

KIC 006470922

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})
006470922-01	OBS	No	0.877251	132.114404	76.7	3.204	9.8	7.0	3.15	7373	3.22	54377.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006470922-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—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.

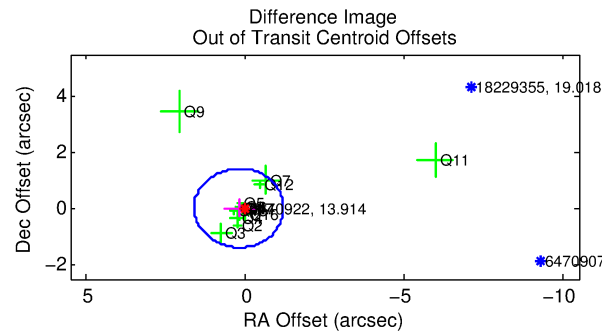
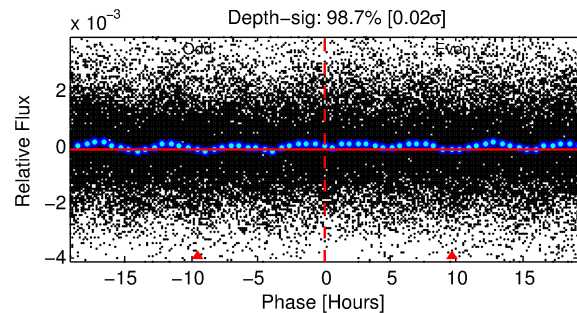
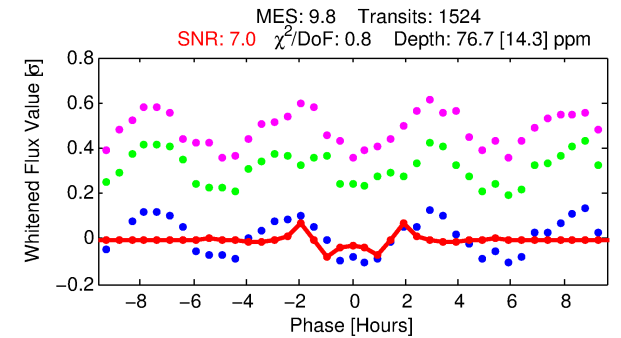
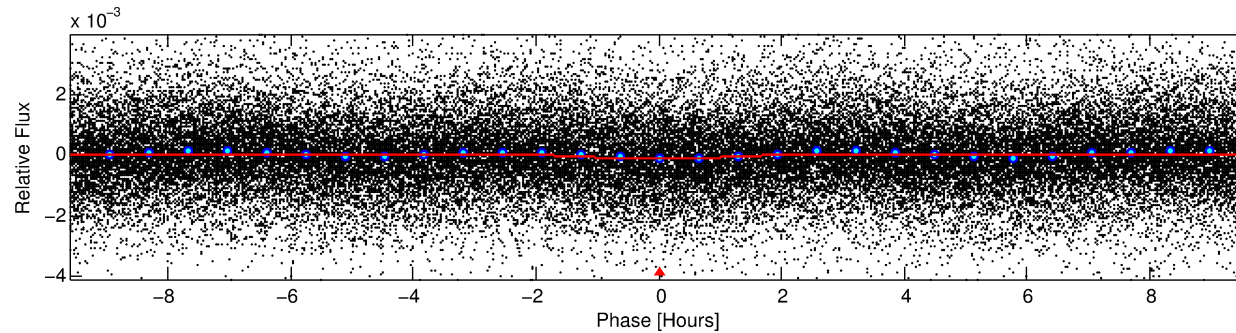
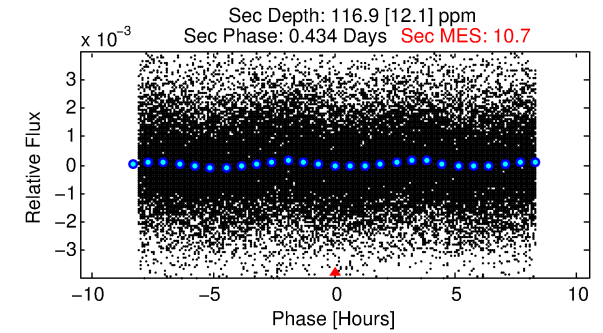
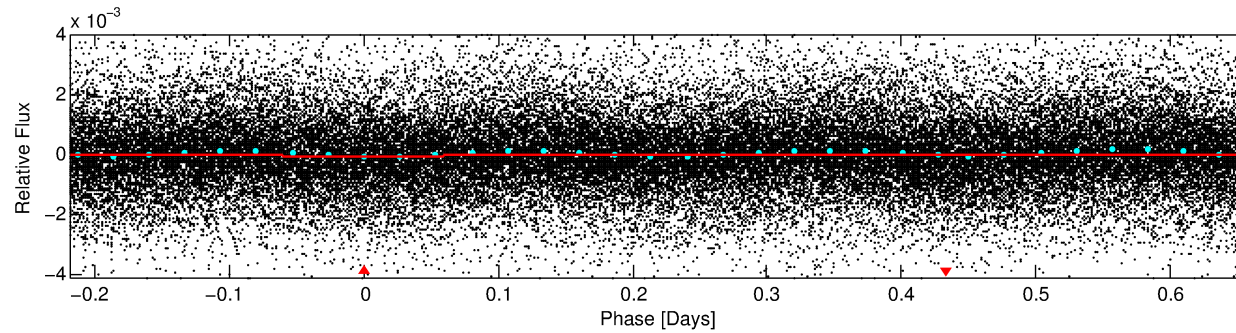
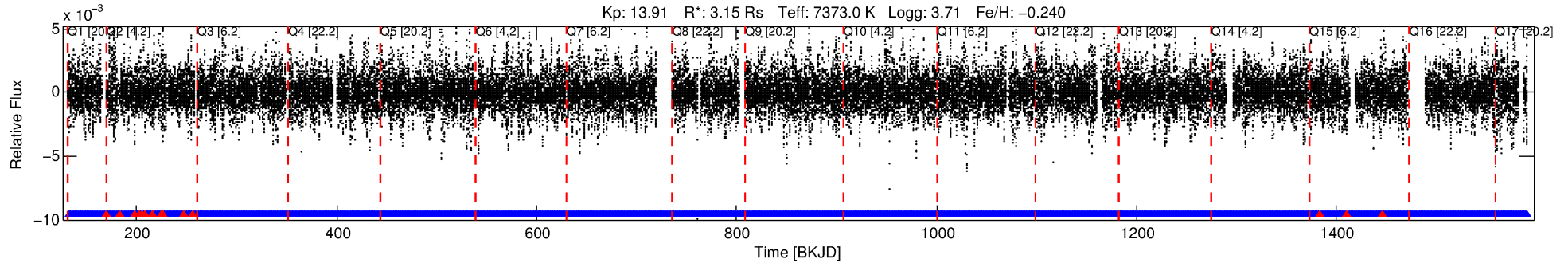
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006470922-01

No Significant Match Found

DV One-Page Summary

KIC: 6470922 Candidate: 1 of 1 Period: 0.877 d



DV Fit Results:

Period = 0.87725 [0.00001] d
Epoch = 132.1144 [0.0018] BKJD
Rp/R* = 0.0094 [0.0023]
a/R* = 1.35 [0.79]
b = 0.90 [0.29]
Seff = 54377.71 [45234.68]
Teq = 3894 [810] K
Rp = 3.22 [1.78] Re
a = 0.0220 [0.0109] AU
Ag = 3.00 [2.88] [0.69σ]
Teffp = 7921 [1064] K [3.01σ]

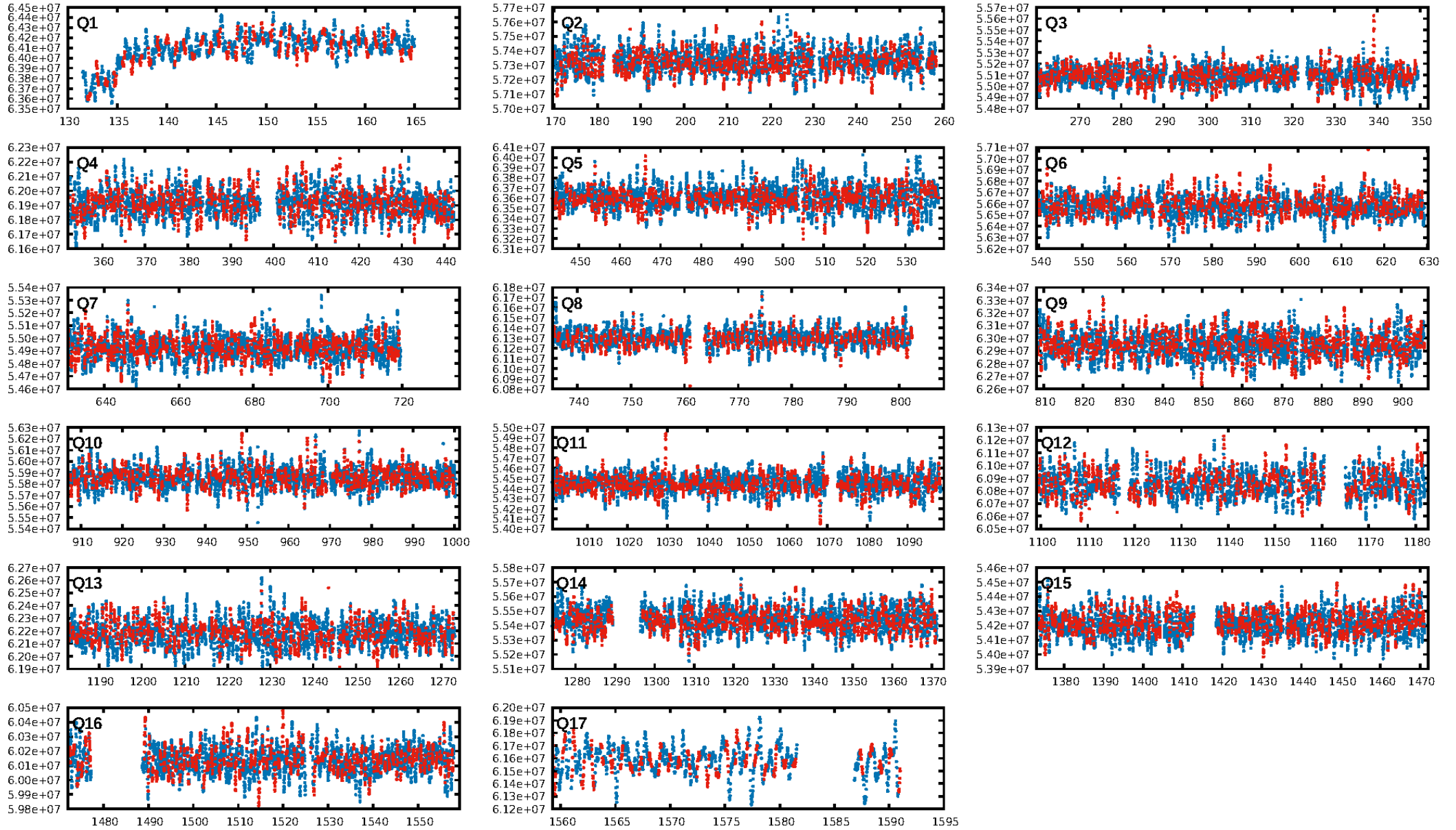
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.93e-22
RollingBand-fgt: 0.99 [1440/1455]
GhostDiagnostic-chr: 1.521
Centroid-sig: 1.6%
Centroid-so: 0.346 arcsec [0.74σ]
OotOffset-rm: 0.201 arcsec [0.43σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-rm: 0.098 arcsec [0.33σ]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.60 [9/15]
DiffImageOverlap-fno: 1.00 [17/17]

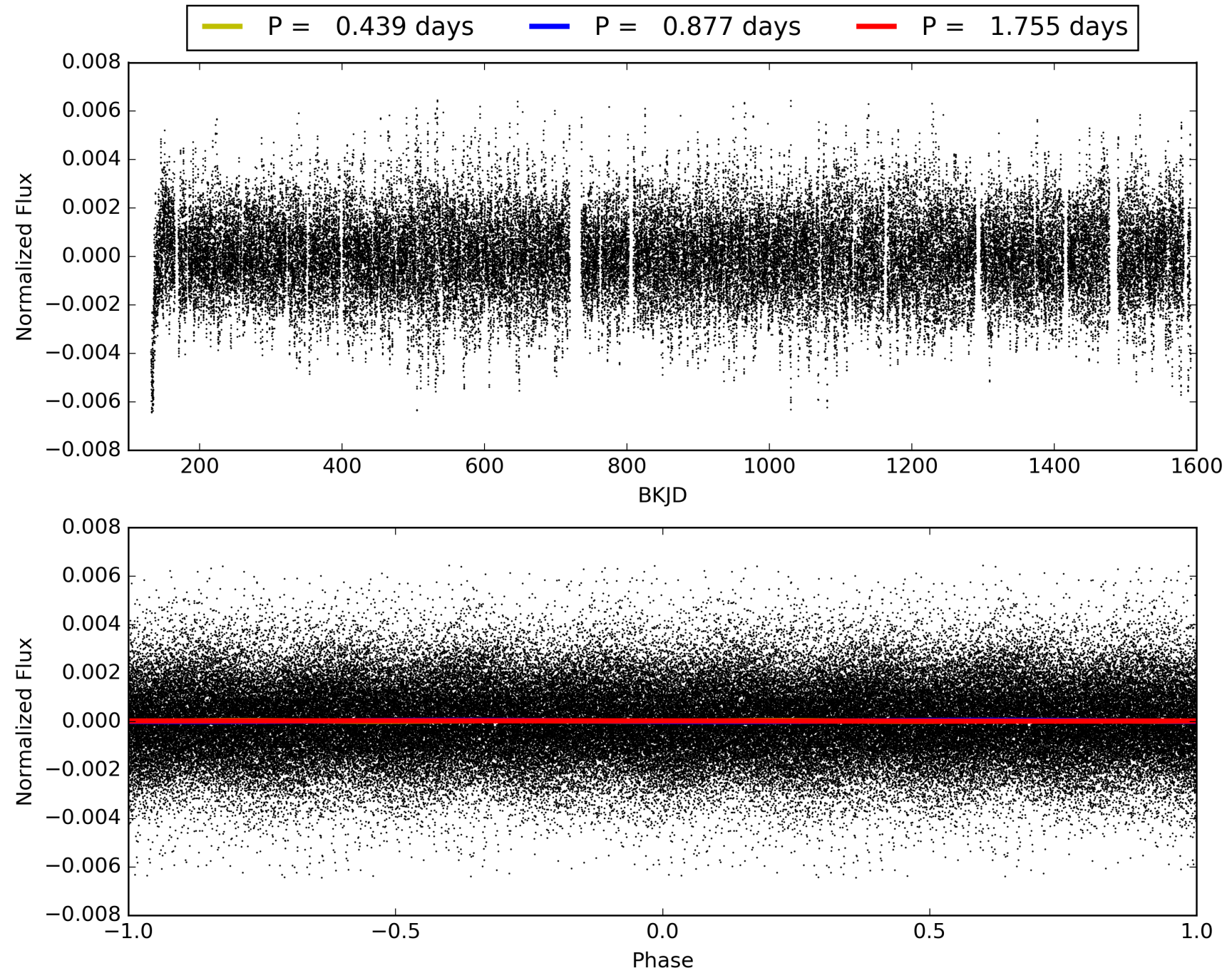
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:52:12 Z

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

TCE 006470922-01, PDC Light Curves

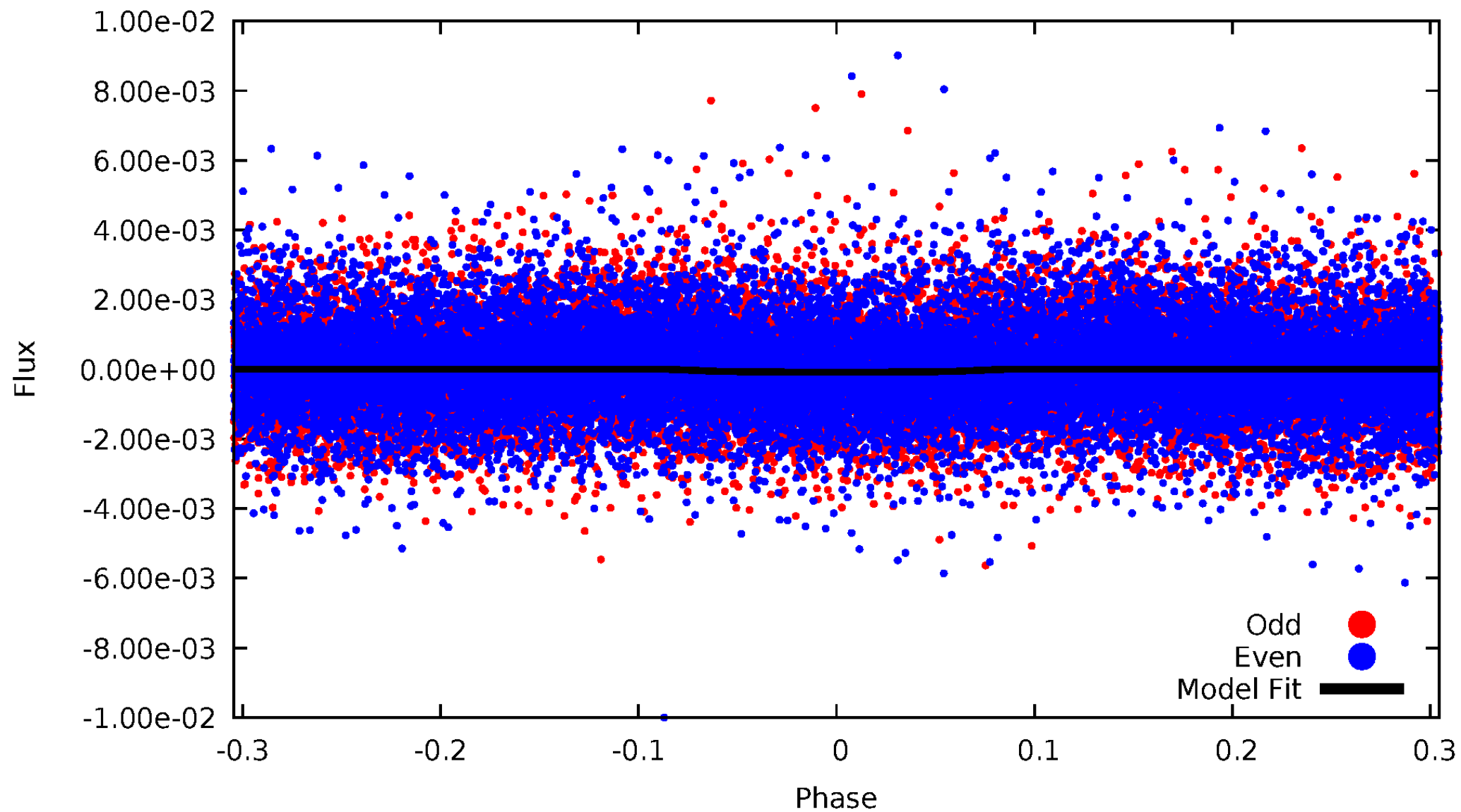


TCE 006470922-01



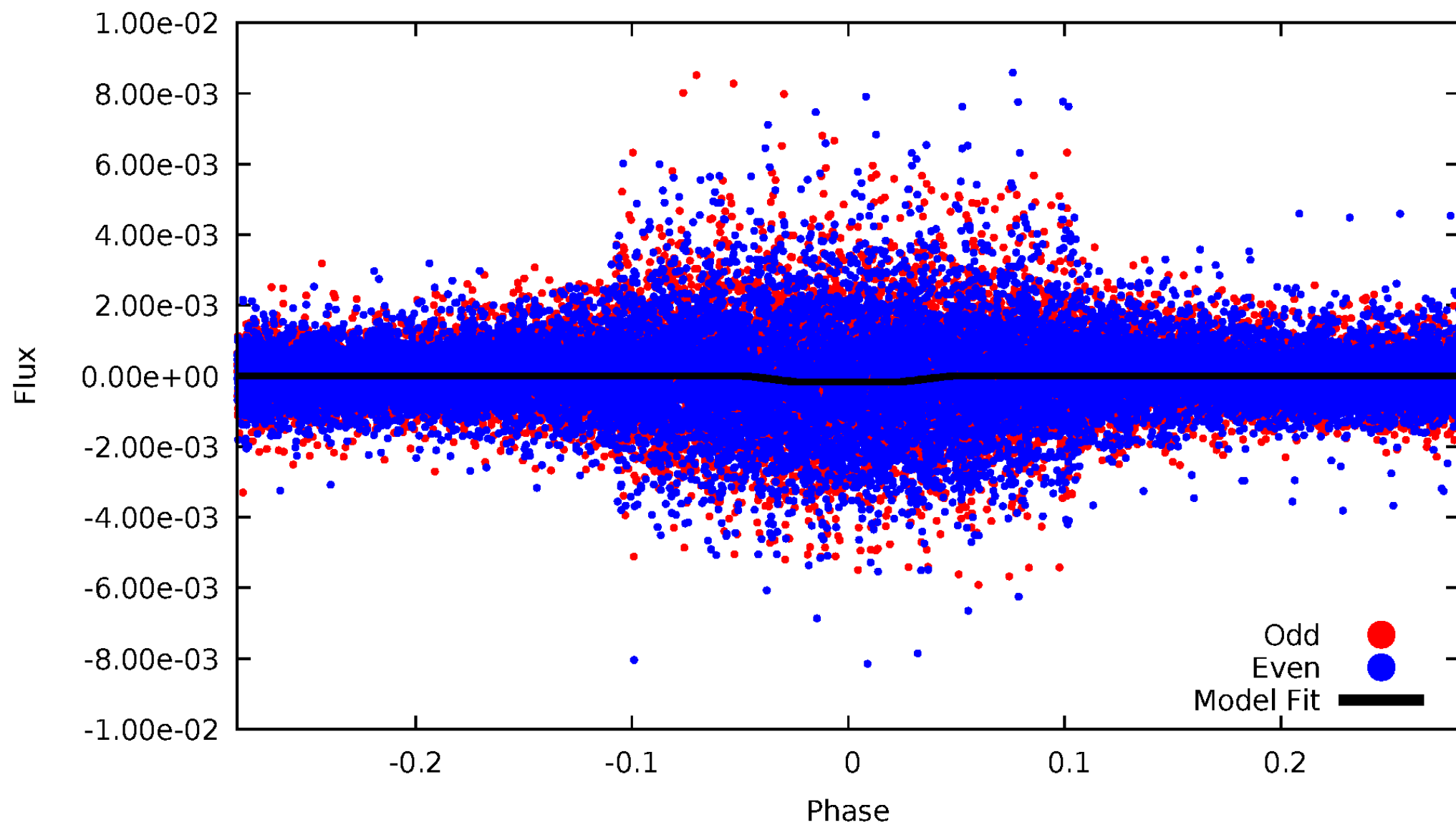
DV Odd/Even

TCE 006470922-01



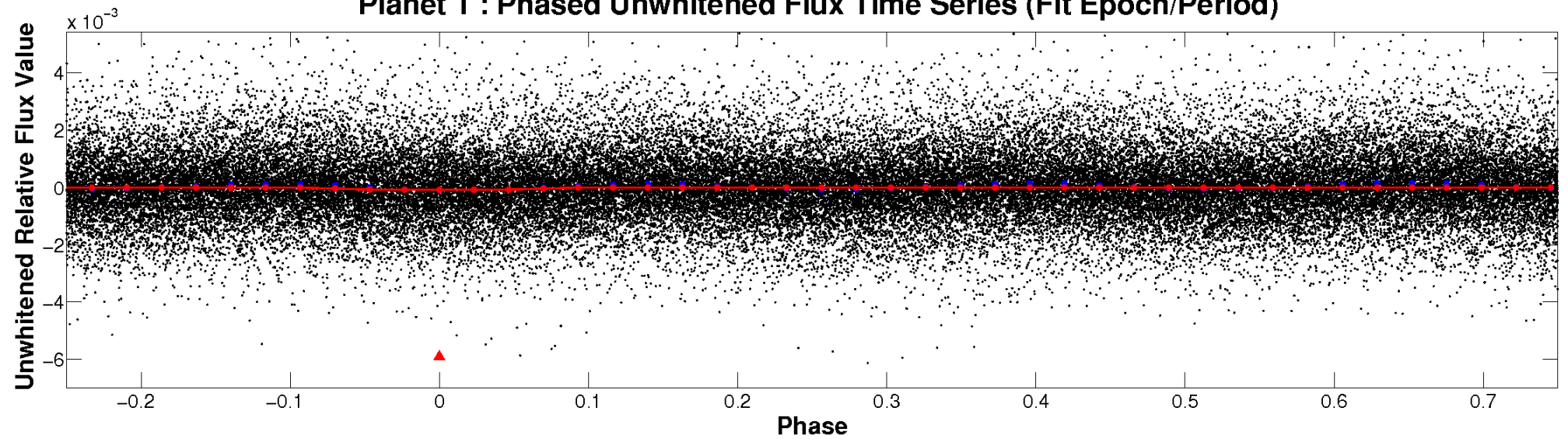
ALT Odd/Even

TCE 006470922-01

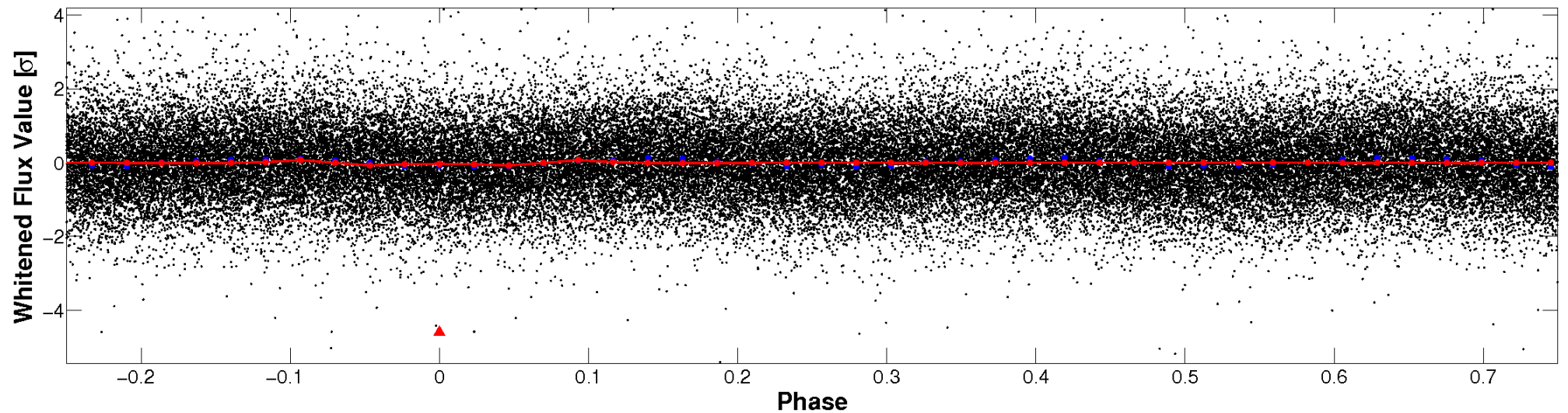


Non-Whitened Vs. Whitened Light Curve

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

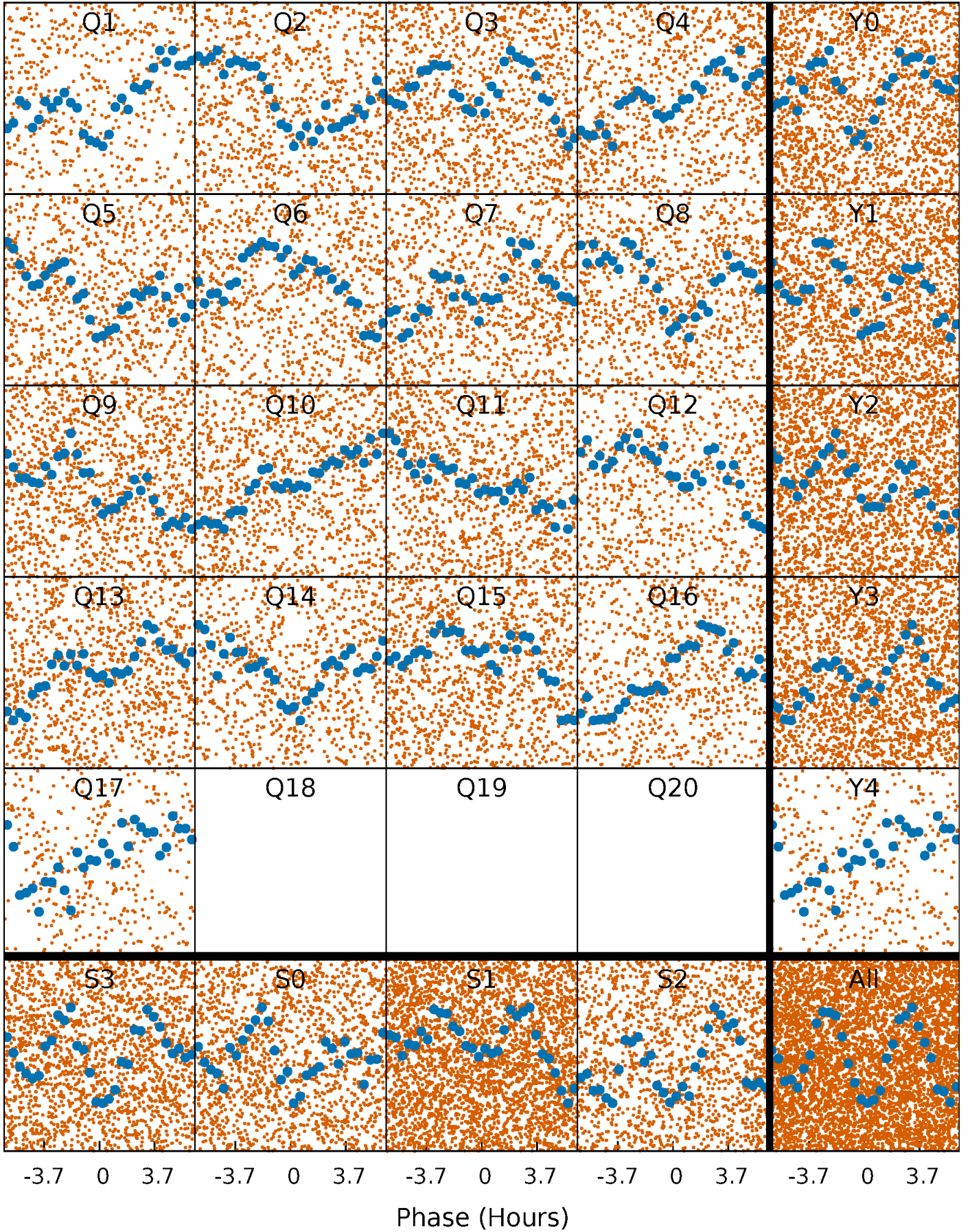


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



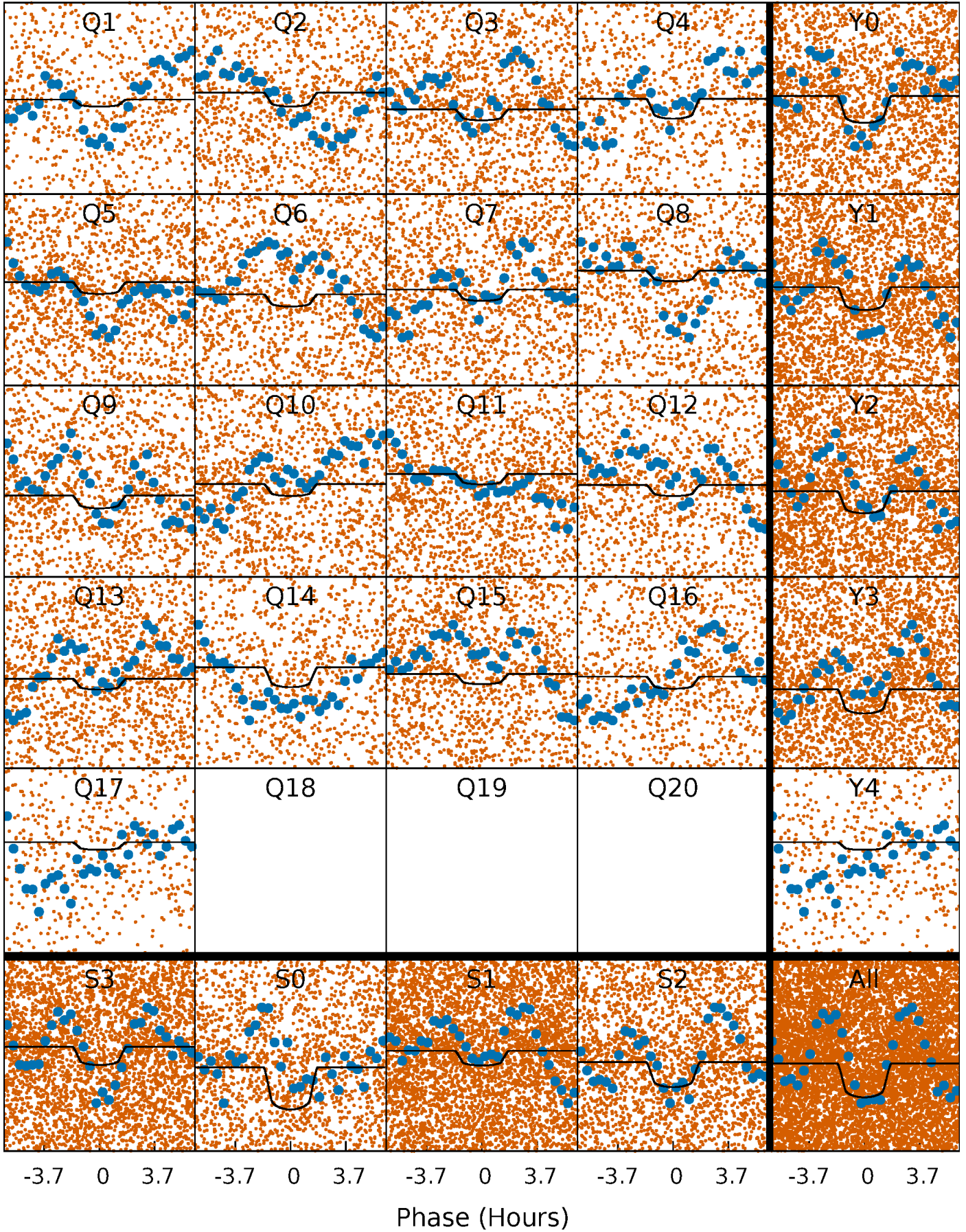
PDC Quarter-Phased Transit Curves

TCE 006470922-01 P= 0.877251 Days $T_0=132.114404$ (BKJD)



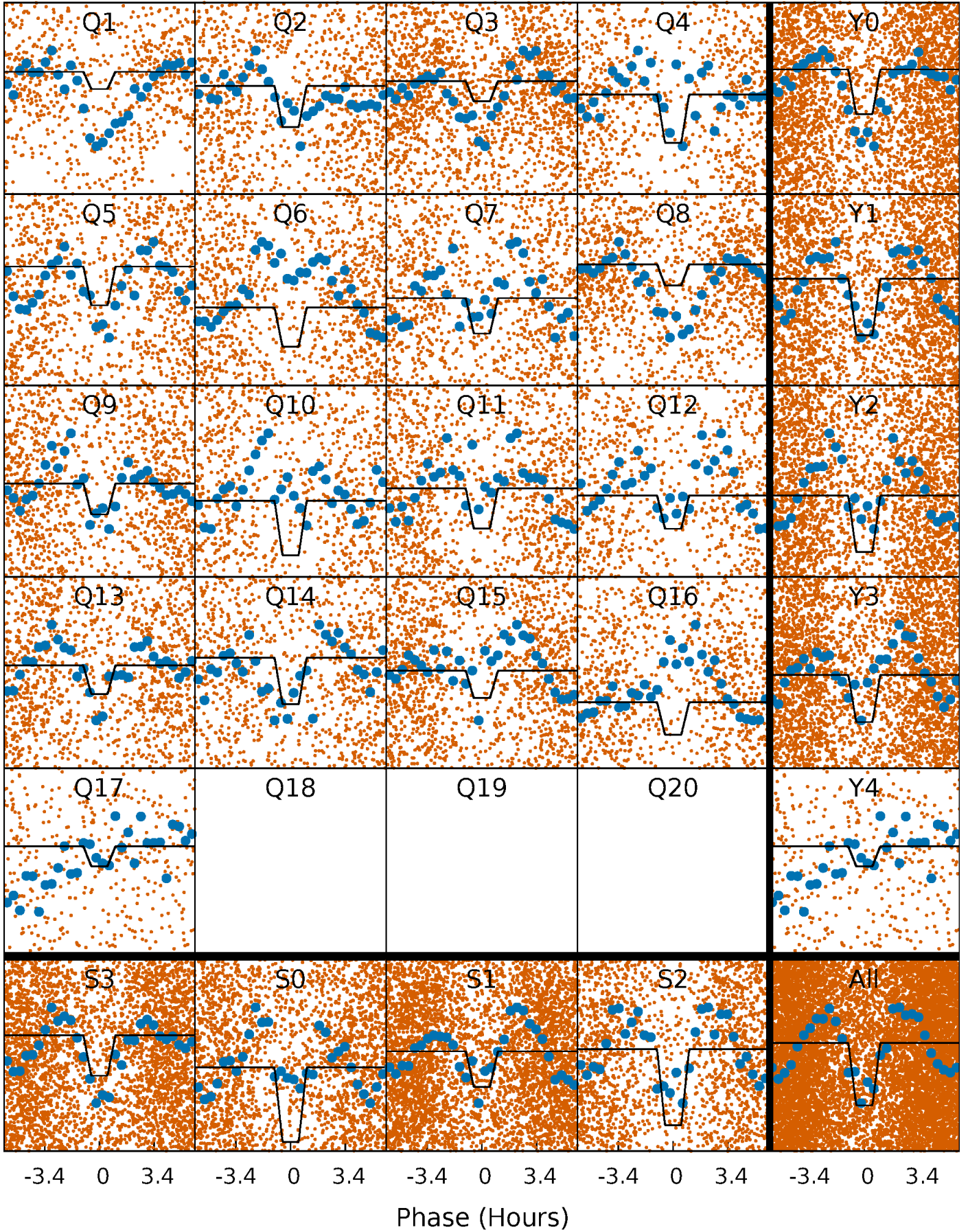
DV Quarter-Phased Transit Curves

TCE 006470922-01 P= 0.877251 Days $T_0=132.114404$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

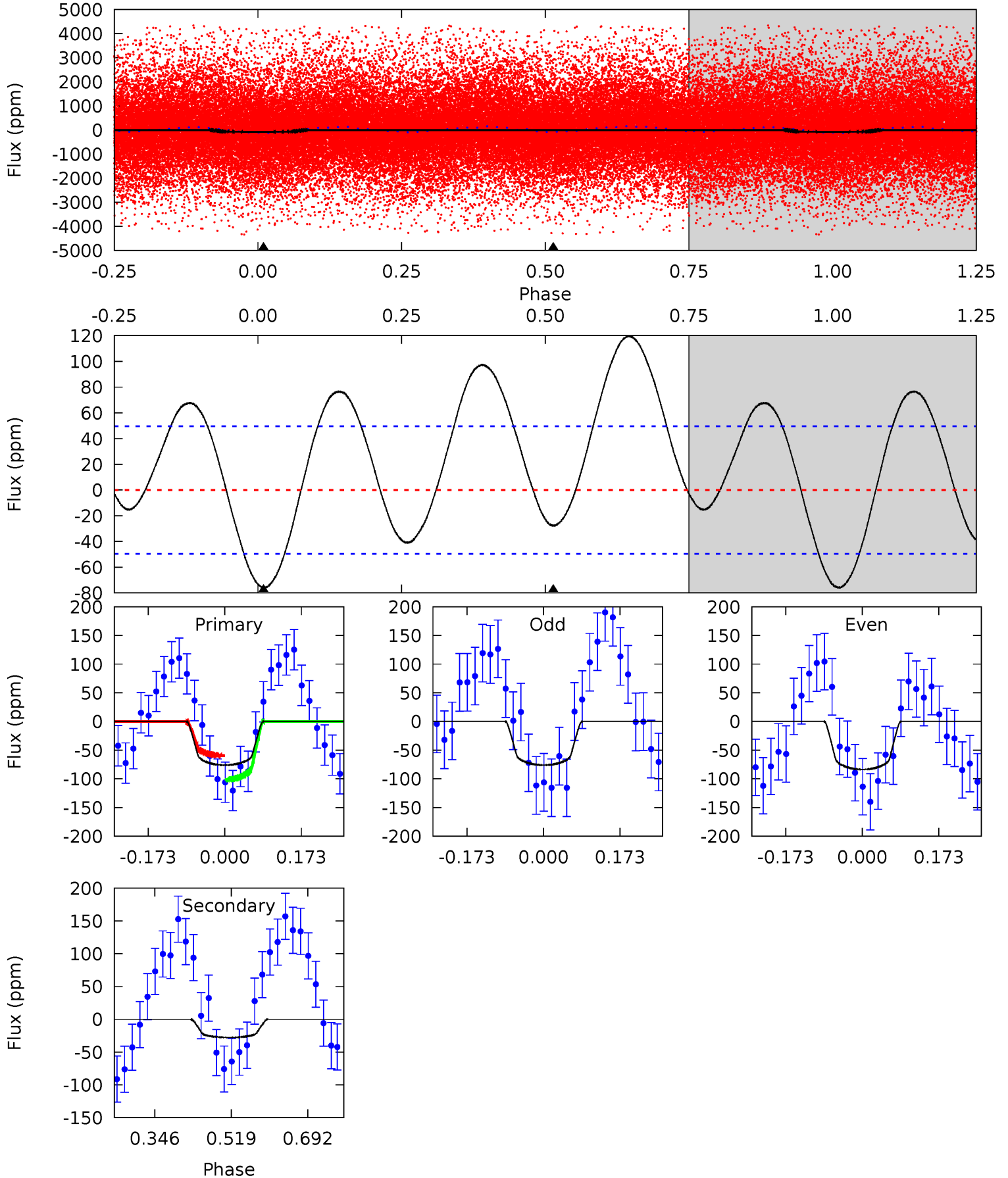
TCE 006470922-01 P= 0.877279 Days $T_0=132.105152$ (BKJD)



DV Model-Shift Uniqueness Test

006470922-01, P = 0.877251 Days, E = 131.237153 Days

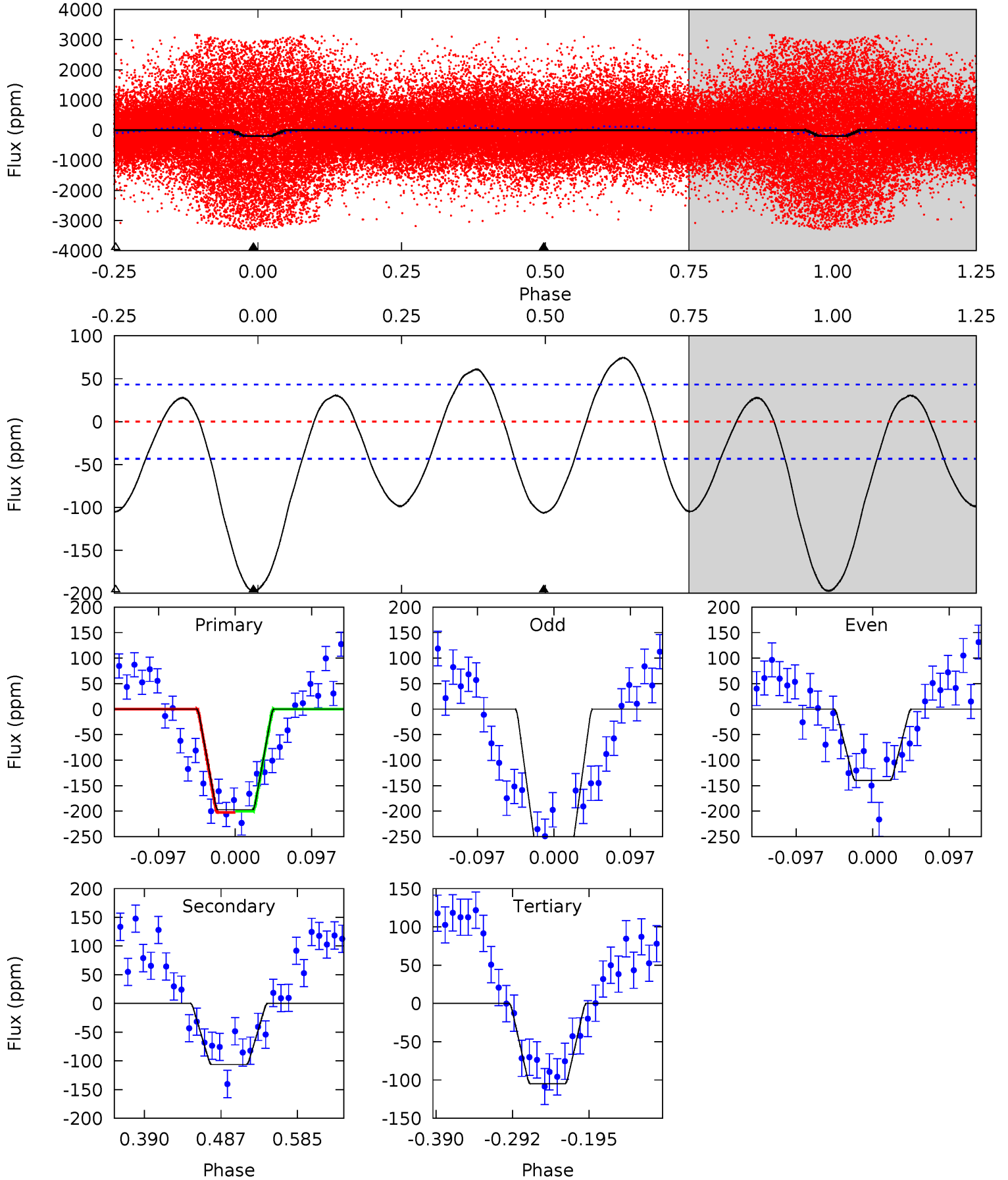
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.82	2.49	0	0	4.45	1.36	2.75	6.82	6.82	2.49	2.49	0.34	0.61	0.61	1.89



Alt Model-Shift Uniqueness Test

006470922-01, P = 0.877279 Days, E = 131.227873 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	11.2	11.1	0	4.57	1.66	5.92	9.77	20.8	0.16	11.2	6.65	0.75	0.27	0.13



Stellar Parameters For KIC 006470922

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7373^{+230}_{-307}	$3.706^{+0.486}_{-0.054}$	$-0.240^{+0.250}_{-0.350}$	$3.149^{+0.387}_{-1.550}$	$1.838^{+0.170}_{-0.510}$	$0.083^{+0.389}_{-0.022}$
	+3%/-4%	+13%/-1%	+104%/-146%	+12%/-49%	+9%/-28%	+468%/-27%
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 006470922-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-28 ± 11	$2.86^{+0.99}_{-0.94}$	5205^{+386}_{-672}	4989^{+1150}_{-1152}	$0.879^{+1.315}_{-0.445}$
Alt.	-106 ± 9	$4.02^{+1.07}_{-1.16}$	5219^{+360}_{-714}	6144^{+780}_{-699}	$1.736^{+1.551}_{-0.649}$

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

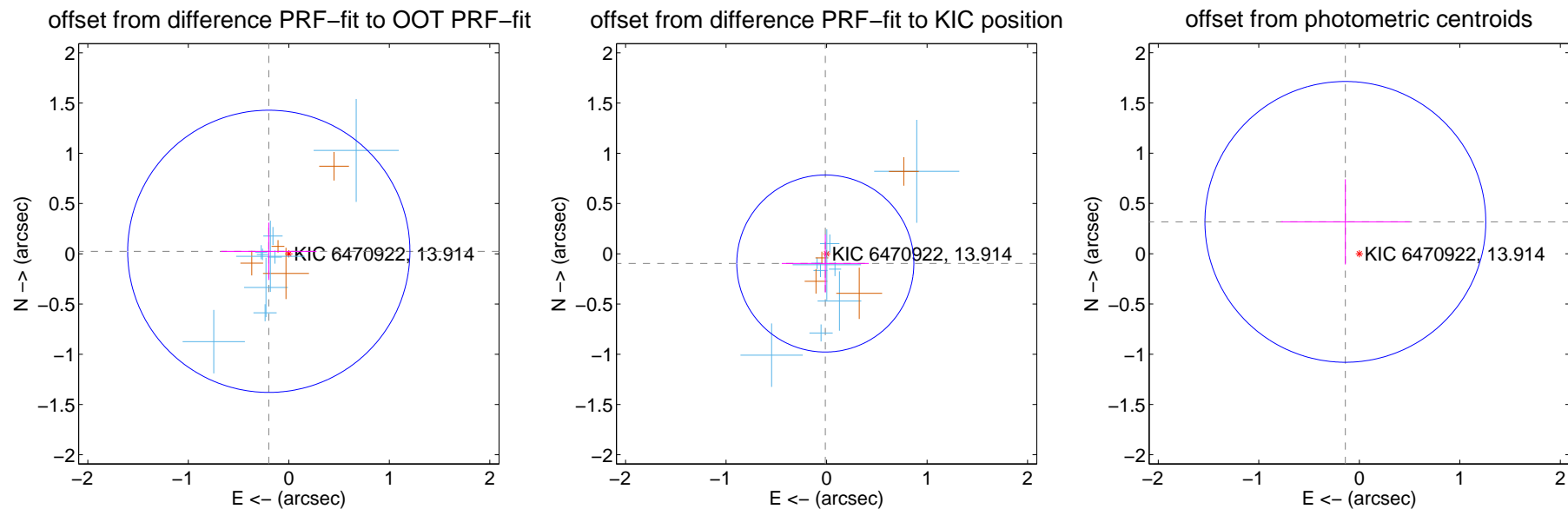
DV Centroid Data

Supplemental centroid analysis for 006470922-01. Kepler magnitude: 13.91. Transit SNR 7.00

There are 9 quarters with good PRF difference image offsets

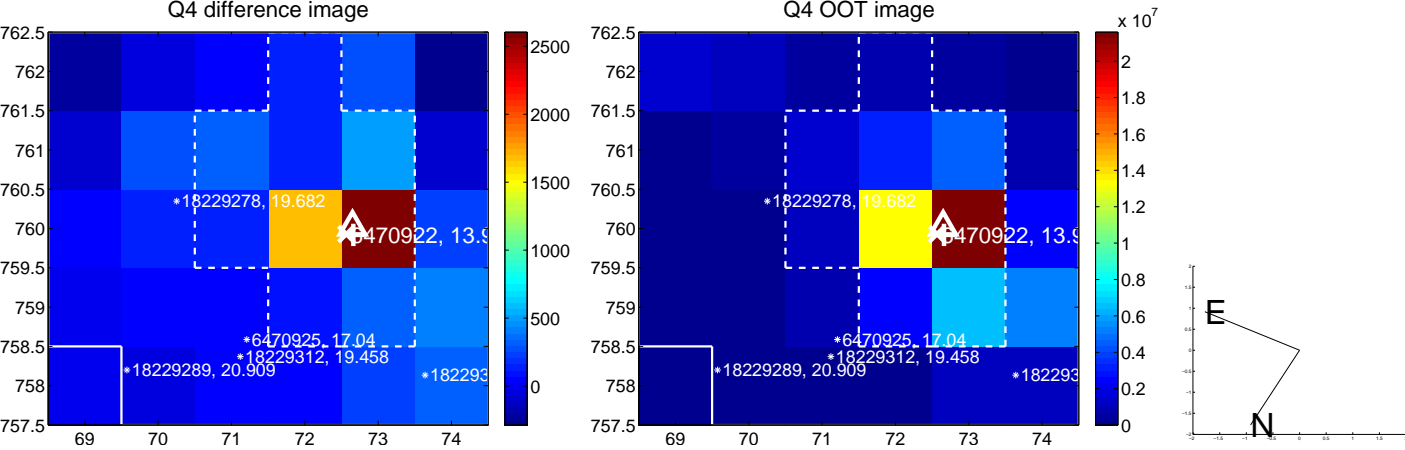
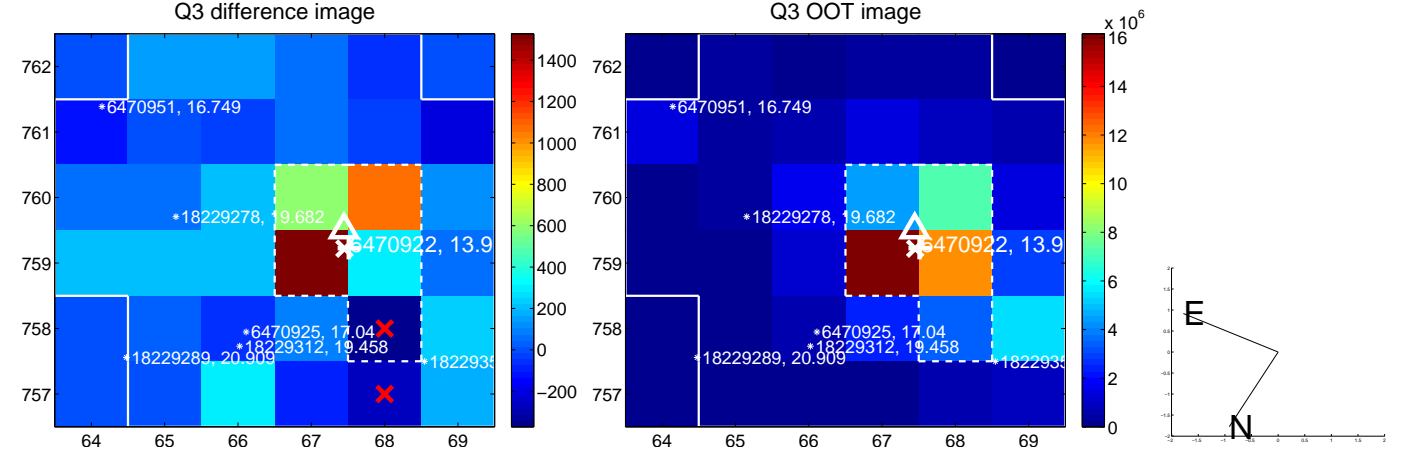
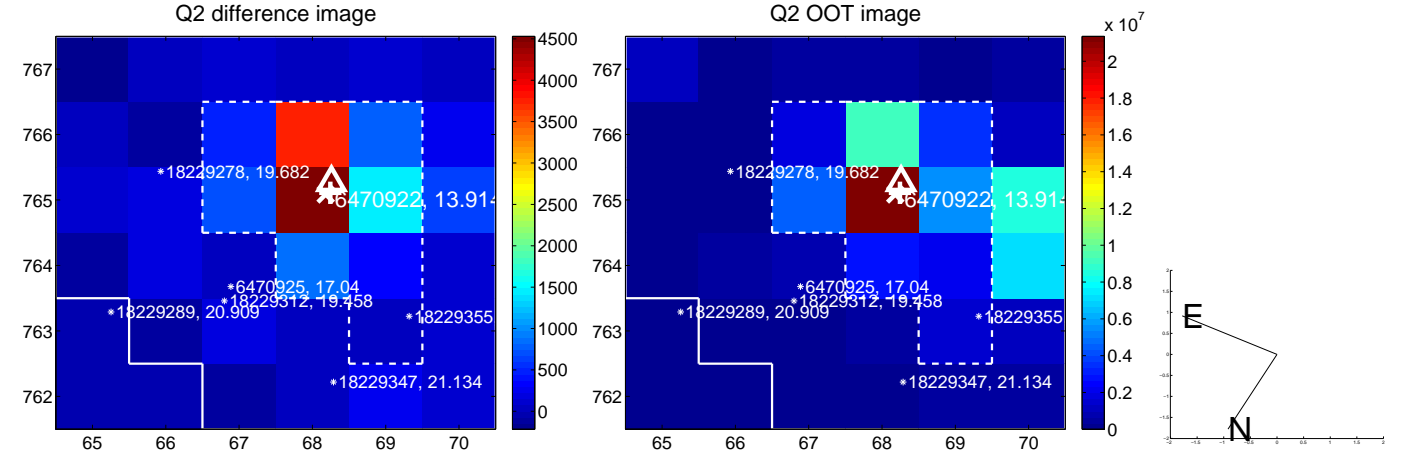
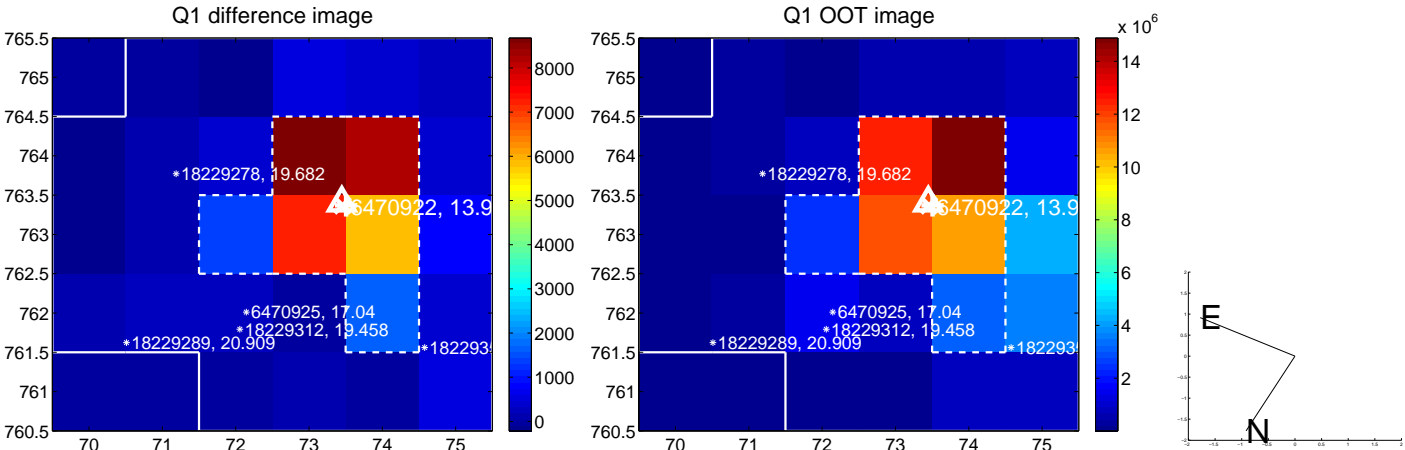
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.201 ± 0.468	0.43	0.199 ± 0.475	0.025 ± 0.286
PRF-fit source offset from KIC position	0.098 ± 0.294	0.33	0.013 ± 0.433	-0.097 ± 0.288
photometric centroid source offset	0.35 ± 0.47	0.74	0.14 ± 0.64	0.32 ± 0.42

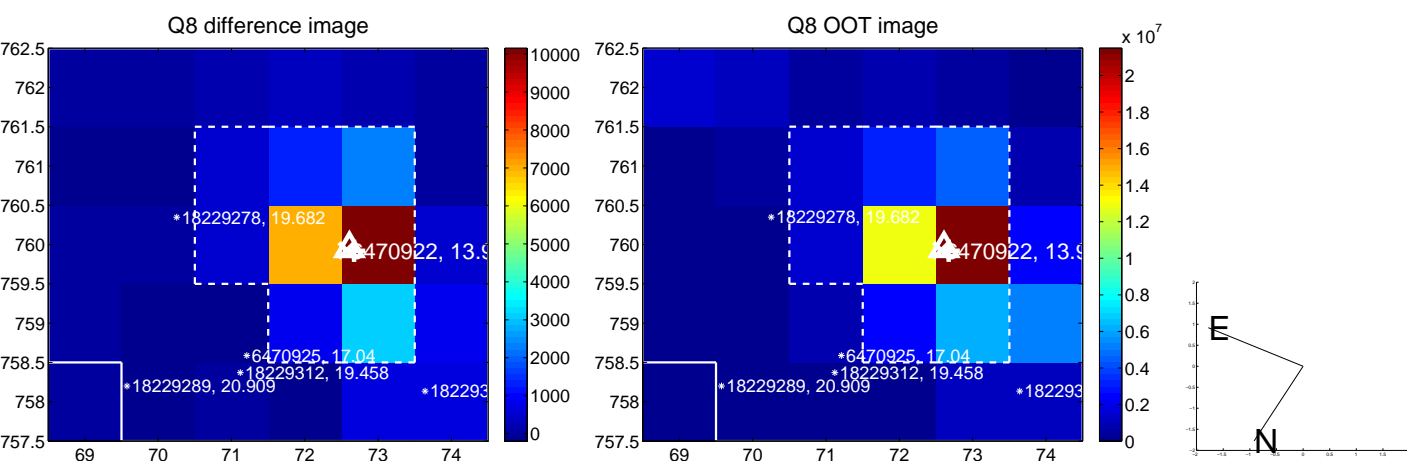
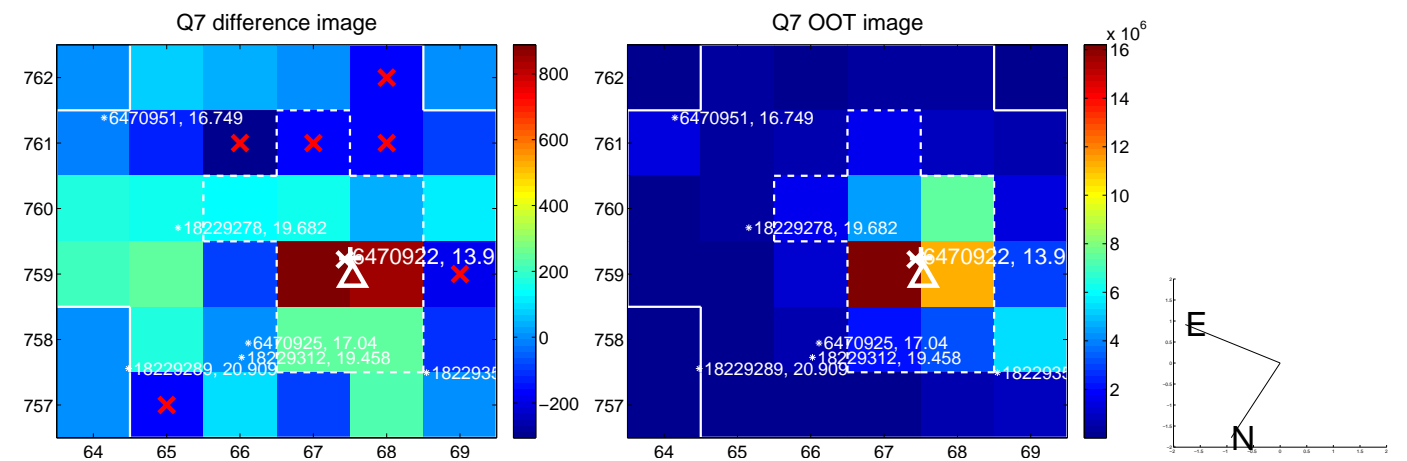
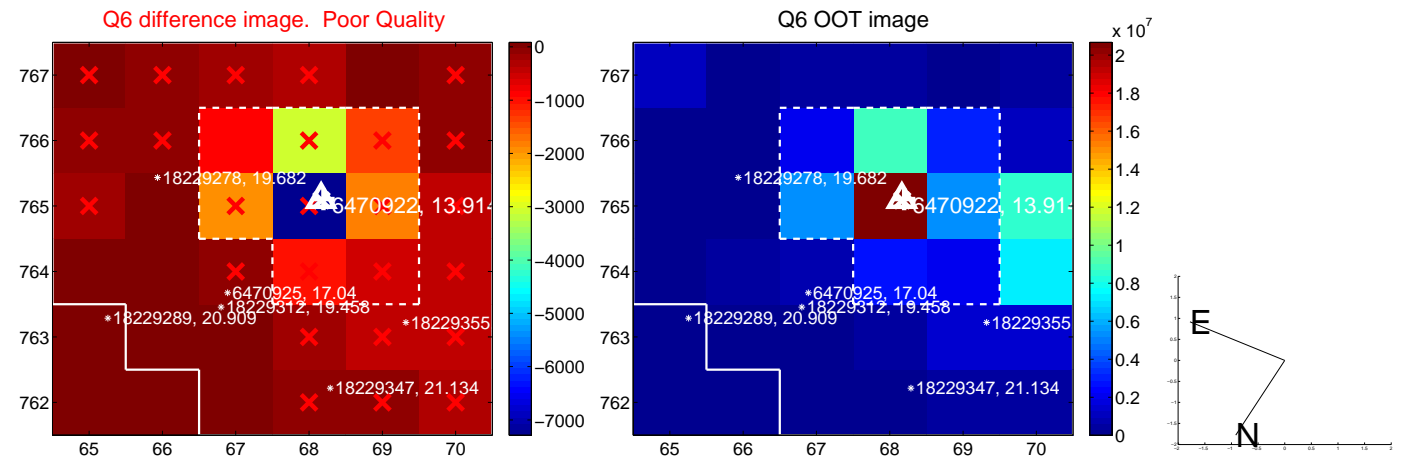
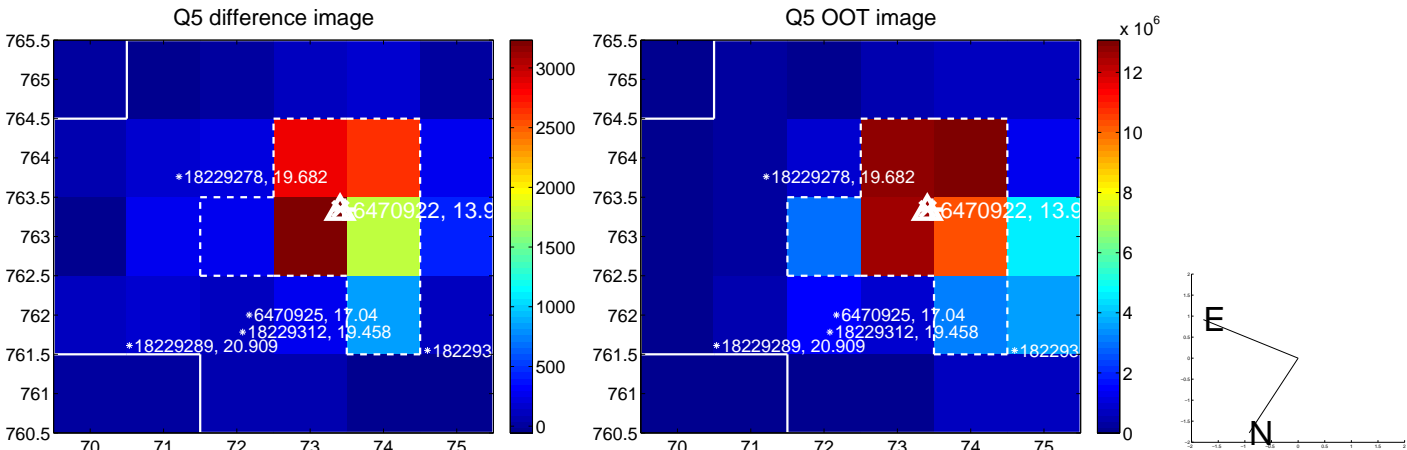


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

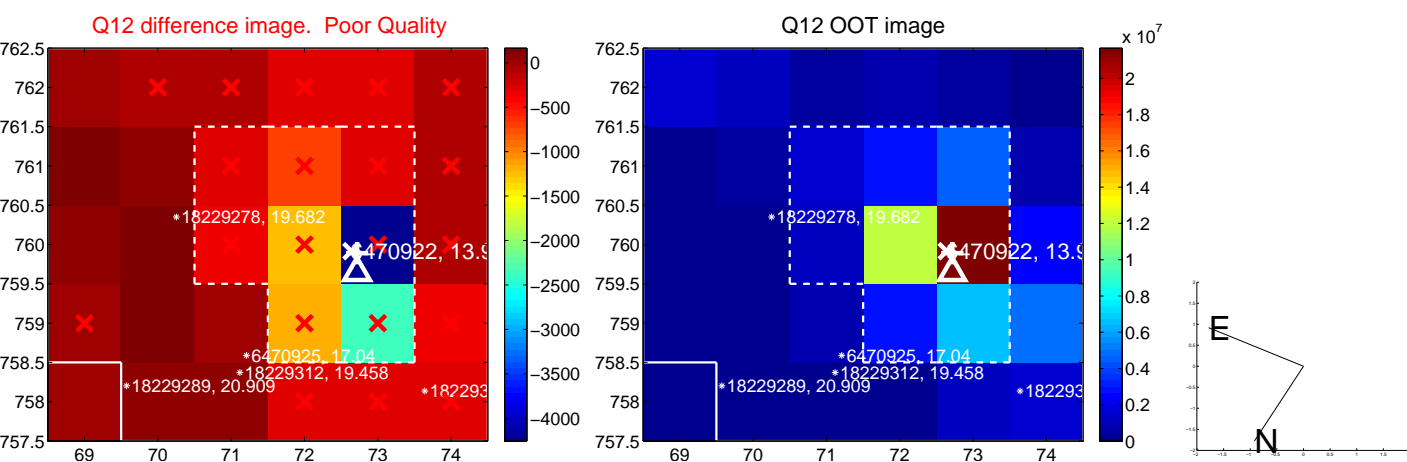
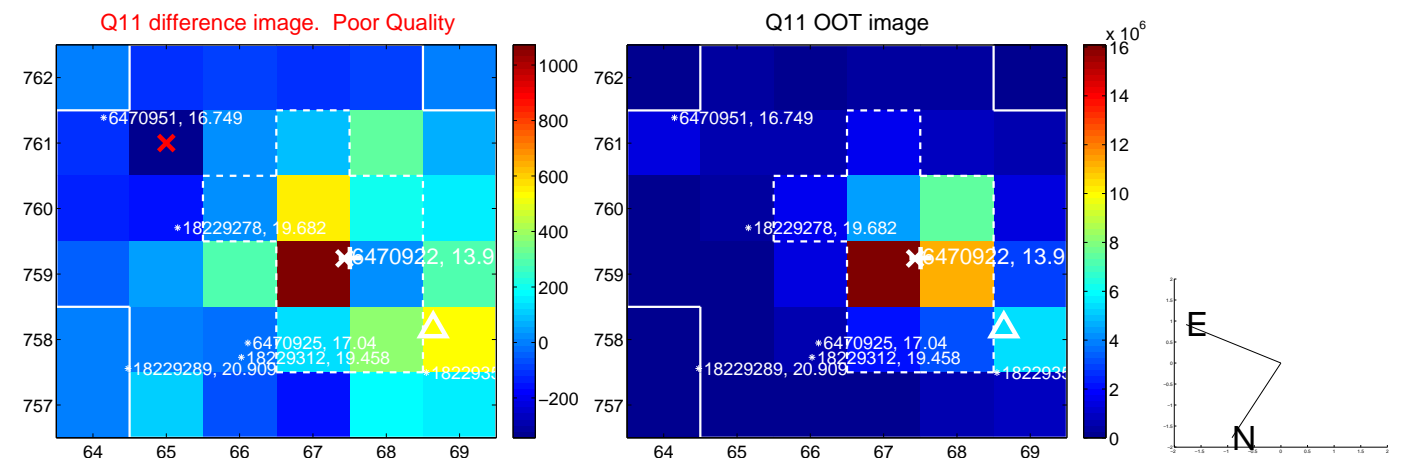
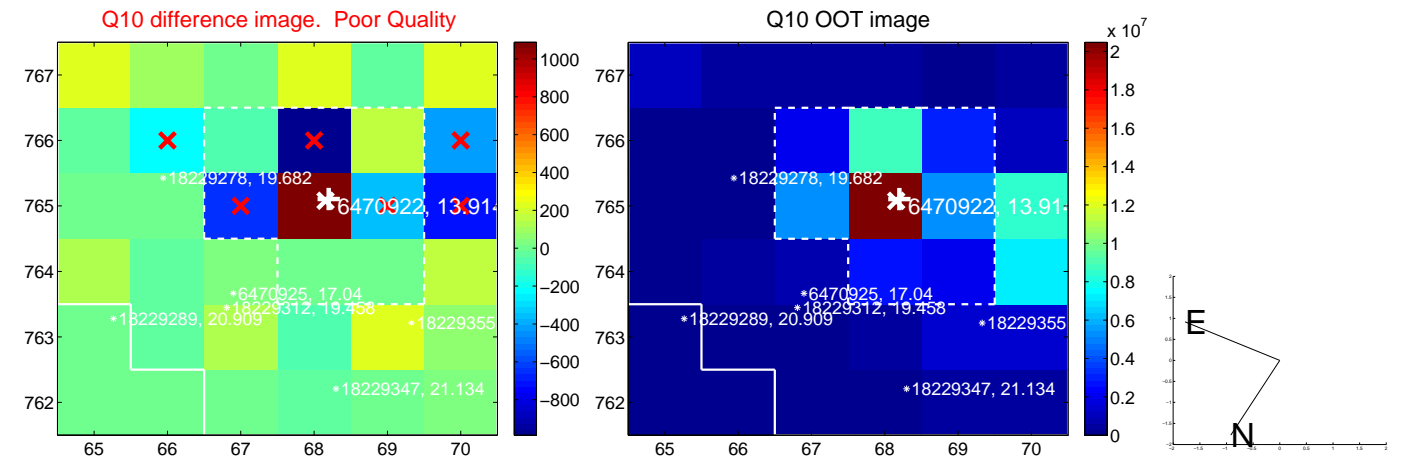
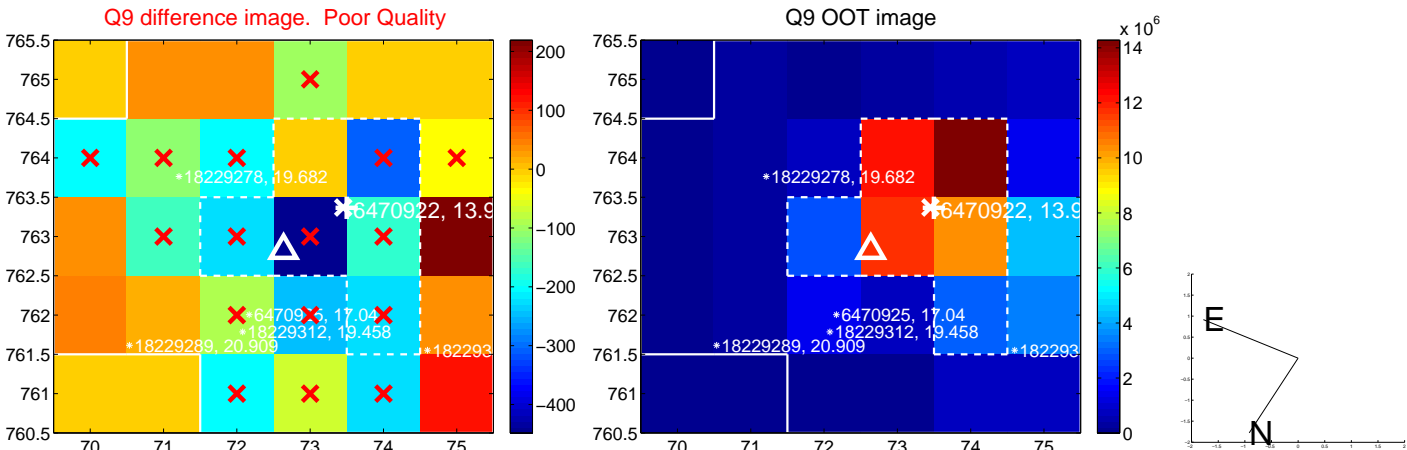
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



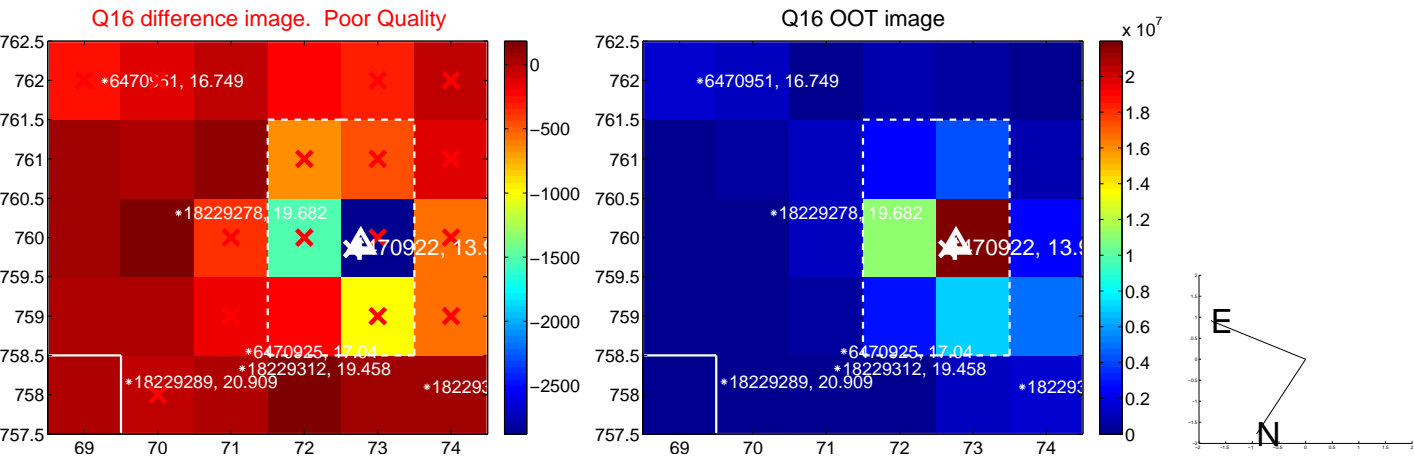
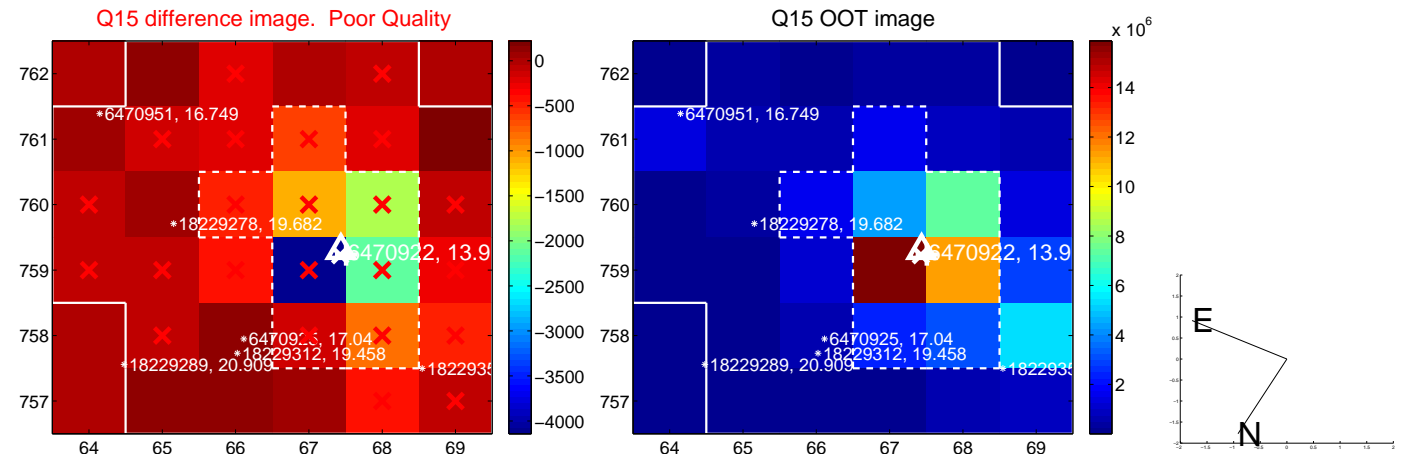
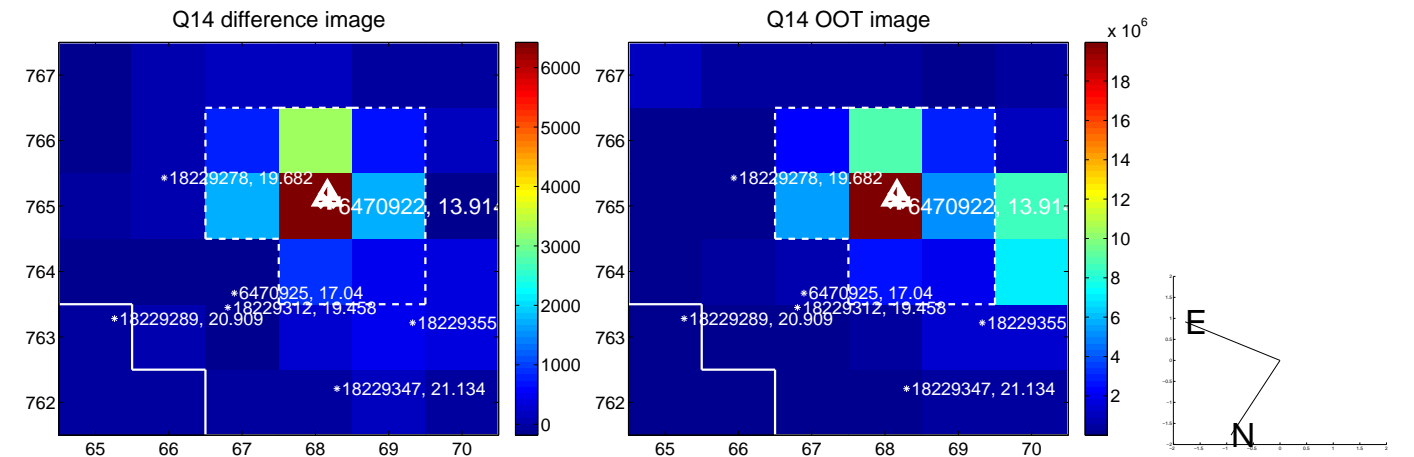
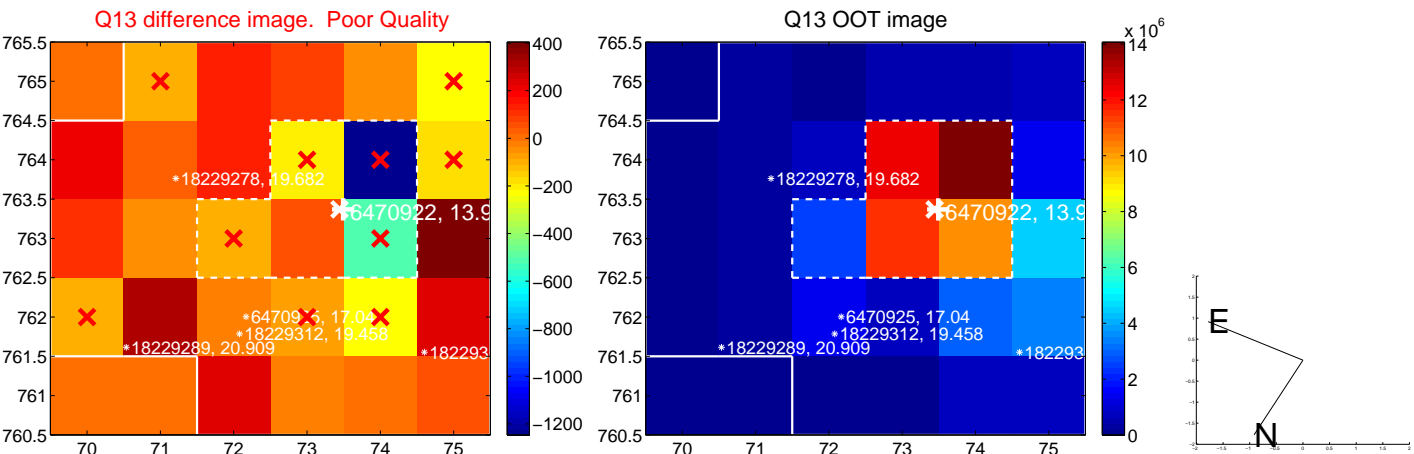
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



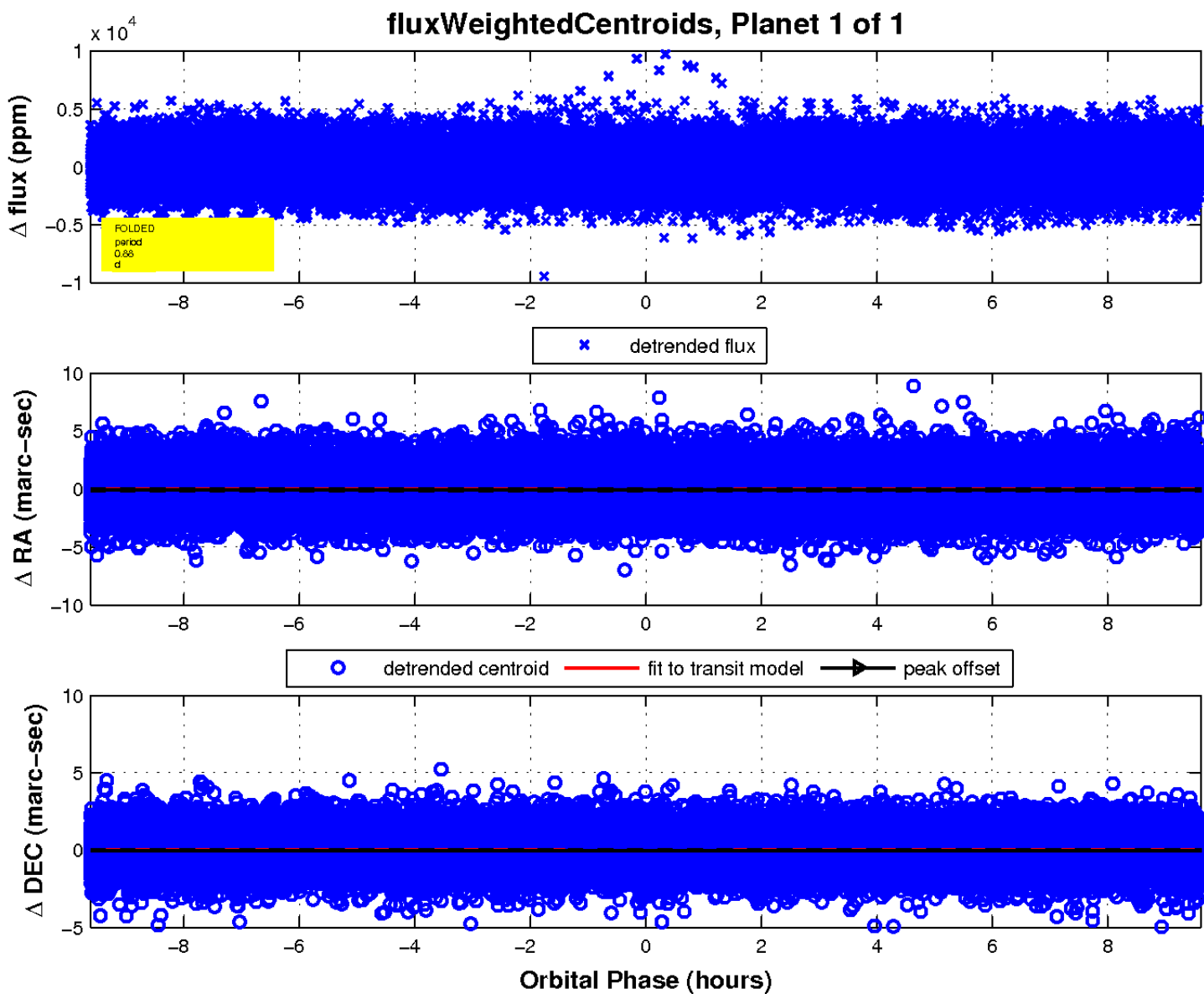
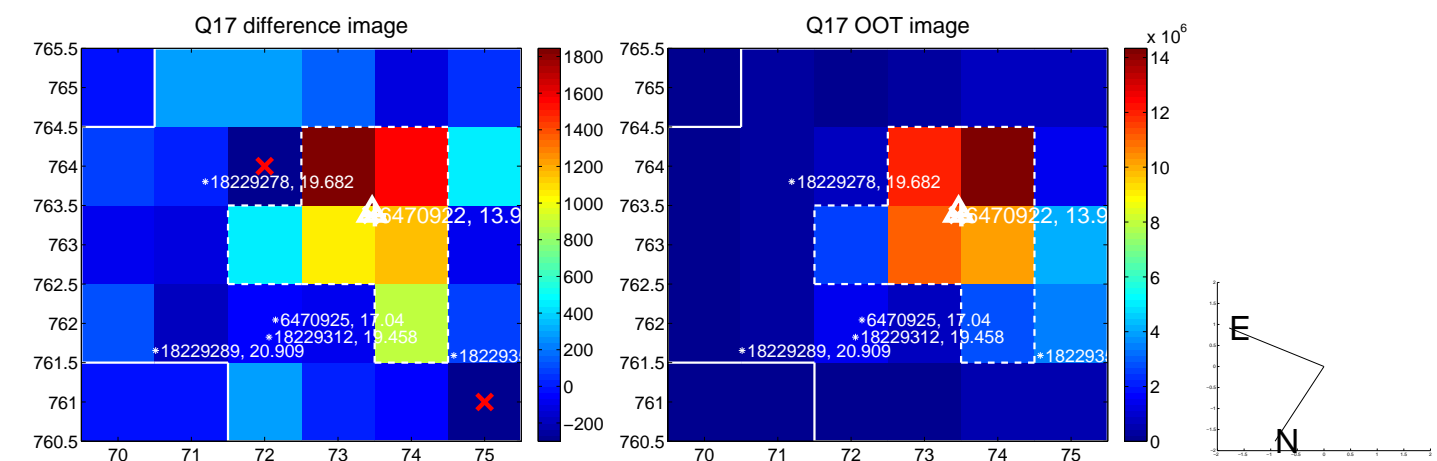
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

