

KIC 006676338

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})
006676338-01	OBS	No	312.740166	166.280449	268.3	21.991	8.1	8.1	1.13	6180	2.16	1.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676338-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

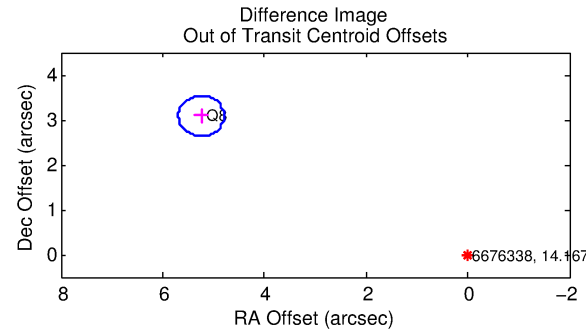
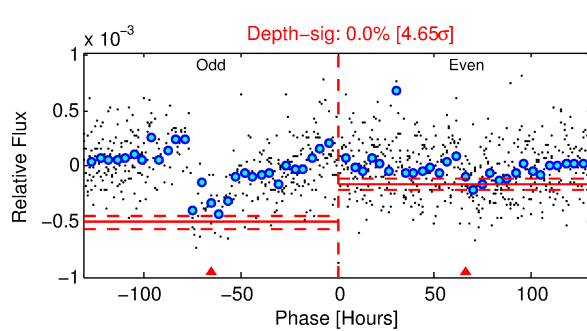
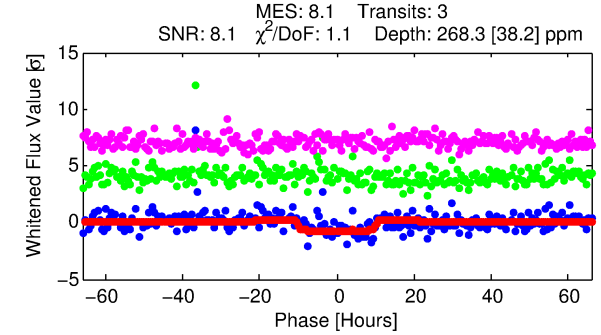
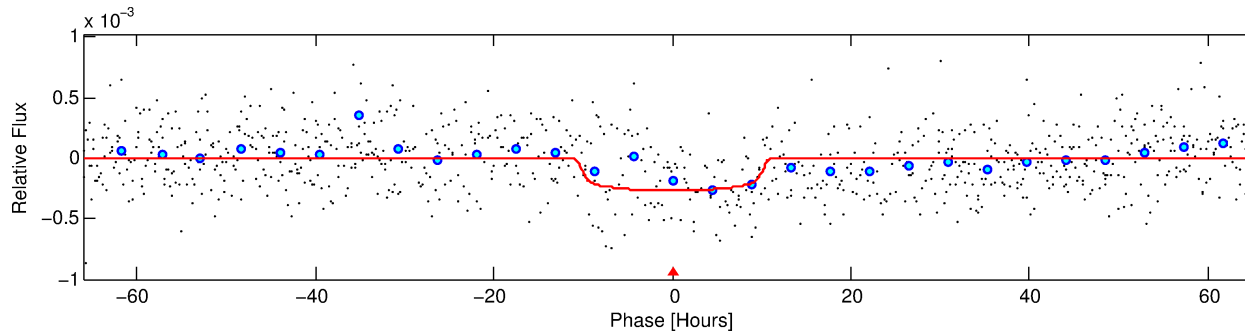
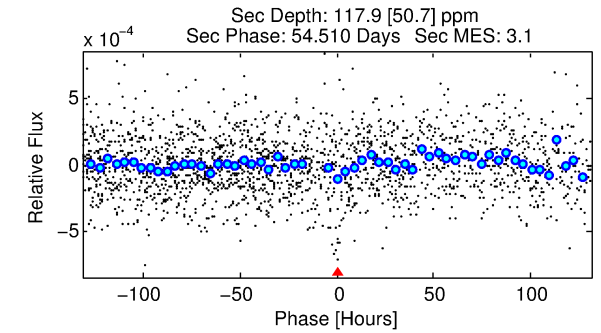
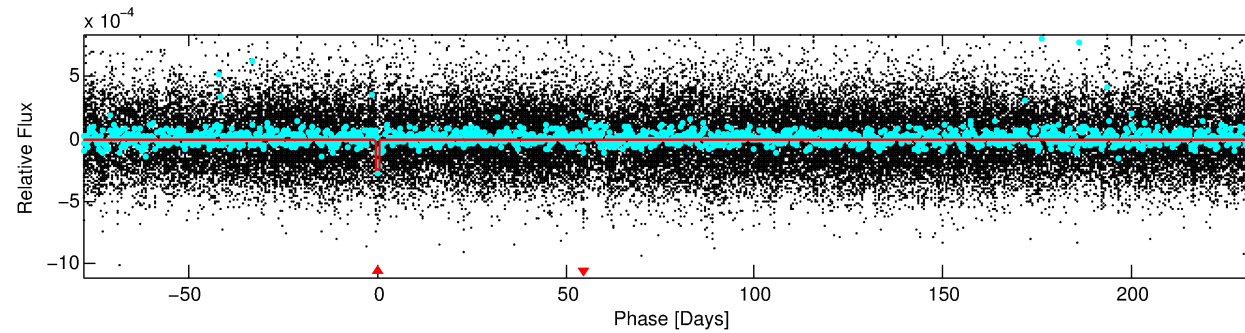
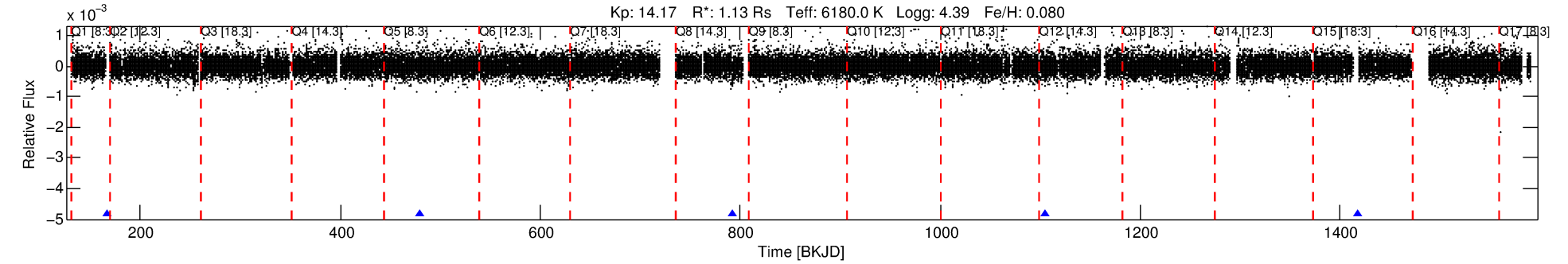
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676338-01

No Significant Match Found

DV One-Page Summary

KIC: 6676338 Candidate: 1 of 1 Period: 312.740 d



DV Fit Results:

Period = 312.74017 [0.02712] d
Epoch = 166.2804 [0.0596] BKJD
Rp/R* = 0.0175 [0.0027]
a/R* = 54.50 [36.93]
b = 0.89 [0.17]
Seff = 1.88 [0.81]
Teq = 299 [32] K
Rp = 2.16 [0.79] Re
a = 0.9447 [0.2612] AU
Ag = 12426.16 [8229.95] [1.51σ]
Teffp = 4874 [671] K [6.81σ]

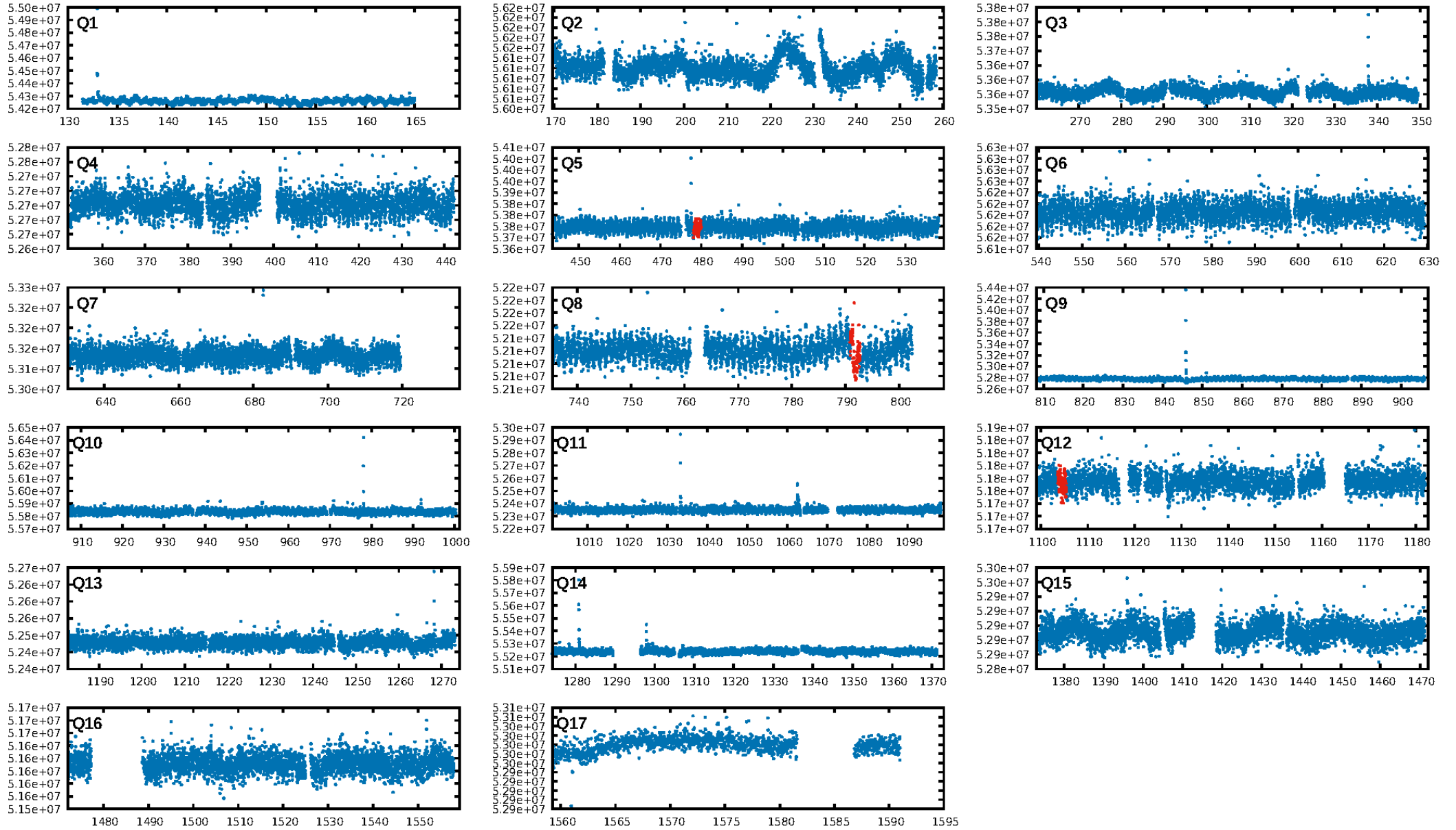
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 94.0%
Bootstrap-pfa: 7.27e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.532
Centroid-sig: 3.5%
Centroid-so: 1.352 arcsec [1.14σ]
OotOffset-rm: 6.082 arcsec [40.61σ]
KicOffset-rm: 5.097 arcsec [34.06σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

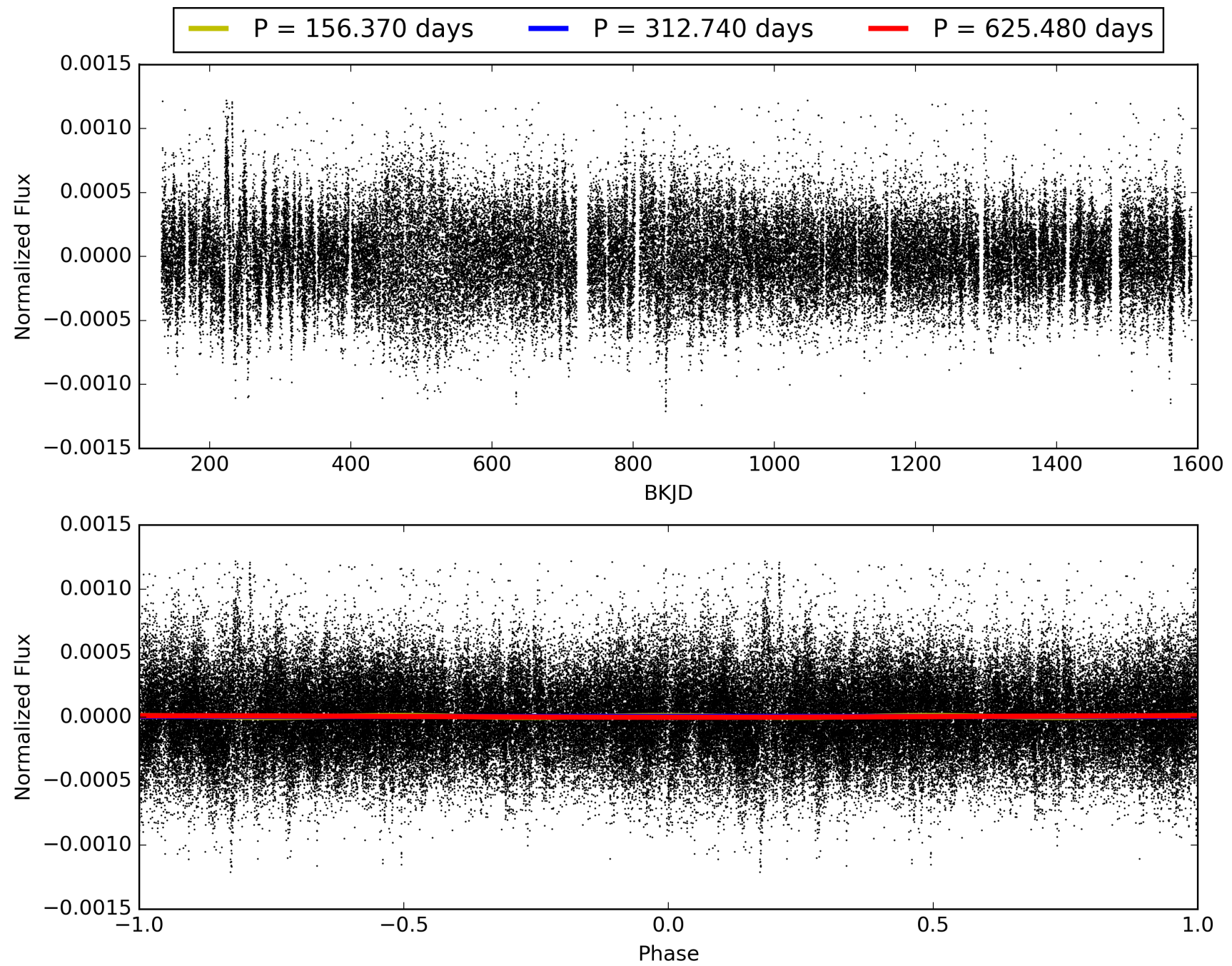
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:30:59 Z

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

TCE 006676338-01, PDC Light Curves

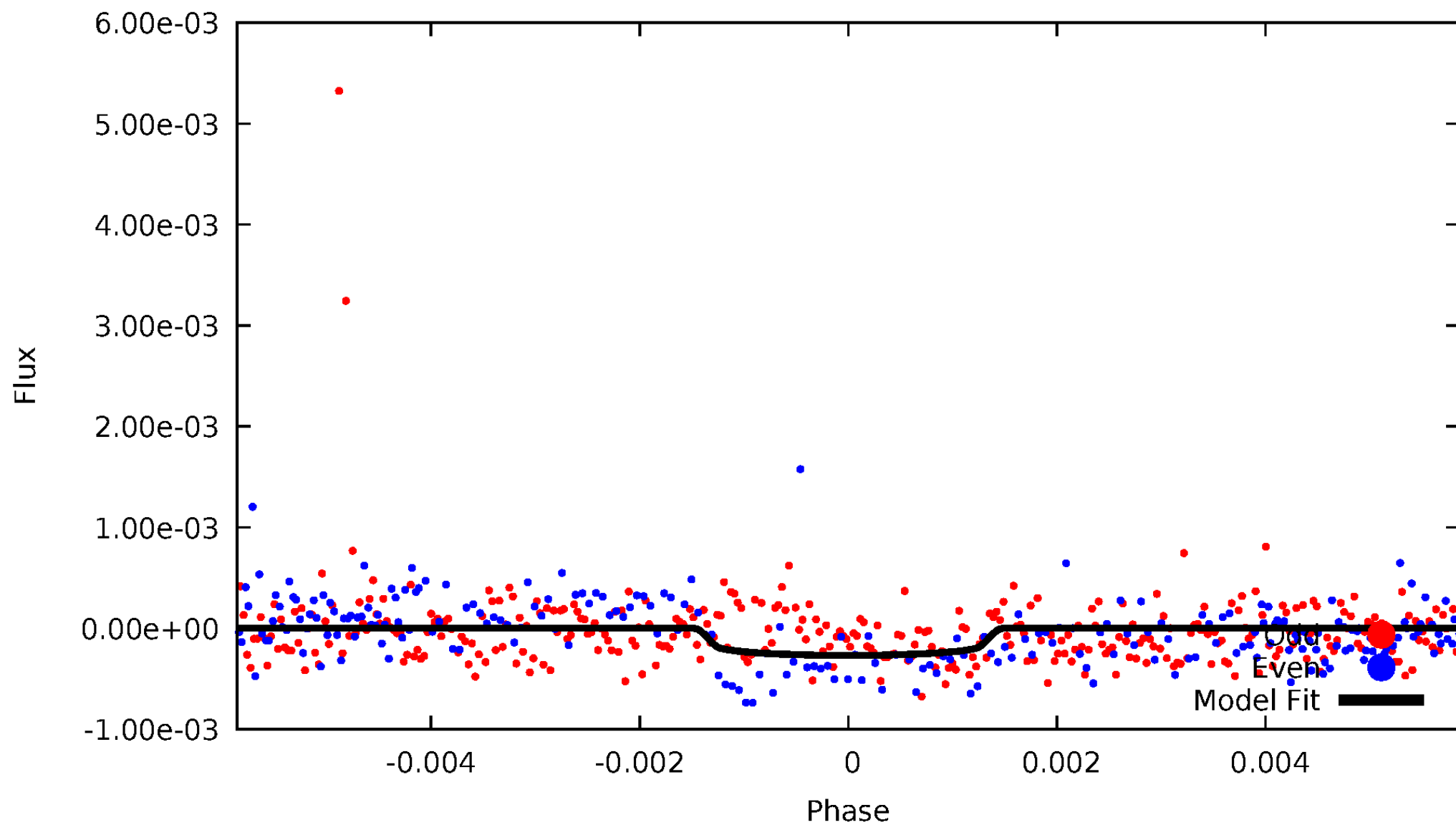


TCE 006676338-01



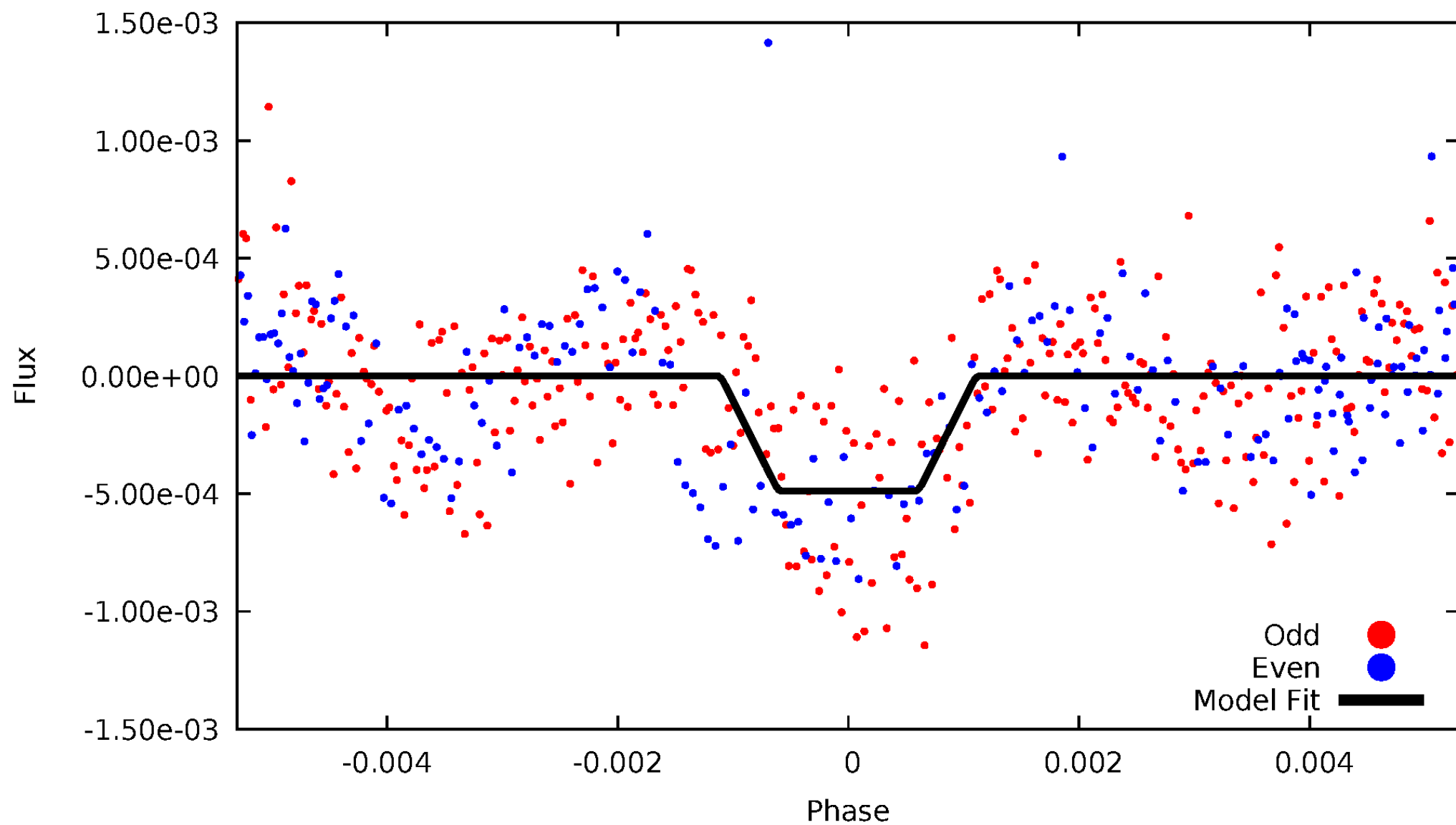
DV Odd/Even

TCE 006676338-01

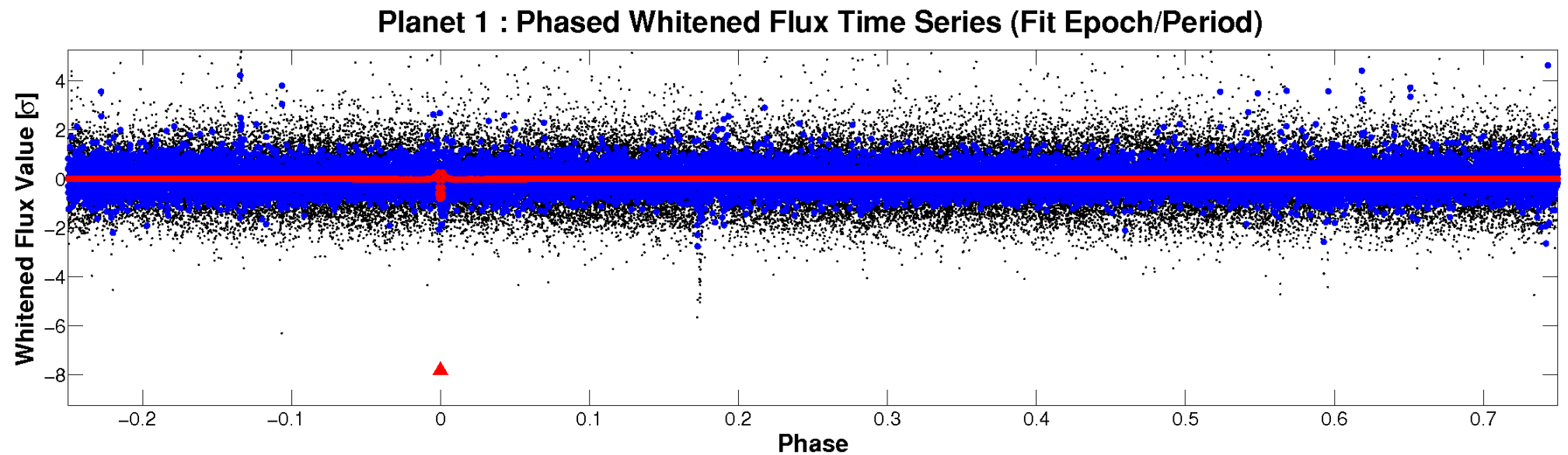
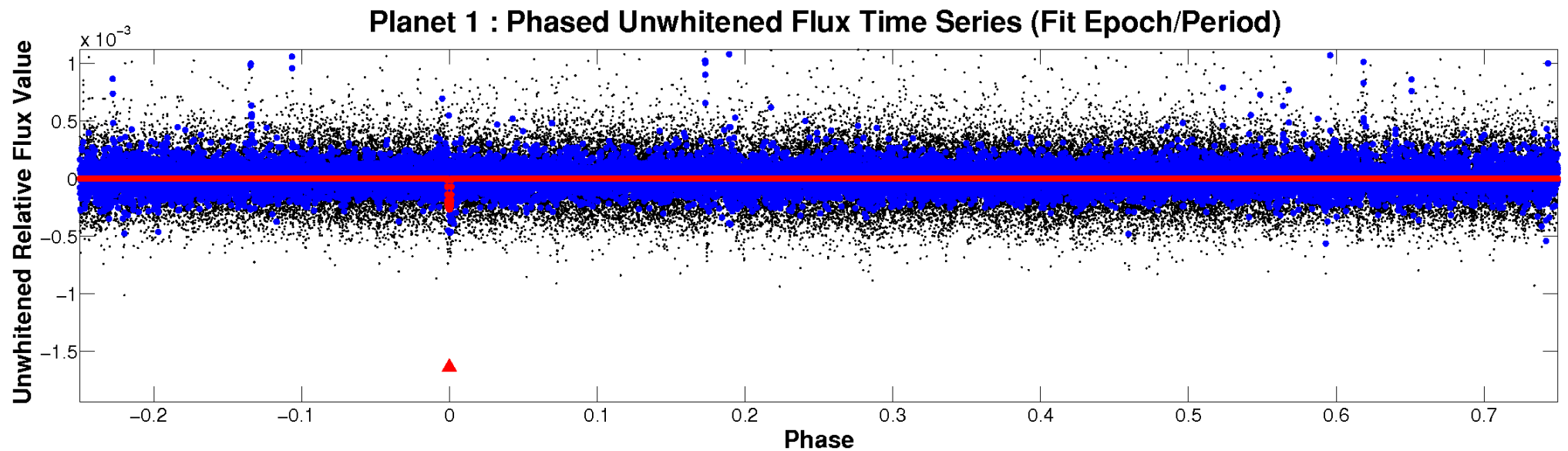


ALT Odd/Even

TCE 006676338-01



Non-Whitened Vs. Whitened Light Curve



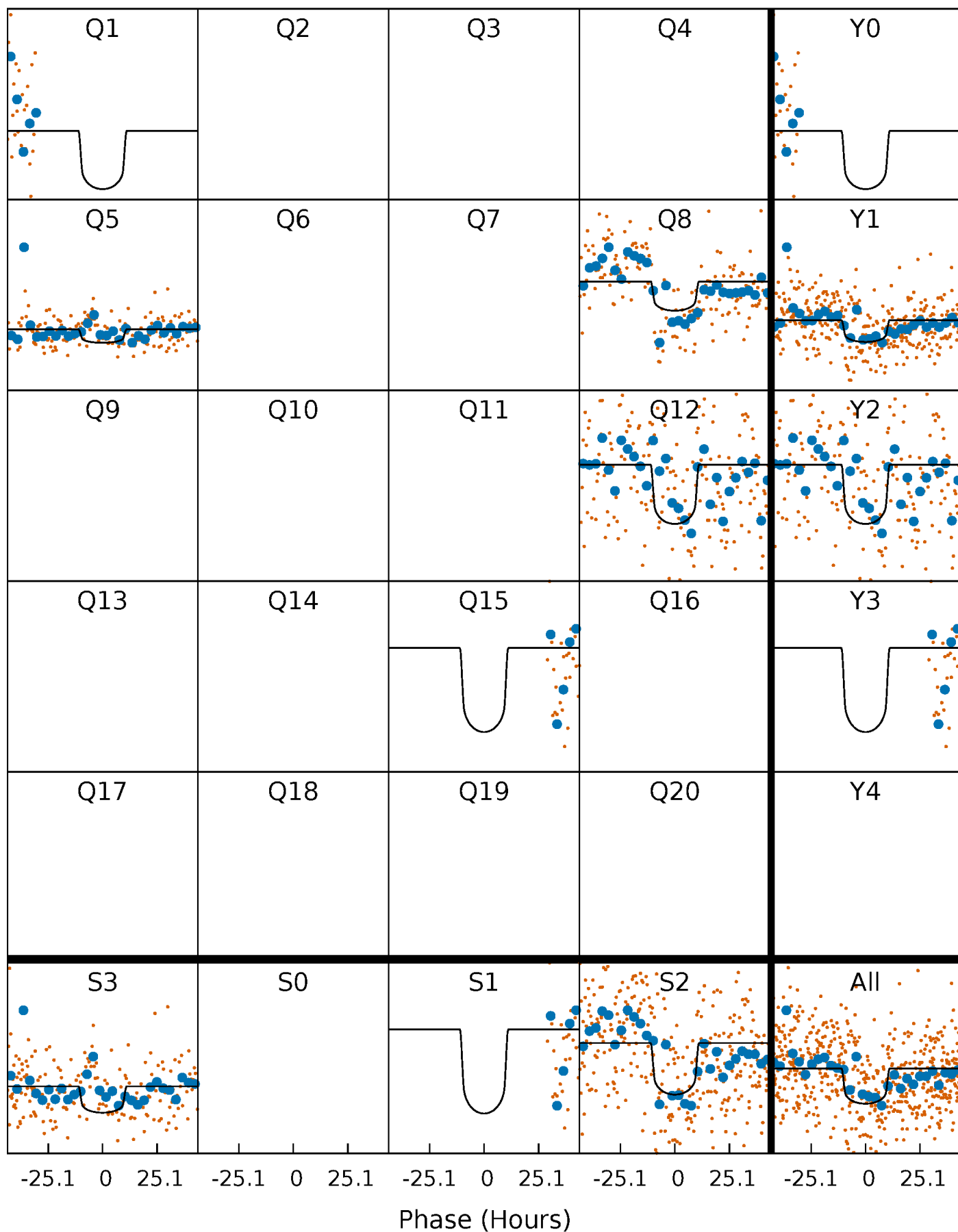
PDC Quarter-Phased Transit Curves

TCE 006676338-01 P=312.740166 Days $T_0=166.280449$ (BKJD)



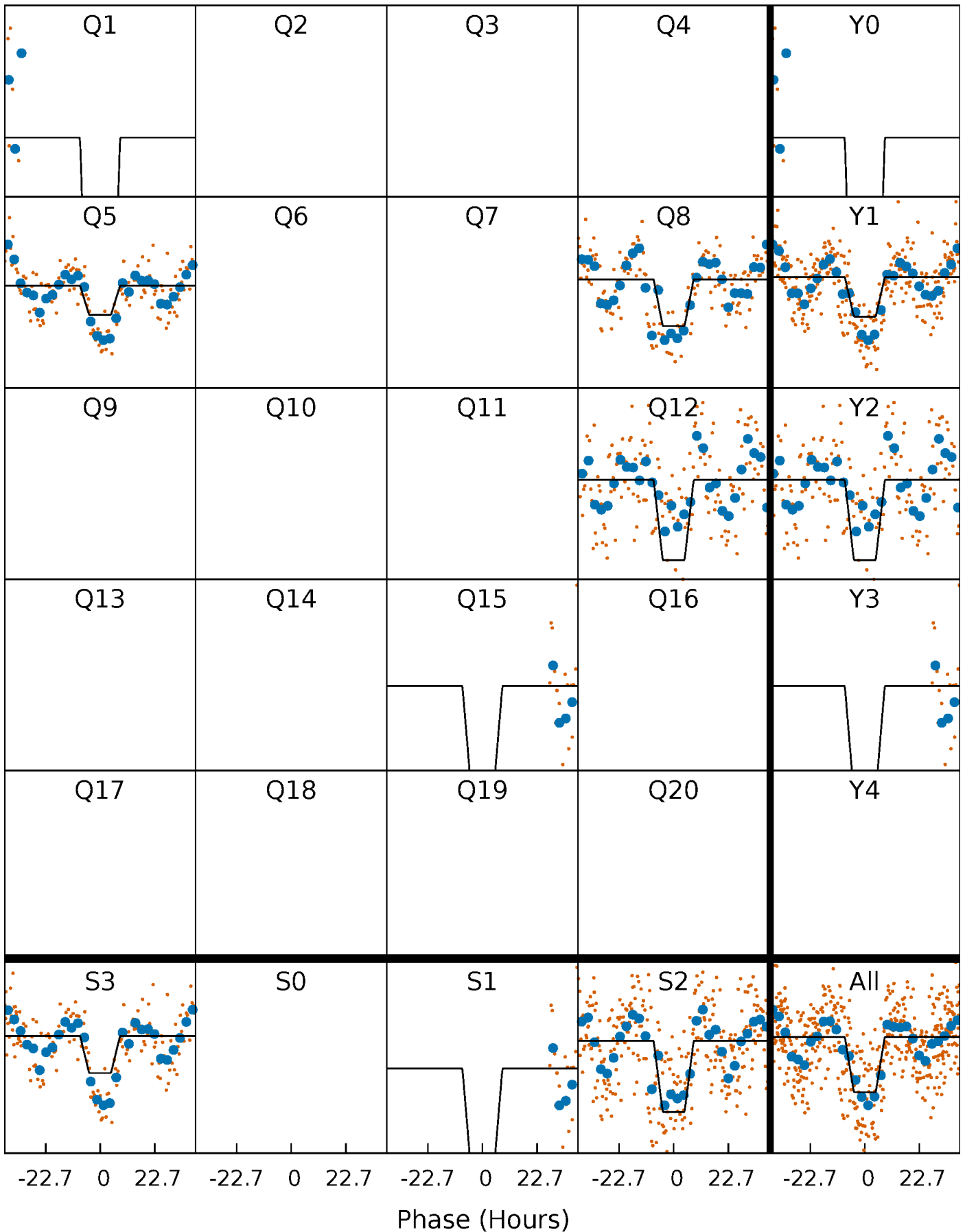
DV Quarter-Phased Transit Curves

TCE 006676338-01 P=312.740166 Days $T_0=166.280449$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

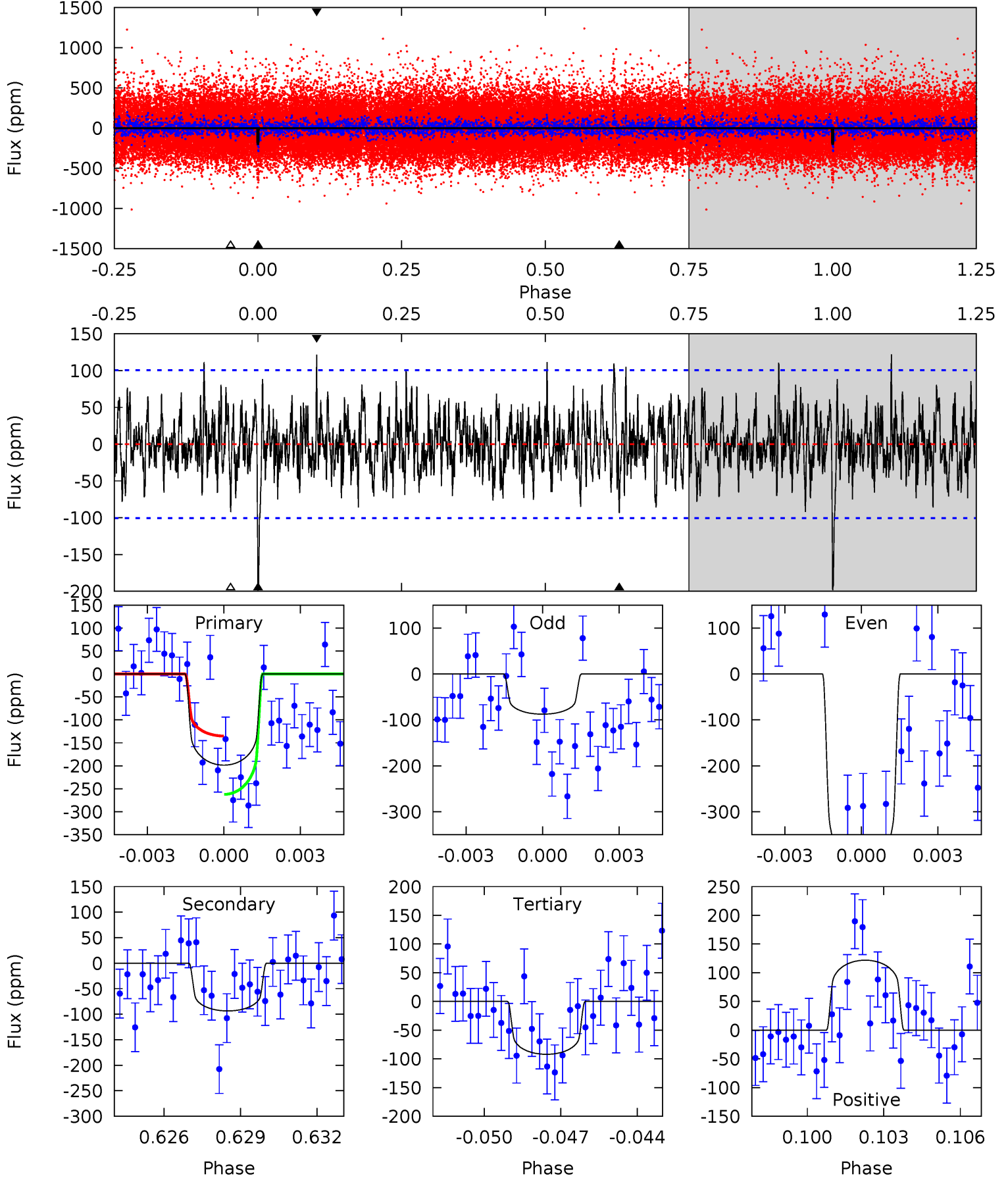
TCE 006676338-01 P=312.728825 Days $T_0=166.376464$ (BKJD)



DV Model-Shift Uniqueness Test

006676338-01, P = 312.740166 Days, E = 166.280449 Days

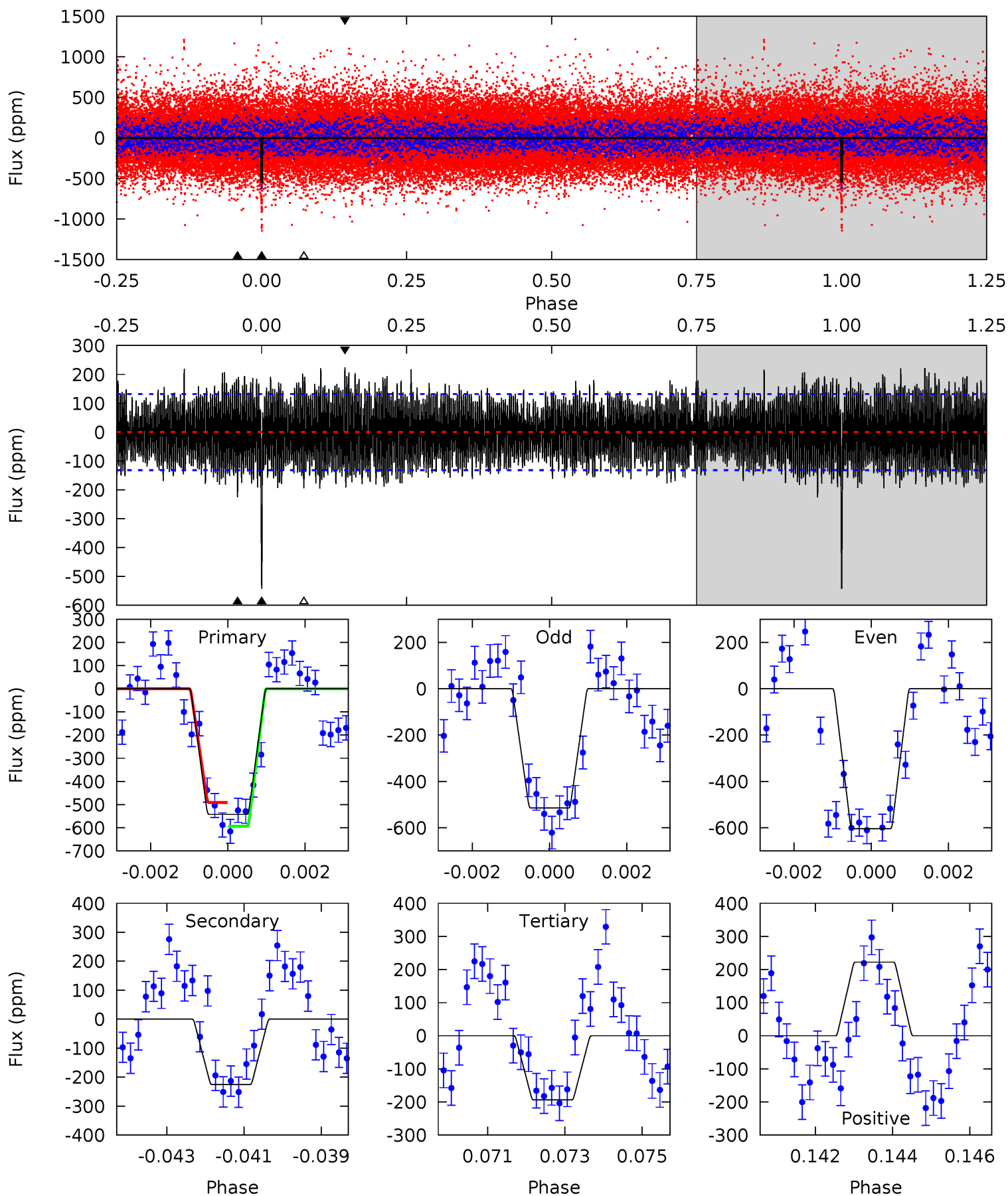
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	4.88	4.80	6.36	5.26	2.97	1.68	5.56	4.00	0.08	-1.48	8.44	1.16	0.38	3.33



Alt Model-Shift Uniqueness Test

006676338-01, $P = 312.728825$ Days, $E = 166.376464$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	9.07	7.80	8.94	5.30	3.05	3.71	14.0	12.9	1.27	0.13	1.69	0.97	0.29	2.06



Stellar Parameters For KIC 006676338

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6180^{+173}_{-239}	$4.390^{+0.072}_{-0.217}$	$0.080^{+0.250}_{-0.300}$	$1.133^{+0.375}_{-0.161}$	$1.152^{+0.158}_{-0.158}$	$1.114^{+0.418}_{-0.578}$
	+3%/-4%	+2%/-5%	+312%/-375%	+33%/-14%	+14%/-14%	+37%/-52%
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 006676338-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-94 ± 19	$2.28^{+0.48}_{-0.40}$	426^{+35}_{-25}	4679^{+429}_{-338}	8588^{+4410}_{-3240}
Alt.	-226 ± 25	$2.85^{+0.52}_{-0.46}$	423^{+32}_{-23}	5130^{+347}_{-322}	13128^{+5919}_{-3760}

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 $A_{obs} \gg 1.0$

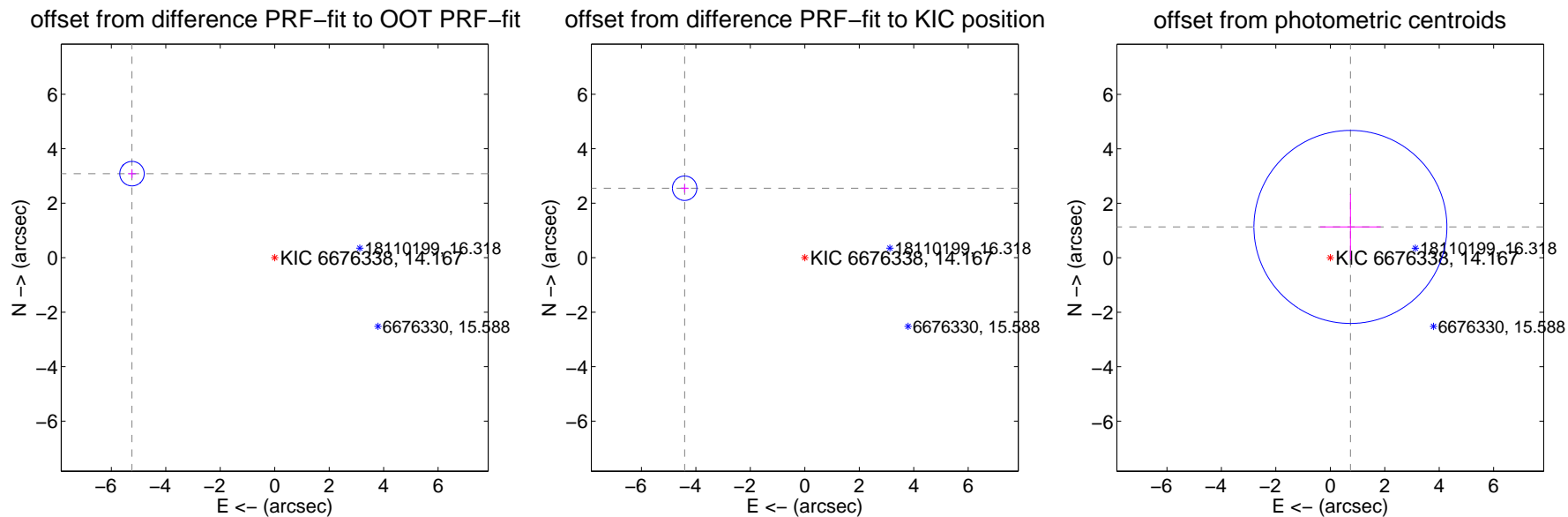
DV Centroid Data

Supplemental centroid analysis for 006676338-01. Kepler magnitude: 14.17. Transit SNR 8.06

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.99 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.082 ± 0.150	40.61	5.241 ± 0.145	3.085 ± 0.163
PRF-fit source offset from KIC position	5.097 ± 0.150	34.06	4.413 ± 0.145	2.550 ± 0.163
photometric centroid source offset	1.35 ± 1.18	1.14	-0.74 ± 1.11	1.13 ± 1.21

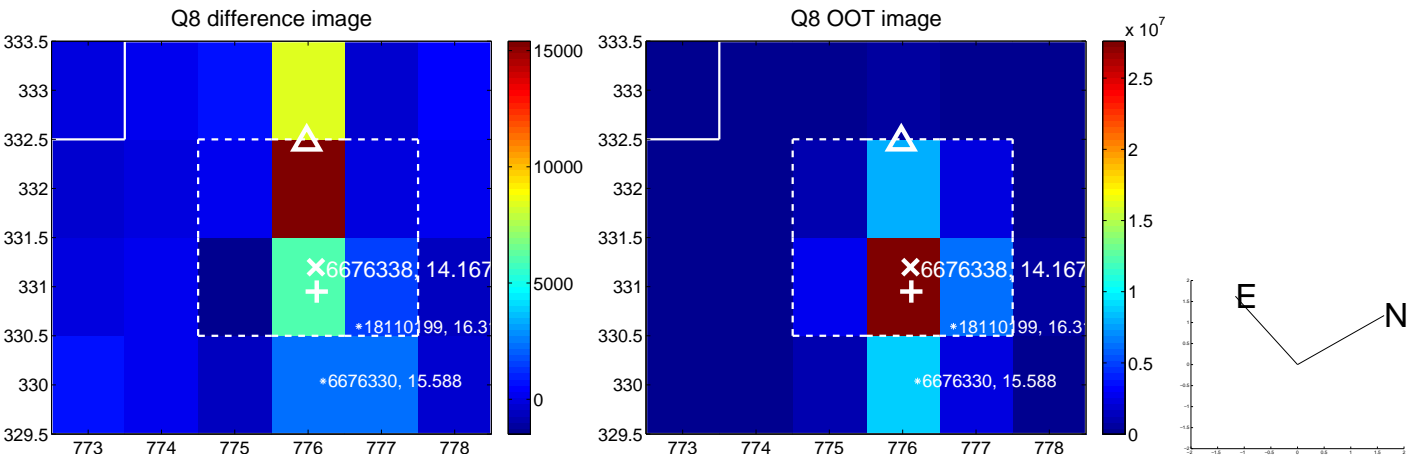
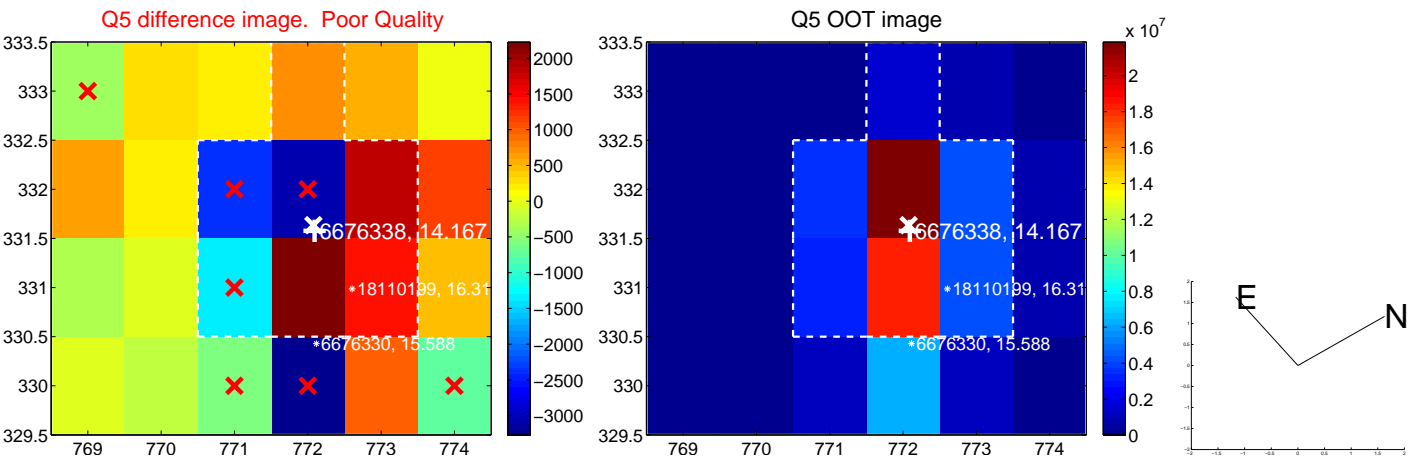


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



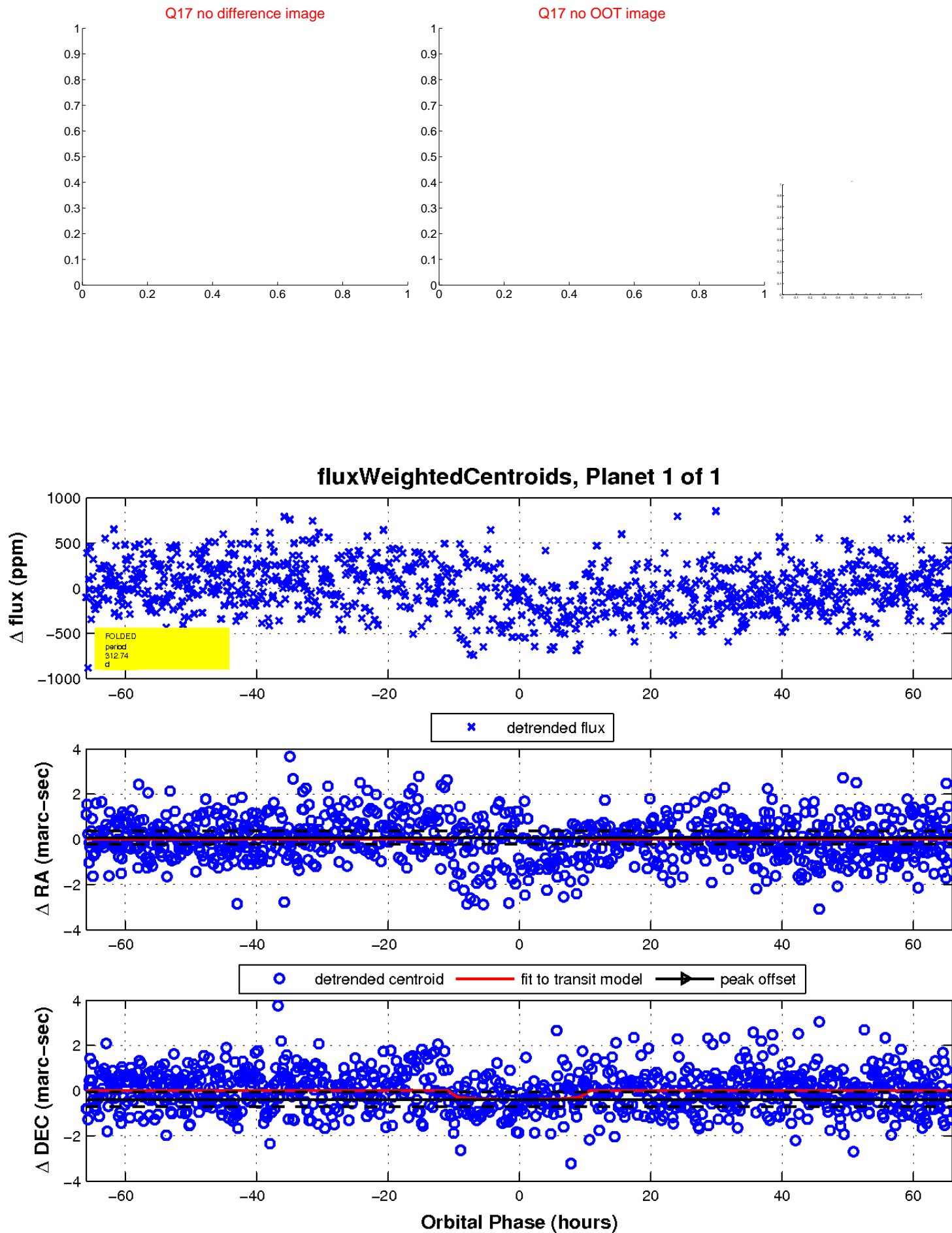
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

