

KIC 010669994

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})
010669994-01	OBS	4360.01	2.716045	132.357332	90.7	1.762	10.2	11.9	1.04	6011	1.15	809.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010669994-01	OBS	PC	0.99	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.

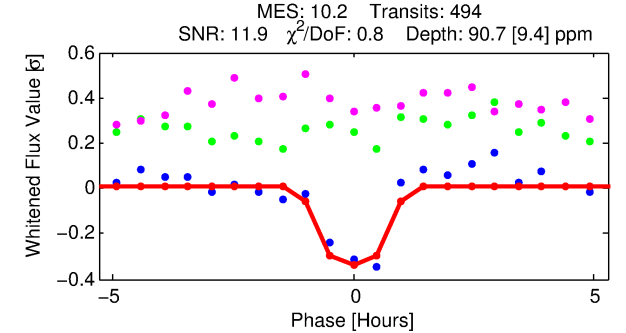
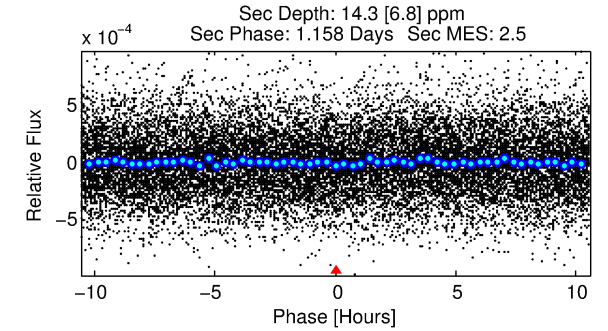
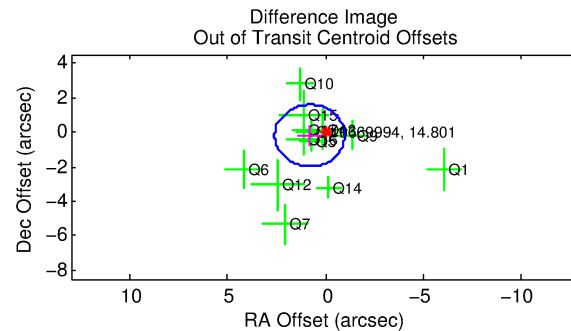
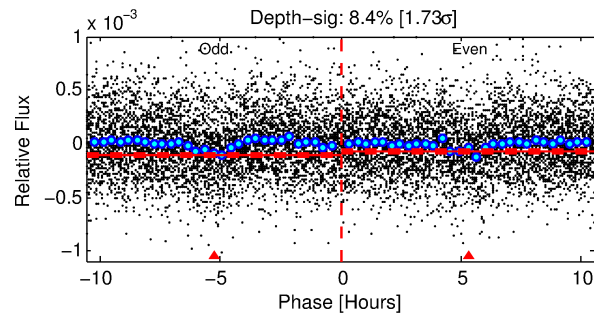
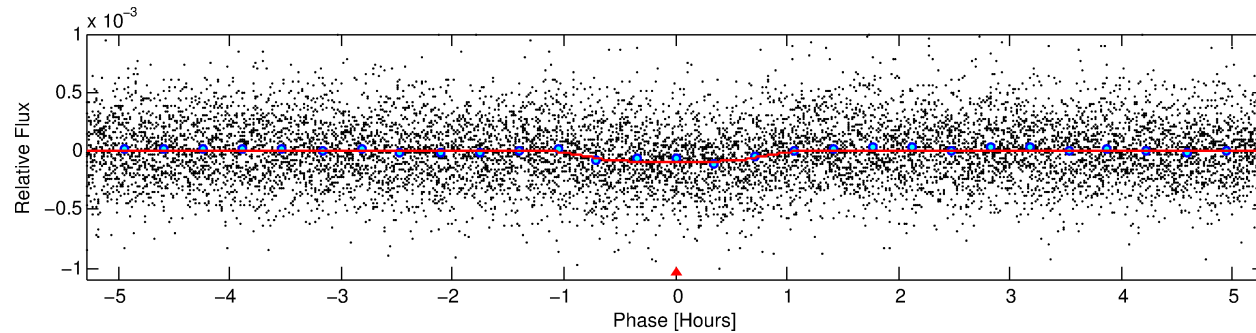
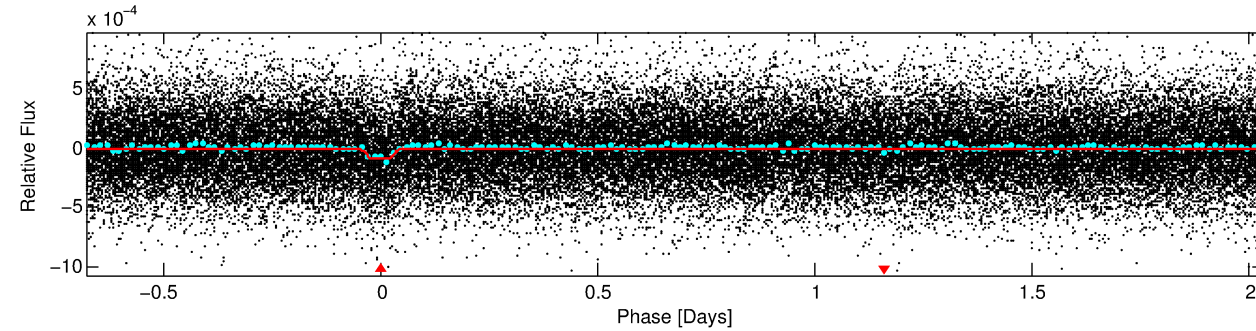
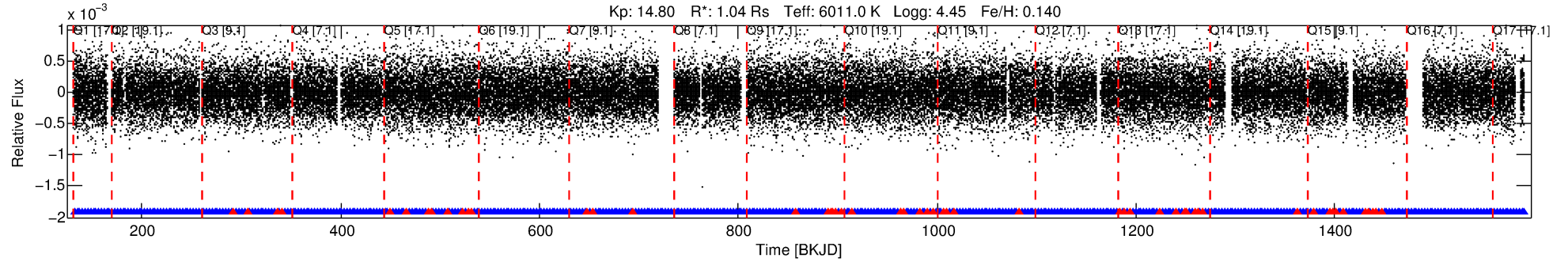
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010669994-01

No Significant Match Found

DV One-Page Summary

KIC: 10669994 Candidate: 1 of 1 Period: 2.716 d
KOI: K04360.01 Corr: 0.974



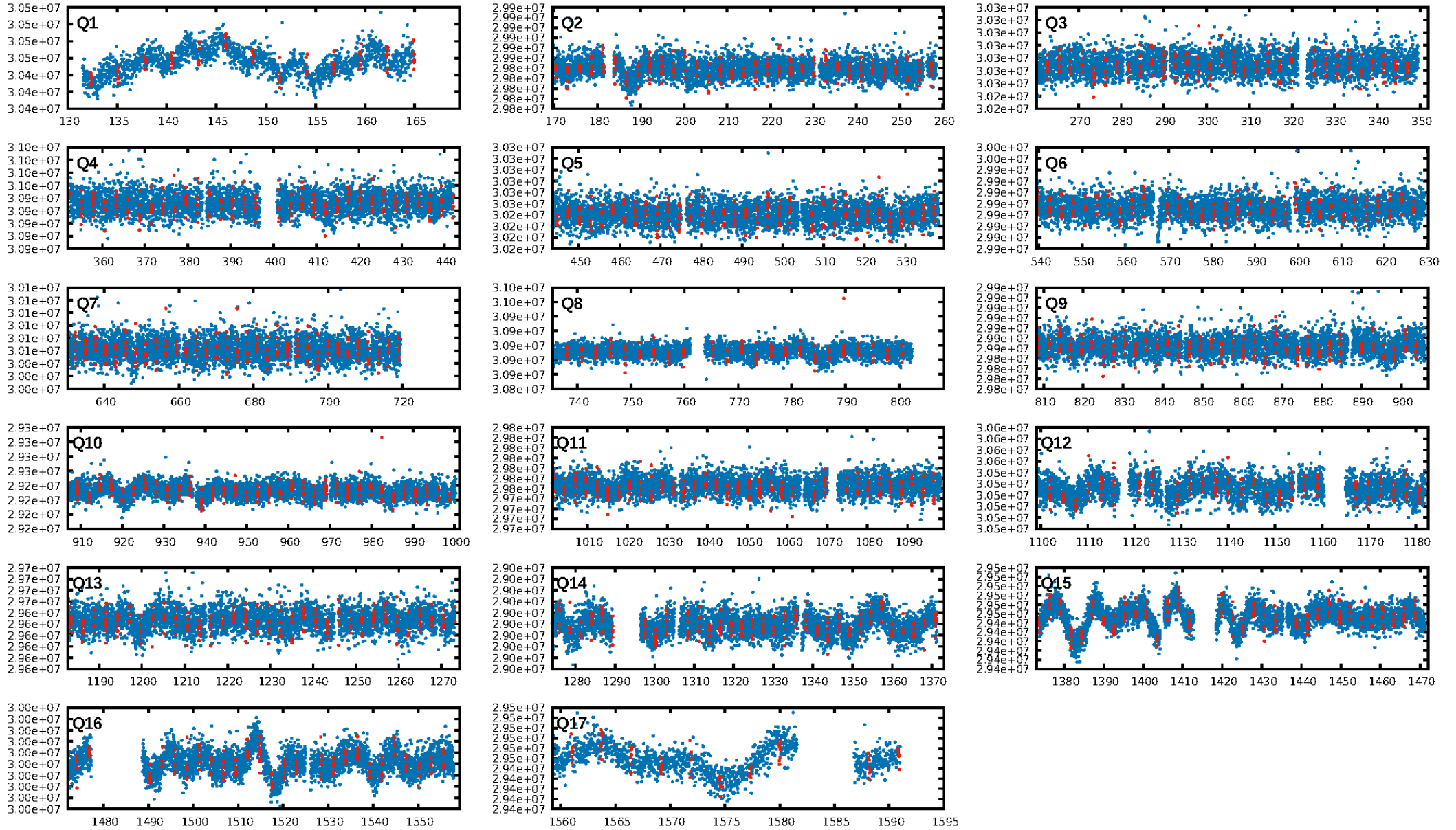
DV Fit Results:

Period = 2.71604 [0.00001] d
Epoch = 132.3573 [0.0027] BKJD
Rp/R* = 0.0101 [0.0061]
a/R* = 6.10 [17.61]
b = 0.87 [0.84]
Seff = 809.84 [155.53]
Teq = 1360 [65] K
Rp = 1.15 [0.71] Re
a = 0.0396 [0.0047] AU
Ag = 9.34 [12.29] [0.68σ]
Teffp = 3677 [1199] K [1.93σ]

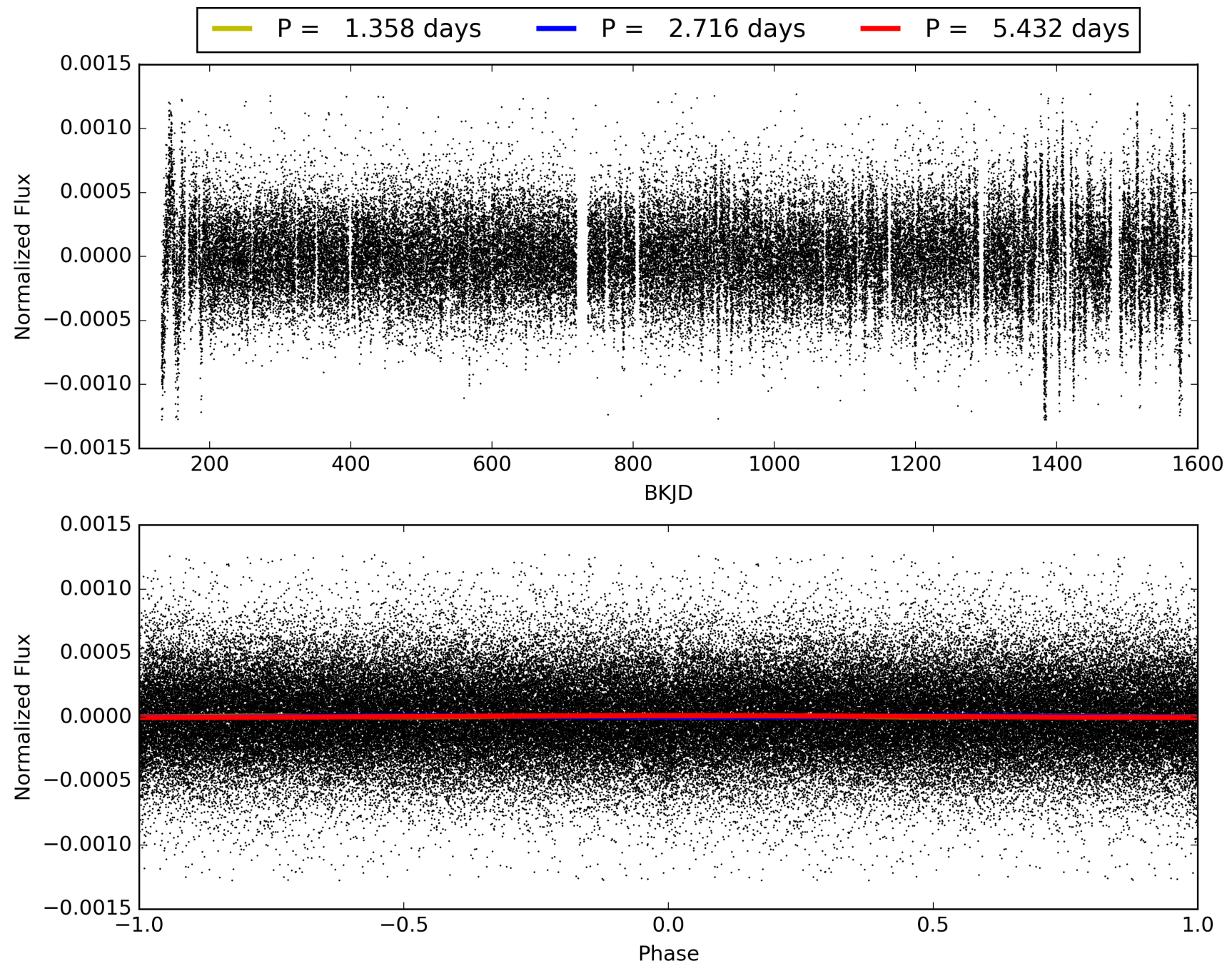
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.23e-24
RollingBand-fgt: 0.89 [419/471]
GhostDiagnostic-chr: 1.123
Centroid-sig: N/A
Centroid-so: 1.093 arcsec [1.01σ]
OotOffset-rm: 0.832 arcsec [1.40σ]
KicOffset-rm: 0.762 arcsec [1.35σ]
OotOffset-st: 3/3/3/5 [14]
KicOffset-st: 3/3/3/5 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 010669994-01, PDC Light Curves

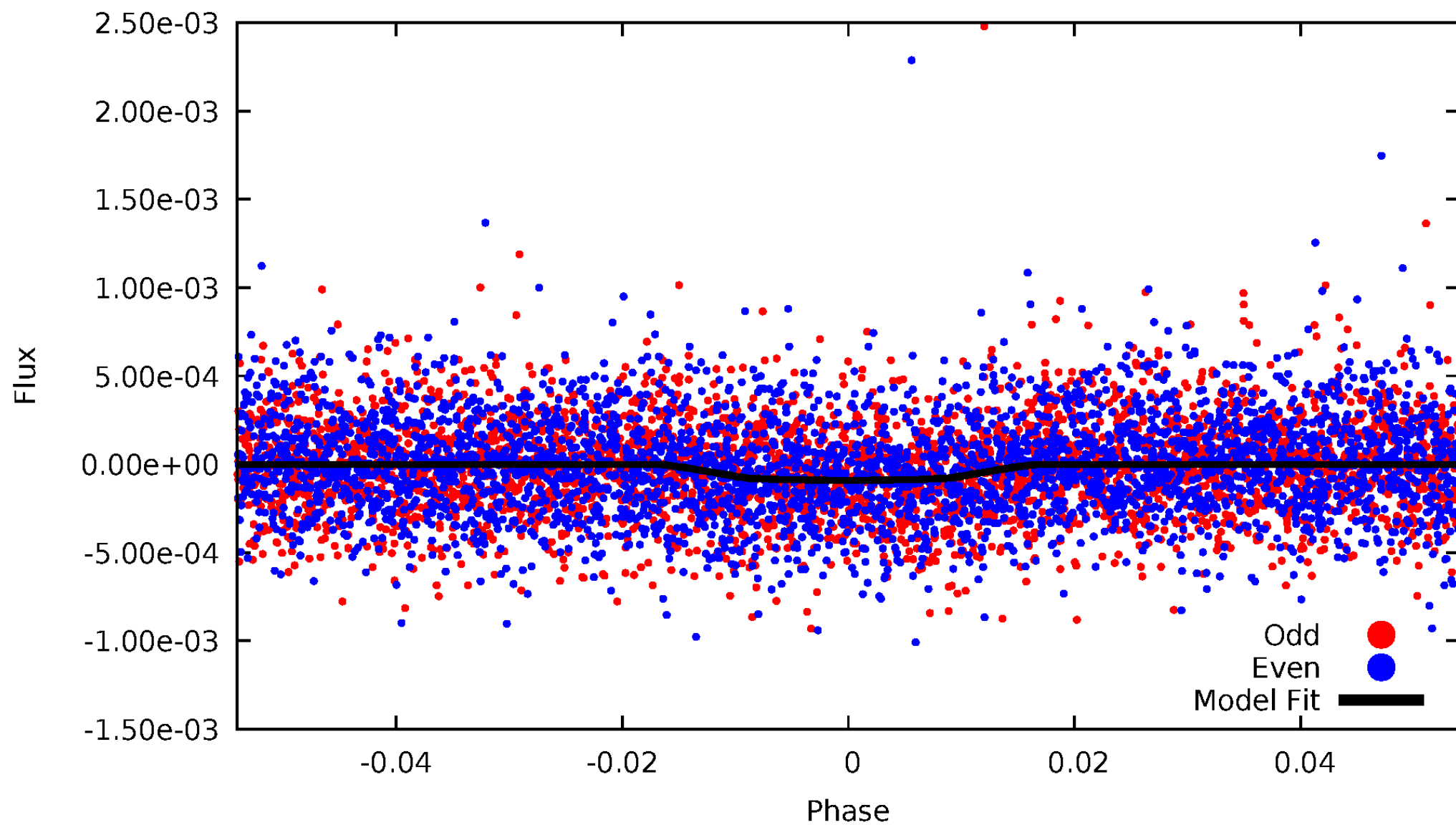


TCE 010669994-01



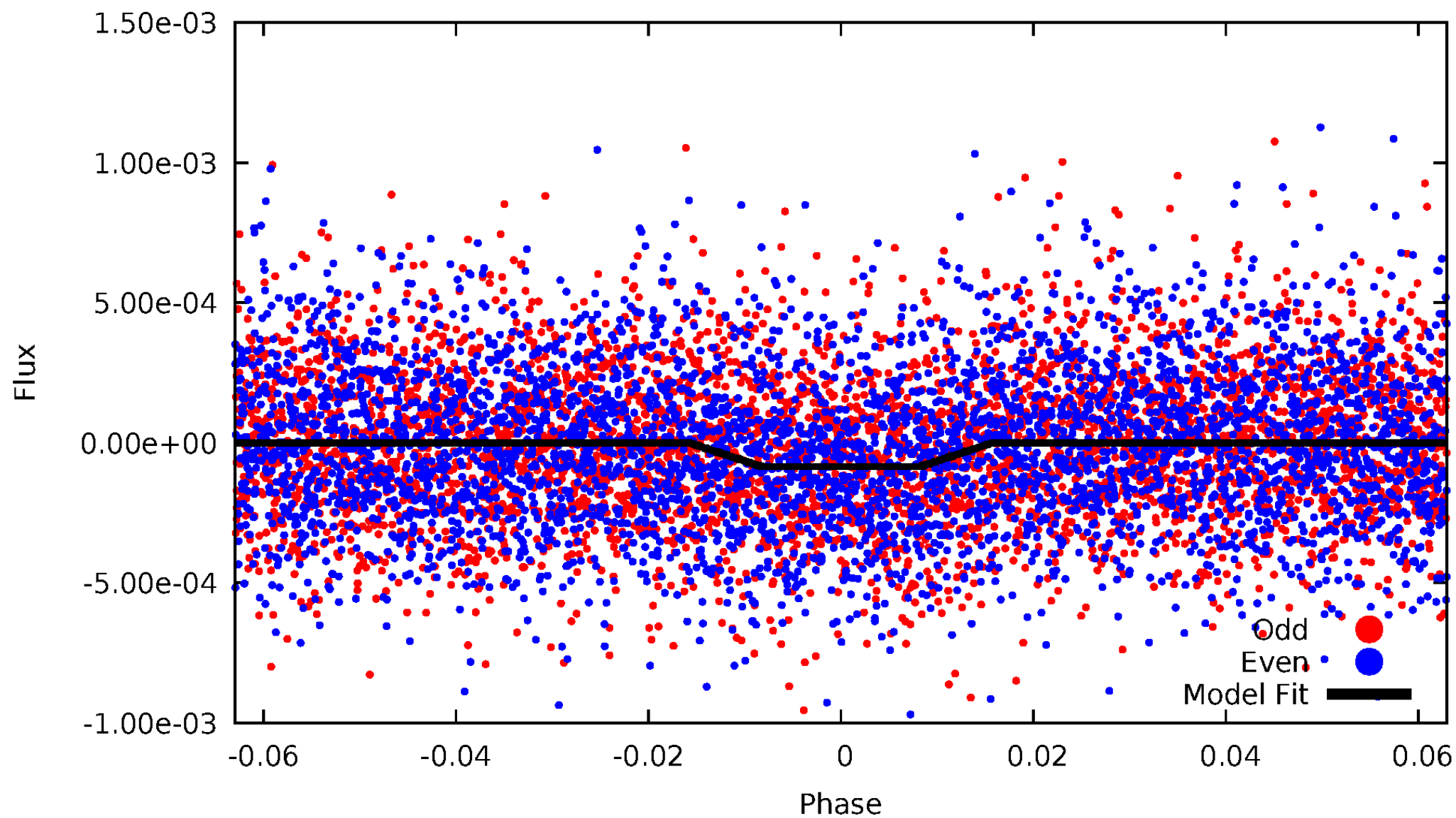
DV Odd/Even

TCE 010669994-01



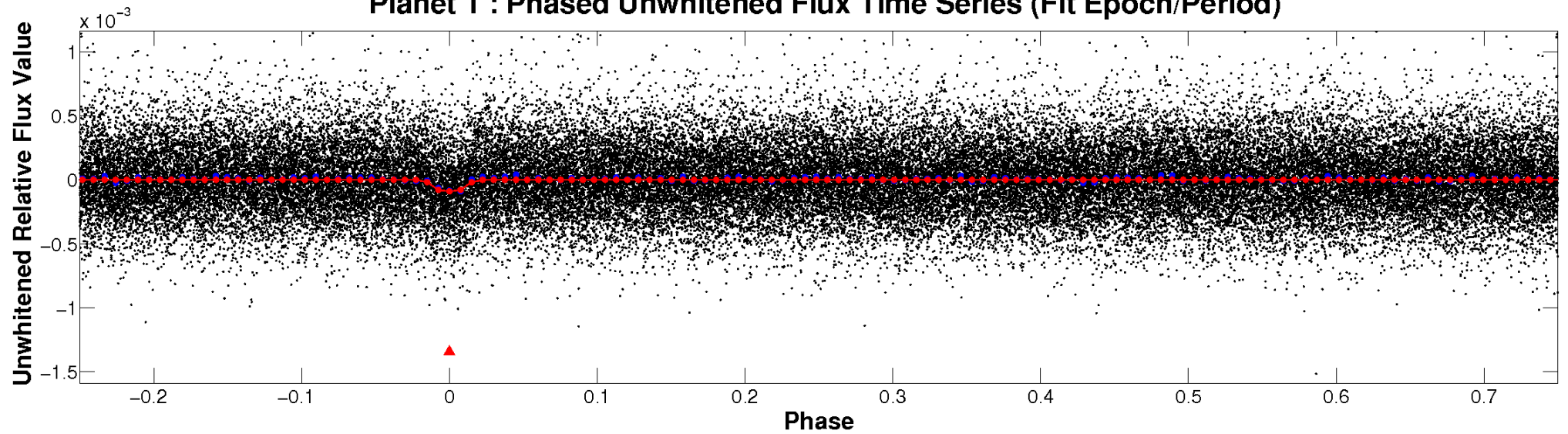
ALT Odd/Even

TCE 010669994-01

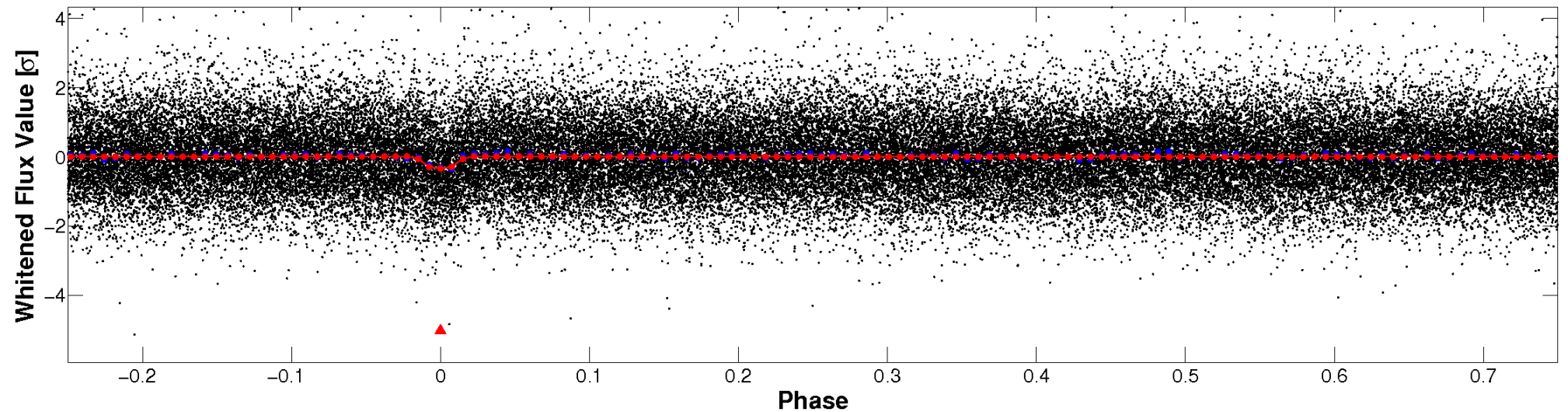


Non-Whitened Vs. Whitened Light Curve

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

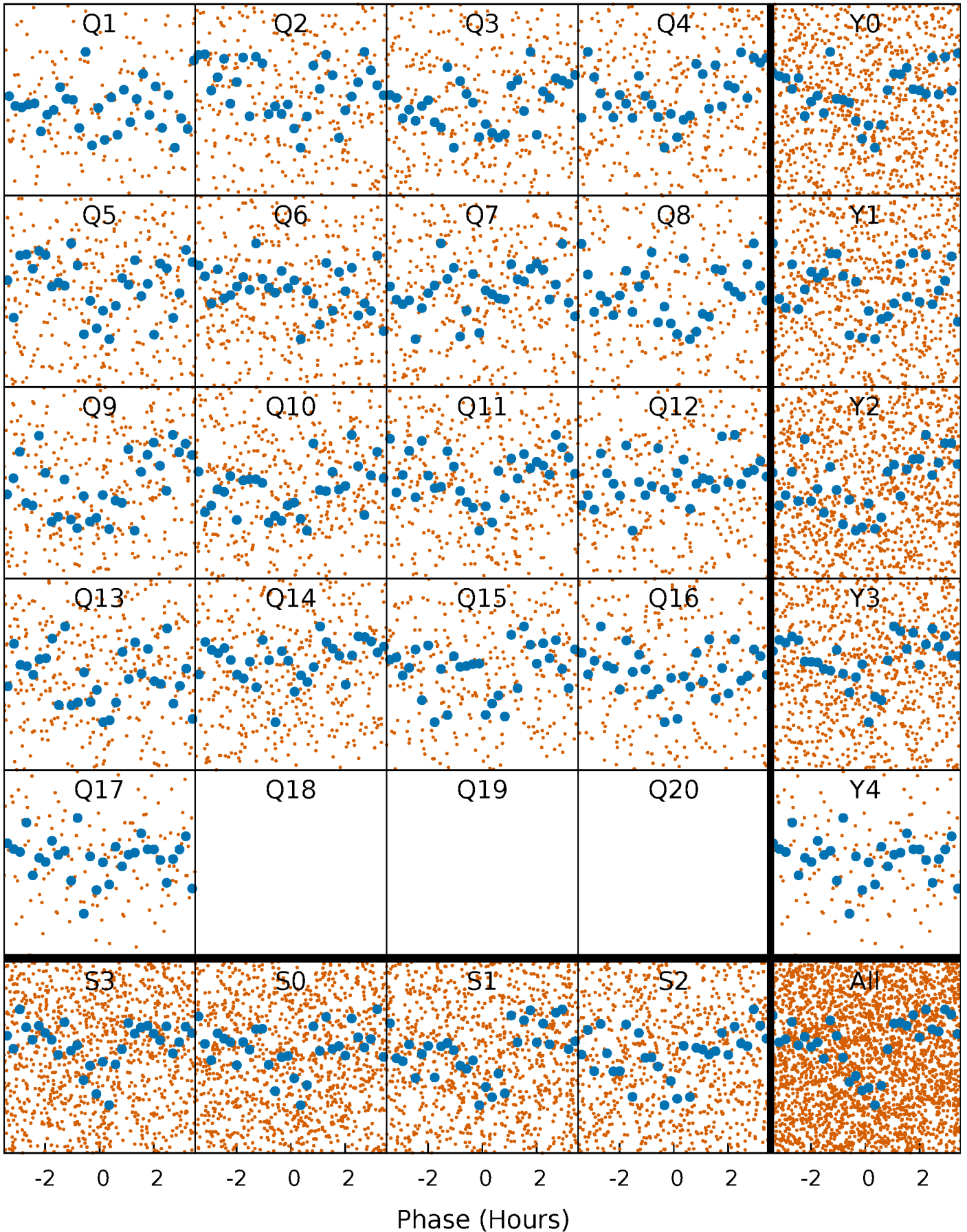


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



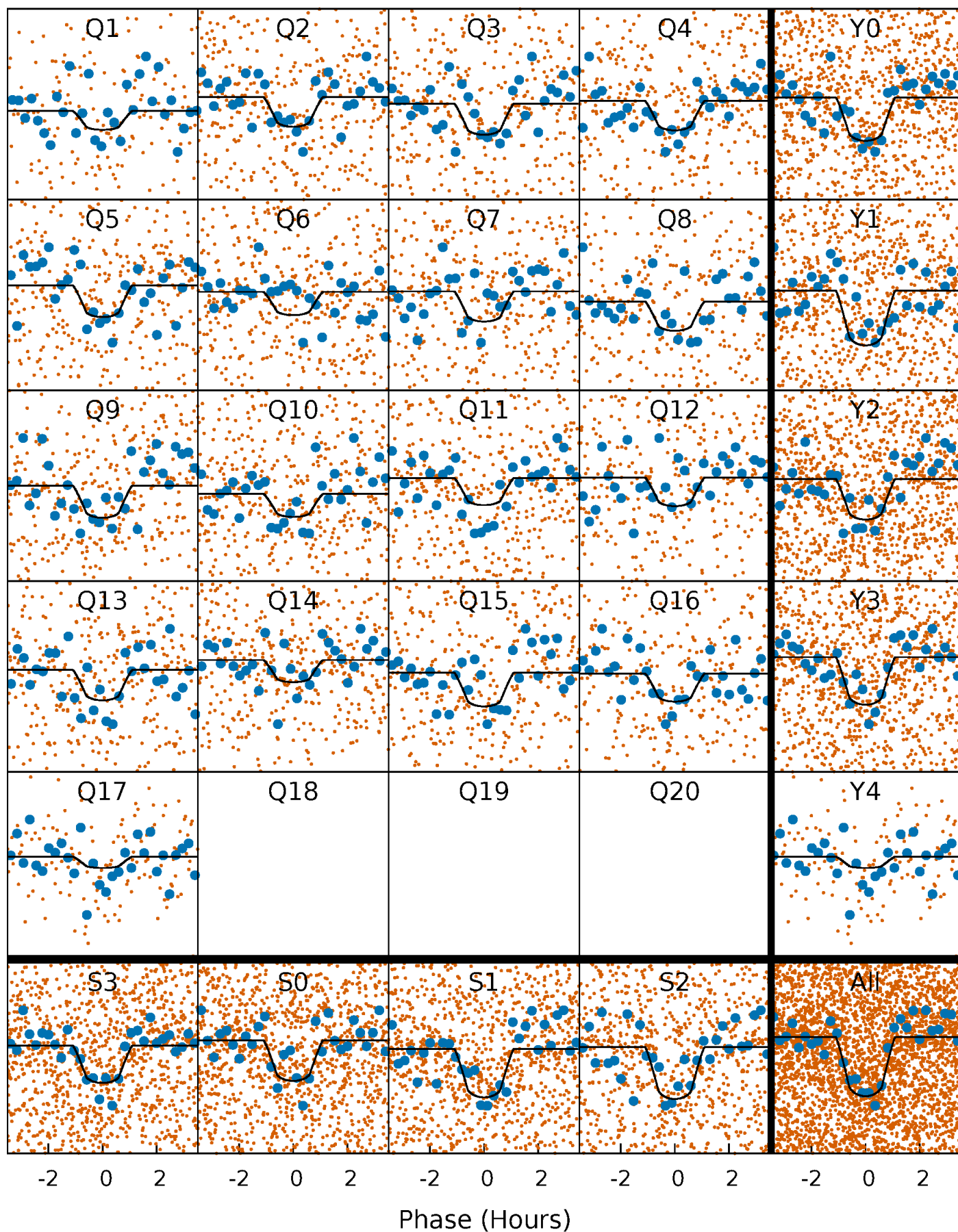
PDC Quarter-Phased Transit Curves

TCE 010669994-01 P= 2.716045 Days $T_0=132.357332$ (BKJD)



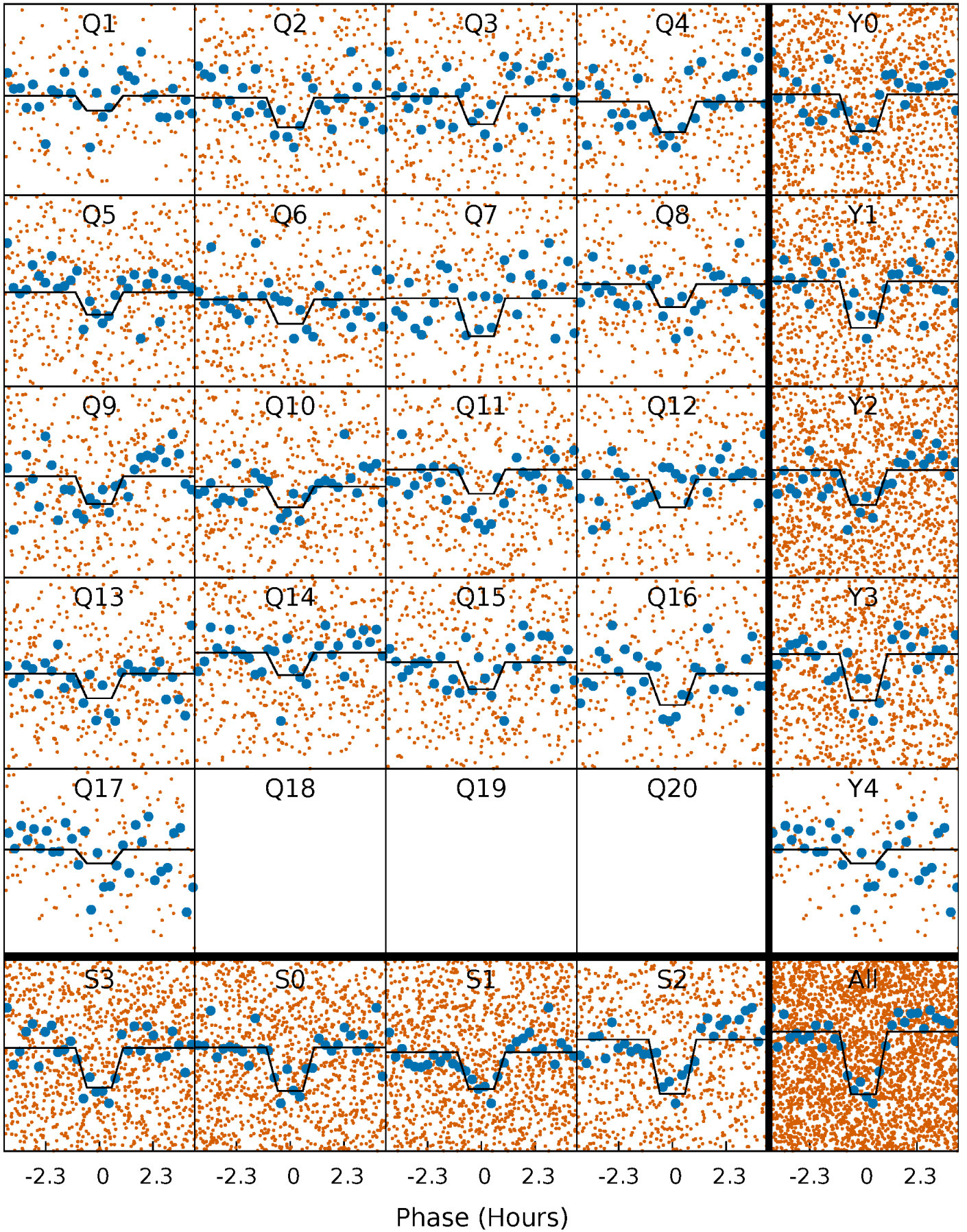
DV Quarter-Phased Transit Curves

TCE 010669994-01 P= 2.716045 Days $T_0=132.357332$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

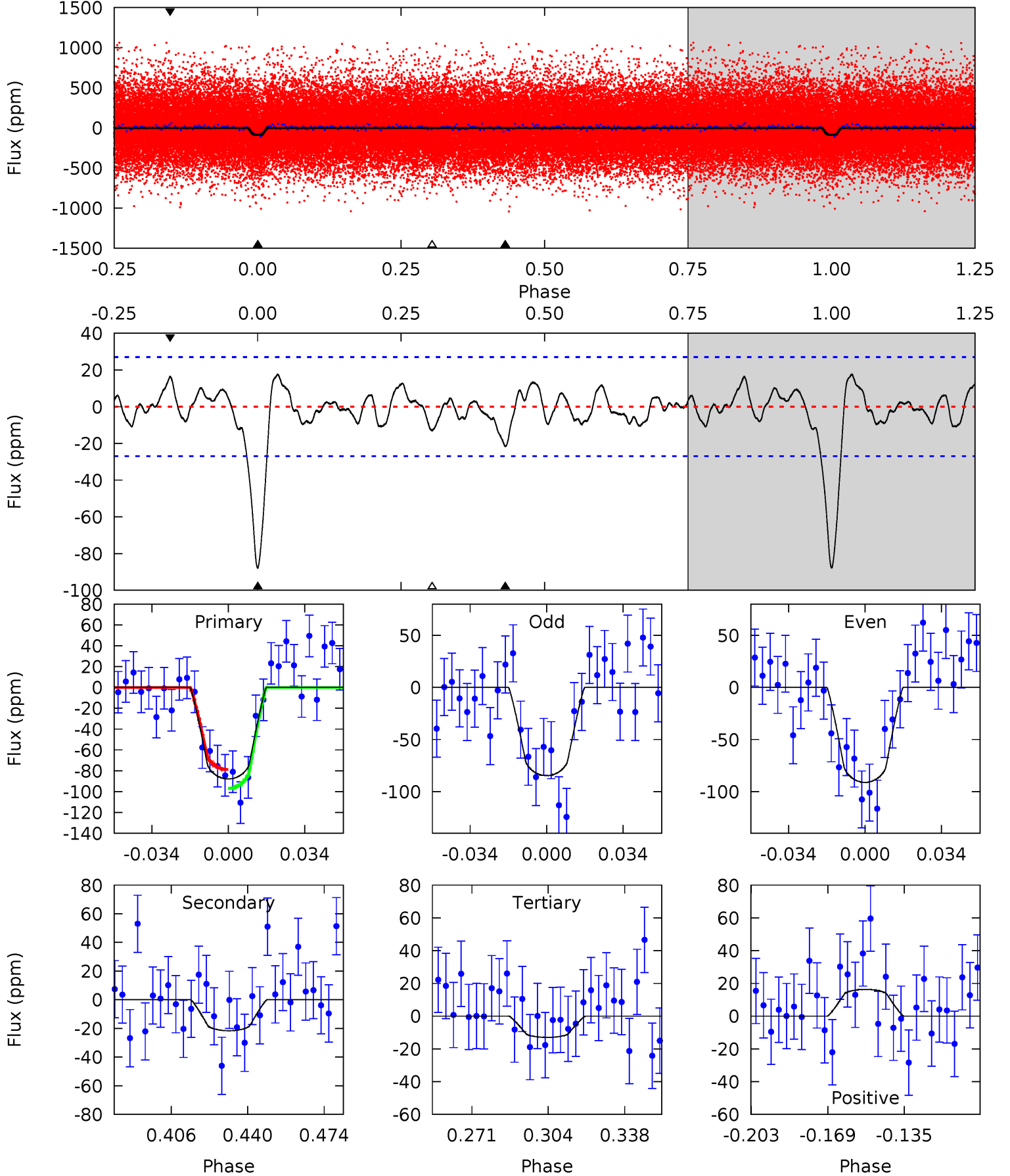
TCE 010669994-01 P= 2.716001 Days $T_0=132.368939$ (BKJD)



DV Model-Shift Uniqueness Test

010669994-01, P = 2.716045 Days, E = 129.641287 Days

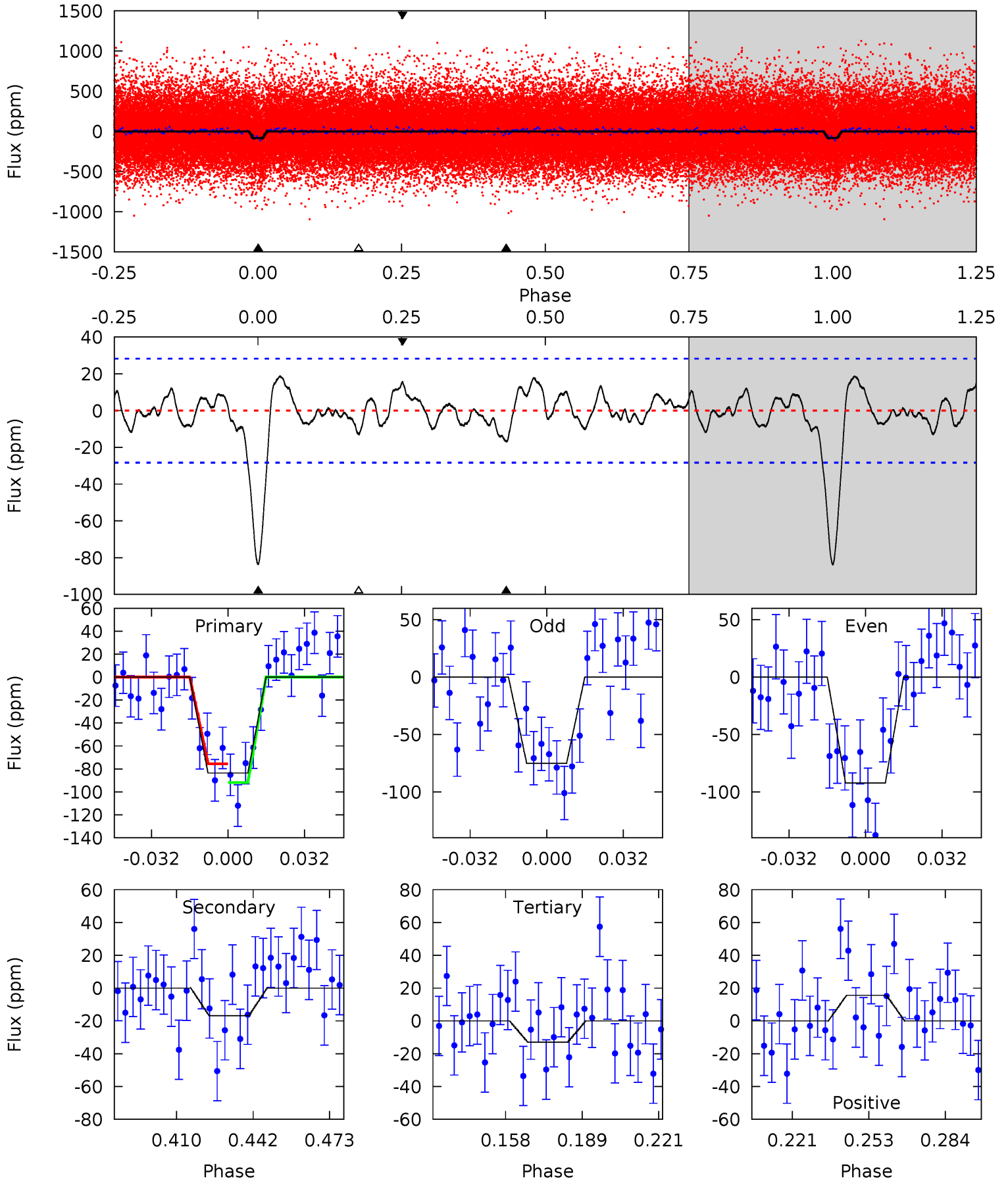
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	3.84	2.30	2.89	4.79	2.12	1.15	13.3	12.7	1.53	0.94	0.58	0.89	0.17	1.61



Alt Model-Shift Uniqueness Test

010669994-01, P = 2.716001 Days, E = 129.652938 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	2.85	2.21	2.65	4.80	2.15	1.16	12.0	11.5	0.65	0.21	1.44	1.05	0.18	1.38



Stellar Parameters For KIC 010669994

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6011^{+72}_{-90}	$4.452^{+0.026}_{-0.104}$	$0.140^{+0.150}_{-0.150}$	$1.041^{+0.138}_{-0.064}$	$1.119^{+0.060}_{-0.073}$	$1.395^{+0.170}_{-0.406}$
	+1%/-1%	+1%/-2%	+107%/-107%	+13%/-6%	+5%/-7%	+12%/-29%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010669994-01 / KOI 4360.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-22 ± 6	$1.22^{+0.69}_{-0.67}$	1924^{+60}_{-50}	4196^{+1795}_{-647}	12^{+51}_{-7}
Alt.	-17 ± 6	$1.11^{+0.71}_{-0.56}$	1920^{+61}_{-43}	4135^{+1430}_{-700}	11^{+35}_{-8}

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 $A_{obs} \gg 1.0$

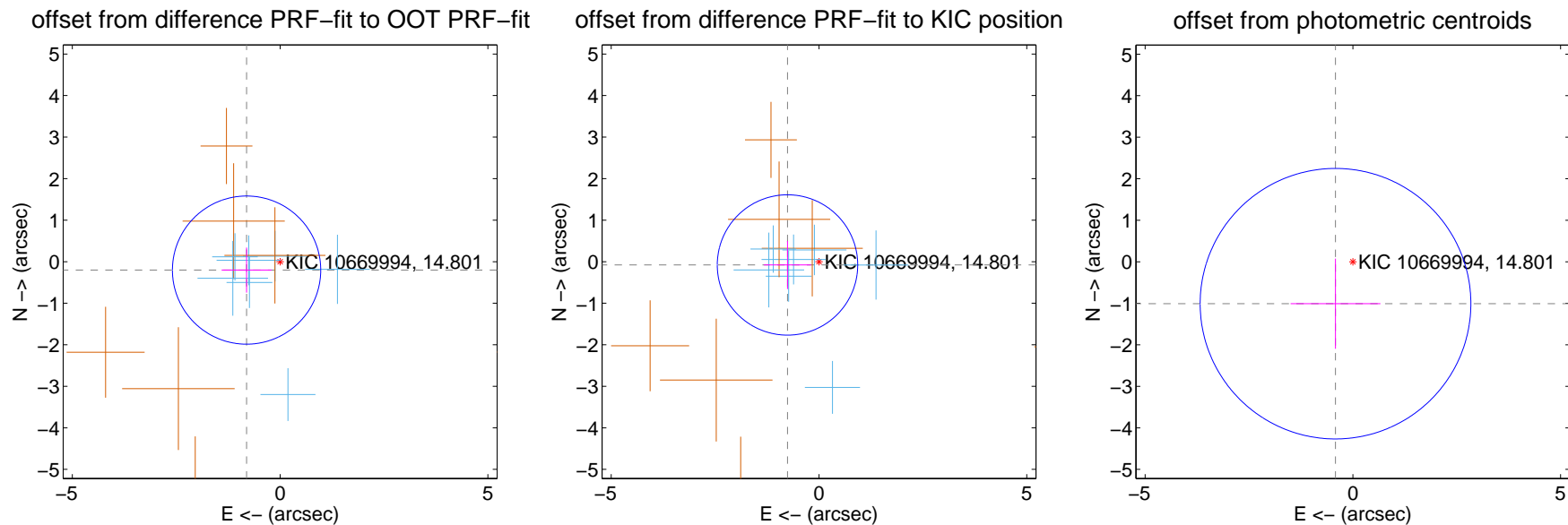
DV Centroid Data

Supplemental centroid analysis for 010669994-01. Kepler magnitude: 14.80. Transit SNR 11.92

There are 7 quarters with good PRF difference image offsets

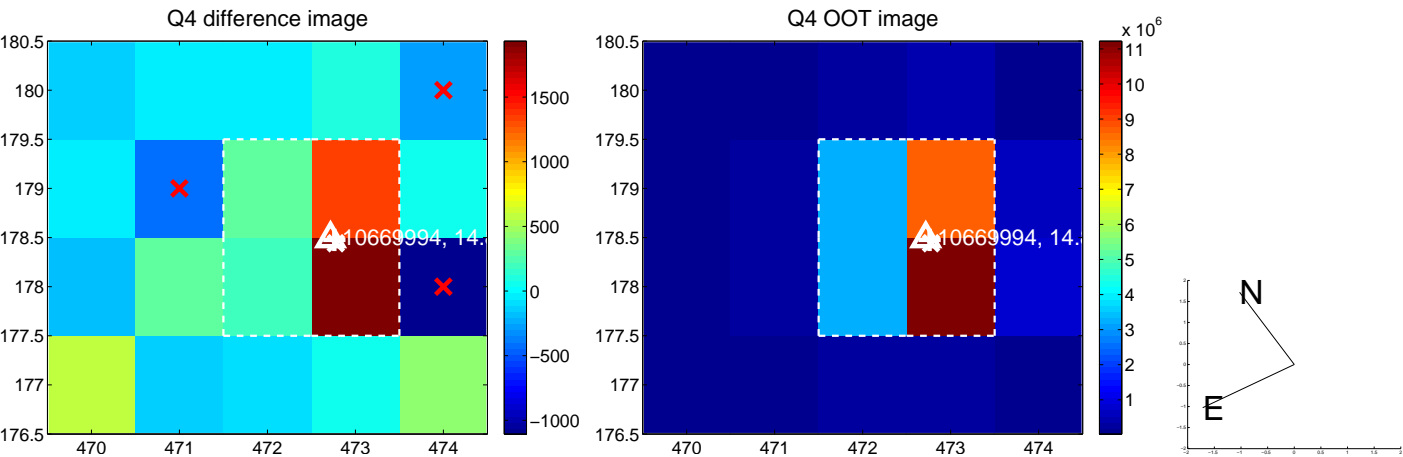
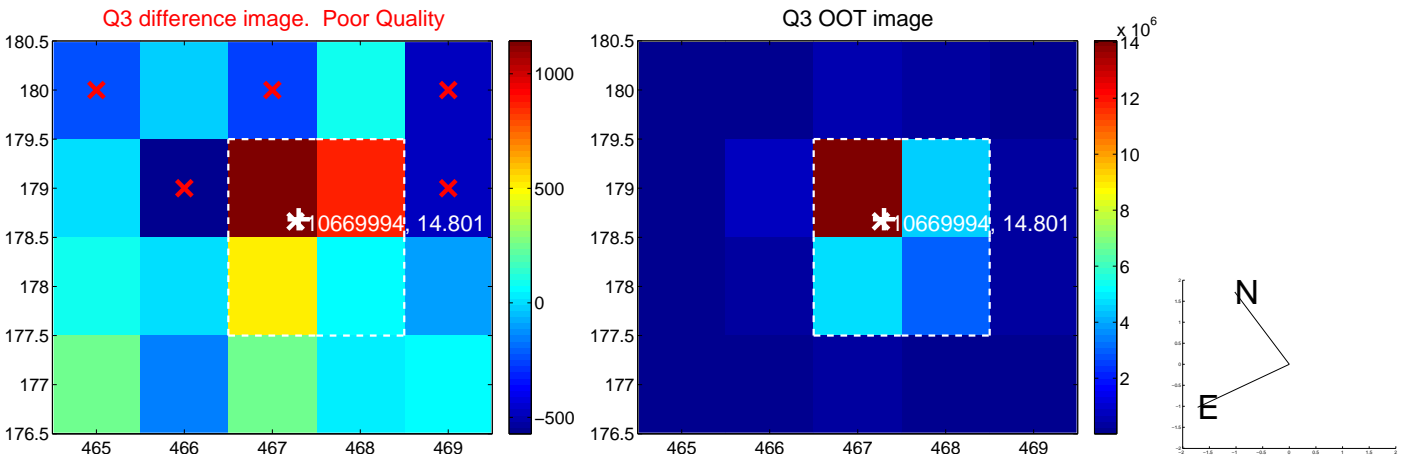
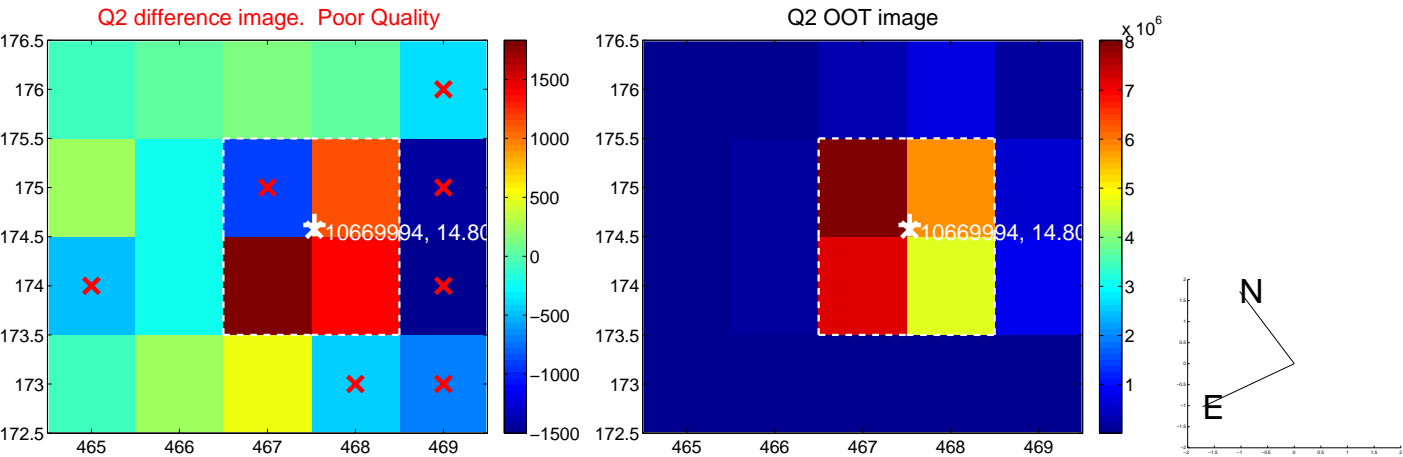
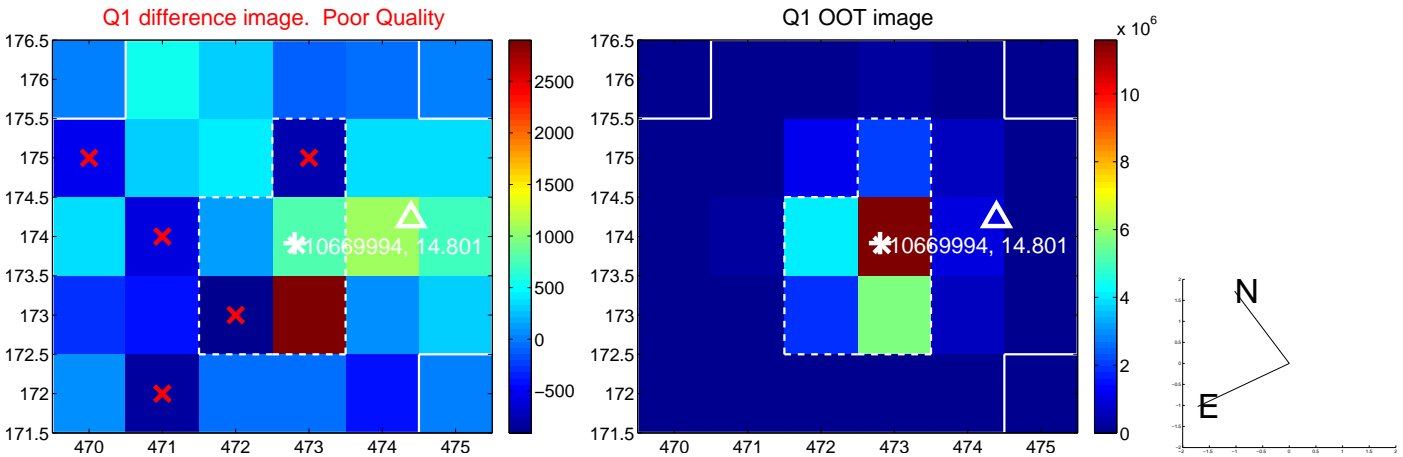
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.832 ± 0.595	1.40	0.807 ± 0.599	-0.202 ± 0.542
PRF-fit source offset from KIC position	0.762 ± 0.563	1.35	0.758 ± 0.567	-0.079 ± 0.579
photometric centroid source offset	1.09 ± 1.09	1.01	0.42 ± 1.08	-1.01 ± 1.09

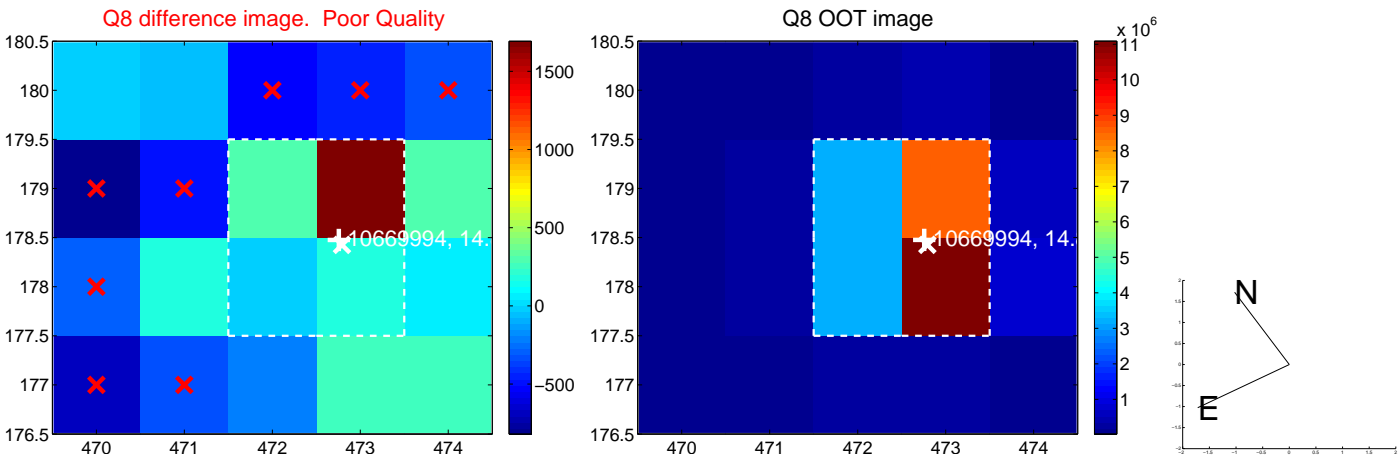
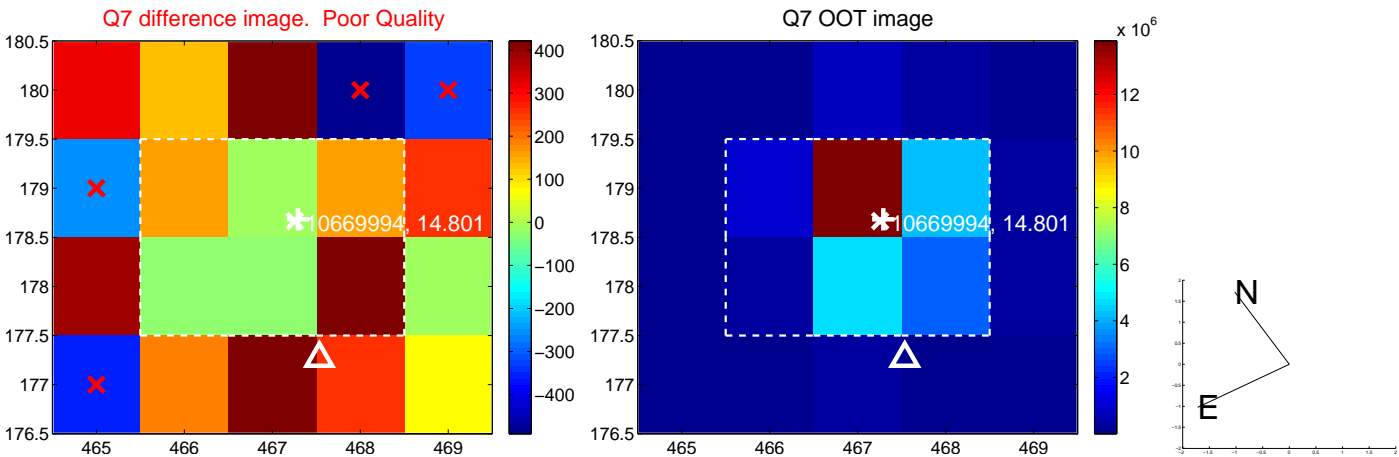
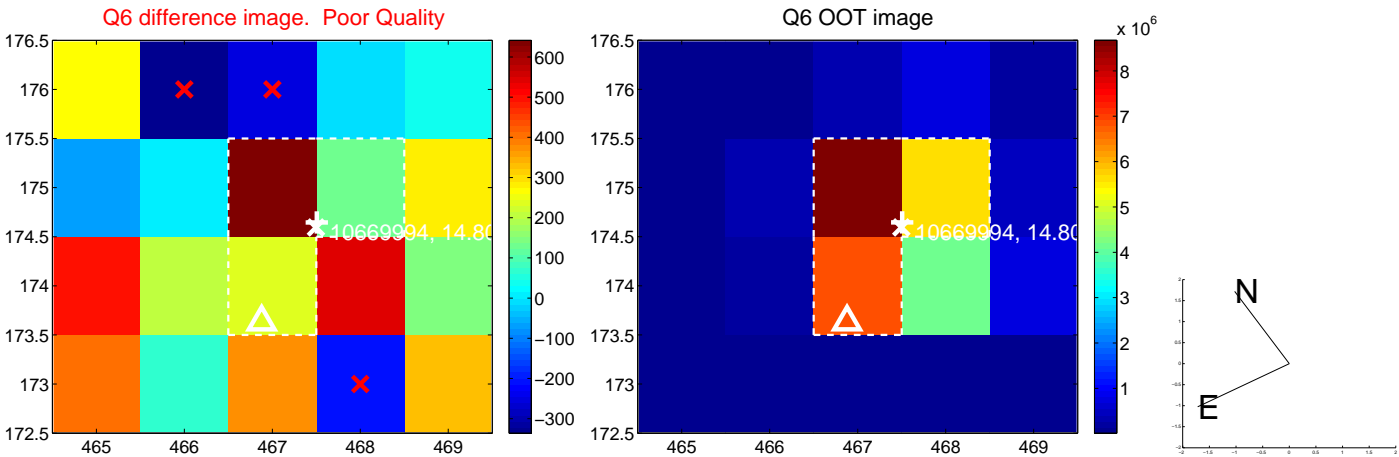
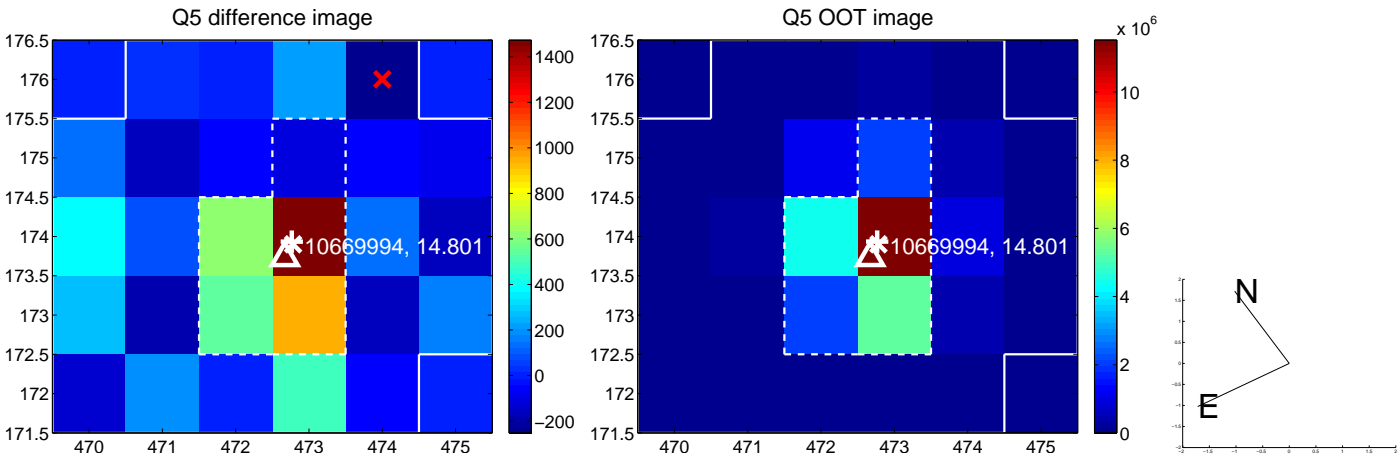


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

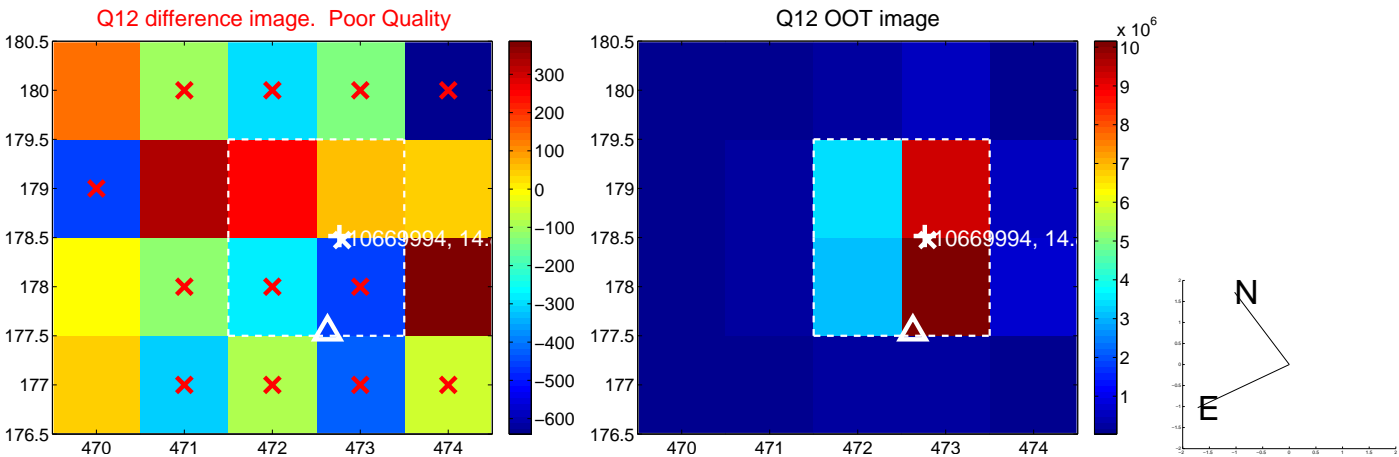
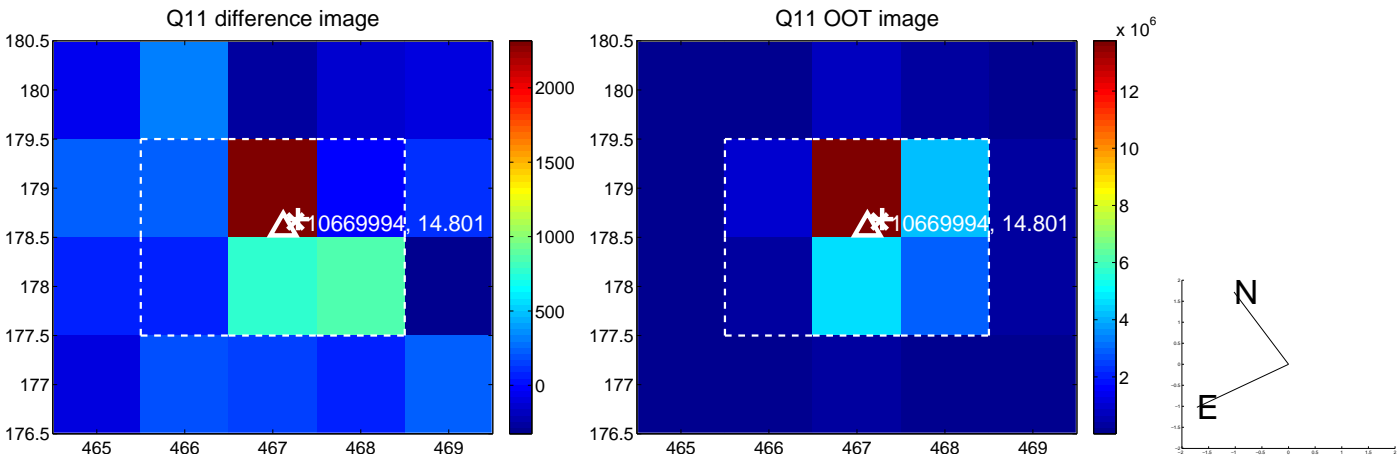
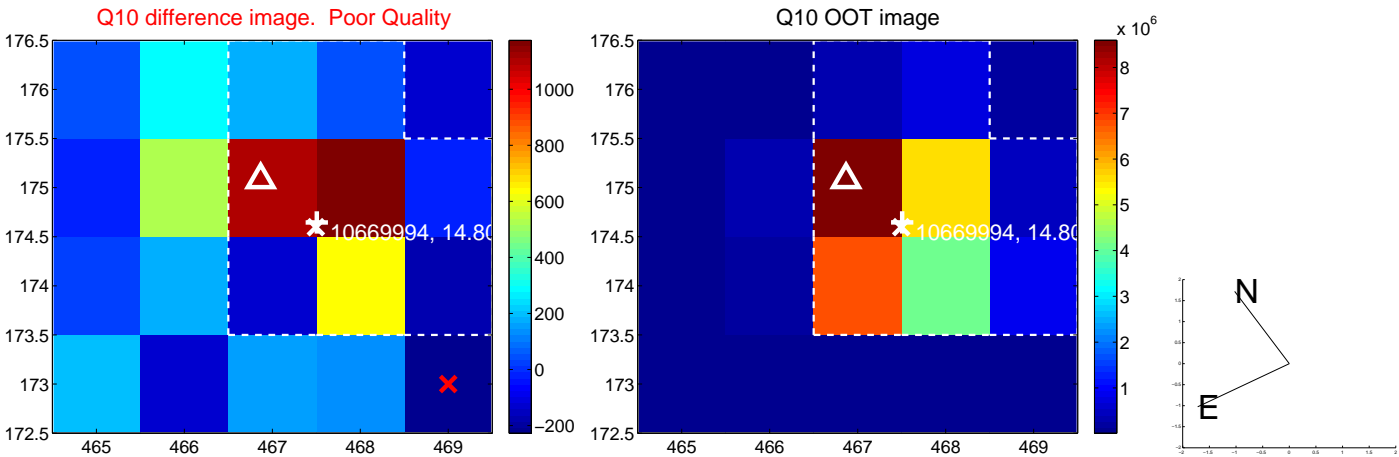
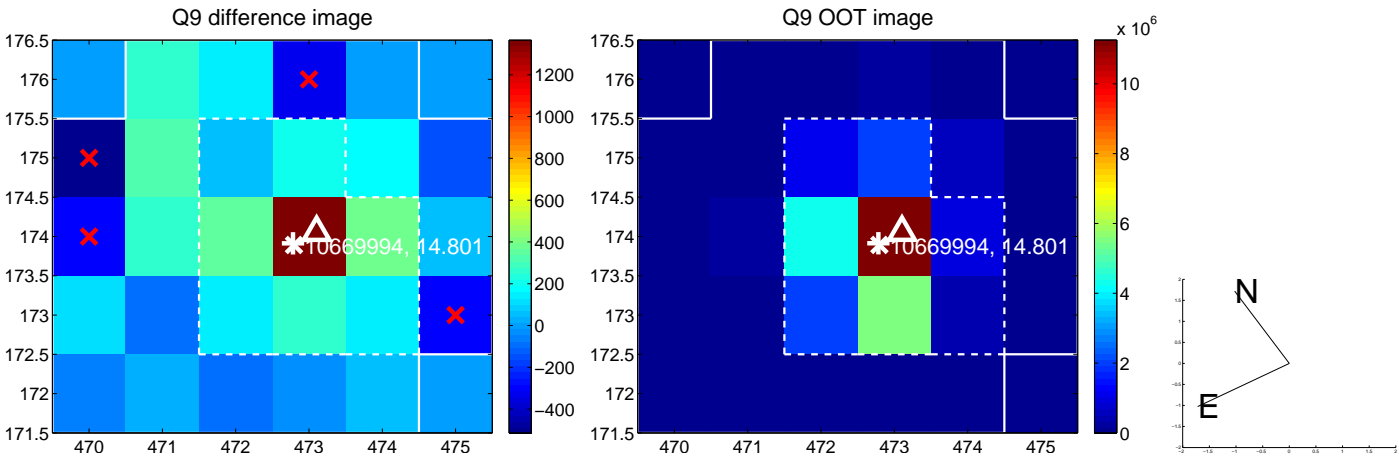
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



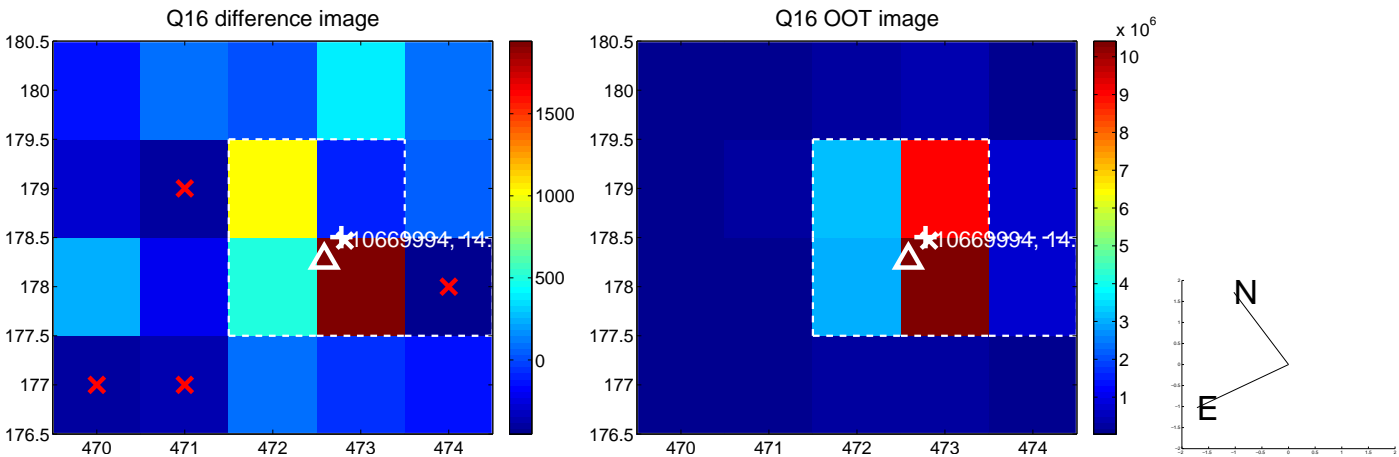
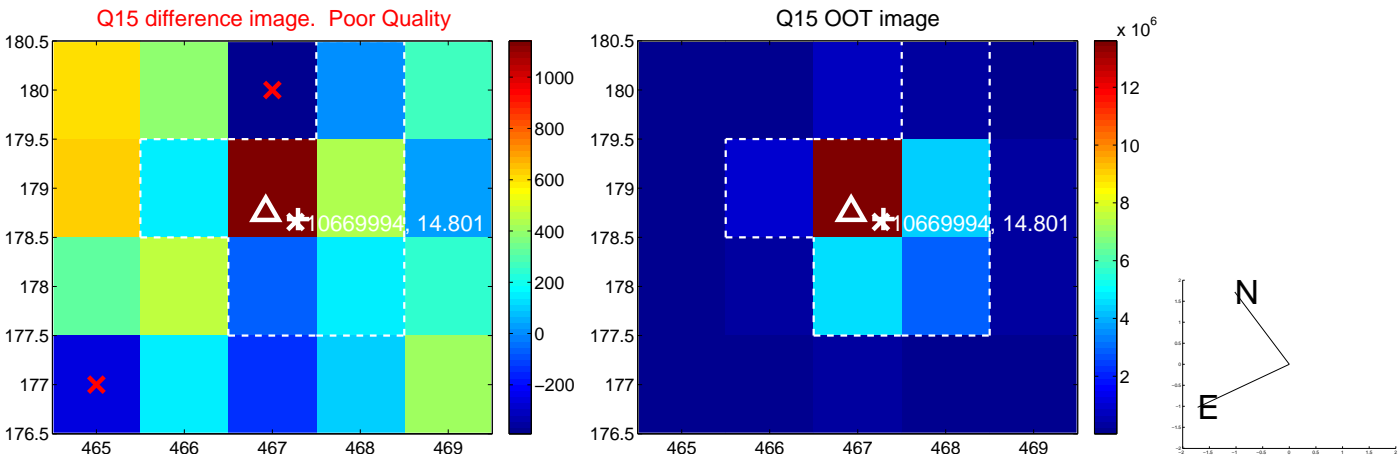
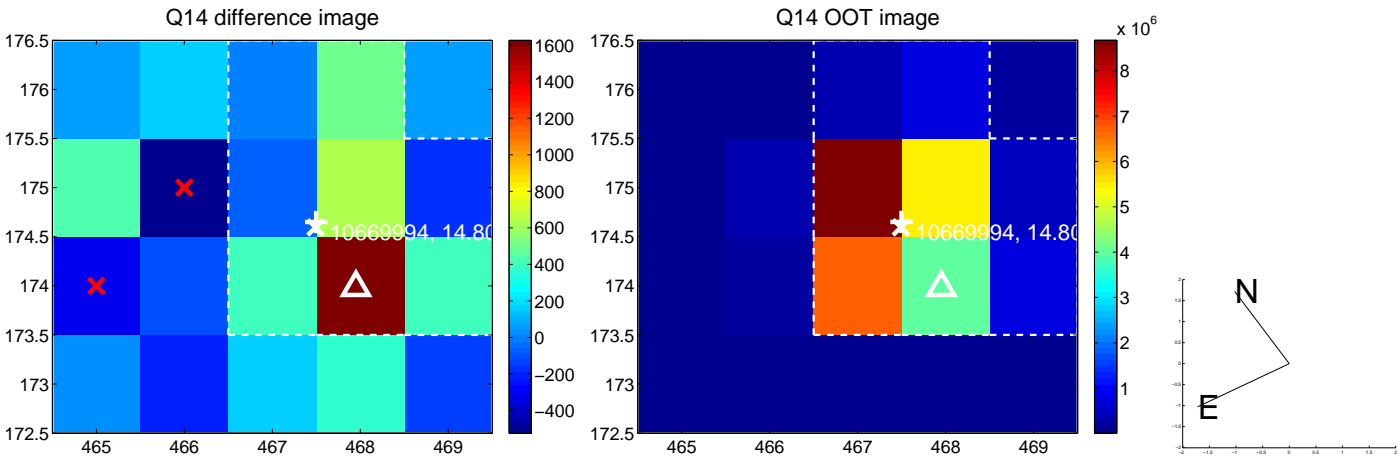
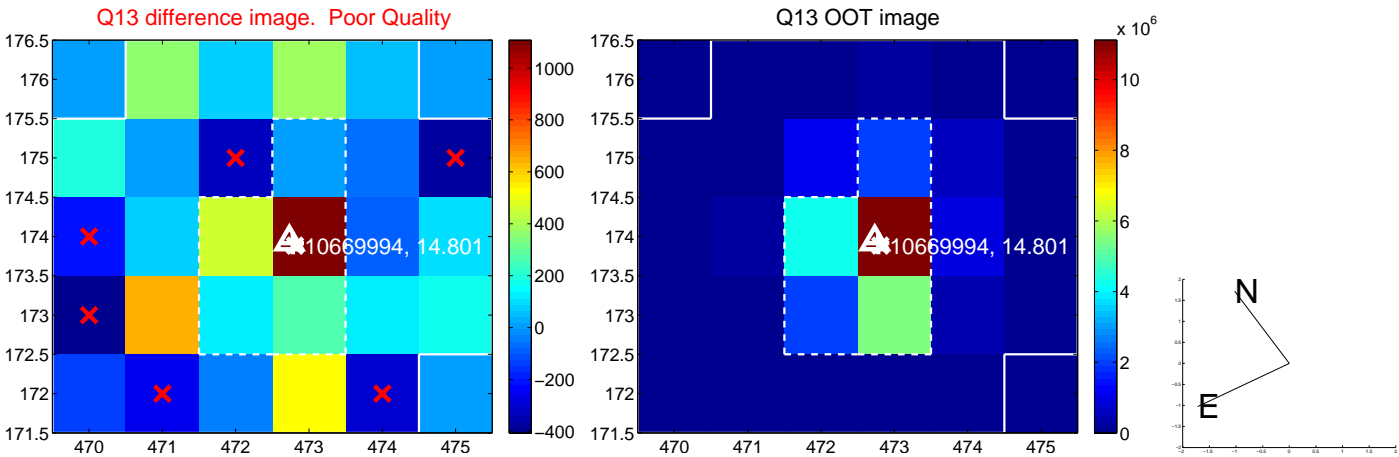
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



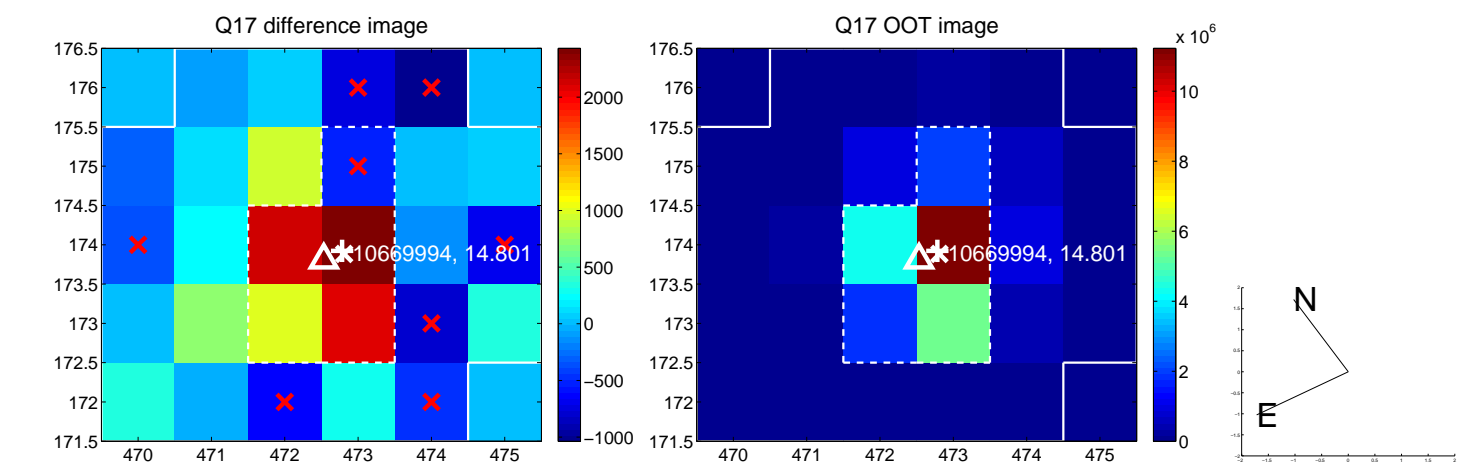
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



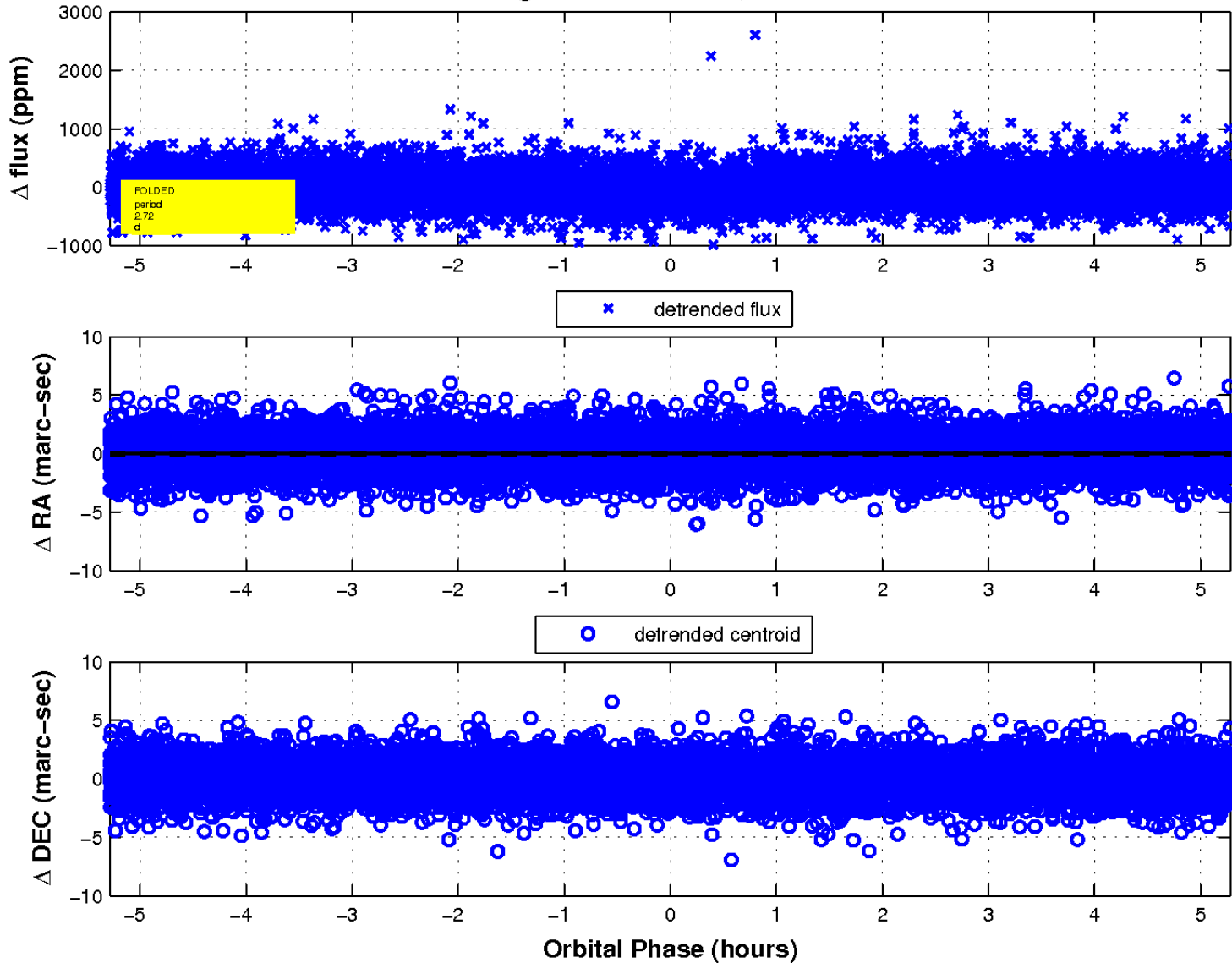
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

