

KIC 010319385

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})
010319385-01	OBS	1169.01	0.689200	131.914539	71.2	1.280	22.9	28.9	0.95	5630	0.97	3374.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010319385-01	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.

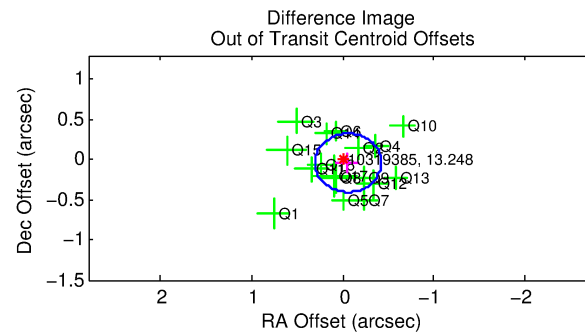
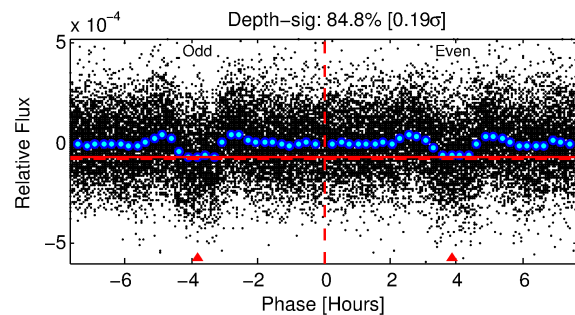
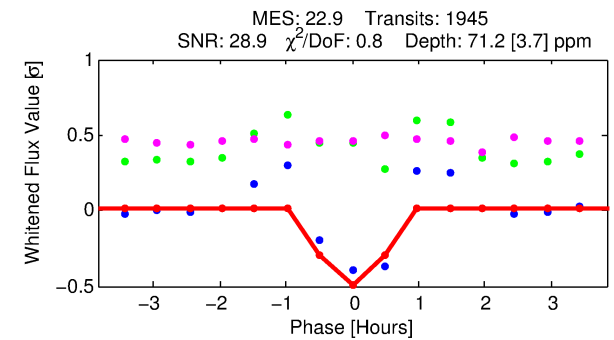
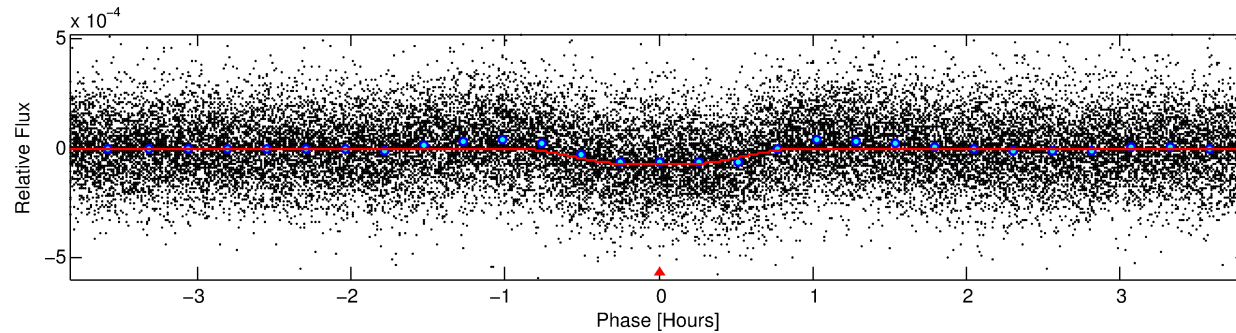
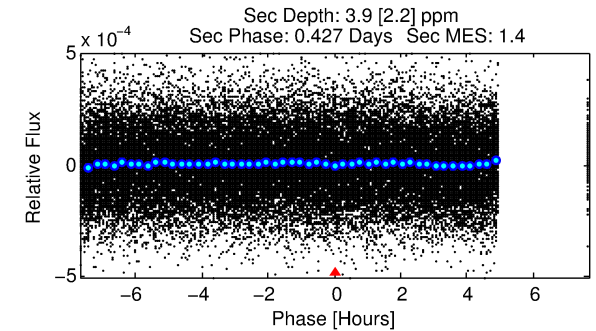
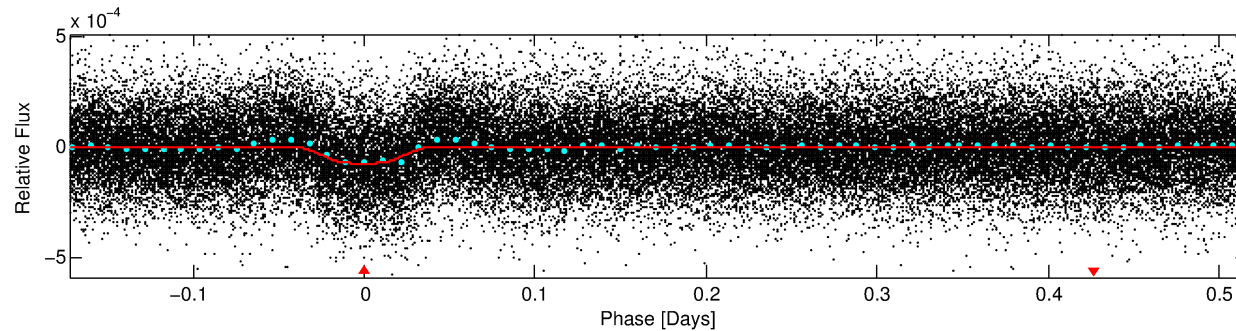
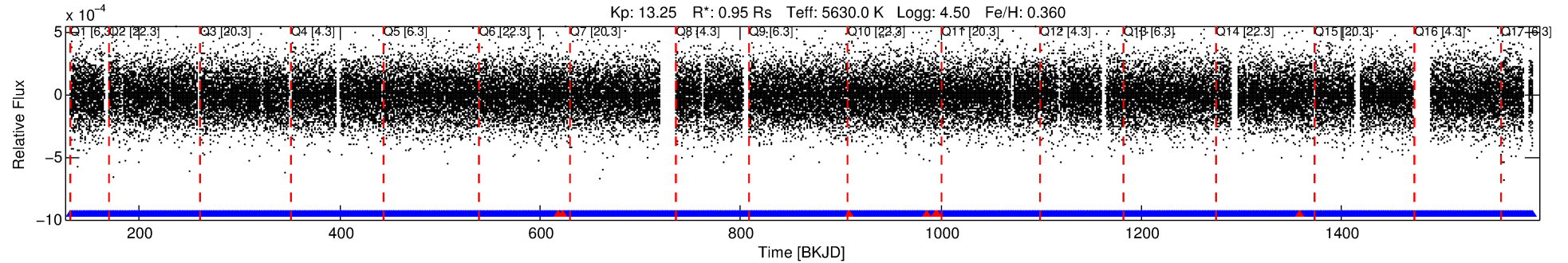
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010319385-01

No Significant Match Found

DV One-Page Summary

KIC: 10319385 Candidate: 1 of 1 Period: 0.689 d
KOI: K01169.01 Corr: 0.873



DV Fit Results:

Period = 0.68920 [0.00000] d
Epoch = 131.9145 [0.0007] BKJD
Rp/R* = 0.0093 [0.0027]
a/R* = 2.09 [2.05]
b = 0.90 [0.27]
Seff = 3374.17 [794.33]
Teq = 1943 [114] K
Rp = 0.97 [0.31] Re
a = 0.0156 [0.0021] AU
Ag = 0.56 [0.46] [-0.97σ]
Teffp = 2594 [518] K [1.23σ]

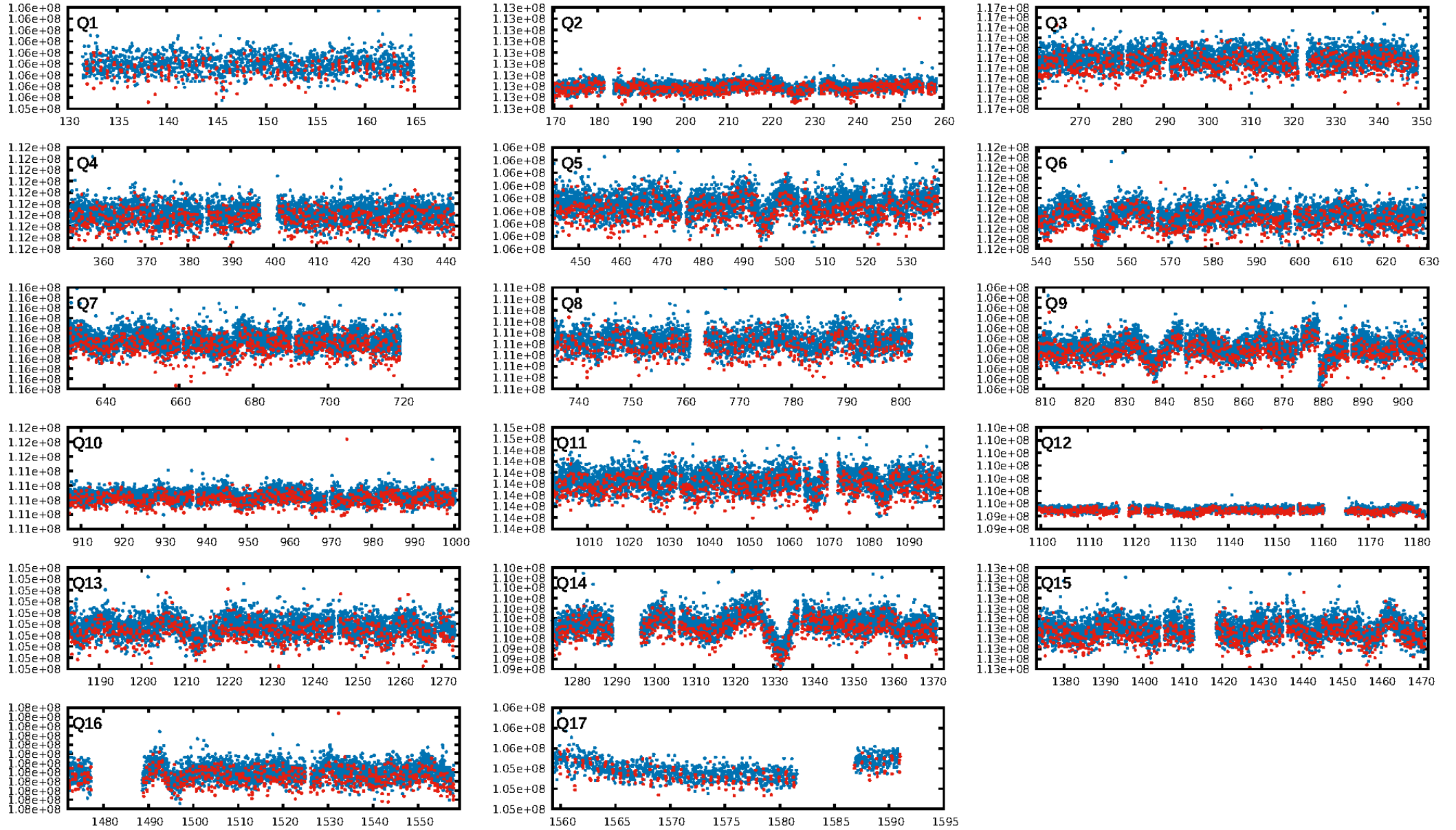
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.99e-109
RollingBand-fgt: 1.00 [1849/1856]
GhostDiagnostic-chr: 3.39
Centroid-sig: 14.3%
Centroid-so: 0.709 arcsec [1.43σ]
OotOffset-rm: 0.071 arcsec [0.58σ]
KicOffset-rm: 0.098 arcsec [0.81σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

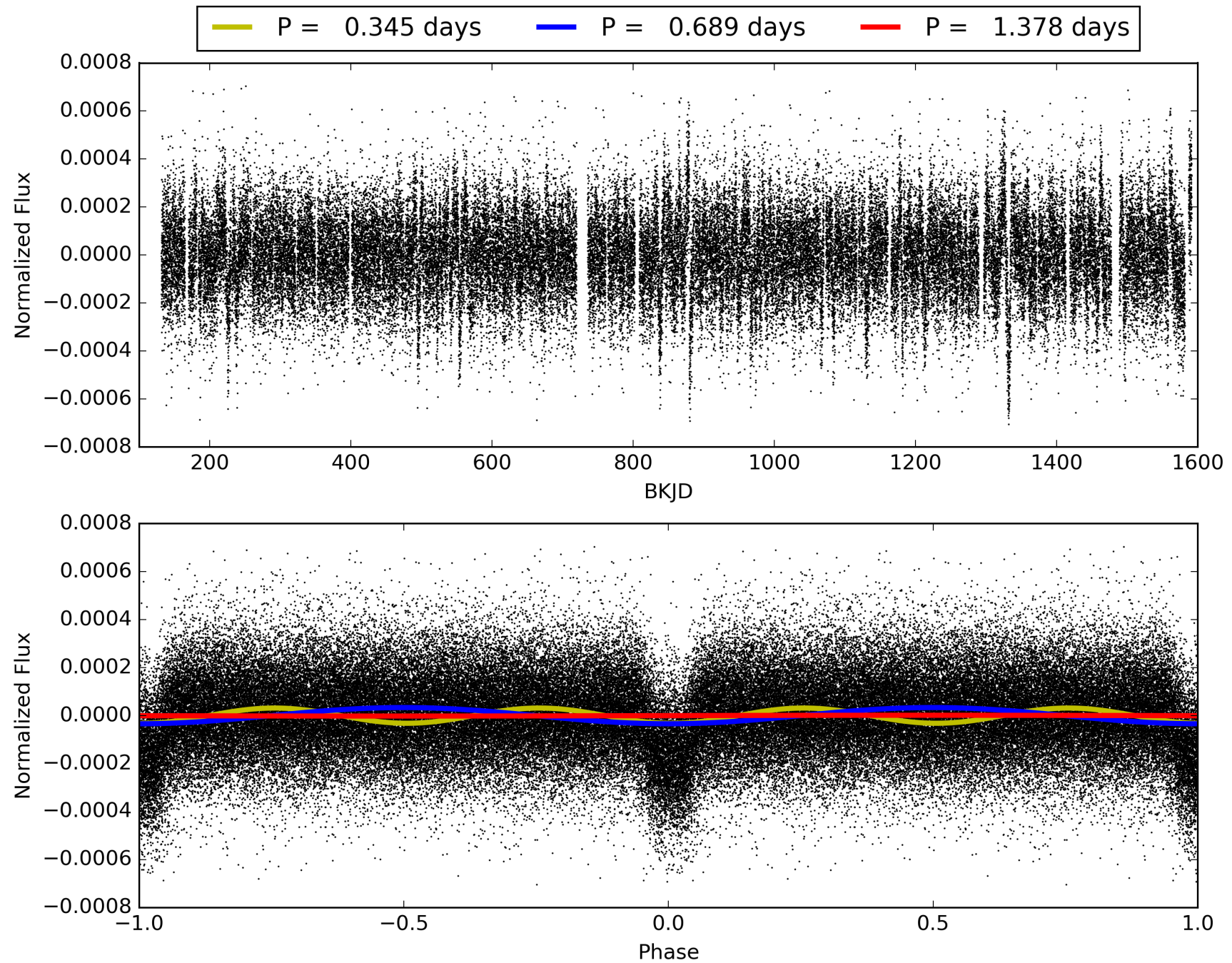
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:17:17 Z

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

TCE 010319385-01, PDC Light Curves

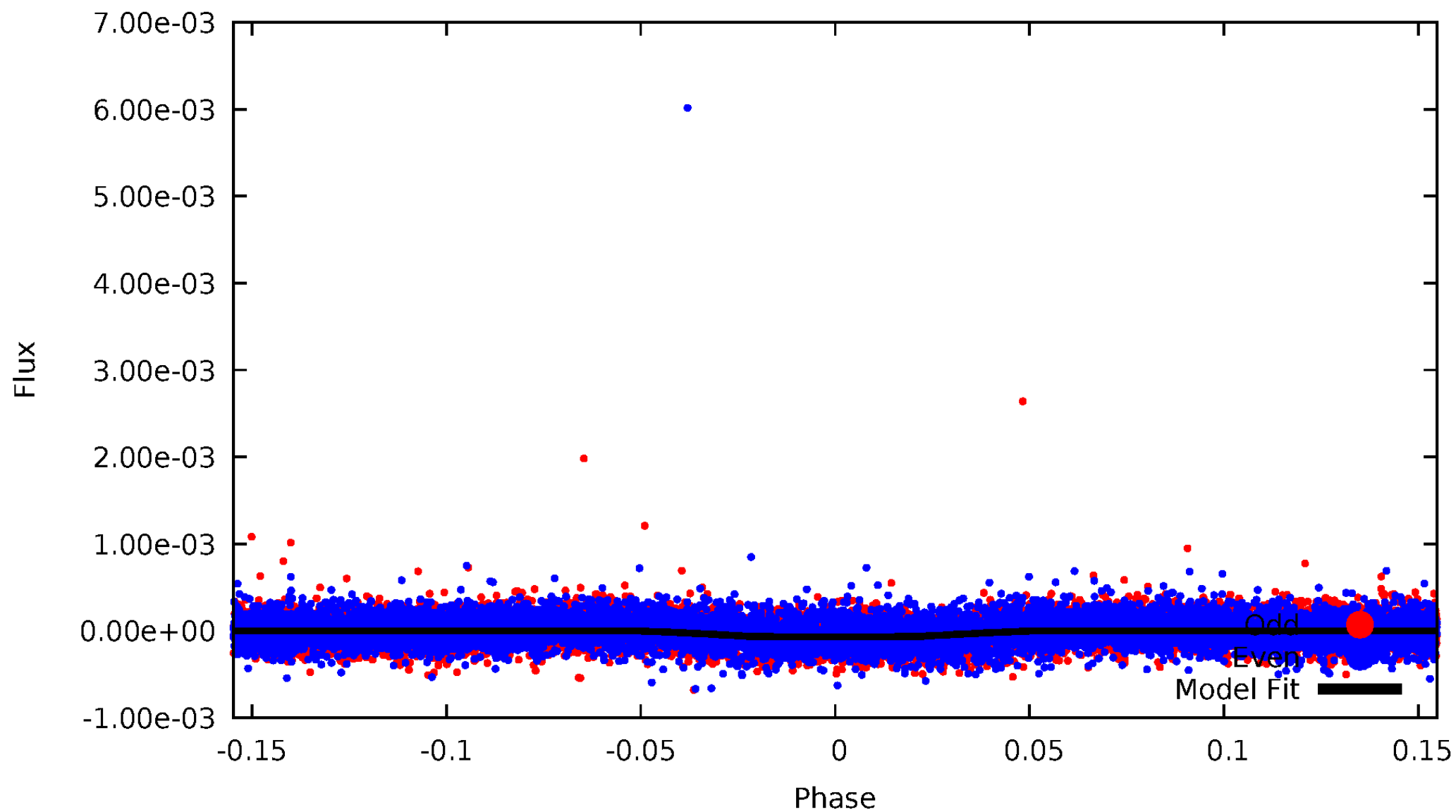


TCE 010319385-01



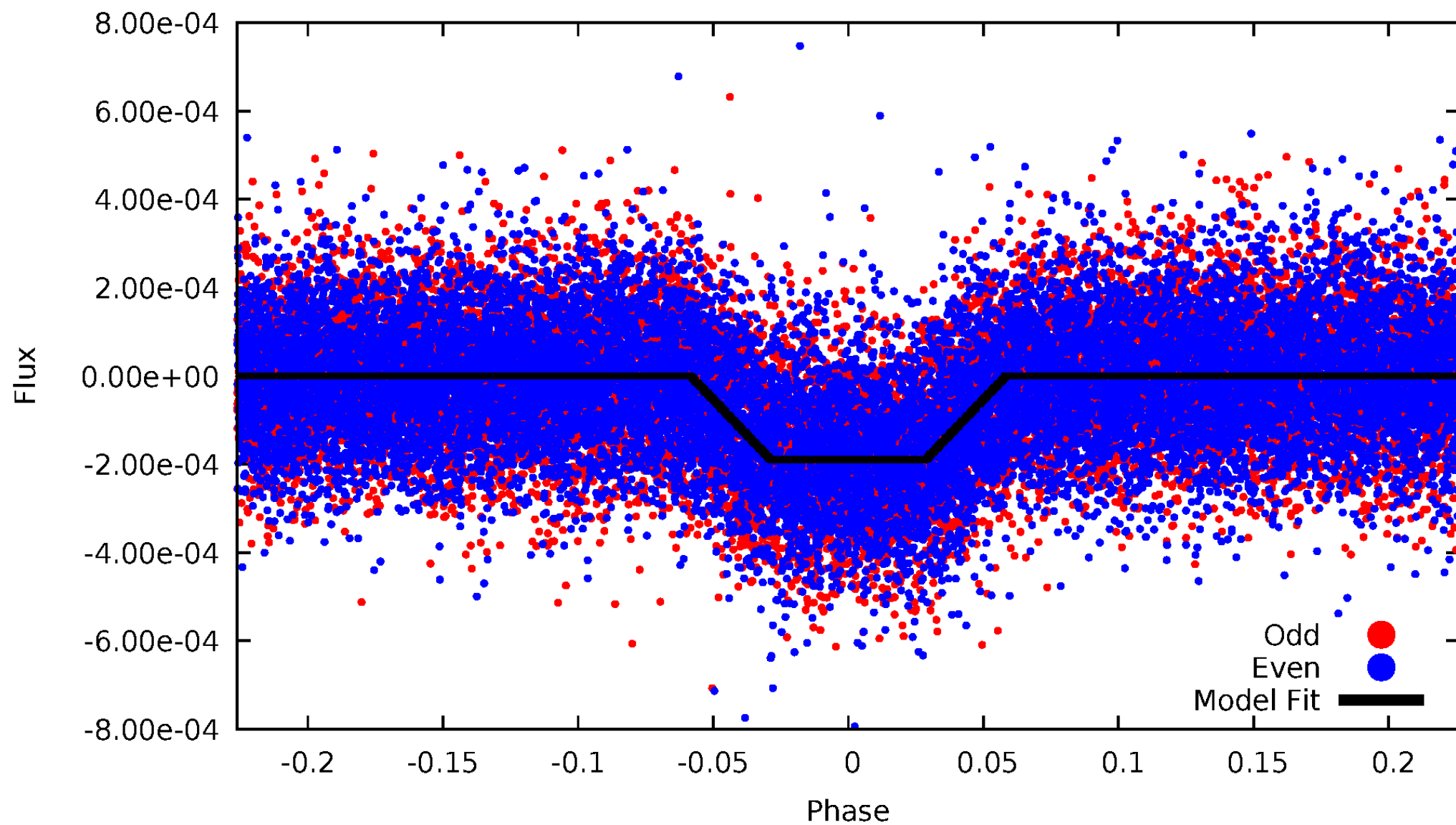
DV Odd/Even

TCE 010319385-01



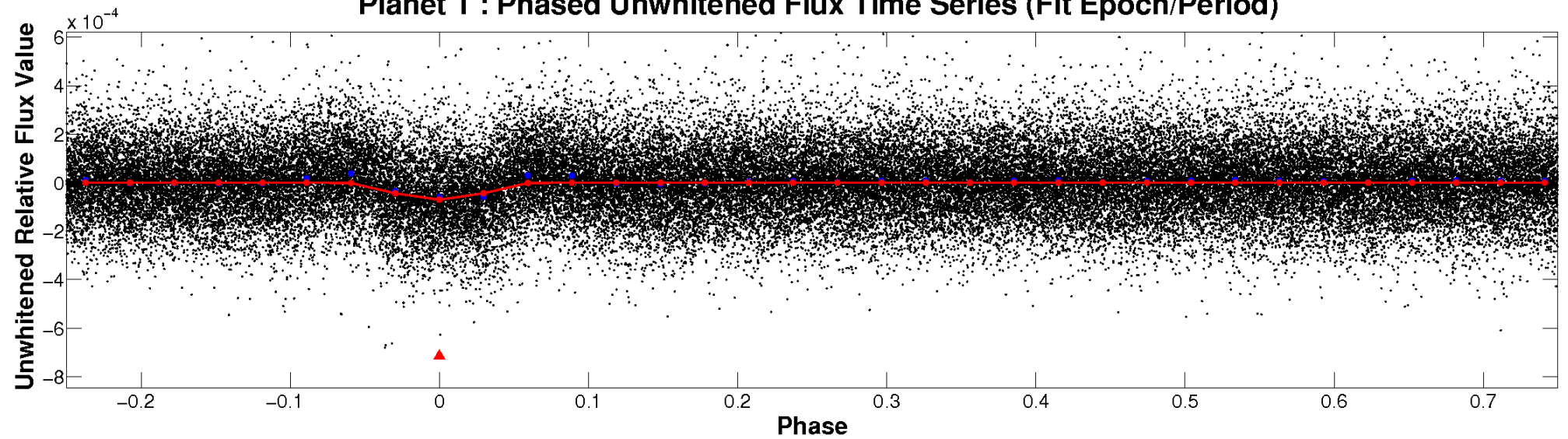
ALT Odd/Even

TCE 010319385-01

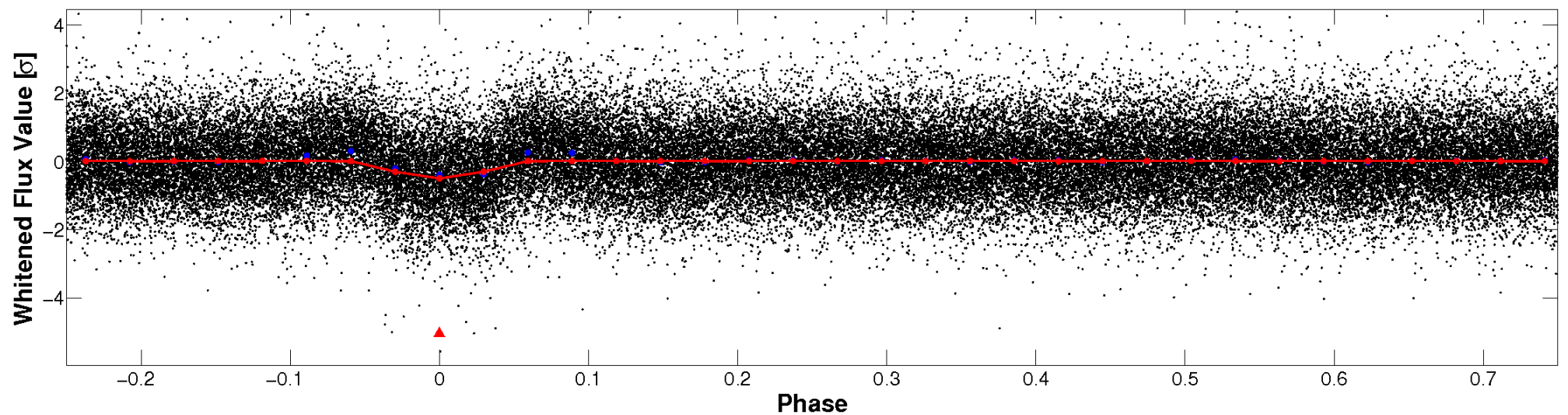


Non-Whitened Vs. Whitened Light Curve

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

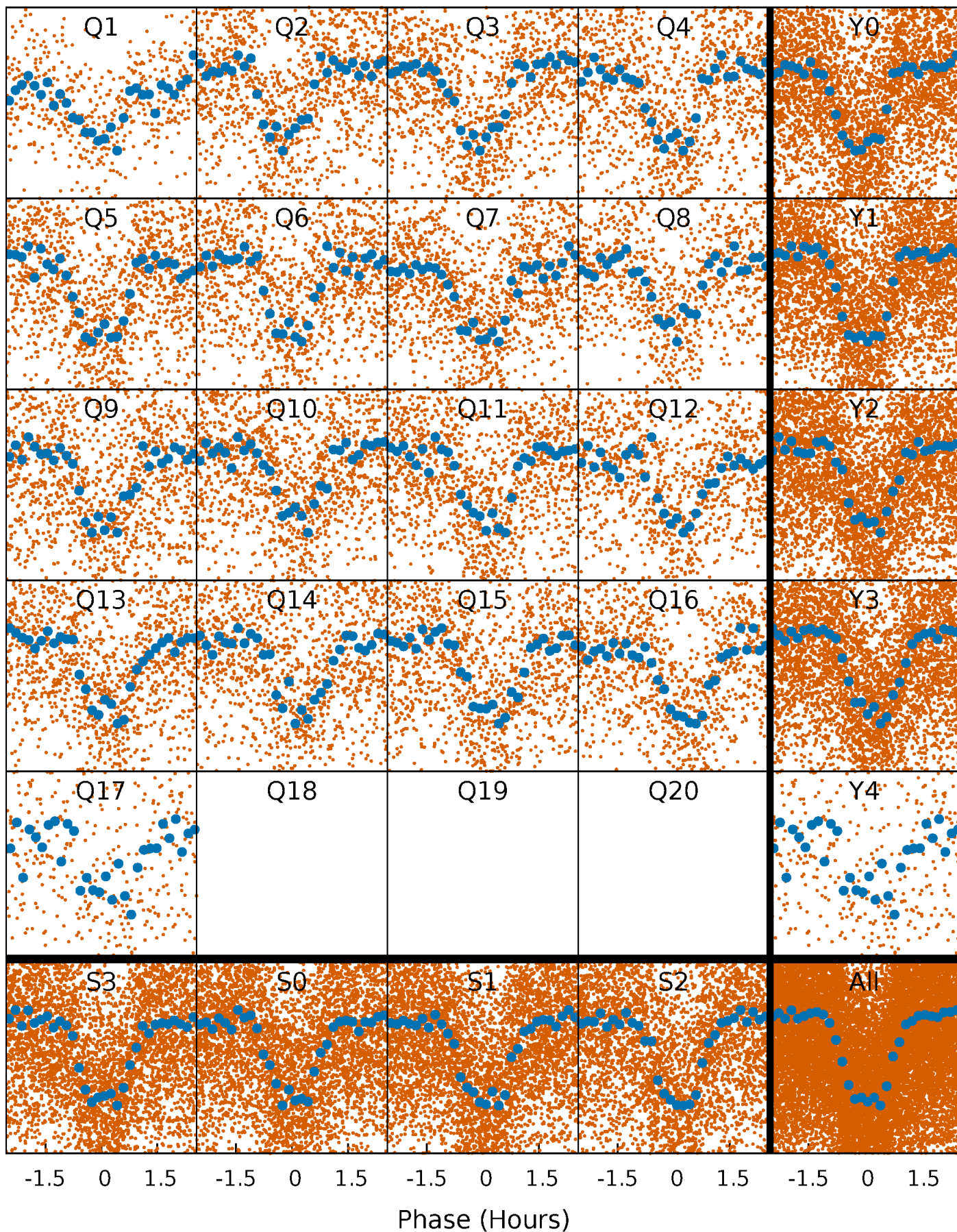


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



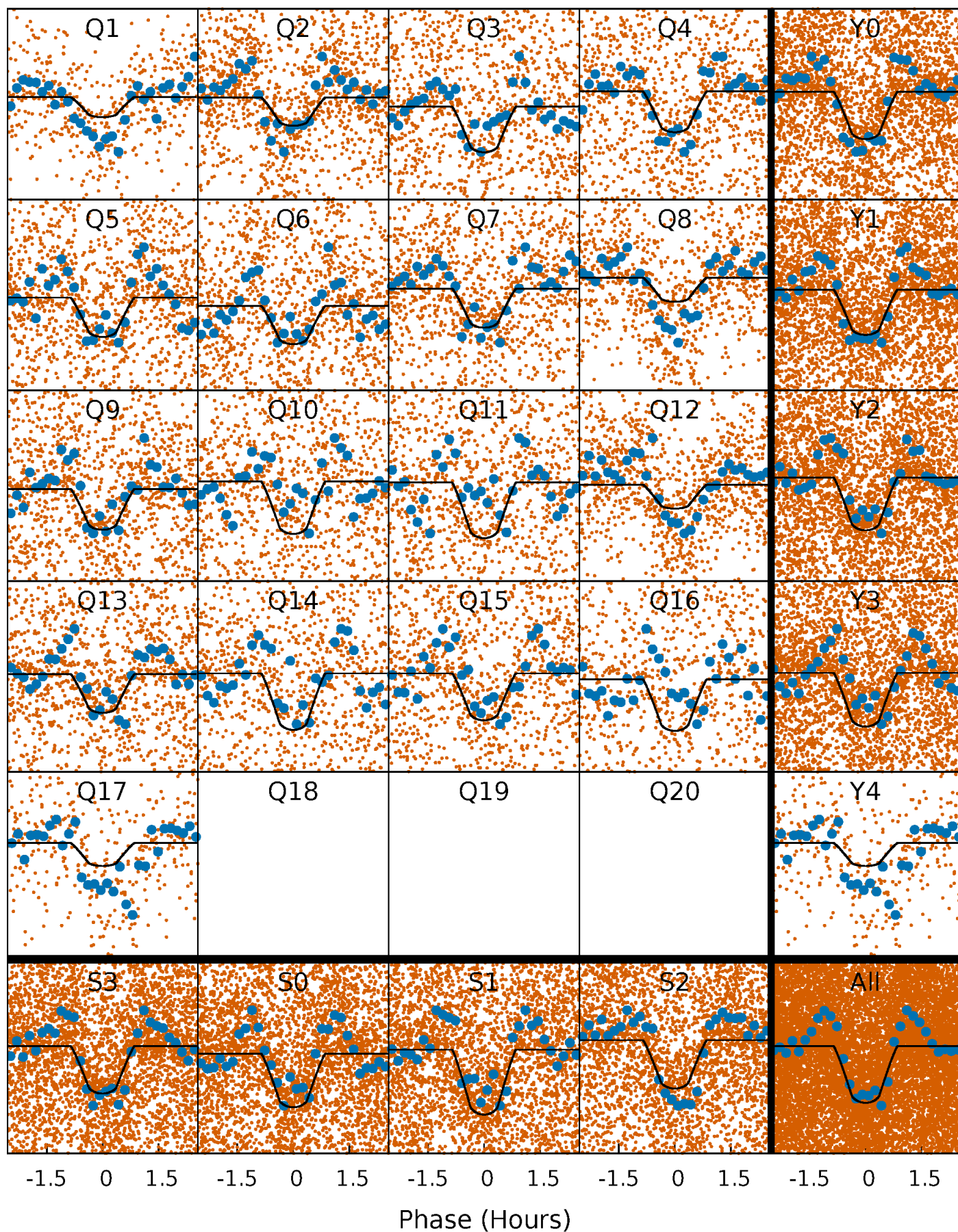
PDC Quarter-Phased Transit Curves

TCE 010319385-01 P= 0.689200 Days $T_0=131.914539$ (BKJD)



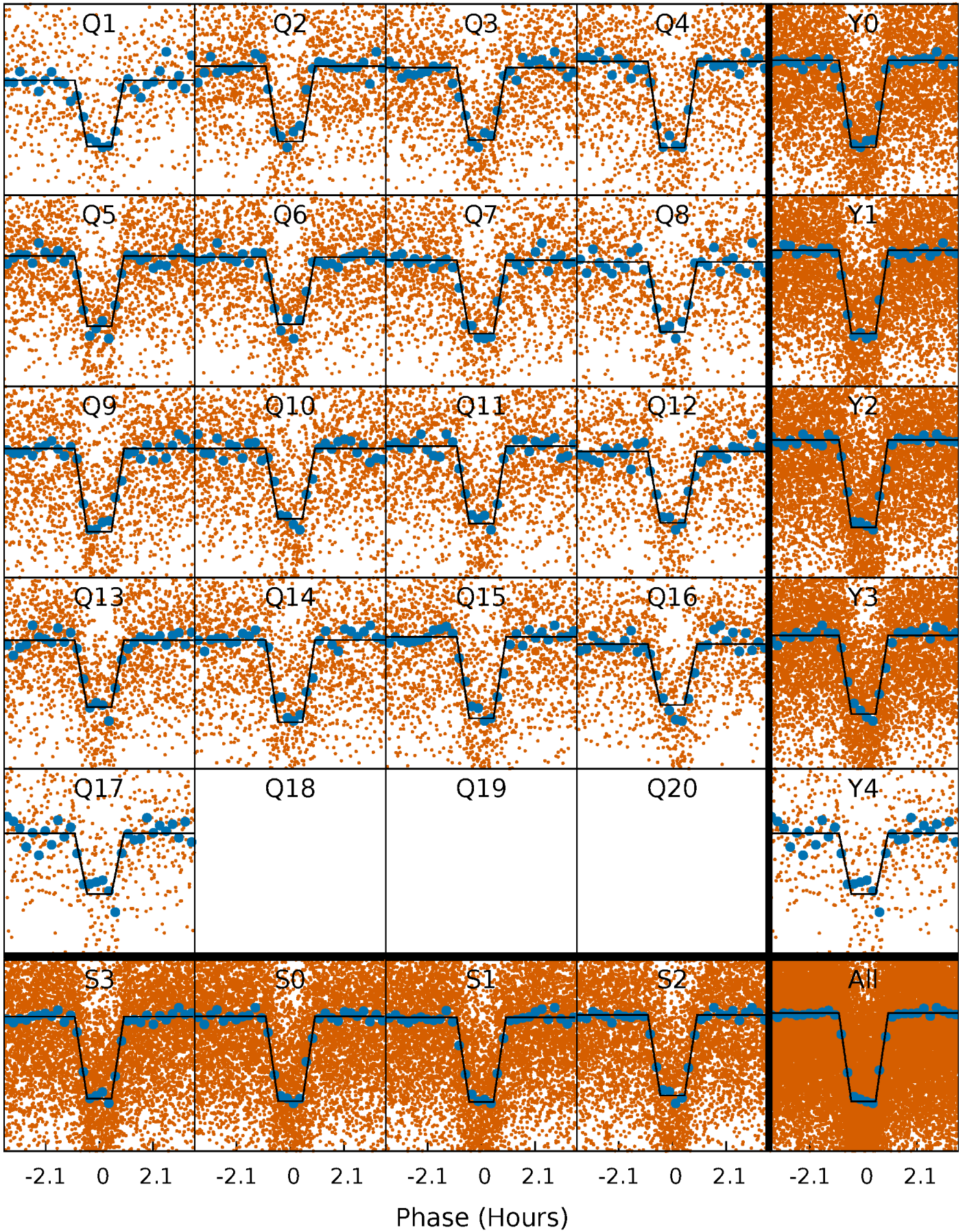
DV Quarter-Phased Transit Curves

TCE 010319385-01 P= 0.689200 Days $T_0=131.914539$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

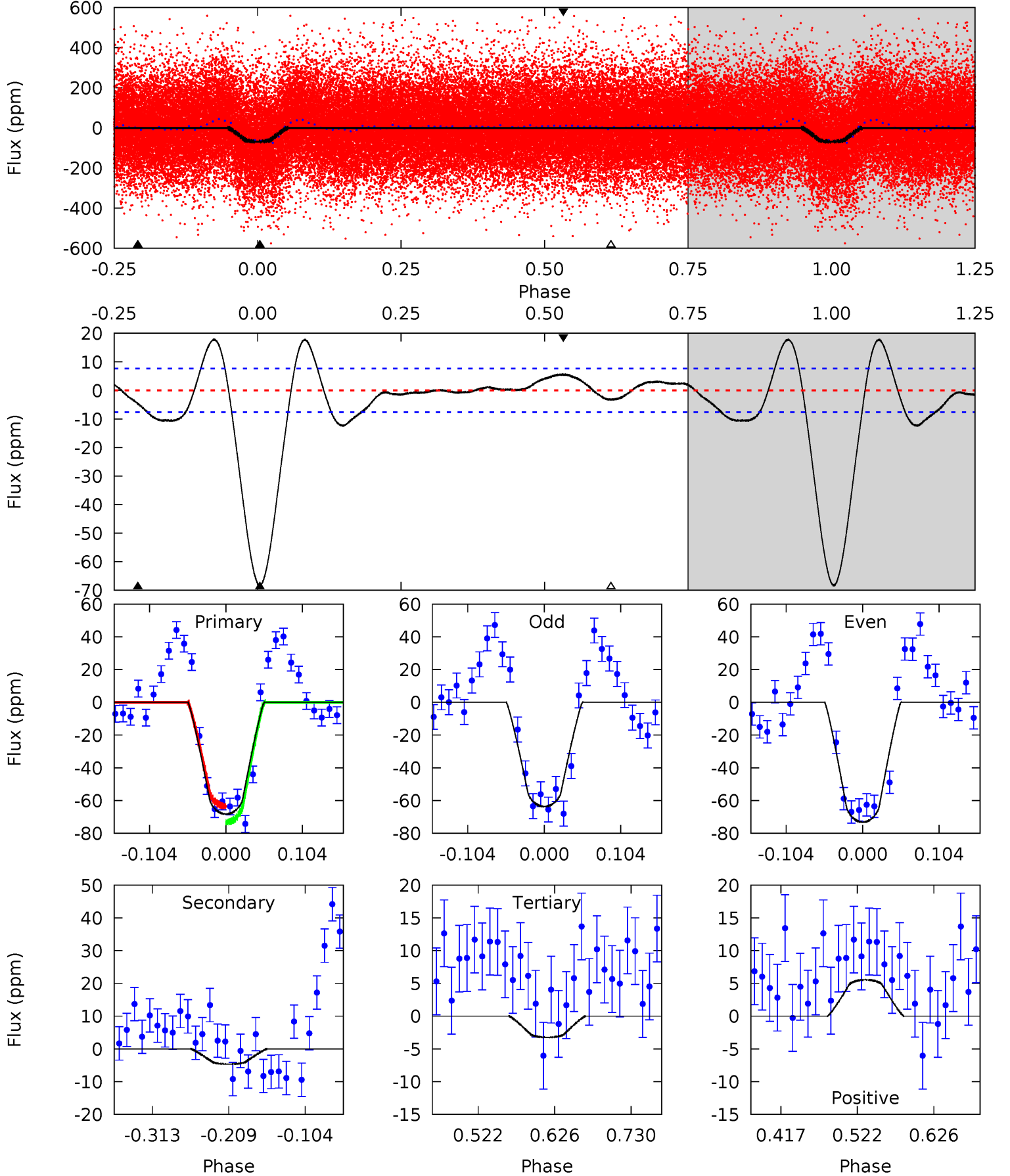
TCE 010319385-01 P= 0.689206 Days $T_0=131.911475$ (BKJD)



DV Model-Shift Uniqueness Test

010319385-01, $P = 0.689200$ Days, $E = 131.225339$ Days

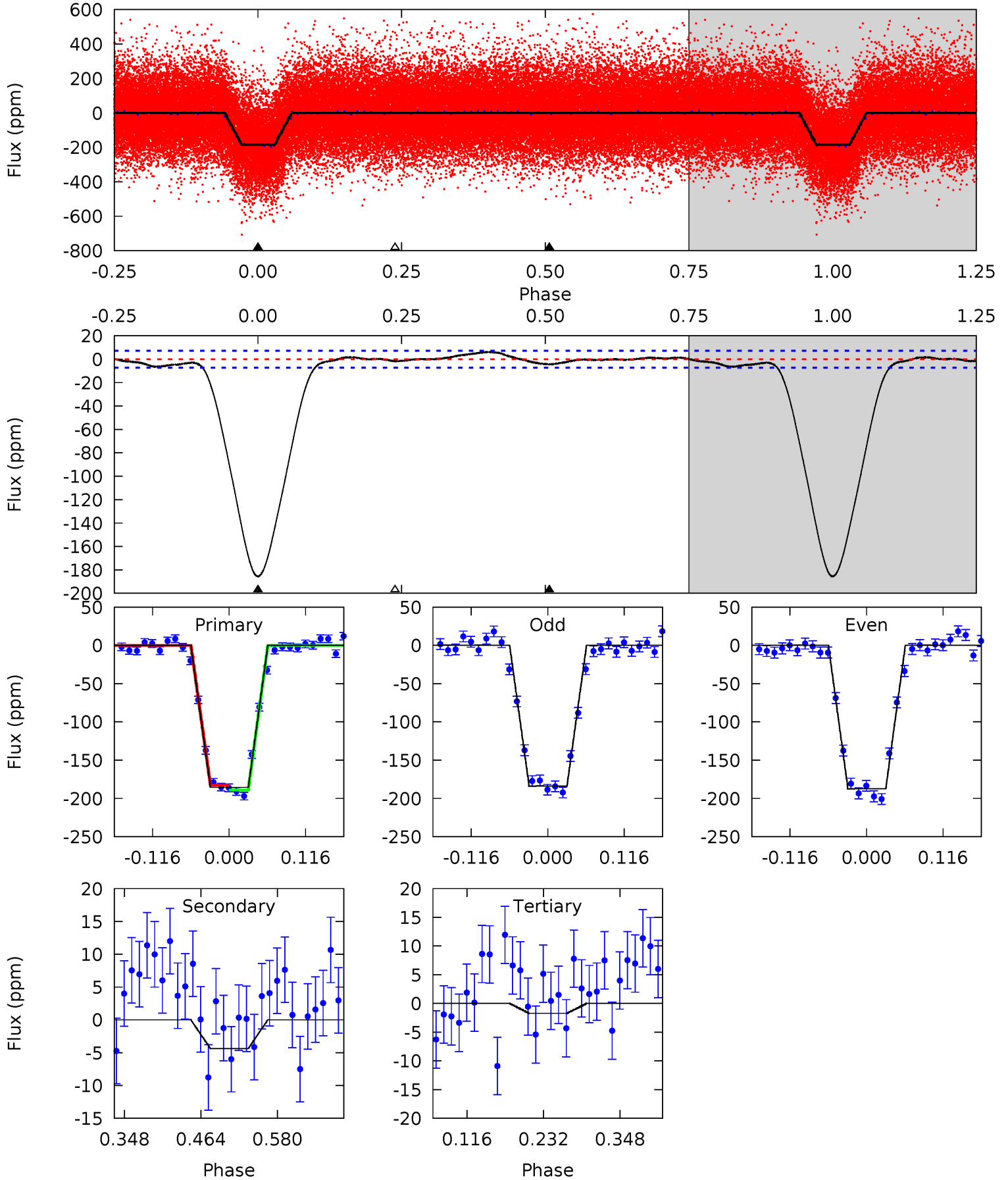
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.7	2.76	1.93	3.30	4.56	1.62	2.32	38.7	37.4	0.83	-0.54	2.87	1.00	0.21	2.93



Alt Model-Shift Uniqueness Test

010319385-01, P = 0.689206 Days, E = 131.222269 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
117.0	2.75	1.08	0	4.53	1.57	1.60	115.9	117.0	1.67	2.75	1.13	1.00	0.03	2.06



Stellar Parameters For KIC 010319385

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5630^{+100}_{-122}	$4.505^{+0.023}_{-0.128}$	$0.360^{+0.100}_{-0.150}$	$0.954^{+0.138}_{-0.039}$	$1.064^{+0.042}_{-0.073}$	$1.725^{+0.192}_{-0.594}$
	+2%/-2%	+1%/-3%	+28%/-42%	+14%/-4%	+4%/-7%	+11%/-34%
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 010319385-01 / KOI 1169.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5 ± 2	$1.01^{+0.30}_{-0.29}$	2755^{+110}_{-85}	2917^{+565}_{-4740}	$0.574^{+0.657}_{-0.278}$
Alt.	-4 ± 2	$1.50^{+0.29}_{-0.29}$	2749^{+101}_{-75}	-2298^{+4956}_{-426}	$0.257^{+0.180}_{-0.120}$

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 $A_{obs} \gg 1.0$

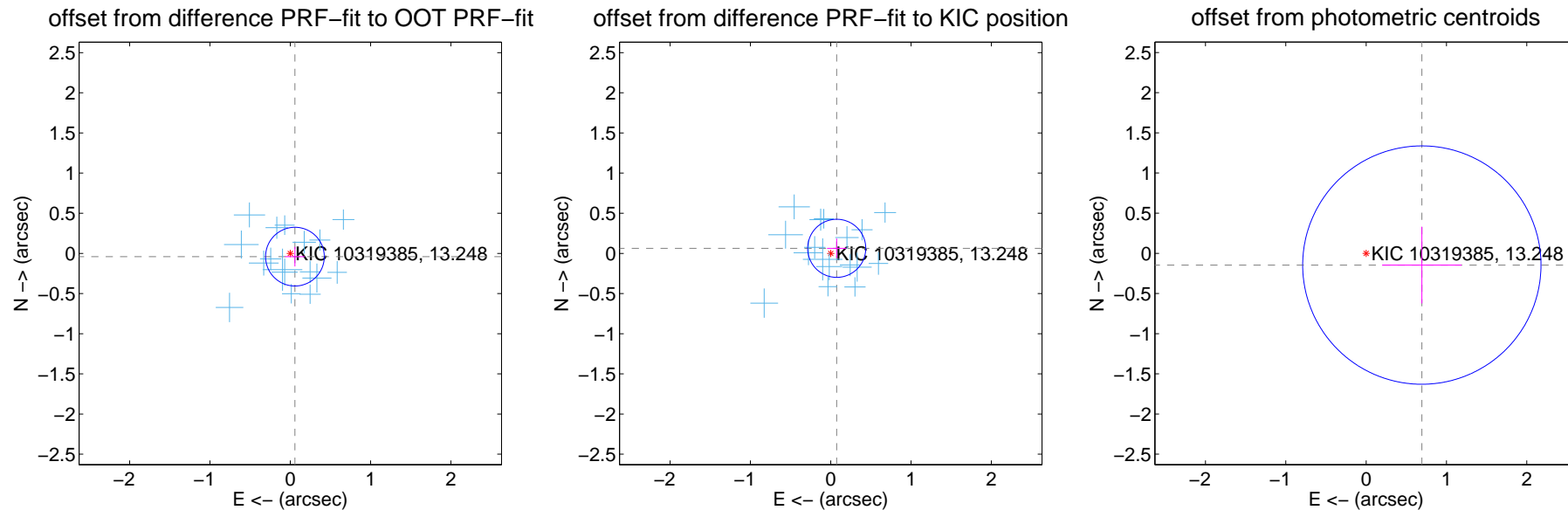
DV Centroid Data

Supplemental centroid analysis for 010319385-01. Kepler magnitude: 13.25. Transit SNR 28.92

There are 17 quarters with good PRF difference image offsets

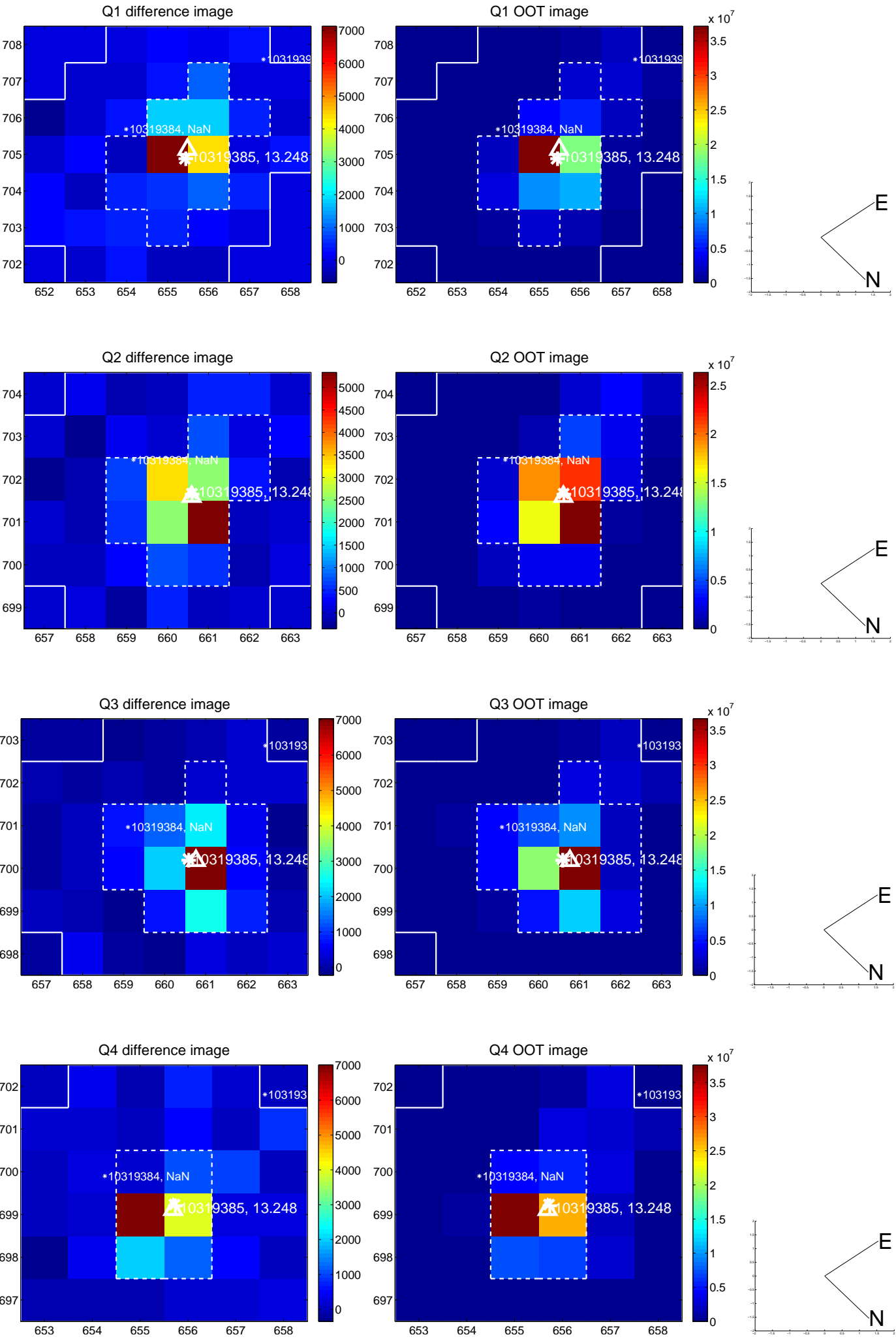
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.071 ± 0.122	0.58	-0.058 ± 0.122	-0.040 ± 0.122
PRF-fit source offset from KIC position	0.098 ± 0.121	0.81	-0.075 ± 0.120	0.063 ± 0.121
photometric centroid source offset	0.71 ± 0.49	1.43	-0.69 ± 0.50	-0.15 ± 0.48

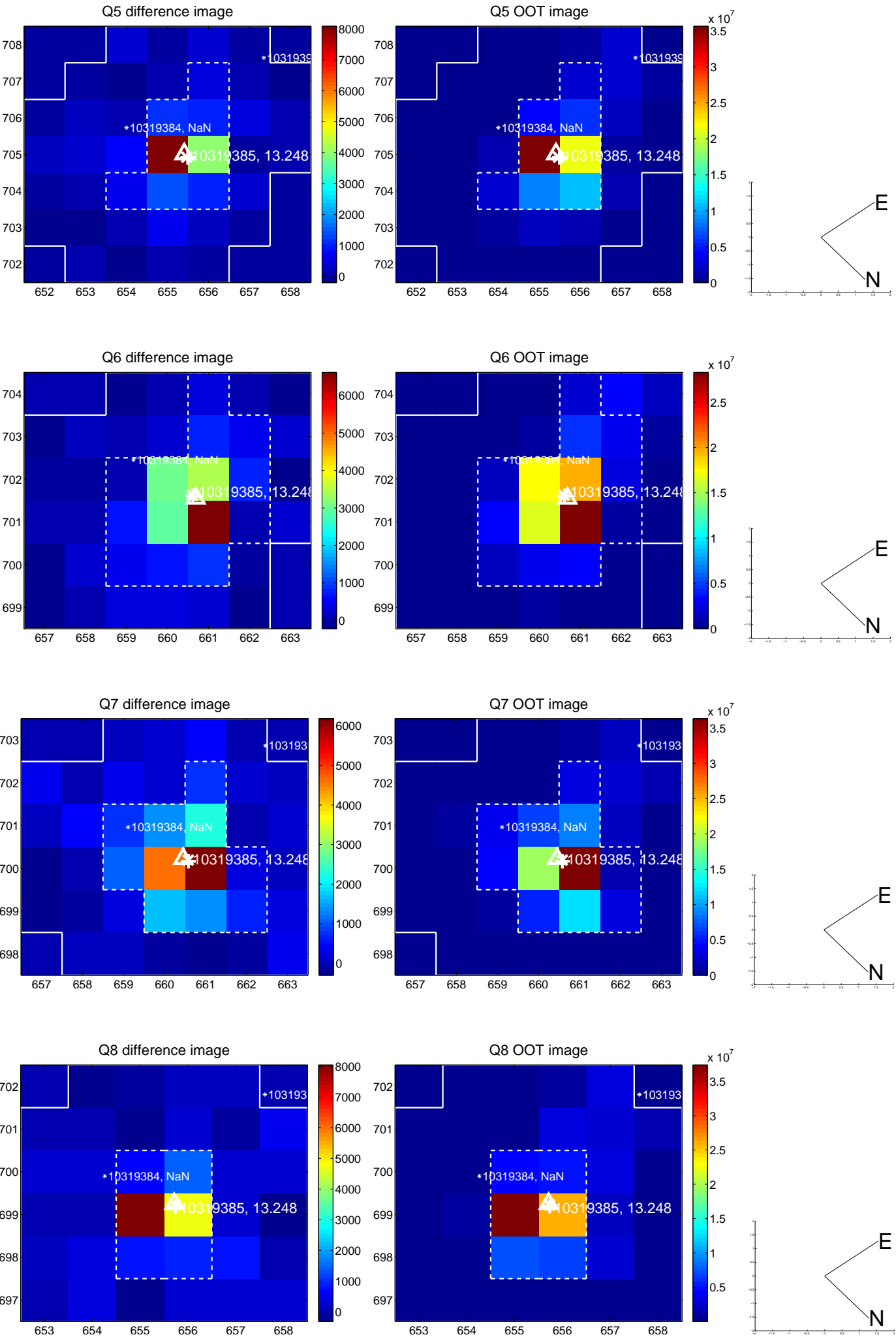


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

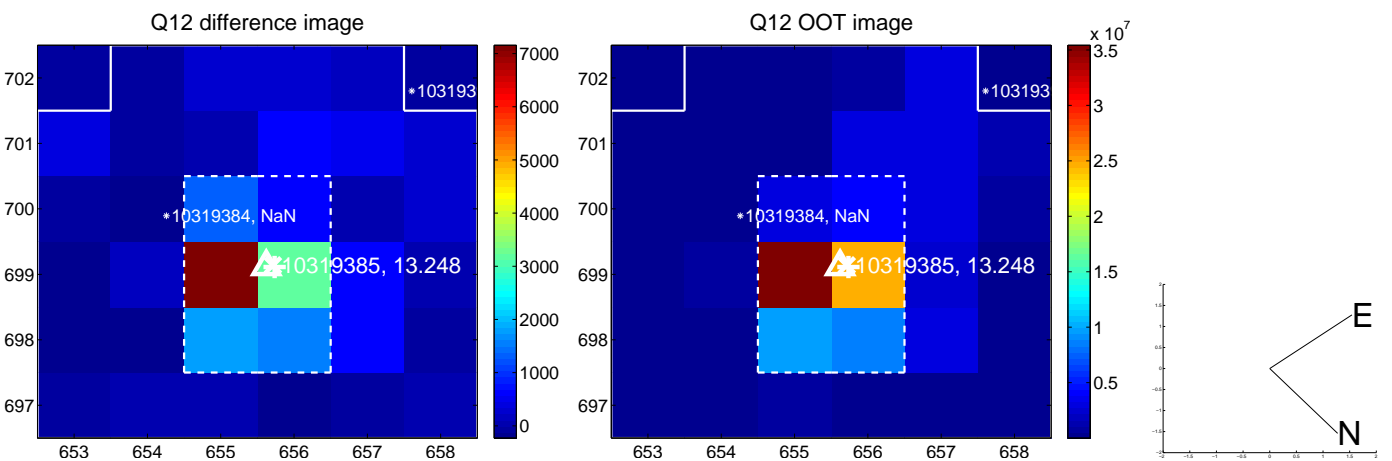
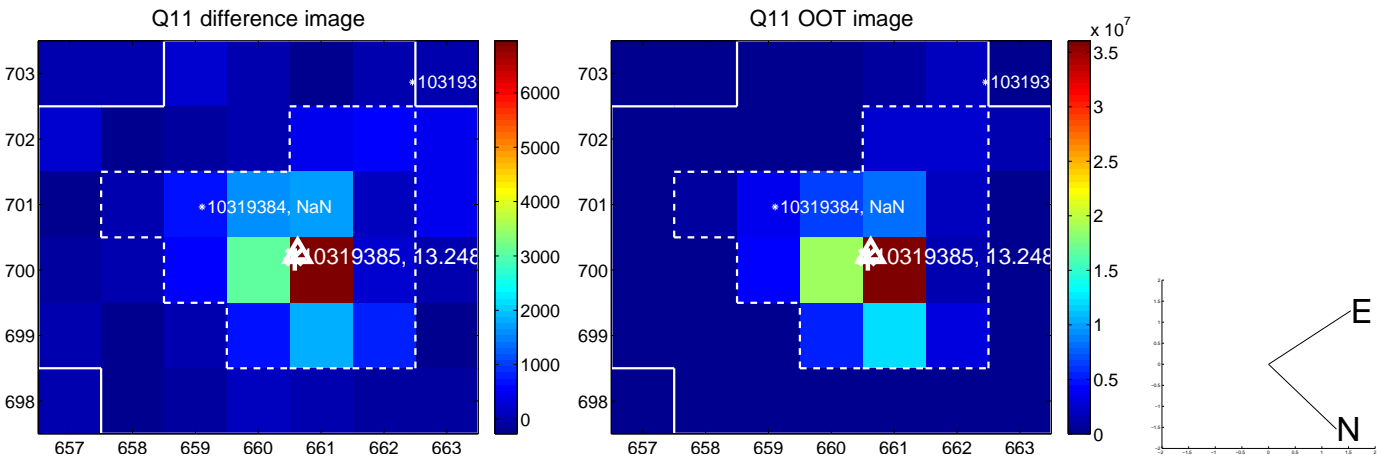
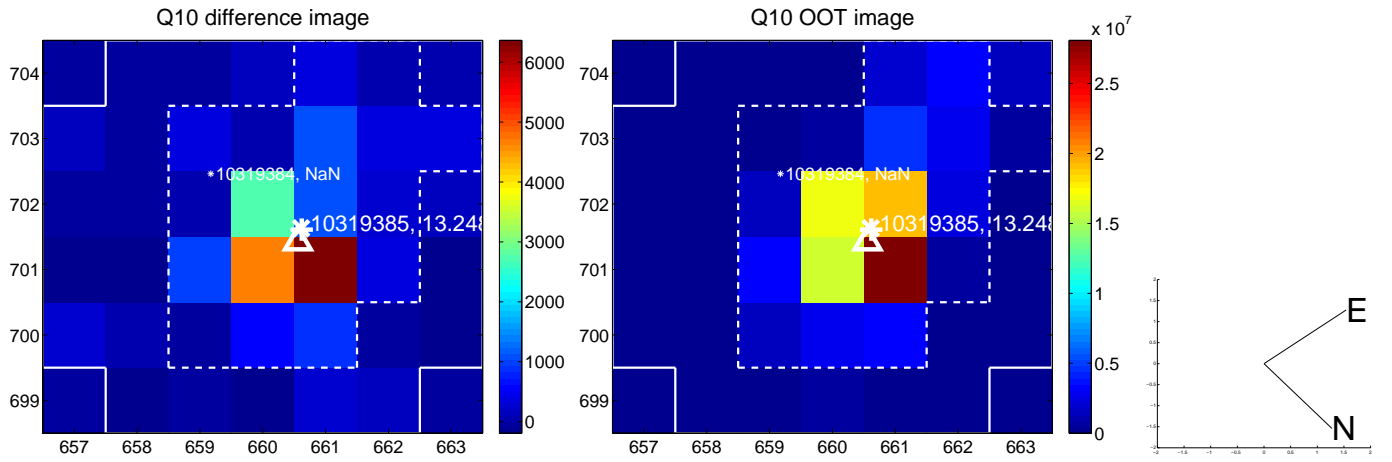
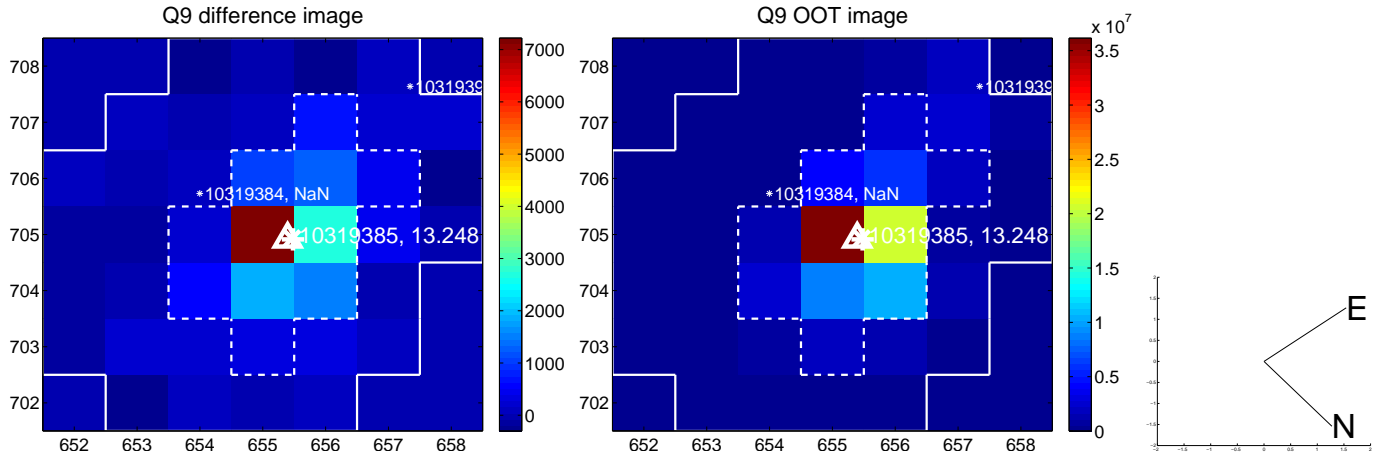
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



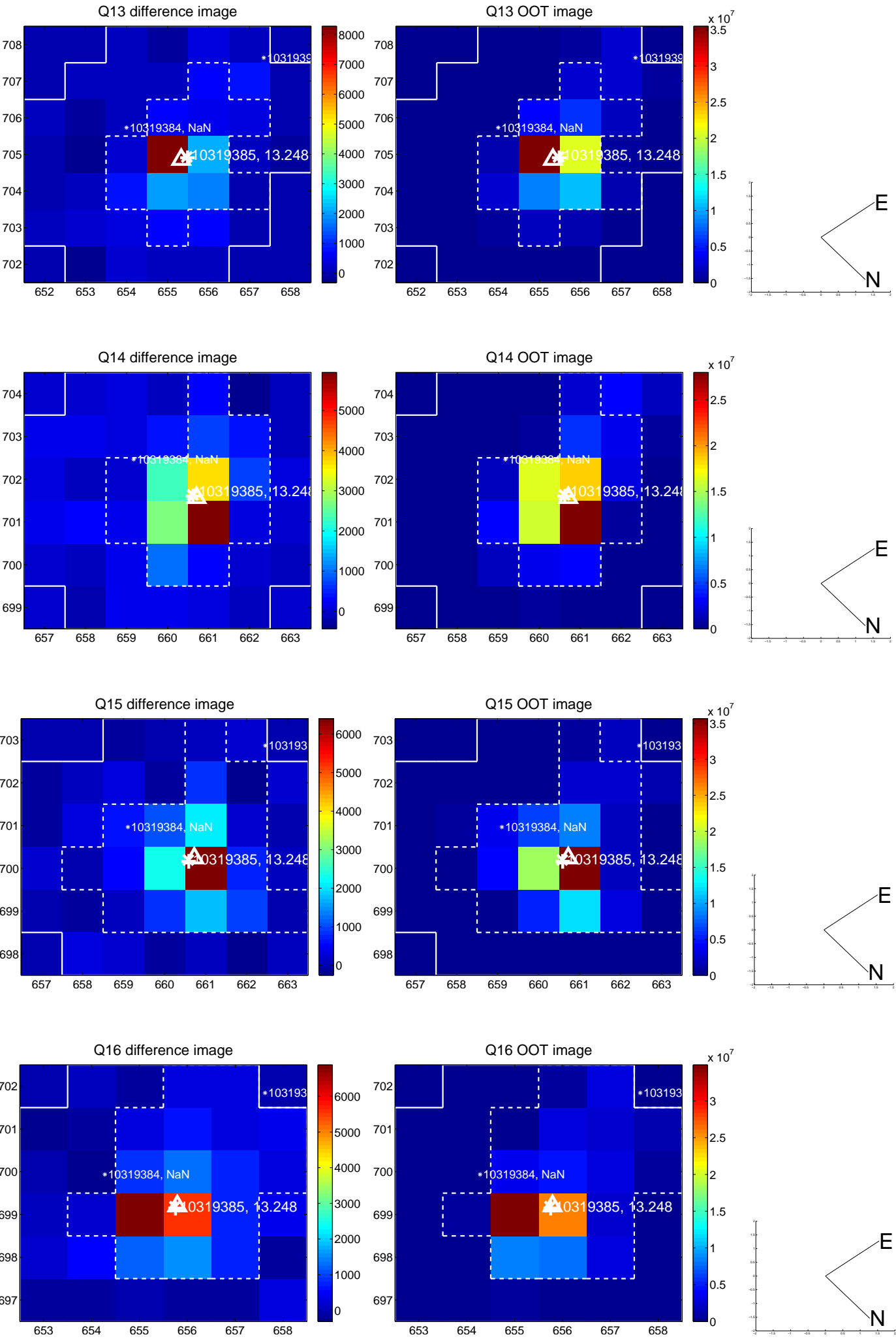
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



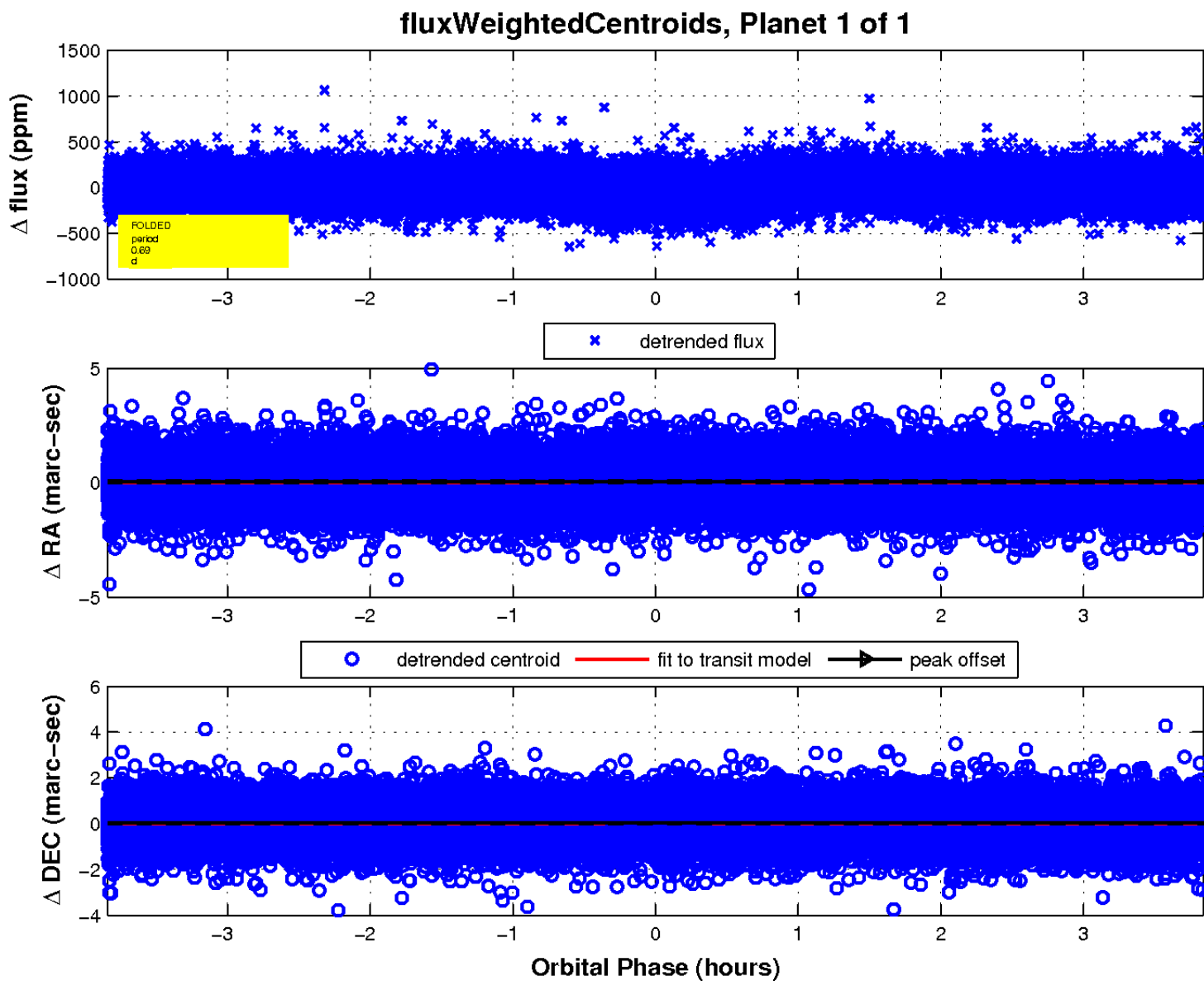
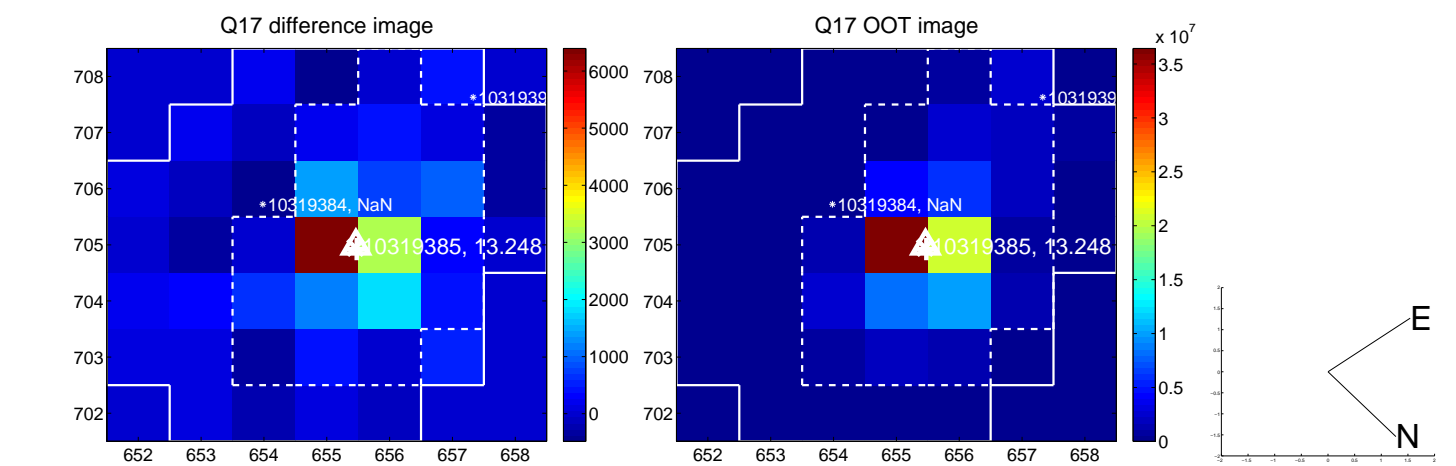
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

