

KIC 006047059

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})
006047059-01	OBS	No	2.911066	134.347798	85.3	8.480	9.9	8.5	0.89	5868	0.82	537.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006047059-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

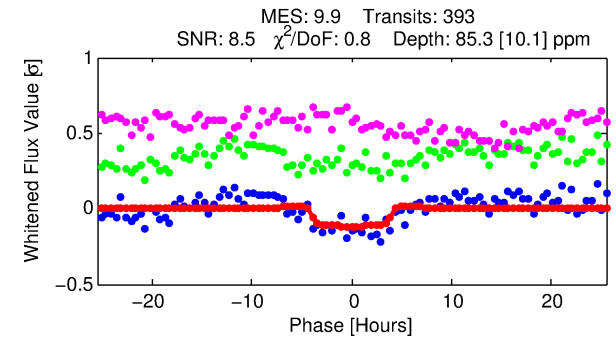
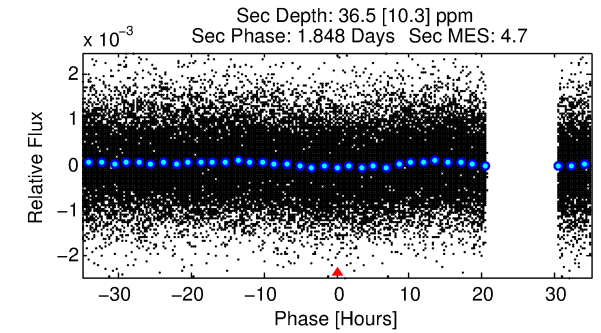
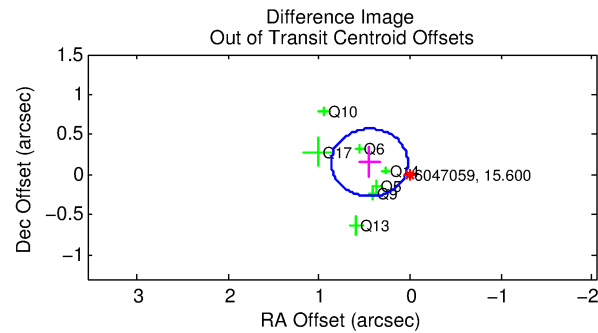
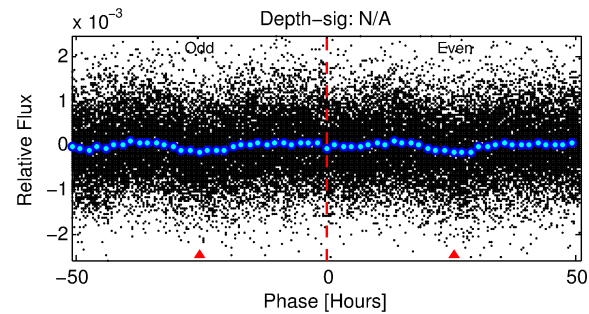
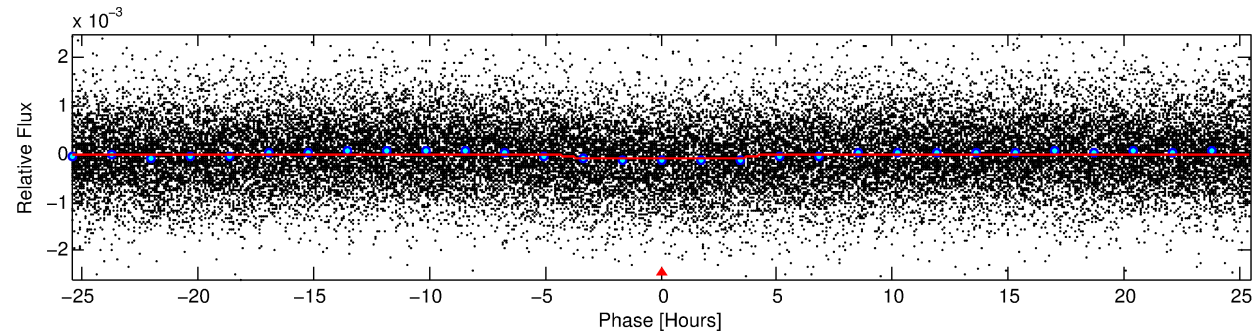
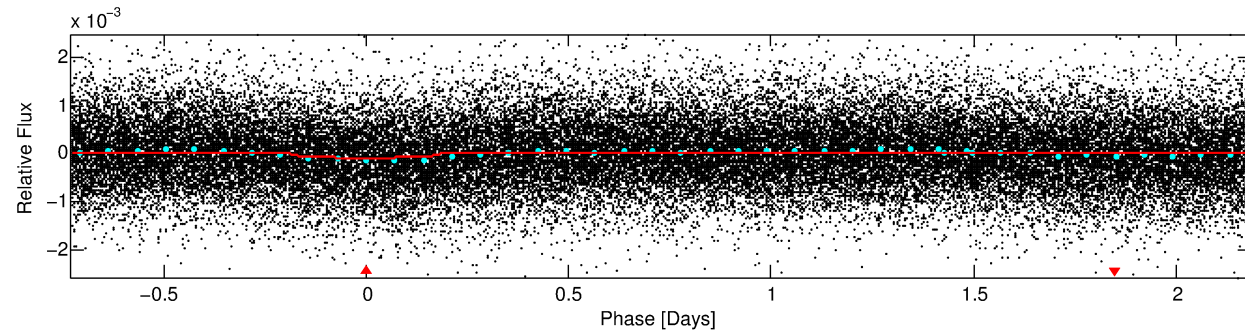
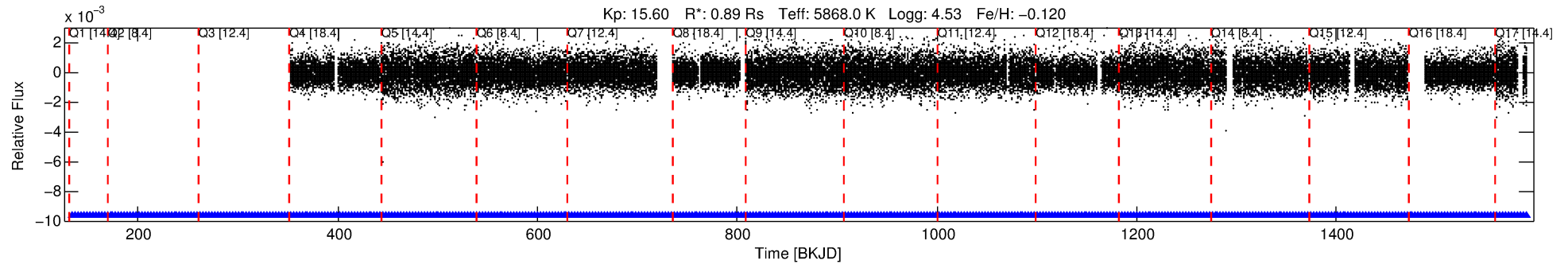
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006047059-01

No Significant Match Found

DV One-Page Summary

KIC: 6047059 Candidate: 1 of 1 Period: 2.911 d



DV Fit Results:

Period = 2.91107 [0.00005] d
Epoch = 134.3478 [0.0117] BKJD
Rp/R* = 0.0084 [0.0242]
a/R* = 2.71 [30.96]
b = 0.01 [1717.83]
Seff = 537.46 [211.92]
Teq = 1228 [121] K
Rp = 0.82 [2.37] Re
a = 0.0397 [0.0099] AU
Ag = 47.20 [272.98] [0.17σ]
Teffp = 4975 [7182] K [0.52σ]

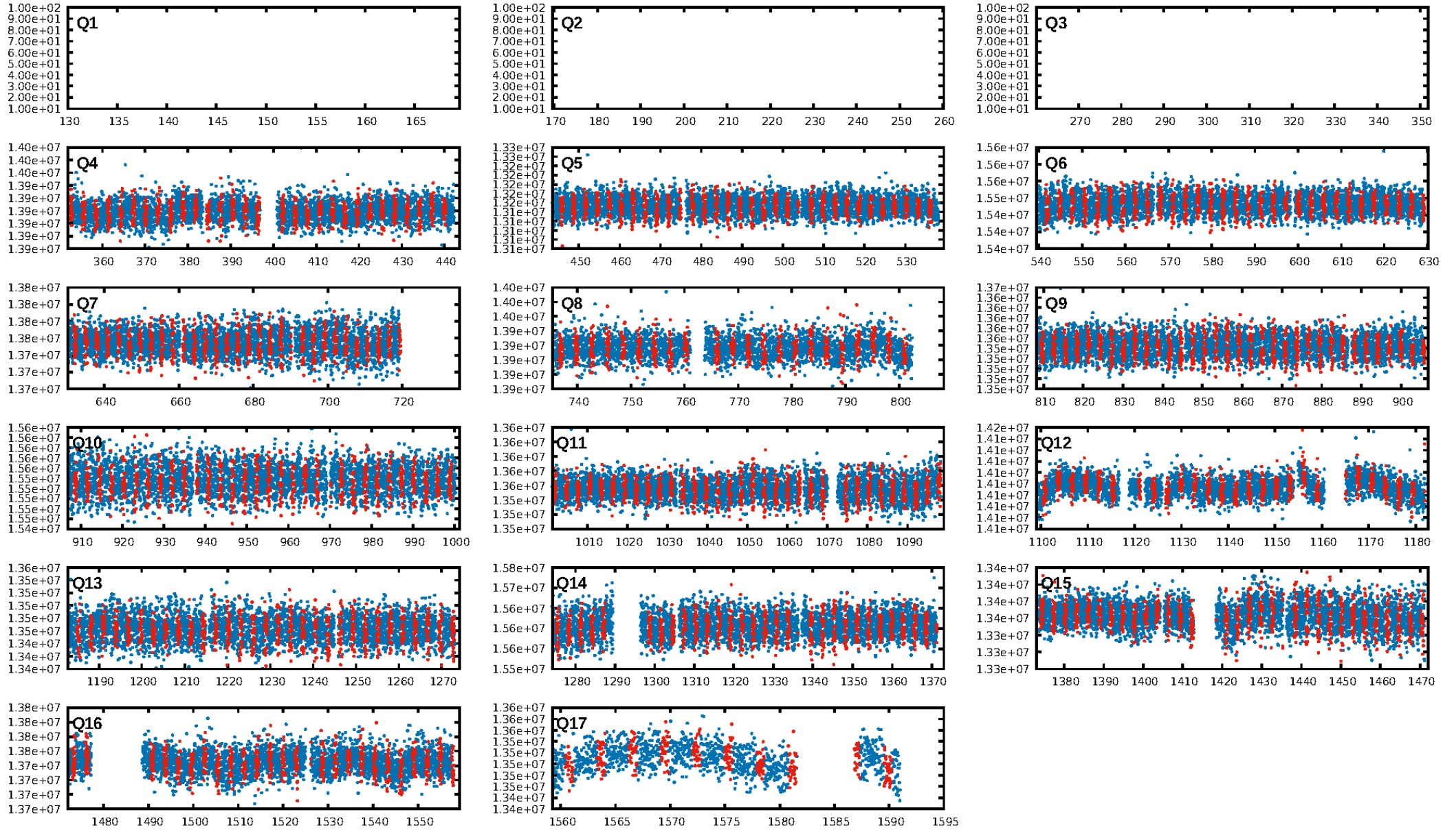
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.90e-23
RollingBand-fgt: 1.00 [383/383]
GhostDiagnostic-chr: -0.8608
Centroid-sig: 0.0%
Centroid-so: 7.515 arcsec [11.17σ]
OotOffset-rm: 0.470 arcsec [3.35σ]
KicOffset-rm: 6.139 arcsec [38.69σ]
OotOffset-st: 3/0/0/4 [7]
KicOffset-st: 3/0/0/4 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [14/14]

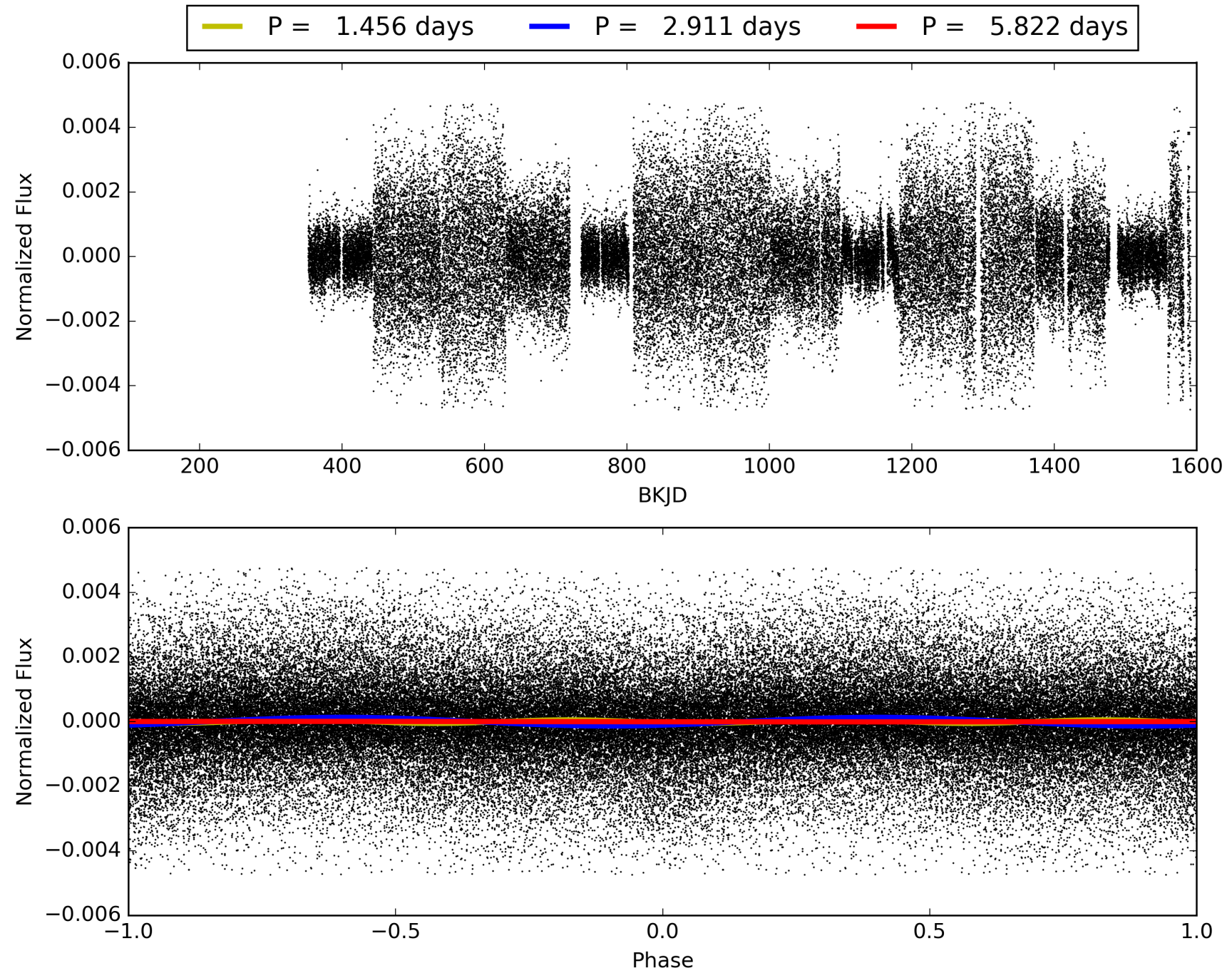
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:34:48 Z

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

TCE 006047059-01, PDC Light Curves

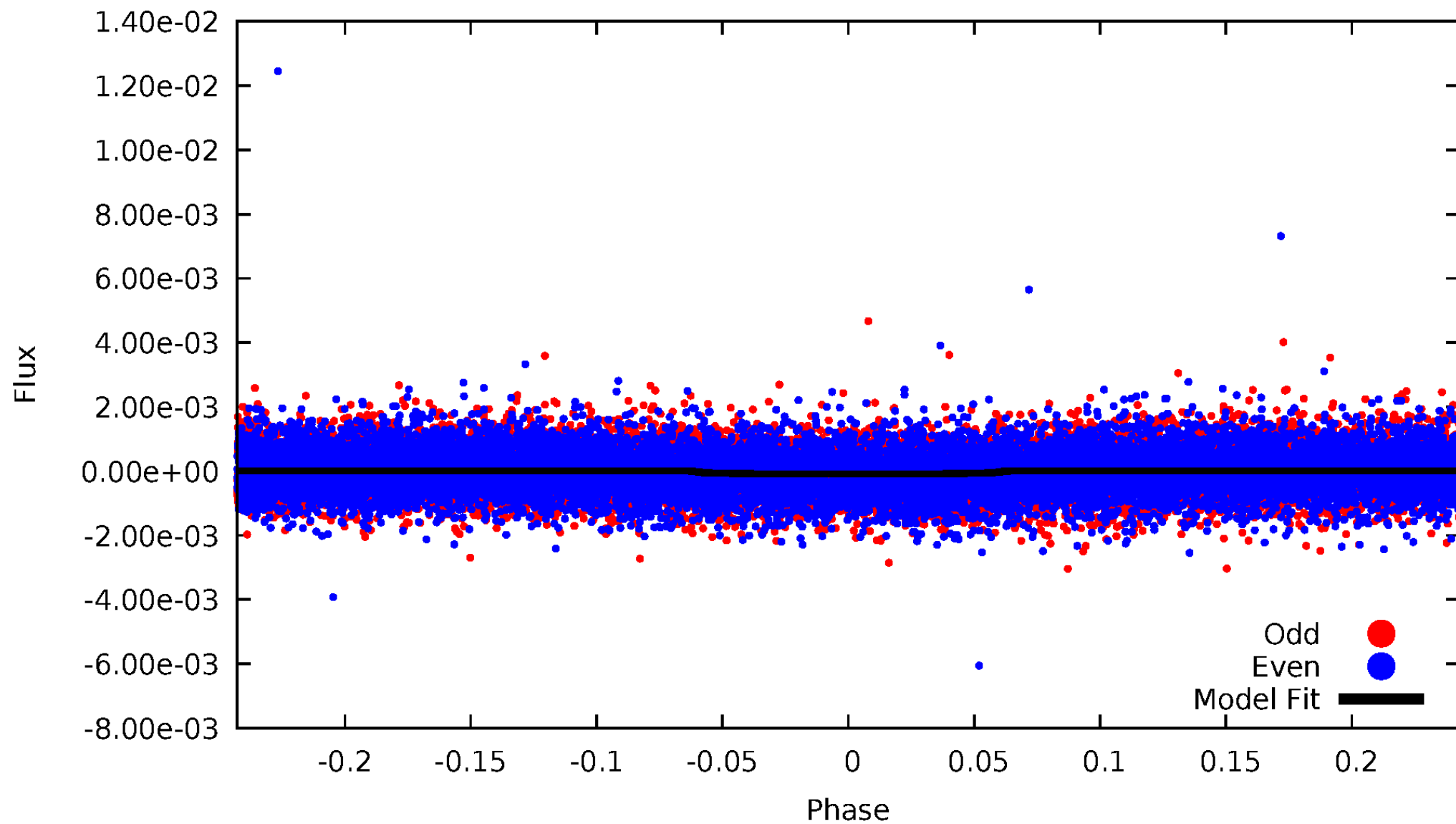


TCE 006047059-01



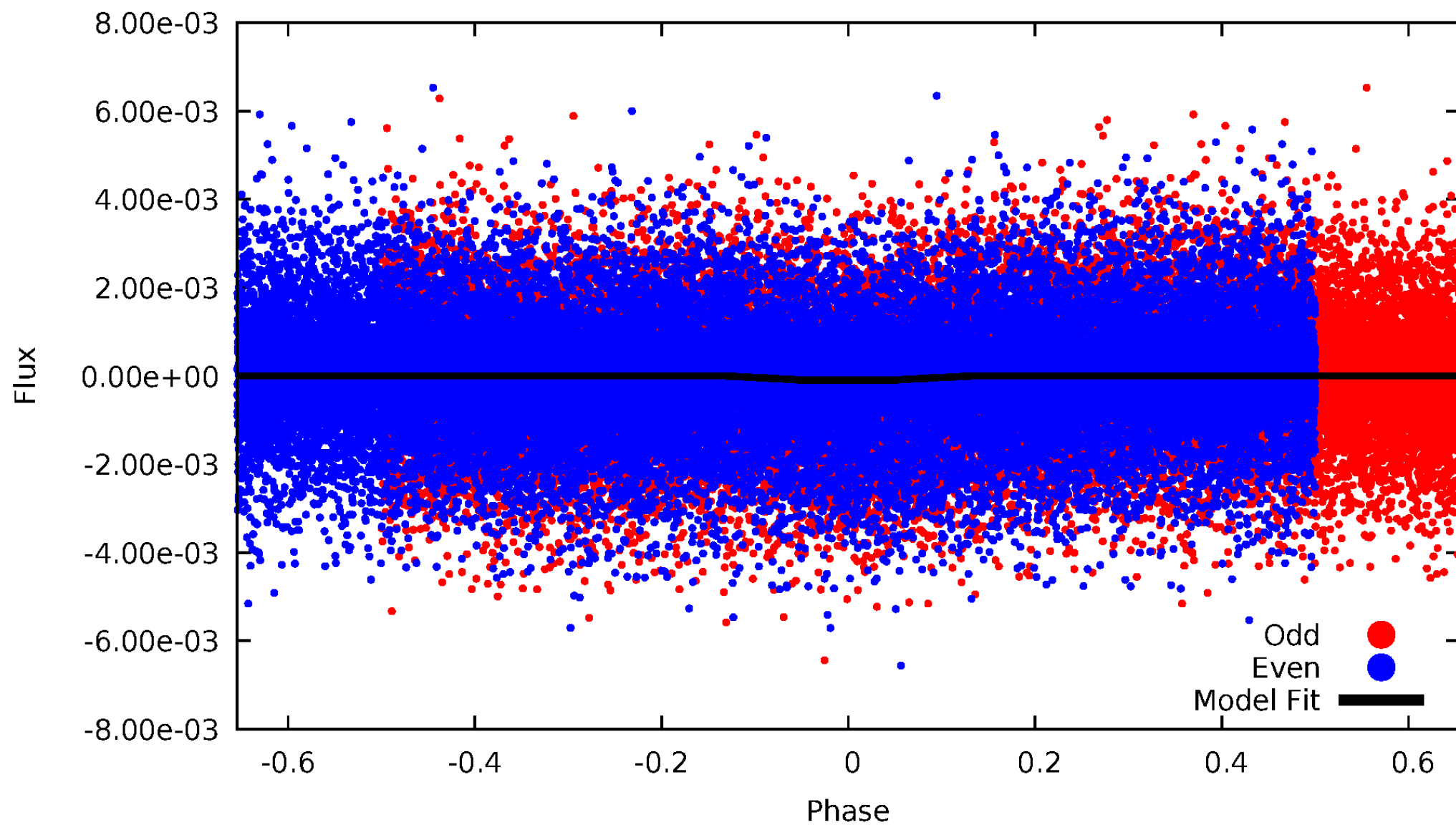
DV Odd/Even

TCE 006047059-01



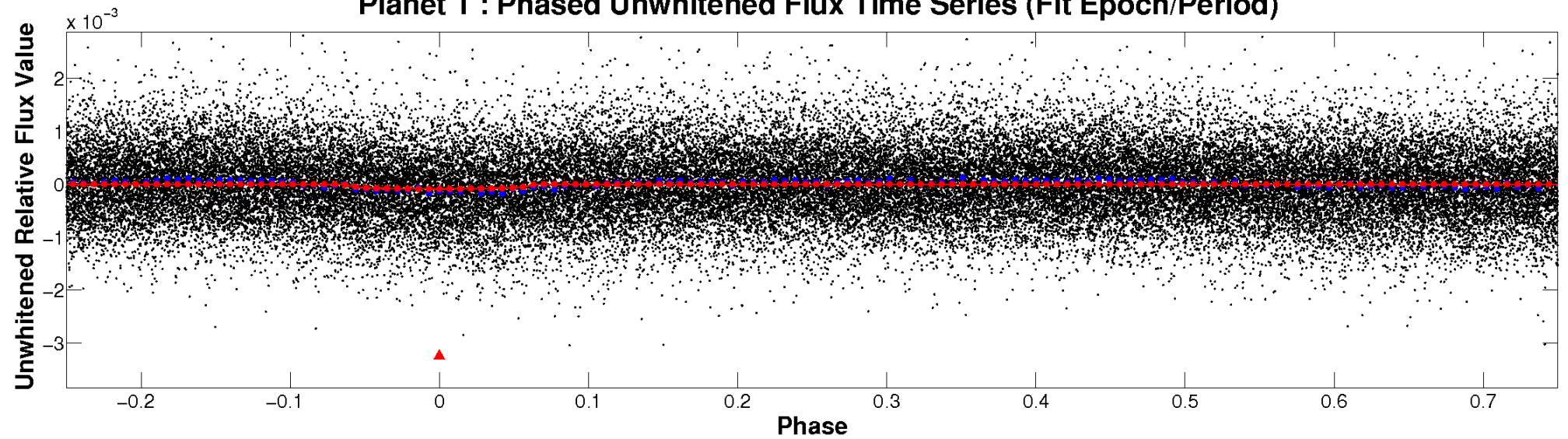
ALT Odd/Even

TCE 006047059-01

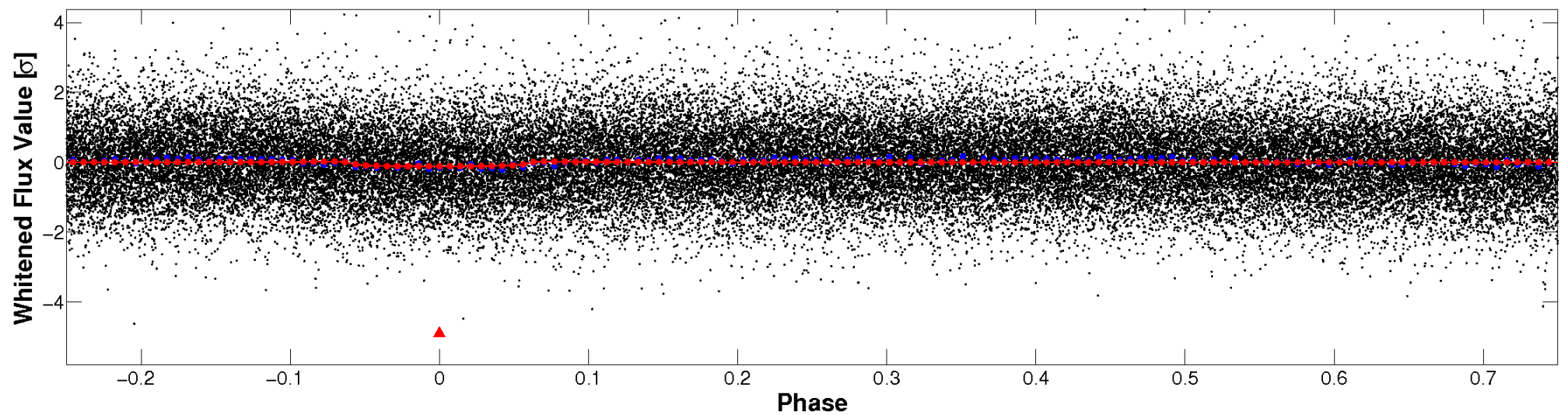


Non-Whitened Vs. Whitened Light Curve

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

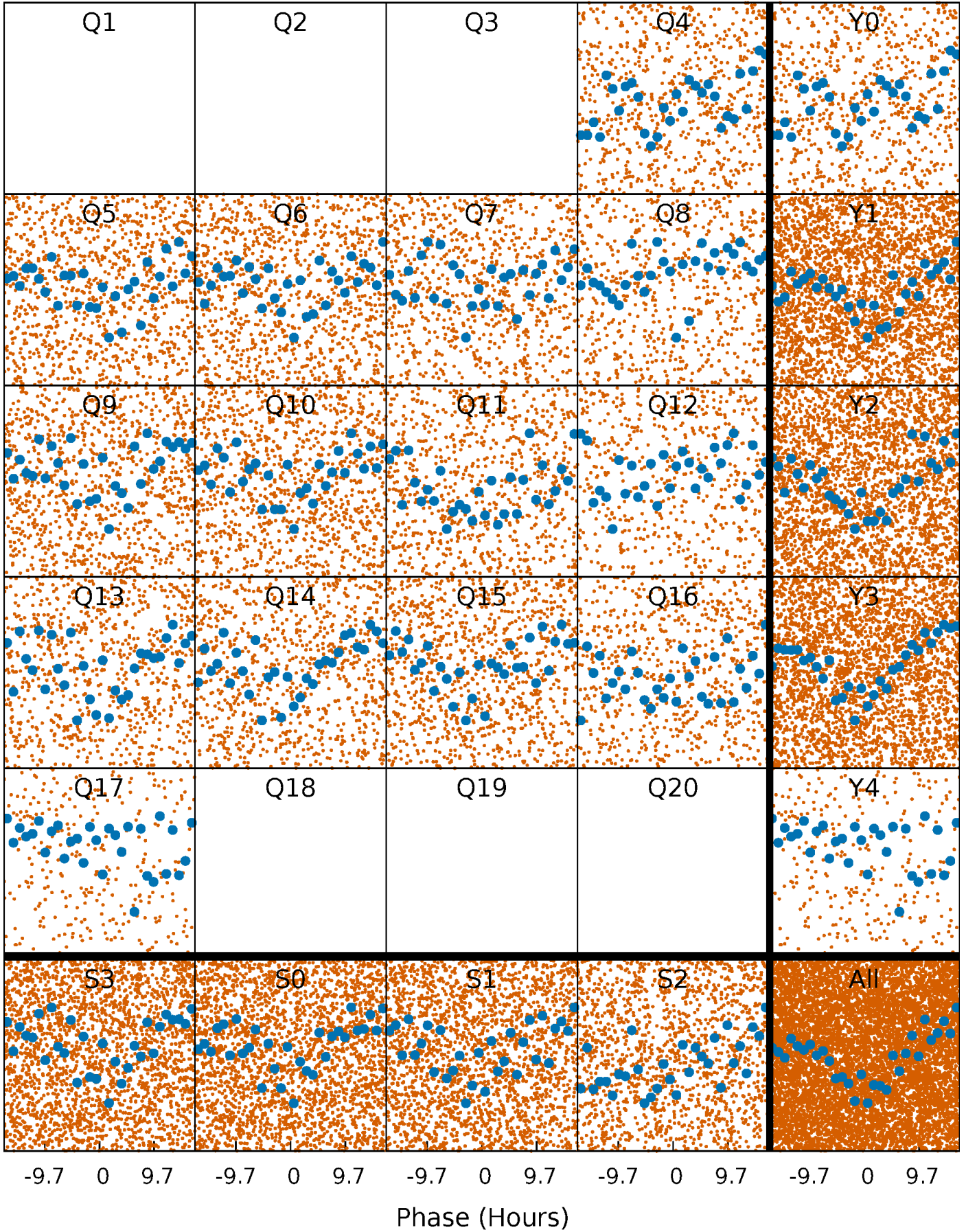


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



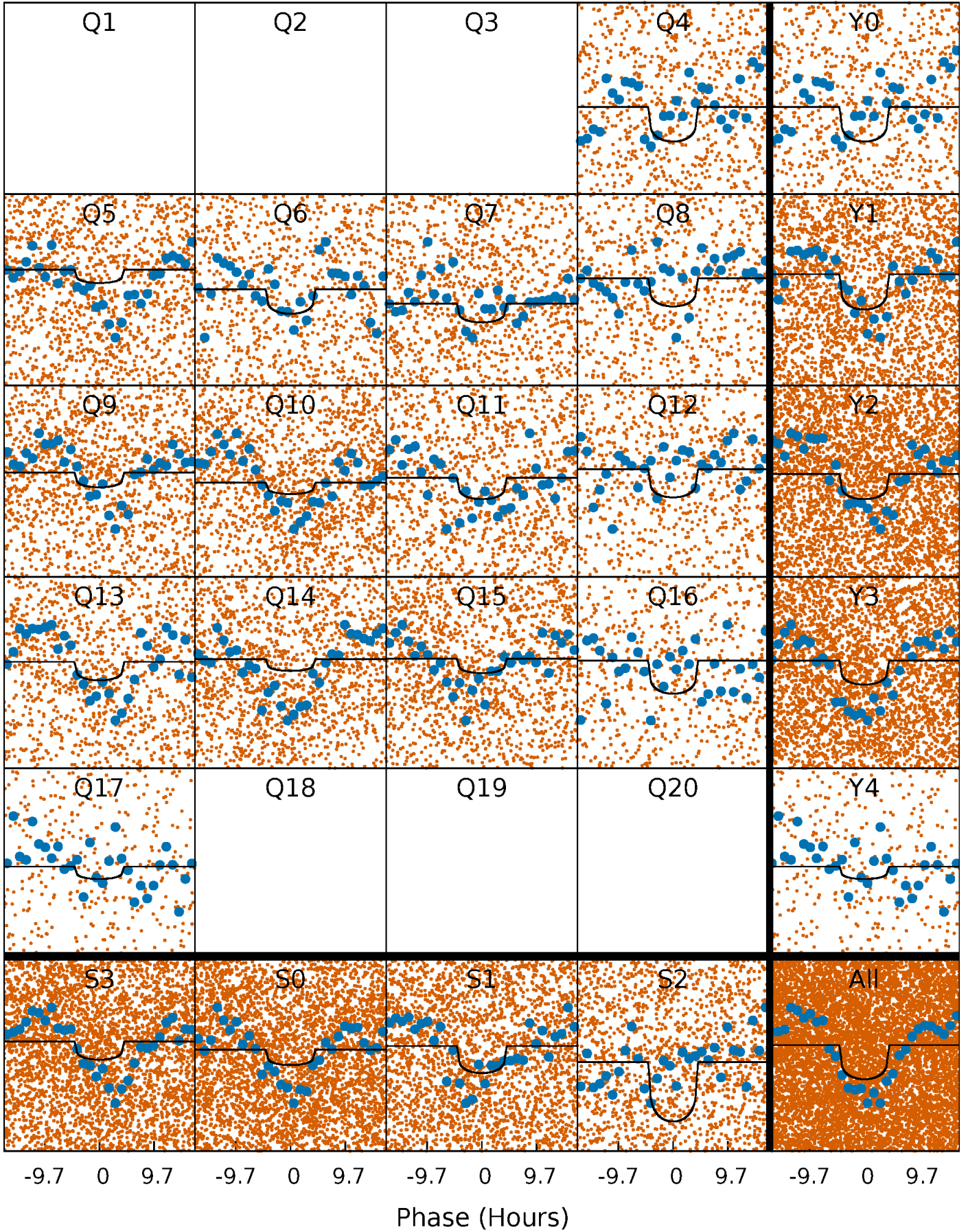
PDC Quarter-Phased Transit Curves

TCE 006047059-01 P= 2.911066 Days $T_0=134.347798$ (BKJD)



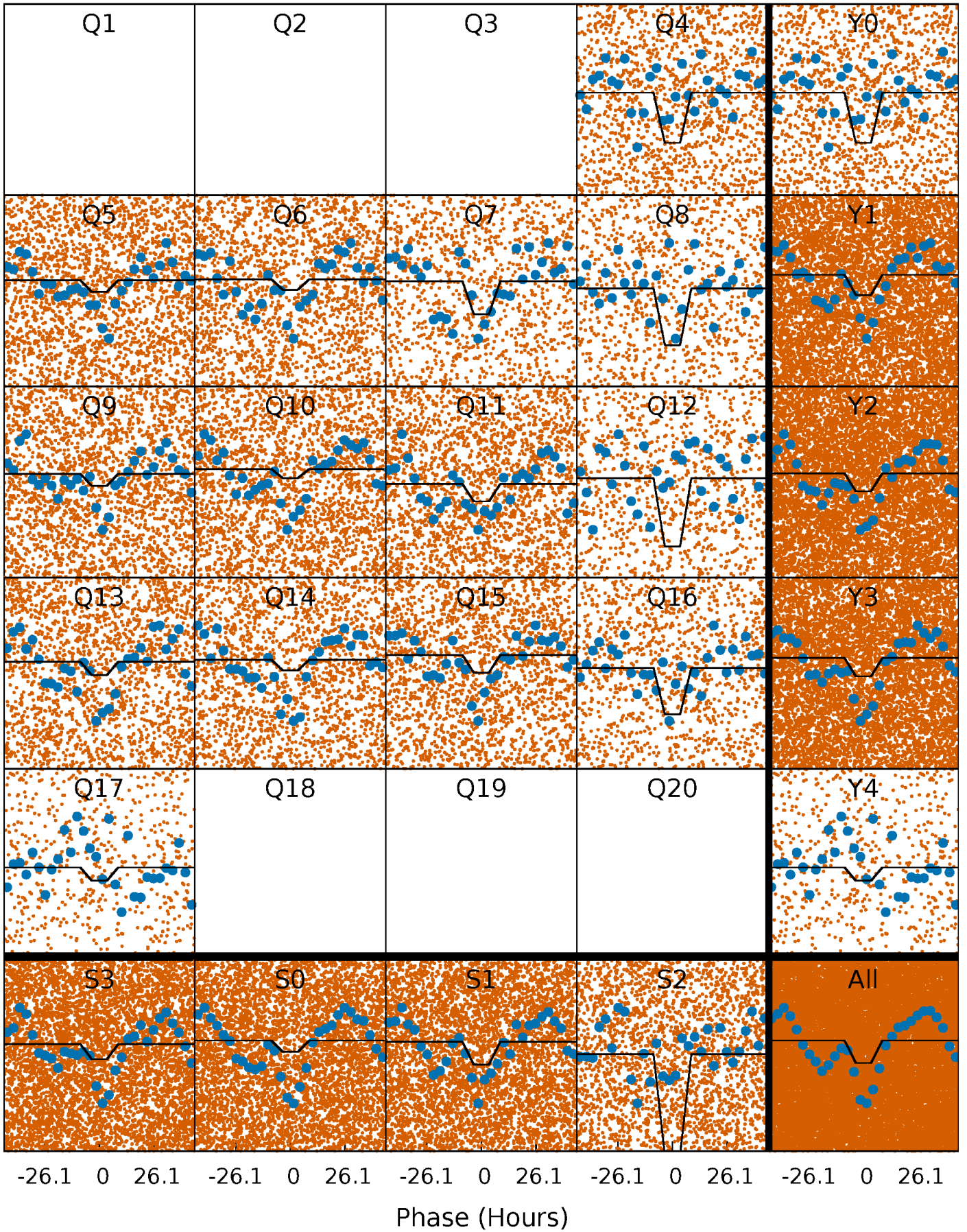
DV Quarter-Phased Transit Curves

TCE 006047059-01 P= 2.911066 Days $T_0=134.347798$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

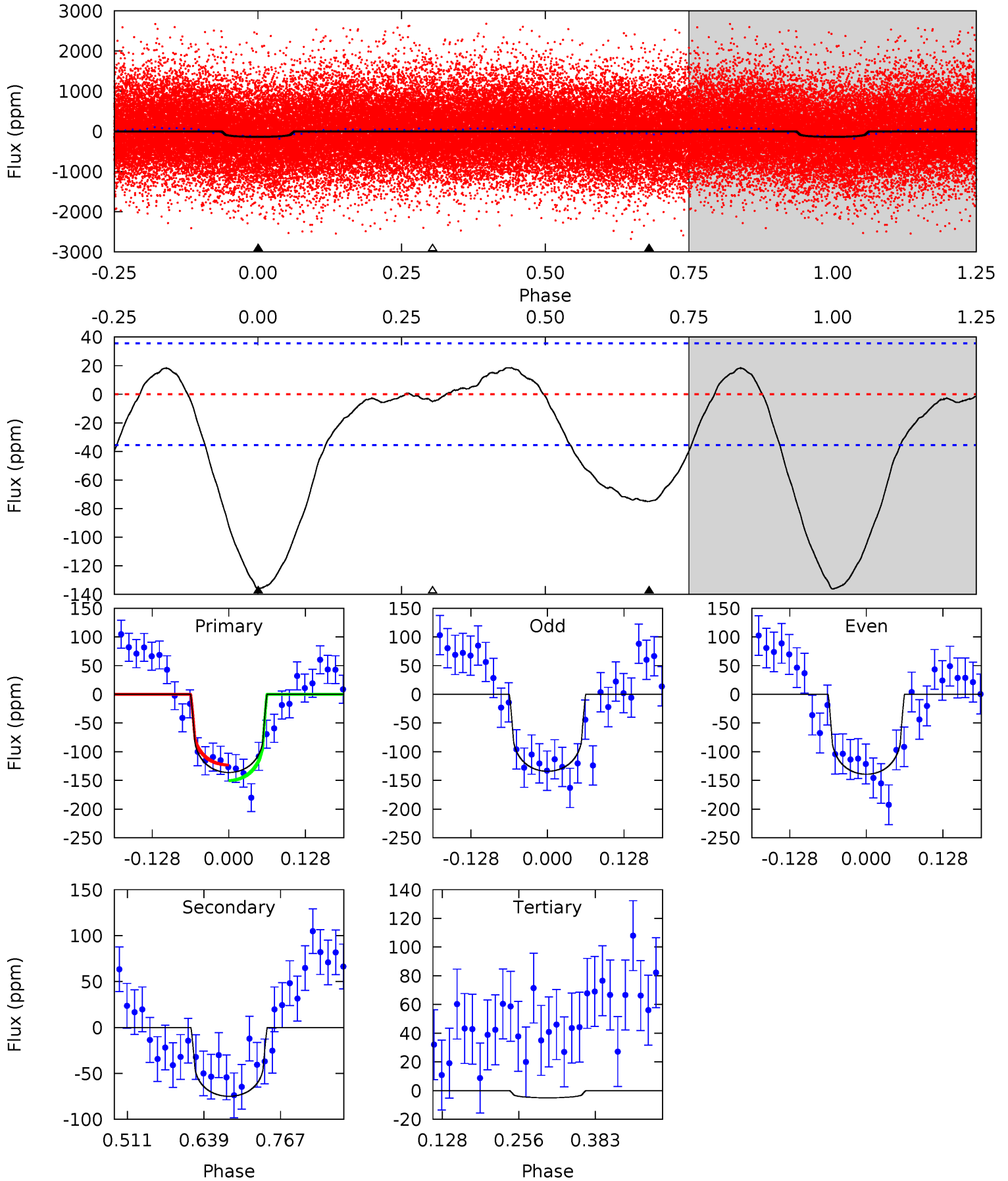
TCE 006047059-01 P= 2.910887 Days $T_0=134.354502$ (BKJD)



DV Model-Shift Uniqueness Test

006047059-01, P = 2.911066 Days, E = 134.347798 Days

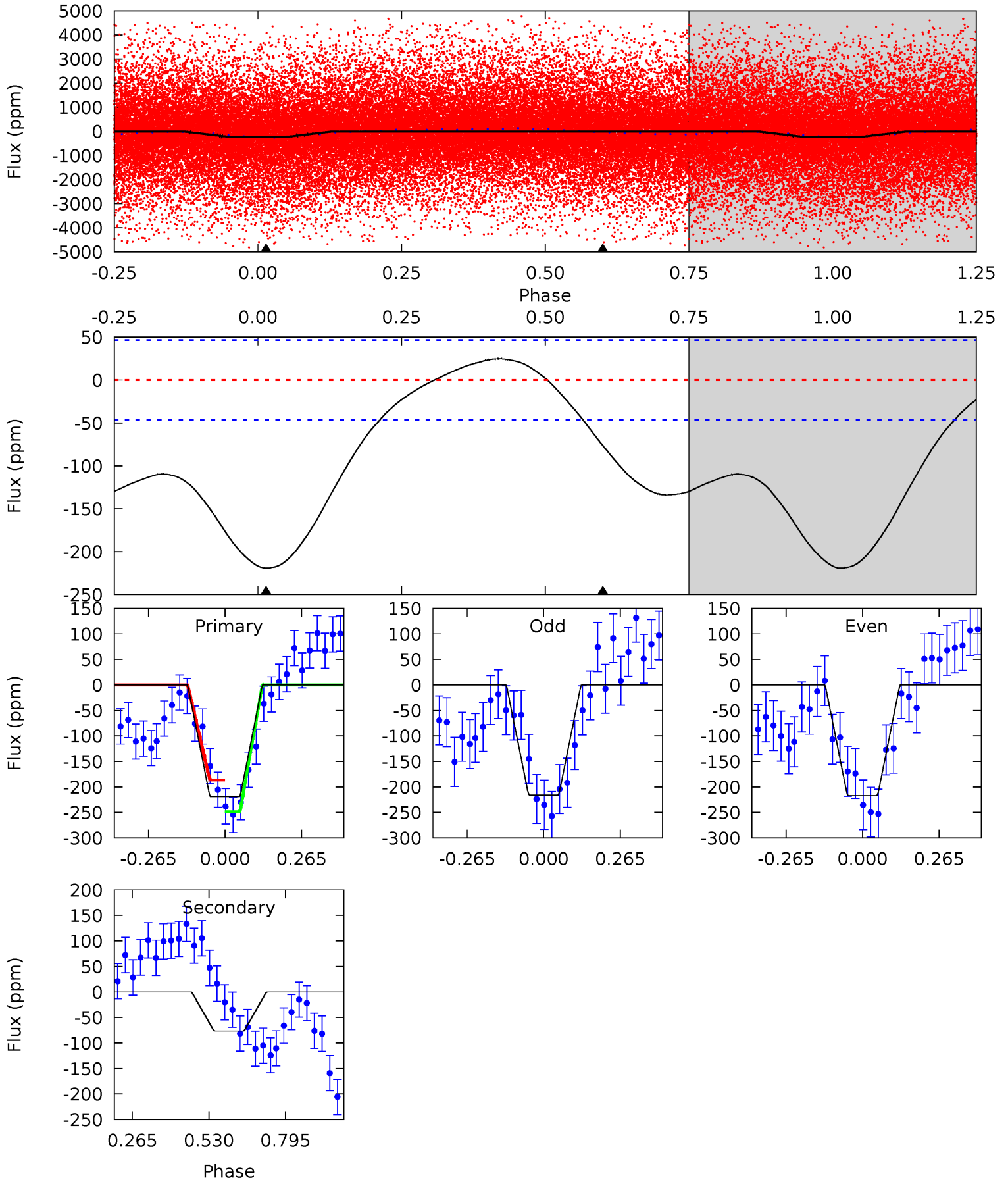
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.3	9.52	0.64	0	4.51	1.52	1.69	16.7	17.3	8.88	9.52	0.33	1.16	0.12	1.72



Alt Model-Shift Uniqueness Test

006047059-01, P = 2.910887 Days, E = 134.354502 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	7.13	0	0	4.36	1.11	0.92	20.5	20.5	7.13	7.13	0.07	1.21	0.10	2.84



Stellar Parameters For KIC 006047059

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5868^{+164}_{-205}	$4.530^{+0.036}_{-0.204}$	$-0.120^{+0.300}_{-0.300}$	$0.894^{+0.261}_{-0.087}$	$0.987^{+0.108}_{-0.132}$	$1.946^{+0.482}_{-0.981}$
	+3%/-3%	+1%/-5%	+250%/-250%	+29%/-10%	+11%/-13%	+25%/-50%
Source	KIC0	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 006047059-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-75 ± 8	$2.11^{+2.15}_{-1.39}$	1752^{+127}_{-78}	4083^{+2417}_{-859}	14^{+108}_{-10}
Alt.	-76 ± 11	$2.29^{+1.97}_{-1.57}$	1765^{+120}_{-88}	3987^{+2556}_{-773}	12^{+107}_{-9}

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

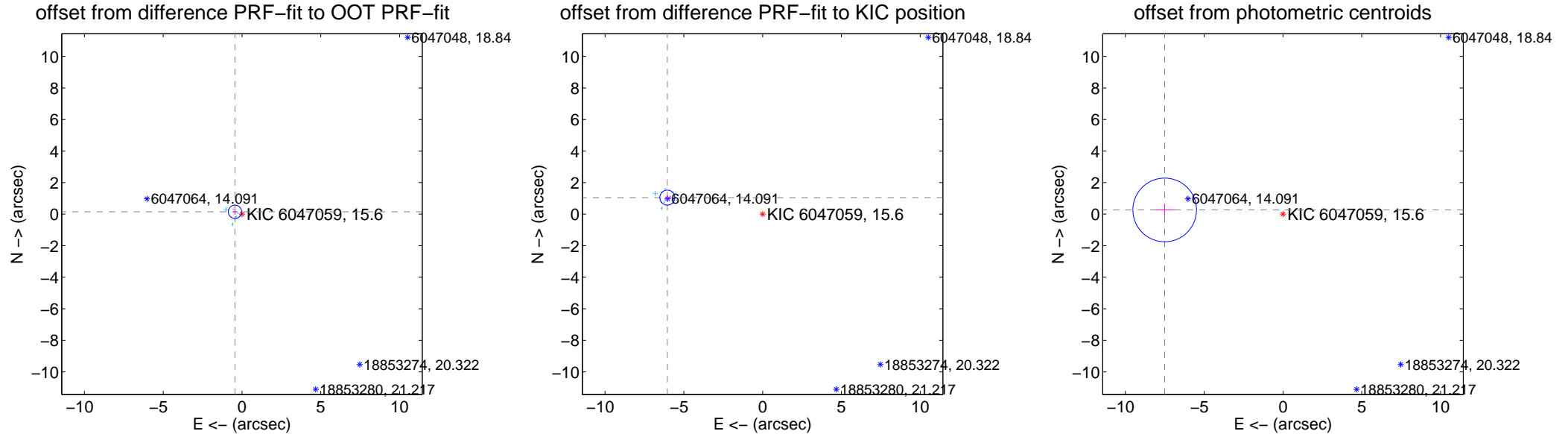
DV Centroid Data

Supplemental centroid analysis for 006047059-01. Kepler magnitude: 15.60. Transit SNR 8.45

There are 7 quarters with good PRF difference image offsets

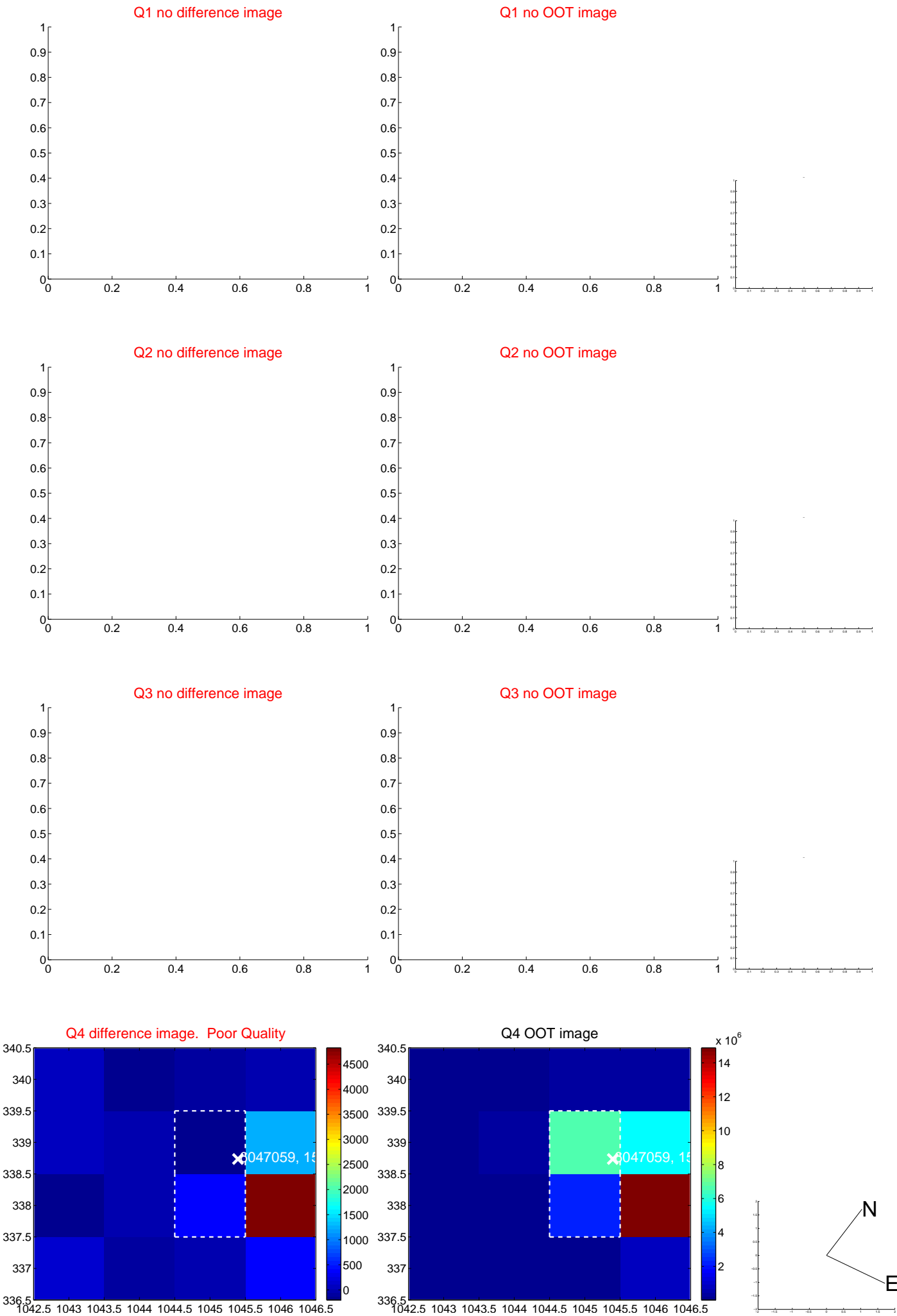
The OOT PRF centroid is offset from the target star catalog position by about 5.89 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.470 ± 0.140	3.35	0.446 ± 0.114	0.149 ± 0.189
PRF-fit source offset from KIC position	6.139 ± 0.159	38.69	6.049 ± 0.159	1.050 ± 0.151
photometric centroid source offset	7.51 ± 0.67	11.17	7.51 ± 0.67	0.27 ± 0.38

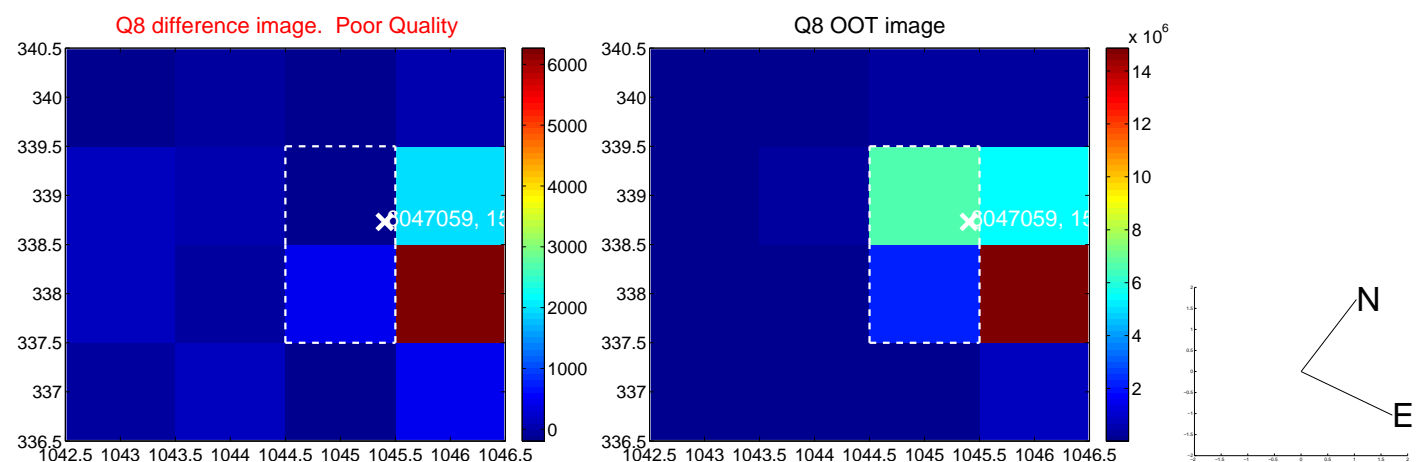
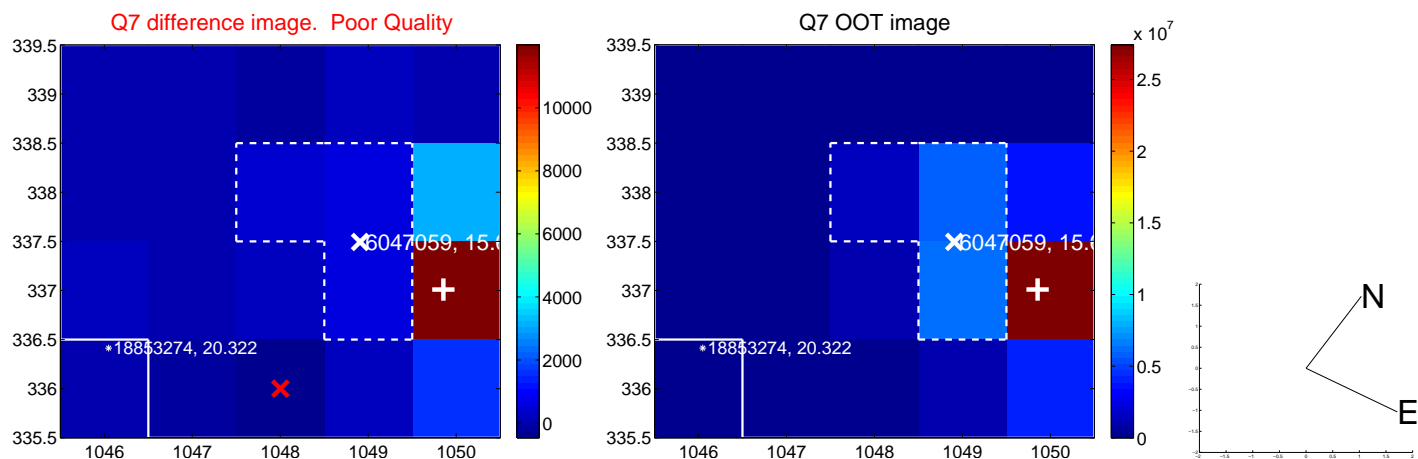
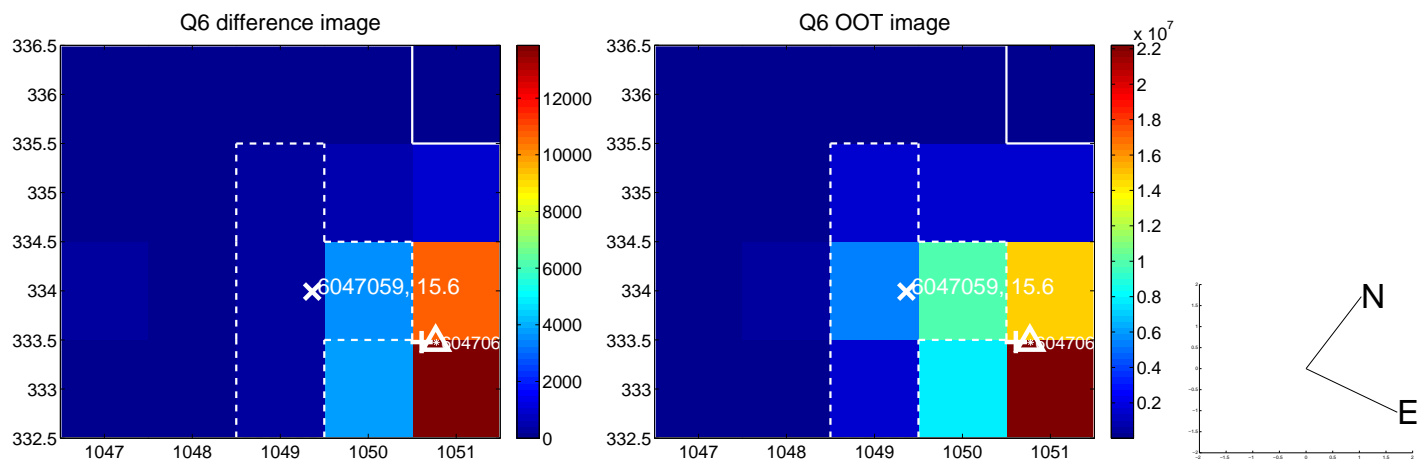
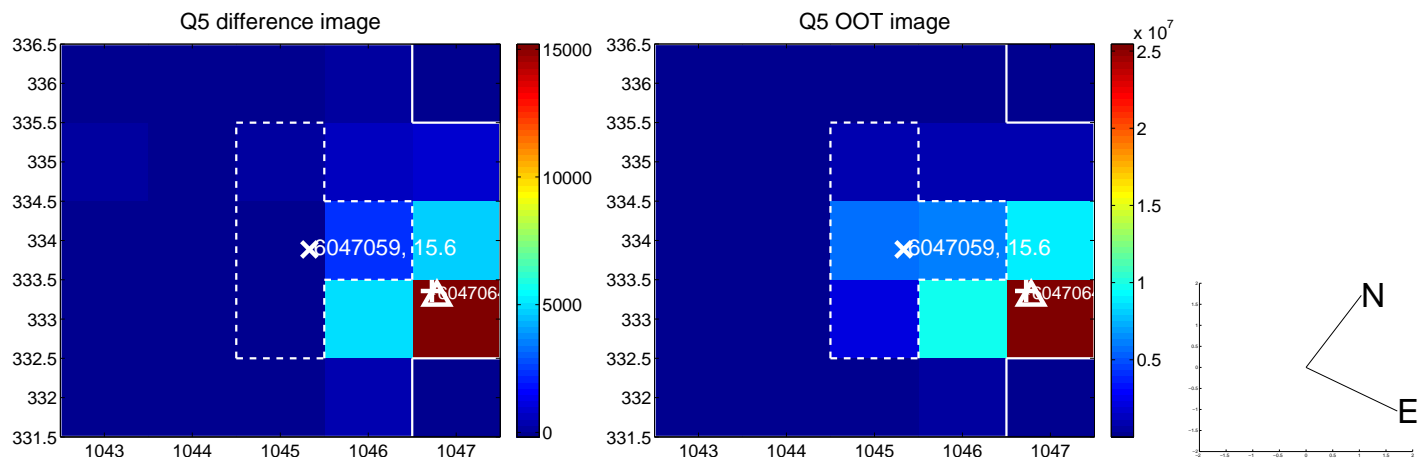


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

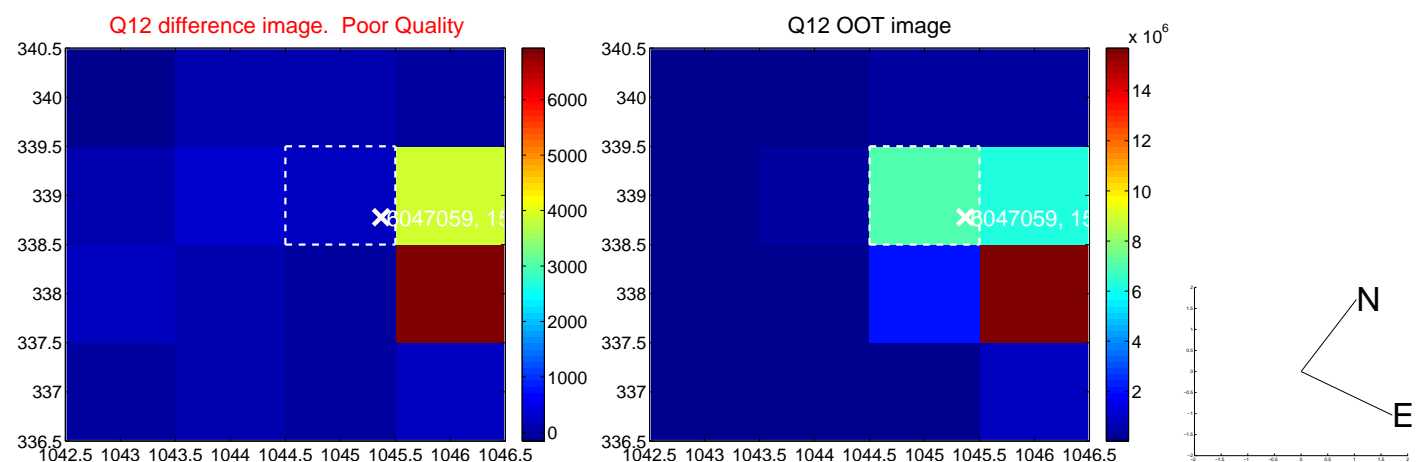
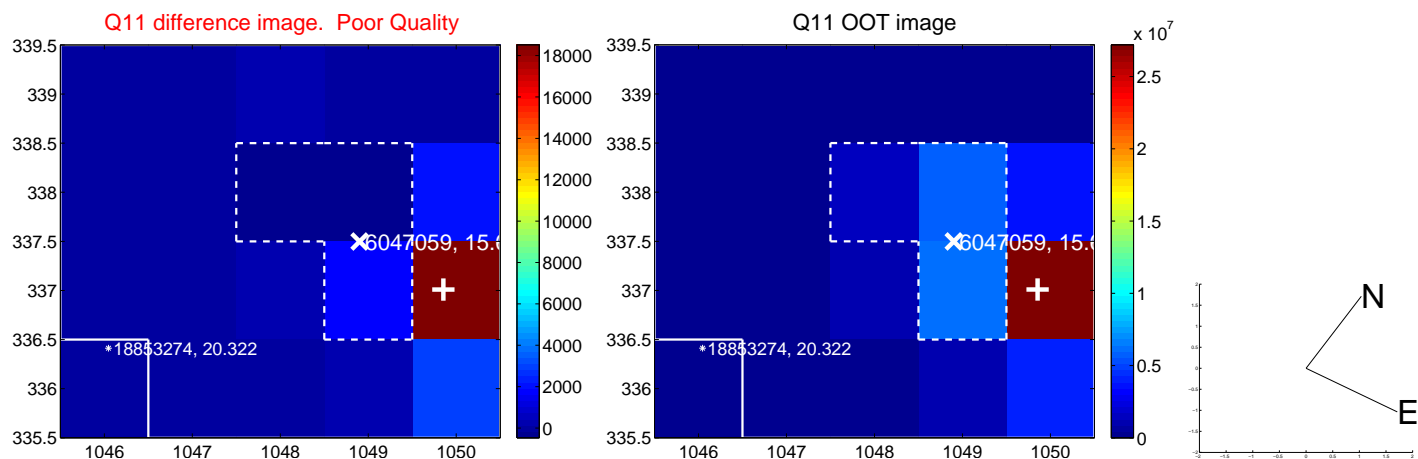
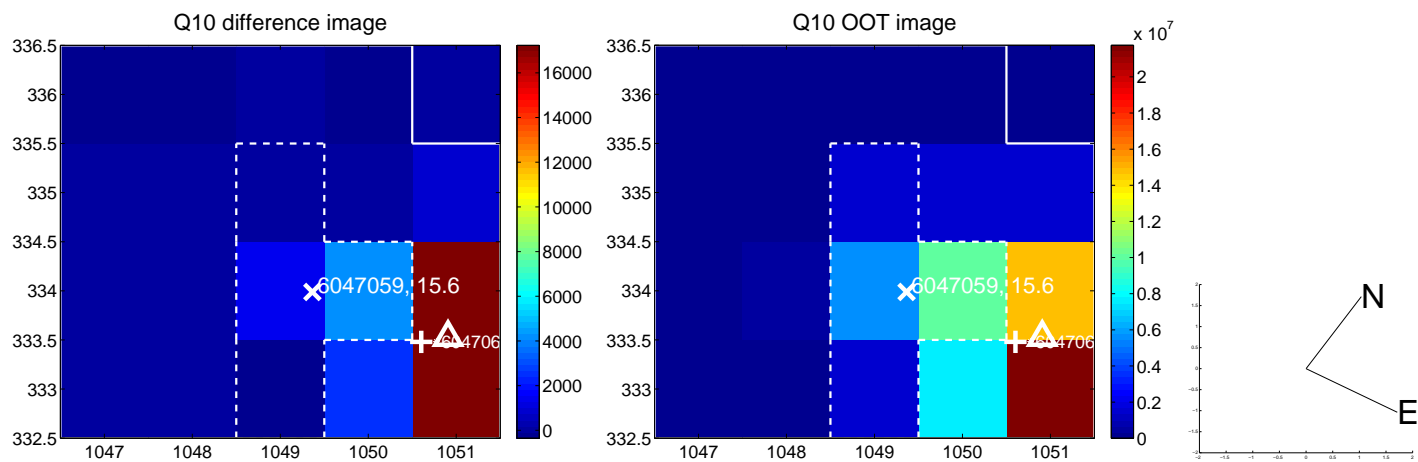
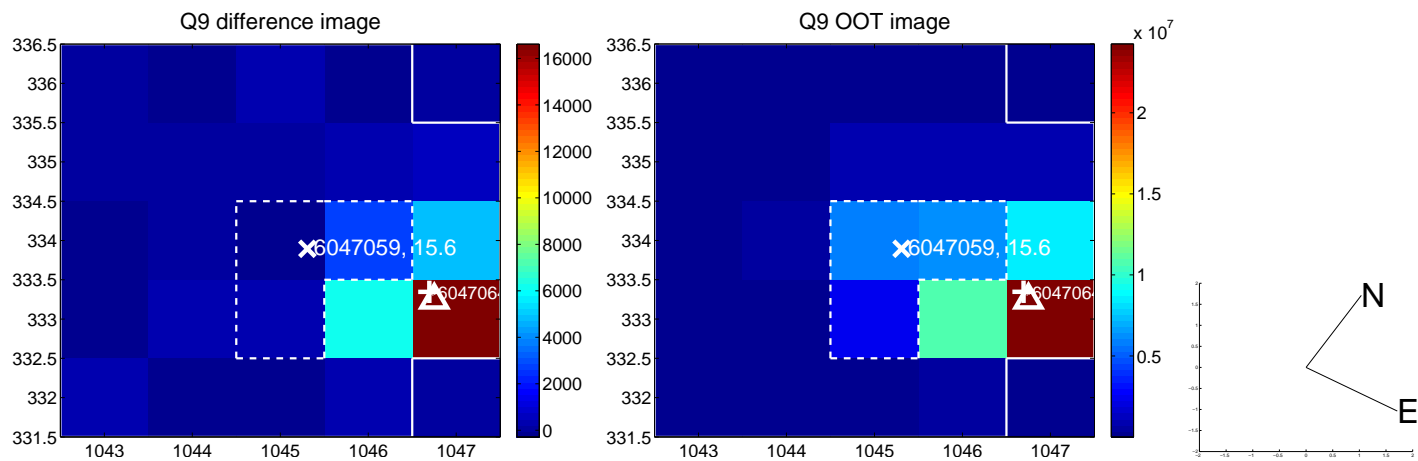
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



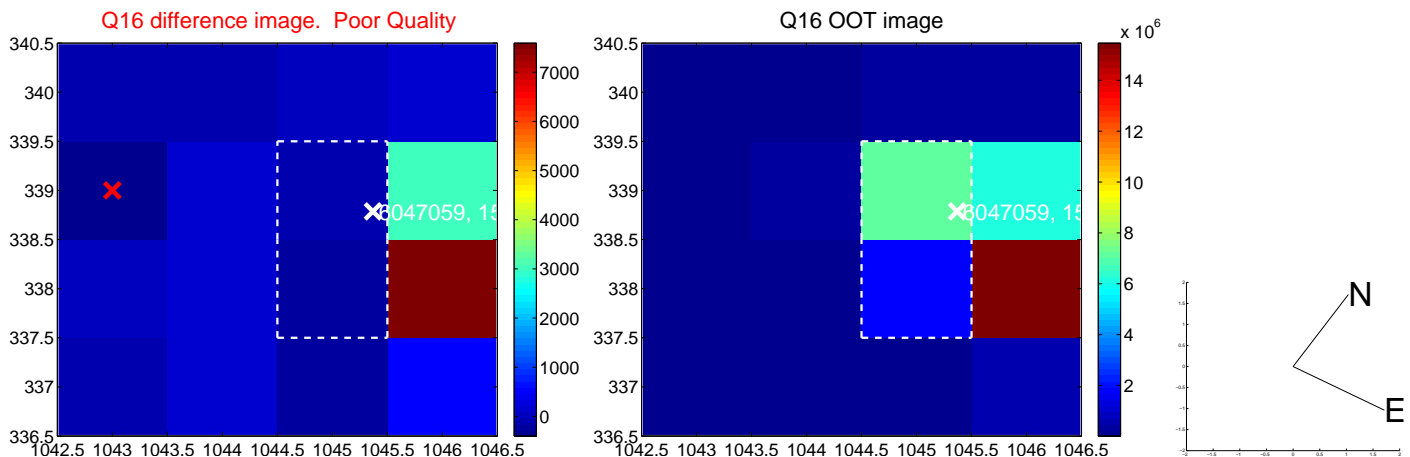
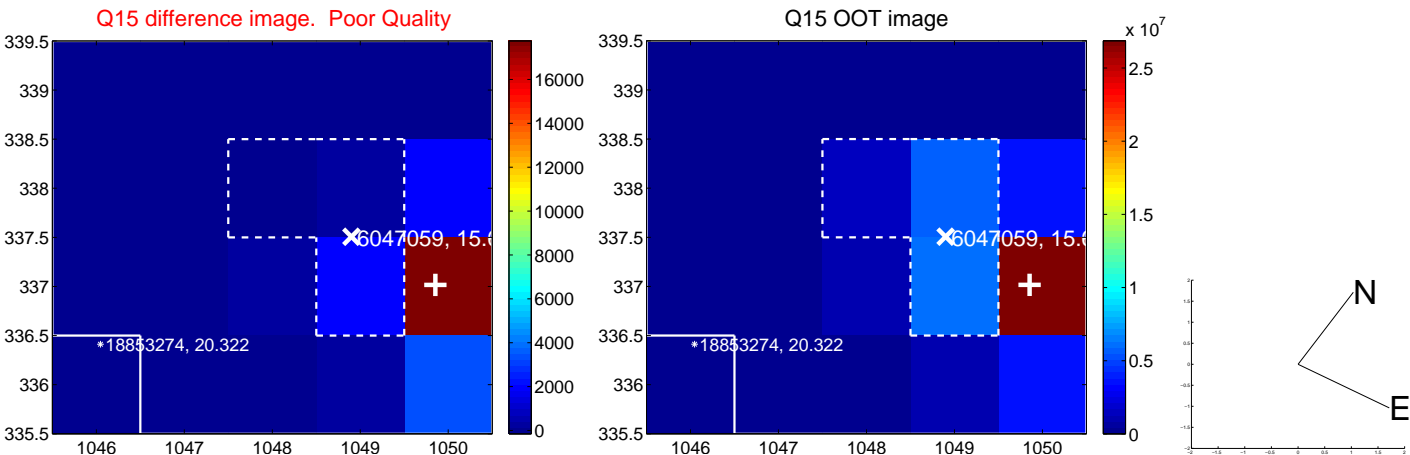
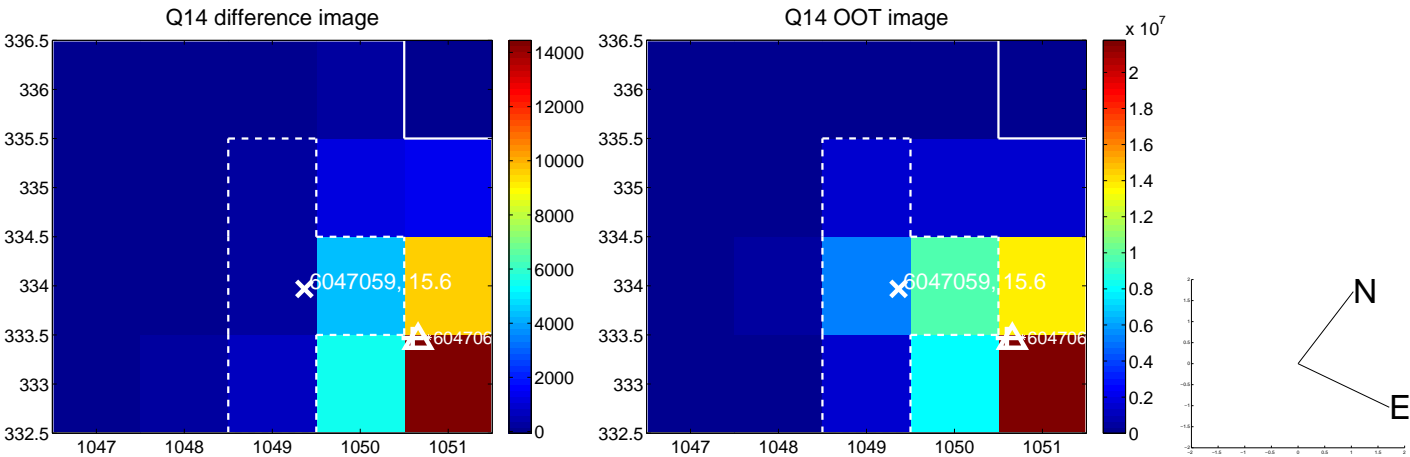
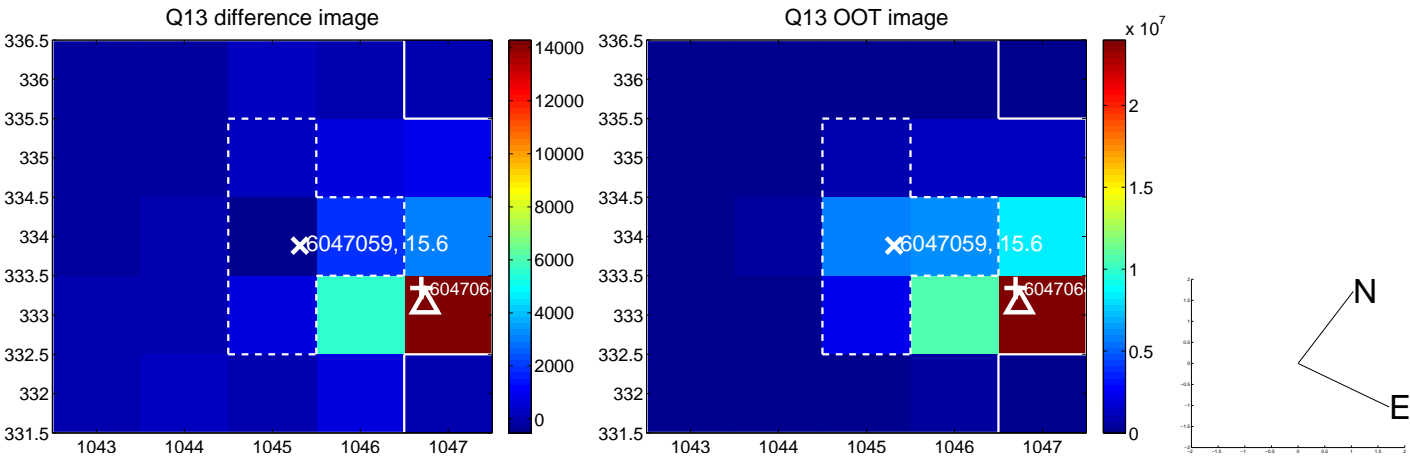
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



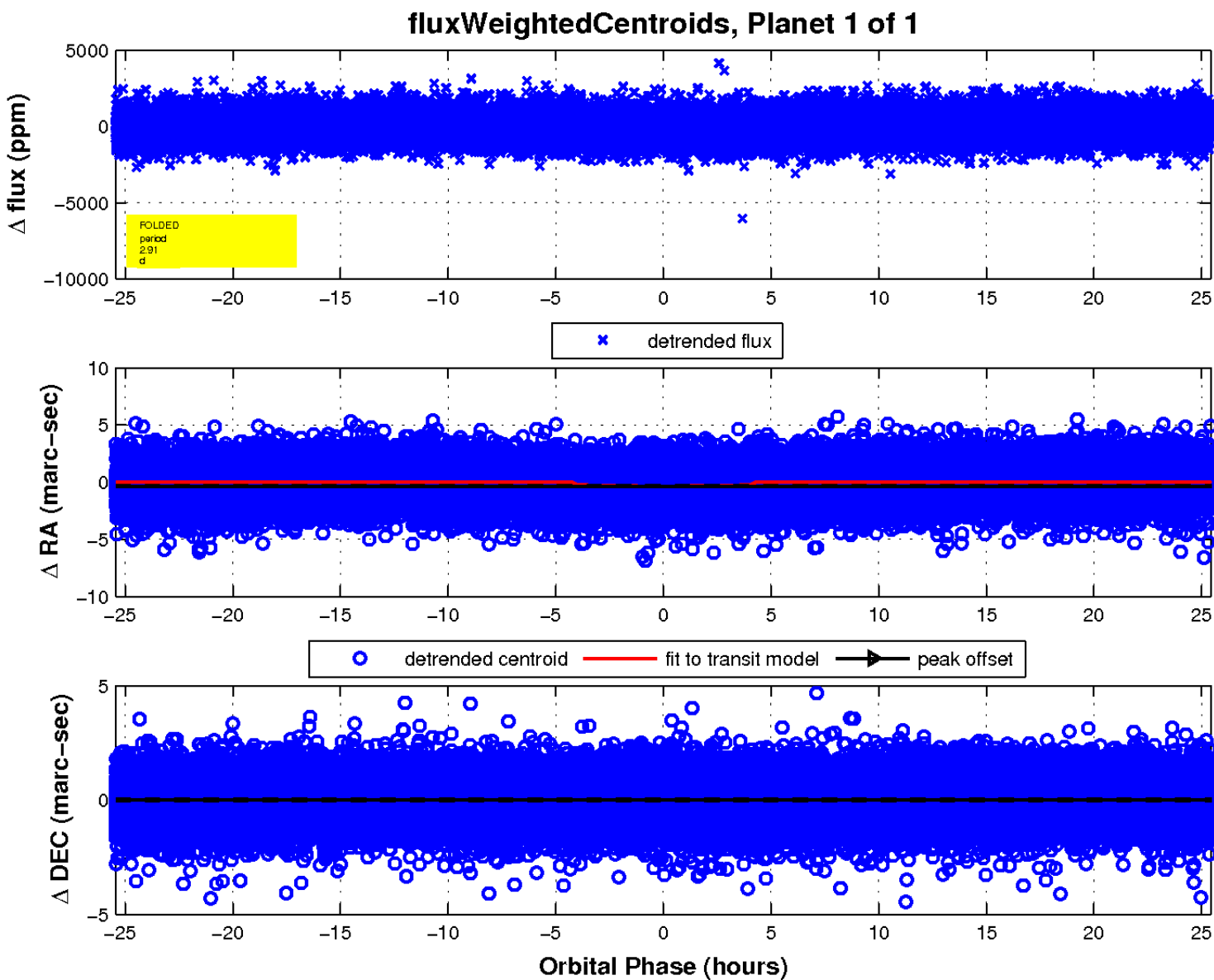
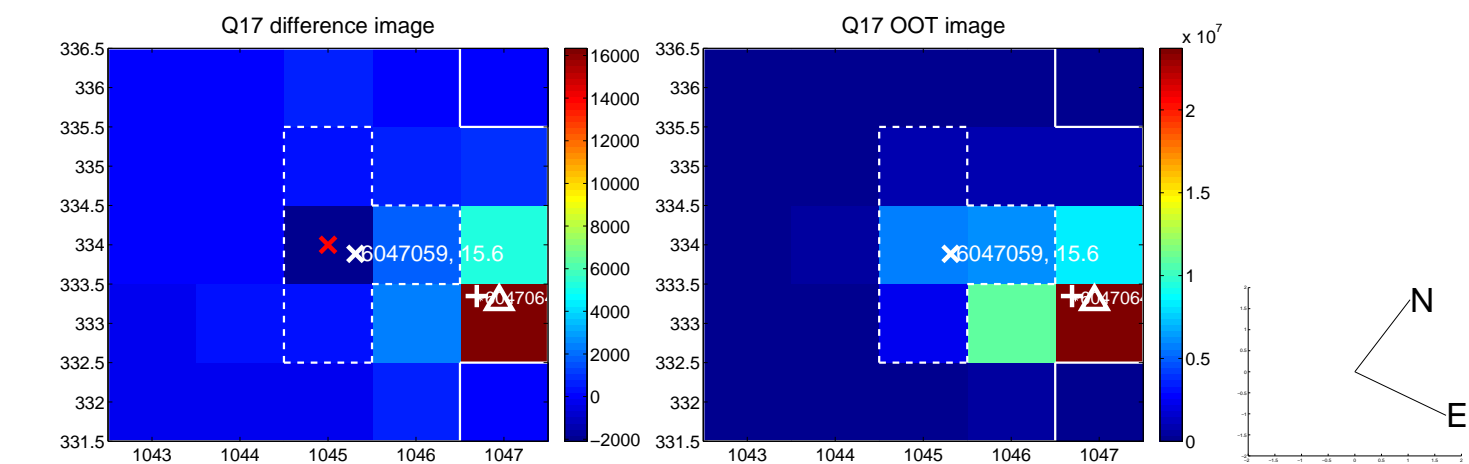
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

