

KIC 008053641

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})
008053641-01	OBS	No	368.935336	185.730725	514.7	20.259	11.6	11.1	1.32	5883	3.68	1.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008053641-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

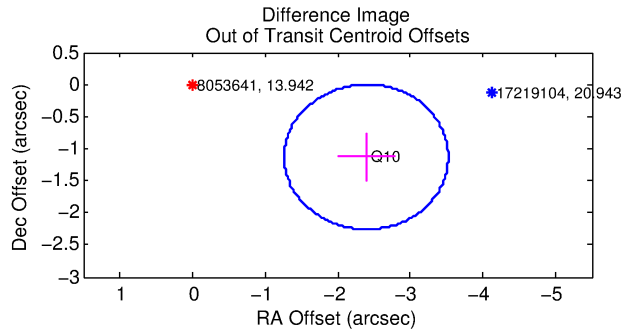
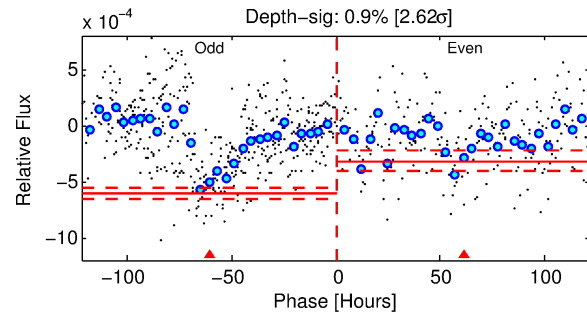
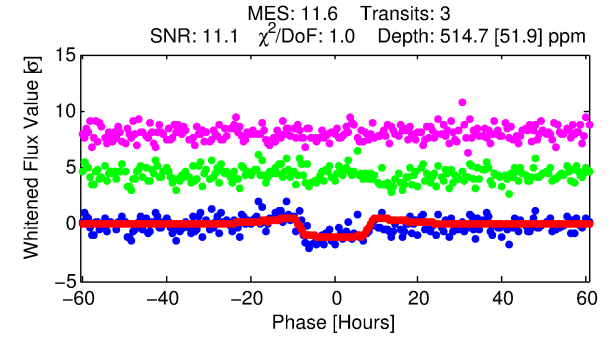
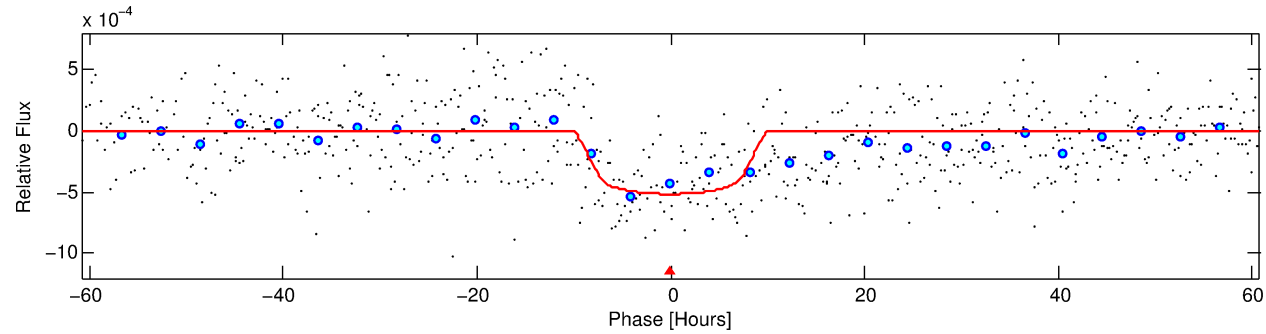
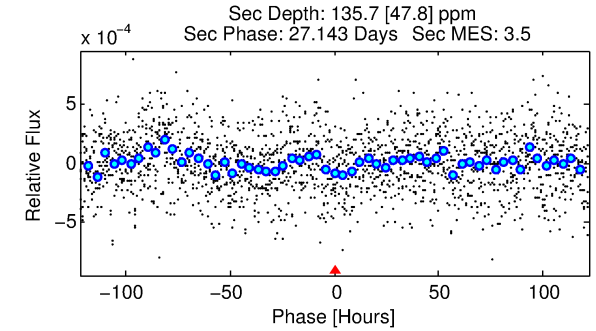
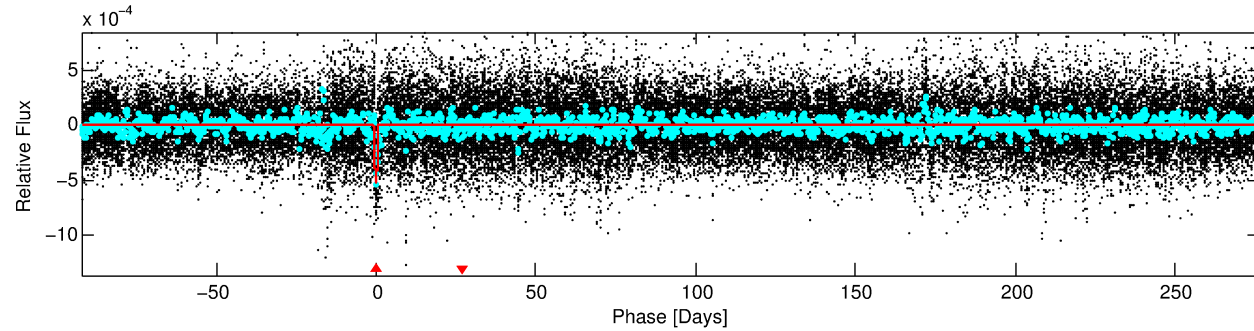
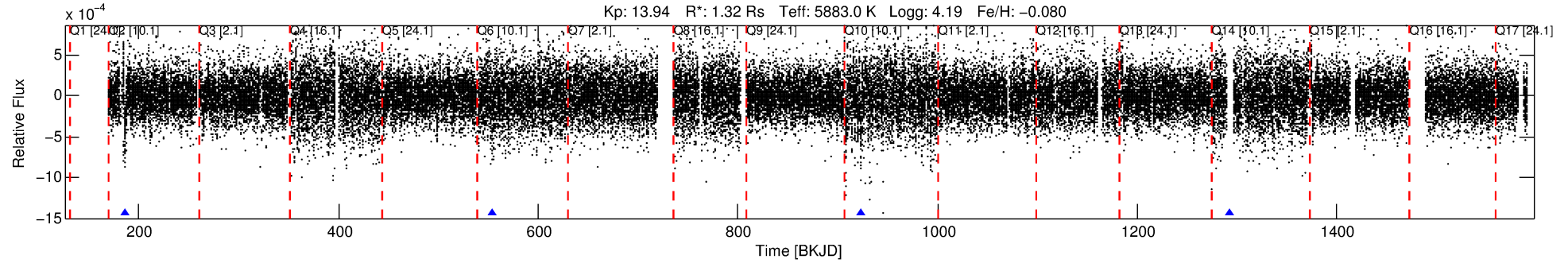
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008053641-01

No Significant Match Found

DV One-Page Summary

KIC: 8053641 Candidate: 1 of 1 Period: 368.935 d



DV Fit Results:

Period = 368.93534 [0.01892] d
Epoch = 185.7307 [0.0189] BKJD
Rp/R* = 0.0255 [0.0019]
a/R* = 59.62 [14.01]
b = 0.93 [0.03]
Seff = 1.87 [0.86]
Teq = 298 [34] K
Rp = 3.68 [1.06] Re
a = 1.0032 [0.2718] AU
Ag = 5545.81 [3219.78] [1.72σ]
Teffp = 3977 [406] K [9.03σ]

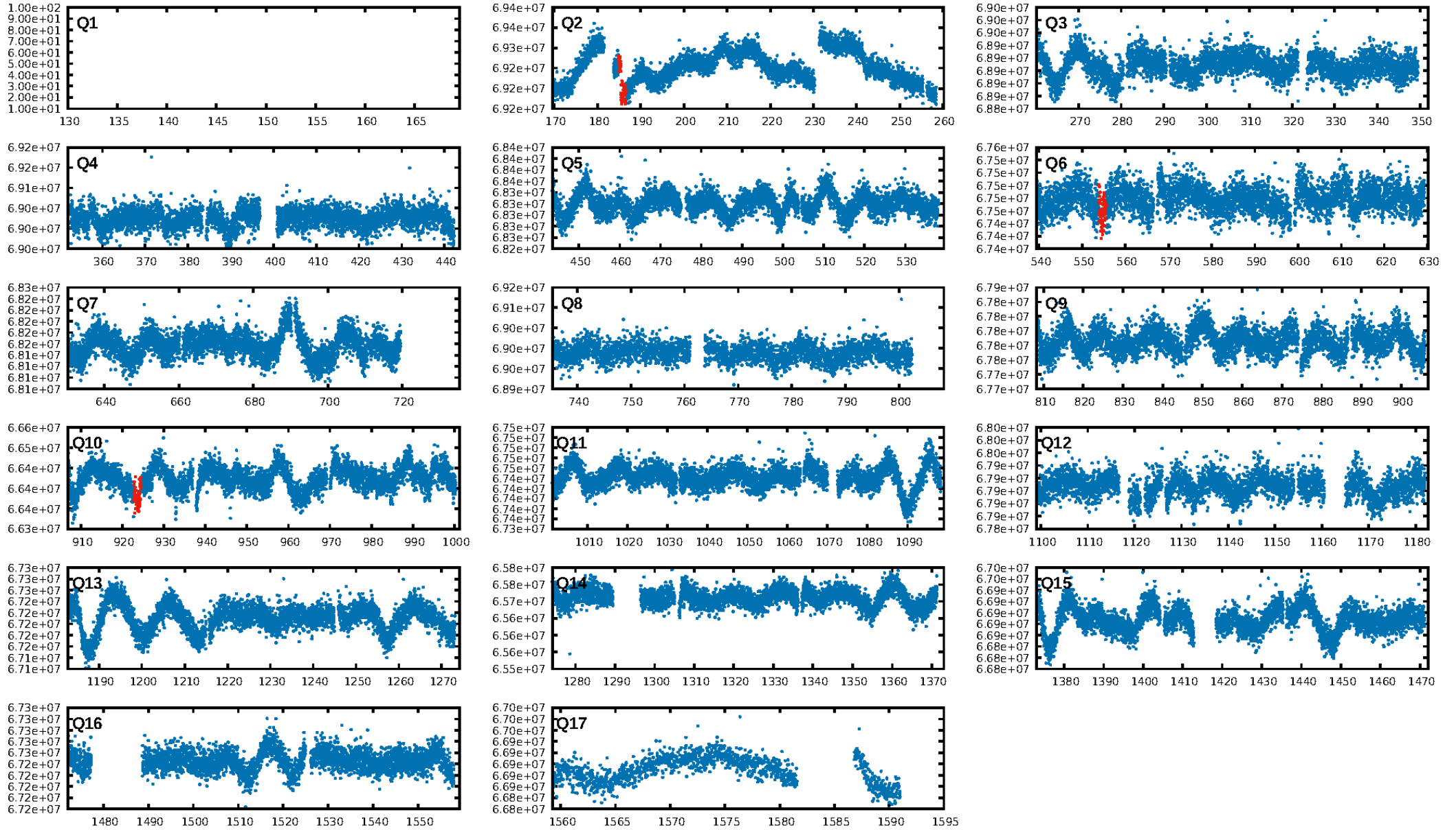
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: 6.10e-24
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.163
Centroid-sig: 26.5%
Centroid-so: 0.484 arcsec [0.65σ]
OotOffset-rm: 2.648 arcsec [7.04σ]
KicOffset-rm: 2.715 arcsec [7.21σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

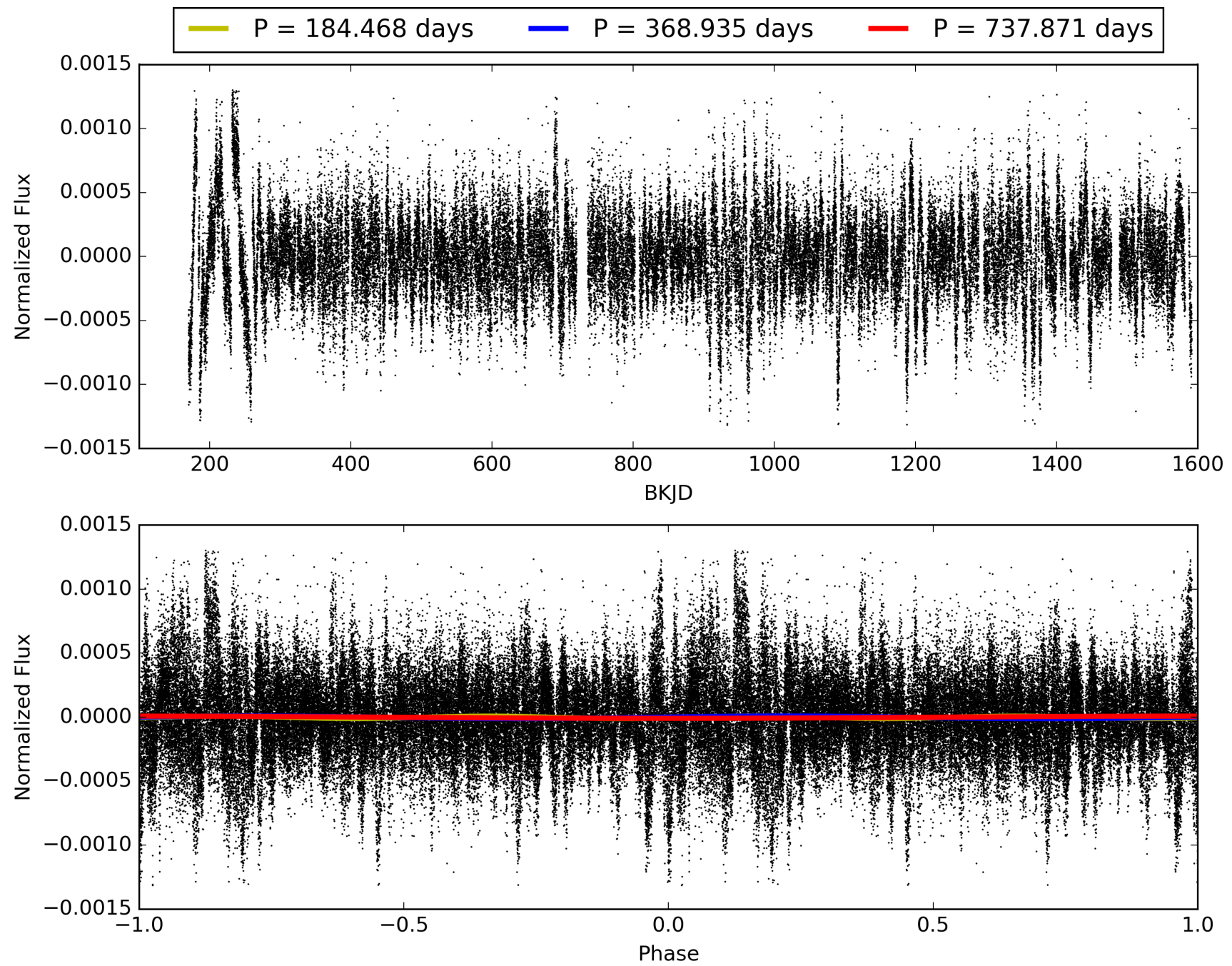
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:52:46 Z

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

TCE 008053641-01, PDC Light Curves

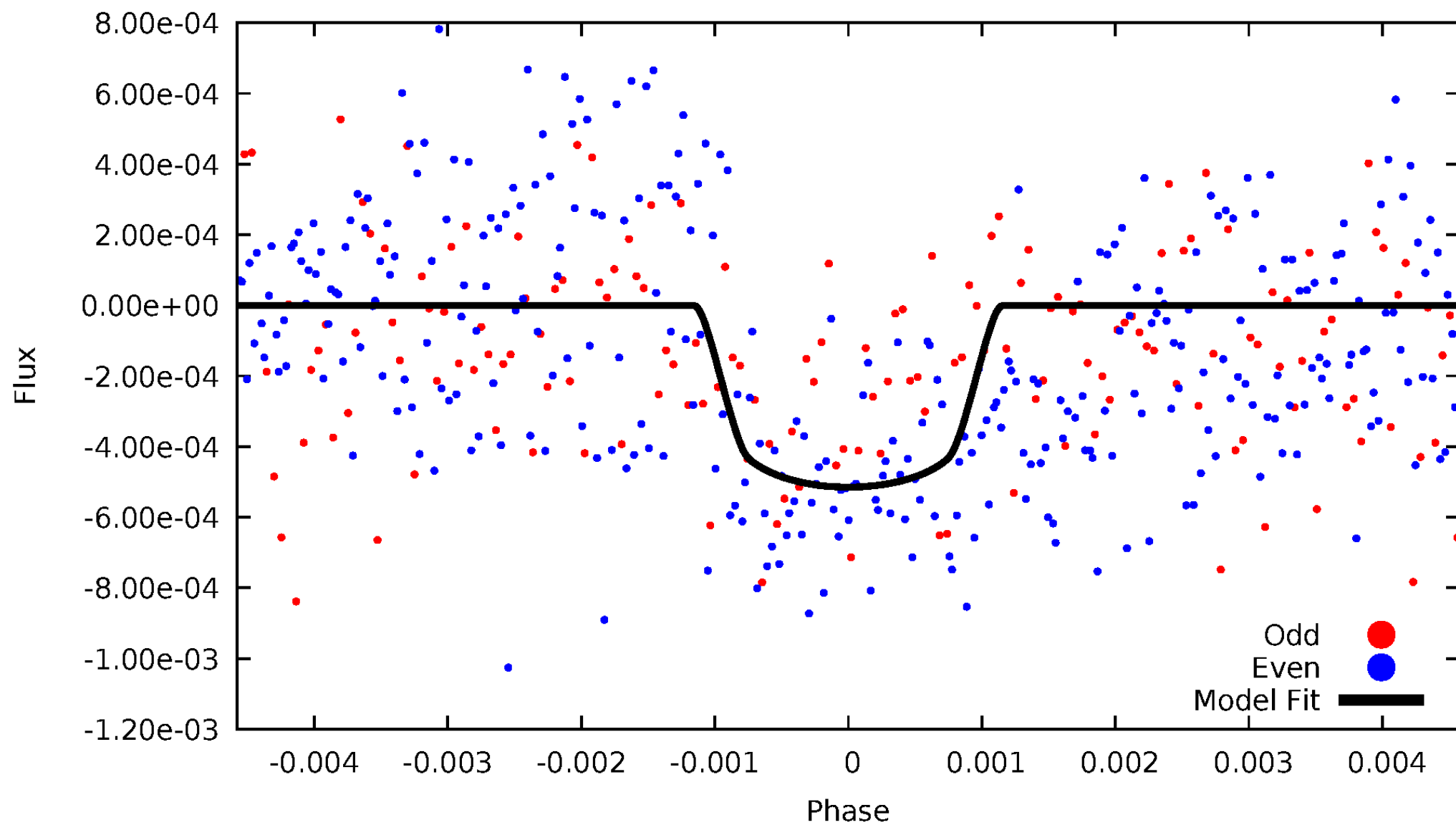


TCE 008053641-01



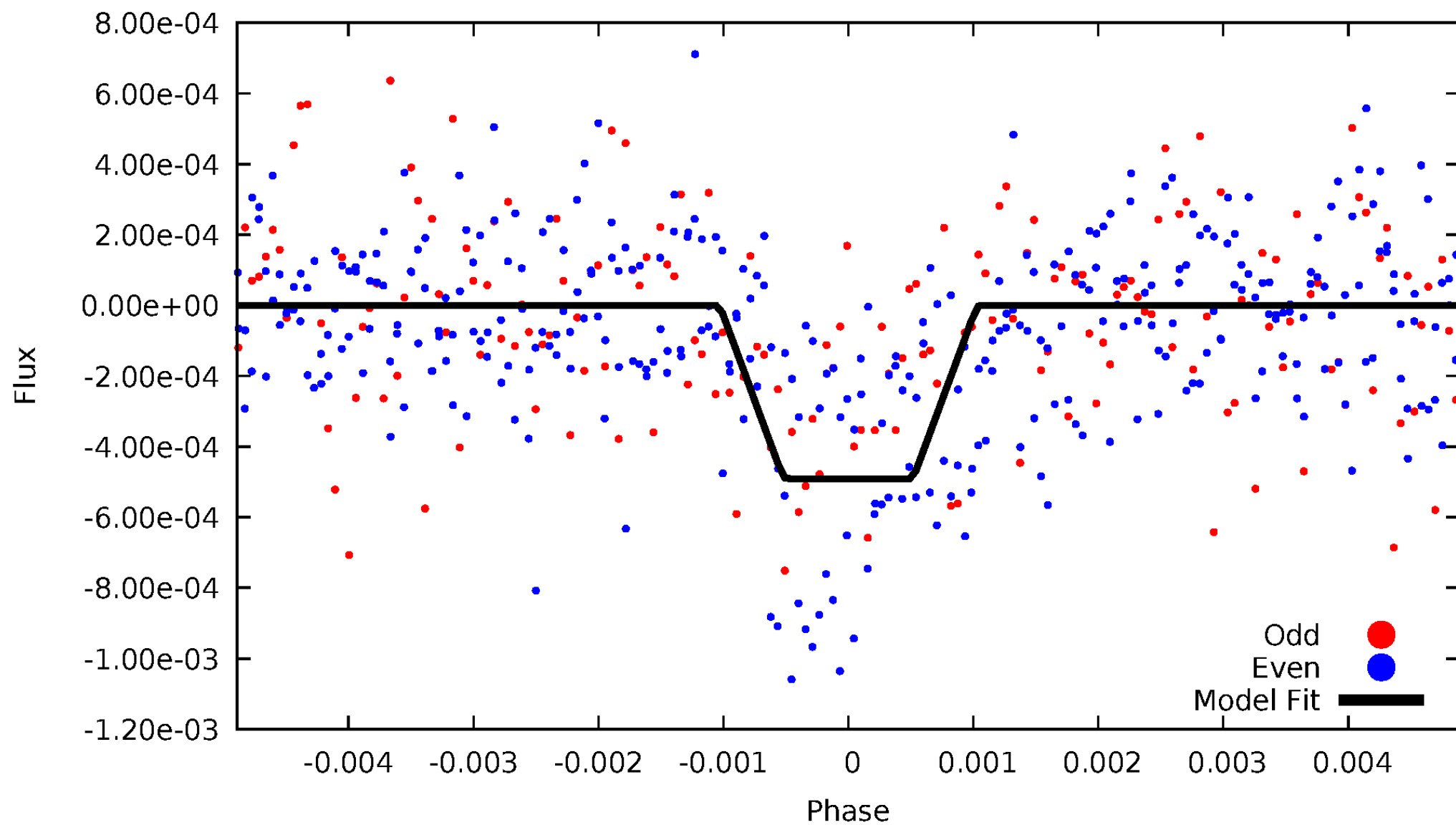
DV Odd/Even

TCE 008053641-01

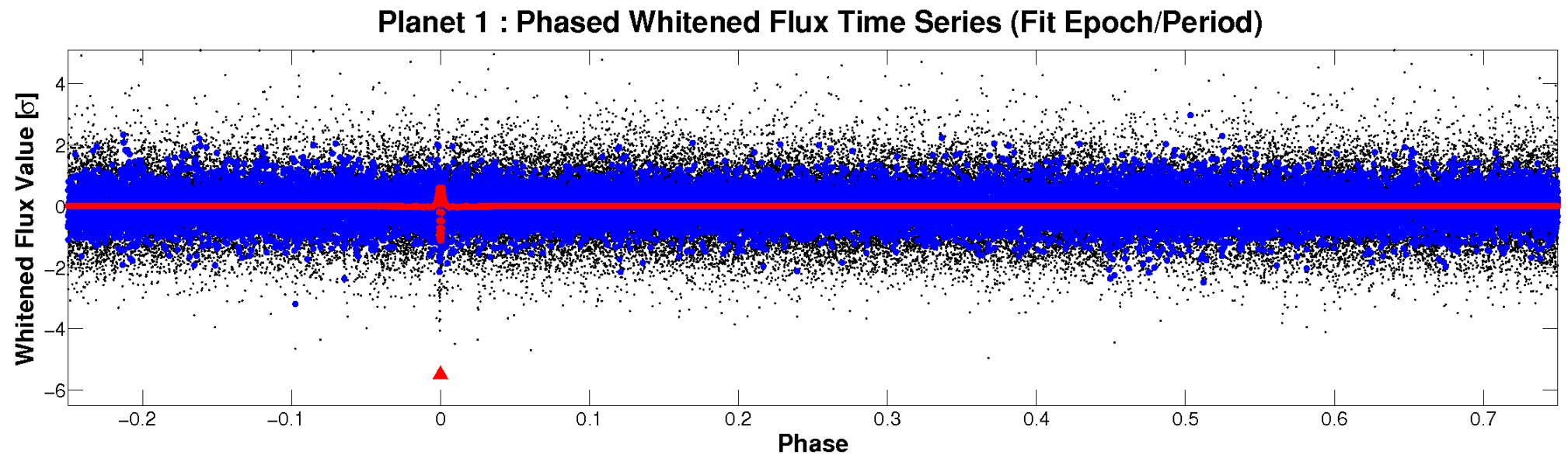
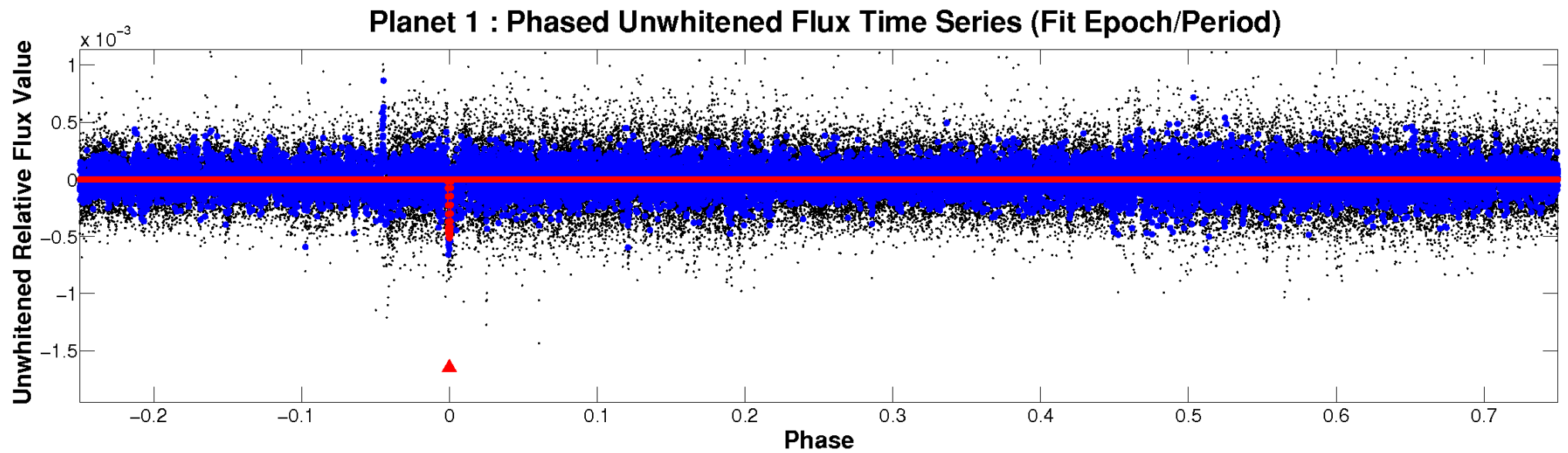


ALT Odd/Even

TCE 008053641-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 008053641-01 P=368.935336 Days $T_0=185.730725$ (BKJD)



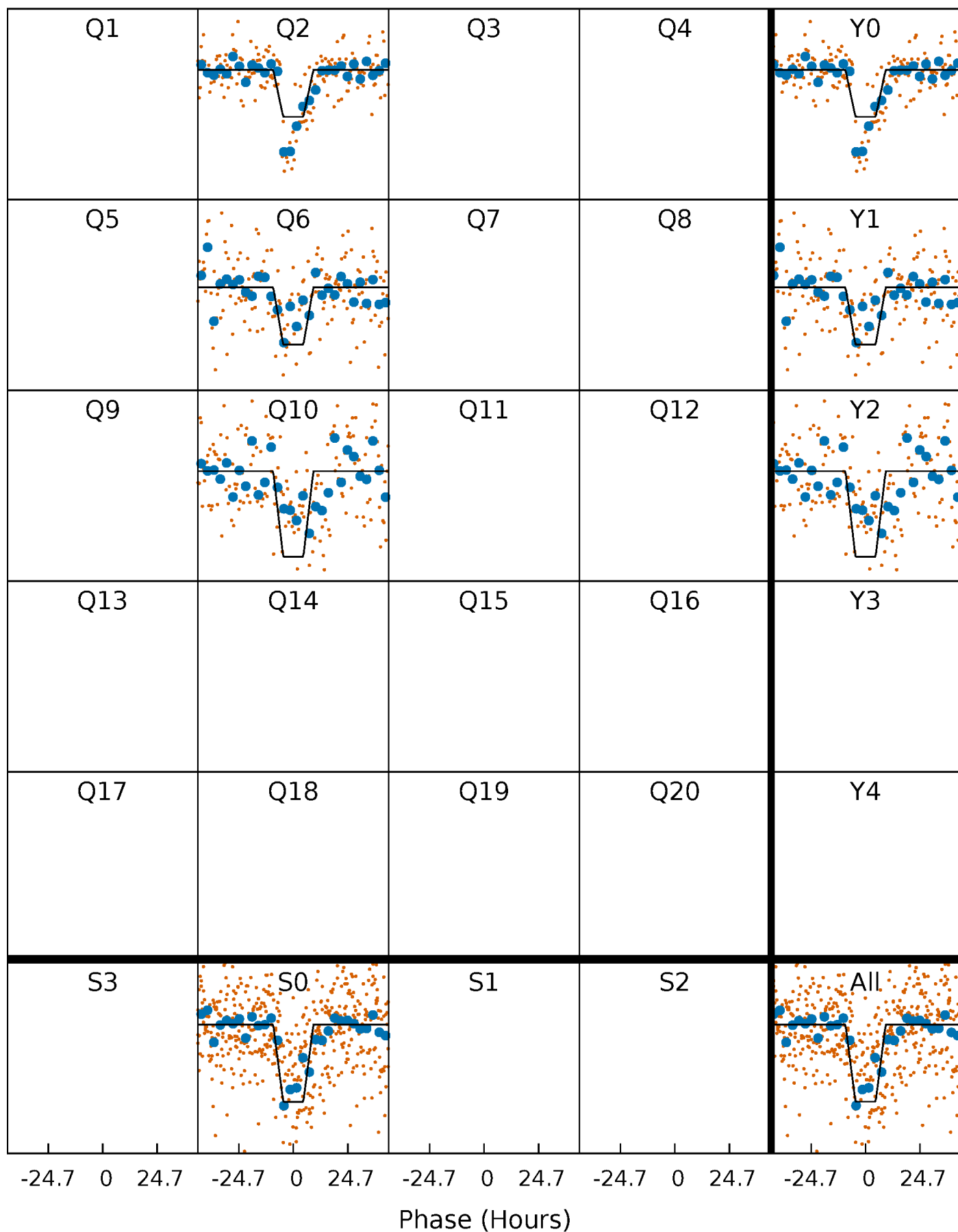
DV Quarter-Phased Transit Curves

TCE 008053641-01 P=368.935336 Days $T_0=185.730725$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

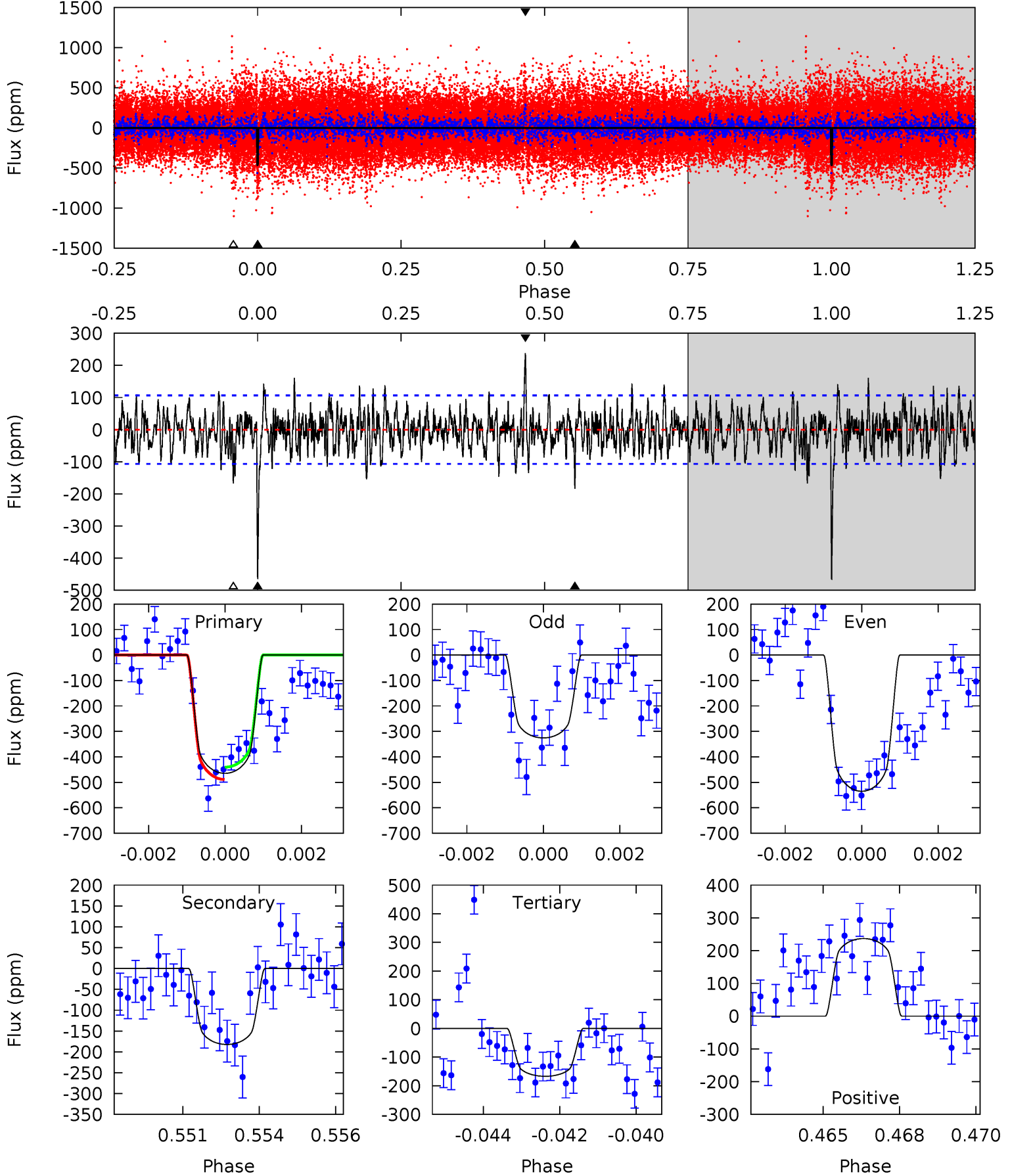
TCE 008053641-01 P=368.968793 Days $T_0=185.646719$ (BKJD)



DV Model-Shift Uniqueness Test

008053641-01, P = 368.935336 Days, E = 185.730725 Days

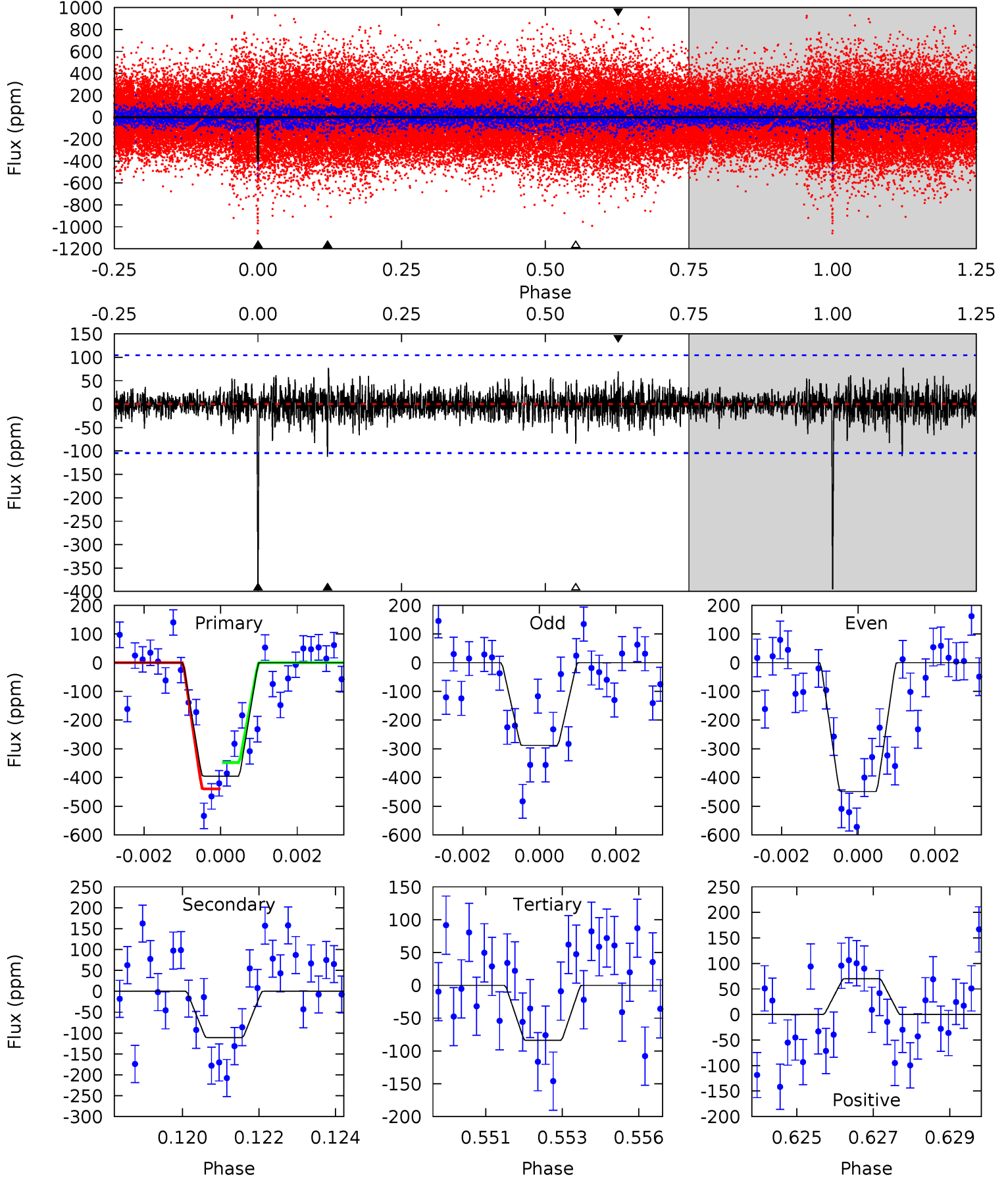
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.1	9.08	8.32	11.8	5.30	3.05	2.37	14.8	11.3	0.76	-2.72	4.88	0.89	0.34	1.21



Alt Model-Shift Uniqueness Test

008053641-01, P = 368.968793 Days, E = 185.646719 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.1	5.65	4.27	3.57	5.32	3.08	1.02	15.9	16.6	1.38	2.08	3.86	1.37	0.16	2.34



Stellar Parameters For KIC 008053641

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5883^{+176}_{-211}	$4.190^{+0.258}_{-0.172}$	$-0.080^{+0.300}_{-0.300}$	$1.323^{+0.367}_{-0.367}$	$0.990^{+0.152}_{-0.110}$	$0.602^{+0.882}_{-0.267}$
	+3%/-4%	+6%/-4%	+375%/-375%	+28%/-28%	+15%/-11%	+147%/-44%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008053641-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-182 ± 20	$3.65^{+0.62}_{-0.57}$	413^{+31}_{-31}	4460^{+195}_{-192}	7640^{+3038}_{-2070}
Alt.	-111 ± 20	$3.16^{+0.57}_{-0.50}$	413^{+31}_{-35}	4261^{+225}_{-232}	6000^{+2930}_{-1849}

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 $A_{obs} \gg 1.0$

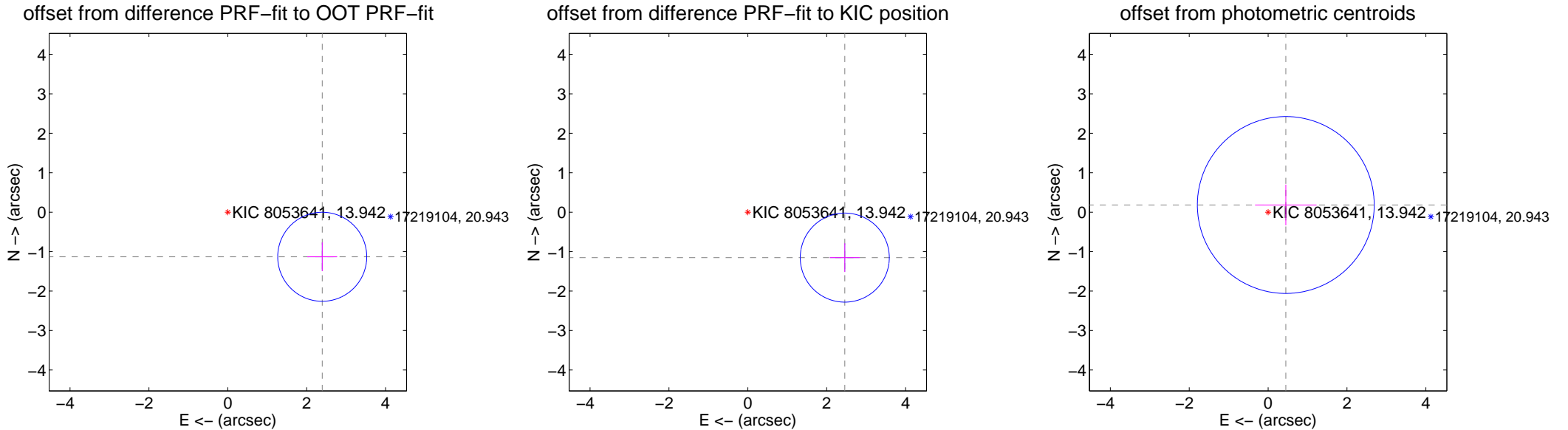
DV Centroid Data

Supplemental centroid analysis for 008053641-01. Kepler magnitude: 13.94. Transit SNR 11.09

There are 1 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.648 ± 0.376	7.04	-2.394 ± 0.379	-1.130 ± 0.365
PRF-fit source offset from KIC position	2.715 ± 0.376	7.21	-2.459 ± 0.379	-1.152 ± 0.365
photometric centroid source offset	0.48 ± 0.75	0.65	-0.45 ± 0.78	0.18 ± 0.52

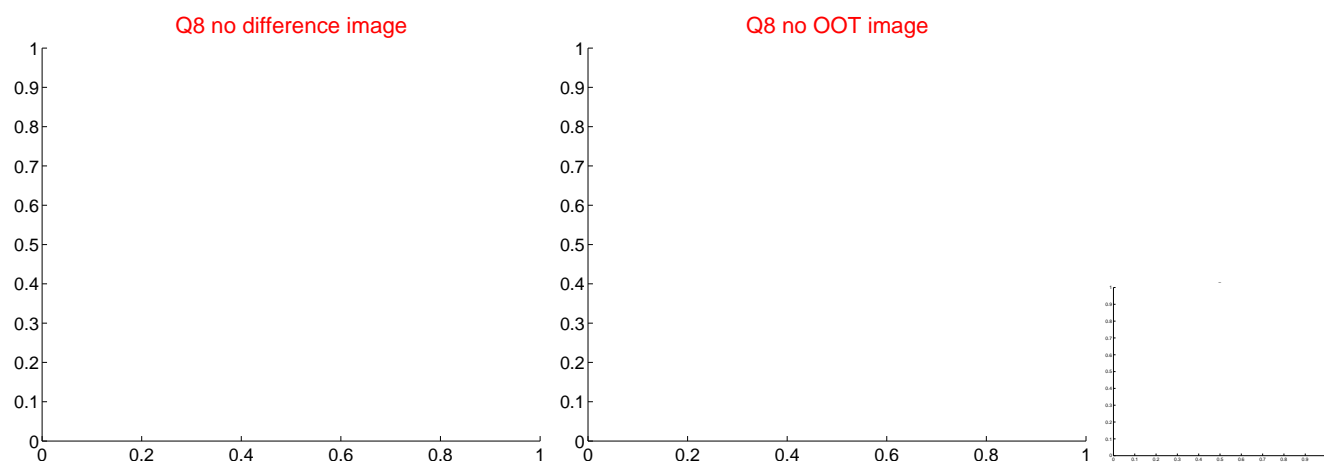
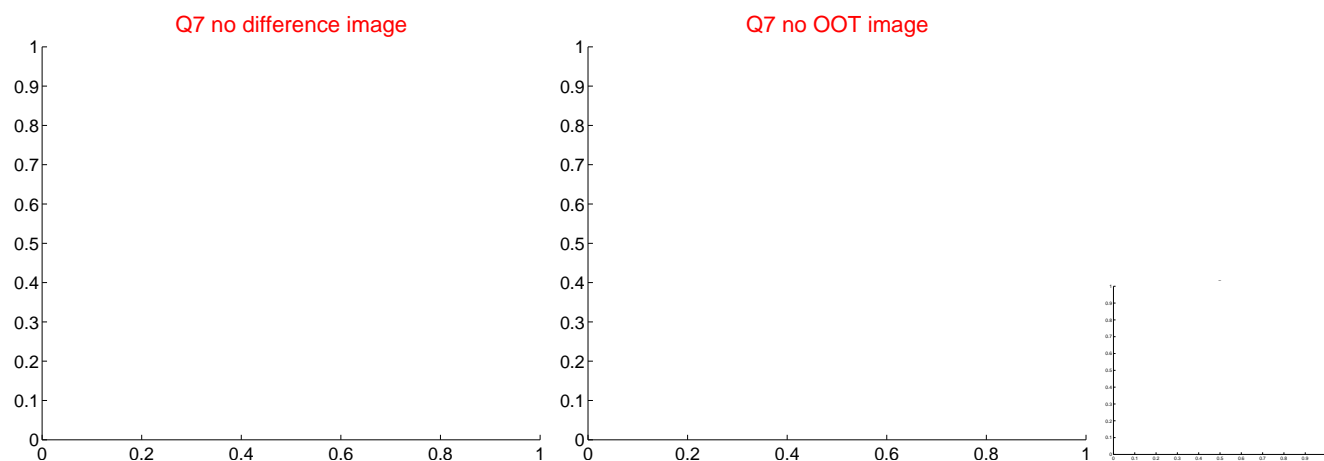
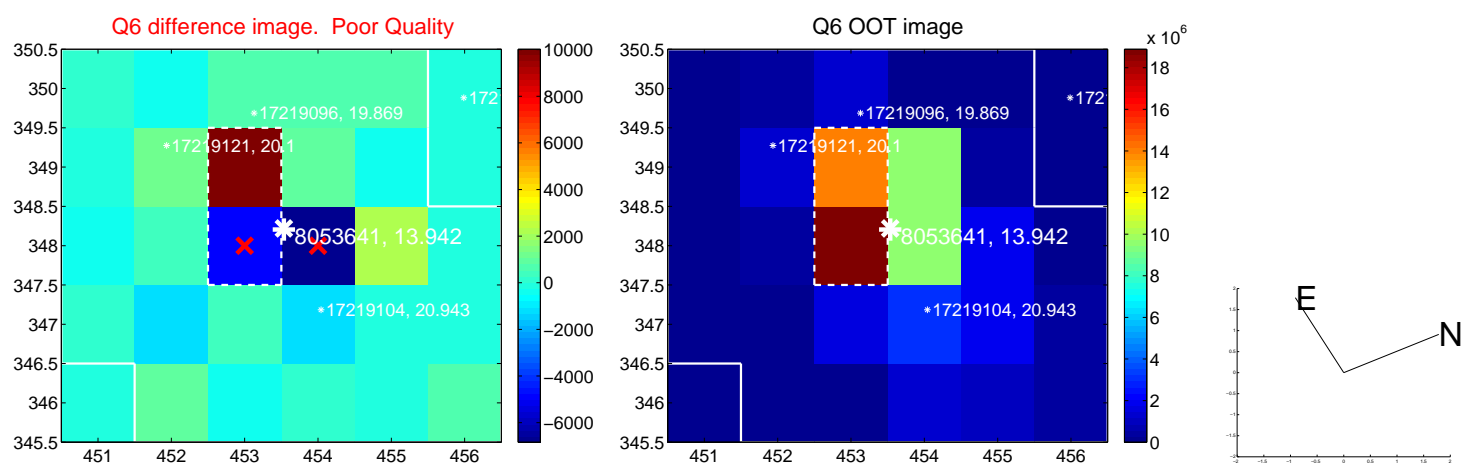
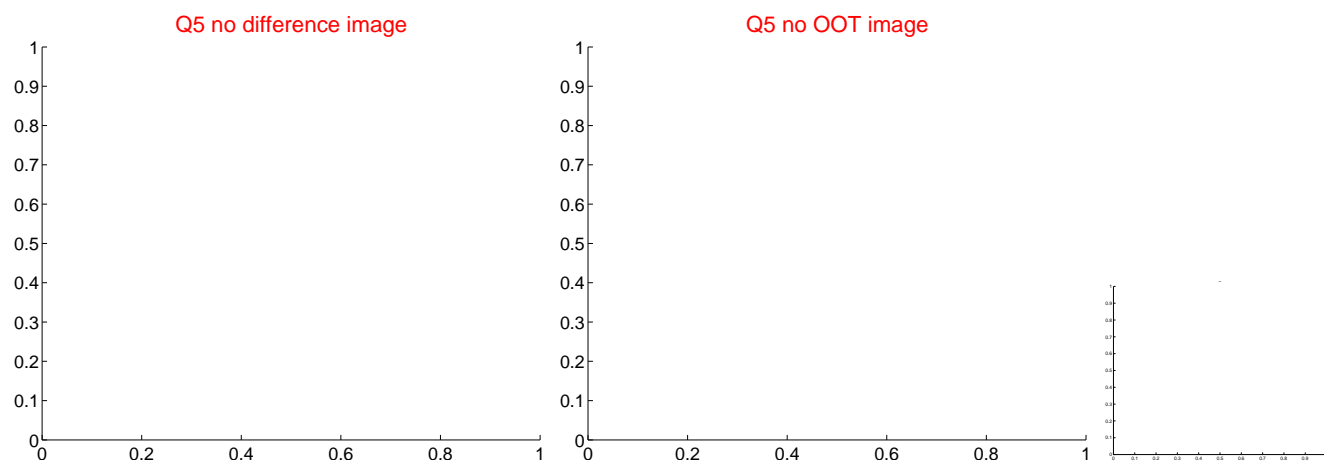


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

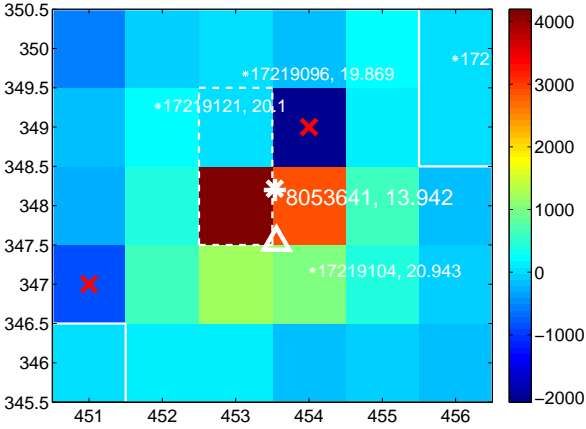
Q9 no difference image



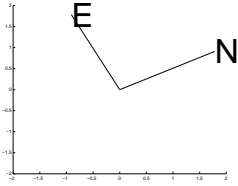
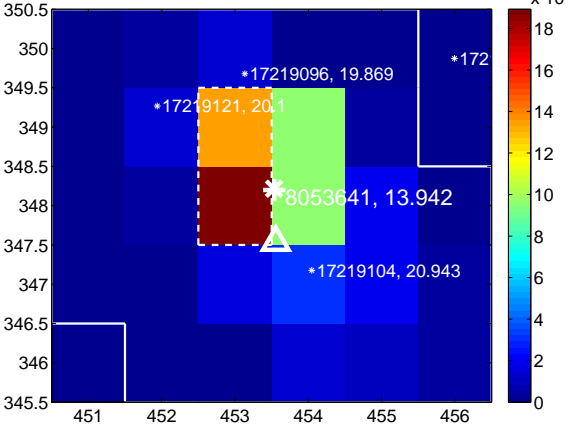
Q9 no OOT image



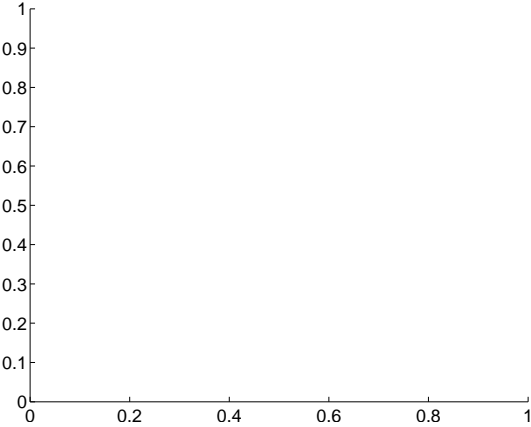
Q10 difference image



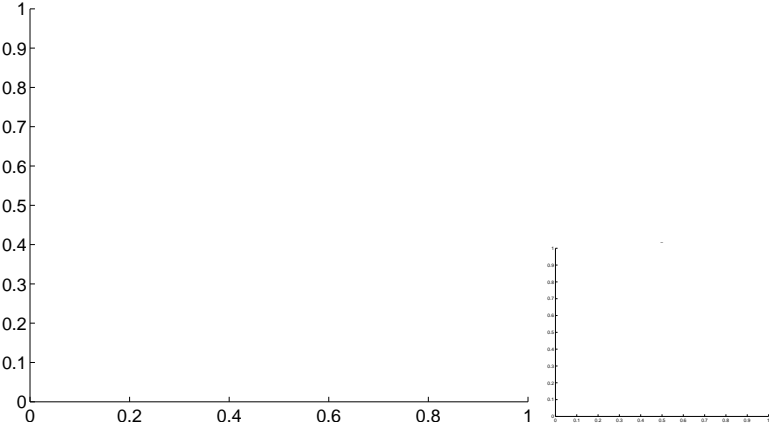
Q10 OOT image



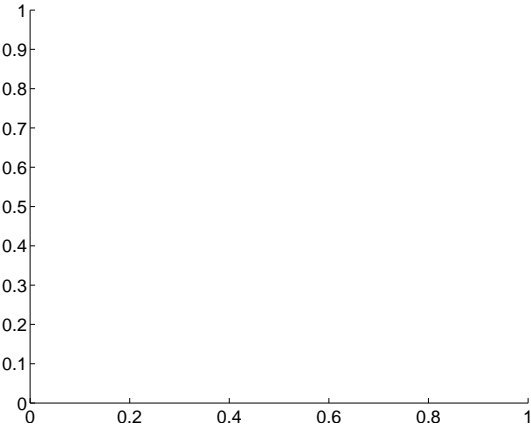
Q11 no difference image



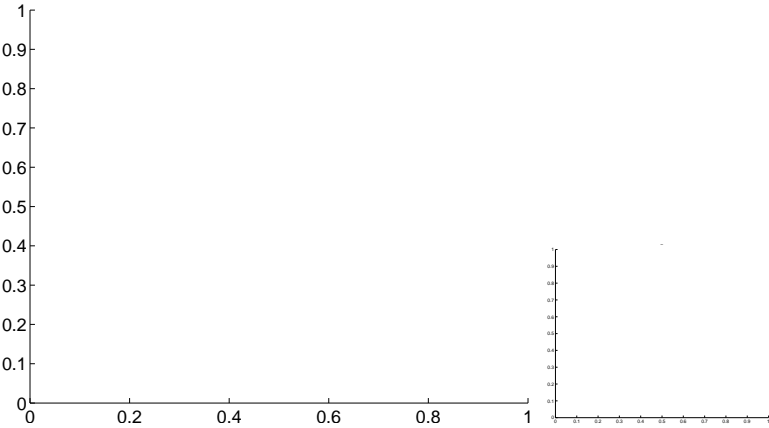
Q11 no OOT image



Q12 no difference image



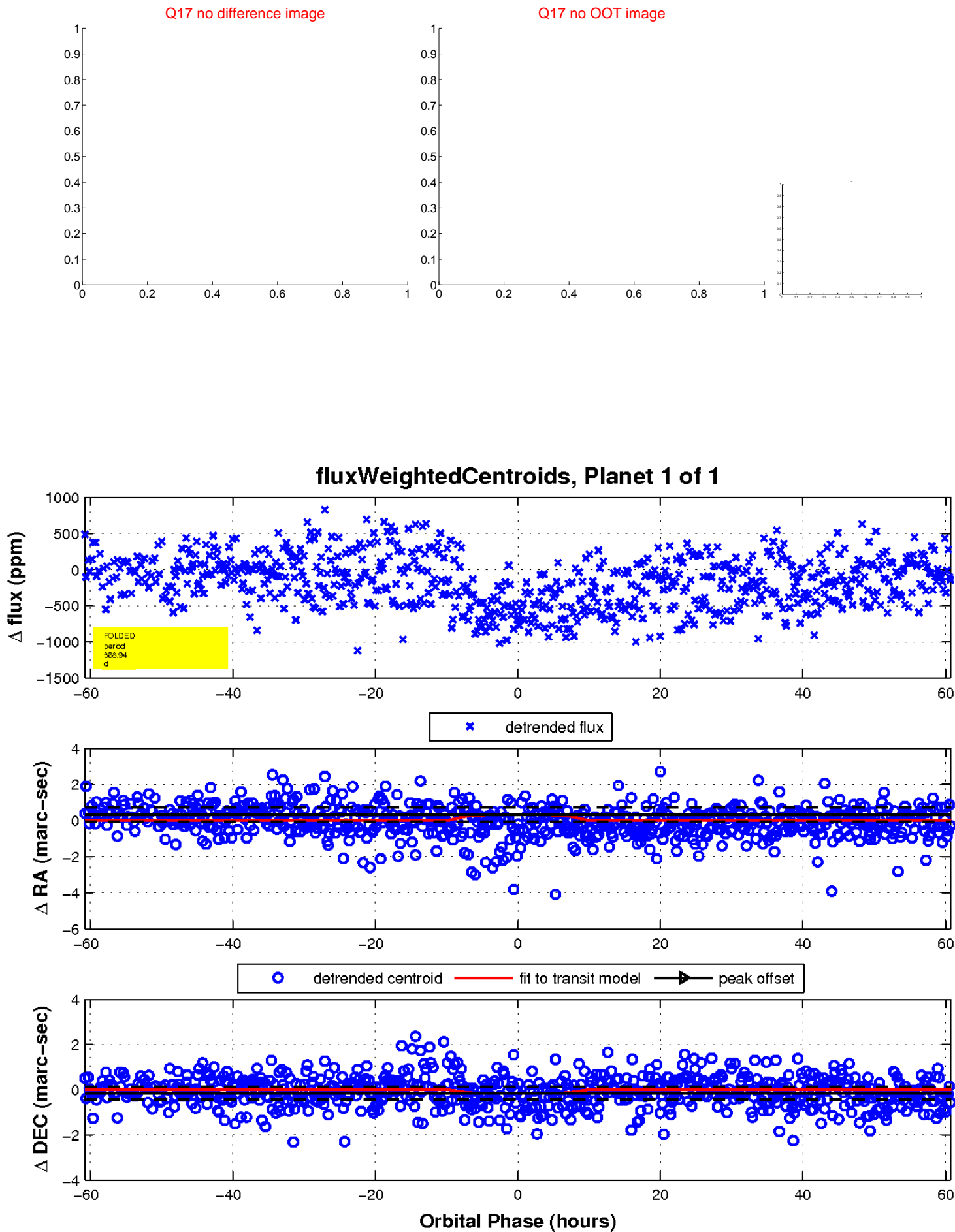
Q12 no OOT image



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.



UKIRT Image

Declination

