

KIC 008120272

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})
008120272-01	OBS	No	485.552884	571.120373	712.1	4.573	11.5	6.2	1.63	5484	5.42	1.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008120272-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

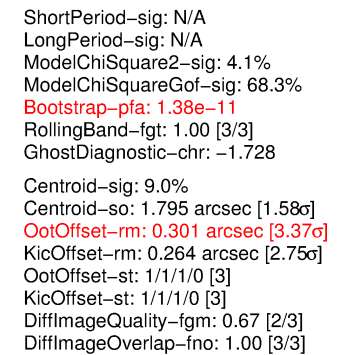
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

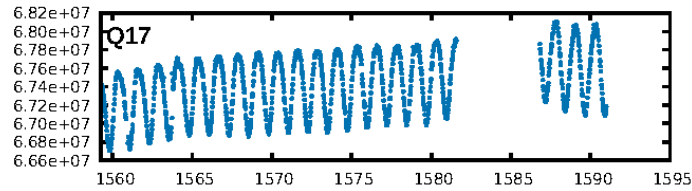
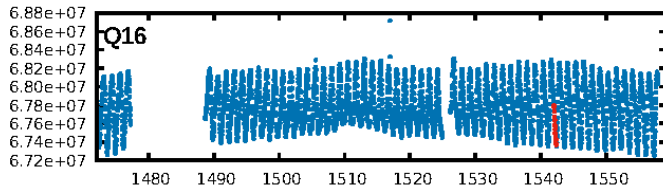
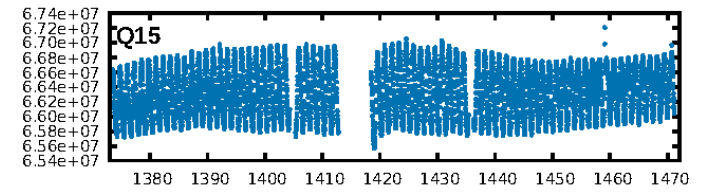
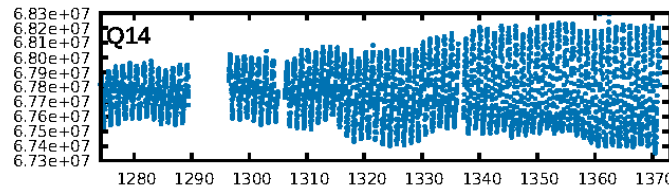
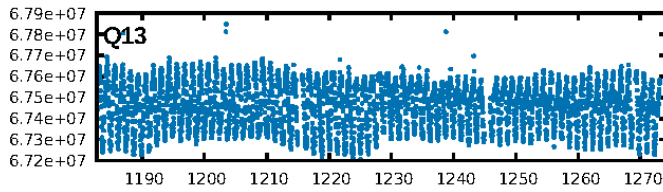
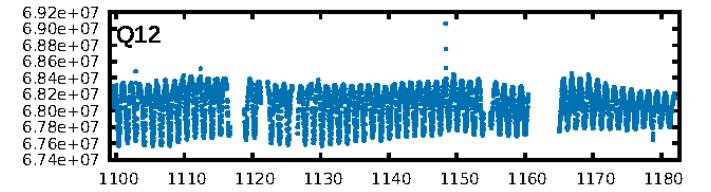
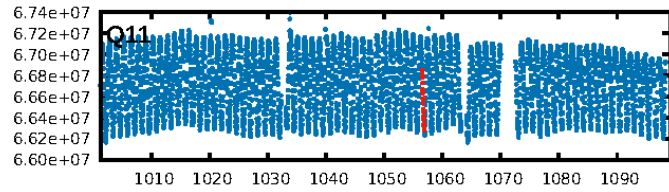
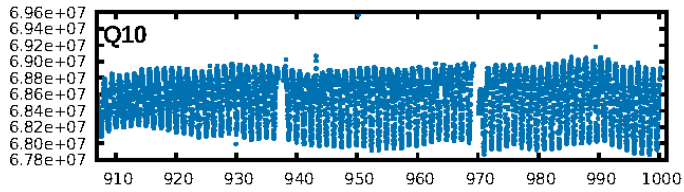
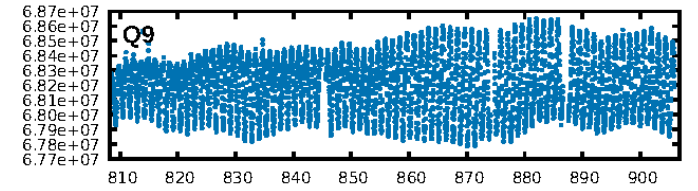
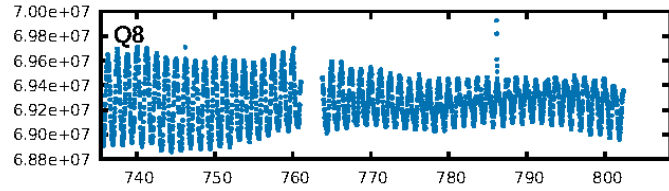
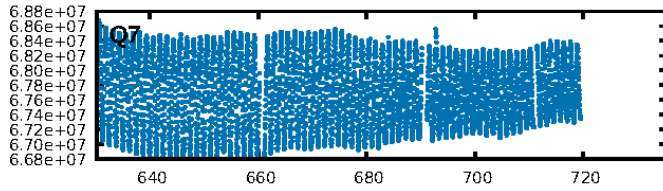
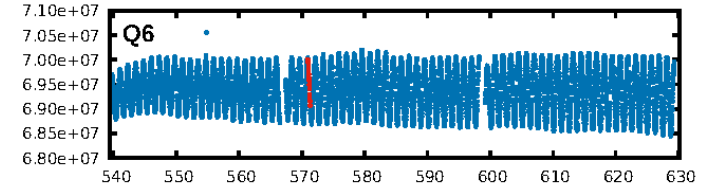
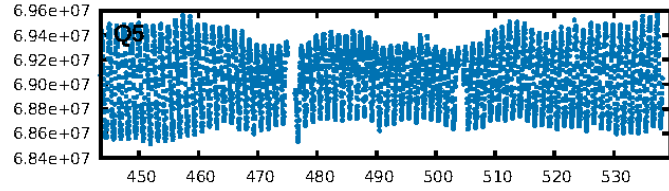
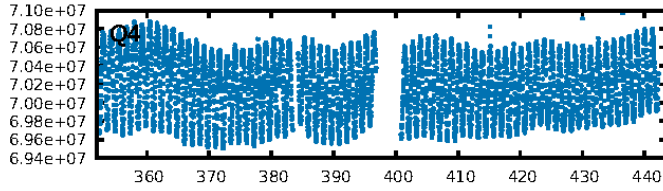
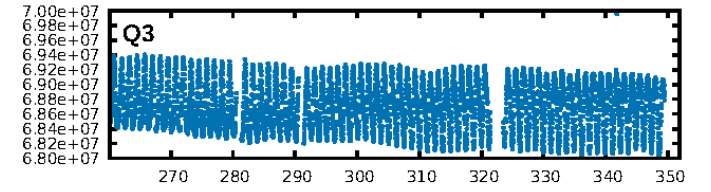
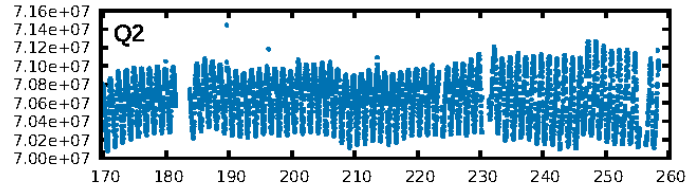
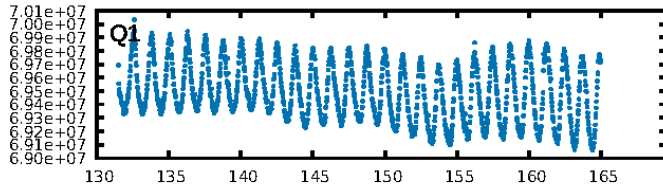
Ephemeris Match Information For 008120272-01

No Significant Match Found

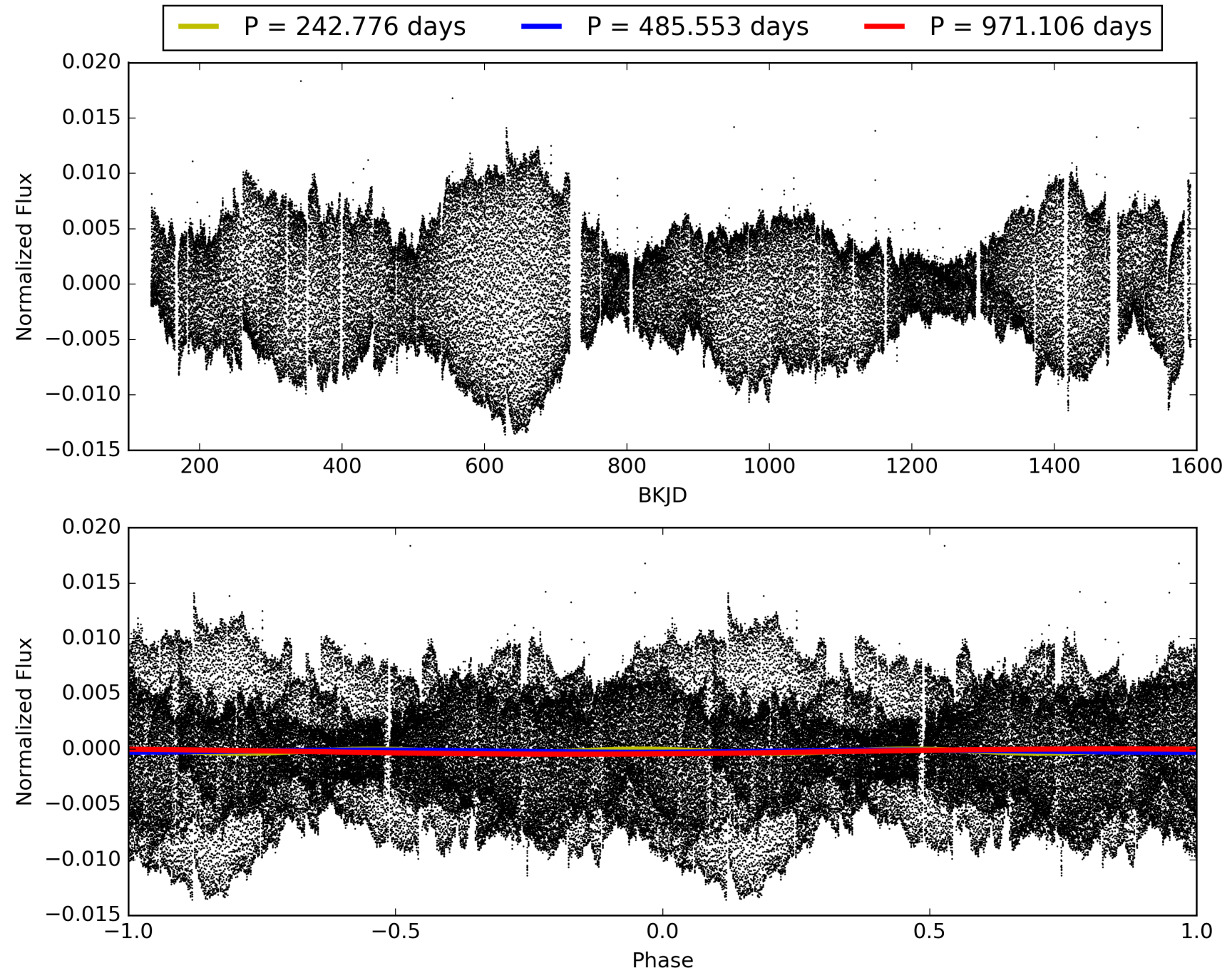
KIC: 8120272 Candidate: 1 of 1 Period: 485.553 d



TCE 008120272-01, PDC Light Curves

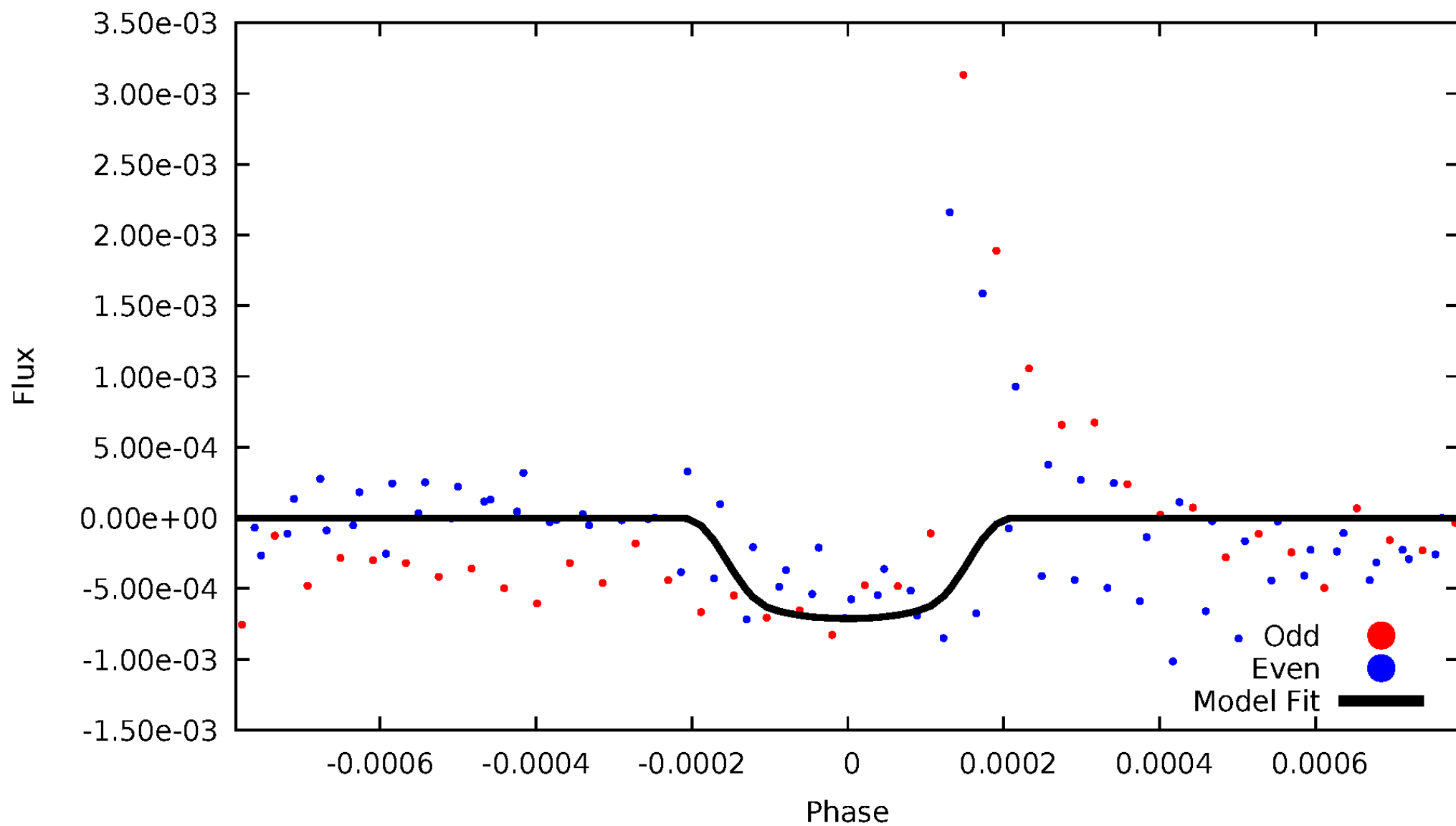


TCE 008120272-01



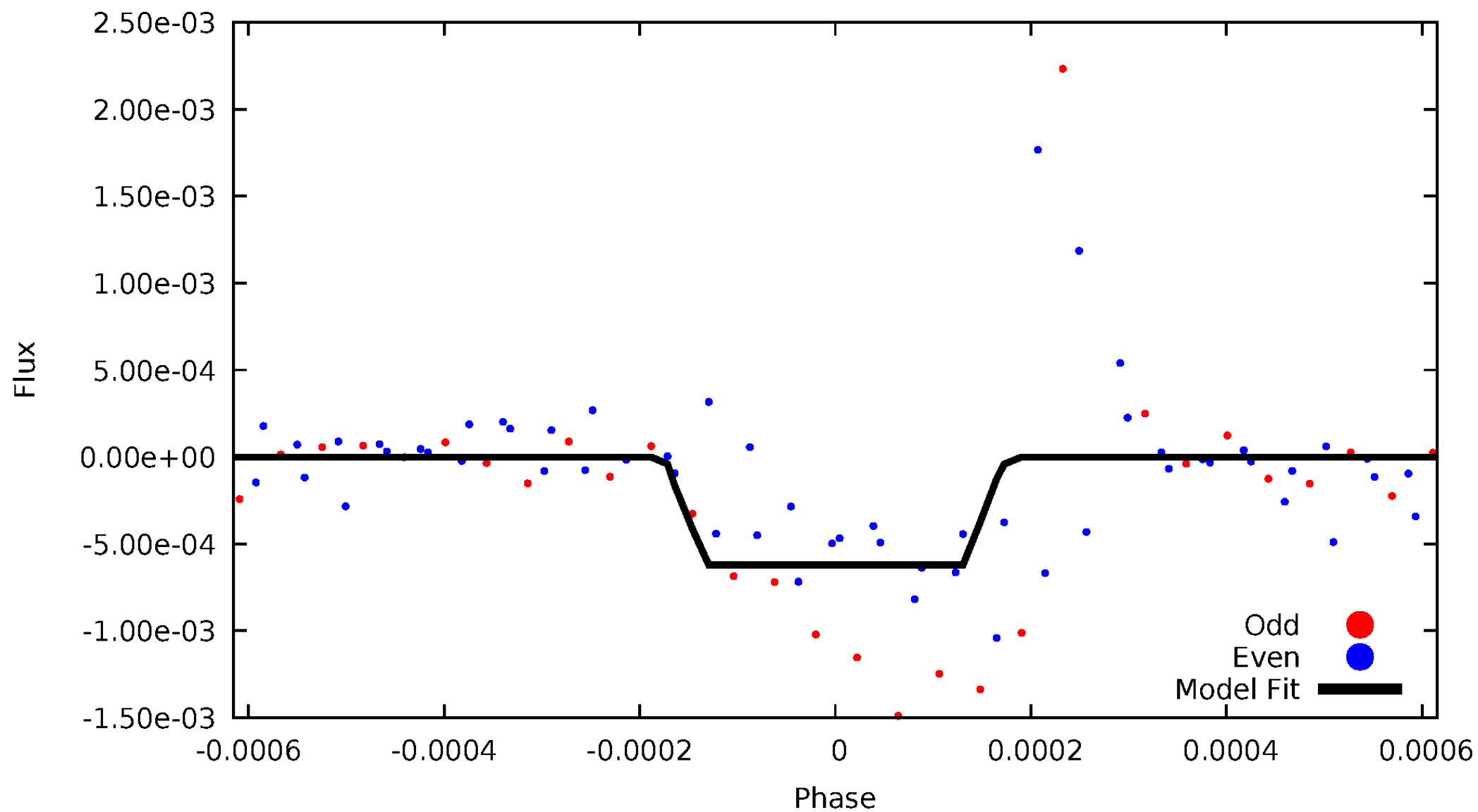
DV Odd/Even

TCE 008120272-01

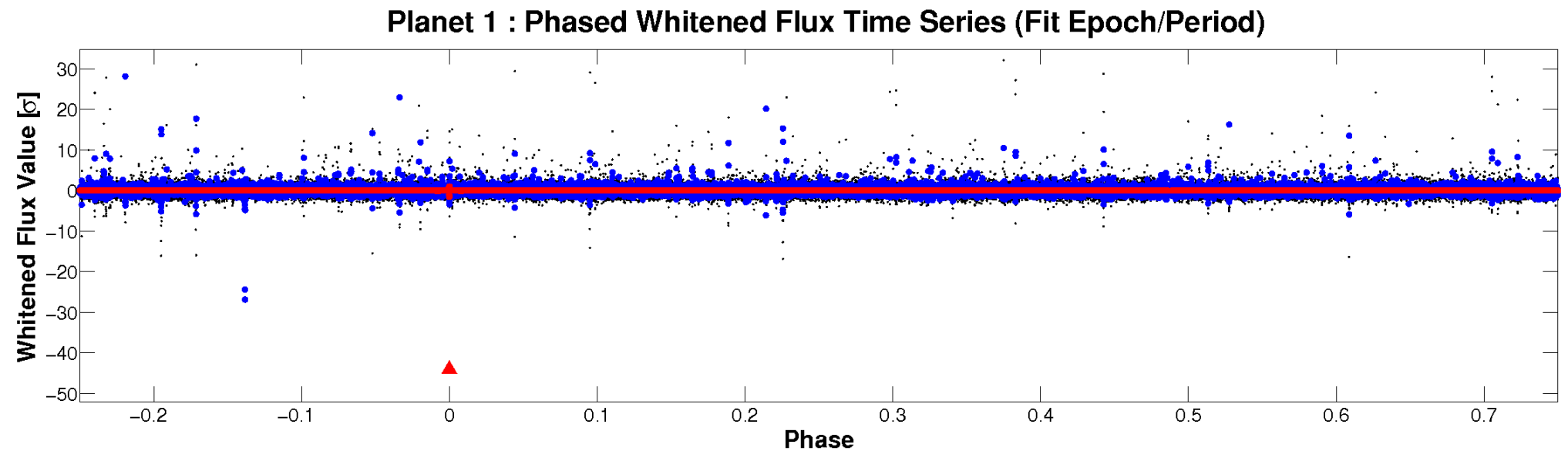
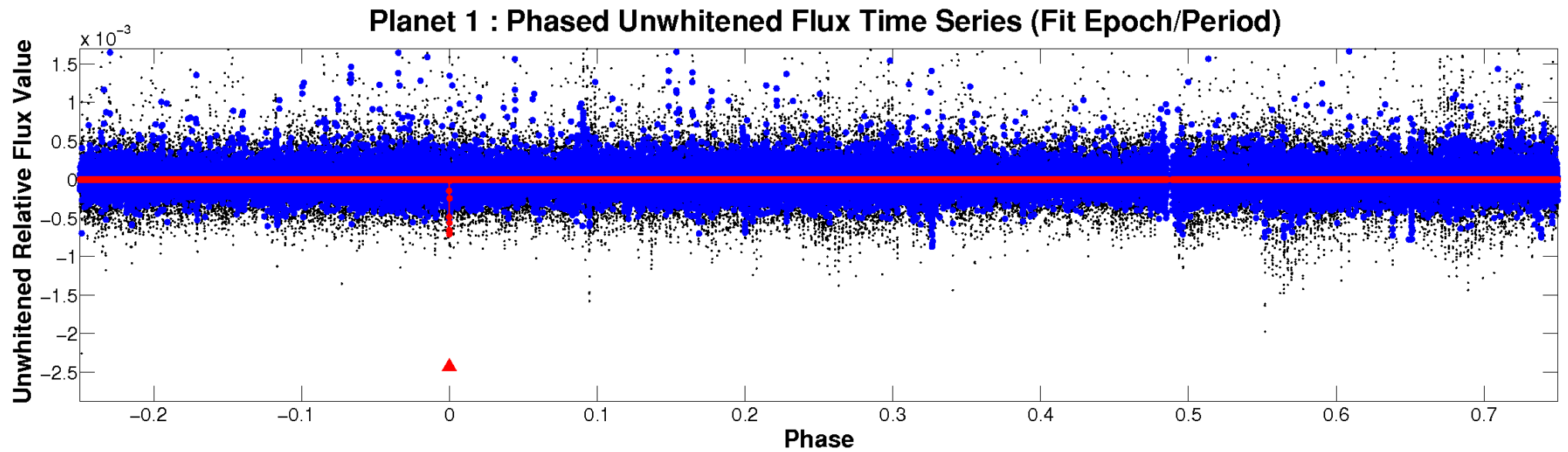


ALT Odd/Even

TCE 008120272-01

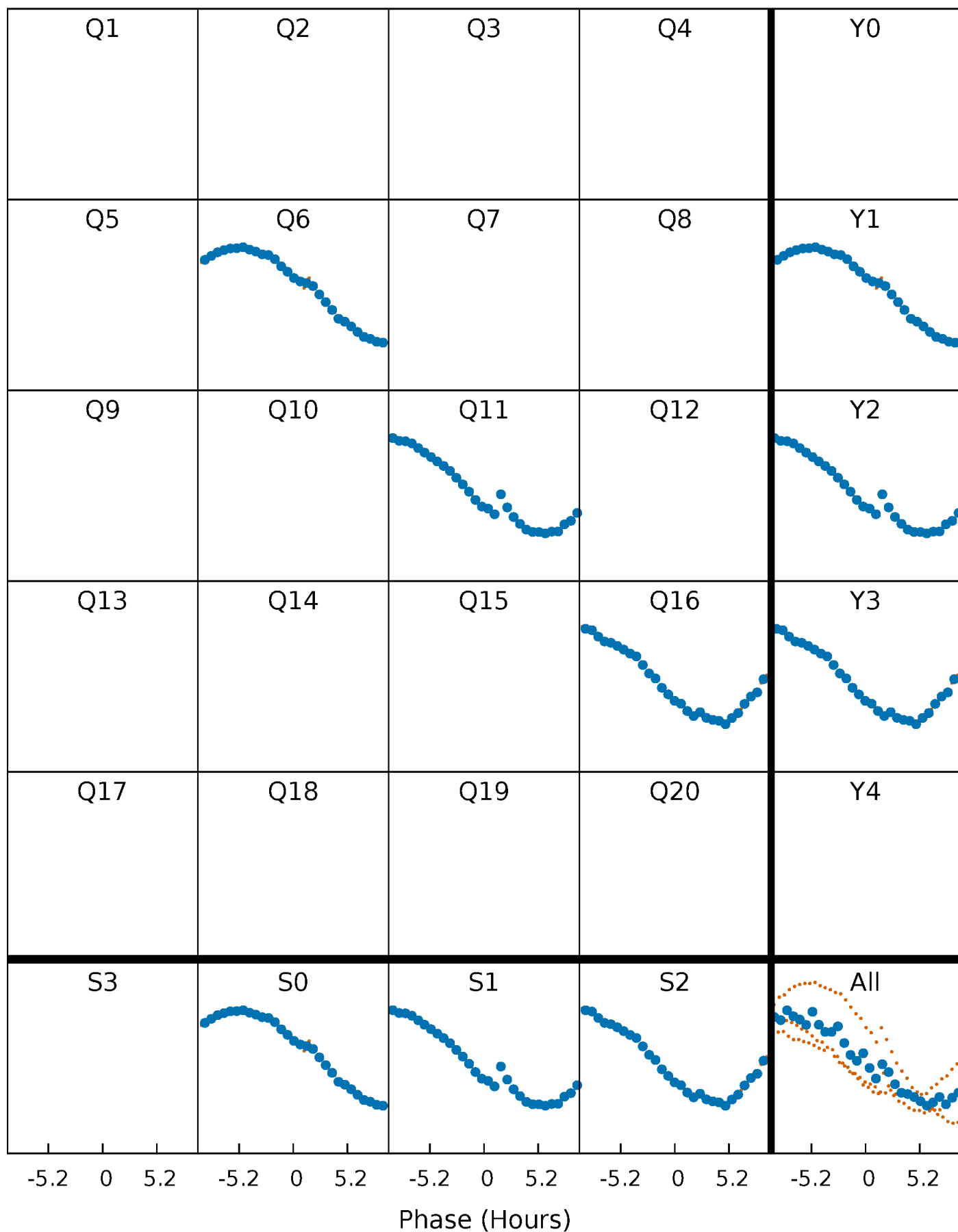


Non-Whitened Vs. Whitened Light Curve



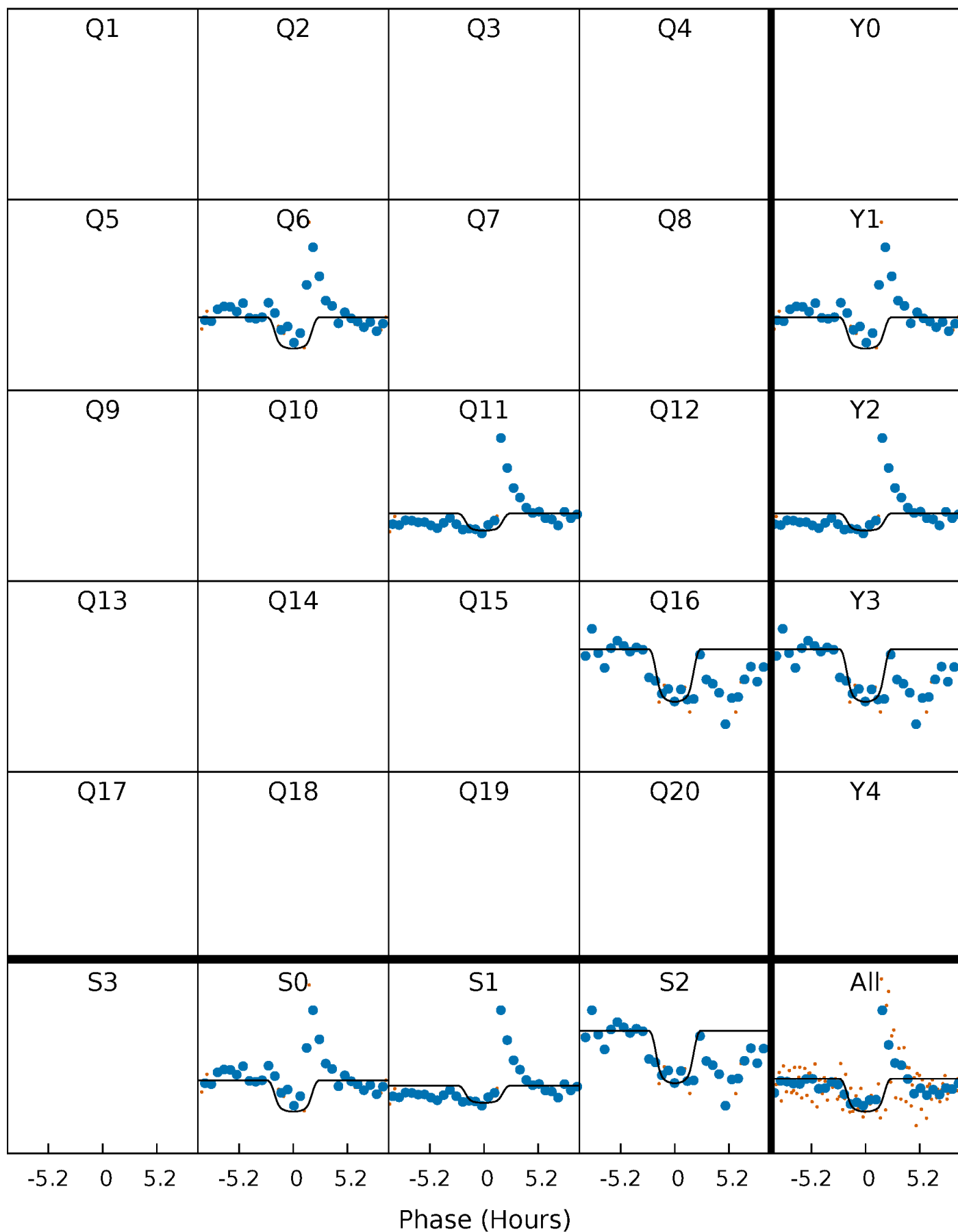
PDC Quarter-Phased Transit Curves

TCE 008120272-01 P=485.552884 Days $T_0=571.120373$ (BKJD)



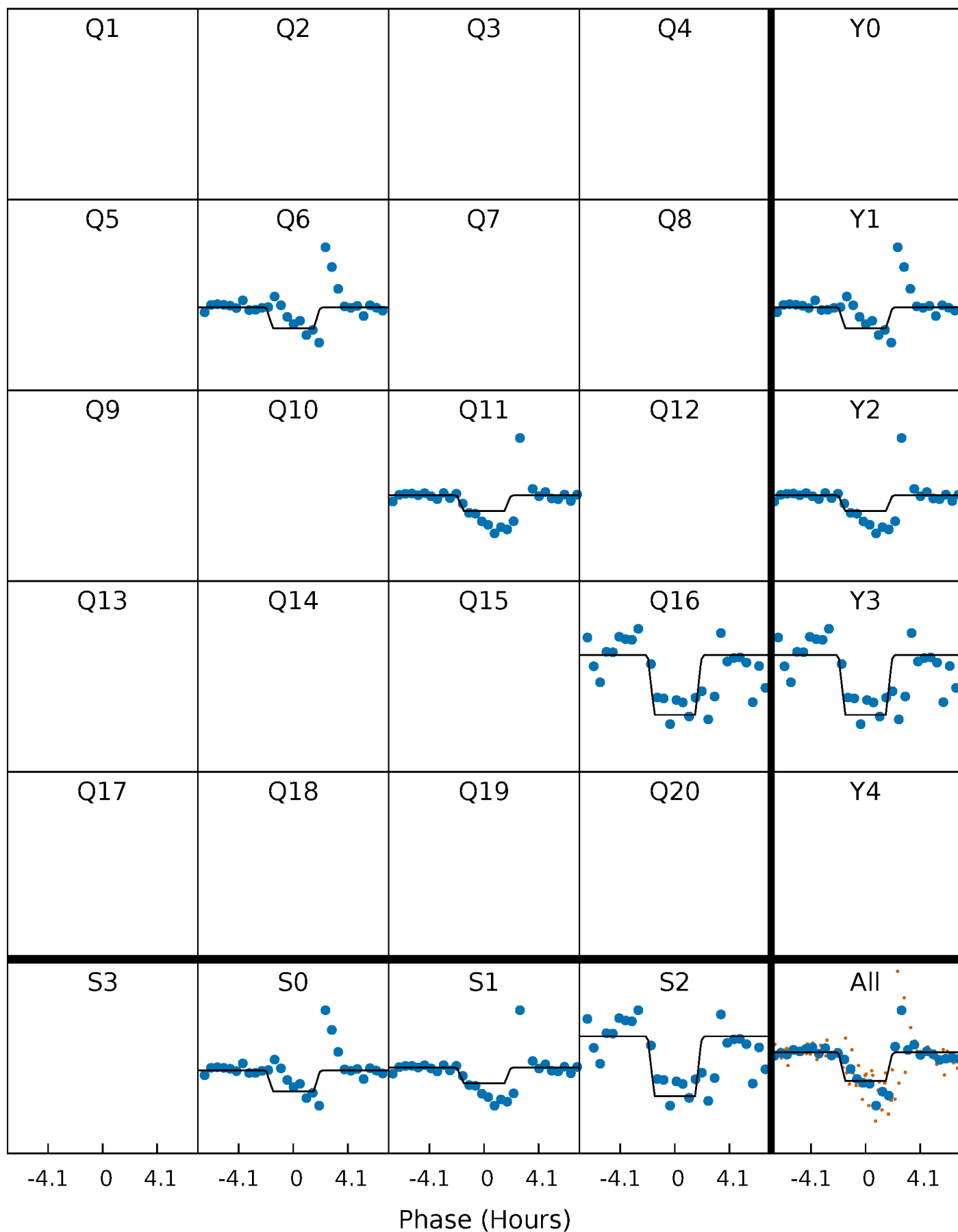
DV Quarter-Phased Transit Curves

TCE 008120272-01 P=485.552884 Days $T_0=571.120373$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

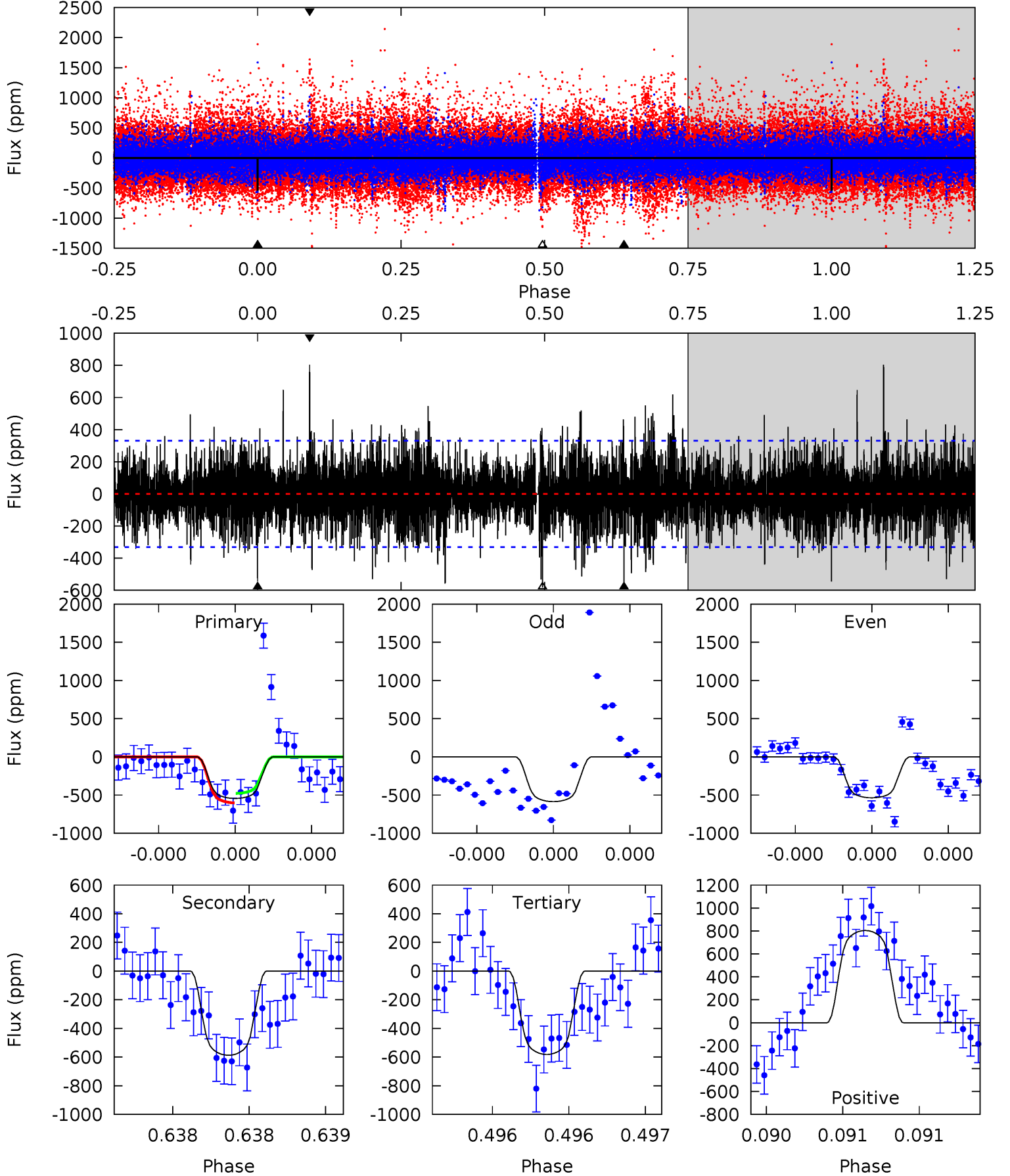
TCE 008120272-01 P=485.549064 Days $T_0=571.083342$ (BKJD)



DV Model-Shift Uniqueness Test

008120272-01, P = 485.552884 Days, E = 85.567489 Days

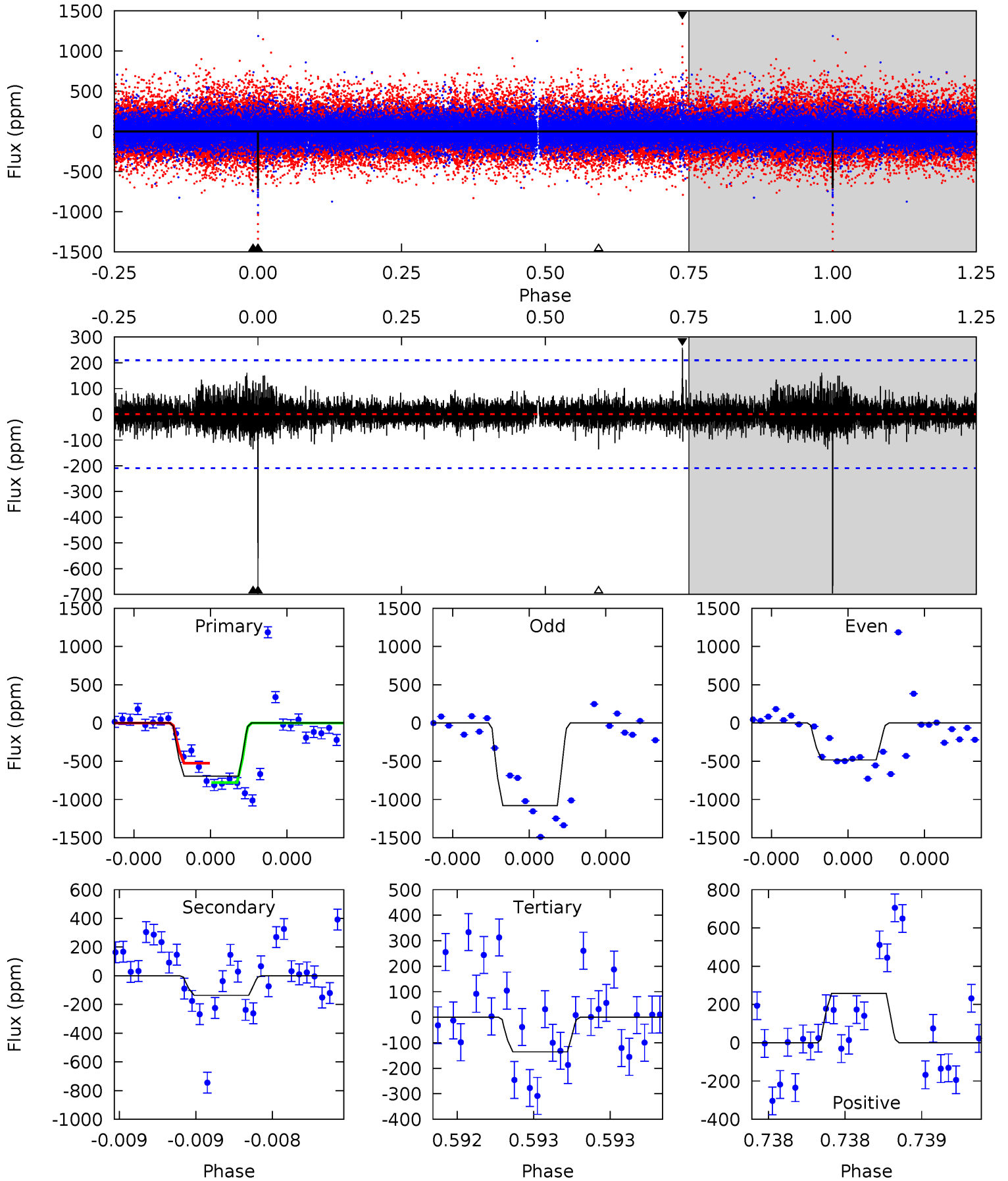
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.20	9.93	9.84	13.6	5.60	3.52	2.43	-0.64	-4.40	0.10	-3.66	0.38	1.21	0.58	1.04



Alt Model-Shift Uniqueness Test

008120272-01, P = 485.549064 Days, E = 85.534278 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	3.66	3.65	6.93	5.63	3.57	0.79	15.0	11.7	0.01	-3.28	7.62	1.25	0.27	3.18



Stellar Parameters For KIC 008120272

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5484^{+163}_{-163}	$3.931^{+0.651}_{-0.279}$	$-0.500^{+0.350}_{-0.300}$	$1.629^{+0.851}_{-0.851}$	$0.825^{+0.096}_{-0.106}$	$0.269^{+2.566}_{-0.171}$
	+3%/-3%	+17%/-7%	+70%/-60%	+52%/-52%	+12%/-13%	+954%/-64%
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 008120272-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-587 ± 59	$5.08^{+1.85}_{-1.56}$	397^{+57}_{-63}	4943^{+428}_{-311}	15979^{+17280}_{-7524}
Alt.	-136 ± 37	$4.08^{+1.62}_{-1.28}$	395^{+55}_{-61}	4034^{+385}_{-307}	5467^{+7249}_{-2668}

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 $A_{obs} \gg 1.0$

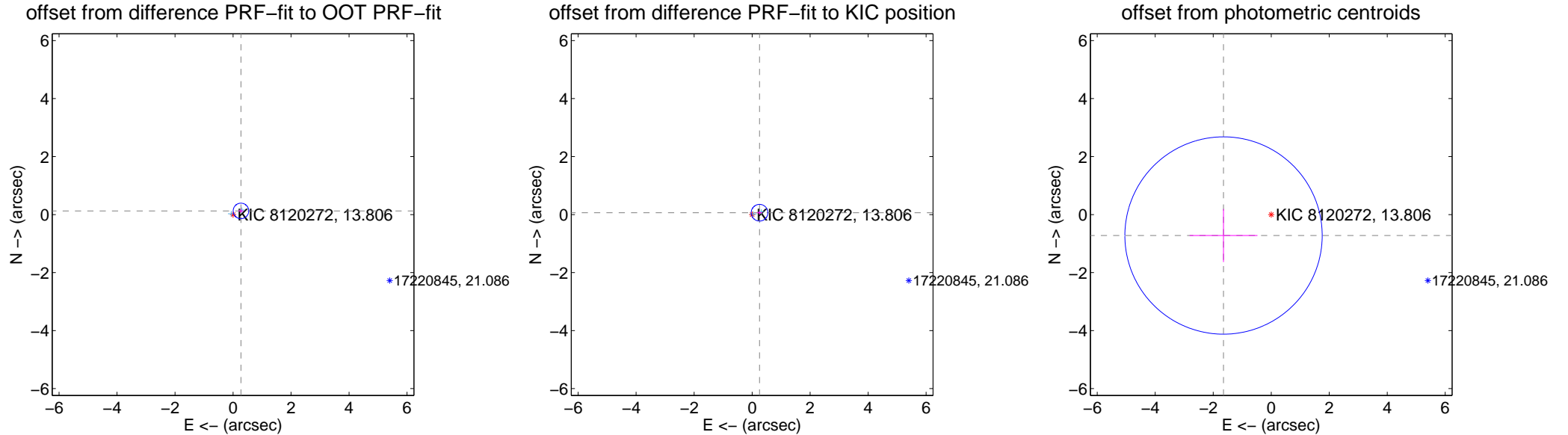
DV Centroid Data

Supplemental centroid analysis for 008120272-01. Kepler magnitude: 13.81. Transit SNR 6.15

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.301 ± 0.089	3.37	-0.273 ± 0.088	0.126 ± 0.069
PRF-fit source offset from KIC position	0.264 ± 0.096	2.75	-0.256 ± 0.095	0.064 ± 0.068
photometric centroid source offset	1.80 ± 1.13	1.58	1.64 ± 1.17	-0.72 ± 0.91



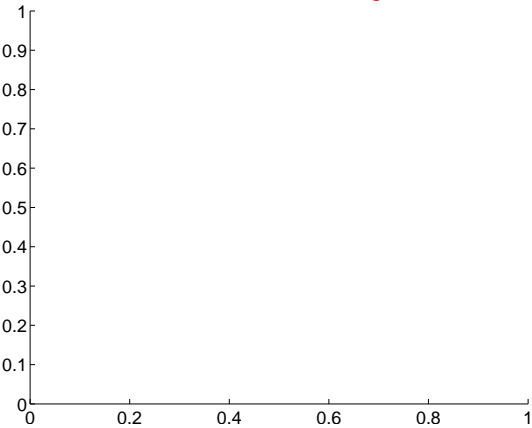
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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

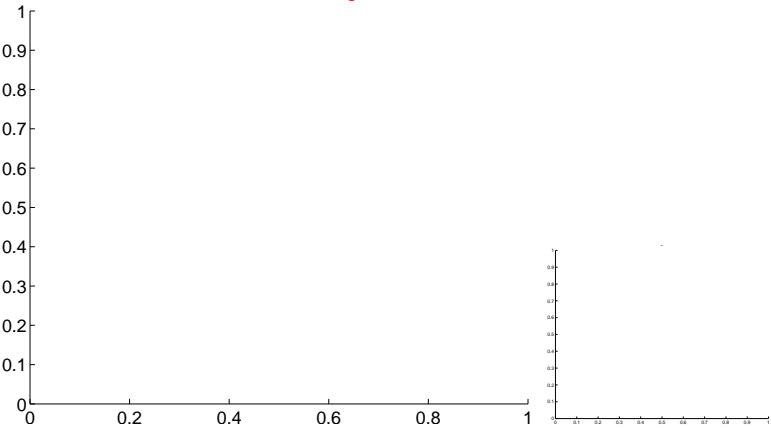


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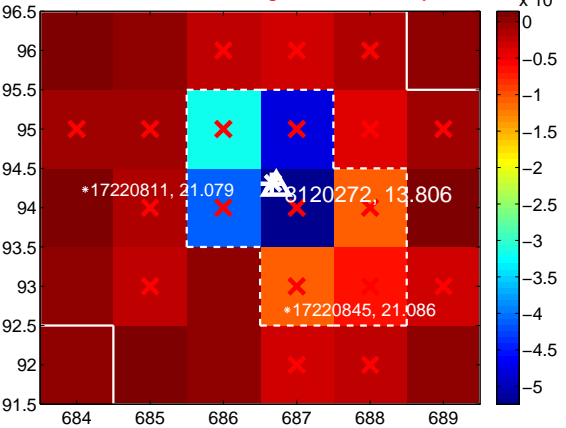
Q5 no difference image



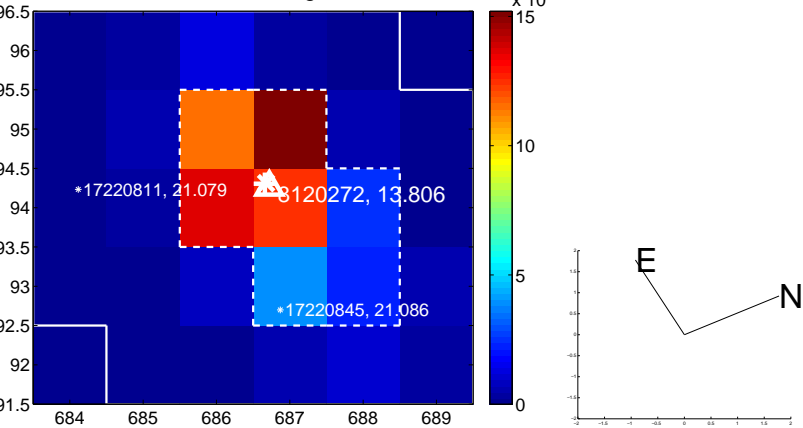
Q5 no OOT image



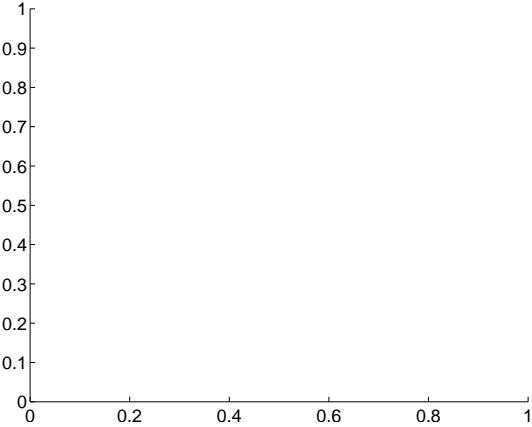
Q6 difference image. Poor Quality



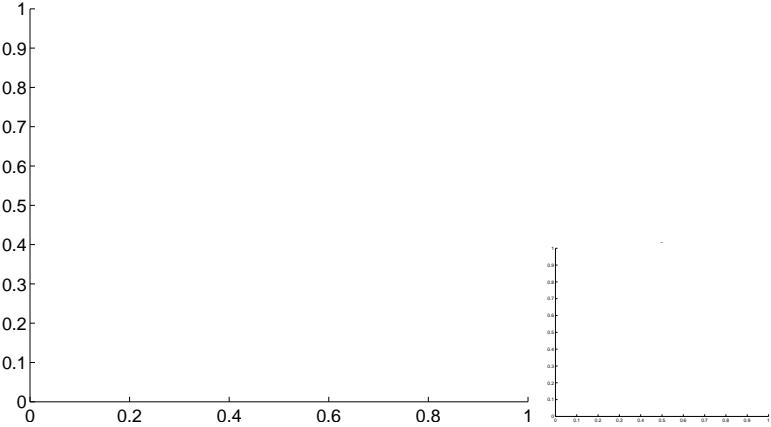
Q6 OOT image



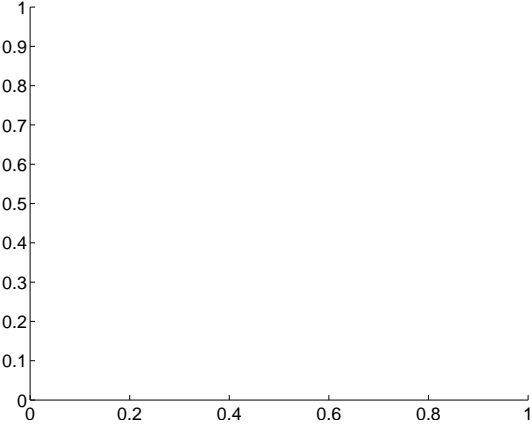
Q7 no difference image



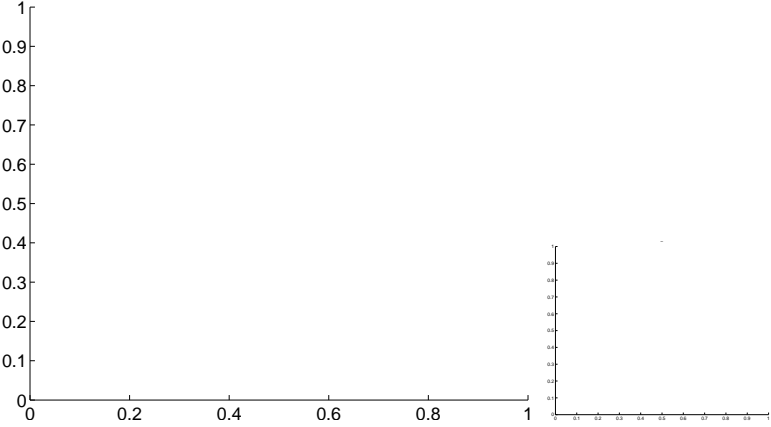
Q7 no OOT image



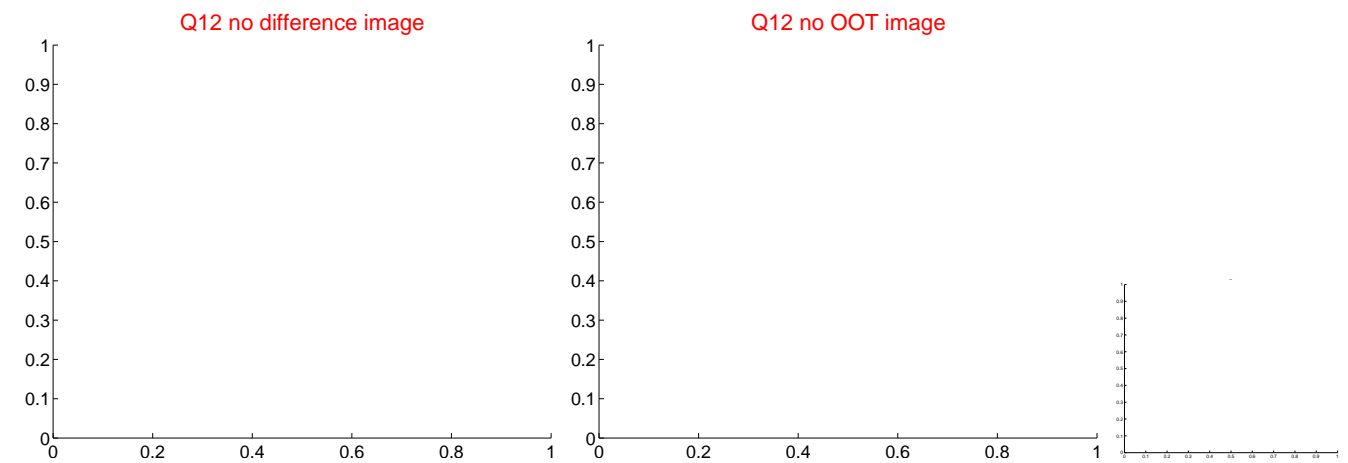
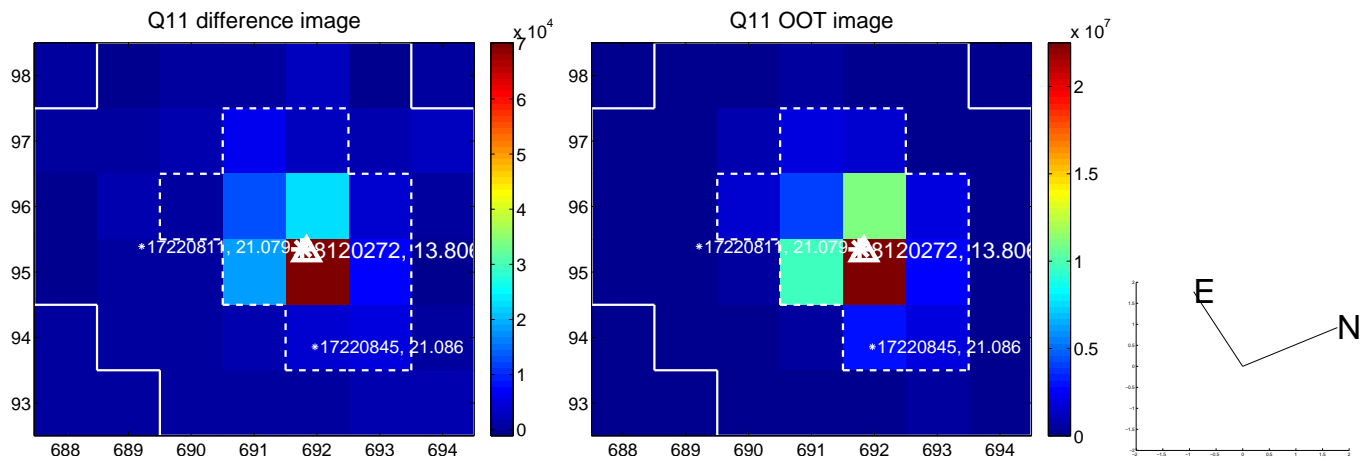
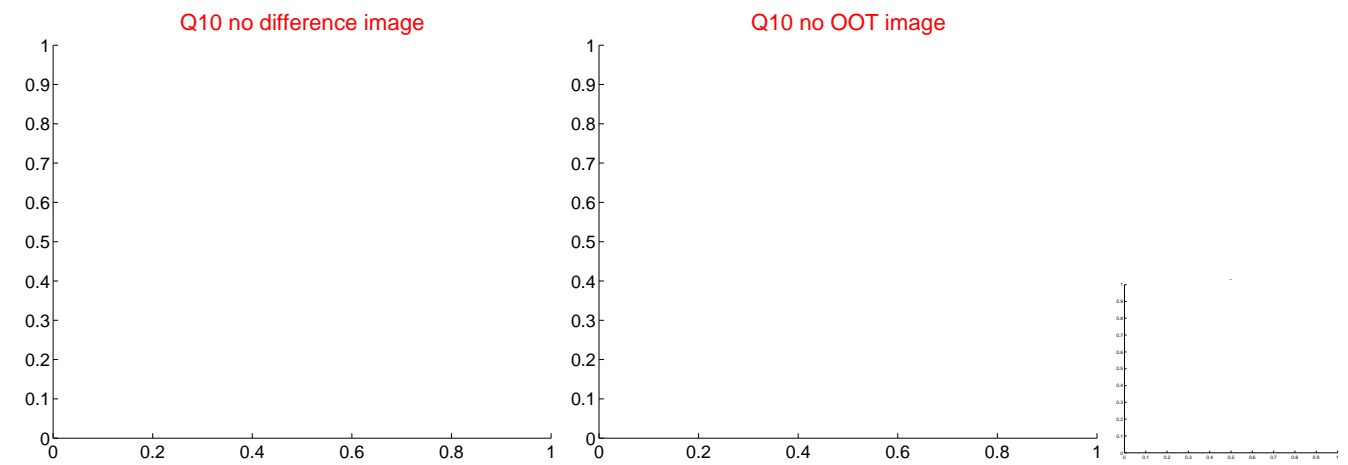
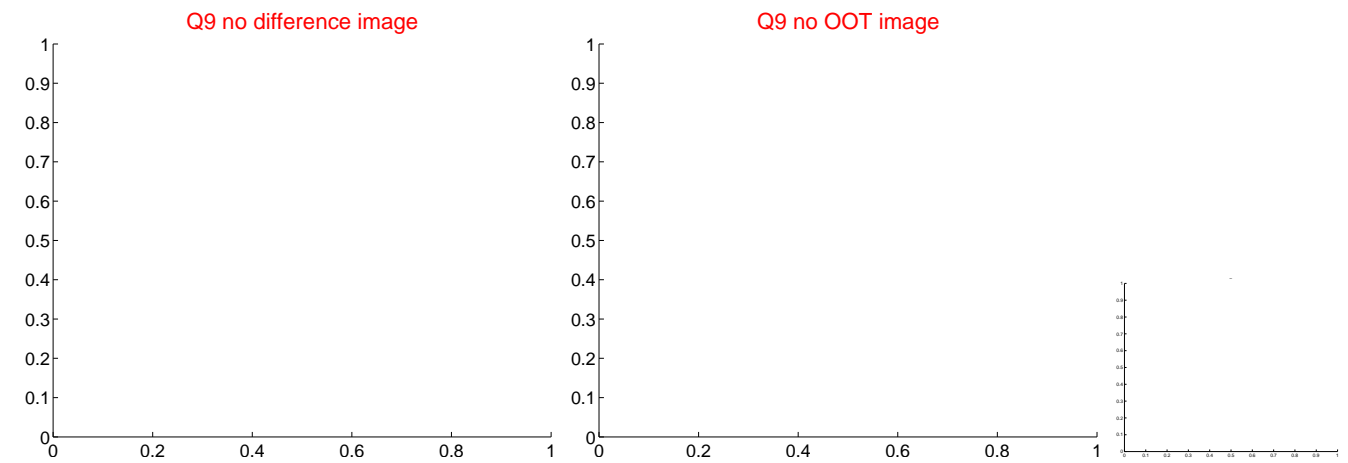
Q8 no difference image



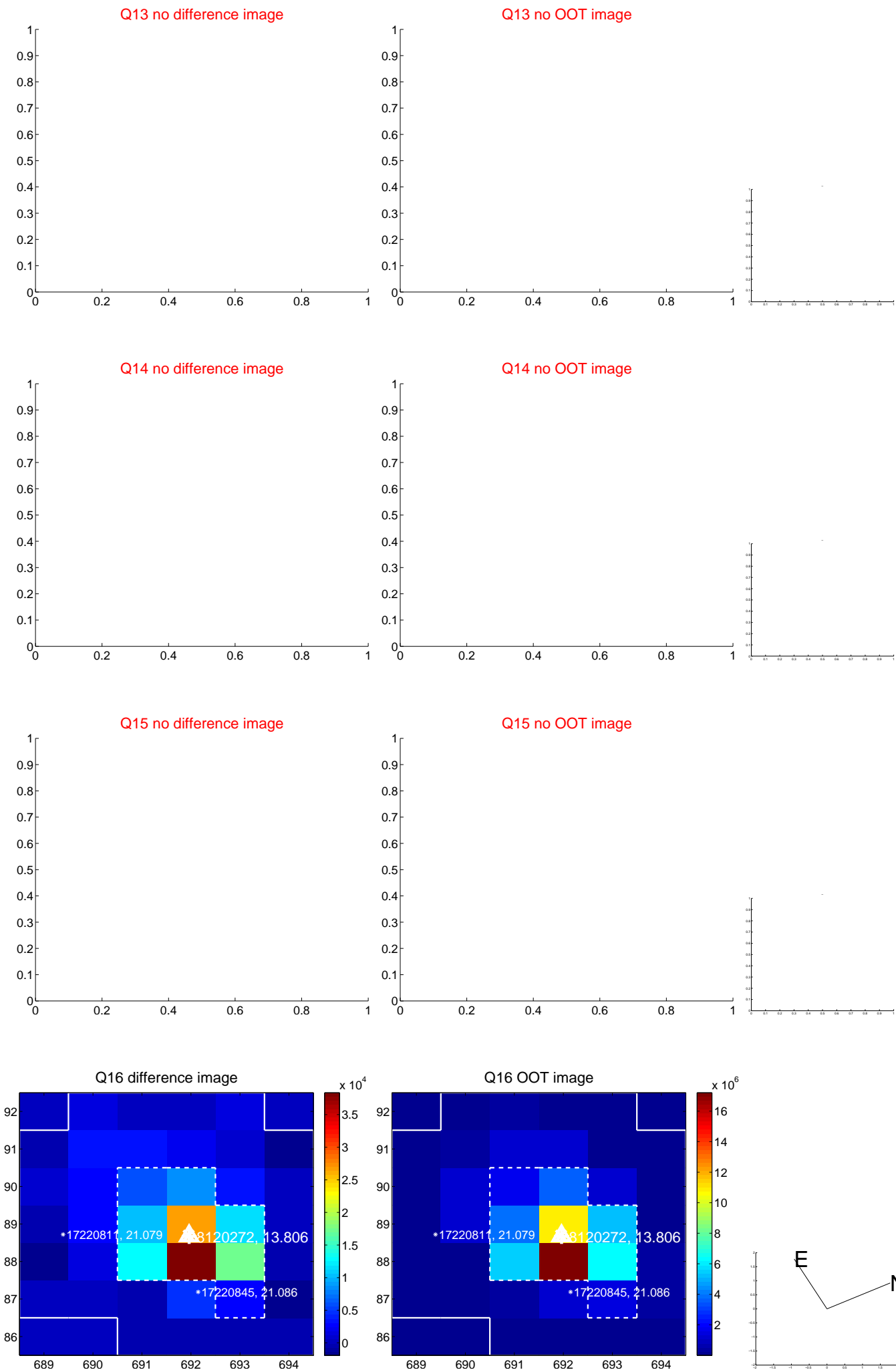
Q8 no OOT image



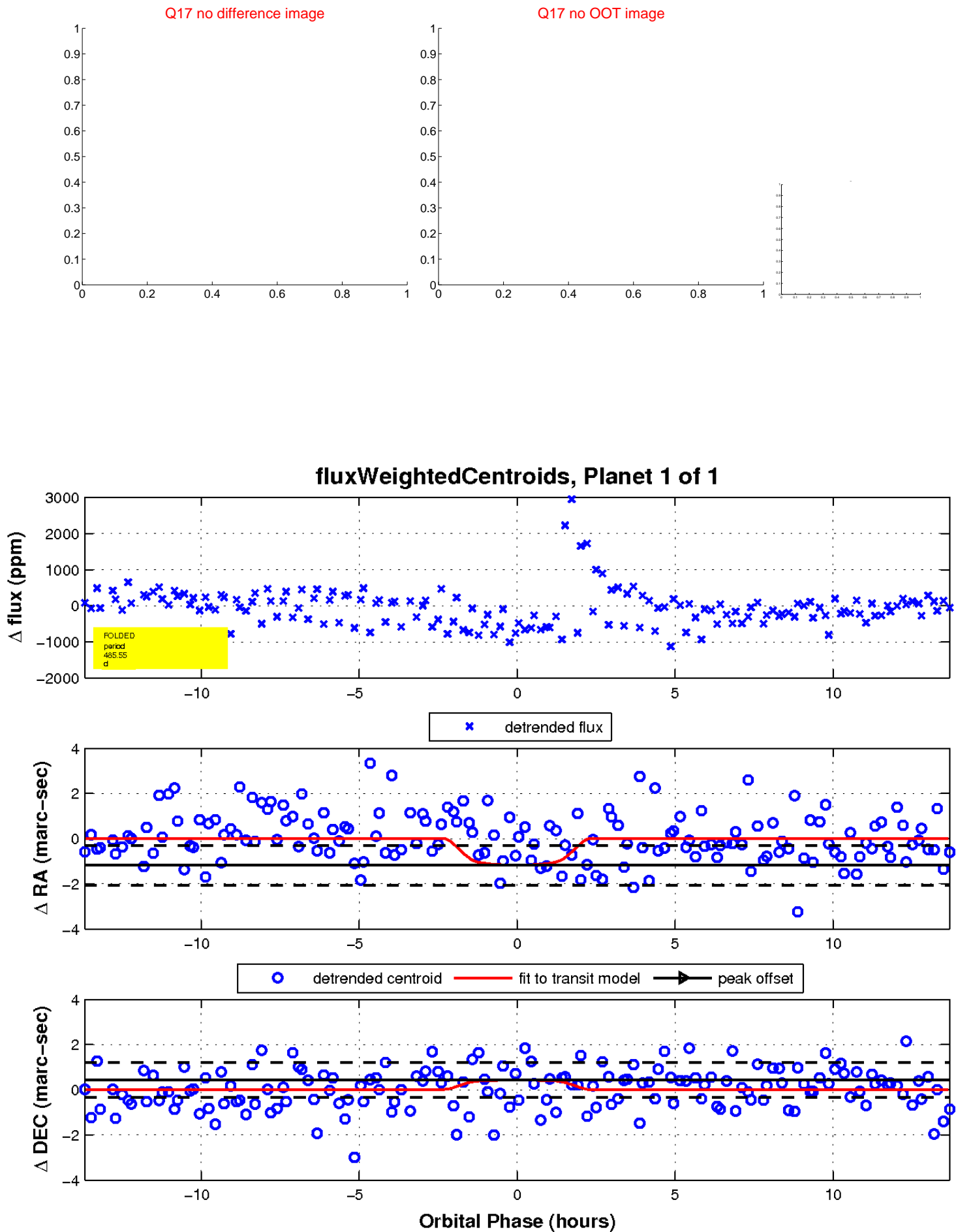
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

