

KIC 005524851

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})
005524851-01	OBS	No	380.609084	431.187244	533.1	2.962	17.4	14.2	2.01	5297	4.96	3.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005524851-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

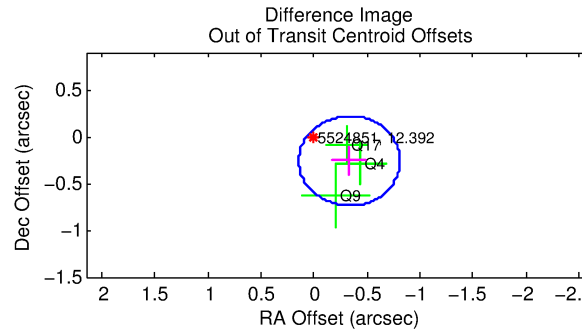
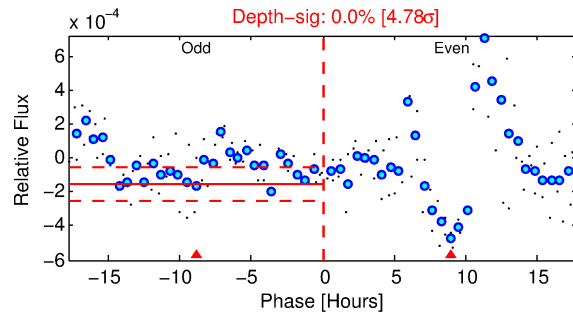
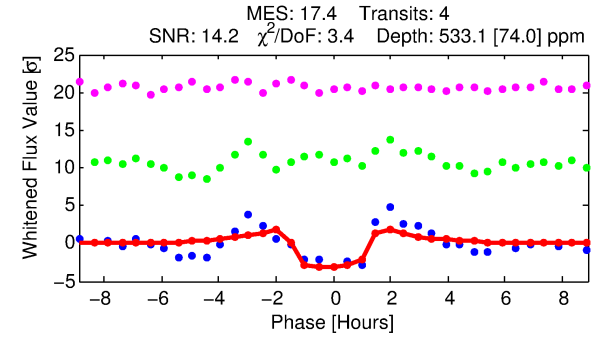
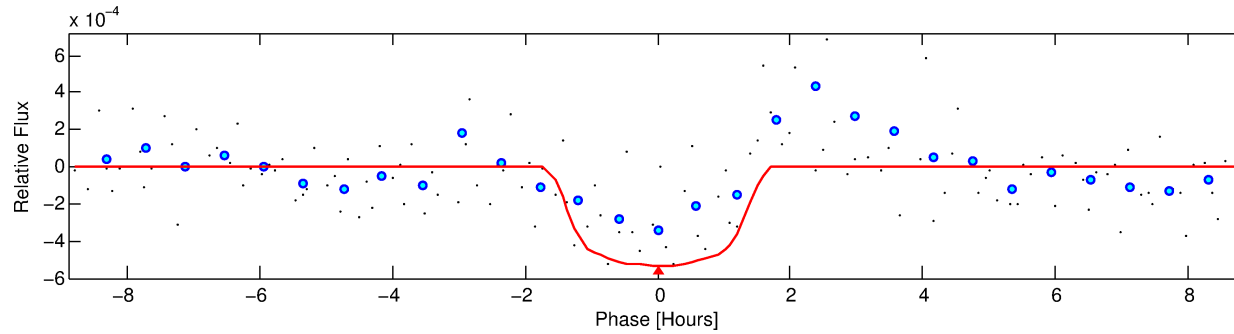
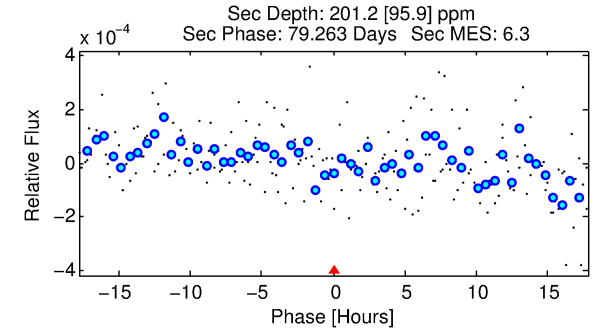
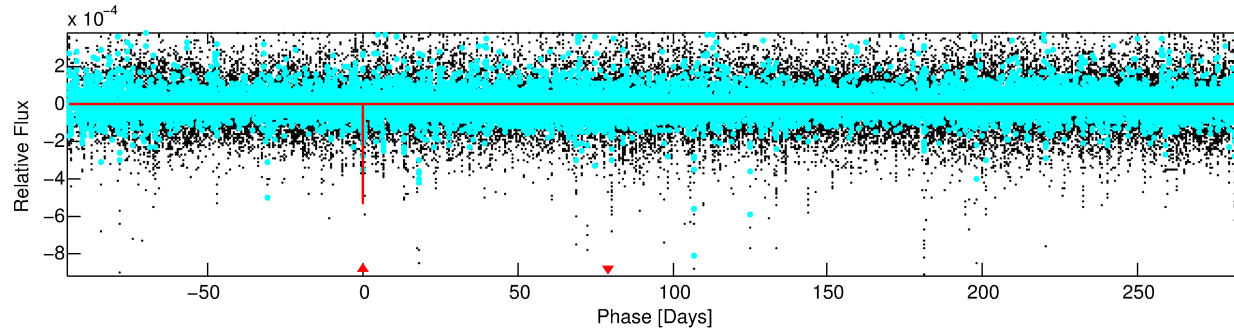
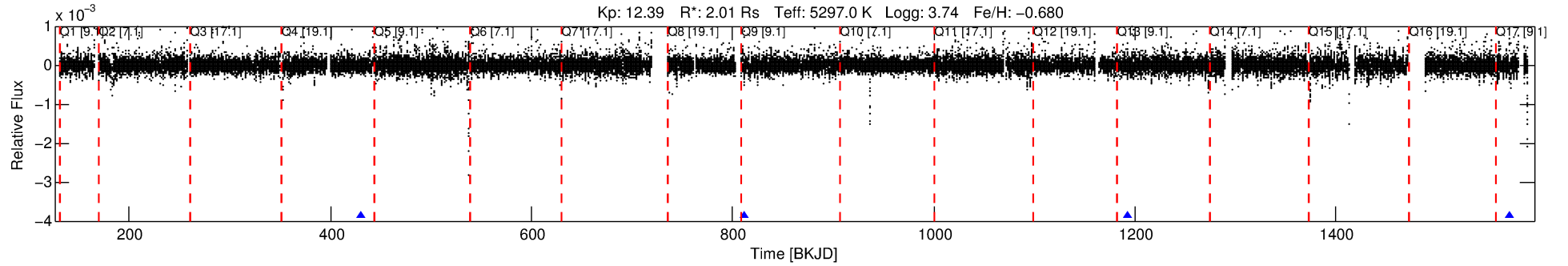
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005524851-01

No Significant Match Found

DV One-Page Summary

KIC: 5524851 Candidate: 1 of 1 Period: 380.609 d



DV Fit Results:

Period = 380.60908 [0.00326] d
Epoch = 431.1872 [0.0065] BKJD
Rp/R* = 0.0227 [0.0308]
a/R* = 722.90 [4207.57]
b = 0.71 [4.12]
Seff = 3.09 [4.70]
Teq = 338 [129] K
Rp = 4.96 [7.63] Re
a = 0.9592 [0.8297] AU
Ag = 4135.30 [13028.77] [0.32σ]
Teffp = 4190 [2895] K [1.33σ]

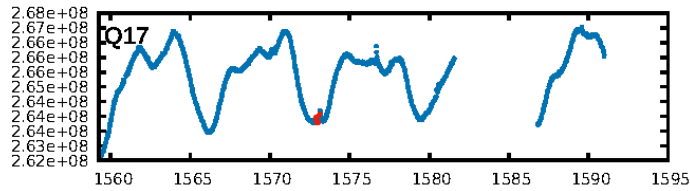
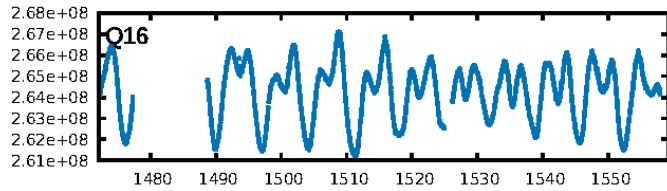
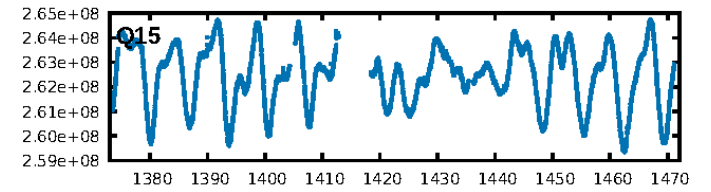
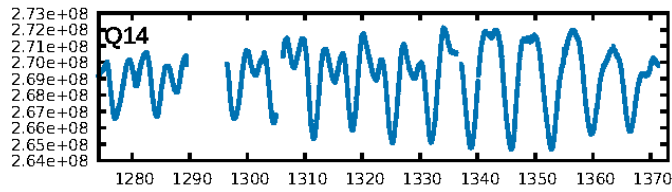
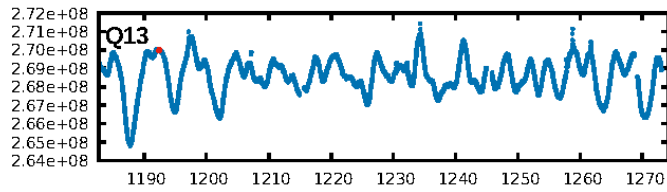
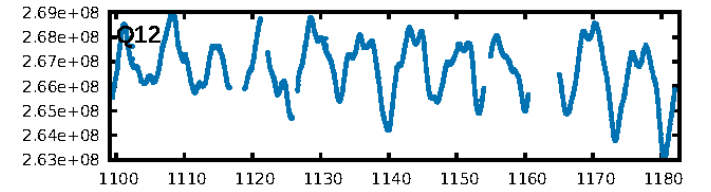
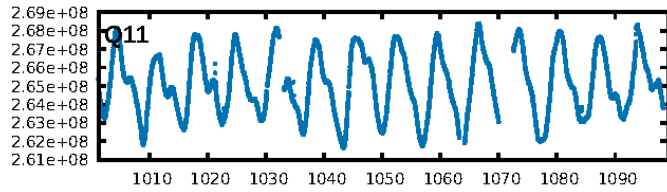
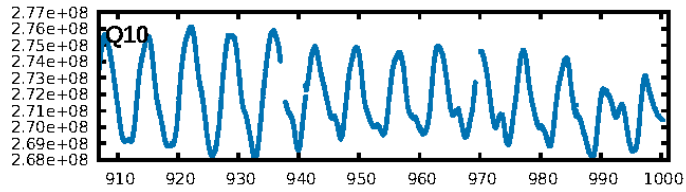
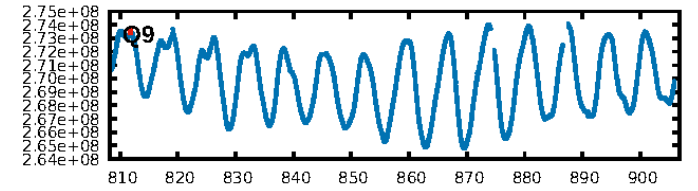
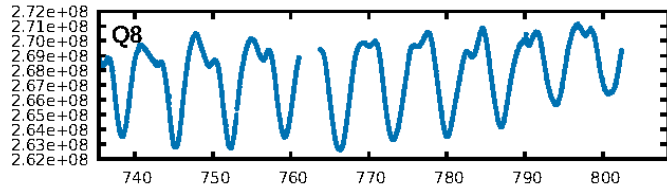
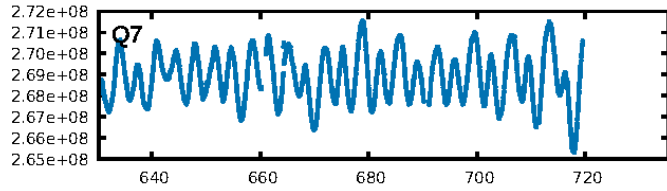
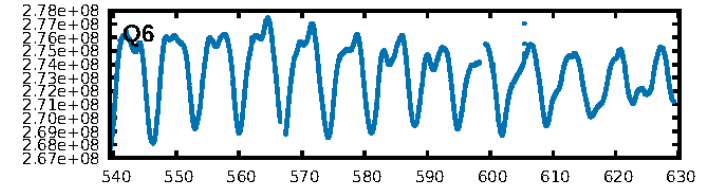
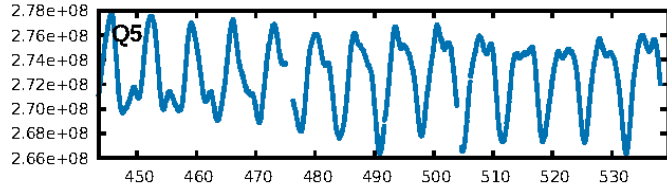
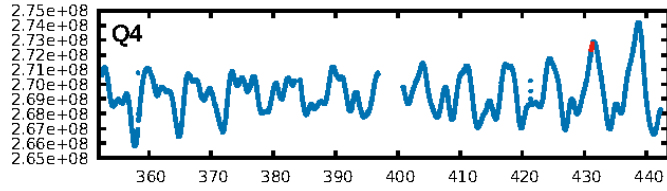
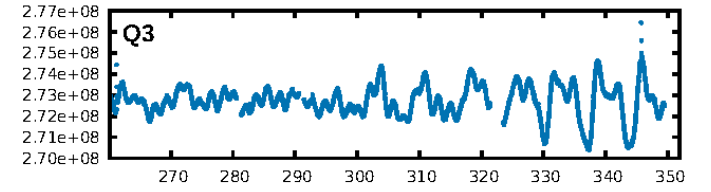
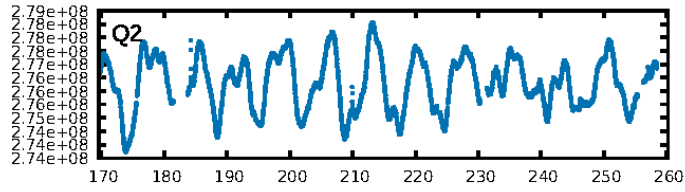
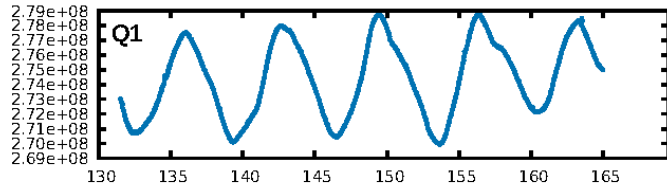
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 8.63e-17
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.7006
Centroid-sig: 88.6%
Centroid-so: 0.222 arcsec [0.53σ]
OotOffset-rm: 0.423 arcsec [2.65σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-rm: 0.354 arcsec [2.22σ]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

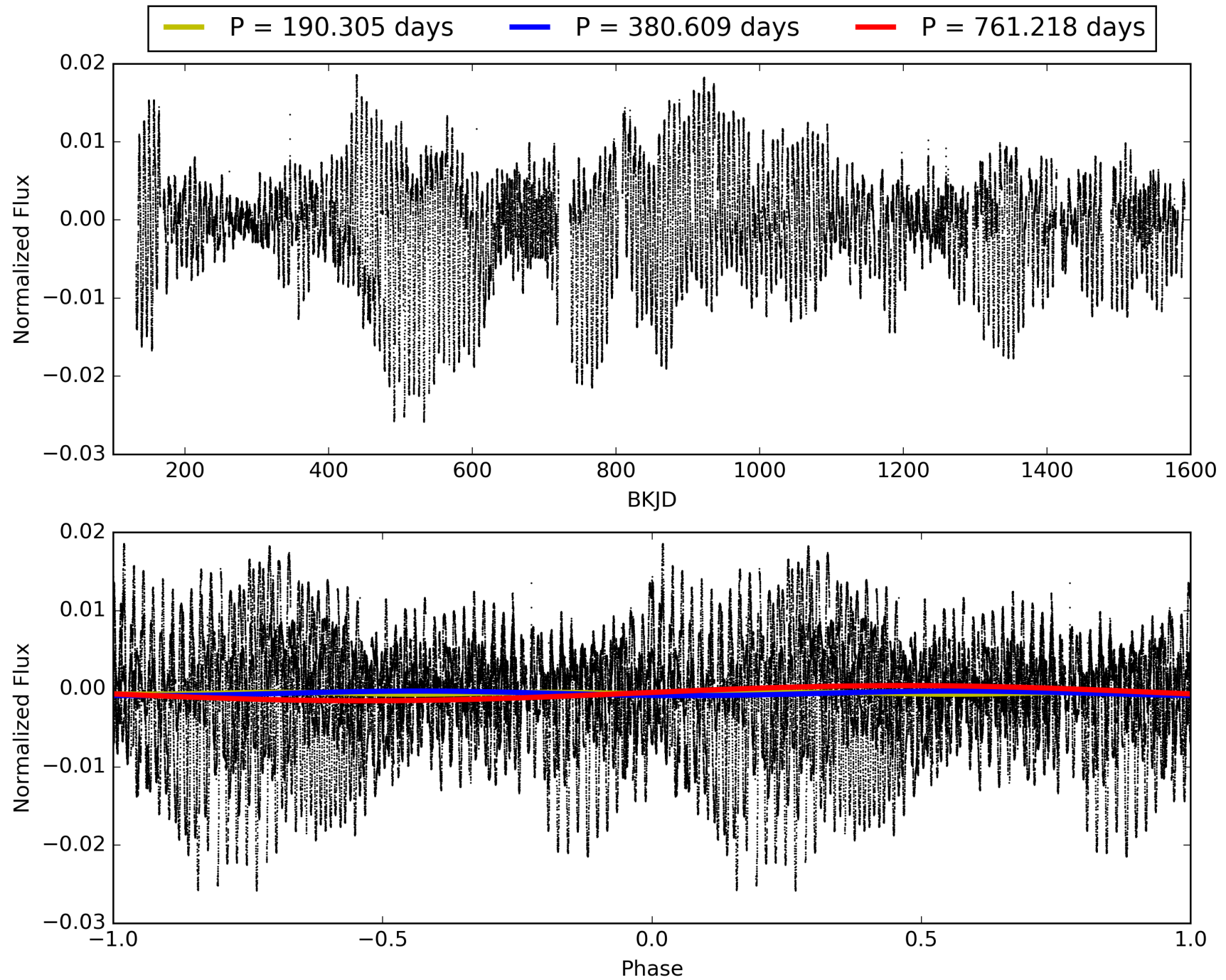
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:05:58 Z

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

TCE 005524851-01, PDC Light Curves

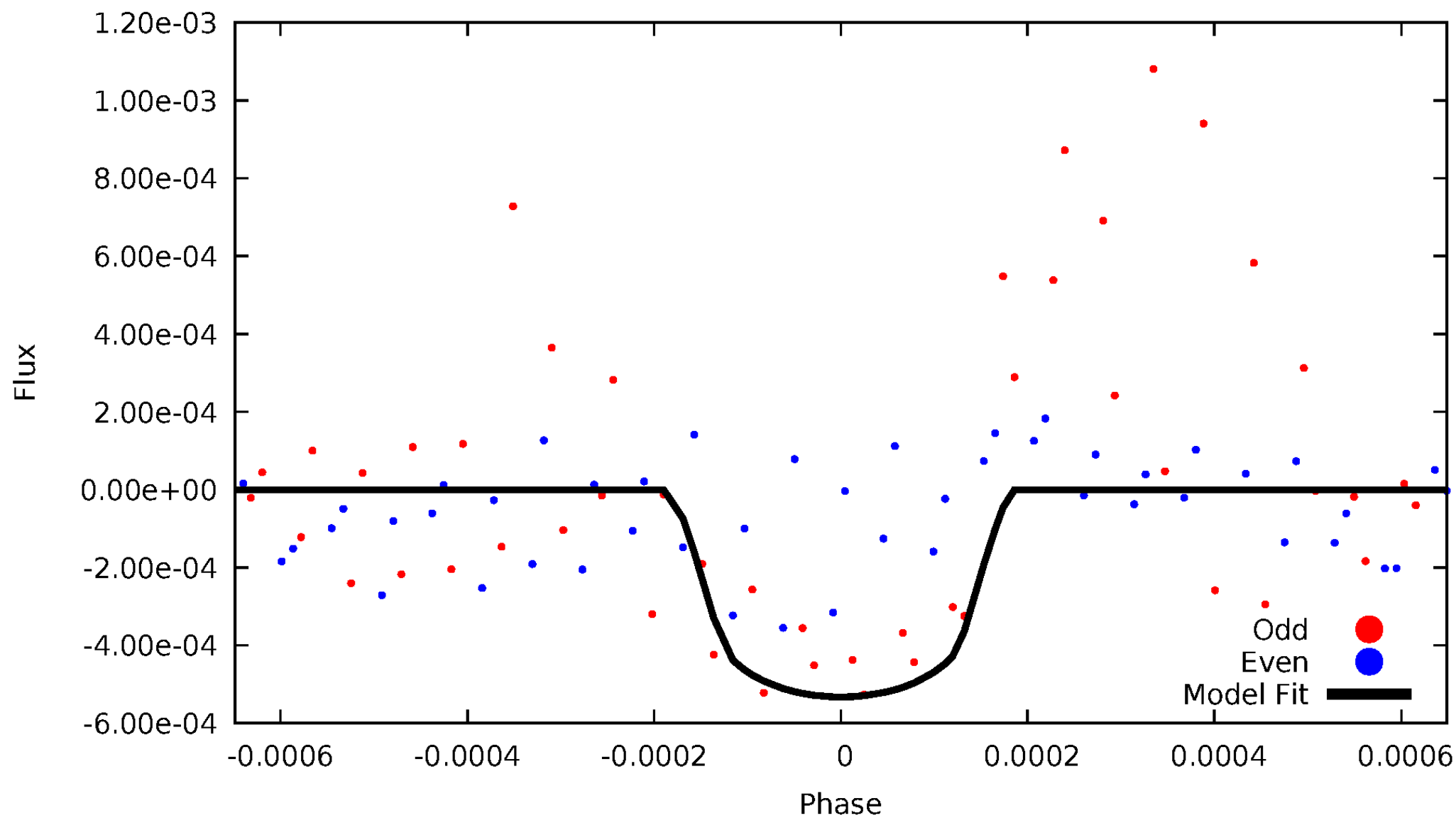


TCE 005524851-01



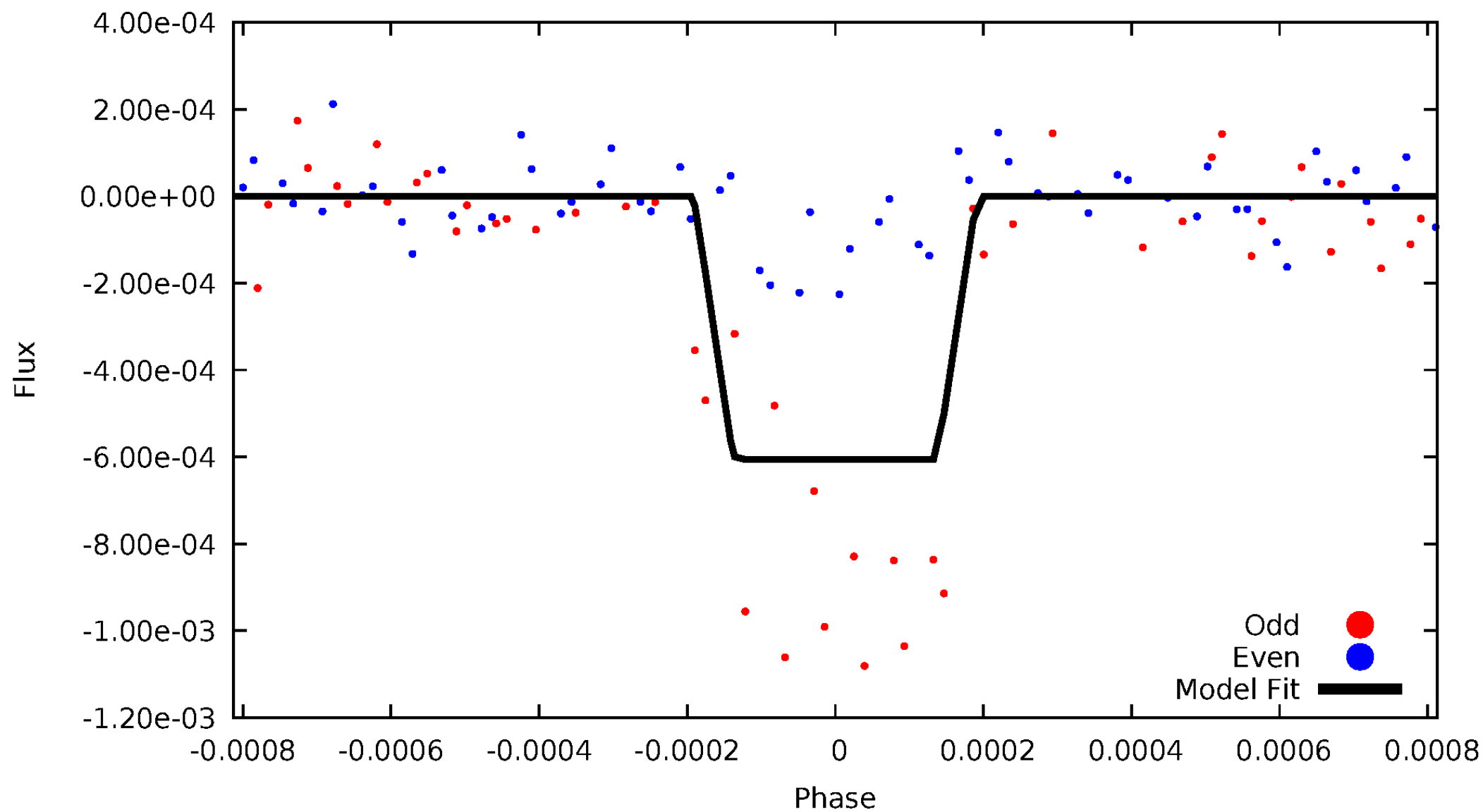
DV Odd/Even

TCE 005524851-01



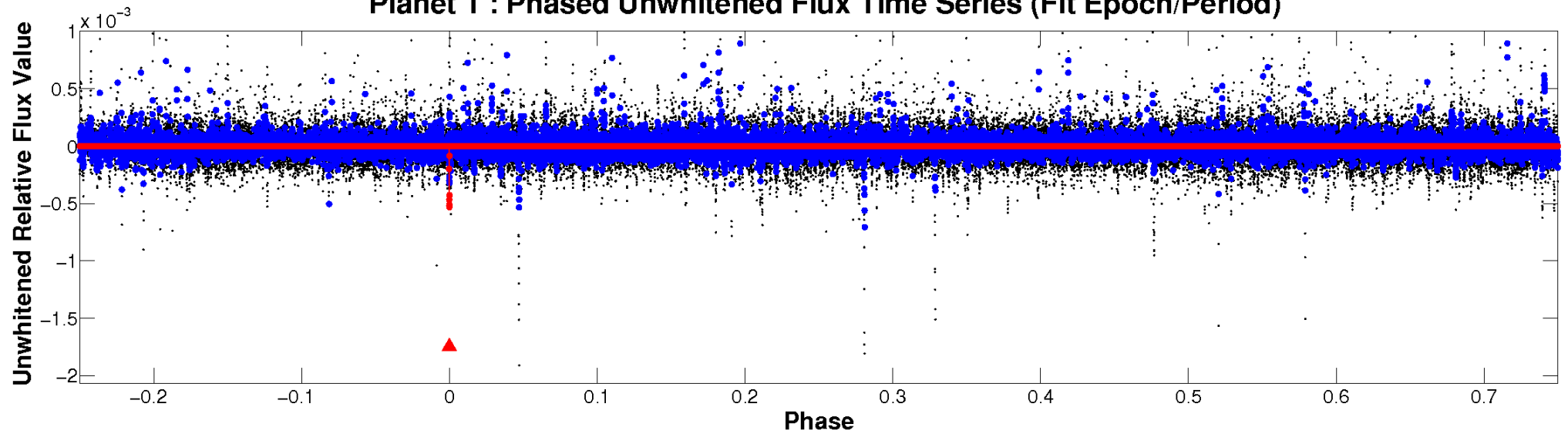
ALT Odd/Even

TCE 005524851-01

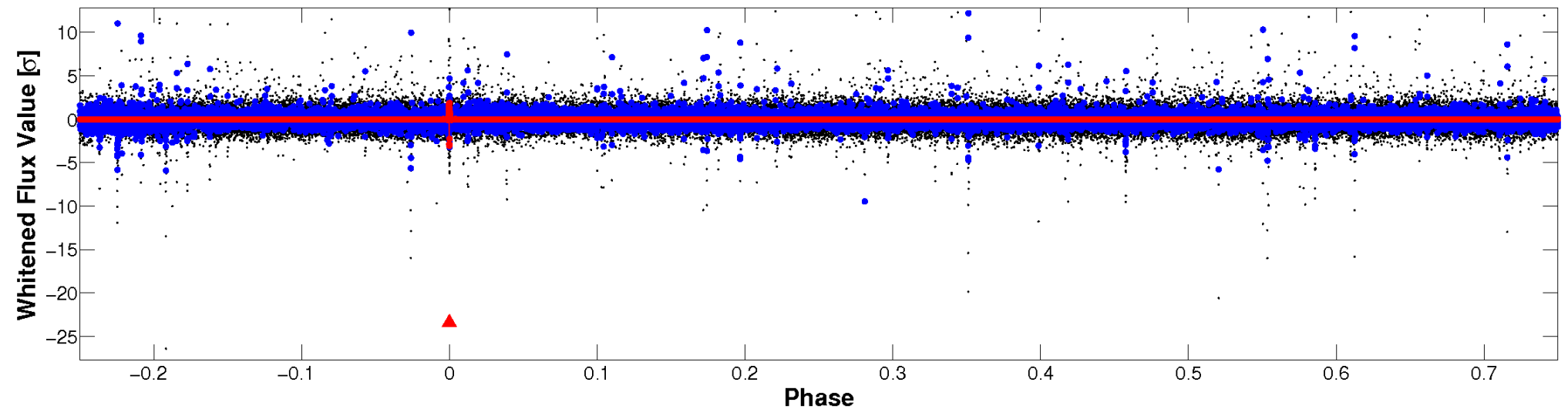


Non-Whitened Vs. Whitened Light Curve

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

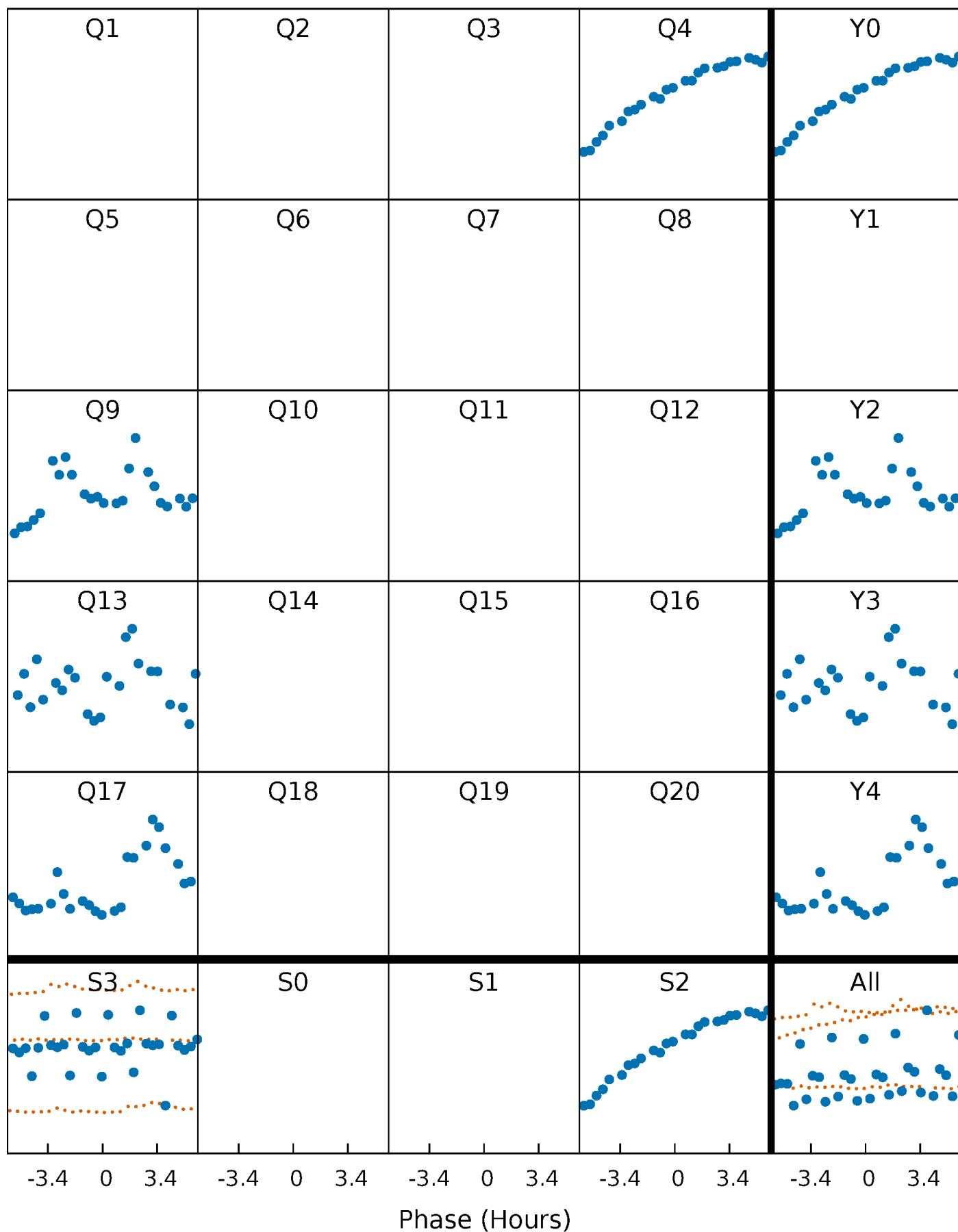


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



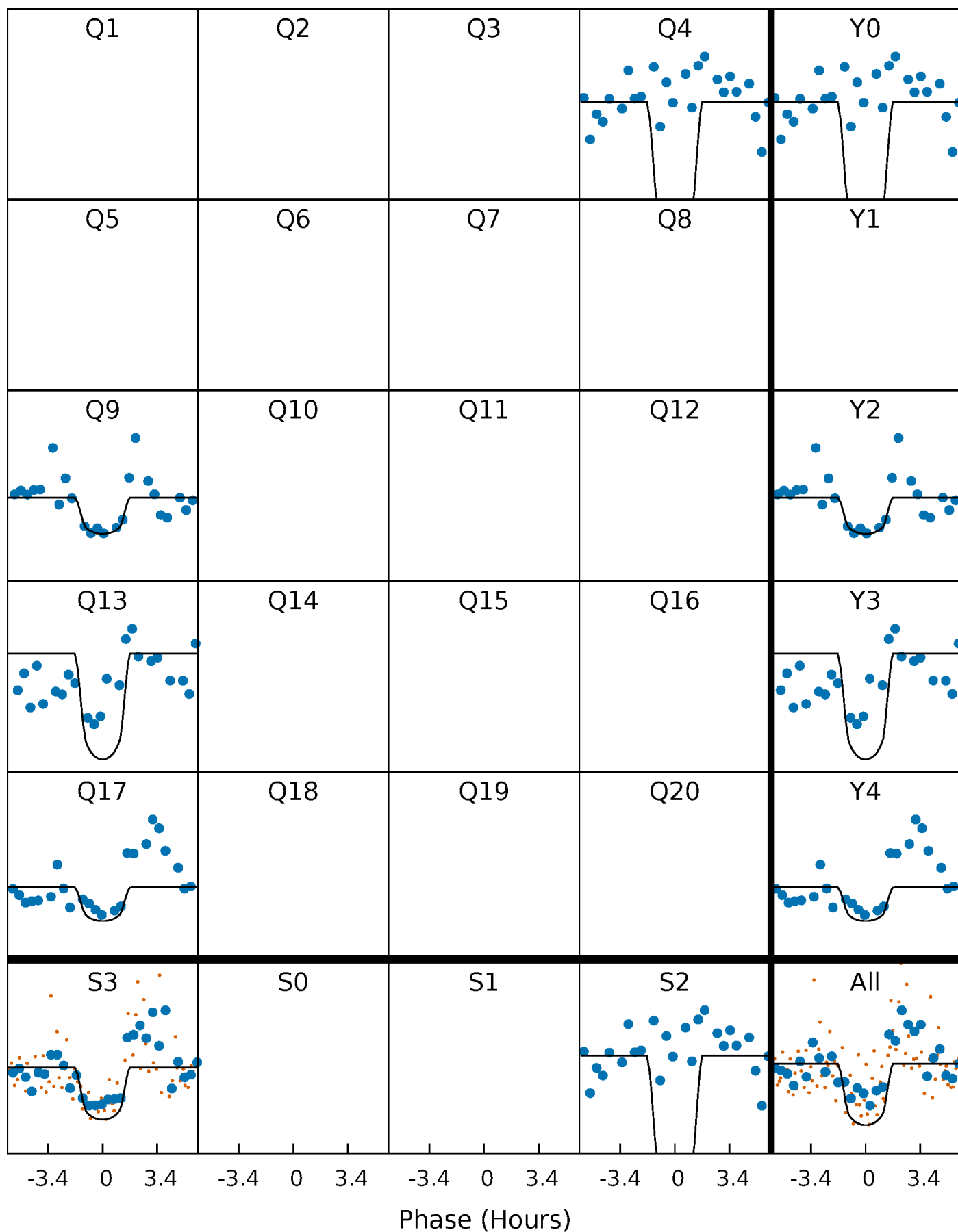
PDC Quarter-Phased Transit Curves

TCE 005524851-01 P=380.609084 Days $T_0=431.187244$ (BKJD)



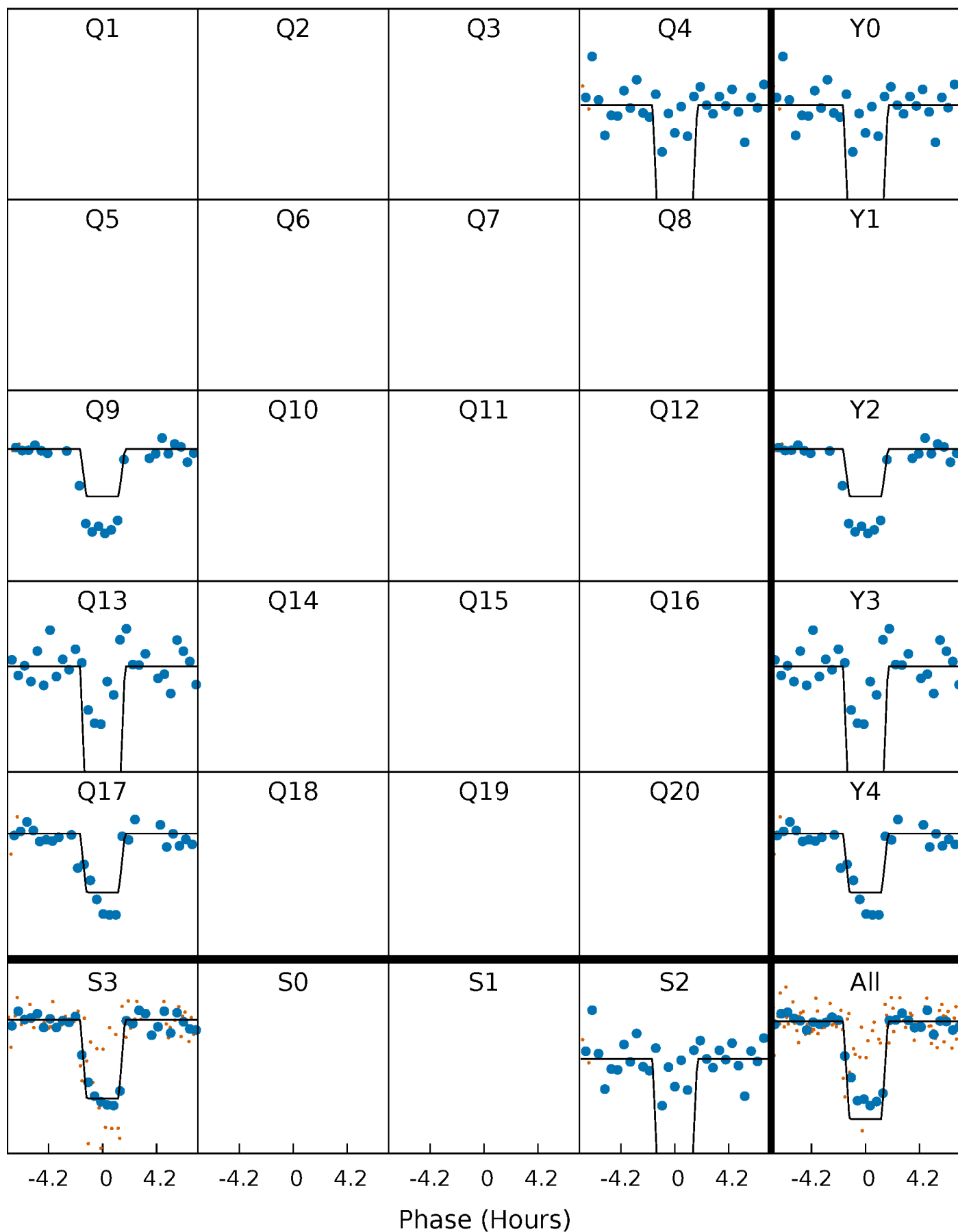
DV Quarter-Phased Transit Curves

TCE 005524851-01 P=380.609084 Days $T_0=431.187244$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

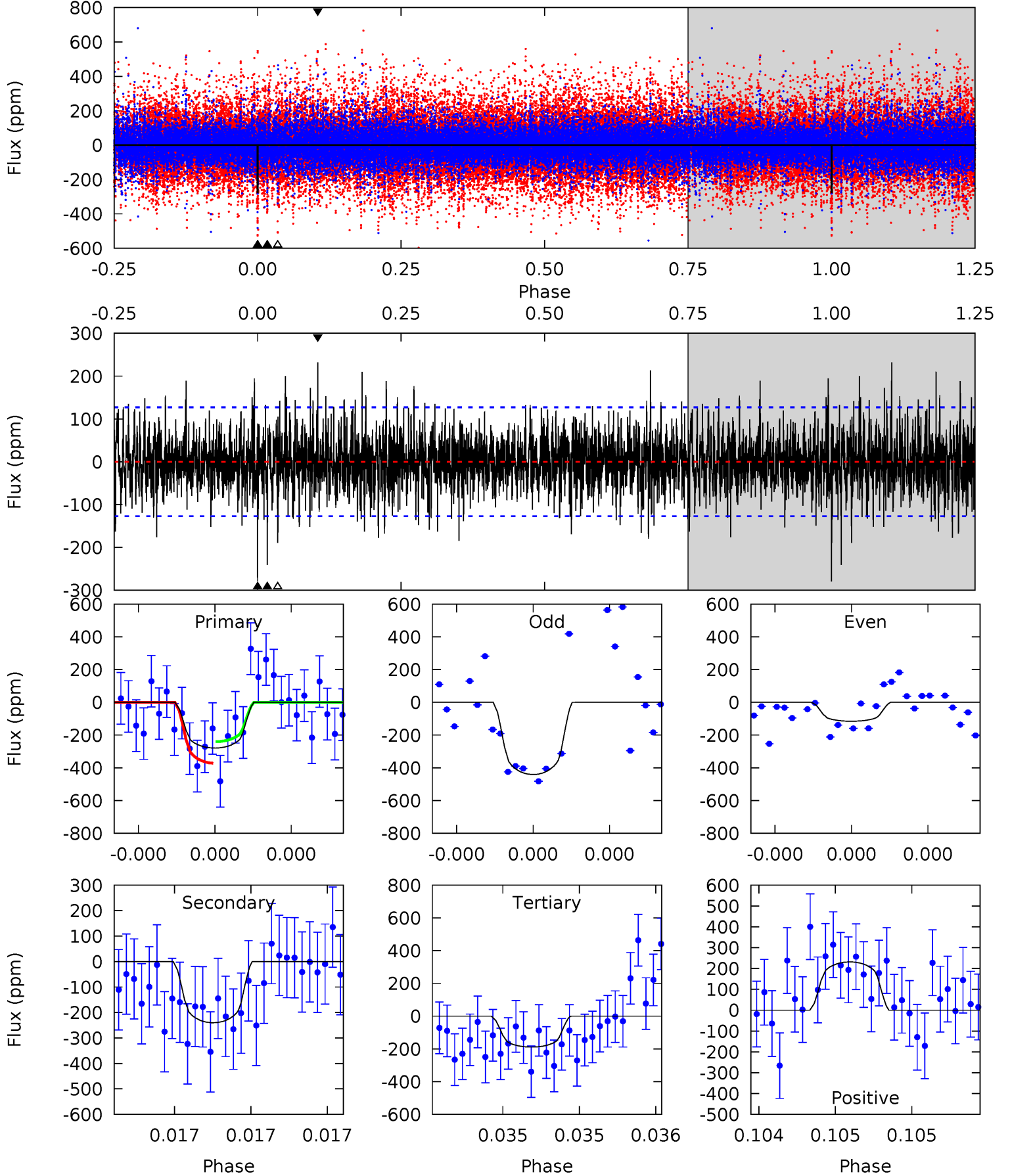
TCE 005524851-01 P=380.609441 Days $T_0=431.181373$ (BKJD)



DV Model-Shift Uniqueness Test

005524851-01, P = 380.609084 Days, E = 50.578160 Days

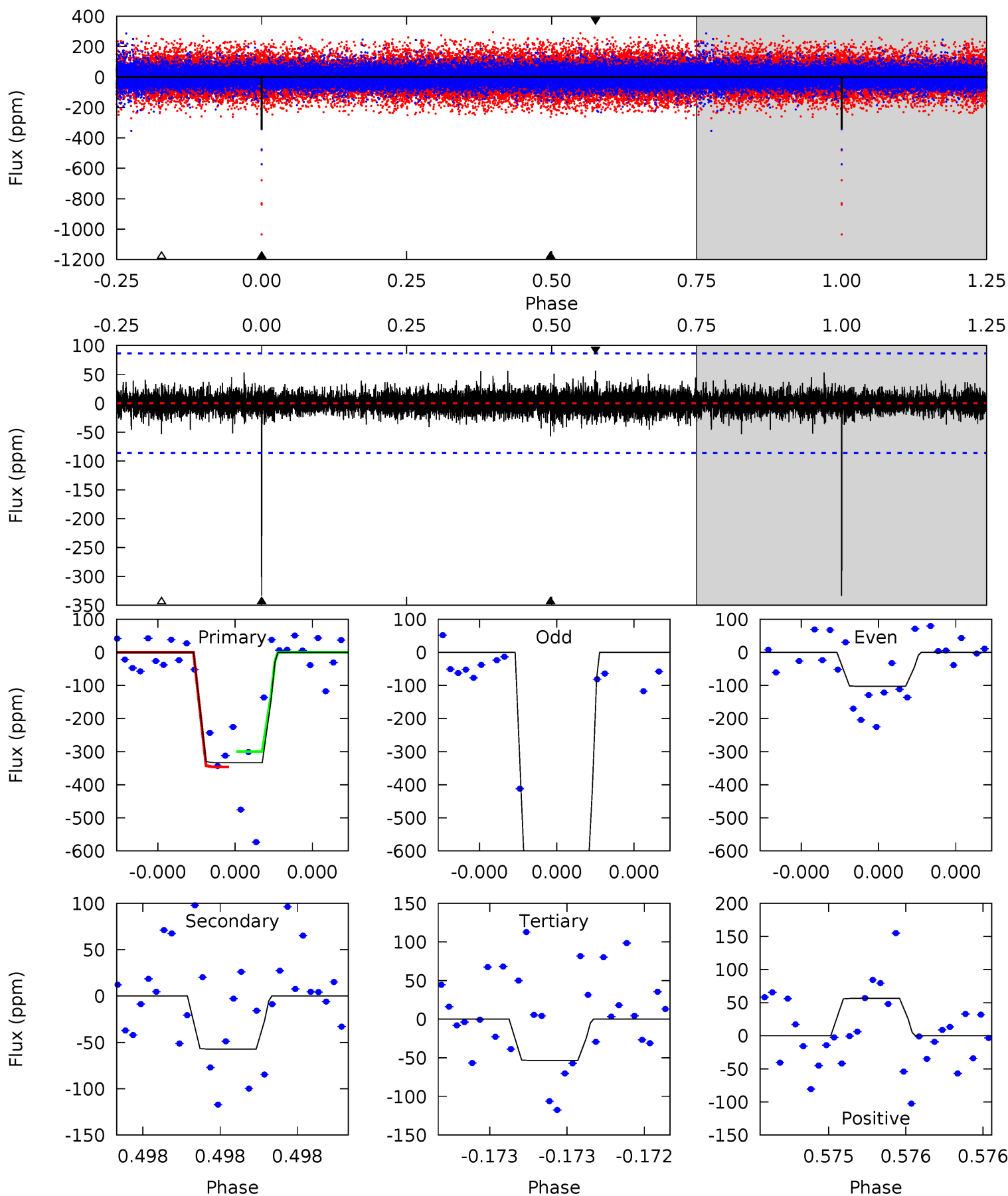
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	10.6	8.37	10.2	5.63	3.57	2.08	4.01	2.13	2.27	0.38	6.60	0.89	0.45	2.82



Alt Model-Shift Uniqueness Test

005524851-01, P = 380.609441 Days, E = 50.571932 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.7	3.73	3.48	3.67	5.63	3.57	0.71	18.2	18.1	0.25	0.06	30.4	1.20	0.14	0



Stellar Parameters For KIC 005524851

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5297^{+140}_{-156}	$3.743^{+0.938}_{-0.313}$	$-0.680^{+0.300}_{-0.300}$	$2.006^{+1.181}_{-1.443}$	$0.811^{+0.184}_{-0.150}$	$0.141^{+3.650}_{-0.087}$
	+3%/-3%	+25%/-8%	+44%/-44%	+59%/-72%	+23%/-18%	+2581%/-61%
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 005524851-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-240 ± 23	$6.10^{+6.60}_{-4.19}$	461^{+72}_{-92}	3950^{+2403}_{-659}	3299^{+29928}_{-2527}
Alt.	-57 ± 15	$5.93^{+6.69}_{-3.80}$	461^{+66}_{-94}	3169^{+1156}_{-509}	808^{+5485}_{-638}

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 $A_{obs} \gg 1.0$

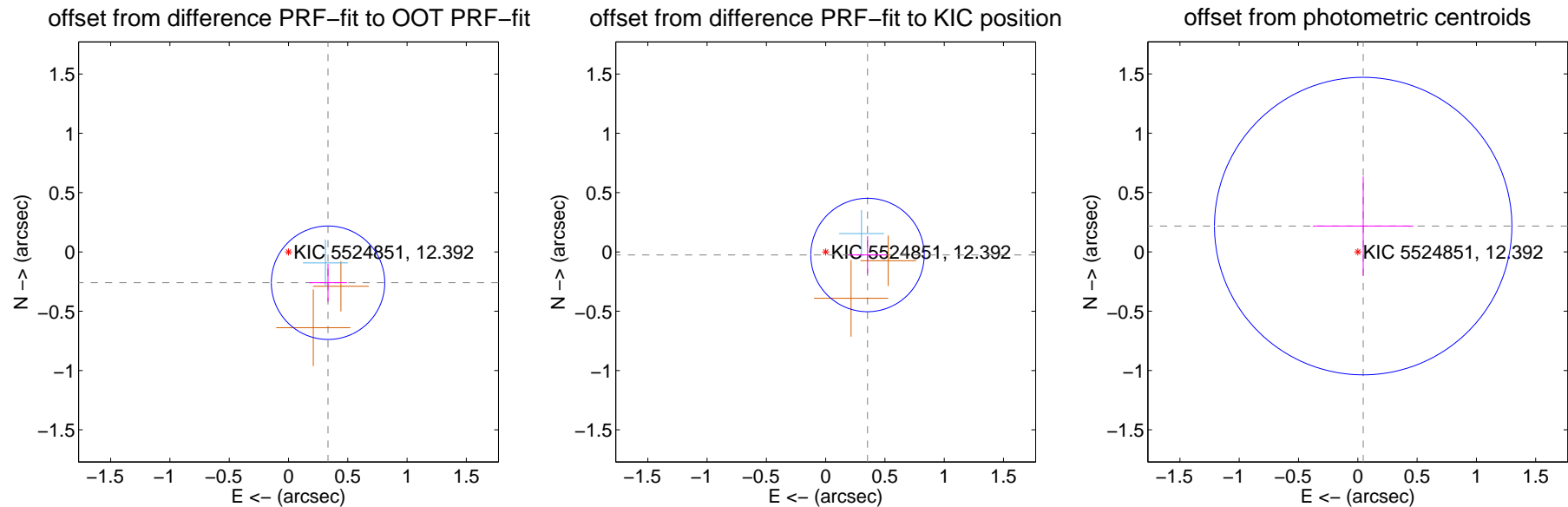
DV Centroid Data

Supplemental centroid analysis for 005524851-01. Kepler magnitude: 12.39. Transit SNR 14.25

There are 1 quarters with good PRF difference image offsets

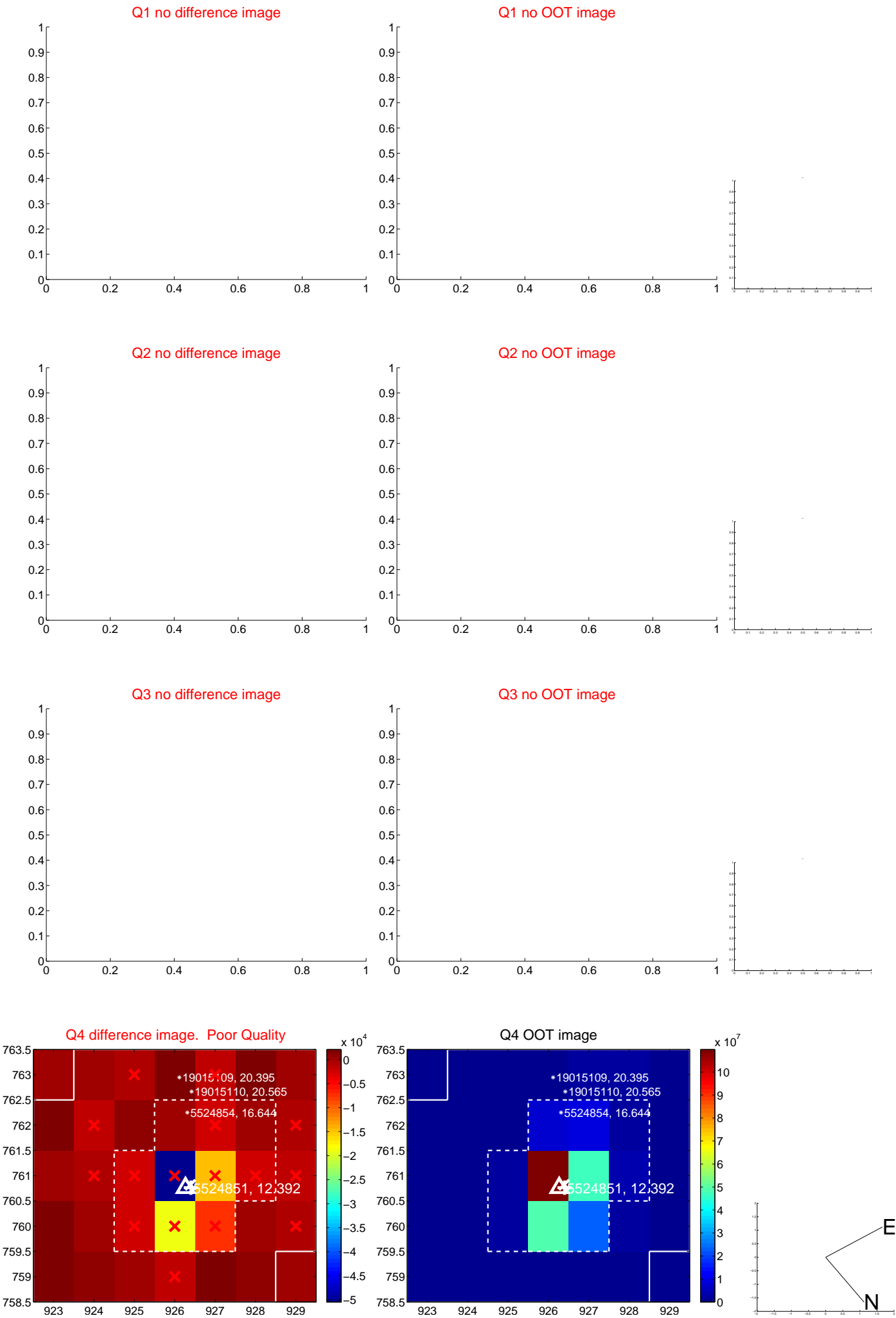
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.423 ± 0.159	2.65	-0.333 ± 0.159	-0.260 ± 0.159
PRF-fit source offset from KIC position	0.354 ± 0.159	2.22	-0.353 ± 0.159	-0.026 ± 0.159
photometric centroid source offset	0.22 ± 0.42	0.53	-0.05 ± 0.42	0.22 ± 0.42



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.

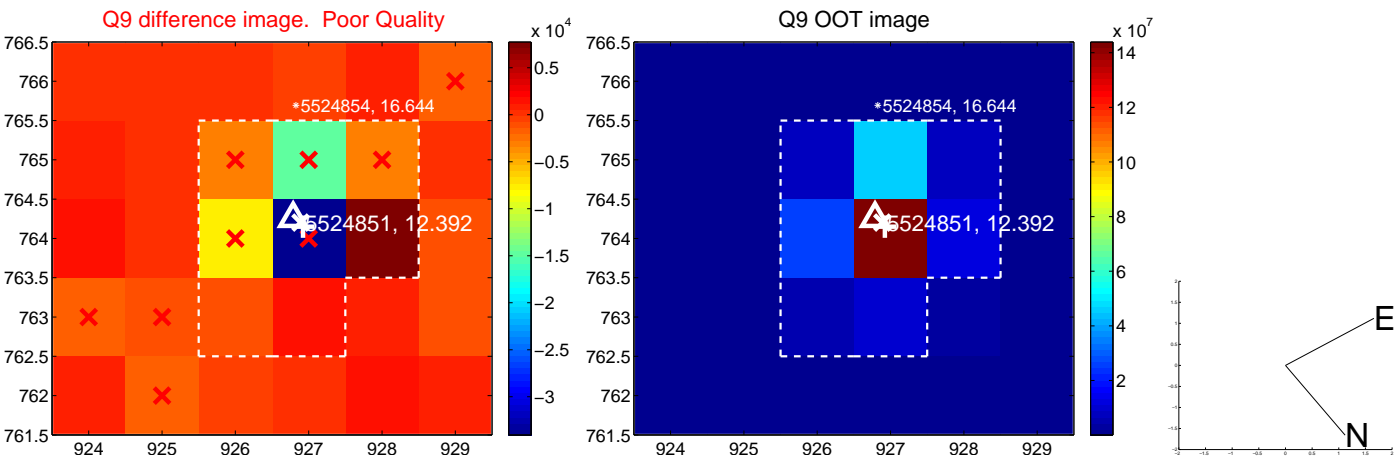
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



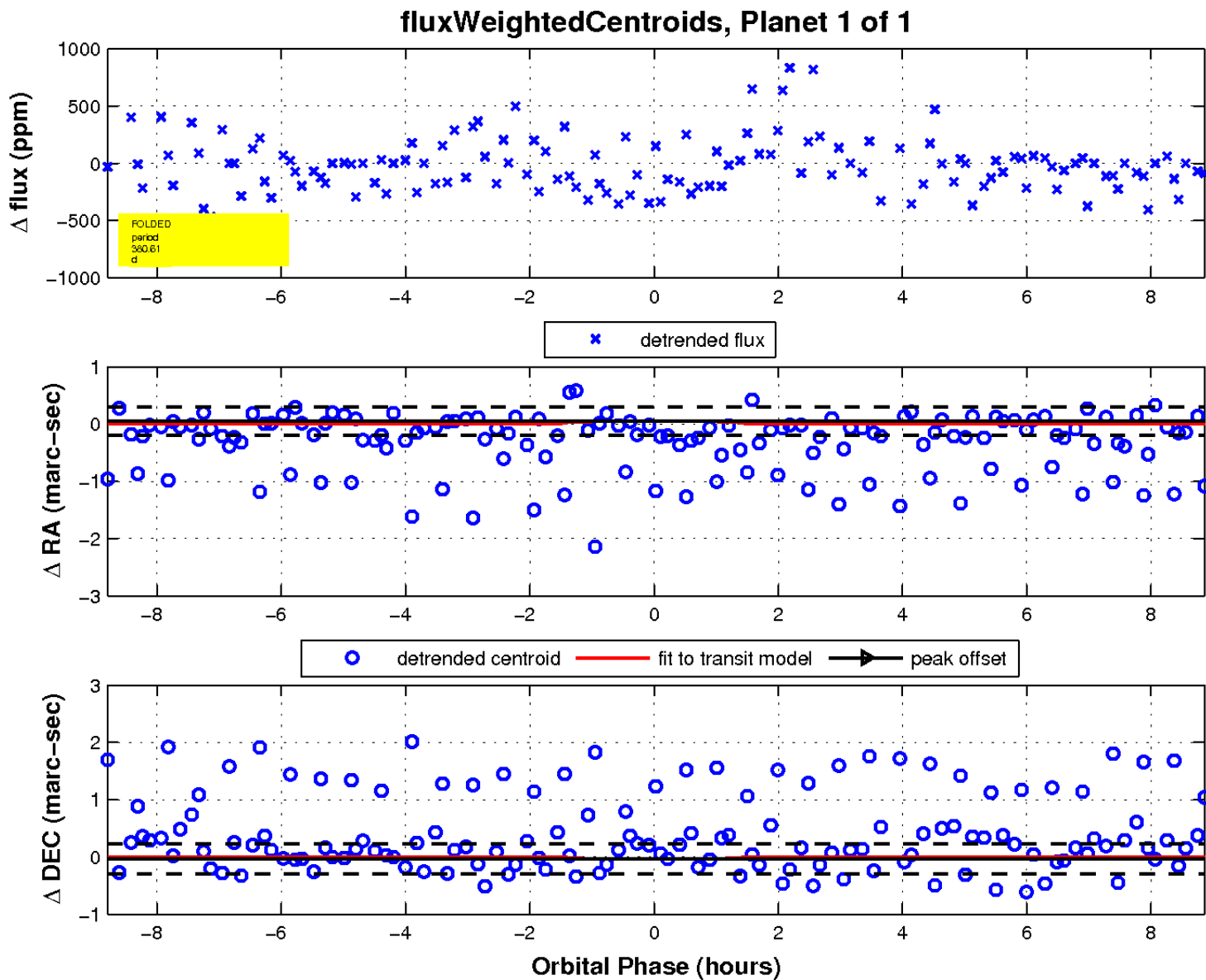
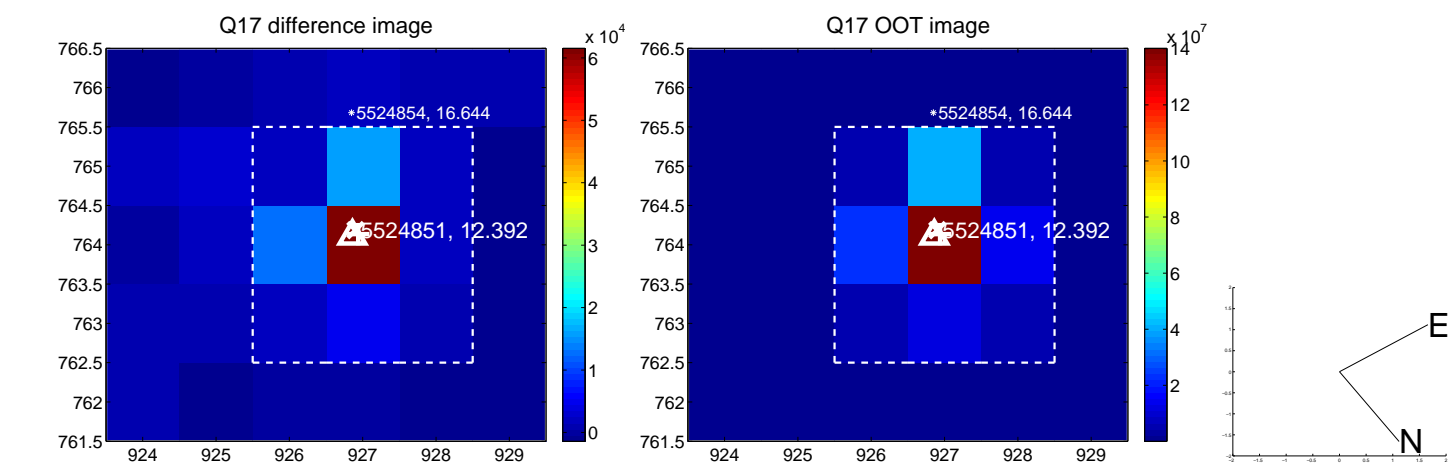
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

