

KIC 003550337

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})
003550337-01	OBS	No	575.565383	378.248211	570.7	10.576	8.1	7.6	0.84	5504	2.21	0.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003550337-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

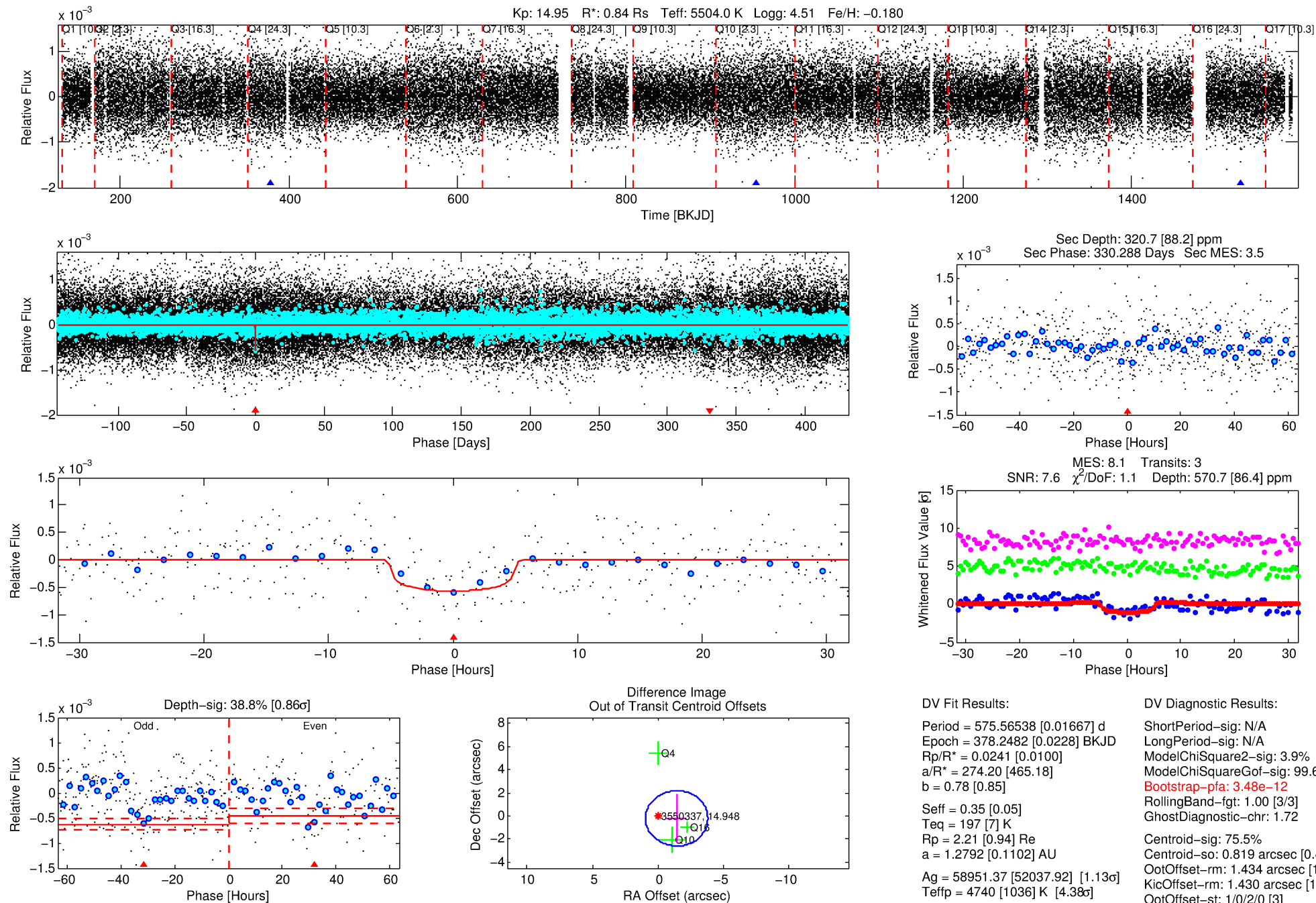
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003550337-01

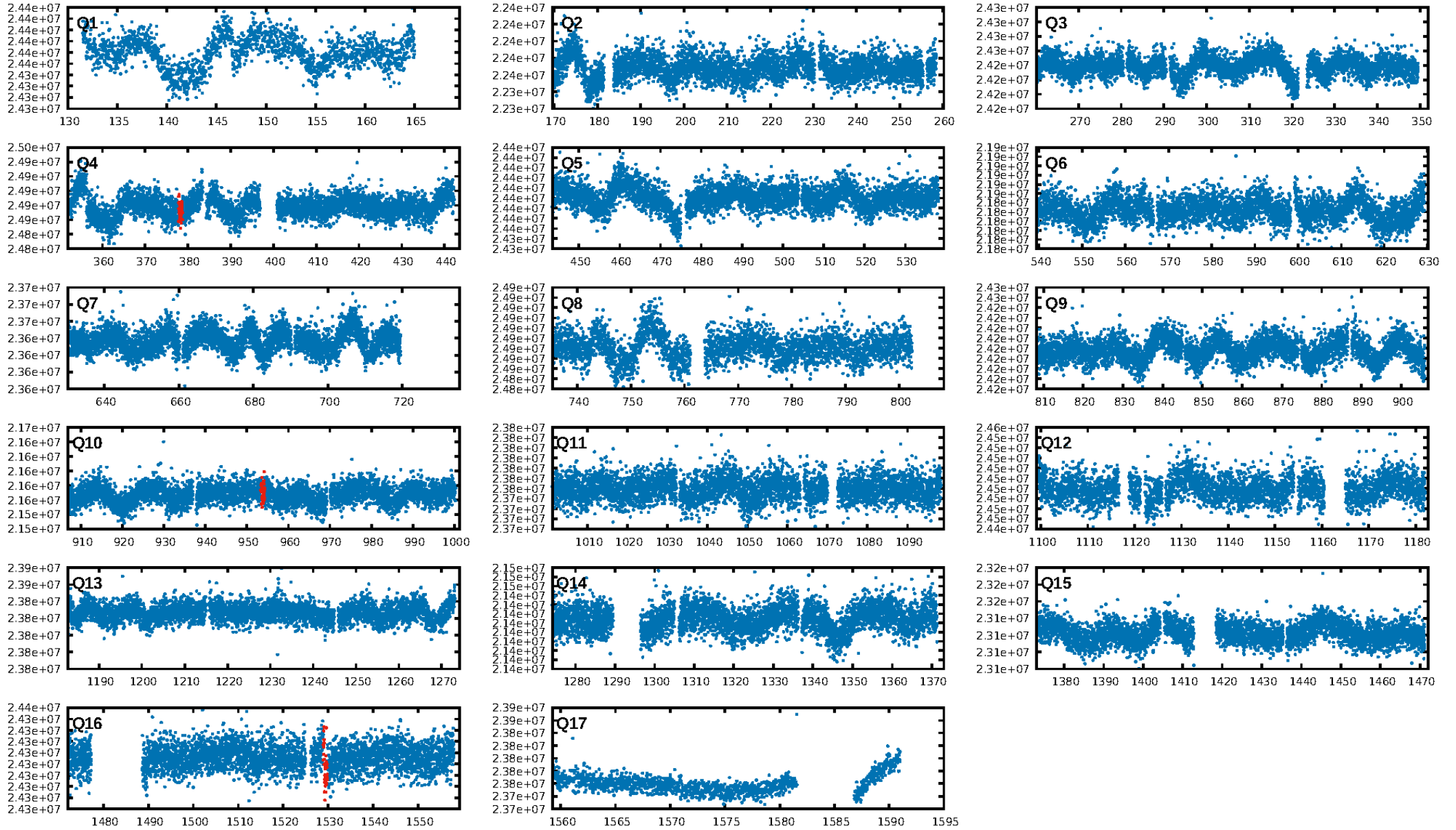
No Significant Match Found

DV One-Page Summary

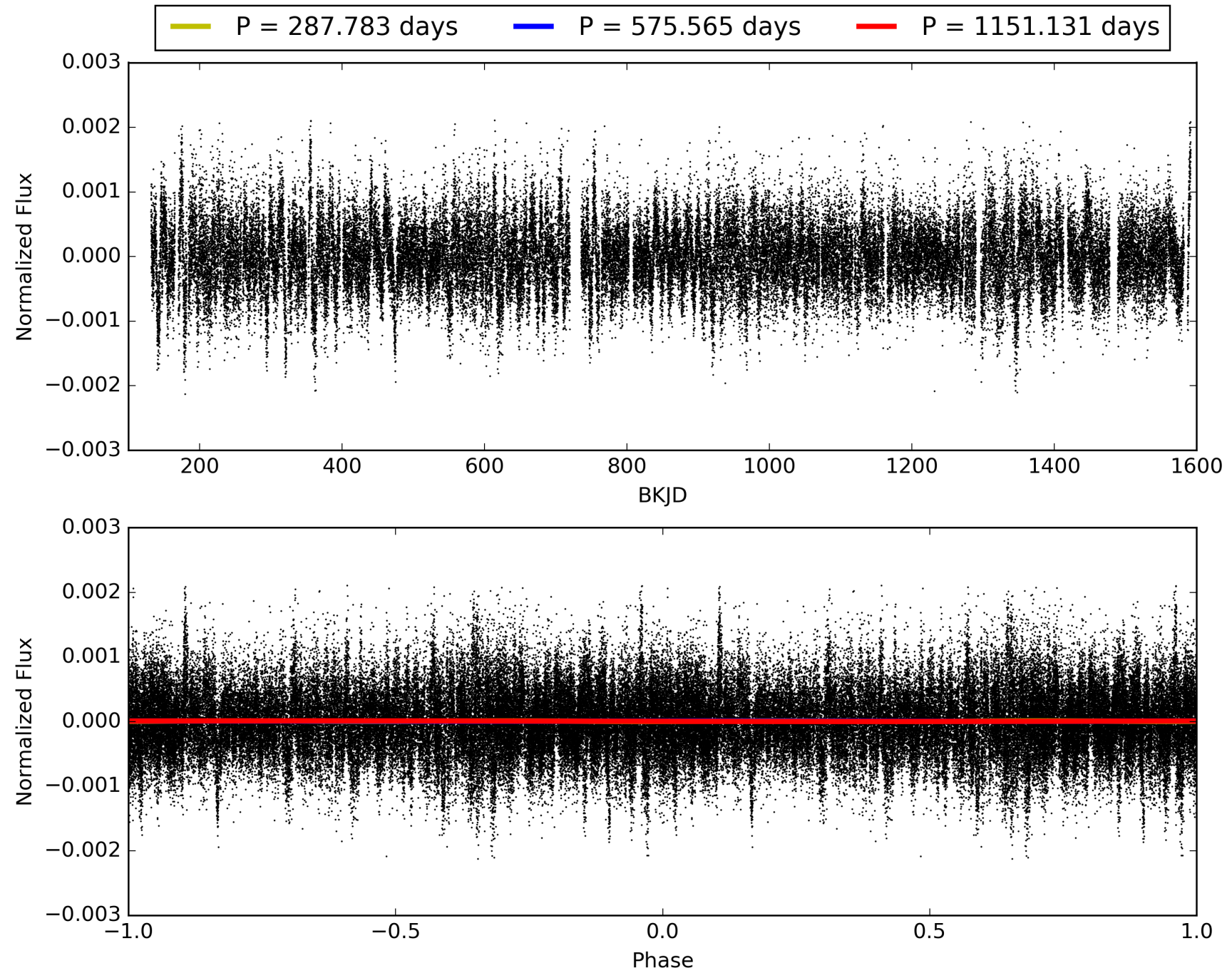
KIC: 3550337 Candidate: 1 of 1 Period: 575.565 d



TCE 003550337-01, PDC Light Curves

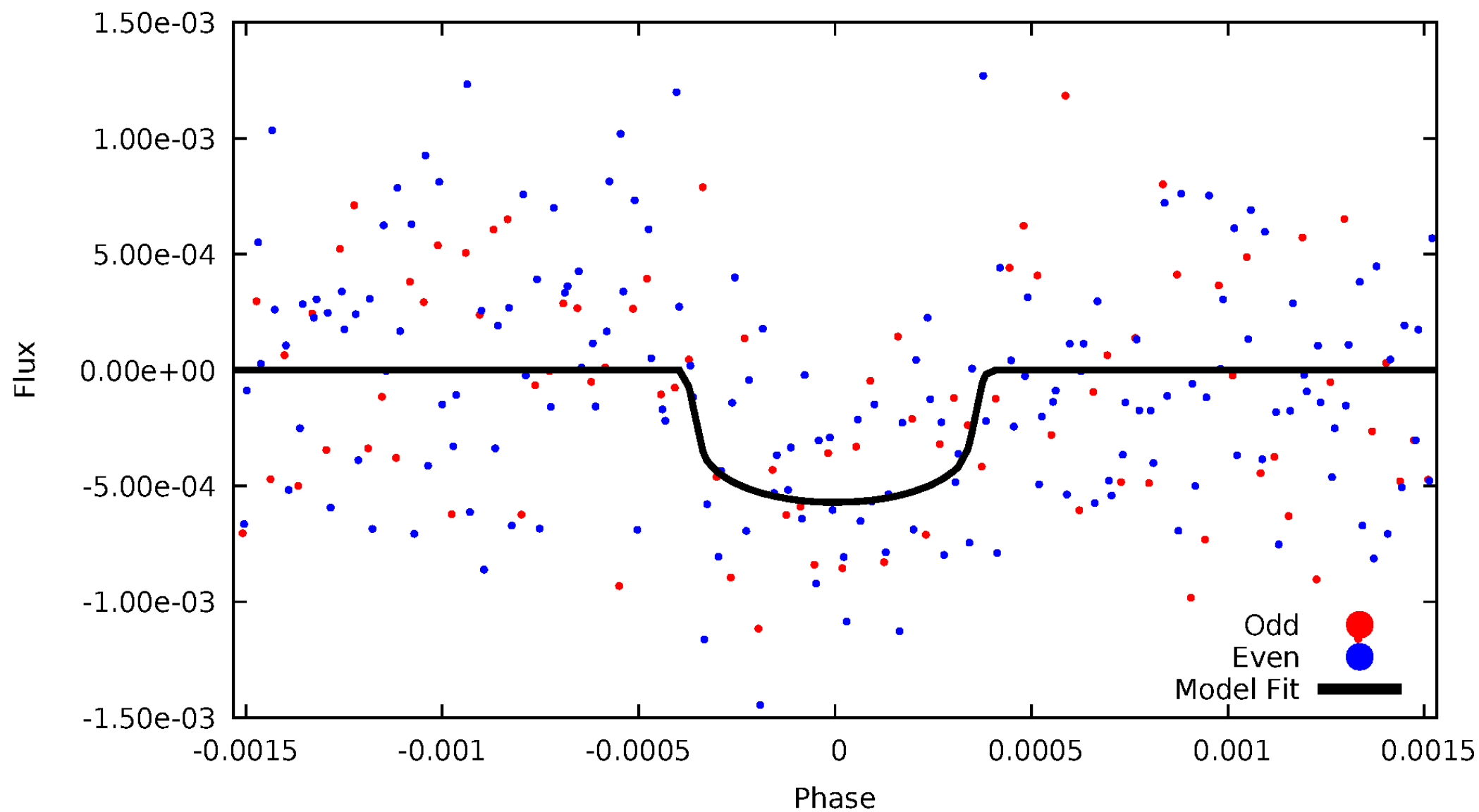


TCE 003550337-01



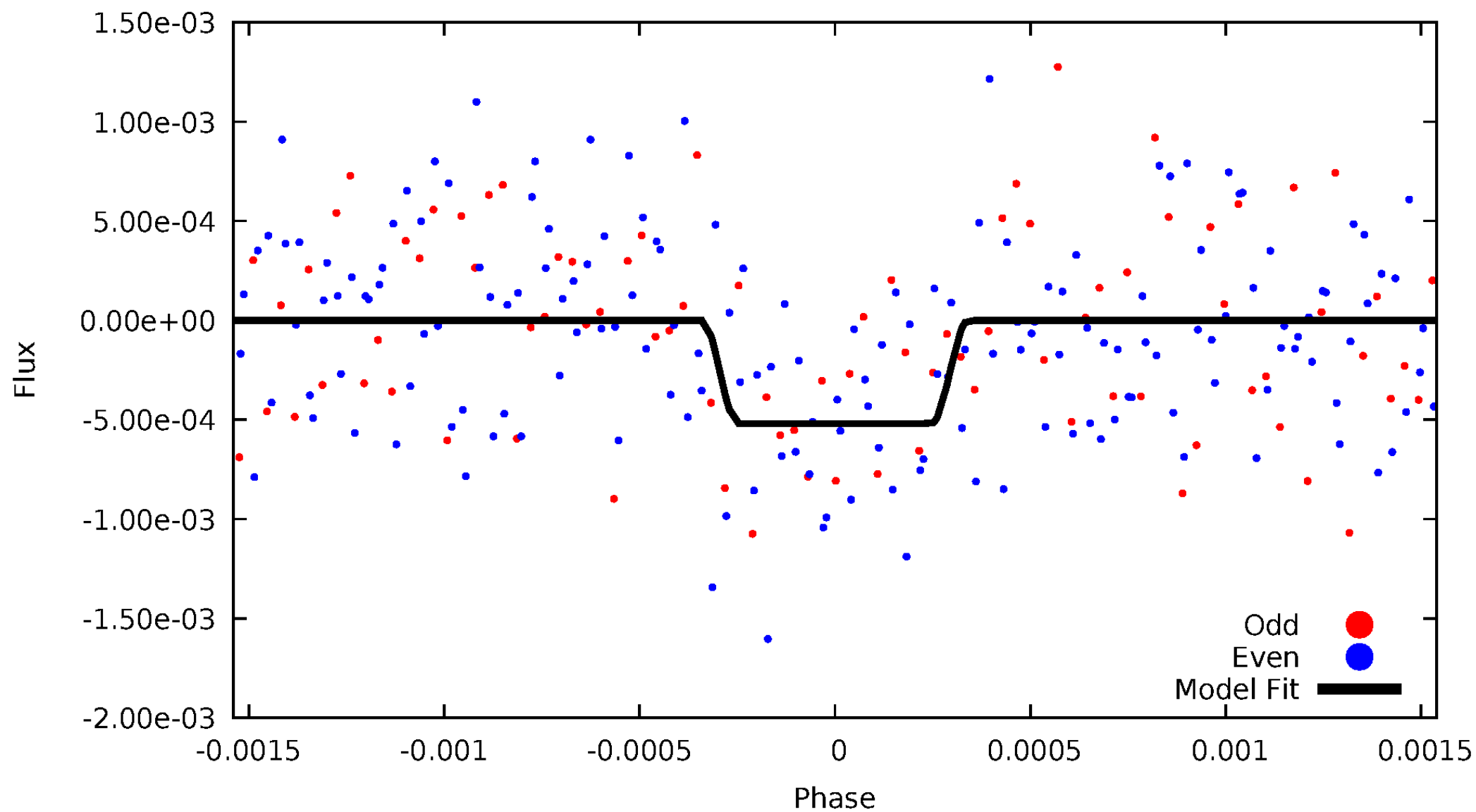
DV Odd/Even

TCE 003550337-01



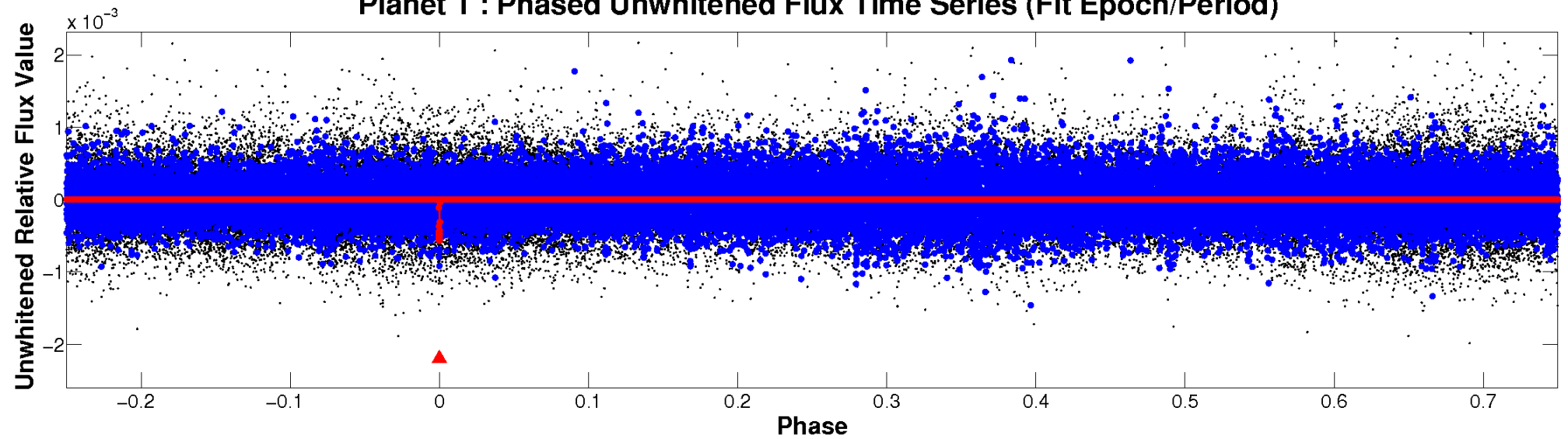
ALT Odd/Even

TCE 003550337-01

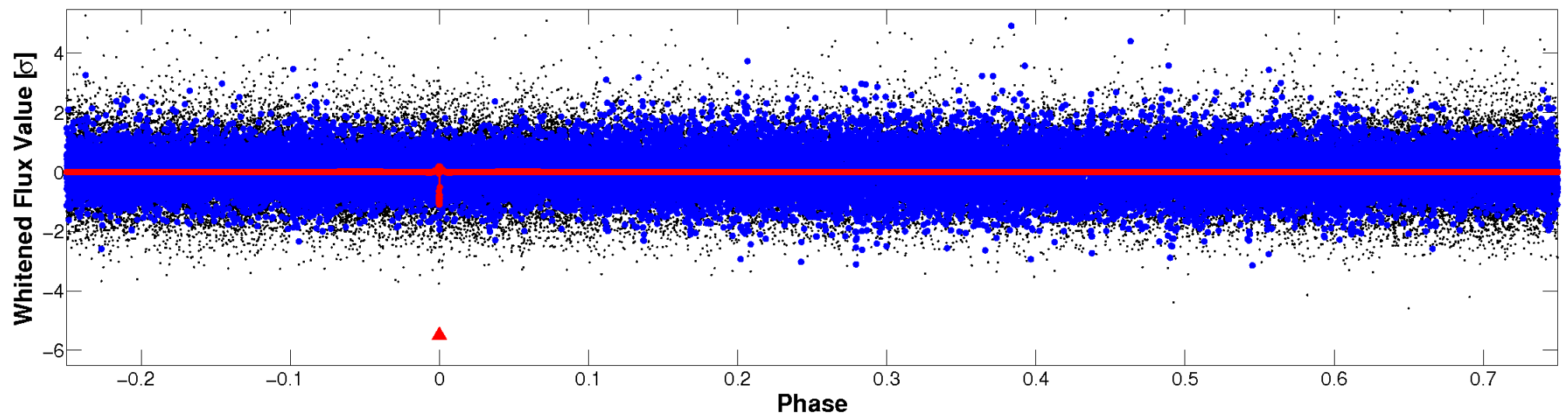


Non-Whitened Vs. Whitened Light Curve

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

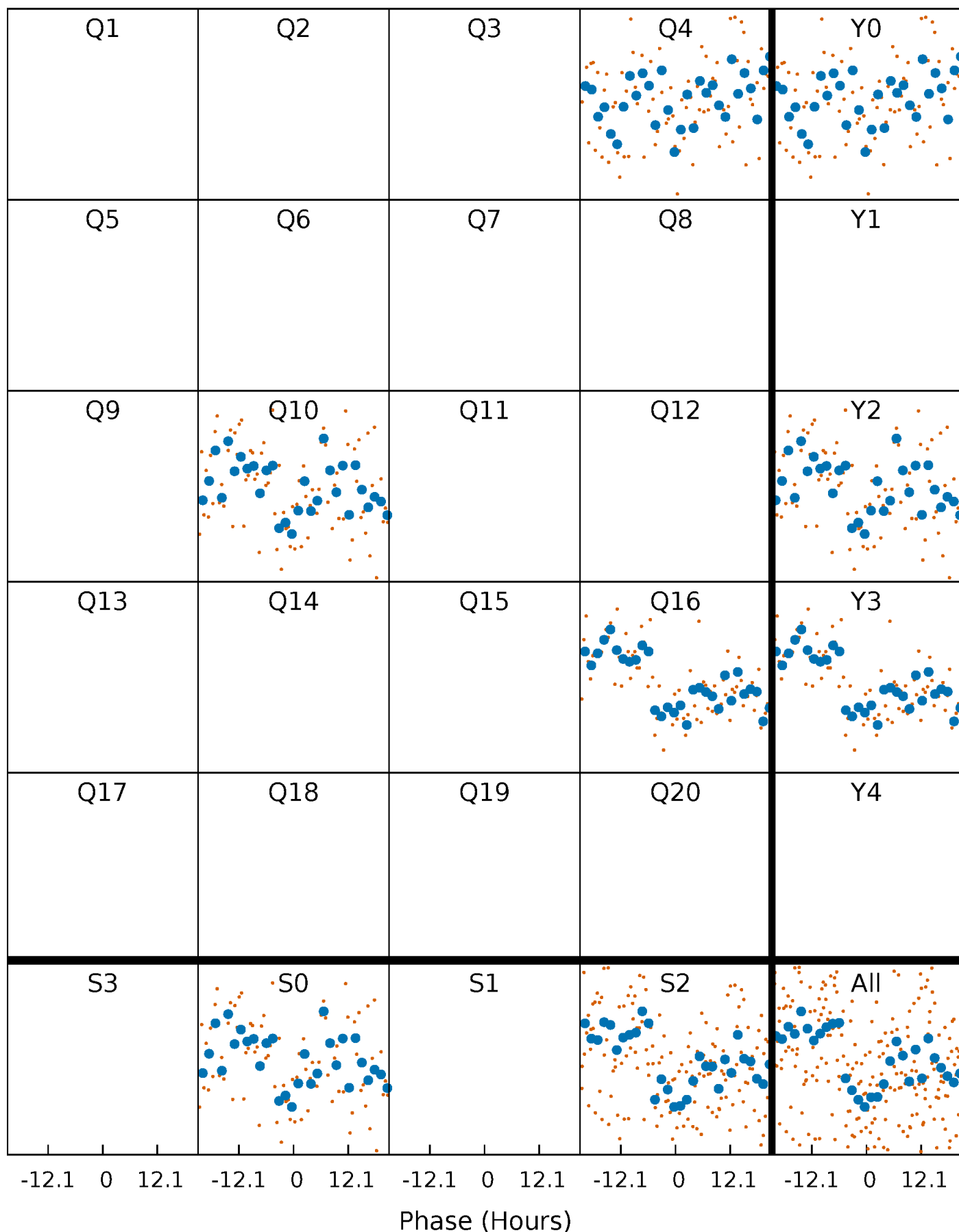


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



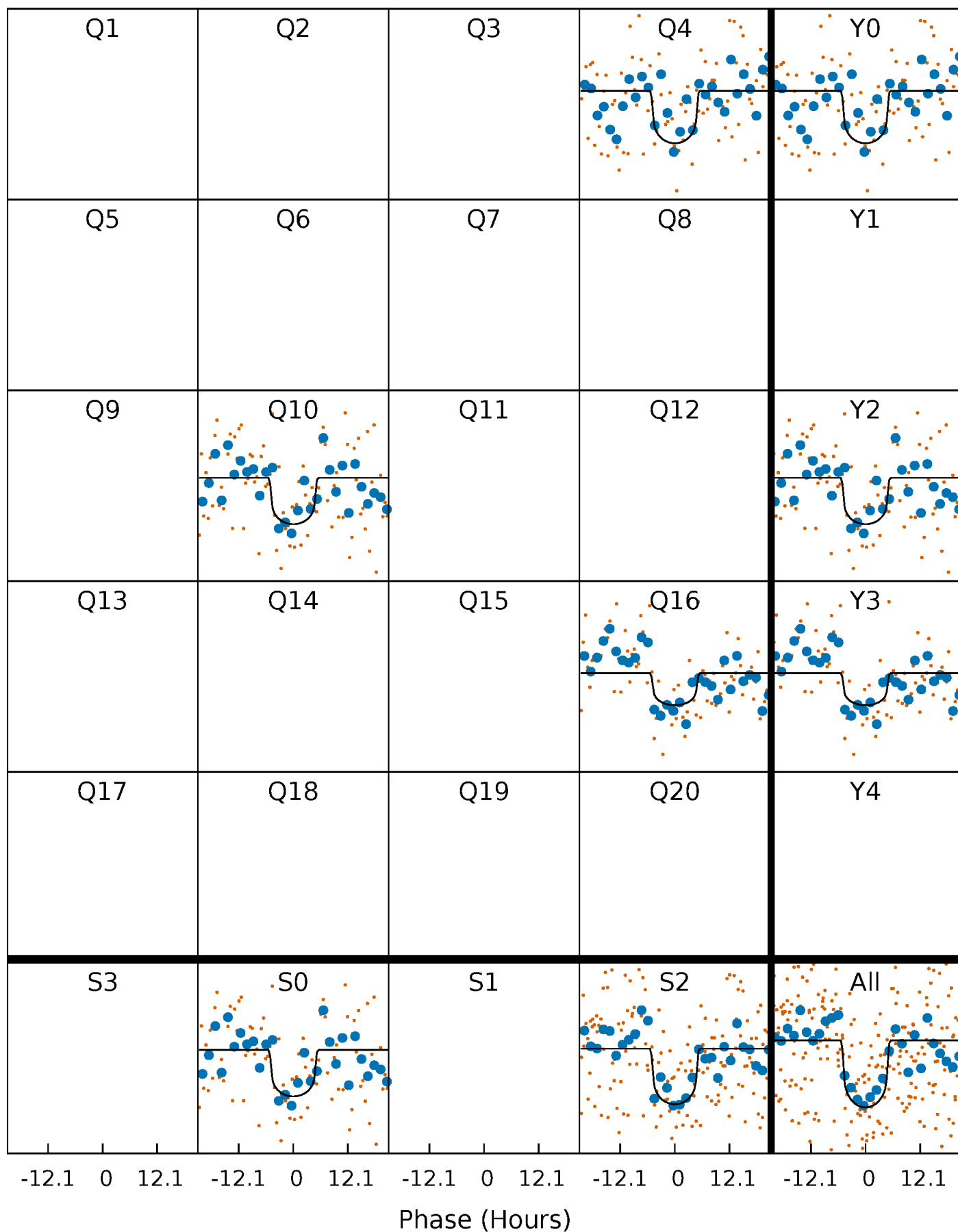
PDC Quarter-Phased Transit Curves

TCE 003550337-01 P=575.565383 Days $T_0=378.248211$ (BKJD)



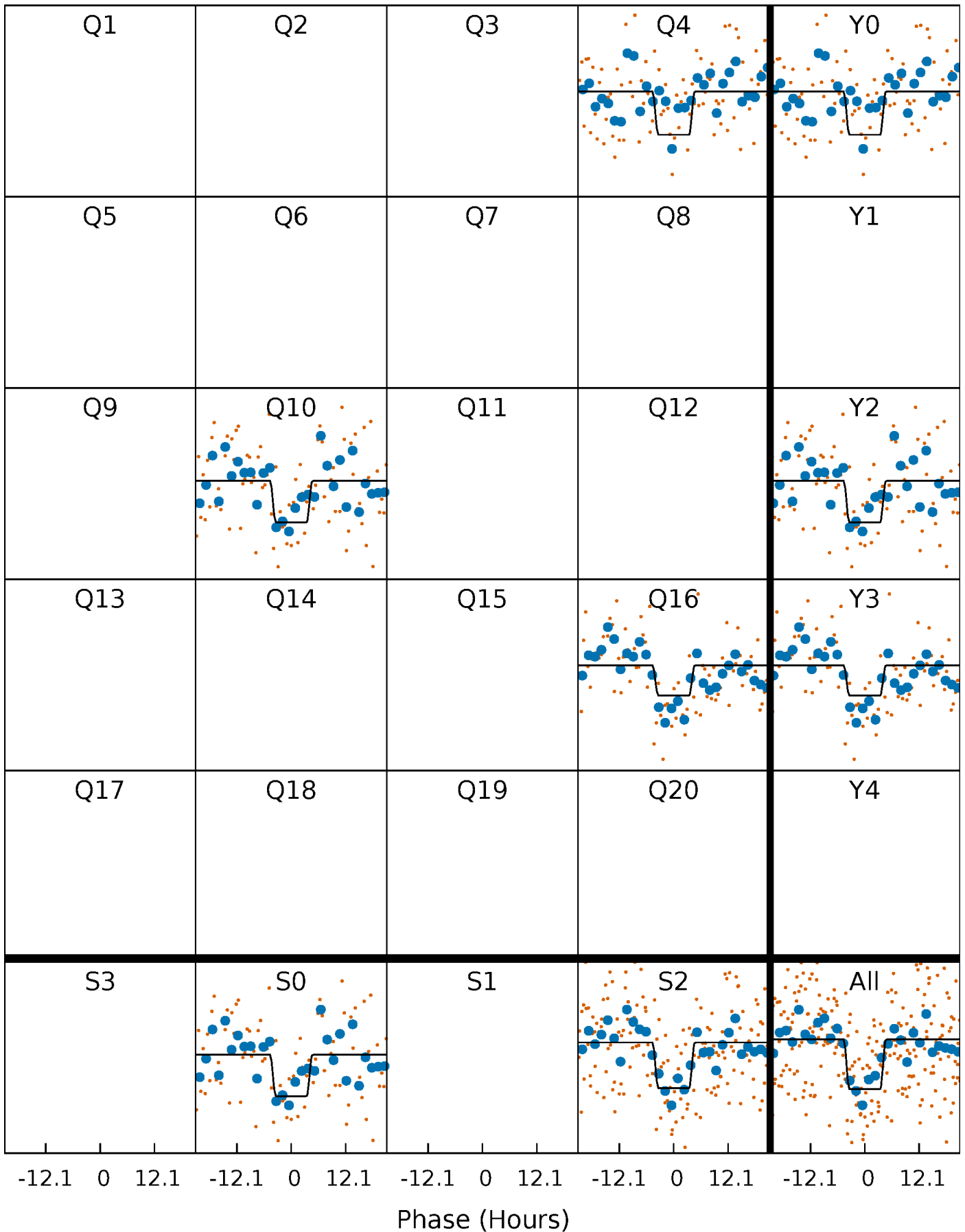
DV Quarter-Phased Transit Curves

TCE 003550337-01 P=575.565383 Days $T_0=378.248211$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

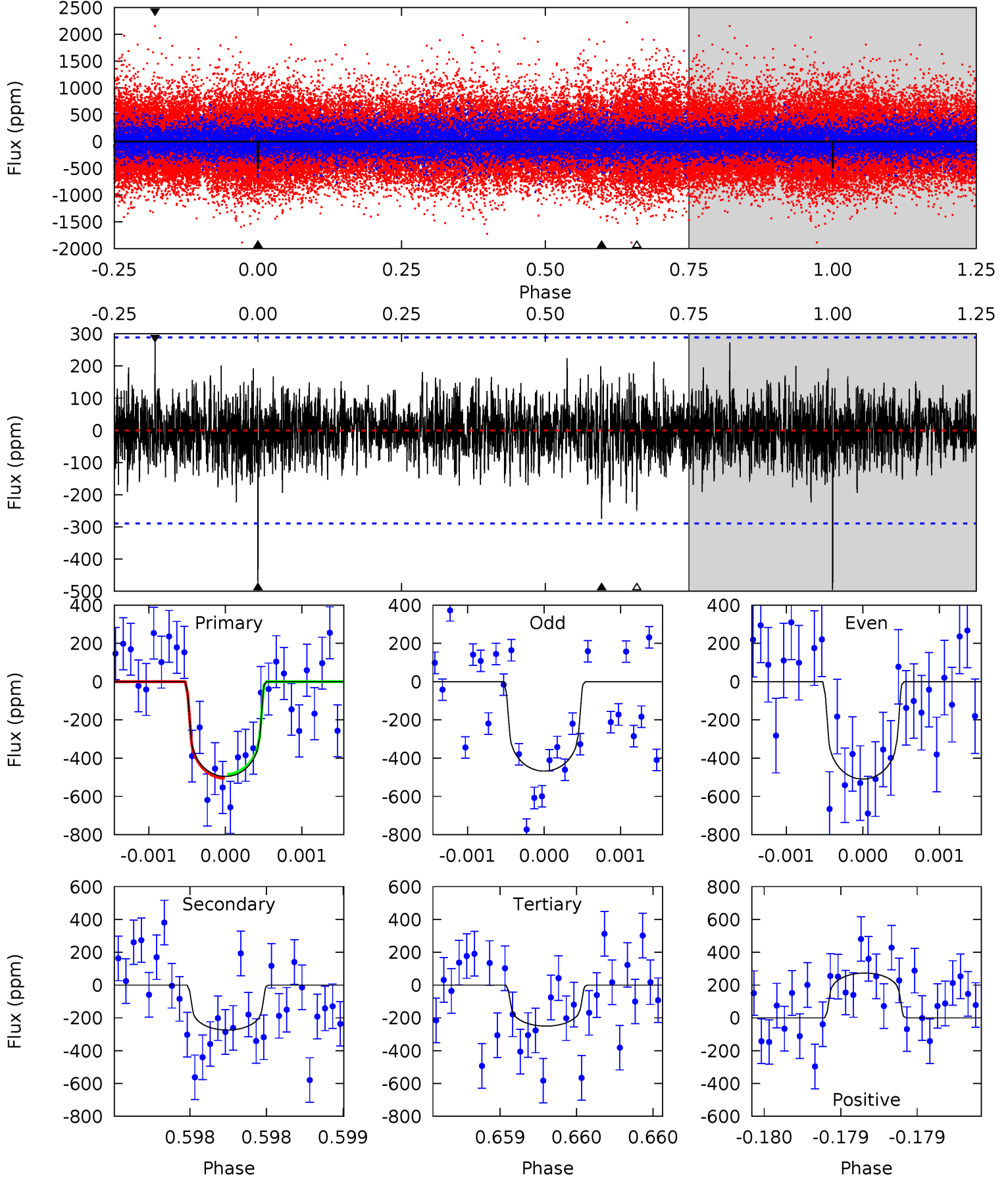
TCE 003550337-01 P=575.545273 Days $T_0=378.277519$ (BKJD)



DV Model-Shift Uniqueness Test

003550337-01, P = 575.565383 Days, E = 378.248211 Days

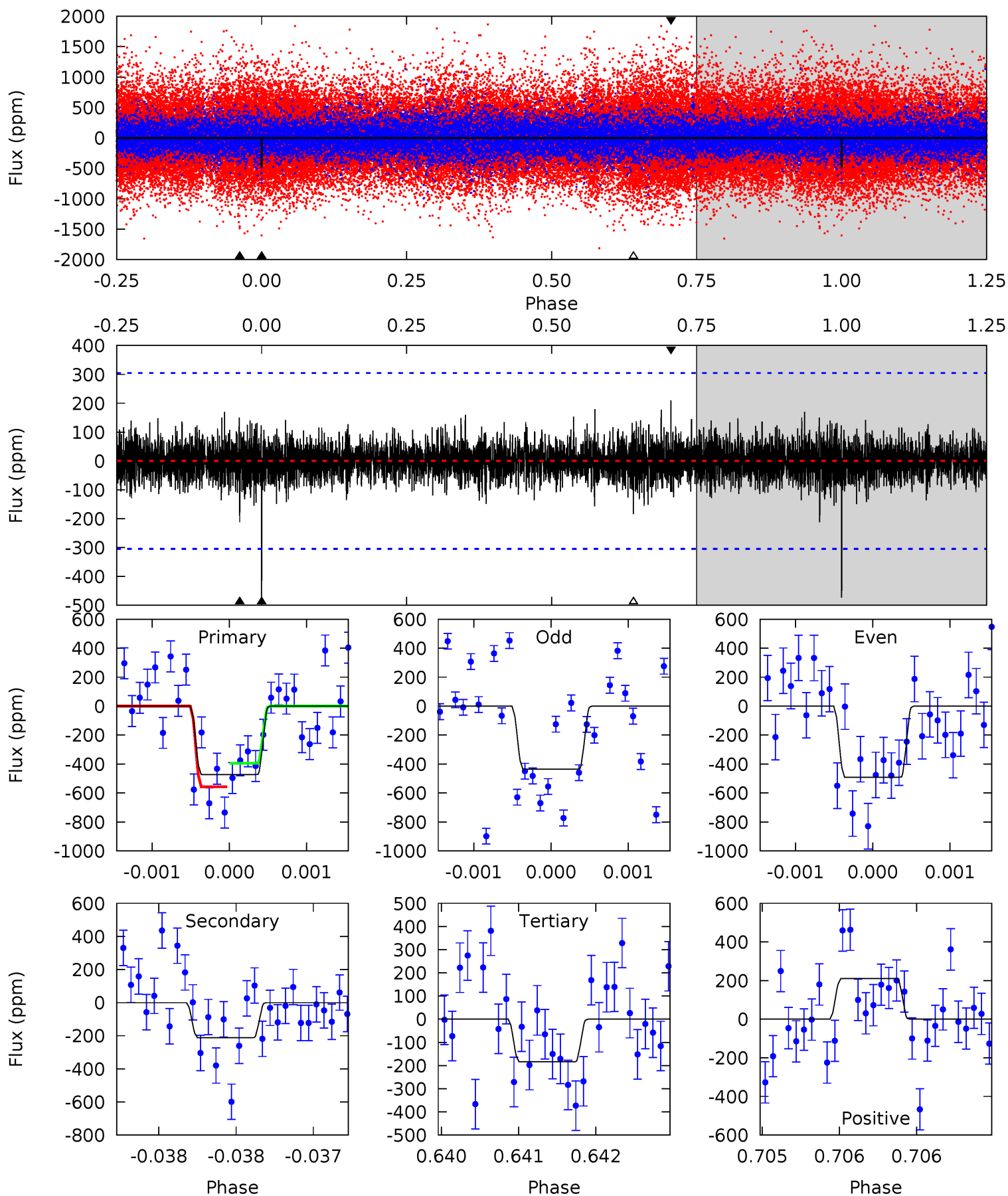
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.43	5.22	4.76	5.20	5.50	3.37	1.17	4.67	4.23	0.46	0.02	0.38	1.06	0.36	0.20



Alt Model-Shift Uniqueness Test

003550337-01, P = 575.545273 Days, E = 378.277519 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.57	3.84	3.33	3.80	5.52	3.40	0.82	5.24	4.76	0.51	0.04	0.48	1.09	0.31	1.46



Stellar Parameters For KIC 003550337

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5504^{+82}_{-82}	$4.515^{+0.056}_{-0.077}$	$-0.180^{+0.150}_{-0.150}$	$0.840^{+0.079}_{-0.052}$	$0.843^{+0.051}_{-0.046}$	$2.004^{+0.406}_{-0.484}$
	+1%/-1%	+1%/-2%	+83%/-83%	+9%/-6%	+6%/-5%	+20%/-24%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003550337-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-274 ± 53	$2.18^{+0.91}_{-0.91}$	276^{+8}_{-7}	4757^{+1244}_{-639}	52981^{+94138}_{-28203}
Alt.	-212 ± 55	$2.07^{+0.98}_{-0.83}$	275^{+8}_{-7}	4565^{+1167}_{-650}	43433^{+79233}_{-24688}

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 $A_{\text{obs}} \gg 1.0$

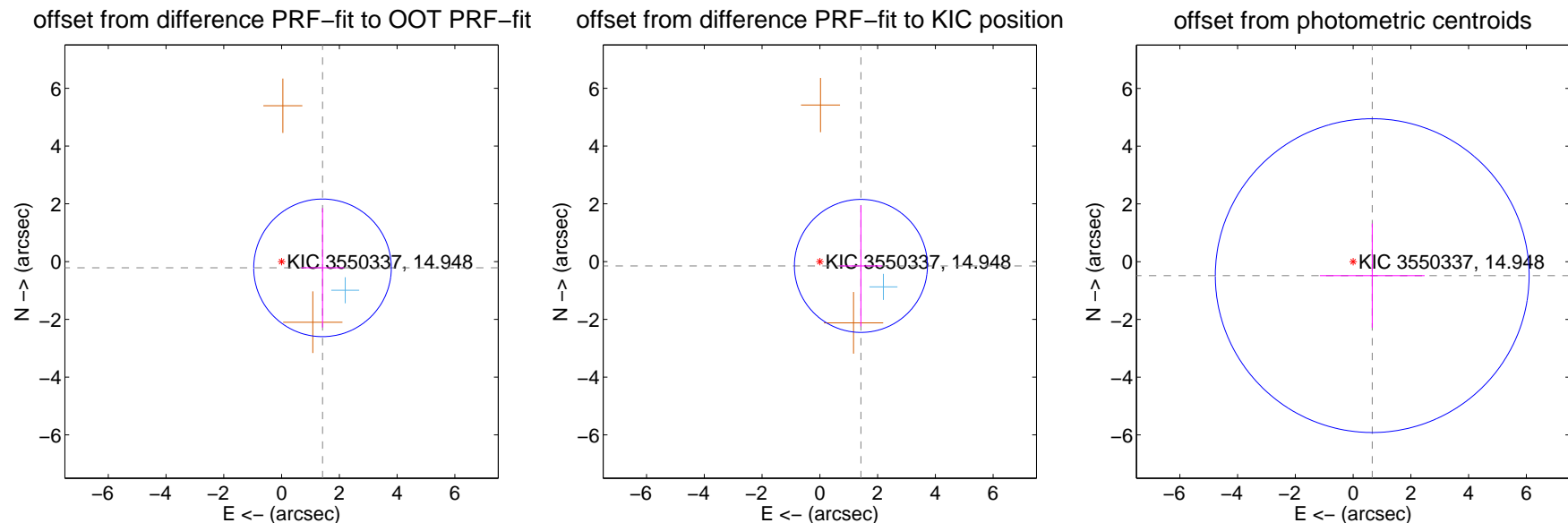
DV Centroid Data

Supplemental centroid analysis for 003550337-01. Kepler magnitude: 14.95. Transit SNR 7.55

There are 1 quarters with good PRF difference image offsets

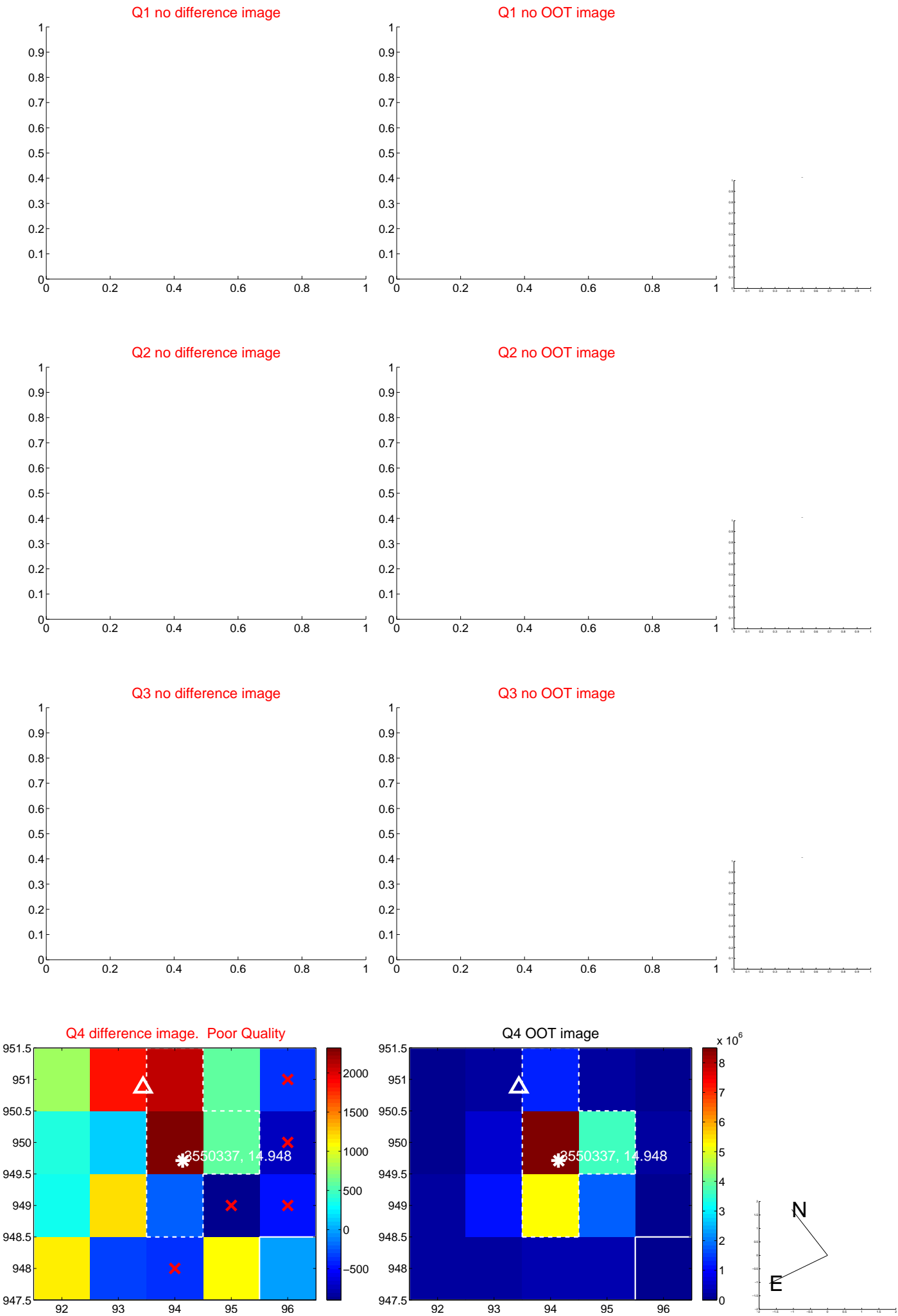
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.434 ± 0.794	1.81	-1.417 ± 0.739	-0.216 ± 2.067
PRF-fit source offset from KIC position	1.430 ± 0.768	1.86	-1.422 ± 0.740	-0.149 ± 2.092
photometric centroid source offset	0.82 ± 1.81	0.45	-0.66 ± 1.81	-0.48 ± 1.80



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.

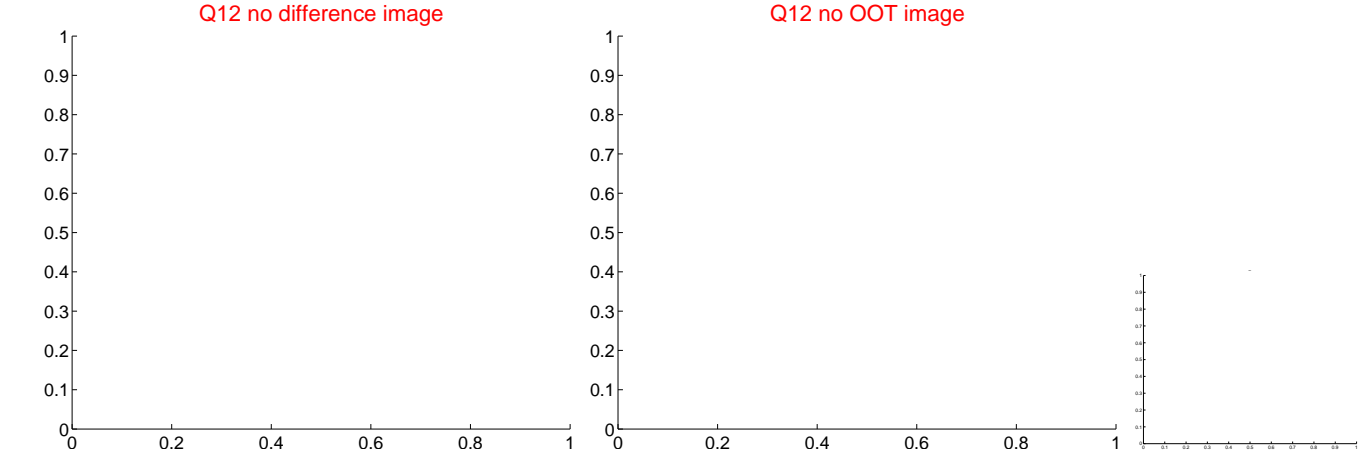
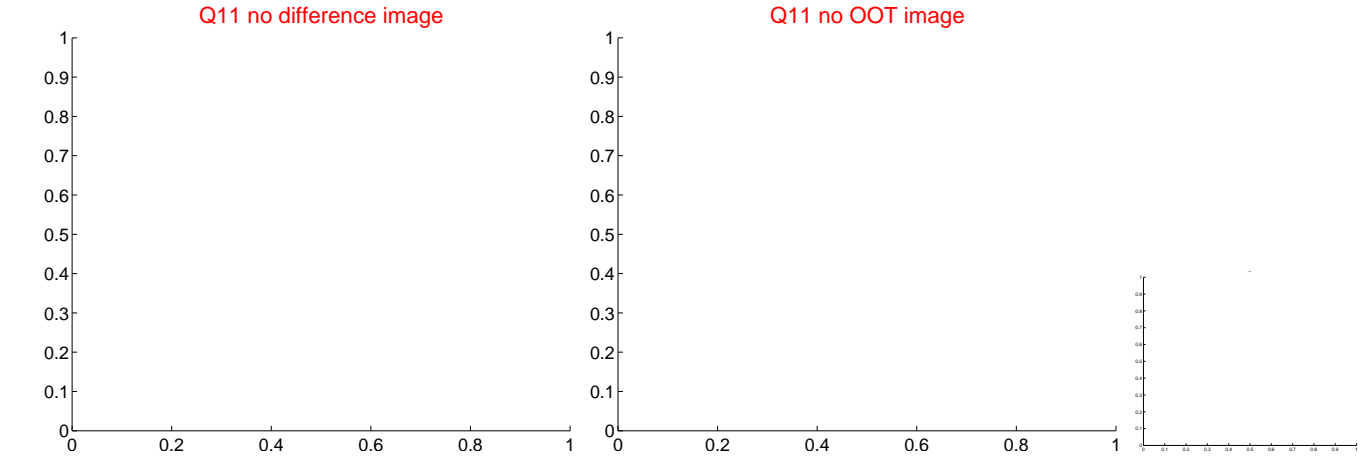
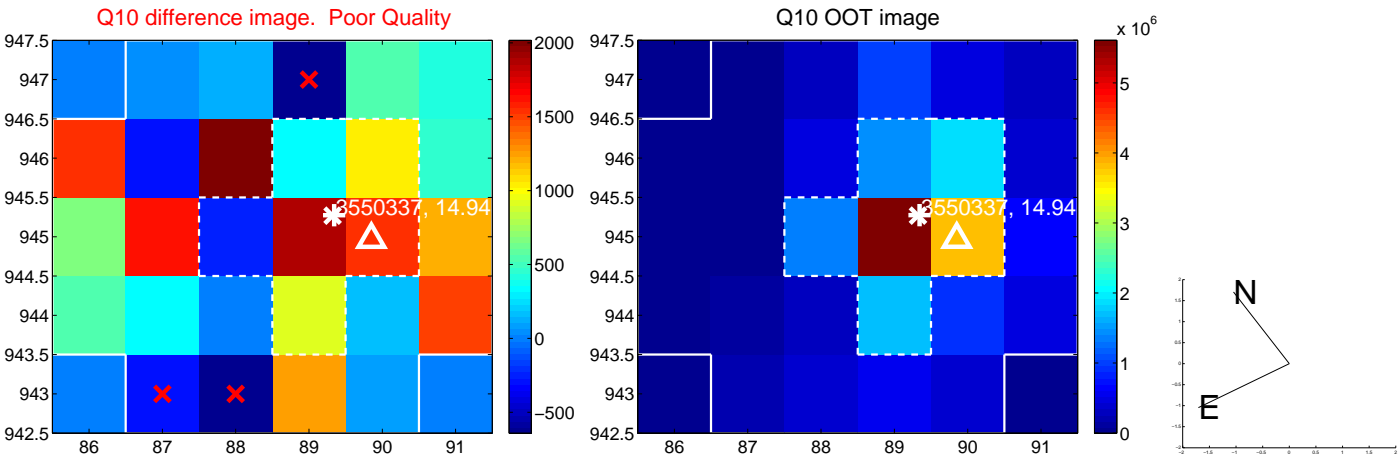
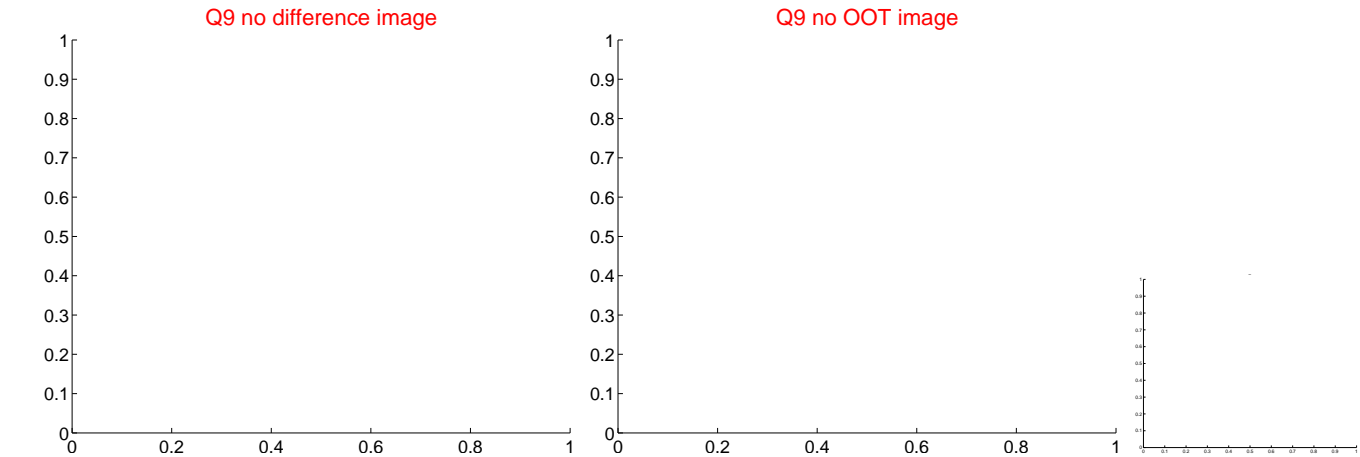
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



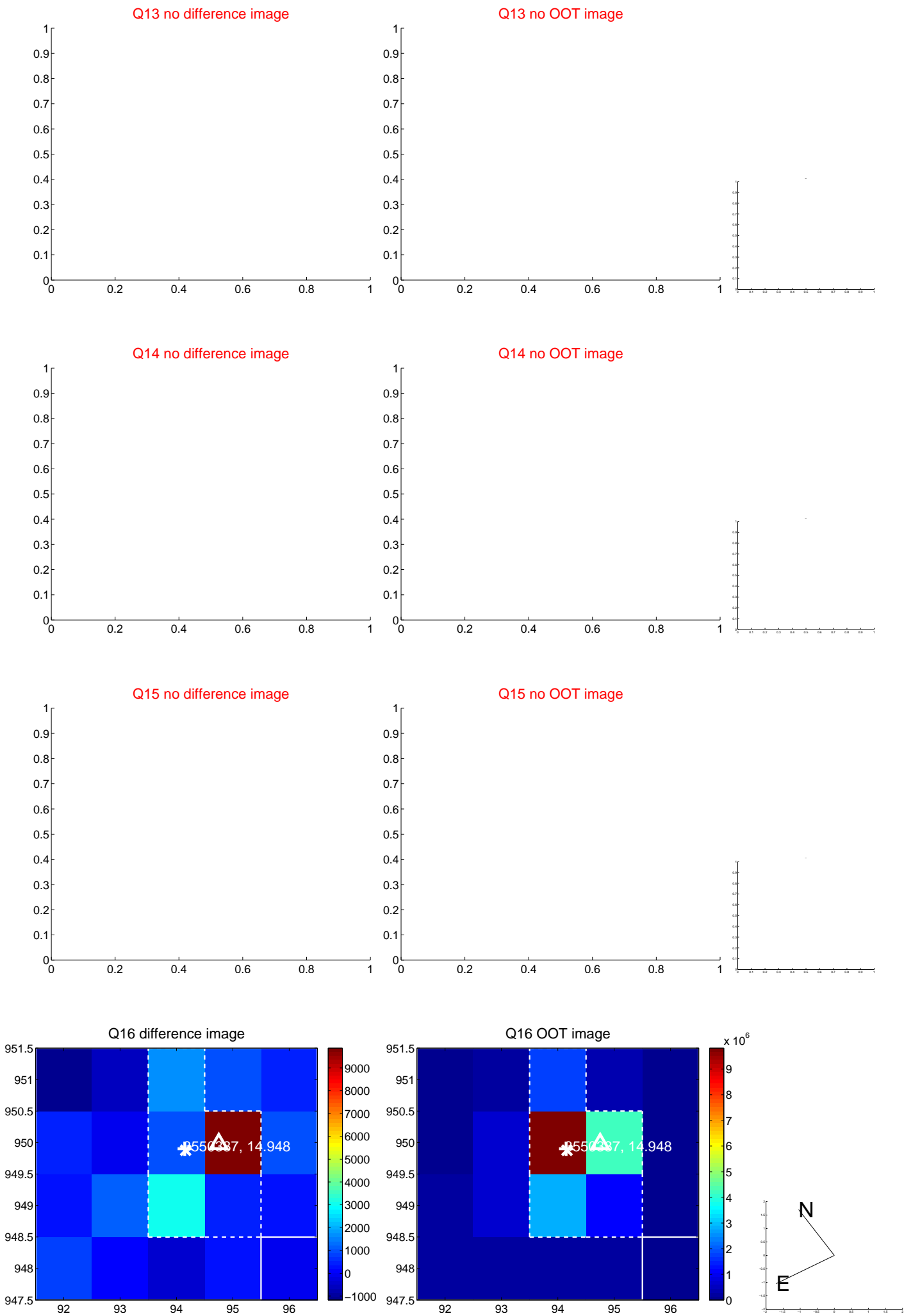
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



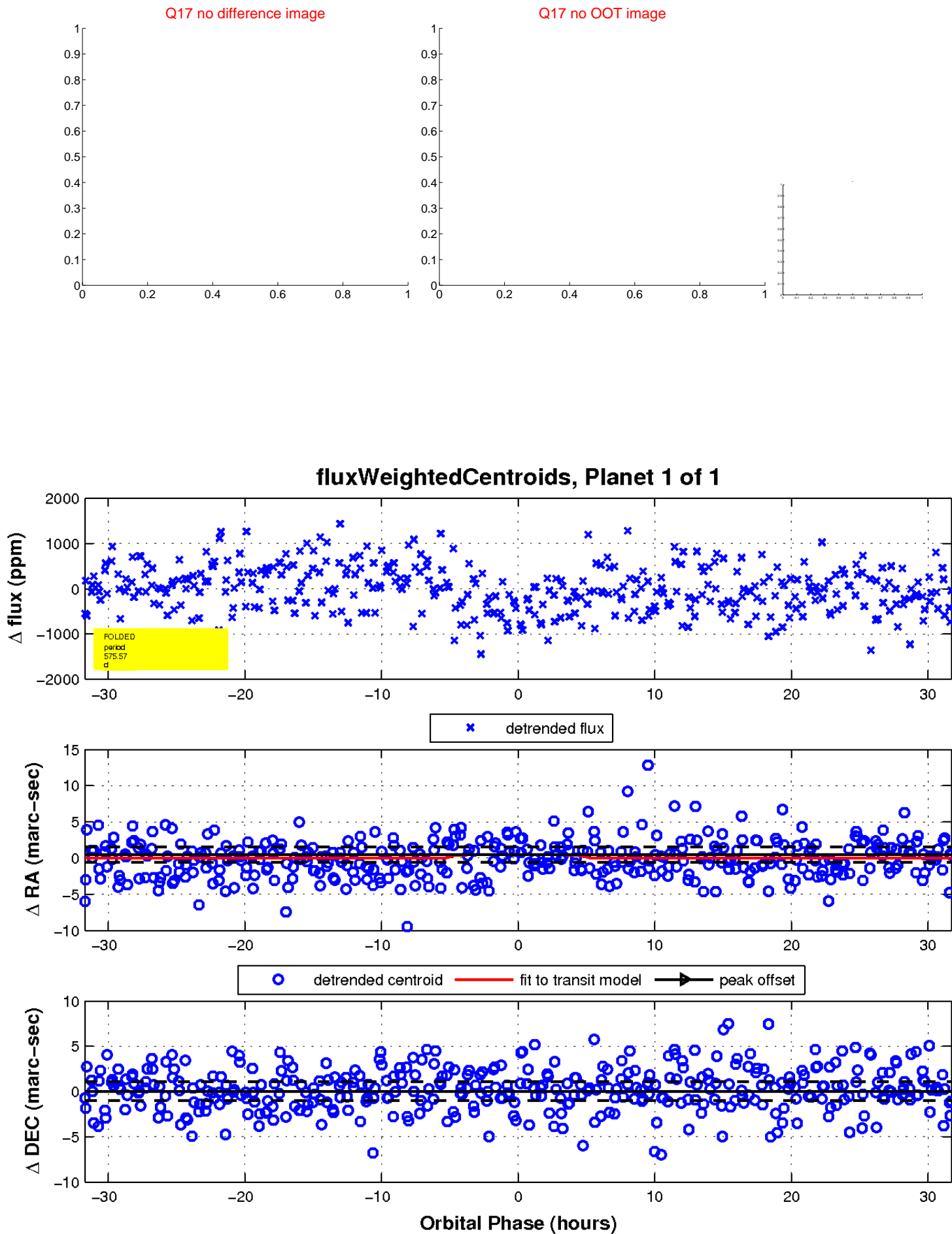
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

