

KIC 002162994

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})
002162994-01	OBS	6260.01	2.050784	132.638245	160408.8	5.000	24137.7	-1.0	0.81	5610	32.34	666.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002162994-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS

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.

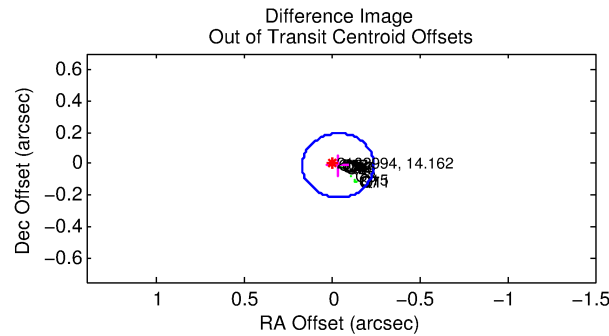
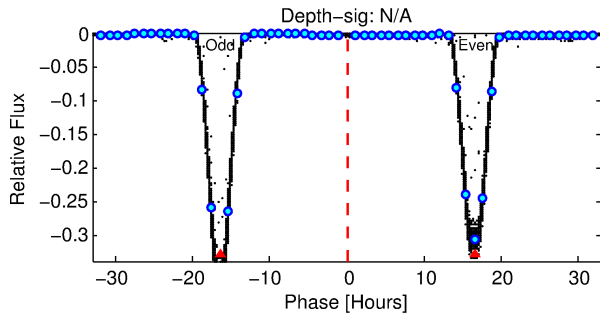
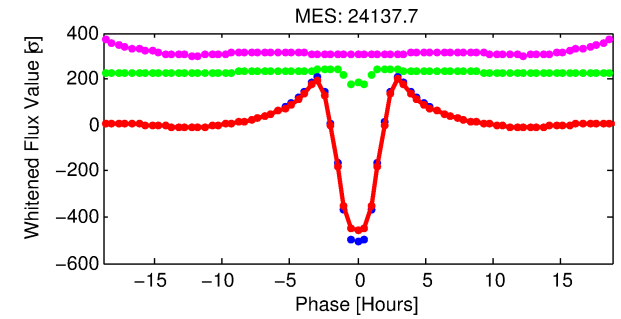
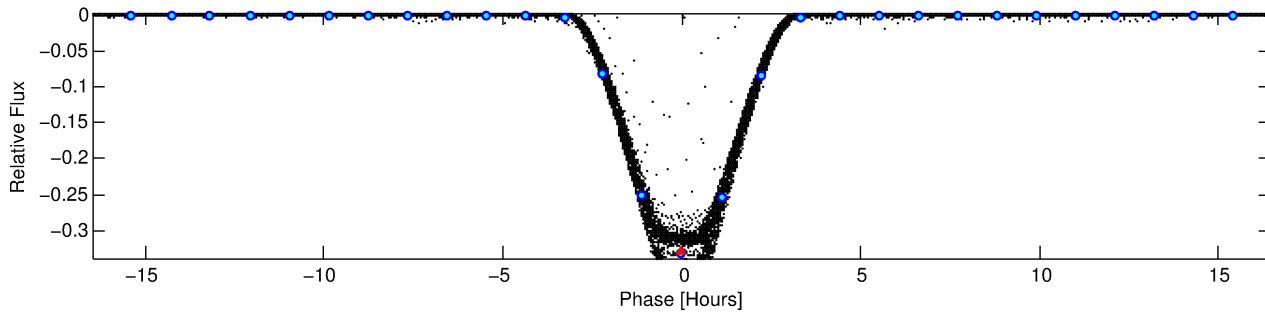
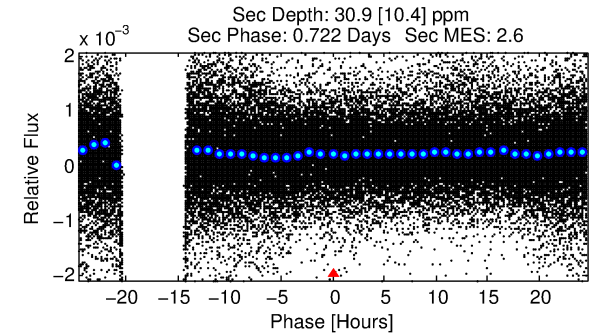
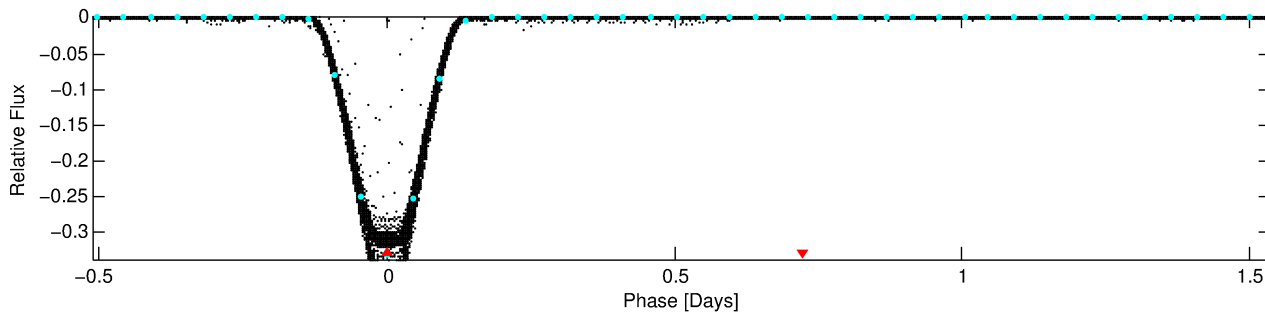
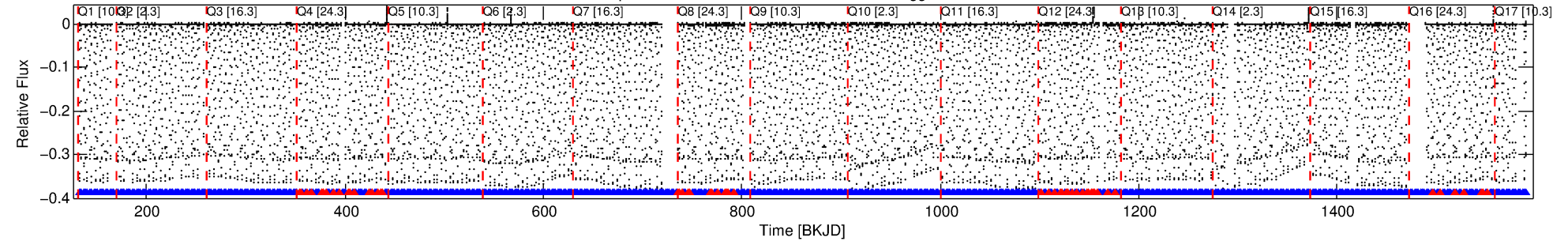
Ephemeris Match Information For 002162994-01

No Significant Match Found

DV One-Page Summary

KIC: 2162994 Candidate: 1 of 1 Period: 2.051 d
KOI: K06260 Corr: No Ephemeris Match

Kp: 14.16 R*: 0.81 Rs Teff: 5610.0 K Logg: 4.53 Fe/H: -0.380



TPS TCE Results:

Period = 2.05078 d
Epoch = 132.6382 BKJD

DV fit results are unavailable

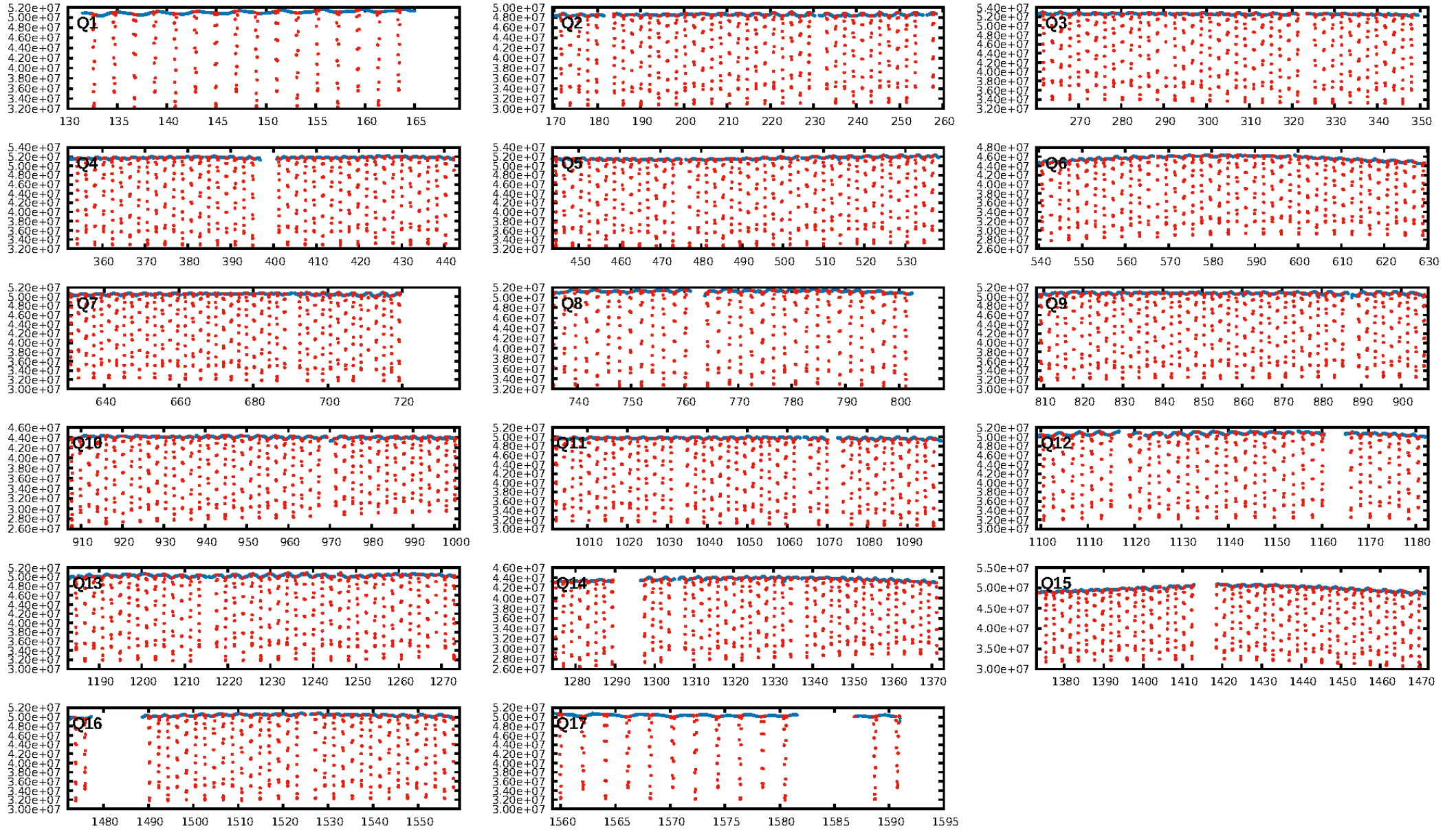
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.91 [572/626]
GhostDiagnostic-chr: 1.399
Centroid-sig: 0.0%
Centroid-so: 0.811 arcsec [2155.74σ]
OotOffset-rm: 0.035 arcsec [0.52σ]
KicOffset-rm: 0.164 arcsec [2.23σ]
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]

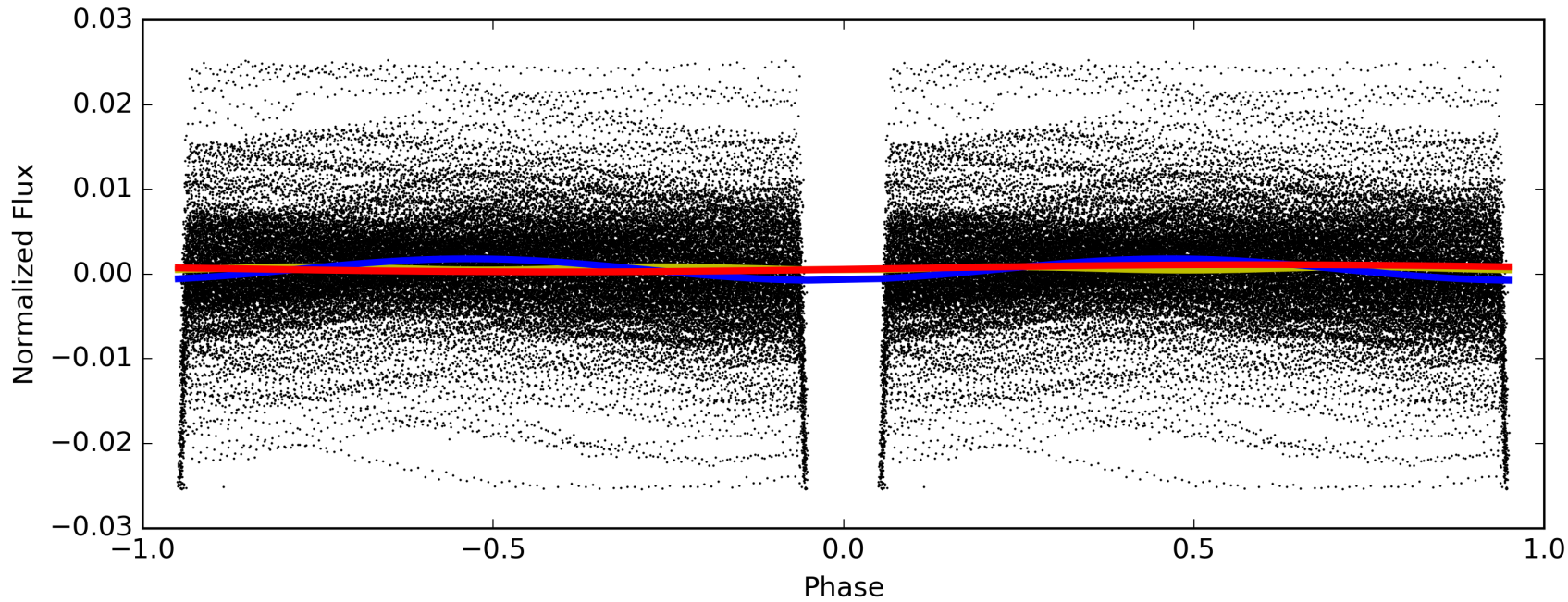
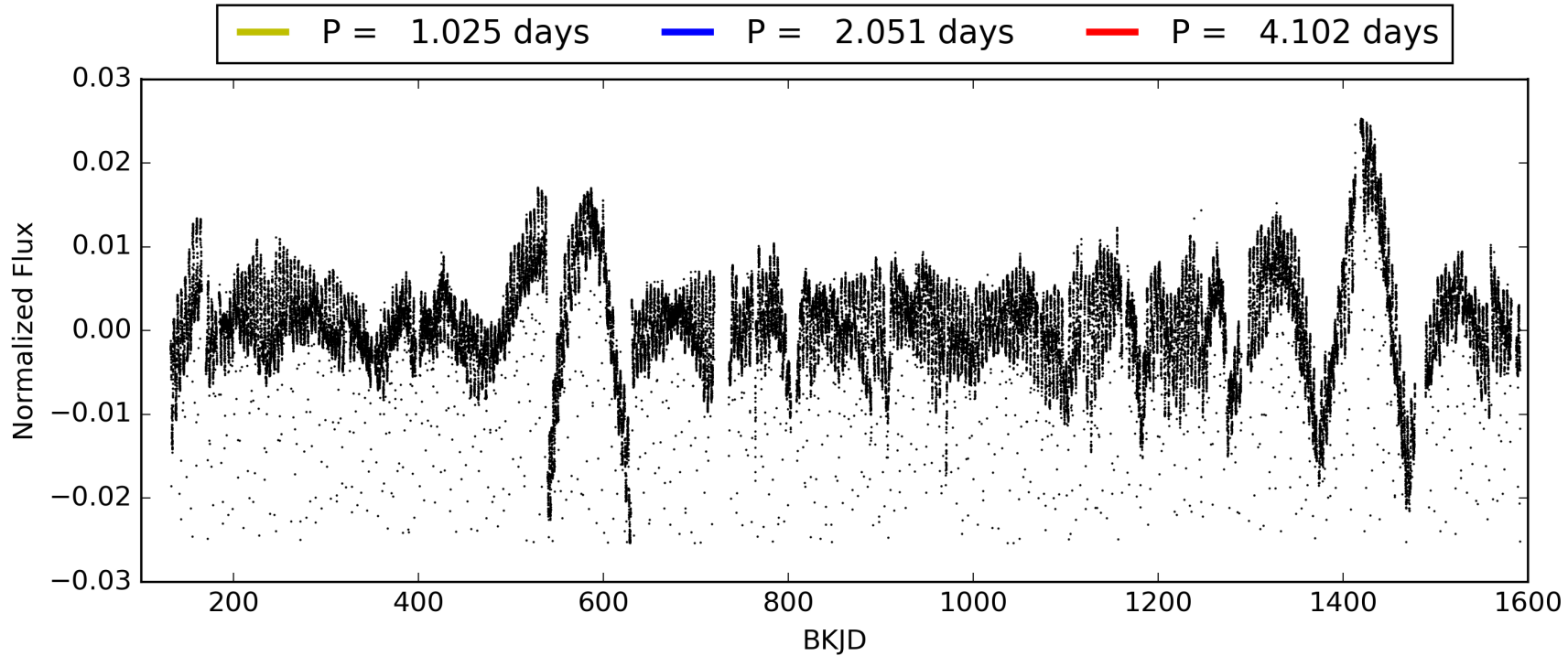
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:38:40 Z

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

TCE 002162994-01, PDC Light Curves

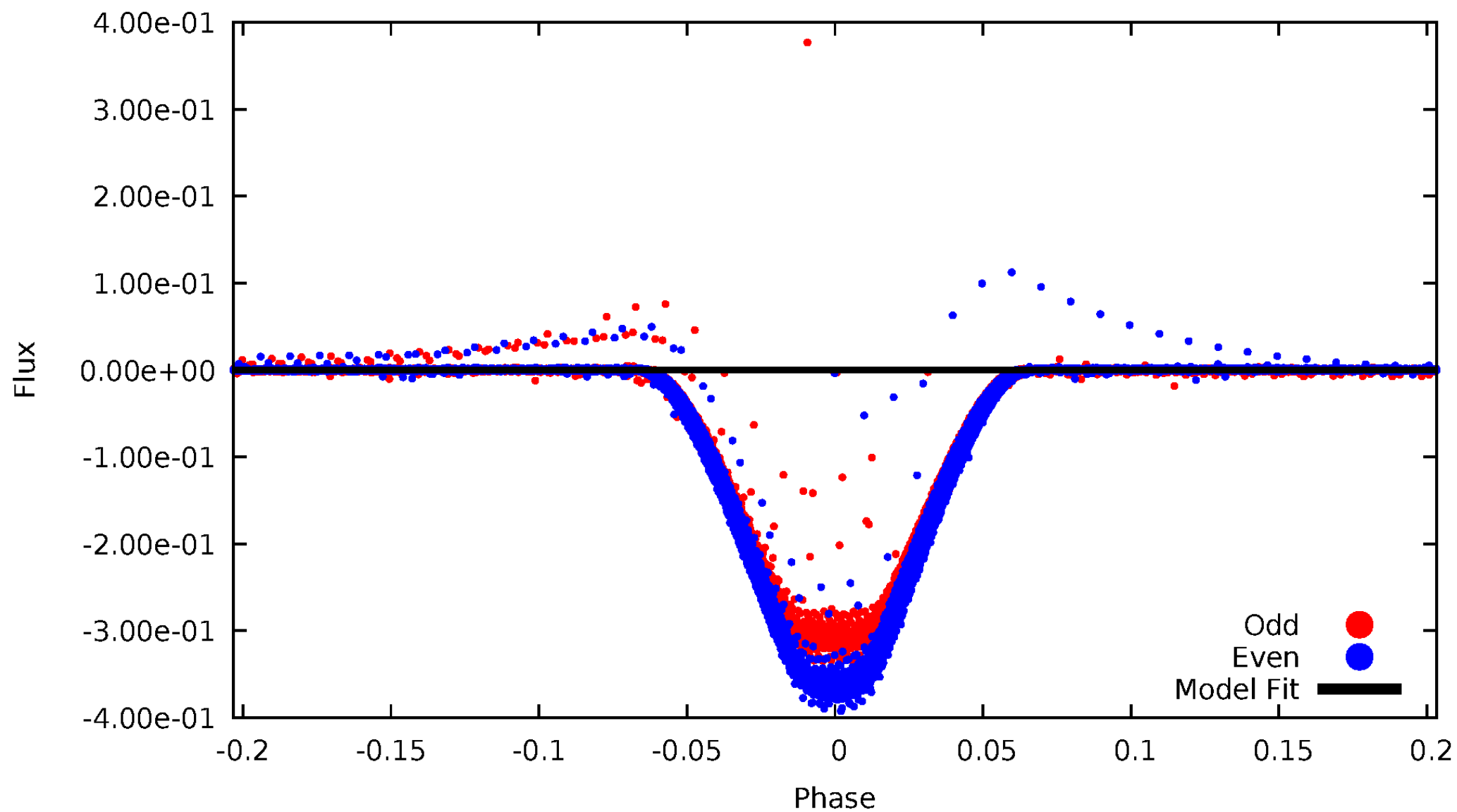


TCE 002162994-01



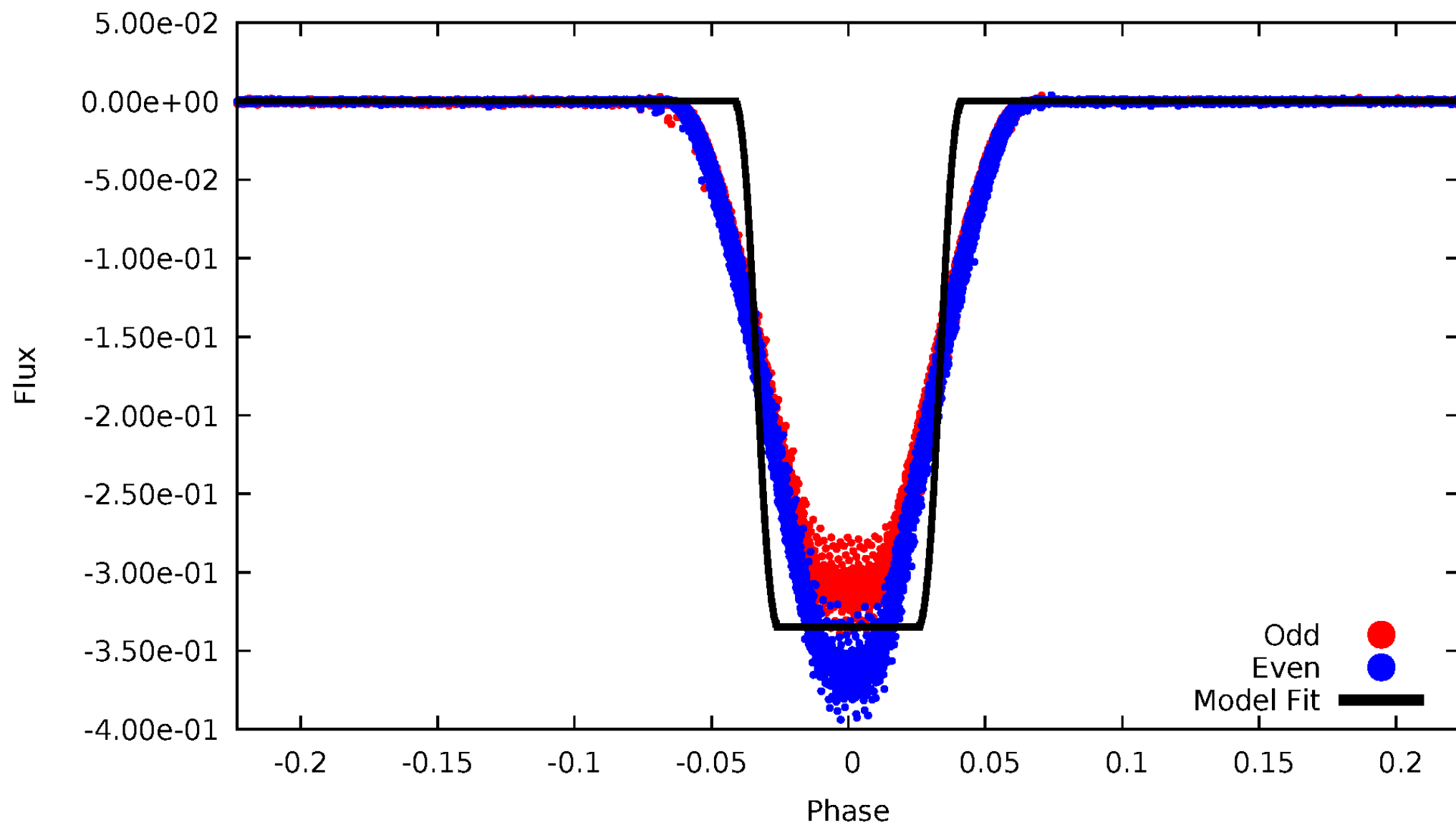
DV Odd/Even

TCE 002162994-01



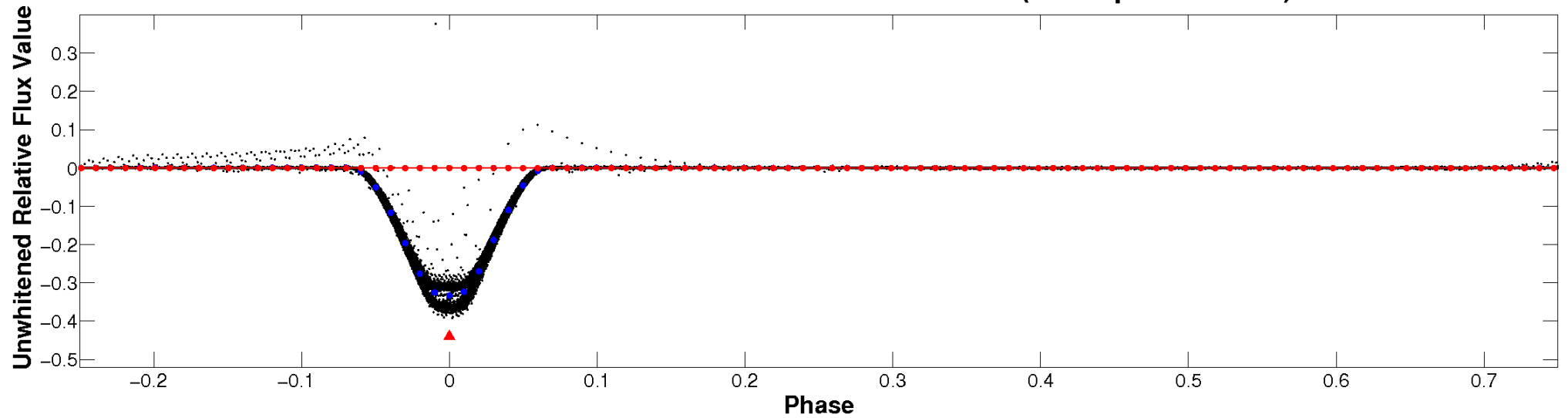
ALT Odd/Even

TCE 002162994-01



Non-Whitened Vs. Whitened Light Curve

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

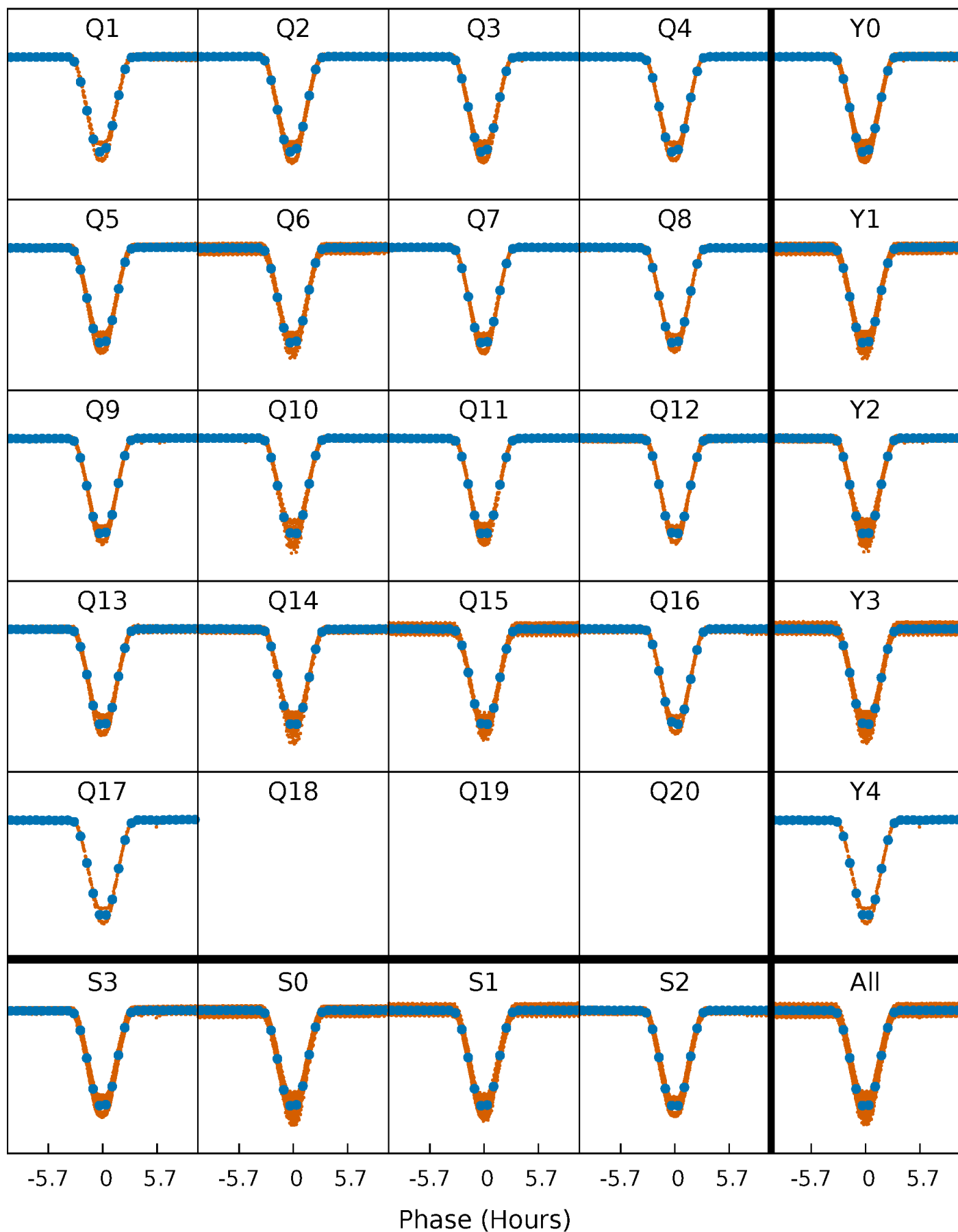


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



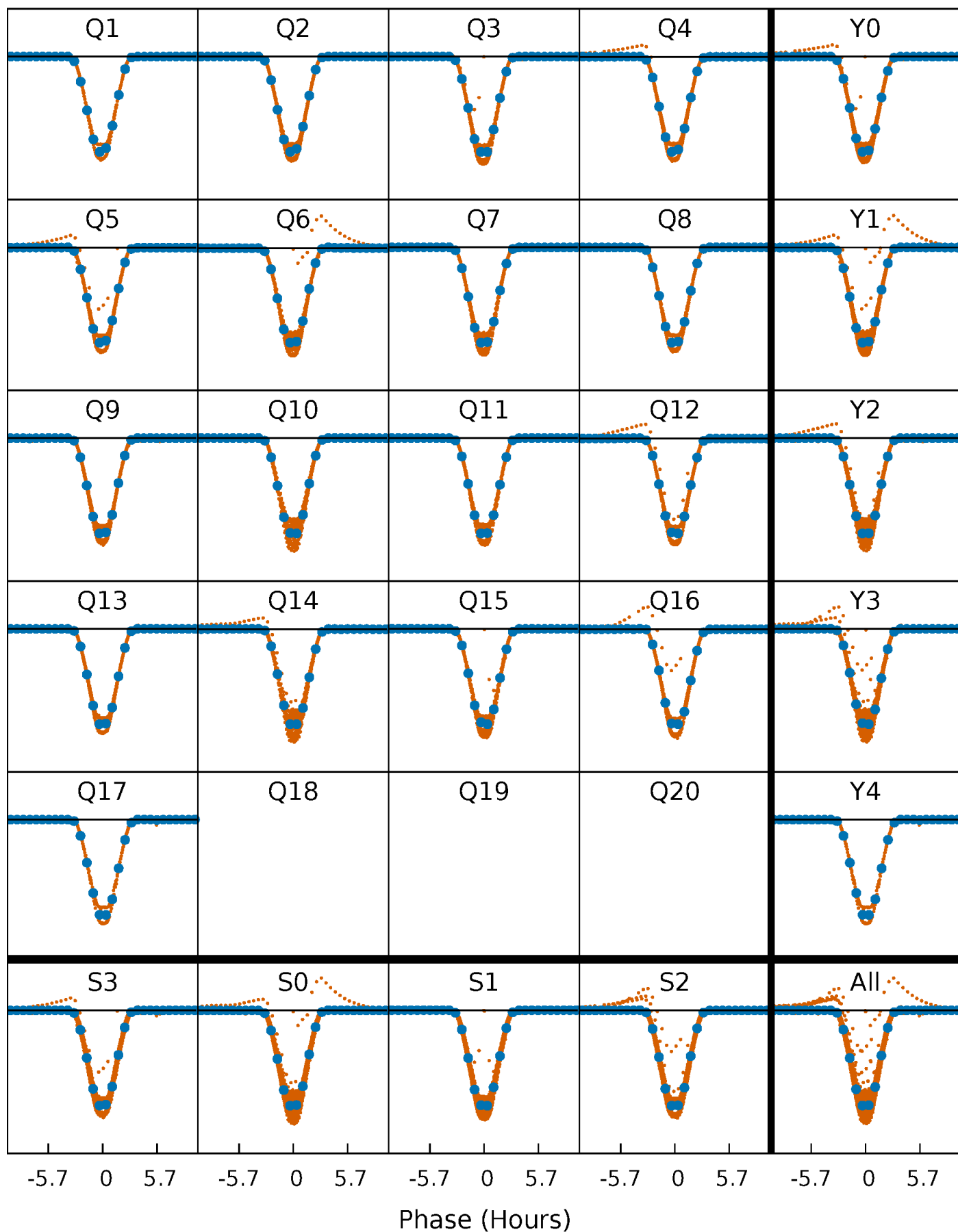
PDC Quarter-Phased Transit Curves

TCE 002162994-01 P= 2.050784 Days $T_0=132.638245$ (BKJD)



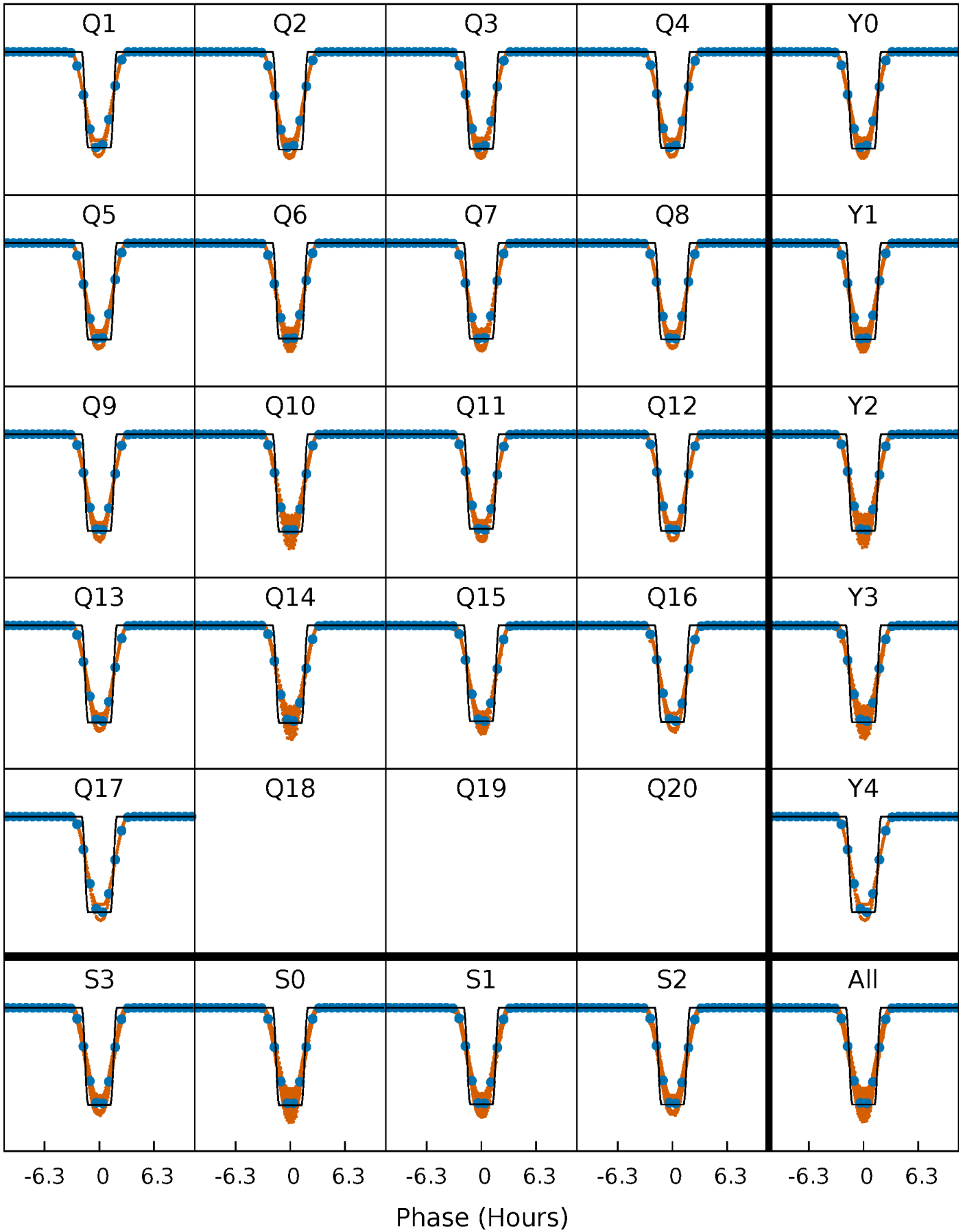
DV Quarter-Phased Transit Curves

TCE 002162994-01 P= 2.050784 Days $T_0=132.638245$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

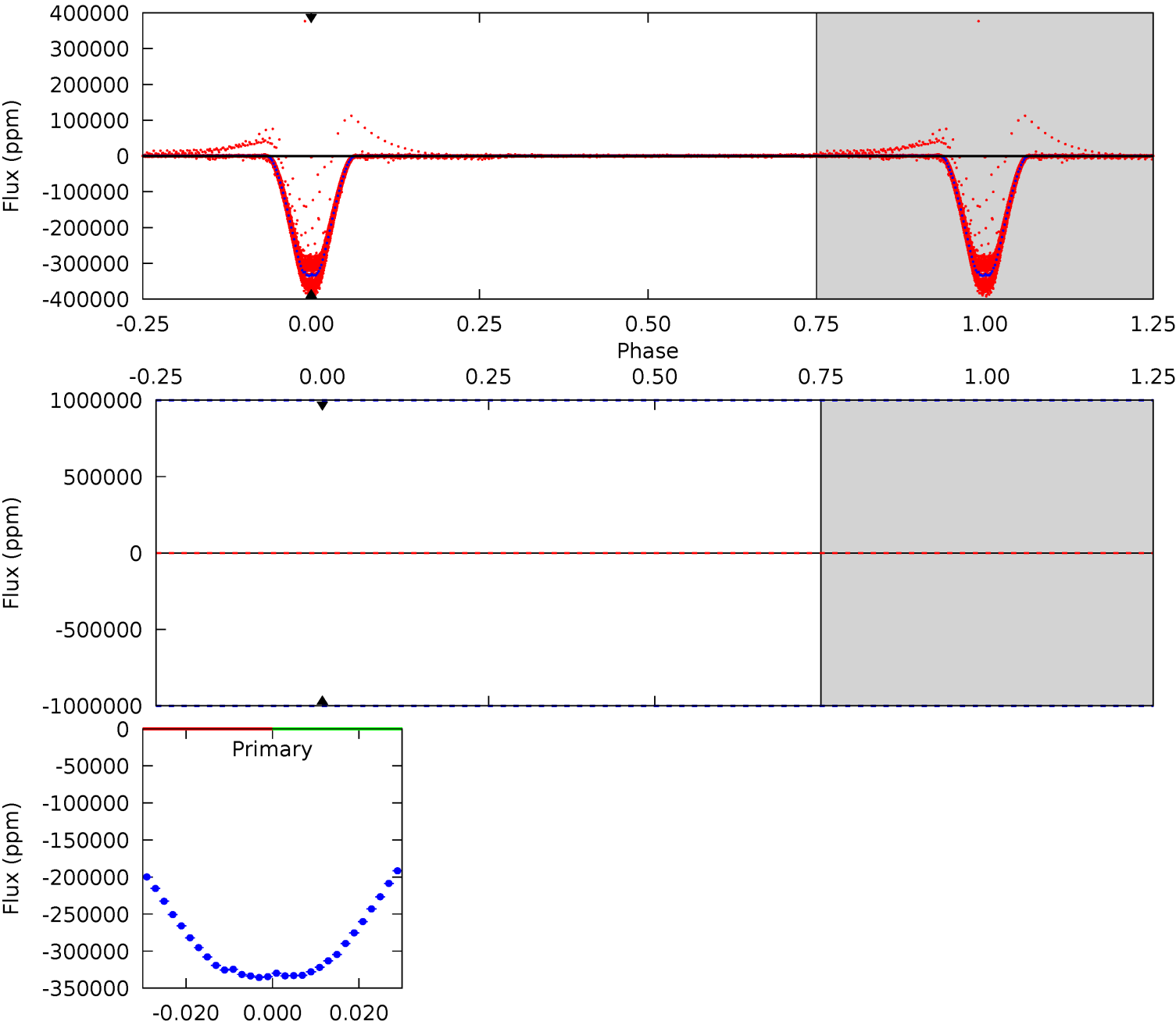
TCE 002162994-01 P= 2.050784 Days $T_0=132.636583$ (BKJD)



DV Model-Shift Uniqueness Test

002162994-01, P = 2.050784 Days, E = 130.587461 Days

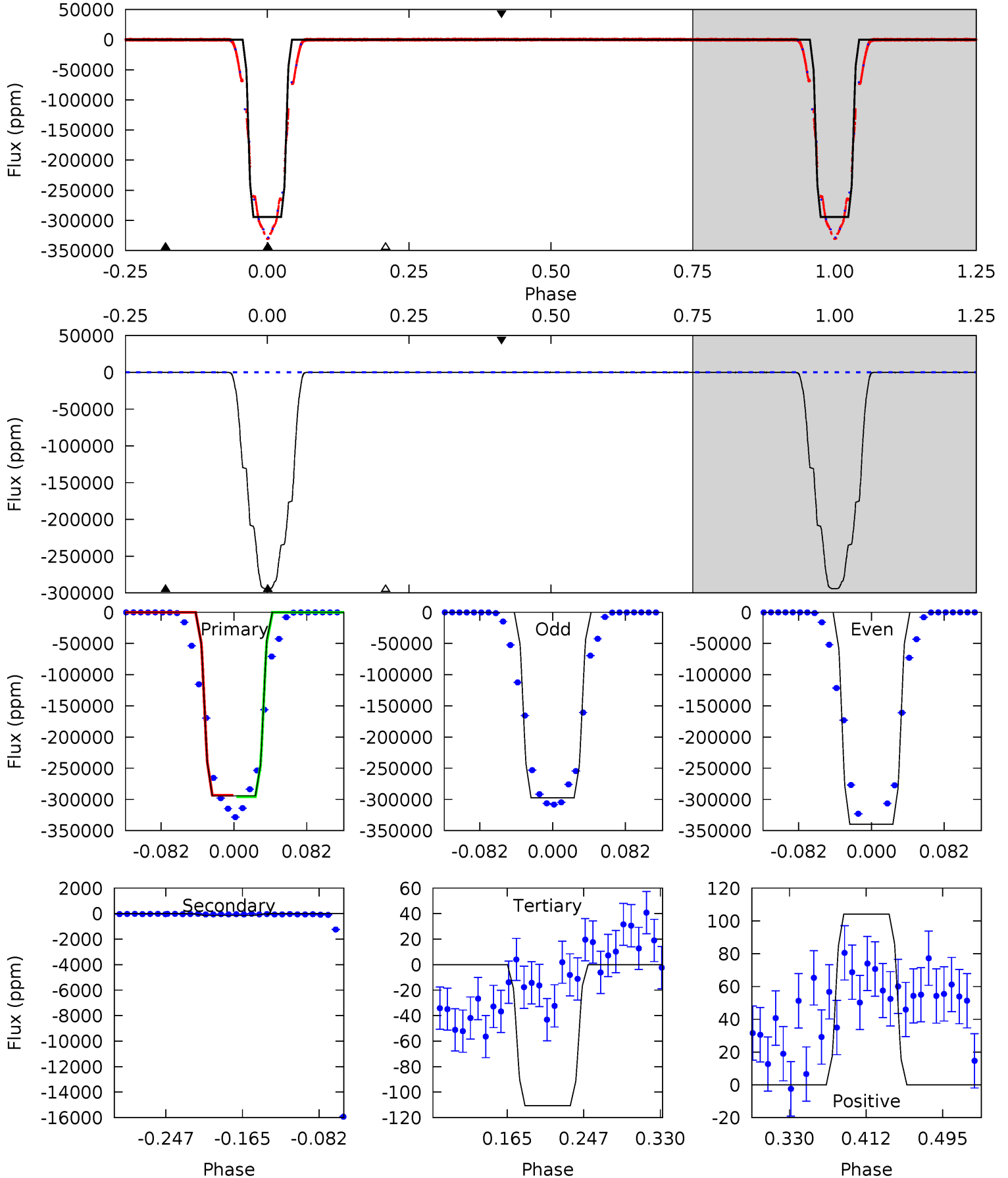
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

002162994-01, P = 2.050784 Days, E = 130.585799 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11700	5.72	4.40	4.14	4.61	1.74	1.87	11696	11696	1.33	1.58	1364	1.01	0.00	0



Stellar Parameters For KIC 002162994

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5610^{+152}_{-152}	$4.533^{+0.074}_{-0.137}$	$-0.380^{+0.300}_{-0.300}$	$0.808^{+0.181}_{-0.077}$	$0.813^{+0.097}_{-0.071}$	$2.170^{+0.668}_{-0.905}$
	+3%/-3%	+2%/-3%	+79%/-79%	+22%/-10%	+12%/-9%	+31%/-42%
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 002162994-01 / KOI 6260.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$33.86^{+9.16}_{-9.59}$	1824^{+98}_{-79}	-2531^{+7840}_{-2636}	$-0.260^{+46.540}_{-41.222}$
Alt.	-144 ± 25	$51.92^{+10.86}_{-9.50}$	1826^{+94}_{-81}	-2356^{+52}_{-67}	$0.025^{+0.014}_{-0.008}$

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

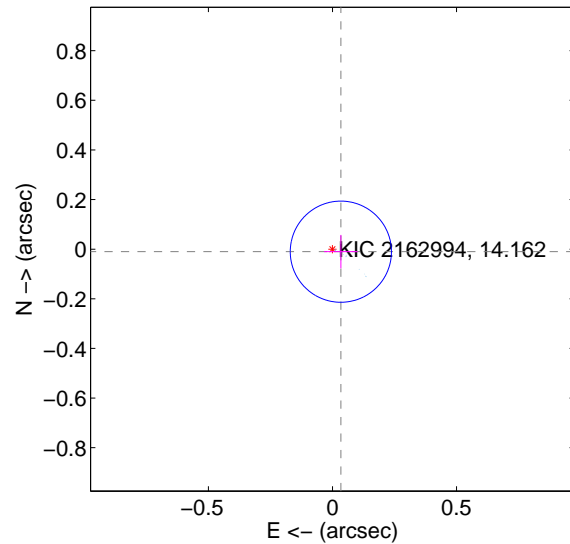
Supplemental centroid analysis for 002162994-01. Kepler magnitude: 14.16. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

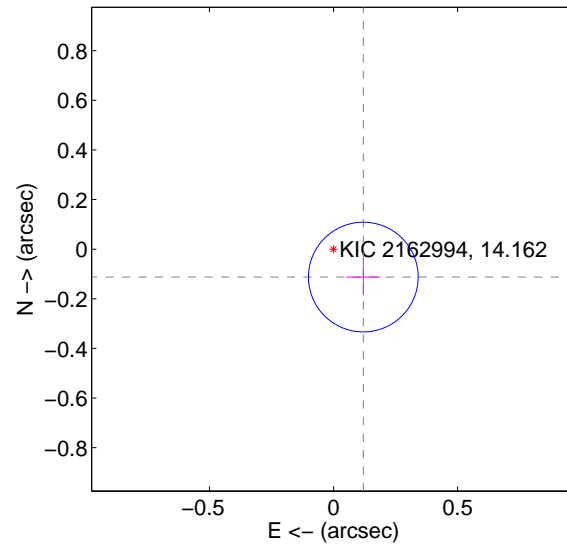
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.035 ± 0.068	0.52	-0.034 ± 0.068	-0.010 ± 0.067
PRF-fit source offset from KIC position	0.164 ± 0.074	2.23	-0.120 ± 0.068	-0.112 ± 0.074
photometric centroid source offset	0.81 ± 0.00	2155.74	-0.02 ± 0.00	-0.81 ± 0.00

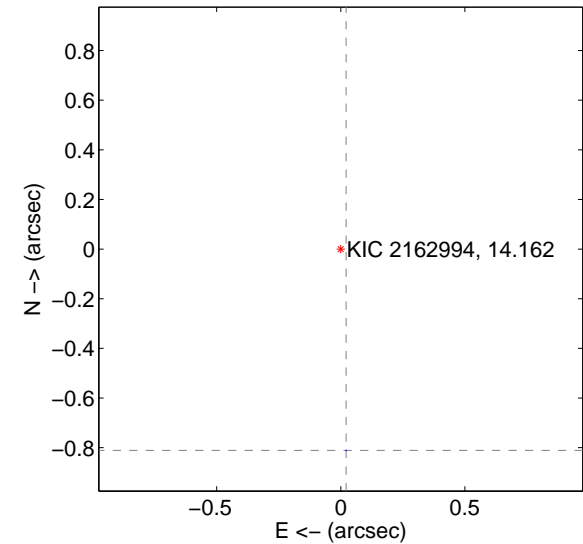
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

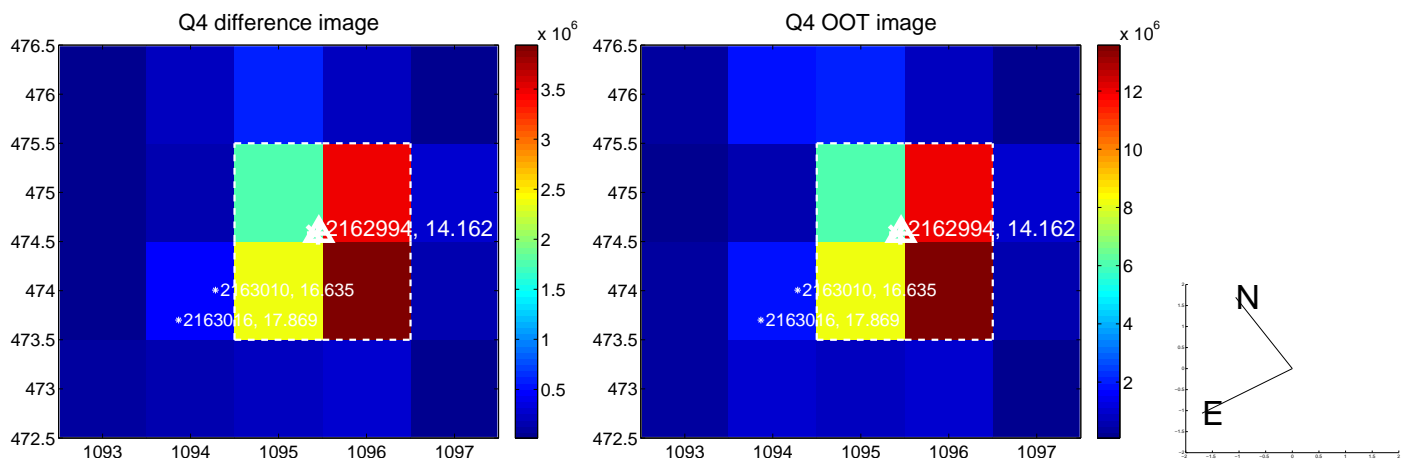
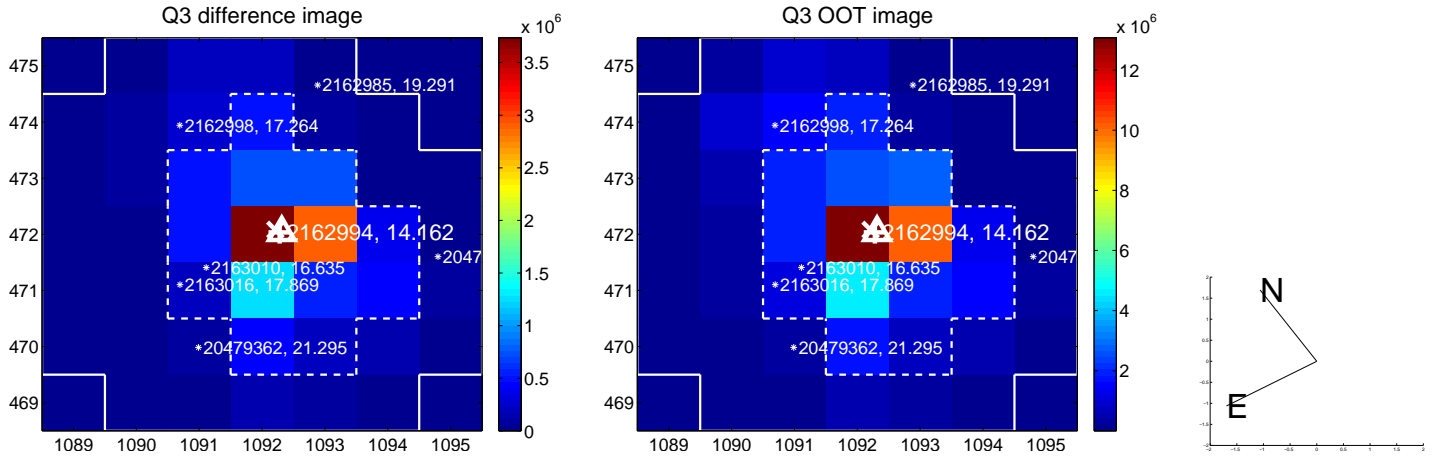
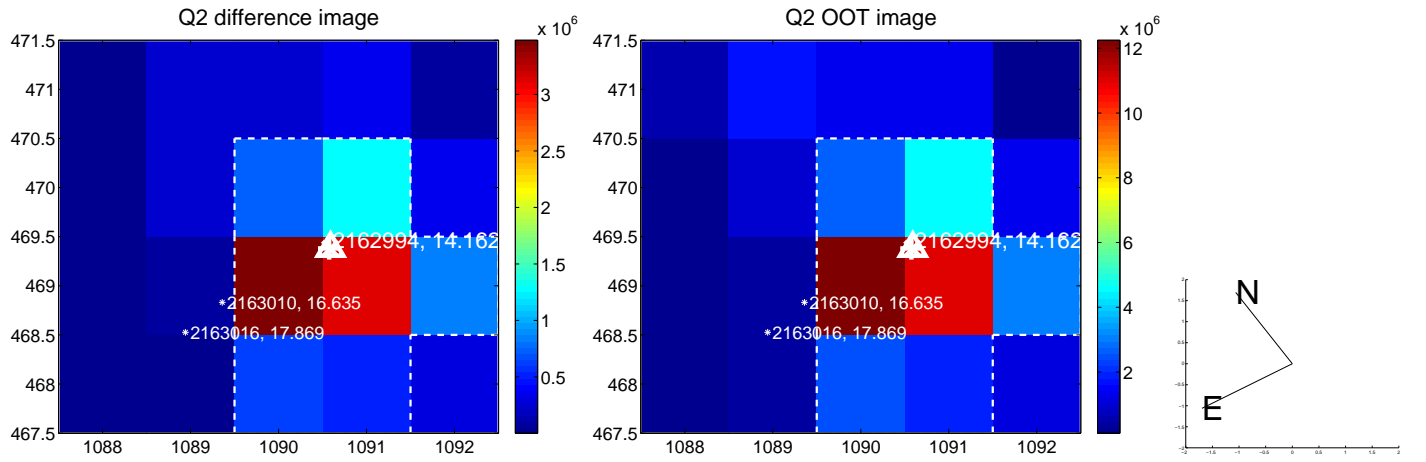
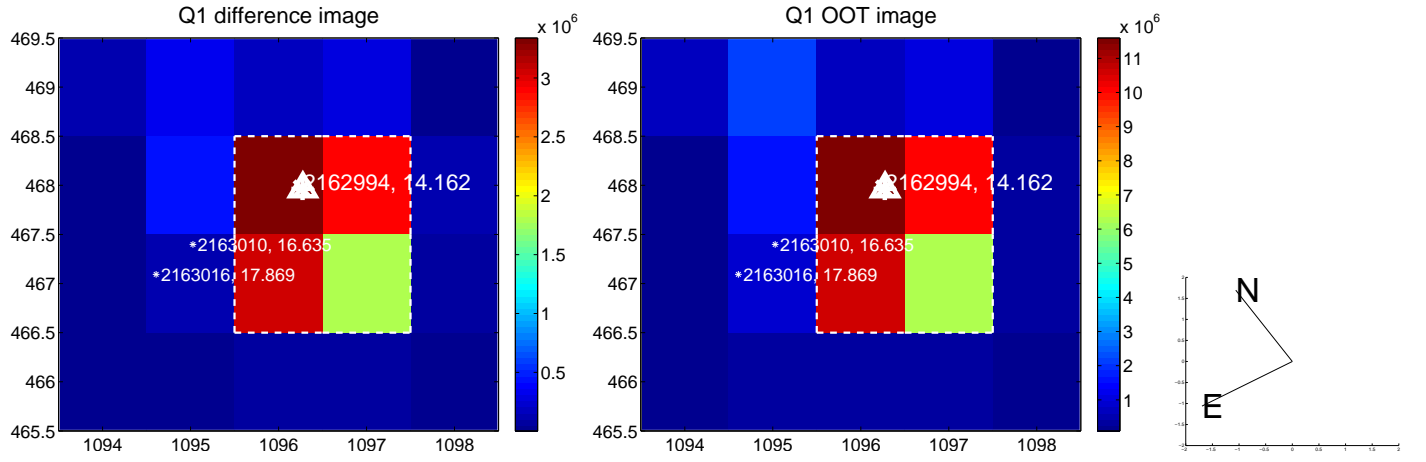


offset from photometric centroids

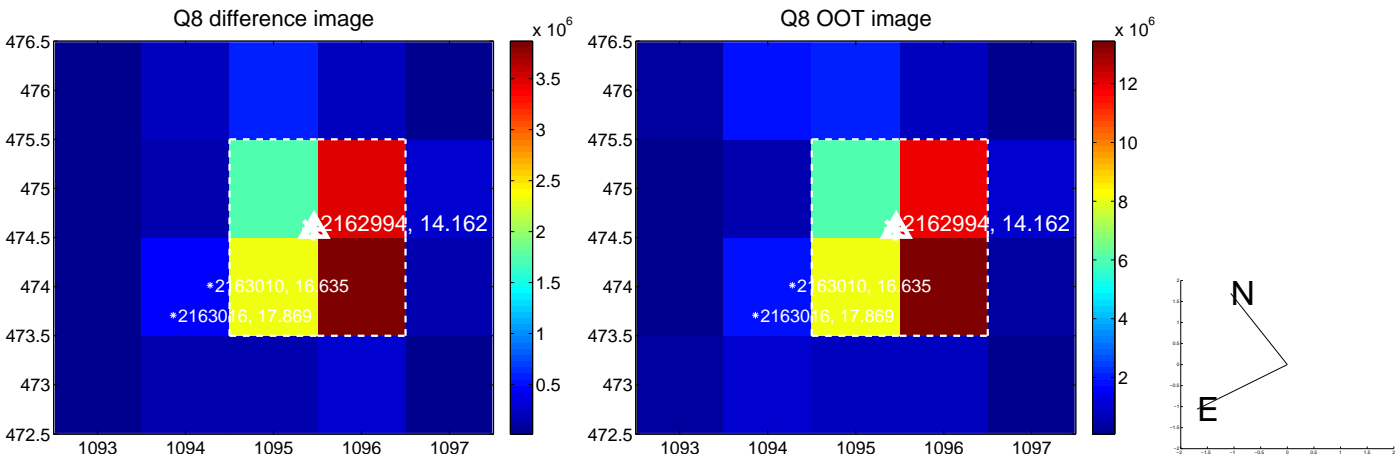
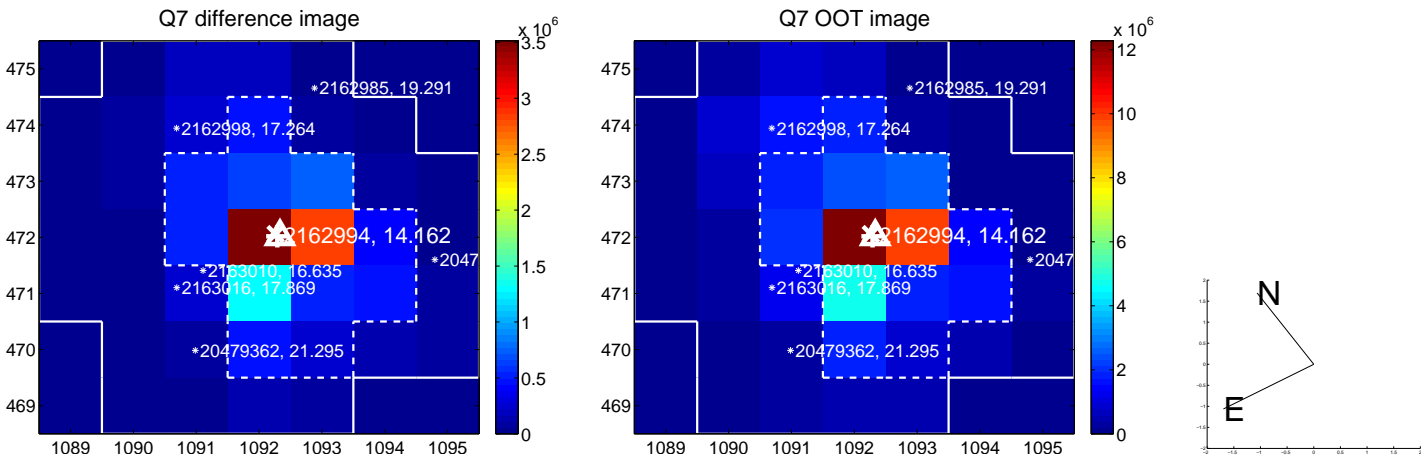
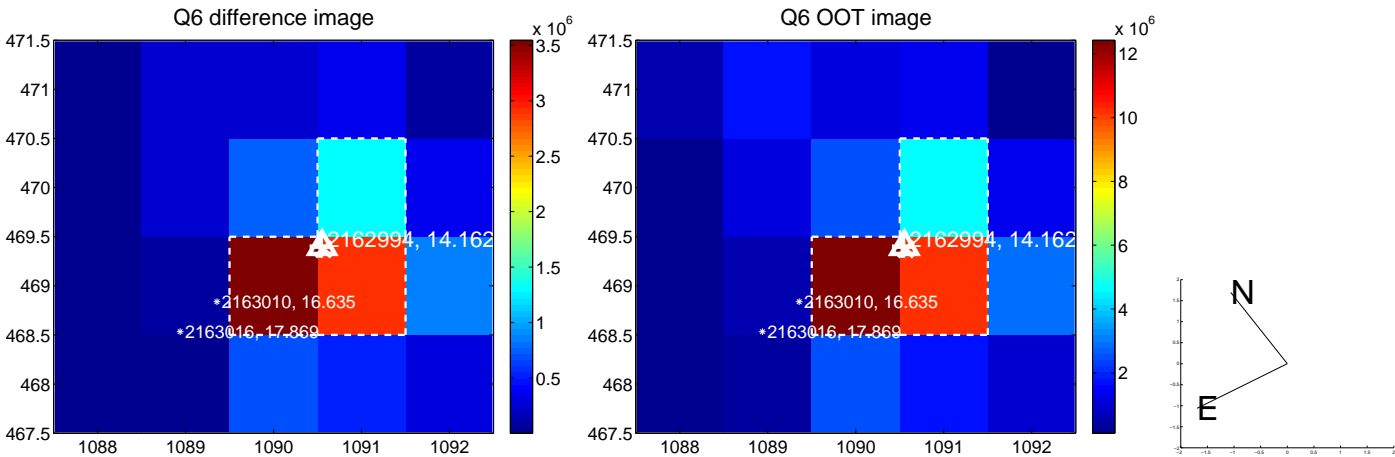
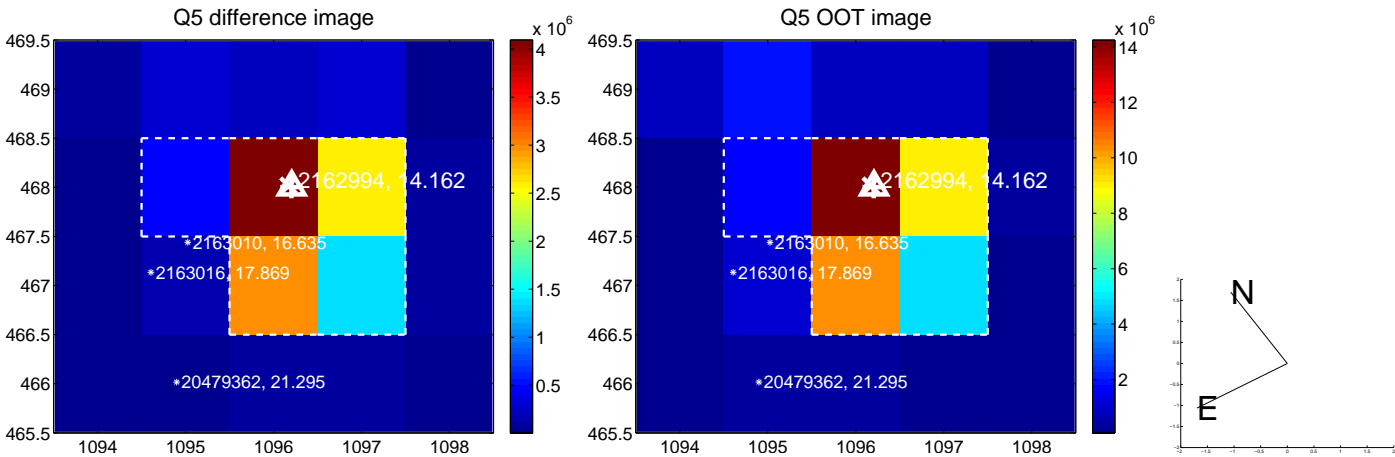


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

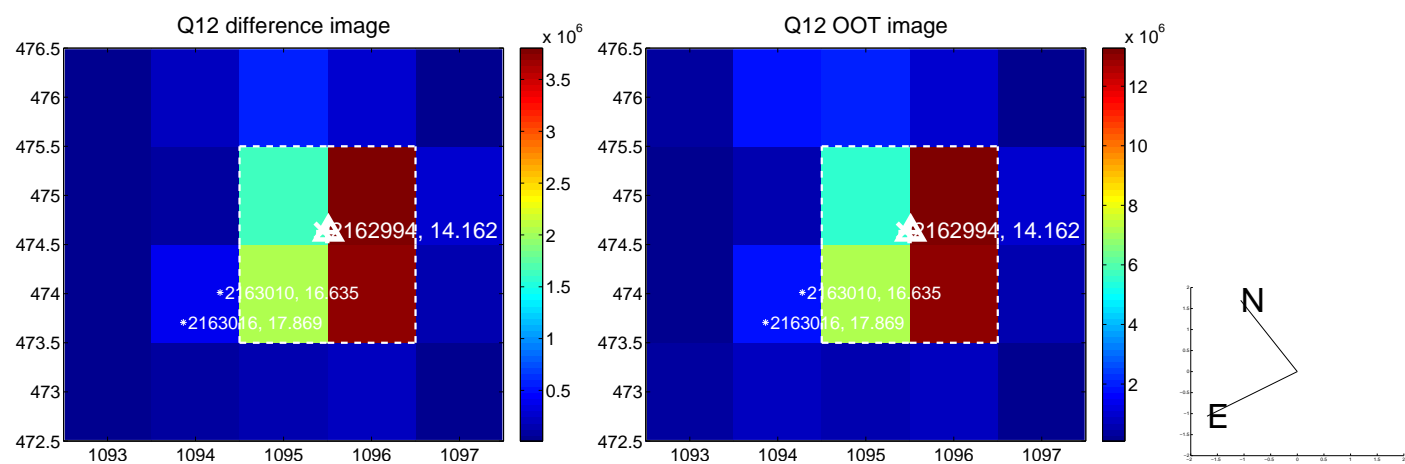
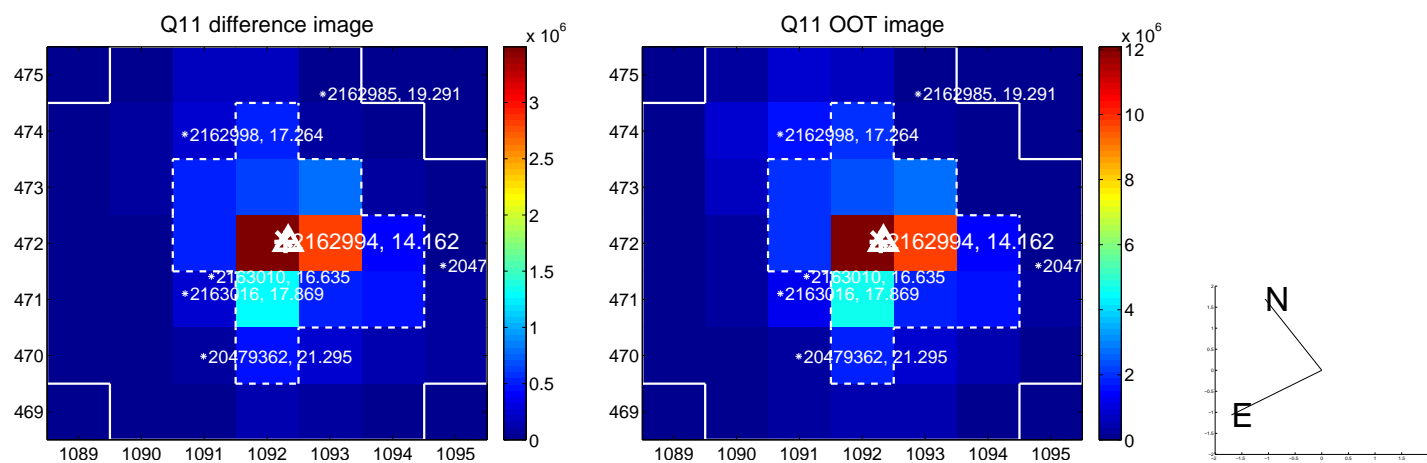
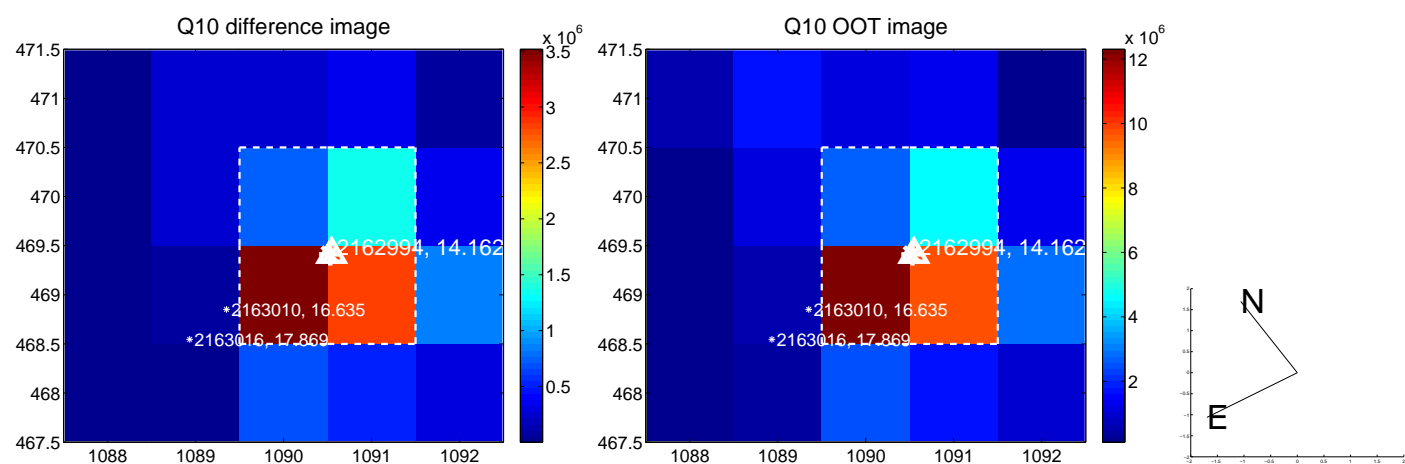
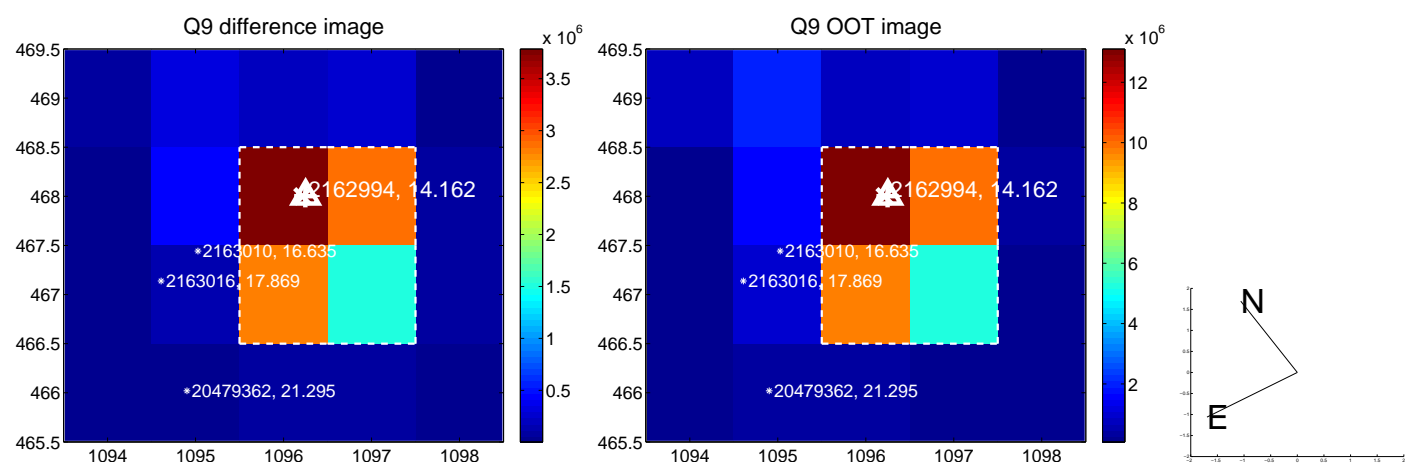
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



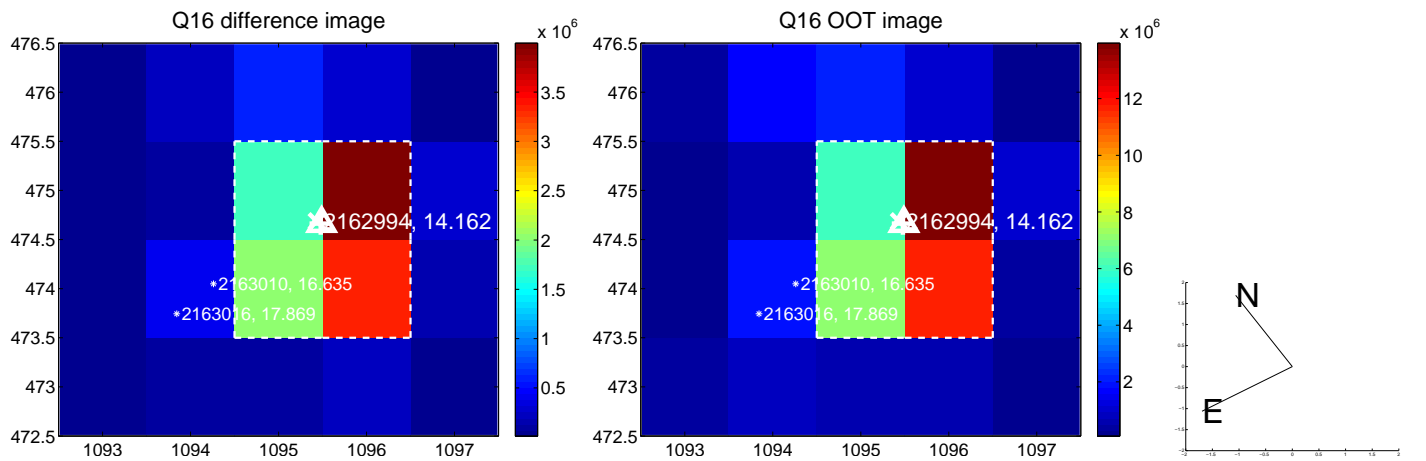
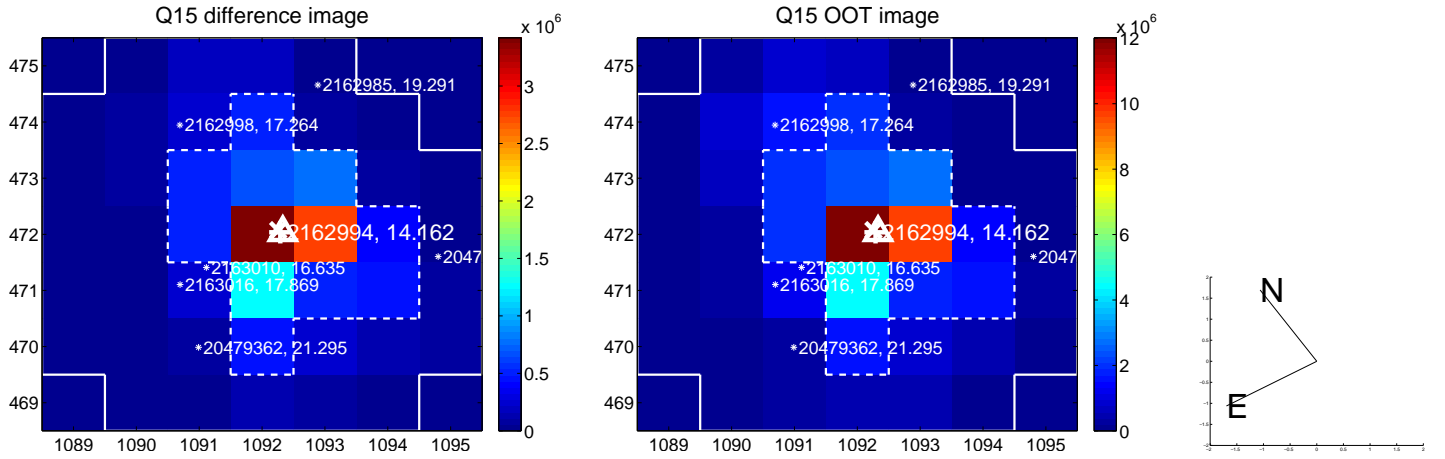
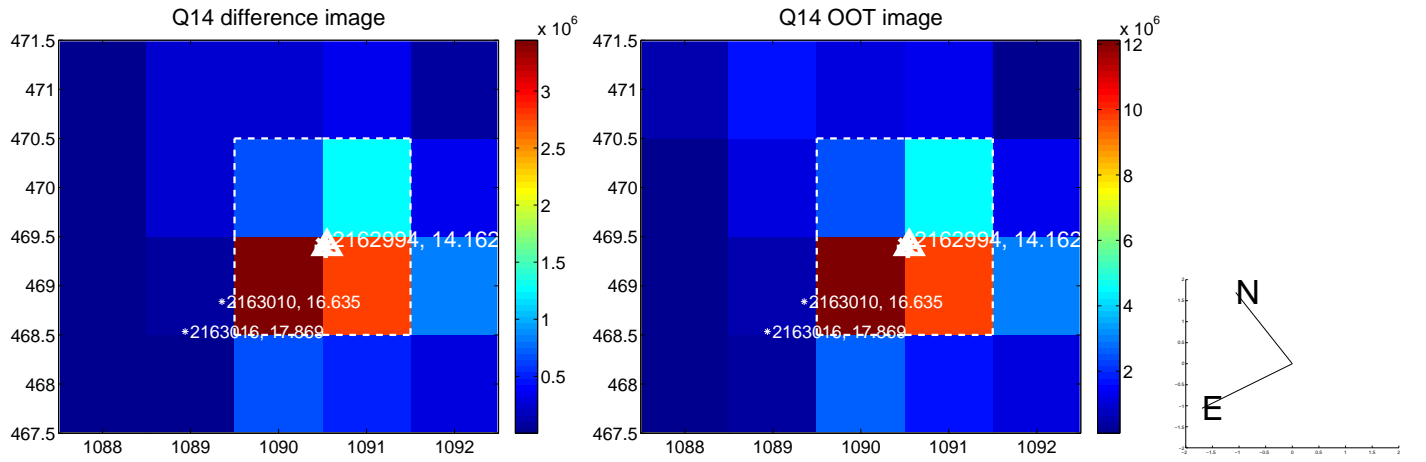
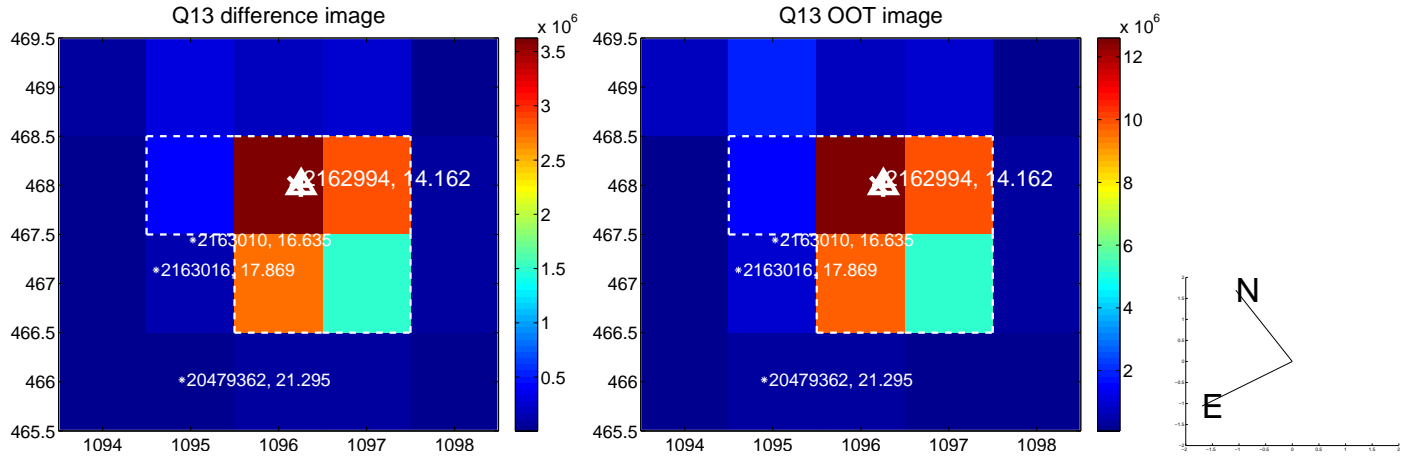
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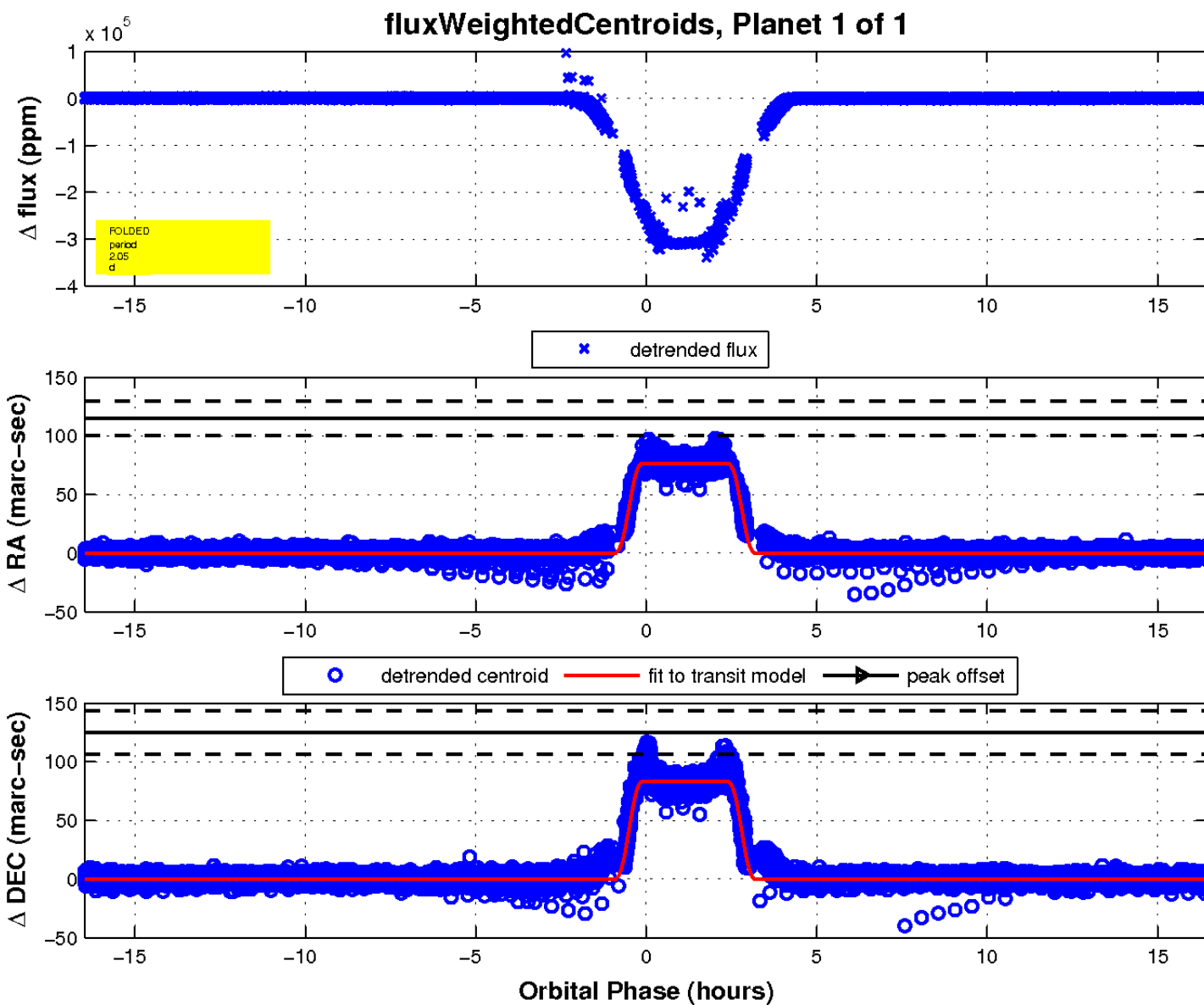
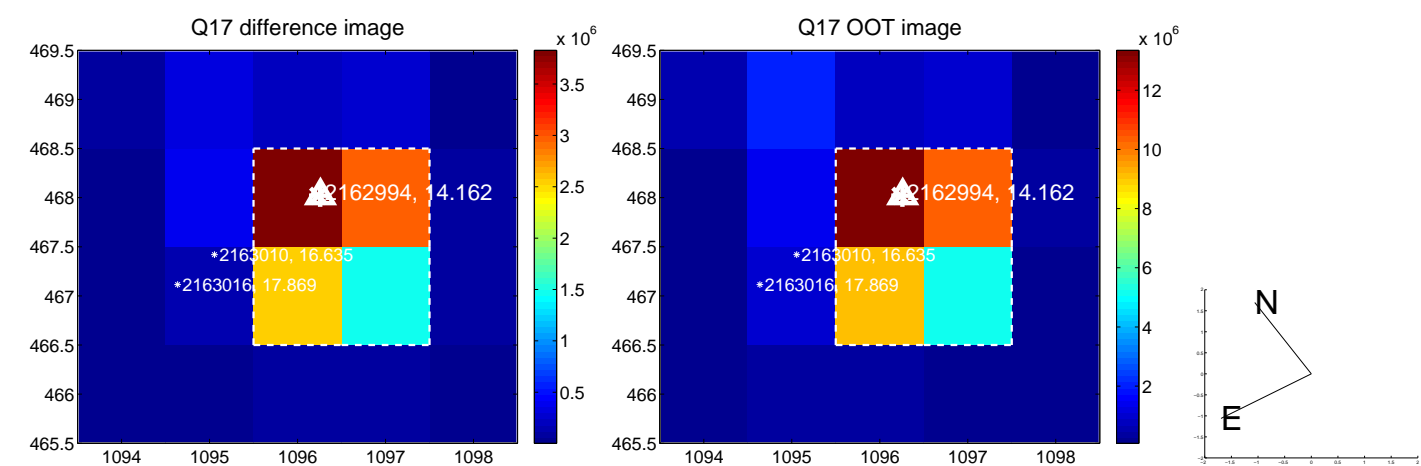
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

