

KIC 003245969

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})
003245969-01	OBS	1101.01	11.391058	137.702418	975.8	2.753	20.4	22.1	0.73	4983	2.73	34.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003245969-01	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.

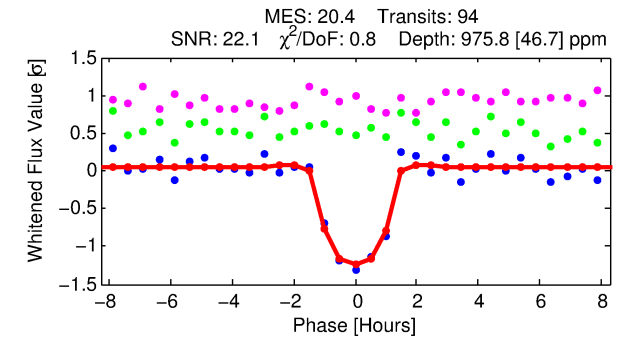
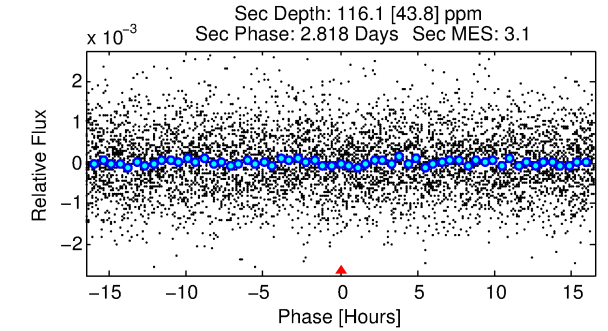
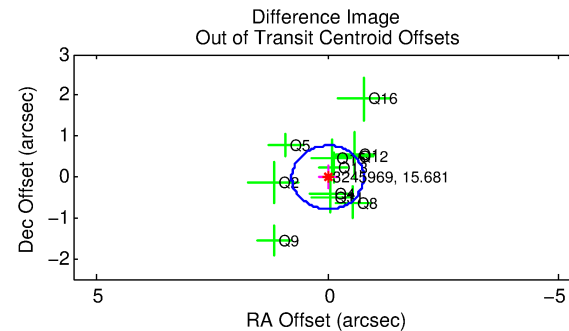
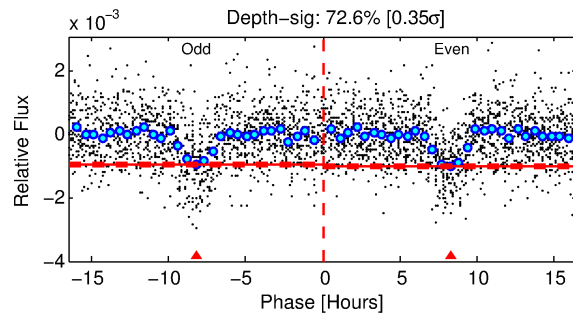
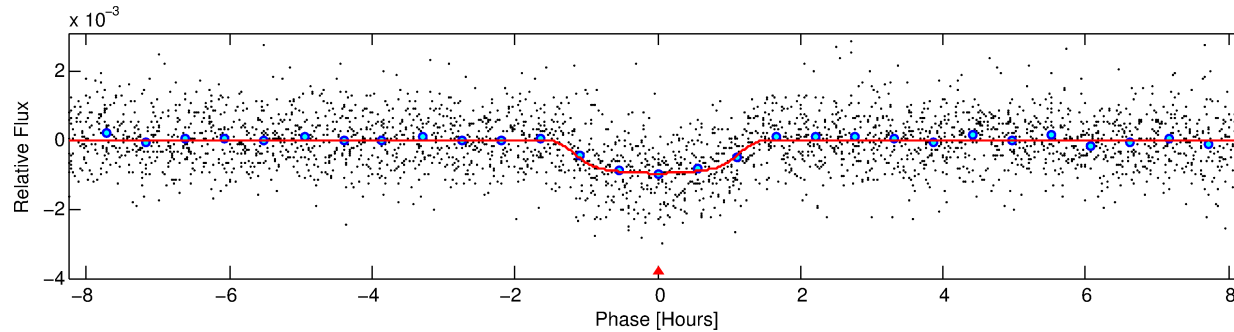
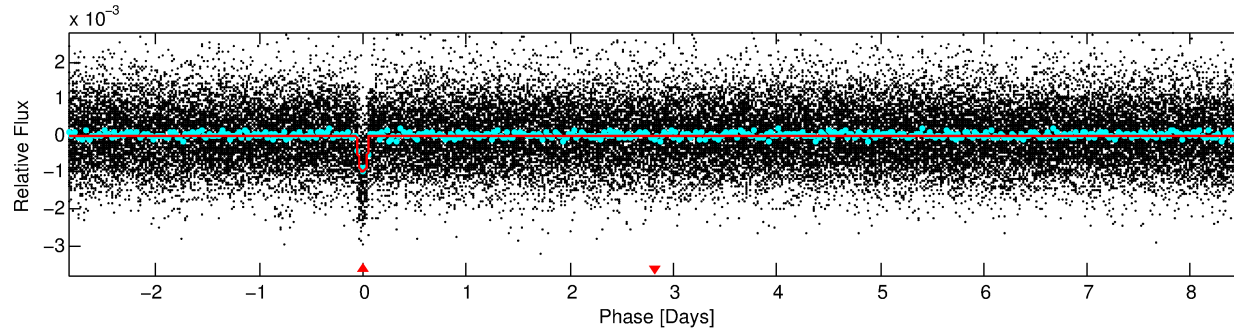
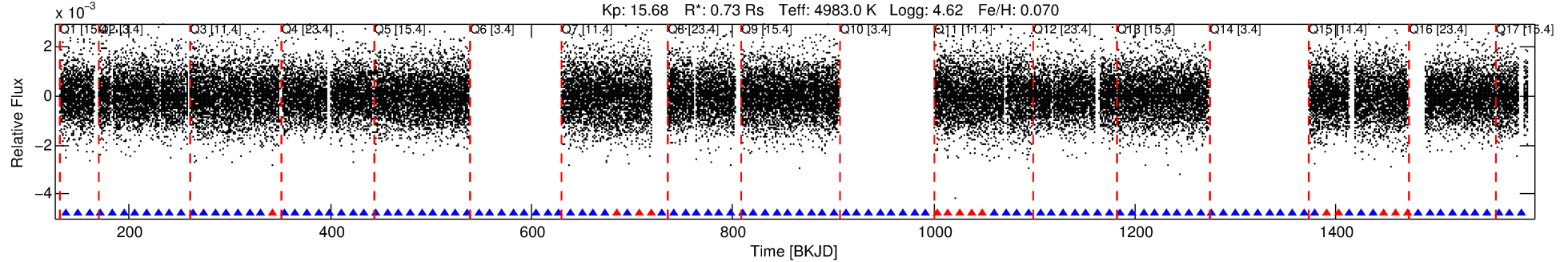
Ephemeris Match Information For 003245969-01

No Significant Match Found

DV One-Page Summary

KIC: 3245969 Candidate: 1 of 1 Period: 11.391 d
KOI: K01101 Corr: No Ephemeris Match

Kp: 15.68 R*: 0.73 Rs Teff: 4983.0 K Logg: 4.62 Fe/H: 0.070



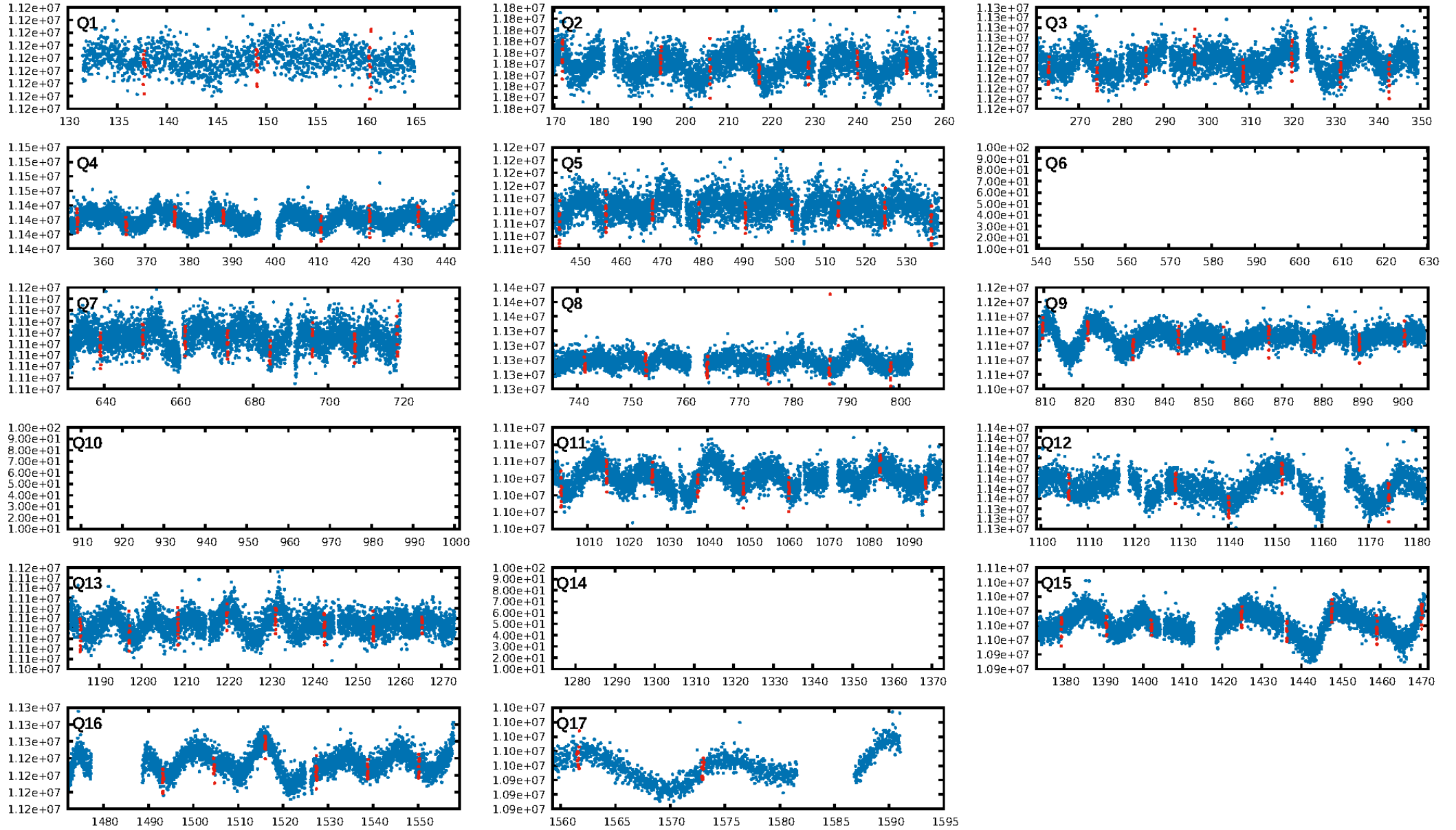
DV Fit Results:

Period = 11.39106 [0.00004] d
Epoch = 137.7024 [0.0026] BKJD
Rp/R* = 0.0344 [0.0056]
a/R* = 16.94 [10.02]
b = 0.89 [0.15]
Seff = 34.58 [6.46]
Teff = 618 [29] K
Rp = 2.73 [0.57] Re
a = 0.0920 [0.0094] AU
Ag = 72.39 [37.65] [1.90σ]
Teffp = 2789 [359] K [6.03σ]

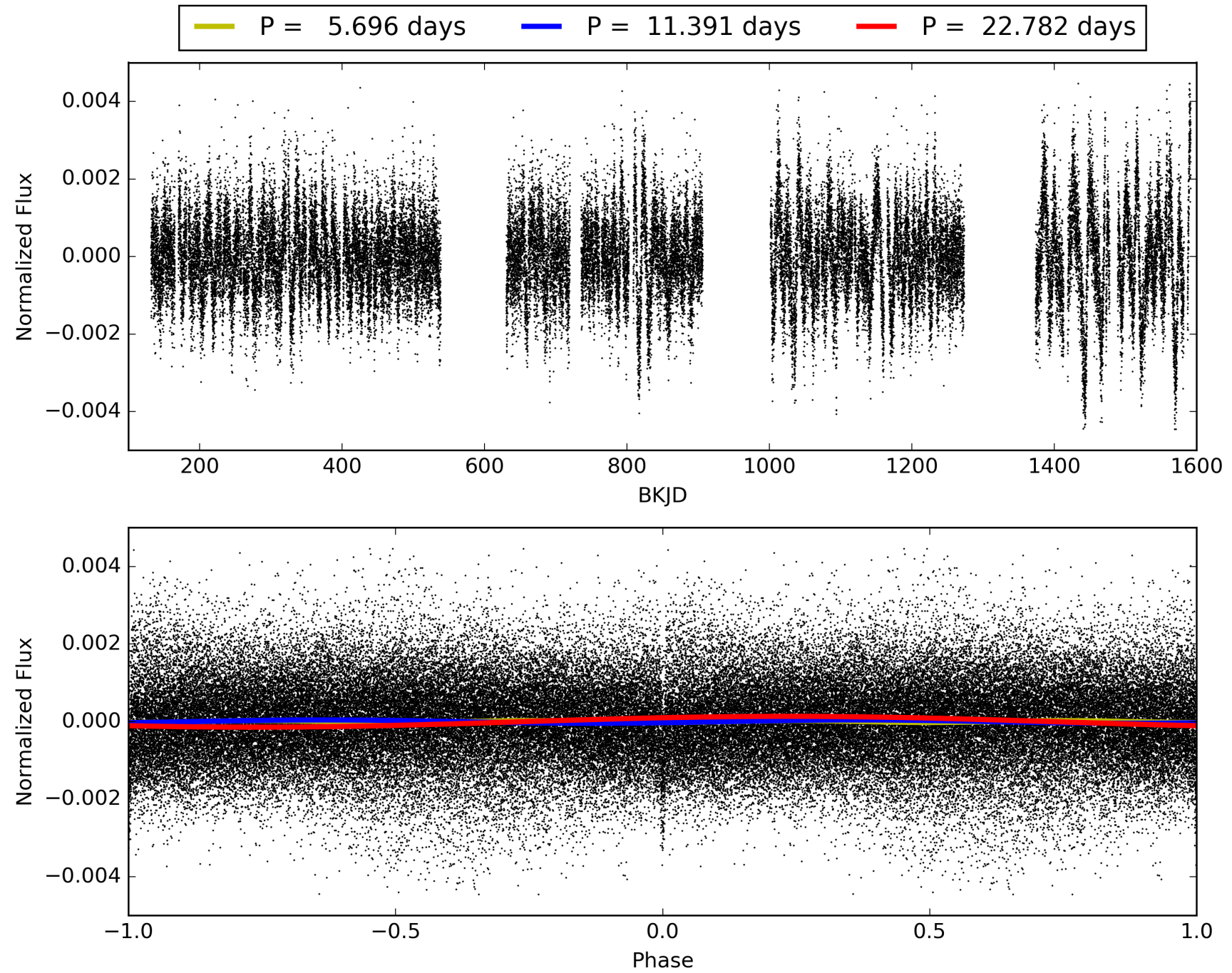
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.65e-91
RollingBand-fgt: 0.84 [75/89]
GhostDiagnostic-chr: -22.04
Centroid-sig: 0.0%
Centroid-so: 0.551 arcsec [0.94σ]
OotOffset-rm: 0.015 arcsec [0.06σ]
KicOffset-rm: 0.270 arcsec [0.99σ]
OotOffset-st: 1/3/4/4 [12]
KicOffset-st: 1/3/4/4 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 003245969-01, PDC Light Curves

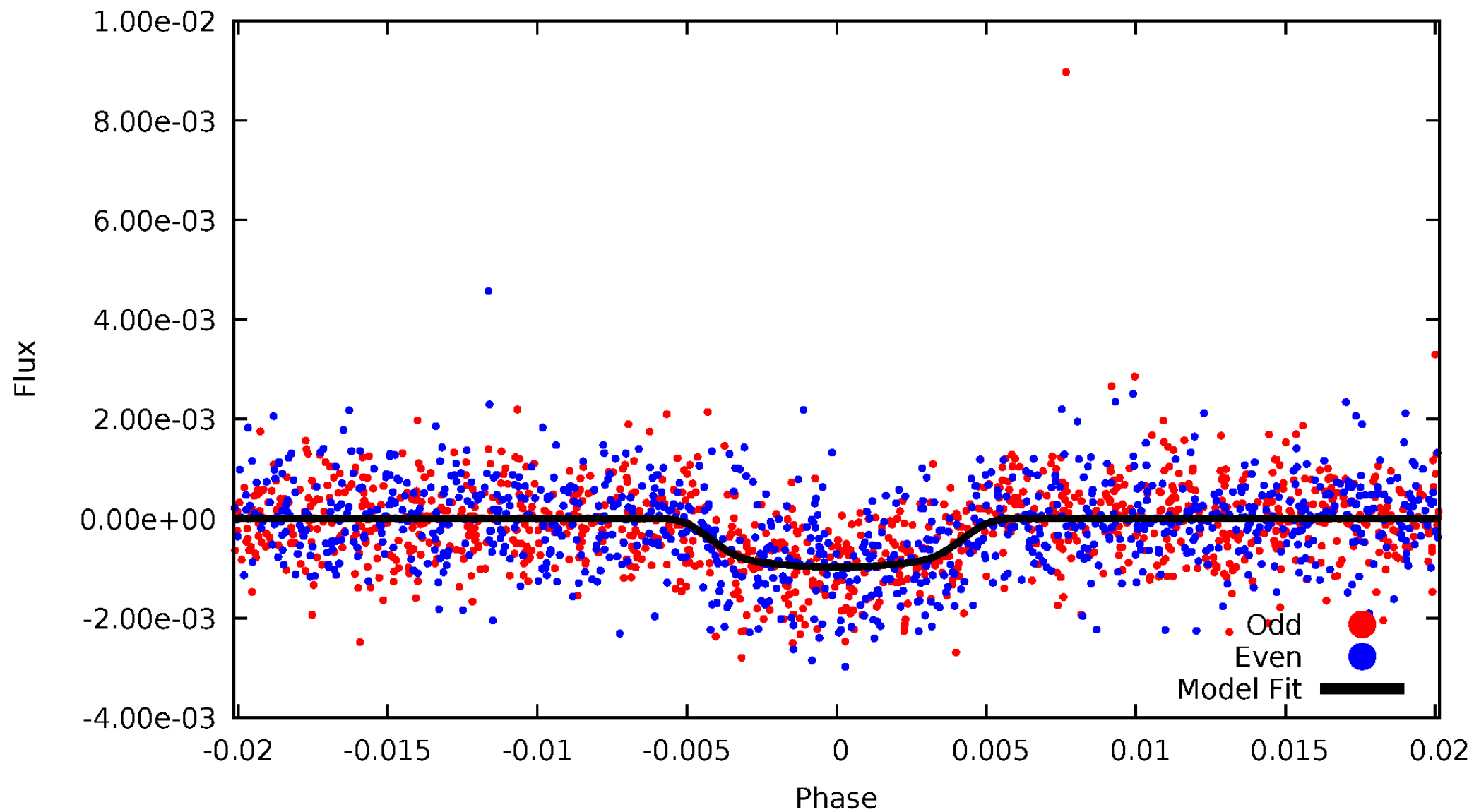


TCE 003245969-01



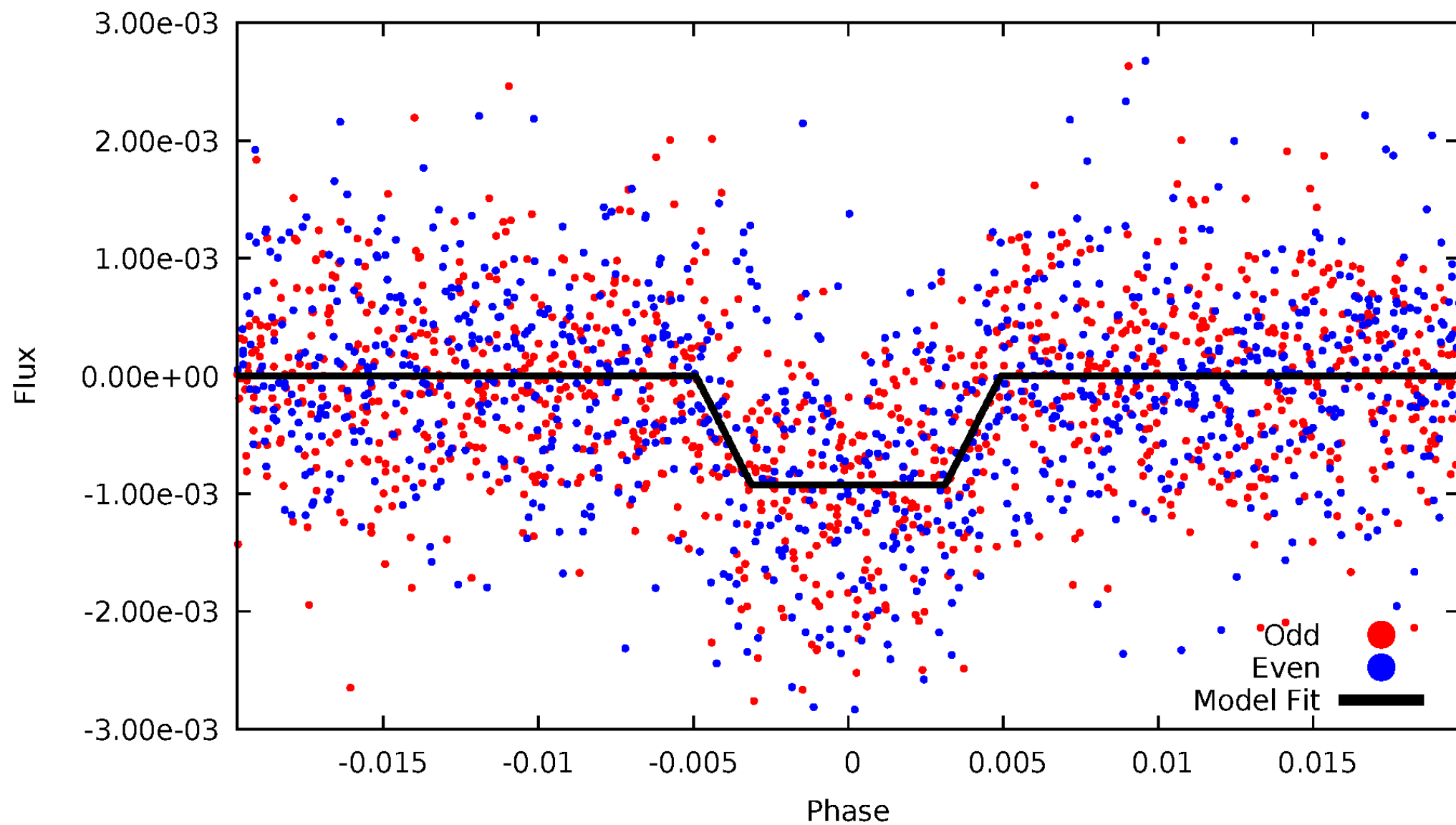
DV Odd/Even

TCE 003245969-01

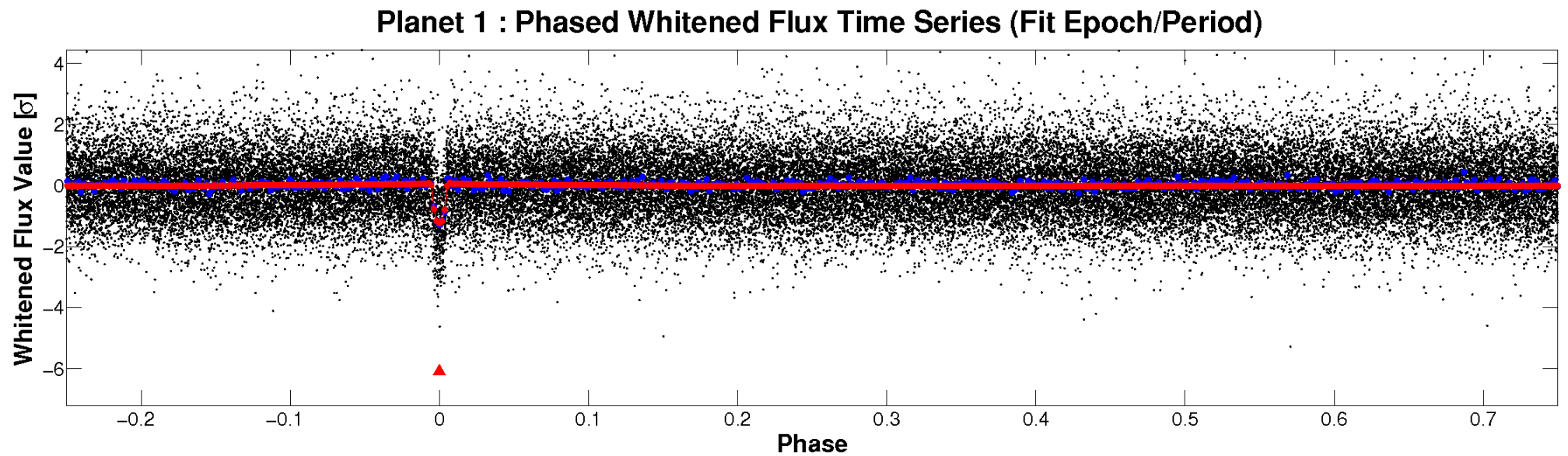
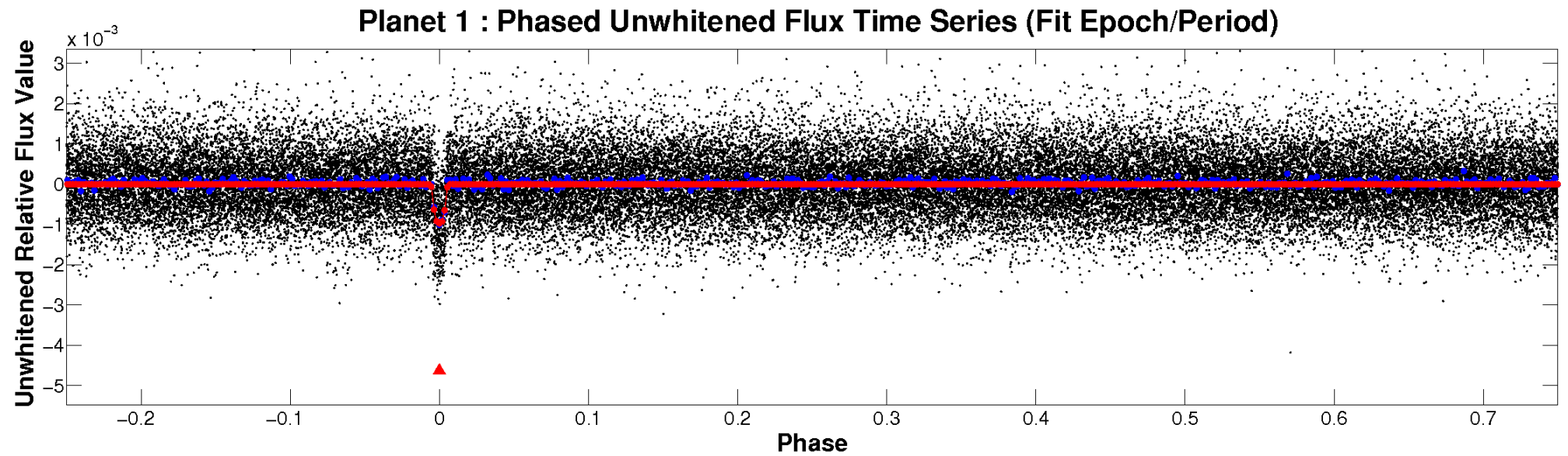


ALT Odd/Even

TCE 003245969-01

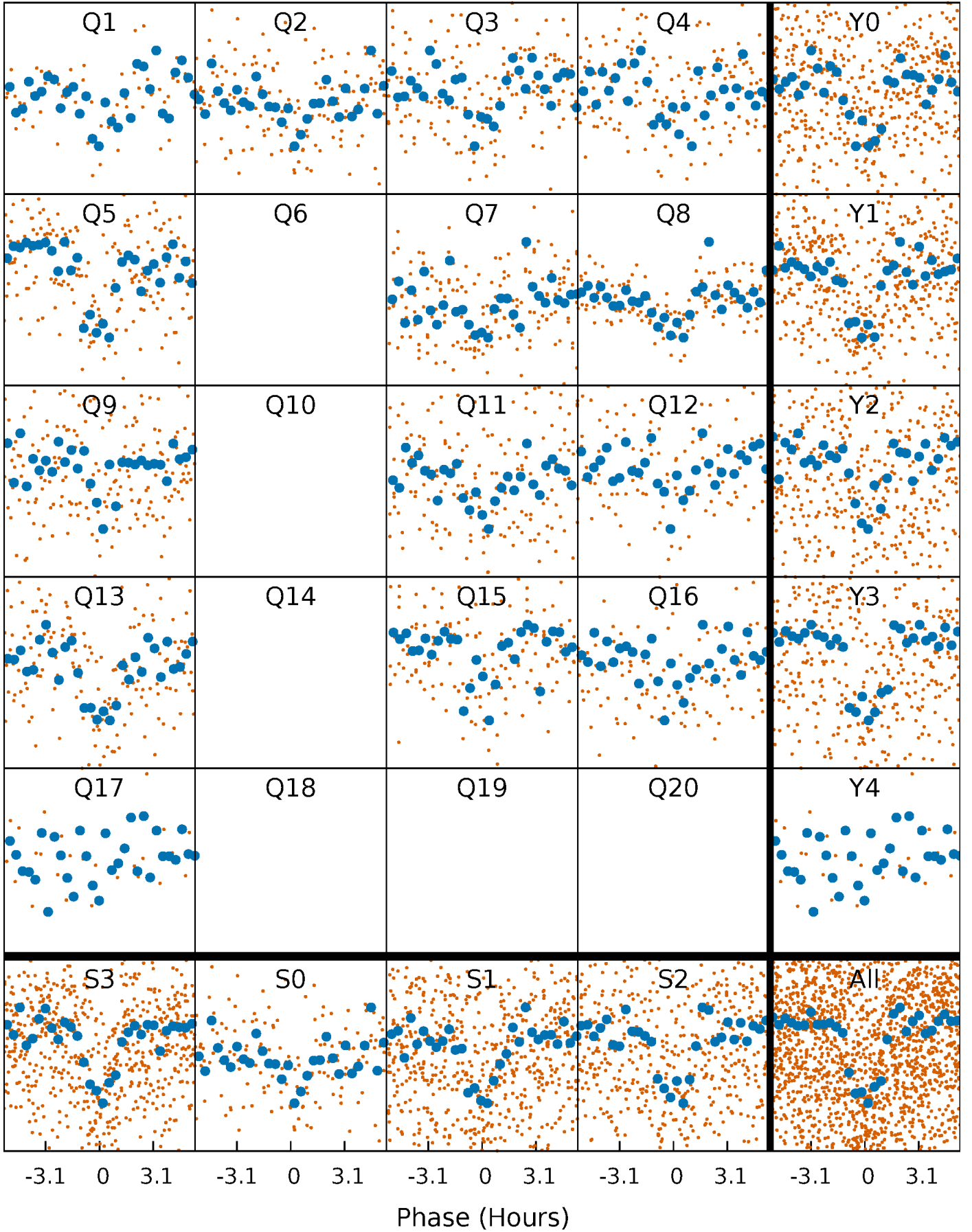


Non-Whitened Vs. Whitened Light Curve



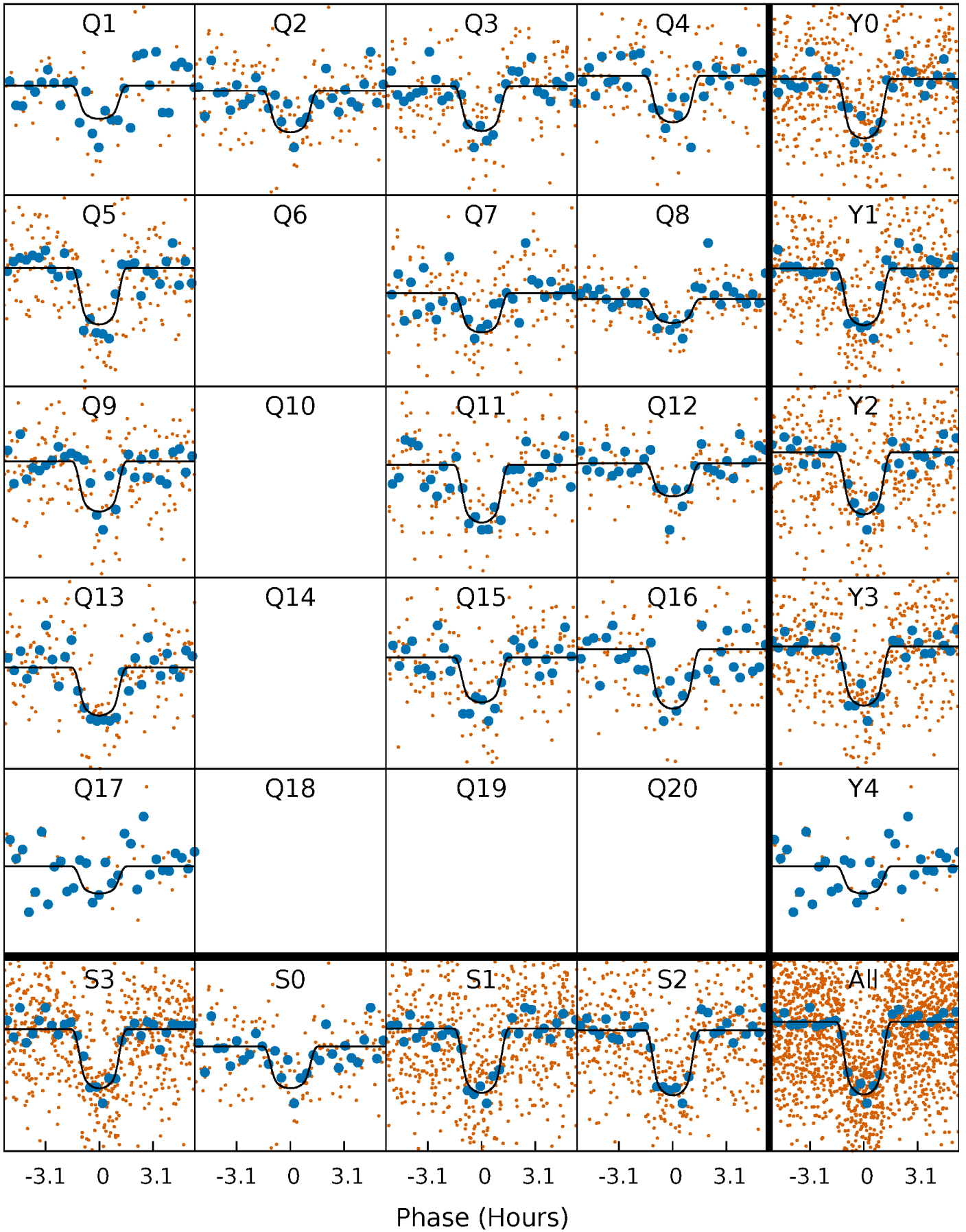
PDC Quarter-Phased Transit Curves

TCE 003245969-01 P= 11.391058 Days $T_0=137.702418$ (BKJD)



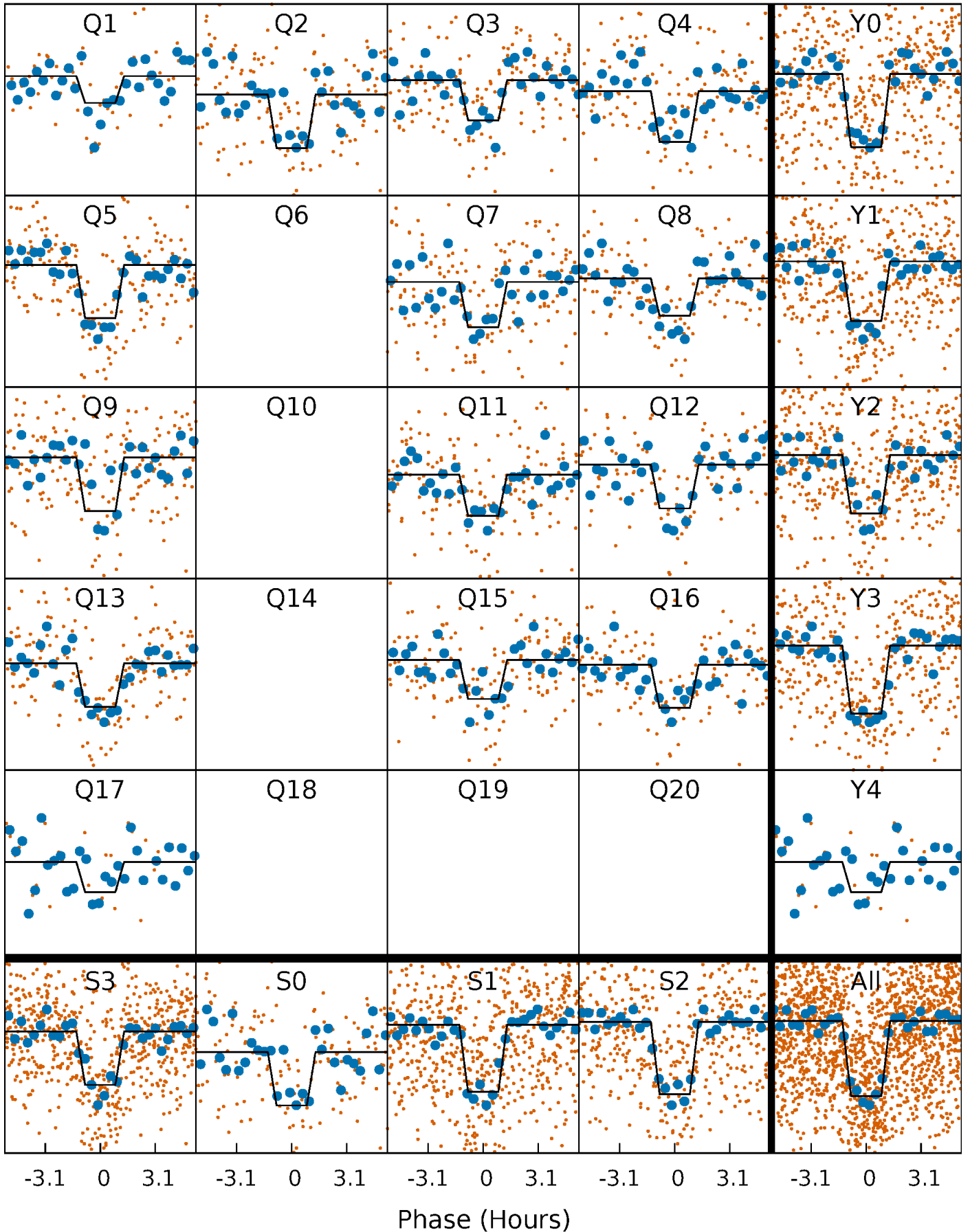
DV Quarter-Phased Transit Curves

TCE 003245969-01 P= 11.391058 Days $T_0=137.702418$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

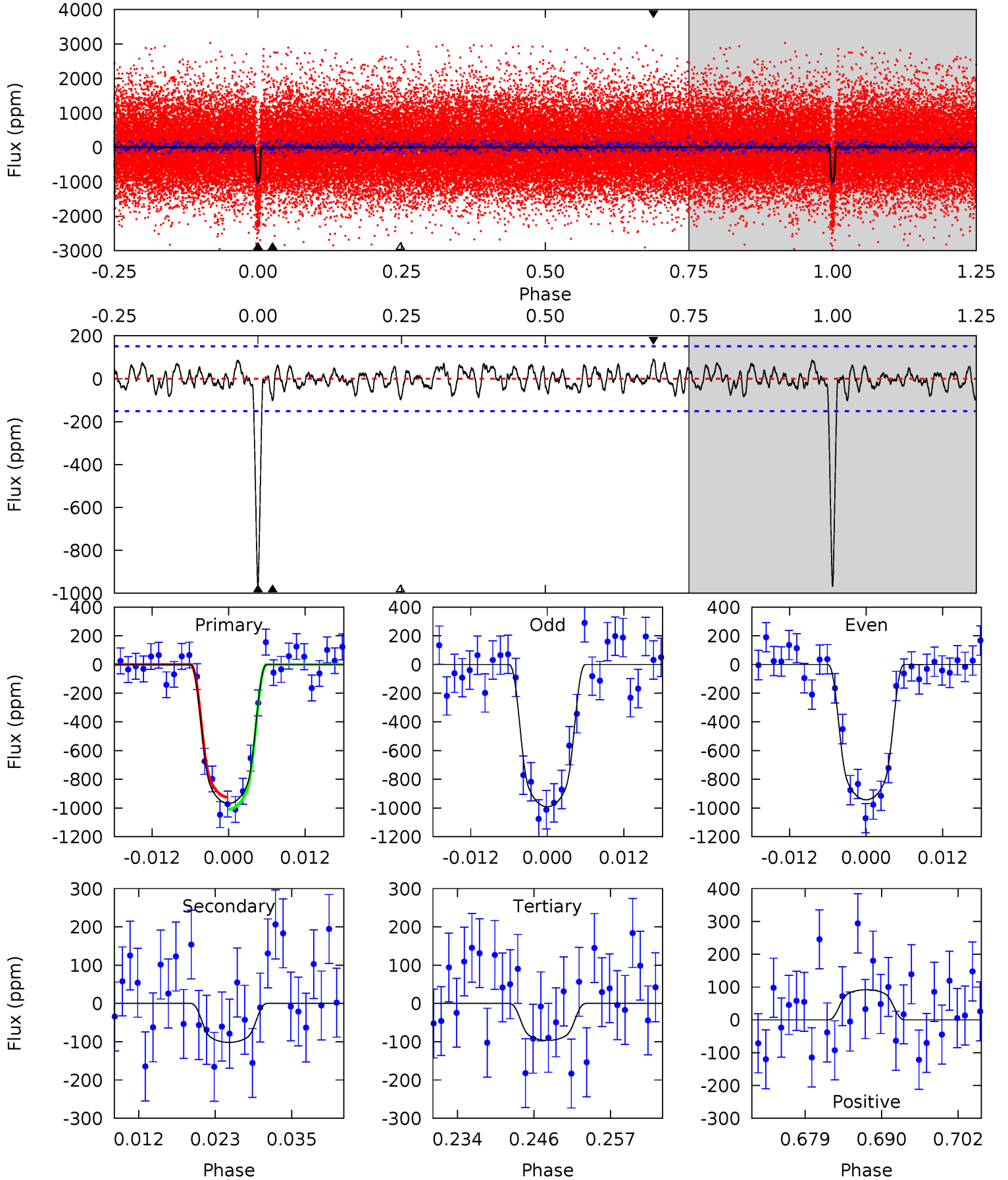
TCE 003245969-01 P= 11.391005 Days $T_0=137.706797$ (BKJD)



DV Model-Shift Uniqueness Test

003245969-01, $P = 11.391058$ Days, $E = 126.311360$ Days

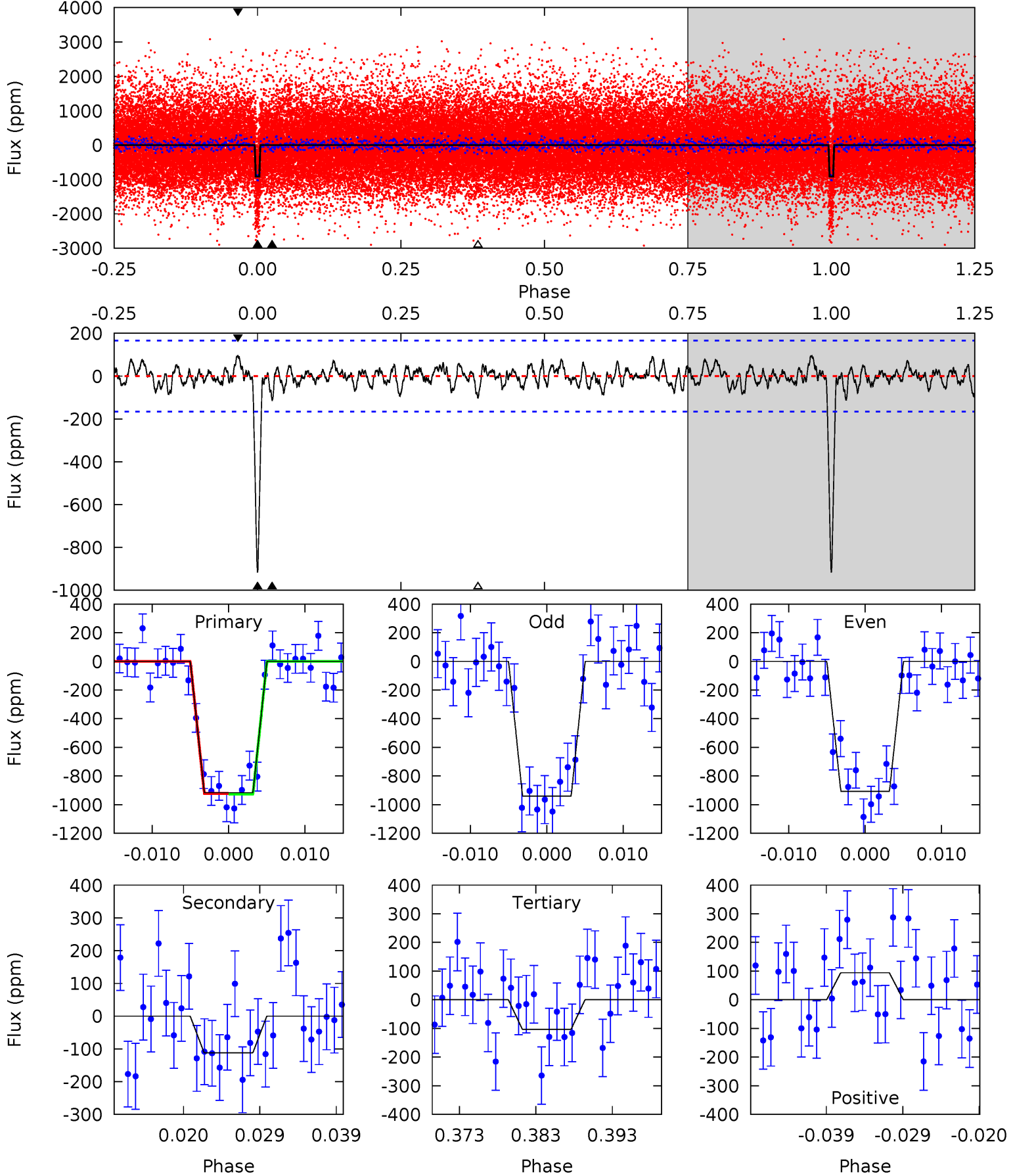
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.9	3.35	3.18	3.03	5.00	2.52	1.18	28.8	28.9	0.17	0.32	0.80	1.01	0.09	1.37



Alt Model-Shift Uniqueness Test

003245969-01, P = 11.391005 Days, E = 126.315792 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.8	3.41	3.14	2.86	5.03	2.58	1.06	24.7	24.9	0.27	0.55	0.50	1.01	0.09	0.09



Stellar Parameters For KIC 003245969

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4983^{+150}_{-150}	$4.617^{+0.025}_{-0.075}$	$0.070^{+0.250}_{-0.300}$	$0.728^{+0.092}_{-0.050}$	$0.836^{+0.043}_{-0.086}$	$3.052^{+0.353}_{-0.854}$
	+3%/-3%	+1%/-2%	+357%/-429%	+13%/-7%	+5%/-10%	+12%/-28%
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 003245969-01 / KOI 1101.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-102 ± 30	$2.80^{+0.50}_{-0.50}$	877^{+33}_{-33}	3241^{+247}_{-227}	62^{+34}_{-24}
Alt.	-112 ± 33	$2.46^{+0.47}_{-0.46}$	874^{+34}_{-31}	3390^{+312}_{-220}	84^{+51}_{-29}

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

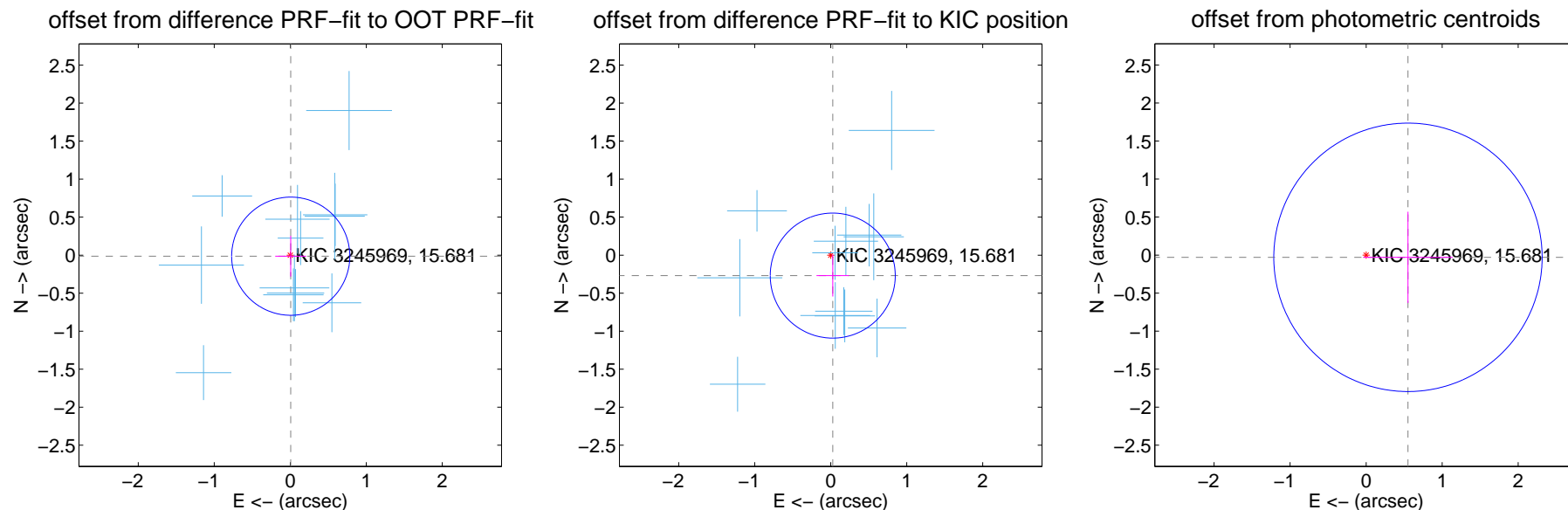
DV Centroid Data

Supplemental centroid analysis for 003245969-01. Kepler magnitude: 15.68. Transit SNR 22.10

There are 12 quarters with good PRF difference image offsets

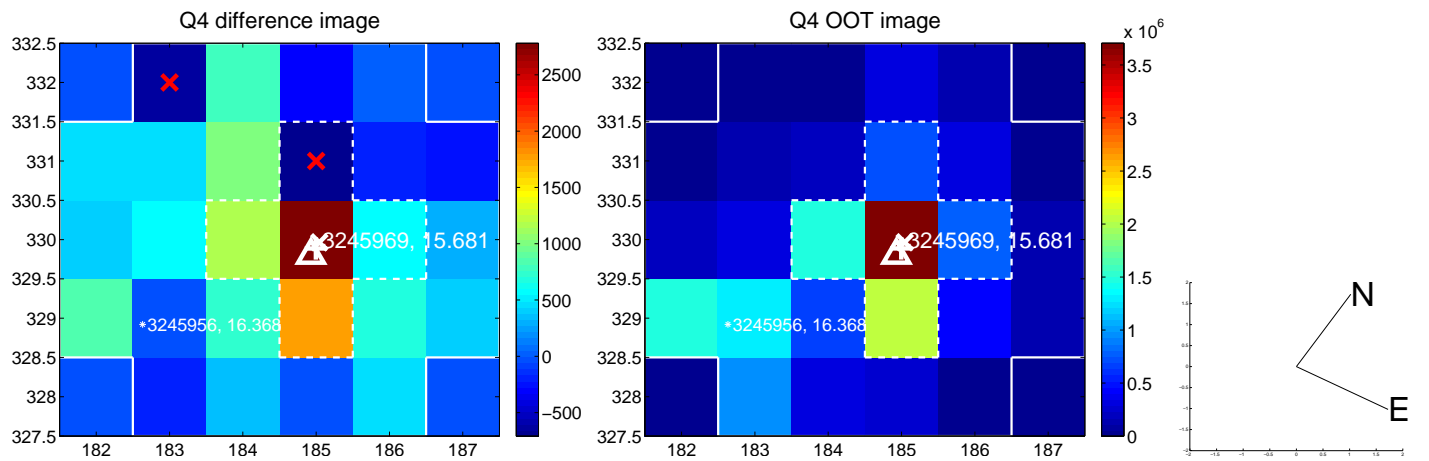
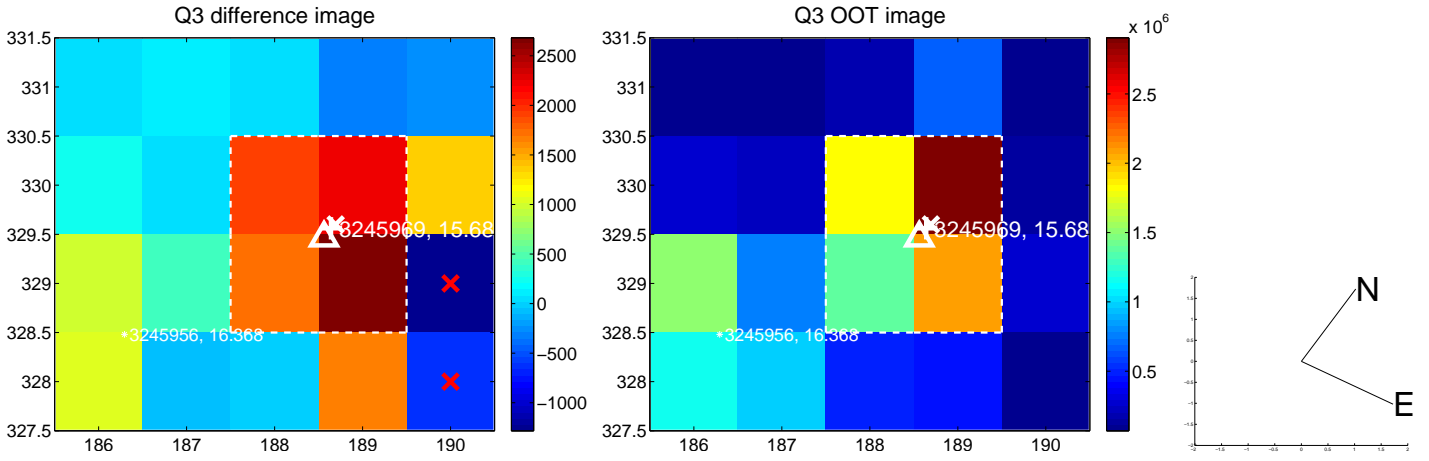
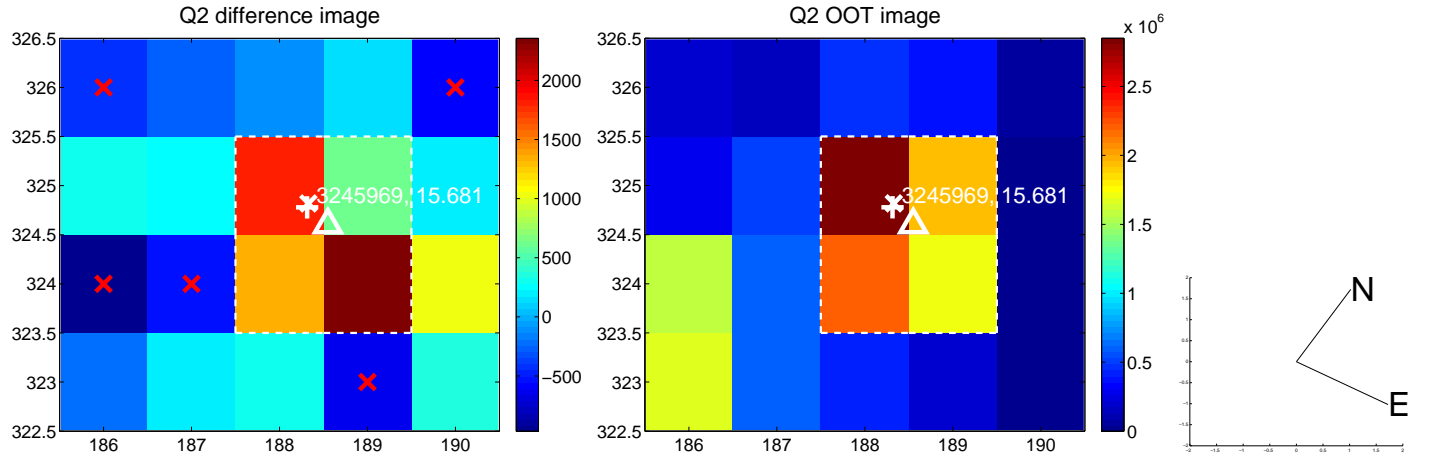
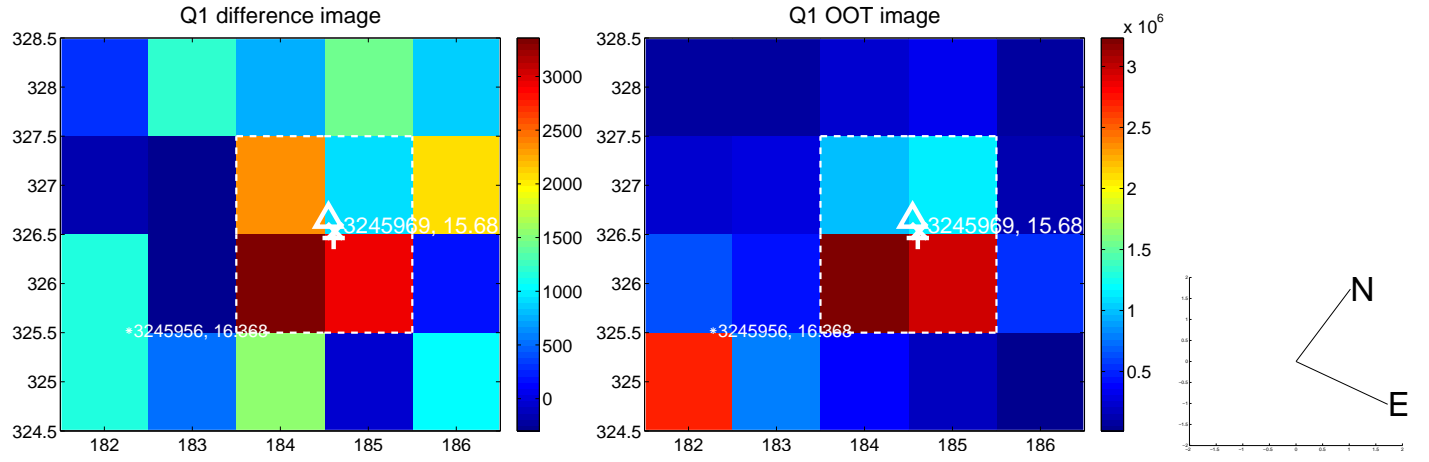
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.015 ± 0.259	0.06	-0.006 ± 0.204	-0.014 ± 0.269
PRF-fit source offset from KIC position	0.270 ± 0.274	0.99	-0.027 ± 0.214	-0.269 ± 0.275
photometric centroid source offset	0.55 ± 0.59	0.94	-0.55 ± 0.59	-0.03 ± 0.60

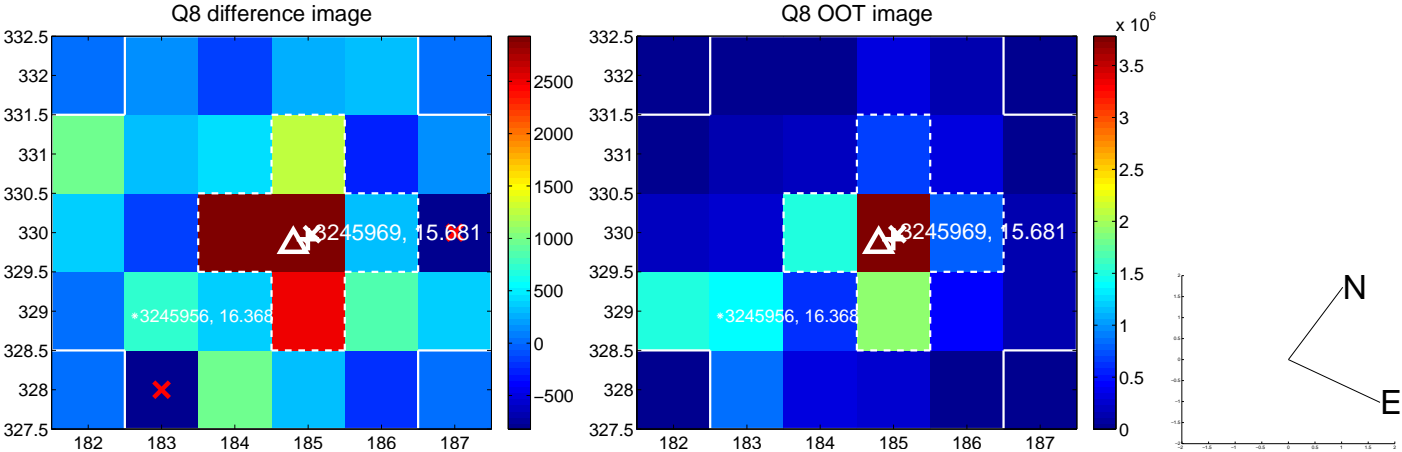
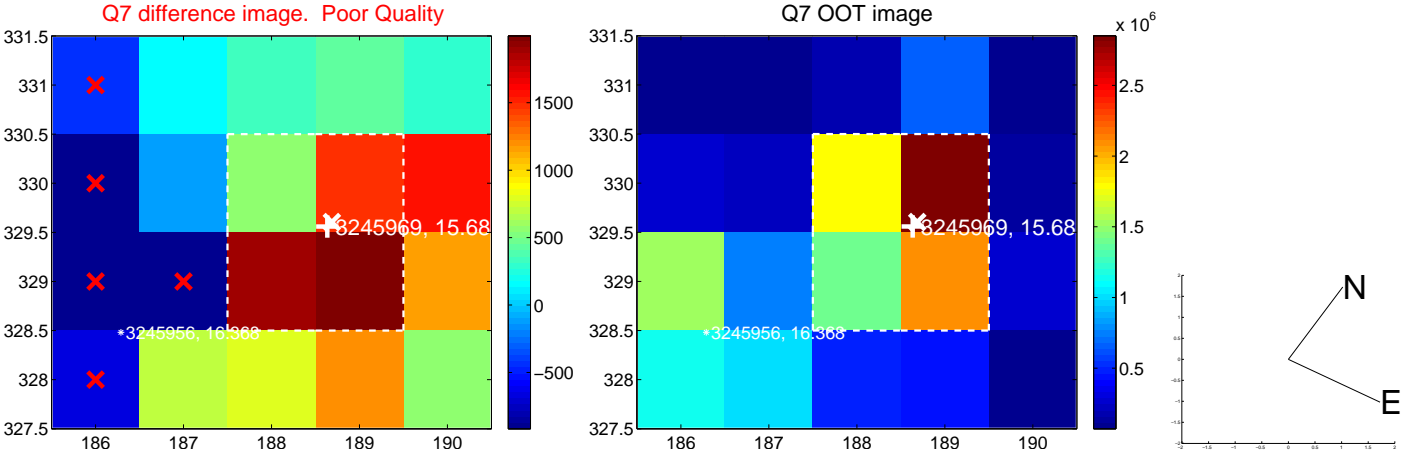
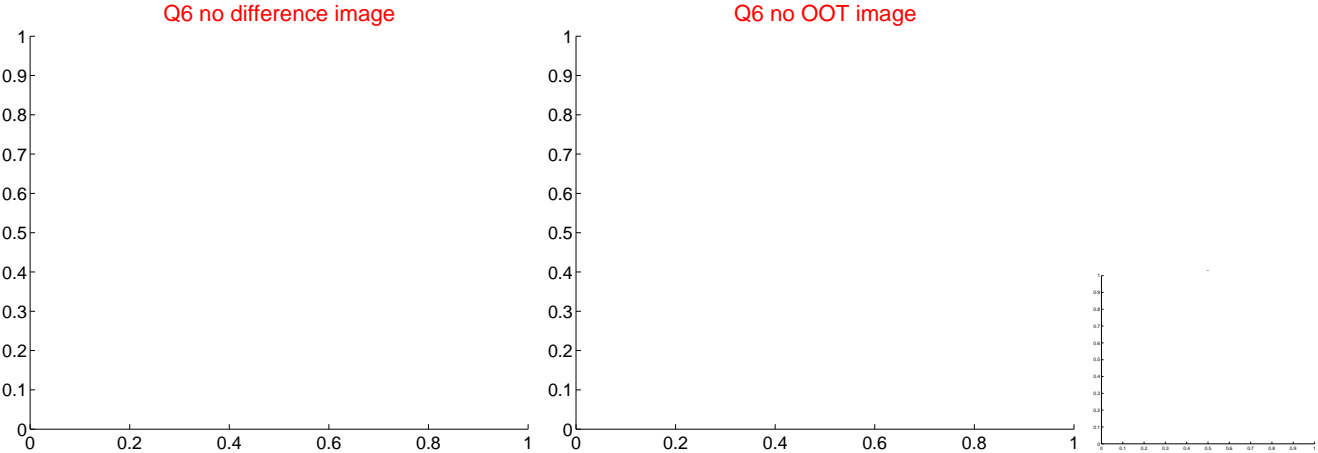
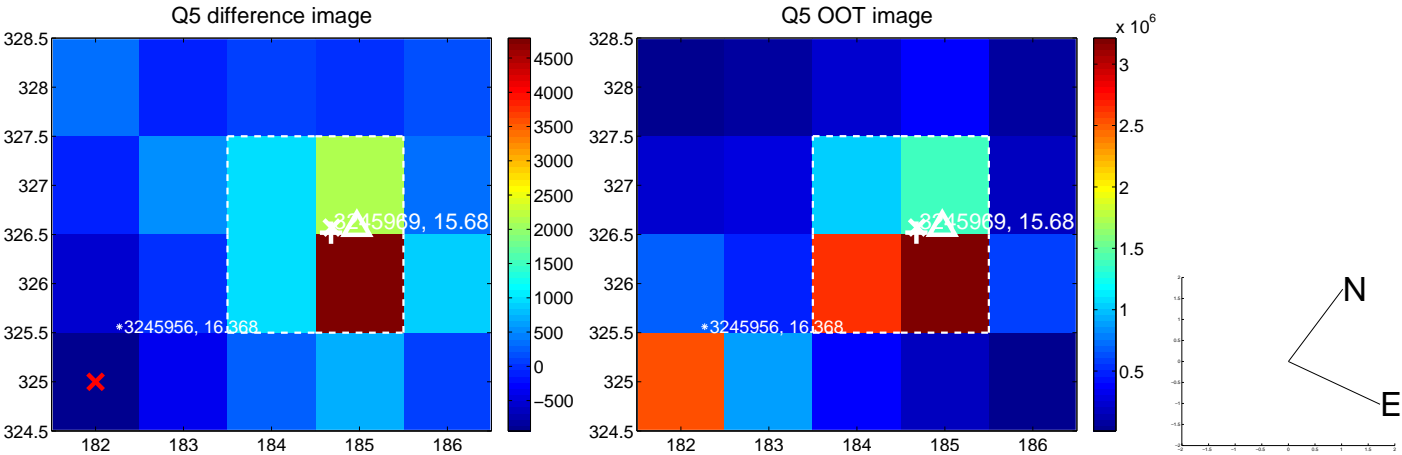


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

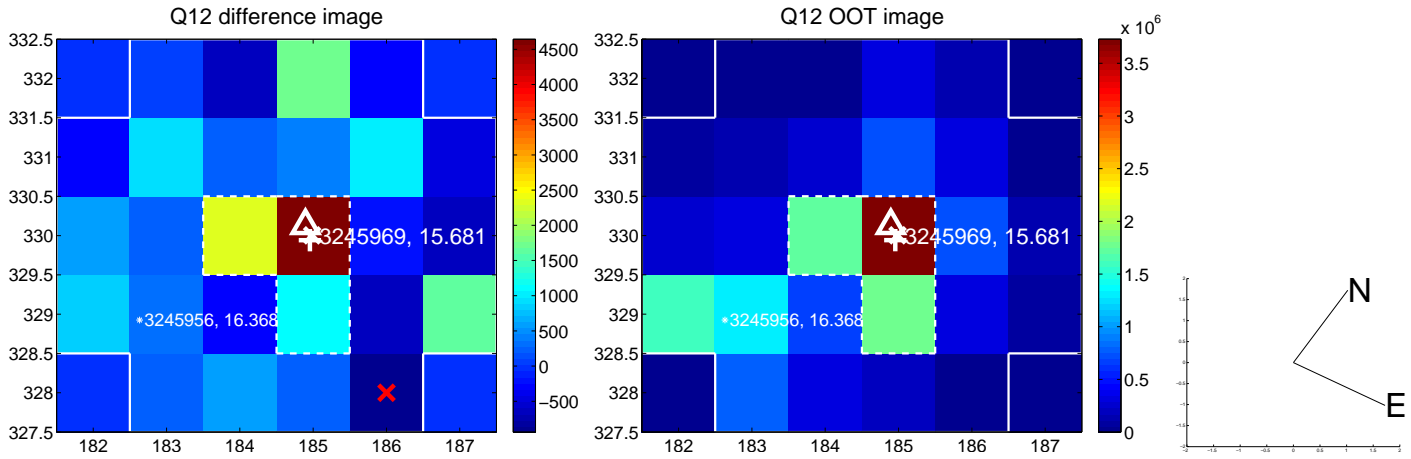
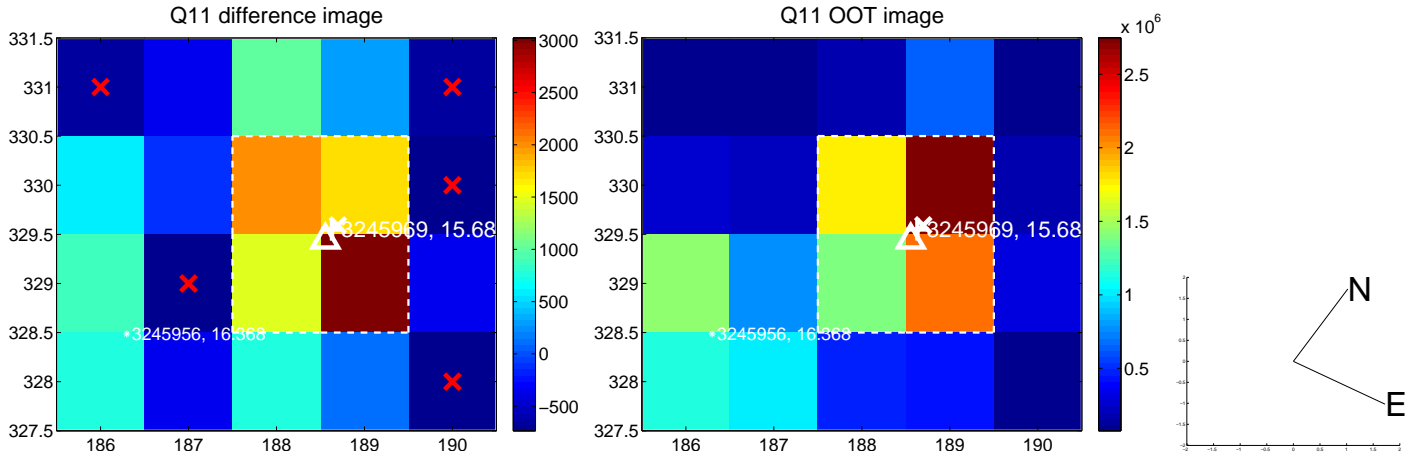
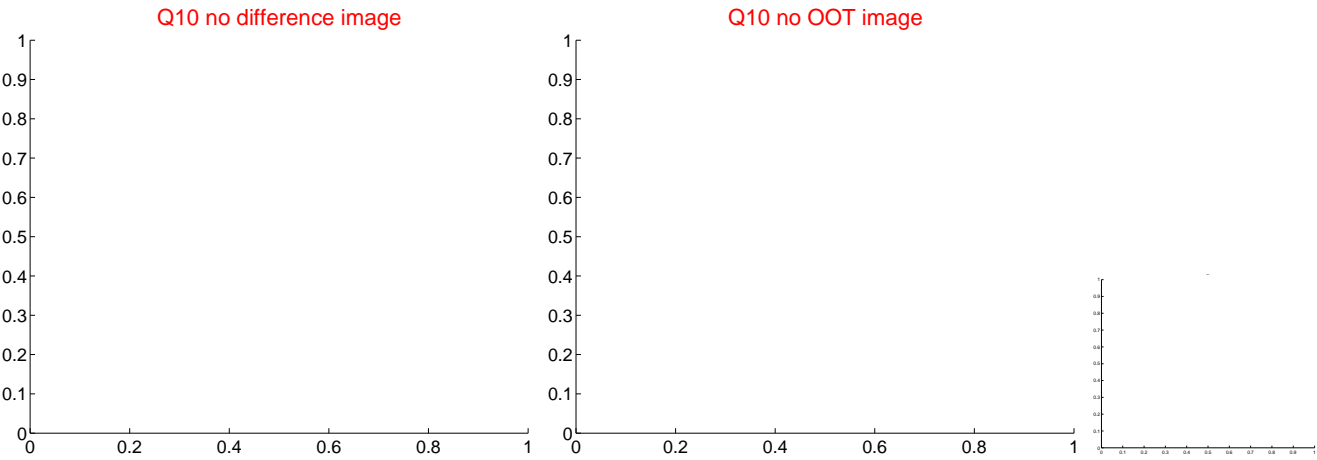
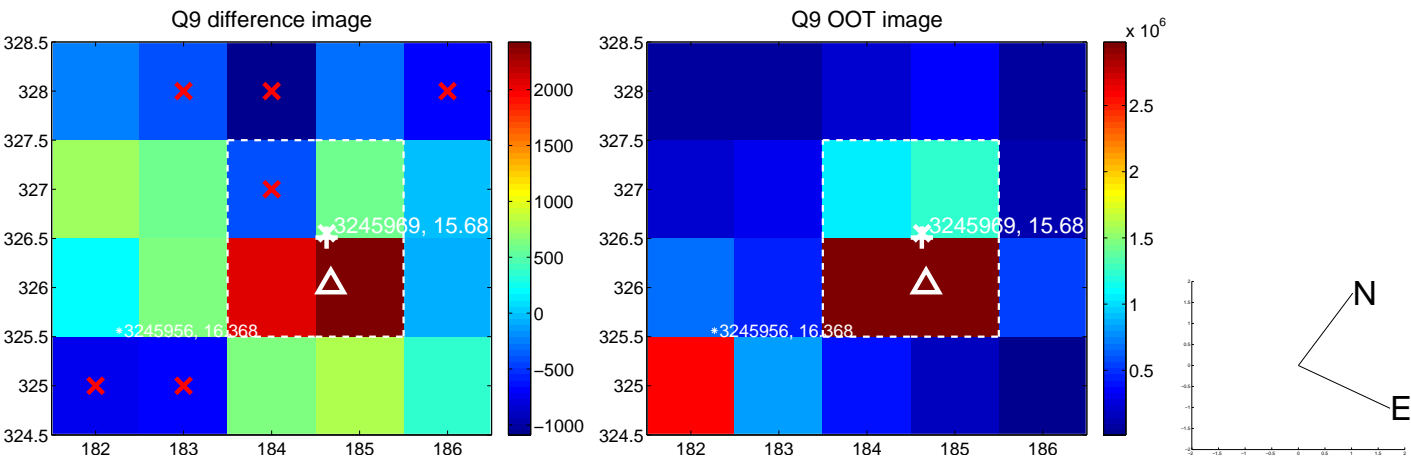
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



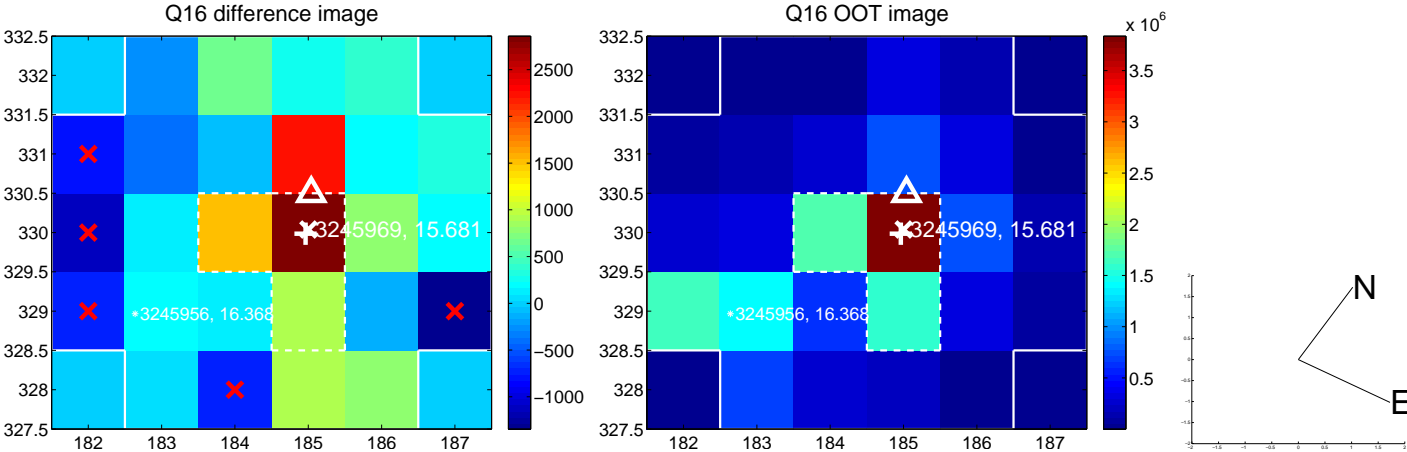
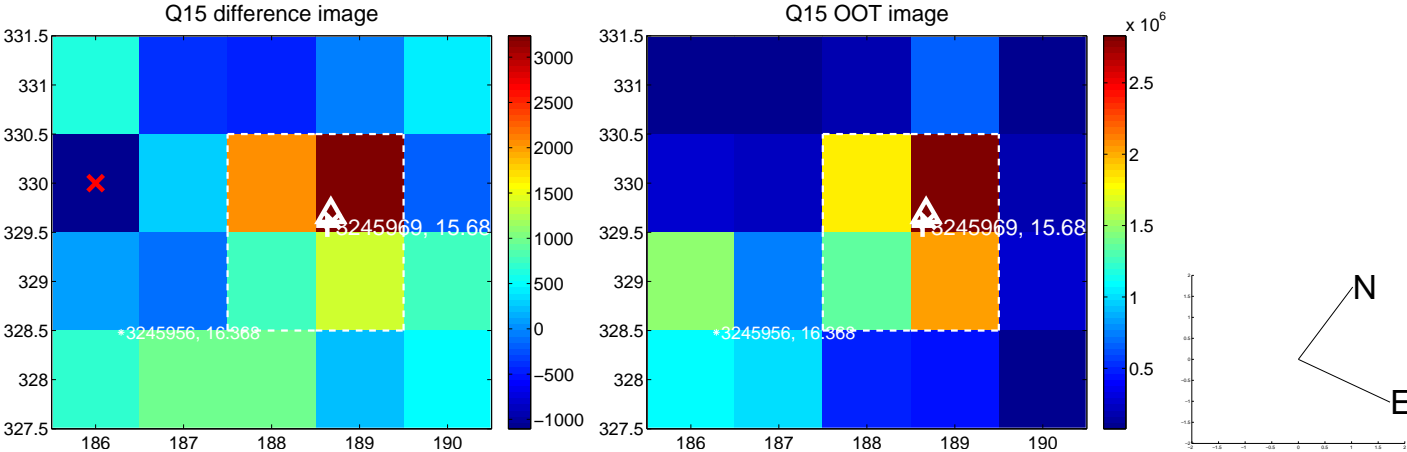
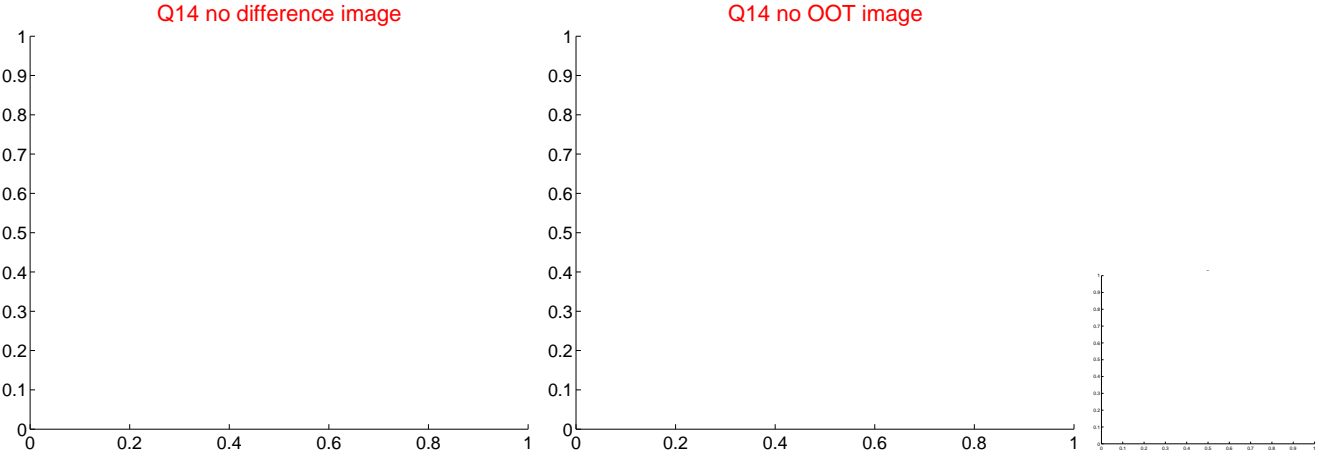
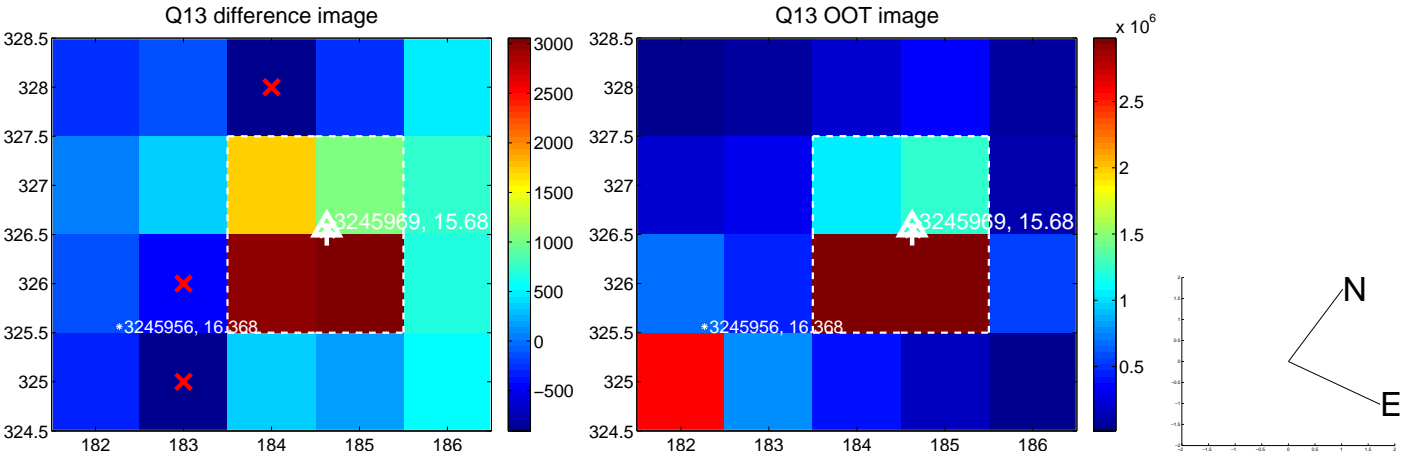
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



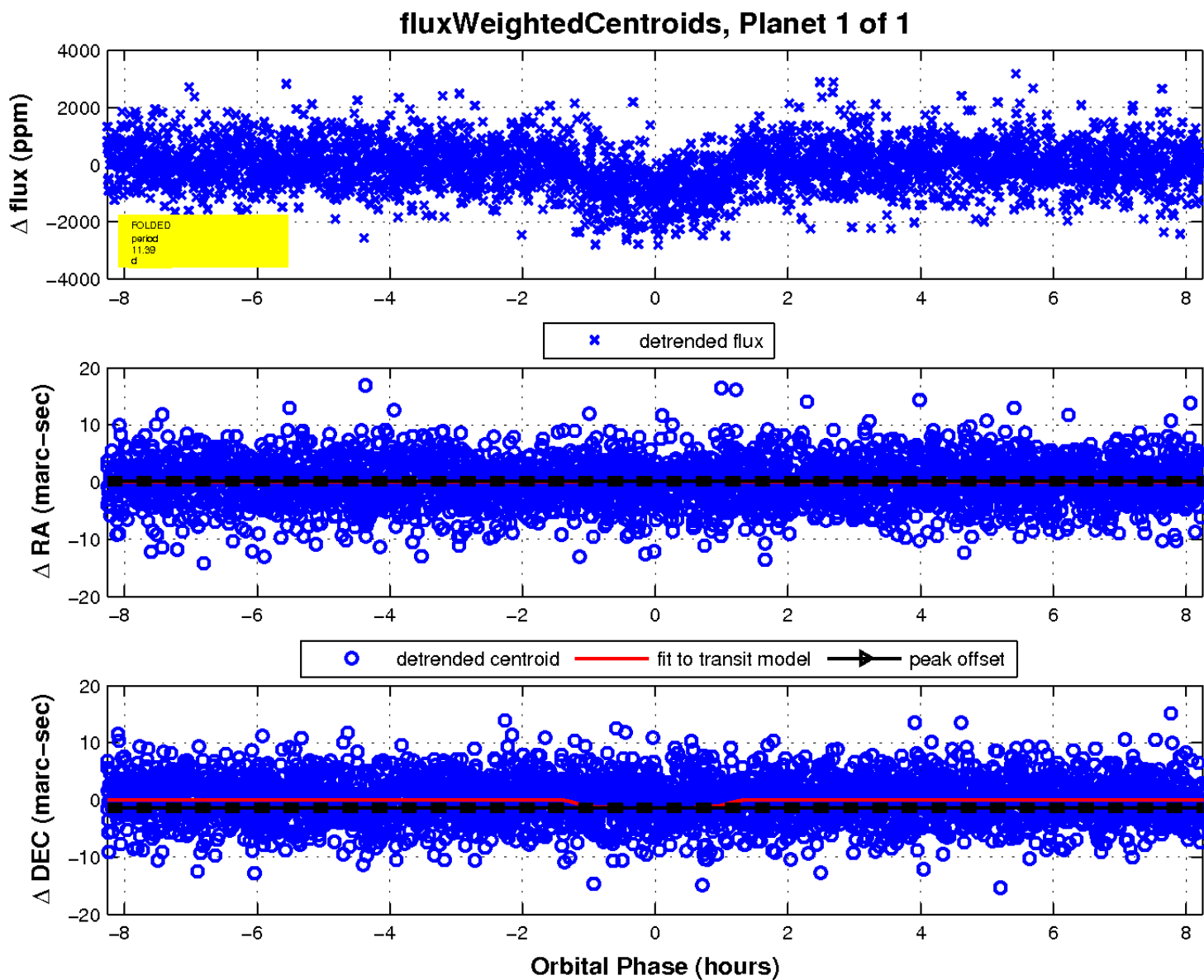
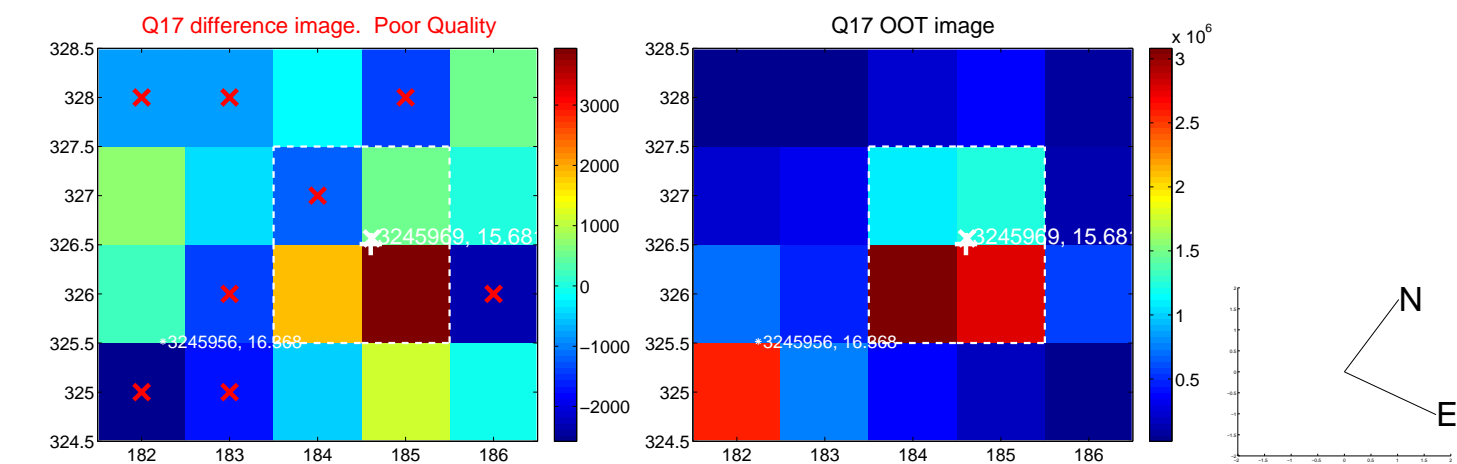
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UKIRT Image

Declination

