

KIC 010535937

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})
010535937-01	OBS	No	274.783049	184.945662	148.6	15.039	8.1	7.8	1.15	6428	1.50	2.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010535937-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

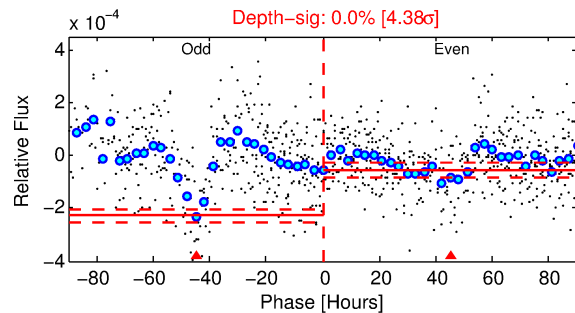
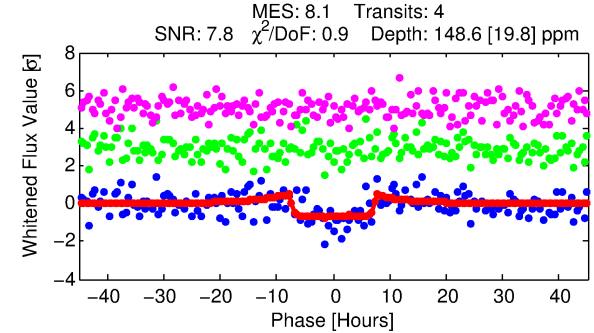
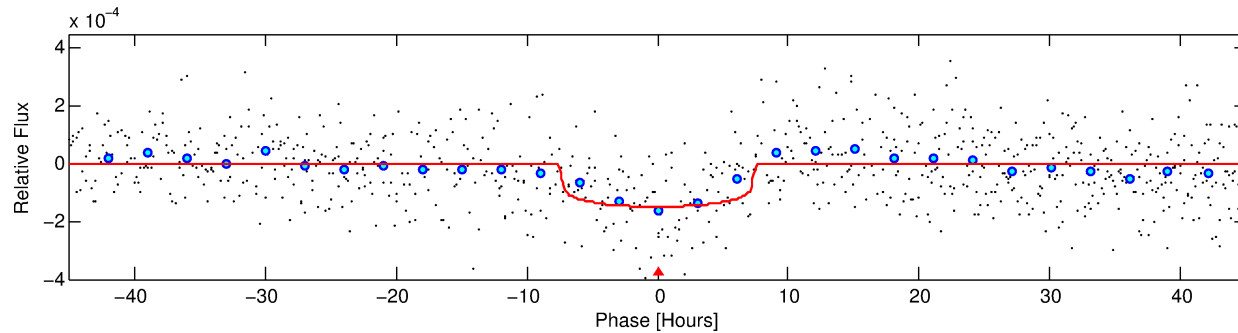
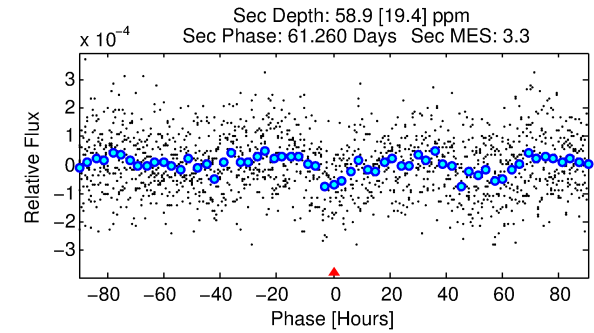
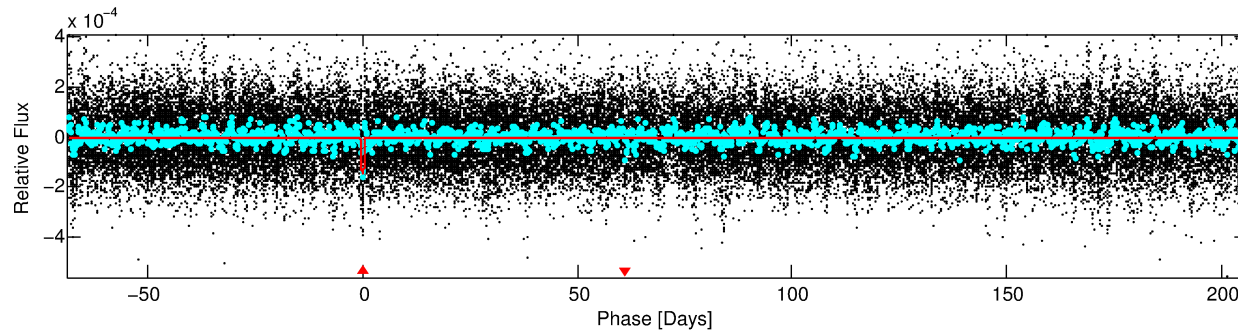
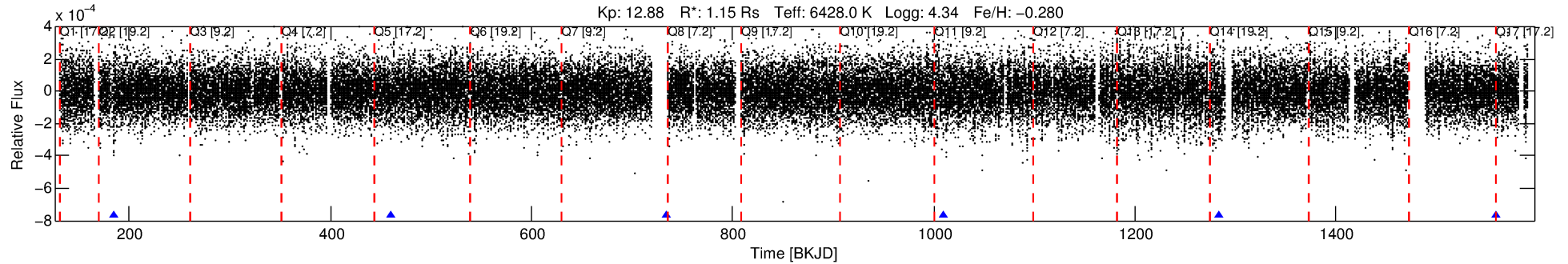
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010535937-01

No Significant Match Found

DV One-Page Summary

KIC: 10535937 Candidate: 1 of 1 Period: 274.783 d



DV Fit Results:

Period = 274.78305 [0.00585] d
Epoch = 184.9457 [0.0141] BKJD
Rp/R* = 0.0119 [0.0036]
a/R* = 102.39 [163.30]
b = 0.70 [1.18]
Seff = 2.87 [0.82]
Teq = 332 [24] K
Rp = 1.50 [0.56] Re
a = 0.8409 [0.1536] AU
Ag = 10182.56 [7456.15] [1.37σ]
Teffp = 5153 [896] K [5.38σ]

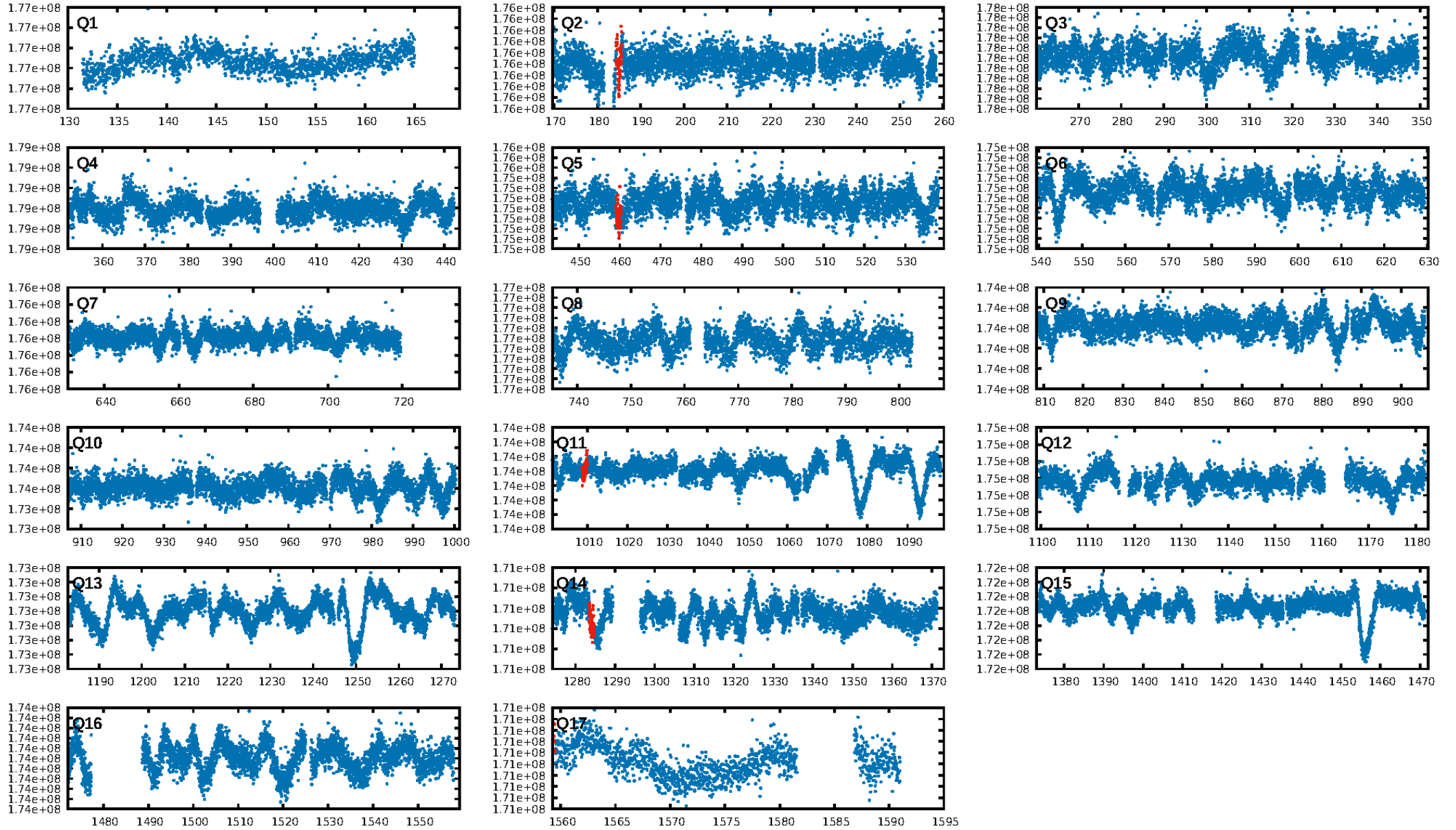
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 14.6%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 3.25e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.215
Centroid-sig: 79.1%
Centroid-so: 0.646 arcsec [0.48σ]
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 [1/1]

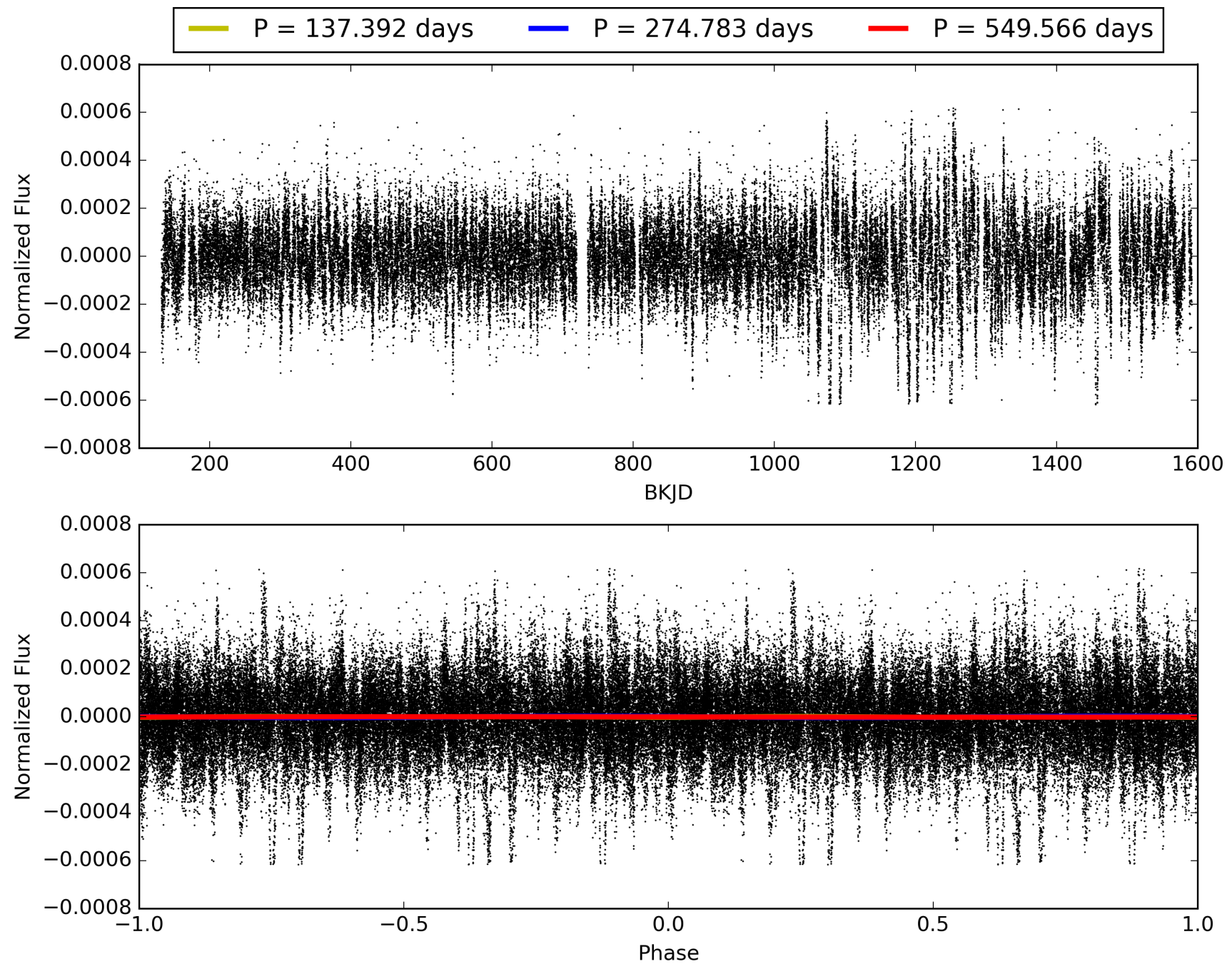
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:18:42 Z

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

TCE 010535937-01, PDC Light Curves

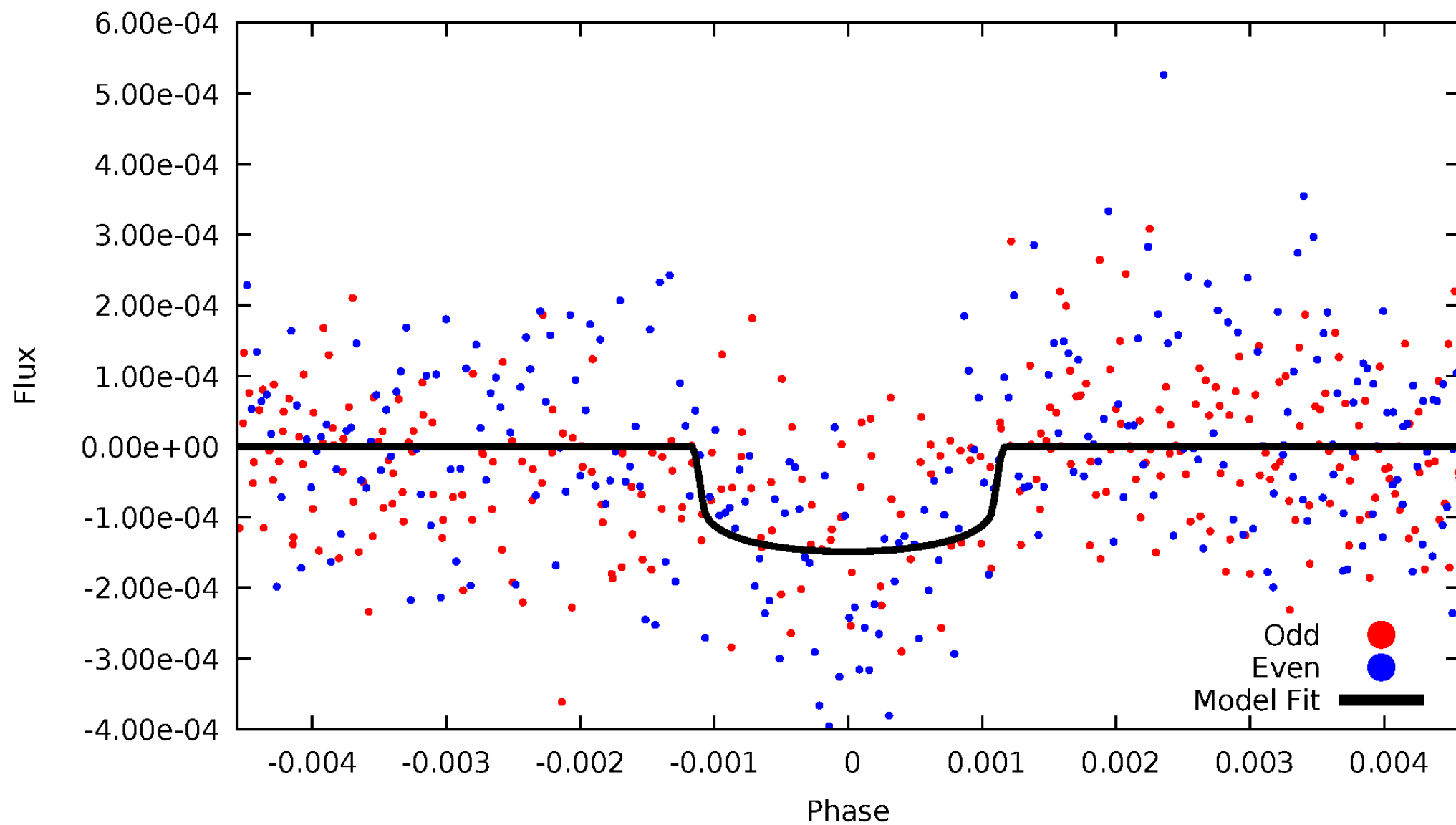


TCE 010535937-01



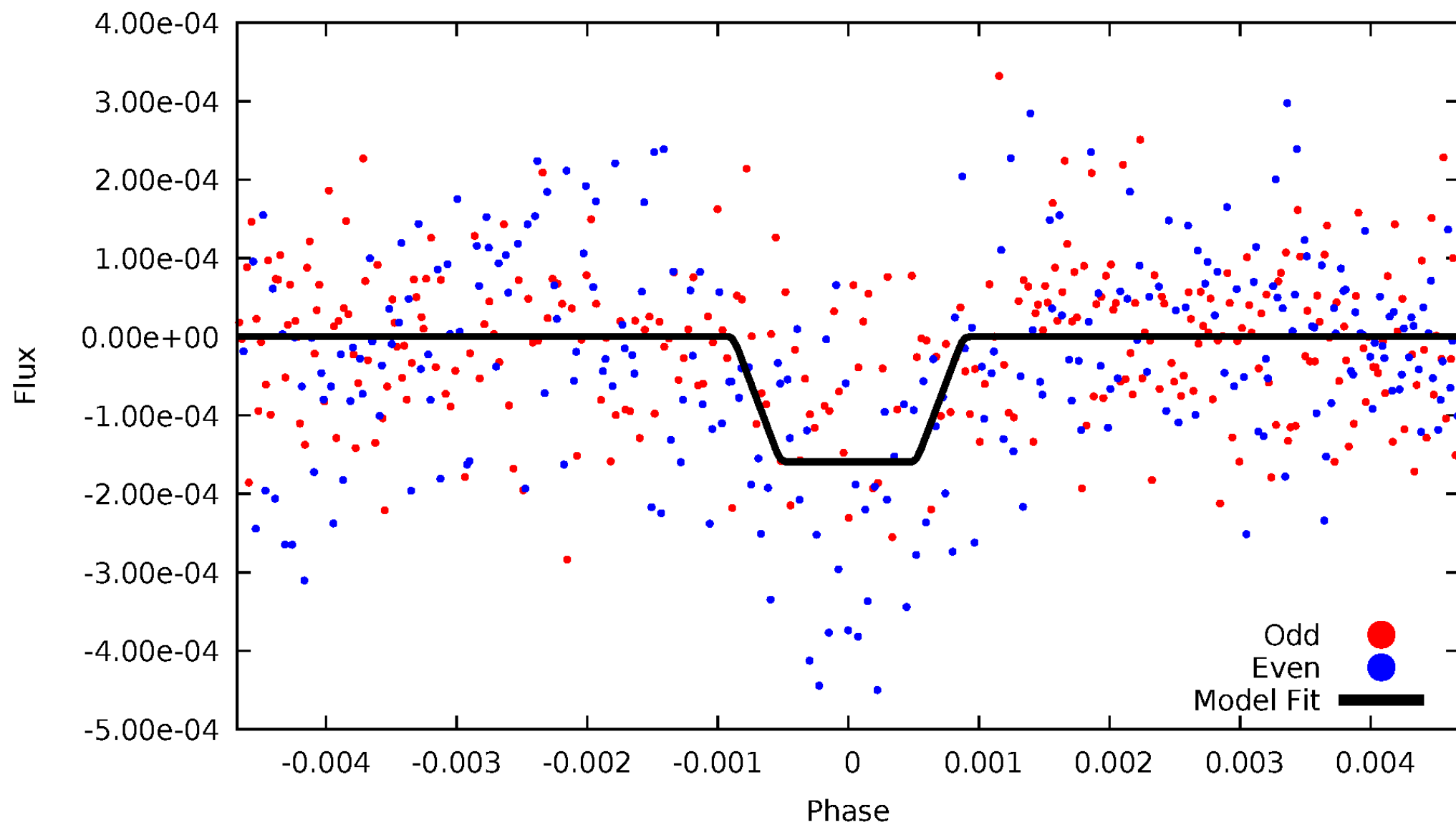
DV Odd/Even

TCE 010535937-01



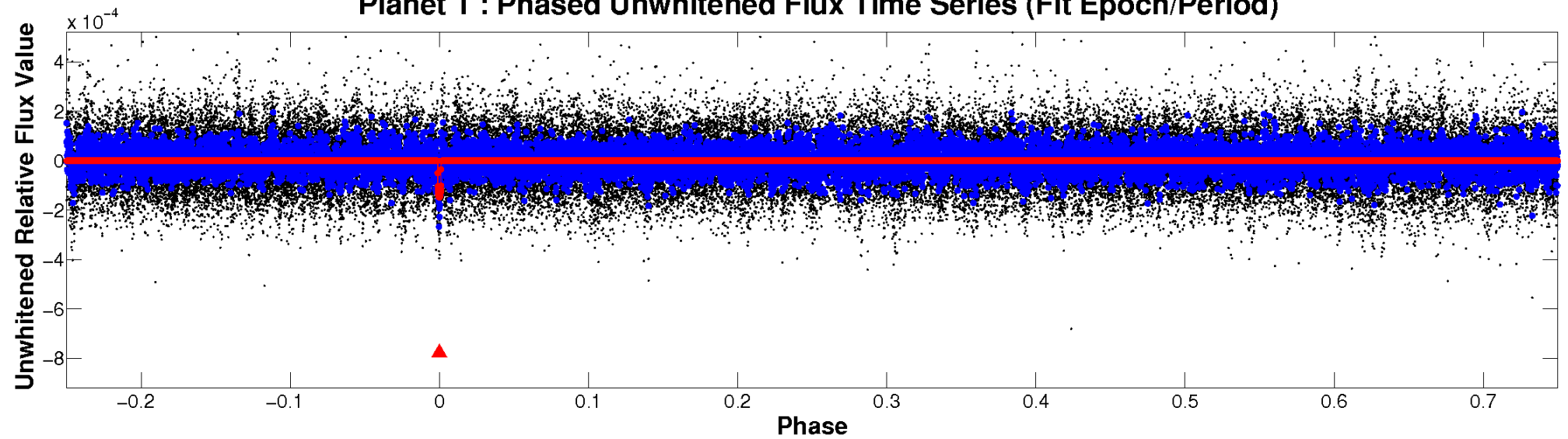
ALT Odd/Even

TCE 010535937-01

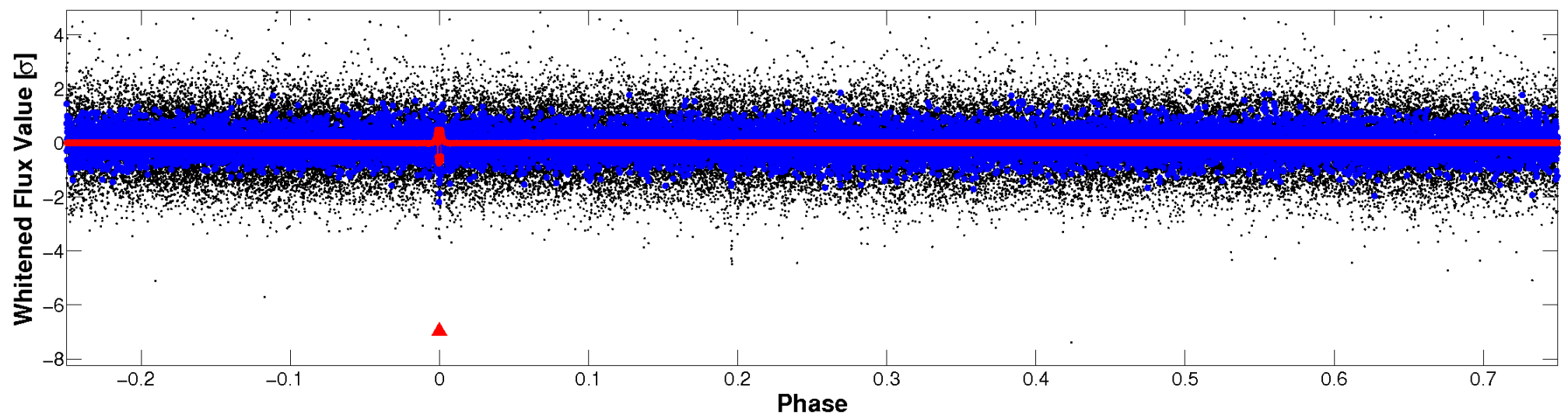


Non-Whitened Vs. Whitened Light Curve

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

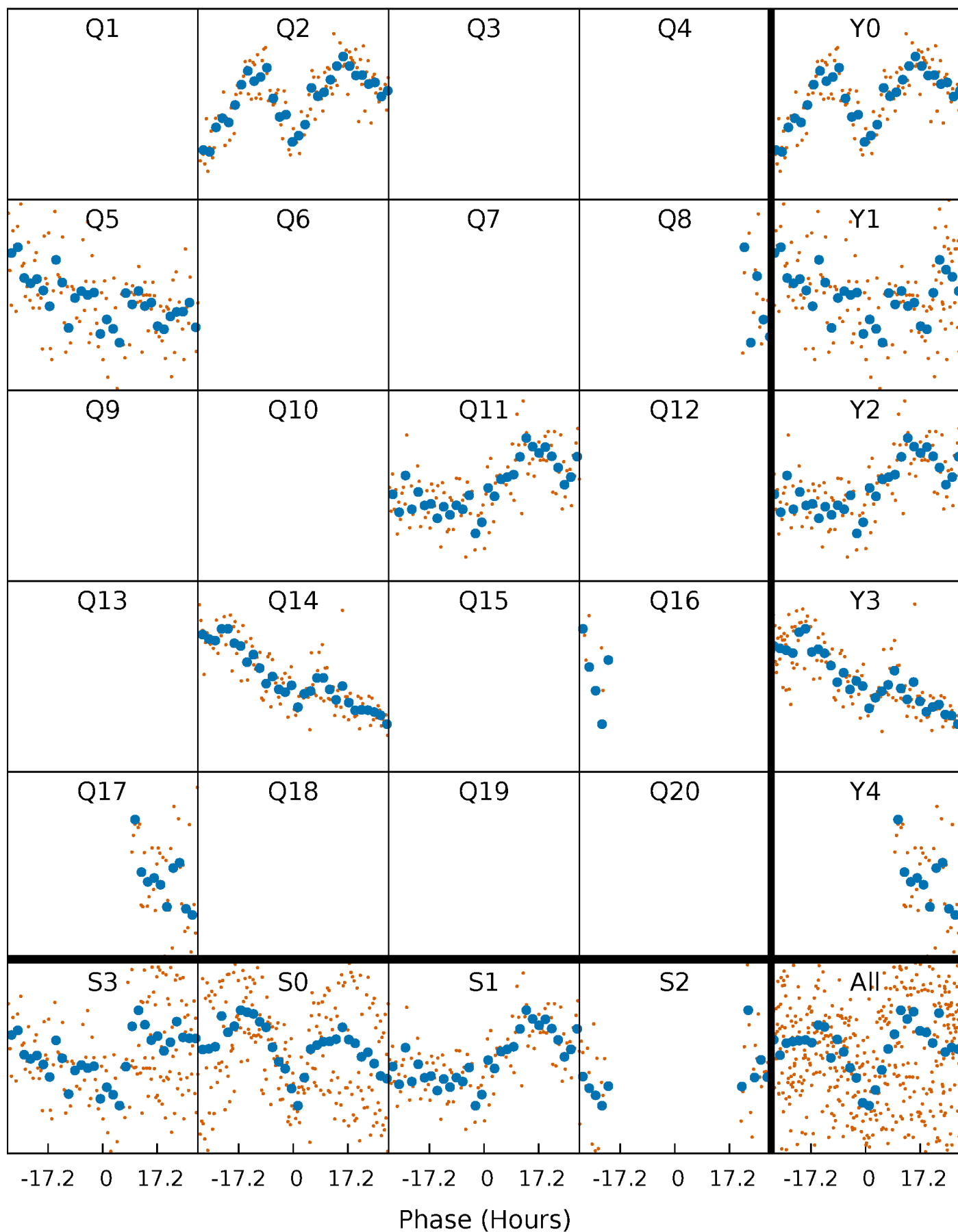


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



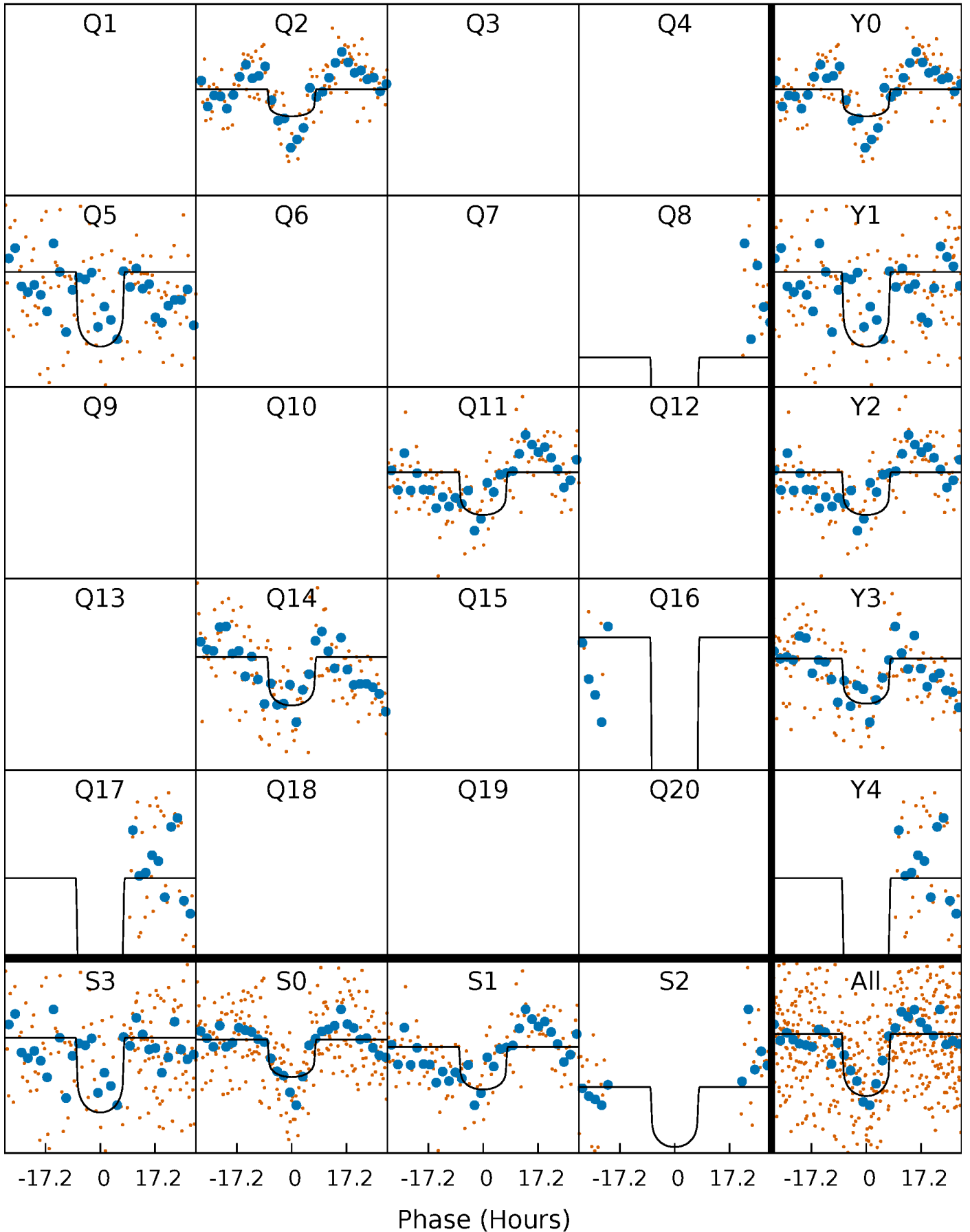
PDC Quarter-Phased Transit Curves

TCE 010535937-01 P=274.783049 Days $T_0=184.945662$ (BKJD)



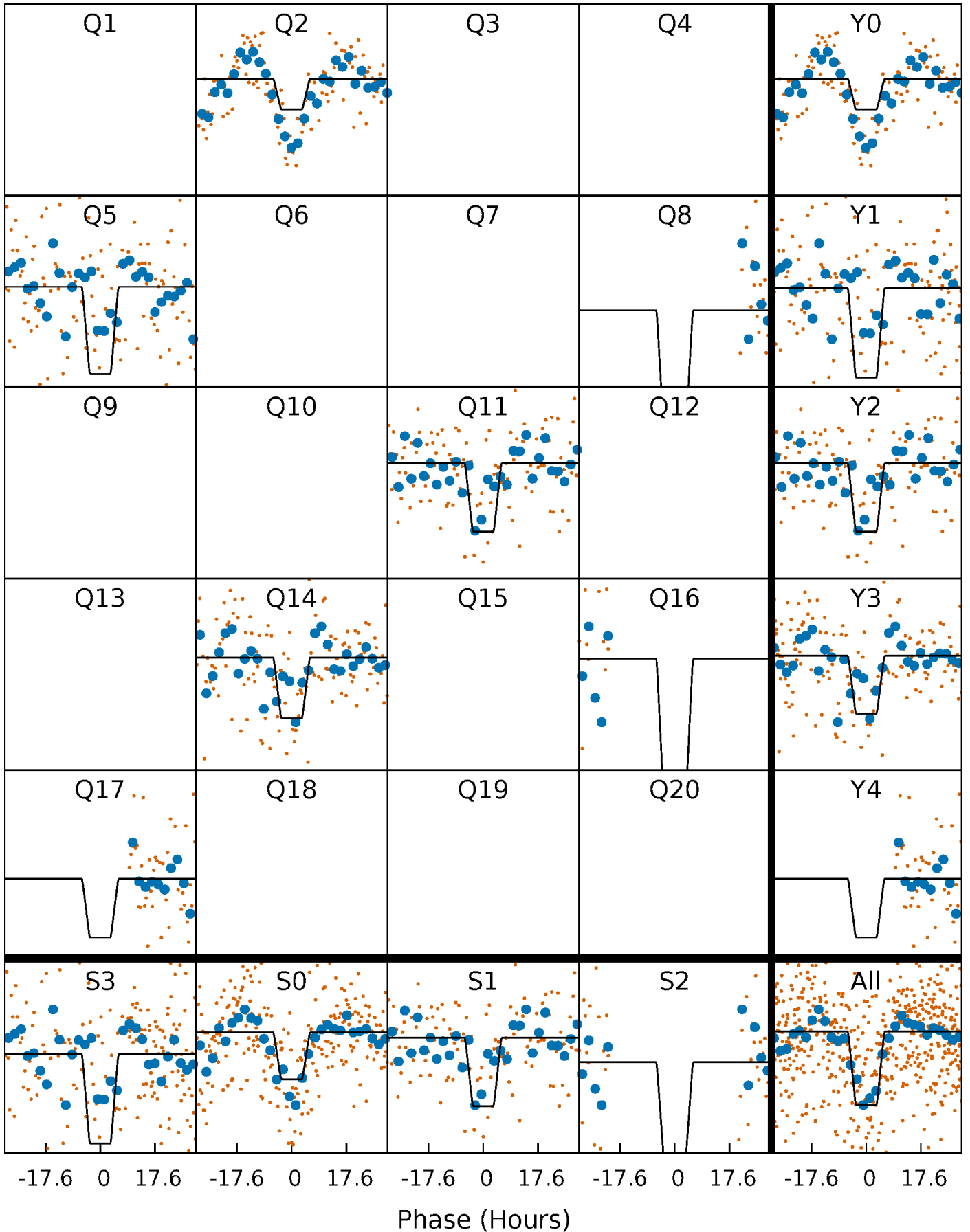
DV Quarter-Phased Transit Curves

TCE 010535937-01 P=274.783049 Days $T_0=184.945662$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

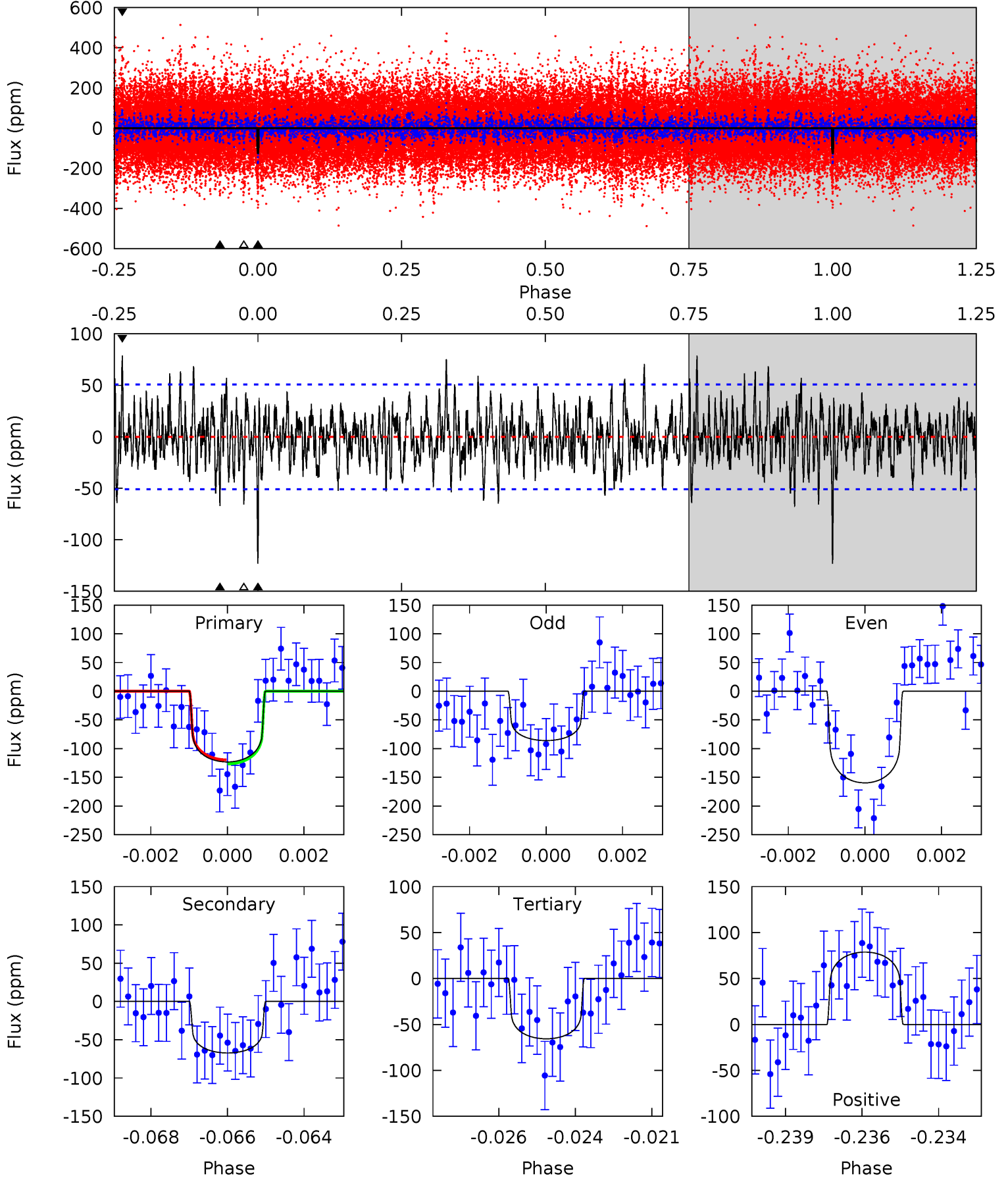
TCE 010535937-01 P=274.776892 Days $T_0=184.968196$ (BKJD)



DV Model-Shift Uniqueness Test

010535937-01, $P = 274.783049$ Days, $E = 184.945662$ Days

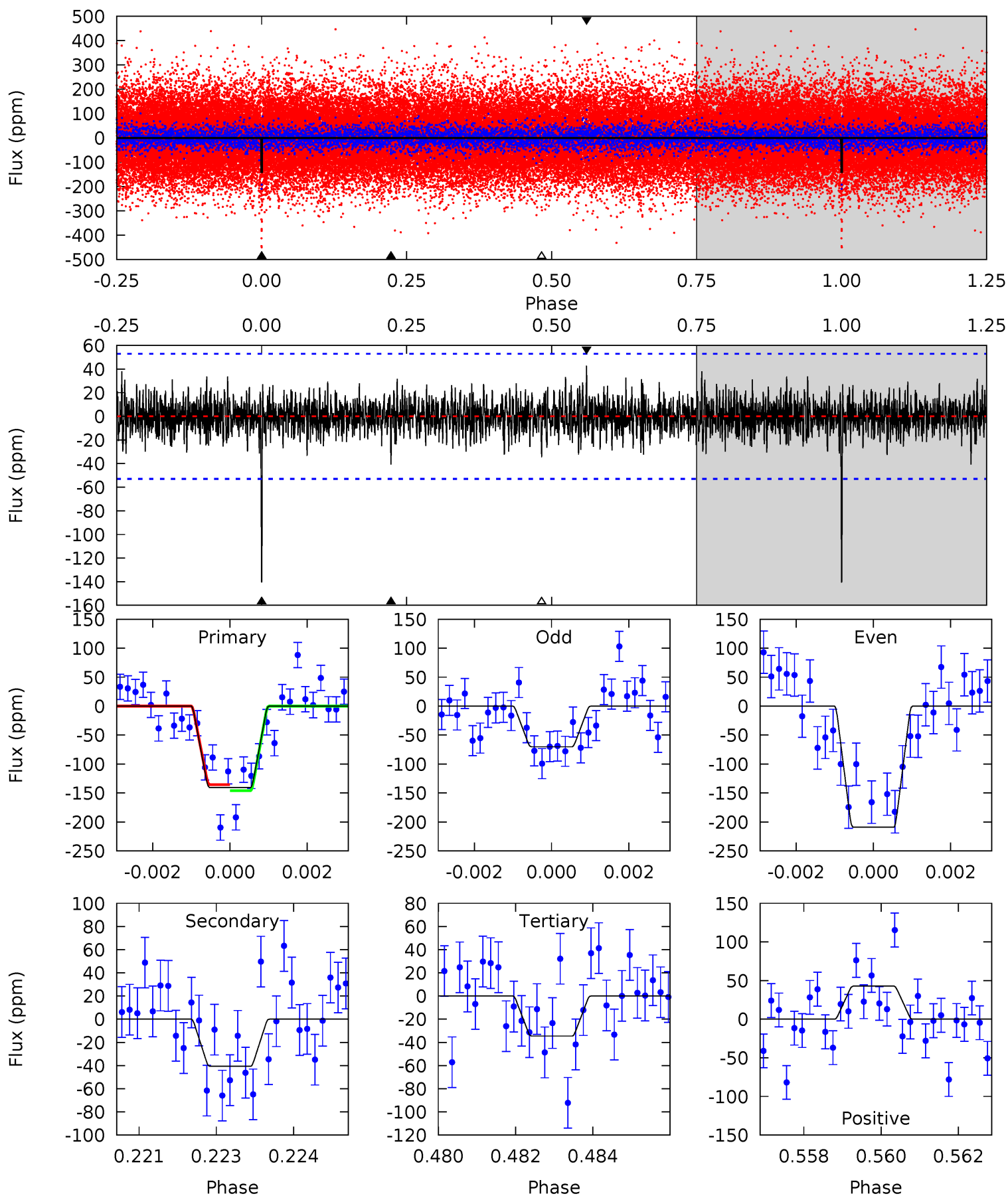
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	7.01	6.84	8.20	5.30	3.04	2.22	6.00	4.63	0.17	-1.20	3.84	1.08	0.39	0.36



Alt Model-Shift Uniqueness Test

010535937-01, P = 274.776892 Days, E = 184.968196 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	4.10	3.48	4.31	5.34	3.12	1.09	10.7	9.87	0.62	-0.20	7.01	1.42	0.23	0.51



Stellar Parameters For KIC 010535937

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6428^{+145}_{-193}	$4.337^{+0.092}_{-0.138}$	$-0.280^{+0.250}_{-0.300}$	$1.151^{+0.257}_{-0.158}$	$1.045^{+0.157}_{-0.105}$	$0.966^{+0.395}_{-0.389}$
	+2%/-3%	+2%/-3%	+89%/-107%	+22%/-14%	+15%/-10%	+41%/-40%
Source	PHO1	FLK73	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 010535937-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-67 ± 10	$1.55^{+0.51}_{-0.45}$	467^{+26}_{-23}	5297^{+990}_{-552}	10803^{+11098}_{-4705}
Alt.	-41 ± 10	$1.60^{+0.53}_{-0.44}$	466^{+25}_{-23}	4693^{+760}_{-537}	6029^{+6003}_{-2820}

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 010535937-01. Kepler magnitude: 12.88. Transit SNR 7.76

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	0.65 ± 1.35	0.48	-0.50 ± 1.48	-0.41 ± 1.12

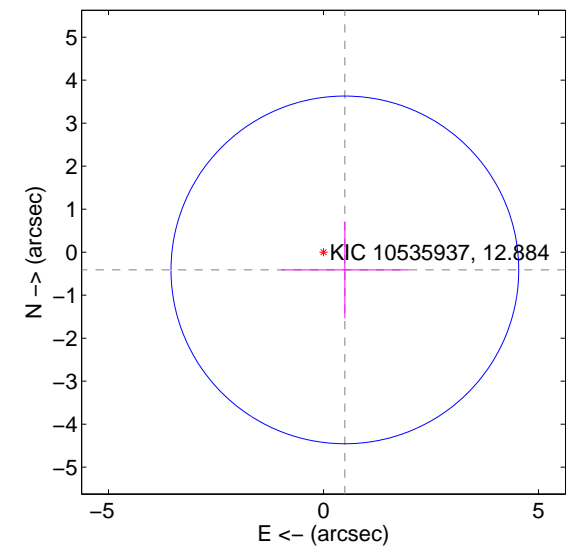
There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



offset from photometric centroids

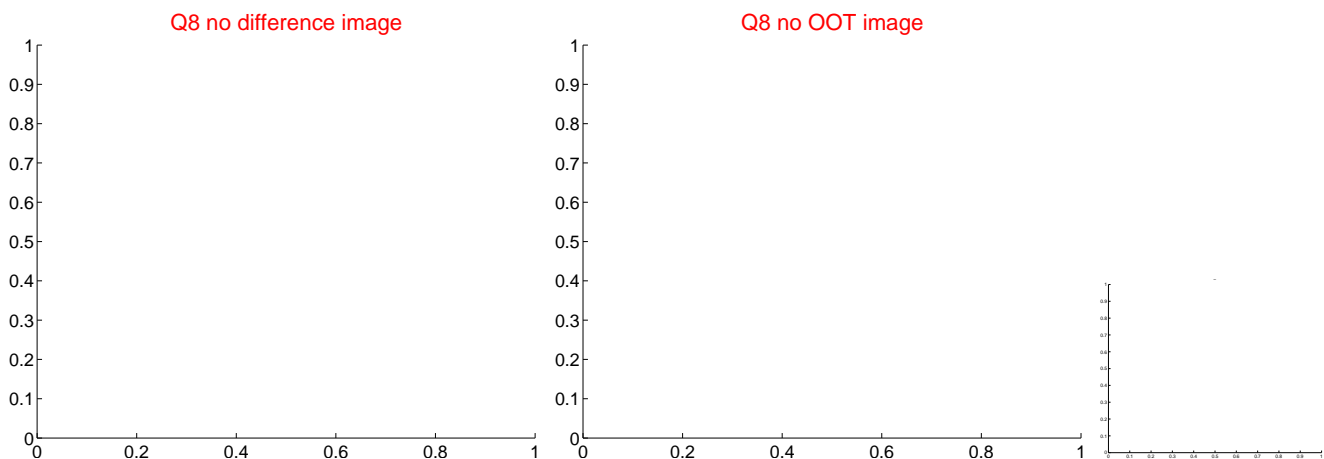
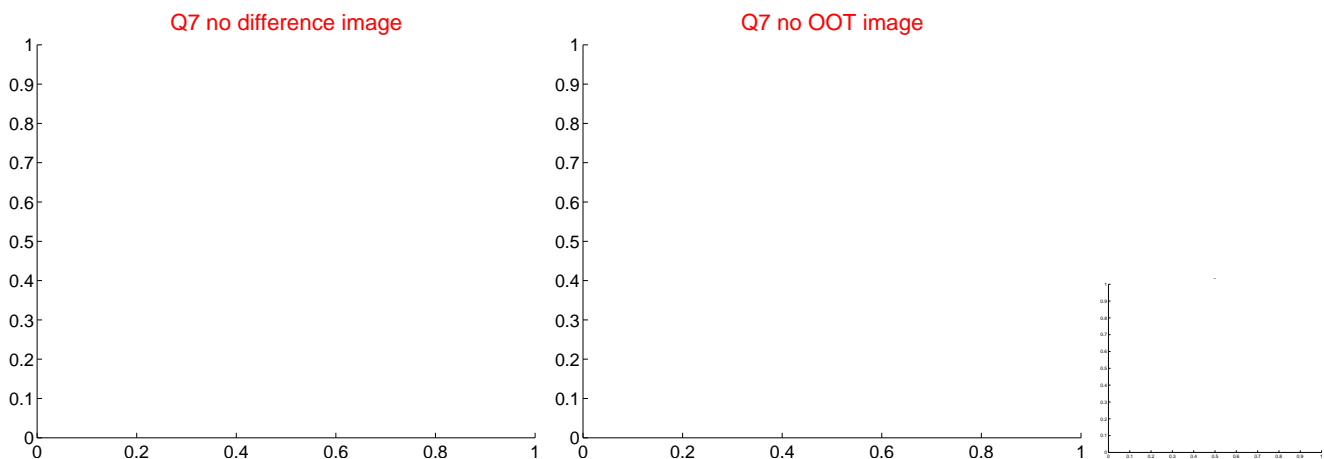
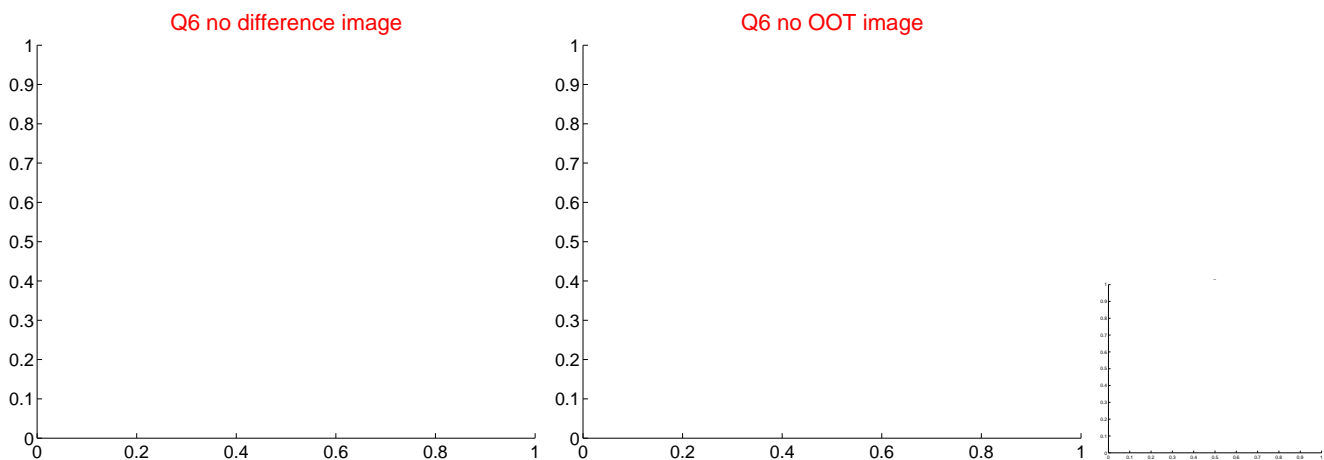
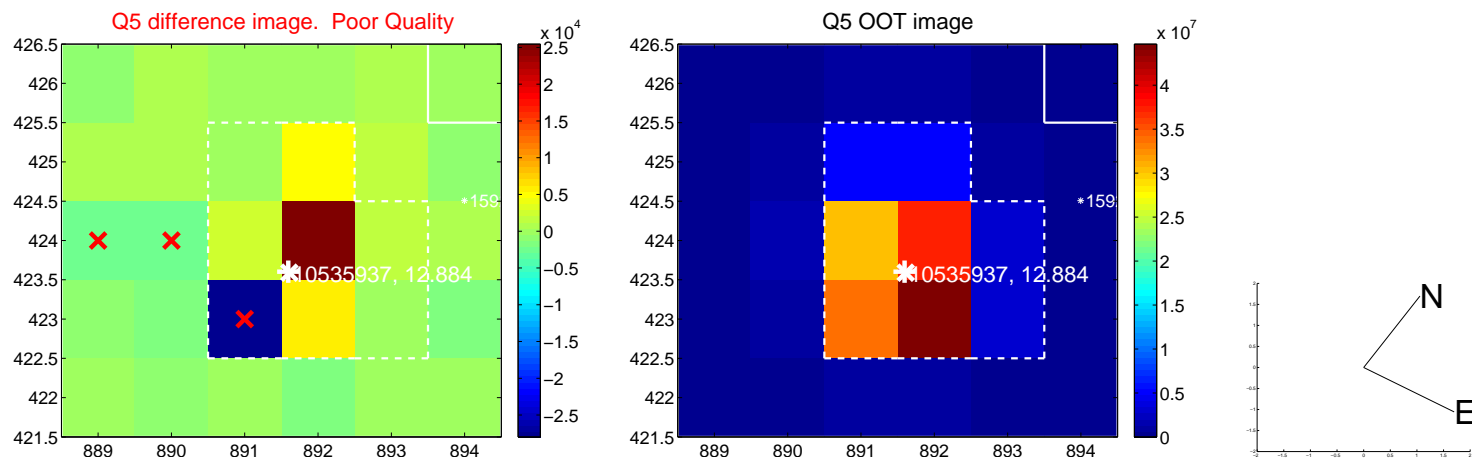


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



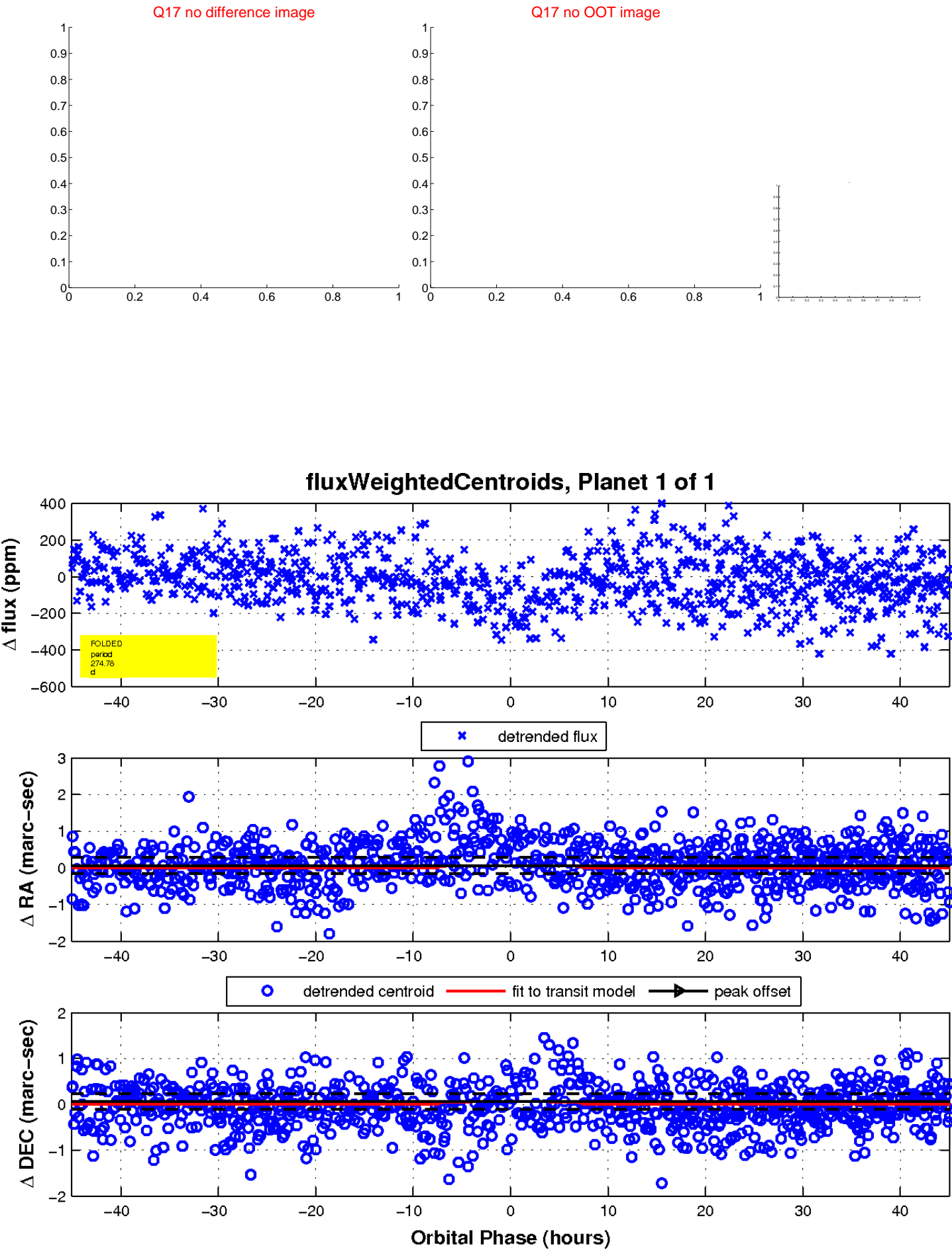
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

