

KIC 005450307

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})
005450307-01	OBS	No	0.976719	132.070709	9.4	5.052	7.3	1.7	1.30	6403	0.48	6103.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005450307-01	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.

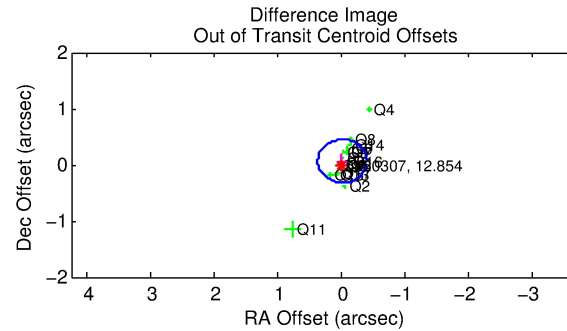
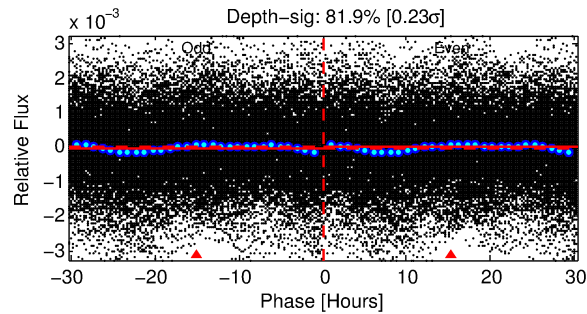
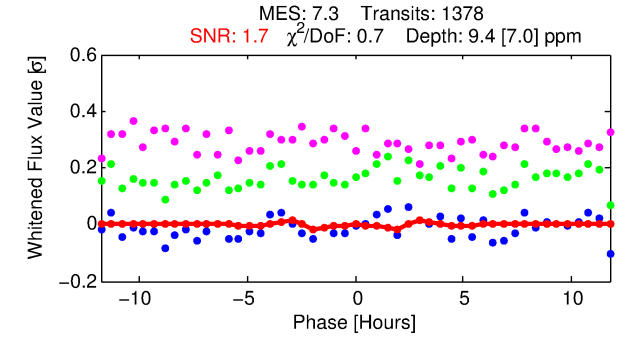
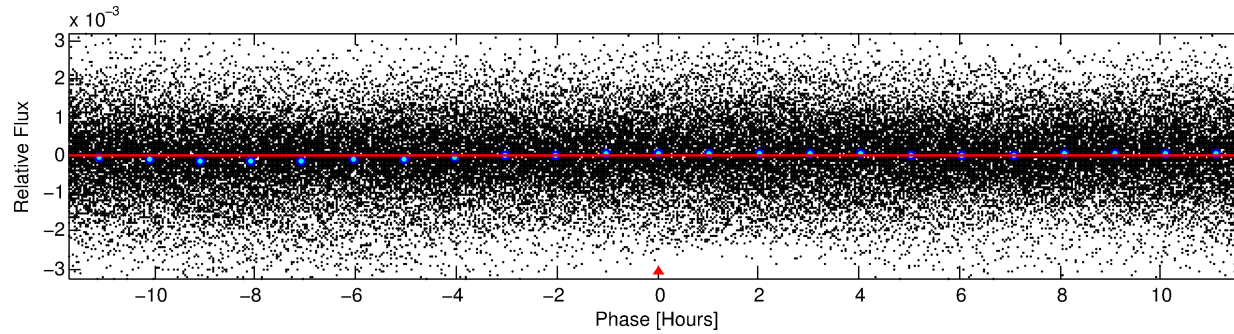
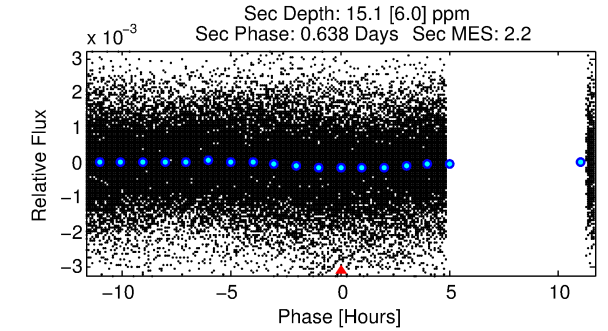
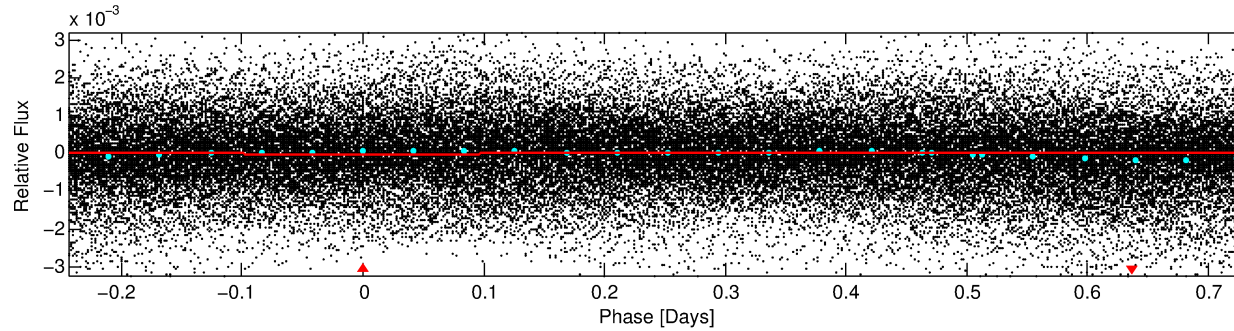
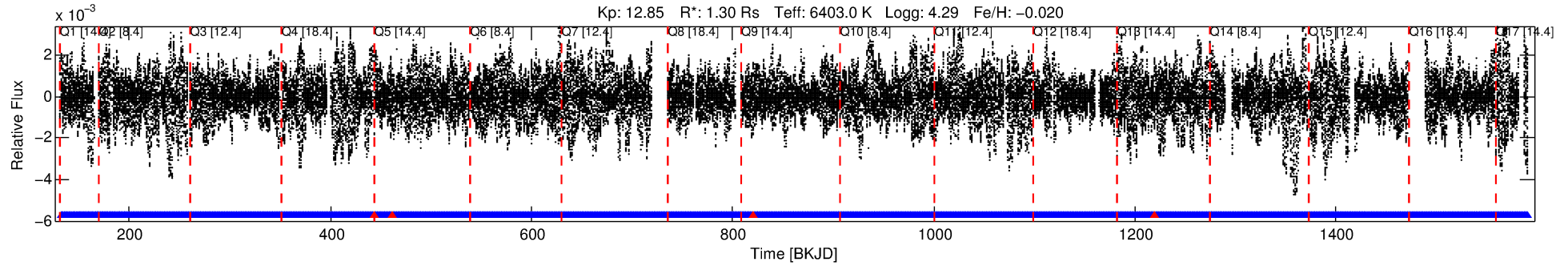
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005450307-01

No Significant Match Found

DV One-Page Summary

KIC: 5450307 Candidate: 1 of 1 Period: 0.977 d



DV Fit Results:

Period = 0.97672 [0.00005] d
Epoch = 132.0707 [0.0076] BKJD
Rp/R* = 0.0034 [0.0023]
a/R* = 1.10 [0.63]
b = 0.94 [0.44]
Seff = 6103.61 [1306.10]
Teq = 2254 [121] K
Rp = 0.48 [0.34] Re
a = 0.0204 [0.0029] AU
Ag = 14.85 [21.44] [0.65σ]
Teffp = 6841 [2444] K [1.87σ]

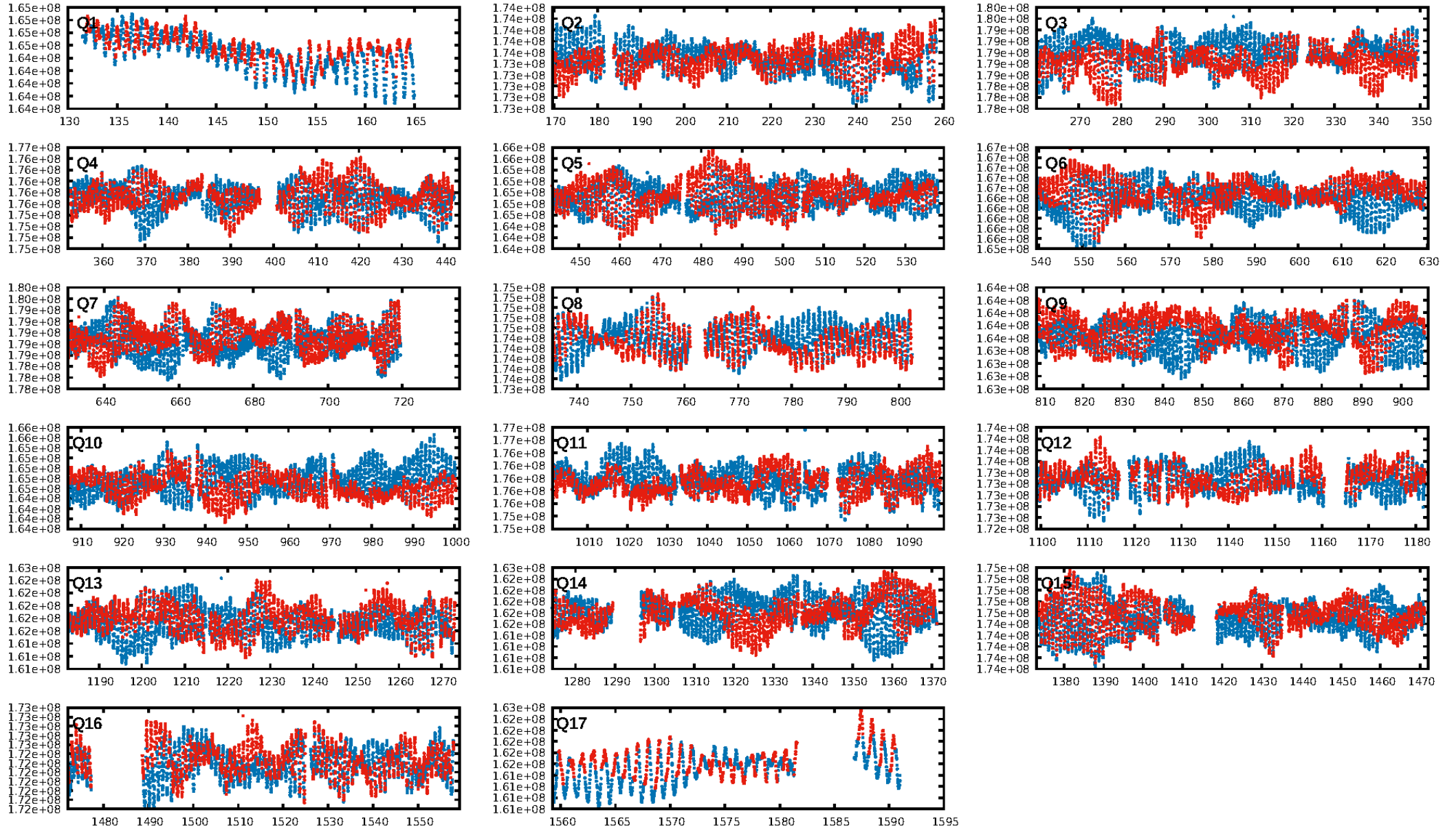
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.92e-13
RollingBand-fgt: 1.00 [1313/1317]
GhostDiagnostic-chr: 1.267
Centroid-sig: 6.7%
Centroid-so: 2.299 arcsec [1.50σ]
OotOffset-rm: 0.062 arcsec [0.48σ]
KicOffset-rm: 0.140 arcsec [1.24σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 1.00 [17/17]

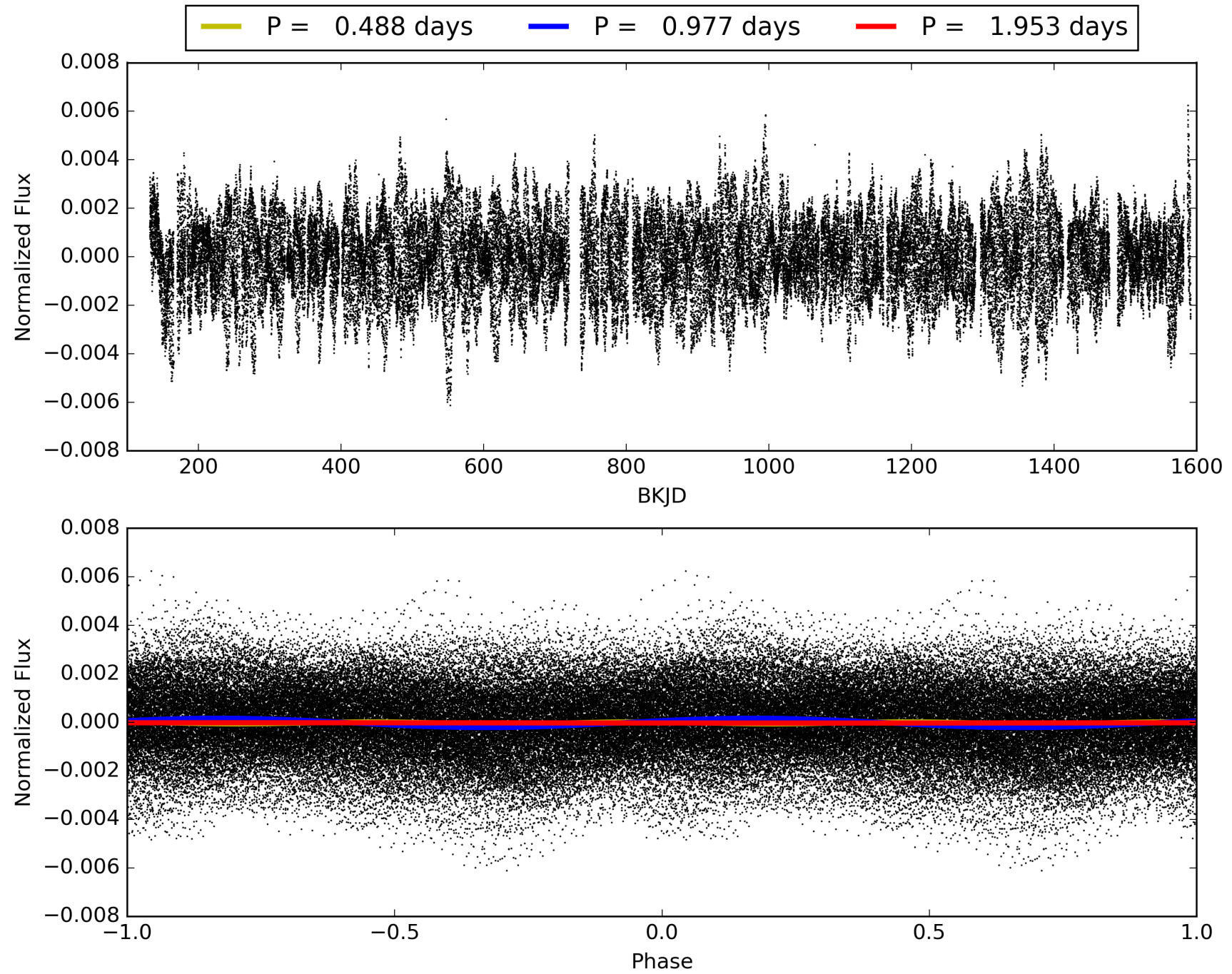
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:01:44 Z

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

TCE 005450307-01, PDC Light Curves

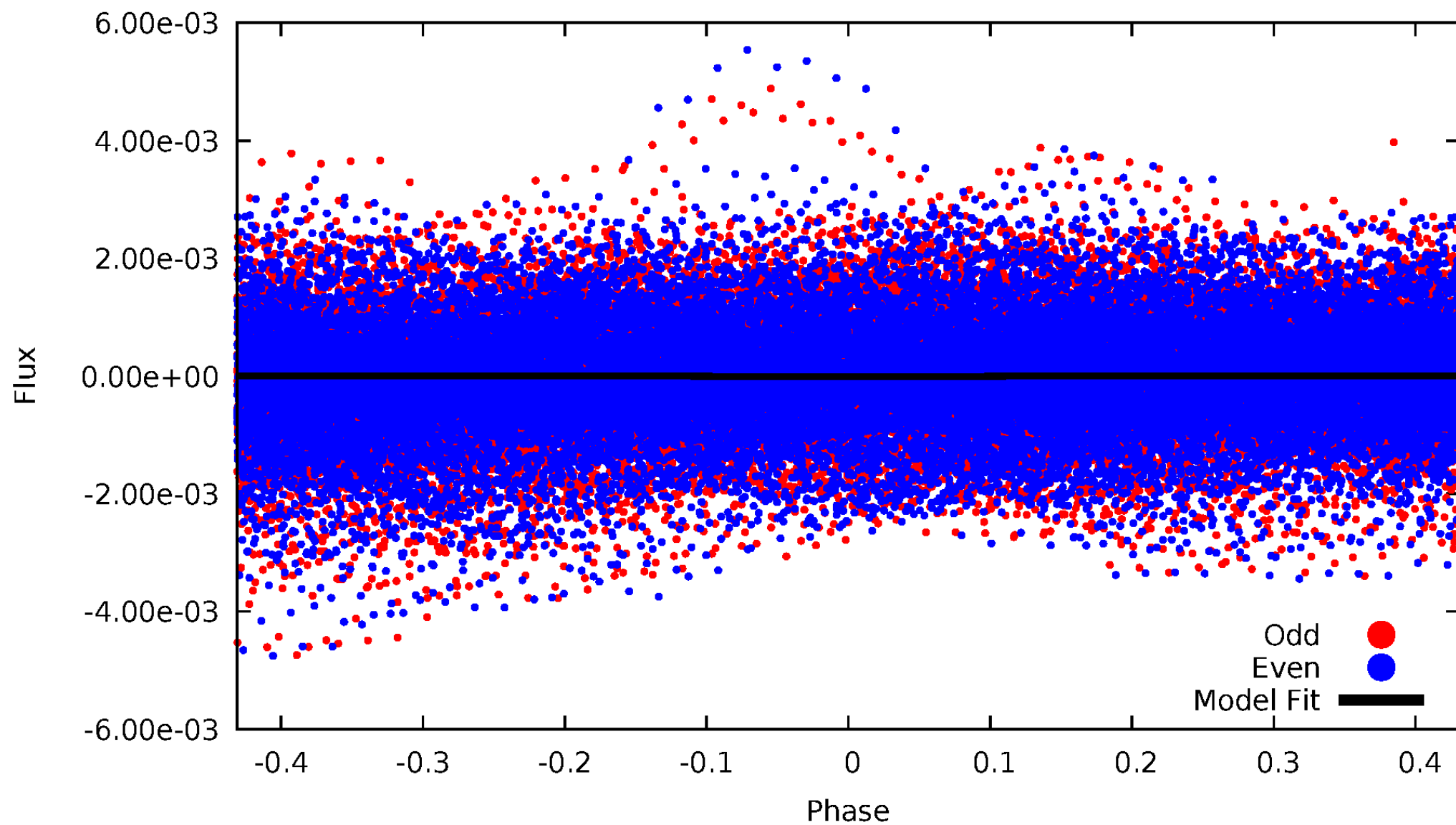


TCE 005450307-01



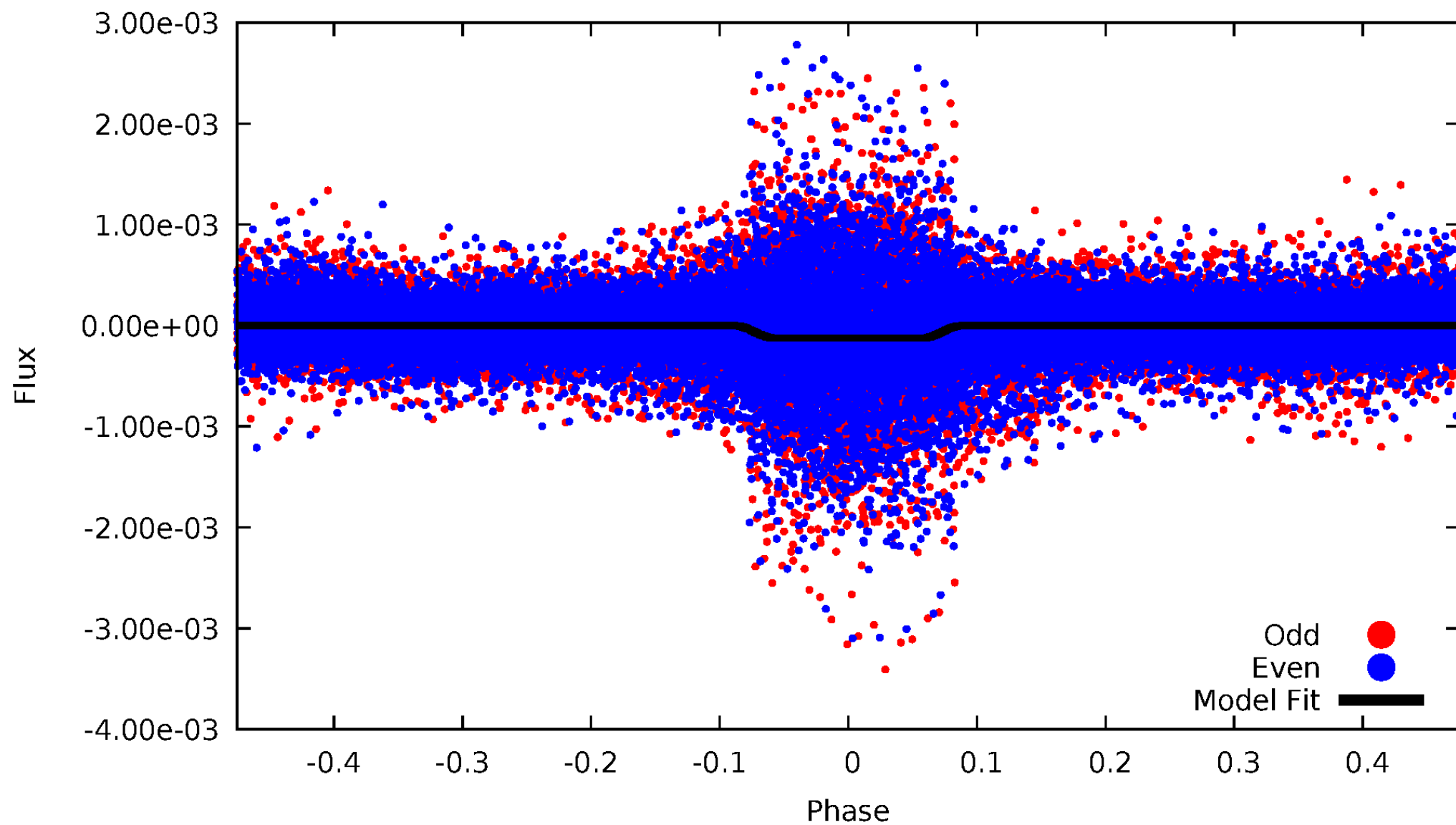
DV Odd/Even

TCE 005450307-01



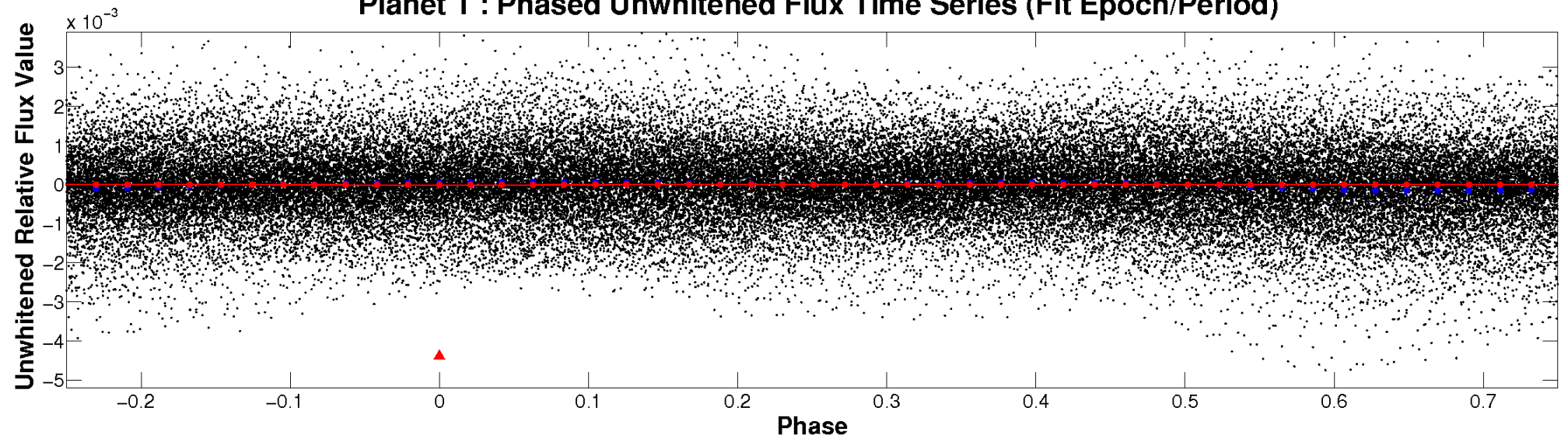
ALT Odd/Even

TCE 005450307-01

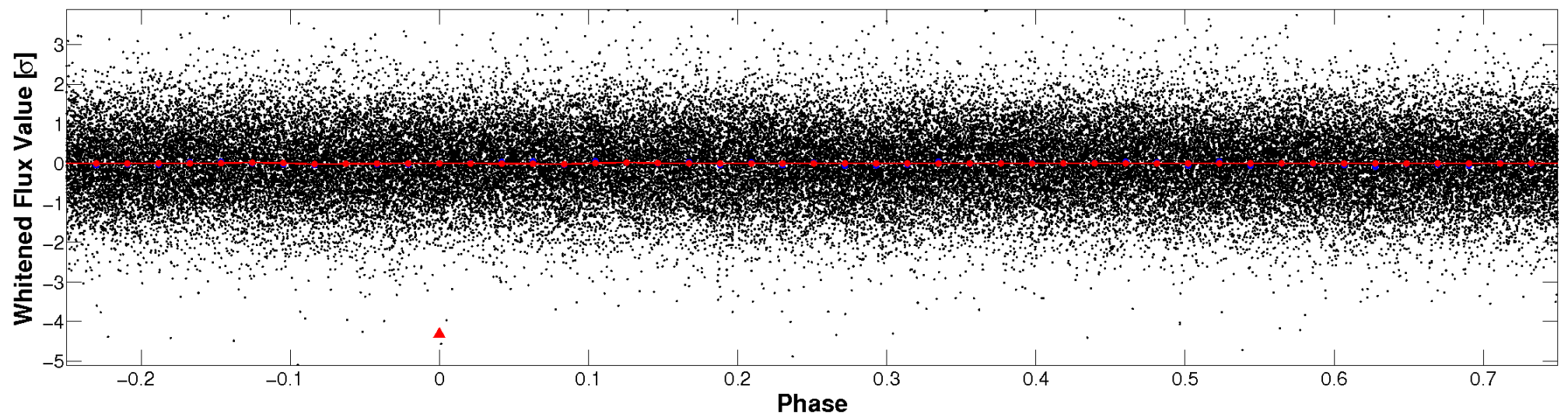


Non-Whitened Vs. Whitened Light Curve

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

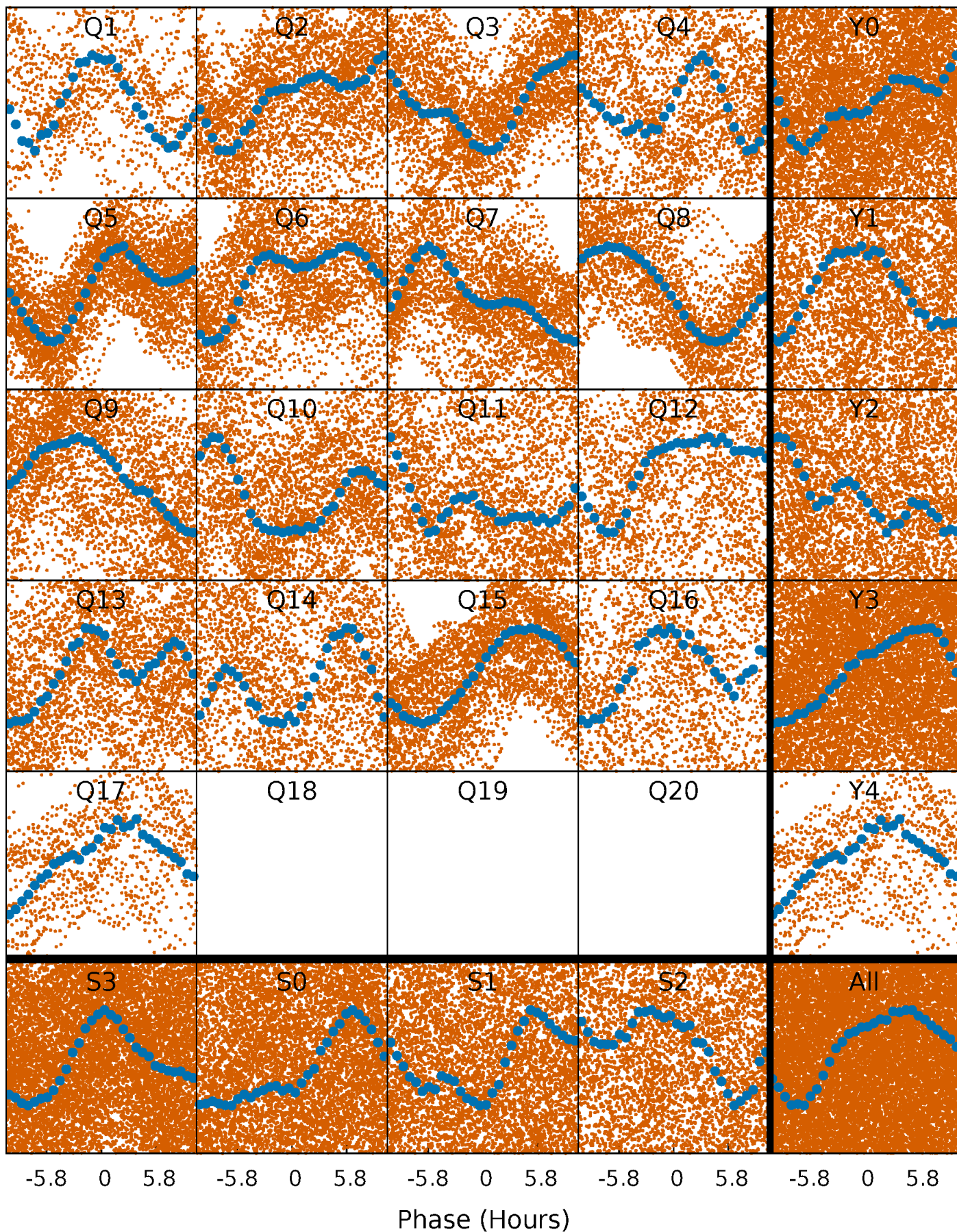


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



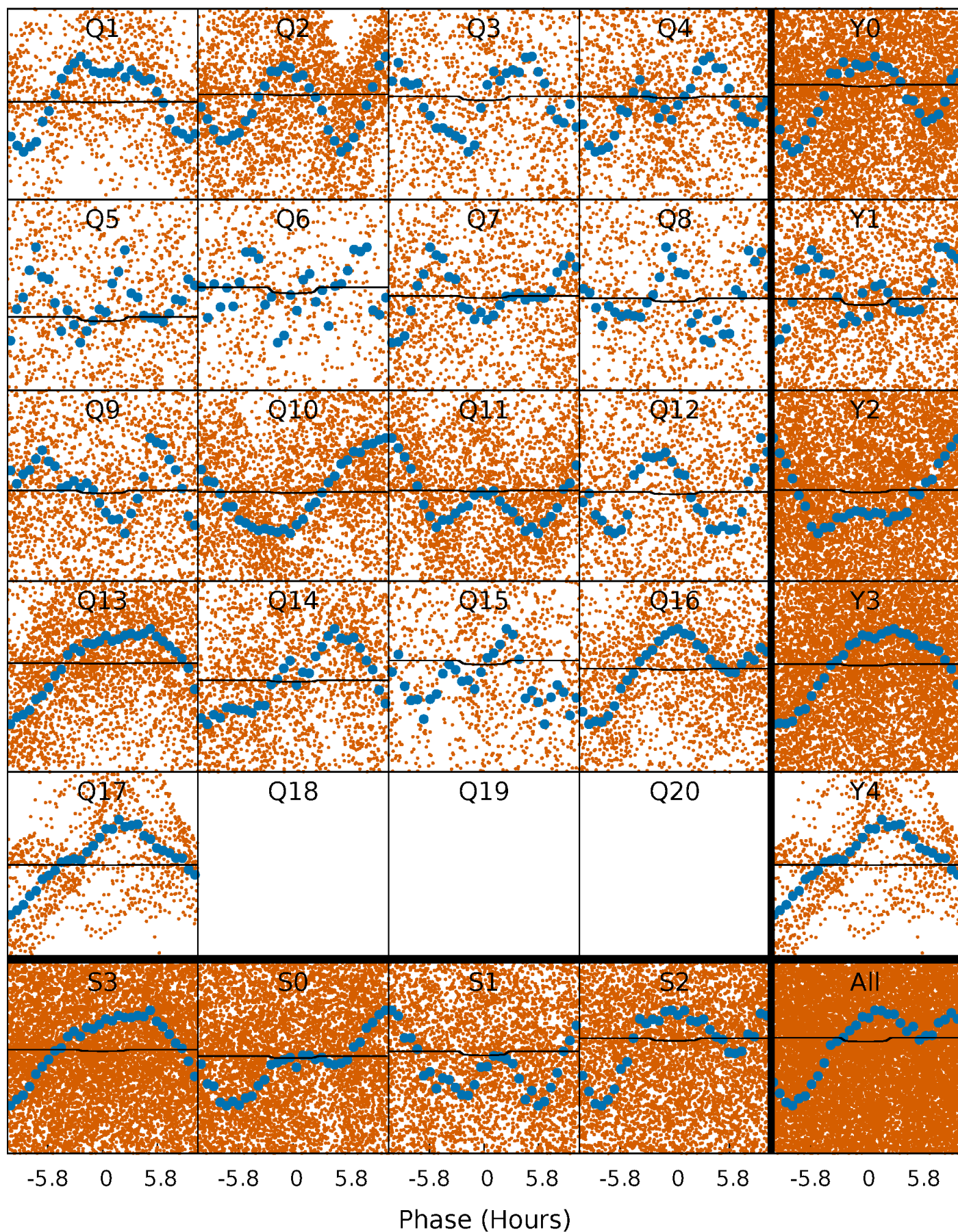
PDC Quarter-Phased Transit Curves

TCE 005450307-01 P= 0.976719 Days $T_0=132.070709$ (BKJD)



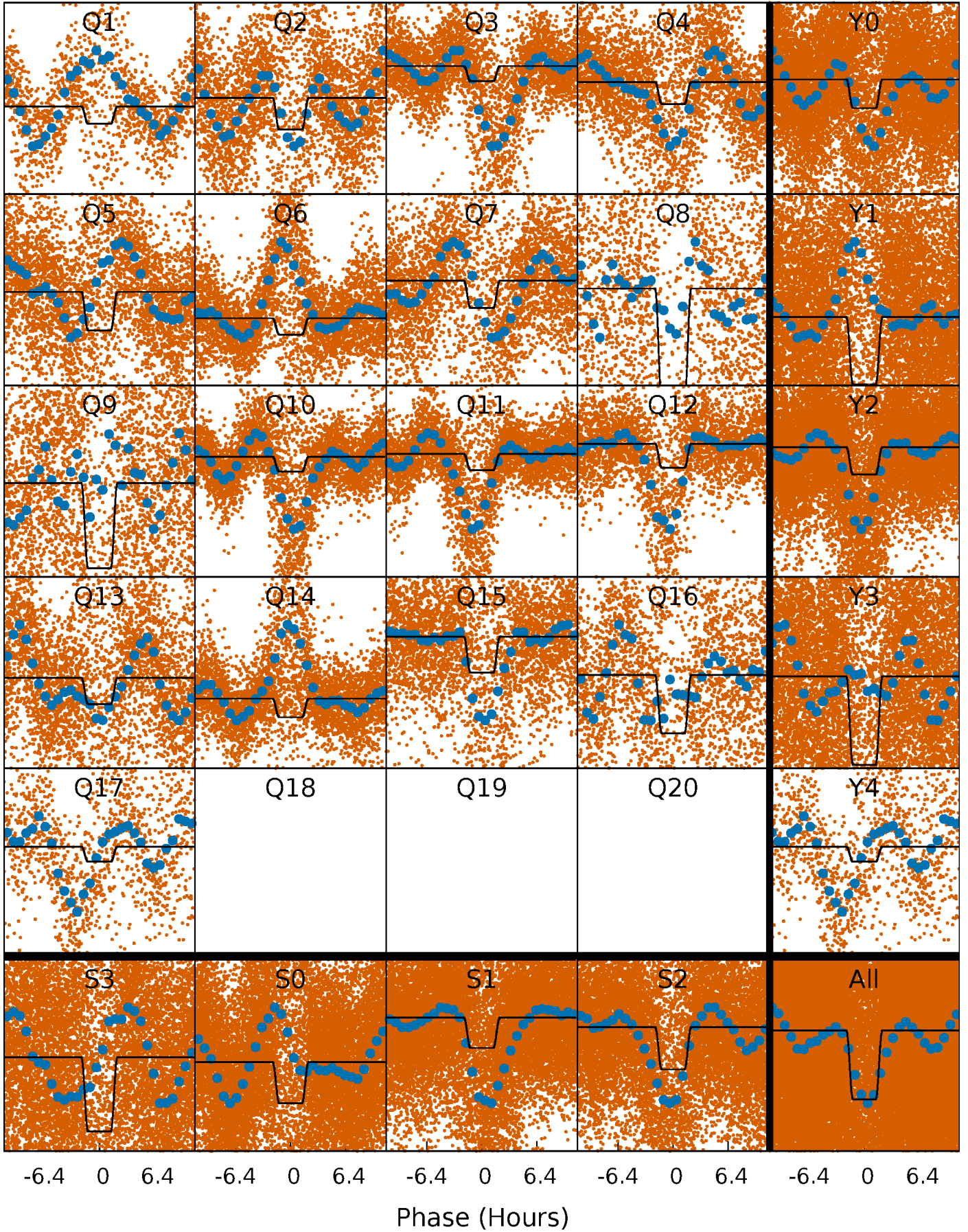
DV Quarter-Phased Transit Curves

TCE 005450307-01 P= 0.976719 Days $T_0=132.070709$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

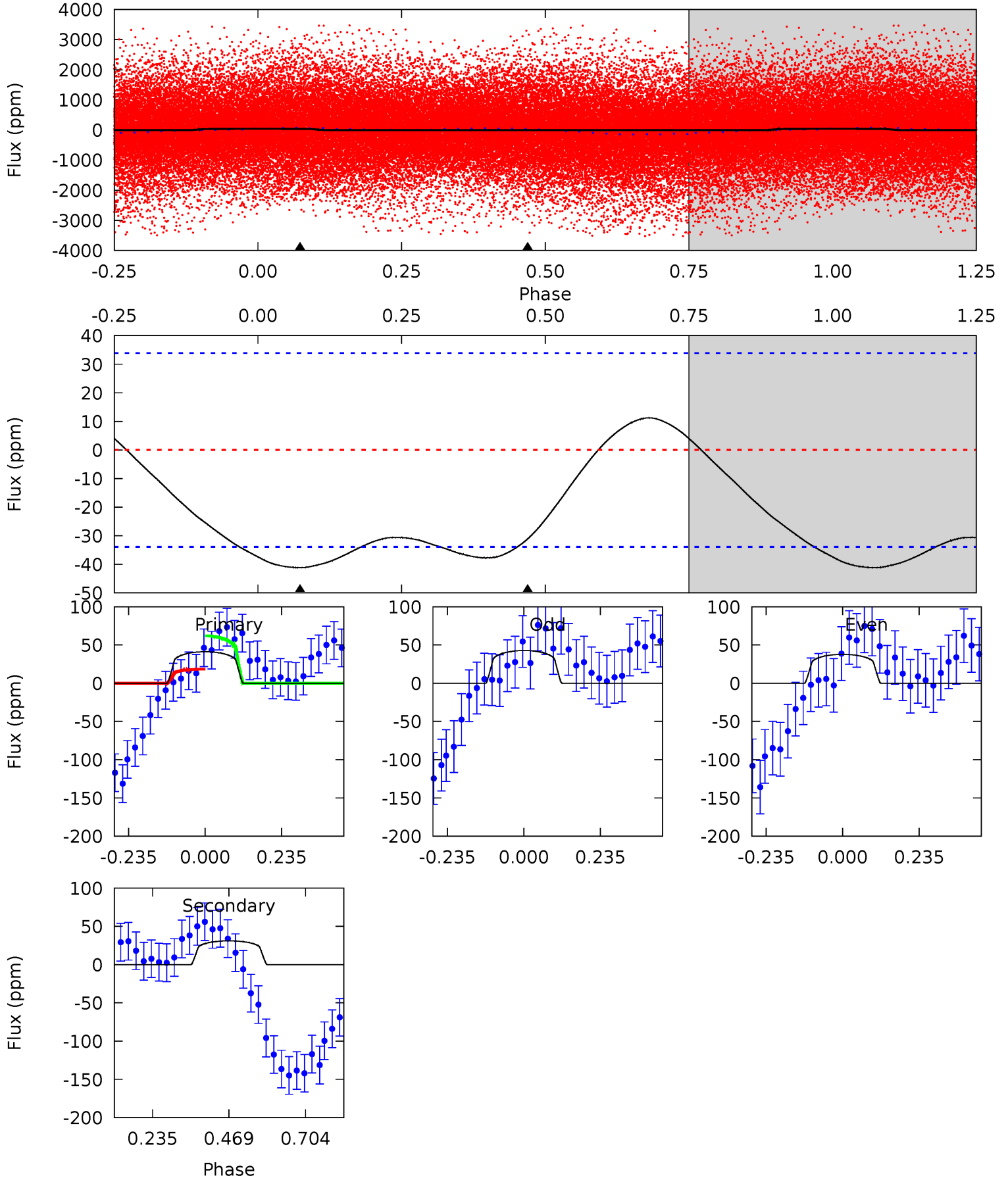
TCE 005450307-01 P= 0.976487 Days $T_0=132.081425$ (BKJD)



DV Model-Shift Uniqueness Test

005450307-01, P = 0.976719 Days, E = 131.093990 Days

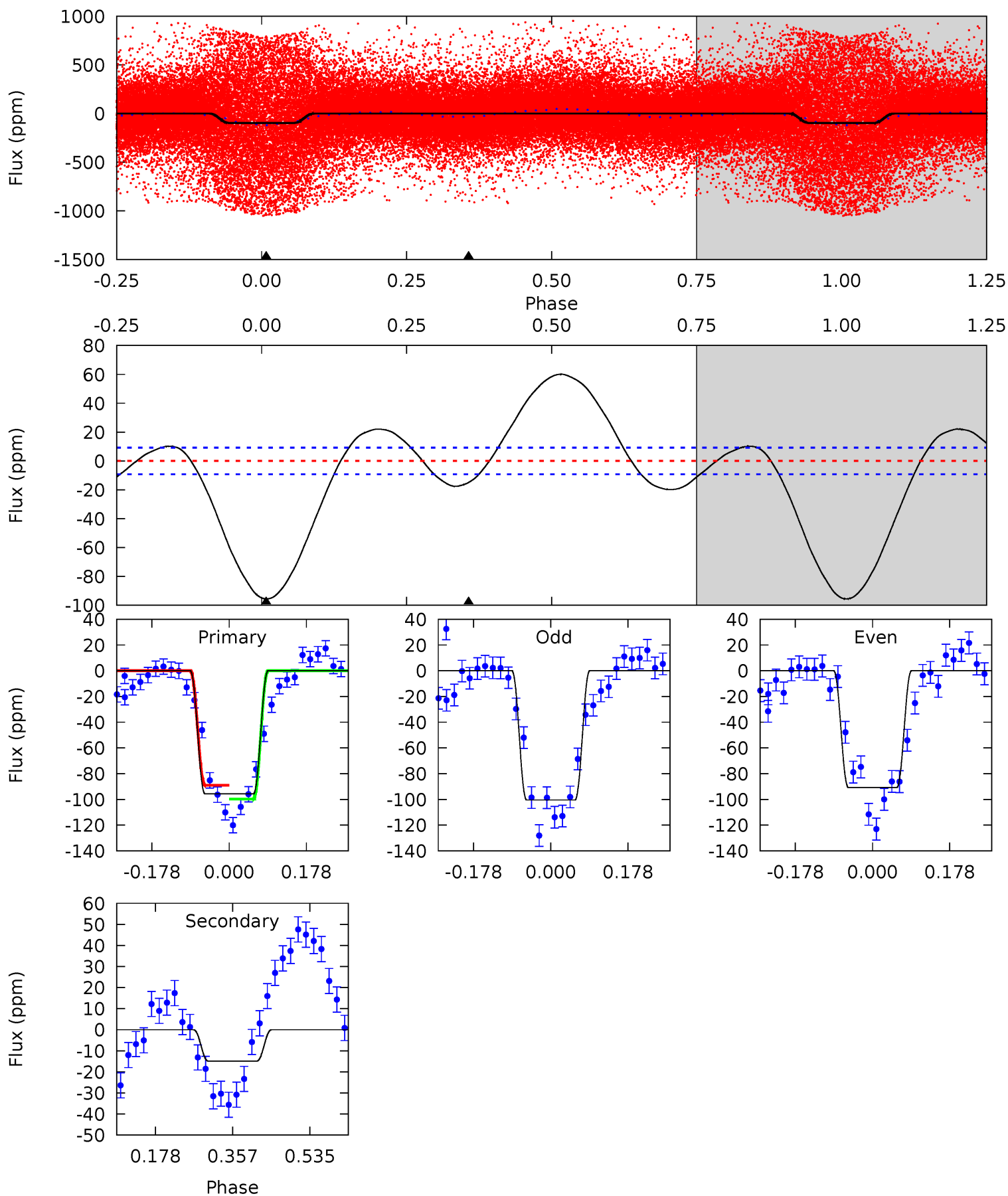
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.32	4.02	0	0	4.38	1.19	0.91	5.32	5.32	4.02	4.02	0.33	1.25	0.21	2.93



Alt Model-Shift Uniqueness Test

005450307-01, P = 0.976487 Days, E = 131.104938 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.1	7.19	0	0	4.44	1.35	11.5	46.1	46.1	7.19	7.19	2.32	0.91	0.39	2.62



Stellar Parameters For KIC 005450307

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6403^{+70}_{-83}	$4.286^{+0.076}_{-0.114}$	$-0.020^{+0.150}_{-0.150}$	$1.301^{+0.218}_{-0.145}$	$1.191^{+0.087}_{-0.096}$	$0.762^{+0.285}_{-0.263}$
	+1%/-1%	+2%/-3%	+750%/-750%	+17%/-11%	+7%/-8%	+37%/-34%
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 005450307-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-31 ± 8	$0.52^{+0.34}_{-0.29}$	3160^{+131}_{-101}	8154^{+7066}_{-2084}	26^{+108}_{-17}
Alt.	-15 ± 2	$1.61^{+0.36}_{-0.33}$	3162^{+129}_{-108}	3857^{+439}_{-337}	$1.306^{+0.825}_{-0.451}$

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 $A_{obs} \gg 1.0$

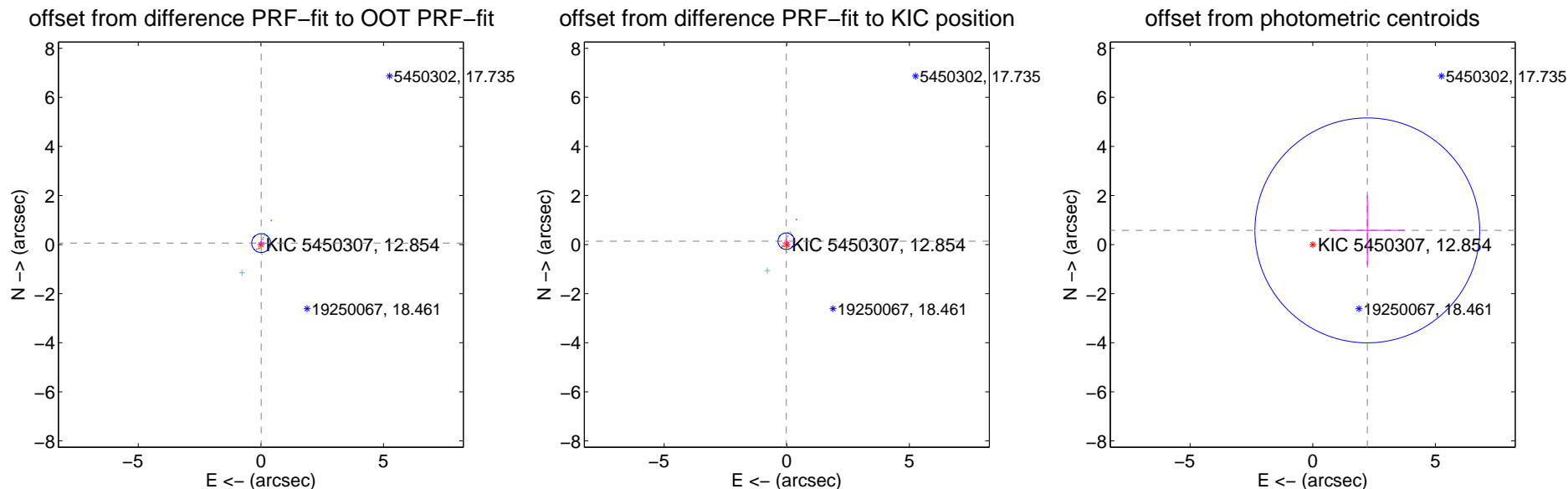
DV Centroid Data

Supplemental centroid analysis for 005450307-01. Kepler magnitude: 12.85. Transit SNR 1.70

There are 6 quarters with good PRF difference image offsets

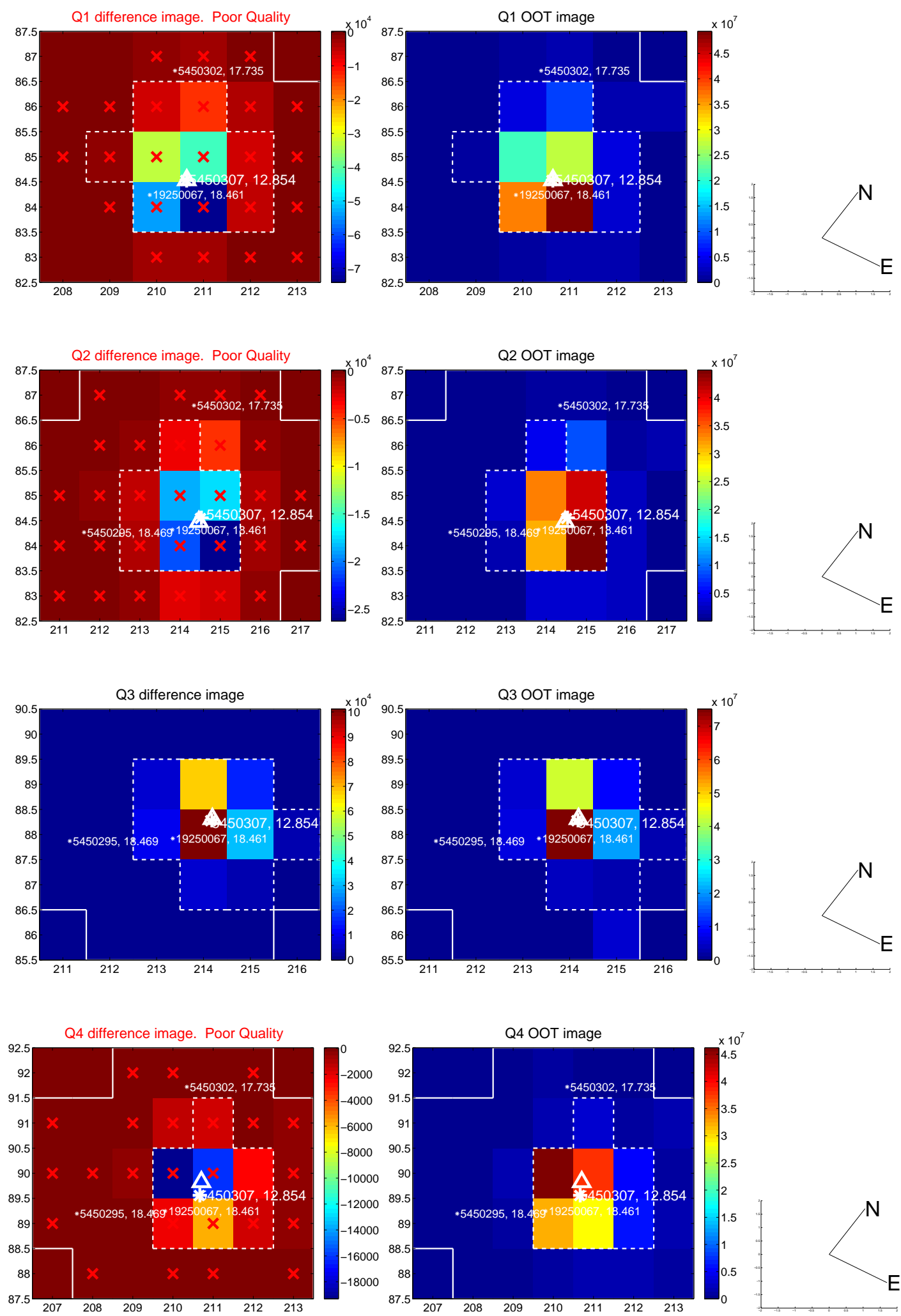
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.062 ± 0.128	0.48	-0.013 ± 0.086	0.060 ± 0.121
PRF-fit source offset from KIC position	0.140 ± 0.112	1.24	0.022 ± 0.086	0.138 ± 0.120
photometric centroid source offset	2.30 ± 1.53	1.50	-2.22 ± 1.54	0.58 ± 1.41

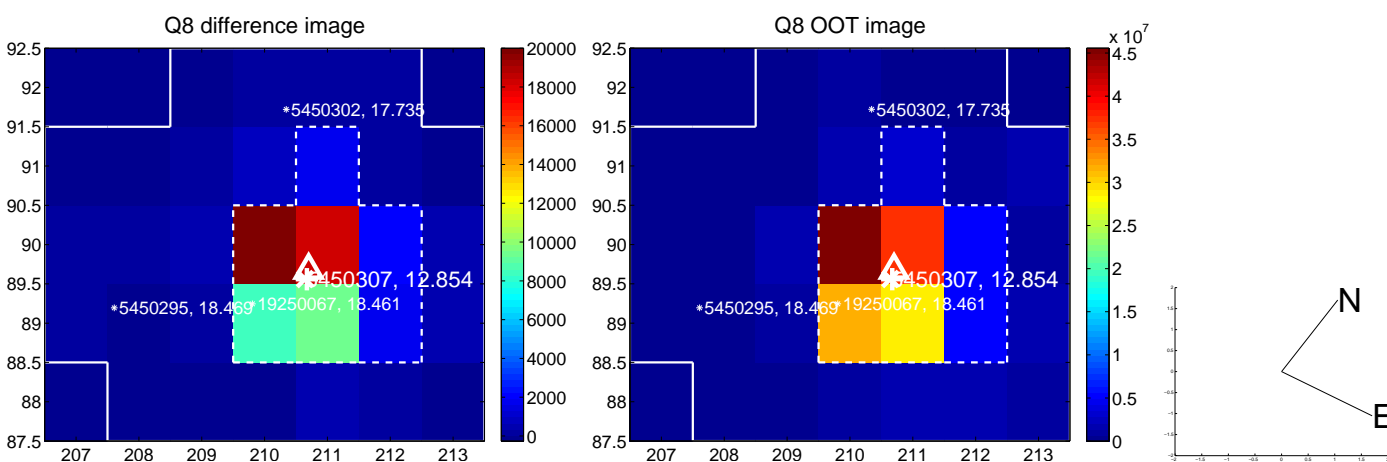
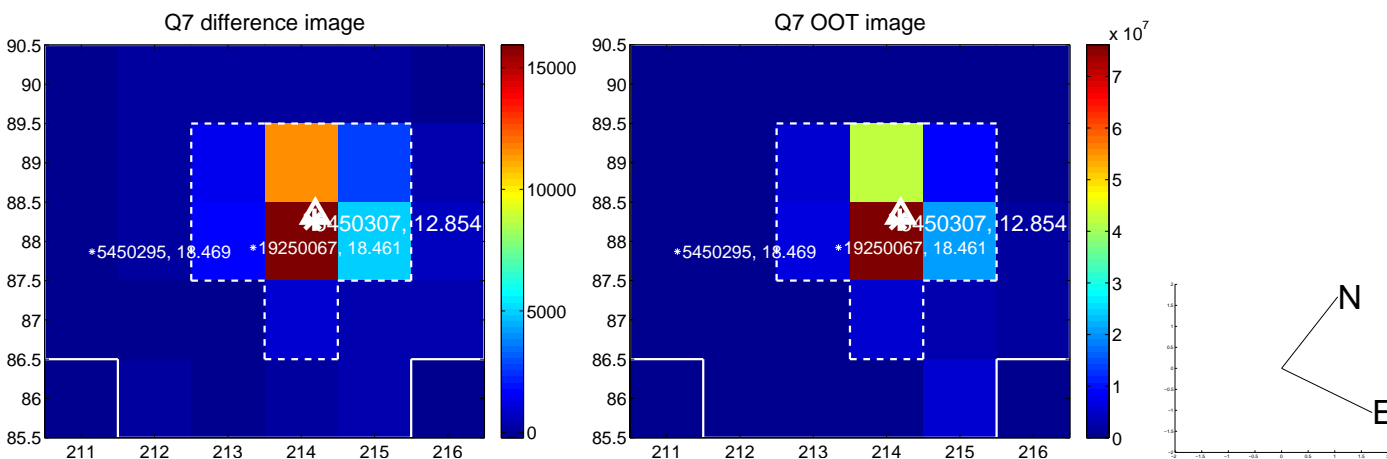
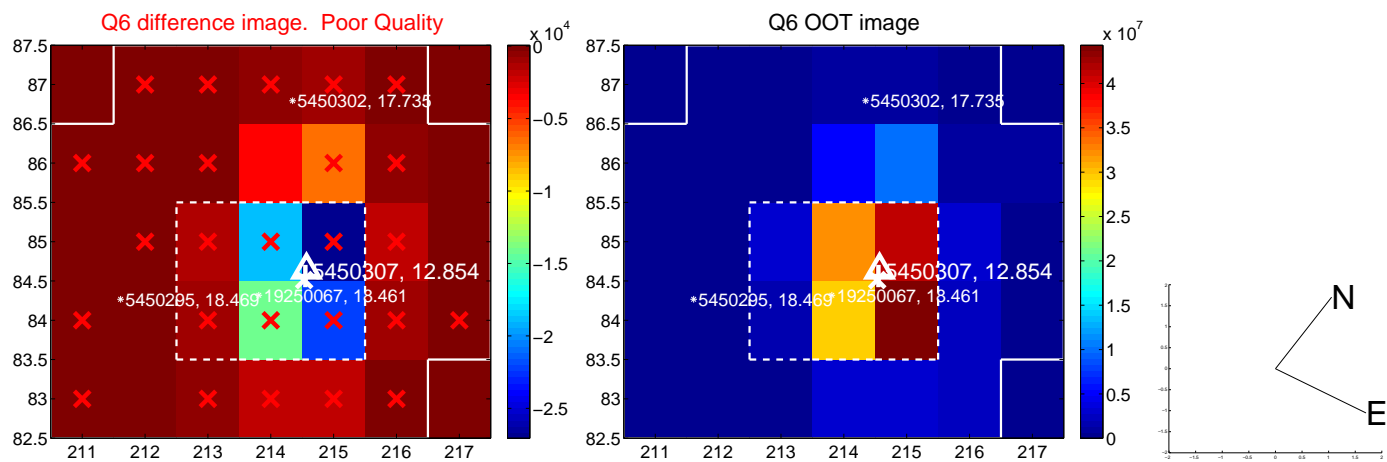
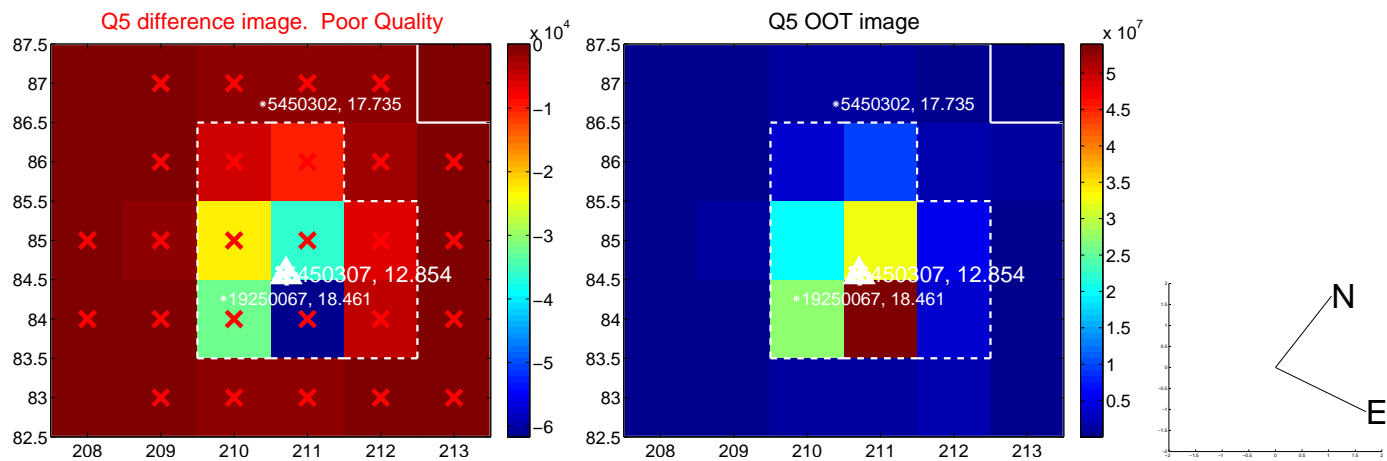


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

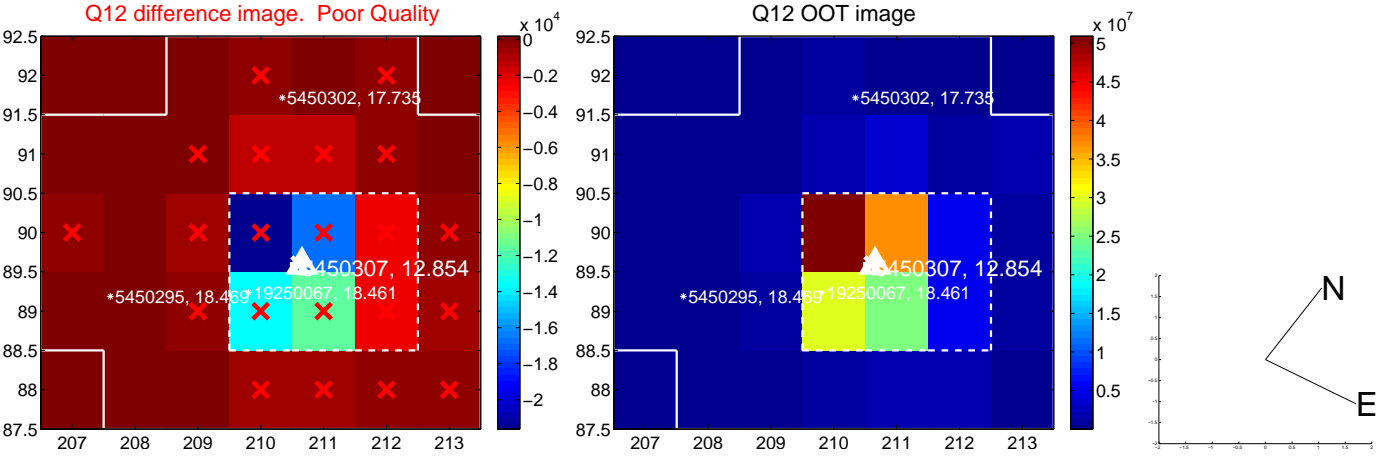
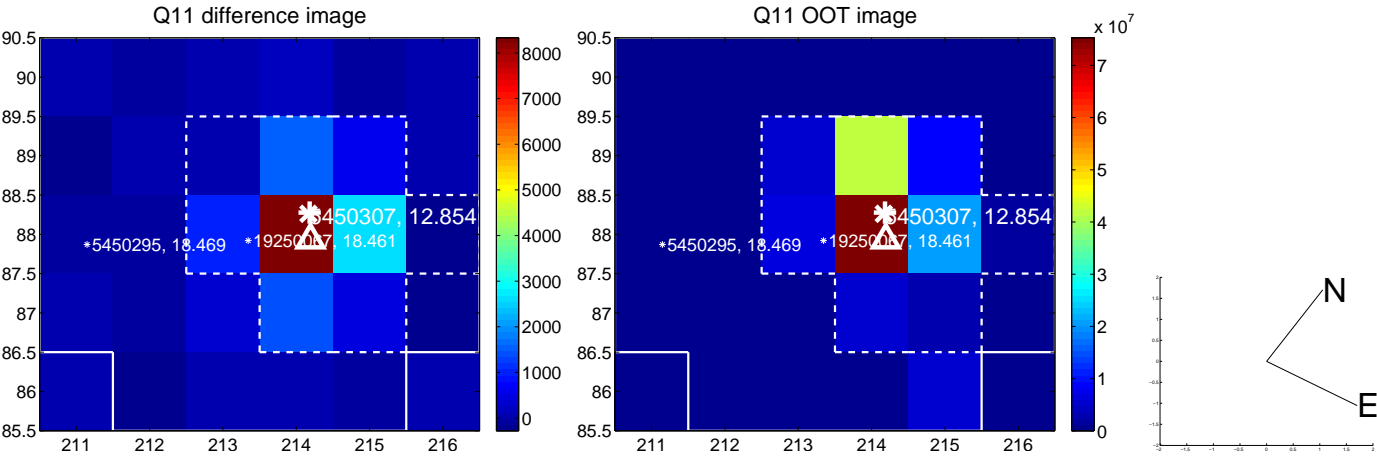
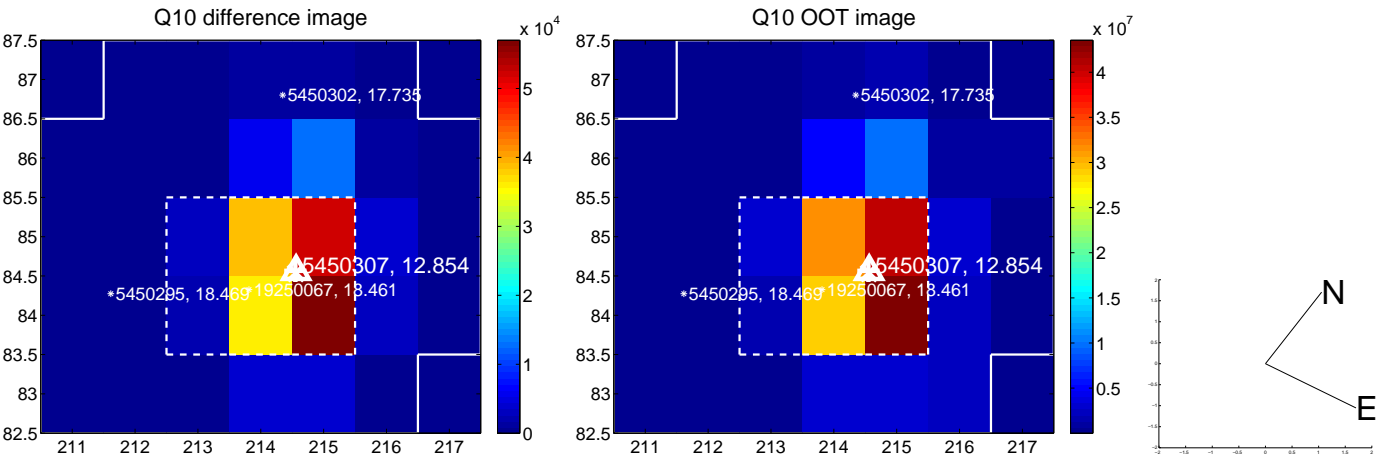
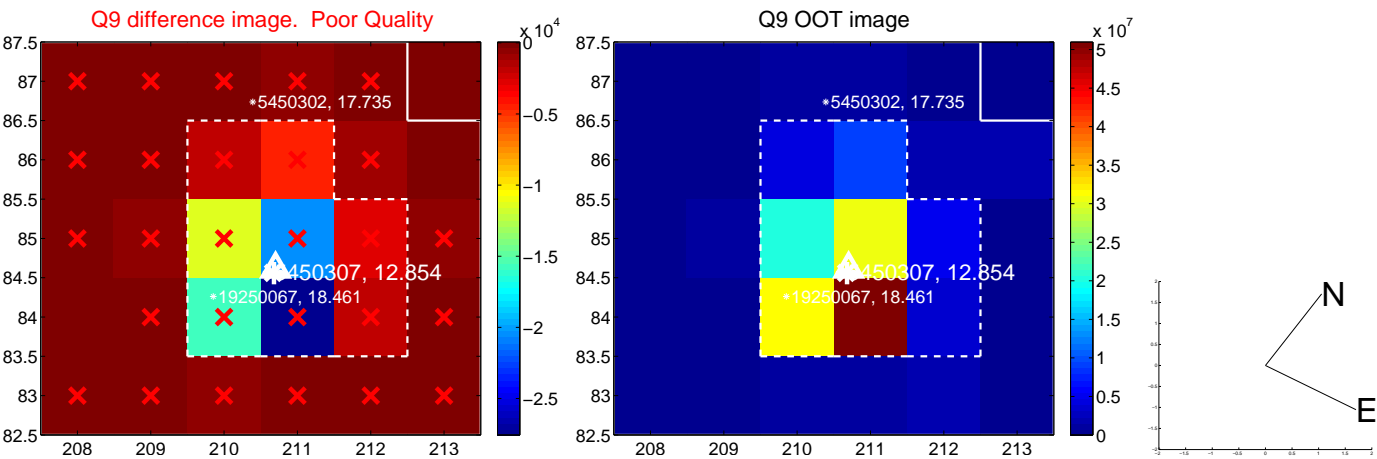
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



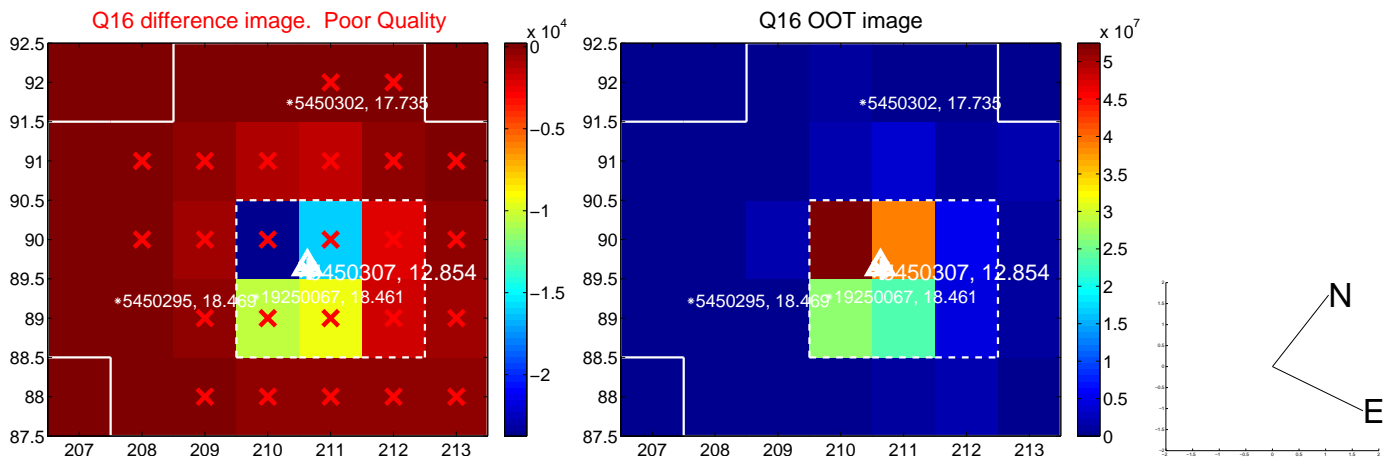
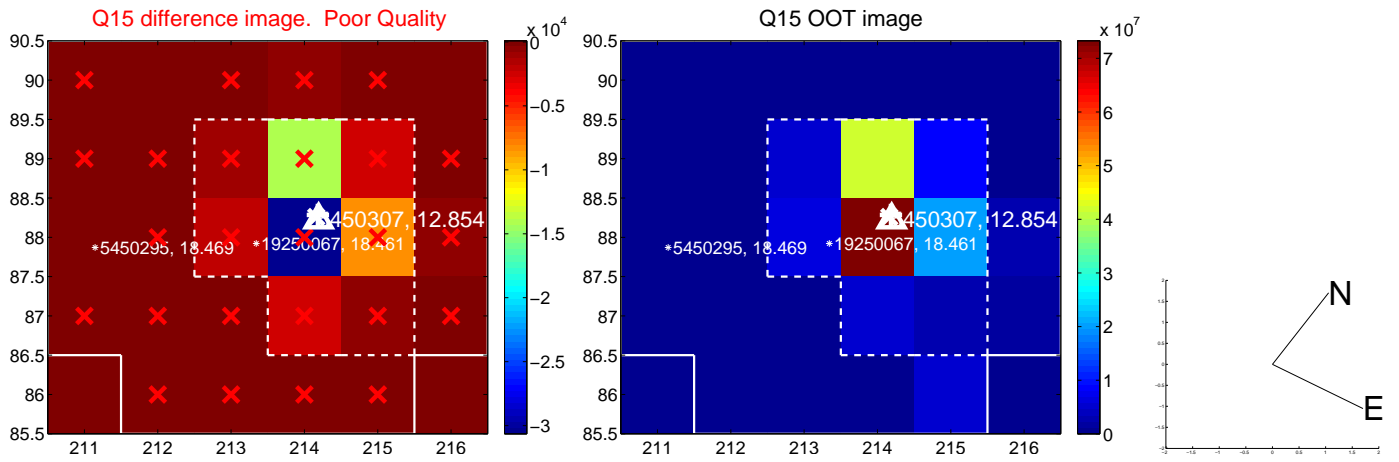
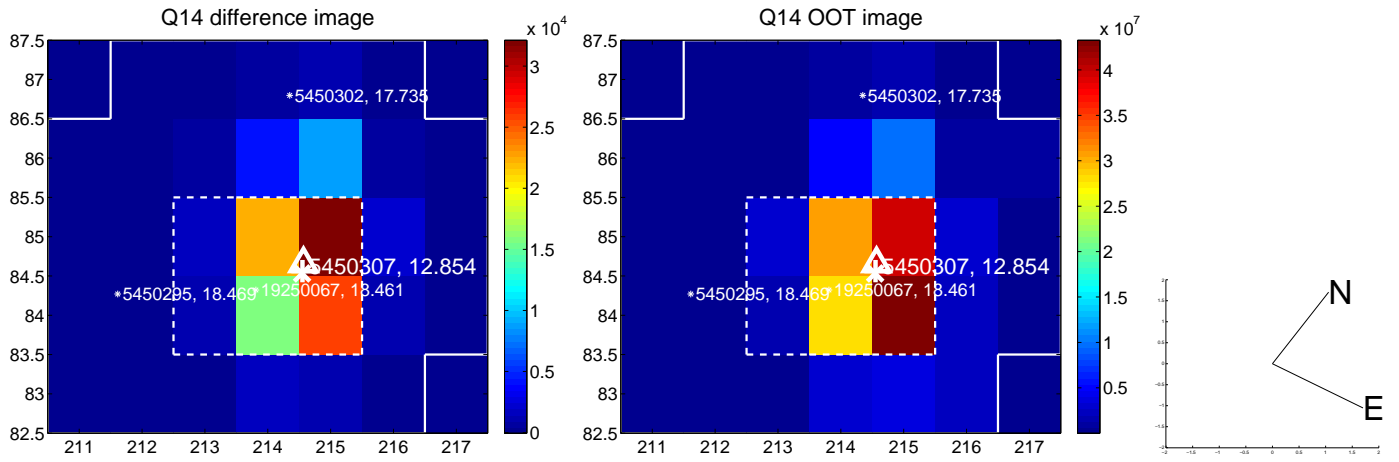
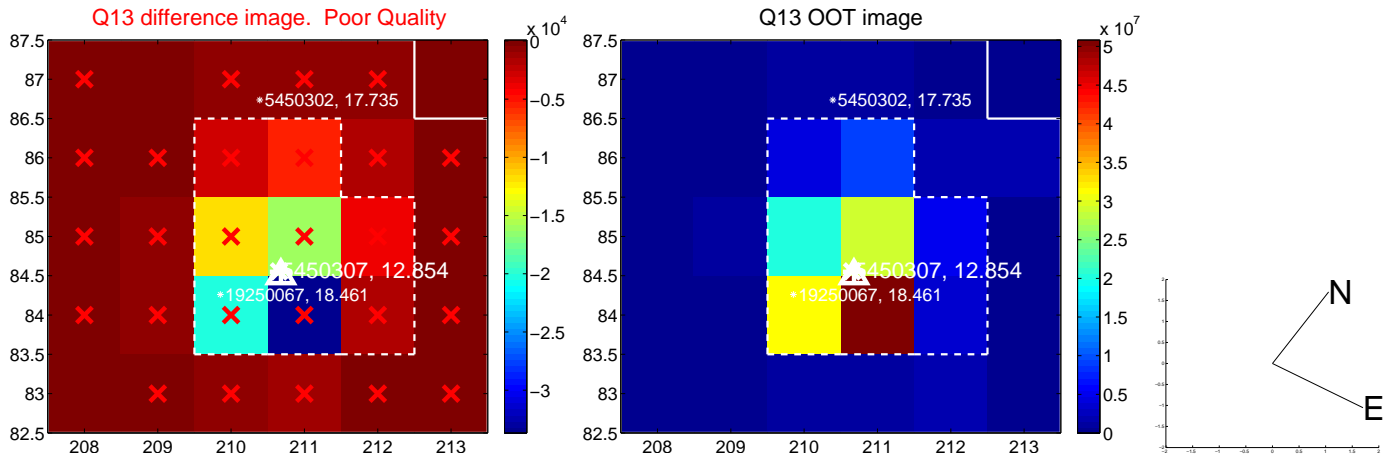
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



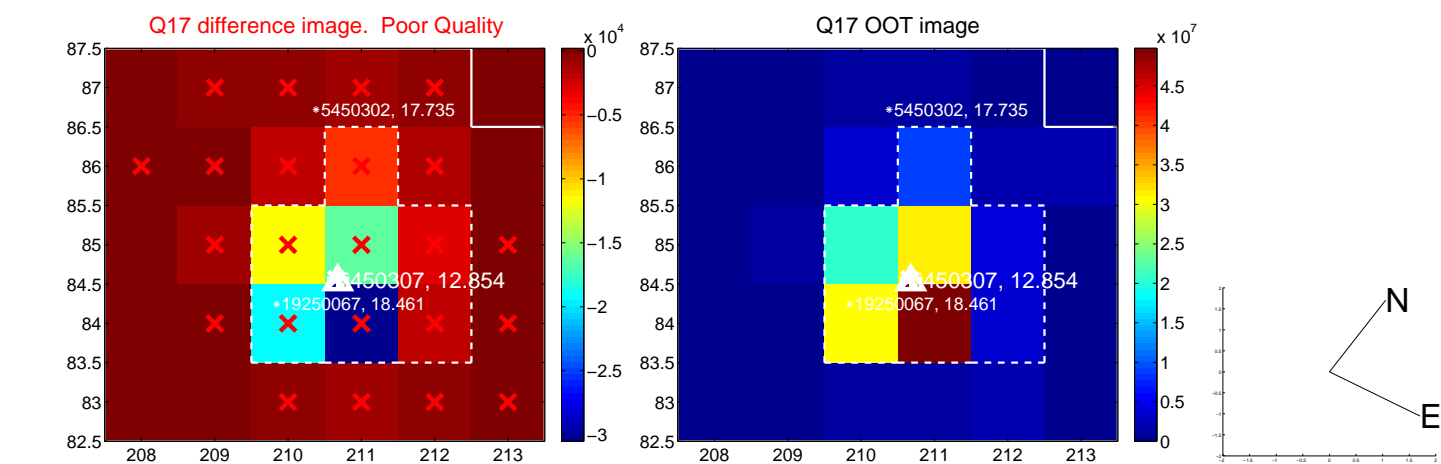
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



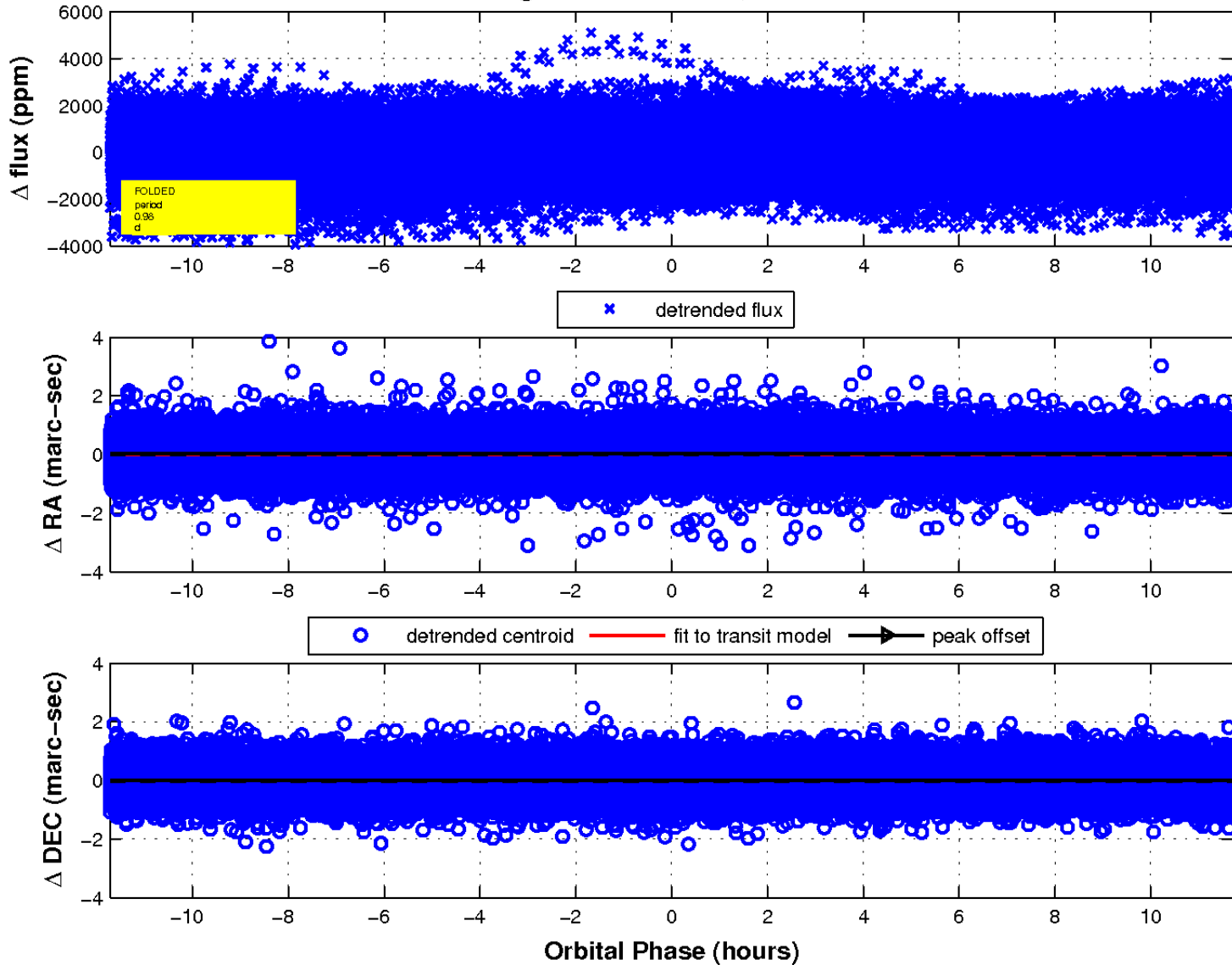
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

