

KIC 011714231

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})
011714231-01	OBS	3115.01	5.866059	136.349520	177.4	3.969	13.4	14.2	1.04	6020	1.64	303.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011714231-01	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.

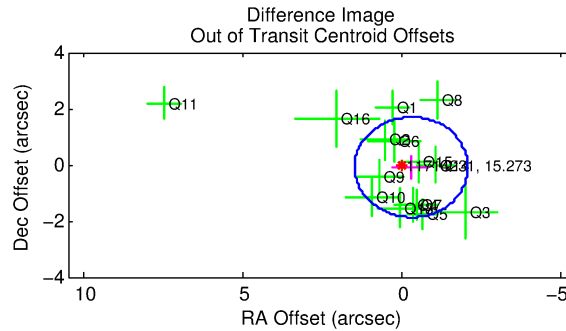
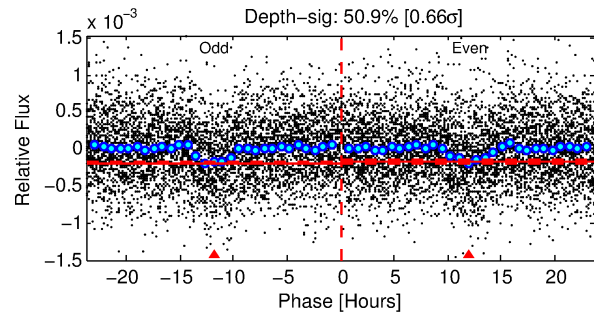
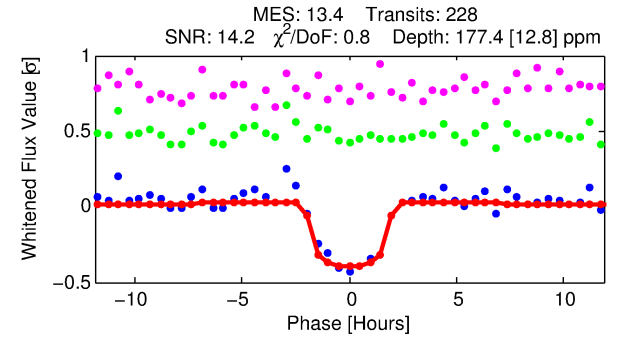
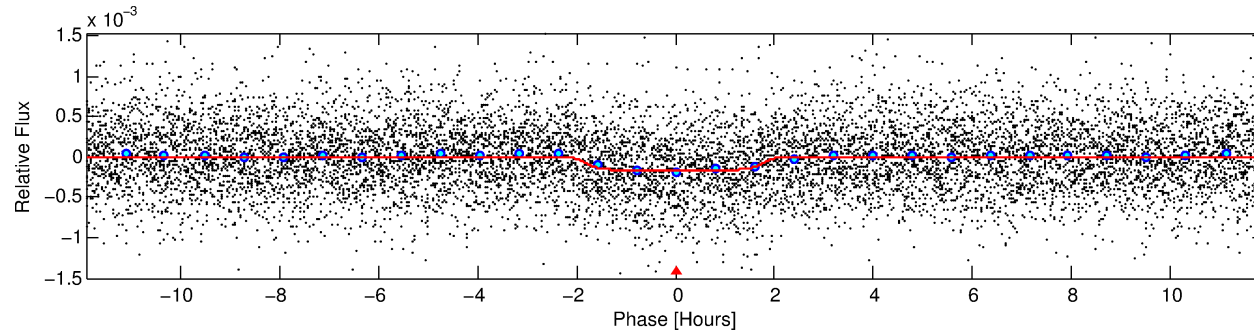
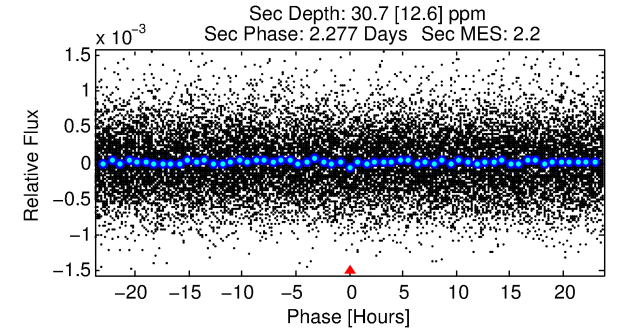
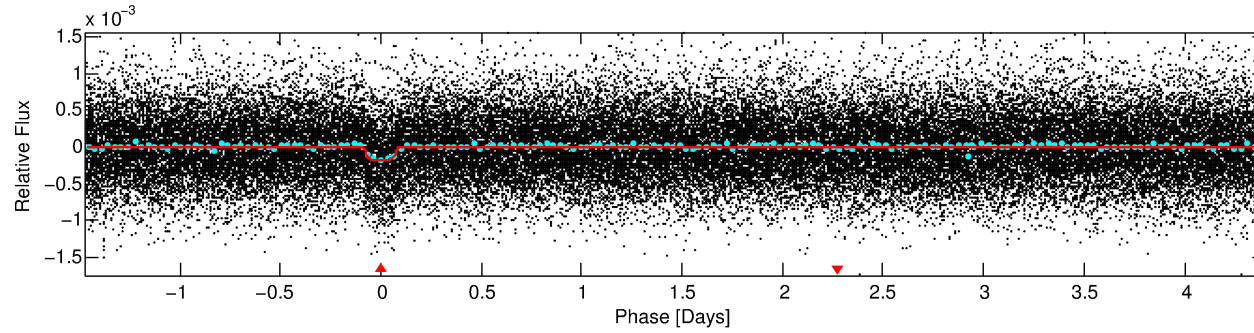
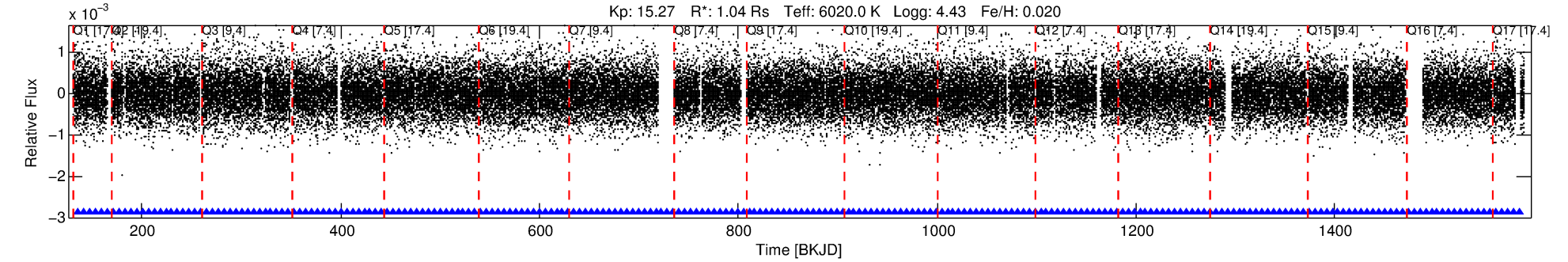
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011714231-01

No Significant Match Found

DV One-Page Summary

KIC: 11714231 Candidate: 1 of 1 Period: 5.866 d
KOI: K03115.01 Corr: 0.983



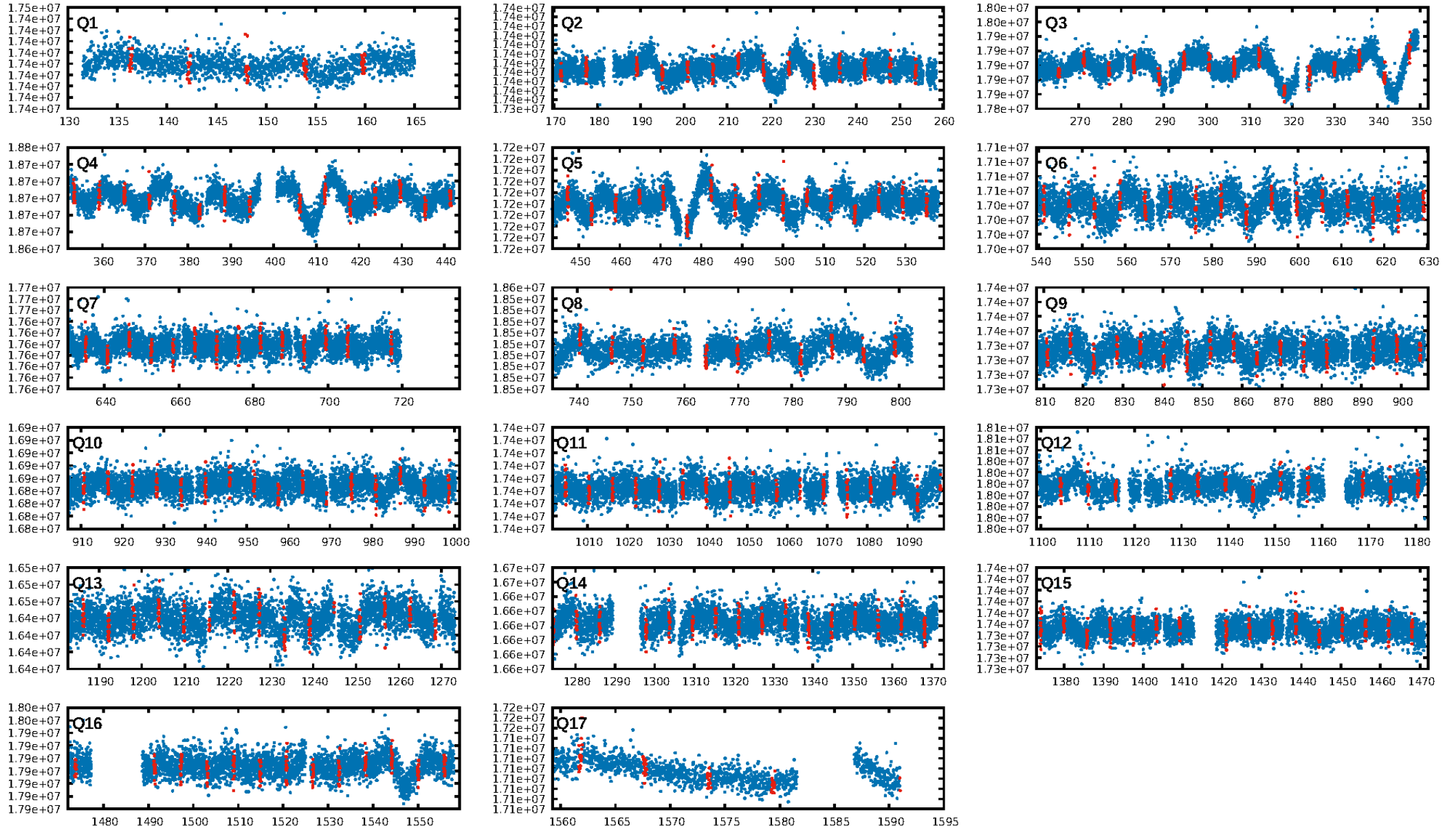
DV Fit Results:

Period = 5.86606 [0.00004] d
Epoch = 136.3495 [0.0047] BKJD
Rp/R* = 0.0144 [0.0041]
a/R* = 5.34 [7.48]
b = 0.90 [0.31]
Seff = 303.05 [125.44]
Teq = 1064 [110] K
Rp = 1.64 [0.70] Re
a = 0.0648 [0.0171] AU
Ag = 26.41 [21.23] [1.20σ]
Teffp = 3729 [674] K [3.90σ]

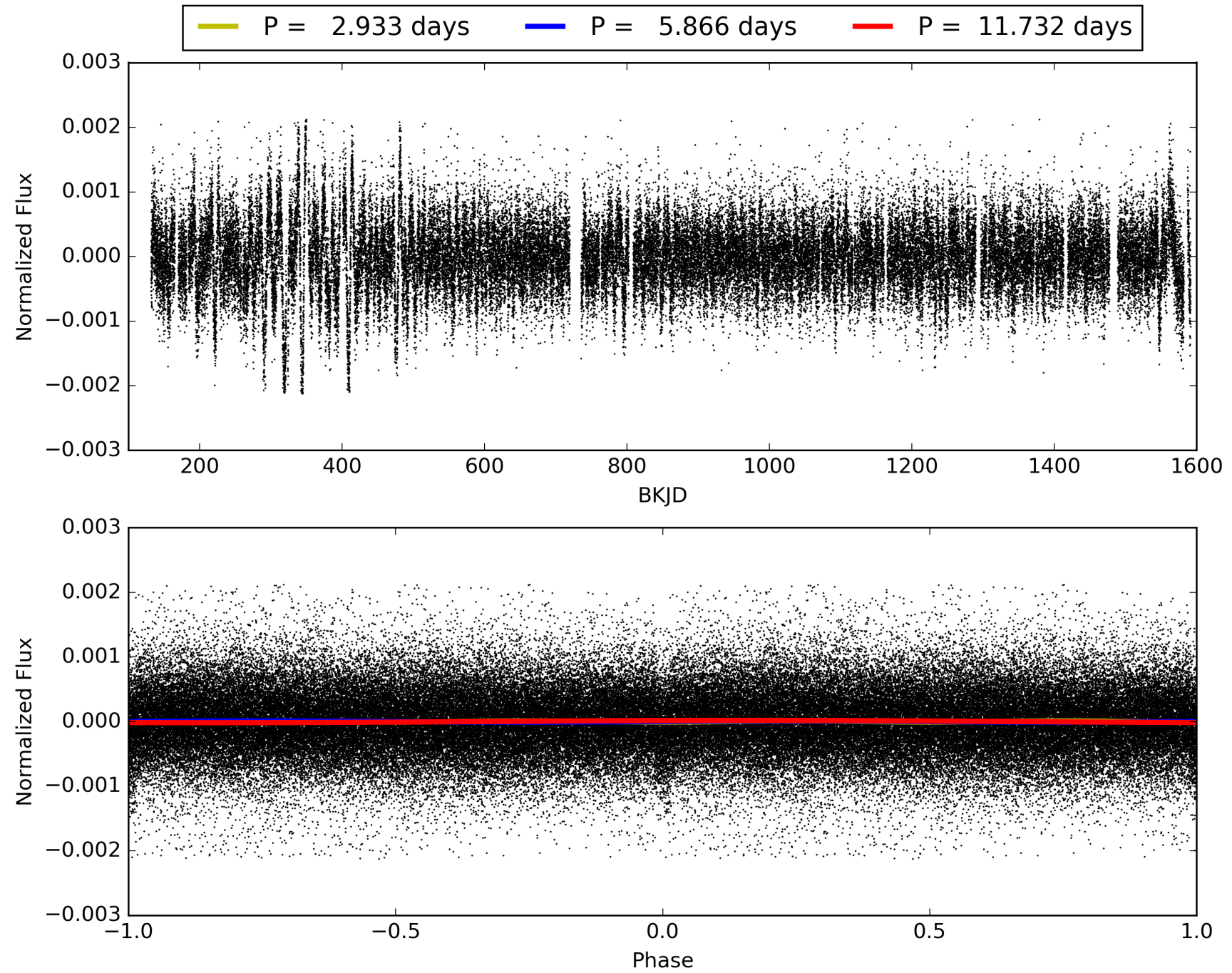
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.47e-40
RollingBand-fgt: 1.00 [219/219]
GhostDiagnostic-chr: 6.93
Centroid-sig: 47.1%
Centroid-so: 0.549 arcsec [0.60σ]
OotOffset-rm: 0.303 arcsec [0.51σ]
KicOffset-rm: 0.274 arcsec [0.48σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.87 [13/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011714231-01, PDC Light Curves

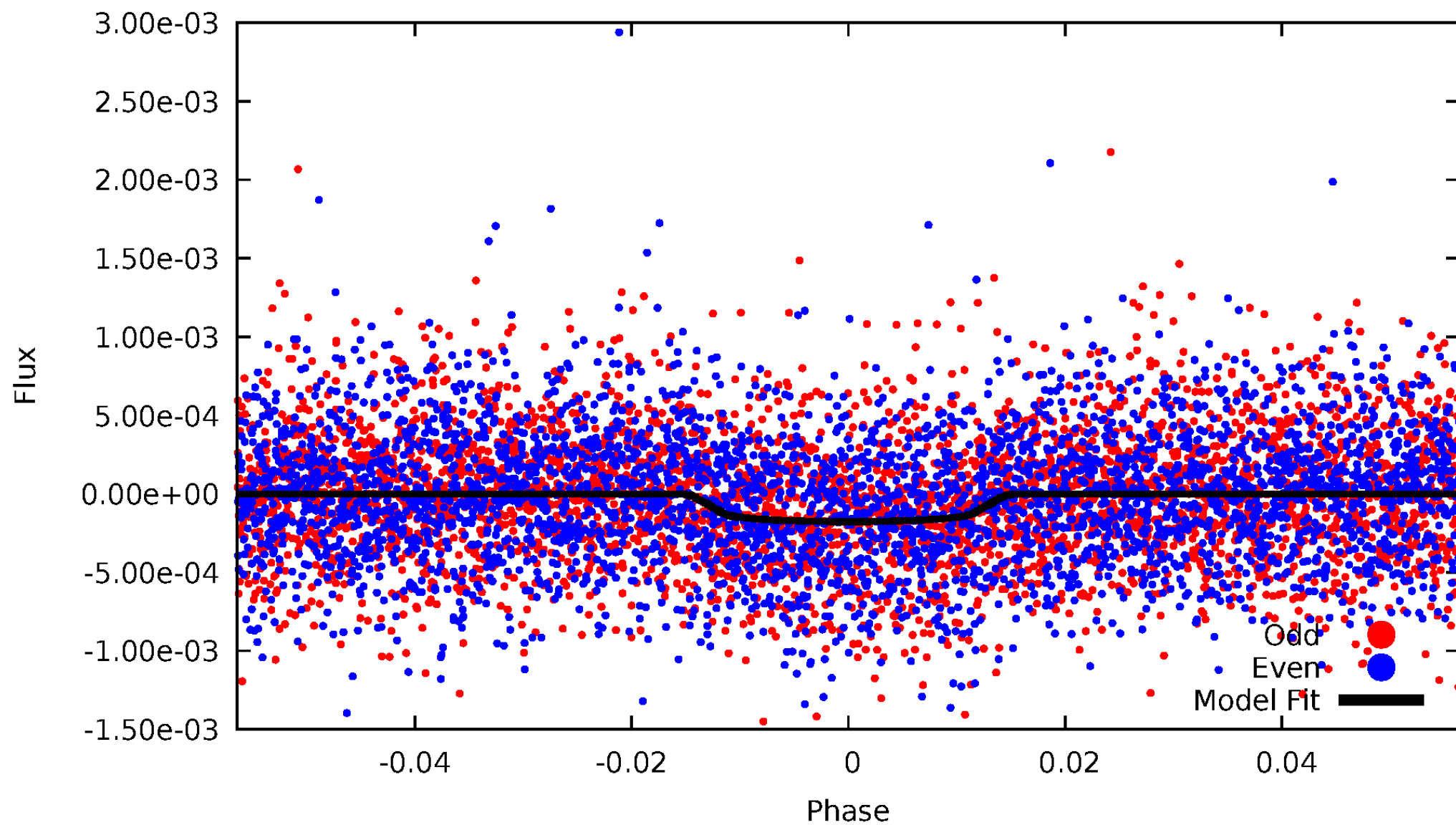


TCE 011714231-01



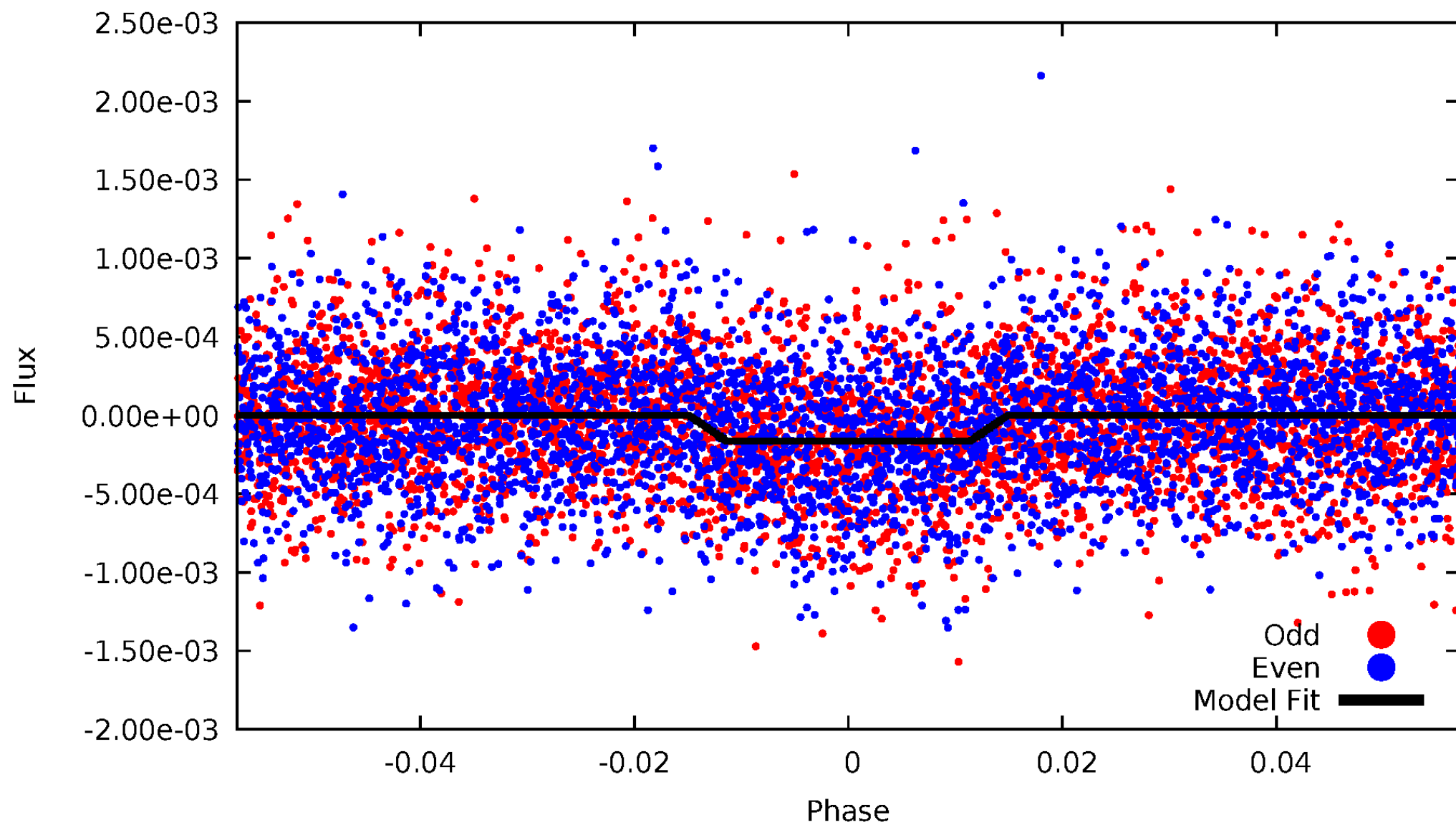
DV Odd/Even

TCE 011714231-01



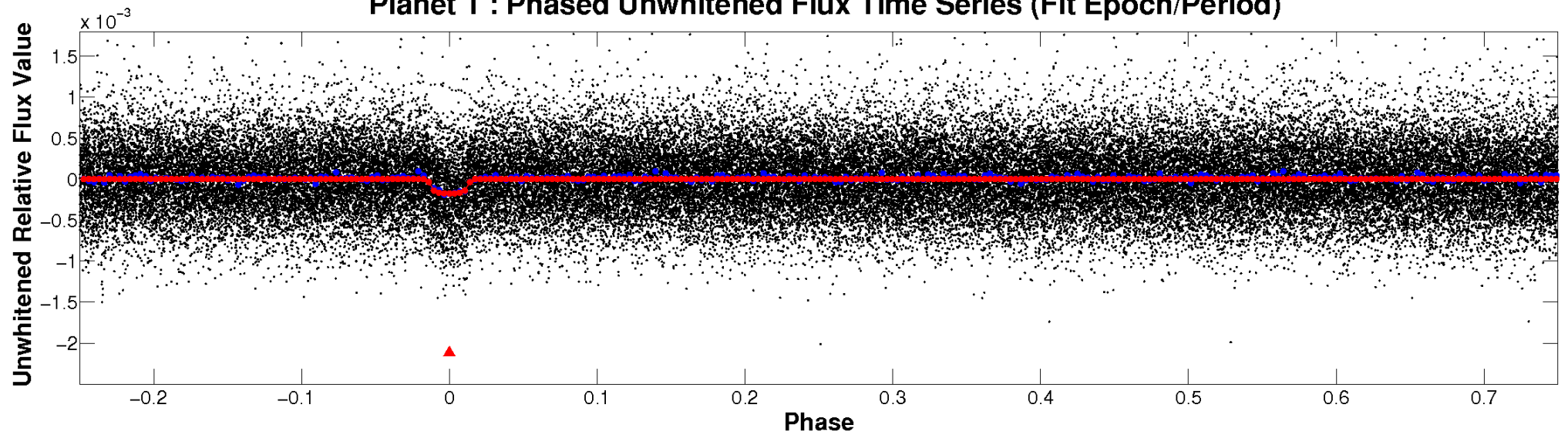
ALT Odd/Even

TCE 011714231-01

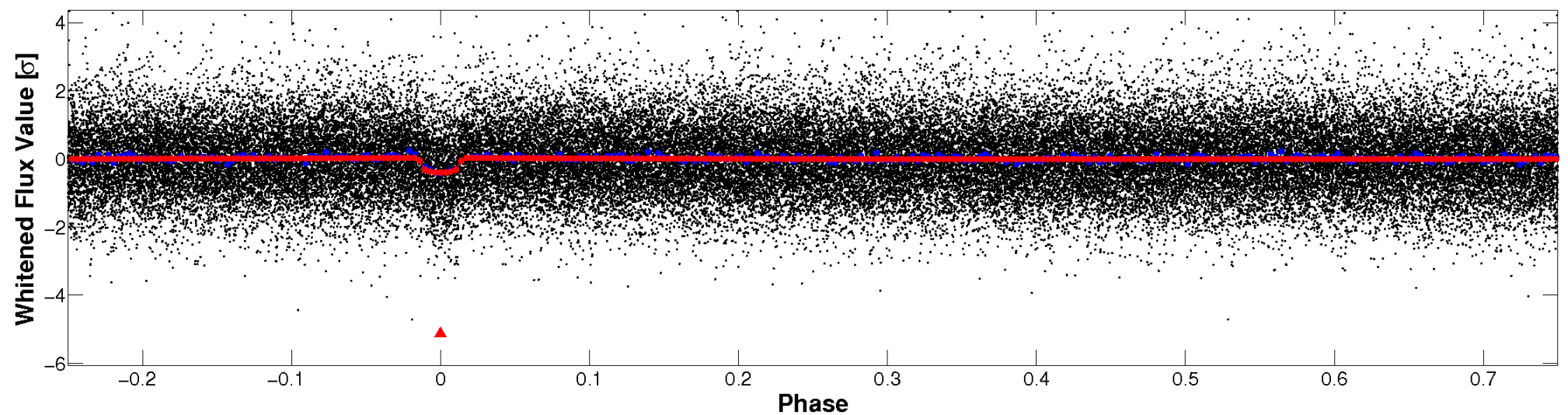


Non-Whitened Vs. Whitened Light Curve

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

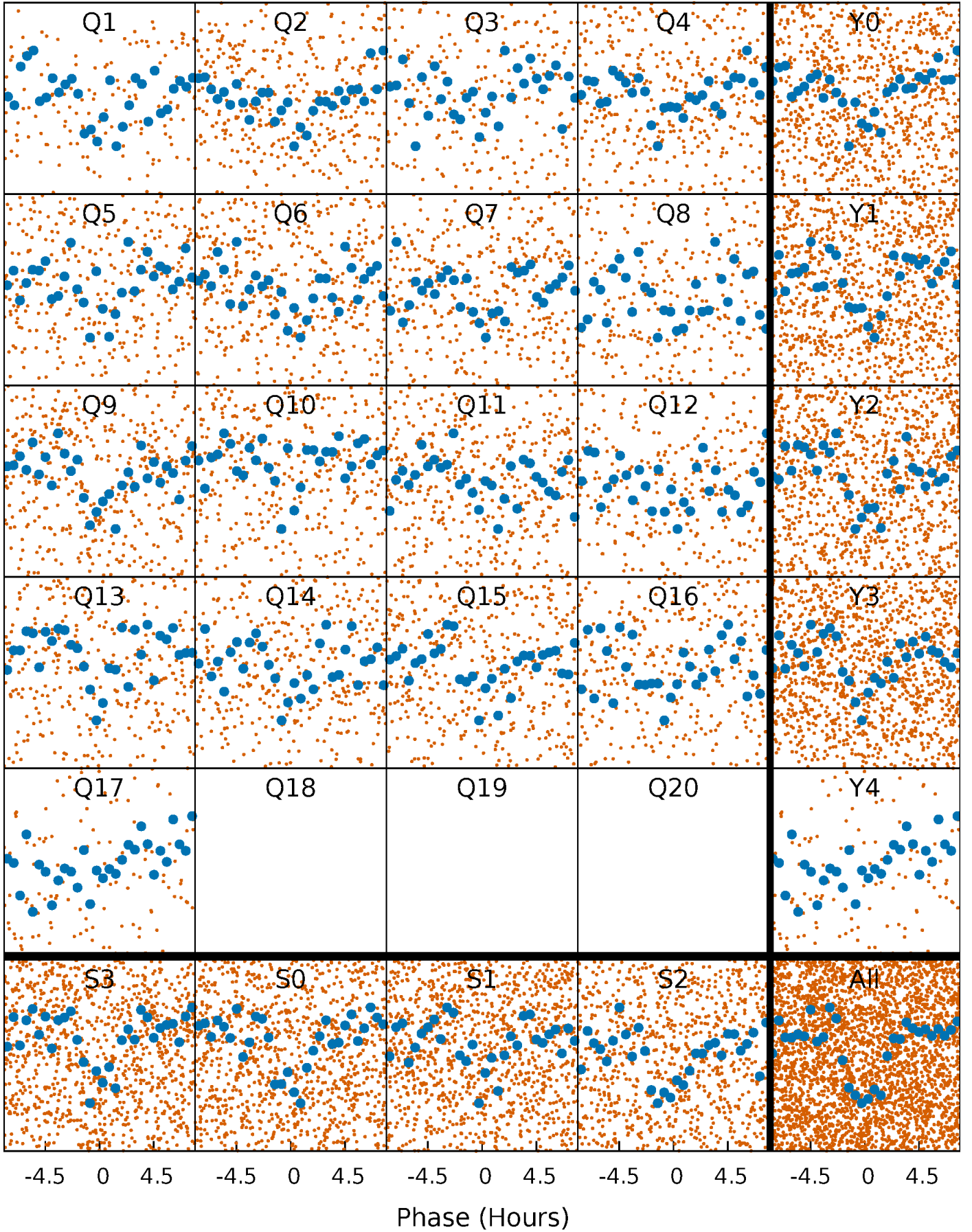


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



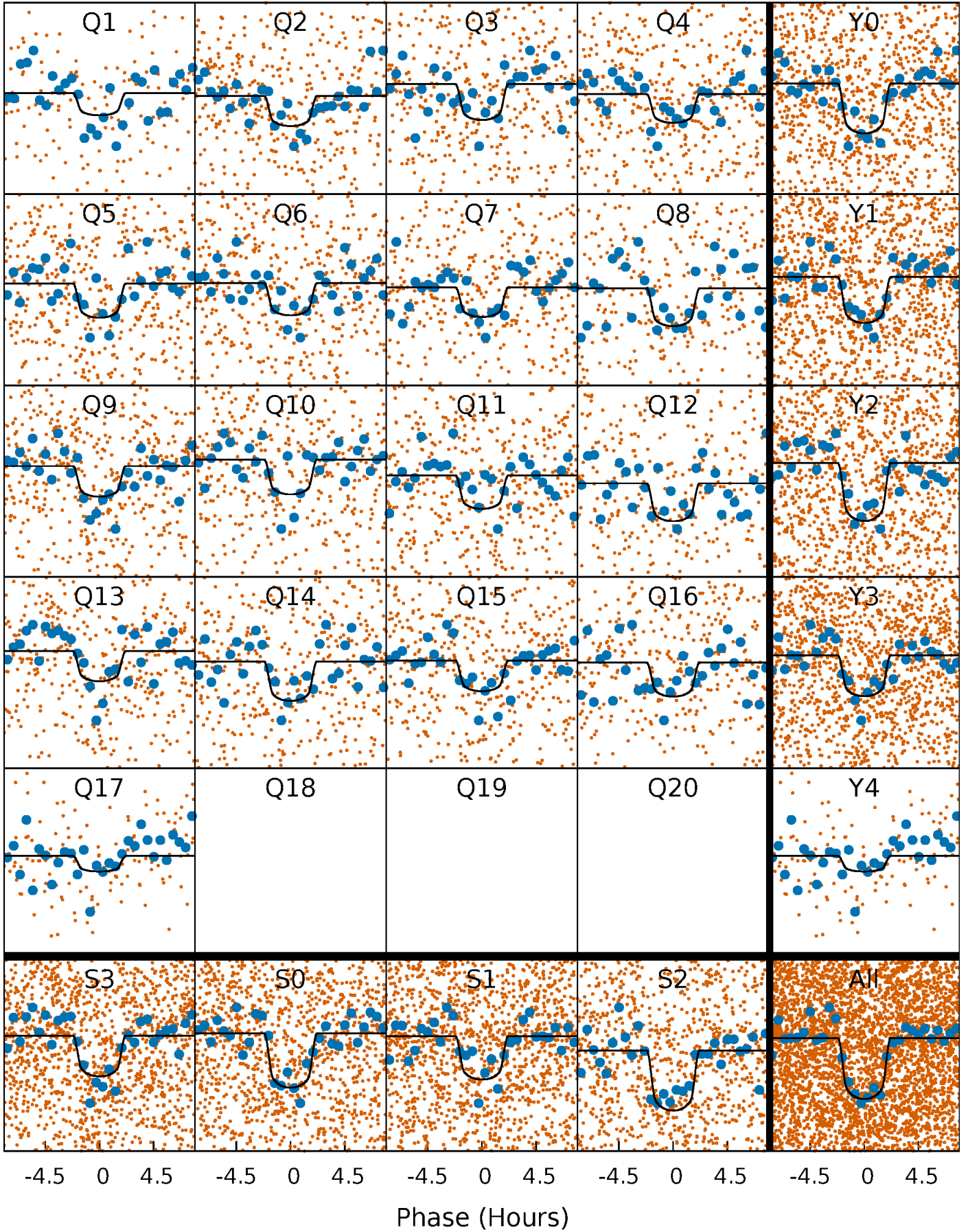
PDC Quarter-Phased Transit Curves

TCE 011714231-01 P= 5.866059 Days $T_0=136.349520$ (BKJD)



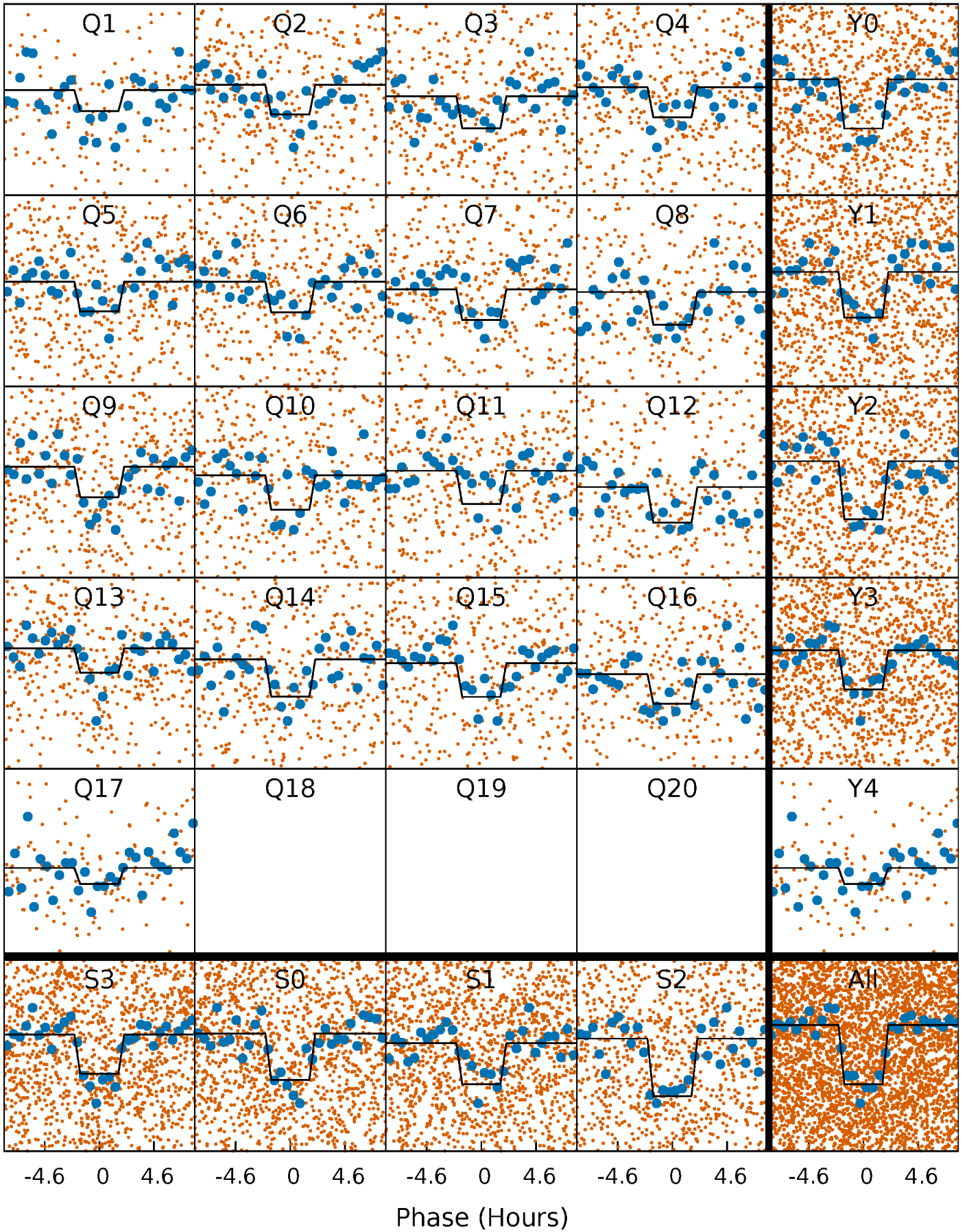
DV Quarter-Phased Transit Curves

TCE 011714231-01 P= 5.866059 Days $T_0=136.349520$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

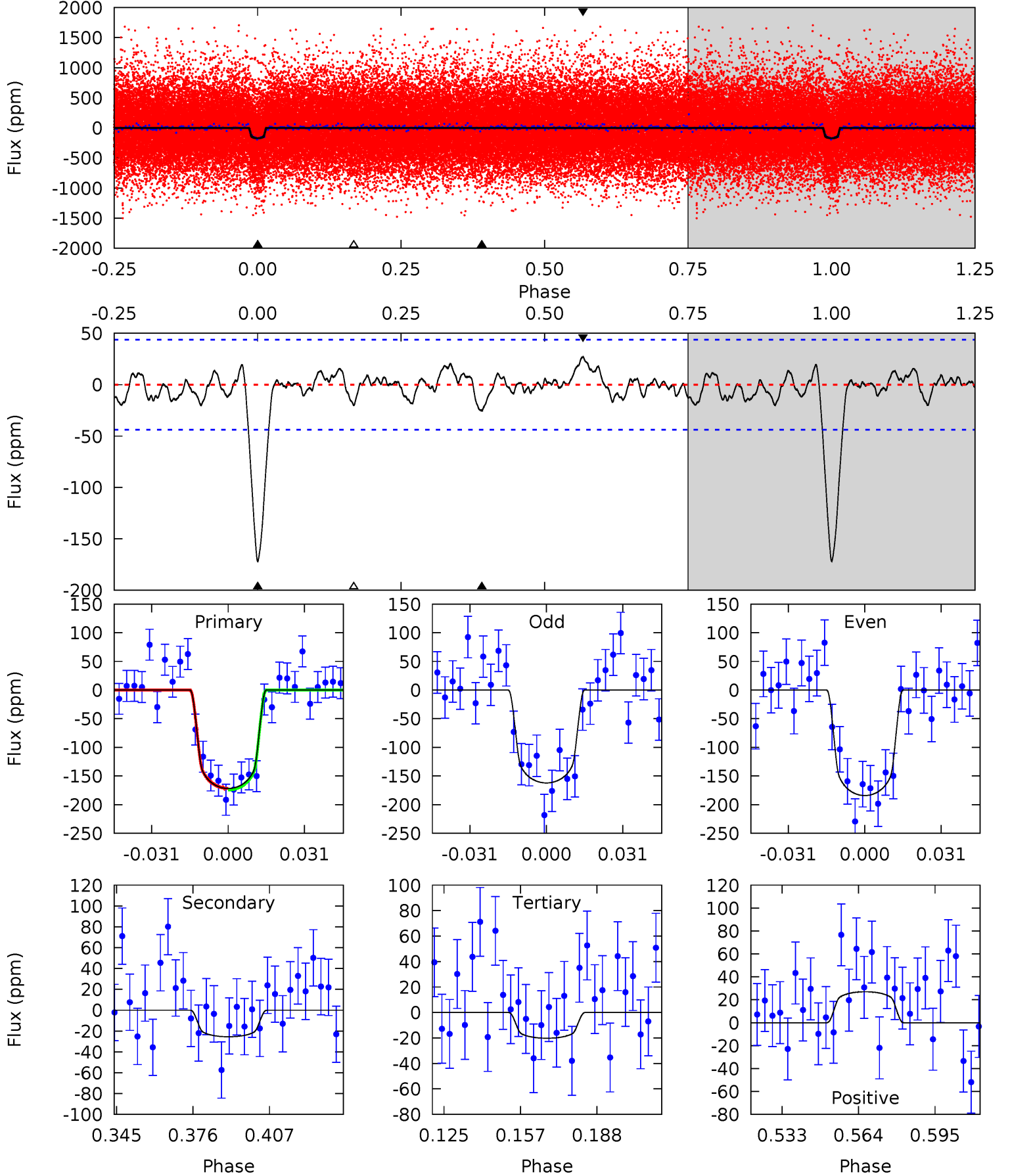
TCE 011714231-01 P= 5.866008 Days $T_0=136.356375$ (BKJD)



DV Model-Shift Uniqueness Test

011714231-01, P = 5.866059 Days, E = 130.483461 Days

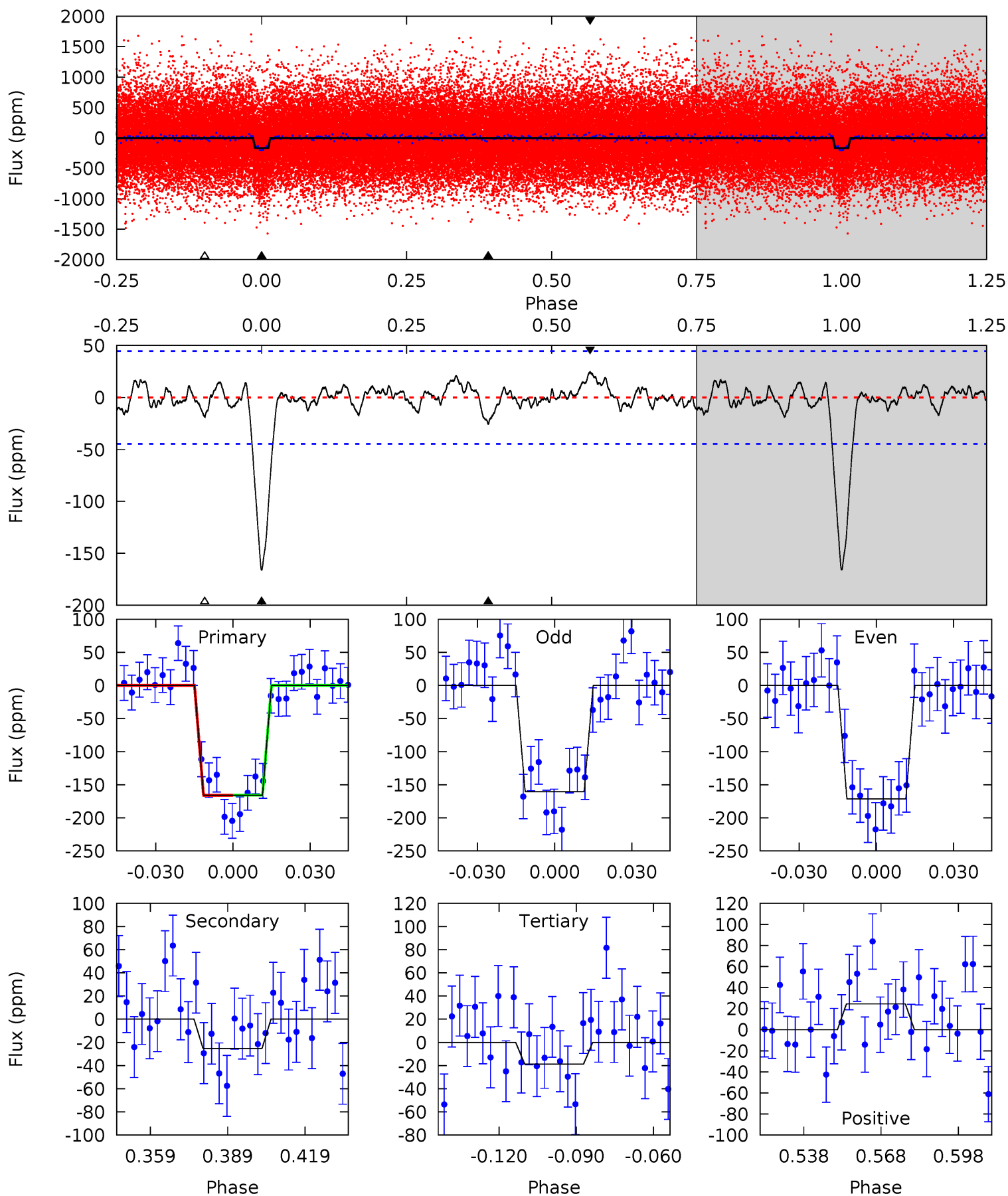
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	2.80	2.22	2.96	4.80	2.15	1.01	16.6	15.9	0.58	-0.16	1.21	1.04	0.14	0.15



Alt Model-Shift Uniqueness Test

011714231-01, P = 5.866008 Days, E = 130.490367 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	2.73	2.02	2.64	4.81	2.17	0.88	15.9	15.3	0.71	0.09	0.60	1.02	0.13	0.01



Stellar Parameters For KIC 011714231

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6020^{+190}_{-232}	$4.427^{+0.070}_{-0.210}$	$0.020^{+0.250}_{-0.300}$	$1.040^{+0.326}_{-0.140}$	$1.051^{+0.145}_{-0.130}$	$1.316^{+0.496}_{-0.694}$
	+3%/-4%	+2%/-5%	+1250%/-1500%	+31%/-13%	+14%/-12%	+38%/-53%
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 011714231-01 / KOI 3115.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-26 ± 9	$1.76^{+0.52}_{-0.54}$	1514^{+120}_{-79}	3871^{+591}_{-443}	19^{+23}_{-10}
Alt.	-25 ± 9	$1.51^{+0.58}_{-0.49}$	1504^{+122}_{-79}	4035^{+737}_{-472}	25^{+33}_{-13}

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 $A_{obs} \gg 1.0$

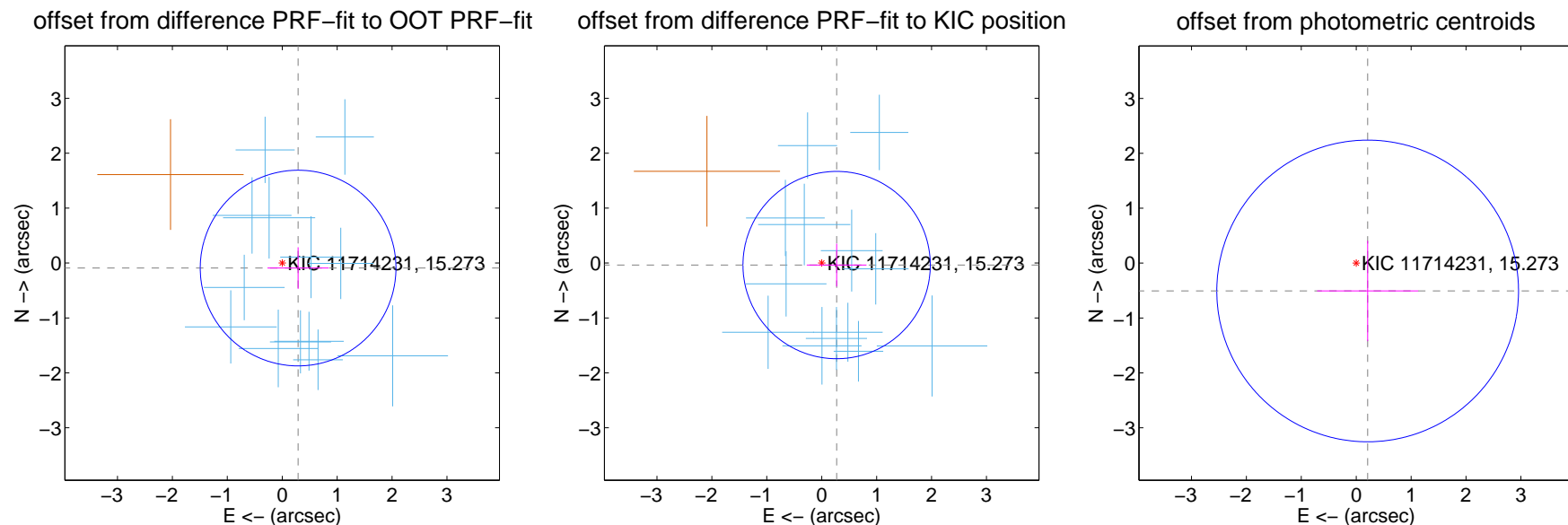
DV Centroid Data

Supplemental centroid analysis for 011714231-01. Kepler magnitude: 15.27. Transit SNR 14.25

There are 13 quarters with good PRF difference image offsets

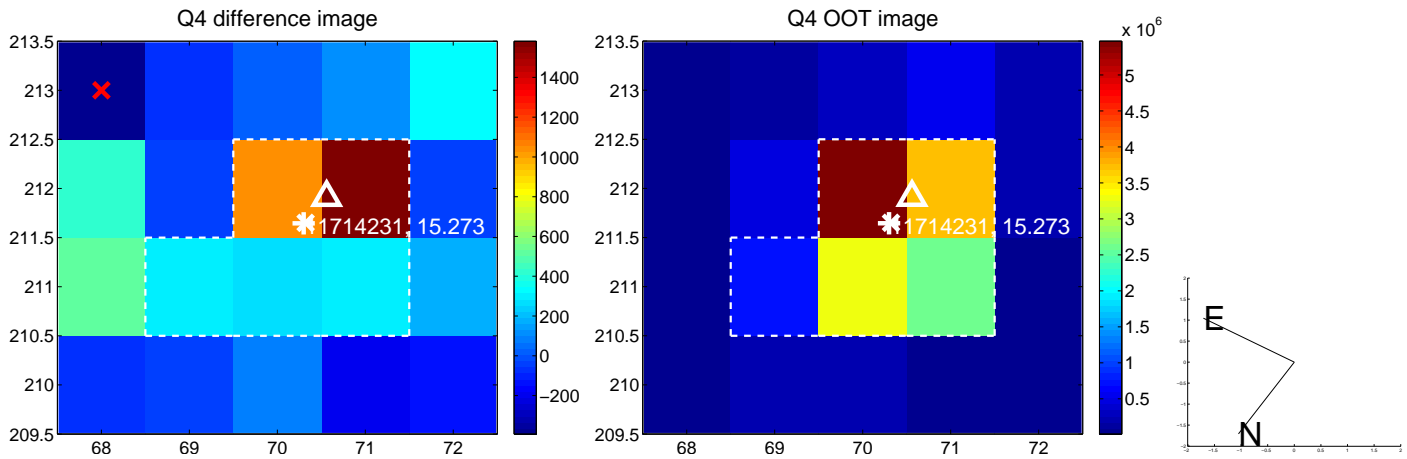
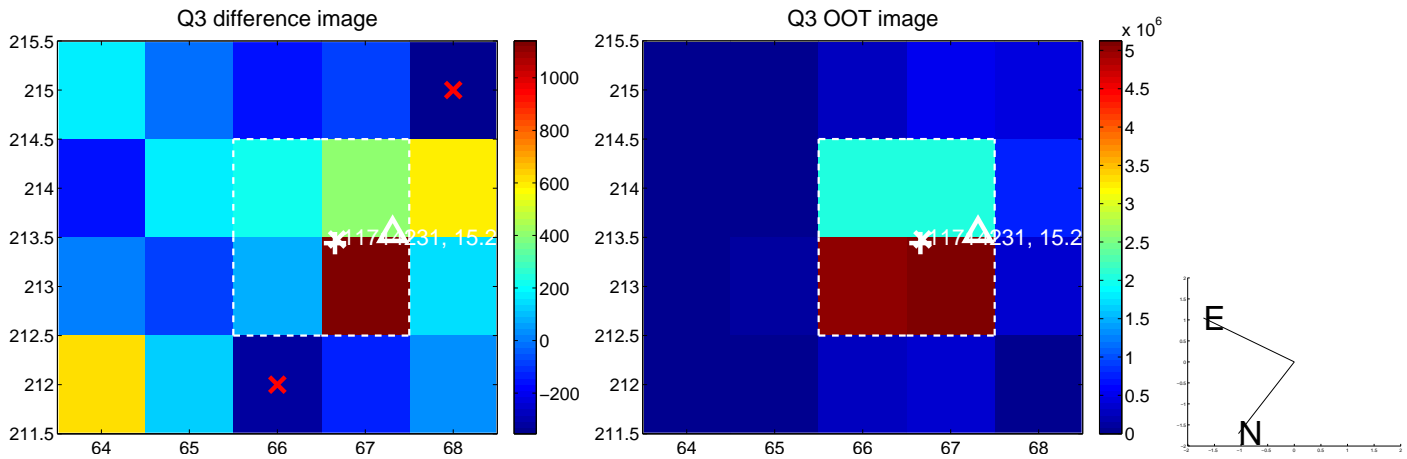
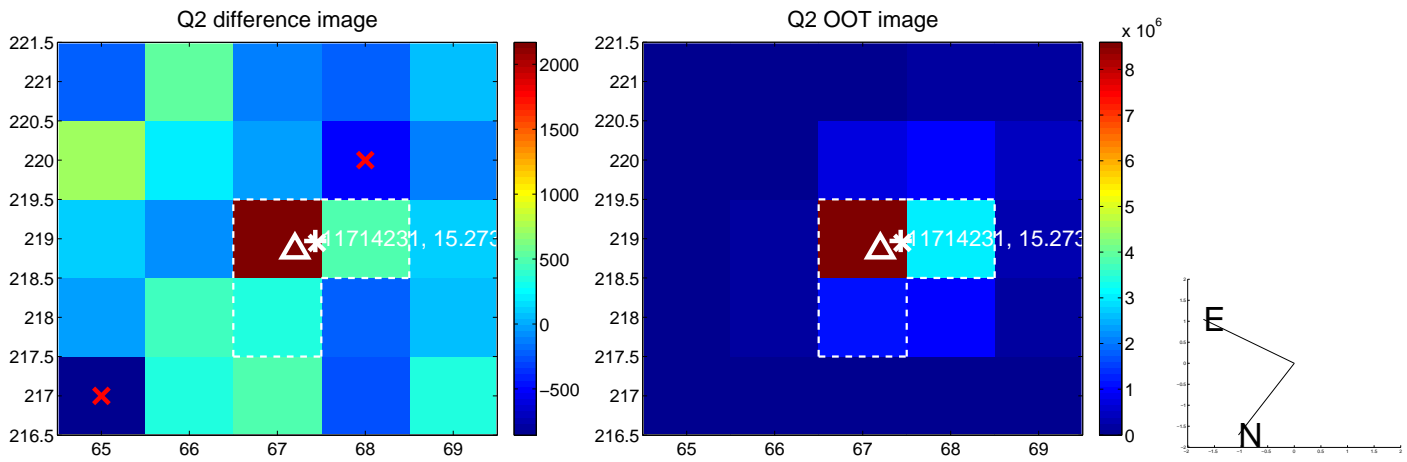
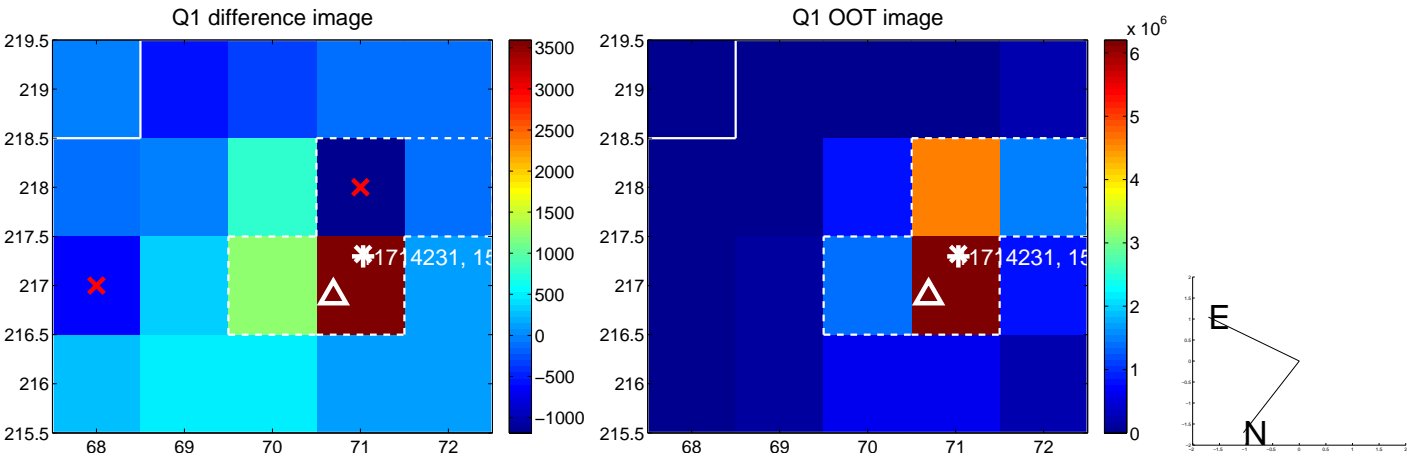
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.303 ± 0.594	0.51	-0.289 ± 0.559	-0.091 ± 0.379
PRF-fit source offset from KIC position	0.274 ± 0.569	0.48	-0.272 ± 0.544	-0.037 ± 0.389
photometric centroid source offset	0.55 ± 0.92	0.60	-0.21 ± 0.92	-0.51 ± 0.92

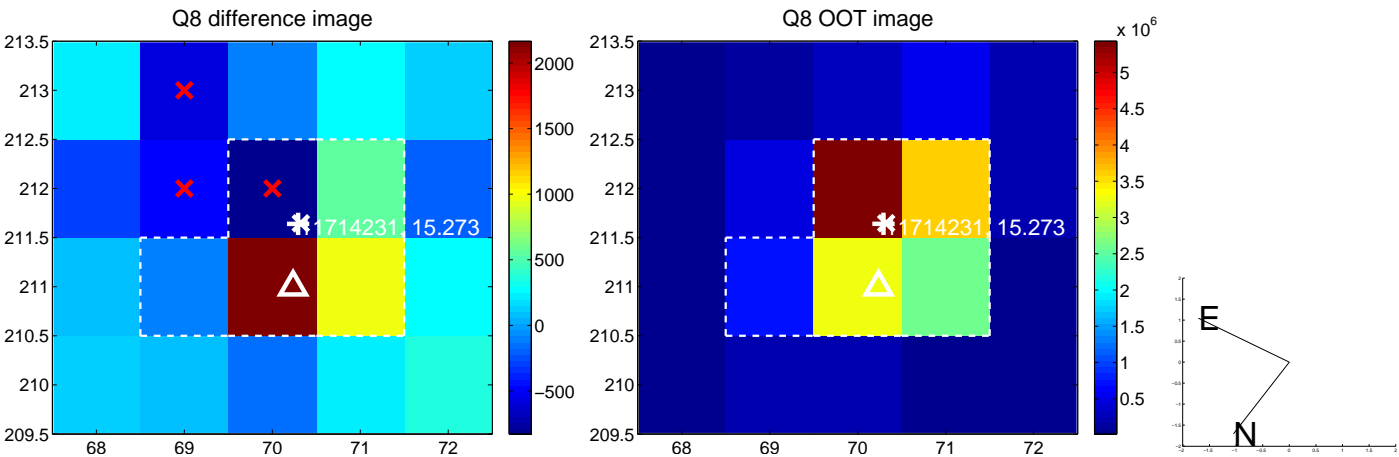
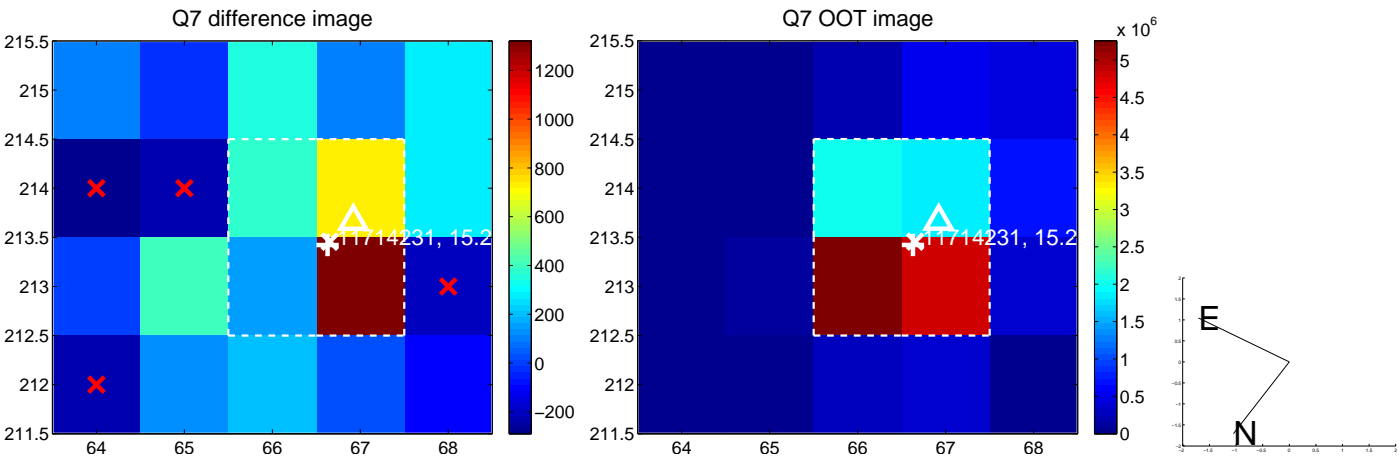
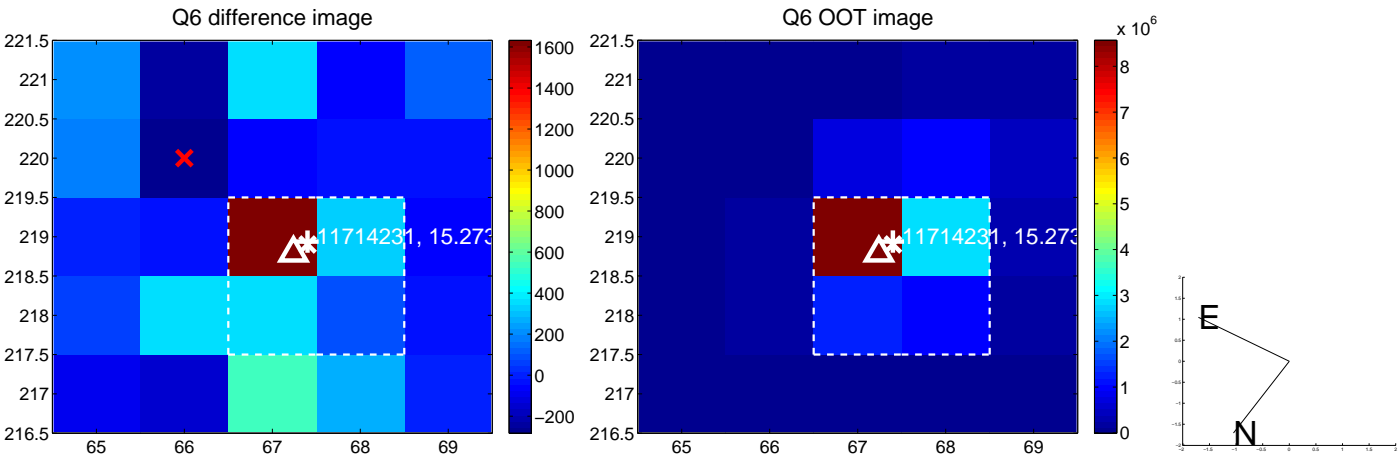
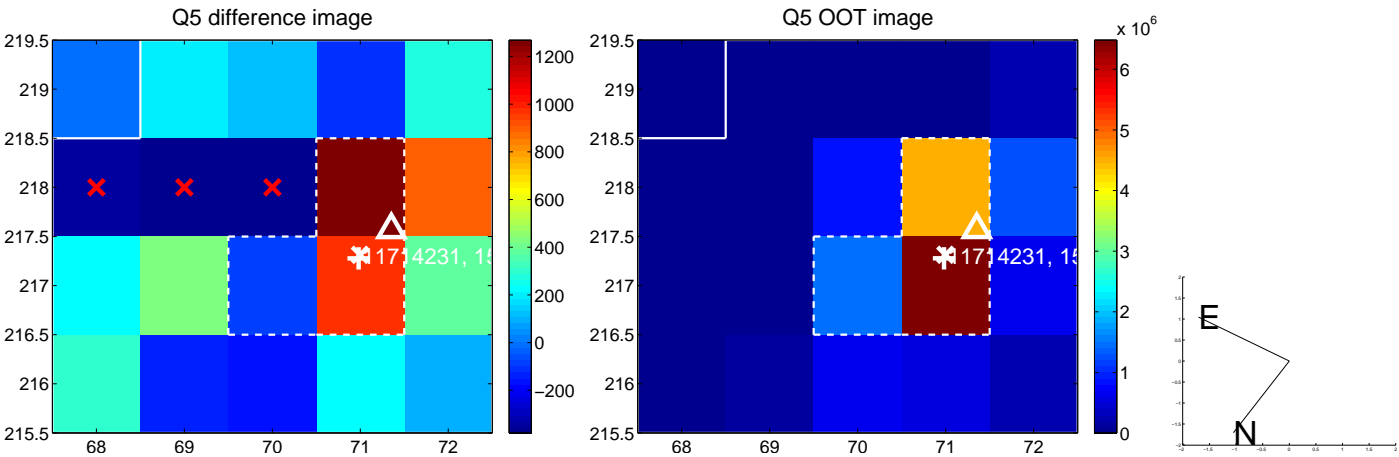


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

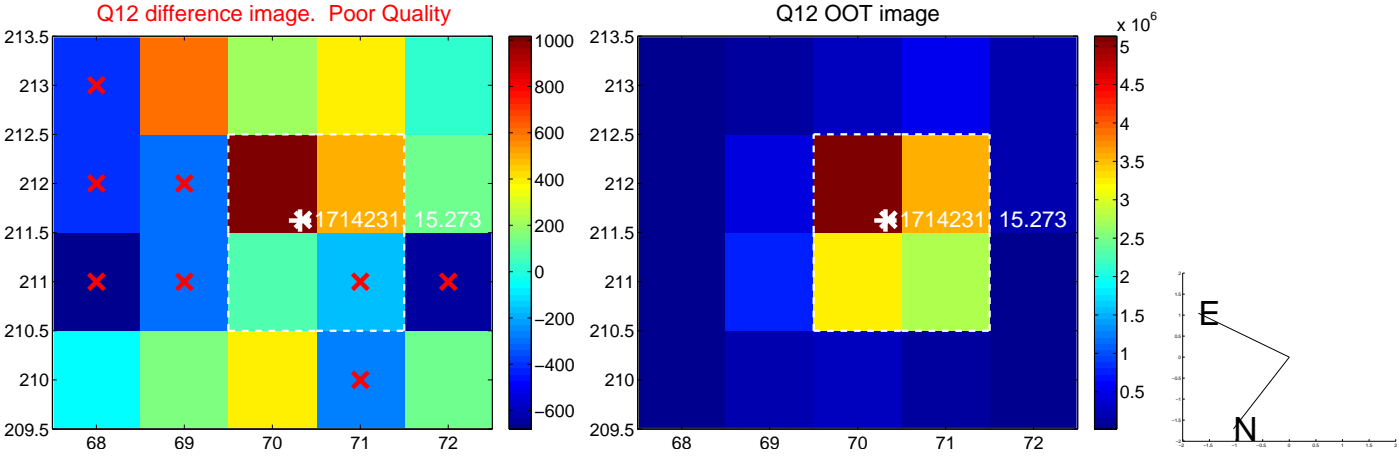
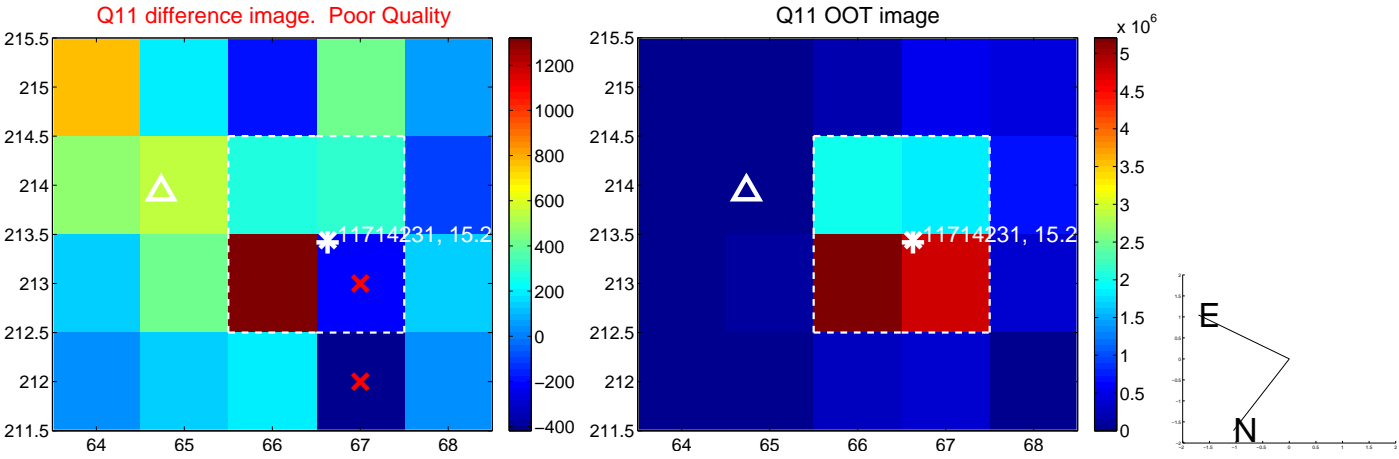
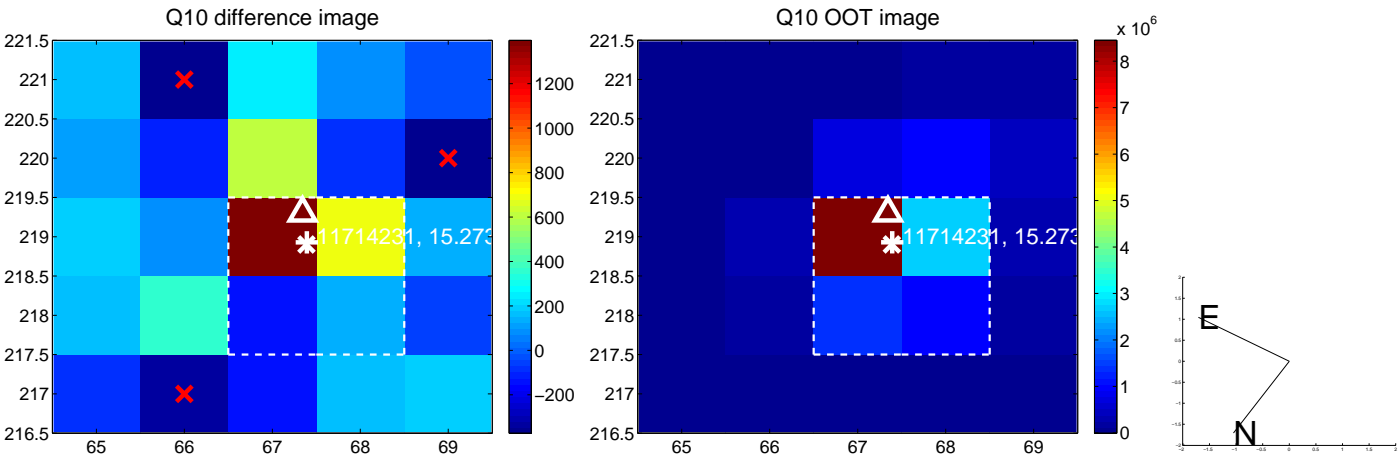
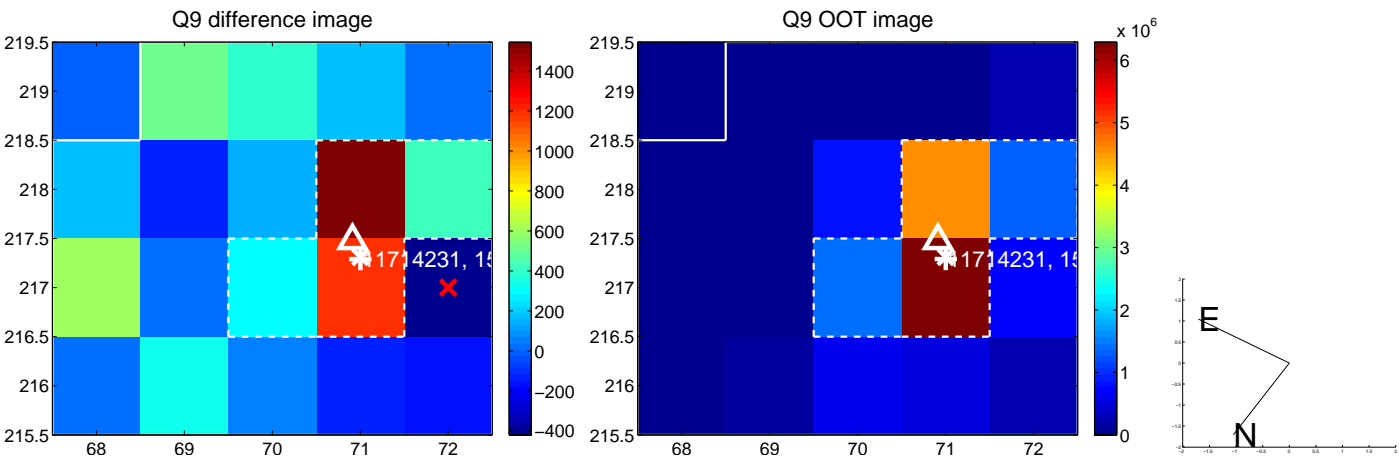
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



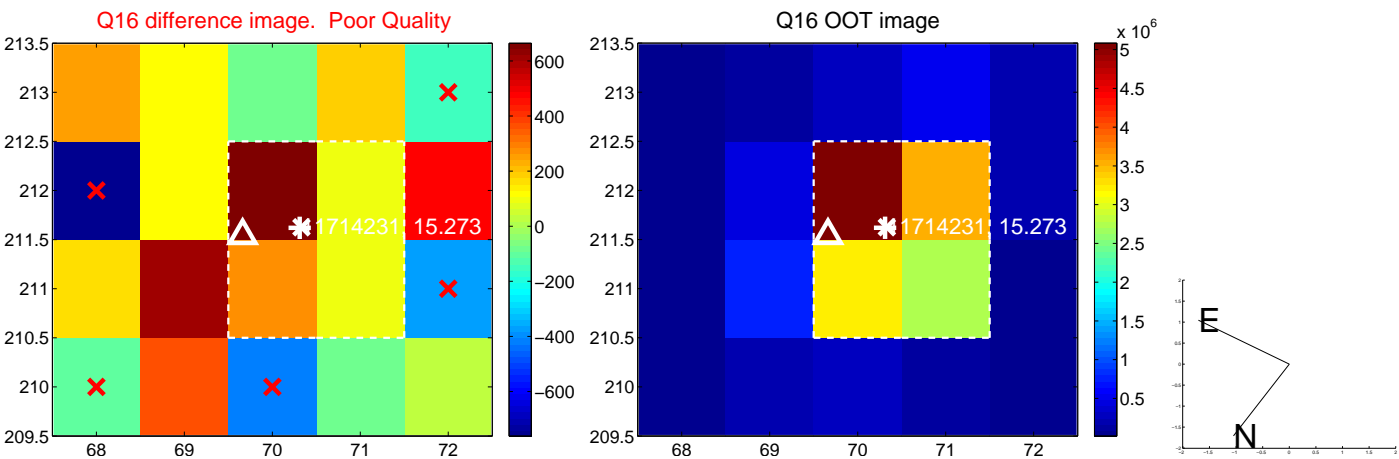
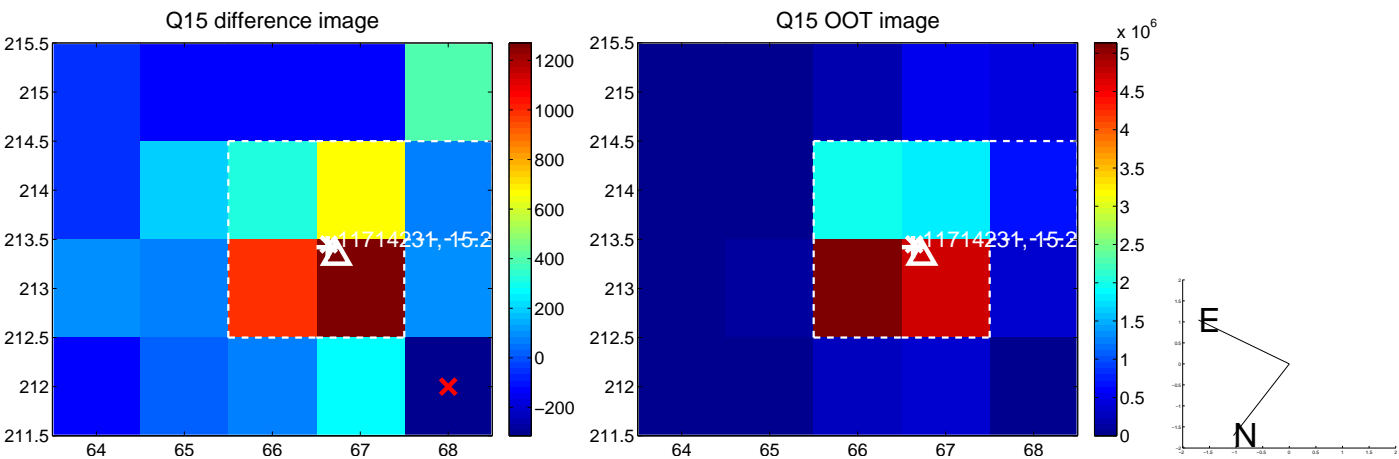
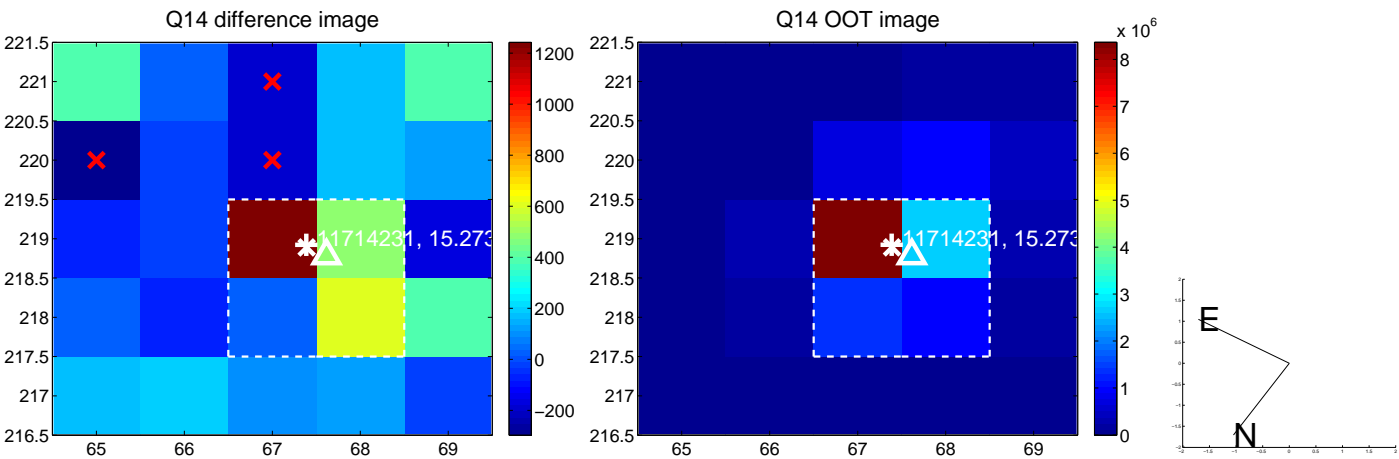
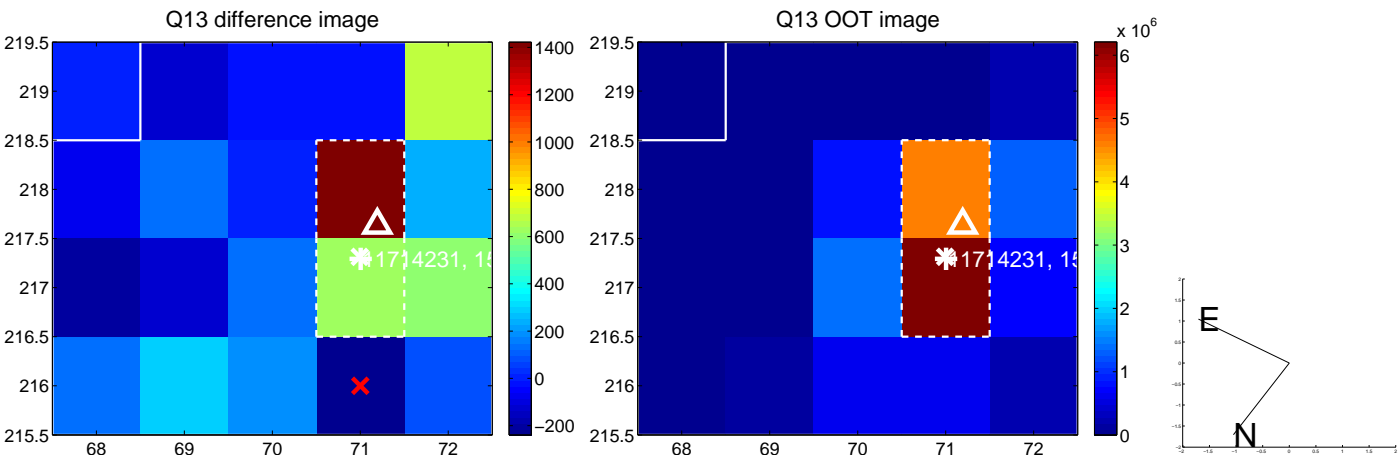
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



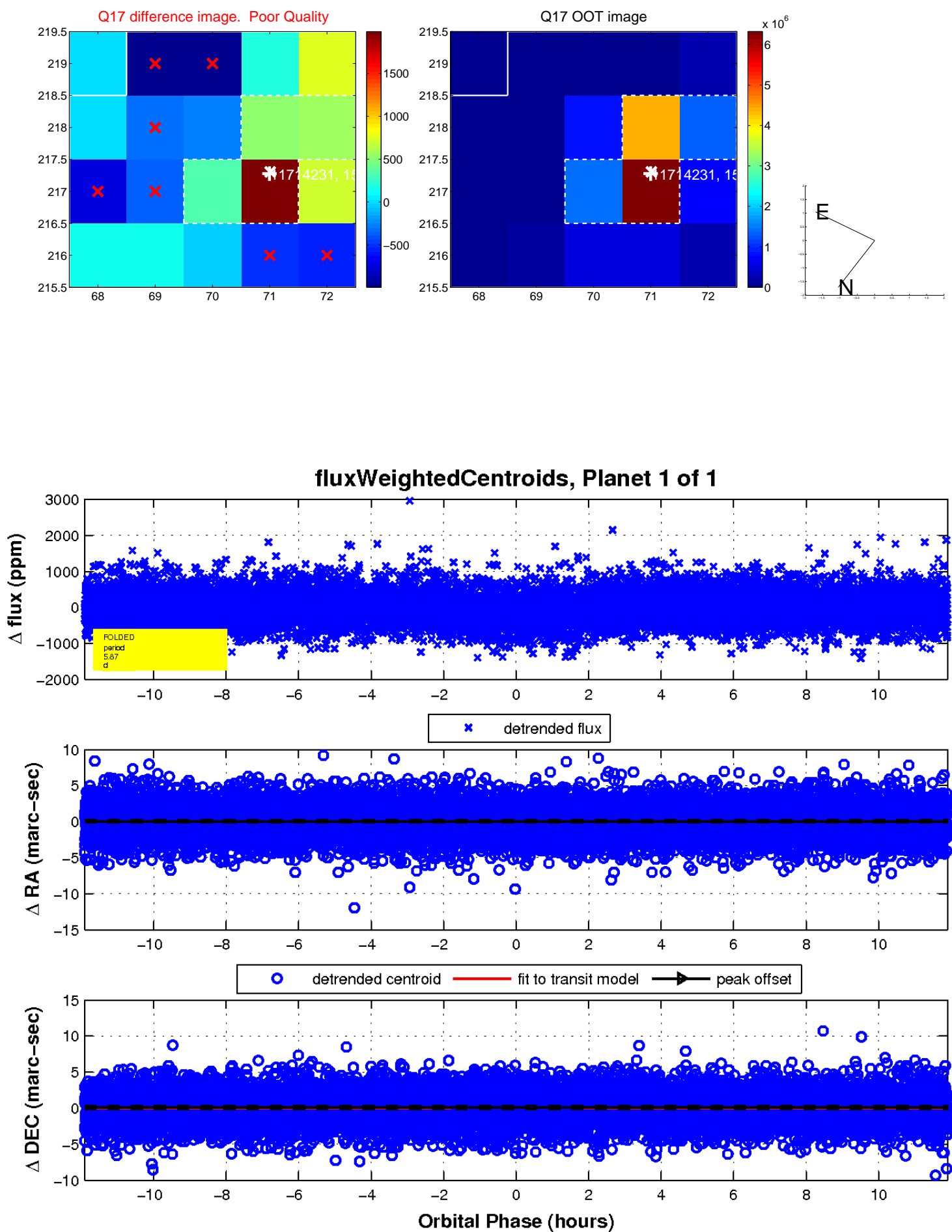
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

