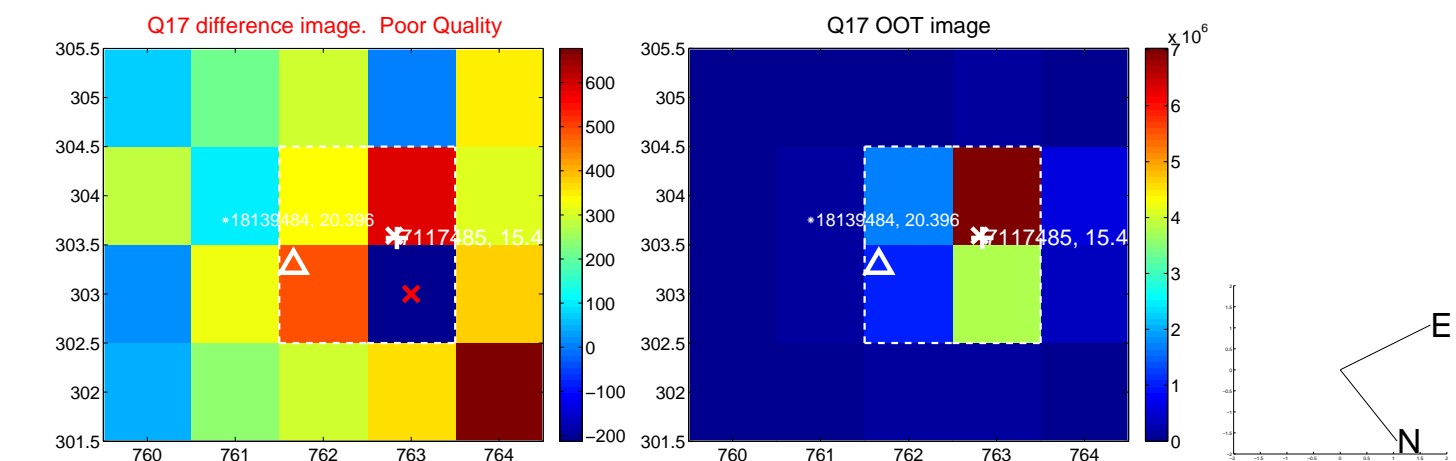
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



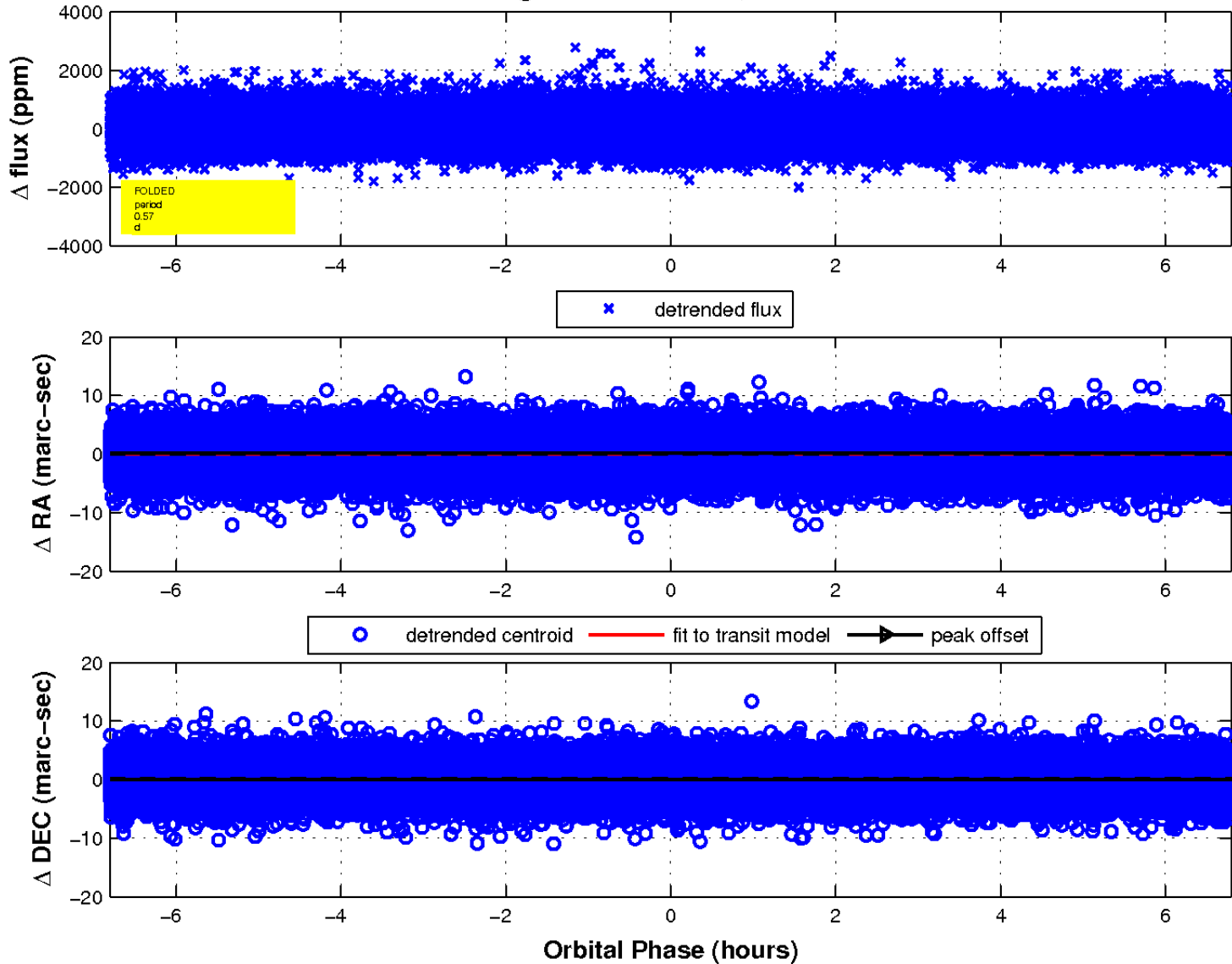
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

