

KIC 011414465

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})
011414465-01	OBS	2836.01	2.941933	133.108496	279.4	2.252	16.7	18.5	0.76	4901	1.56	226.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011414465-01	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 011414465-01

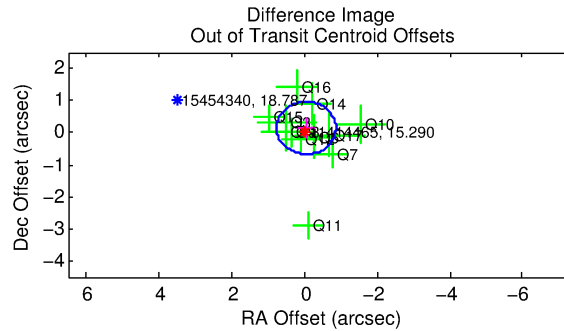
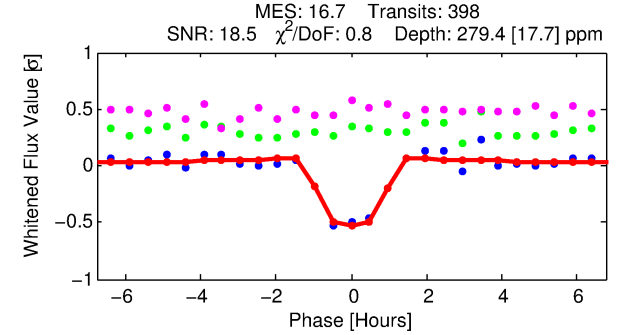
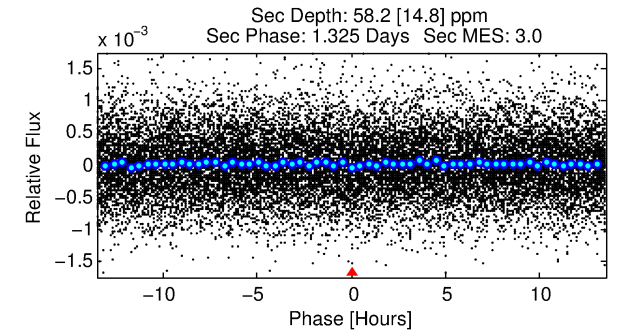
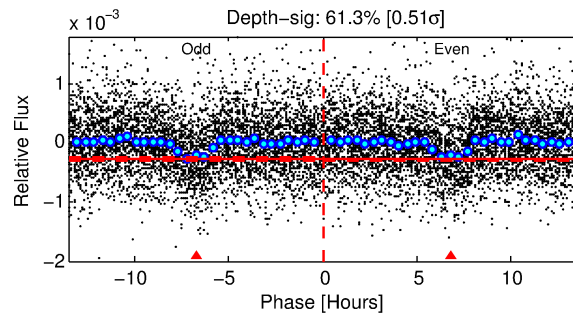
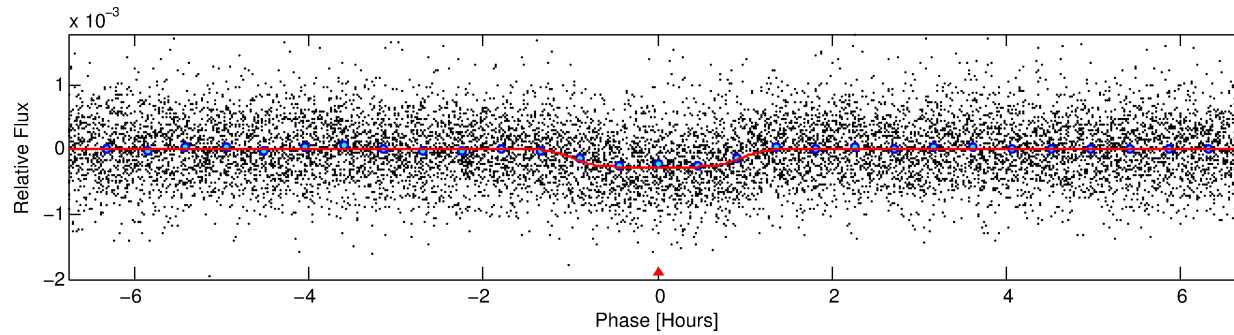
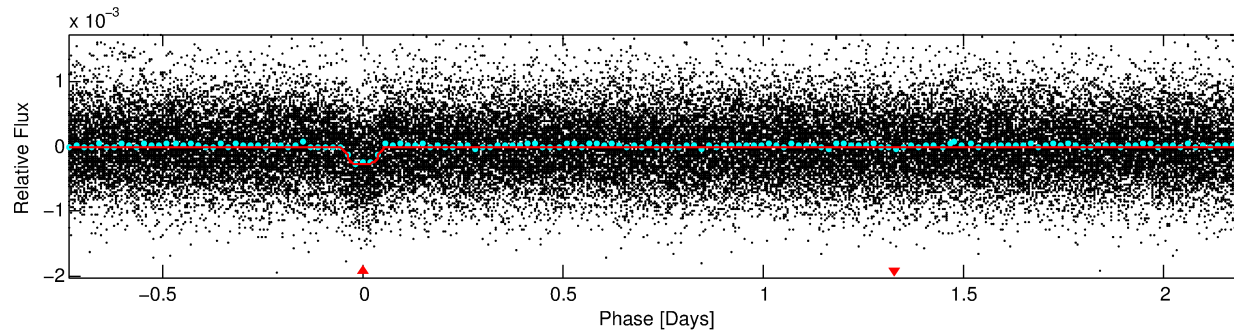
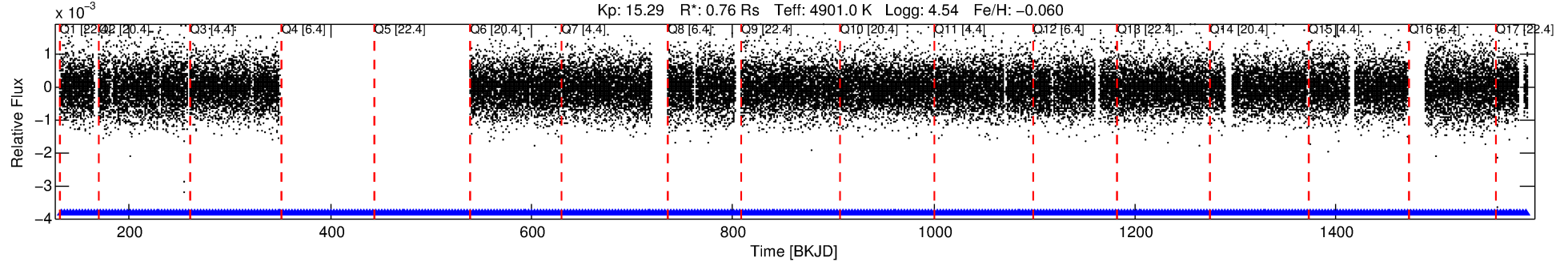
No Significant Match Found

DV One-Page Summary

KIC: 11414465 Candidate: 1 of 1 Period: 2.942 d

KOI: K02836.01 Corr: 0.950

Kp: 15.29 R*: 0.76 Rs Teff: 4901.0 K Logg: 4.54 Fe/H: -0.060



DV Fit Results:

Period = 2.94193 [0.00001] d
Epoch = 133.1085 [0.0019] BKJD
Rp/R* = 0.0188 [0.0068]
a/R* = 4.77 [6.40]
b = 0.90 [0.29]
Seff = 226.10 [39.22]
Teff = 989 [43] K
Rp = 1.56 [0.58] Re
a = 0.0362 [0.0031] AU
Ag = 17.33 [13.38] [1.22σ]
Teffp = 3119 [601] K [3.53σ]

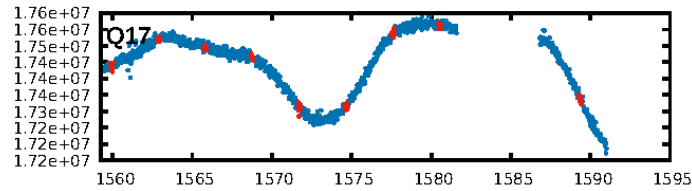
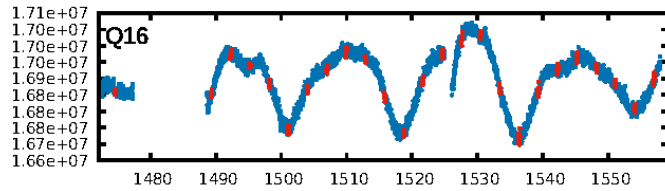
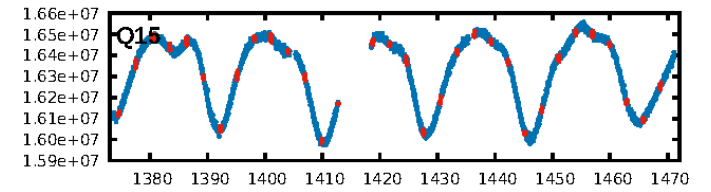
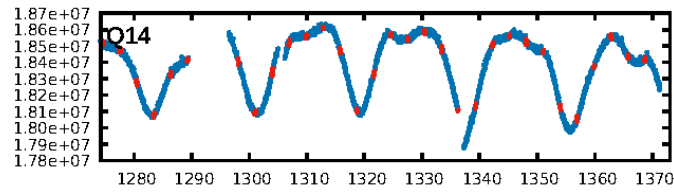
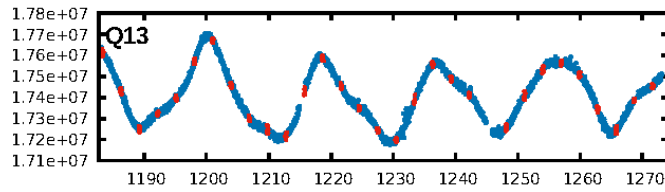
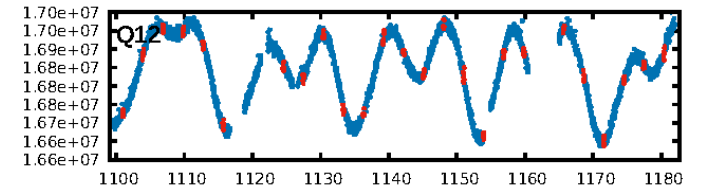
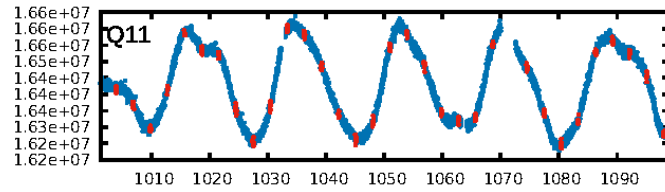
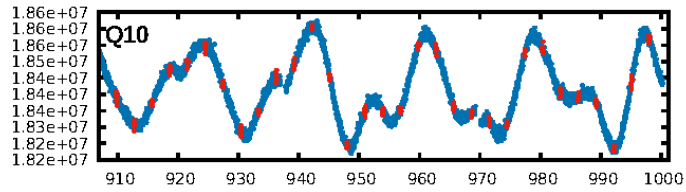
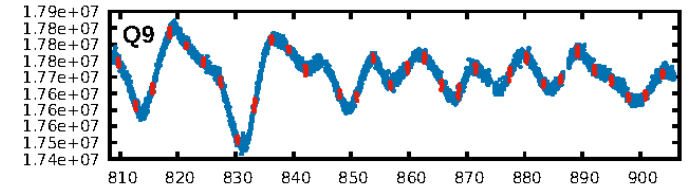
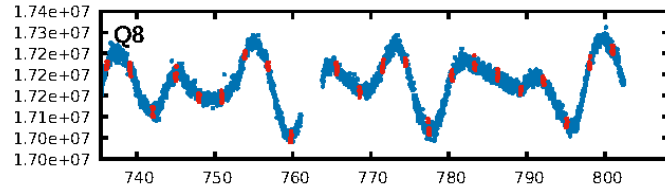
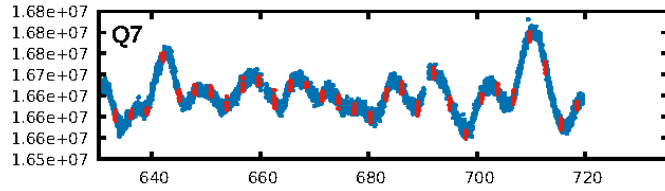
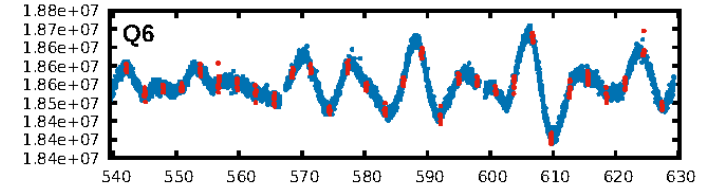
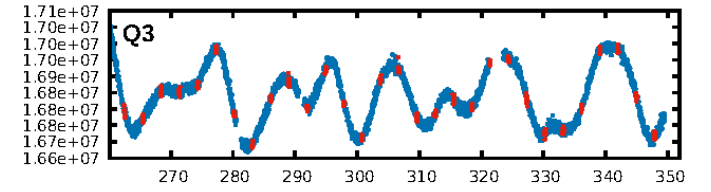
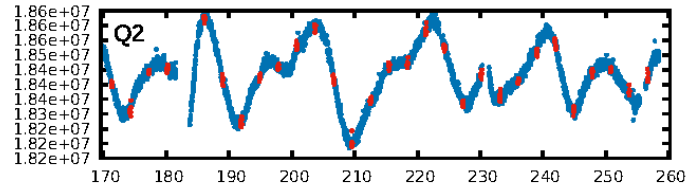
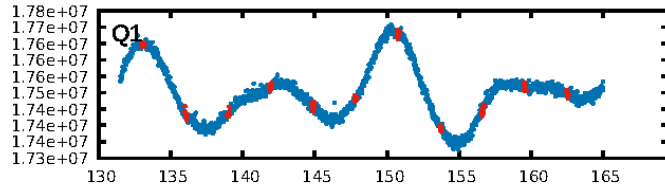
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.24e-60
RollingBand-fgt: 1.00 [378/378]
GhostDiagnostic-chr: 3.767
Centroid-sig: 2.2%
Centroid-so: 0.815 arcsec [1.22σ]
OotOffset-rm: 0.152 arcsec [0.56σ]
KicOffset-rm: 0.094 arcsec [0.37σ]
OotOffset-st: 3/4/2/3 [12]
KicOffset-st: 3/4/2/3 [12]
DiffImageQuality-fgm: 0.92 [11/12]
DiffImageOverlap-fno: 1.00 [15/15]

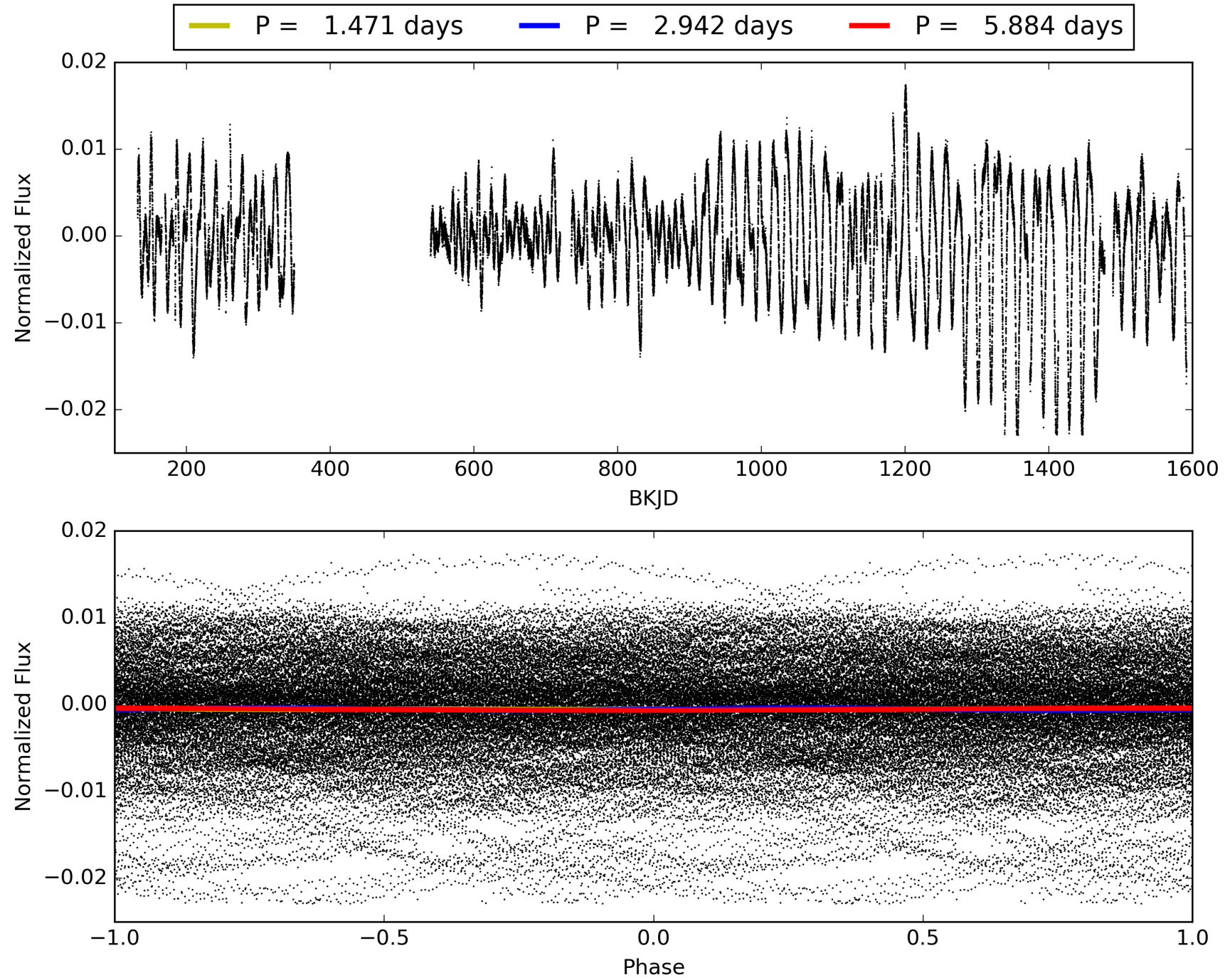
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:10:19 Z

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

TCE 011414465-01, PDC Light Curves

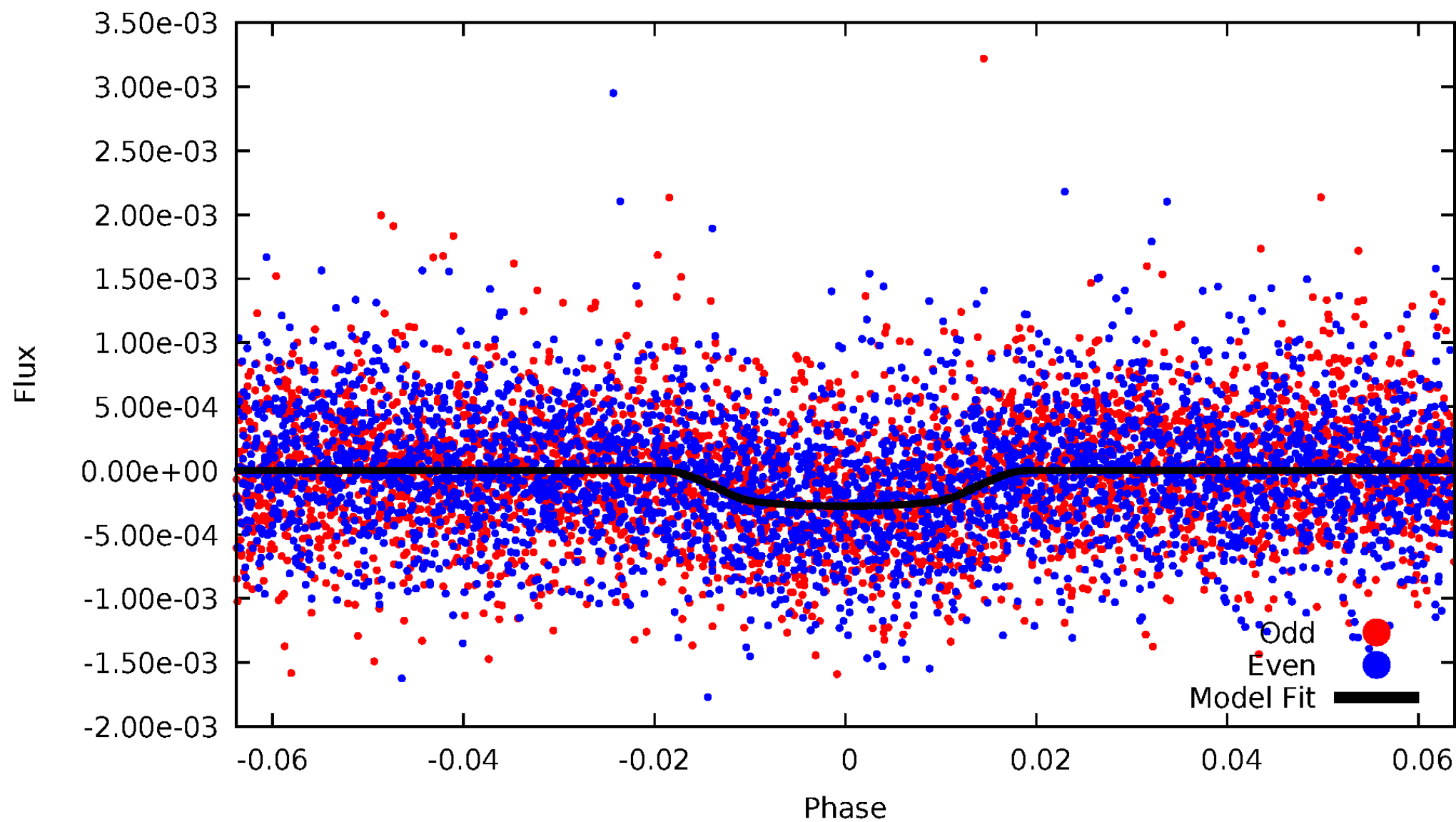


TCE 011414465-01



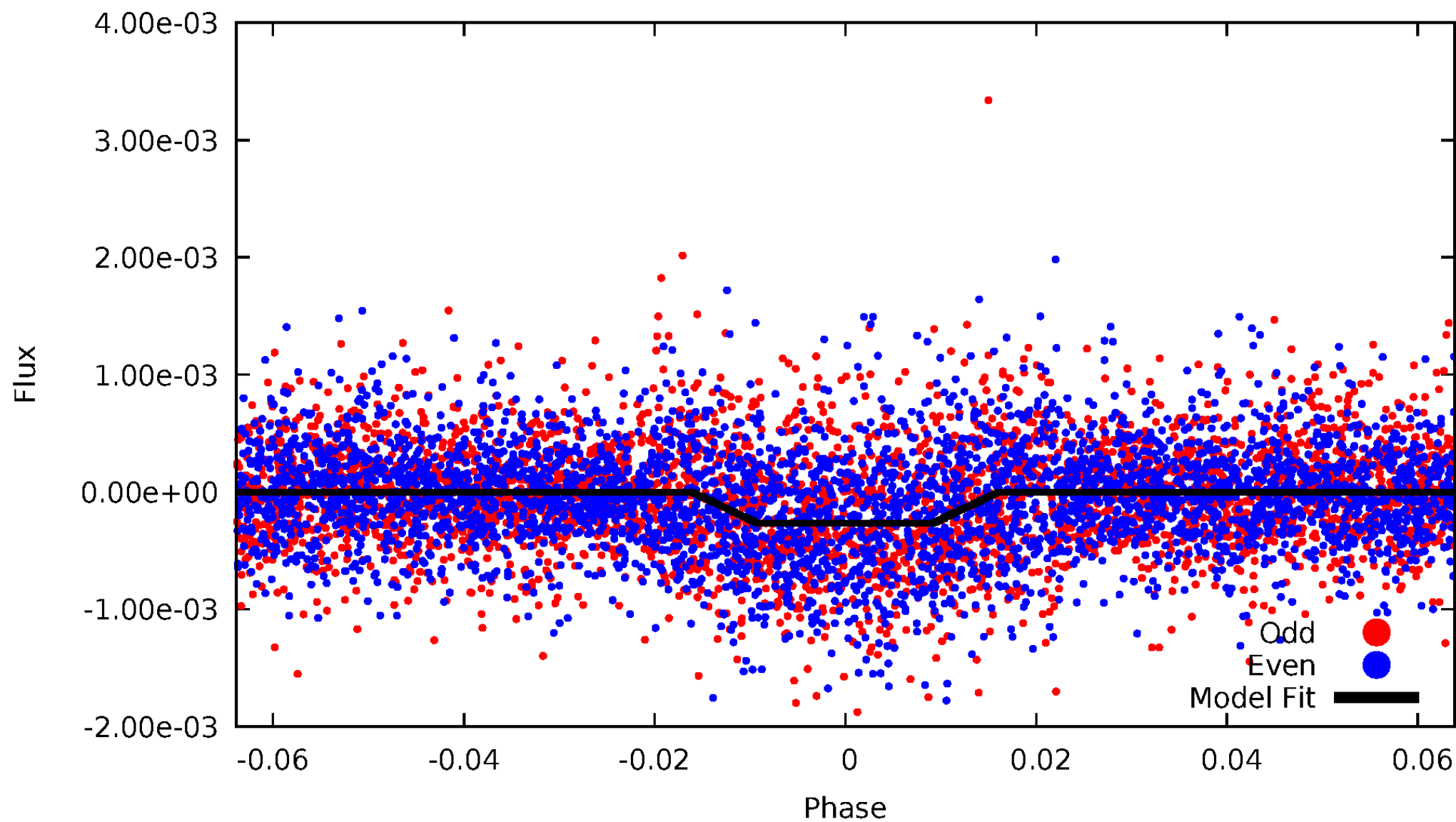
DV Odd/Even

TCE 011414465-01

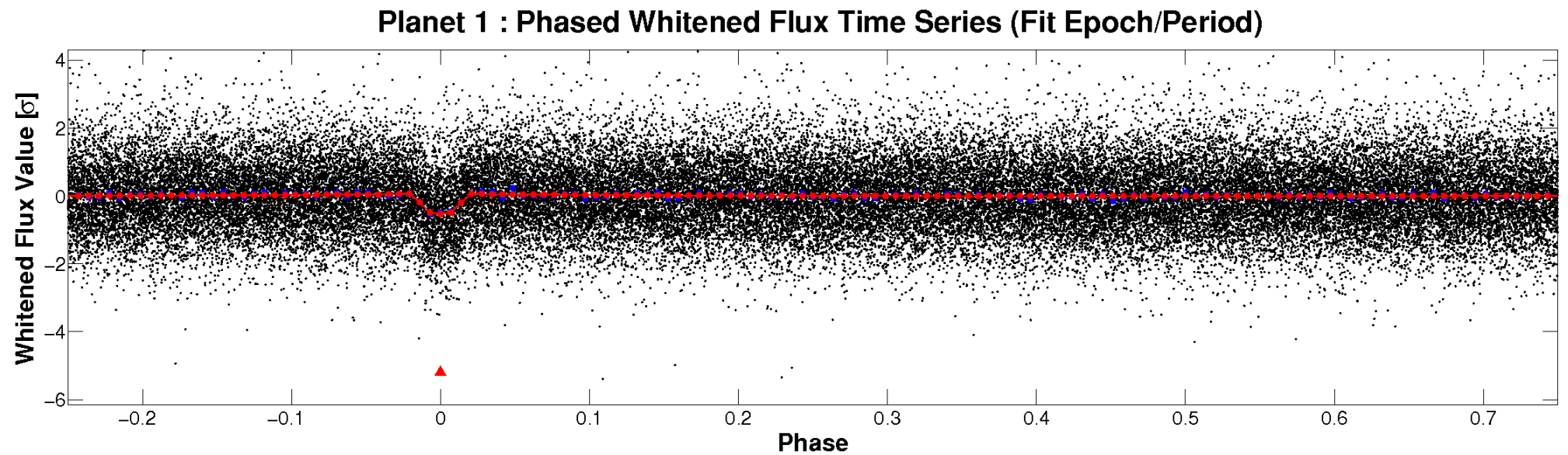
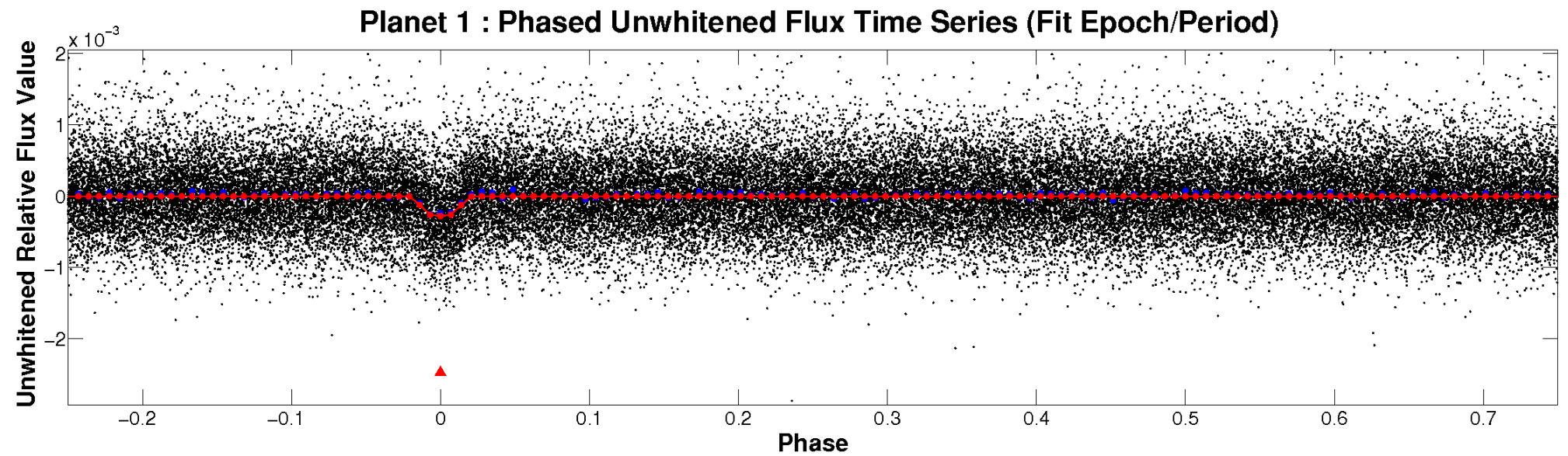


ALT Odd/Even

TCE 011414465-01

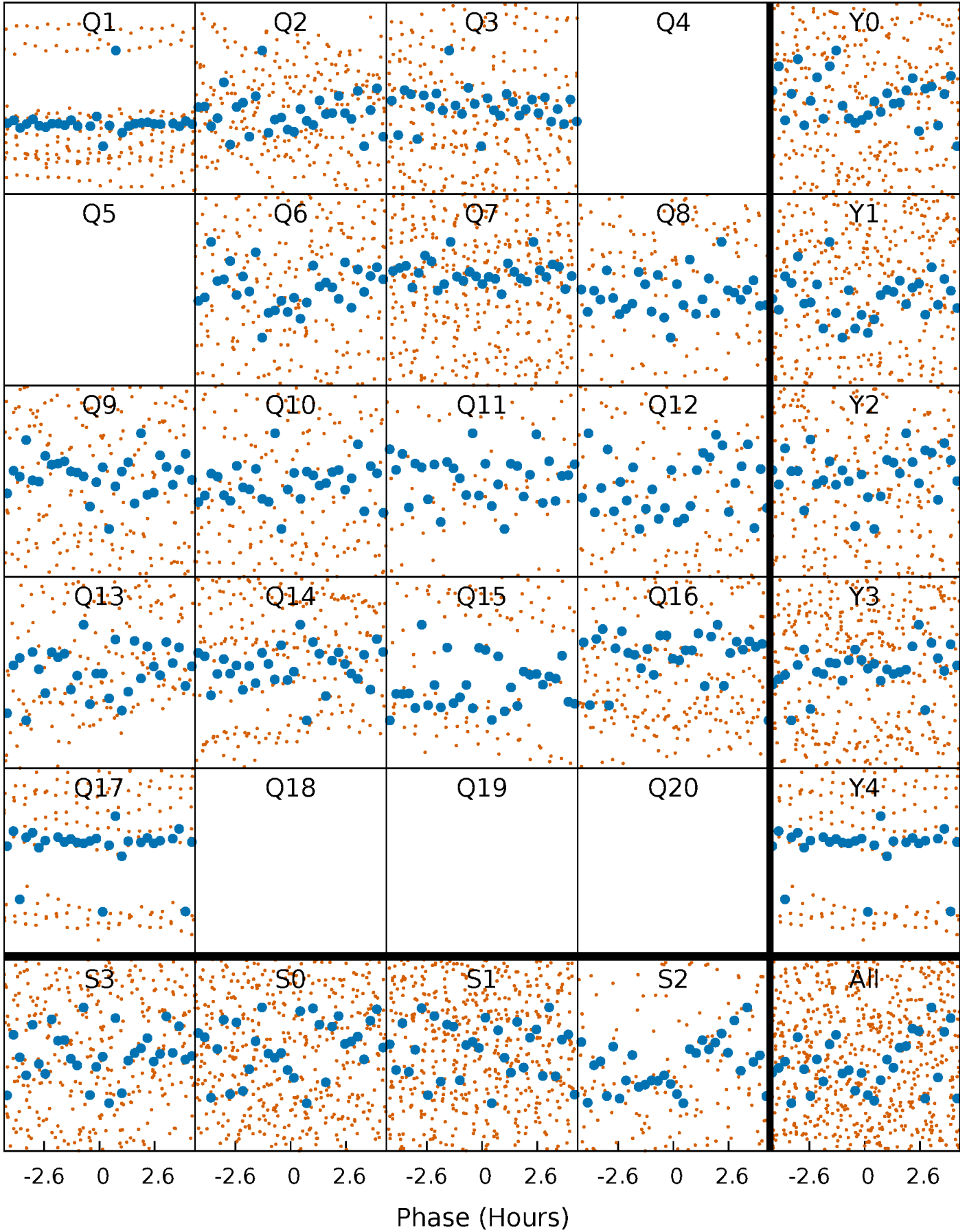


Non-Whitened Vs. Whitened Light Curve



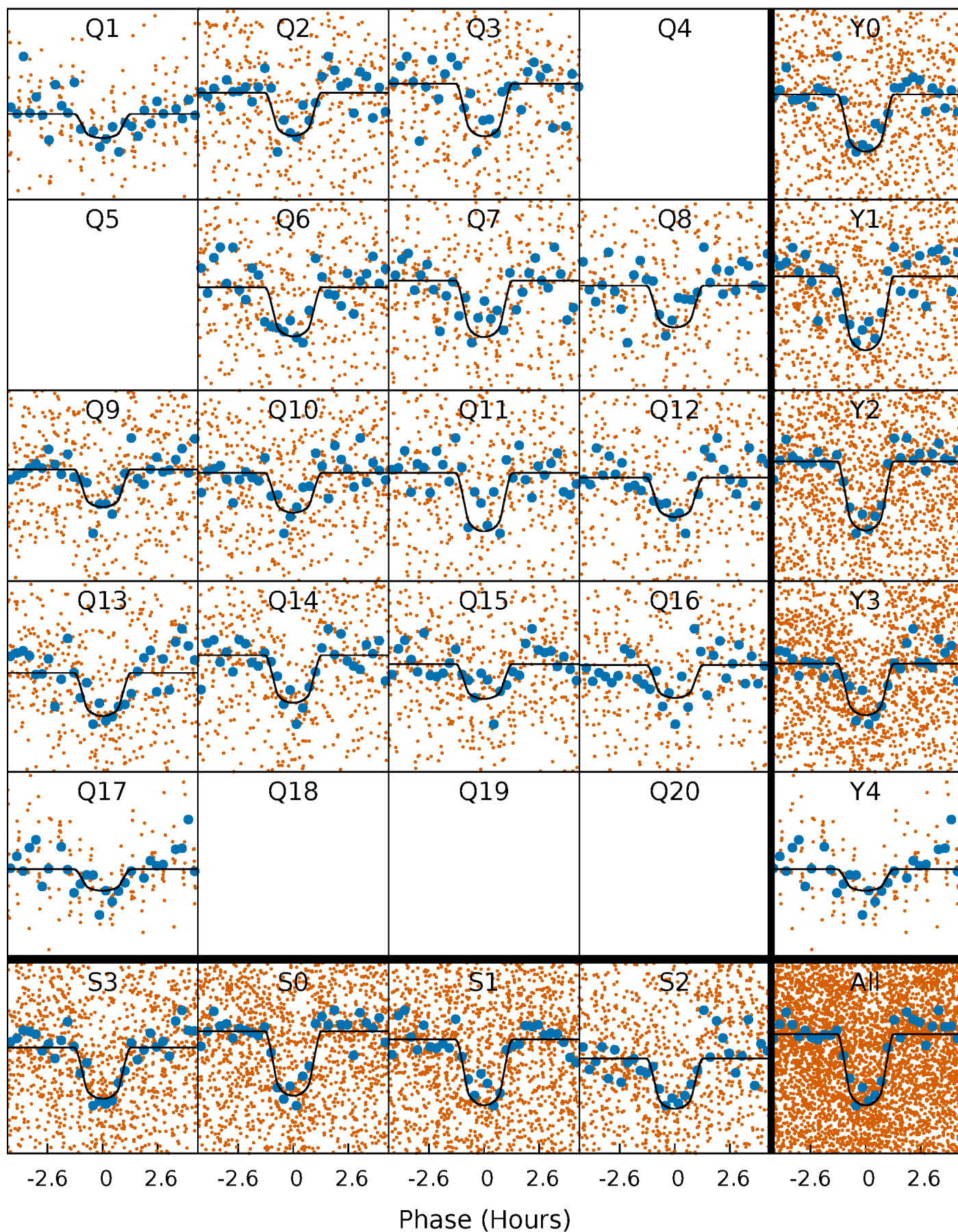
PDC Quarter-Phased Transit Curves

TCE 011414465-01 P= 2.941933 Days $T_0=133.108496$ (BKJD)



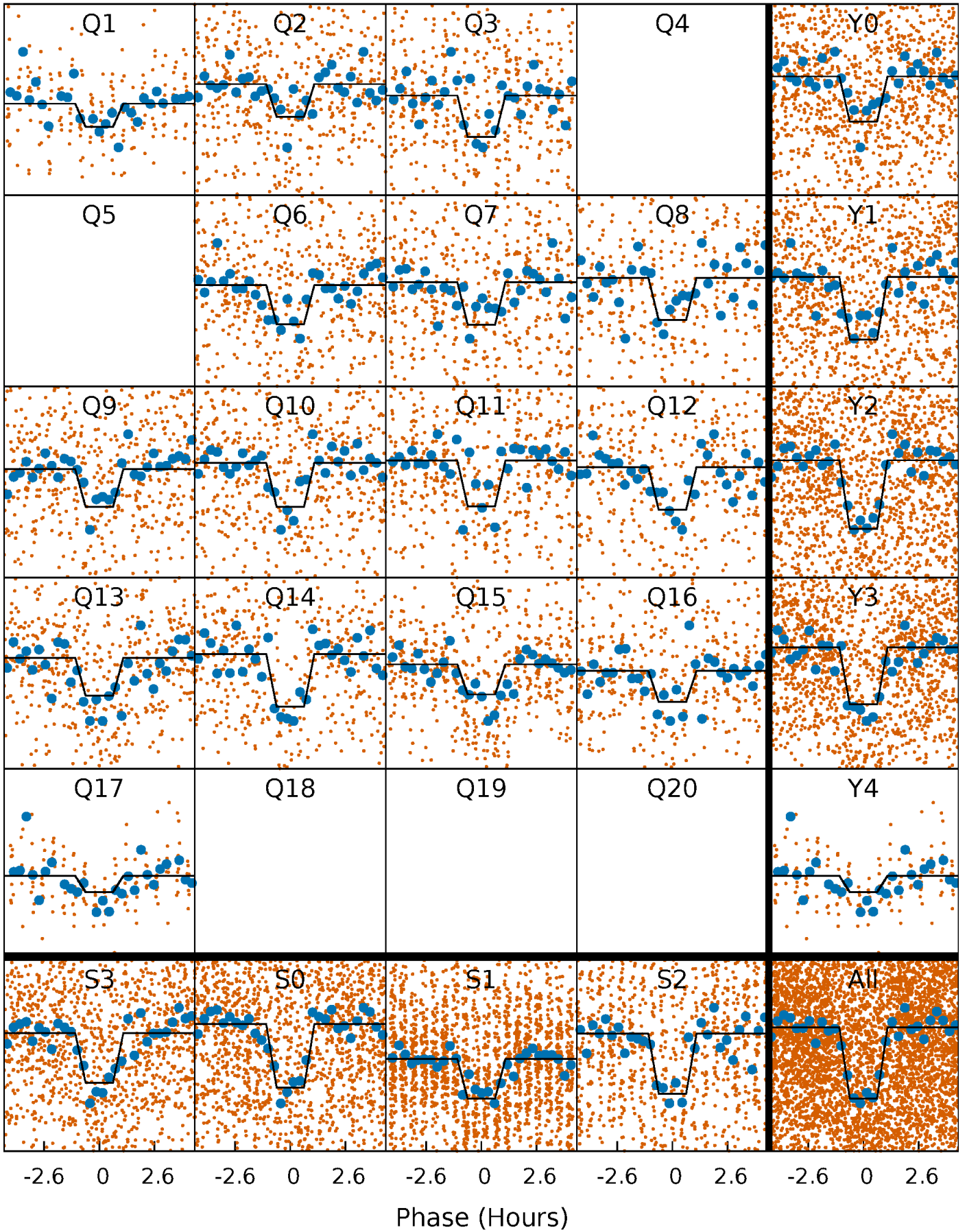
DV Quarter-Phased Transit Curves

TCE 011414465-01 P= 2.941933 Days $T_0=133.108496$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

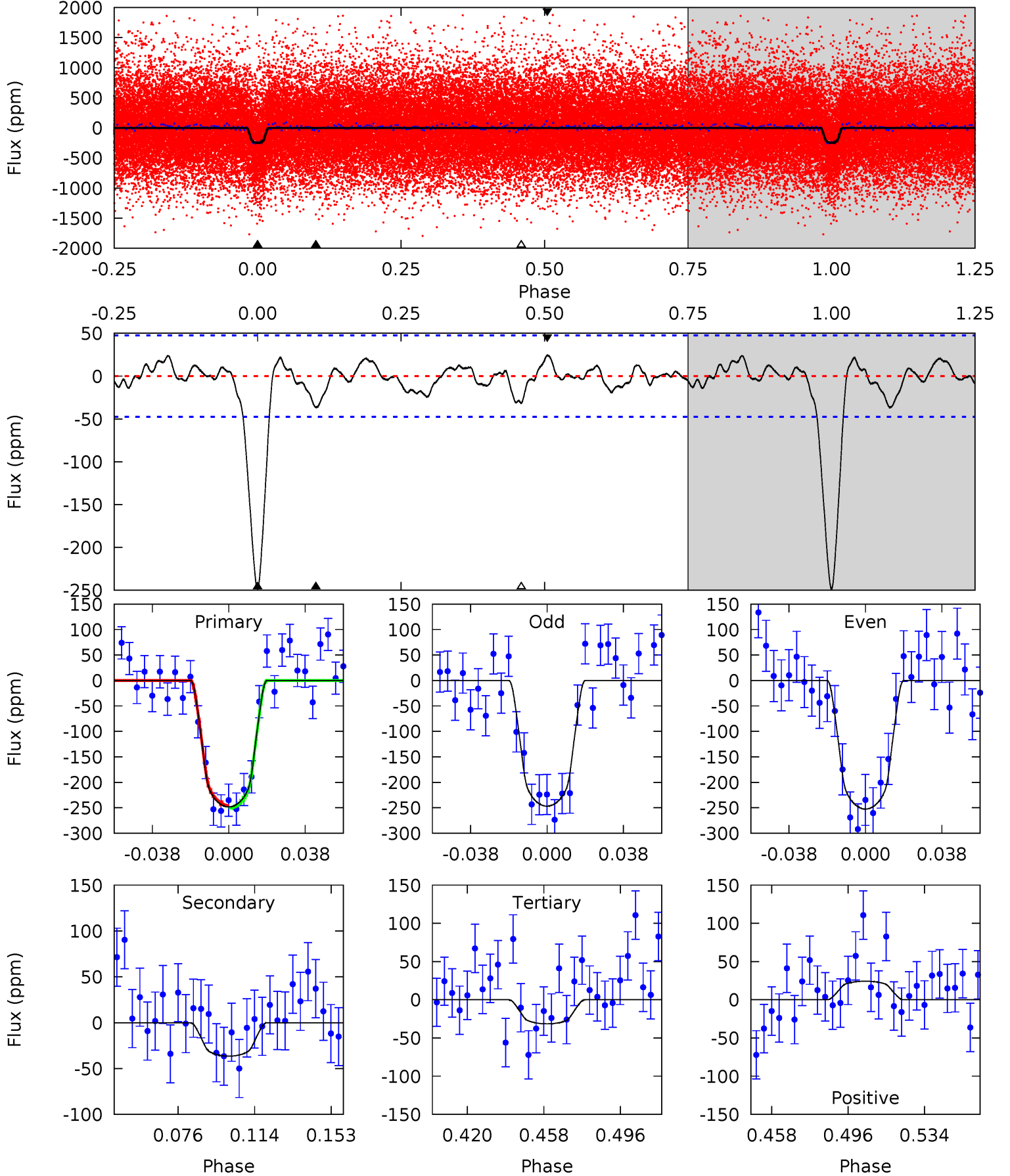
TCE 011414465-01 P= 2.941957 Days $T_0=133.102975$ (BKJD)



DV Model-Shift Uniqueness Test

011414465-01, P = 2.941933 Days, E = 130.166563 Days

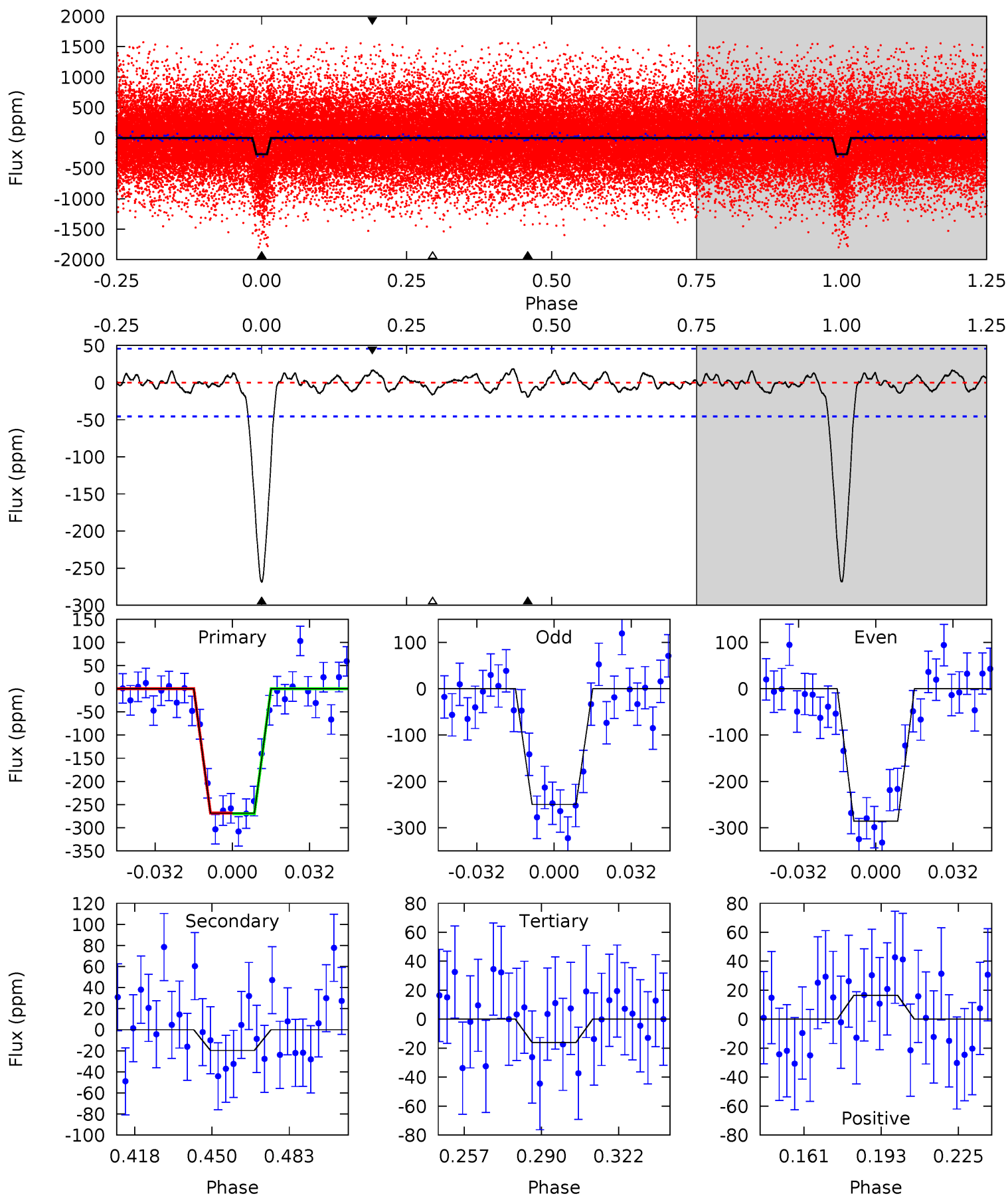
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.8	3.66	3.15	2.43	4.76	2.07	1.10	21.7	22.4	0.50	1.23	0.28	0.99	0.09	0.26



Alt Model-Shift Uniqueness Test

011414465-01, P = 2.941957 Days, E = 130.161018 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.2	2.07	1.69	1.72	4.80	2.14	0.77	26.6	26.5	0.38	0.35	1.88	1.03	0.07	0.07



Stellar Parameters For KIC 011414465

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4901^{+146}_{-146}	$4.544^{+0.070}_{-0.056}$	$-0.060^{+0.300}_{-0.250}$	$0.758^{+0.062}_{-0.075}$	$0.733^{+0.083}_{-0.060}$	$2.368^{+0.722}_{-0.417}$
	+3%/-3%	+2%/-1%	+500%/-417%	+8%/-10%	+11%/-8%	+30%/-18%
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 011414465-01 / KOI 2836.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-37 ± 10	$1.57^{+0.56}_{-0.53}$	1378^{+55}_{-51}	3248^{+501}_{-300}	10^{+16}_{-5}
Alt.	-20 ± 10	$1.37^{+0.56}_{-0.57}$	1380^{+52}_{-52}	3067^{+619}_{-390}	$7.160^{+16.820}_{-4.387}$

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

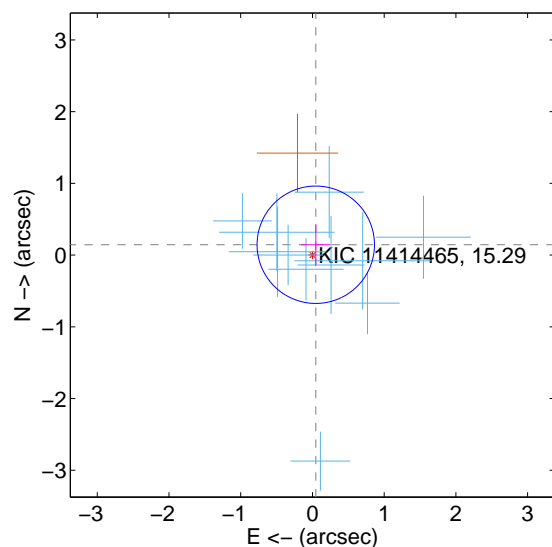
Supplemental centroid analysis for 011414465-01. Kepler magnitude: 15.29. Transit SNR 18.51

There are 11 quarters with good PRF difference image offsets

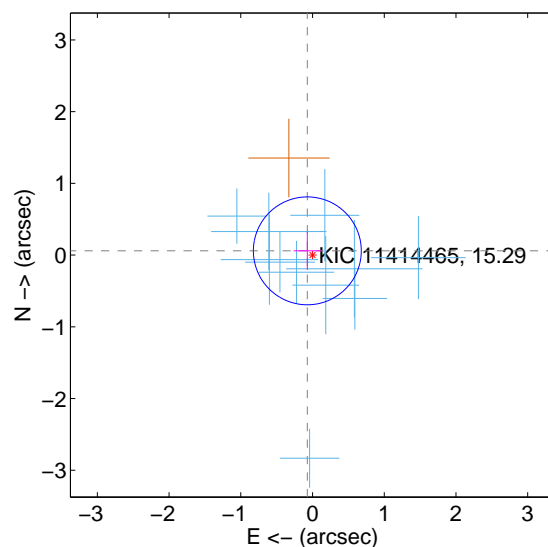
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.152 ± 0.273	0.56	-0.046 ± 0.205	0.144 ± 0.287
PRF-fit source offset from KIC position	0.094 ± 0.251	0.37	0.072 ± 0.192	0.059 ± 0.267
photometric centroid source offset	0.81 ± 0.67	1.22	0.02 ± 0.63	0.81 ± 0.67

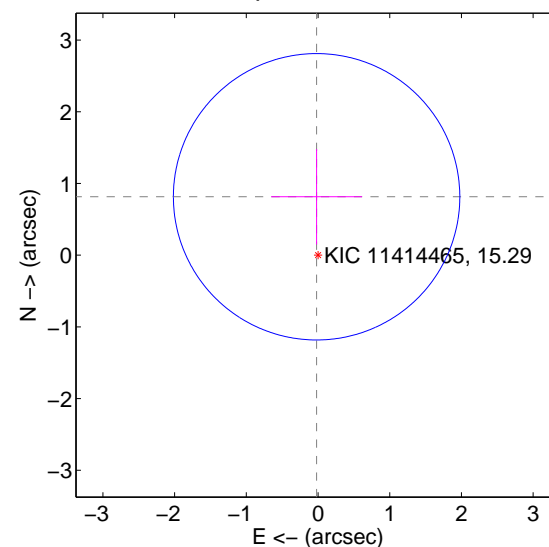
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

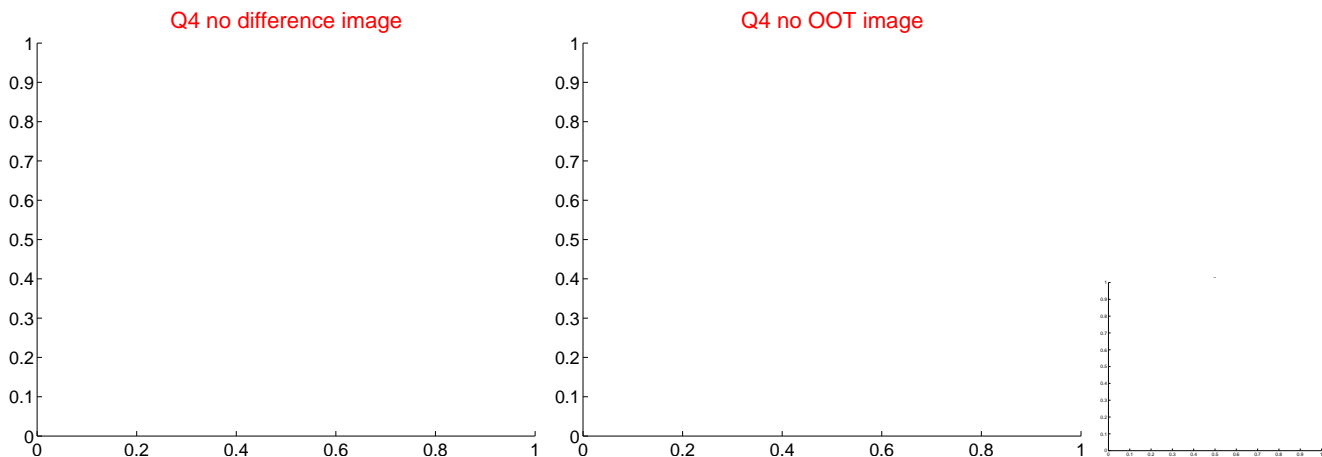
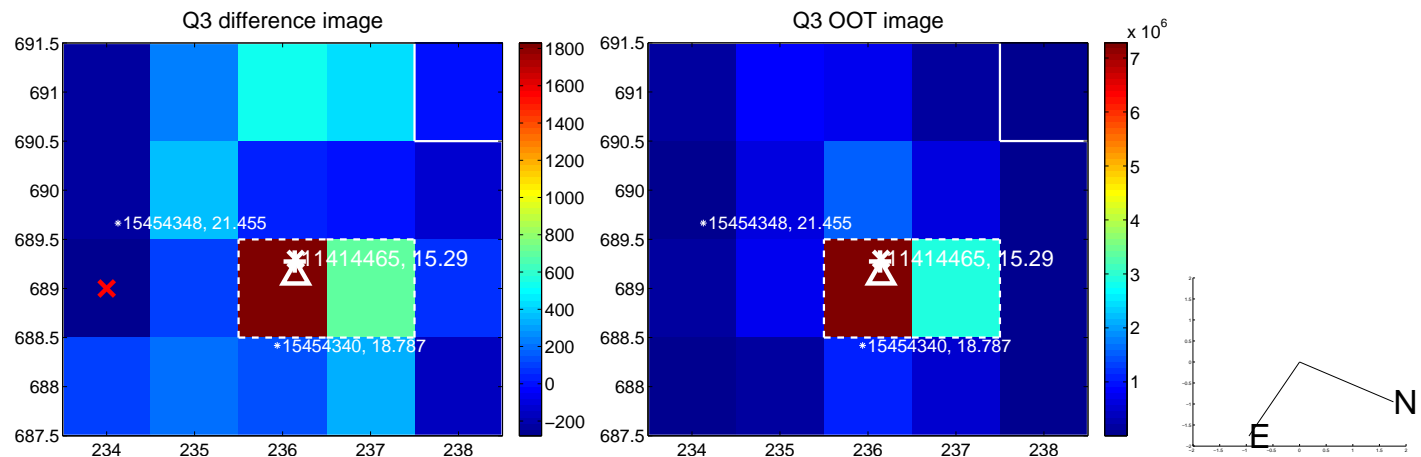
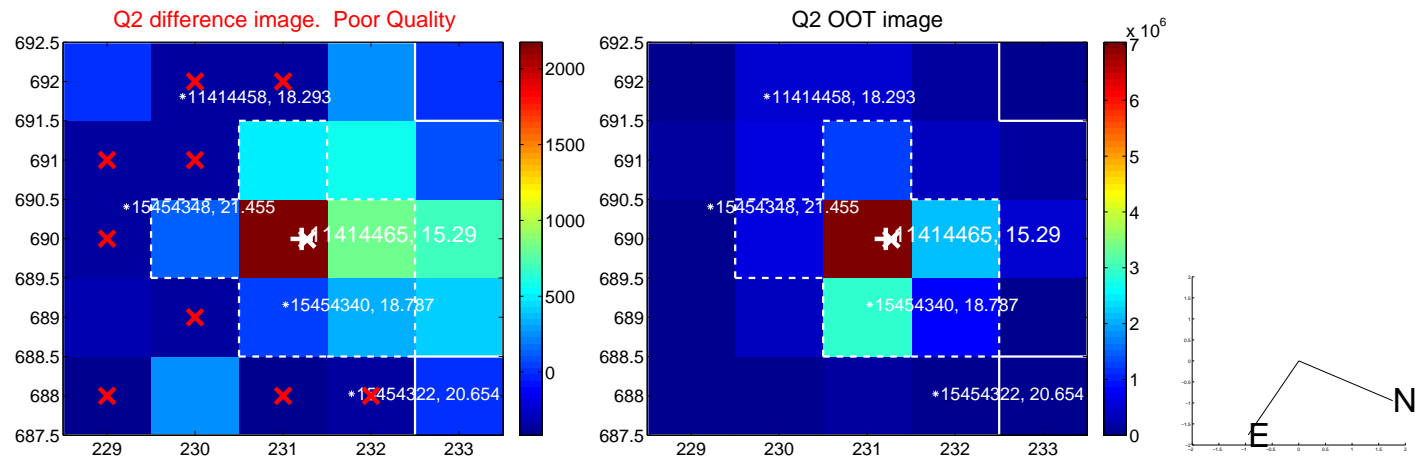
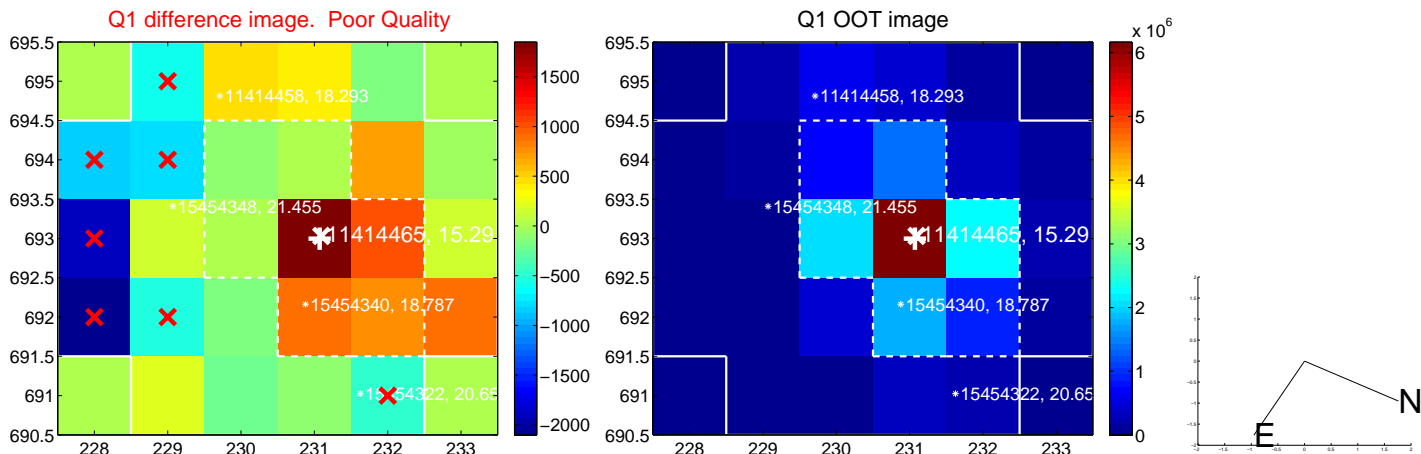


offset from photometric centroids

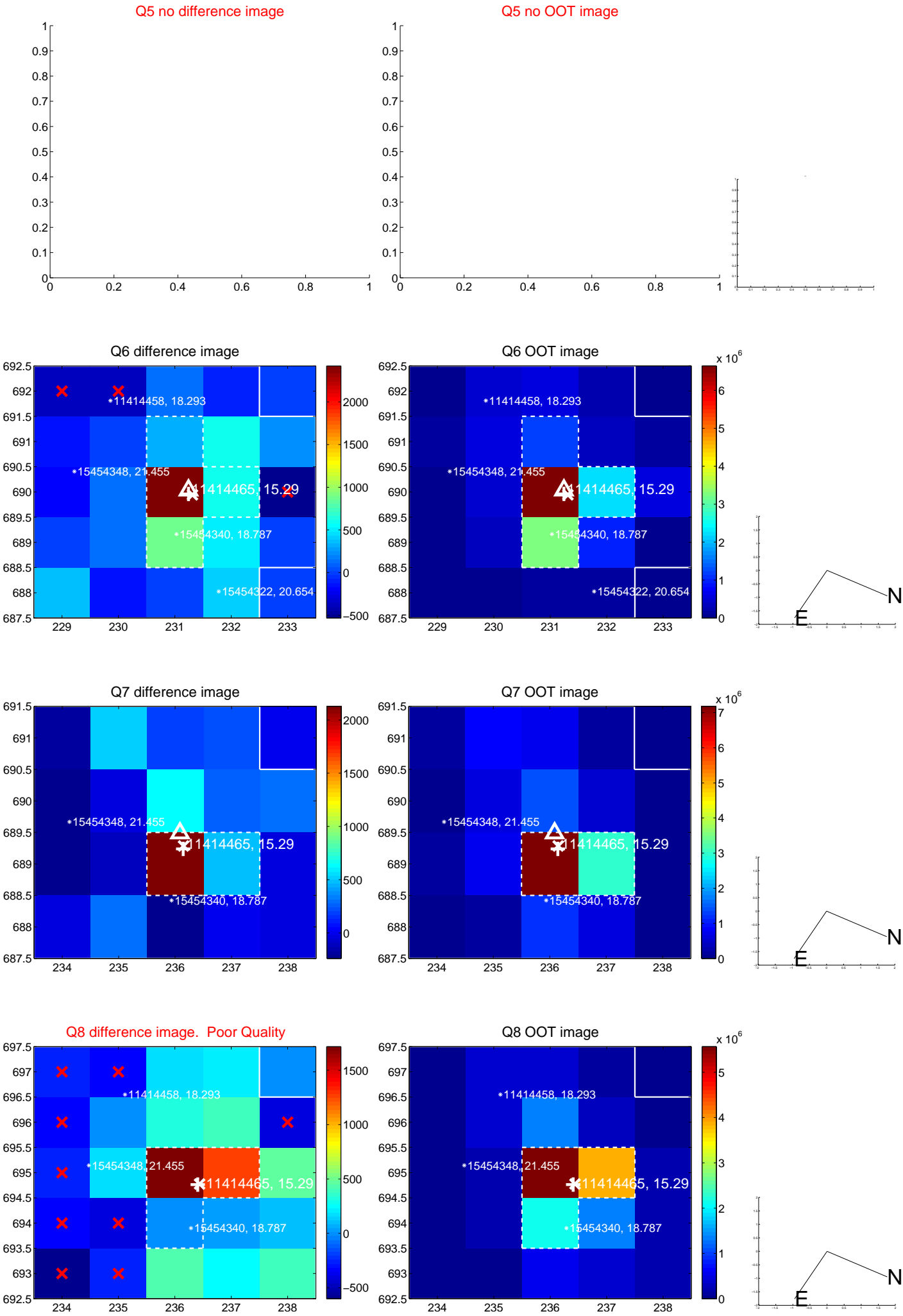


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

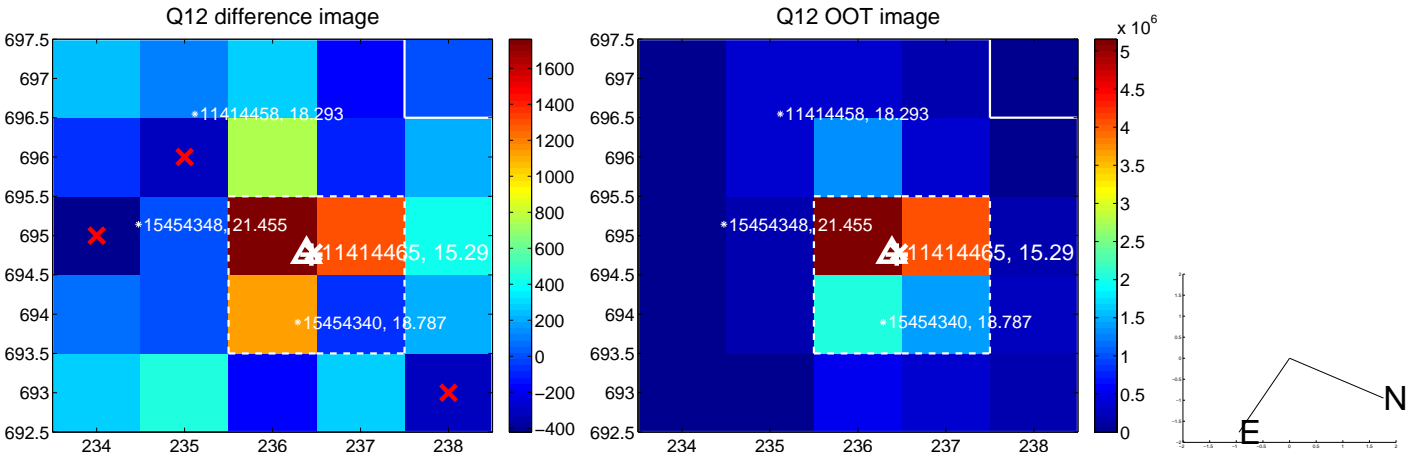
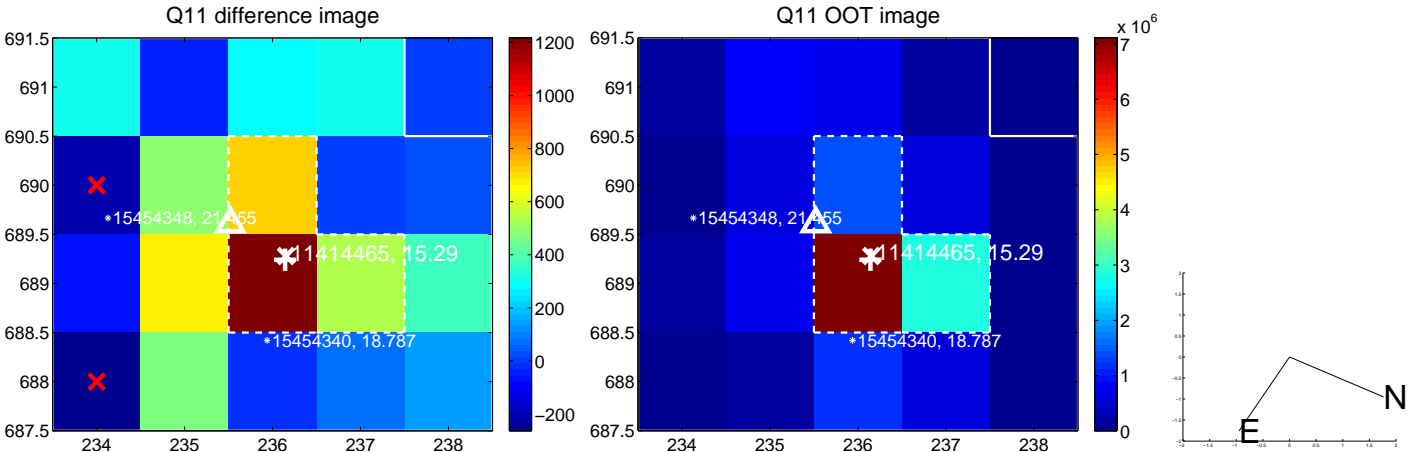
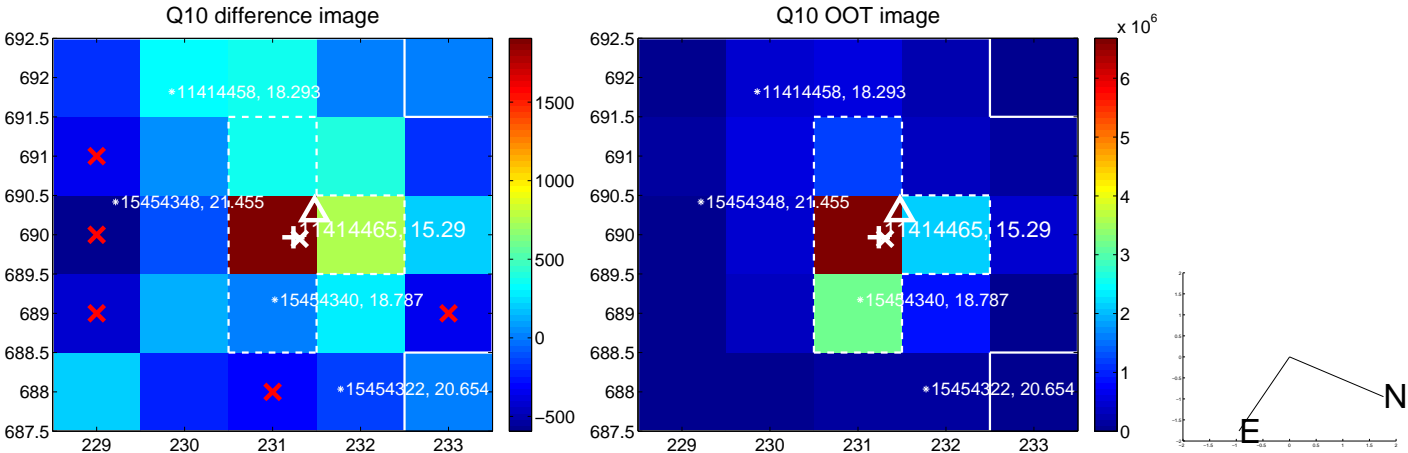
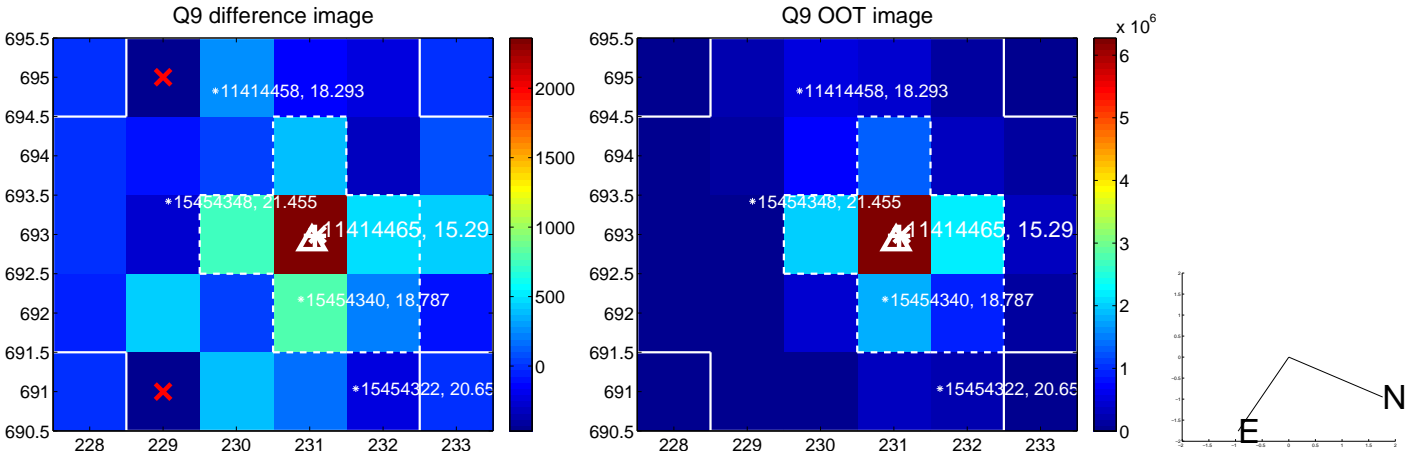
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



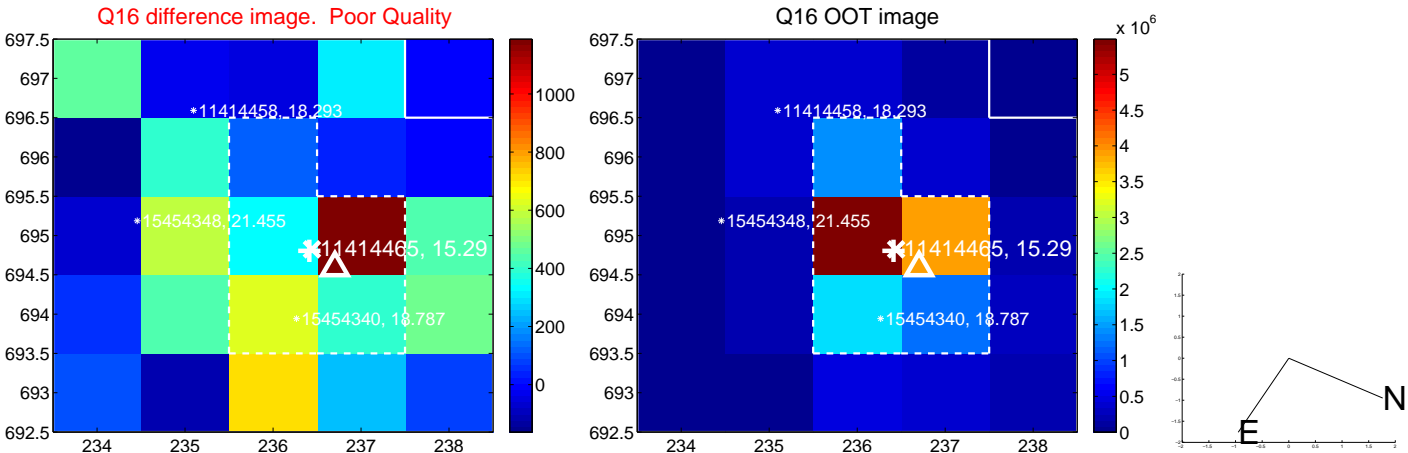
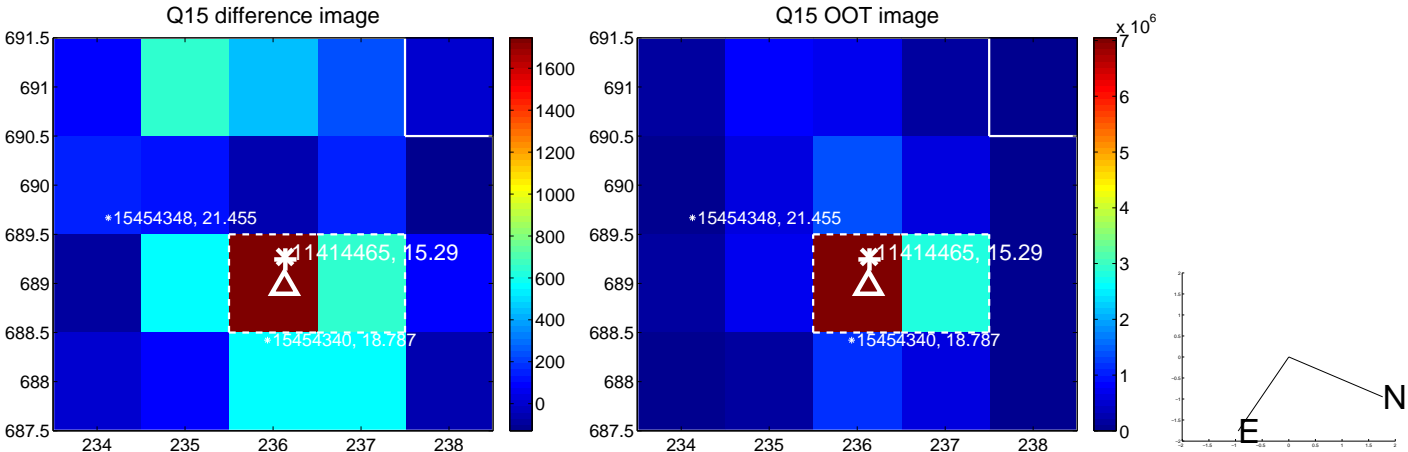
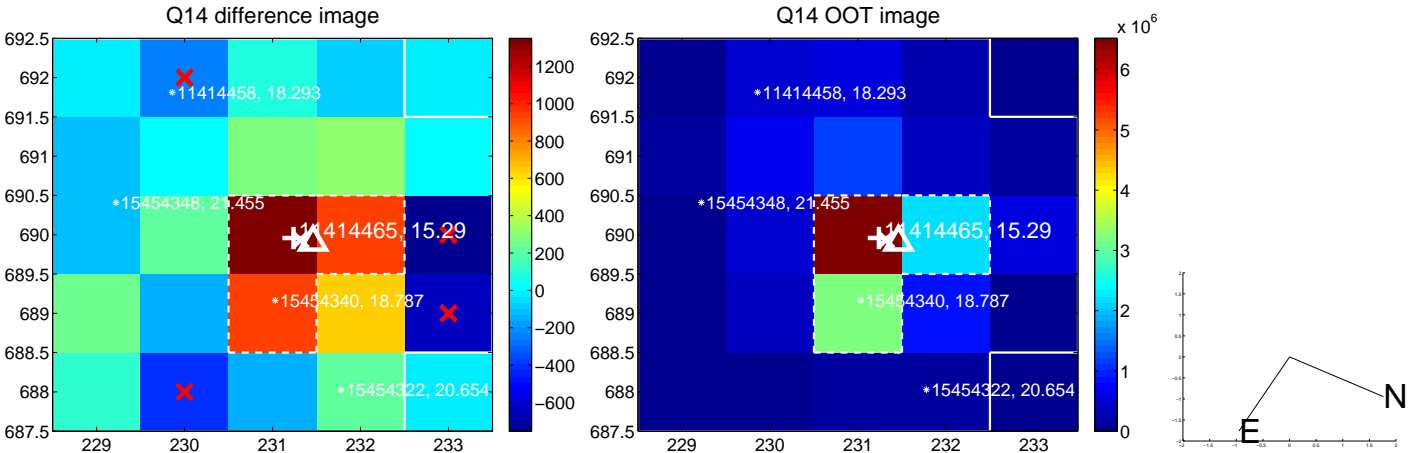
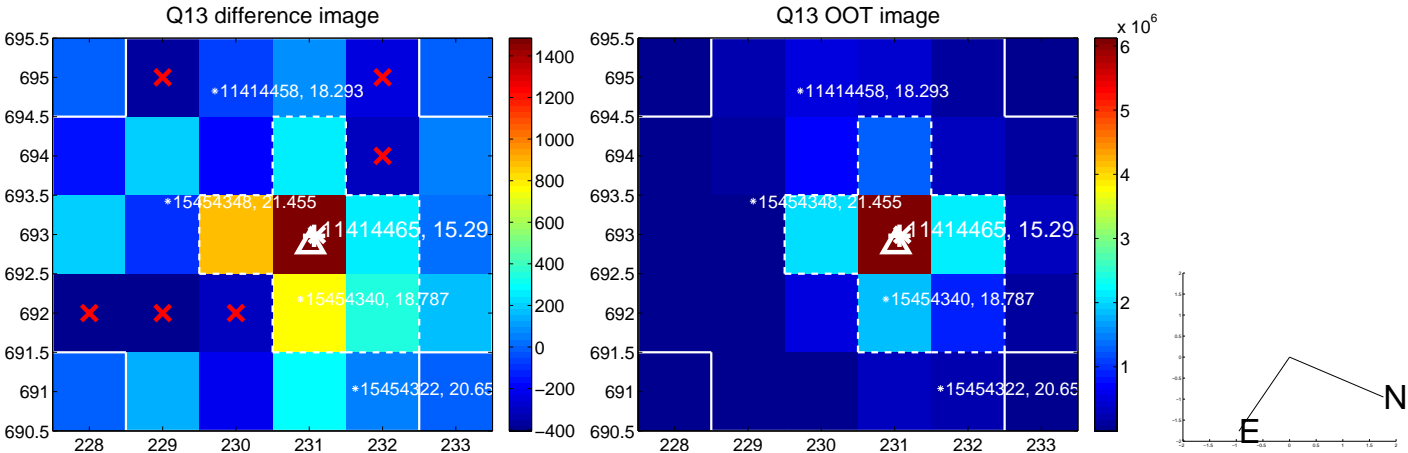
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



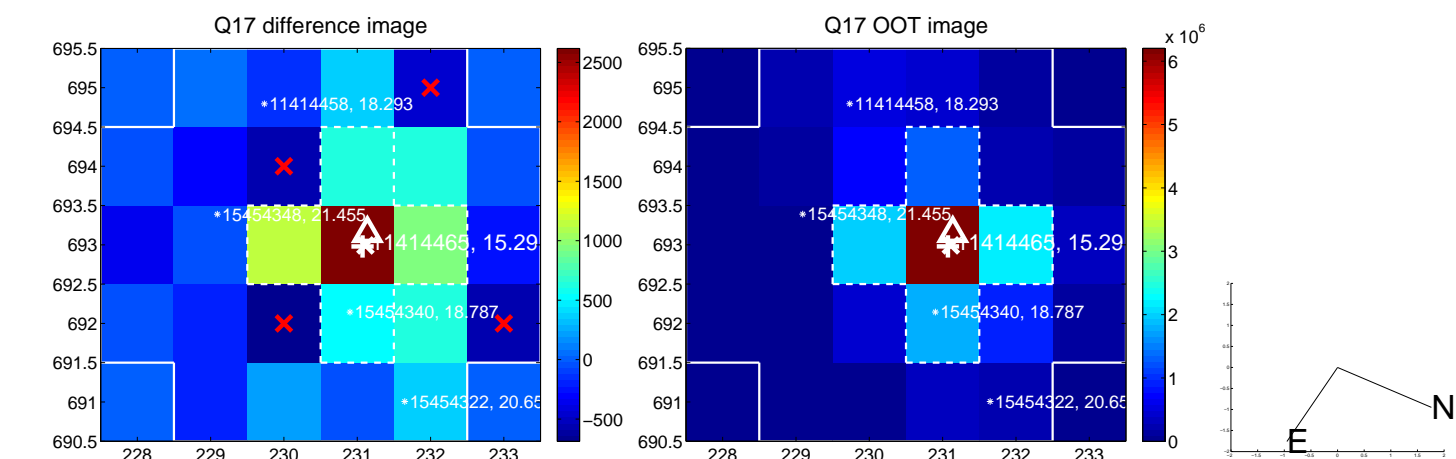
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



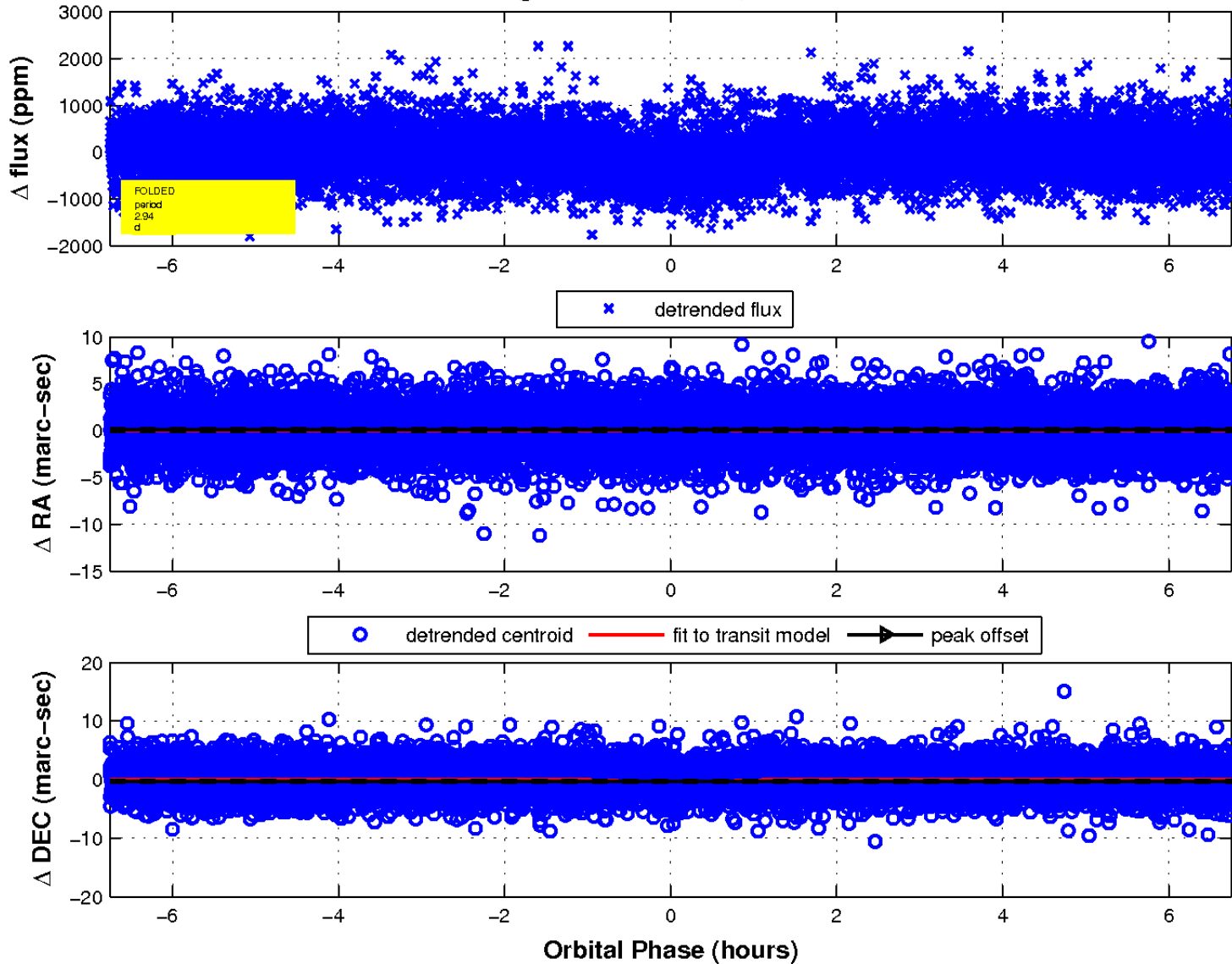
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

