

KIC 011658934

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})
011658934-01	OBS	No	366.017886	412.457955	1272.2	4.588	12.4	7.3	0.56	4445	2.00	0.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011658934-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_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.

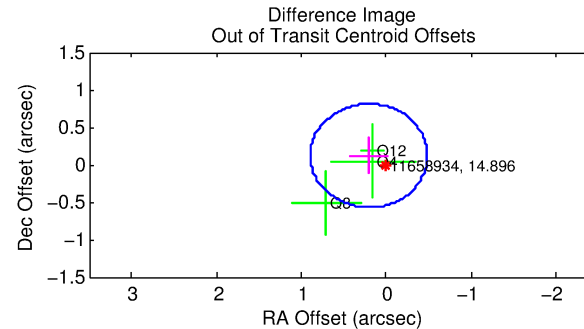
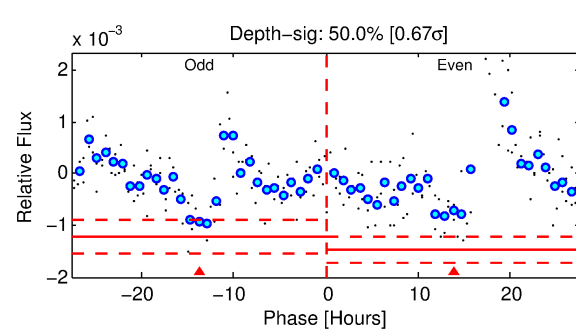
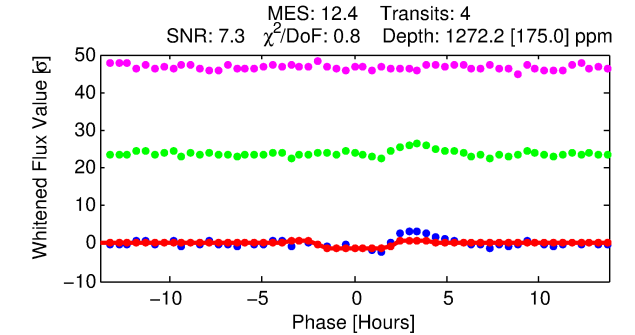
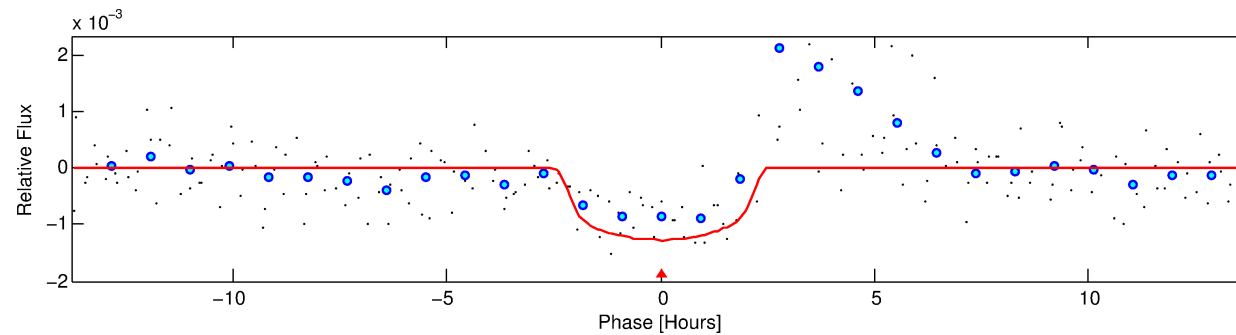
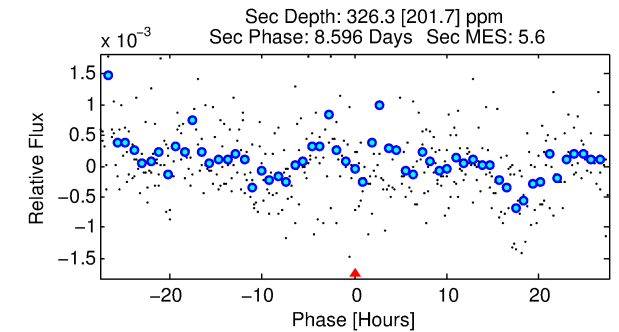
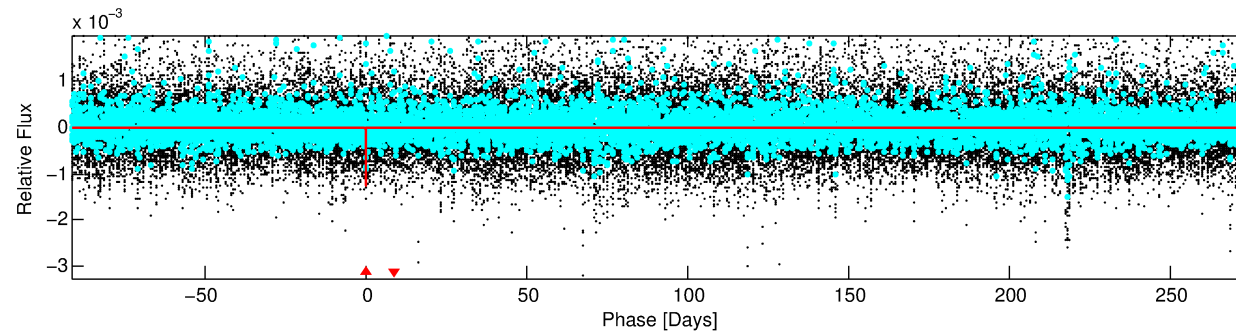
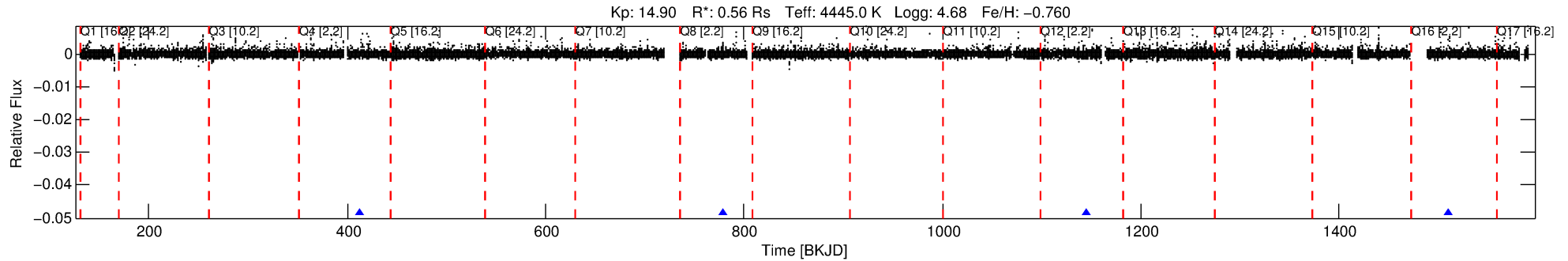
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011658934-01

No Significant Match Found

DV One-Page Summary

KIC: 11658934 Candidate: 1 of 1 Period: 366.018 d



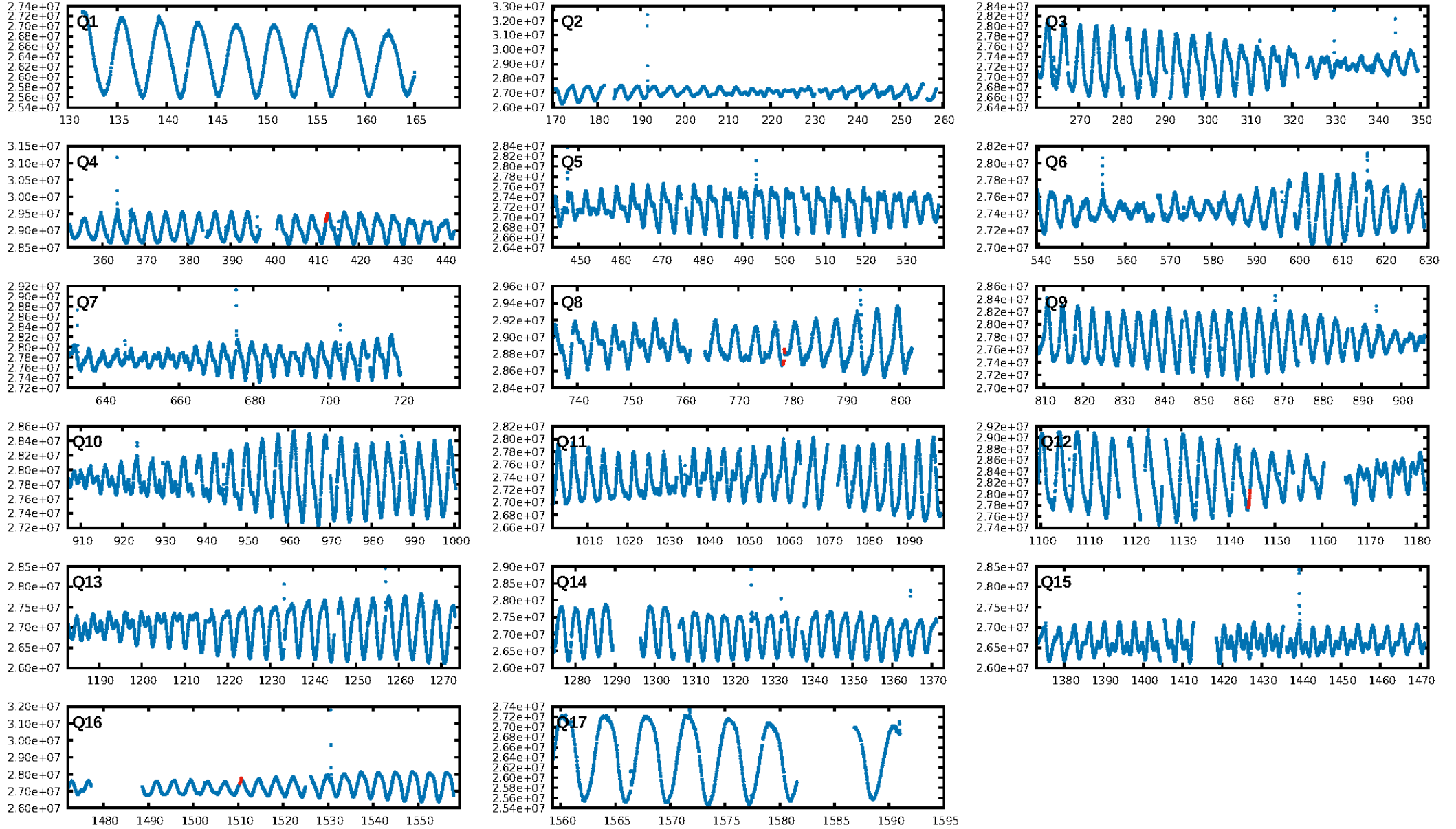
DV Fit Results:

Period = 366.01789 [0.00358] d
Epoch = 412.4580 [0.0067] BKJD
Rp/R* = 0.0328 [0.0362]
a/R* = 563.43 [2132.65]
b = 0.46 [6.58]
Seff = 0.16 [0.03]
Teq = 162 [6] K
Rp = 2.00 [2.22] Re
a = 0.8206 [0.0556] AU
Ag = 30125.99 [69243.62] [0.44σ]
Teffp = 3300 [1897] K [1.65σ]

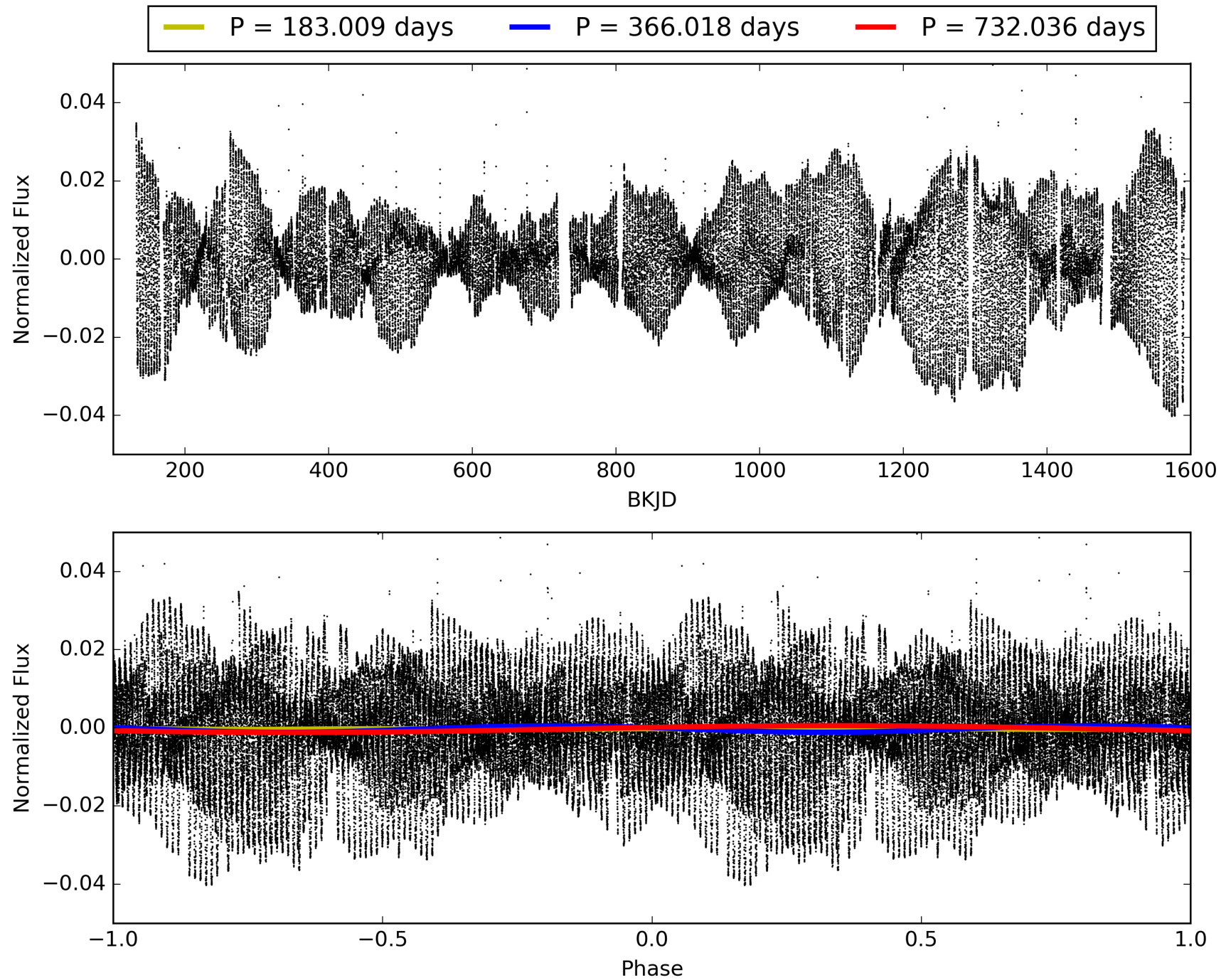
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 65.4%
ModelChiSquareGof-sig: 99.6%
Bootstrap-pfa: 3.50e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -4.05
Centroid-sig: 2.5%
Centroid-so: 1.720 arcsec [1.86σ]
OotOffset-rm: 0.235 arcsec [1.02σ]
KicOffset-rm: 0.377 arcsec [1.65σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [4/4]

TCE 011658934-01, PDC Light Curves

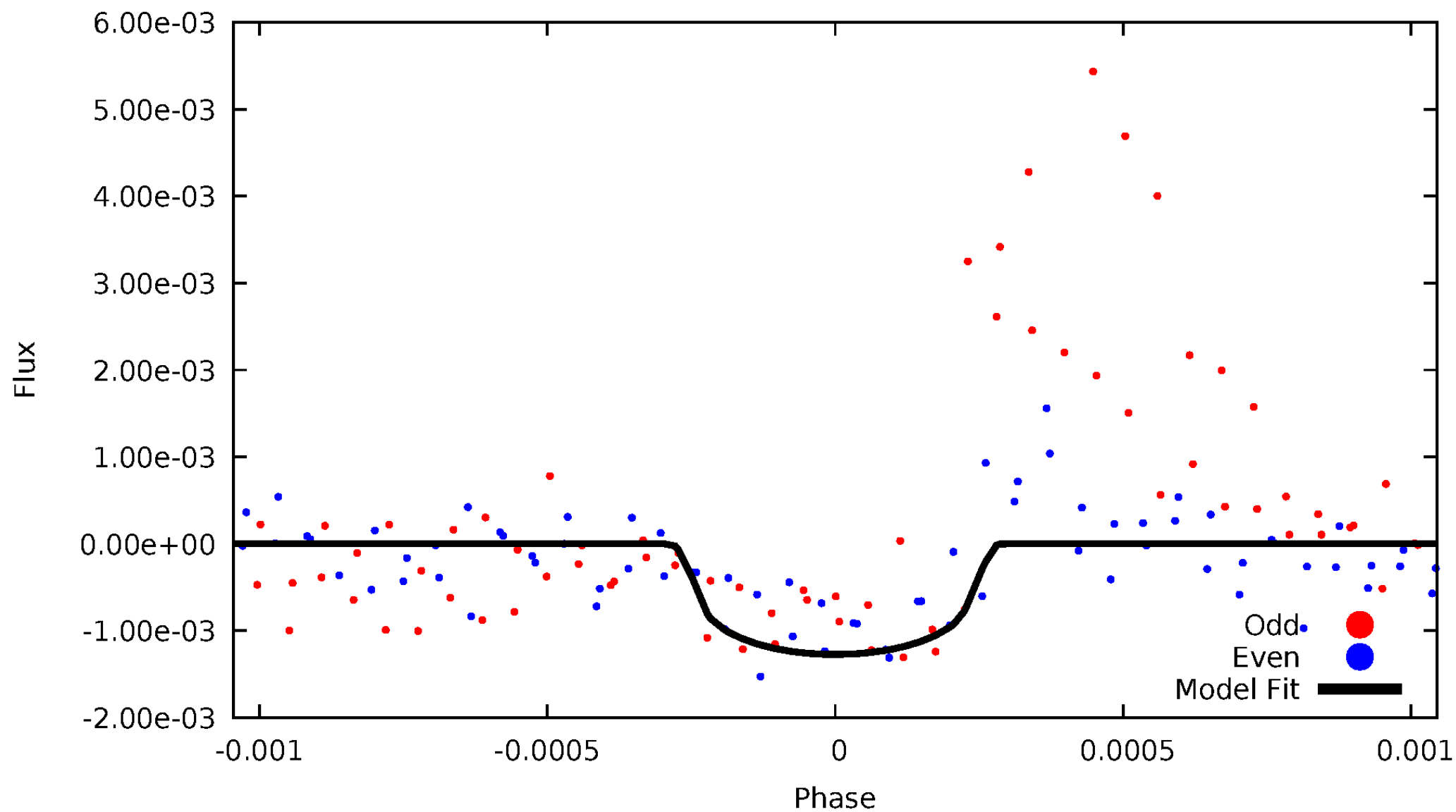


TCE 011658934-01



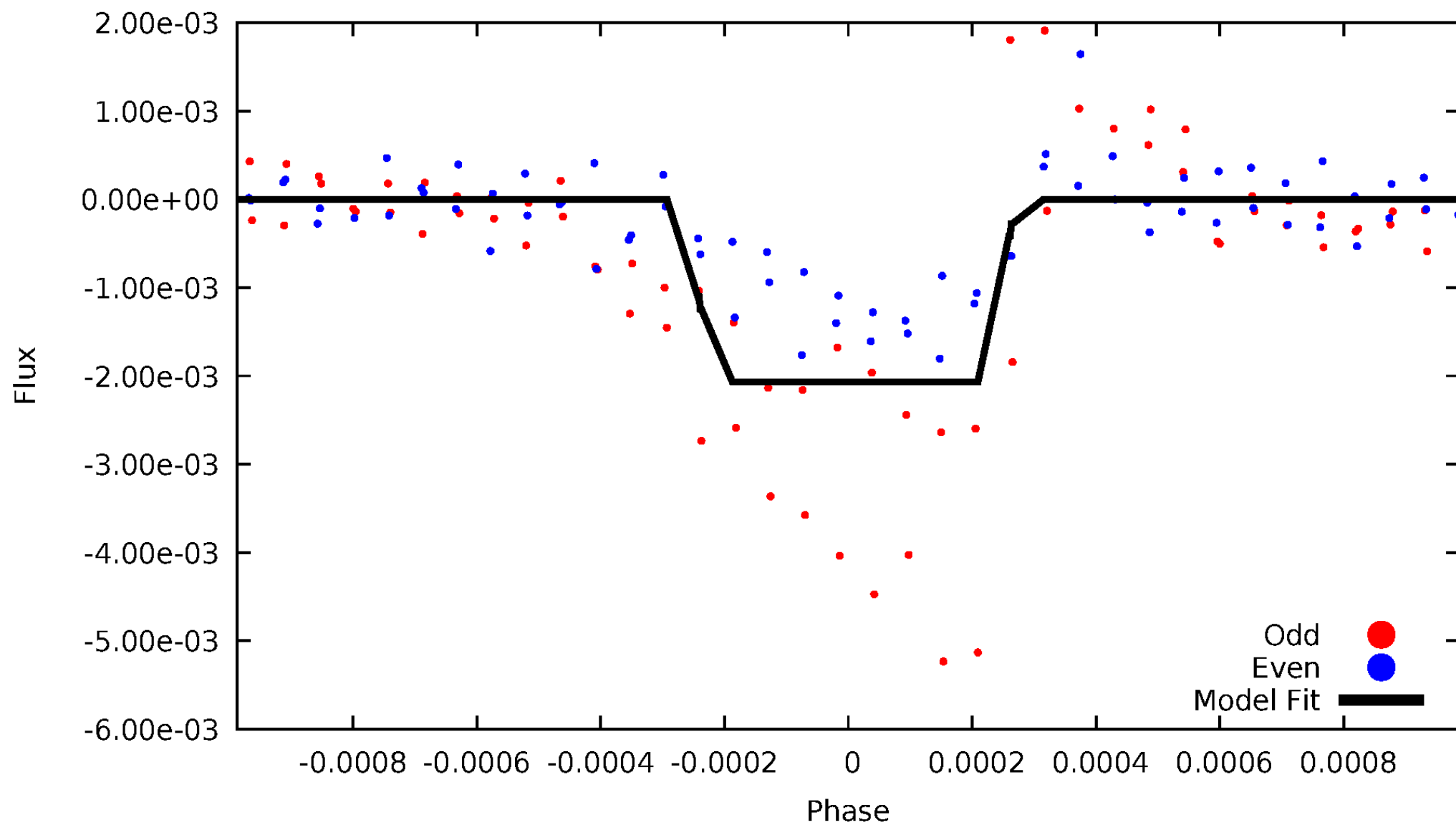
DV Odd/Even

TCE 011658934-01



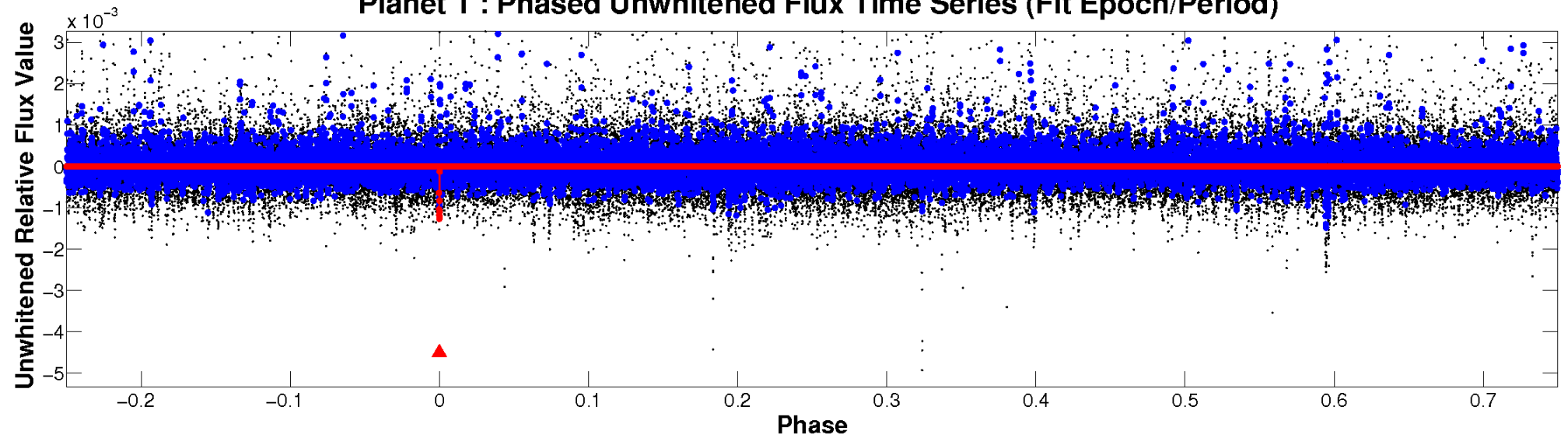
ALT Odd/Even

TCE 011658934-01

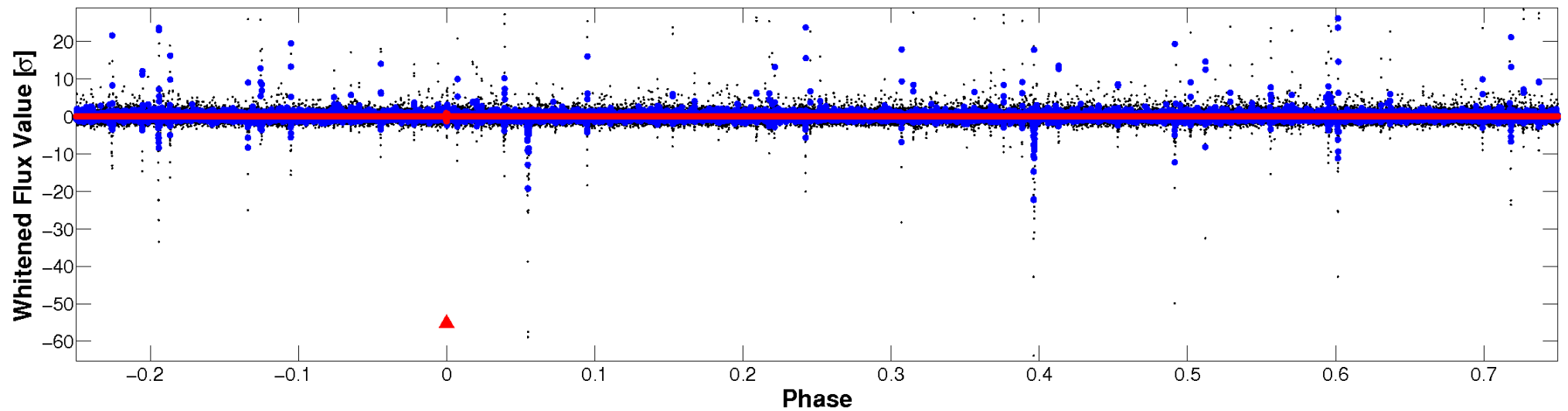


Non-Whitened Vs. Whitened Light Curve

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

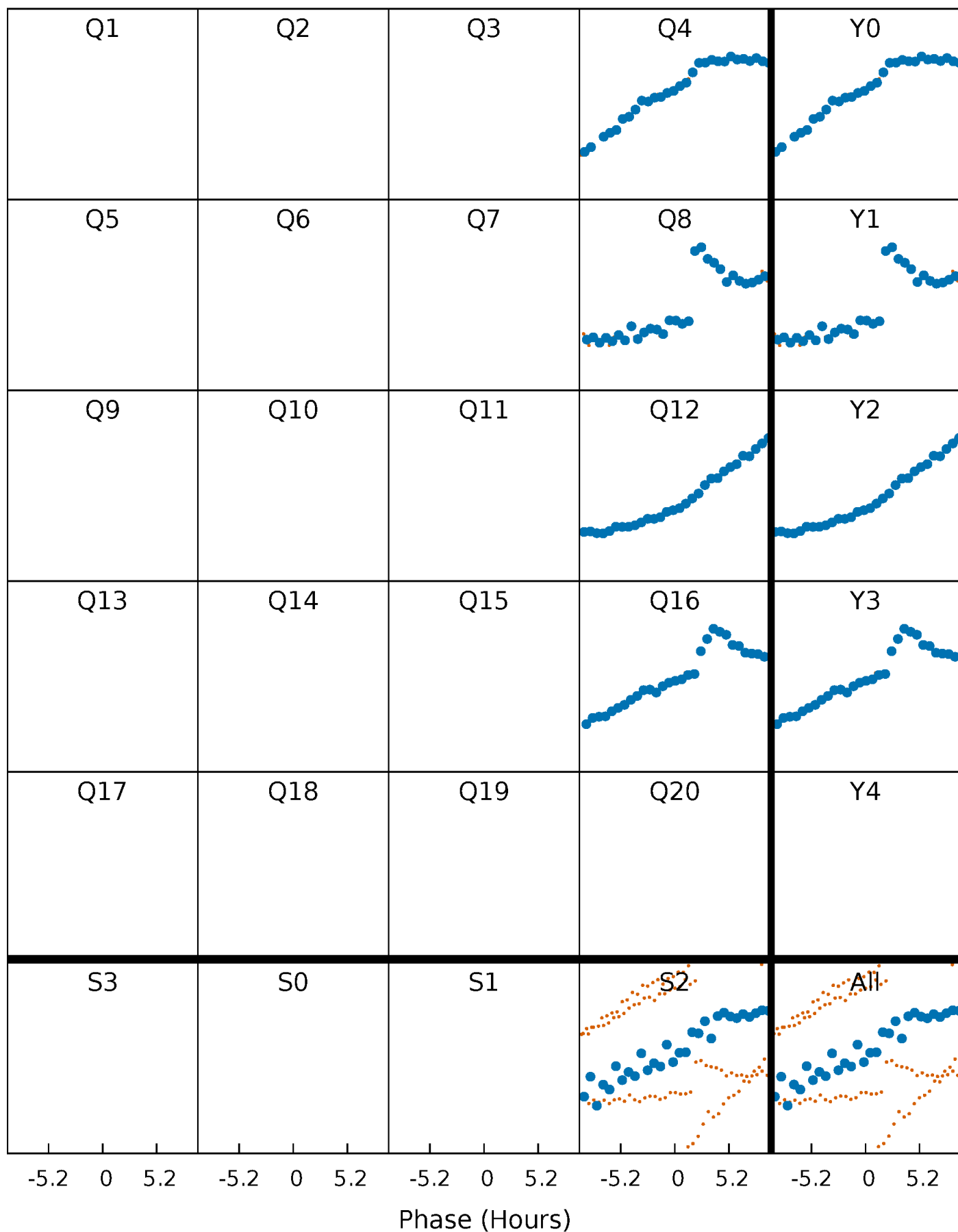


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



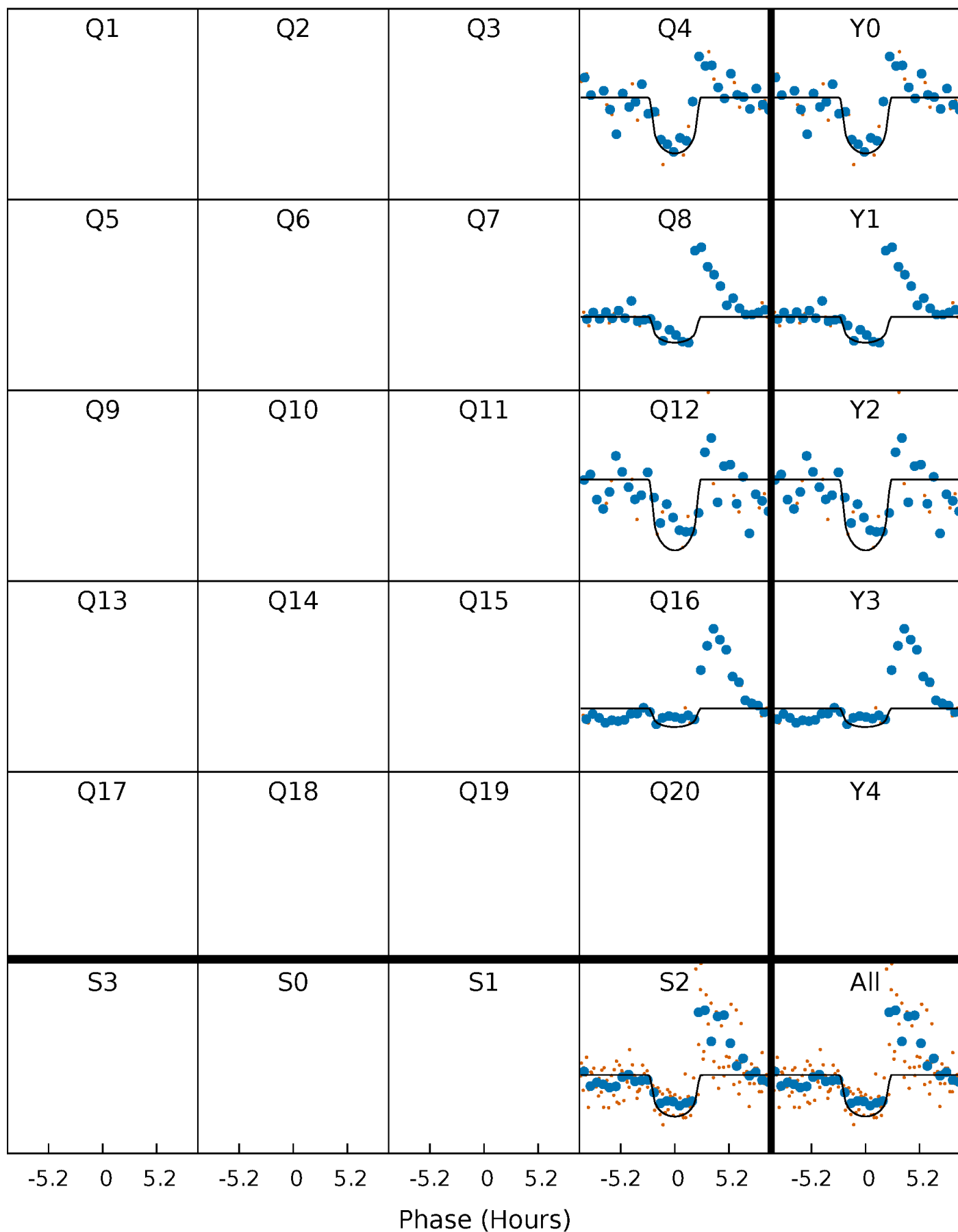
PDC Quarter-Phased Transit Curves

TCE 011658934-01 P=366.017886 Days $T_0=412.457955$ (BKJD)



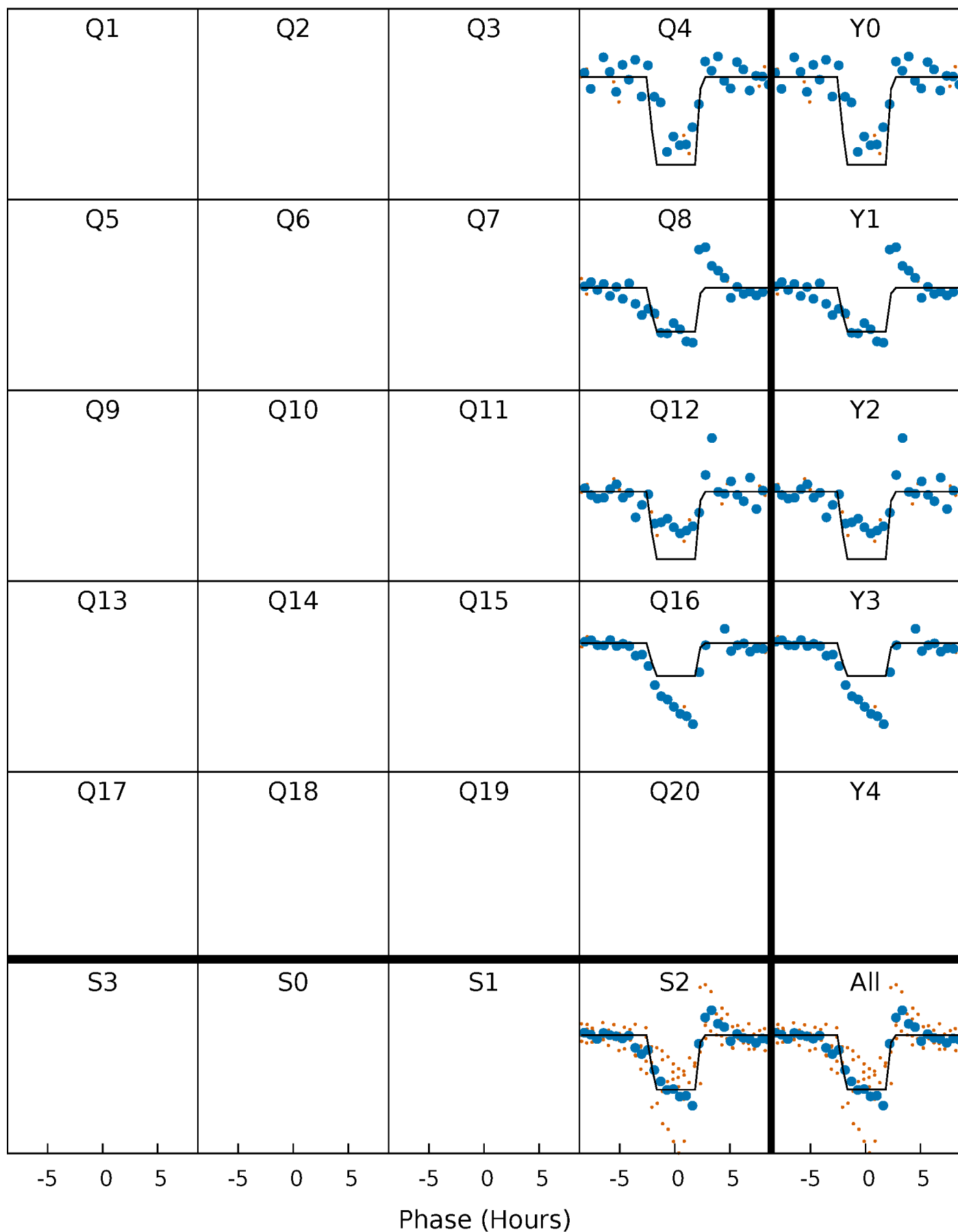
DV Quarter-Phased Transit Curves

TCE 011658934-01 P=366.017886 Days $T_0=412.457955$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

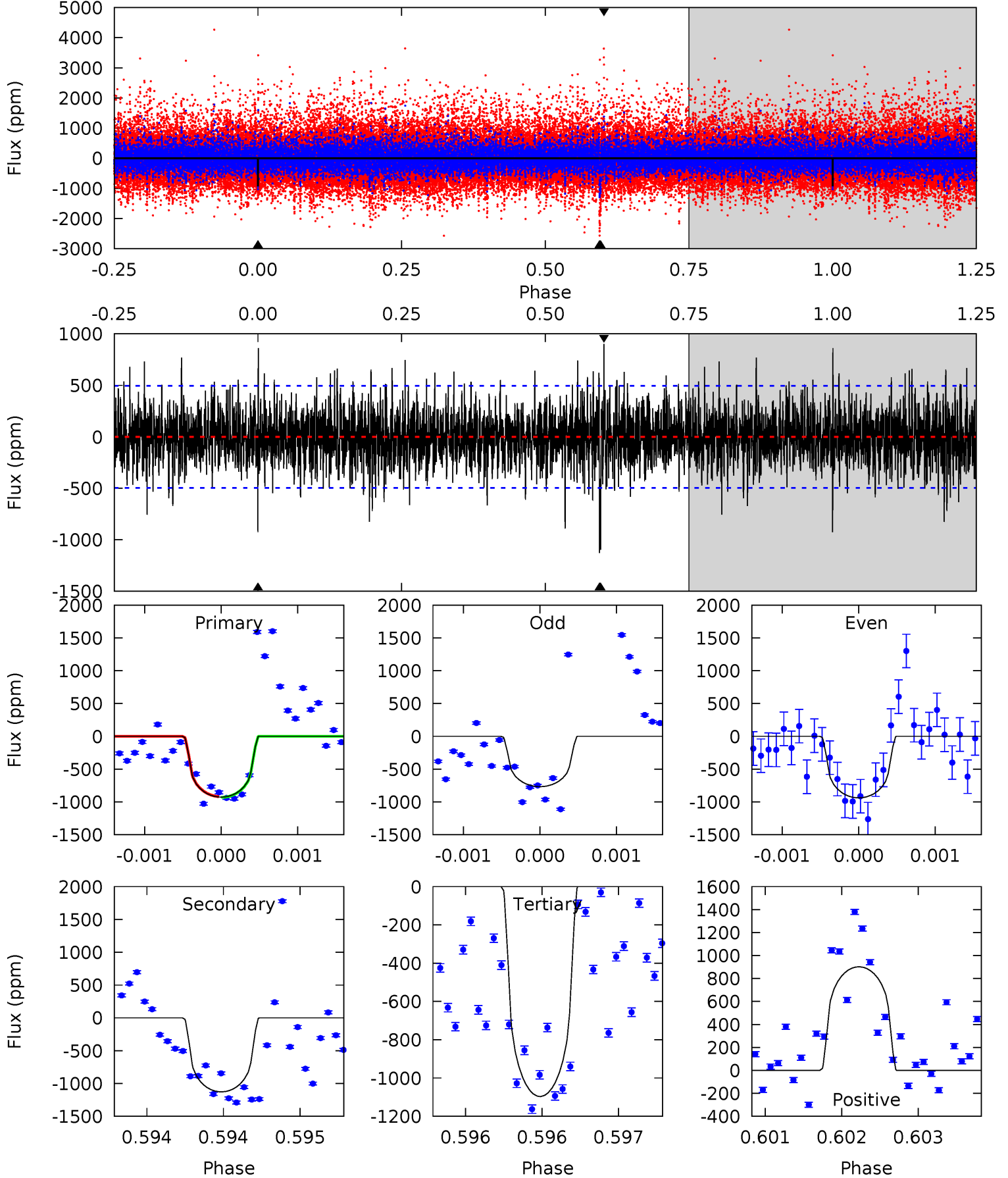
TCE 011658934-01 P=366.026360 Days $T_0=412.438121$ (BKJD)



DV Model-Shift Uniqueness Test

011658934-01, P = 366.017886 Days, E = 46.440069 Days

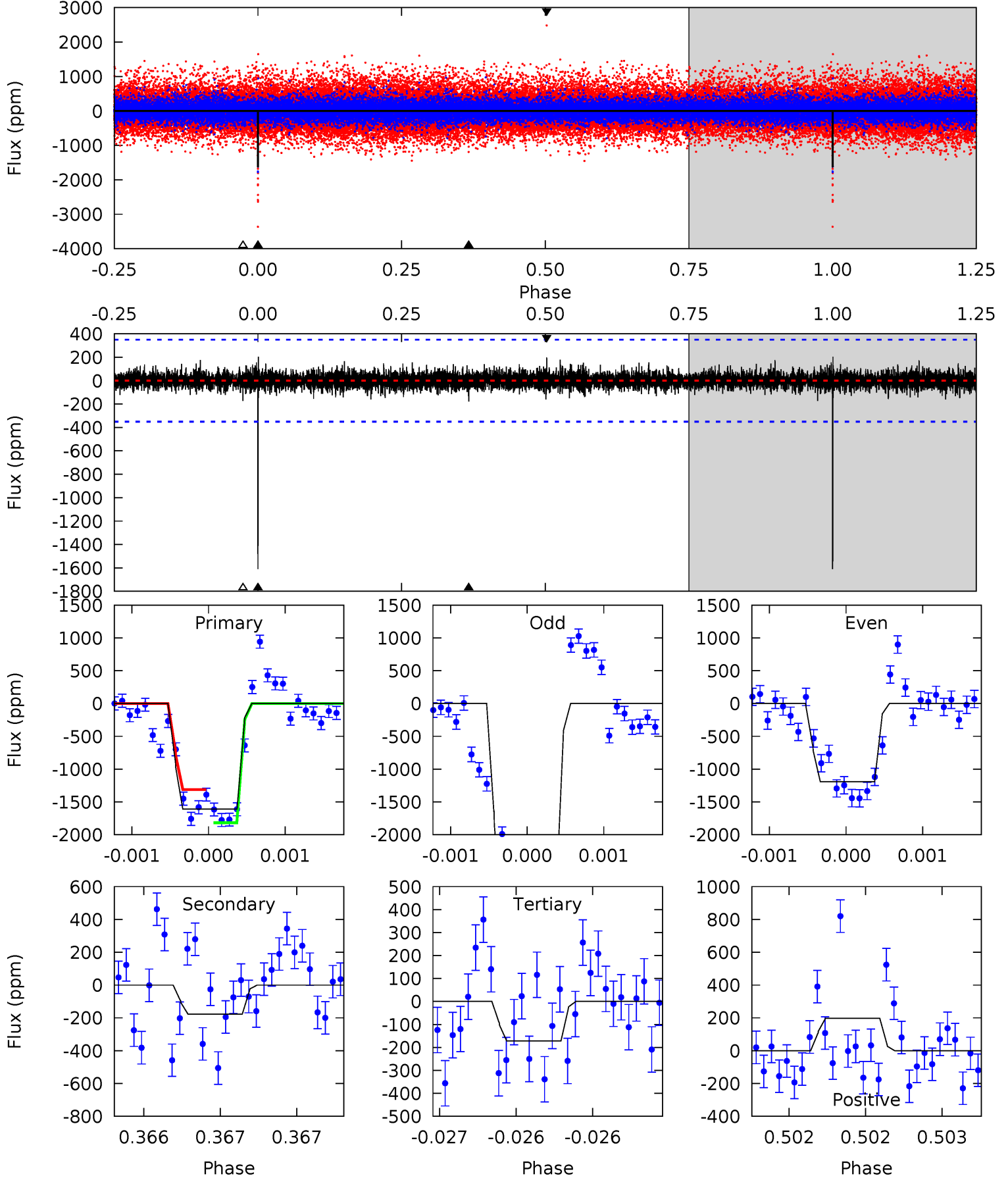
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	12.6	12.3	10.1	5.55	3.44	2.31	-1.90	0.28	0.34	2.52	0.86	1.00	0.44	0.06



Alt Model-Shift Uniqueness Test

011658934-01, P = 366.026360 Days, E = 46.411761 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.5	2.81	2.73	3.14	5.55	3.45	0.62	22.8	22.4	0.09	-0.32	16.1	1.28	0.11	0



Stellar Parameters For KIC 011658934

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4445^{+133}_{-133}	$4.682^{+0.054}_{-0.031}$	$-0.760^{+0.300}_{-0.300}$	$0.560^{+0.045}_{-0.045}$	$0.550^{+0.054}_{-0.031}$	$4.414^{+1.022}_{-0.573}$
	+3%/-3%	+1%/-1%	+39%/-39%	+8%/-8%	+10%/-6%	+23%/-13%
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 011658934-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1127 ± 89	$2.58^{+1.90}_{-1.64}$	225^{+7}_{-8}	4053^{+2083}_{-675}	$62538^{+385525}_{-41332}$
Alt.	-177 ± 63	$3.10^{+2.21}_{-1.78}$	225^{+8}_{-7}	2873^{+867}_{-381}	6689^{+31432}_{-4522}

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

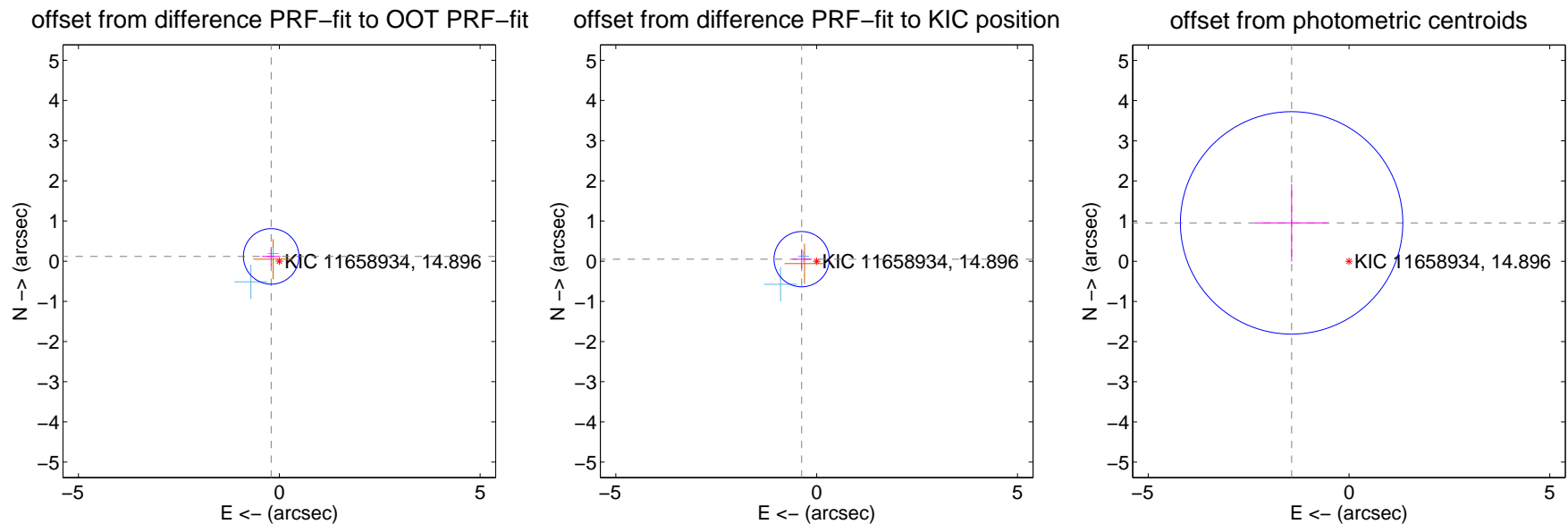
DV Centroid Data

Supplemental centroid analysis for 011658934-01. Kepler magnitude: 14.90. Transit SNR 7.26

There are 2 quarters with good PRF difference image offsets

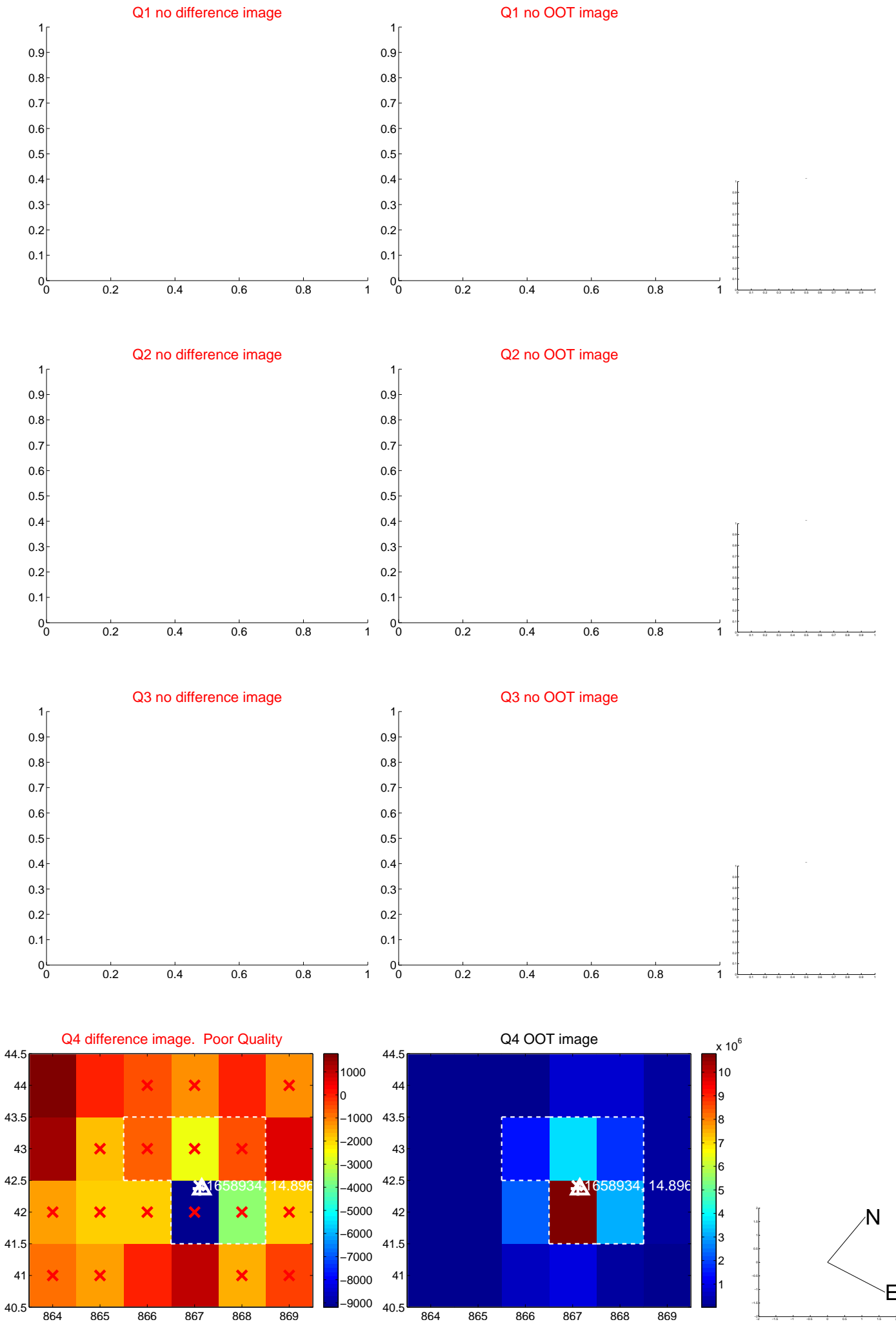
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.235 ± 0.230	1.02	0.203 ± 0.229	0.120 ± 0.234
PRF-fit source offset from KIC position	0.377 ± 0.229	1.65	0.374 ± 0.229	0.050 ± 0.234
photometric centroid source offset	1.72 ± 0.92	1.86	1.43 ± 0.90	0.96 ± 0.97

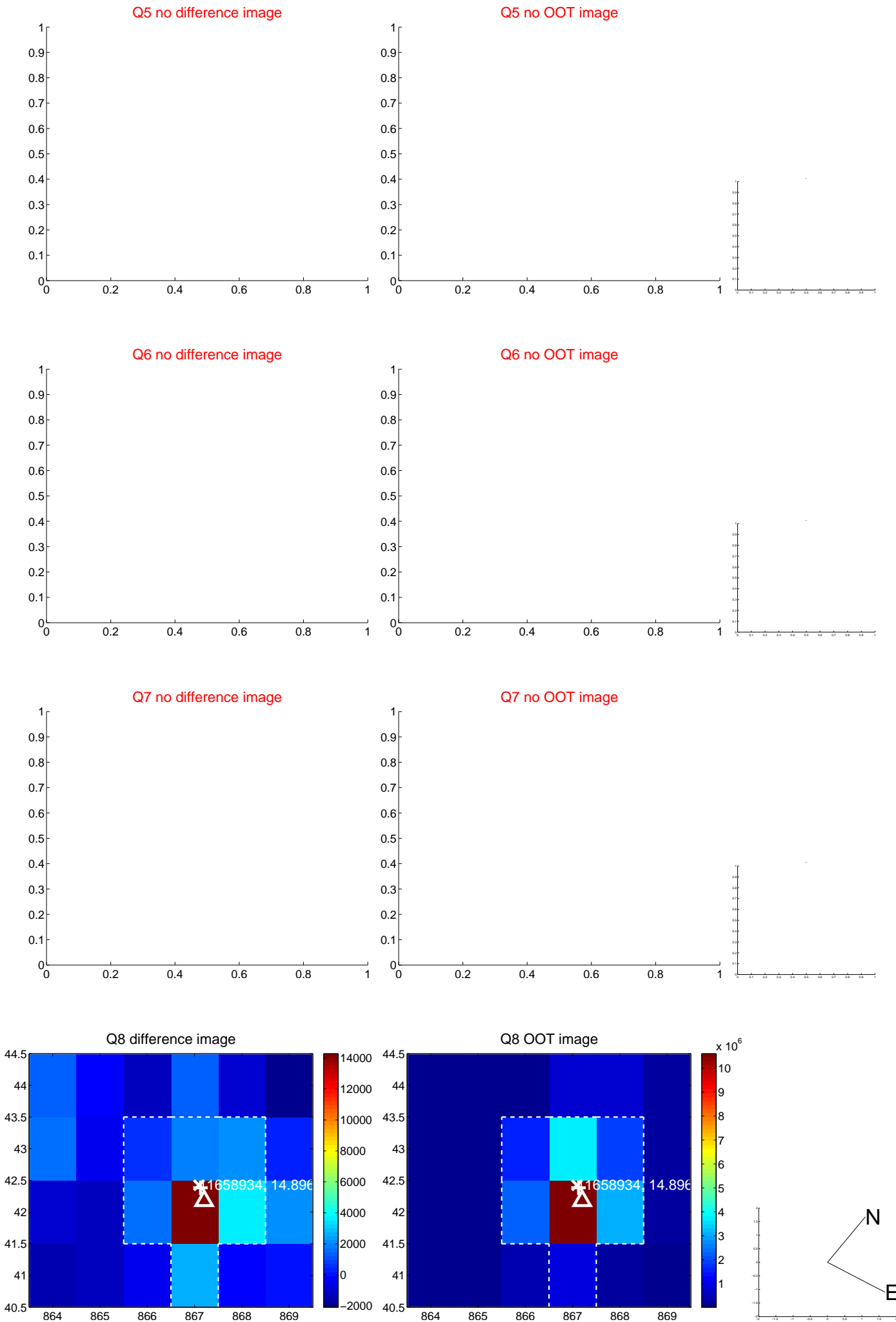


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

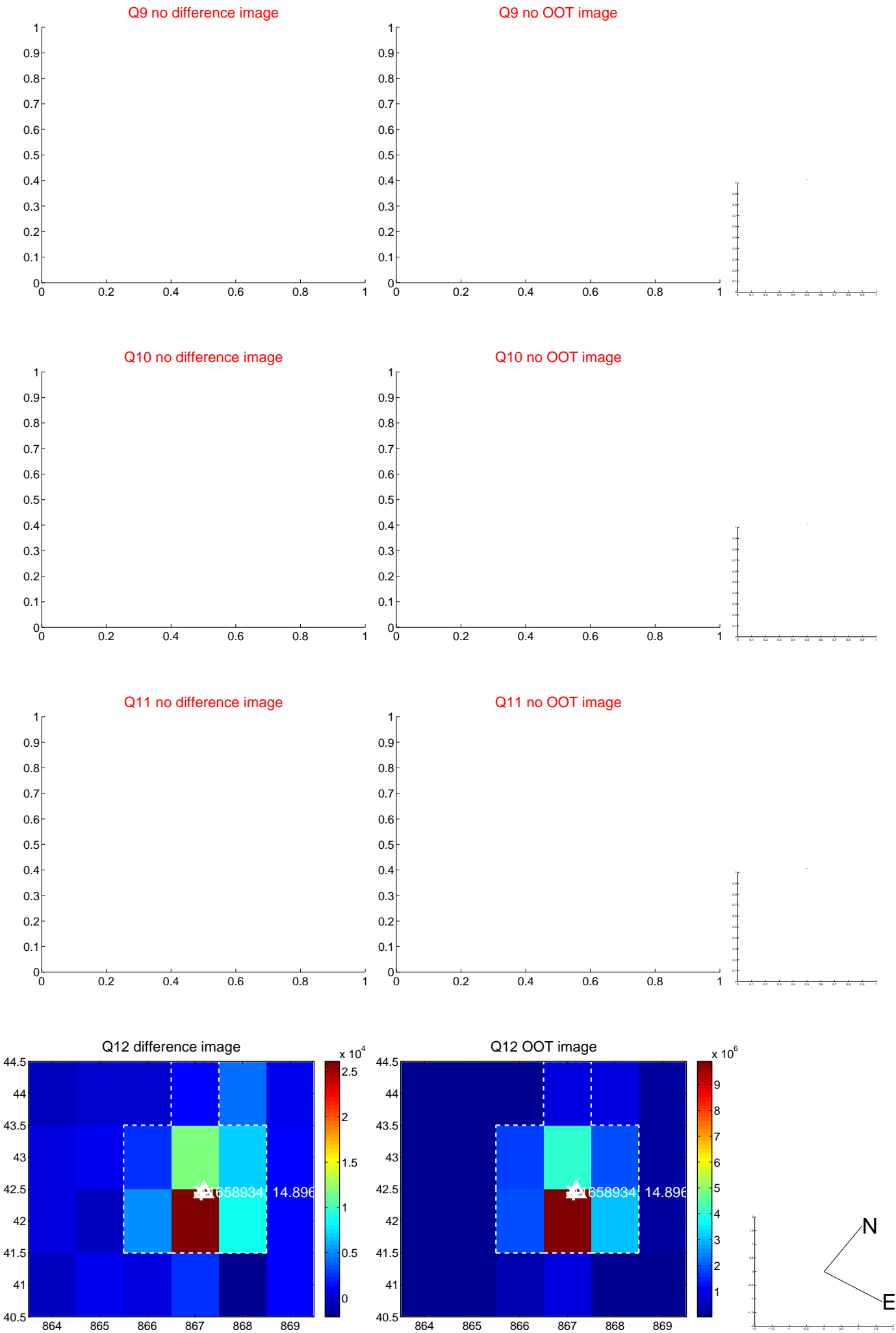
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



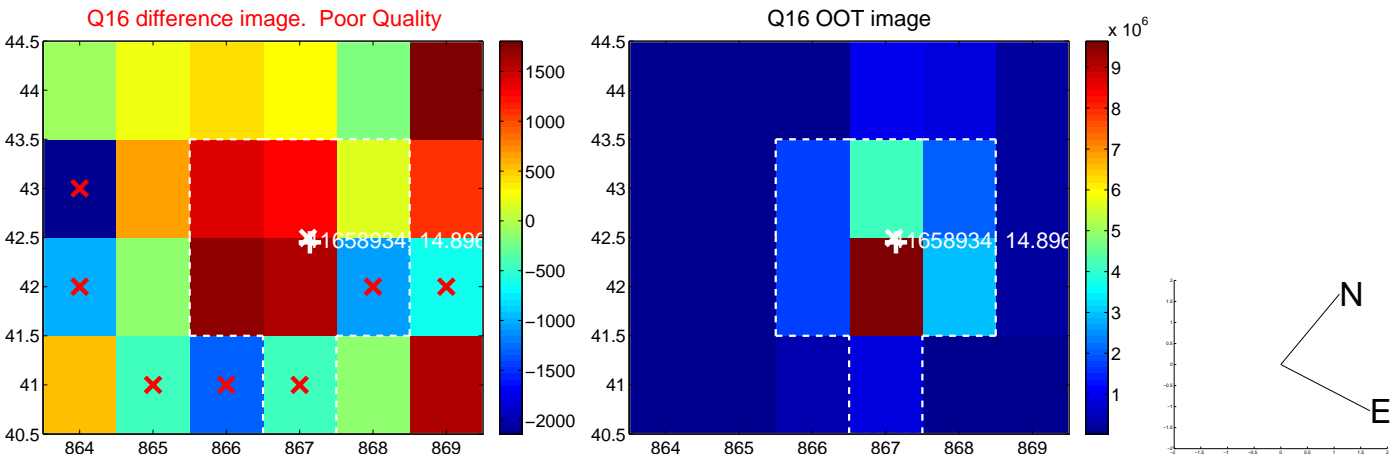
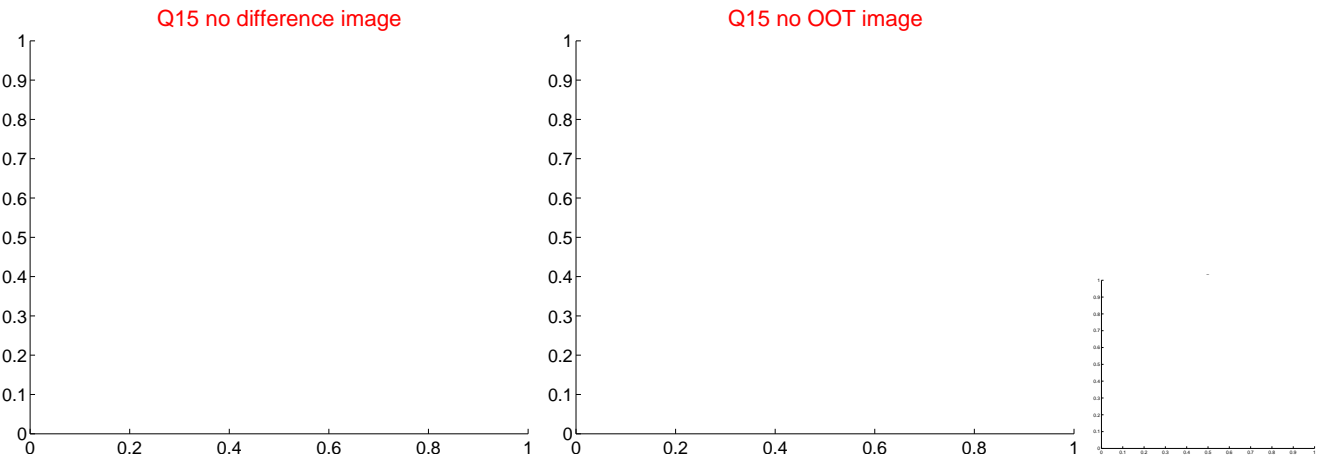
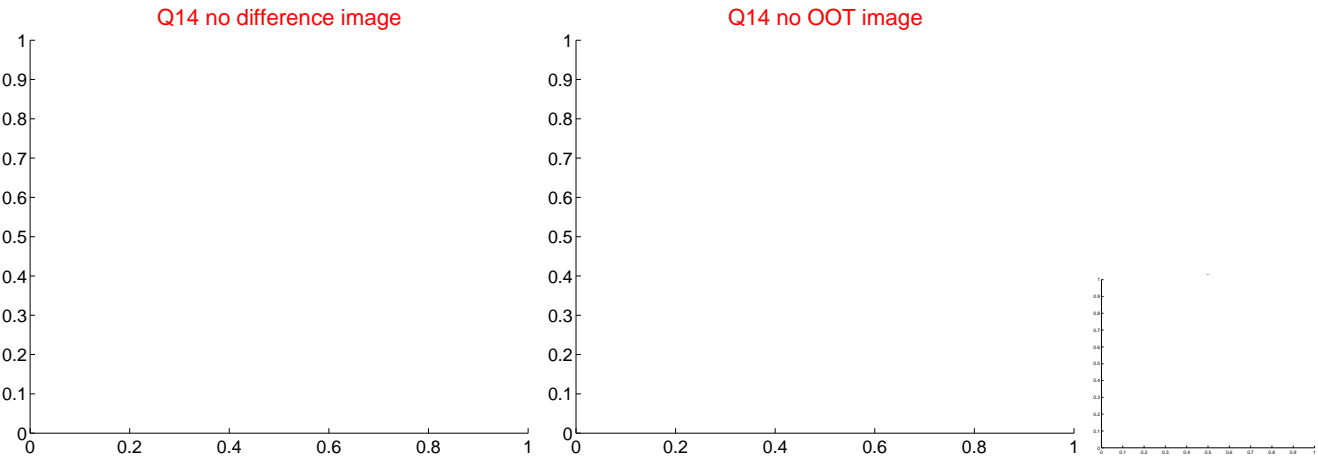
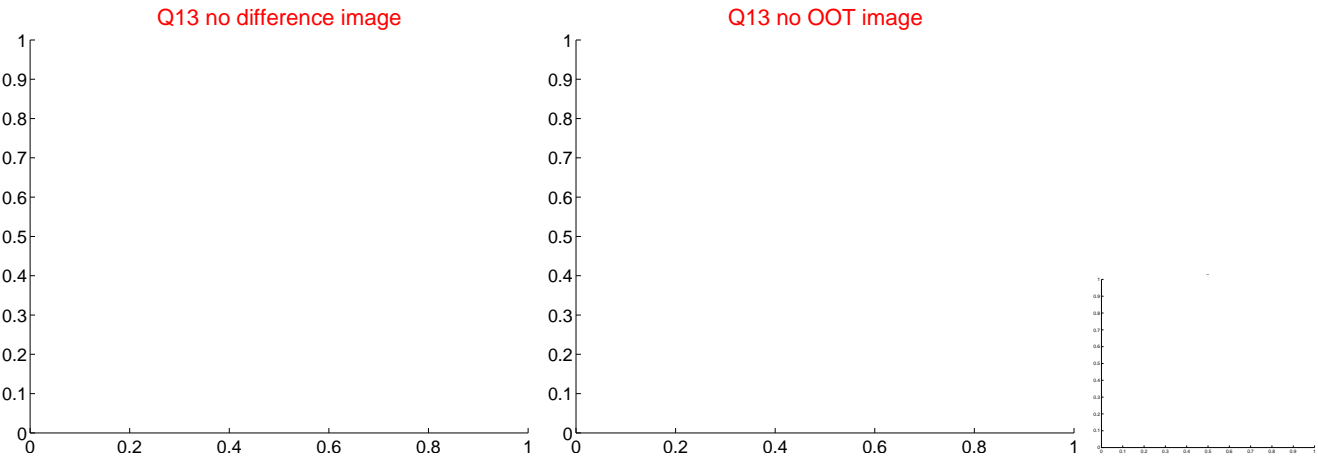
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



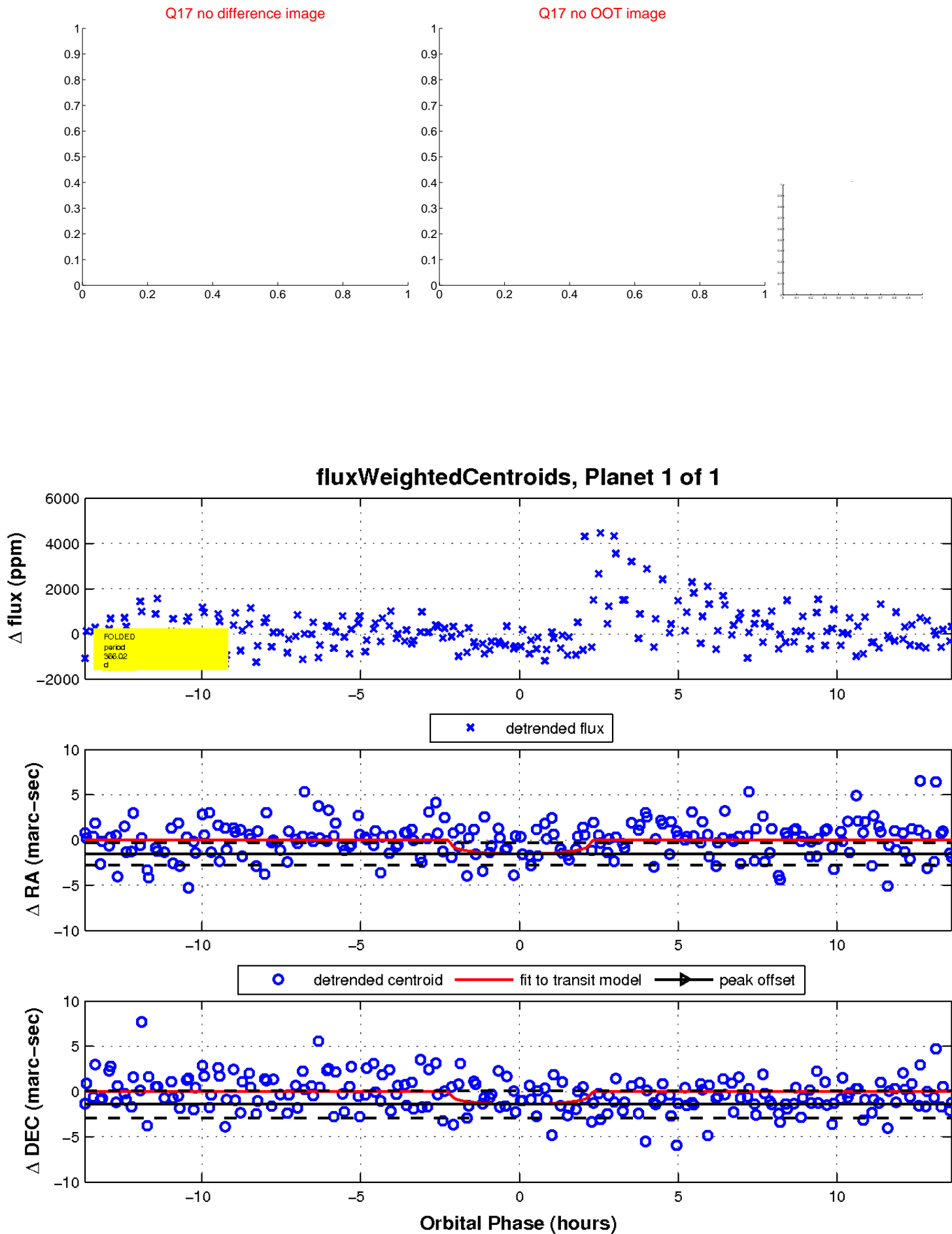
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

