

KIC 008914322

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})
008914322-01	OBS	No	0.514803	131.929201	104.2	2.370	10.9	11.3	3.01	7351	3.53	101034.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008914322-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

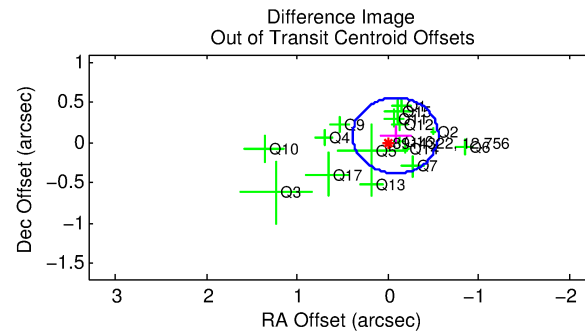
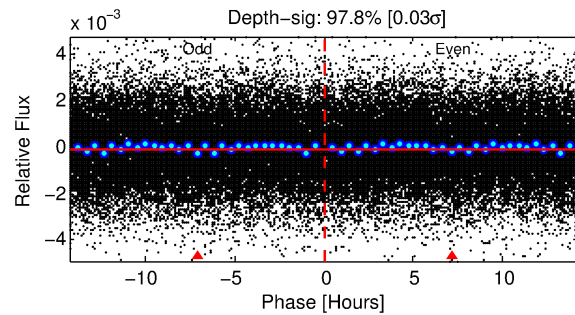
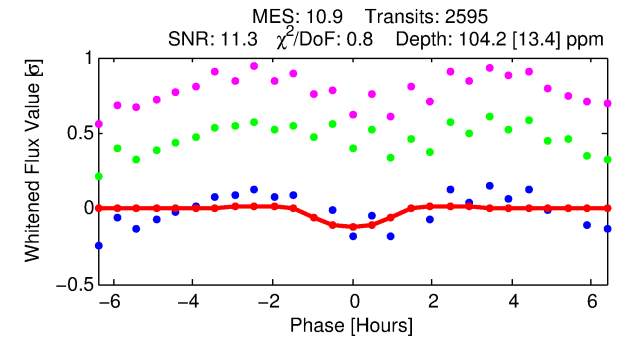
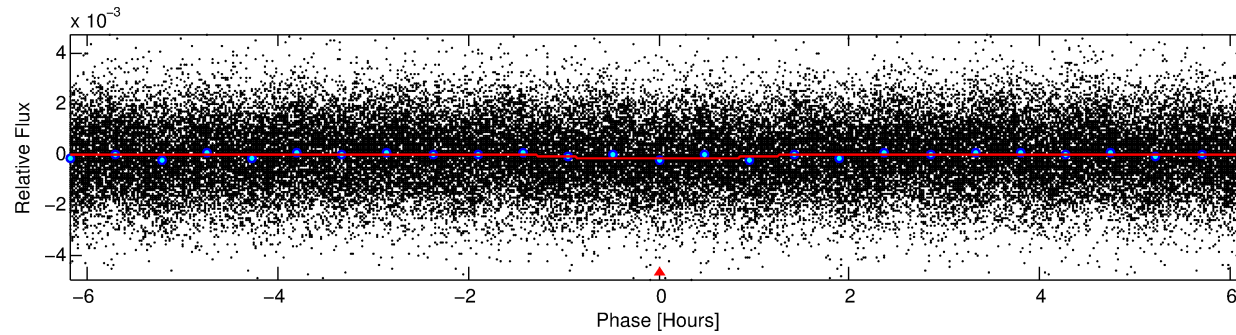
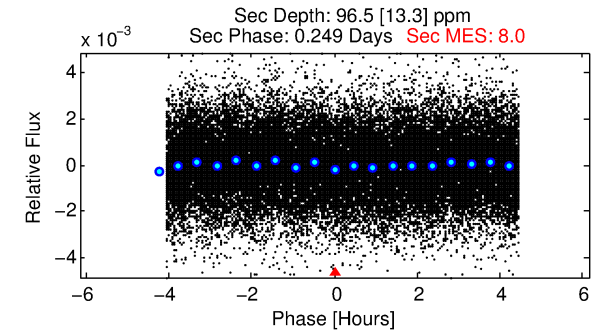
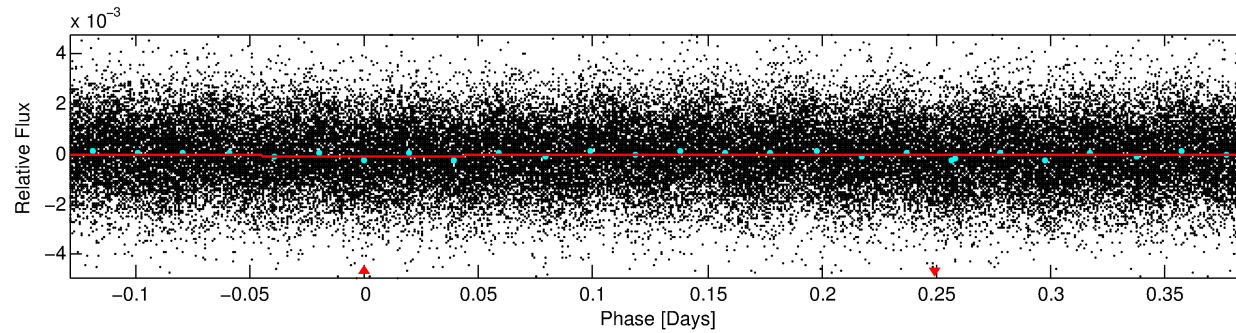
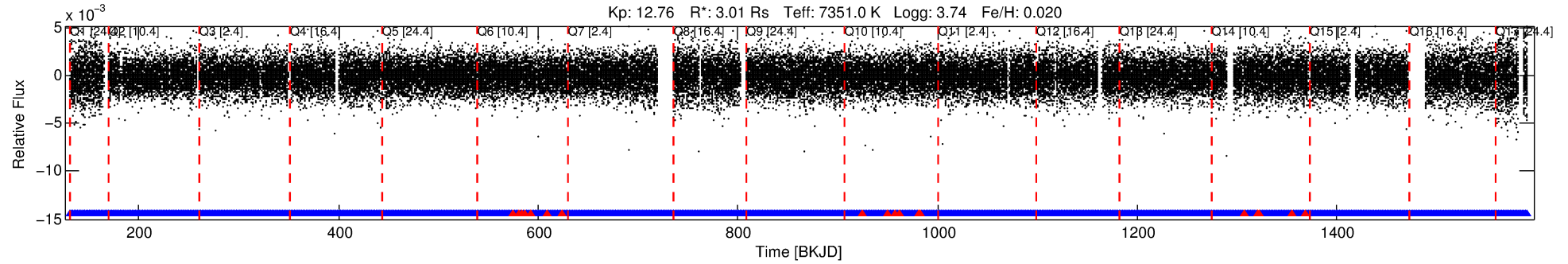
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008914322-01

No Significant Match Found

DV One-Page Summary

KIC: 8914322 Candidate: 1 of 1 Period: 0.515 d



DV Fit Results:

Period = 0.51480 [0.00001] d
Epoch = 131.9292 [0.0030] BKJD
Rp/R* = 0.0108 [0.0077]
a/R* = 1.23 [1.94]
b = 0.89 [1.12]
Seff = 101034.40 [73252.83]
Teq = 4546 [824] K
Rp = 3.53 [2.96] Re
a = 0.0153 [0.0066] AU
Ag = 1.00 [1.60] [-0.00σ]
Teffp = 7027 [2552] K [0.92σ]

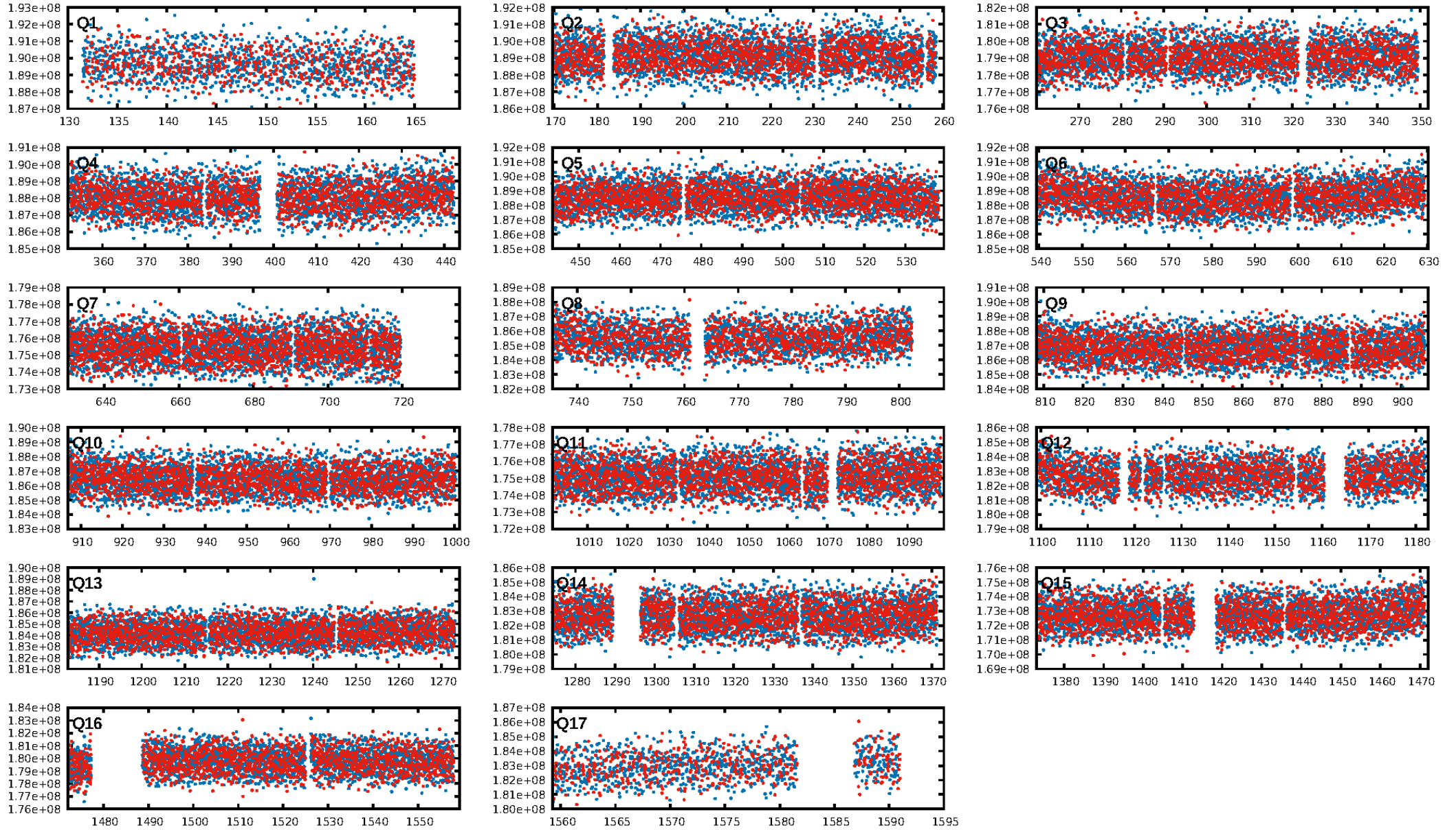
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.52e-27
RollingBand-fgt: 0.99 [2459/2478]
GhostDiagnostic-chr: 1.359
Centroid-sig: 19.3%
Centroid-so: 0.151 arcsec [0.68σ]
OotOffset-rm: 0.119 arcsec [0.76σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-rm: 0.094 arcsec [0.60σ]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 1.00 [17/17]

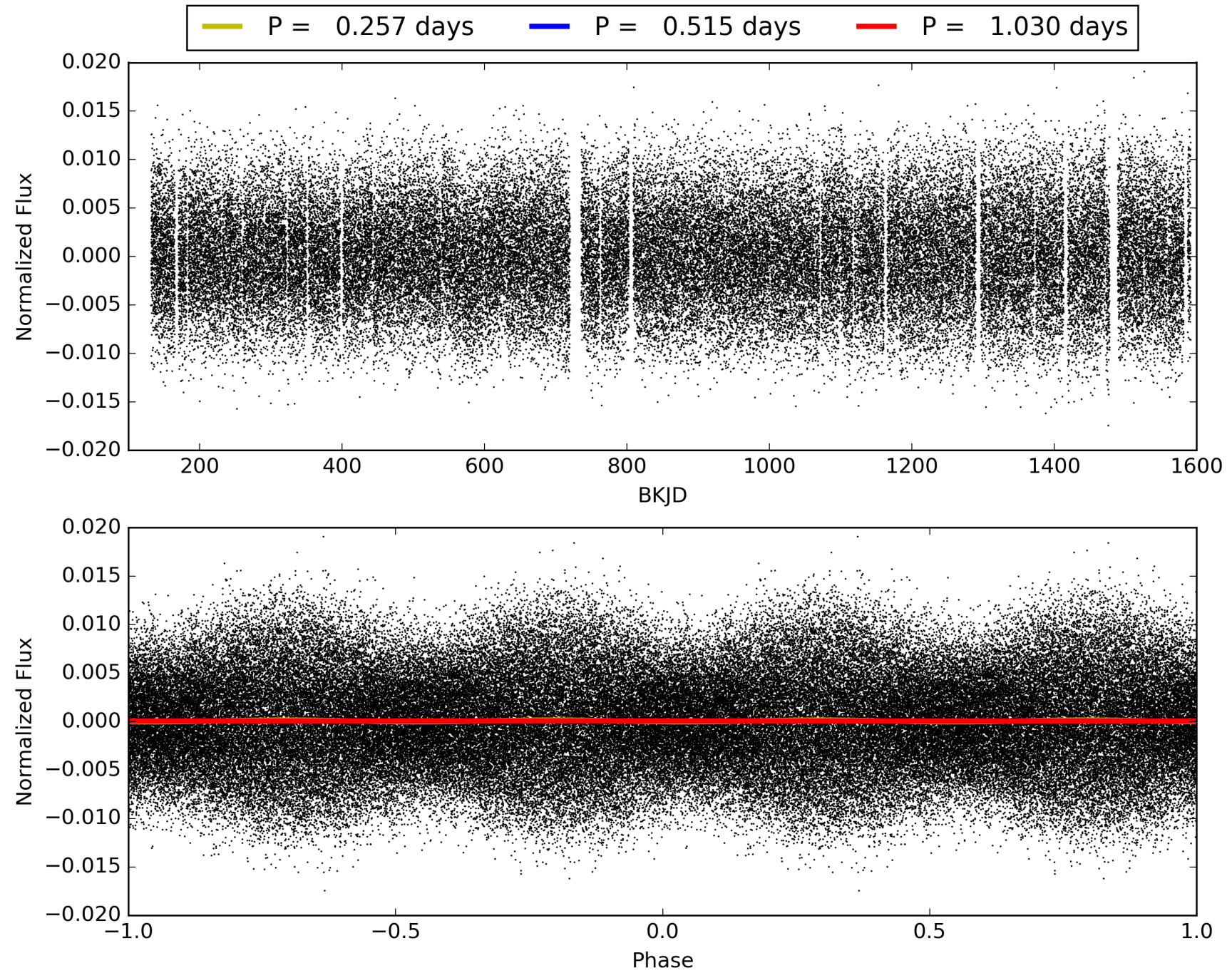
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:00:43 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008914322-01, PDC Light Curves

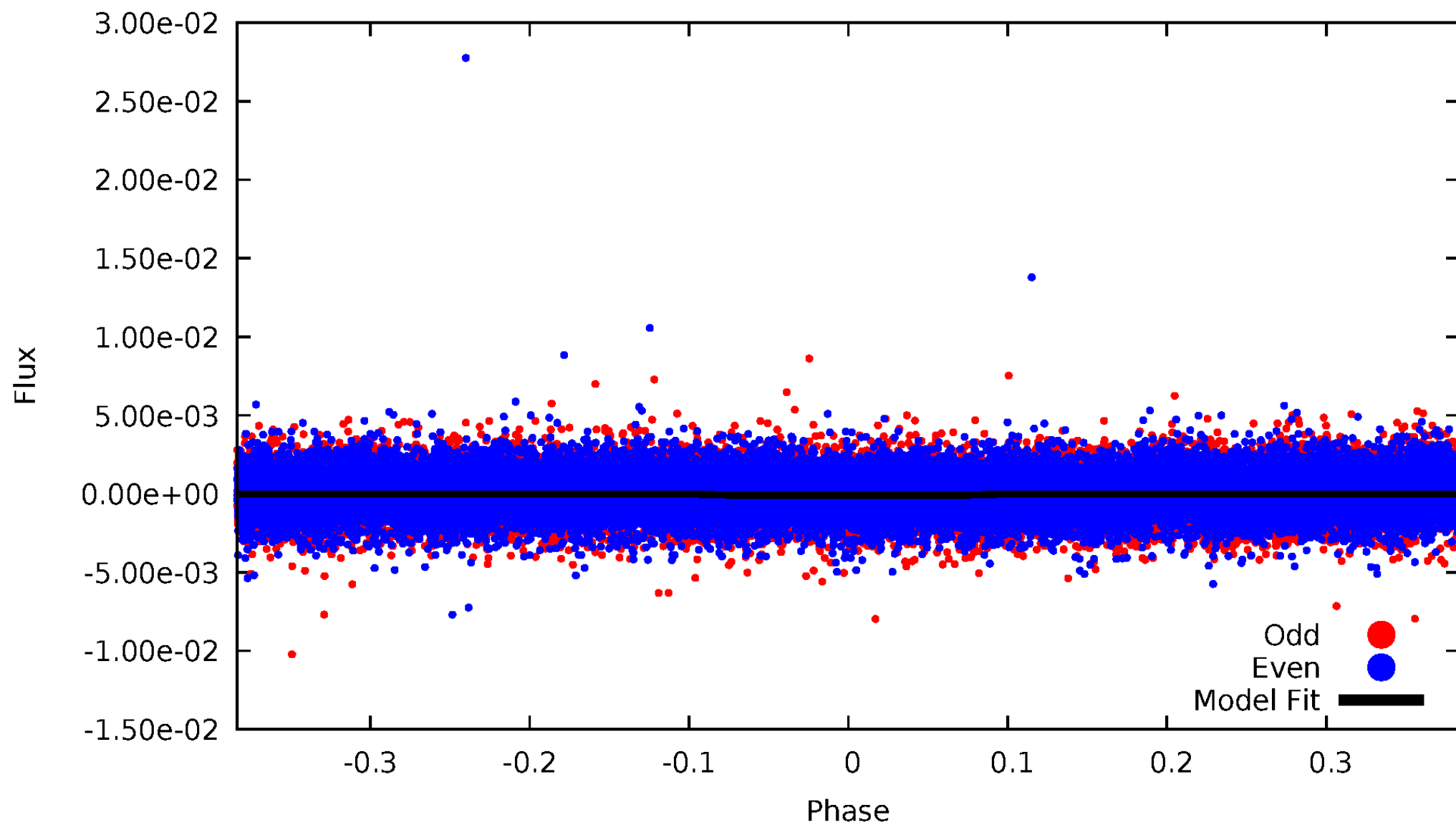


TCE 008914322-01



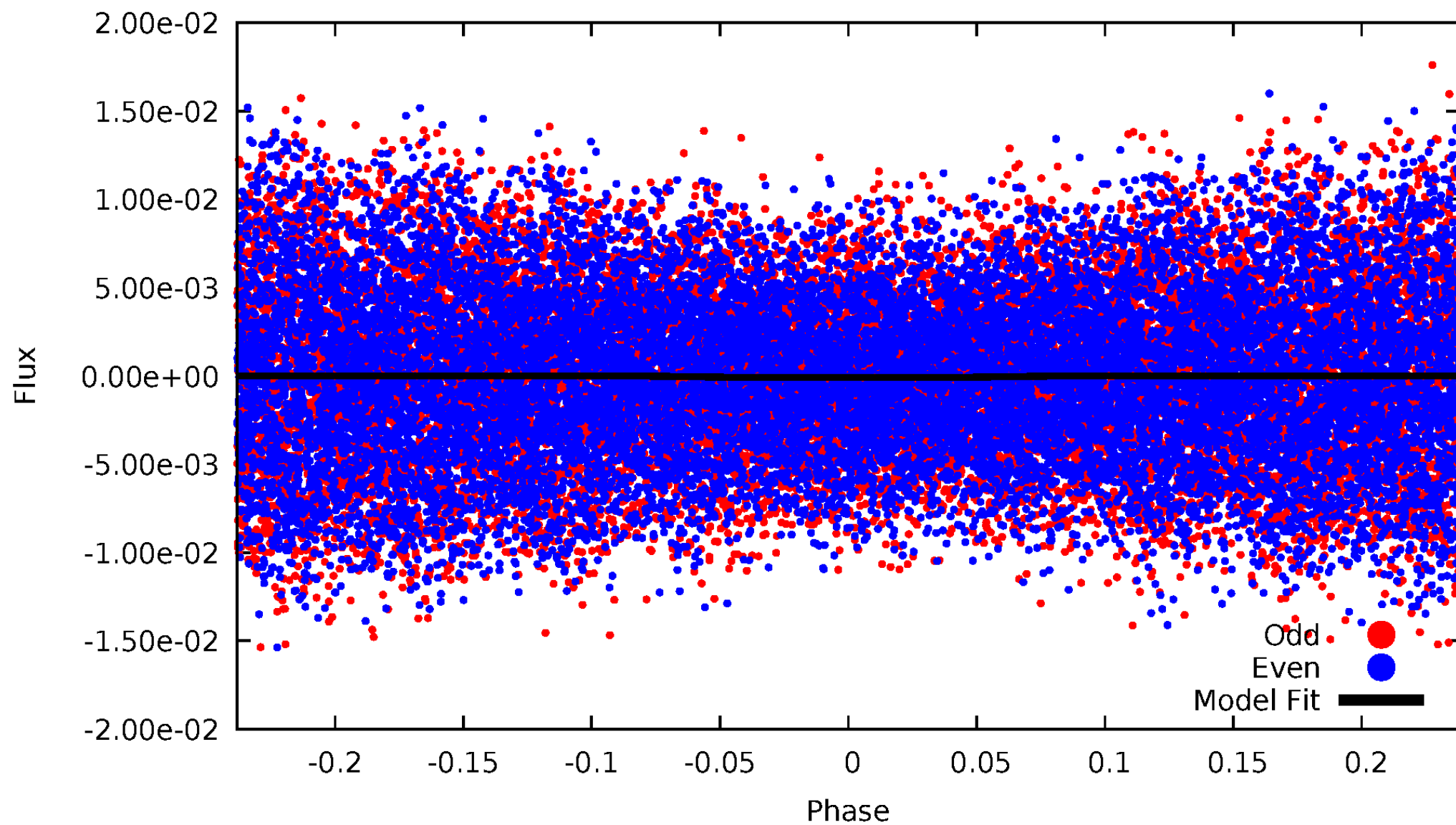
DV Odd/Even

TCE 008914322-01



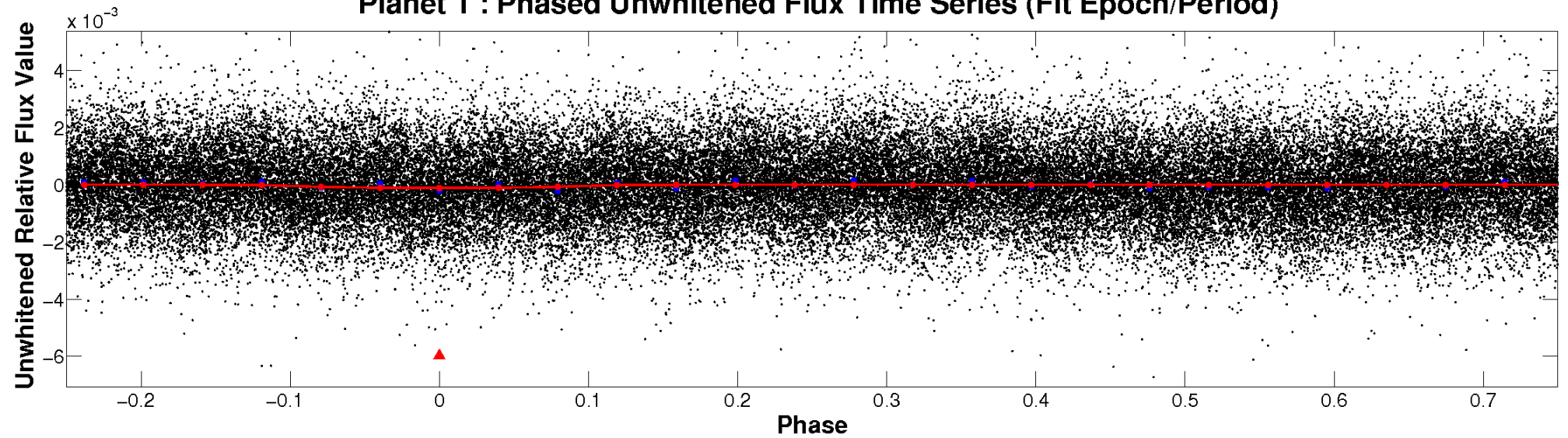
ALT Odd/Even

TCE 008914322-01

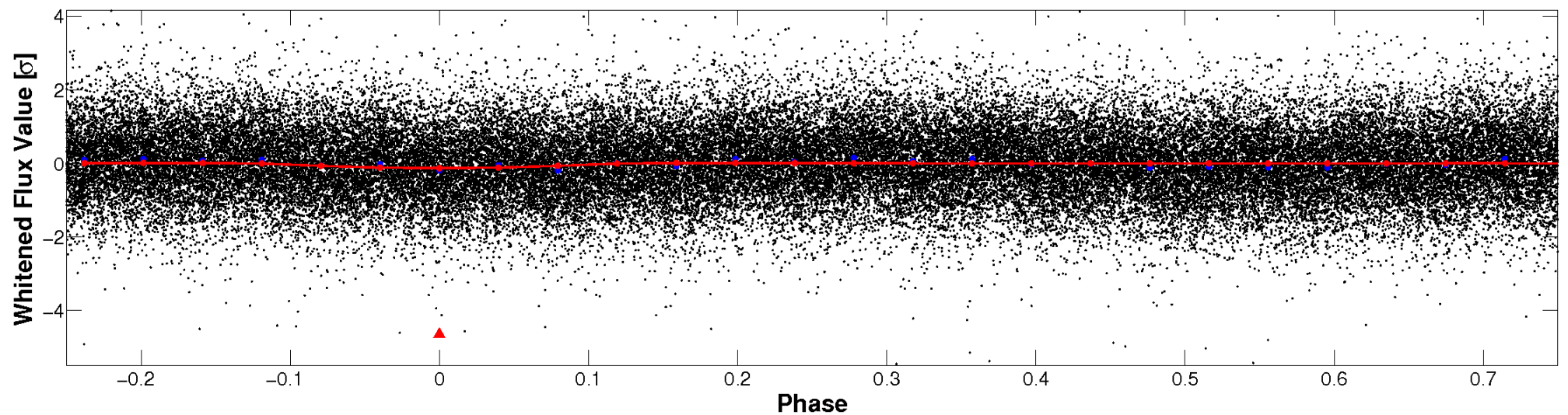


Non-Whitened Vs. Whitened Light Curve

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

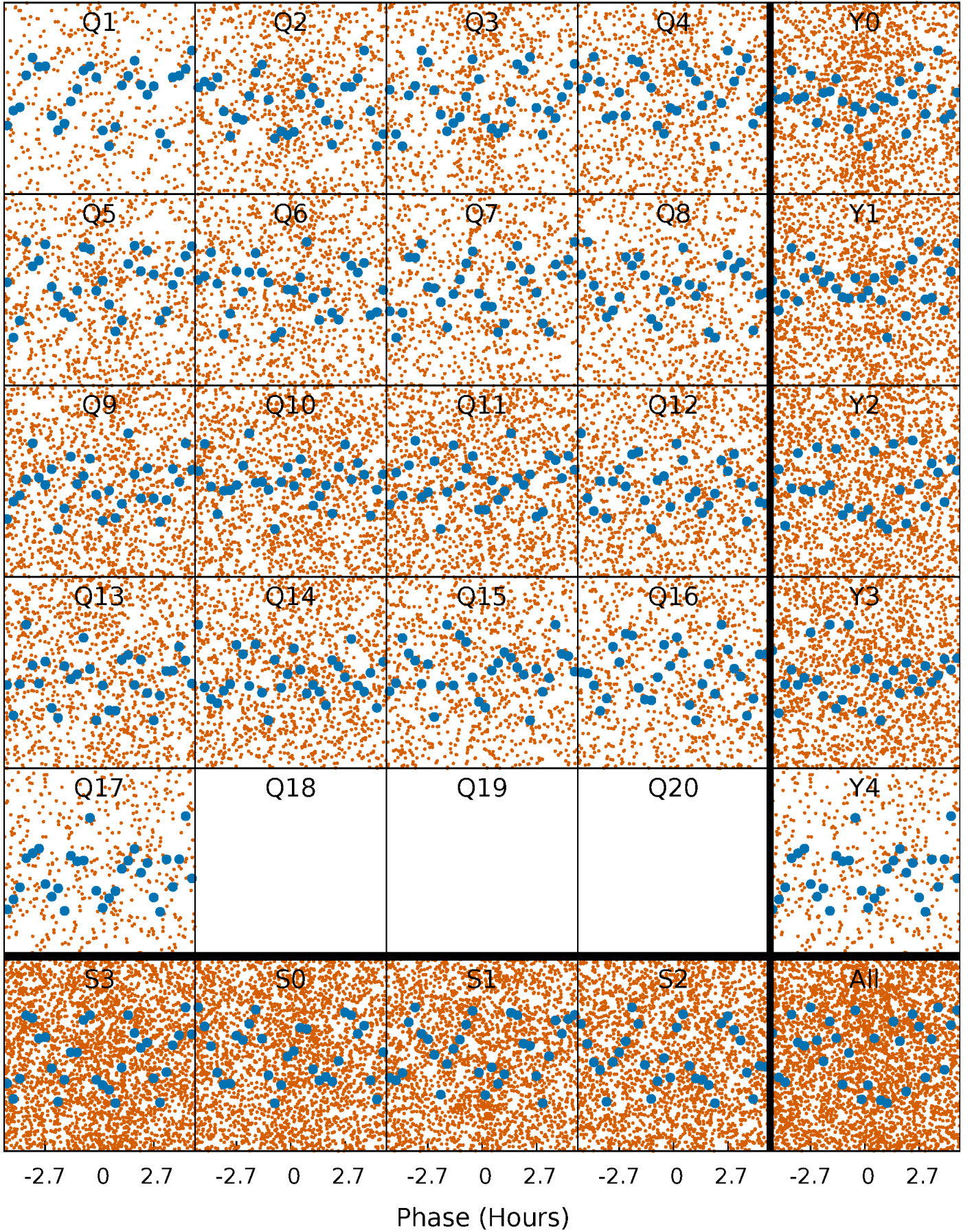


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



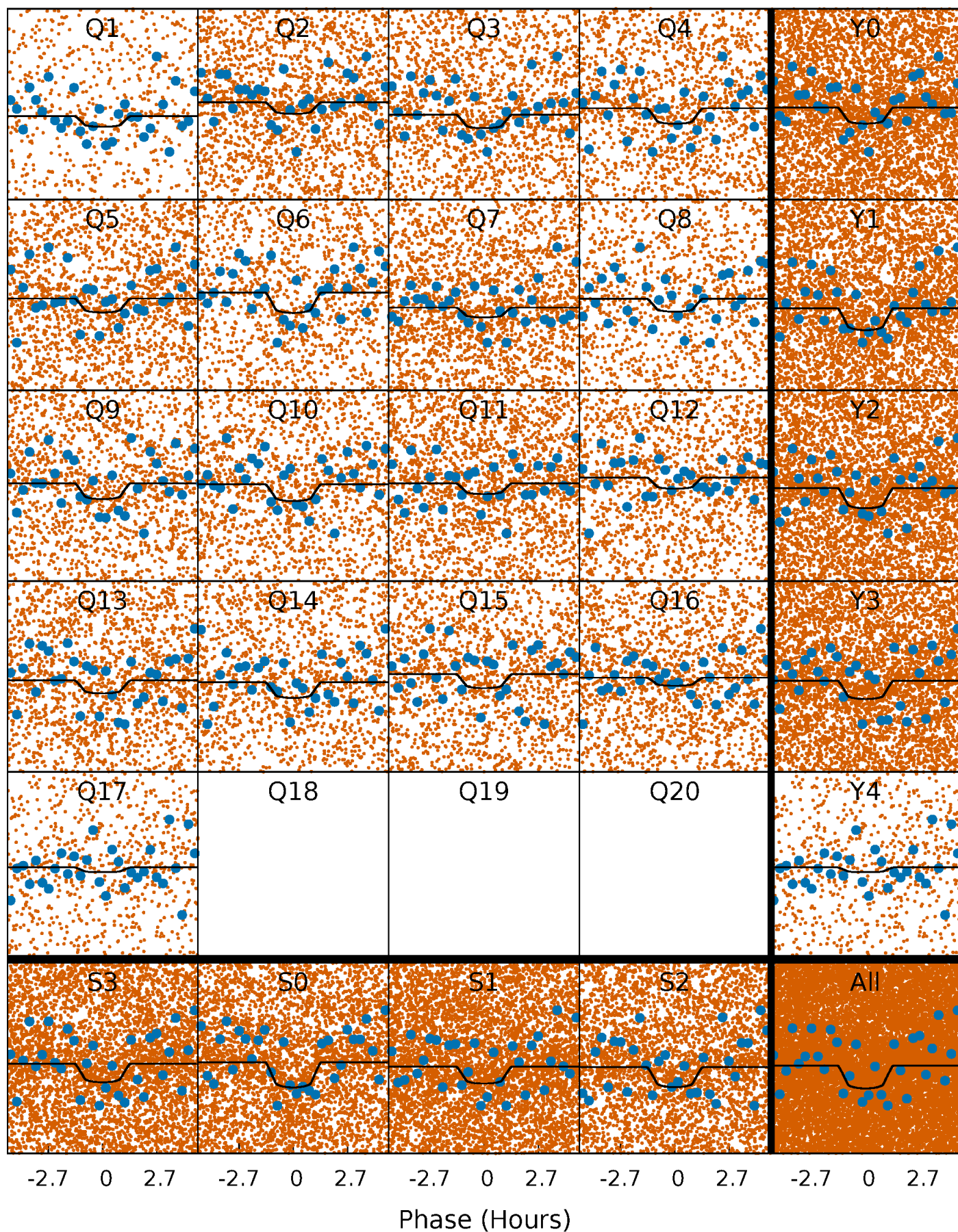
PDC Quarter-Phased Transit Curves

TCE 008914322-01 P= 0.514803 Days $T_0=131.929201$ (BKJD)



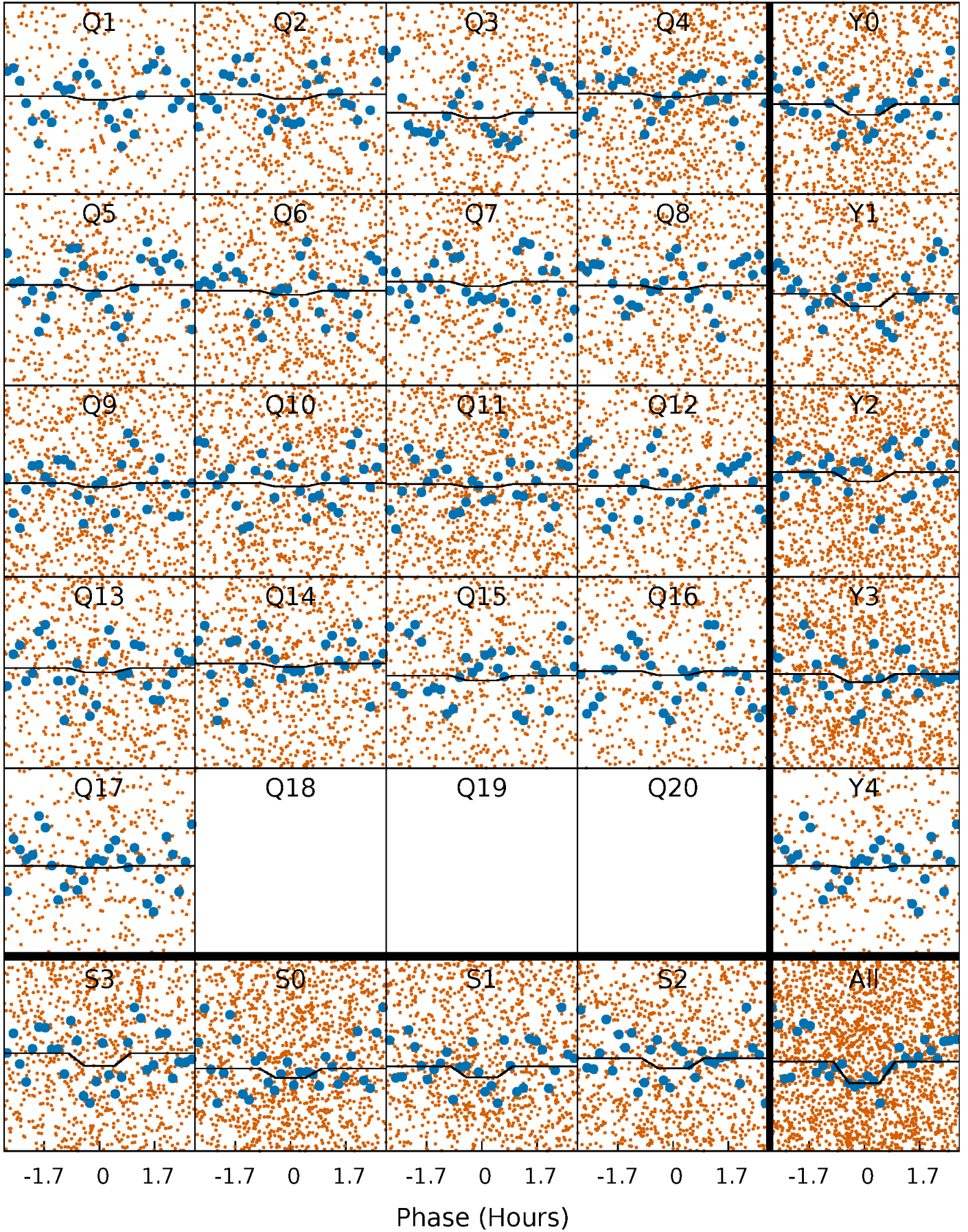
DV Quarter-Phased Transit Curves

TCE 008914322-01 P= 0.514803 Days $T_0=131.929201$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

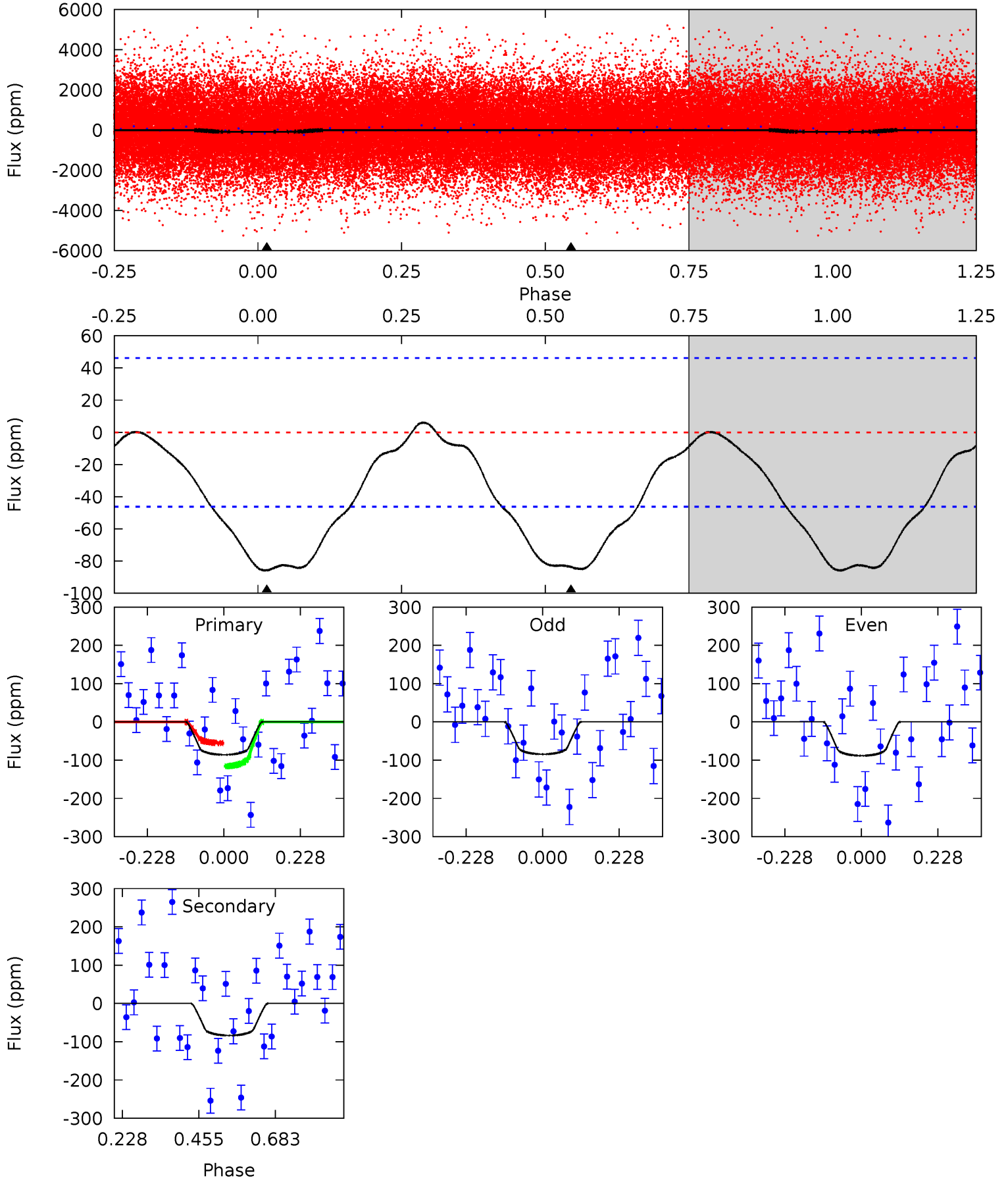
TCE 008914322-01 P= 0.514824 Days $T_0=131.923421$ (BKJD)



DV Model-Shift Uniqueness Test

008914322-01, P = 0.514803 Days, E = 131.414398 Days

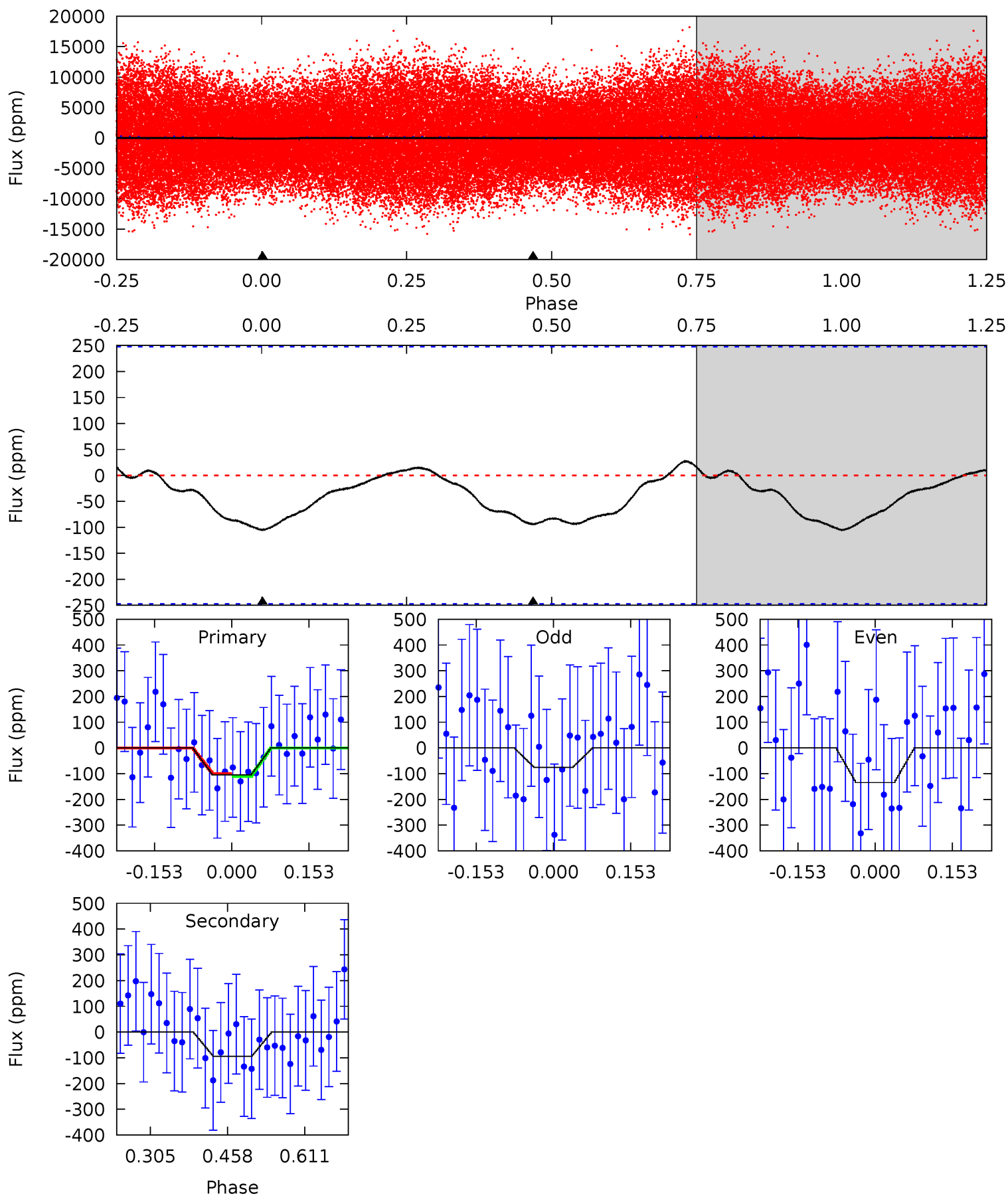
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.16	7.95	0	0	4.39	1.21	0.45	8.16	8.16	7.95	7.95	0.19	1.02	0.07	2.90



Alt Model-Shift Uniqueness Test

008914322-01, P = 0.514824 Days, E = 131.408597 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.90	1.70	0	0	4.48	1.43	0.32	1.90	1.90	1.70	1.70	0.53	1.19	0.21	0.11



Stellar Parameters For KIC 008914322

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7351^{+203}_{-330}	$3.738^{+0.417}_{-0.098}$	$0.020^{+0.200}_{-0.350}$	$3.010^{+0.435}_{-1.306}$	$1.808^{+0.184}_{-0.368}$	$0.093^{+0.312}_{-0.029}$
	+3%/-4%	+11%/-3%	+1000%/-1750%	+14%/-43%	+10%/-20%	+334%/-31%
Source	KIC0	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 008914322-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-84 ± 11	$3.42^{+2.34}_{-2.05}$	6132^{+445}_{-681}	5717^{+5270}_{-3106}	$0.910^{+4.850}_{-0.606}$
Alt.	-94 ± 55	$3.21^{+2.30}_{-1.97}$	6160^{+444}_{-676}	6060^{+6464}_{-9838}	$1.042^{+6.911}_{-0.802}$

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 $A_{obs} \gg 1.0$

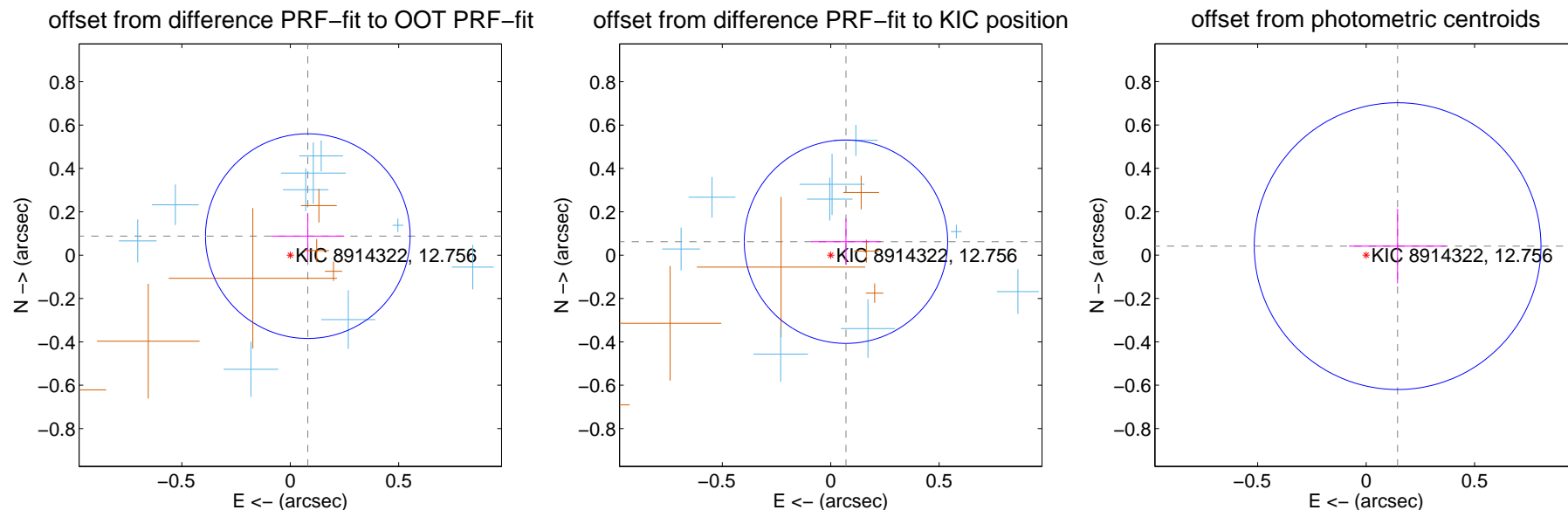
DV Centroid Data

Supplemental centroid analysis for 008914322-01. Kepler magnitude: 12.76. Transit SNR 11.34

There are 9 quarters with good PRF difference image offsets

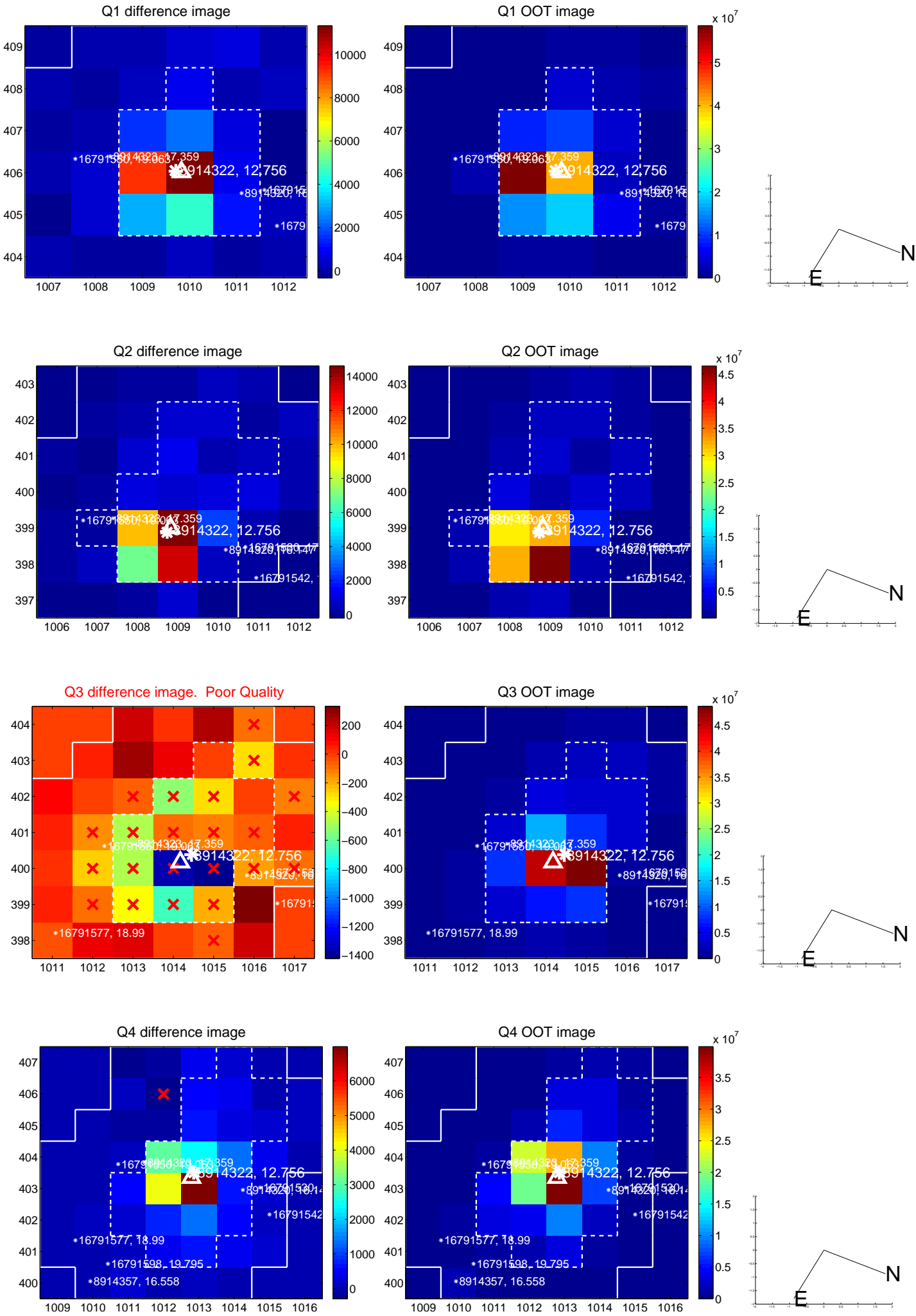
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.119 ± 0.157	0.76	-0.081 ± 0.168	0.088 ± 0.106
PRF-fit source offset from KIC position	0.094 ± 0.156	0.60	-0.070 ± 0.161	0.062 ± 0.105
photometric centroid source offset	0.15 ± 0.22	0.68	-0.15 ± 0.22	0.04 ± 0.17

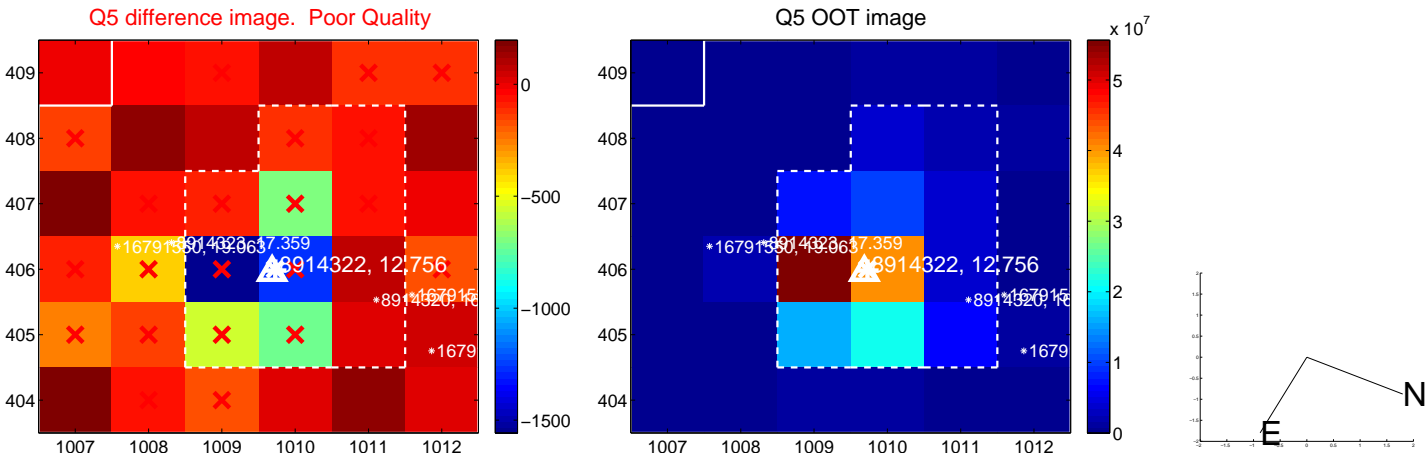


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

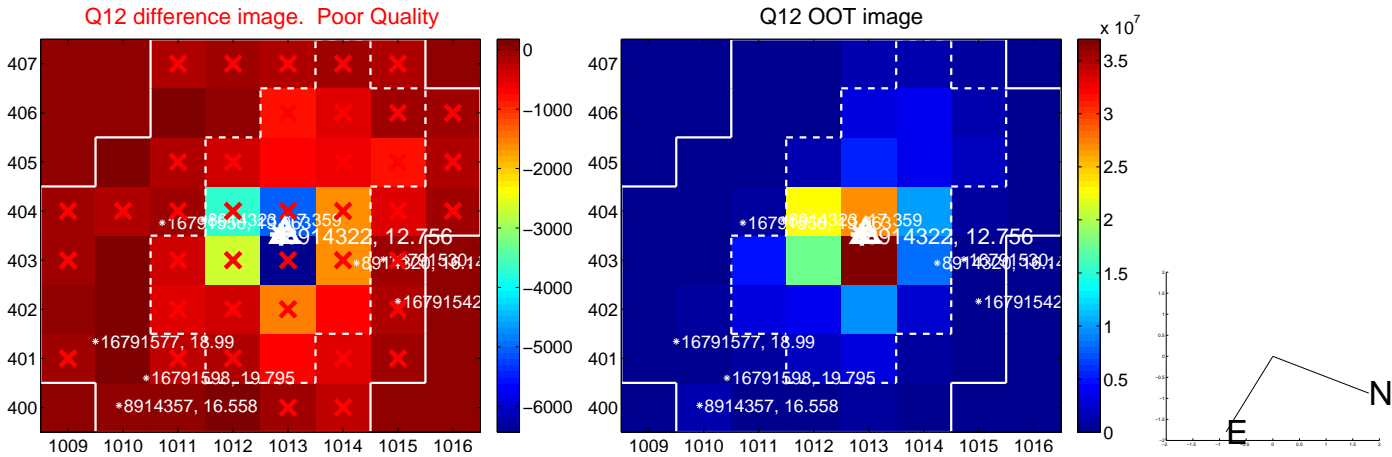
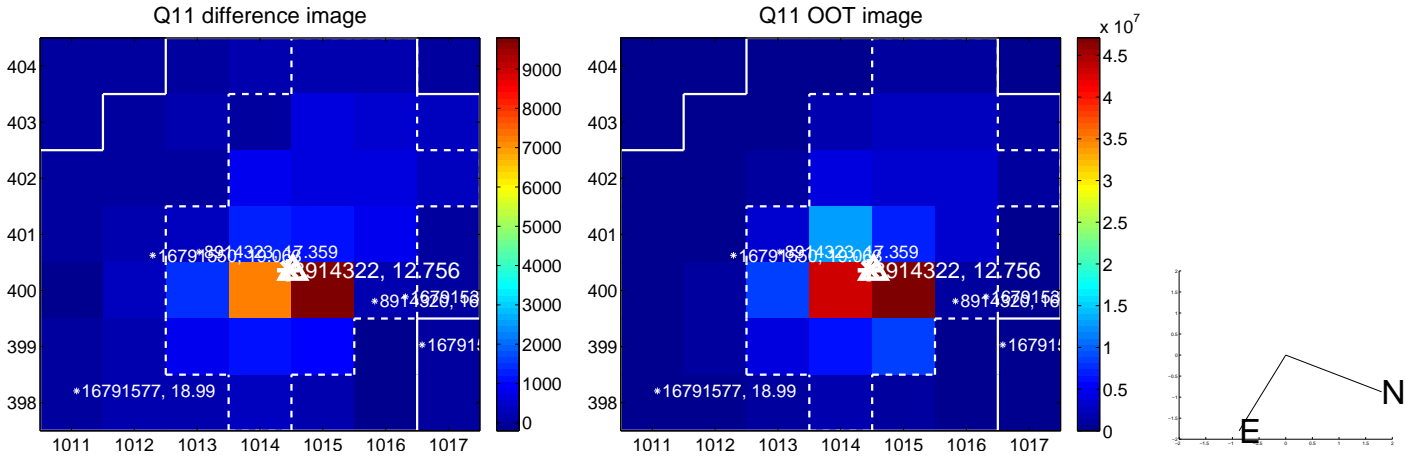
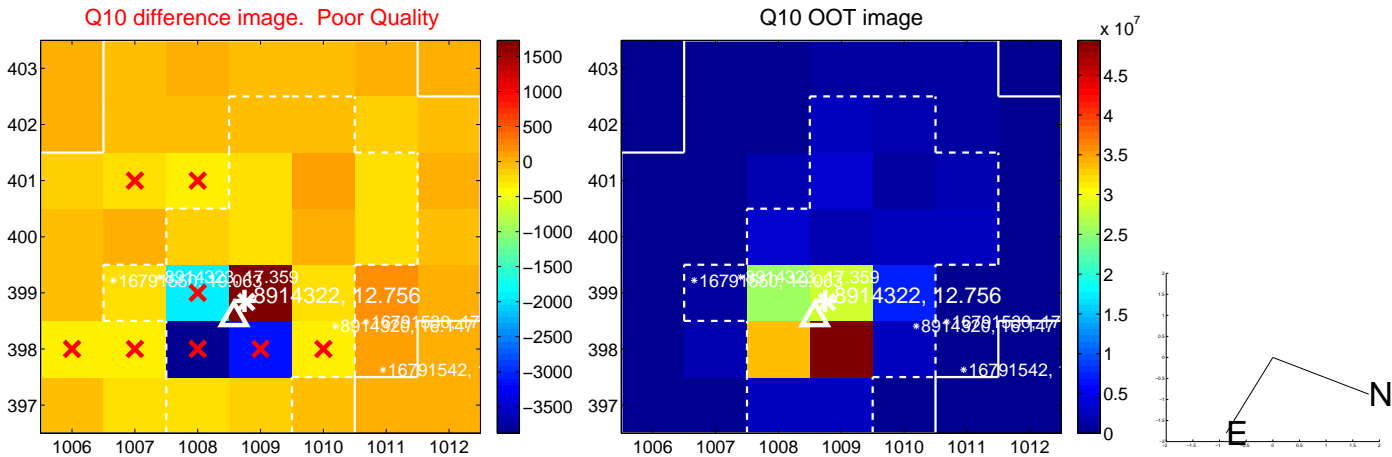
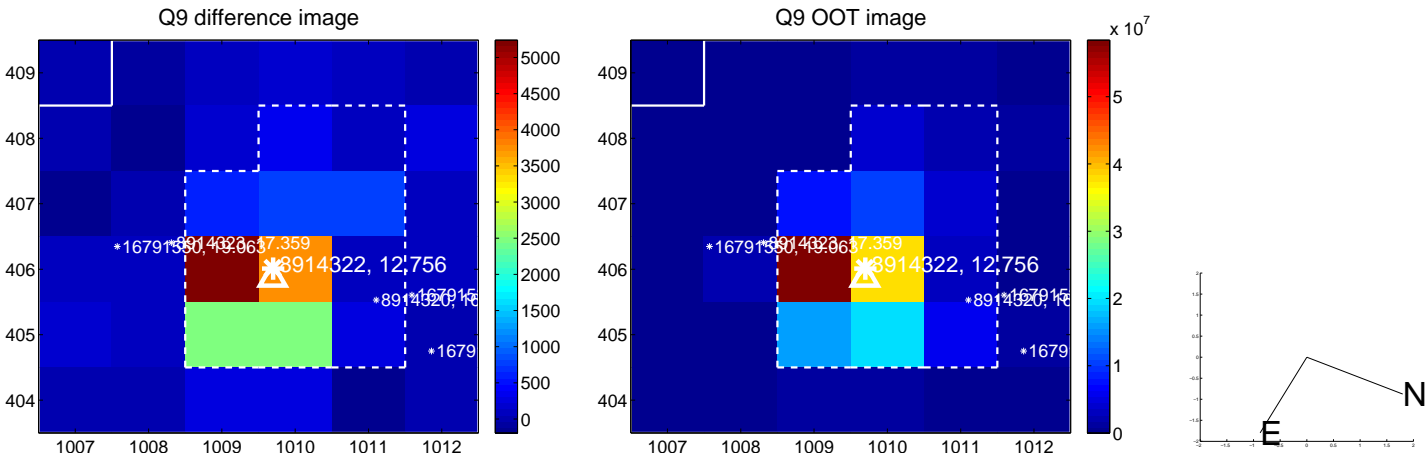
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



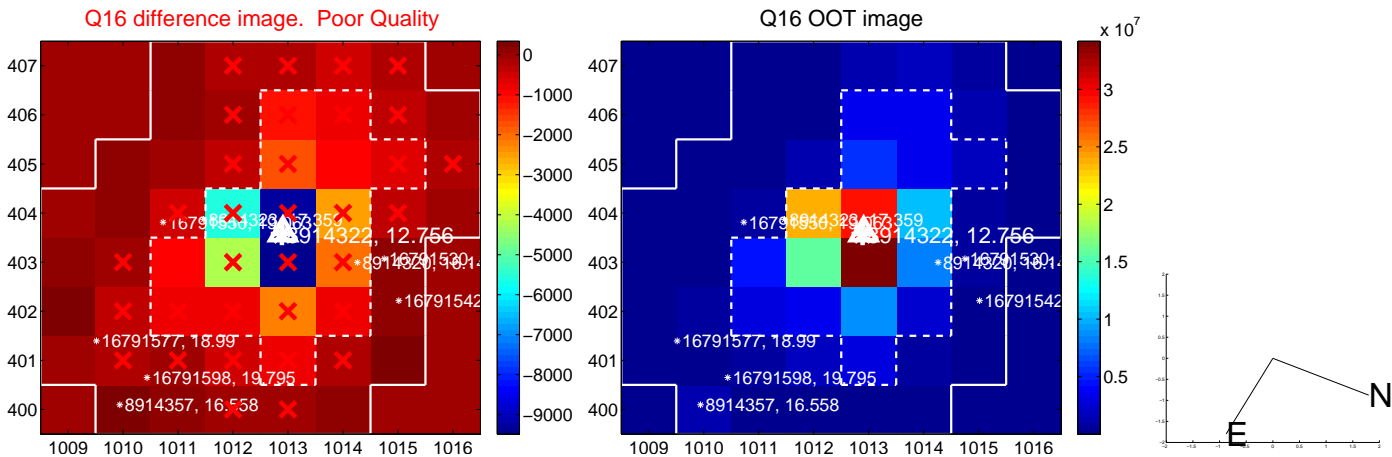
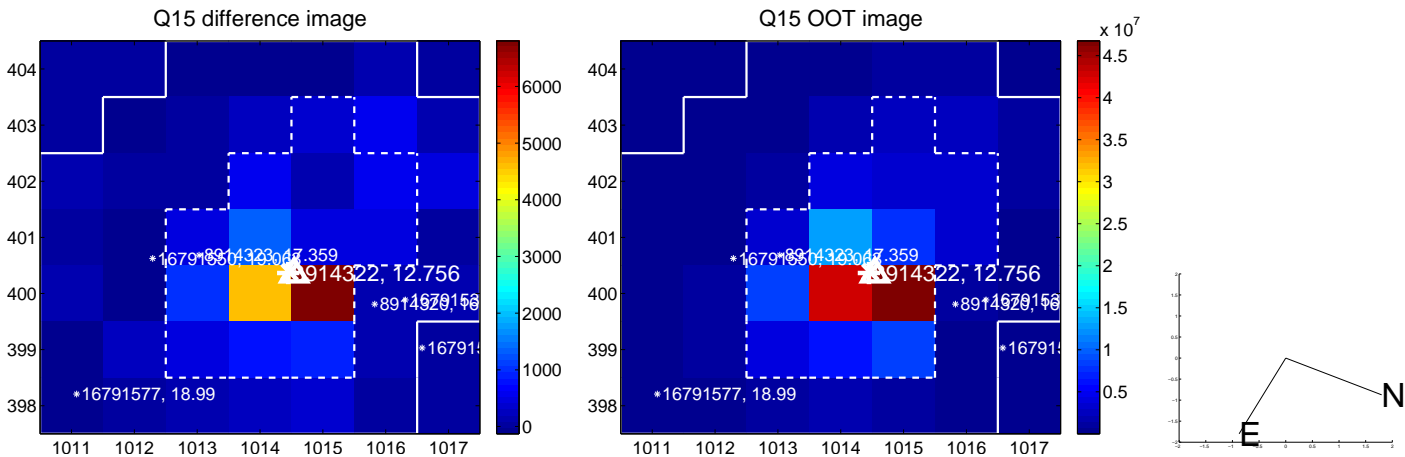
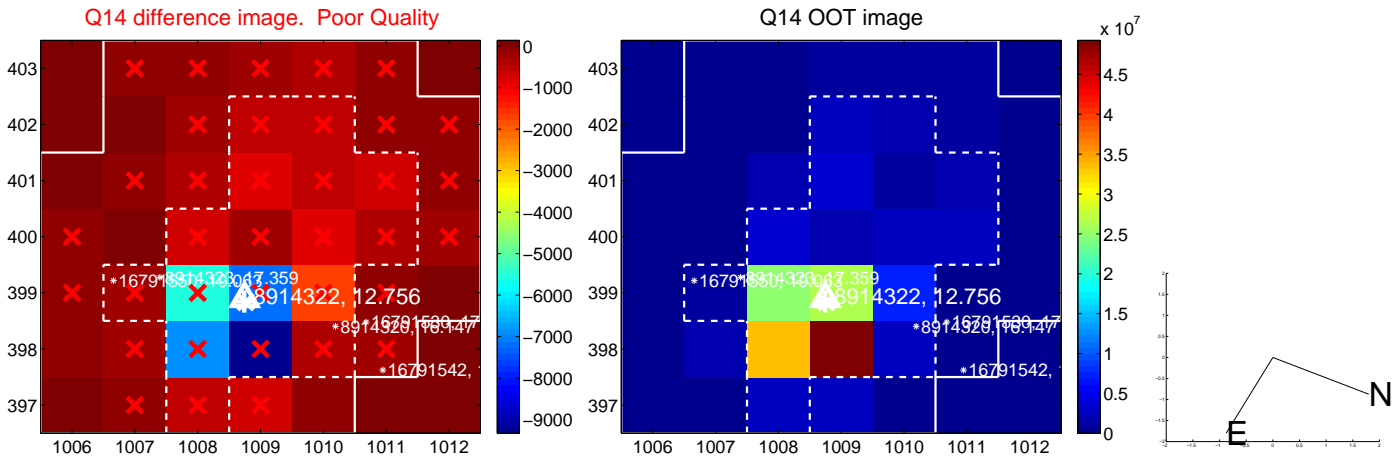
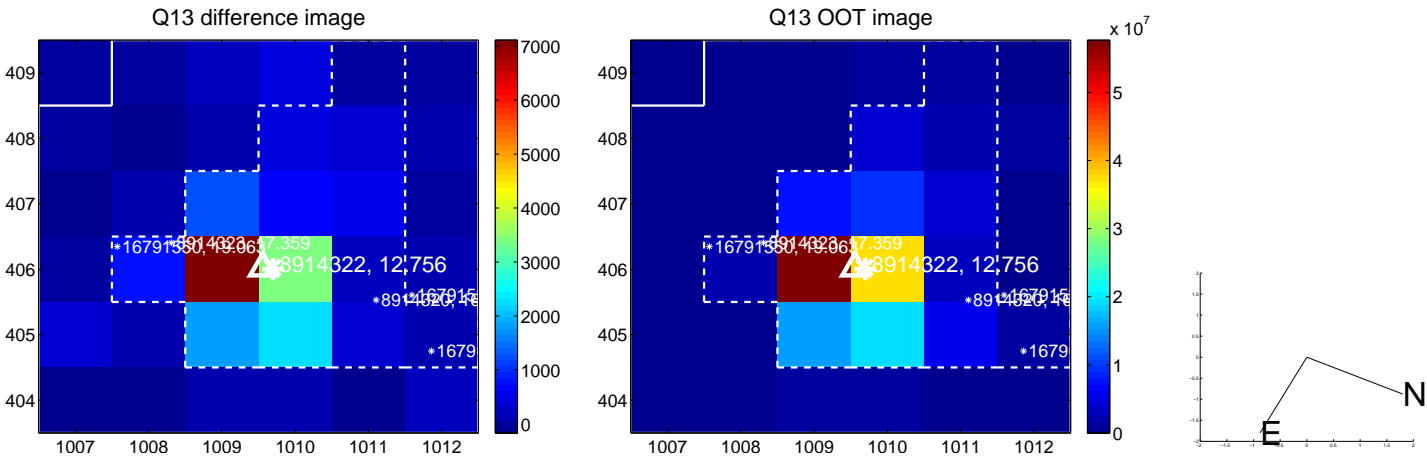
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



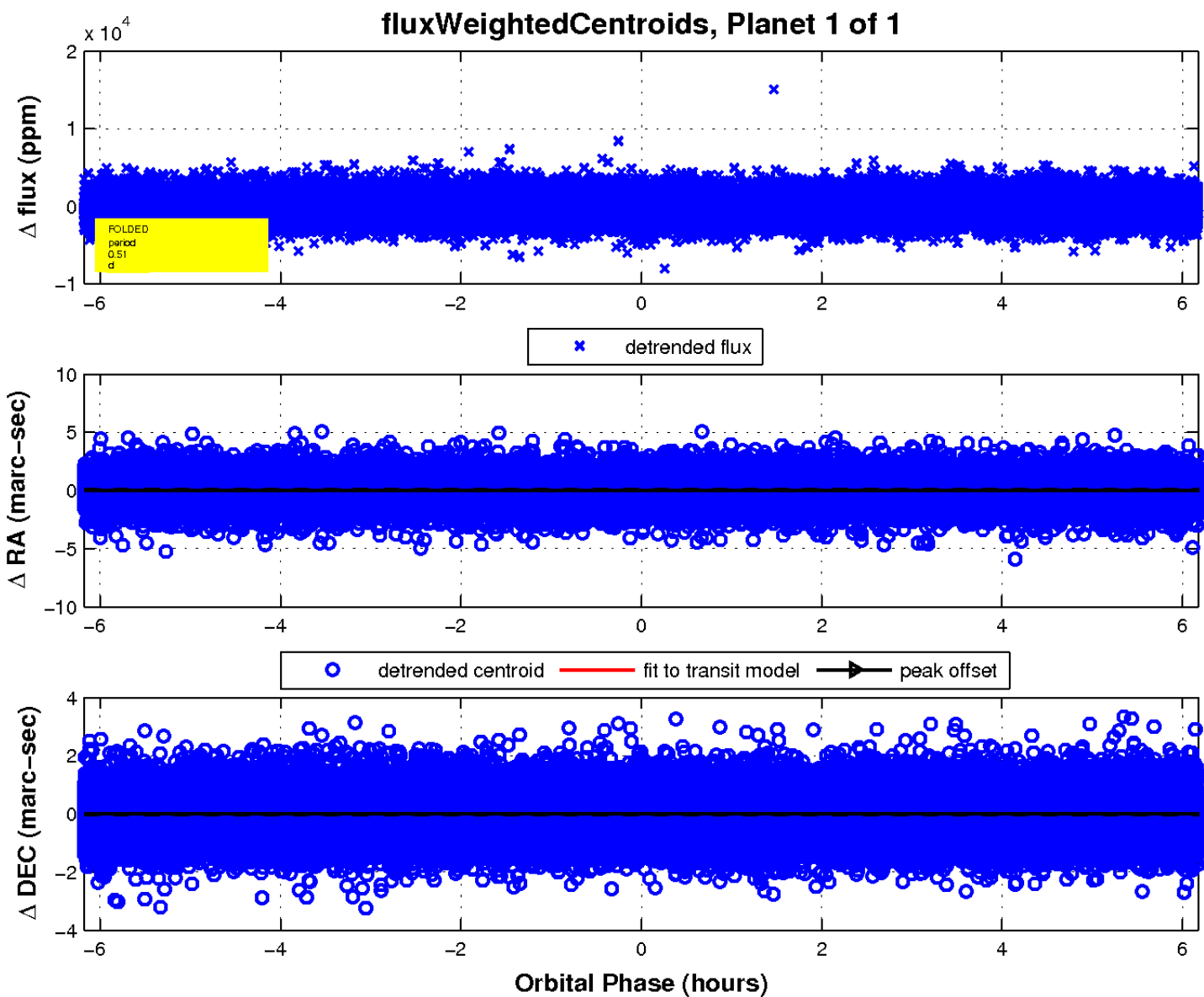
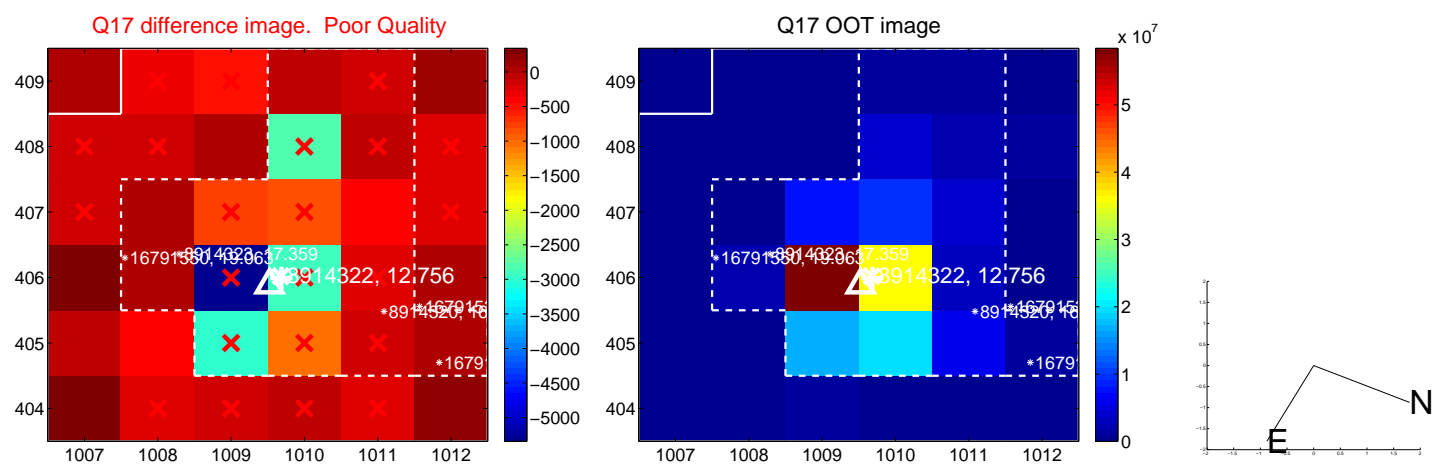
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white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

