

KIC 006426592

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})
006426592-01	OBS	3554.01	394.678194	346.138328	255633.4	3.000	2223.5	-1.0	0.83	5780	38.73	0.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006426592-01	OBS	PC	0.52	0	0	0	0	CENT_NOFITS

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.

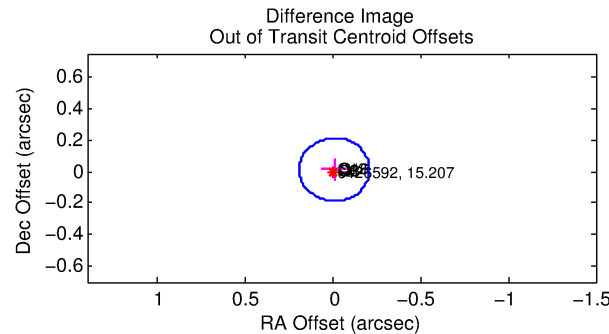
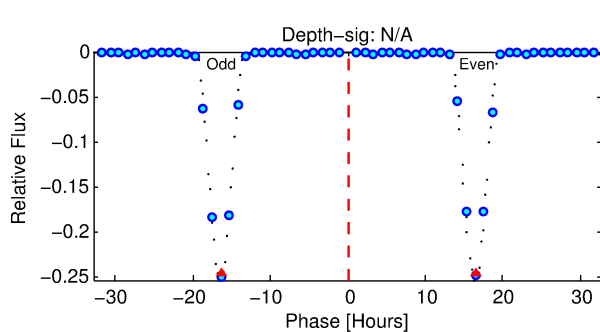
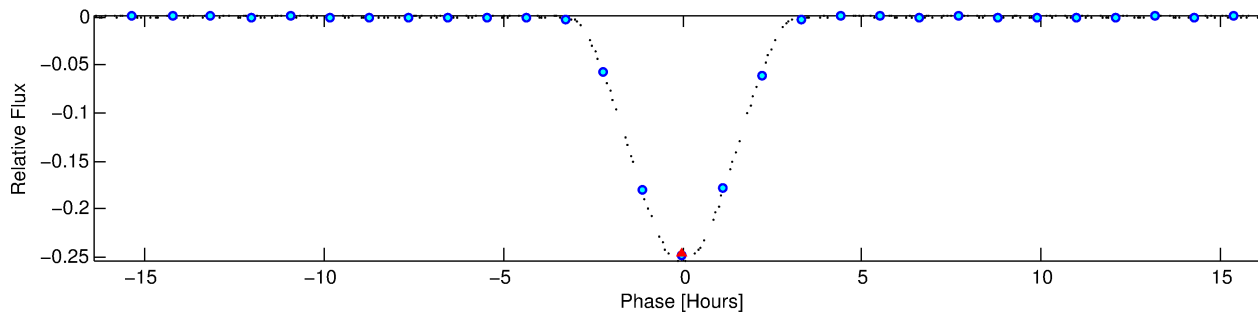
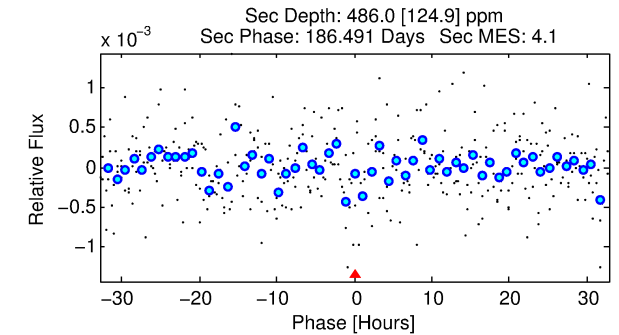
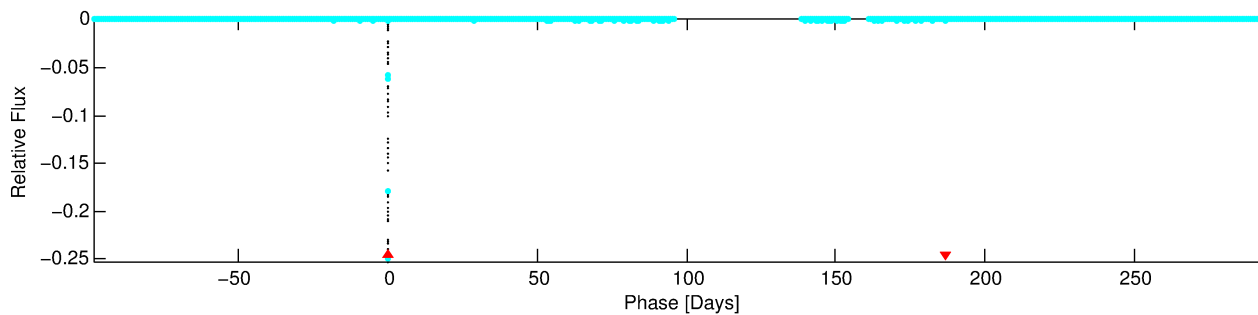
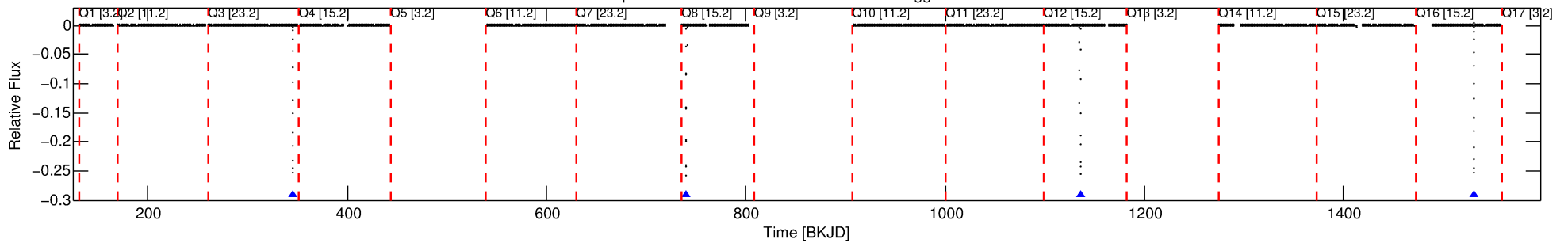
Ephemeris Match Information For 006426592-01

No Significant Match Found

DV One-Page Summary

KIC: 6426592 Candidate: 1 of 1 Period: 394.678 d
KOI: K03554 Corr: No Ephemeris Match

Kp: 15.21 R*: 0.83 Rs Teff: 5780.0 K Logg: 4.50 Fe/H: -0.540



TPS TCE Results:

Period = 394.67819 d
Epoch = 346.1383 BKJD

DV fit results are unavailable

DV Diagnostic Results:

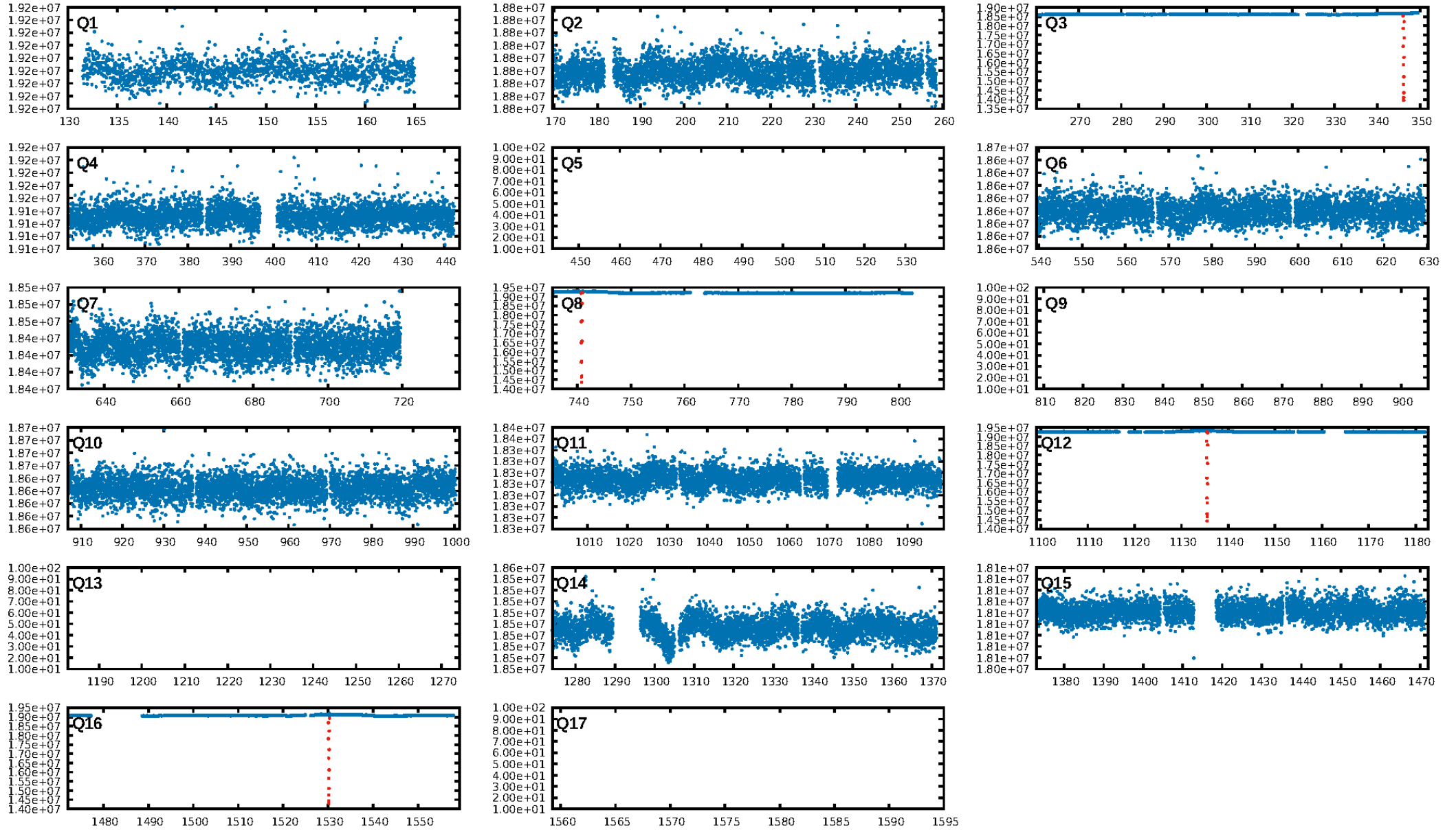
ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 7.006

Centroid-sig: 1.9%
Centroid-so: 0.252 arcsec [52.73σ]
OotOffset-rm: 0.016 arcsec [0.24σ]
KicOffset-rm: 0.154 arcsec [1.65σ]
OotOffset-st: 0/1/3/0 [4]
KicOffset-st: 0/1/3/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [4/4]

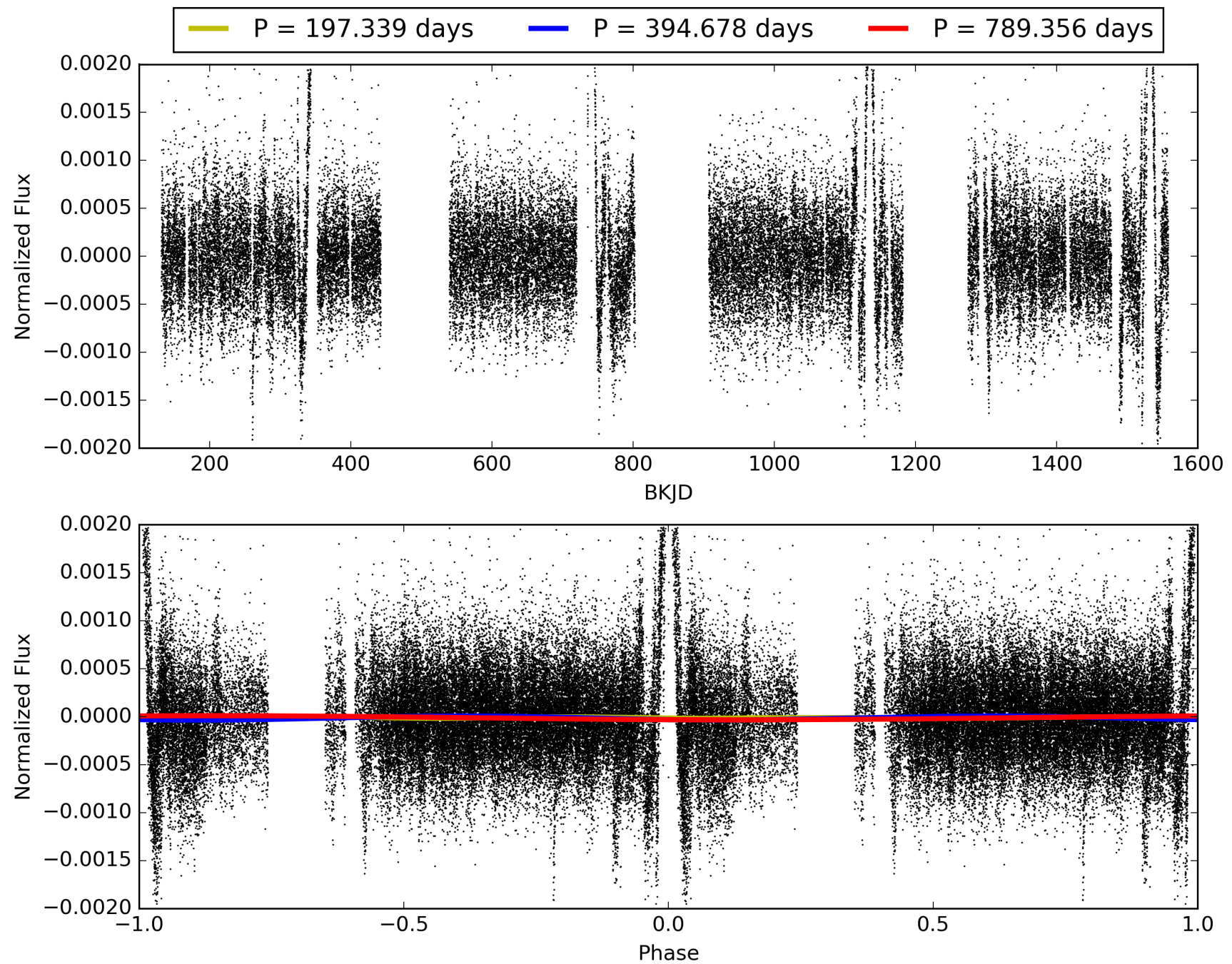
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:27:11 Z

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

TCE 006426592-01, PDC Light Curves

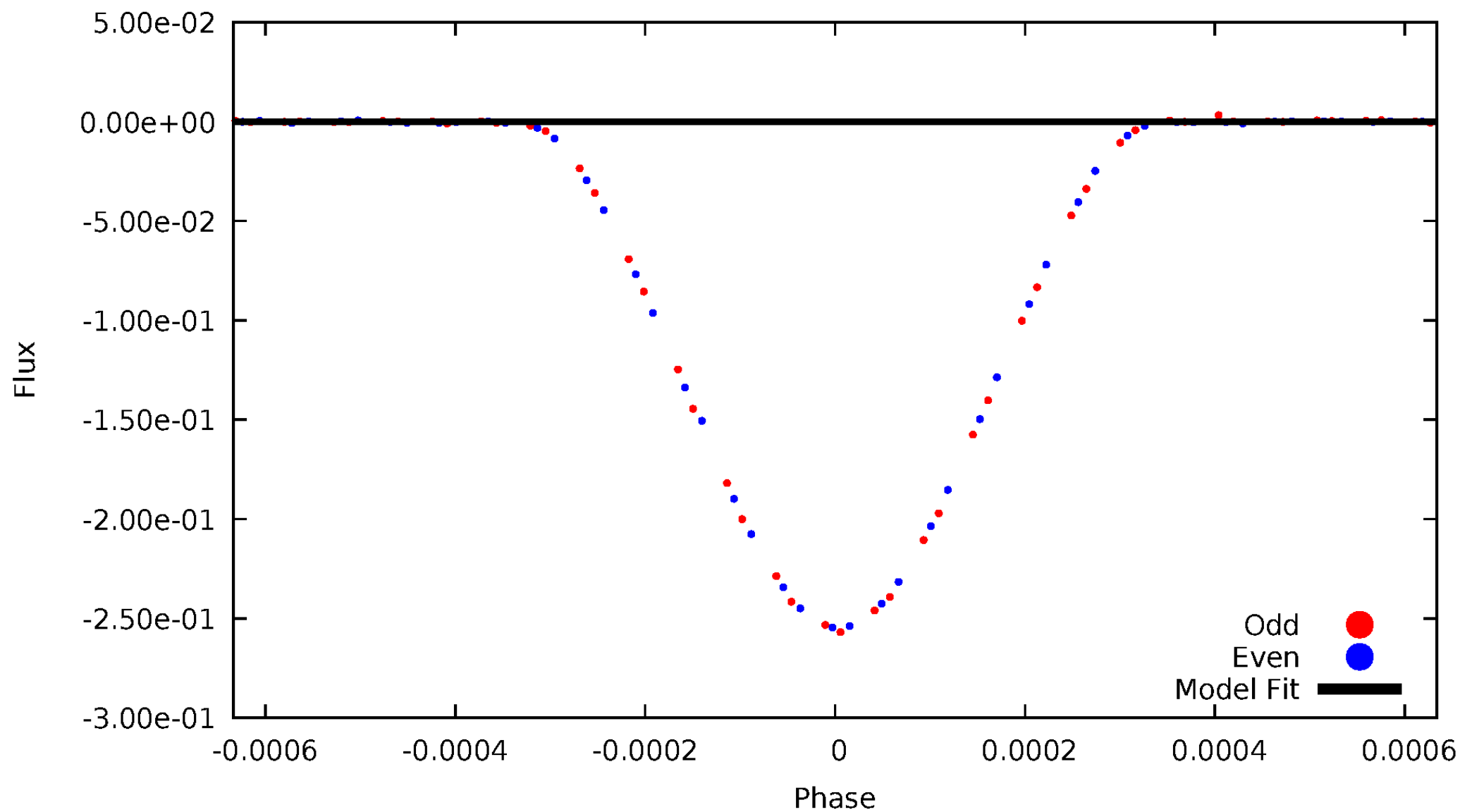


TCE 006426592-01



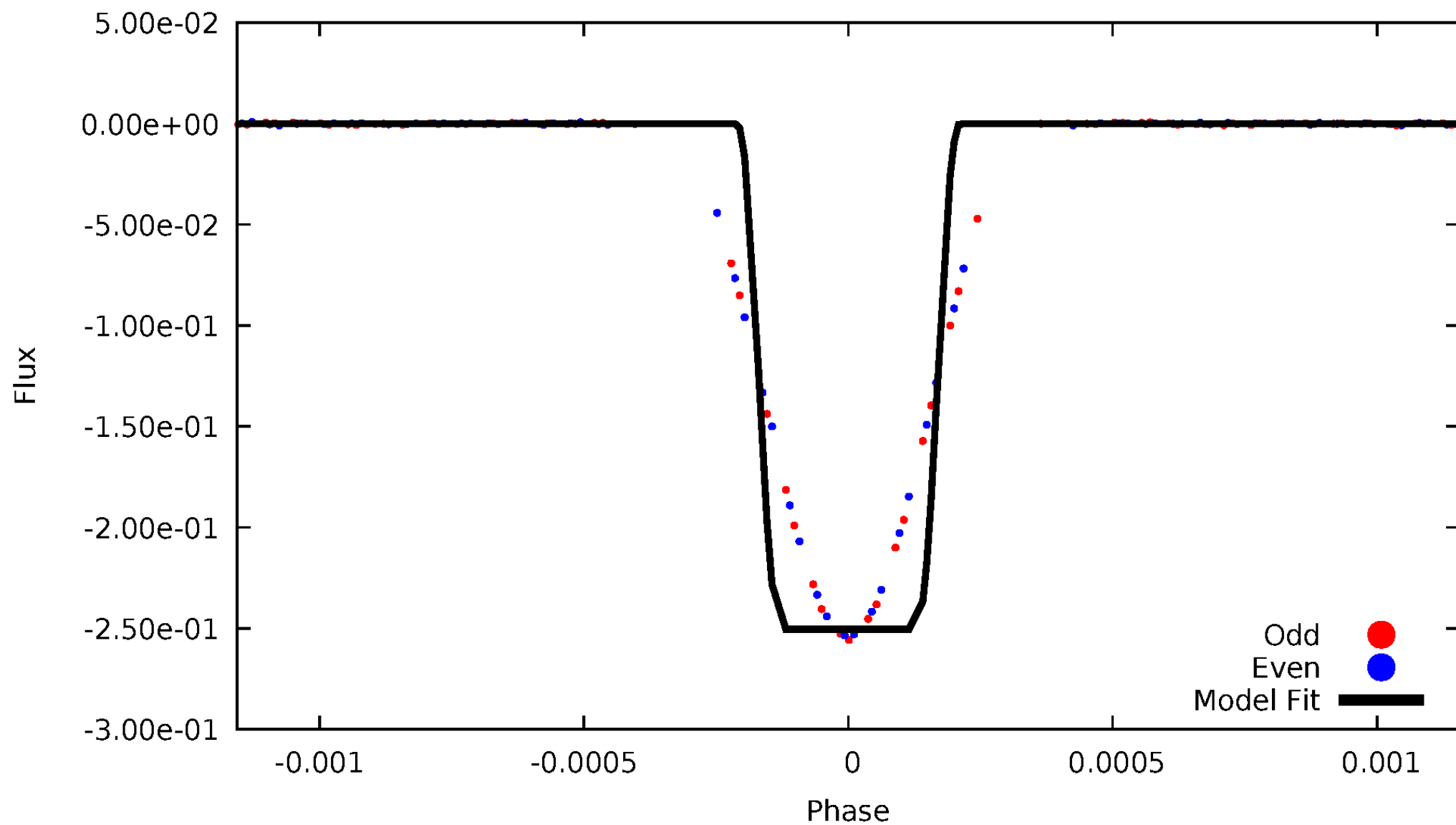
DV Odd/Even

TCE 006426592-01



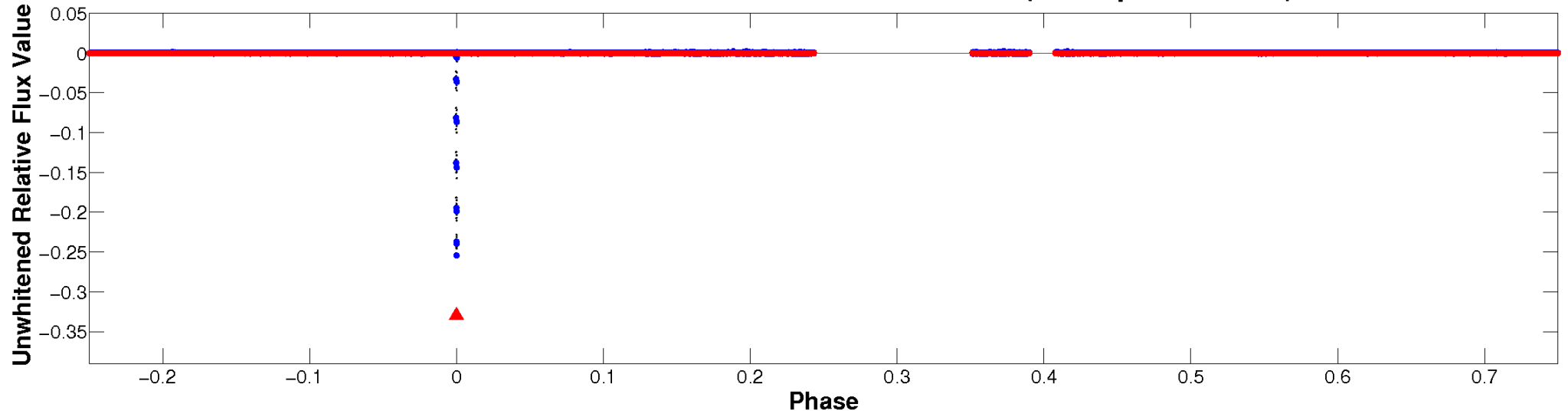
ALT Odd/Even

TCE 006426592-01



Non-Whitened Vs. Whitened Light Curve

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

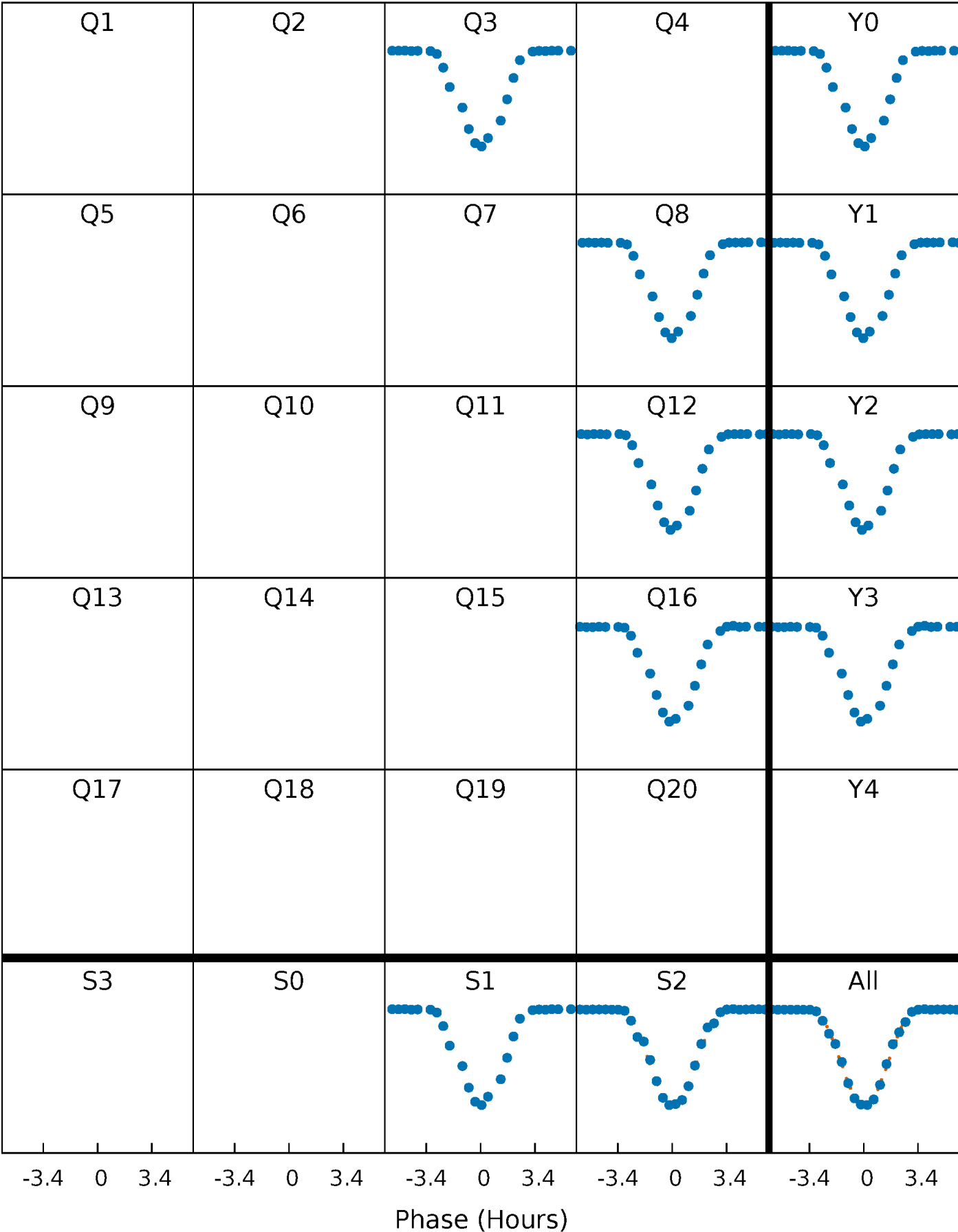


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



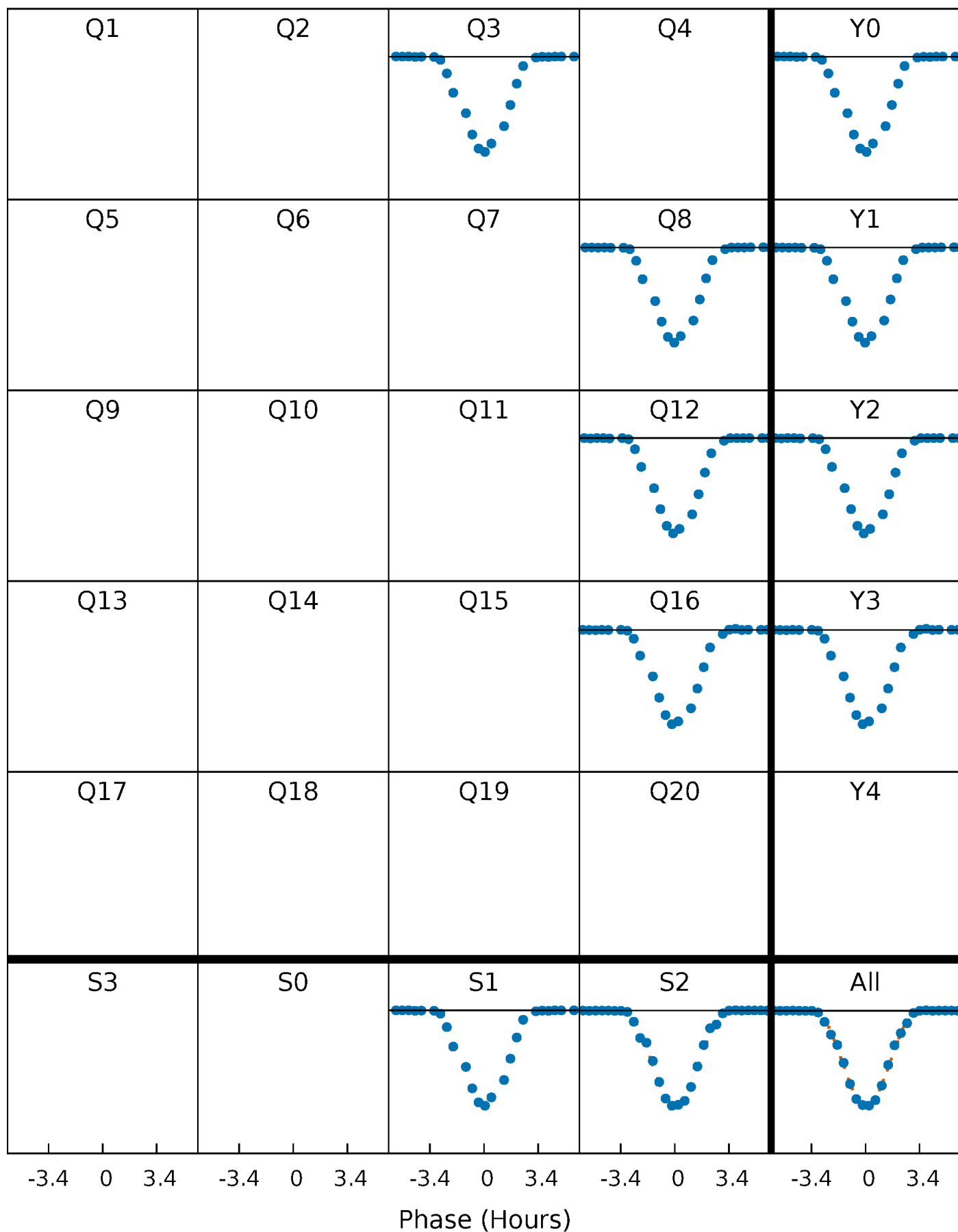
PDC Quarter-Phased Transit Curves

TCE 006426592-01 P=394.678194 Days T₀=346.138328 (BKJD)



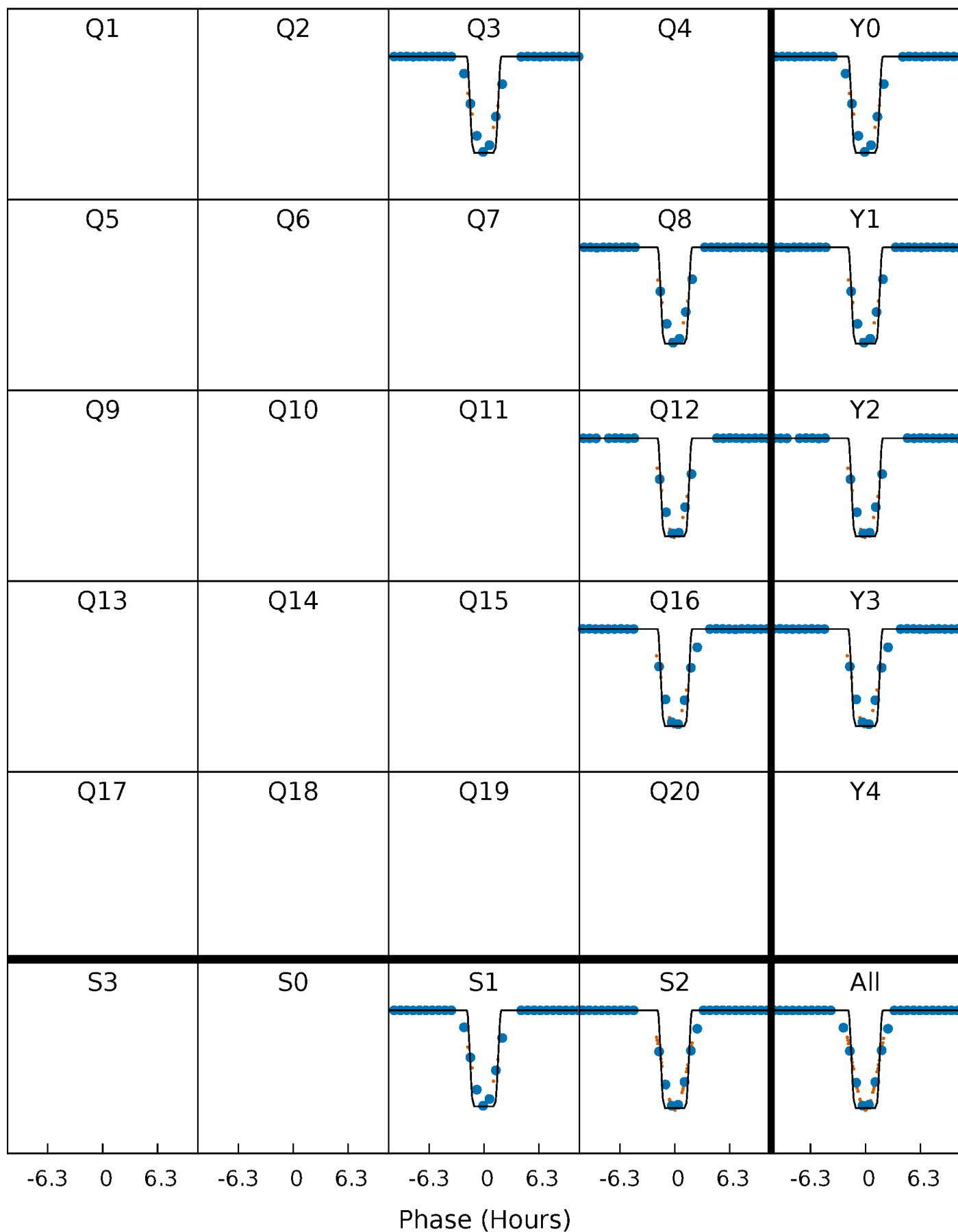
DV Quarter-Phased Transit Curves

TCE 006426592-01 P=394.678194 Days $T_0=346.138328$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

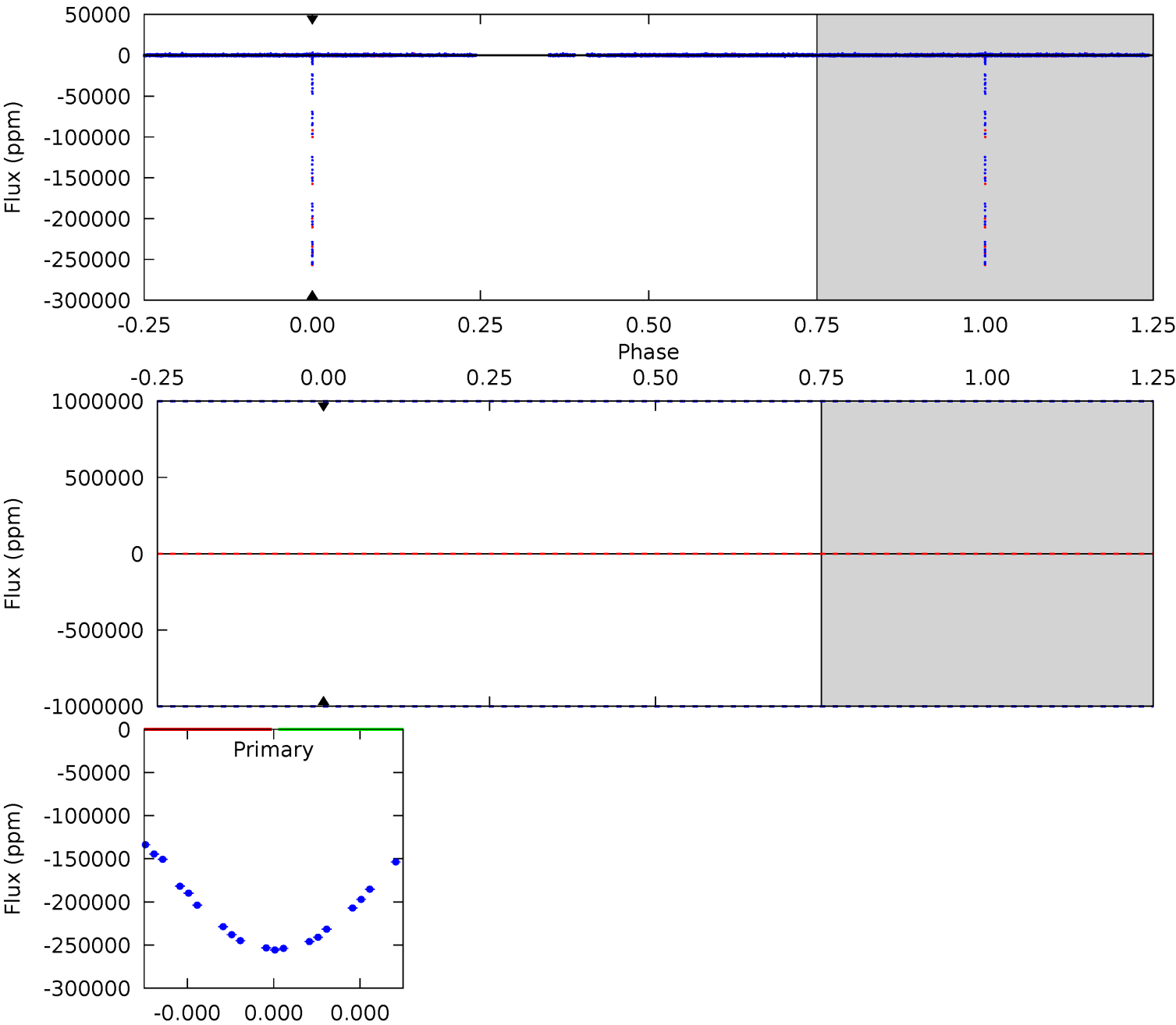
TCE 006426592-01 P=394.678194 Days $T_0=346.140047$ (BKJD)



DV Model-Shift Uniqueness Test

006426592-01, P = 394.678194 Days, E = 346.138328 Days

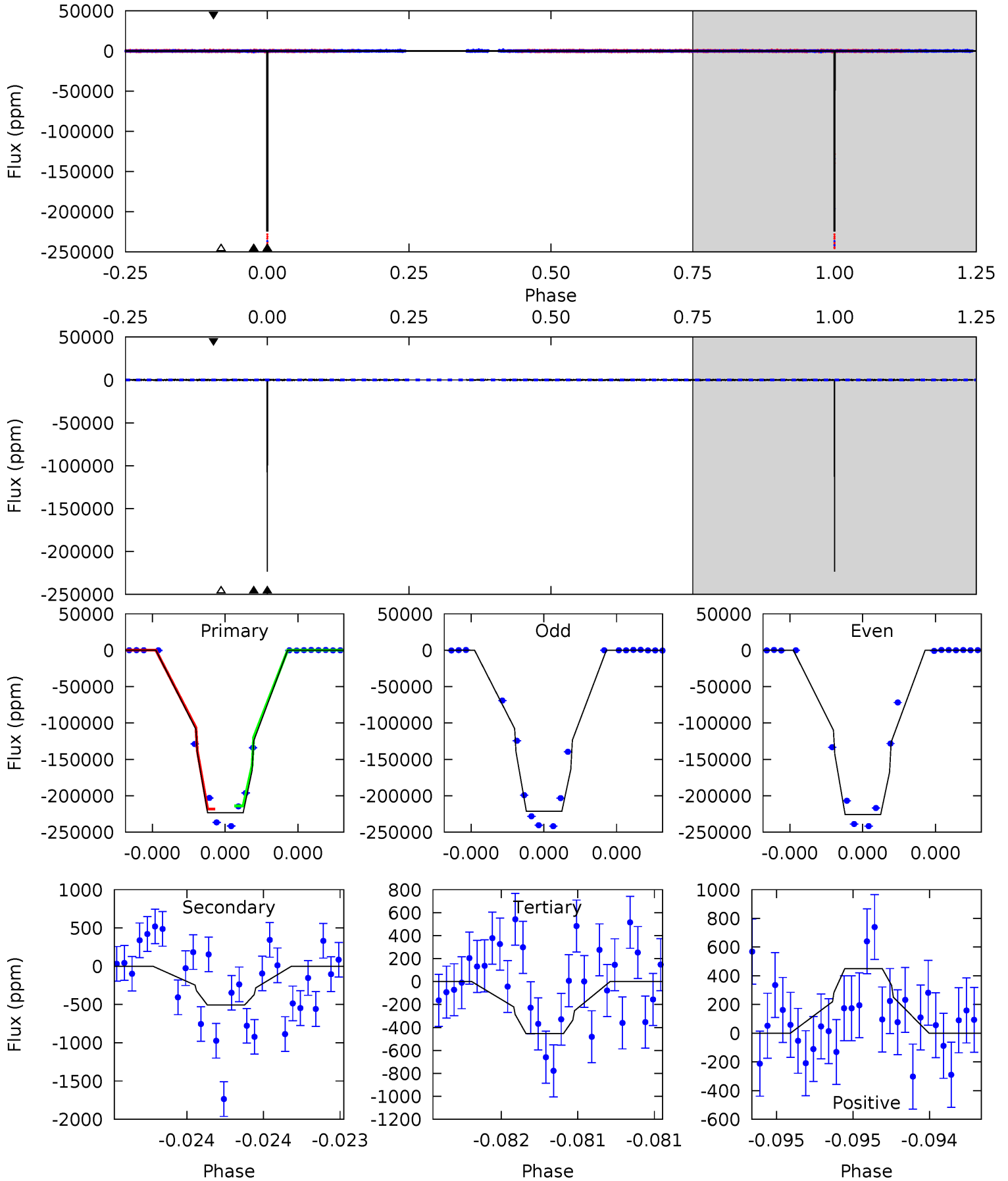
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006426592-01, P = 394.678194 Days, E = 346.140047 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2369	5.36	4.81	4.78	5.60	3.52	7.78	2364	2364	0.54	0.58	24.9	1.00	0.00	0



Stellar Parameters For KIC 006426592

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5780^{+157}_{-157}	$4.505^{+0.084}_{-0.156}$	$-0.540^{+0.300}_{-0.300}$	$0.830^{+0.199}_{-0.099}$	$0.803^{+0.103}_{-0.060}$	$1.979^{+0.724}_{-0.876}$
	+3%/-3%	+2%/-3%	+56%/-56%	+24%/-12%	+13%/-7%	+37%/-44%
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 006426592-01 / KOI 3554.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$39.56^{+9.76}_{-9.56}$	331^{+20}_{-15}	2428^{+2859}_{-7502}	324^{+42997}_{-34689}
Alt.	-505 ± 94	$46.20^{+11.36}_{-9.62}$	330^{+20}_{-16}	2178^{+124}_{-98}	125^{+78}_{-45}

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 $A_{obs} \gg 1.0$

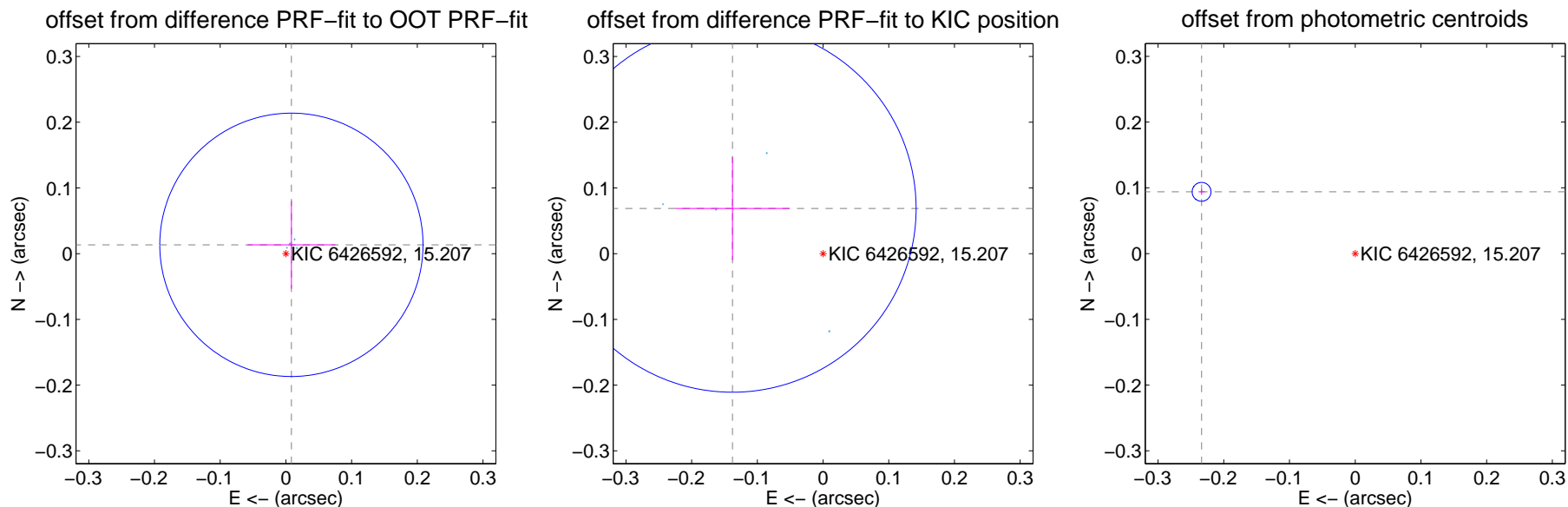
DV Centroid Data

Supplemental centroid analysis for 006426592-01. Kepler magnitude: 15.21. Transit SNR -1.00

There are 4 quarters with good PRF difference image offsets

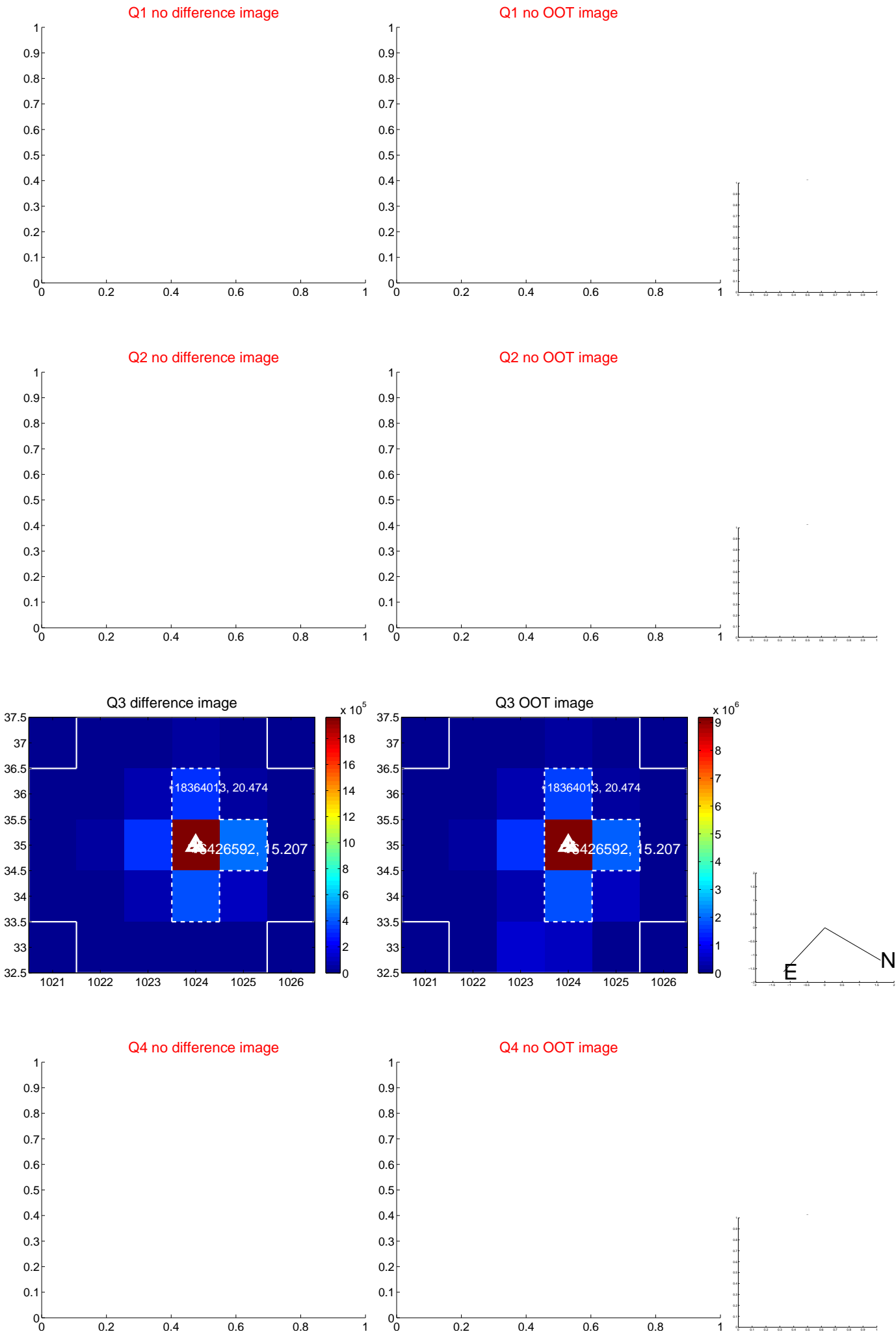
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.016 ± 0.067	0.24	-0.008 ± 0.067	0.013 ± 0.067
PRF-fit source offset from KIC position	0.154 ± 0.093	1.65	0.138 ± 0.087	0.069 ± 0.078
photometric centroid source offset	0.25 ± 0.00	52.73	0.23 ± 0.00	0.09 ± 0.00

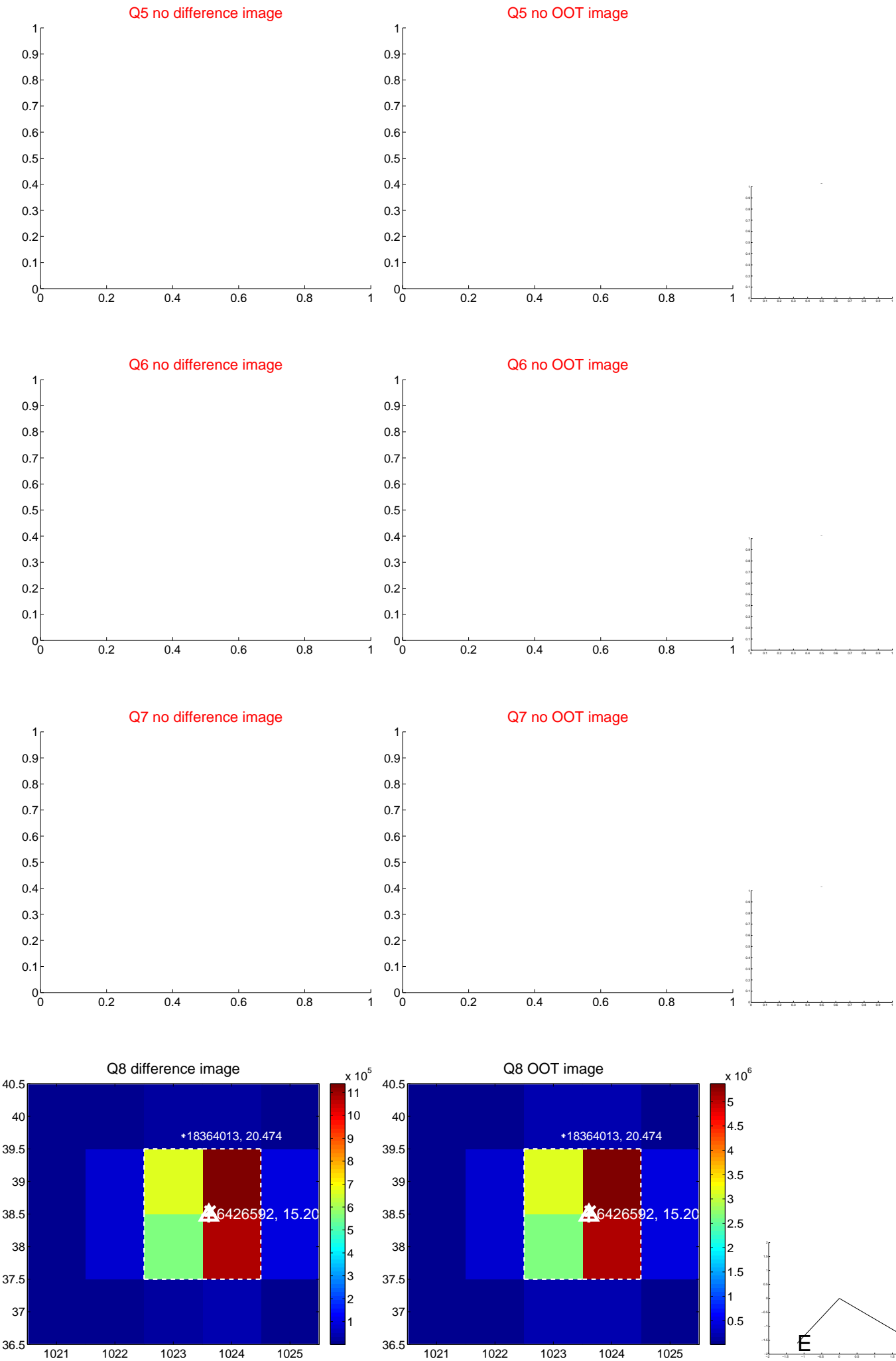


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

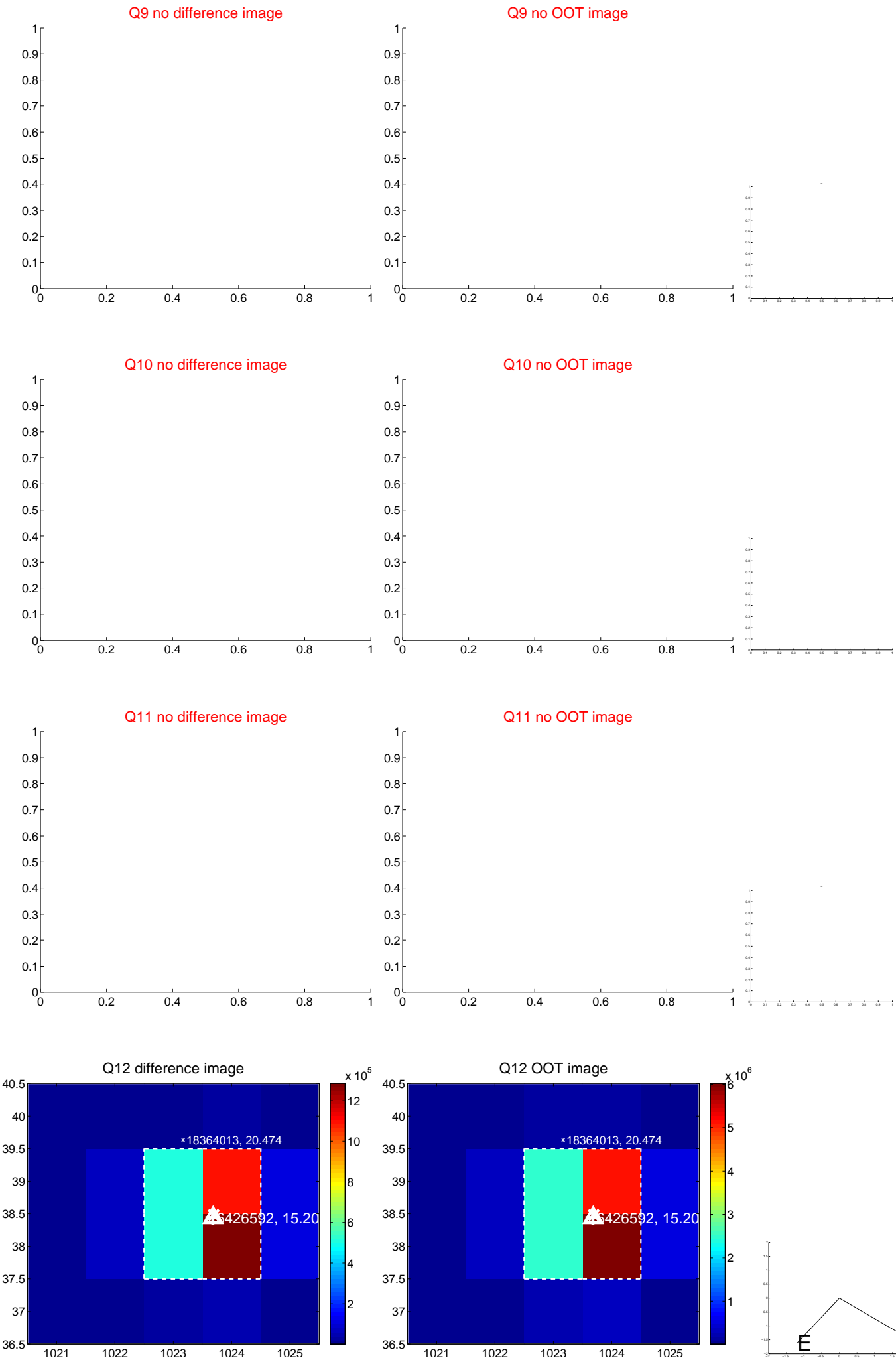
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



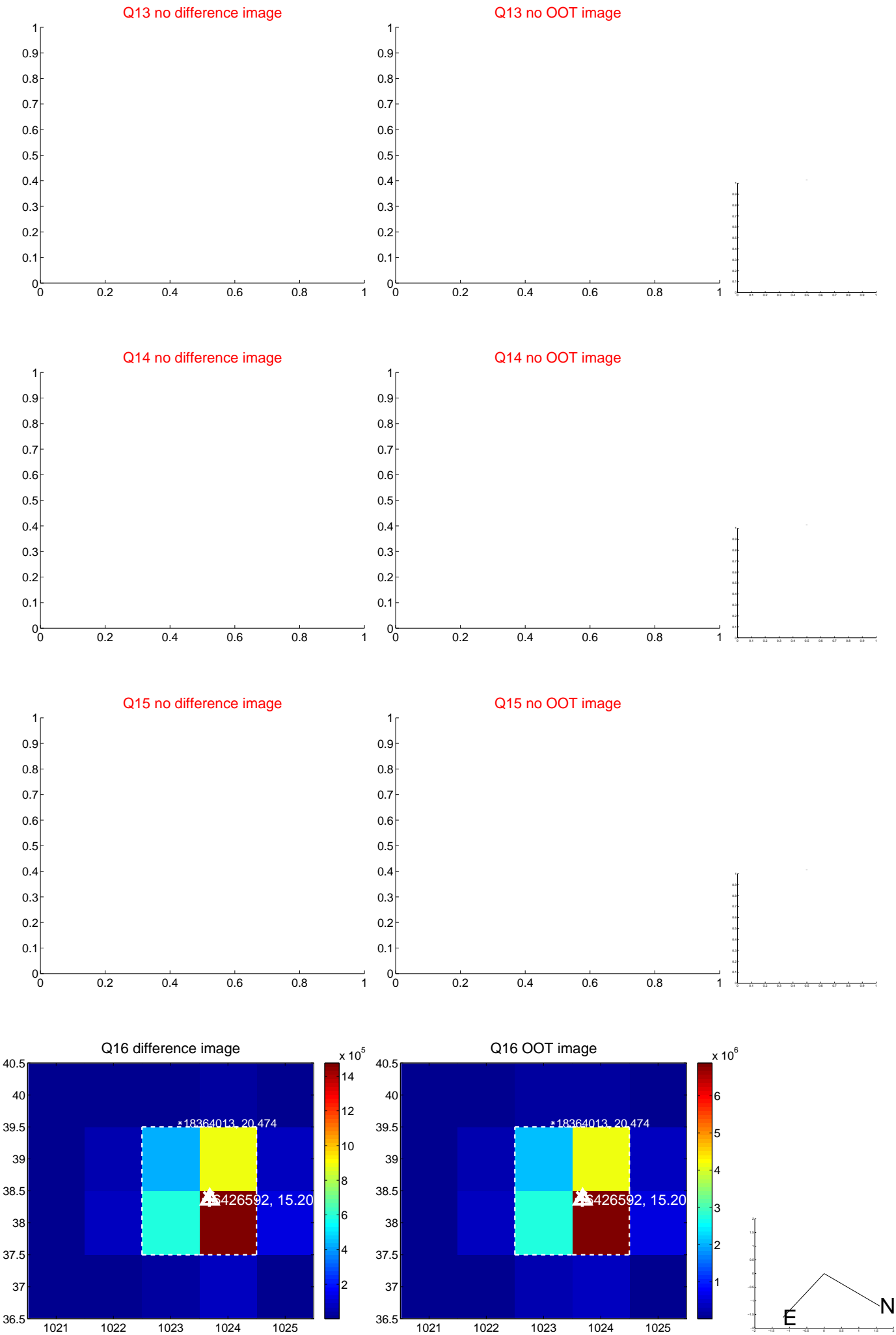
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



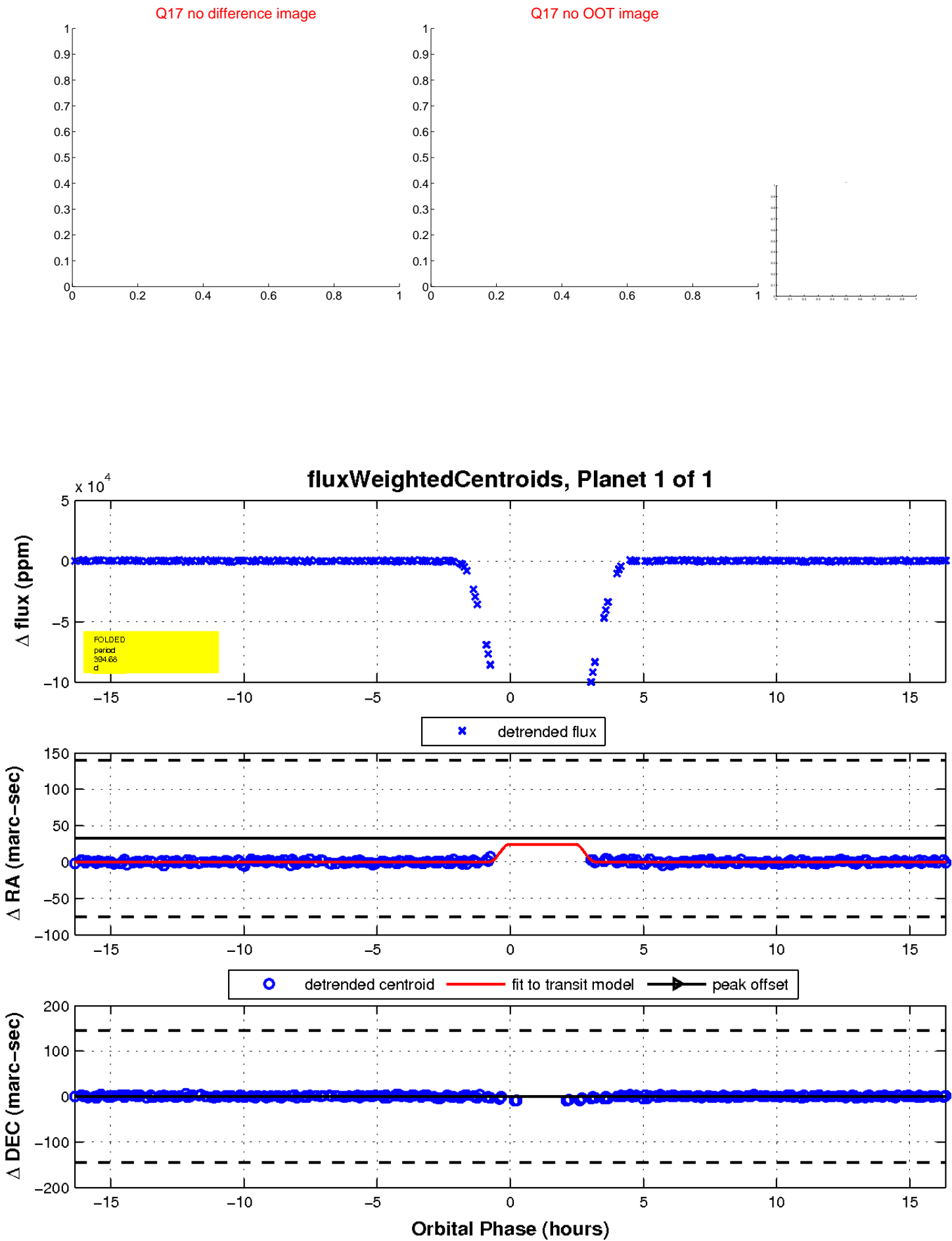
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

