

KIC 008885394

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})
008885394-01	OBS	No	379.613331	499.805755	603.9	45.764	9.2	10.8	0.94	5910	2.87	0.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008885394-01	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.

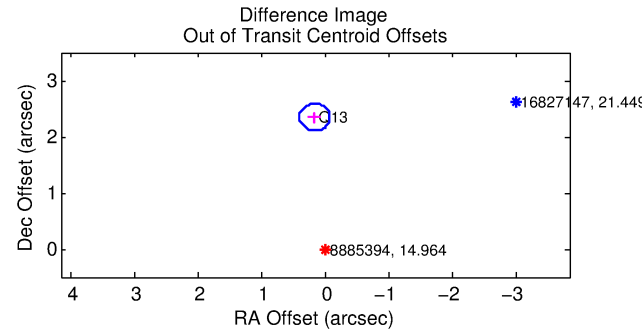
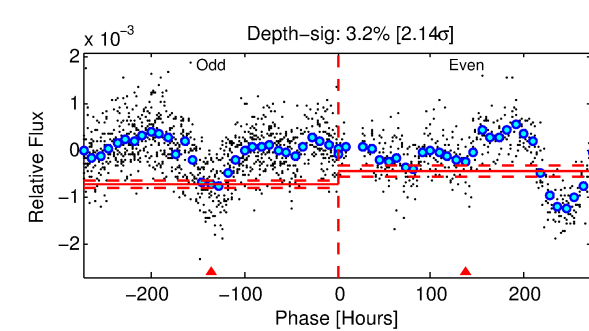
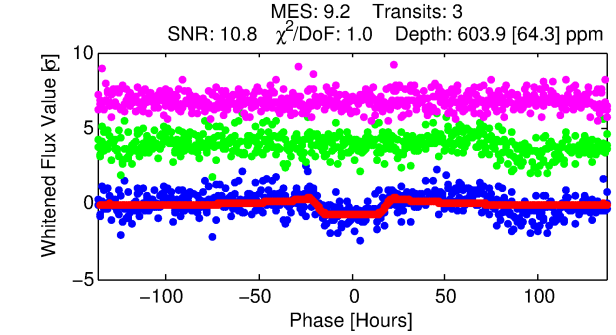
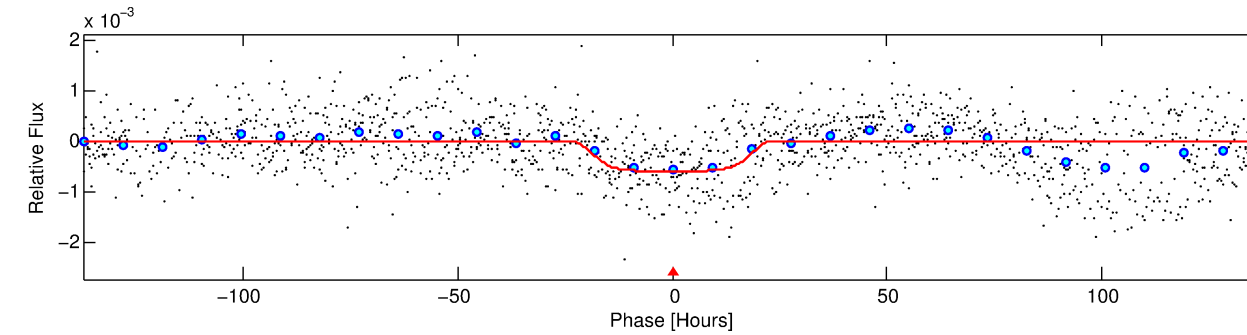
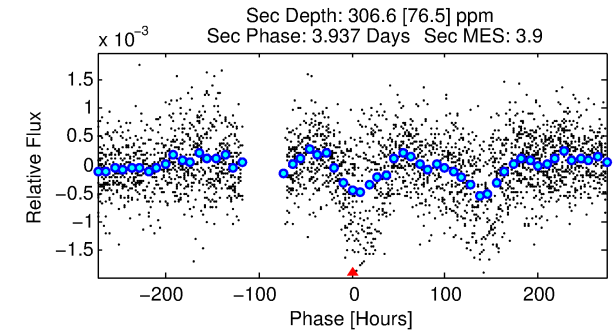
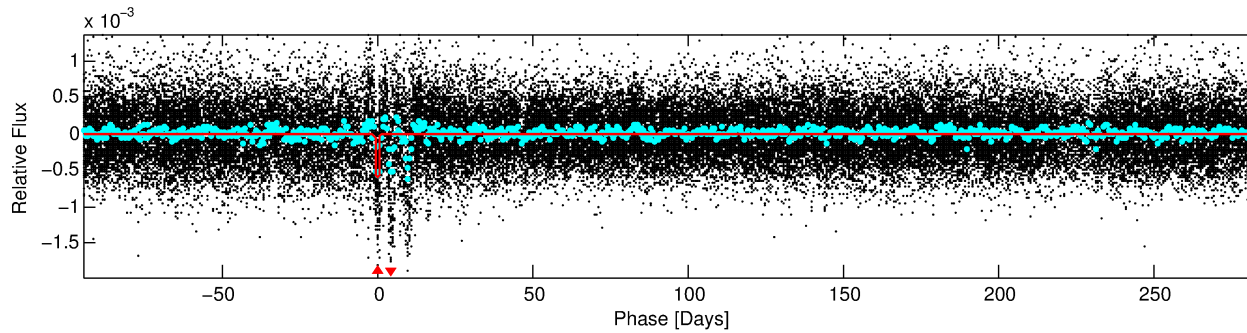
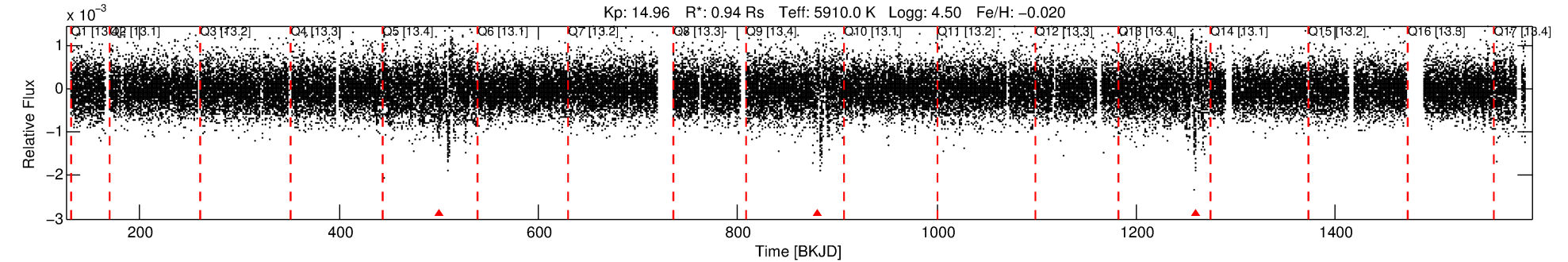
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008885394-01

No Significant Match Found

DV One-Page Summary

KIC: 8885394 Candidate: 1 of 1 Period: 379.613 d



DV Fit Results:

Period = 379.61333 [0.04626] d
Epoch = 499.8058 [0.0610] BKJD
Rp/R* = 0.0280 [0.0021]
a/R* = 26.50 [5.53]
b = 0.94 [0.03]
Seff = 0.90 [0.33]
Teq = 248 [23] K
Rp = 2.87 [0.80] Re
a = 1.0368 [0.2407] AU
Ag = 22047.75 [9941.84] [2.22σ]
Teffp = 4677 [372] K [11.88σ]

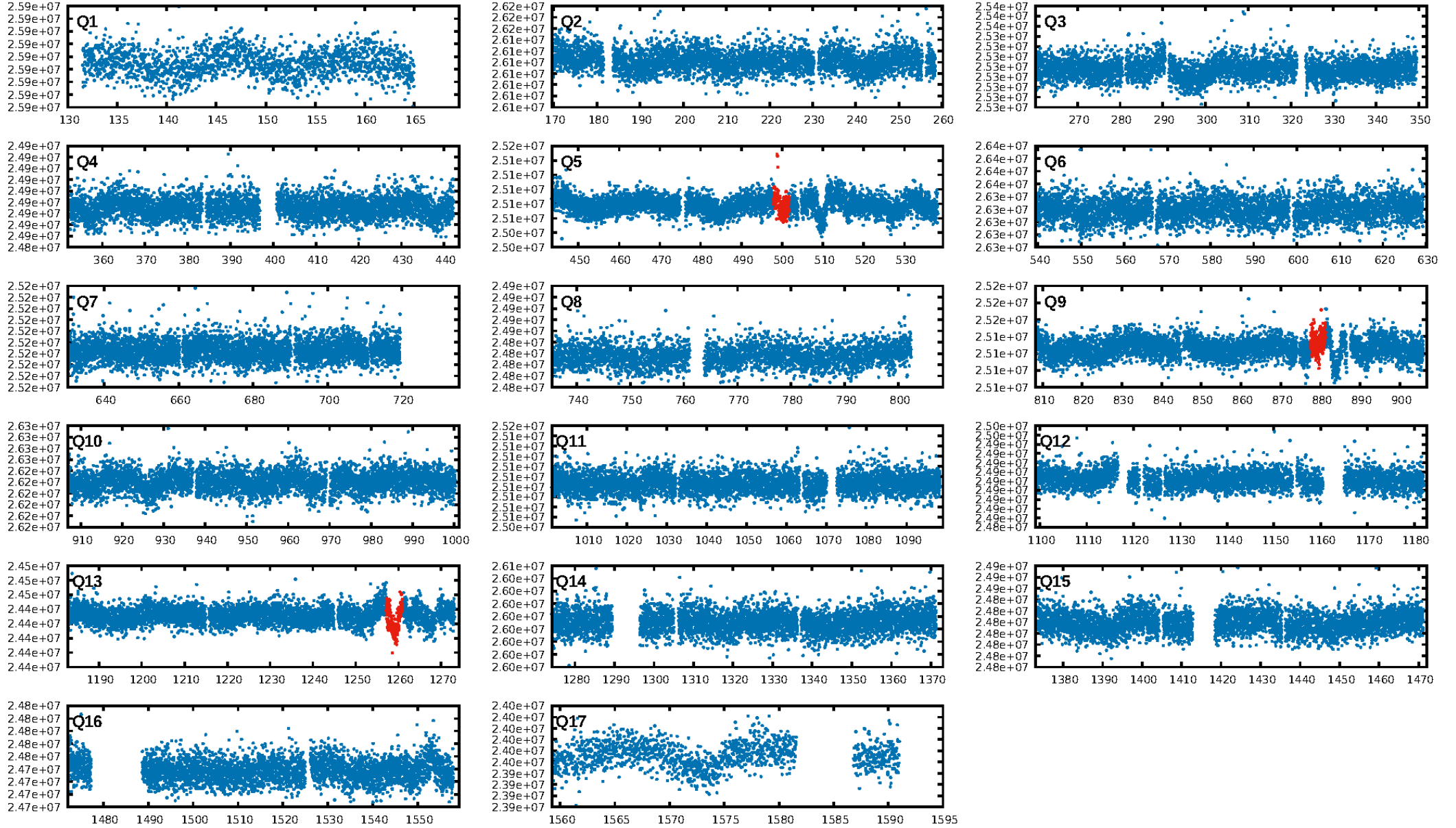
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.13e-12
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: -9.181
Centroid-sig: 1.6%
Centroid-so: 1.996 arcsec [1.51σ]
OotOffset-rm: 2.350 arcsec [29.42σ]
KicOffset-rm: 2.199 arcsec [27.52σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

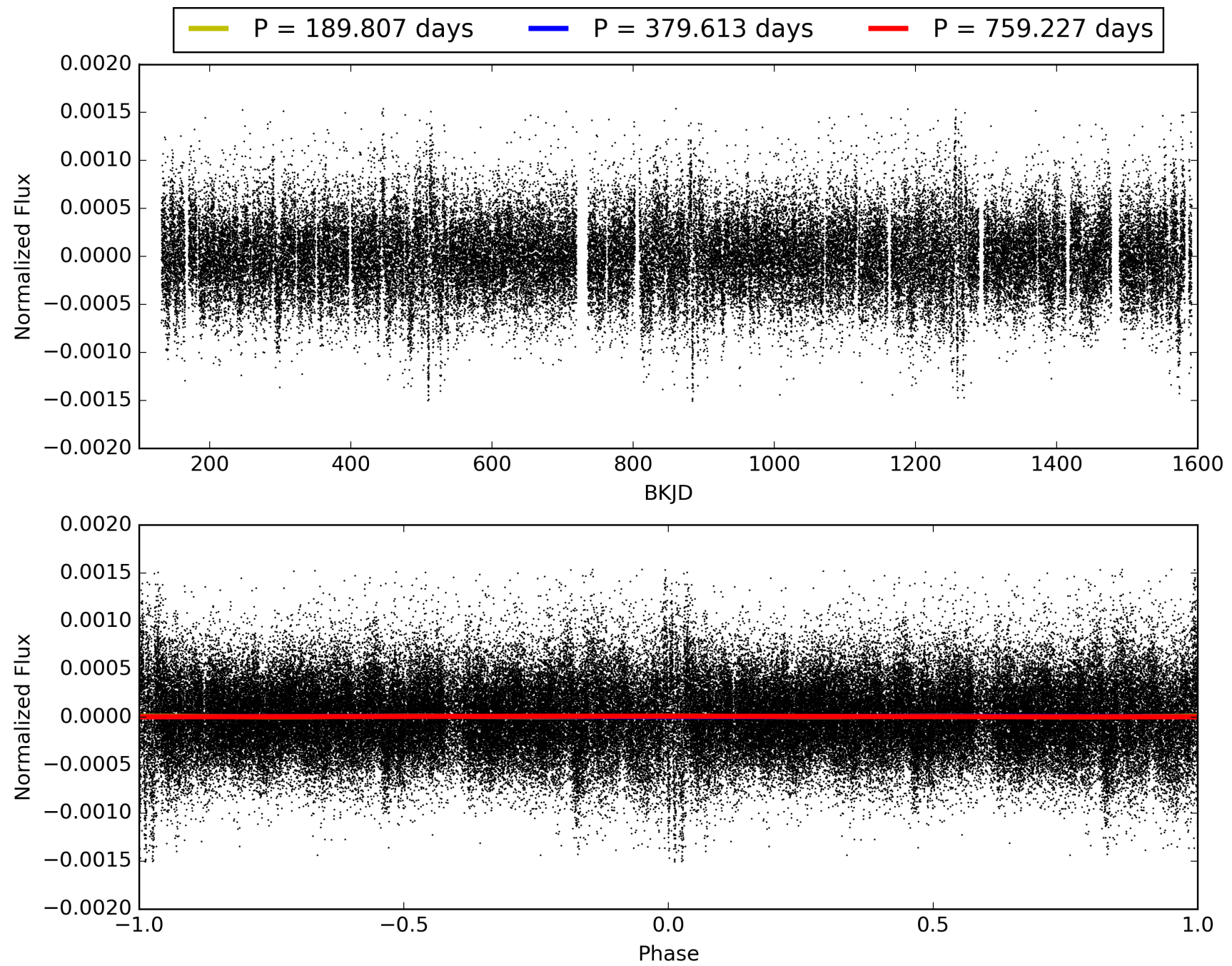
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:48:46 Z

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

TCE 008885394-01, PDC Light Curves

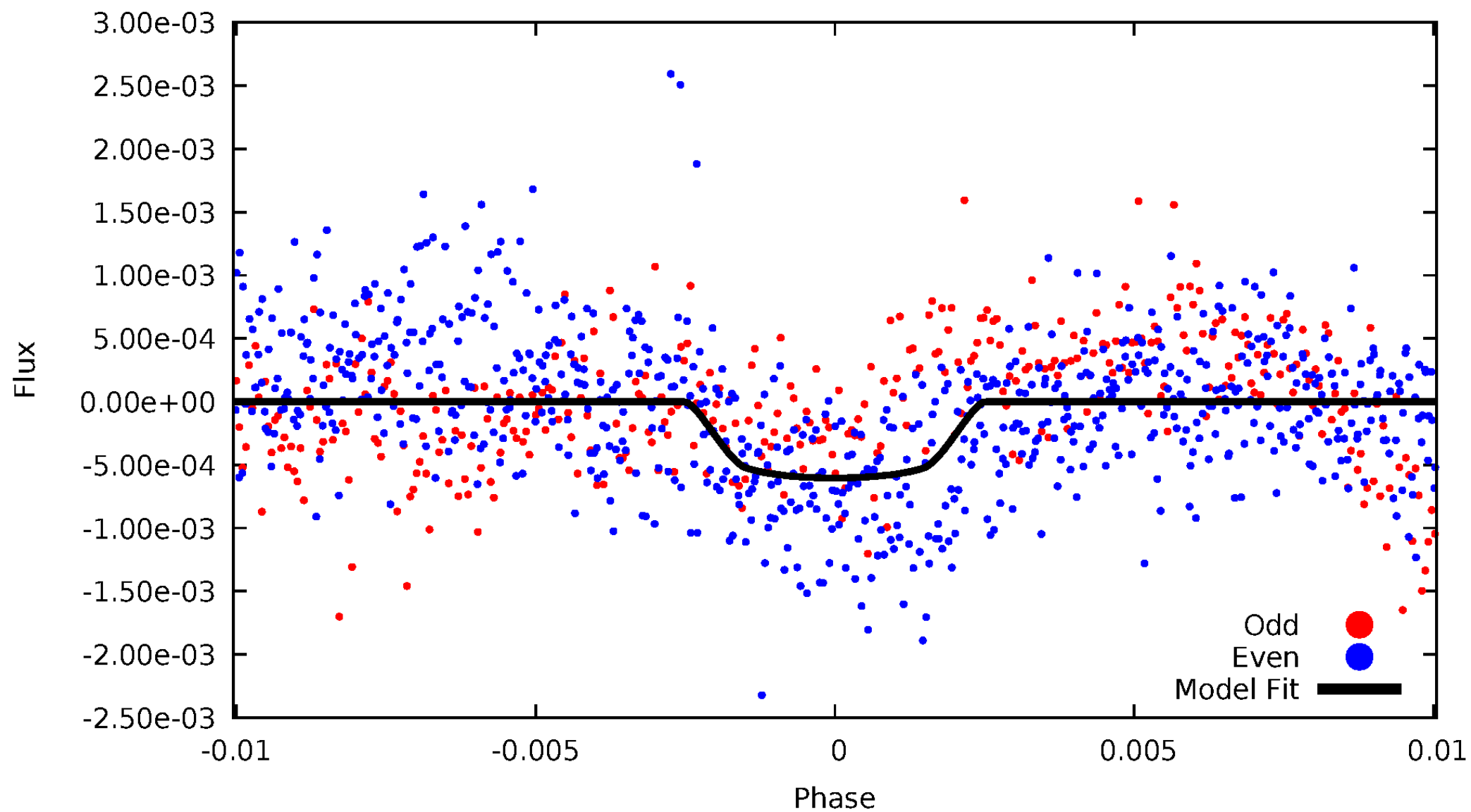


TCE 008885394-01



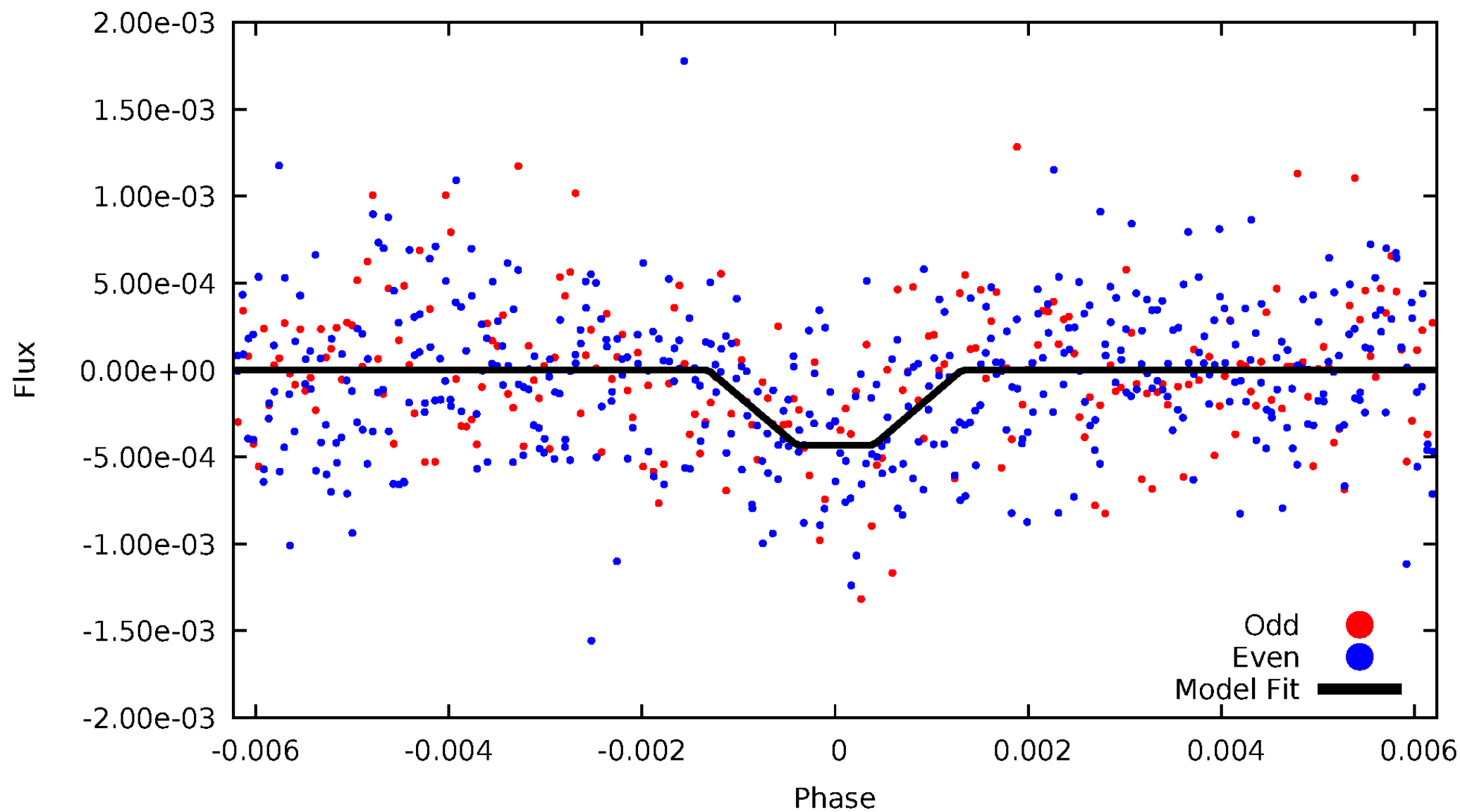
DV Odd/Even

TCE 008885394-01



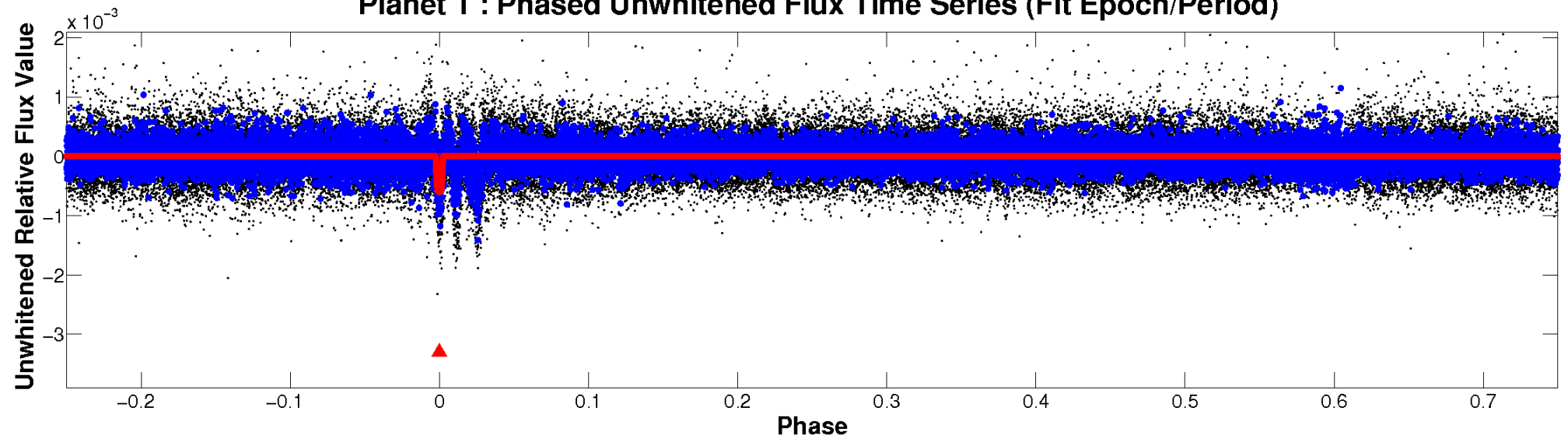
ALT Odd/Even

TCE 008885394-01

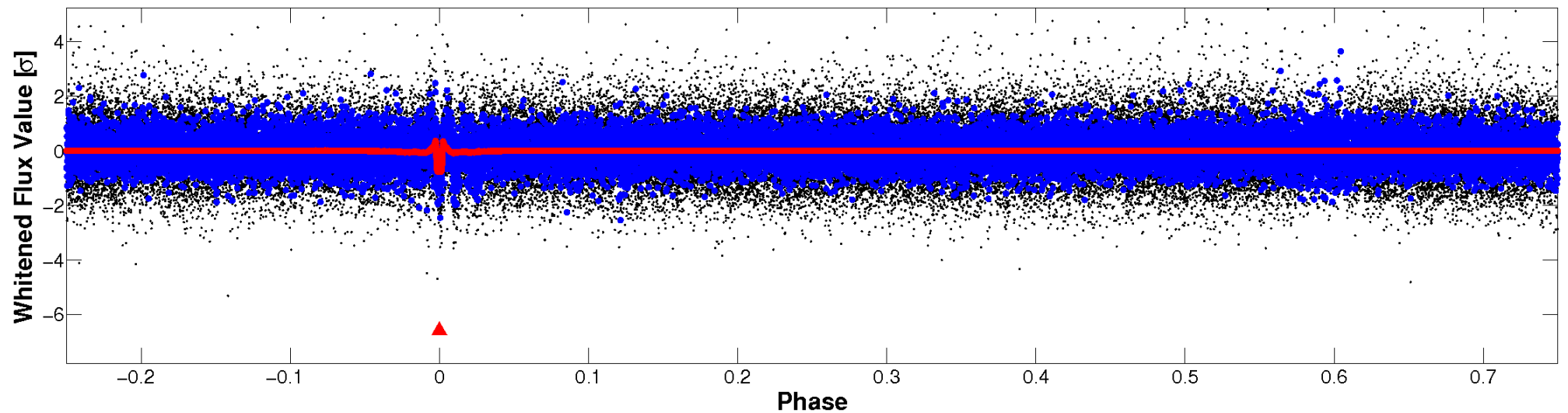


Non-Whitened Vs. Whitened Light Curve

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

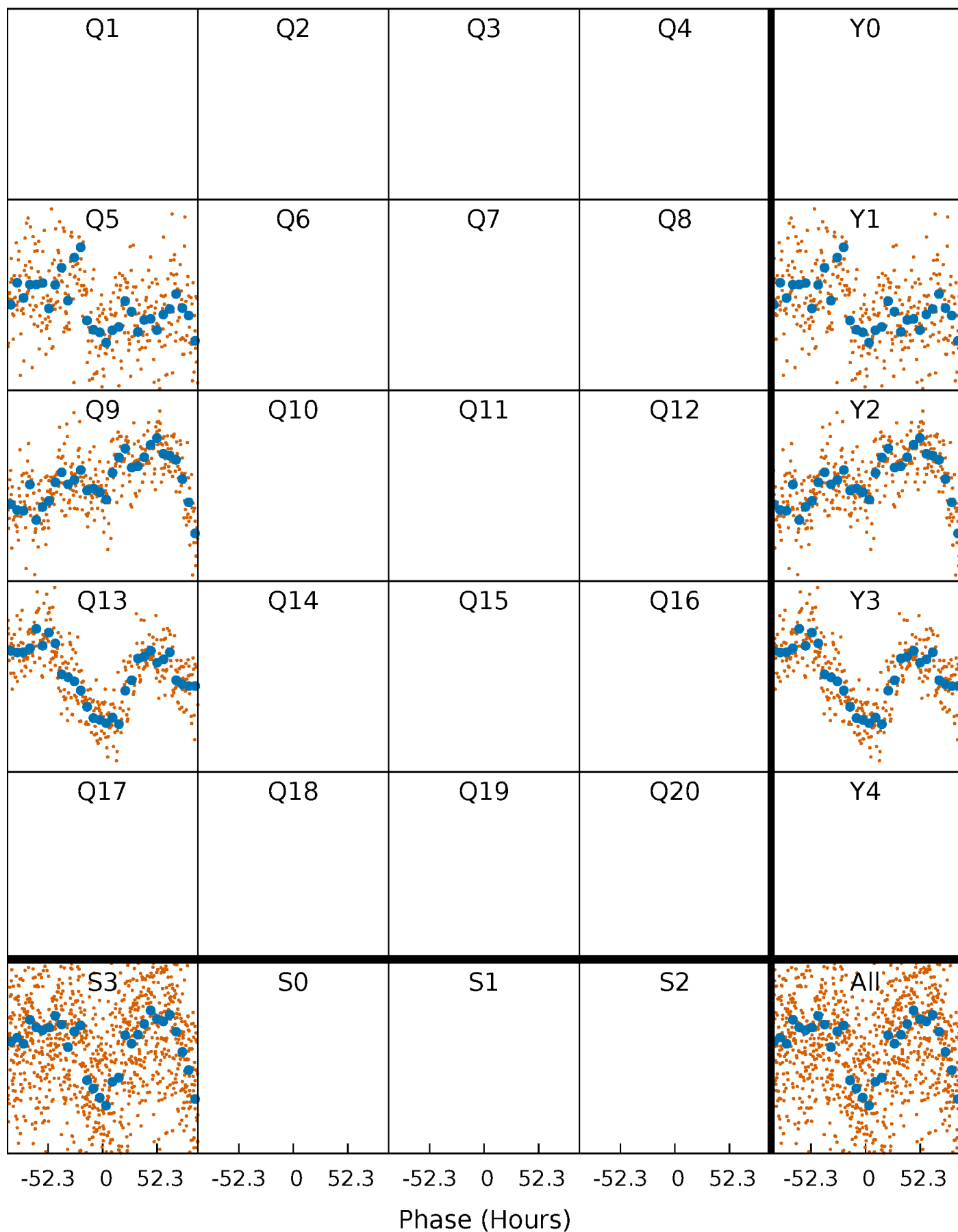


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



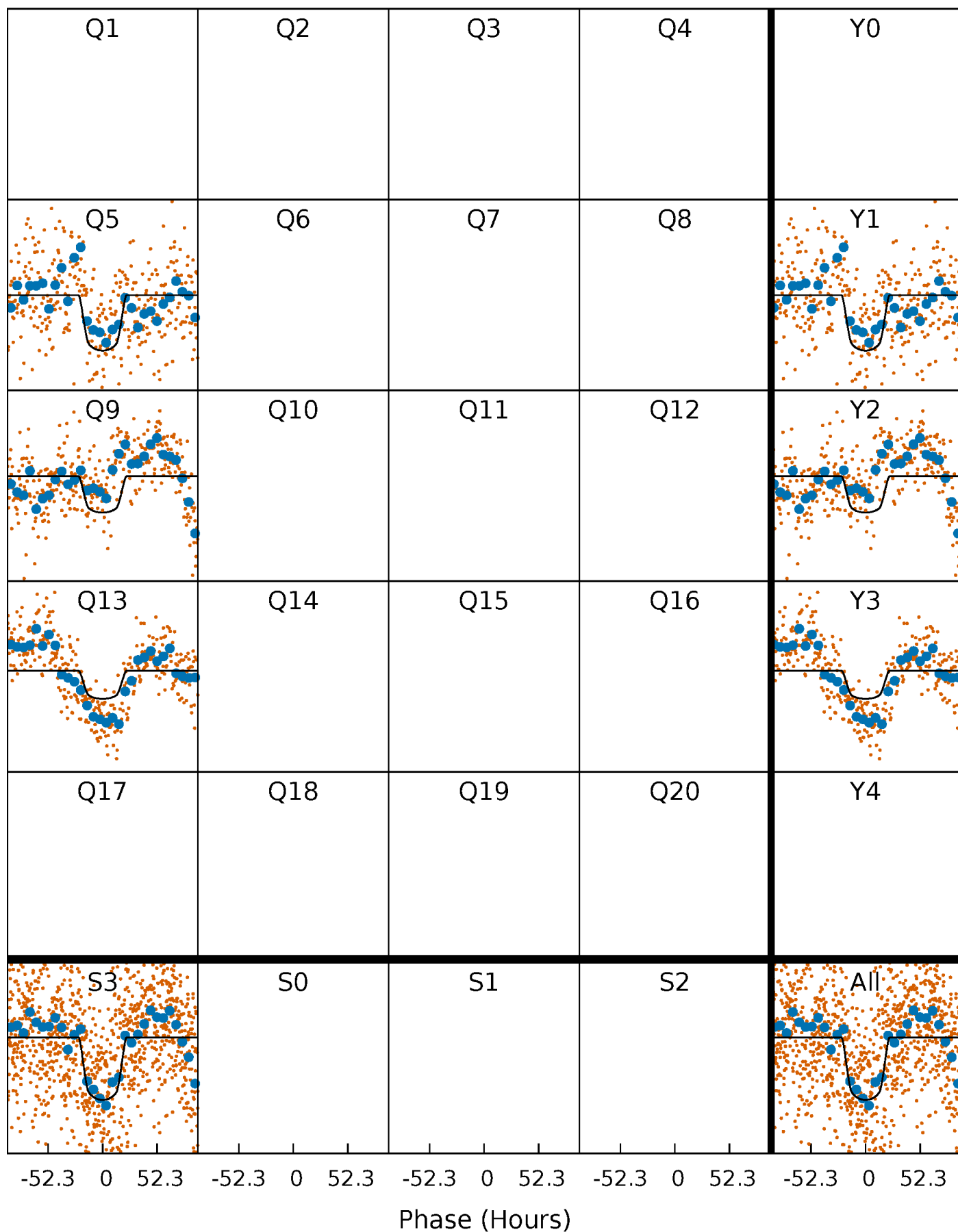
PDC Quarter-Phased Transit Curves

TCE 008885394-01 P=379.613331 Days $T_0=499.805755$ (BKJD)



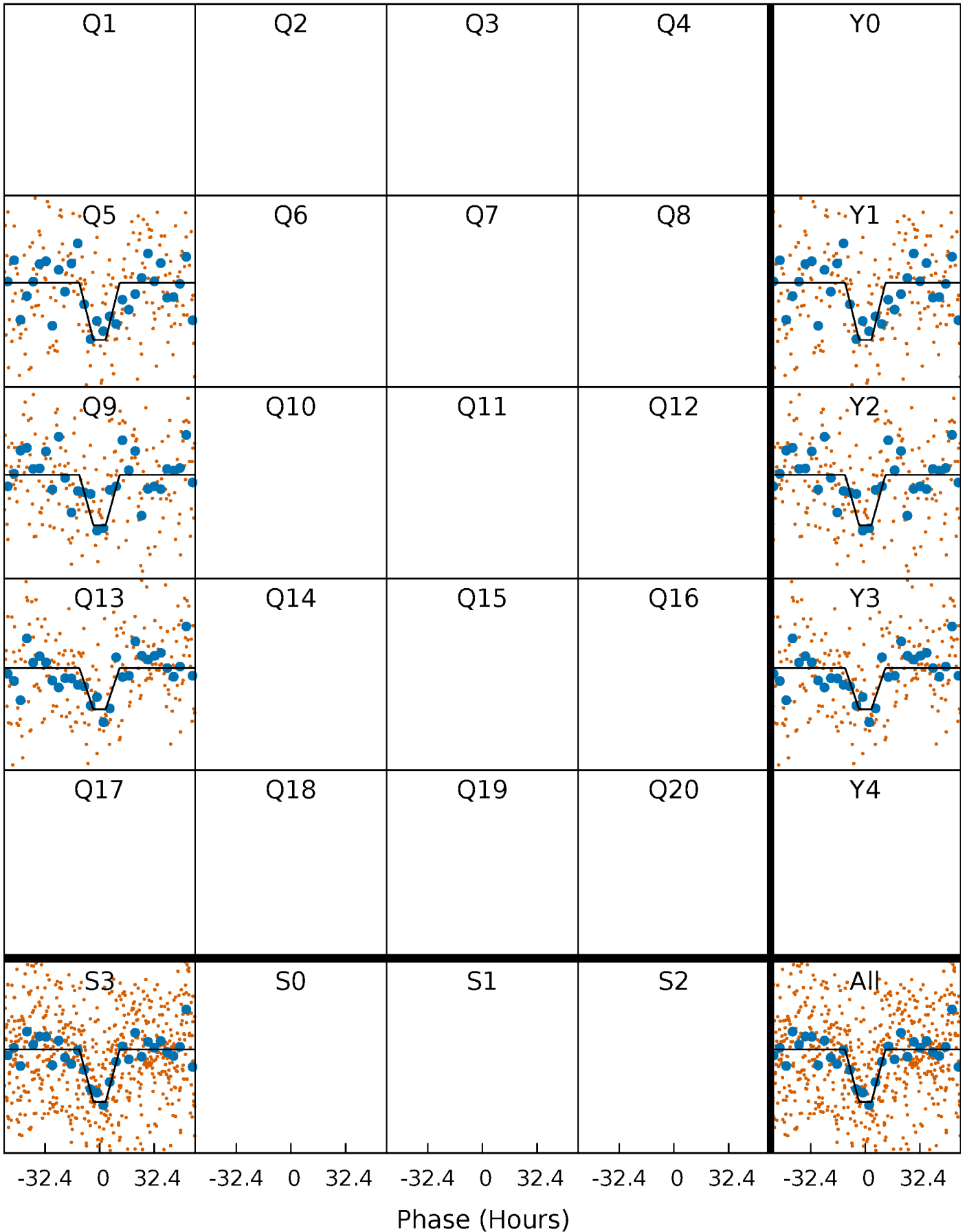
DV Quarter-Phased Transit Curves

TCE 008885394-01 P=379.613331 Days $T_0=499.805755$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

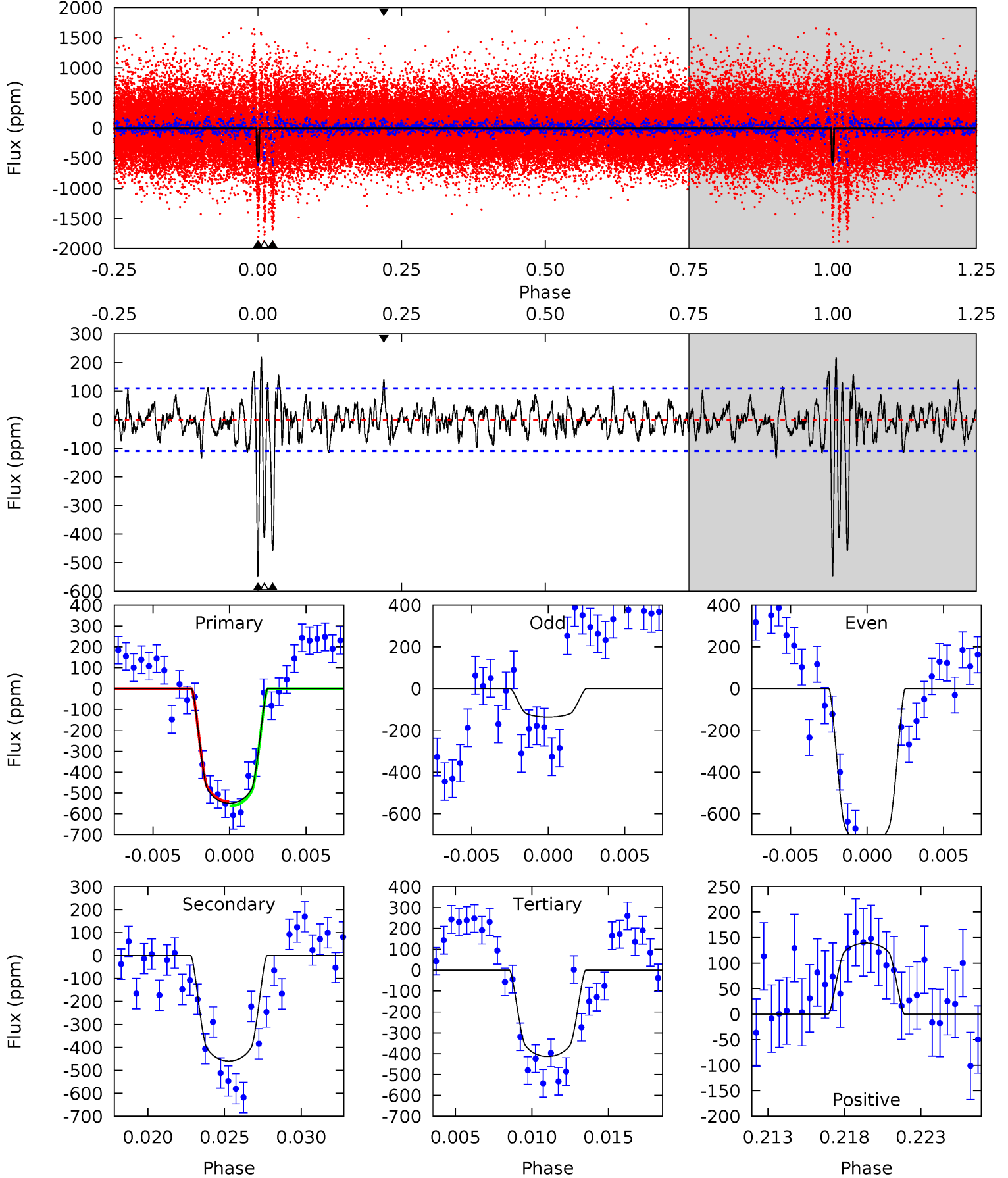
TCE 008885394-01 P=380.002915 Days $T_0=499.521505$ (BKJD)



DV Model-Shift Uniqueness Test

008885394-01, P = 379.613331 Days, E = 120.192424 Days

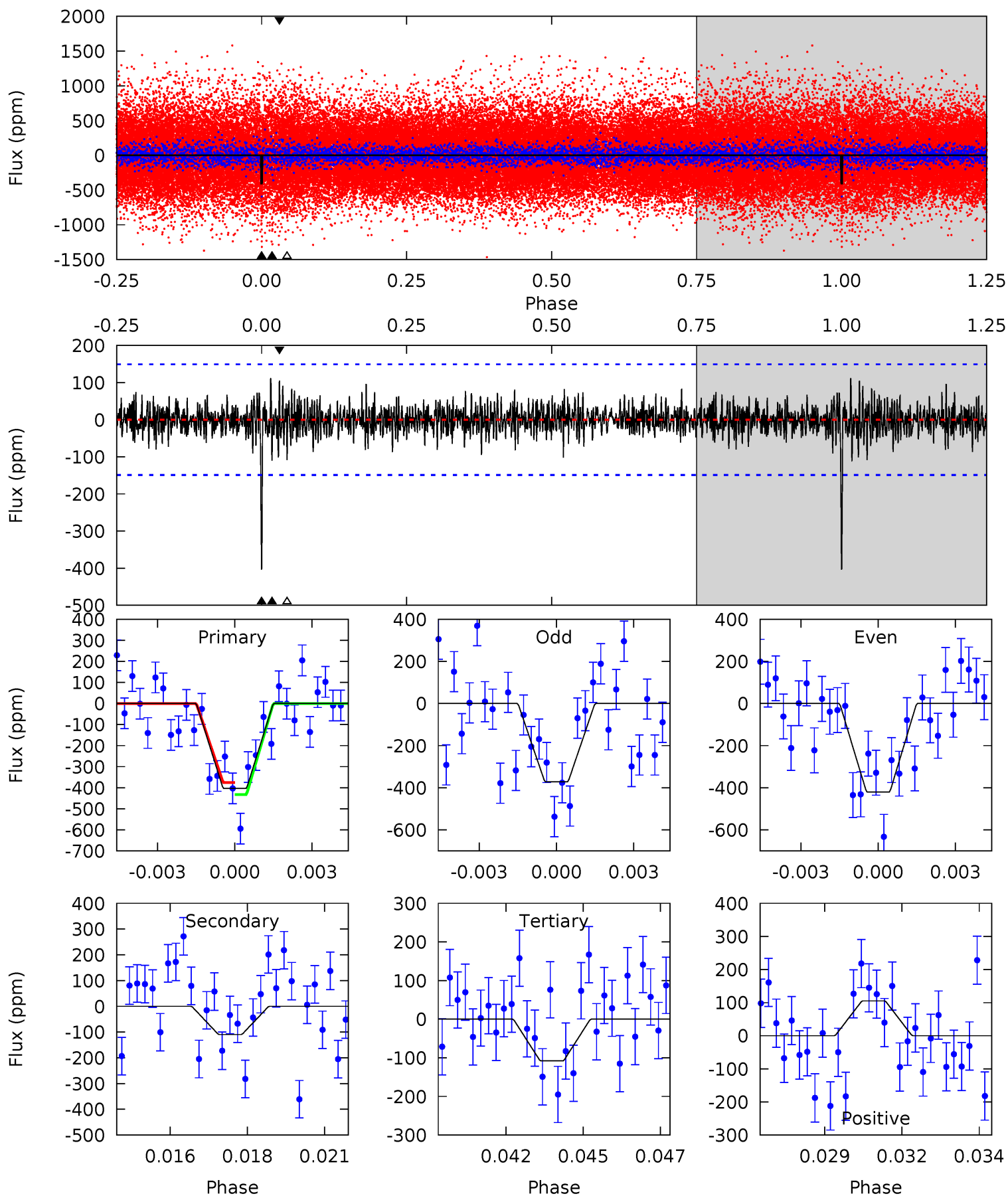
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.8	21.6	19.4	6.54	5.16	2.80	2.22	6.37	19.2	2.15	15.0	13.8	1.33	0.28	0.49



Alt Model-Shift Uniqueness Test

008885394-01, P = 380.002915 Days, E = 119.518590 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	3.88	3.82	3.72	5.28	3.01	1.00	10.5	10.6	0.06	0.16	0.82	1.03	0.22	1.00



Stellar Parameters For KIC 008885394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5910^{+158}_{-193}	$4.505^{+0.048}_{-0.192}$	$-0.020^{+0.250}_{-0.300}$	$0.940^{+0.253}_{-0.101}$	$1.032^{+0.117}_{-0.128}$	$1.750^{+0.429}_{-0.844}$
	+3%/-3%	+1%/-4%	+1250%/-1500%	+27%/-11%	+11%/-12%	+25%/-48%
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 008885394-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-459 ± 21	$3.00^{+0.45}_{-0.34}$	354^{+22}_{-16}	5207^{+241}_{-222}	29804^{+7403}_{-6844}
Alt.	-110 ± 28	$2.23^{+0.36}_{-0.30}$	354^{+23}_{-17}	4382^{+313}_{-277}	12579^{+5543}_{-3977}

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 $A_{obs} \gg 1.0$

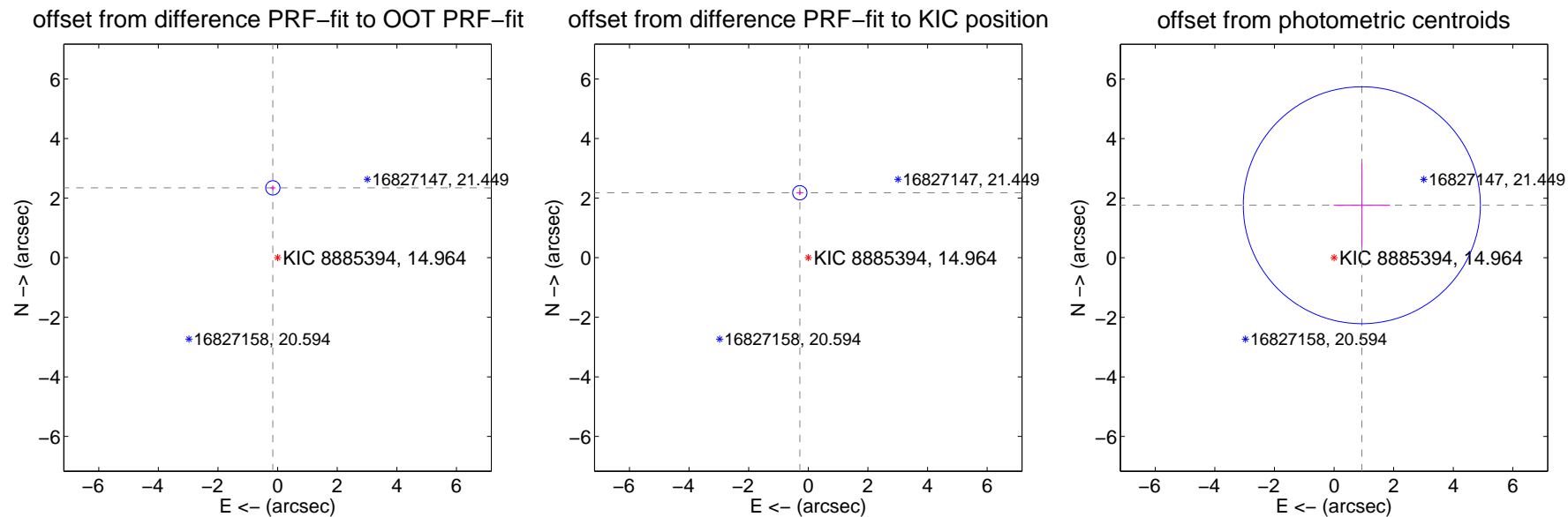
DV Centroid Data

Supplemental centroid analysis for 008885394-01. Kepler magnitude: 14.96. Transit SNR 10.78

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.350 ± 0.080	29.42	0.160 ± 0.083	2.344 ± 0.080
PRF-fit source offset from KIC position	2.199 ± 0.080	27.52	0.285 ± 0.083	2.181 ± 0.080
photometric centroid source offset	2.00 ± 1.33	1.51	-0.93 ± 0.95	1.76 ± 1.41

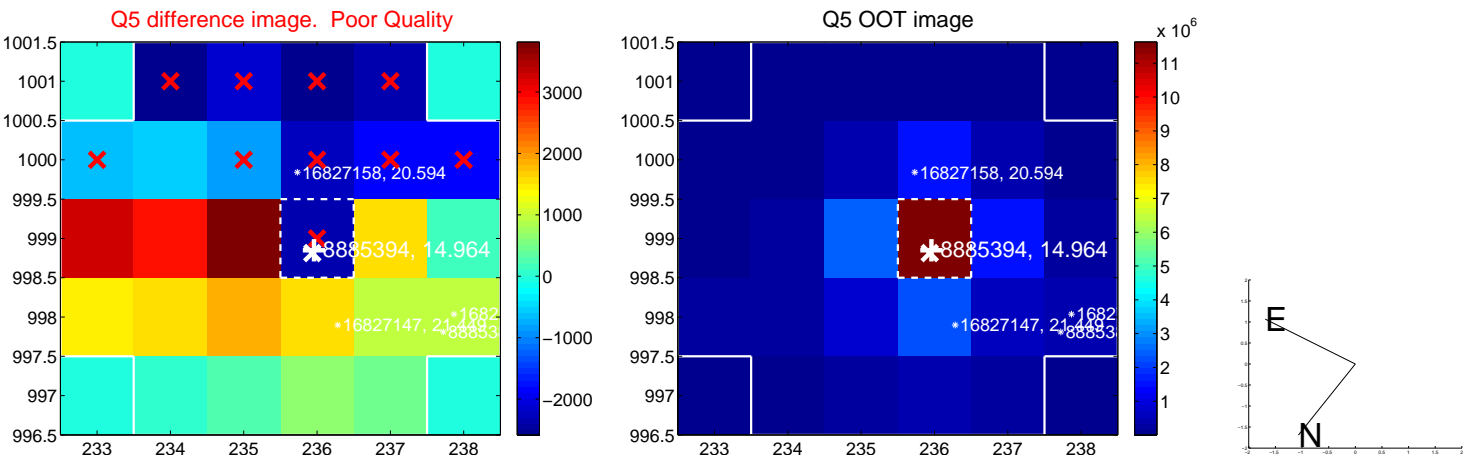


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

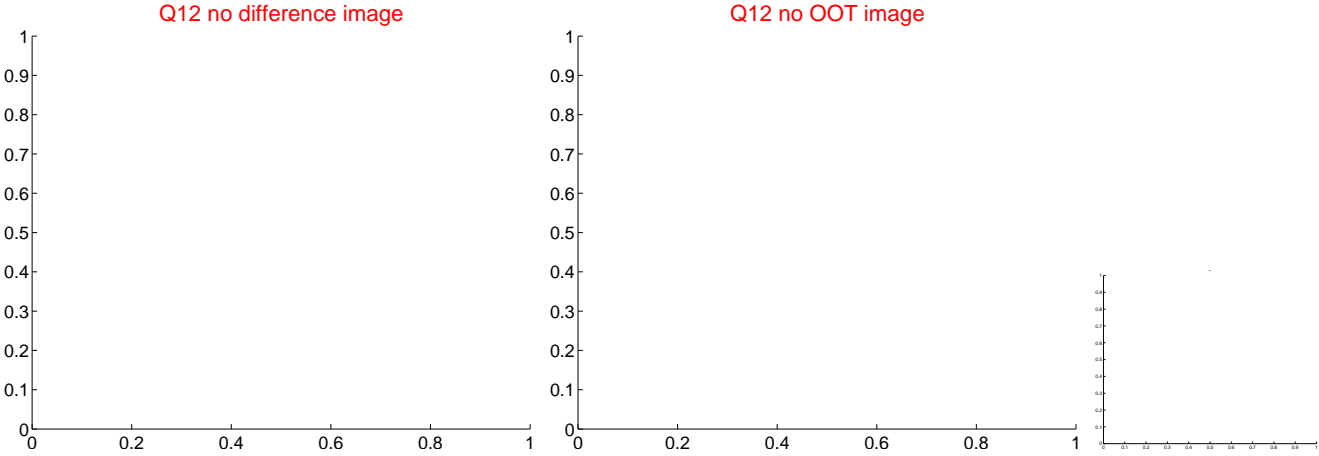
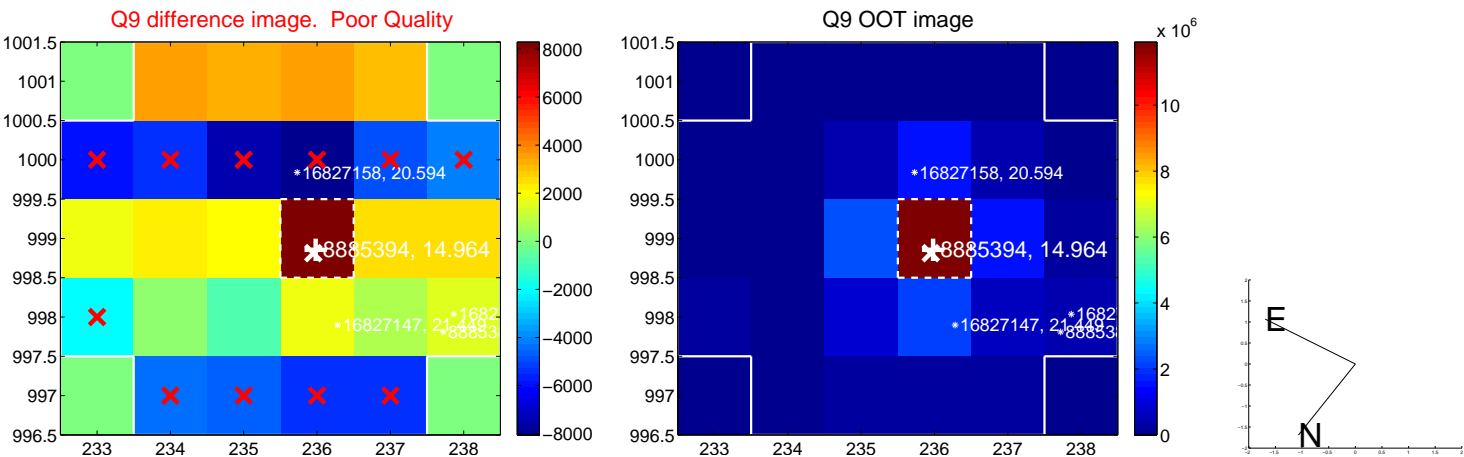
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



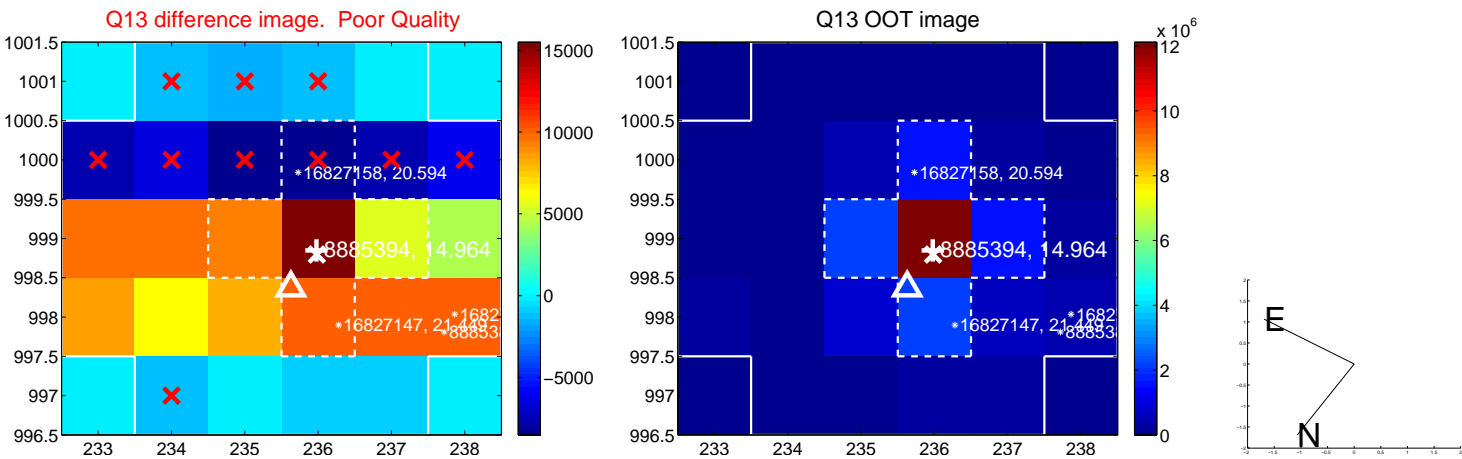
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



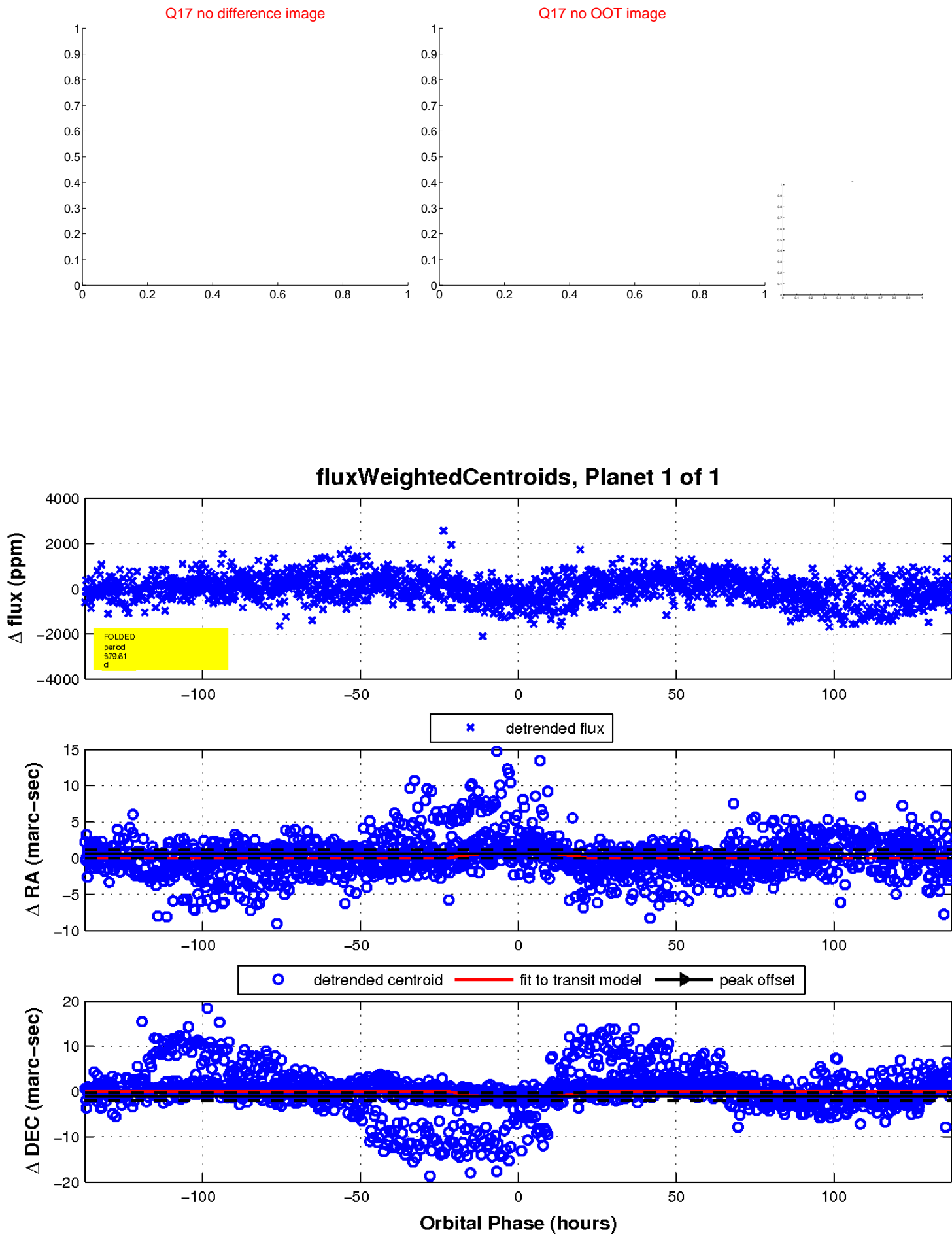
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

Declination

