

KIC 005303557

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})
005303557-01	OBS	3982.01	2.399028	133.084916	2672.0	2.967	31.6	35.0	1.00	5780	6.17	812.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005303557-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

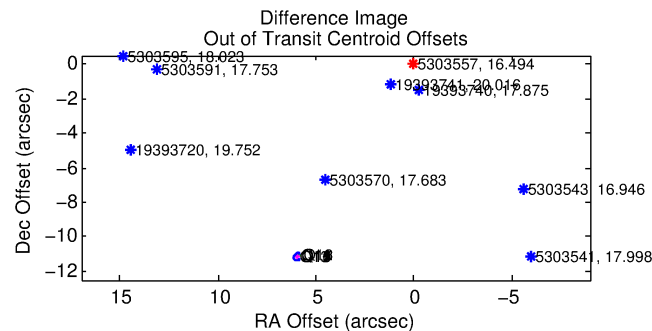
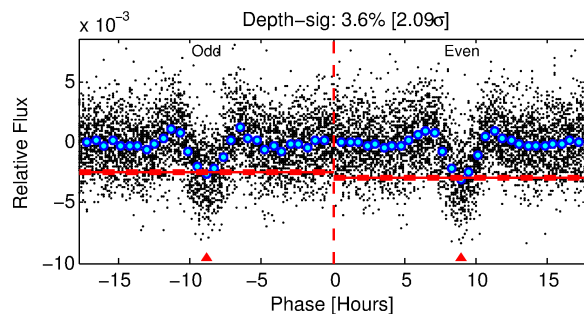
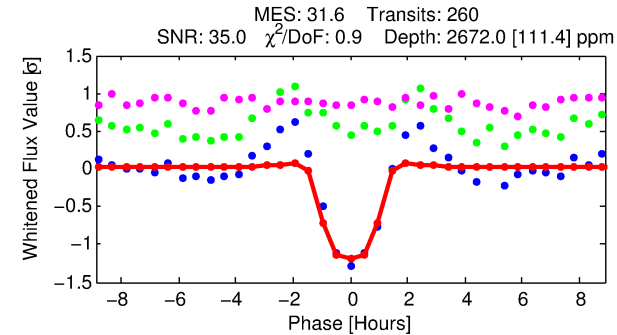
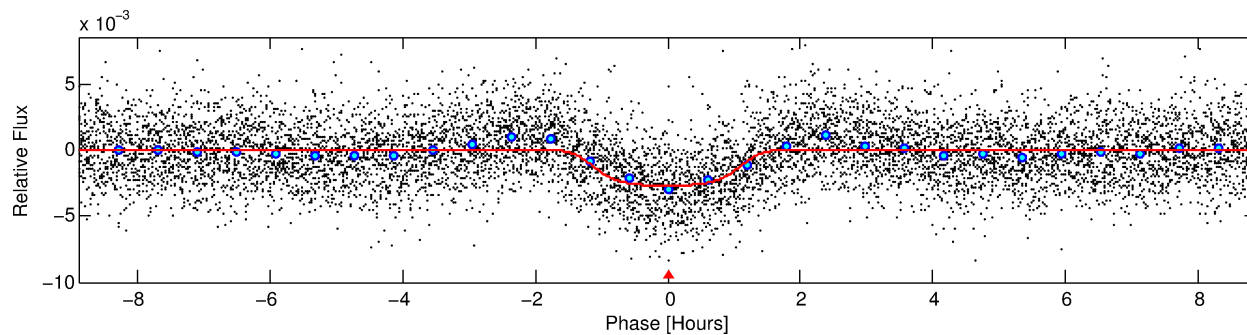
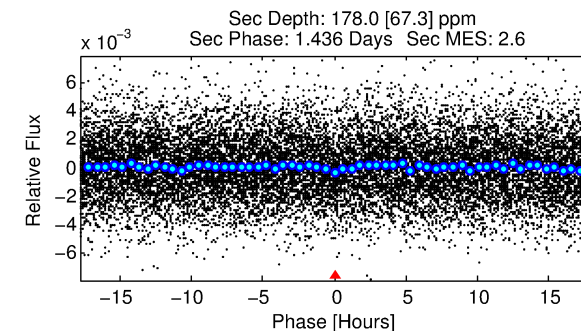
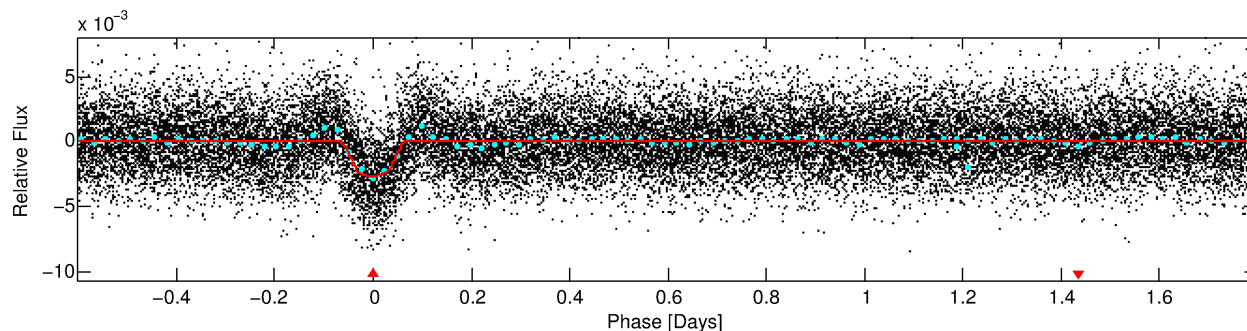
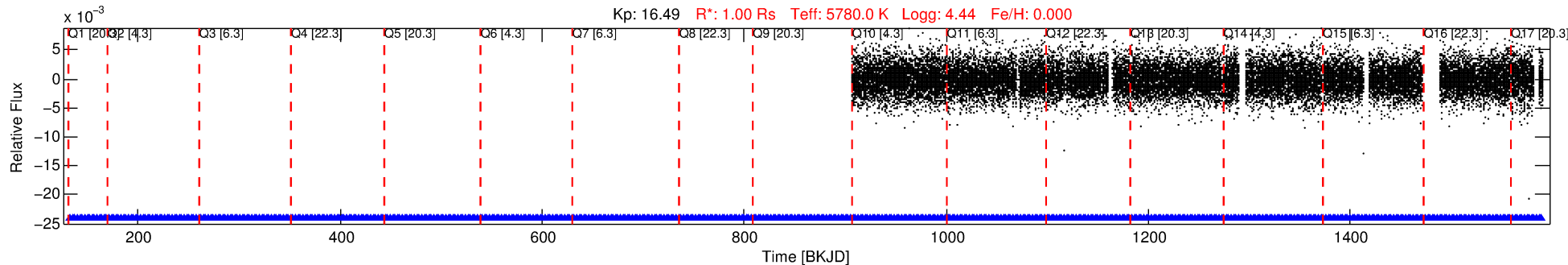
Ephemeris Match Information For 005303557-01

No Significant Match Found

DV One-Page Summary

KIC: 5303557 Candidate: 1 of 1 Period: 2.399 d
KOI: K03982.01 Corr: 0.836

Kp: 16.49 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 2.39903 [0.00000] d
Epoch = 133.0849 [0.0014] BKJD
Rp/R* = 0.0566 [0.0022]
a/R* = 3.55 [0.41]
b = 0.90 [0.03]
Seff = 812.63 [0.00]
Teq = 1361 [0] K
Rp = 6.17 [0.24] Re
a = 0.0351 [0.0000] AU
Ag = 3.16 [1.22] [1.77σ]
Teff = 2807 [271] K [5.34σ]

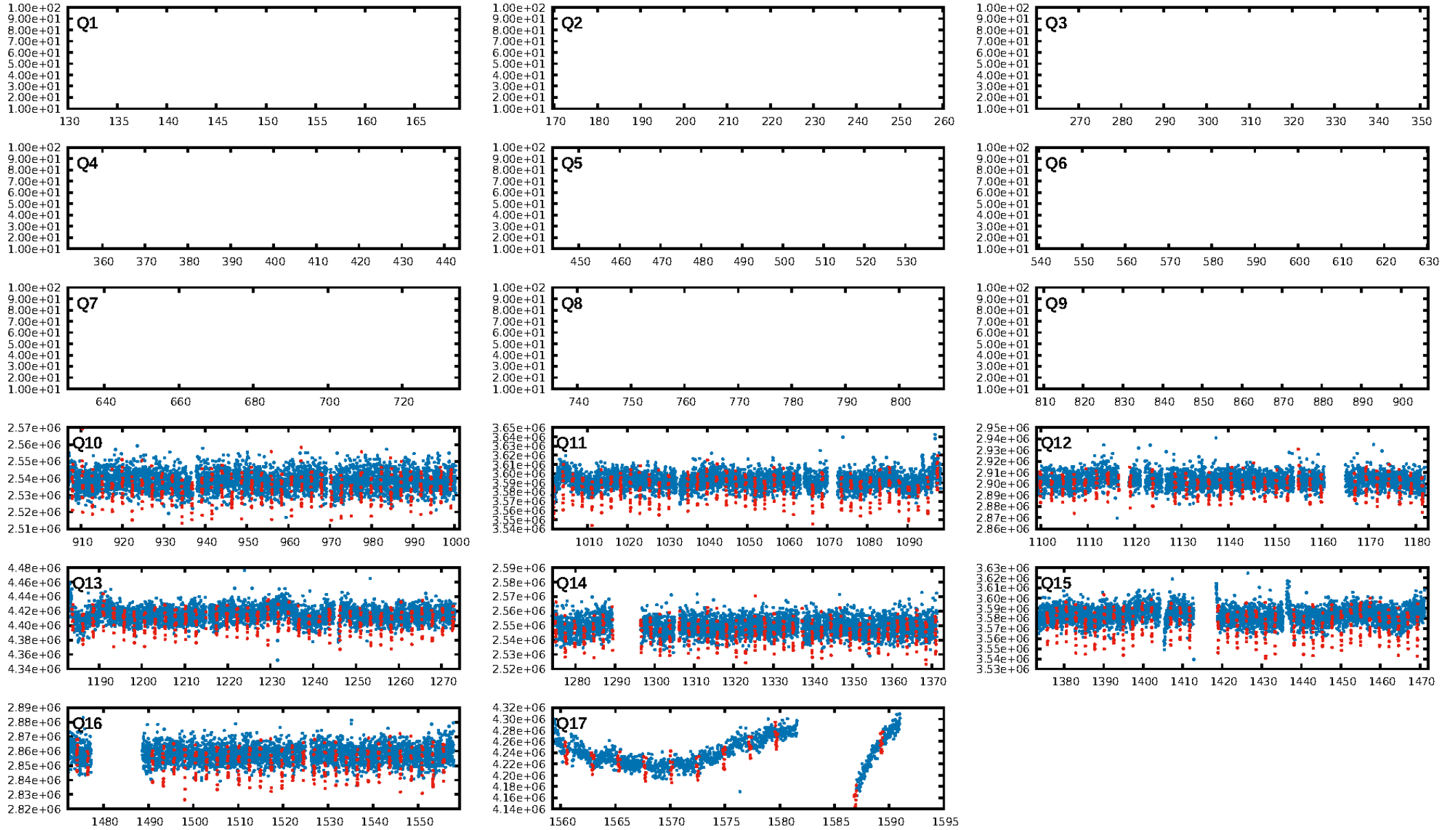
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.74e-208
RollingBand-fgt: 1.00 [249/249]
GhostDiagnostic-chr: -0.1089
Centroid-sig: 0.0%
Centroid-so: 2.170 arcsec [30.40σ]
OotOffset-rm: 12.657 arcsec [181.24σ]
KicOffset-rm: 8.079 arcsec [106.96σ]
OotOffset-st: 2/2/2/2 [8]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

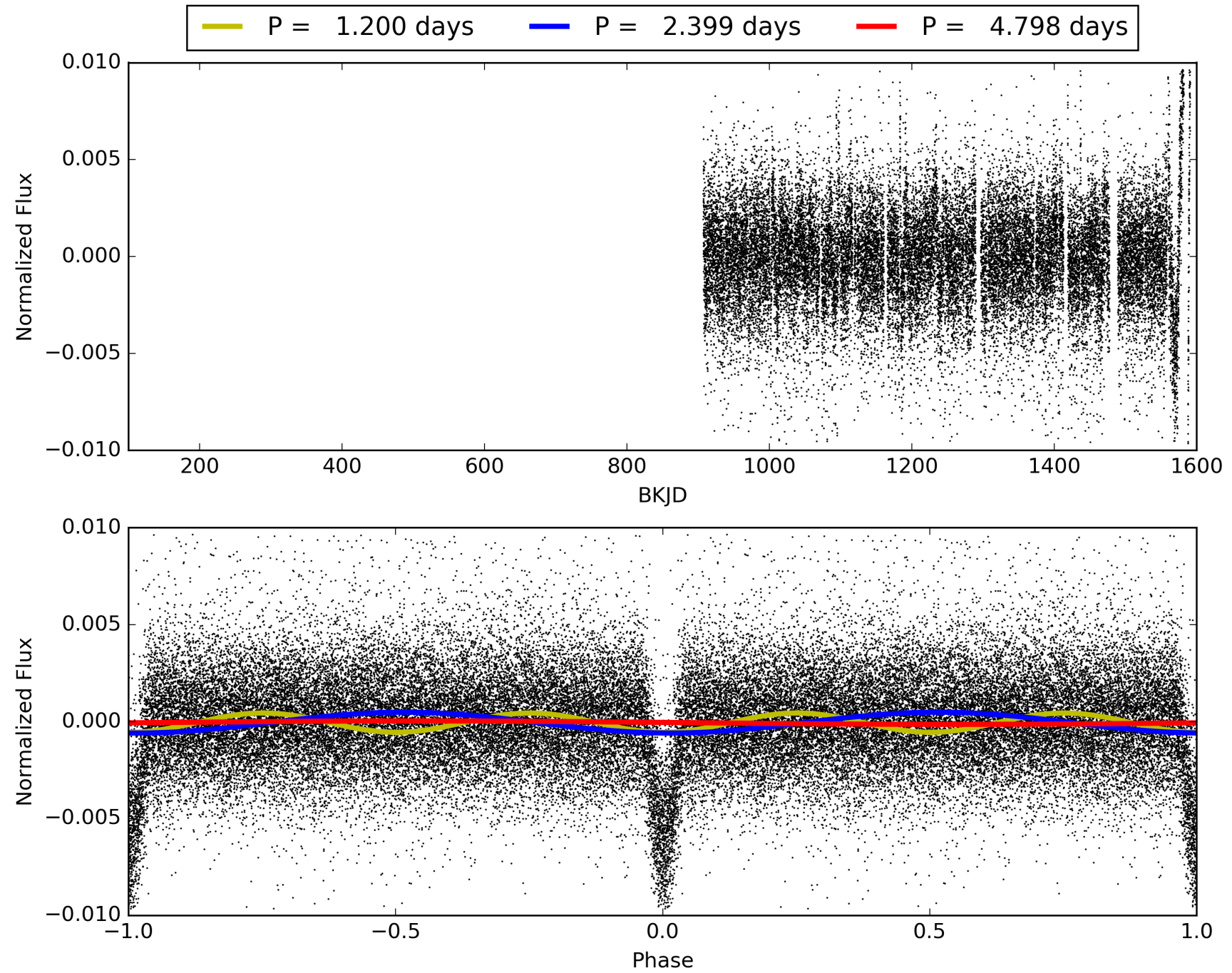
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:59:24 Z

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

TCE 005303557-01, PDC Light Curves

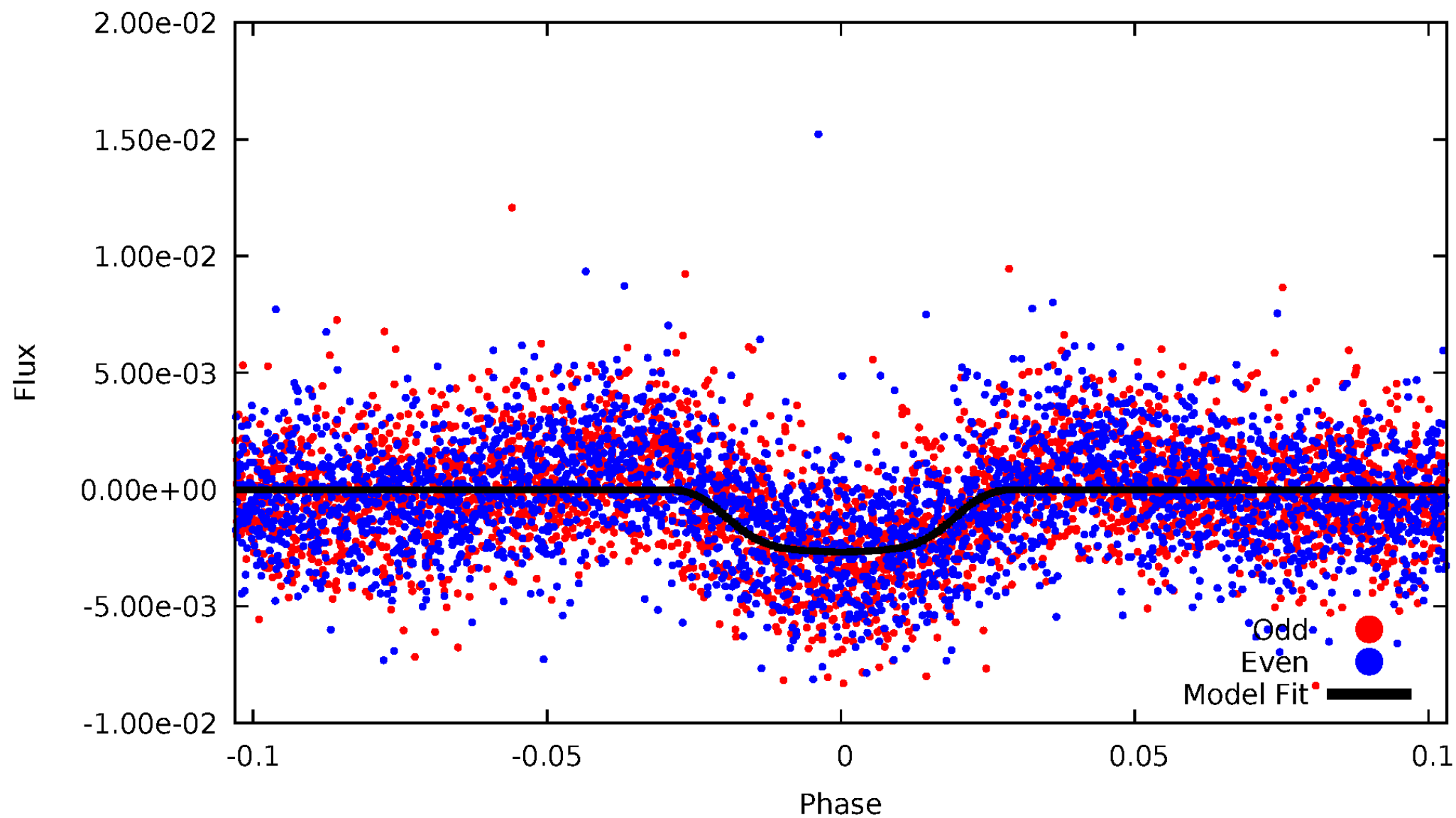


TCE 005303557-01



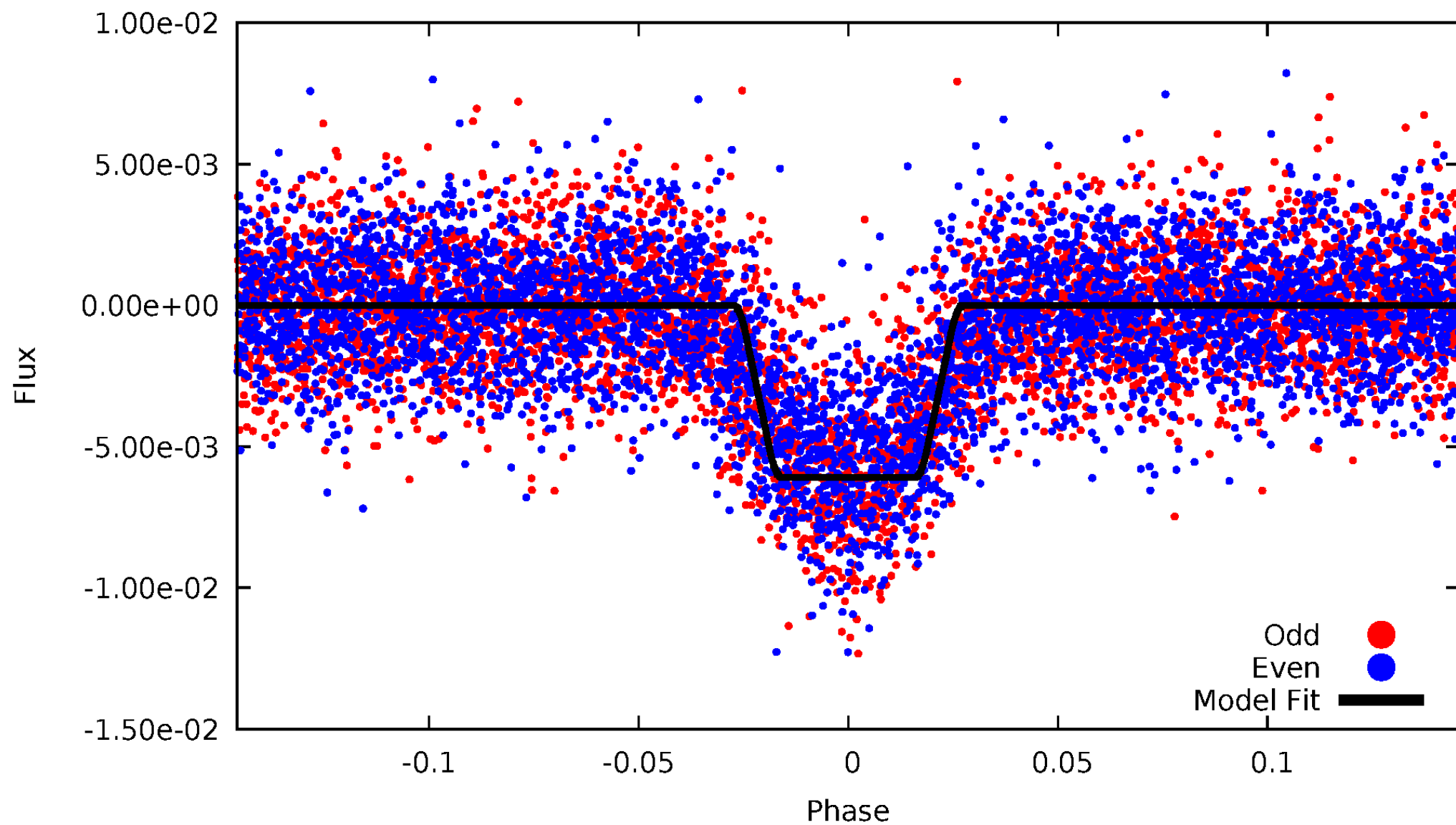
DV Odd/Even

TCE 005303557-01

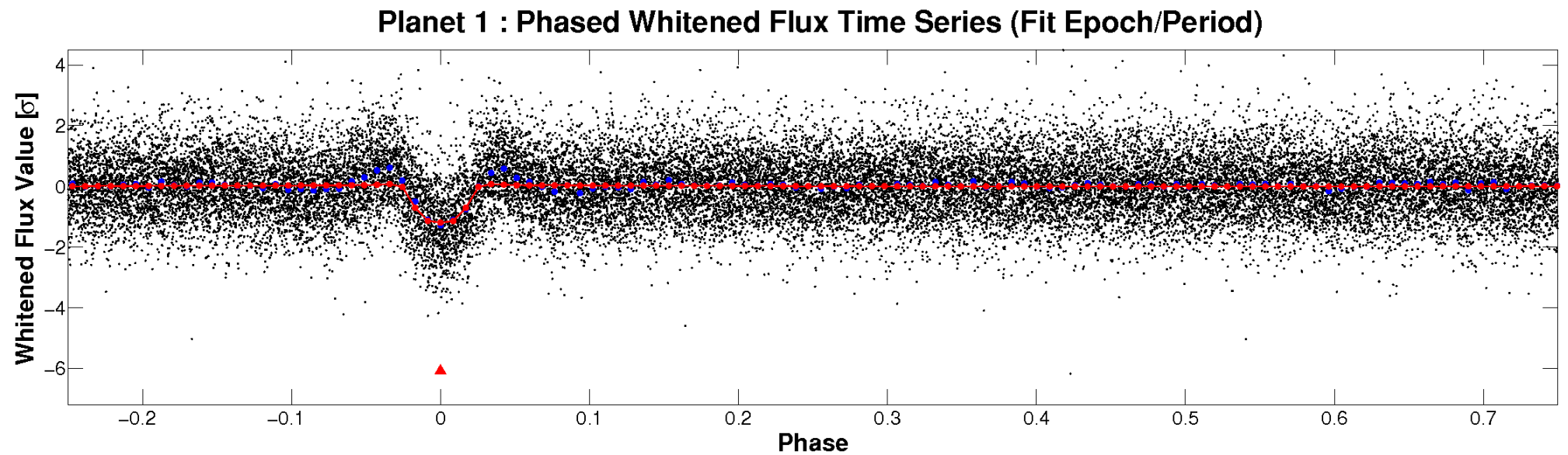
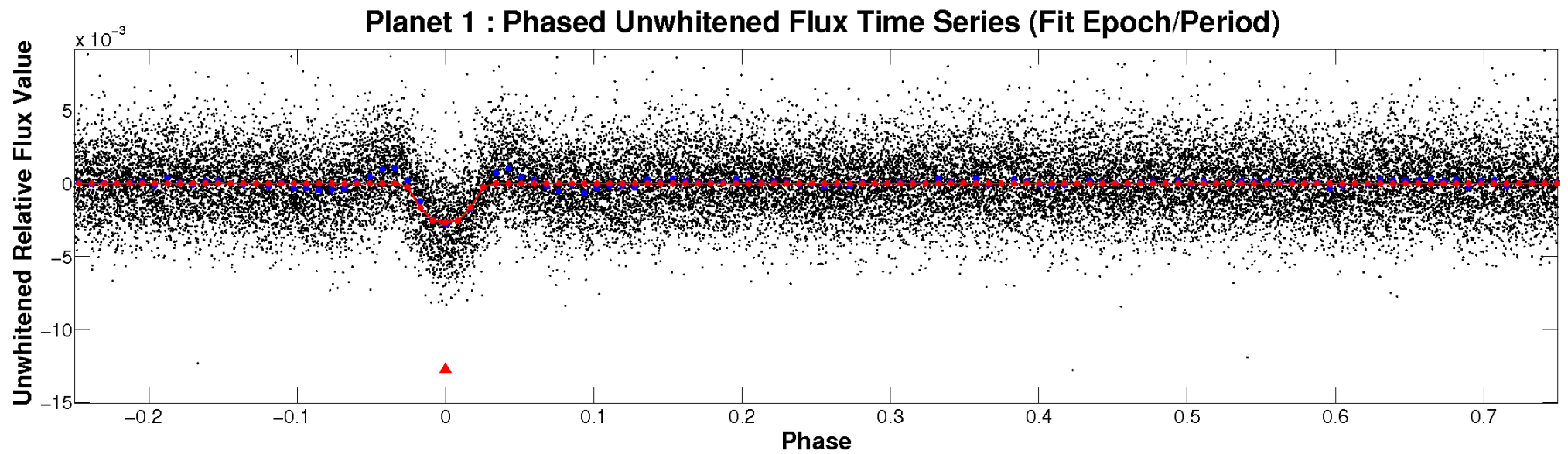


ALT Odd/Even

TCE 005303557-01

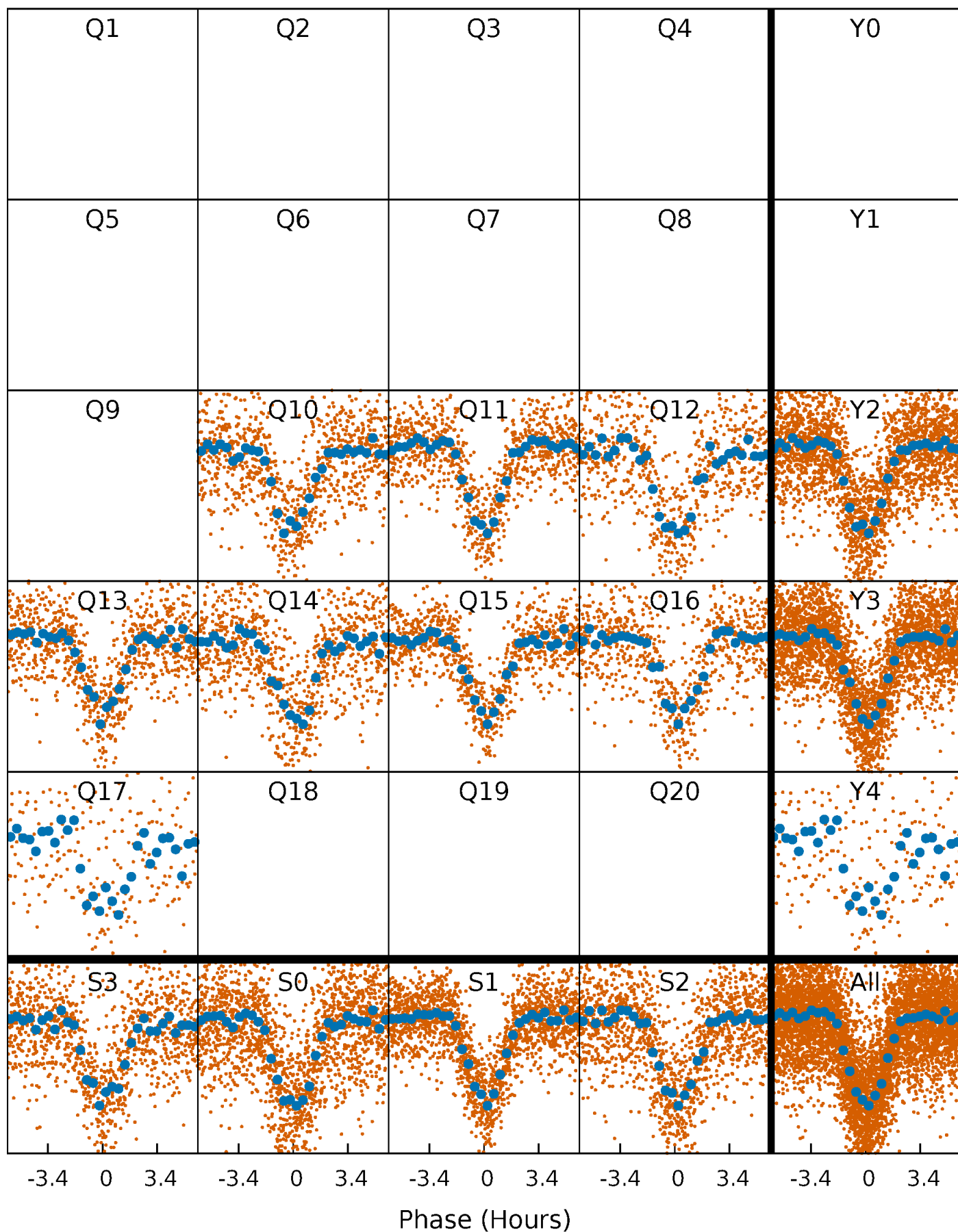


Non-Whitened Vs. Whitened Light Curve



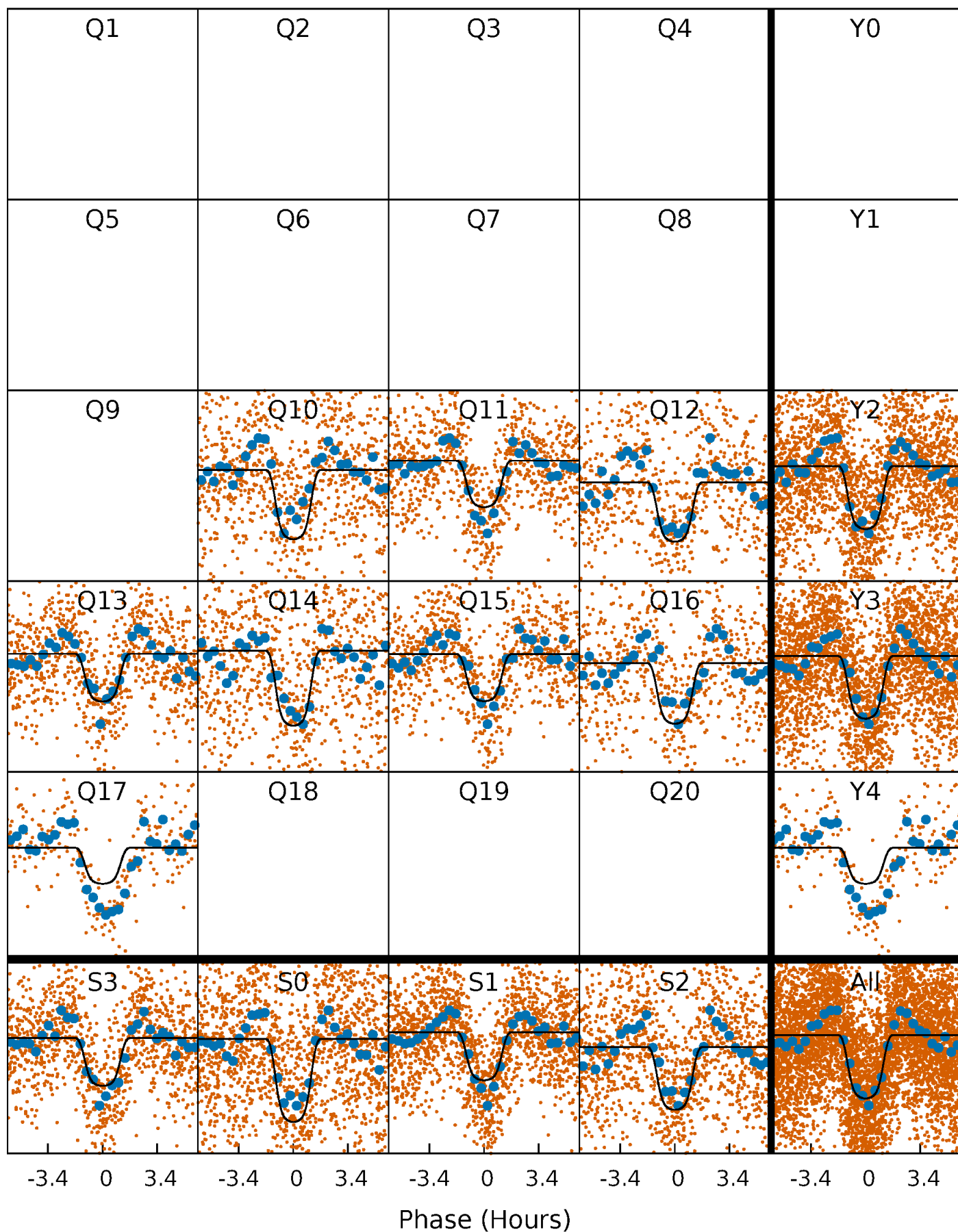
PDC Quarter-Phased Transit Curves

TCE 005303557-01 P= 2.399028 Days $T_0=133.084916$ (BKJD)



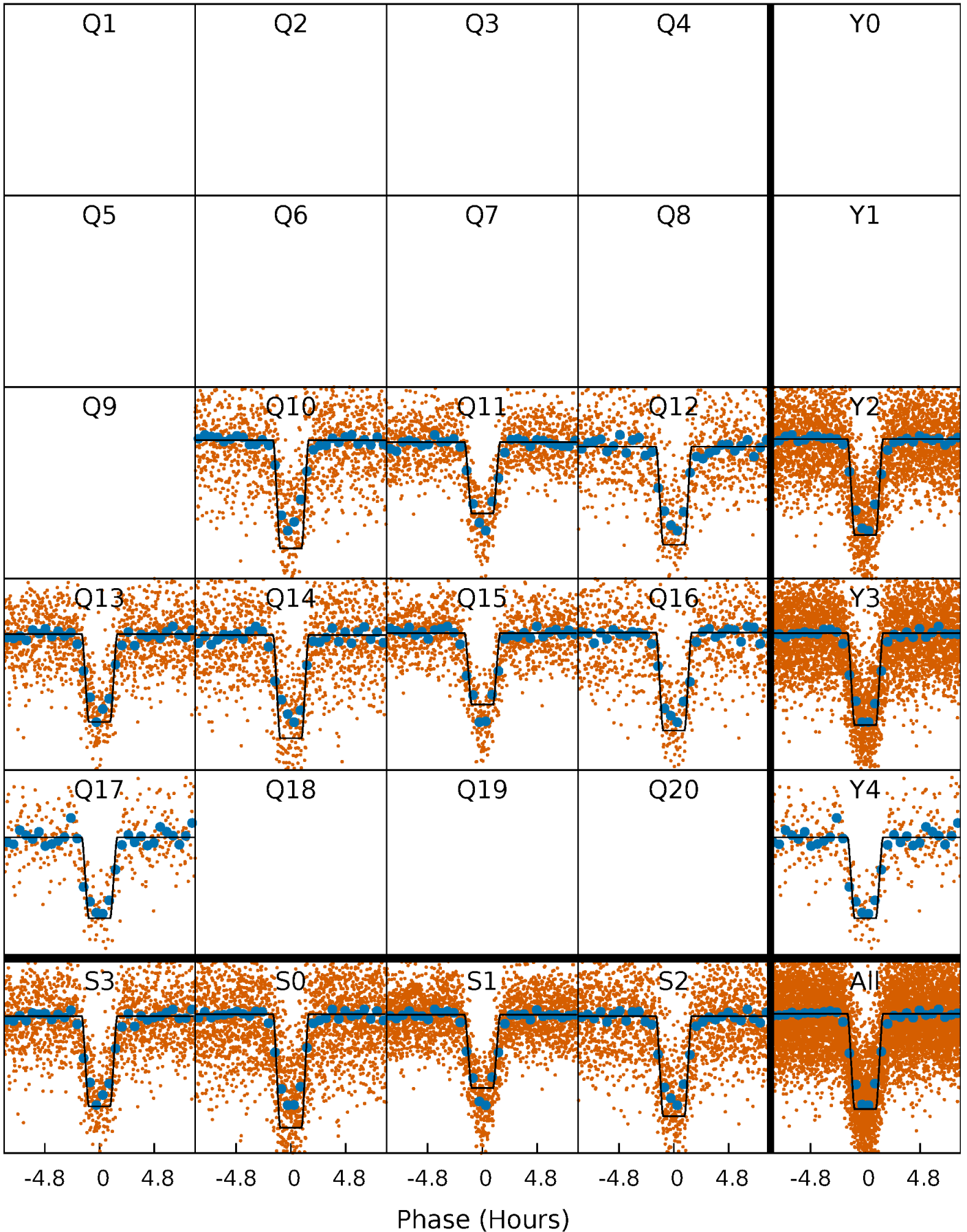
DV Quarter-Phased Transit Curves

TCE 005303557-01 P= 2.399028 Days $T_0=133.084916$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

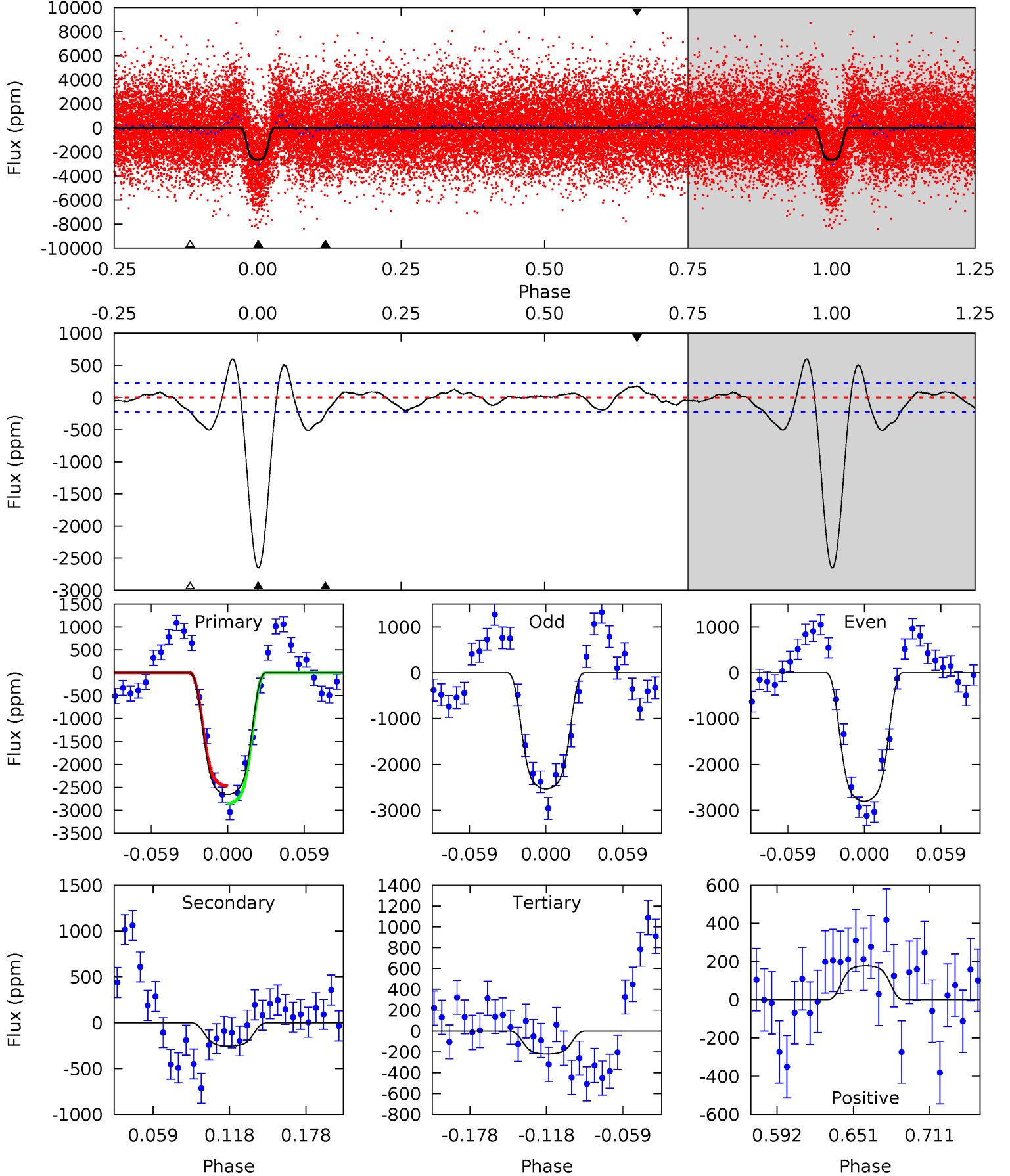
TCE 005303557-01 P= 2.399087 Days $T_0=133.061768$ (BKJD)



DV Model-Shift Uniqueness Test

005303557-01, P = 2.399028 Days, E = 133.084916 Days

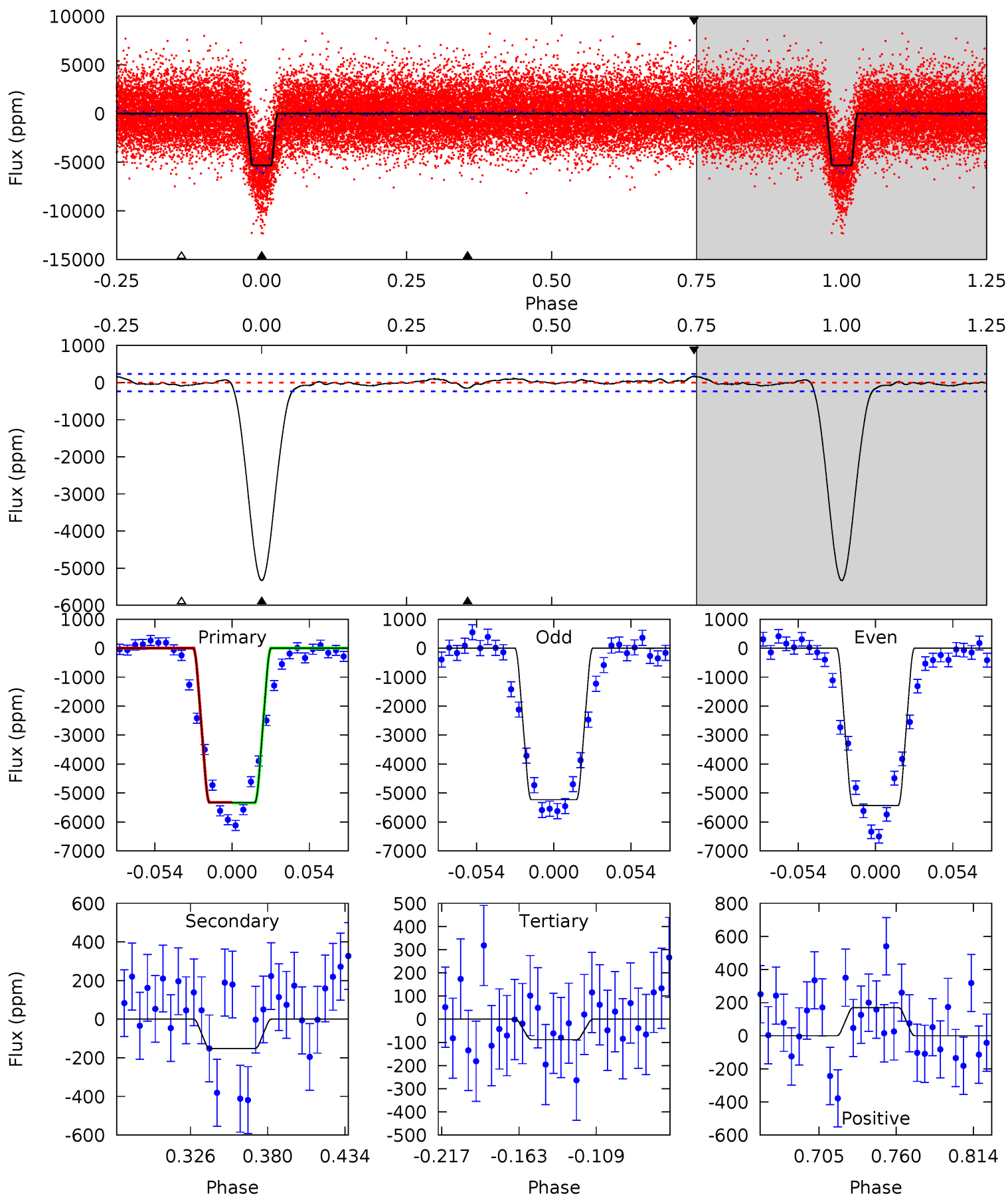
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.8	5.23	4.56	3.67	4.67	1.89	2.63	50.2	51.1	0.67	1.56	2.77	0.98	0.18	3.99



Alt Model-Shift Uniqueness Test

005303557-01, P = 2.399087 Days, E = 133.061768 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
106.7	3.04	1.76	3.40	4.69	1.92	1.15	105.0	103.3	1.28	-0.36	2.04	1.00	0.03	0.19



Stellar Parameters For KIC 005303557

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005303557-01 / KOI 3982.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-253 ± 48	$6.19^{+0.53}_{-0.47}$	1901^{+85}_{-89}	3497^{+139}_{-162}	$4.531^{+1.153}_{-1.075}$
Alt.	-152 ± 50	$8.55^{+0.75}_{-0.62}$	1896^{+100}_{-87}	2862^{+172}_{-215}	$1.382^{+0.556}_{-0.475}$

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 $A_{\text{obs}} \gg 1.0$

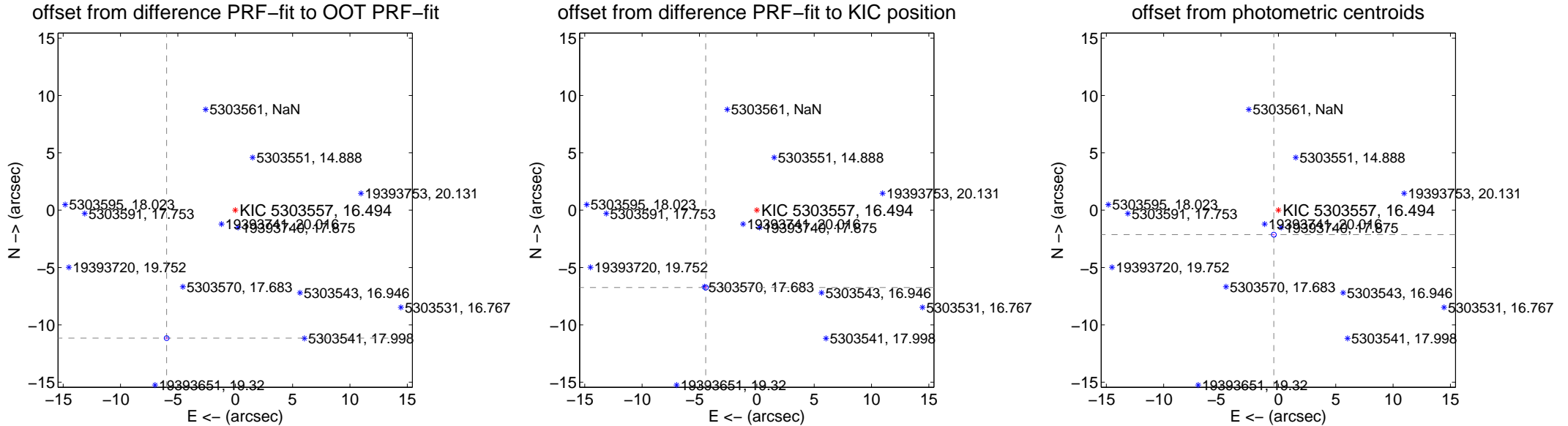
DV Centroid Data

Supplemental centroid analysis for 005303557-01. Kepler magnitude: 16.49. Transit SNR 35.01

There are 8 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 4.65 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	12.657 ± 0.070	181.24	5.980 ± 0.069	-11.155 ± 0.069
PRF-fit source offset from KIC position	8.079 ± 0.076	106.96	4.456 ± 0.070	-6.738 ± 0.073
photometric centroid source offset	2.17 ± 0.07	30.40	0.40 ± 0.06	-2.13 ± 0.07



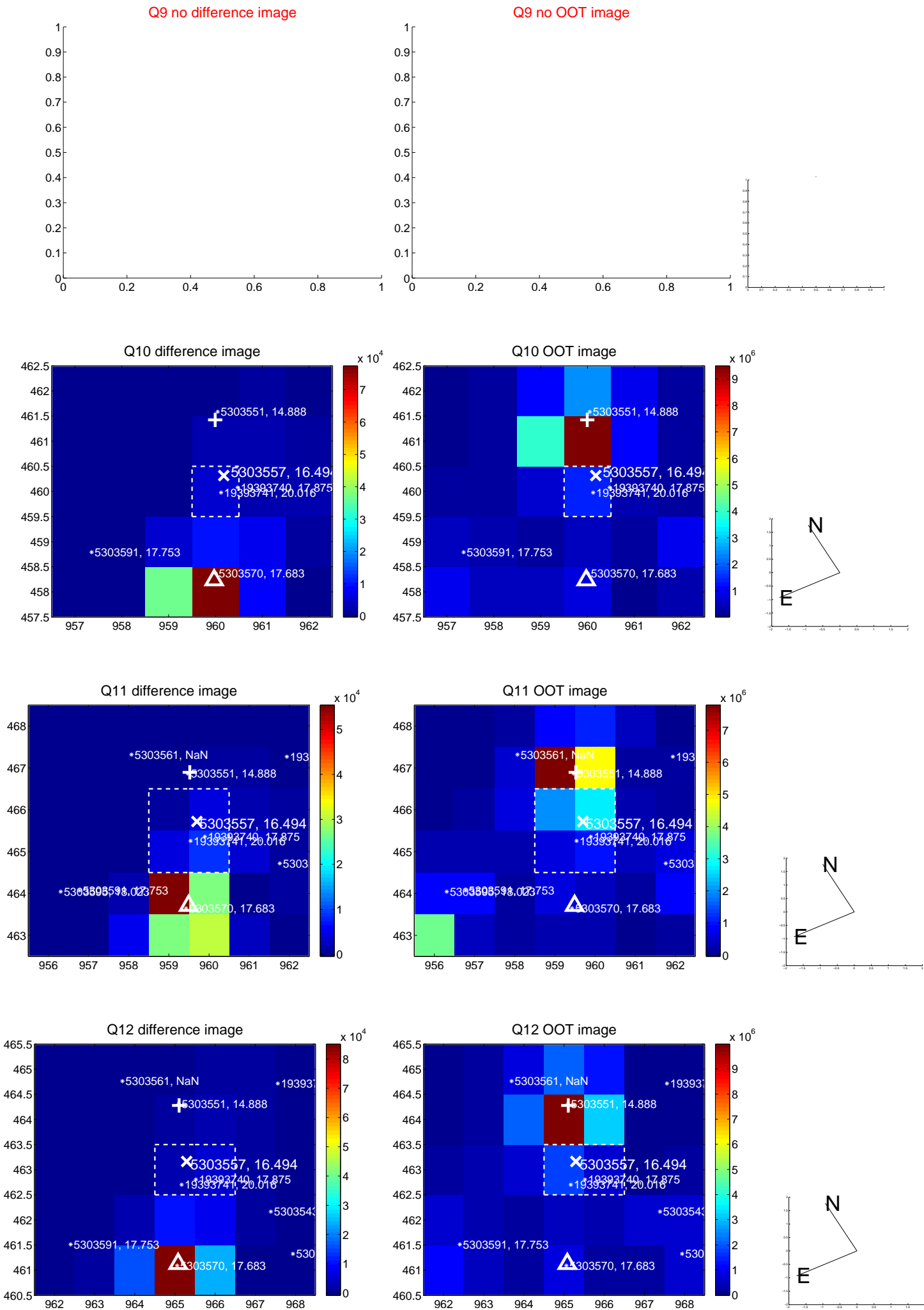
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



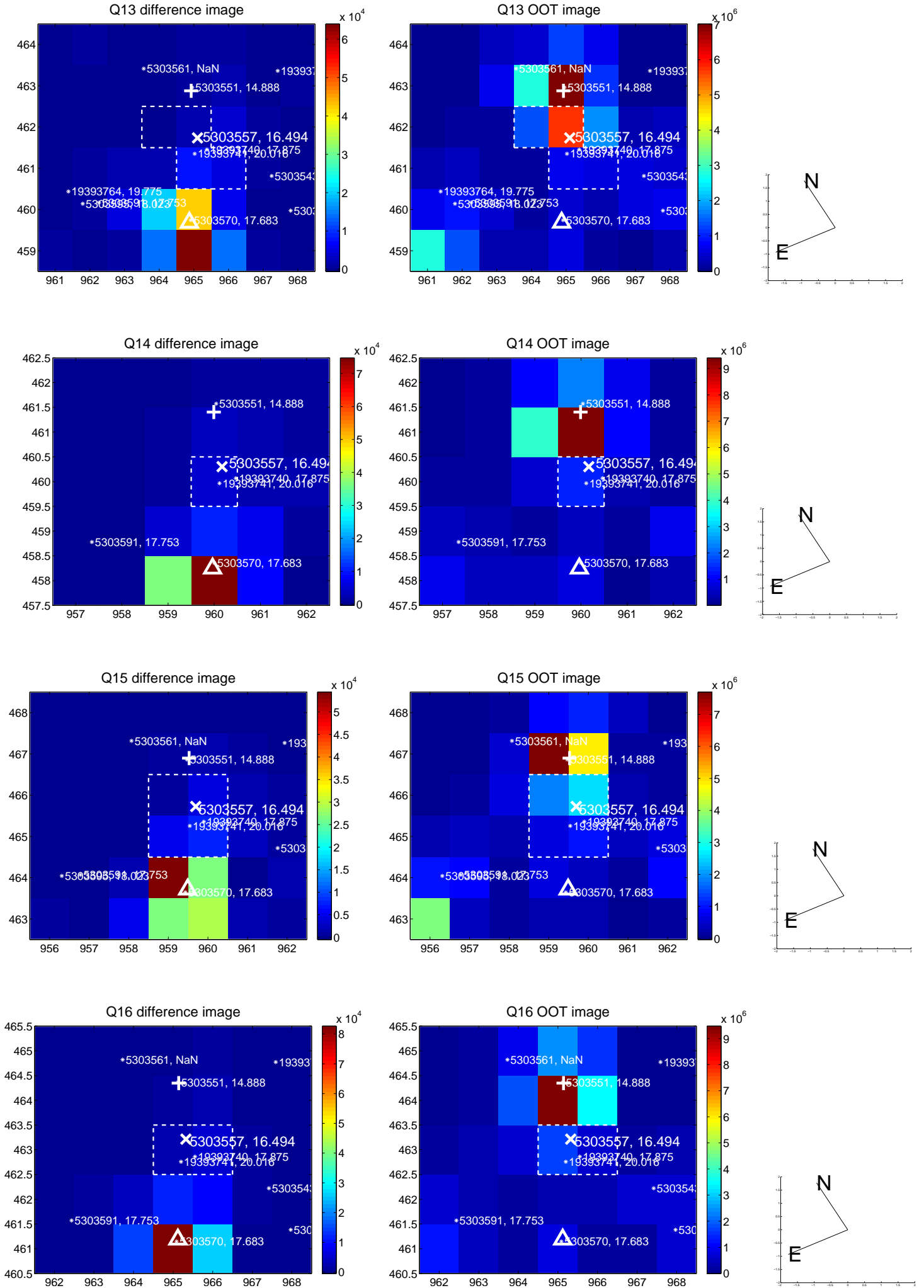
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



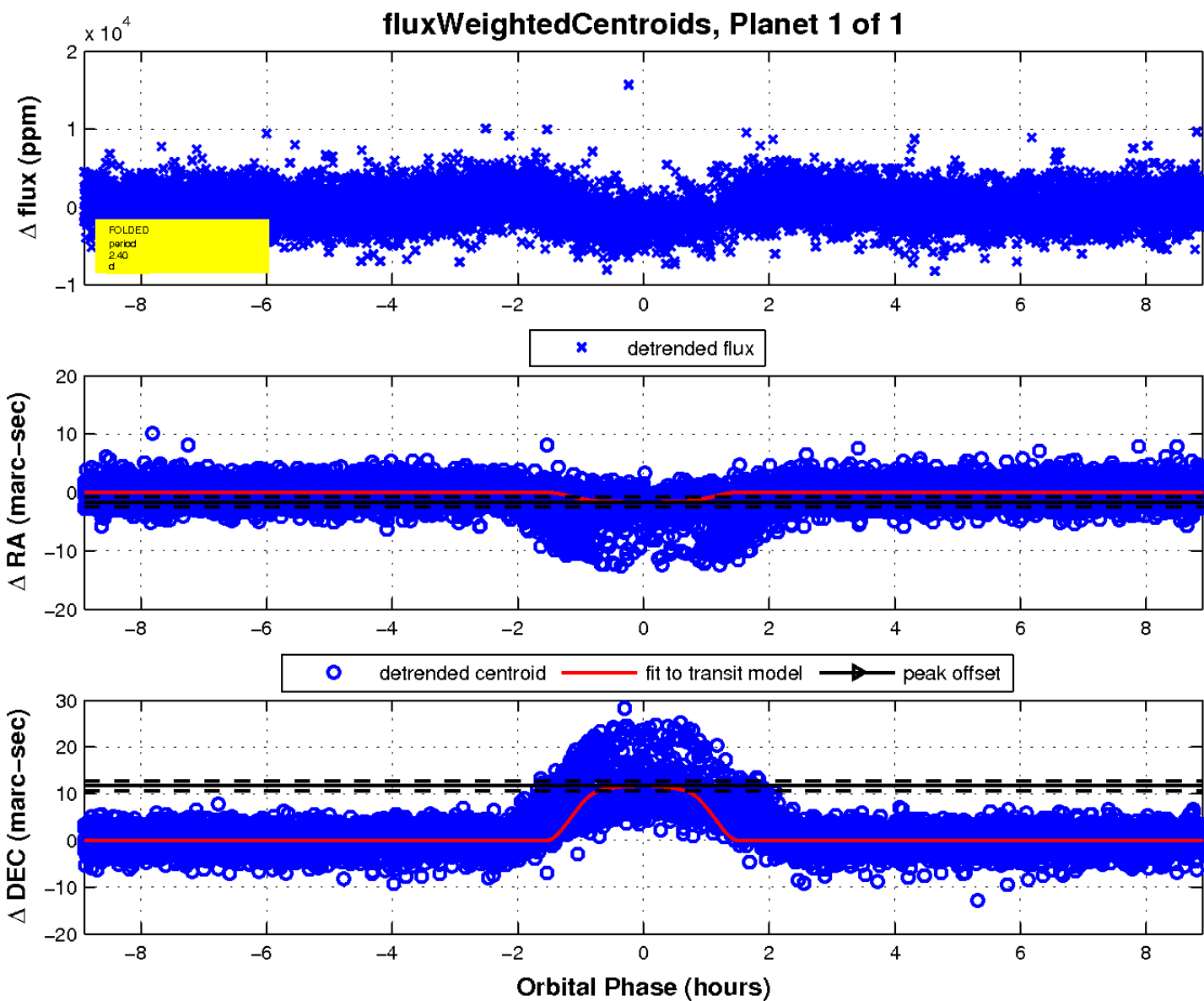
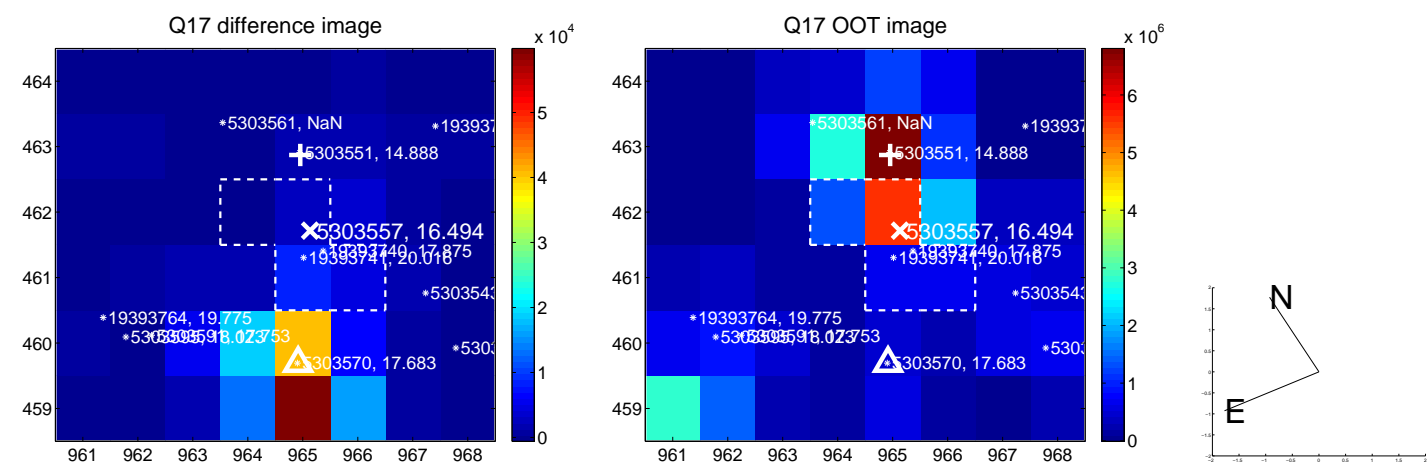
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

