

KIC 005544533

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})
005544533-01	OBS	No	473.983796	148.142008	704.6	13.895	9.5	8.6	1.00	5780	2.79	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005544533-01	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.

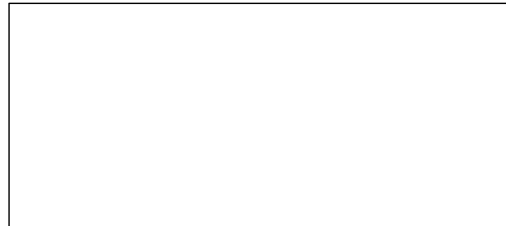
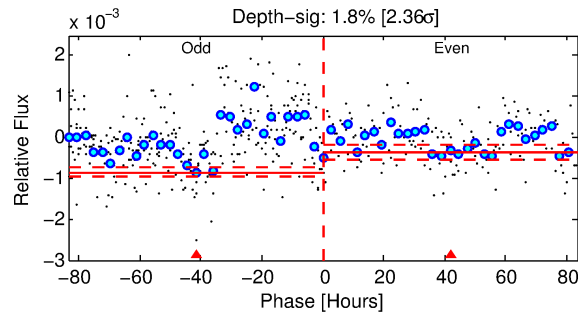
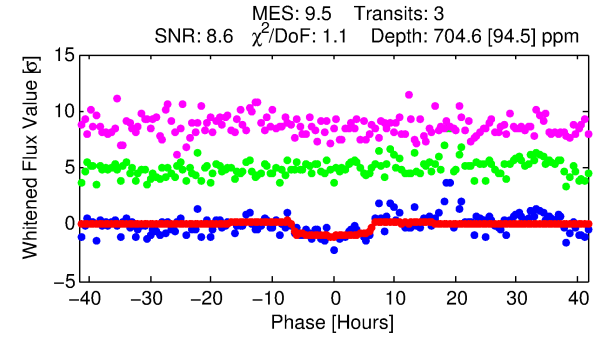
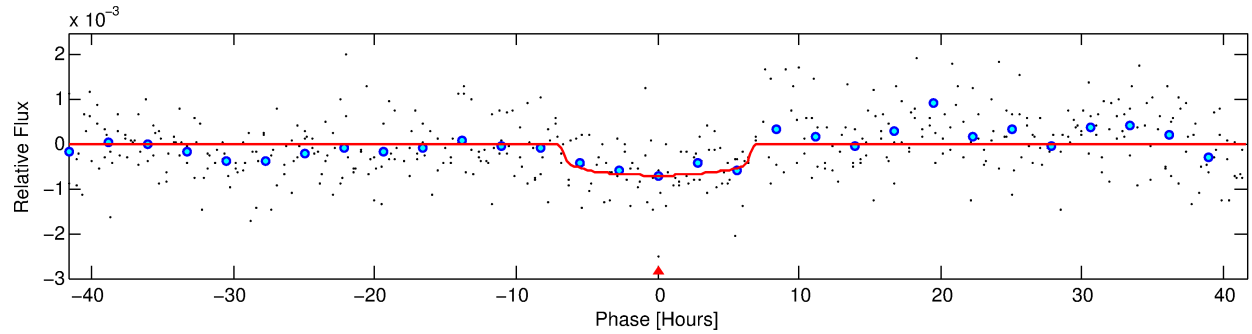
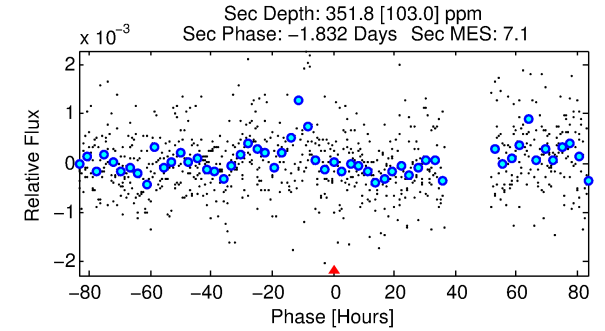
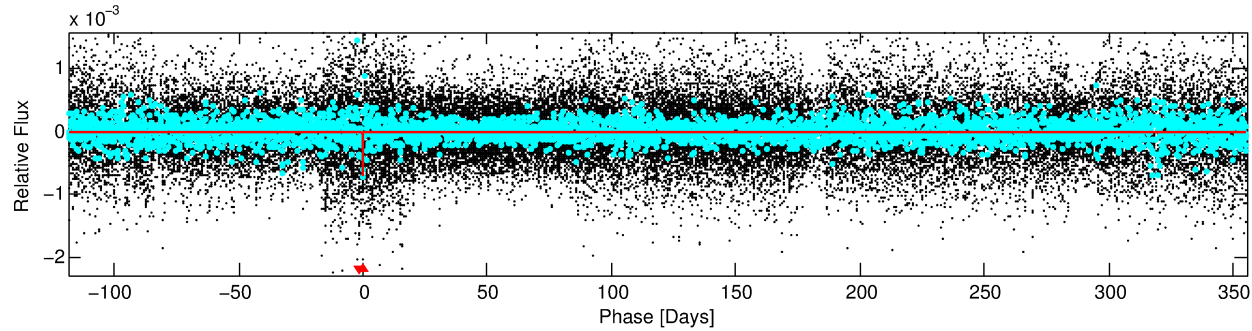
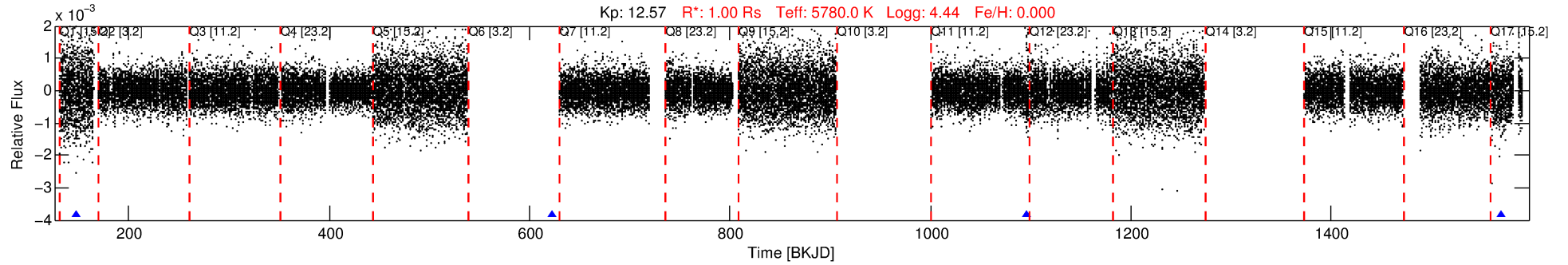
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005544533-01

No Significant Match Found

DV One-Page Summary

KIC: 5544533 Candidate: 1 of 1 Period: 473.984 d



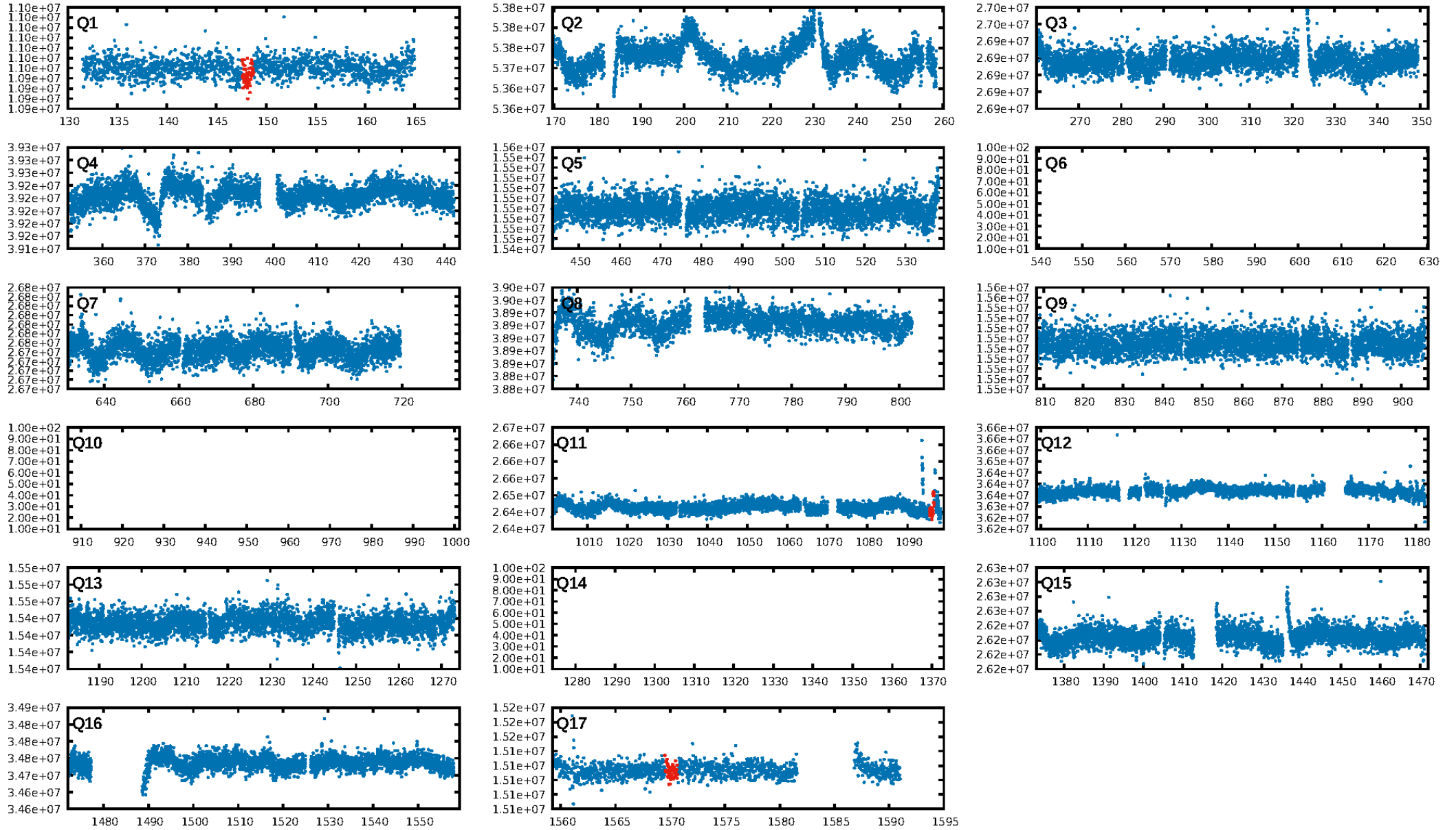
DV Fit Results:

Period = 473.98380 [0.01402] d
Epoch = 148.1420 [0.0321] BKJD
Rp/R* = 0.0256 [0.0137]
a/R* = 206.78 [482.40]
b = 0.65 [2.09]
Seff = 0.71 [0.00]
Teq = 234 [0] K
Rp = 2.79 [1.50] Re
a = 1.1900 [0.0000] AU
Ag = 35119.89 [39098.41] [0.90σ]
Teffp = 4947 [1377] K [3.42σ]

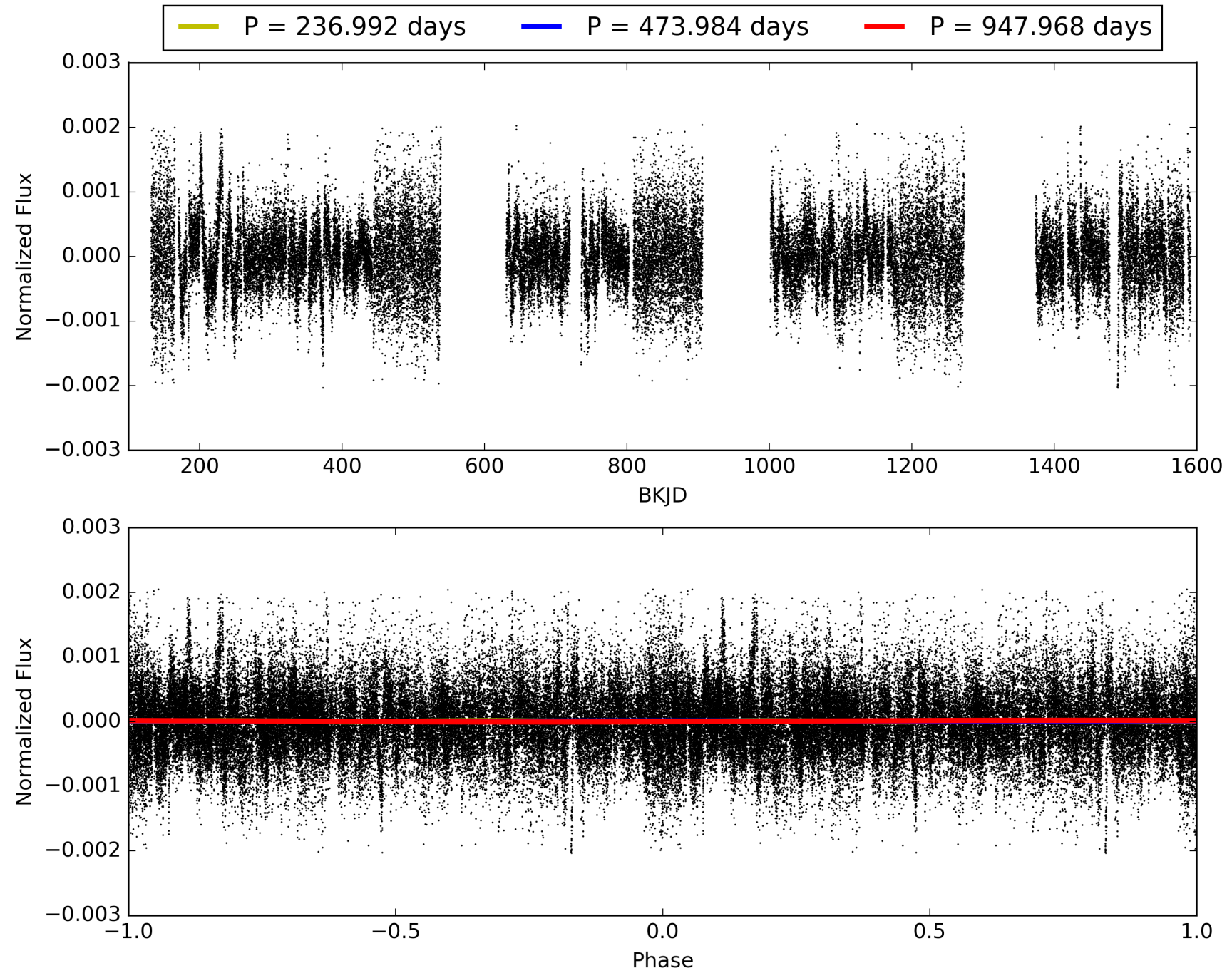
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.8%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 1.23e-14
RollingBand-fgt: 1.00 [1/1]
GhostDiagnostic-chr: -2.876
Centroid-sig: 77.9%
Centroid-so: 2.490 arcsec [7.79σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

TCE 005544533-01, PDC Light Curves

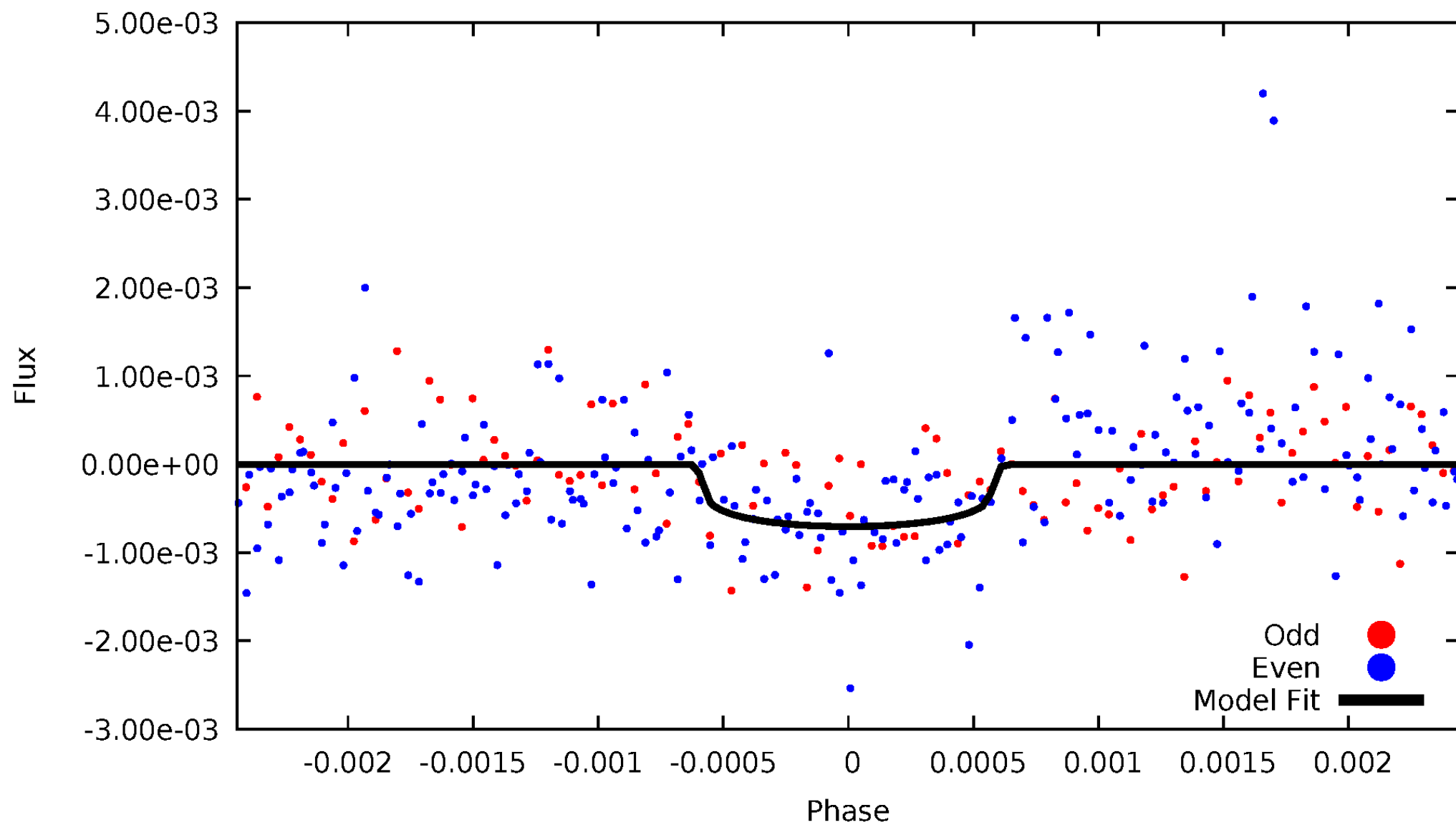


TCE 005544533-01



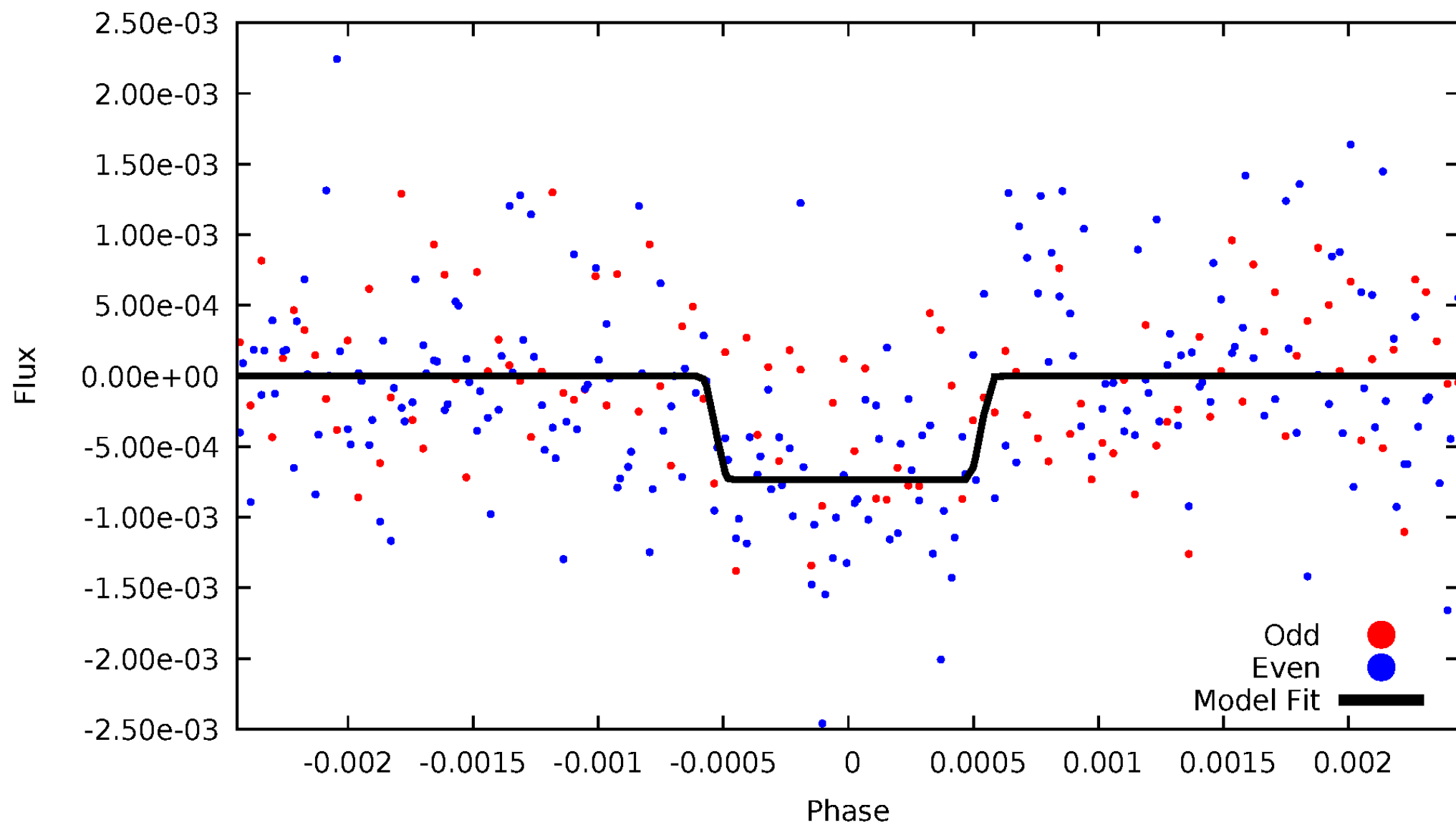
DV Odd/Even

TCE 005544533-01



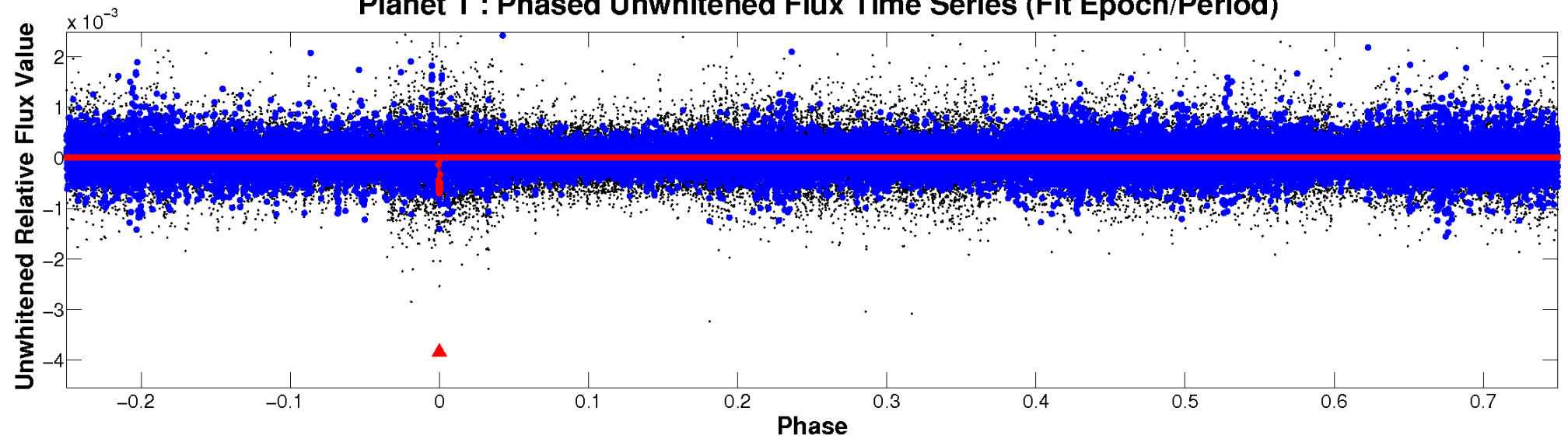
ALT Odd/Even

TCE 005544533-01

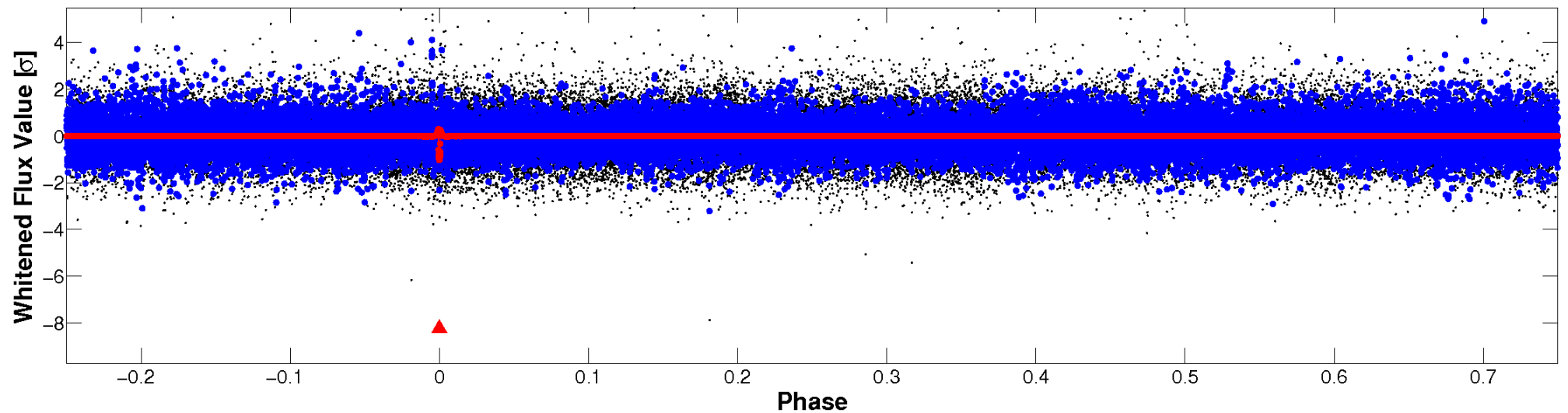


Non-Whitened Vs. Whitened Light Curve

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

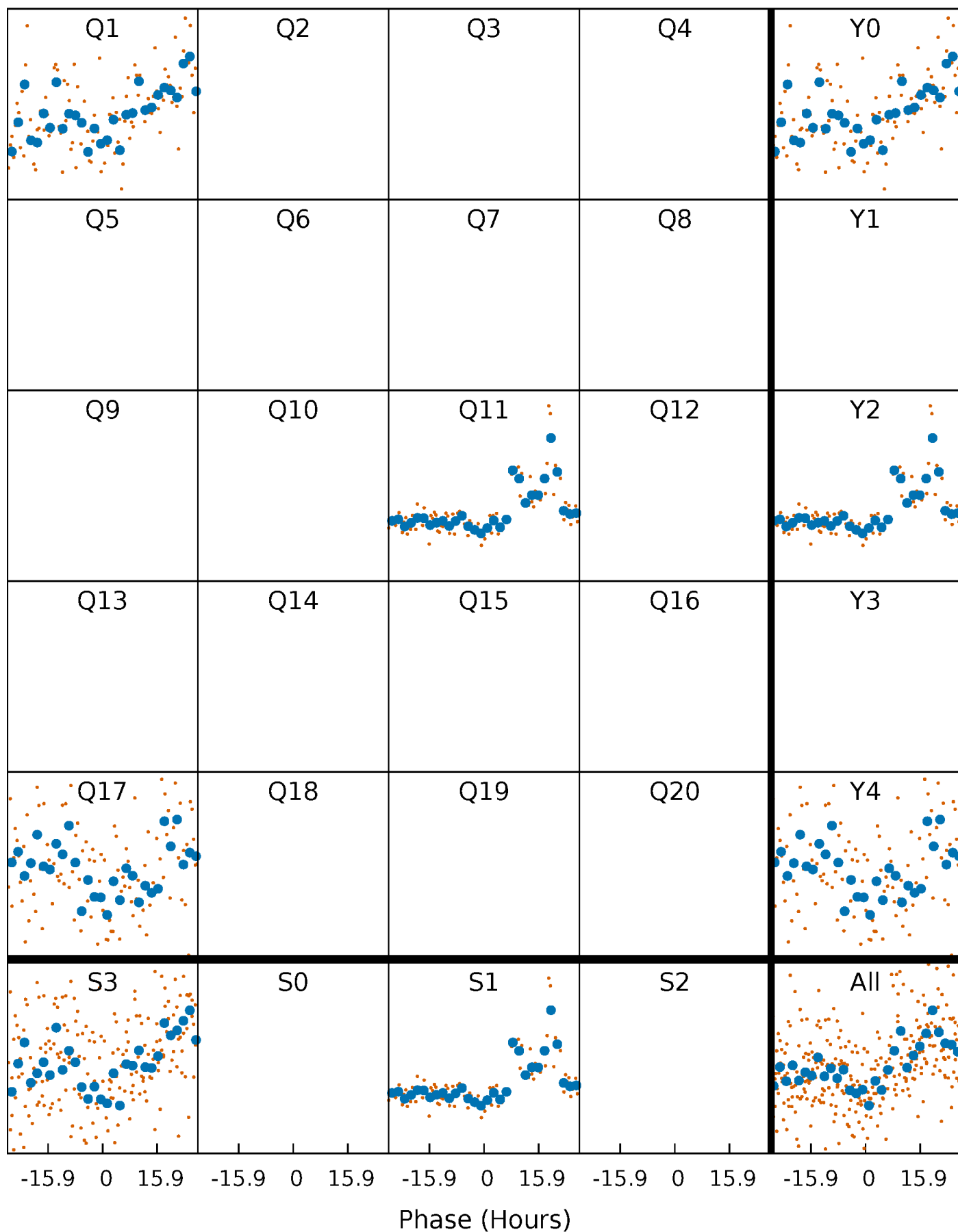


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



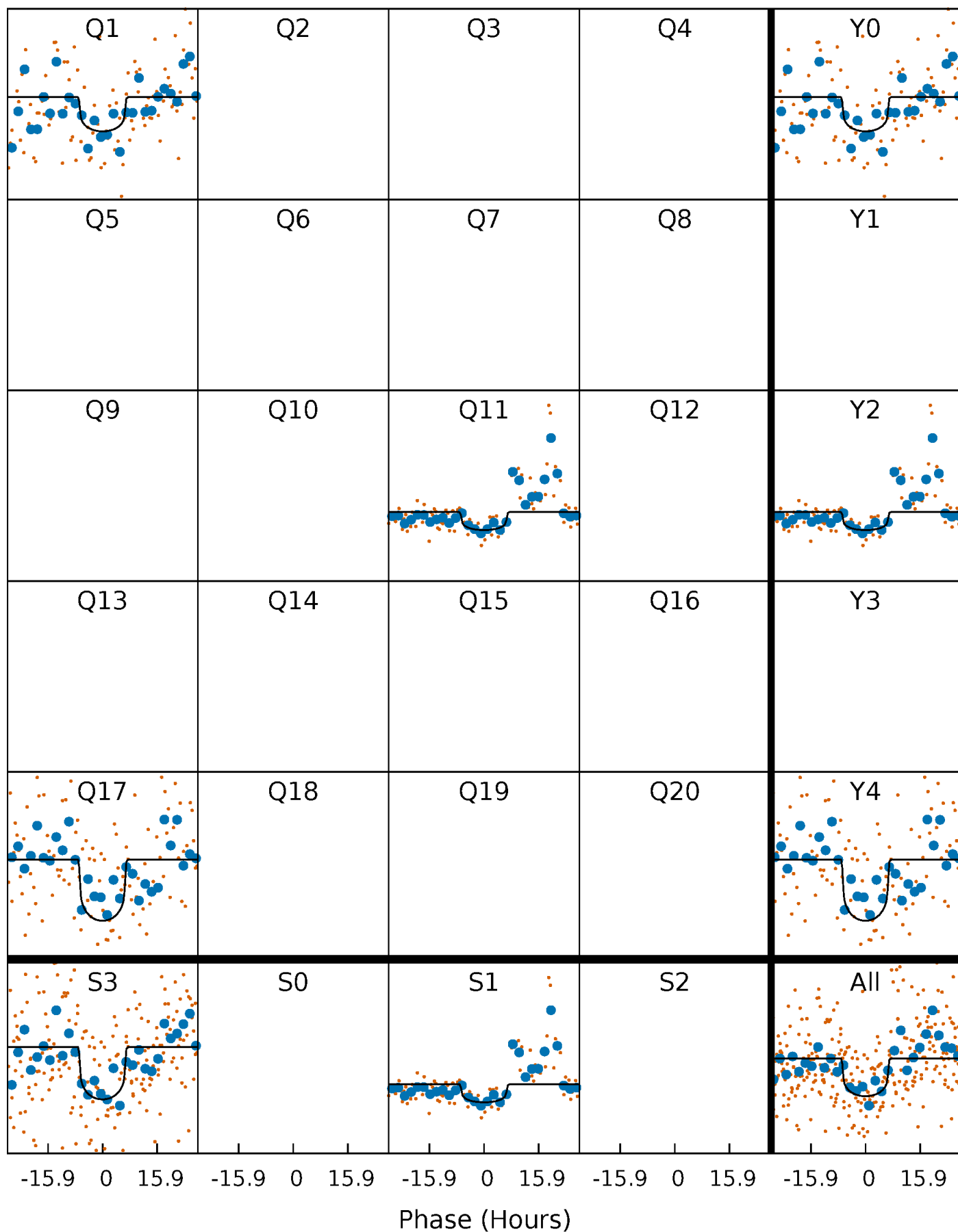
PDC Quarter-Phased Transit Curves

TCE 005544533-01 P=473.983796 Days $T_0=148.142008$ (BKJD)



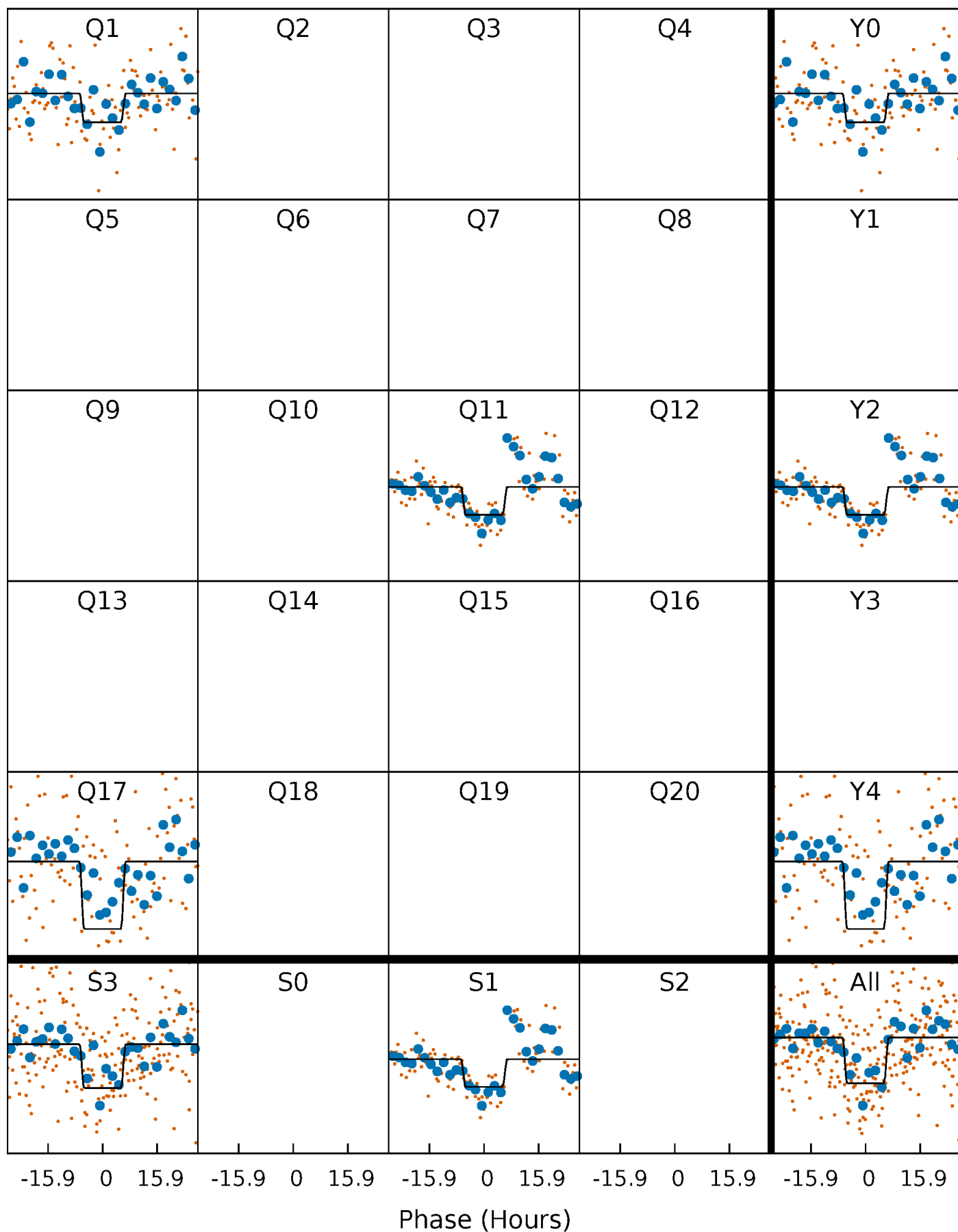
DV Quarter-Phased Transit Curves

TCE 005544533-01 P=473.983796 Days $T_0=148.142008$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

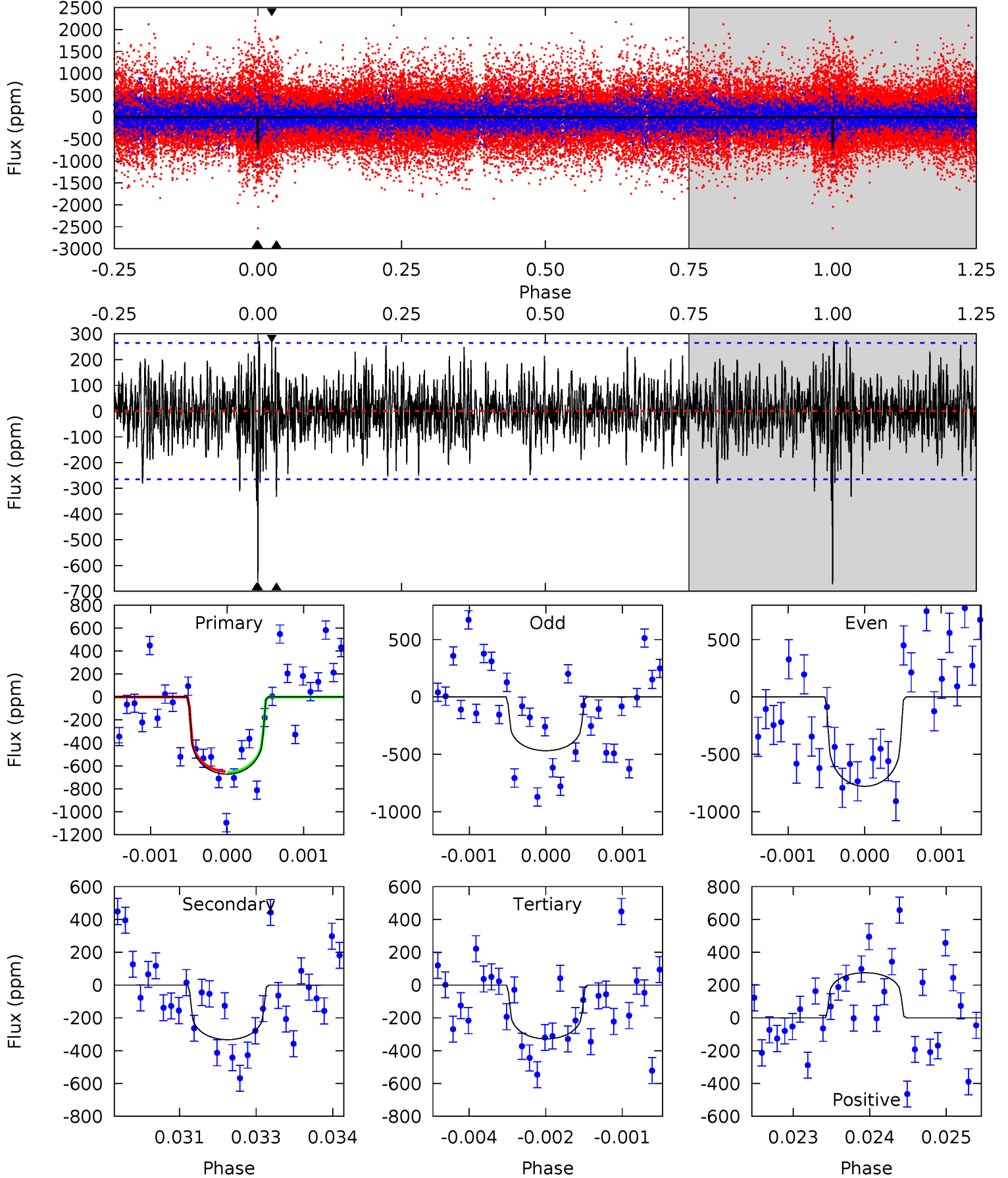
TCE 005544533-01 P=473.963235 Days $T_0=148.195396$ (BKJD)



DV Model-Shift Uniqueness Test

005544533-01, P = 473.983796 Days, E = 148.142008 Days

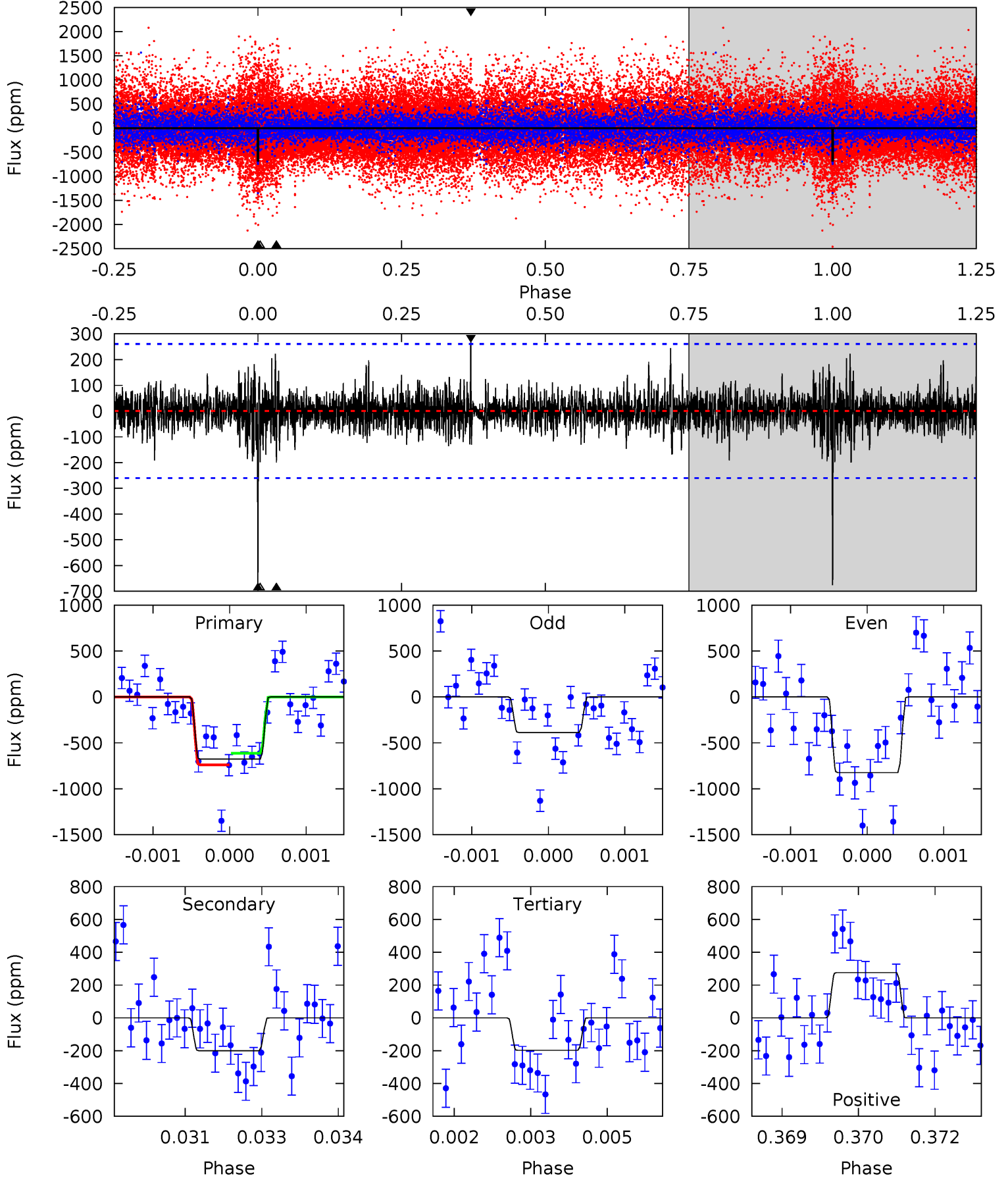
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	6.81	6.71	5.63	5.42	3.24	1.64	7.05	8.13	0.10	1.18	3.03	0.98	0.29	0.09



Alt Model-Shift Uniqueness Test

005544533-01, P = 473.963235 Days, E = 148.195396 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	4.17	4.13	5.74	5.42	3.25	1.03	9.96	8.34	0.04	-1.58	4.33	0.93	0.29	1.32



Stellar Parameters For KIC 005544533

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005544533-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-333 ± 49	$2.93^{+1.43}_{-1.48}$	327^{+15}_{-16}	4843^{+1851}_{-677}	29572^{+87848}_{-15909}
Alt.	-200 ± 48	$2.93^{+1.56}_{-1.33}$	327^{+16}_{-15}	4383^{+1410}_{-635}	18110^{+46064}_{-10869}

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

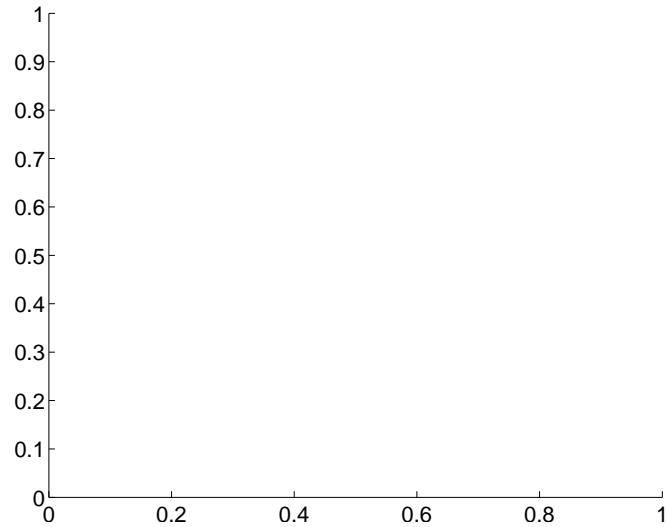
Supplemental centroid analysis for 005544533-01. Kepler magnitude: 12.57. Transit SNR 8.58

There are 0 quarters with good PRF difference image offsets

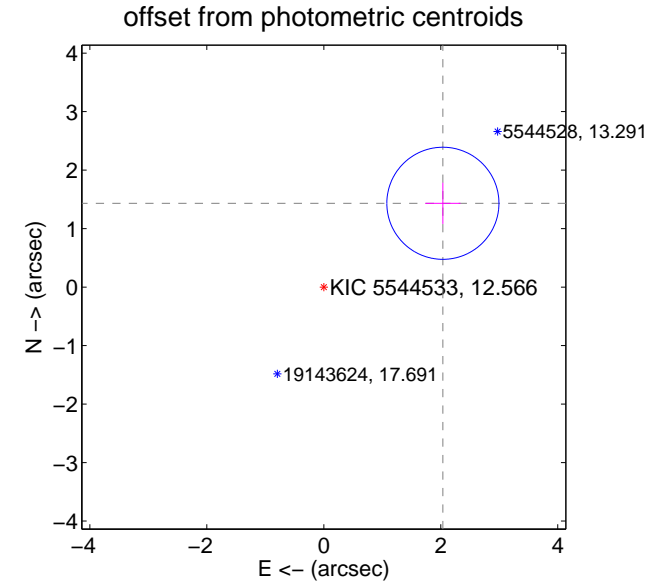
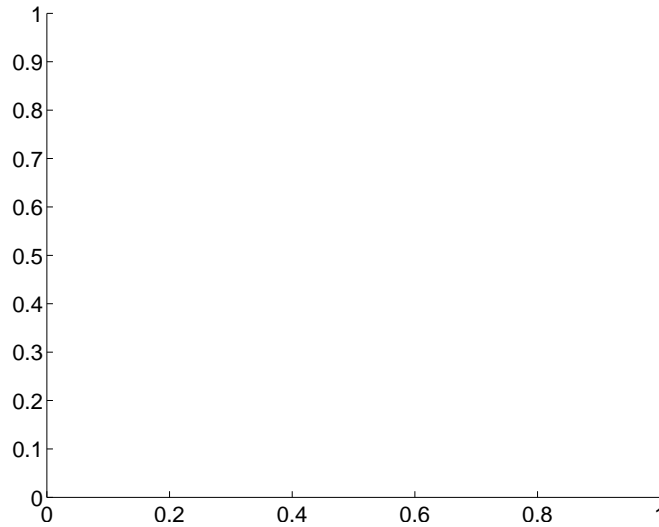
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	2.49 ± 0.32	7.79	-2.04 ± 0.30	1.43 ± 0.35

There is no PRF-fit offset from OOT-fit

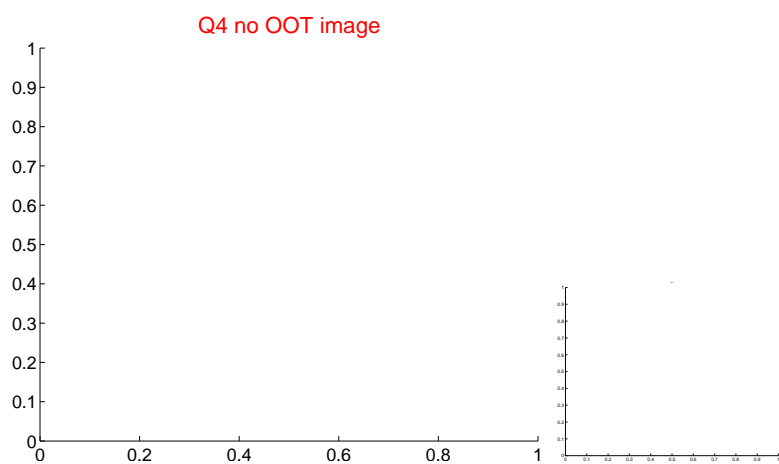
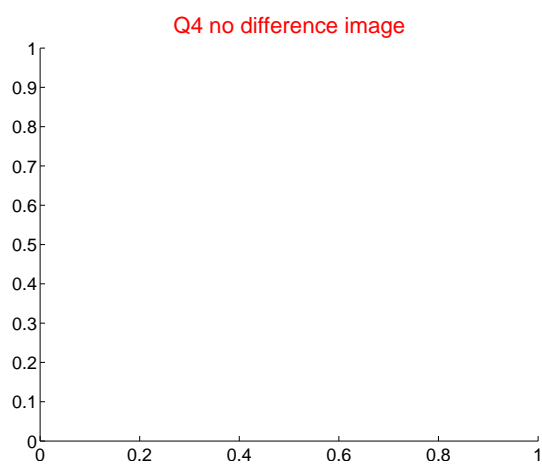
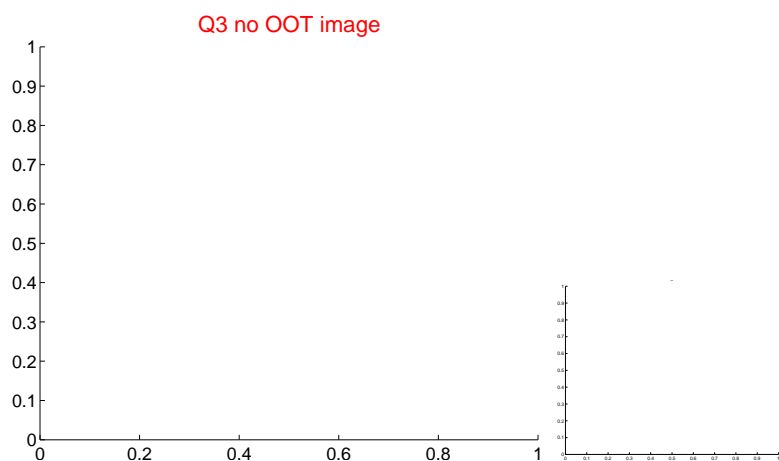
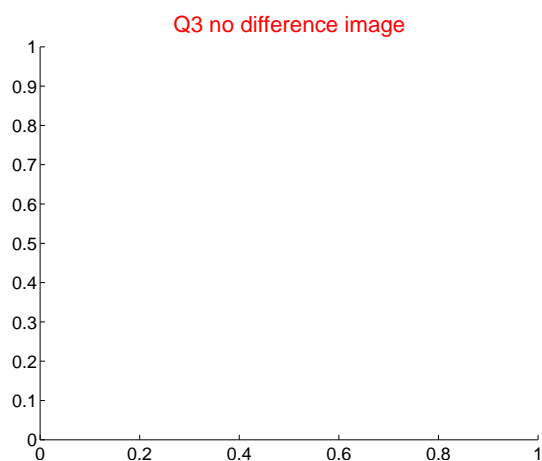
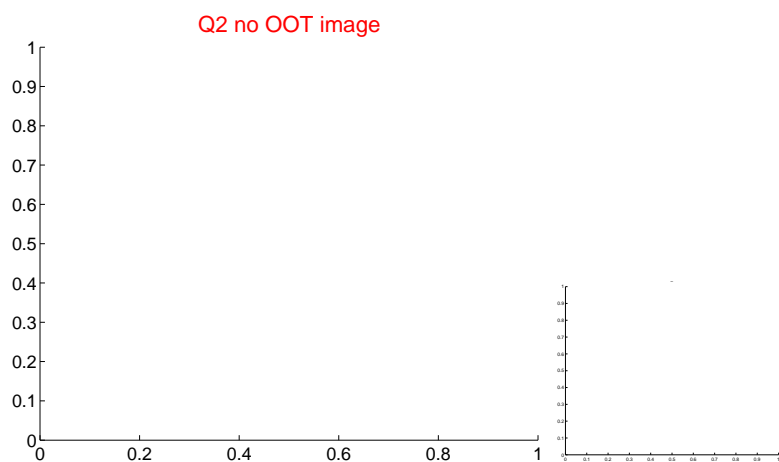
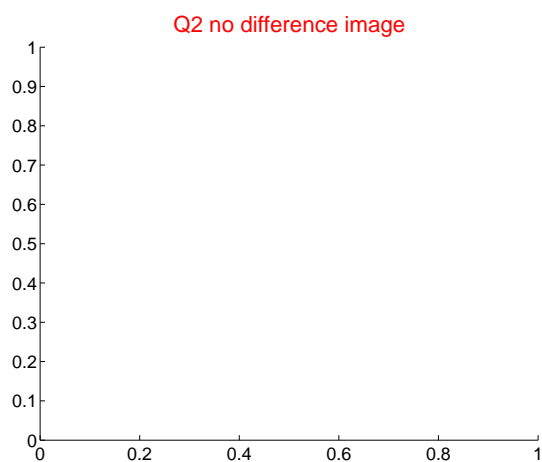
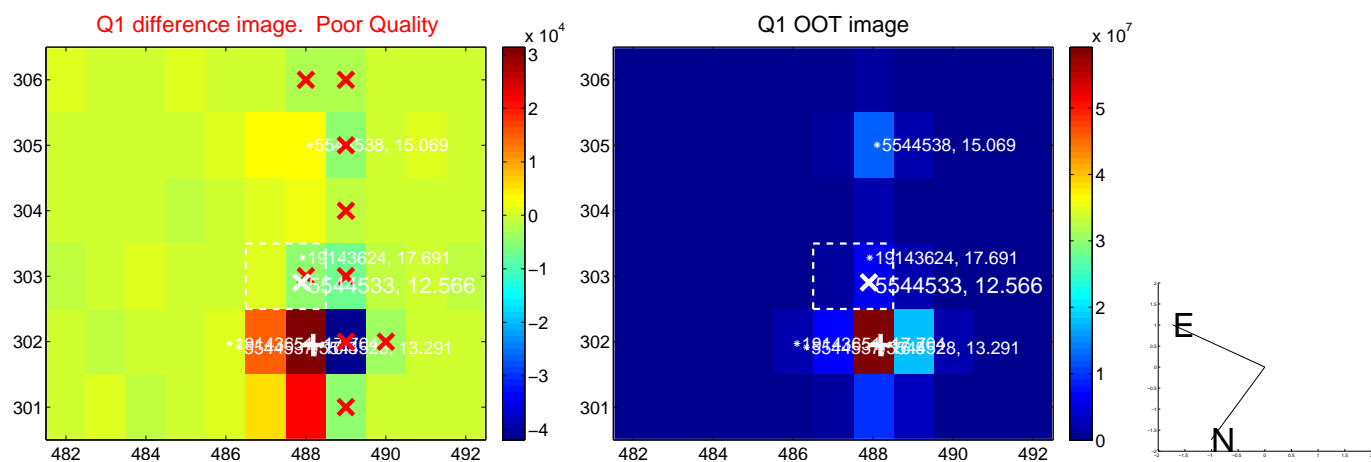


There is no PRF-fit offset from KIC



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



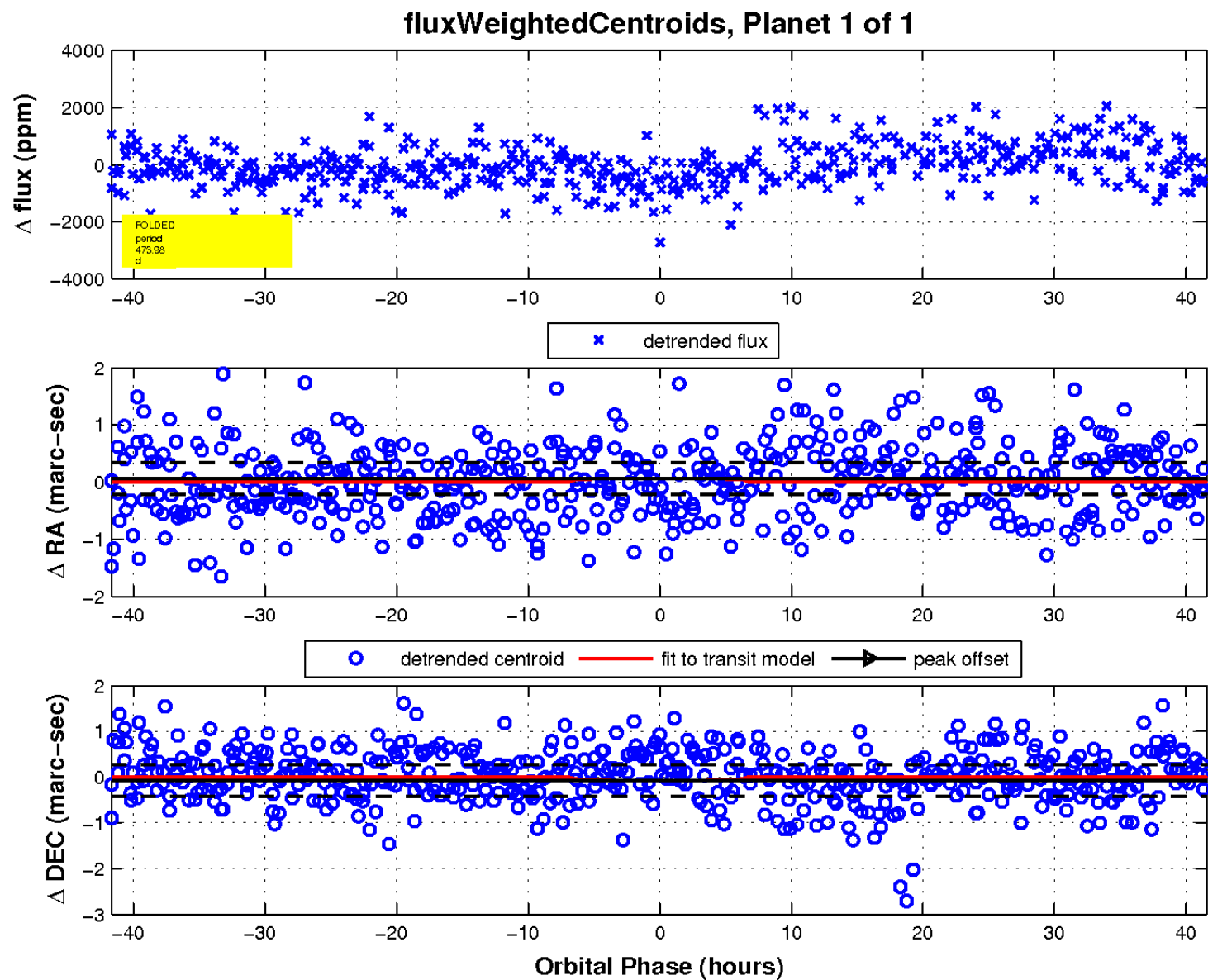
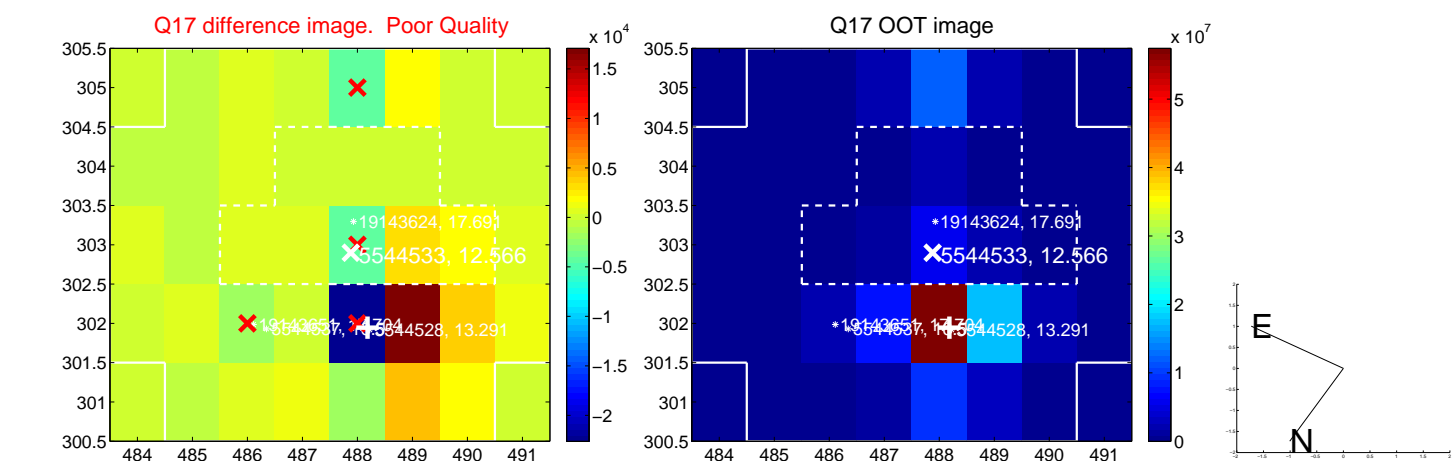
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

