

KIC 011873091

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})
011873091-01	OBS	No	341.657112	433.001761	1634.7	6.293	11.8	9.7	0.66	4308	2.83	0.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011873091-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

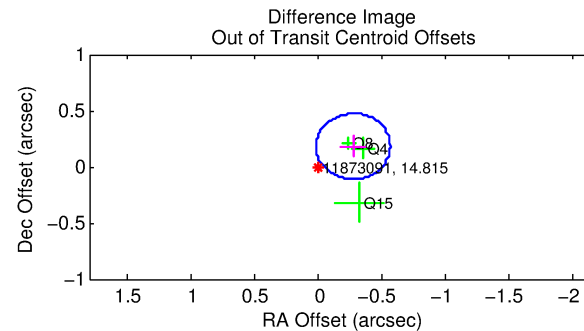
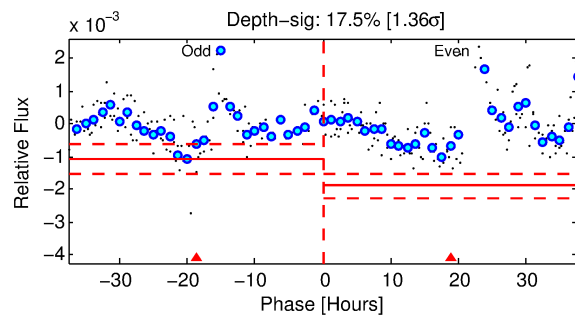
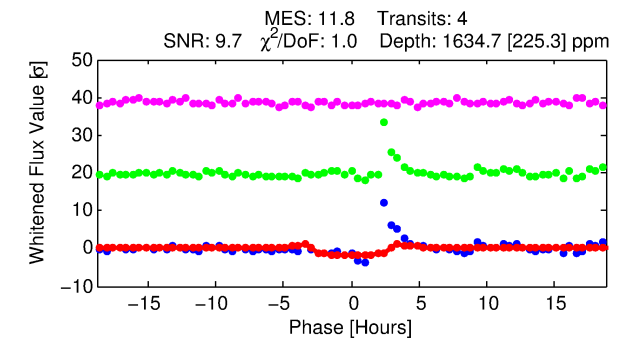
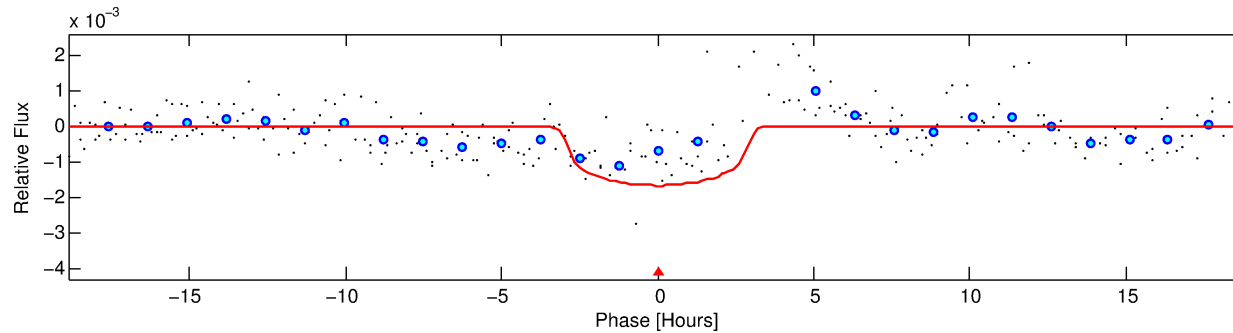
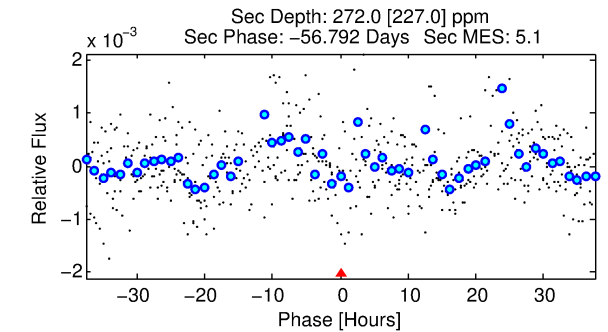
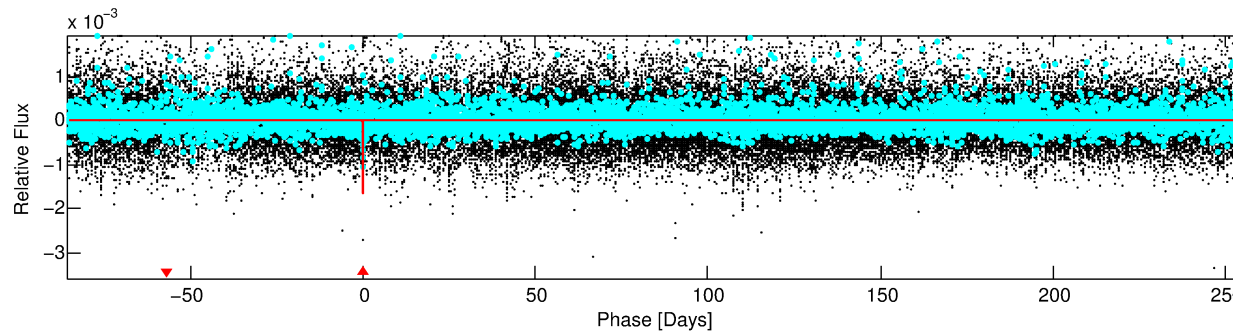
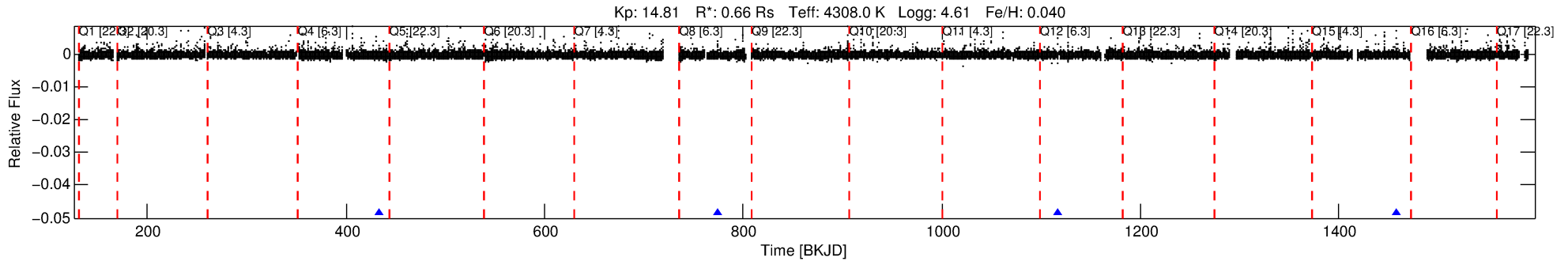
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011873091-01

No Significant Match Found

DV One-Page Summary

KIC: 11873091 Candidate: 1 of 1 Period: 341.657 d



DV Fit Results:

Period = 341.65711 [0.00469] d
Epoch = 433.0018 [0.0088] BKJD
Rp/R* = 0.0390 [0.0206]
a/R* = 330.11 [528.88]
b = 0.67 [1.36]
Seff = 0.20 [0.03]
Teq = 170 [6] K
Rp = 2.83 [1.51] Re
a = 0.8328 [0.0556] AU
Ag = 12978.15 [17519.72] [0.74σ]
Teffp = 2800 [947] K [2.78σ]

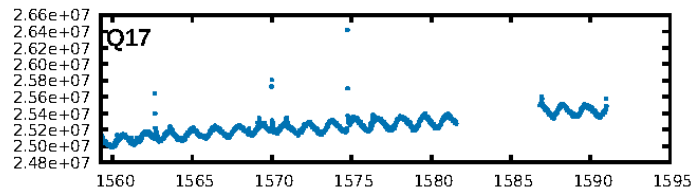
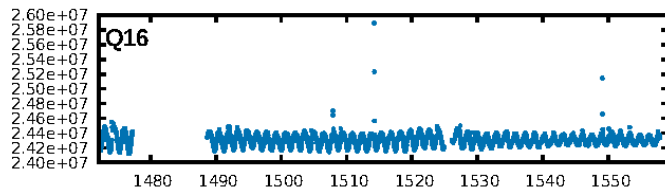
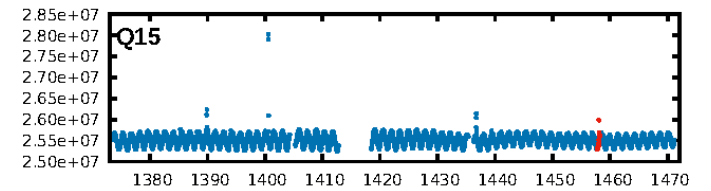
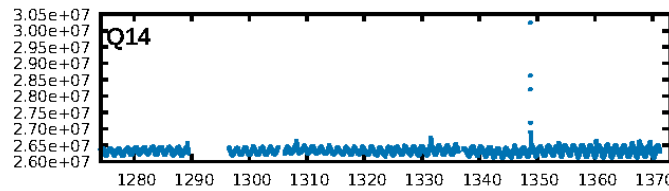
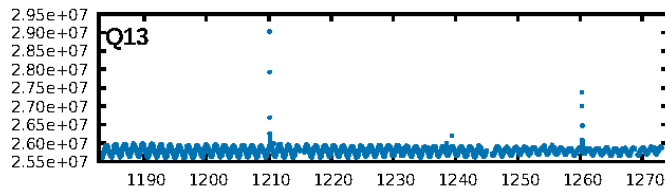
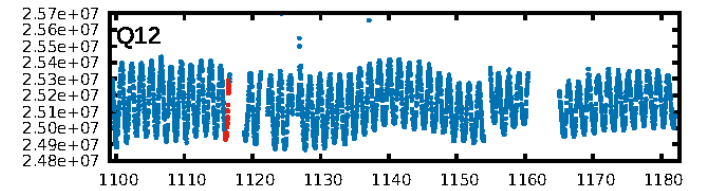
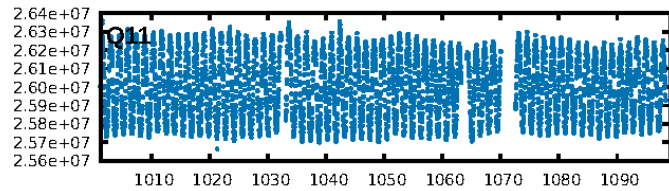
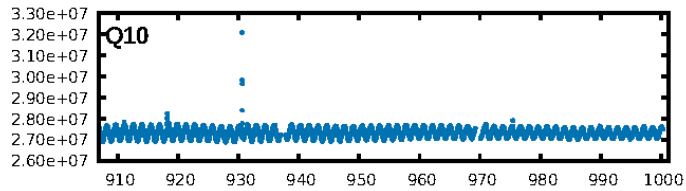
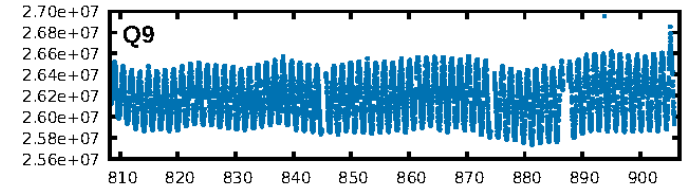
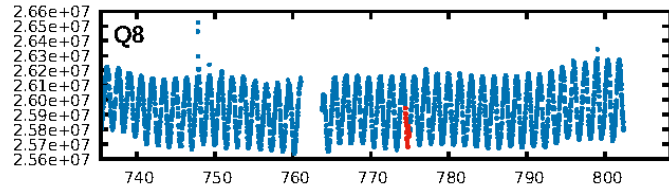
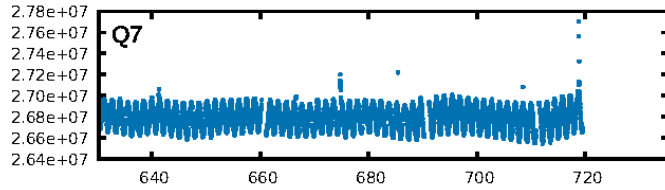
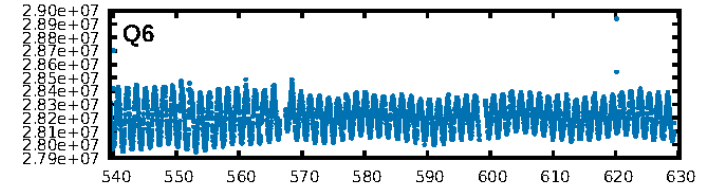
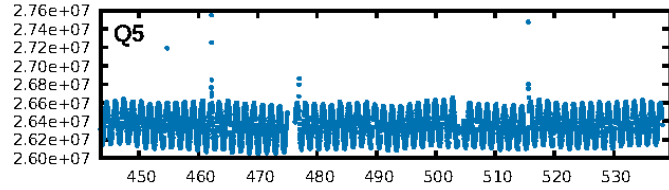
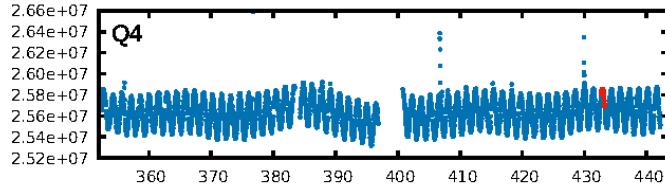
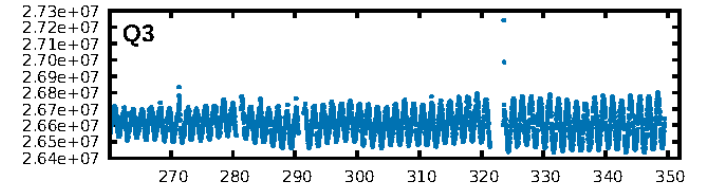
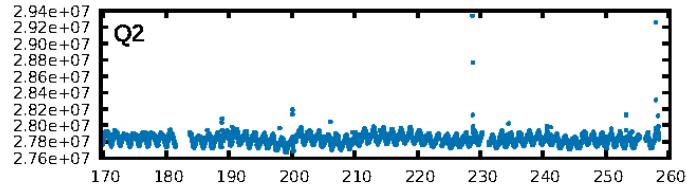
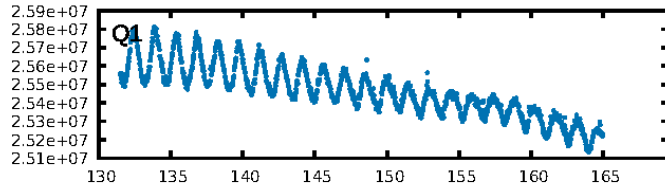
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.16e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.7826
Centroid-sig: 24.6%
Centroid-so: 1.298 arcsec [1.85σ]
OotOffset-rm: 0.329 arcsec [3.37σ]
KicOffset-rm: 0.258 arcsec [1.75σ]
OotOffset-st: 0/1/2/0 [3]
KicOffset-st: 0/1/2/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

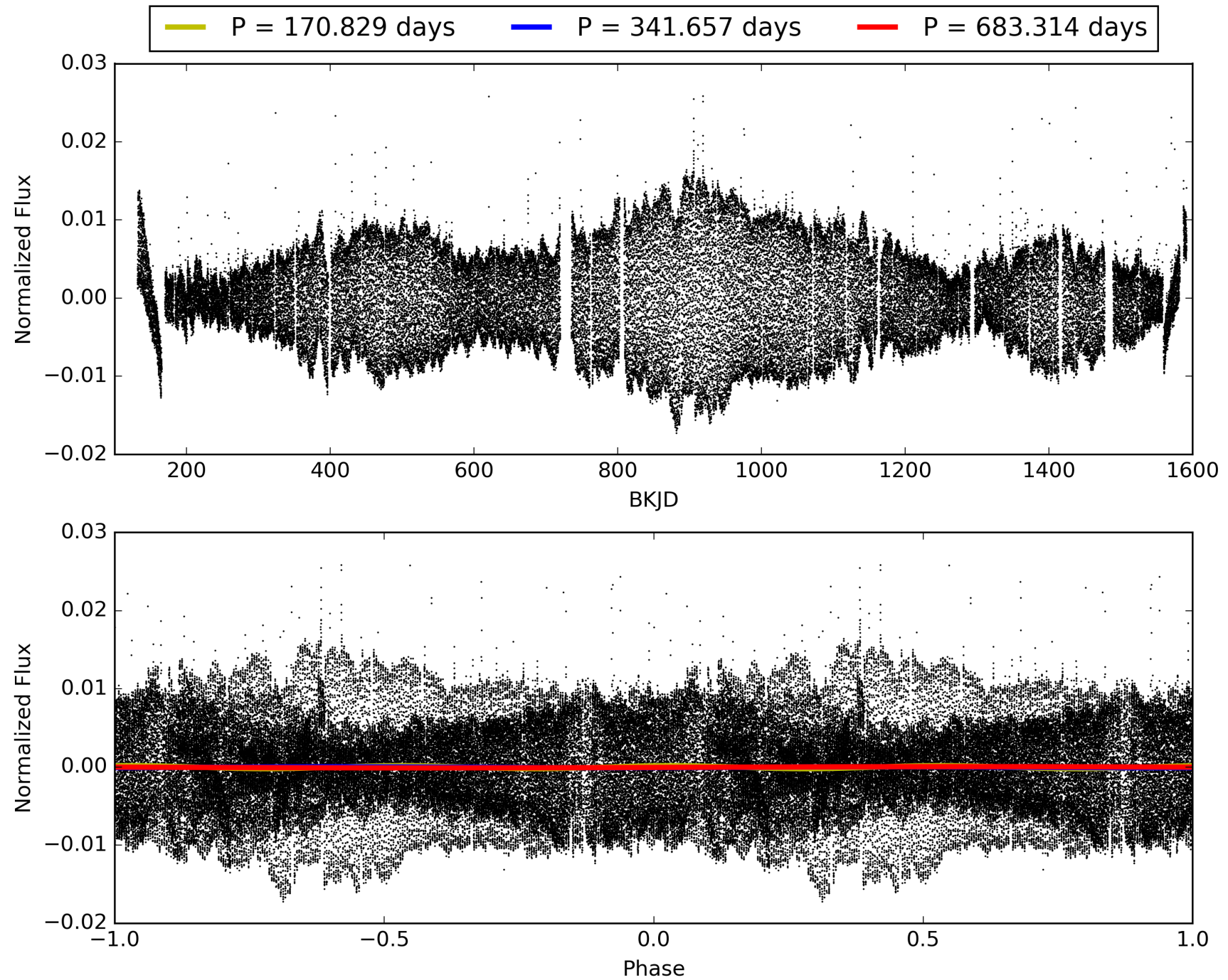
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:15:43 Z

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

TCE 011873091-01, PDC Light Curves

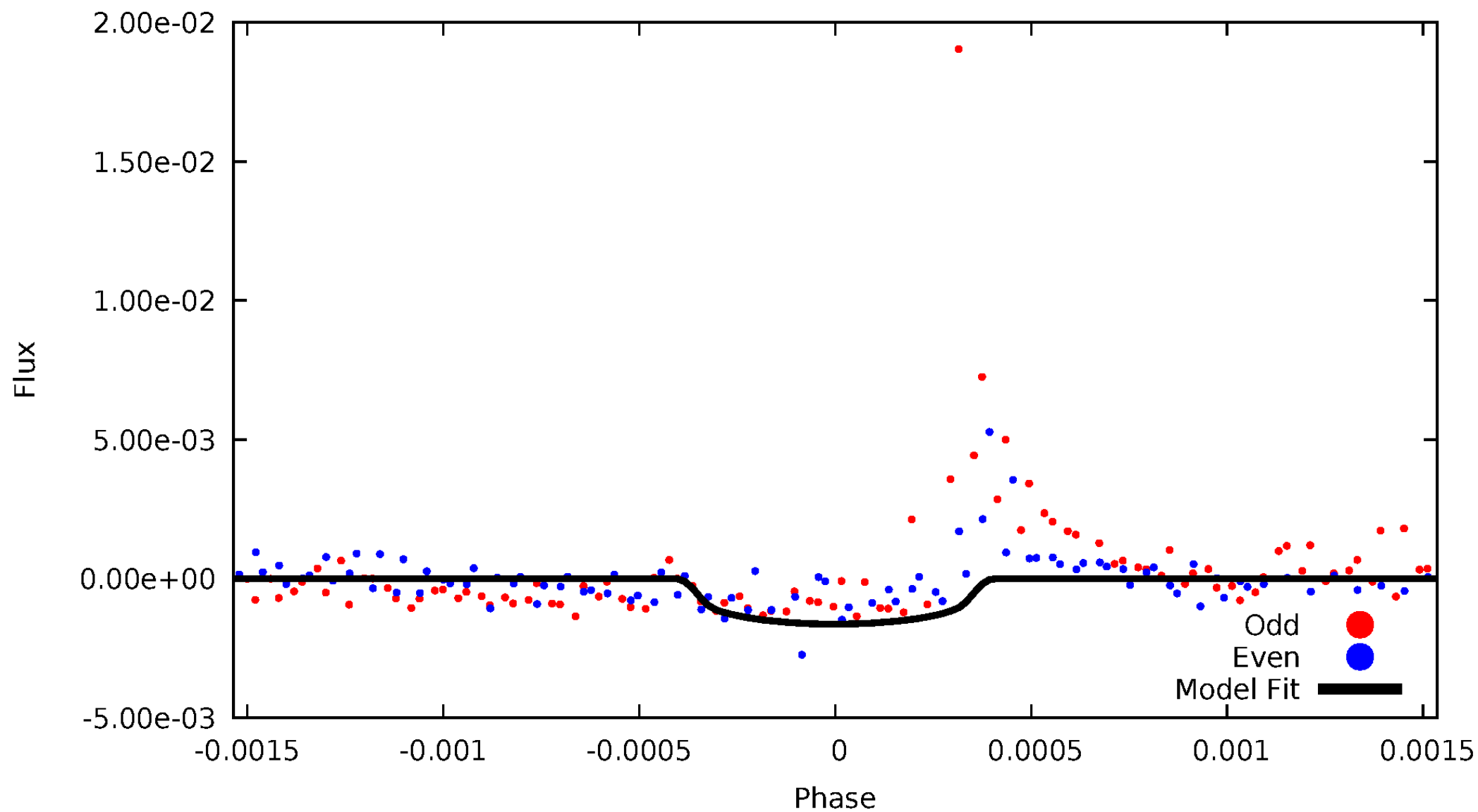


TCE 011873091-01



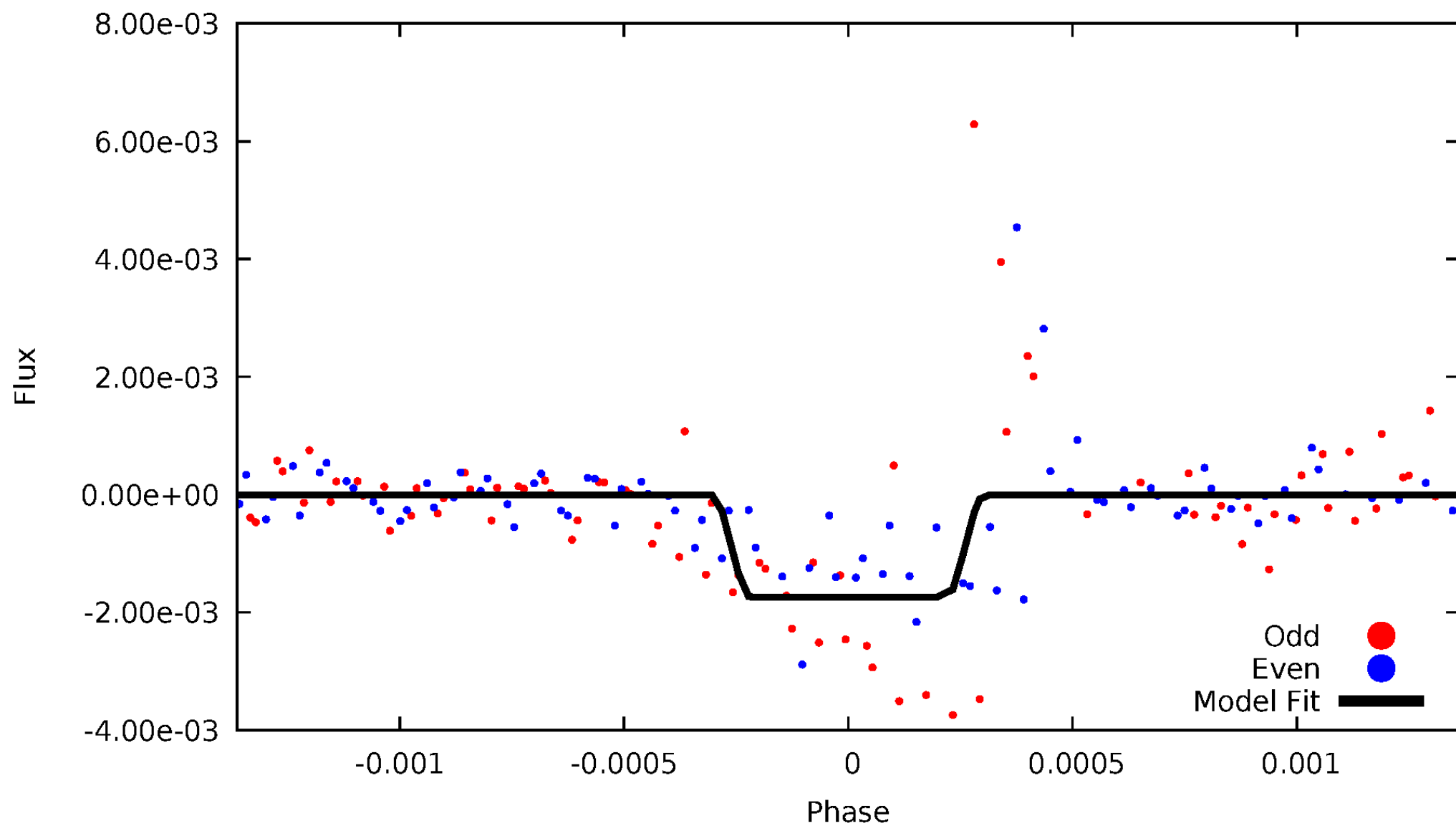
DV Odd/Even

TCE 011873091-01



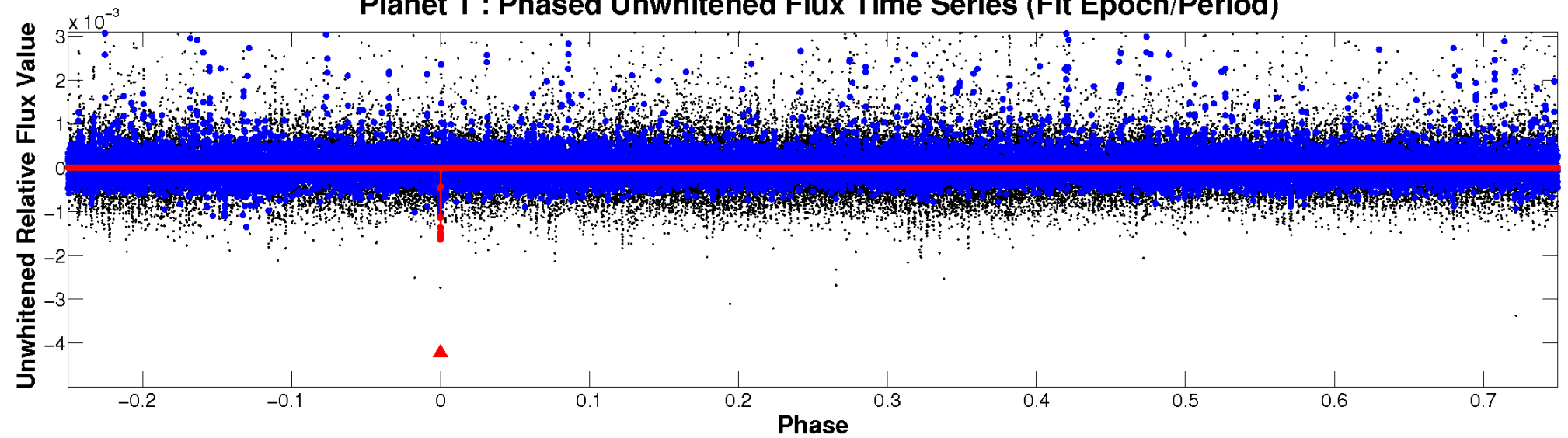
ALT Odd/Even

TCE 011873091-01

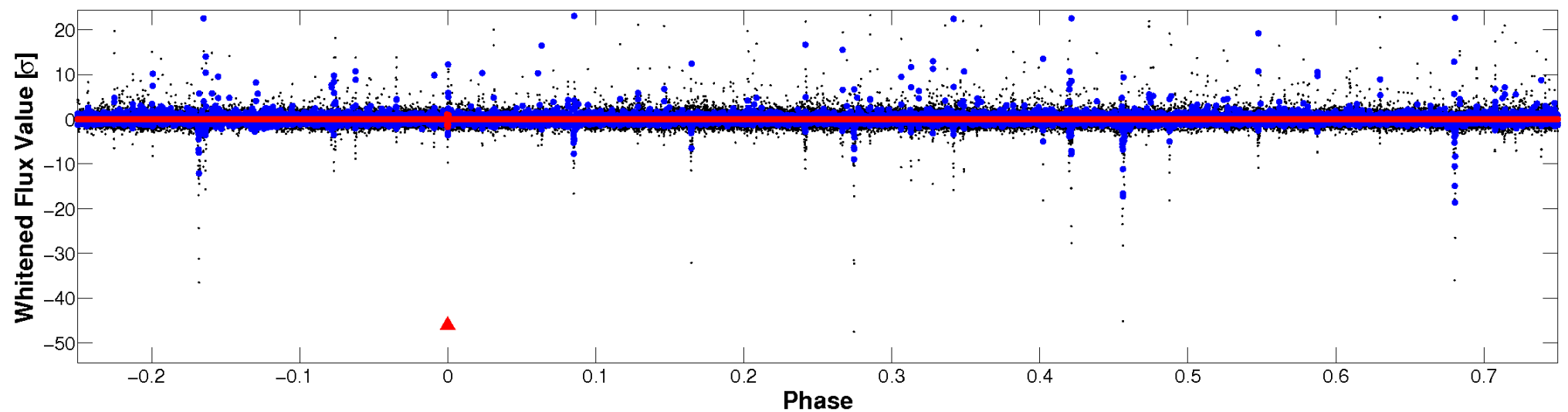


Non-Whitened Vs. Whitened Light Curve

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

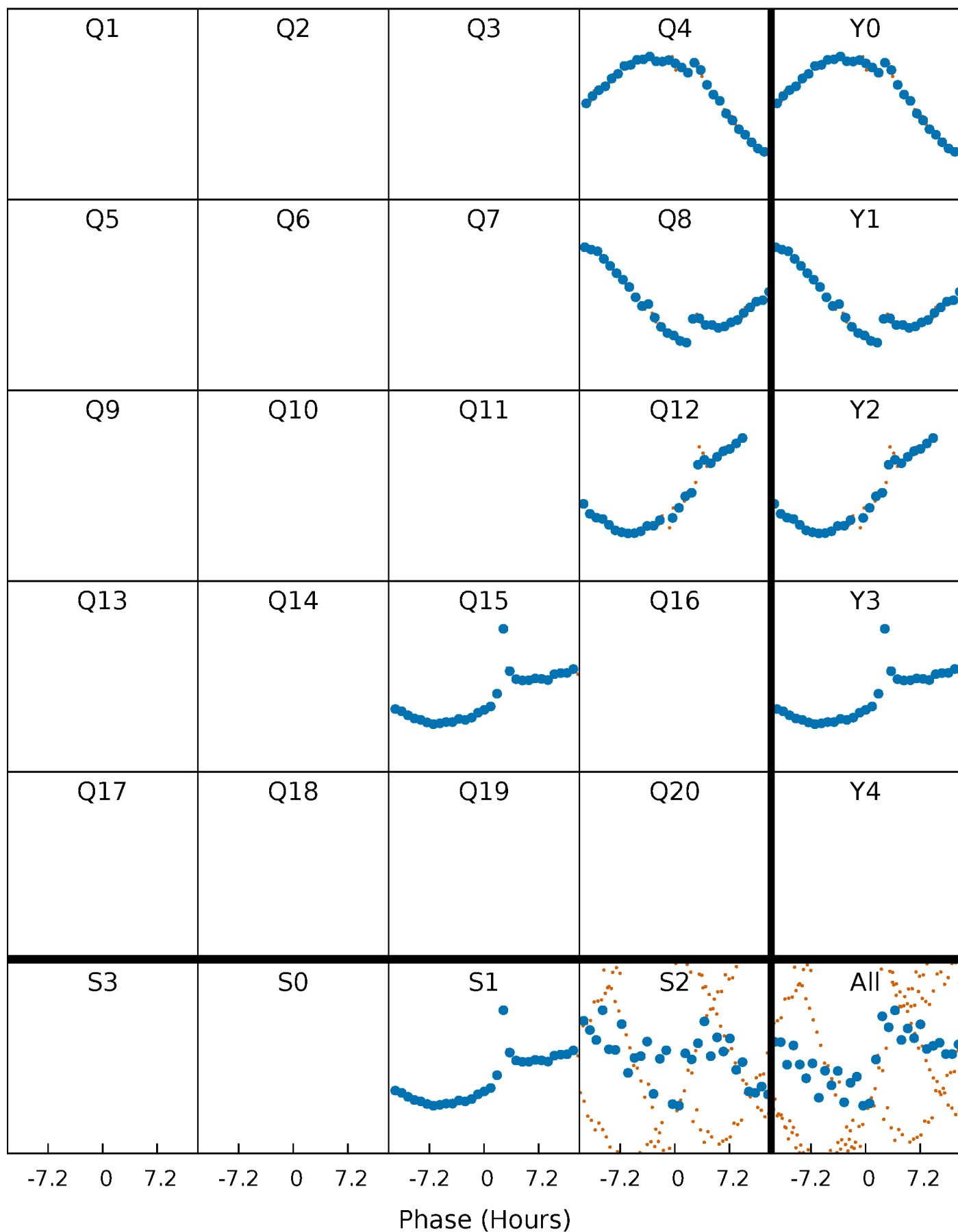


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



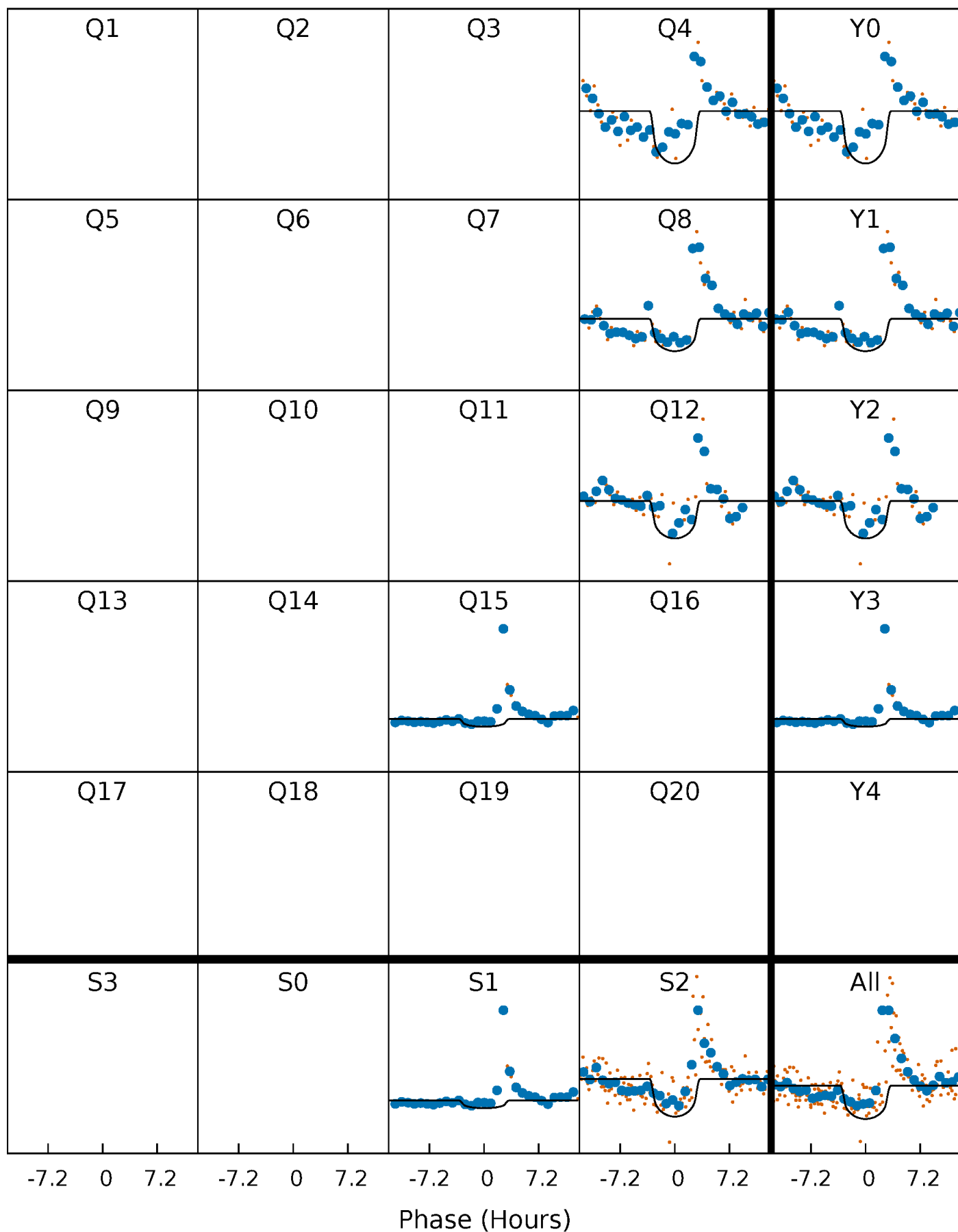
PDC Quarter-Phased Transit Curves

TCE 011873091-01 P=341.657112 Days $T_0=433.001761$ (BKJD)



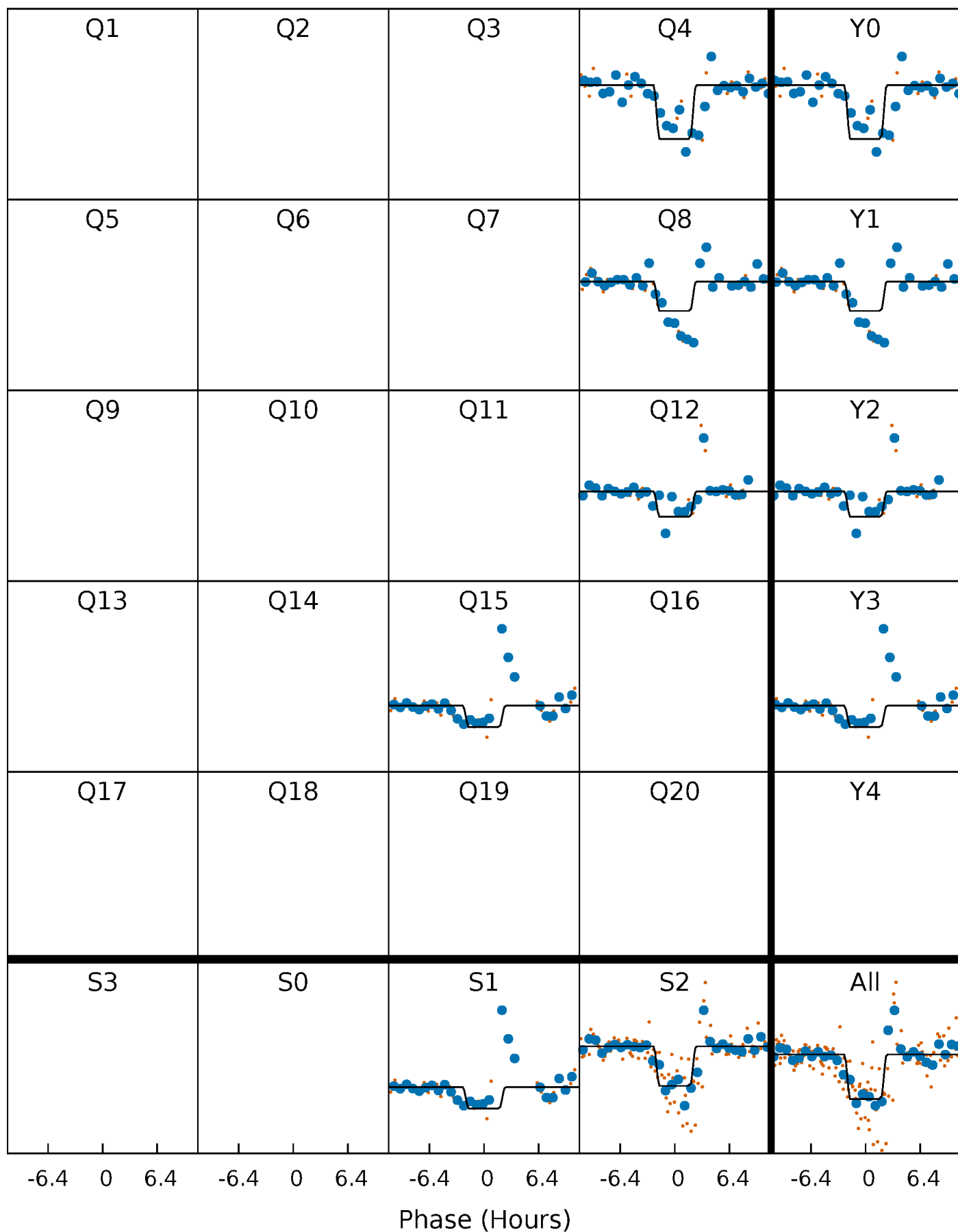
DV Quarter-Phased Transit Curves

TCE 011873091-01 $P=341.657112$ Days $T_0=433.001761$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

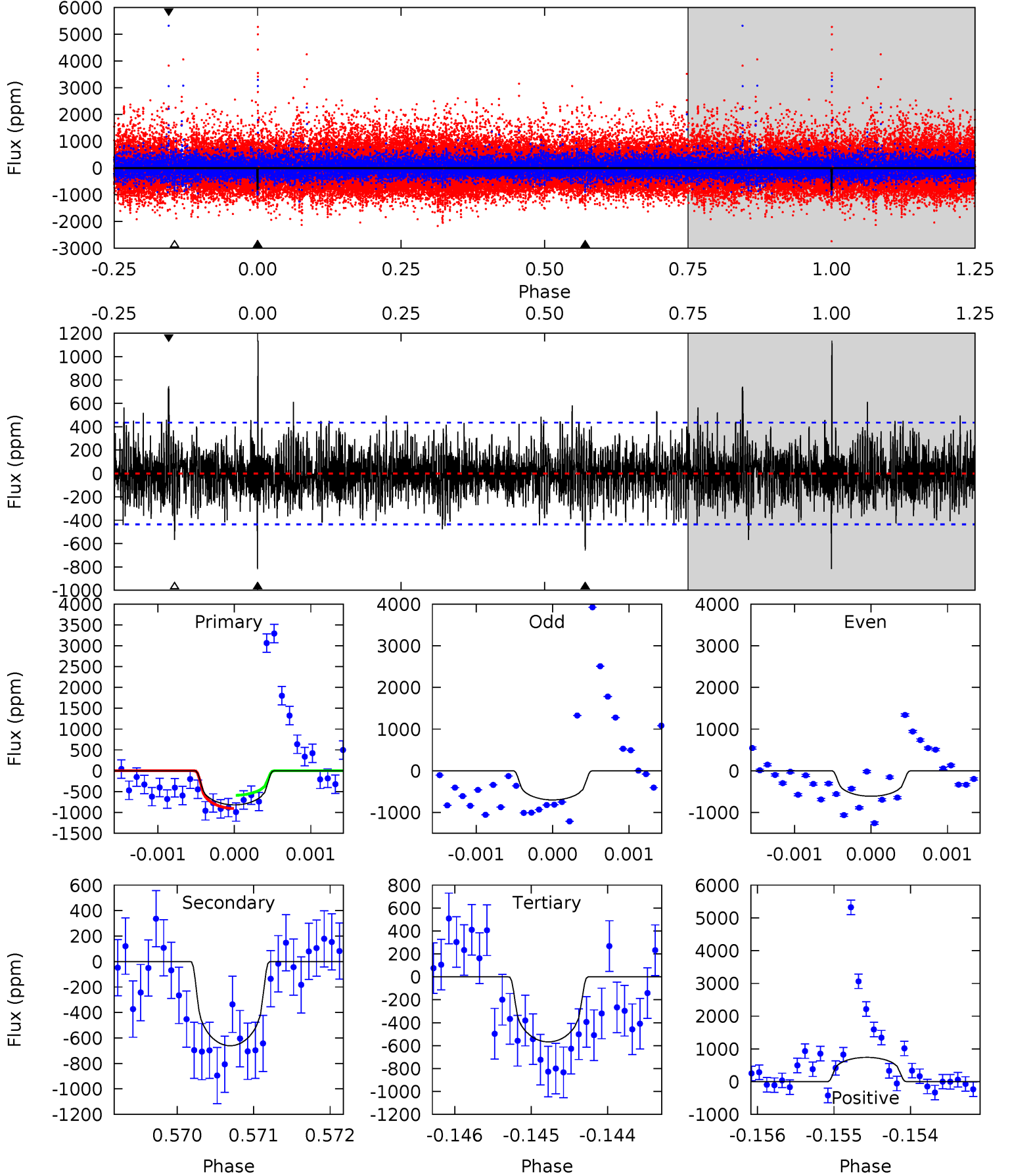
TCE 011873091-01 P=341.683179 Days $T_0=432.955635$ (BKJD)



DV Model-Shift Uniqueness Test

011873091-01, P = 341.657112 Days, E = 91.344649 Days

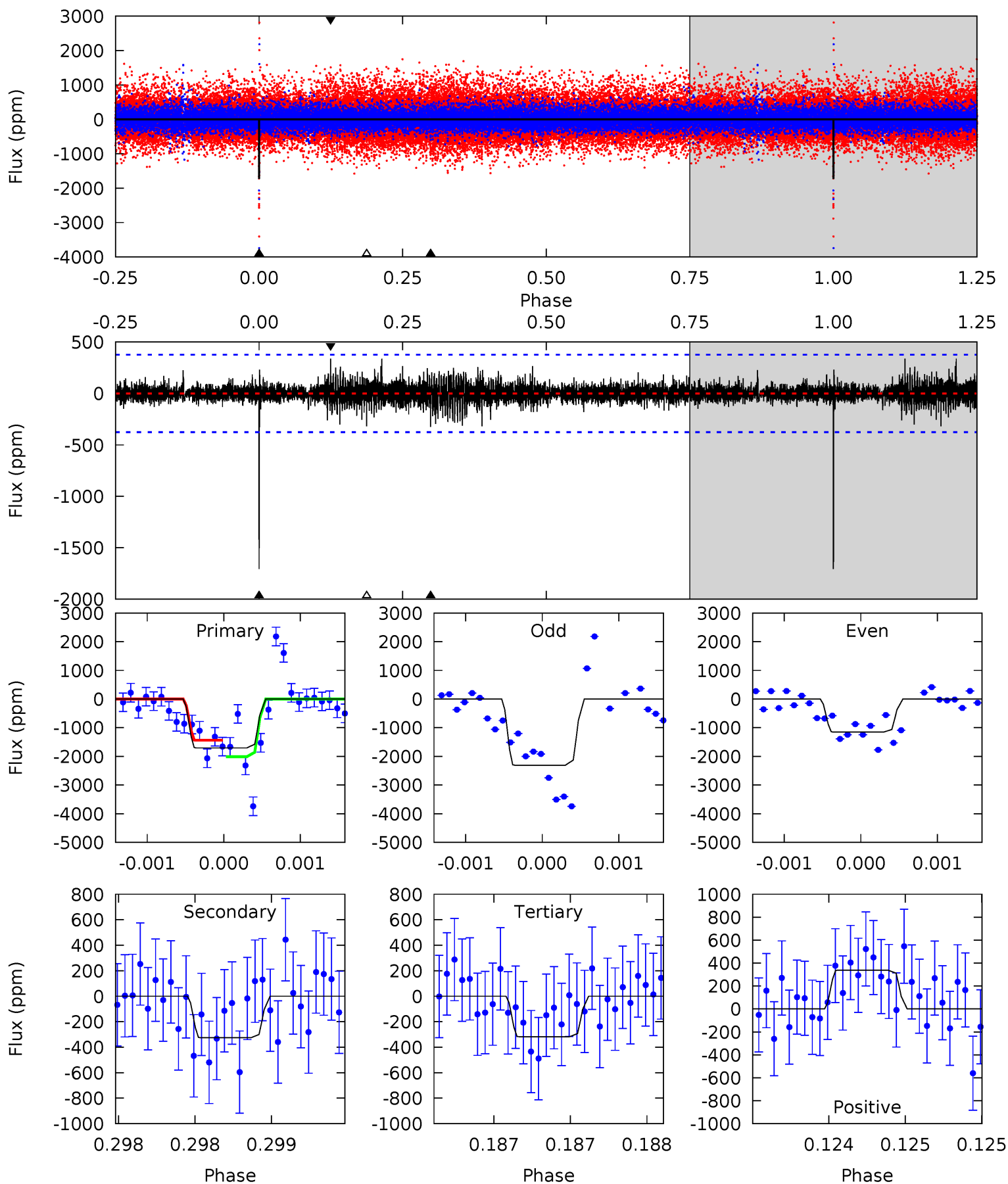
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	8.33	7.15	9.33	5.49	3.35	1.97	3.17	0.98	1.18	-1.01	0.53	0.37	0.58	1.96



Alt Model-Shift Uniqueness Test

011873091-01, $P = 341.683179$ Days, $E = 91.272456$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.1	4.79	4.68	4.97	5.55	3.44	0.94	20.4	20.2	0.11	-0.18	8.76	1.26	0.17	4.02



Stellar Parameters For KIC 011873091

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4308^{+129}_{-129}	$4.613^{+0.049}_{-0.021}$	$0.040^{+0.250}_{-0.300}$	$0.664^{+0.036}_{-0.055}$	$0.660^{+0.057}_{-0.057}$	$3.173^{+0.674}_{-0.291}$
	+3%/-3%	+1%/-0%	+625%/-750%	+5%/-8%	+9%/-9%	+21%/-9%
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 011873091-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-661 ± 79	$2.91^{+1.53}_{-1.48}$	236^{+8}_{-8}	3676^{+1059}_{-479}	30233^{+91954}_{-17681}
Alt.	-325 ± 68	$2.94^{+1.45}_{-1.40}$	235^{+9}_{-8}	3277^{+772}_{-402}	14551^{+36526}_{-8462}

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

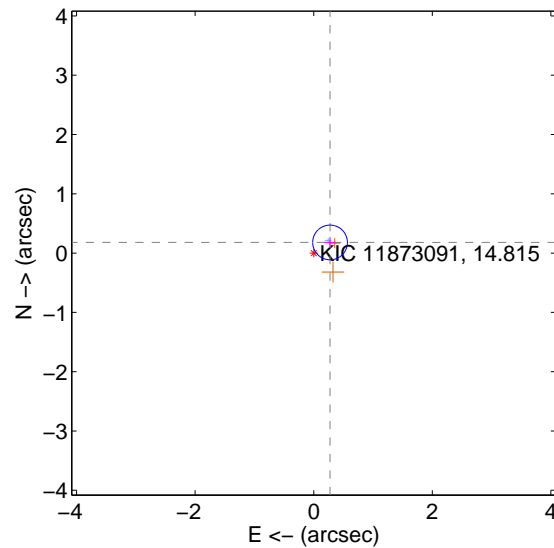
Supplemental centroid analysis for 011873091-01. Kepler magnitude: 14.81. Transit SNR 9.66

There are 1 quarters with good PRF difference image offsets

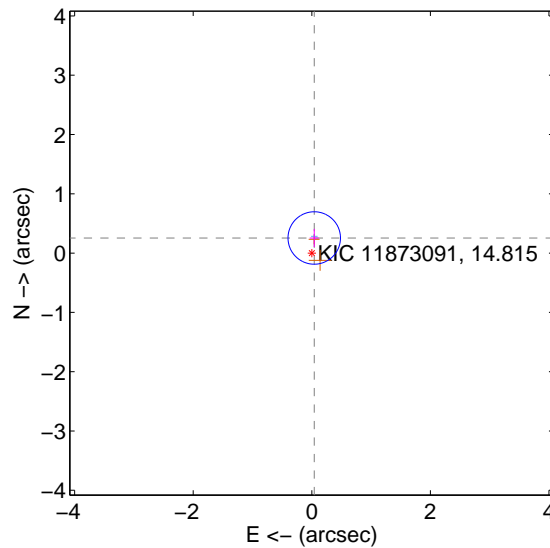
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.329 \pm 0.098	3.37	-0.275 \pm 0.099	0.180 \pm 0.094
PRF-fit source offset from KIC position	0.258 \pm 0.147	1.75	-0.041 \pm 0.076	0.255 \pm 0.154
photometric centroid source offset	1.30 \pm 0.70	1.85	0.95 \pm 0.65	0.88 \pm 0.76

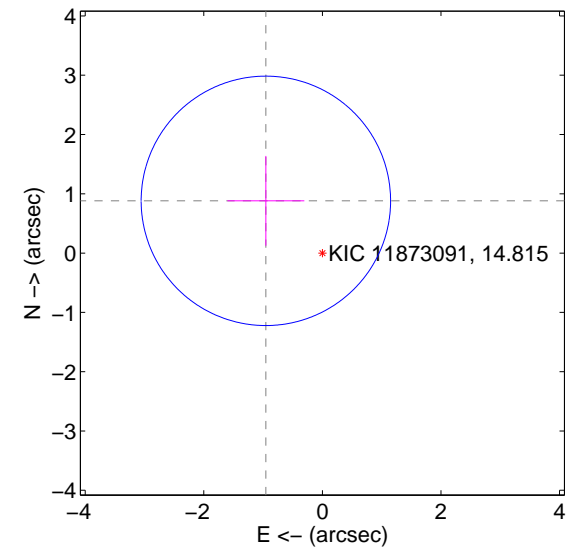
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

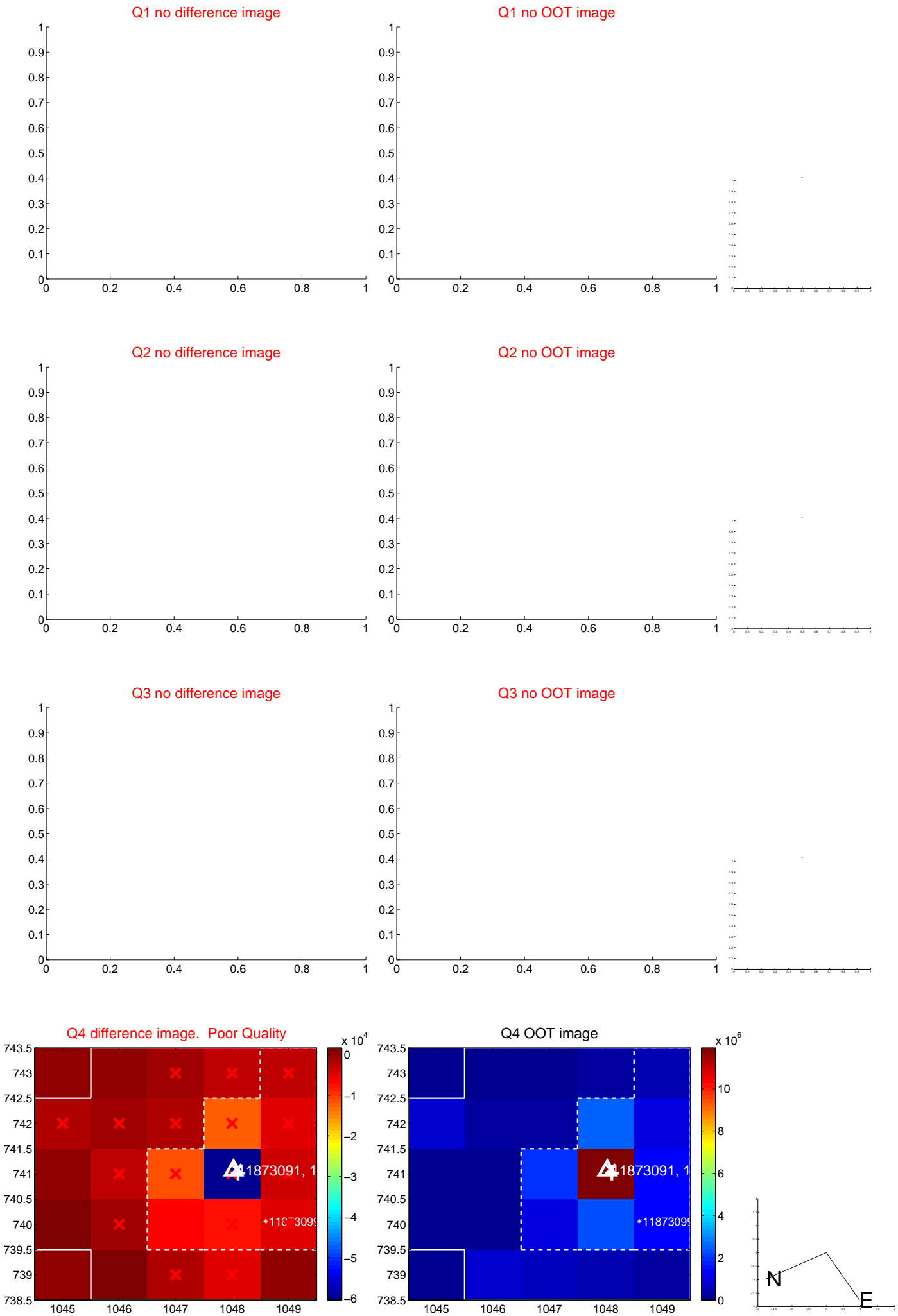


offset from photometric centroids

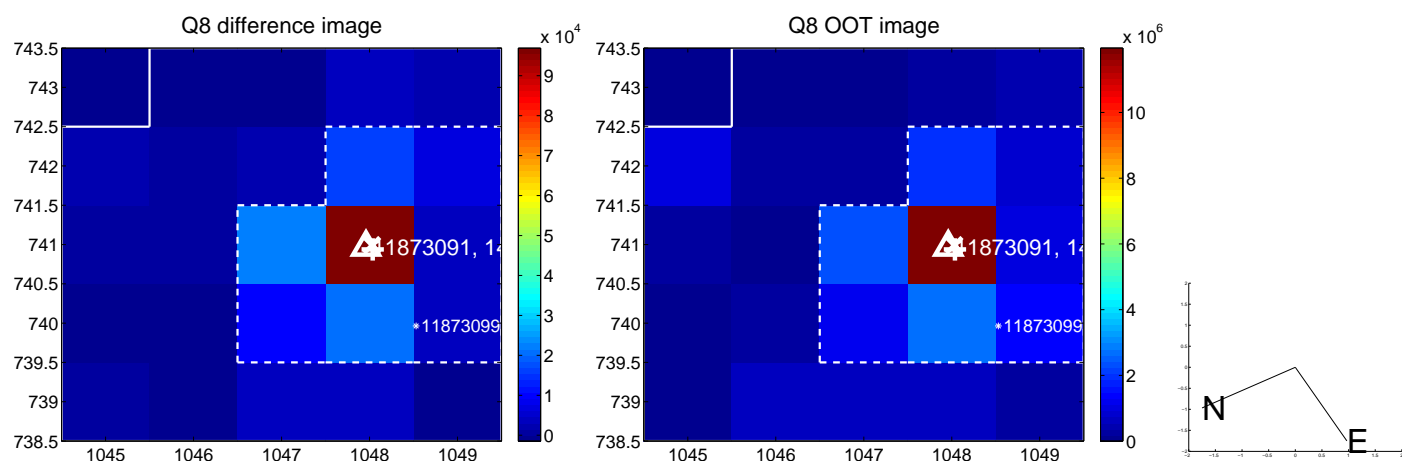
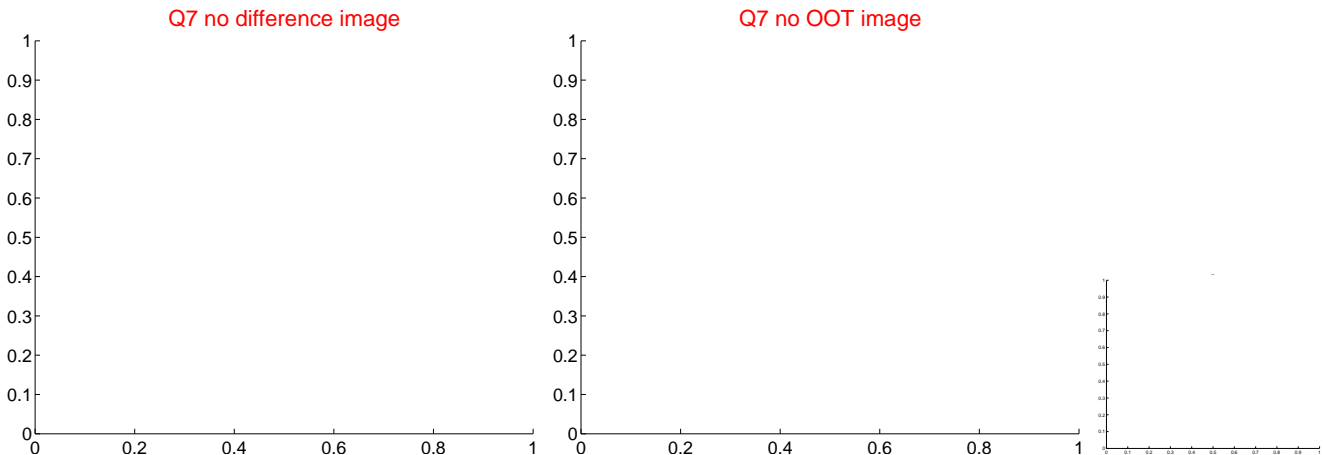
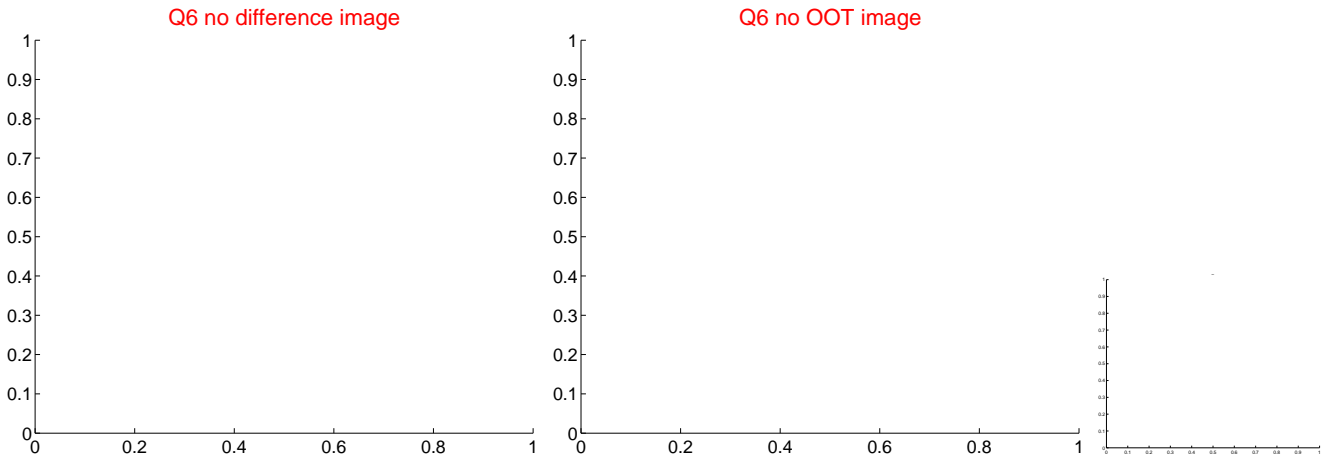
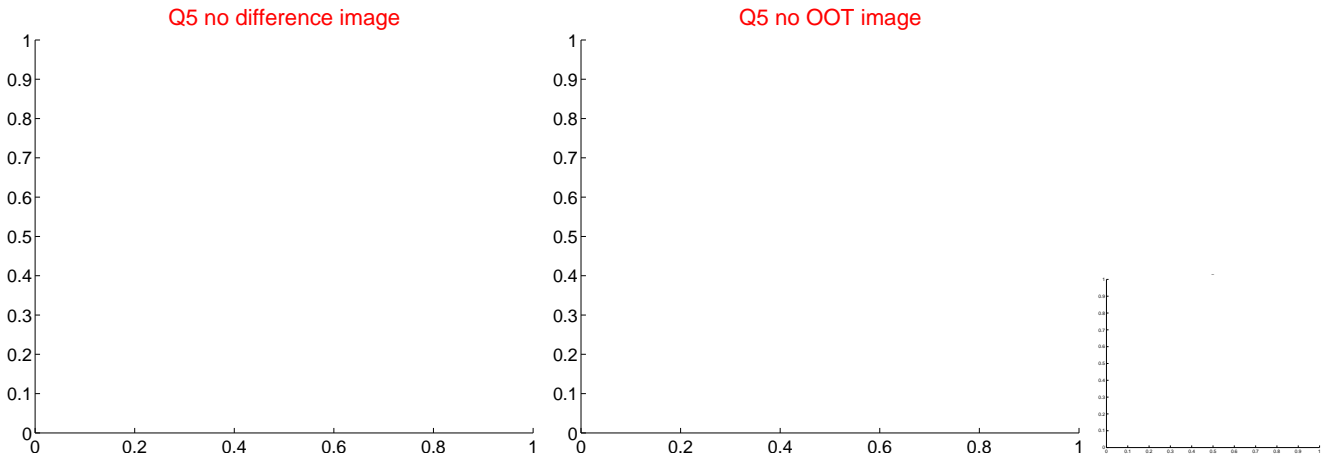


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



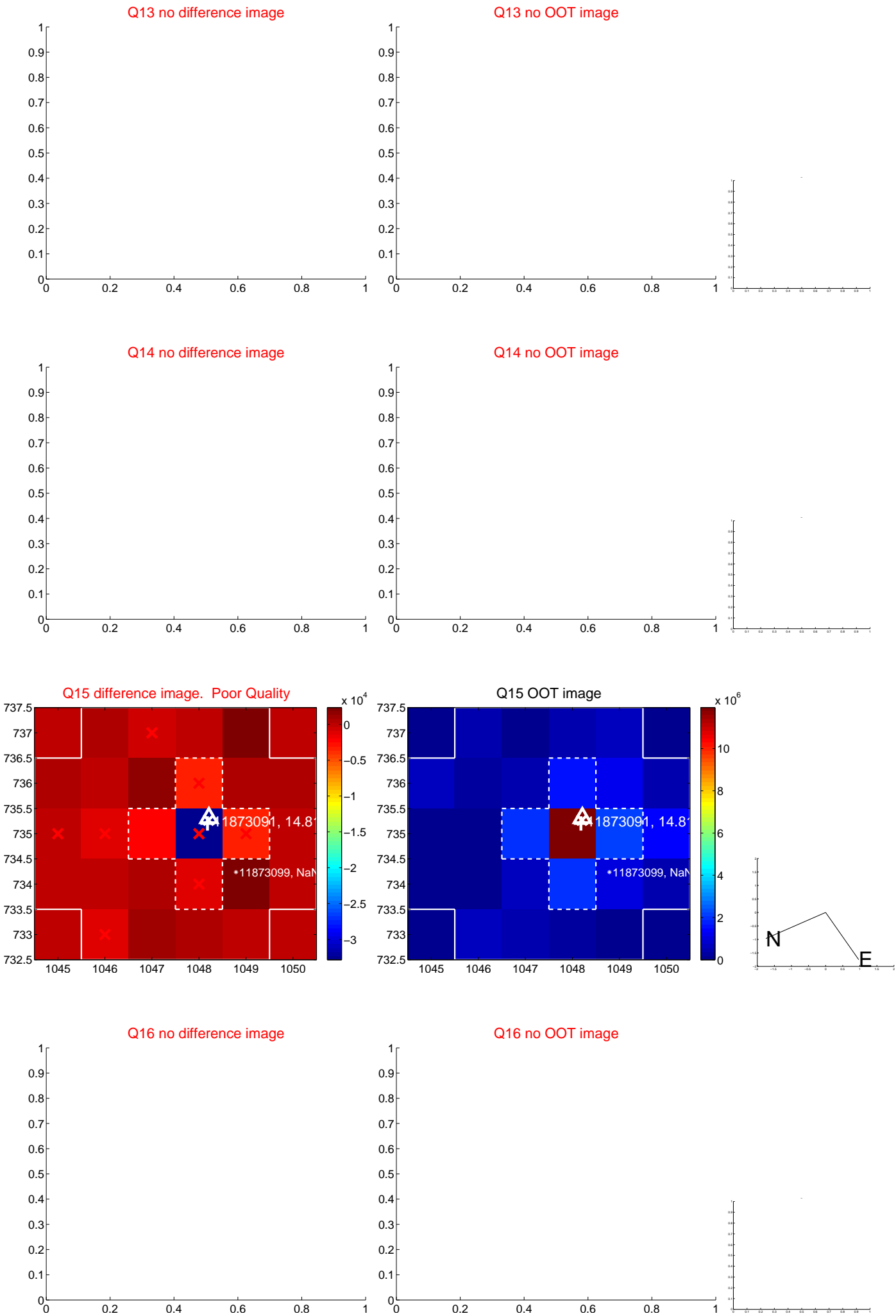
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



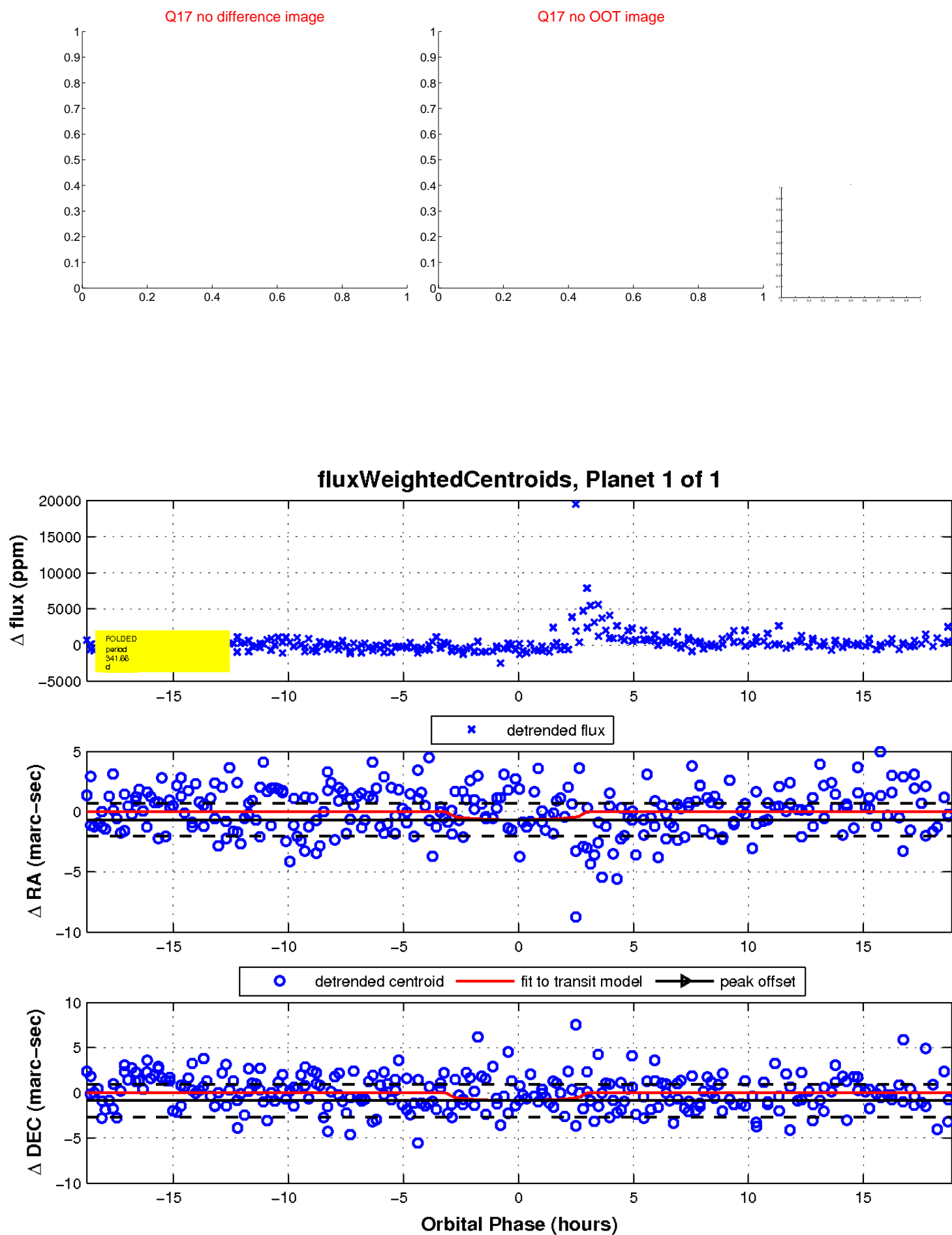
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

