

KIC 011465651

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})
011465651-01	OBS	4150.01	31.335134	136.973977	272.6	6.388	14.9	14.6	1.14	6404	2.21	46.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011465651-01	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.

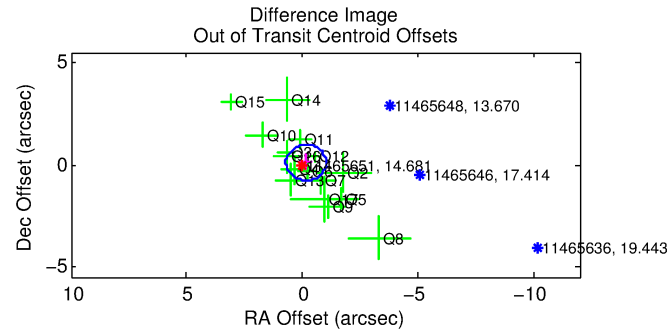
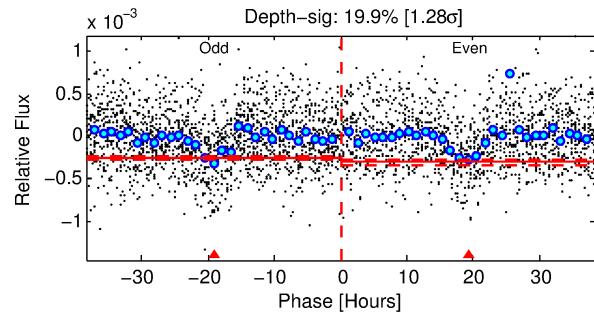
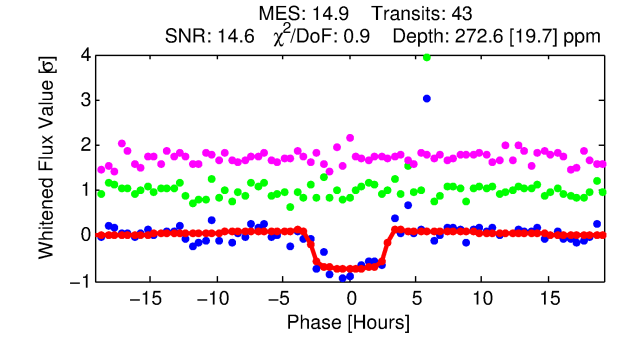
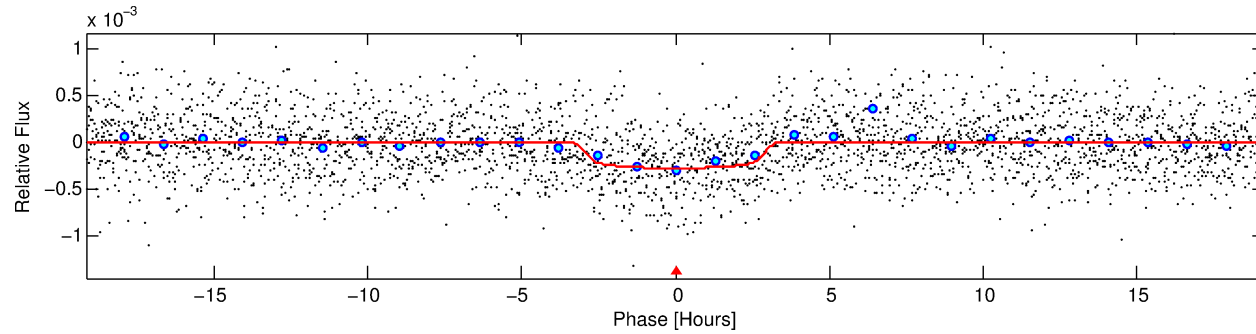
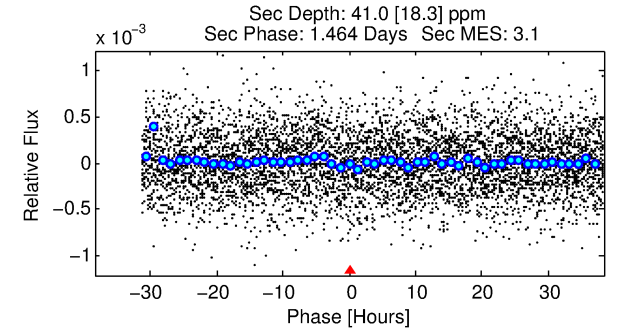
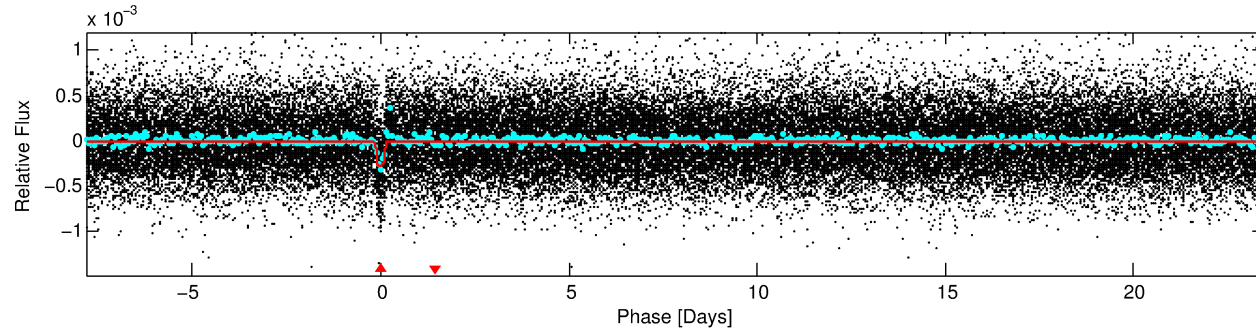
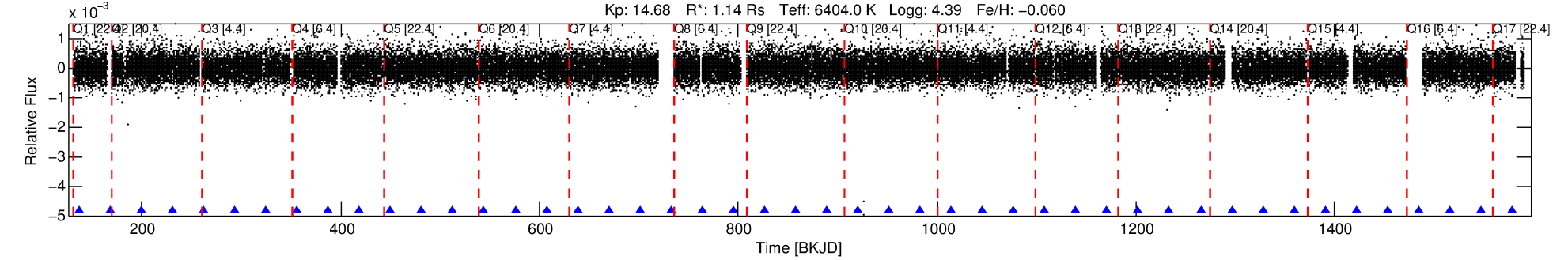
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011465651-01

No Significant Match Found

DV One-Page Summary

KIC: 11465651 Candidate: 1 of 1 Period: 31.335 d
KOI: K04150.01 Corr: 0.976



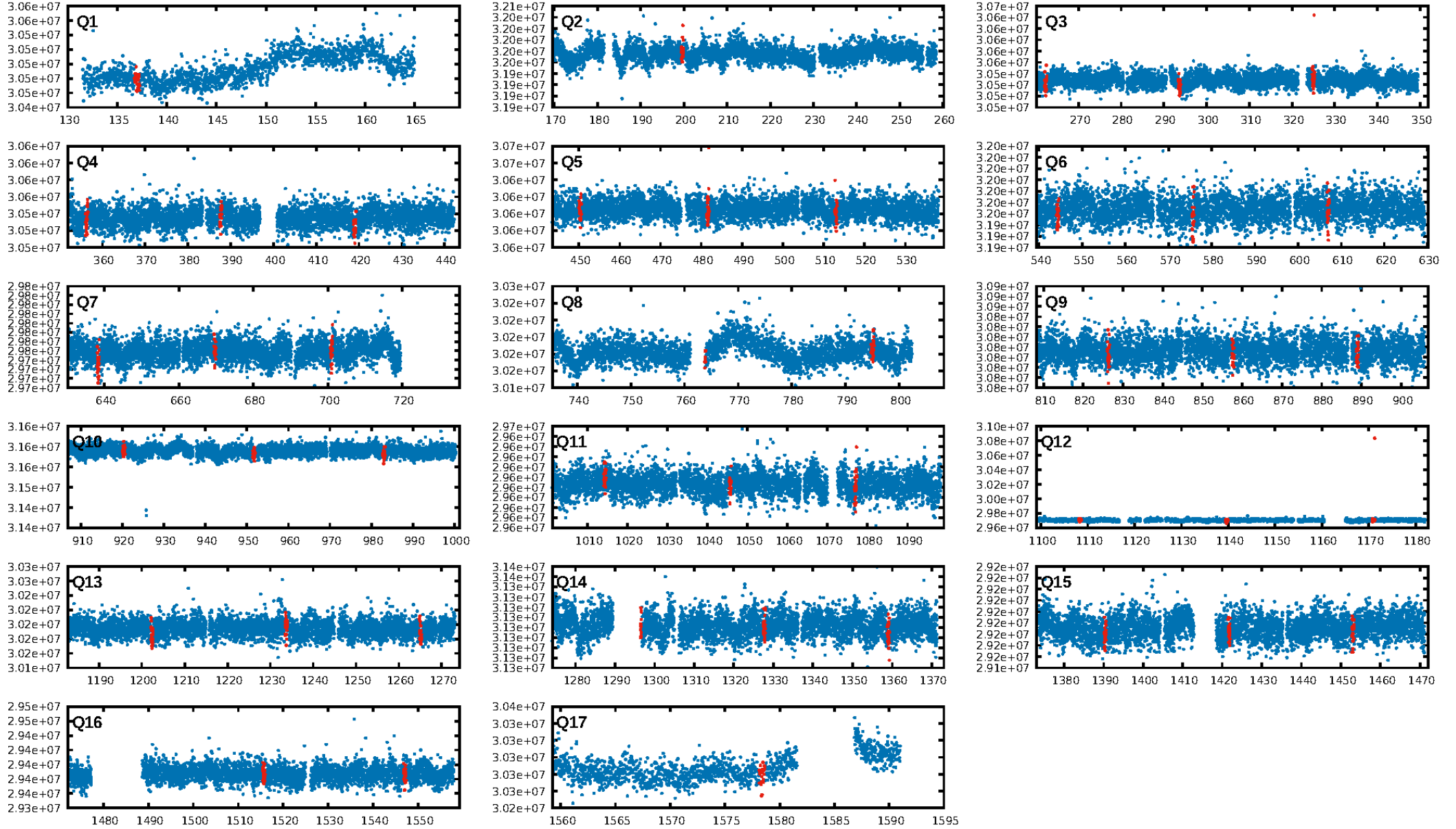
DV Fit Results:

Period = 31.33513 [0.00030] d
Epoch = 136.9740 [0.0084] BKJD
Rp/R* = 0.0177 [0.0023]
a/R* = 17.88 [12.18]
b = 0.90 [0.15]
Seff = 46.61 [16.62]
Teff = 666 [59] K
Rp = 2.21 [0.69] Re
a = 0.2054 [0.0484] AU
Ag = 195.35 [120.51] [1.61σ]
Teffp = 3851 [511] K [6.19σ]

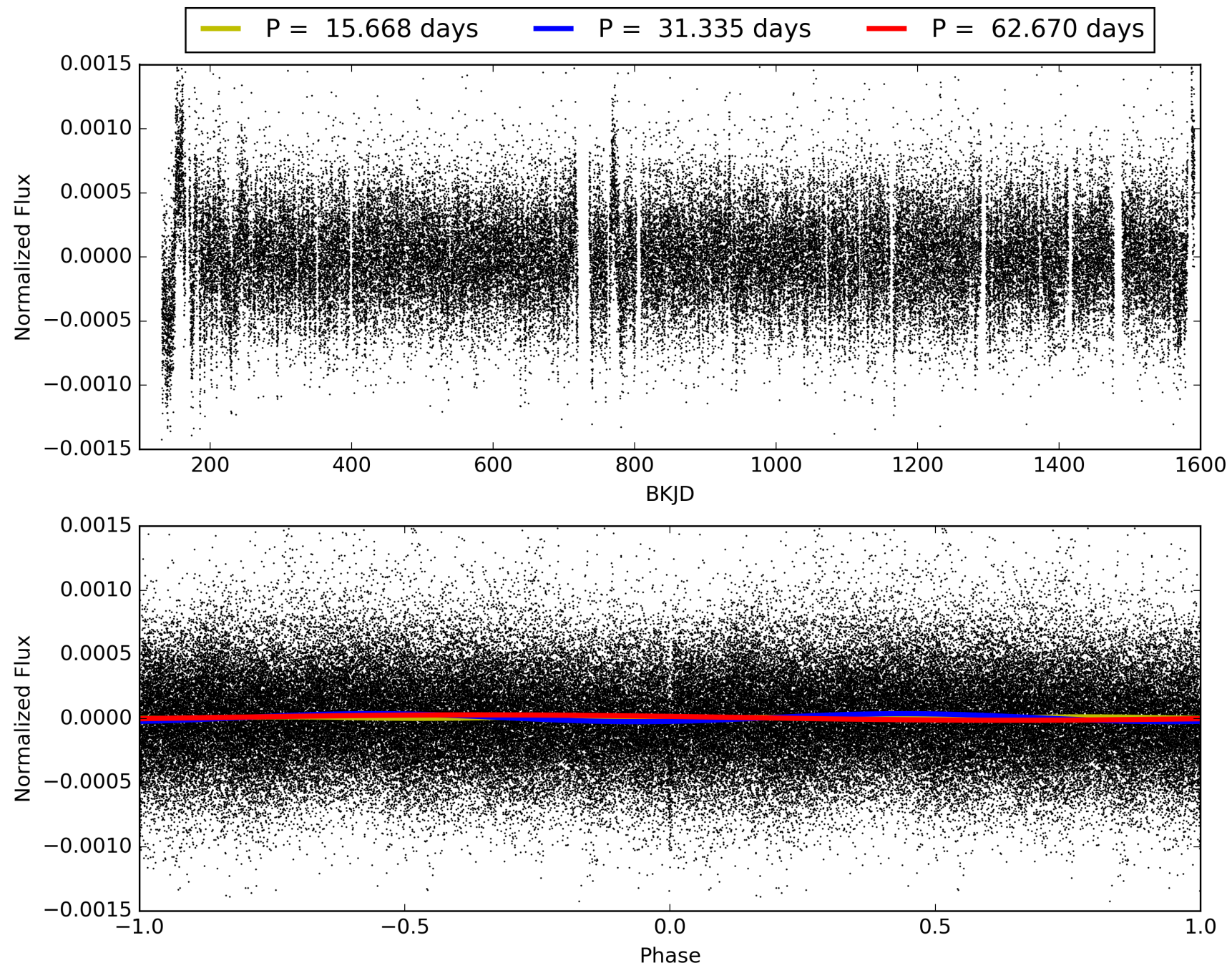
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 82.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.19e-49
RollingBand-fgt: 1.00 [41/41]
GhostDiagnostic-chr: 1.448
Centroid-sig: 9.9%
Centroid-so: 1.441 arcsec [2.09σ]
OotOffset-rm: 0.186 arcsec [0.64σ]
KicOffset-rm: 0.449 arcsec [1.50σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.75 [12/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011465651-01, PDC Light Curves

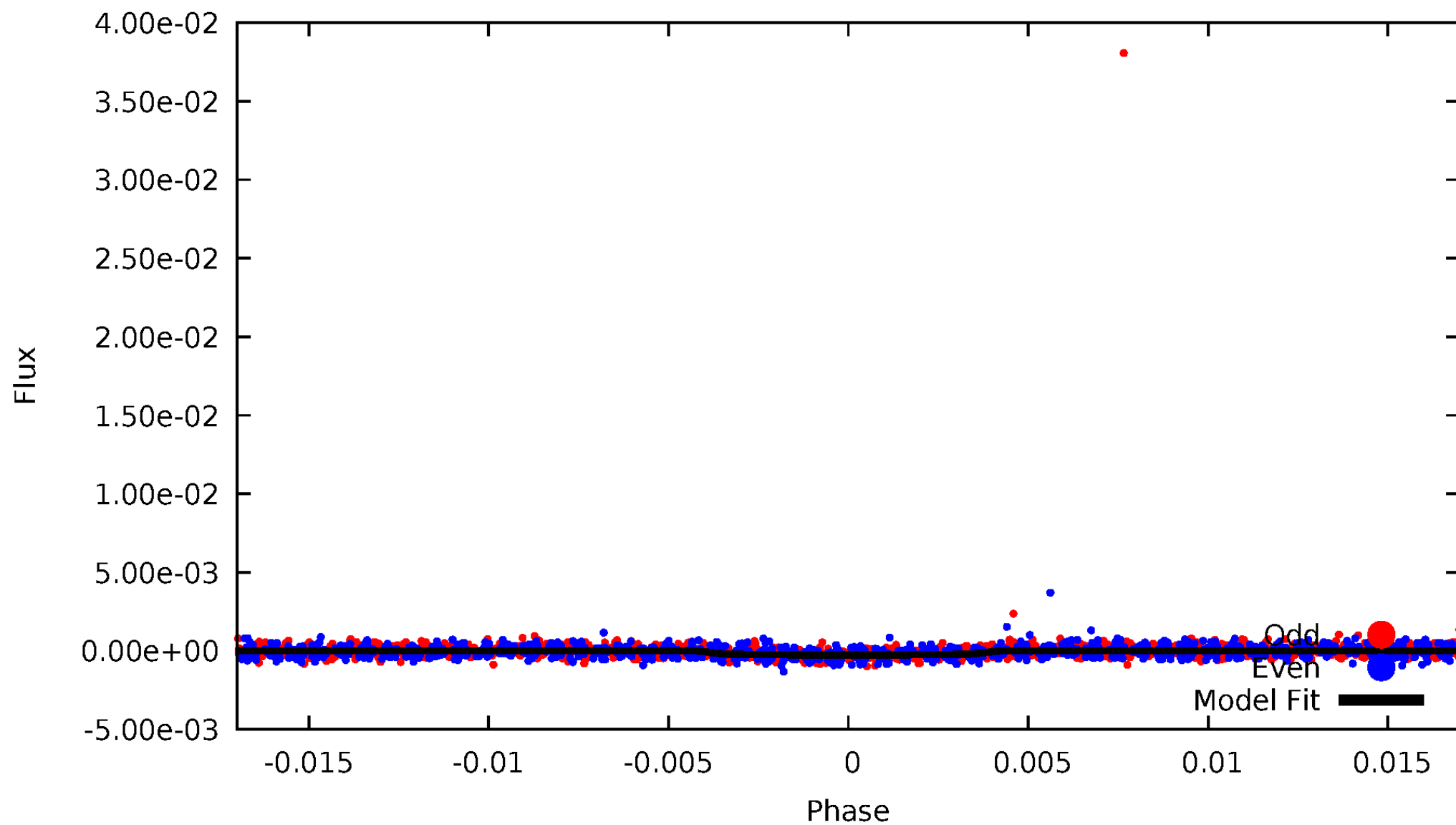


TCE 011465651-01



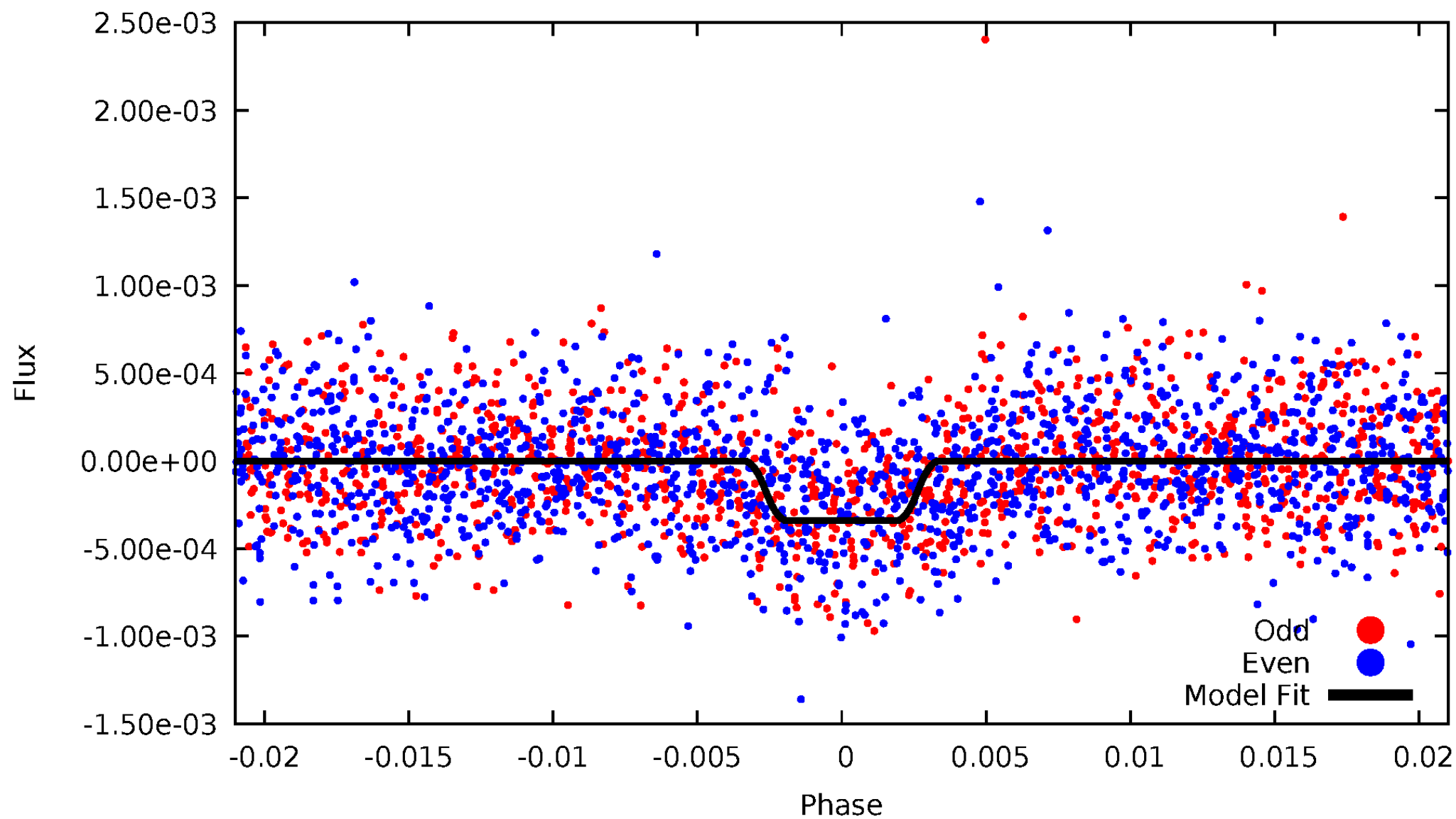
DV Odd/Even

TCE 011465651-01

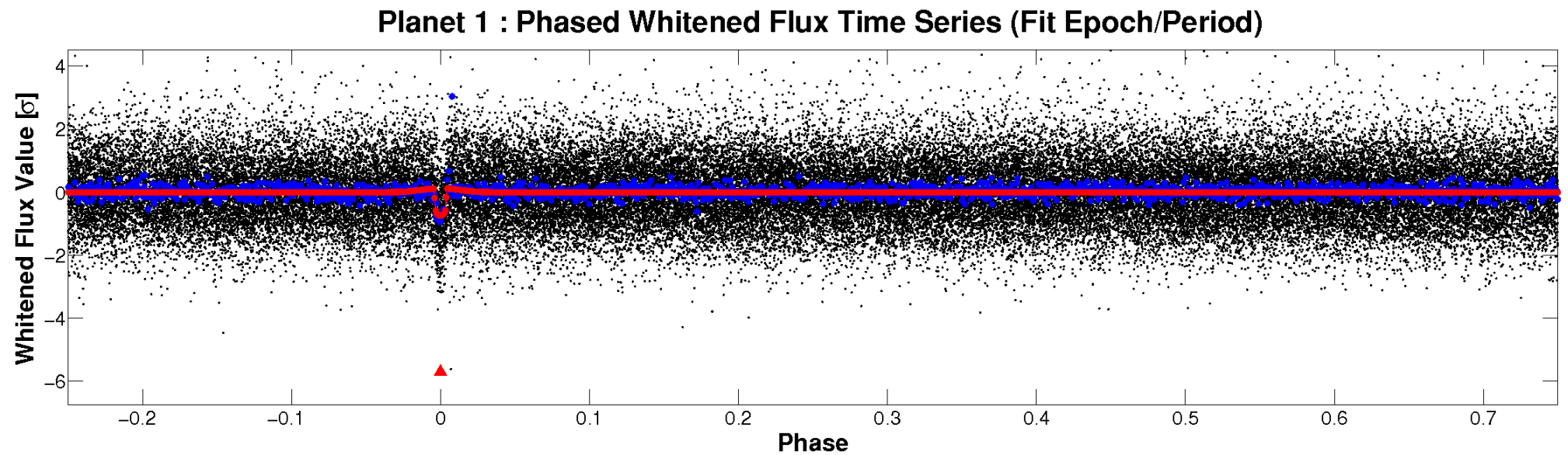
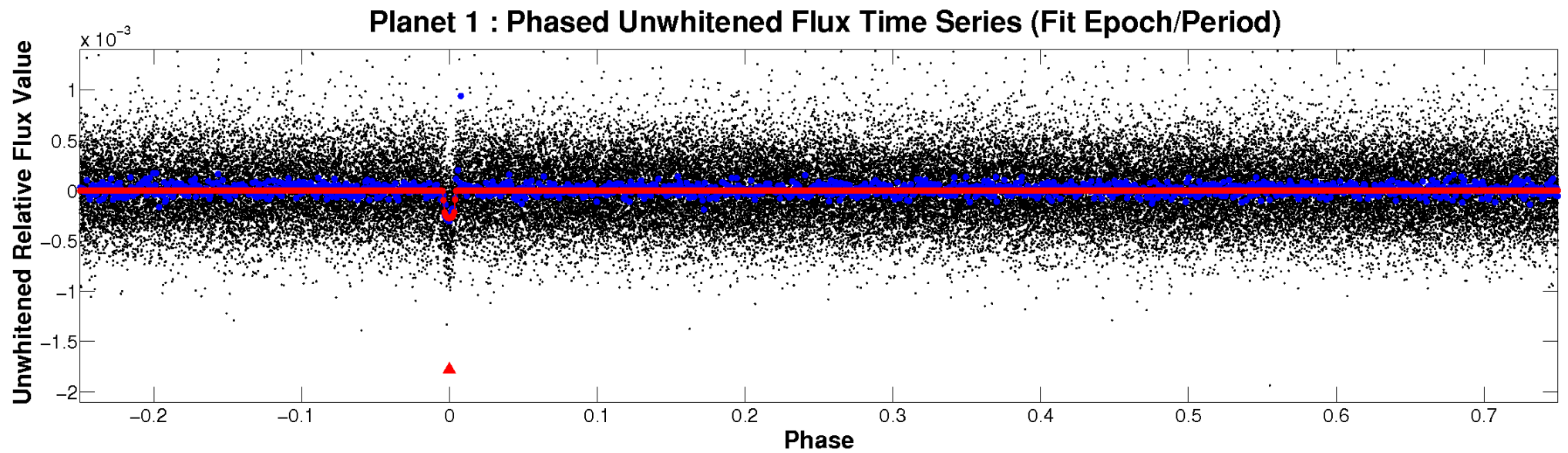


ALT Odd/Even

TCE 011465651-01

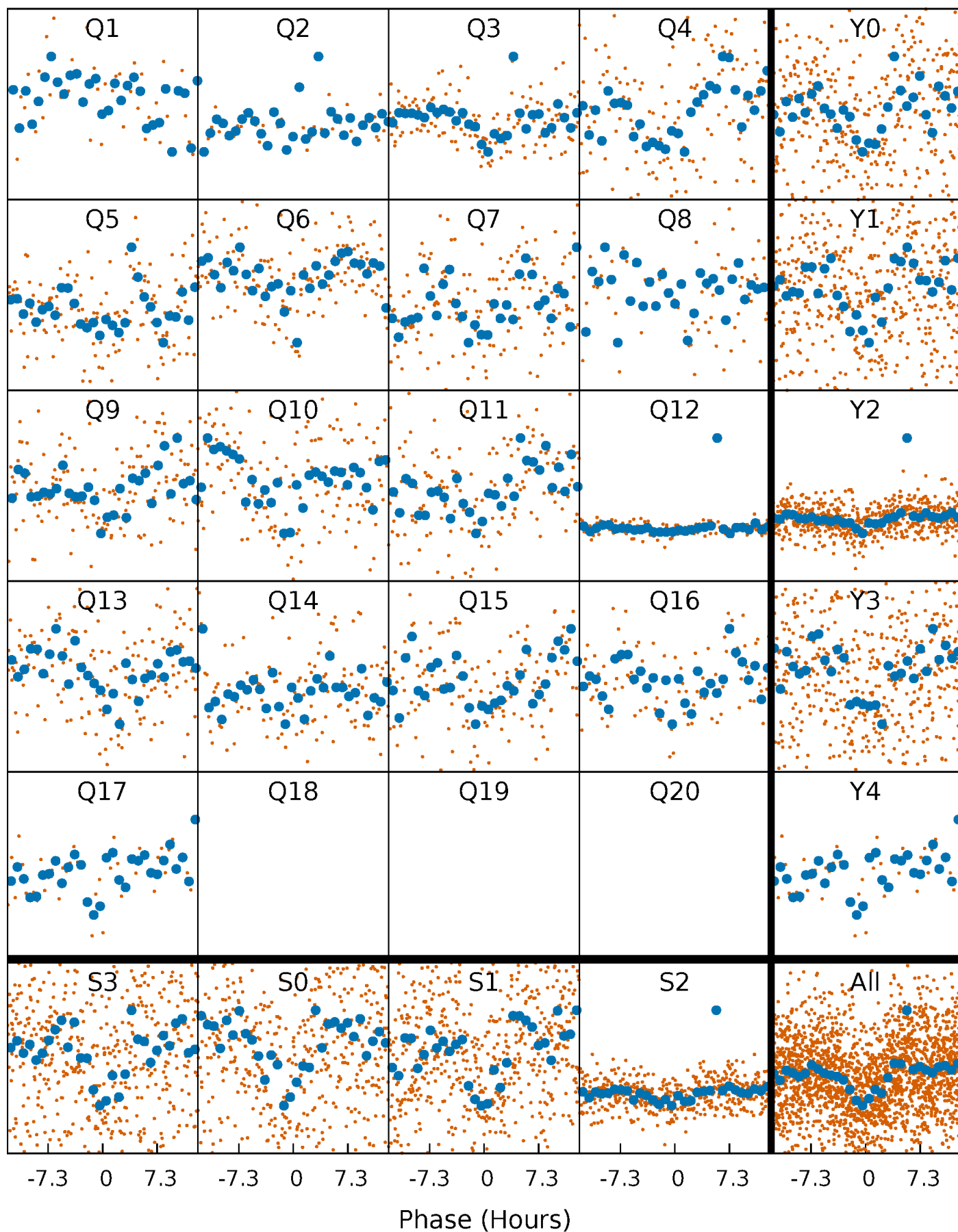


Non-Whitened Vs. Whitened Light Curve



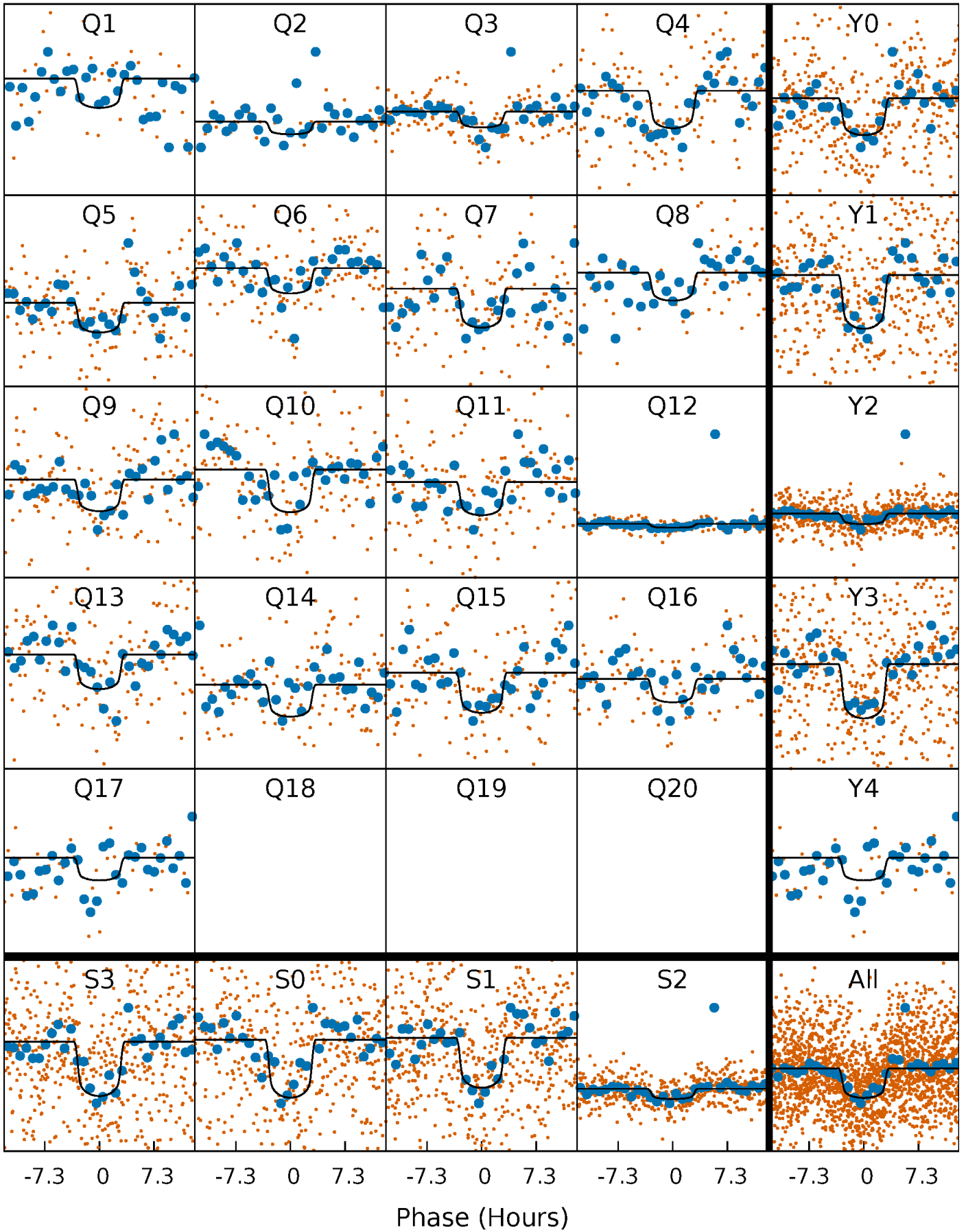
PDC Quarter-Phased Transit Curves

TCE 011465651-01 P= 31.335134 Days $T_0=136.973976$ (BKJD)



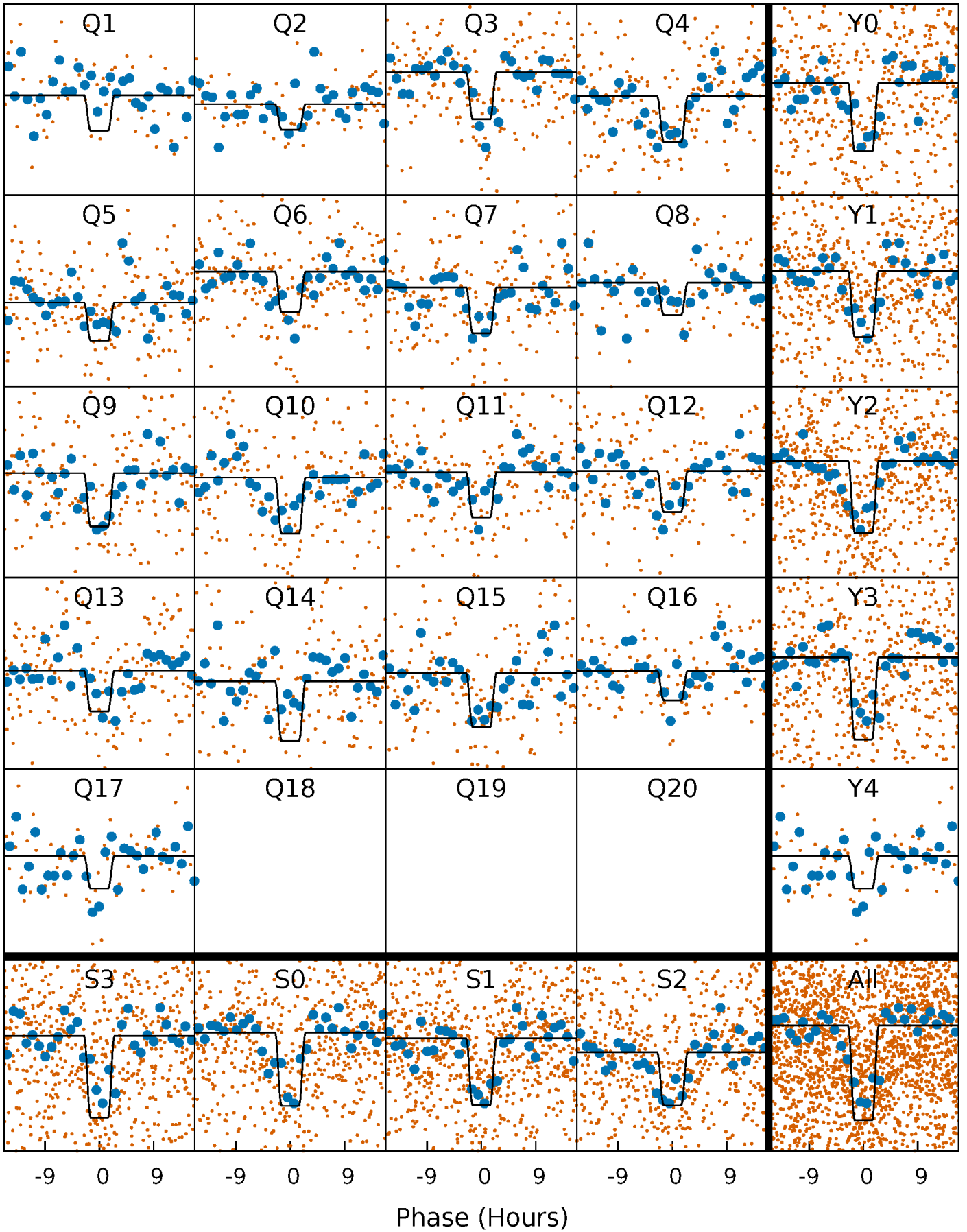
DV Quarter-Phased Transit Curves

TCE 011465651-01 P= 31.335134 Days $T_0=136.973976$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

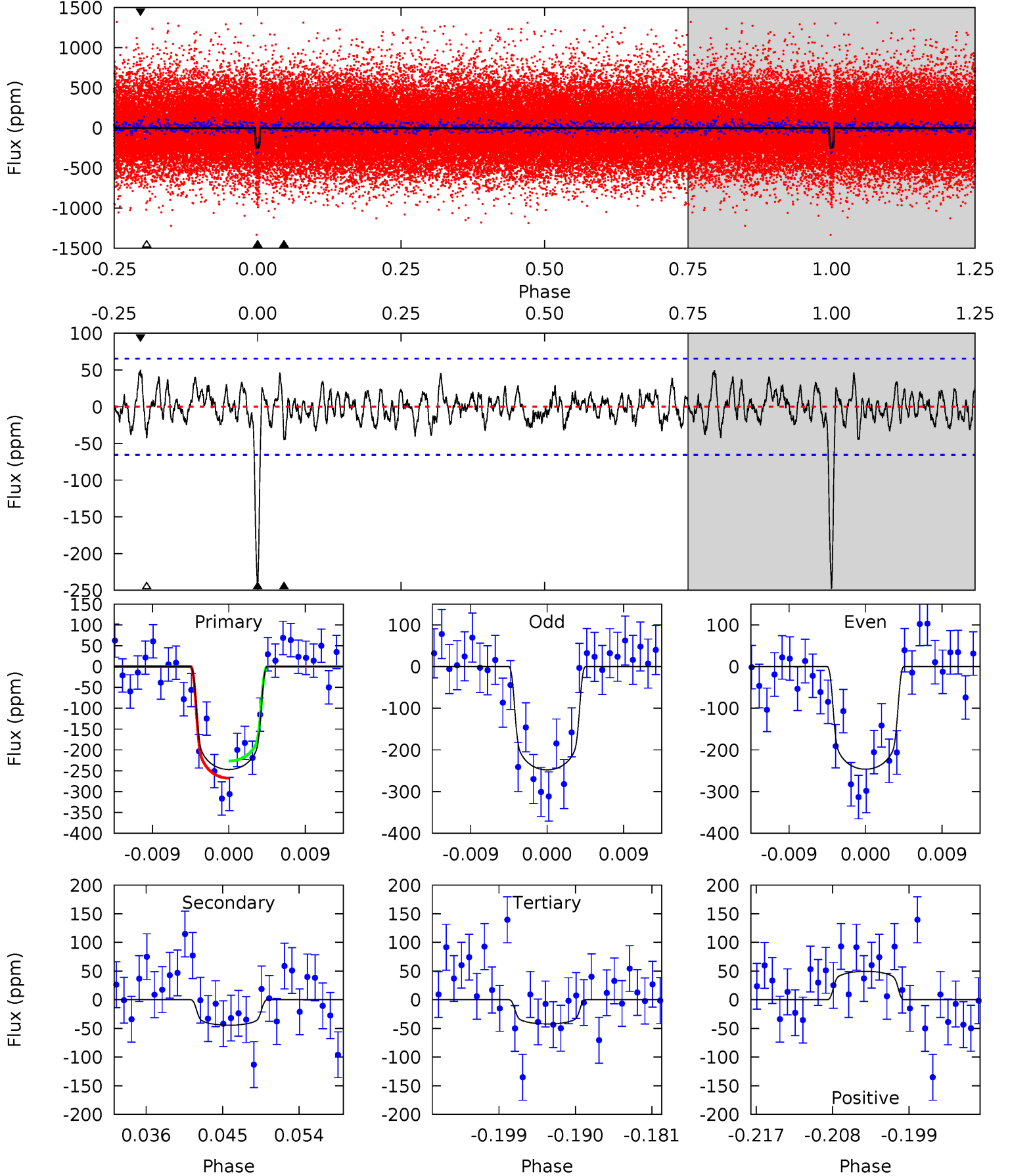
TCE 011465651-01 P= 31.335134 Days $T_0=136.961962$ (BKJD)



DV Model-Shift Uniqueness Test

011465651-01, $P = 31.335134$ Days, $E = 105.638842$ Days

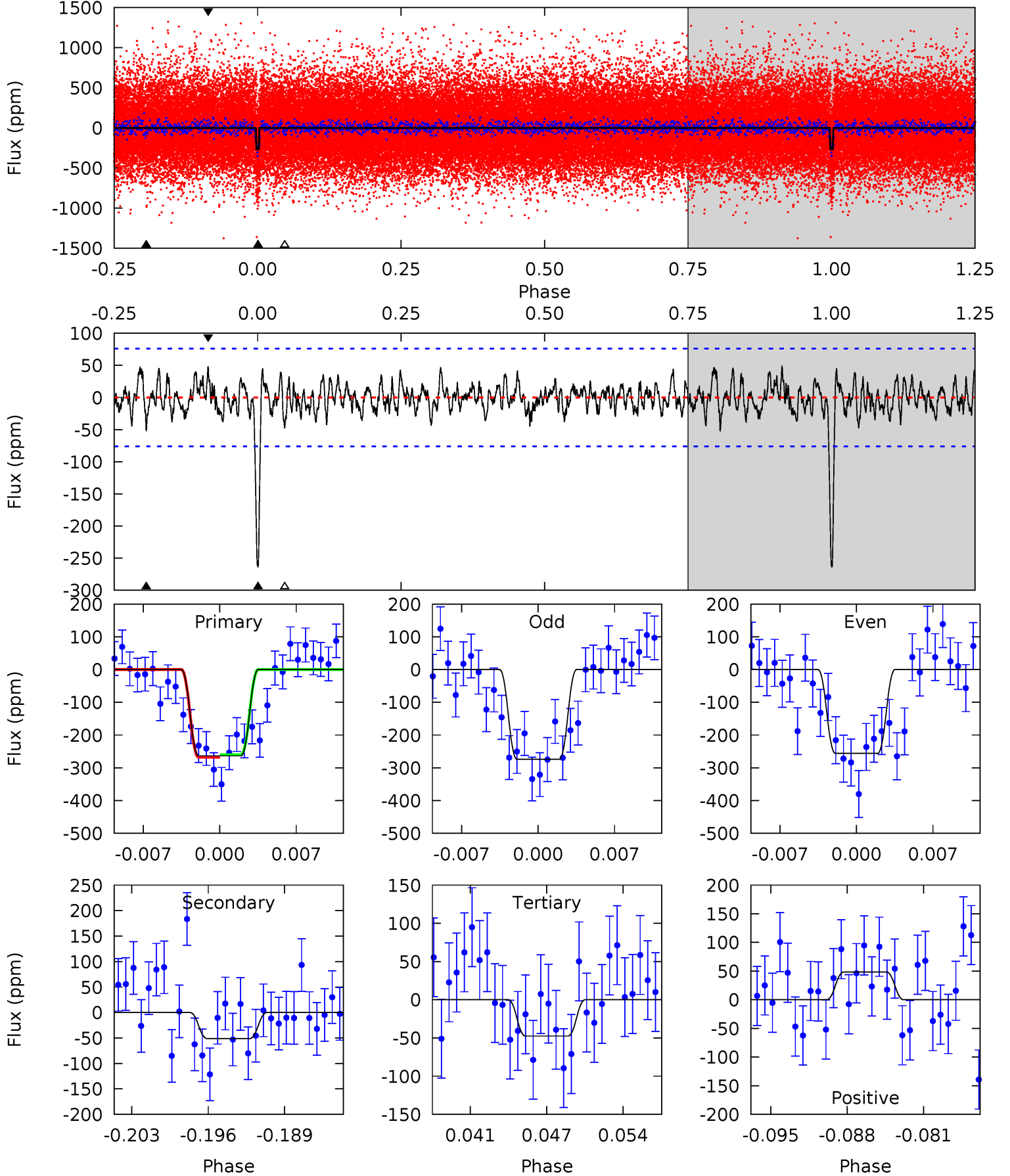
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	3.43	3.26	3.82	5.05	2.61	1.19	15.8	15.2	0.17	-0.39	0.06	1.04	0.17	1.59



Alt Model-Shift Uniqueness Test

011465651-01, $P = 31.335134$ Days, $E = 105.626828$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	3.43	3.18	3.25	5.10	2.71	1.14	14.5	14.4	0.24	0.18	0.60	1.01	0.16	0.27



Stellar Parameters For KIC 011465651

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6404^{+173}_{-192}	$4.393^{+0.060}_{-0.180}$	$-0.060^{+0.250}_{-0.300}$	$1.142^{+0.327}_{-0.140}$	$1.175^{+0.157}_{-0.157}$	$1.113^{+0.358}_{-0.535}$
	+3%/-3%	+1%/-4%	+417%/-500%	+29%/-12%	+13%/-13%	+32%/-48%
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 011465651-01 / KOI 4150.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-44 ± 13	$2.28^{+0.44}_{-0.34}$	945^{+63}_{-44}	4172^{+339}_{-286}	190^{+107}_{-66}
Alt.	-51 ± 15	$2.38^{+0.42}_{-0.36}$	948^{+61}_{-43}	4242^{+312}_{-313}	203^{+105}_{-70}

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 $A_{obs} \gg 1.0$

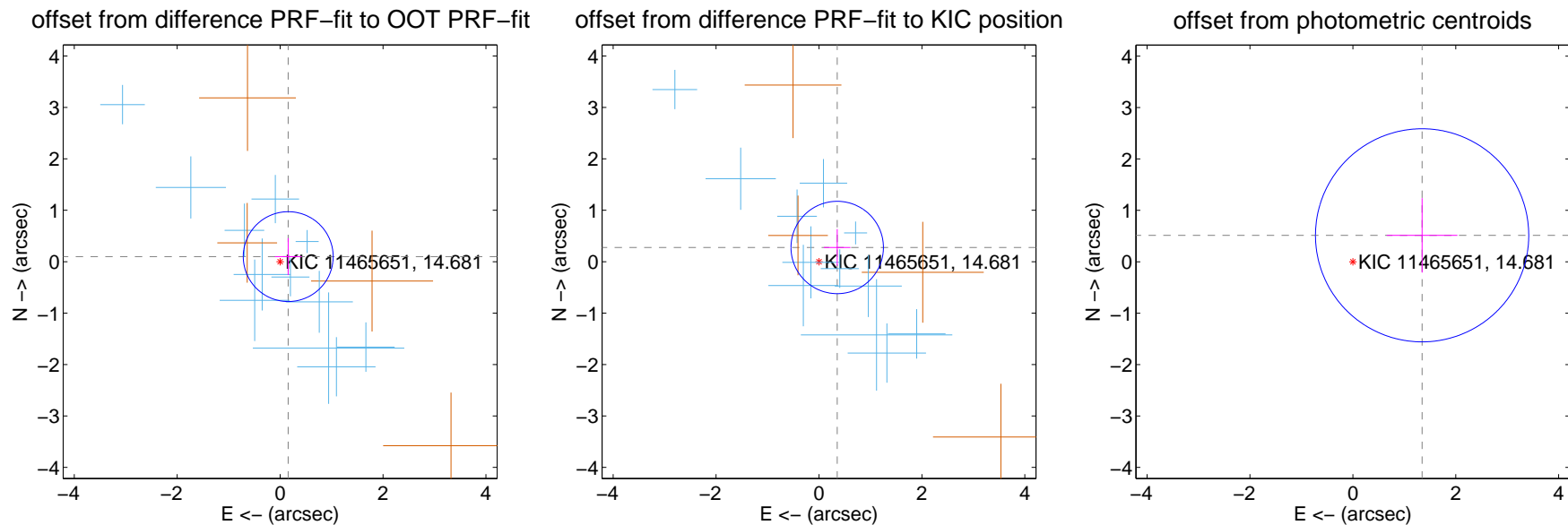
DV Centroid Data

Supplemental centroid analysis for 011465651-01. Kepler magnitude: 14.68. Transit SNR 14.65

There are 12 quarters with good PRF difference image offsets

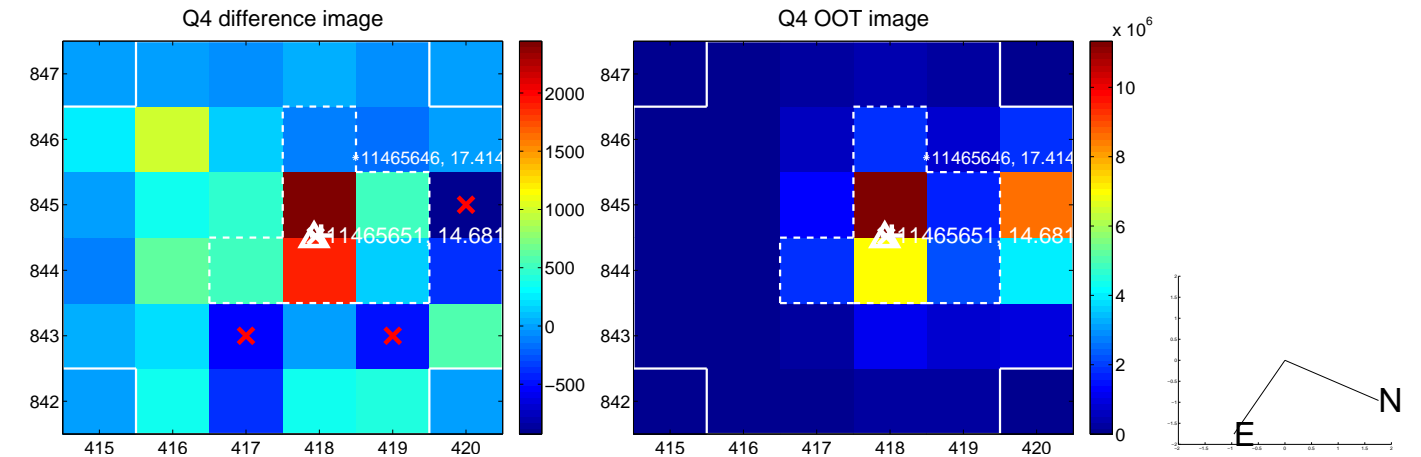
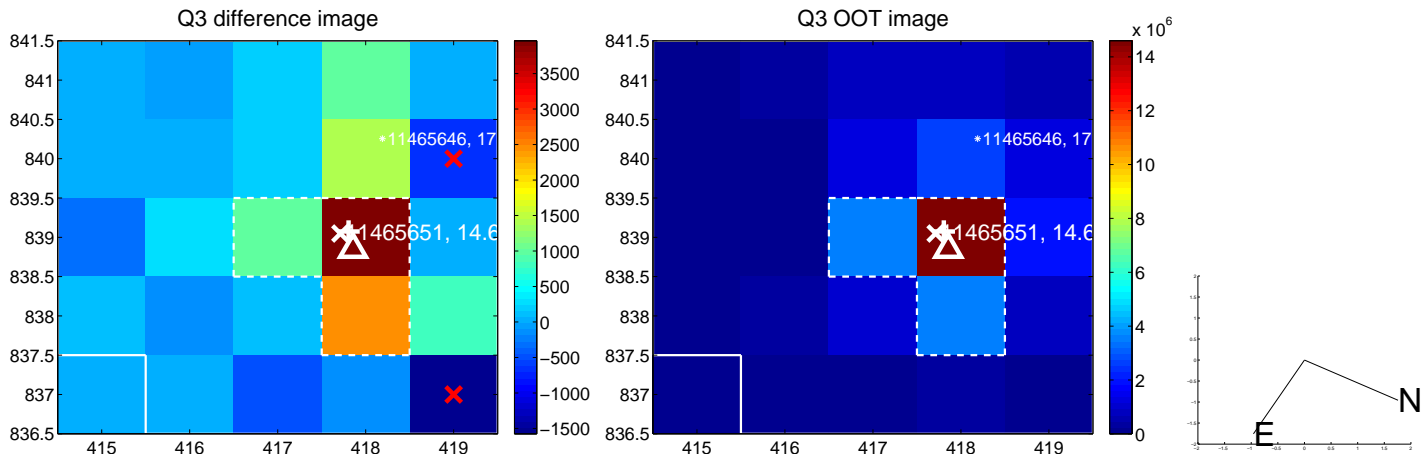
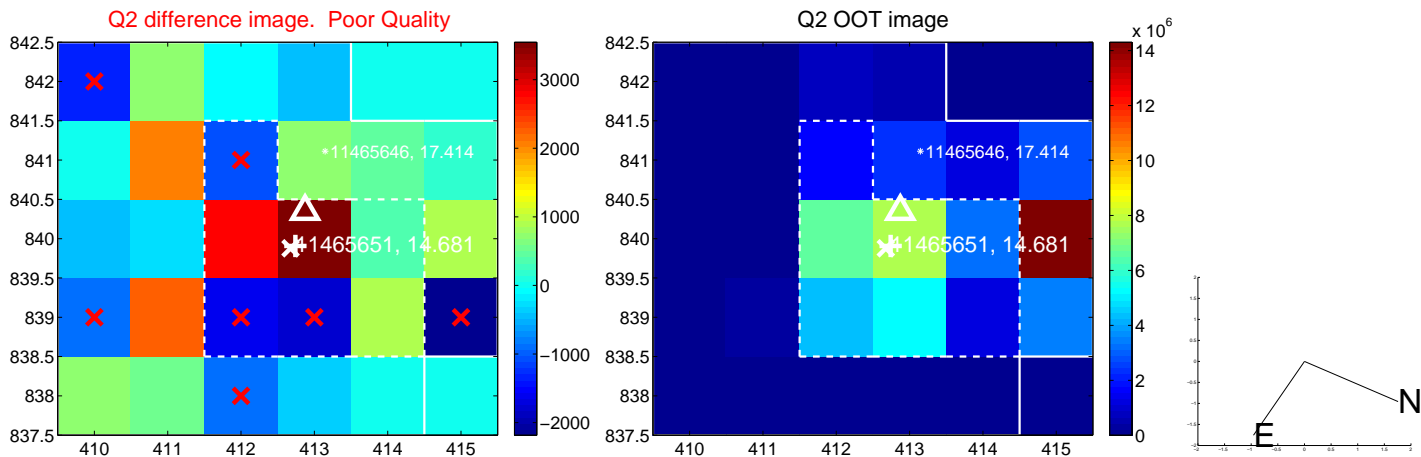
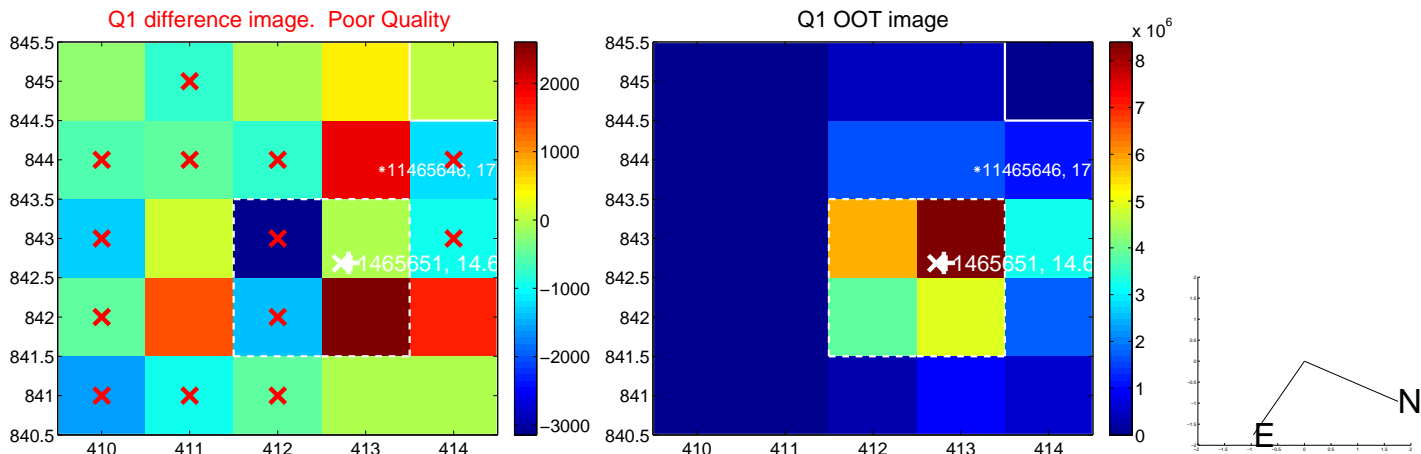
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.186 ± 0.291	0.64	-0.158 ± 0.259	0.099 ± 0.360
PRF-fit source offset from KIC position	0.449 ± 0.299	1.50	-0.354 ± 0.258	0.276 ± 0.357
photometric centroid source offset	1.44 ± 0.69	2.09	-1.35 ± 0.69	0.51 ± 0.72

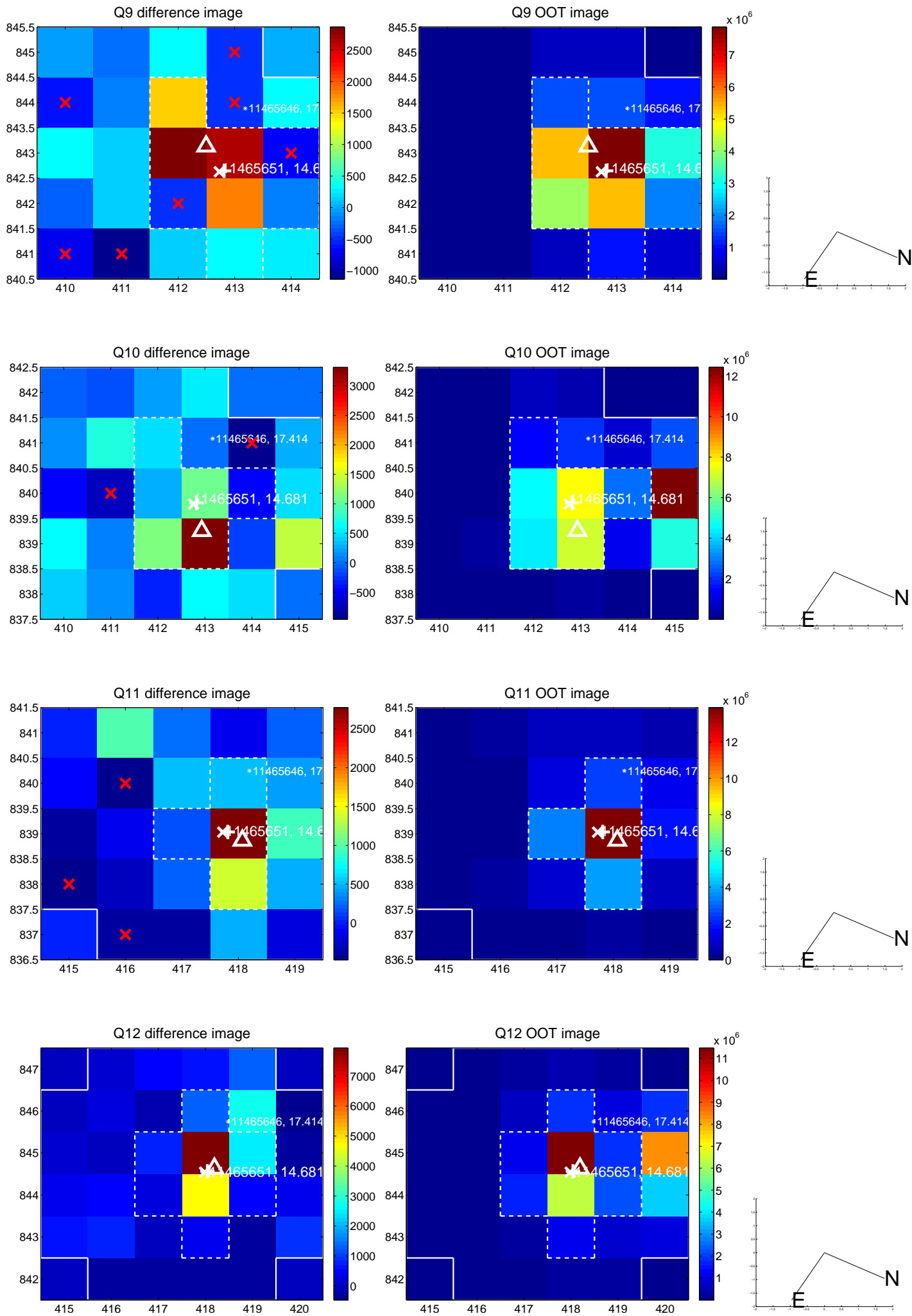


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

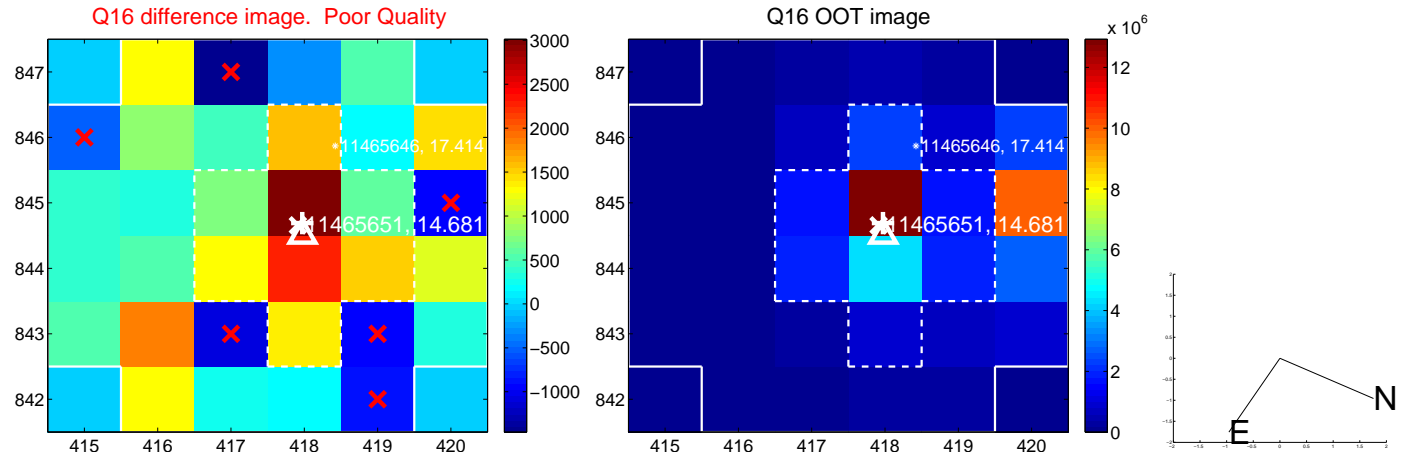
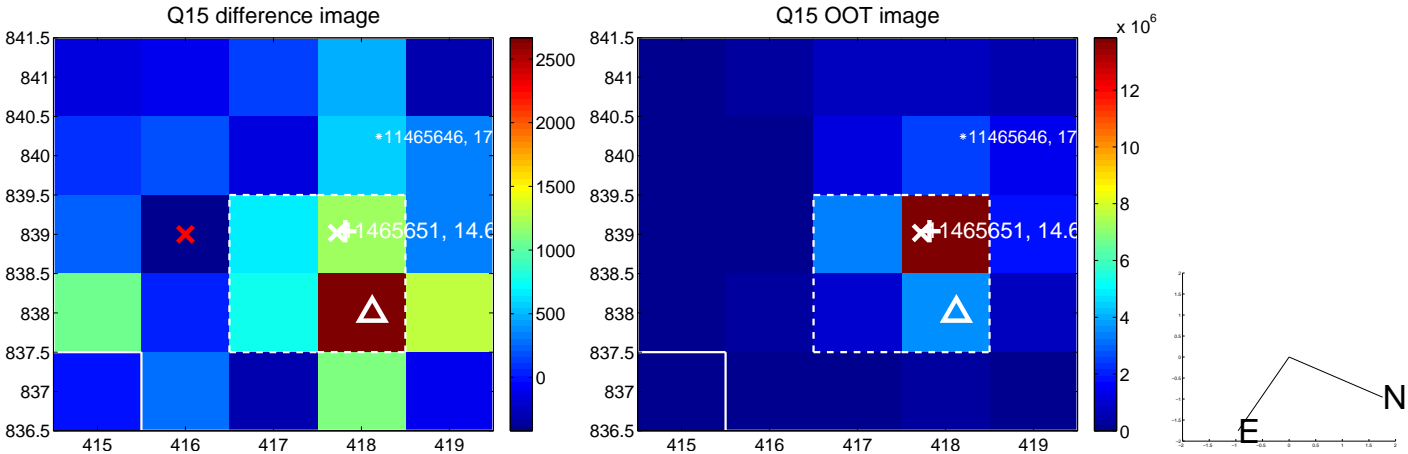
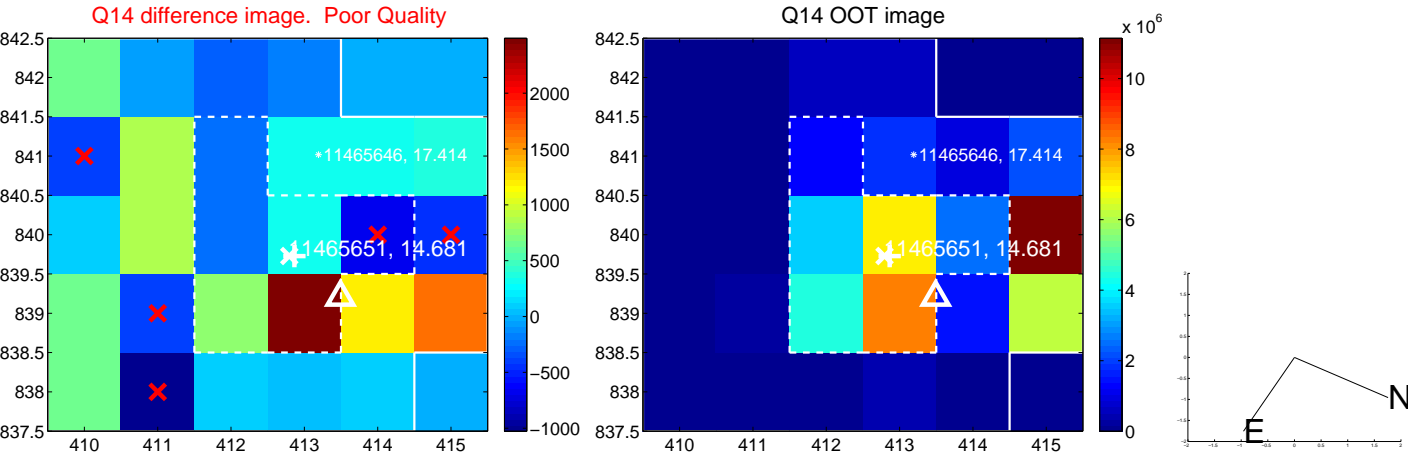
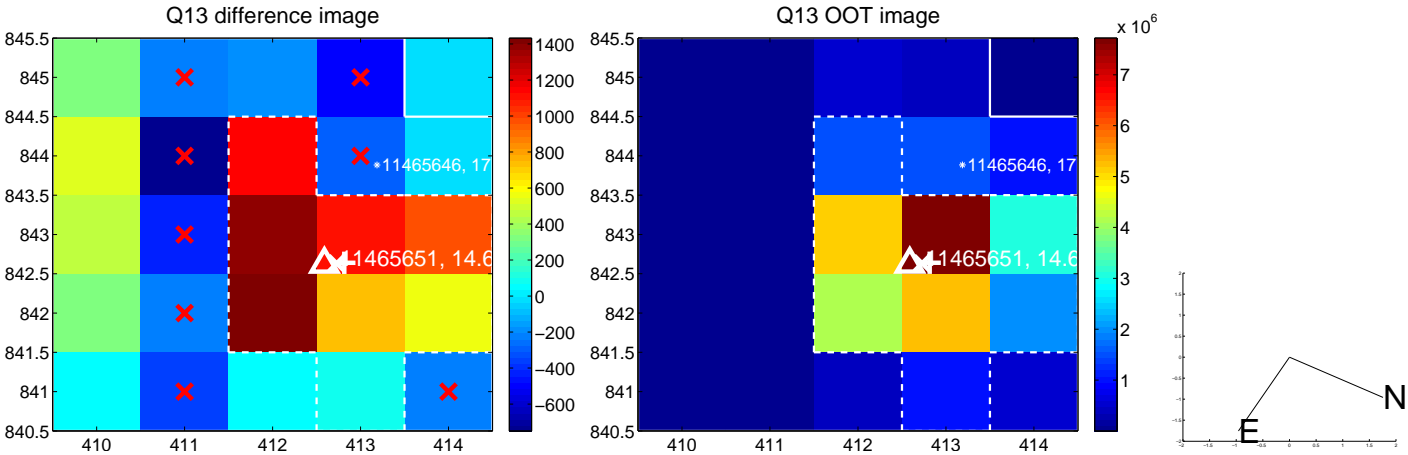
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



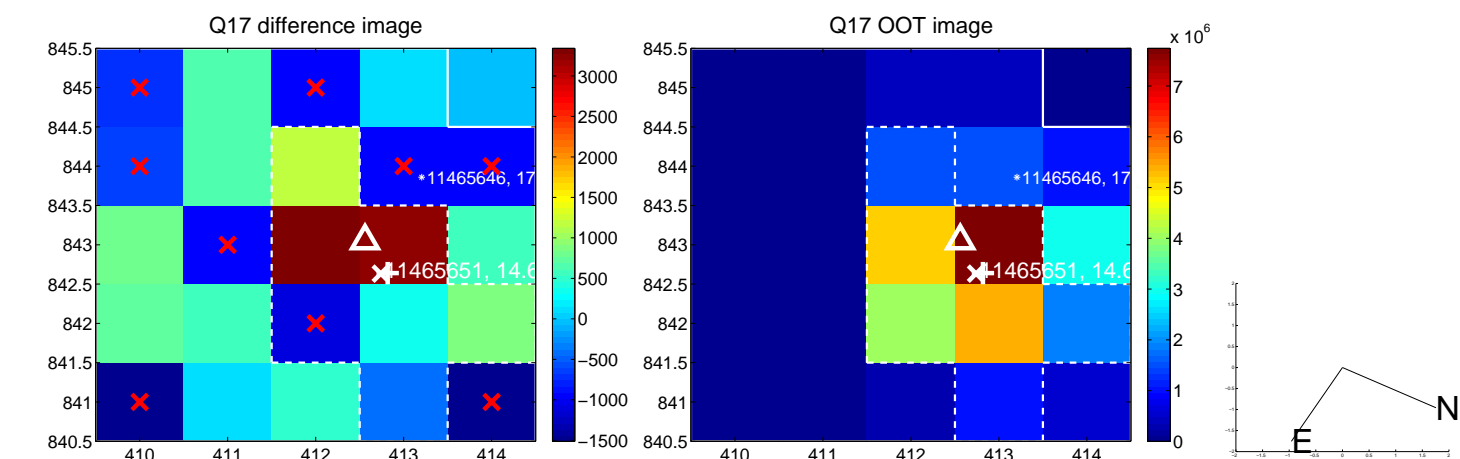
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



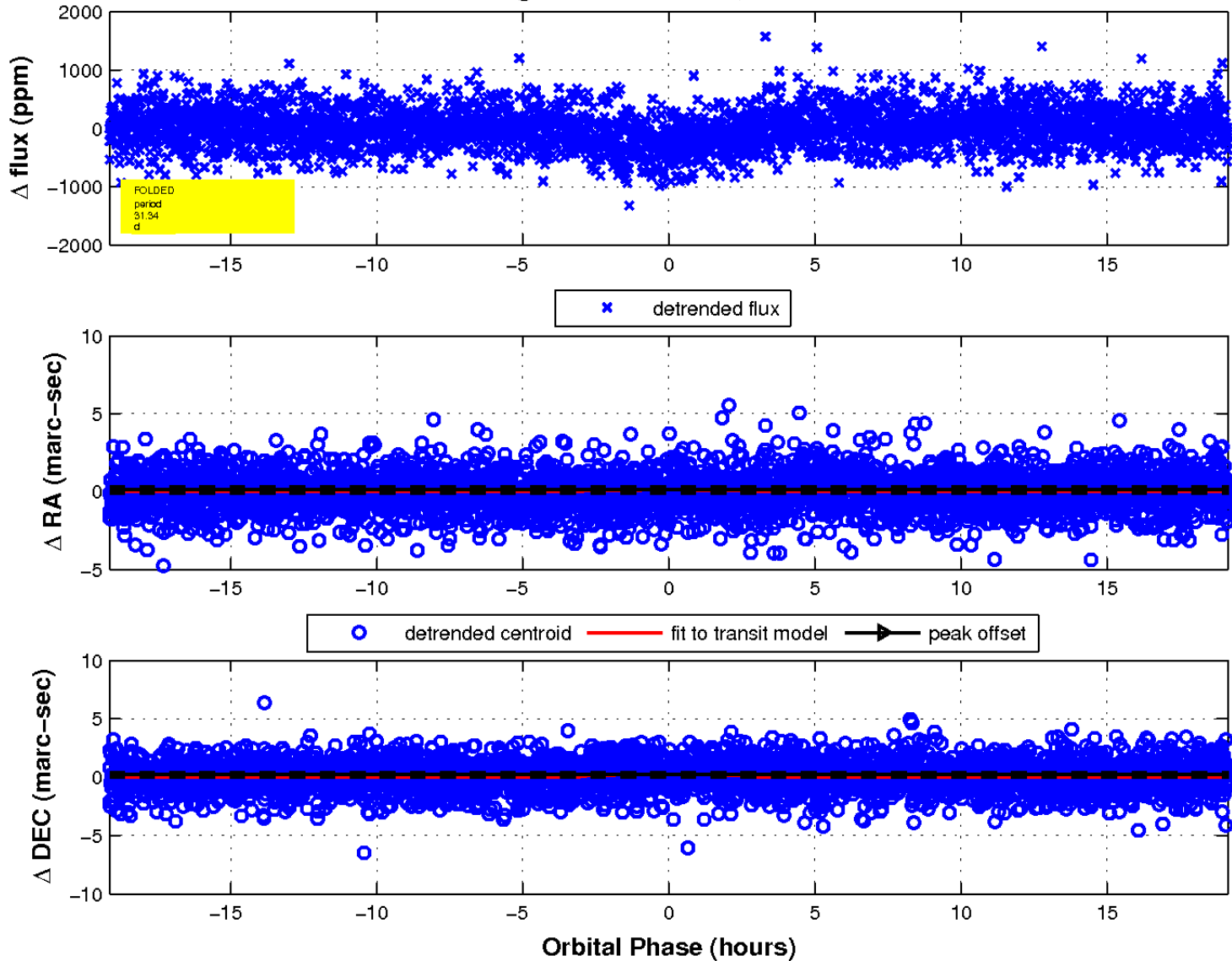
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

