

KIC 010332213

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})
010332213-01	OBS	2919.01	2.522556	131.655842	184.7	1.004	11.7	16.6	0.86	5591	1.41	499.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010332213-01	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.

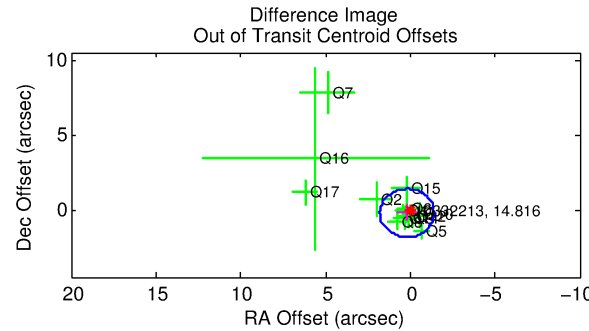
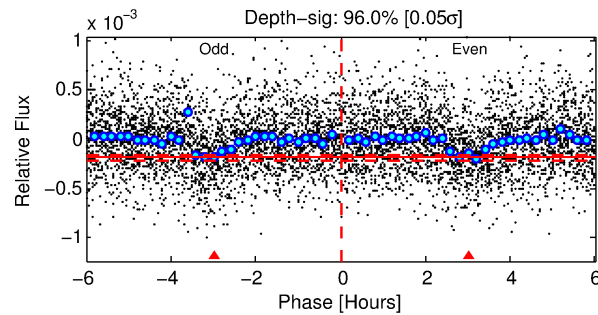
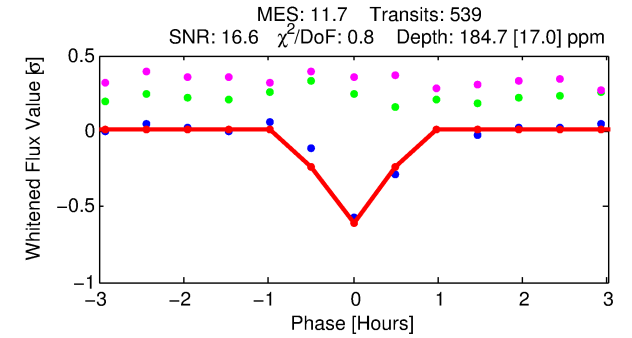
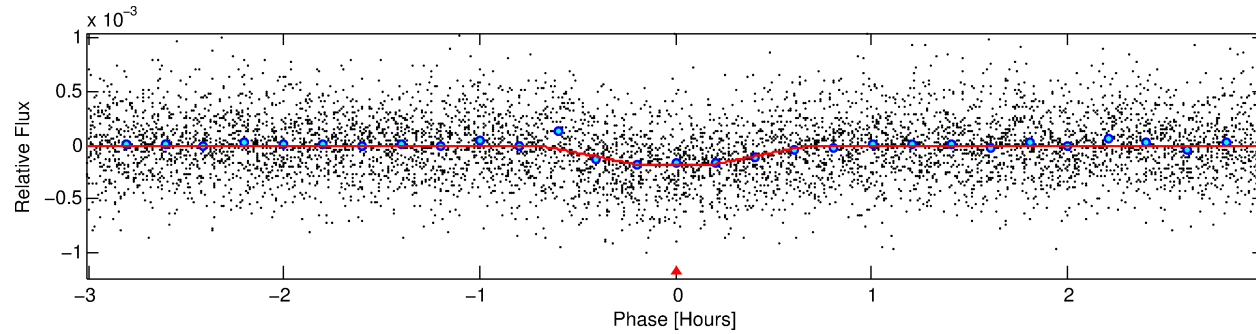
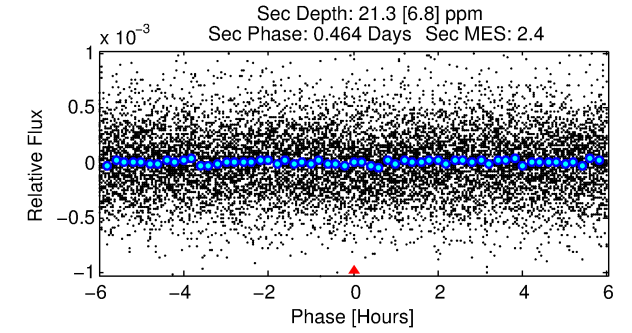
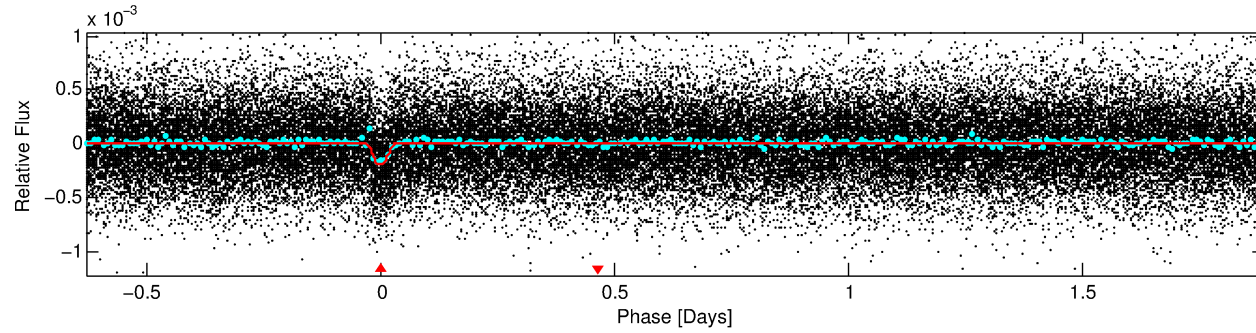
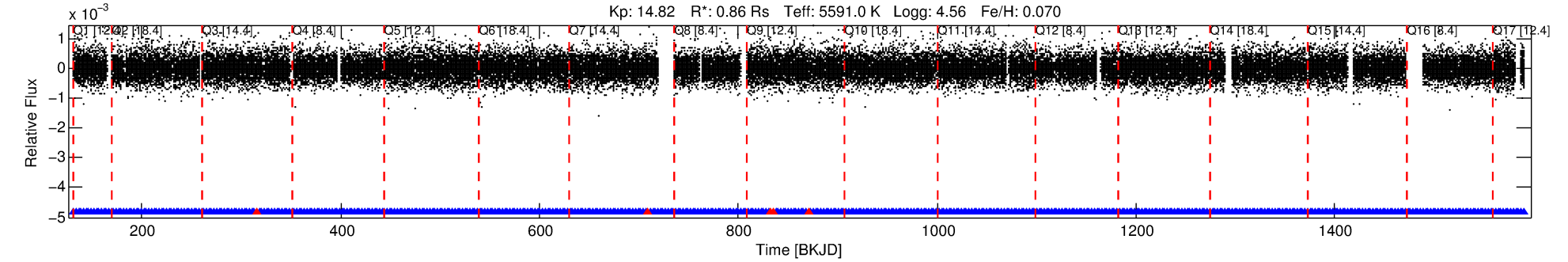
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010332213-01

No Significant Match Found

DV One-Page Summary

KIC: 10332213 Candidate: 1 of 1 Period: 2.523 d
KOI: K02919.01 Corr: 0.840



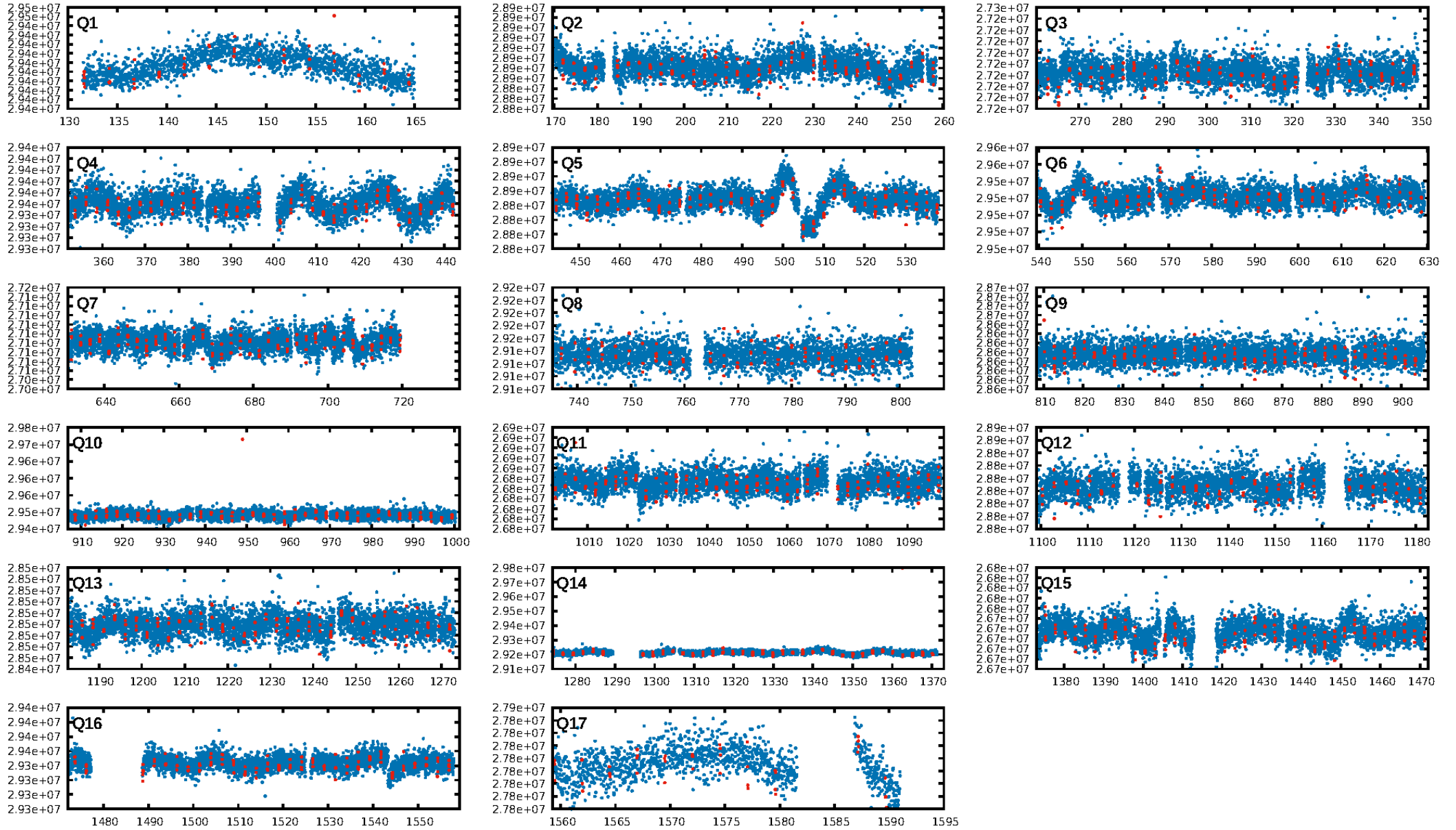
DV Fit Results:

Period = 2.52256 [0.00001] d
Epoch = 131.6558 [0.0011] BKJD
Rp/R* = 0.0150 [0.0090]
a/R* = 9.22 [24.47]
b = 0.90 [0.61]
Seff = 499.72 [177.47]
Teq = 1206 [107] K
Rp = 1.41 [0.92] Re
a = 0.0360 [0.0081] AU
Ag = 7.67 [9.86] [0.68σ]
Teffp = 3102 [968] K [1.95σ]

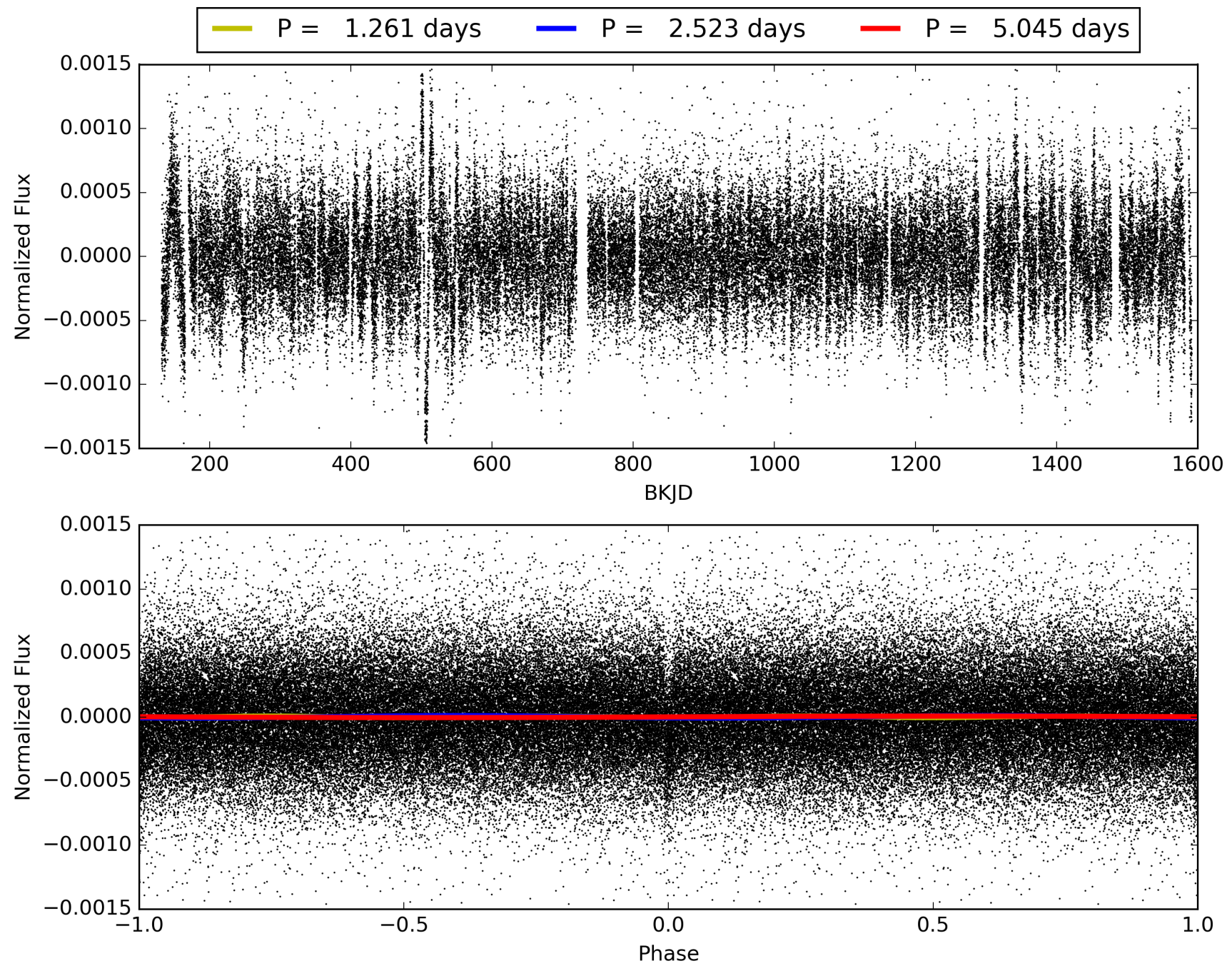
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.96e-30
RollingBand-fgt: 0.99 [509/514]
GhostDiagnostic-chr: 2.075
Centroid-sig: 9.1%
Centroid-so: 0.938 arcsec [1.16σ]
OotOffset-rm: 0.298 arcsec [0.56σ]
KicOffset-rm: 0.232 arcsec [0.43σ]
OotOffset-st: 4/4/3/2 [13]
KicOffset-st: 4/4/3/2 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 010332213-01, PDC Light Curves

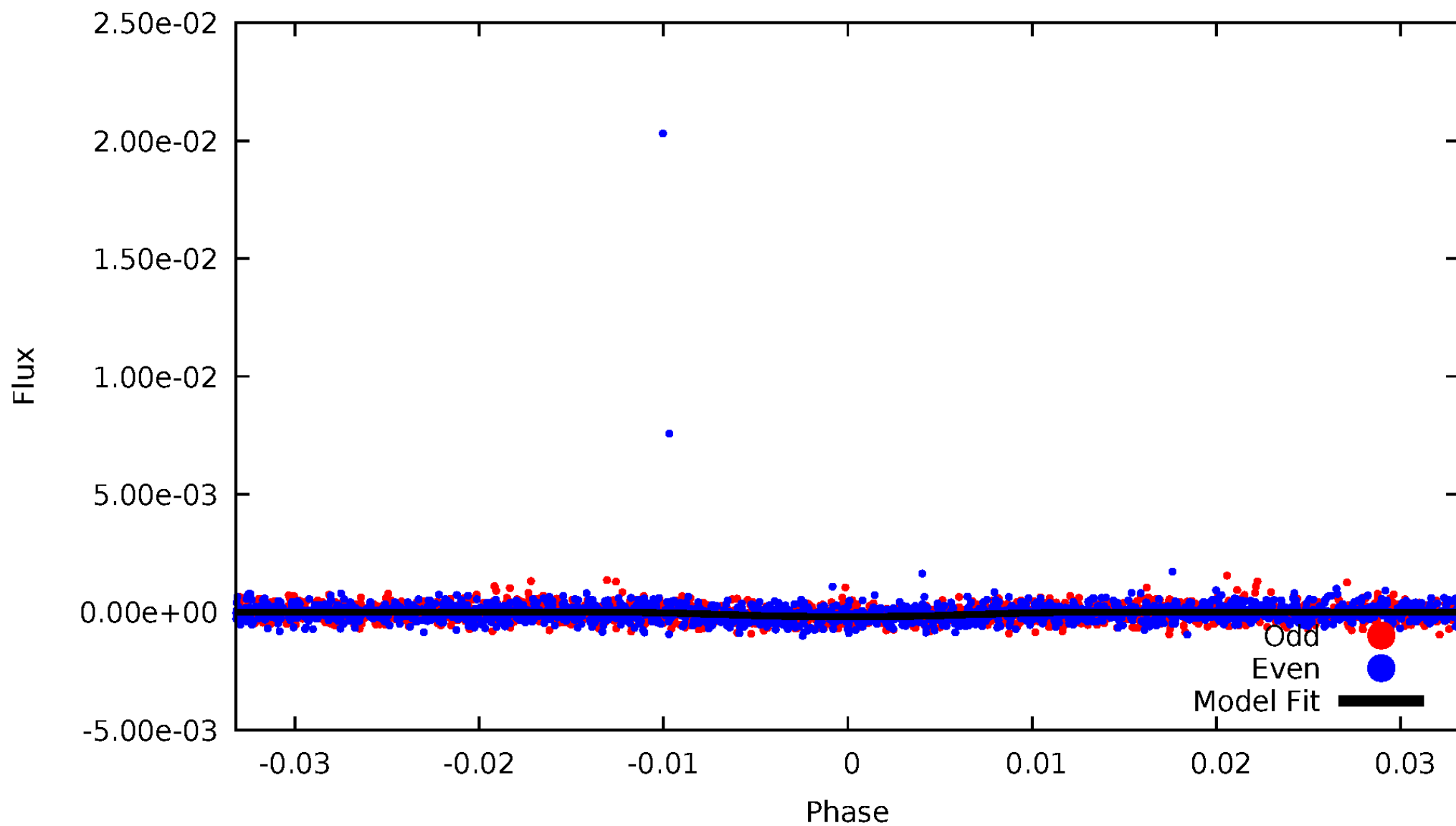


TCE 010332213-01



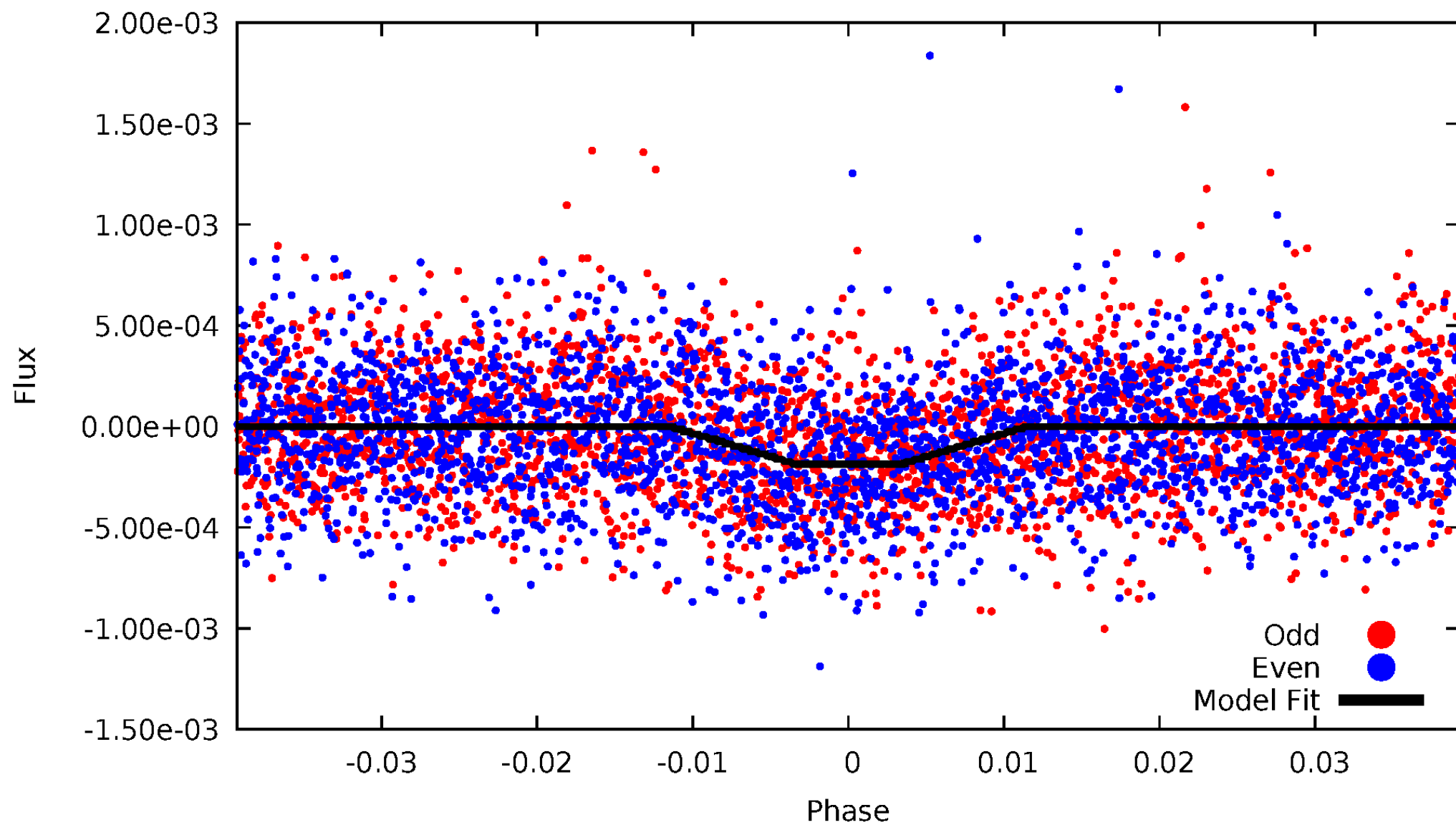
DV Odd/Even

TCE 010332213-01



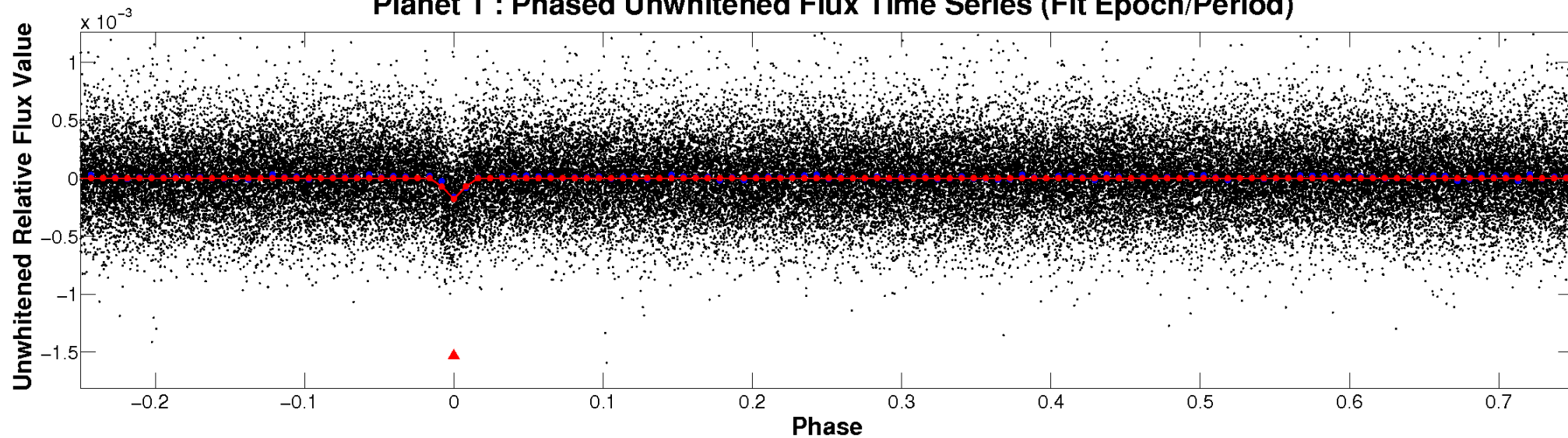
ALT Odd/Even

TCE 010332213-01

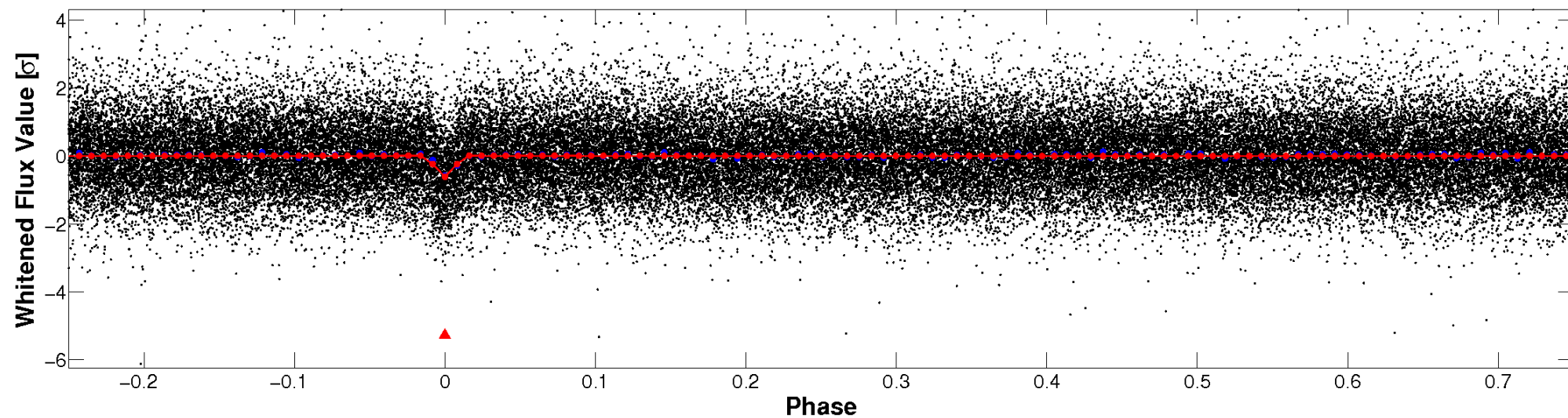


Non-Whitened Vs. Whitened Light Curve

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

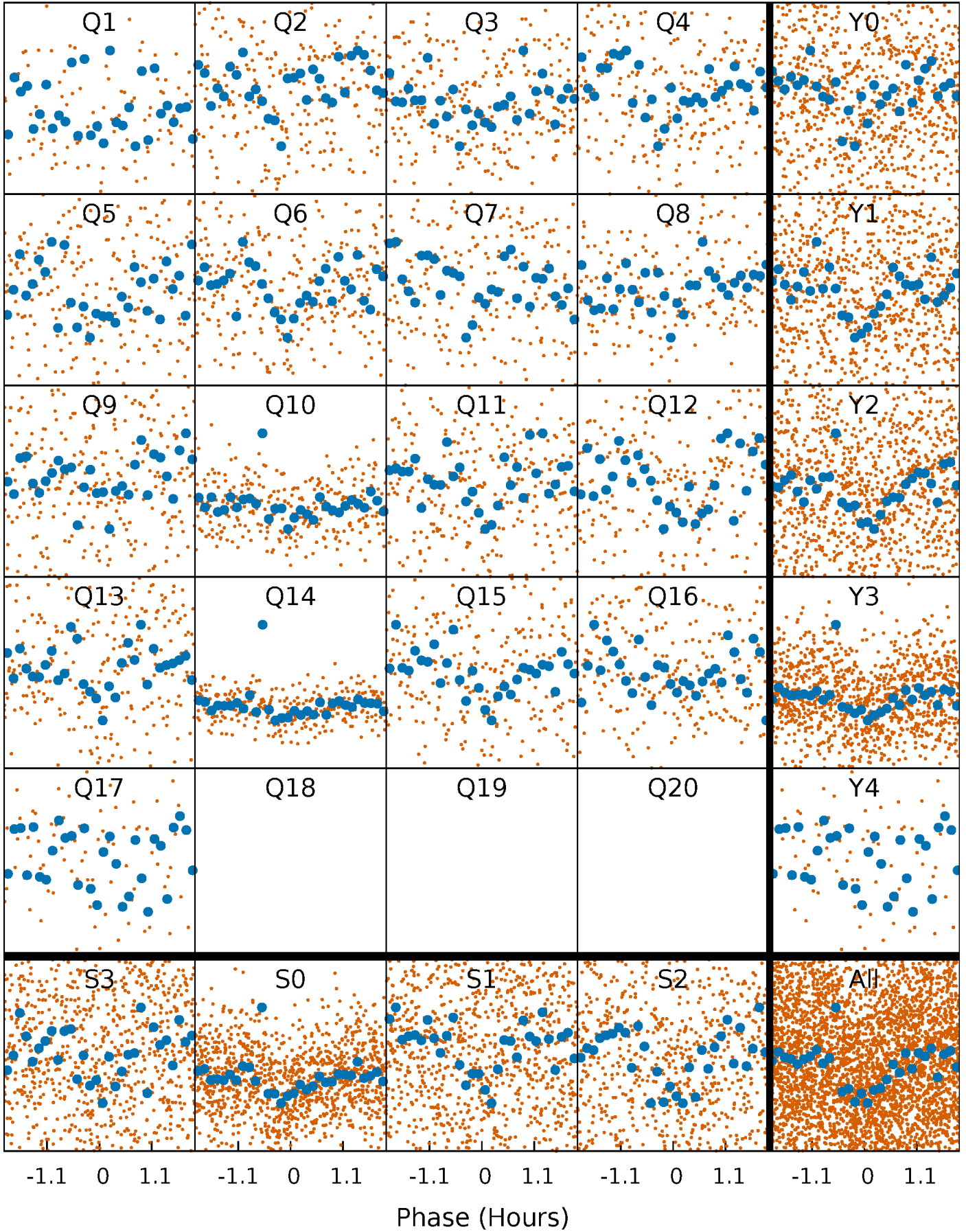


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



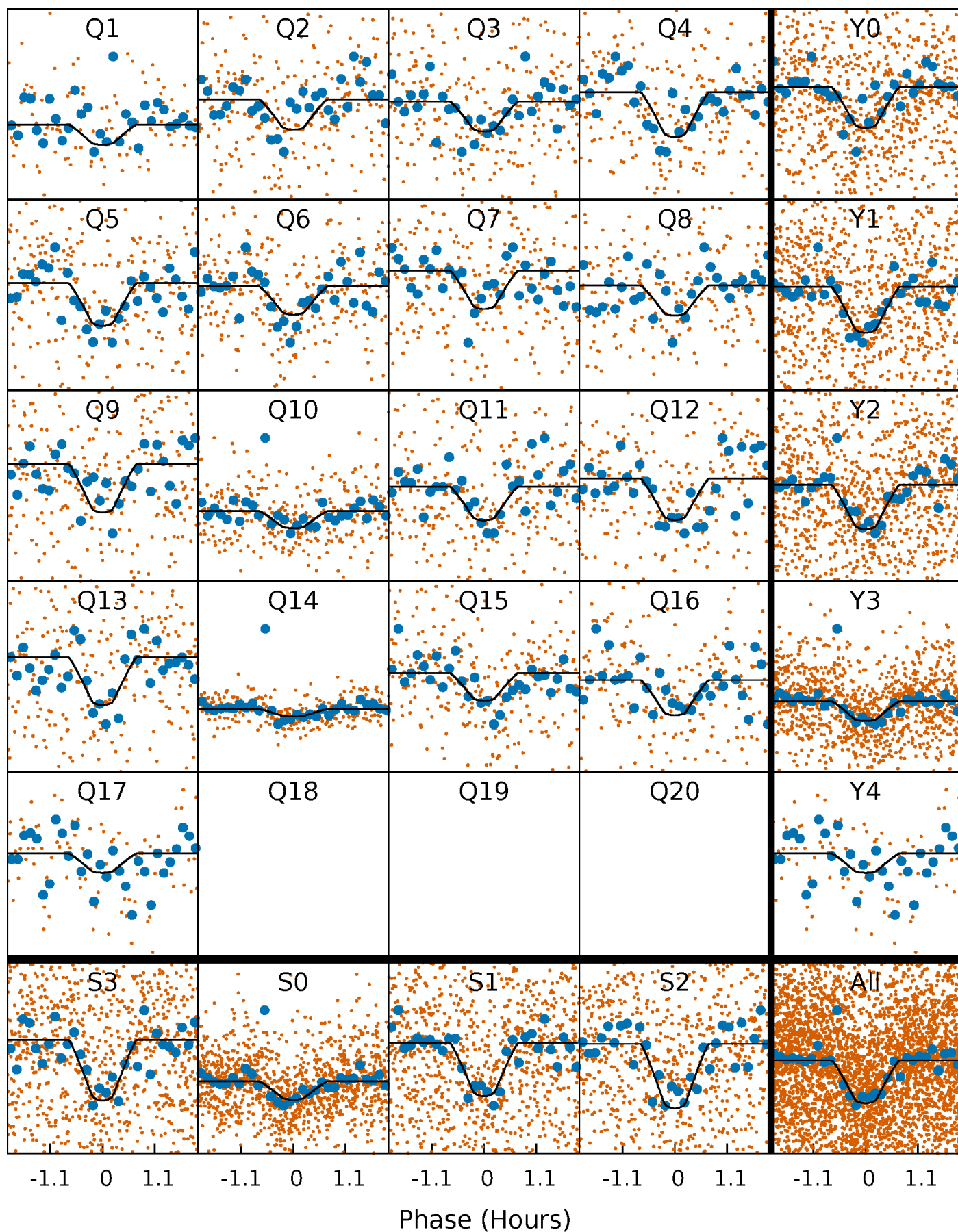
PDC Quarter-Phased Transit Curves

TCE 010332213-01 P= 2.522556 Days $T_0=131.655842$ (BKJD)



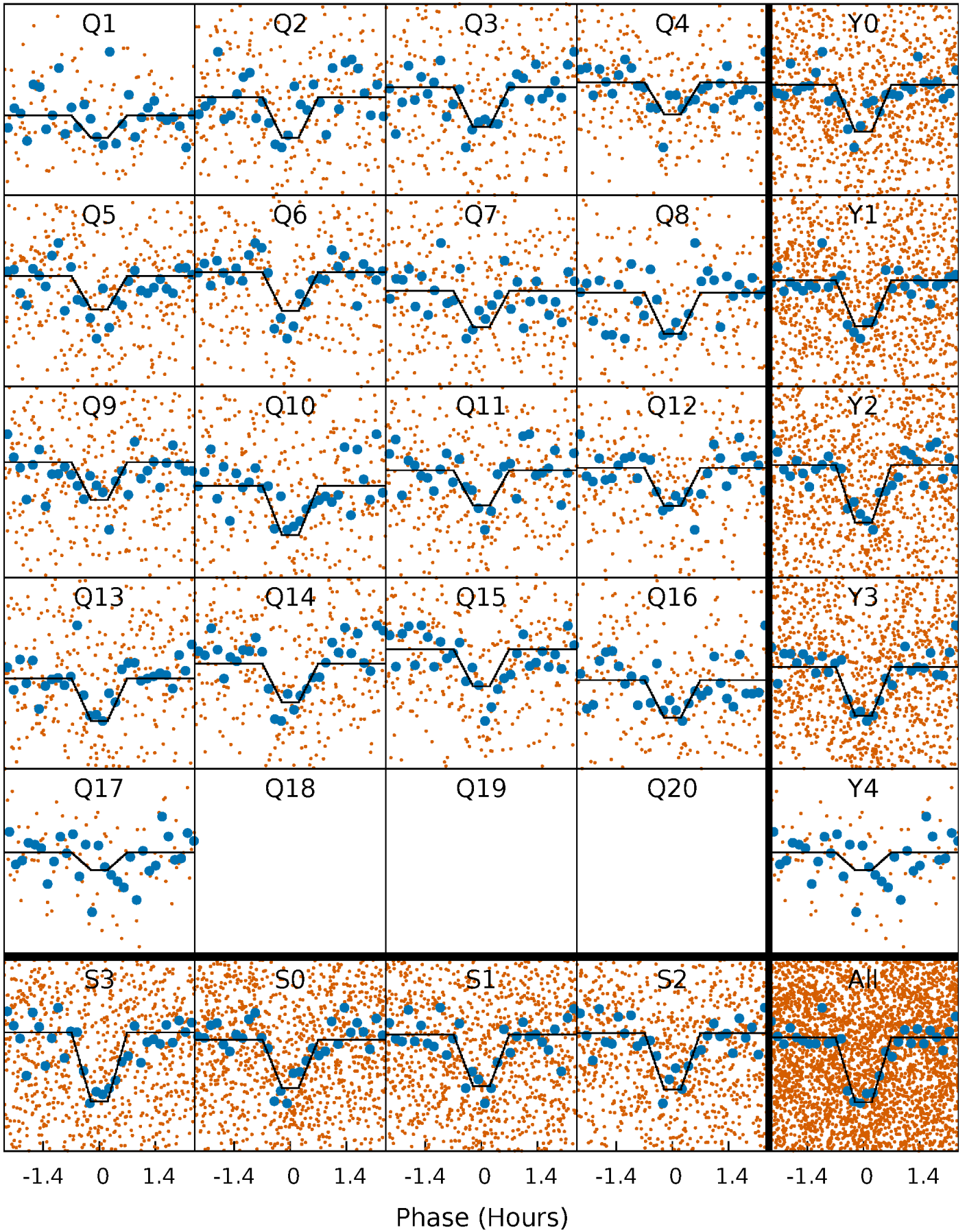
DV Quarter-Phased Transit Curves

TCE 010332213-01 P= 2.522556 Days $T_0=131.655842$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

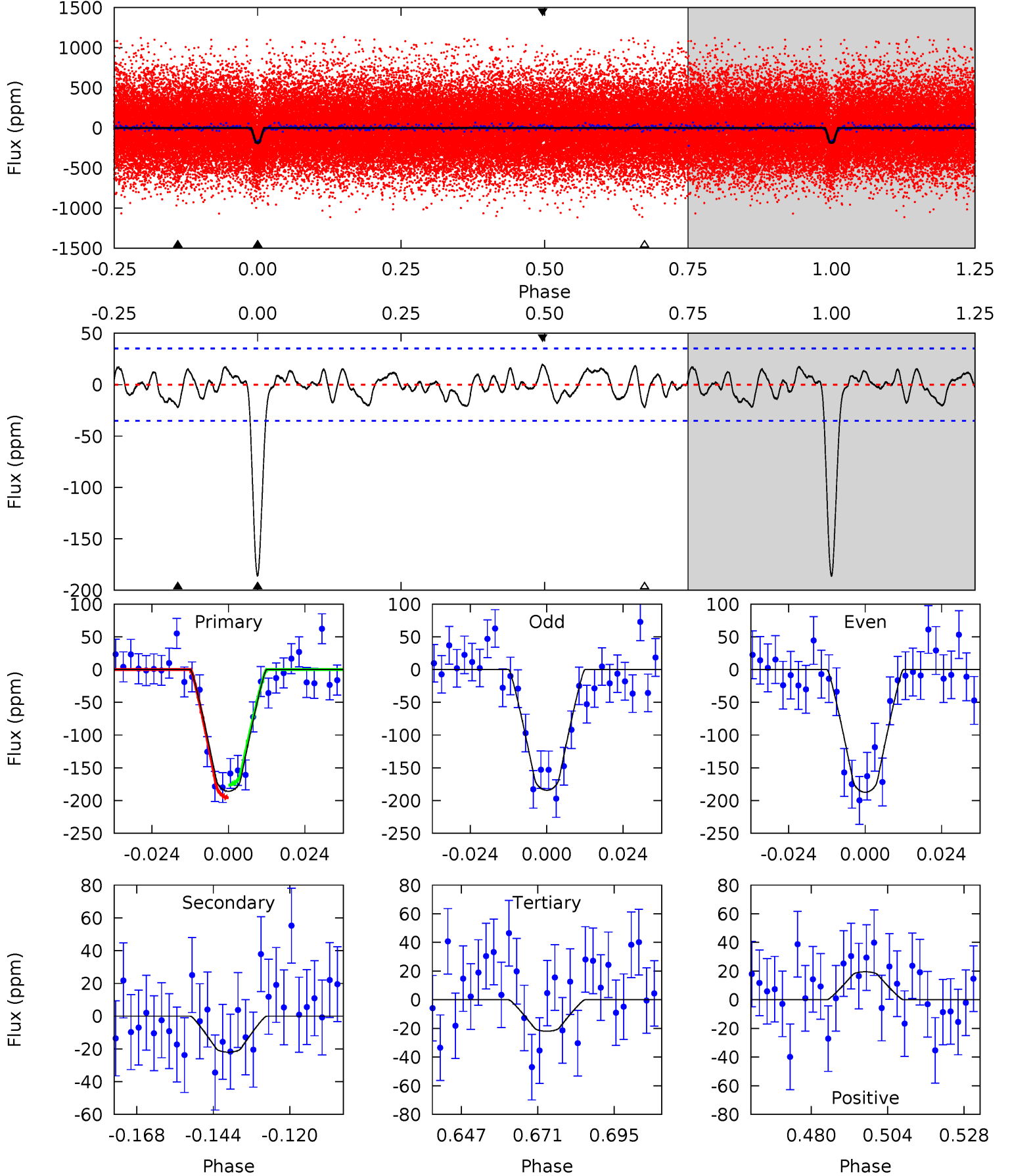
TCE 010332213-01 P= 2.522566 Days $T_0=131.652735$ (BKJD)



DV Model-Shift Uniqueness Test

010332213-01, P = 2.522556 Days, E = 129.133286 Days

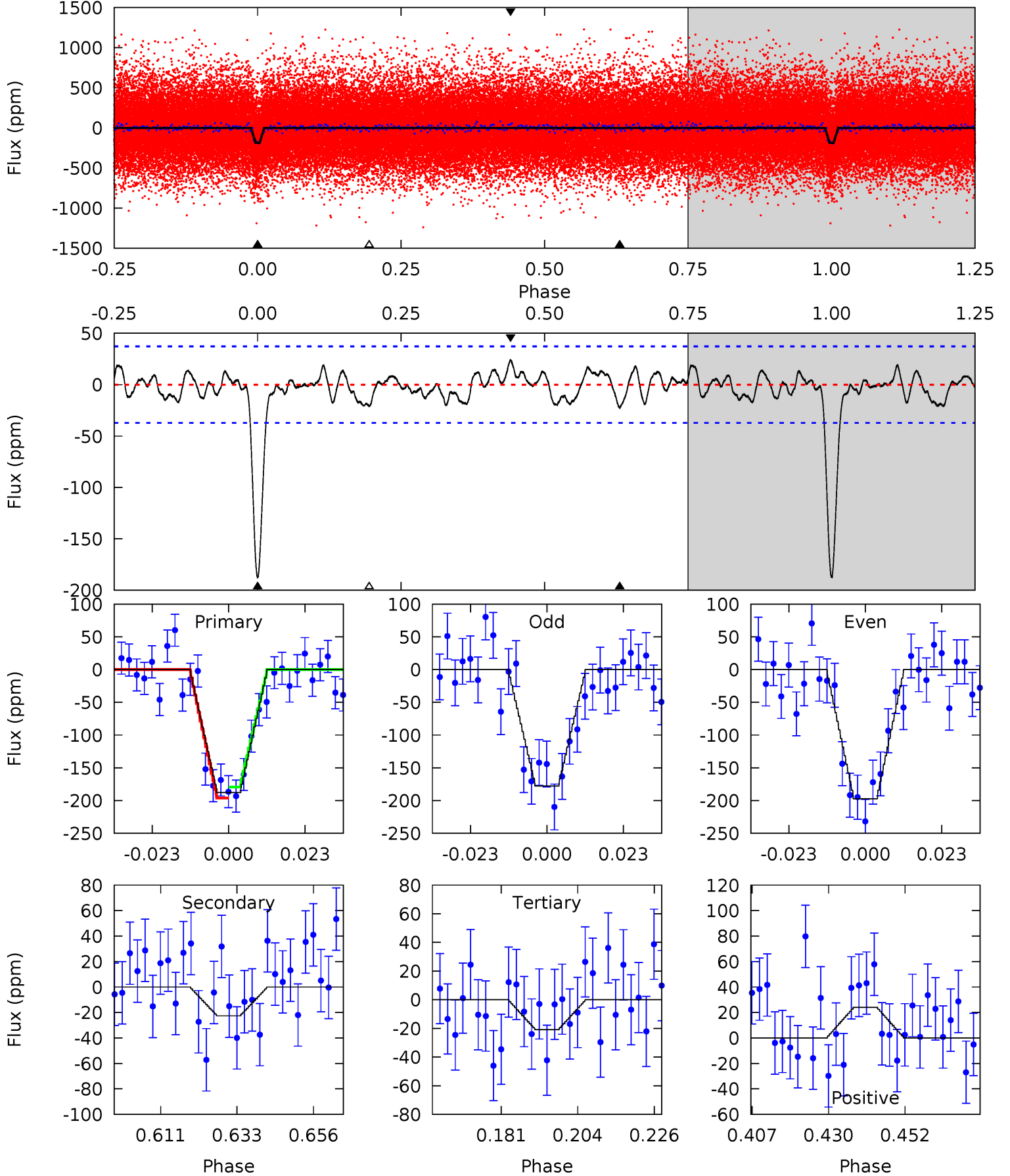
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.7	3.04	3.03	2.70	4.86	2.26	1.28	22.6	23.0	0.01	0.34	0.20	0.98	0.10	1.33



Alt Model-Shift Uniqueness Test

010332213-01, P = 2.522566 Days, E = 129.130169 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.6	2.96	2.73	3.15	4.87	2.28	1.29	21.8	21.4	0.23	-0.19	1.28	0.94	0.11	1.09



Stellar Parameters For KIC 010332213

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5591^{+150}_{-166}	$4.559^{+0.033}_{-0.187}$	$0.070^{+0.250}_{-0.300}$	$0.860^{+0.222}_{-0.074}$	$0.977^{+0.085}_{-0.113}$	$2.163^{+0.377}_{-1.023}$
	+3%/-3%	+1%/-4%	+357%/-429%	+26%/-9%	+9%/-12%	+17%/-47%
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 010332213-01 / KOI 2919.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-22 ± 7	$1.48^{+0.91}_{-0.79}$	1725^{+111}_{-64}	3525^{+1189}_{-535}	$6.758^{+26.034}_{-4.300}$
Alt.	-23 ± 8	$1.45^{+0.85}_{-0.74}$	1726^{+116}_{-75}	3613^{+1153}_{-565}	$7.563^{+27.144}_{-4.821}$

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

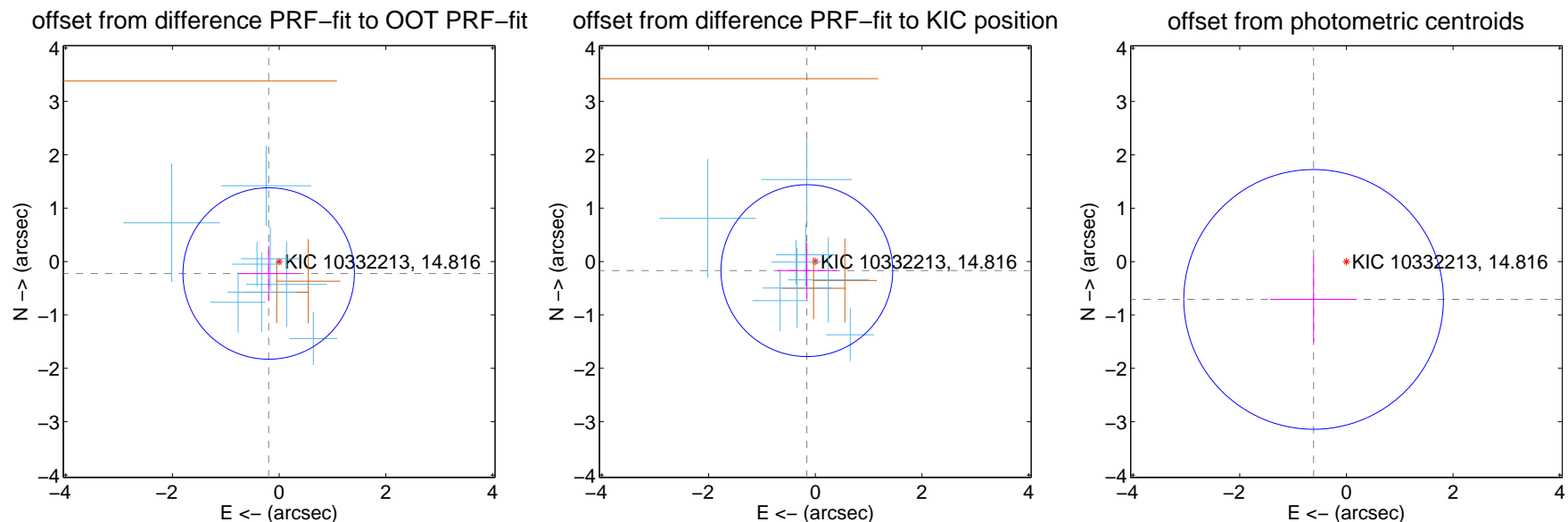
DV Centroid Data

Supplemental centroid analysis for 010332213-01. Kepler magnitude: 14.82. Transit SNR 16.57

There are 8 quarters with good PRF difference image offsets

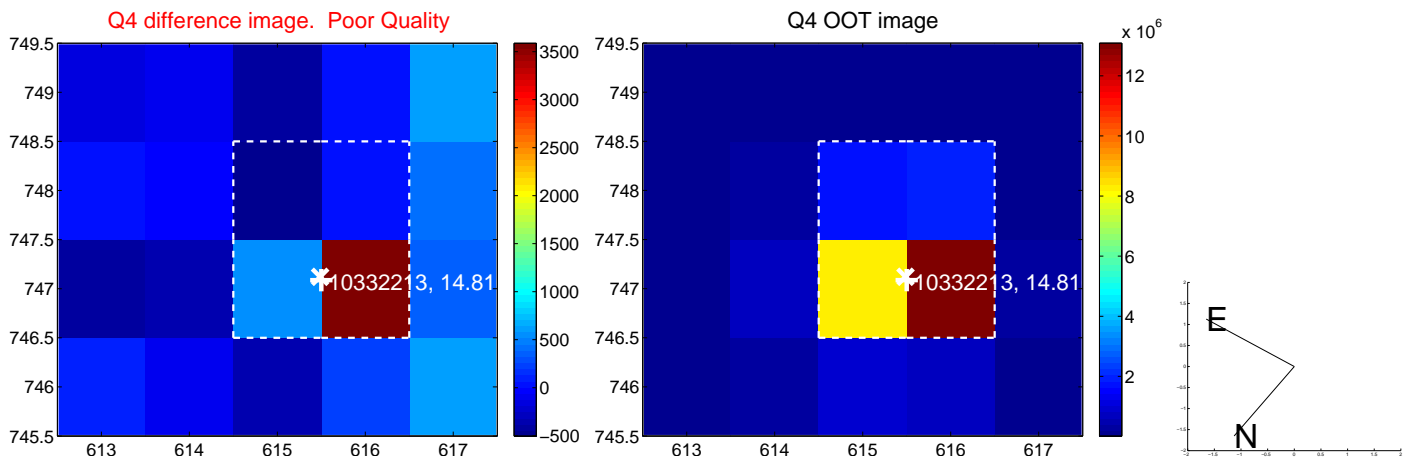
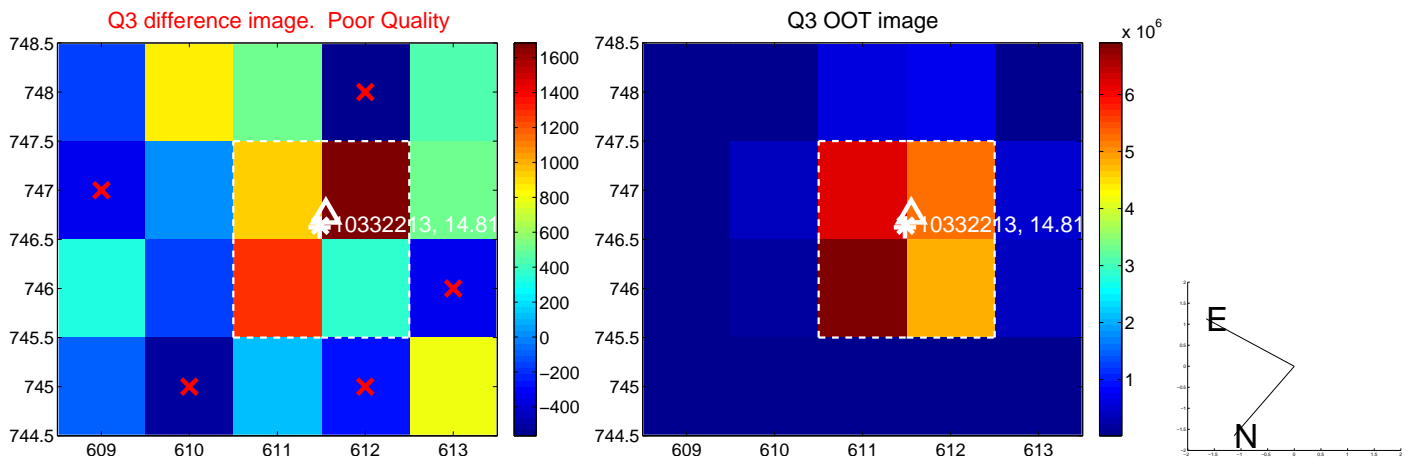
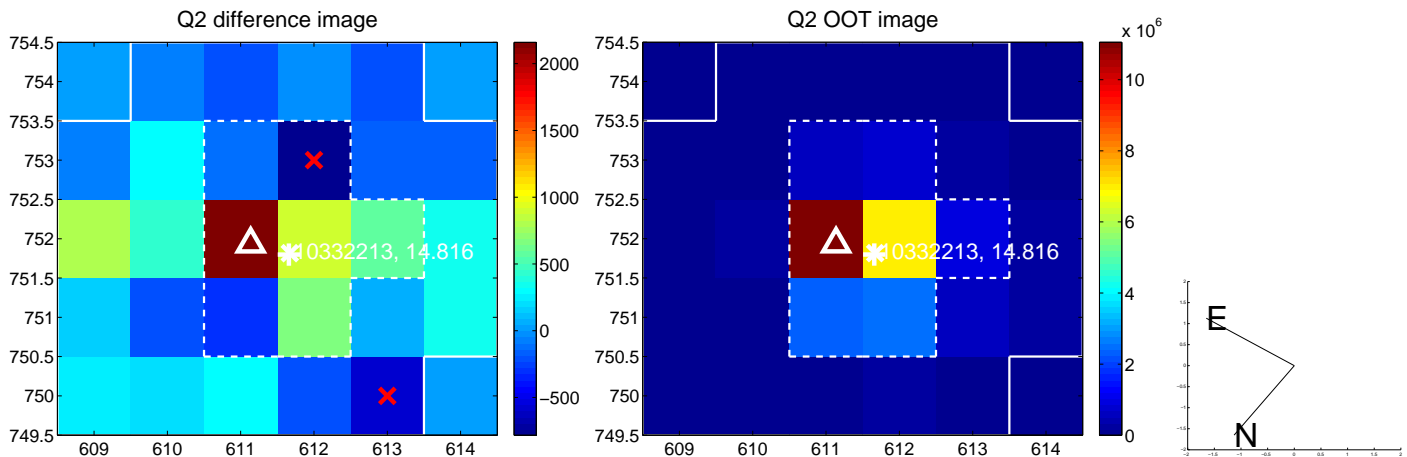
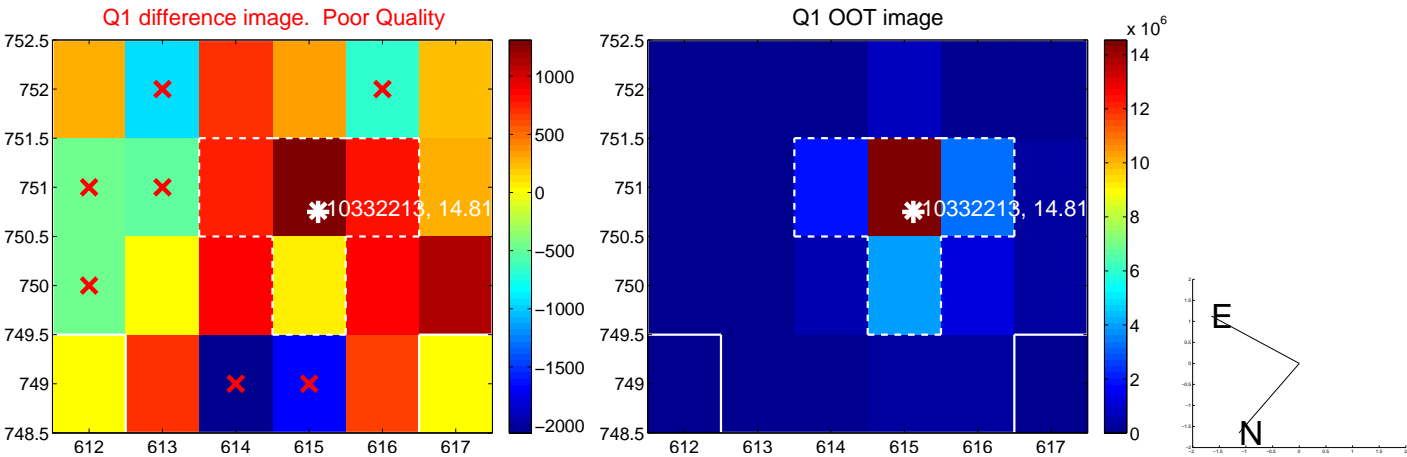
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.298 ± 0.535	0.56	0.196 ± 0.557	-0.224 ± 0.518
PRF-fit source offset from KIC position	0.232 ± 0.536	0.43	0.158 ± 0.557	-0.170 ± 0.518
photometric centroid source offset	0.94 ± 0.81	1.16	0.62 ± 0.81	-0.71 ± 0.81

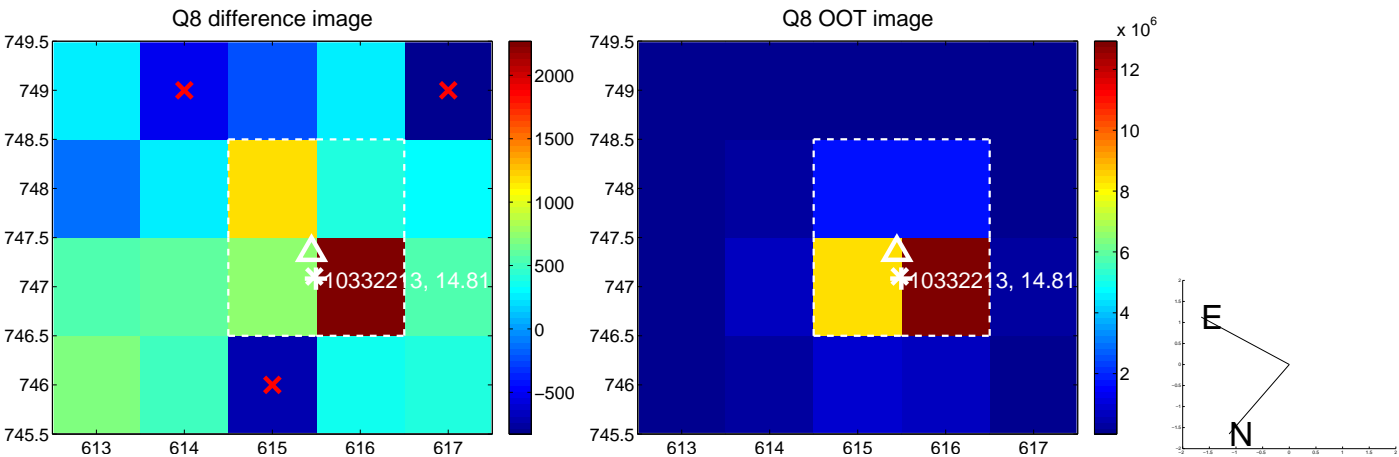
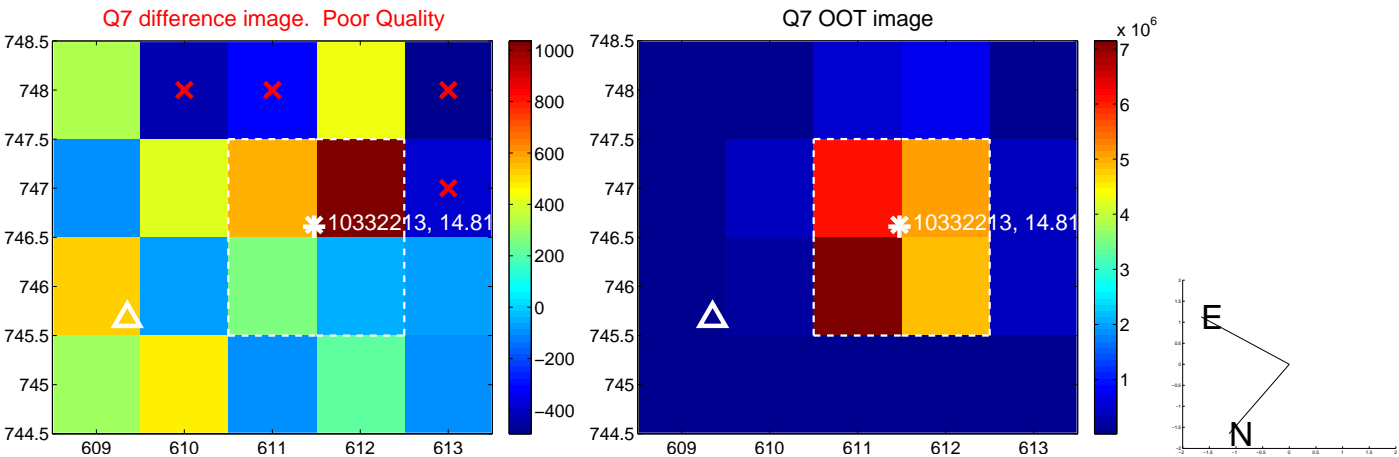
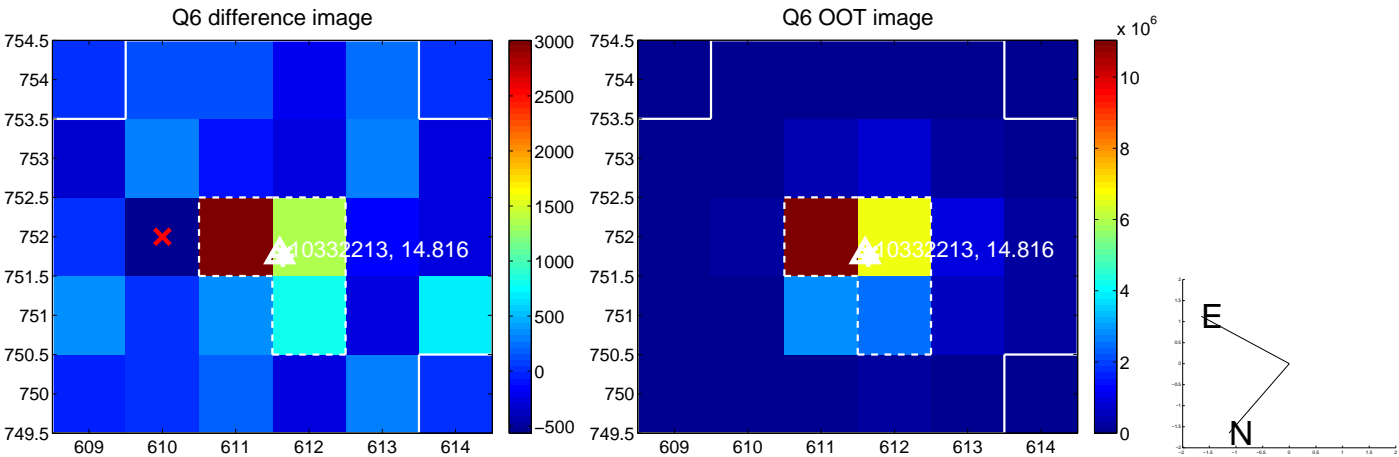
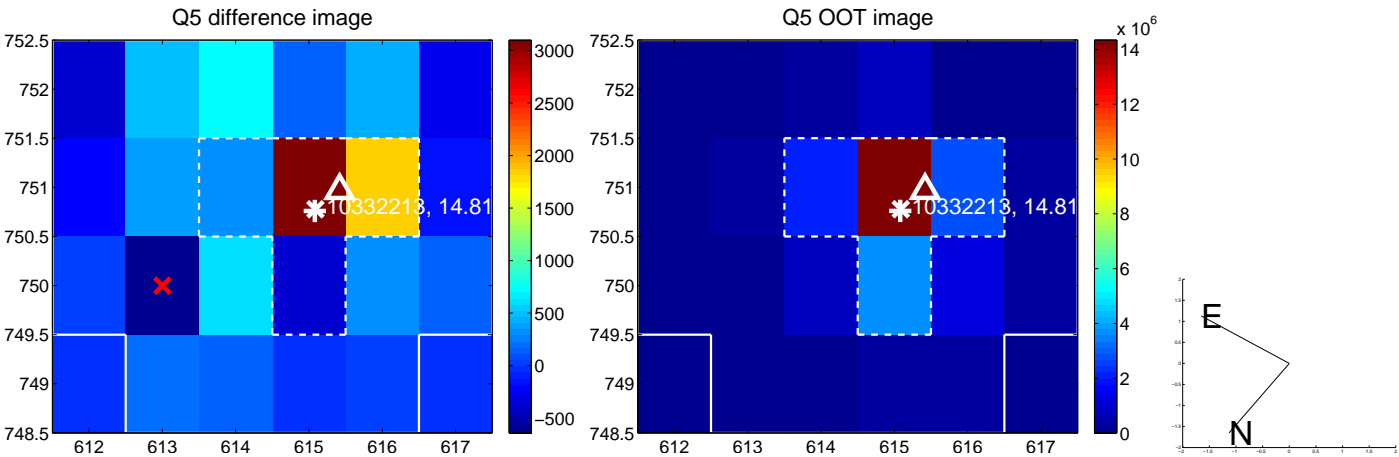


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

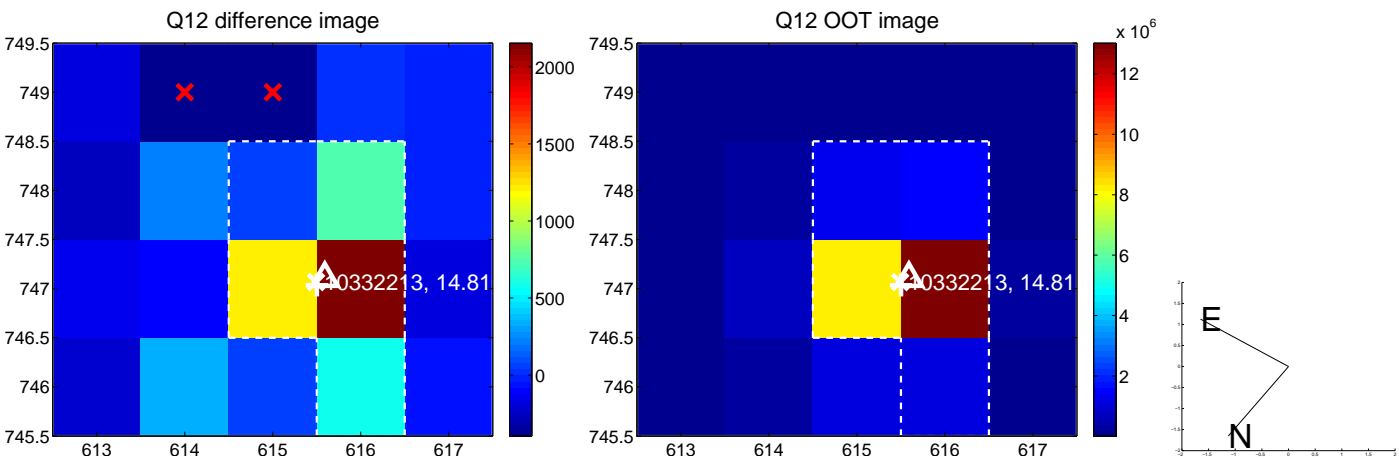
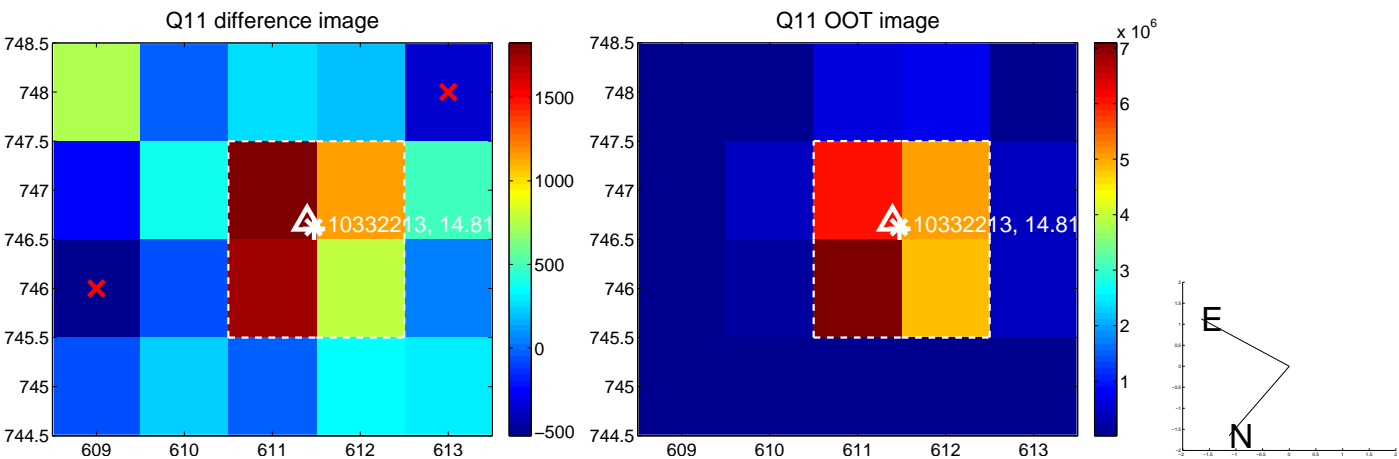
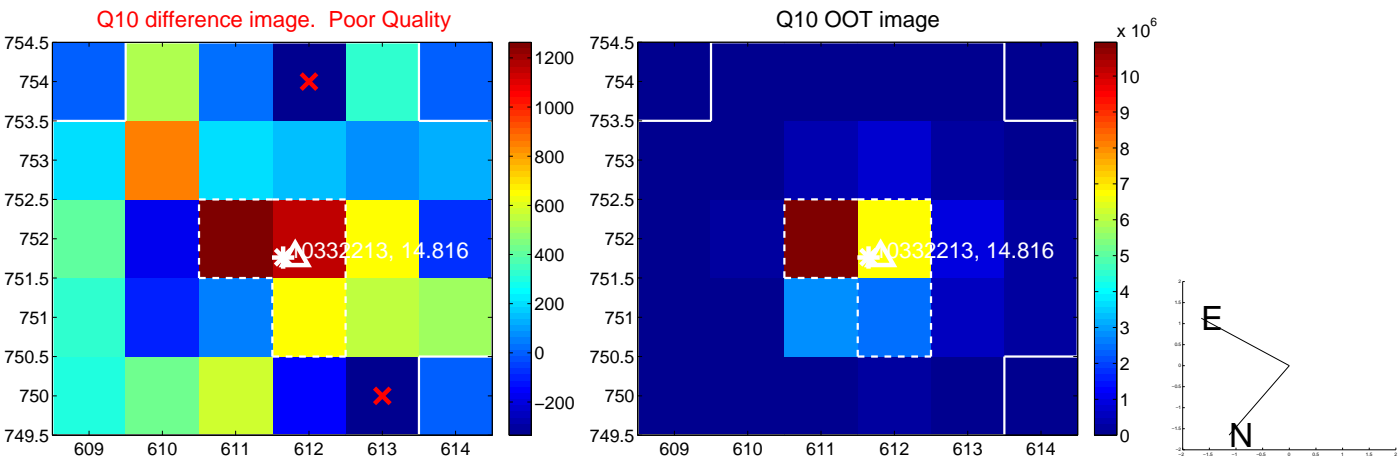
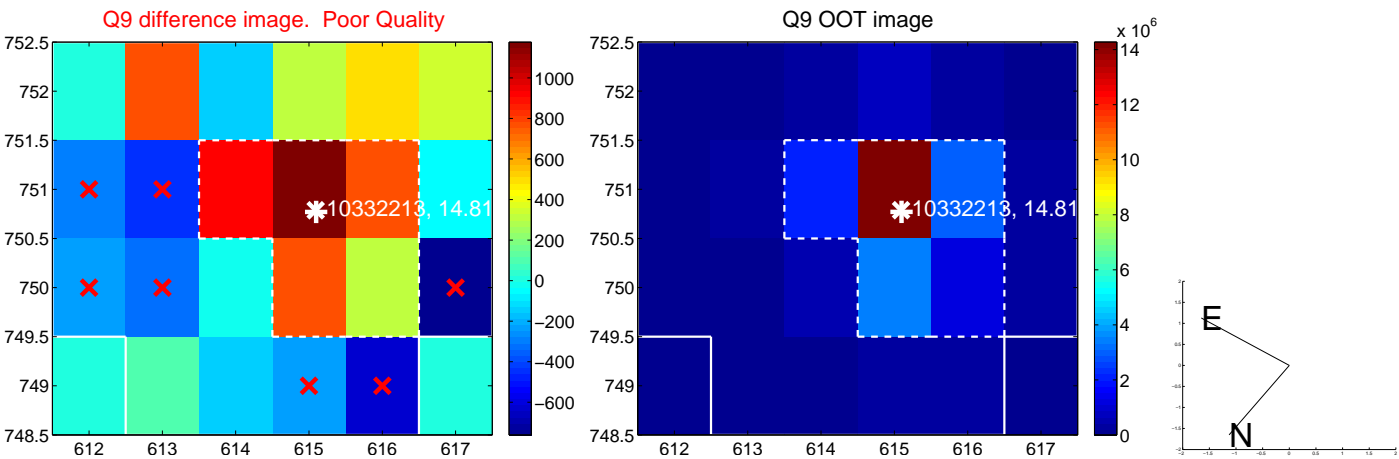
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



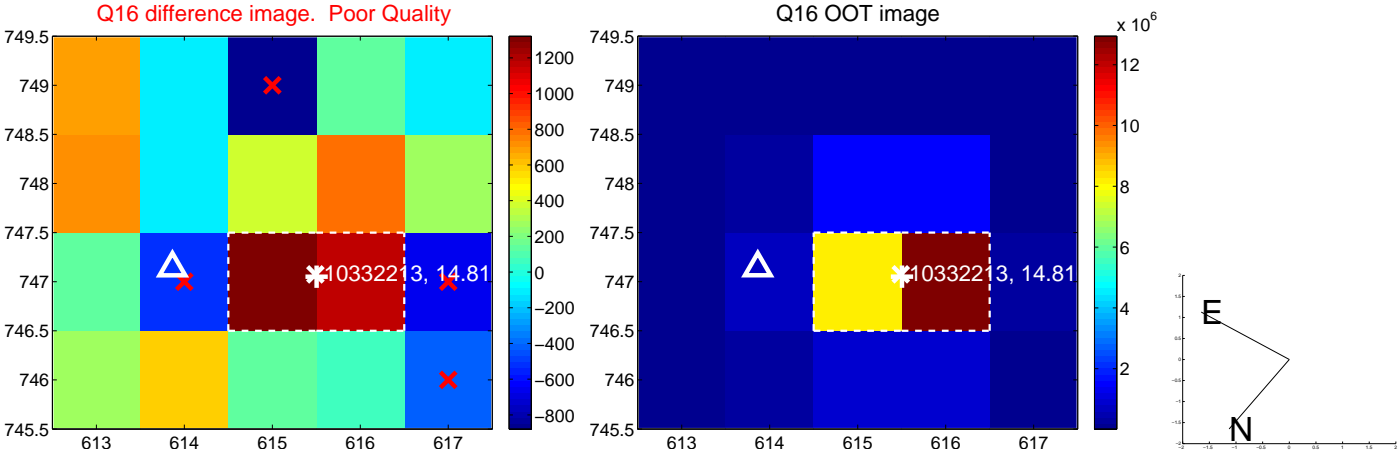
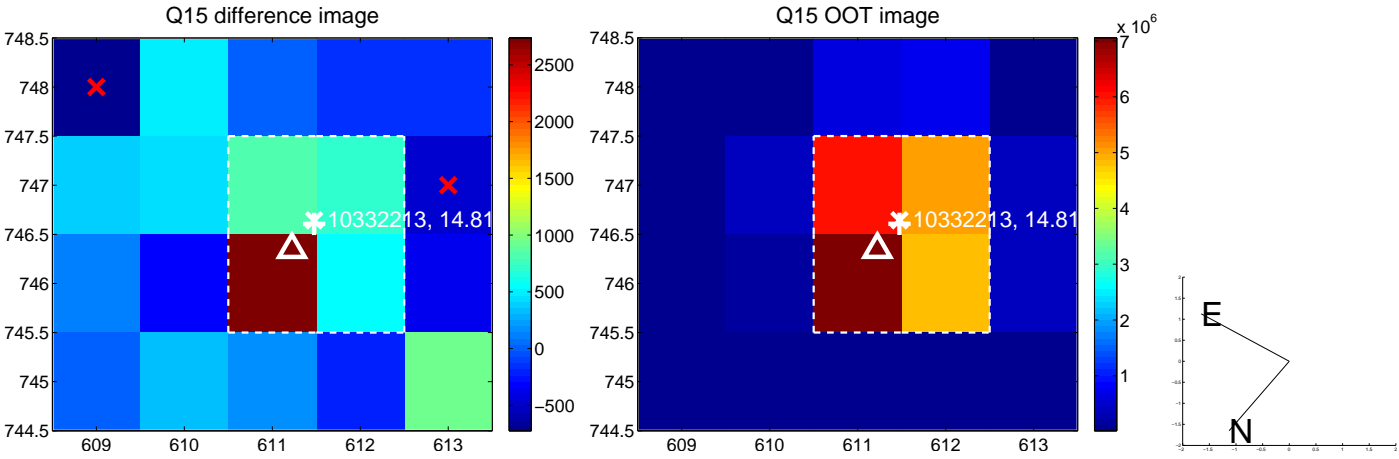
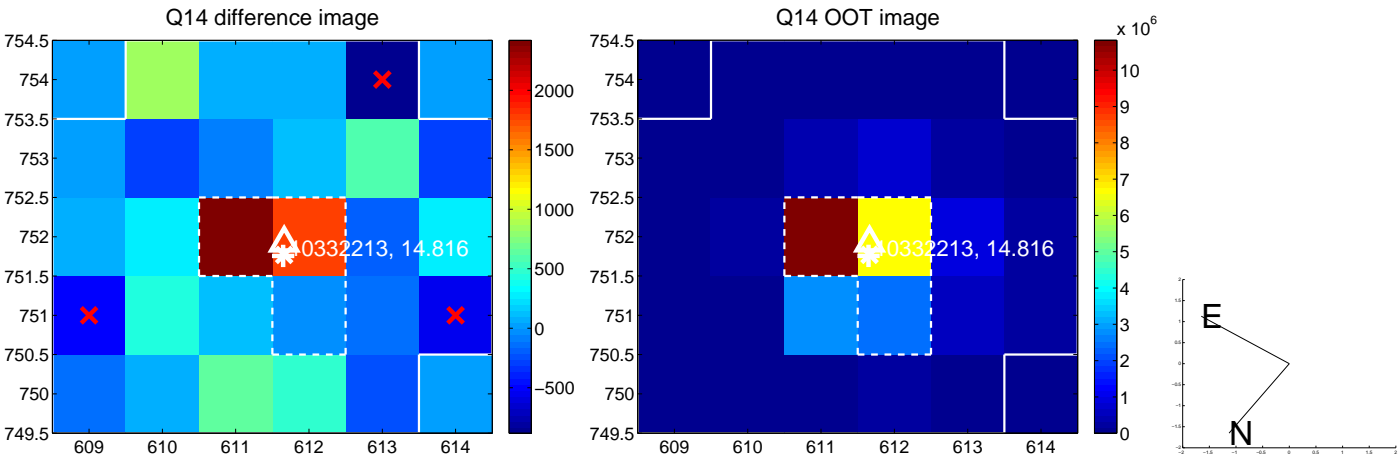
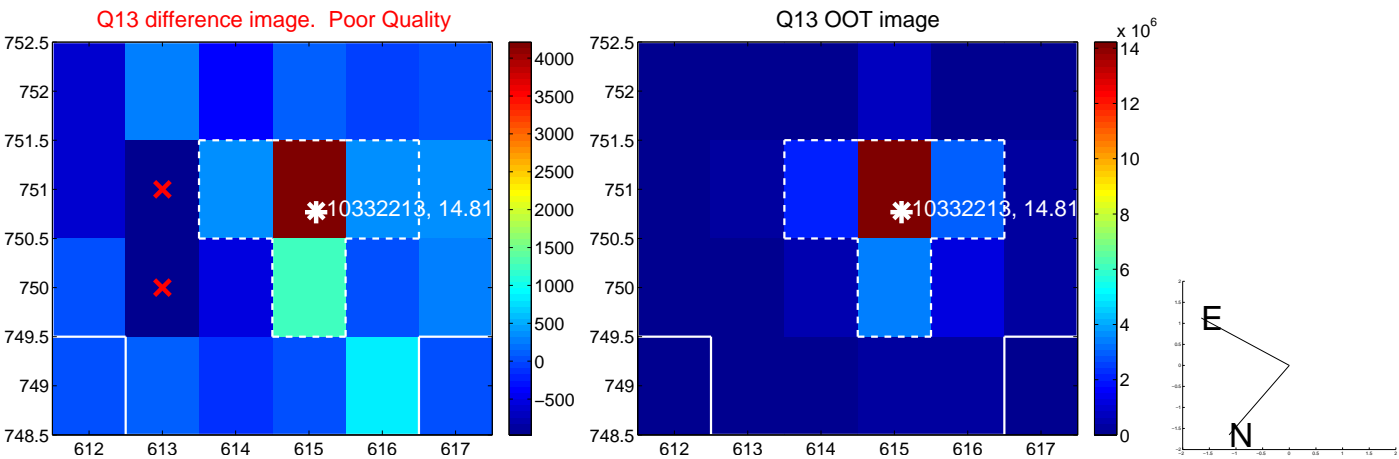
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



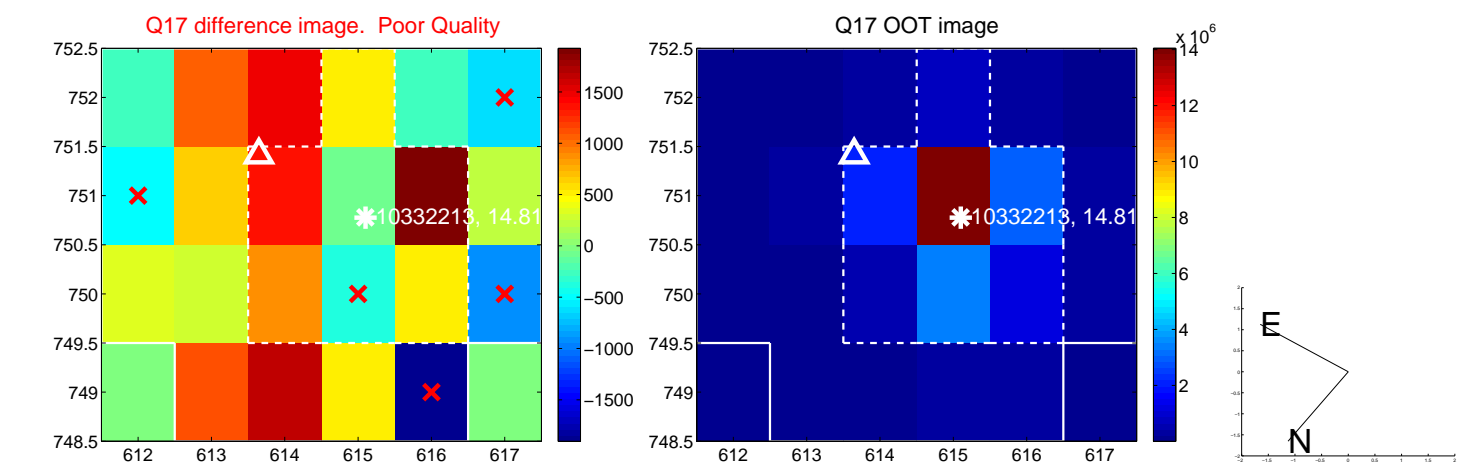
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



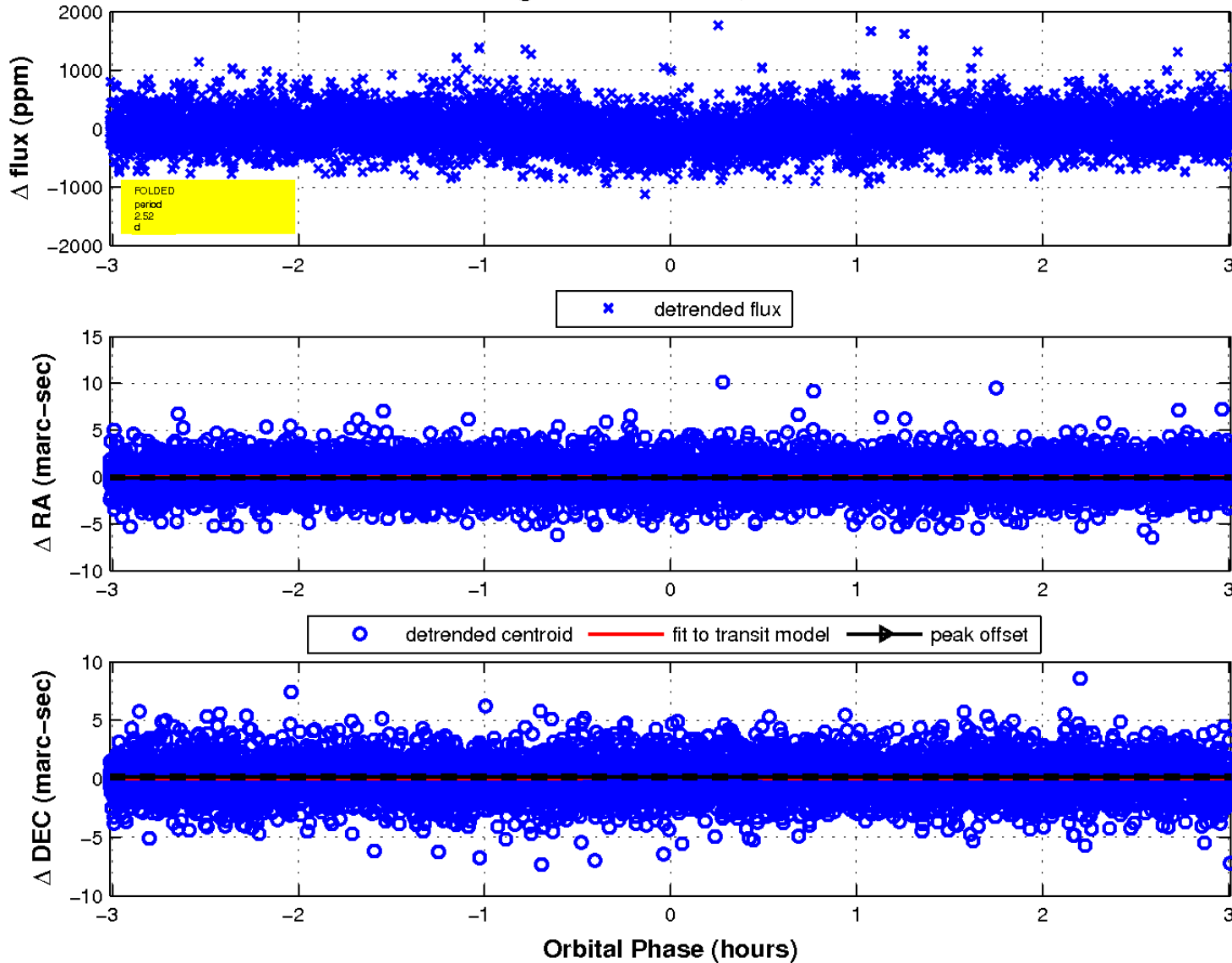
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

