

KIC 007764561

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})
007764561-01	OBS	No	369.153299	232.825574	2359.2	42.322	10.1	13.5	0.90	5800	7.97	0.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007764561-01	OBS	FP	0.00	1	0	0	1	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—CENT_FEW_DIFFS—EPHEM_MATCH

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.

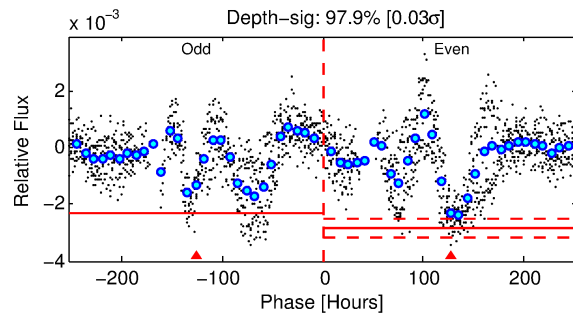
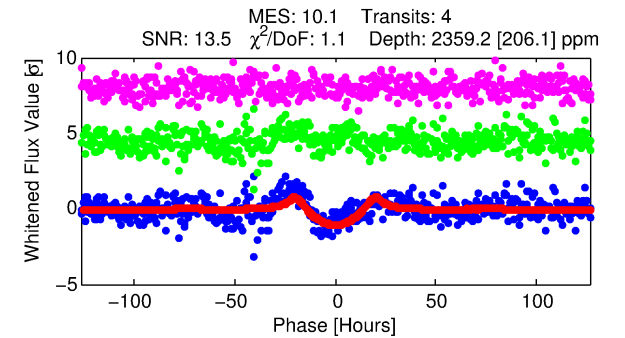
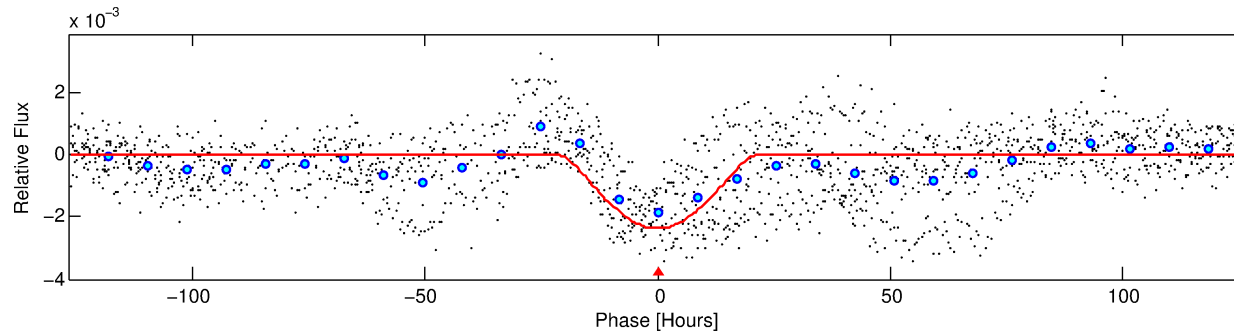
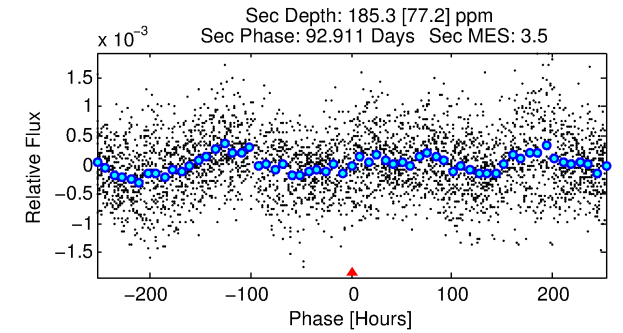
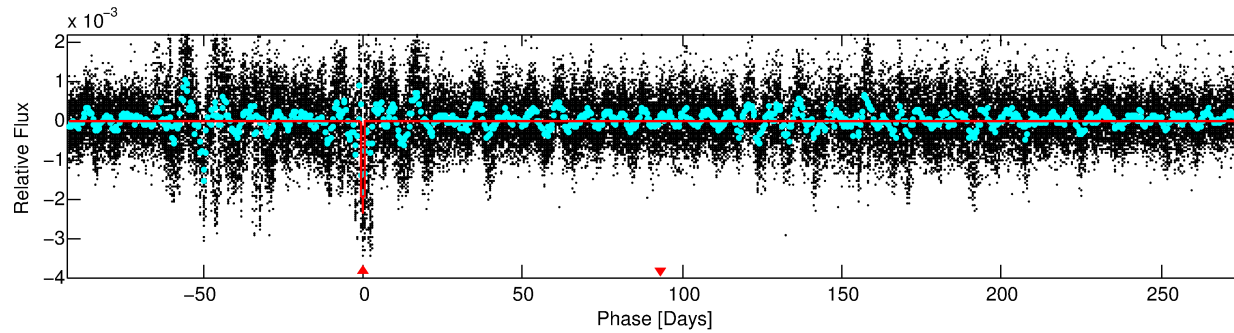
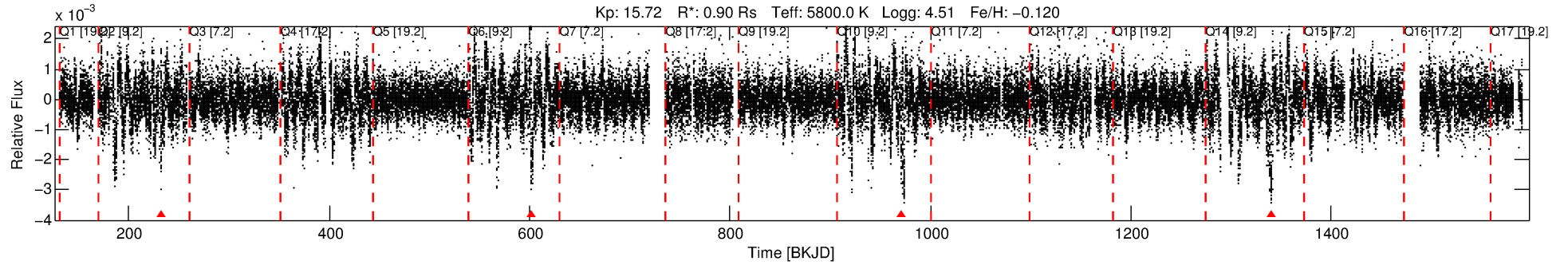
Ephemeris Match Information For 007764561-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist (\prime)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007764561-01	7764561	007537849-01	7537849	1:1	2683.1	675	-6	15.23	15.72	0.33	Col-Anomaly	1	3.29	3.82

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7764561 Candidate: 1 of 1 Period: 369.153 d



DV Fit Results:

Period = 369.15330 [0.02258] d
Epoch = 232.8256 [0.0395] BKJD
Rp/R* = 0.0808 [0.0726]
a/R* = 28.11 [5.59]
b = 1.00 [0.11]
Seff = 0.84 [0.33]
Teq = 244 [24] K
Rp = 7.97 [7.57] Re
a = 0.9922 [0.2501] AU
Ag = 1578.88 [2968.47] [0.53σ]
Teffp = 2380 [1102] K [1.94σ]

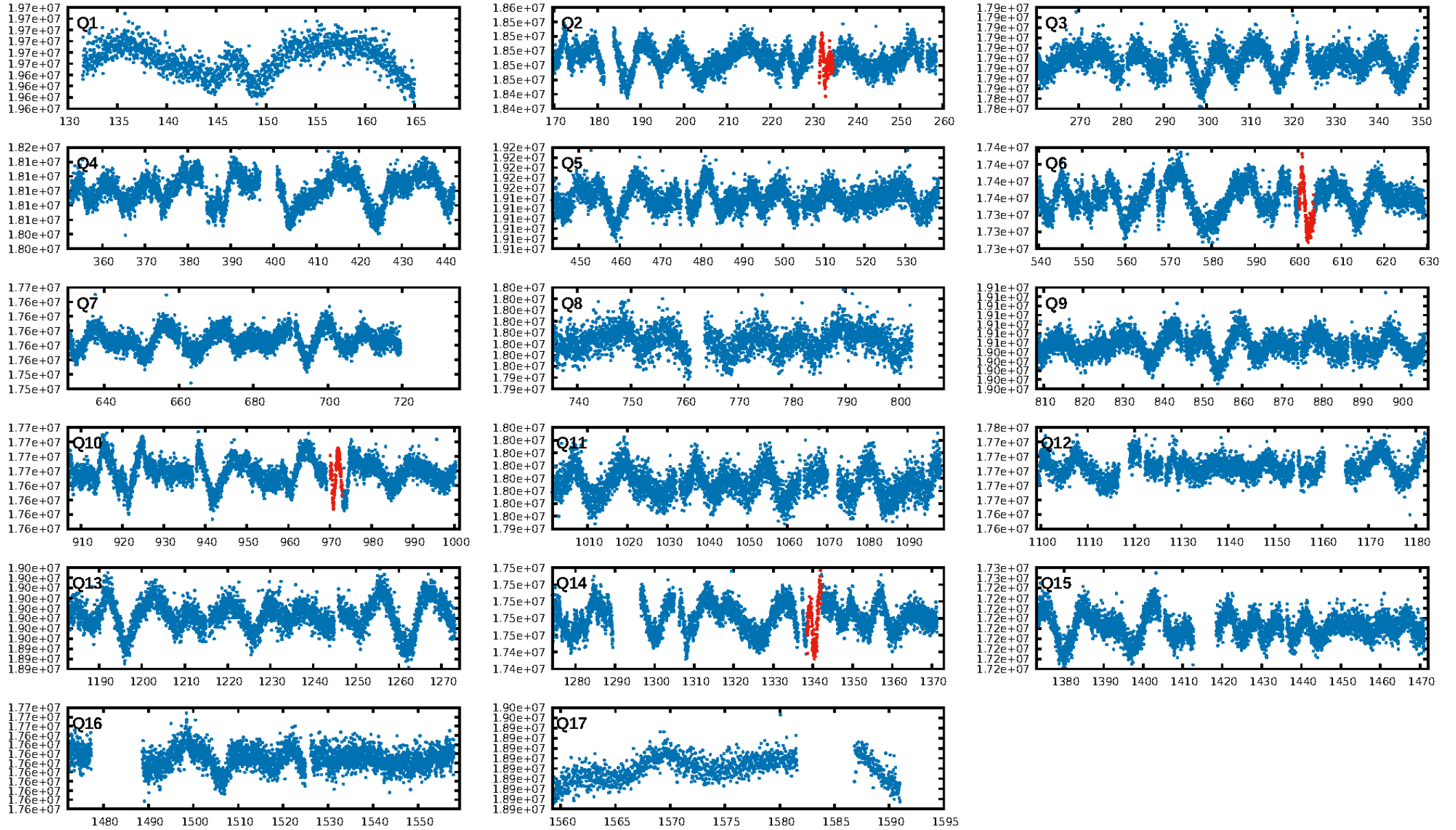
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 60.5%
ModelChiSquareGoF-sig: 98.5%
Bootstrap-pfa: 1.36e-16
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: 0.7262
Centroid-sig: 0.0%
Centroid-so: 8.093 arcsec [5.07σ]
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: N/A

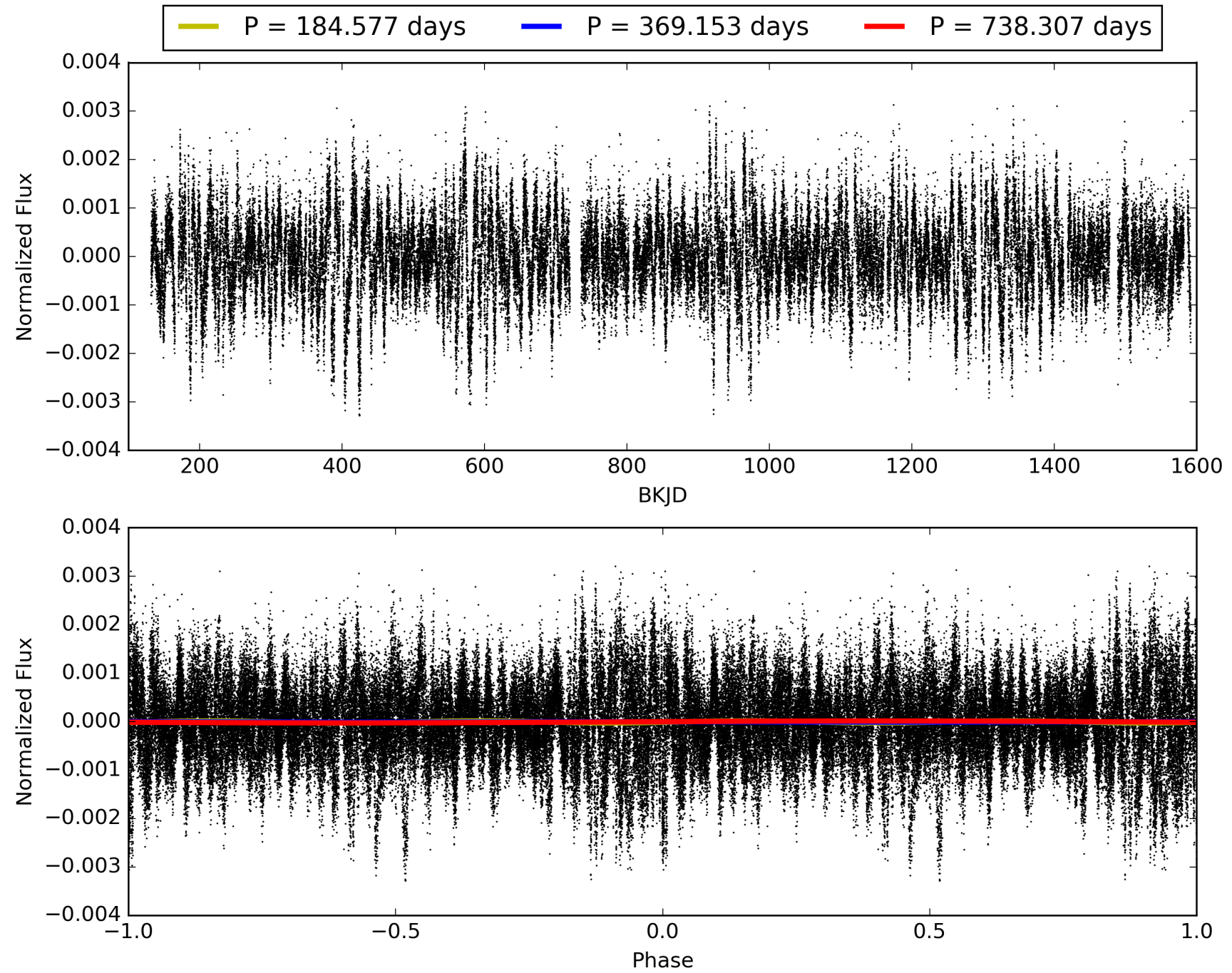
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:14:04 Z

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

TCE 007764561-01, PDC Light Curves

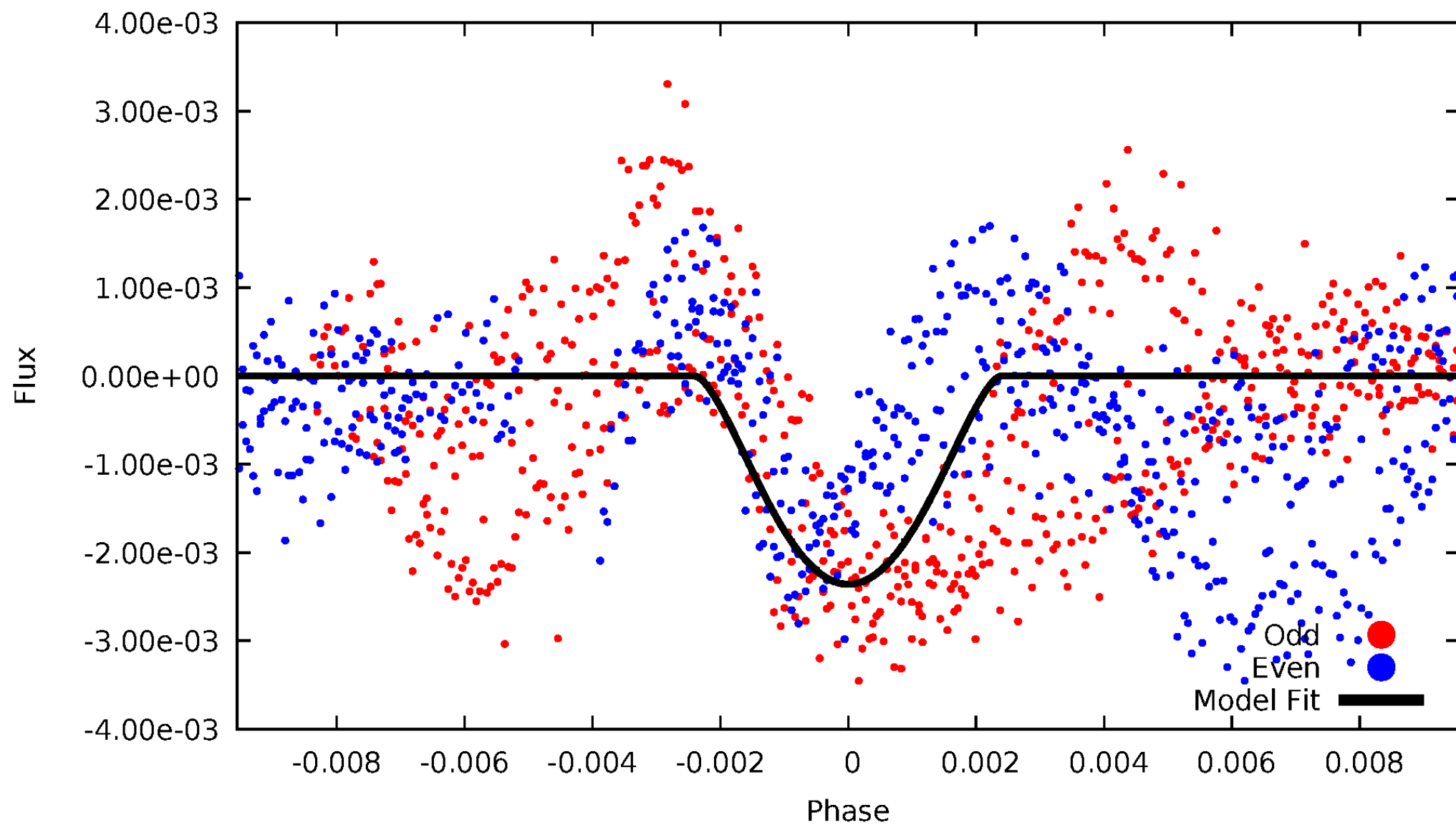


TCE 007764561-01



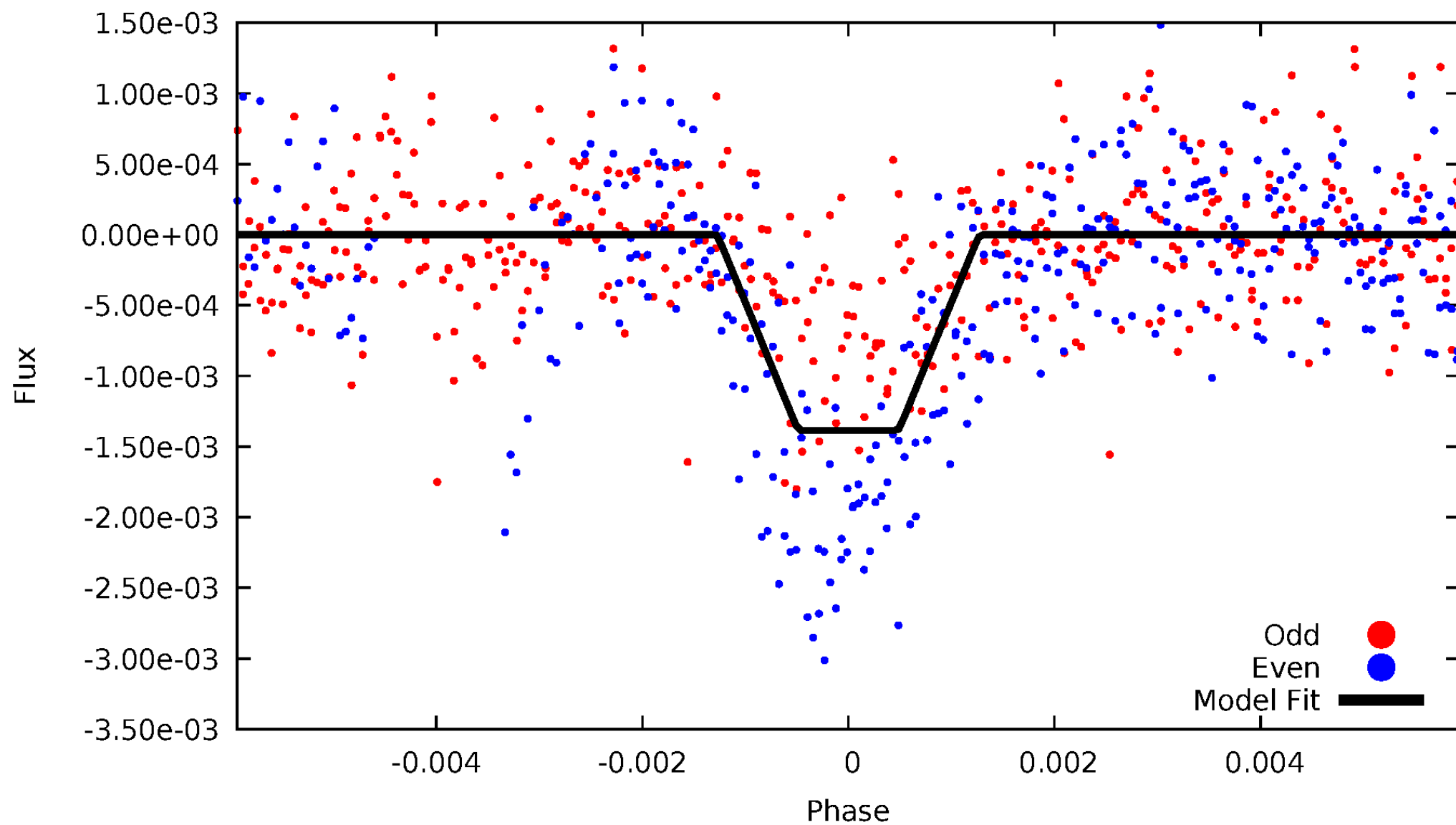
DV Odd/Even

TCE 007764561-01



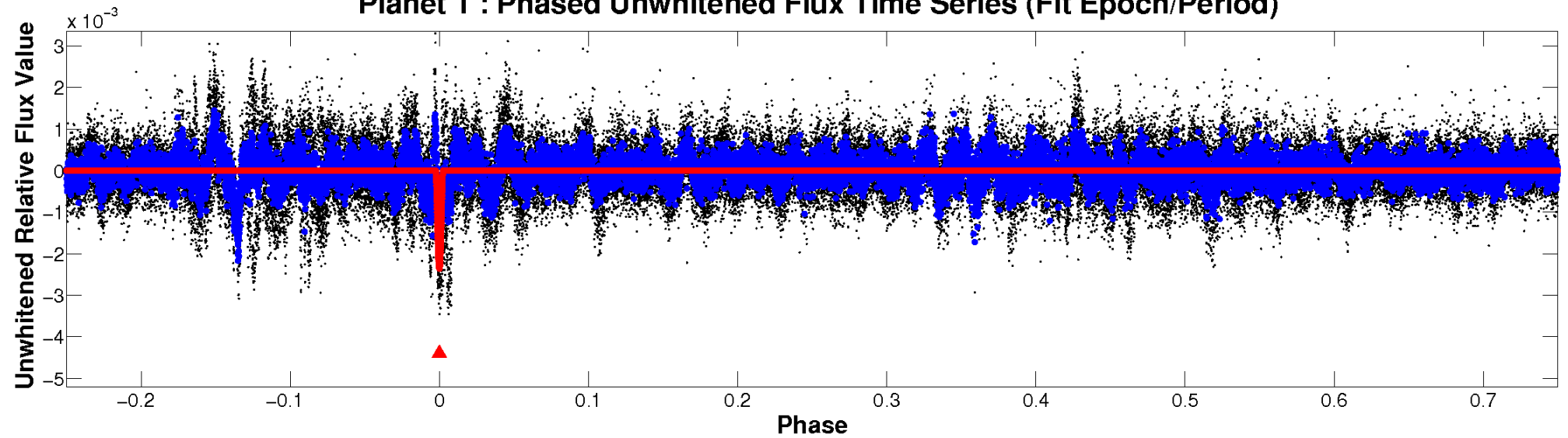
ALT Odd/Even

TCE 007764561-01

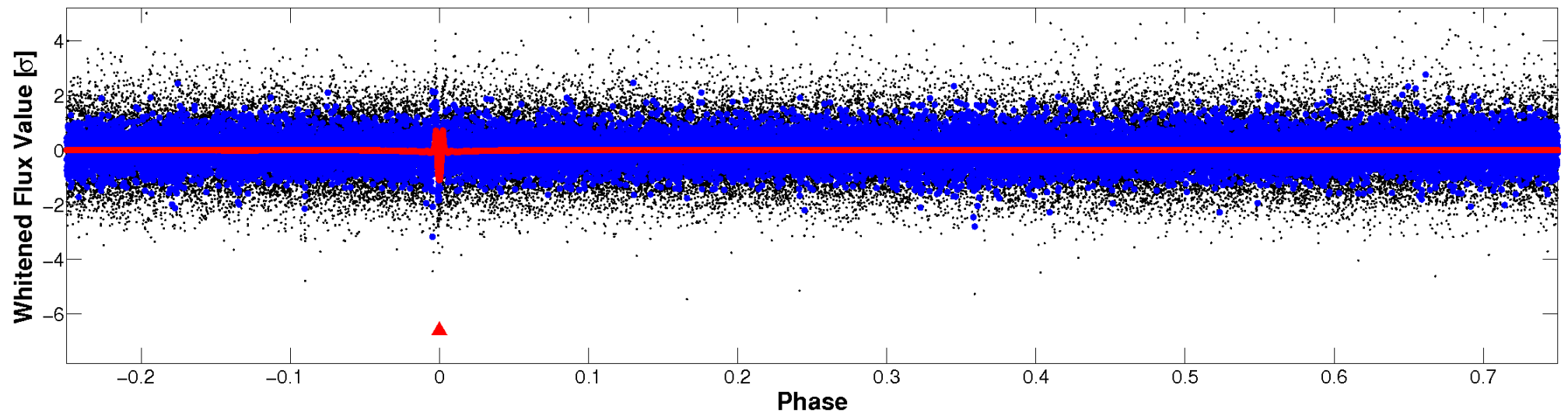


Non-Whitened Vs. Whitened Light Curve

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

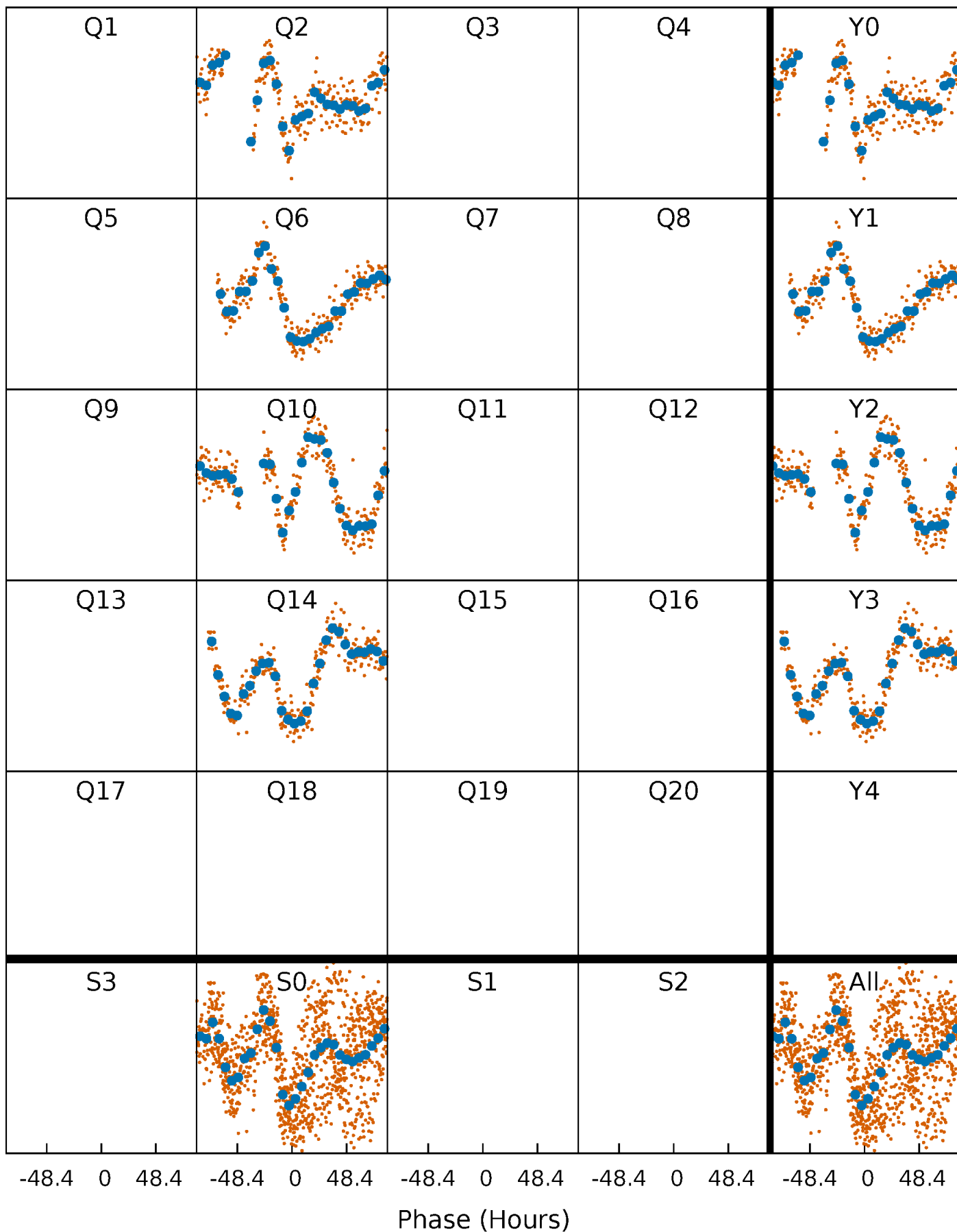


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



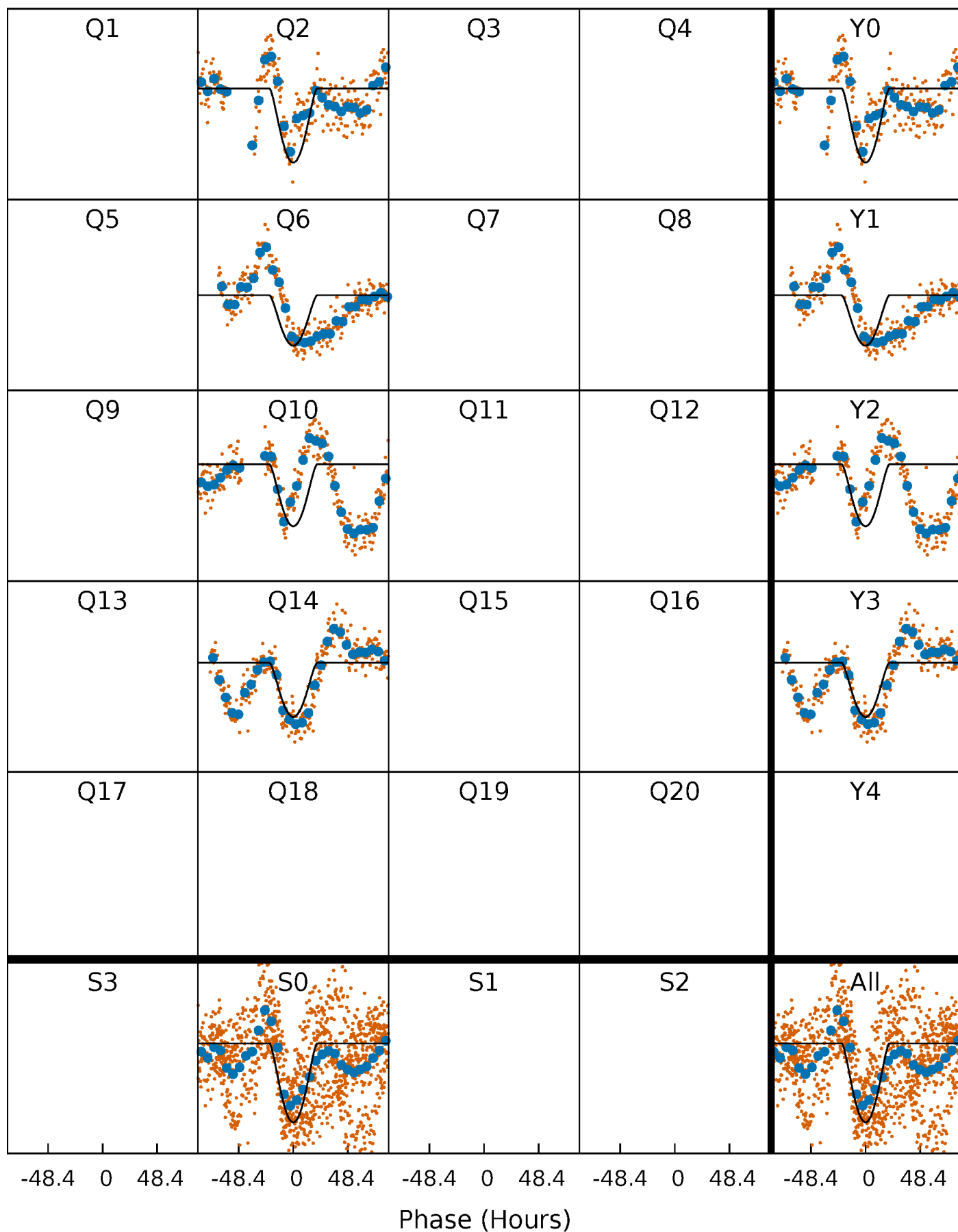
PDC Quarter-Phased Transit Curves

TCE 007764561-01 P=369.153299 Days $T_0=232.825574$ (BKJD)



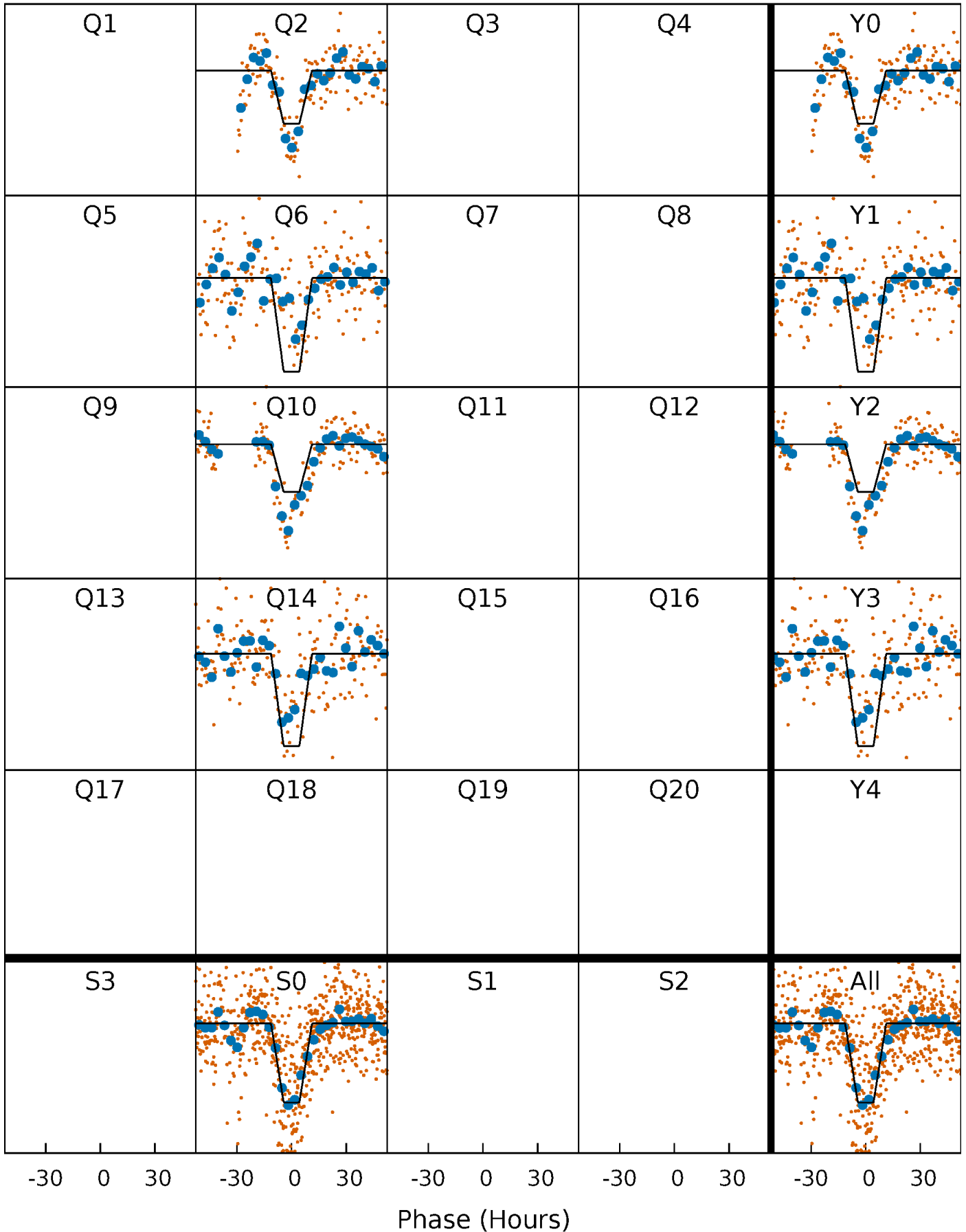
DV Quarter-Phased Transit Curves

TCE 007764561-01 P=369.153299 Days $T_0=232.825574$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

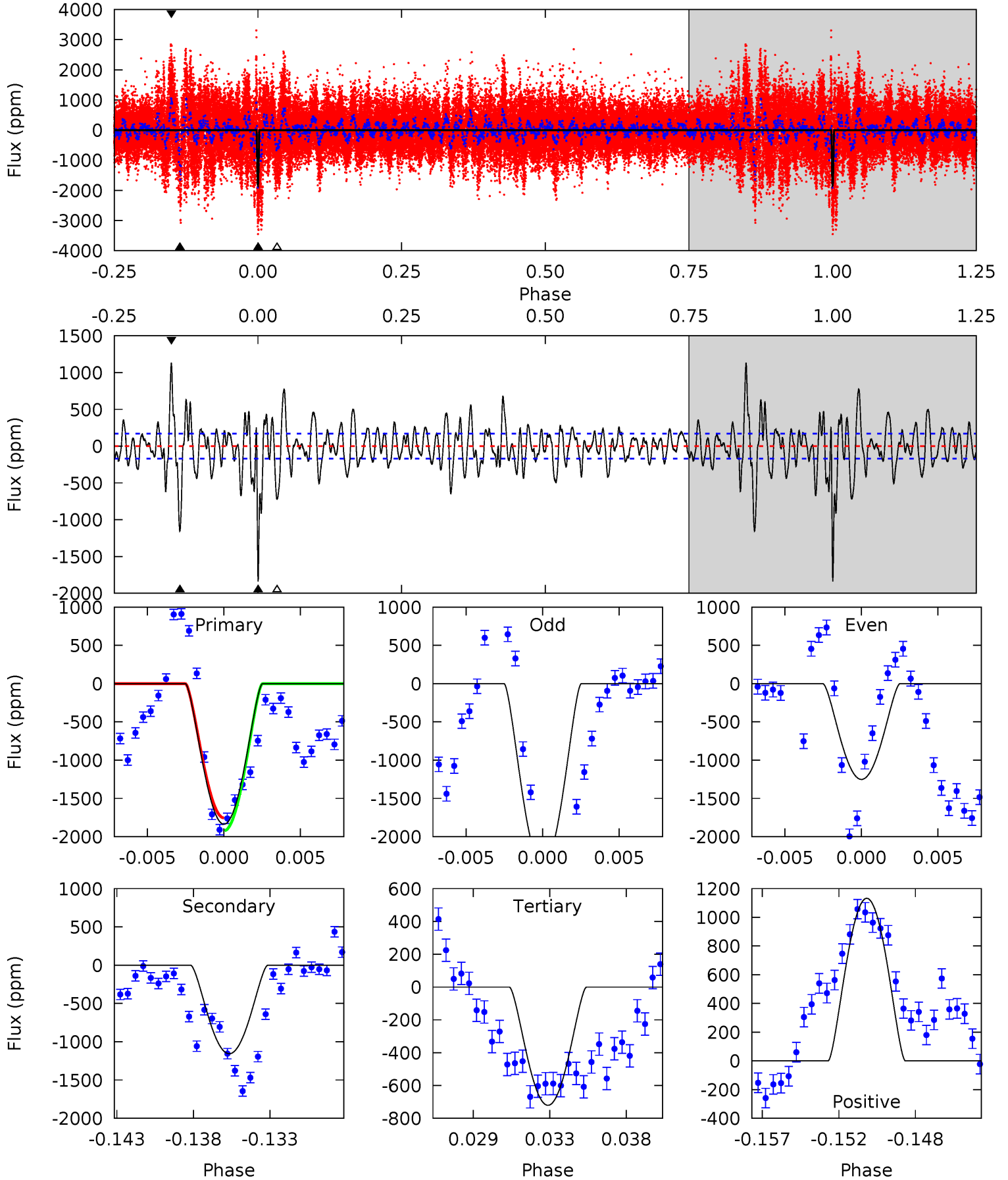
TCE 007764561-01 P=369.152695 Days $T_0=232.624635$ (BKJD)



DV Model-Shift Uniqueness Test

007764561-01, P = 369.153299 Days, E = 232.825574 Days

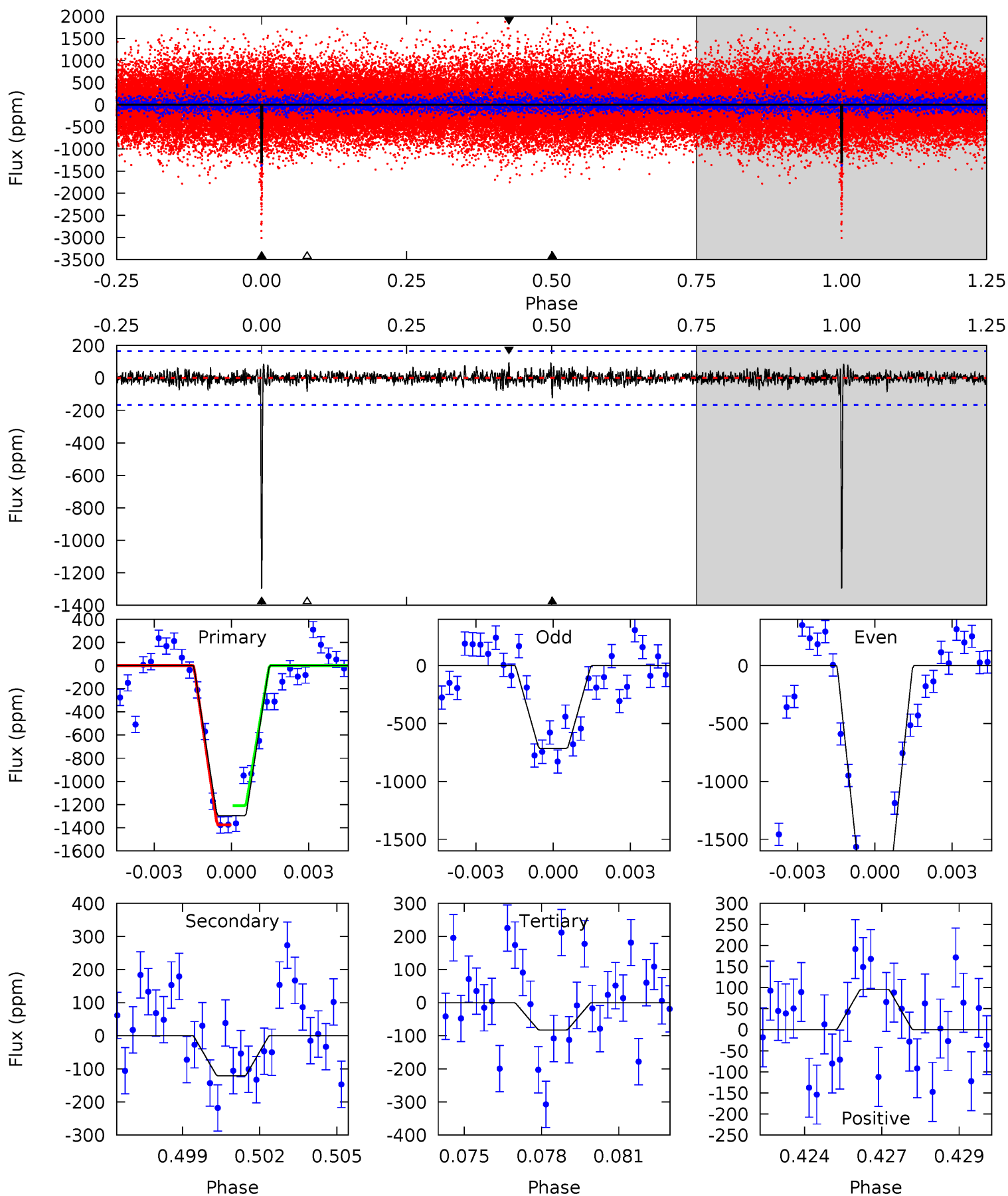
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.1	35.3	22.0	34.6	5.17	2.82	7.41	34.1	21.5	13.3	0.74	17.3	1.14	0.38	2.55



Alt Model-Shift Uniqueness Test

007764561-01, P = 369.152695 Days, E = 232.624635 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.3	3.86	2.64	3.05	5.28	3.01	0.73	38.7	38.3	1.23	0.81	19.2	1.06	0.07	2.67



Stellar Parameters For KIC 007764561

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5800^{+184}_{-225}	$4.506^{+0.065}_{-0.195}$	$-0.120^{+0.300}_{-0.300}$	$0.904^{+0.275}_{-0.092}$	$0.956^{+0.113}_{-0.113}$	$1.824^{+0.484}_{-0.922}$
	+3%/-4%	+1%/-4%	+250%/-250%	+30%/-10%	+12%/-12%	+27%/-51%
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 007764561-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1157 ± 33	$9.68^{+7.16}_{-5.83}$	346^{+25}_{-20}	3830^{+1718}_{-606}	6533^{+35155}_{-4380}
Alt.	-121 ± 31	$6.66^{+5.97}_{-4.44}$	346^{+24}_{-18}	3021^{+1379}_{-482}	1428^{+12136}_{-1047}

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

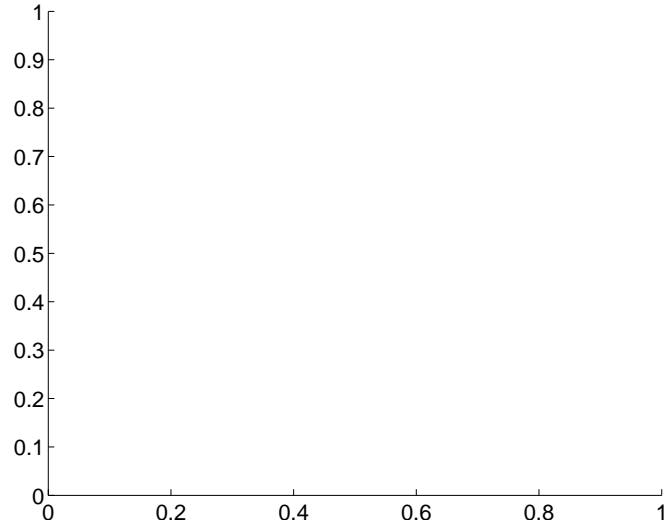
Supplemental centroid analysis for 007764561-01. Kepler magnitude: 15.72. Transit SNR 13.52

There are 0 quarters with good PRF difference image offsets

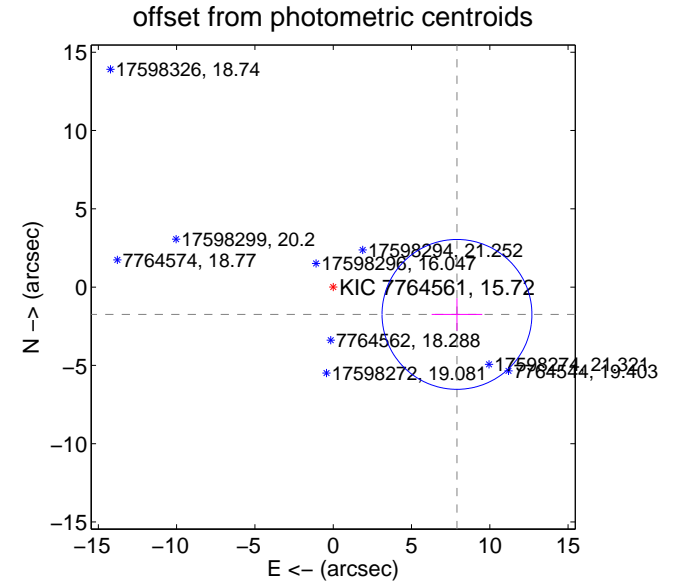
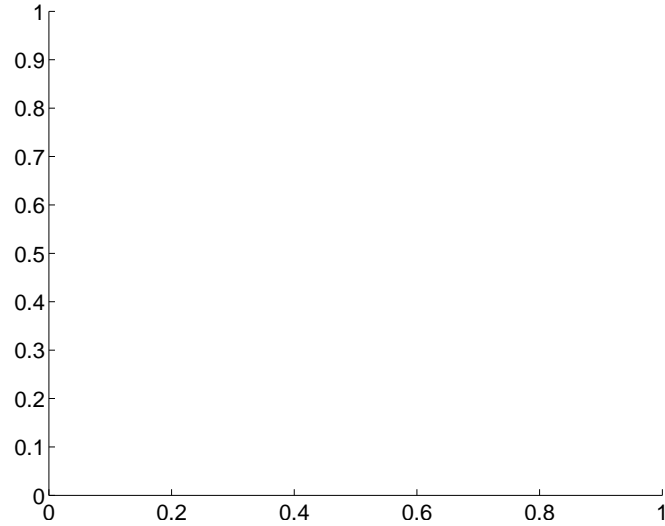
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	8.09 ± 1.60	5.07	-7.90 ± 1.62	-1.74 ± 1.03

There is no PRF-fit offset from OOT-fit

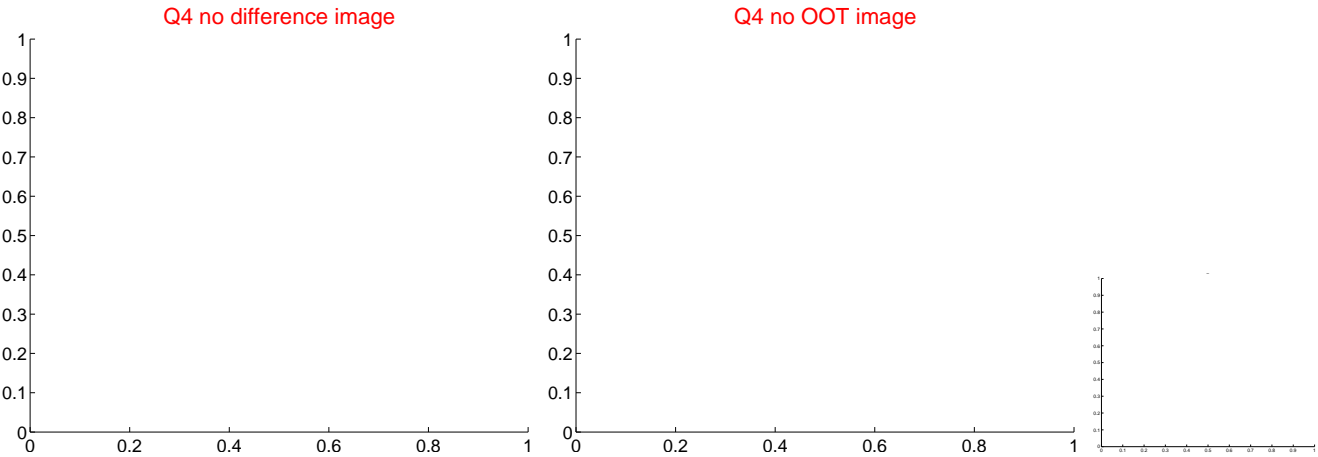
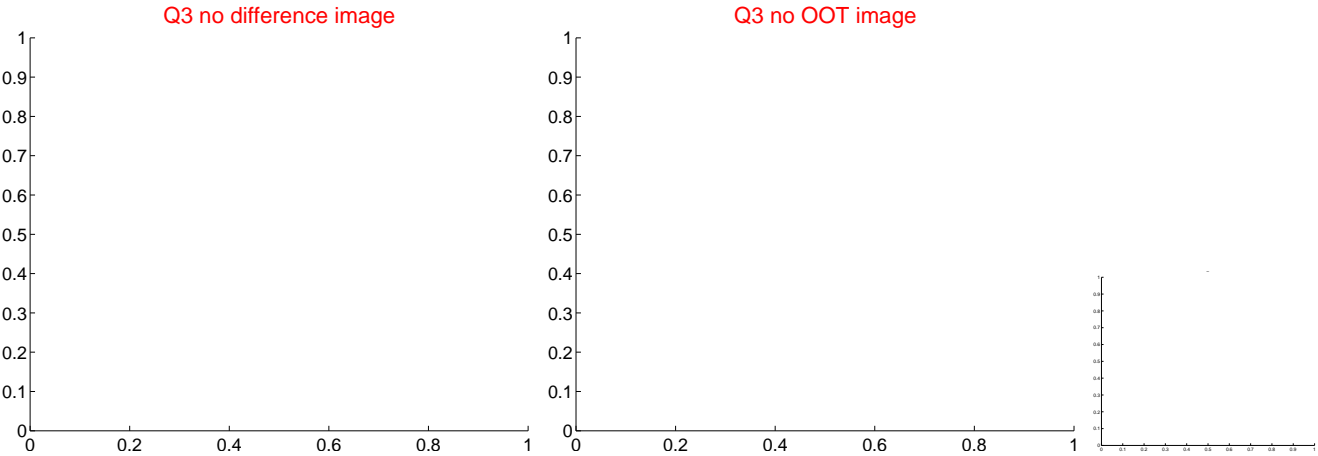
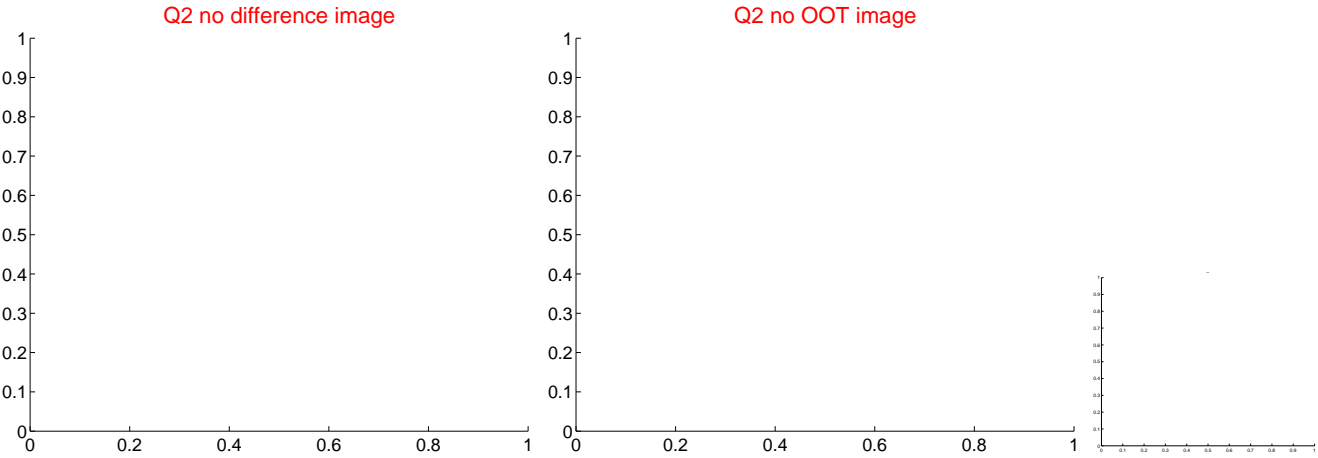
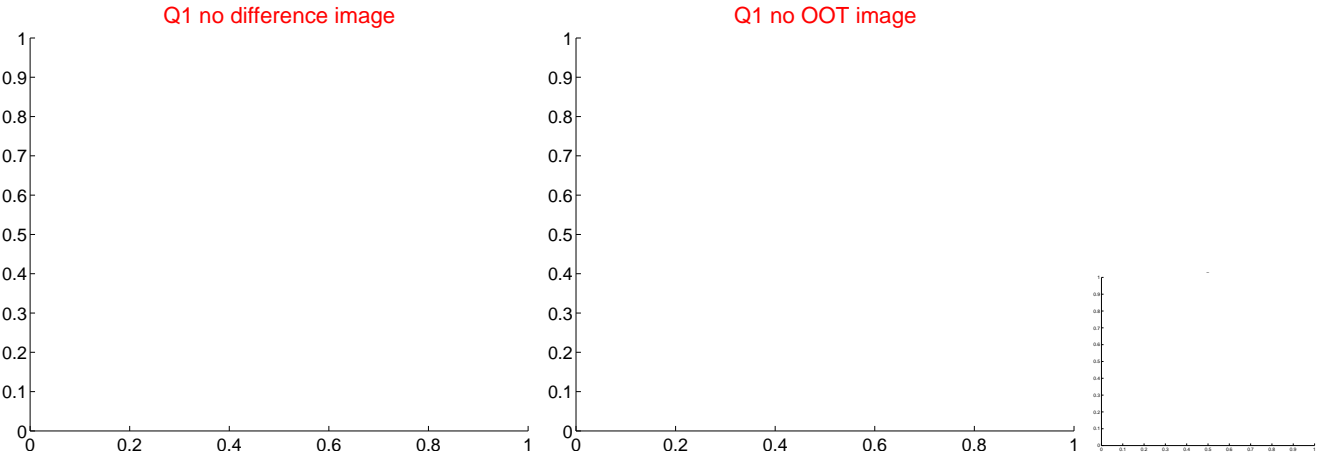


There is no PRF-fit offset from KIC

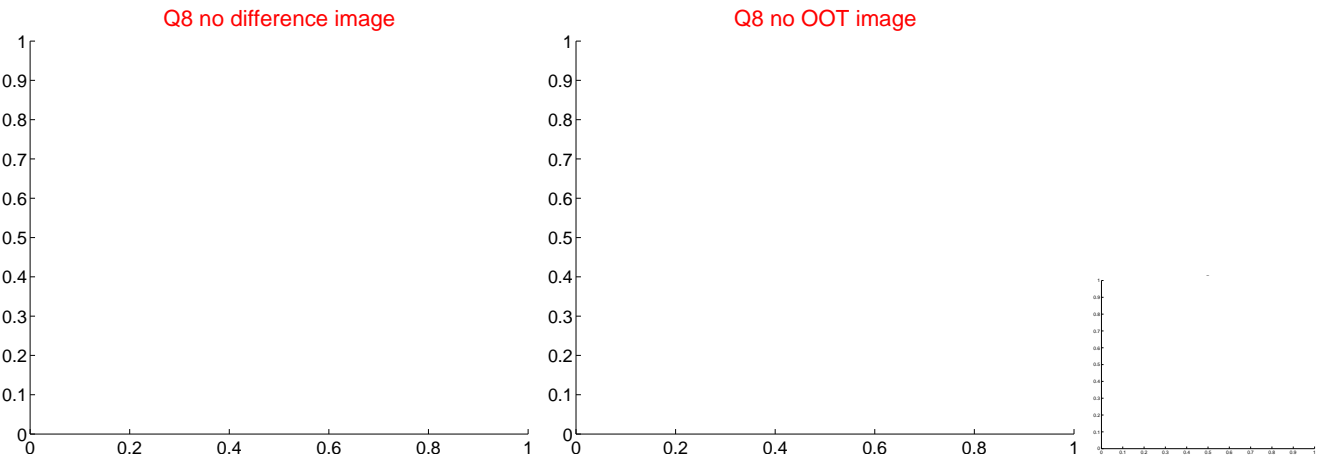


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



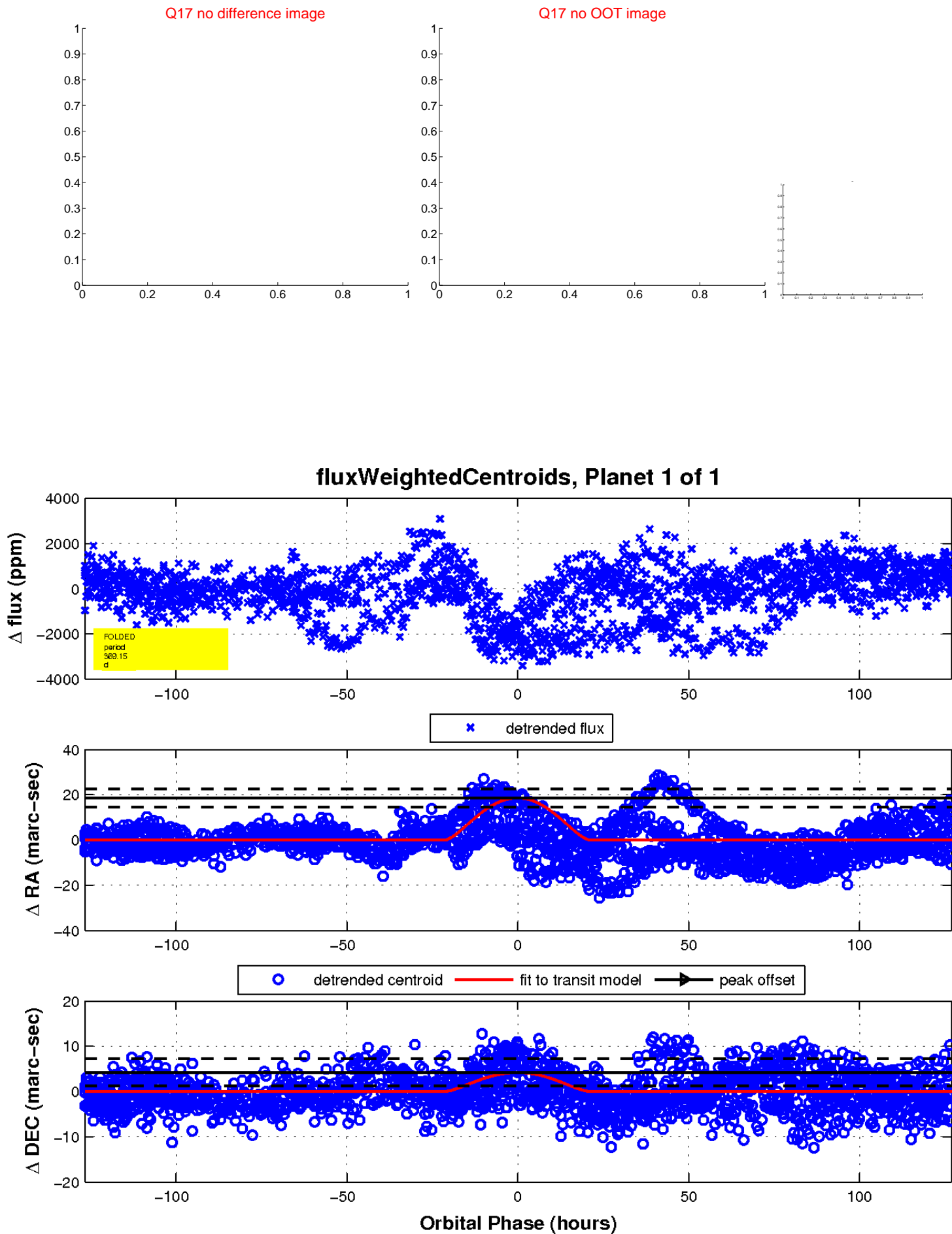
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

