

KIC 007377343

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})
007377343-01	OBS	5384.01	7.954381	135.496239	6340.9	4.661	176.8	178.2	1.20	6217	9.65	303.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007377343-01	OBS	PC	1.00	0	0	0	0	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.

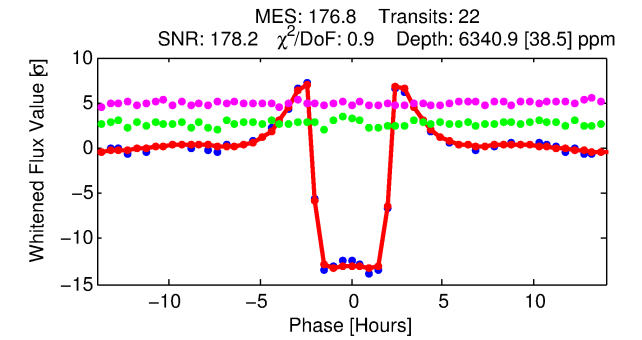
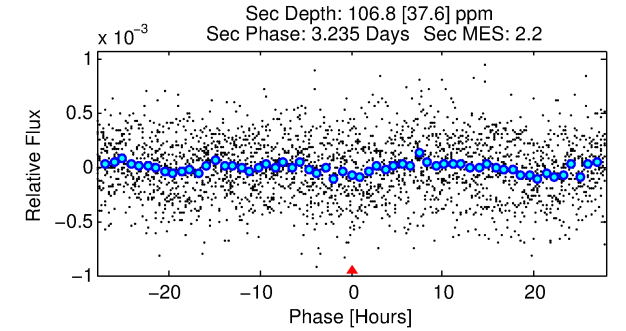
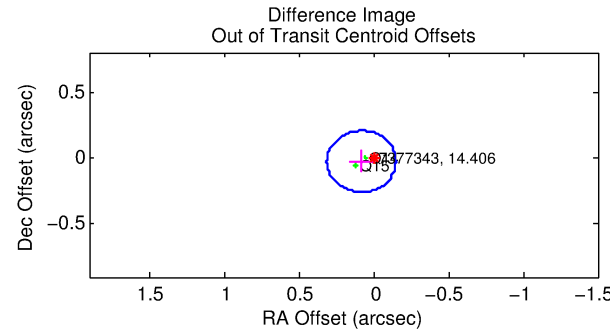
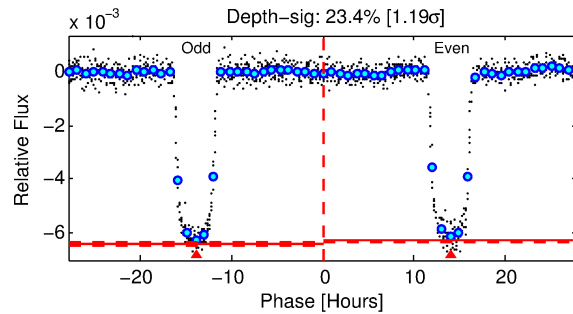
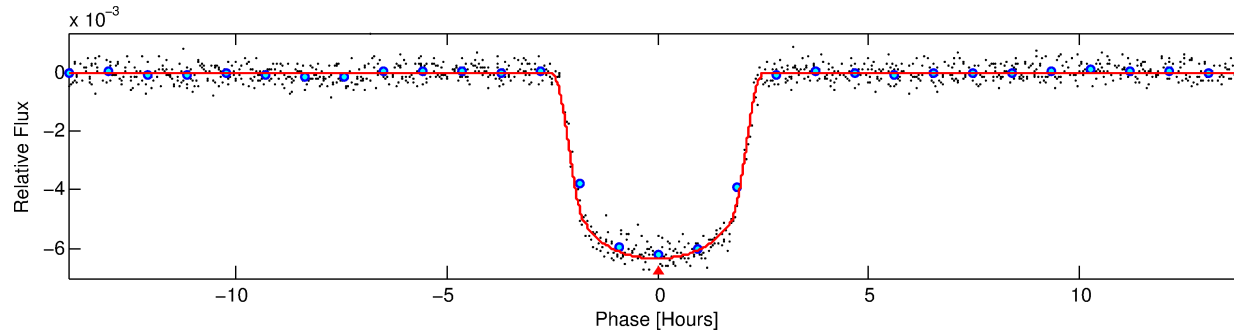
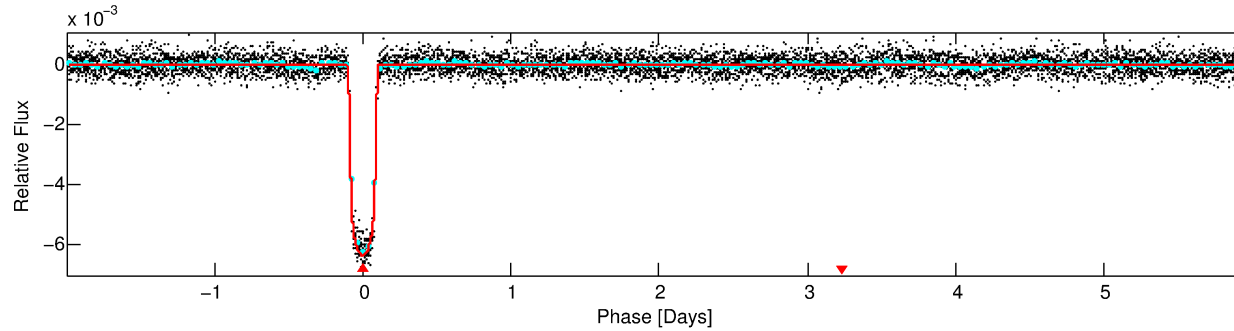
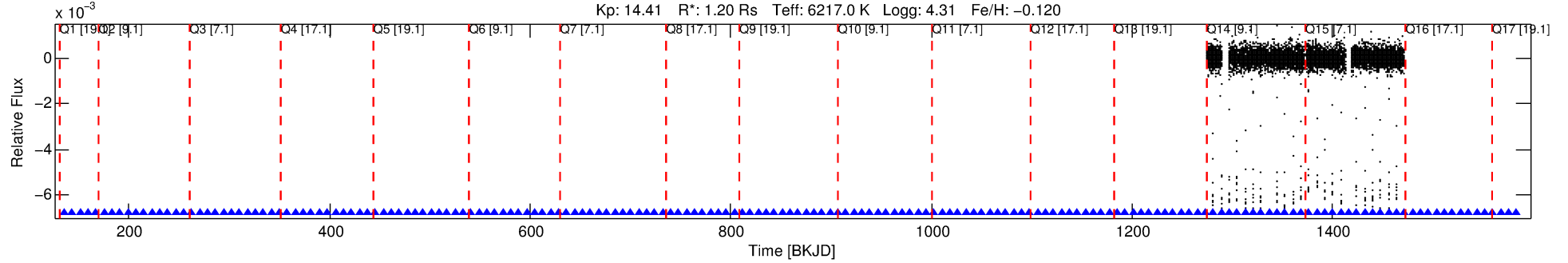
Ephemeris Match Information For 007377343-01

No Significant Match Found

DV One-Page Summary

KIC: 7377343 Candidate: 1 of 1 Period: 7.954 d
KOI: K05384.01 Corr: 0.968

Kp: 14.41 R*: 1.20 Rs Teff: 6217.0 K Logg: 4.31 Fe/H: -0.120



DV Fit Results:

Period = 7.95438 [0.00000] d
Epoch = 135.4962 [0.0005] BKJD
Rp/R* = 0.0739 [0.0013]
a/R* = 13.30 [1.16]
b = 0.34 [0.23]
Seff = 303.55 [123.13]
Teff = 1064 [108] K
Rp = 9.65 [3.05] Re
a = 0.0794 [0.0206] AU
Ag = 3.98 [2.04] [1.46σ]
Teffp = 2324 [227] K [5.00σ]

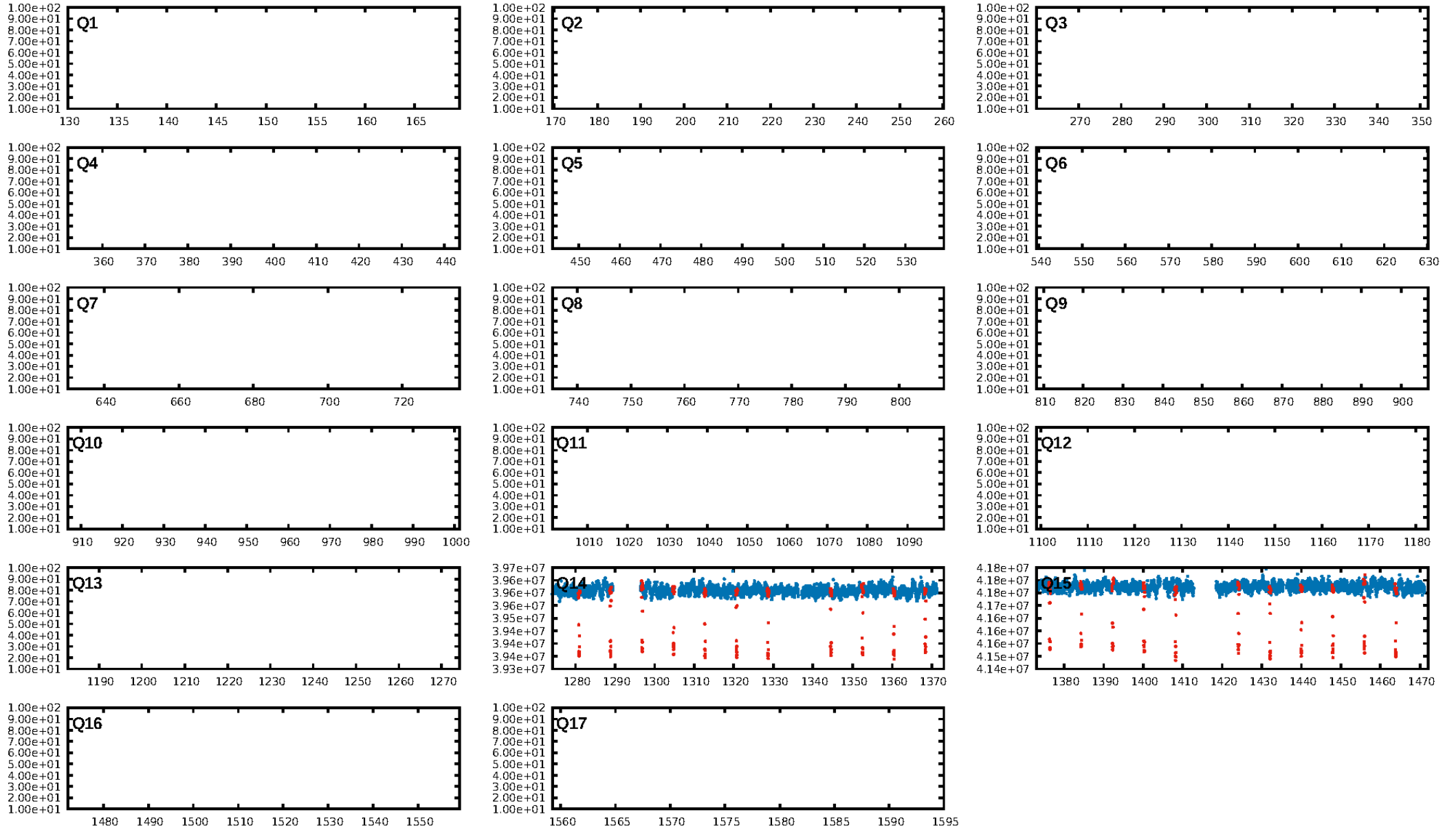
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 30.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [22/22]
GhostDiagnostic-chr: 3.644
Centroid-sig: 0.0%
Centroid-so: 0.069 arcsec [2.09σ]
OotOffset-rm: 0.085 arcsec [1.10σ]
KicOffset-rm: 0.119 arcsec [1.62σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

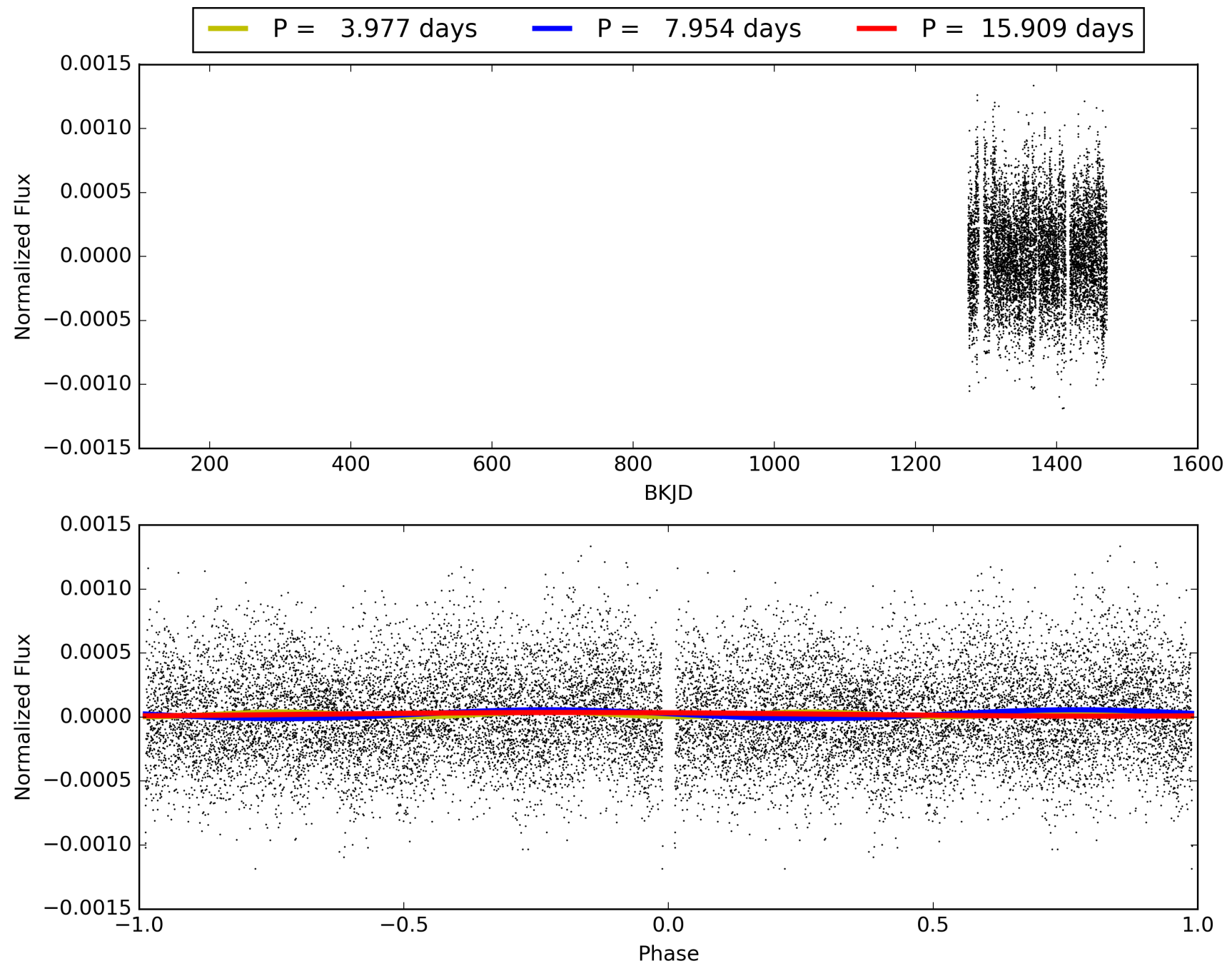
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:57:54 Z

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

TCE 007377343-01, PDC Light Curves

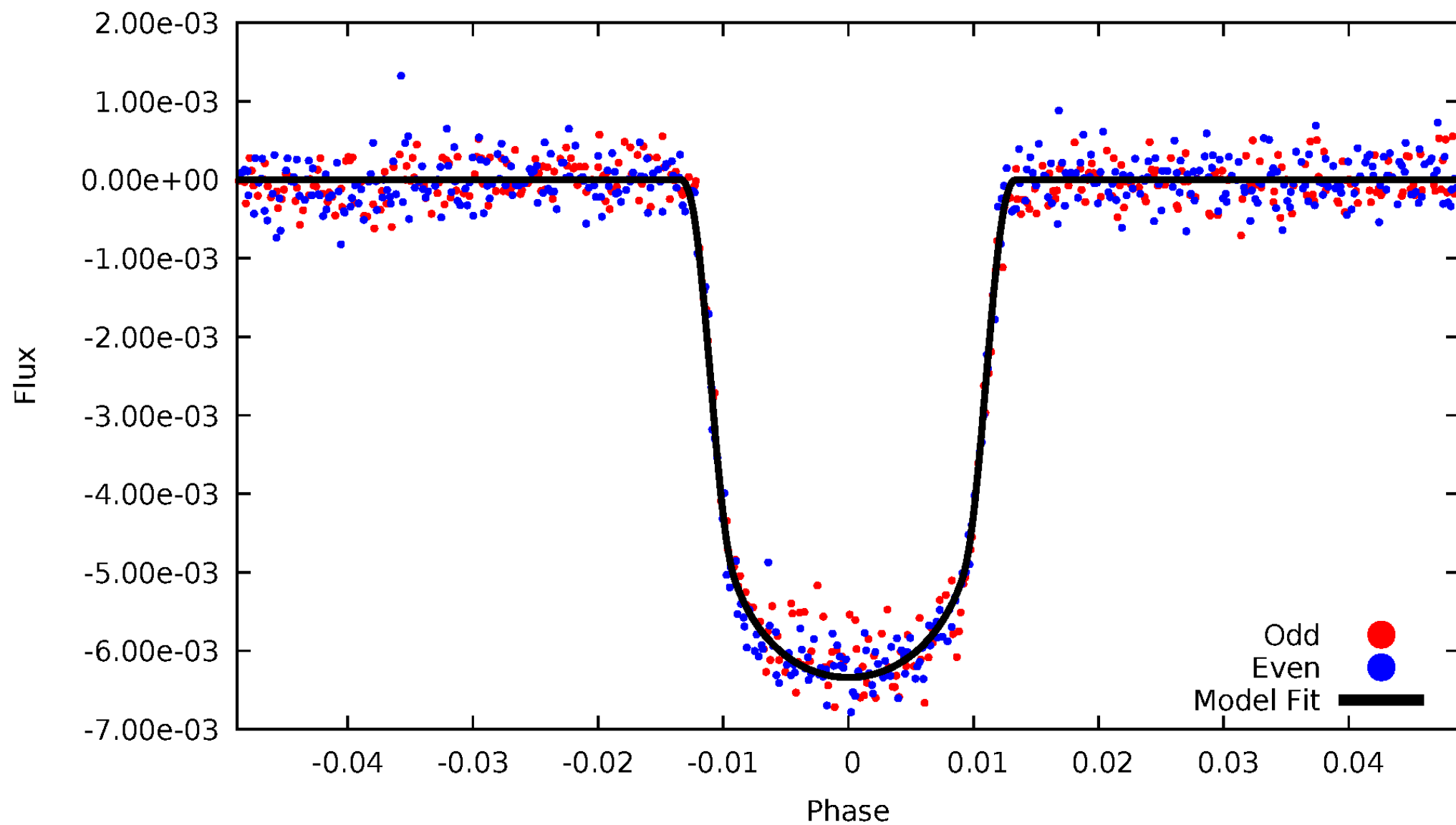


TCE 007377343-01



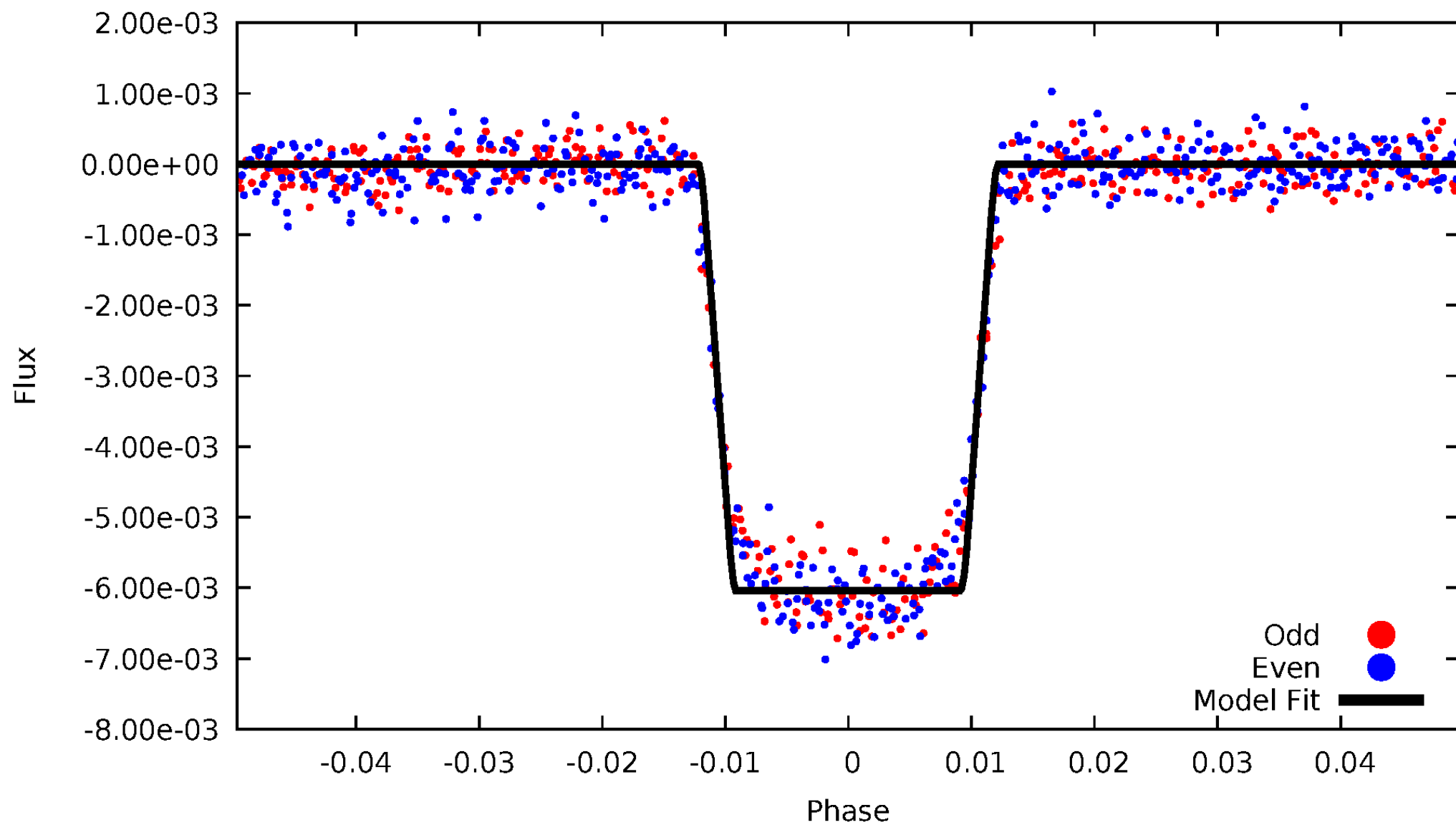
DV Odd/Even

TCE 007377343-01

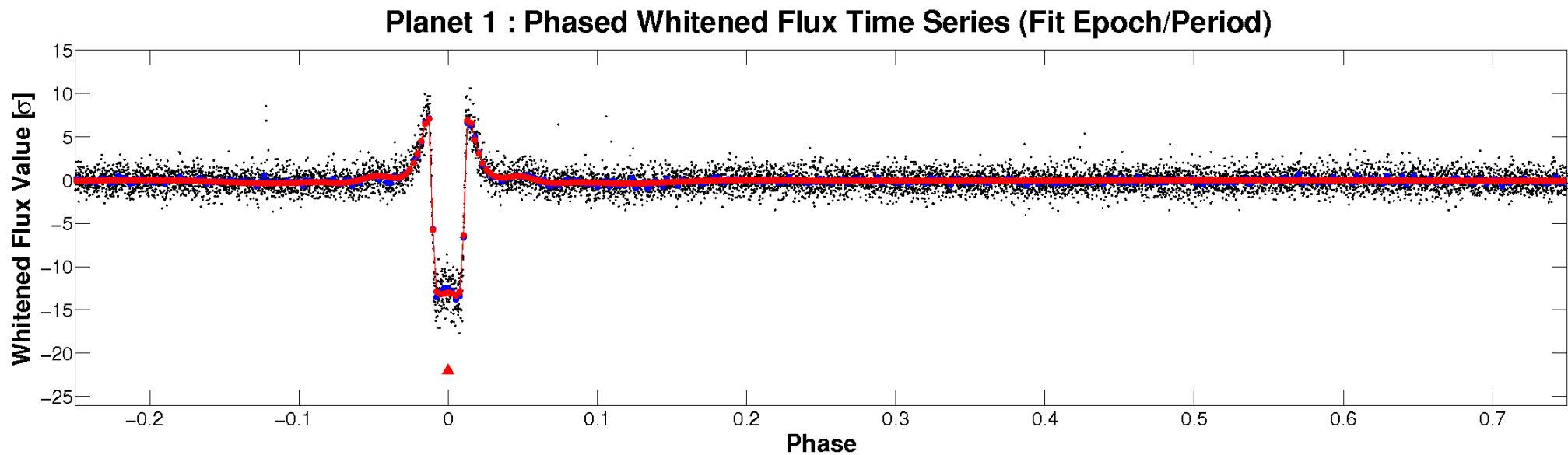
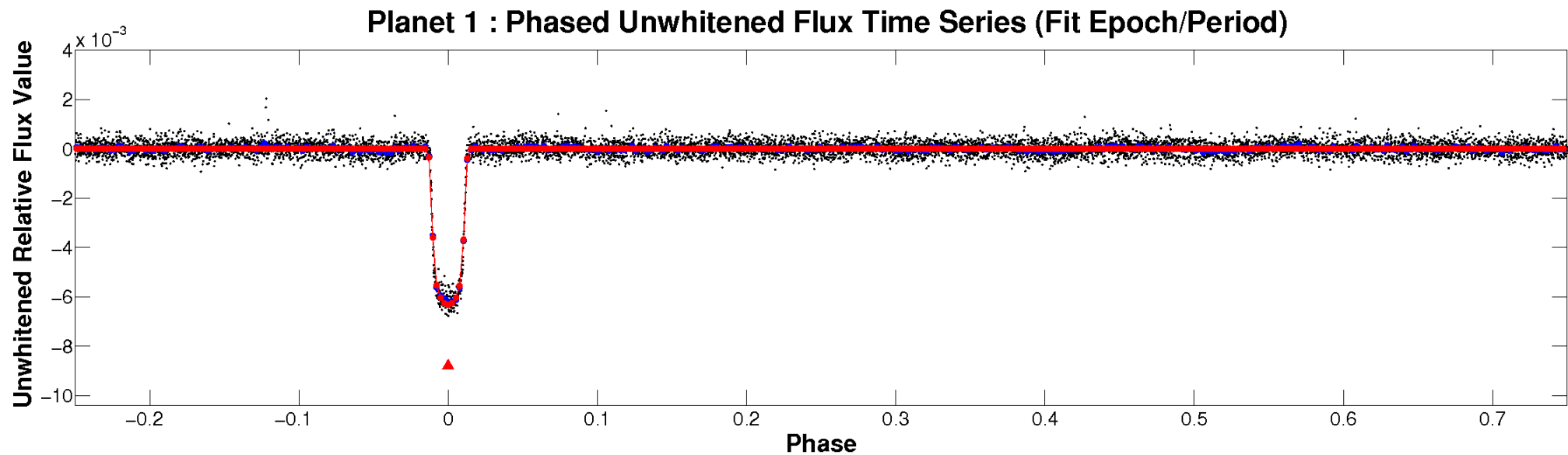


ALT Odd/Even

TCE 007377343-01

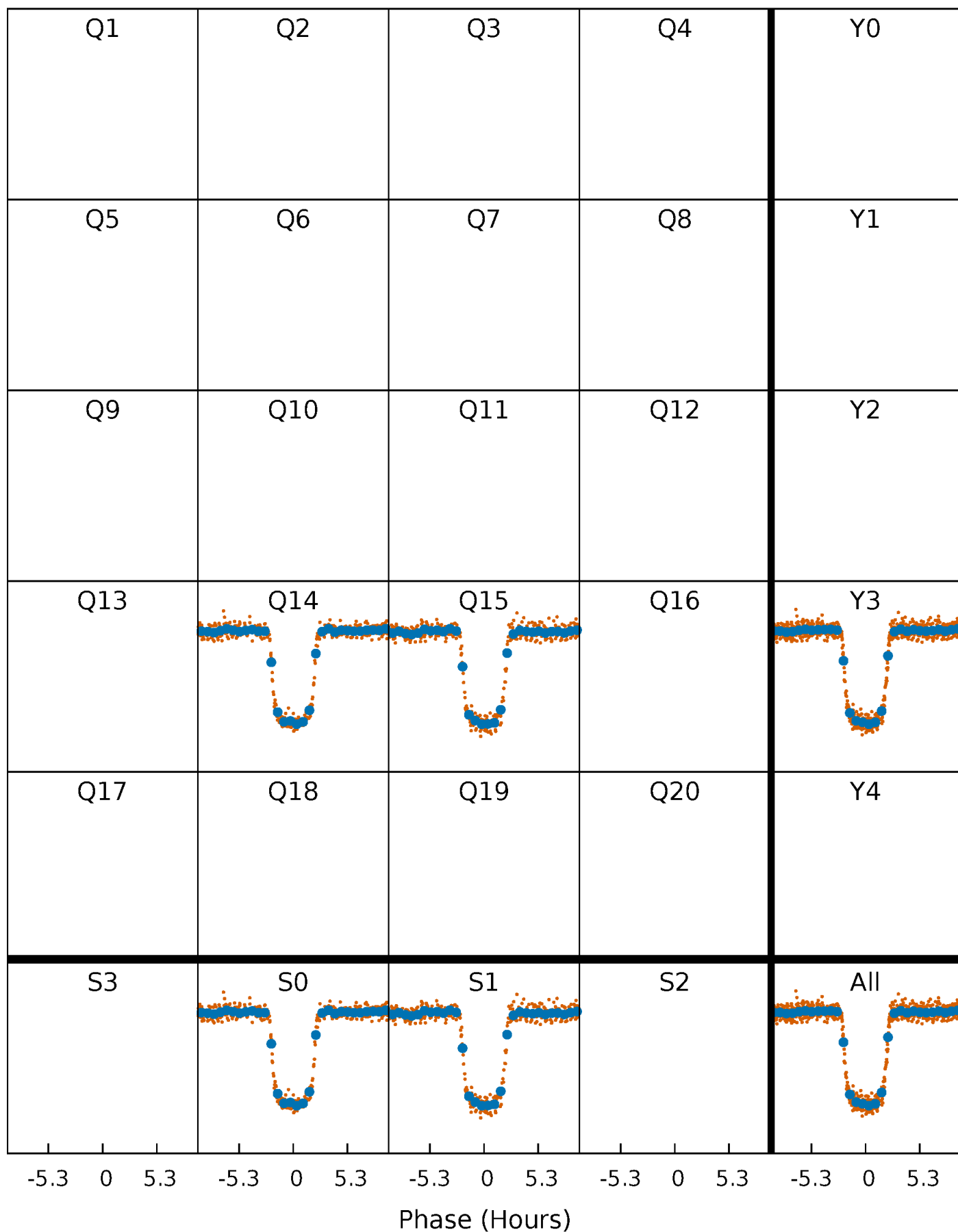


Non-Whitened Vs. Whitened Light Curve



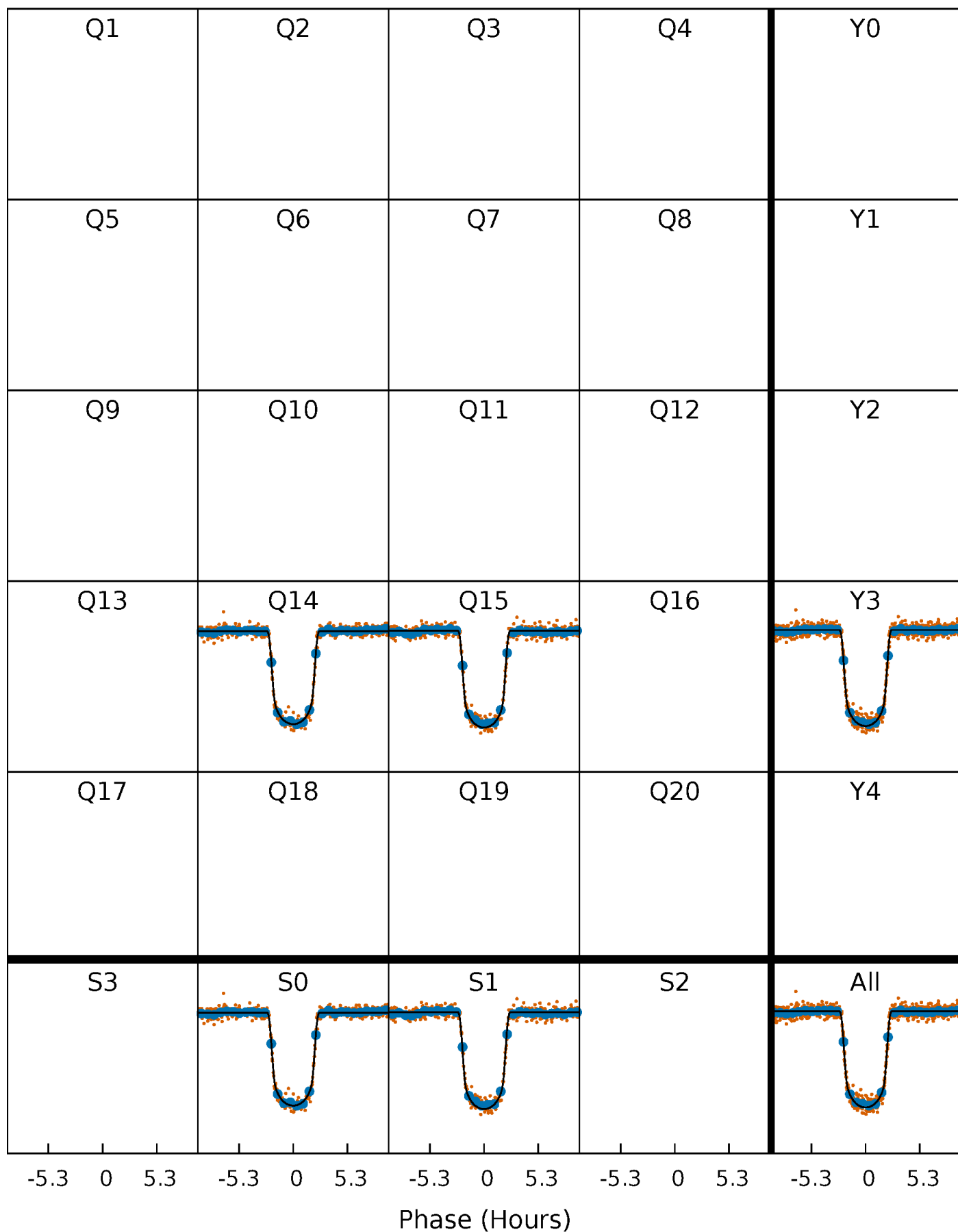
PDC Quarter-Phased Transit Curves

TCE 007377343-01 P= 7.954381 Days $T_0=135.496239$ (BKJD)



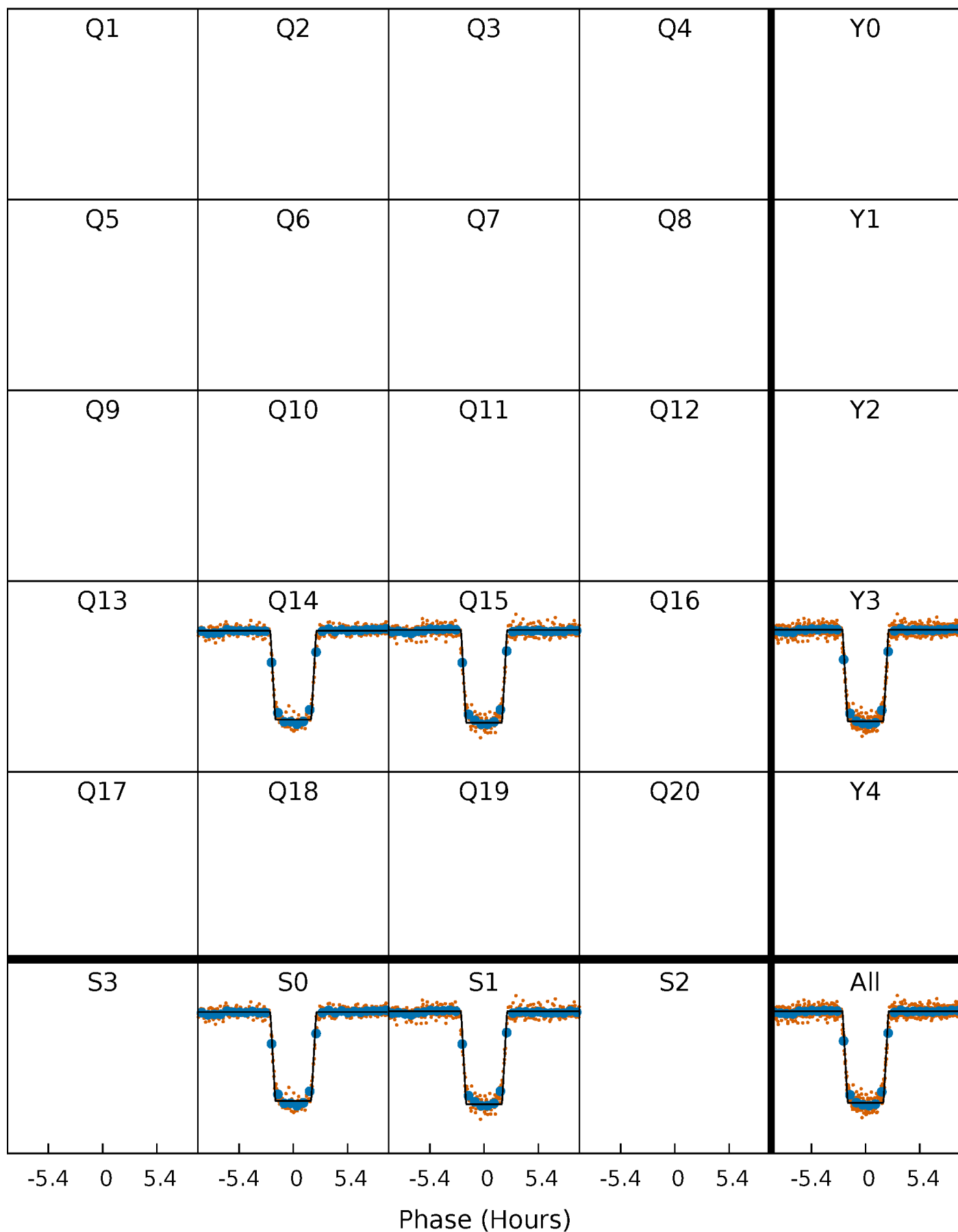
DV Quarter-Phased Transit Curves

TCE 007377343-01 P= 7.954381 Days $T_0=135.496239$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

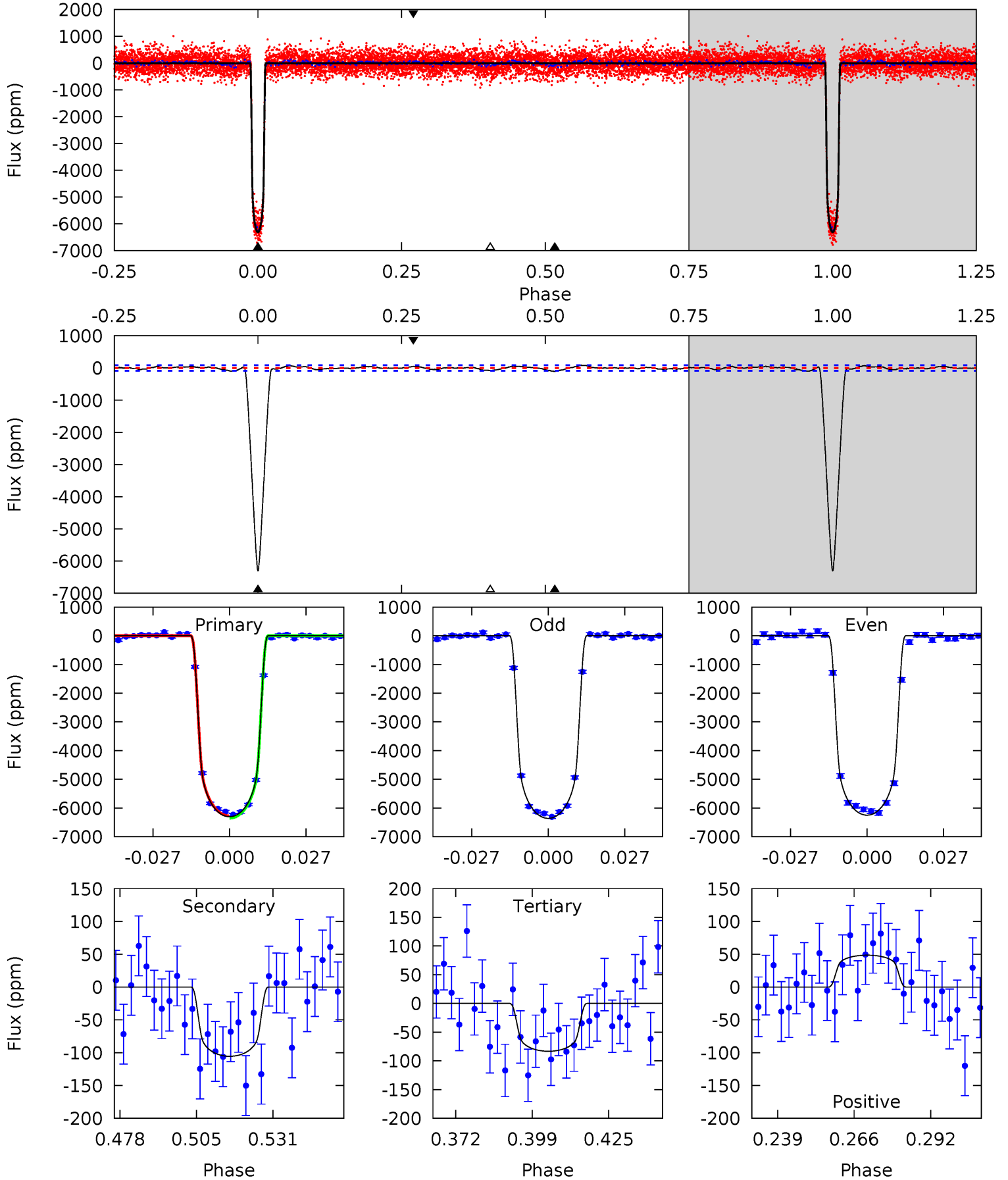
TCE 007377343-01 P= 7.954566 Days $T_0=135.467770$ (BKJD)



DV Model-Shift Uniqueness Test

007377343-01, P = 7.954381 Days, E = 135.496239 Days

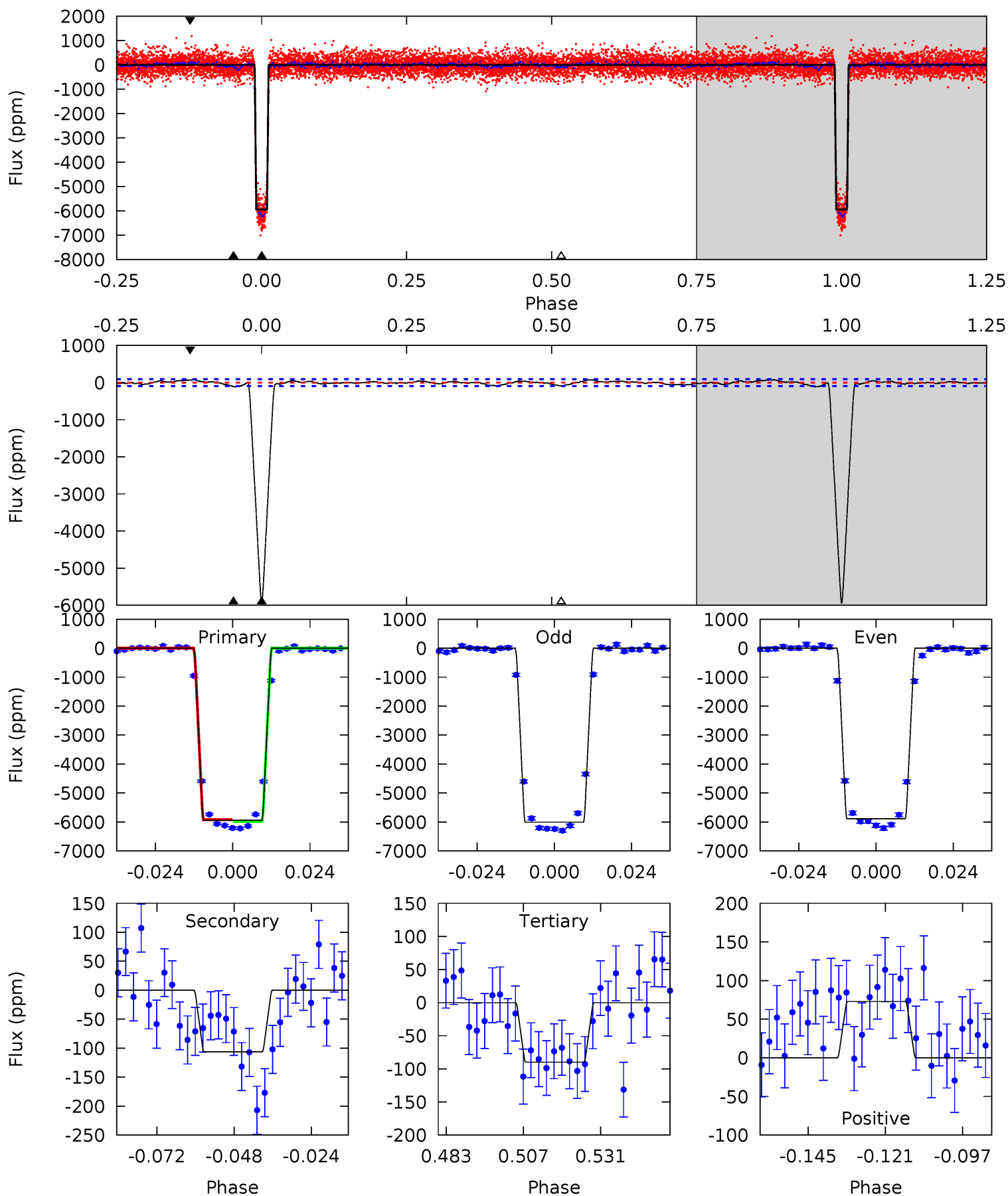
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
354.6	5.93	4.68	2.73	4.84	2.22	1.86	349.9	351.8	1.25	3.20	3.11	1.00	0.01	2.24



Alt Model-Shift Uniqueness Test

007377343-01, P = 7.954566 Days, E = 135.467770 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
305.7	5.47	4.63	3.75	4.85	2.26	1.75	301.1	302.0	0.84	1.71	3.09	1.00	0.01	1.67



Stellar Parameters For KIC 007377343

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6217^{+194}_{-259}	$4.306^{+0.132}_{-0.198}$	$-0.120^{+0.250}_{-0.300}$	$1.196^{+0.378}_{-0.204}$	$1.052^{+0.181}_{-0.115}$	$0.866^{+0.537}_{-0.448}$
	+3%/-4%	+3%/-5%	+208%/-250%	+32%/-17%	+17%/-11%	+62%/-52%
Source	KIC0	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 007377343-01 / KOI 5384.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-106 ± 18	$9.70^{+1.74}_{-0.97}$	1498^{+114}_{-101}	2944^{+99}_{-101}	$3.734^{+1.180}_{-1.117}$
Alt.	-106 ± 19	$10.15^{+1.90}_{-1.07}$	1494^{+106}_{-105}	2902^{+99}_{-109}	$3.419^{+1.116}_{-0.941}$

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 $A_{obs} \gg 1.0$

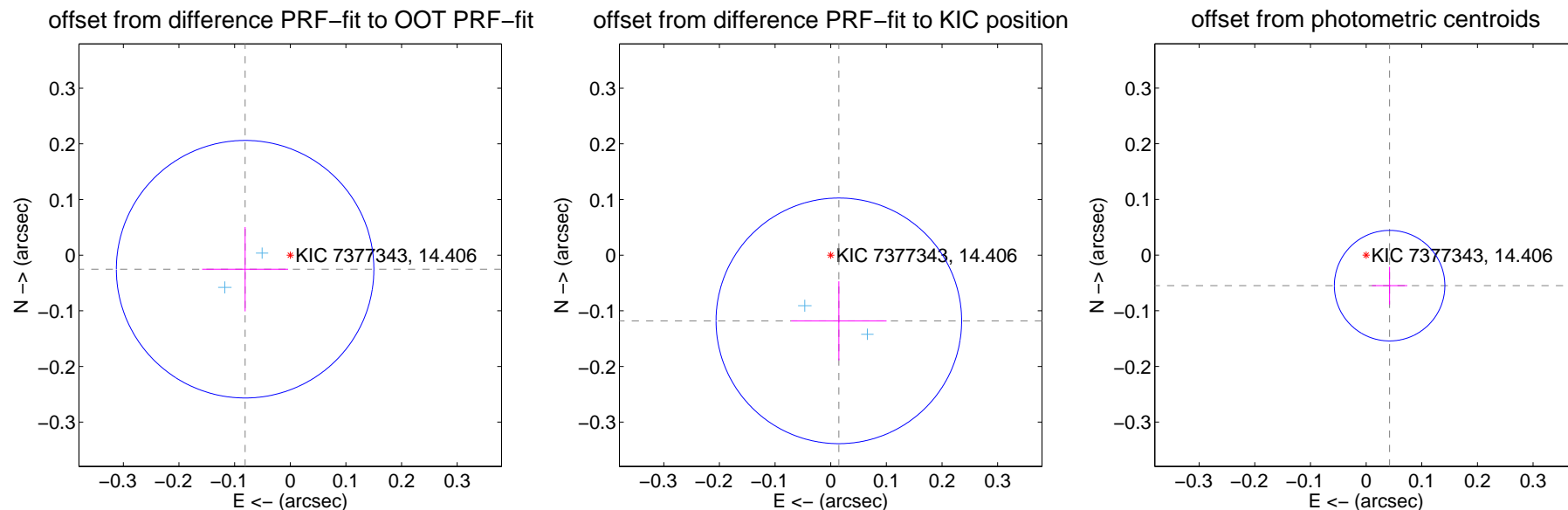
DV Centroid Data

Supplemental centroid analysis for 007377343-01. Kepler magnitude: 14.41. Transit SNR 178.22

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.085 ± 0.077	1.10	0.081 ± 0.077	-0.025 ± 0.076
PRF-fit source offset from KIC position	0.119 ± 0.074	1.62	-0.015 ± 0.086	-0.118 ± 0.071
photometric centroid source offset	0.07 ± 0.03	2.09	-0.04 ± 0.03	-0.05 ± 0.03



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.



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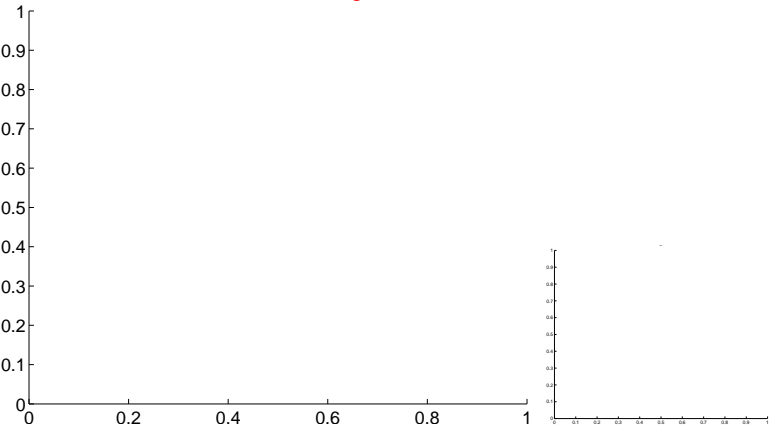


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

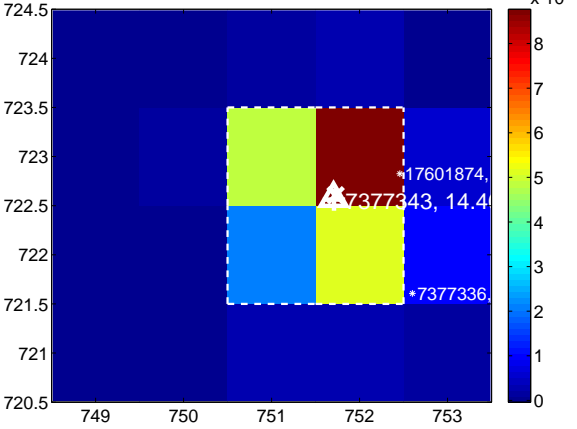
Q13 no difference image



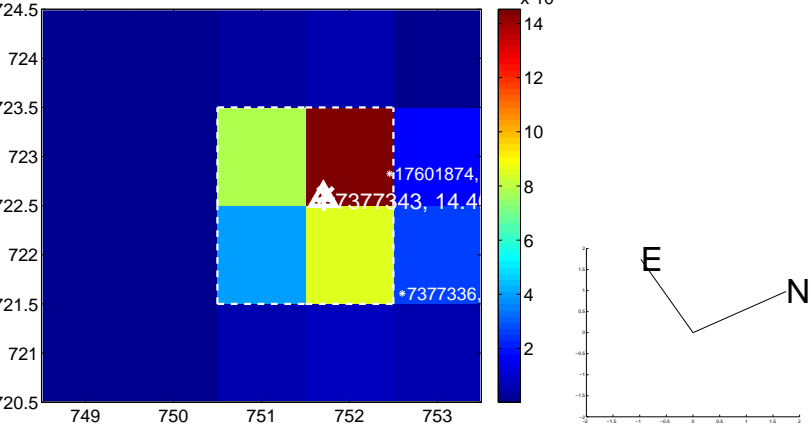
Q13 no OOT image



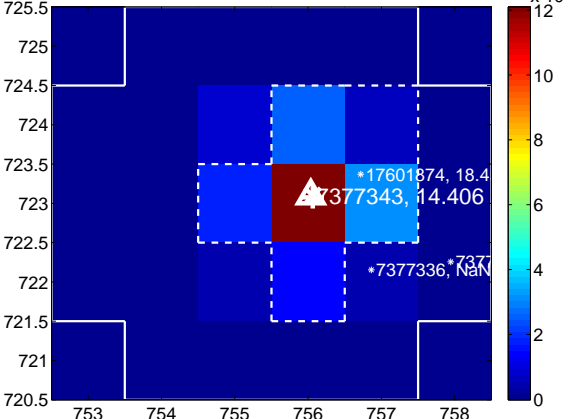
Q14 difference image



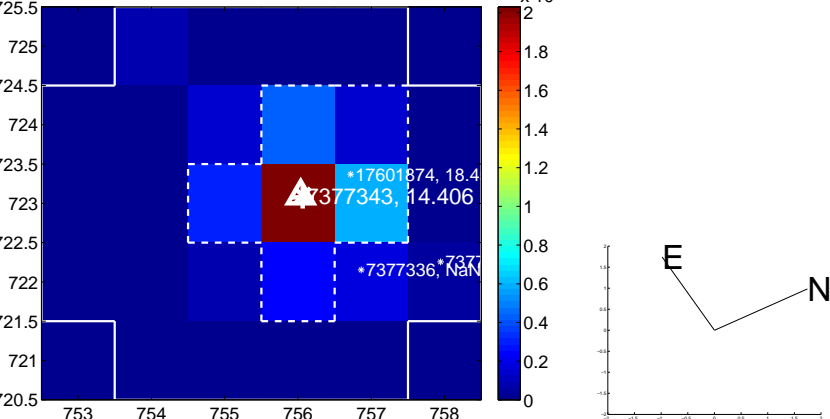
Q14 OOT image



Q15 difference image



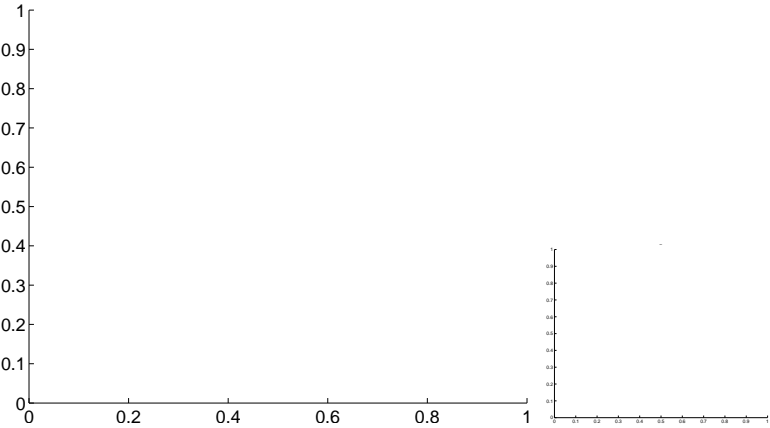
Q15 OOT image



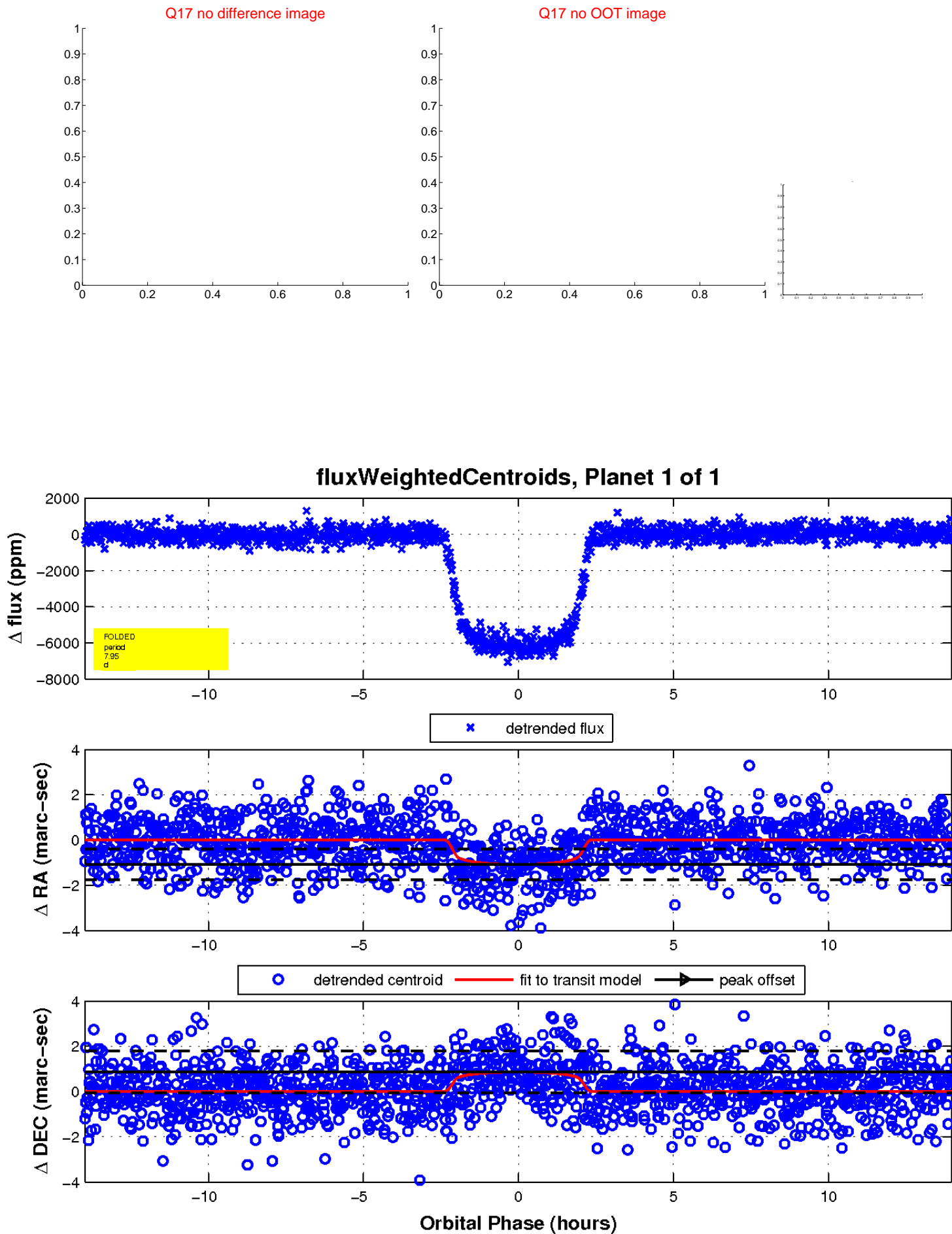
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

