

KIC 003633202

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})
003633202-01	OBS	No	469.067938	524.003725	427.5	15.898	8.1	7.5	0.83	4774	1.89	0.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003633202-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

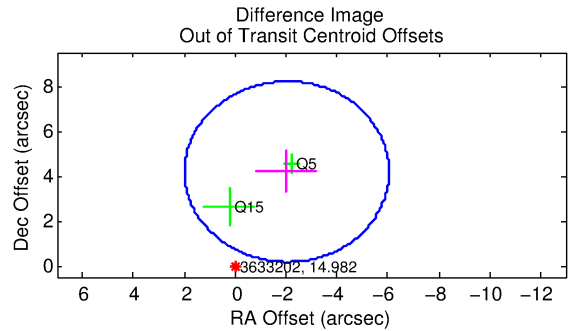
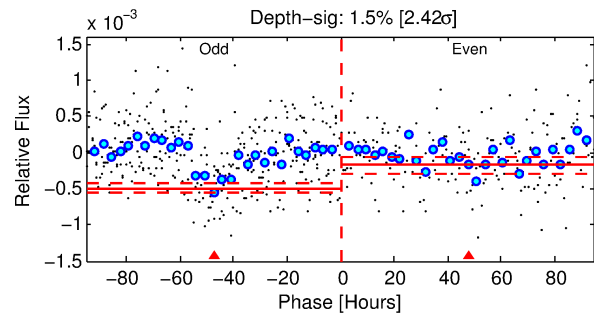
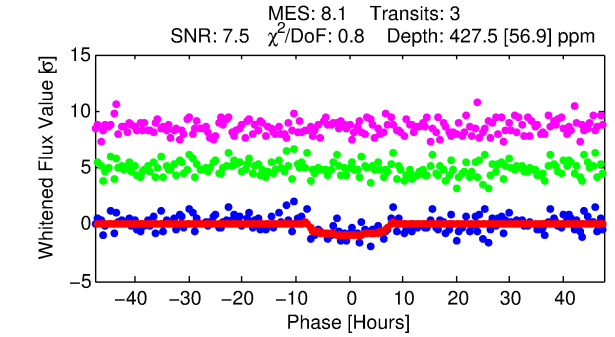
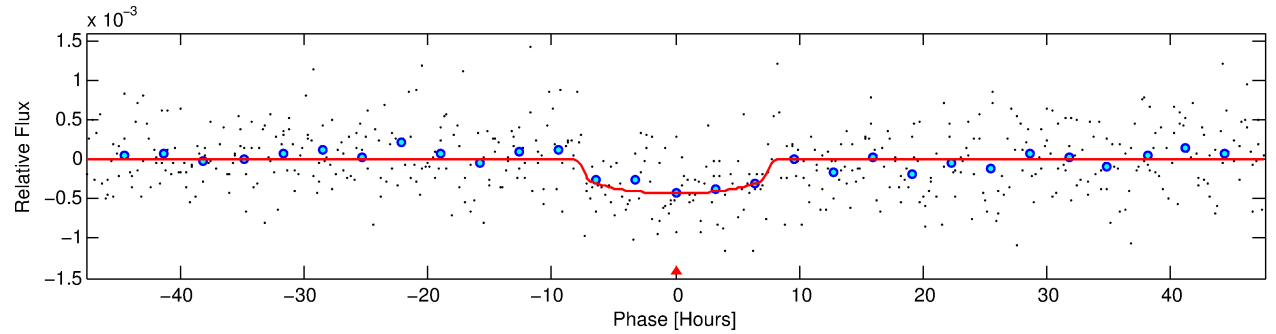
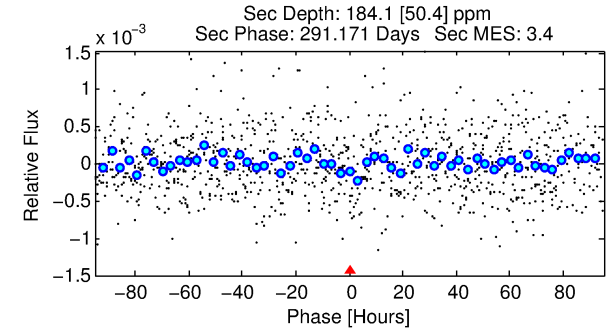
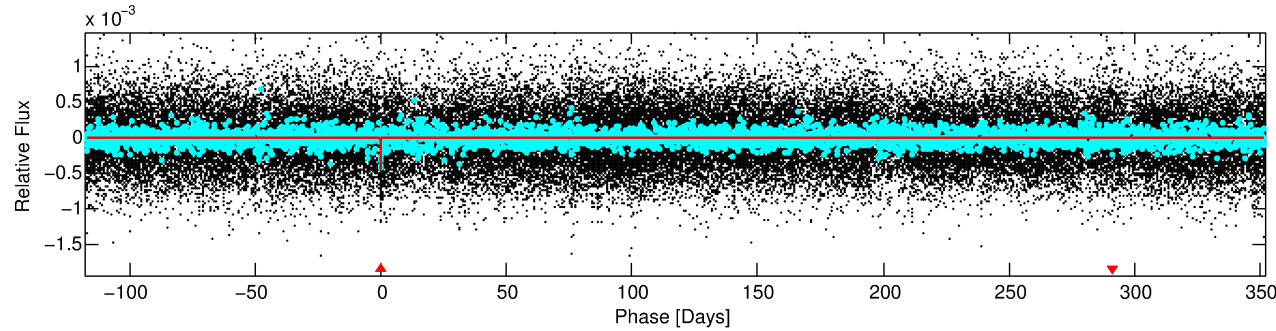
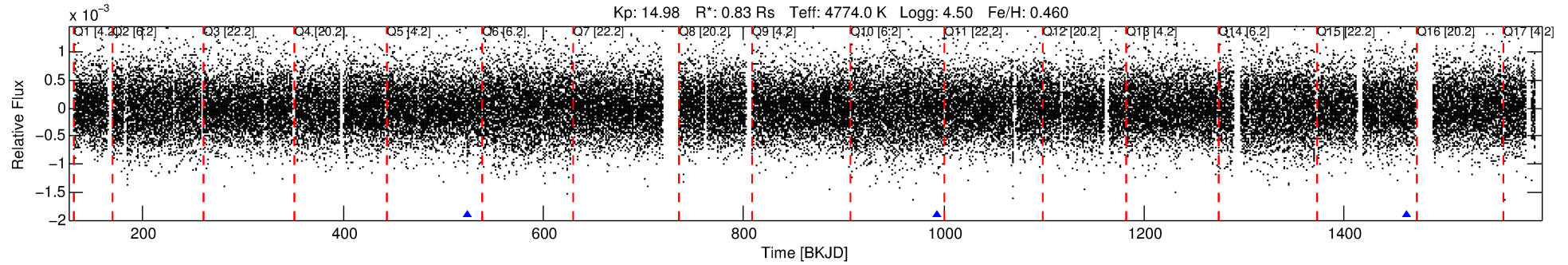
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003633202-01

No Significant Match Found

DV One-Page Summary

KIC: 3633202 Candidate: 1 of 1 Period: 469.068 d



DV Fit Results:

Period = 469.06794 [0.02046] d
Epoch = 524.0037 [0.0259] BKJD
Rp/R* = 0.0209 [0.0088]
a/R* = 151.47 [210.75]
b = 0.77 [0.75]
Seff = 0.27 [0.05]
Teff = 183 [8] K
Rp = 1.89 [0.82] Re
a = 1.0944 [0.1022] AU
Ag = 34081.38 [30693.20] [1.11 σ]
Teffp = 3846 [860] K [4.26 σ]

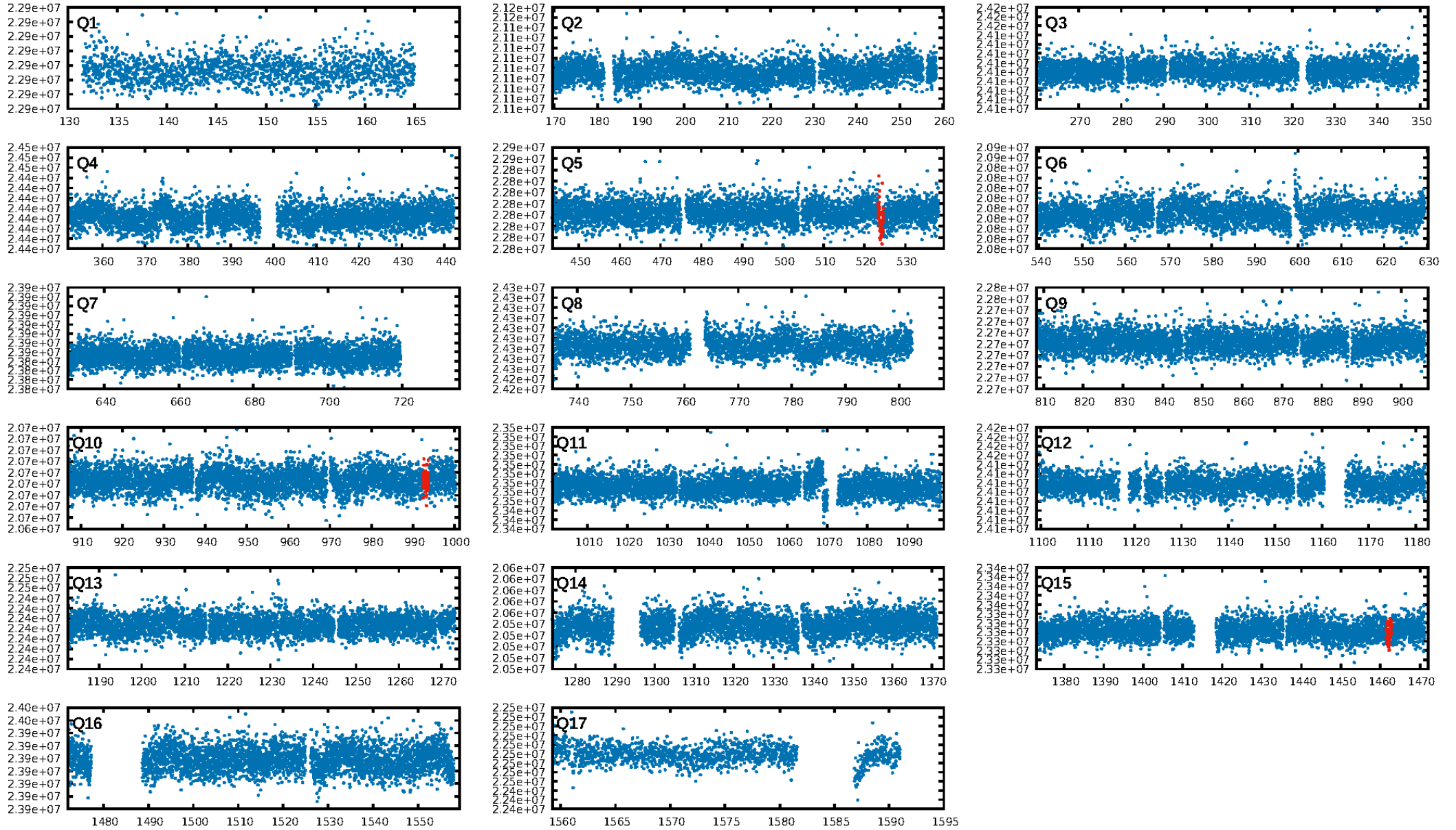
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.30e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.196
Centroid-sig: 0.0%
Centroid-so: 4.174 arcsec [2.10 σ]
OotOffset-rm: 4.650 arcsec [3.47 σ]
KicOffset-rm: 4.547 arcsec [5.46 σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

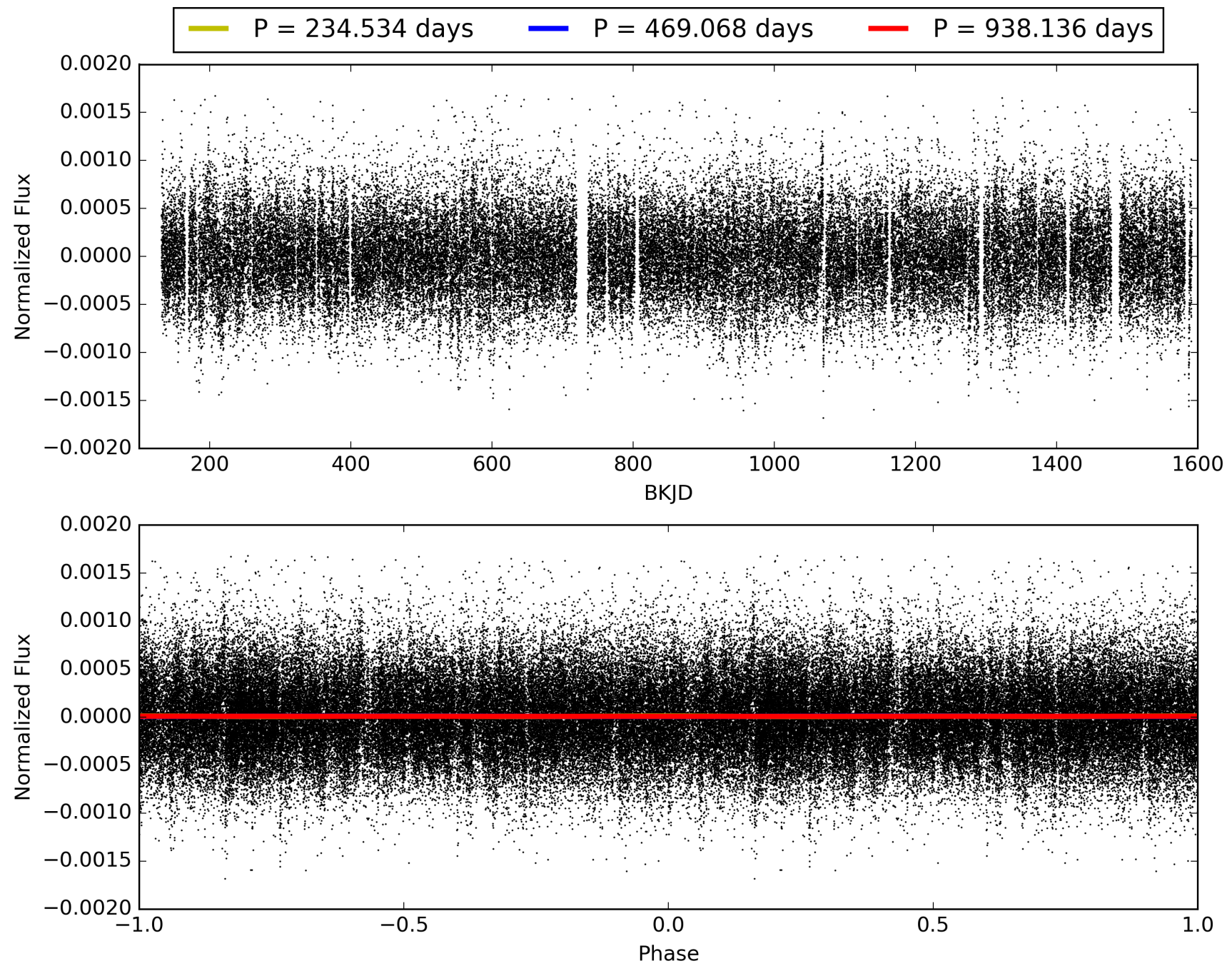
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:14:56 Z

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

TCE 003633202-01, PDC Light Curves

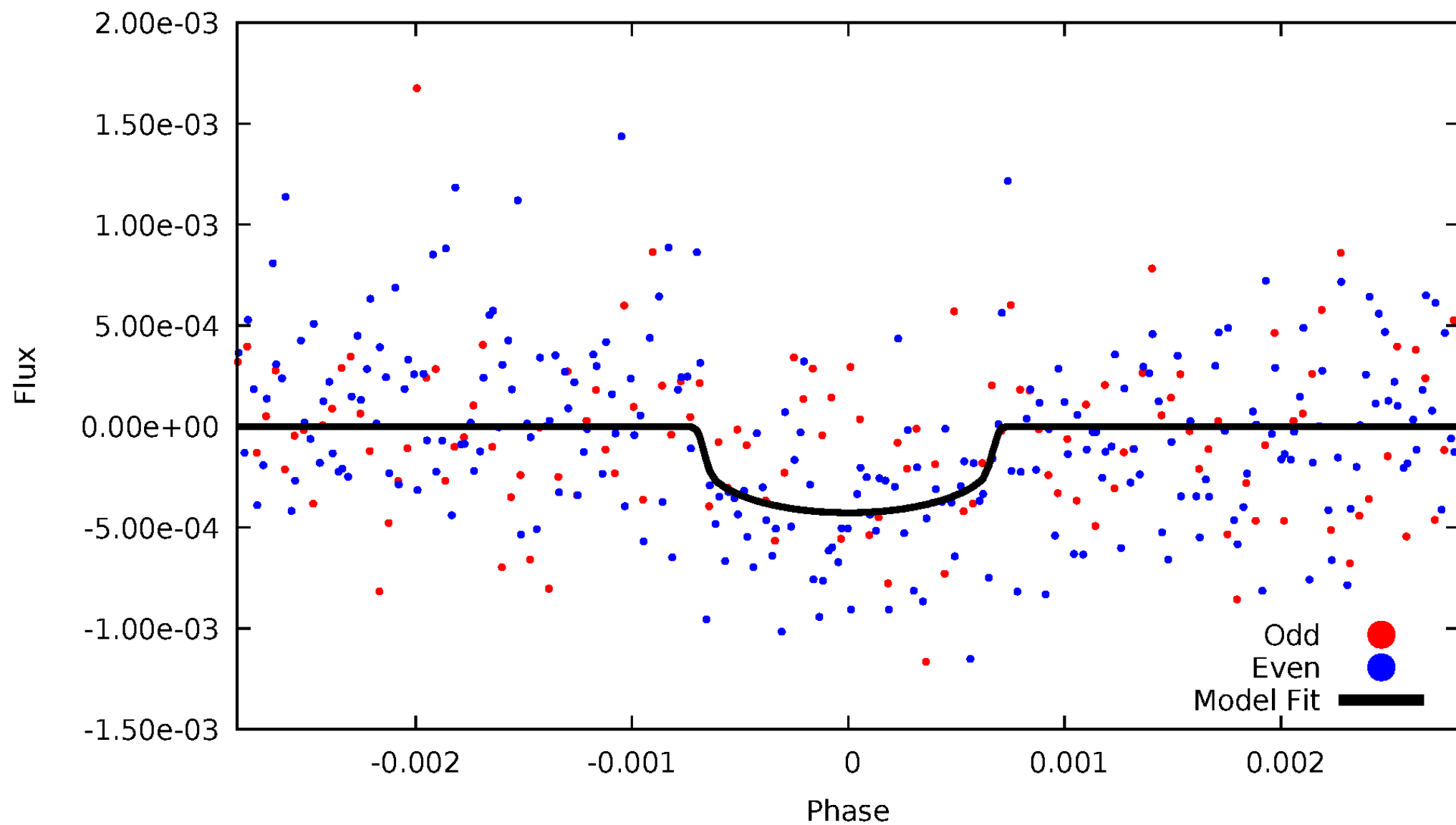


TCE 003633202-01



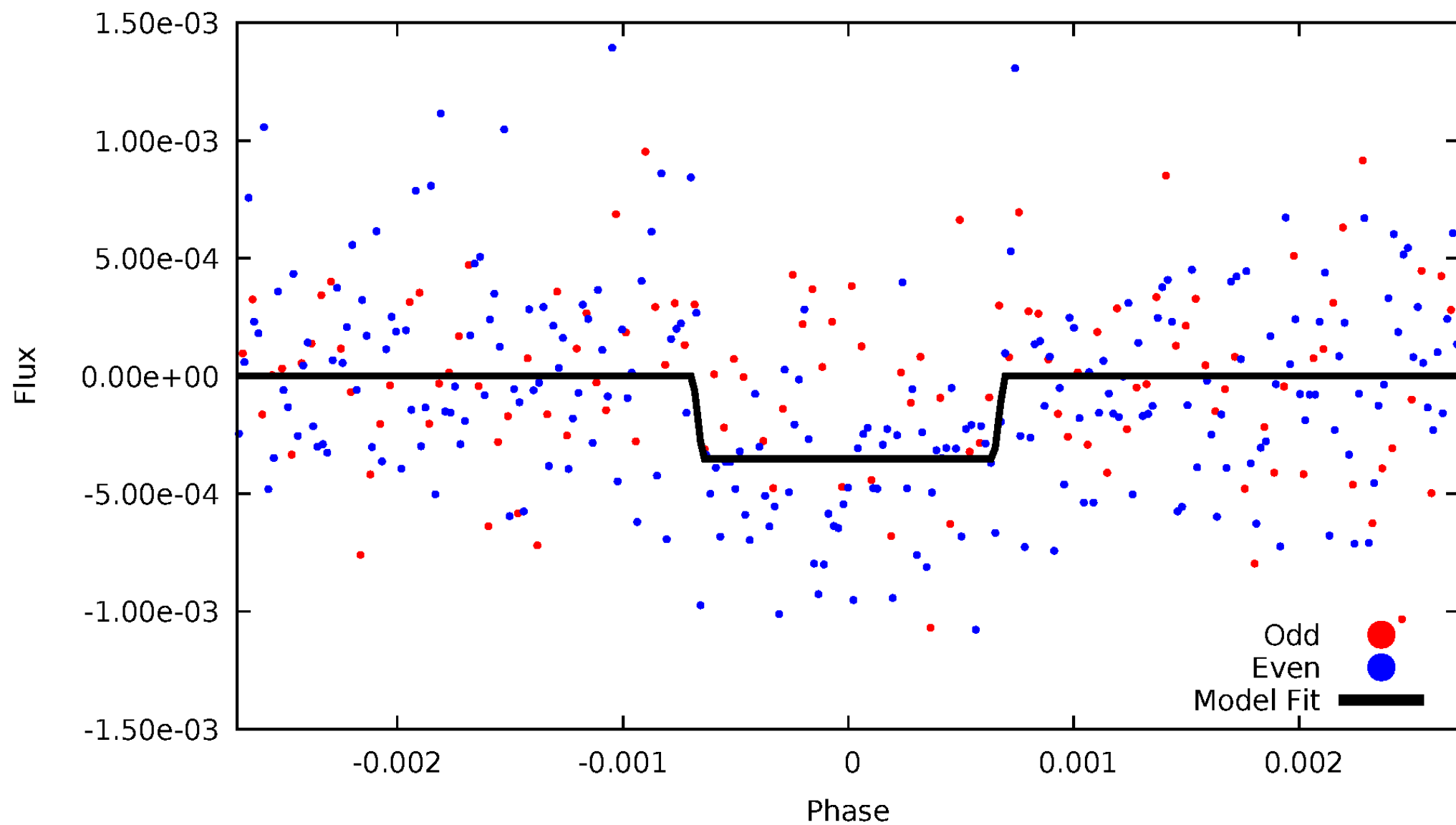
DV Odd/Even

TCE 003633202-01

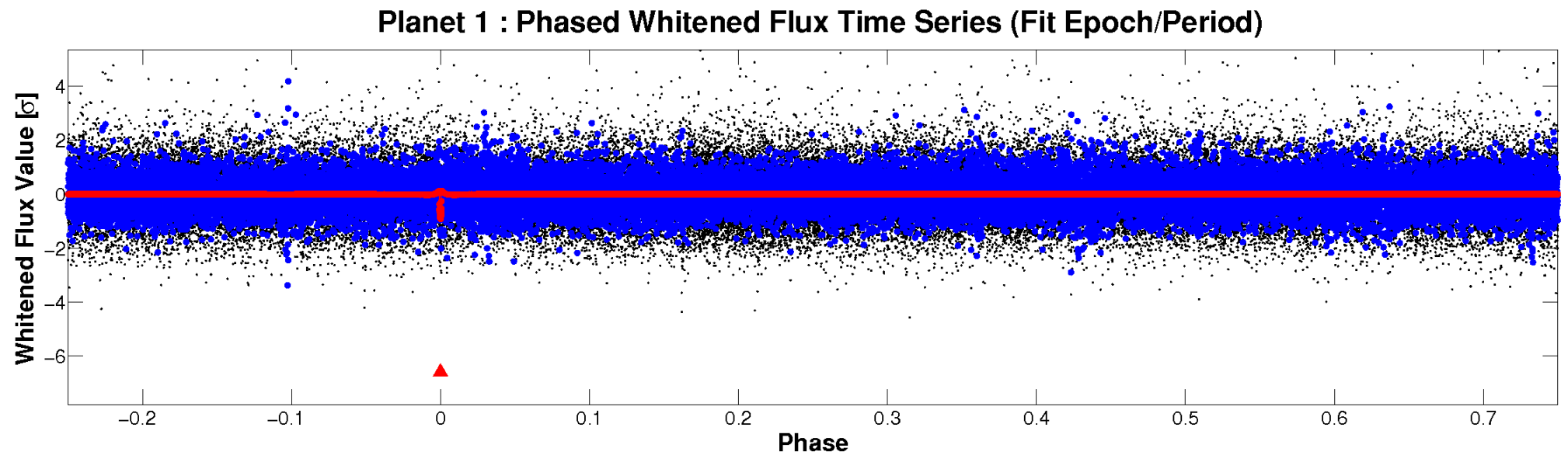
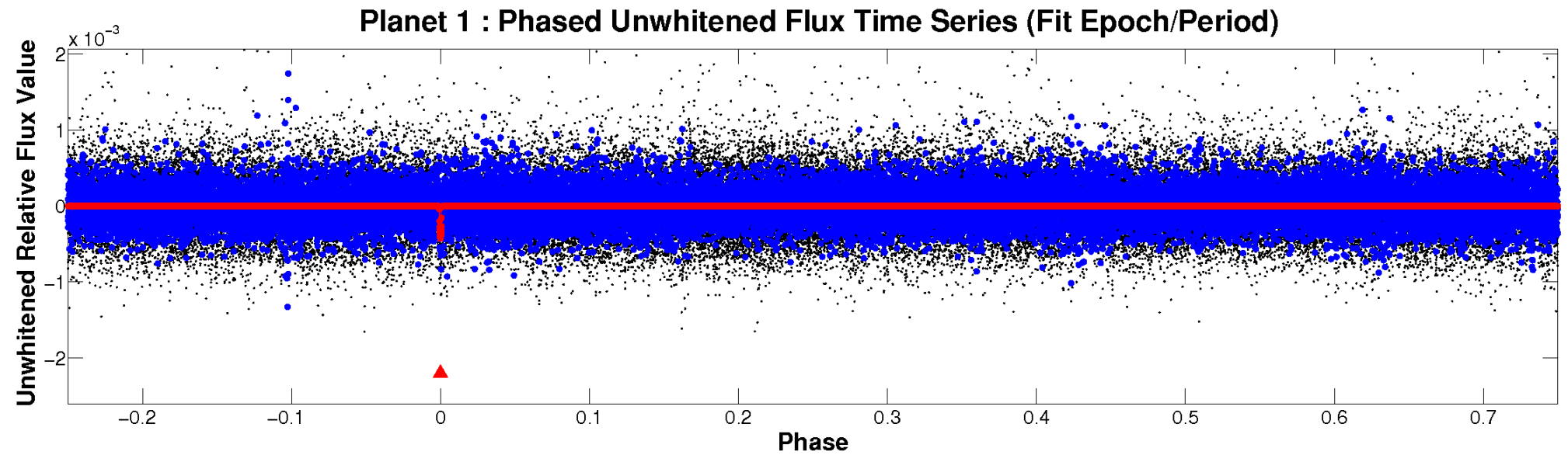


ALT Odd/Even

TCE 003633202-01

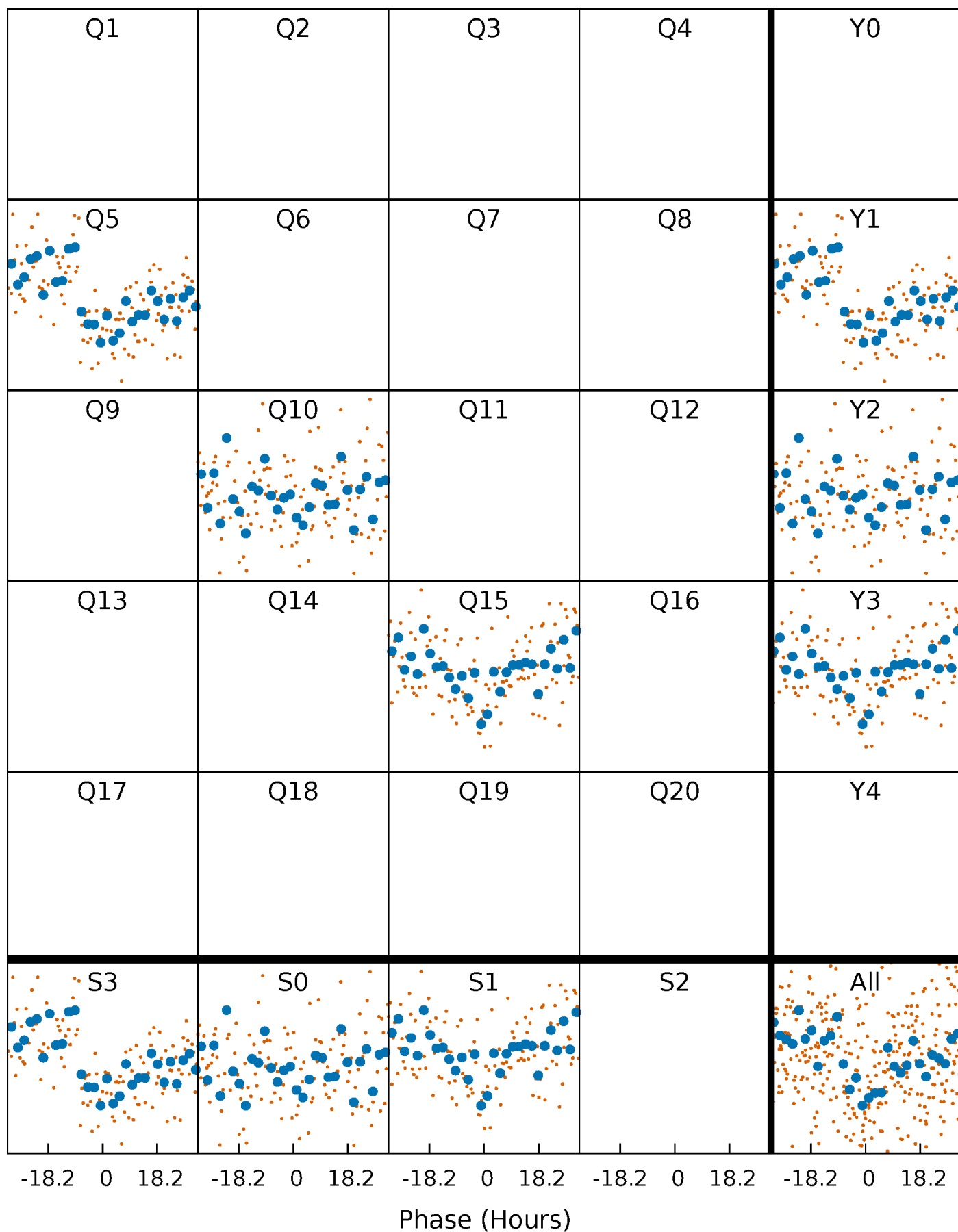


Non-Whitened Vs. Whitened Light Curve



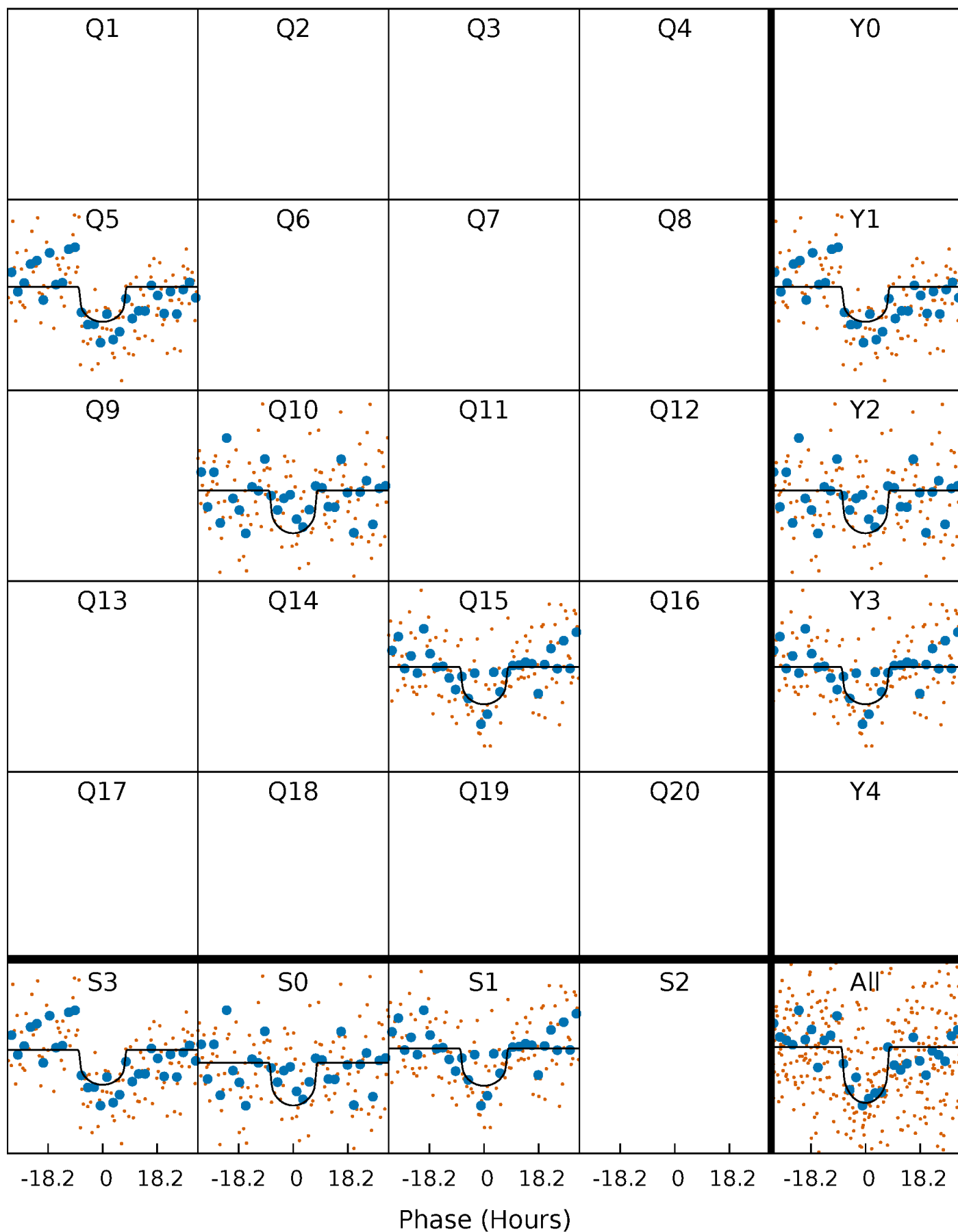
PDC Quarter-Phased Transit Curves

TCE 003633202-01 P=469.067938 Days $T_0=524.003725$ (BKJD)



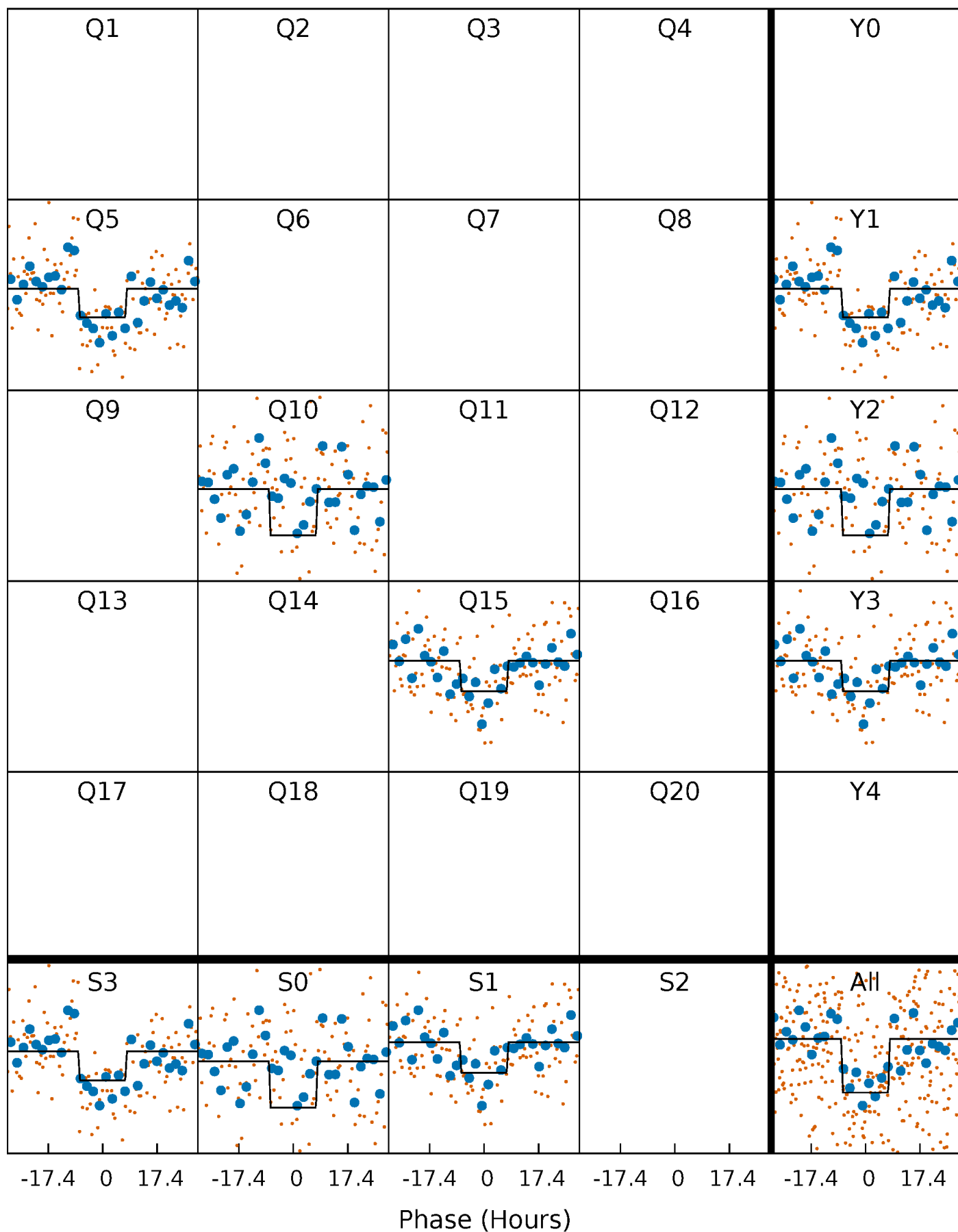
DV Quarter-Phased Transit Curves

TCE 003633202-01 P=469.067938 Days $T_0=524.003725$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

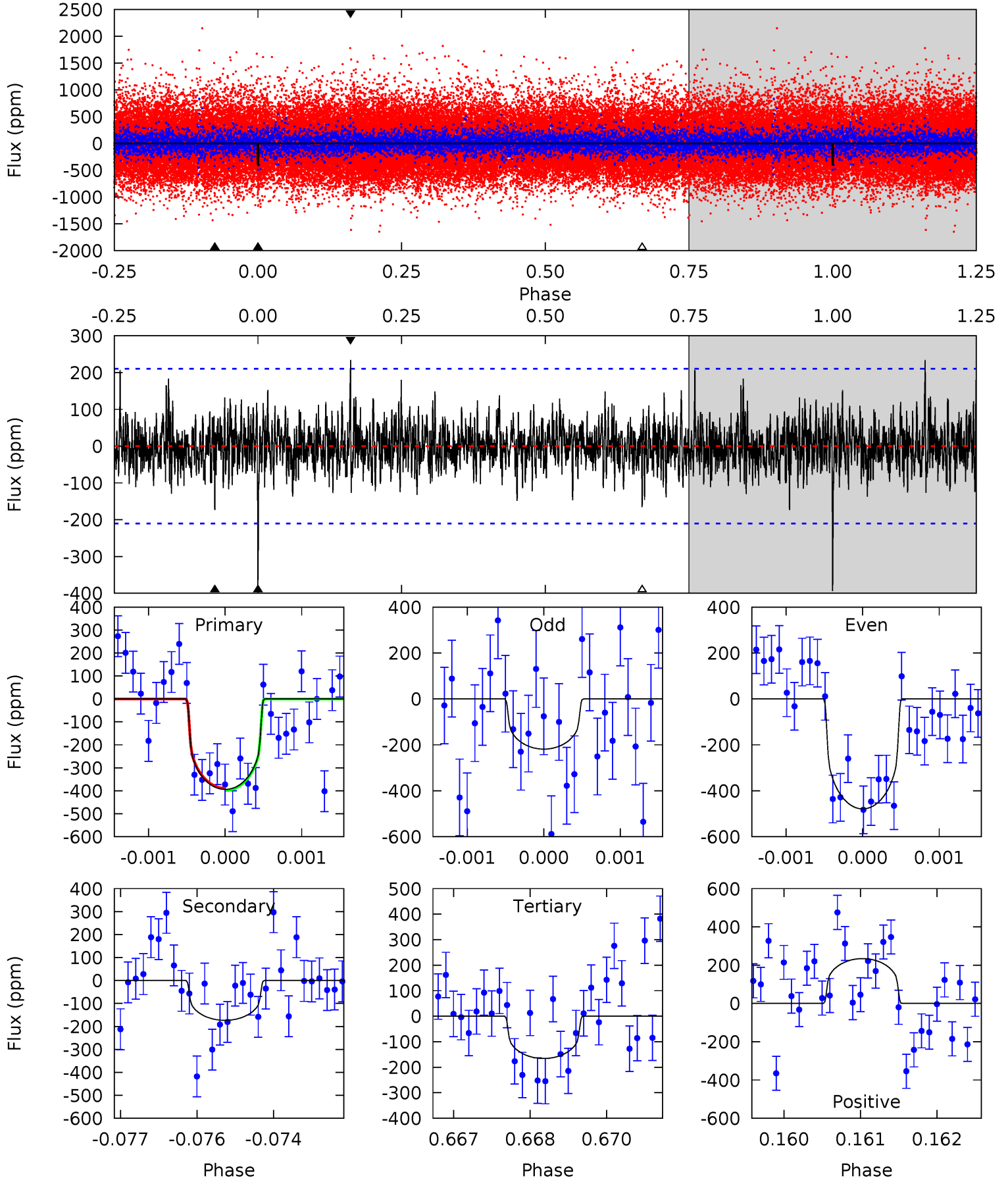
TCE 003633202-01 P=469.065992 Days $T_0=524.003045$ (BKJD)



DV Model-Shift Uniqueness Test

003633202-01, P = 469.067938 Days, E = 54.935787 Days

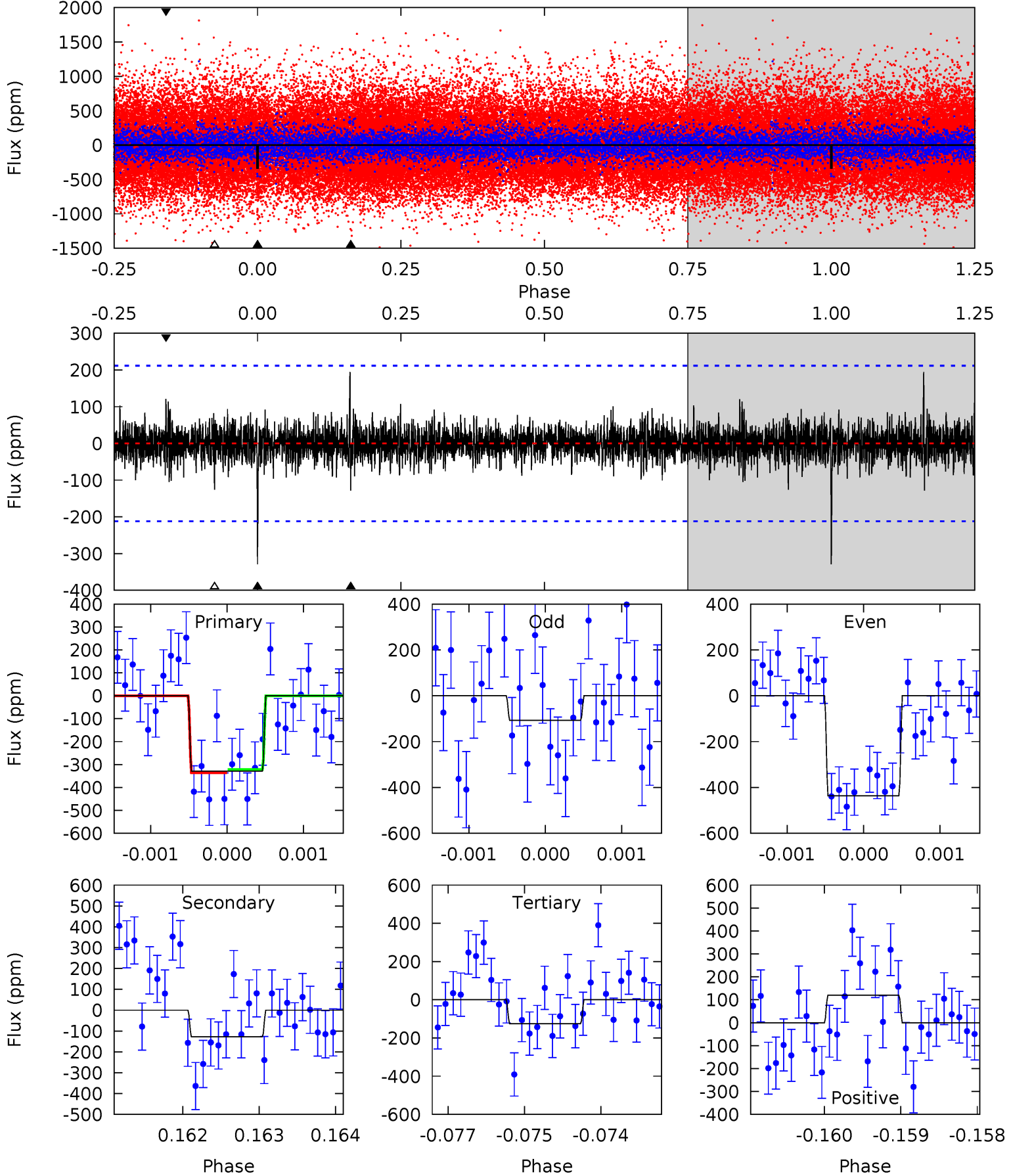
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	4.44	4.24	5.99	5.39	3.19	1.24	5.84	4.09	0.20	-1.55	3.12	1.05	0.37	0.12



Alt Model-Shift Uniqueness Test

003633202-01, P = 469.065992 Days, E = 54.937053 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.38	3.26	3.20	3.05	5.40	3.20	0.77	5.18	5.33	0.06	0.21	3.94	0.89	0.37	0.18



Stellar Parameters For KIC 003633202

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4774^{+129}_{-129}	$4.503^{+0.088}_{-0.048}$	$0.460^{+0.050}_{-0.300}$	$0.827^{+0.043}_{-0.080}$	$0.795^{+0.046}_{-0.041}$	$1.976^{+0.697}_{-0.297}$
	+3%/-3%	+2%/-1%	+11%/-65%	+5%/-10%	+6%/-5%	+35%/-15%
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 003633202-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-173 ± 39	$1.93^{+0.78}_{-0.86}$	254^{+9}_{-8}	3966^{+973}_{-457}	31031^{+65336}_{-16036}
Alt.	-128 ± 39	$1.69^{+0.80}_{-0.76}$	255^{+9}_{-10}	3935^{+922}_{-541}	28942^{+60462}_{-16449}

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

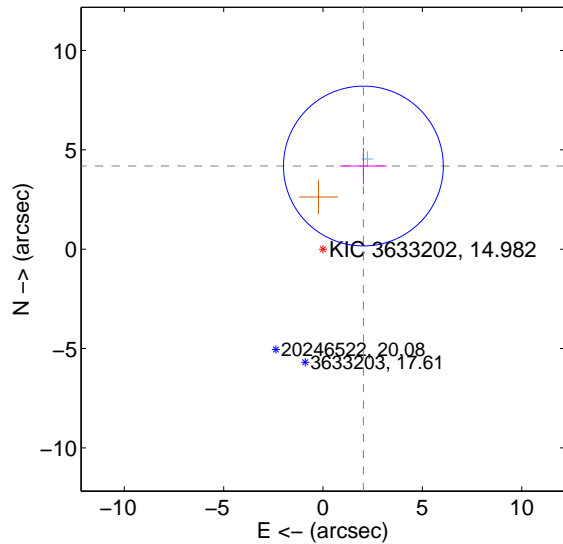
Supplemental centroid analysis for 003633202-01. Kepler magnitude: 14.98. Transit SNR 7.46

There are 1 quarters with good PRF difference image offsets

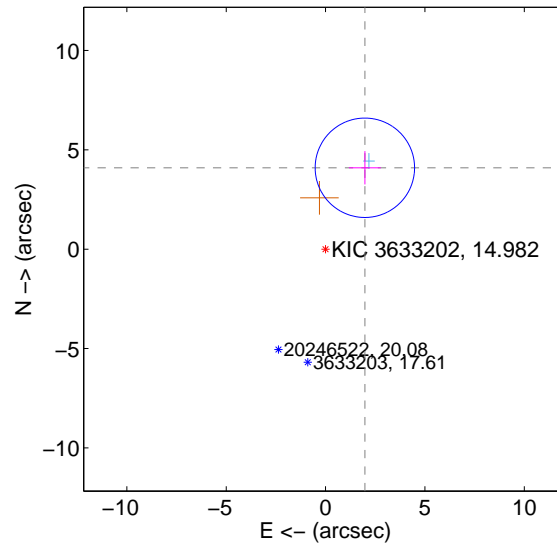
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.650 ± 1.340	3.47	-2.031 ± 1.180	4.183 ± 0.918
PRF-fit source offset from KIC position	4.547 ± 0.833	5.46	-1.976 ± 0.803	4.095 ± 0.840
photometric centroid source offset	4.17 ± 1.99	2.10	0.68 ± 1.73	4.12 ± 2.00

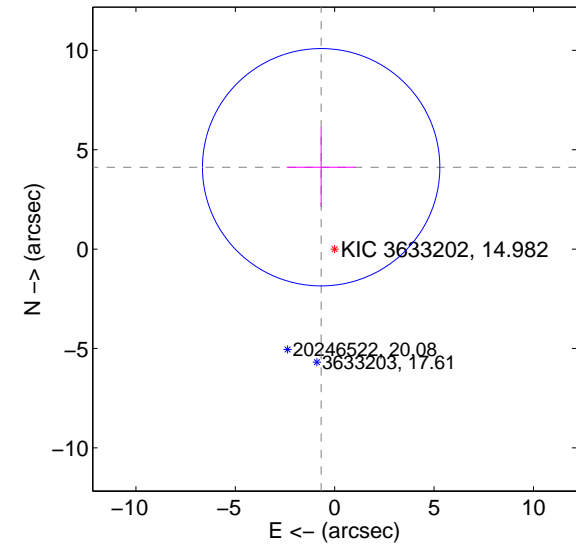
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

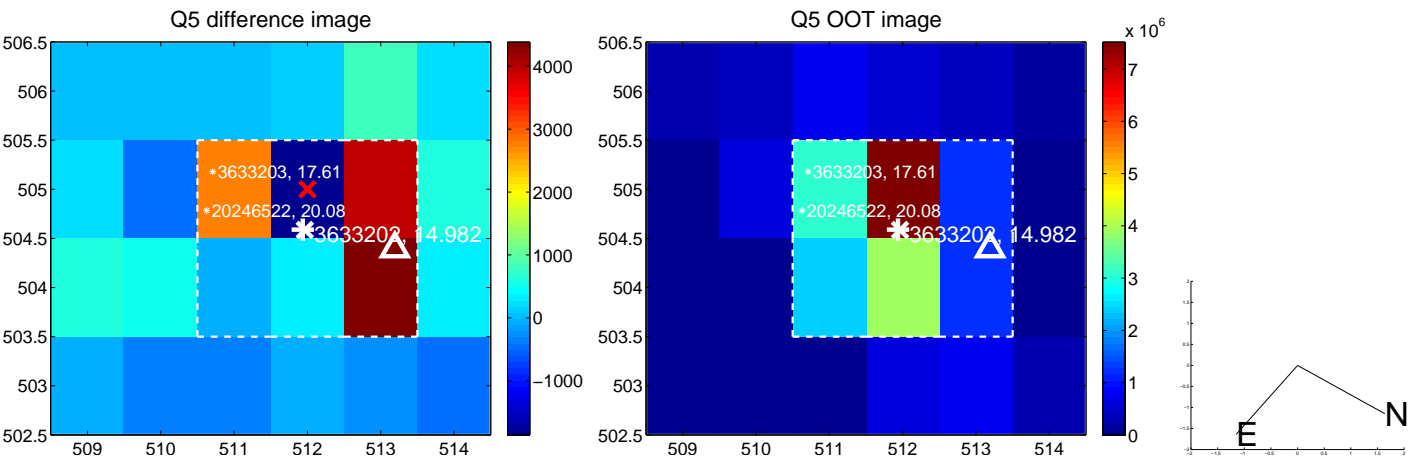


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

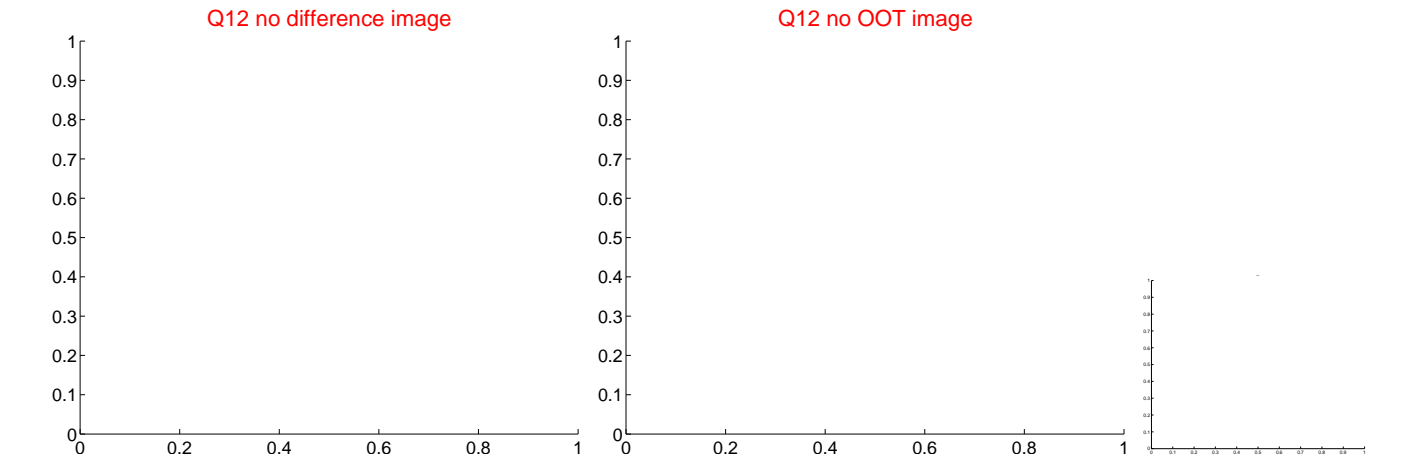
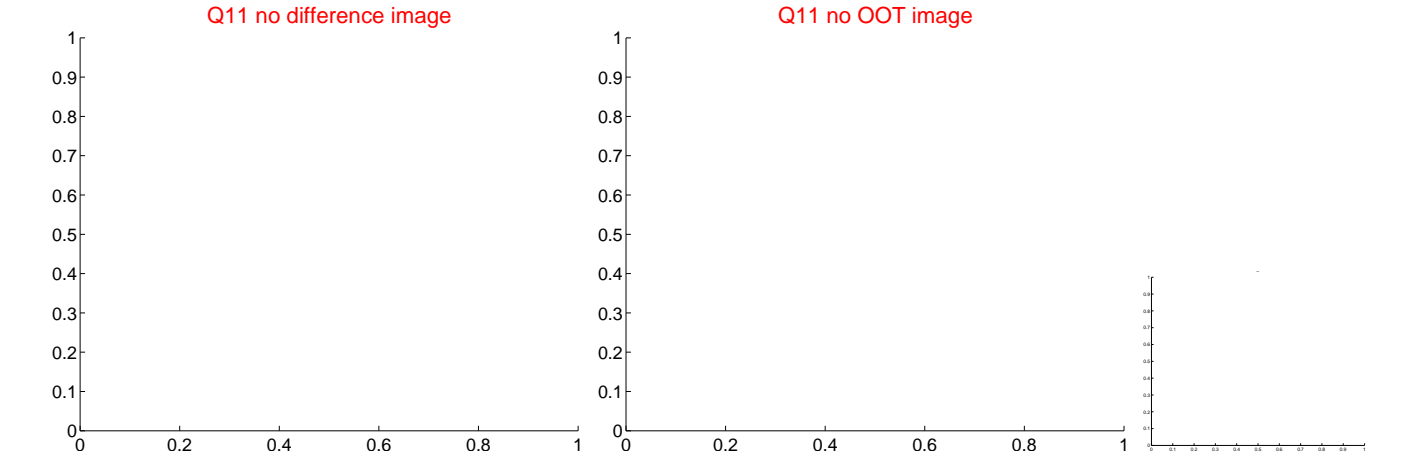
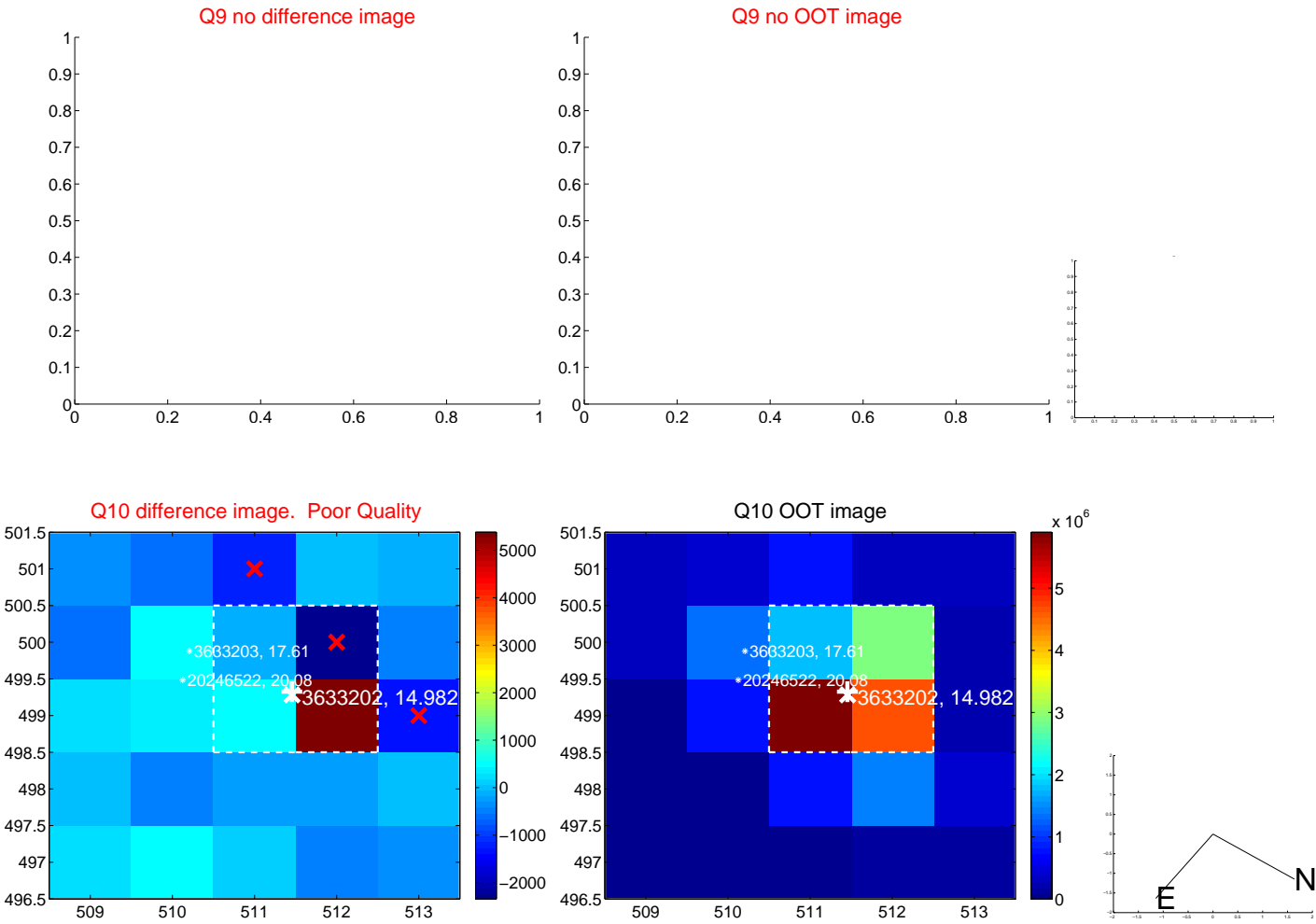
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



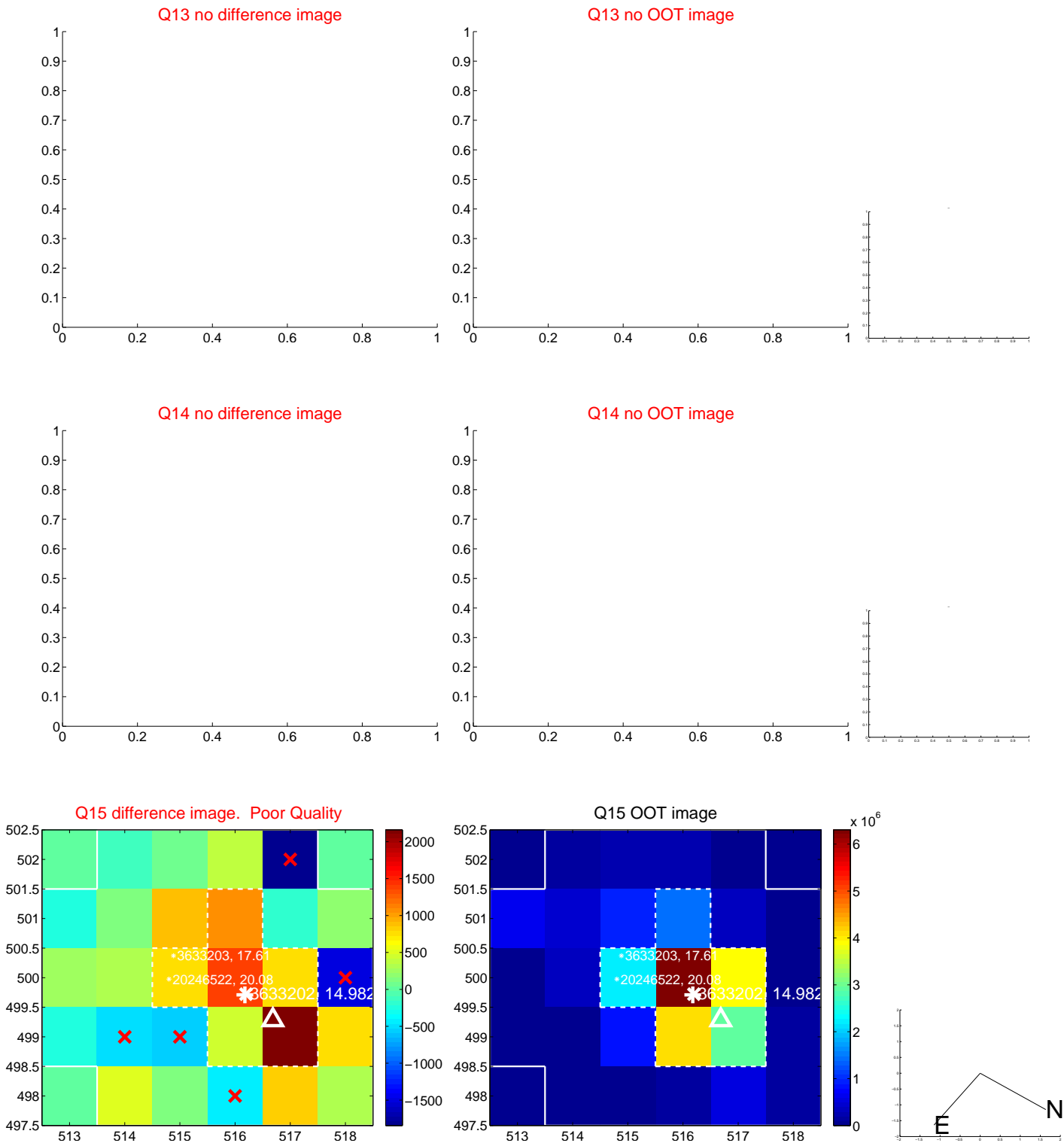
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



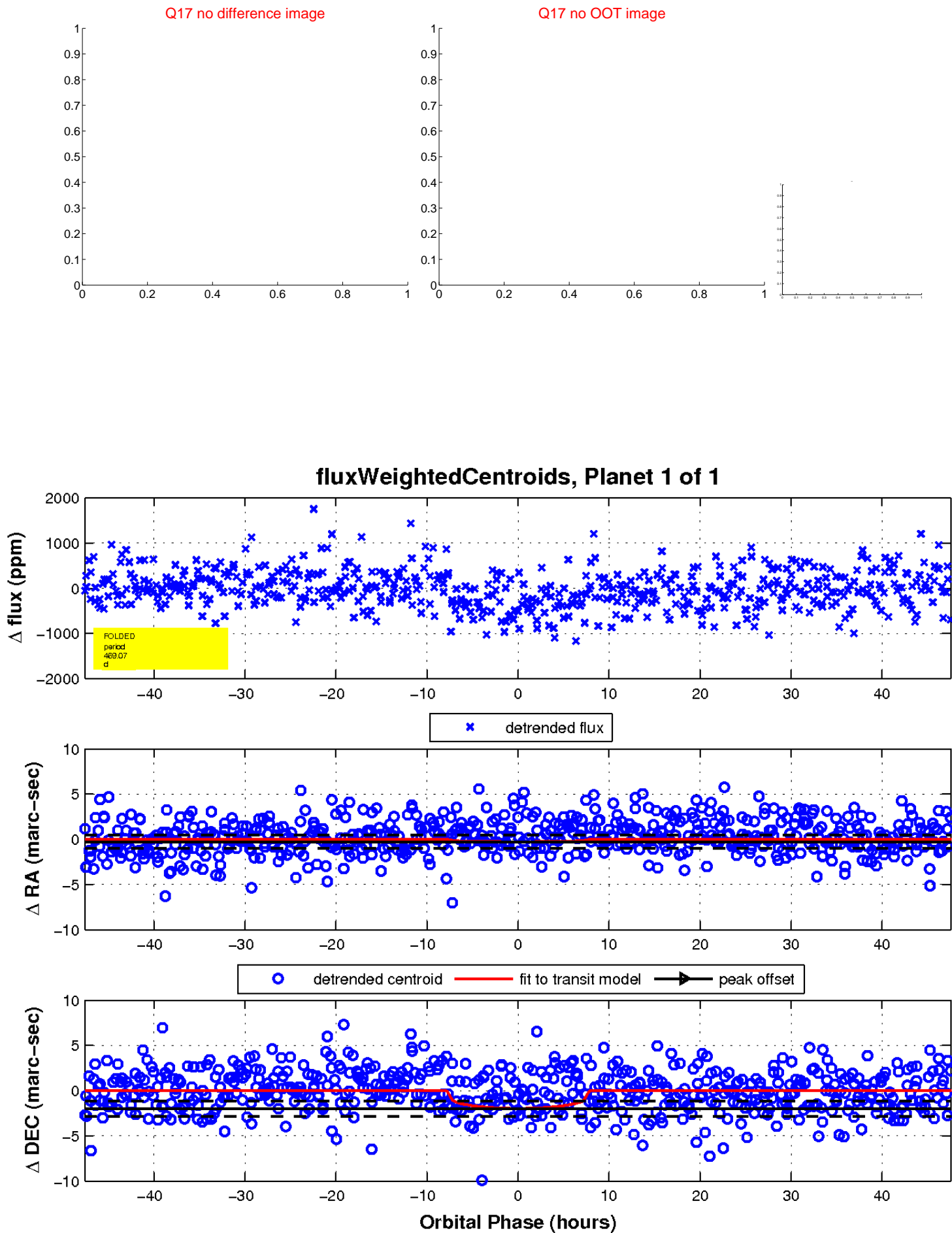
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

