

KIC 007379385

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})
007379385-01	OBS	2207.01	67.229928	171.750950	339.4	24.577	18.8	22.6	1.02	6157	2.28	12.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007379385-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—CENT_RESOLVED_OFFSET

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 007379385-01

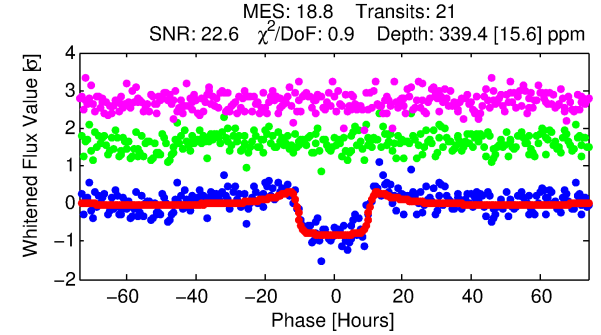
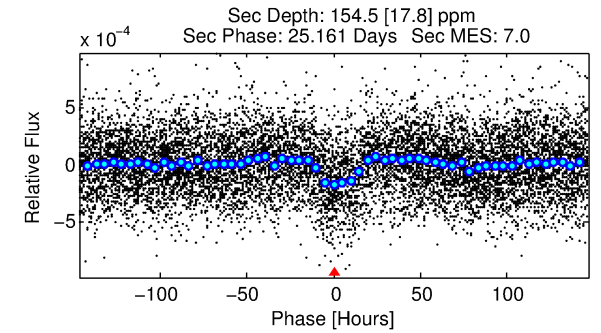
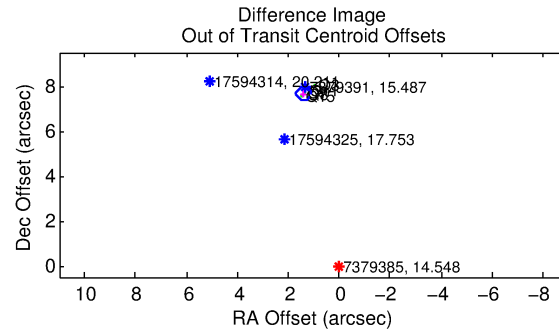
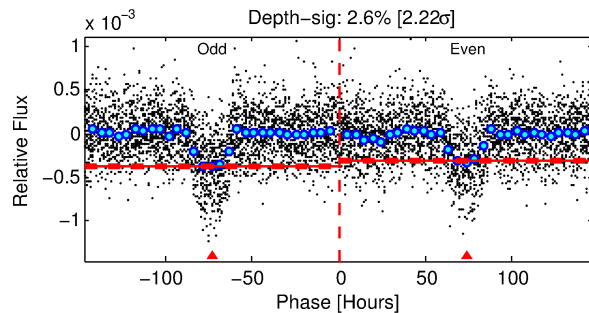
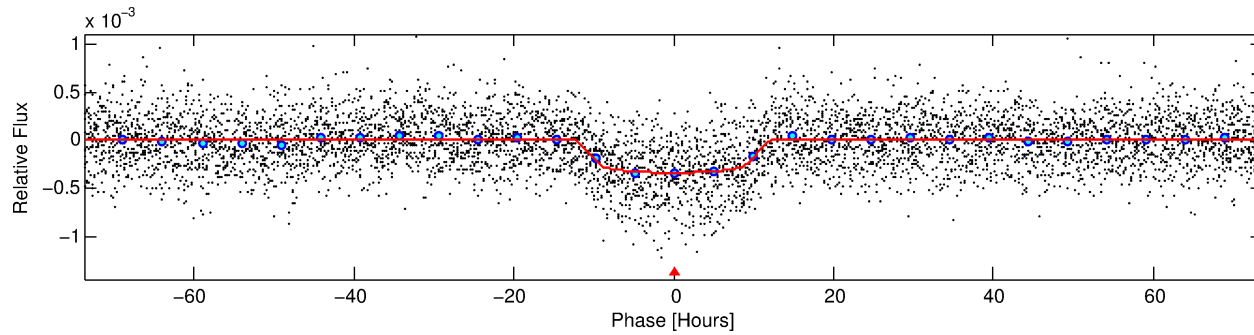
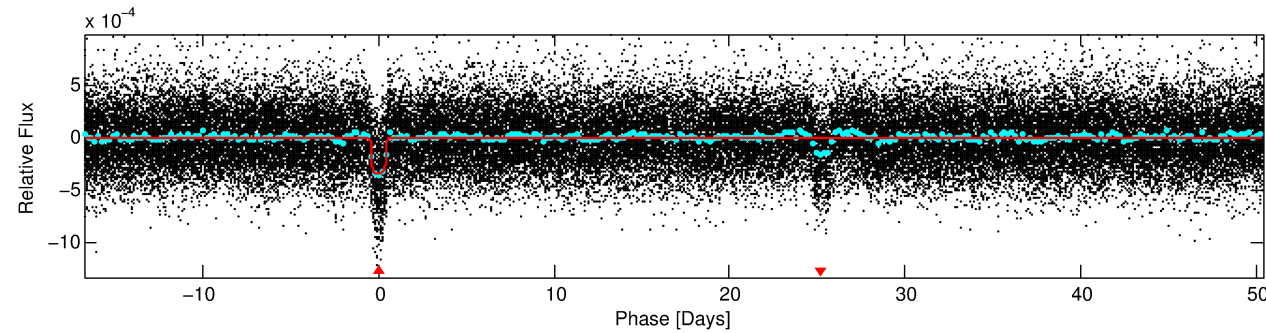
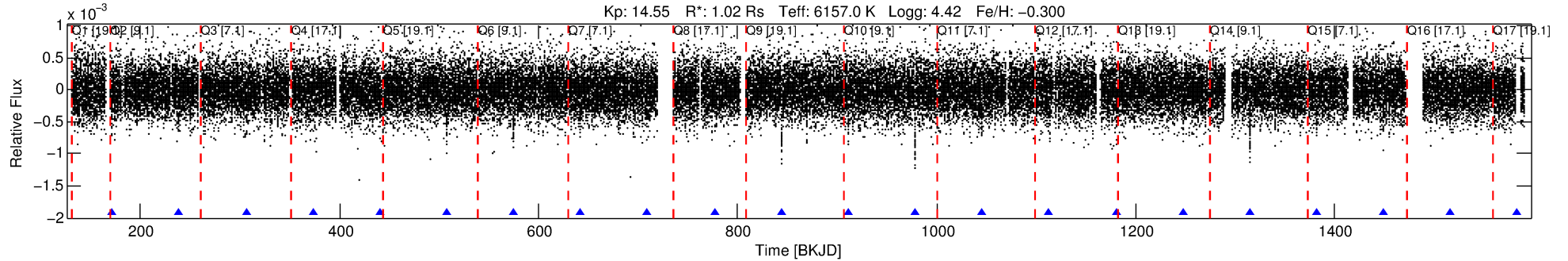
No Significant Match Found

DV One-Page Summary

KIC: 7379385 Candidate: 1 of 1 Period: 67.230 d

KOI: K02207.01 Corr: 0.984

Kp: 14.55 R*: 1.02 Rs Teff: 6157.0 K Logg: 4.42 Fe/H: -0.300



DV Fit Results:

Period = 67.22993 [0.00133] d
Epoch = 171.7510 [0.0158] BKJD
Rp/R* = 0.0206 [0.0007]
a/R* = 8.51 [1.01]
b = 0.94 [0.02]
Seff = 12.81 [5.06]
Teq = 482 [48] K
Rp = 2.28 [0.69] Re
a = 0.3221 [0.0817] AU
Ag = 1690.75 [665.78] [2.54σ]
Teff = 4783 [230] K [18.30σ]

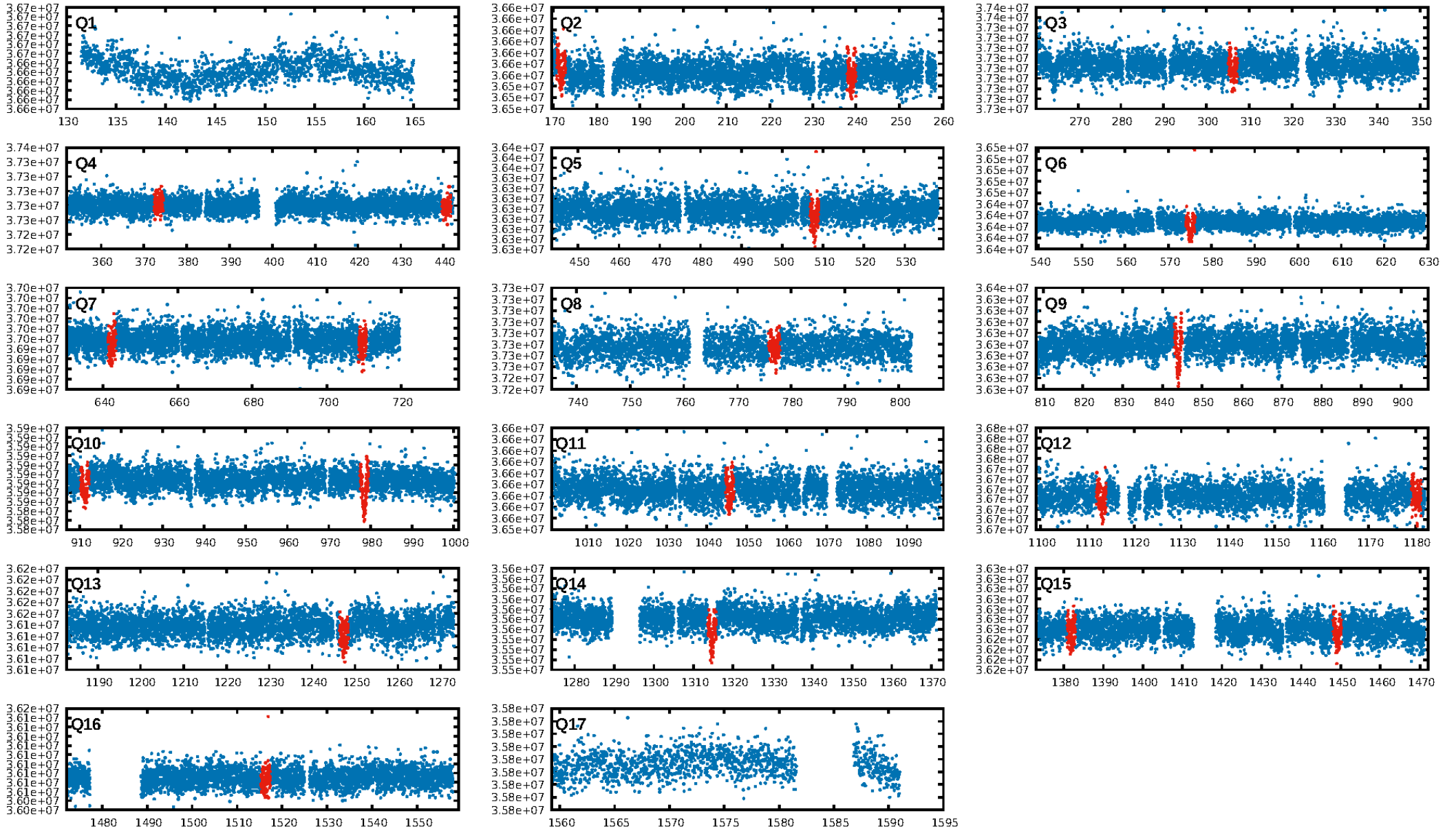
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.84e-64
RollingBand-fgt: 1.00 [21/21]
GhostDiagnostic-chr: -0.4286
Centroid-sig: 0.0%
Centroid-so: 65.765 arcsec [101.77σ]
OotOffset-rm: 7.789 arcsec [77.35σ]
KicOffset-rm: 7.857 arcsec [79.94σ]
OotOffset-st: 0/4/1/0 [5]
KicOffset-st: 0/4/1/0 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [10/10]

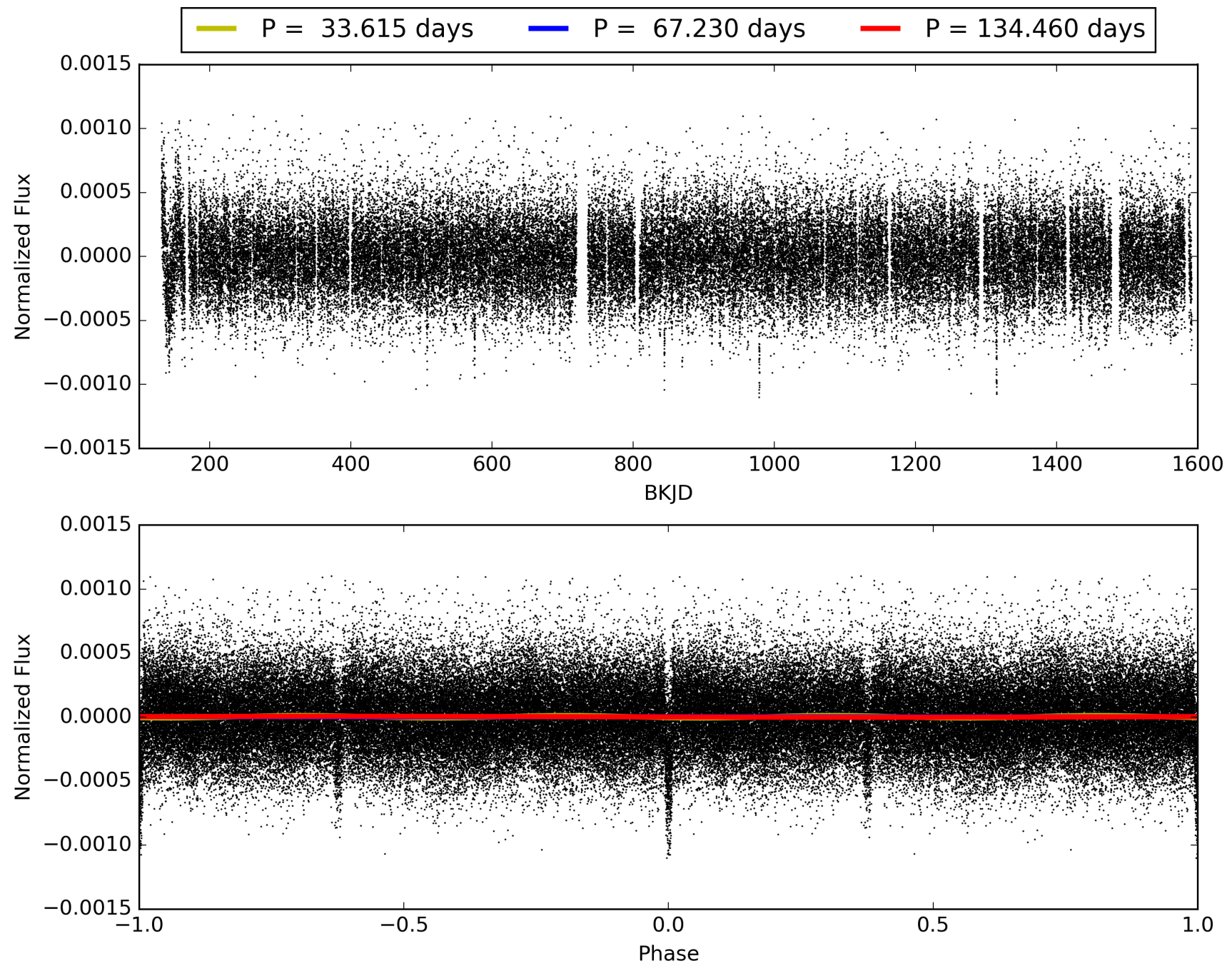
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:17:13 Z

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

TCE 007379385-01, PDC Light Curves

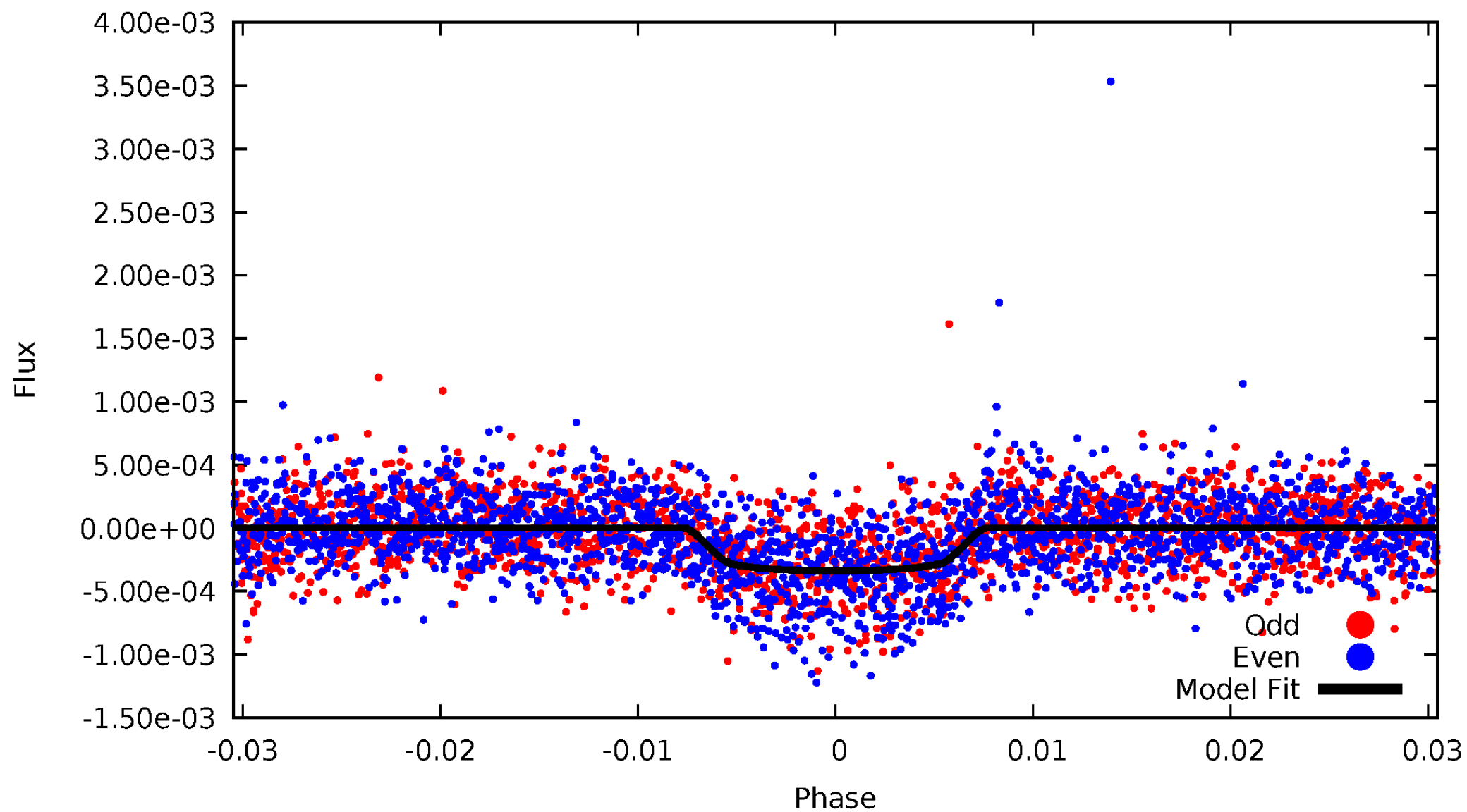


TCE 007379385-01



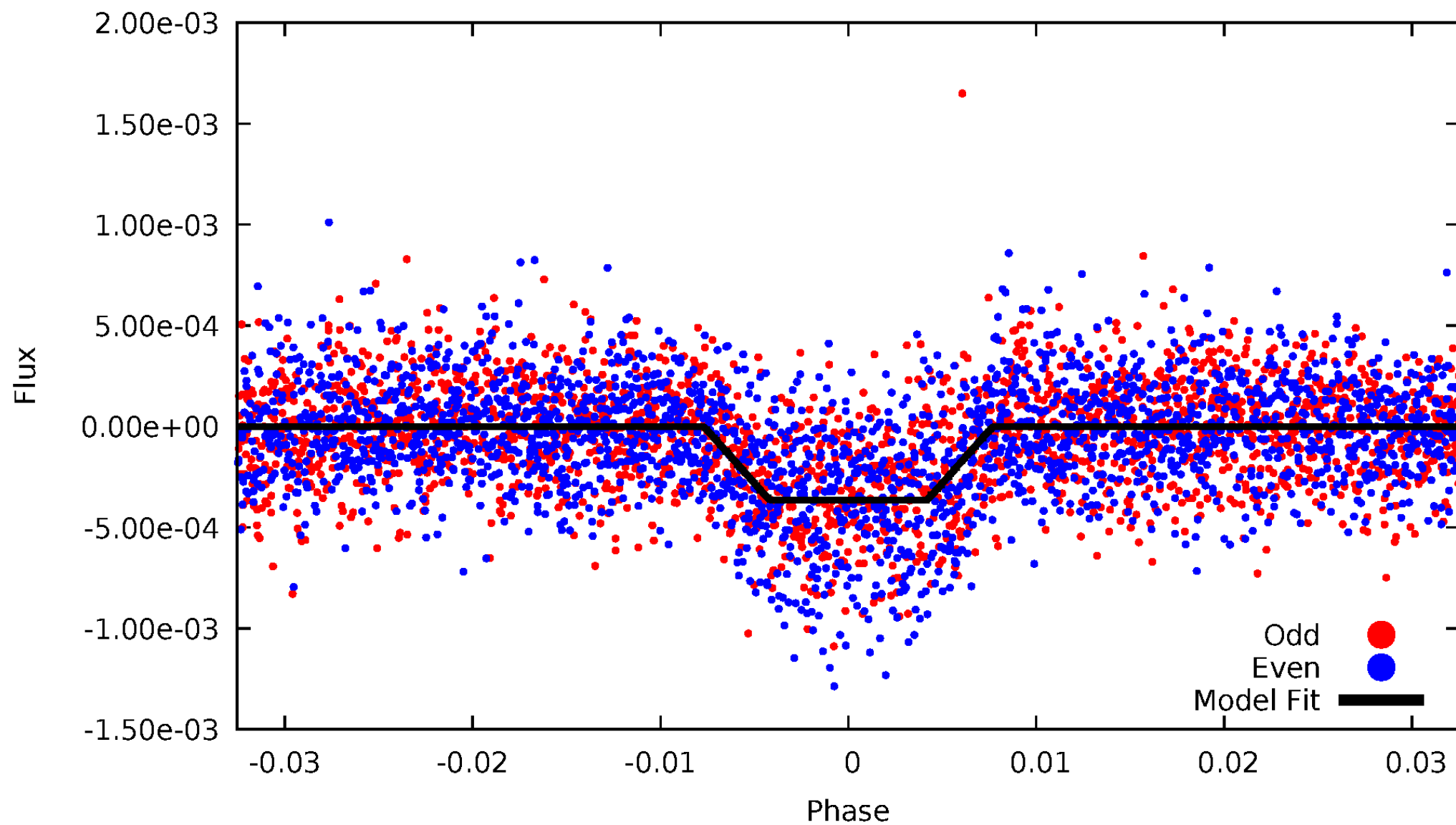
DV Odd/Even

TCE 007379385-01



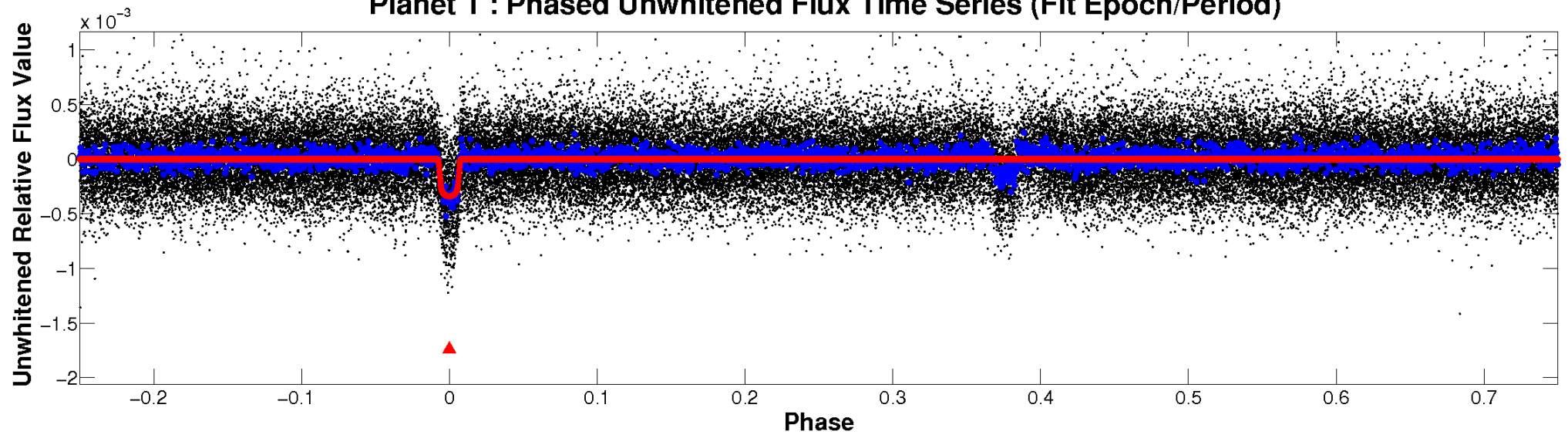
ALT Odd/Even

TCE 007379385-01

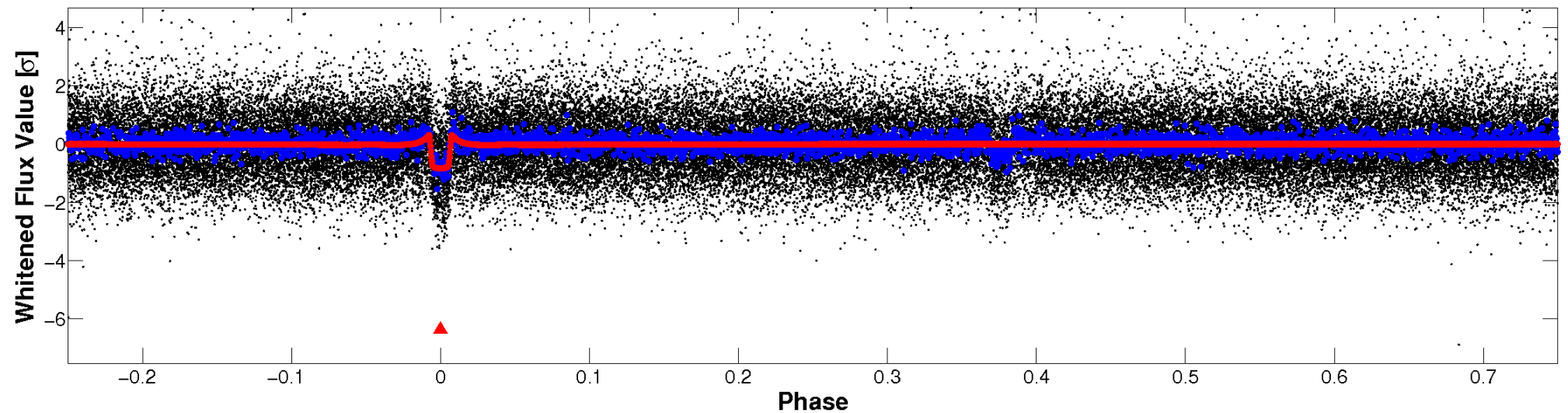


Non-Whitened Vs. Whitened Light Curve

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

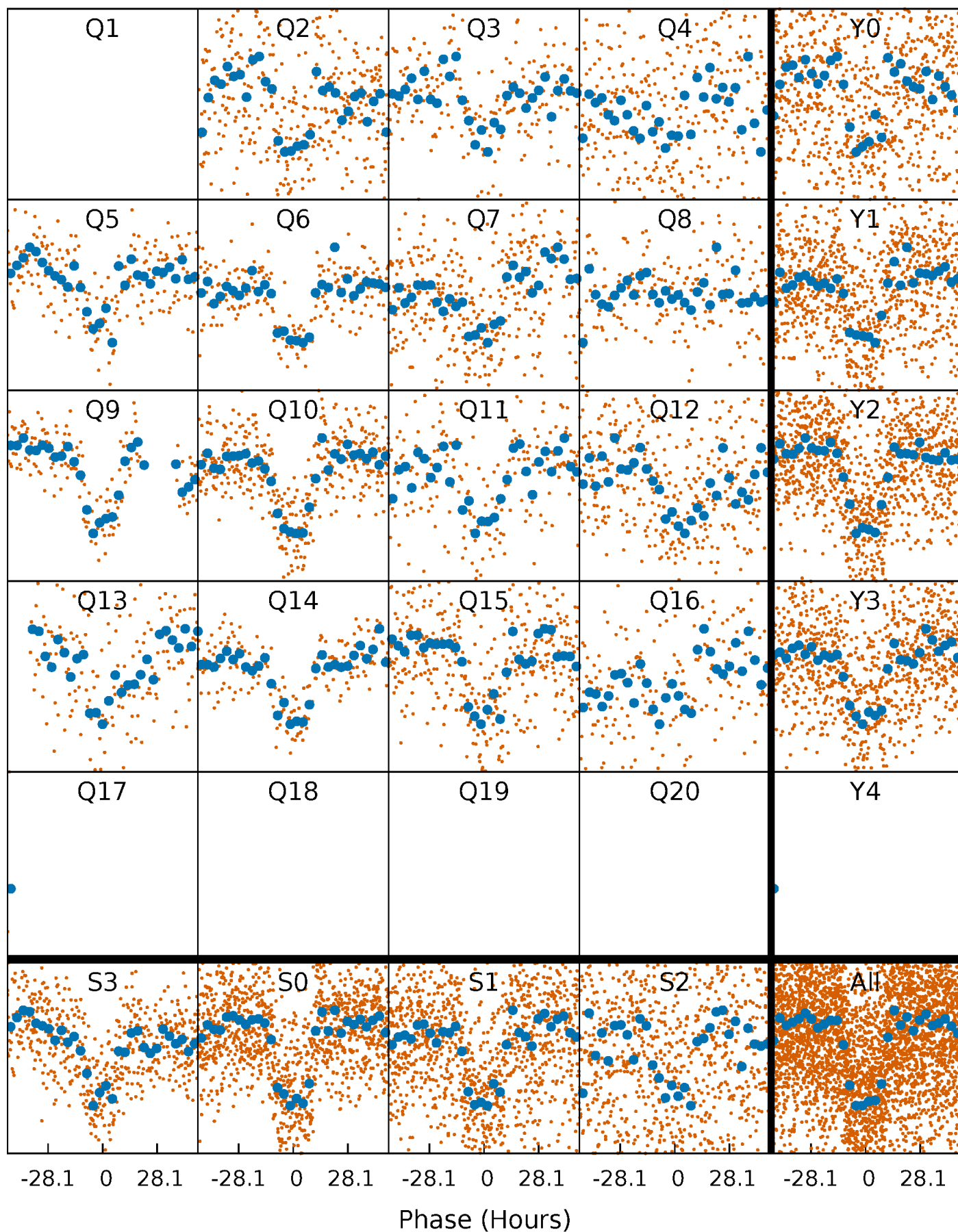


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



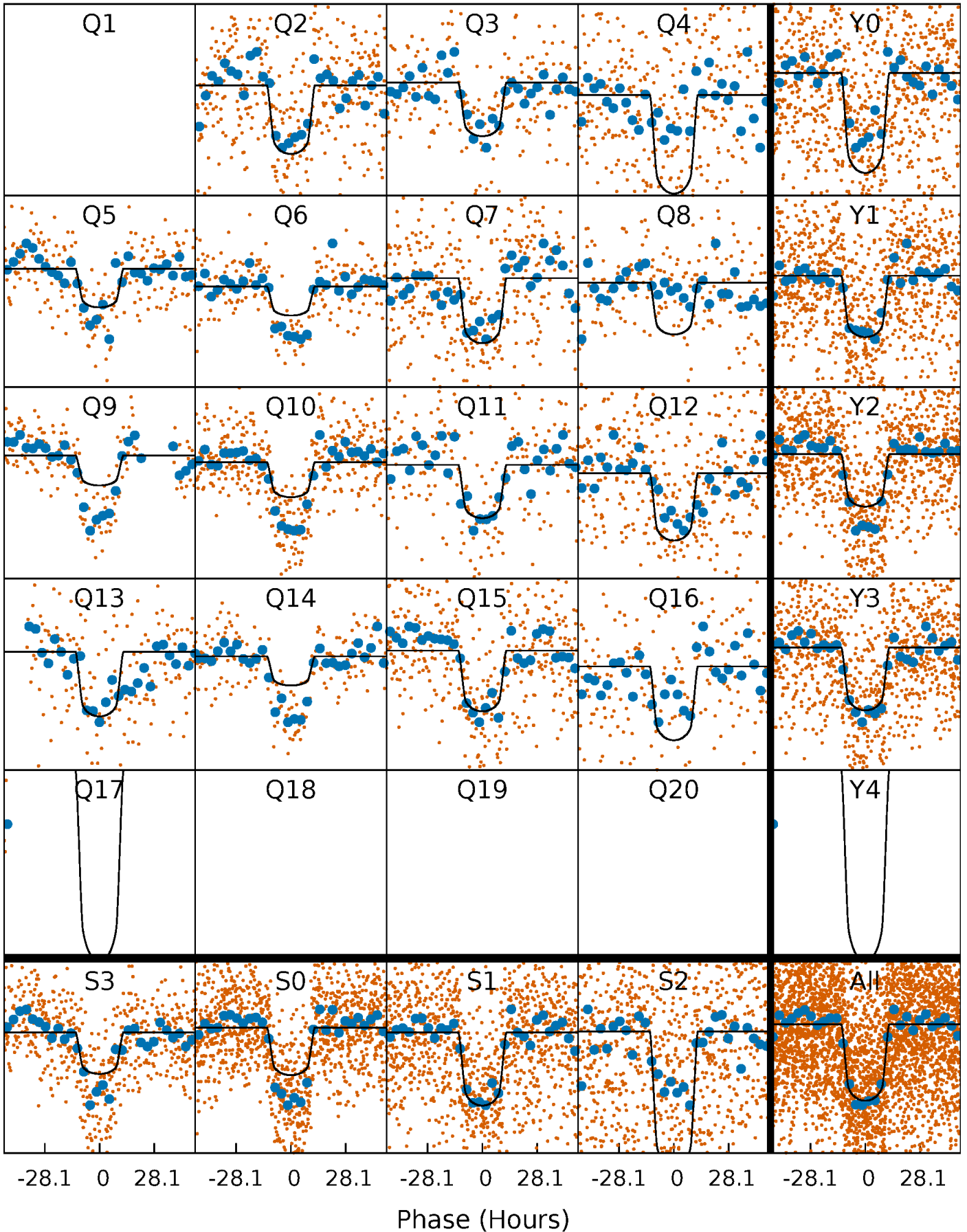
PDC Quarter-Phased Transit Curves

TCE 007379385-01 P= 67.229928 Days $T_0=171.750950$ (BKJD)



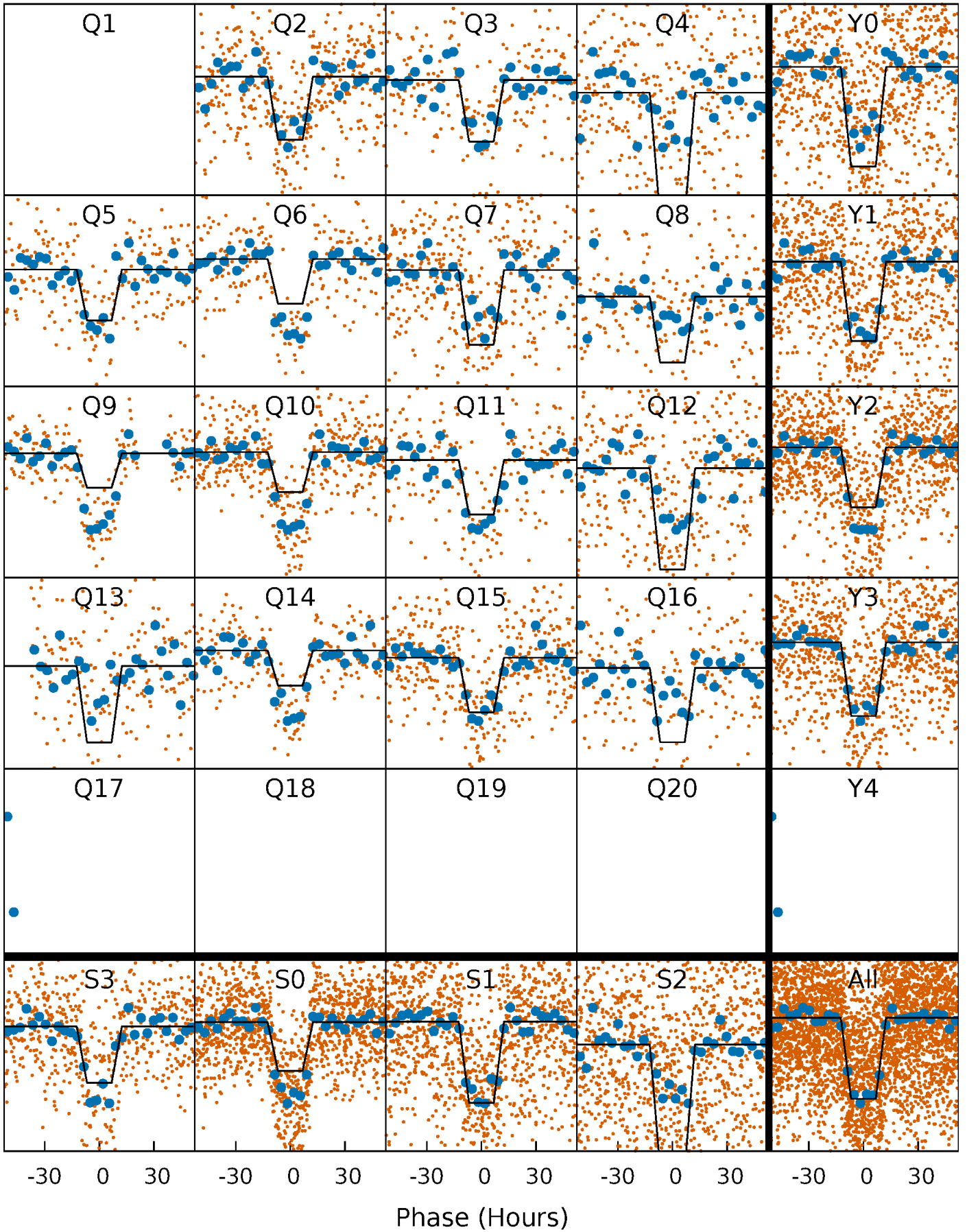
DV Quarter-Phased Transit Curves

TCE 007379385-01 P= 67.229928 Days $T_0=171.750950$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

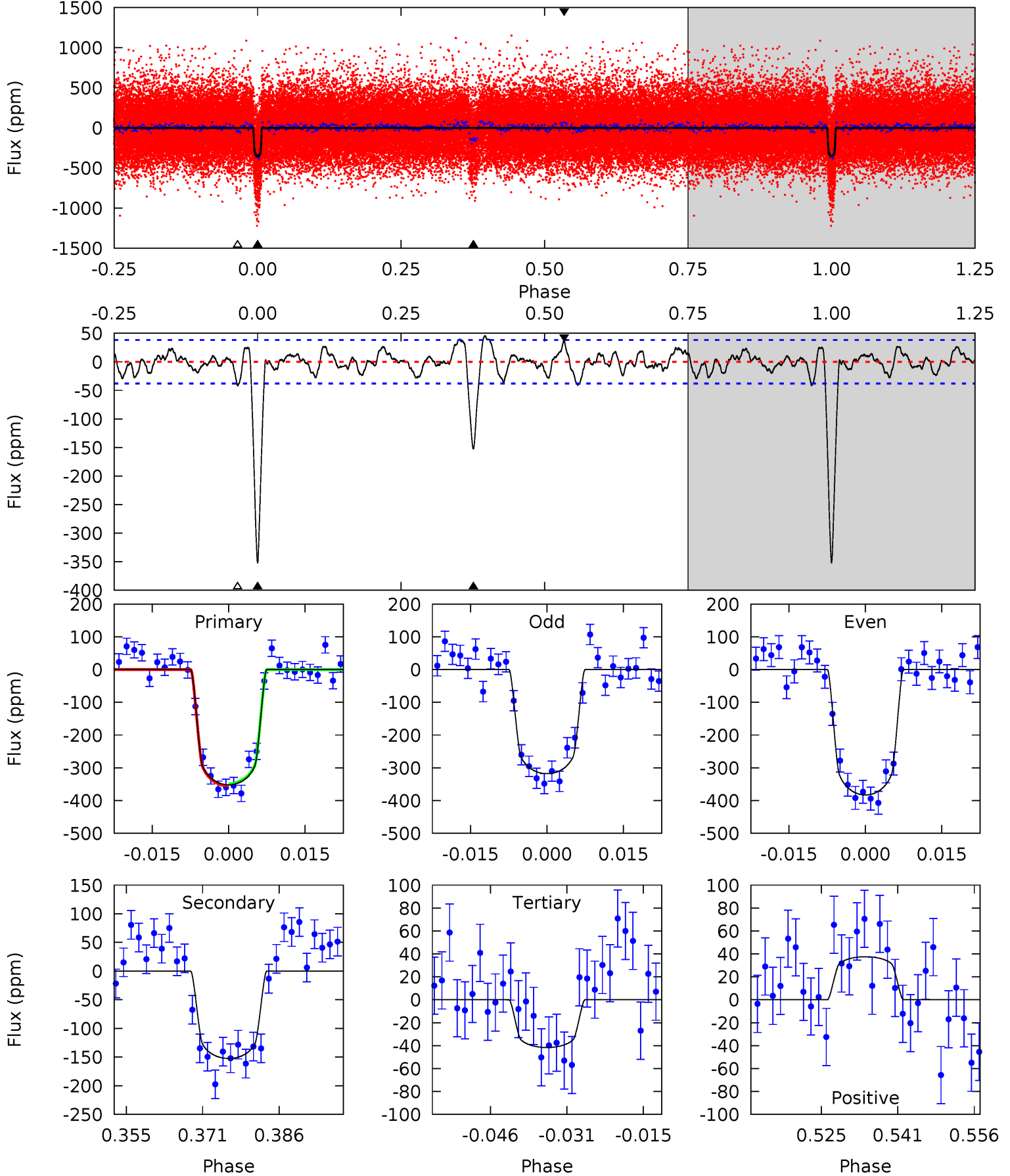
TCE 007379385-01 P= 67.230931 Days $T_0=171.725143$ (BKJD)



DV Model-Shift Uniqueness Test

007379385-01, P = 67.229928 Days, E = 104.521022 Days

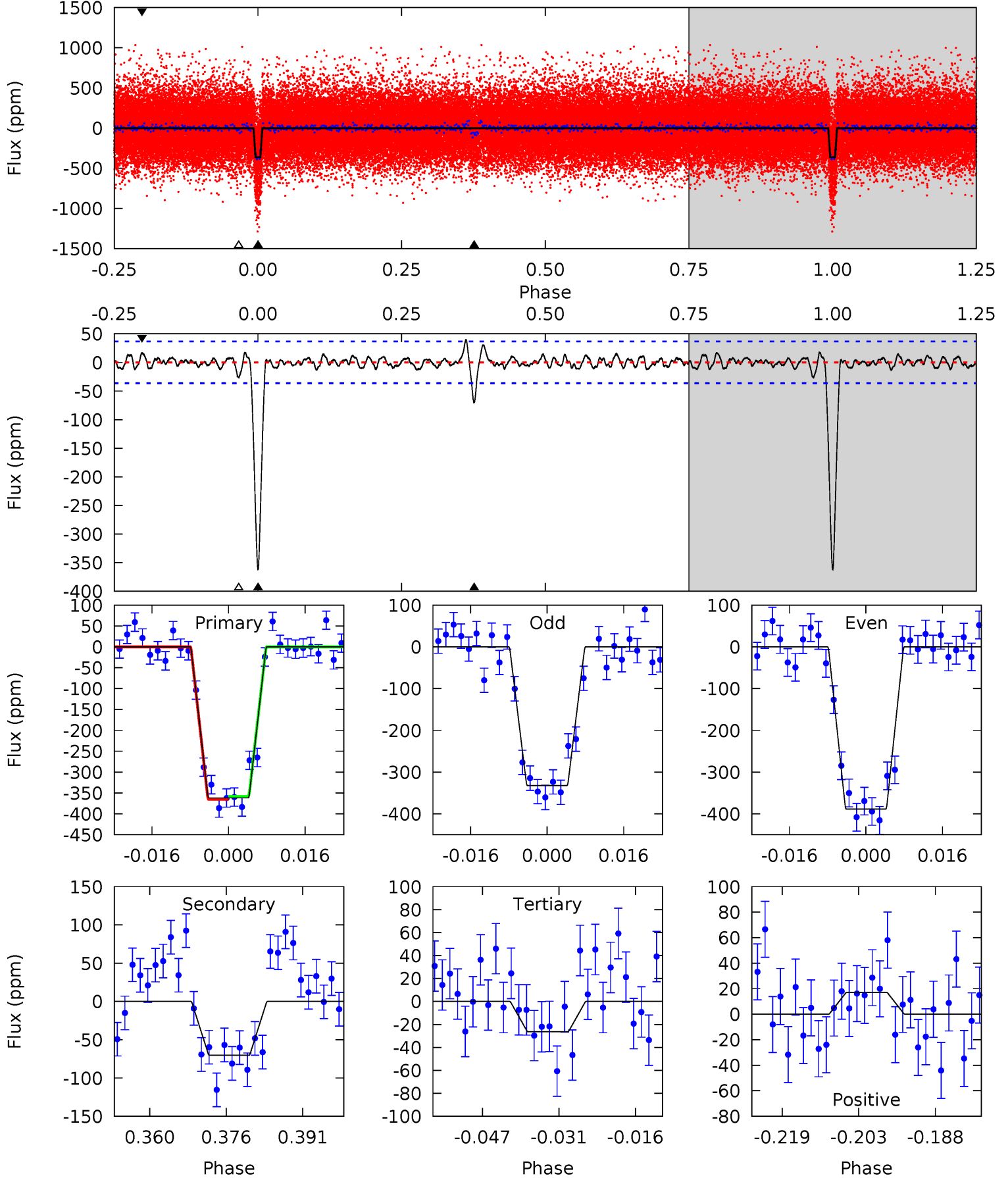
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.6	19.7	5.40	4.86	4.94	2.42	1.99	40.2	40.7	14.4	14.9	4.21	1.11	0.11	0.39



Alt Model-Shift Uniqueness Test

007379385-01, P = 67.230931 Days, E = 104.494212 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.9	9.50	3.57	2.31	4.94	2.42	0.96	45.4	46.6	5.93	7.19	3.80	1.12	0.10	0.51



Stellar Parameters For KIC 007379385

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6157^{+171}_{-213}	$4.418^{+0.087}_{-0.203}$	$-0.300^{+0.300}_{-0.300}$	$1.016^{+0.305}_{-0.131}$	$0.985^{+0.140}_{-0.115}$	$1.321^{+0.580}_{-0.676}$
	+3%/-3%	+2%/-5%	+100%/-100%	+30%/-13%	+14%/-12%	+44%/-51%
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 007379385-01 / KOI 2207.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-152 ± 8	$2.33^{+0.41}_{-0.21}$	681^{+53}_{-38}	4869^{+145}_{-161}	1576^{+345}_{-390}
Alt.	-70 ± 7	$2.17^{+0.37}_{-0.22}$	683^{+48}_{-37}	4302^{+148}_{-137}	830^{+216}_{-201}

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 $A_{obs} \gg 1.0$

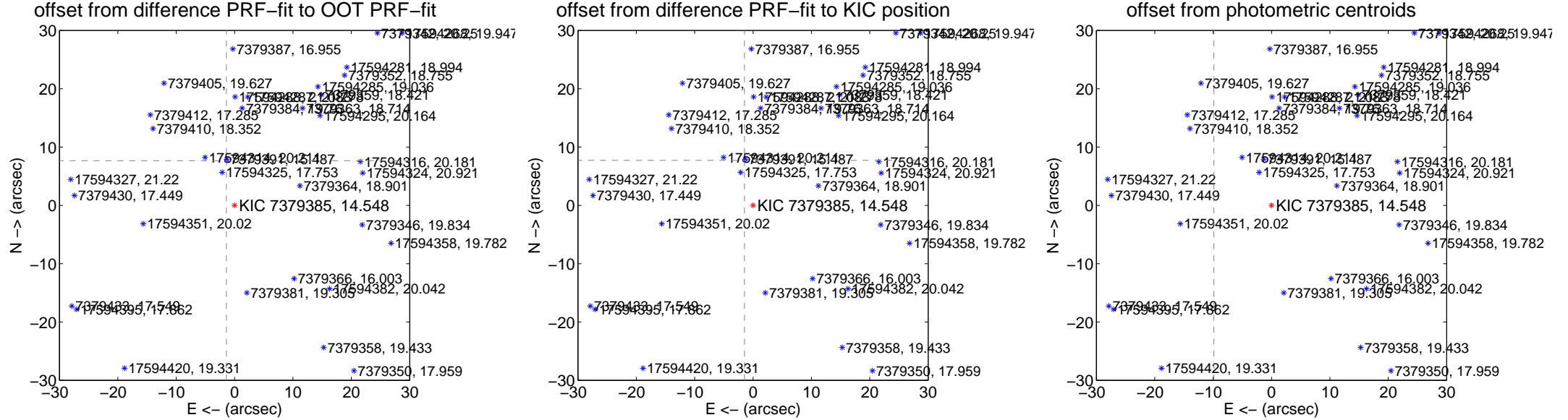
DV Centroid Data

Supplemental centroid analysis for 007379385-01. Kepler magnitude: 14.55. Transit SNR 22.62

There are 5 quarters with good PRF difference image offsets

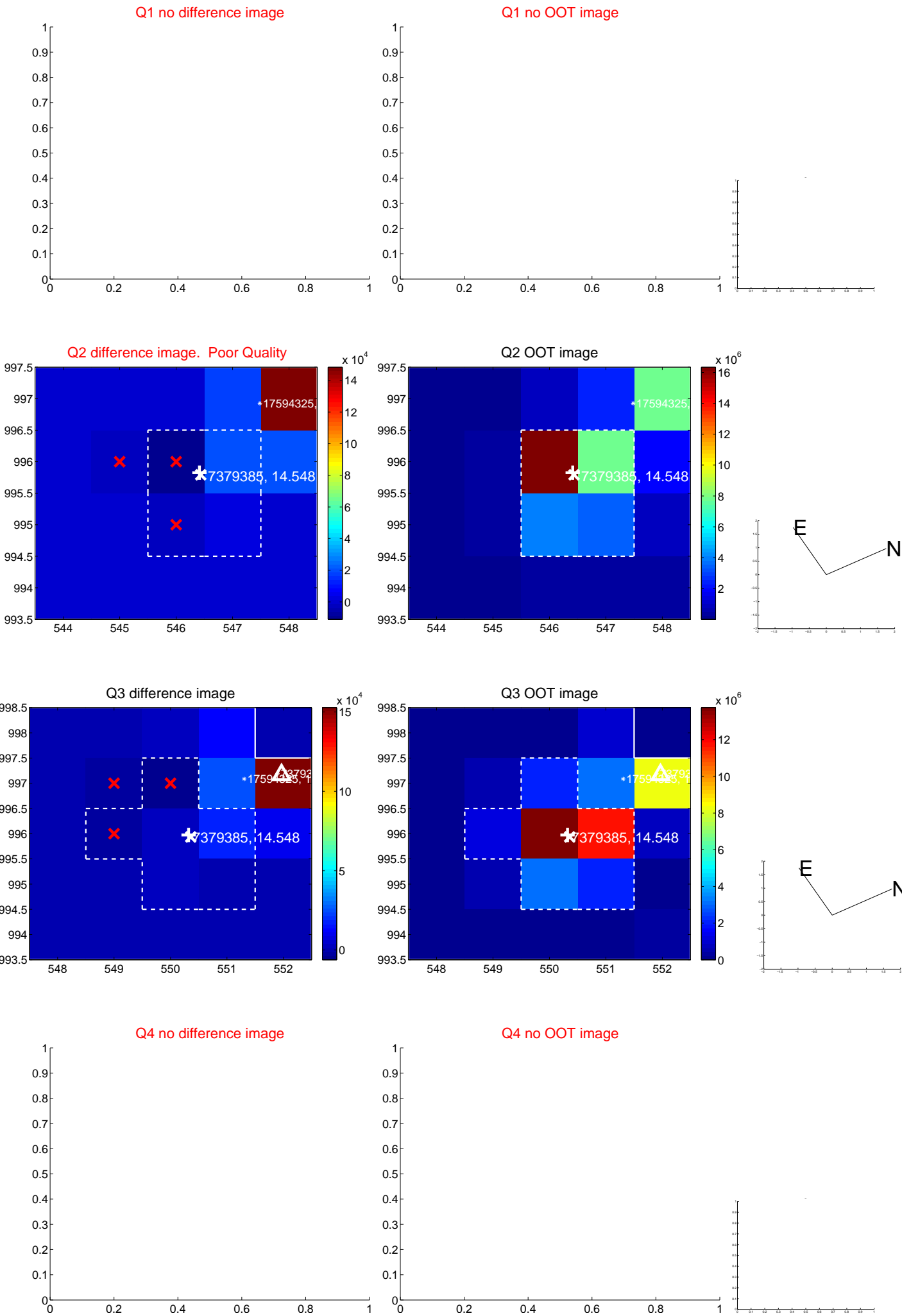
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.789 \pm 0.101	77.35	1.403 \pm 0.077	7.662 \pm 0.101
PRF-fit source offset from KIC position	7.857 \pm 0.098	79.94	1.463 \pm 0.121	7.720 \pm 0.097
photometric centroid source offset	65.76 \pm 0.65	101.77	9.87 \pm 0.47	65.02 \pm 0.65

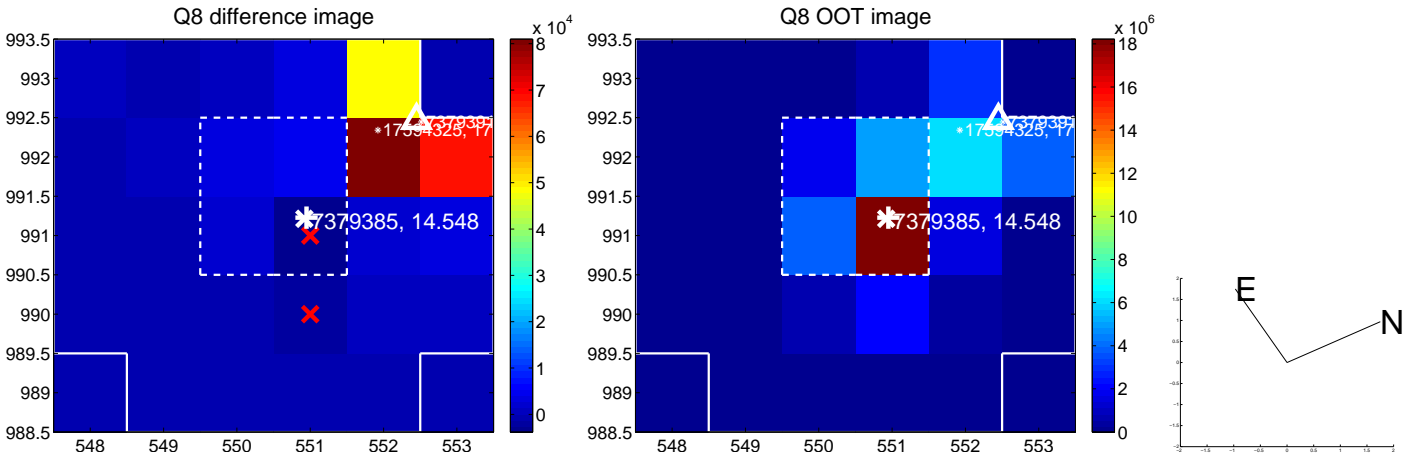
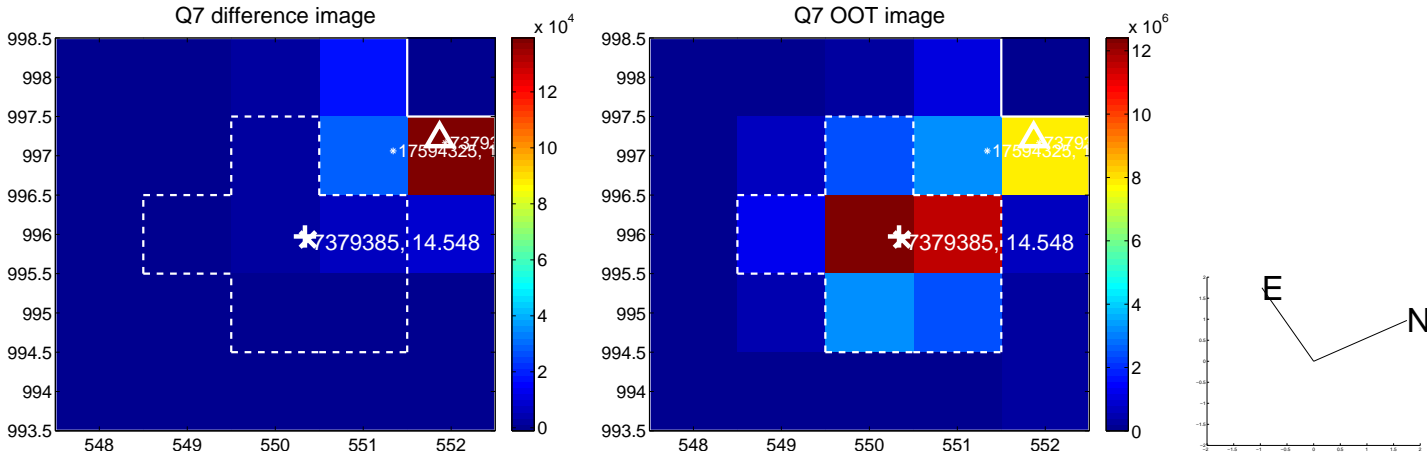
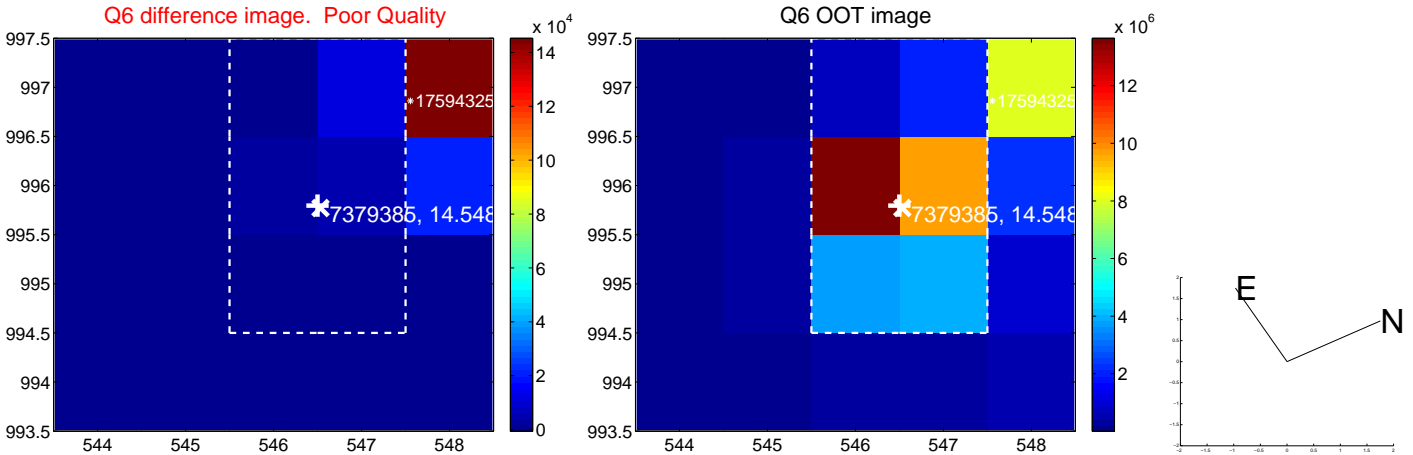
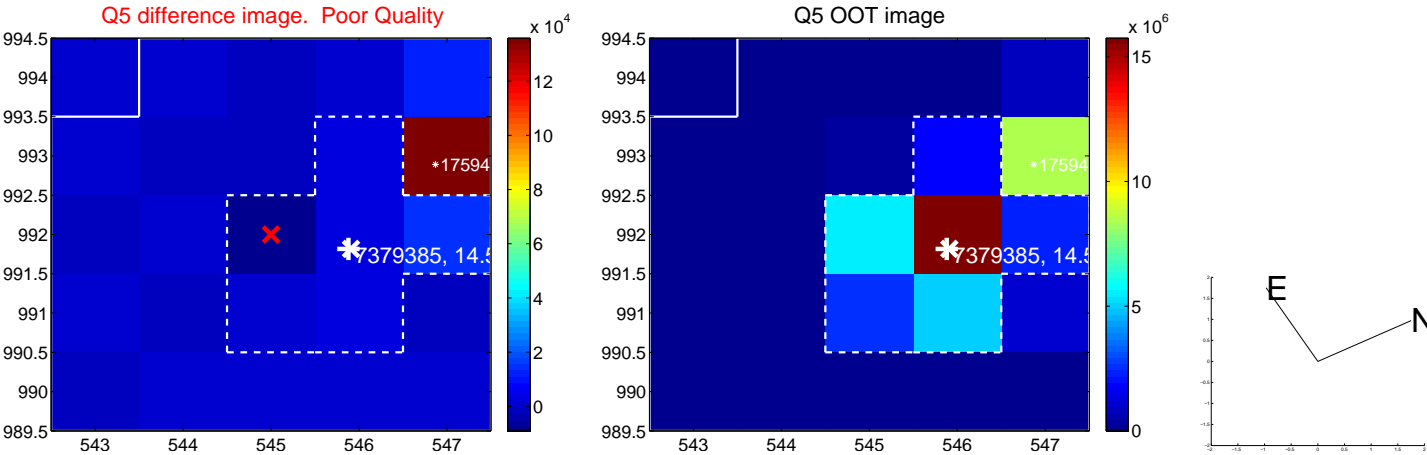


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

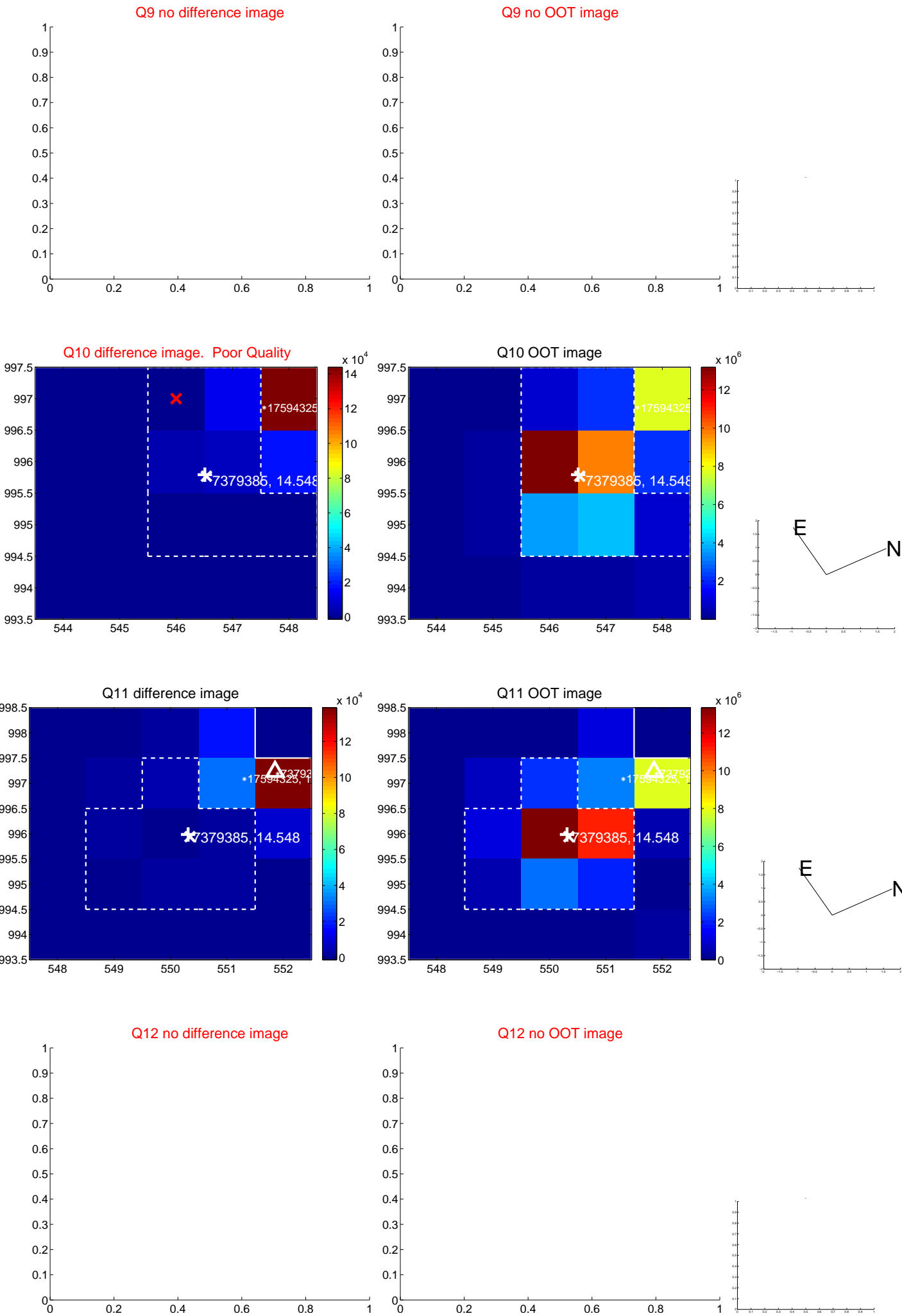
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



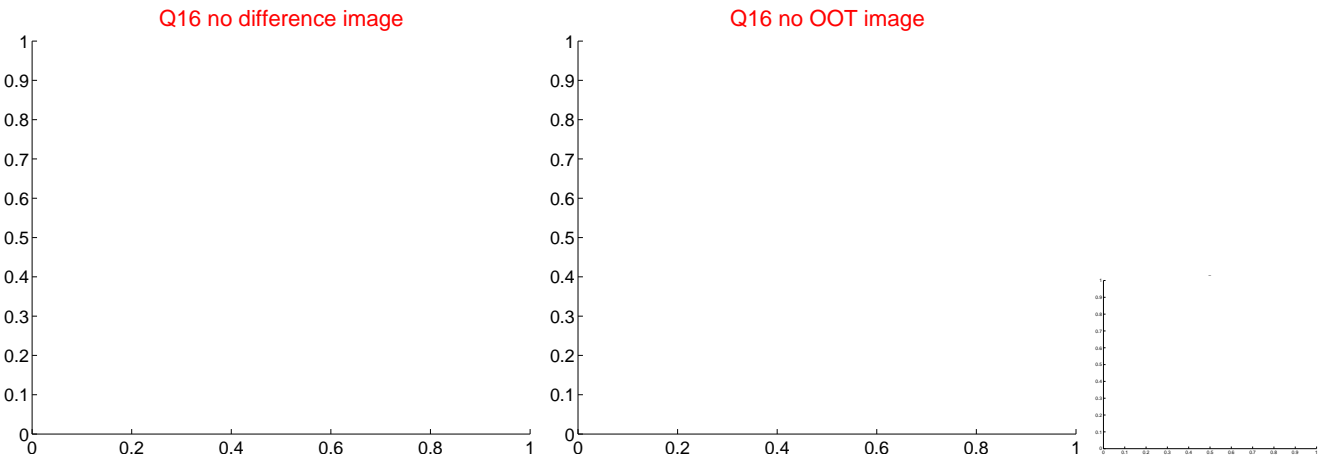
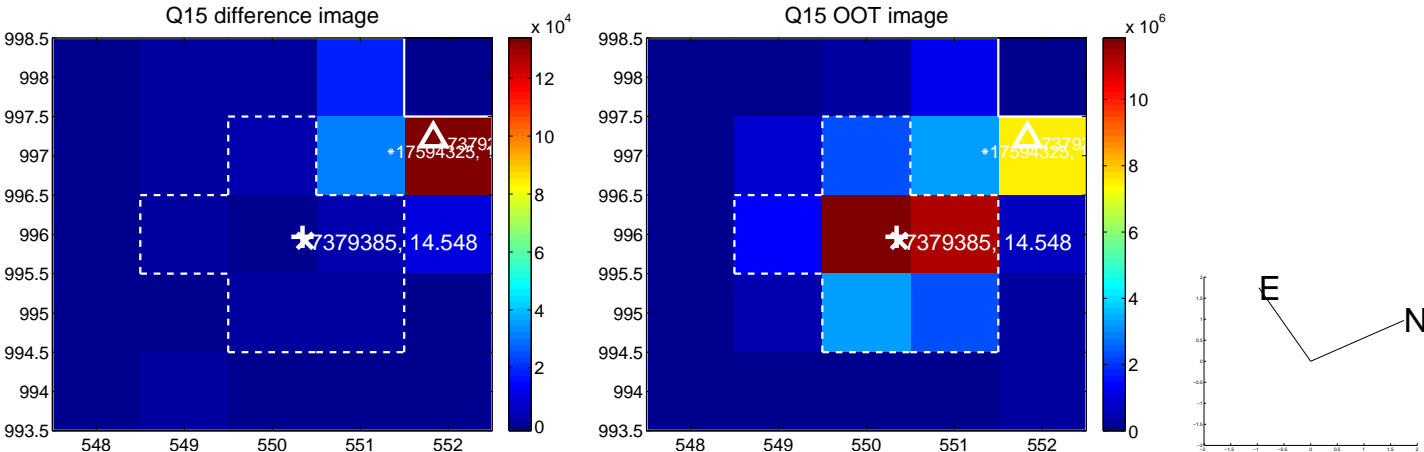
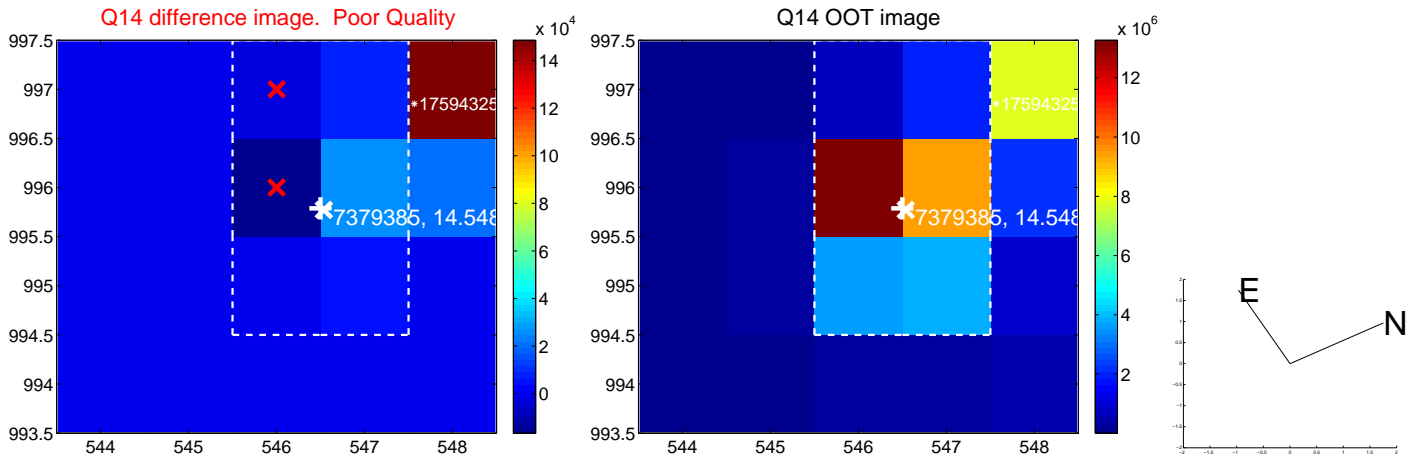
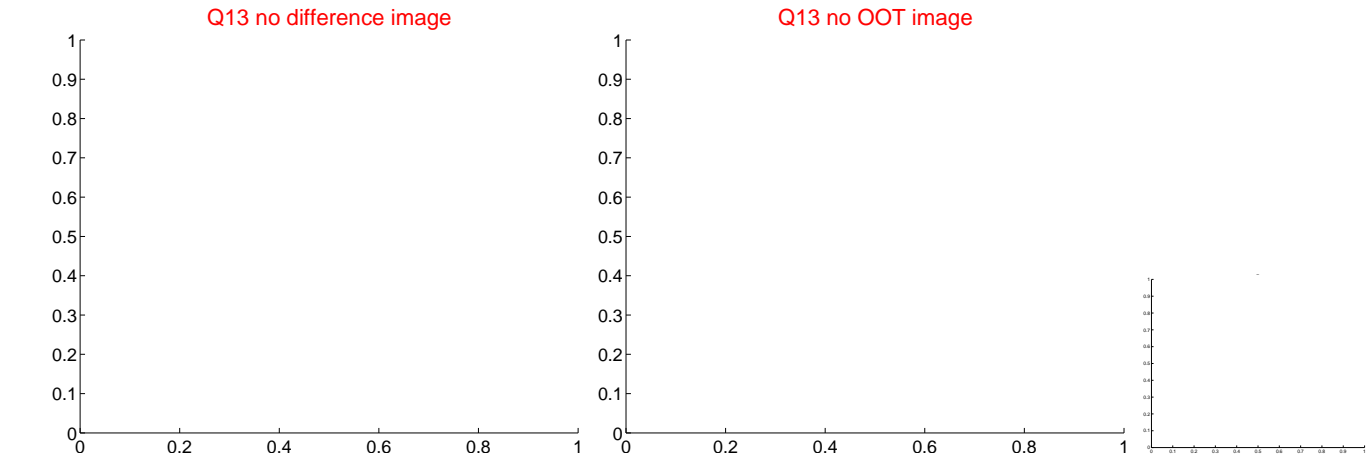
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



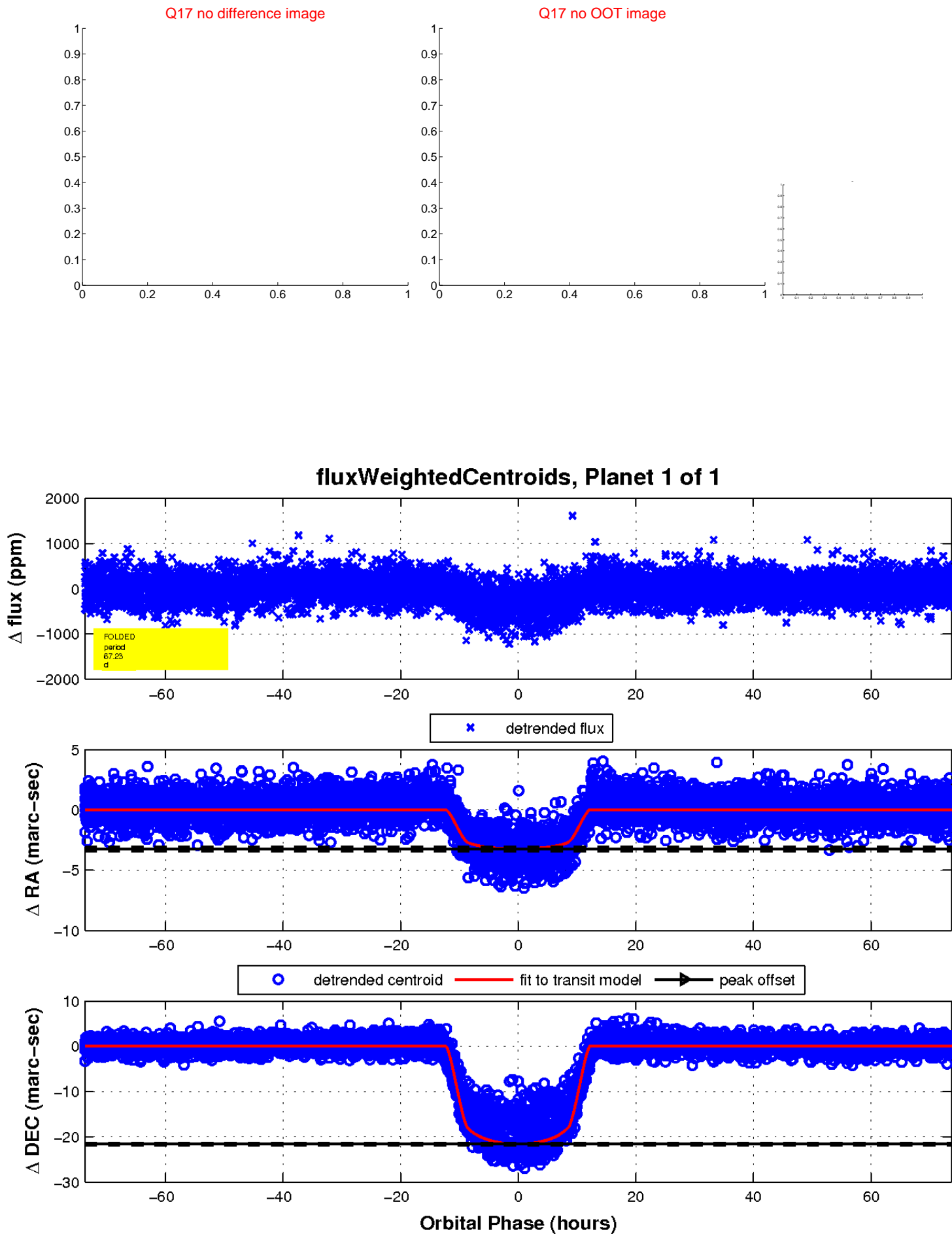
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

