

KIC 005115330

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})
005115330-01	OBS	No	3.106008	133.817467	8.0	12.292	7.3	5.8	3.65	7758	1.18	14862.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005115330-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

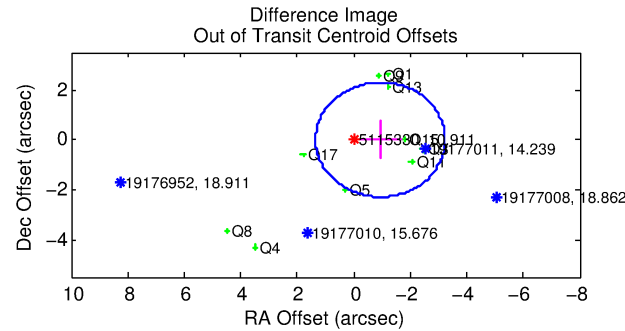
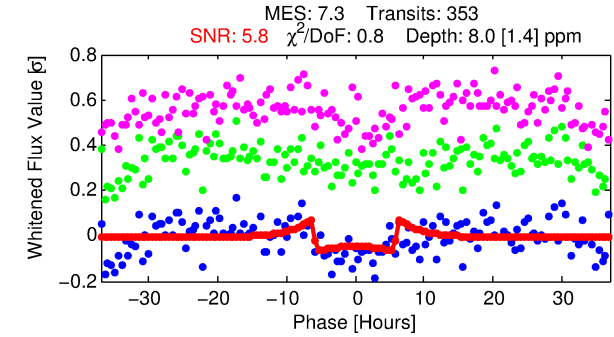
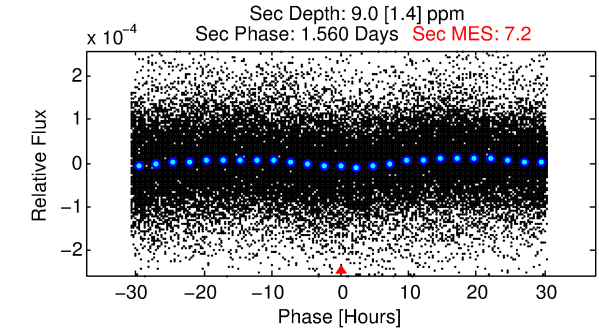
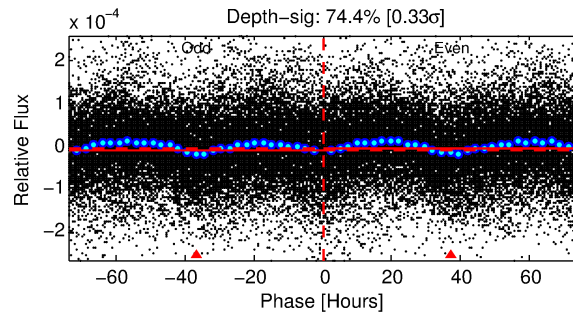
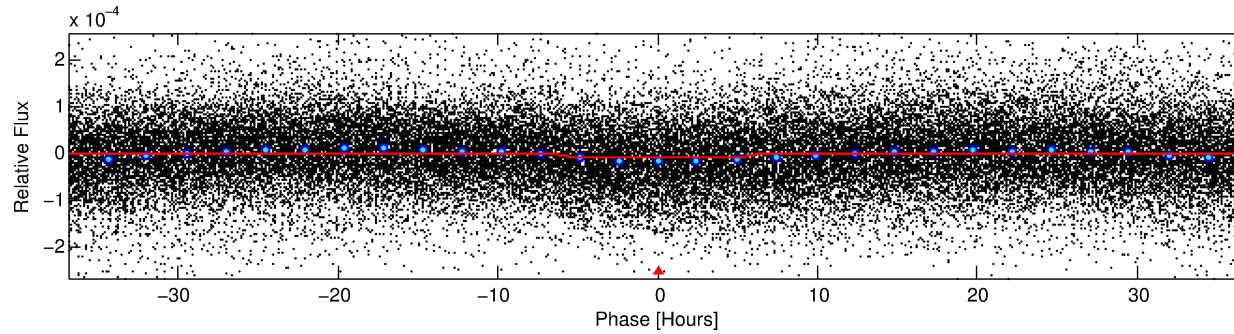
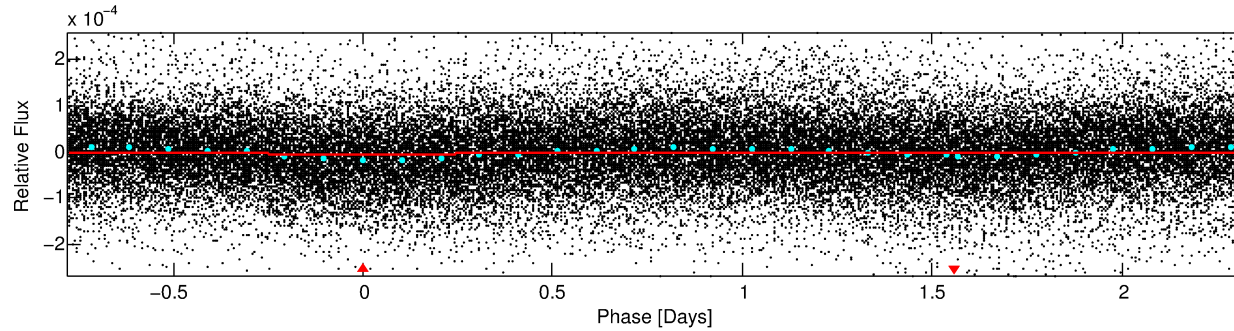
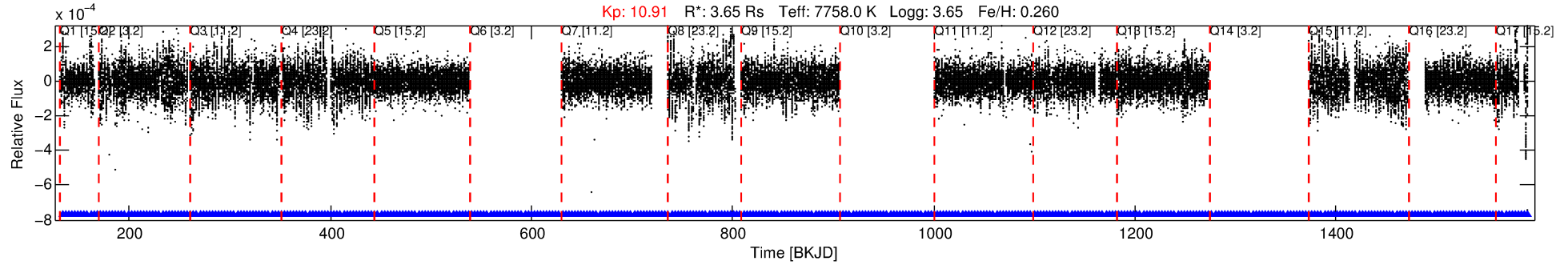
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005115330-01

No Significant Match Found

DV One-Page Summary

KIC: 5115330 Candidate: 1 of 1 Period: 3.106 d



DV Fit Results:

Period = 3.10601 [0.00004] d
Epoch = 133.8175 [0.0078] BKJD
Rp/R* = 0.0030 [0.0005]
a/R* = 1.33 [0.45]
b = 0.87 [0.22]
Seff = 14862.38 [12705.34]
Teq = 2815 [602] K
Rp = 1.18 [0.60] Re
a = 0.0539 [0.0256] AU
Ag = 10.41 [8.80] [1.07 σ]
Teffp = 7820 [995] K [4.30 σ]

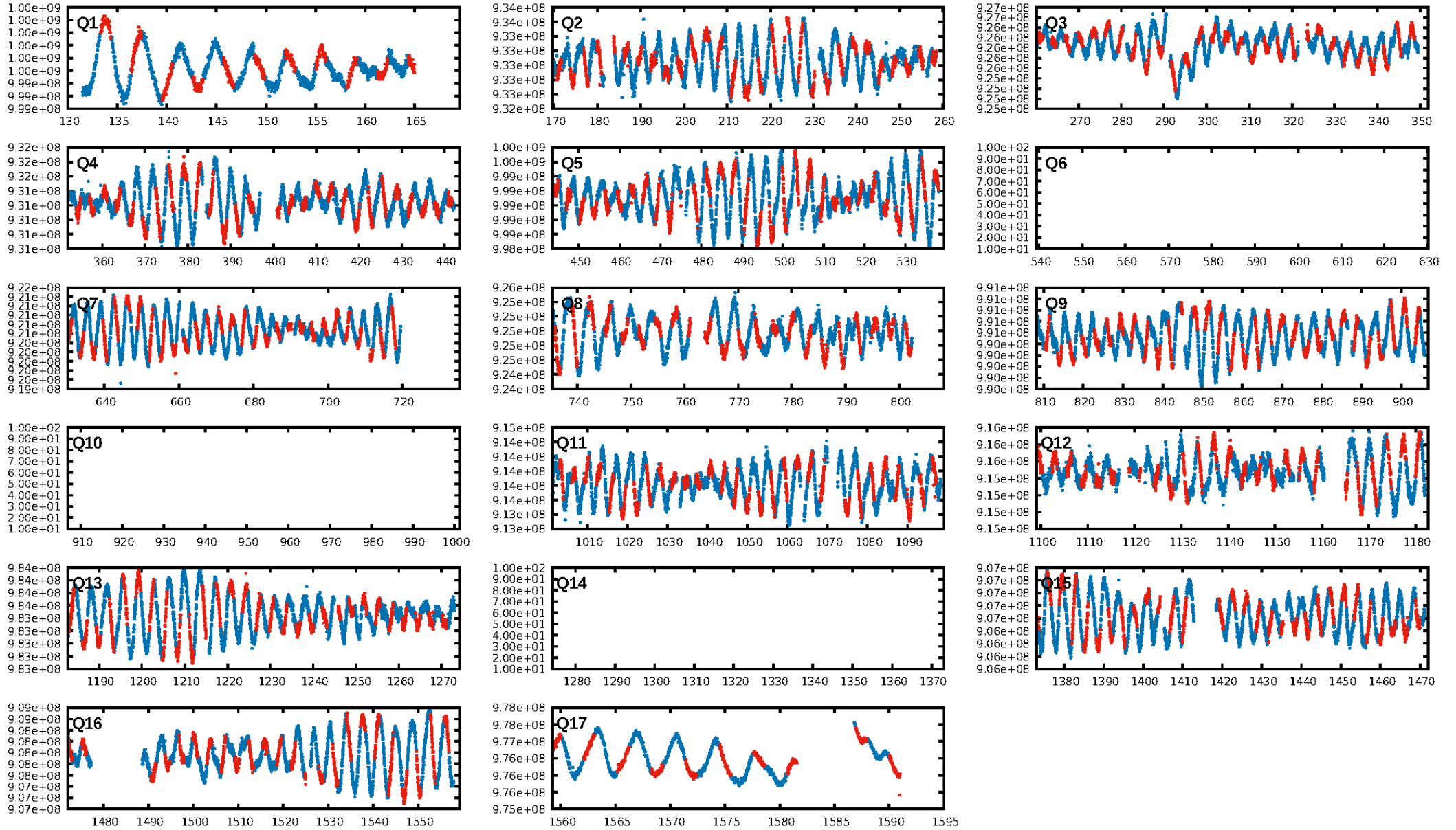
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.06e-09
RollingBand-fgt: 1.00 [332/332]
GhostDiagnostic-chr: 0.2913
Centroid-sig: 13.7%
Centroid-so: 3.427 arcsec [1.31 σ]
OotOffset-rm: 0.937 arcsec [1.23 σ]
OotOffset-st: 0/3/2/5 [10]
KicOffset-rm: 0.884 arcsec [1.09 σ]
KicOffset-st: 0/3/2/5 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 1.00 [14/14]

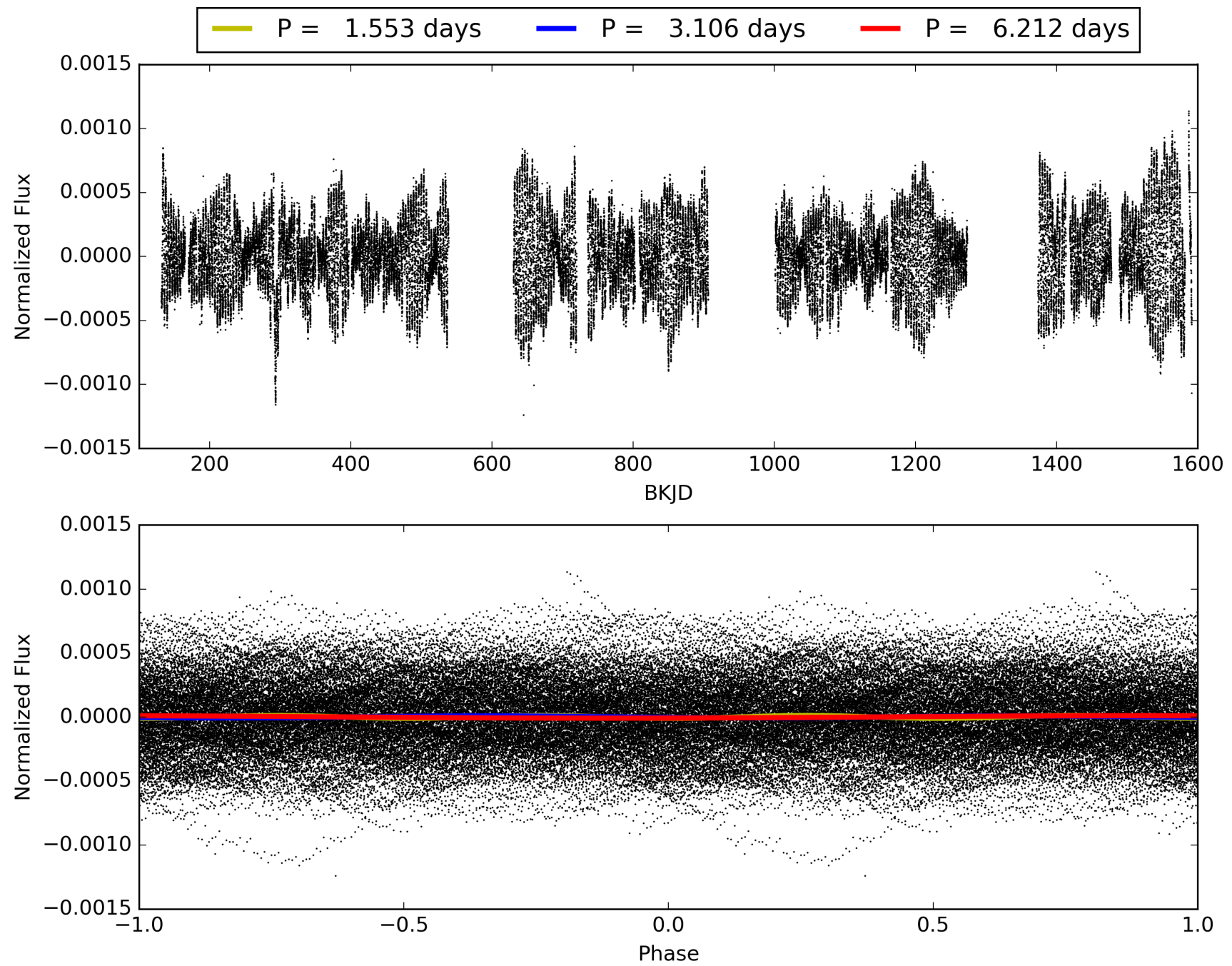
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:59:25 Z

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

TCE 005115330-01, PDC Light Curves

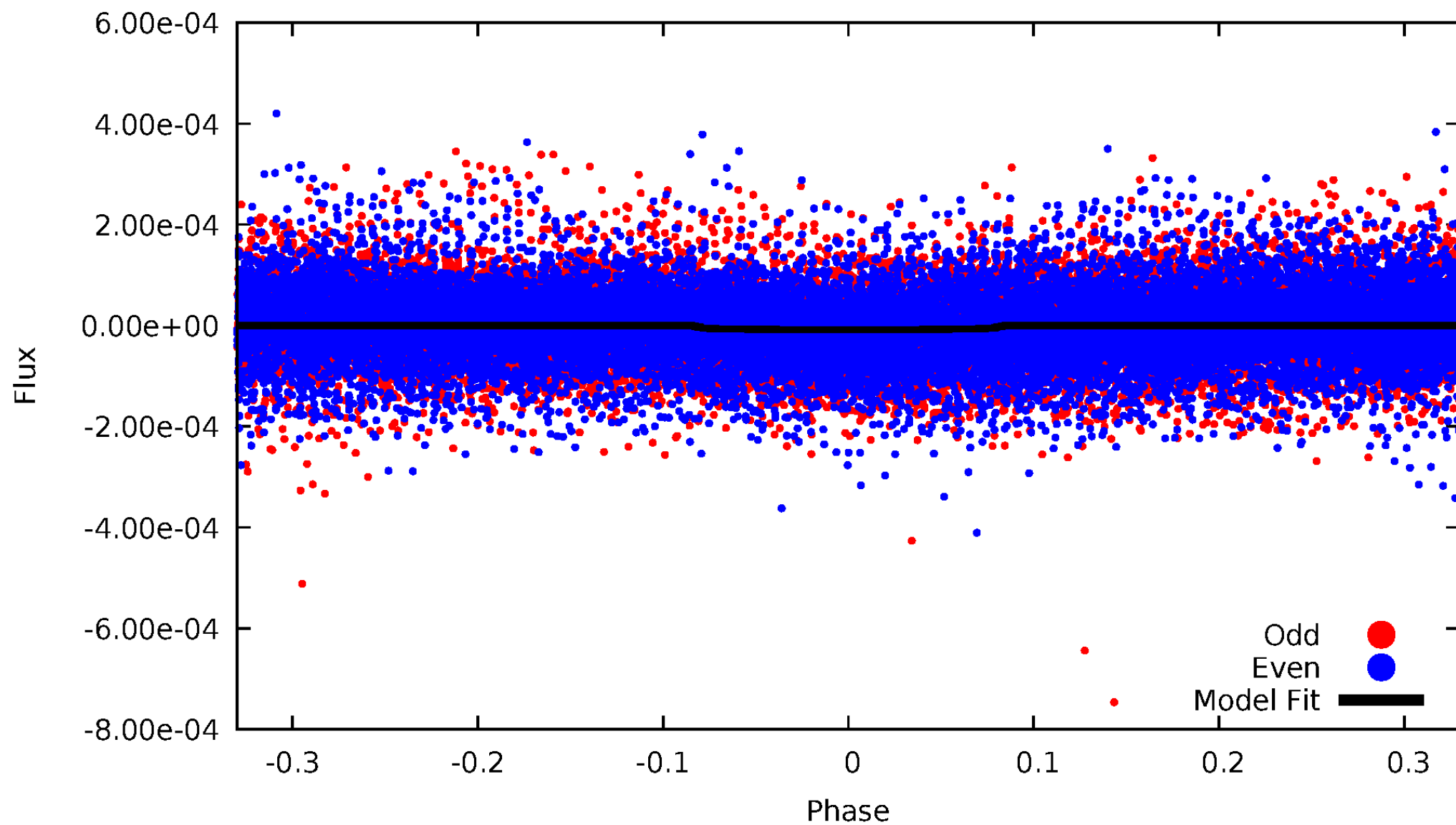


TCE 005115330-01



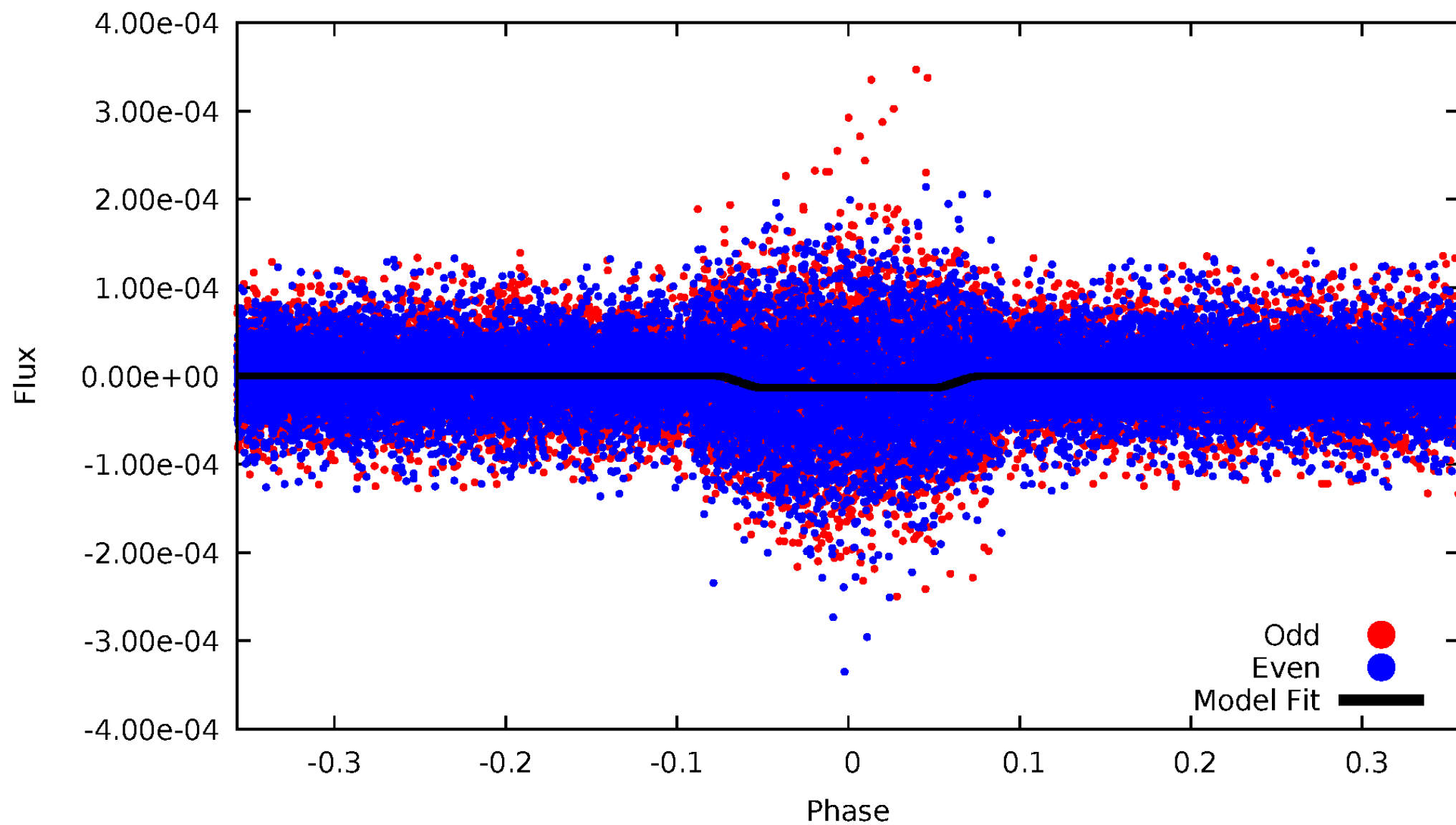
DV Odd/Even

TCE 005115330-01



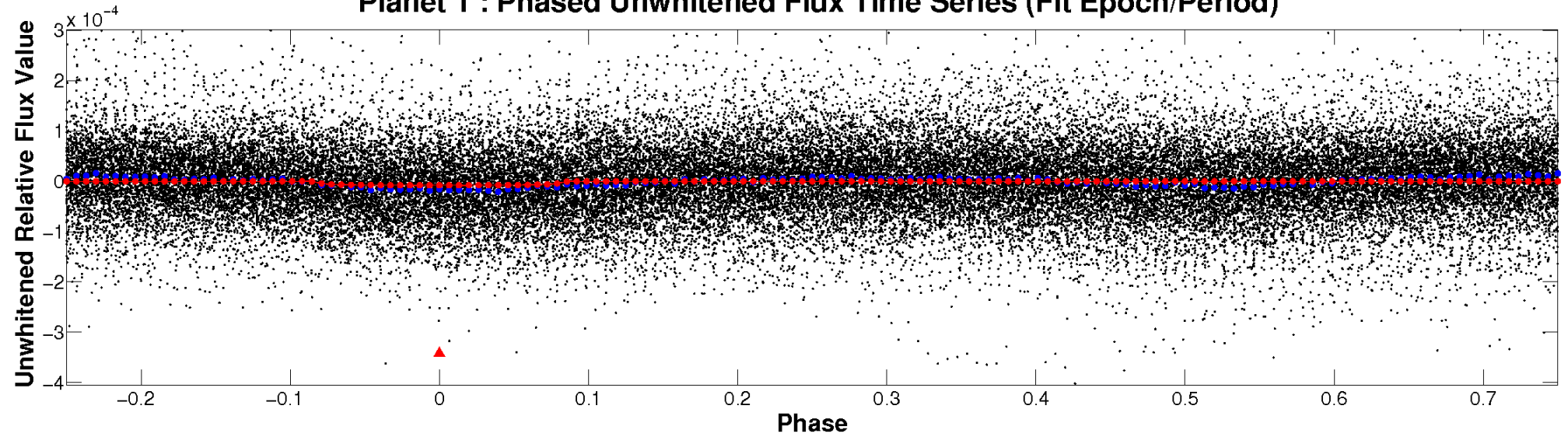
ALT Odd/Even

TCE 005115330-01

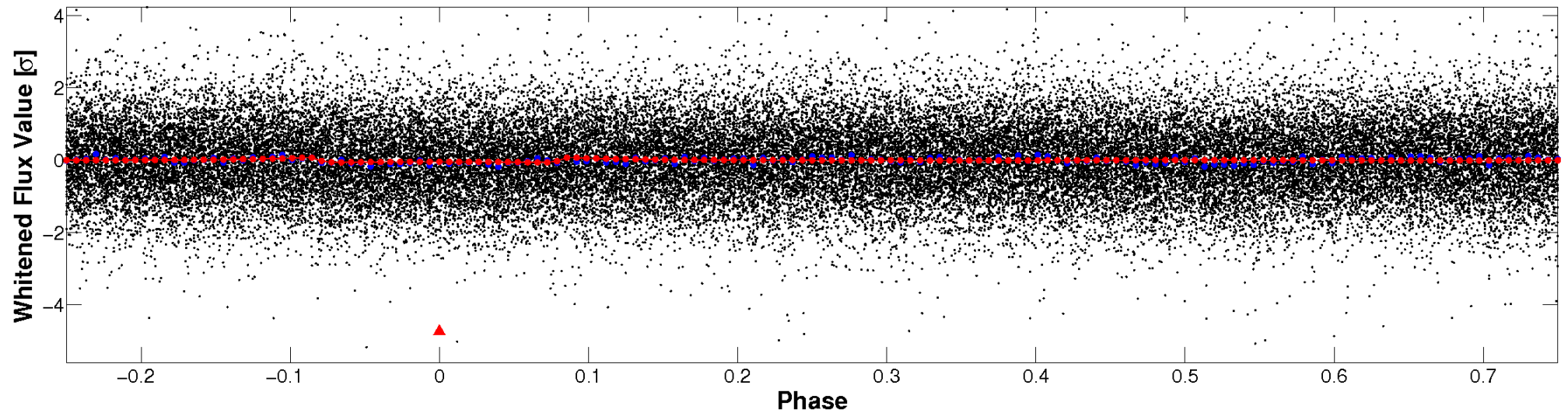


Non-Whitened Vs. Whitened Light Curve

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

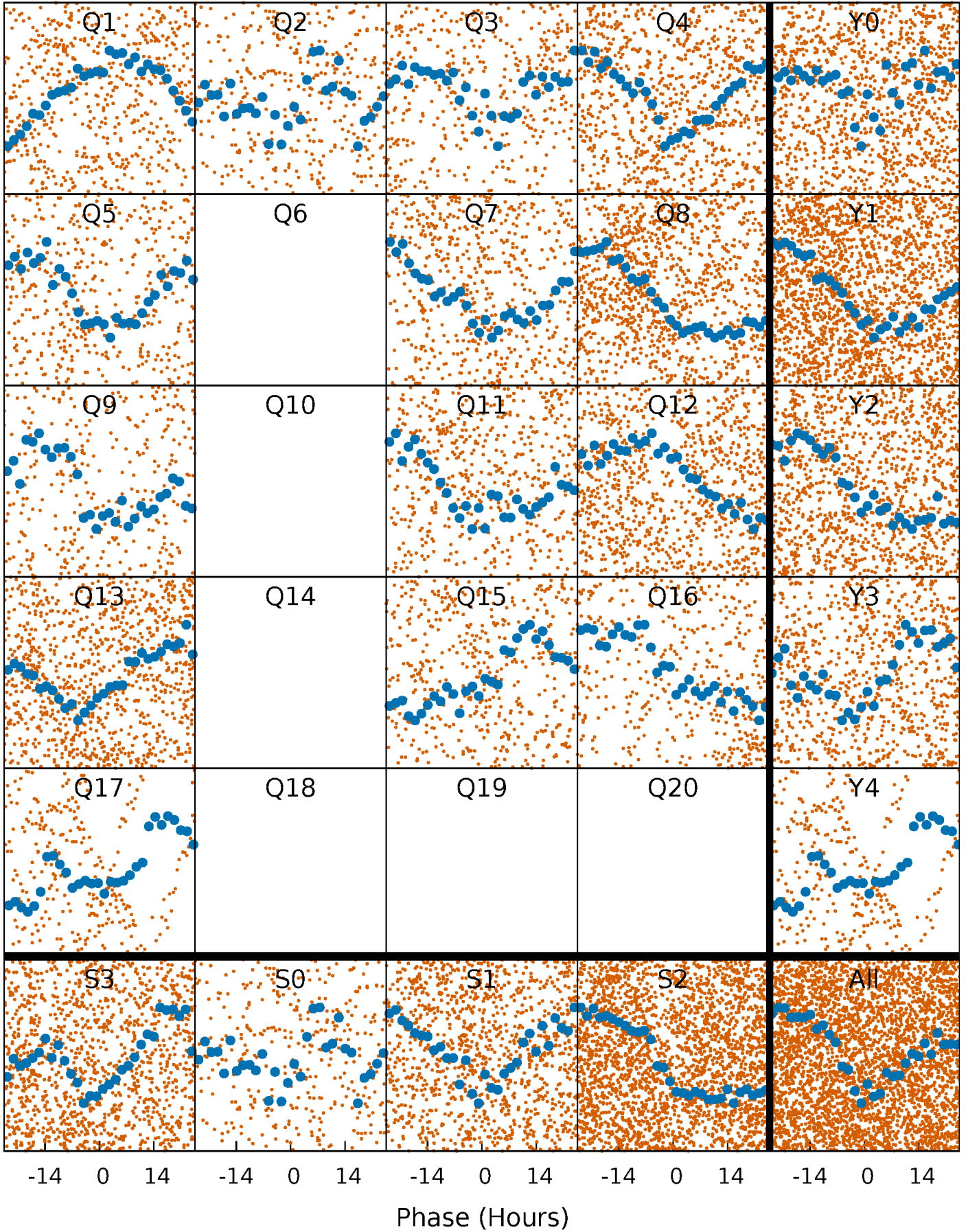


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



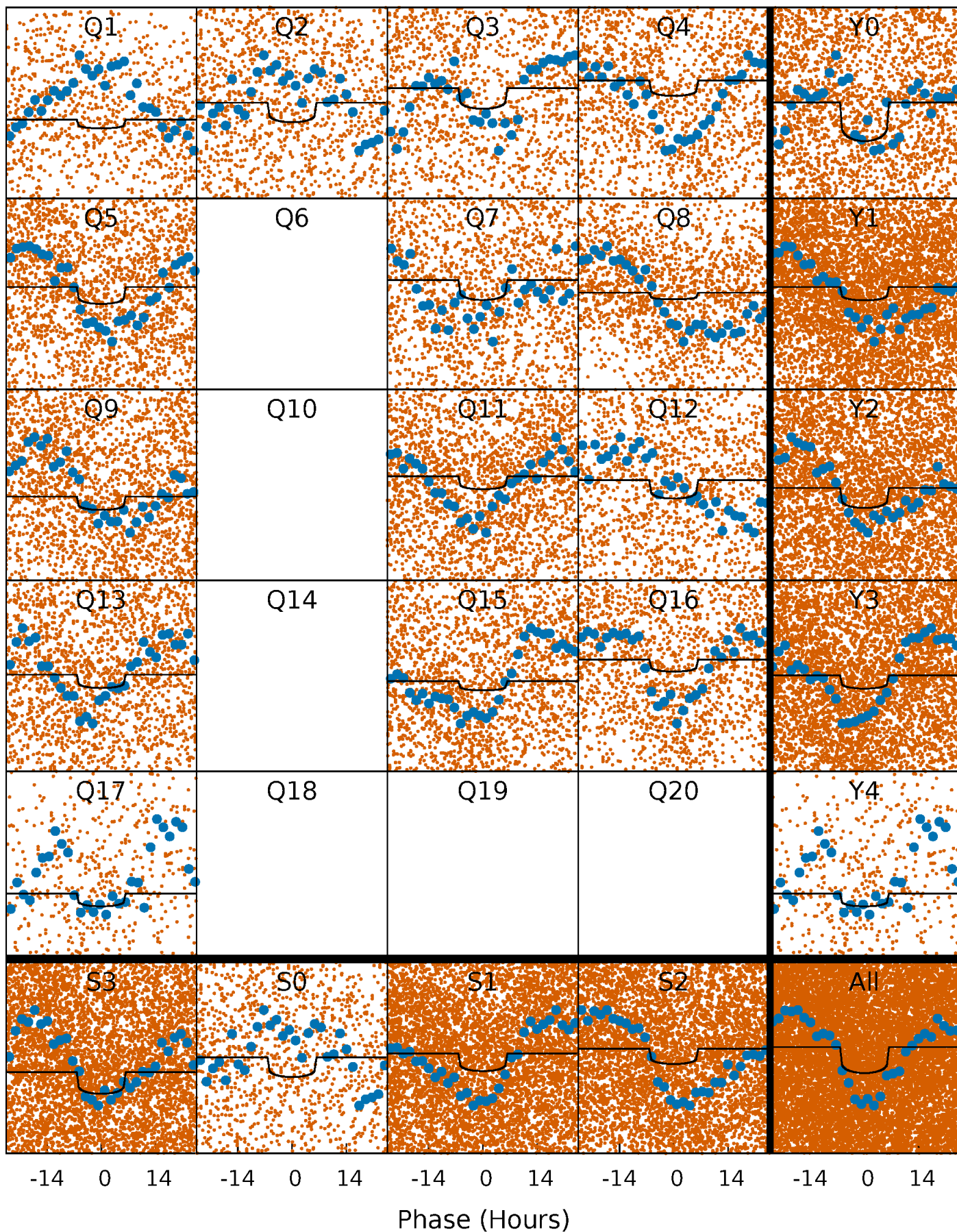
PDC Quarter-Phased Transit Curves

TCE 005115330-01 P= 3.106008 Days $T_0=133.817467$ (BKJD)



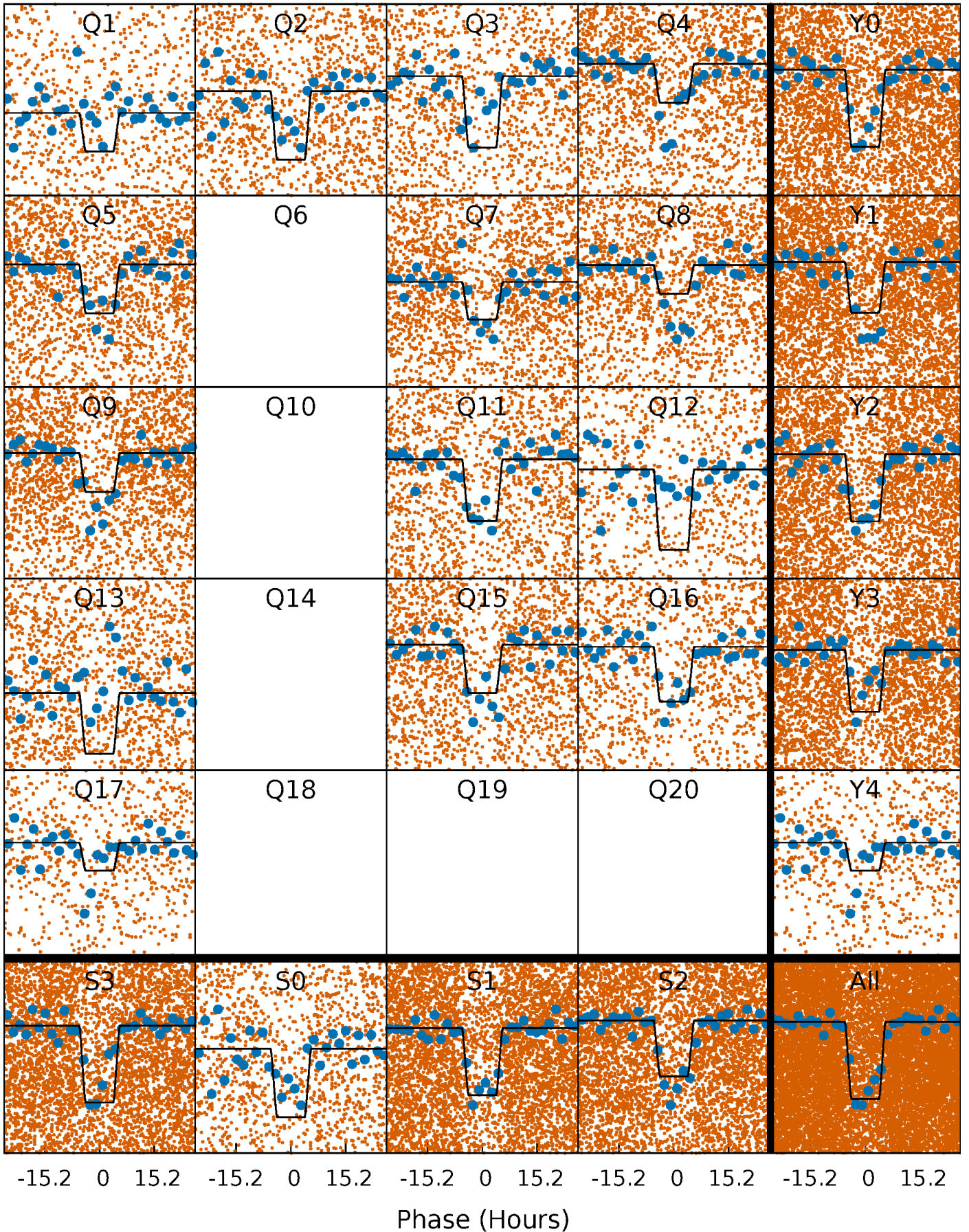
DV Quarter-Phased Transit Curves

TCE 005115330-01 P= 3.106008 Days $T_0=133.817467$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

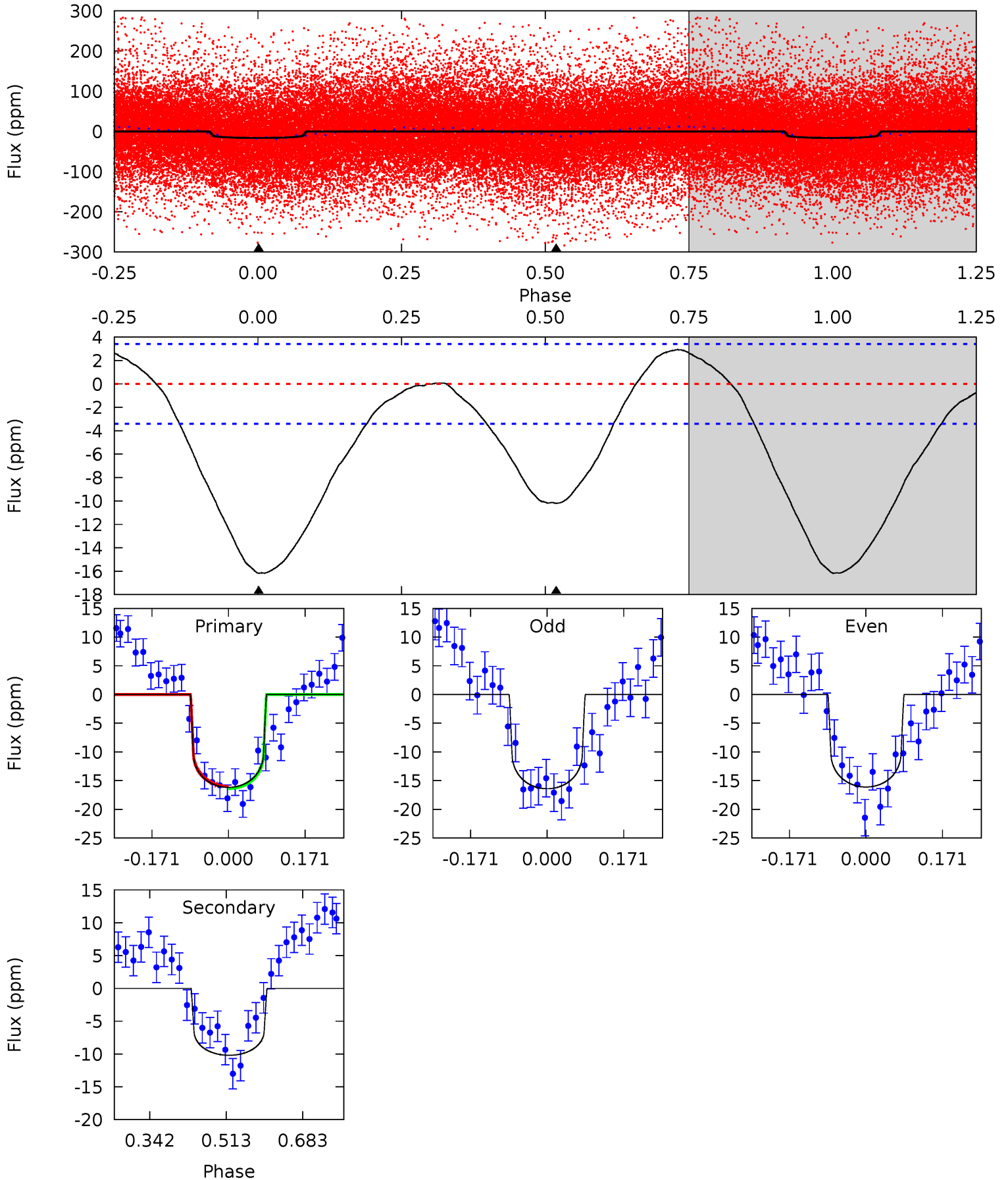
TCE 005115330-01 P= 3.105702 Days $T_0=133.844046$ (BKJD)



DV Model-Shift Uniqueness Test

005115330-01, P = 3.106008 Days, E = 130.711459 Days

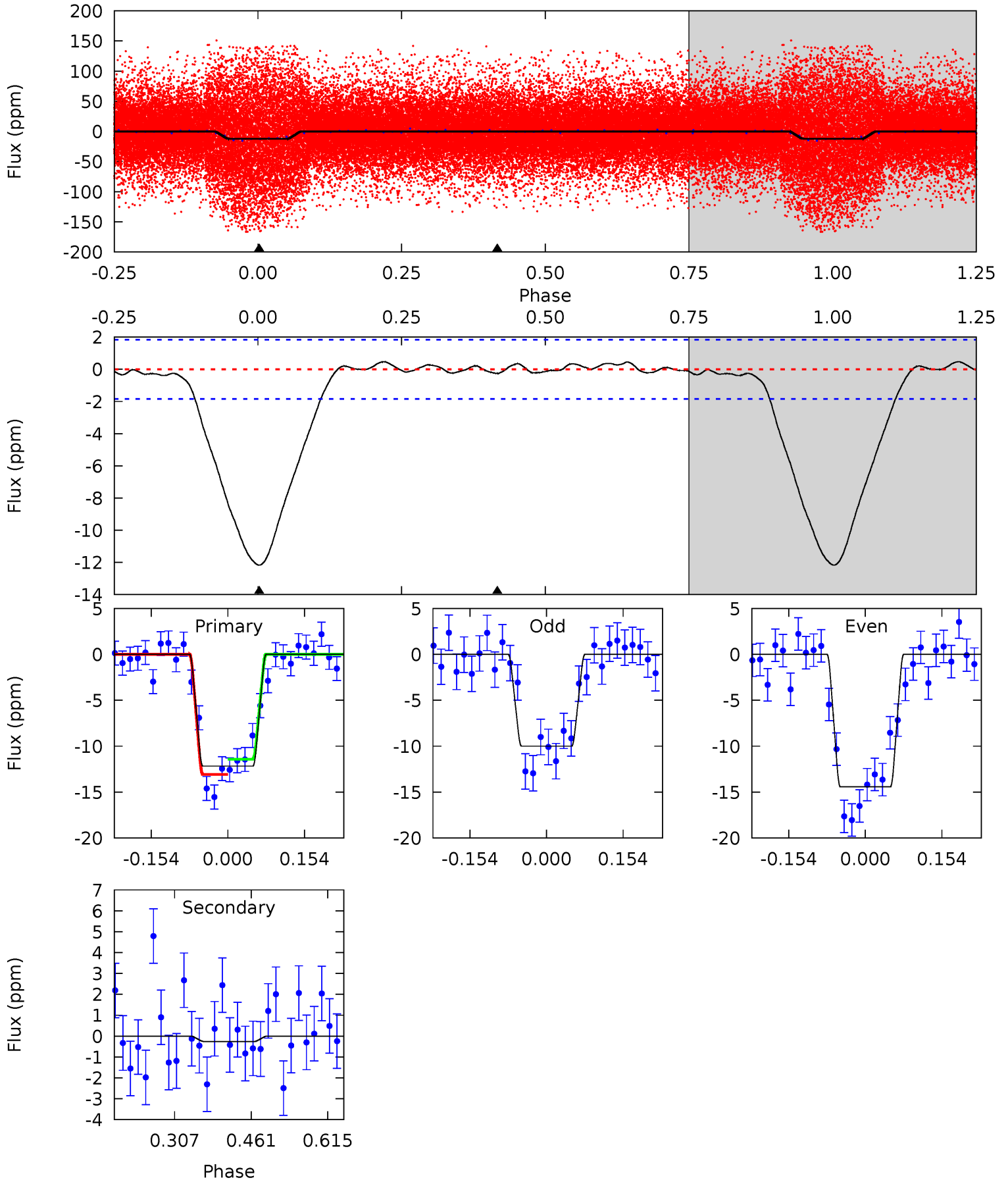
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.1	13.3	0	0	4.45	1.37	2.48	21.1	21.1	13.3	13.3	0.20	0.95	0.15	0.23



Alt Model-Shift Uniqueness Test

005115330-01, P = 3.105702 Days, E = 130.738344 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	0.63	0	0	4.47	1.43	0.57	29.6	29.6	0.63	0.63	5.35	0.87	0.04	2.00



Stellar Parameters For KIC 005115330

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7758^{+479}_{-719}	$3.649^{+0.456}_{-0.114}$	$0.260^{+0.100}_{-0.200}$	$3.645^{+0.753}_{-1.758}$	$2.157^{+0.325}_{-0.488}$	$0.063^{+0.290}_{-0.022}$
	+6%/-9%	+12%/-3%	+38%/-77%	+21%/-48%	+15%/-23%	+462%/-35%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005115330-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 1	$1.10^{+0.27}_{-0.29}$	3745^{+425}_{-505}	7912^{+1144}_{-823}	13^{+11}_{-5}
Alt.	-0 ± 0	$1.36^{+0.30}_{-0.35}$	3750^{+430}_{-478}	-2947^{+6475}_{-824}	$0.204^{+0.451}_{-0.350}$

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

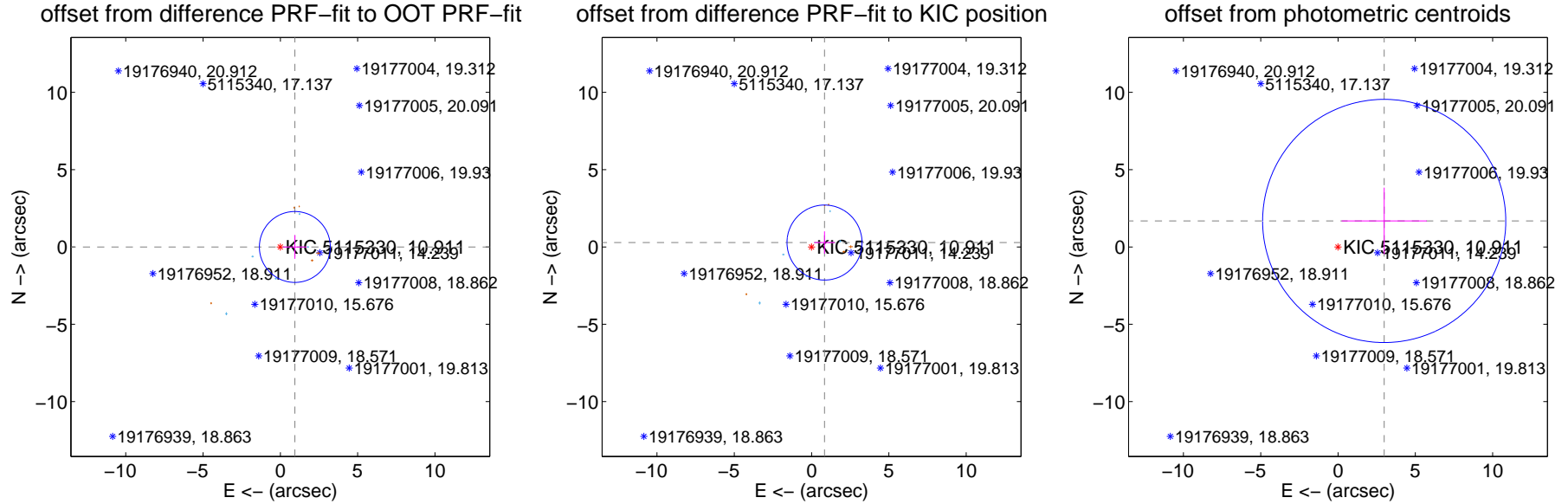
DV Centroid Data

Supplemental centroid analysis for 005115330-01. **Kepler magnitude: 10.91.** Transit SNR 5.84

There are 5 quarters with good PRF difference image offsets

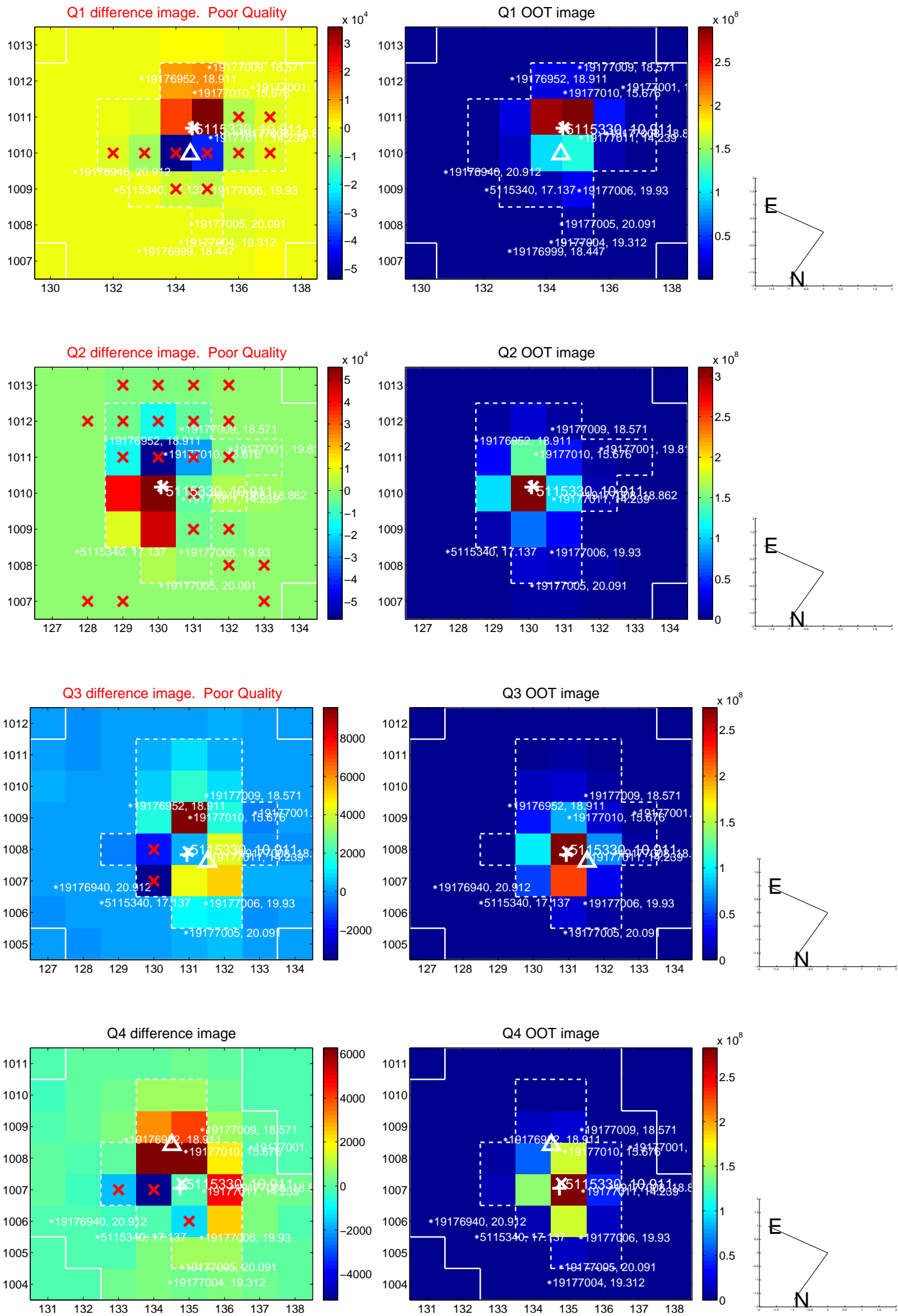
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.937 ± 0.764	1.23	-0.937 ± 0.764	-0.000 ± 0.763
PRF-fit source offset from KIC position	0.884 ± 0.809	1.09	-0.837 ± 0.659	0.285 ± 0.725
photometric centroid source offset	3.43 ± 2.62	1.31	-2.99 ± 2.75	1.68 ± 2.15

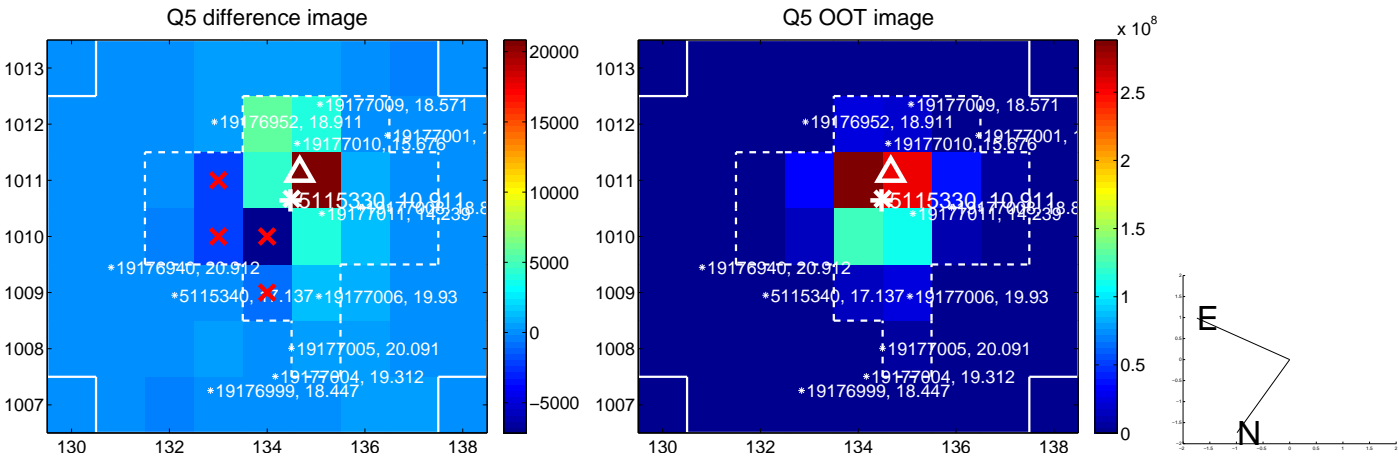


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

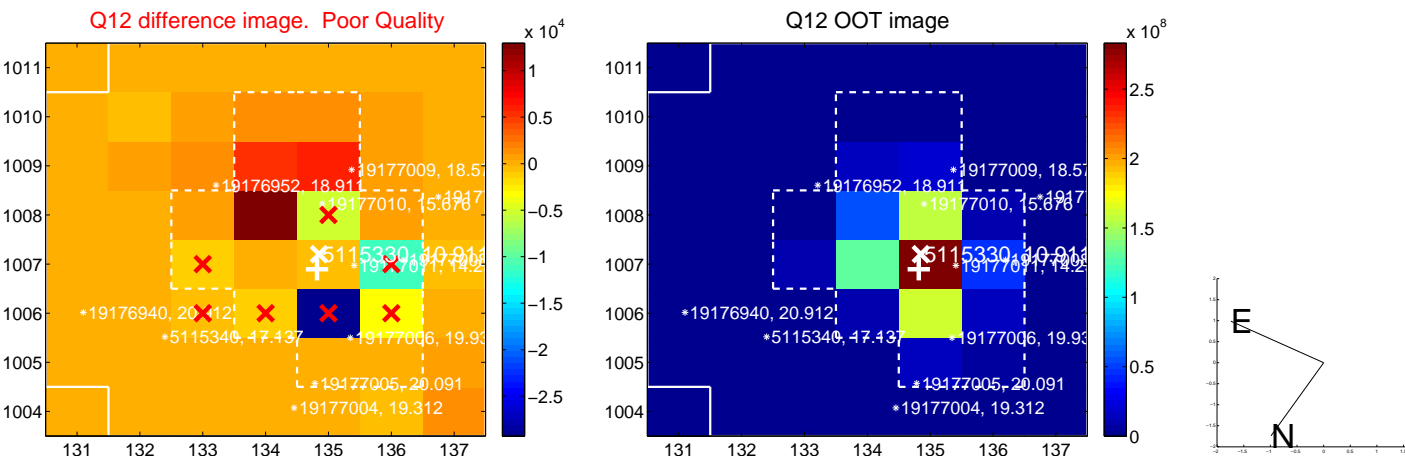
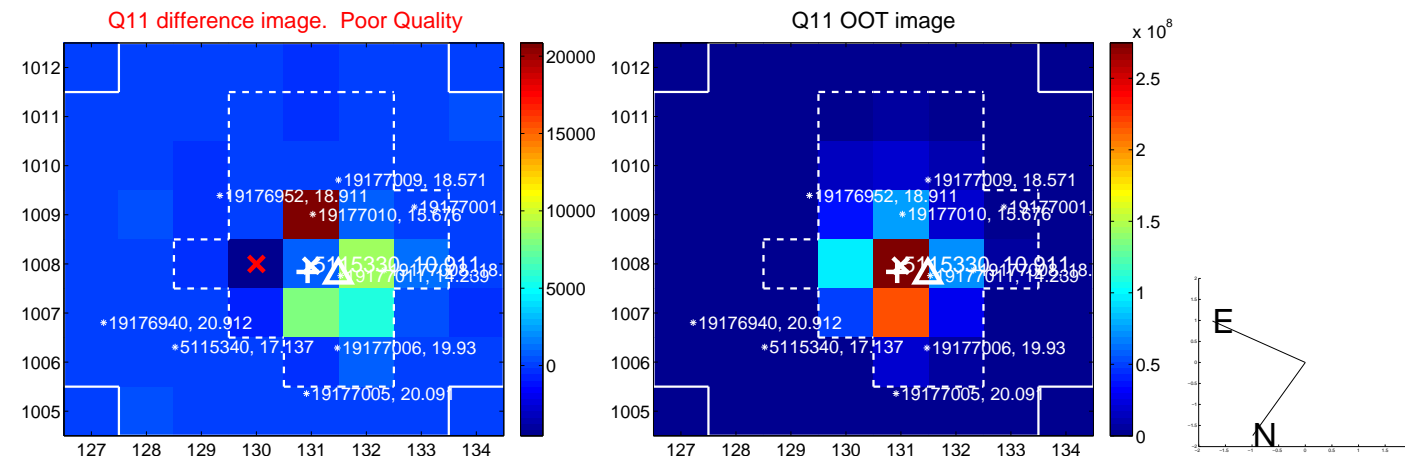
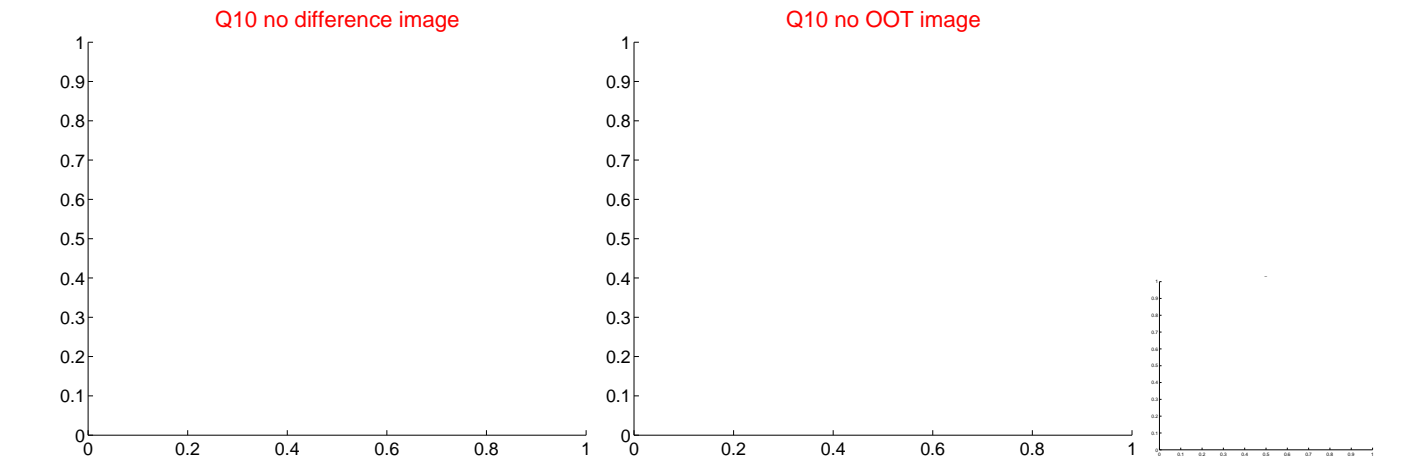
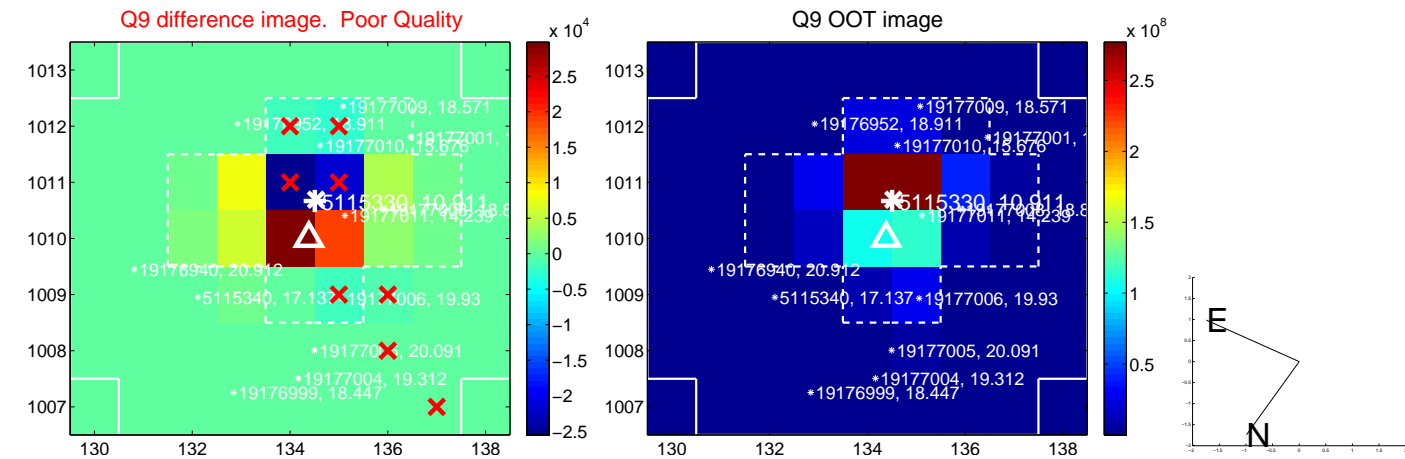
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



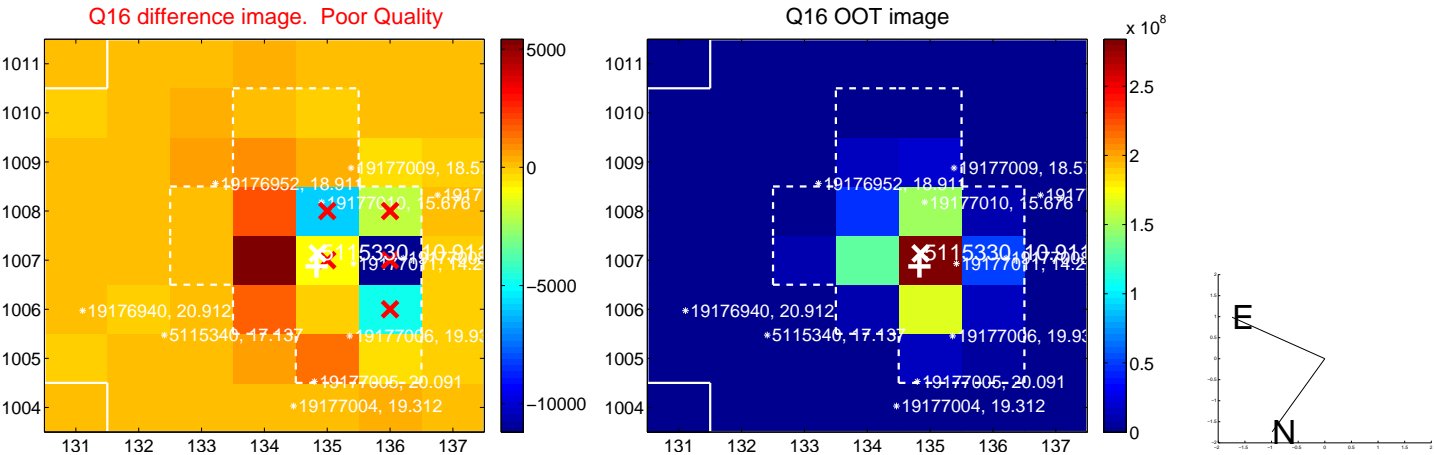
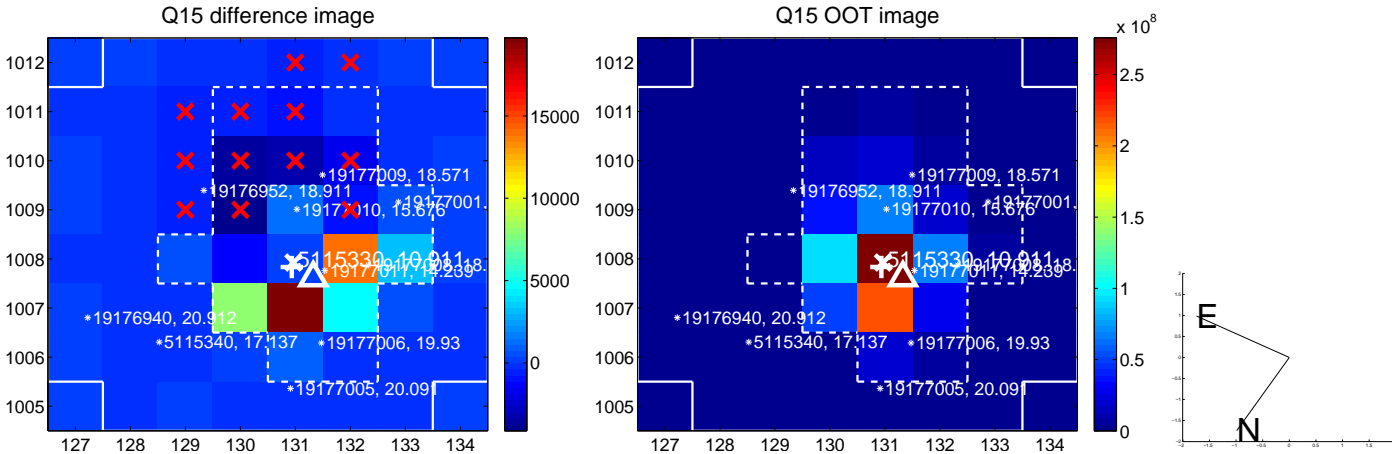
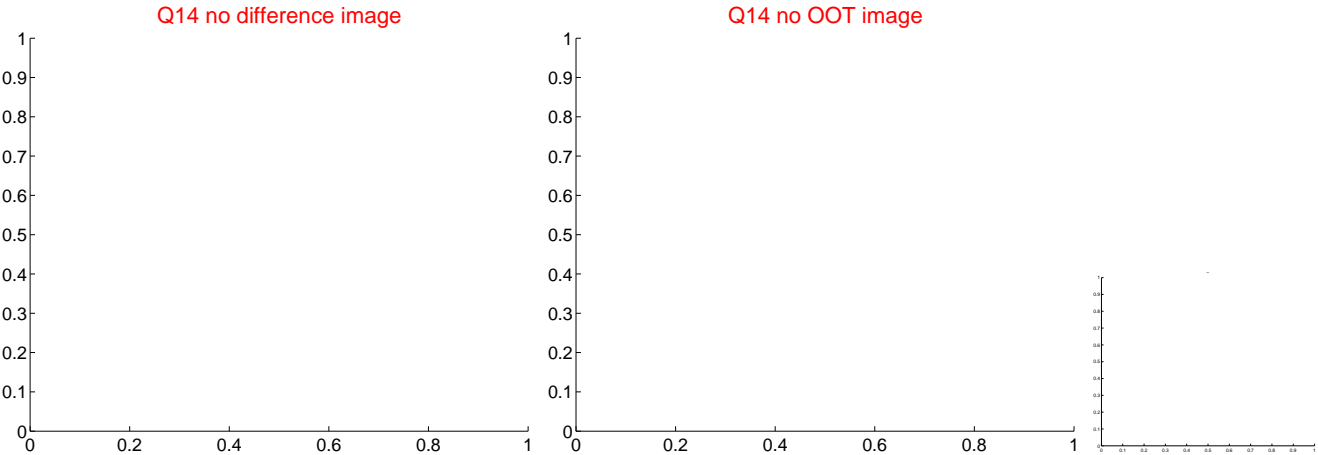
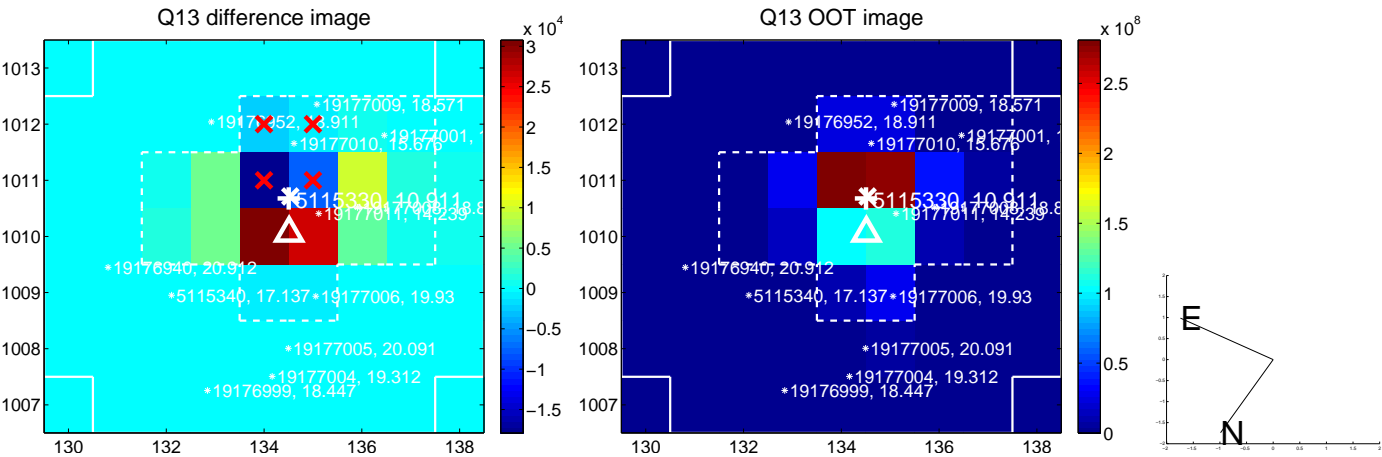
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



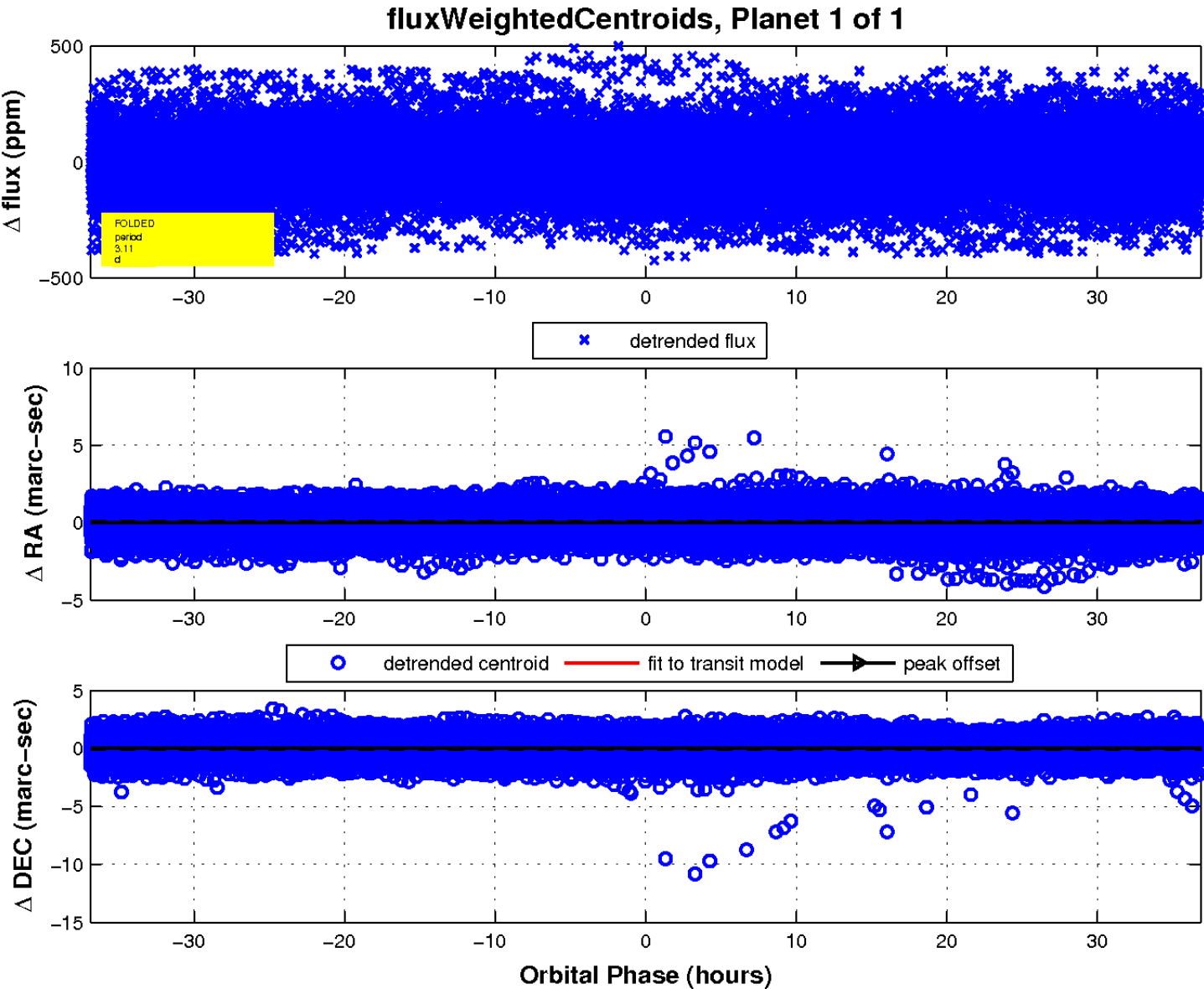
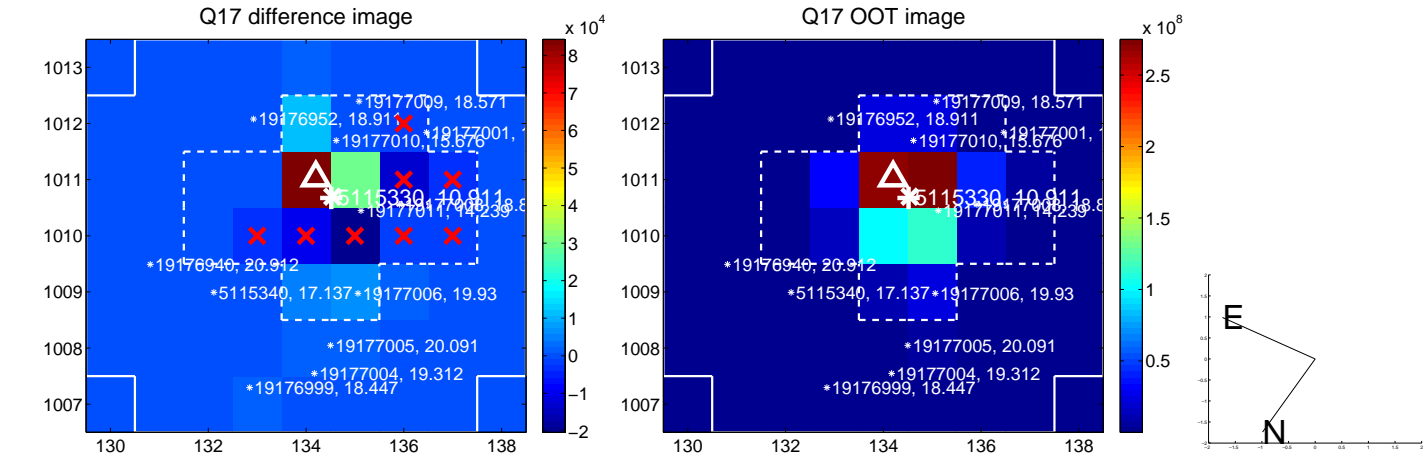
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

