

KIC 004665989

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})
004665989-01	OBS	6433.01	1.124037	131.626784	168193.3	3.500	43282.9	-1.0	1.56	7141	65.42	9973.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004665989-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—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 004665989-01

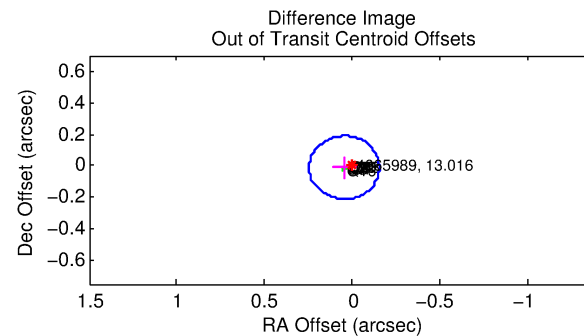
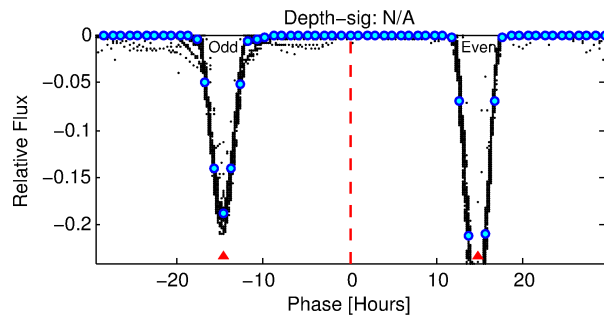
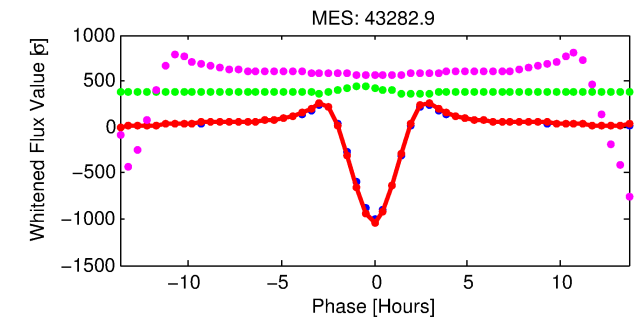
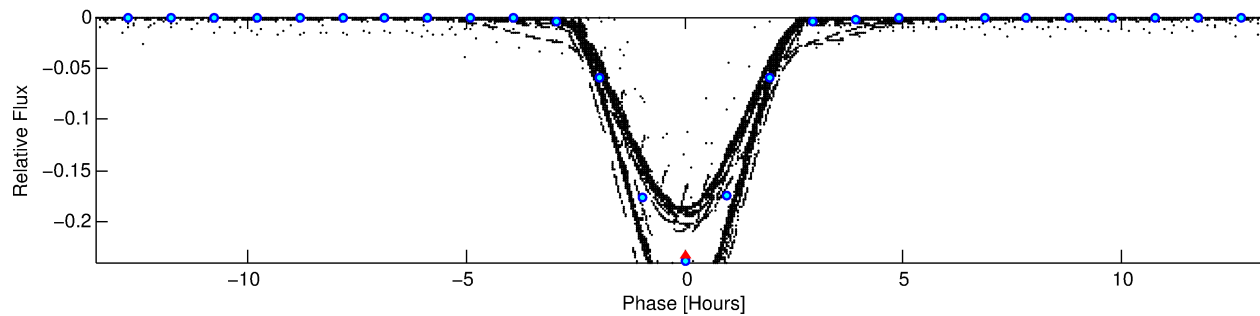
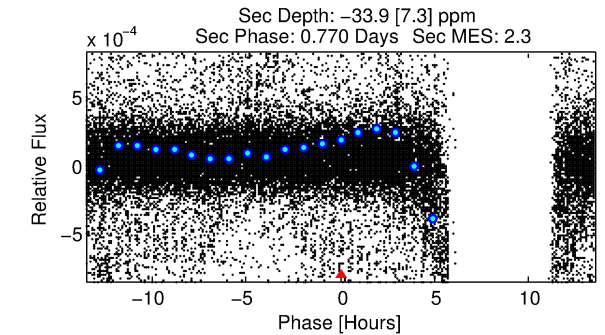
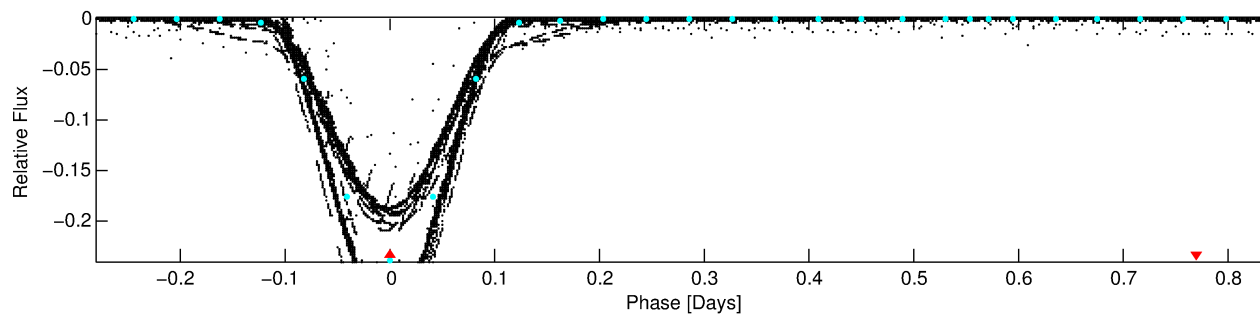
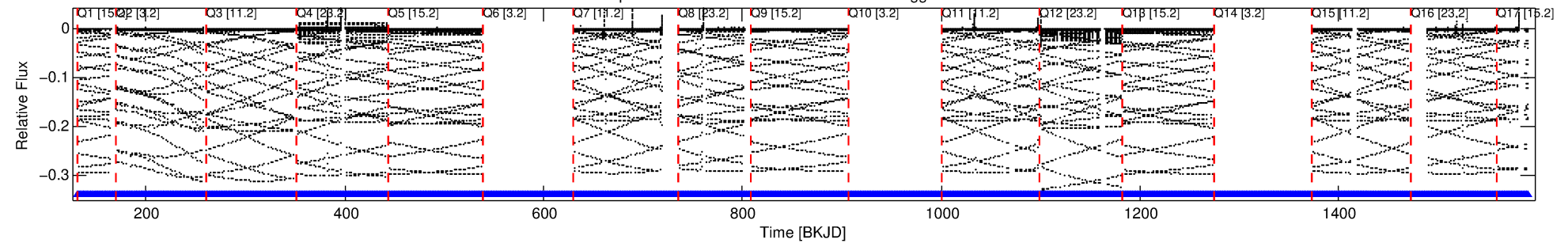
No Significant Match Found

DV One-Page Summary

KIC: 4665989 Candidate: 1 of 1 Period: 1.124 d

KOI: K06433.01 Corr: 0.790

Kp: 13.02 R*: 1.56 Rs Teff: 7141.0 K Logg: 4.21 Fe/H: -0.080



TPS TCE Results:

Period = 1.12404 d
Epoch = 131.6268 BKJD

DV fit results are unavailable

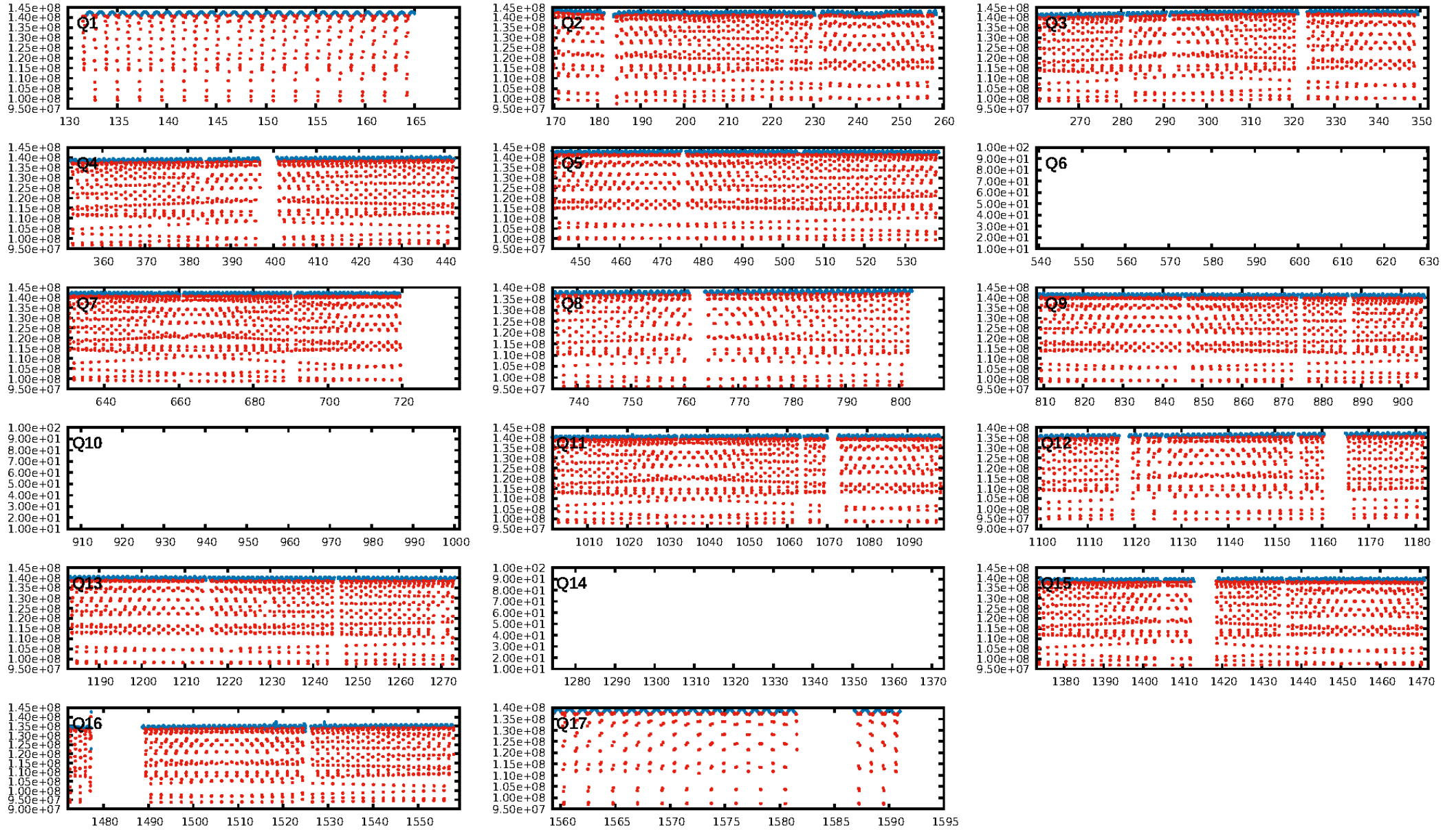
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [898/898]
GhostDiagnostic-chr: 1.238
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.048 arcsec [0.71σ]
KicOffset-rm: 0.062 arcsec [0.88σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

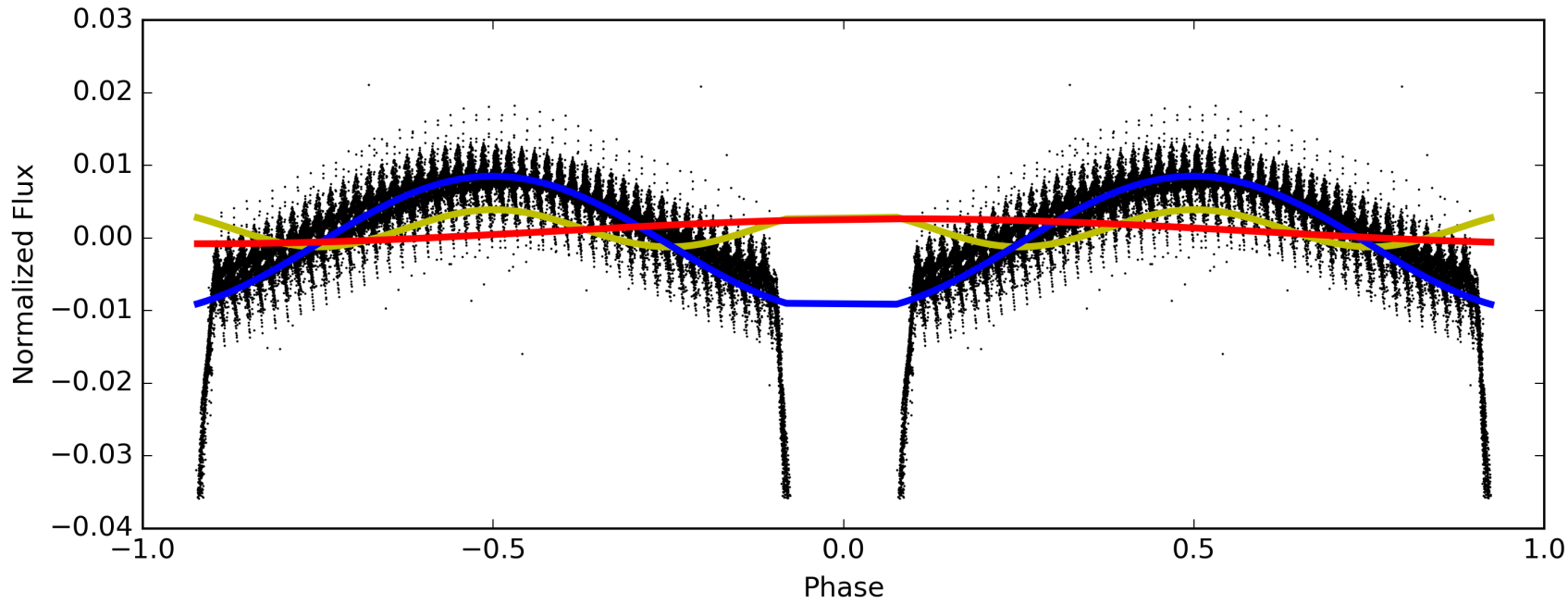
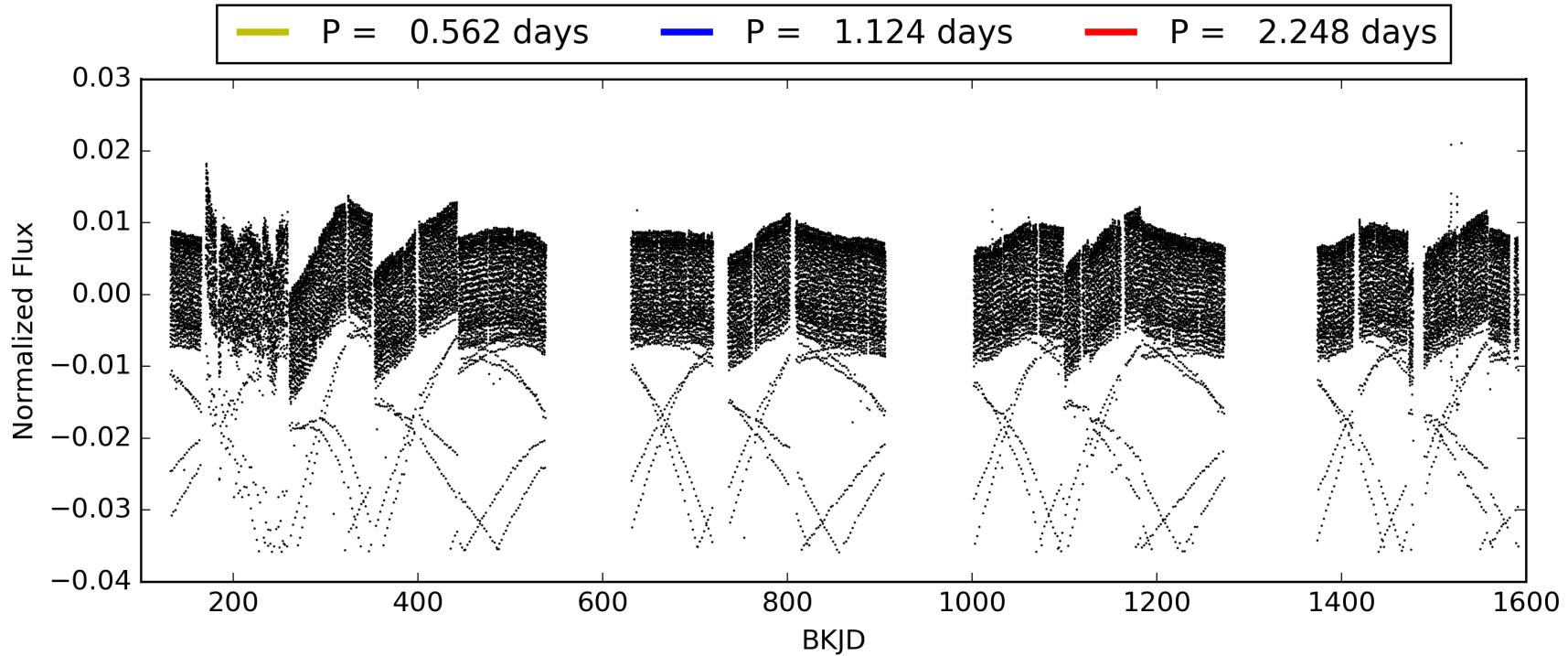
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:23:16 Z

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

TCE 004665989-01, PDC Light Curves

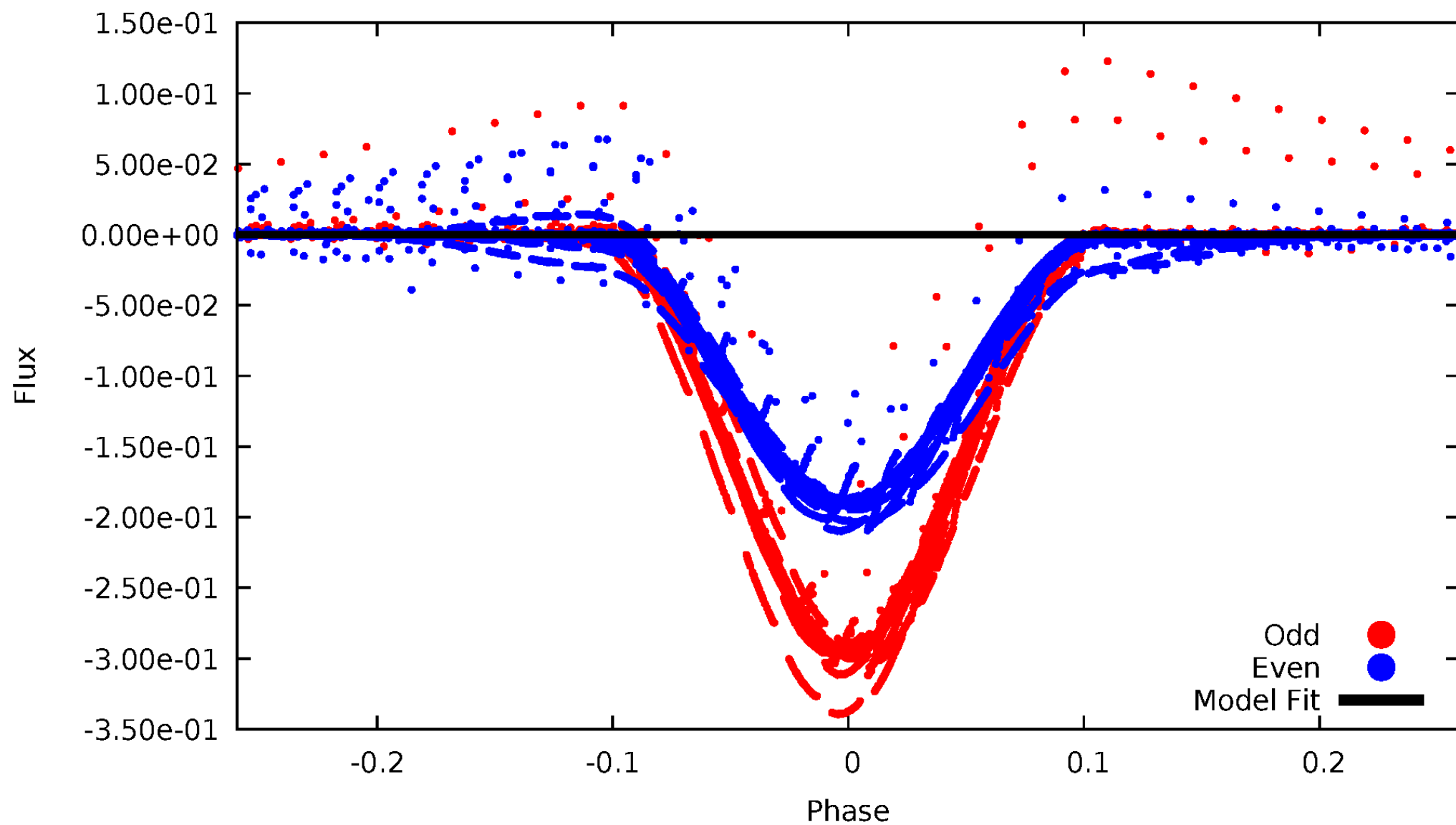


TCE 004665989-01



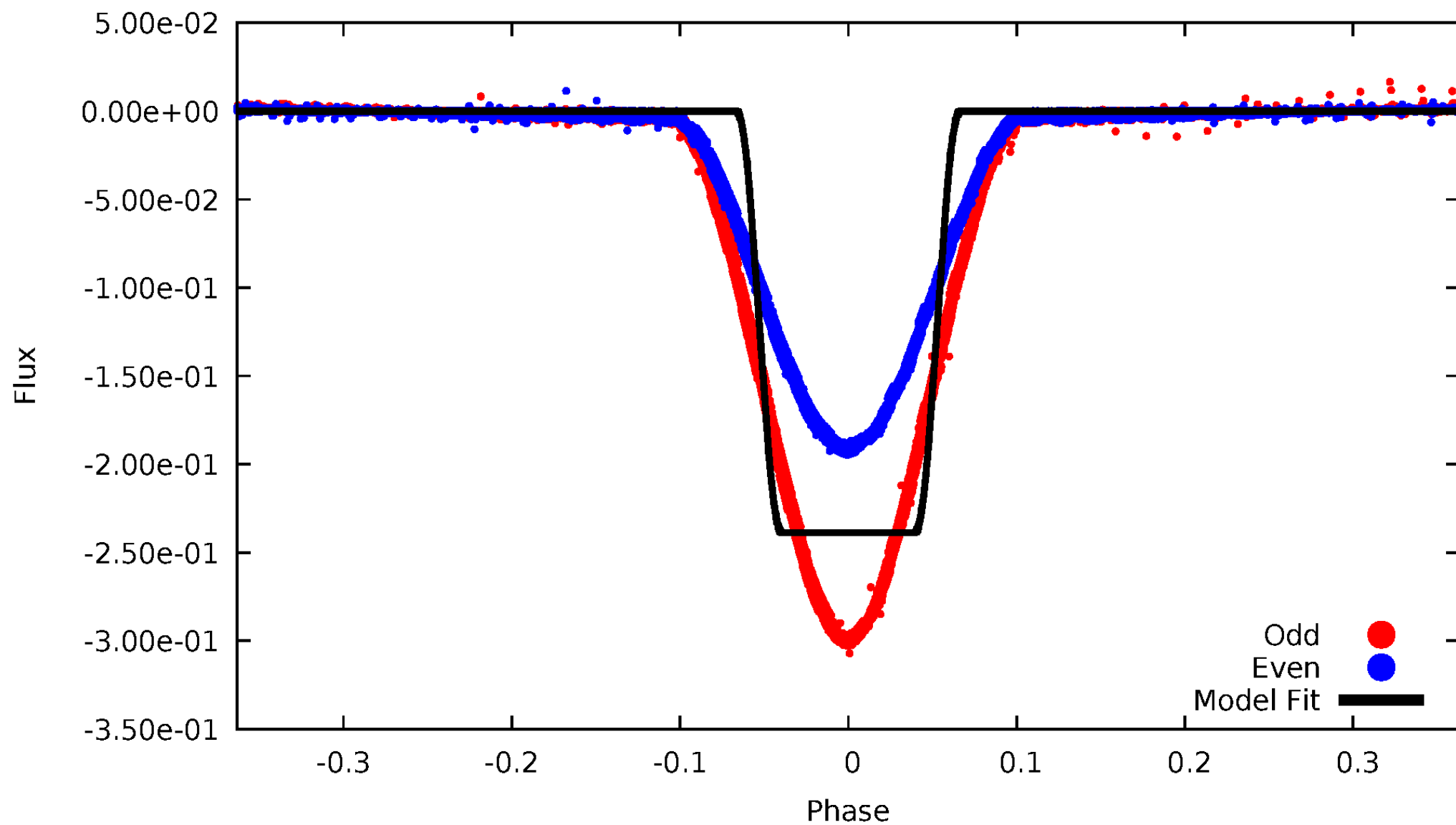
DV Odd/Even

TCE 004665989-01



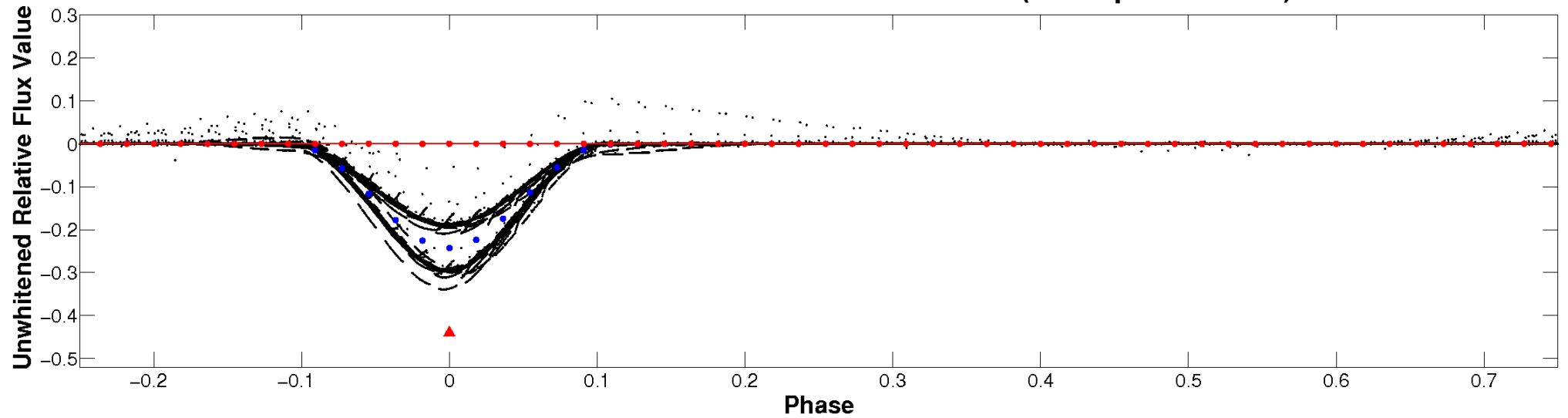
ALT Odd/Even

TCE 004665989-01



Non-Whitened Vs. Whitened Light Curve

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

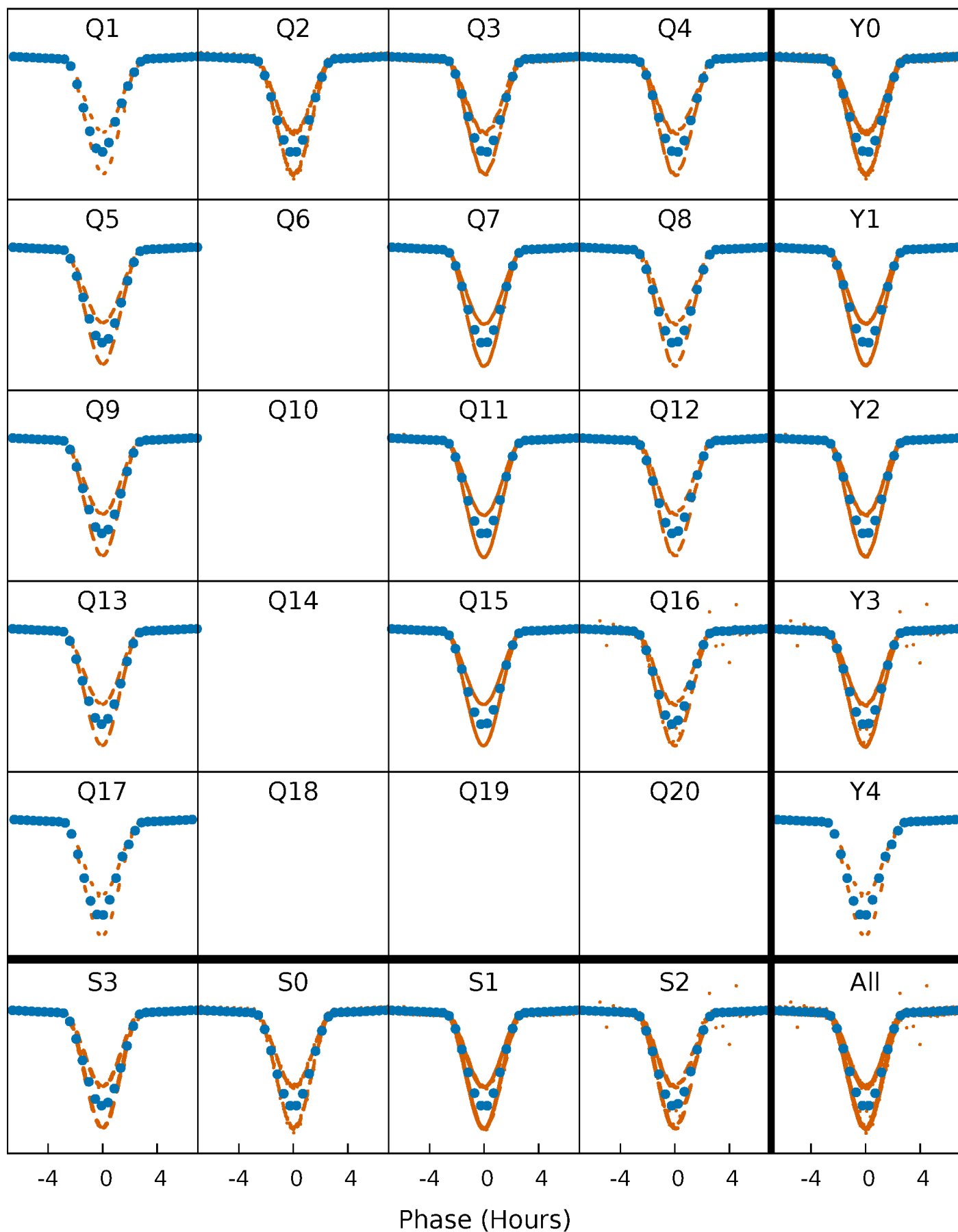


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



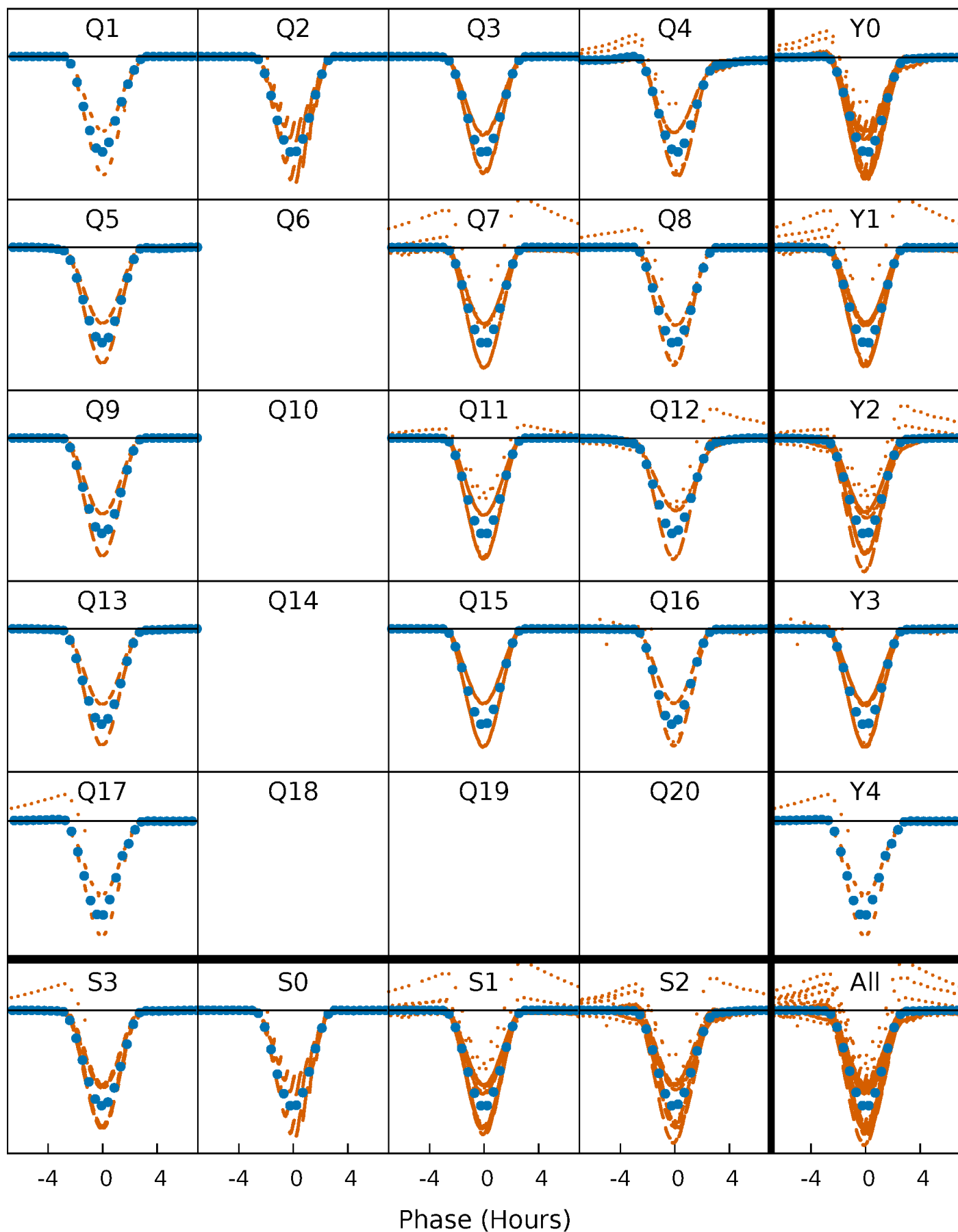
PDC Quarter-Phased Transit Curves

TCE 004665989-01 P= 1.124037 Days $T_0=131.626784$ (BKJD)



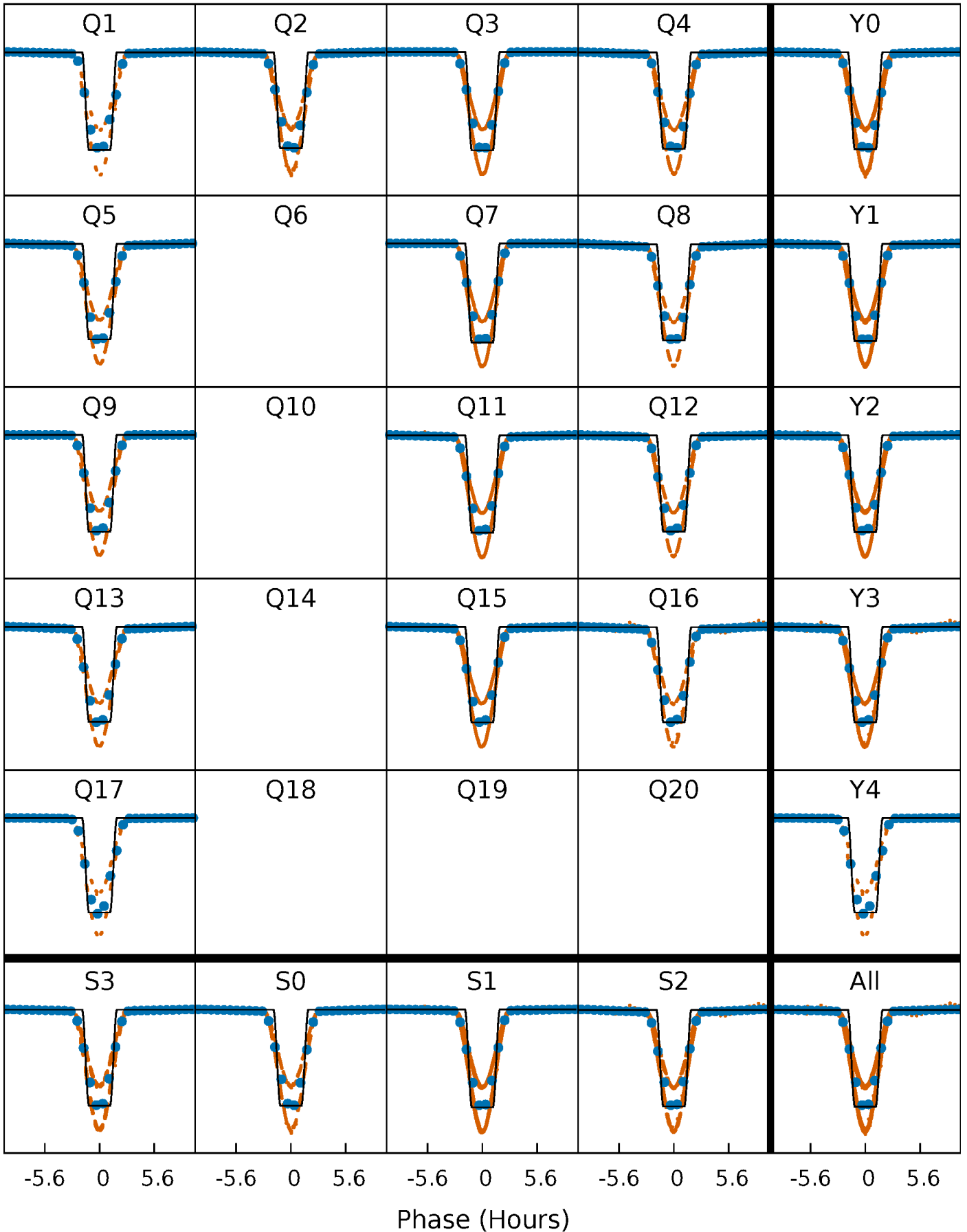
DV Quarter-Phased Transit Curves

TCE 004665989-01 P= 1.124037 Days $T_0=131.626784$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

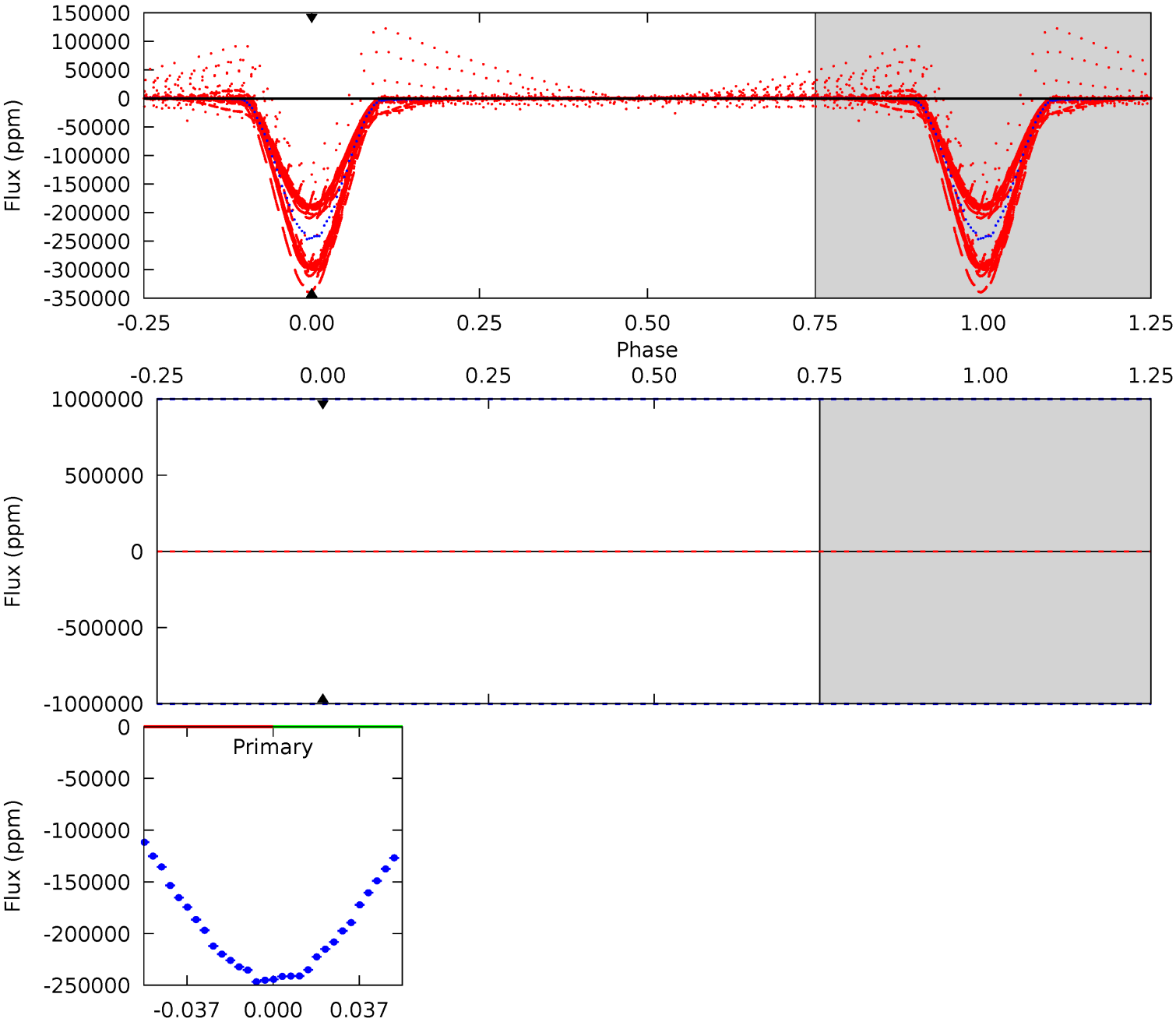
TCE 004665989-01 P= 1.124037 Days $T_0=131.627165$ (BKJD)



DV Model-Shift Uniqueness Test

004665989-01, P = 1.124037 Days, E = 130.502747 Days

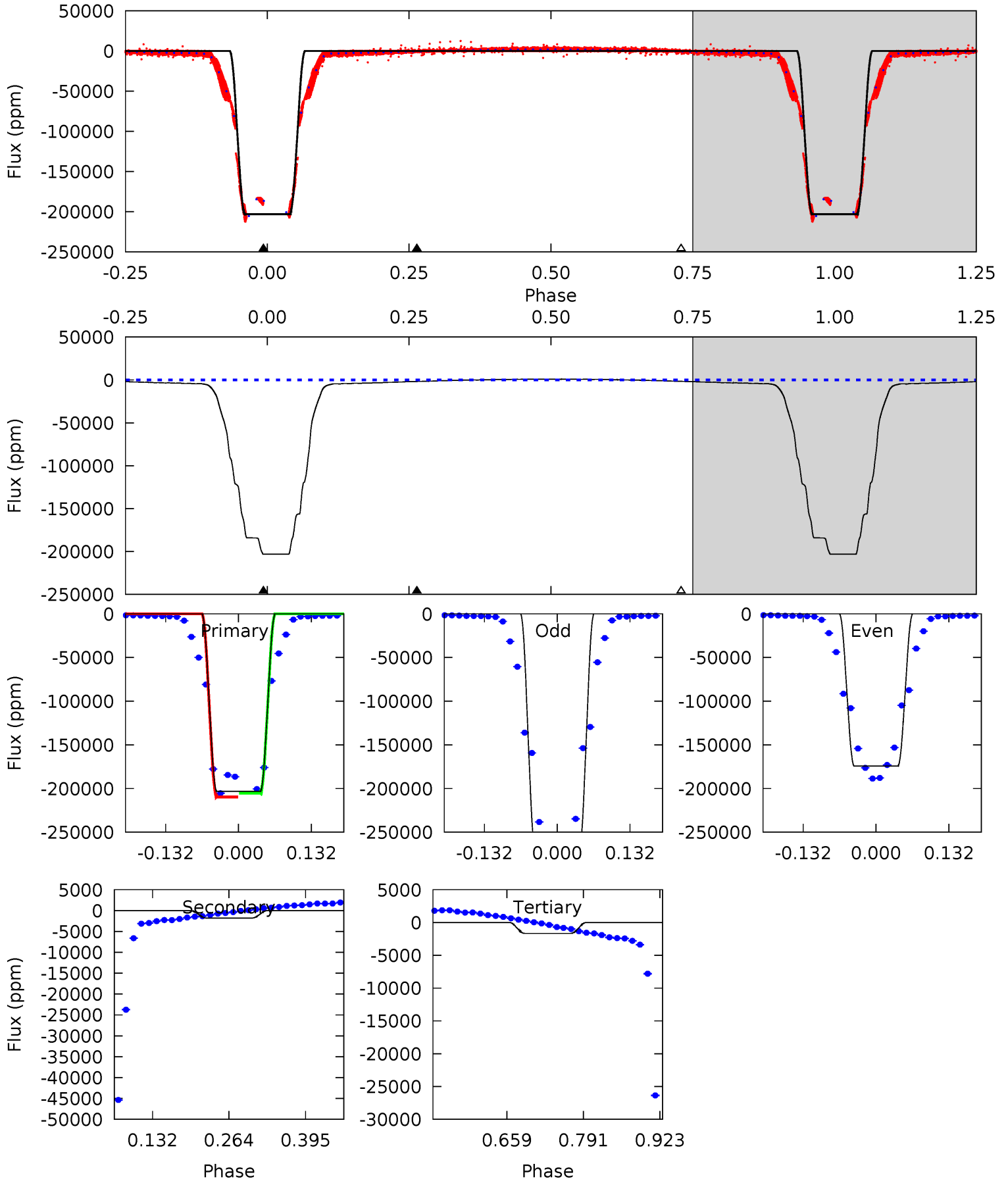
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004665989-01, P = 1.124037 Days, E = 130.503128 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3362	29.5	27.6	0	4.51	1.51	27.5	3334	3362	1.90	29.5	1755	1.04	0.01	0



Stellar Parameters For KIC 004665989

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7141^{+200}_{-300}	$4.208^{+0.105}_{-0.210}$	$-0.080^{+0.250}_{-0.350}$	$1.563^{+0.524}_{-0.242}$	$1.442^{+0.218}_{-0.218}$	$0.531^{+0.265}_{-0.278}$
	+3%/-4%	+2%/-5%	+312%/-438%	+34%/-15%	+15%/-15%	+50%/-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 004665989-01 / KOI 6433.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$67.72^{+20.63}_{-20.09}$	3603^{+277}_{-212}	-3452^{+10072}_{-3161}	$-0.009^{+7.834}_{-7.317}$
Alt.	-1785 ± 60	$86.49^{+22.07}_{-21.32}$	3596^{+300}_{-212}	-3264^{+181}_{-220}	$0.075^{+0.051}_{-0.028}$

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 $A_{\text{obs}} \gg 1.0$

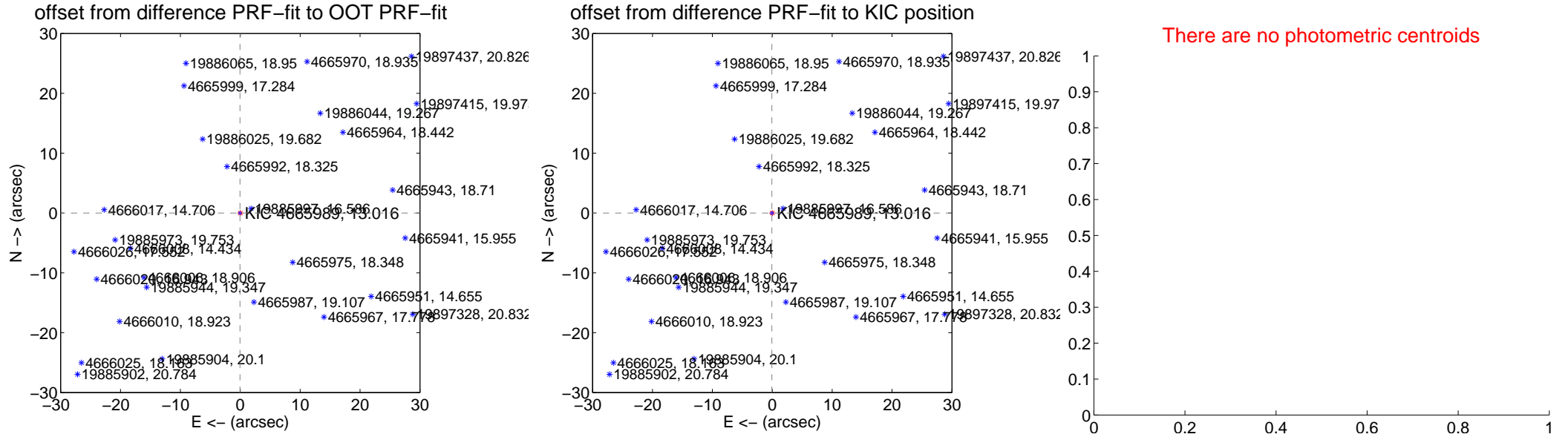
DV Centroid Data

Supplemental centroid analysis for 004665989-01. Kepler magnitude: 13.02. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

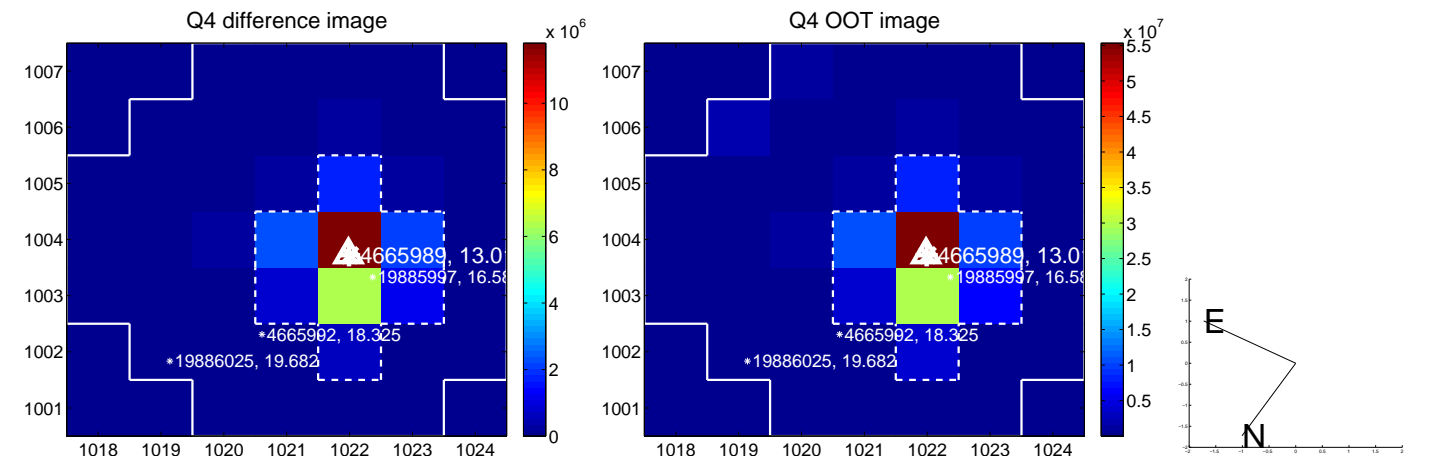
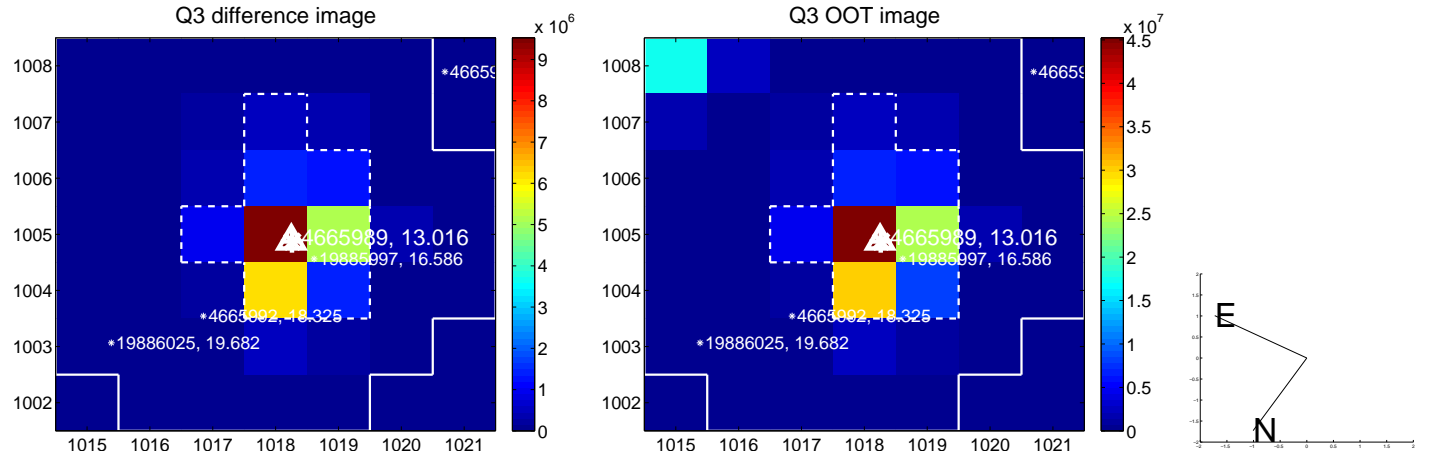
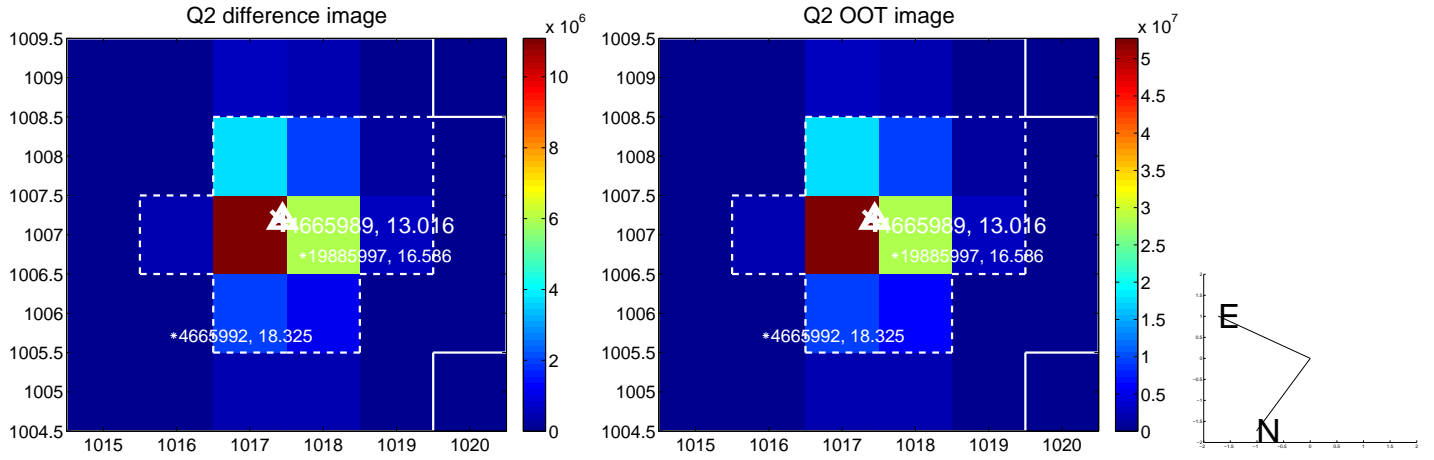
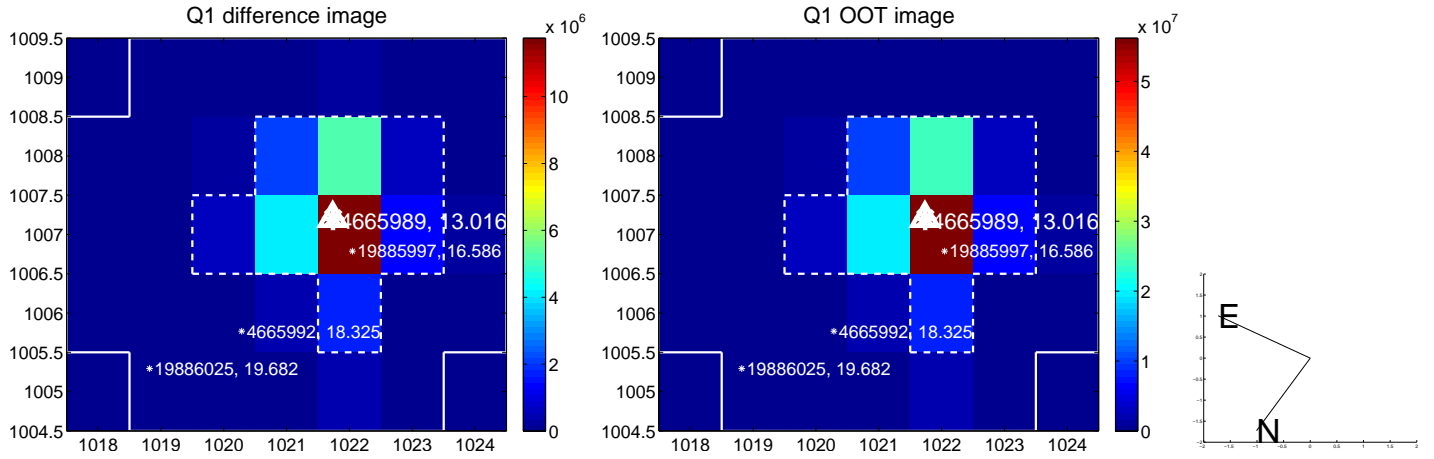
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.048 ± 0.067	0.71	0.046 ± 0.067	-0.011 ± 0.067
PRF-fit source offset from KIC position	0.062 ± 0.070	0.88	0.061 ± 0.071	-0.009 ± 0.067
photometric centroid source offset	—	—	—	—

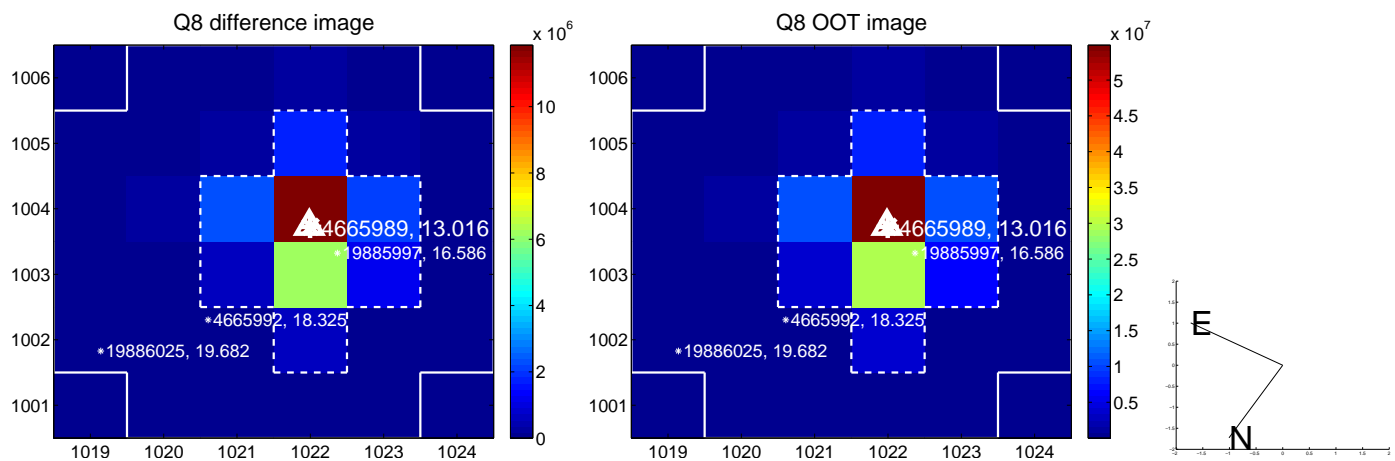
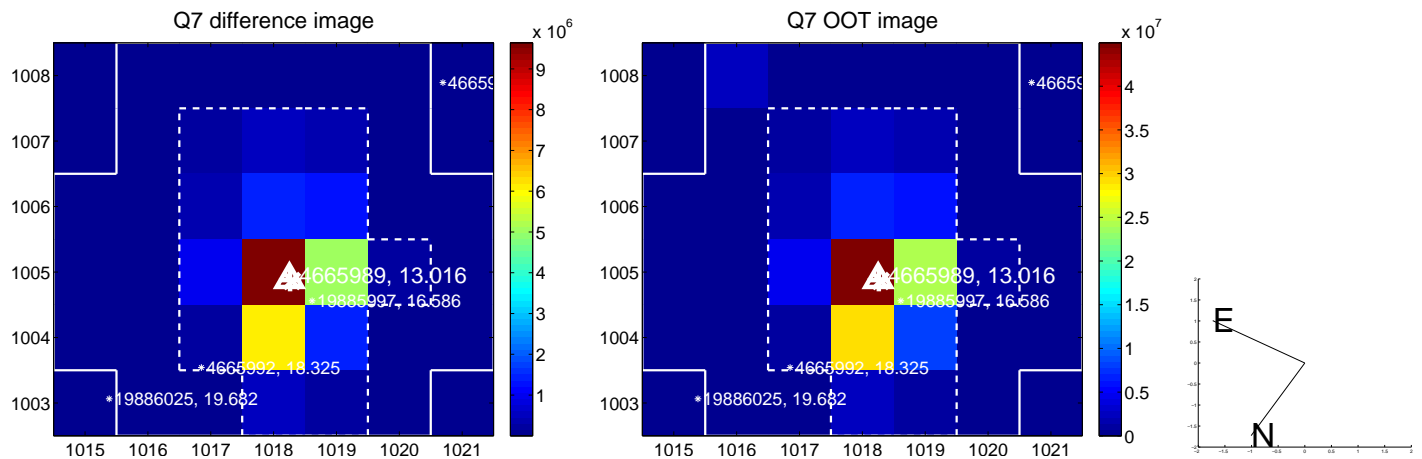
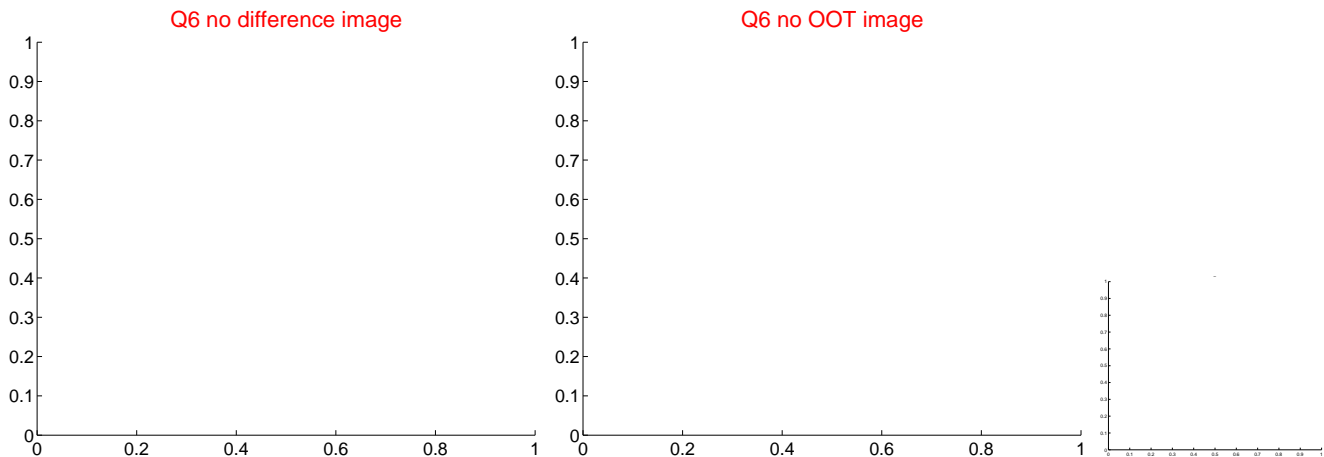
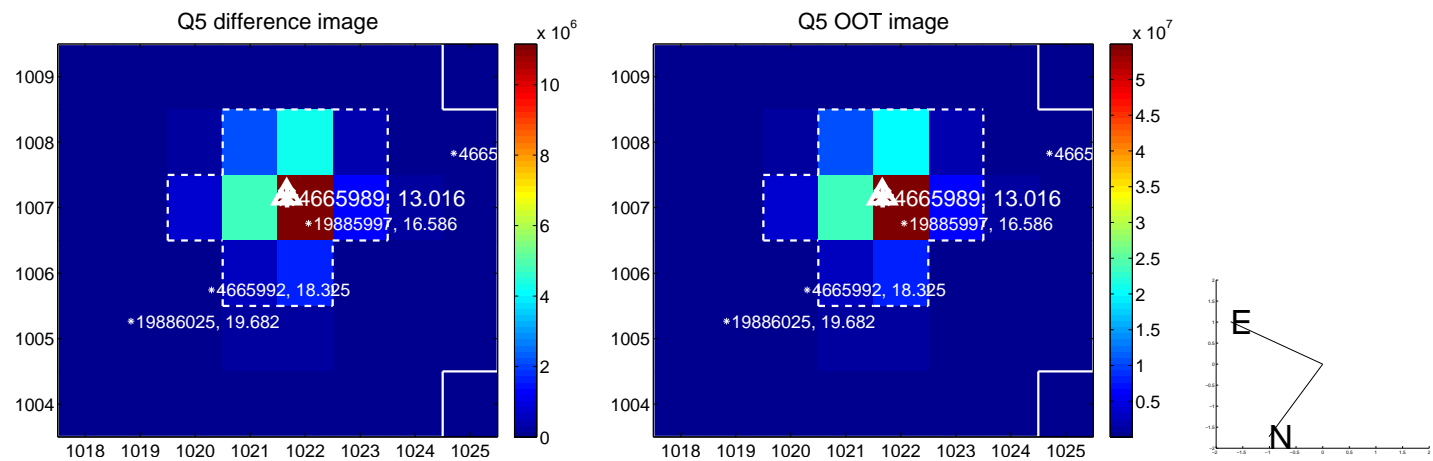


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

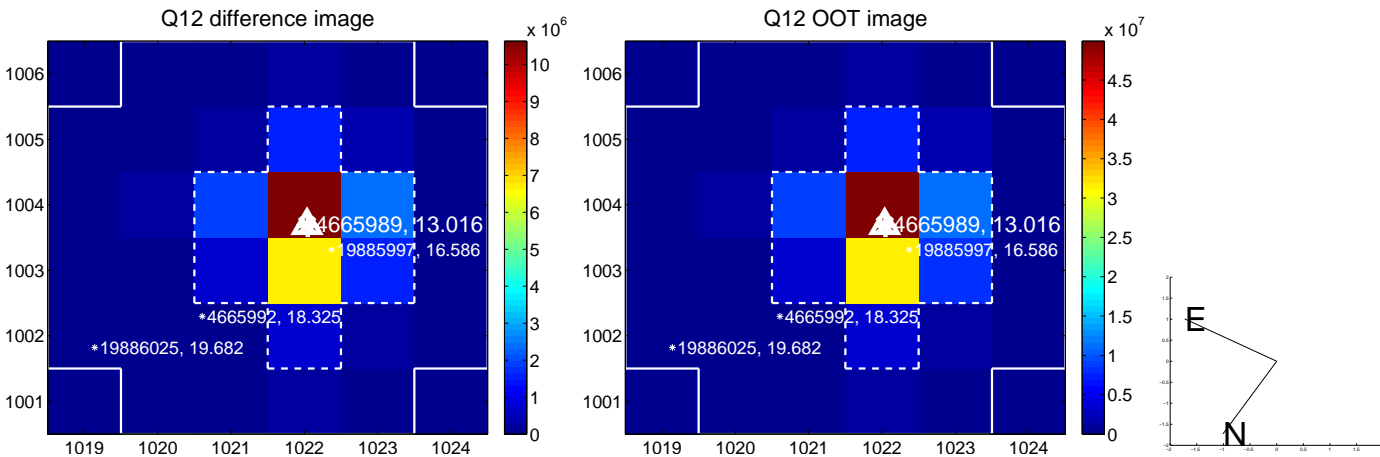
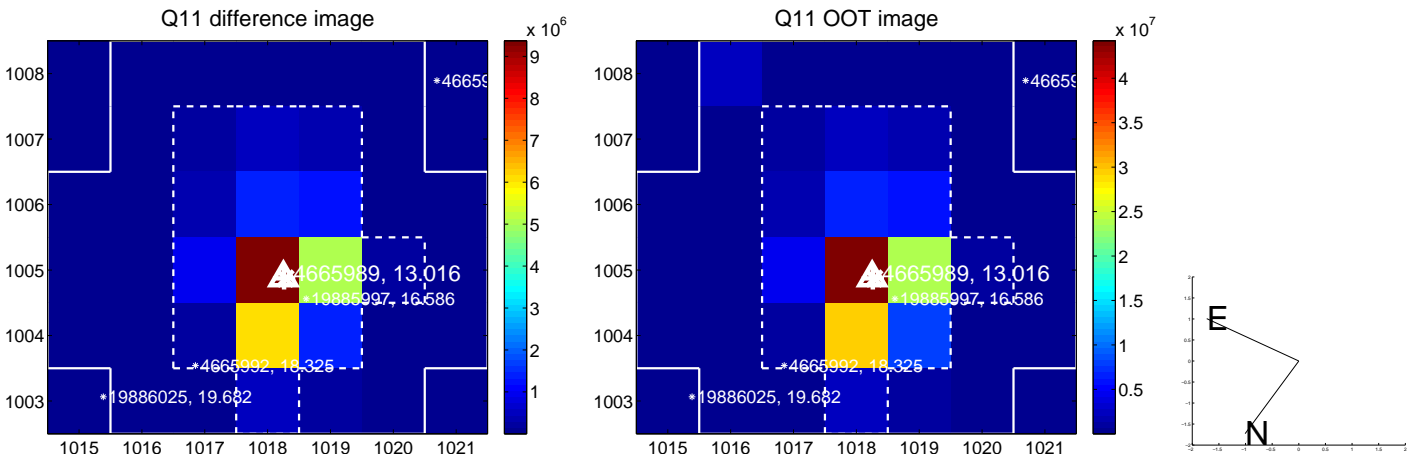
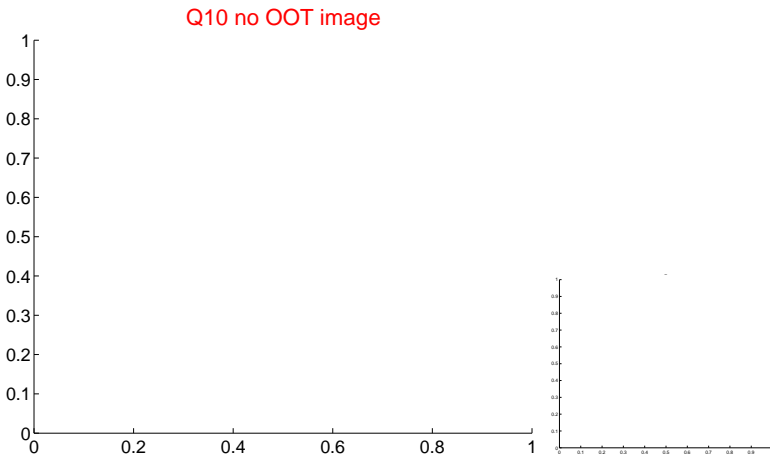
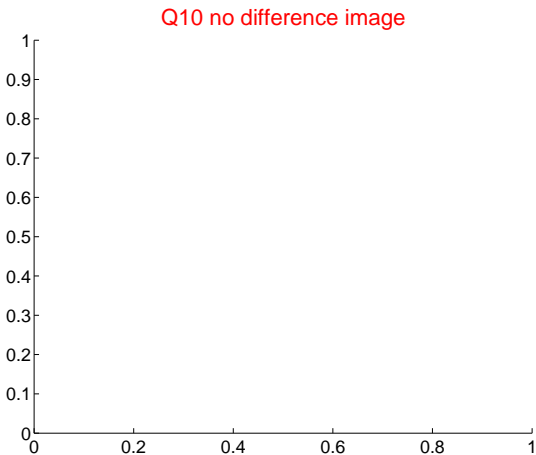
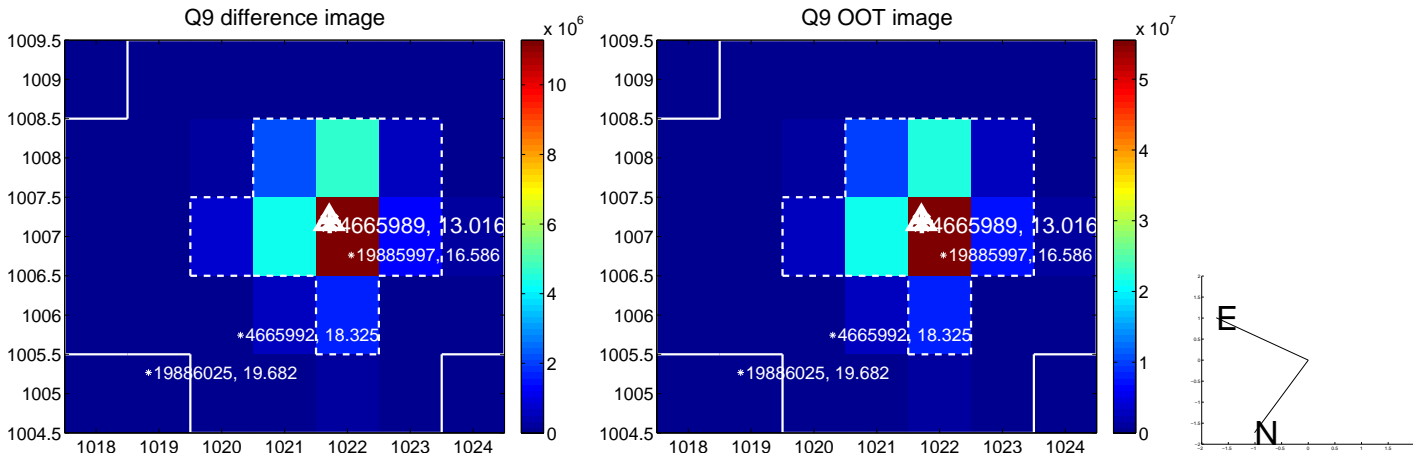
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



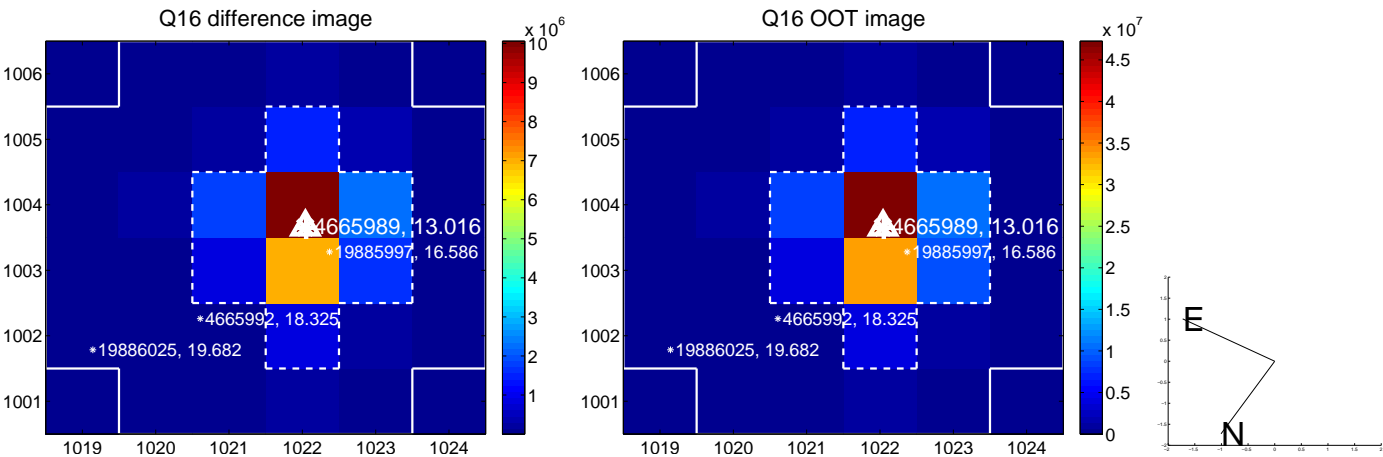
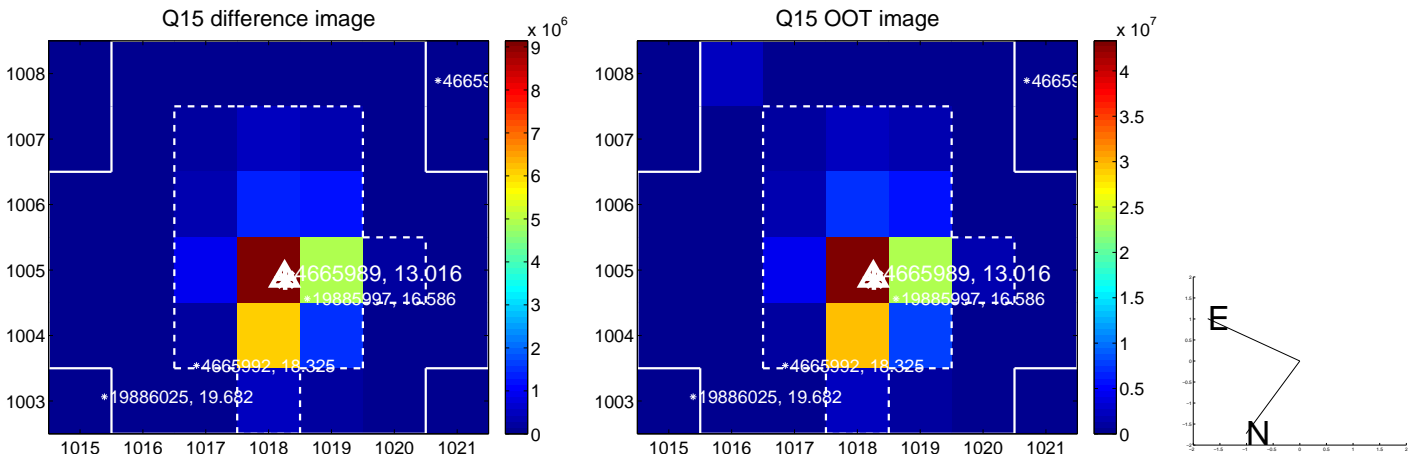
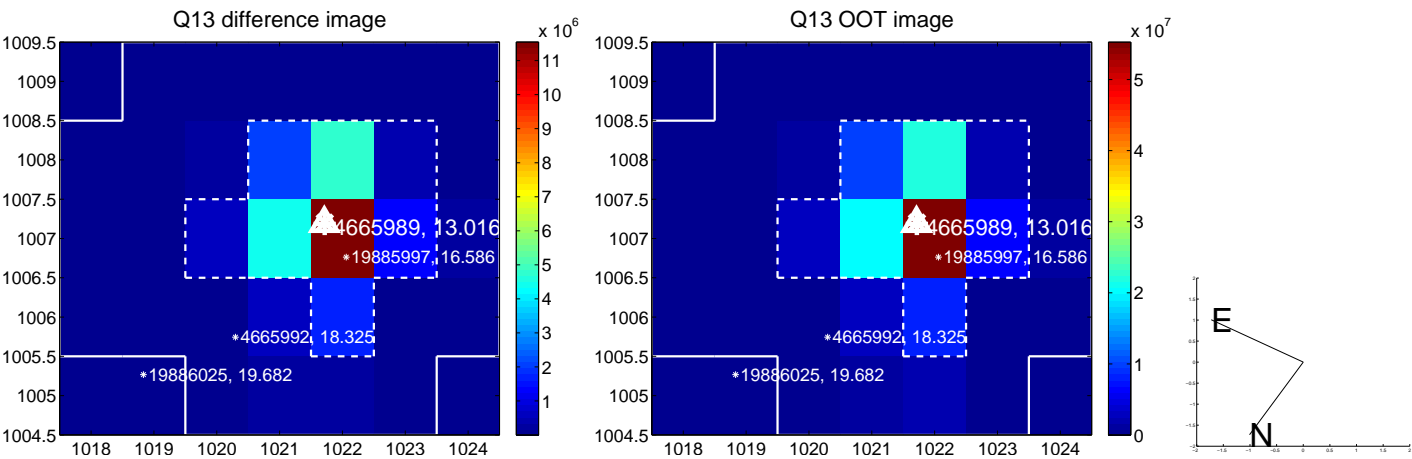
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



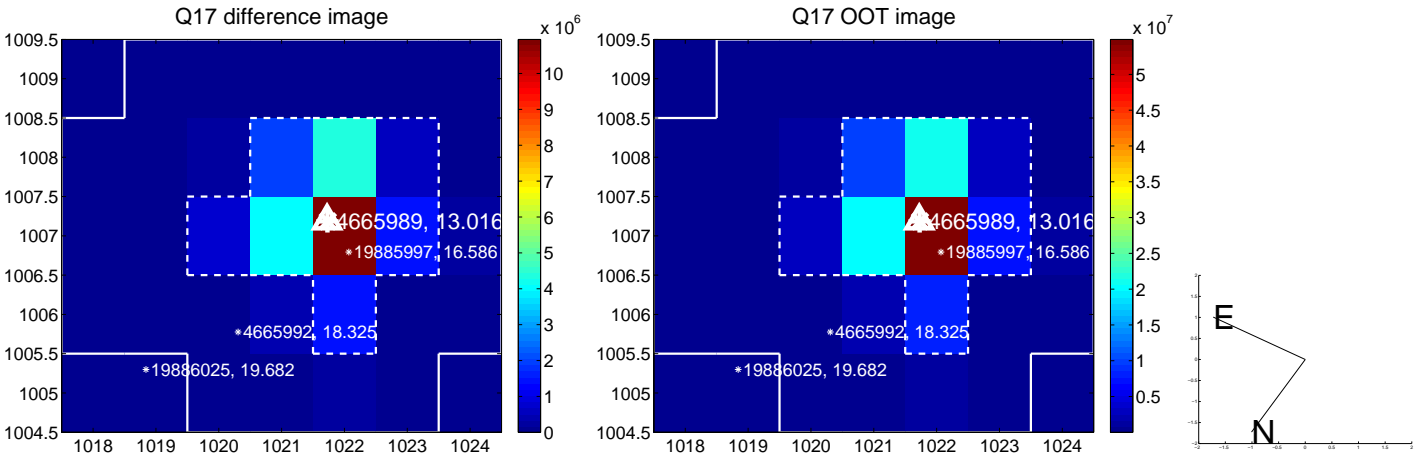
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

