

KIC 011512103

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})
011512103-01	OBS	No	311.216680	160.127681	3195.1	9.961	10.8	8.6	0.91	5674	5.43	0.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011512103-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_TER_DV—MOD_POS_DV—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.

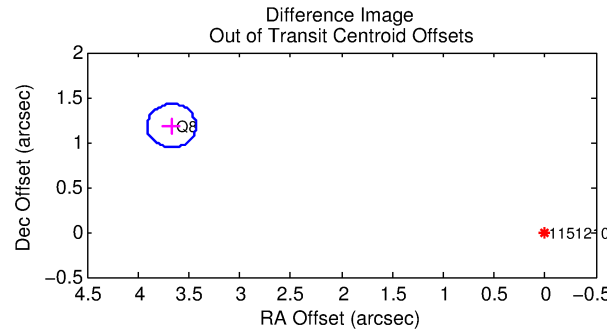
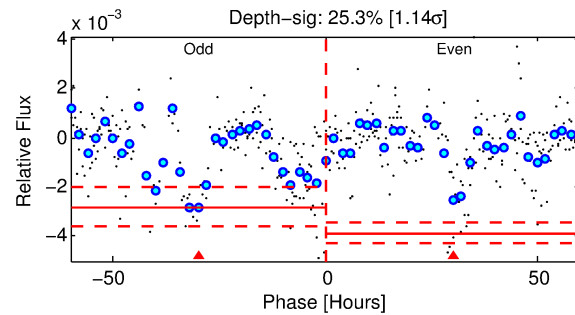
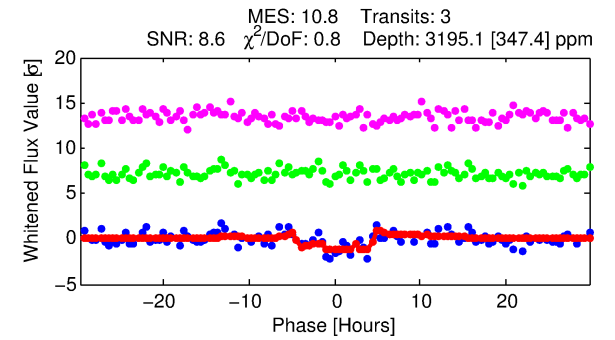
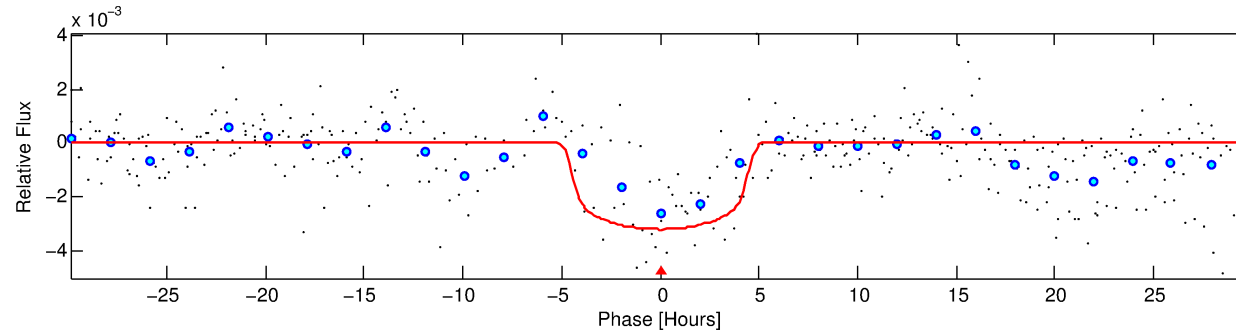
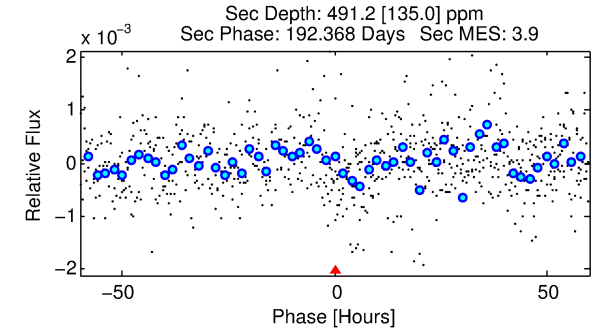
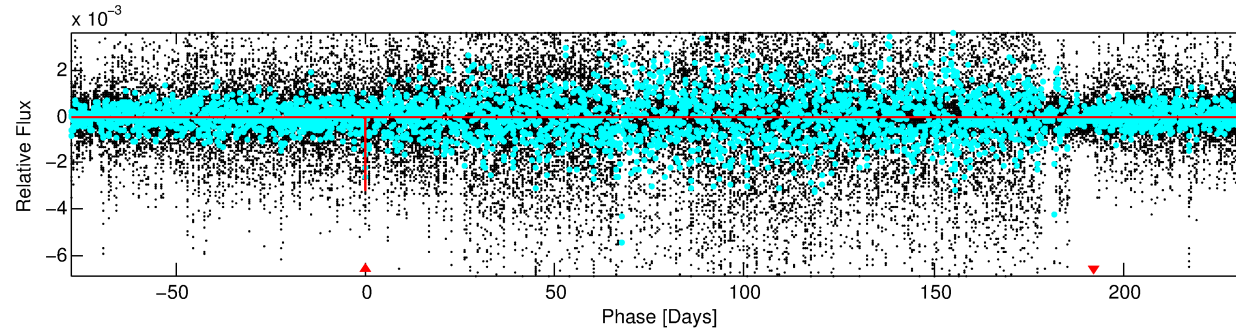
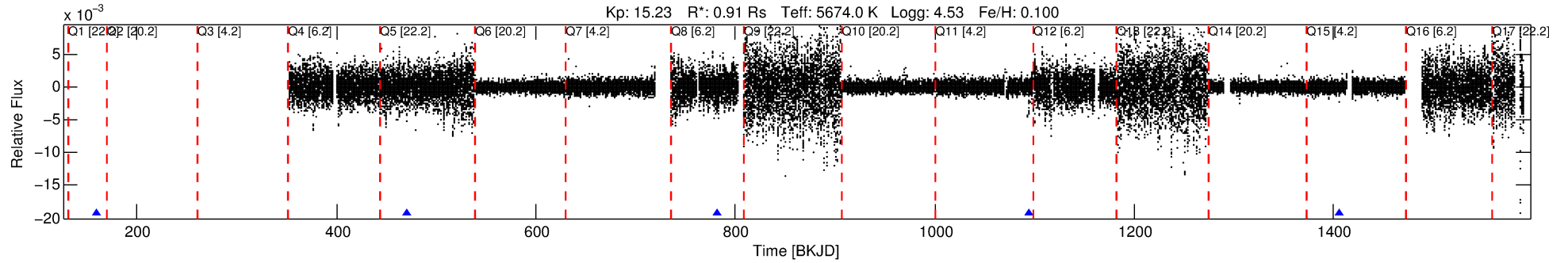
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011512103-01

No Significant Match Found

DV One-Page Summary

KIC: 11512103 Candidate: 1 of 1 Period: 311.217 d



DV Fit Results:

Period = 311.21668 [0.00792] d
Epoch = 160.1277 [0.0180] BKJD
Rp/R* = 0.0549 [0.0059]
a/R* = 192.55 [69.05]
b = 0.68 [0.29]
Seff = 0.94 [0.36]
Teq = 251 [24] K
Rp = 5.43 [1.69] Re
a = 0.8998 [0.2194] AU
Ag = 7413.59 [3677.47] [2.02σ]
Teffp = 3603 [340] K [9.83σ]

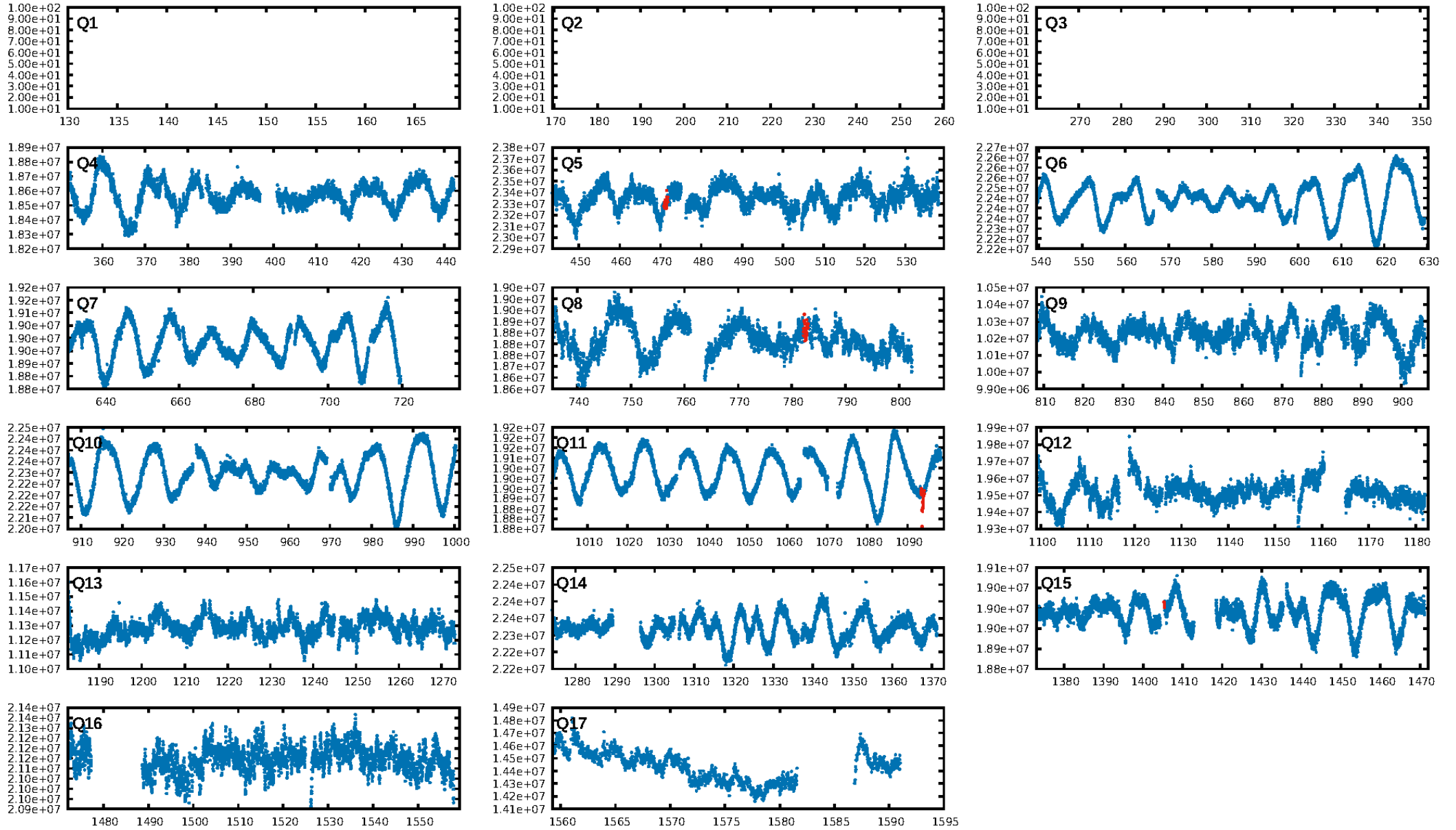
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.54e-17
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.373
Centroid-sig: 0.1%
Centroid-so: 4.994 arcsec [10.64σ]
OotOffset-rm: 3.855 arcsec [48.00σ]
KicOffset-rm: 6.281 arcsec [77.82σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

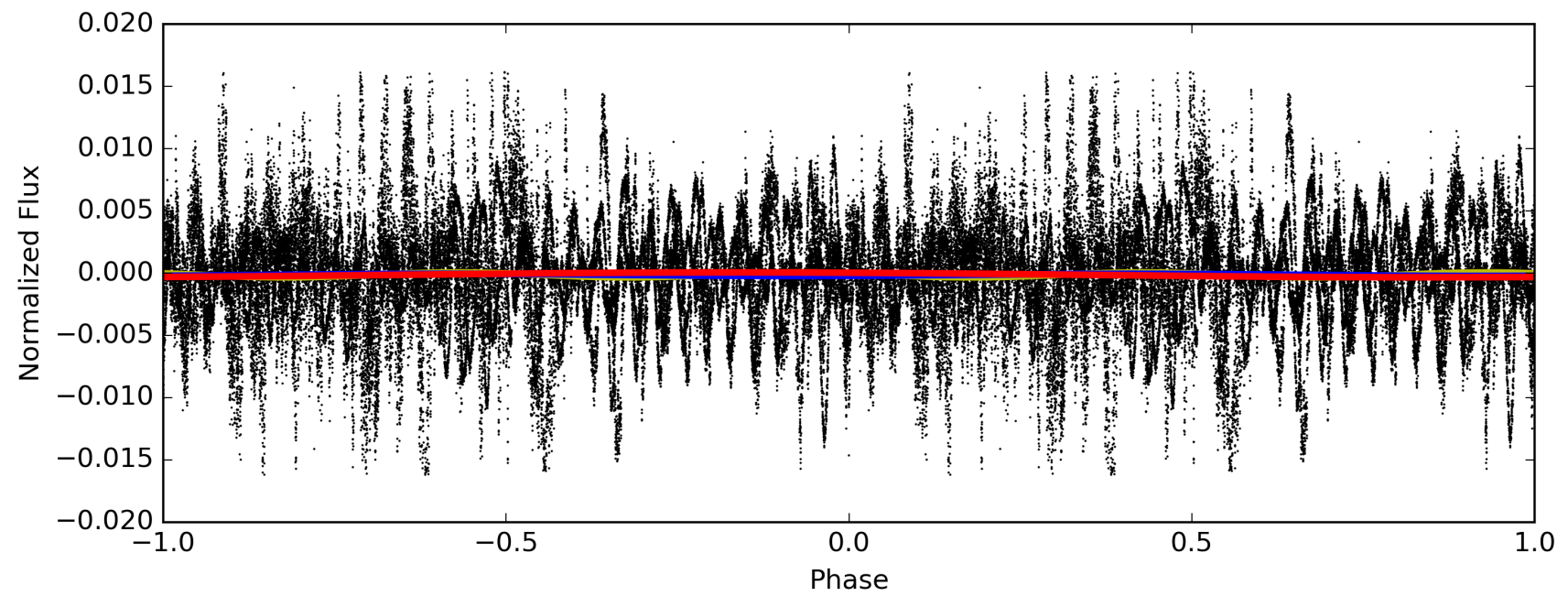
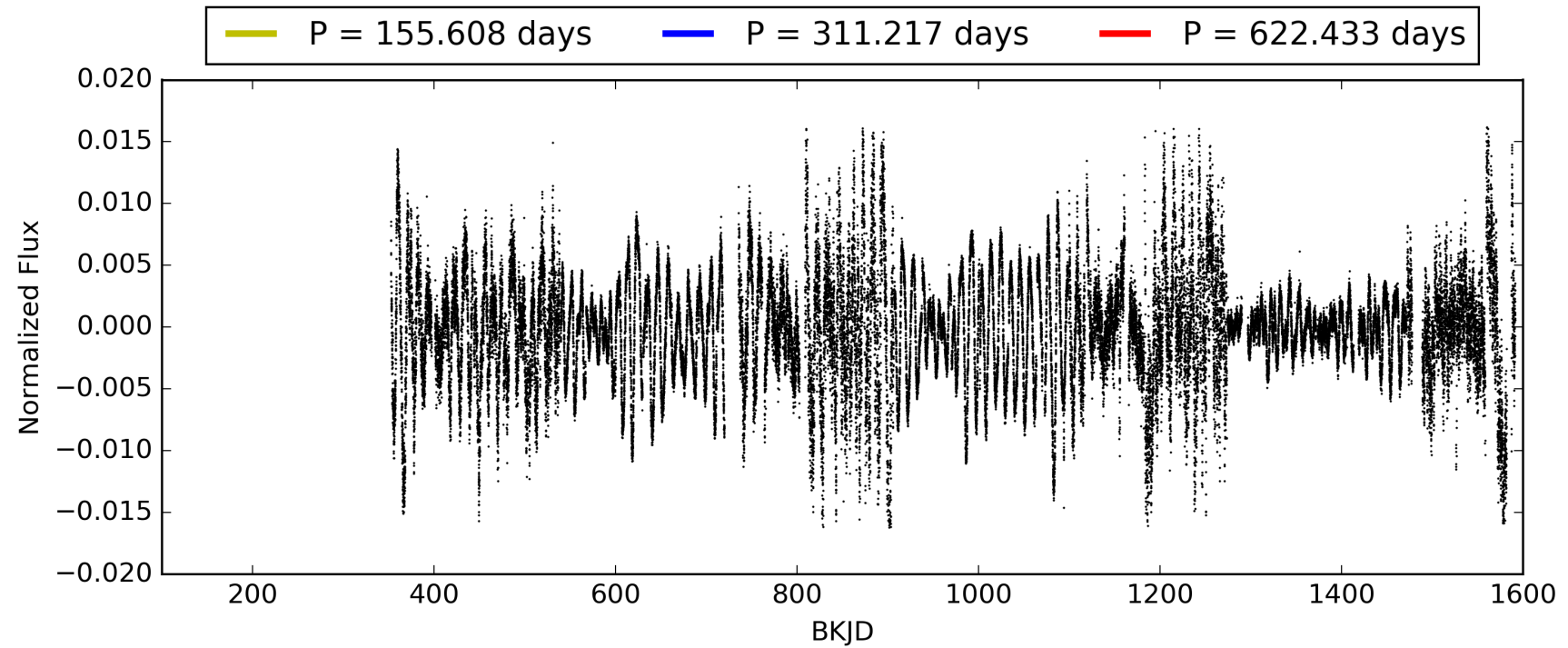
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:00:15 Z

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

TCE 011512103-01, PDC Light Curves

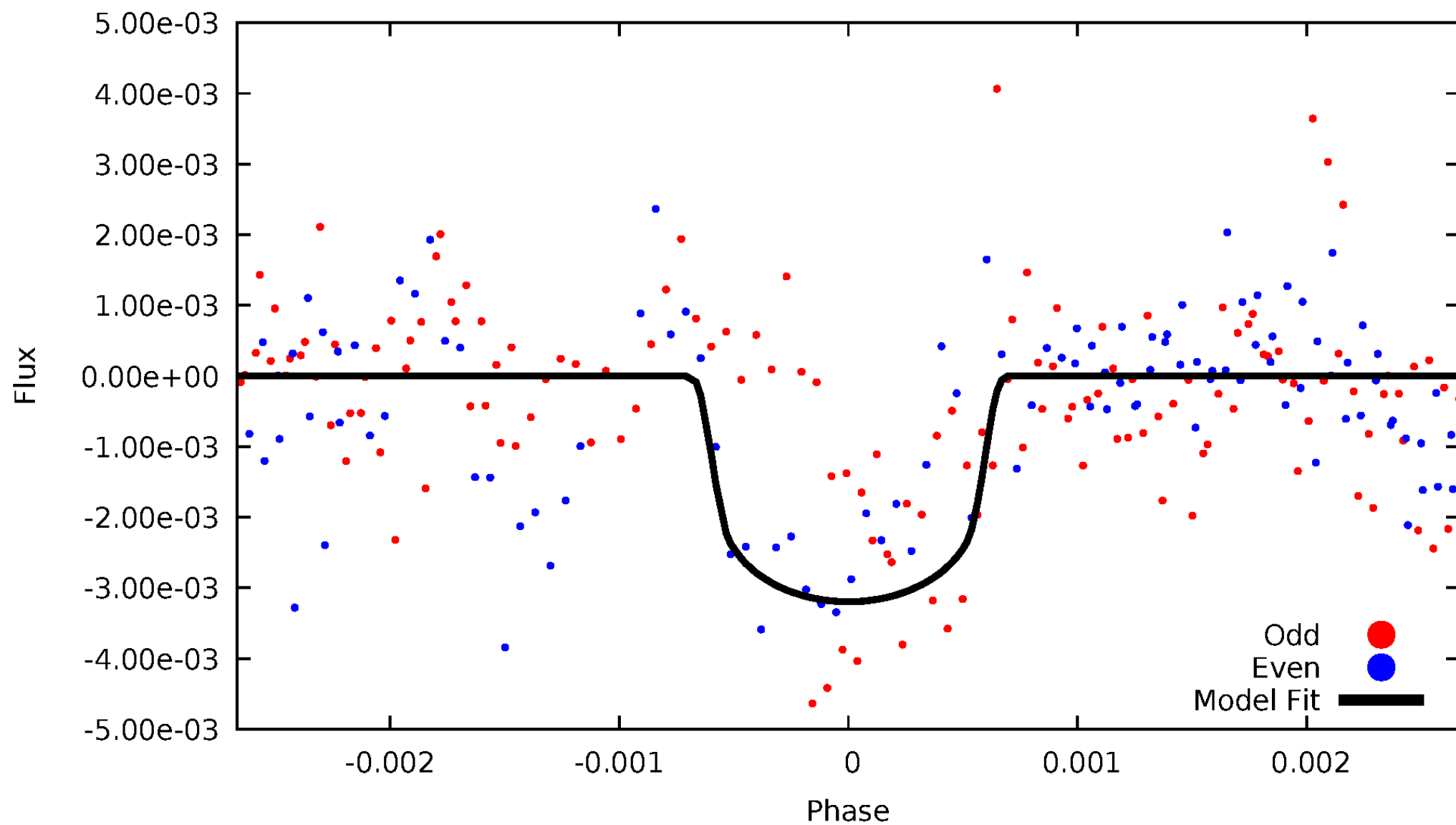


TCE 011512103-01



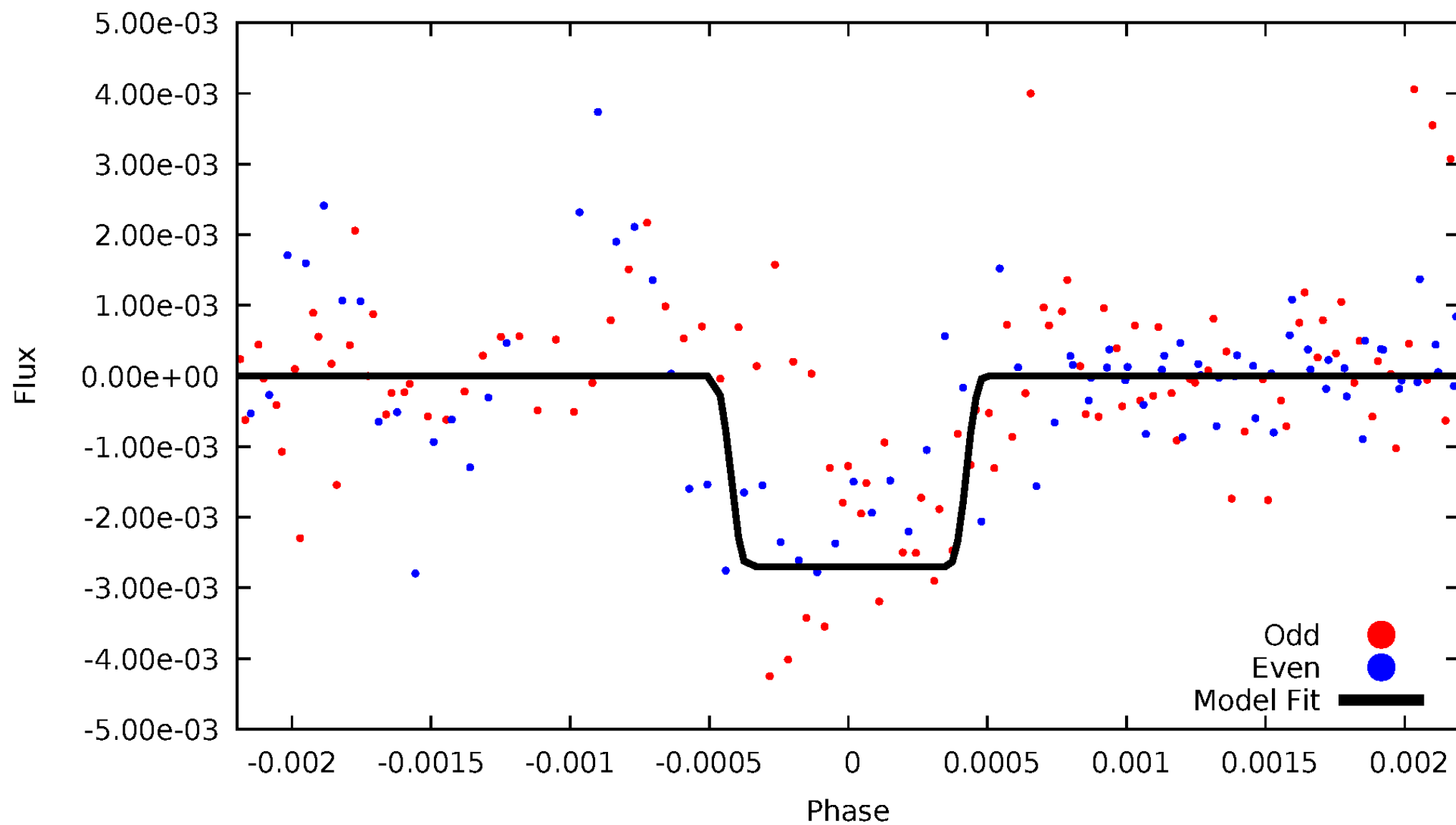
DV Odd/Even

TCE 011512103-01



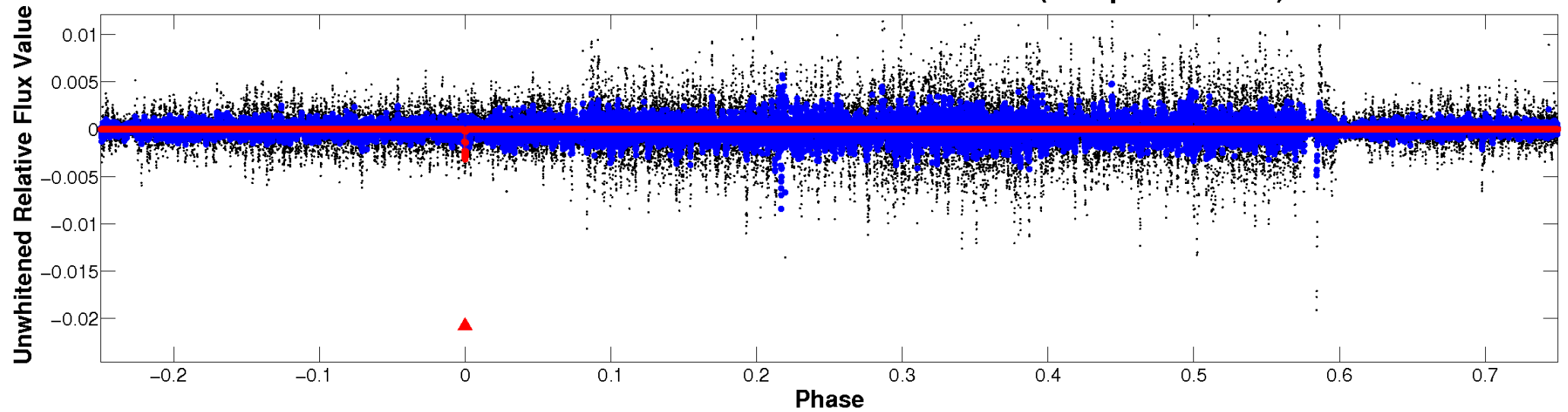
ALT Odd/Even

TCE 011512103-01

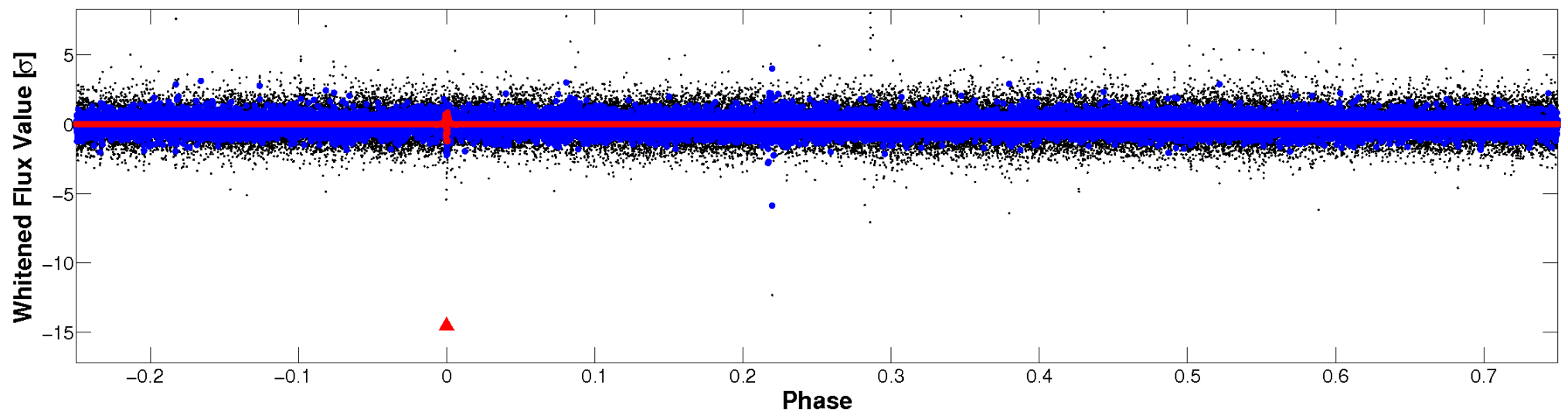


Non-Whitened Vs. Whitened Light Curve

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

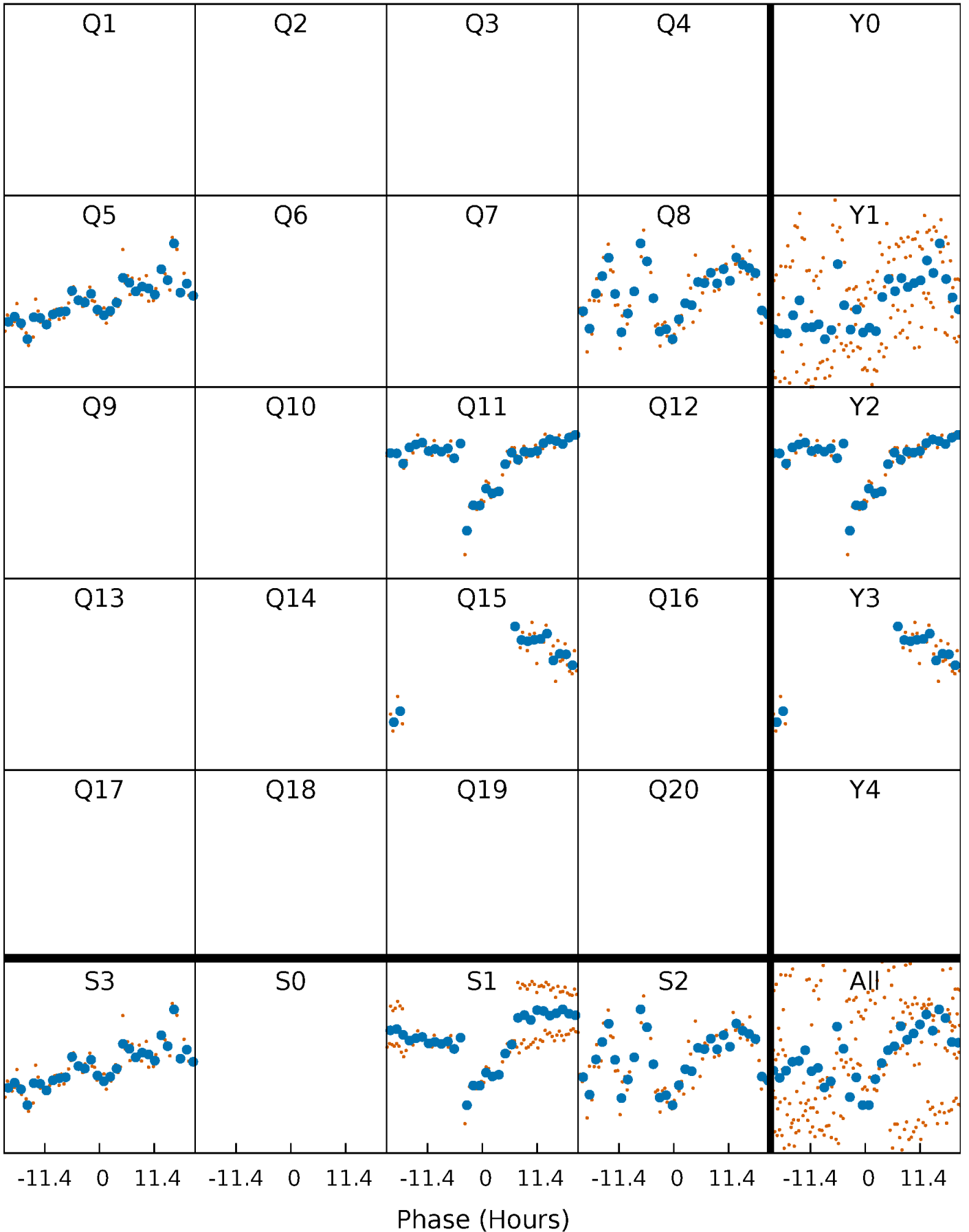


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



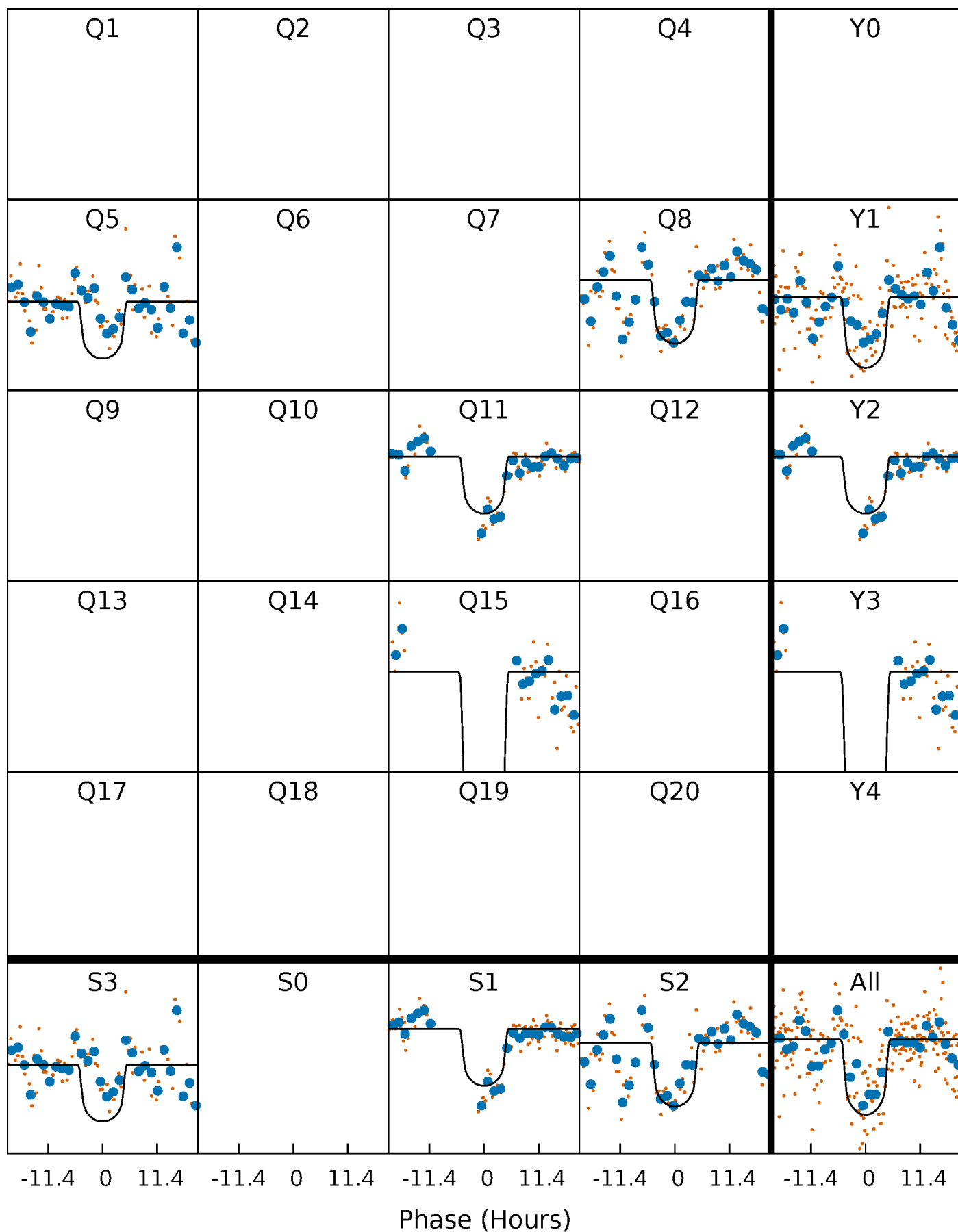
PDC Quarter-Phased Transit Curves

TCE 011512103-01 P=311.216680 Days $T_0=160.127680$ (BKJD)



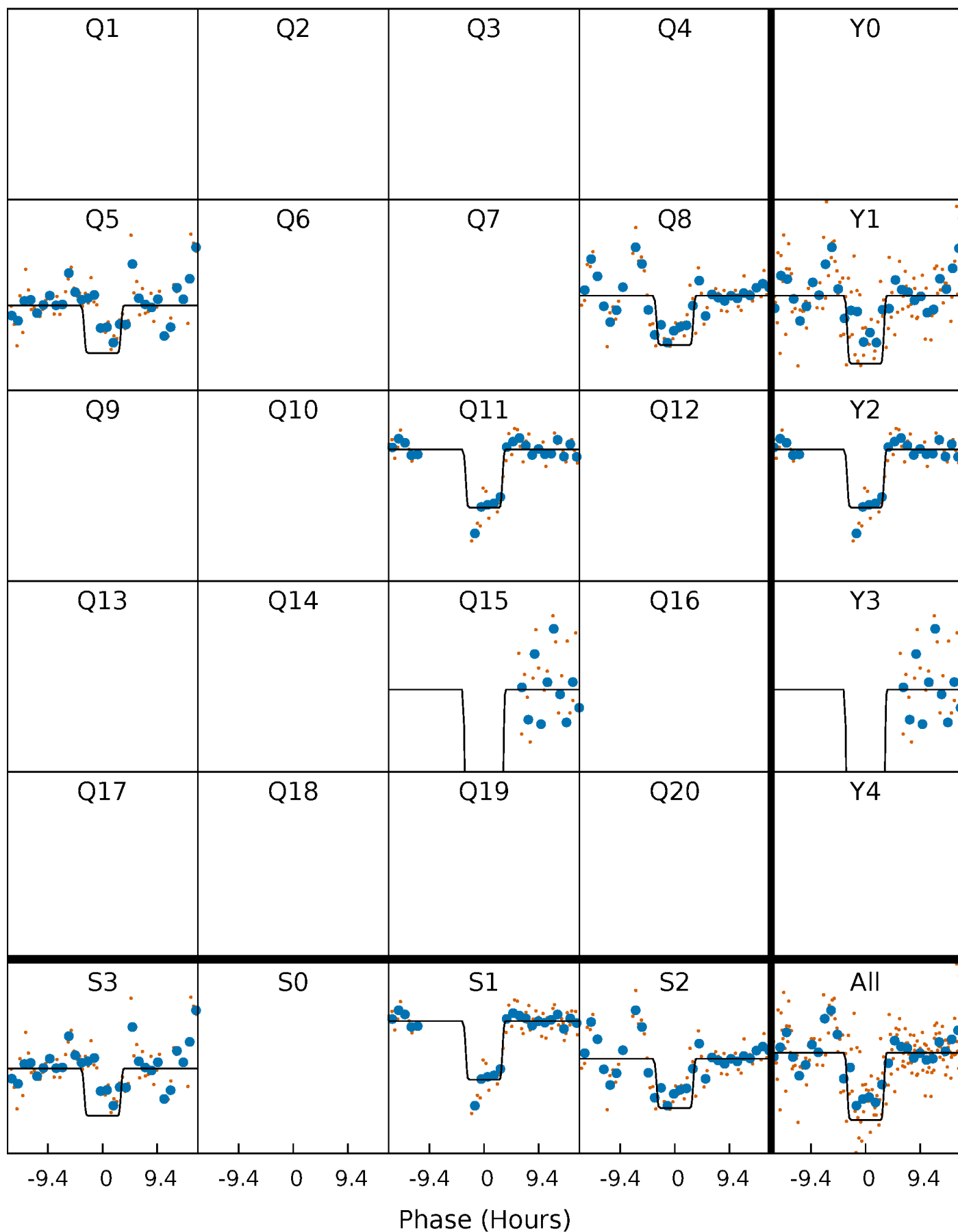
DV Quarter-Phased Transit Curves

TCE 011512103-01 P=311.216680 Days $T_0=160.127680$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

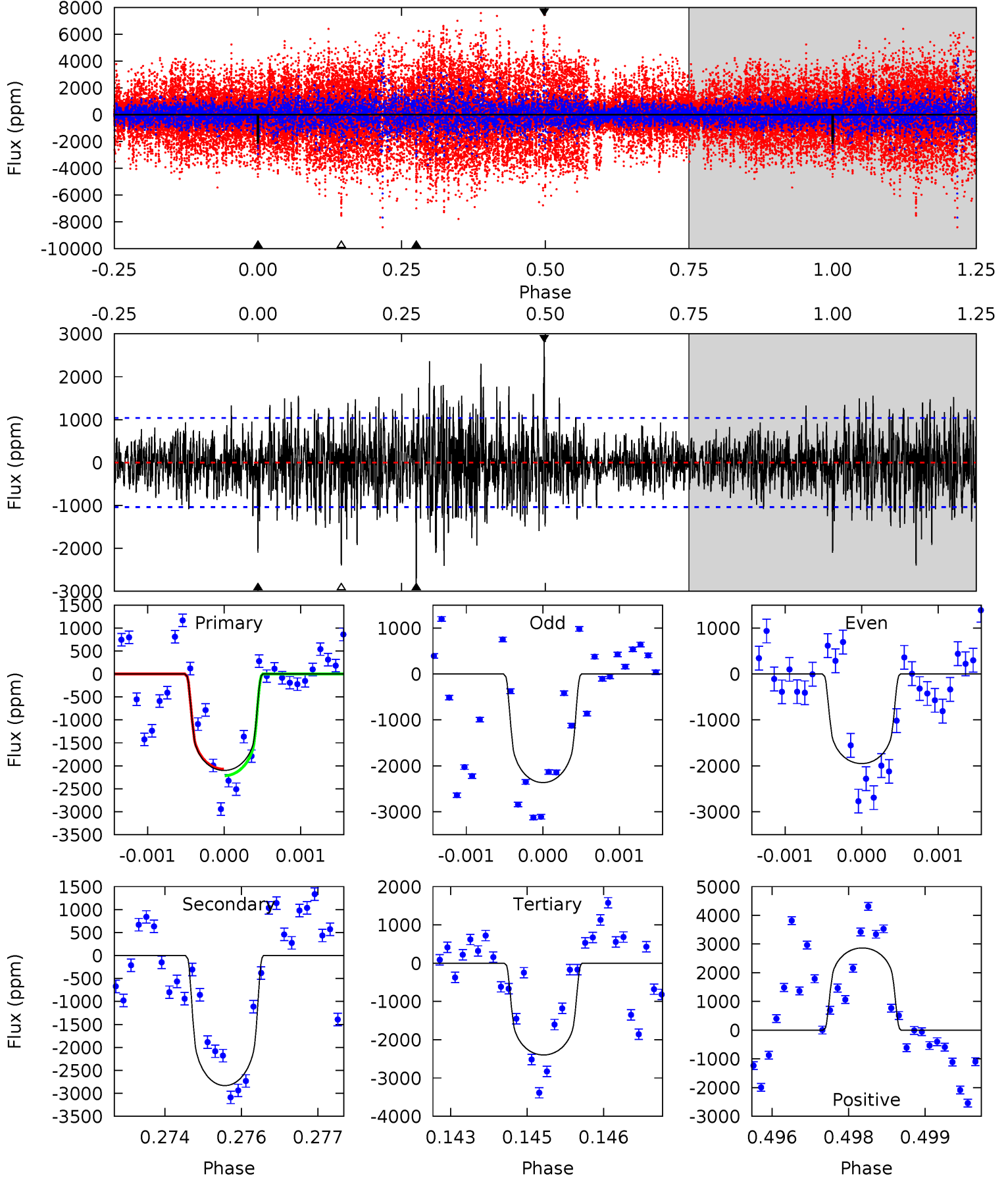
TCE 011512103-01 P=311.237175 Days $T_0=160.105133$ (BKJD)



DV Model-Shift Uniqueness Test

011512103-01, P = 311.216680 Days, E = 160.127680 Days

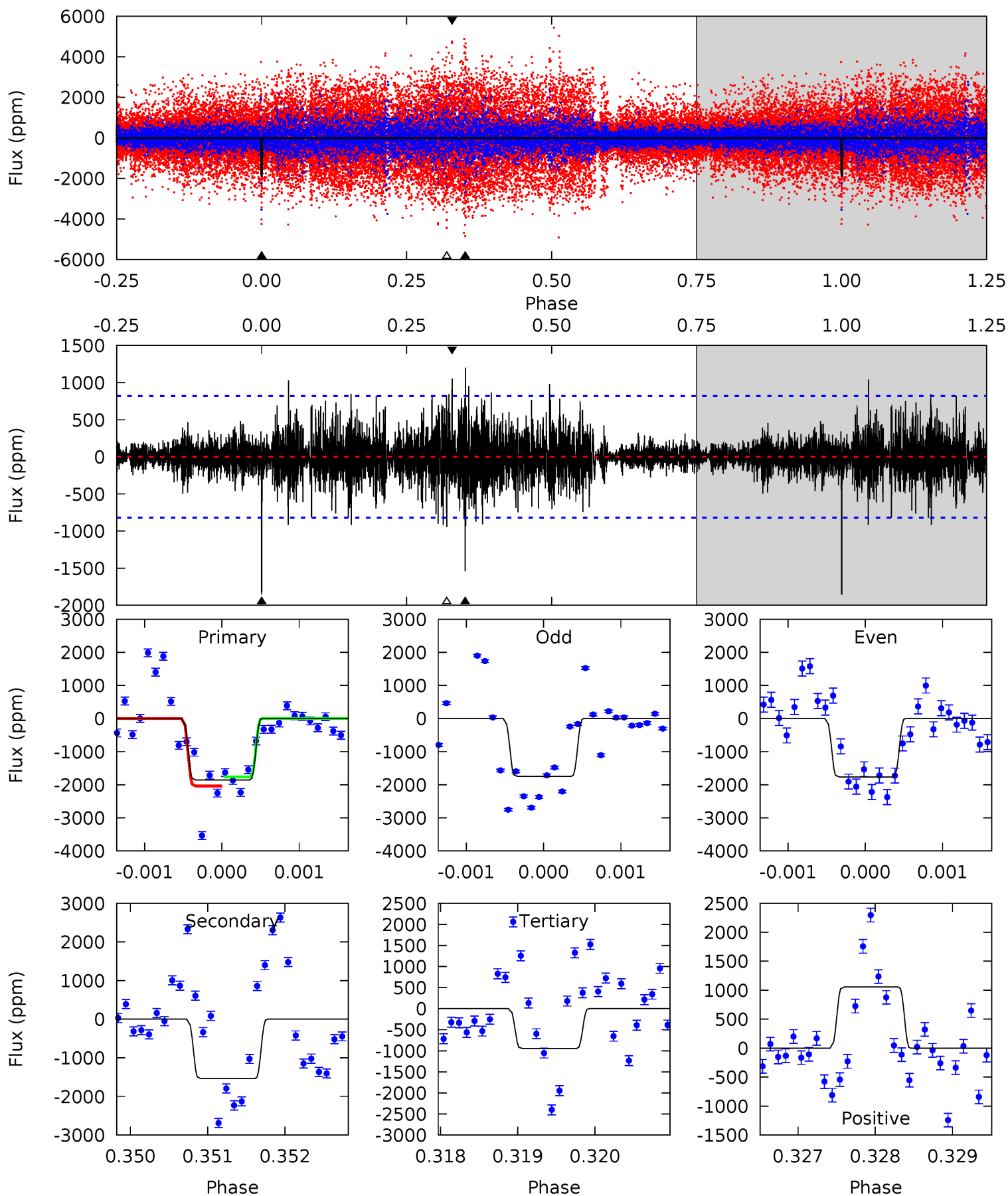
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	14.7	12.4	14.9	5.39	3.20	2.79	-1.54	-3.96	2.25	-0.16	0.84	0.97	0.50	0.35



Alt Model-Shift Uniqueness Test

011512103-01, P = 311.237175 Days, E = 160.105133 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	10.2	6.28	7.03	5.46	3.30	1.43	6.07	5.32	3.95	3.21	0.05	1.05	0.39	0.86



Stellar Parameters For KIC 011512103

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5674^{+171}_{-206}	$4.525^{+0.048}_{-0.192}$	$0.100^{+0.250}_{-0.300}$	$0.906^{+0.264}_{-0.088}$	$1.001^{+0.100}_{-0.120}$	$1.899^{+0.363}_{-0.956}$
	+3%/-4%	+1%/-4%	+250%/-300%	+29%/-10%	+10%/-12%	+19%/-50%
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 011512103-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2832 ± 193	$5.63^{+1.04}_{-0.73}$	358^{+23}_{-17}	5603^{+365}_{-335}	39581^{+12708}_{-11104}
Alt.	-1538 ± 150	$5.31^{+0.92}_{-0.78}$	358^{+24}_{-17}	5014^{+360}_{-297}	23530^{+9134}_{-6582}

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 $A_{\text{obs}} \gg 1.0$

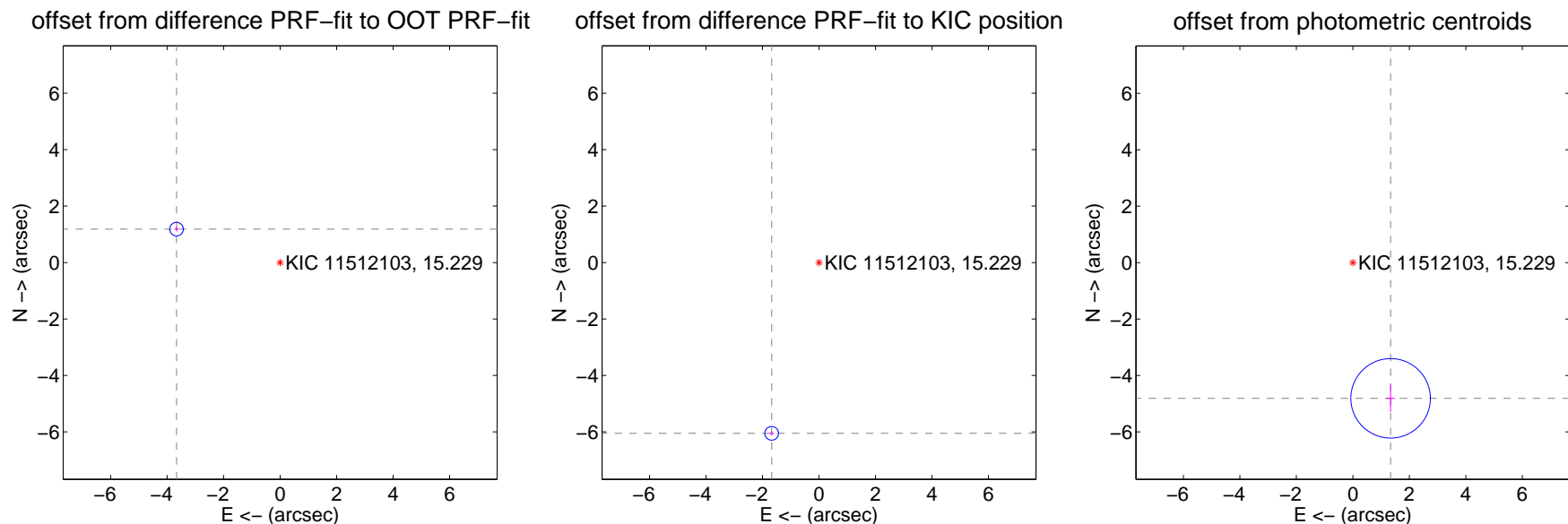
DV Centroid Data

Supplemental centroid analysis for 011512103-01. Kepler magnitude: 15.23. Transit SNR 8.56

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 7.51 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	3.855 ± 0.080	48.00	3.668 ± 0.080	1.184 ± 0.081
PRF-fit source offset from KIC position	6.281 ± 0.081	77.82	1.676 ± 0.080	-6.053 ± 0.081
photometric centroid source offset	4.99 ± 0.47	10.64	-1.34 ± 0.15	-4.81 ± 0.49

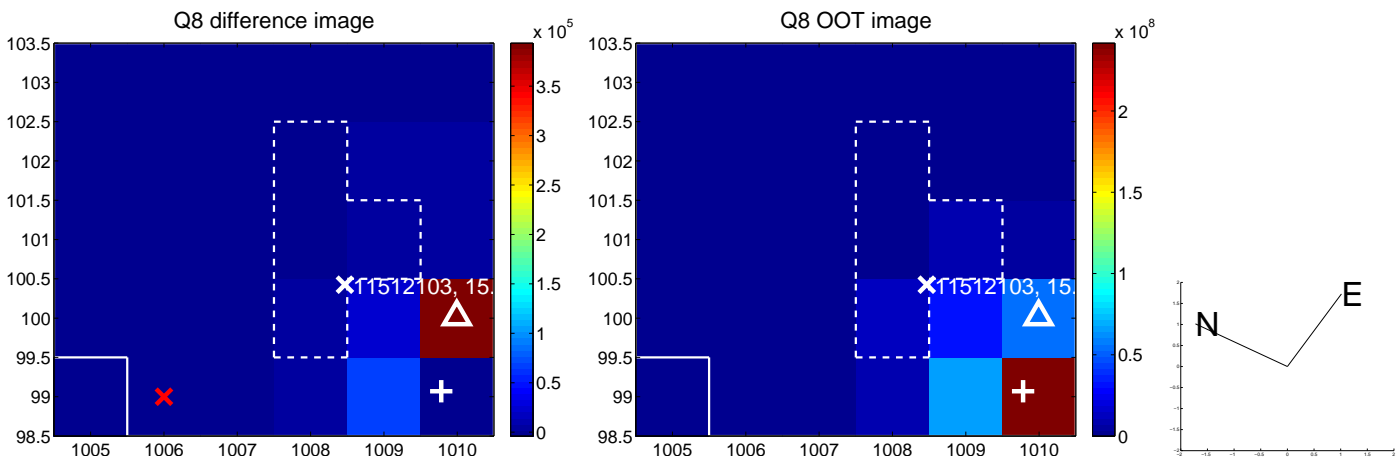
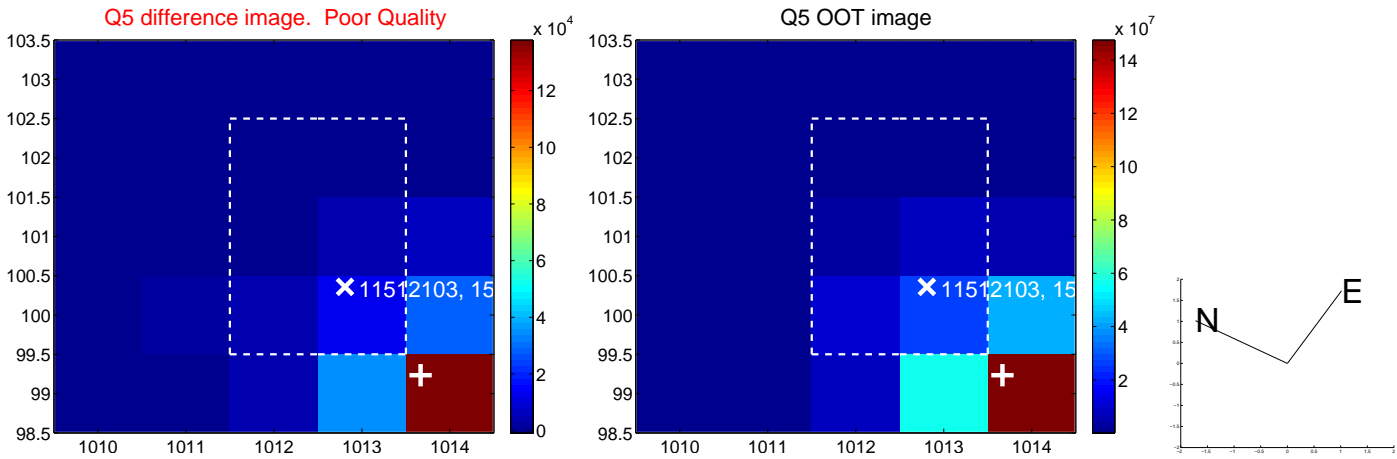


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



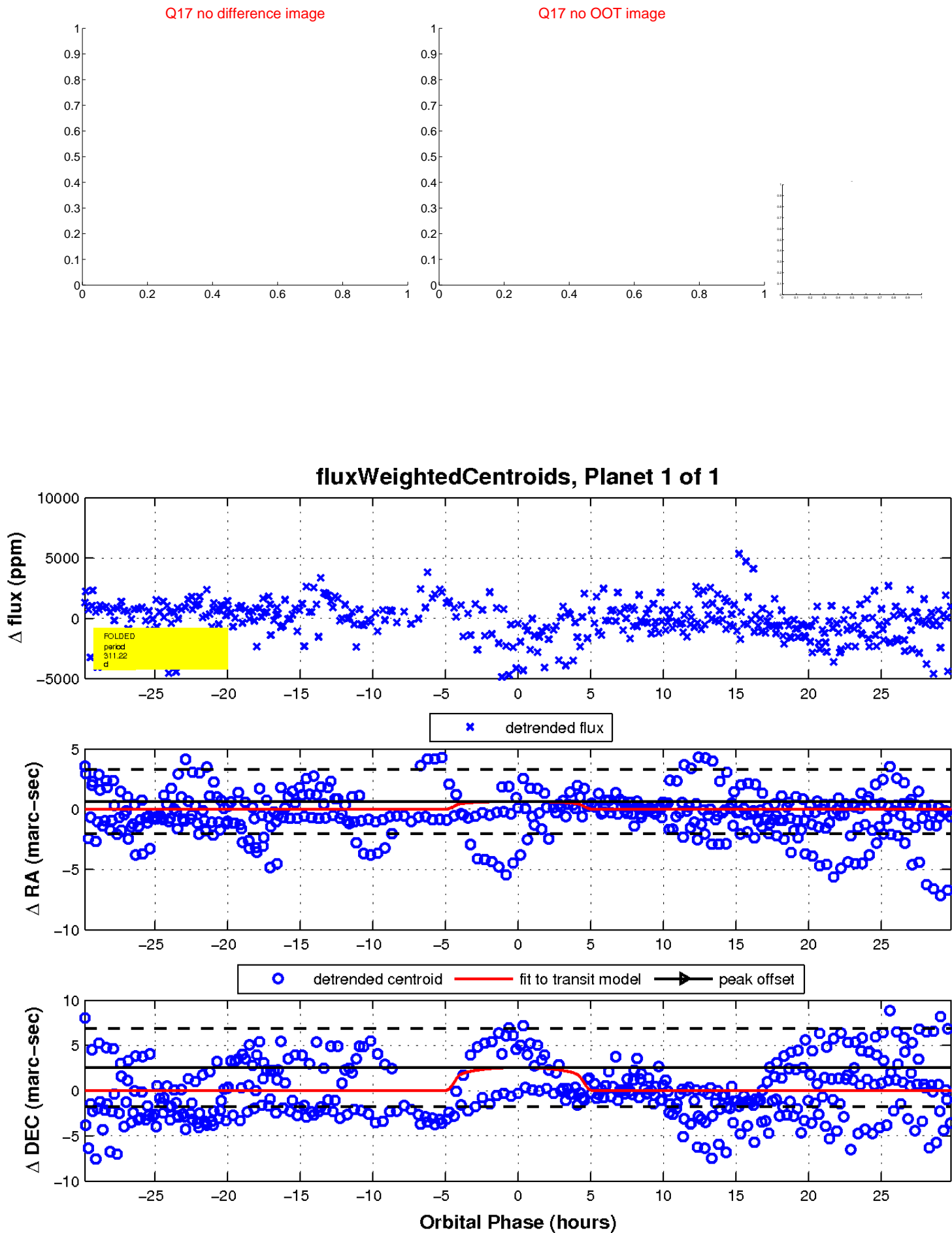
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

