

KIC 008314870

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})
008314870-01	OBS	No	0.877741	131.746864	37.0	2.241	7.3	5.9	0.95	5900	0.69	2923.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008314870-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_RESOLVED_OFFSET—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.

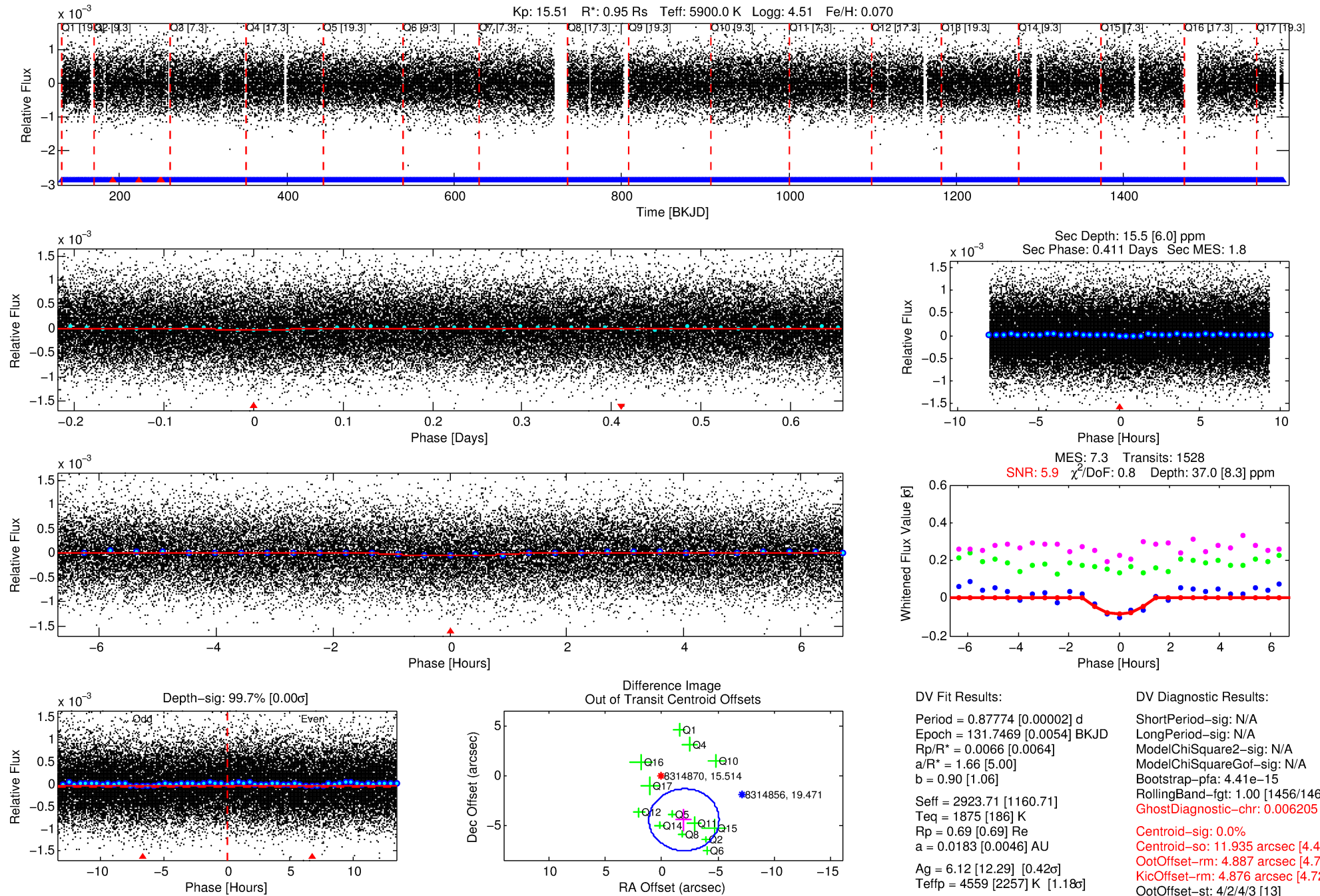
Ephemeris Match Information For 008314870-01

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
008314870-01	8314870	008314879-pri	8314879	1:1	21.7	-2	-6	15.62	15.52	9229.70	Direct-PRF	0	2.08	0.80

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

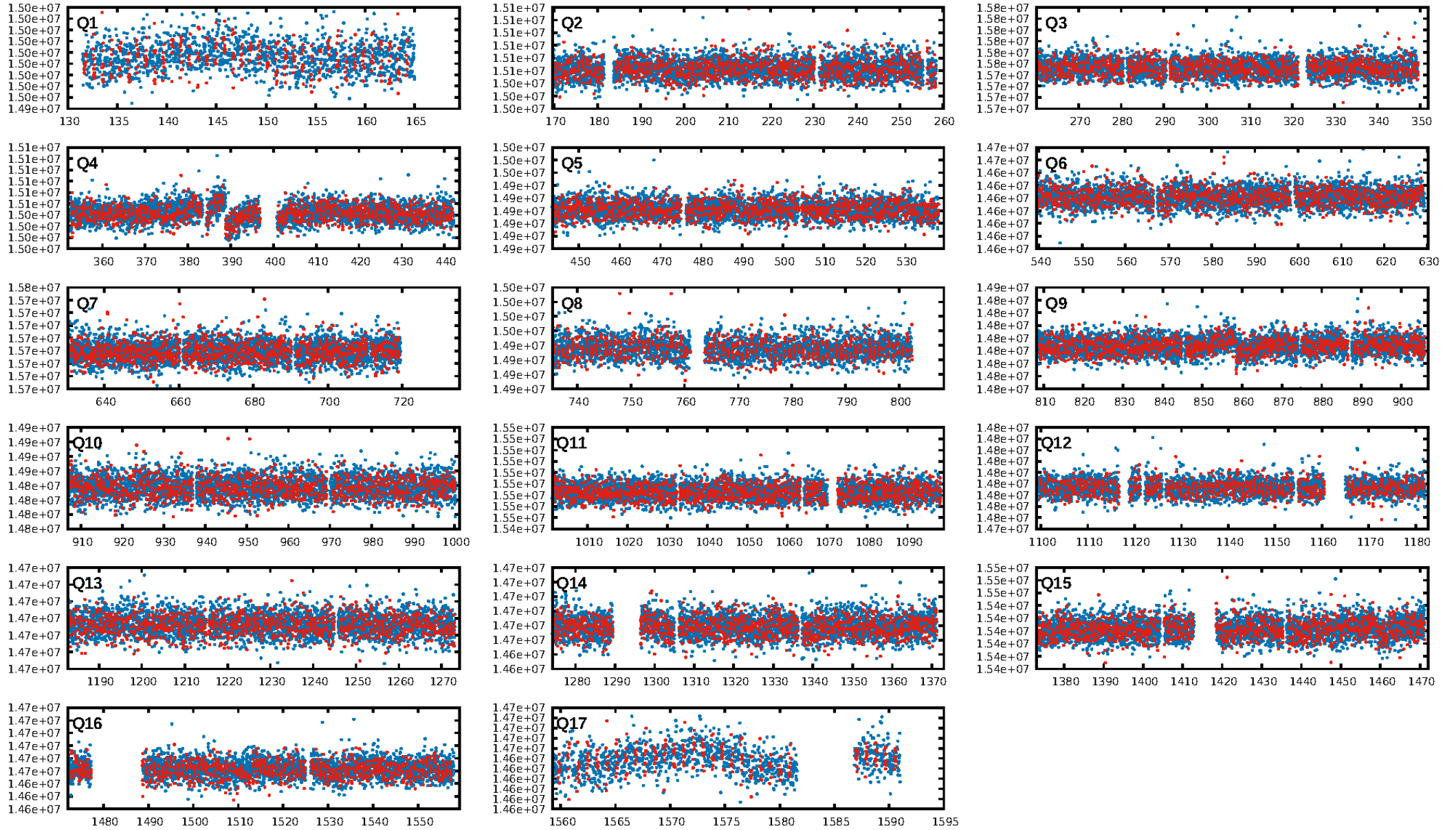
KIC: 8314870 Candidate: 1 of 1 Period: 0.878 d



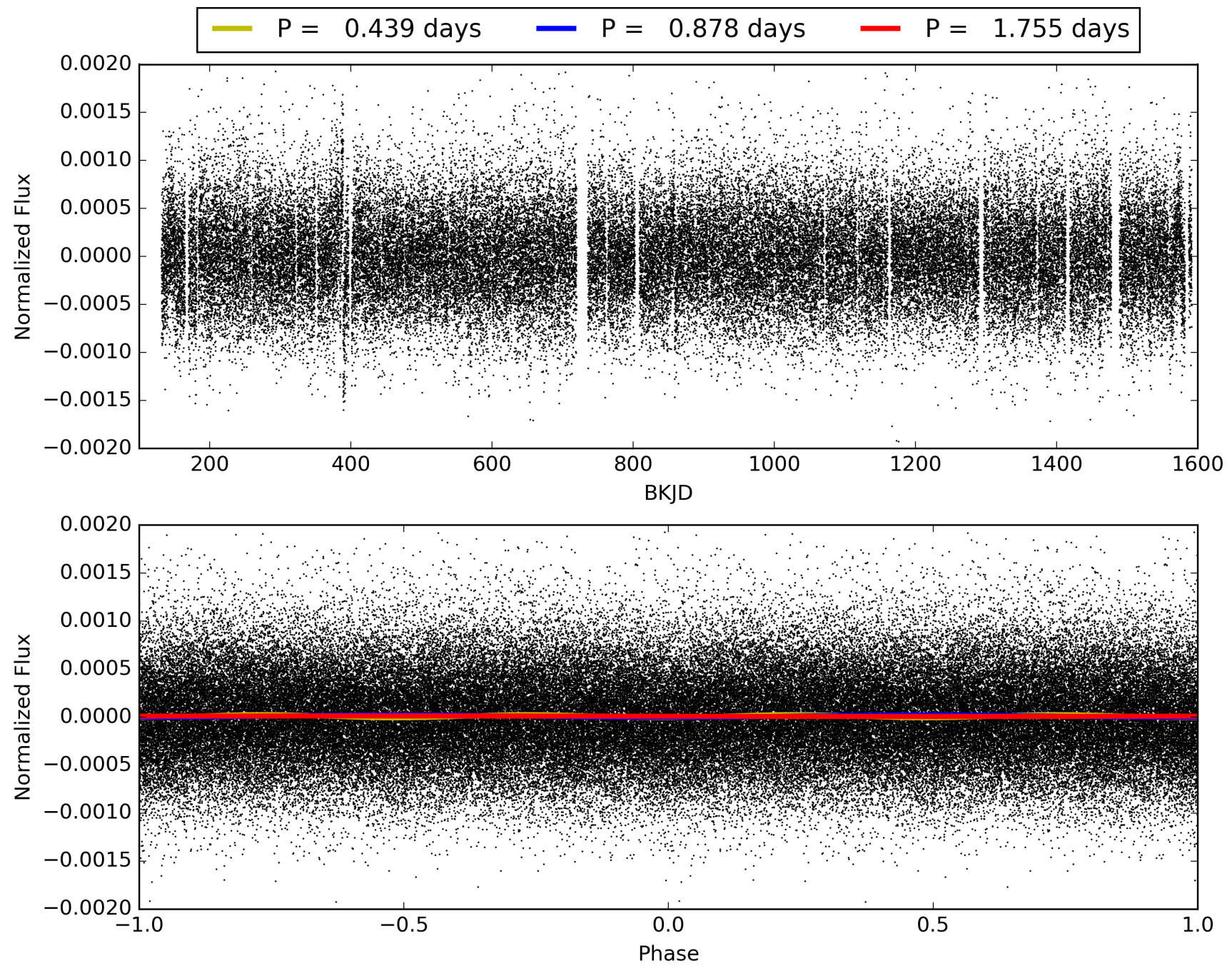
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:06:42 Z

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

TCE 008314870-01, PDC Light Curves

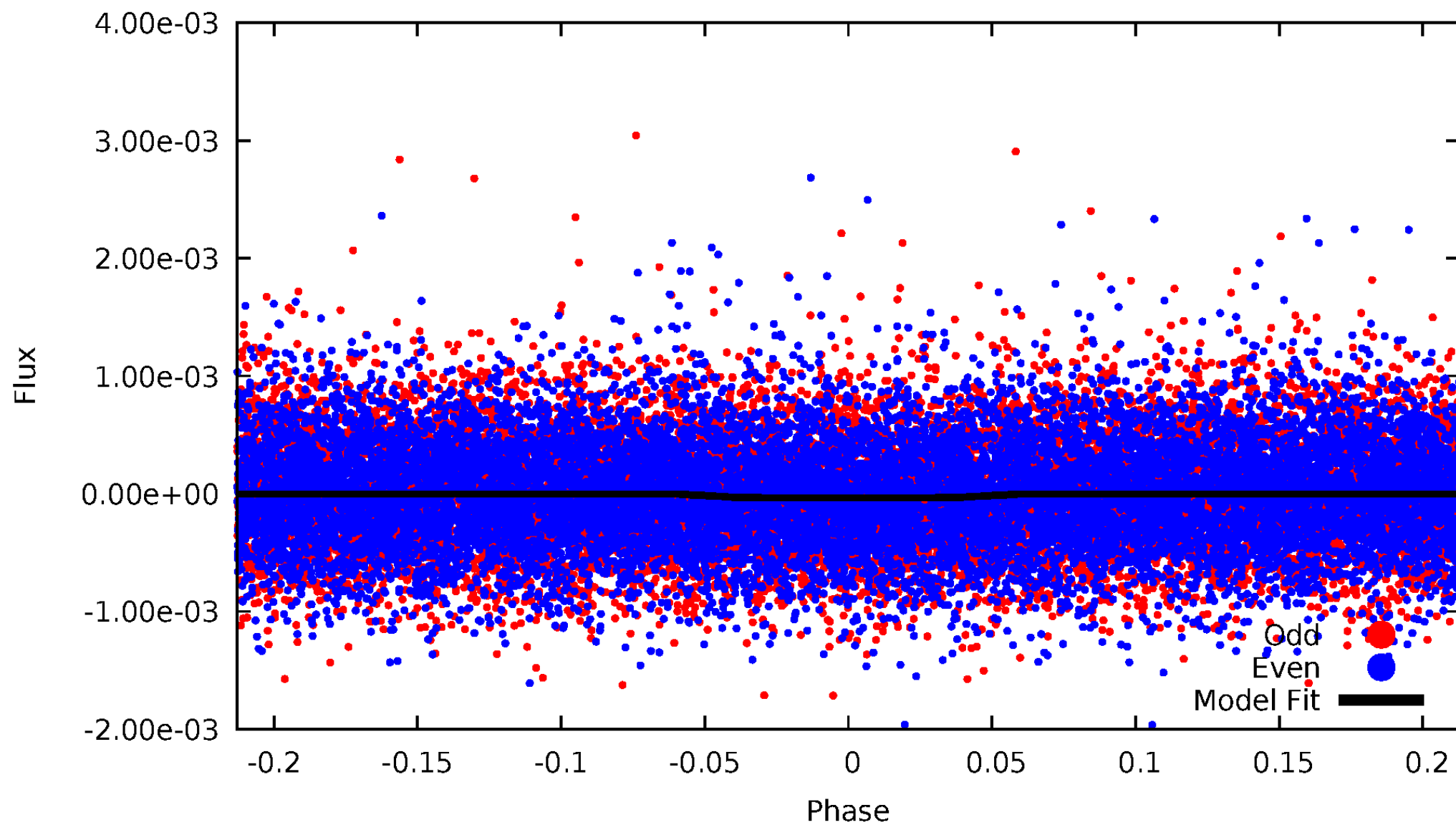


TCE 008314870-01



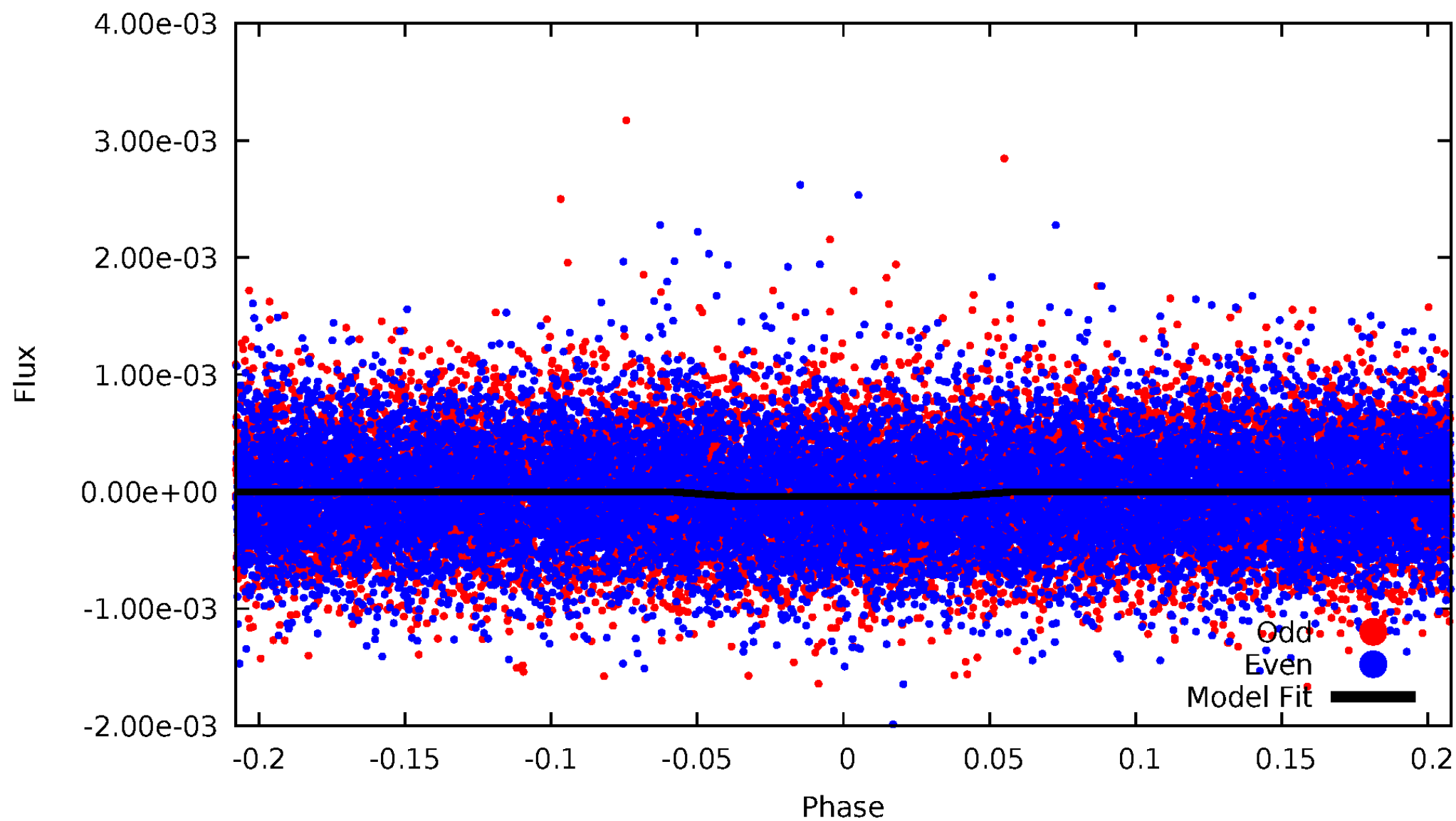
DV Odd/Even

TCE 008314870-01

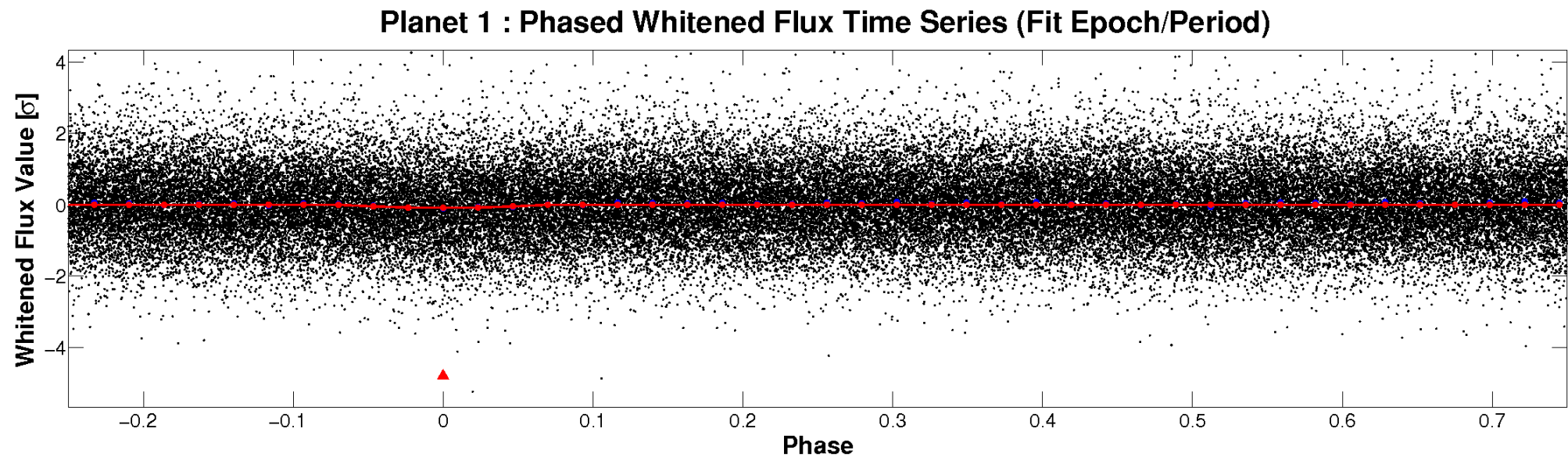
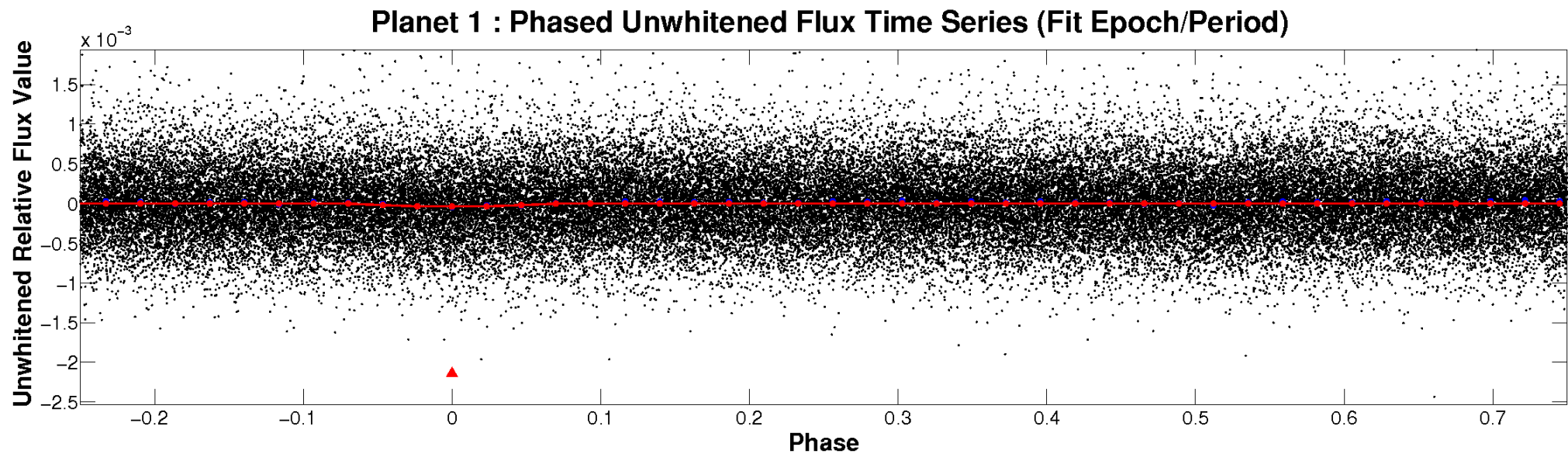


ALT Odd/Even

TCE 008314870-01

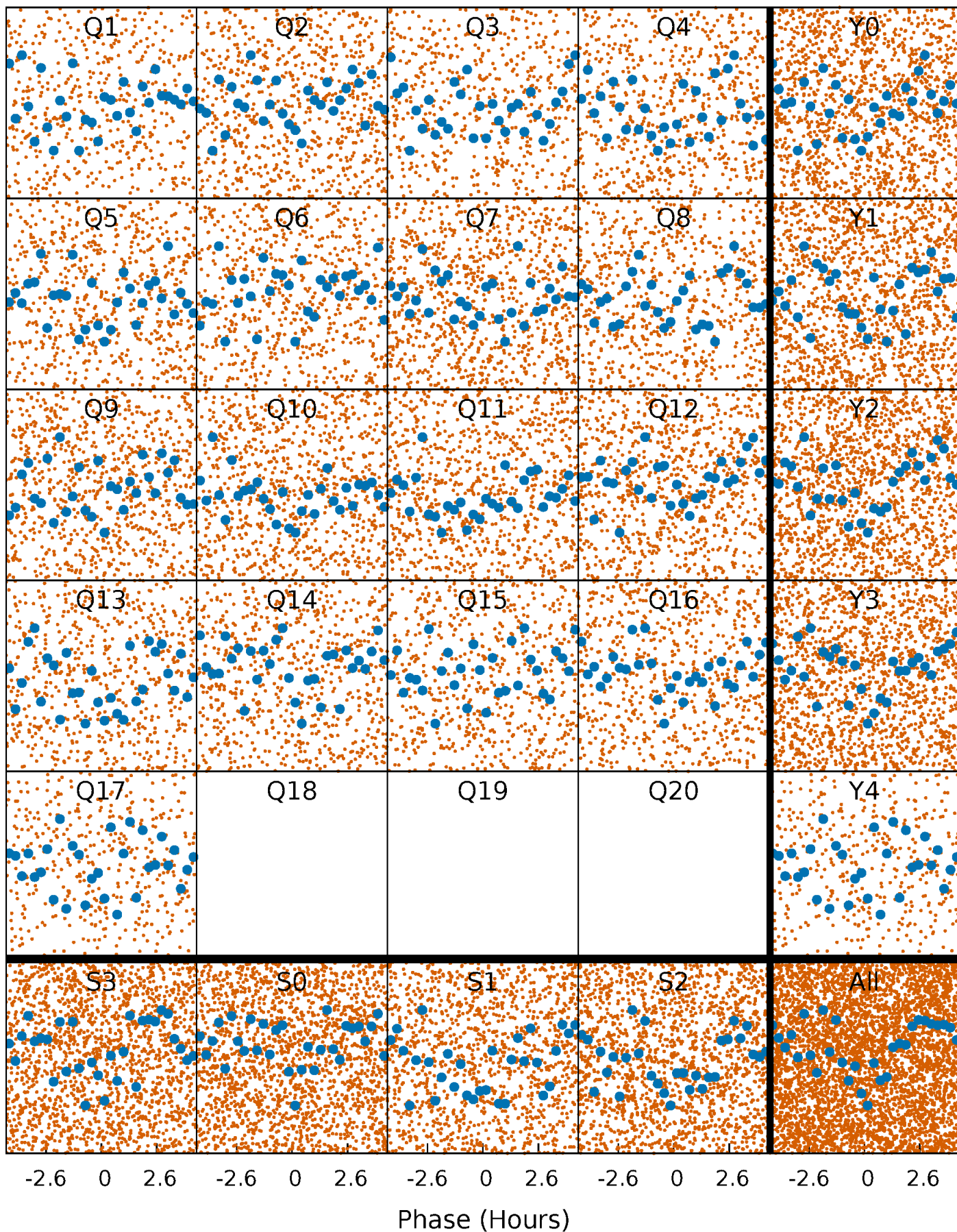


Non-Whitened Vs. Whitened Light Curve



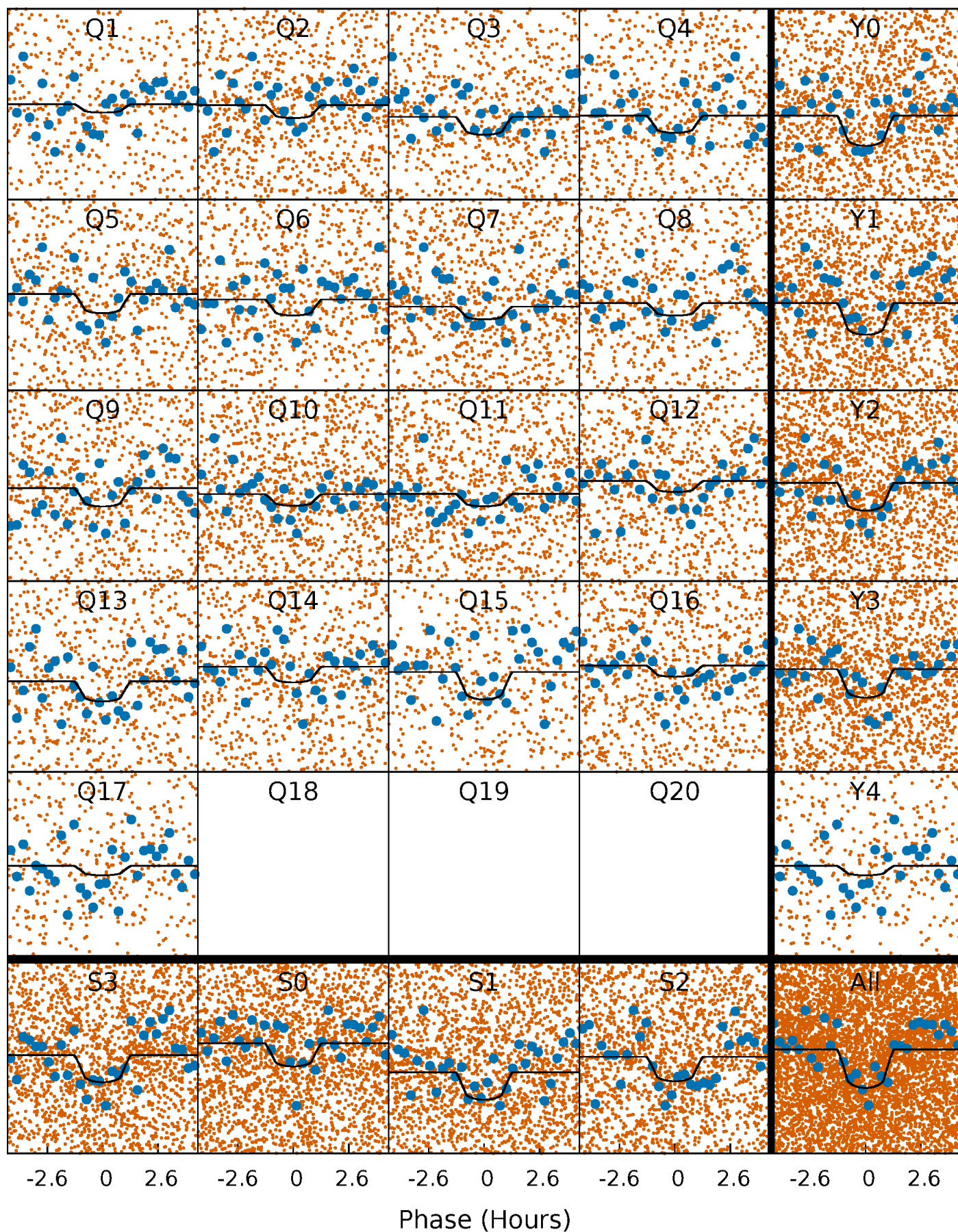
PDC Quarter-Phased Transit Curves

TCE 008314870-01 P= 0.877741 Days $T_0=131.746864$ (BKJD)



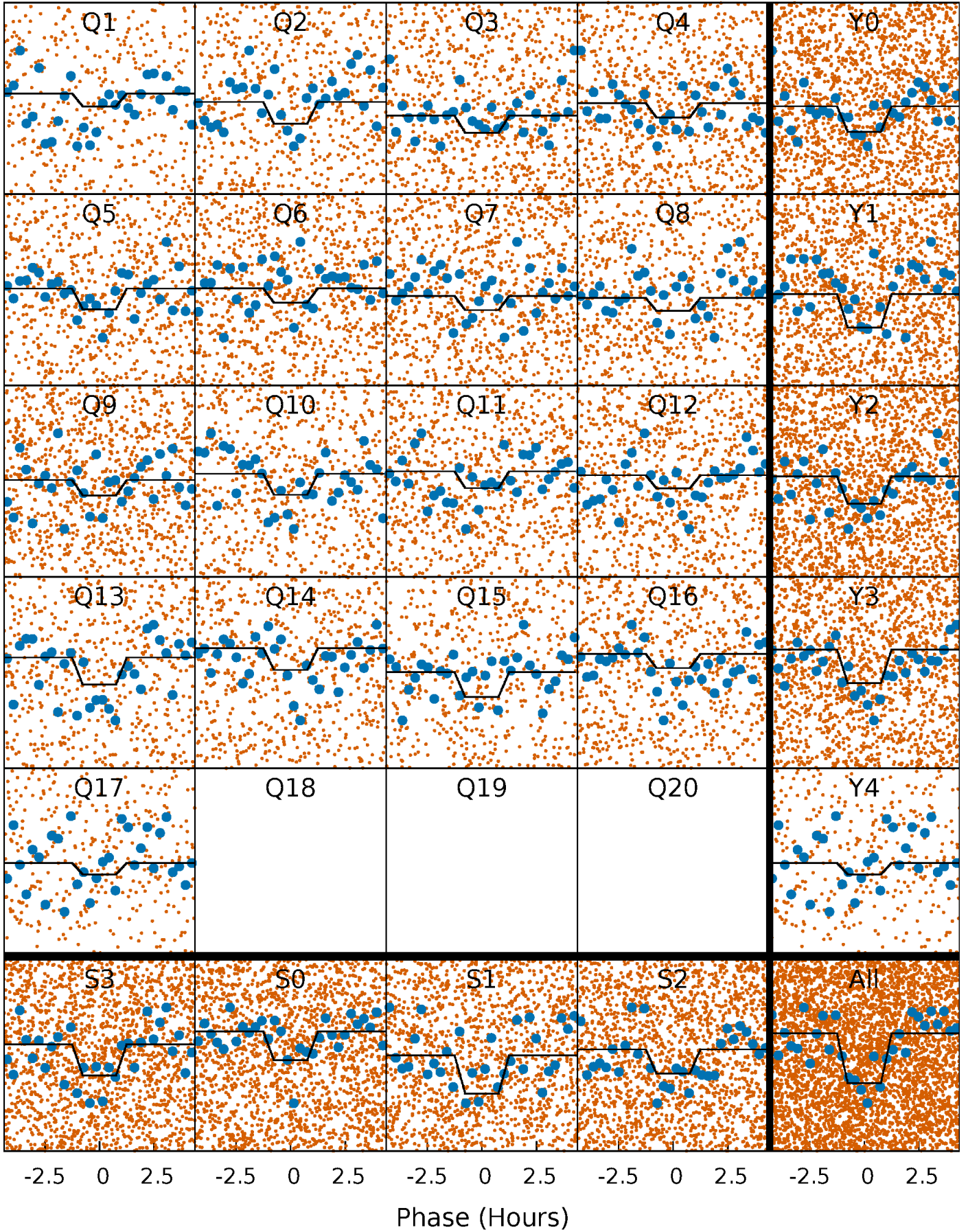
DV Quarter-Phased Transit Curves

TCE 008314870-01 P= 0.877741 Days $T_0=131.746864$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

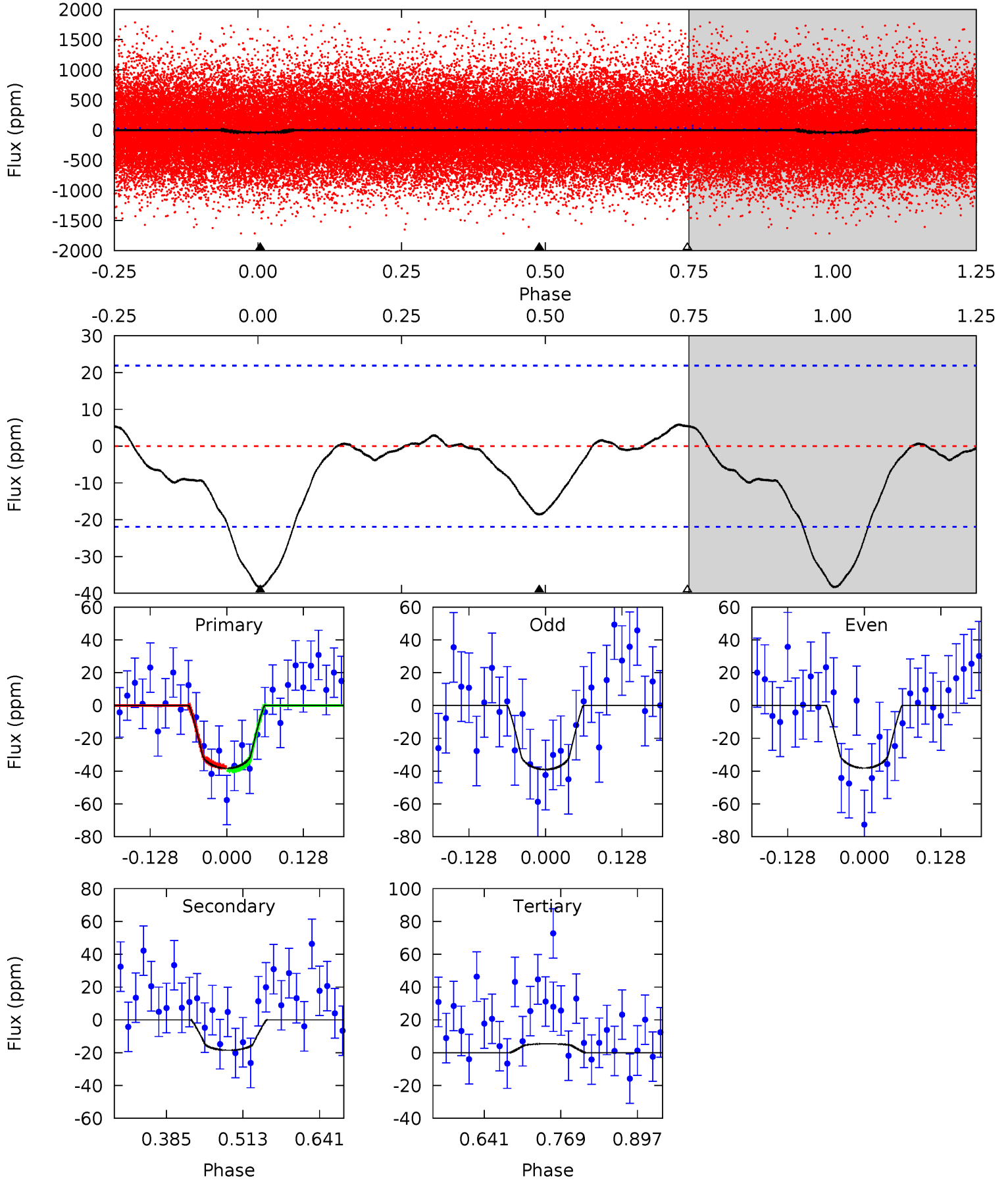
TCE 008314870-01 P= 0.877743 Days $T_0=131.747089$ (BKJD)



DV Model-Shift Uniqueness Test

008314870-01, P = 0.877741 Days, E = 130.869123 Days

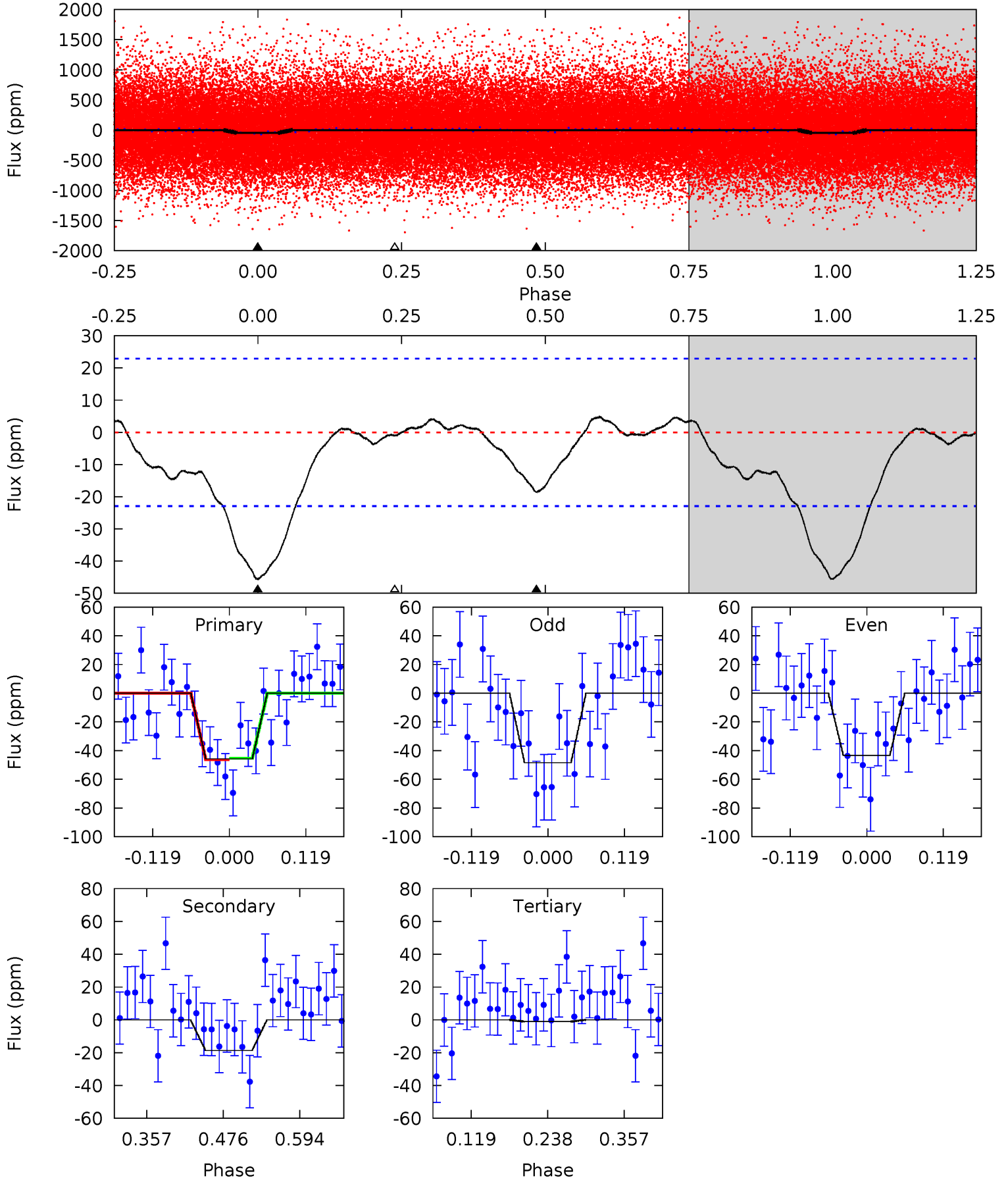
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.89	3.82	-1.12	0	4.51	1.52	0.78	9.01	7.89	4.93	3.82	0.09	0.74	0.13	0.24



Alt Model-Shift Uniqueness Test

008314870-01, P = 0.877743 Days, E = 130.869346 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.04	3.70	0.21	0	4.53	1.56	1.00	8.83	9.04	3.49	3.70	0.51	0.81	0.10	0.10



Stellar Parameters For KIC 008314870

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5900^{+158}_{-211}	$4.509^{+0.036}_{-0.204}$	$0.070^{+0.250}_{-0.300}$	$0.951^{+0.282}_{-0.094}$	$1.065^{+0.115}_{-0.140}$	$1.745^{+0.359}_{-0.926}$
	+3%/-4%	+1%/-5%	+357%/-429%	+30%/-10%	+11%/-13%	+21%/-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 008314870-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-19 ± 5	$0.88^{+0.66}_{-0.52}$	2682^{+190}_{-131}	4448^{+2226}_{-945}	$4.254^{+22.045}_{-2.979}$
Alt.	-19 ± 5	$0.85^{+0.69}_{-0.52}$	2686^{+183}_{-124}	4470^{+2604}_{-926}	$4.606^{+26.379}_{-3.166}$

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

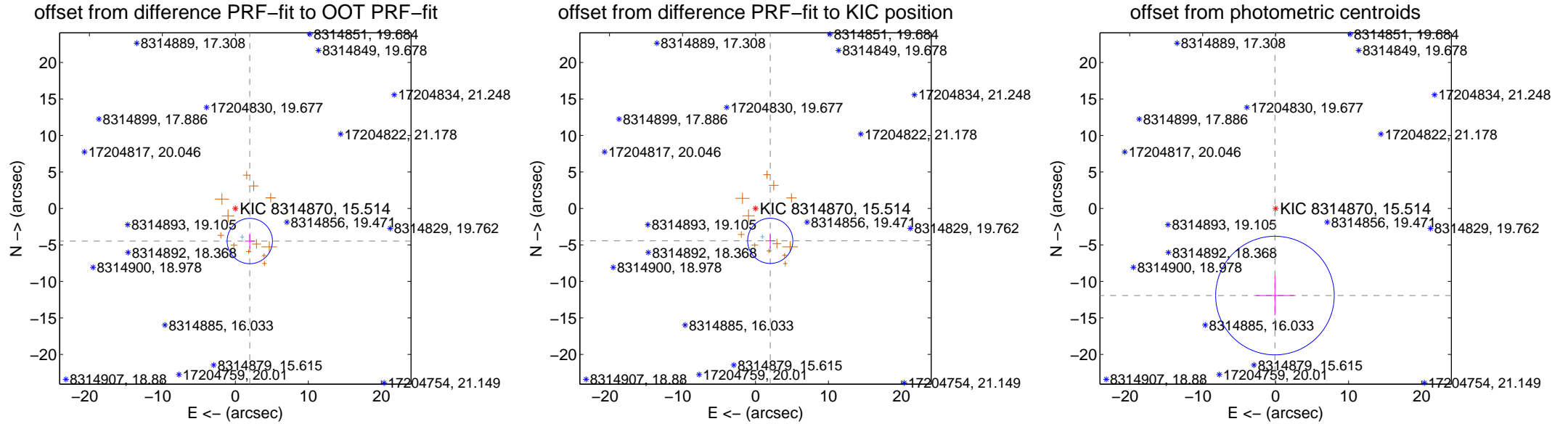
DV Centroid Data

Supplemental centroid analysis for 008314870-01. Kepler magnitude: 15.51. Transit SNR 5.87

There are 1 quarters with good PRF difference image offsets

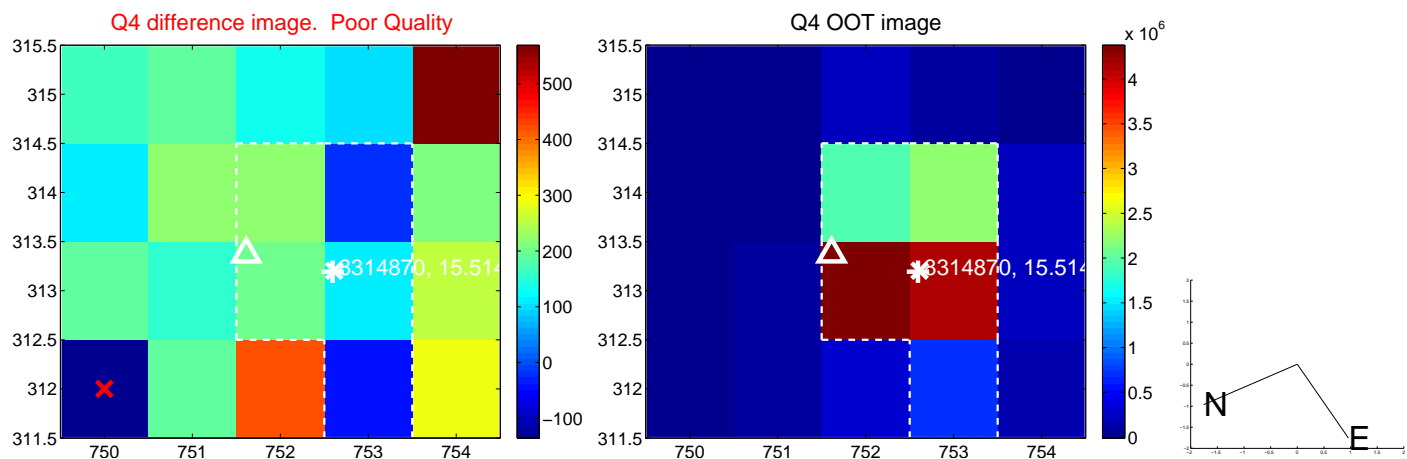
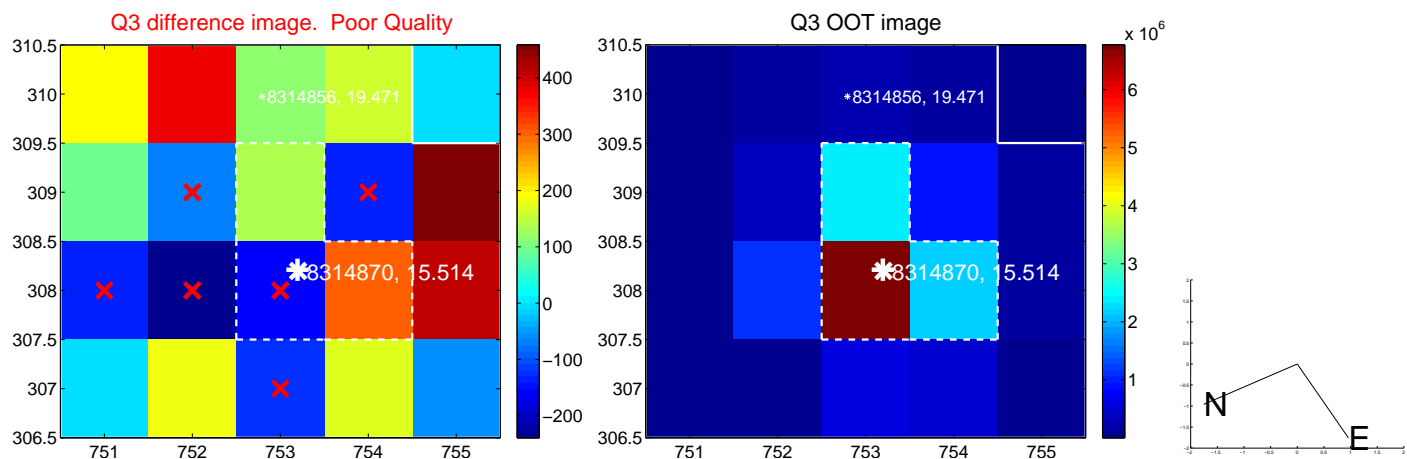
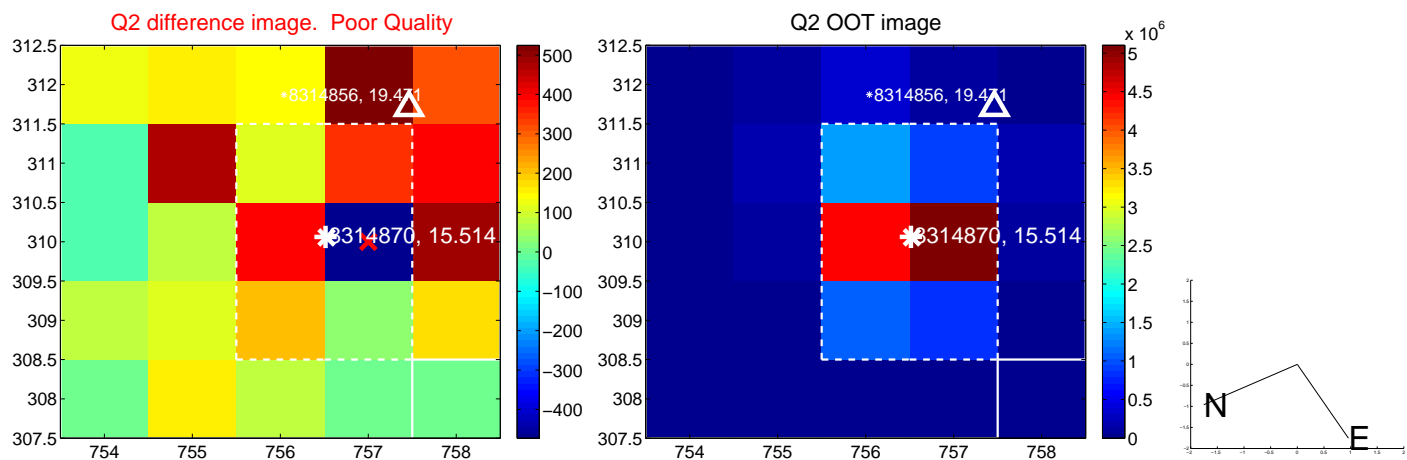
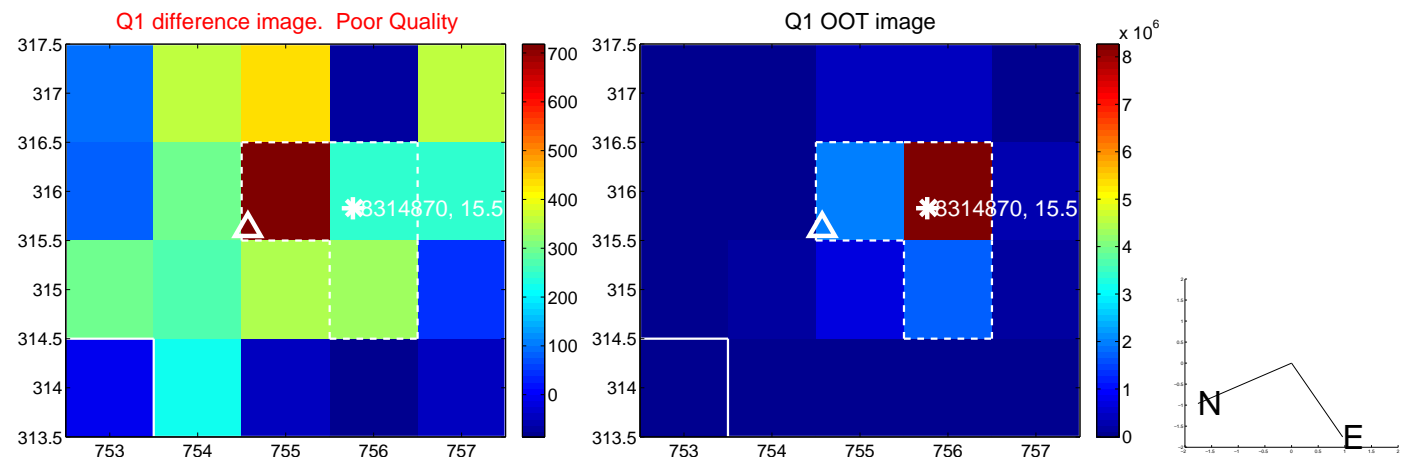
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.887 ± 1.035	4.72	-1.981 ± 0.661	-4.467 ± 1.041
PRF-fit source offset from KIC position	4.876 ± 1.032	4.72	-2.019 ± 0.663	-4.439 ± 1.041
photometric centroid source offset	11.94 ± 2.71	4.41	0.09 ± 2.63	-11.93 ± 2.71

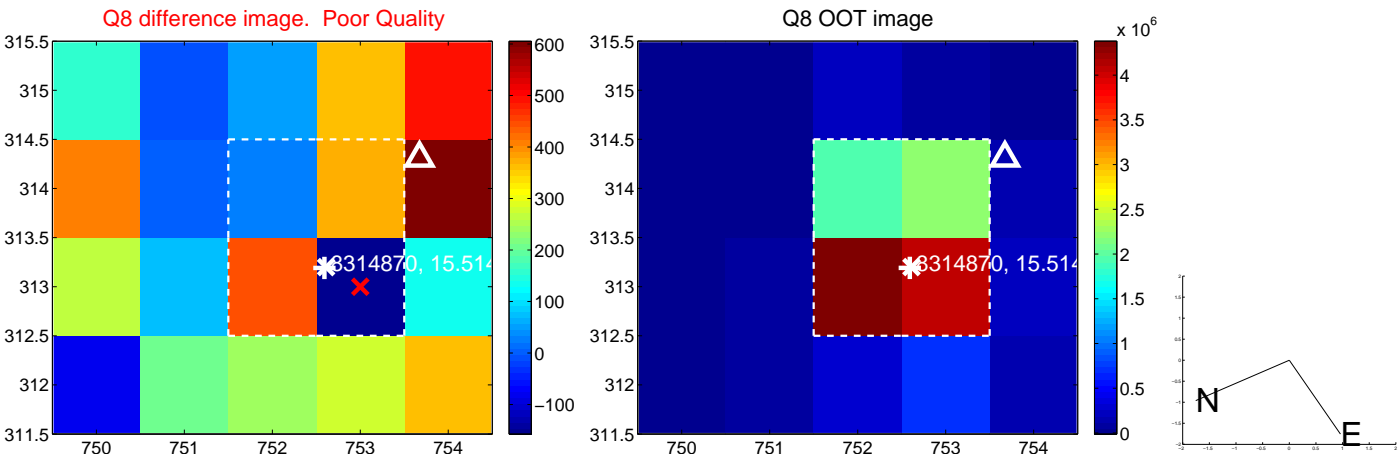
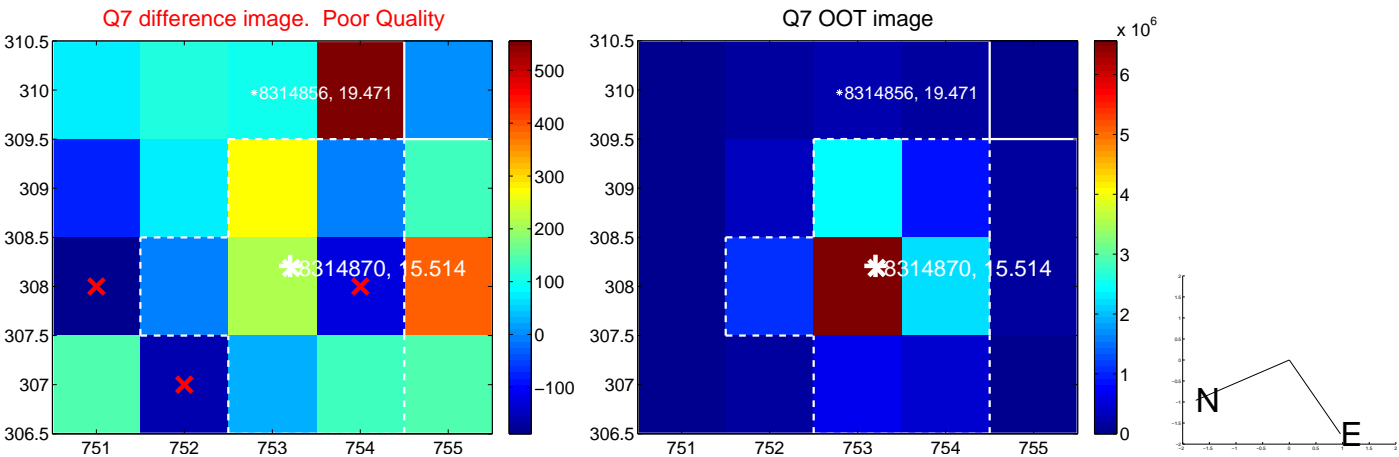
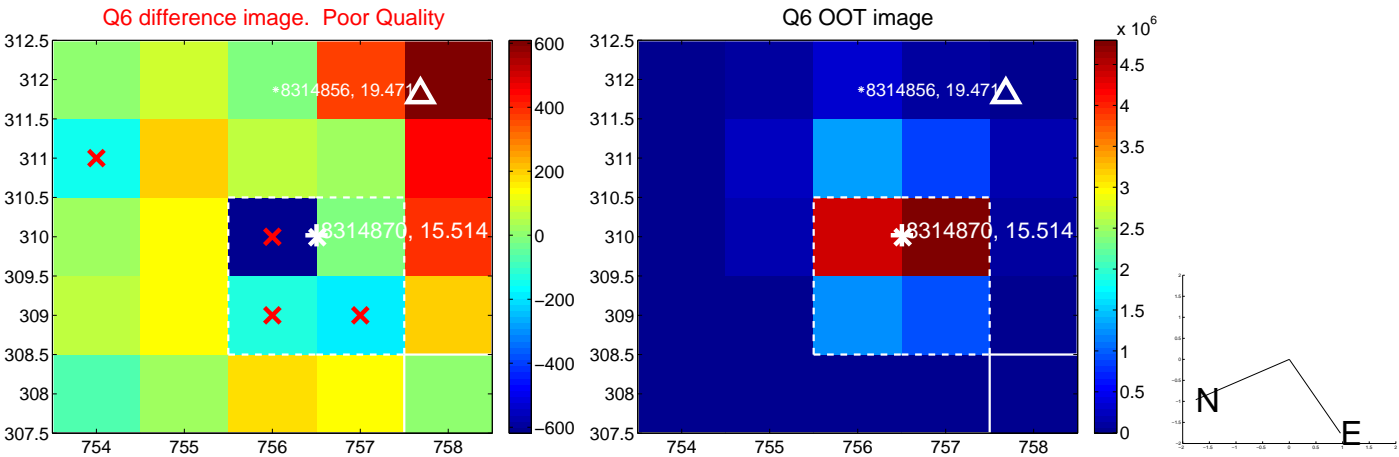
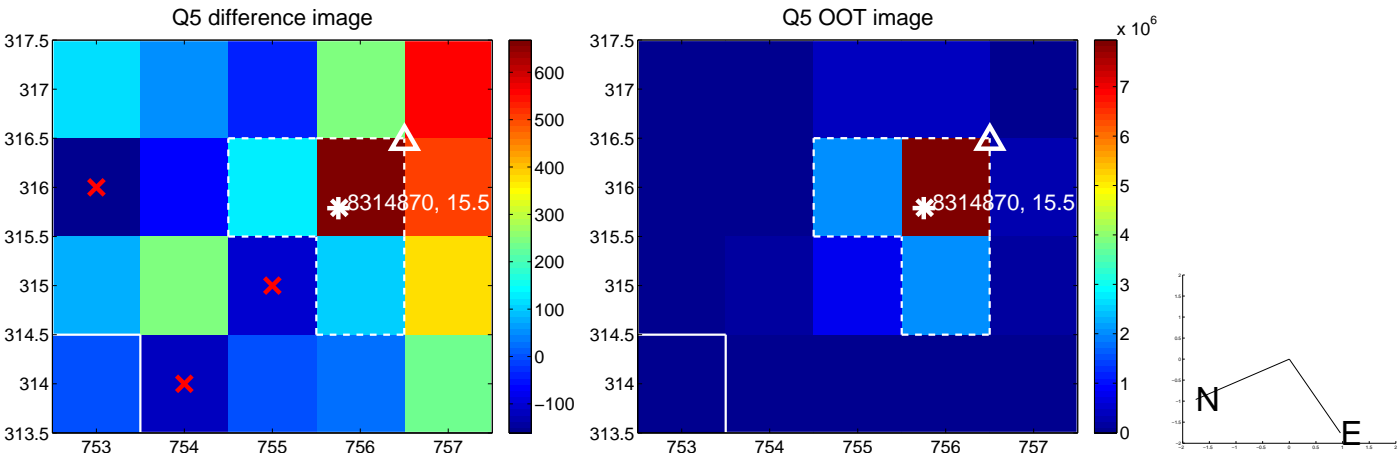


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

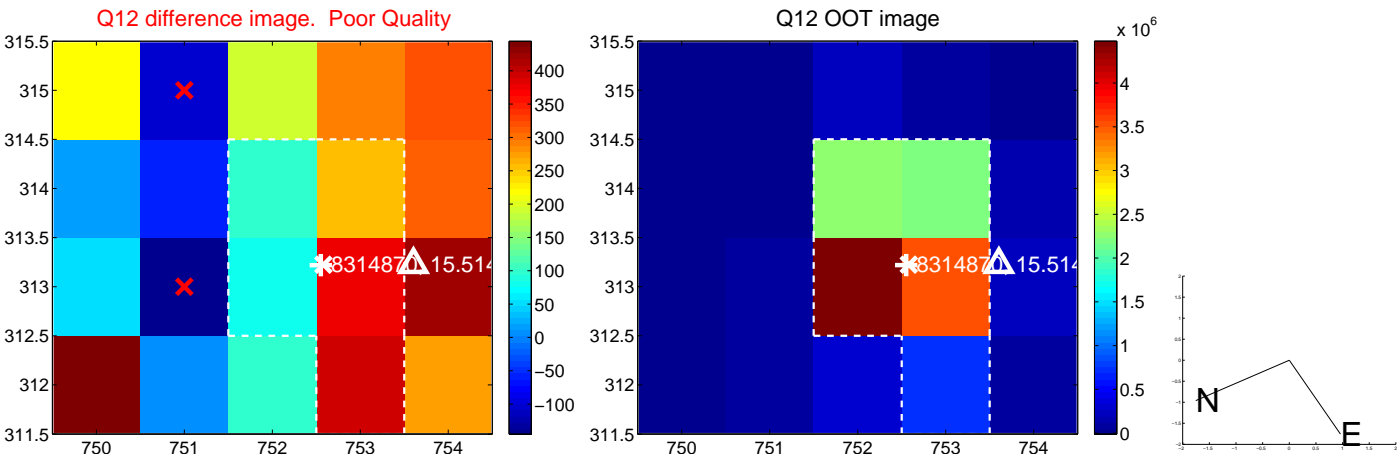
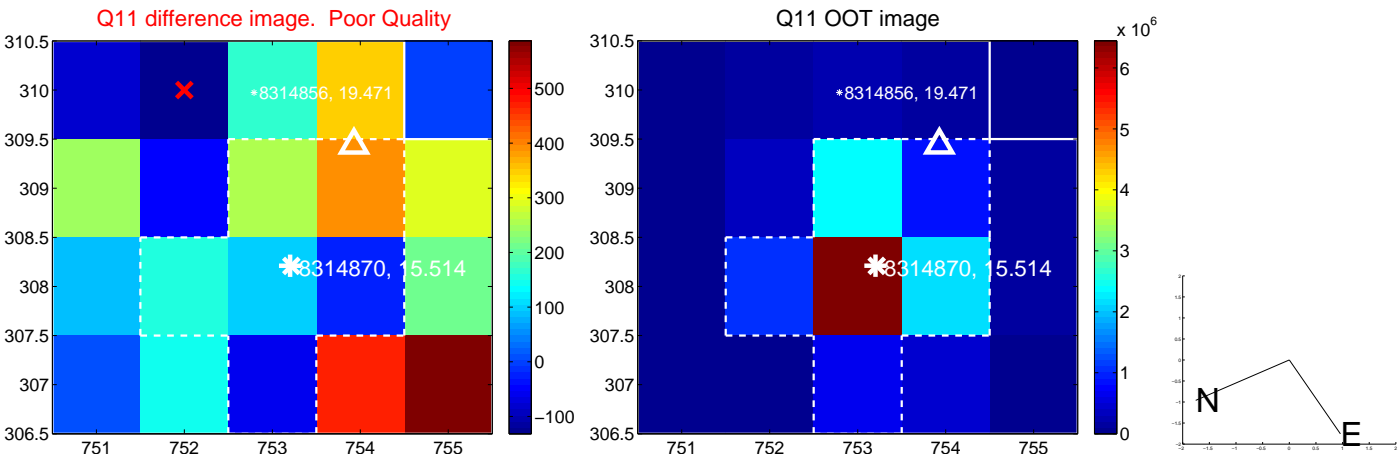
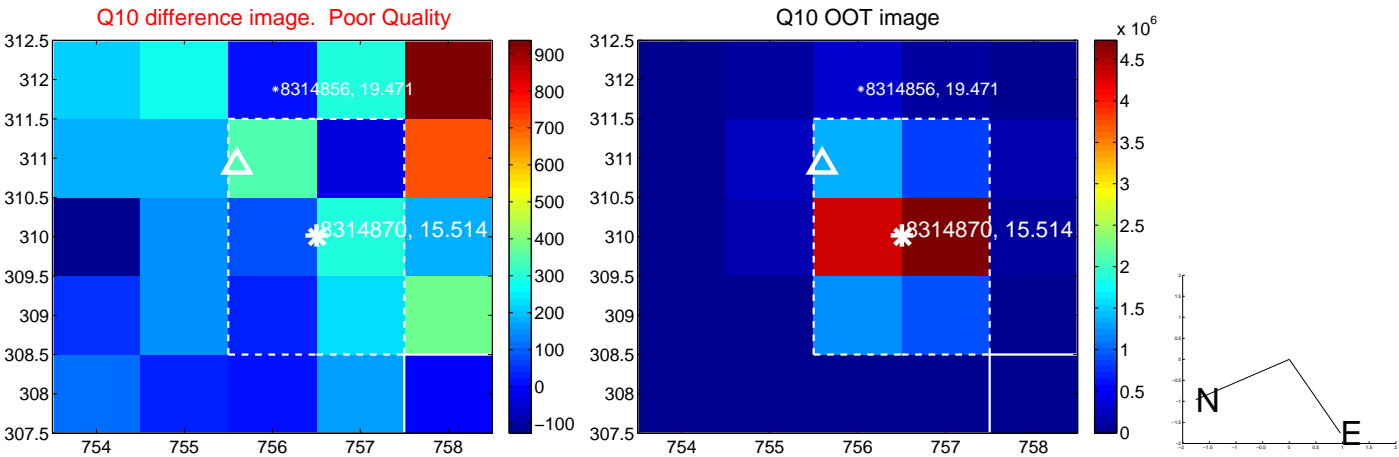
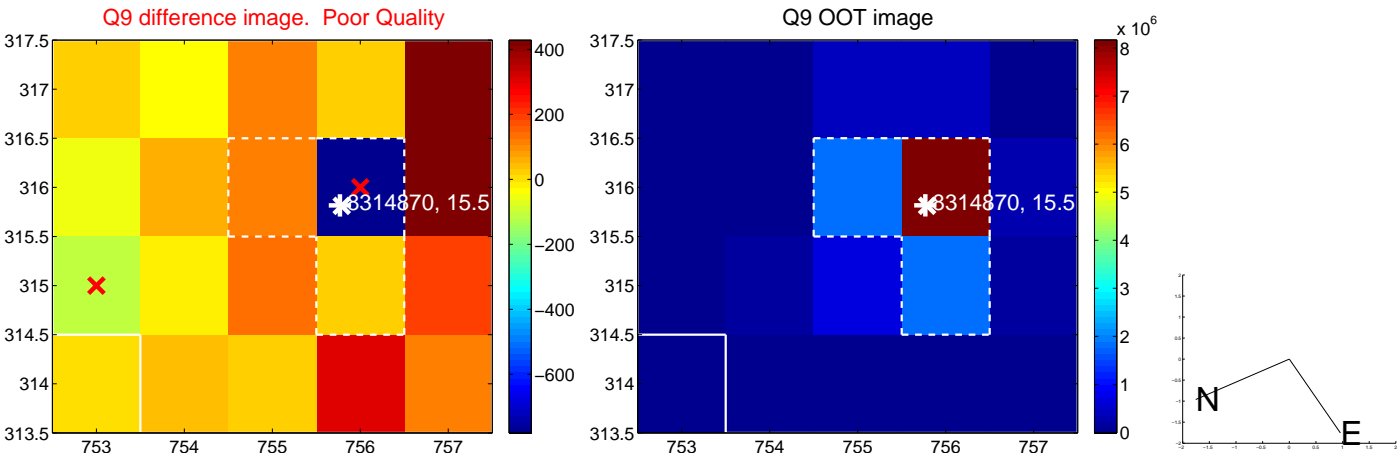
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



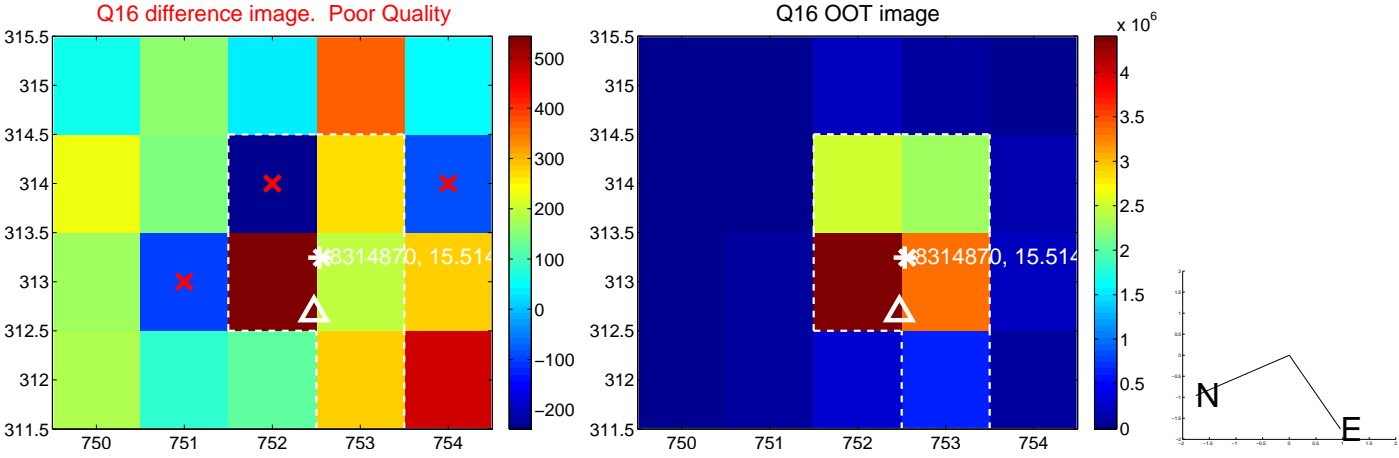
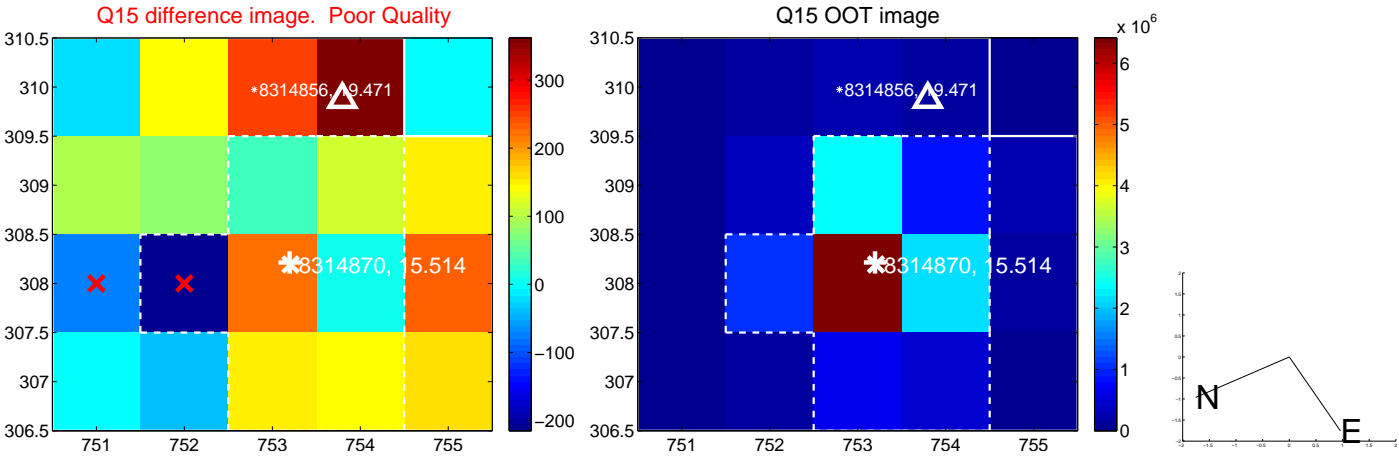
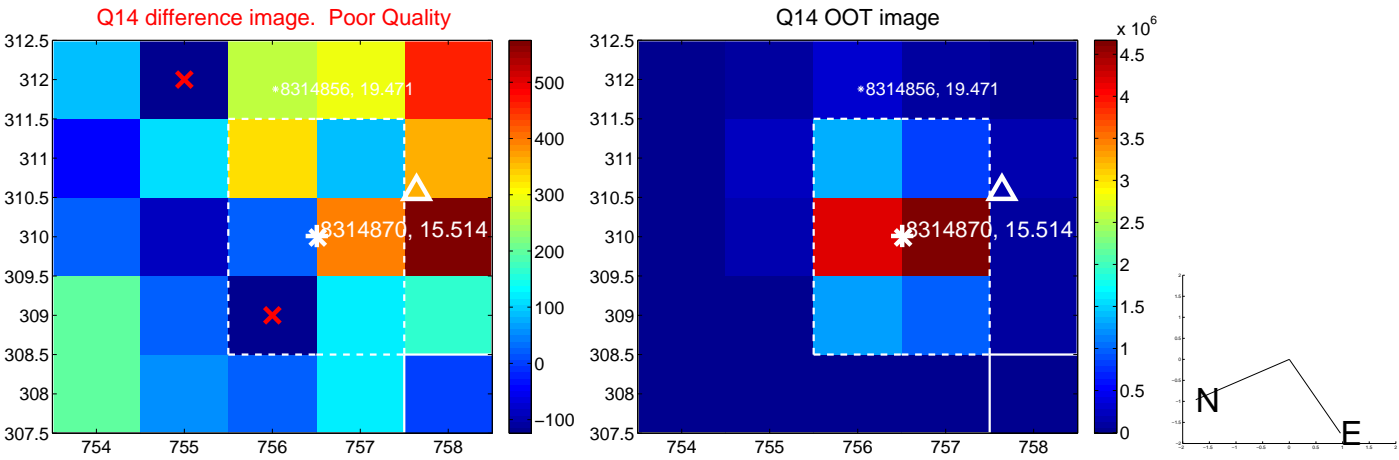
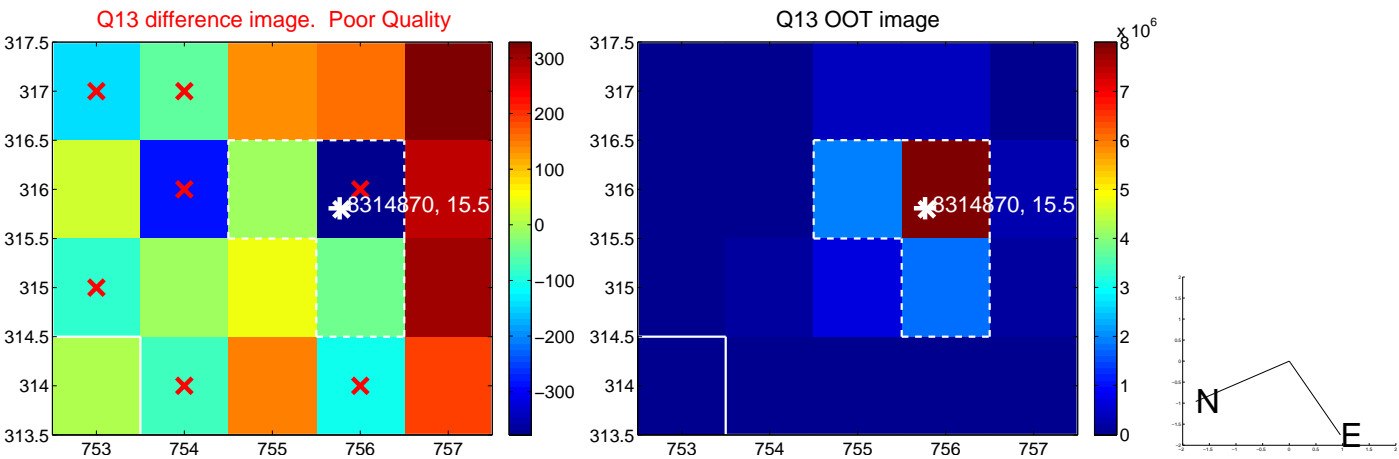
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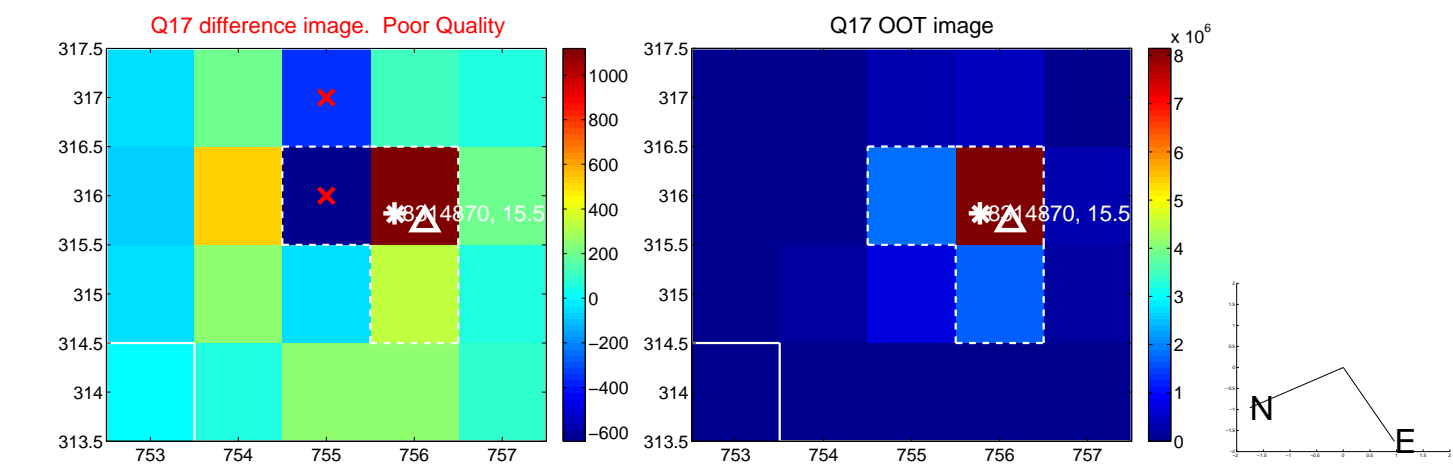
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



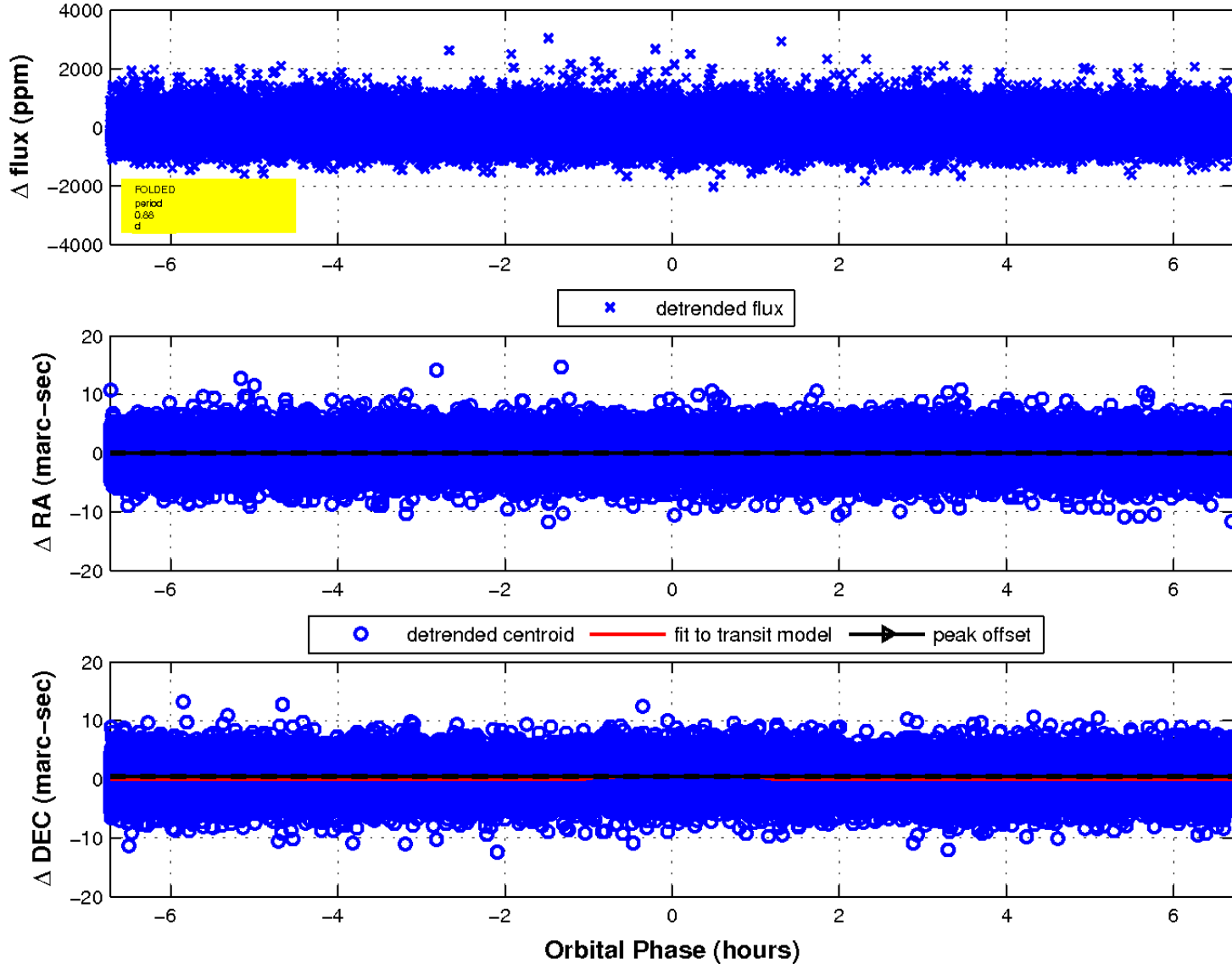
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

