

KIC 007383840

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})
007383840-01	OBS	No	210.981488	341.211137	1147.6	5.301	8.6	4.9	17.75	5015	63.88	165.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007383840-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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 007383840-01

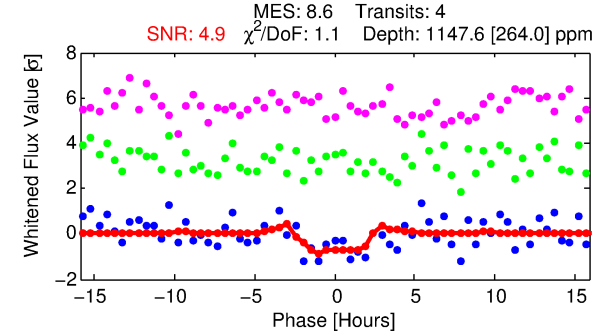
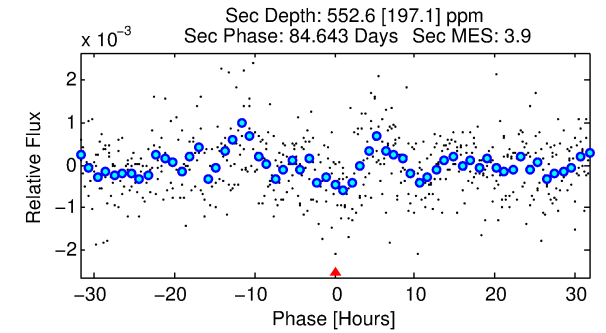
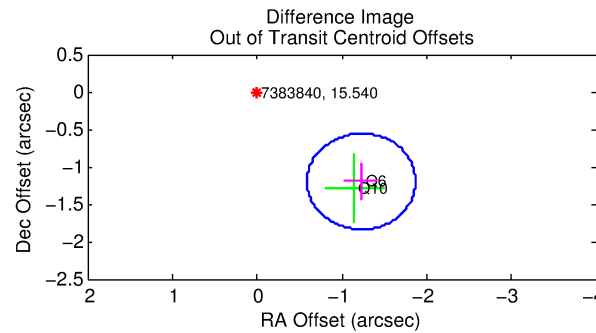
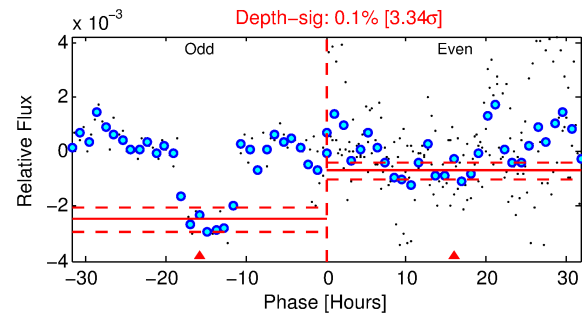
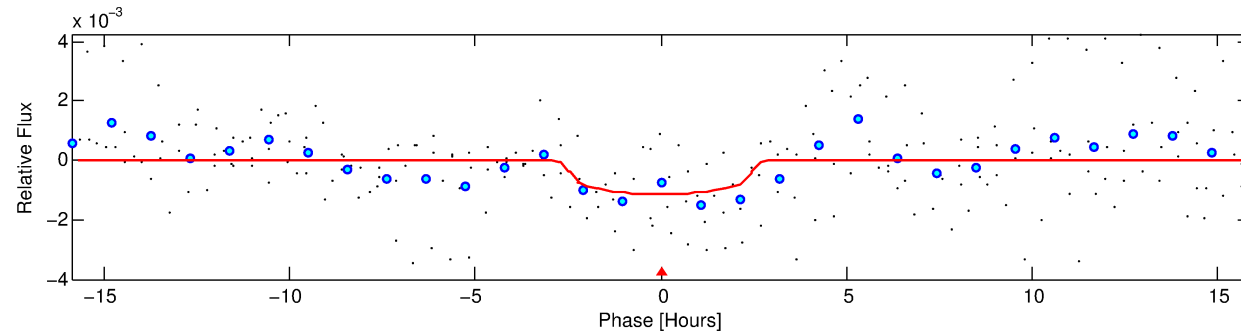
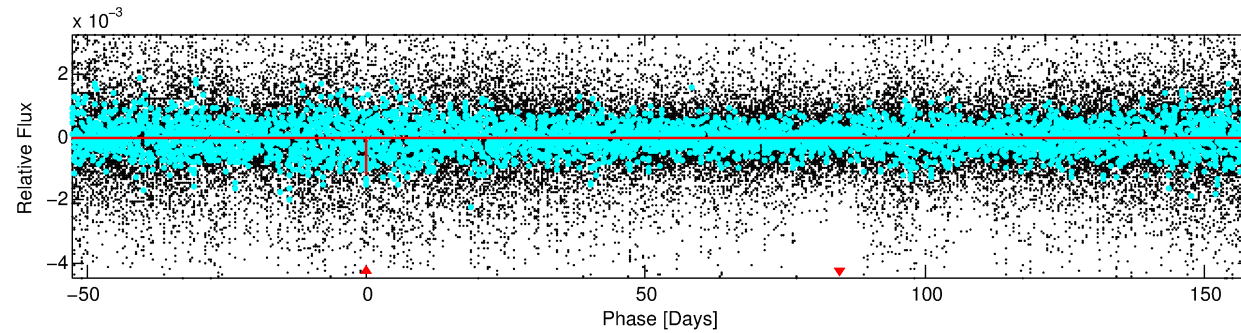
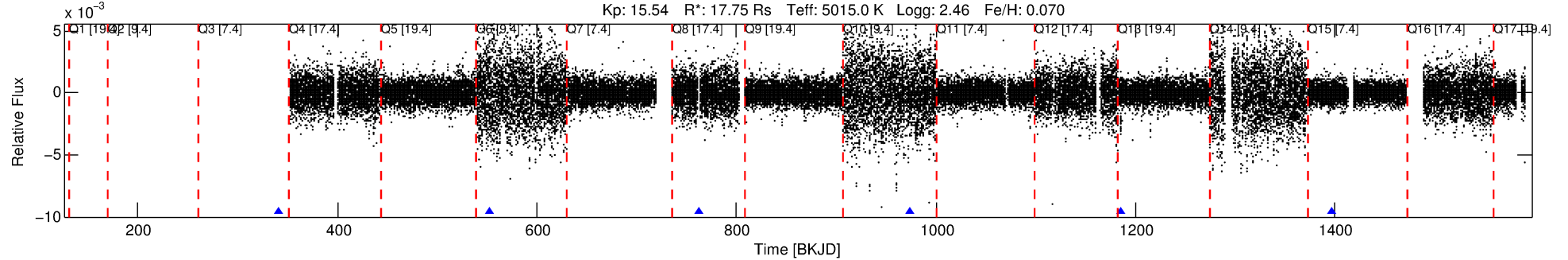
No Significant Match Found

DV One-Page Summary

KIC: 7383840 Candidate: 1 of 1 Period: 210.981 d

KOI: K05385 Corr: No Ephemeris Match

Kp: 15.54 R*: 17.75 Rs Teff: 5015.0 K Logg: 2.46 Fe/H: 0.070



DV Fit Results:

Period = 210.98149 [0.00746] d
Epoch = 341.2111 [0.0302] BKJD
Rp/R* = 0.0330 [0.0294]
a/R* = 233.85 [713.96]
b = 0.69 [2.37]
Seff = 165.63 [48.98]
Teq = 915 [68] K
Rp = 63.88 [60.83] Re
a = 1.0384 [0.2339] AU
Ag = 80.31 [147.08] [0.54σ]
Teffp = 4234 [1934] K [1.72σ]

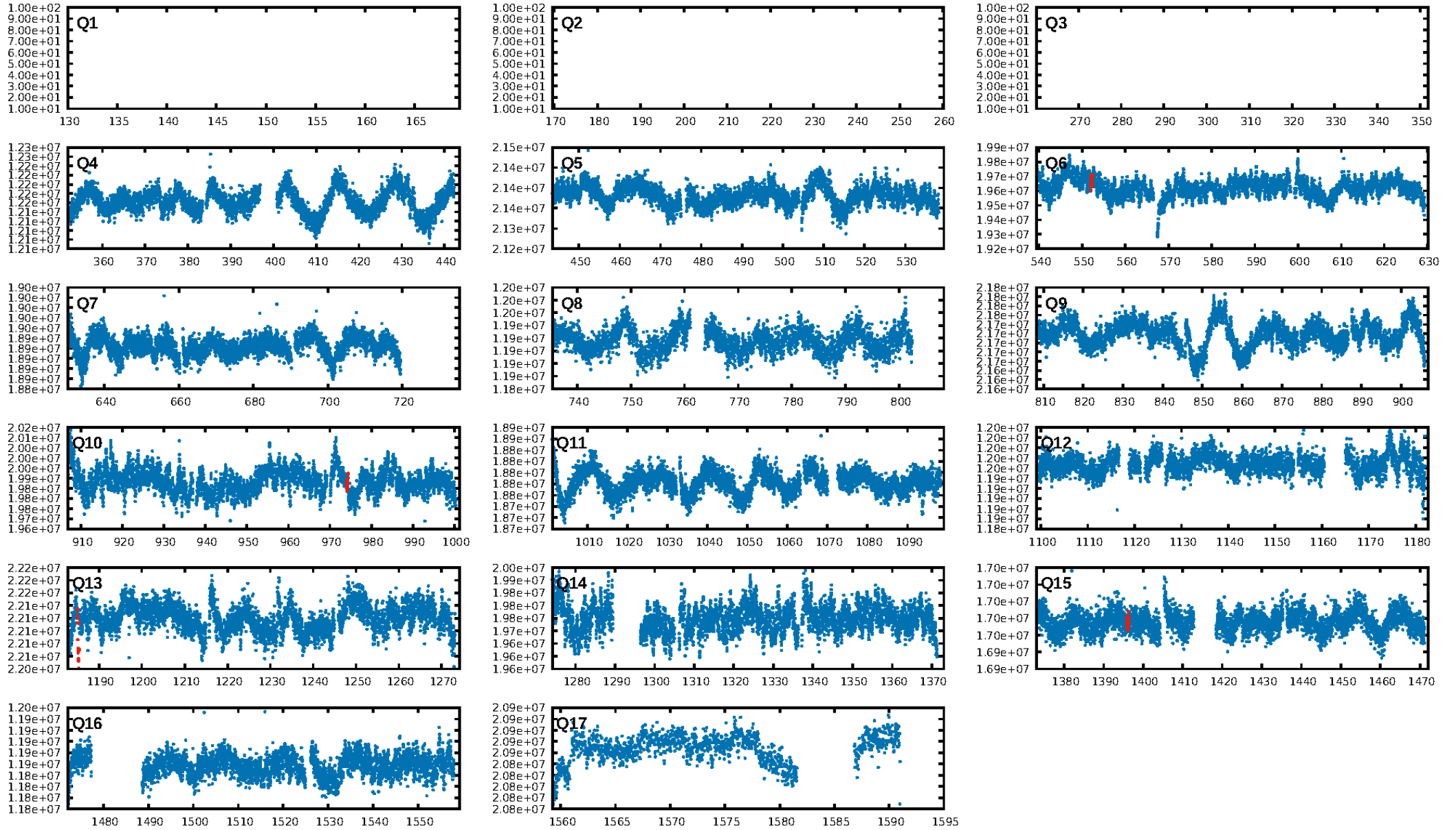
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.7%
ModelChiSquareGof-sig: 97.8%
Bootstrap-pfa: 2.29e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.878
Centroid-sig: 5.7%
Centroid-so: 5.164 arcsec [16.64σ]
OotOffset-rm: 1.717 arcsec [8.04σ]
KicOffset-rm: 8.208 arcsec [38.17σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

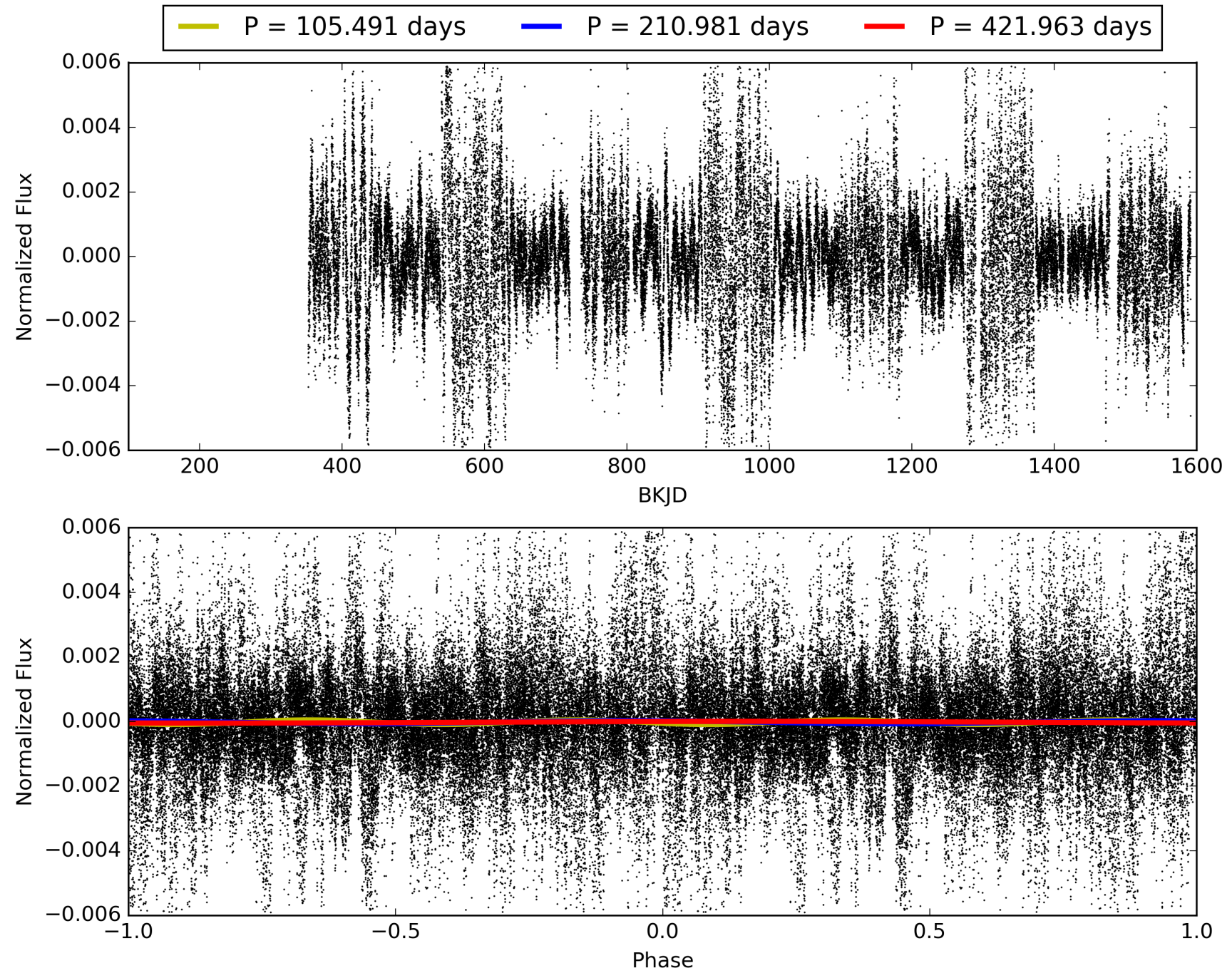
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:10:02 Z

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

TCE 007383840-01, PDC Light Curves

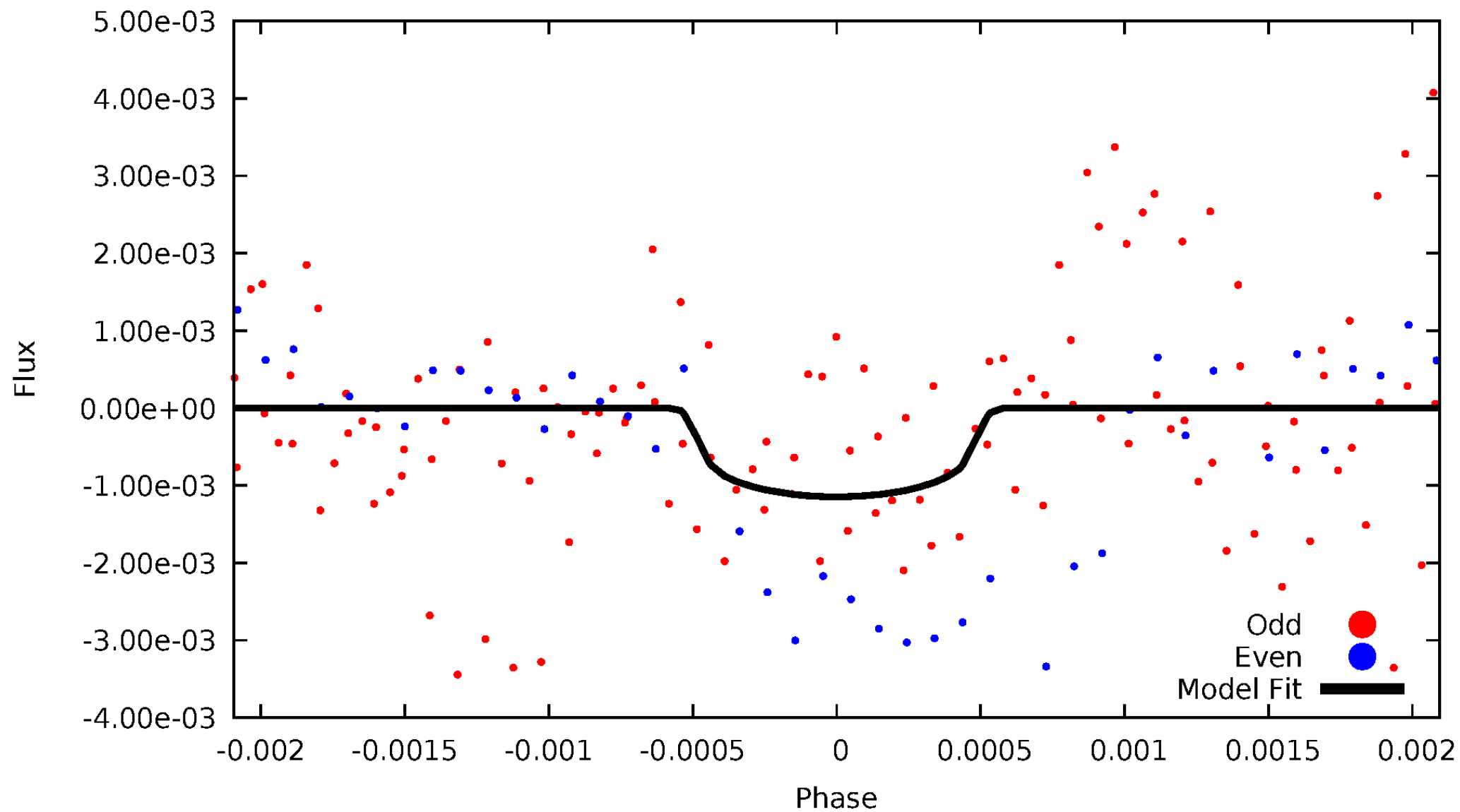


TCE 007383840-01



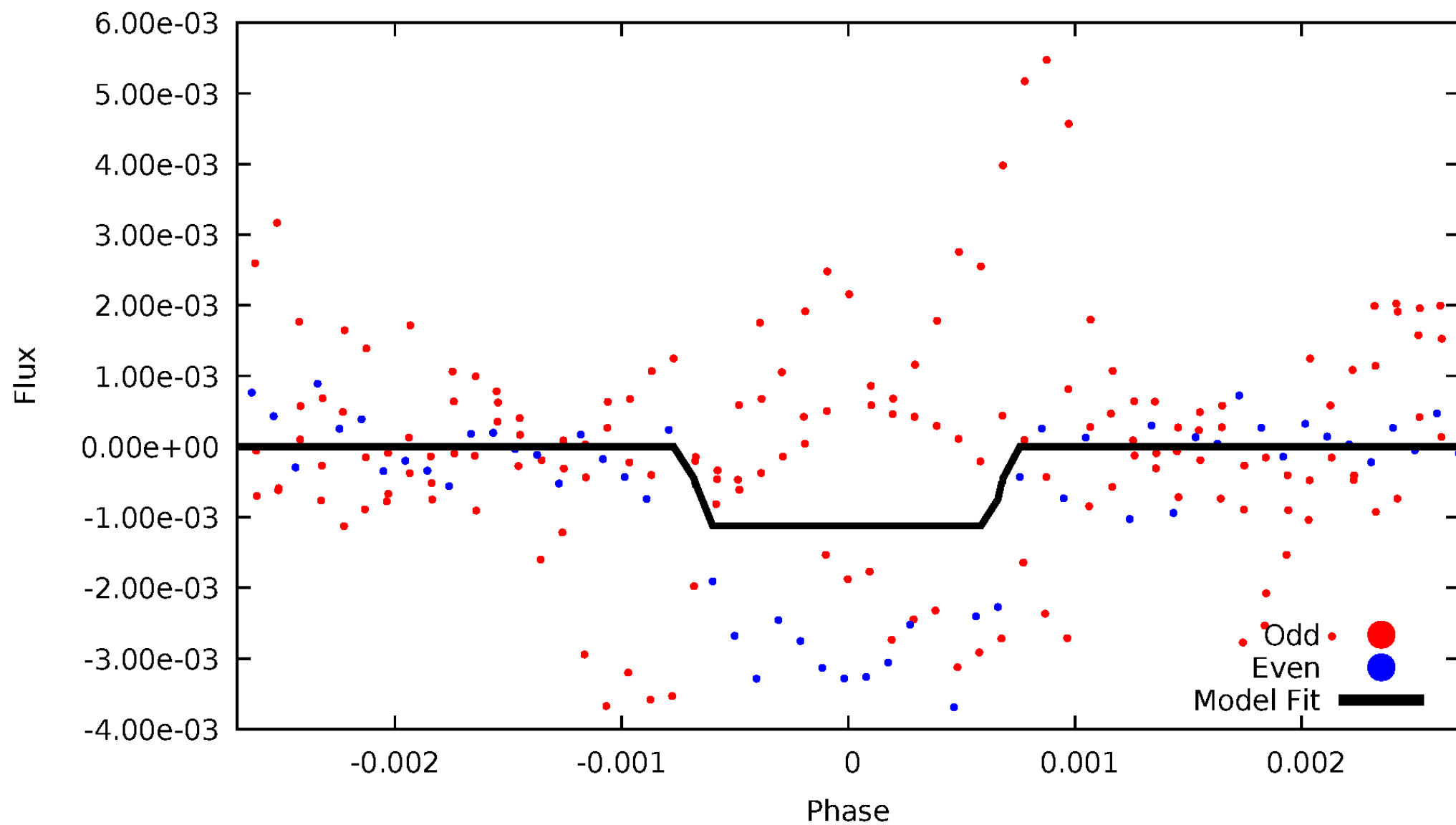
DV Odd/Even

TCE 007383840-01



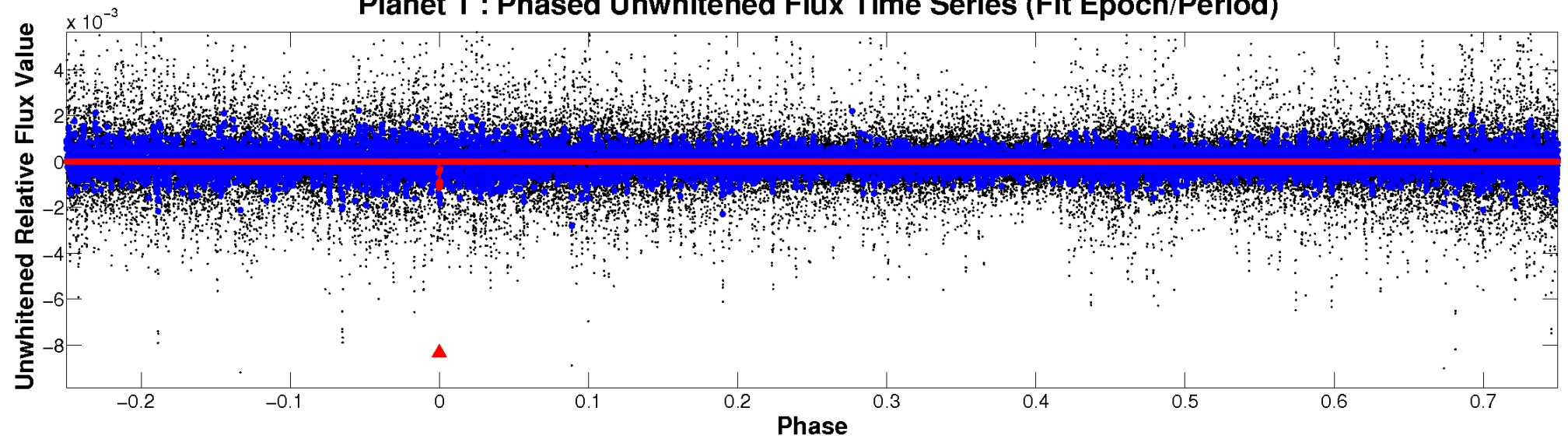
ALT Odd/Even

TCE 007383840-01

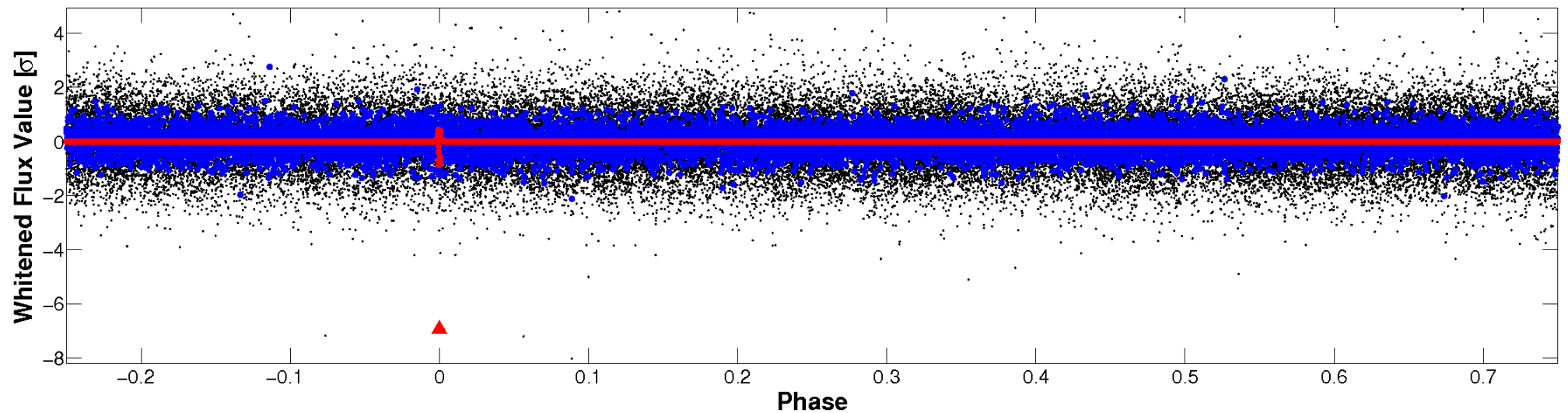


Non-Whitened Vs. Whitened Light Curve

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

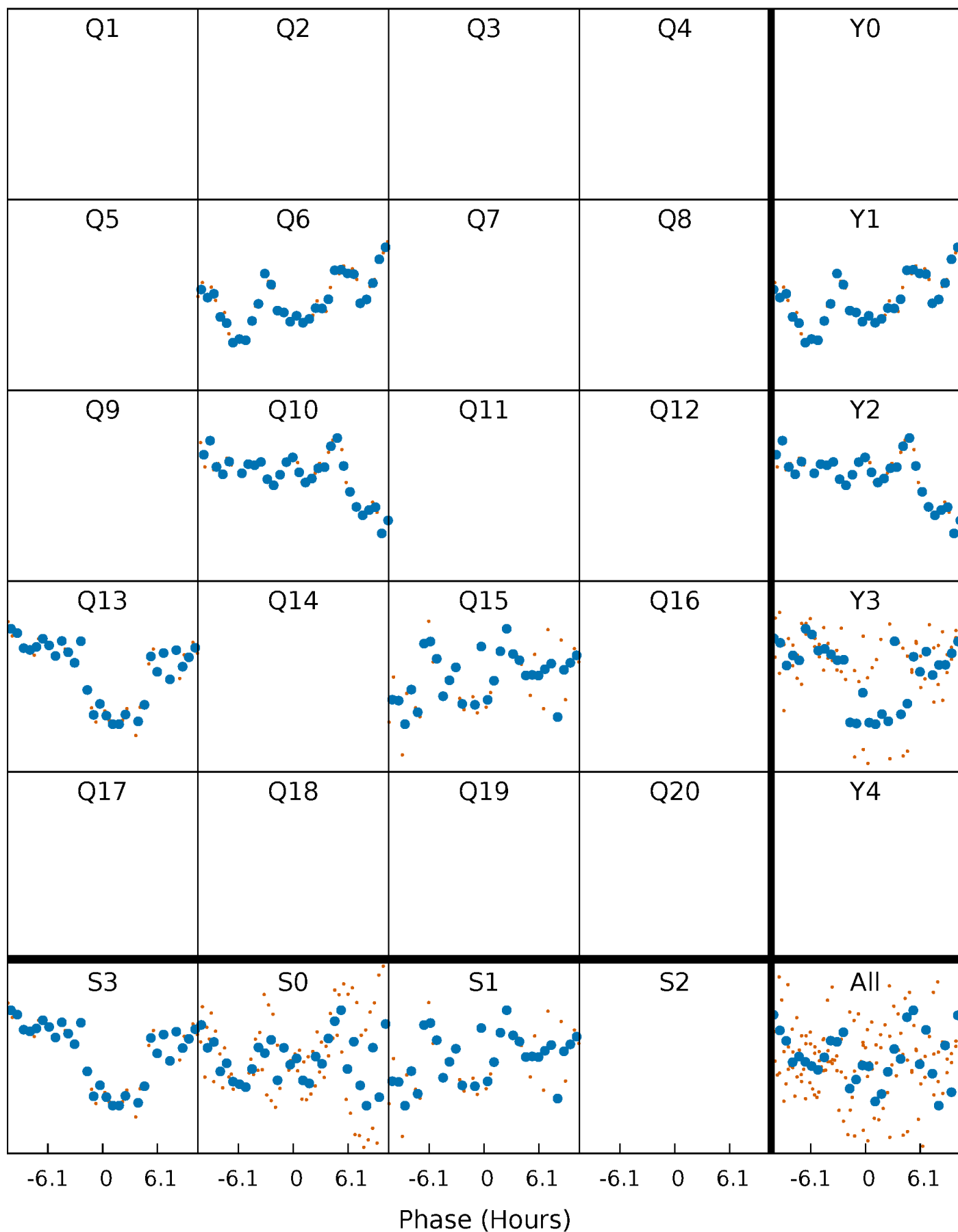


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



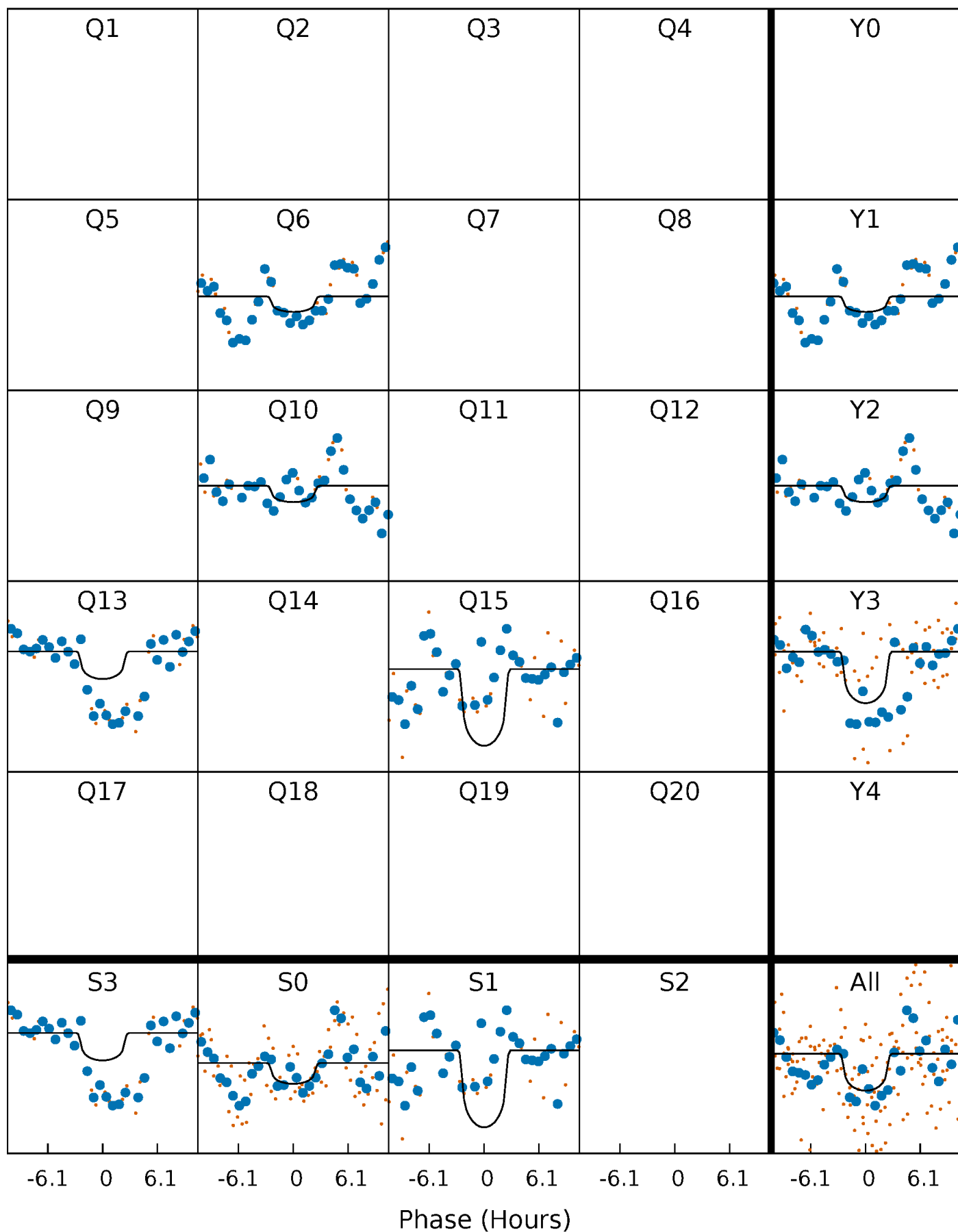
PDC Quarter-Phased Transit Curves

TCE 007383840-01 P=210.981488 Days $T_0=341.211137$ (BKJD)



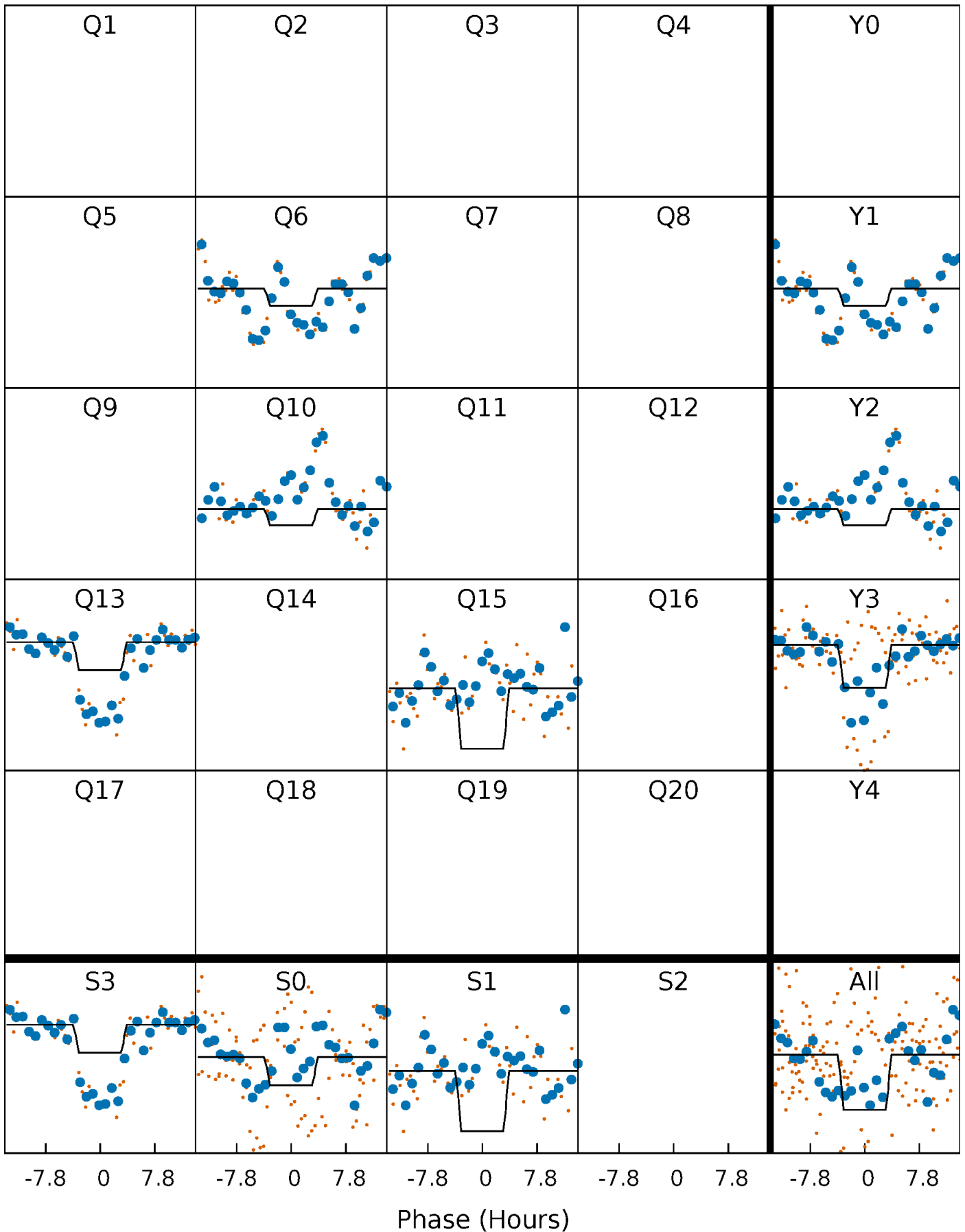
DV Quarter-Phased Transit Curves

TCE 007383840-01 P=210.981488 Days $T_0=341.211137$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

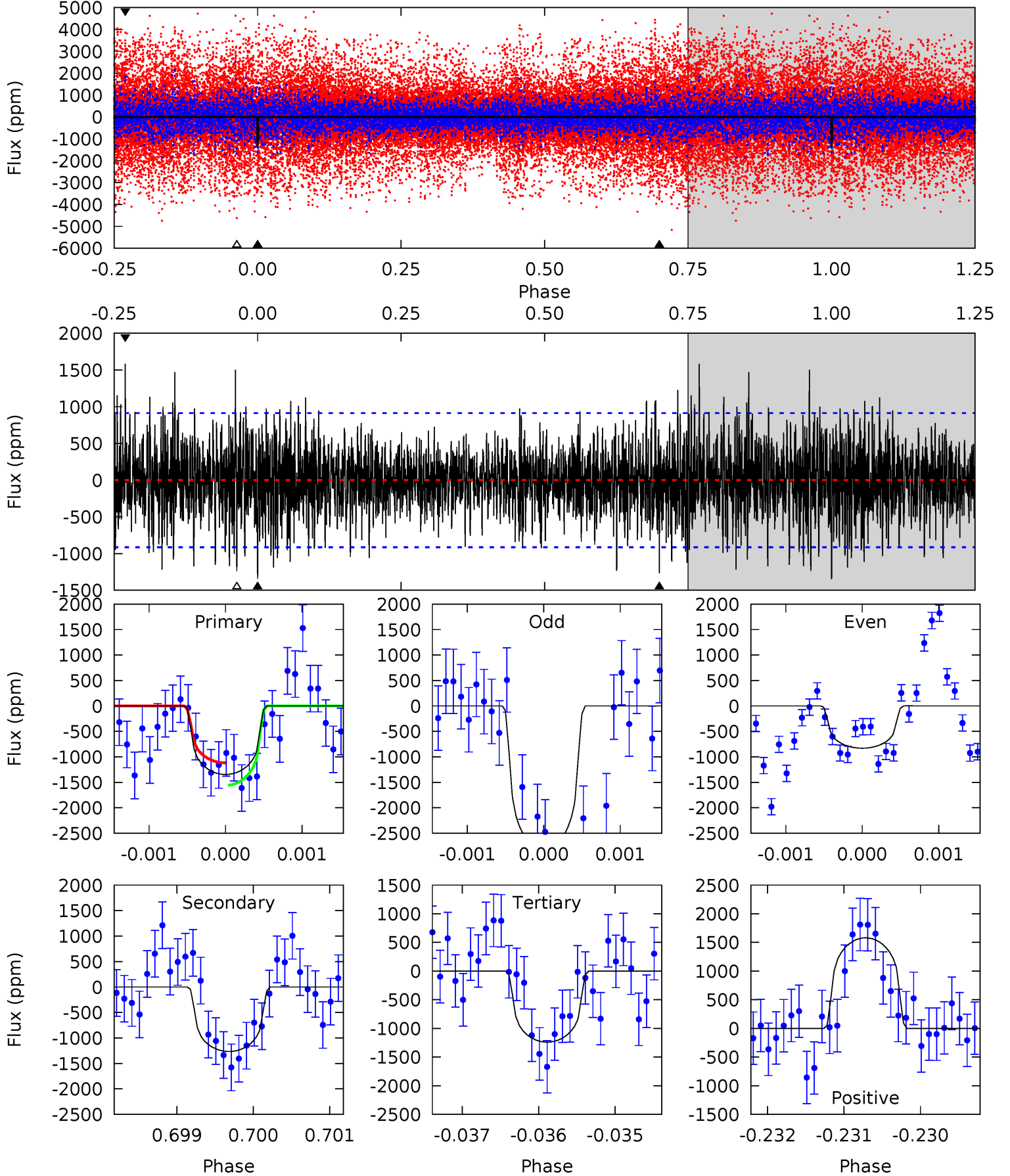
TCE 007383840-01 P=211.017374 Days $T_0=341.122752$ (BKJD)



DV Model-Shift Uniqueness Test

007383840-01, P = 210.981488 Days, E = 341.211137 Days

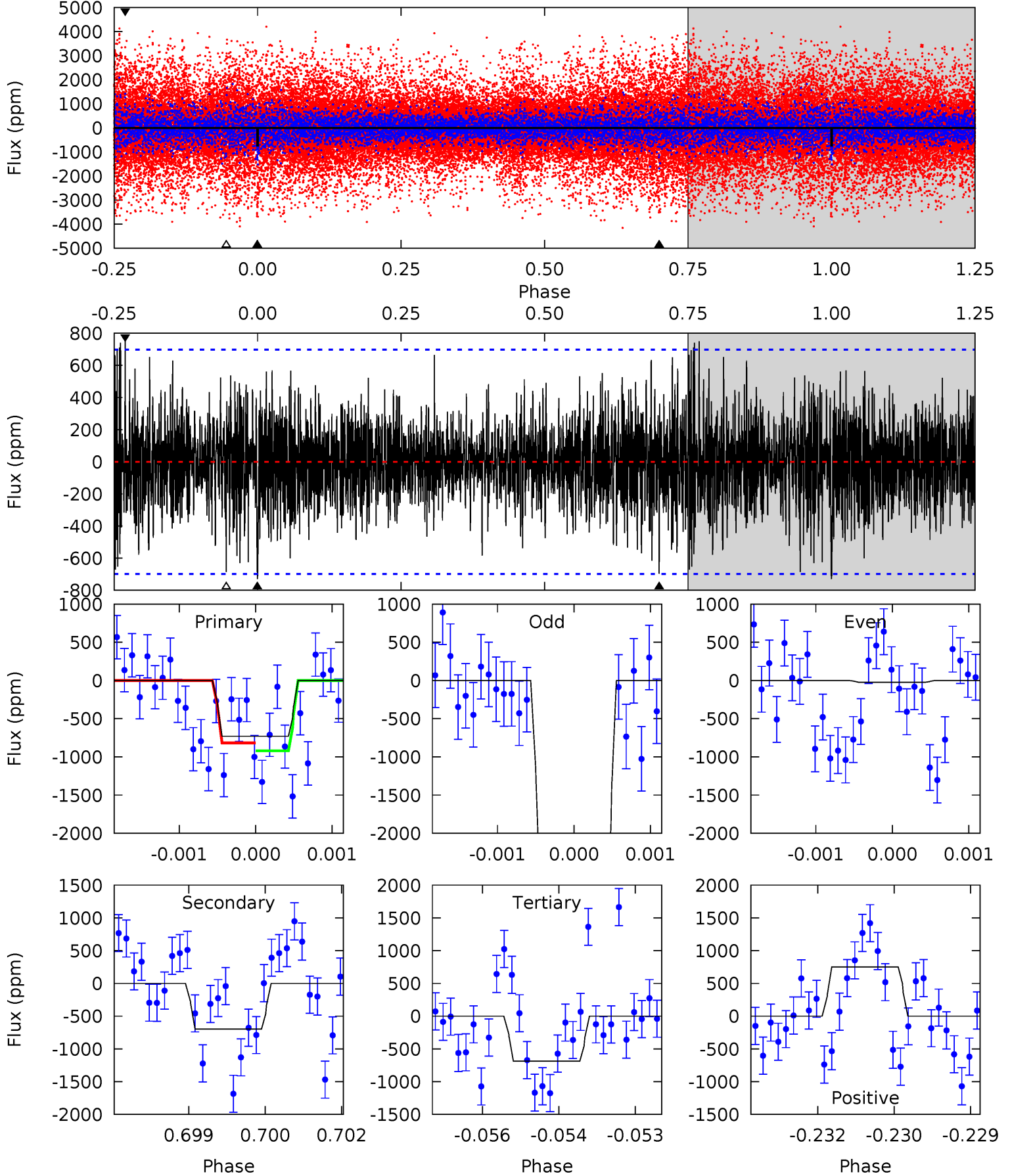
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.02	7.54	7.38	9.42	5.44	3.27	2.12	0.63	-1.40	0.16	-1.88	5.40	1.24	0.54	1.31



Alt Model-Shift Uniqueness Test

007383840-01, P = 211.017374 Days, E = 341.122752 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.64	5.38	5.30	5.79	5.40	3.20	1.52	0.34	-0.15	0.08	-0.40	9.86	1.11	0.51	0.39



Stellar Parameters For KIC 007383840

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5015^{+235}_{-235}	$2.465^{+0.030}_{-0.030}$	$0.070^{+0.150}_{-0.600}$	$17.752^{+0.663}_{-5.966}$	$3.350^{+0.095}_{-1.910}$	$0.001^{+0.000}_{-0.000}$
	+5%/-5%	+1%/-1%	+214%/-857%	+4%/-34%	+3%/-57%	+53%/-7%
Source	KIC0	AST71	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 007383840-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1266 ± 168	$74.12^{+51.99}_{-47.15}$	1280^{+65}_{-63}	4813^{+3295}_{-870}	136^{+885}_{-89}
Alt.	-697 ± 129	$77.87^{+50.54}_{-45.61}$	1285^{+59}_{-61}	4270^{+1989}_{-716}	69^{+326}_{-44}

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

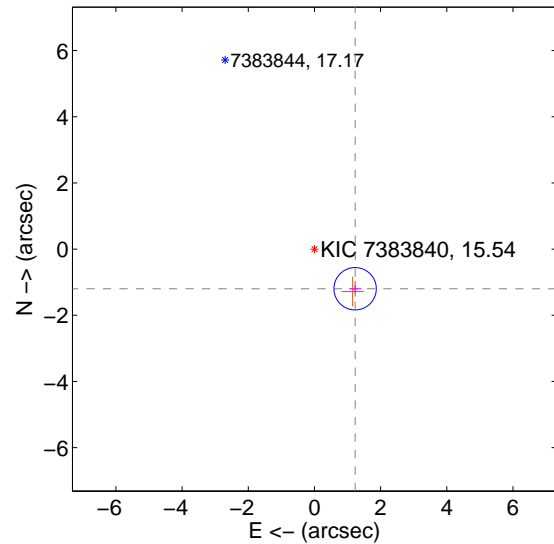
Supplemental centroid analysis for 007383840-01. Kepler magnitude: 15.54. Transit SNR 4.85

There are 1 quarters with good PRF difference image offsets

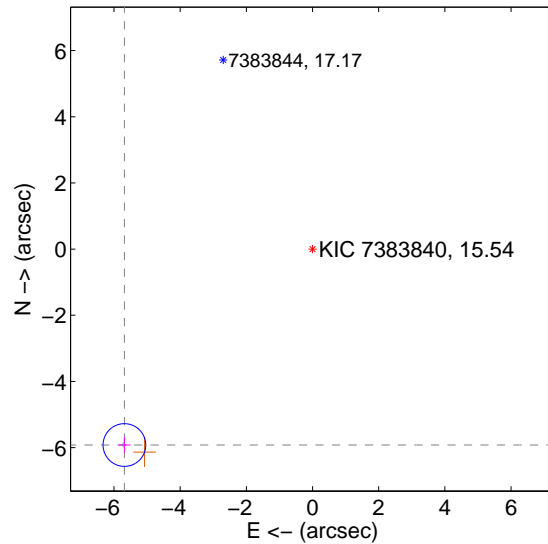
The OOT PRF centroid is offset from the target star catalog position by about 7.90 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.717 ± 0.213	8.04	-1.229 ± 0.187	-1.198 ± 0.238
PRF-fit source offset from KIC position	8.208 ± 0.215	38.17	5.685 ± 0.187	-5.921 ± 0.238
photometric centroid source offset	5.16 ± 0.31	16.64	4.46 ± 0.35	-2.60 ± 0.12

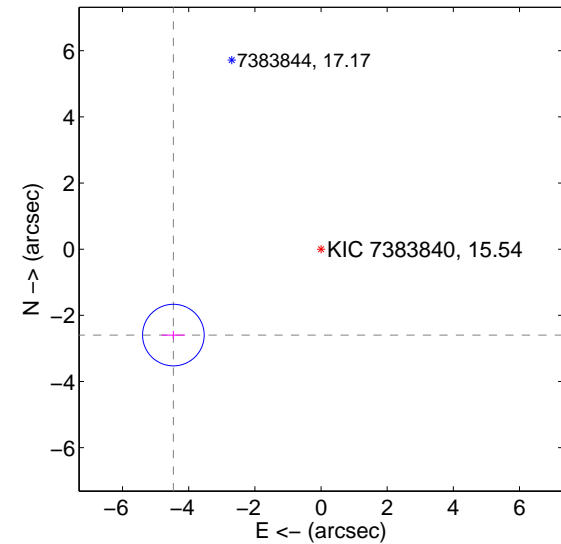
offset from difference PRF-fit to OOT PRF-fit



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.

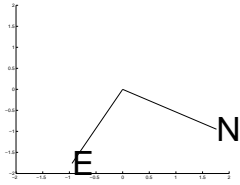
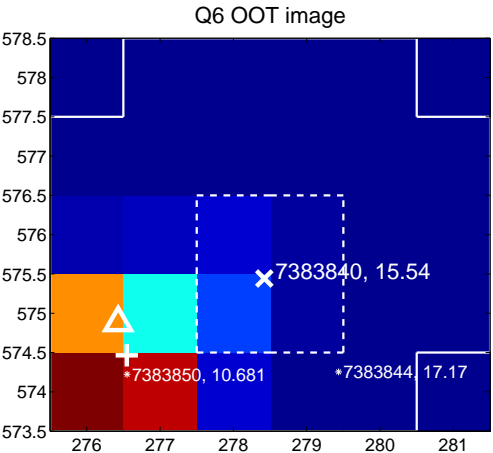
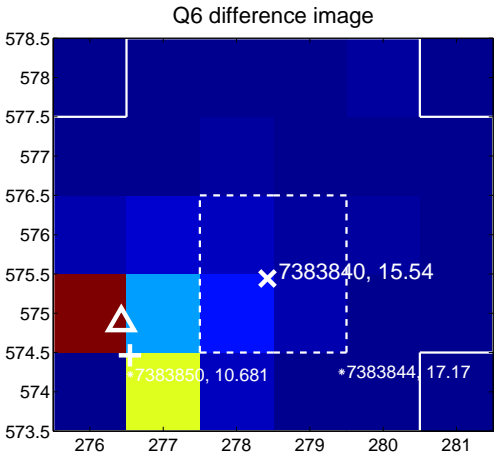


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

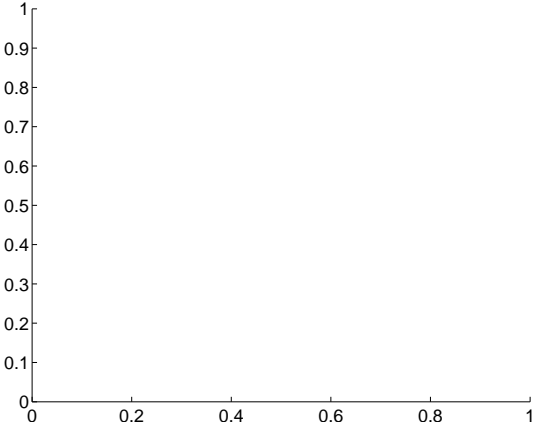
Q5 no difference image



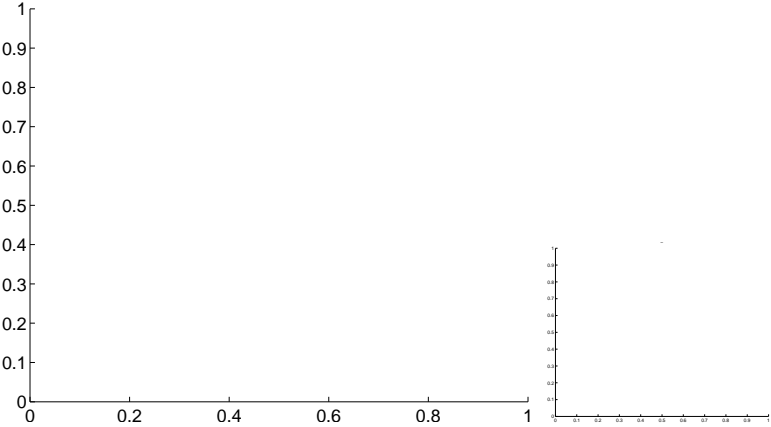
Q5 no OOT image



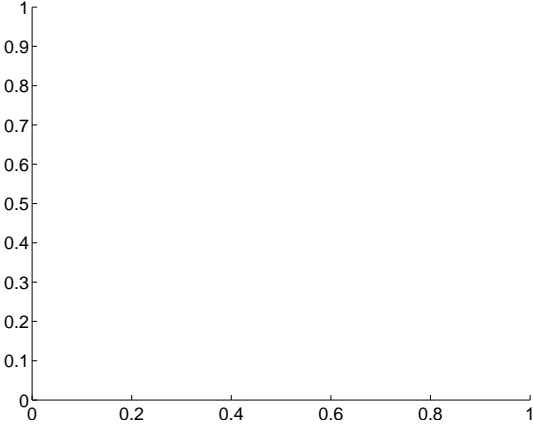
Q7 no difference image



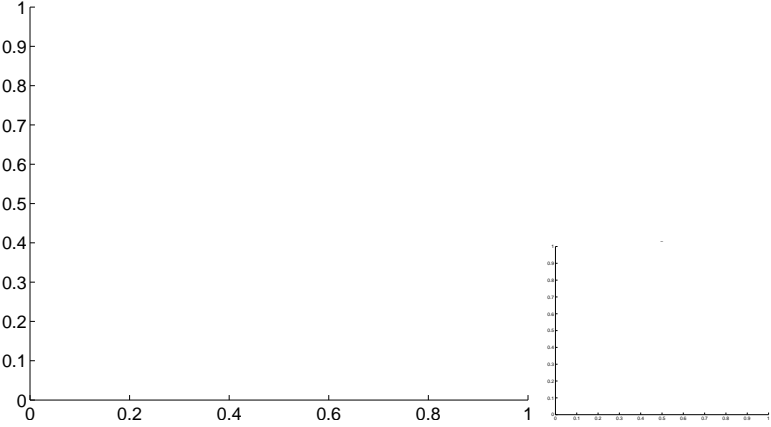
Q7 no OOT image



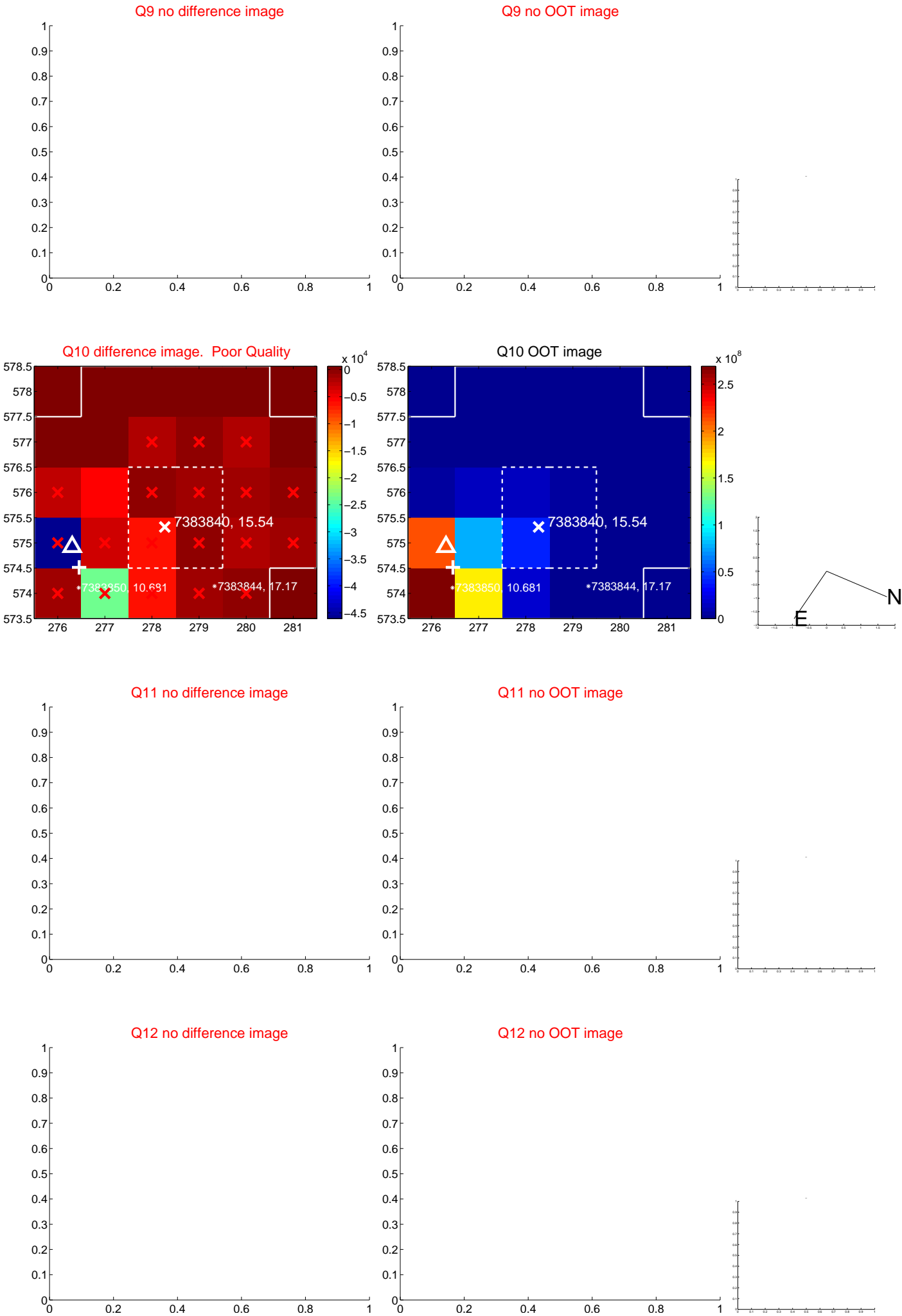
Q8 no difference image



Q8 no OOT image



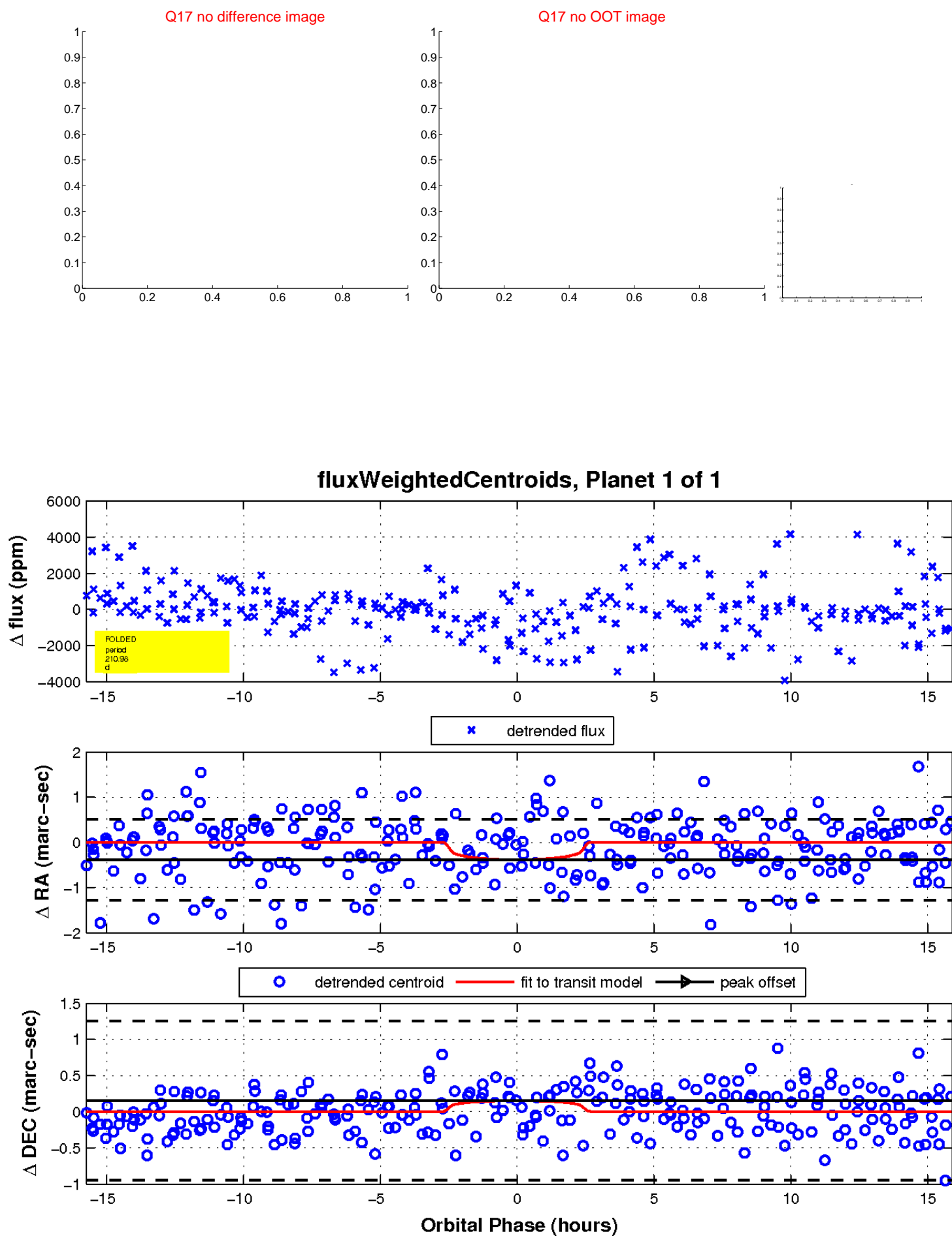
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

