

KIC 005557222

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})
005557222-01	OBS	No	387.287105	481.170184	580.2	3.880	10.1	4.7	0.69	5274	1.74	0.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005557222-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

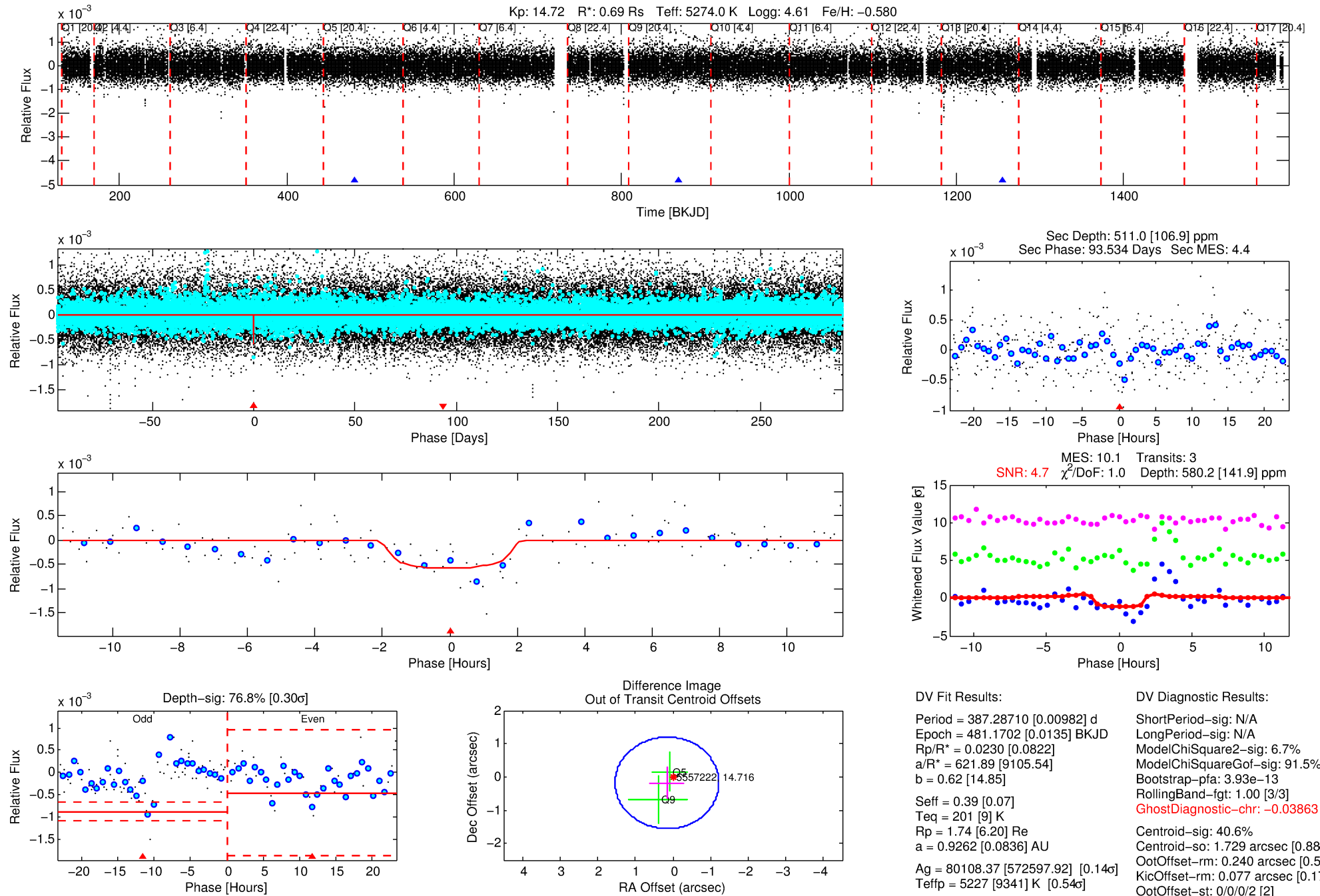
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005557222-01

No Significant Match Found

DV One-Page Summary

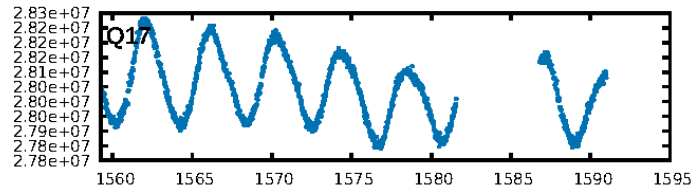
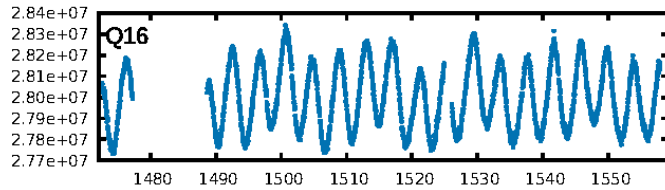
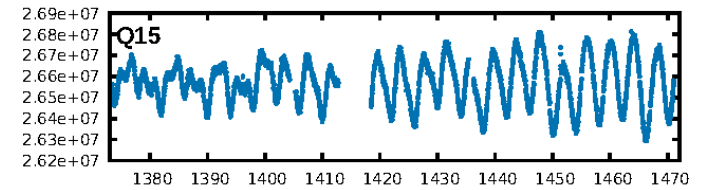
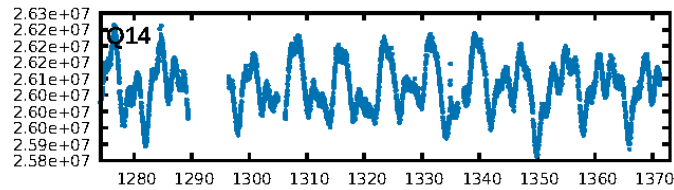
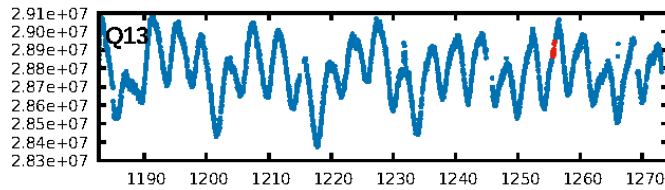
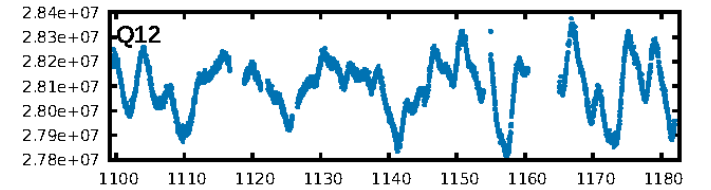
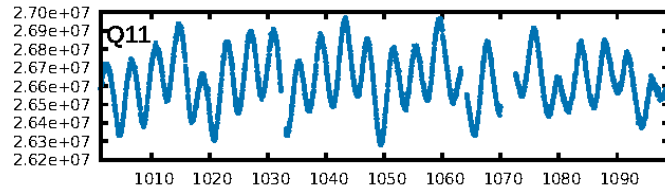
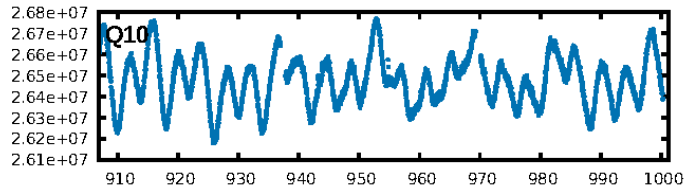
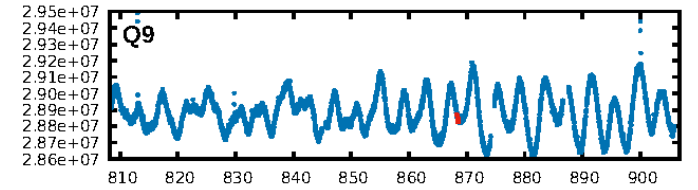
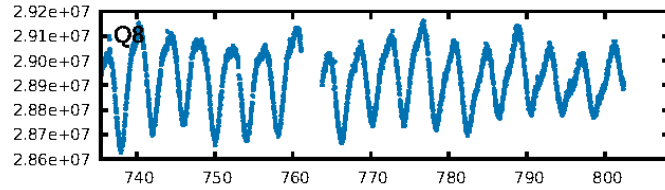
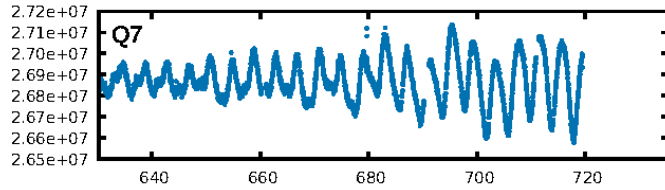
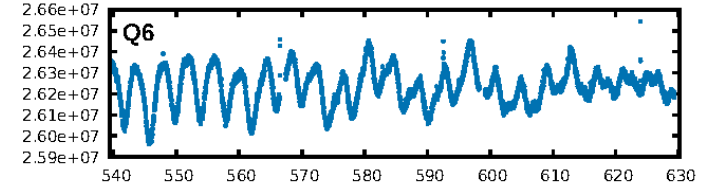
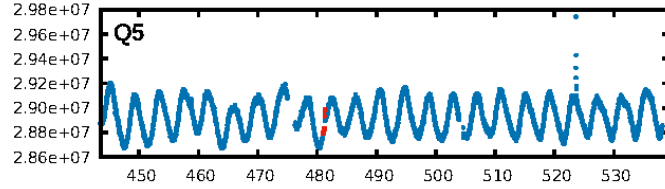
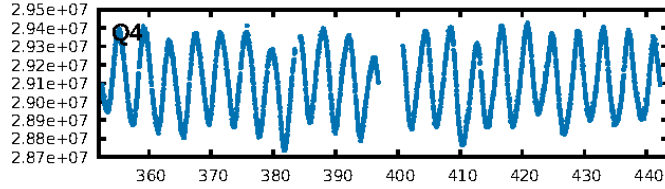
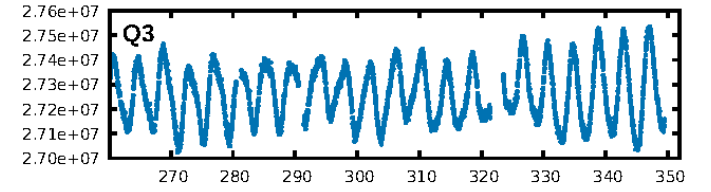
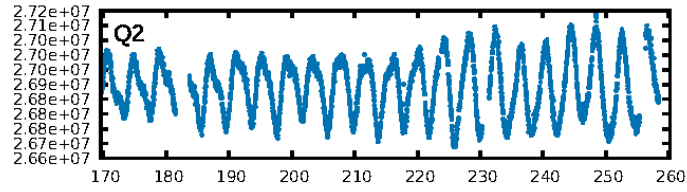
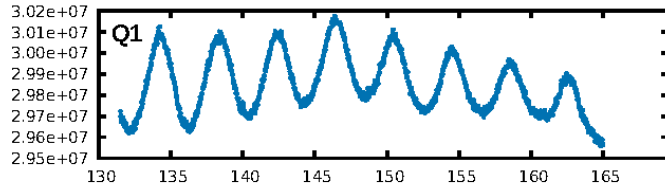
KIC: 5557222 Candidate: 1 of 1 Period: 387.287 d



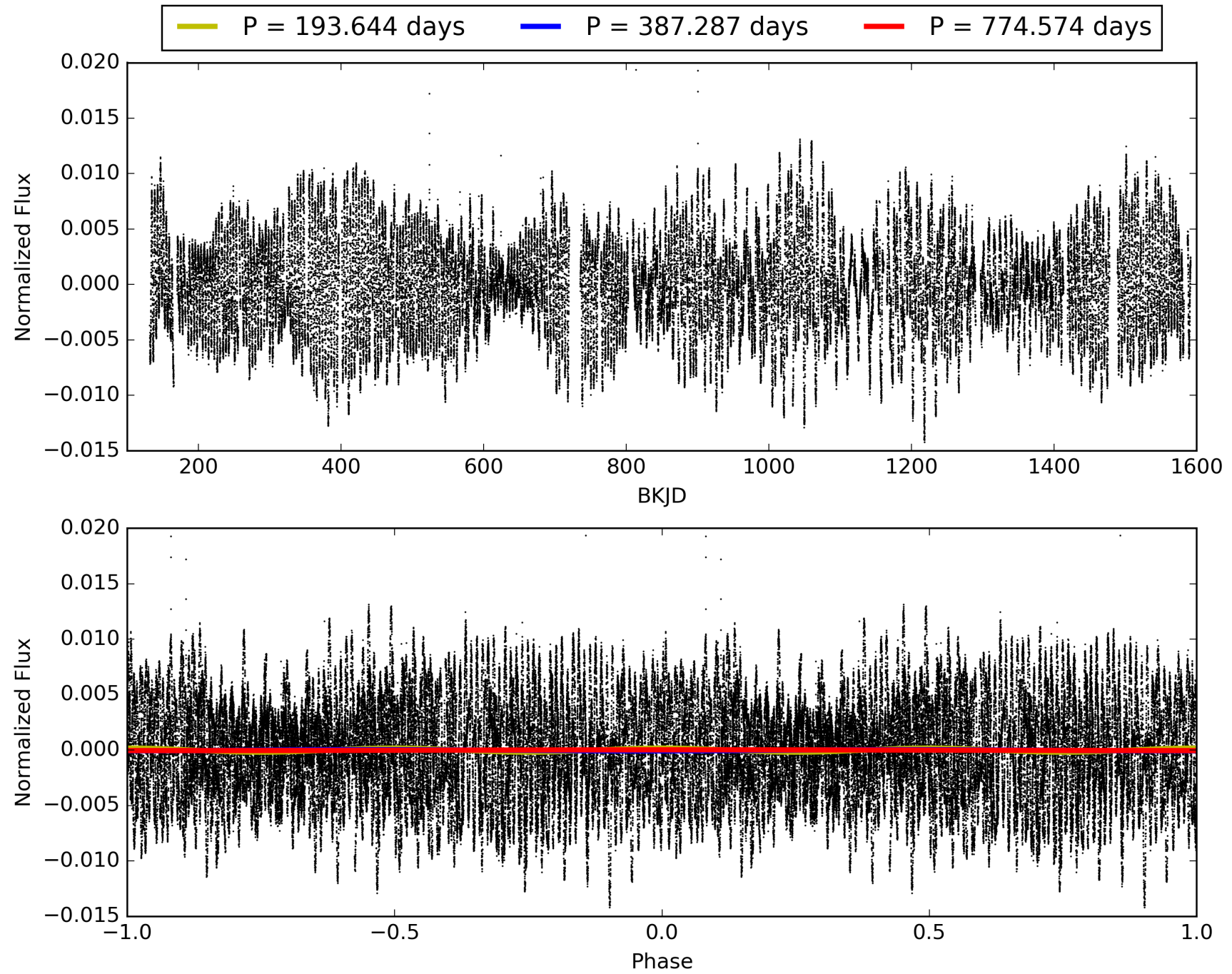
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:32:45 Z

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

TCE 005557222-01, PDC Light Curves

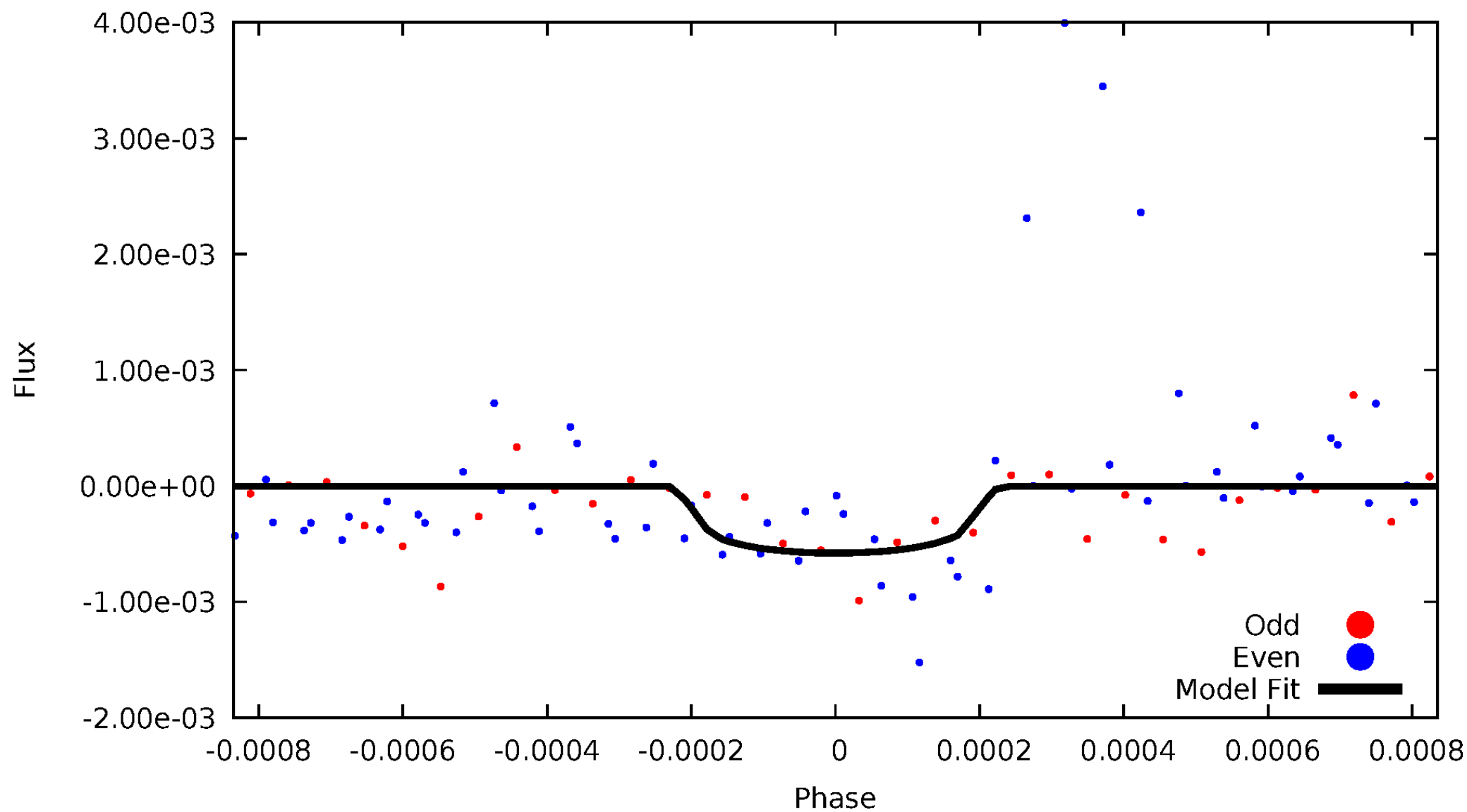


TCE 005557222-01



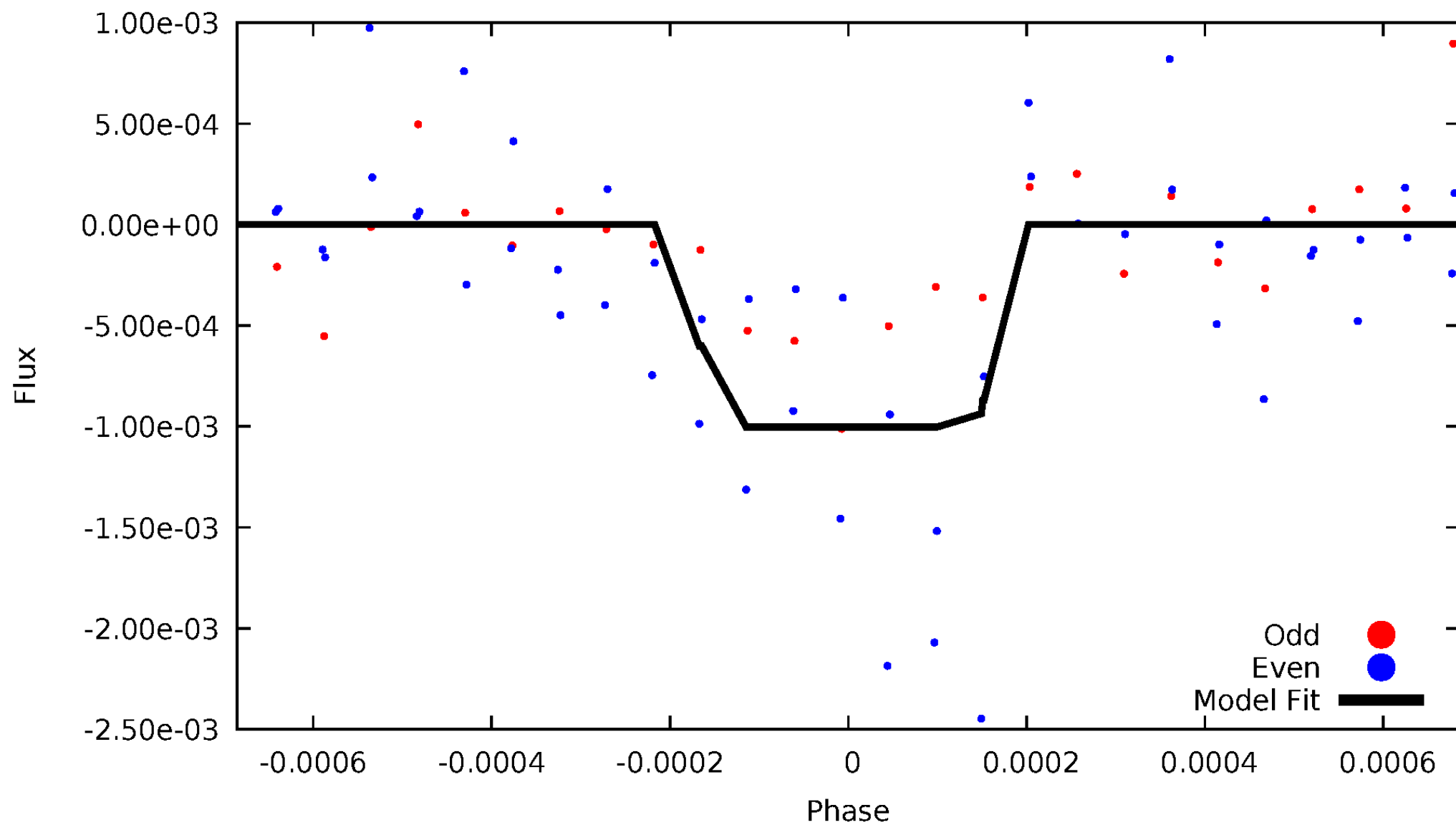
DV Odd/Even

TCE 005557222-01



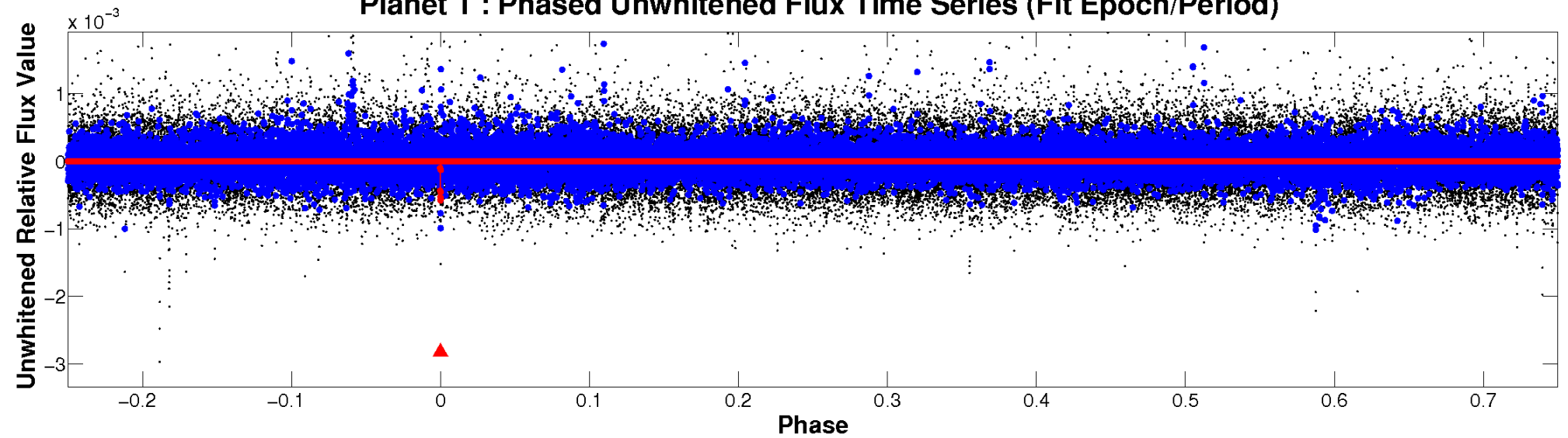
ALT Odd/Even

TCE 005557222-01

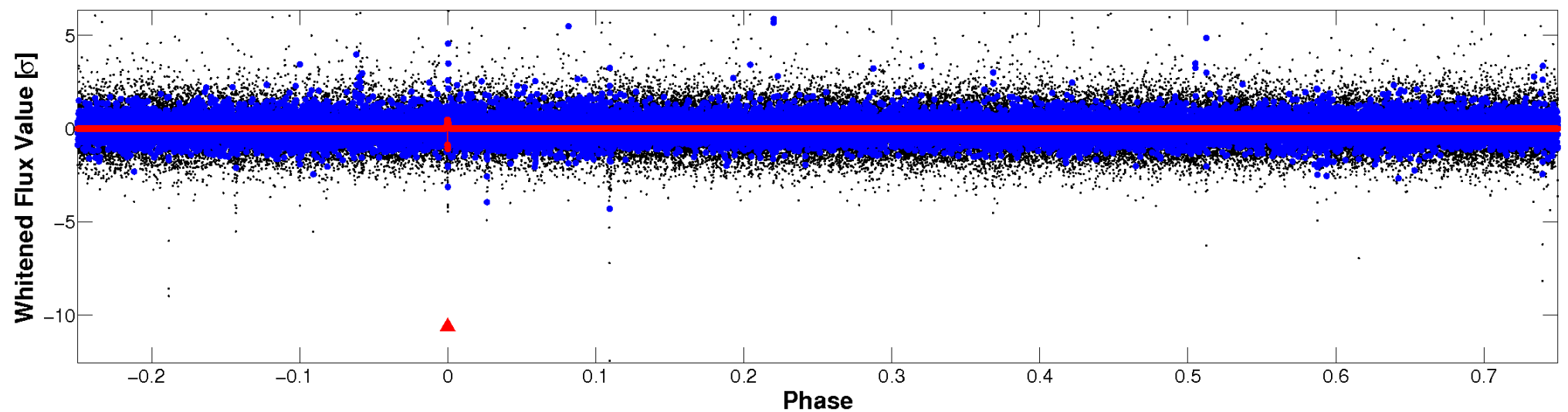


Non-Whitened Vs. Whitened Light Curve

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

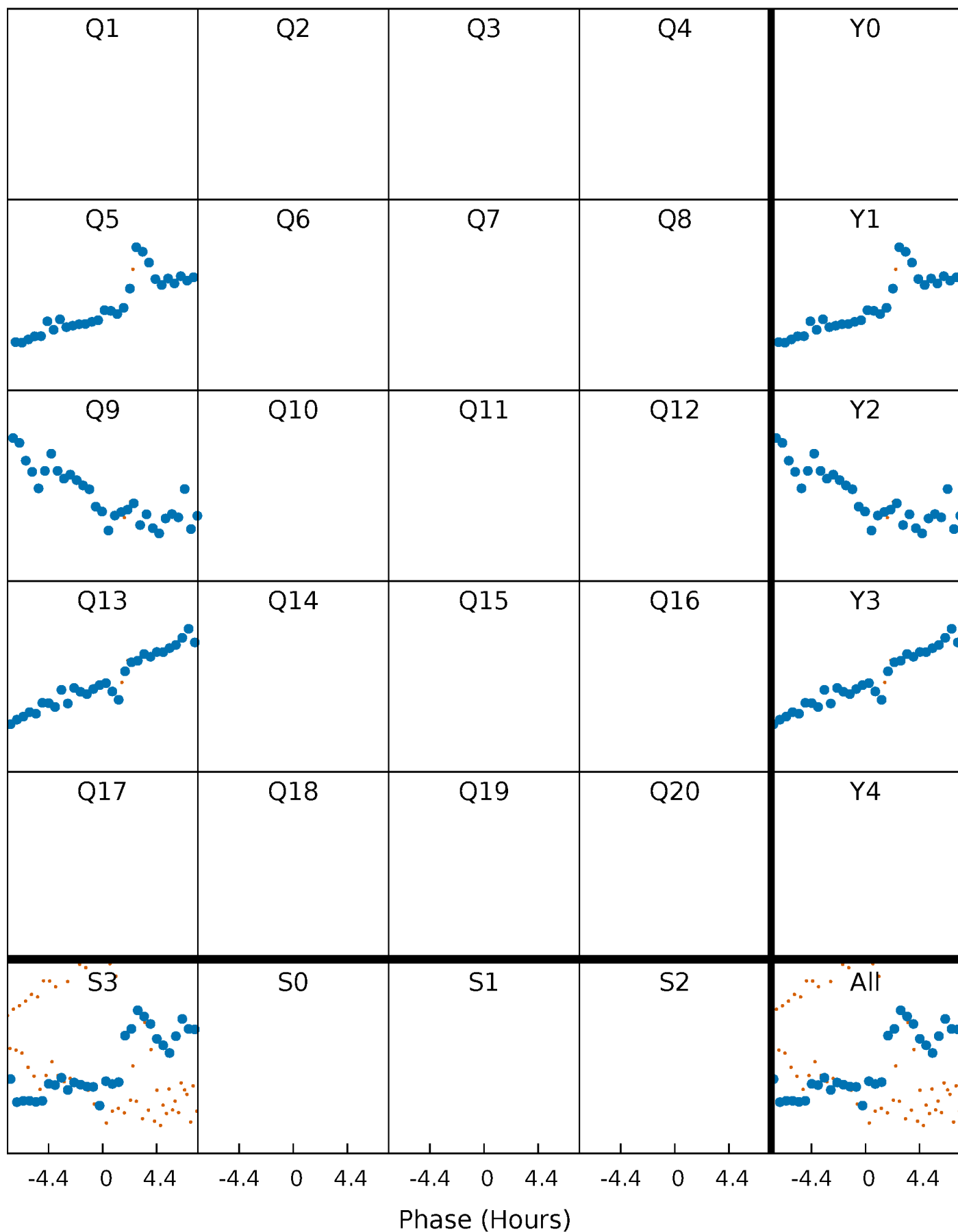


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



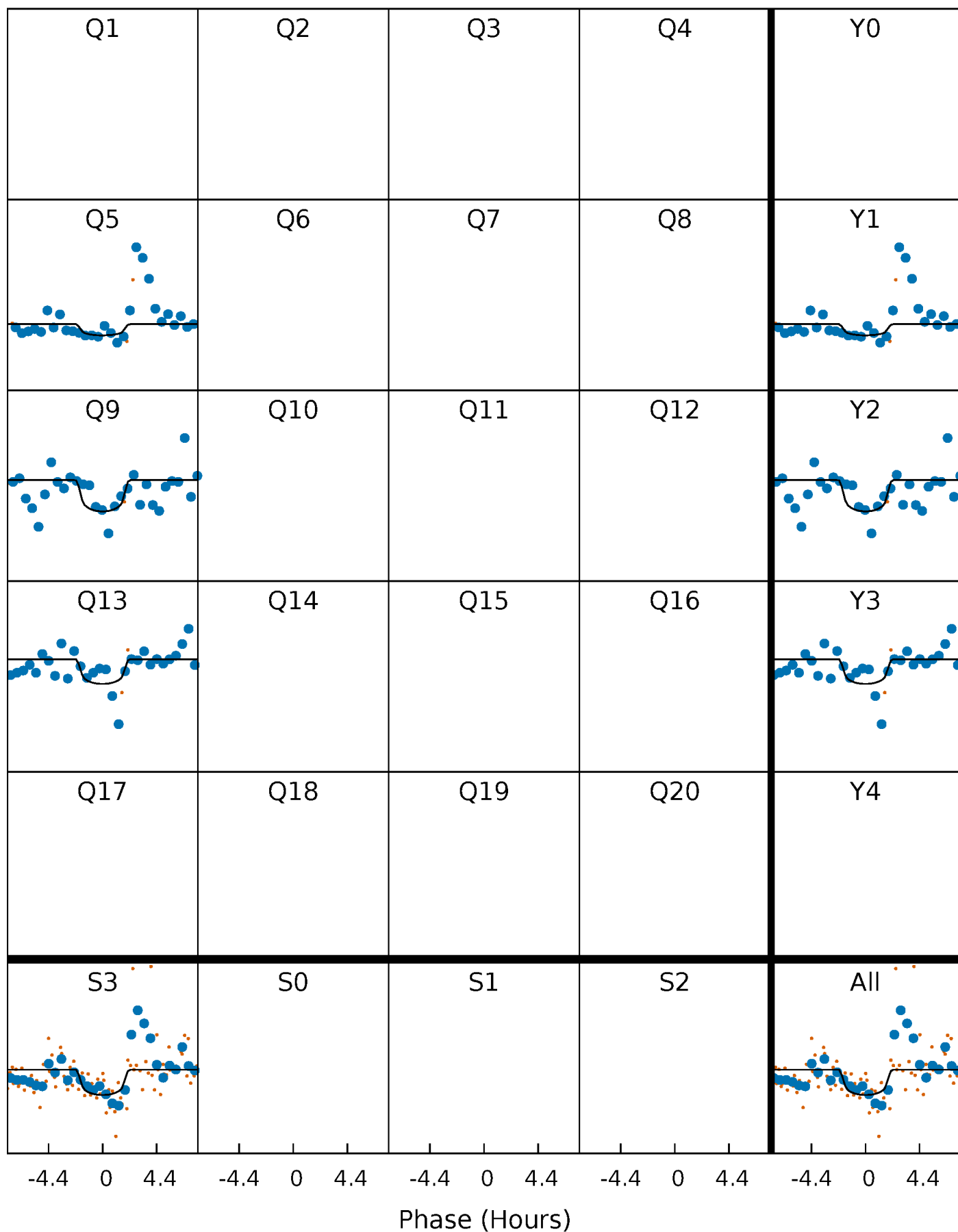
PDC Quarter-Phased Transit Curves

TCE 005557222-01 P=387.287105 Days $T_0=481.170184$ (BKJD)



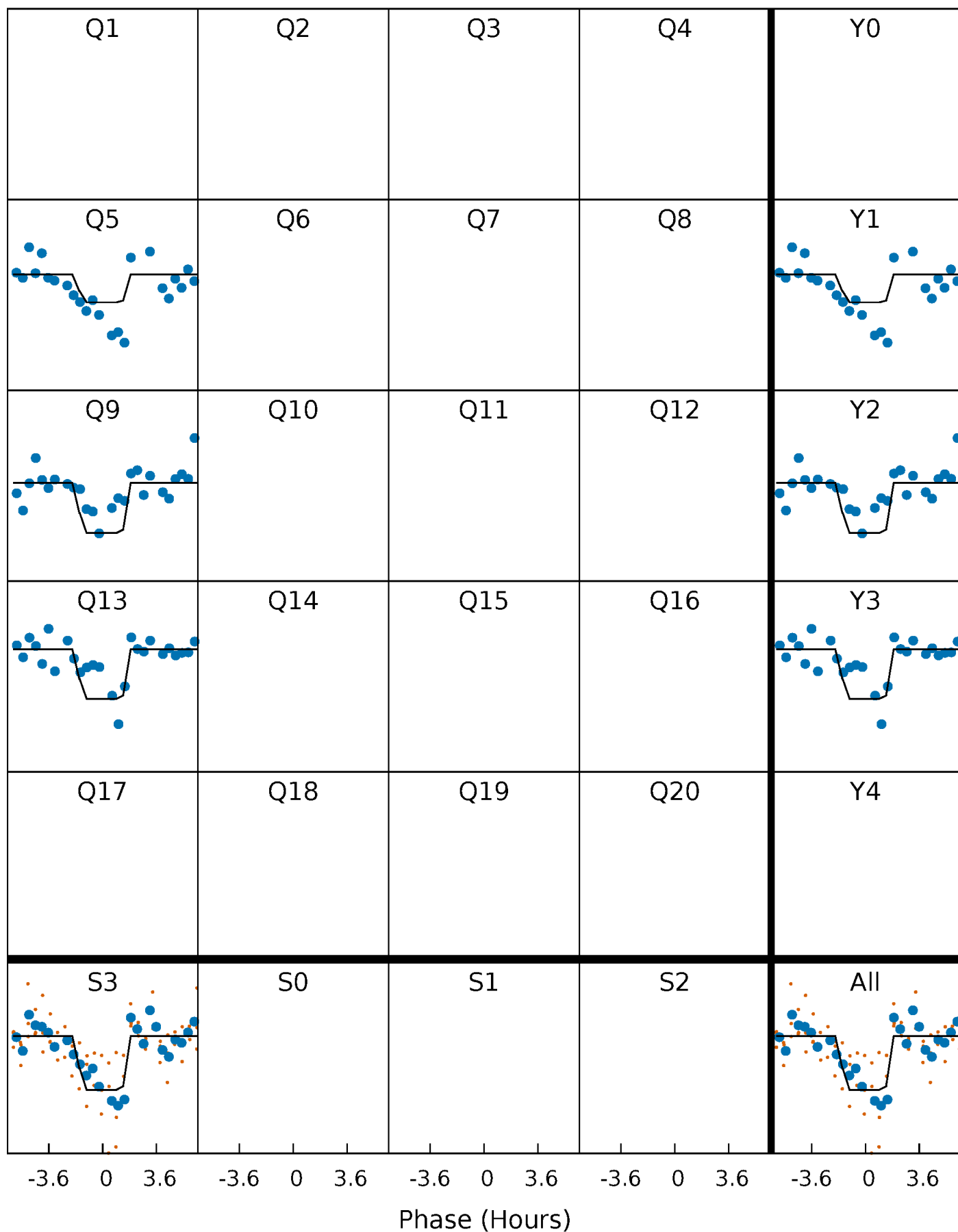
DV Quarter-Phased Transit Curves

TCE 005557222-01 $P=387.287105$ Days $T_0=481.170184$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

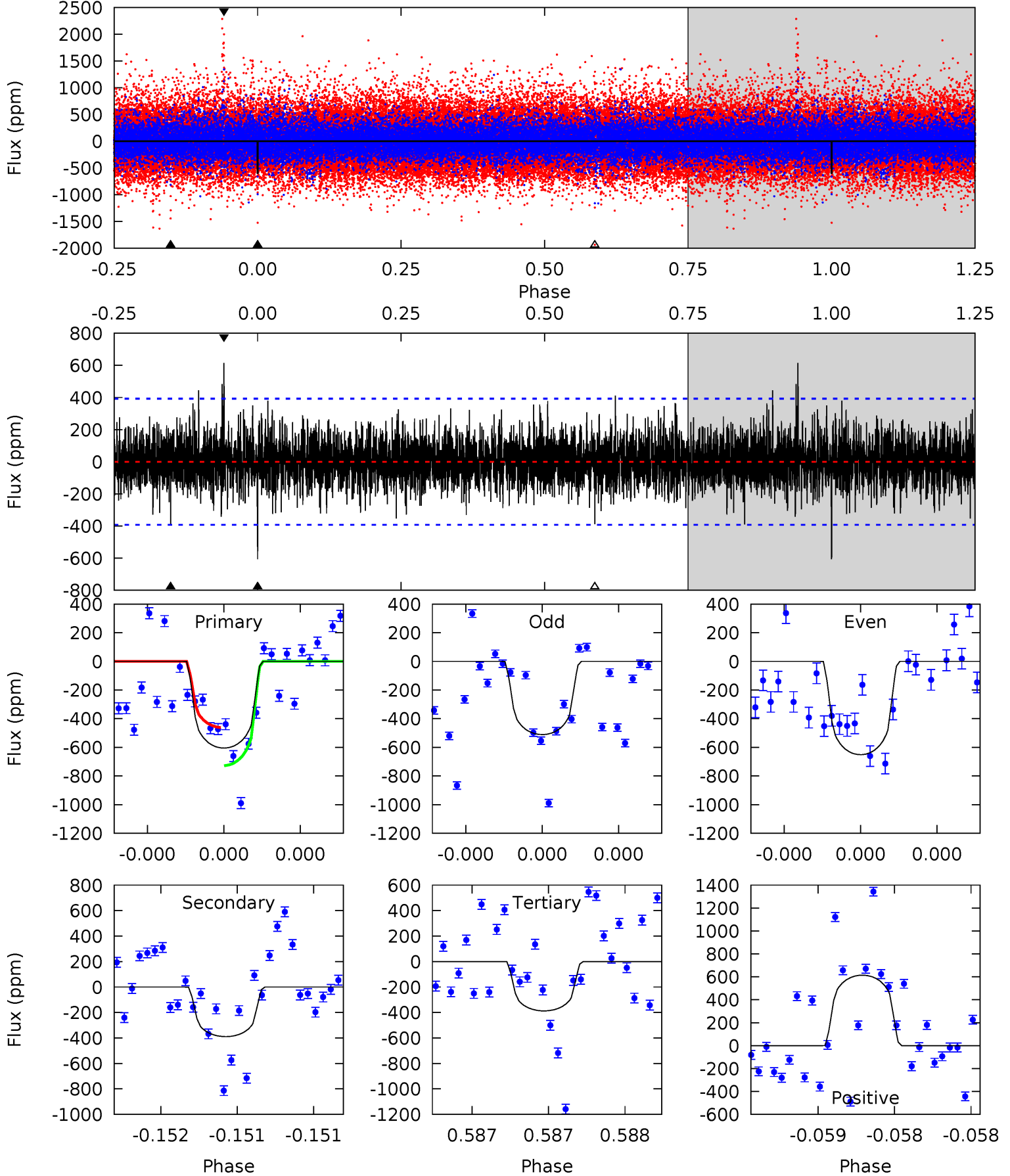
TCE 005557222-01 P=387.278192 Days $T_0=481.194697$ (BKJD)



DV Model-Shift Uniqueness Test

005557222-01, $P = 387.287105$ Days, $E = 93.883079$ Days

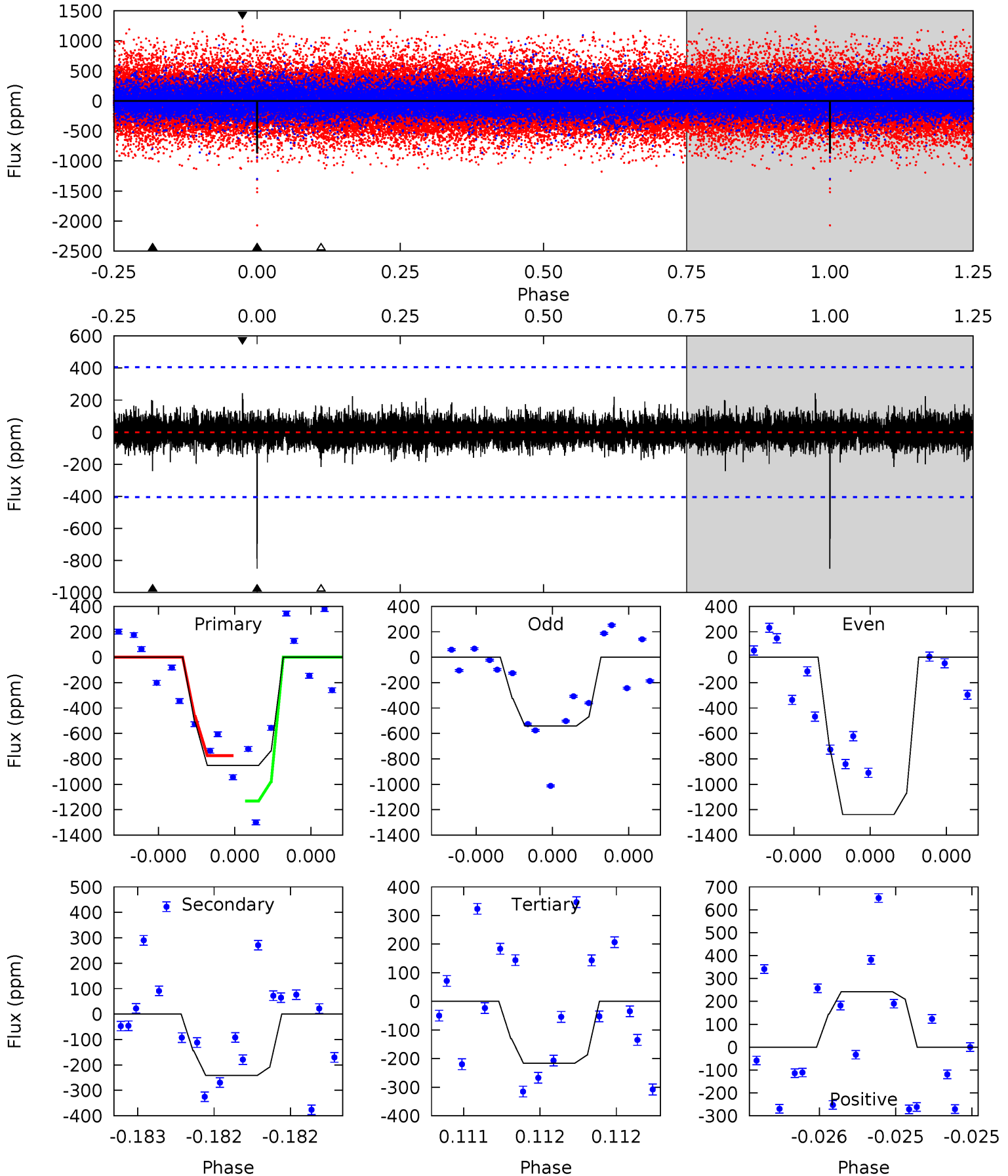
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.61	5.54	5.52	8.74	5.58	3.49	1.44	3.10	-0.13	0.03	-3.20	0.91	0.95	0.50	1.88



Alt Model-Shift Uniqueness Test

005557222-01, P = 387.278192 Days, E = 93.916505 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	3.37	3.02	3.38	5.65	3.60	0.66	8.85	8.49	0.35	-0.01	4.89	1.38	0.22	2.53



Stellar Parameters For KIC 005557222

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5274^{+157}_{-157}	$4.608^{+0.055}_{-0.061}$	$-0.580^{+0.350}_{-0.300}$	$0.691^{+0.080}_{-0.060}$	$0.705^{+0.077}_{-0.049}$	$3.012^{+0.692}_{-0.672}$
	+3%/-3%	+1%/-1%	+60%/-52%	+12%/-9%	+11%/-7%	+23%/-22%
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 005557222-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-390 ± 70	$5.10^{+5.06}_{-3.57}$	281^{+11}_{-10}	3360^{+1803}_{-613}	7250^{+69657}_{-5513}
Alt.	-241 ± 72	$5.39^{+4.63}_{-3.66}$	281^{+11}_{-11}	3087^{+1359}_{-507}	4016^{+33115}_{-3023}

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 $A_{obs} \gg 1.0$

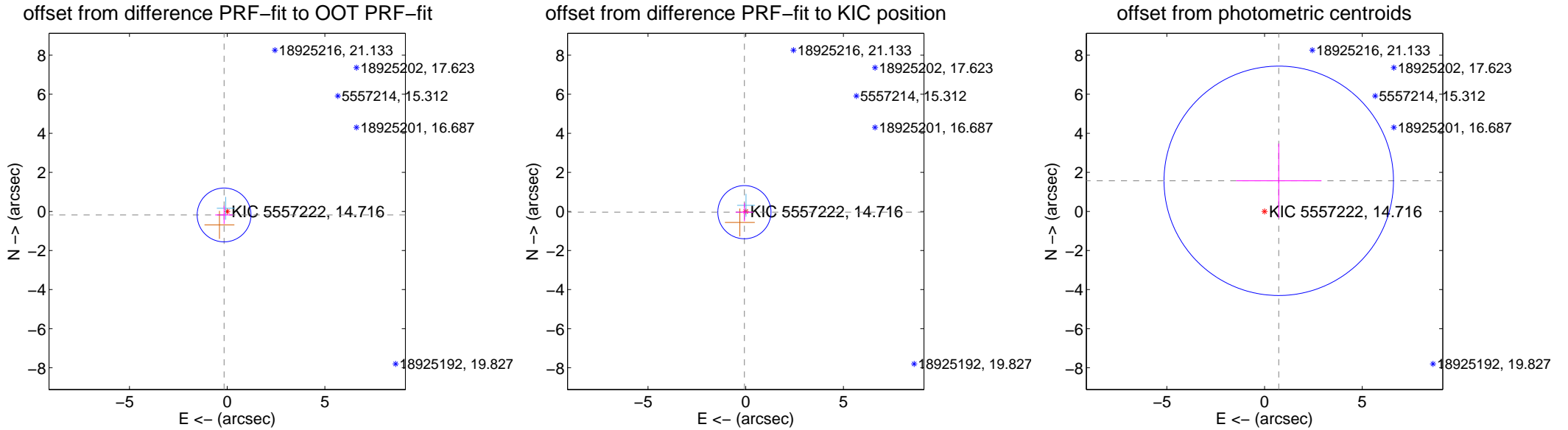
DV Centroid Data

Supplemental centroid analysis for 005557222-01. Kepler magnitude: 14.72. Transit SNR 4.70

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.240 ± 0.459	0.52	0.159 ± 0.450	-0.180 ± 0.467
PRF-fit source offset from KIC position	0.077 ± 0.454	0.17	0.067 ± 0.450	-0.037 ± 0.467
photometric centroid source offset	1.73 ± 1.96	0.88	-0.73 ± 2.18	1.57 ± 1.91

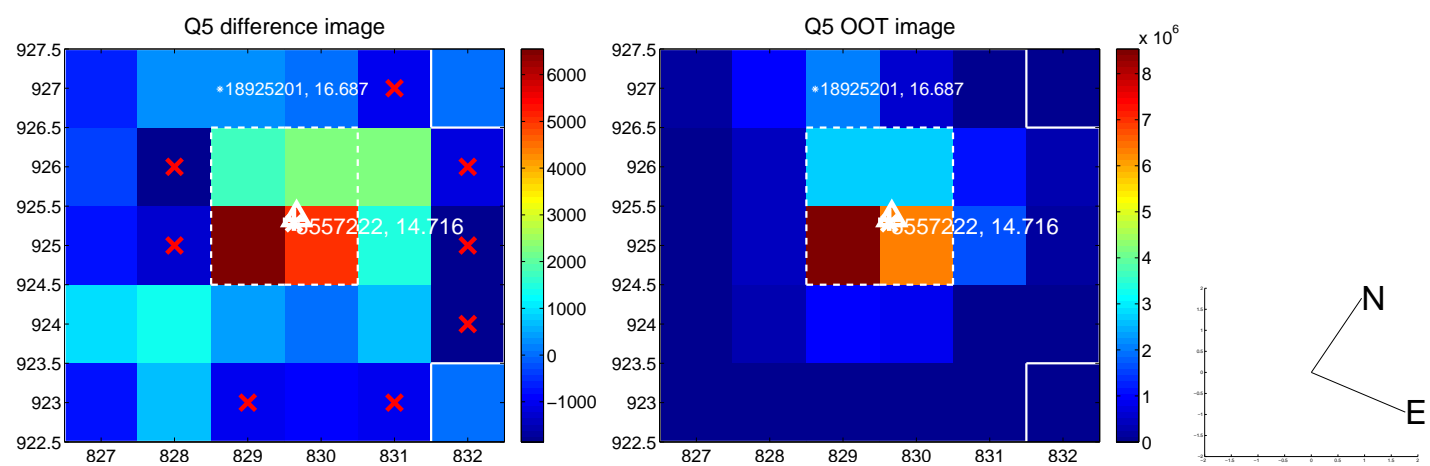


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

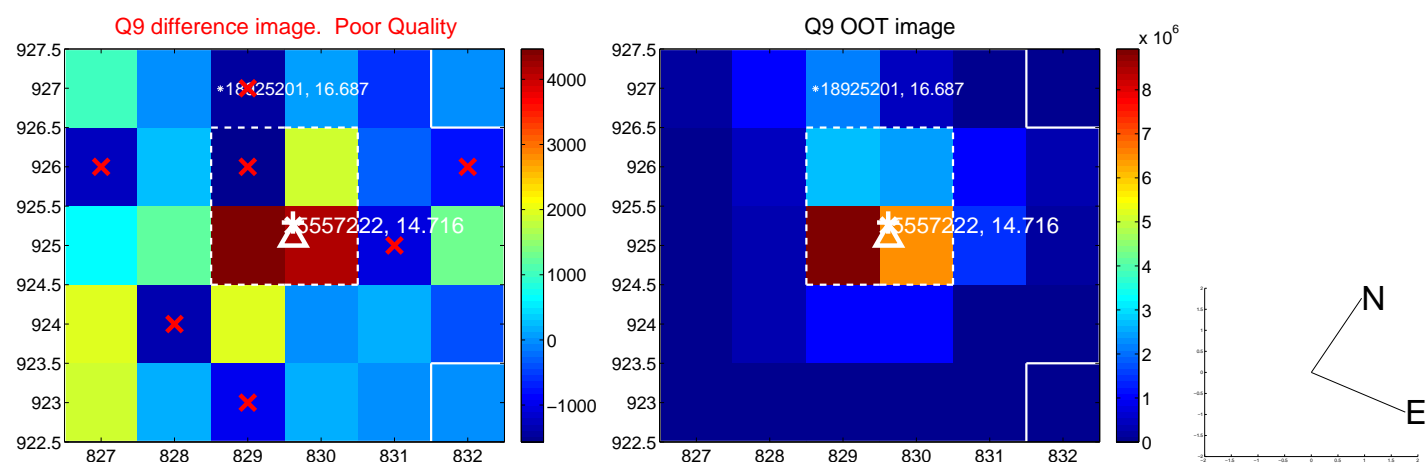
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



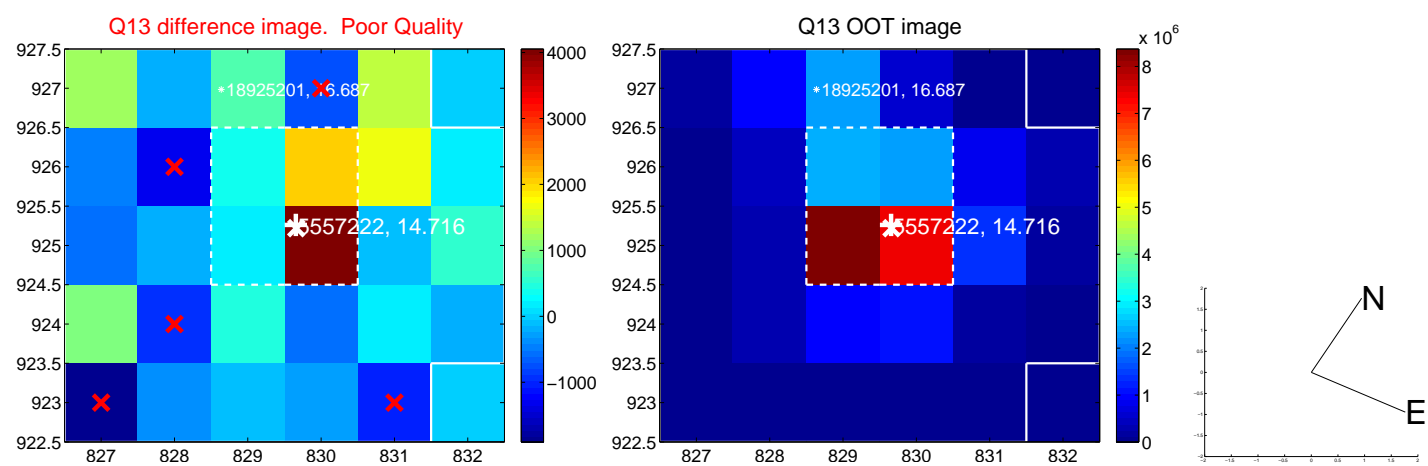
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



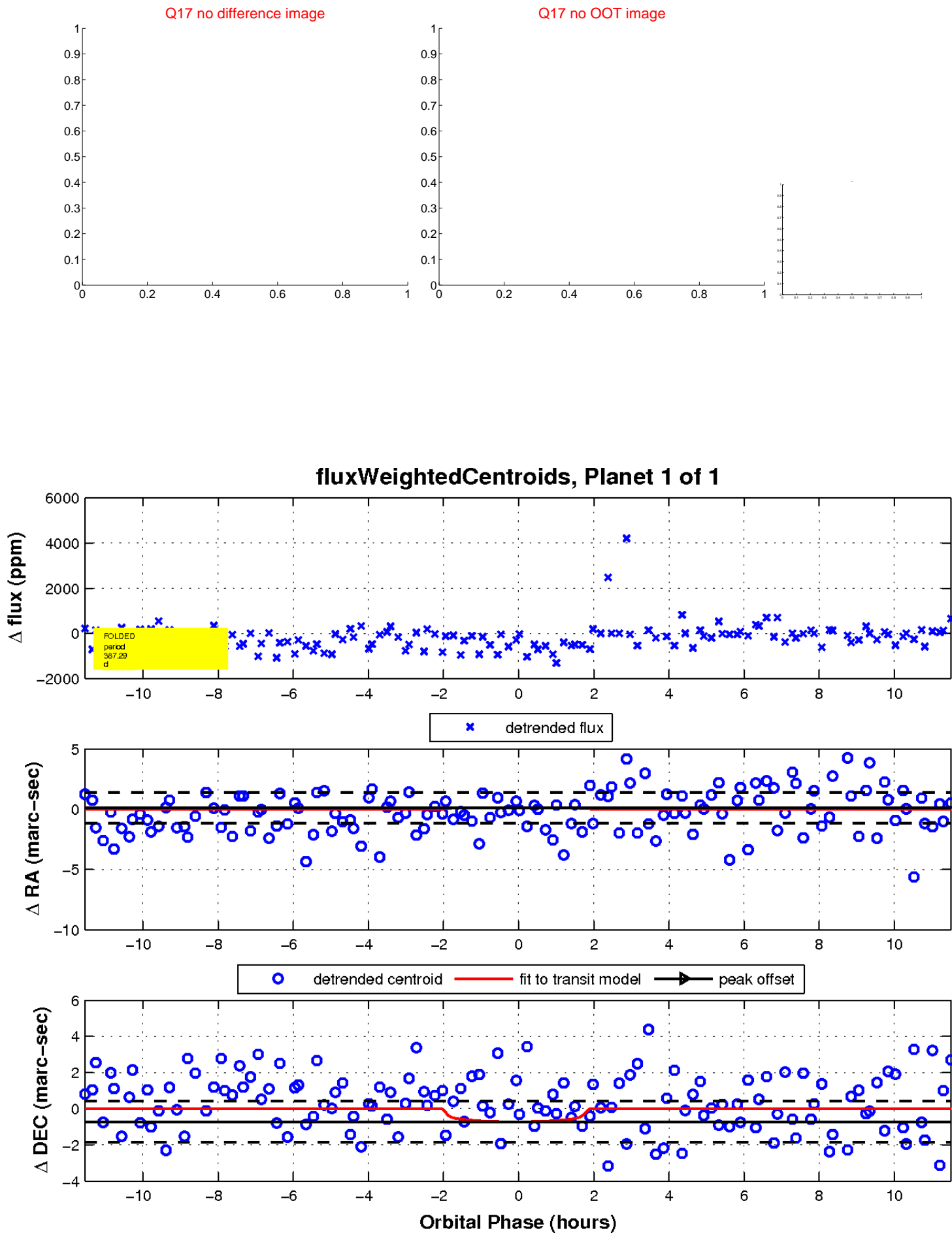
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

