

KIC 005951459

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})
005951459-01	OBS	No	392.358930	309.097027	1056.3	10.477	7.5	7.4	0.96	5713	3.20	0.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005951459-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—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.

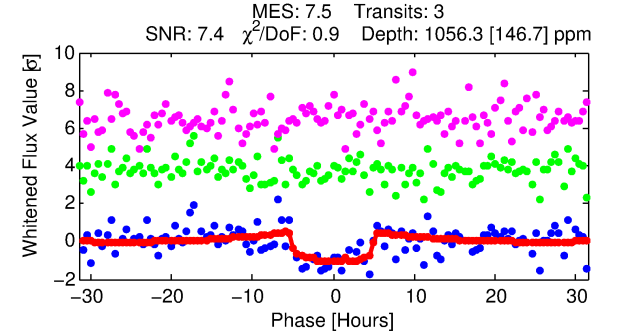
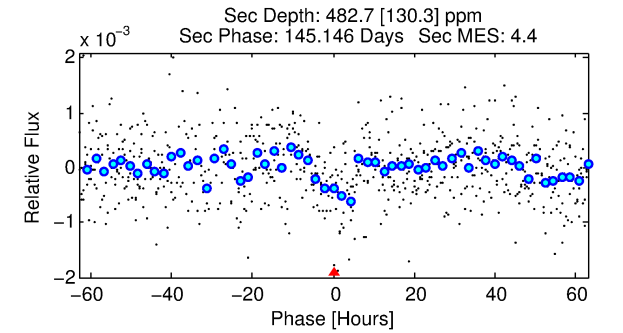
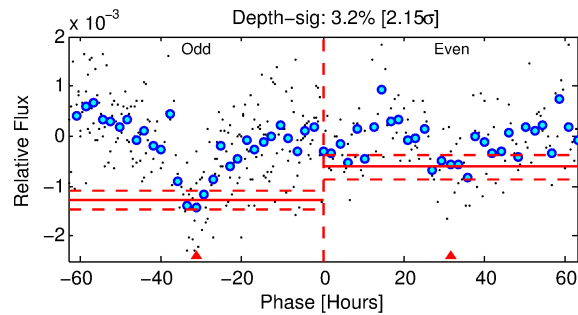
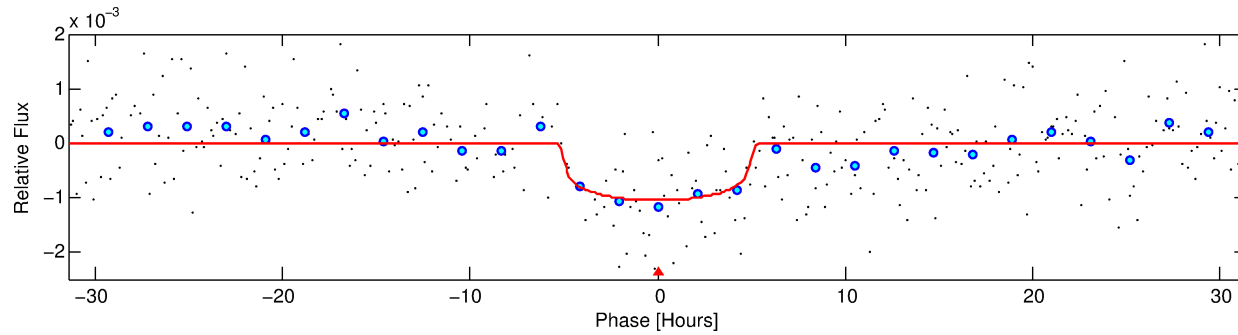
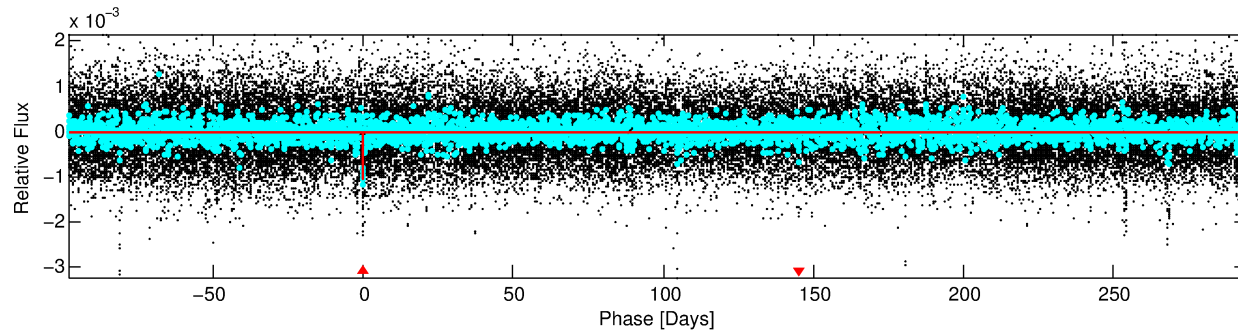
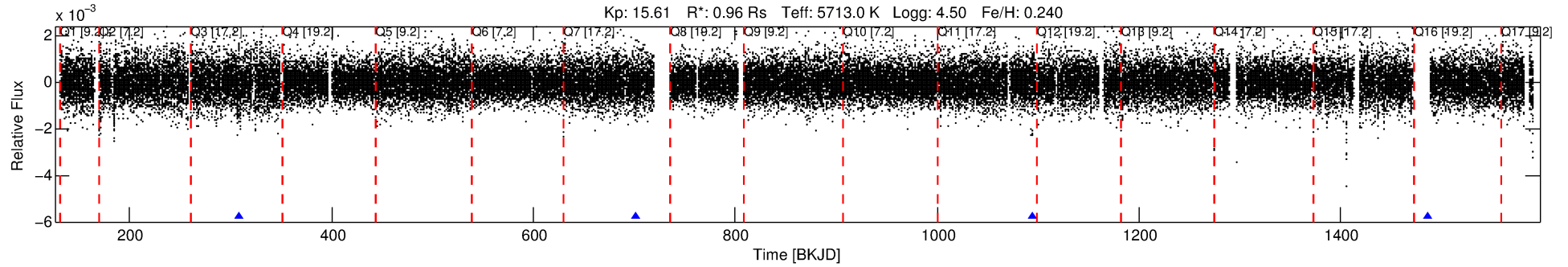
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005951459-01

No Significant Match Found

DV One-Page Summary

KIC: 5951459 Candidate: 1 of 1 Period: 392.359 d



DV Fit Results:

Period = 392.35893 [0.01390] d
Epoch = 309.0970 [0.0150] BKJD
Rp/R* = 0.0306 [0.0188]
a/R* = 249.09 [619.70]
b = 0.55 [3.17]
Seff = 0.77 [0.30]
Teq = 239 [23] K
Rp = 3.20 [2.18] Re
a = 1.0685 [0.2678] AU
Ag = 29658.33 [38865.24] [0.76 σ]
Teffp = 4840 [1530] K [3.01 σ]

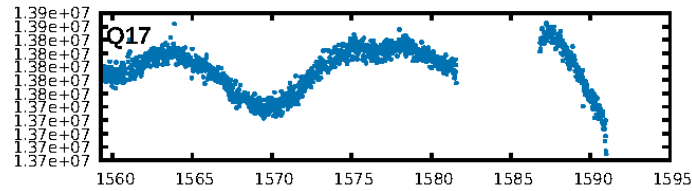
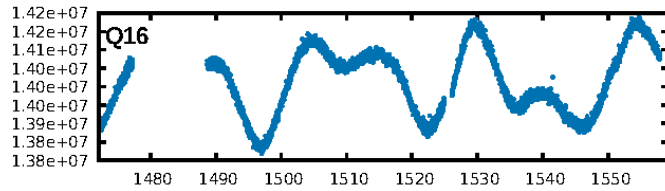
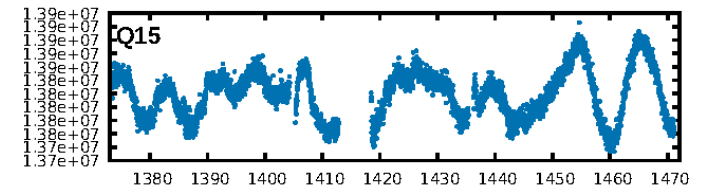
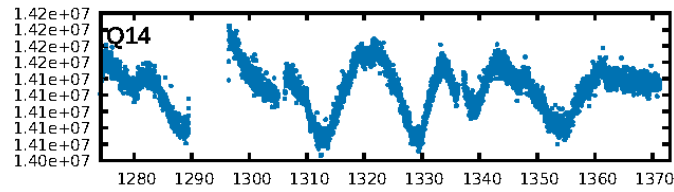
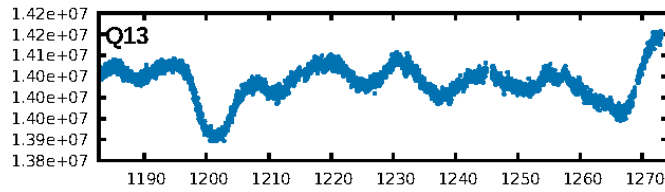
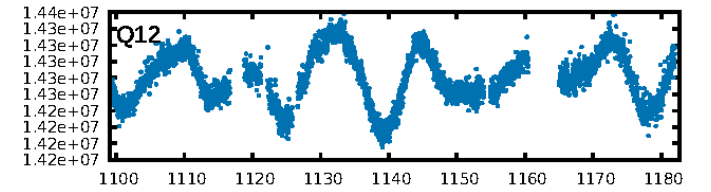
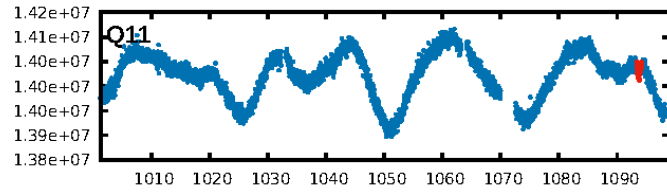
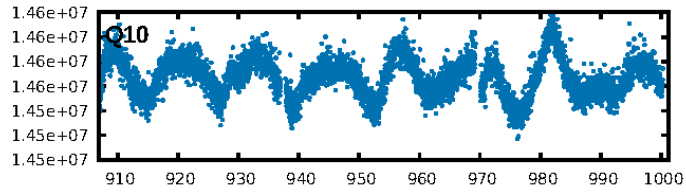
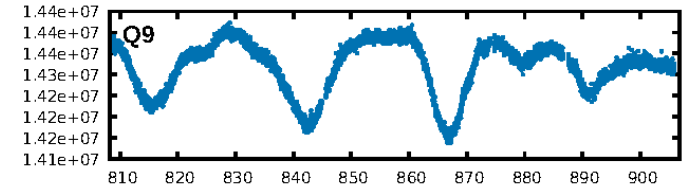
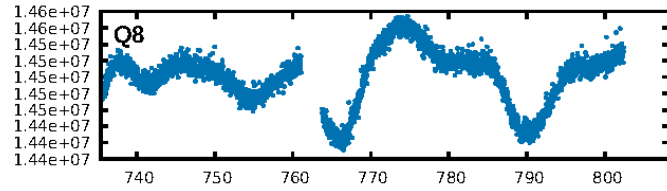
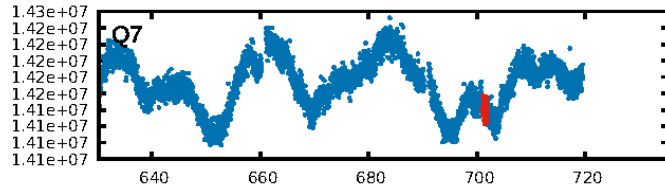
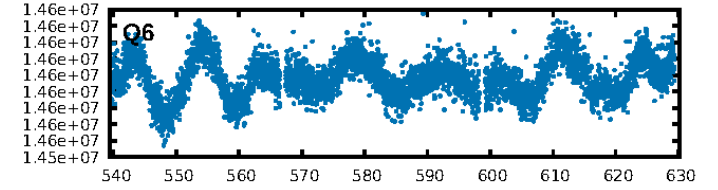
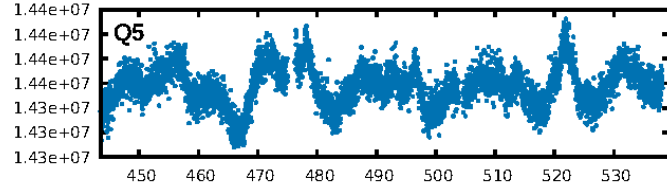
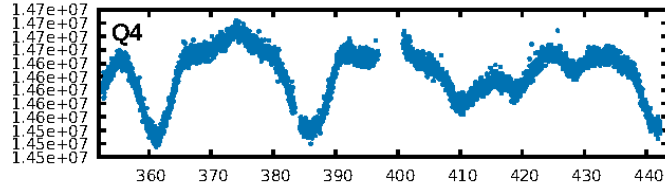
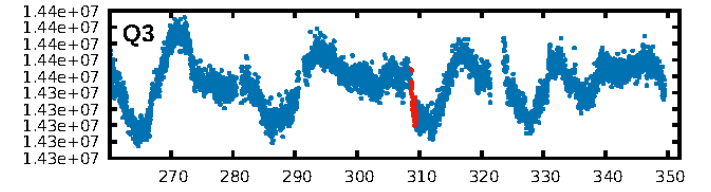
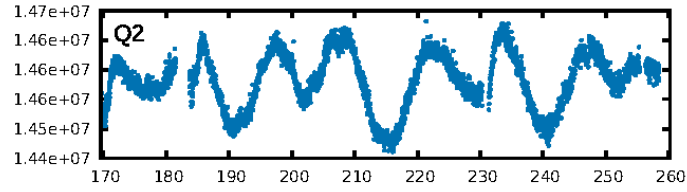
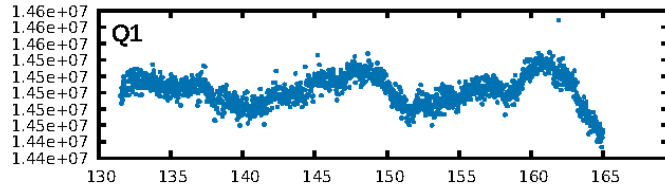
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.7%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 3.16e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.3379
Centroid-sig: 42.3%
Centroid-so: 1.760 arcsec [0.84 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

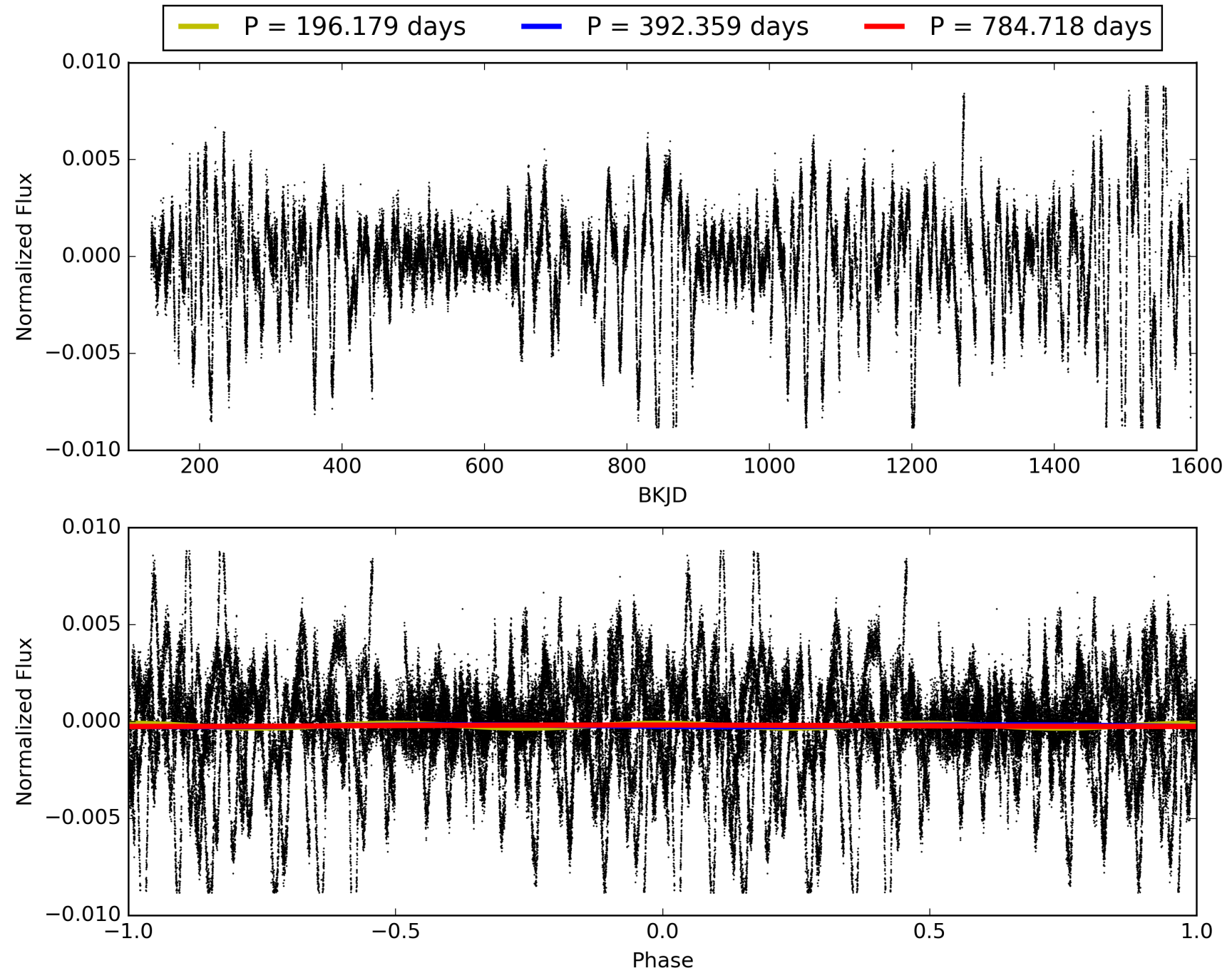
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:20:02 Z

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

TCE 005951459-01, PDC Light Curves

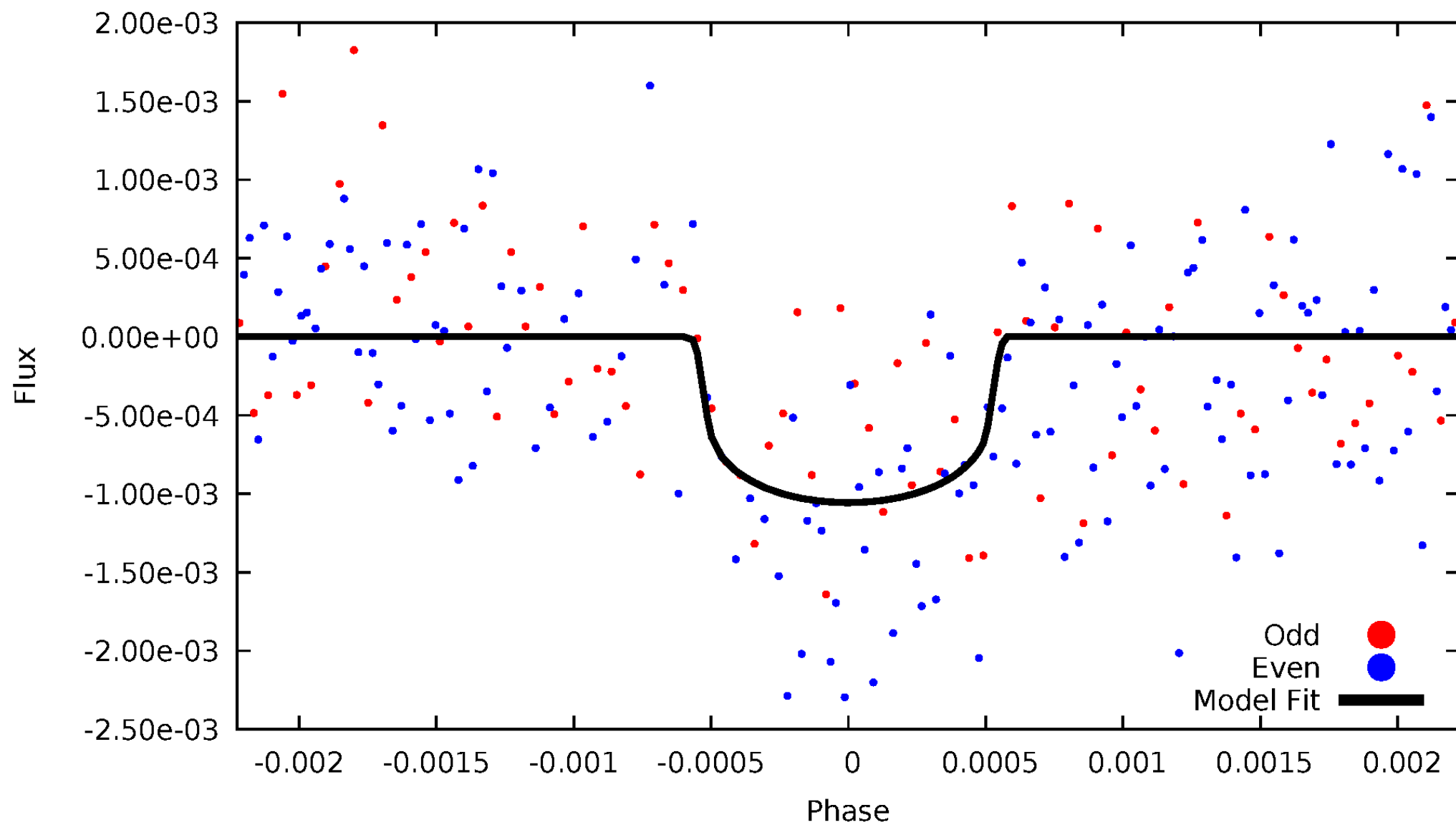


TCE 005951459-01



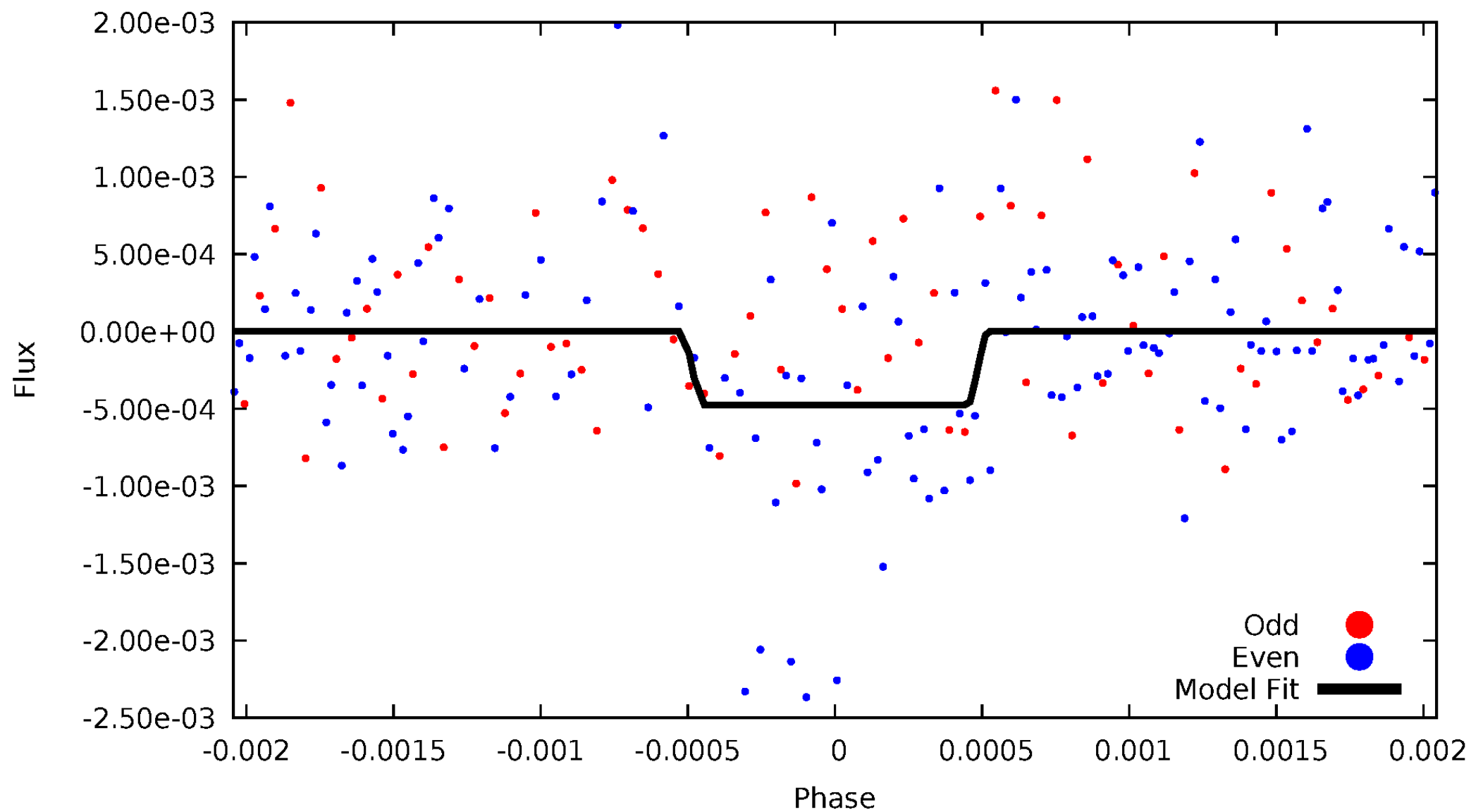
DV Odd/Even

TCE 005951459-01



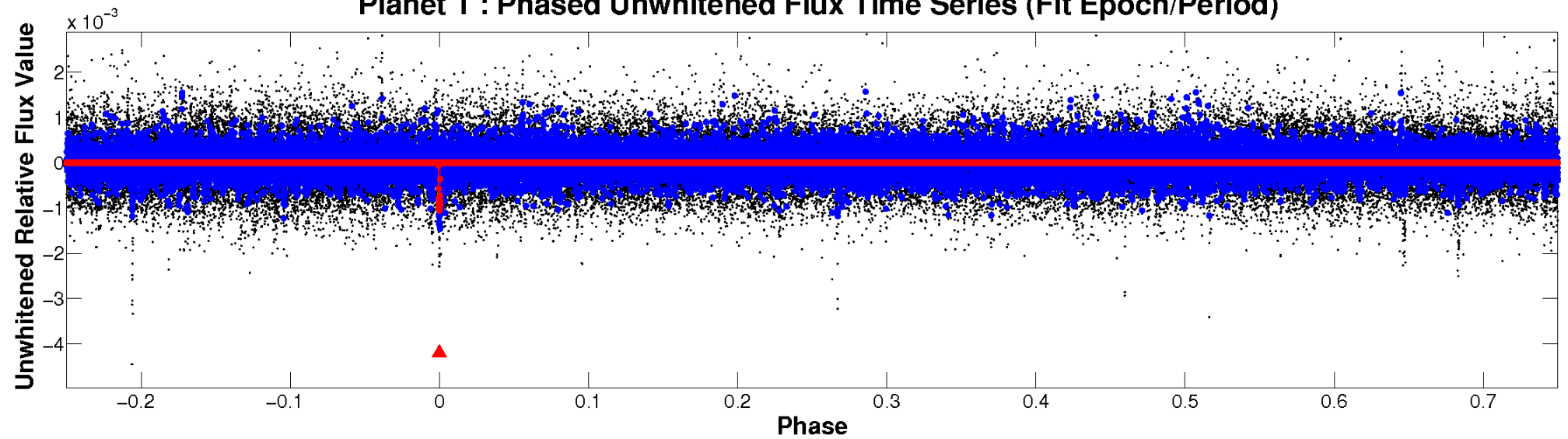
ALT Odd/Even

TCE 005951459-01

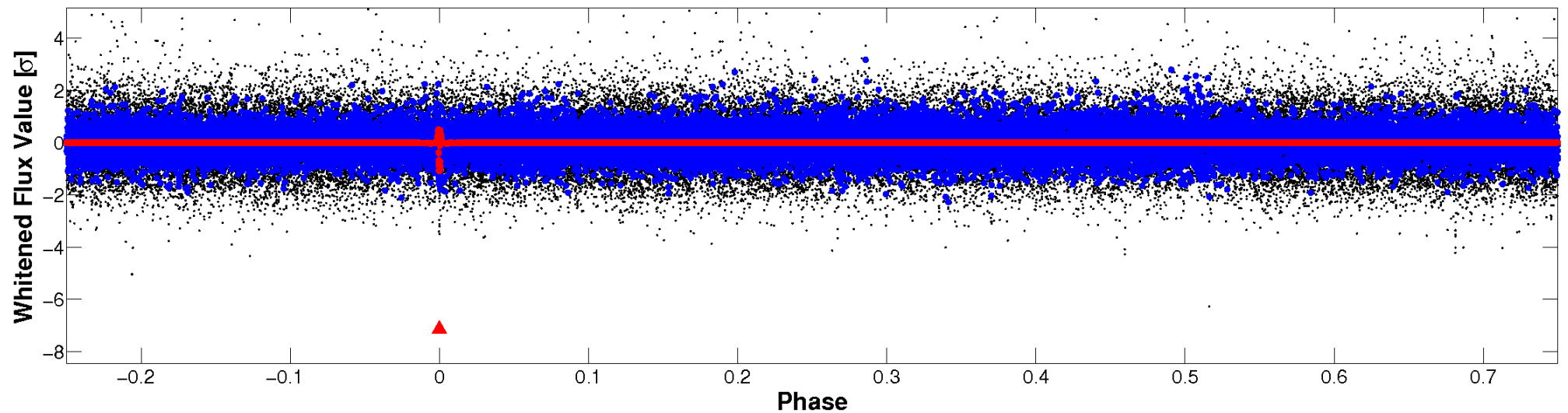


Non-Whitened Vs. Whitened Light Curve

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

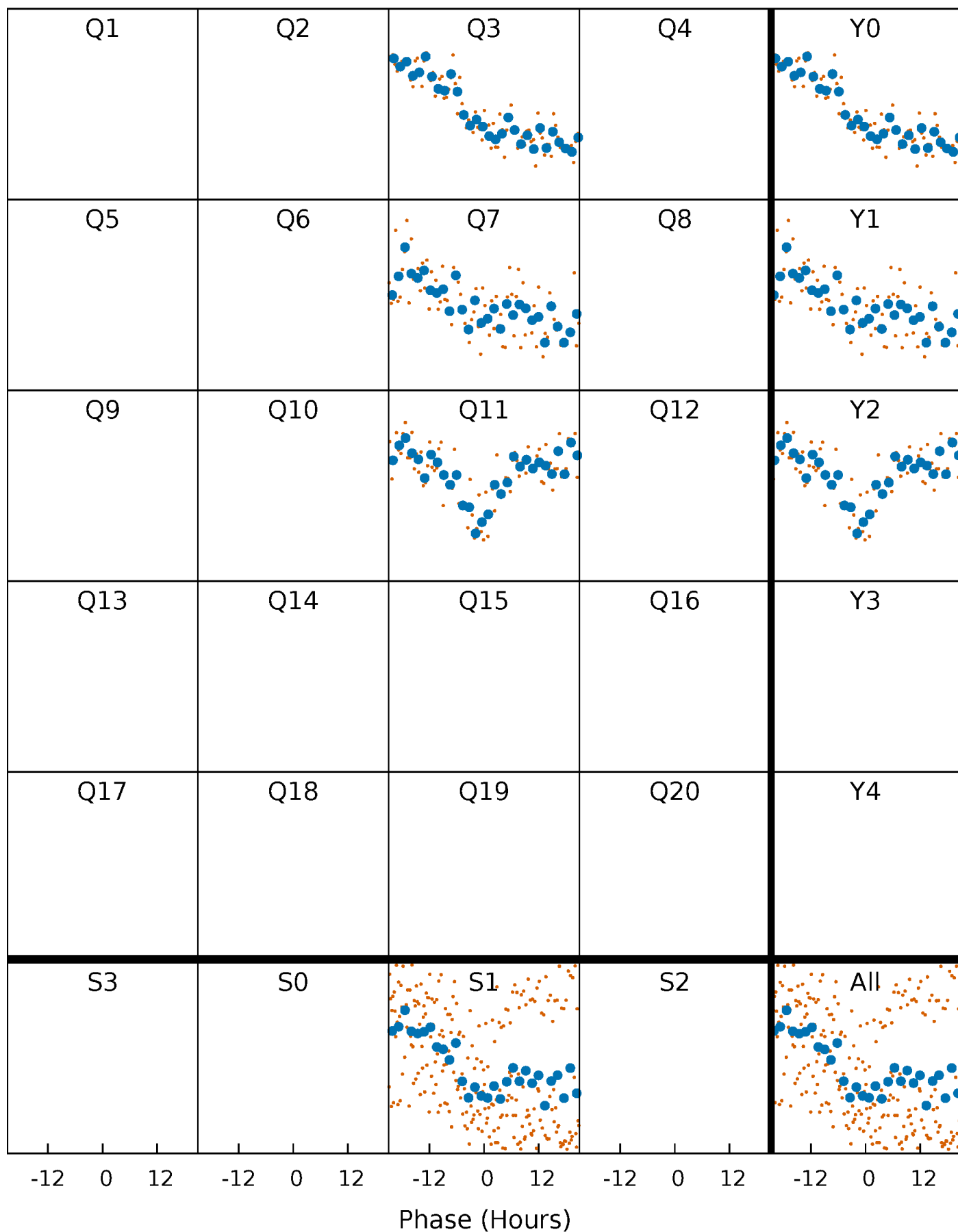


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



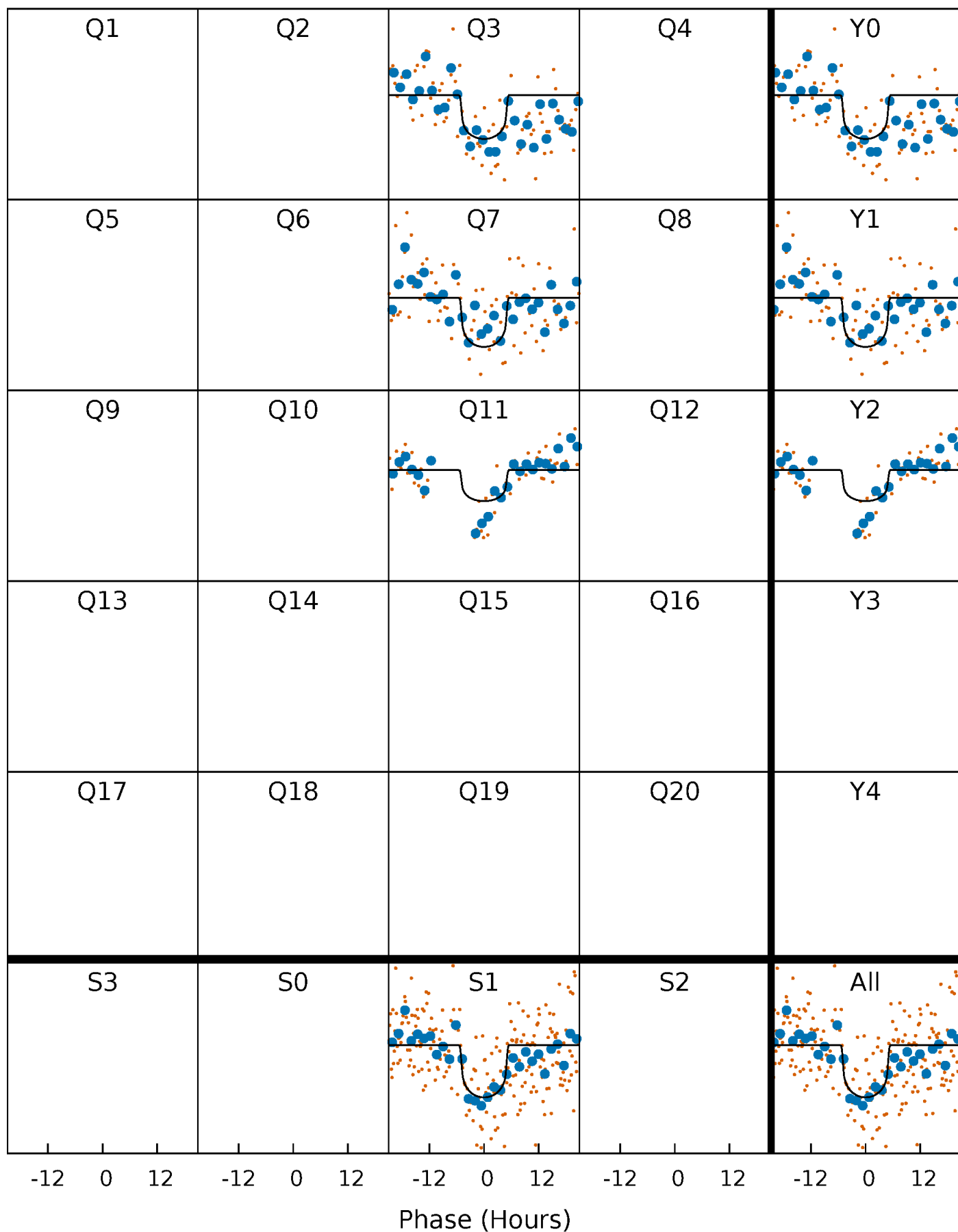
PDC Quarter-Phased Transit Curves

TCE 005951459-01 P=392.358930 Days $T_0=309.097027$ (BKJD)



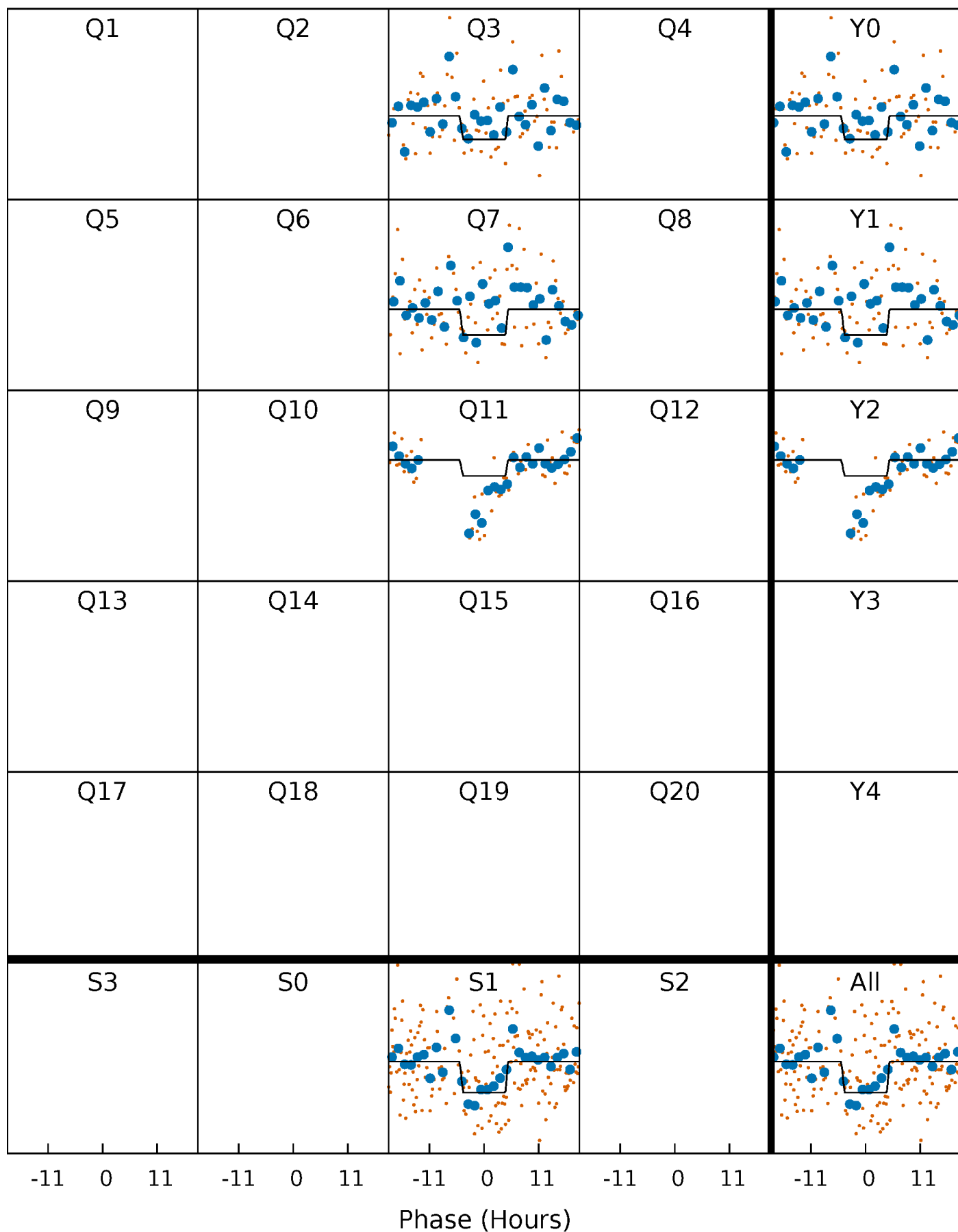
DV Quarter-Phased Transit Curves

TCE 005951459-01 P=392.358930 Days $T_0=309.097027$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

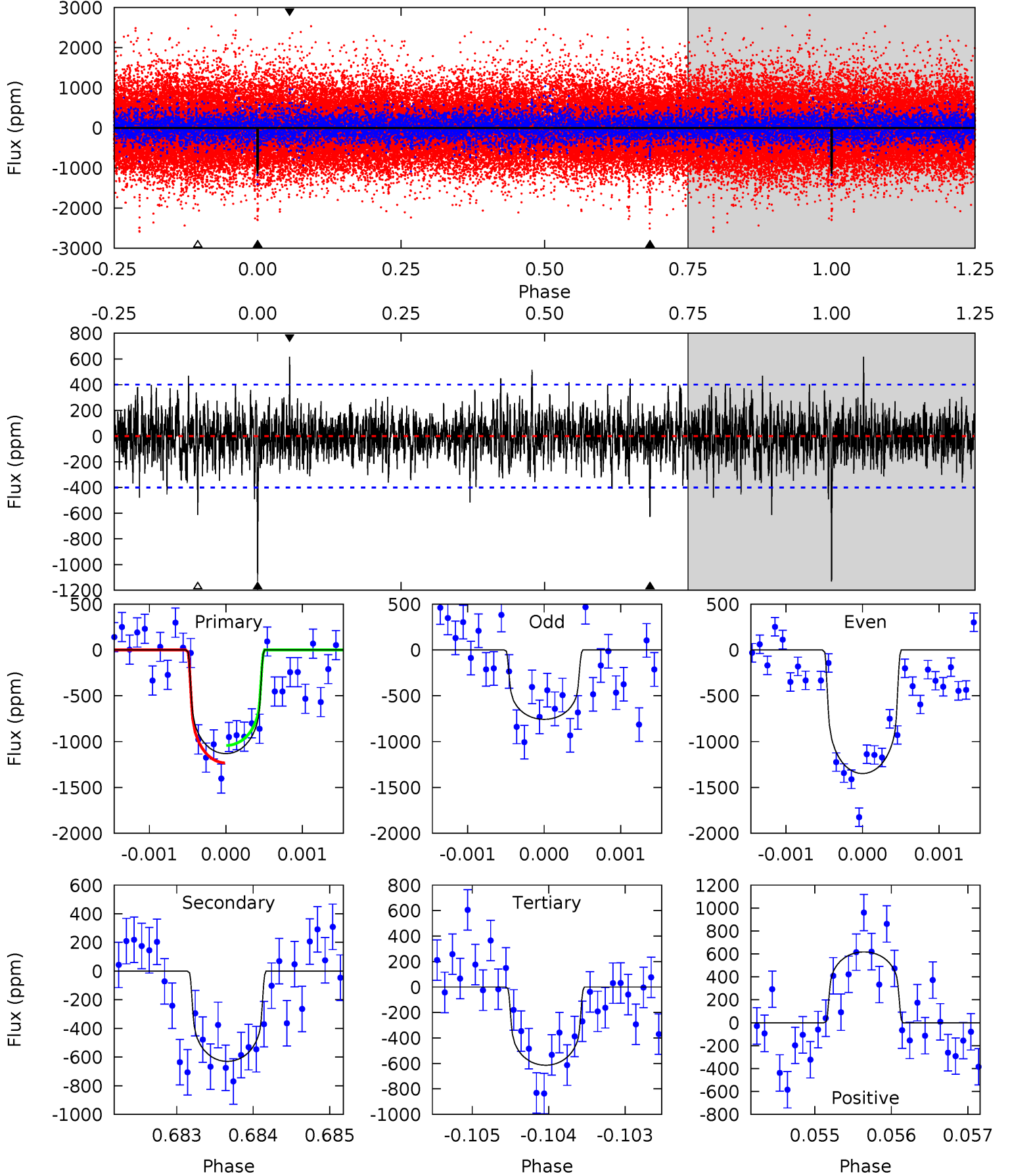
TCE 005951459-01 P=392.372030 Days $T_0=309.103590$ (BKJD)



DV Model-Shift Uniqueness Test

005951459-01, P = 392.358930 Days, E = 309.097027 Days

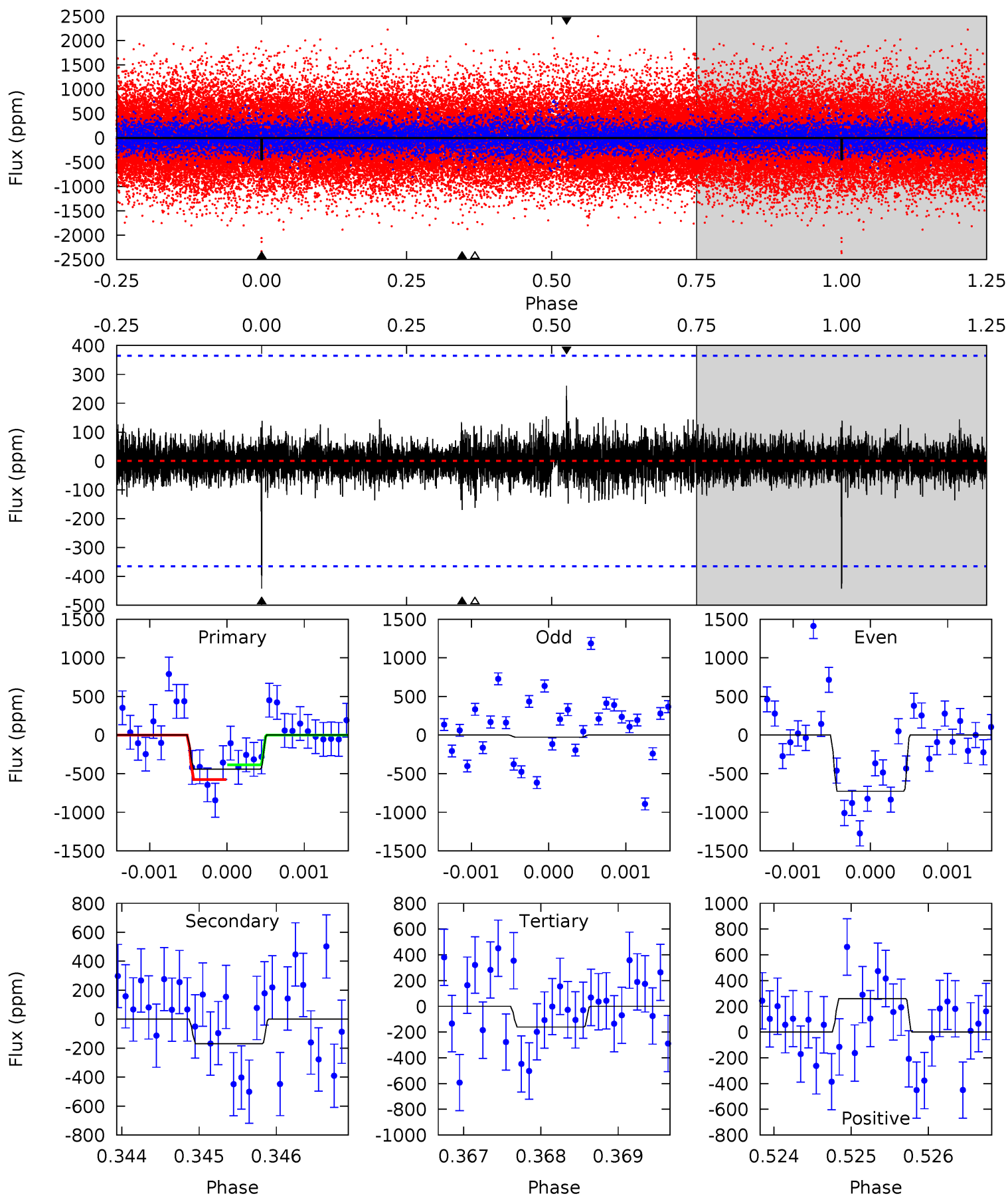
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	8.54	8.32	8.36	5.43	3.25	1.76	7.01	6.97	0.22	0.17	3.90	0.92	0.35	1.28



Alt Model-Shift Uniqueness Test

005951459-01, P = 392.372030 Days, E = 309.103590 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.60	2.53	2.41	3.89	5.45	3.28	0.58	4.19	2.71	0.12	-1.36	5.07	2.33	0.37	1.42



Stellar Parameters For KIC 005951459

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5713^{+154}_{-188}	$4.500^{+0.048}_{-0.204}$	$0.240^{+0.150}_{-0.300}$	$0.957^{+0.281}_{-0.088}$	$1.056^{+0.100}_{-0.122}$	$1.695^{+0.347}_{-0.894}$
	+3%/-3%	+1%/-5%	+62%/-125%	+29%/-9%	+9%/-12%	+20%/-53%
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 005951459-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-630 ± 74	$3.42^{+1.95}_{-1.68}$	341^{+23}_{-16}	5165^{+2129}_{-858}	$32319^{+107875}_{-19053}$
Alt.	-169 ± 67	$2.64^{+1.96}_{-1.62}$	339^{+26}_{-15}	4341^{+2178}_{-815}	14049^{+72561}_{-9672}

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

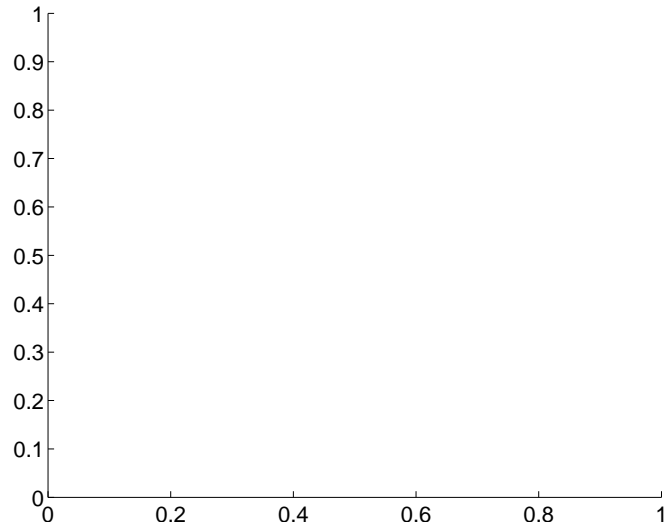
Supplemental centroid analysis for 005951459-01. Kepler magnitude: 15.61. Transit SNR 7.40

There are 0 quarters with good PRF difference image offsets

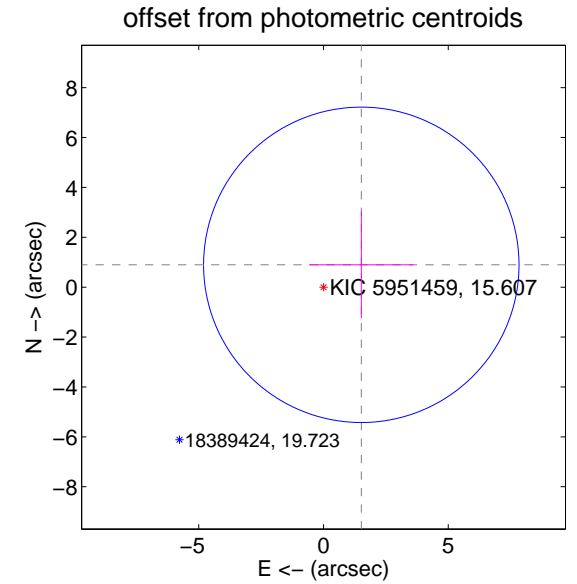
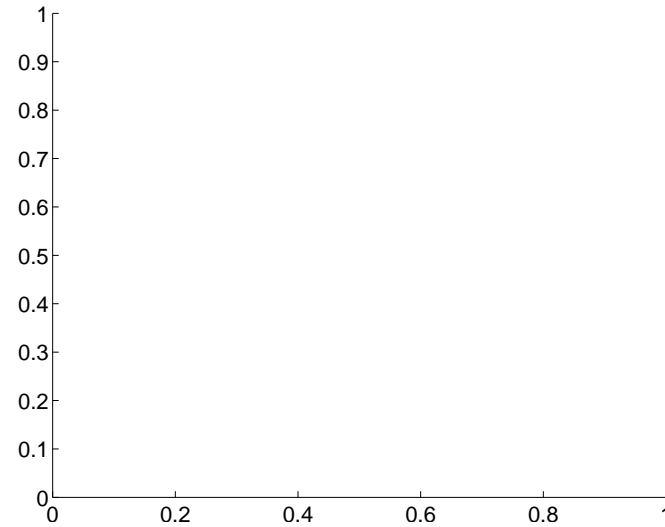
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.76 ± 2.11	0.84	-1.52 ± 2.10	0.90 ± 2.14

There is no PRF-fit offset from OOT-fit

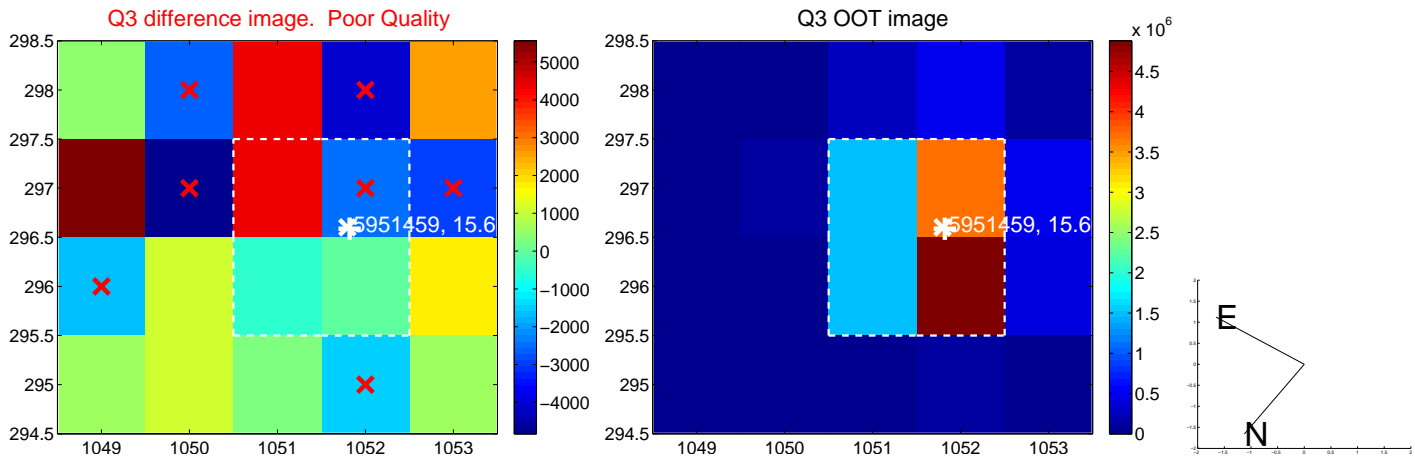


There is no PRF-fit offset from KIC

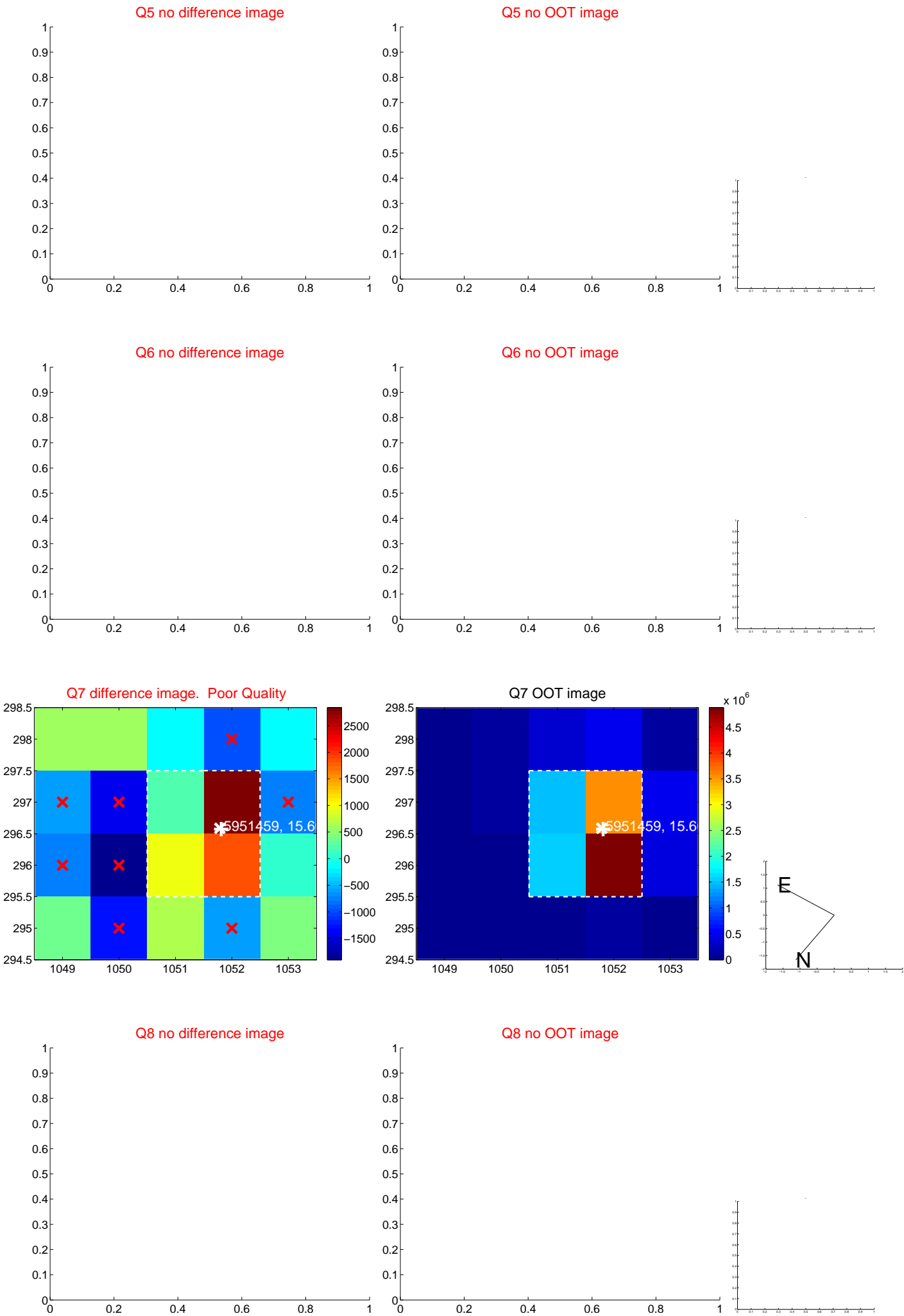


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



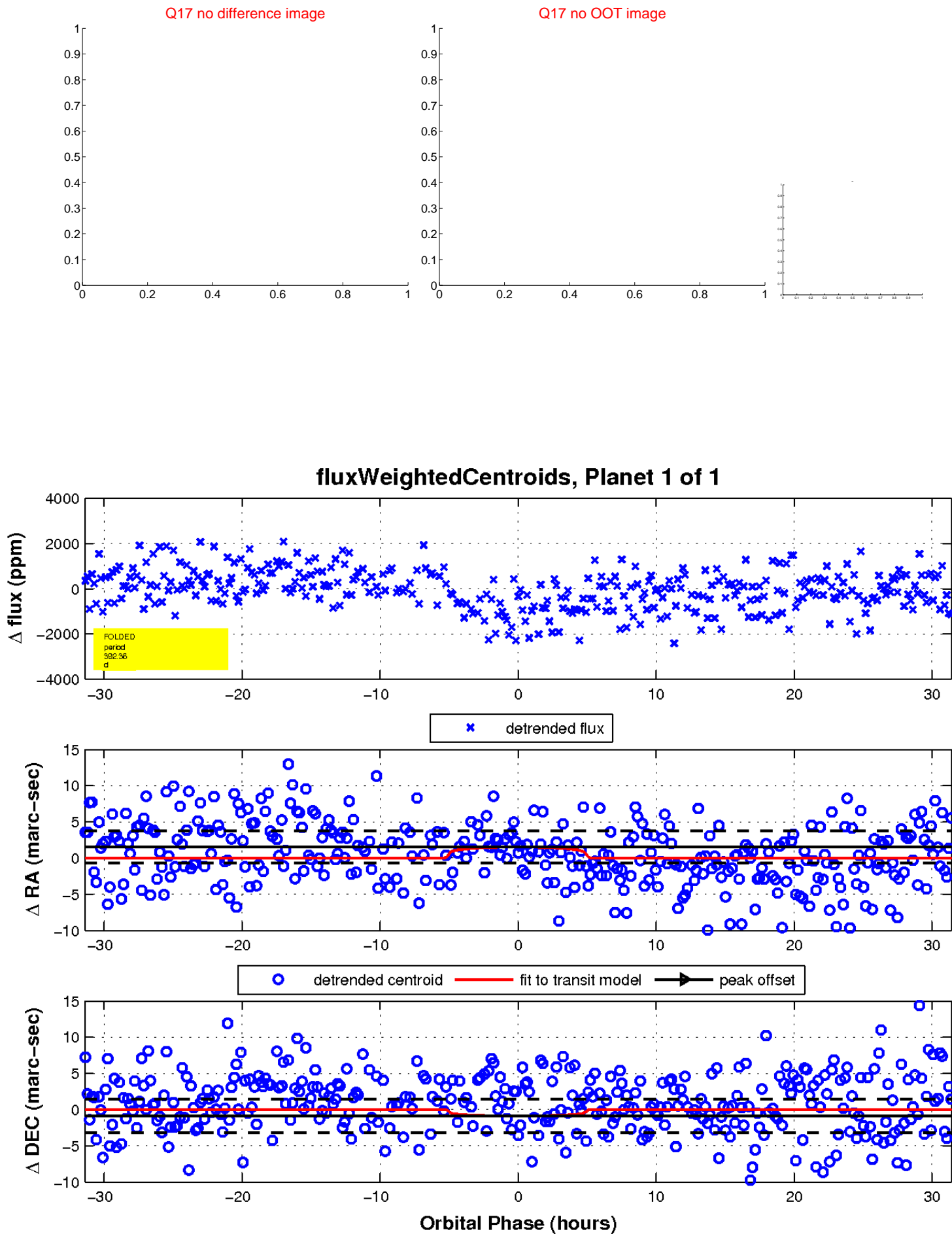
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

