

KIC 003751231

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})
003751231-01	OBS	7666.01	0.570953	131.572841	69.2	1.026	7.7	8.7	1.15	6238	0.97	8725.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003751231-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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

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

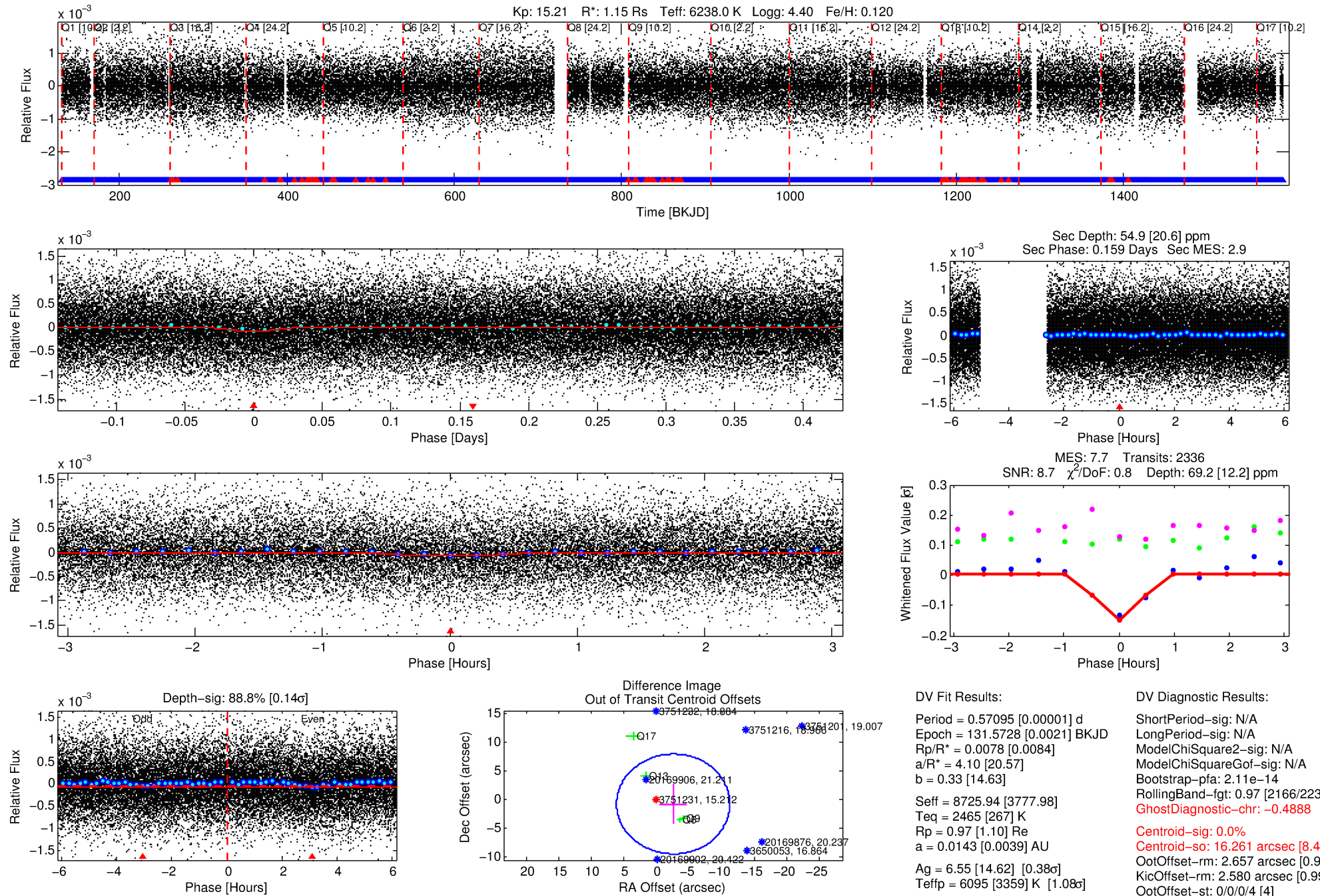
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003751231-01

No Significant Match Found

DV One-Page Summary

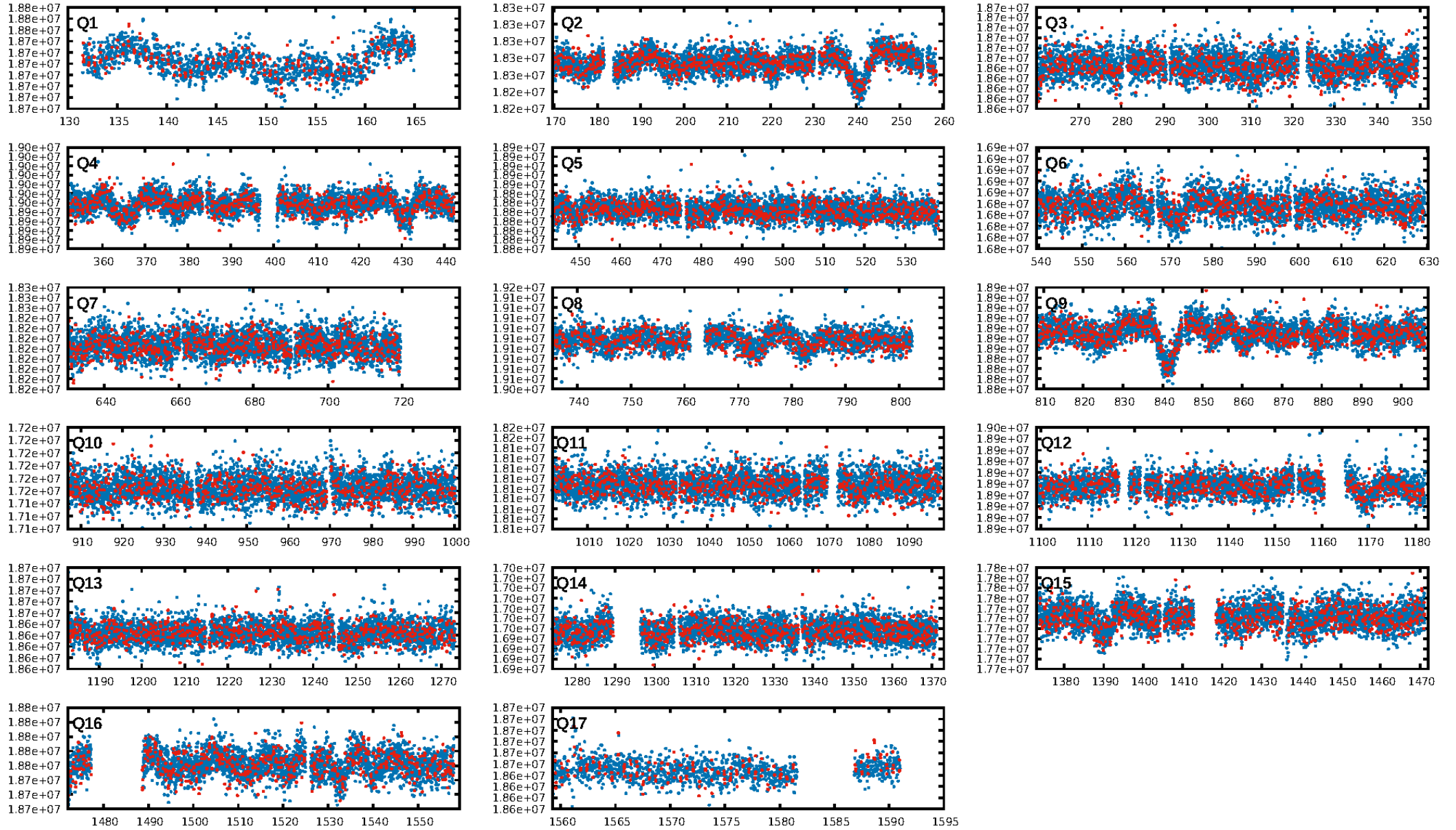
KIC: 3751231 Candidate: 1 of 1 Period: 0.571 d



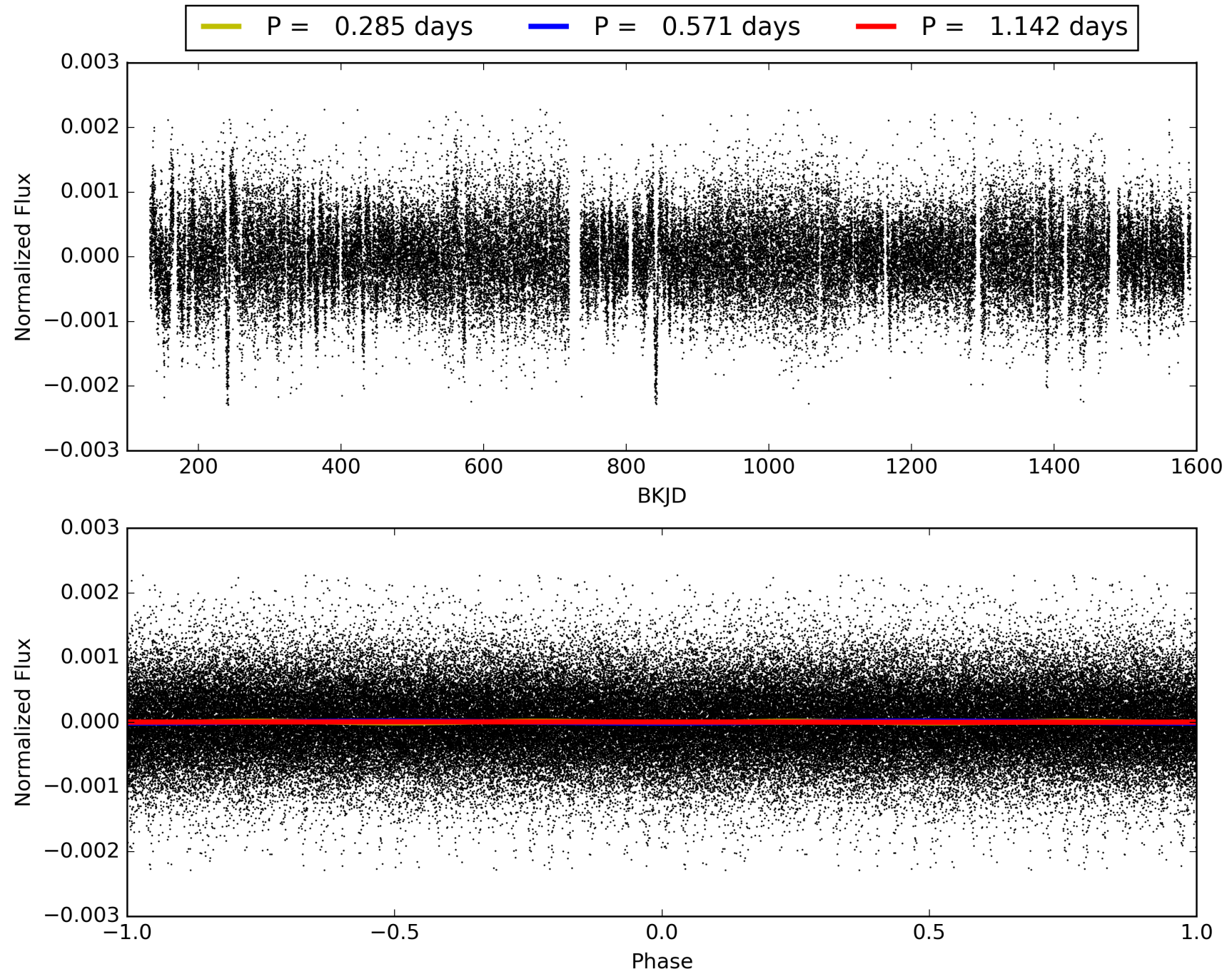
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:46:23 Z

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

TCE 003751231-01, PDC Light Curves

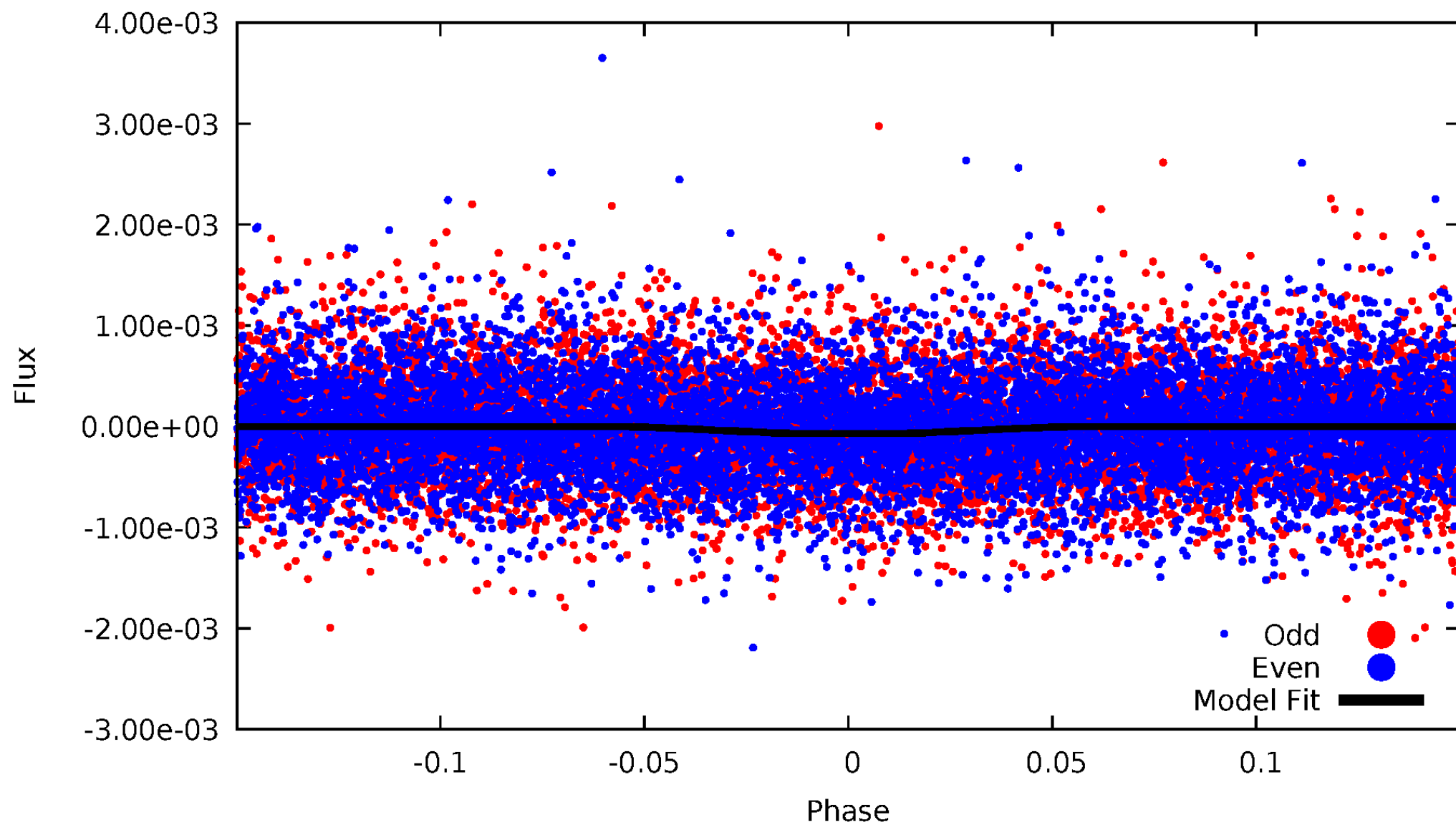


TCE 003751231-01



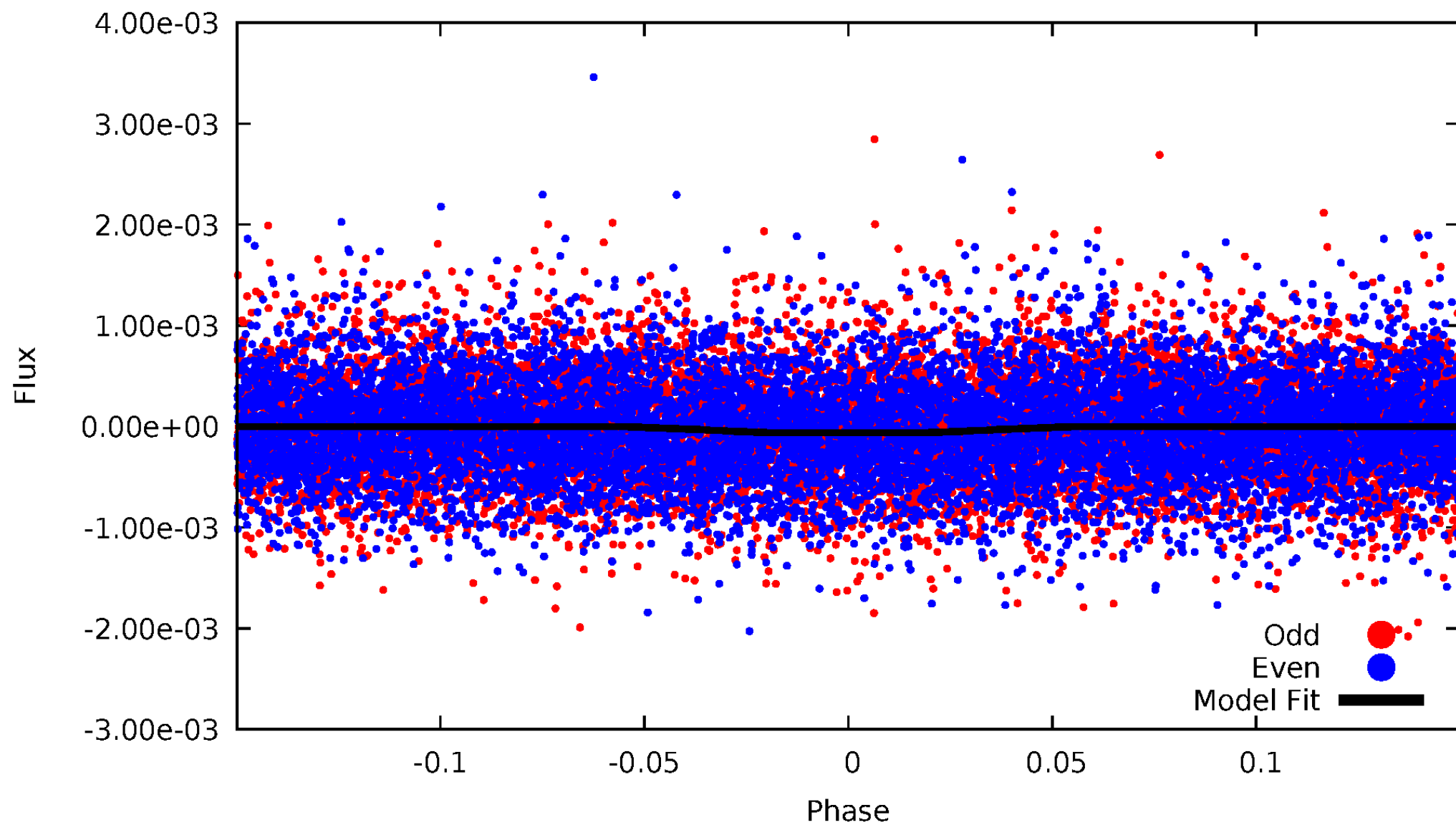
DV Odd/Even

TCE 003751231-01

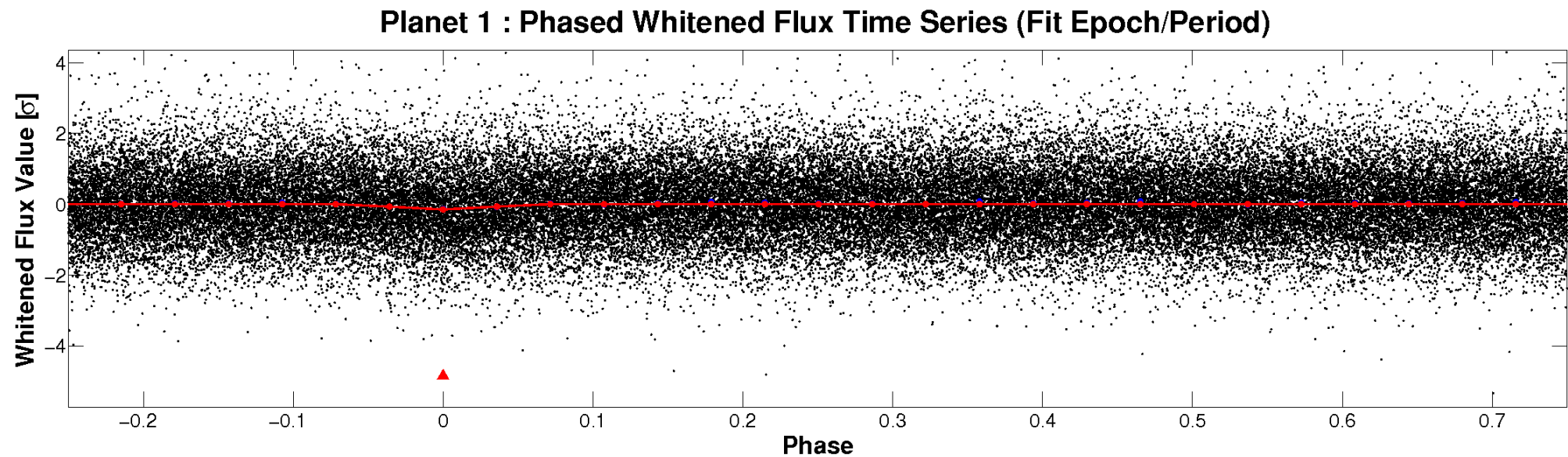
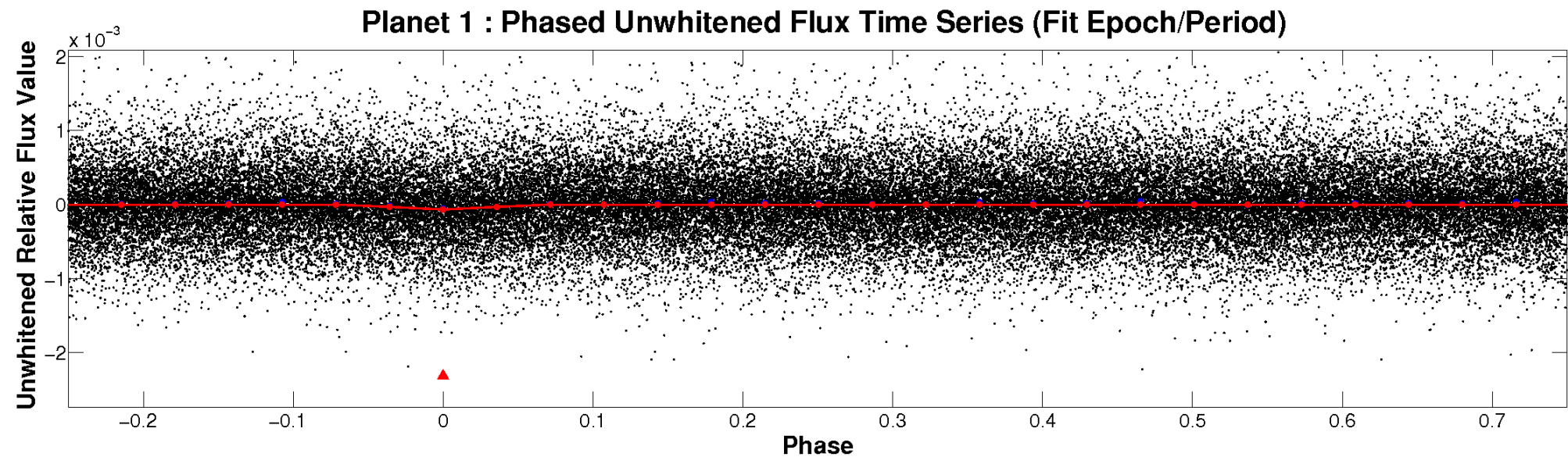


ALT Odd/Even

TCE 003751231-01

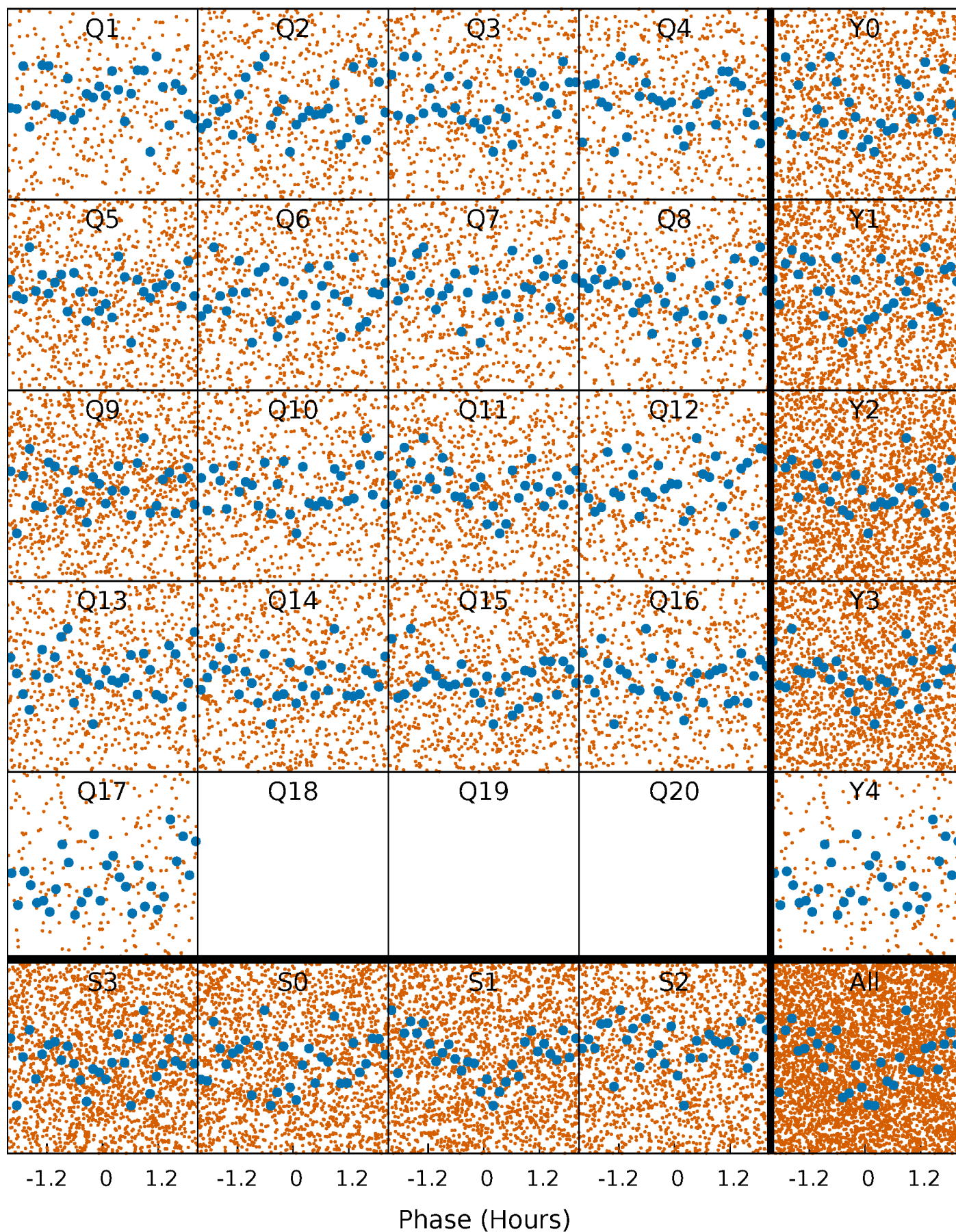


Non-Whitened Vs. Whitened Light Curve



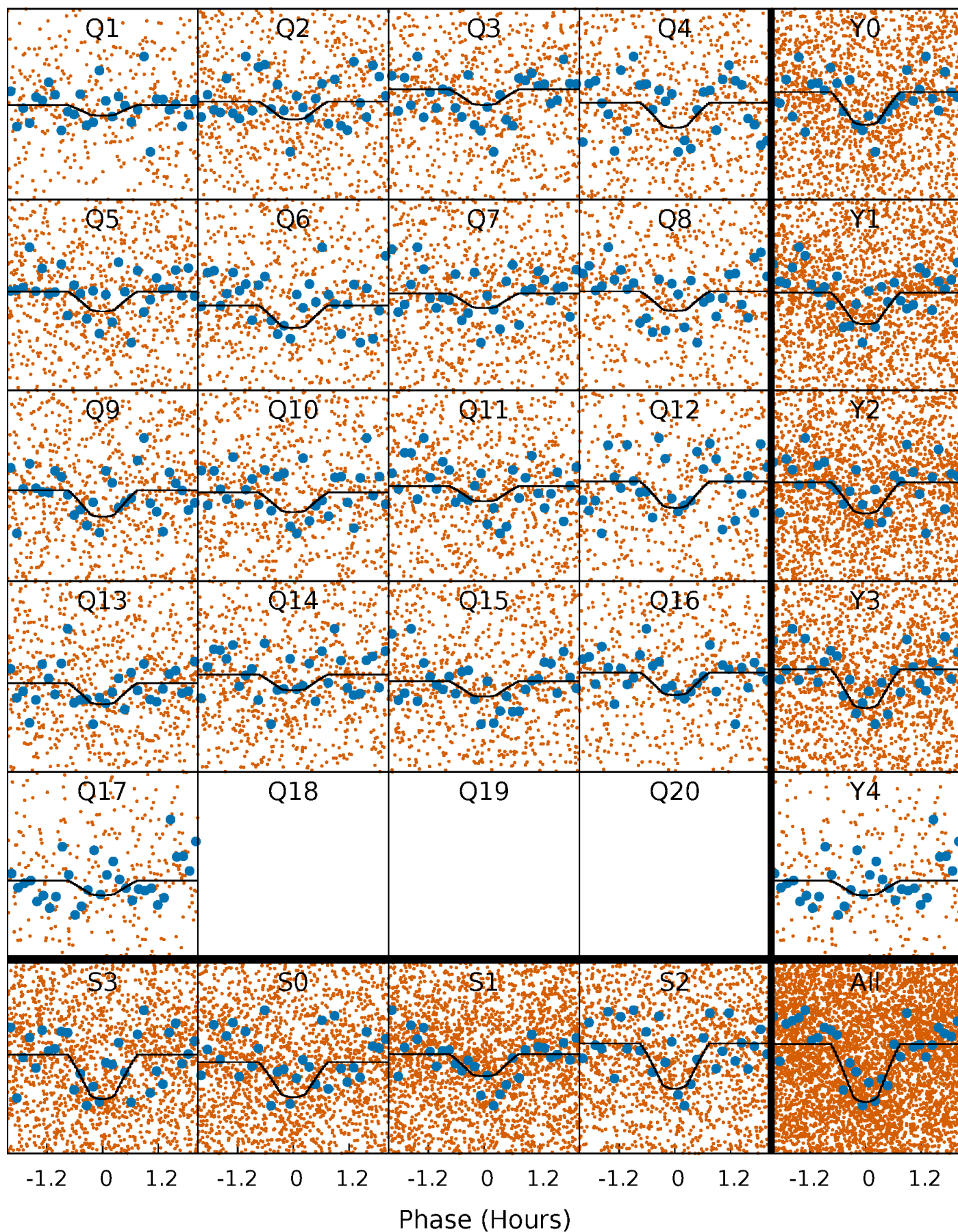
PDC Quarter-Phased Transit Curves

TCE 003751231-01 P= 0.570953 Days $T_0=131.572841$ (BKJD)



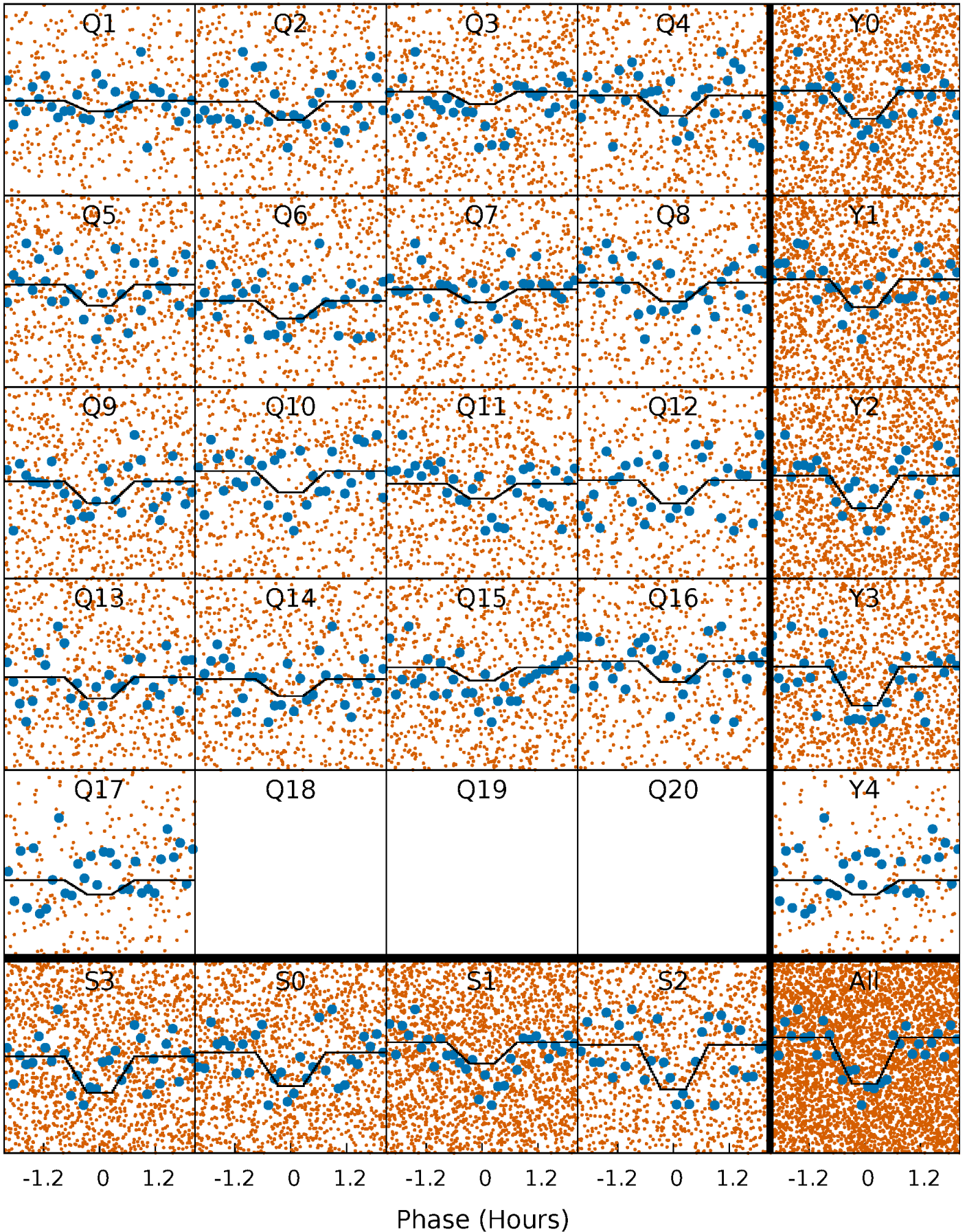
DV Quarter-Phased Transit Curves

TCE 003751231-01 P= 0.570953 Days $T_0=131.572841$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

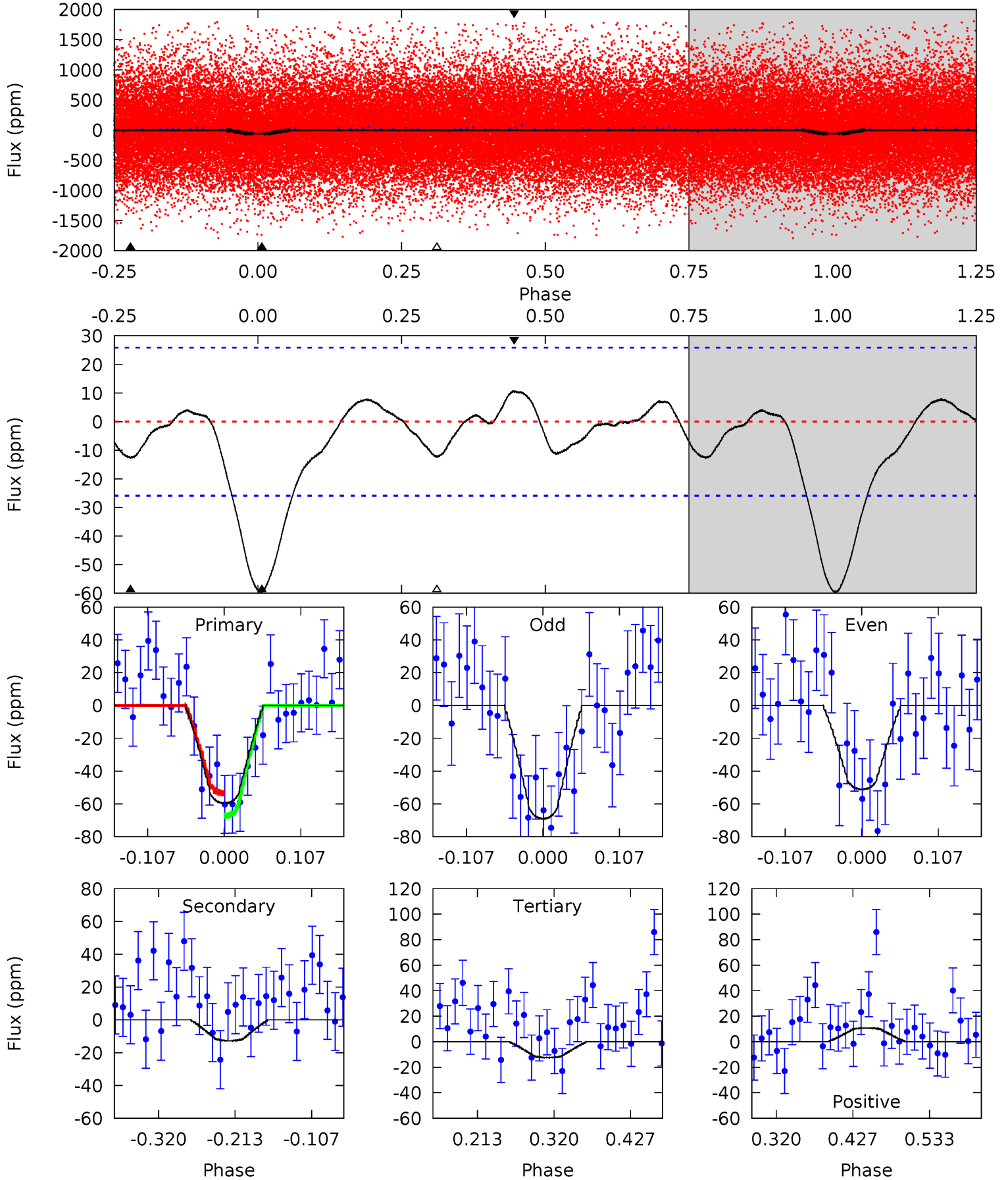
TCE 003751231-01 P= 0.570954 Days $T_0=131.573221$ (BKJD)



DV Model-Shift Uniqueness Test

003751231-01, P = 0.570953 Days, E = 131.001888 Days

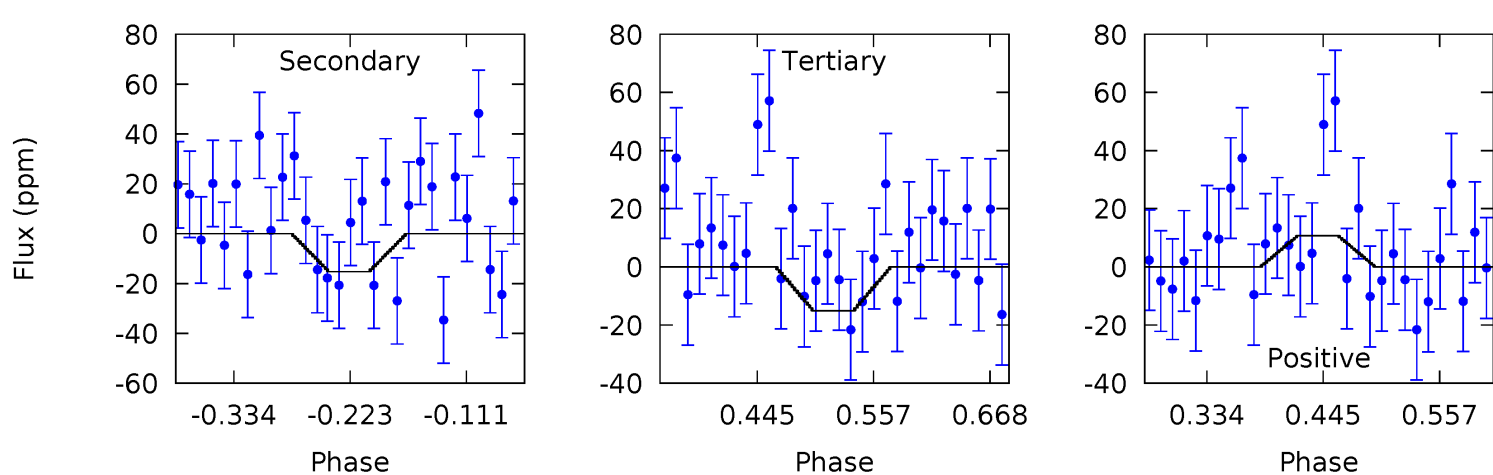
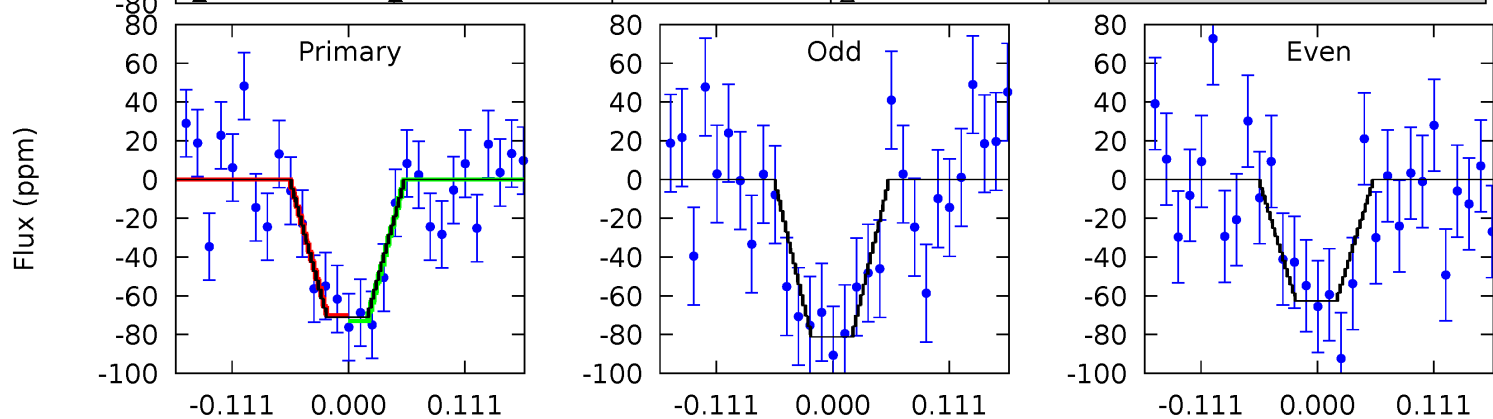
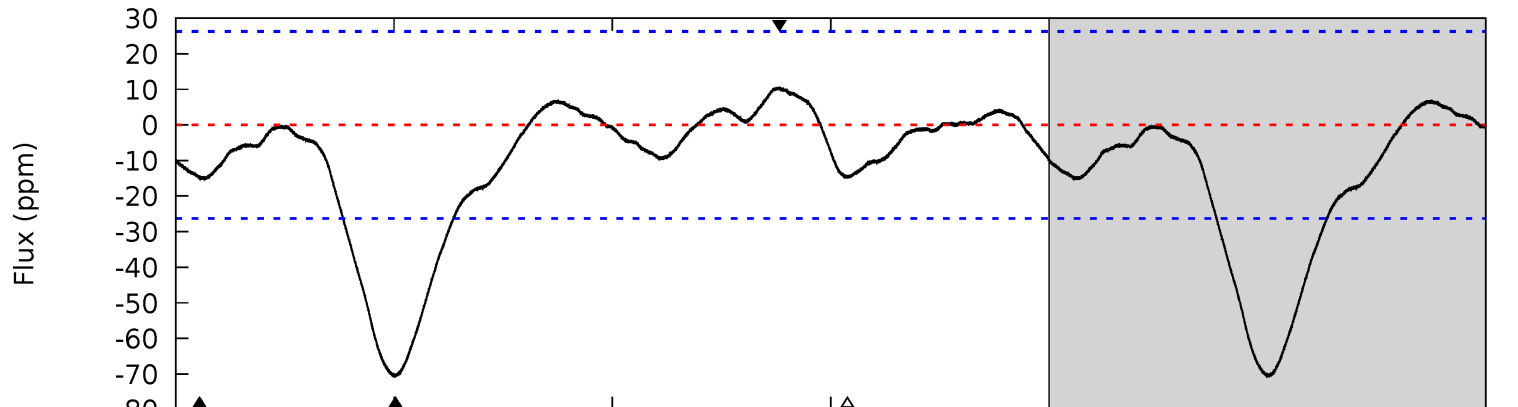
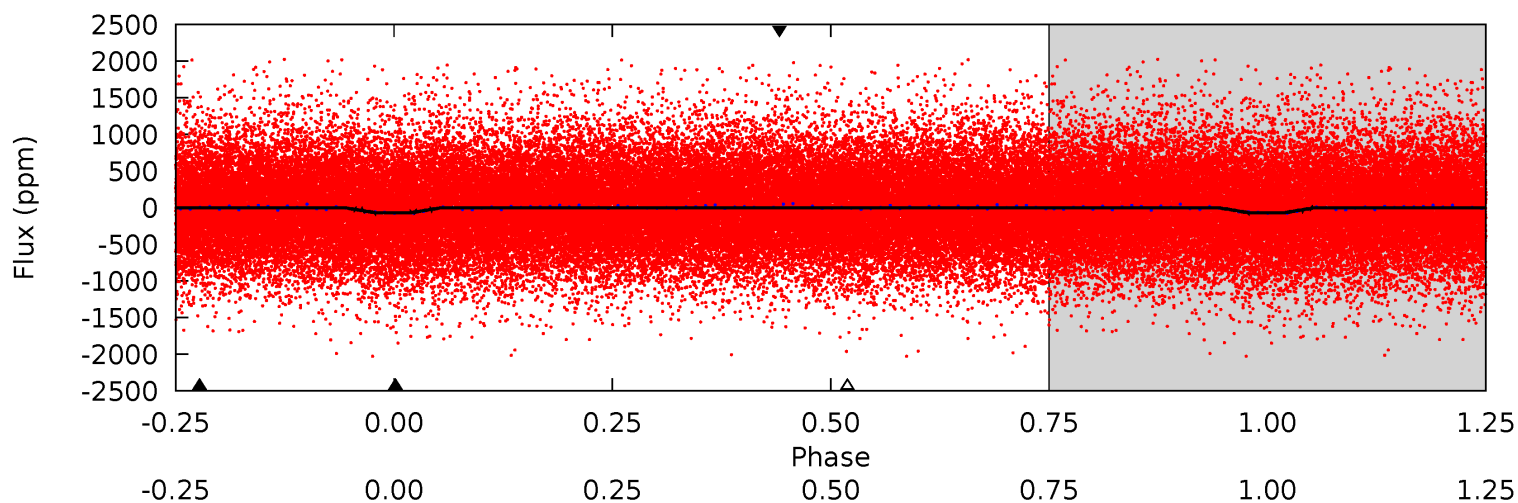
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	2.24	2.19	1.89	4.55	1.61	1.04	8.31	8.61	0.06	0.35	1.58	0.99	0.15	1.22



Alt Model-Shift Uniqueness Test

003751231-01, P = 0.570954 Days, E = 131.002267 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	2.64	2.61	1.86	4.54	1.59	1.06	9.65	10.4	0.03	0.78	1.60	1.01	0.13	0.26



Stellar Parameters For KIC 003751231

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6238^{+173}_{-260}	$4.396^{+0.073}_{-0.218}$	$0.120^{+0.200}_{-0.300}$	$1.145^{+0.375}_{-0.134}$	$1.193^{+0.153}_{-0.170}$	$1.120^{+0.408}_{-0.599}$
	+3%/-4%	+2%/-5%	+167%/-250%	+33%/-12%	+13%/-14%	+36%/-53%
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 003751231-01 / KOI 7666.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 6	$1.21^{+1.12}_{-0.80}$	3501^{+281}_{-198}	3780^{+2617}_{-6674}	$0.864^{+7.260}_{-0.664}$
Alt.	-15 ± 6	$1.22^{+1.02}_{-0.73}$	3498^{+288}_{-194}	3976^{+2156}_{-5747}	$1.082^{+5.510}_{-0.784}$

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 $A_{obs} \gg 1.0$

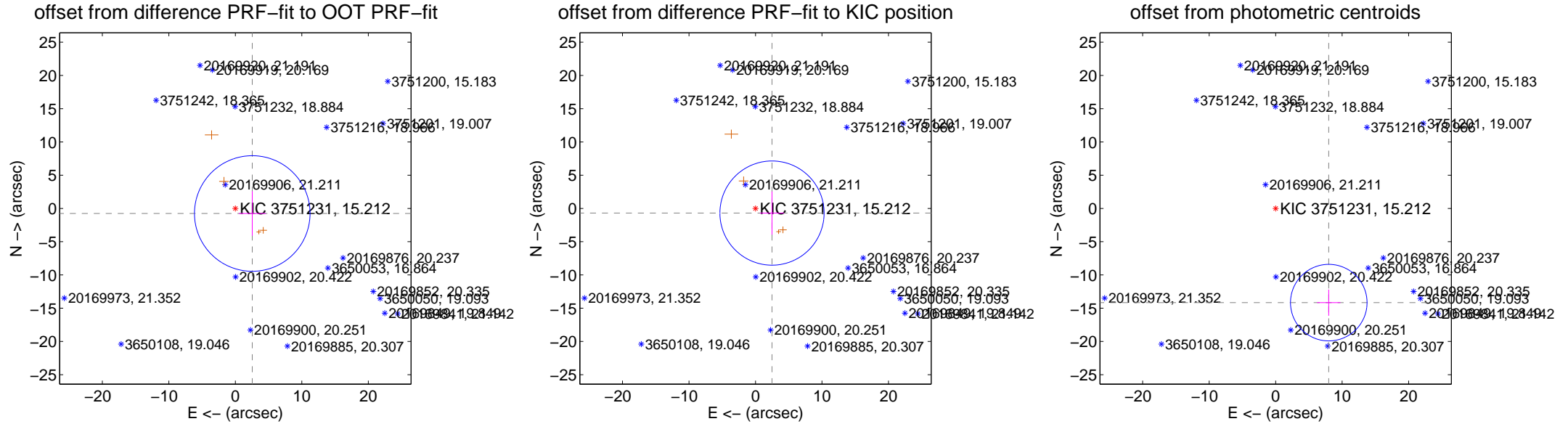
DV Centroid Data

Supplemental centroid analysis for 003751231-01. Kepler magnitude: 15.21. Transit SNR 8.69

There are 0 quarters with good PRF difference image offsets

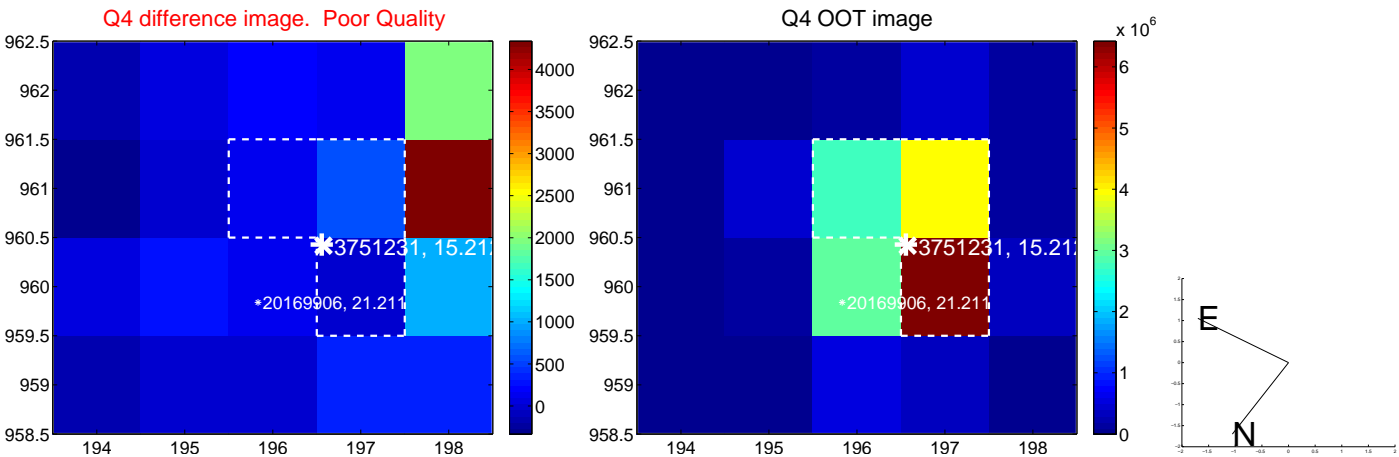
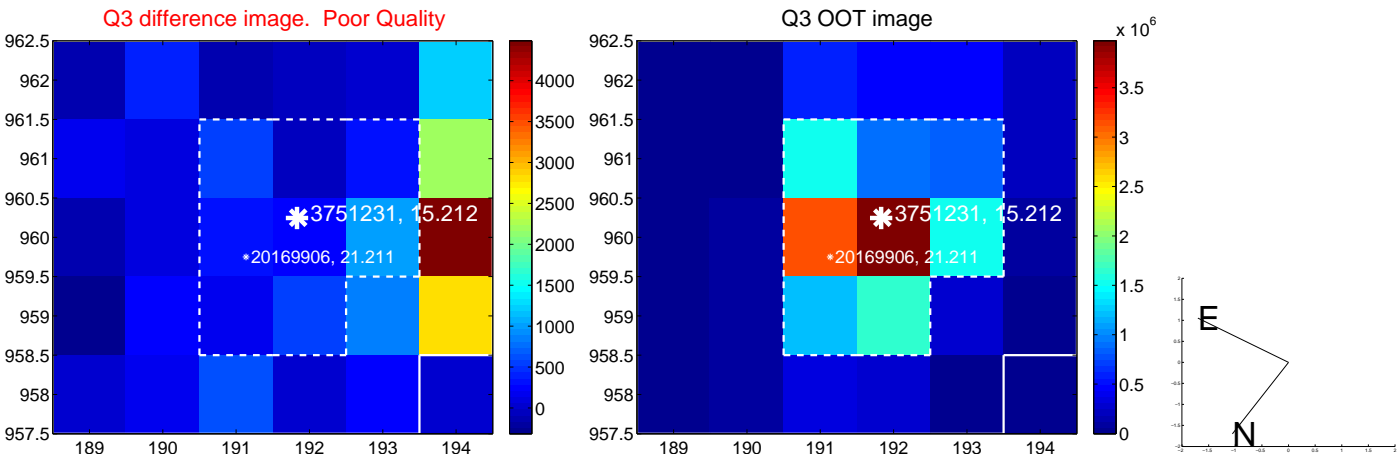
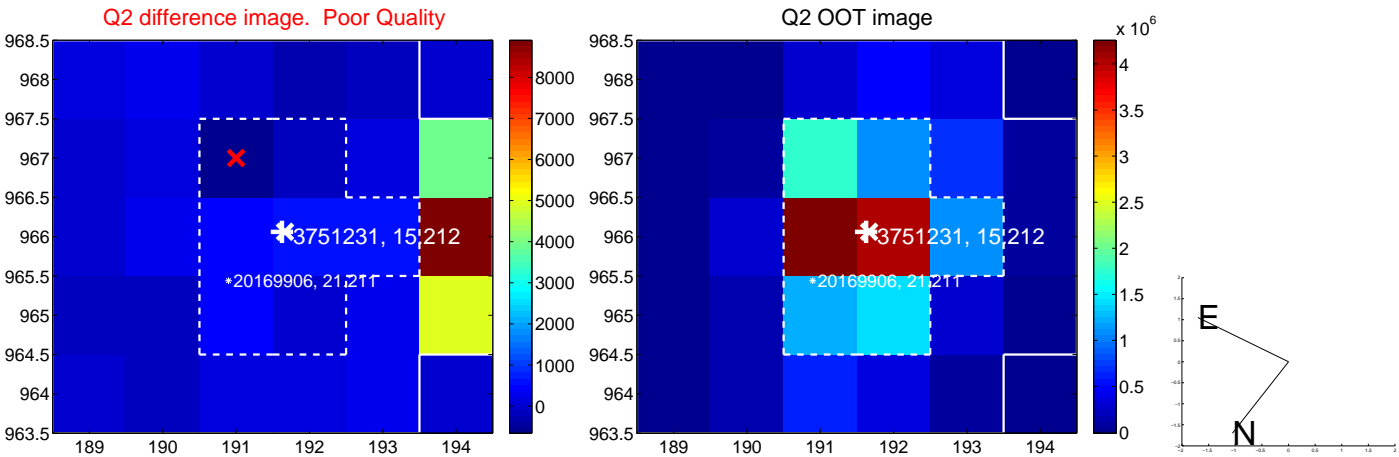
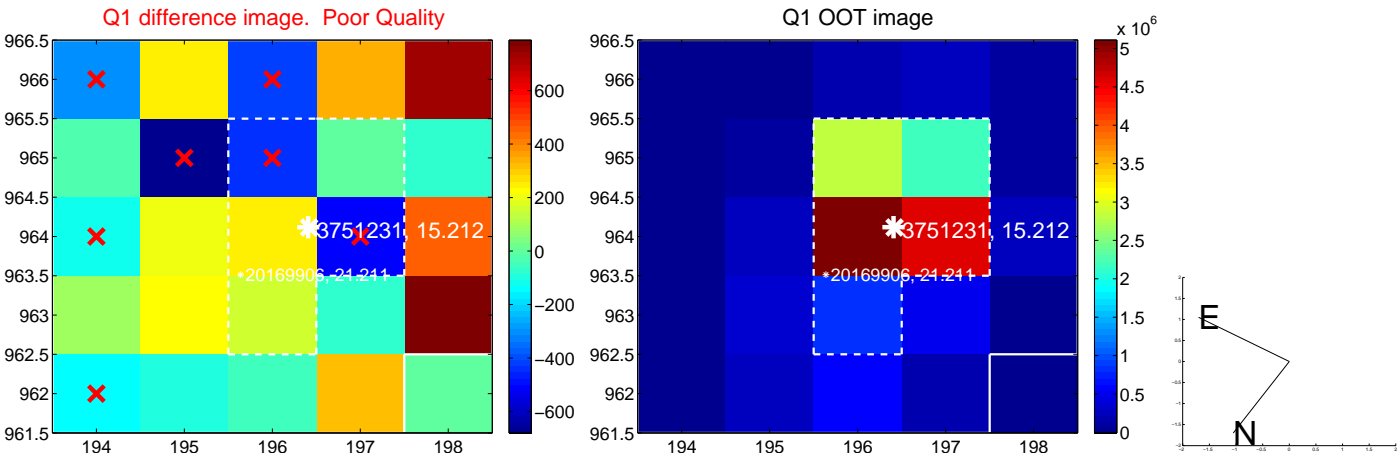
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.657 ± 2.897	0.92	-2.546 ± 2.033	-0.759 ± 3.354
PRF-fit source offset from KIC position	2.580 ± 2.612	0.99	-2.484 ± 1.816	-0.697 ± 3.248
photometric centroid source offset	16.26 ± 1.92	8.48	-7.99 ± 1.75	-14.16 ± 1.97

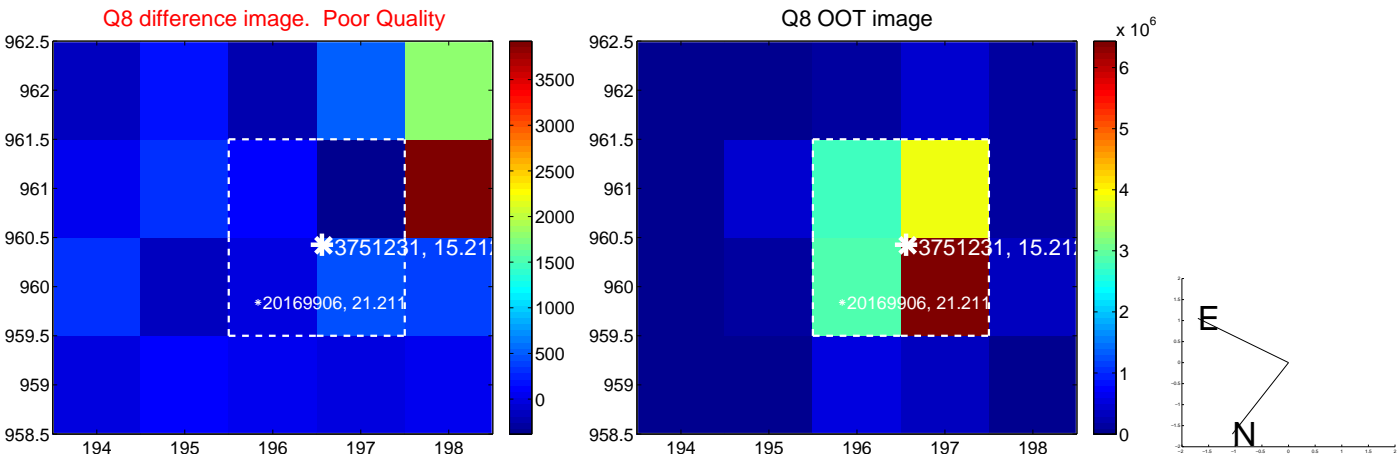
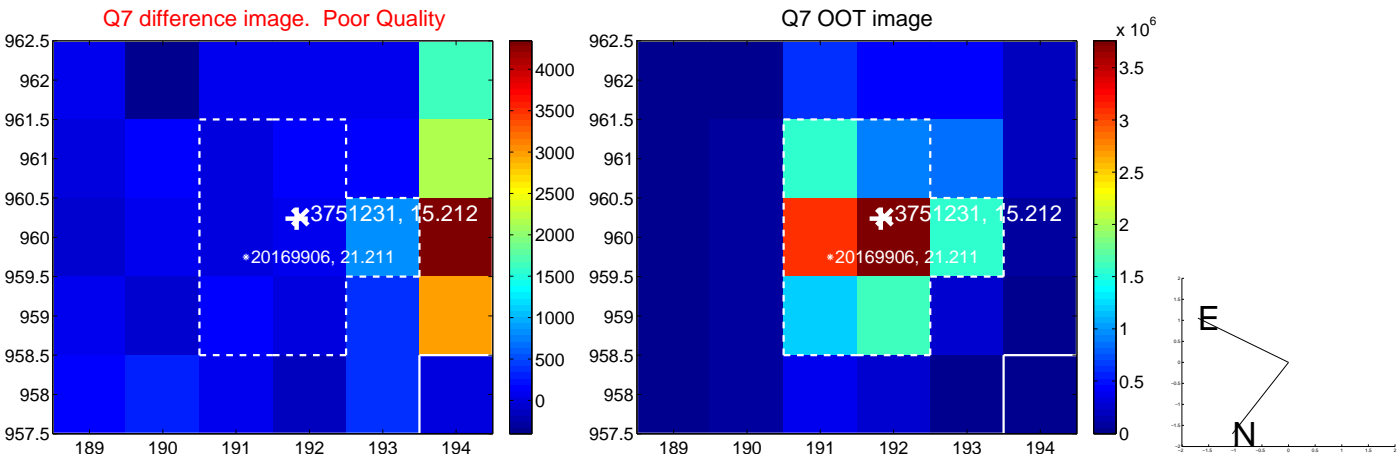
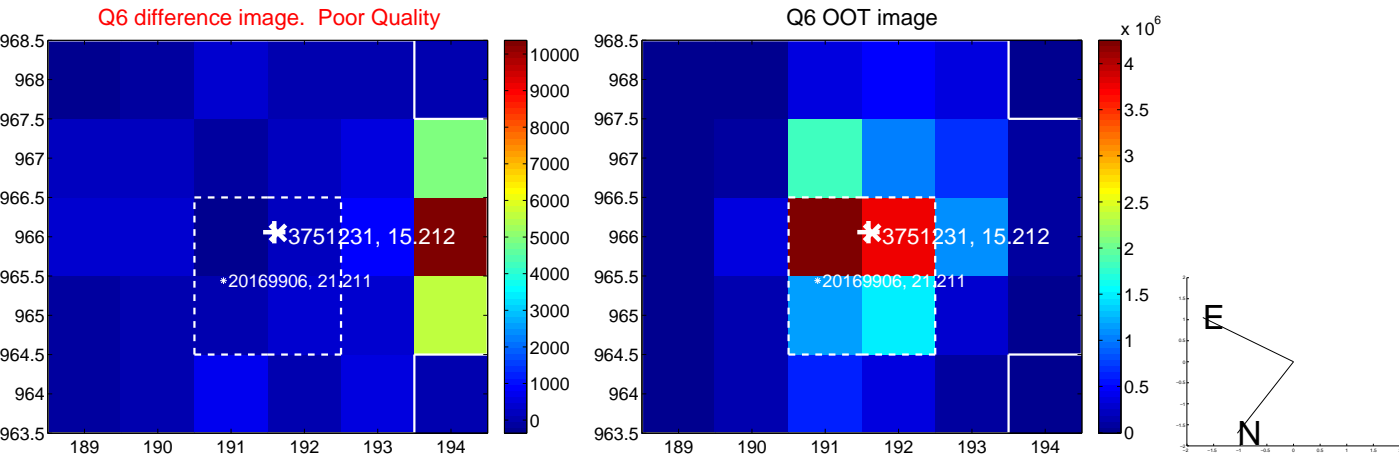
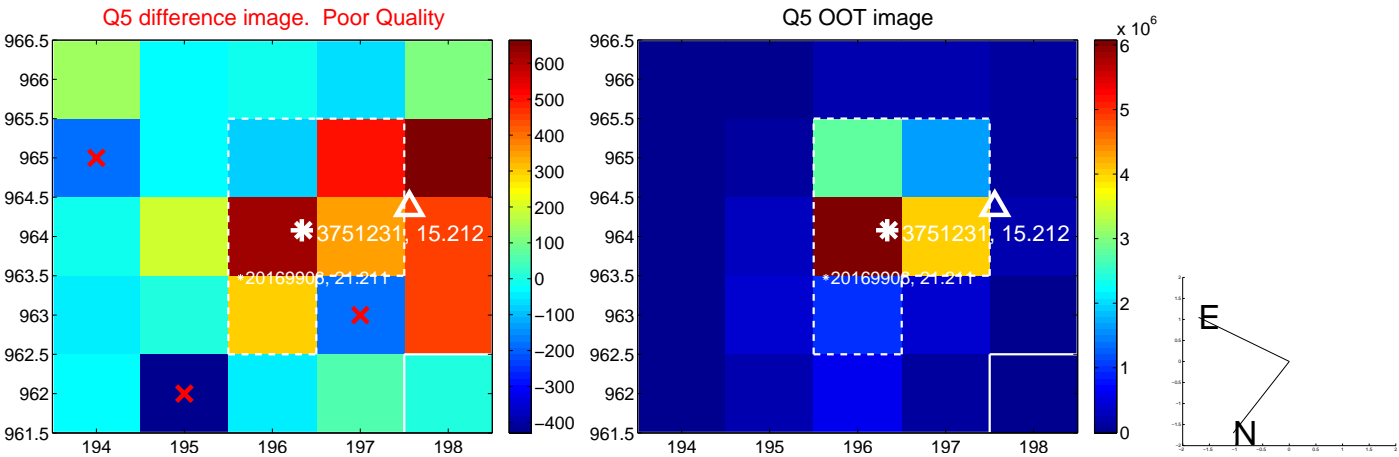


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

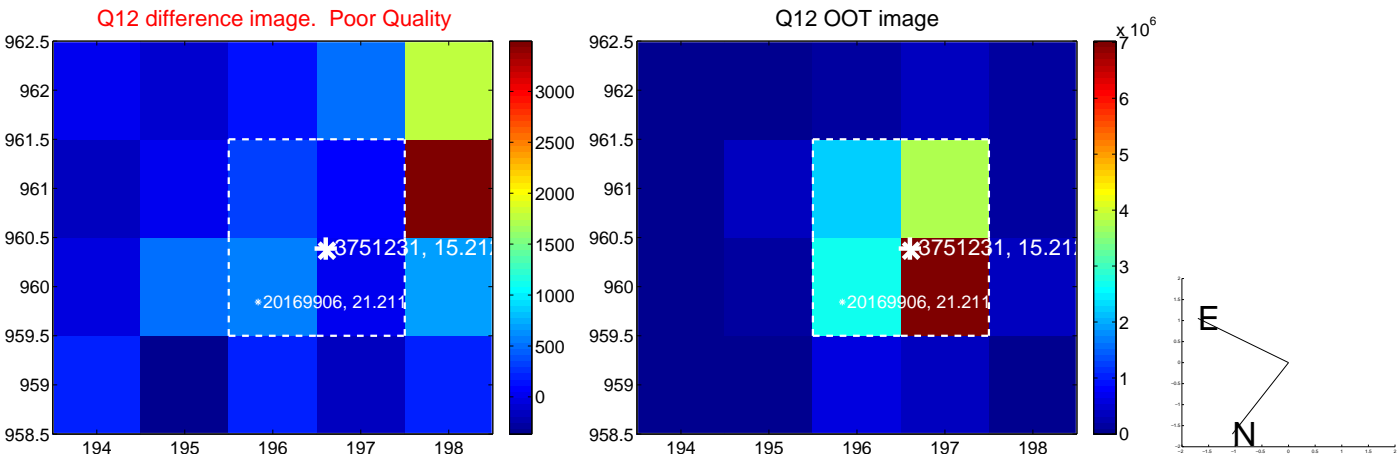
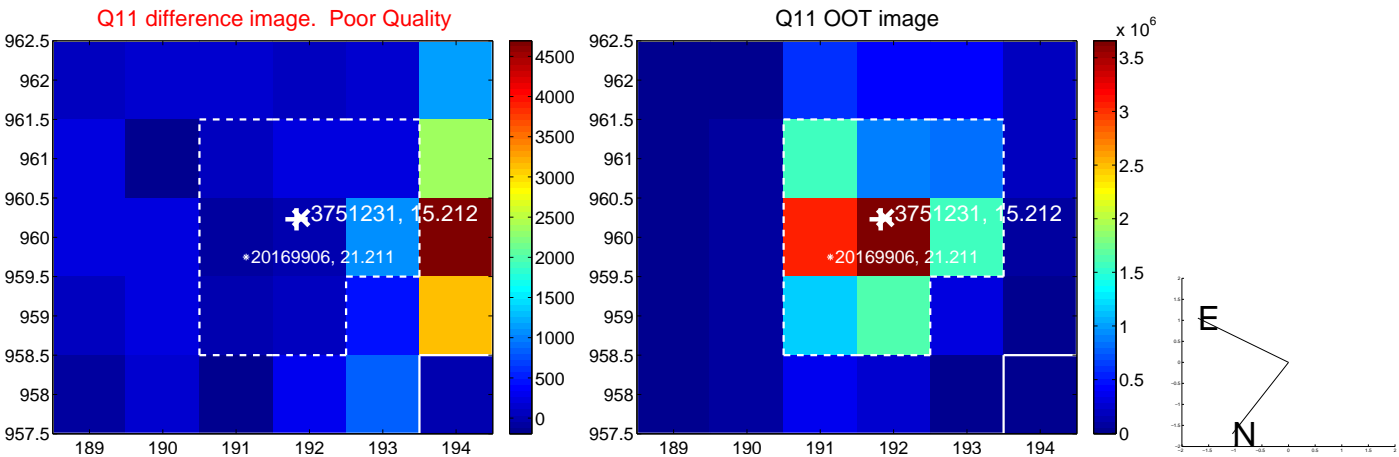
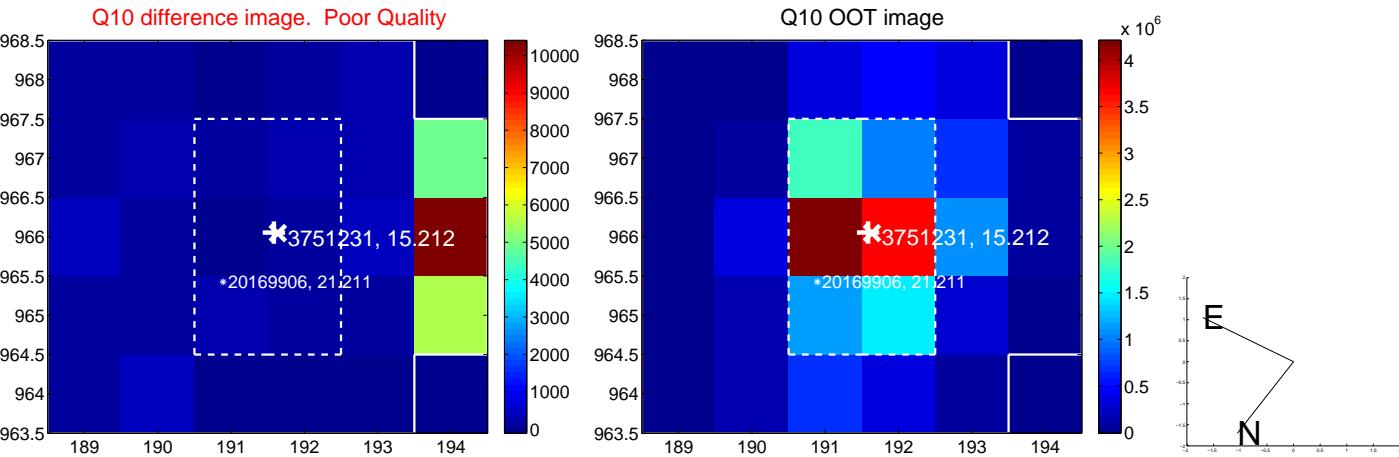
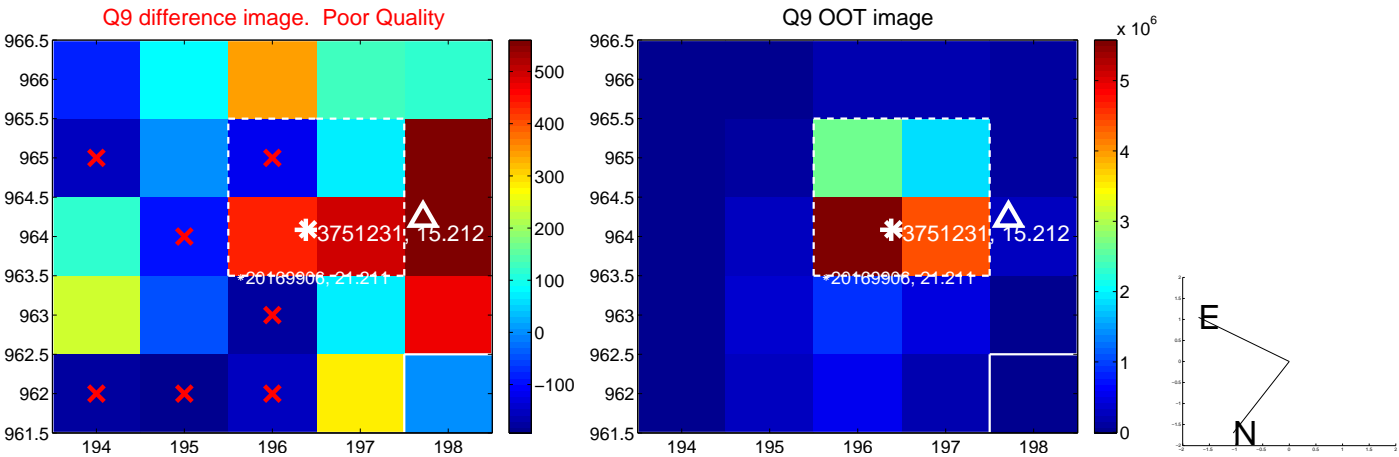
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



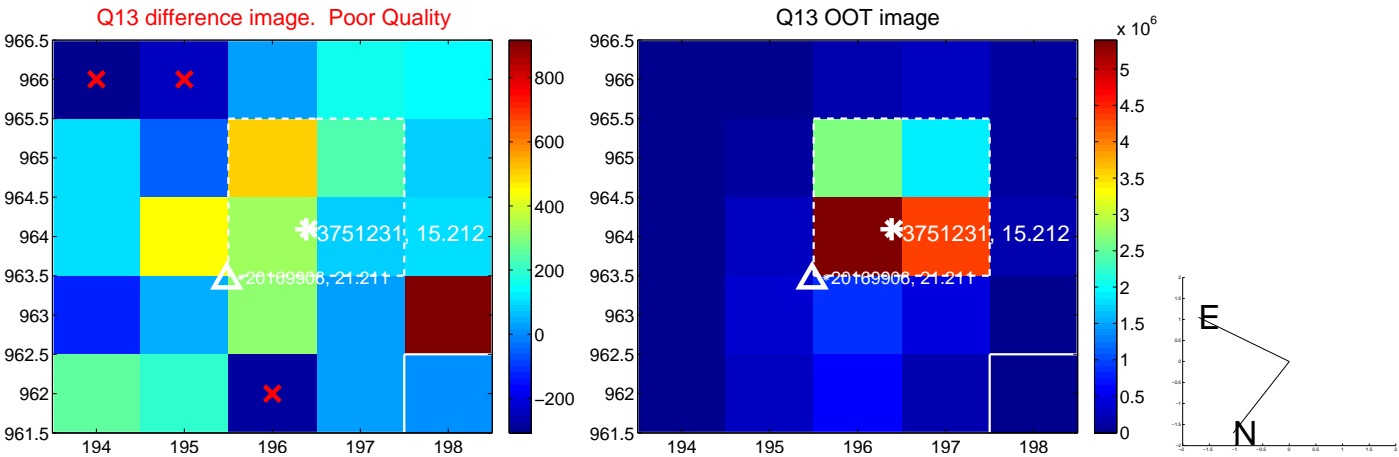
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



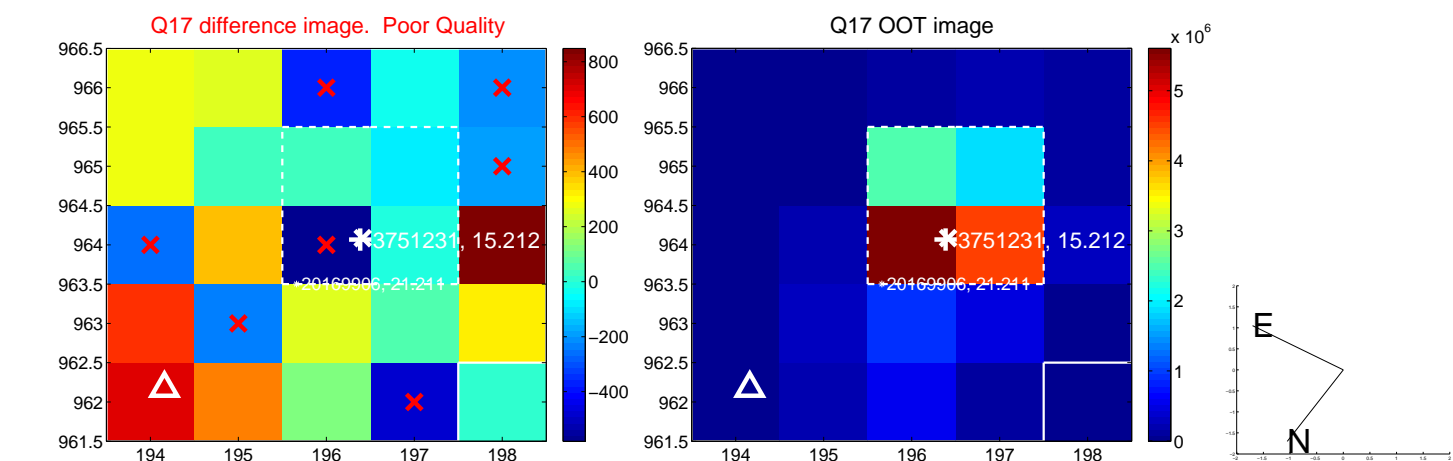
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



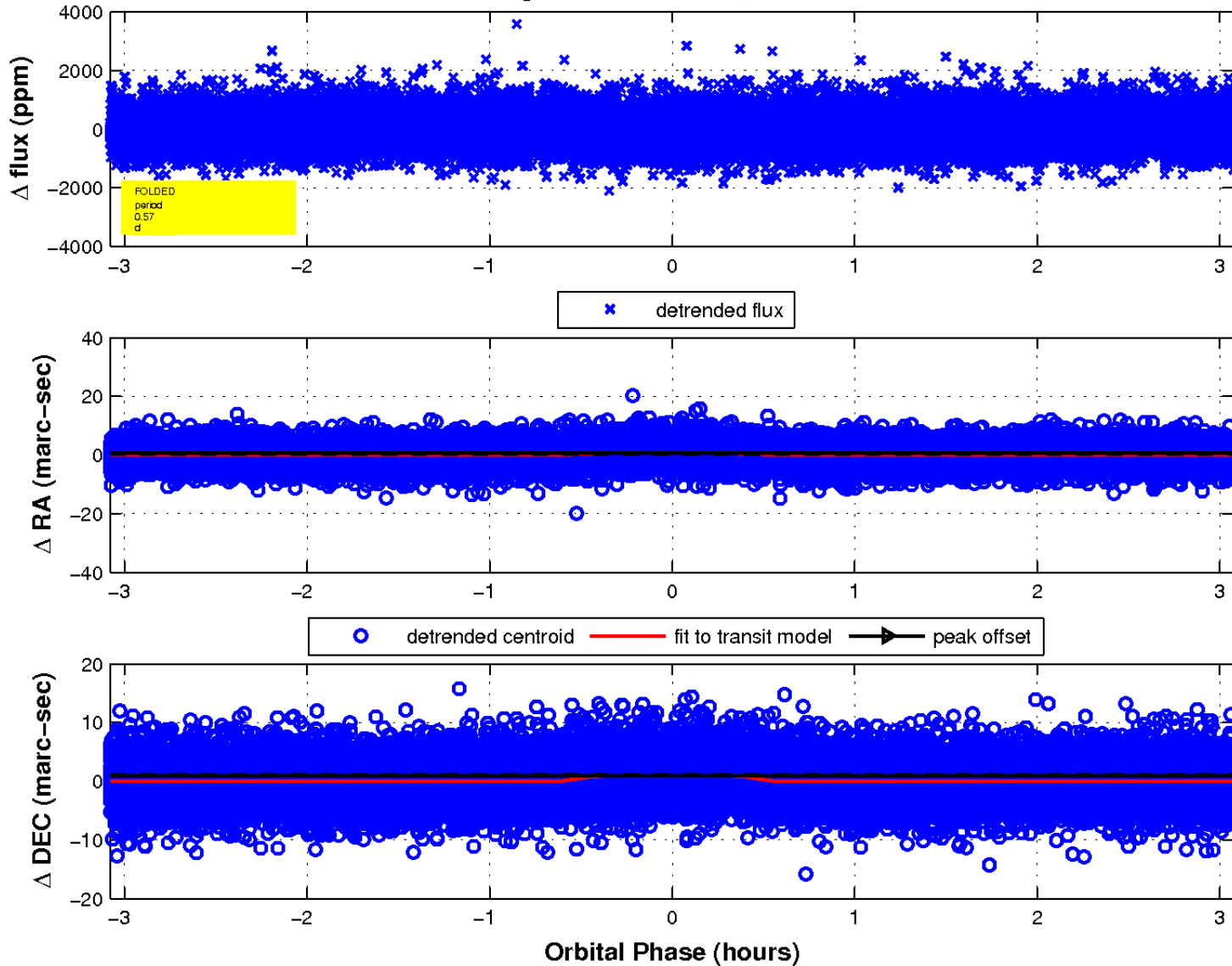
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

