

KIC 011614528

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})
011614528-01	OBS	3885.01	1.870969	132.697871	556.7	1.364	30.4	34.6	1.09	6384	3.02	1832.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011614528-01	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 011614528-01

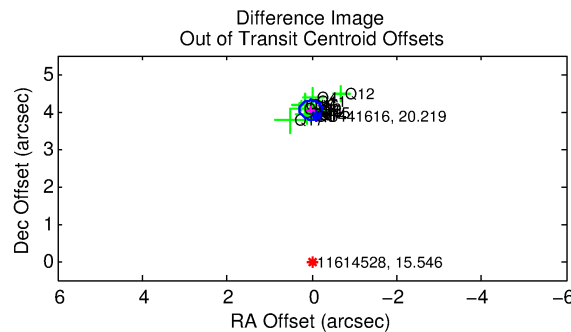
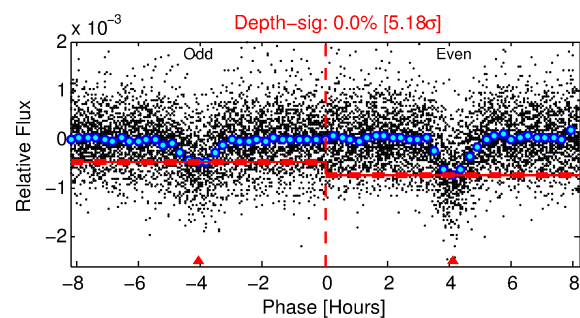
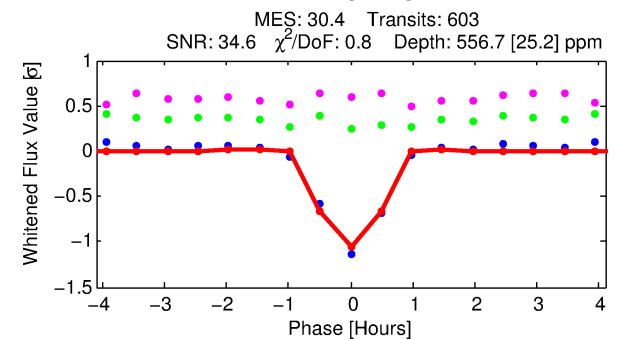
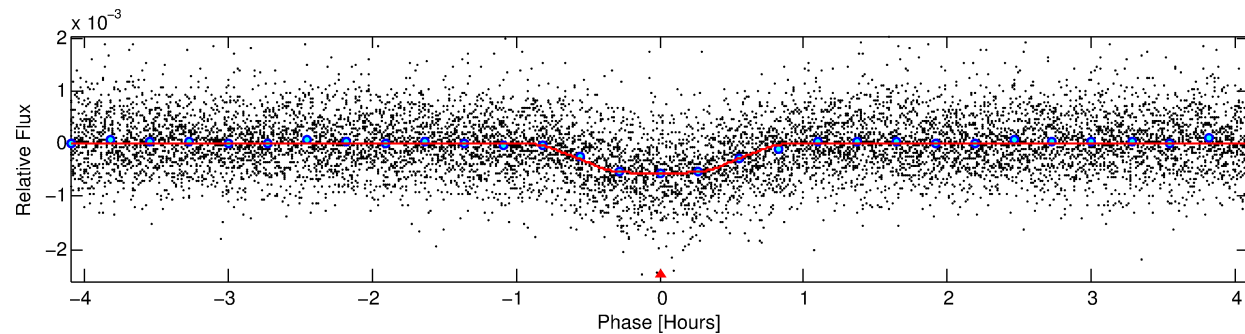
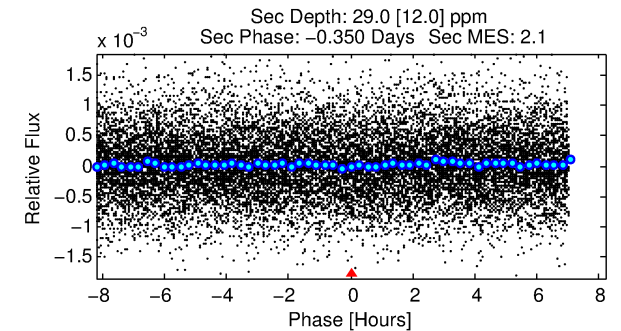
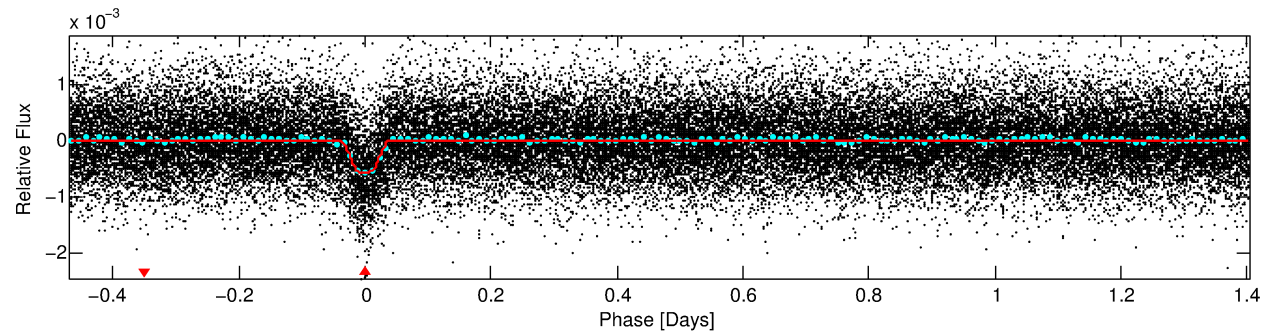
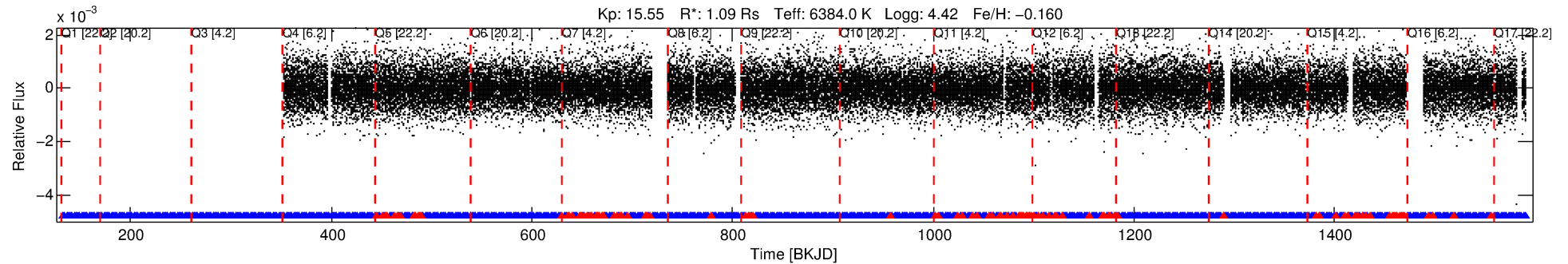
No Significant Match Found

DV One-Page Summary

KIC: 11614528 Candidate: 1 of 1 Period: 1.871 d

KOI: K03885.01 Corr: 0.862

Kp: 15.55 R*: 1.09 Rs Teff: 6384.0 K Logg: 4.42 Fe/H: -0.160



DV Fit Results:

Period = 1.87097 [0.00000] d
Epoch = 132.6979 [0.0006] BKJD
Rp/R* = 0.0254 [0.0039]
a/R* = 5.23 [4.17]
b = 0.90 [0.18]
Seff = 1832.58 [745.04]
Teq = 1668 [170] K
Rp = 3.02 [1.07] Re
a = 0.0309 [0.0082] AU
Ag = 1.68 [1.08] [0.64σ]
Teff = 2938 [396] K [2.95σ]

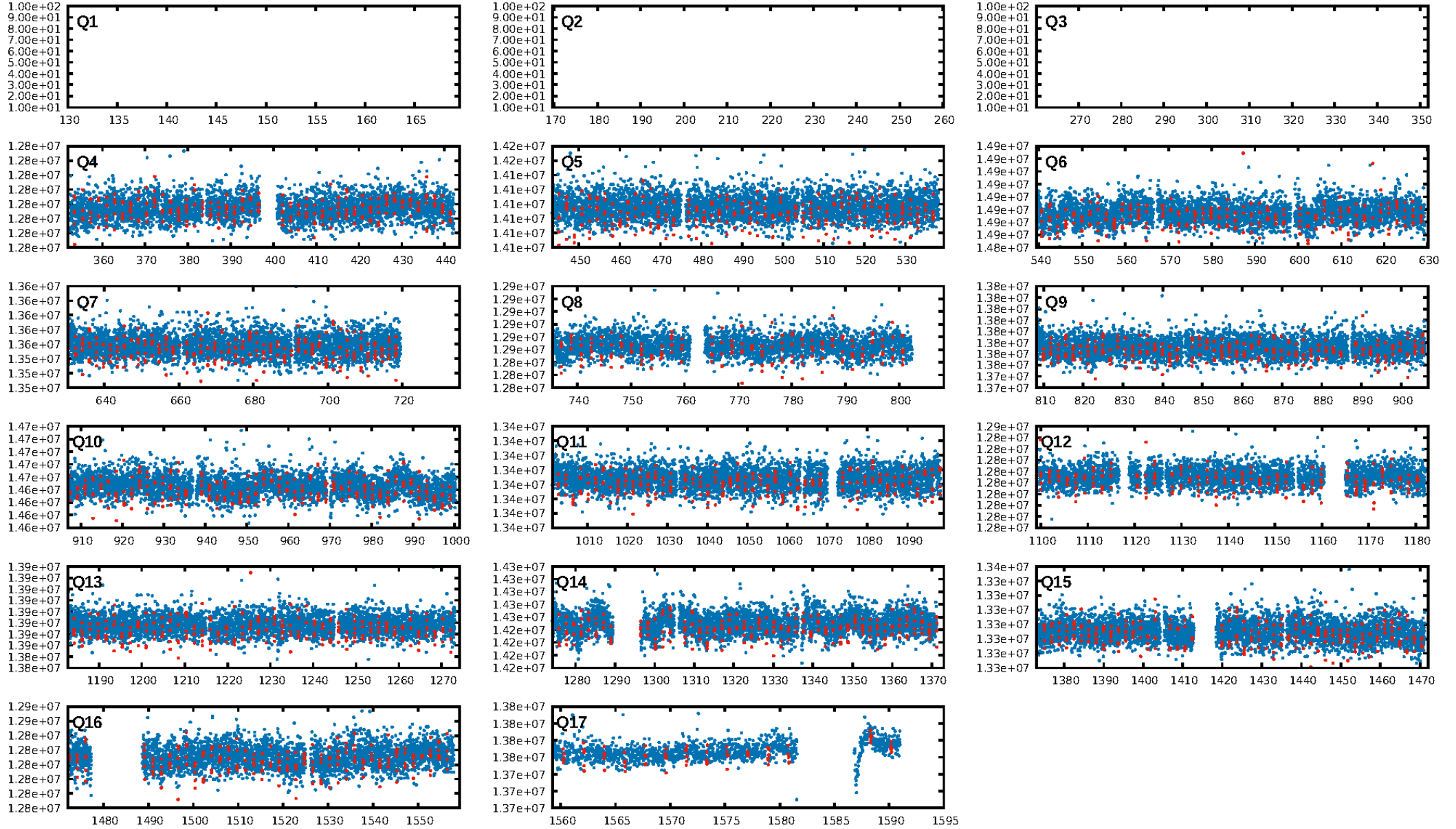
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 4.77e-195
RollingBand-fgt: 0.83 [490/589]
GhostDiagnostic-chr: 1.321
Centroid-sig: 0.0%
Centroid-so: 6.308 arcsec [13.86σ]
OotOffset-rm: 4.044 arcsec [47.26σ]
KicOffset-rm: 4.043 arcsec [44.31σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

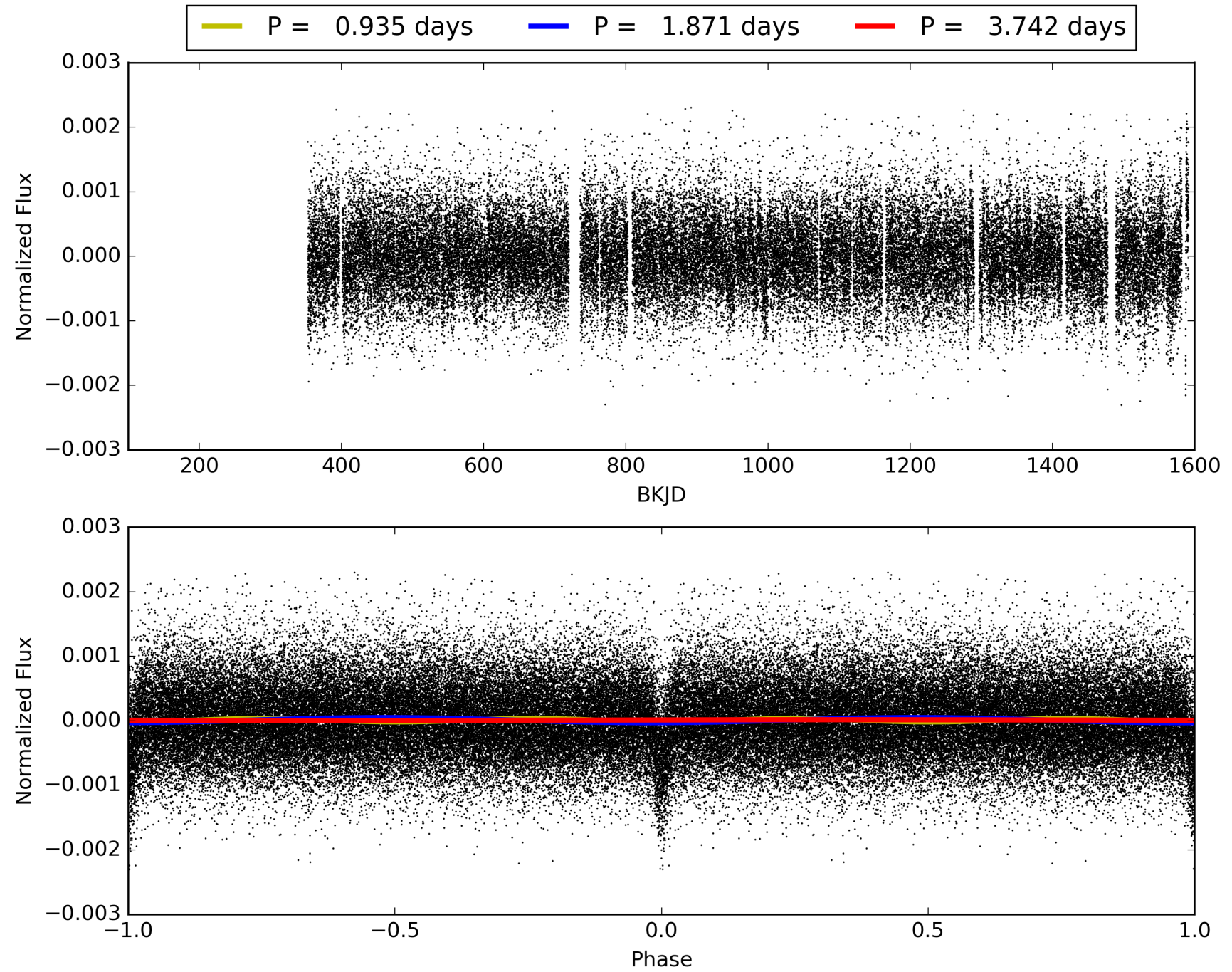
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:25:35 Z

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

TCE 011614528-01, PDC Light Curves

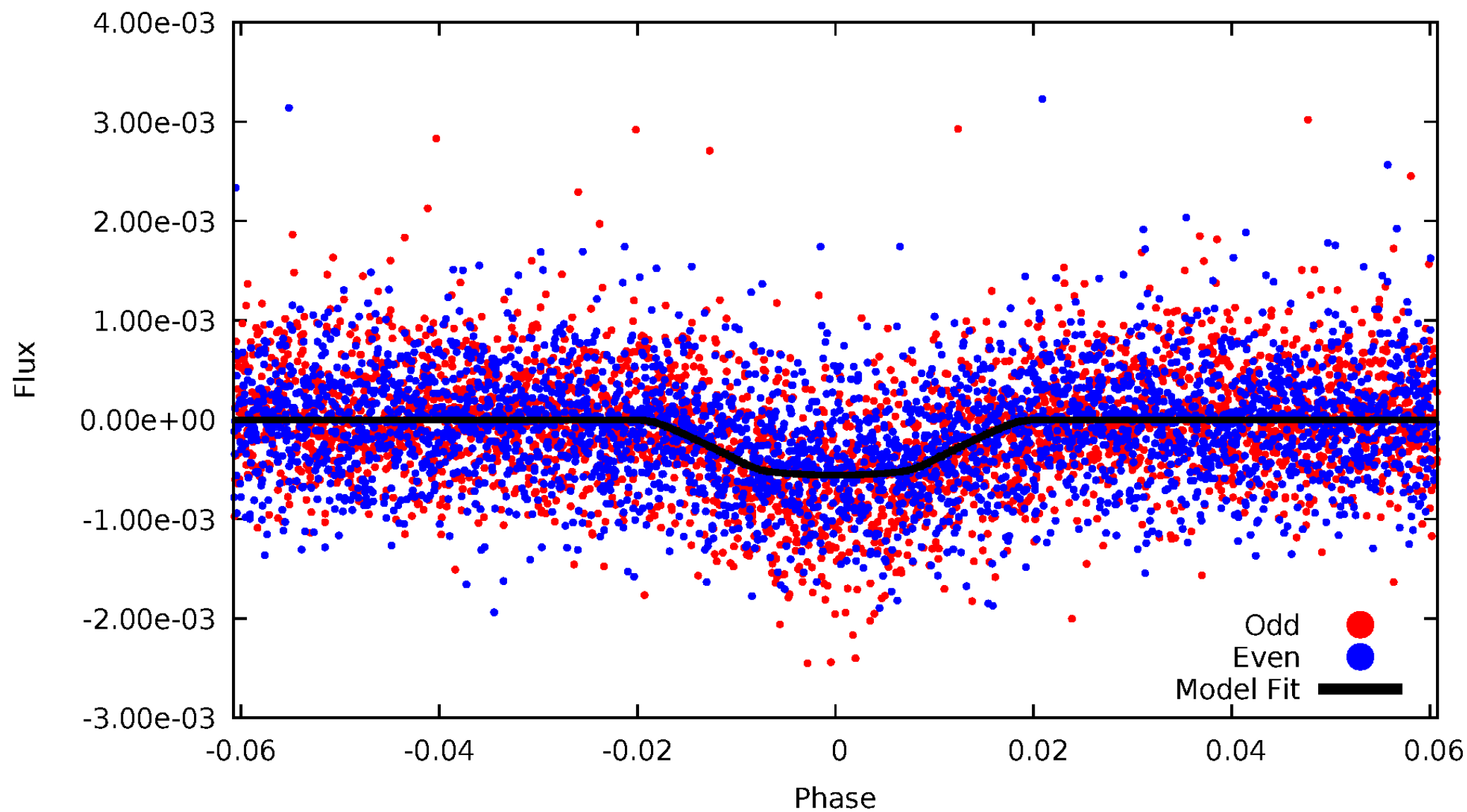


TCE 011614528-01



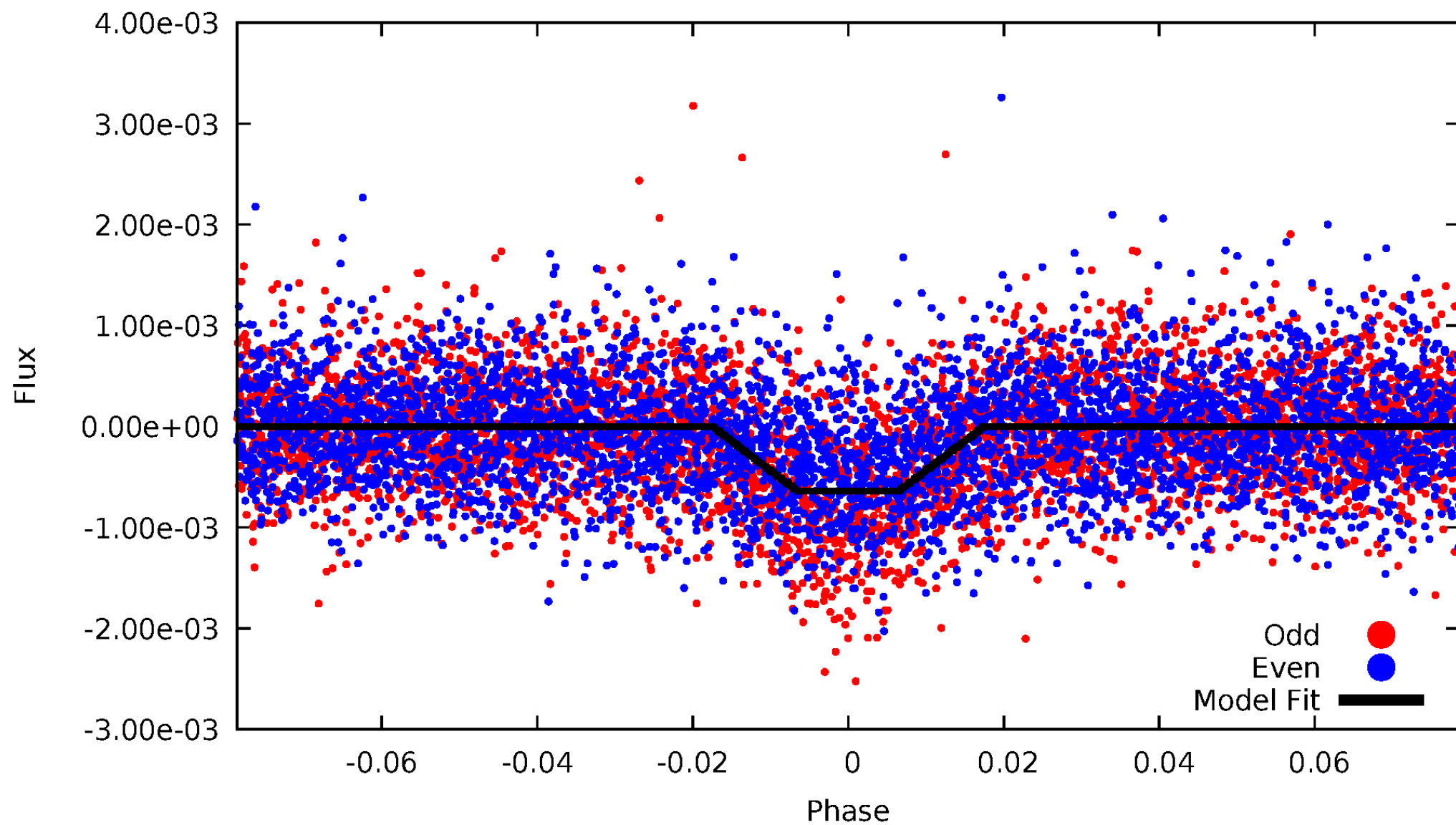
DV Odd/Even

TCE 011614528-01



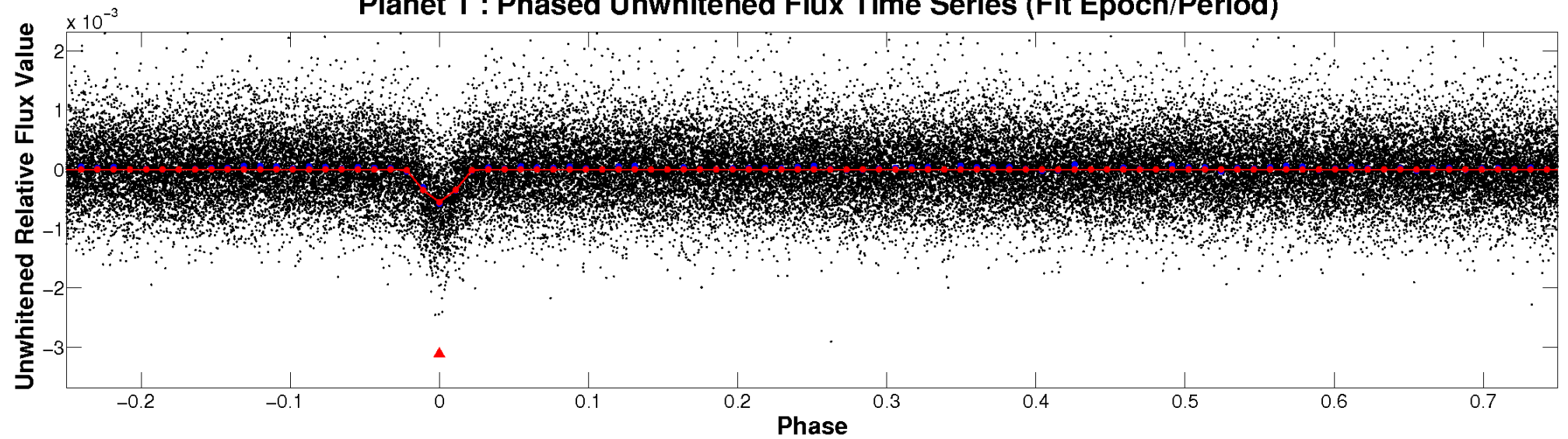
ALT Odd/Even

TCE 011614528-01

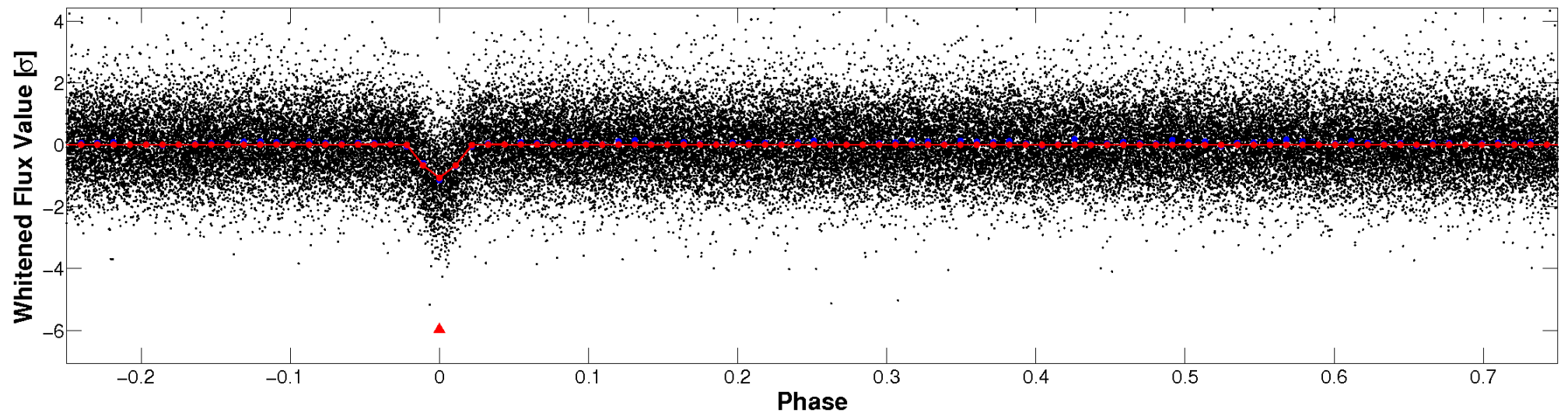


Non-Whitened Vs. Whitened Light Curve

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

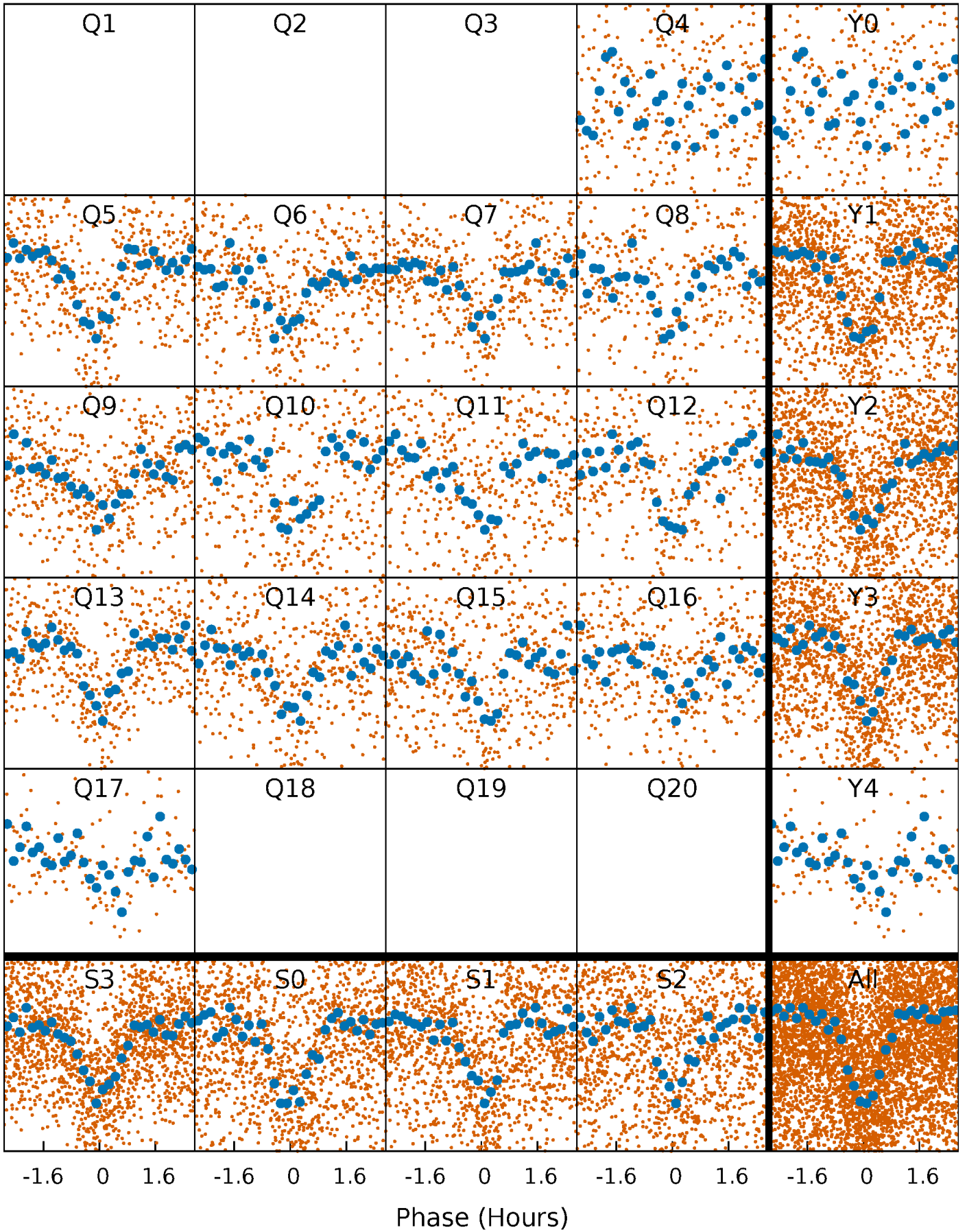


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



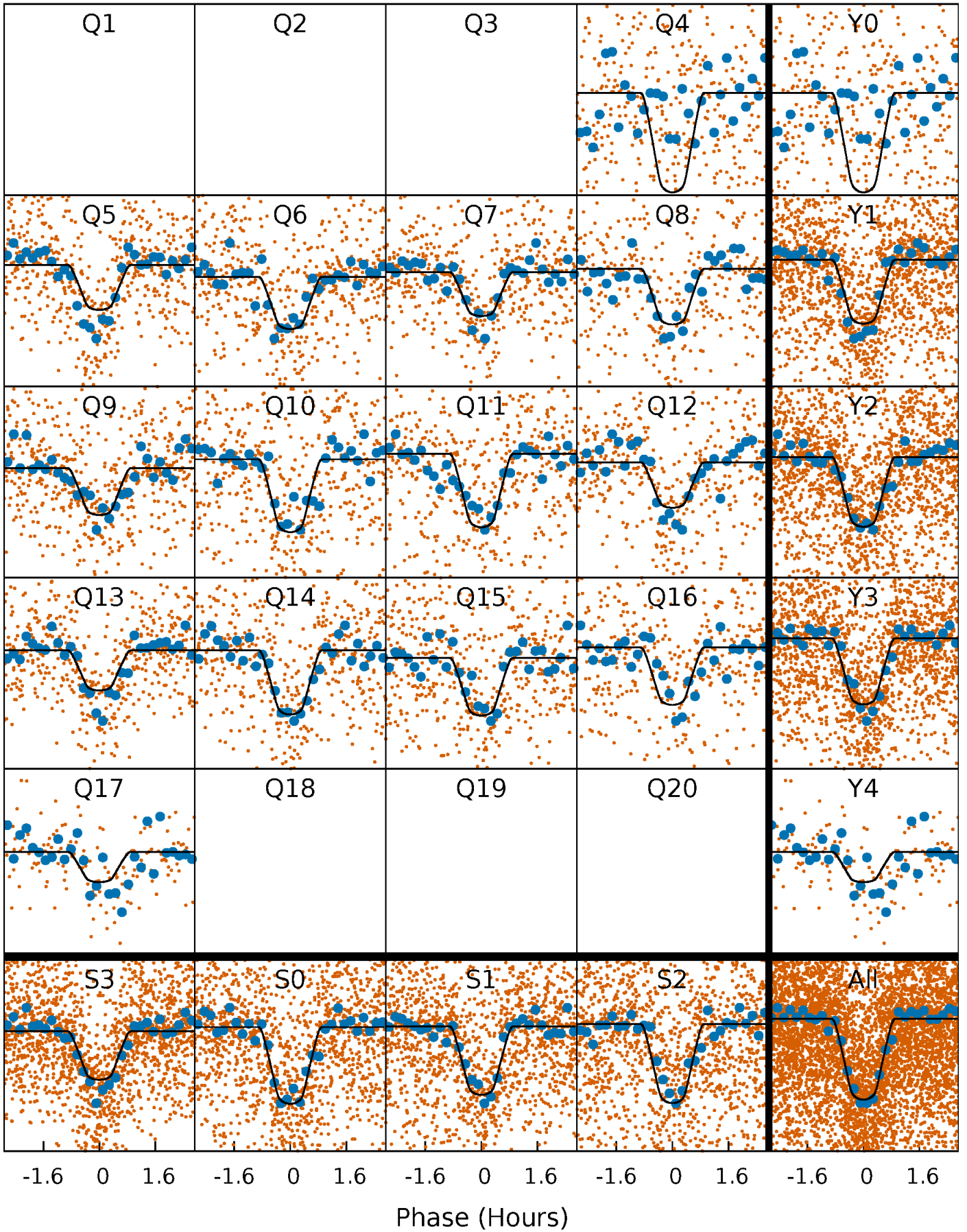
PDC Quarter-Phased Transit Curves

TCE 011614528-01 P= 1.870969 Days $T_0=132.697871$ (BKJD)



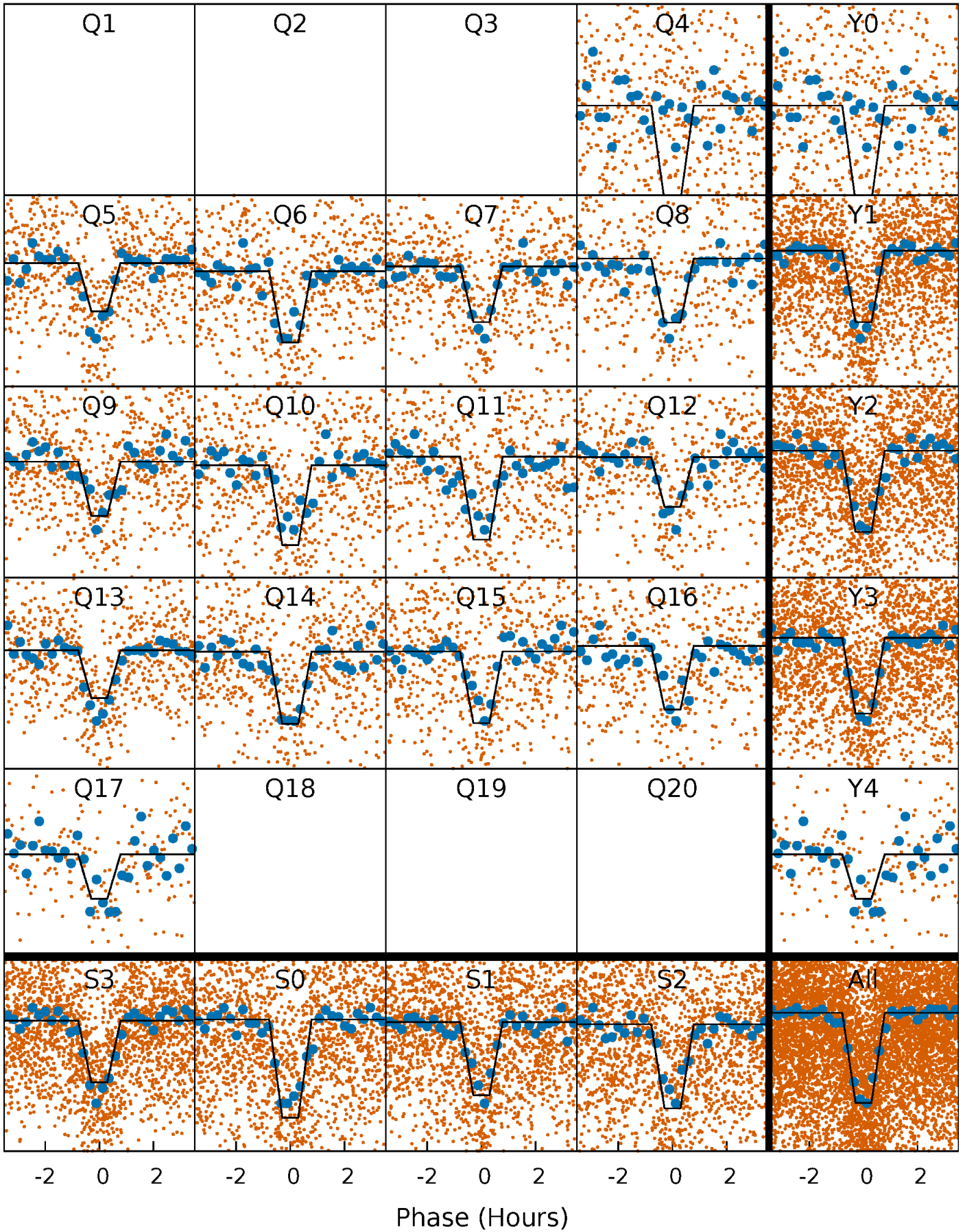
DV Quarter-Phased Transit Curves

TCE 011614528-01 P= 1.870969 Days $T_0=132.697871$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

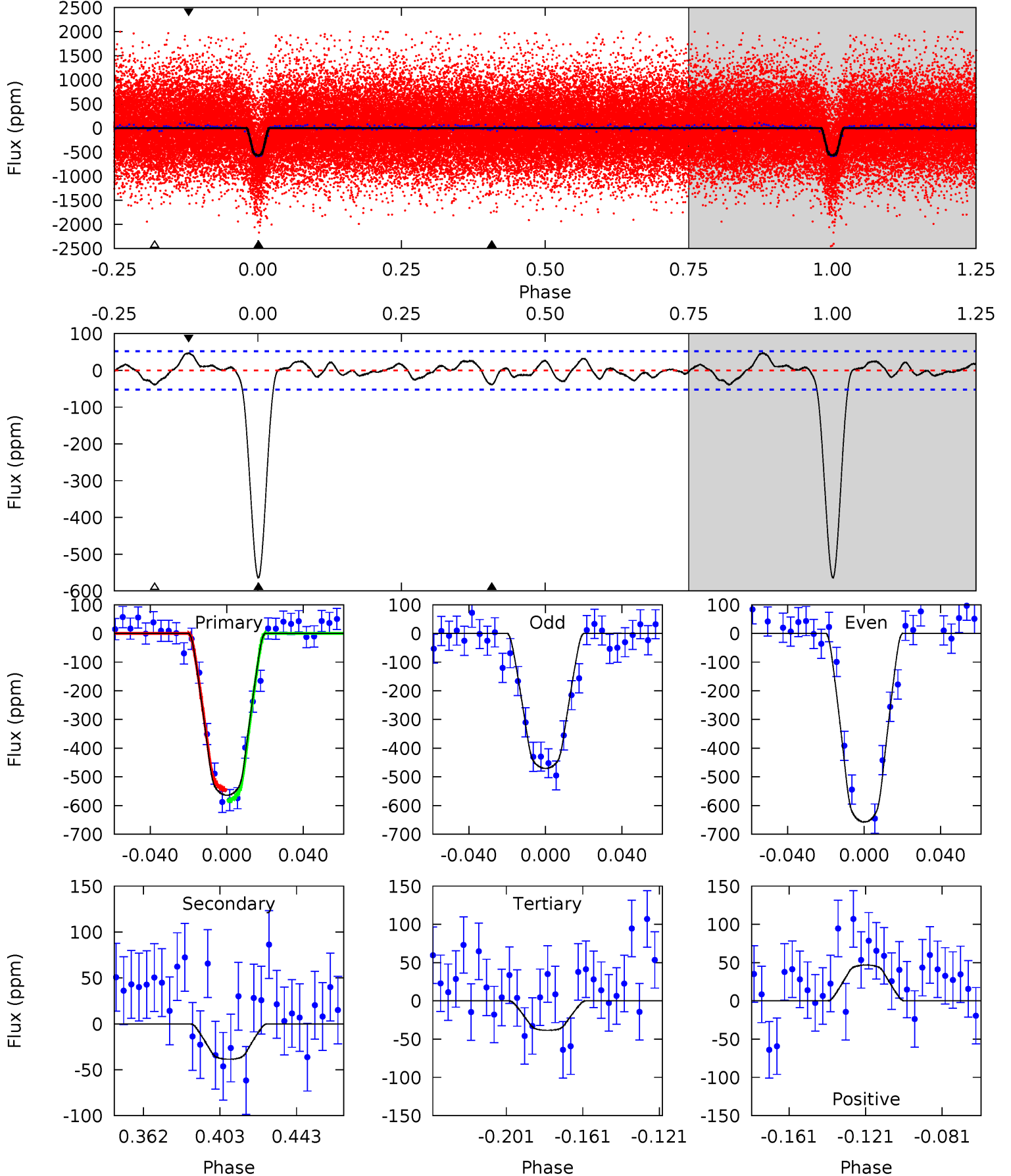
TCE 011614528-01 P= 1.870977 Days $T_0=132.695660$ (BKJD)



DV Model-Shift Uniqueness Test

011614528-01, P = 1.870969 Days, E = 132.697871 Days

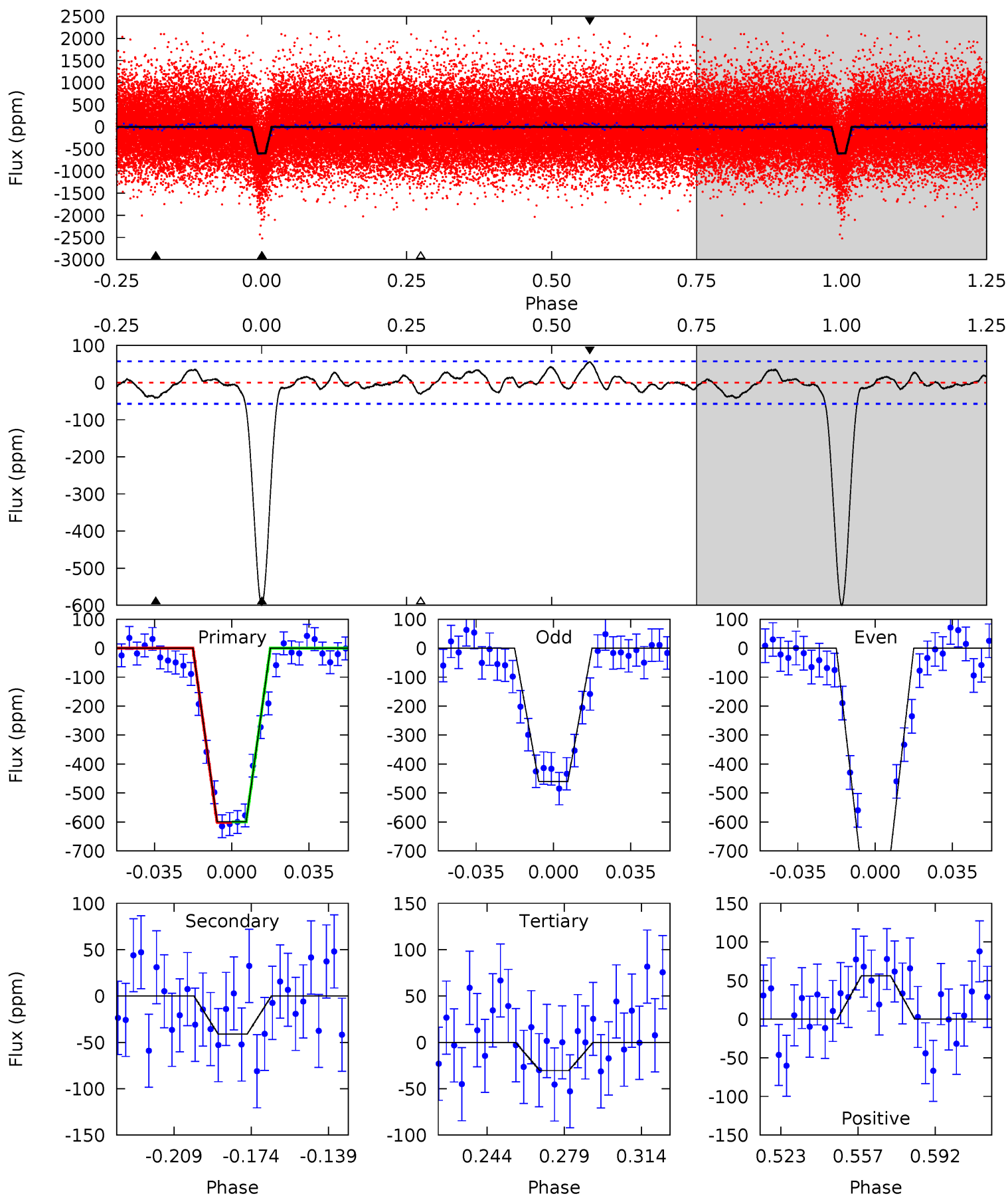
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.3	3.51	3.50	4.26	4.75	2.05	1.48	47.8	47.0	0.00	-0.75	8.53	1.01	0.08	1.72



Alt Model-Shift Uniqueness Test

011614528-01, P = 1.870977 Days, E = 132.695660 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.9	3.42	2.53	4.68	4.78	2.11	1.40	47.4	45.3	0.89	-1.26	11.6	1.05	0.09	0.09



Stellar Parameters For KIC 011614528

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6384^{+179}_{-246}	$4.419^{+0.067}_{-0.202}$	$-0.160^{+0.250}_{-0.300}$	$1.086^{+0.347}_{-0.124}$	$1.129^{+0.162}_{-0.162}$	$1.240^{+0.436}_{-0.654}$
	+3%/-4%	+2%/-5%	+156%/-188%	+32%/-11%	+14%/-14%	+35%/-53%
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 011614528-01 / KOI 3885.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-39 ± 11	$3.08^{+0.74}_{-0.55}$	2362^{+166}_{-129}	3468^{+354}_{-309}	$1.975^{+1.334}_{-0.792}$
Alt.	-41 ± 12	$3.12^{+0.69}_{-0.55}$	2374^{+176}_{-133}	3533^{+332}_{-286}	$2.170^{+1.378}_{-0.922}$

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 $A_{obs} \gg 1.0$

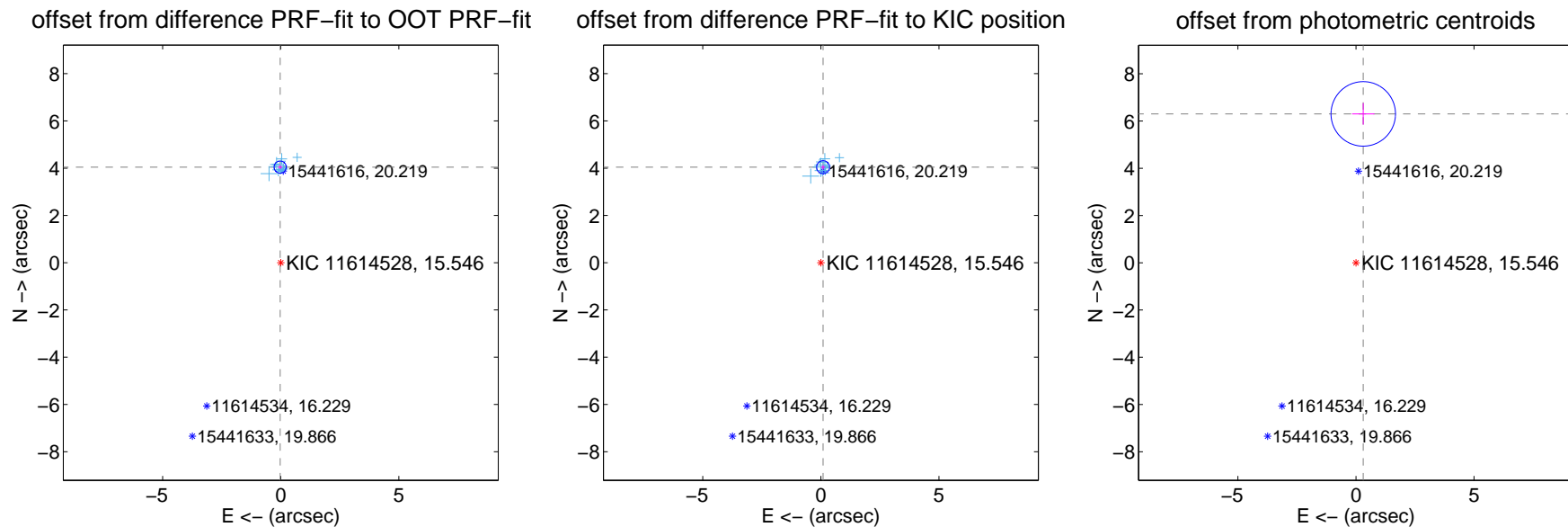
DV Centroid Data

Supplemental centroid analysis for 011614528-01. Kepler magnitude: 15.55. Transit SNR 34.57

There are 14 quarters with good PRF difference image offsets

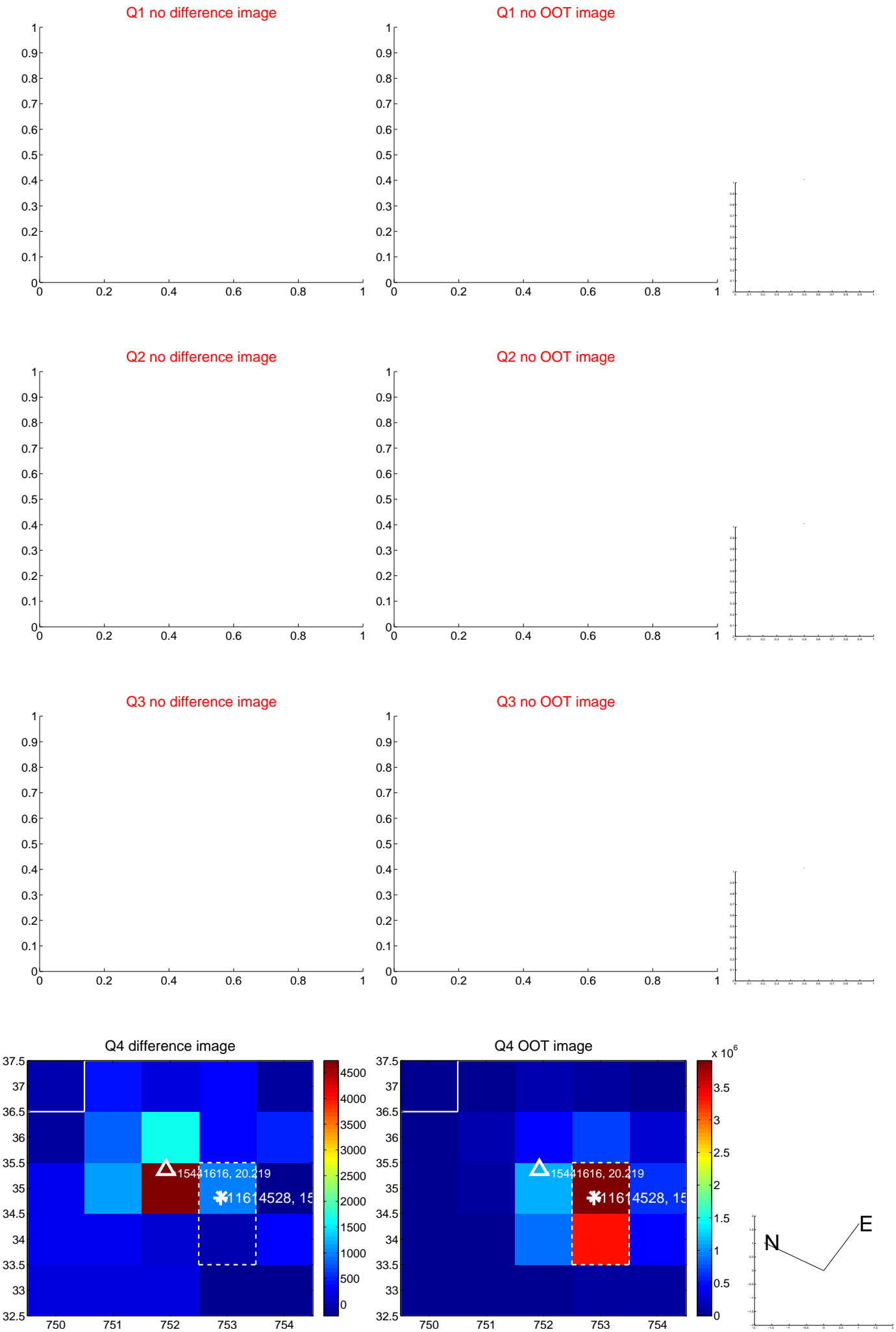
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.044 ± 0.086	47.26	0.024 ± 0.096	4.044 ± 0.086
PRF-fit source offset from KIC position	4.043 ± 0.091	44.31	-0.094 ± 0.091	4.042 ± 0.091
photometric centroid source offset	6.31 ± 0.46	13.86	-0.31 ± 0.47	6.30 ± 0.46

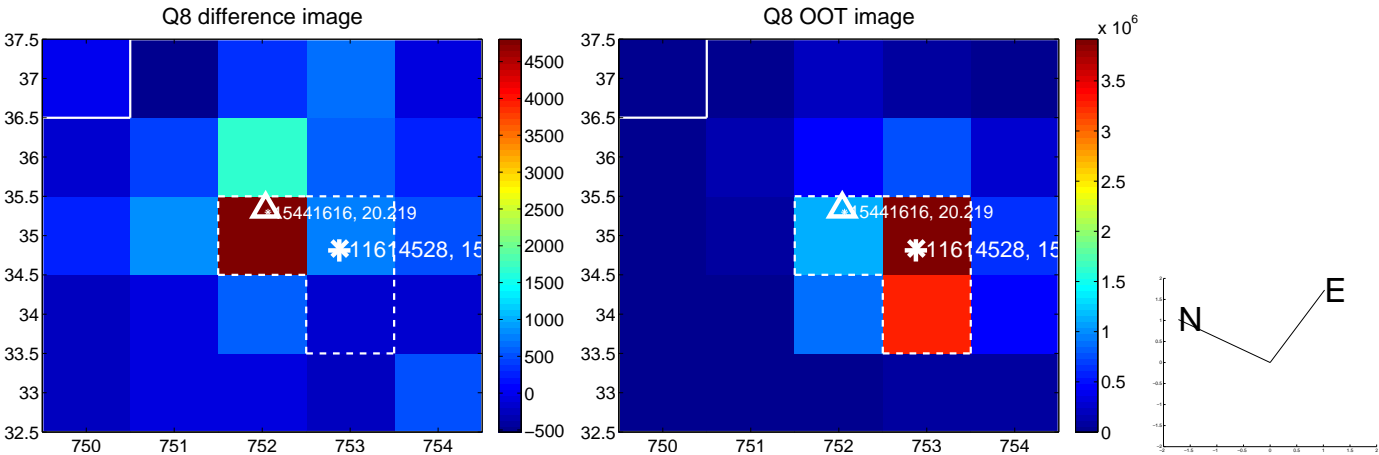
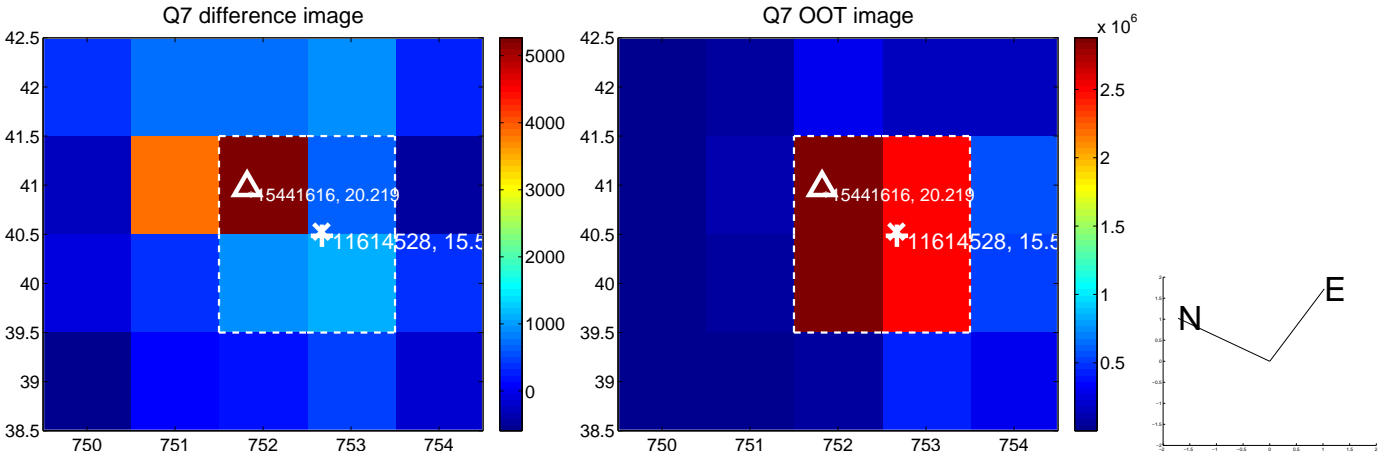
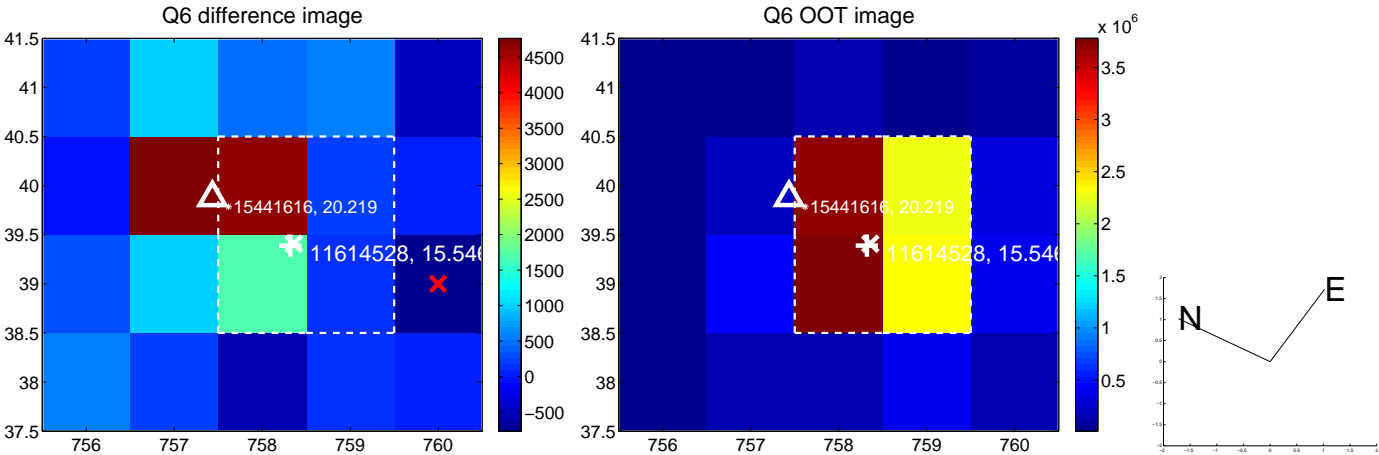
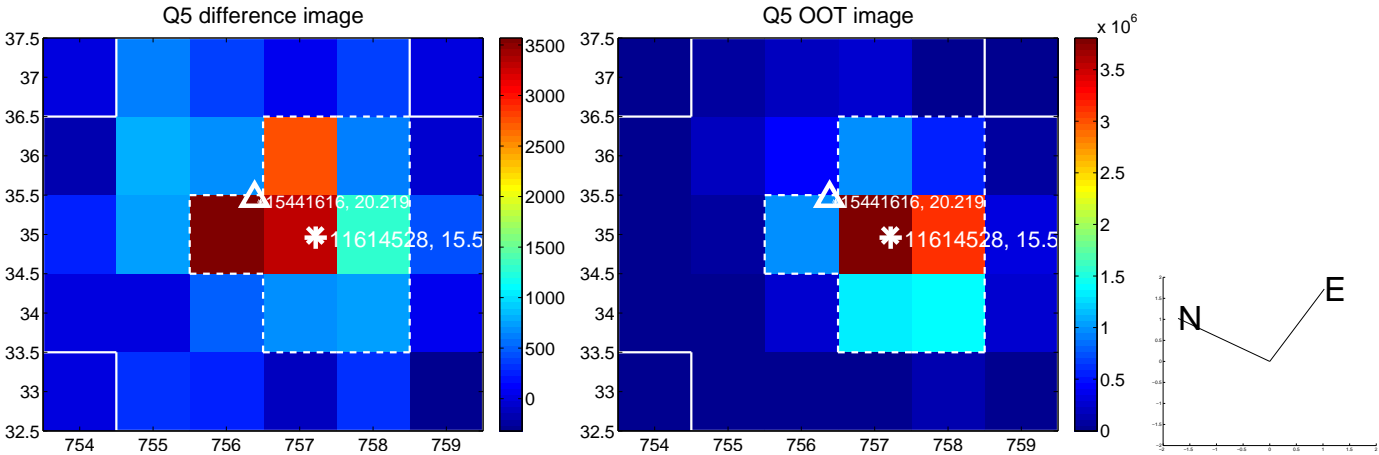


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

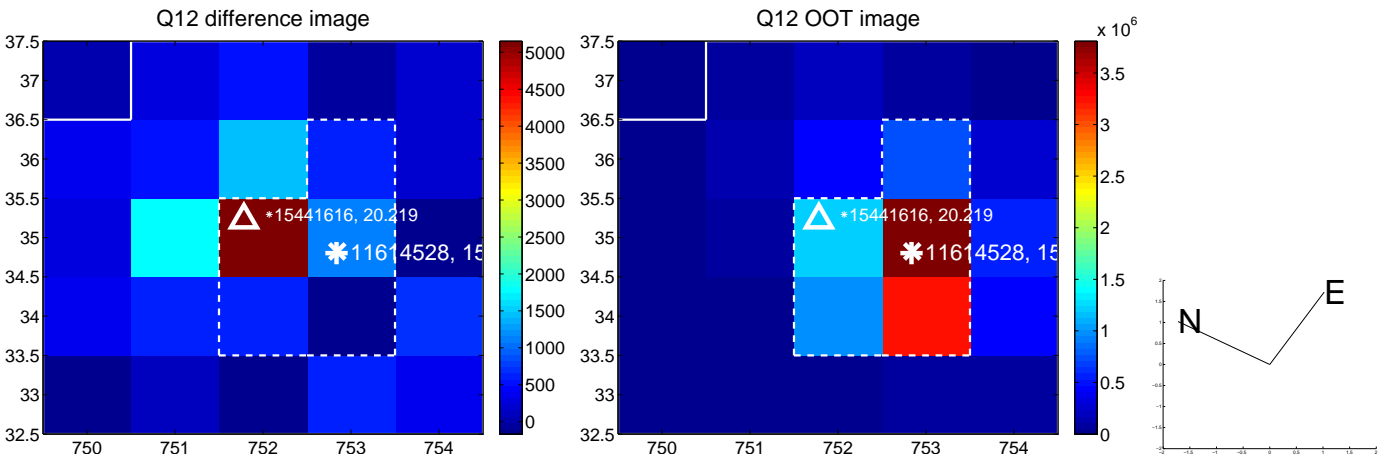
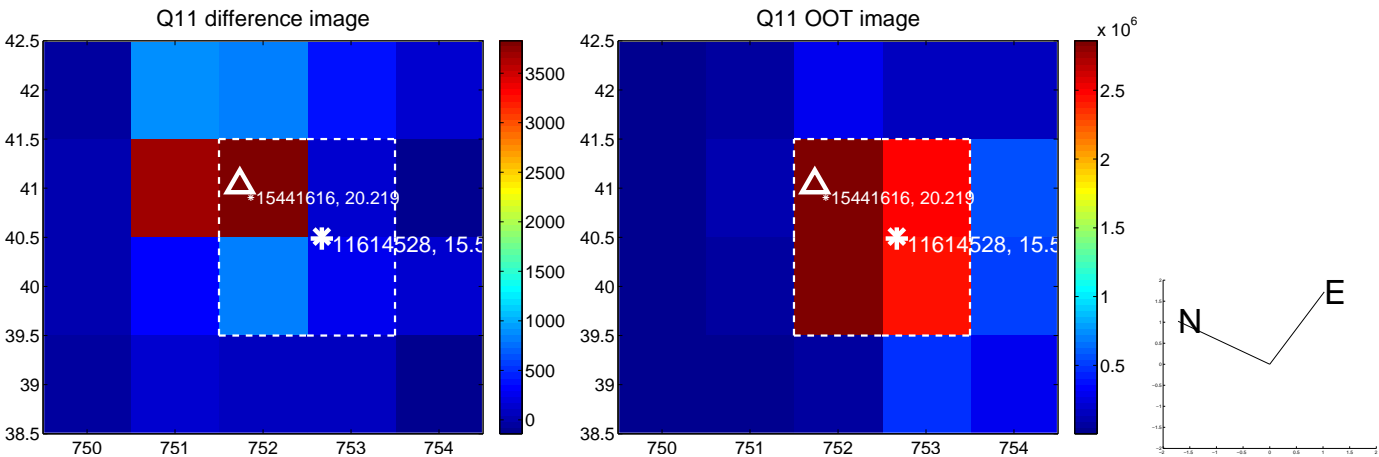
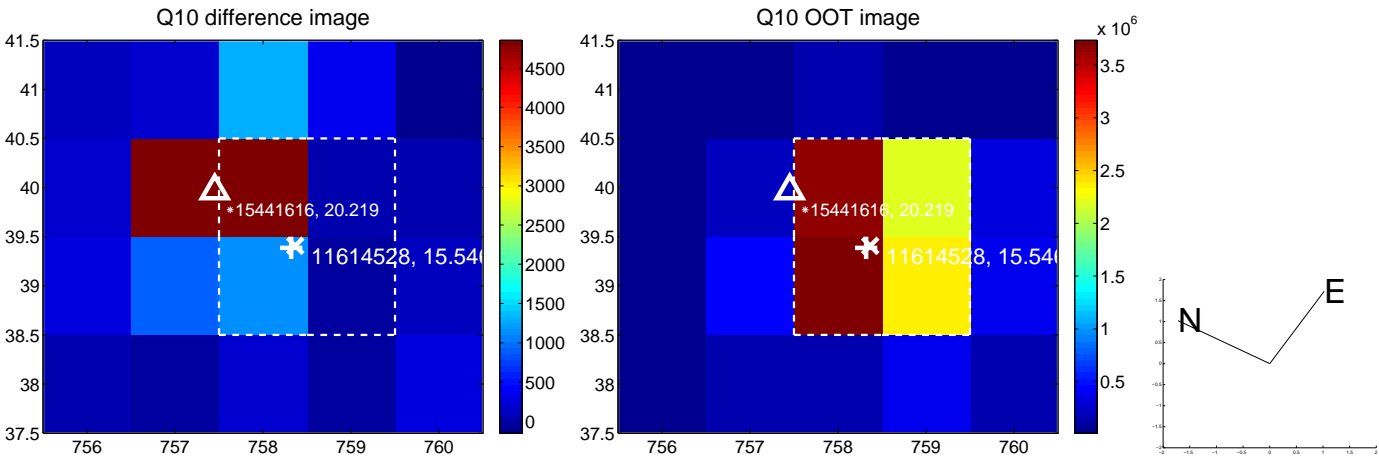
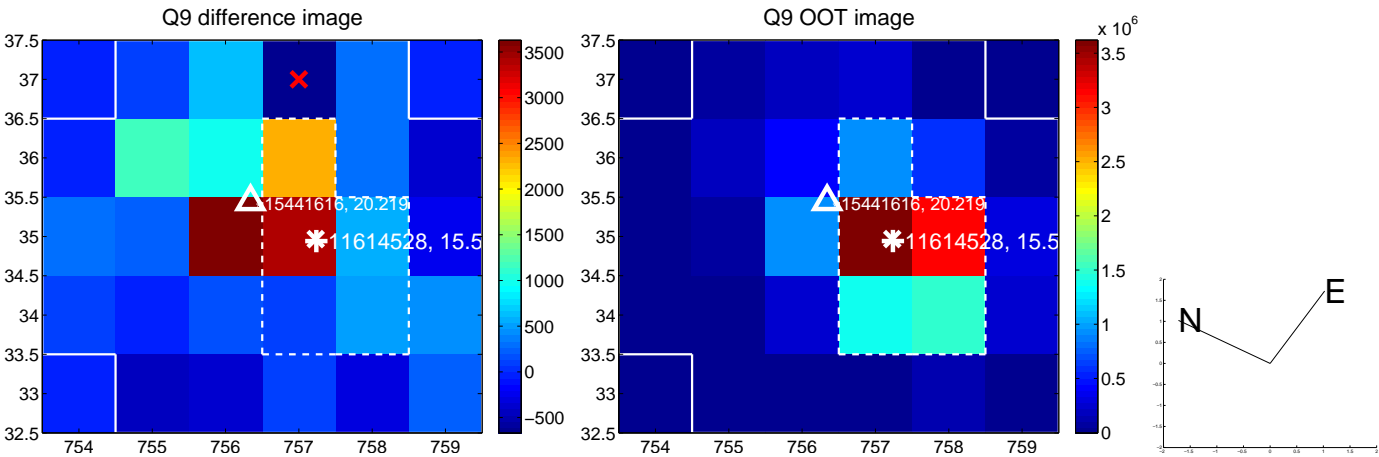
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



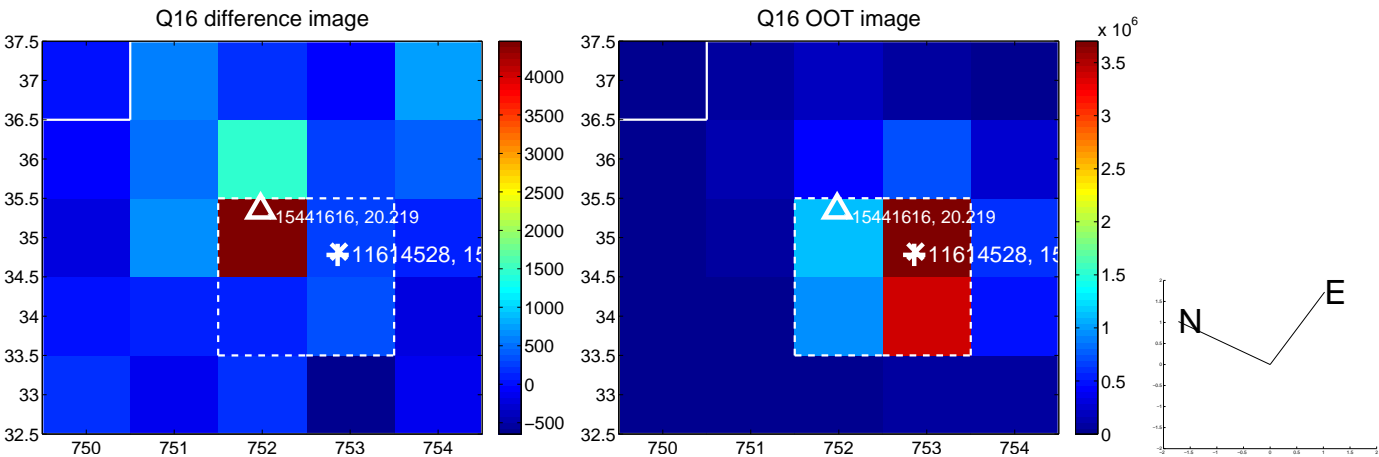
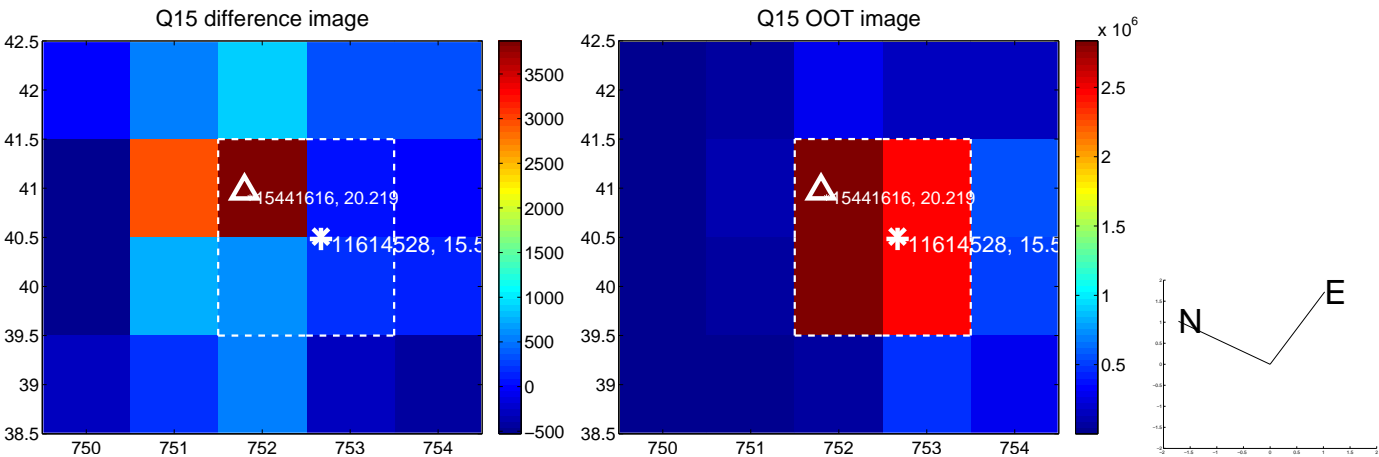
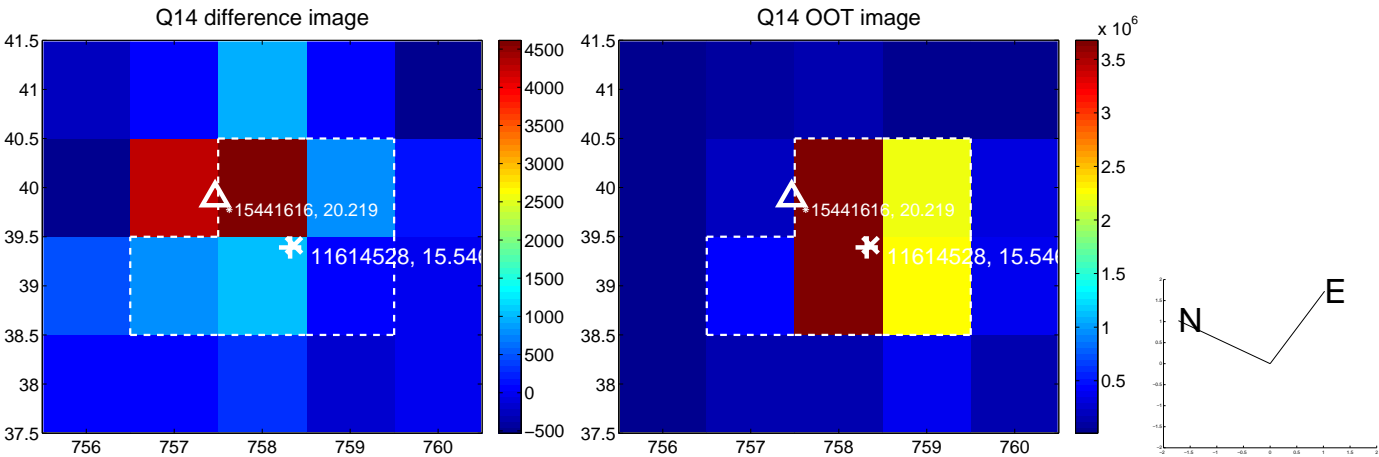
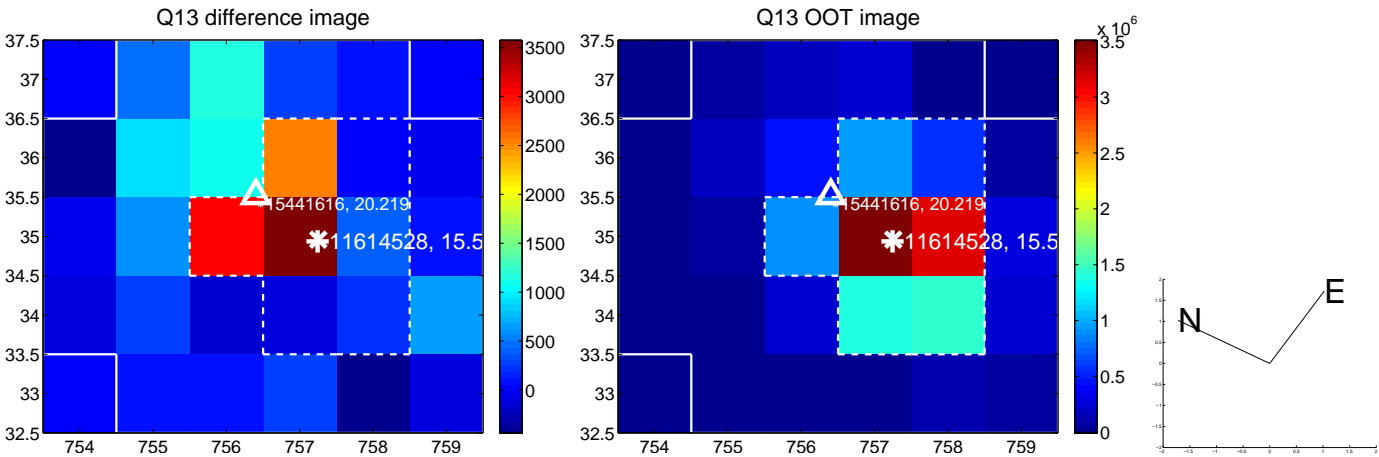
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



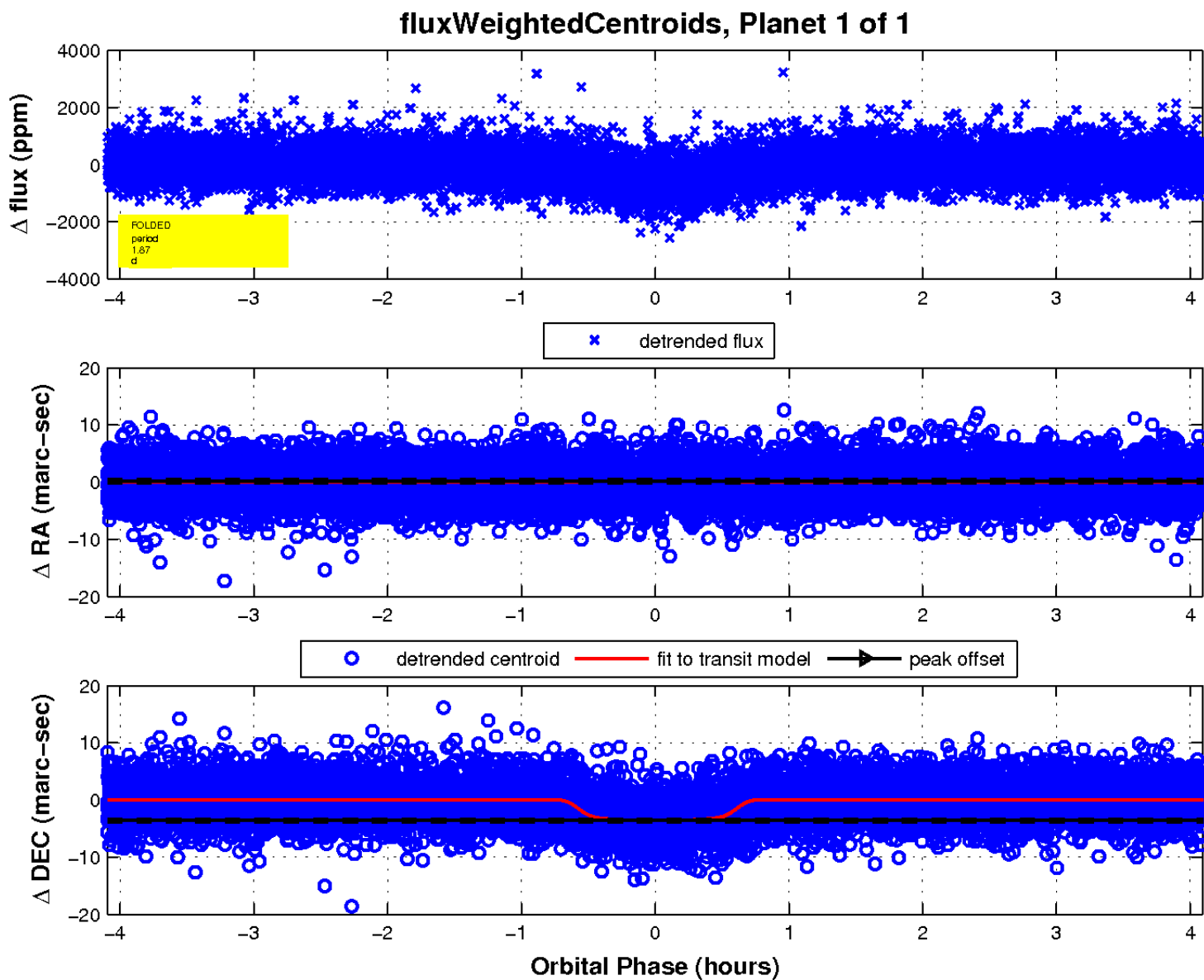
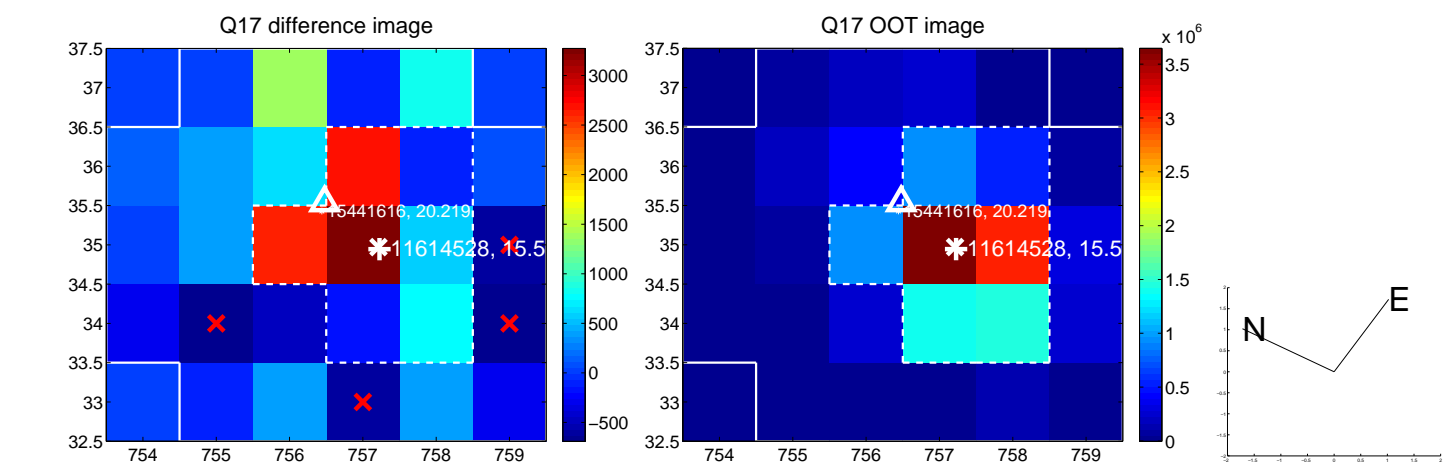
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

