

KIC 007097965

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})
007097965-01	OBS	2083.01	7.720857	136.562461	266.0	1.678	25.2	30.1	1.18	5887	2.28	257.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007097965-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

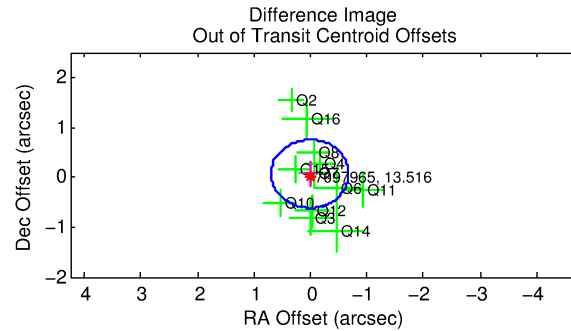
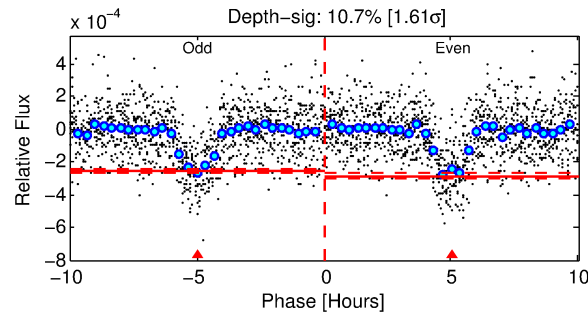
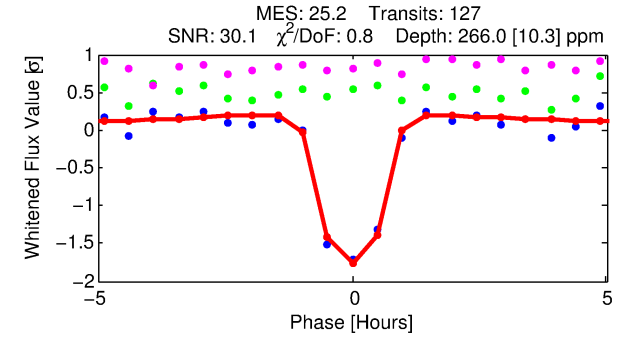
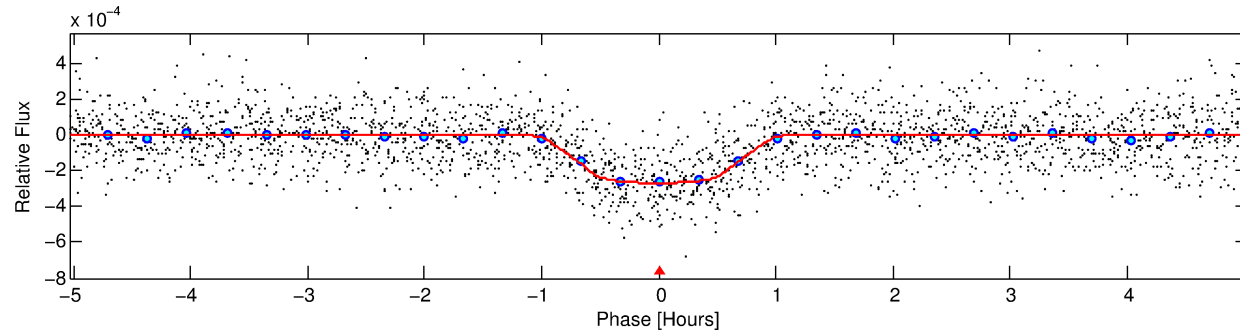
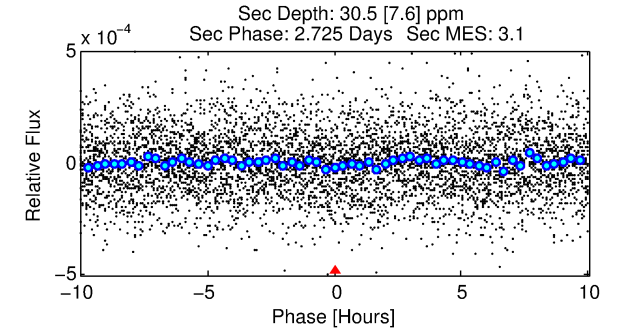
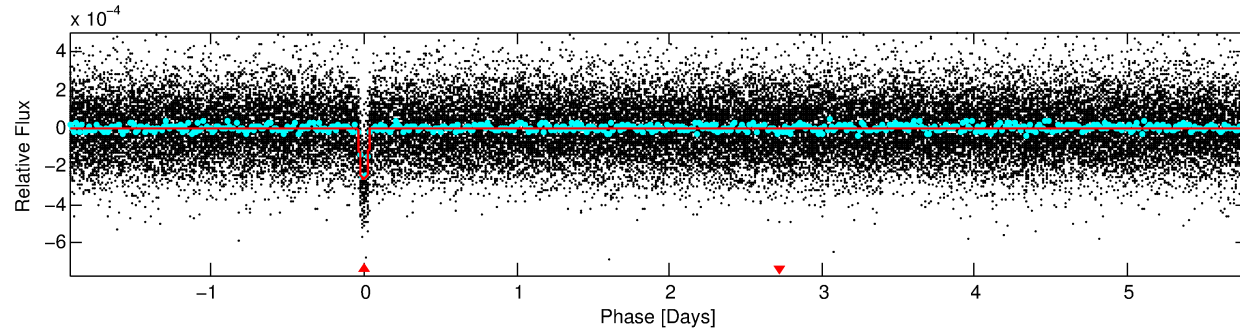
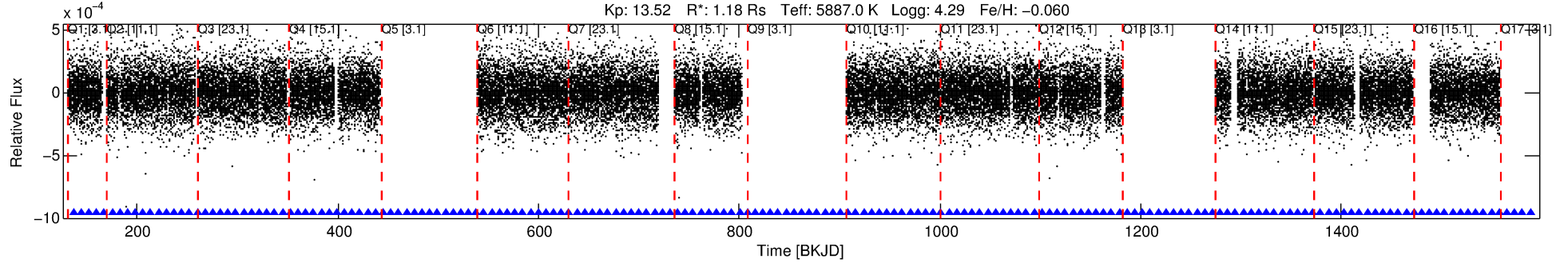
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007097965-01

No Significant Match Found

DV One-Page Summary

KIC: 7097965 Candidate: 1 of 1 Period: 7.721 d
KOI: K02083.01 Corr: 0.950



DV Fit Results:

Period = 7.72086 [0.00001] d
Epoch = 136.5625 [0.0012] BKJD
Rp/R* = 0.0178 [0.0038]
a/R* = 16.70 [17.65]
b = 0.90 [0.23]
Seff = 257.49 [64.97]
Teq = 1021 [64] K
Rp = 2.28 [0.61] Re
a = 0.0761 [0.0114] AU
Ag = 18.68 [10.33] [1.71σ]
Teffp = 3283 [417] K [5.36σ]

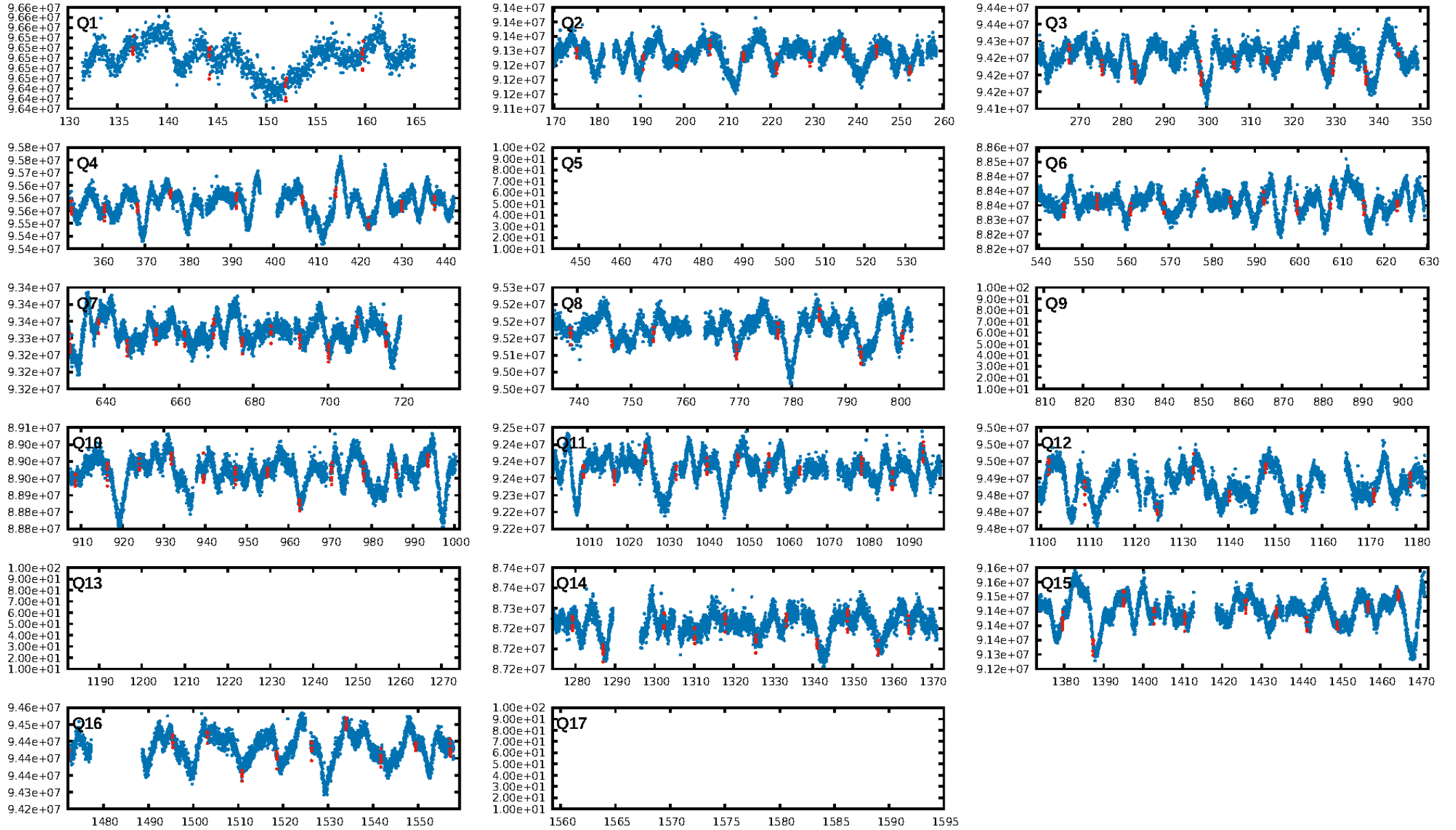
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.16e-137
RollingBand-fgt: 1.00 [123/123]
GhostDiagnostic-chr: 5.585
Centroid-sig: N/A
Centroid-so: 0.370 arcsec [0.98σ]
OotOffset-rm: 0.066 arcsec [0.29σ]
KicOffset-rm: 0.083 arcsec [0.48σ]
OotOffset-st: 4/4/4/0 [12]
KicOffset-st: 4/4/4/0 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [13/13]

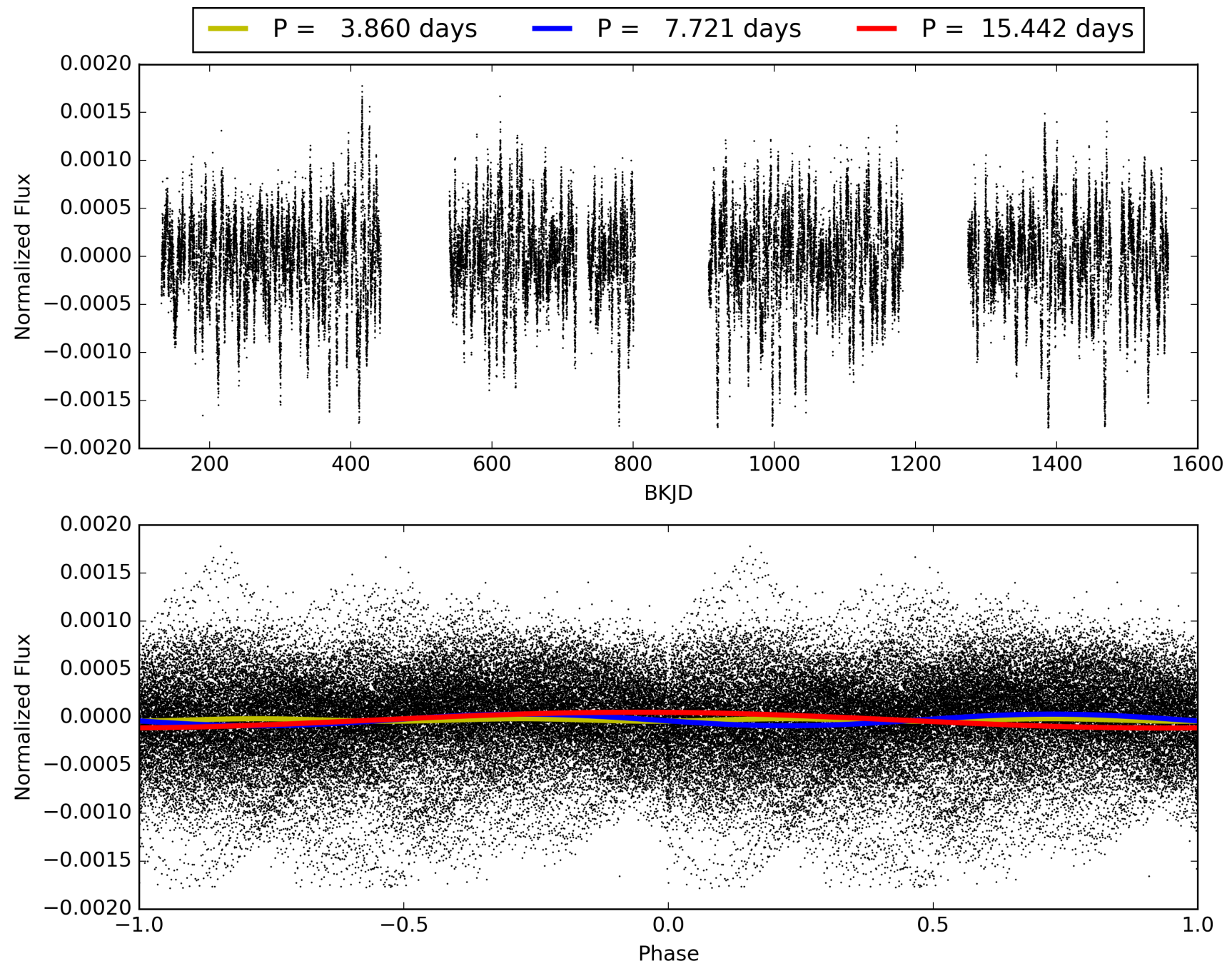
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:25:56 Z

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

TCE 007097965-01, PDC Light Curves

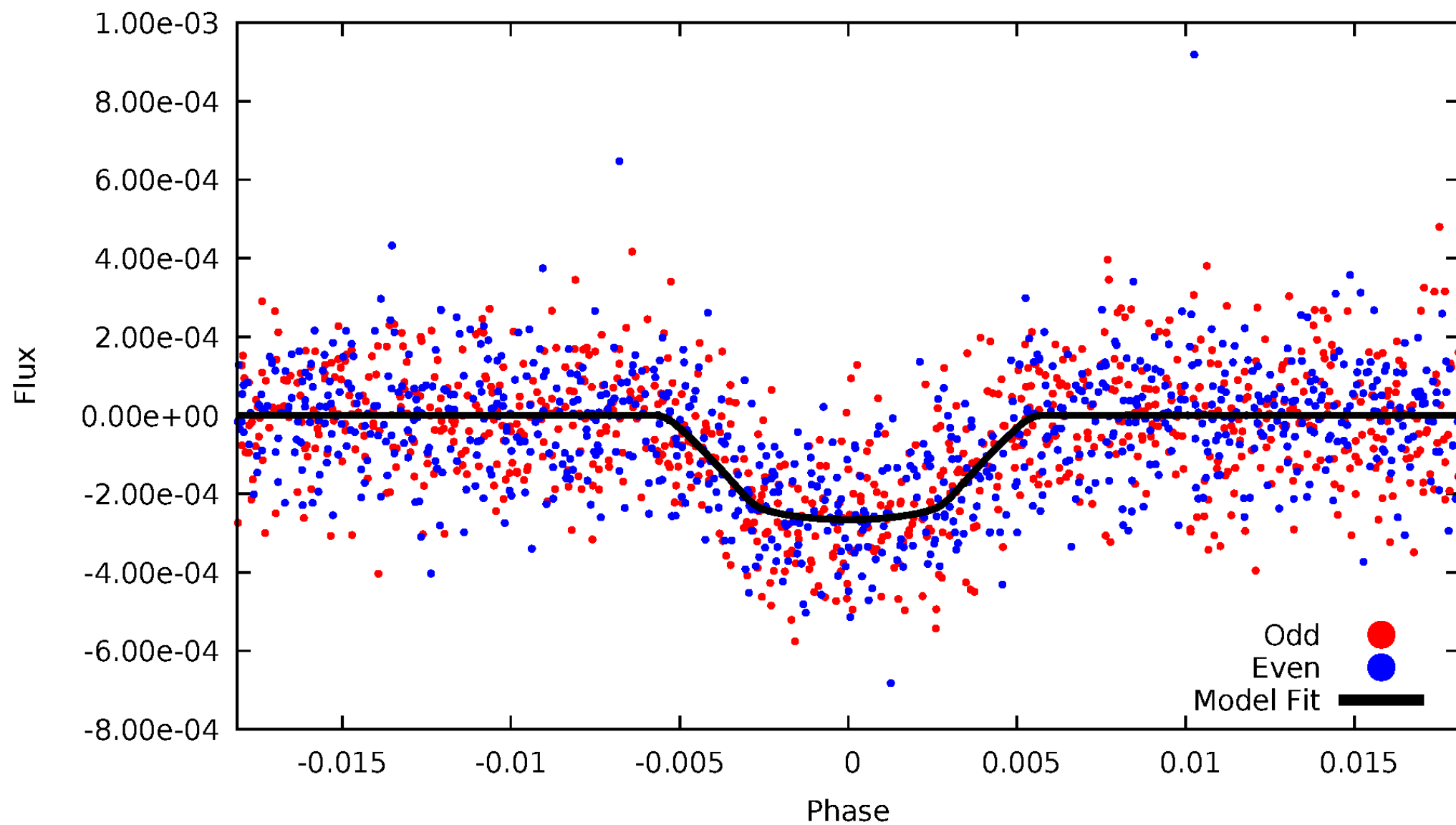


TCE 007097965-01



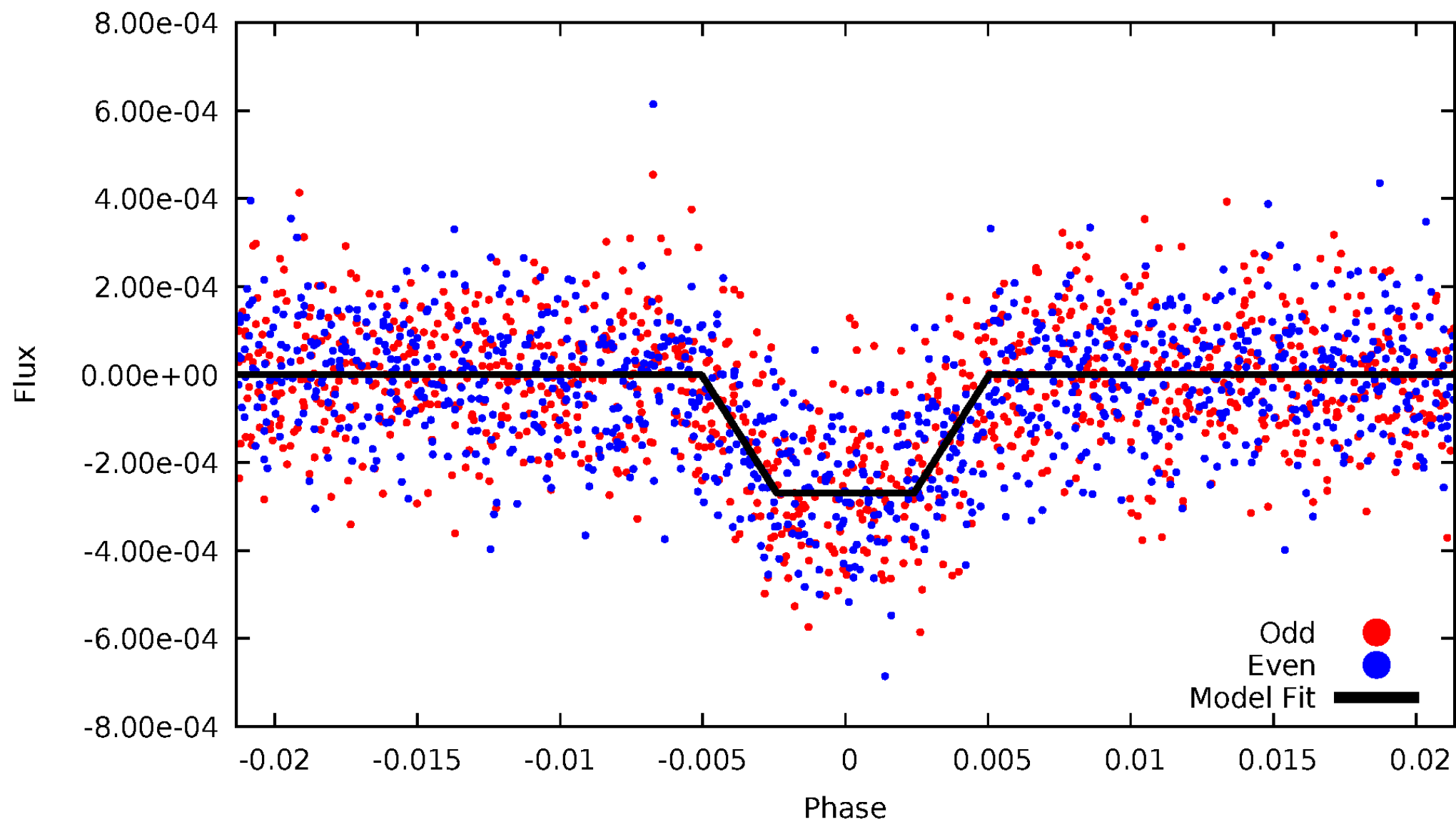
DV Odd/Even

TCE 007097965-01



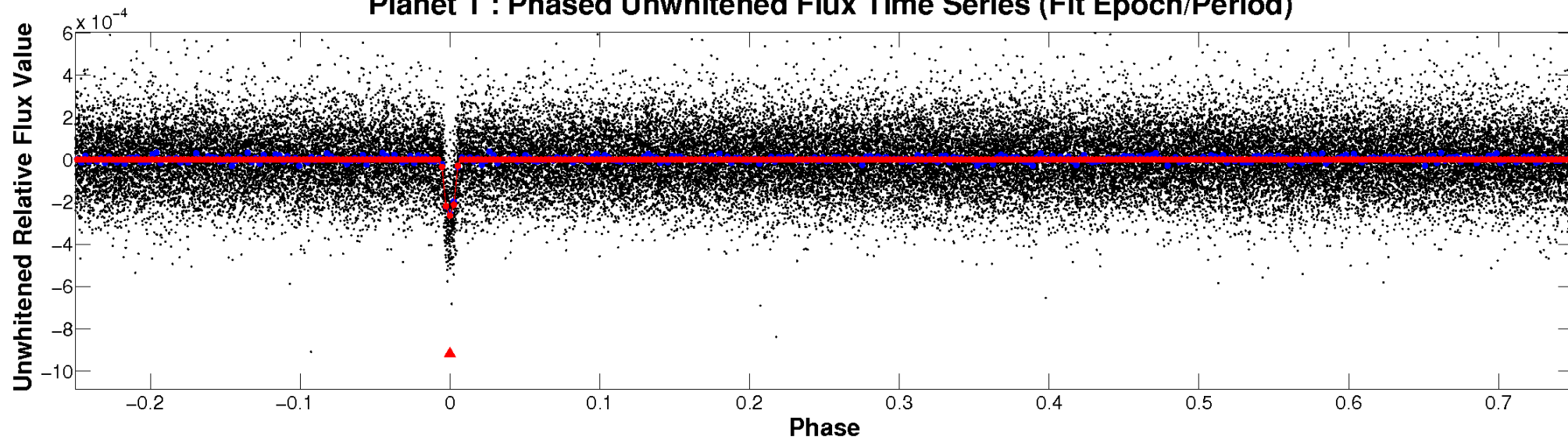
ALT Odd/Even

TCE 007097965-01

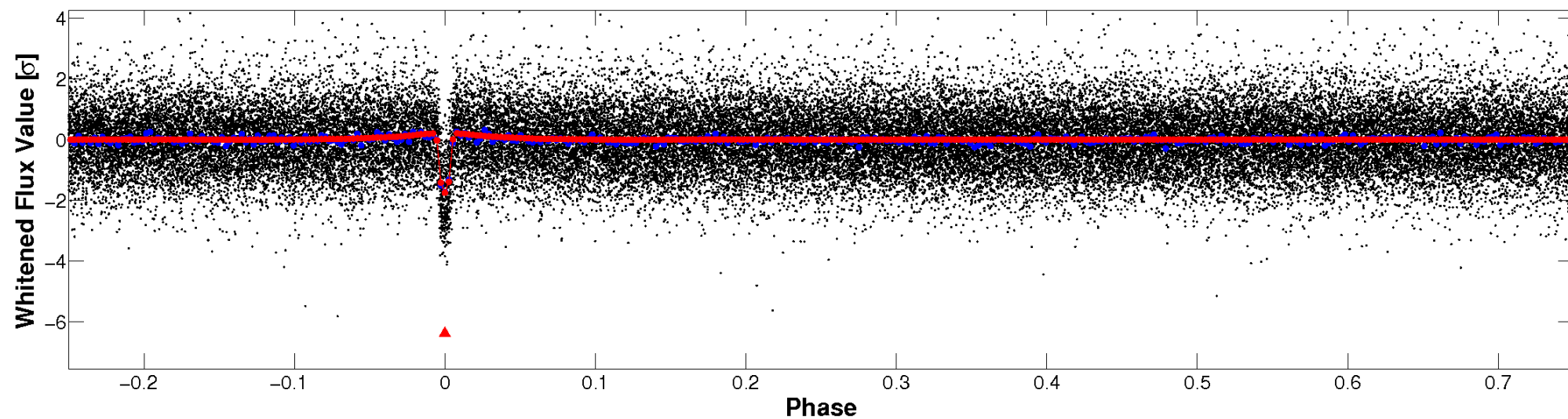


Non-Whitened Vs. Whitened Light Curve

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

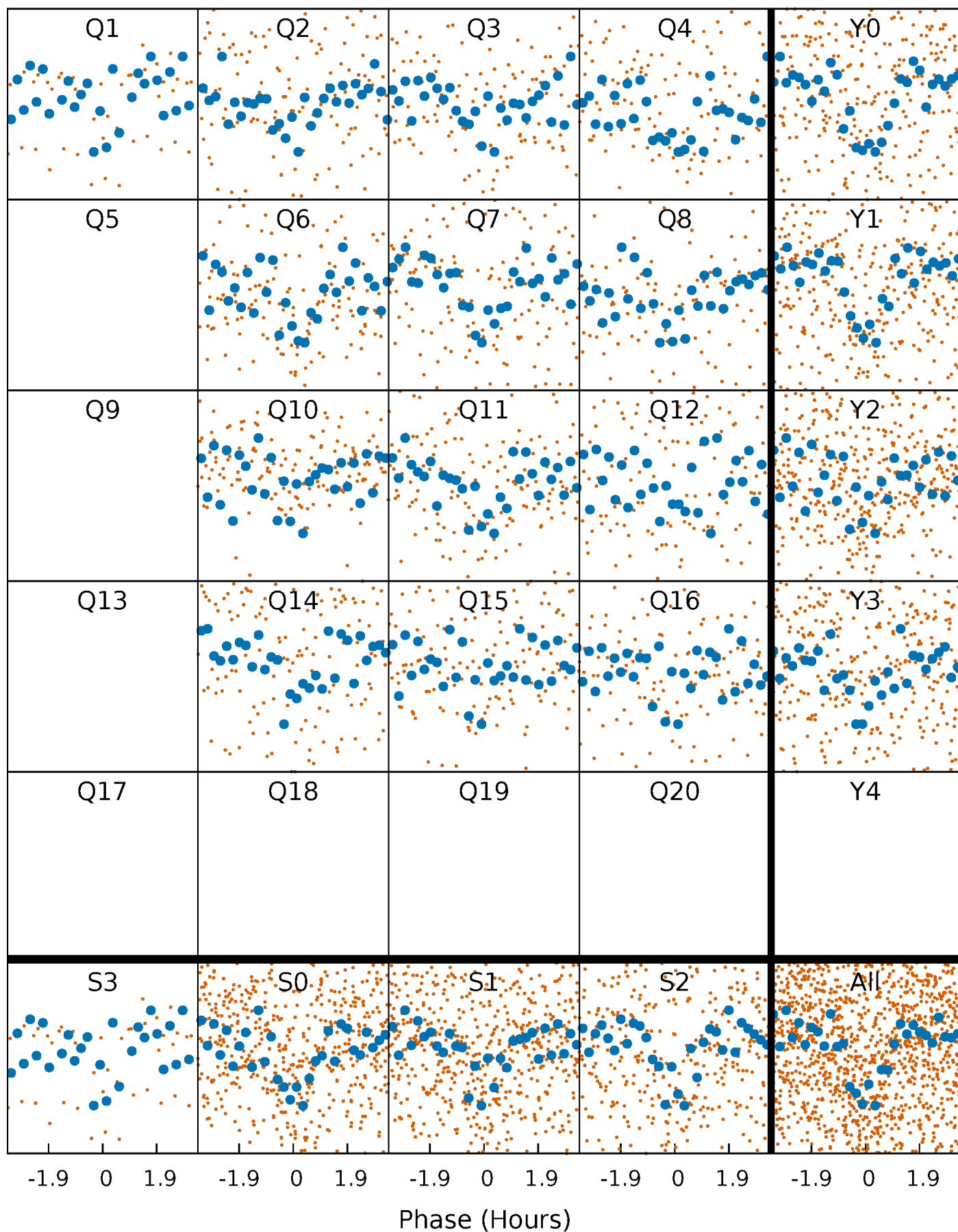


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



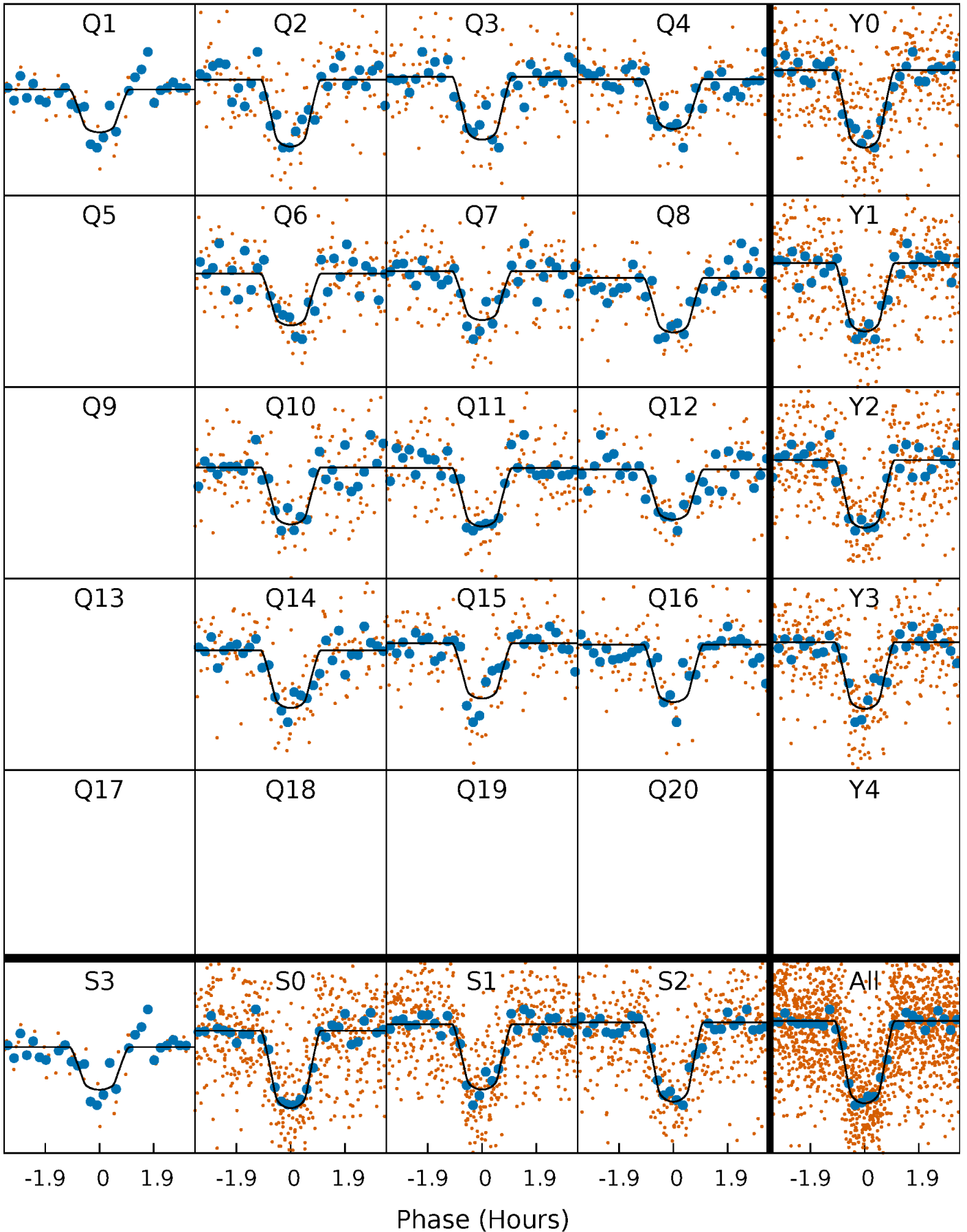
PDC Quarter-Phased Transit Curves

TCE 007097965-01 P= 7.720857 Days $T_0=136.562461$ (BKJD)



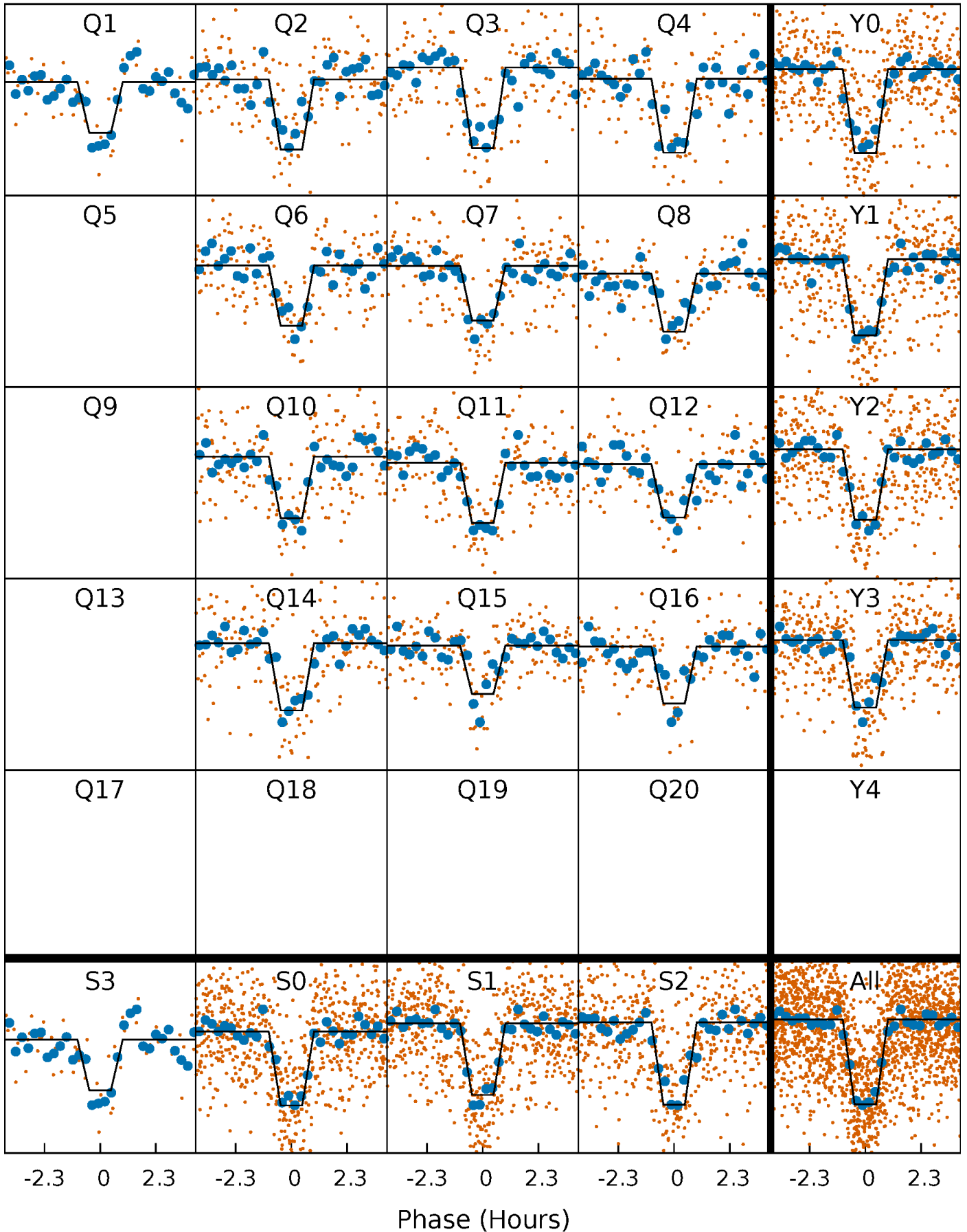
DV Quarter-Phased Transit Curves

TCE 007097965-01 P= 7.720857 Days $T_0=136.562461$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

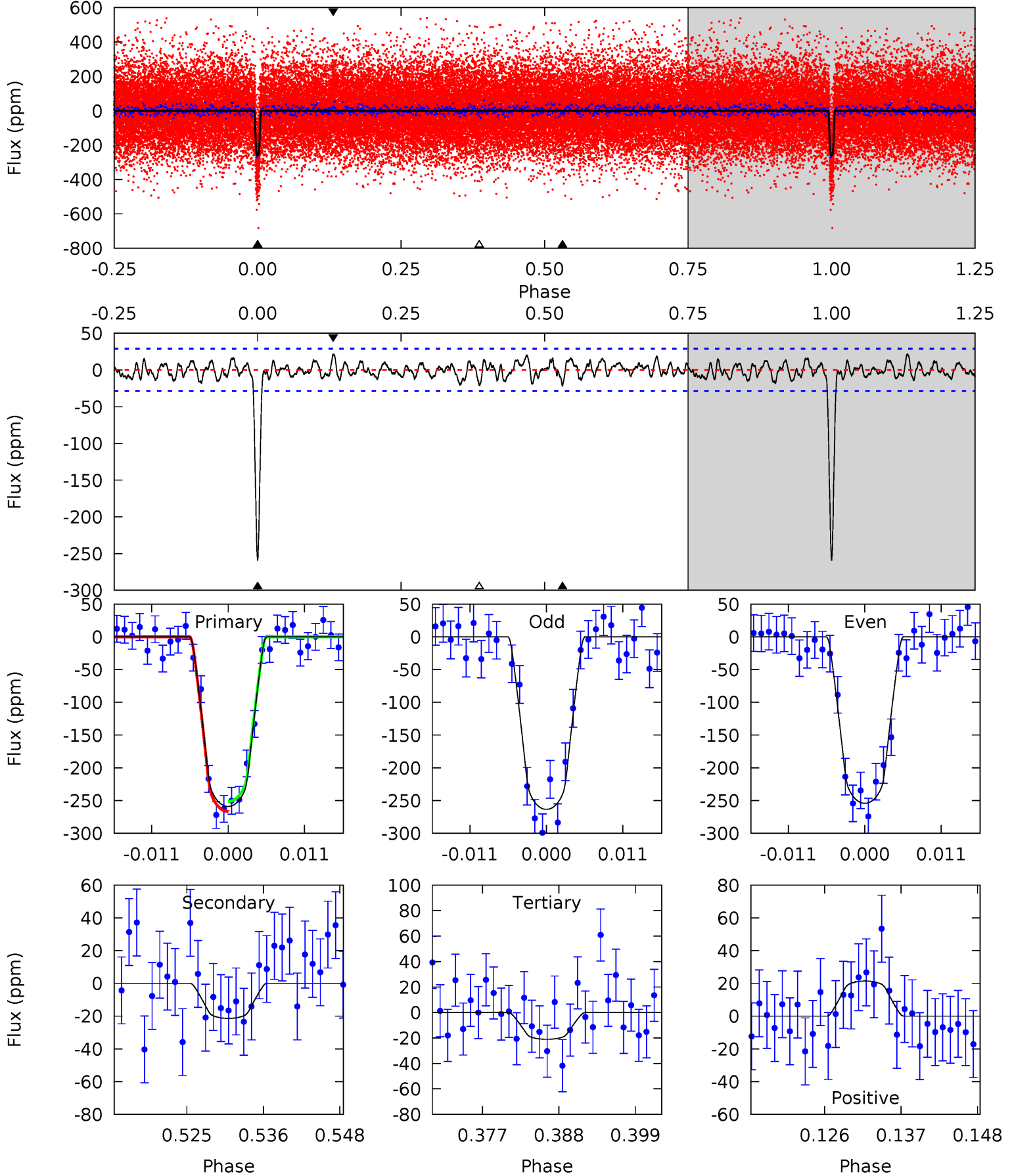
TCE 007097965-01 P= 7.720825 Days $T_0=136.565434$ (BKJD)



DV Model-Shift Uniqueness Test

007097965-01, P = 7.720857 Days, E = 128.841604 Days

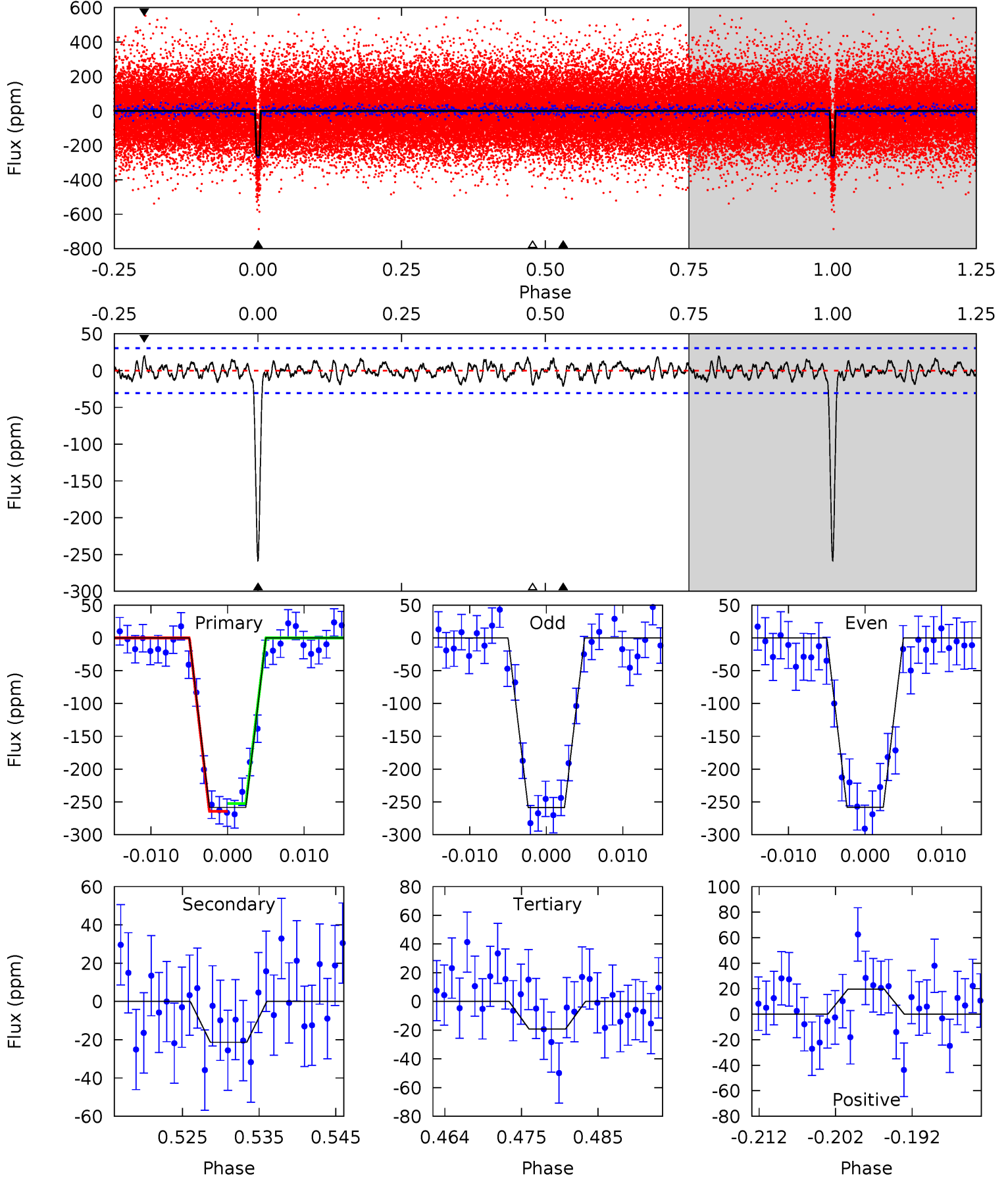
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.9	3.71	3.65	3.72	5.00	2.53	1.38	41.3	41.2	0.06	-0.01	0.80	1.02	0.08	1.33



Alt Model-Shift Uniqueness Test

007097965-01, P = 7.720825 Days, E = 128.844609 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.5	3.51	3.16	3.22	5.02	2.57	1.21	39.3	39.3	0.34	0.29	0.04	1.03	0.07	0.99



Stellar Parameters For KIC 007097965

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5887^{+105}_{-129}	$4.290^{+0.138}_{-0.113}$	$-0.060^{+0.150}_{-0.150}$	$1.177^{+0.186}_{-0.186}$	$0.985^{+0.078}_{-0.064}$	$0.851^{+0.516}_{-0.272}$
	+2%/-2%	+3%/-3%	+250%/-250%	+16%/-16%	+8%/-6%	+61%/-32%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007097965-01 / KOI 2083.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-21±6	$2.24^{+0.56}_{-0.51}$	1425^{+69}_{-67}	3466^{+339}_{-271}	13^{+10}_{-5}
Alt.	-21±6	$2.10^{+0.56}_{-0.48}$	1423^{+67}_{-68}	3558^{+340}_{-301}	15^{+13}_{-7}

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

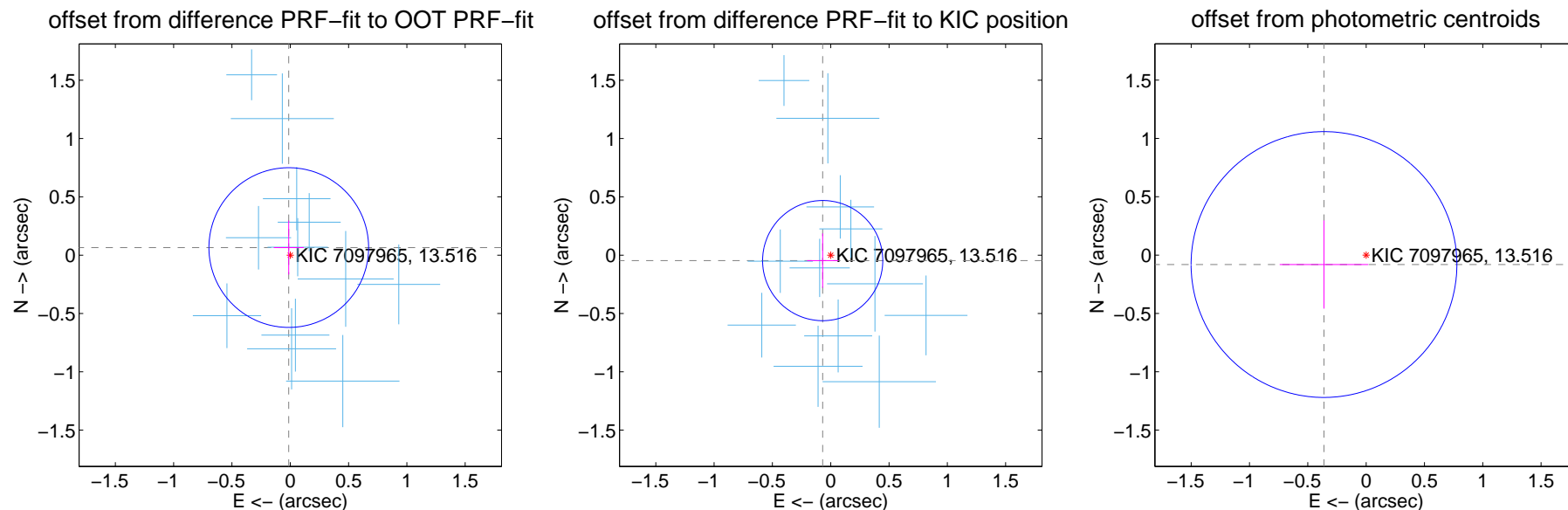
DV Centroid Data

Supplemental centroid analysis for 007097965-01. Kepler magnitude: 13.52. Transit SNR 30.07

There are 12 quarters with good PRF difference image offsets

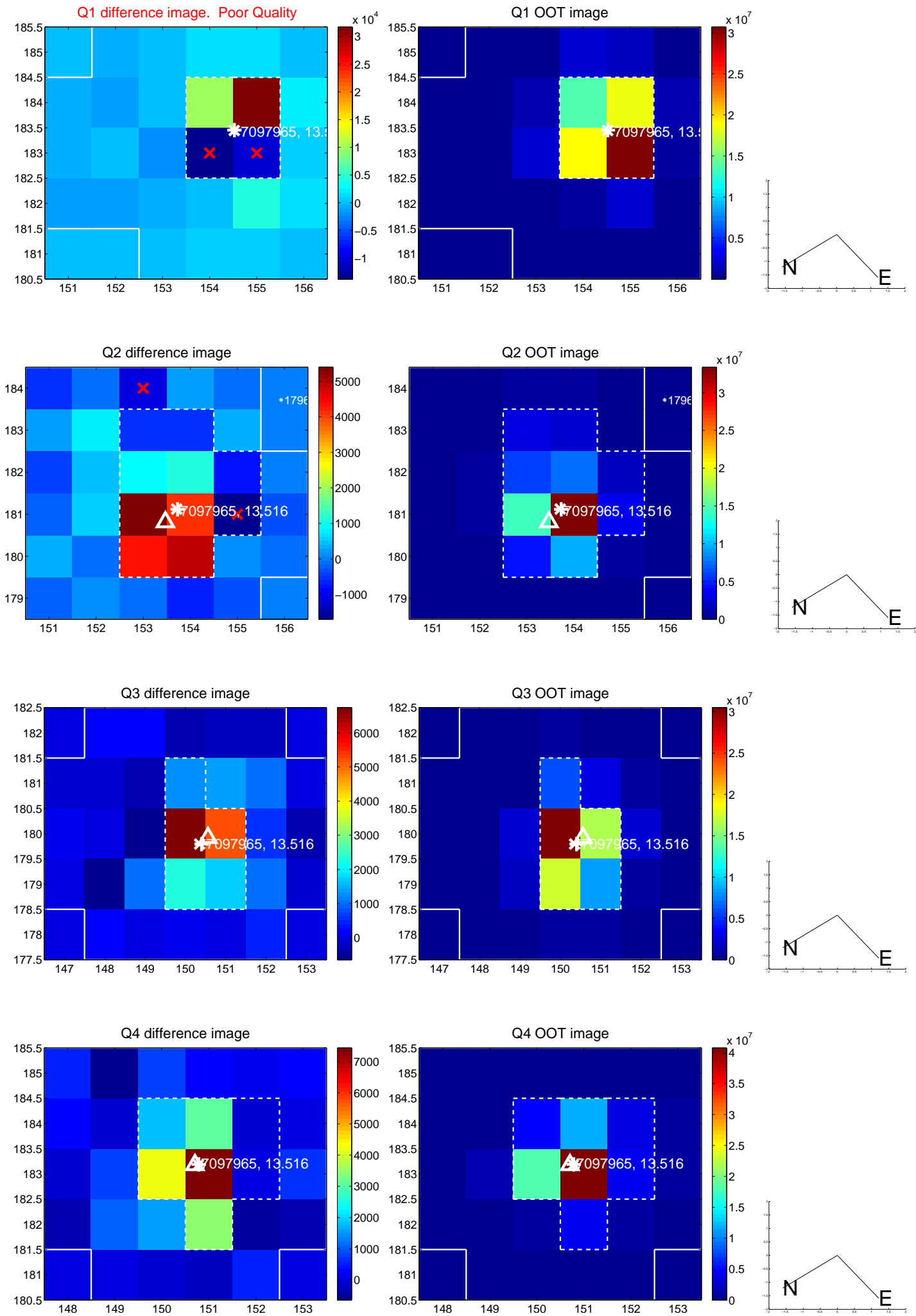
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.066 ± 0.228	0.29	0.013 ± 0.129	0.065 ± 0.231
PRF-fit source offset from KIC position	0.083 ± 0.172	0.48	0.069 ± 0.134	-0.047 ± 0.234
photometric centroid source offset	0.37 ± 0.38	0.98	0.36 ± 0.38	-0.08 ± 0.38

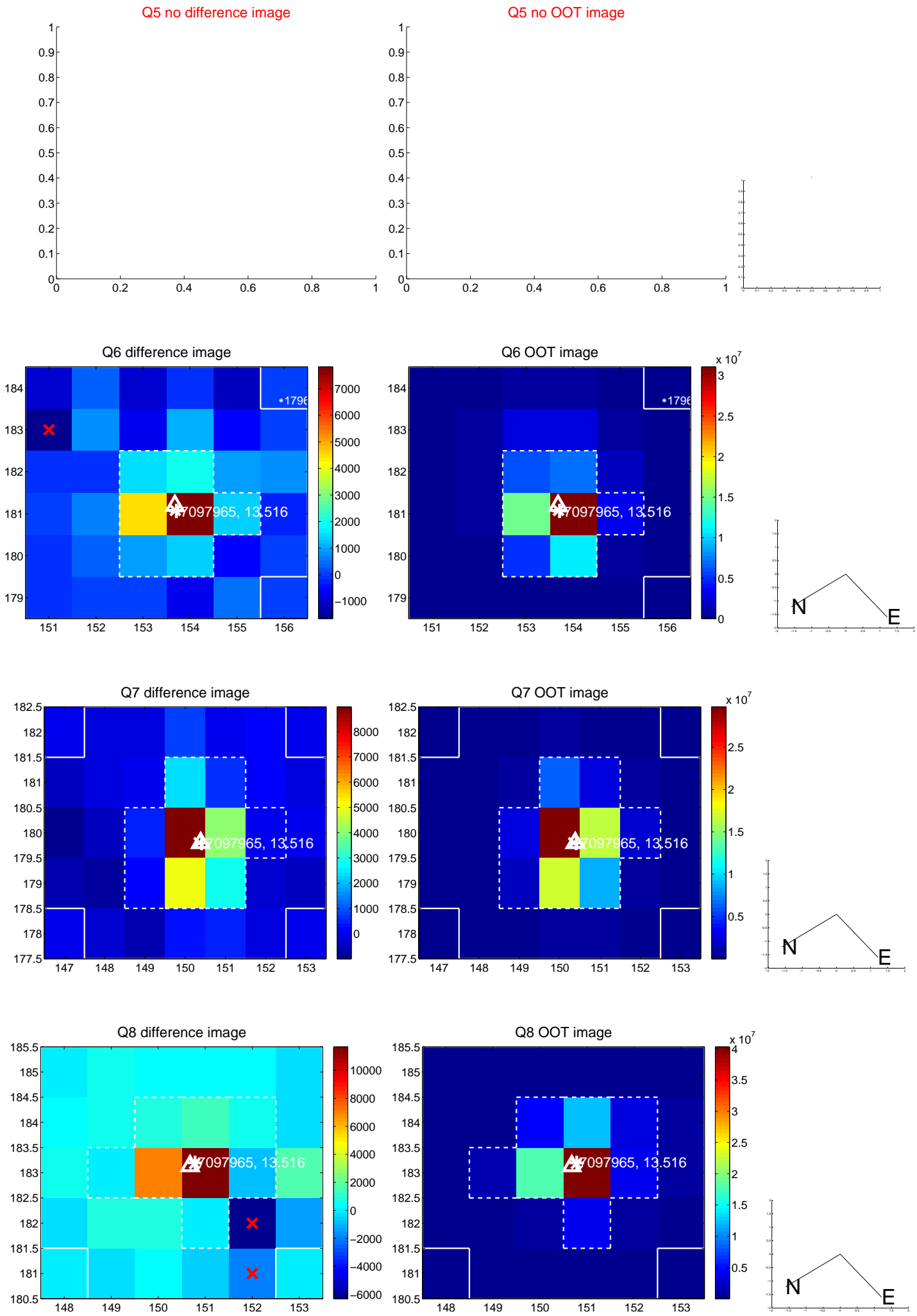


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

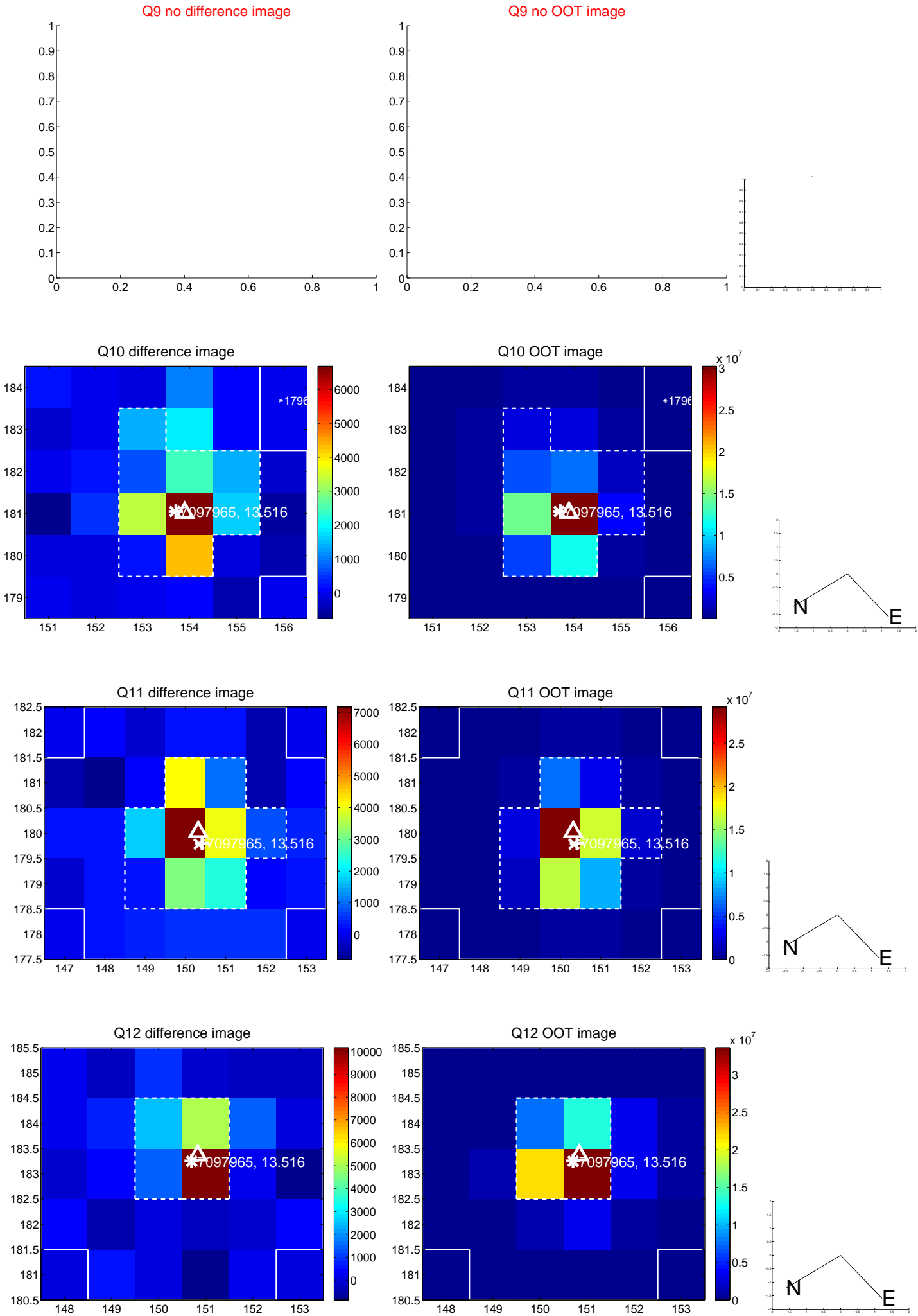
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



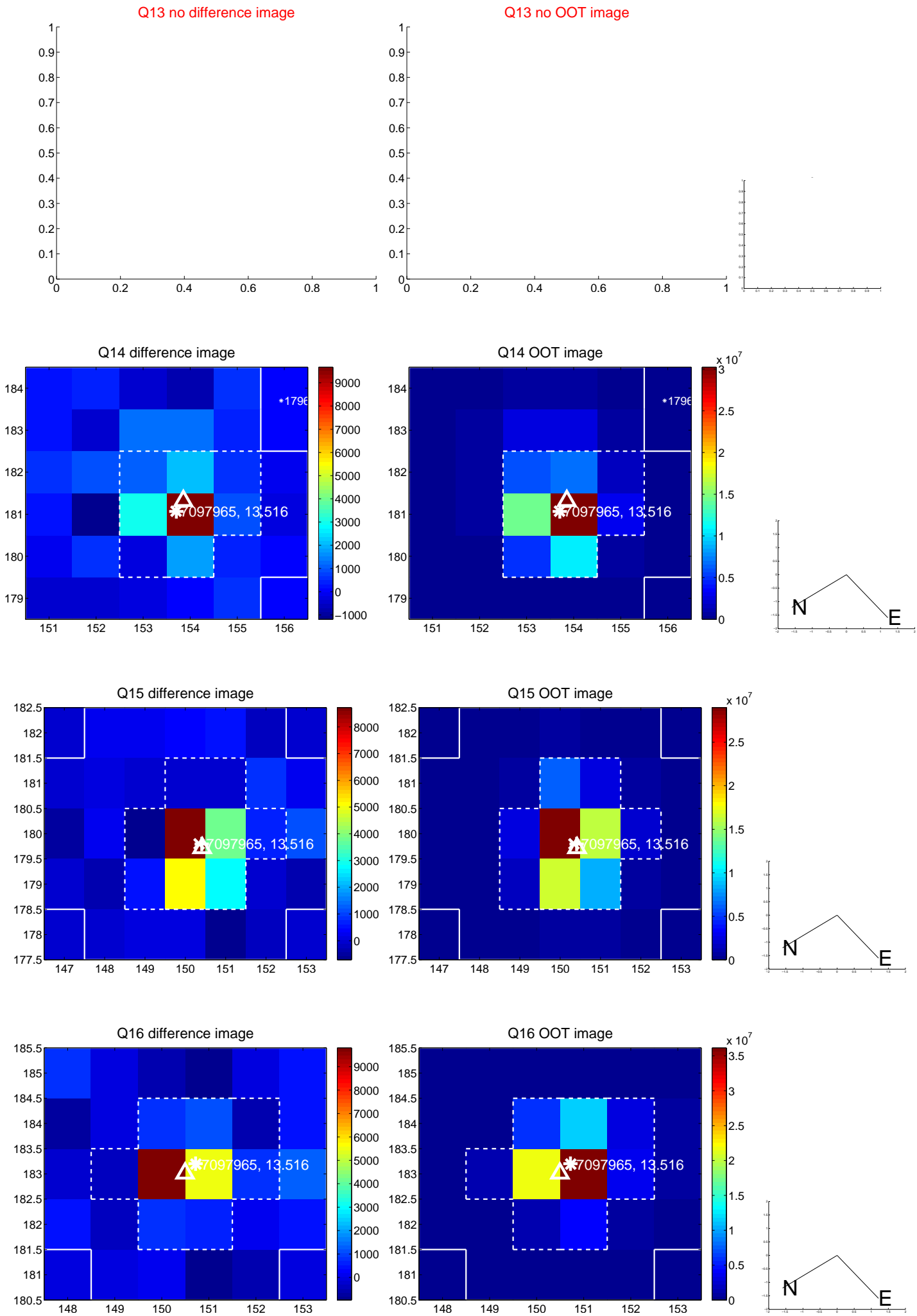
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



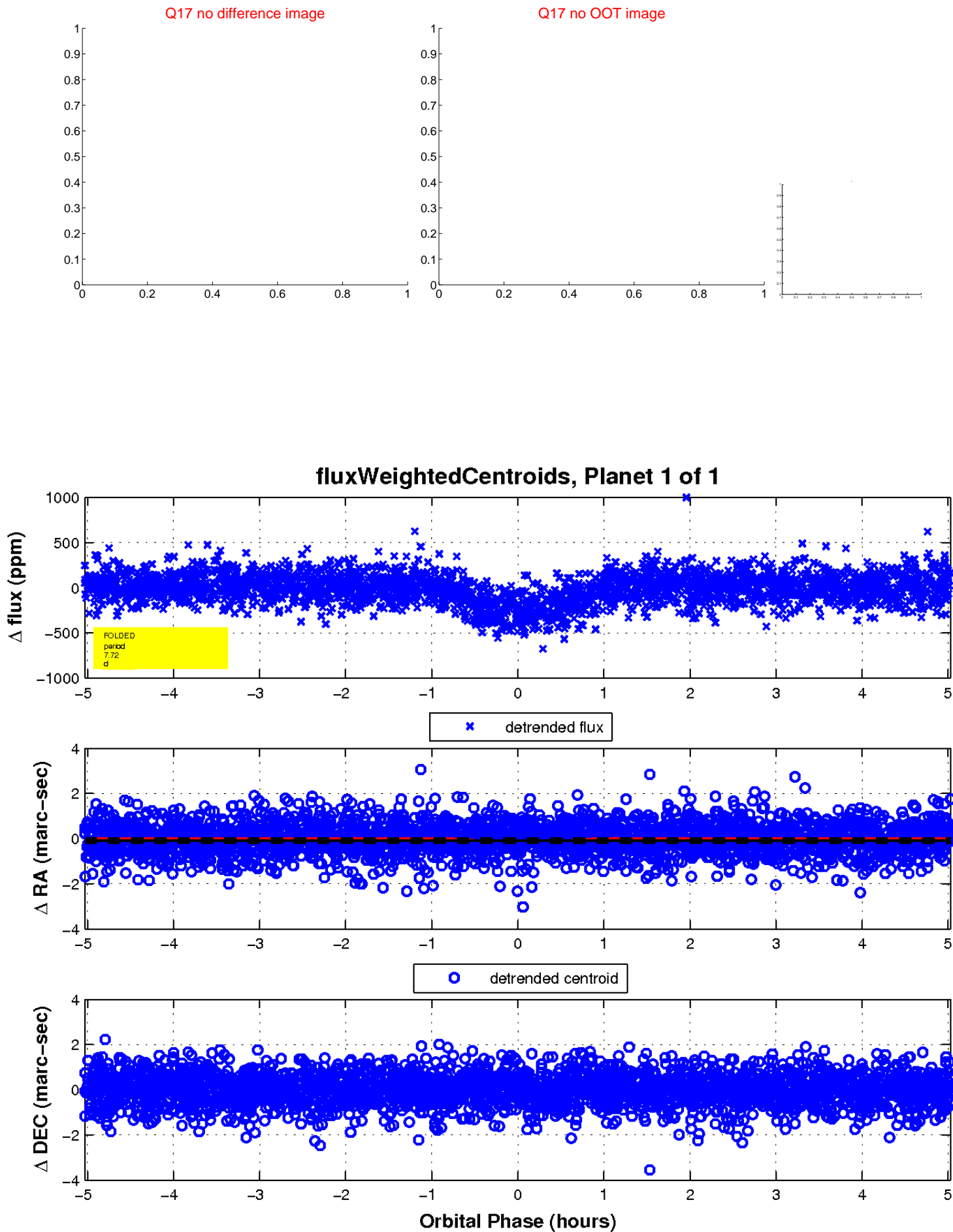
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

