

KIC 006025124

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})
006025124-01	OBS	3411.01	26.837710	158.125601	8385.8	1.649	231.9	232.5	1.07	6194	13.51	44.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006025124-01	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.

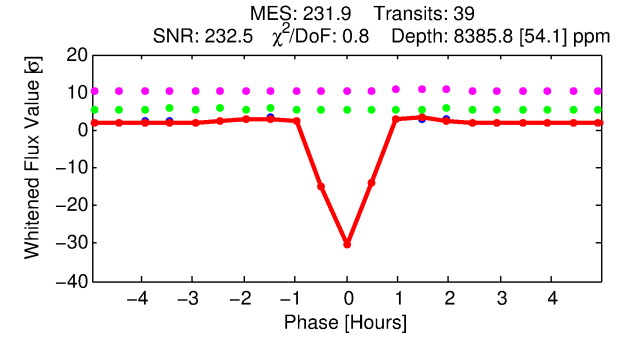
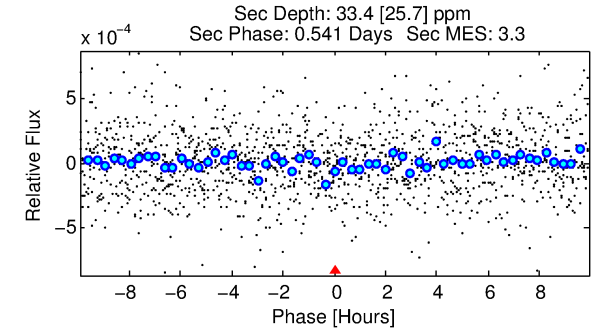
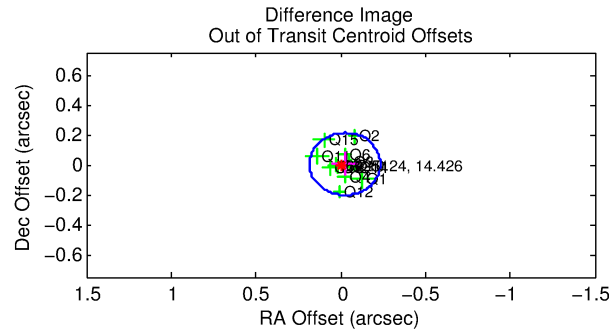
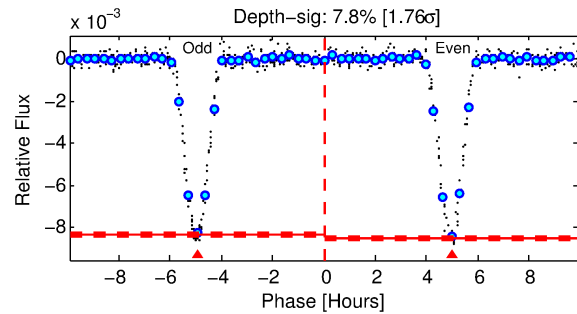
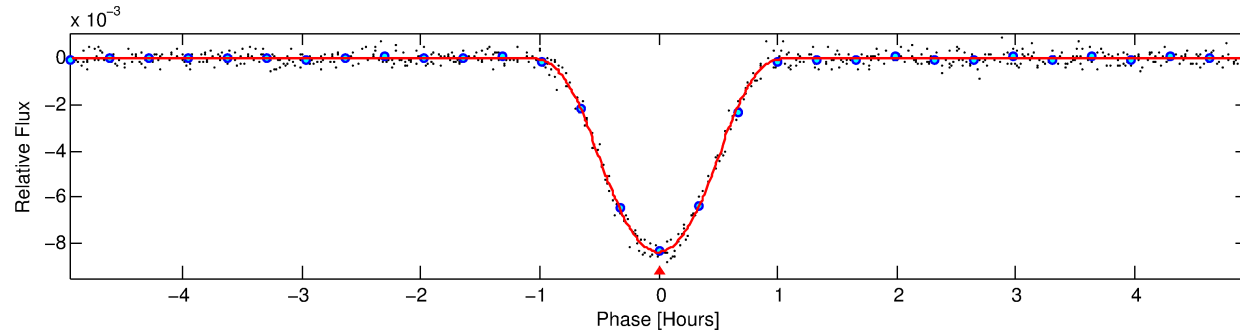
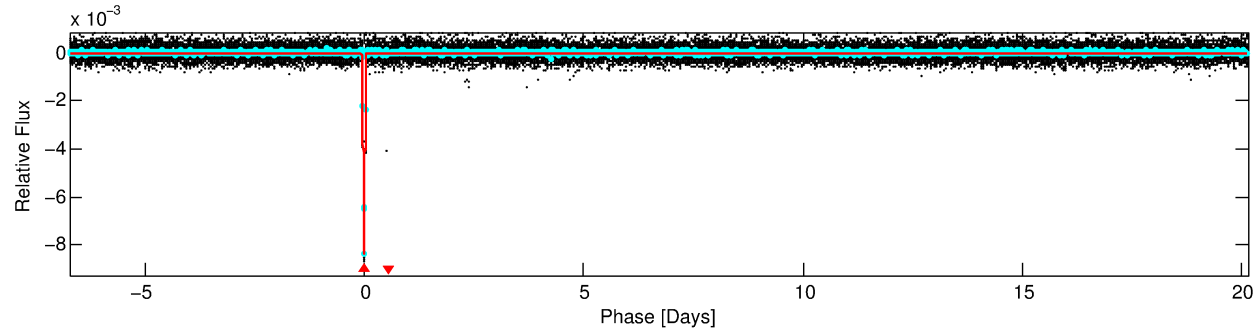
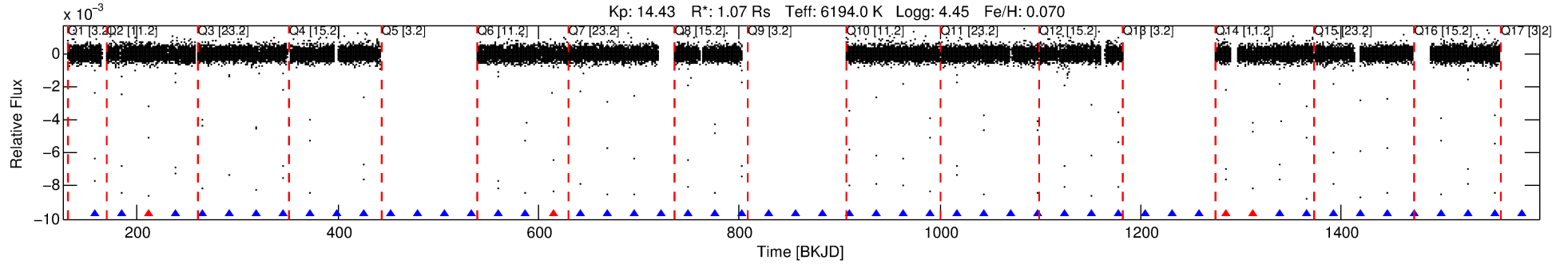
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006025124-01

No Significant Match Found

DV One-Page Summary

KIC: 6025124 Candidate: 1 of 1 Period: 26.838 d
KOI: K03411.01 Corr: 0.994



DV Fit Results:

Period = 26.83771 [0.00000] d
Epoch = 158.1256 [0.0002] BKJD
Rp/R* = 0.1158 [0.0115]
a/R* = 75.16 [2.67]
b = 0.94 [0.02]
Seff = 44.30 [20.03]
Teff = 658 [74] K
Rp = 13.51 [4.71] Re
a = 0.1844 [0.0526] AU
Ag = 3.43 [3.08] [0.79 σ]
Teffp = 1384 [281] K [2.50 σ]

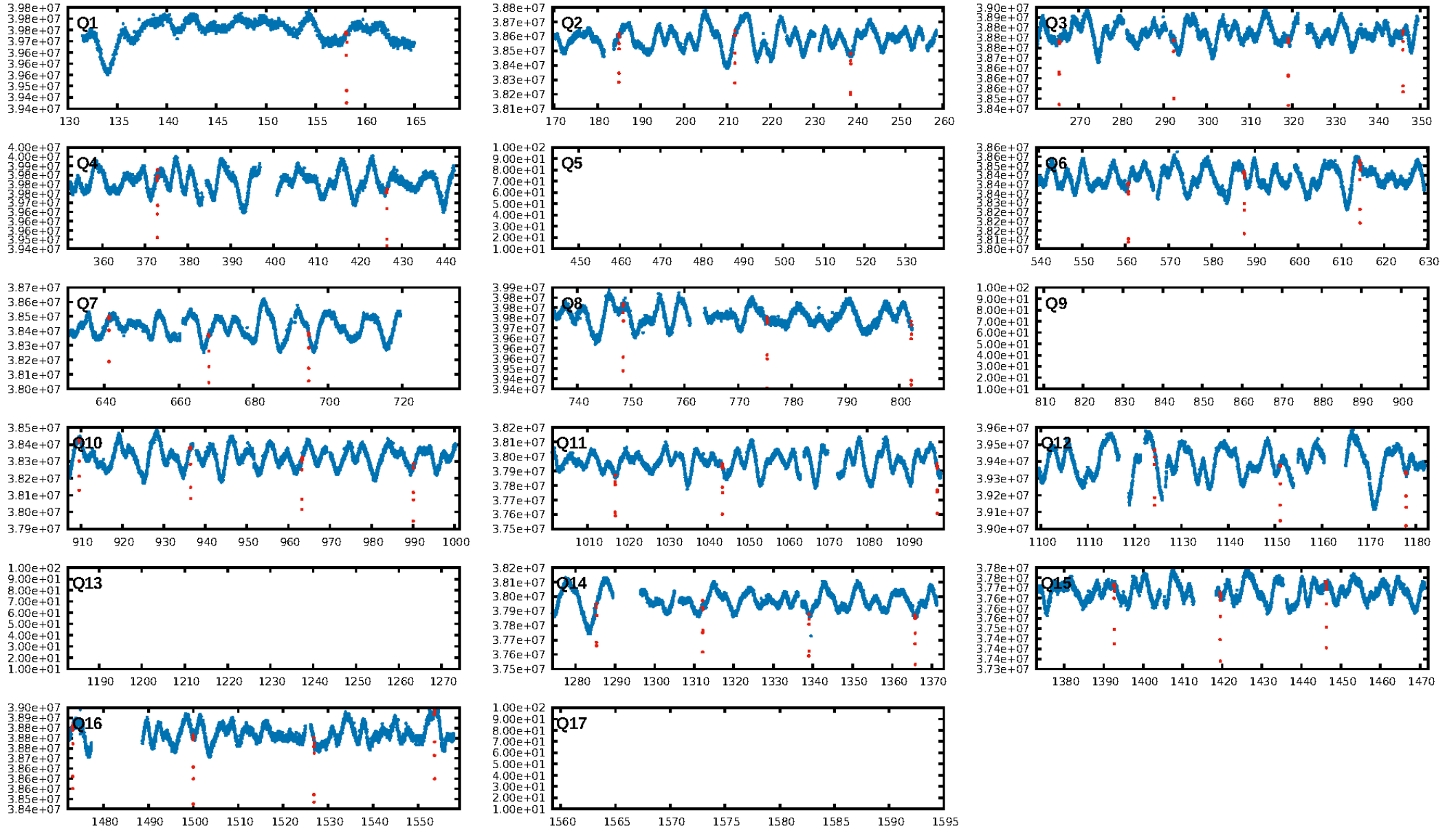
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 35.8%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.89 [34/38]
GhostDiagnostic-chr: 7.107
Centroid-sig: 0.0%
Centroid-so: 0.223 arcsec [4.31 σ]
OotOffset-rm: 0.025 arcsec [0.36 σ]
KicOffset-rm: 0.061 arcsec [0.81 σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

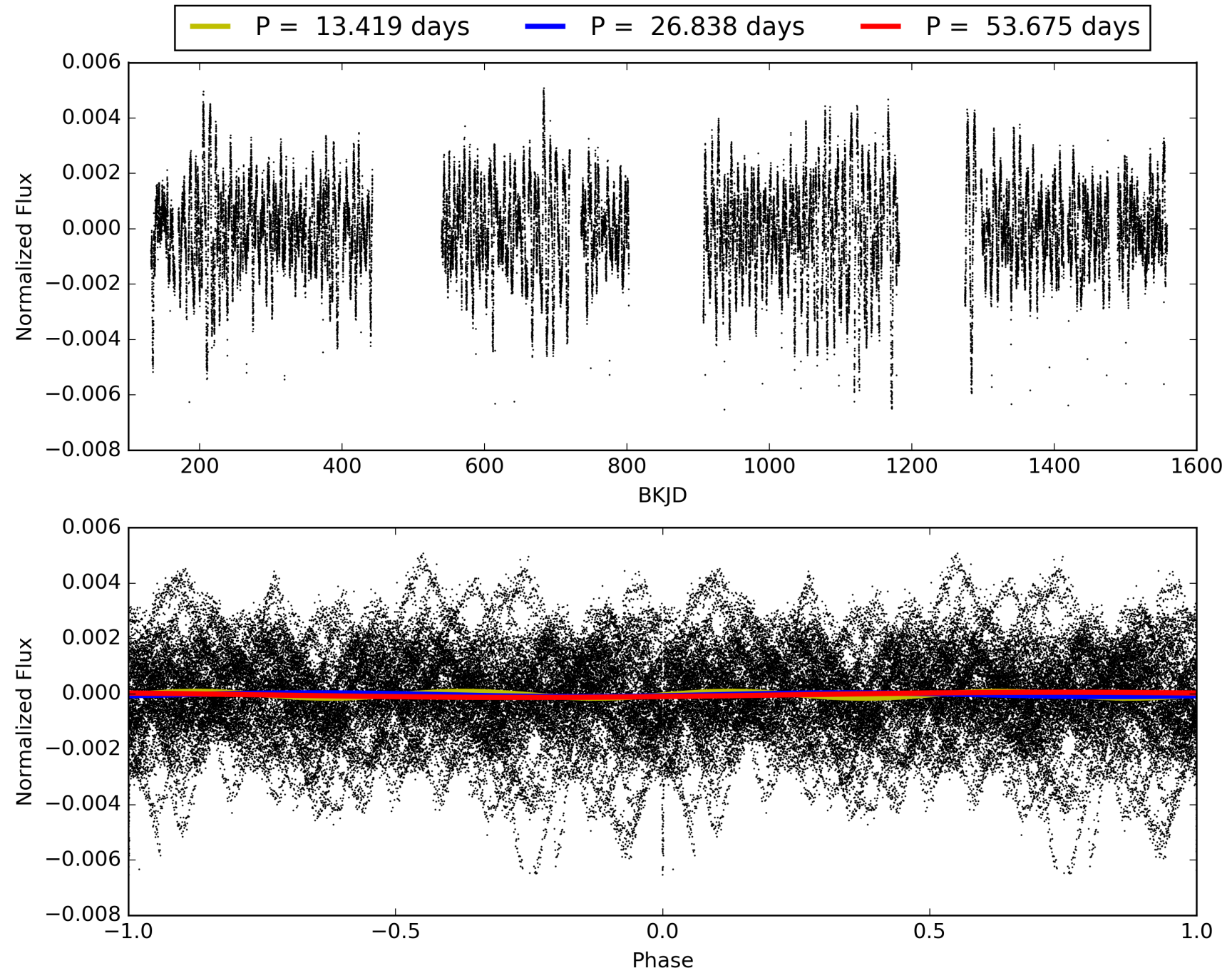
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:16:09 Z

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

TCE 006025124-01, PDC Light Curves

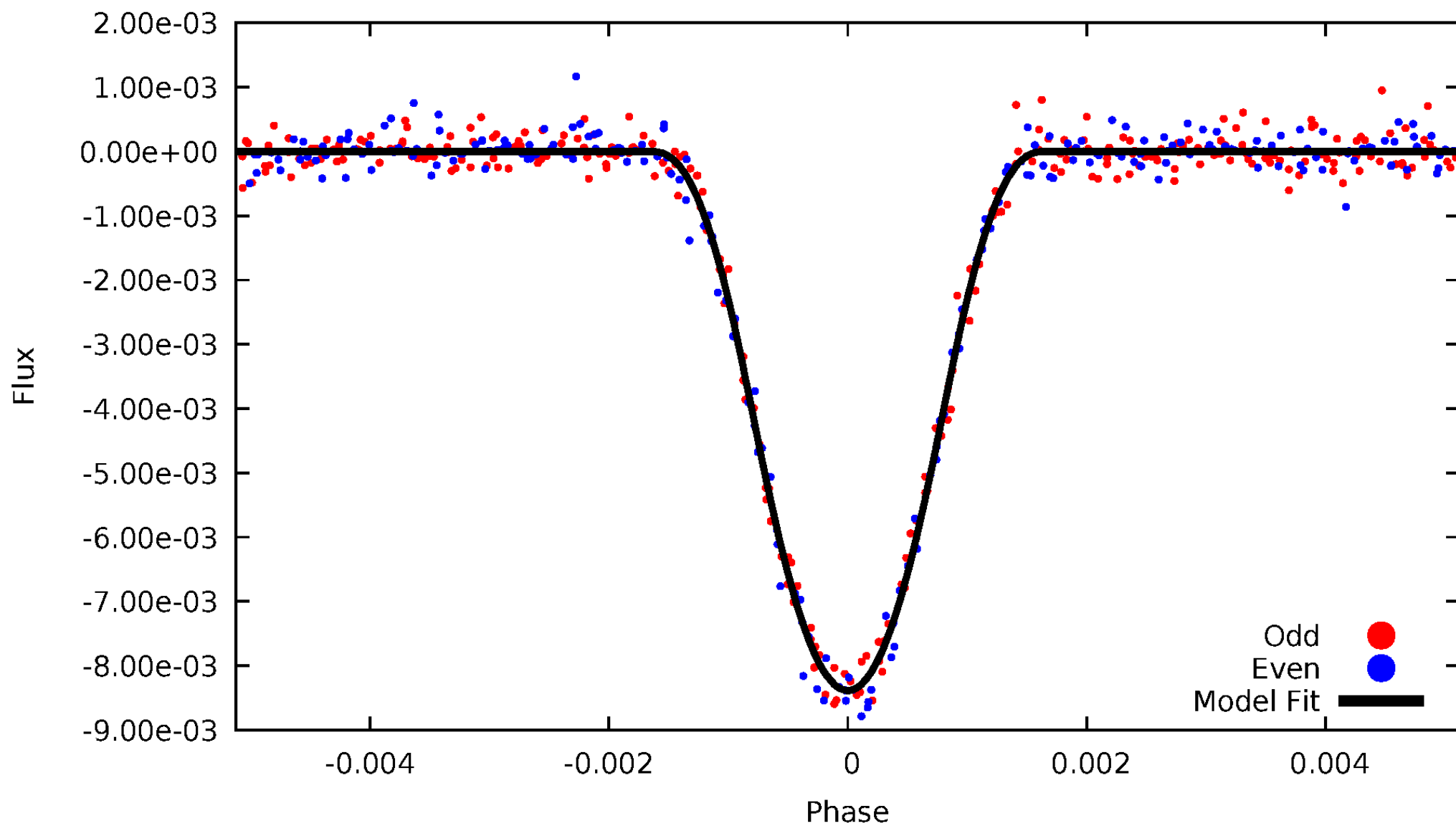


TCE 006025124-01



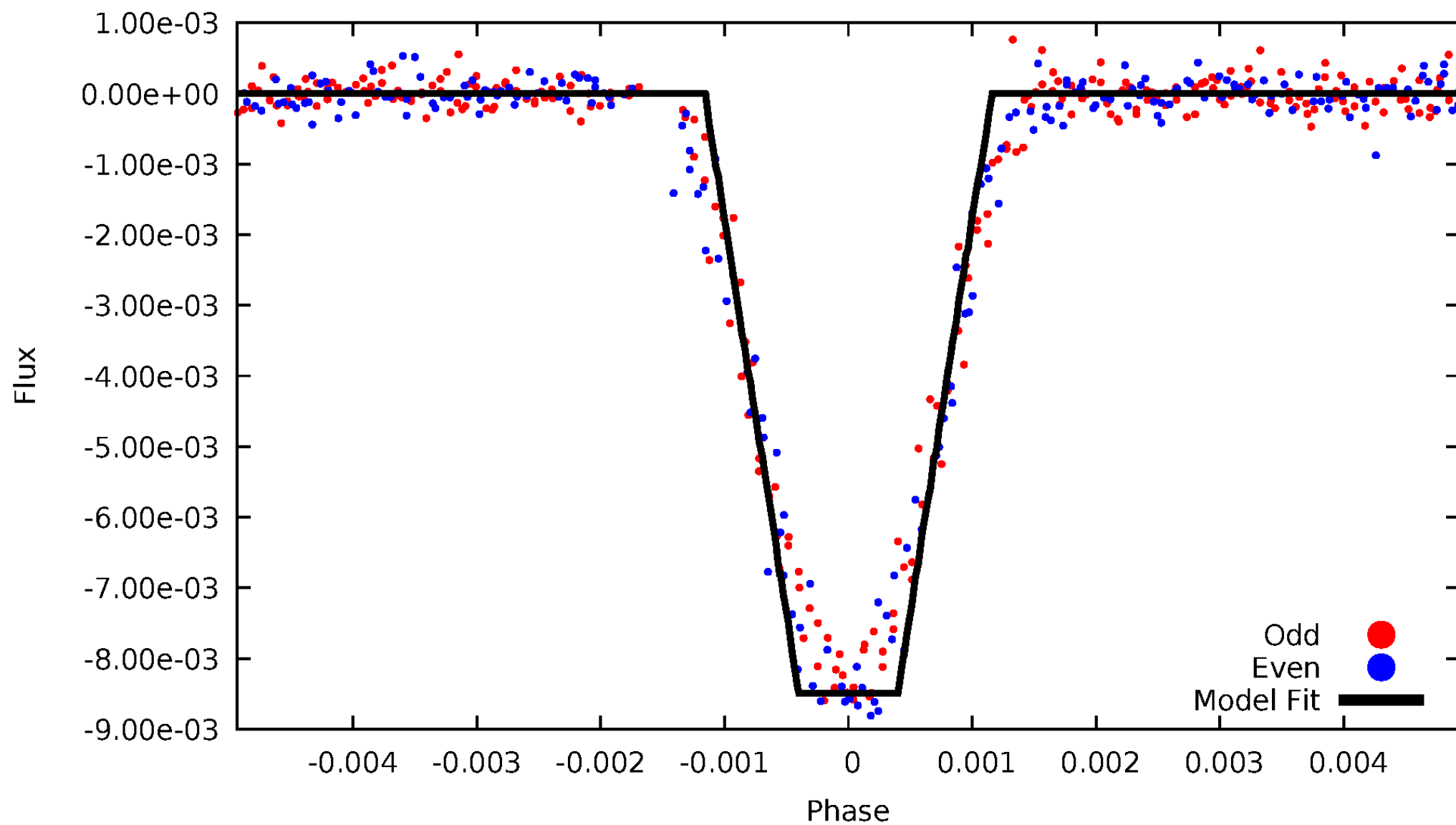
DV Odd/Even

TCE 006025124-01



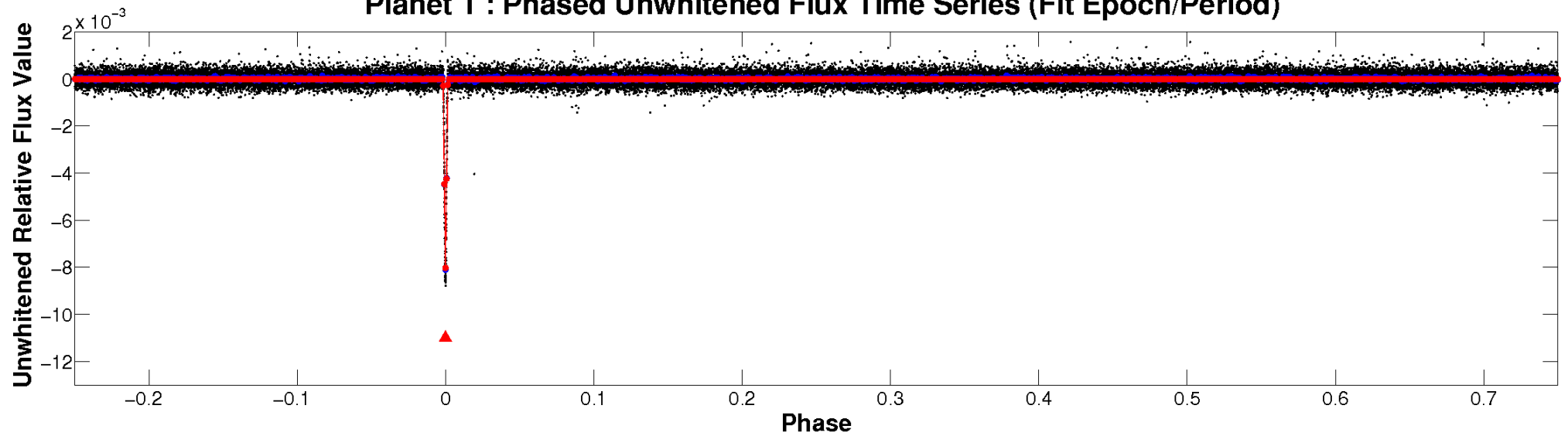
ALT Odd/Even

TCE 006025124-01

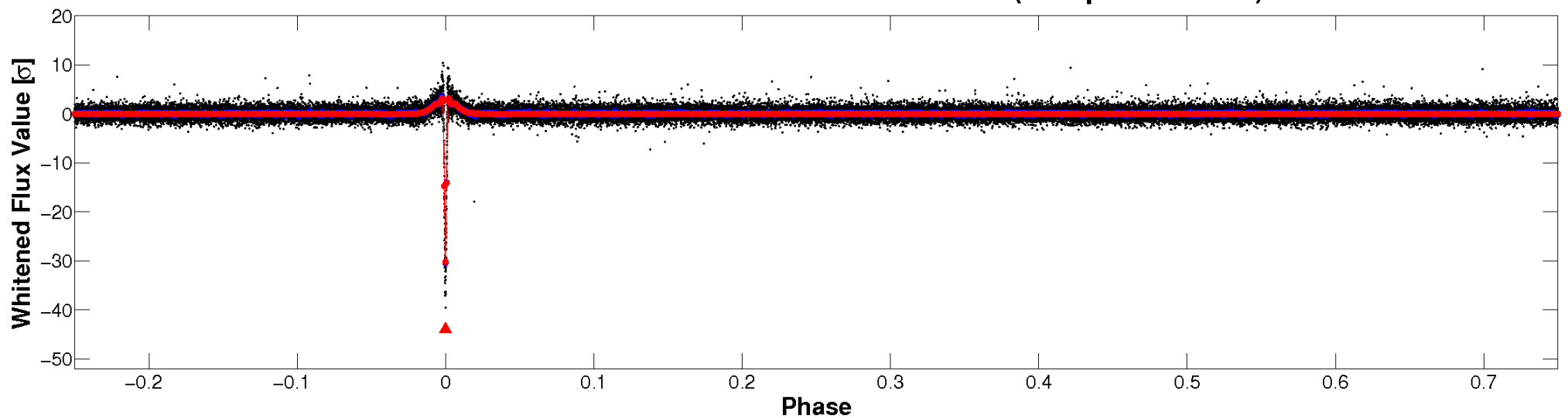


Non-Whitened Vs. Whitened Light Curve

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

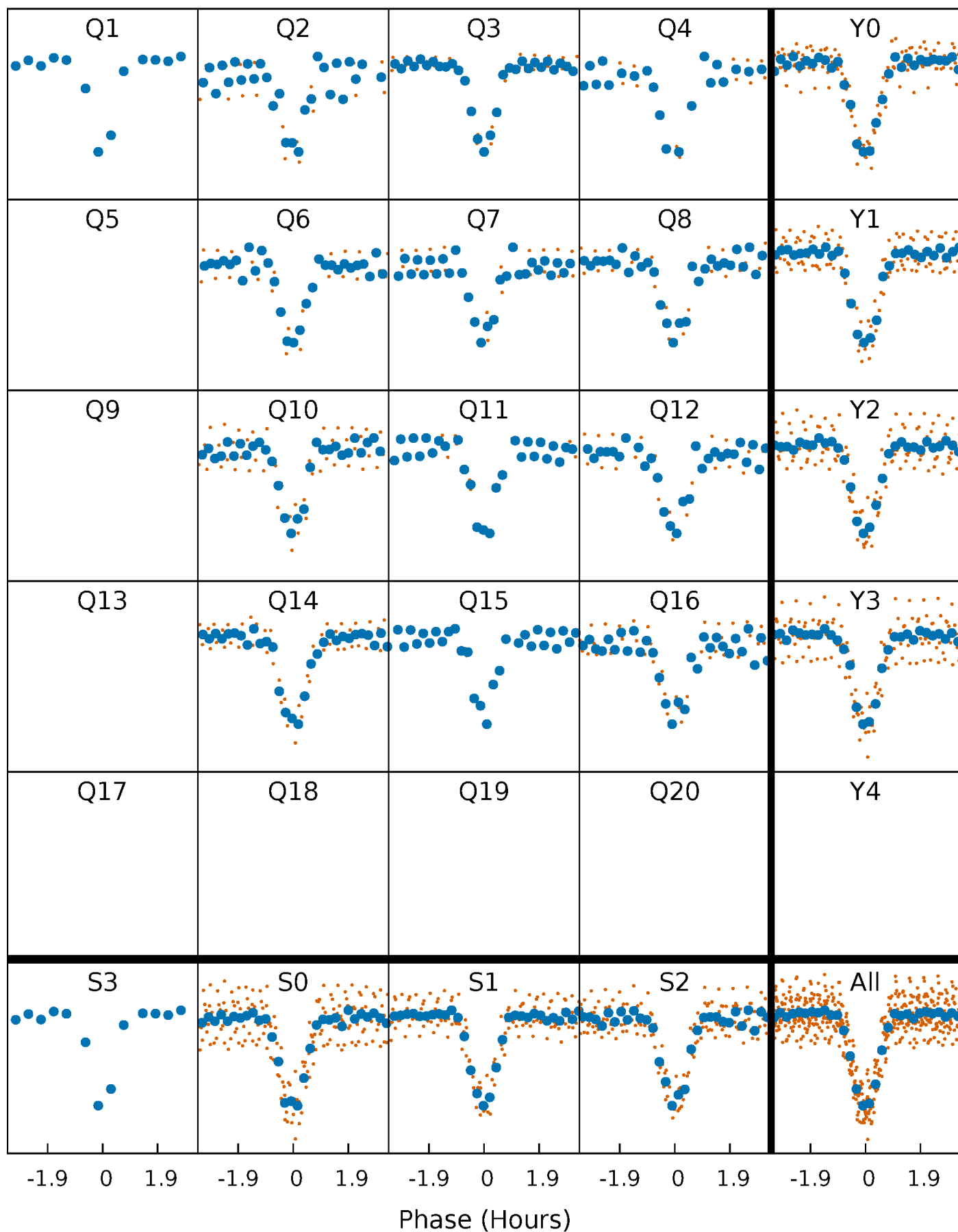


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



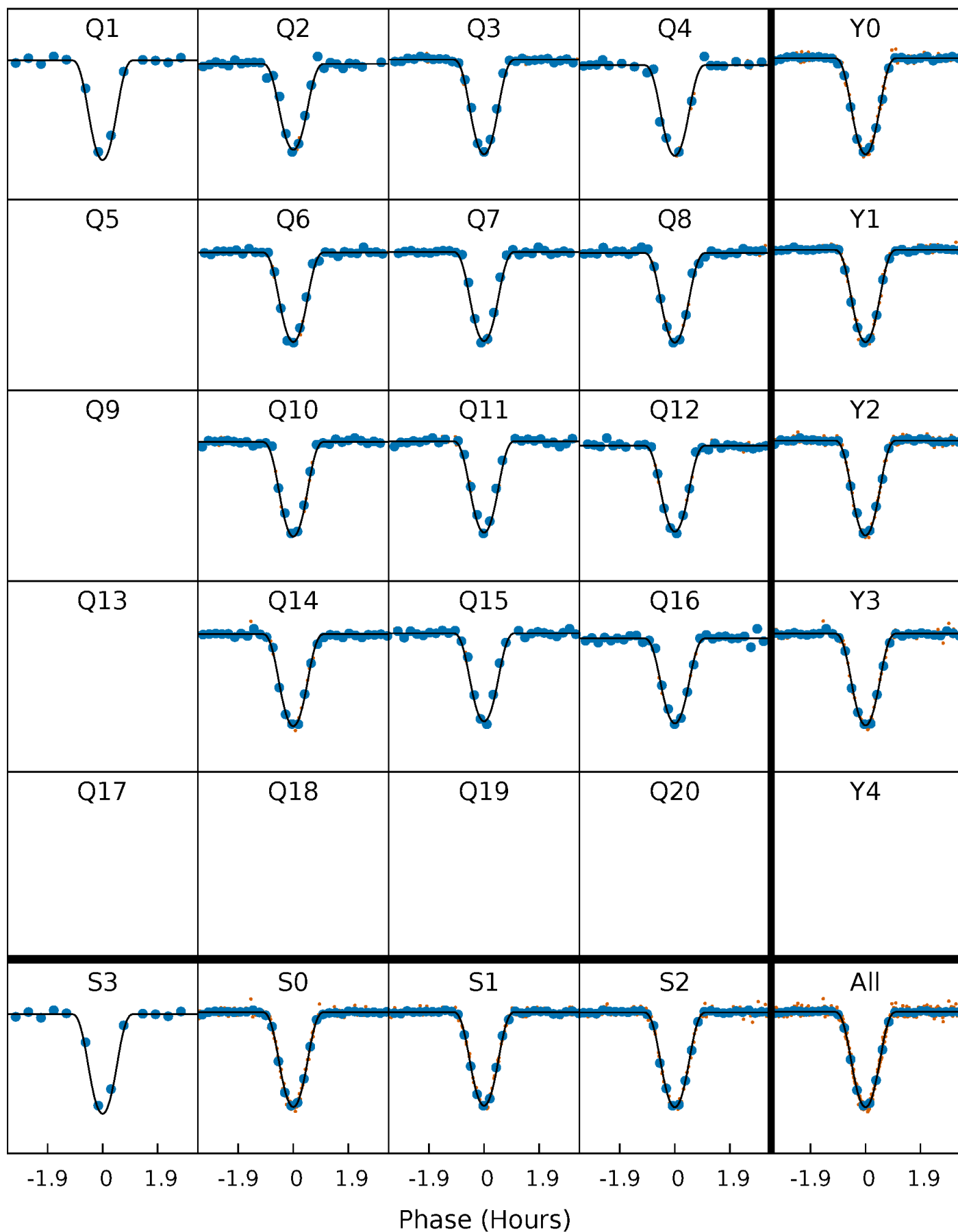
PDC Quarter-Phased Transit Curves

TCE 006025124-01 P= 26.837710 Days $T_0=158.125601$ (BKJD)



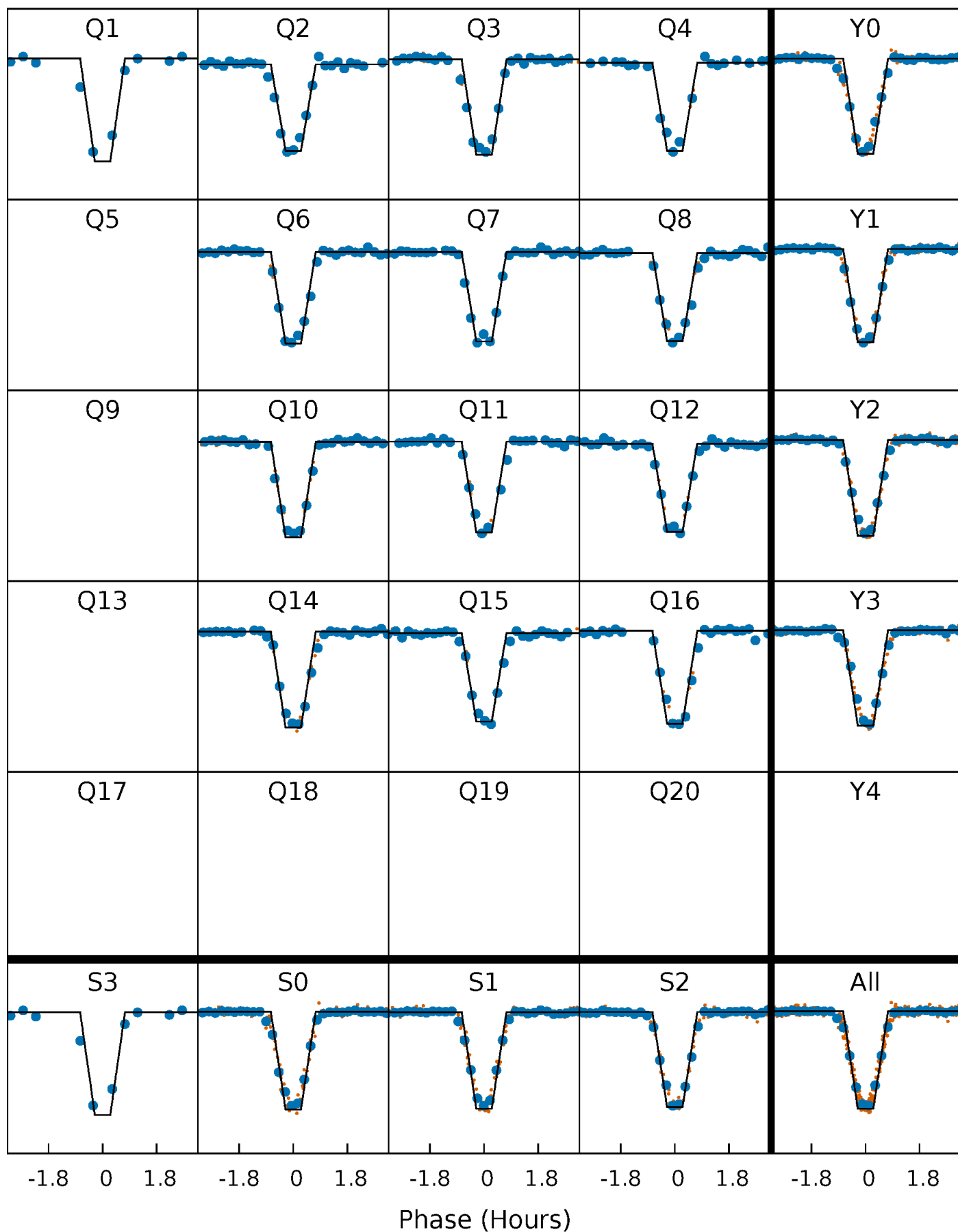
DV Quarter-Phased Transit Curves

TCE 006025124-01 P= 26.837710 Days $T_0=158.125601$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

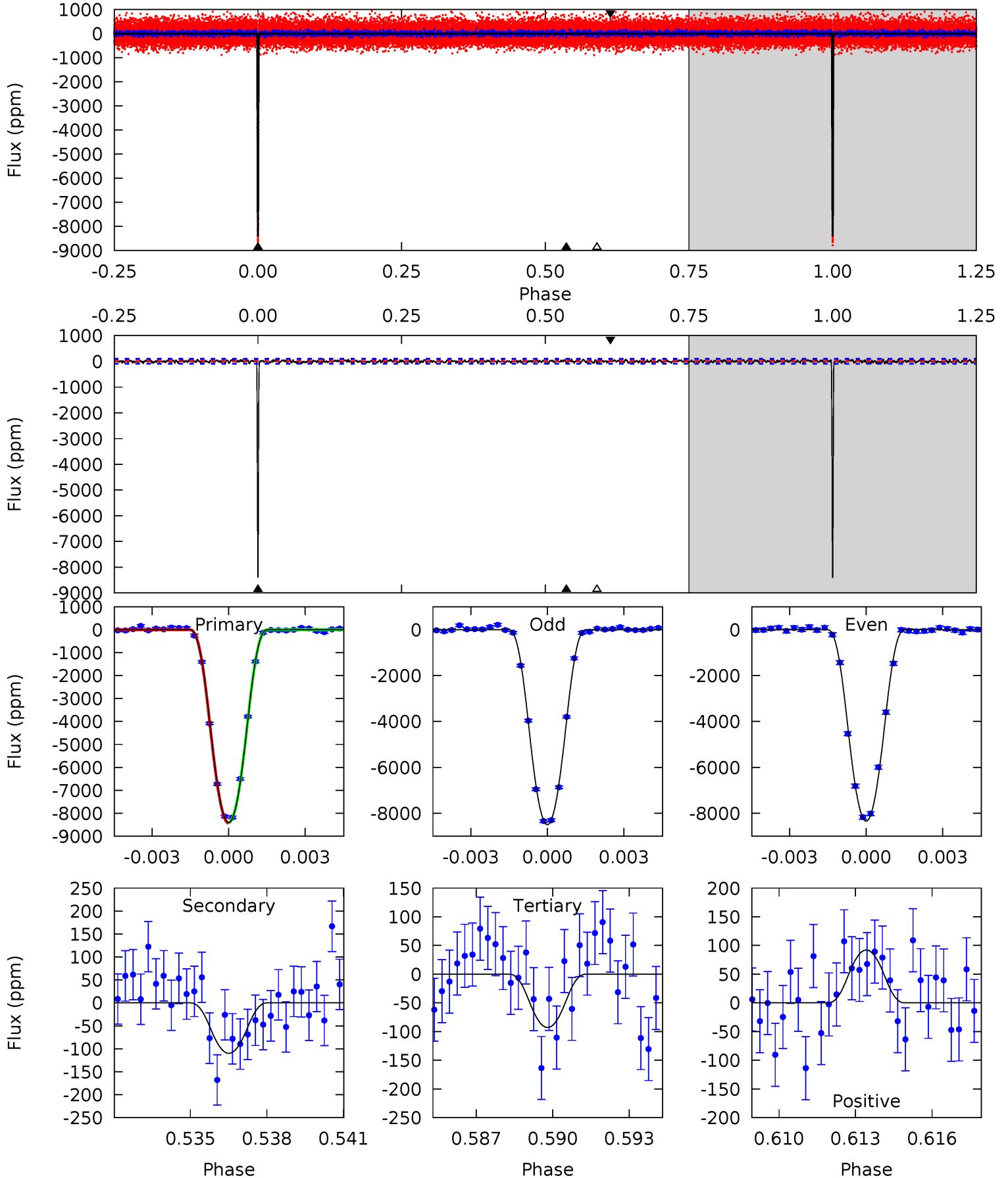
TCE 006025124-01 P= 26.837616 Days $T_0=158.127998$ (BKJD)



DV Model-Shift Uniqueness Test

006025124-01, P = 26.837710 Days, E = 131.287891 Days

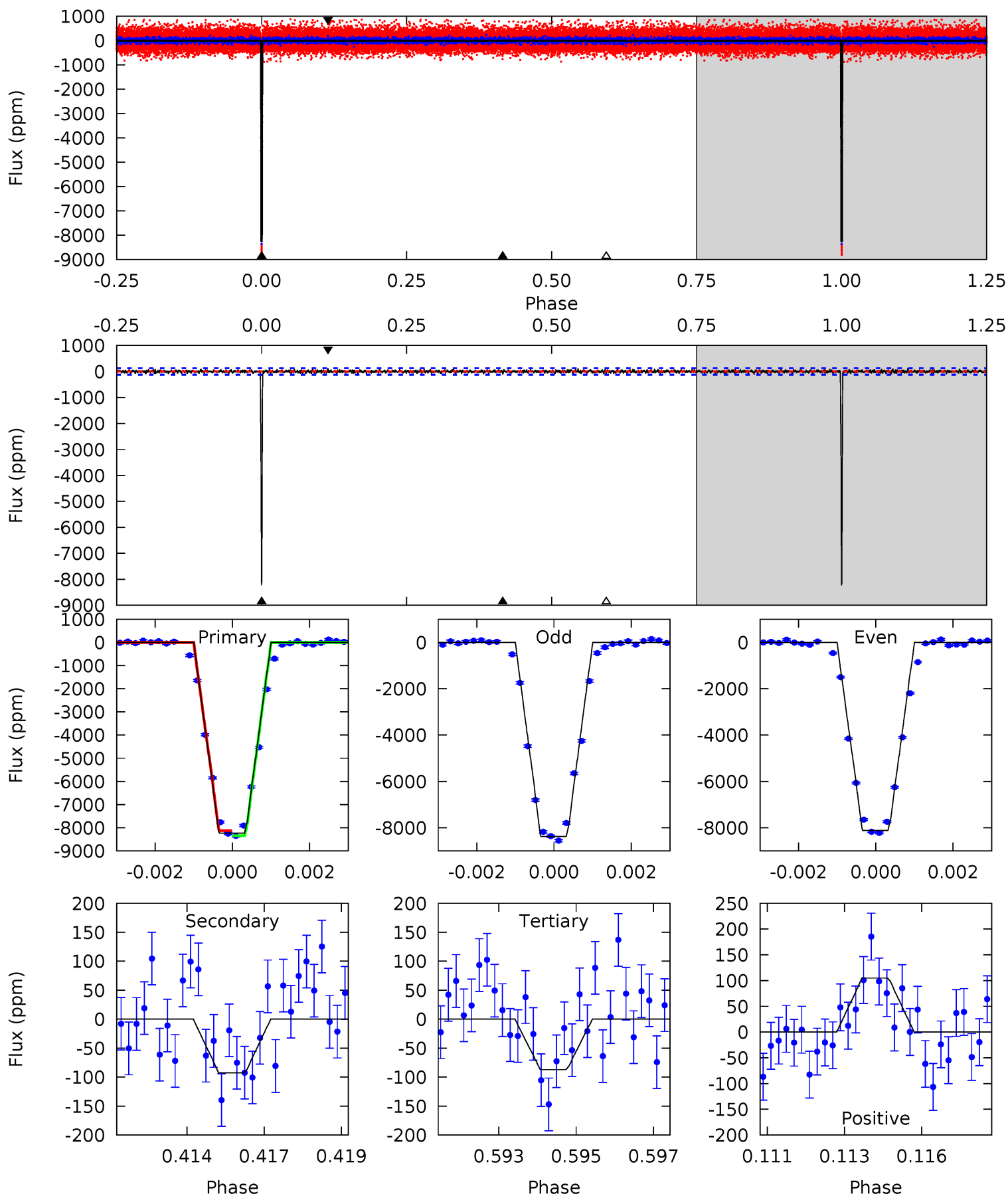
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
461.8	6.03	5.10	5.05	5.24	2.94	1.64	456.7	456.7	0.93	0.98	4.29	1.00	0.01	0.84



Alt Model-Shift Uniqueness Test

006025124-01, P = 26.837616 Days, E = 131.290382 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
358.3	4.03	3.80	4.56	5.30	3.05	1.23	354.5	353.7	0.23	-0.54	5.70	0.99	0.01	4.69



Stellar Parameters For KIC 006025124

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6194^{+194}_{-259}	$4.445^{+0.058}_{-0.232}$	$0.070^{+0.250}_{-0.350}$	$1.069^{+0.357}_{-0.119}$	$1.161^{+0.155}_{-0.186}$	$1.340^{+0.404}_{-0.731}$
	+3%/-4%	+1%/-5%	+357%/-500%	+33%/-11%	+13%/-16%	+30%/-55%
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 006025124-01 / KOI 3411.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-110 ± 18	$14.20^{+2.59}_{-1.92}$	940^{+75}_{-51}	2643^{+110}_{-98}	$9.899^{+3.686}_{-2.991}$
Alt.	-93 ± 23	$11.32^{+2.27}_{-1.70}$	938^{+80}_{-51}	2730^{+162}_{-135}	13^{+7}_{-5}

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 $A_{obs} \gg 1.0$

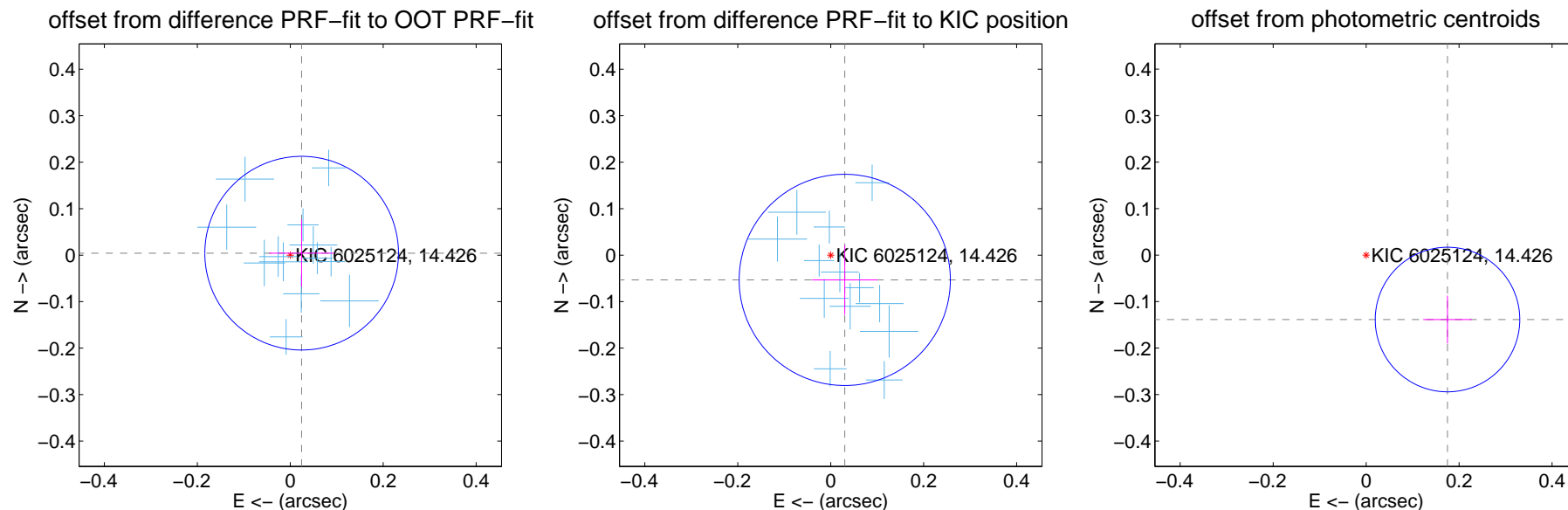
DV Centroid Data

Supplemental centroid analysis for 006025124-01. Kepler magnitude: 14.43. Transit SNR 232.49

There are 13 quarters with good PRF difference image offsets

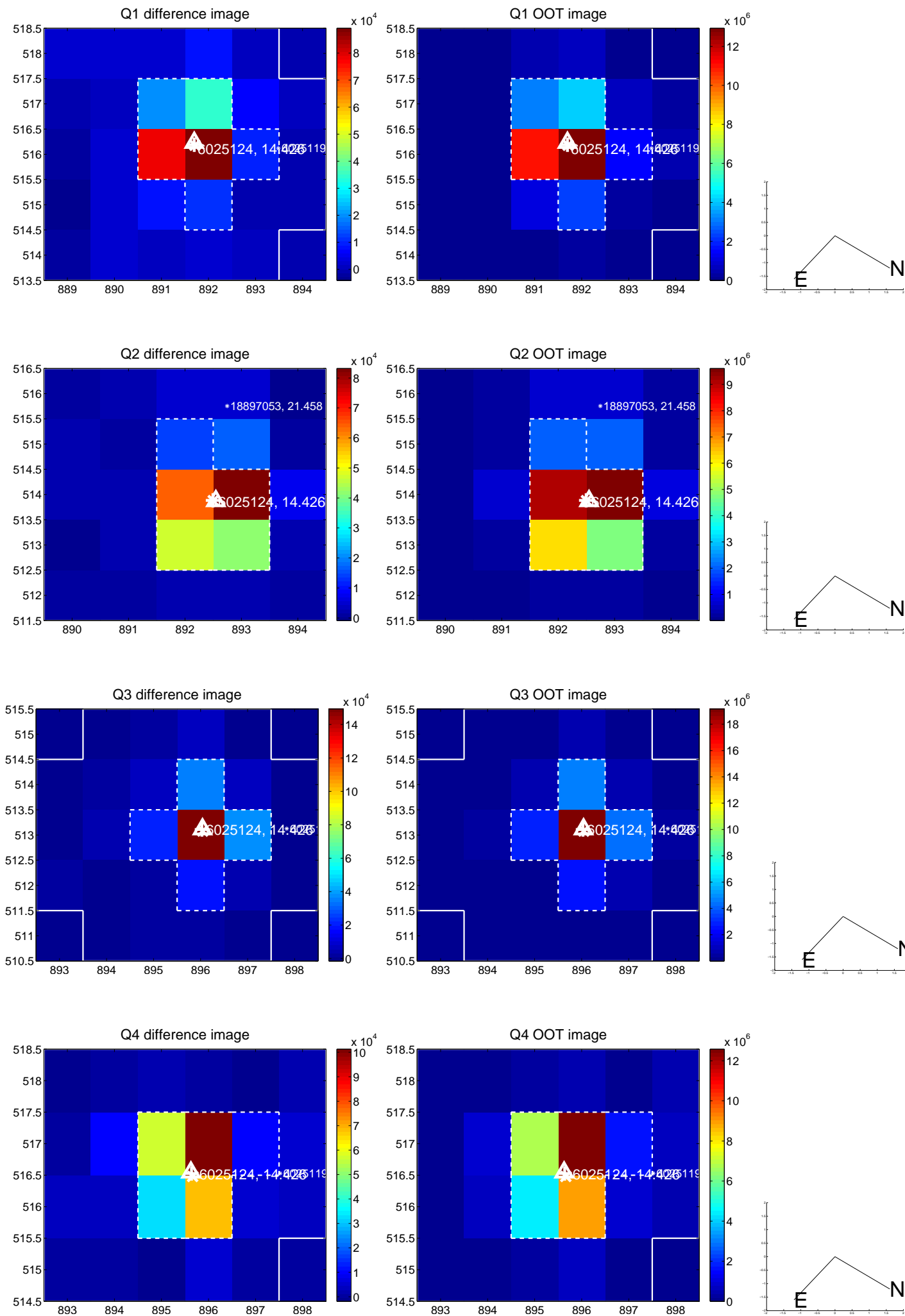
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.069	0.36	-0.024 ± 0.070	0.004 ± 0.072
PRF-fit source offset from KIC position	0.061 ± 0.076	0.81	-0.030 ± 0.070	-0.053 ± 0.075
photometric centroid source offset	0.22 ± 0.05	4.31	-0.18 ± 0.05	-0.14 ± 0.05

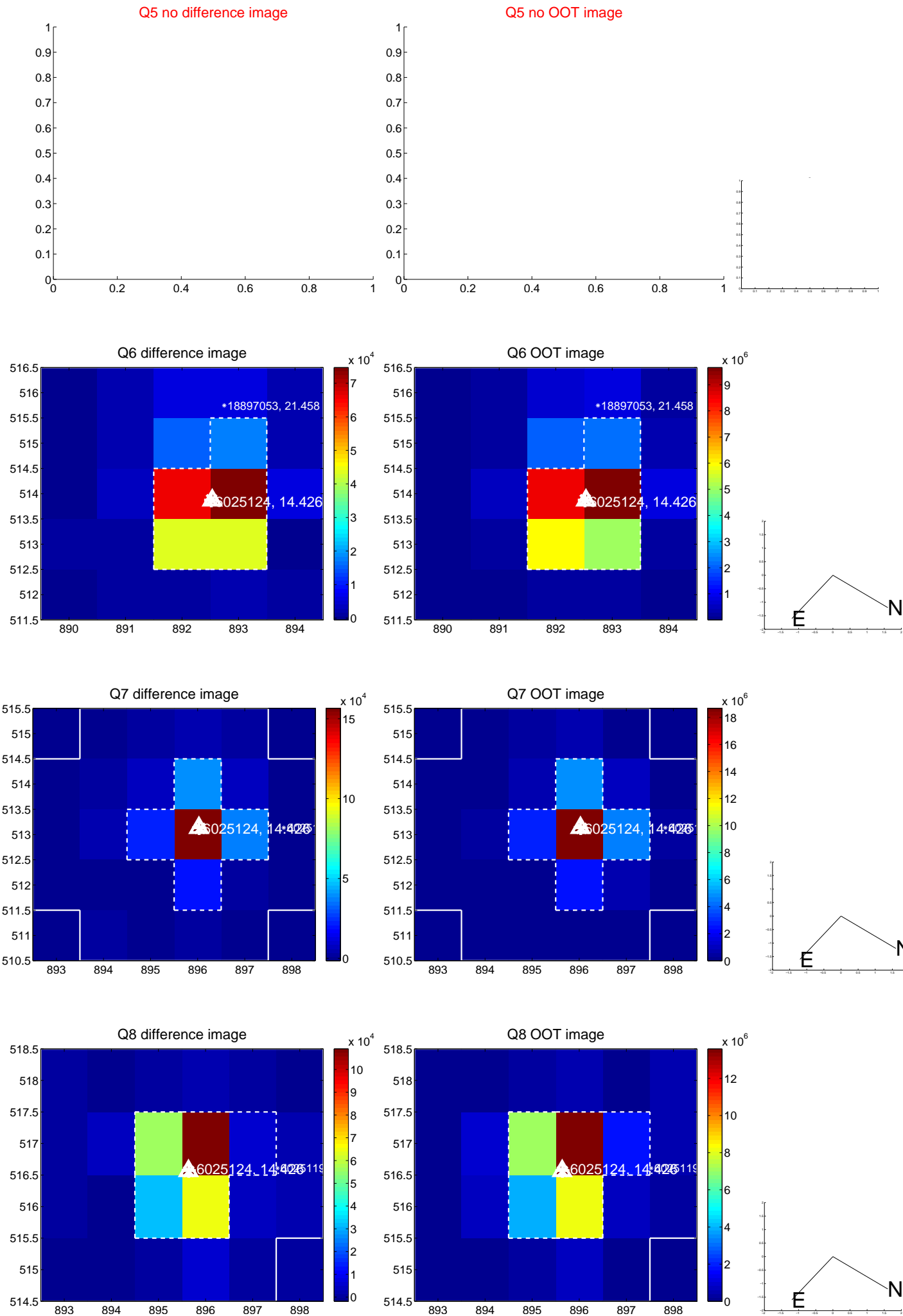


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

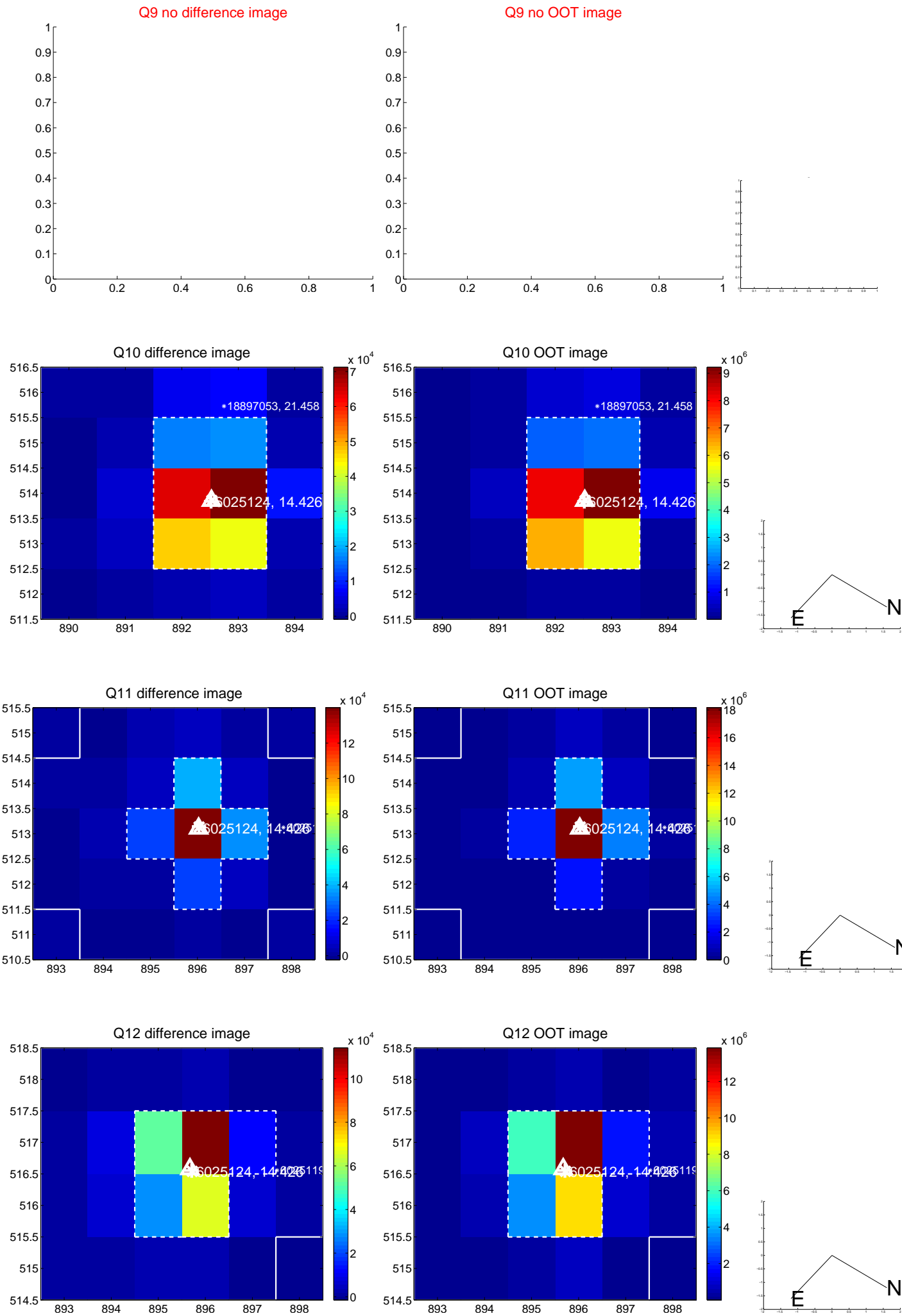
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



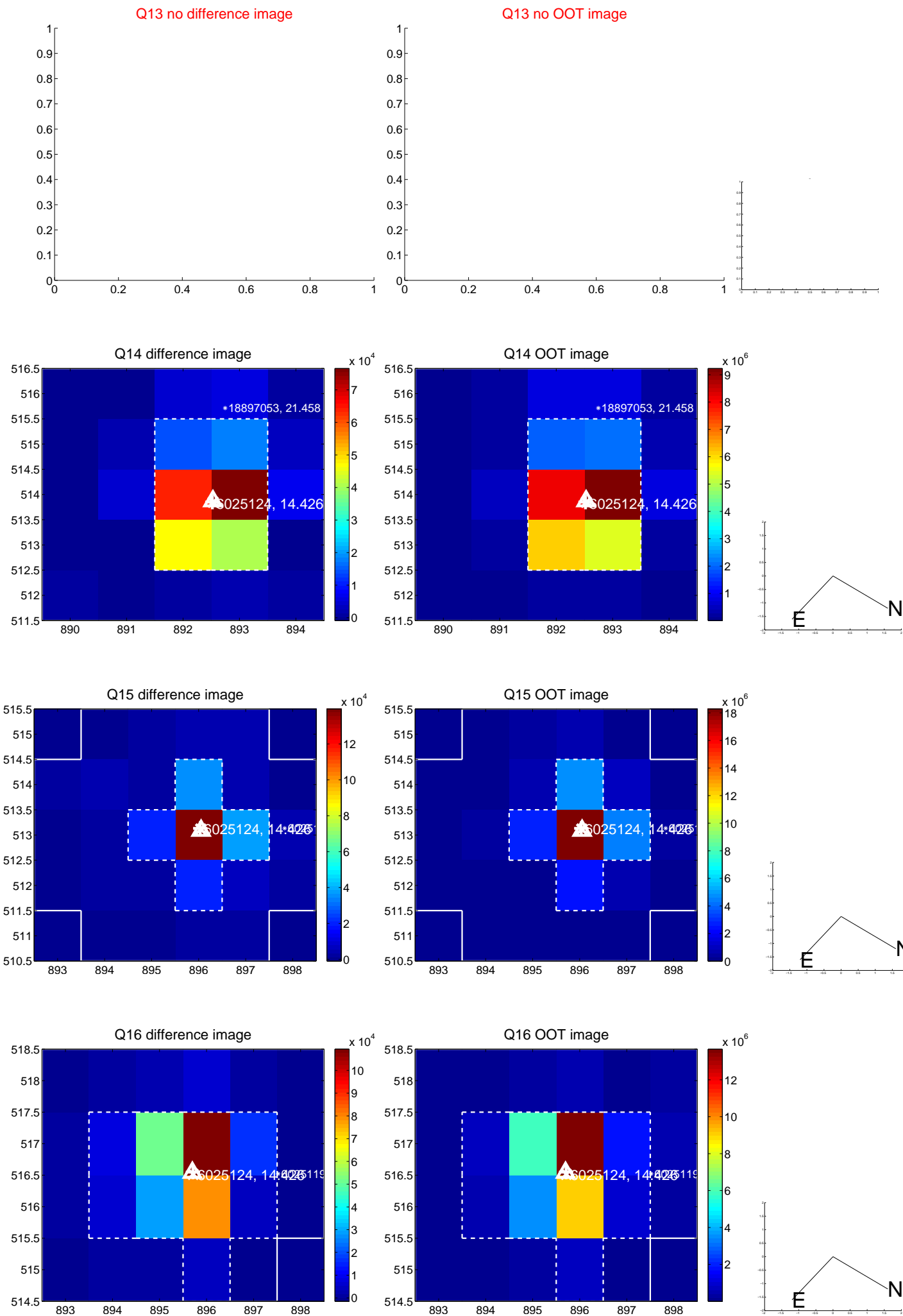
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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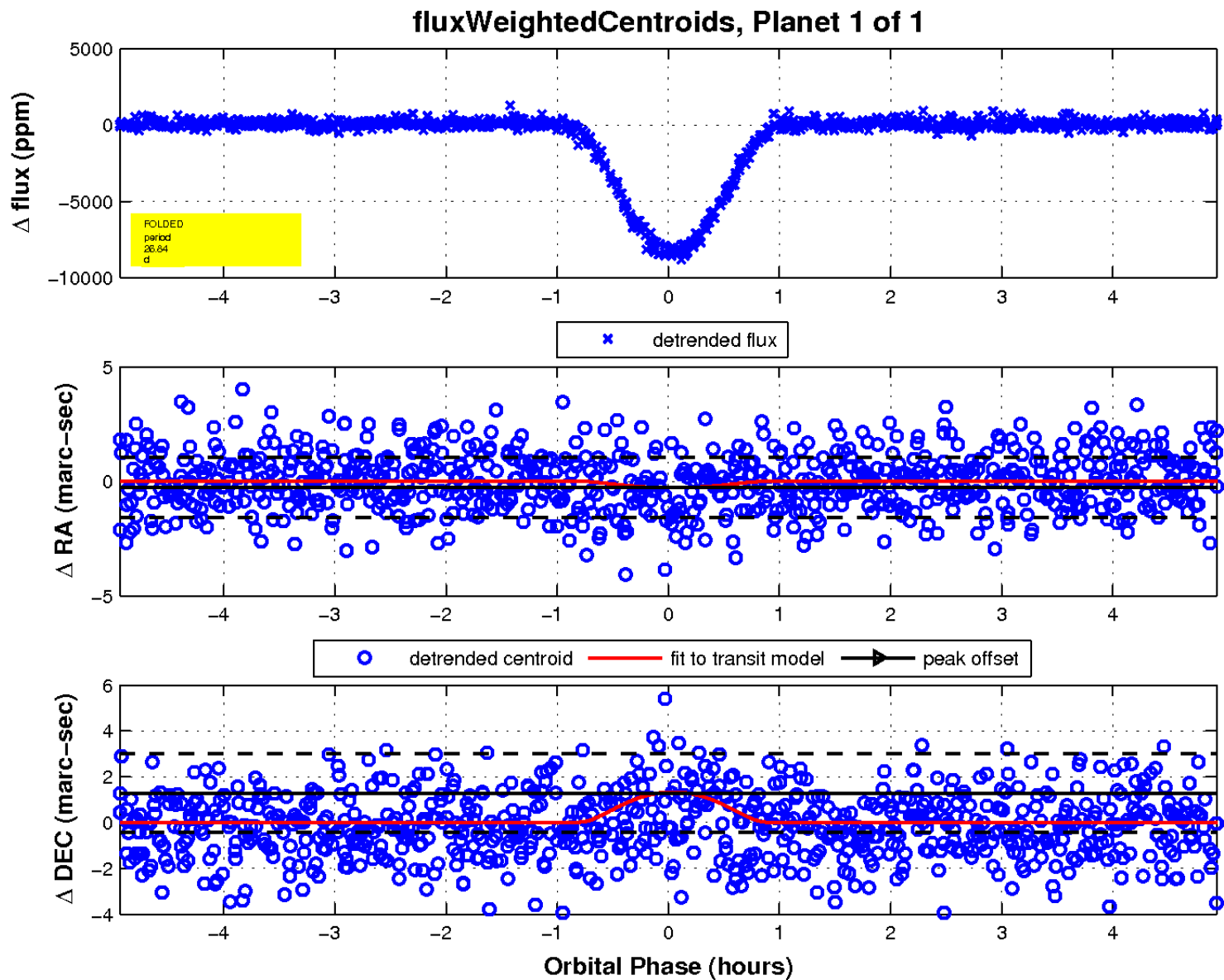
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Q17 no difference image

Q17 no OOT image



UKIRT Image

