

KIC 003238955

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})
003238955-01	OBS	No	153.112310	136.617236	196.9	8.190	8.5	6.8	2.86	4922	4.61	13.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003238955-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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

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

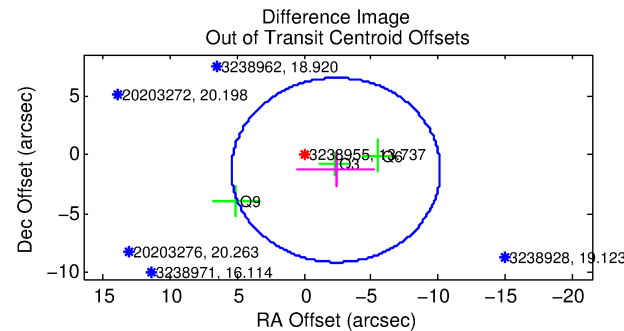
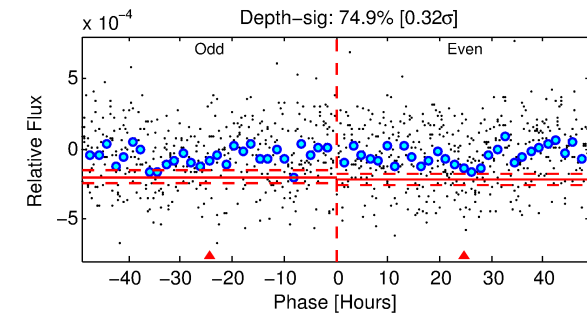
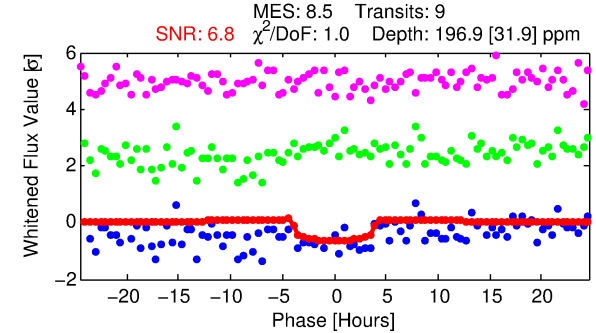
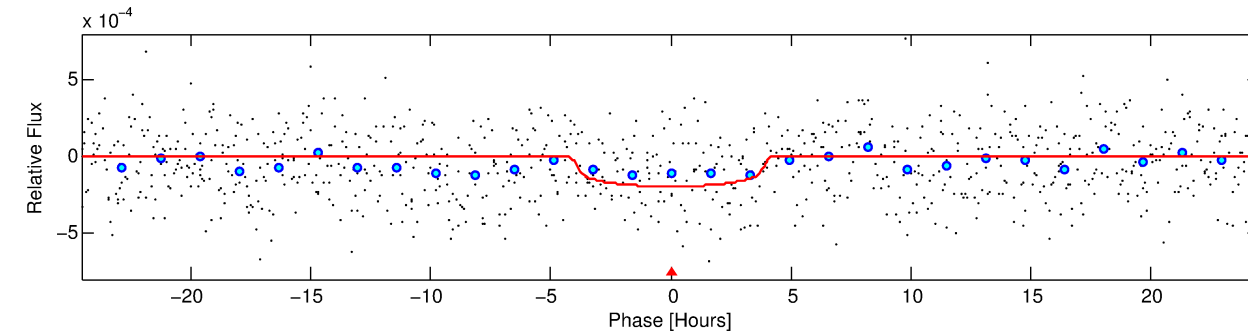
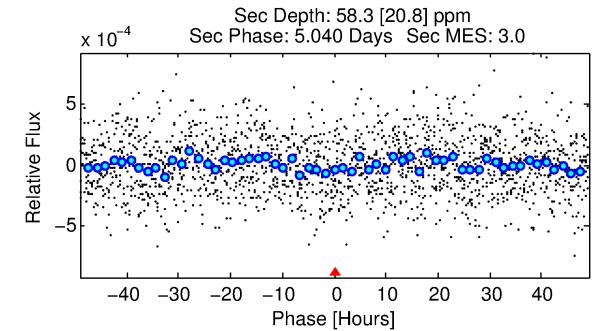
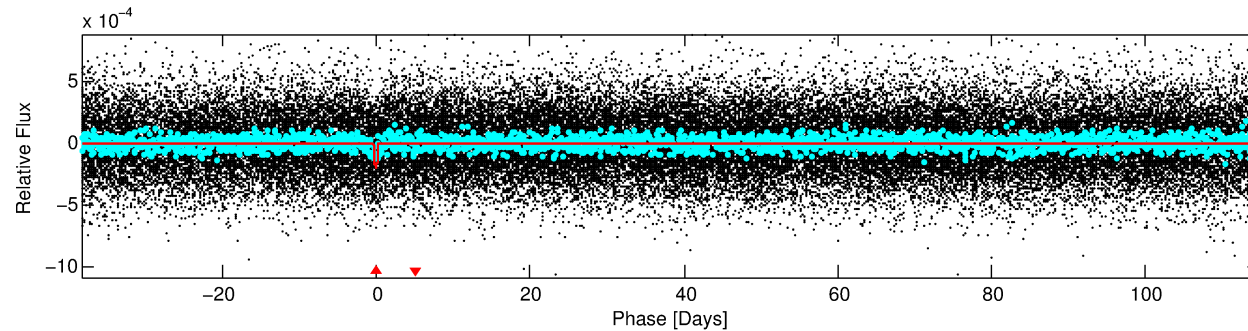
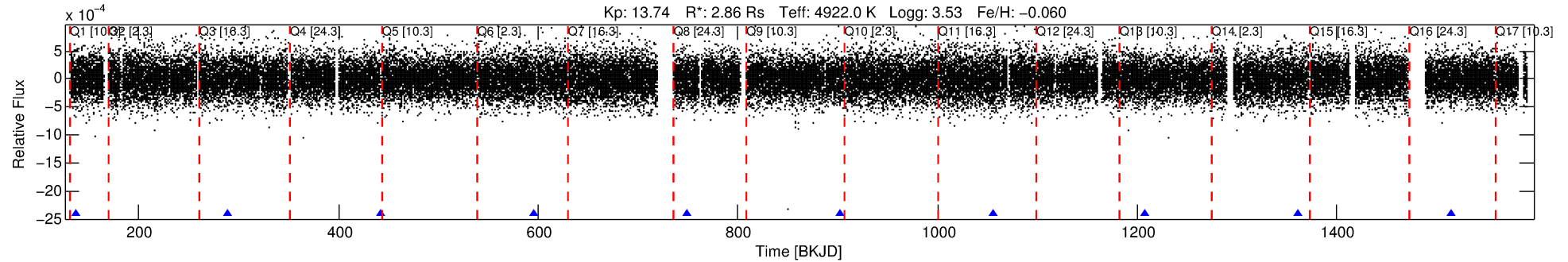
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003238955-01

No Significant Match Found

DV One-Page Summary

KIC: 3238955 Candidate: 1 of 1 Period: 153.112 d



DV Fit Results:

Period = 153.11231 [0.00342] d
Epoch = 136.6172 [0.0193] BKJD
Rp/R* = 0.0147 [0.0103]
a/R* = 82.30 [215.23]
b = 0.84 [0.96]
Seff = 13.68 [3.59]
Teq = 490 [32] K
Rp = 4.61 [3.37] Re
a = 0.5614 [0.1006] AU
Ag = 475.80 [696.60] [0.68σ]
Teffp = 3541 [1277] K [2.39σ]

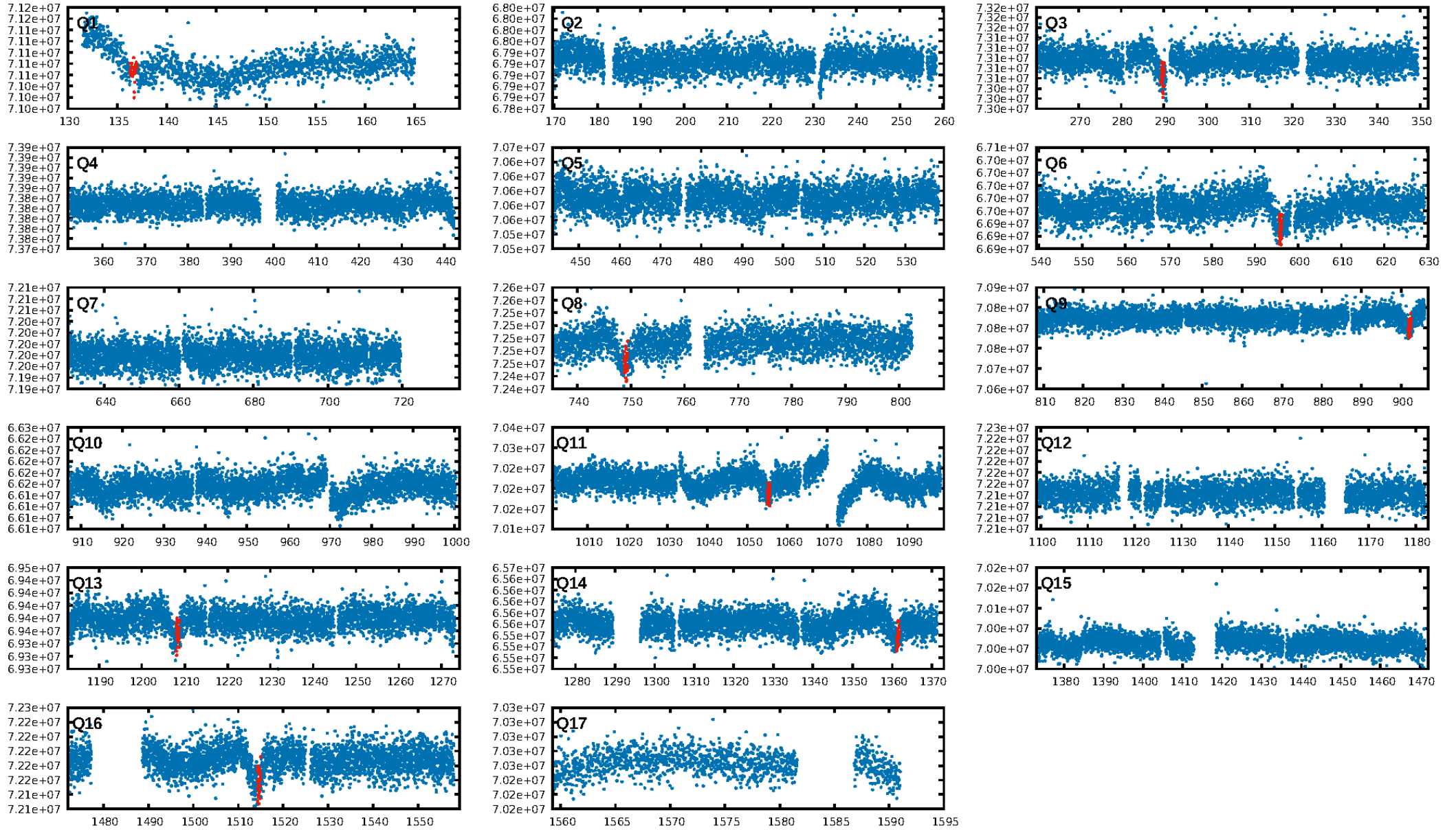
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 88.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.30e-16
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: -1.073
Centroid-sig: 97.3%
Centroid-so: 1.029 arcsec [0.63σ]
OotOffset-rm: 2.704 arcsec [1.04σ]
KicOffset-rm: 2.806 arcsec [1.09σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [9/9]

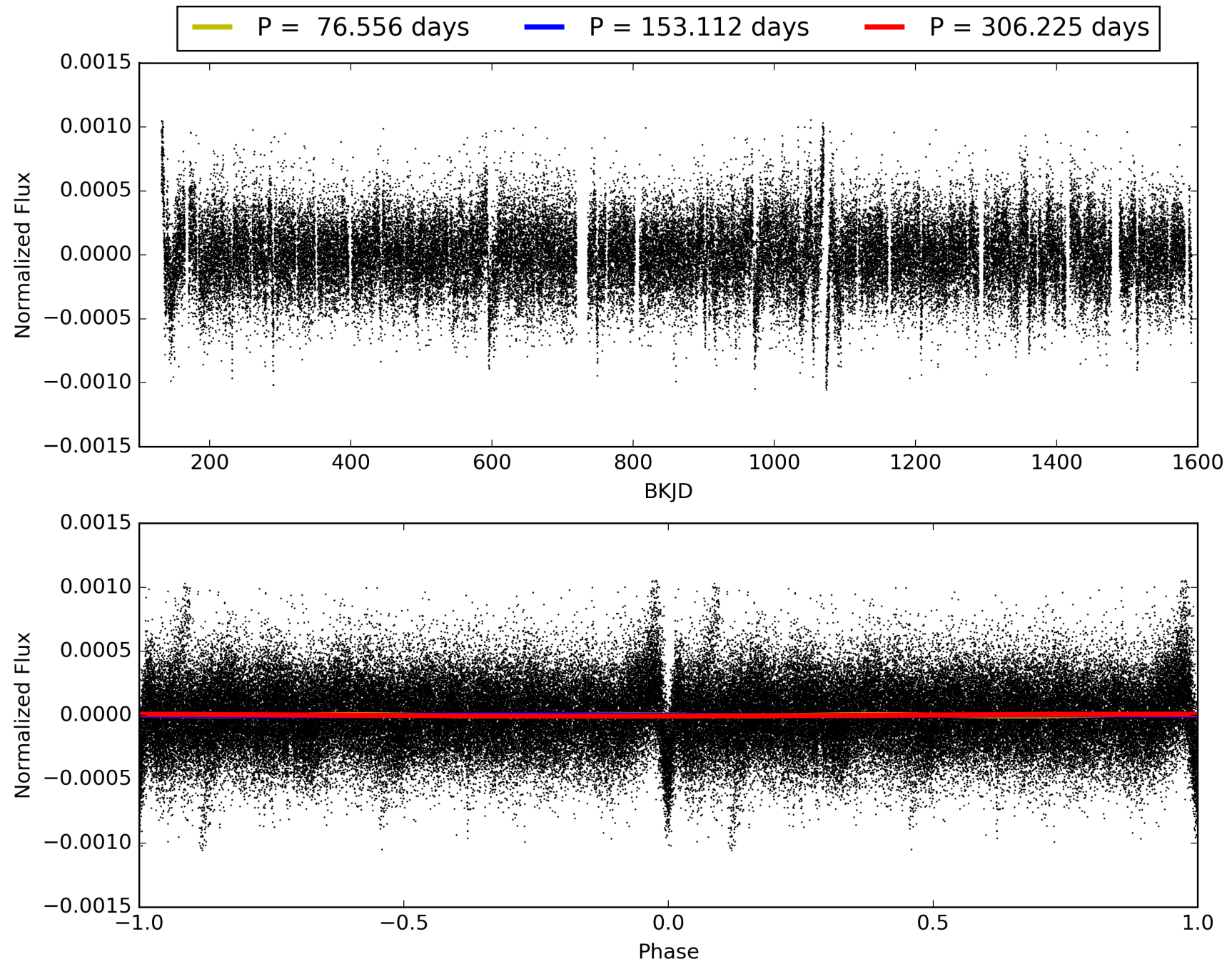
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:05:54 Z

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

TCE 003238955-01, PDC Light Curves

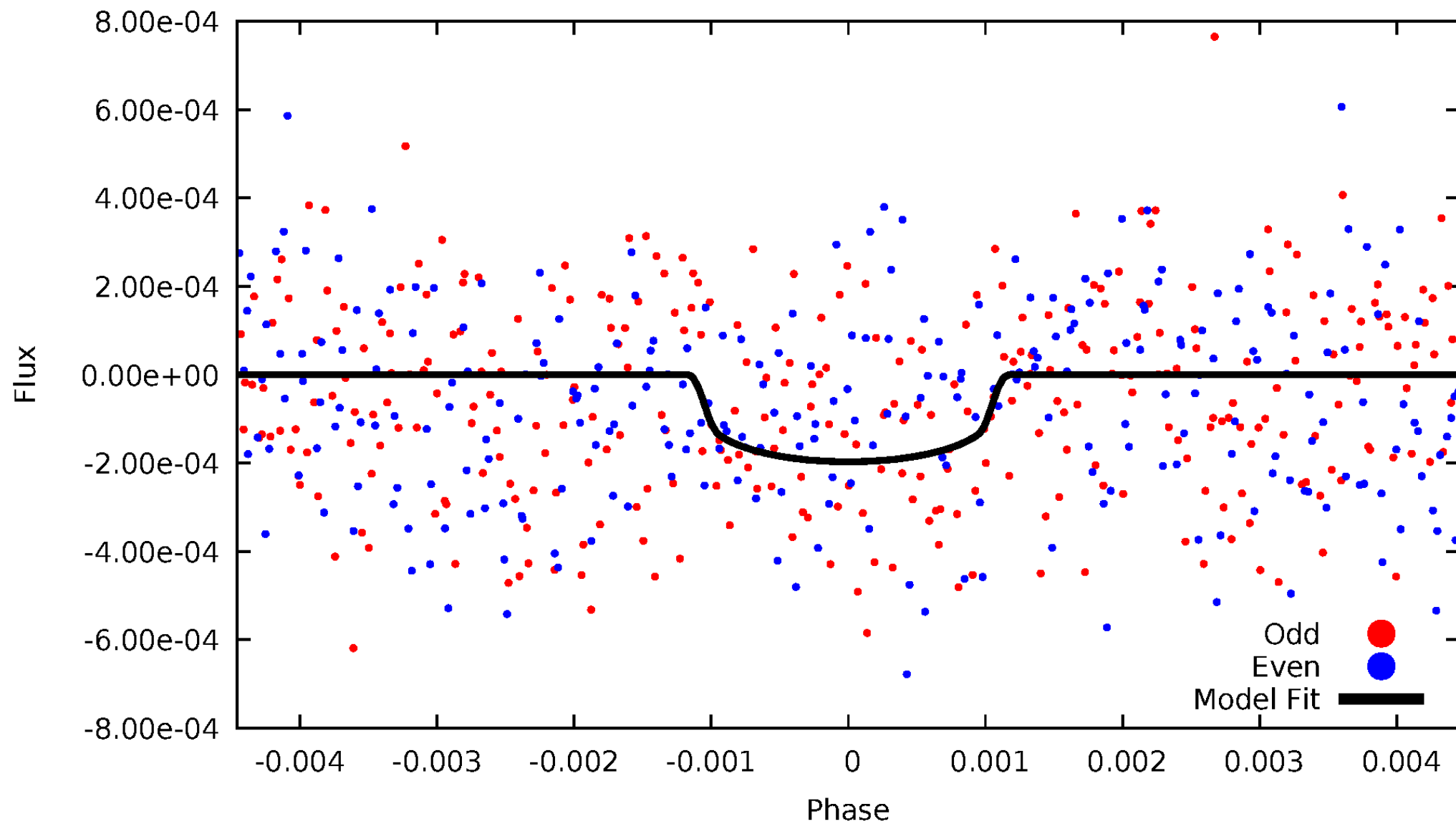


TCE 003238955-01



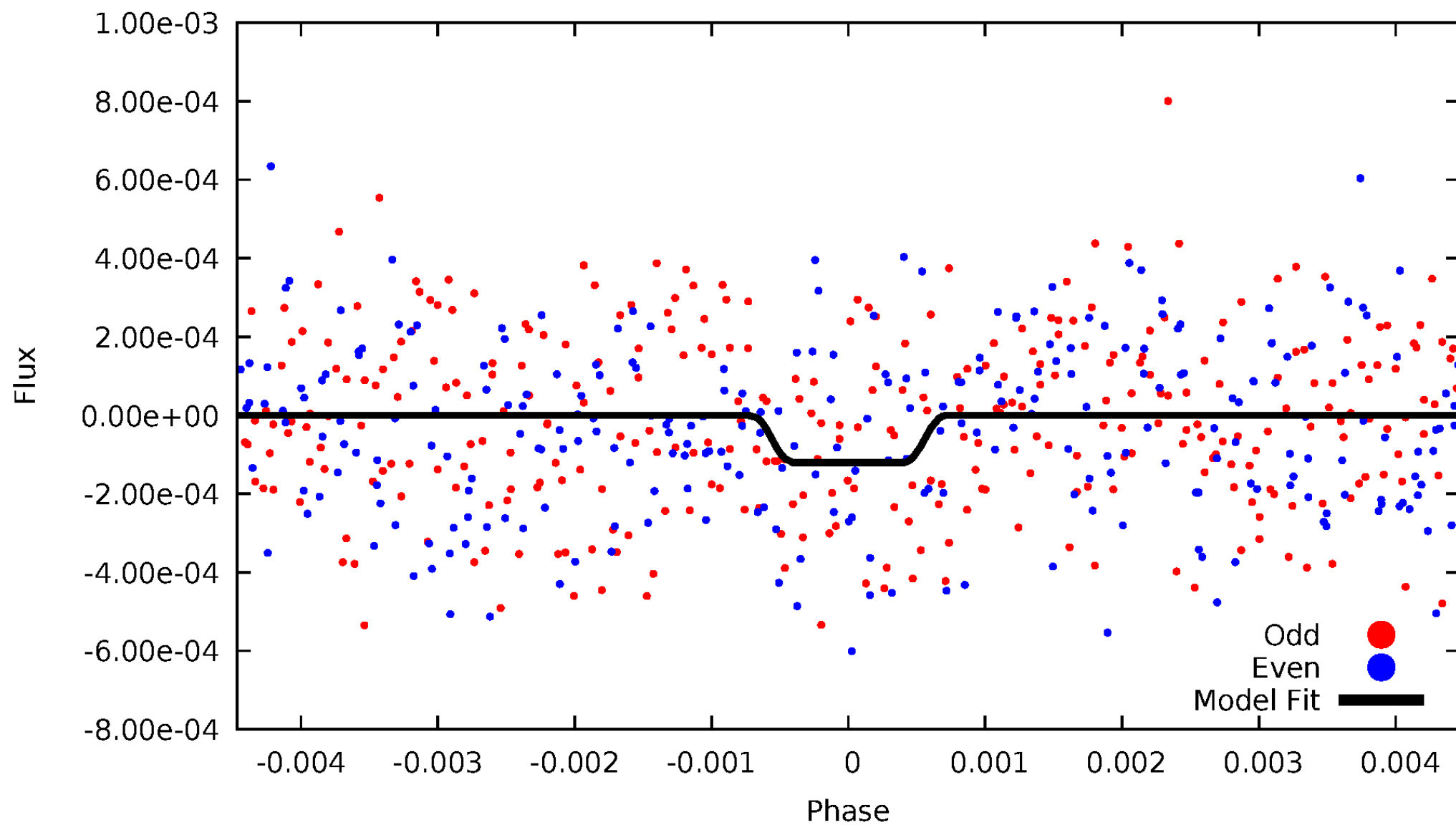
DV Odd/Even

TCE 003238955-01

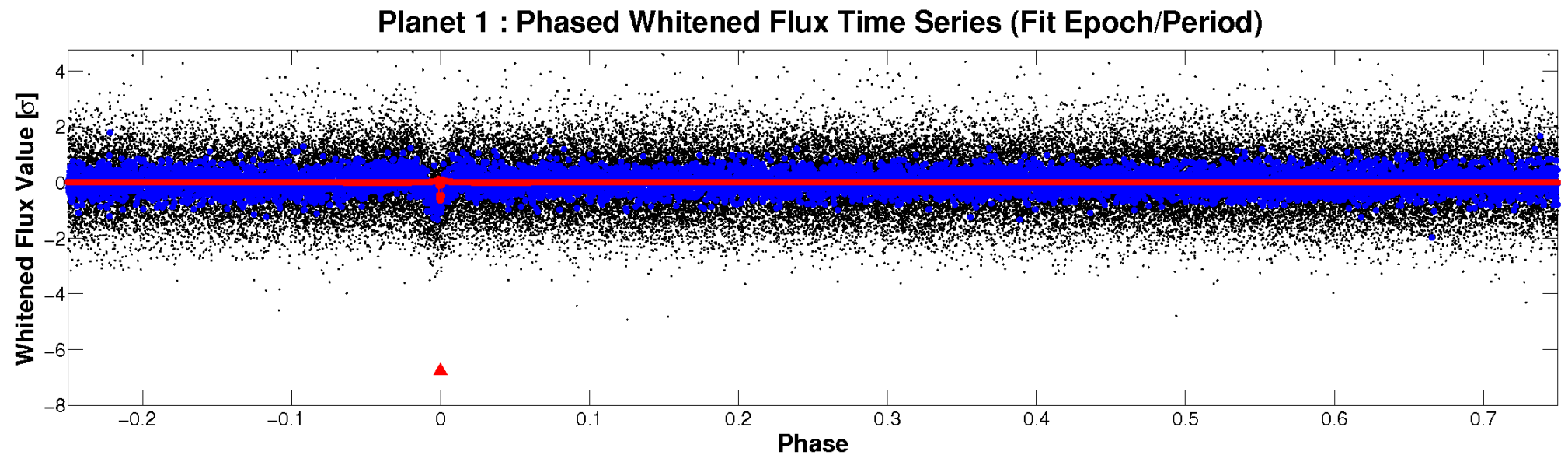
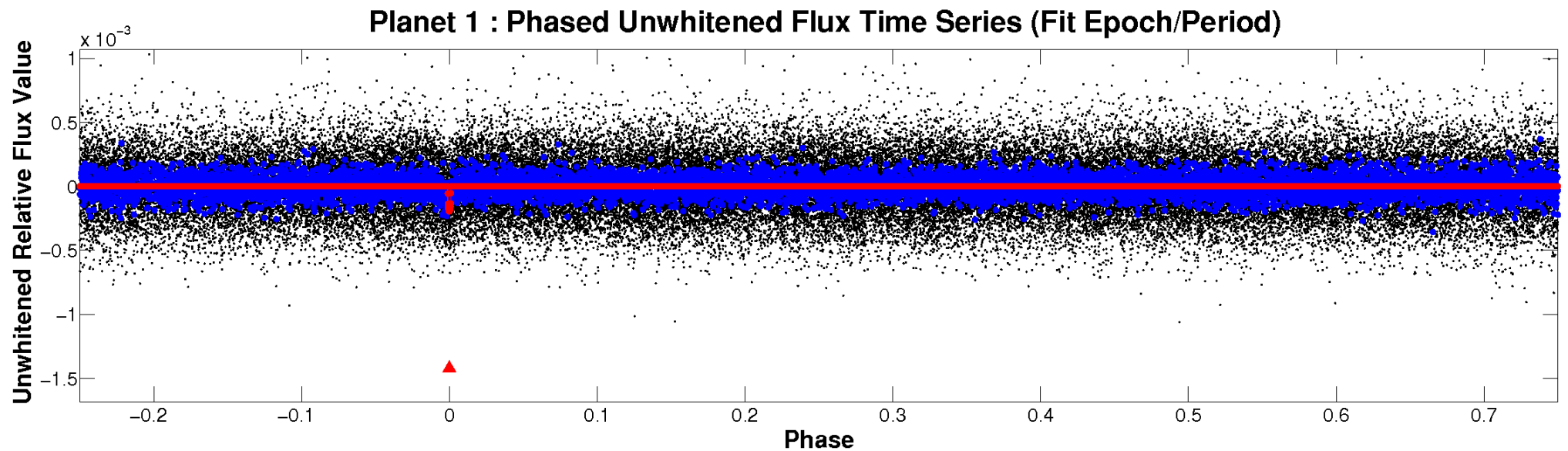


ALT Odd/Even

TCE 003238955-01

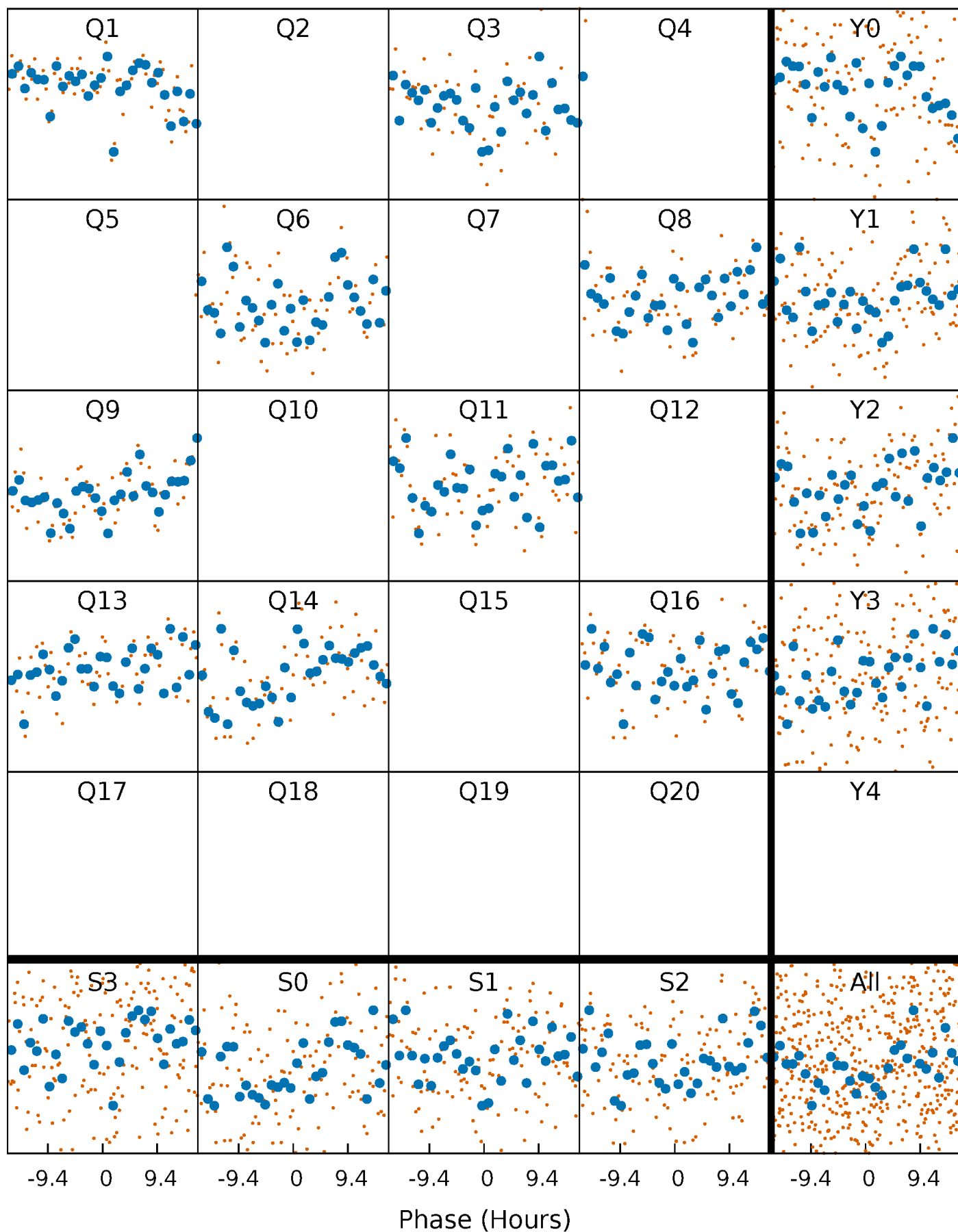


Non-Whitened Vs. Whitened Light Curve



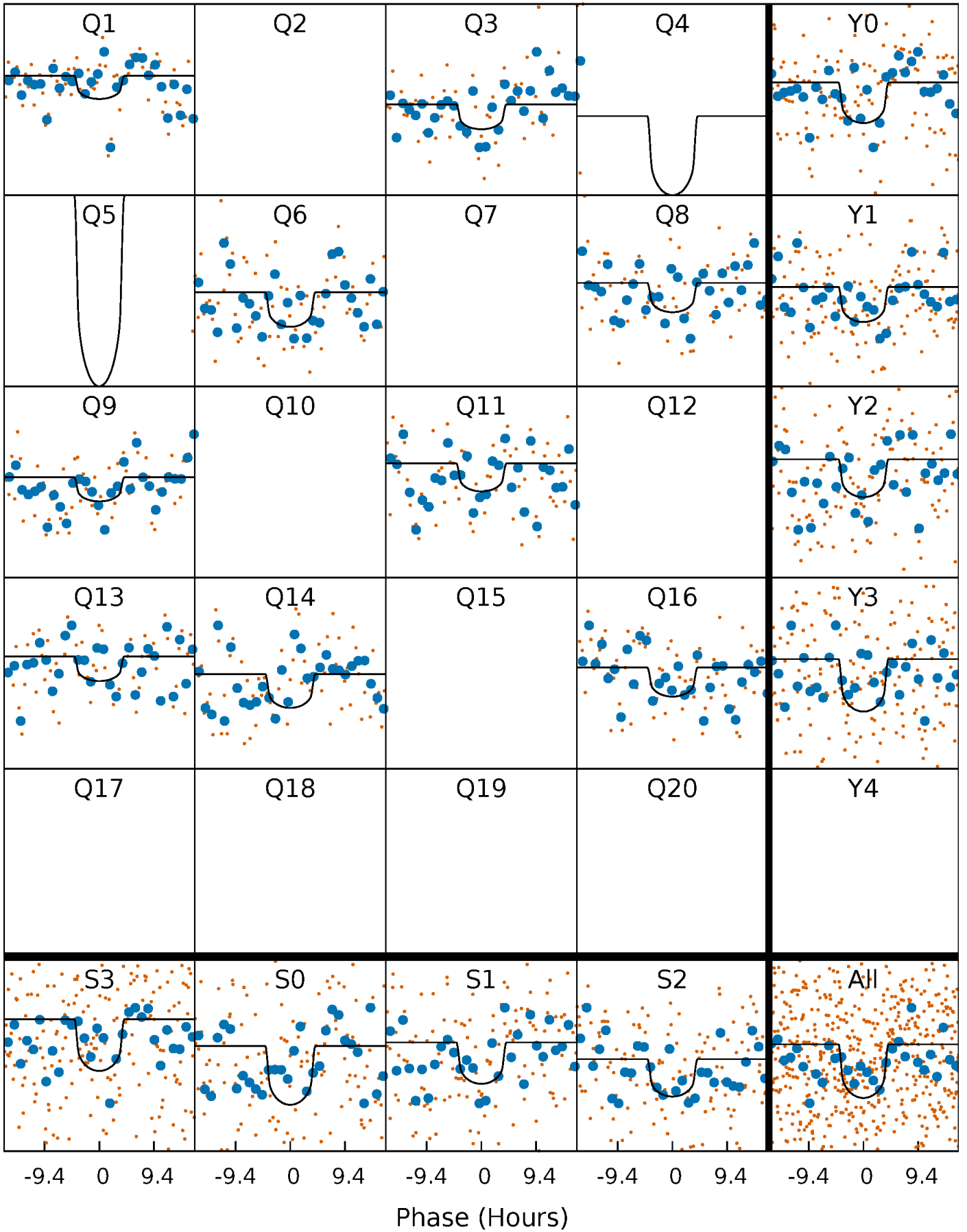
PDC Quarter-Phased Transit Curves

TCE 003238955-01 P=153.112311 Days $T_0=136.617236$ (BKJD)



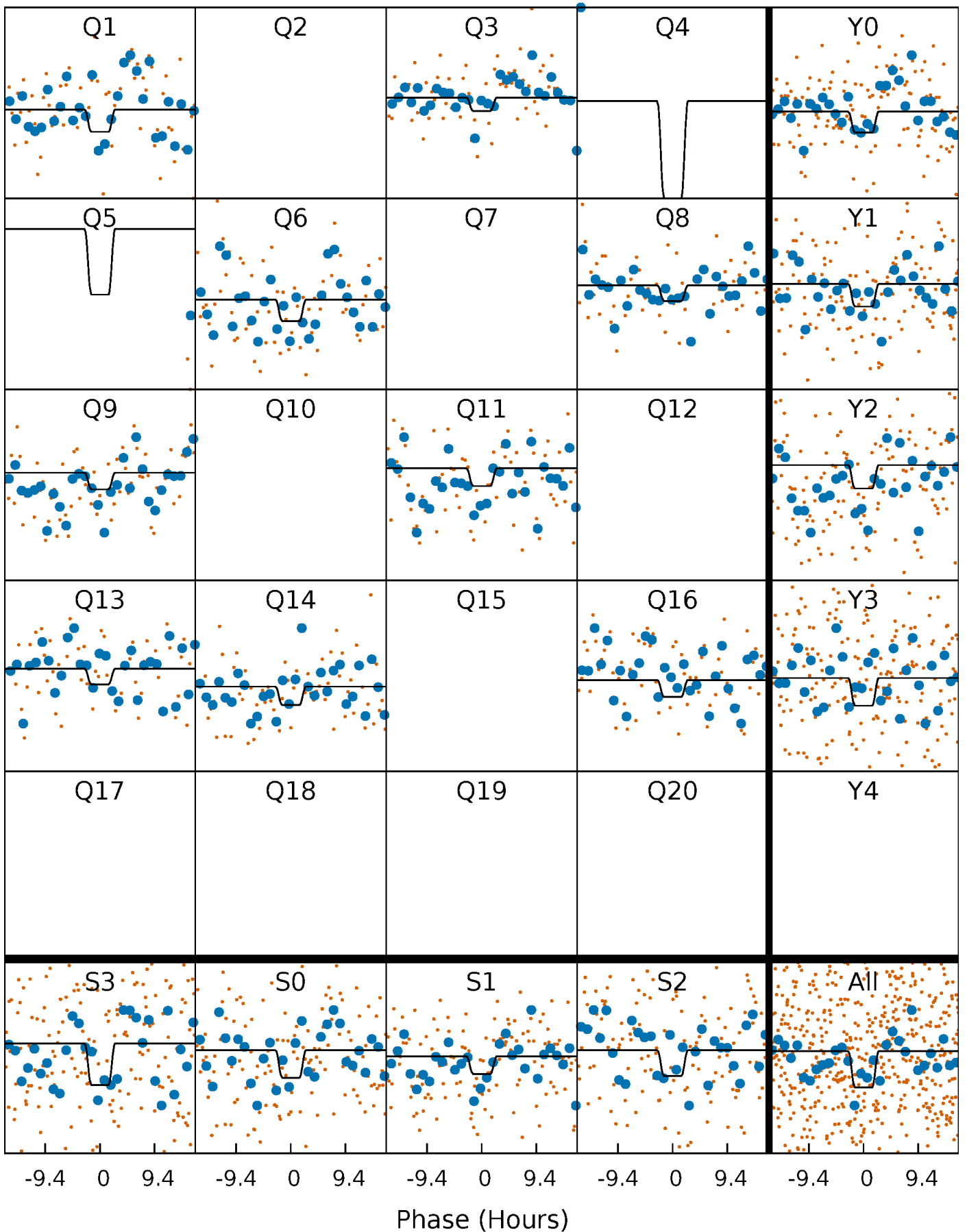
DV Quarter-Phased Transit Curves

TCE 003238955-01 P=153.112311 Days $T_0=136.617236$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

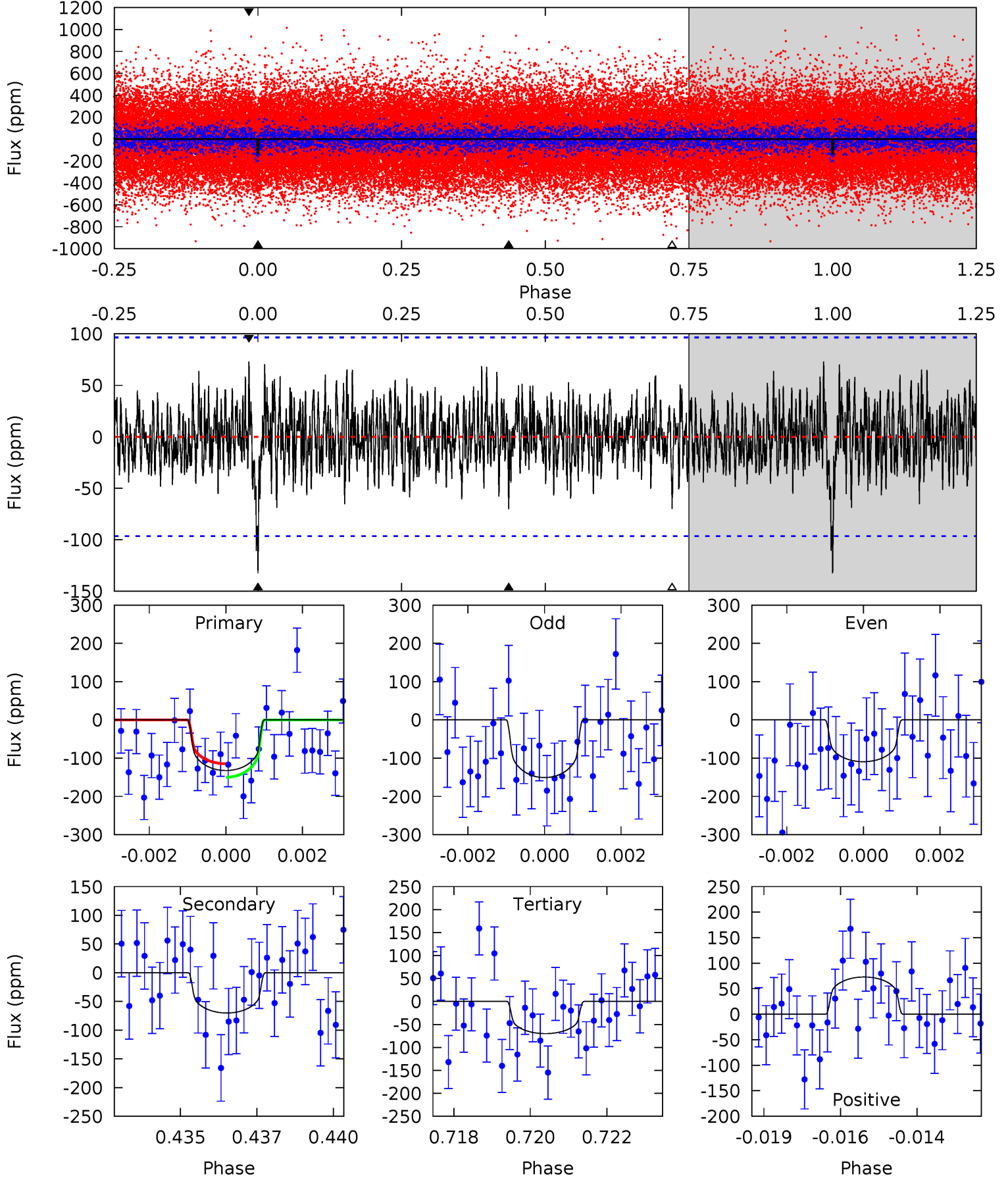
TCE 003238955-01 P=153.101854 Days $T_0=136.678779$ (BKJD)



DV Model-Shift Uniqueness Test

003238955-01, P = 153.112311 Days, E = 136.617236 Days

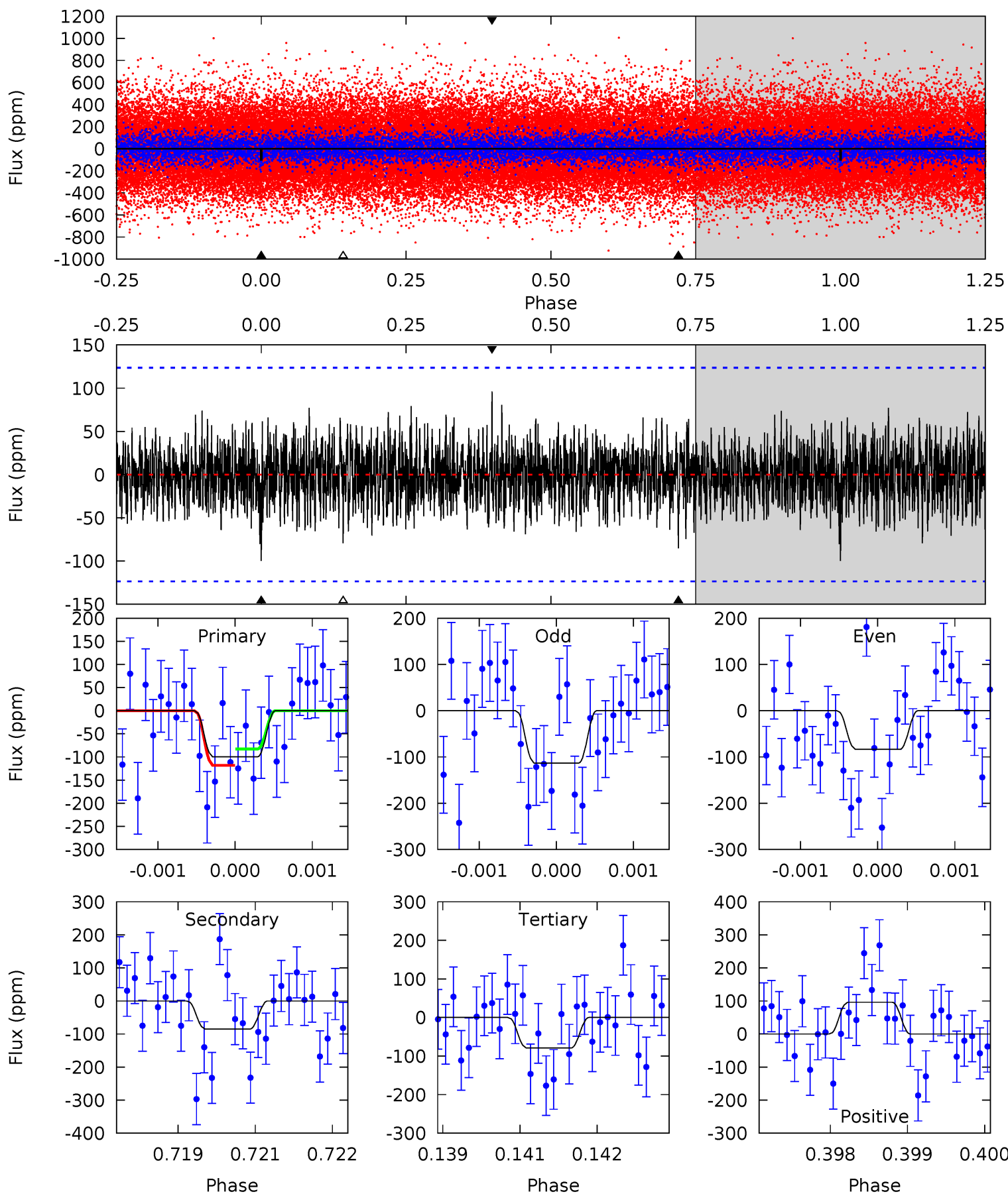
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.27	3.85	3.85	4.01	5.30	3.04	1.30	3.42	3.26	0.00	-0.16	1.13	0.91	0.36	0.97



Alt Model-Shift Uniqueness Test

003238955-01, P = 153.101854 Days, E = 136.678779 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.36	3.72	3.46	4.19	5.39	3.20	1.11	0.90	0.16	0.26	-0.48	0.64	1.13	0.49	0.77



Stellar Parameters For KIC 003238955

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4922^{+73}_{-51}	$3.527^{+0.125}_{-0.137}$	$-0.060^{+0.150}_{-0.100}$	$2.863^{+0.623}_{-0.363}$	$1.006^{+0.199}_{-0.062}$	$0.060^{+0.031}_{-0.024}$
	+1%/-1%	+4%/-4%	+250%/-167%	+22%/-13%	+20%/-6%	+51%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003238955-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-70 ± 18	$5.11^{+3.04}_{-3.05}$	684^{+33}_{-30}	3823^{+1573}_{-541}	447^{+2442}_{-269}
Alt.	-85 ± 23	$4.26^{+3.02}_{-2.68}$	687^{+35}_{-30}	4301^{+2201}_{-784}	868^{+4892}_{-598}

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 $A_{obs} \gg 1.0$

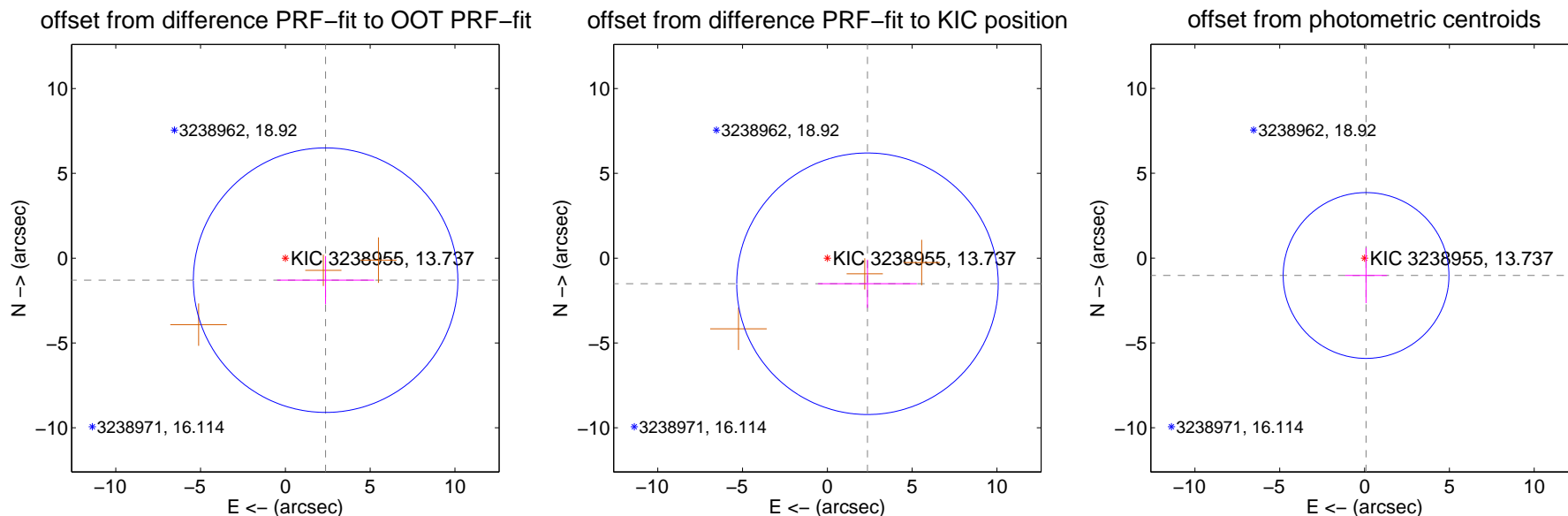
DV Centroid Data

Supplemental centroid analysis for 003238955-01. Kepler magnitude: 13.74. Transit SNR 6.81

There are 0 quarters with good PRF difference image offsets

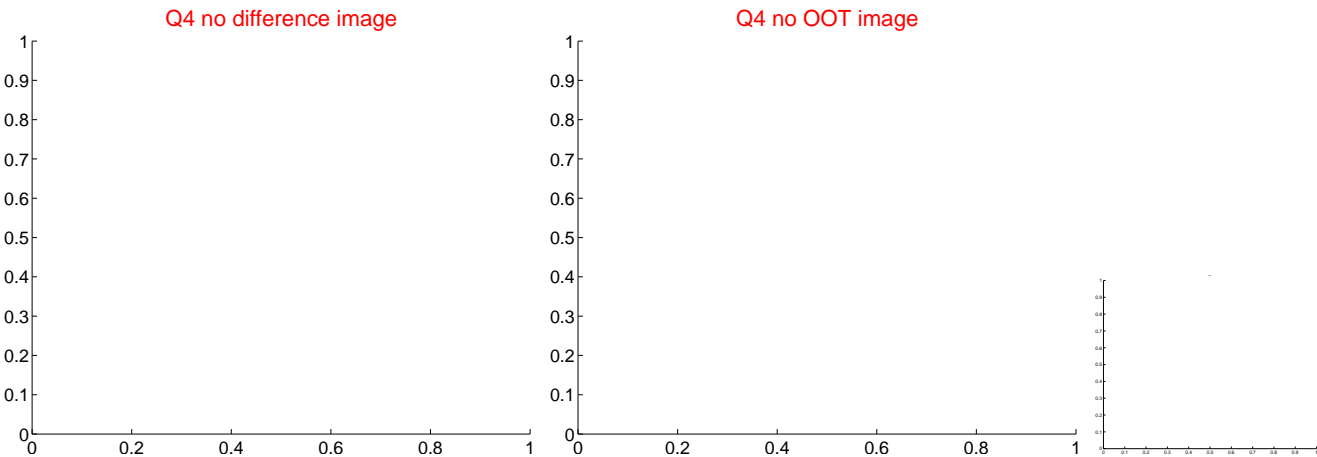
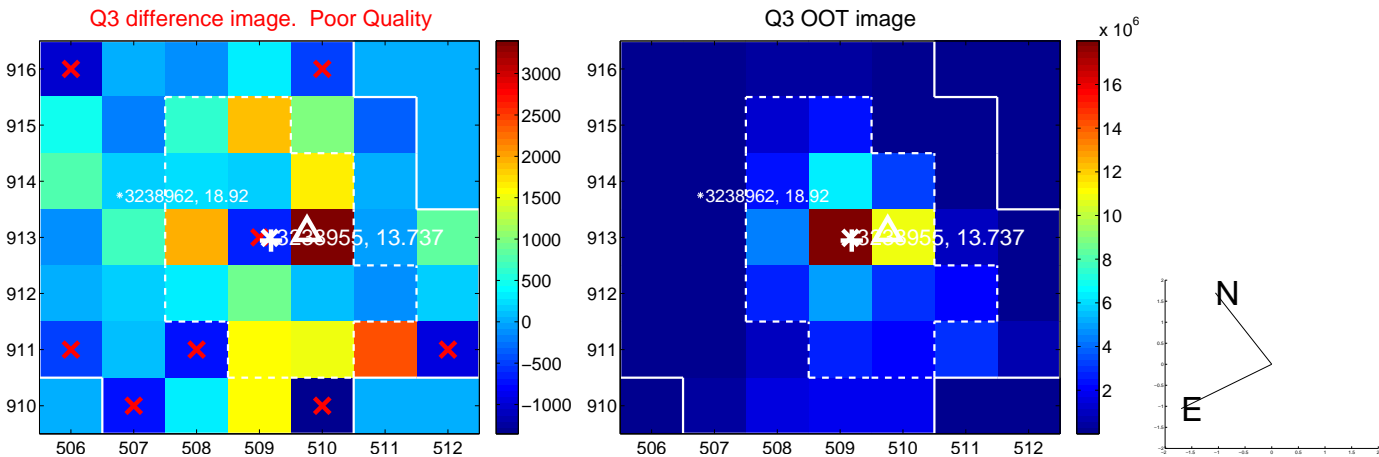
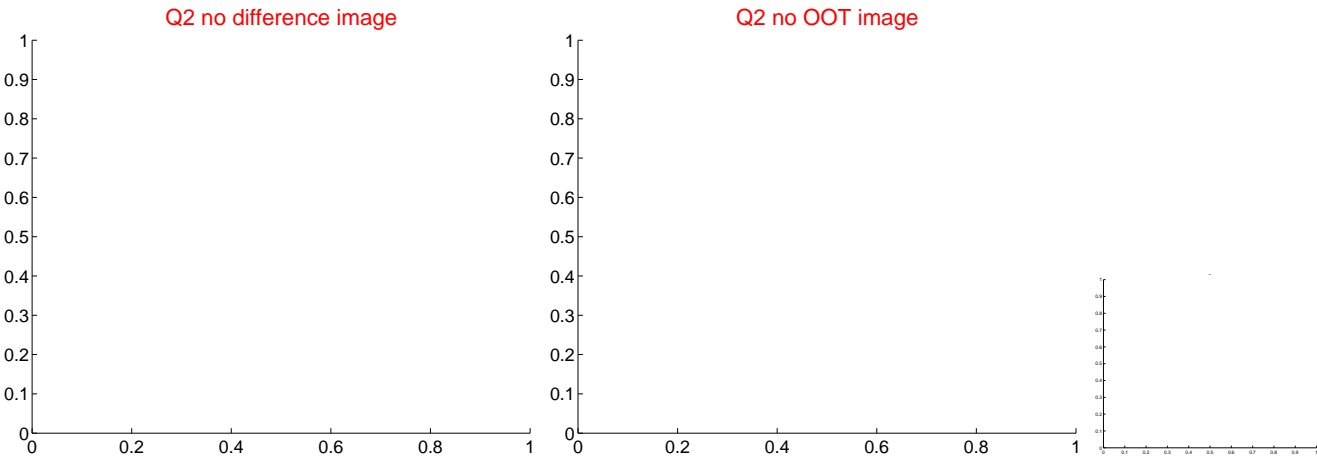
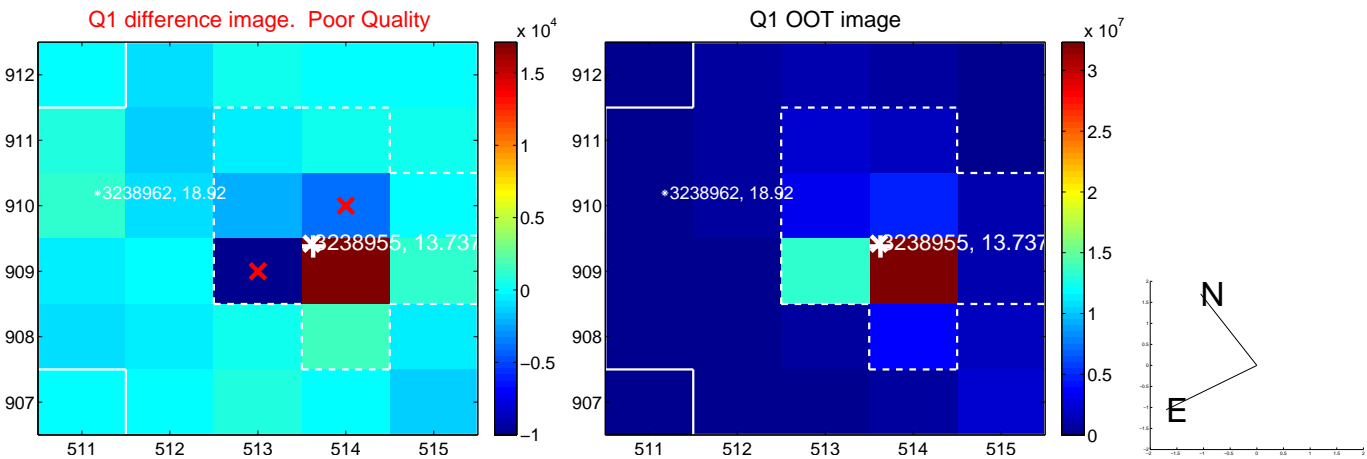
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.704 ± 2.599	1.04	-2.373 ± 2.858	-1.297 ± 1.421
PRF-fit source offset from KIC position	2.806 ± 2.569	1.09	-2.365 ± 2.910	-1.509 ± 1.420
photometric centroid source offset	1.03 ± 1.63	0.63	-0.09 ± 1.23	-1.03 ± 1.63

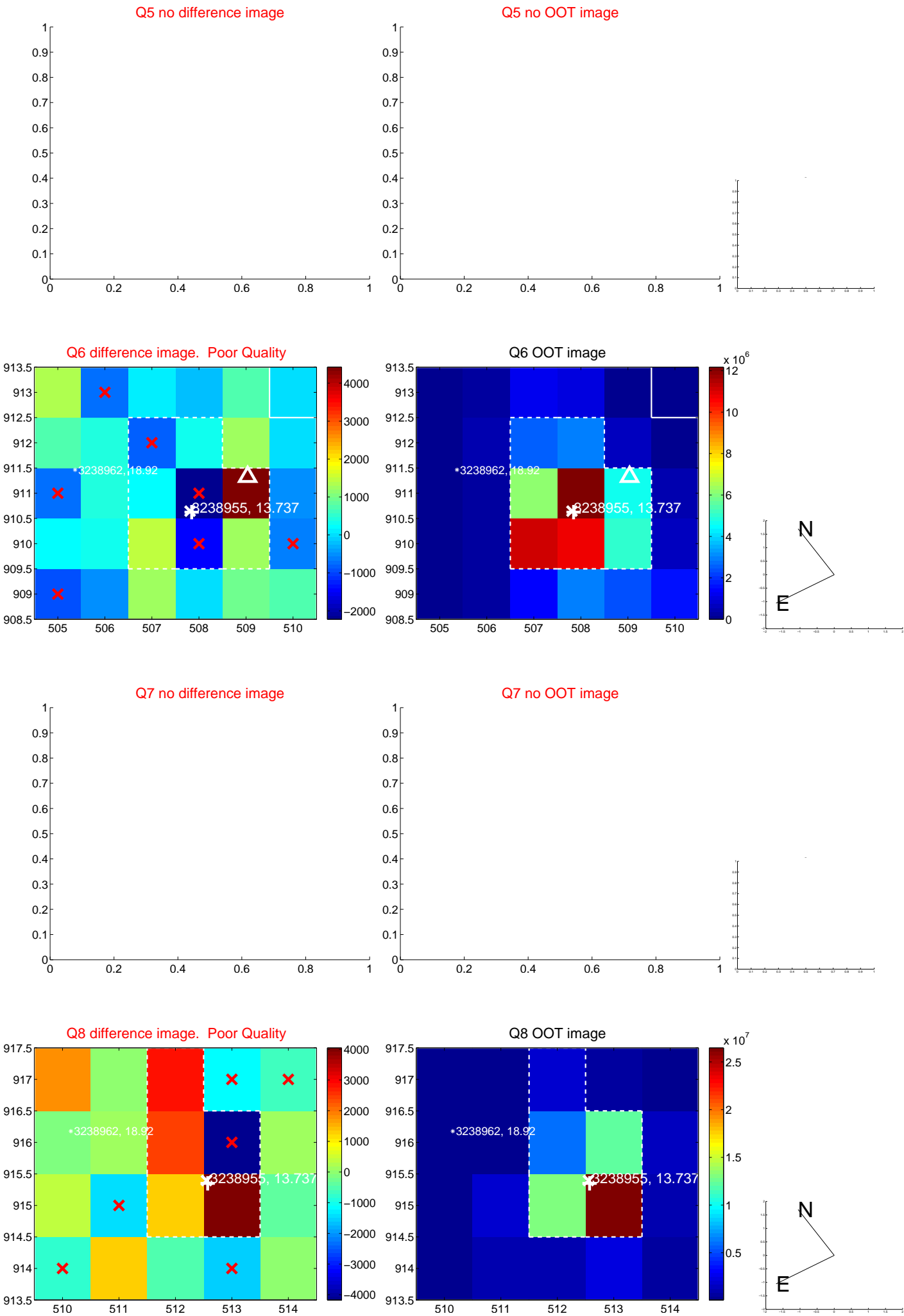


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

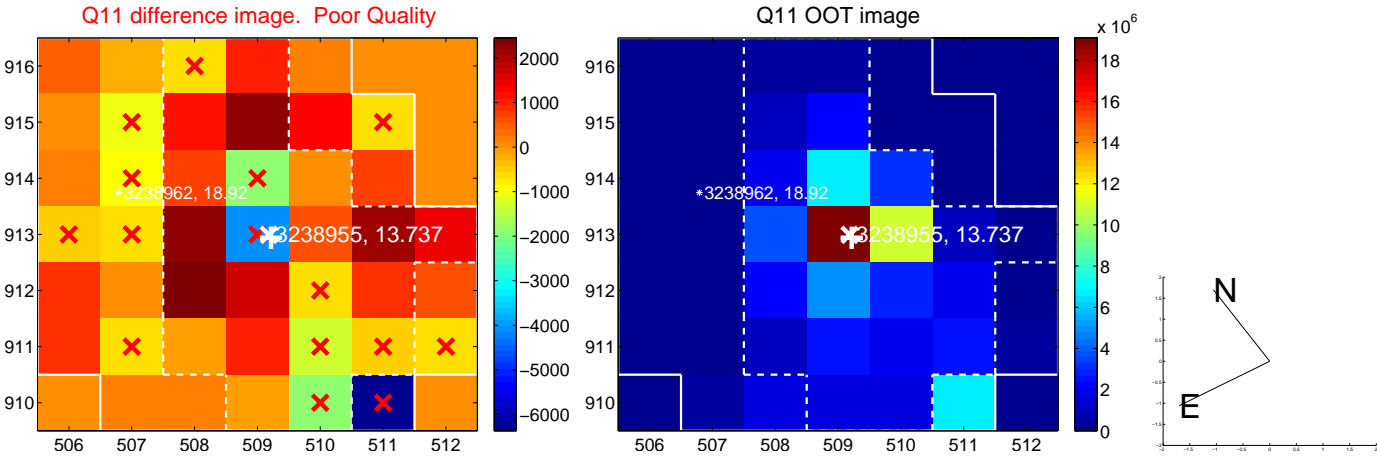
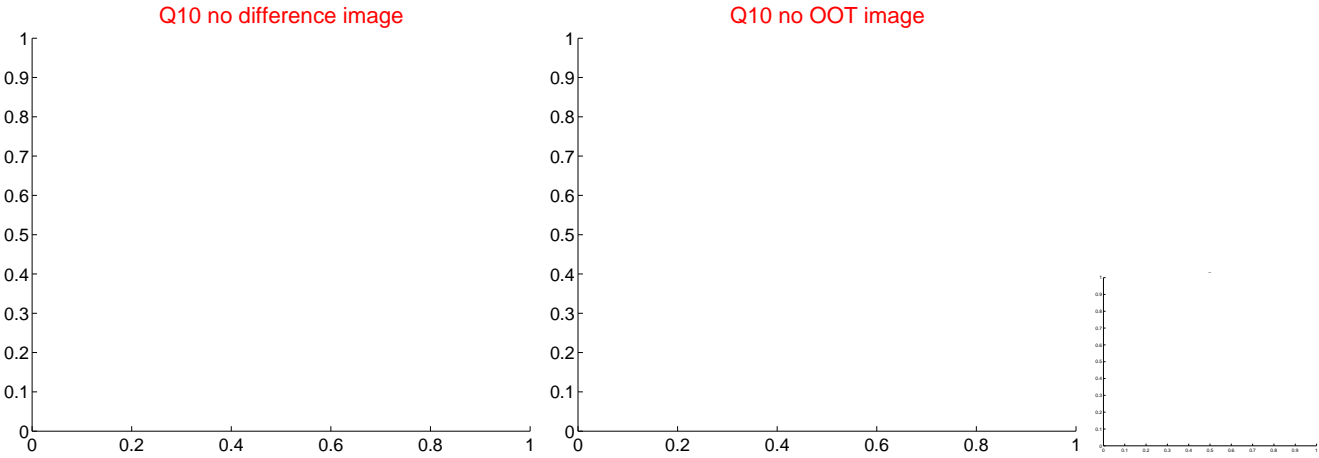
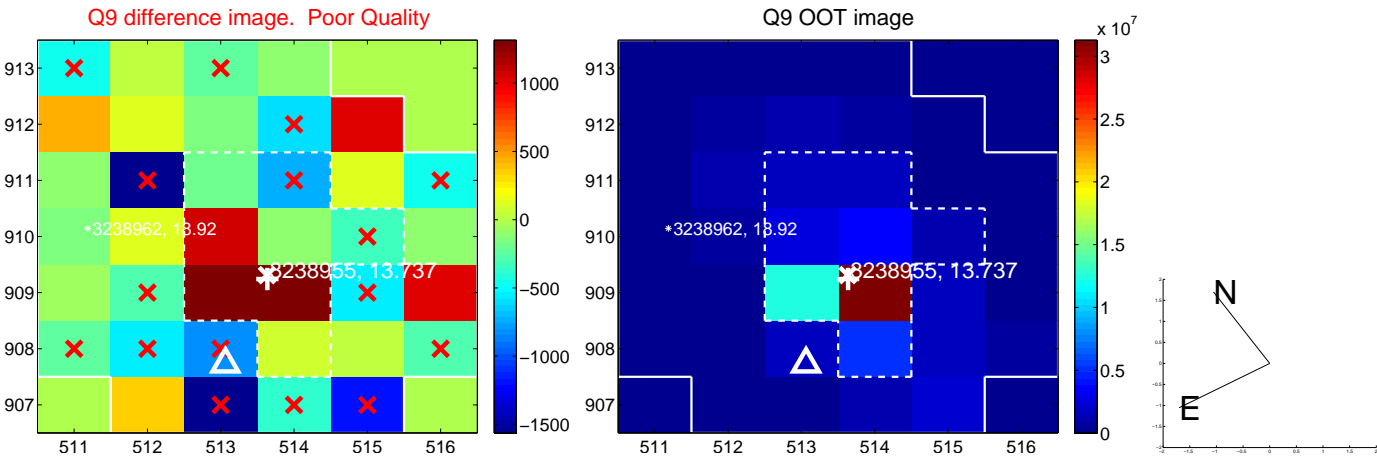
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



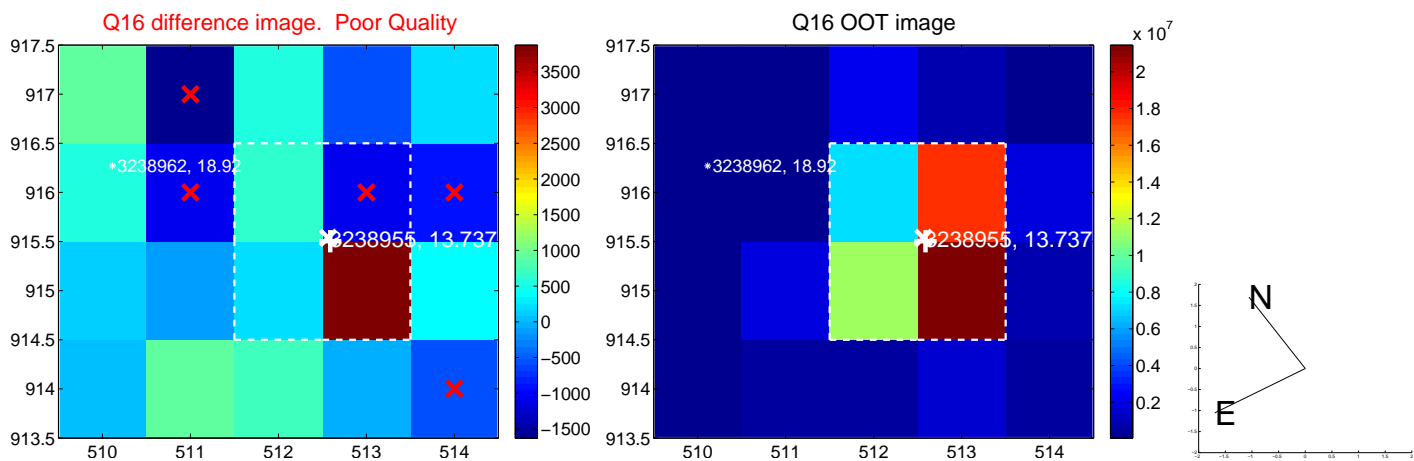
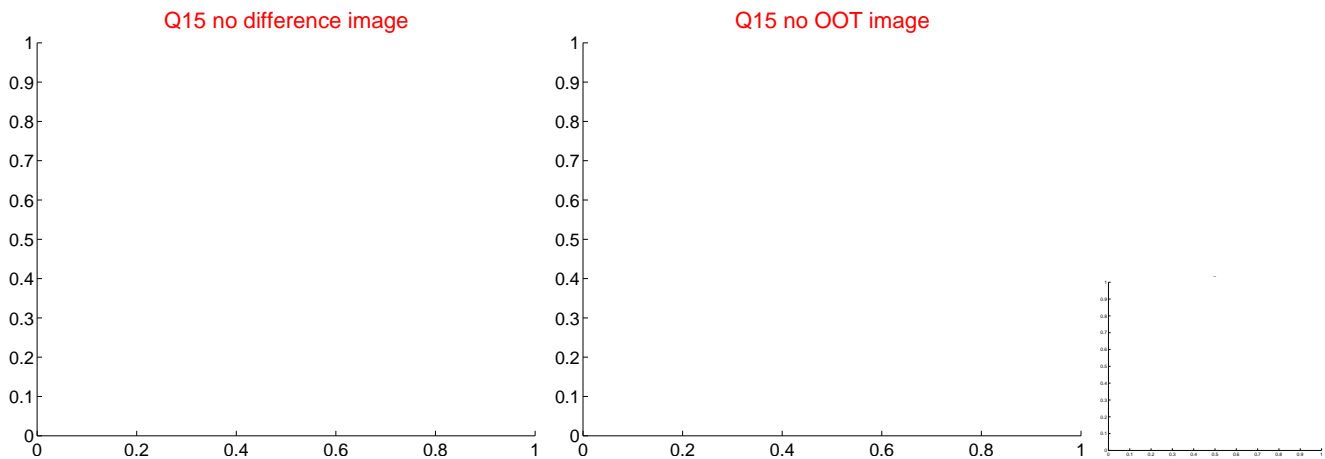
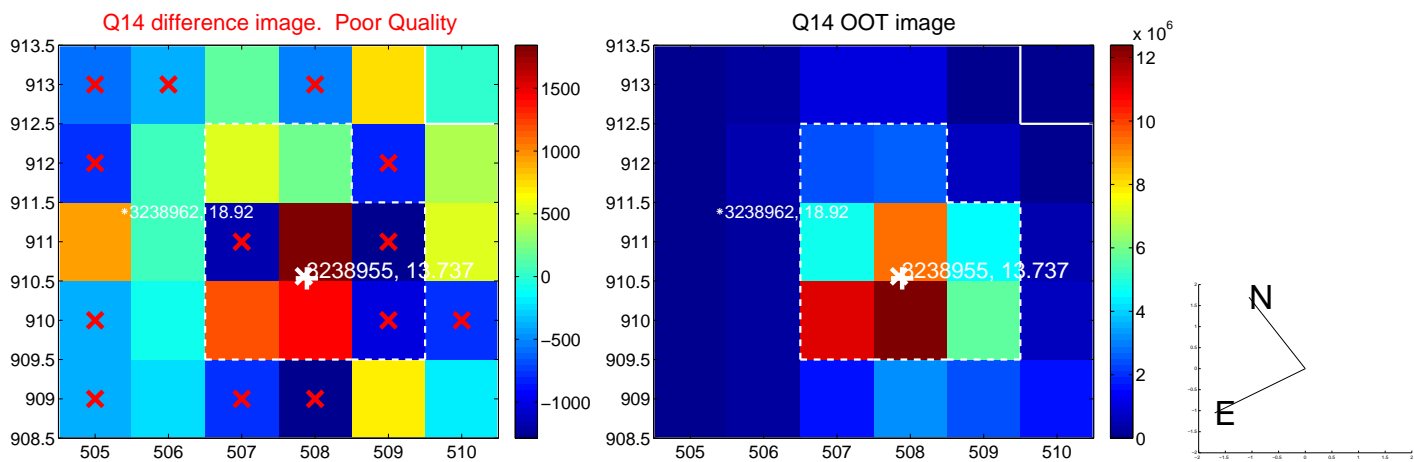
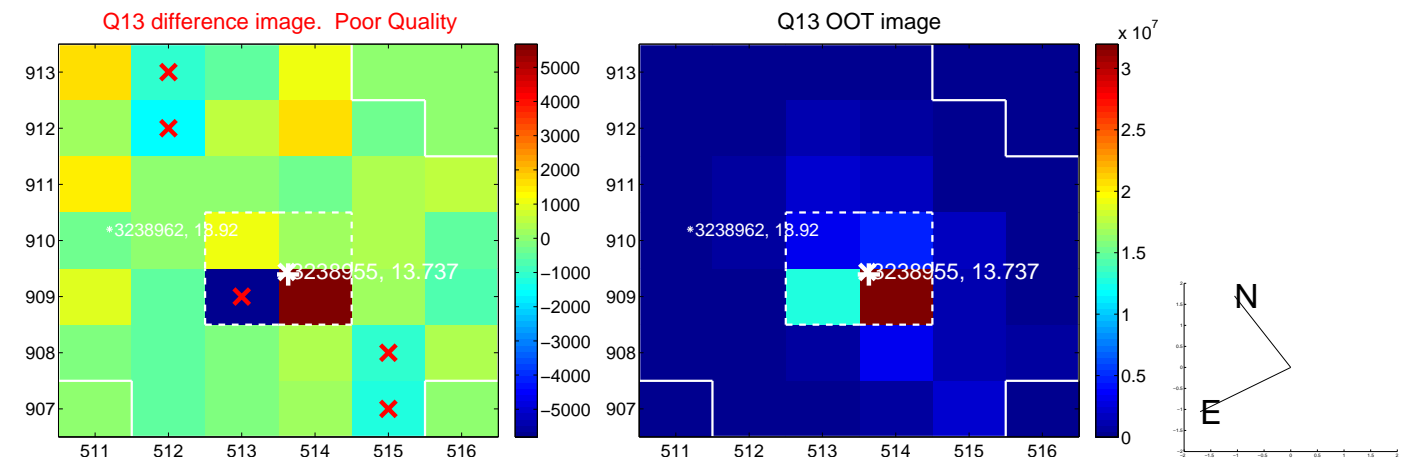
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



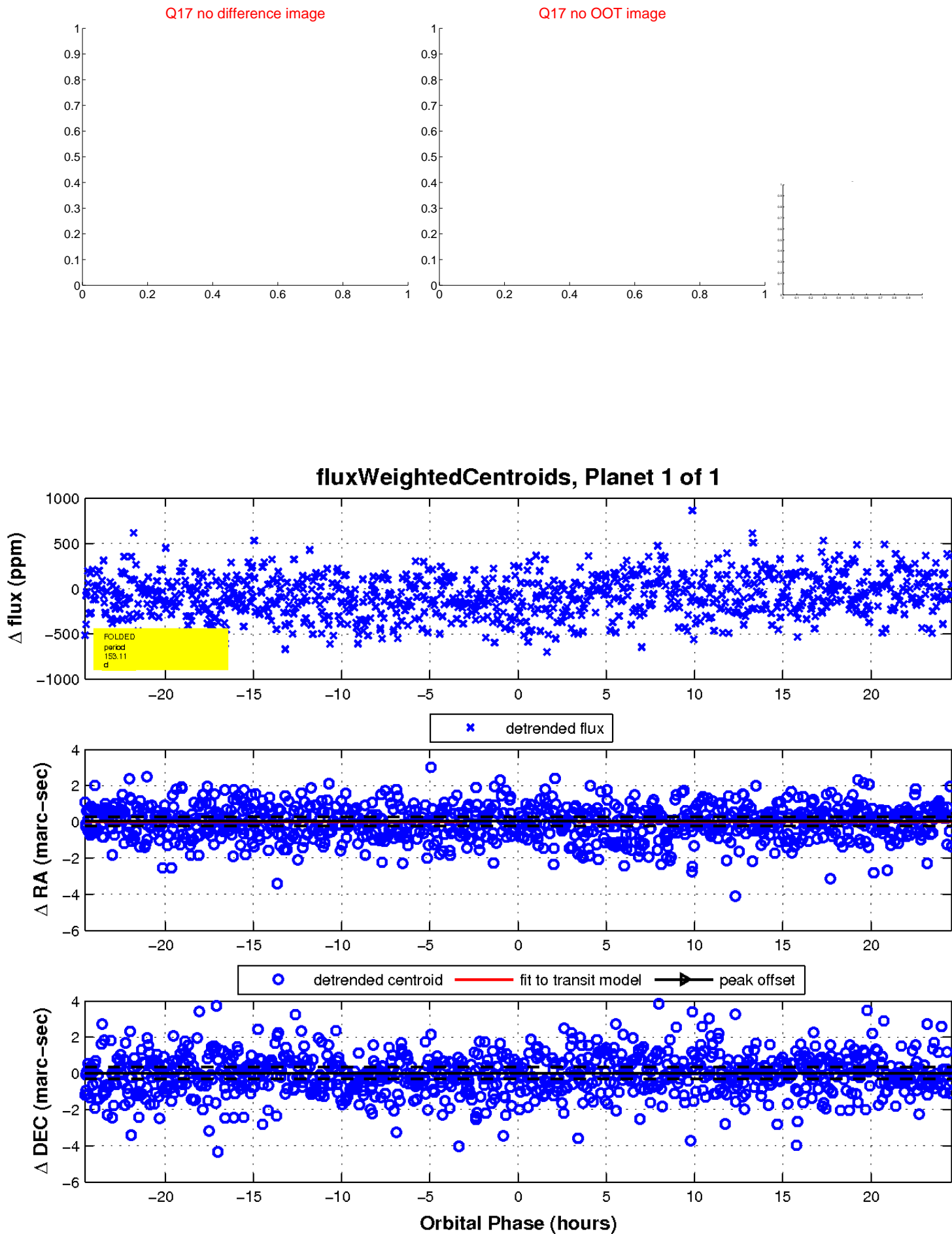
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

