

KIC 008669152

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})
008669152-01	OBS	No	473.361225	147.059036	1124.3	3.950	9.6	7.9	0.86	5676	3.10	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008669152-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE_ZUMA—LPP_ALT—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.

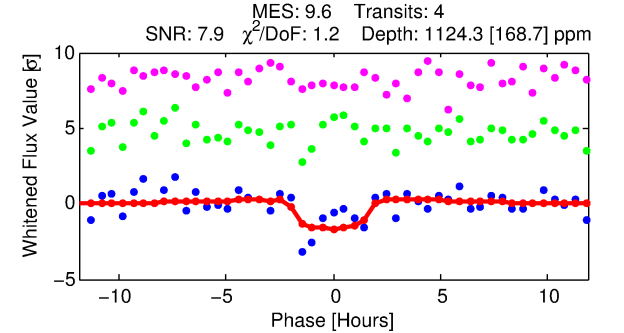
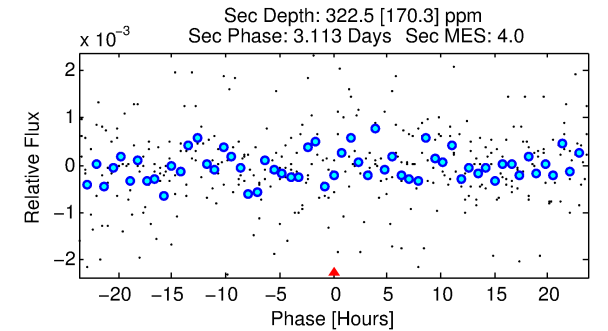
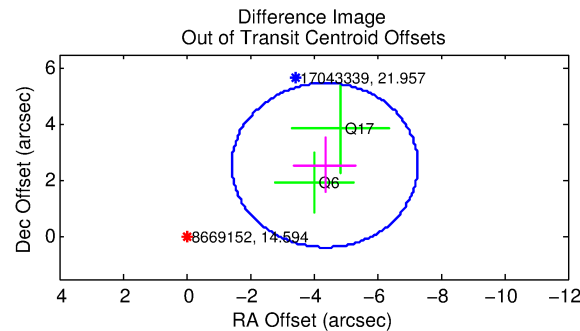
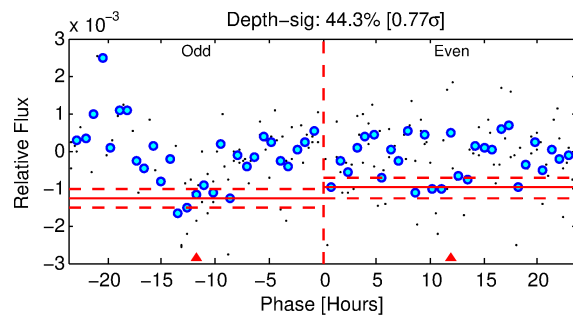
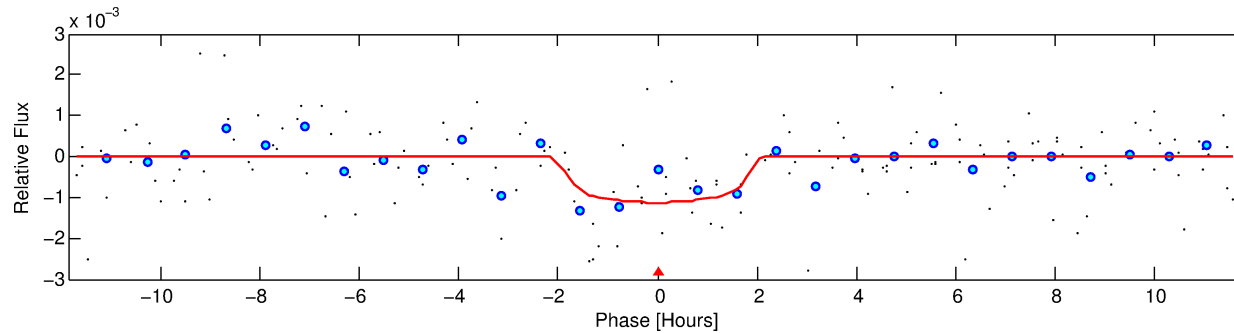
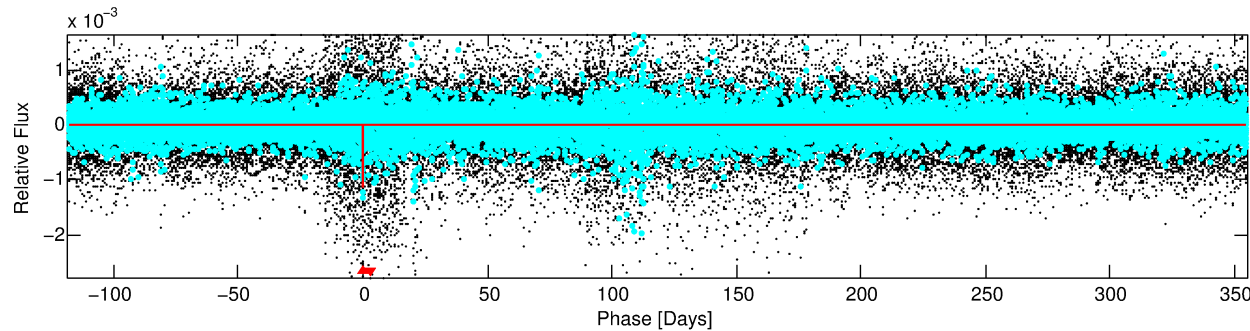
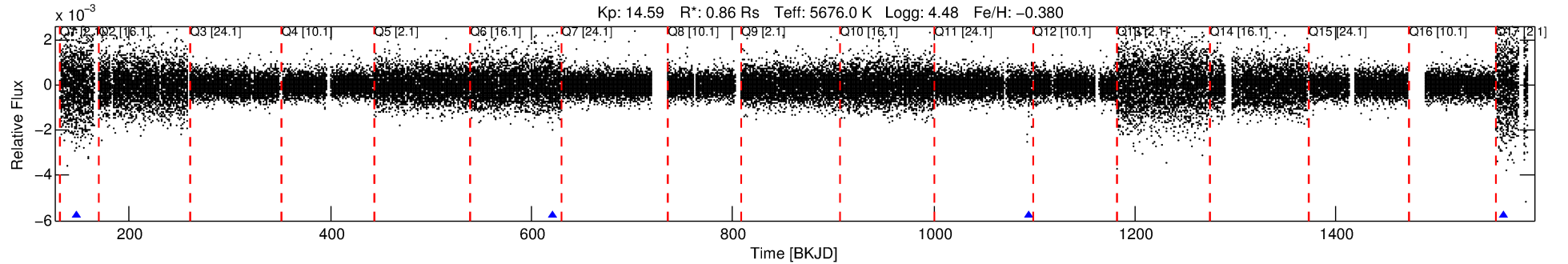
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008669152-01

No Significant Match Found

DV One-Page Summary

KIC: 8669152 Candidate: 1 of 1 Period: 473.361 d



DV Fit Results:

Period = 473.36122 [0.00775] d
Epoch = 147.0590 [0.0141] BKJD
Rp/R* = 0.0329 [0.0387]
a/R* = 686.63 [3667.62]
b = 0.71 [3.75]
Seff = 0.56 [0.17]
Teq = 221 [17] K
Rp = 3.10 [3.72] Re
a = 1.1096 [0.2237] AU
Ag = 22704.02 [55109.22] [0.41 σ]
Teff = 4191 [2528] K [1.57 σ]

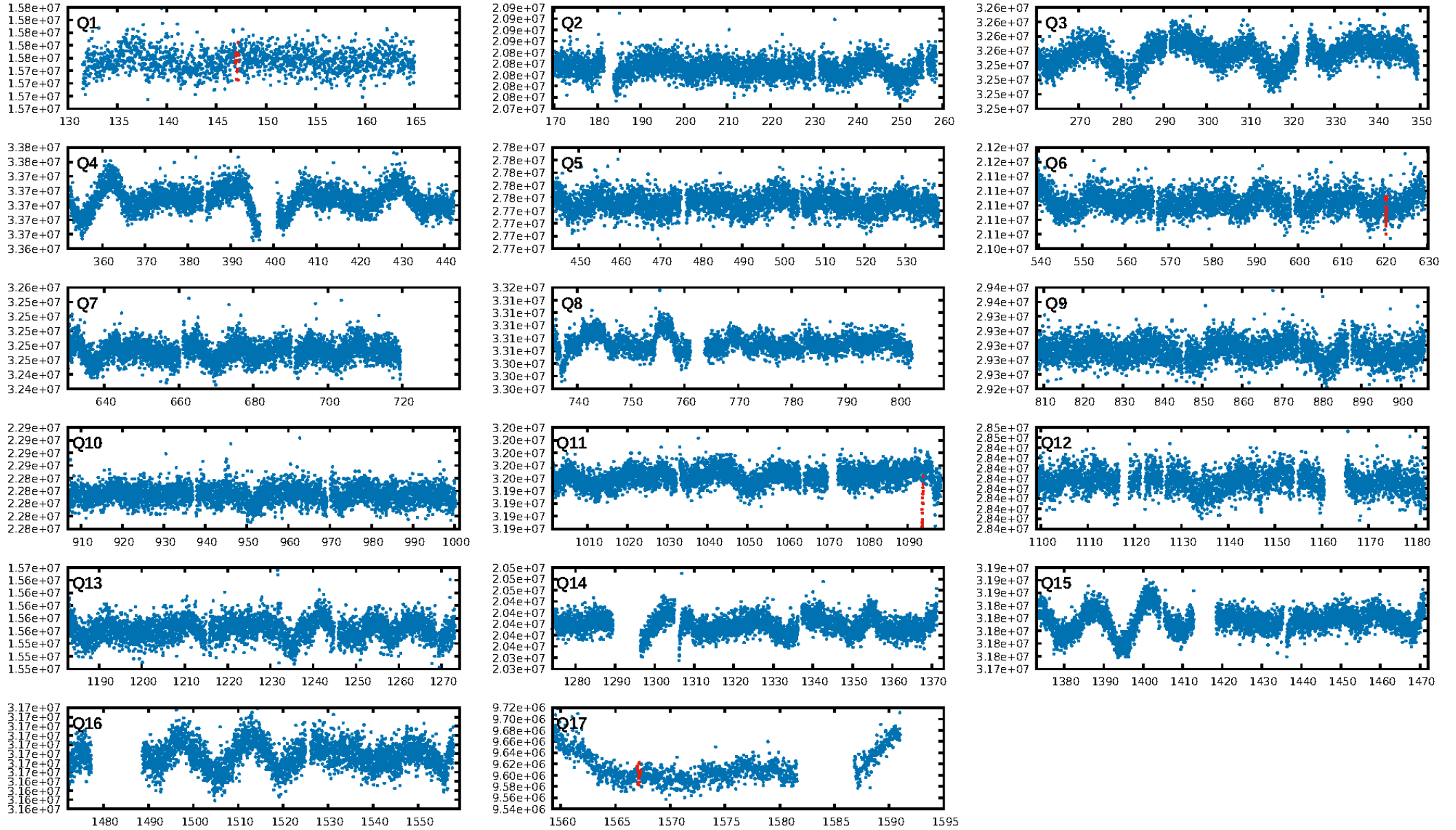
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 29.6%
ModelChiSquareGof-sig: 87.7%
Bootstrap-pfa: 3.37e-15
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -339.6
Centroid-sig: 67.9%
Centroid-so: 1.017 arcsec [1.77 σ]
OotOffset-rm: 5.050 arcsec [5.18 σ]
KicOffset-rm: 2.796 arcsec [2.85 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

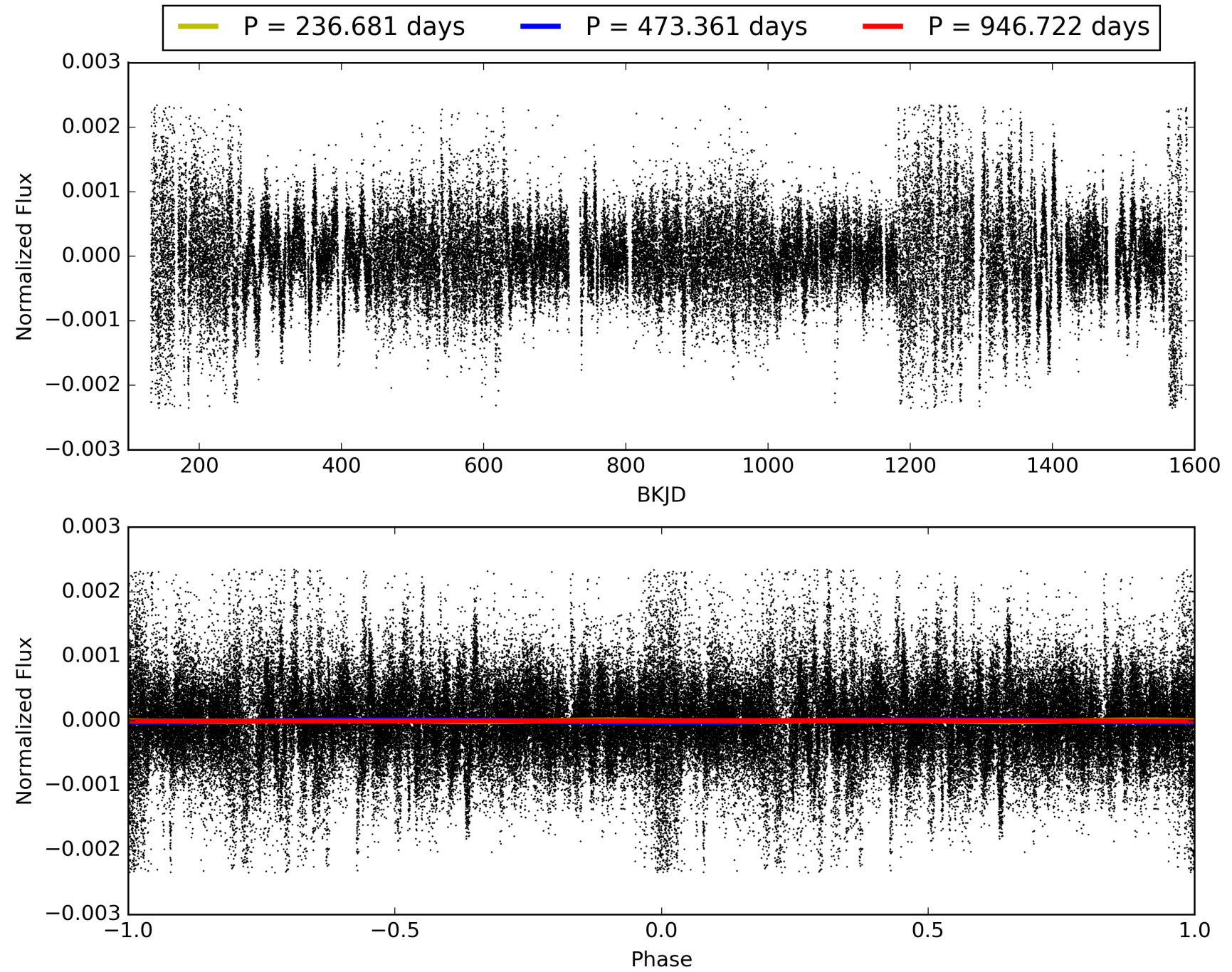
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:35:43 Z

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

TCE 008669152-01, PDC Light Curves

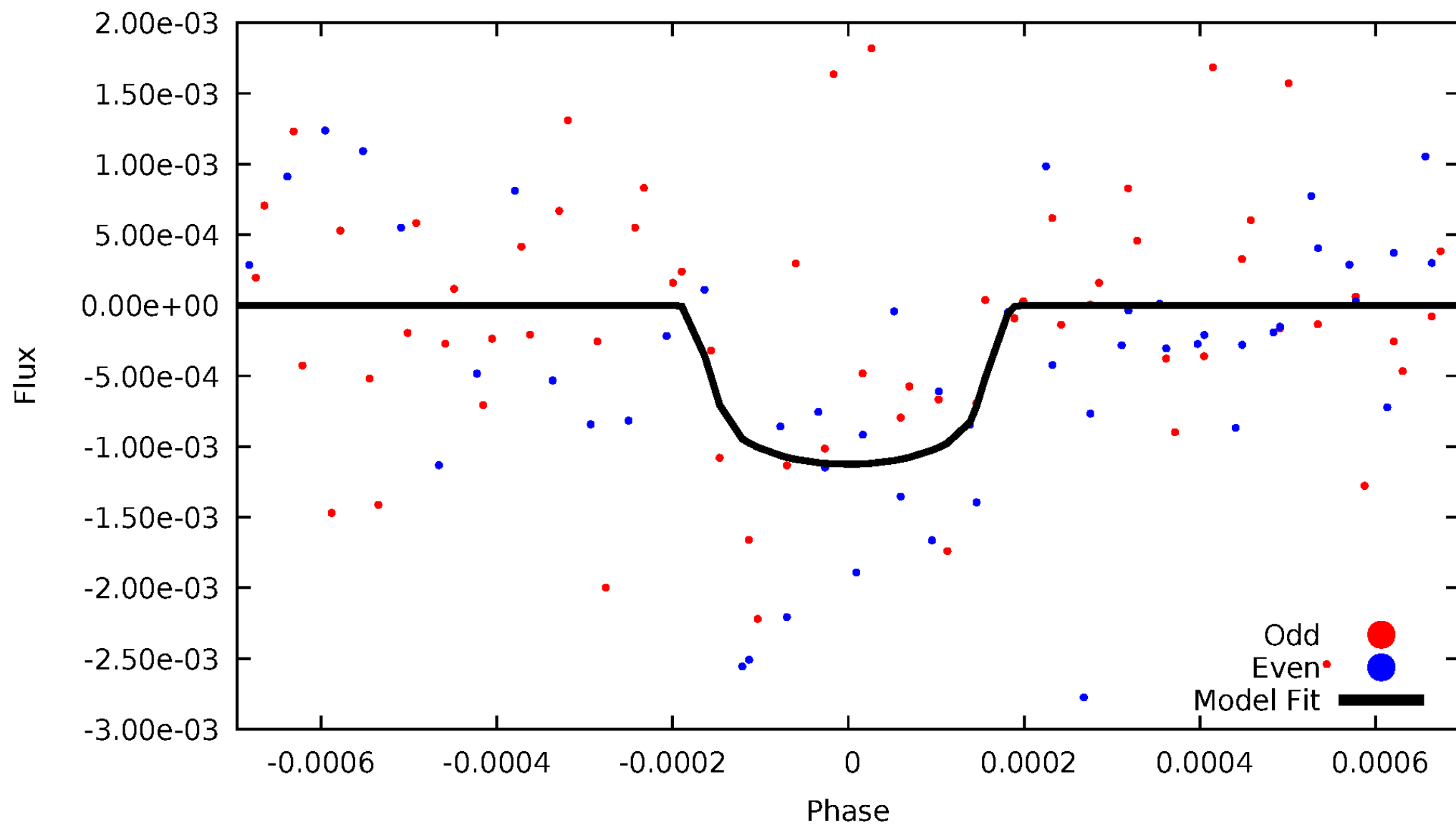


TCE 008669152-01



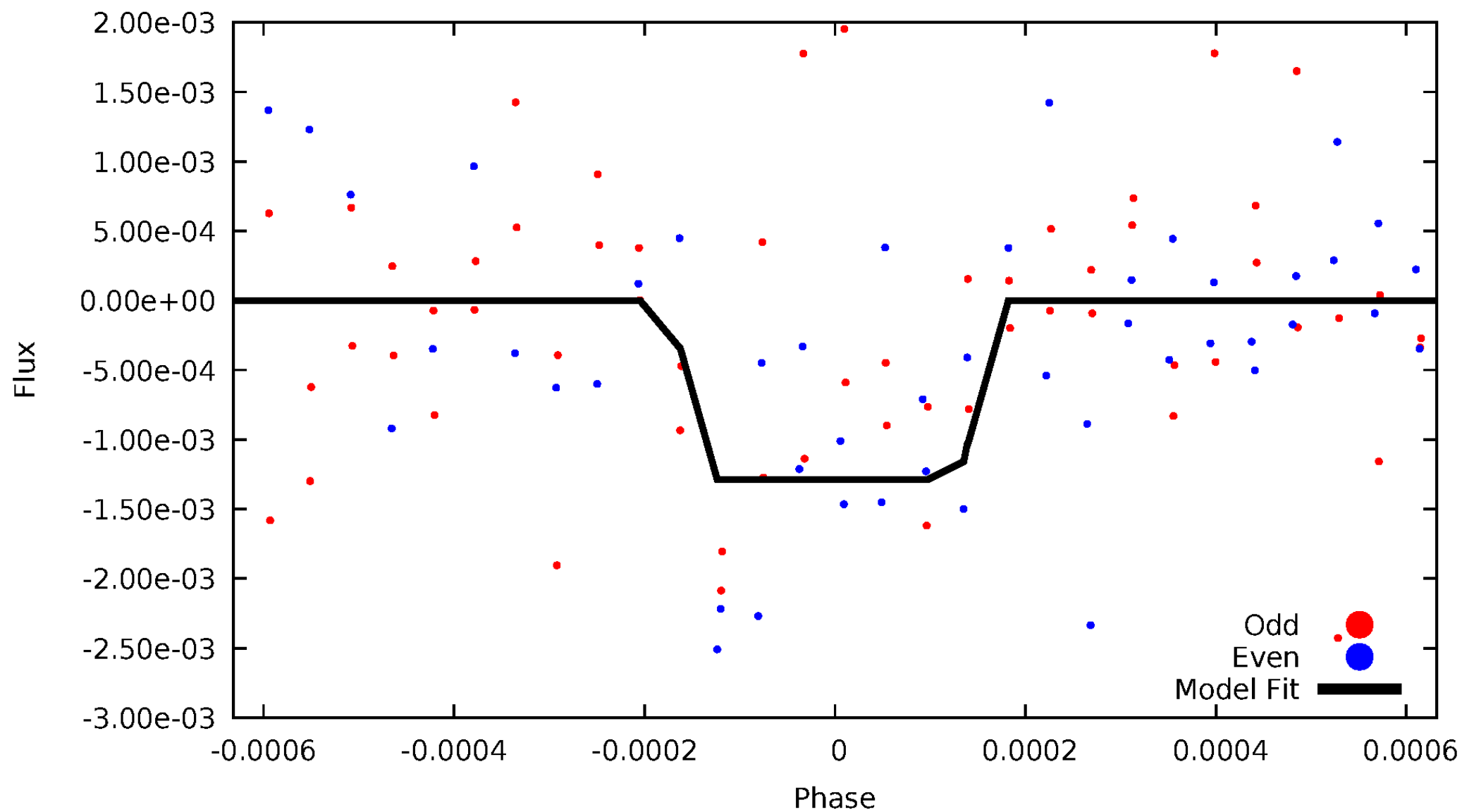
DV Odd/Even

TCE 008669152-01



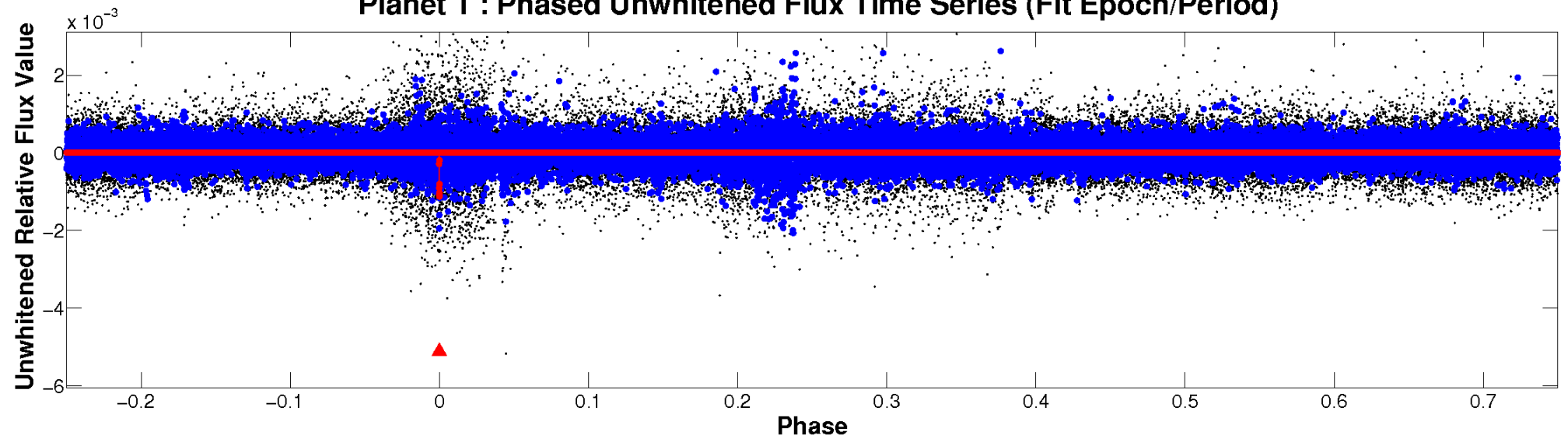
ALT Odd/Even

TCE 008669152-01

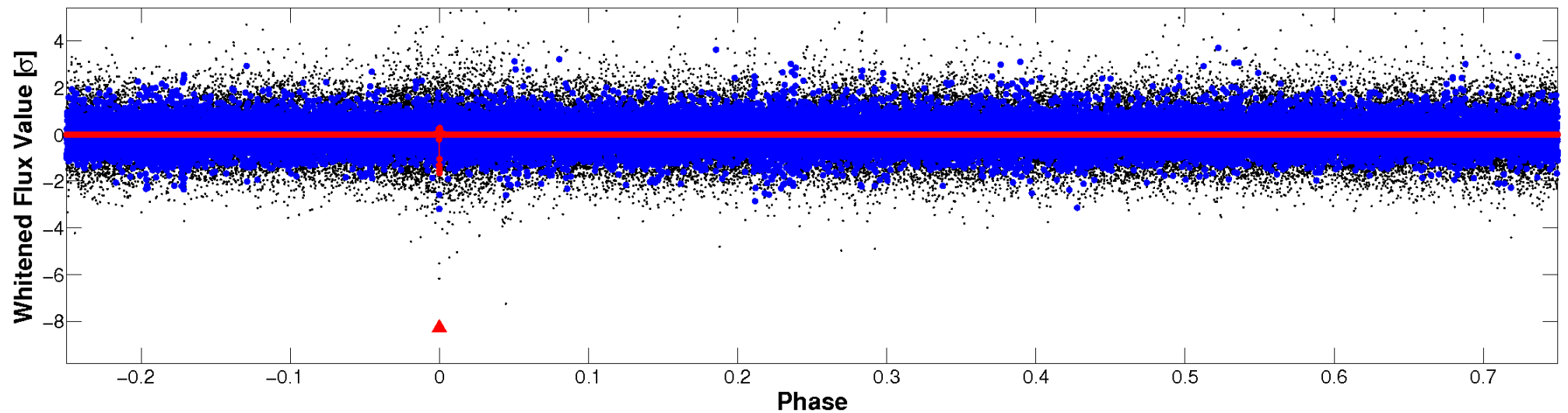


Non-Whitened Vs. Whitened Light Curve

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

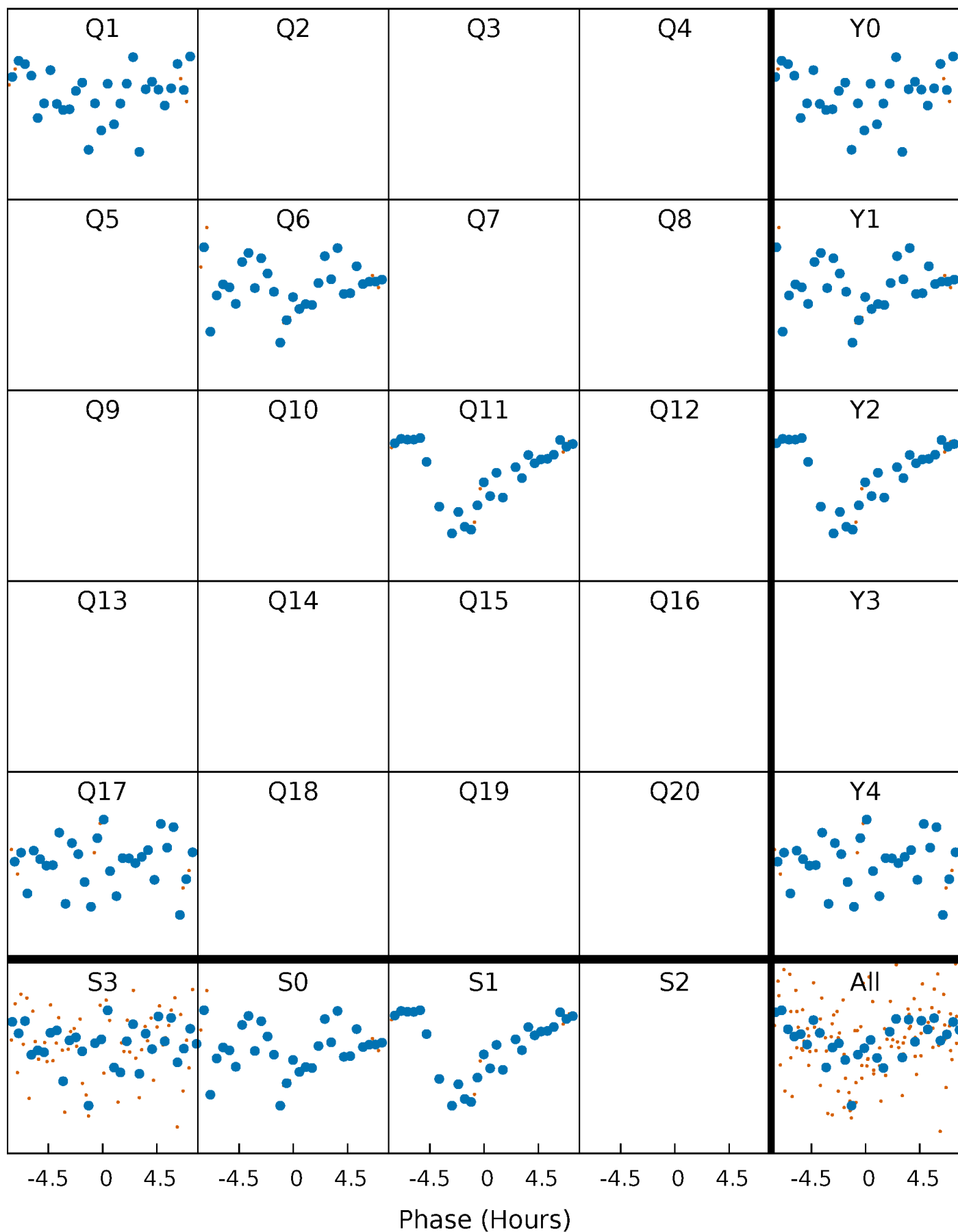


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



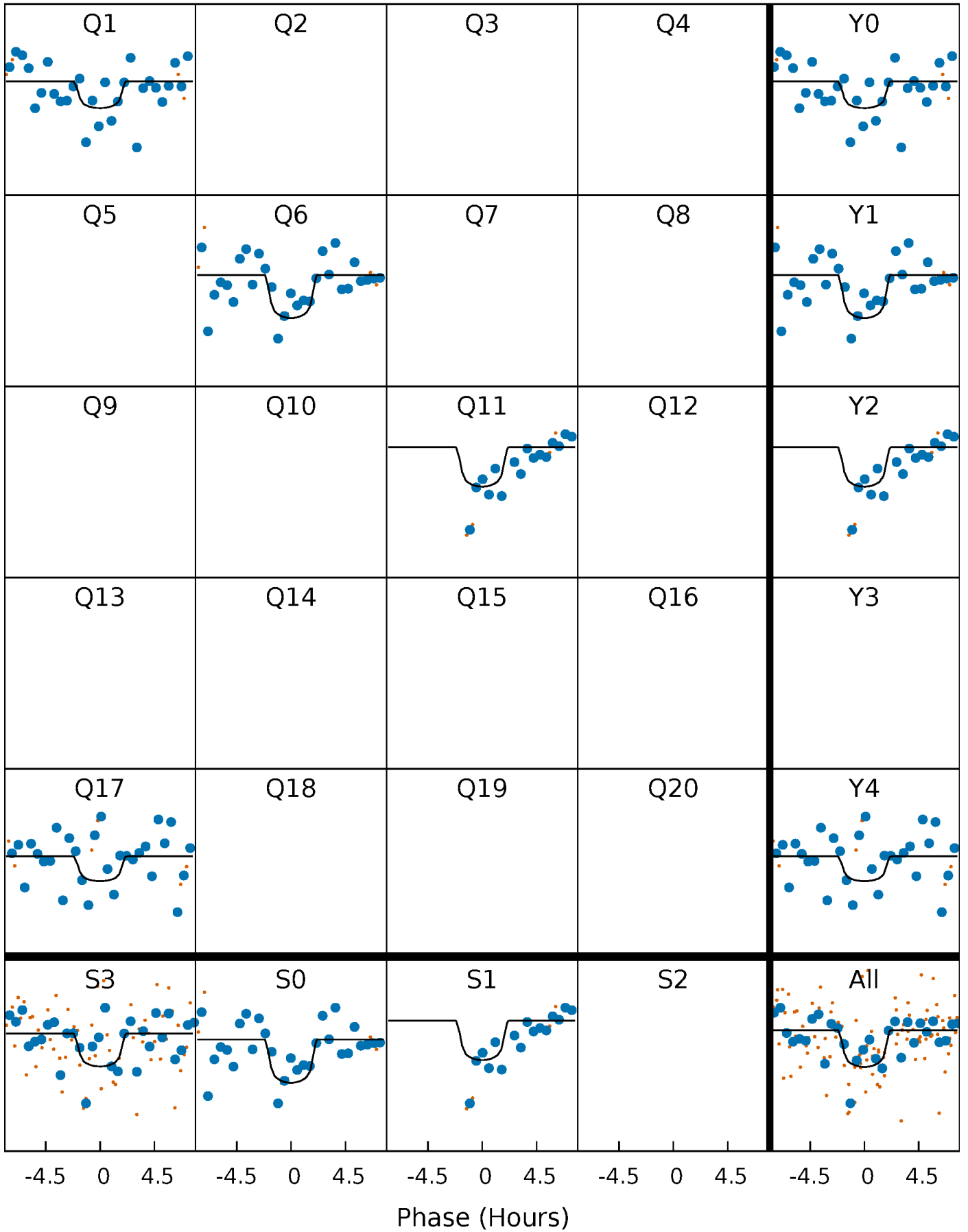
PDC Quarter-Phased Transit Curves

TCE 008669152-01 P=473.361225 Days $T_0=147.059036$ (BKJD)



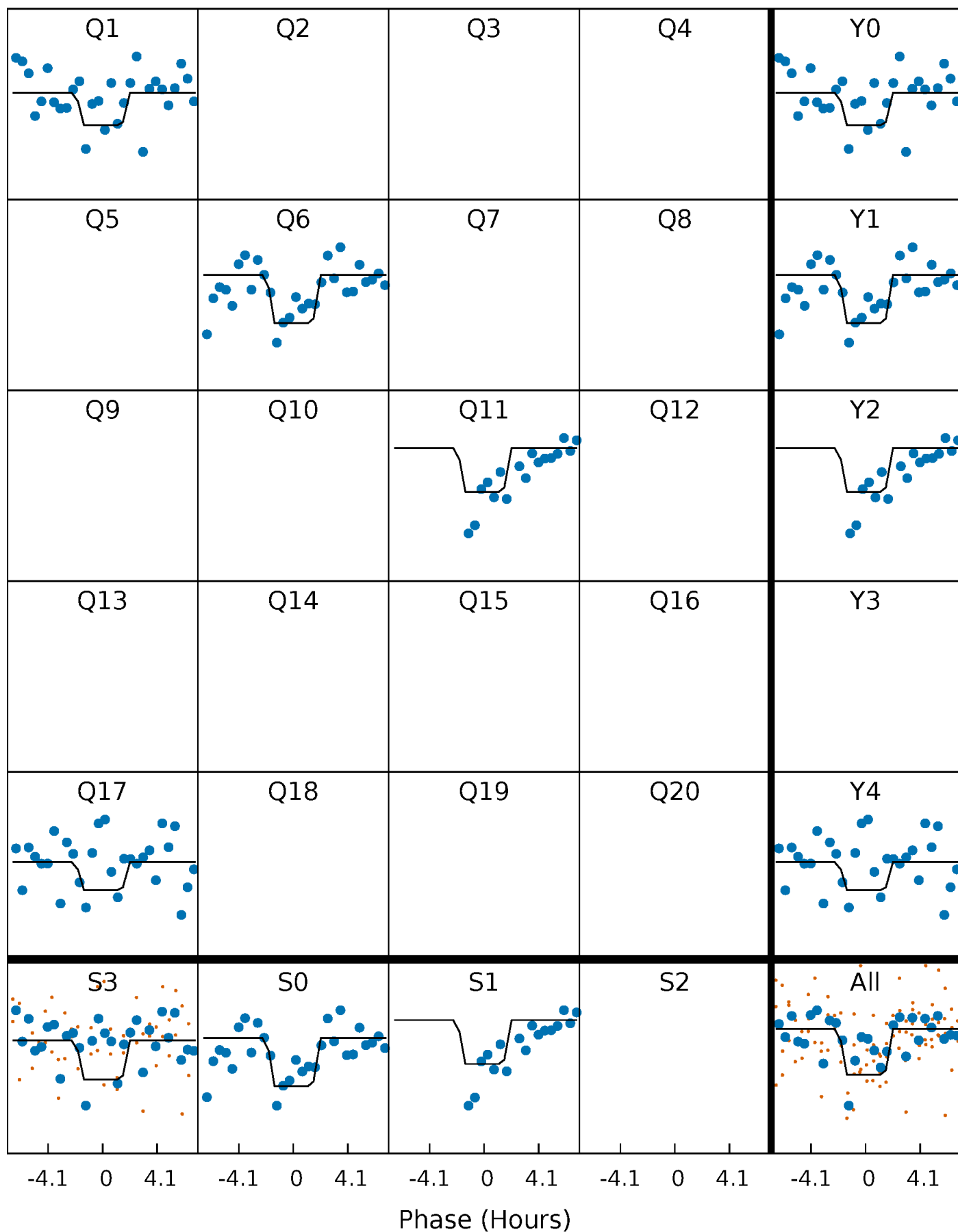
DV Quarter-Phased Transit Curves

TCE 008669152-01 P=473.361225 Days $T_0=147.059036$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

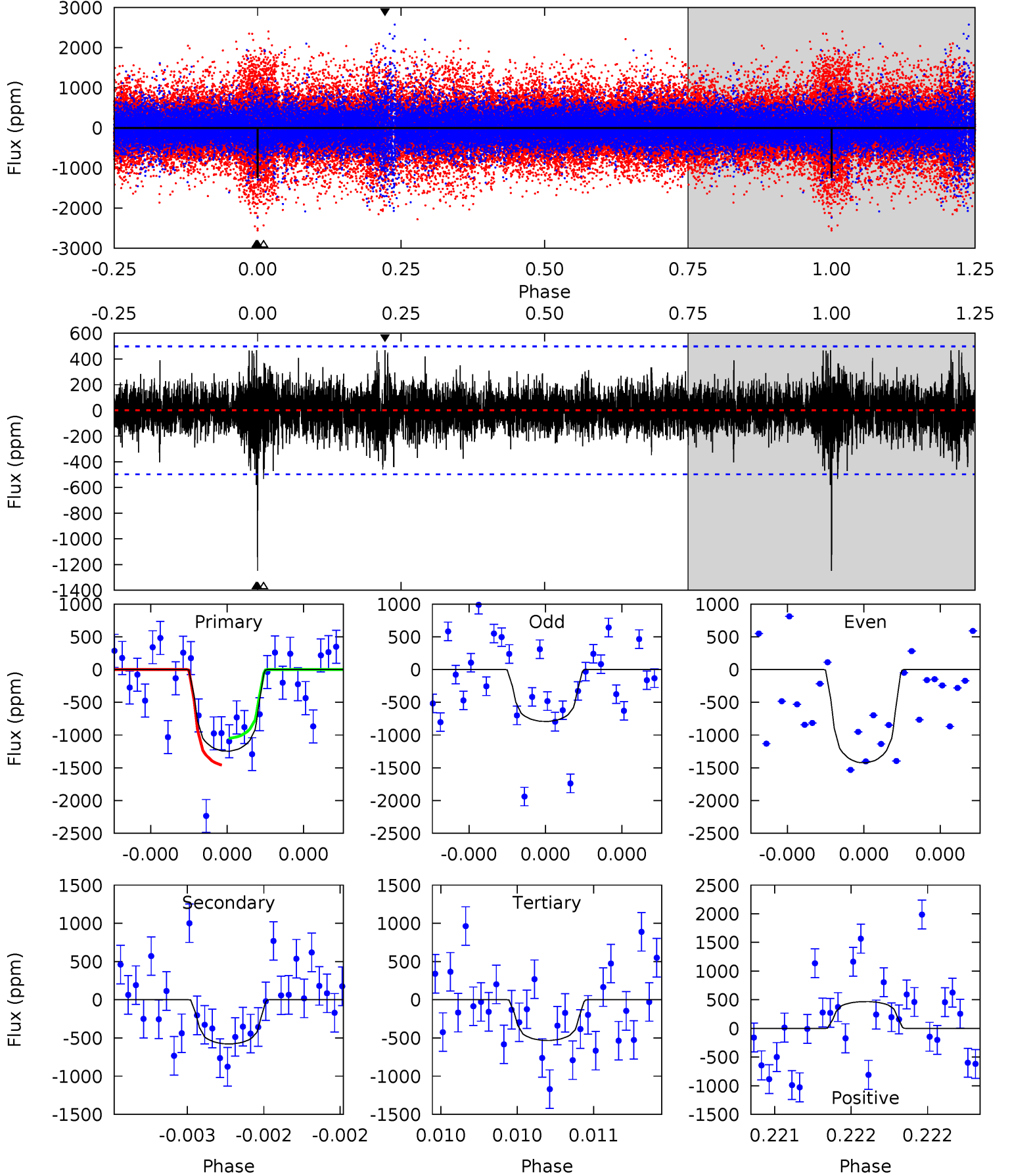
TCE 008669152-01 P=473.363851 Days $T_0=147.058871$ (BKJD)



DV Model-Shift Uniqueness Test

008669152-01, P = 473.361225 Days, E = 147.059036 Days

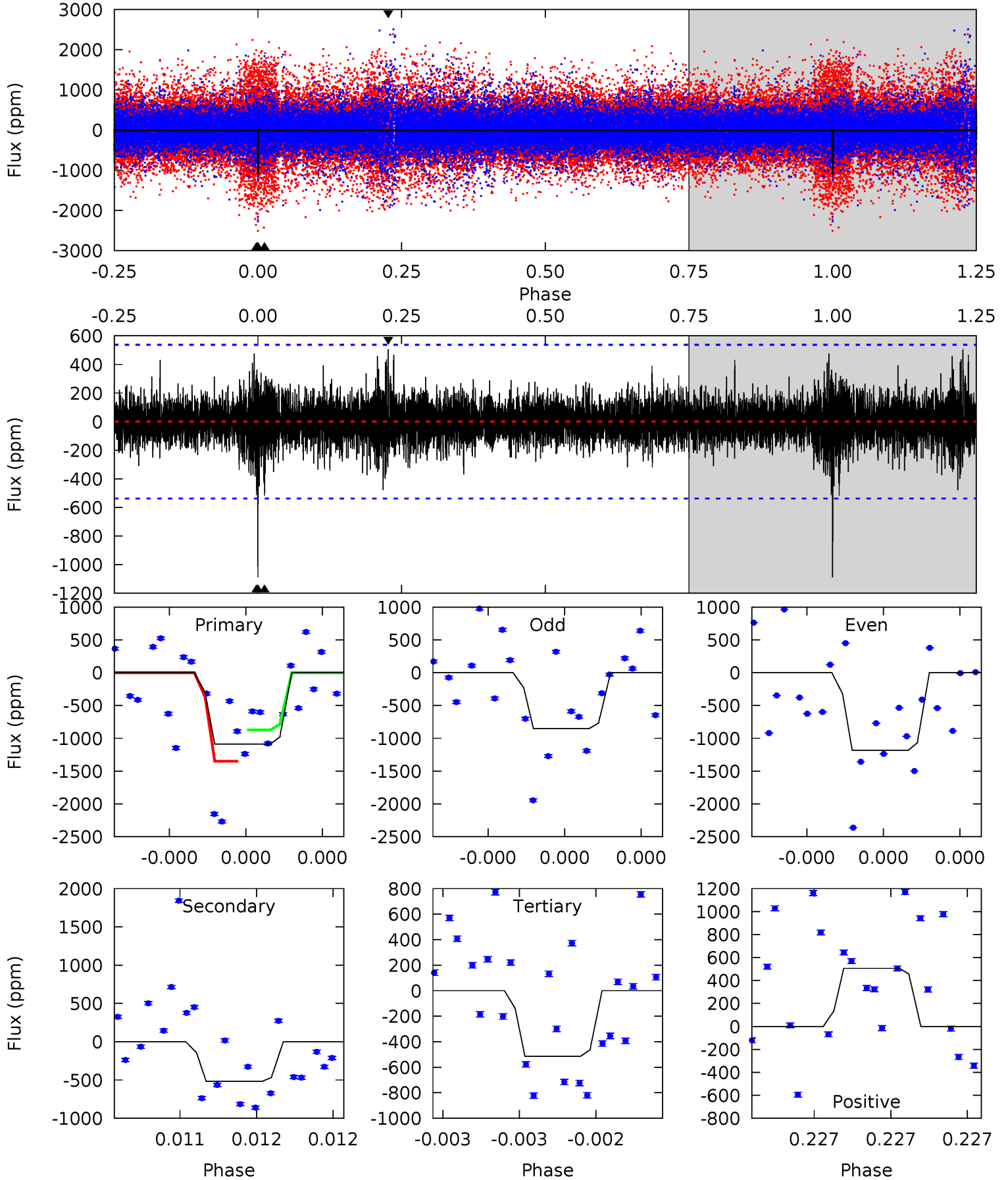
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	6.54	6.03	5.30	5.62	3.55	1.24	8.07	8.80	0.51	1.24	3.62	0.88	0.27	0



Alt Model-Shift Uniqueness Test

008669152-01, P = 473.363851 Days, E = 147.058871 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	5.46	5.41	5.32	5.66	3.61	1.07	6.03	6.12	0.05	0.14	1.76	0.91	0.32	2.51



Stellar Parameters For KIC 008669152

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5676^{+152}_{-152}	$4.476^{+0.091}_{-0.156}$	$-0.380^{+0.300}_{-0.300}$	$0.863^{+0.210}_{-0.113}$	$0.814^{+0.106}_{-0.062}$	$1.785^{+0.819}_{-0.772}$
	+3%/-3%	+2%/-3%	+79%/-79%	+24%/-13%	+13%/-8%	+46%/-43%
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 008669152-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-578 ± 88	$4.02^{+3.31}_{-2.63}$	310^{+19}_{-14}	4495^{+2915}_{-866}	$24894^{+178432}_{-17783}$
Alt.	-519 ± 95	$4.40^{+3.49}_{-2.72}$	312^{+19}_{-14}	4270^{+2251}_{-766}	$18733^{+105554}_{-13112}$

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

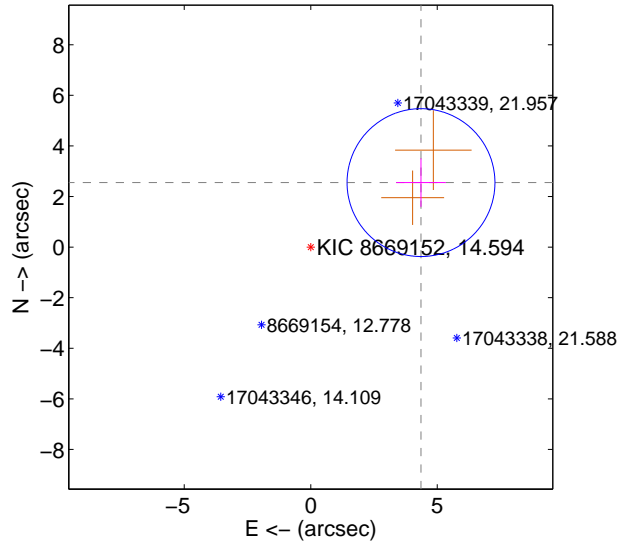
Supplemental centroid analysis for 008669152-01. Kepler magnitude: 14.59. Transit SNR 7.88

There are 0 quarters with good PRF difference image offsets

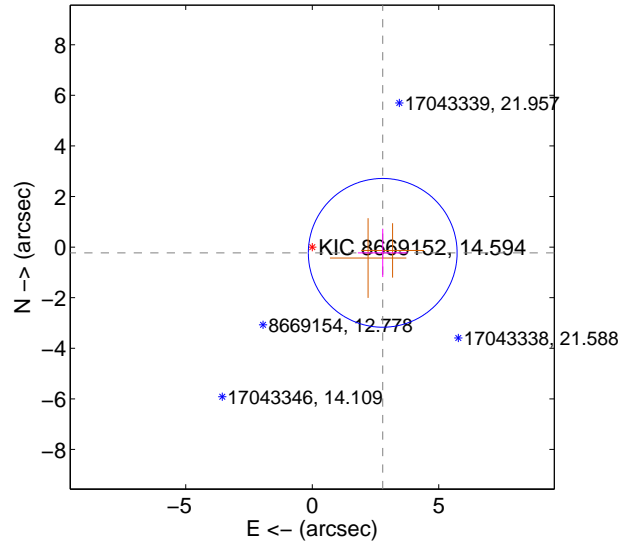
The OOT PRF centroid is offset from the target star catalog position by about 5.02 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.050 ± 0.974	5.18	-4.359 ± 0.980	2.550 ± 0.956
PRF-fit source offset from KIC position	2.796 ± 0.980	2.85	-2.786 ± 0.980	-0.227 ± 0.956
photometric centroid source offset	1.02 ± 0.57	1.77	0.30 ± 0.52	-0.97 ± 0.58

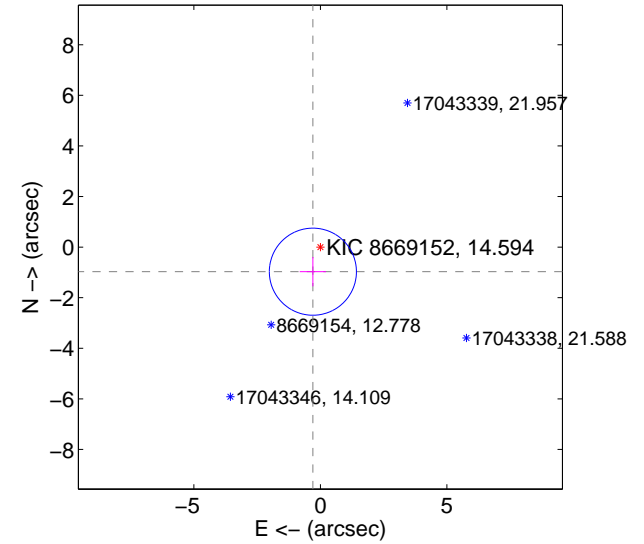
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

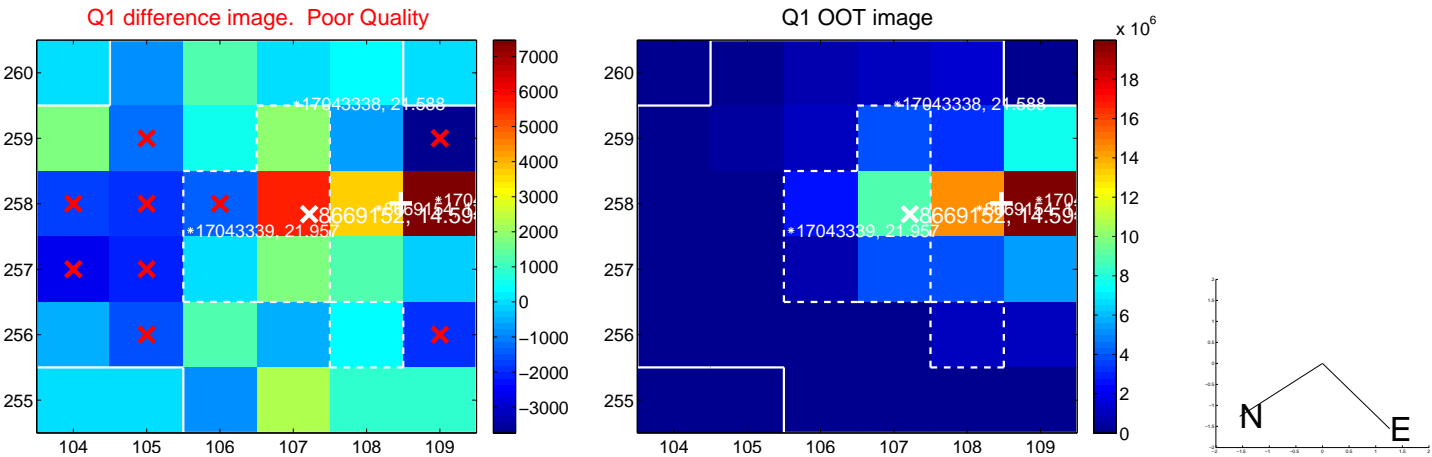


offset from photometric centroids

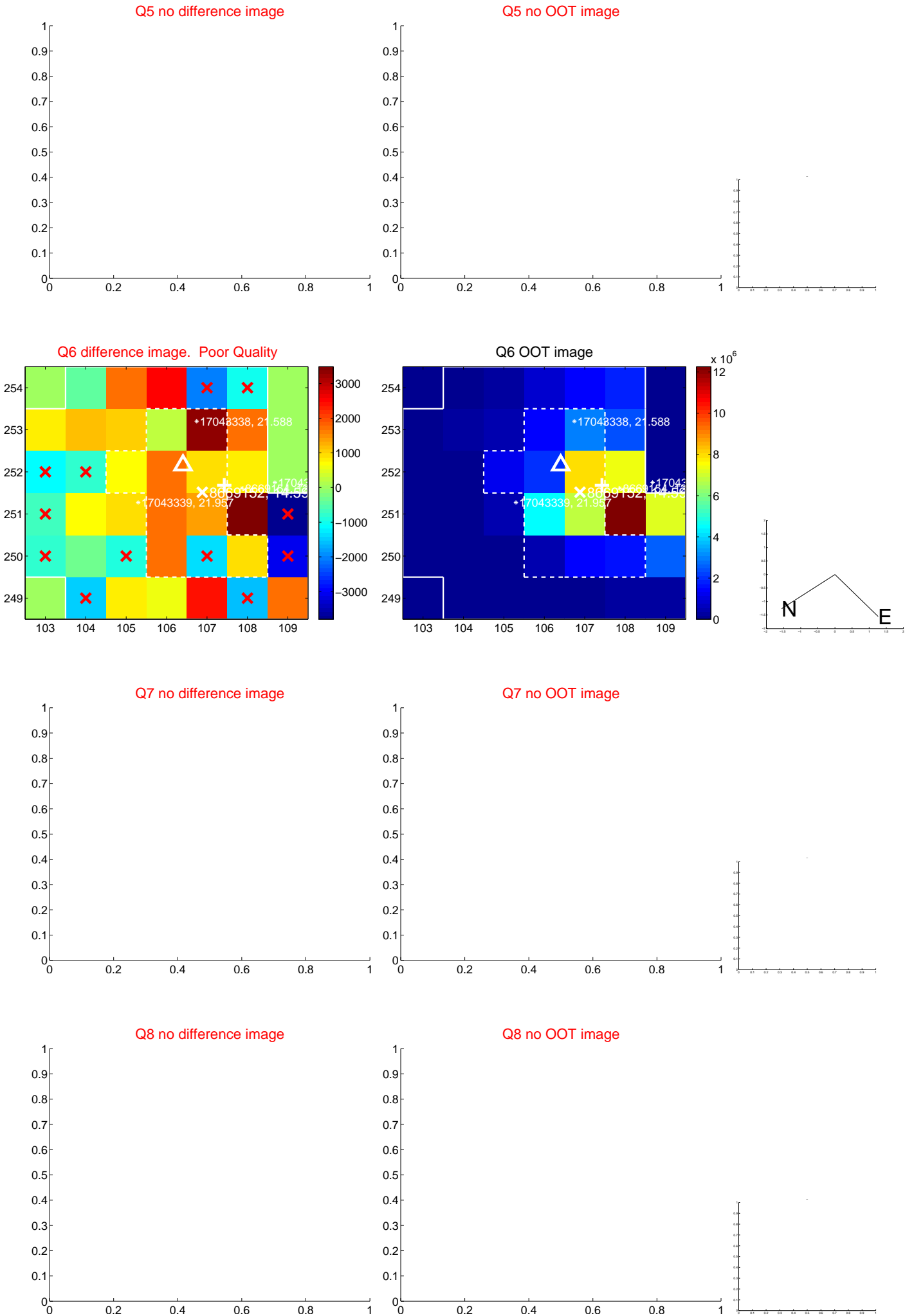


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



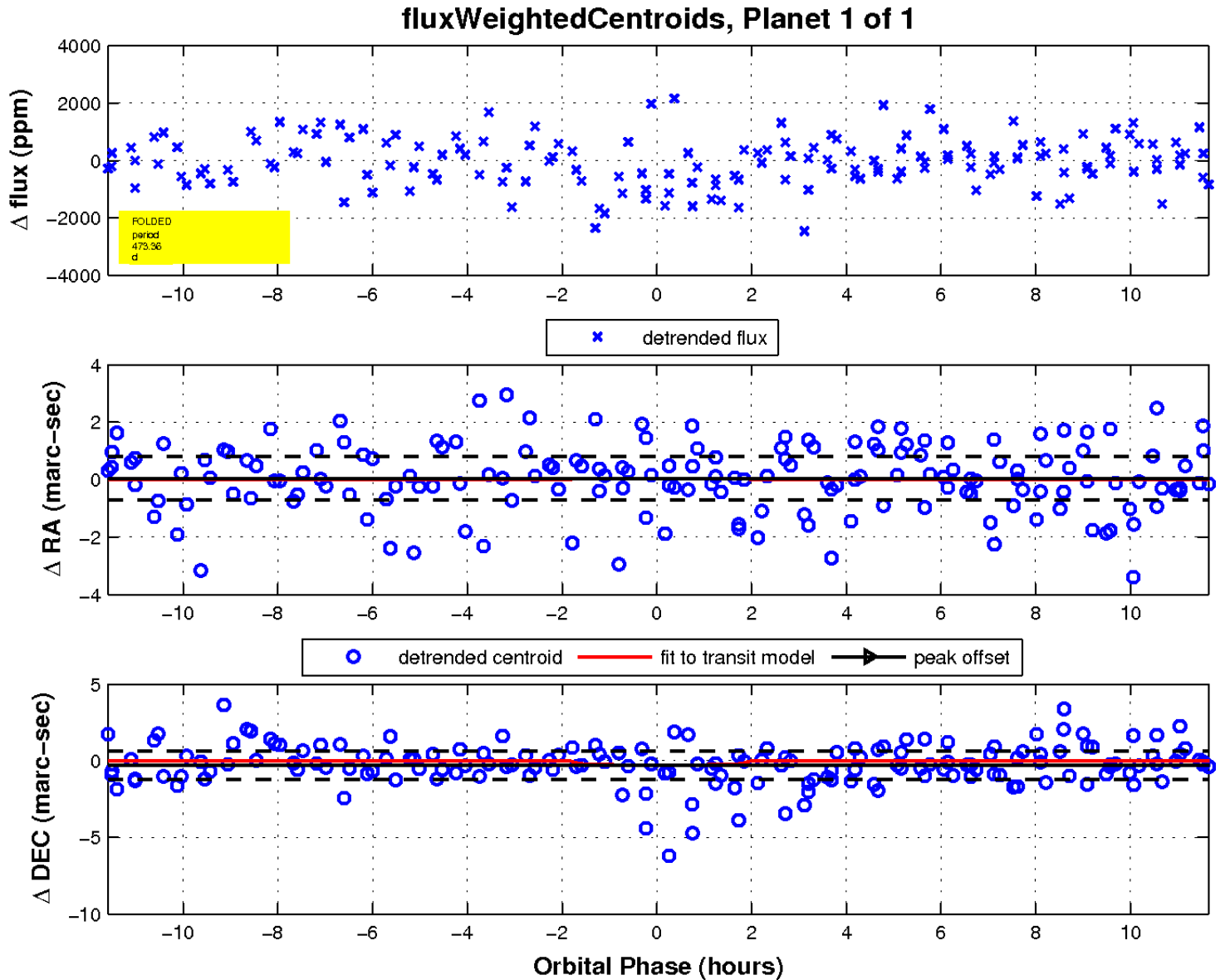
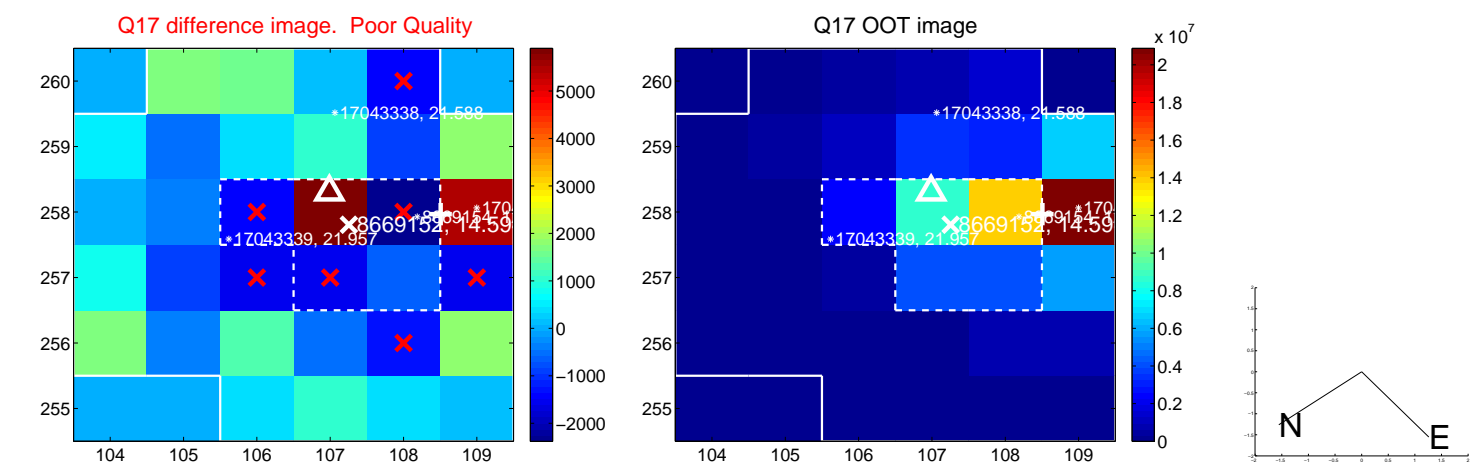
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

