

KIC 008765560

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})
008765560-01	OBS	3891.01	47.109737	144.129595	746.1	5.540	32.2	34.7	2.78	5258	13.27	75.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008765560-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

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.

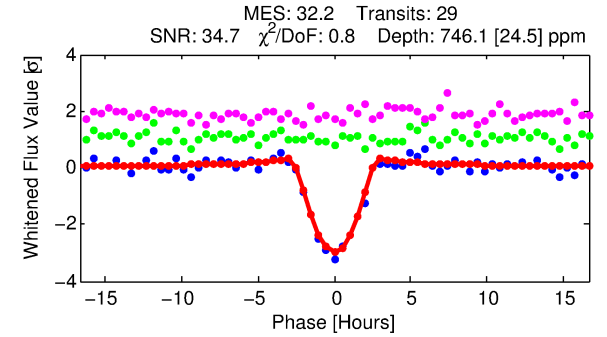
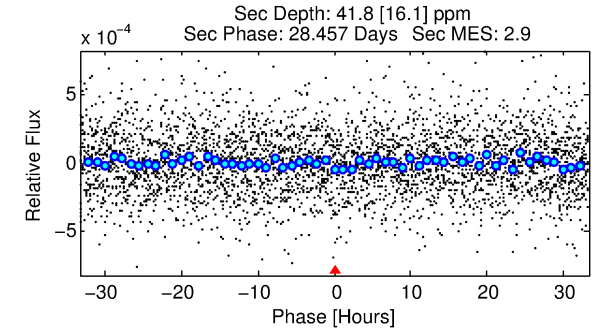
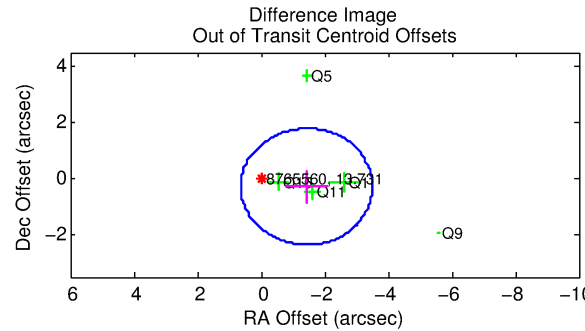
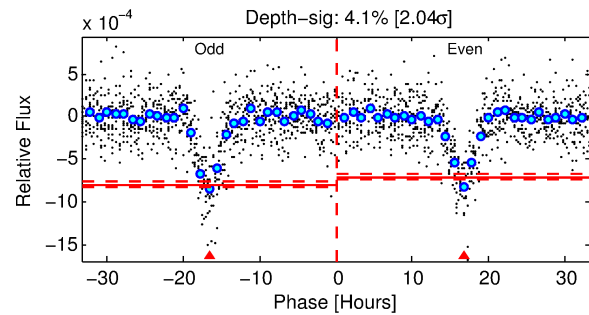
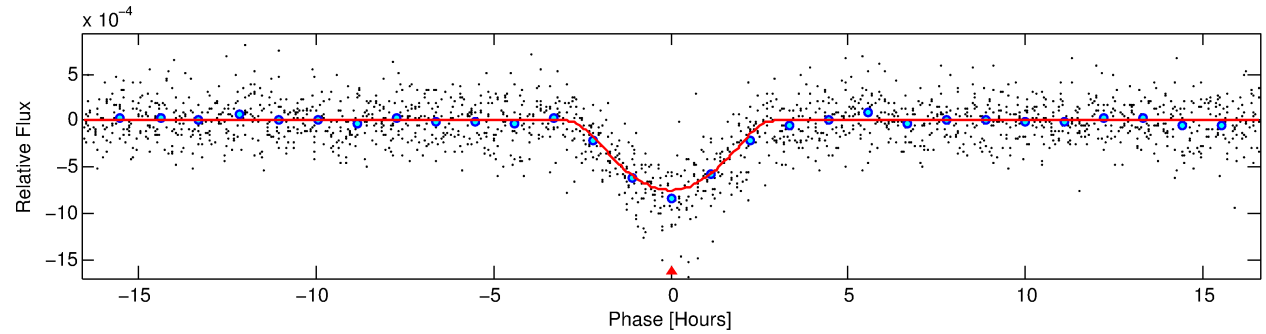
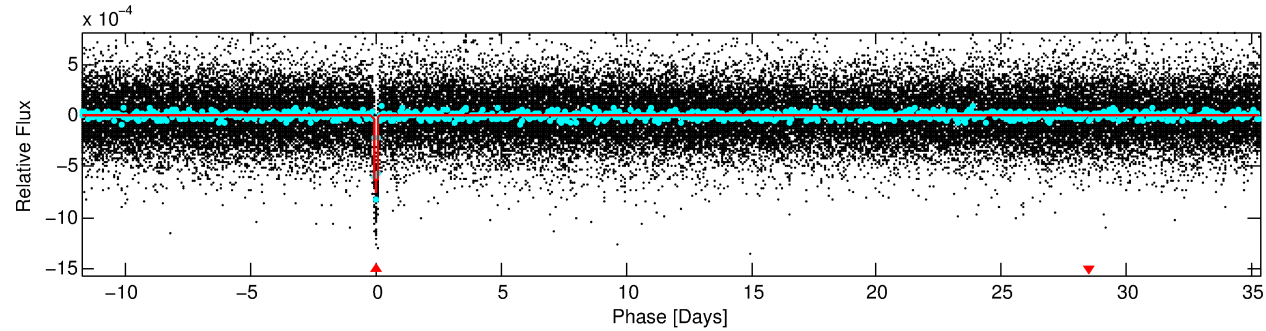
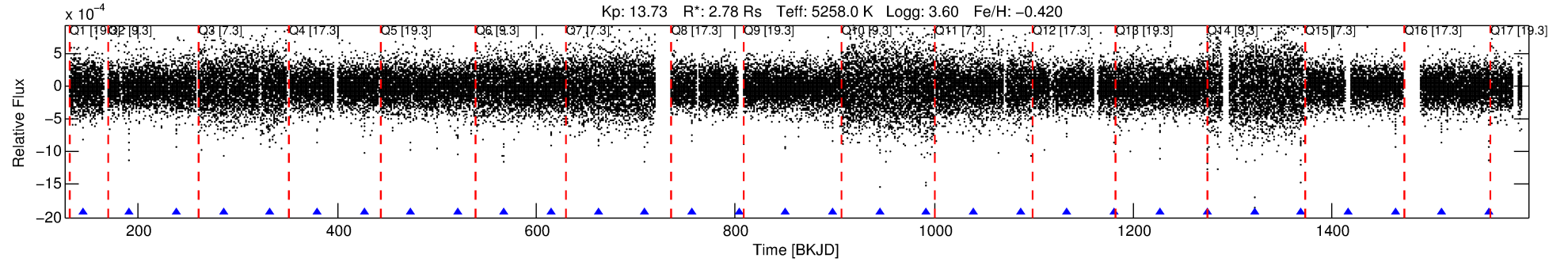
Ephemeris Match Information For 008765560-01

No Significant Match Found

DV One-Page Summary

KIC: 8765560 Candidate: 1 of 1 Period: 47.110 d

KOI: K03891.01 Corr: 0.971



DV Fit Results:

Period = 47.10974 [0.00019] d
Epoch = 144.1296 [0.0033] BKJD
Rp/R* = 0.0437 [0.0271]
a/R* = 21.52 [4.02]
b = 0.99 [0.05]
Seff = 75.52 [118.39]
Teq = 752 [295] K
Rp = 13.27 [12.68] Re
a = 0.2647 [0.2349] AU
Ag = 9.16 [18.60] [0.44 σ]
Teffp = 2022 [659] K [1.76 σ]

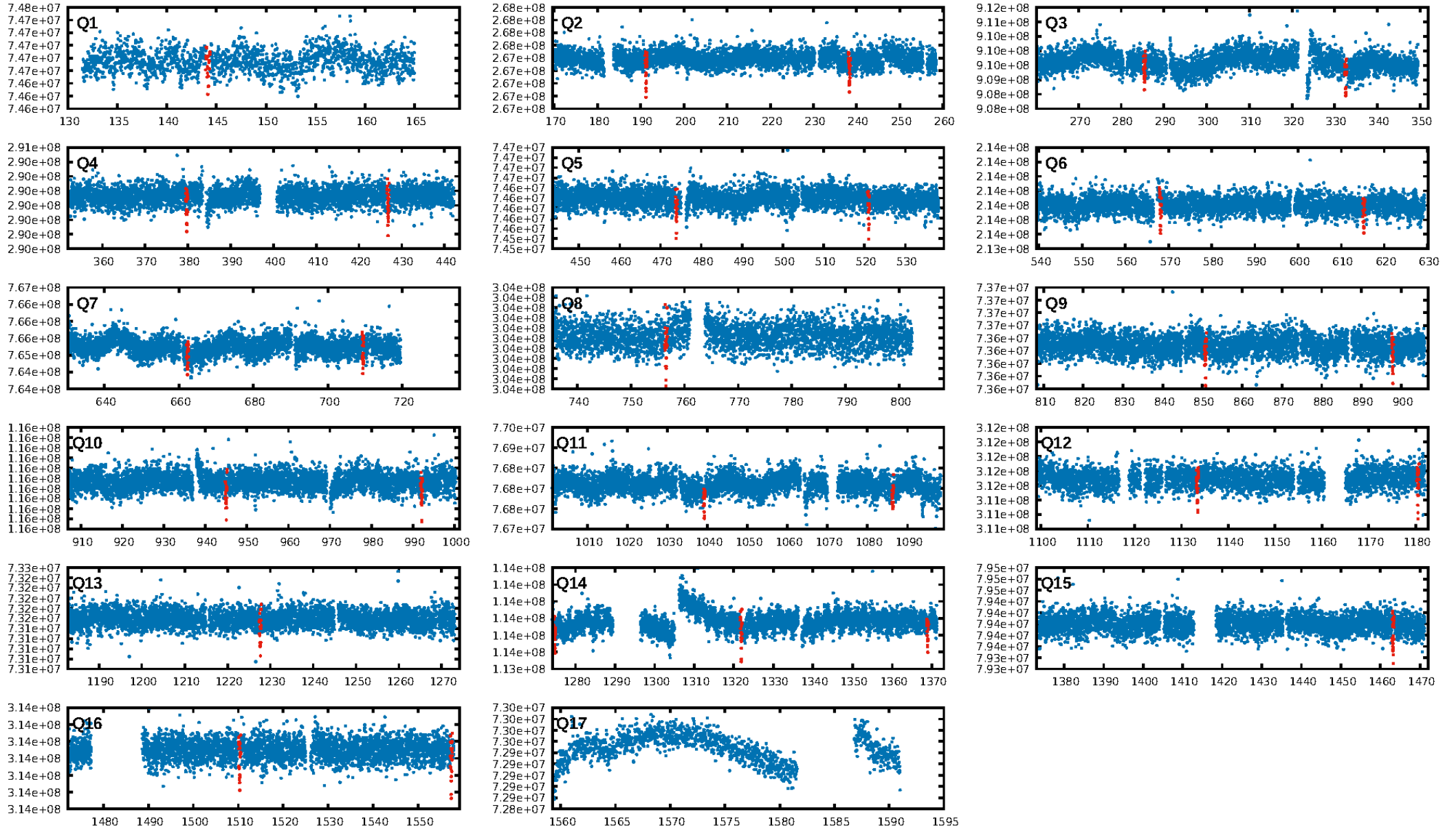
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.91e-208
RollingBand-fgt: 1.00 [28/28]
GhostDiagnostic-chr: 3.498
Centroid-sig: 0.0%
Centroid-so: 2.982 arcsec [77.09 σ]
OotOffset-rm: 1.460 arcsec [2.11 σ]
KicOffset-rm: 1.070 arcsec [2.01 σ]
OotOffset-st: 0/2/0/3 [5]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 1.00 [16/16]

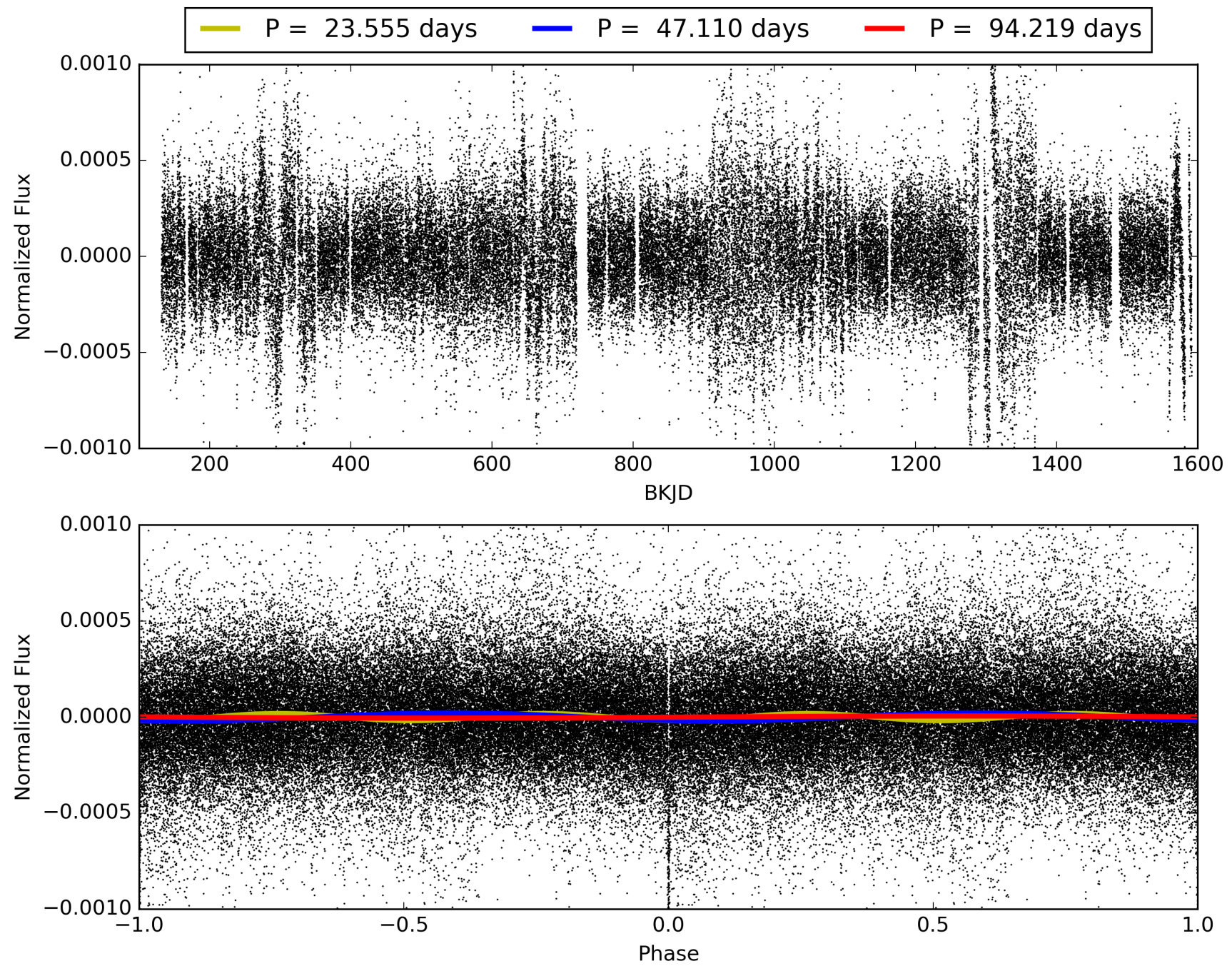
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:39:26 Z

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

TCE 008765560-01, PDC Light Curves

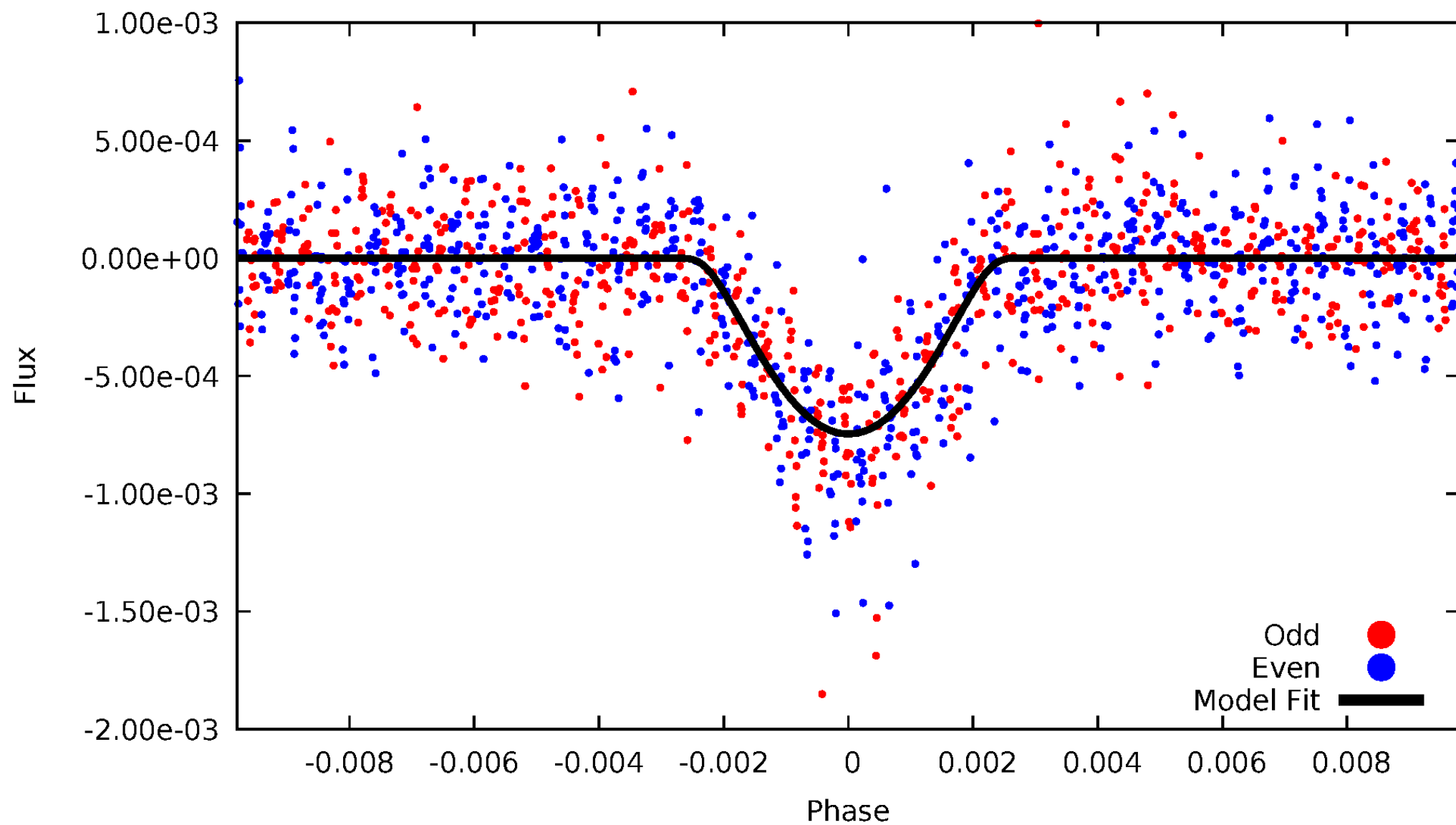


TCE 008765560-01



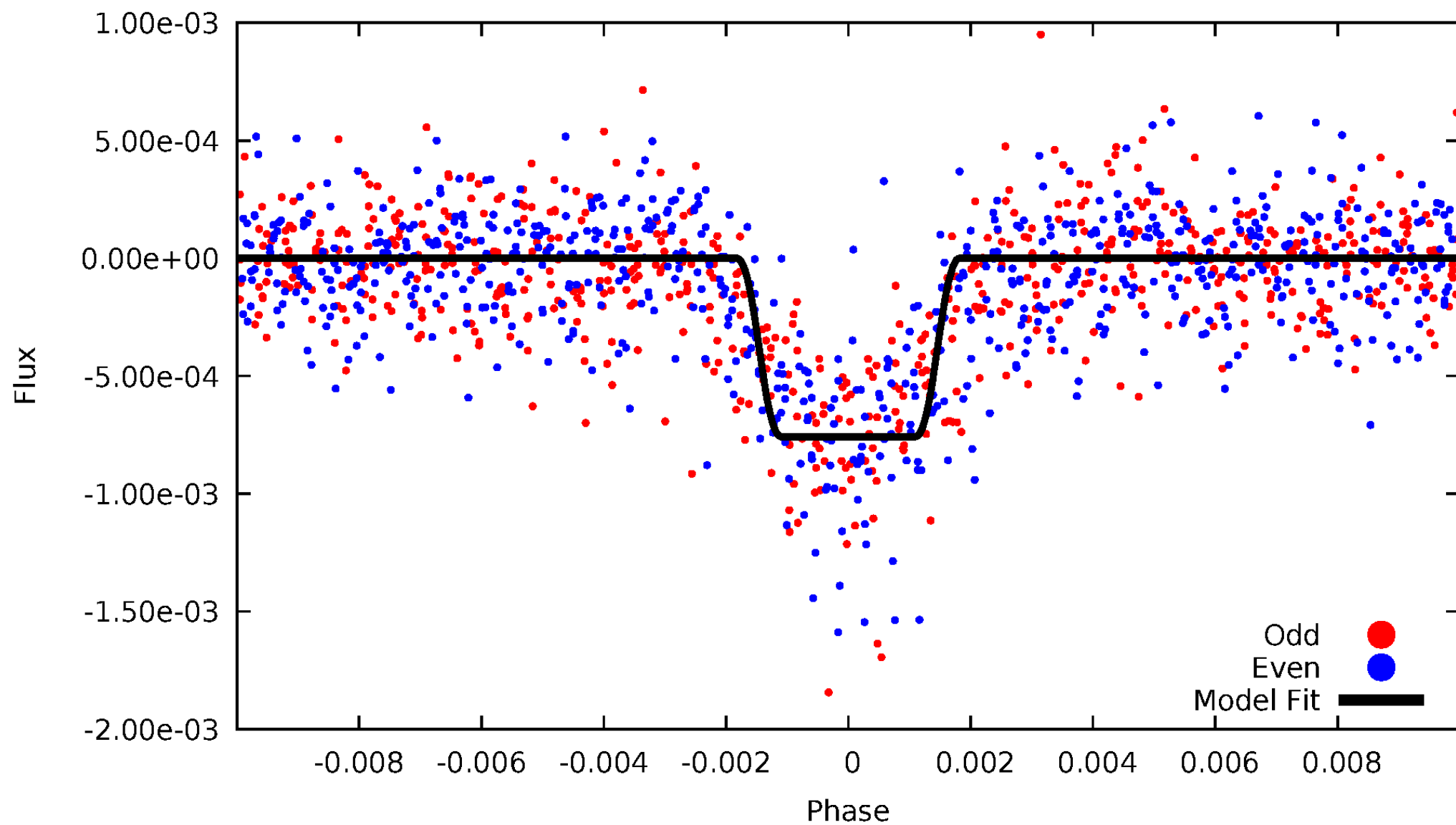
DV Odd/Even

TCE 008765560-01



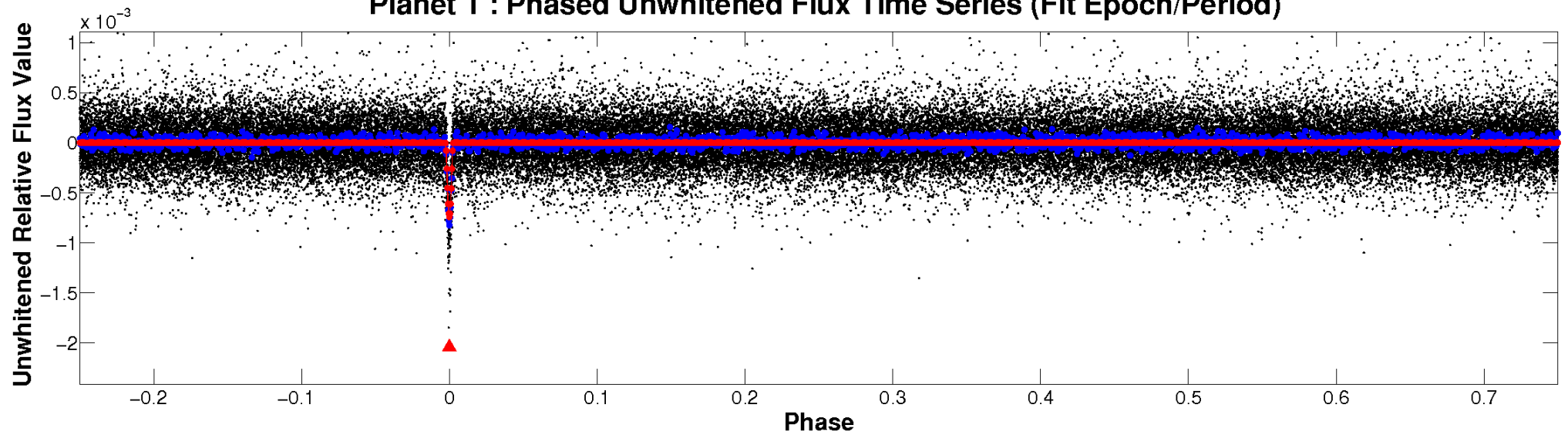
ALT Odd/Even

TCE 008765560-01

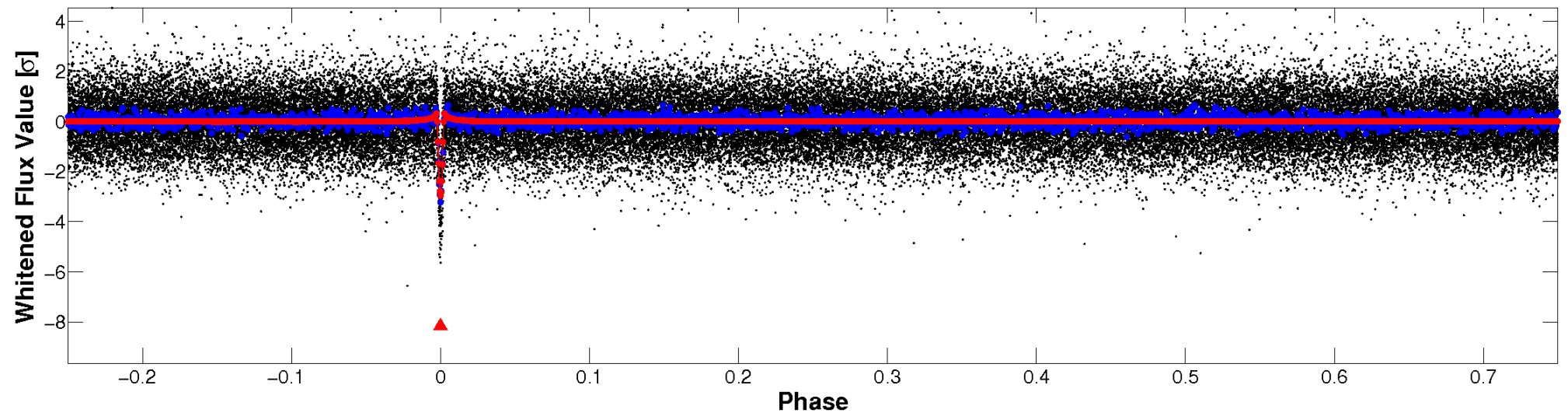


Non-Whitened Vs. Whitened Light Curve

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

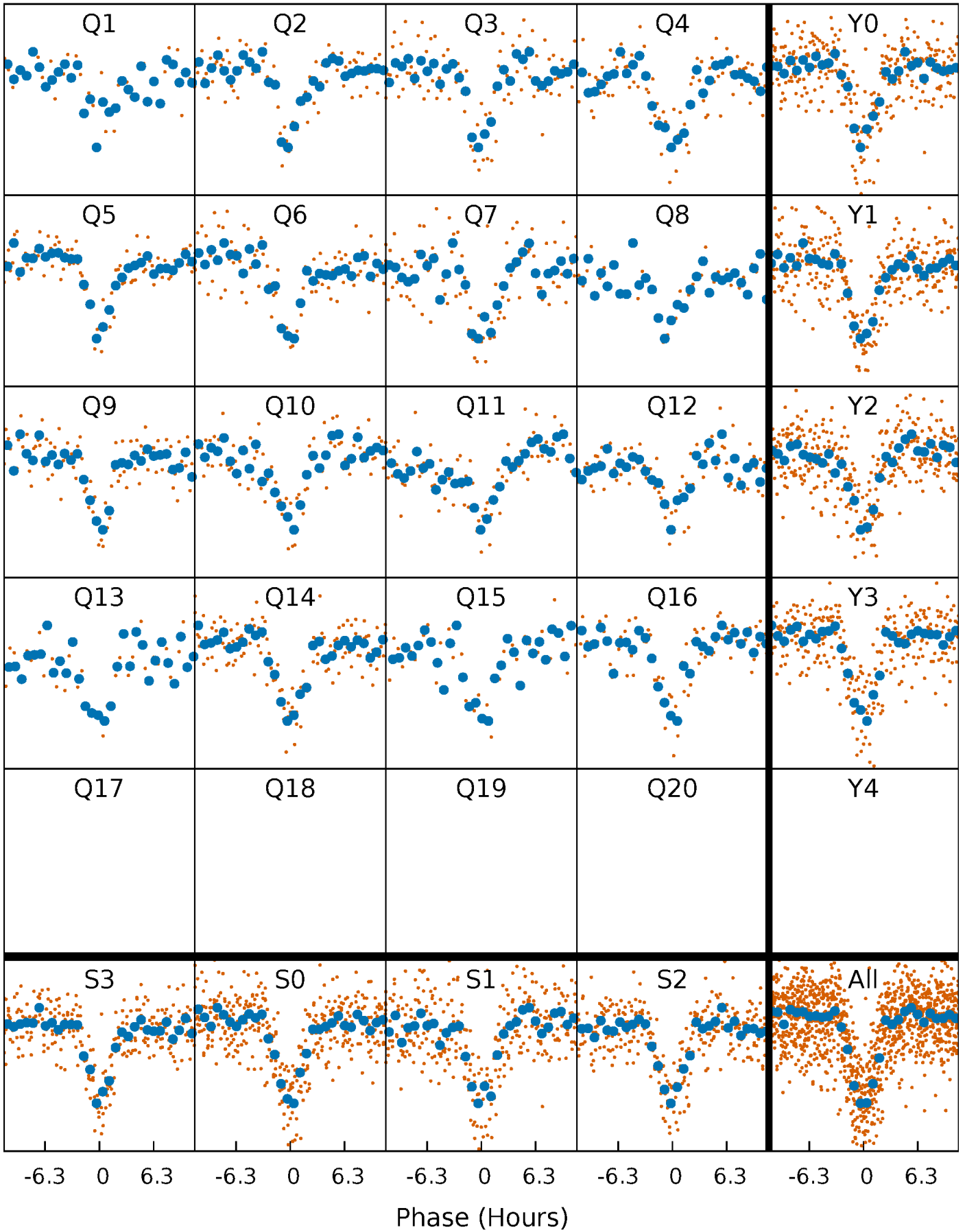


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



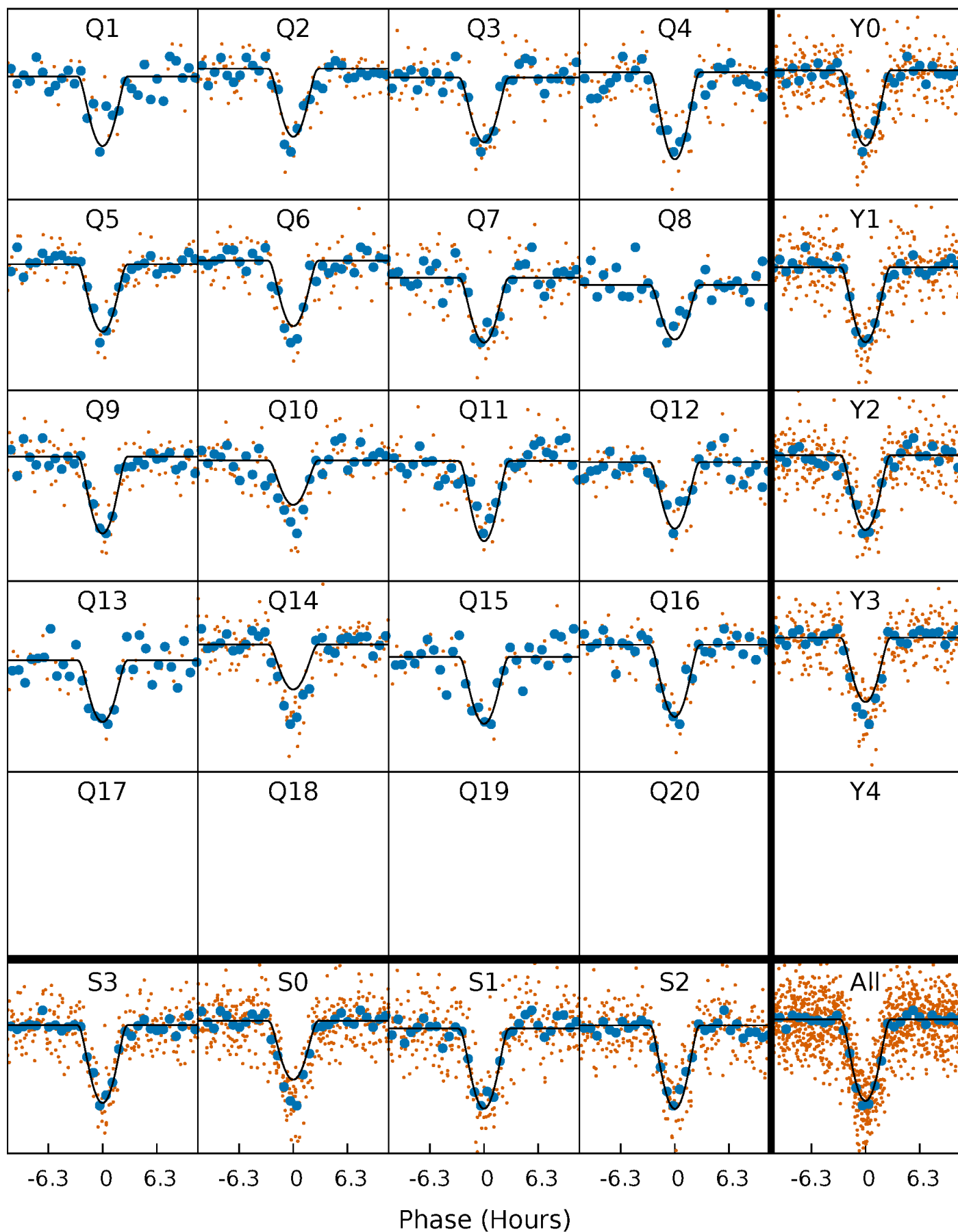
PDC Quarter-Phased Transit Curves

TCE 008765560-01 P= 47.109737 Days $T_0=144.129595$ (BKJD)



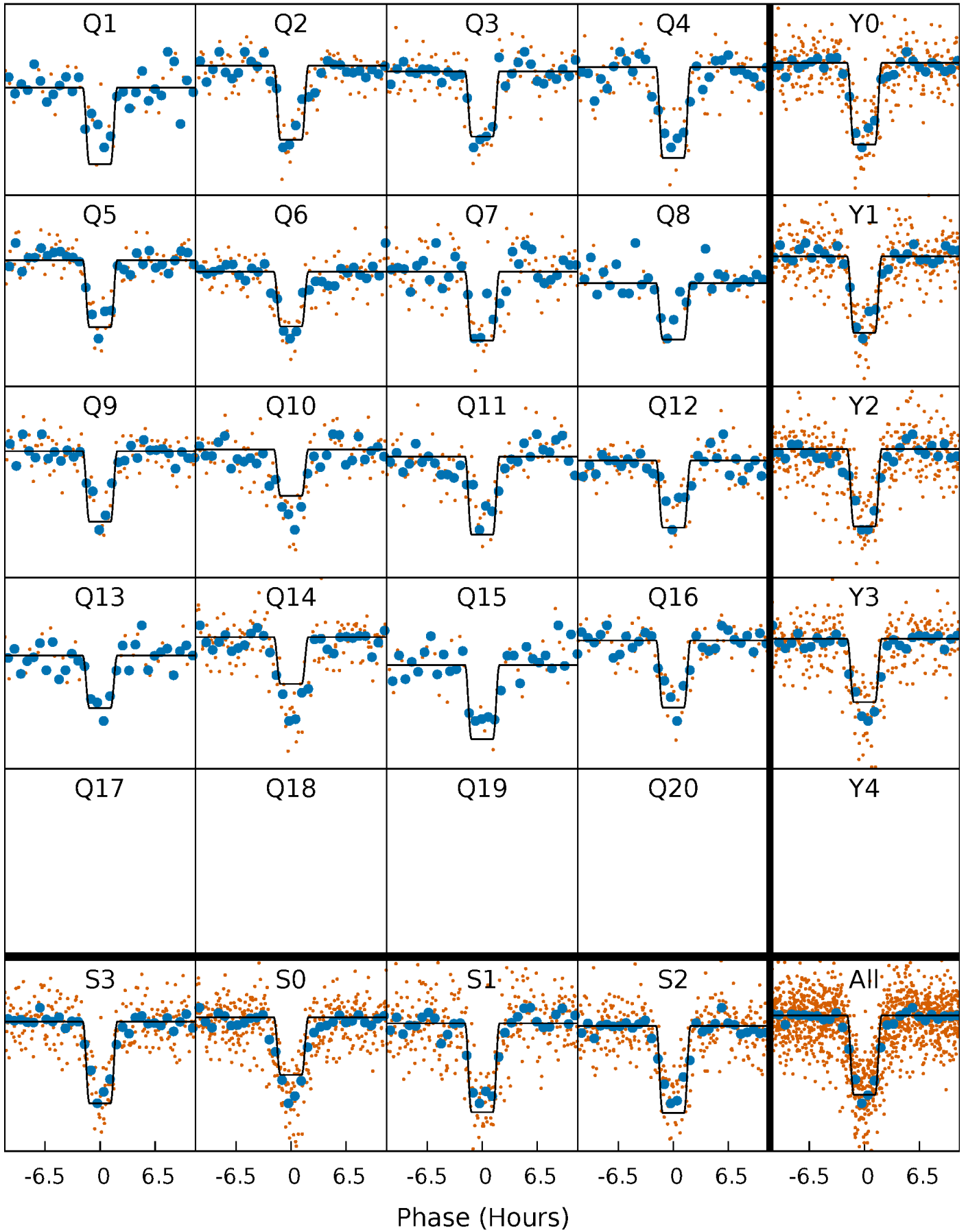
DV Quarter-Phased Transit Curves

TCE 008765560-01 P= 47.109737 Days $T_0=144.129595$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

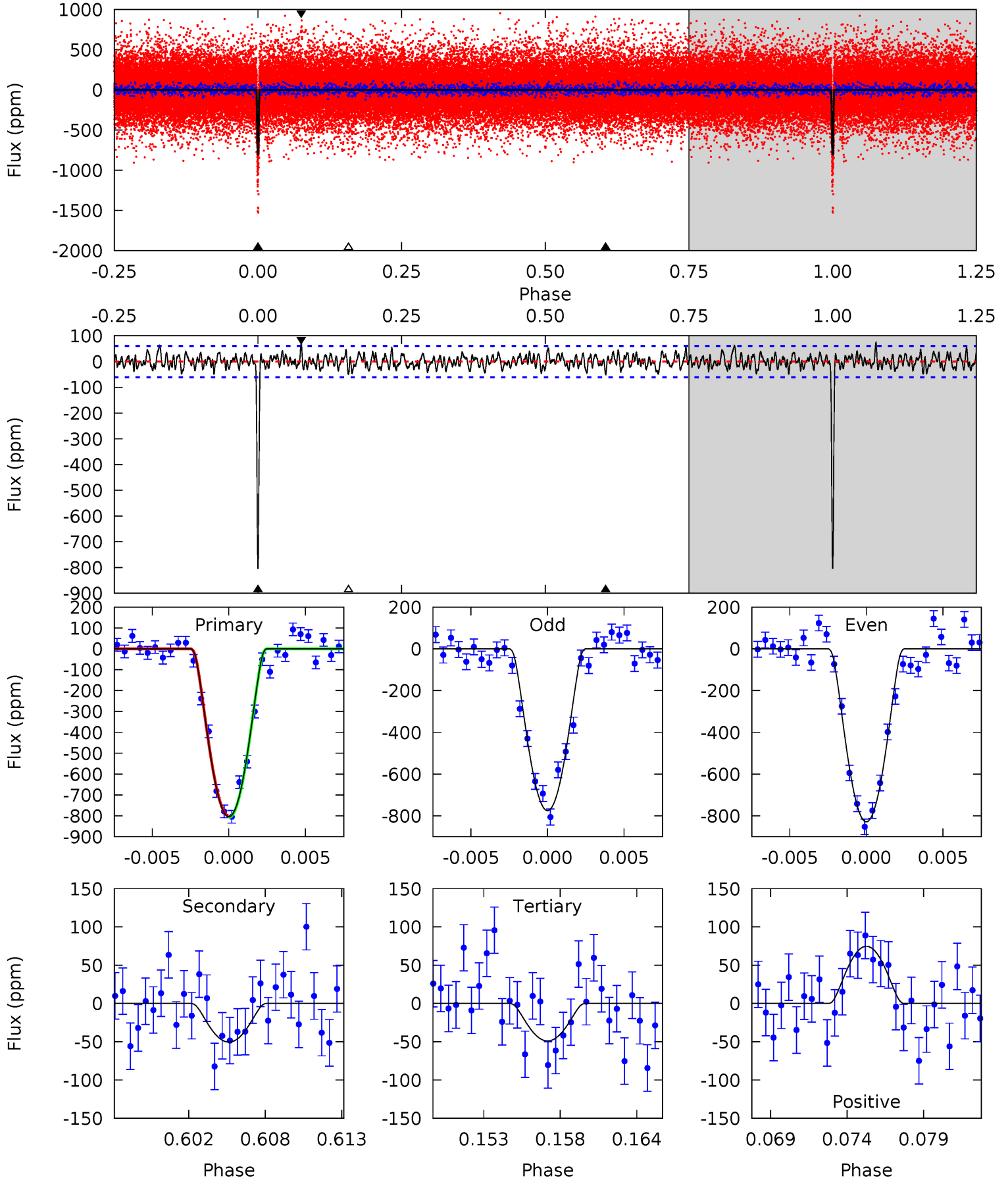
TCE 008765560-01 P= 47.109275 Days $T_0=144.136500$ (BKJD)



DV Model-Shift Uniqueness Test

008765560-01, P = 47.109737 Days, E = 97.019858 Days

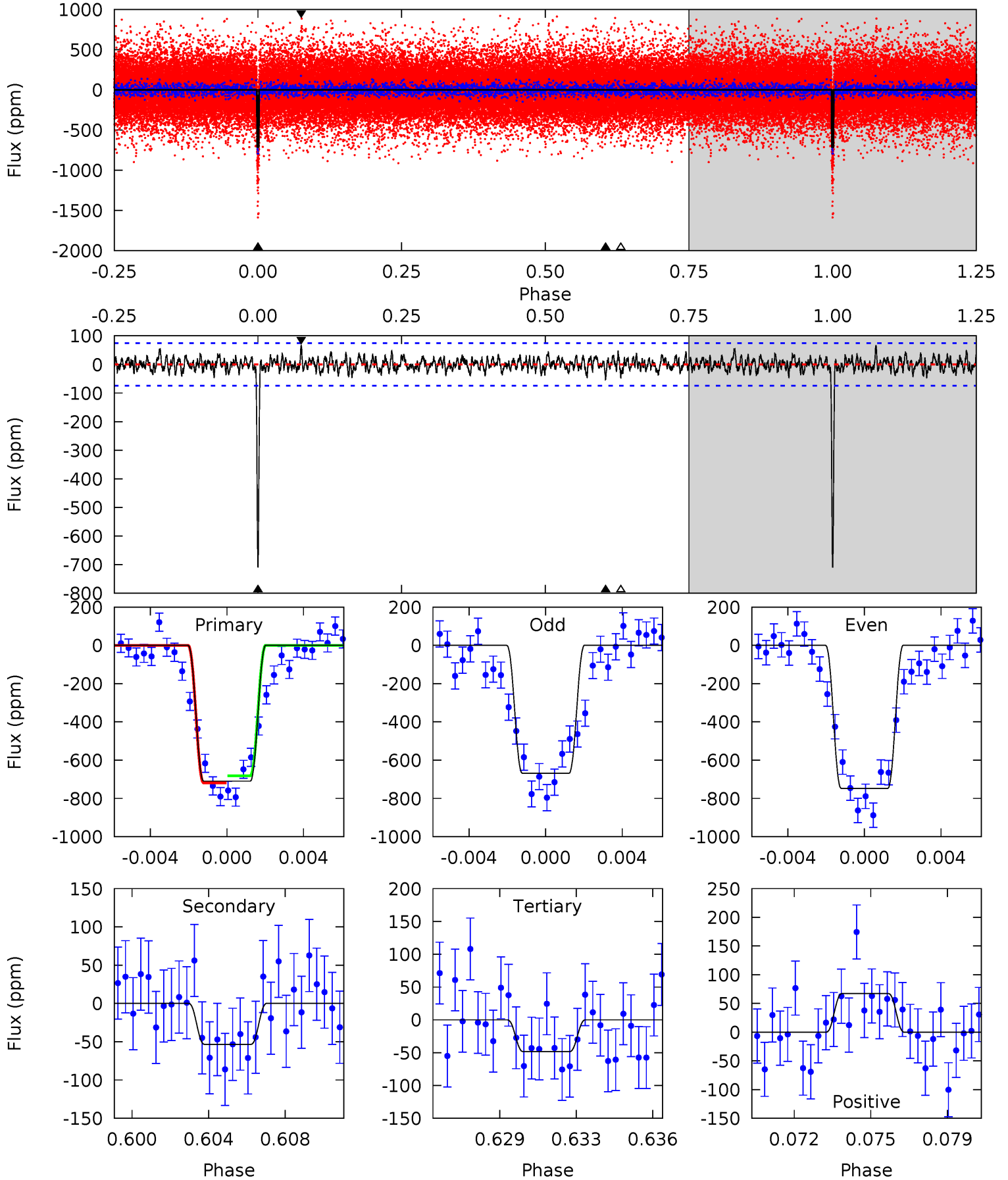
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.1	4.27	4.15	6.32	5.15	2.79	1.70	64.0	61.8	0.13	-2.05	2.28	1.08	0.08	0.32



Alt Model-Shift Uniqueness Test

008765560-01, P = 47.109275 Days, E = 97.027225 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.6	3.73	3.38	4.69	5.22	2.91	1.21	46.2	44.9	0.35	-0.96	2.74	1.12	0.09	1.30



Stellar Parameters For KIC 008765560

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5258^{+159}_{-159}	$3.597^{+0.968}_{-0.242}$	$-0.420^{+0.300}_{-0.250}$	$2.780^{+1.089}_{-2.022}$	$1.115^{+0.200}_{-0.300}$	$0.073^{+2.012}_{-0.052}$
	+3%/-3%	+27%/-7%	+71%/-60%	+39%/-73%	+18%/-27%	+2754%/-71%
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 008765560-01 / KOI 3891.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-50 ± 12	$11.78^{+9.72}_{-7.06}$	1038^{+121}_{-226}	2800^{+706}_{-359}	14^{+72}_{-10}
Alt.	-53 ± 14	$8.50^{+7.72}_{-5.58}$	1028^{+134}_{-203}	3068^{+1138}_{-423}	27^{+199}_{-20}

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

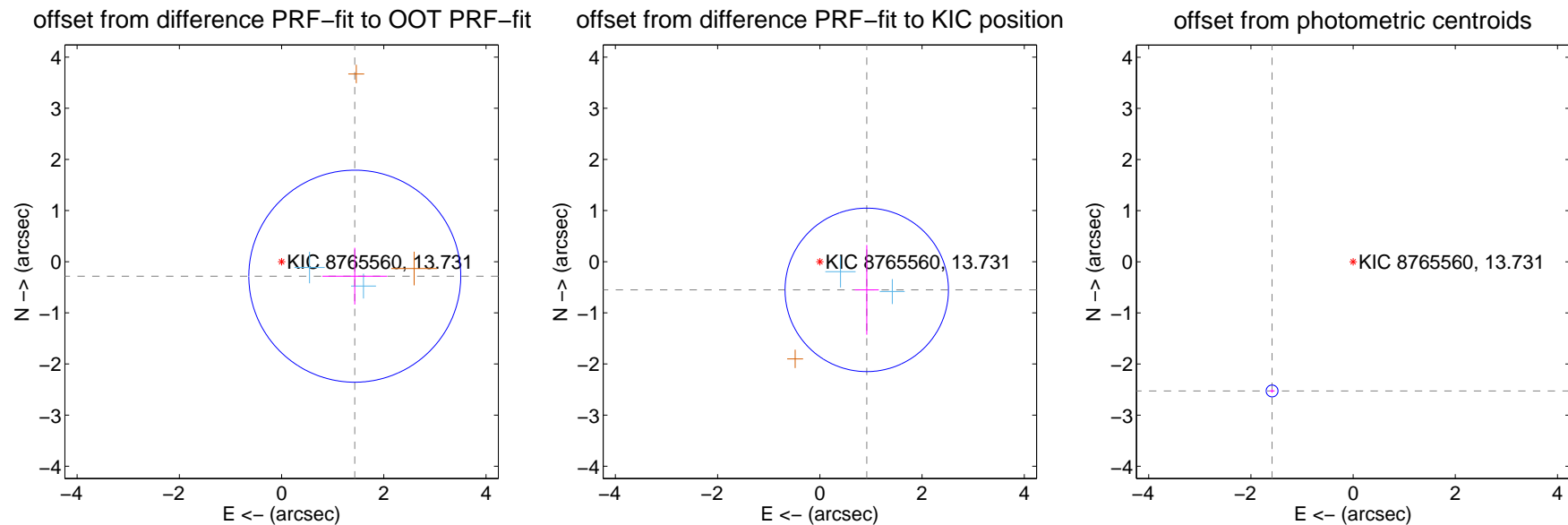
DV Centroid Data

Supplemental centroid analysis for 008765560-01. Kepler magnitude: 13.73. Transit SNR 34.69

There are 12 quarters with good PRF difference image offsets

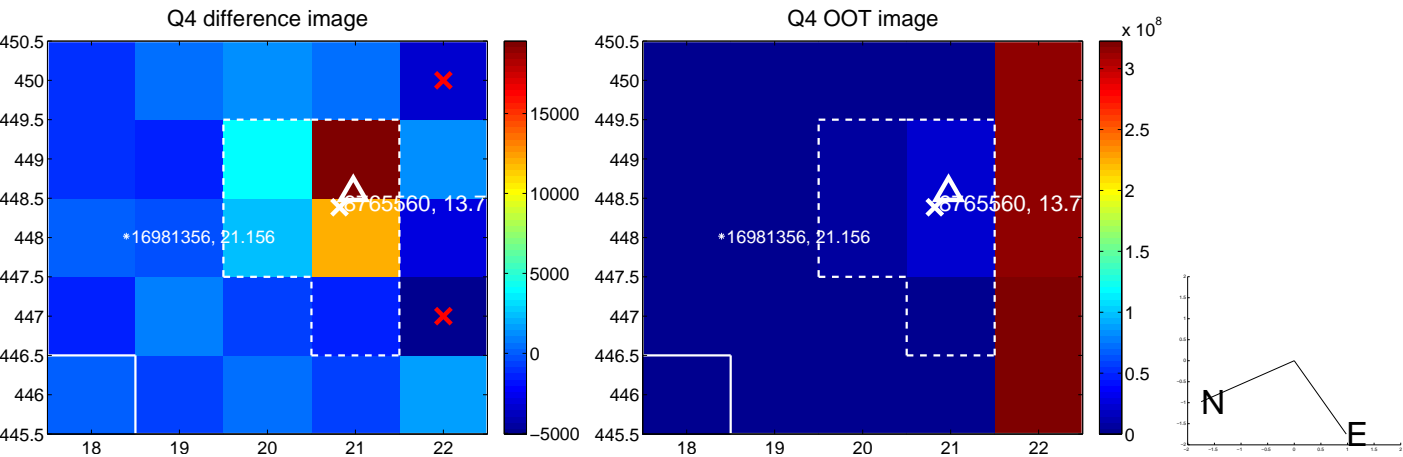
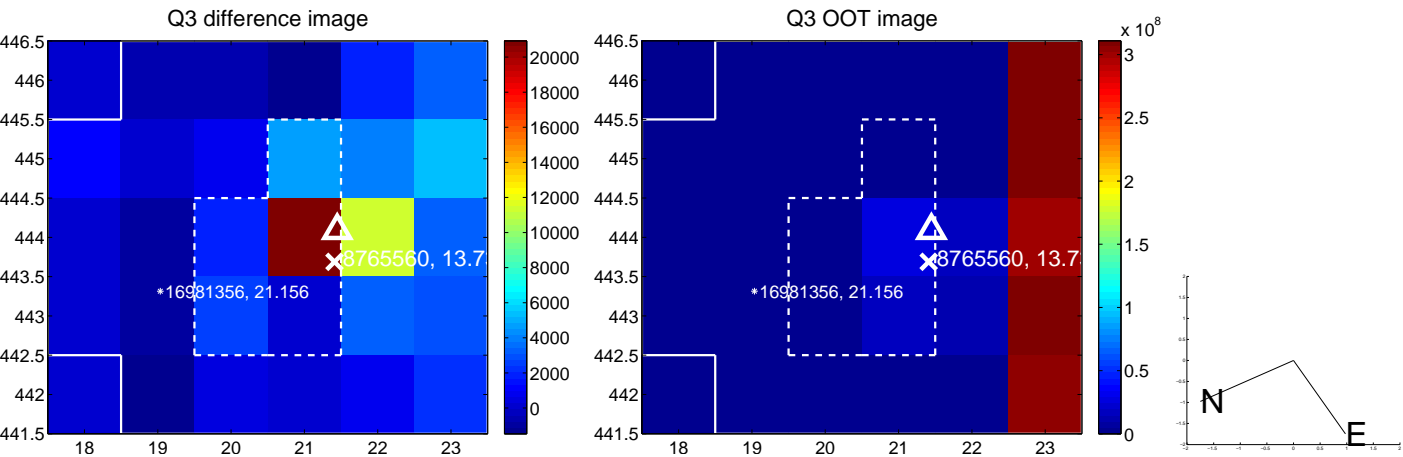
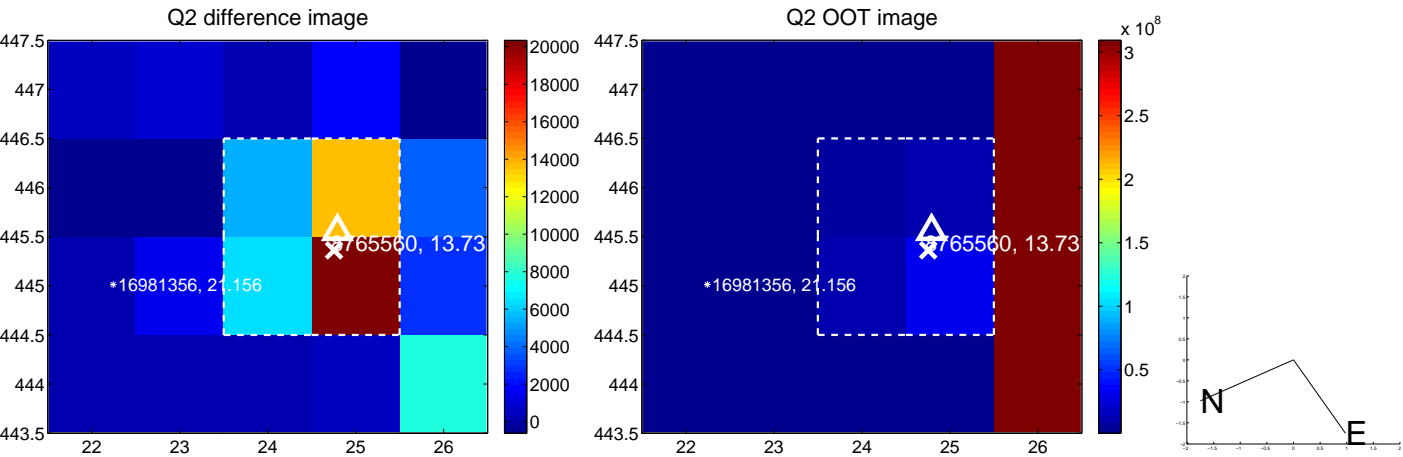
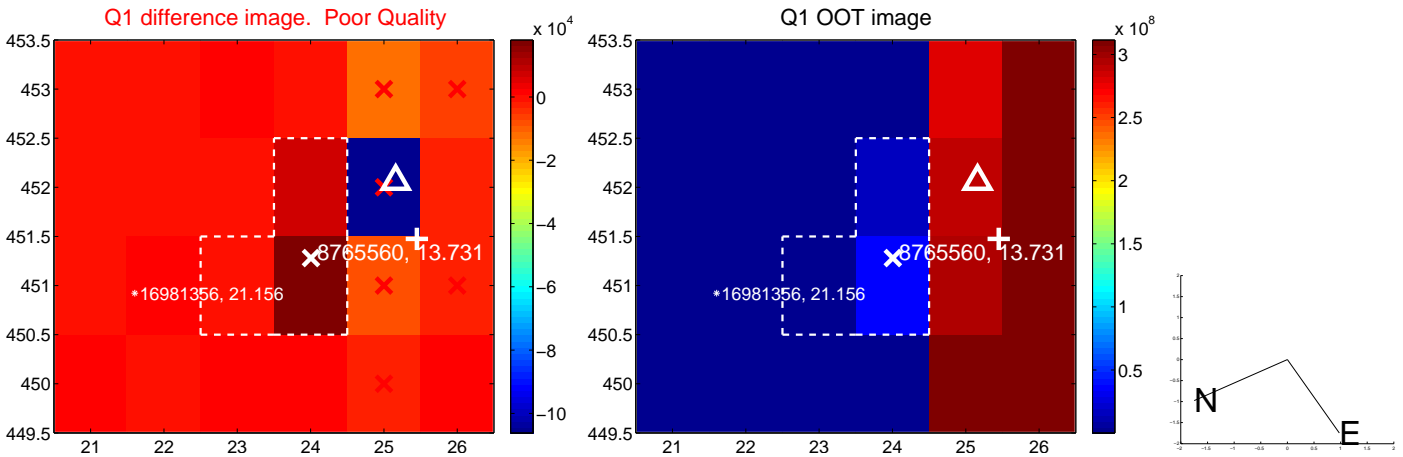
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.460 ± 0.691	2.11	-1.432 ± 0.635	-0.283 ± 0.555
PRF-fit source offset from KIC position	1.070 ± 0.533	2.01	-0.918 ± 0.235	-0.551 ± 0.878
photometric centroid source offset	2.98 ± 0.04	77.09	1.59 ± 0.05	-2.53 ± 0.04

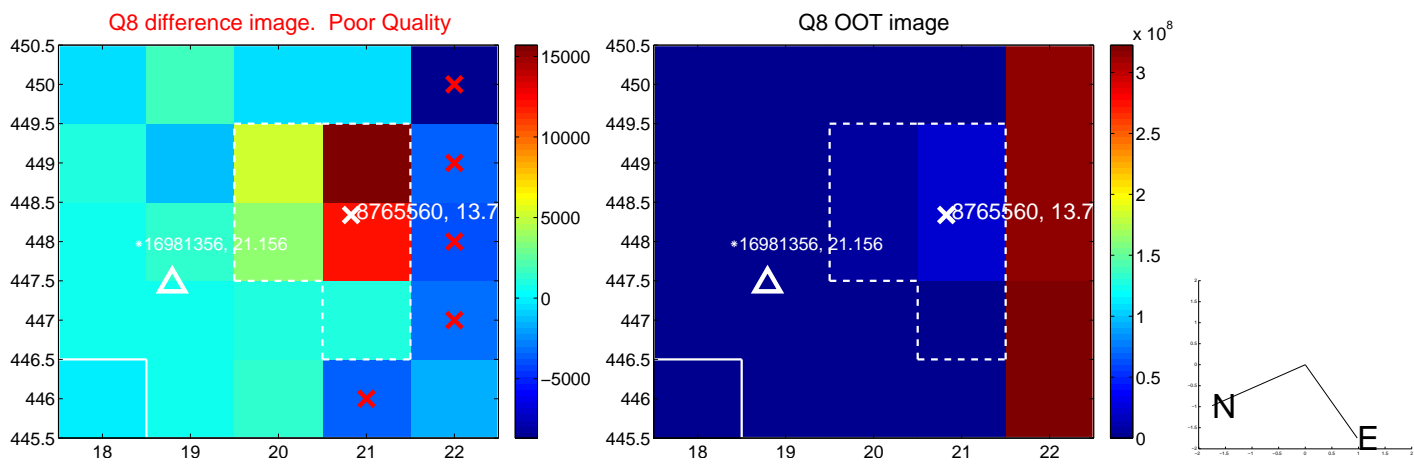
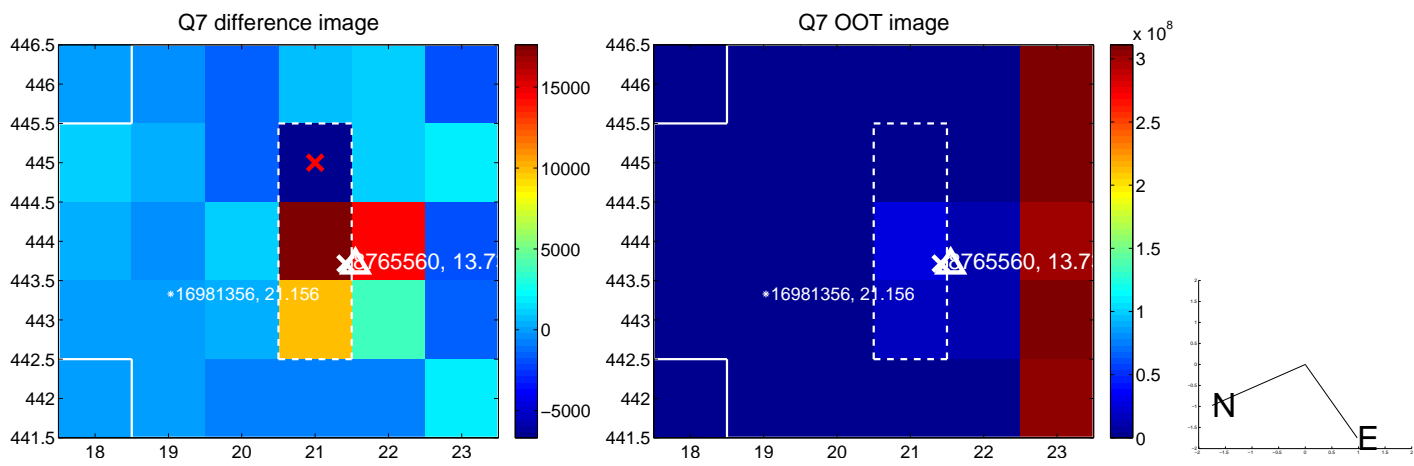
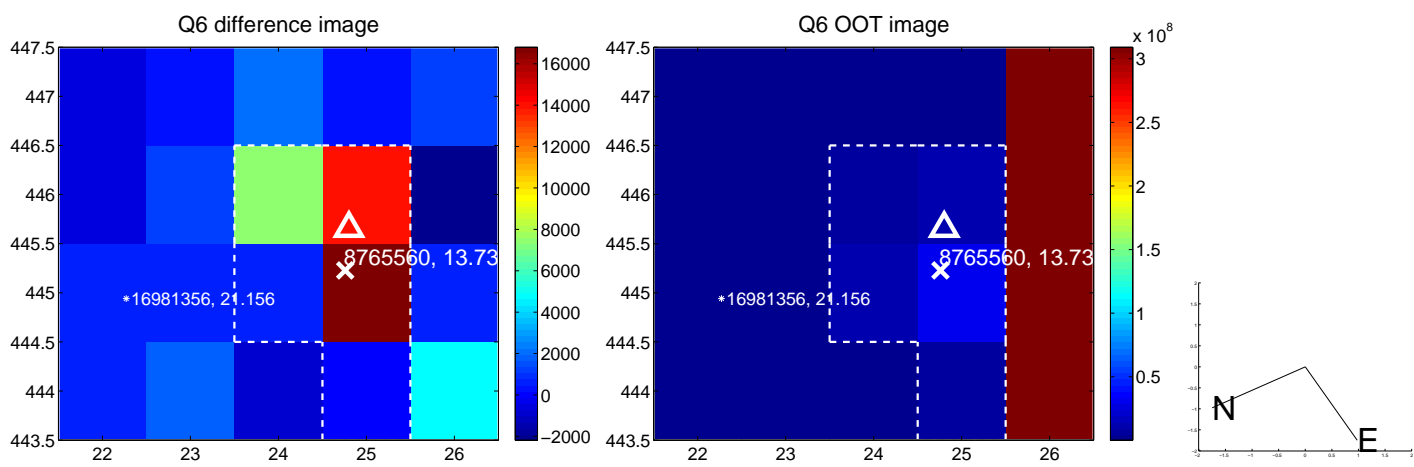
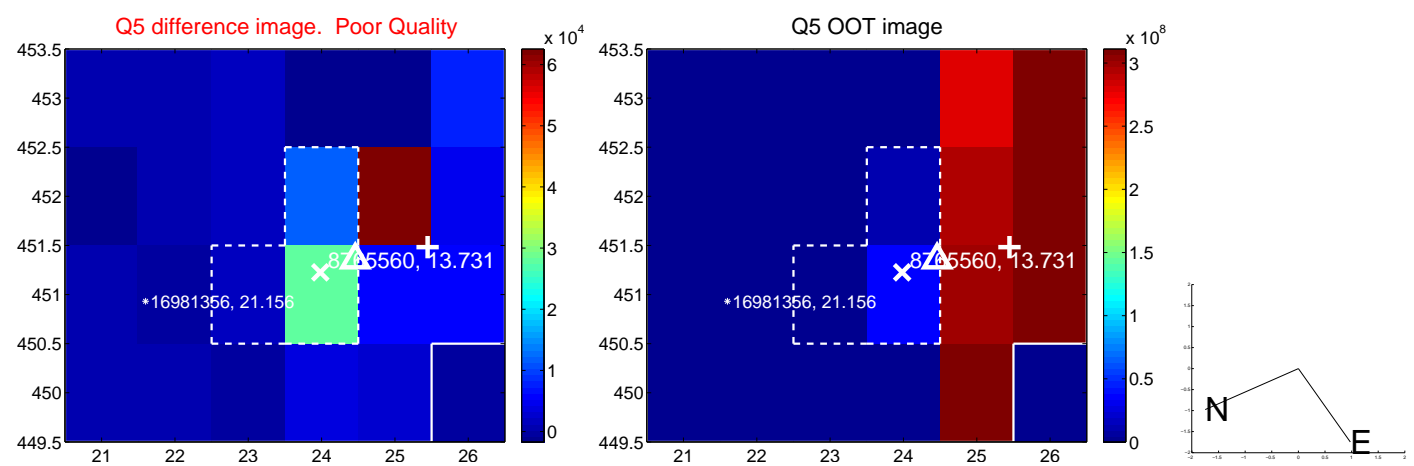


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

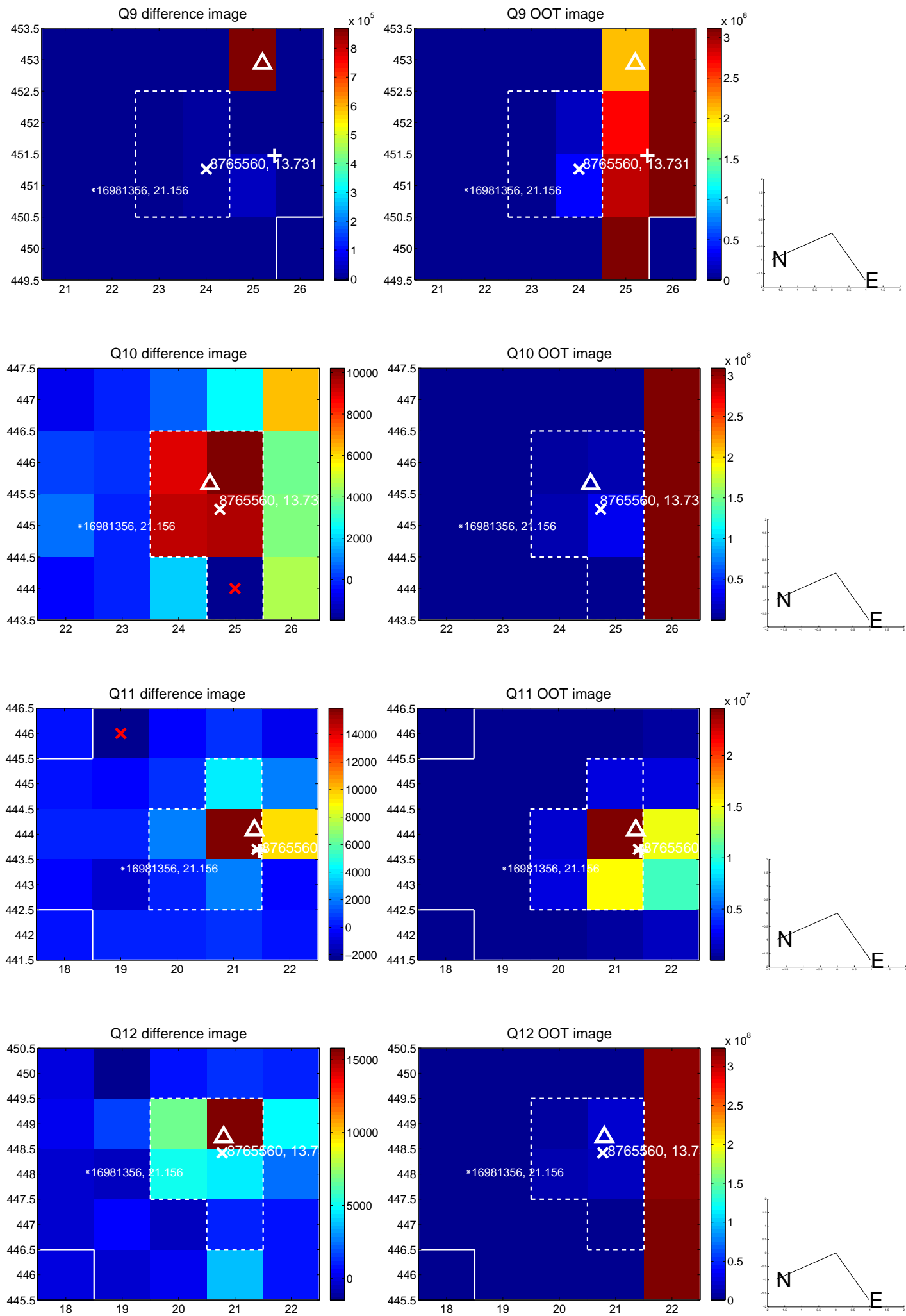
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



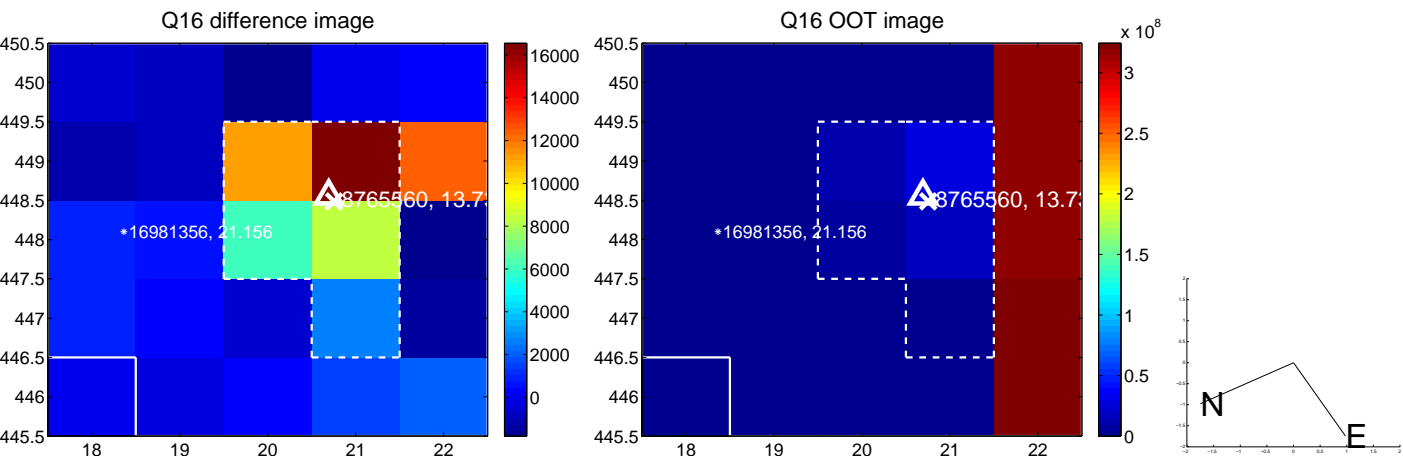
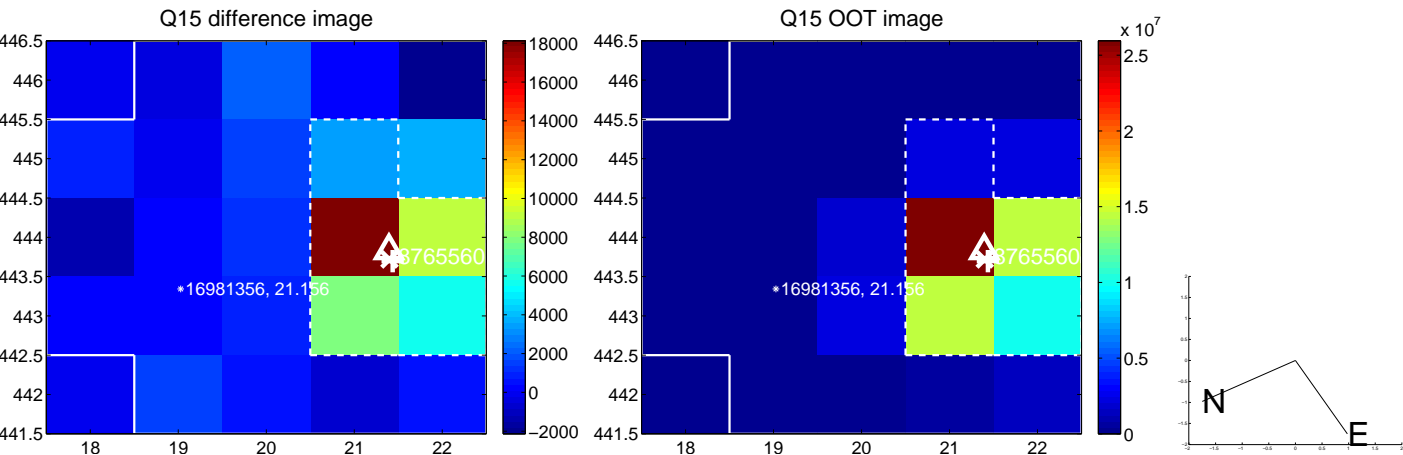
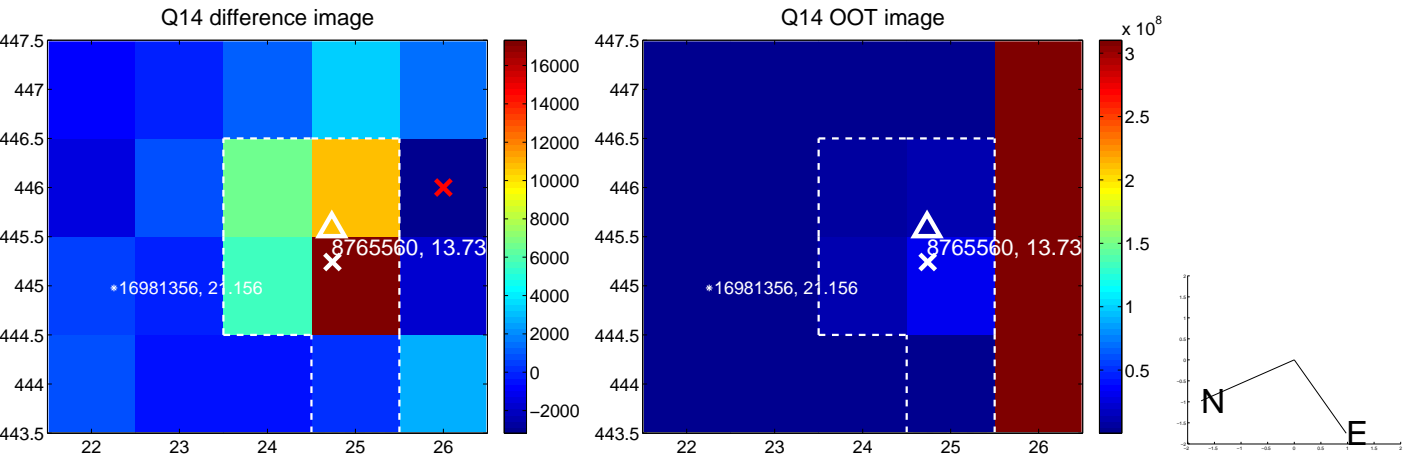
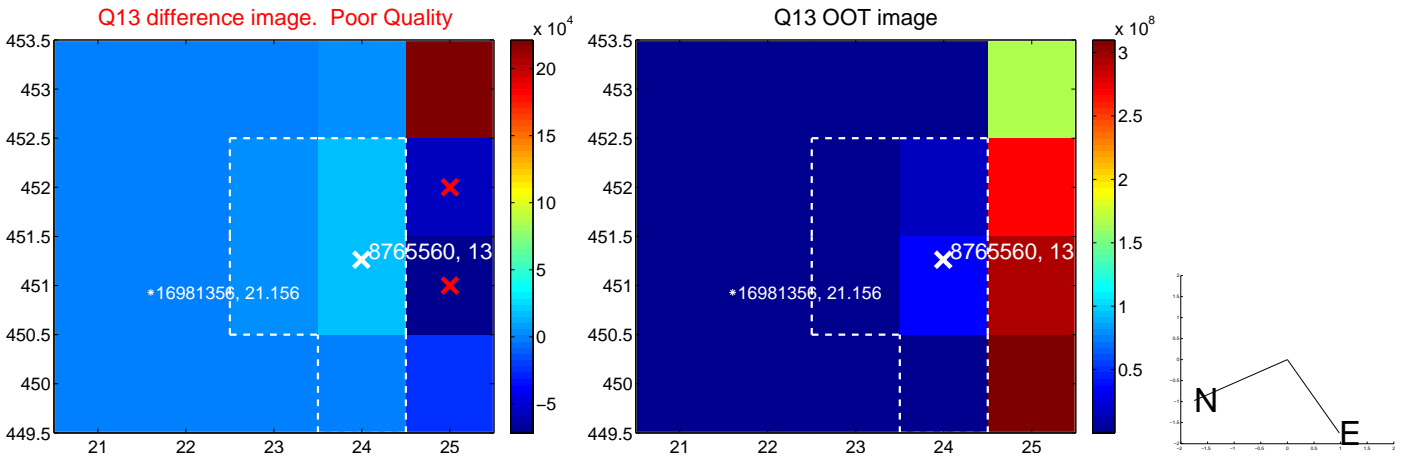
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



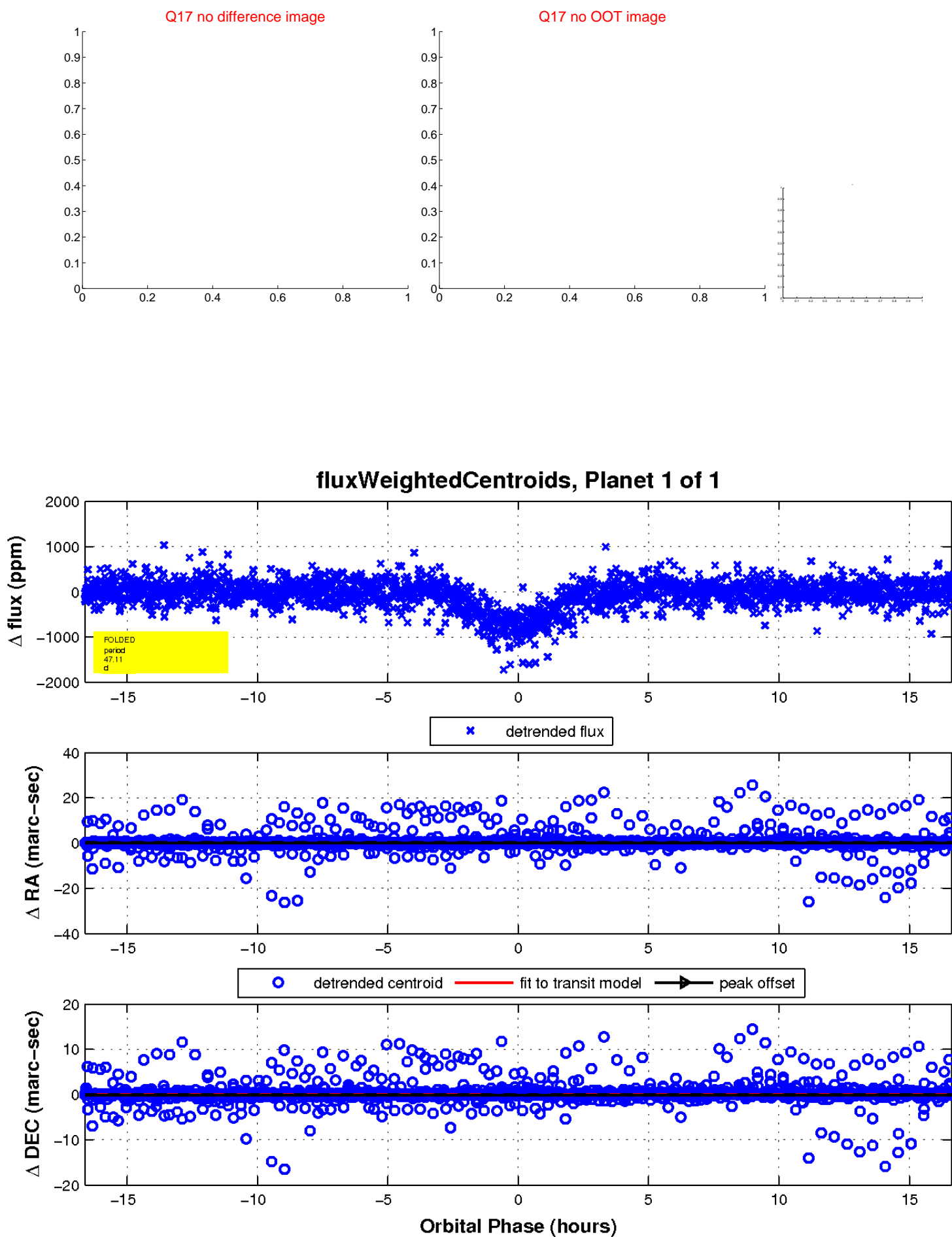
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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.



UKIRT Image

