

KIC 010601155

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})
010601155-01	OBS	No	338.228837	439.719490	641.4	8.614	9.9	3.7	15.98	5115	43.30	91.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010601155-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—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.

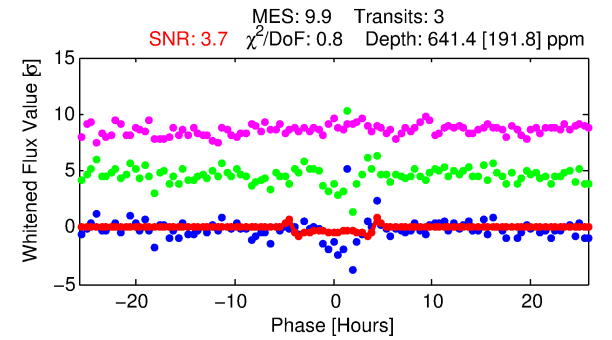
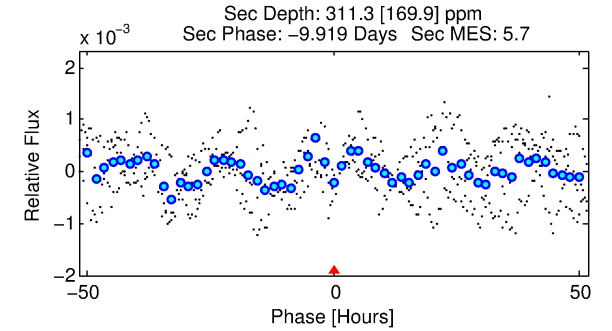
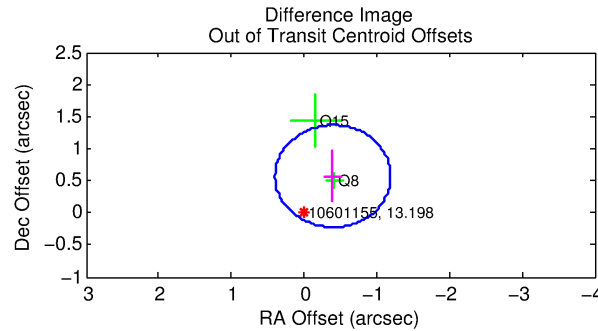
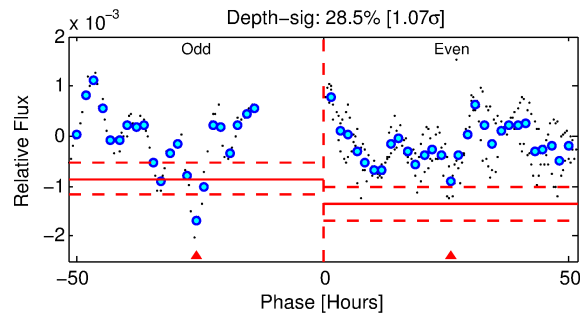
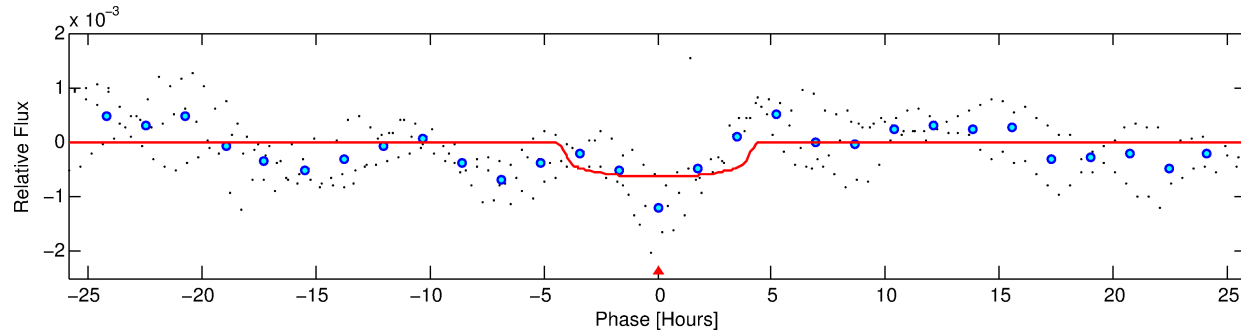
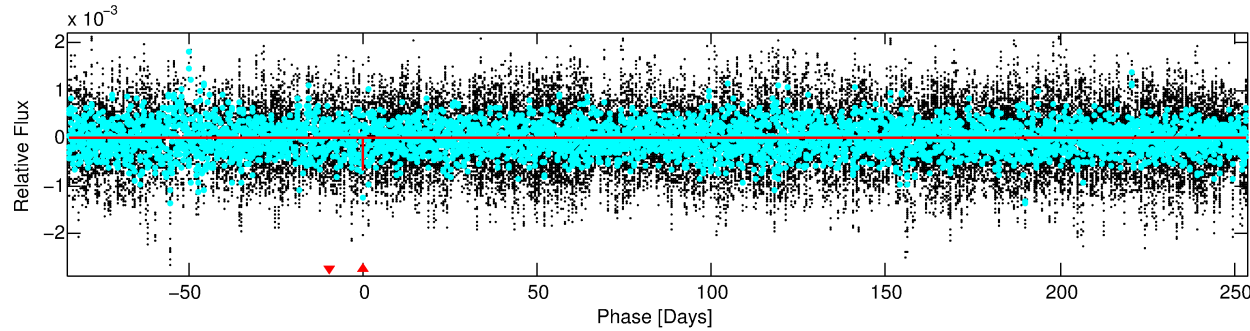
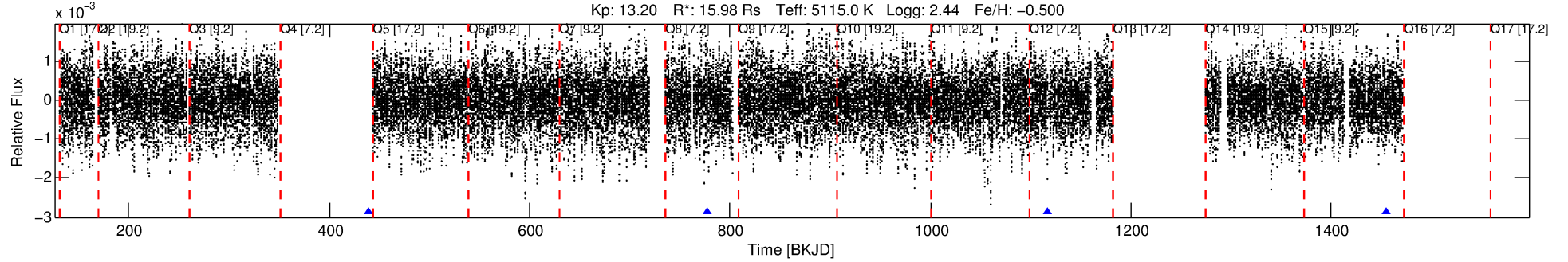
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010601155-01

No Significant Match Found

DV One-Page Summary

KIC: 10601155 Candidate: 1 of 1 Period: 338.229 d



DV Fit Results:

Period = 338.22884 [0.00655] d
Epoch = 439.7195 [0.0133] BKJD
Rp/R* = 0.0248 [0.0090]
a/R* = 222.12 [263.19]
b = 0.71 [0.84]
Seff = 91.84 [28.80]
Teq = 789 [62] K
Rp = 43.30 [20.97] Re
a = 1.3058 [0.2811] AU
Ag = 155.72 [145.33] [1.06 σ]
Teffp = 4311 [1007] K [3.49 σ]

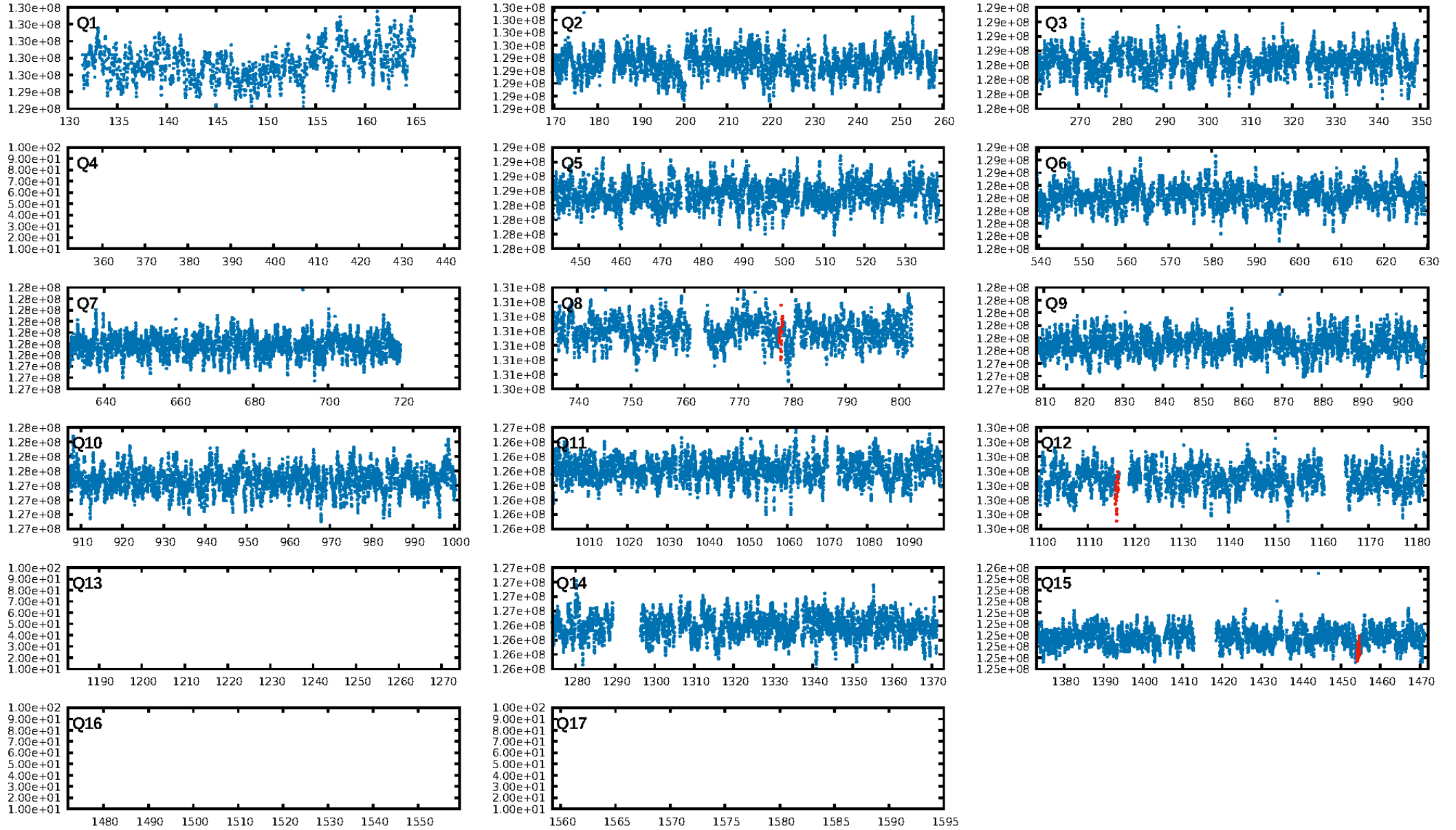
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 34.7%
ModelChiSquareGof-sig: 97.6%
Bootstrap-pfa: 1.93e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.2501
Centroid-sig: 67.5%
Centroid-so: 0.240 arcsec [0.44 σ]
OotOffset-rm: 0.694 arcsec [2.61 σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-rm: 0.598 arcsec [2.36 σ]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

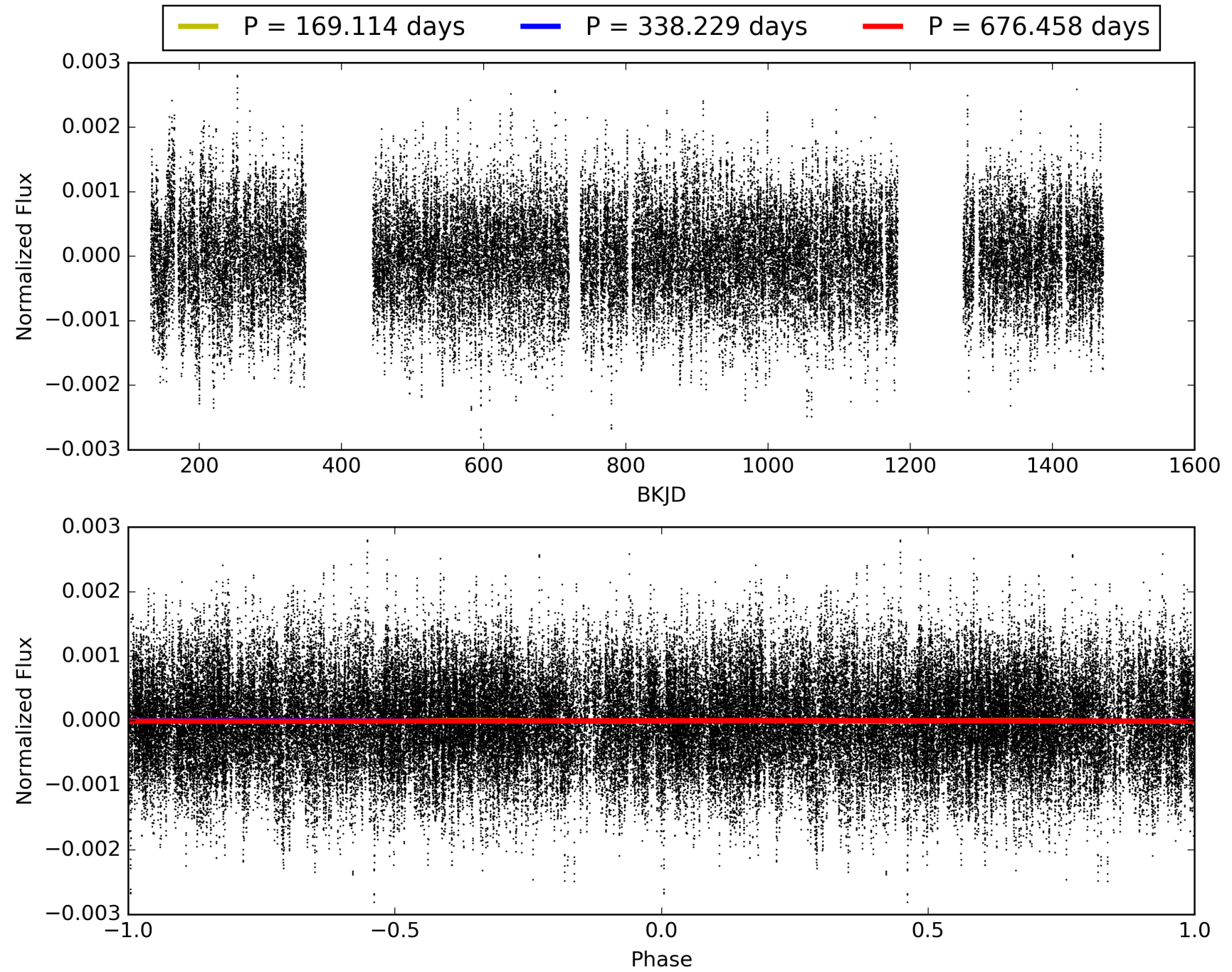
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:45:21 Z

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

TCE 010601155-01, PDC Light Curves

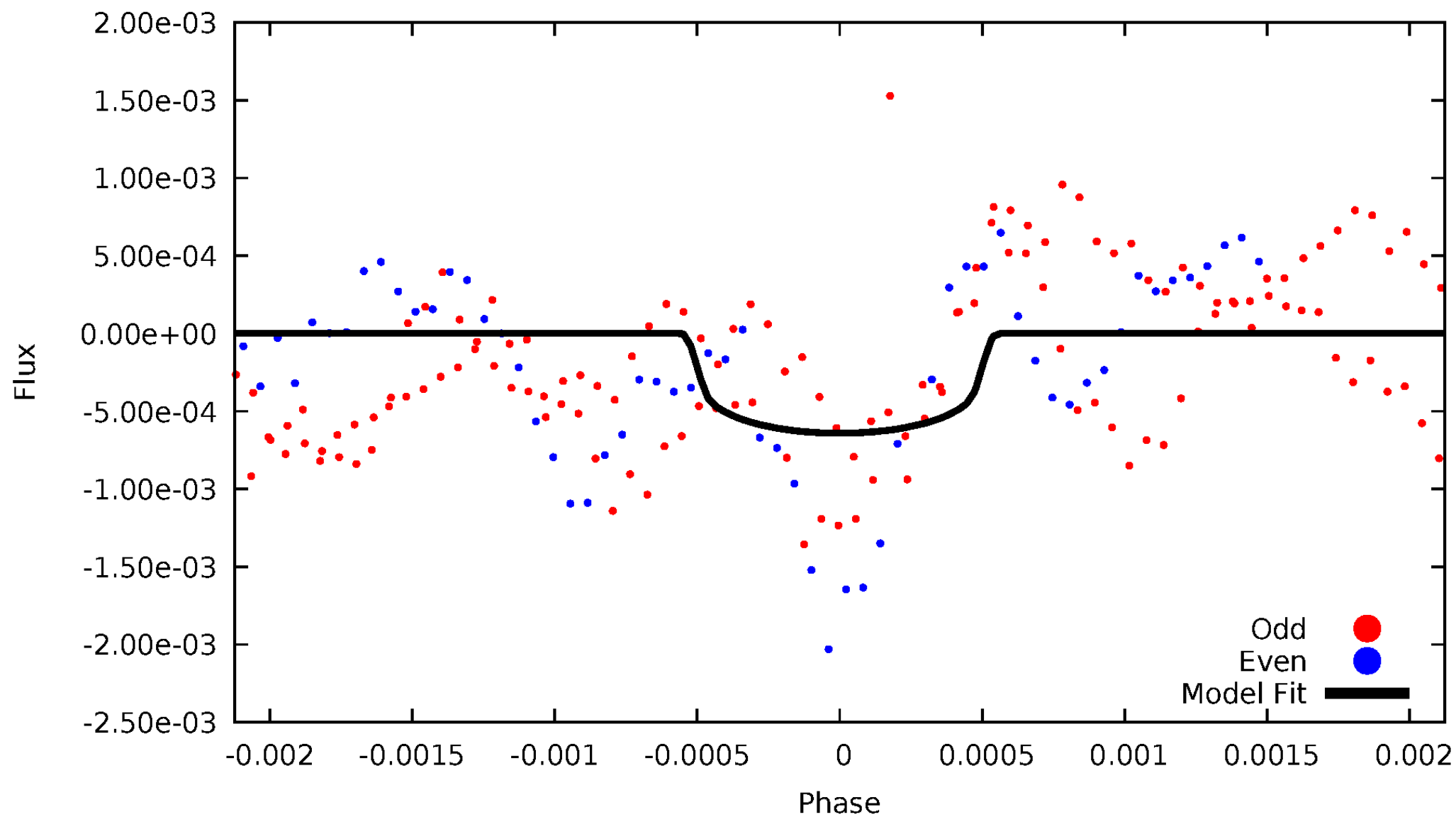


TCE 010601155-01



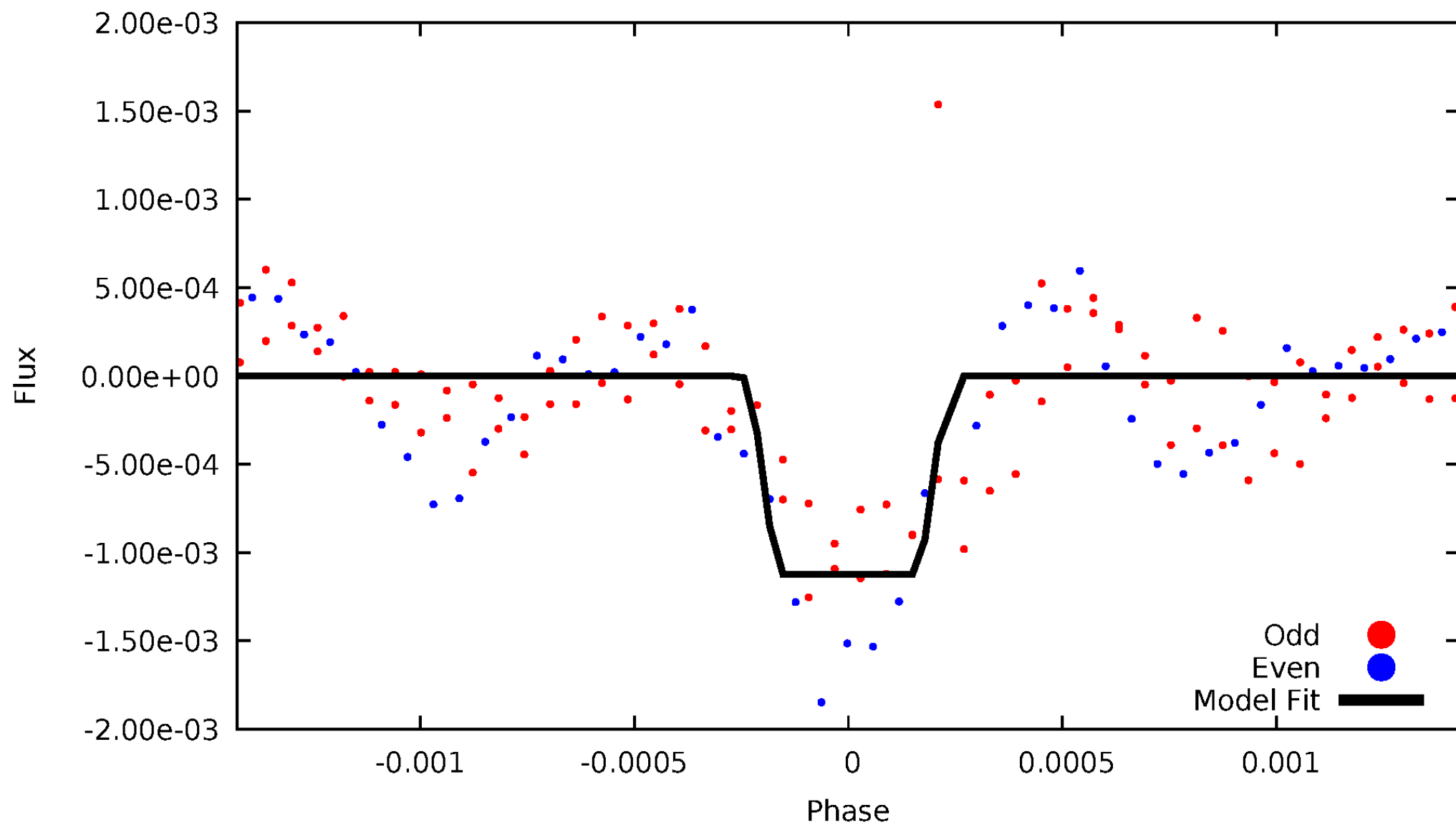
DV Odd/Even

TCE 010601155-01



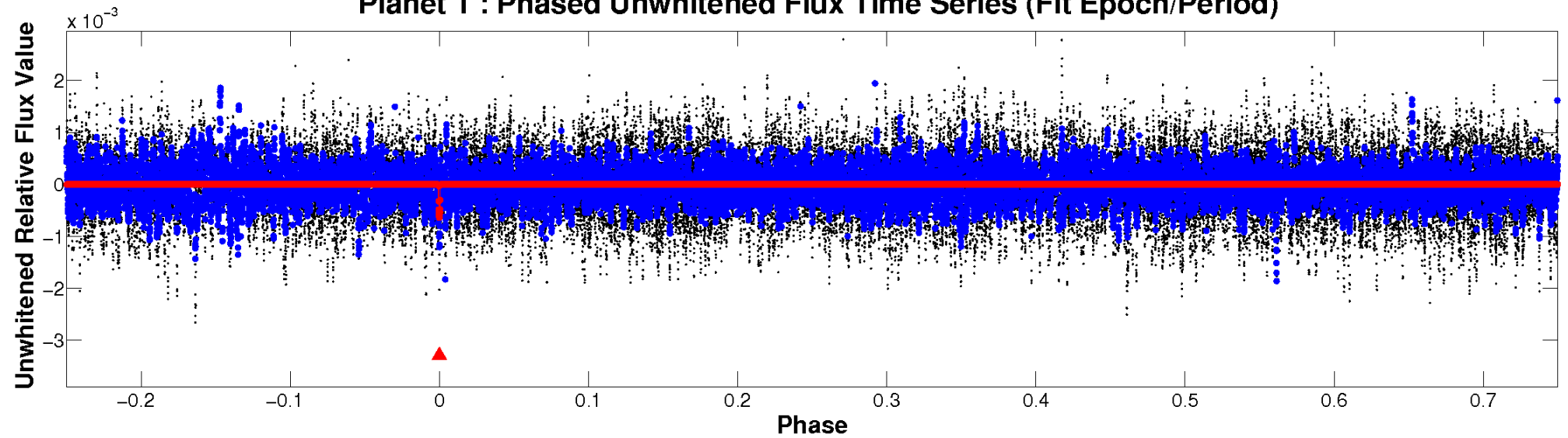
ALT Odd/Even

TCE 010601155-01

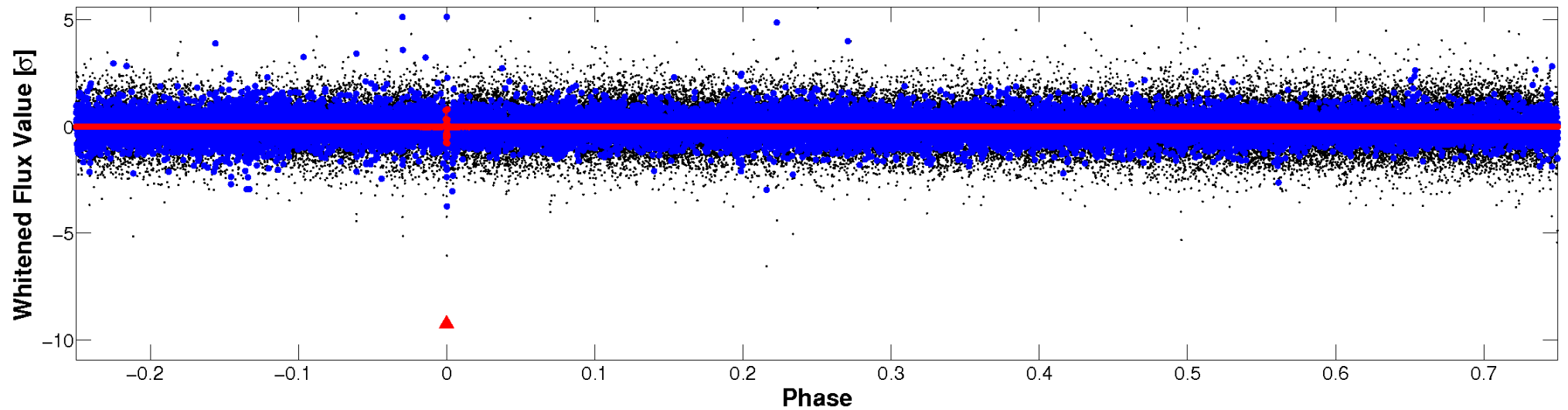


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

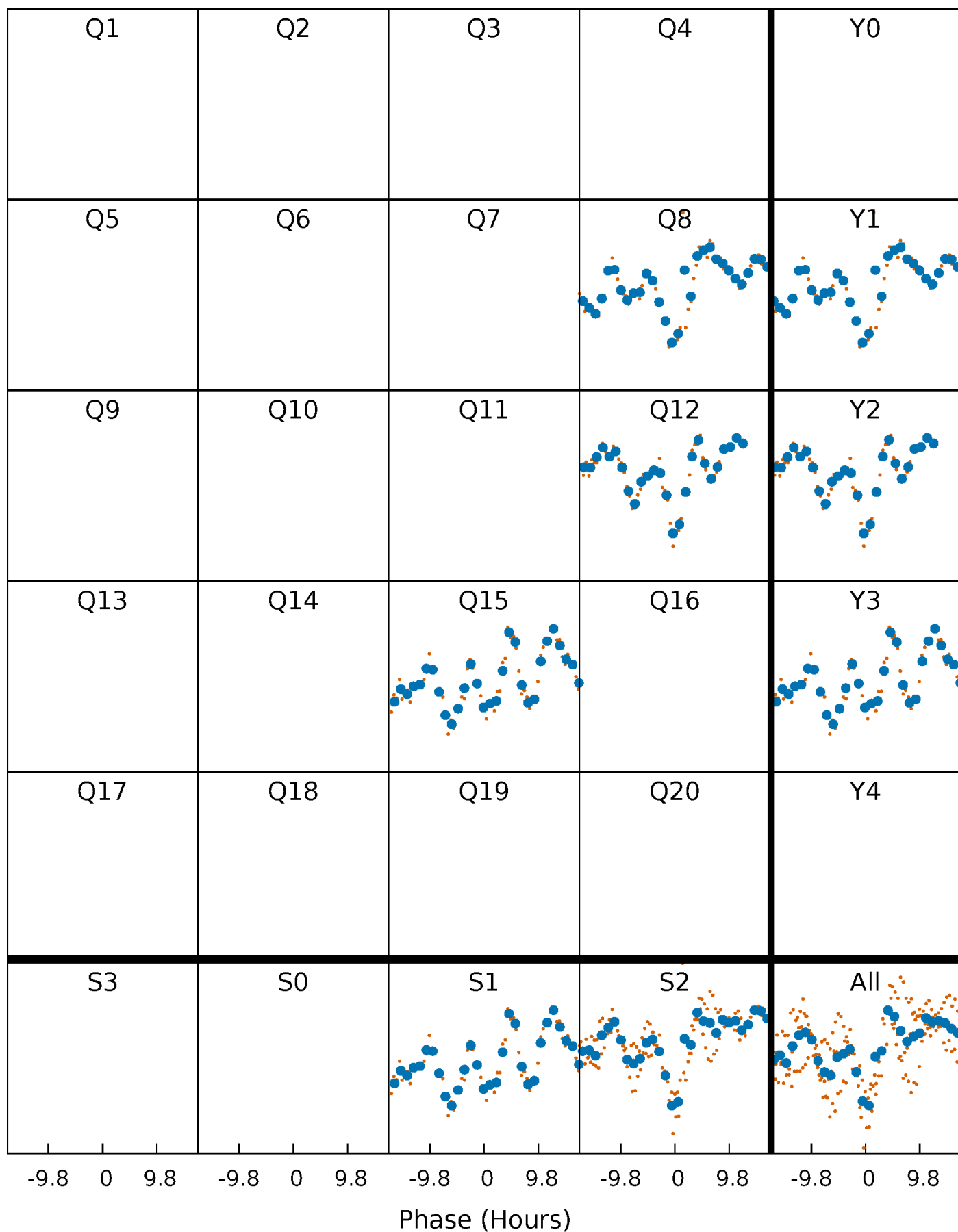


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



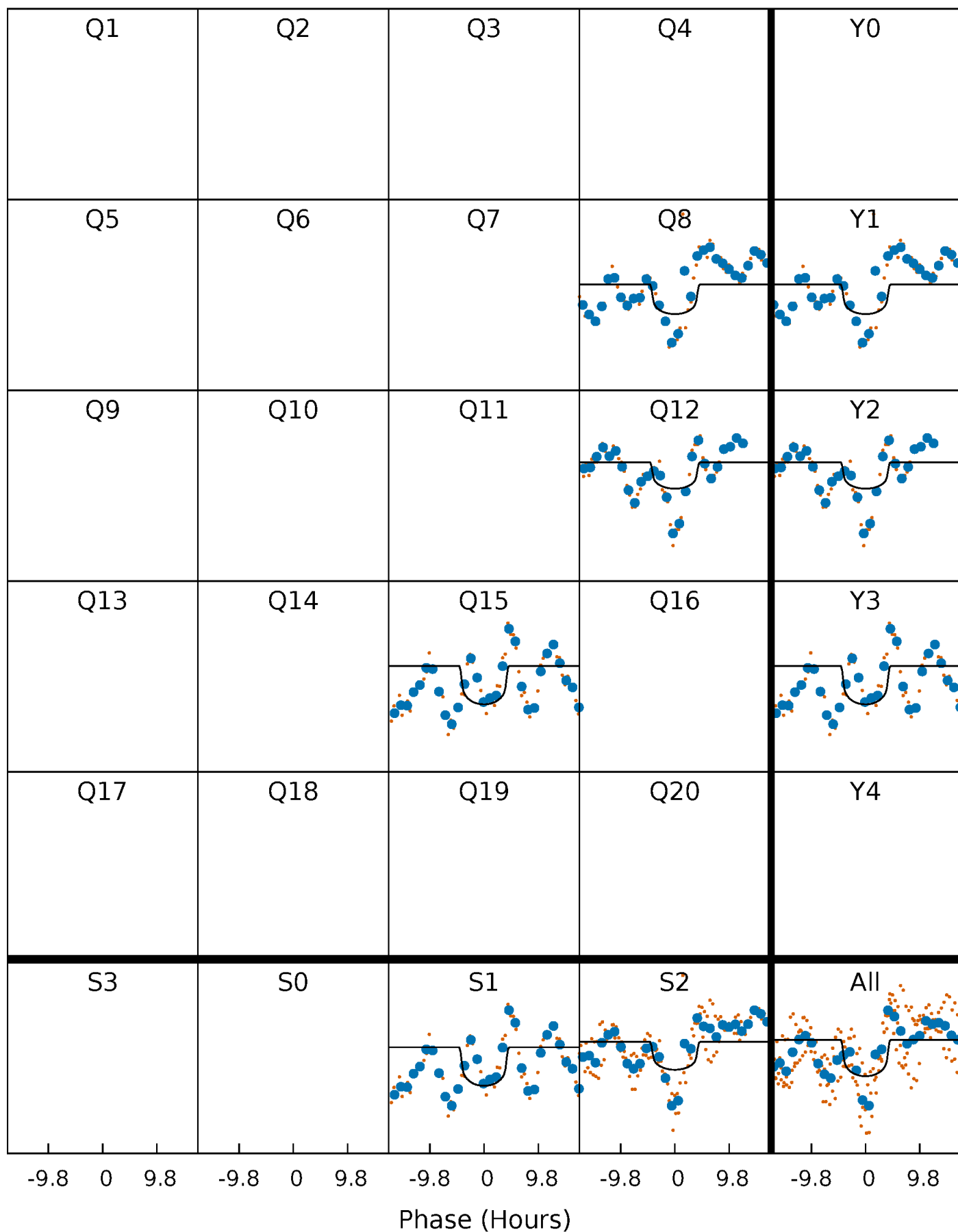
PDC Quarter-Phased Transit Curves

TCE 010601155-01 P=338.228837 Days $T_0=439.719490$ (BKJD)



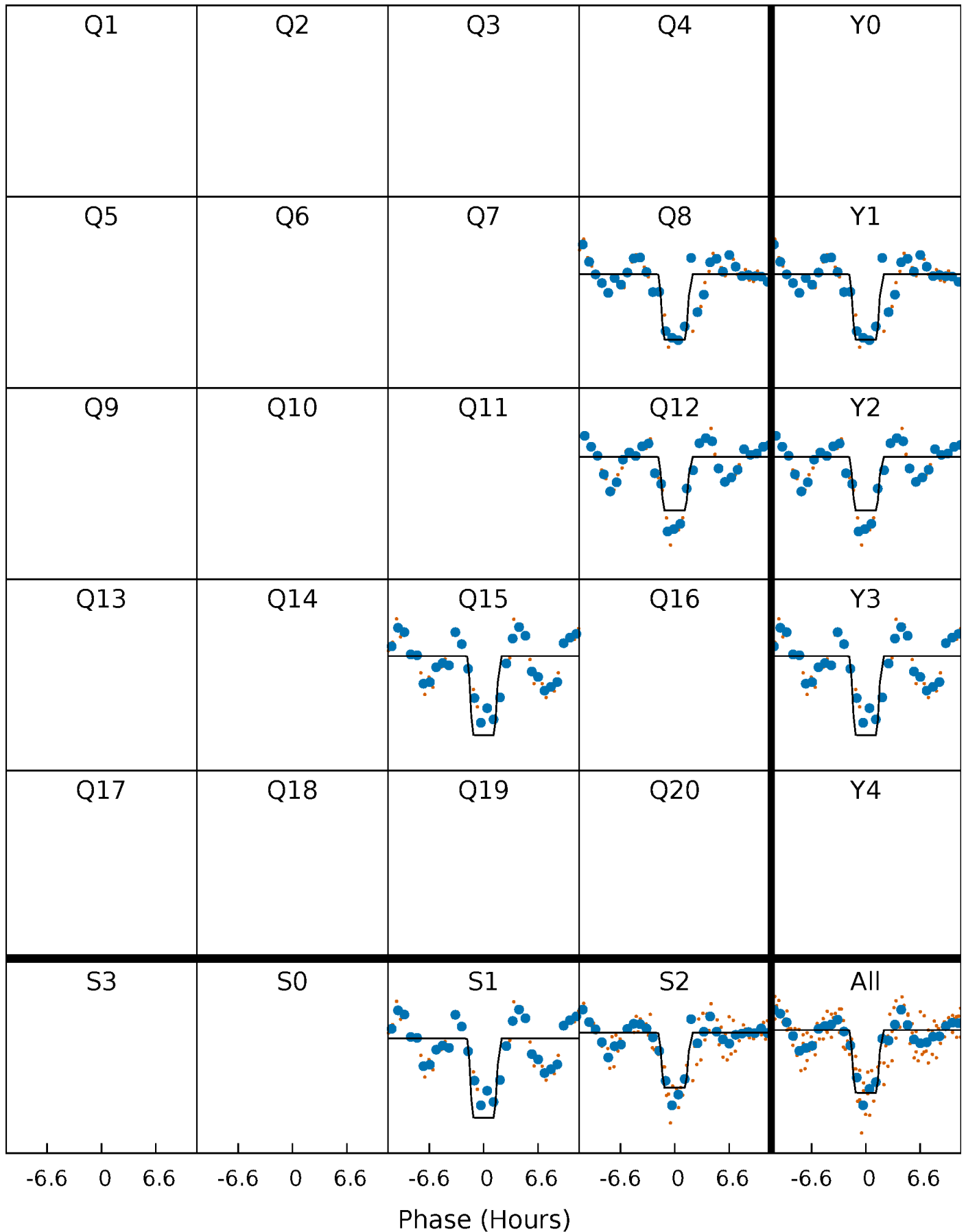
DV Quarter-Phased Transit Curves

TCE 010601155-01 P=338.228837 Days $T_0=439.719490$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

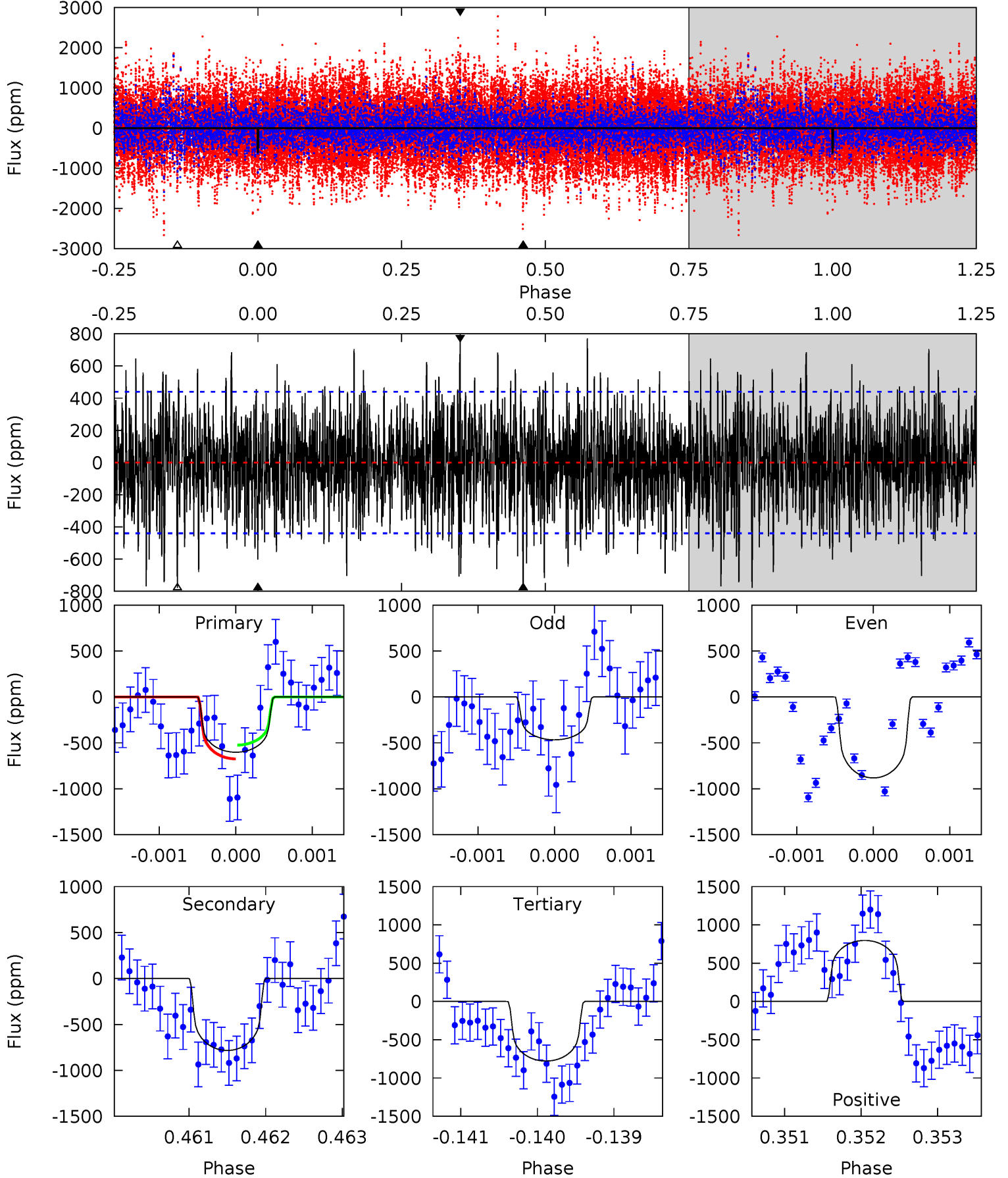
TCE 010601155-01 P=338.248180 Days $T_0=439.689074$ (BKJD)



DV Model-Shift Uniqueness Test

010601155-01, P = 338.228837 Days, E = 101.490653 Days

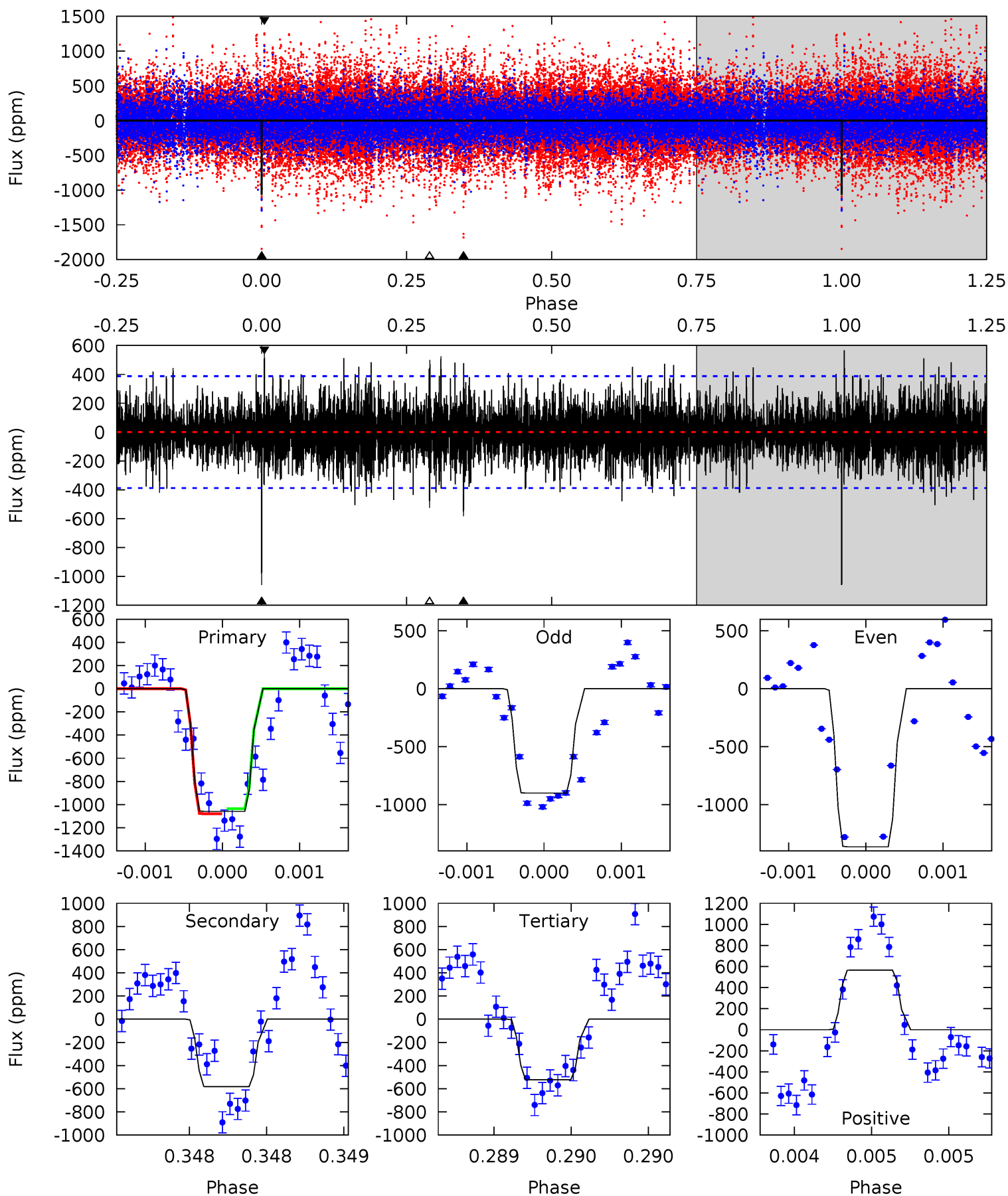
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.44	9.67	9.61	9.84	5.43	3.26	2.81	-2.17	-2.40	0.06	-0.17	2.41	1.01	0.50	0.92



Alt Model-Shift Uniqueness Test

010601155-01, P = 338.248180 Days, E = 101.440894 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	8.36	7.52	8.12	5.57	3.47	1.90	7.67	7.07	0.85	0.24	3.08	1.10	0.35	0.32



Stellar Parameters For KIC 010601155

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5115^{+71}_{-287}	$2.445^{+0.030}_{-0.030}$	$-0.500^{+0.150}_{-0.300}$	$15.979^{+1.283}_{-5.131}$	$2.593^{+0.344}_{-1.377}$	$0.001^{+0.000}_{-0.000}$
	+1%/-6%	+1%/-1%	+30%/-60%	+8%/-32%	+13%/-53%	+54%/-10%
Source	PHO1	AST9	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 010601155-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-783 ± 81	$43.54^{+17.02}_{-16.51}$	1099^{+29}_{-63}	5306^{+1359}_{-672}	396^{+622}_{-190}
Alt.	-583 ± 70	$59.32^{+16.63}_{-18.15}$	1102^{+27}_{-60}	4437^{+644}_{-429}	158^{+155}_{-61}

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 $A_{obs} \gg 1.0$

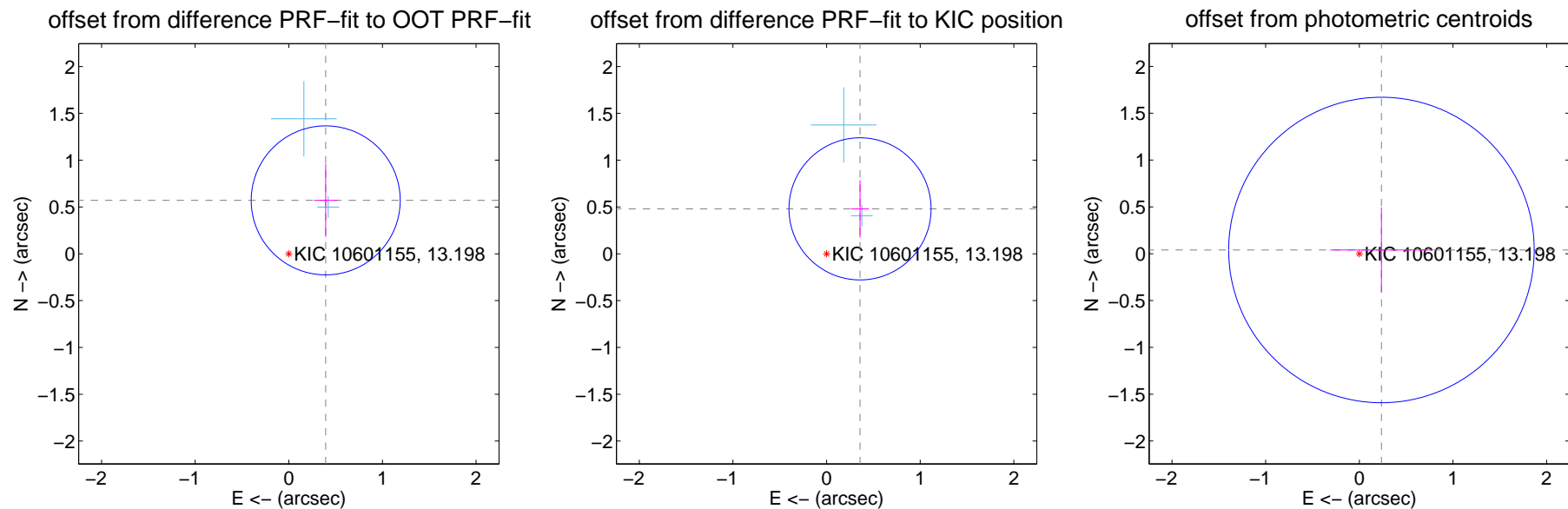
DV Centroid Data

Supplemental centroid analysis for 010601155-01. Kepler magnitude: 13.20. Transit SNR 3.66

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.694 ± 0.265	2.61	-0.394 ± 0.125	0.571 ± 0.391
PRF-fit source offset from KIC position	0.598 ± 0.253	2.36	-0.357 ± 0.095	0.480 ± 0.307
photometric centroid source offset	0.24 ± 0.54	0.44	-0.24 ± 0.55	0.04 ± 0.46

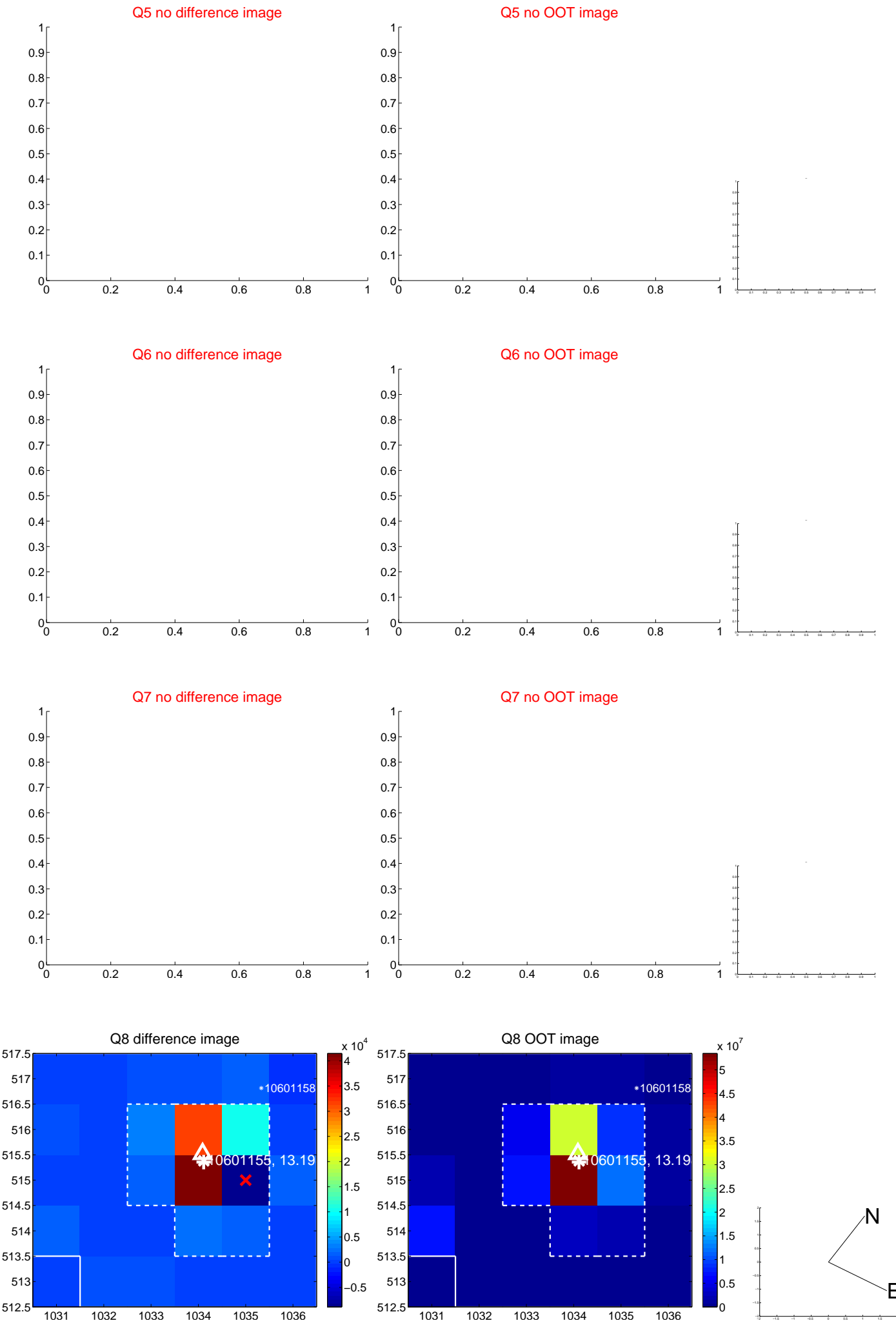


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



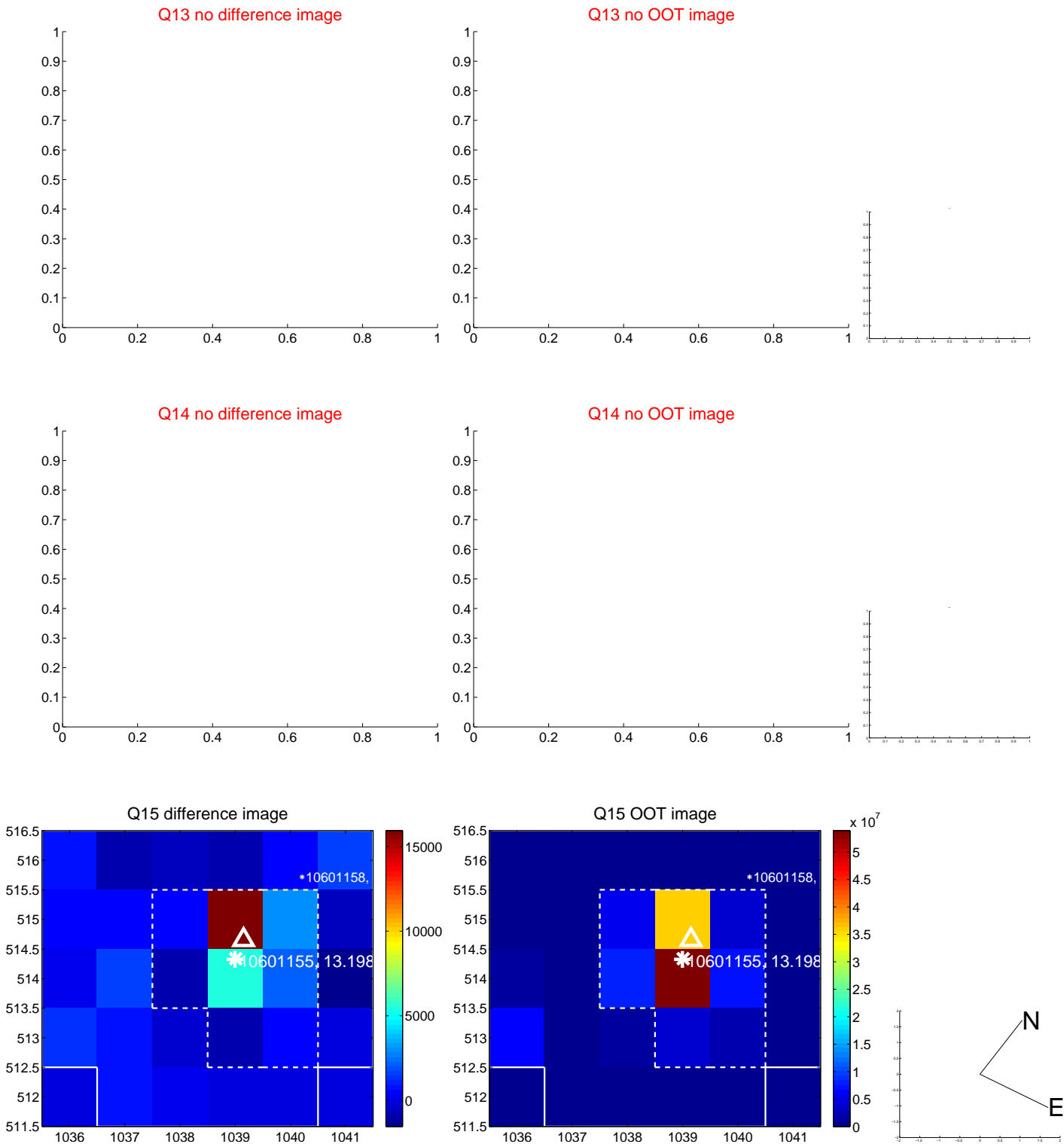
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



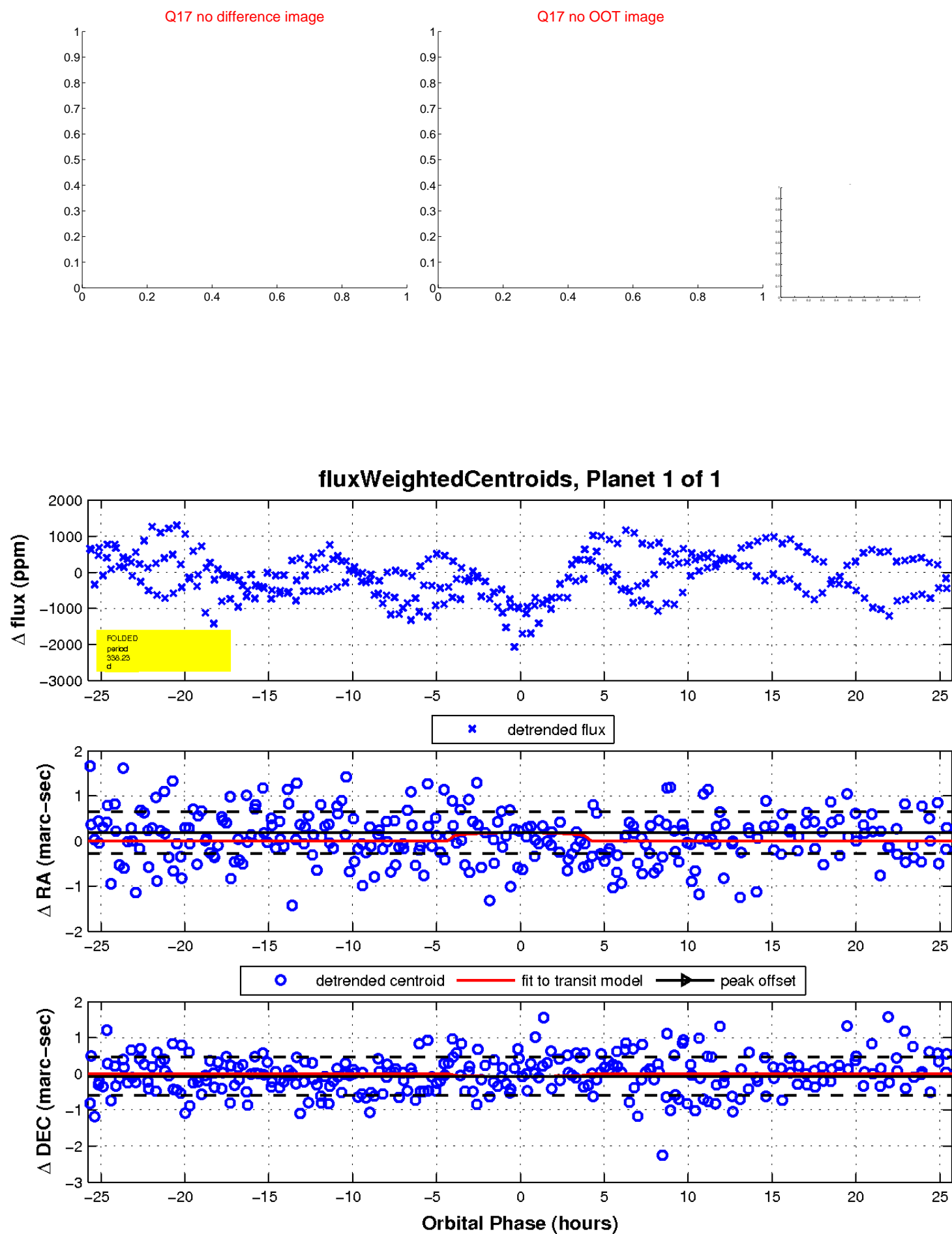
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

