

KIC 003328026

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})
003328026-01	OBS	1994.01	2.115488	132.000977	348.7	5.666	34.2	41.0	1.00	5917	3.58	997.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003328026-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH

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.

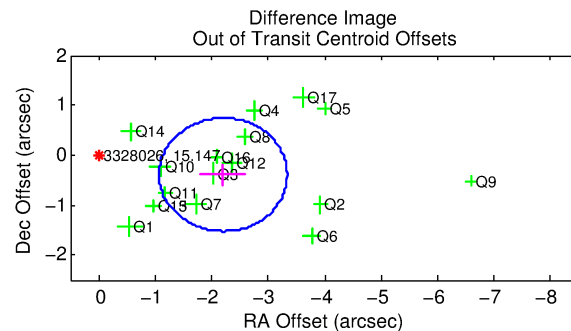
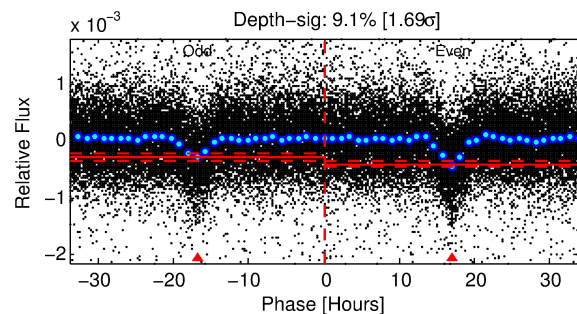
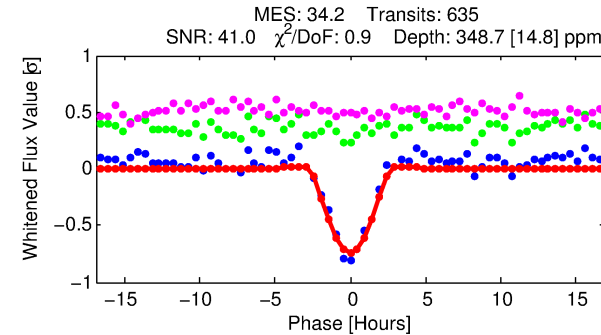
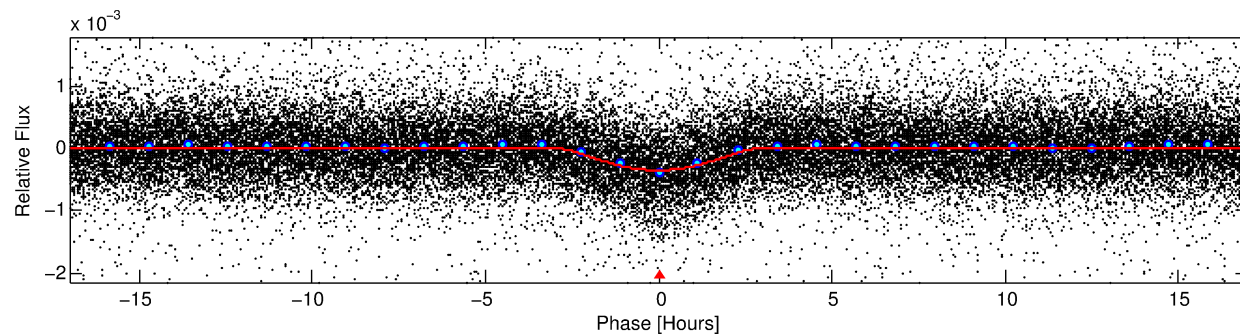
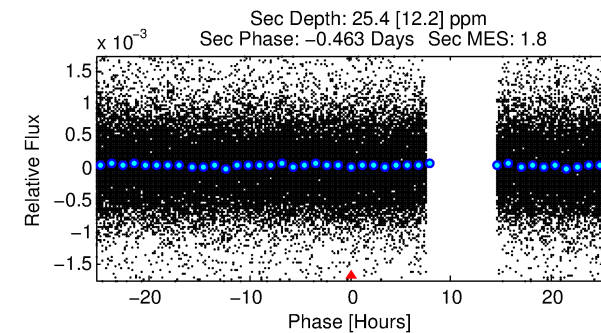
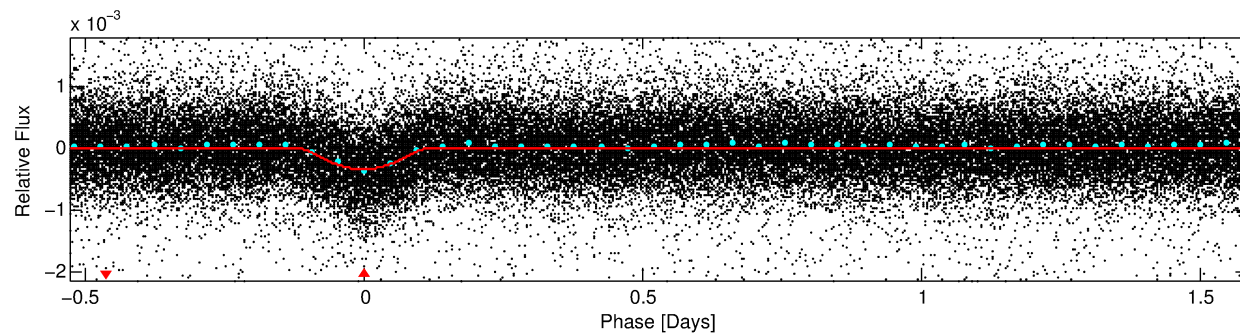
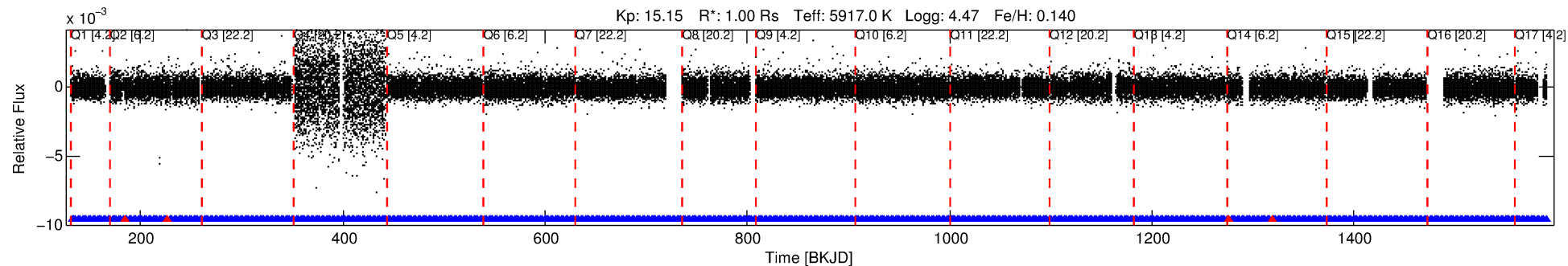
Ephemeris Match Information For 003328026-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
003328026-01	3328026	003327980-pri	3327980	1:2	38.6	-7	-7	12.12	15.15	1218.90	Direct-PRF	0	1.48	0.55

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 3328026 Candidate: 1 of 1 Period: 2.115 d
KOI: K01994.01 Corr: 0.900



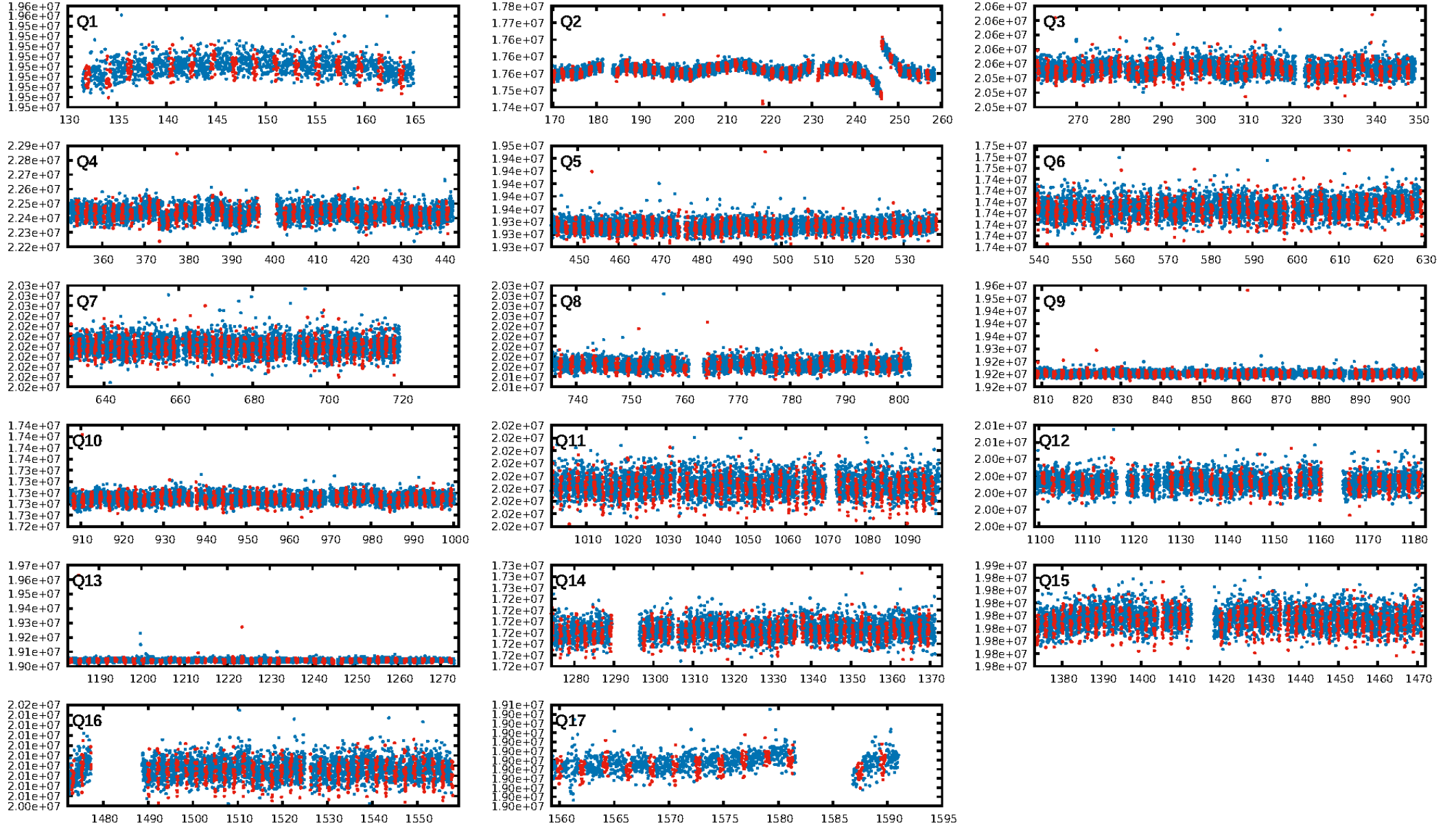
DV Fit Results:

Period = 2.11549 [0.00001] d
Epoch = 132.0010 [0.0030] BKJD
Rp/R* = 0.0328 [0.0273]
a/R* = 1.27 [0.08]
b = 1.00 [0.04]
Seff = 997.13 [414.37]
Teq = 1433 [149] K
Rp = 3.58 [3.20] Re
a = 0.0332 [0.0090] AU
Ag = 1.20 [2.12] [0.09σ]
Teffp = 2317 [1005] K [0.87σ]

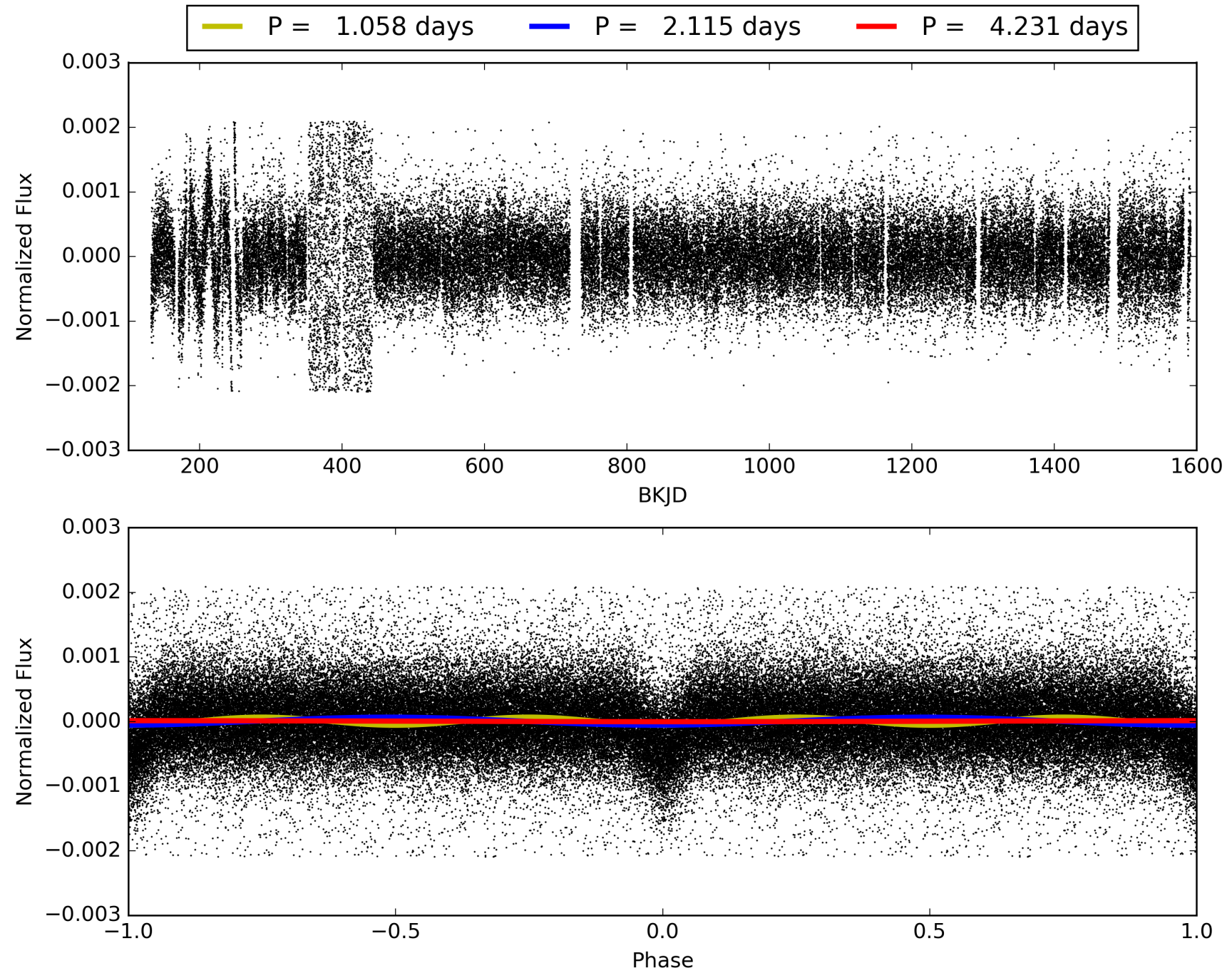
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.66e-201
RollingBand-fgt: 0.99 [602/606]
GhostDiagnostic-chr: 0.4282
Centroid-sig: 0.0%
Centroid-so: 3.624 arcsec [11.42σ]
OotOffset-rm: 2.239 arcsec [5.92σ]
KicOffset-rm: 2.273 arcsec [6.21σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.12 [2/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 003328026-01, PDC Light Curves

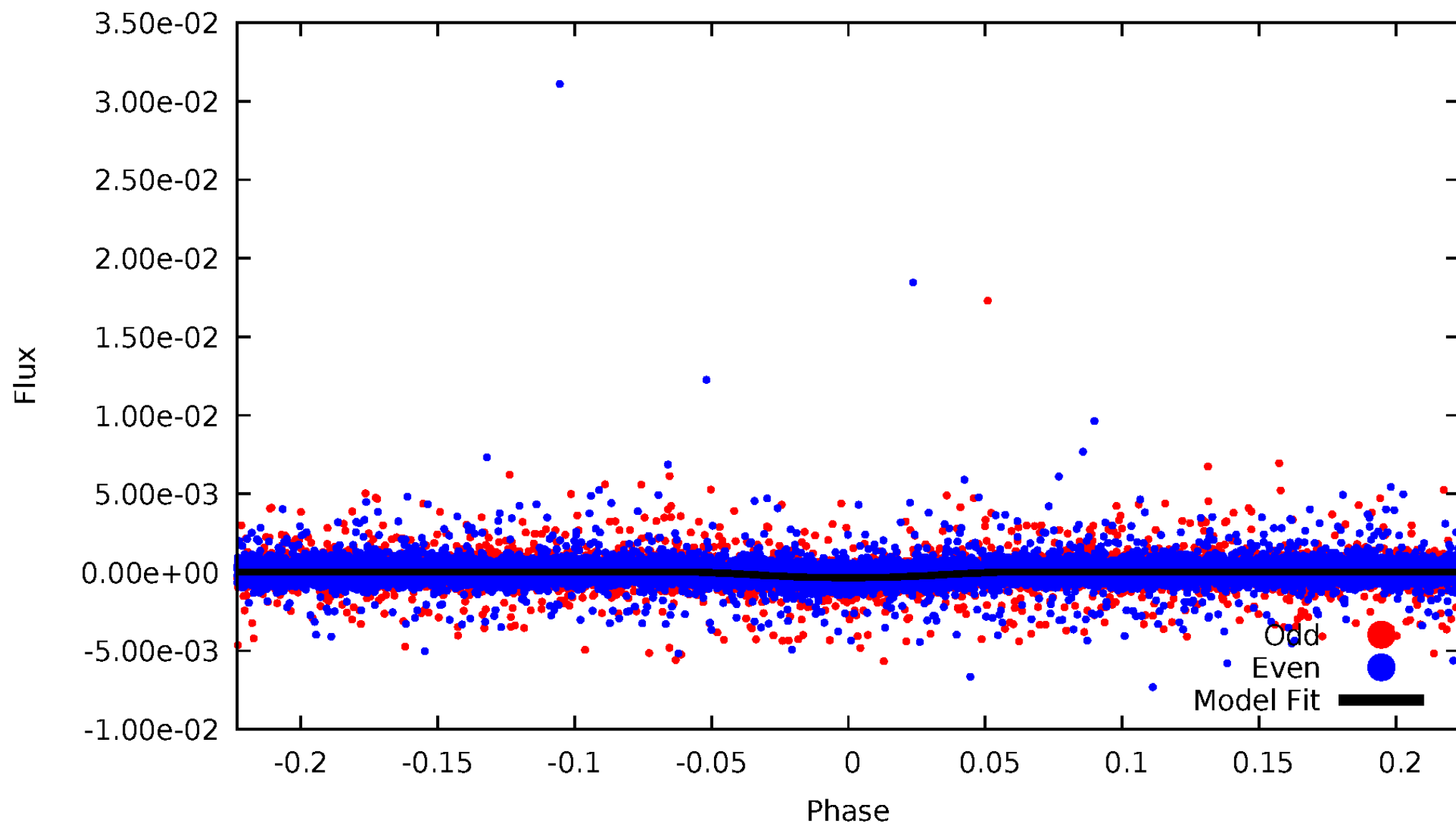


TCE 003328026-01



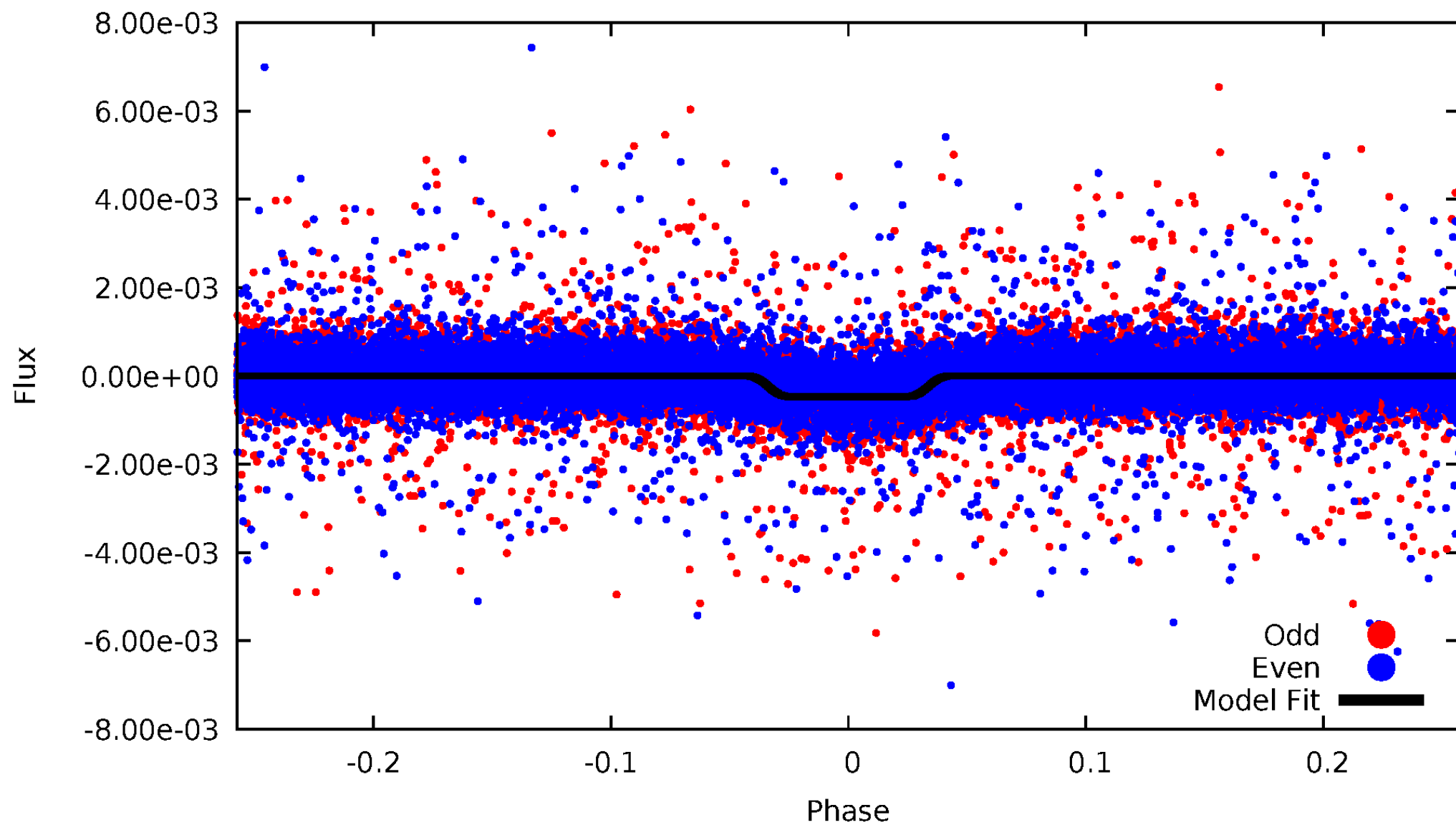
DV Odd/Even

TCE 003328026-01



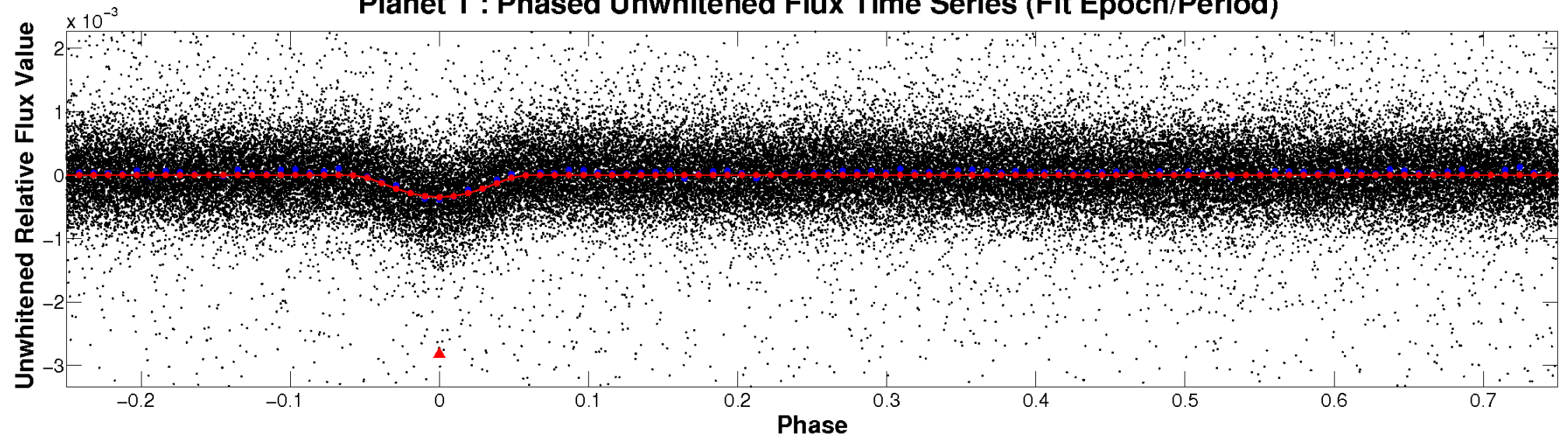
ALT Odd/Even

TCE 003328026-01

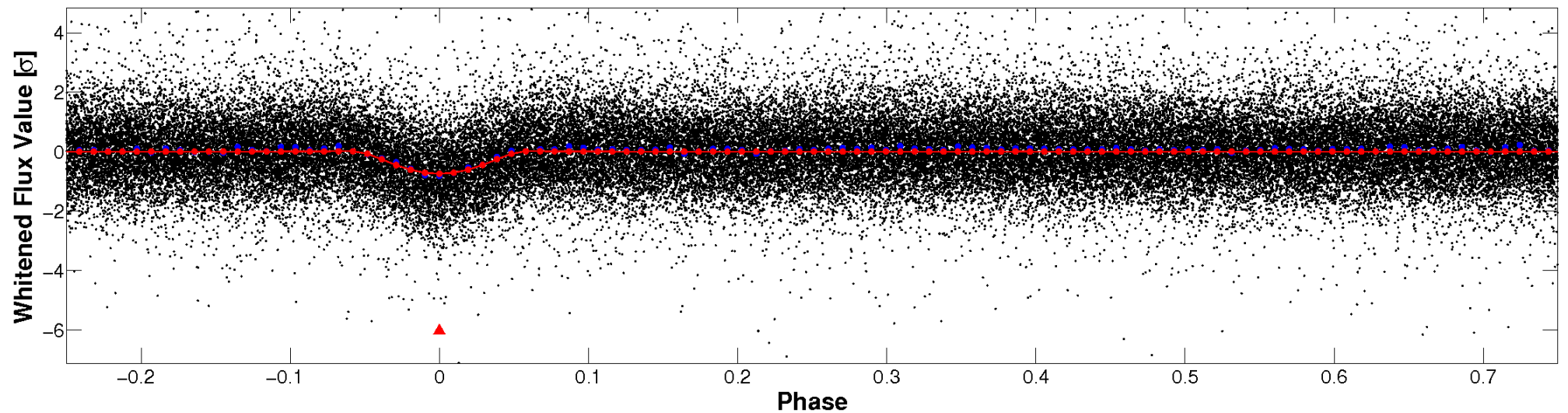


Non-Whitened Vs. Whitened Light Curve

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

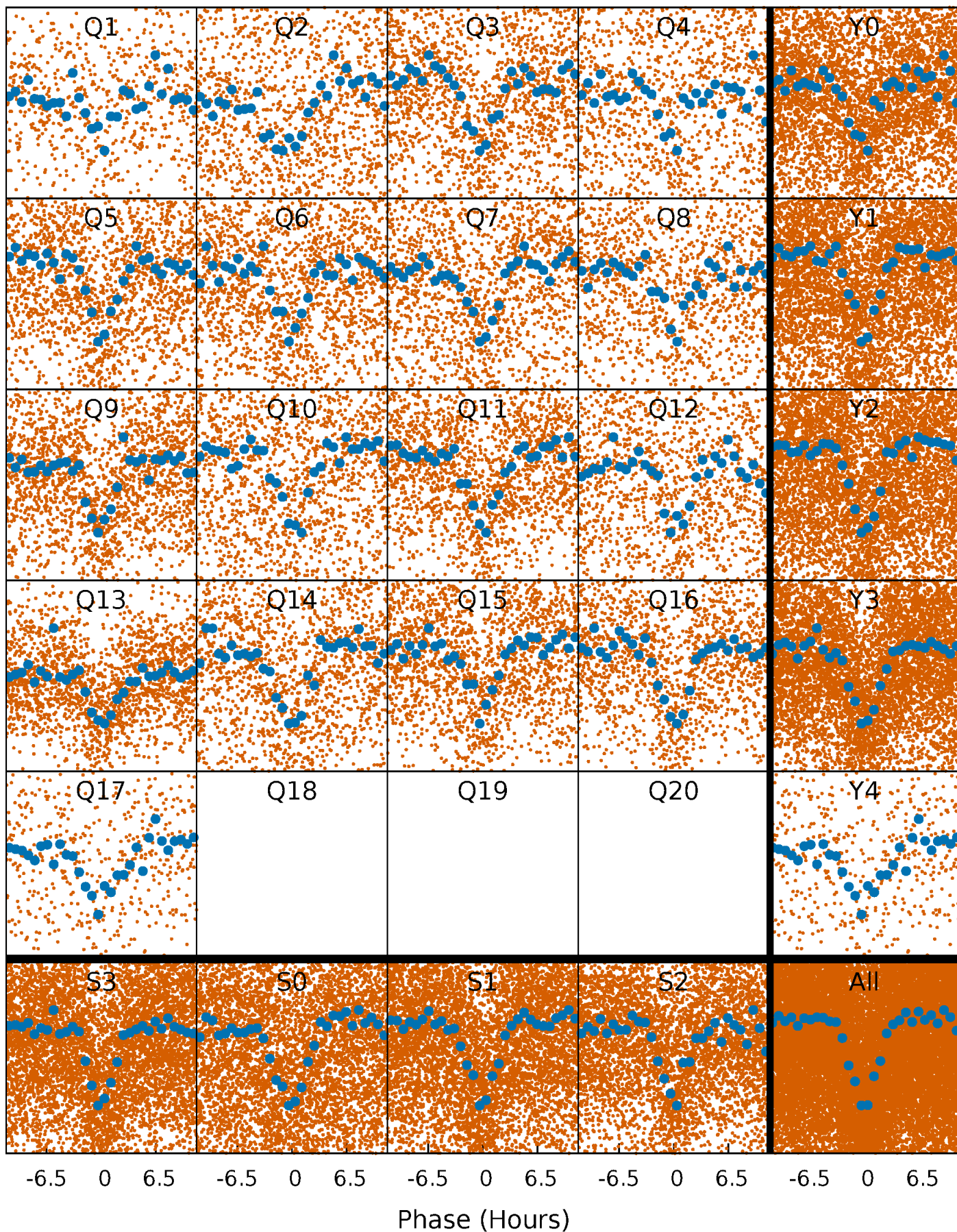


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



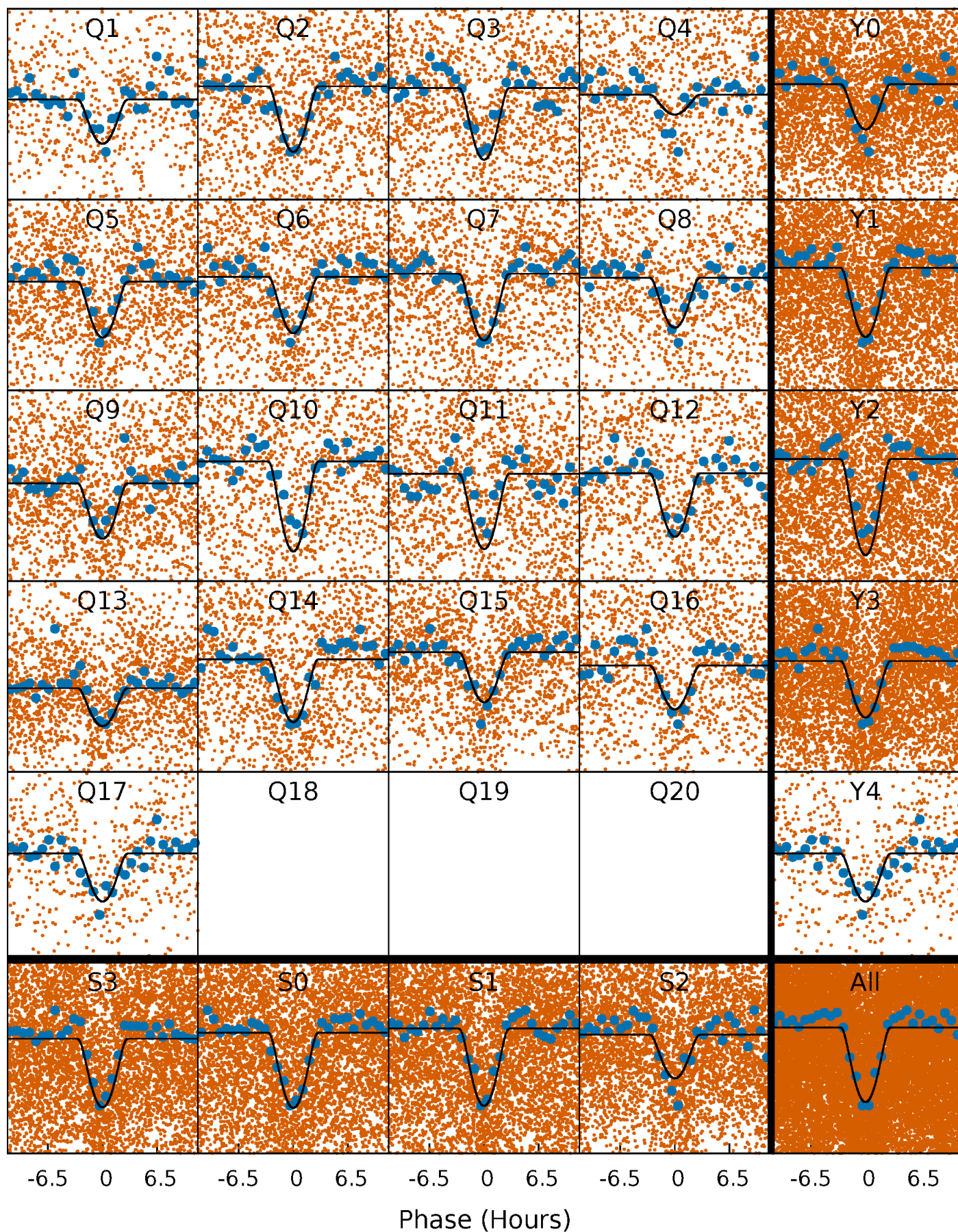
PDC Quarter-Phased Transit Curves

TCE 003328026-01 P= 2.115488 Days $T_0=132.000977$ (BKJD)



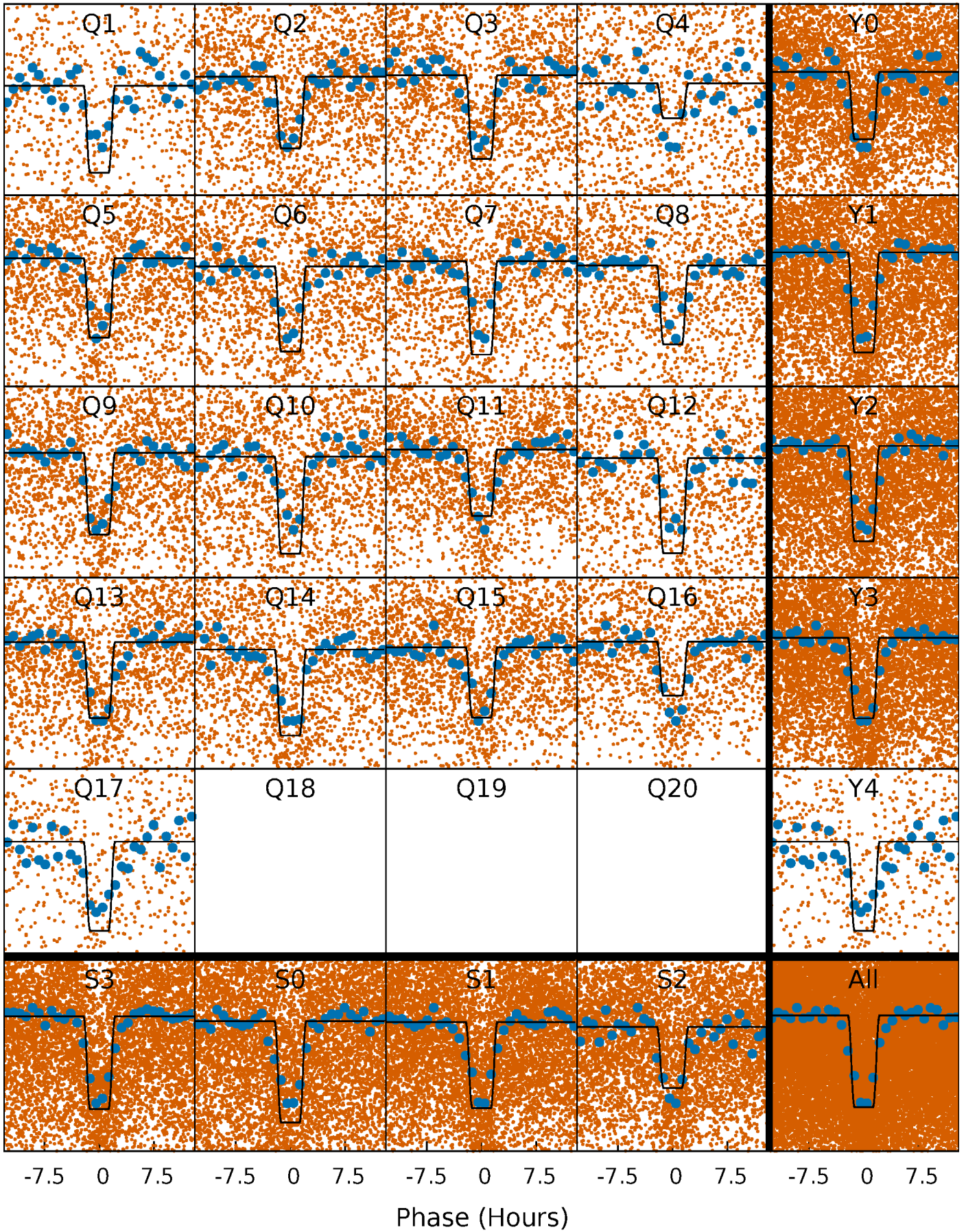
DV Quarter-Phased Transit Curves

TCE 003328026-01 P= 2.115488 Days $T_0=132.000977$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

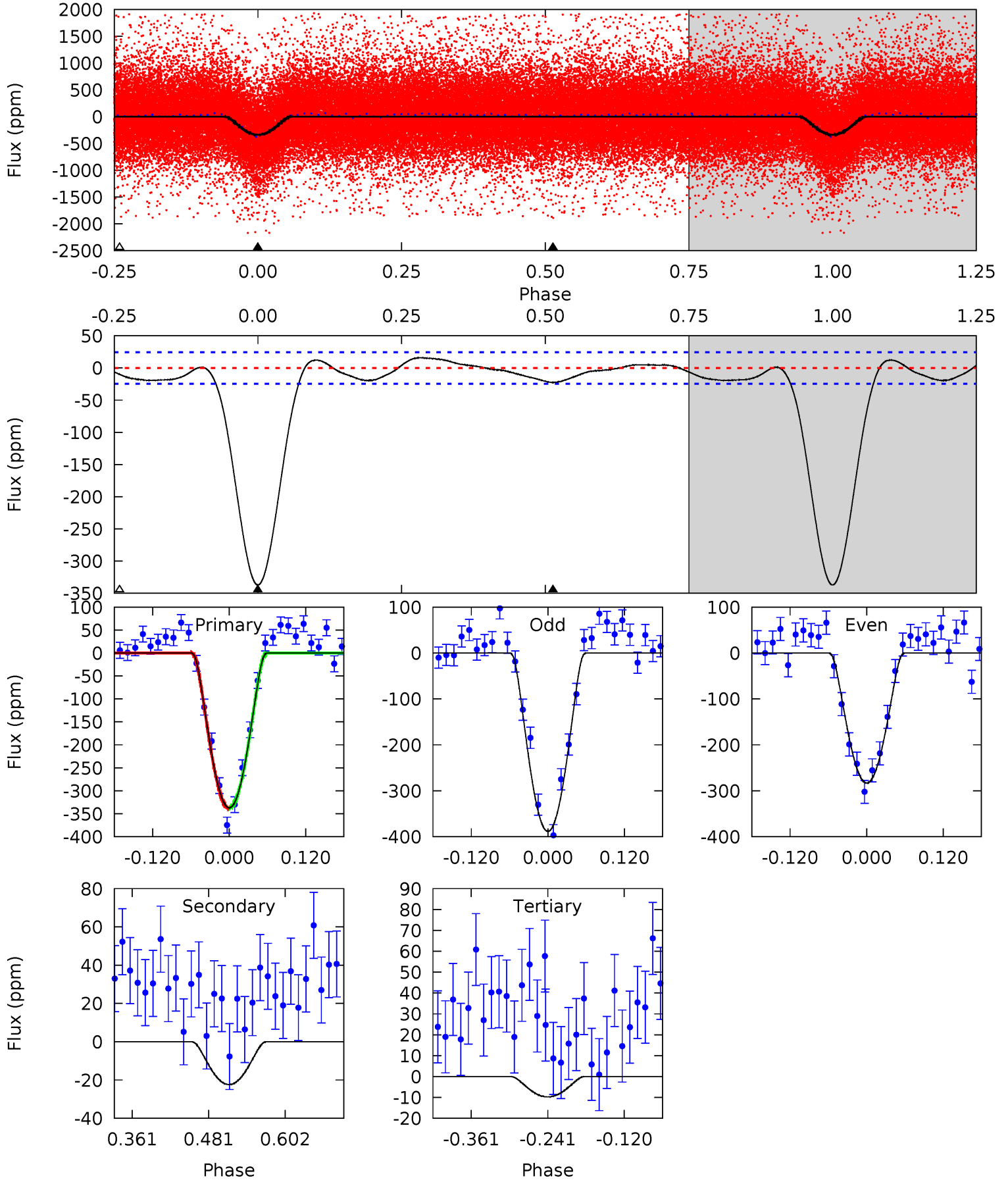
TCE 003328026-01 P= 2.115473 Days $T_0=132.005840$ (BKJD)



DV Model-Shift Uniqueness Test

003328026-01, P = 2.115488 Days, E = 129.885489 Days

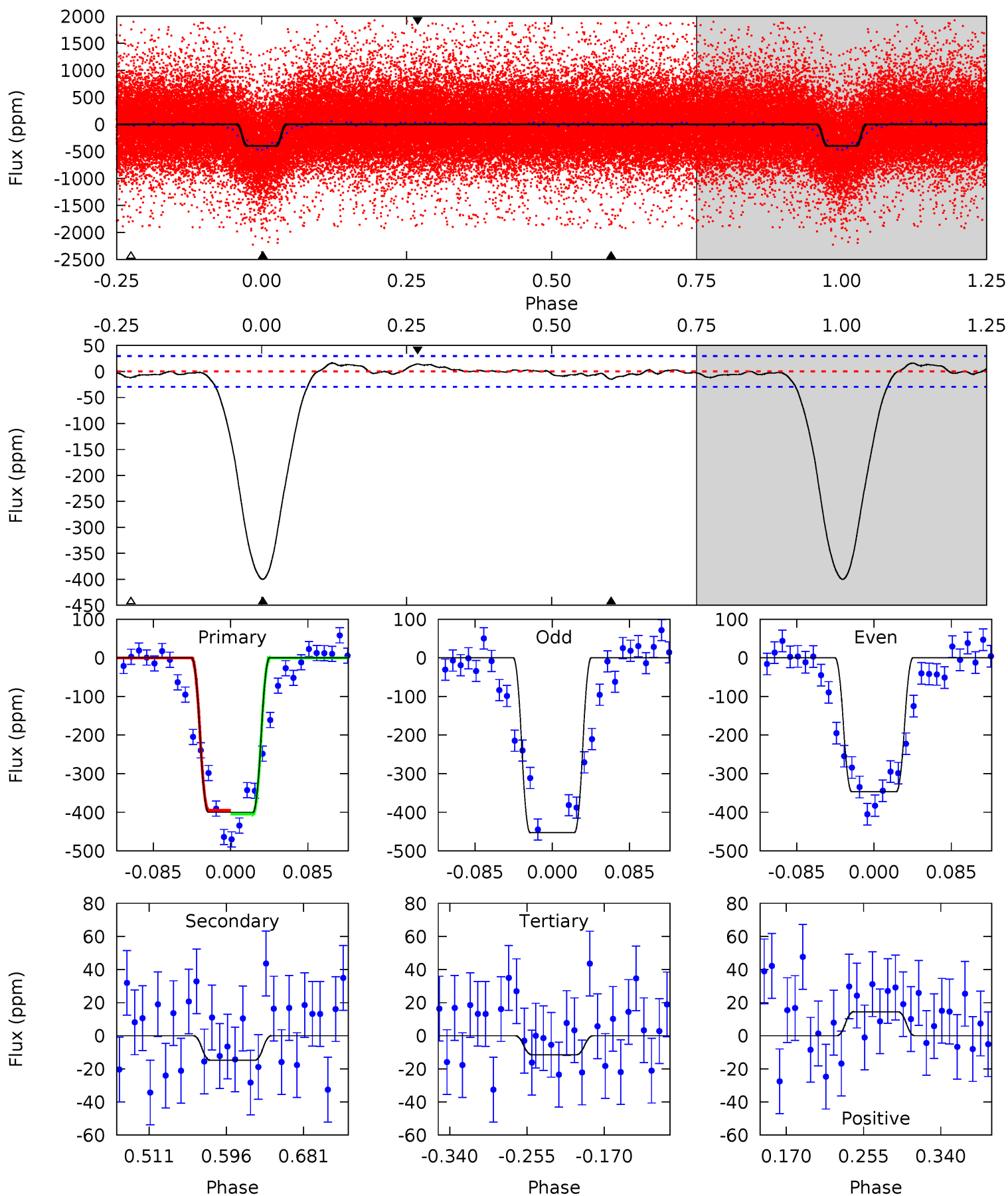
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
62.0	4.12	1.80	0	4.53	1.55	2.11	60.2	62.0	2.32	4.12	9.74	1.05	0.05	0.14



Alt Model-Shift Uniqueness Test

003328026-01, P = 2.115473 Days, E = 129.890367 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
62.2	2.31	1.79	2.25	4.60	1.72	1.05	60.5	60.0	0.52	0.06	8.30	1.01	0.04	0.77



Stellar Parameters For KIC 003328026

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5917^{+156}_{-191}	$4.475^{+0.054}_{-0.216}$	$0.140^{+0.200}_{-0.300}$	$1.000^{+0.322}_{-0.107}$	$1.088^{+0.125}_{-0.137}$	$1.531^{+0.423}_{-0.789}$
	+3%/-3%	+1%/-5%	+143%/-214%	+32%/-11%	+11%/-13%	+28%/-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 003328026-01 / KOI 1994.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-22 ± 5	$4.22^{+3.36}_{-2.58}$	2048^{+165}_{-98}	2665^{+1086}_{-4834}	$0.764^{+3.983}_{-0.543}$
Alt.	-15 ± 6	$3.26^{+2.86}_{-2.12}$	2036^{+160}_{-94}	2636^{+1226}_{-4911}	$0.730^{+5.004}_{-0.548}$

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 $A_{obs} \gg 1.0$

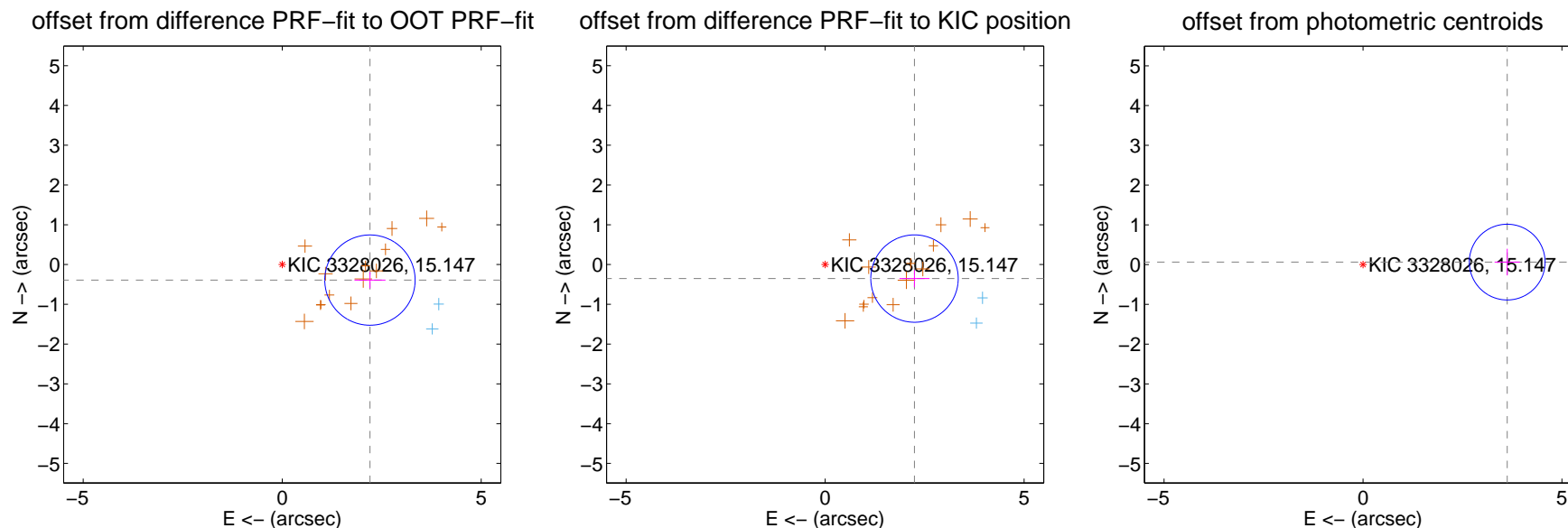
DV Centroid Data

Supplemental centroid analysis for 003328026-01. Kepler magnitude: 15.15. Transit SNR 41.05

There are 2 quarters with good PRF difference image offsets

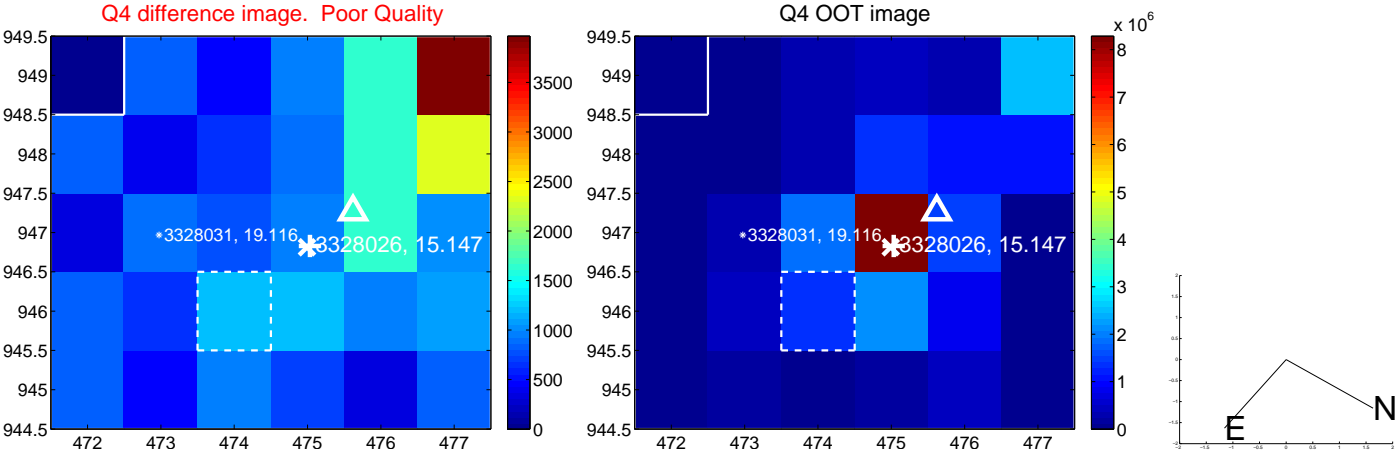
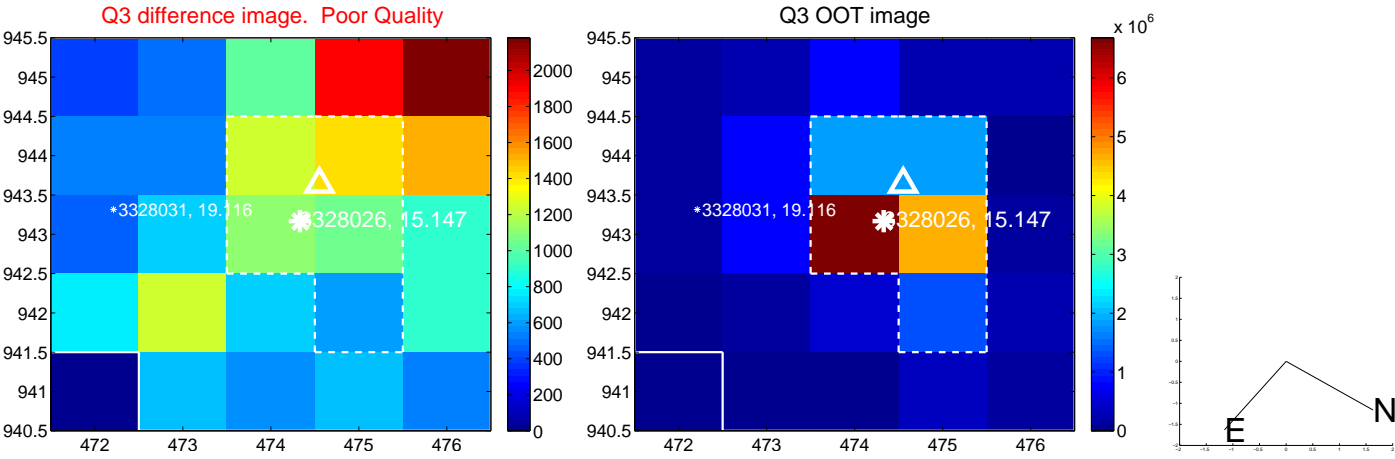
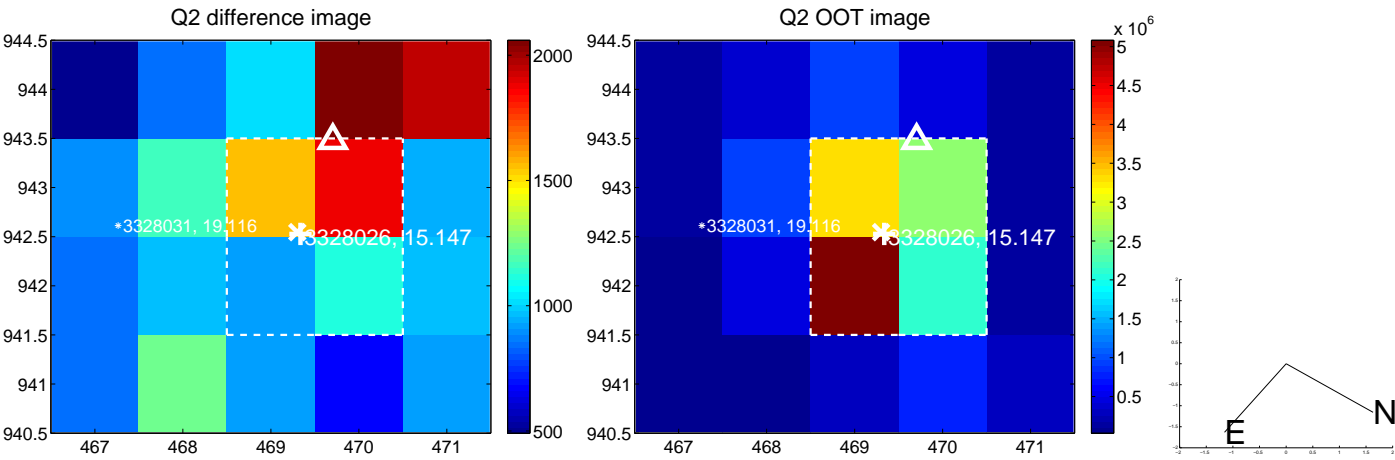
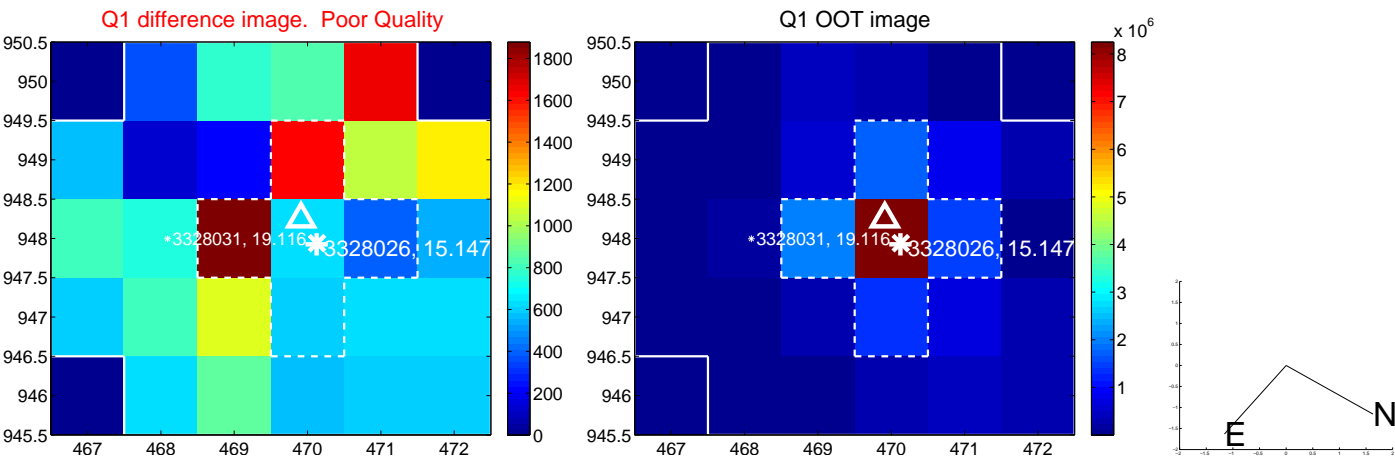
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.239 ± 0.378	5.92	-2.205 ± 0.389	-0.391 ± 0.205
PRF-fit source offset from KIC position	2.273 ± 0.366	6.21	-2.246 ± 0.379	-0.353 ± 0.214
photometric centroid source offset	3.62 ± 0.32	11.42	-3.62 ± 0.32	0.06 ± 0.34

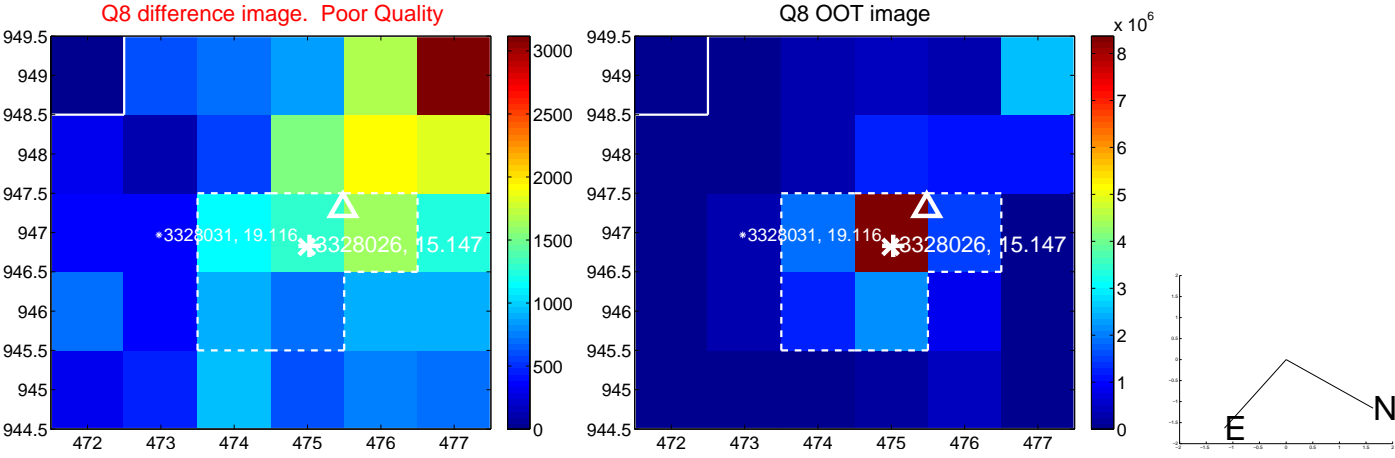
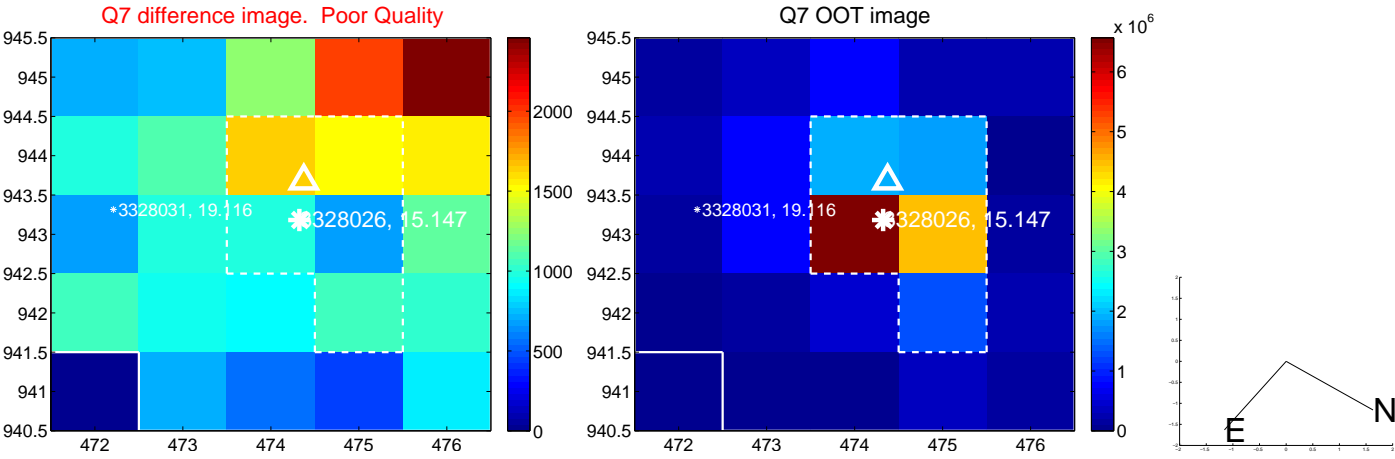
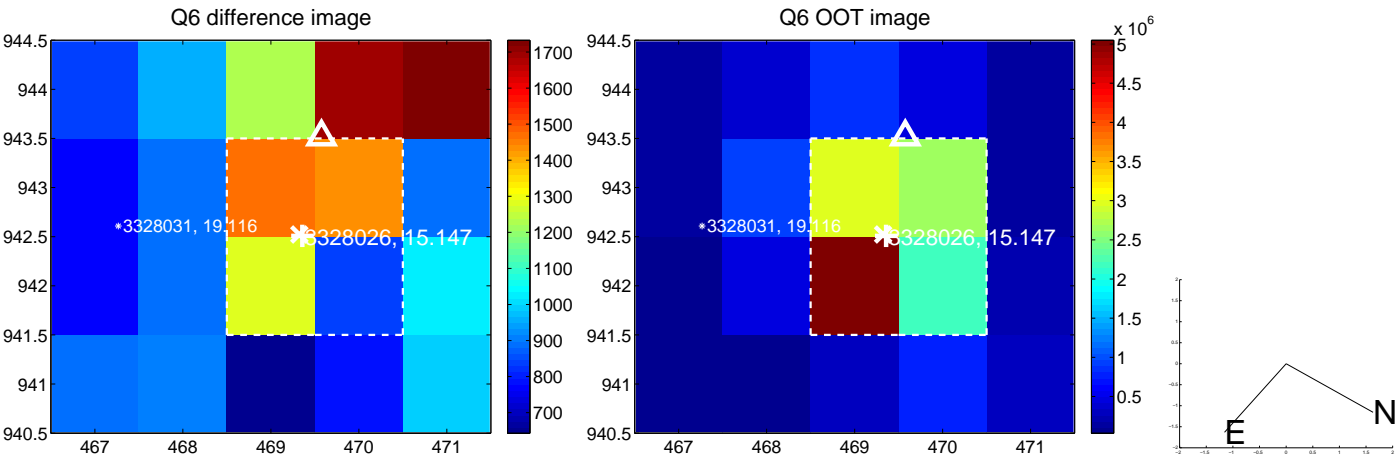
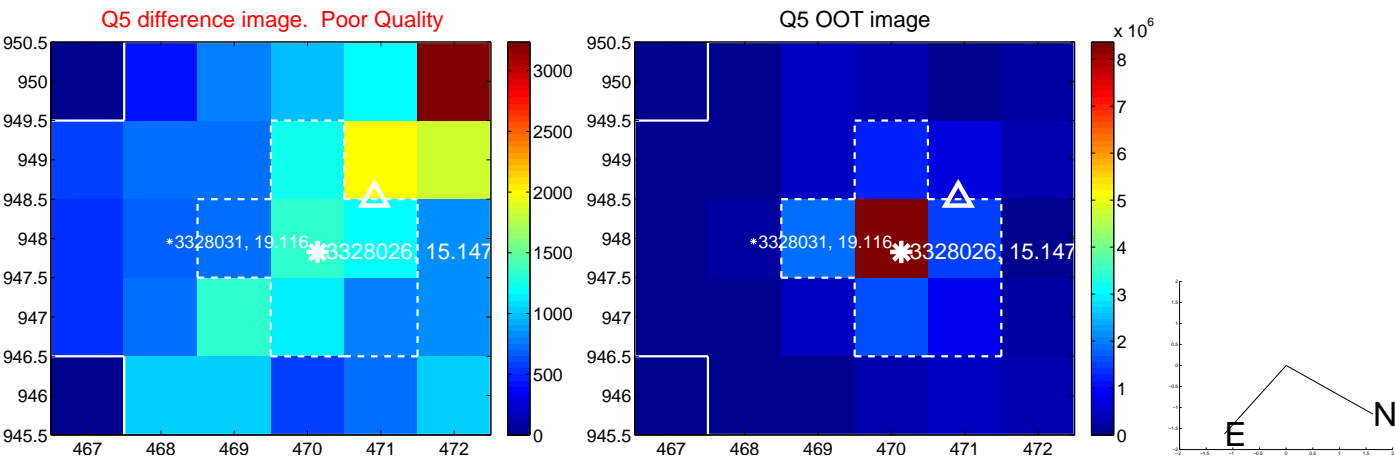


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

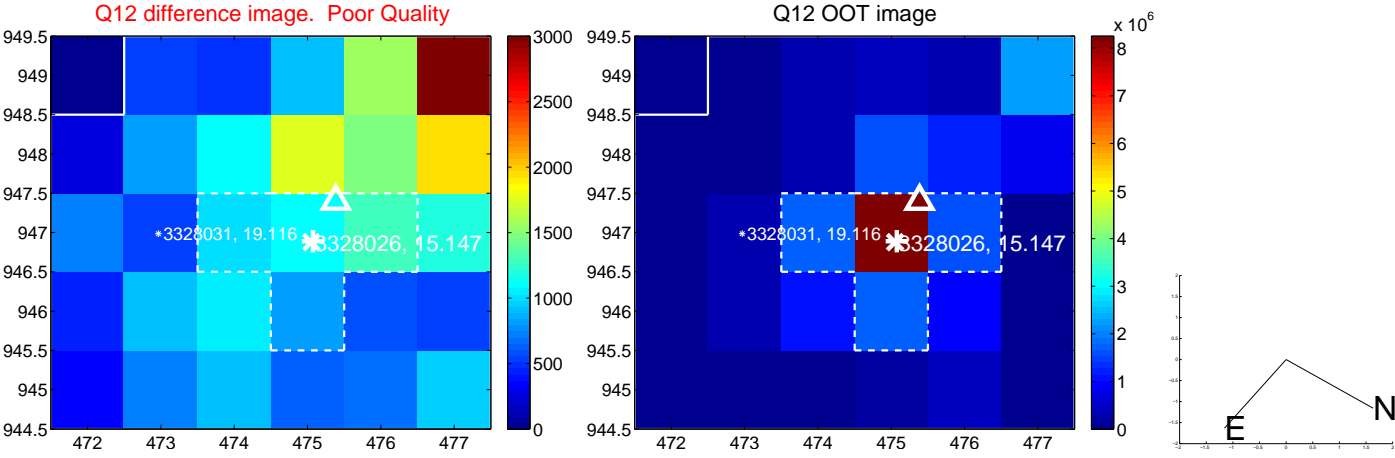
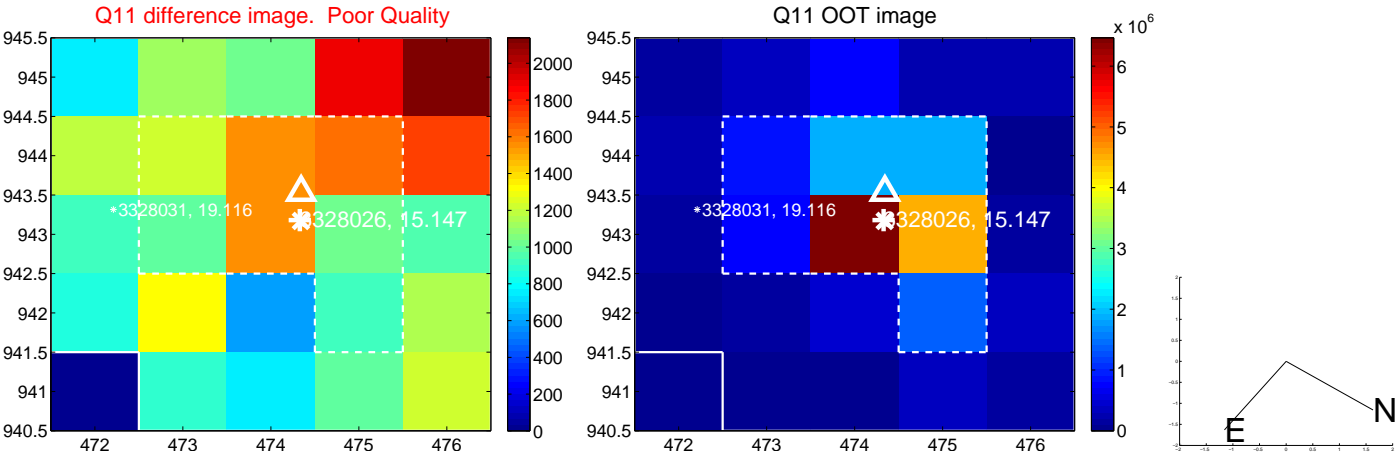
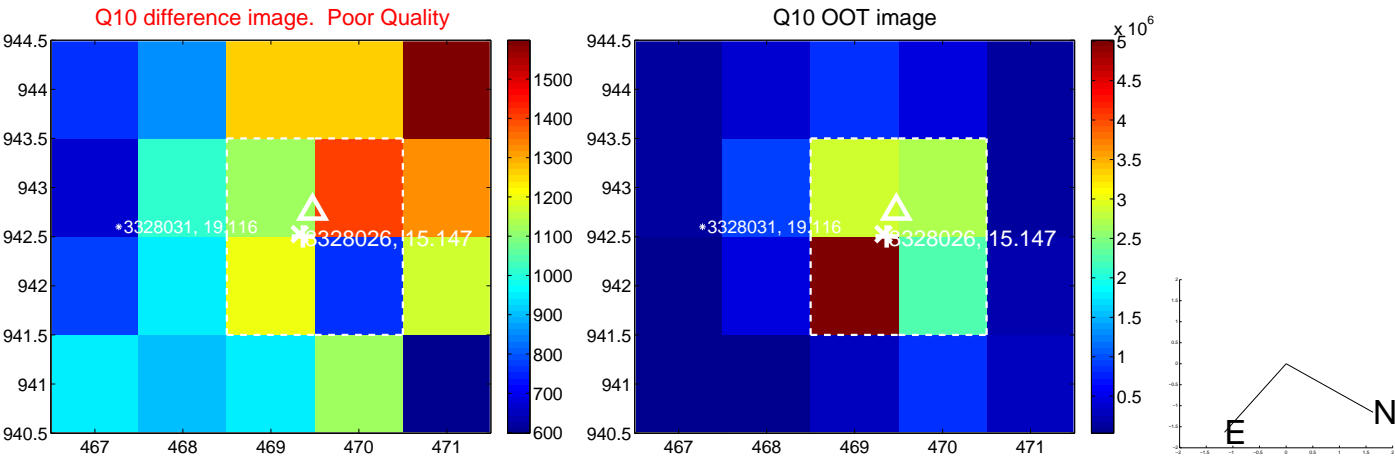
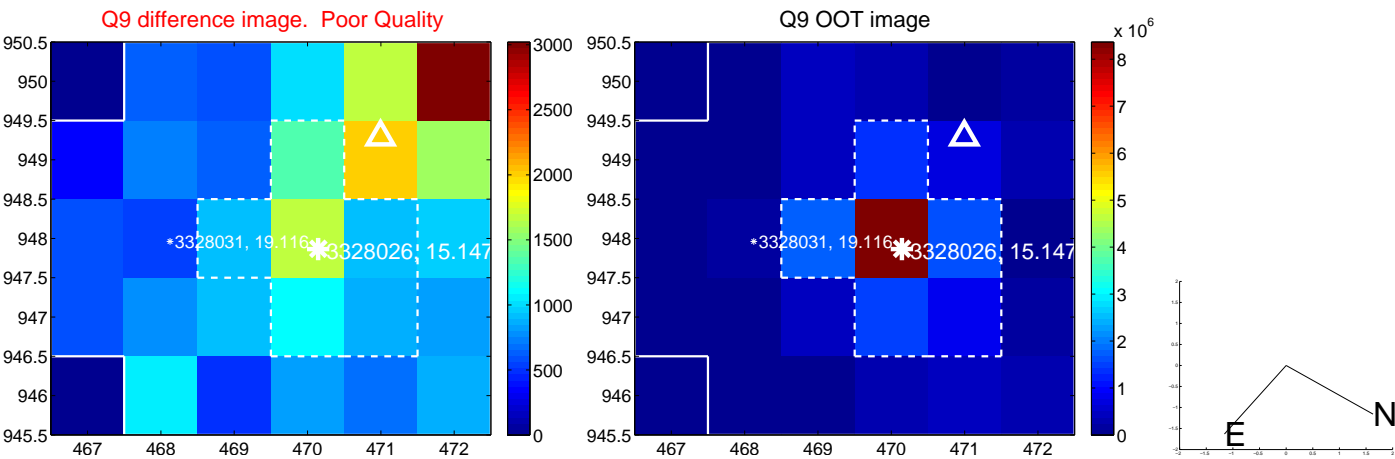
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



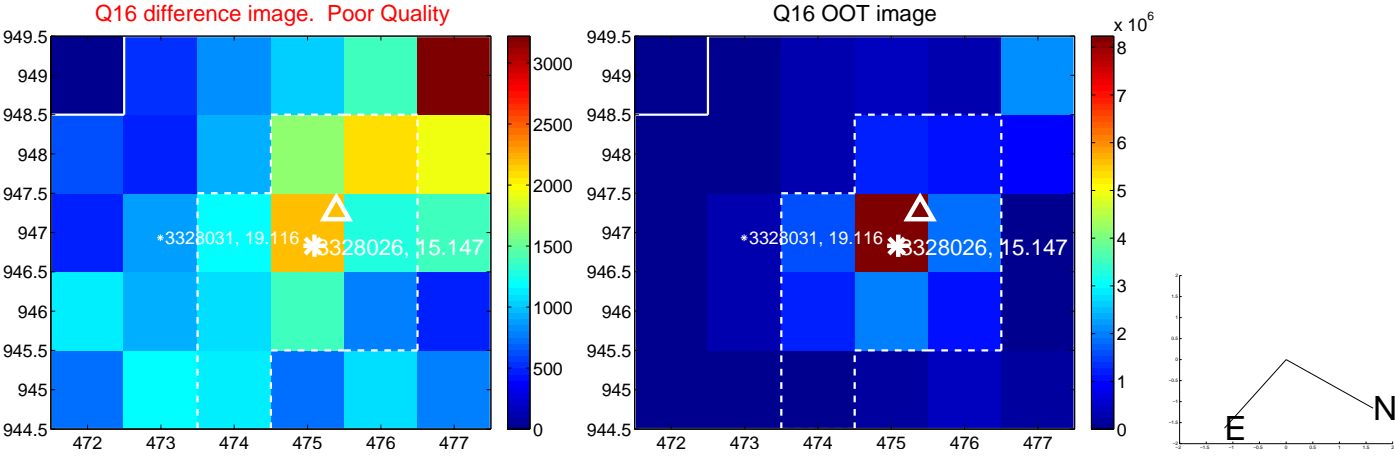
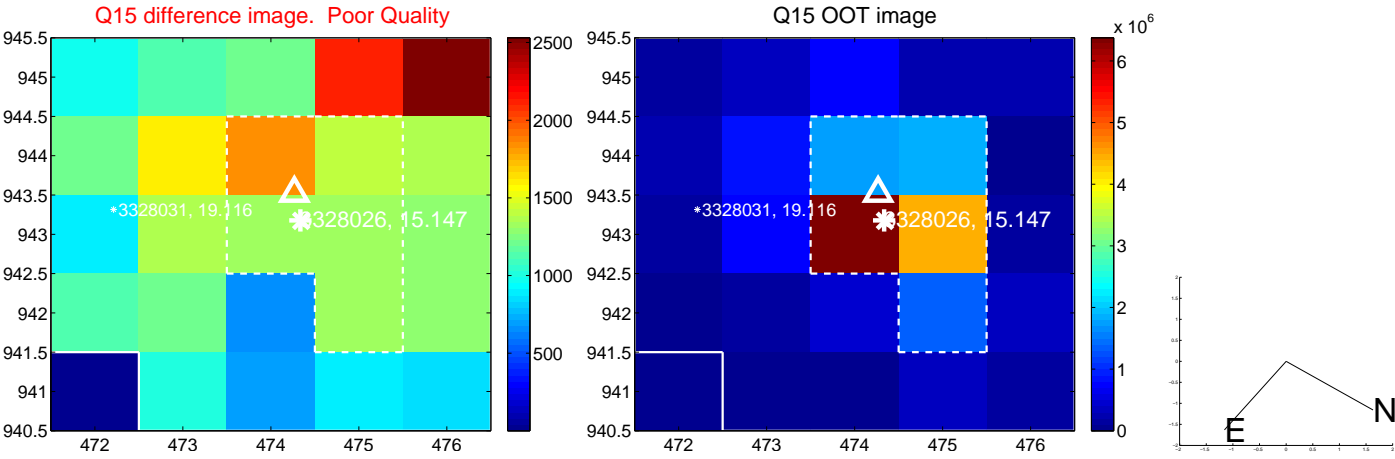
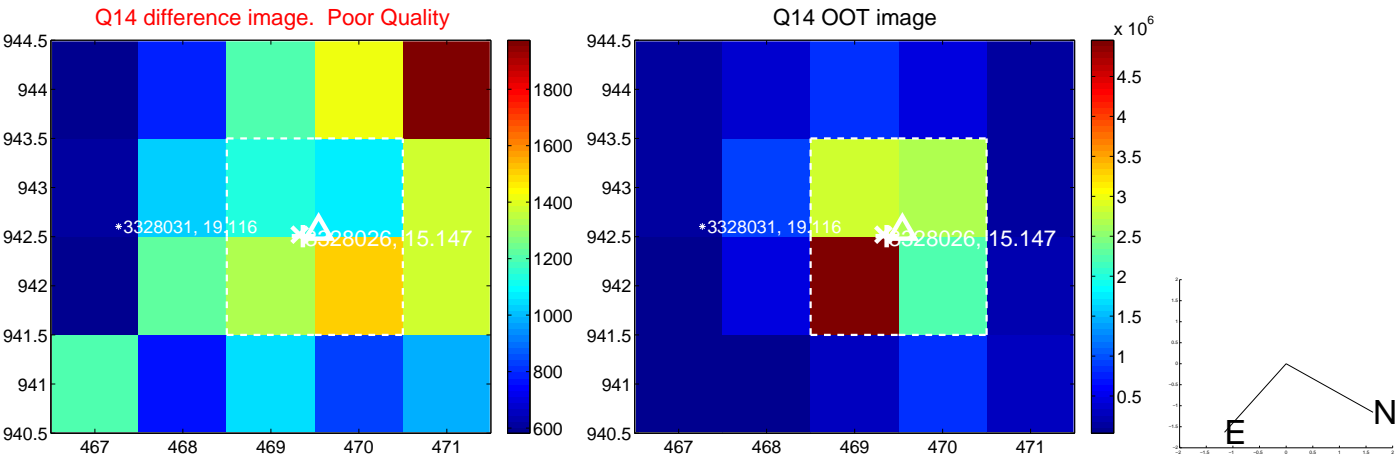
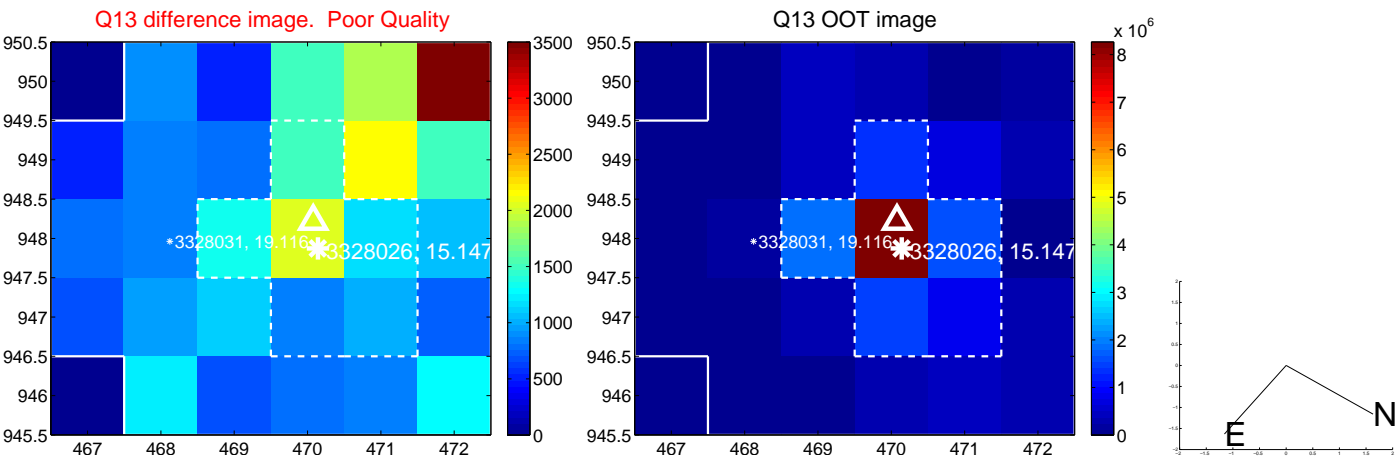
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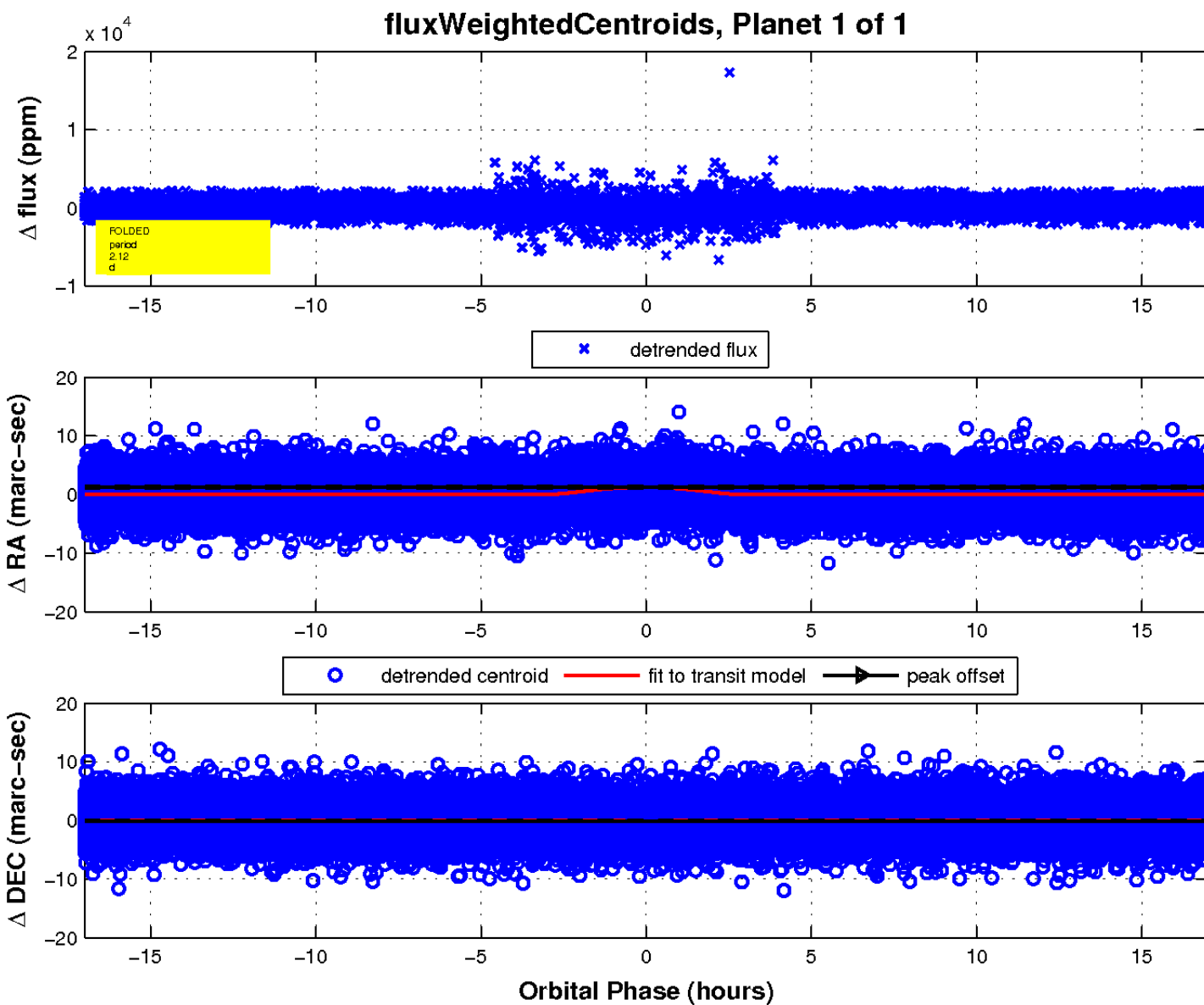
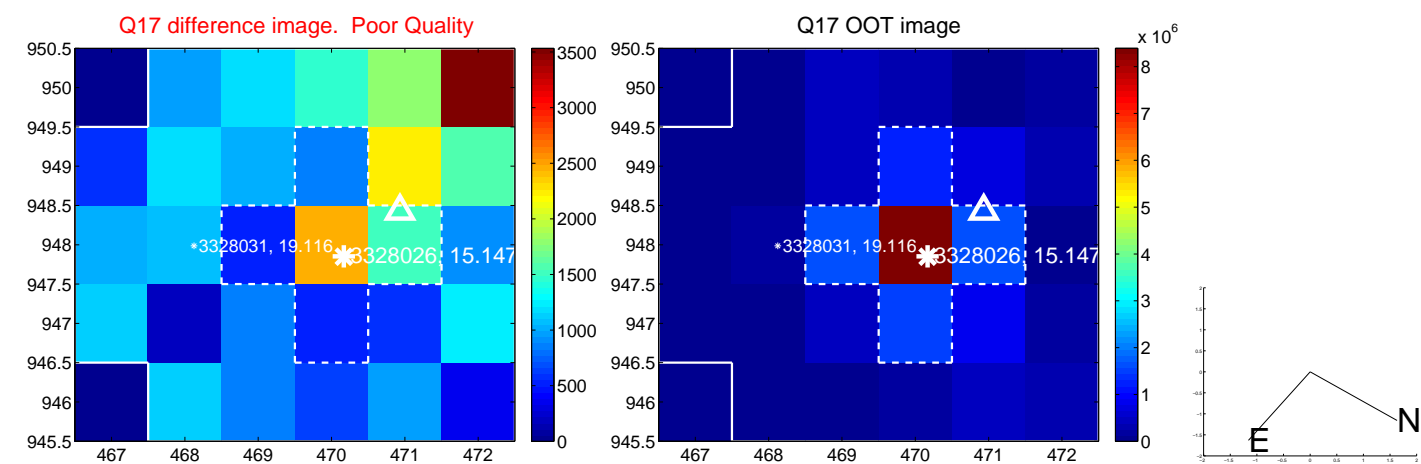
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UKIRT Image

