

KIC 008241377

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})
008241377-01	OBS	No	370.589679	231.291874	2427.0	30.181	8.5	8.6	0.87	5889	7.88	0.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008241377-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

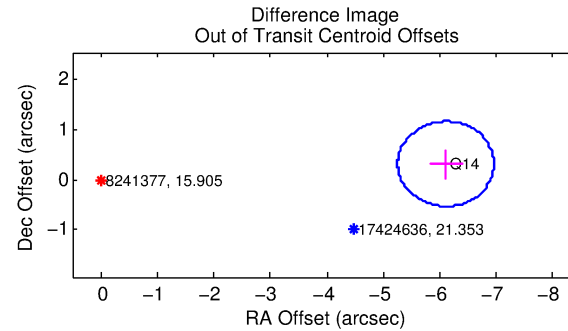
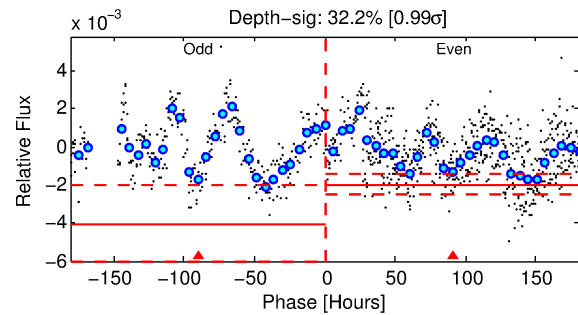
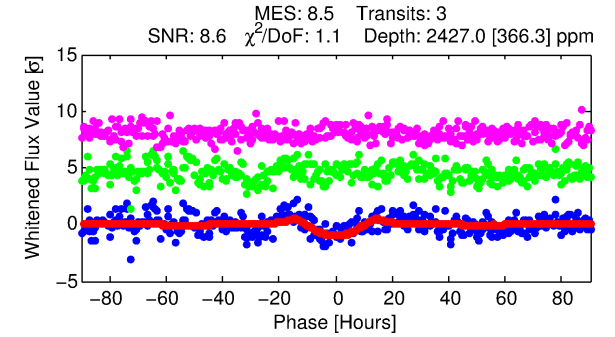
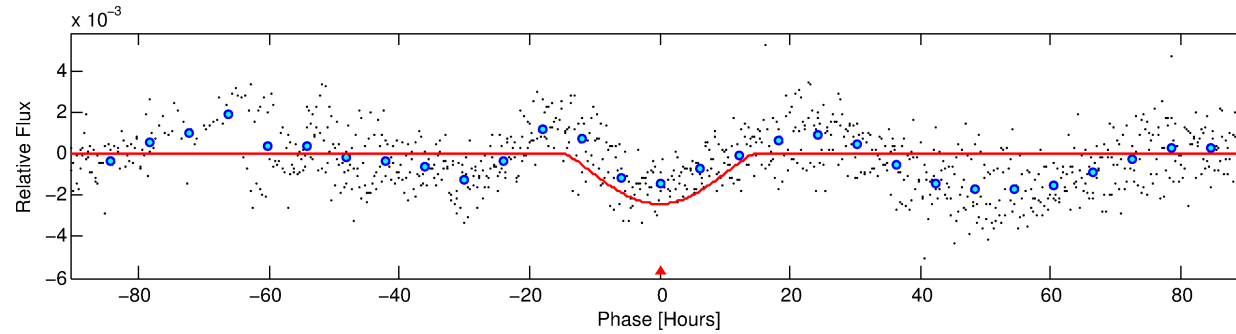
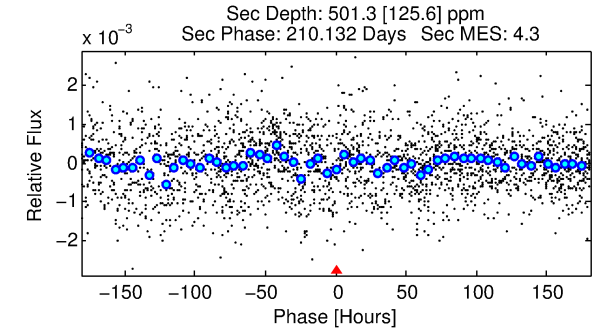
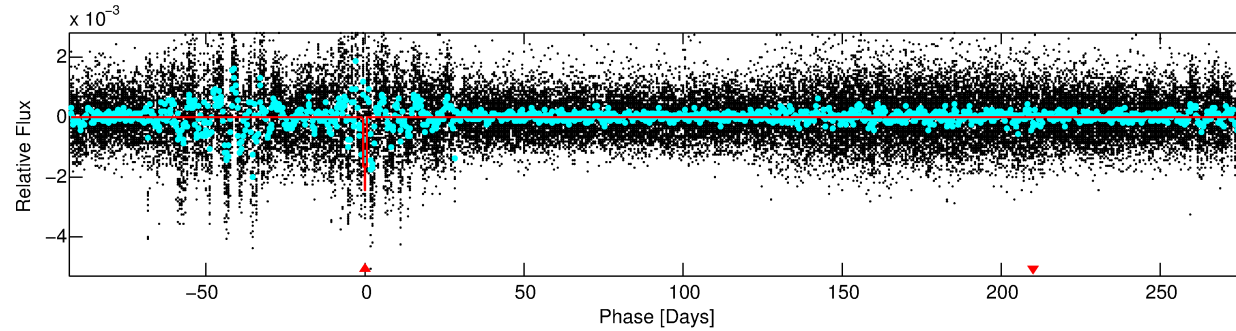
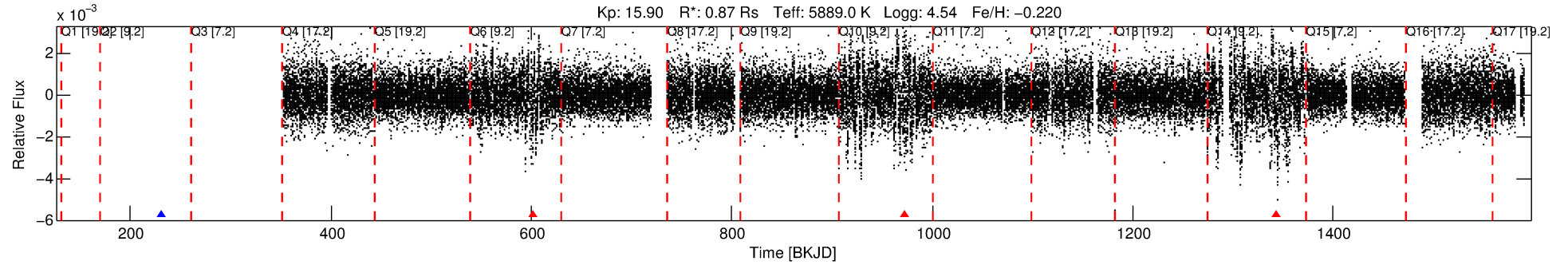
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008241377-01

No Significant Match Found

DV One-Page Summary

KIC: 8241377 Candidate: 1 of 1 Period: 370.590 d



DV Fit Results:

Period = 370.58968 [0.03765] d
Epoch = 231.2919 [0.0748] BKJD
Rp/R* = 0.0831 [0.1755]
a/R* = 39.56 [18.06]
b = 1.00 [0.26]
Seff = 0.82 [0.32]
Teq = 243 [24] K
Rp = 7.88 [16.81] Re
a = 0.9969 [0.2521] AU
Ag = 4417.83 [18772.44] [0.24σ]
Teff = 3058 [3238] K [0.87σ]

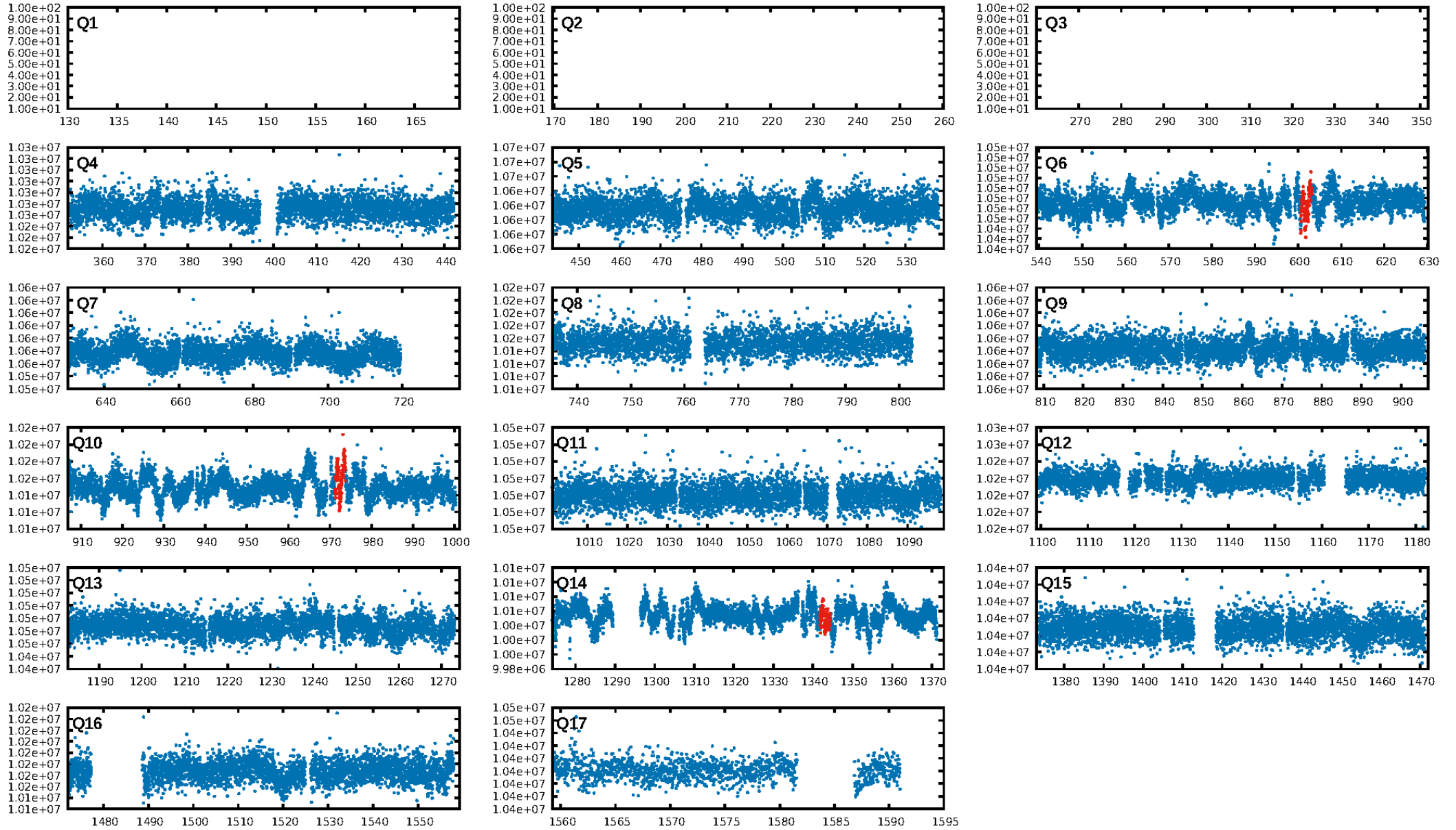
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 30.2%
ModelChiSquareGoF-sig: 98.3%
Bootstrap-pfa: 8.35e-13
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 0.715
Centroid-sig: 2.6%
Centroid-so: 4.948 arcsec [2.06σ]
OotOffset-rm: 6.113 arcsec [21.58σ]
KicOffset-rm: 6.321 arcsec [22.31σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

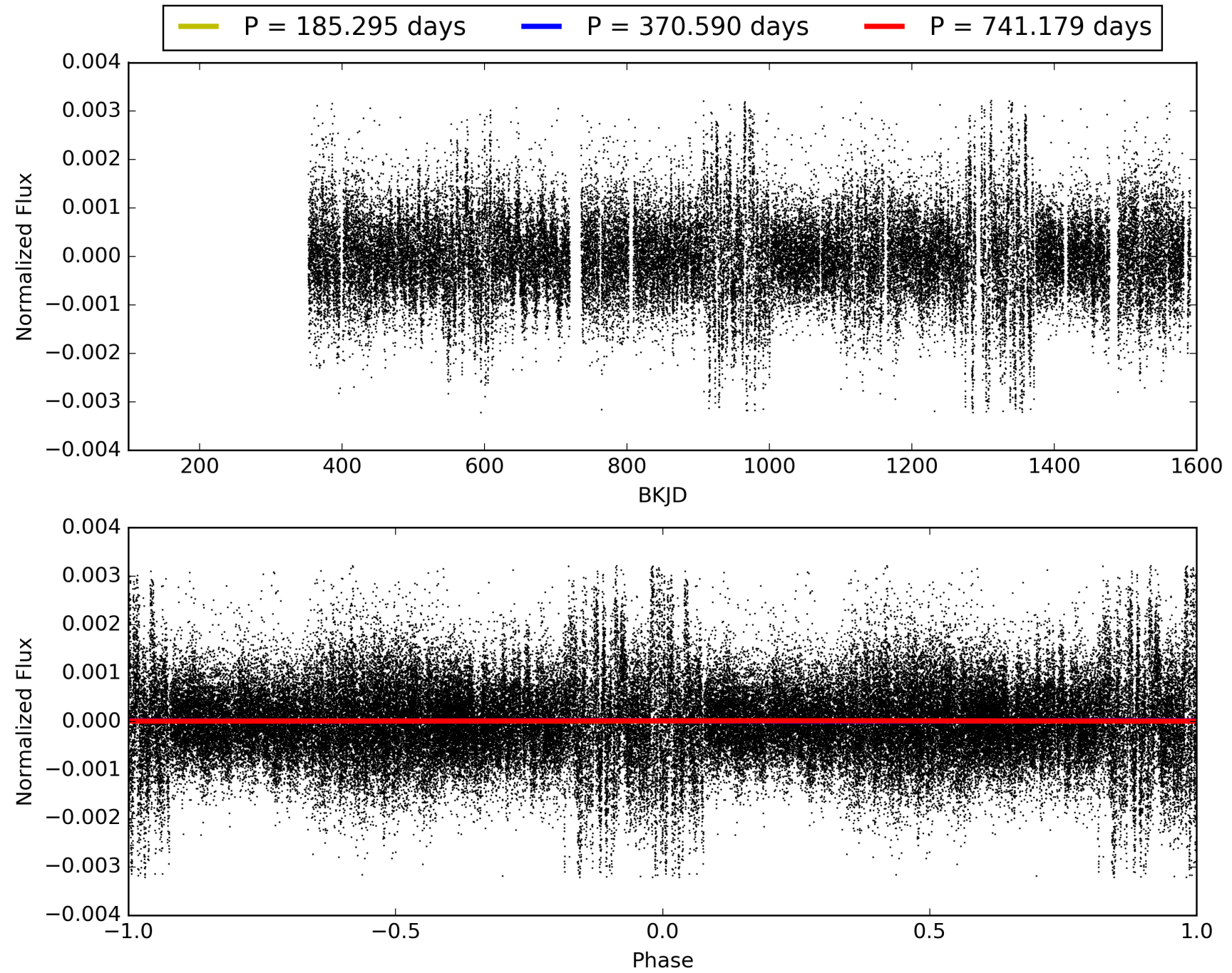
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:56:51 Z

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

TCE 008241377-01, PDC Light Curves

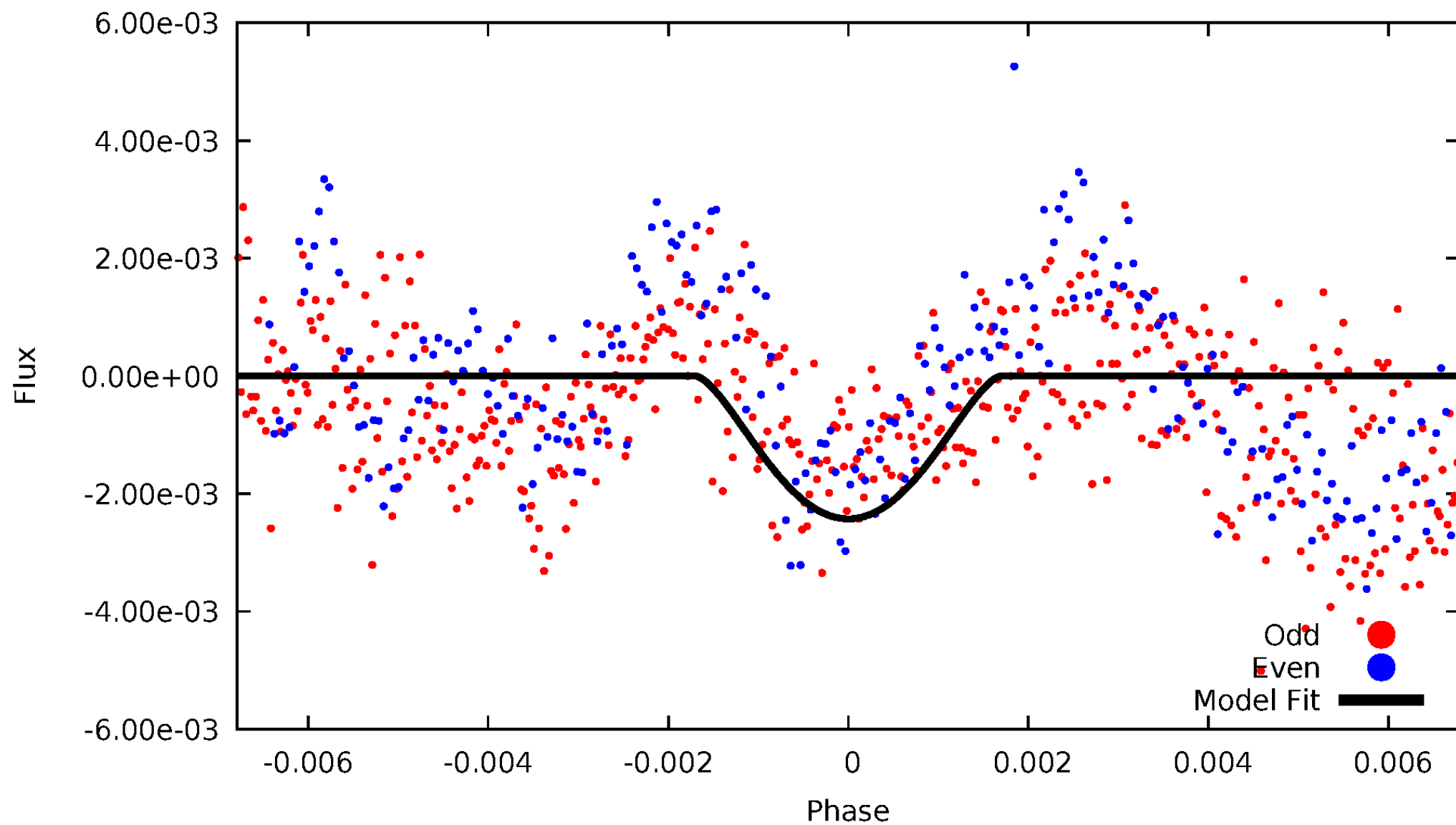


TCE 008241377-01



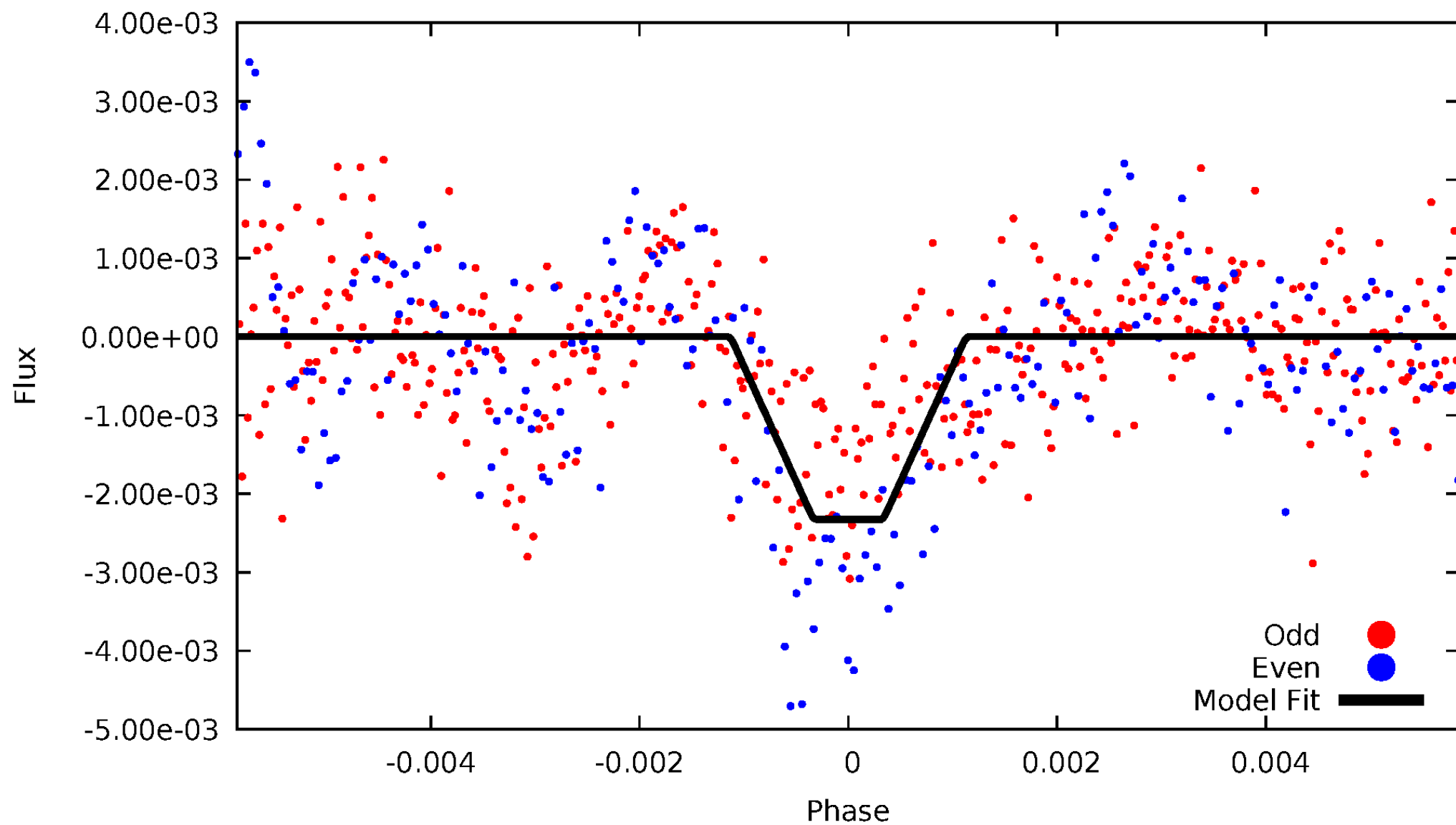
DV Odd/Even

TCE 008241377-01



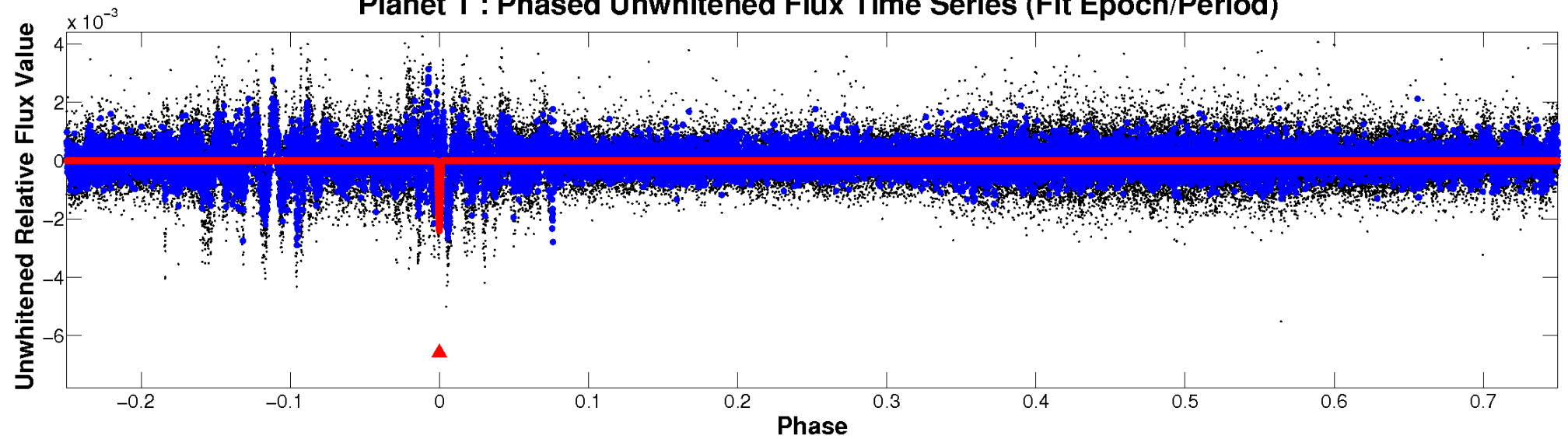
ALT Odd/Even

TCE 008241377-01

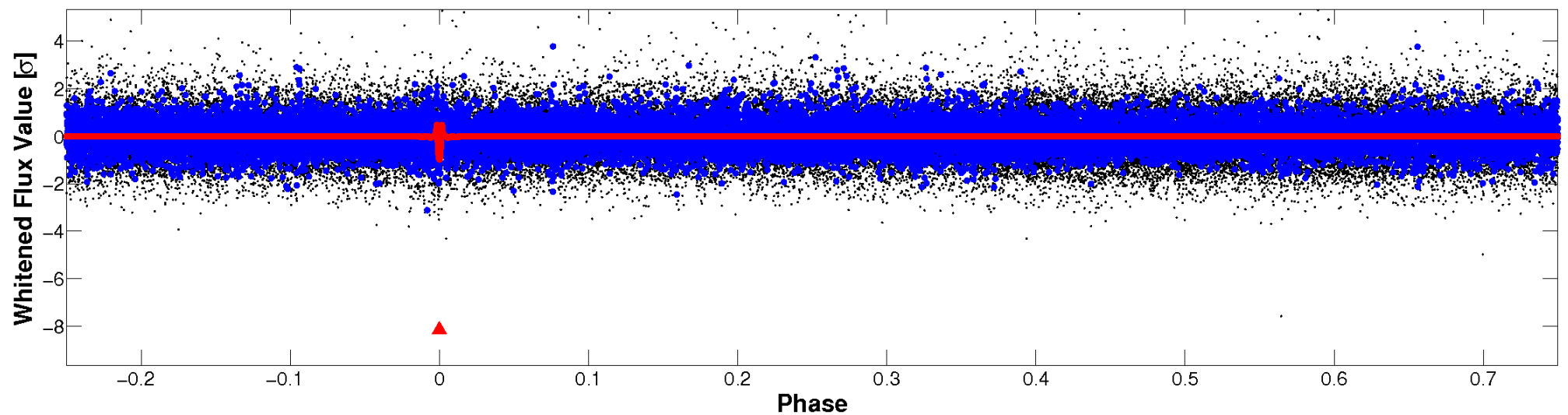


Non-Whitened Vs. Whitened Light Curve

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

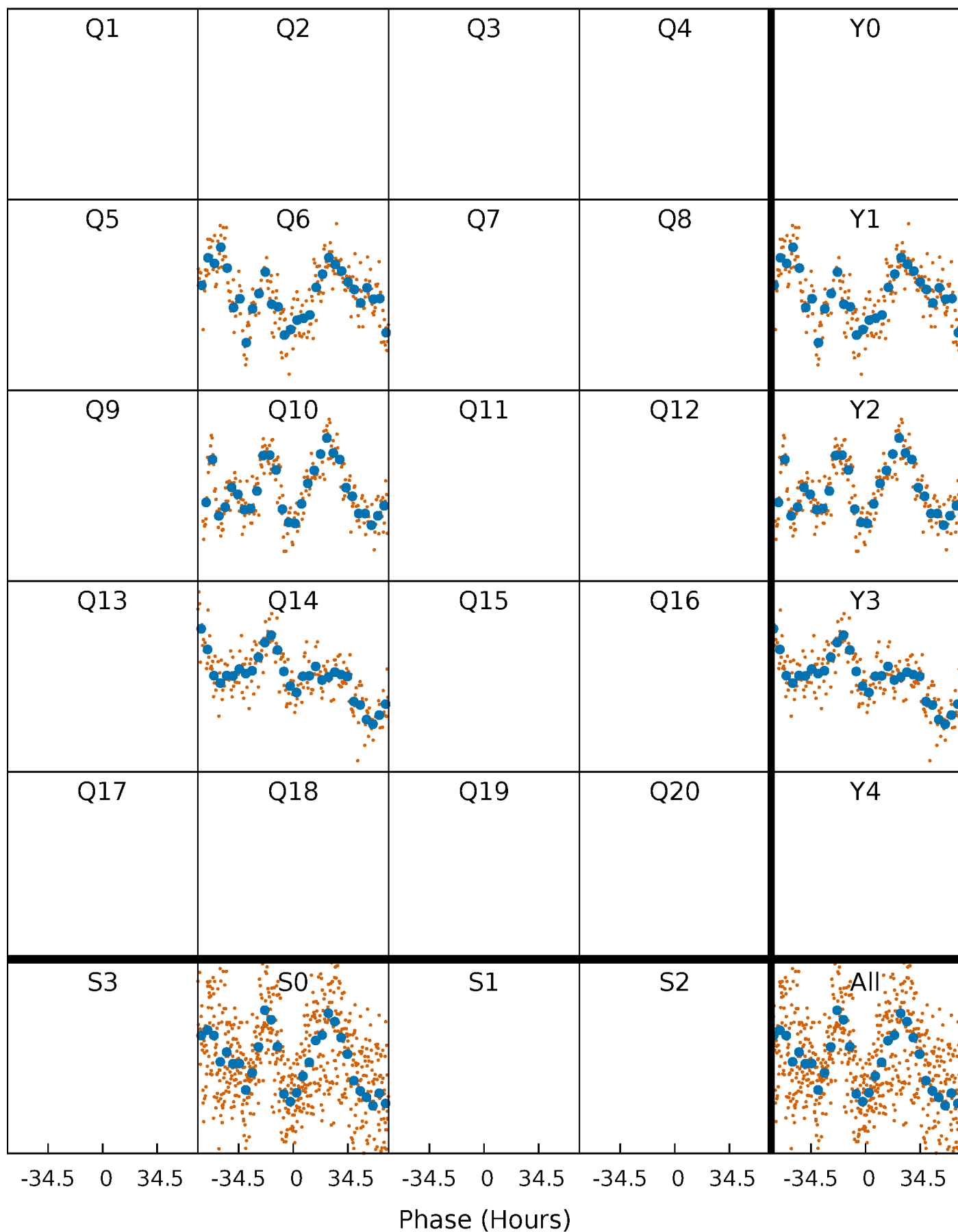


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



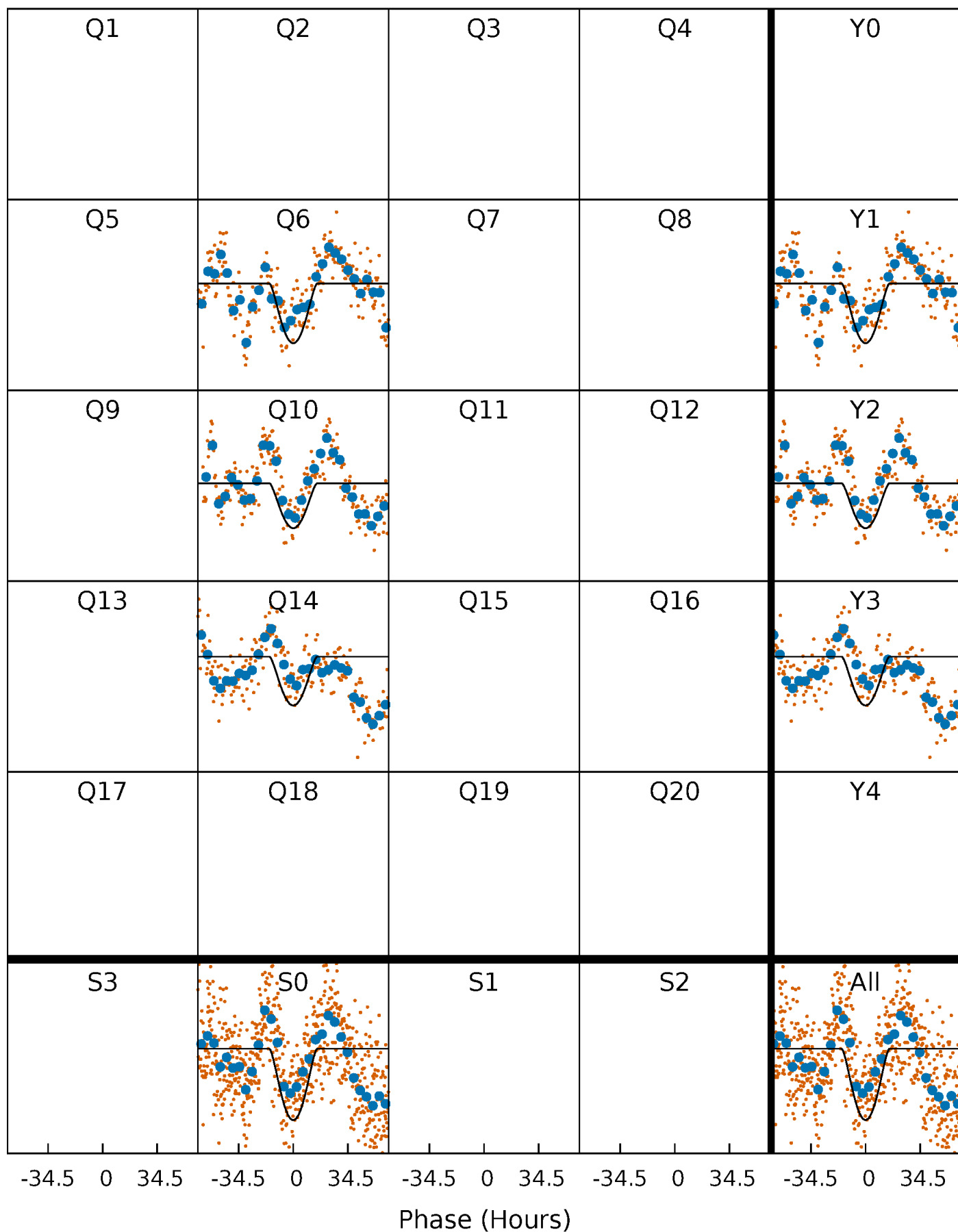
PDC Quarter-Phased Transit Curves

TCE 008241377-01 P=370.589679 Days $T_0=231.291874$ (BKJD)



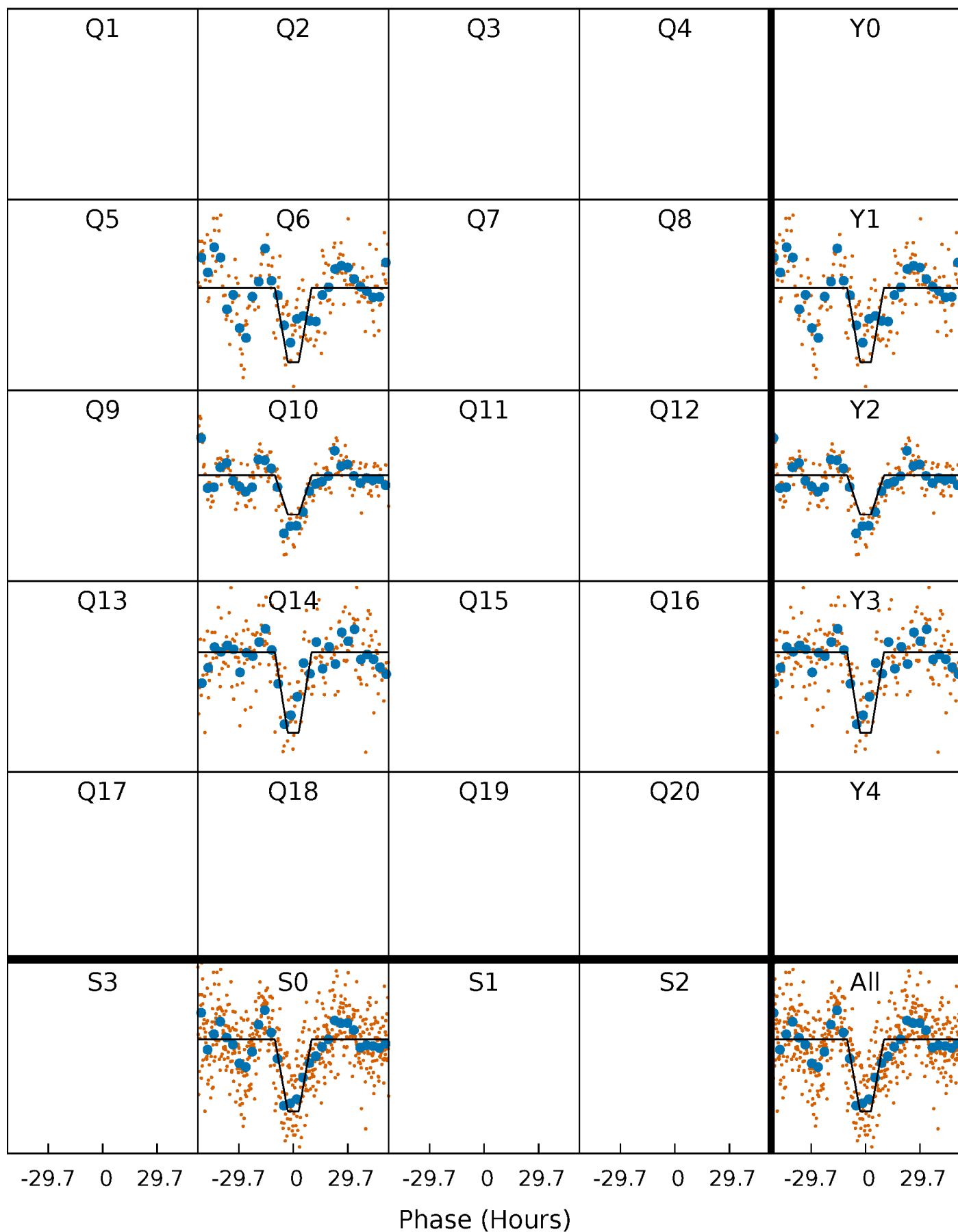
DV Quarter-Phased Transit Curves

TCE 008241377-01 P=370.589679 Days $T_0=231.291874$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

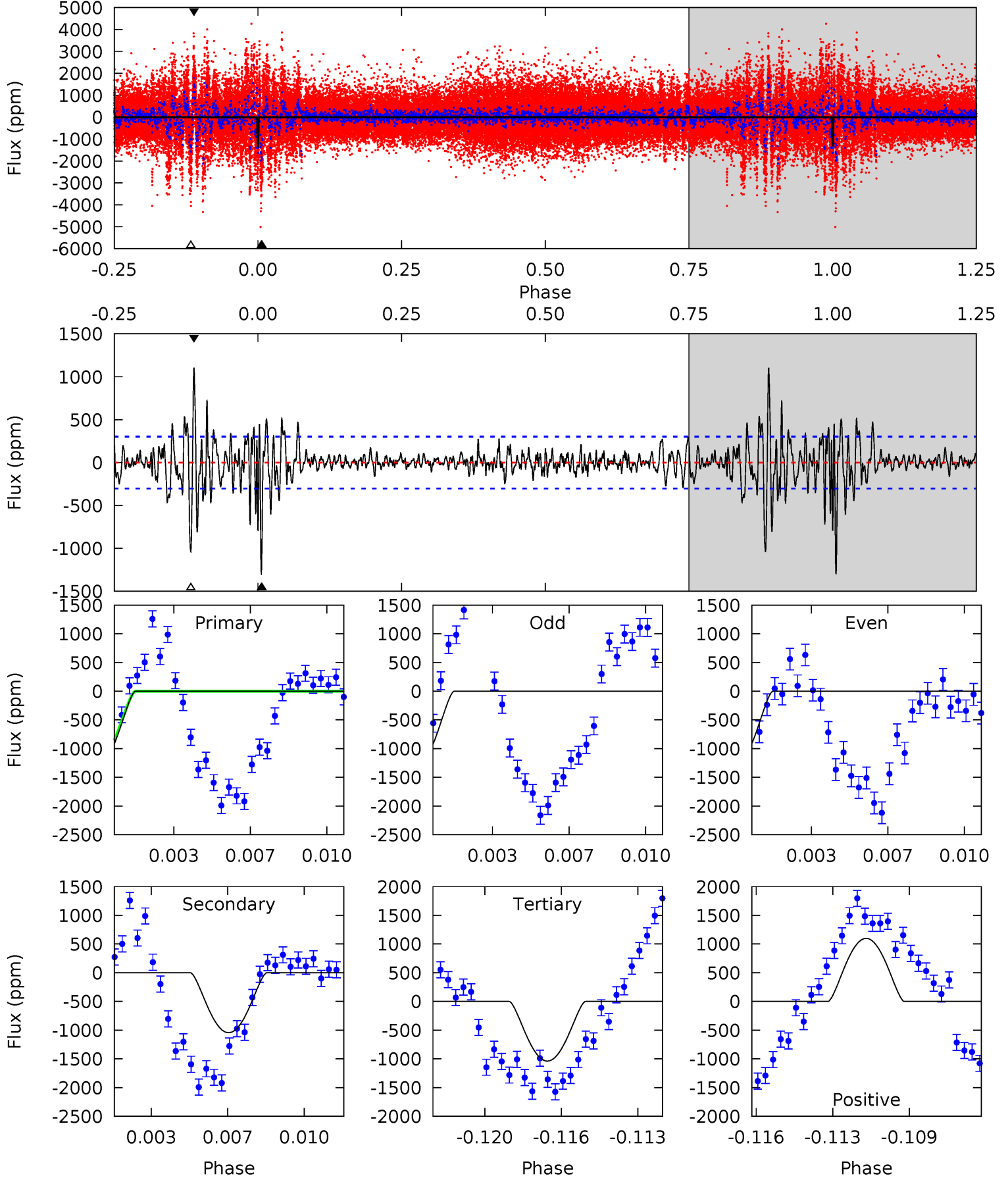
TCE 008241377-01 P=370.671590 Days $T_0=231.096228$ (BKJD)



DV Model-Shift Uniqueness Test

008241377-01, P = 370.589679 Days, E = 231.291874 Days

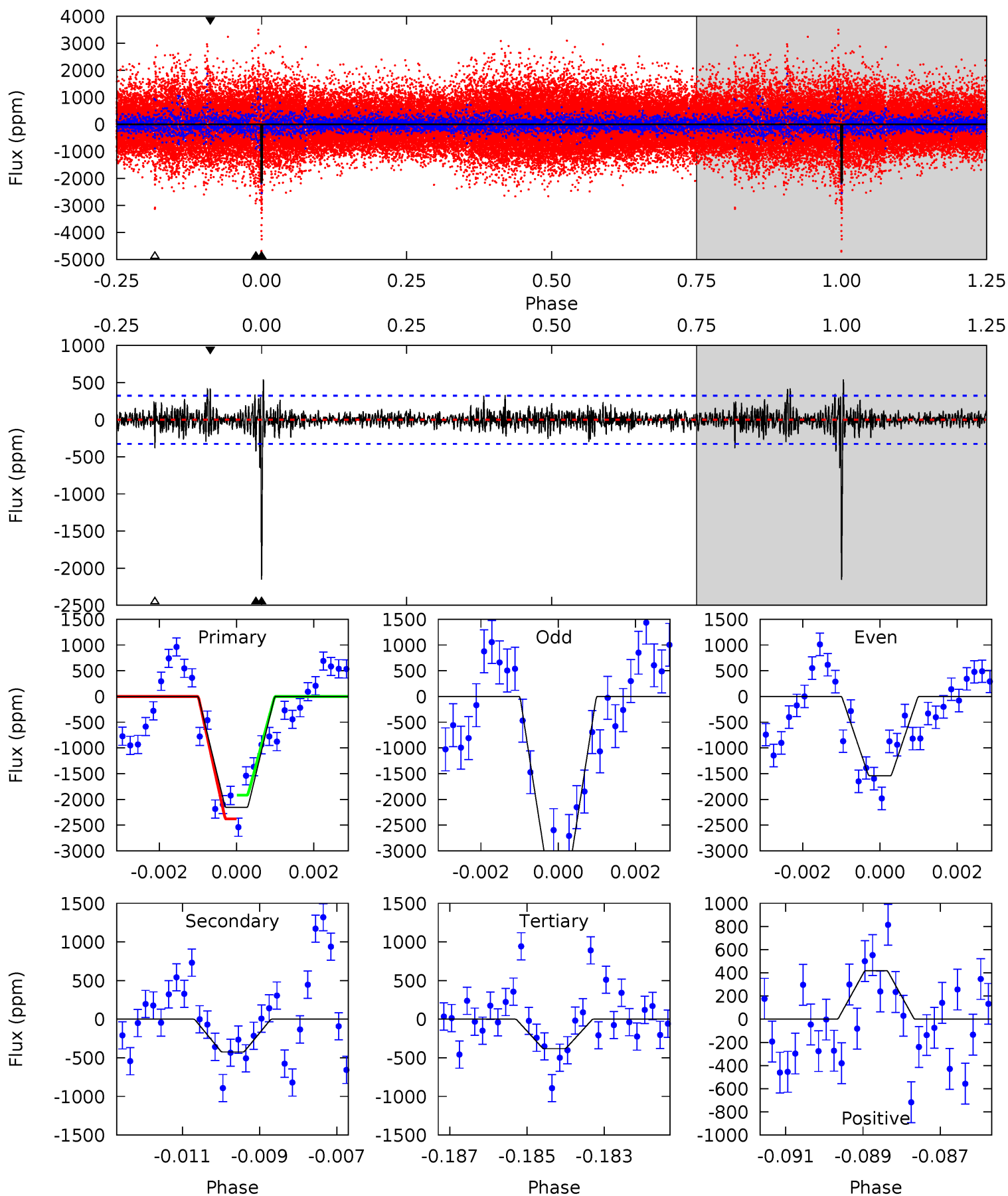
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.5	18.0	18.0	19.0	5.23	2.93	2.91	4.51	3.47	0.10	-0.94	0.11	0.99	0.46	1.67



Alt Model-Shift Uniqueness Test

008241377-01, P = 370.671590 Days, E = 231.096228 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.2	6.93	6.22	6.84	5.30	3.05	1.33	28.9	28.3	0.70	0.09	13.8	1.25	0.20	3.78



Stellar Parameters For KIC 008241377

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5889^{+165}_{-207}	$4.543^{+0.037}_{-0.200}$	$-0.220^{+0.300}_{-0.300}$	$0.869^{+0.262}_{-0.082}$	$0.961^{+0.119}_{-0.119}$	$2.063^{+0.406}_{-1.059}$
	+3%/-4%	+1%/-4%	+136%/-136%	+30%/-9%	+12%/-12%	+20%/-51%
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 008241377-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1044 ± 58	$14.40^{+15.50}_{-9.64}$	348^{+24}_{-16}	3308^{+1566}_{-584}	2621^{+20310}_{-1996}
Alt.	-424 ± 61	$13.73^{+14.03}_{-9.67}$	347^{+23}_{-16}	2968^{+1454}_{-499}	1224^{+11469}_{-935}

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 $A_{obs} \gg 1.0$

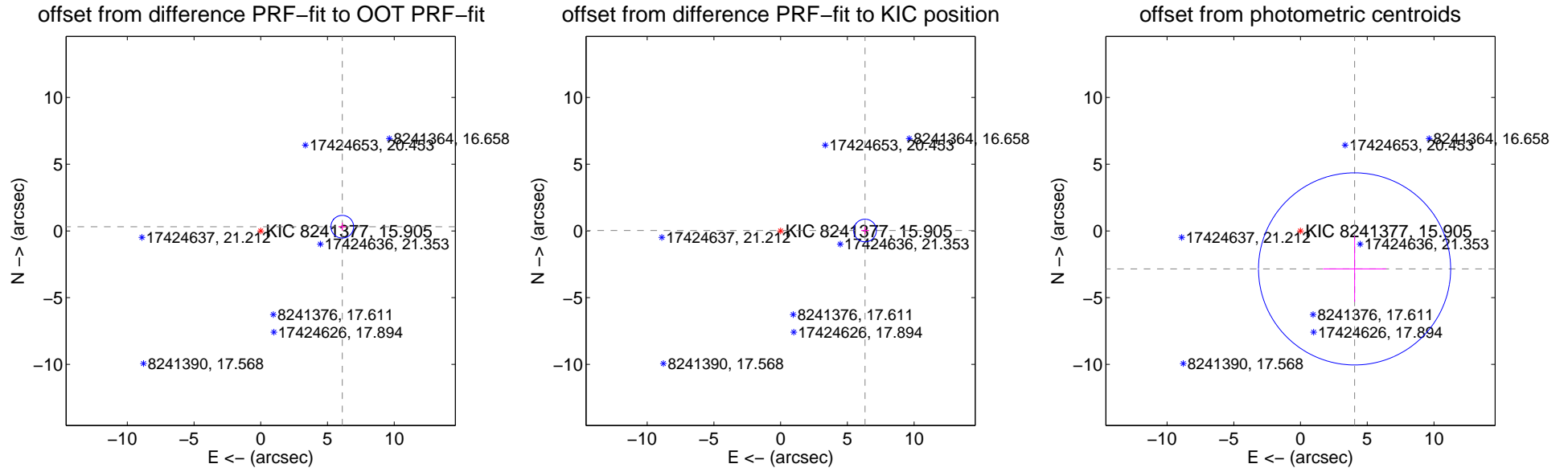
DV Centroid Data

Supplemental centroid analysis for 008241377-01. Kepler magnitude: 15.90. Transit SNR 8.56

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.113 ± 0.283	21.58	-6.105 ± 0.283	0.315 ± 0.282
PRF-fit source offset from KIC position	6.321 ± 0.283	22.31	-6.321 ± 0.283	0.031 ± 0.282
photometric centroid source offset	4.95 ± 2.40	2.06	-4.05 ± 2.36	-2.85 ± 2.47

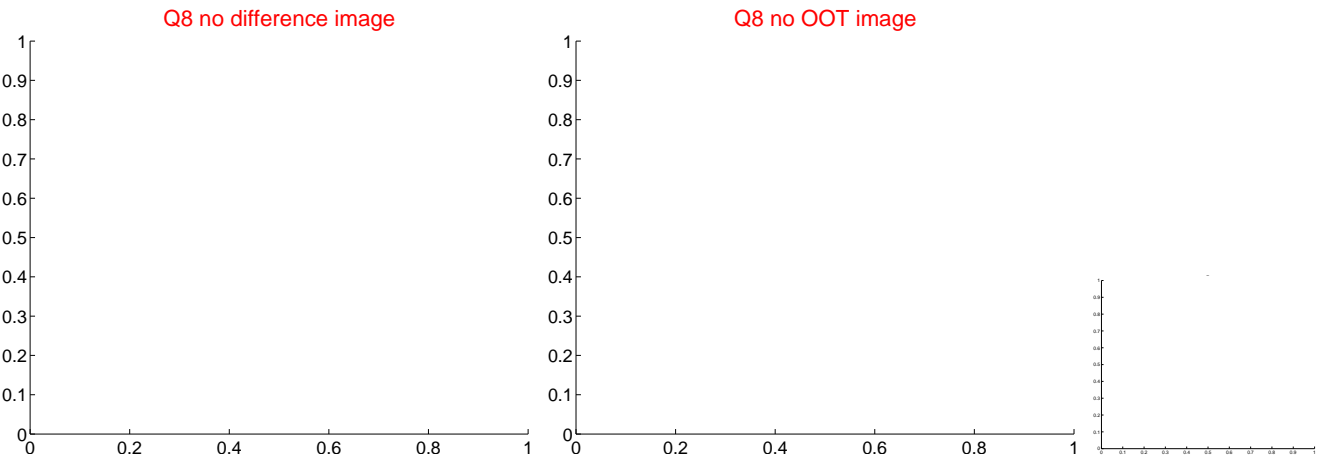
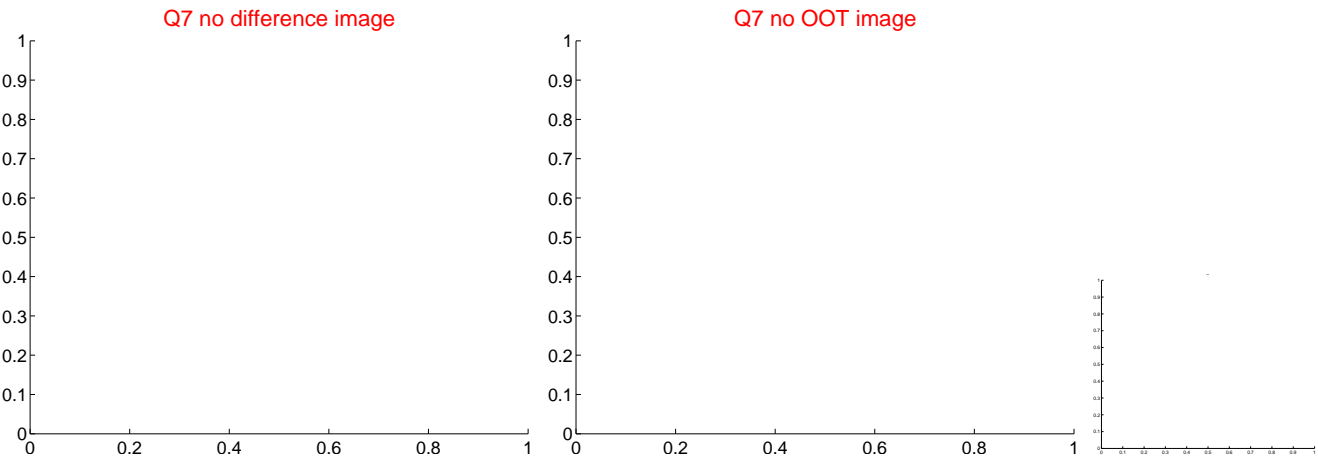
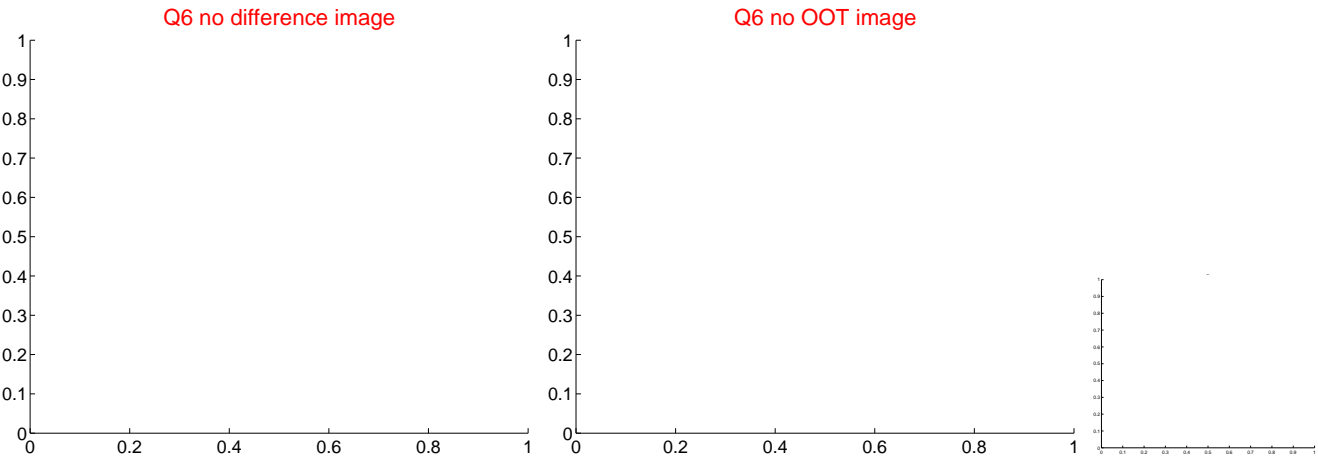
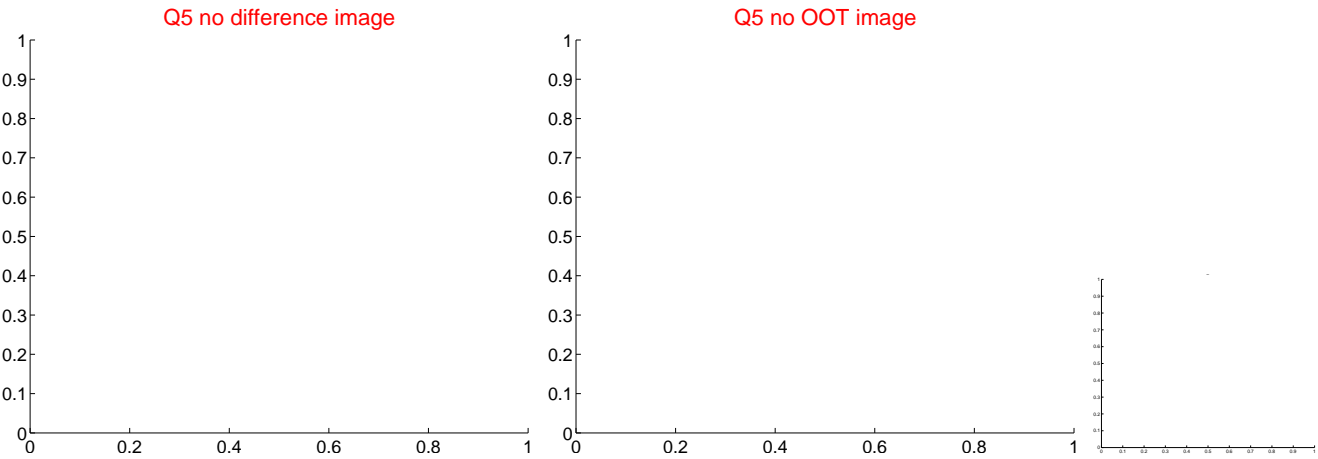


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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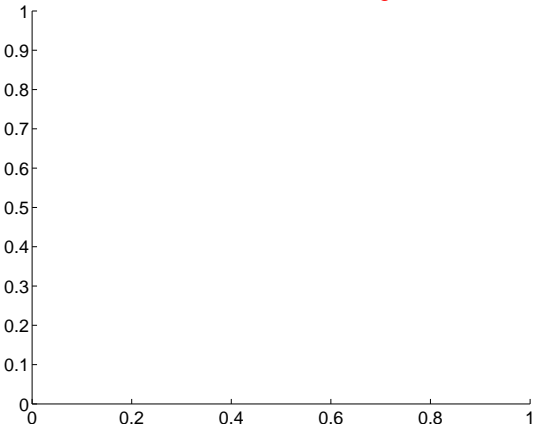


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

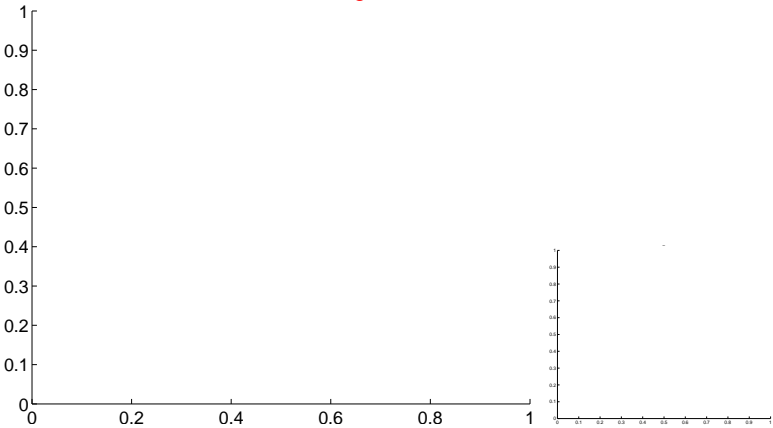


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

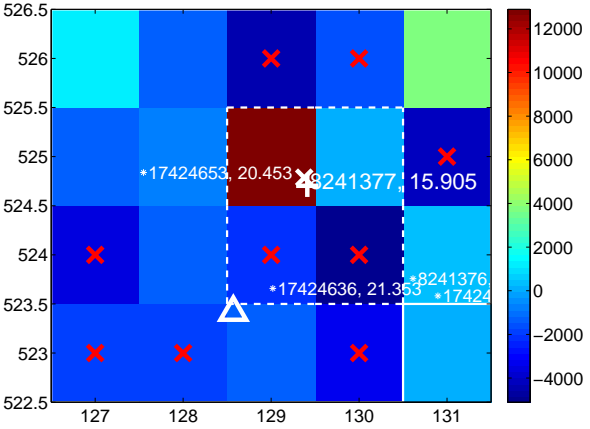
Q13 no difference image



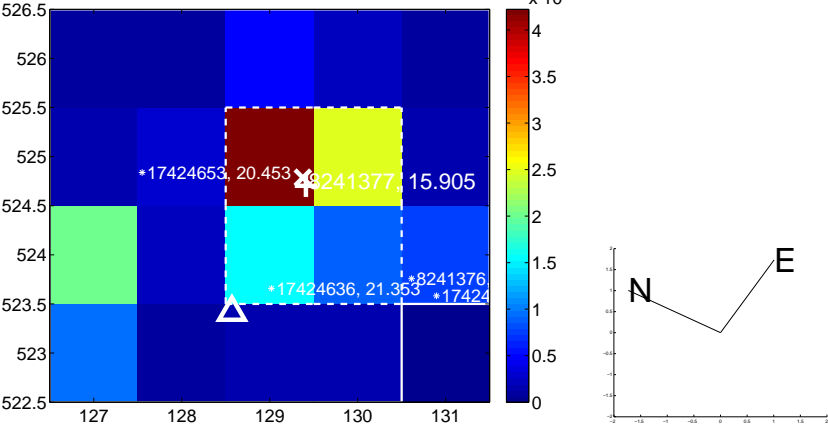
Q13 no OOT image



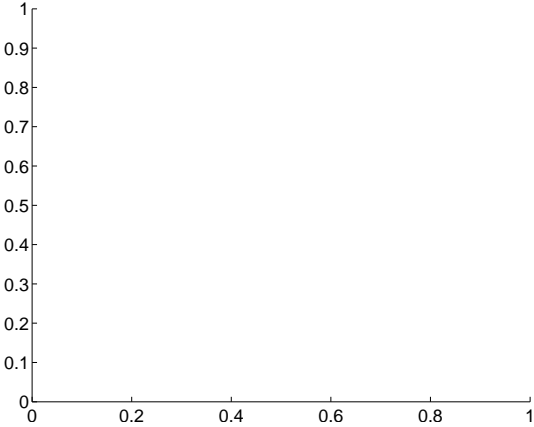
Q14 difference image. Poor Quality



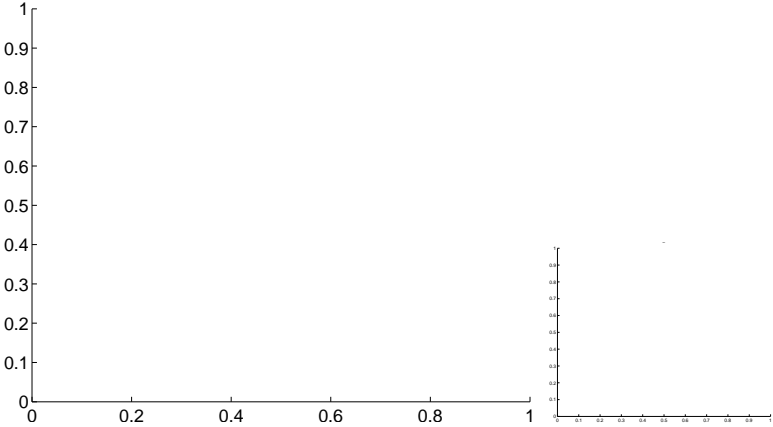
Q14 OOT image



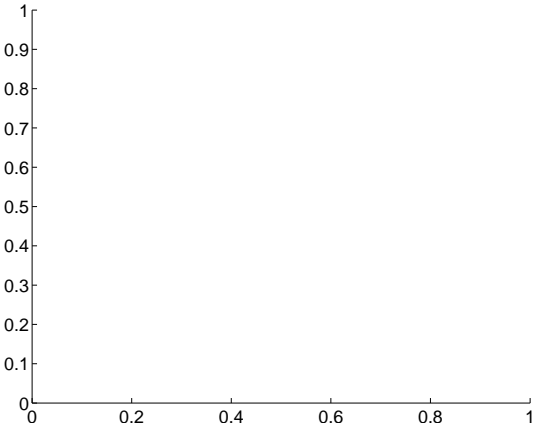
Q15 no difference image



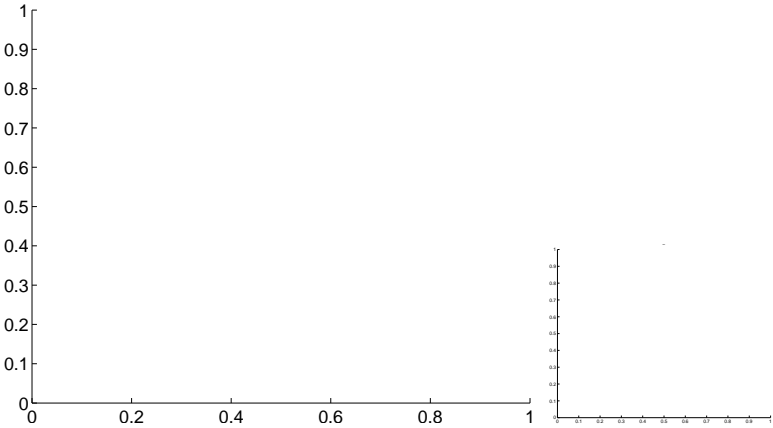
Q15 no OOT image



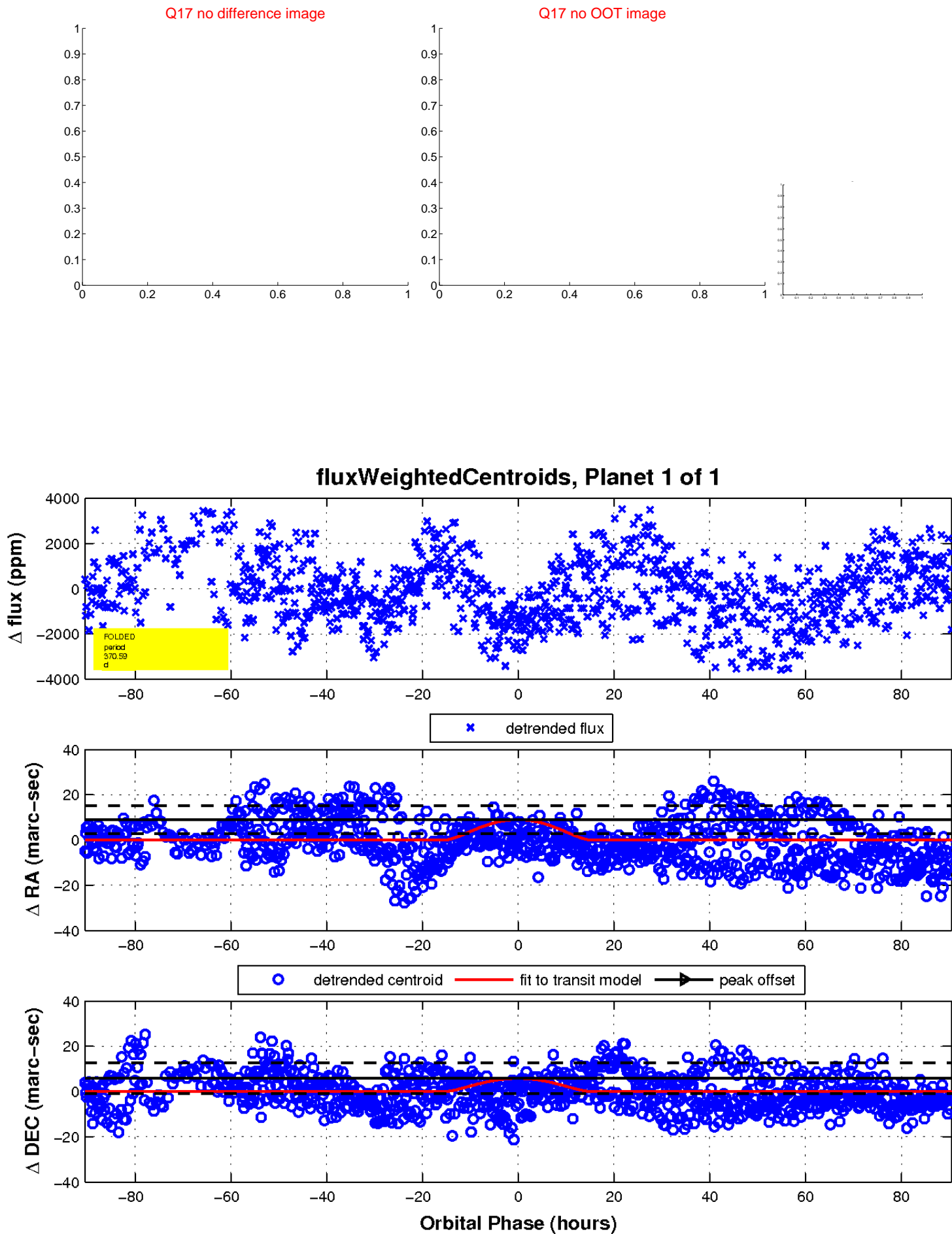
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

