

KIC 006504954

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})
006504954-01	OBS	1790.01	130.353694	144.064320	5136.7	6.220	112.9	105.1	1.01	5970	7.47	4.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006504954-01	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.

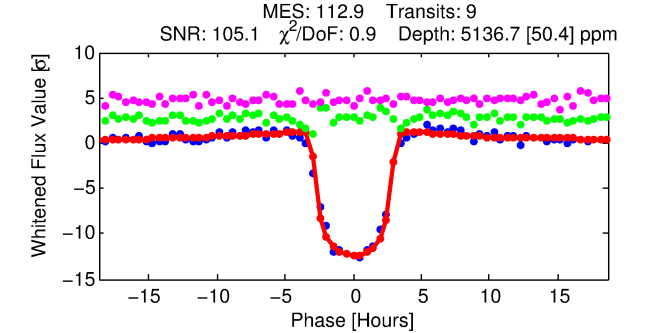
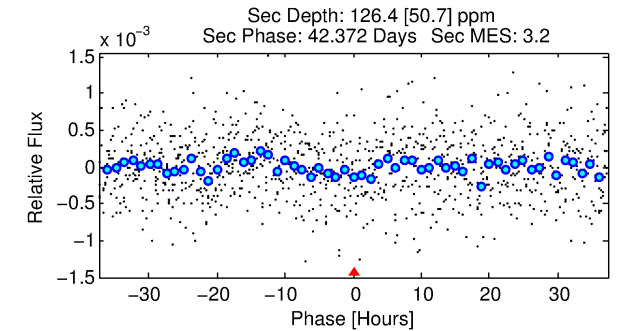
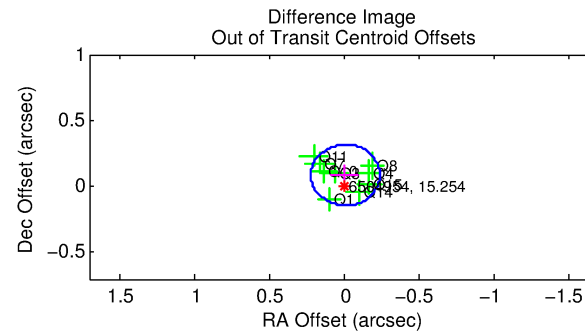
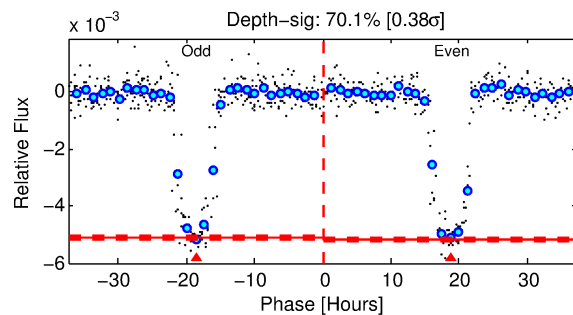
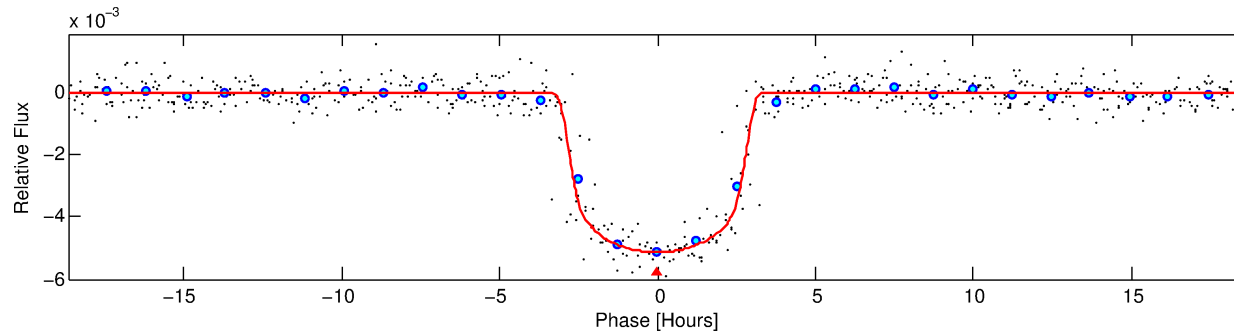
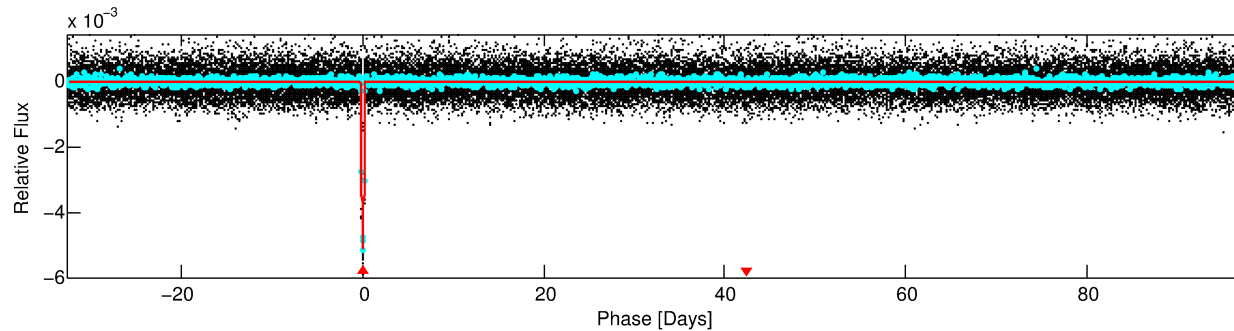
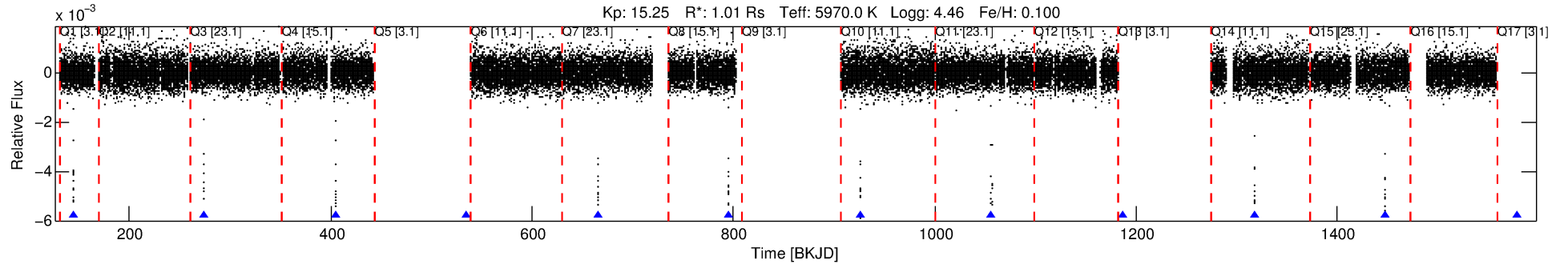
Ephemeris Match Information For 006504954-01

No Significant Match Found

DV One-Page Summary

KIC: 6504954 Candidate: 1 of 1 Period: 130.354 d

KOI: K01790.01 Corr: 0.985



DV Fit Results:

Period = 130.35369 [0.00018] d
Epoch = 144.0643 [0.0011] BKJD
Rp/R* = 0.0675 [0.0020]
a/R* = 149.49 [19.67]
b = 0.52 [0.19]
Seff = 4.37 [1.87]
Teq = 369 [40] K
Rp = 7.47 [2.47] Re
a = 0.5181 [0.1444] AU
Ag = 334.26 [192.29] [1.73 σ]
Teffp = 2437 [260] K [7.86 σ]

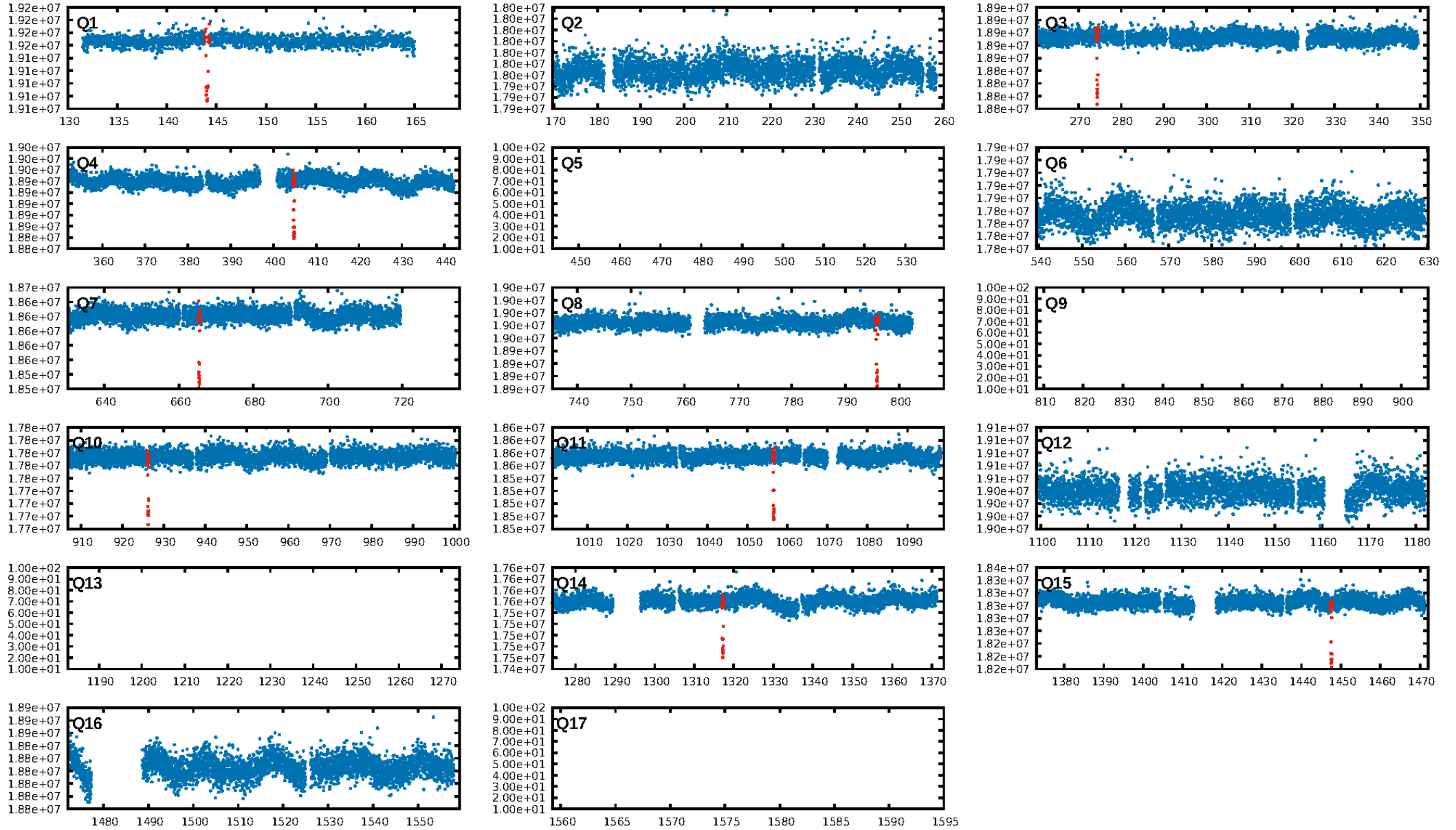
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 6.7
Centroid-sig: 2.1%
Centroid-so: 0.104 arcsec [0.84 σ]
OotOffset-rm: 0.087 arcsec [1.14 σ]
KicOffset-rm: 0.122 arcsec [1.46 σ]
OotOffset-st: 2/4/2/1 [9]
KicOffset-st: 2/4/2/1 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

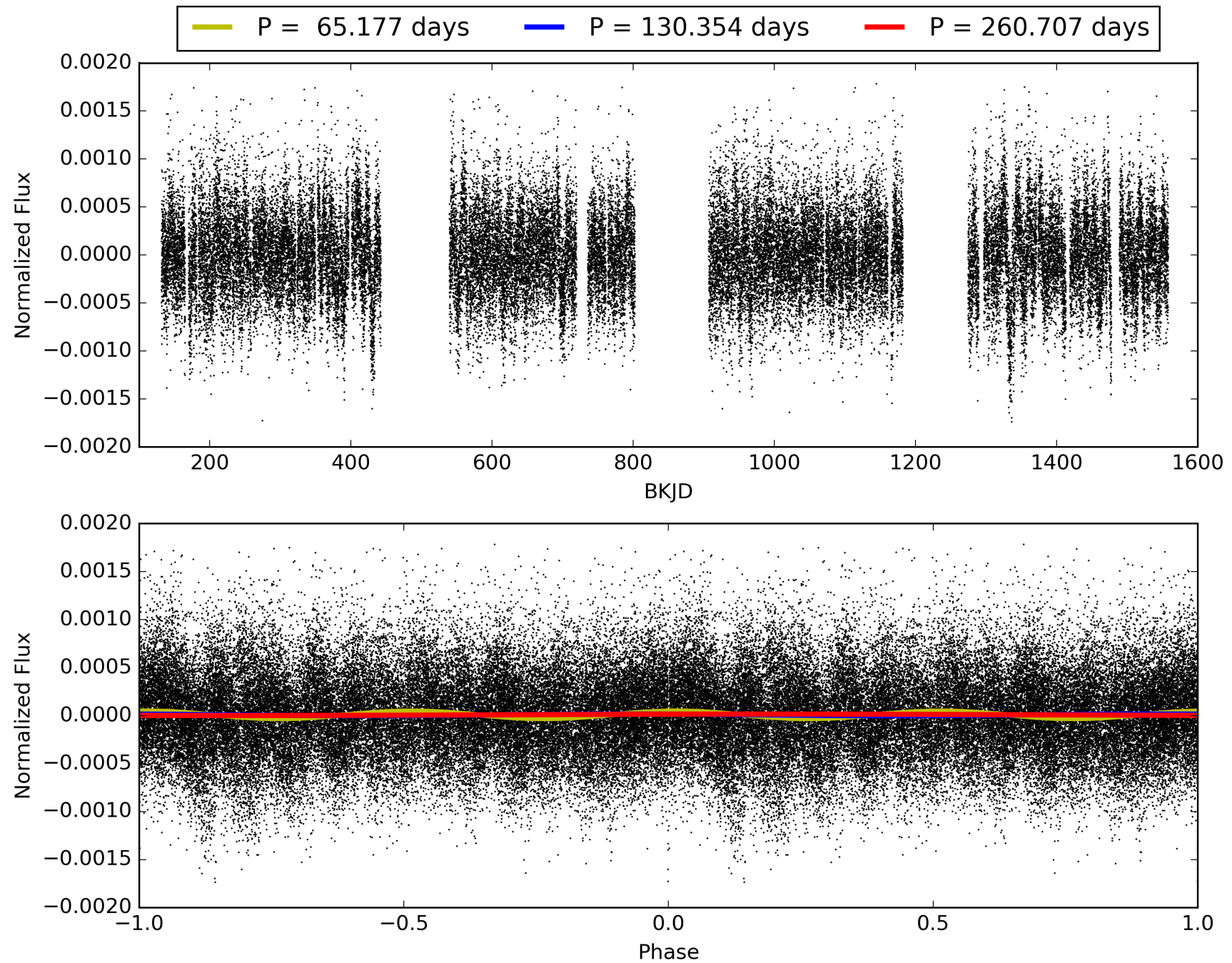
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:17:42 Z

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

TCE 006504954-01, PDC Light Curves

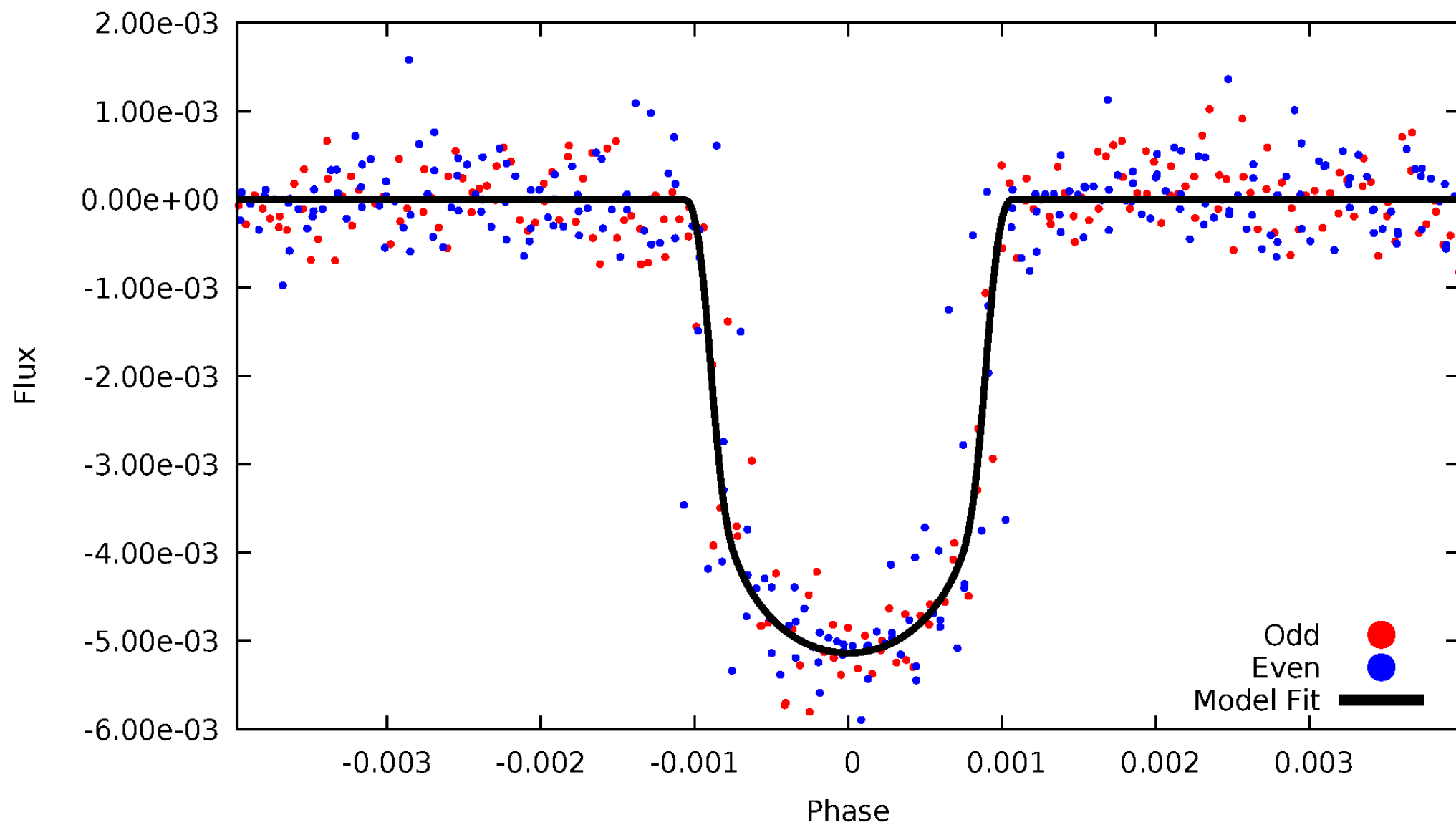


TCE 006504954-01



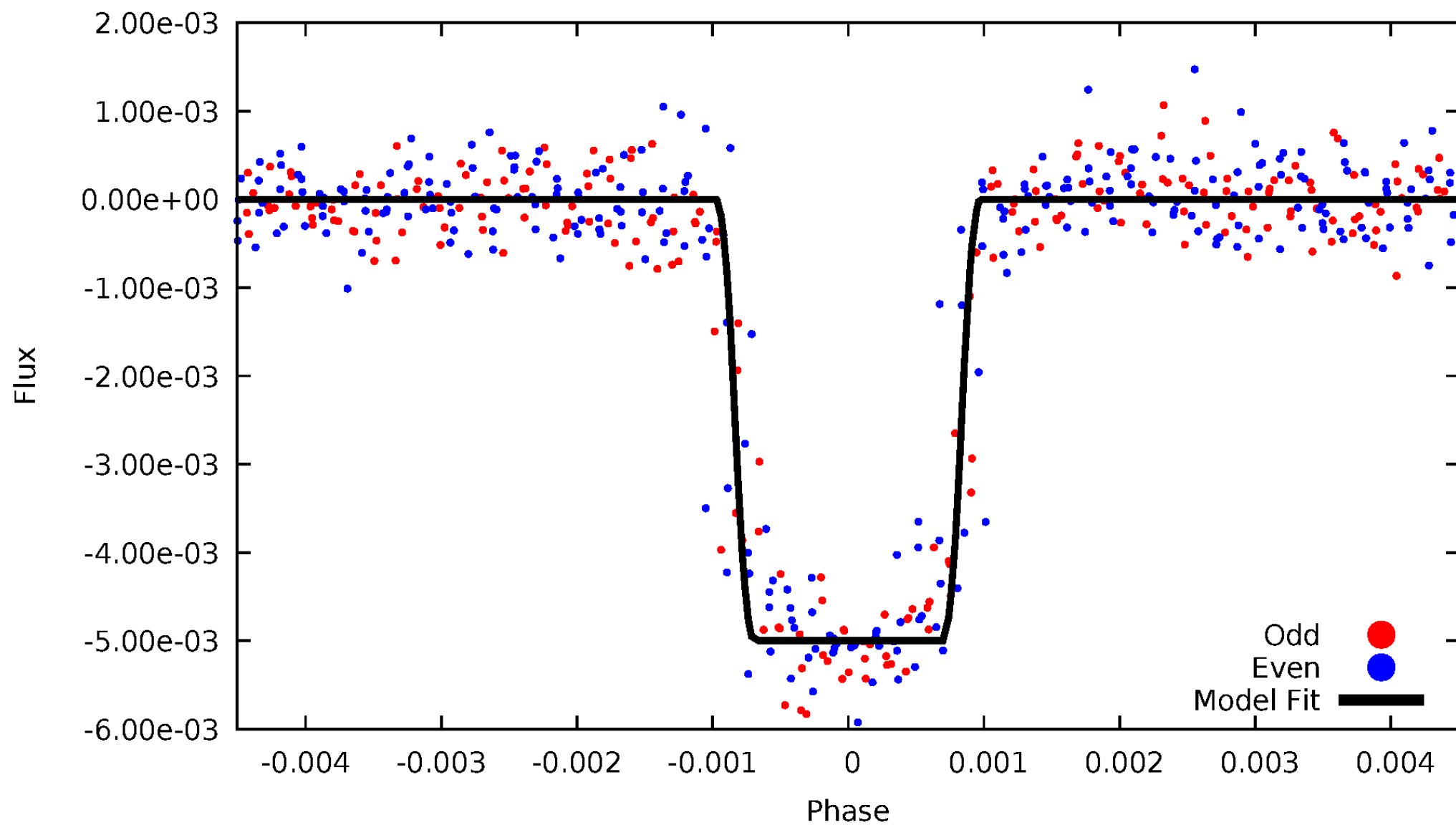
DV Odd/Even

TCE 006504954-01



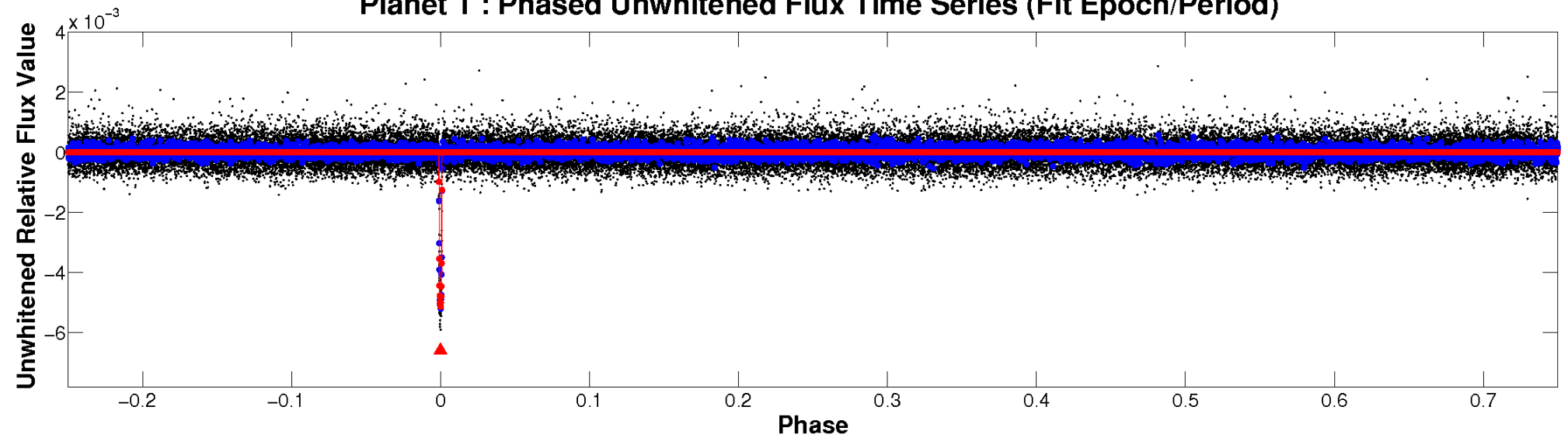
ALT Odd/Even

TCE 006504954-01

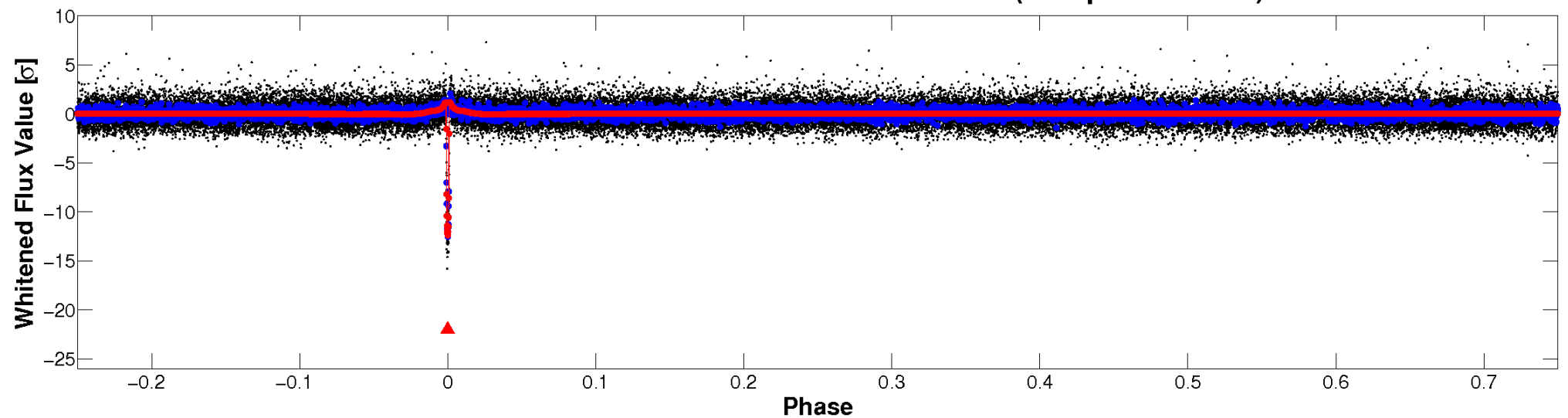


Non-Whitened Vs. Whitened Light Curve

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

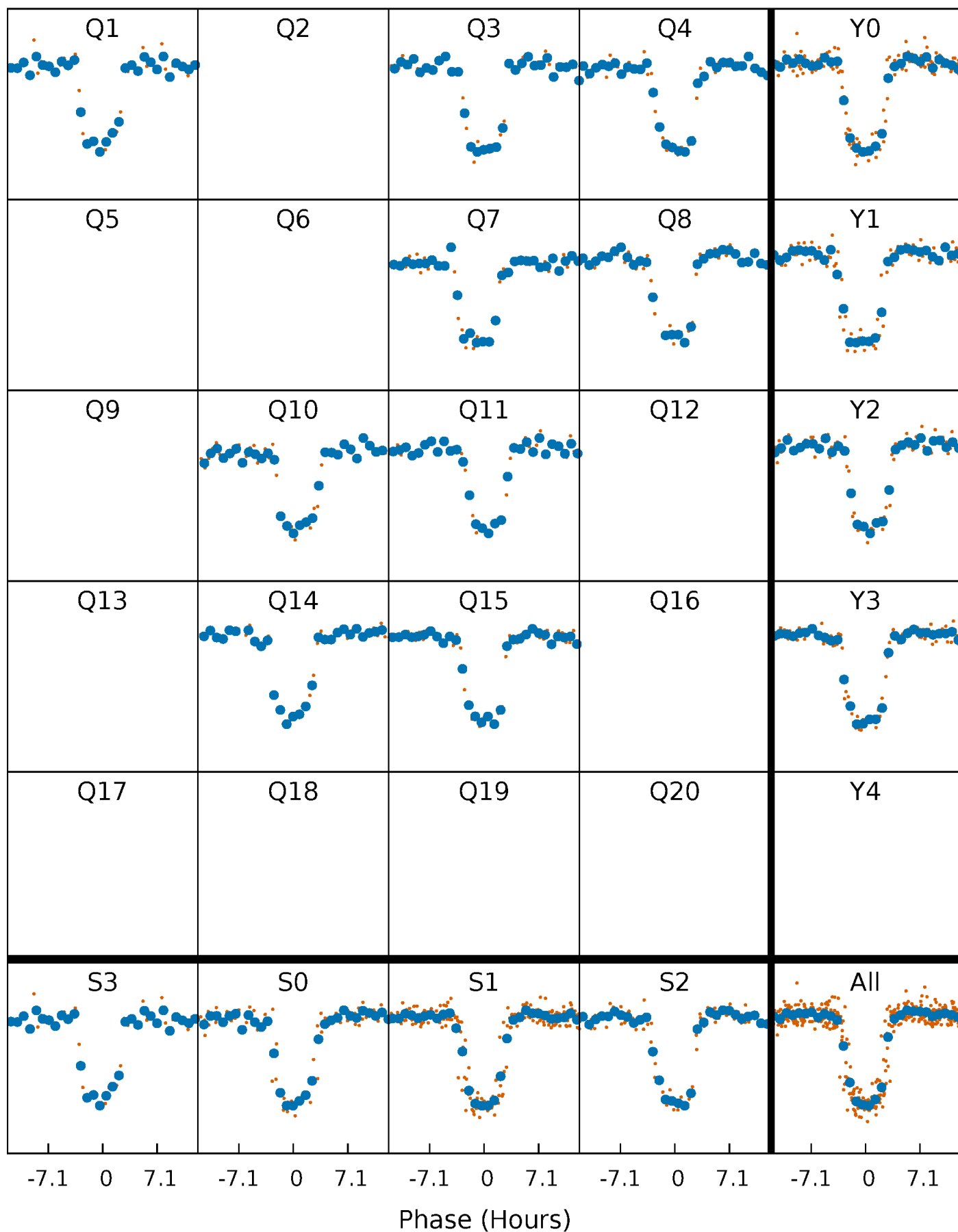


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



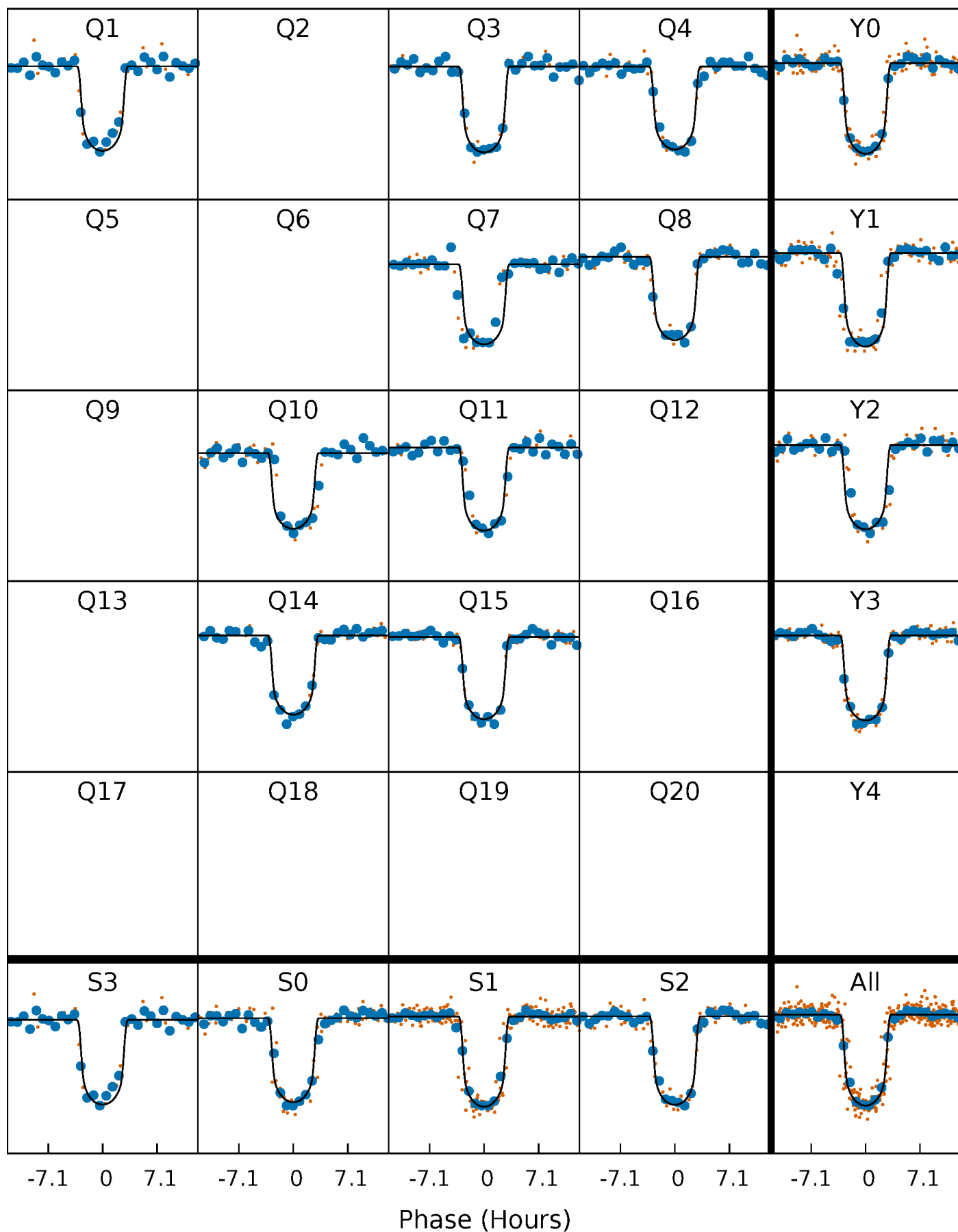
PDC Quarter-Phased Transit Curves

TCE 006504954-01 P=130.353694 Days $T_0=144.064320$ (BKJD)



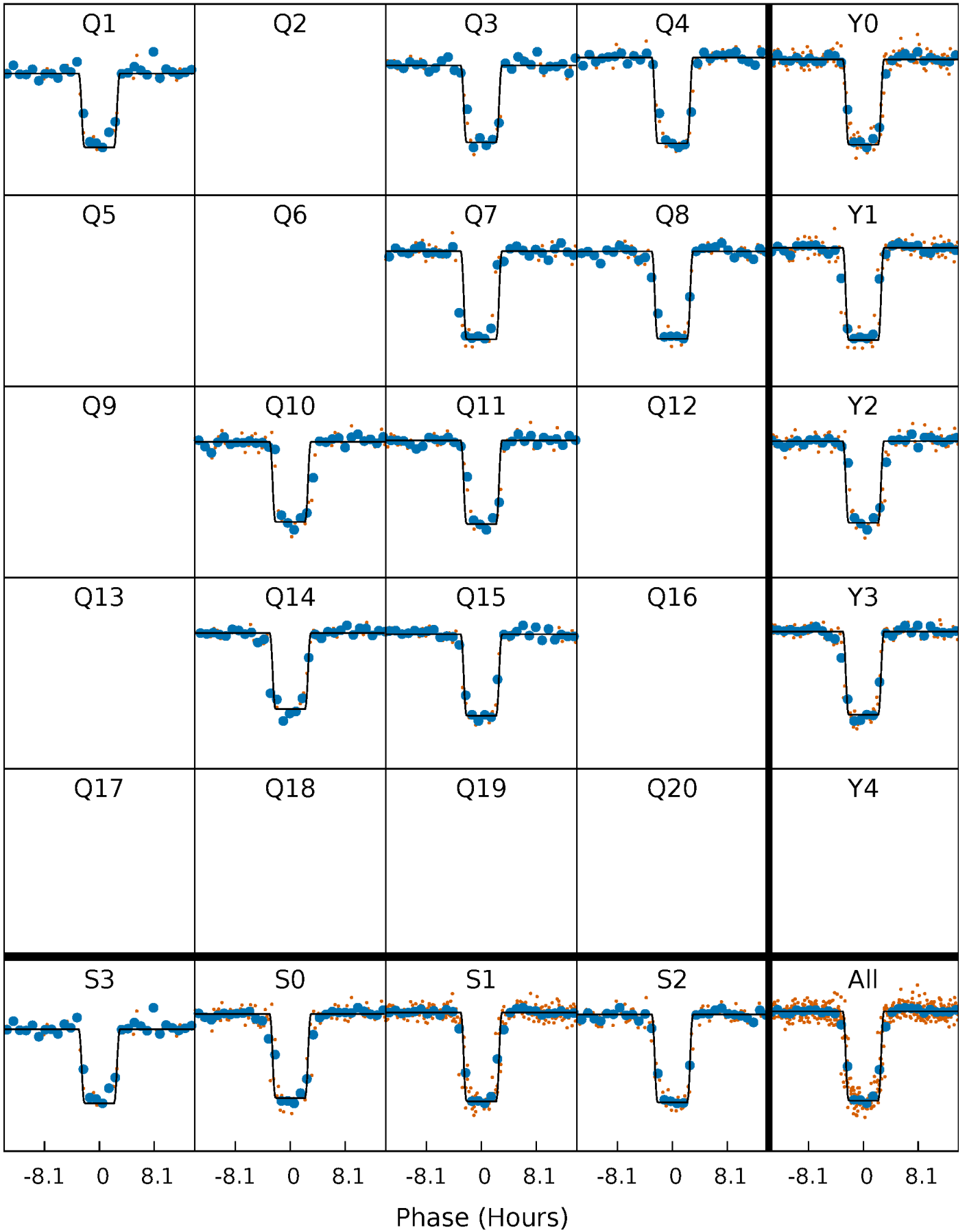
DV Quarter-Phased Transit Curves

TCE 006504954-01 P=130.353694 Days $T_0=144.064320$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

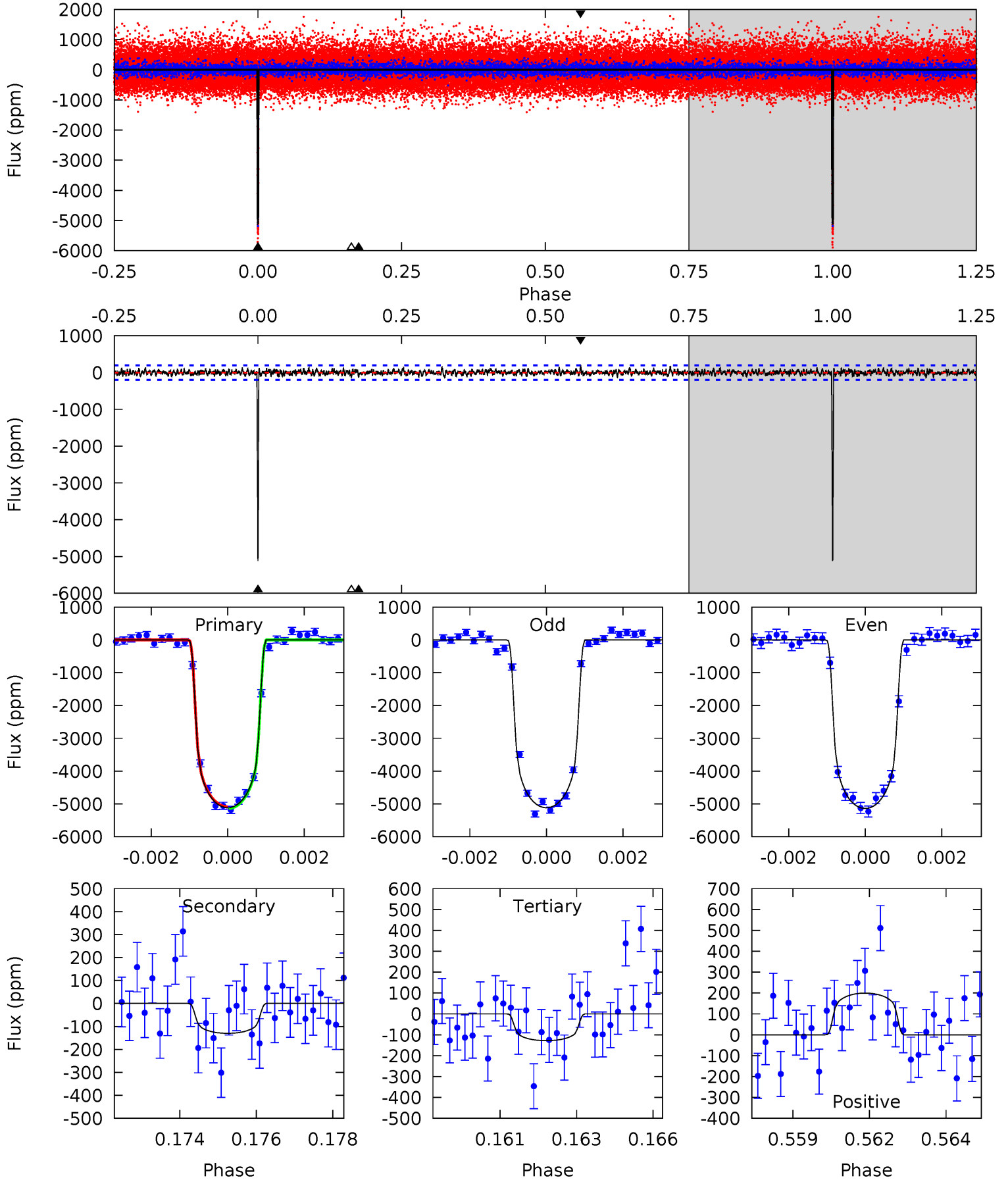
TCE 006504954-01 P=130.355734 Days $T_0=144.053685$ (BKJD)



DV Model-Shift Uniqueness Test

006504954-01, $P = 130.353694$ Days, $E = 13.710626$ Days

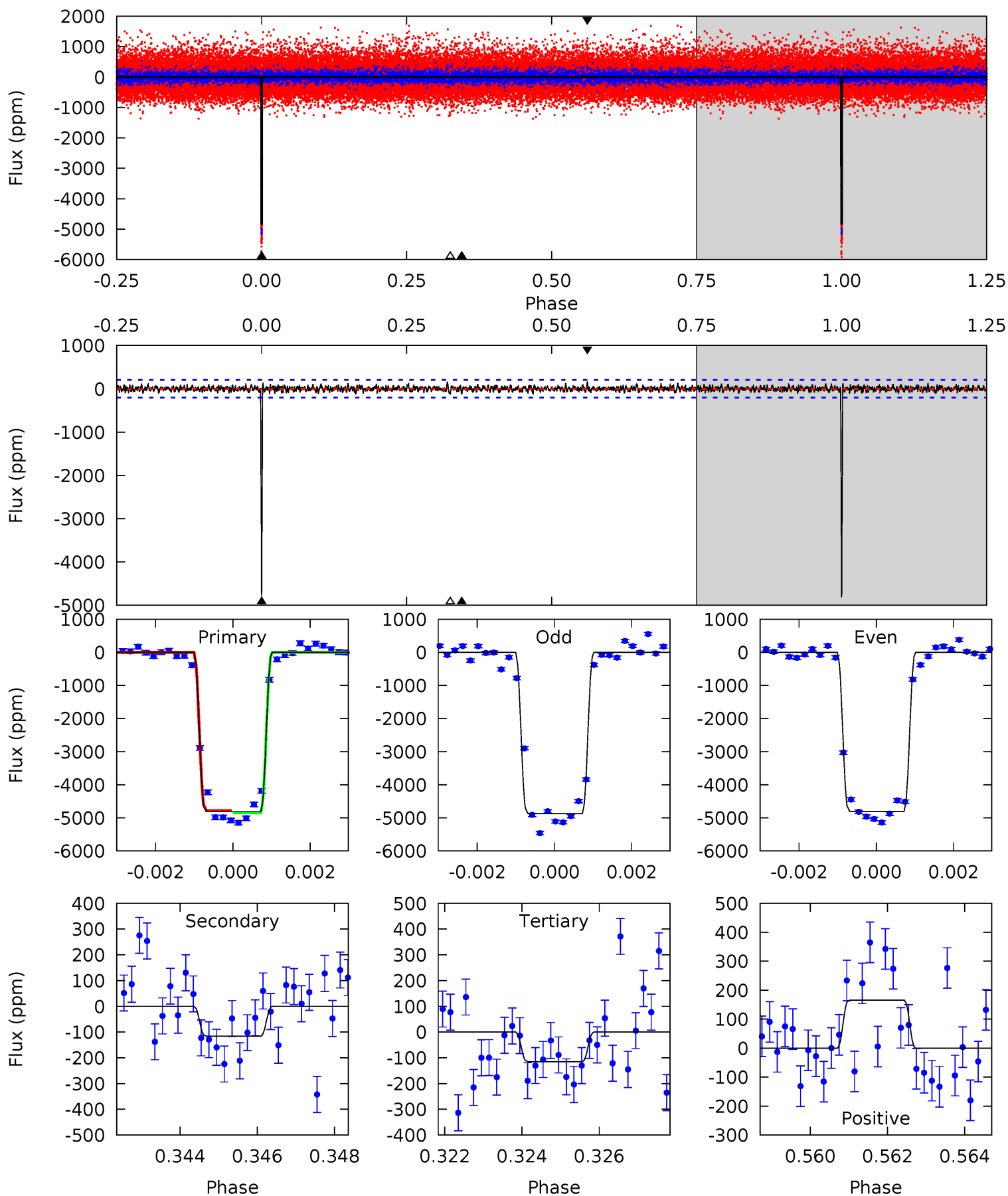
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
137.7	3.50	3.45	5.37	5.32	3.08	1.20	134.3	132.3	0.05	-1.87	0.30	1.00	0.04	0.75



Alt Model-Shift Uniqueness Test

006504954-01, $P = 130.355734$ Days, $E = 13.697951$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
125.0	3.01	2.98	4.31	5.33	3.10	1.01	122.1	120.7	0.03	-1.30	0.85	0.99	0.03	0.95



Stellar Parameters For KIC 006504954

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5970^{+163}_{-199}	$4.463^{+0.056}_{-0.224}$	$0.100^{+0.200}_{-0.300}$	$1.015^{+0.334}_{-0.111}$	$1.089^{+0.138}_{-0.138}$	$1.469^{+0.427}_{-0.823}$
	+3%/-3%	+1%/-5%	+200%/-300%	+33%/-11%	+13%/-13%	+29%/-56%
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 006504954-01 / KOI 1790.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-130 ± 37	$7.67^{+1.28}_{-0.65}$	525^{+40}_{-25}	3084^{+128}_{-165}	300^{+114}_{-105}
Alt.	-116 ± 39	$8.02^{+1.32}_{-0.69}$	525^{+37}_{-26}	2994^{+146}_{-172}	248^{+109}_{-93}

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 $A_{obs} \gg 1.0$

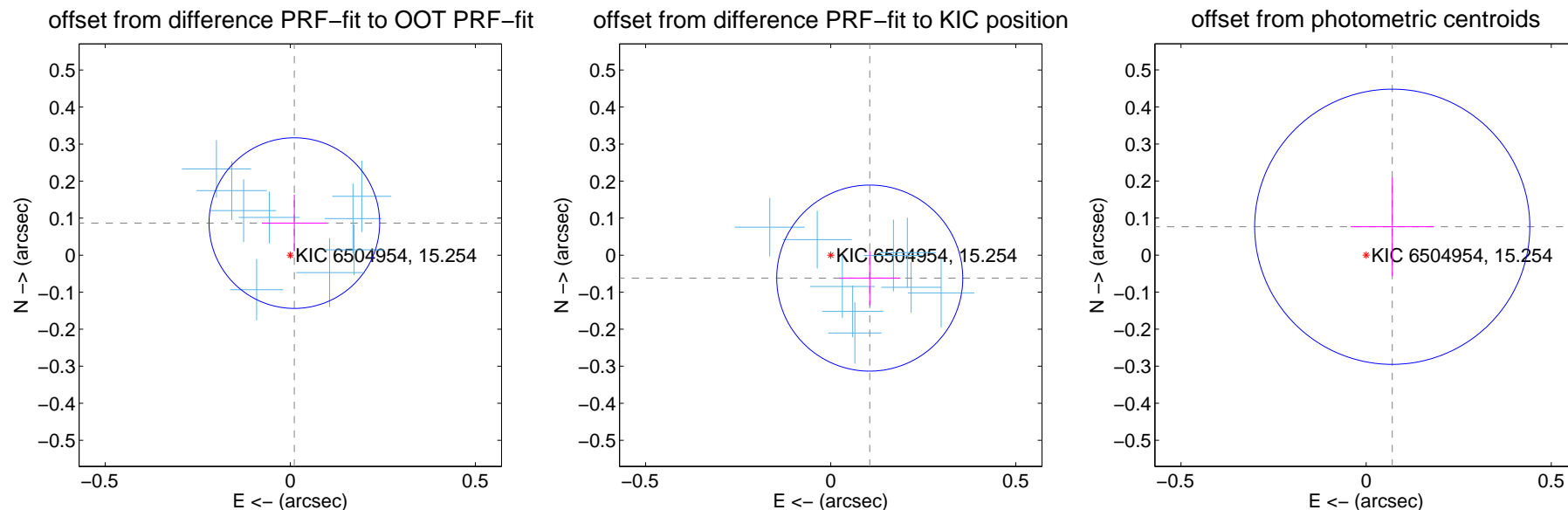
DV Centroid Data

Supplemental centroid analysis for 006504954-01. Kepler magnitude: 15.25. Transit SNR 105.10

There are 9 quarters with good PRF difference image offsets

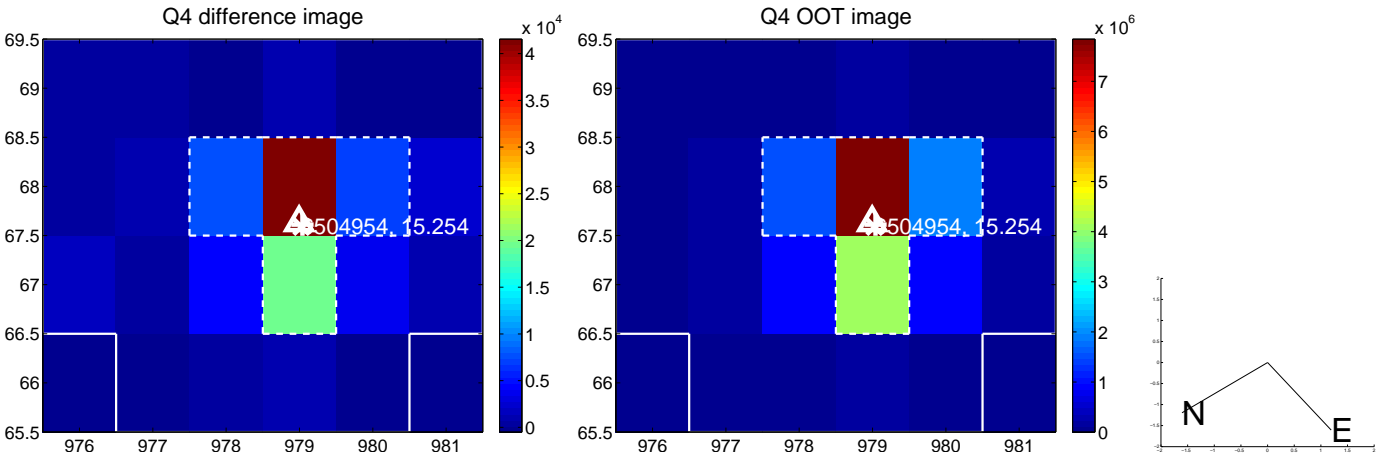
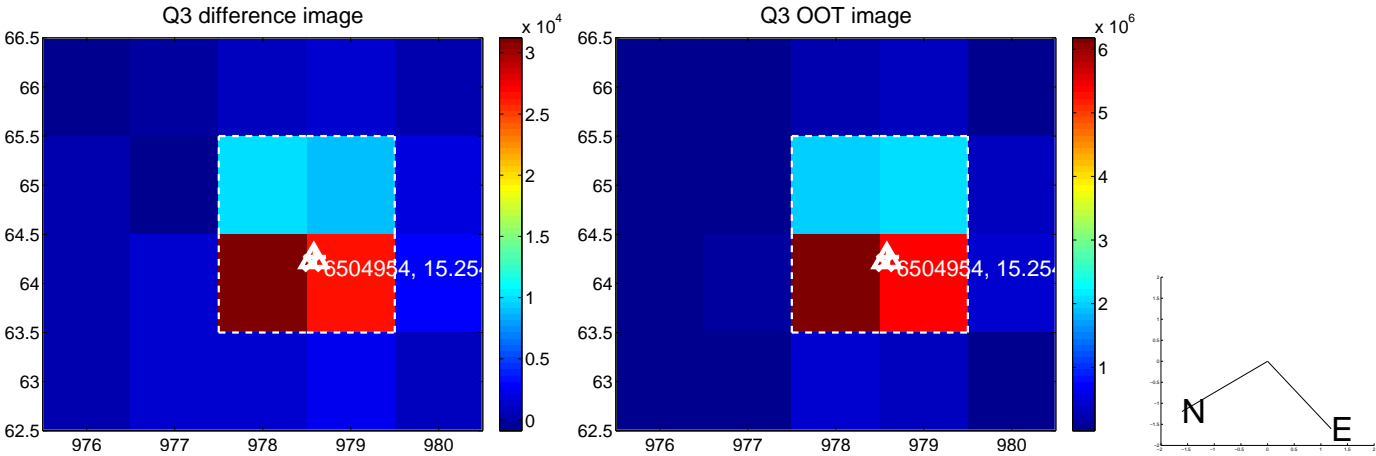
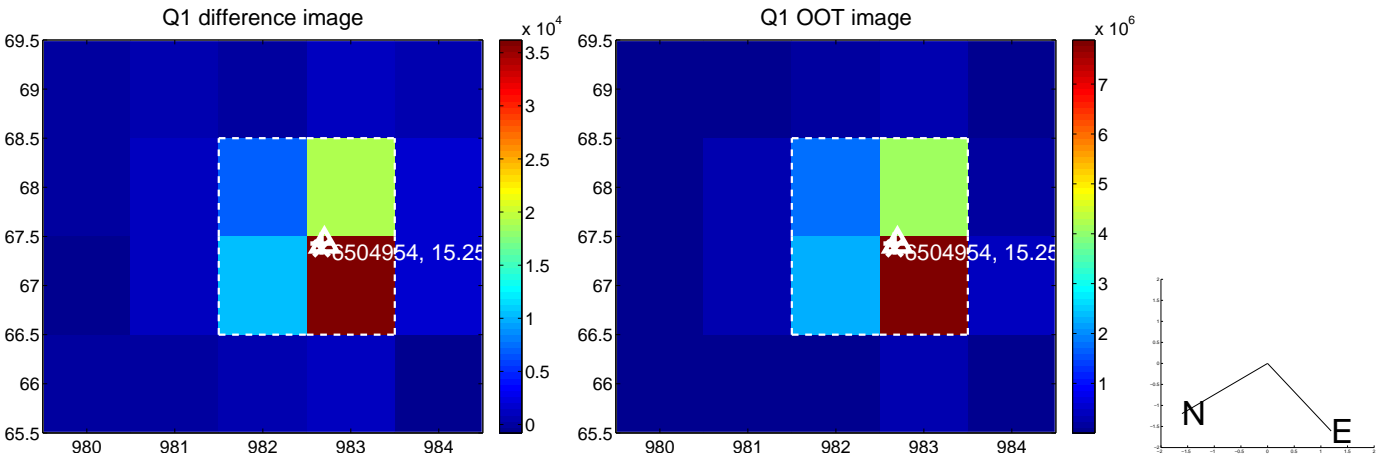
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.087 ± 0.077	1.14	-0.011 ± 0.088	0.087 ± 0.077
PRF-fit source offset from KIC position	0.122 ± 0.084	1.46	-0.105 ± 0.083	-0.062 ± 0.074
photometric centroid source offset	0.10 ± 0.12	0.84	-0.07 ± 0.11	0.08 ± 0.13

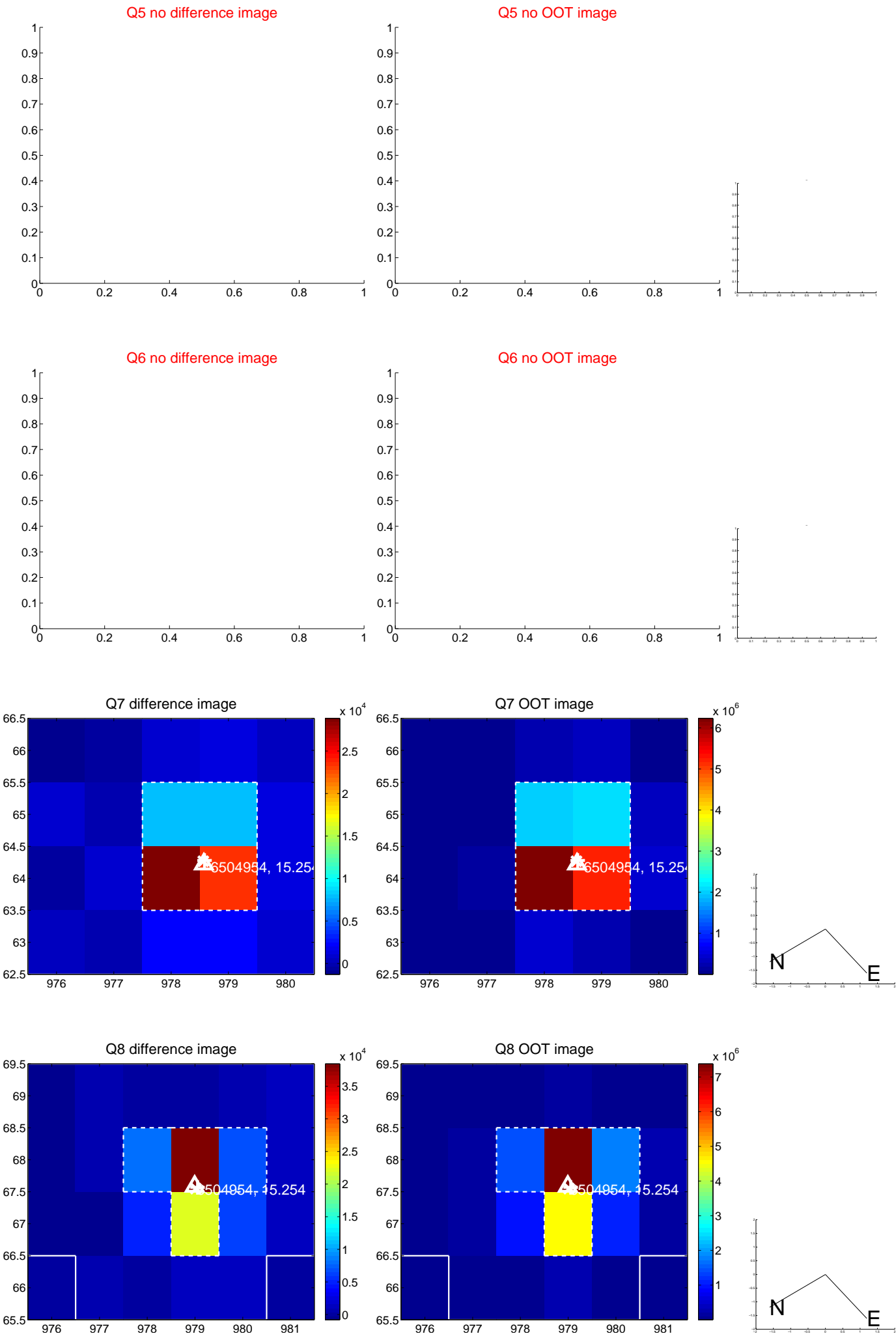


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

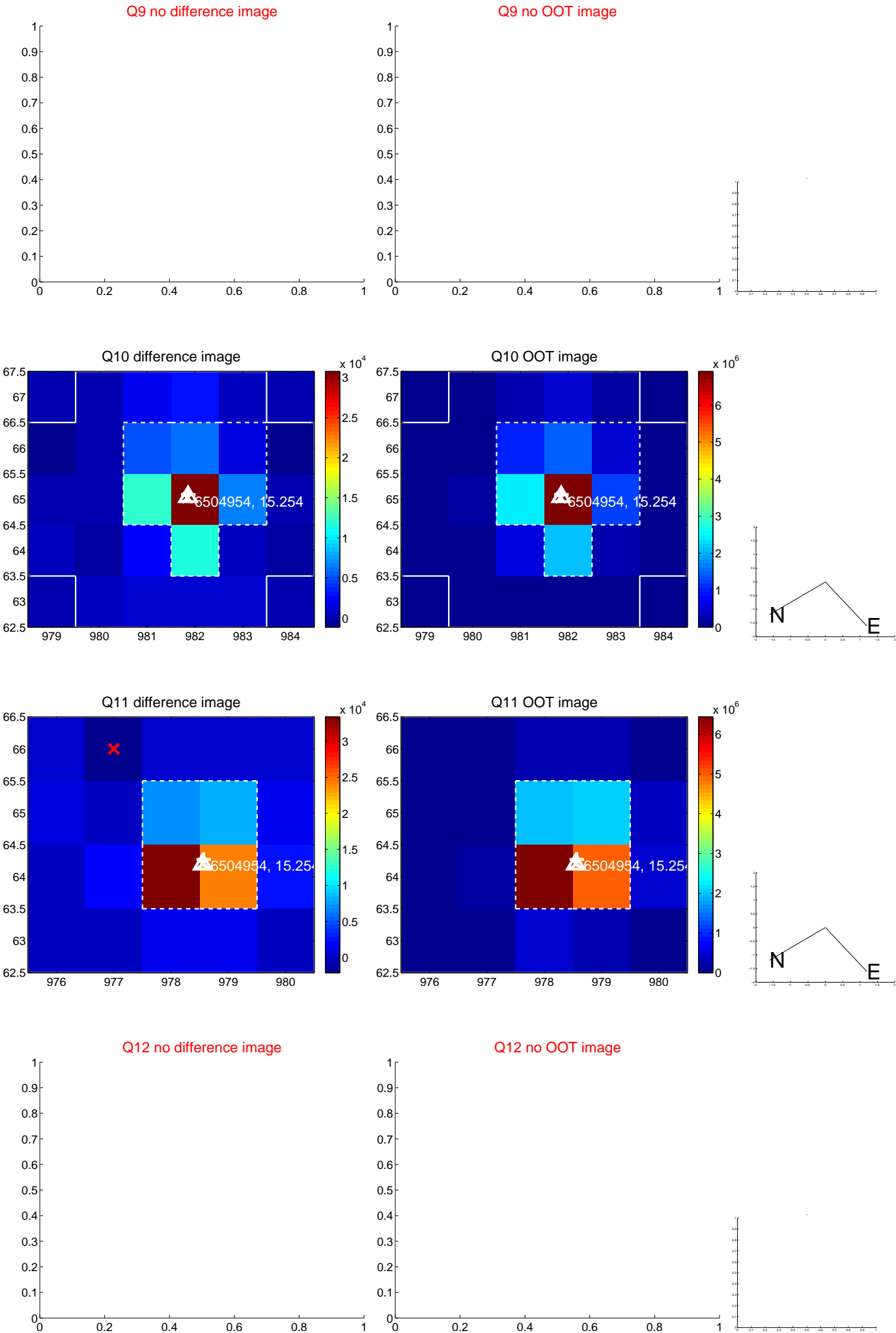
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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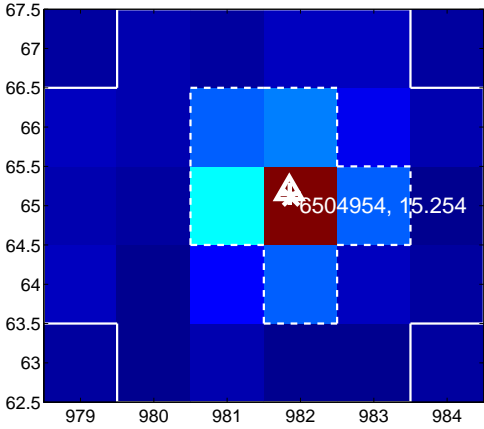
Q13 no difference image



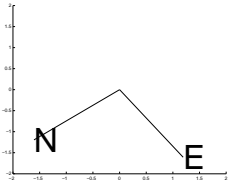
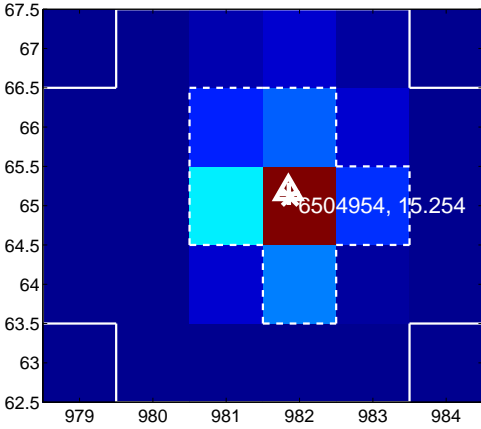
Q13 no OOT image



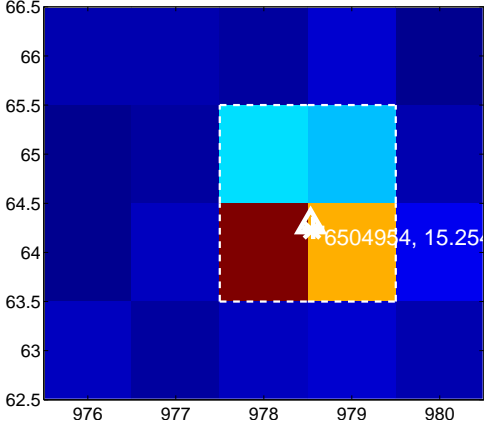
Q14 difference image



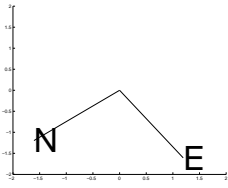
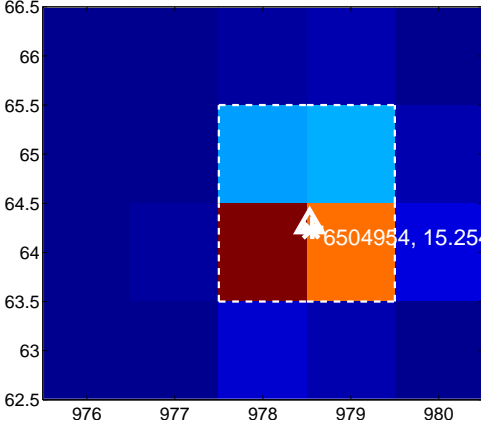
Q14 OOT image



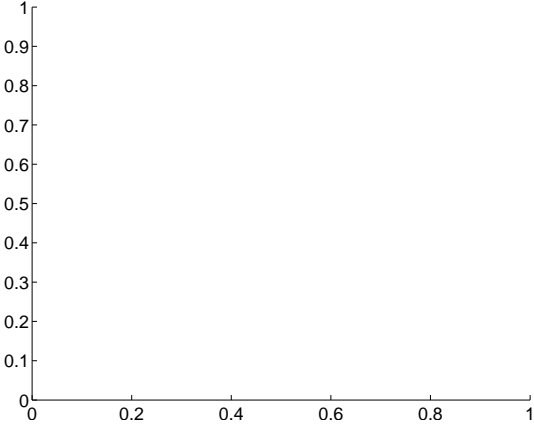
Q15 difference image



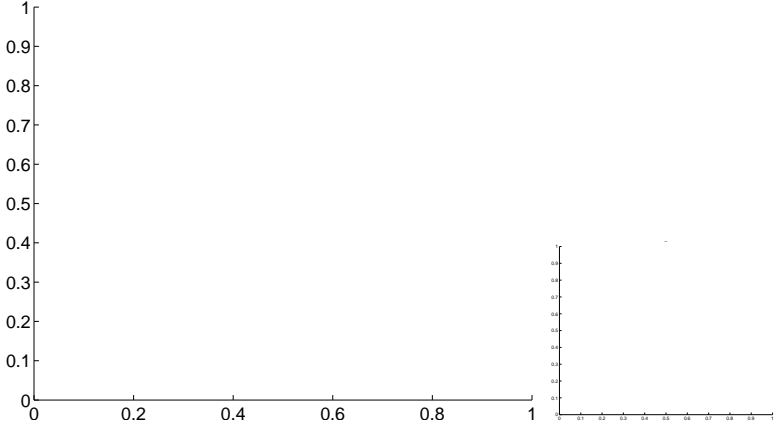
Q15 OOT image



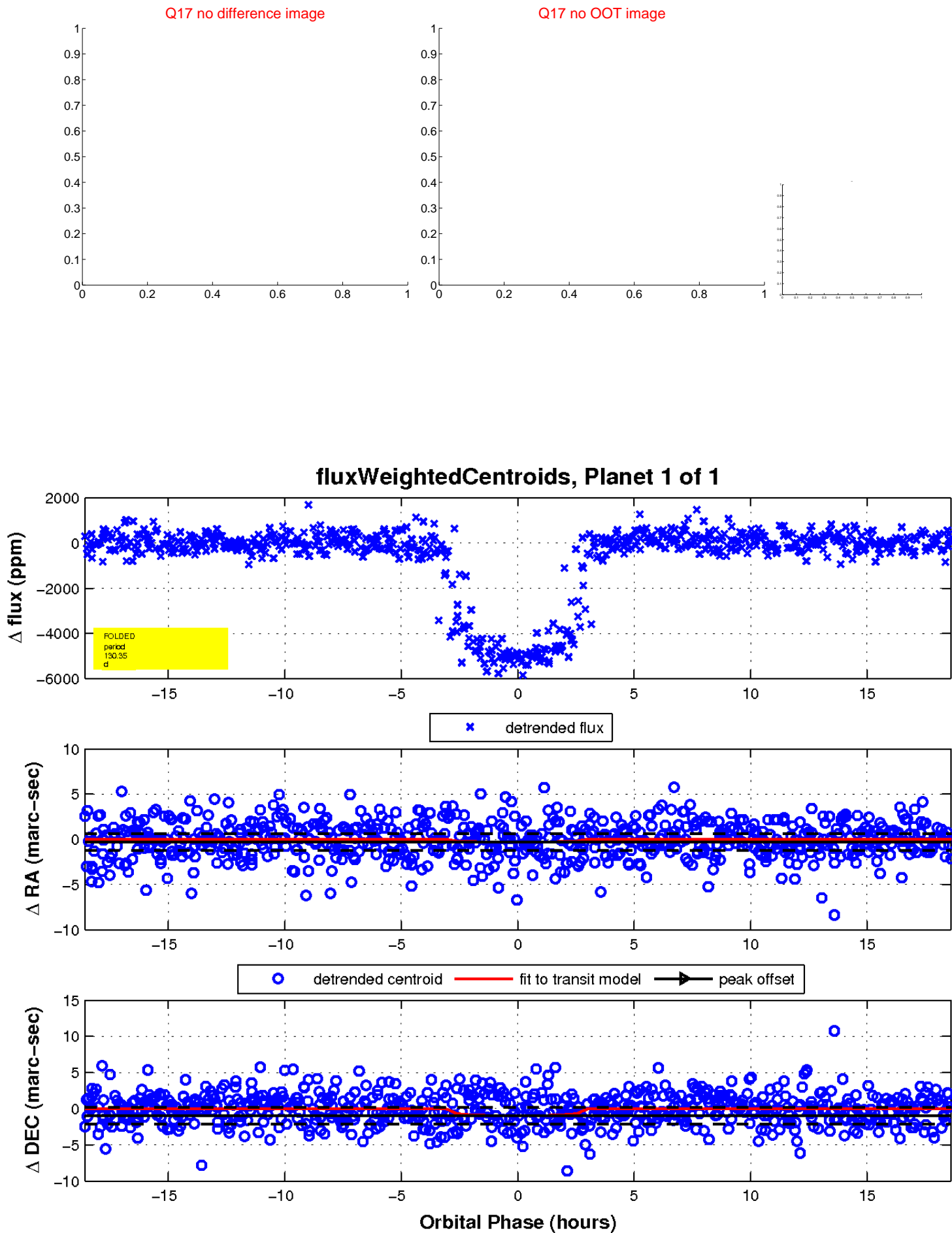
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

