

KIC 011342573

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})
011342573-01	OBS	1771.01	91.056410	204.836366	57458.3	6.677	686.3	656.9	1.05	6142	35.29	8.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011342573-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

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.

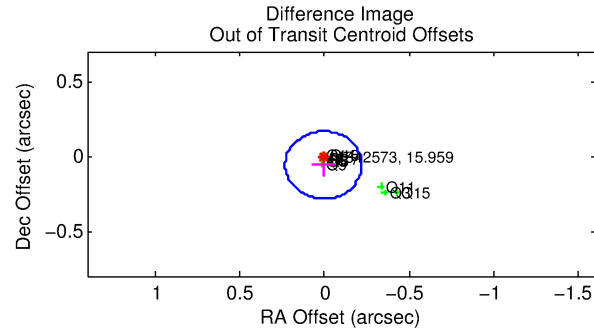
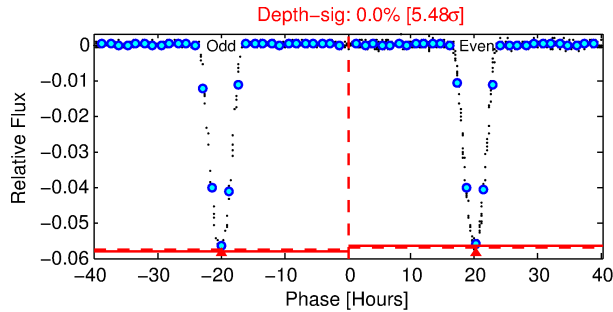
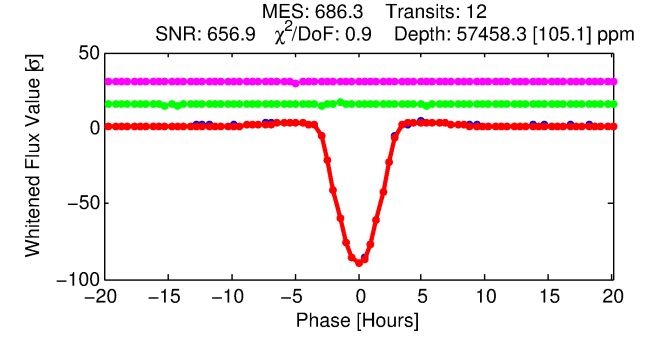
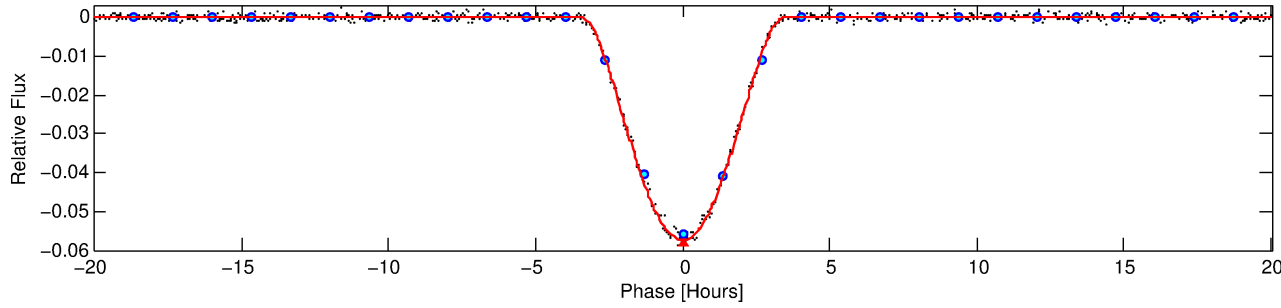
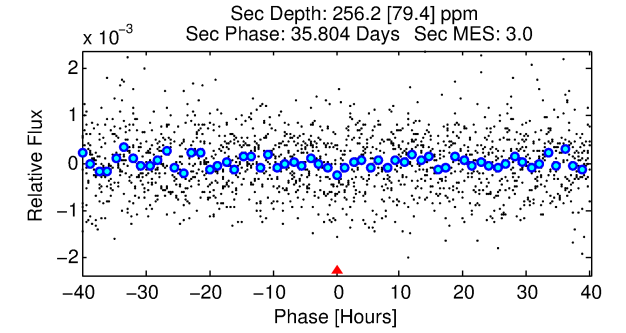
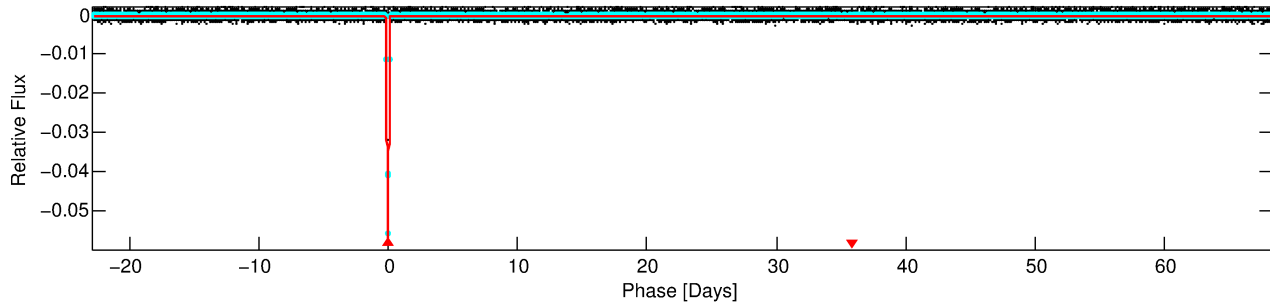
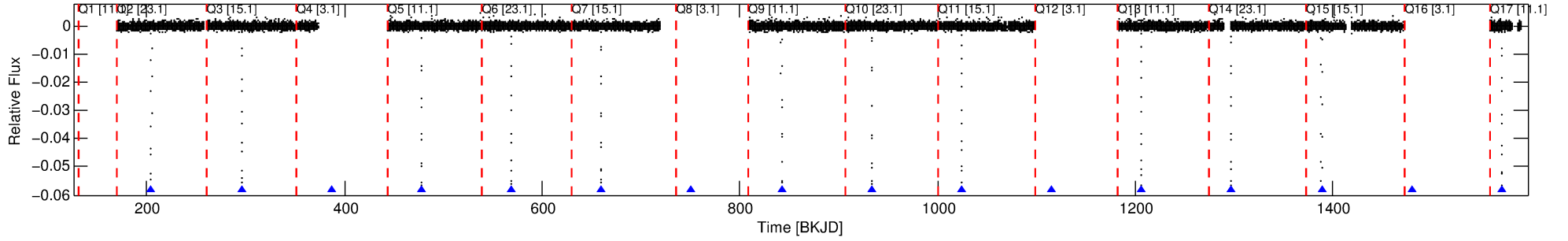
Ephemeris Match Information For 011342573-01

No Significant Match Found

DV One-Page Summary

KIC: 11342573 Candidate: 1 of 1 Period: 91.056 d
KOI: K01771.01 Corr: 0.996

Kp: 15.96 R*: 1.05 Rs Teff: 6142.0 K Logg: 4.46 Fe/H: 0.070



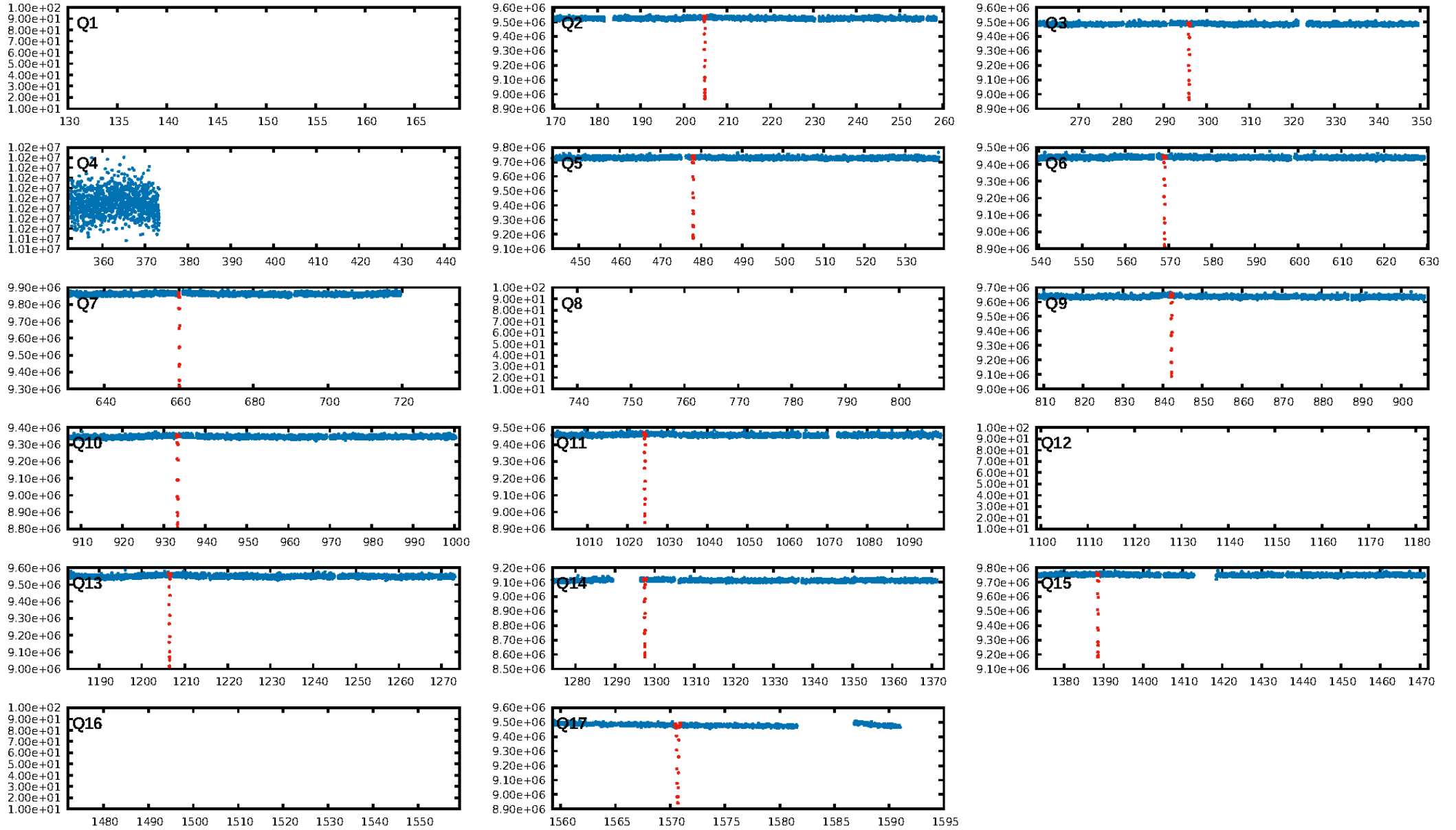
DV Fit Results:

Period = 91.05641 [0.00003] d
Epoch = 204.8364 [0.0002] BKJD
Rp/R* = 0.3092 [0.0190]
a/R* = 98.75 [0.53]
b = 0.90 [0.03]
Seff = 8.14 [3.46]
Teq = 431 [46] K
Rp = 35.29 [11.67] Re
a = 0.4139 [0.1129] AU
Ag = 19.40 [10.04] [1.83\sigma]
Teffp = 1398 [128] K [7.10\sigma]

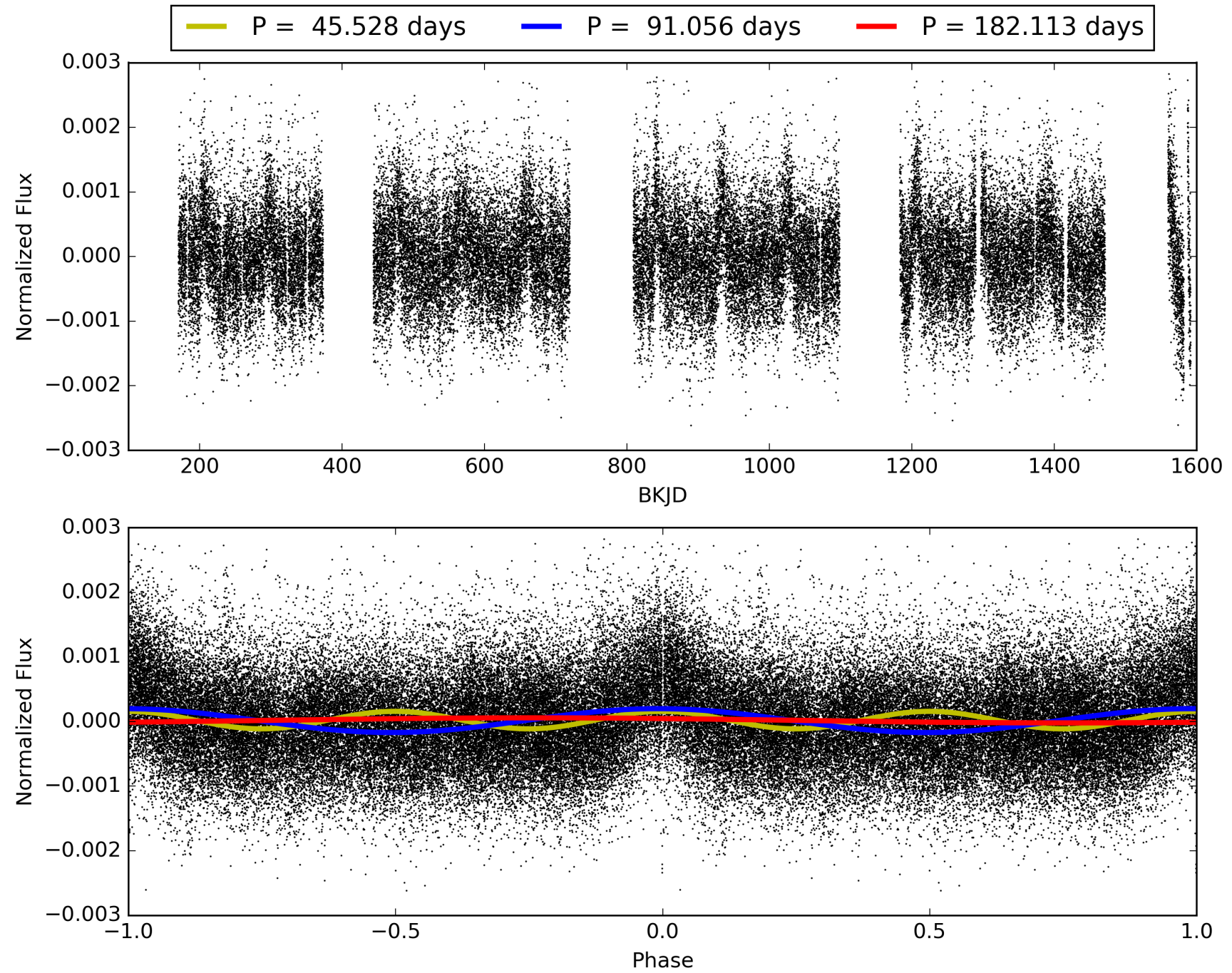
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 5
Centroid-sig: 0.0%
Centroid-so: 0.267 arcsec [13.13\sigma]
OotOffset-rm: 0.060 arcsec [0.80\sigma]
KicOffset-rm: 0.179 arcsec [1.63\sigma]
OotOffset-st: 4/3/0/3 [10]
KicOffset-st: 4/3/0/3 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [10/10]

TCE 011342573-01, PDC Light Curves

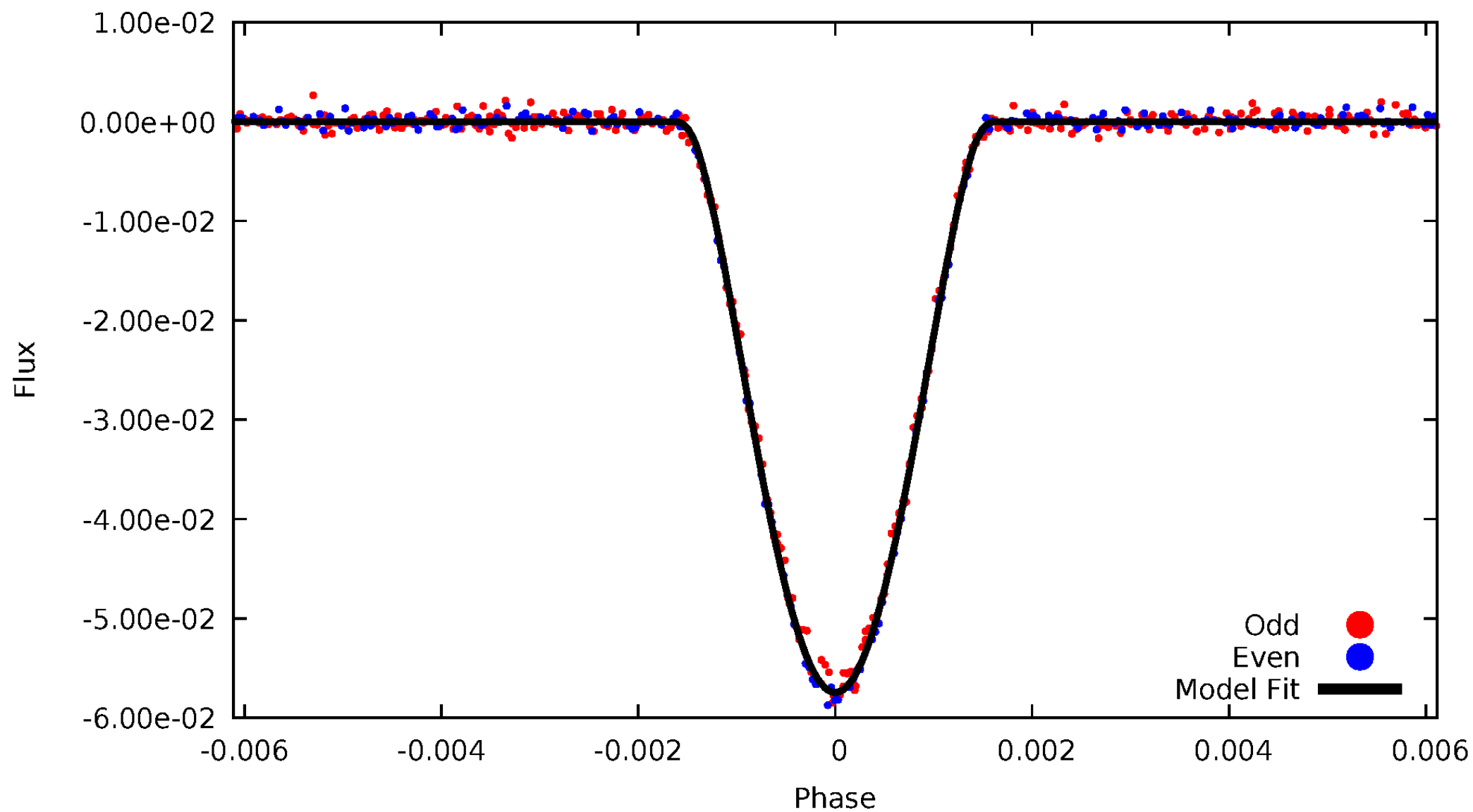


TCE 011342573-01



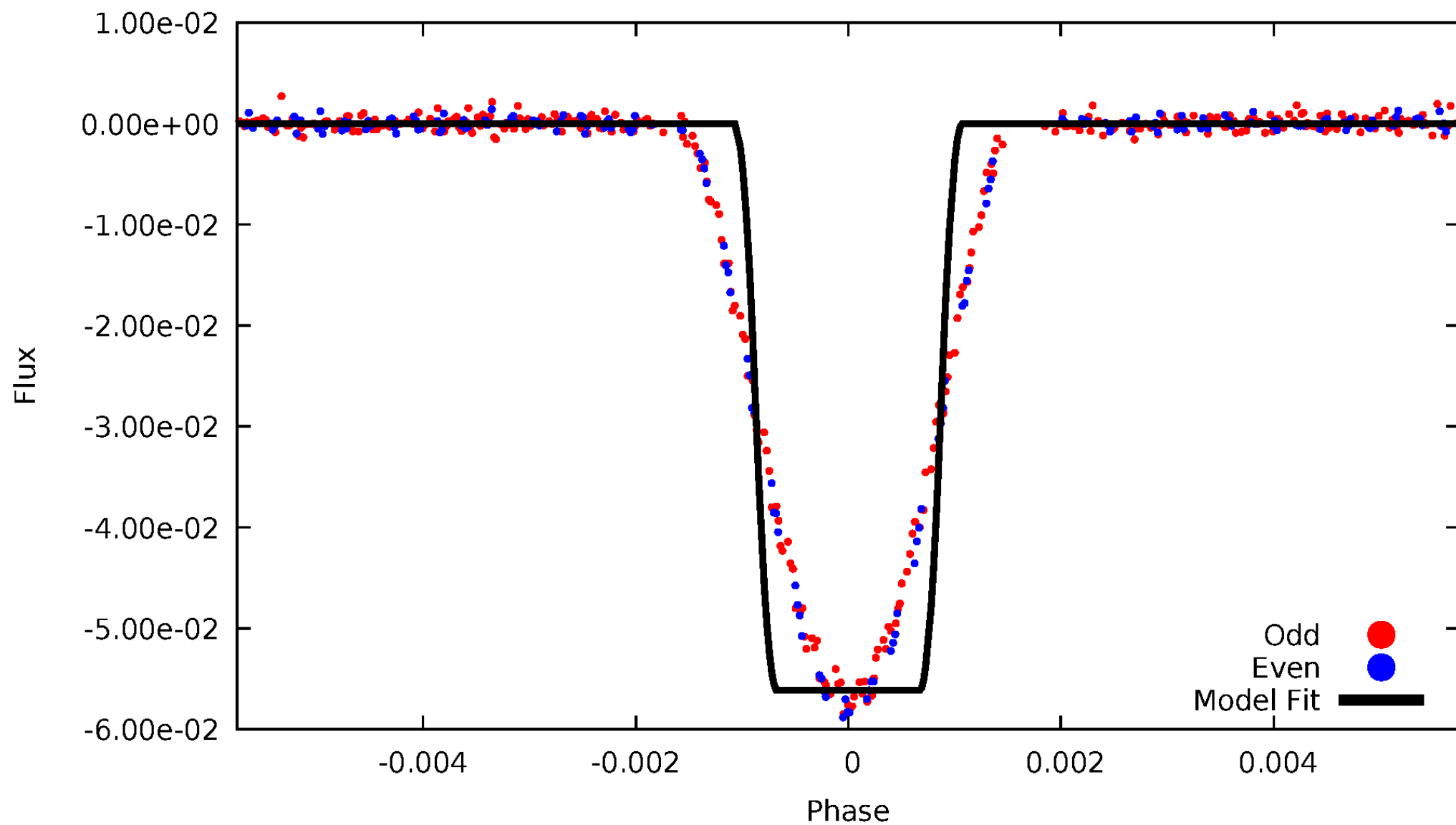
DV Odd/Even

TCE 011342573-01



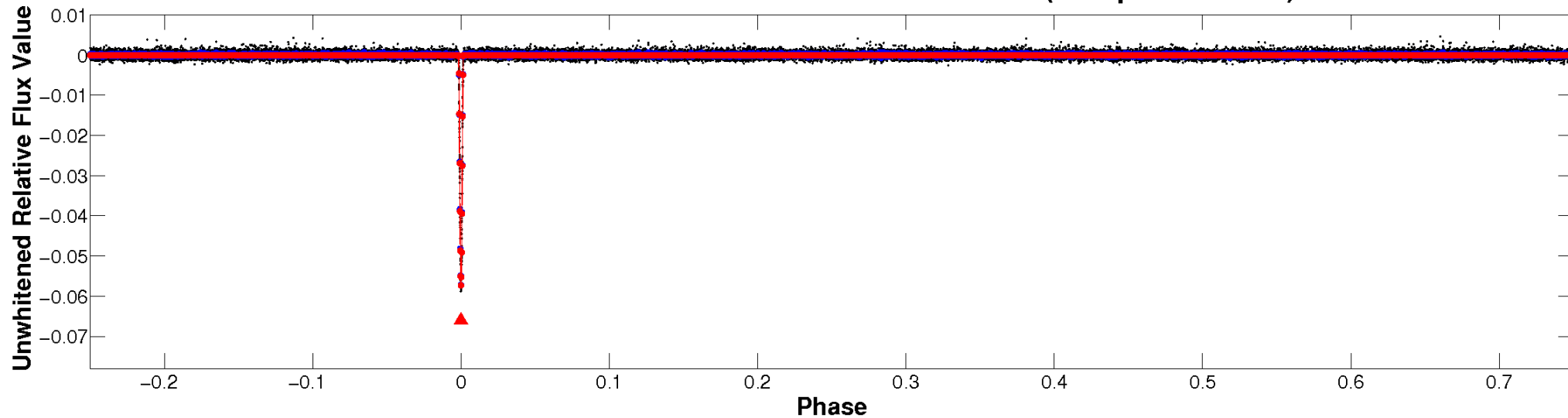
ALT Odd/Even

TCE 011342573-01

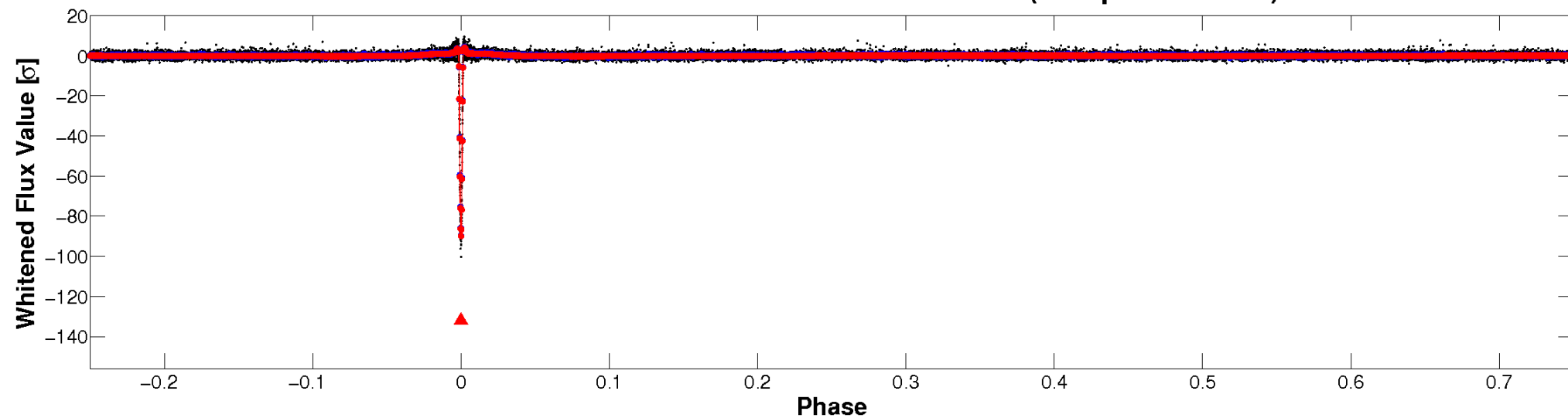


Non-Whitened Vs. Whitened Light Curve

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

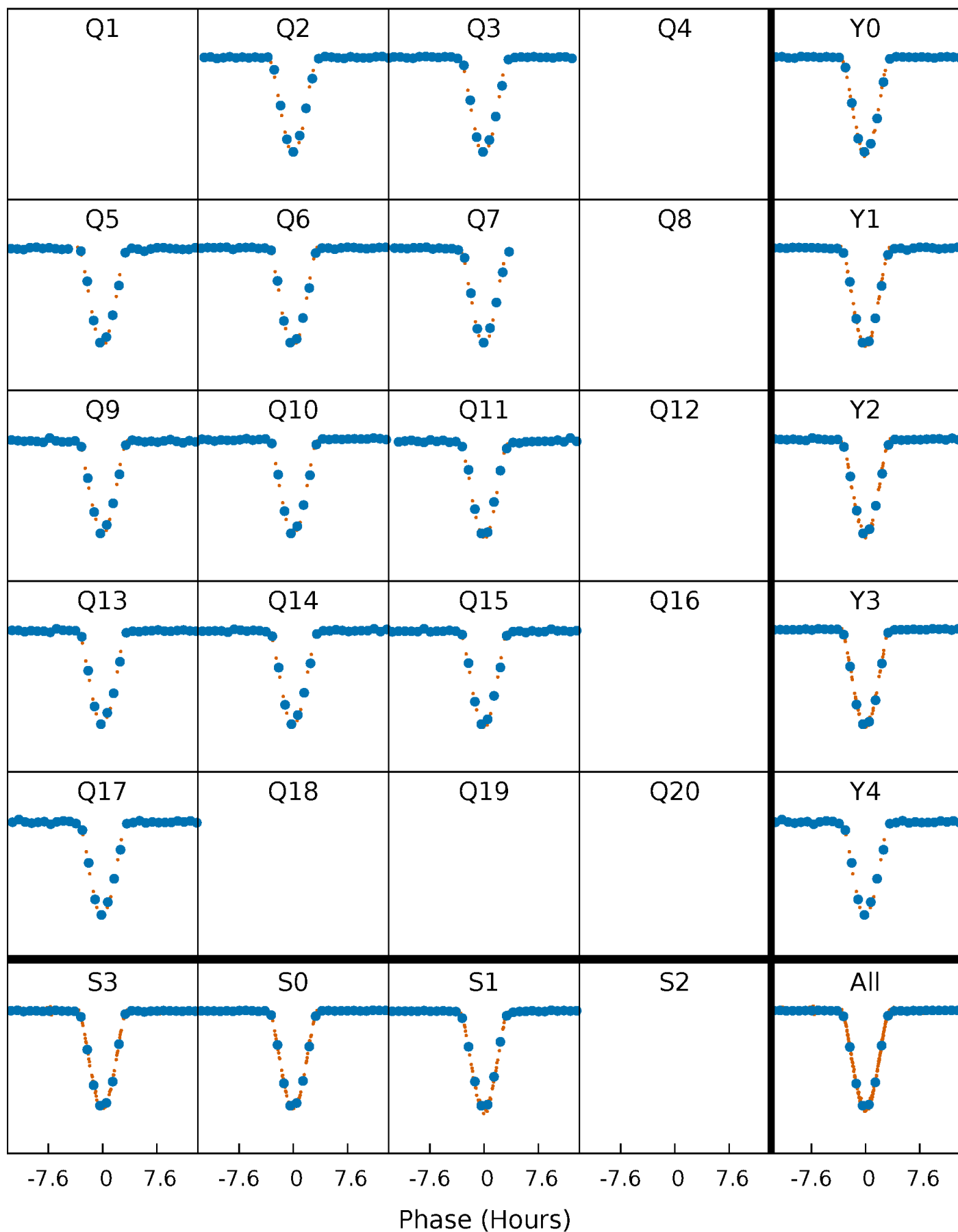


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



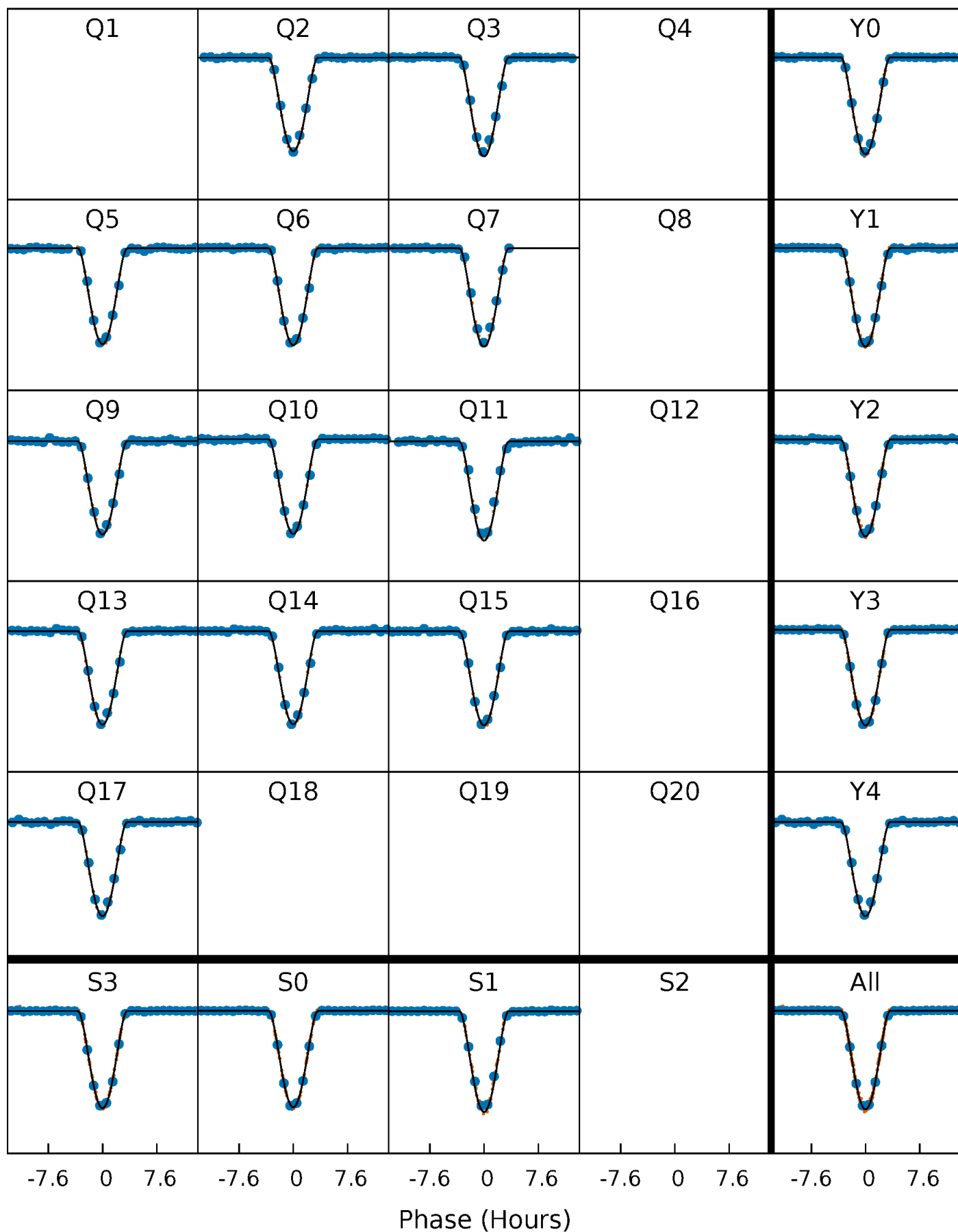
PDC Quarter-Phased Transit Curves

TCE 011342573-01 P= 91.056410 Days $T_0=204.836366$ (BKJD)



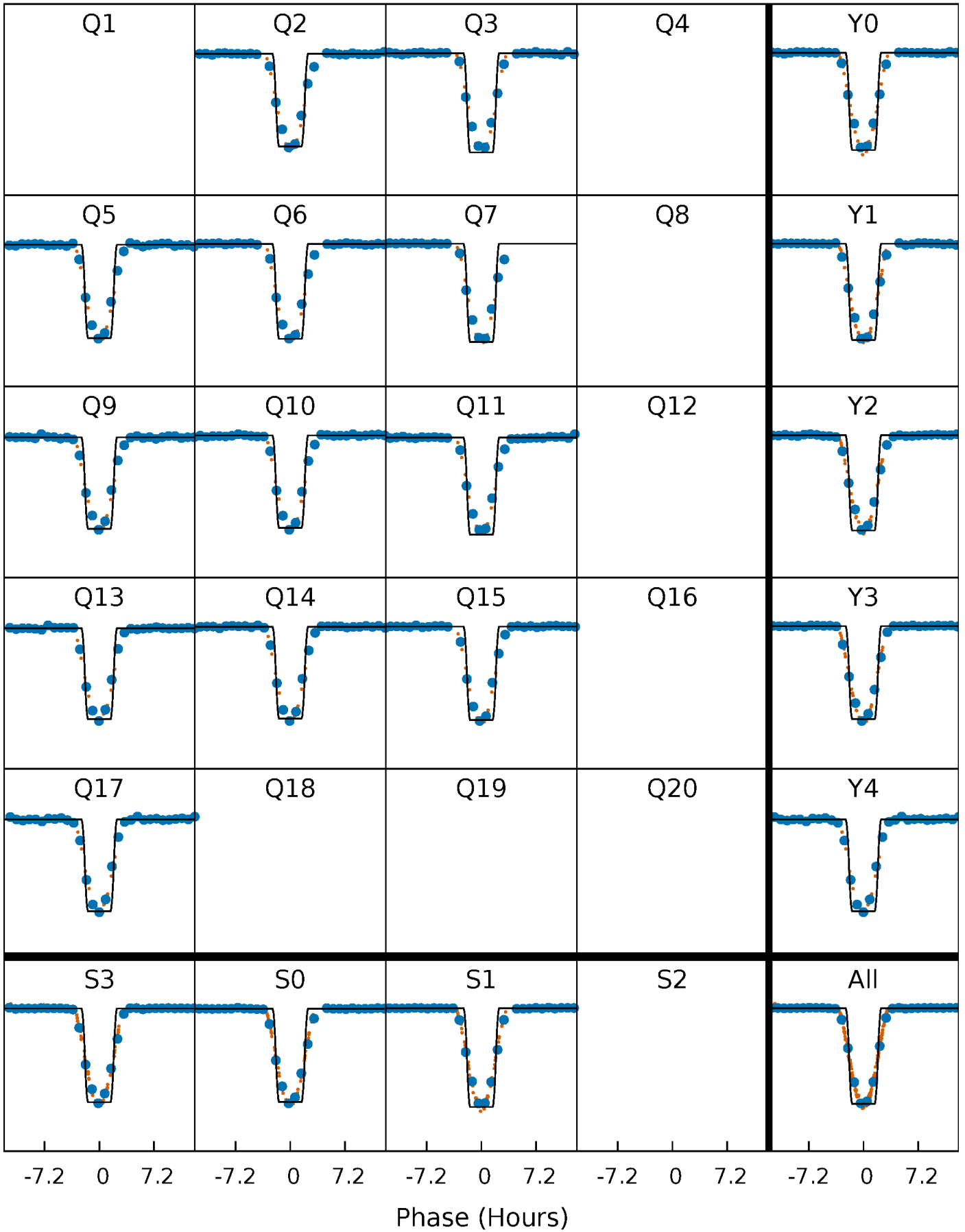
DV Quarter-Phased Transit Curves

TCE 011342573-01 P= 91.056410 Days $T_0=204.836366$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

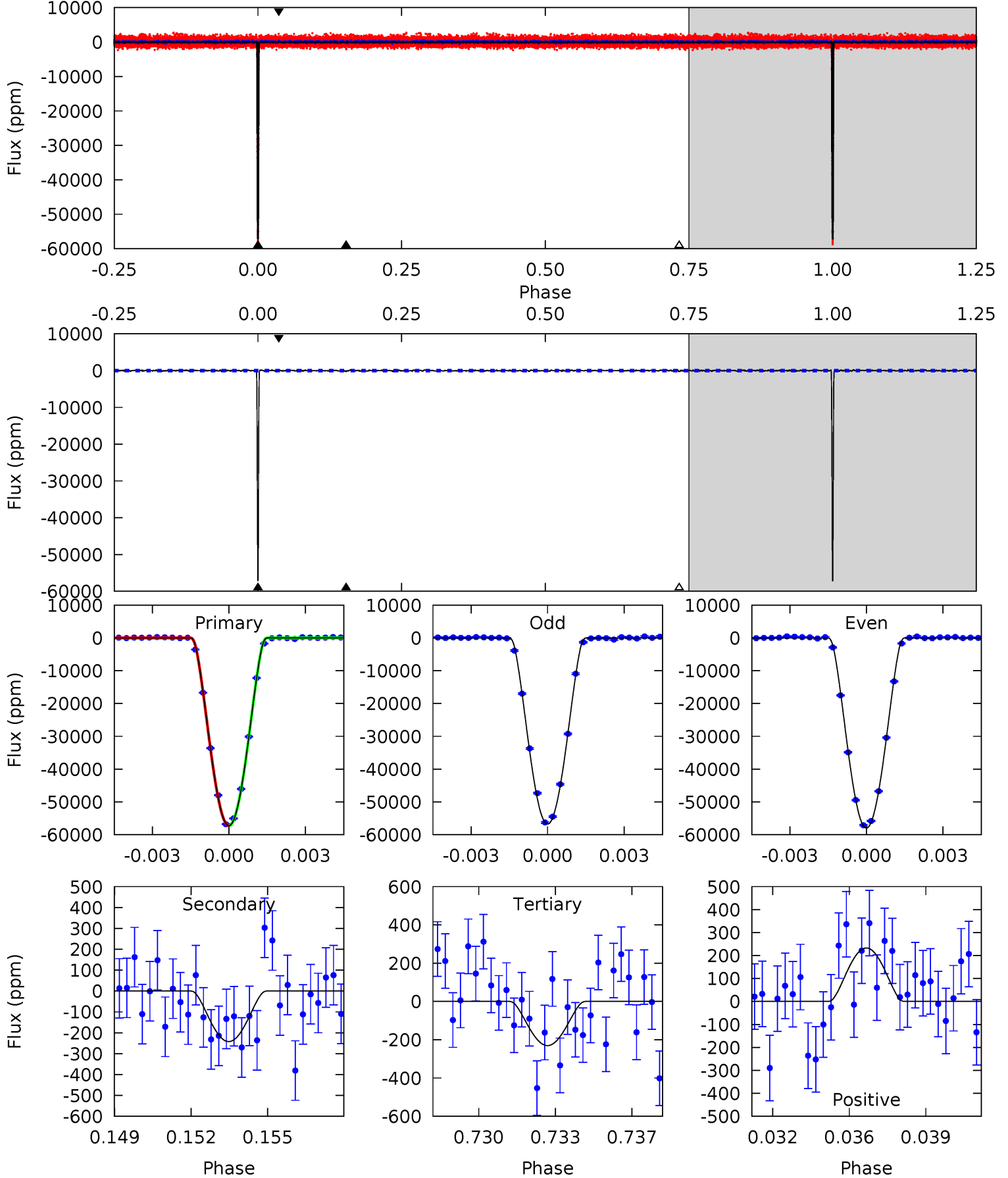
TCE 011342573-01 P= 91.056740 Days $T_0=204.834000$ (BKJD)



DV Model-Shift Uniqueness Test

011342573-01, P = 91.056410 Days, E = 113.779956 Days

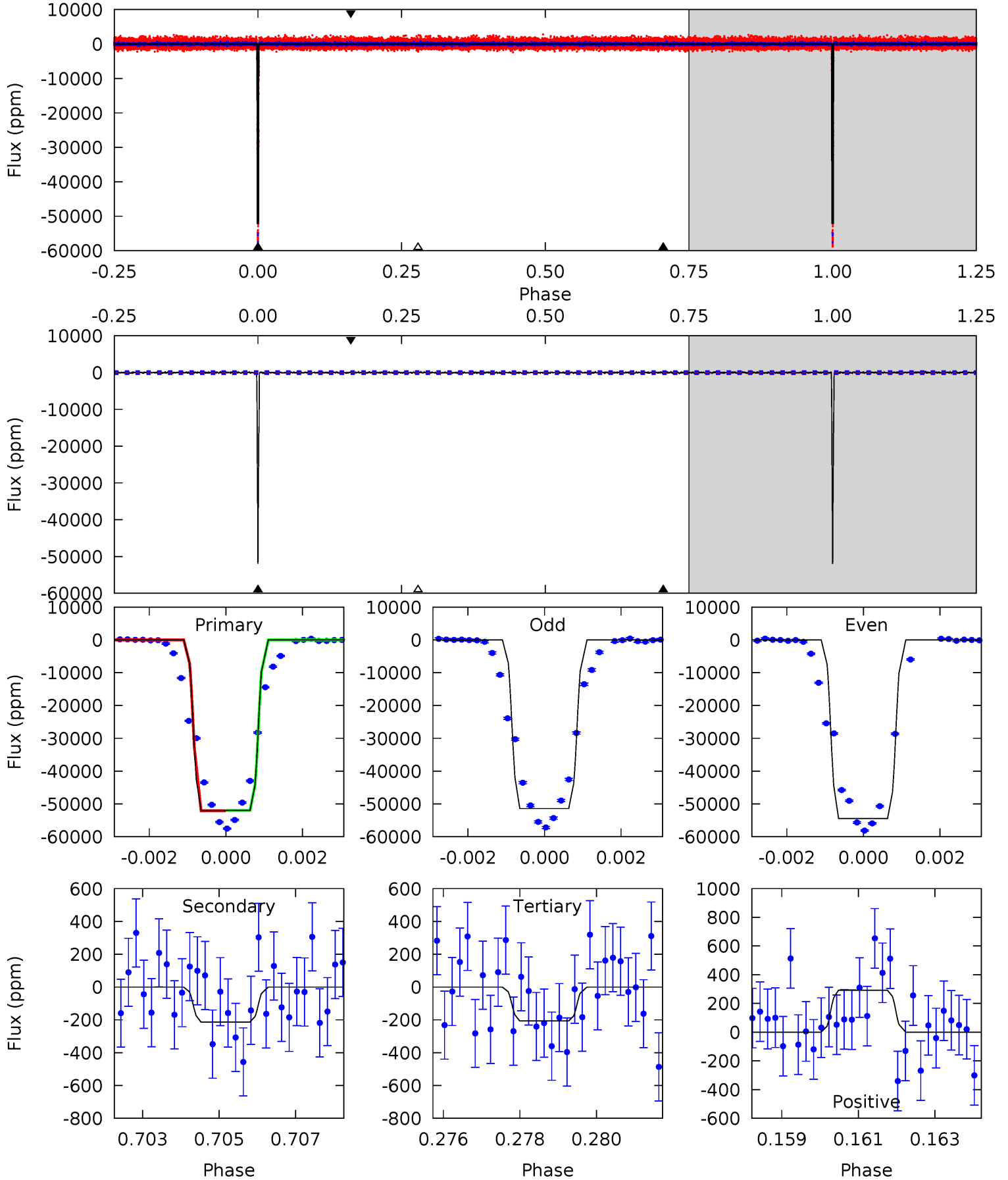
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1176	4.97	4.73	4.78	5.24	2.94	1.47	1171	1171	0.24	0.19	12.0	0.99	0.00	0.21



Alt Model-Shift Uniqueness Test

011342573-01, P = 91.056740 Days, E = 113.777260 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
775.6	3.18	3.09	4.37	5.32	3.08	2.00	772.5	771.2	0.09	-1.19	21.6	0.99	0.01	0.92



Stellar Parameters For KIC 011342573

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6142^{+172}_{-236}	$4.456^{+0.054}_{-0.216}$	$0.070^{+0.250}_{-0.300}$	$1.046^{+0.340}_{-0.113}$	$1.143^{+0.138}_{-0.153}$	$1.407^{+0.385}_{-0.719}$
	+3%/-4%	+1%/-5%	+357%/-429%	+33%/-11%	+12%/-13%	+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 011342573-01 / KOI 1771.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-242 ± 49	$36.40^{+6.44}_{-4.01}$	614^{+48}_{-32}	2287^{+69}_{-74}	16^{+6}_{-5}
Alt.	-213 ± 67	$28.16^{+5.35}_{-3.35}$	616^{+47}_{-35}	2399^{+108}_{-120}	24^{+12}_{-10}

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

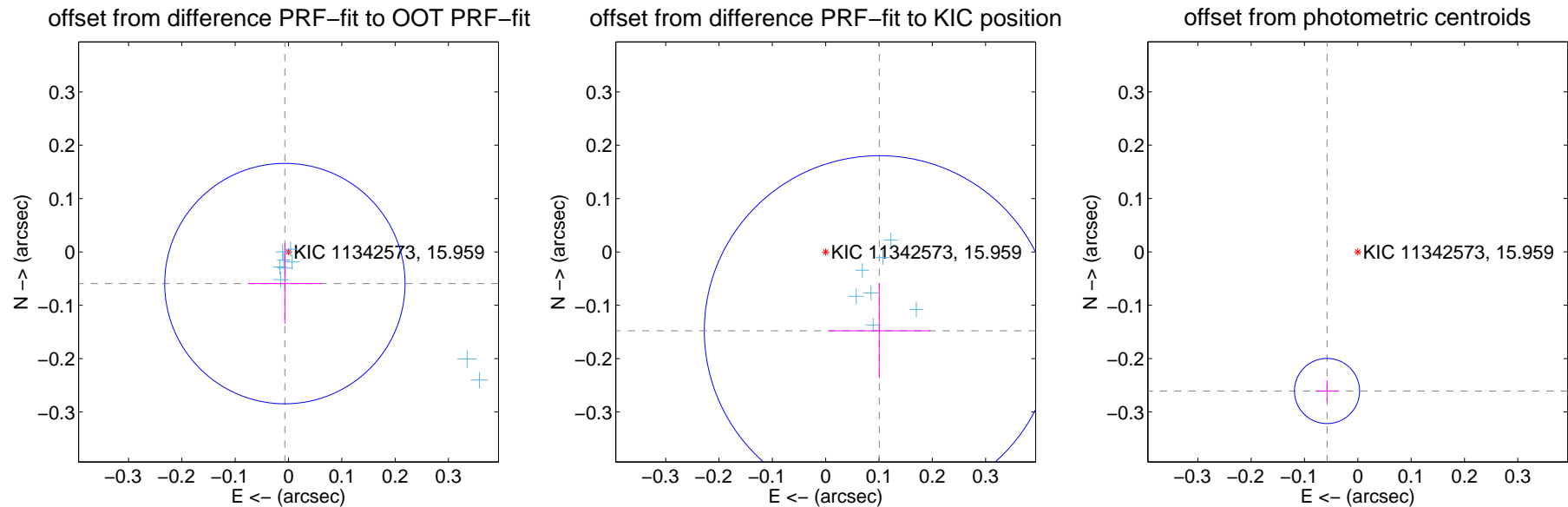
DV Centroid Data

Supplemental centroid analysis for 011342573-01. Kepler magnitude: 15.96. Transit SNR 656.86

There are 10 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.060 ± 0.075	0.80	0.007 ± 0.069	-0.059 ± 0.075
PRF-fit source offset from KIC position	0.179 ± 0.109	1.63	-0.101 ± 0.096	-0.148 ± 0.089
photometric centroid source offset	0.27 ± 0.02	13.13	0.06 ± 0.02	-0.26 ± 0.02



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.

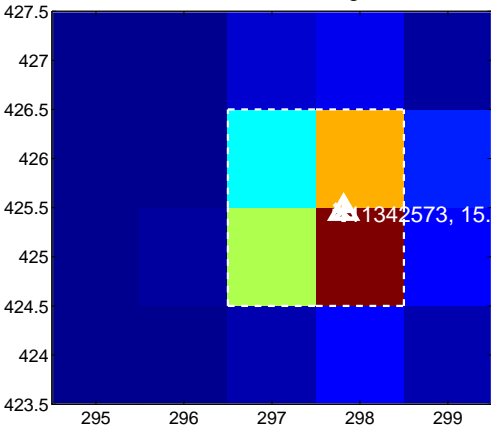
Q1 no difference image



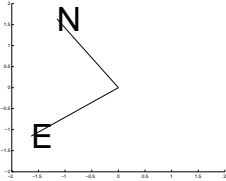
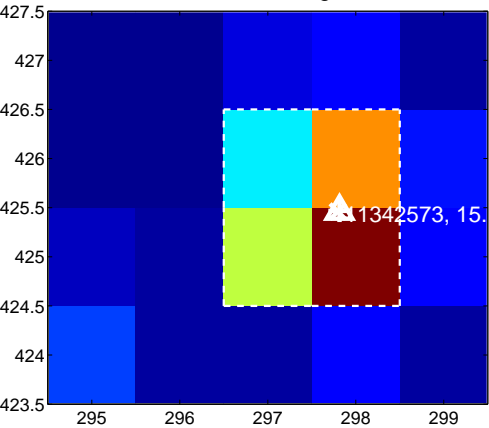
Q1 no OOT image



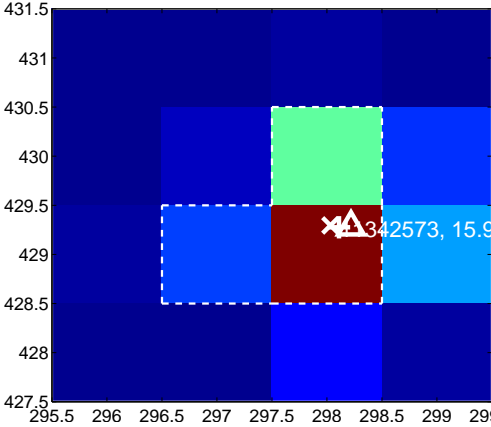
Q2 difference image



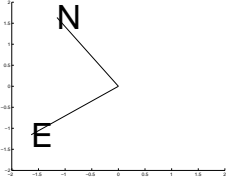
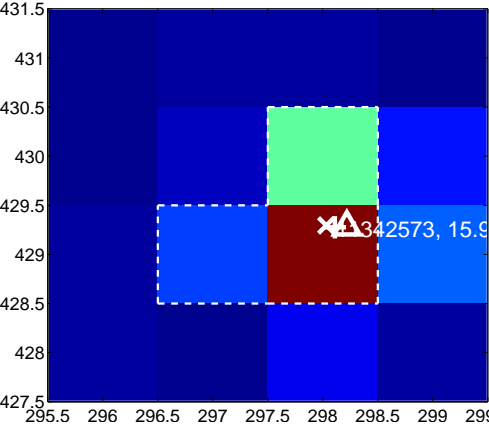
Q2 OOT image



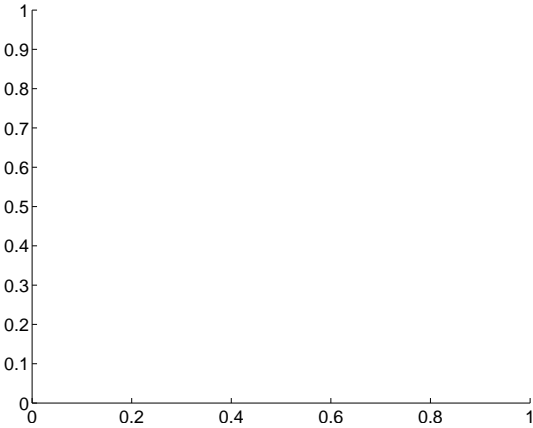
Q3 difference image



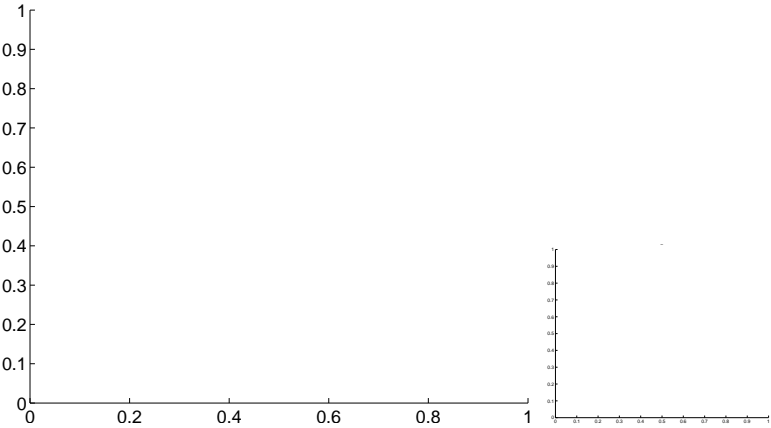
Q3 OOT image



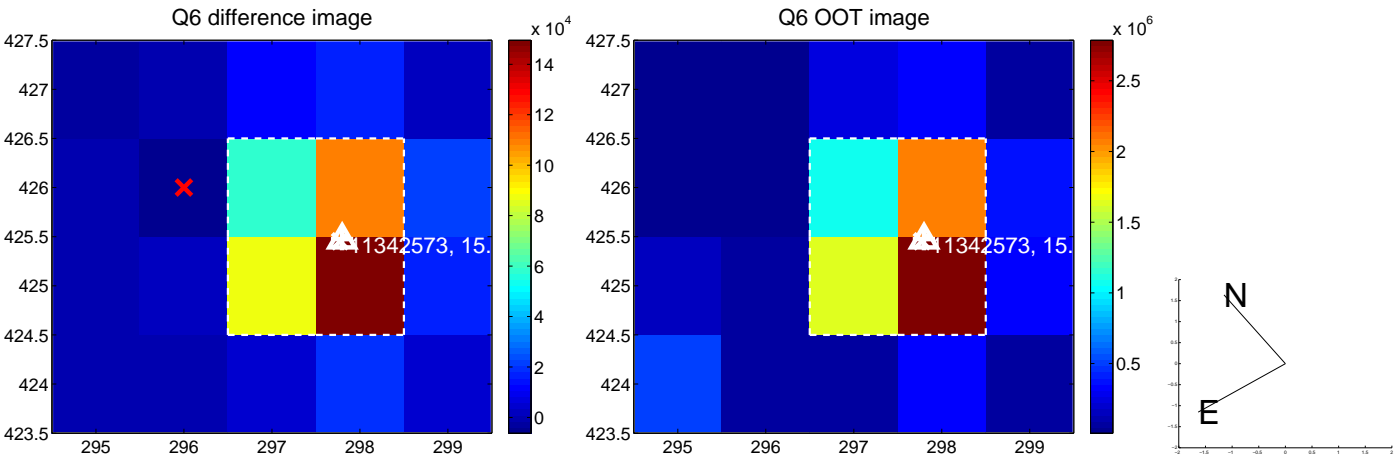
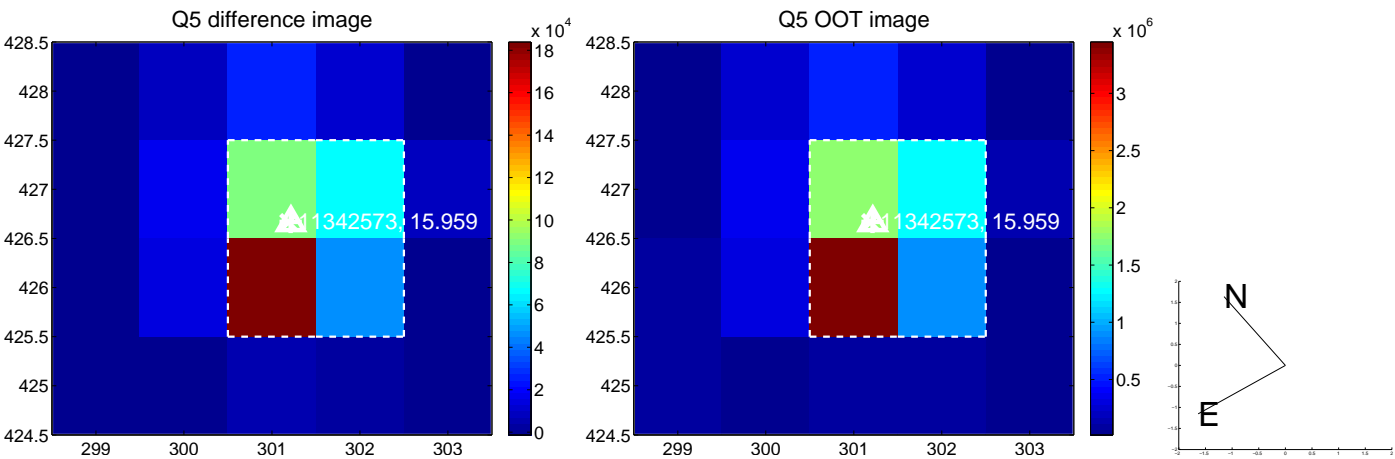
Q4 no difference image



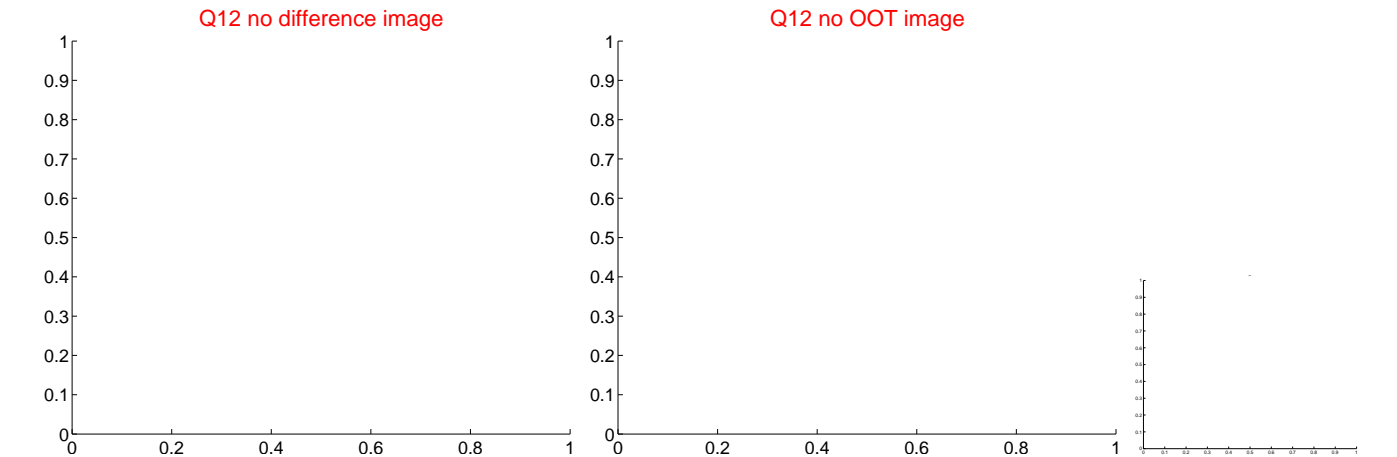
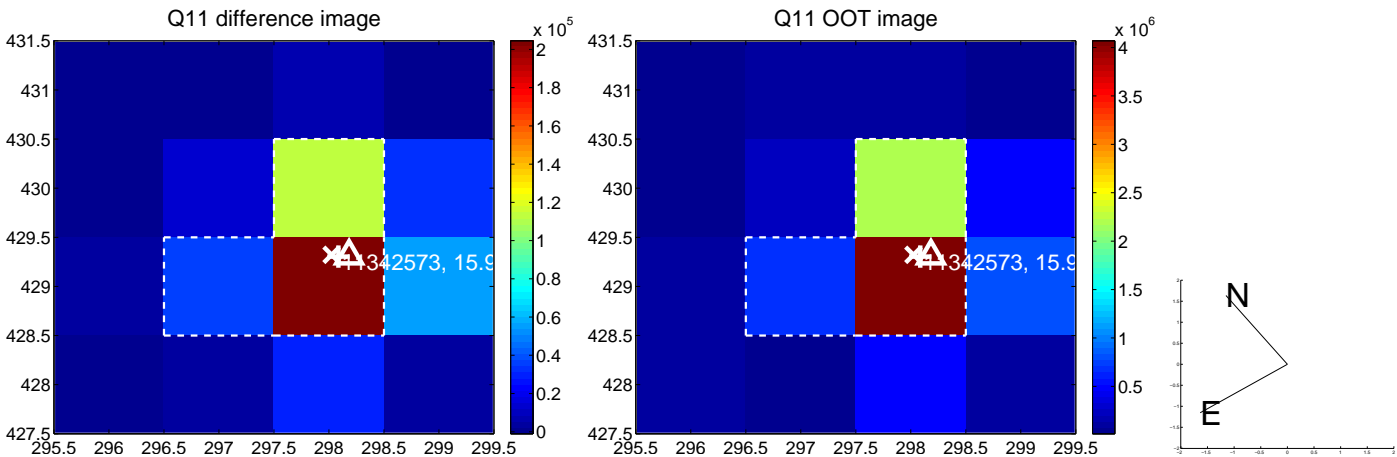
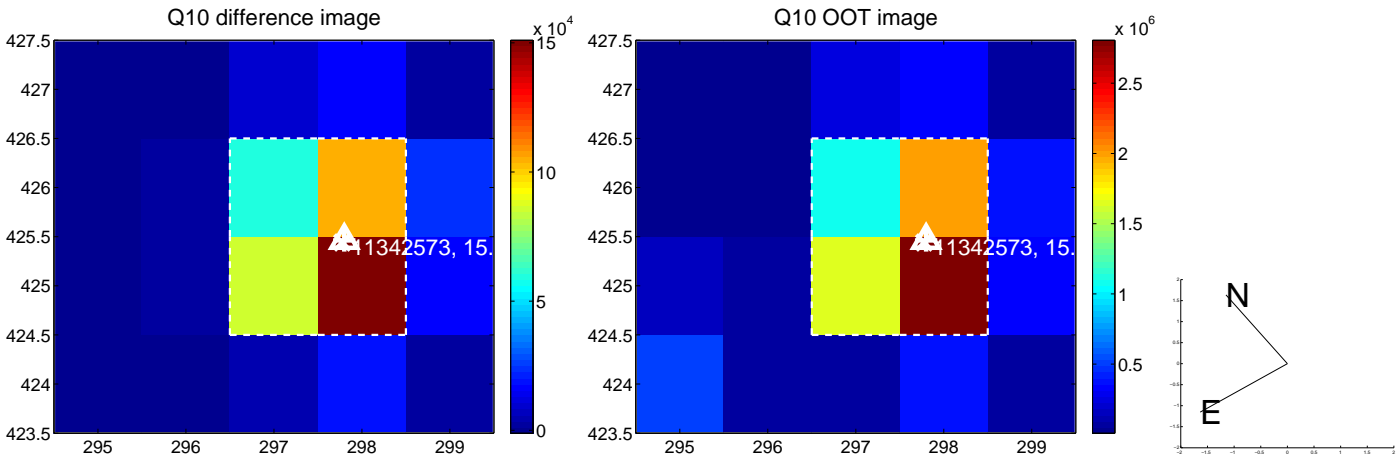
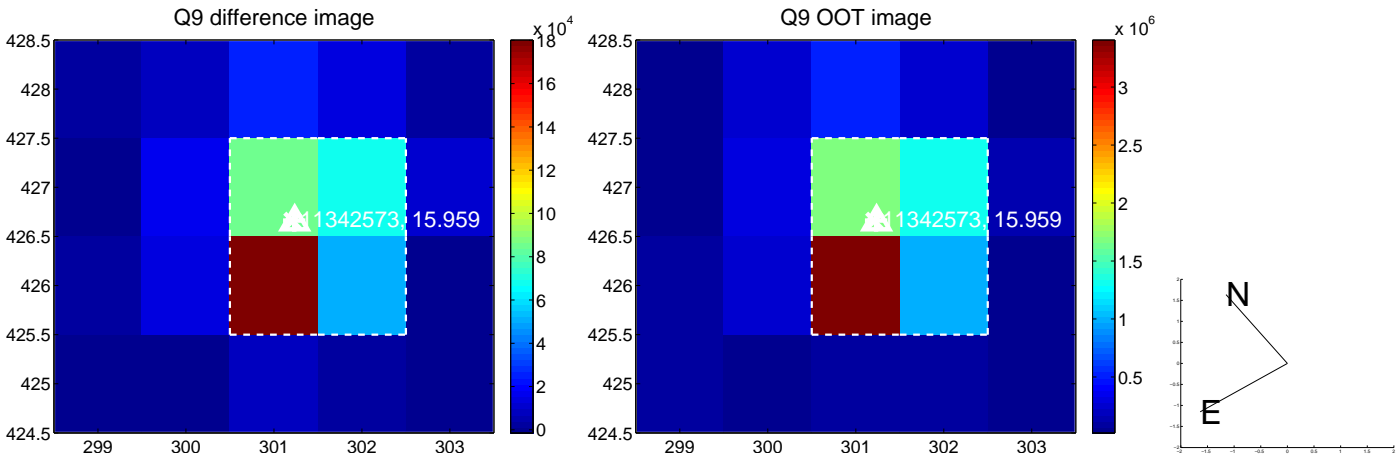
Q4 no OOT image



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



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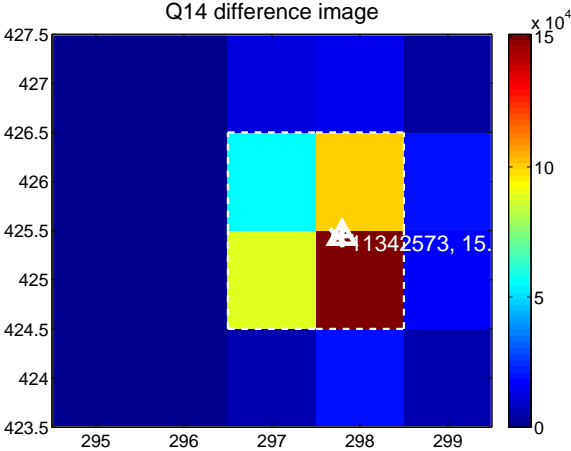
Q13 no difference image



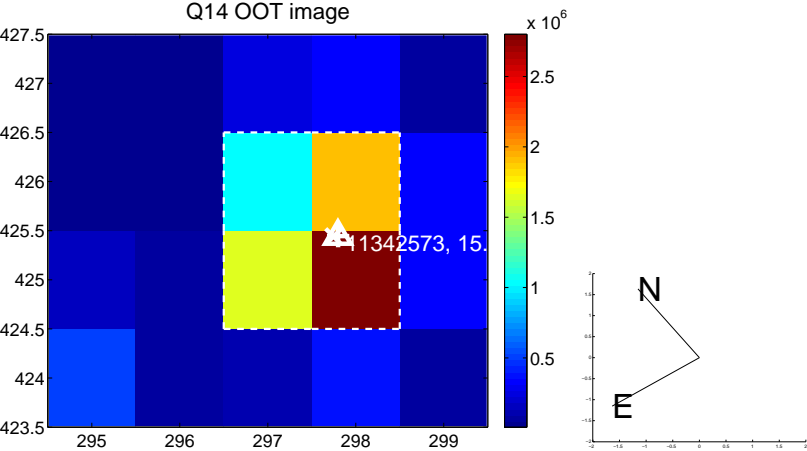
Q13 no OOT image



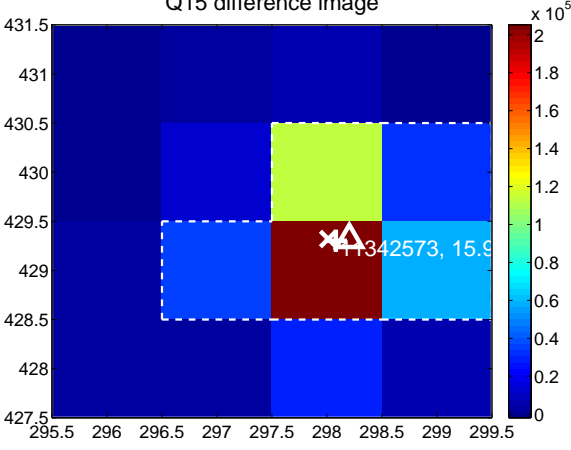
Q14 difference image



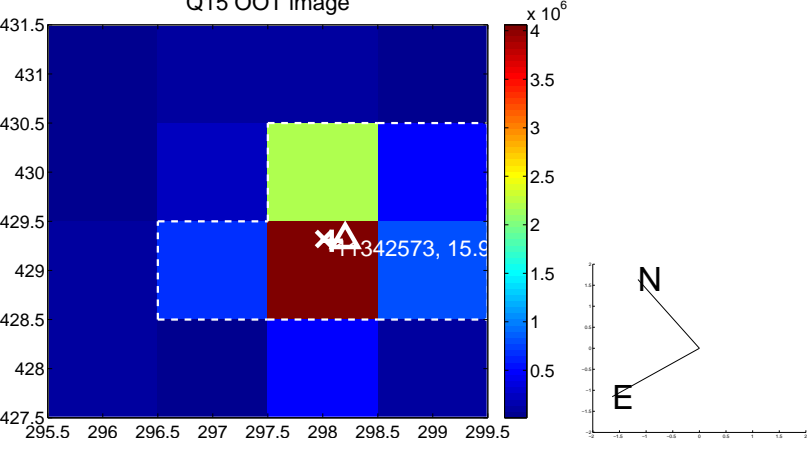
Q14 OOT image



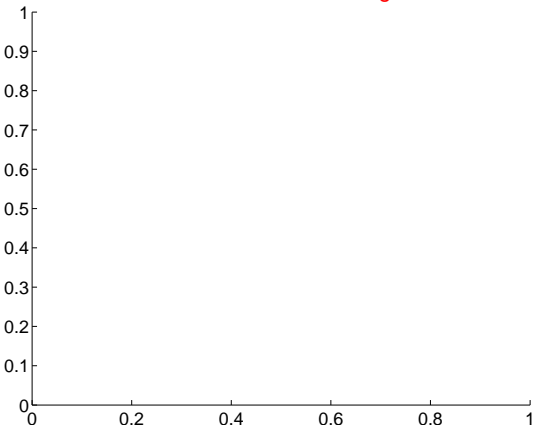
Q15 difference image



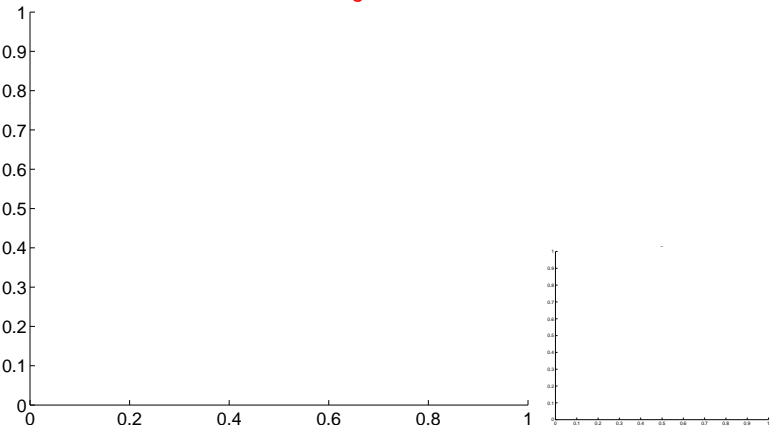
Q15 OOT image



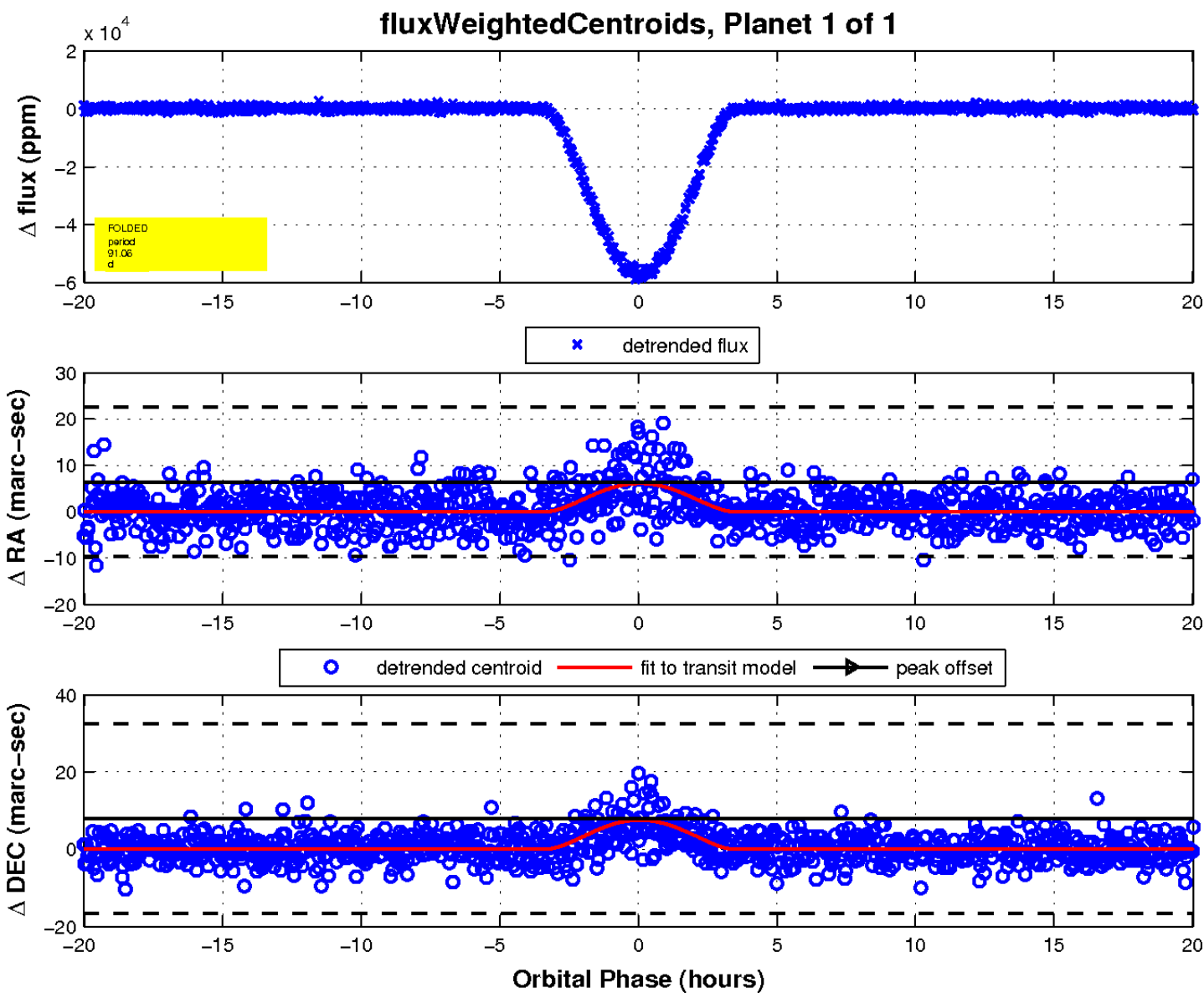
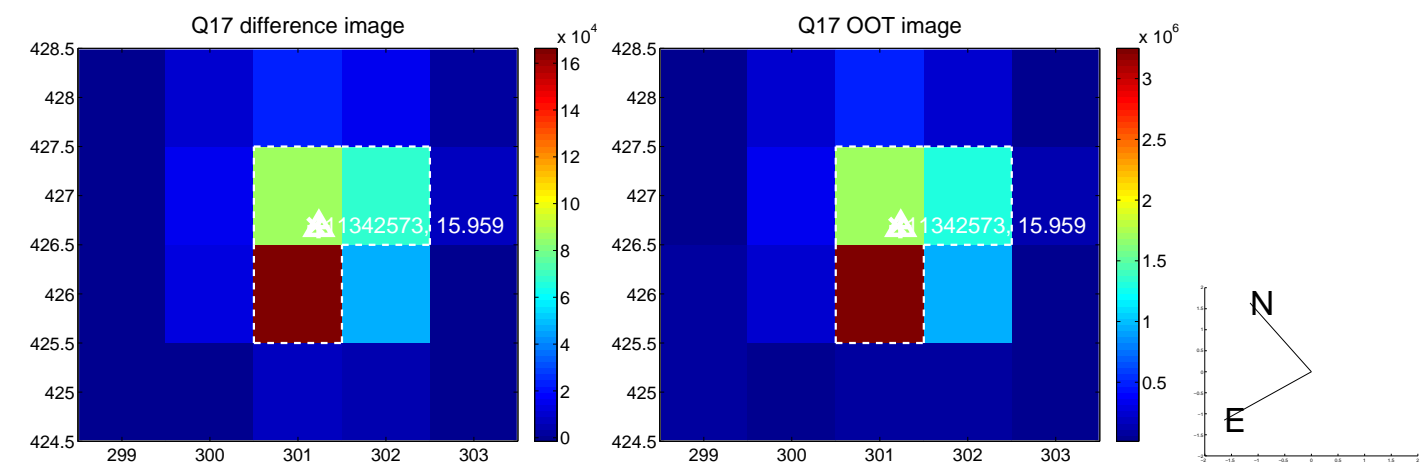
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

