

KIC 009300285

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})
009300285-01	OBS	0705.01	1.012643	131.722038	229.4	2.019	54.6	53.5	1.34	6663	2.38	7067.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009300285-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_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.

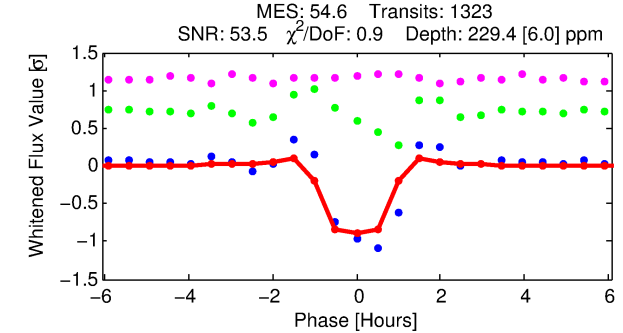
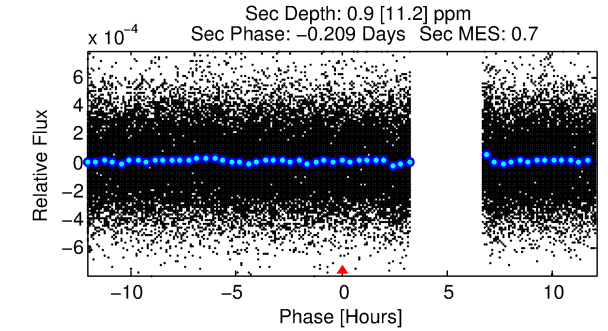
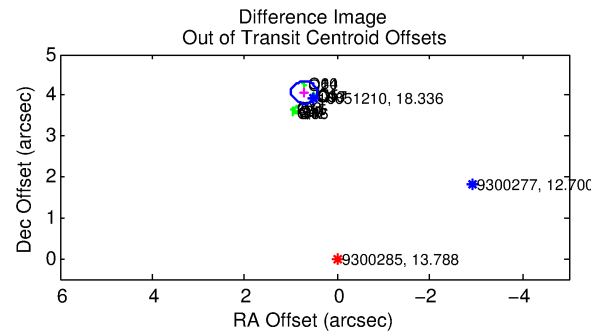
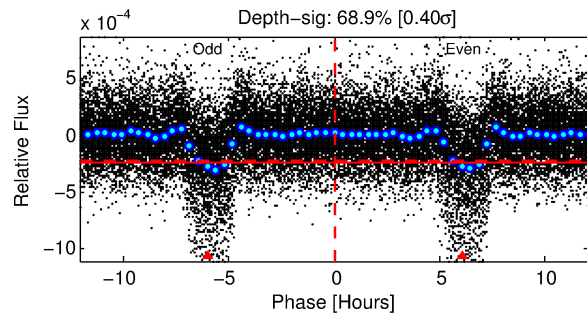
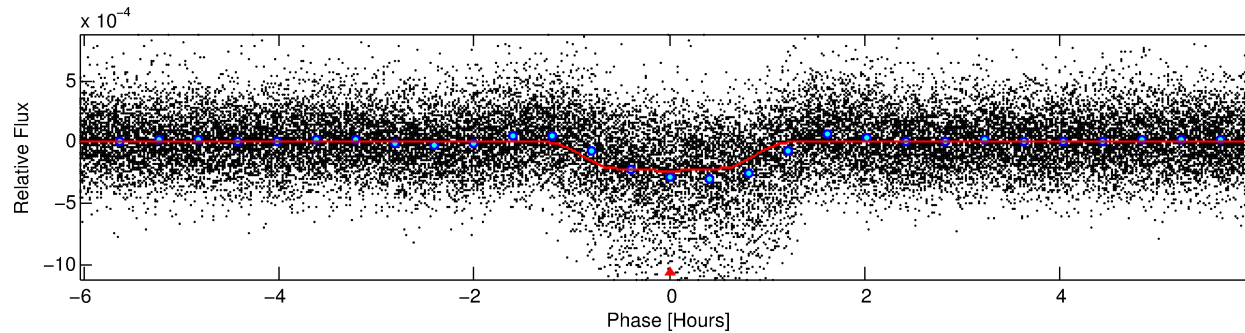
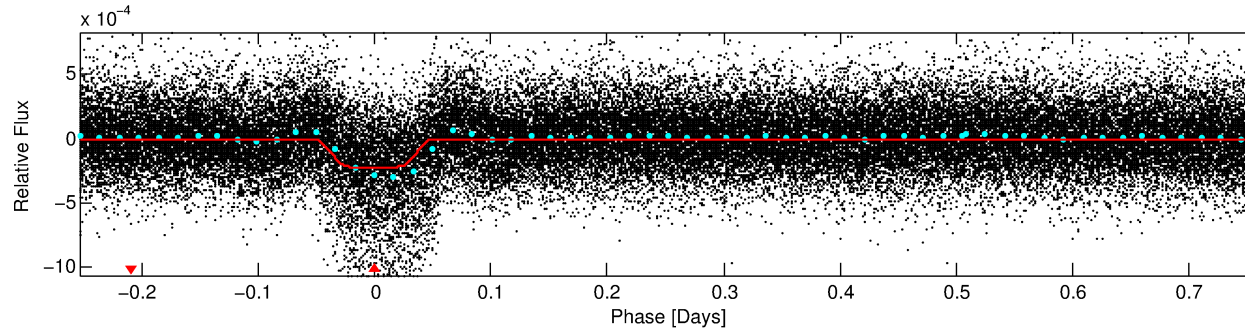
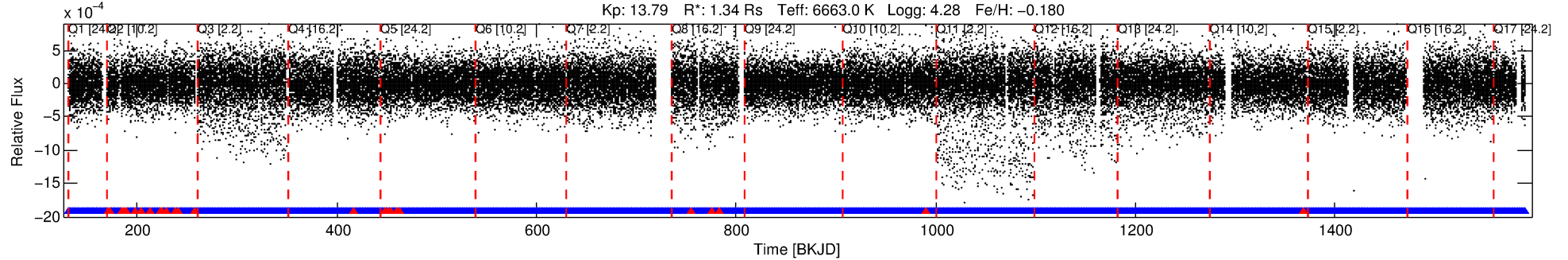
Ephemeris Match Information For 009300285-01

No Significant Match Found

DV One-Page Summary

KIC: 9300285 Candidate: 1 of 1 Period: 1.013 d
KOI: K00705.01 Corr: 0.805

Kp: 13.79 R*: 1.34 Rs Teff: 6663.0 K Logg: 4.28 Fe/H: -0.180



DV Fit Results:

Period = 1.01264 [0.00000] d
Epoch = 131.7220 [0.0005] BKJD
Rp/R* = 0.0163 [0.0013]
a/R* = 2.00 [0.72]
b = 0.91 [0.10]
Seff = 7067.56 [2767.41]
Teq = 2338 [229] K
Rp = 2.38 [0.77] Re
a = 0.0211 [0.0054] AU
Ag = 0.04 [0.49] [-1.97σ]
Teffp = 1628 [4806] K [-0.15σ]

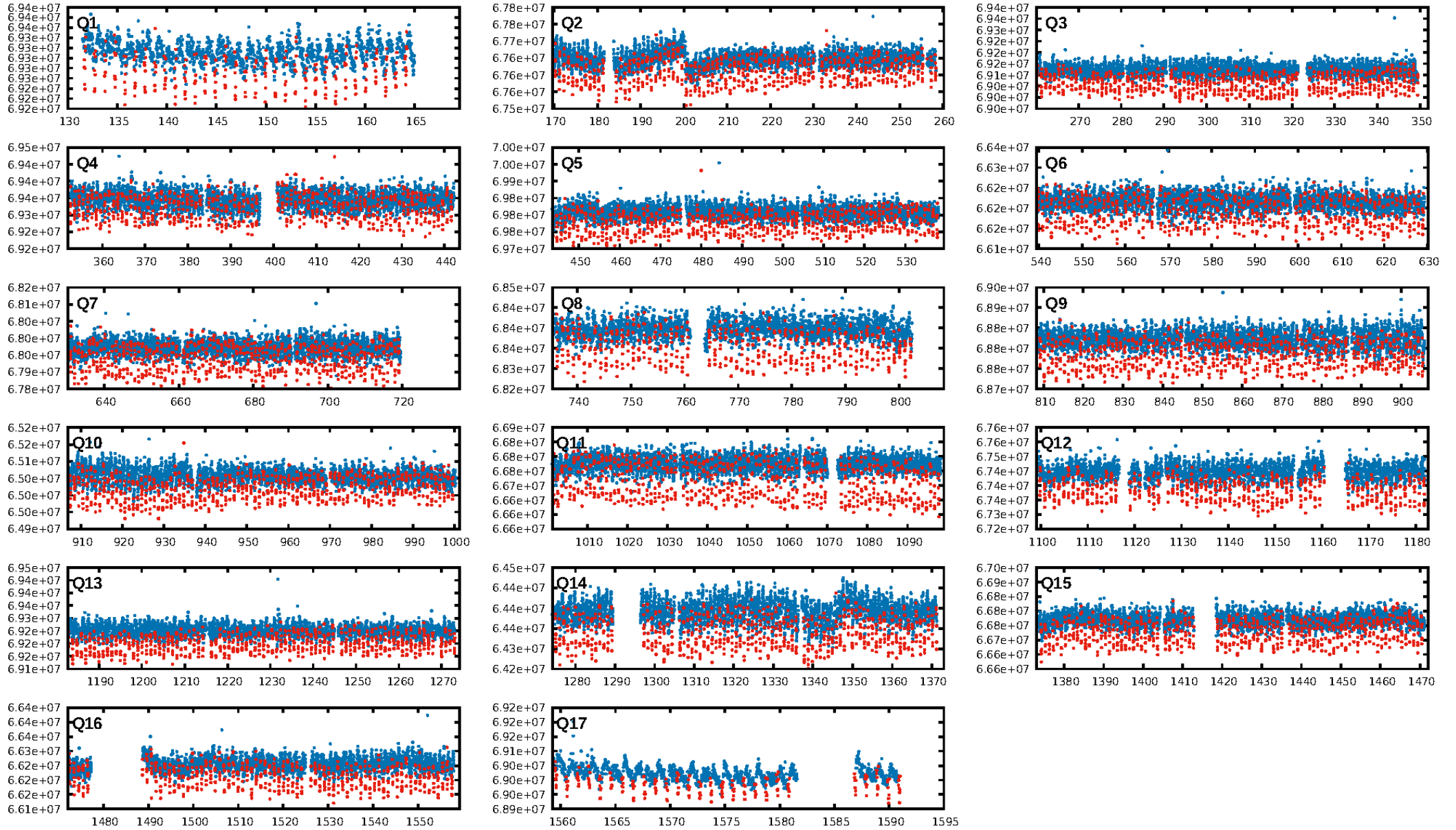
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [1235/1263]
GhostDiagnostic-chr: 0.5828
Centroid-sig: N/A
Centroid-so: 7.844 arcsec [40.52σ]
OotOffset-rm: 4.133 arcsec [44.97σ]
KicOffset-rm: 4.054 arcsec [59.52σ]
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]

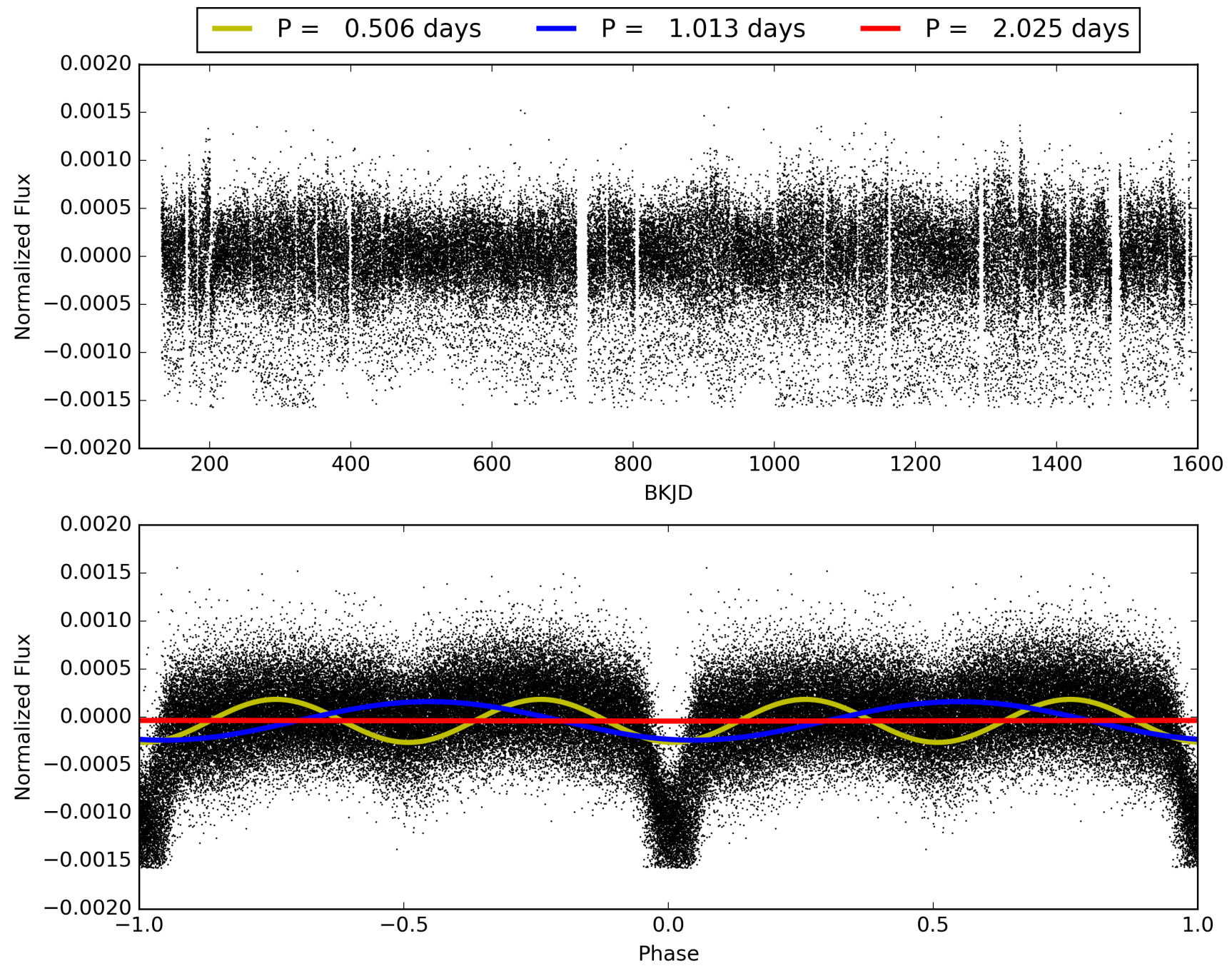
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 02:54:28 Z

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

TCE 009300285-01, PDC Light Curves

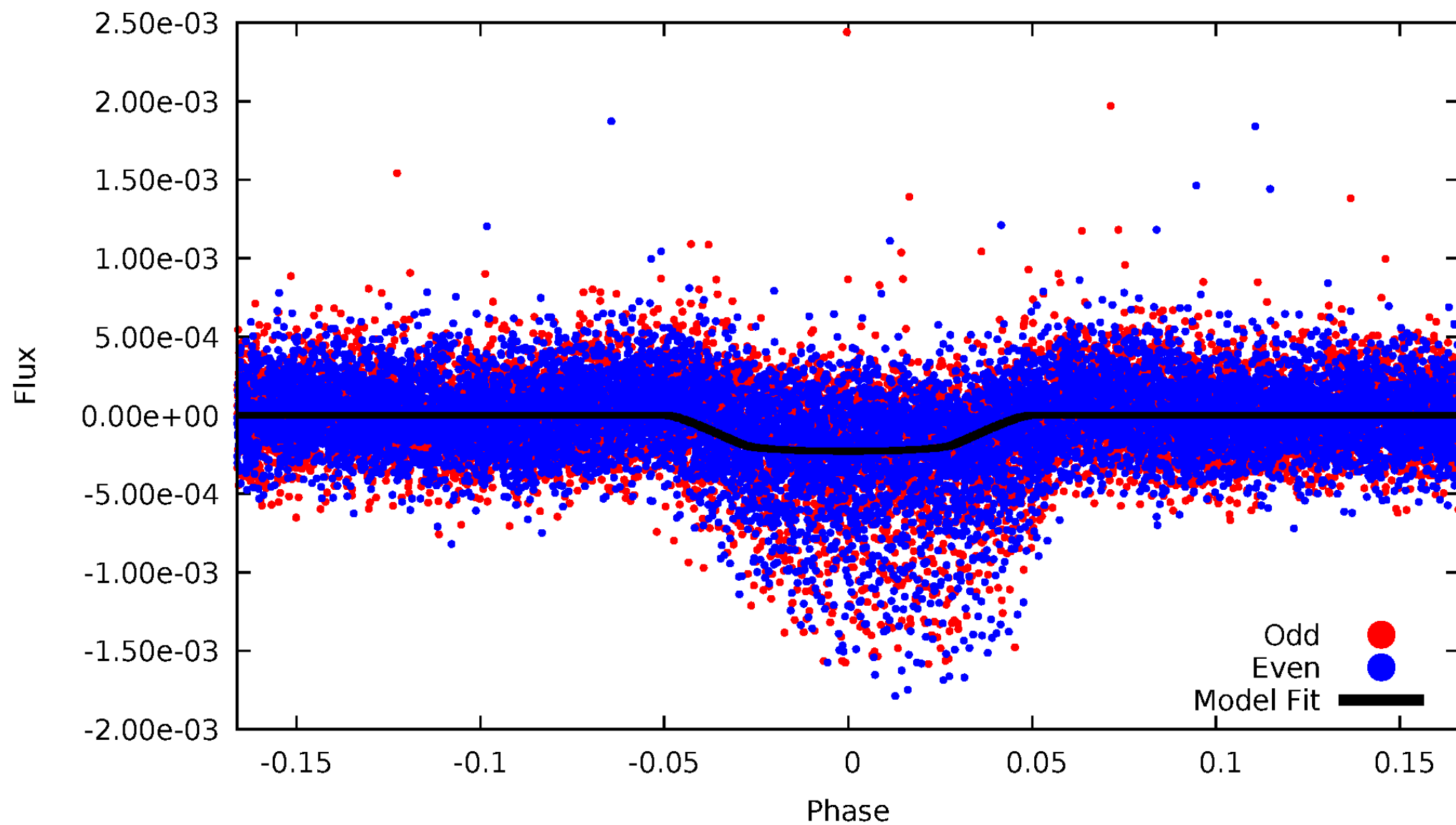


TCE 009300285-01



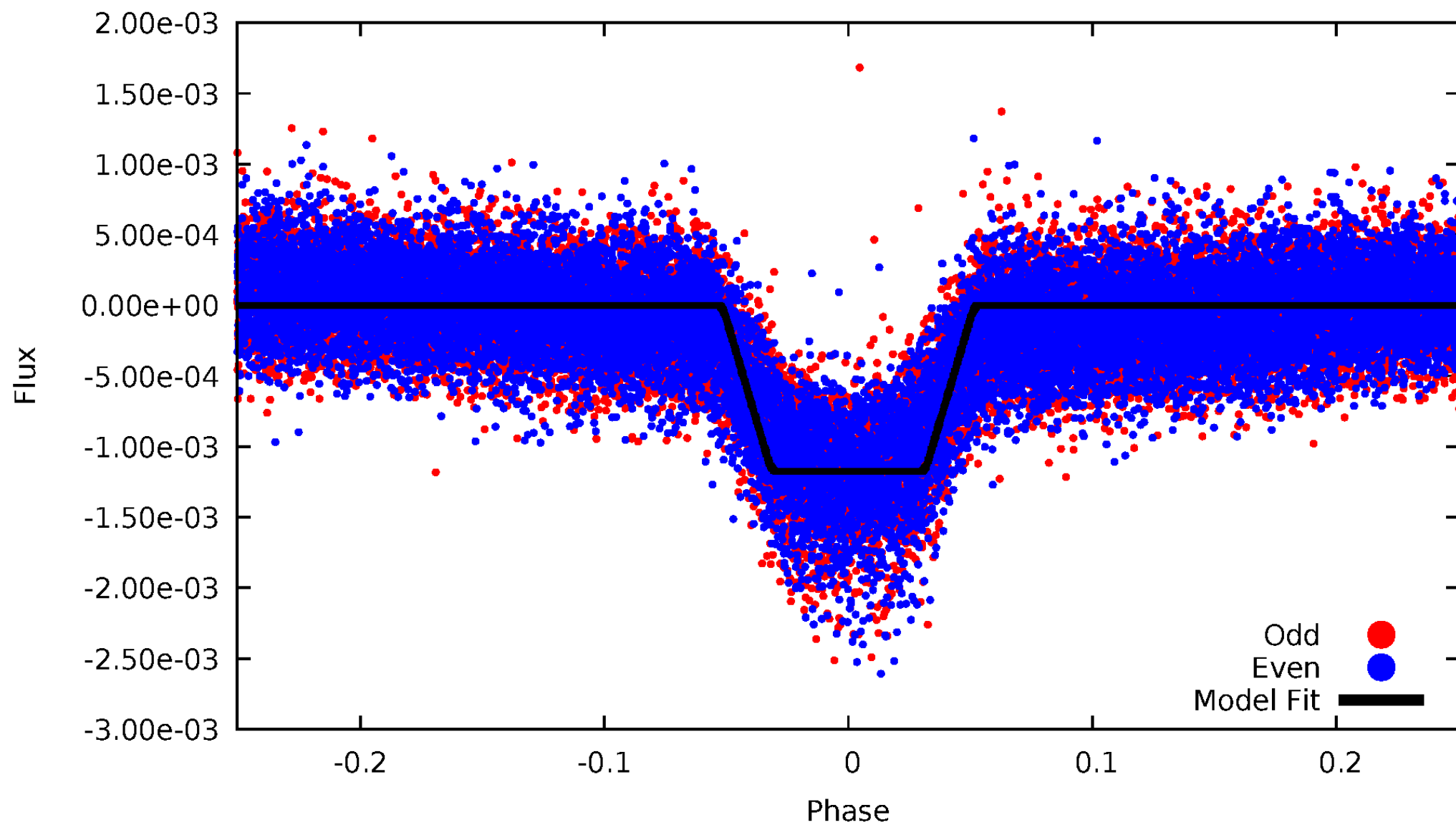
DV Odd/Even

TCE 009300285-01



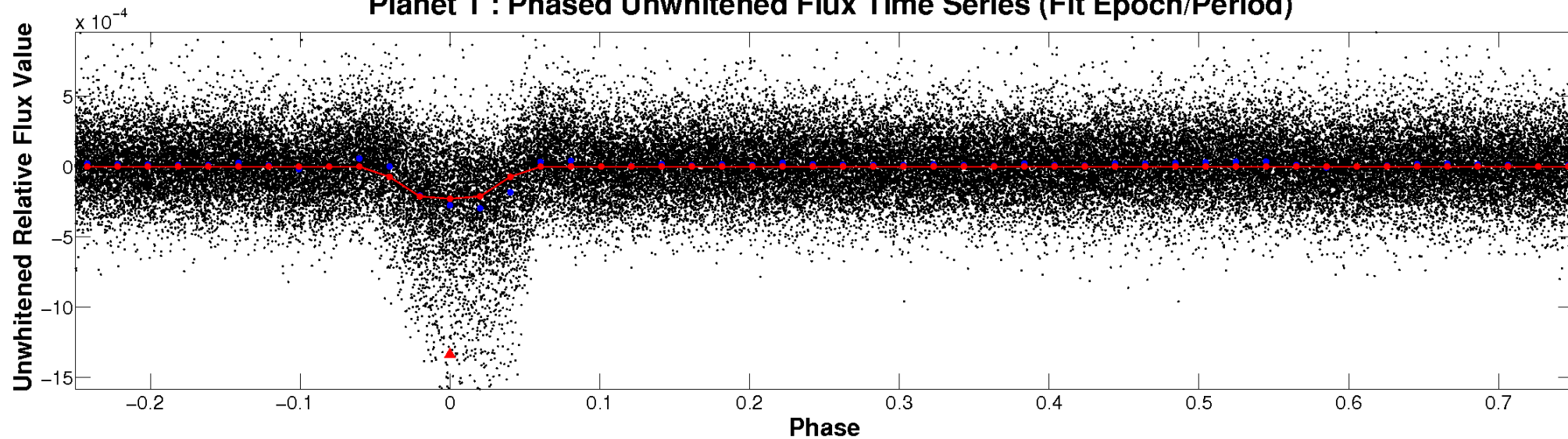
ALT Odd/Even

TCE 009300285-01

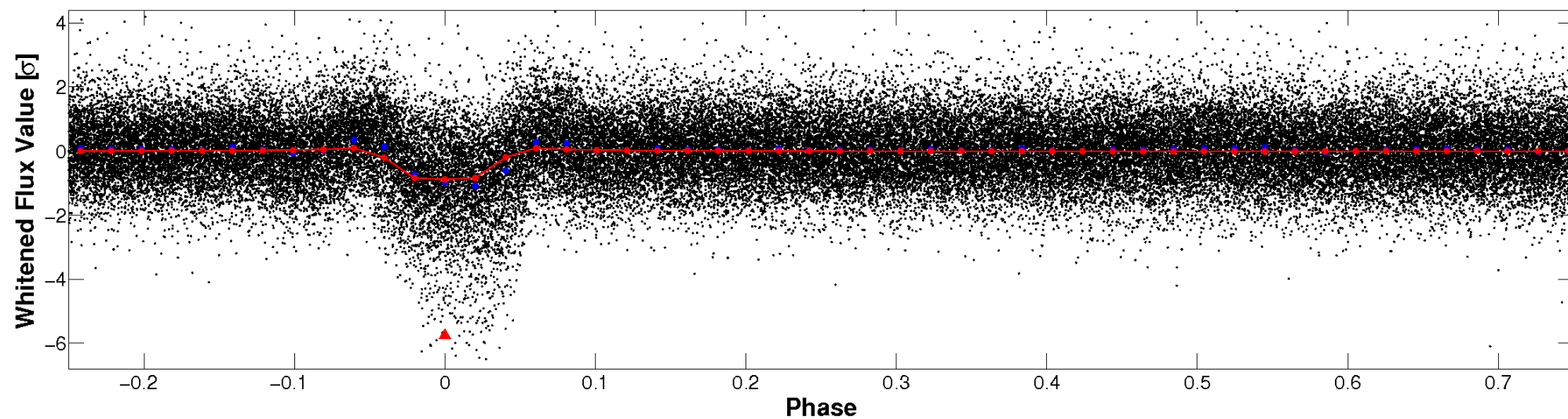


Non-Whitened Vs. Whitened Light Curve

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

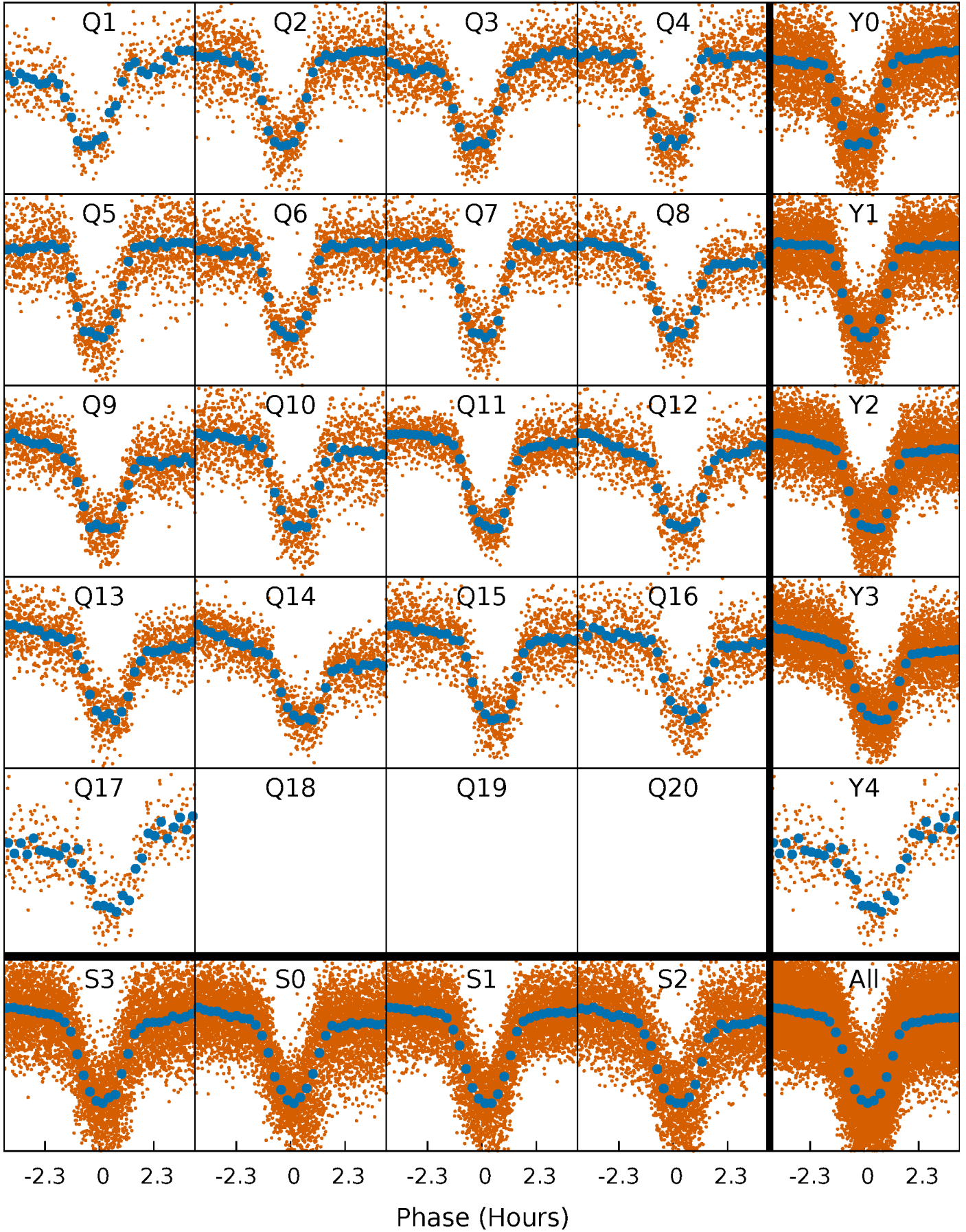


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



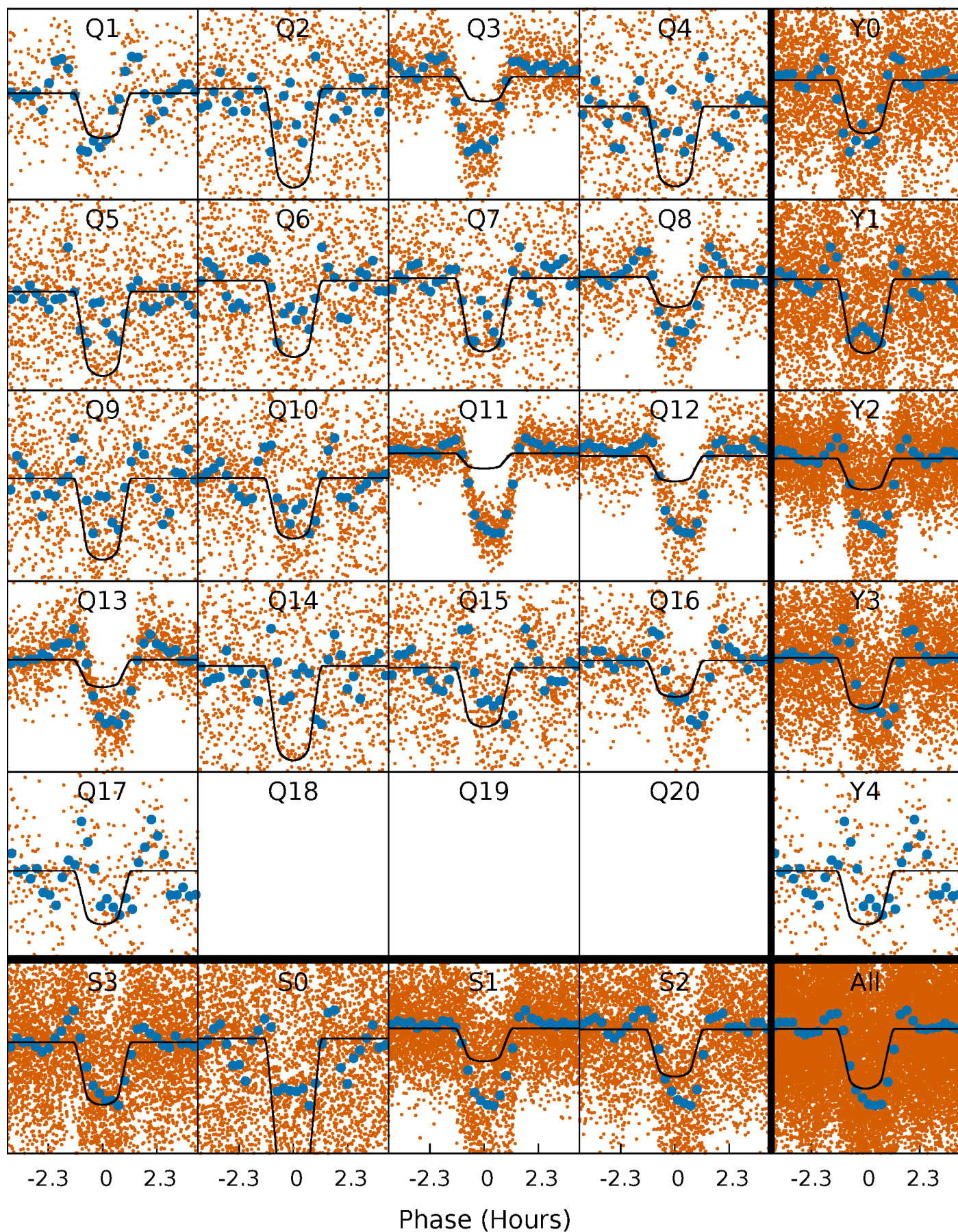
PDC Quarter-Phased Transit Curves

TCE 009300285-01 P= 1.012643 Days $T_0=131.722038$ (BKJD)



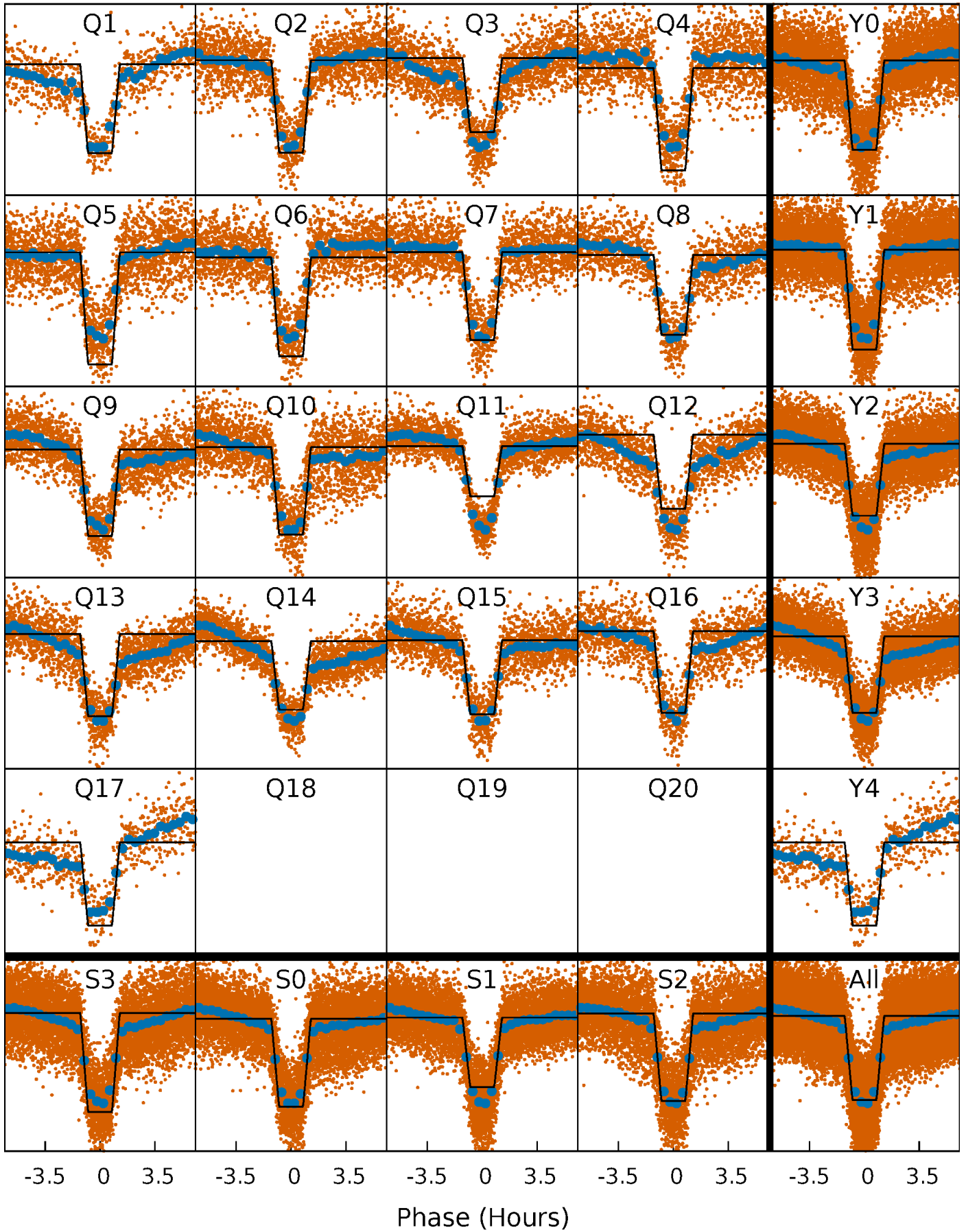
DV Quarter-Phased Transit Curves

TCE 009300285-01 P= 1.012643 Days $T_0=131.722038$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

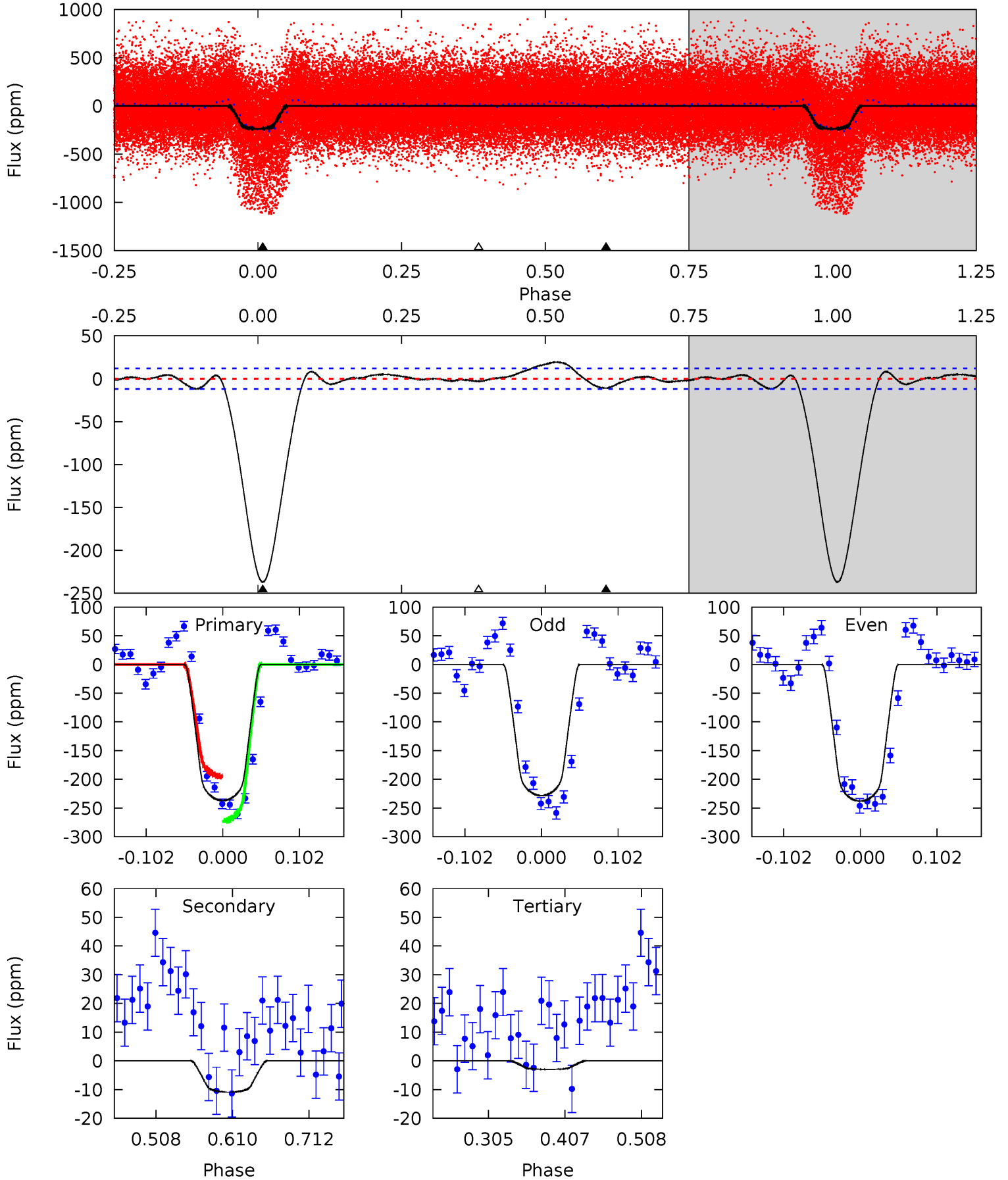
TCE 009300285-01 P= 1.012670 Days $T_0=131.709420$ (BKJD)



DV Model-Shift Uniqueness Test

009300285-01, P = 1.012643 Days, E = 130.709395 Days

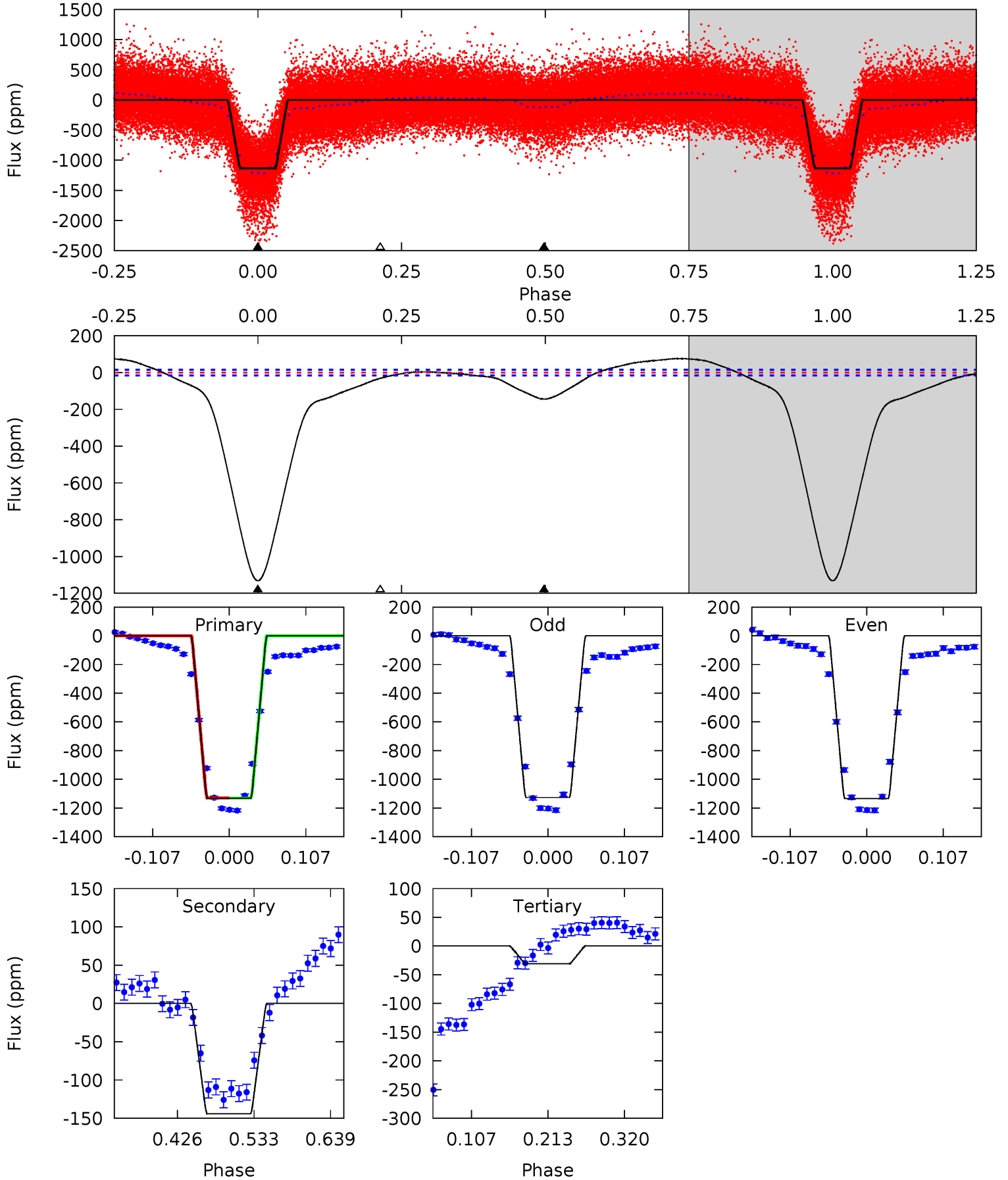
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
90.3	4.16	1.13	0	4.56	1.64	1.94	89.2	90.3	3.02	4.16	1.82	1.50	0.08	14.9



Alt Model-Shift Uniqueness Test

009300285-01, P = 1.012670 Days, E = 130.696750 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
337.7	43.0	9.26	0	4.55	1.61	17.3	328.5	337.7	33.7	43.0	1.17	1.03	0.06	0.04



Stellar Parameters For KIC 009300285

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6663^{+160}_{-240}	$4.275^{+0.105}_{-0.195}$	$-0.180^{+0.250}_{-0.300}$	$1.338^{+0.416}_{-0.224}$	$1.235^{+0.189}_{-0.189}$	$0.726^{+0.349}_{-0.374}$
	+2%/-4%	+2%/-5%	+139%/-167%	+31%/-17%	+15%/-15%	+48%/-52%
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 009300285-01 / KOI 0705.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 3	$2.45^{+0.42}_{-0.35}$	3288^{+241}_{-183}	2892^{+352}_{-5097}	$0.434^{+0.181}_{-0.146}$
Alt.	-144 ± 3	$5.11^{+0.89}_{-0.57}$	3295^{+241}_{-192}	3996^{+117}_{-148}	$1.344^{+0.332}_{-0.323}$

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 $A_{obs} \gg 1.0$

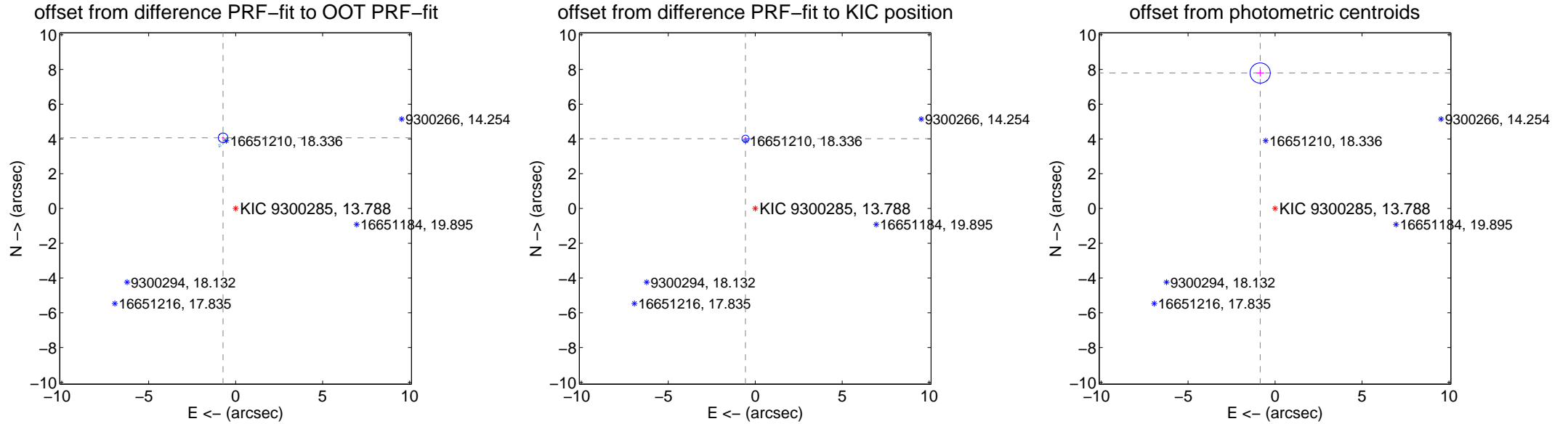
DV Centroid Data

Supplemental centroid analysis for 009300285-01. Kepler magnitude: 13.79. Transit SNR 53.51

There are 17 quarters with good PRF difference image offsets

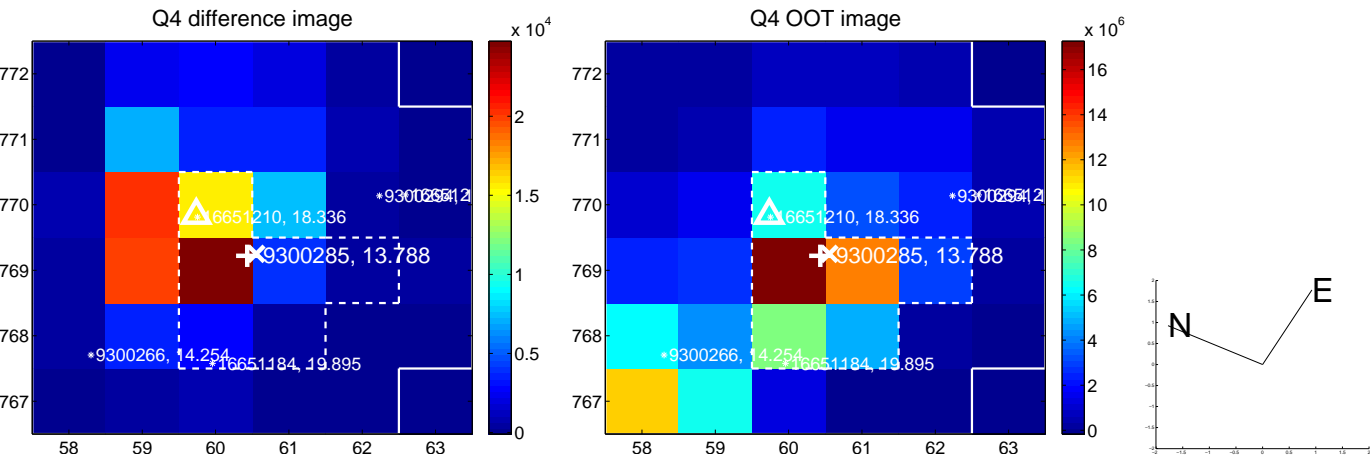
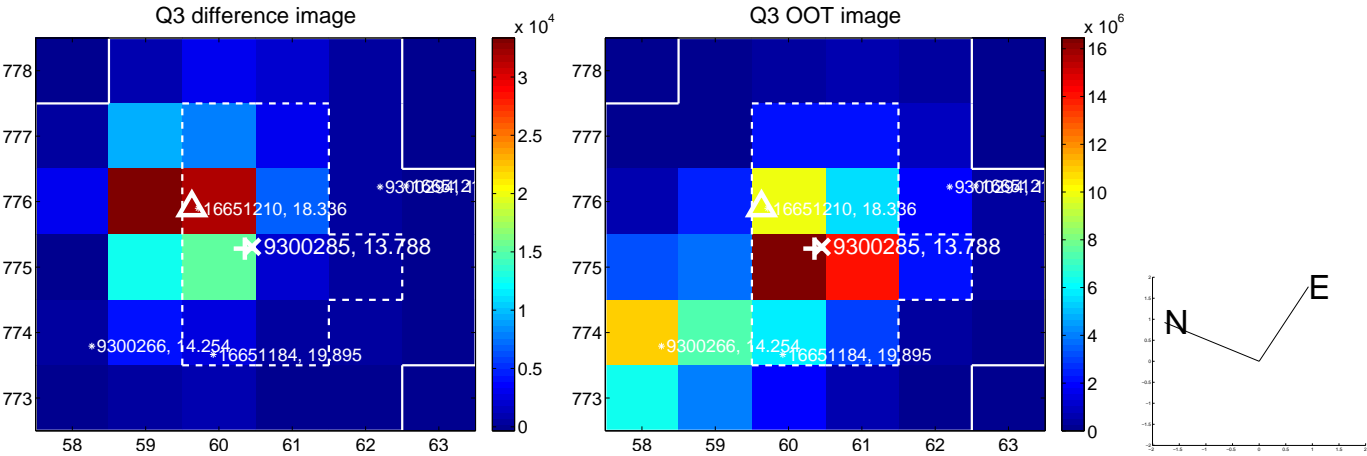
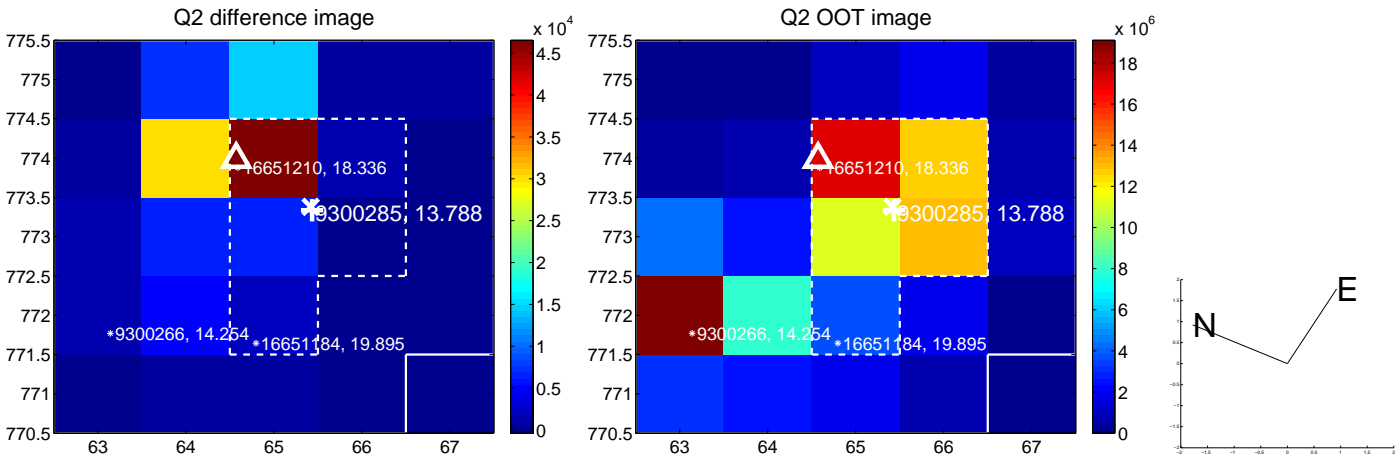
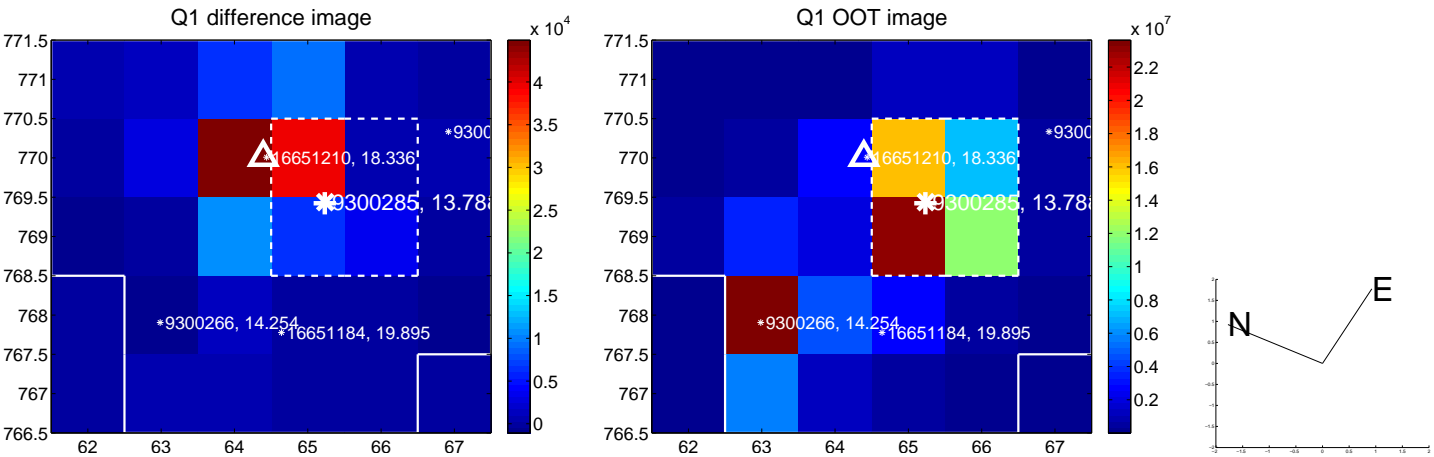
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.133 \pm 0.092	44.97	0.724 \pm 0.076	4.069 \pm 0.092
PRF-fit source offset from KIC position	4.054 \pm 0.068	59.52	0.561 \pm 0.068	4.015 \pm 0.068
photometric centroid source offset	7.84 \pm 0.19	40.52	0.86 \pm 0.22	7.80 \pm 0.19

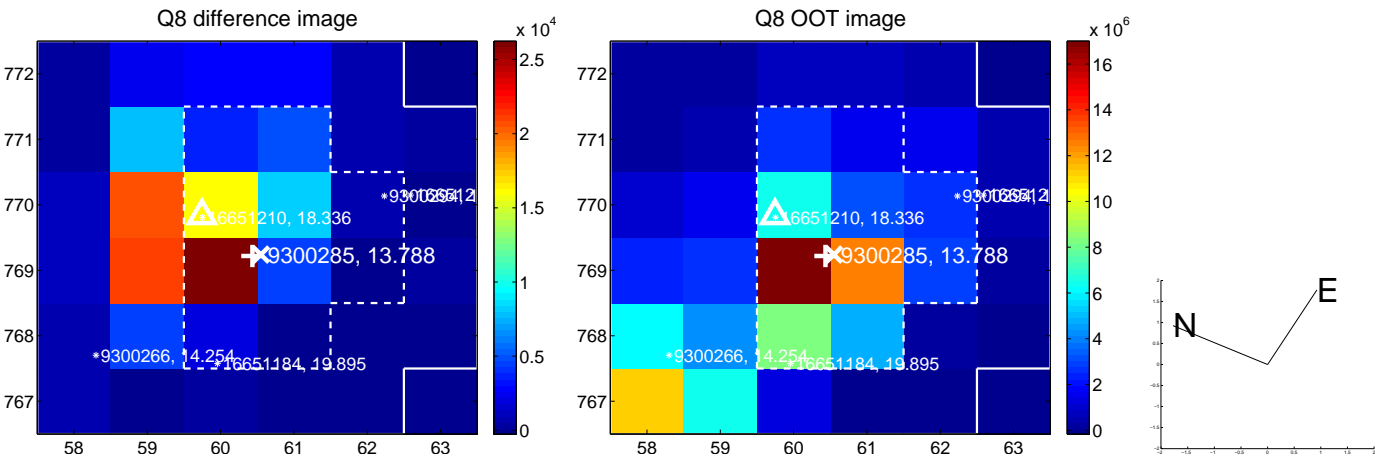
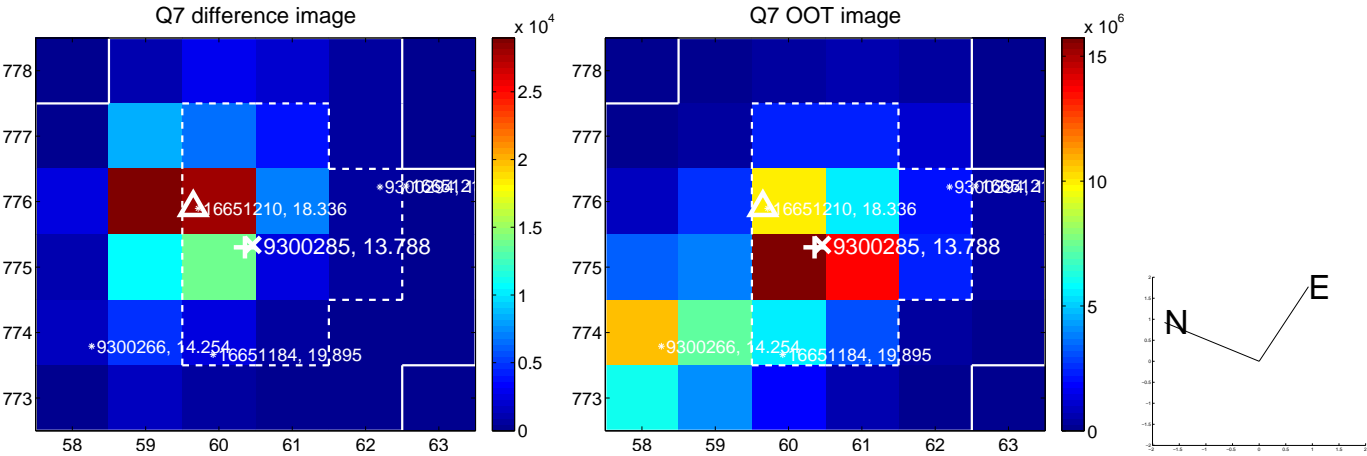
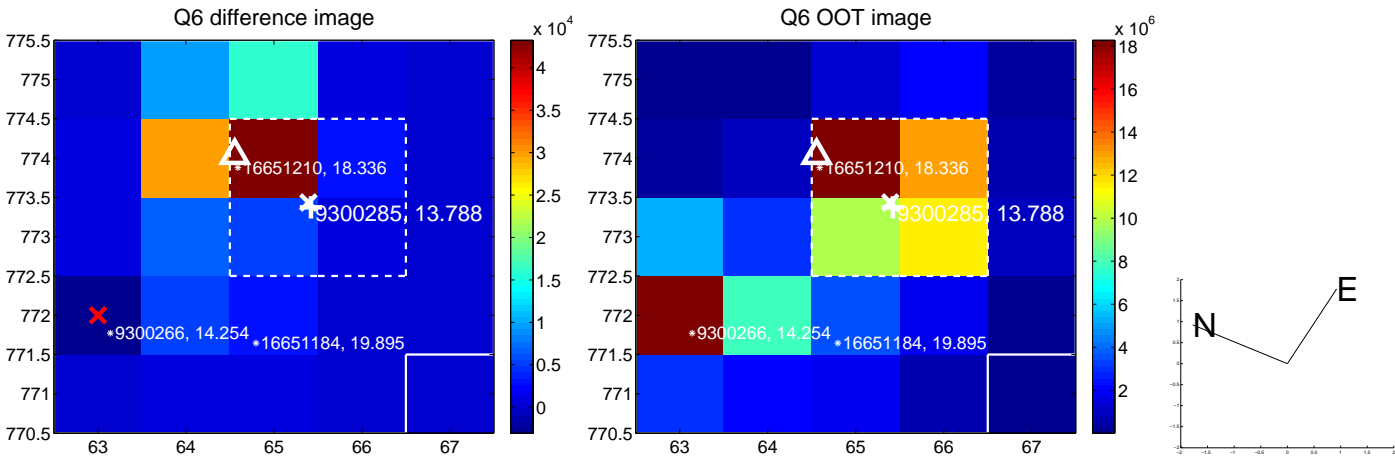
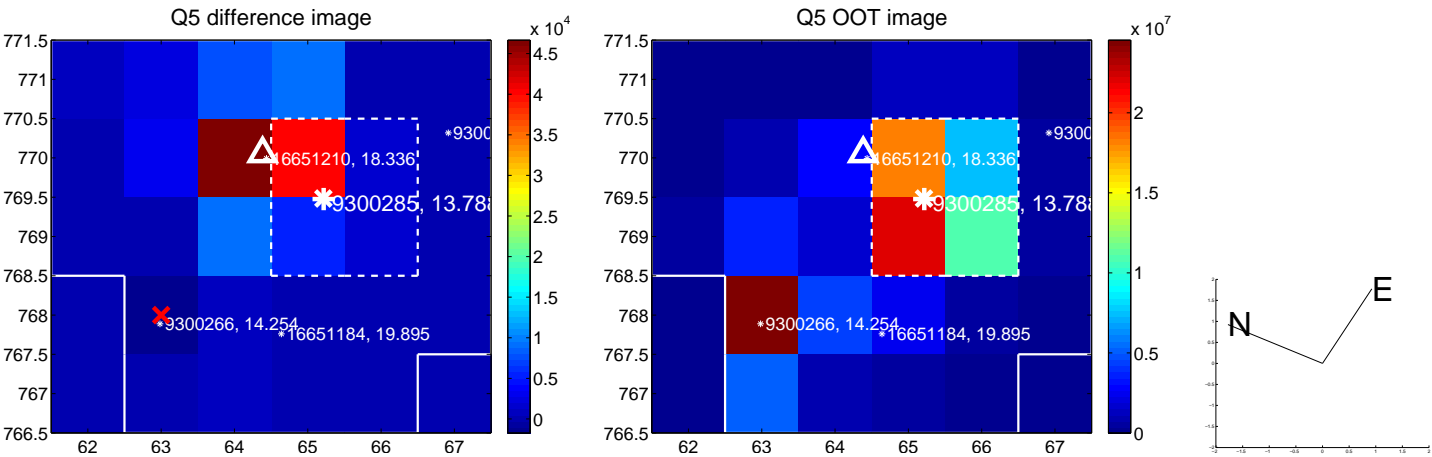


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

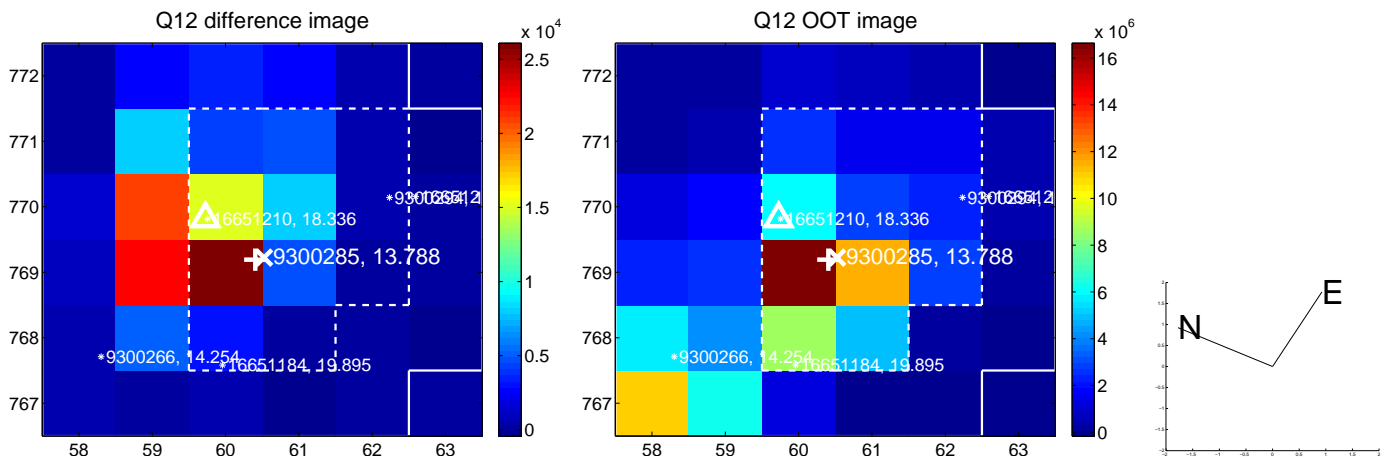
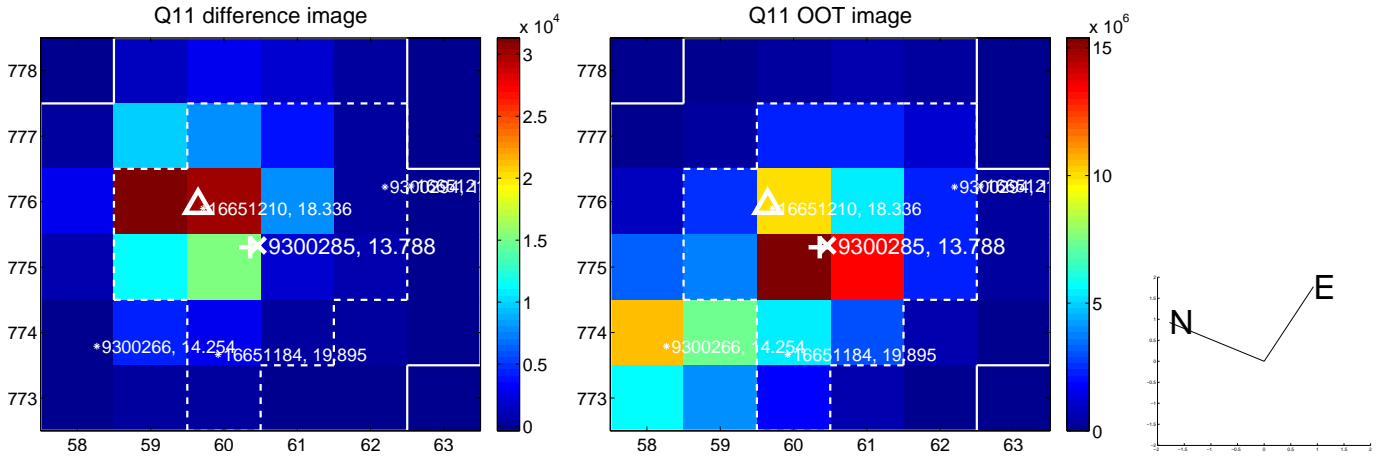
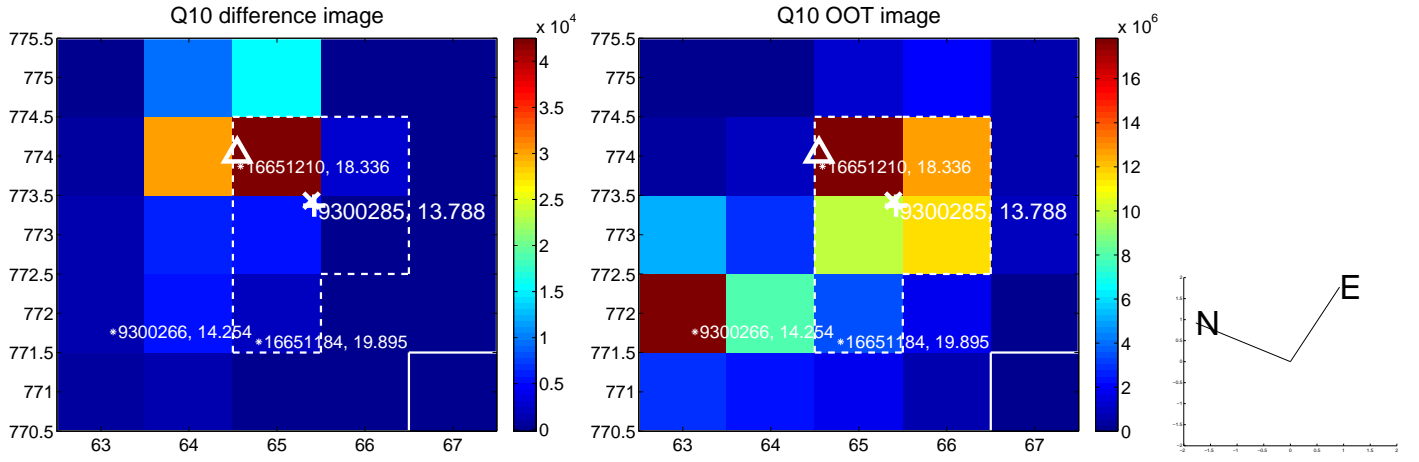
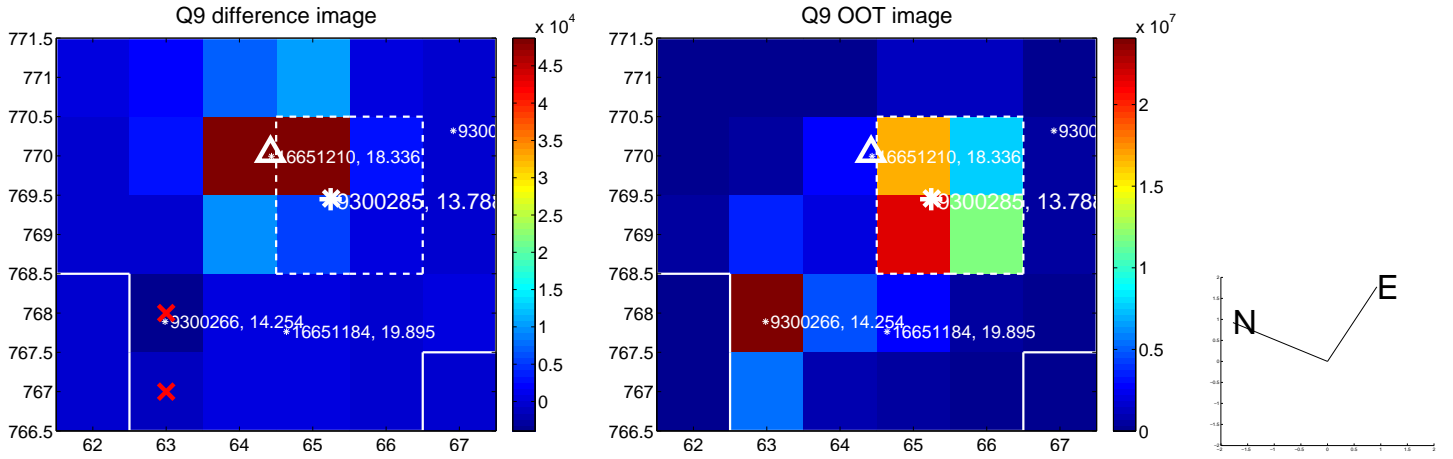
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



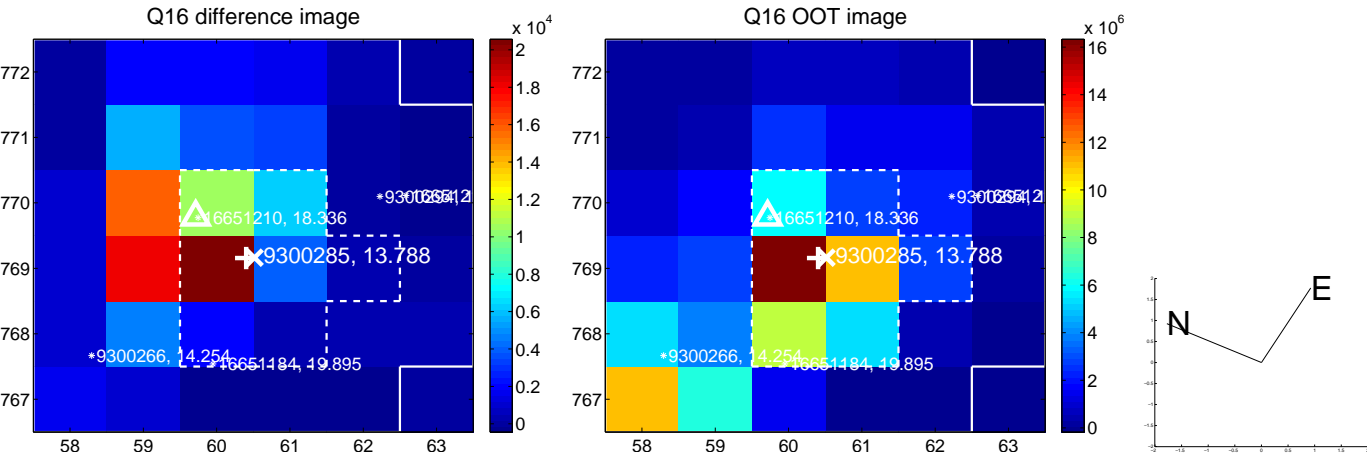
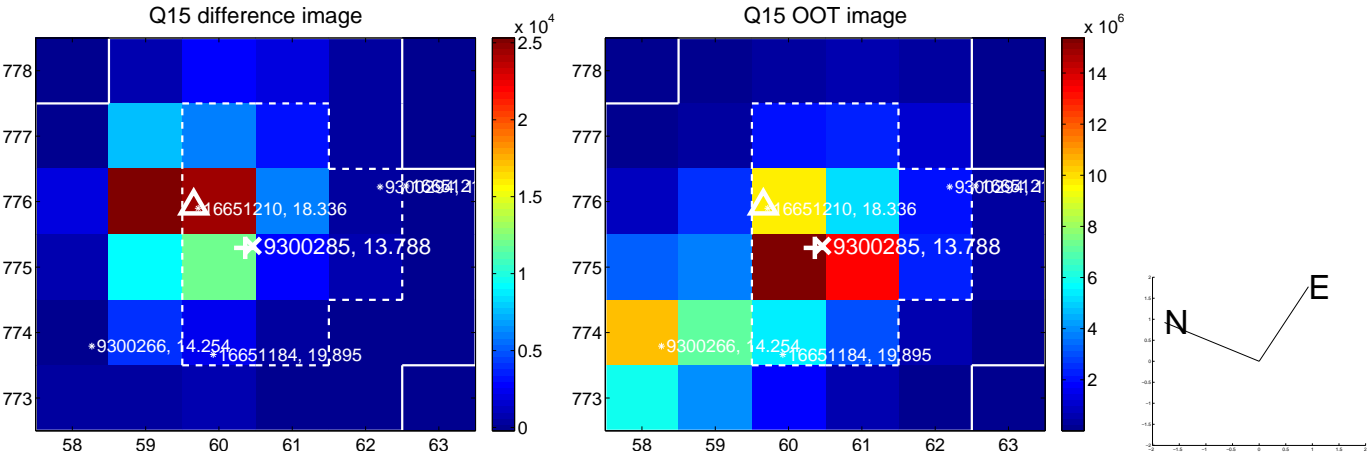
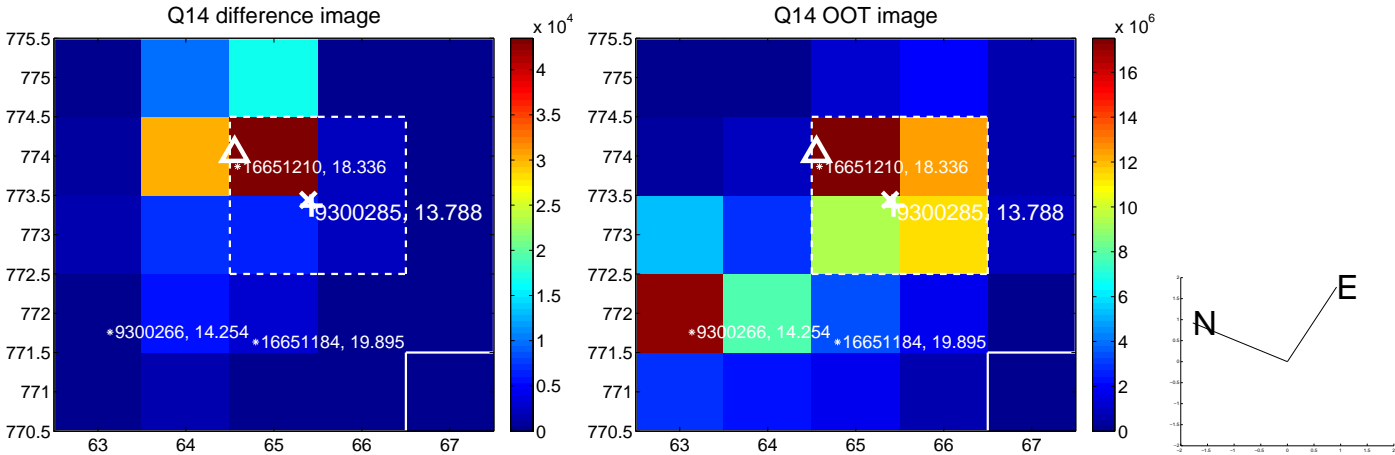
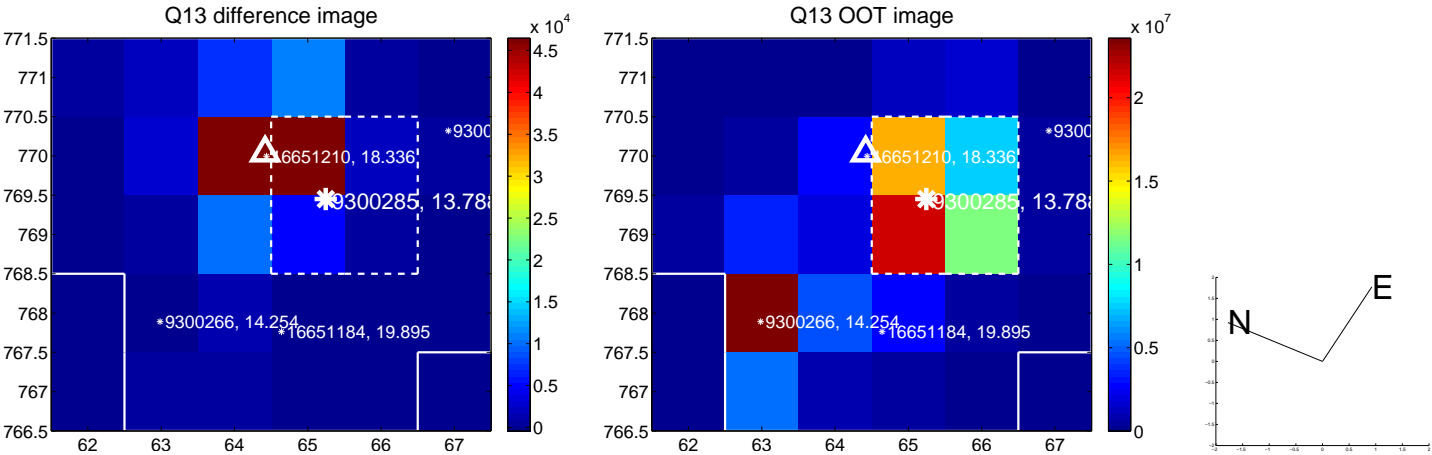
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



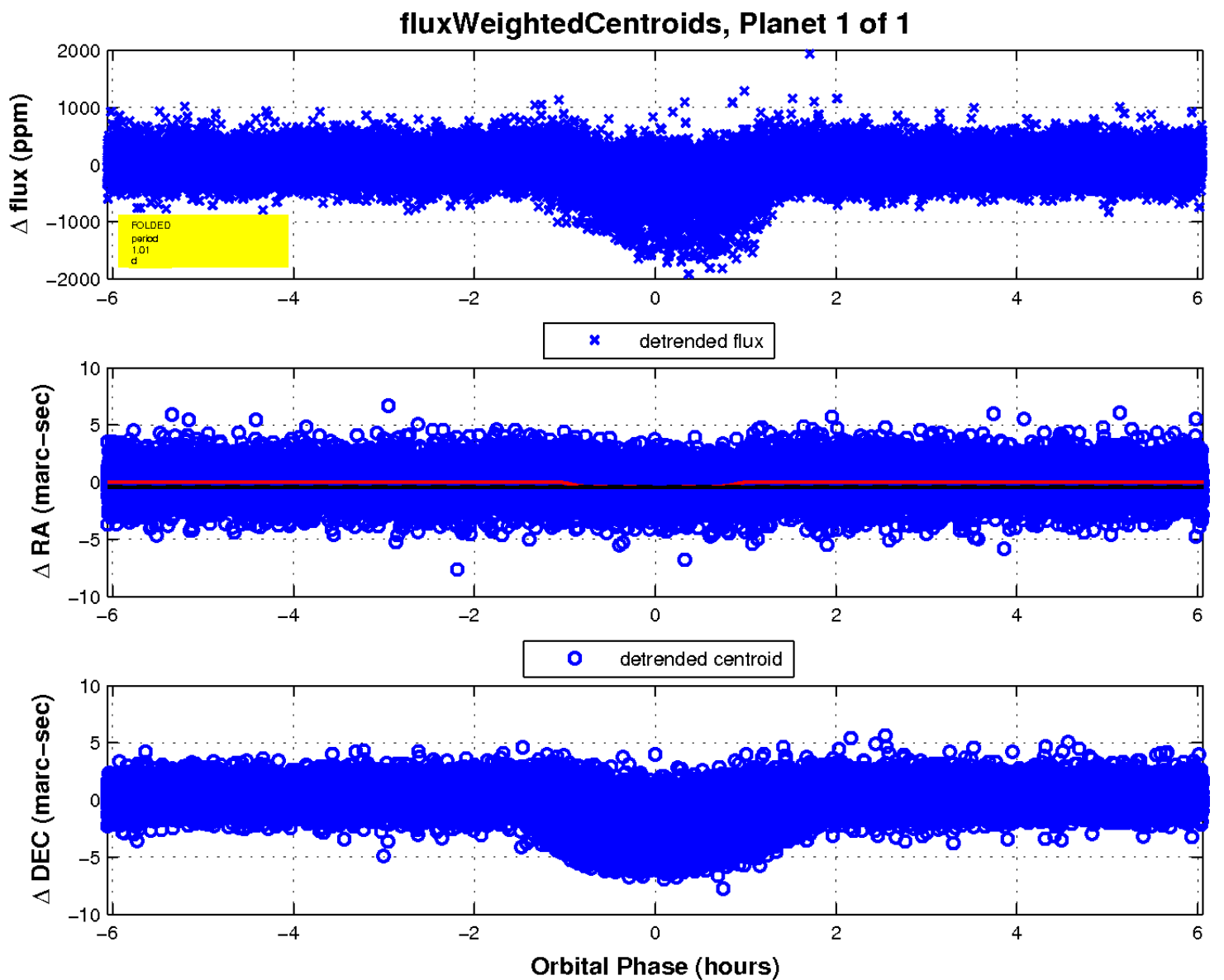
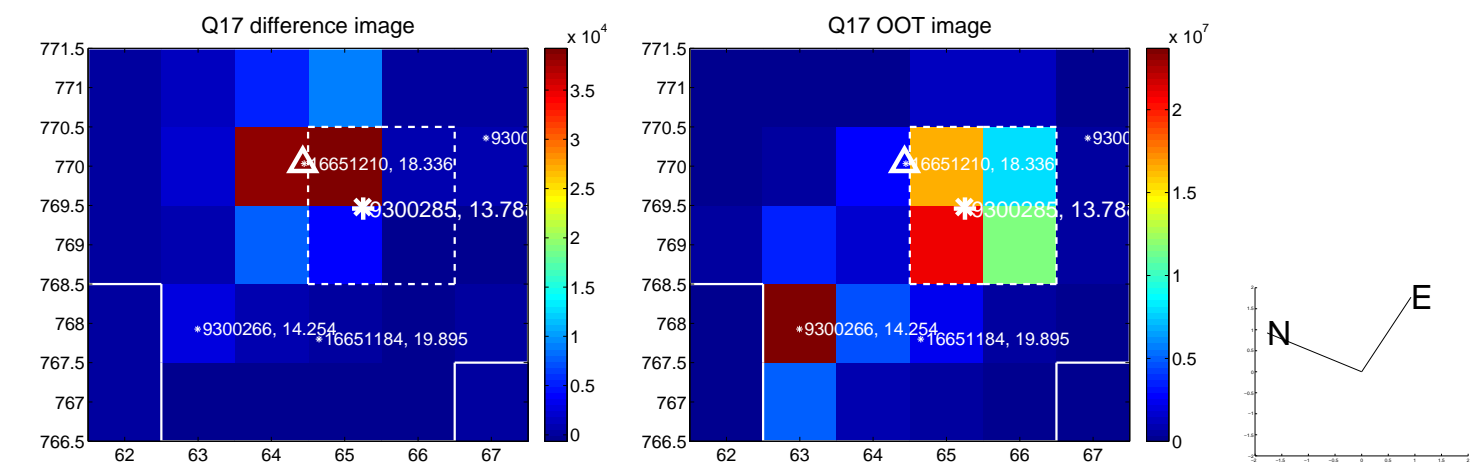
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UKIRT Image

Declination

