

KIC 008443311

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})
008443311-01	OBS	No	1.227250	132.426998	18.3	12.381	15.6	21.7	3.35	8059	1.49	48693.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008443311-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

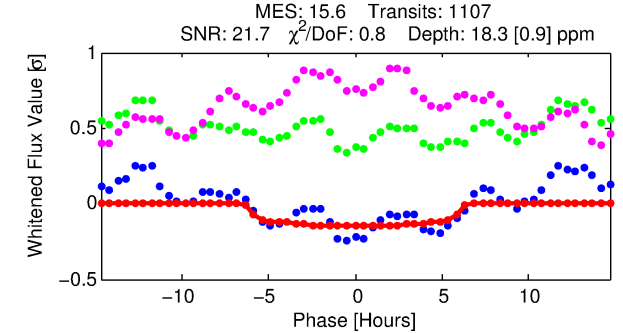
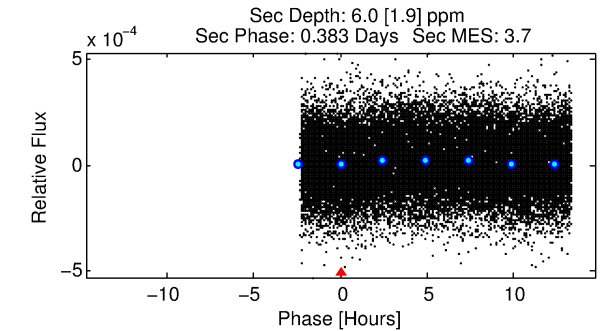
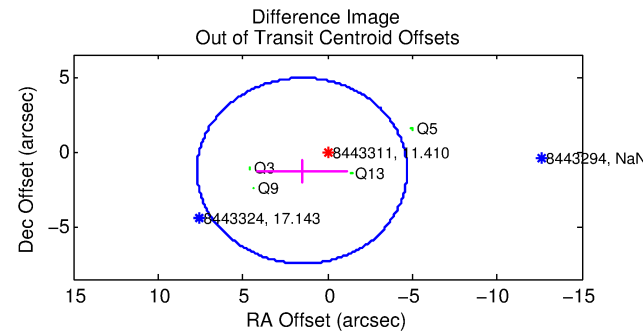
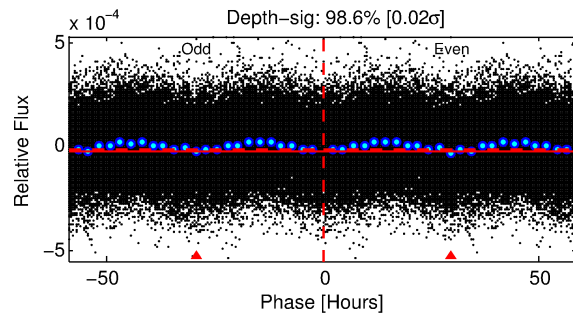
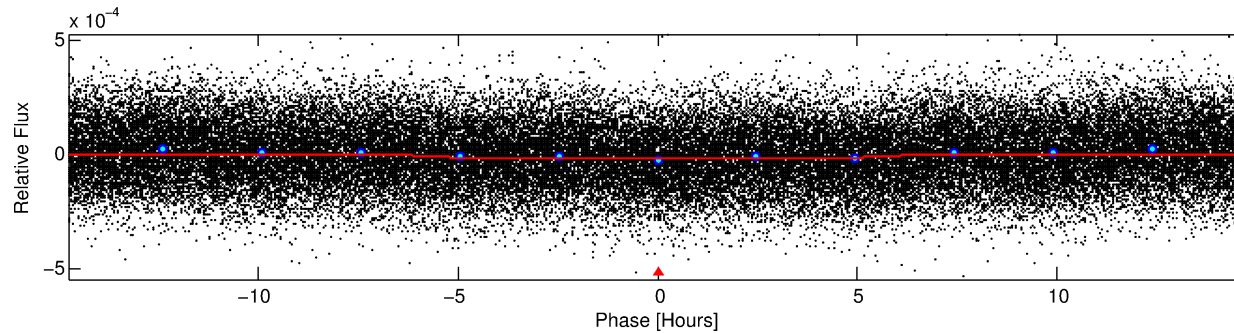
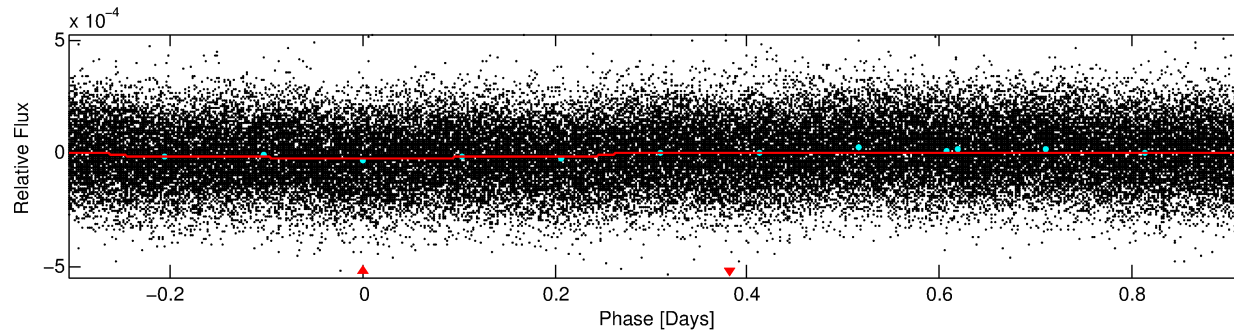
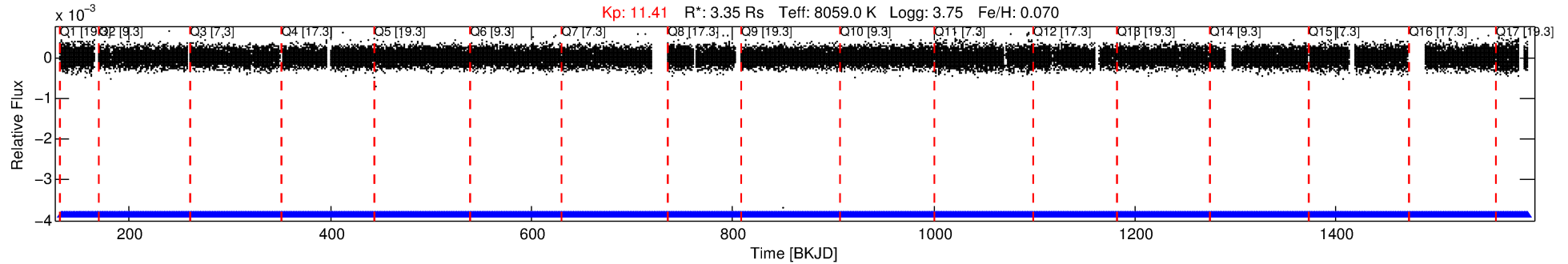
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008443311-01

No Significant Match Found

DV One-Page Summary

KIC: 8443311 Candidate: 1 of 1 Period: 1.227 d



DV Fit Results:

Period = 1.22725 [0.00001] d
Epoch = 132.4270 [0.0053] BKJD
 R_p/R^* = 0.0041 [0.0017]
 a/R^* = 1.03 [0.13]
 b = 0.52 [3.55]
 S_{eff} = 48693.54 [33532.80]
 T_{eq} = 3788 [652] K
 R_p = 1.49 [0.91] R_e
 a = 0.0295 [0.0123] AU
 A_g = 1.31 [1.47] [0.21 σ]
 T_{eff} = 6263 [1452] K [1.56 σ]

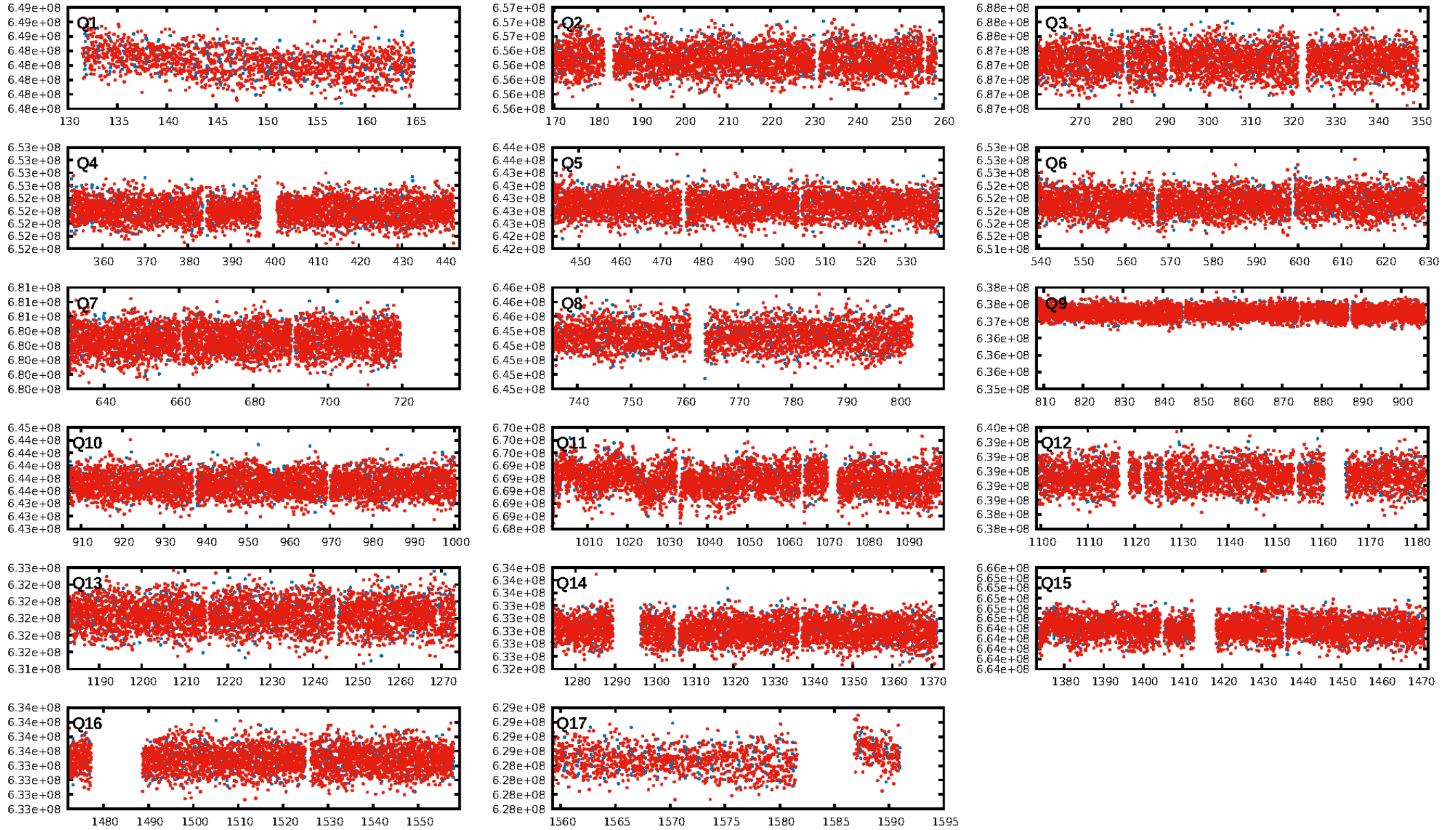
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1057/1057]
GhostDiagnostic-chr: 3.329
Centroid-sig: 0.3%
Centroid-so: 0.435 arcsec [1.58 σ]
OotOffset-rm: 1.965 arcsec [0.95 σ]
KicOffset-rm: 1.919 arcsec [0.85 σ]
OotOffset-st: 0/1/0/3 [4]
KicOffset-st: 0/1/0/3 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [17/17]

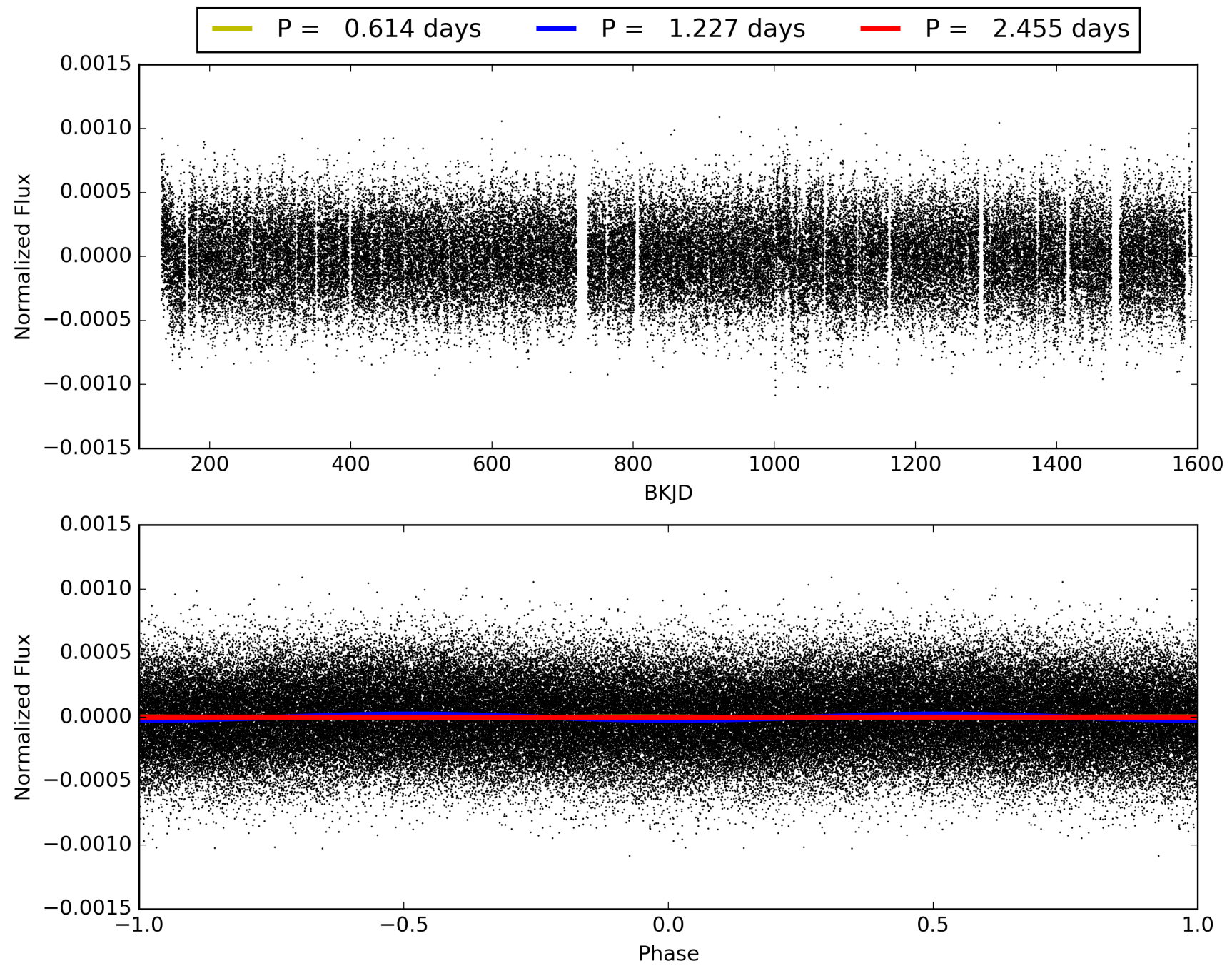
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:13:51 Z

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

TCE 008443311-01, PDC Light Curves

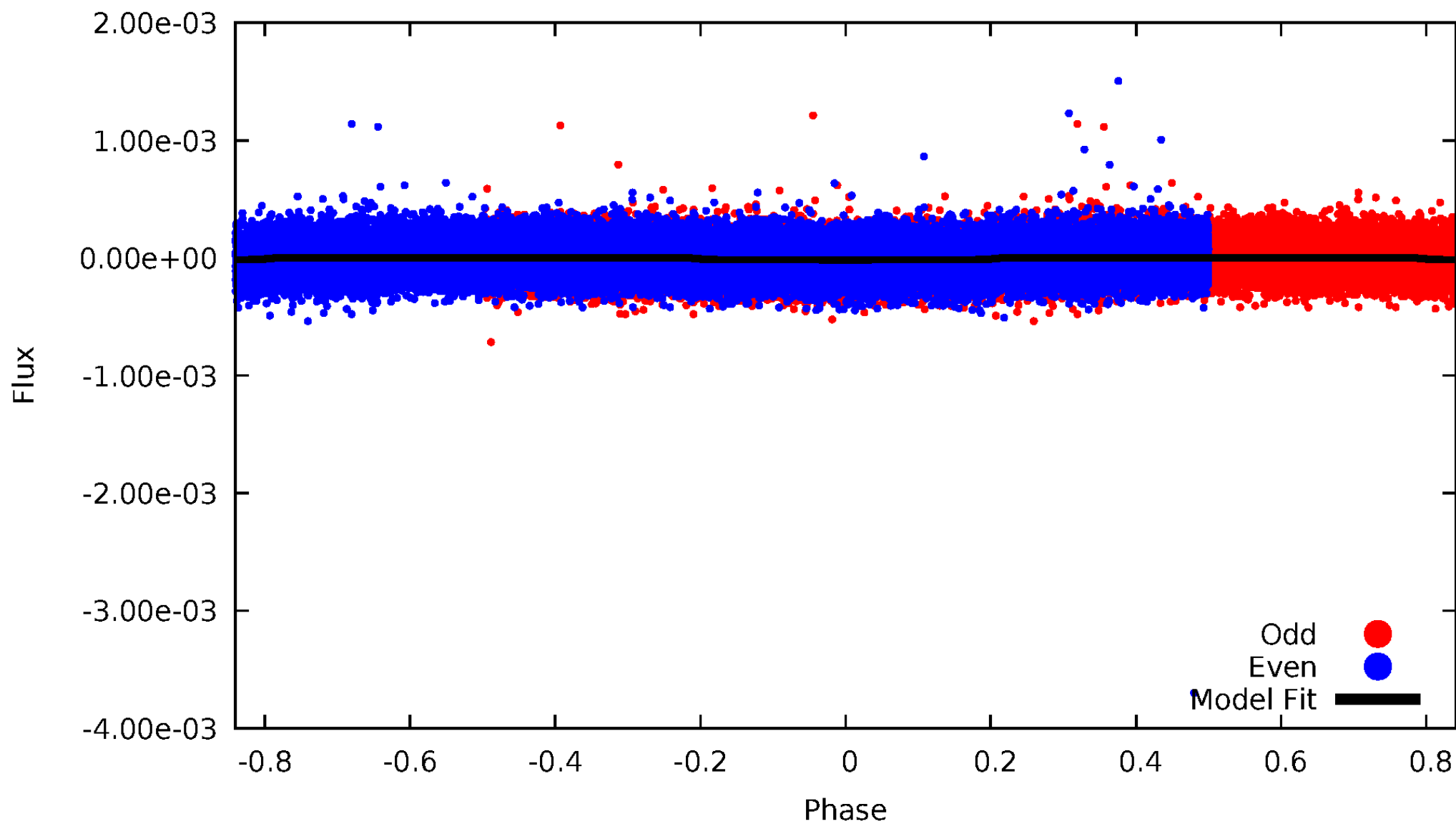


TCE 008443311-01



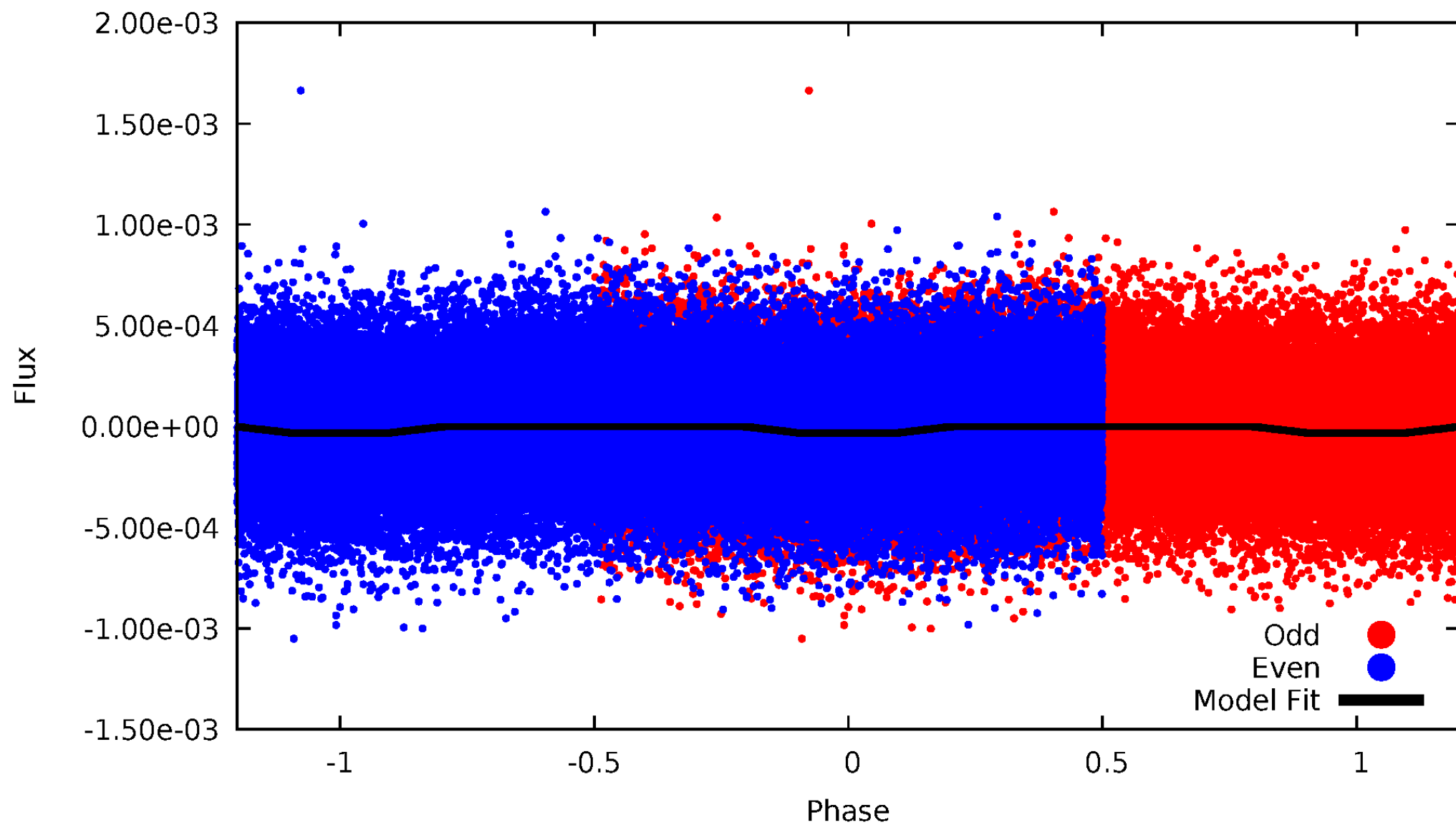
DV Odd/Even

TCE 008443311-01



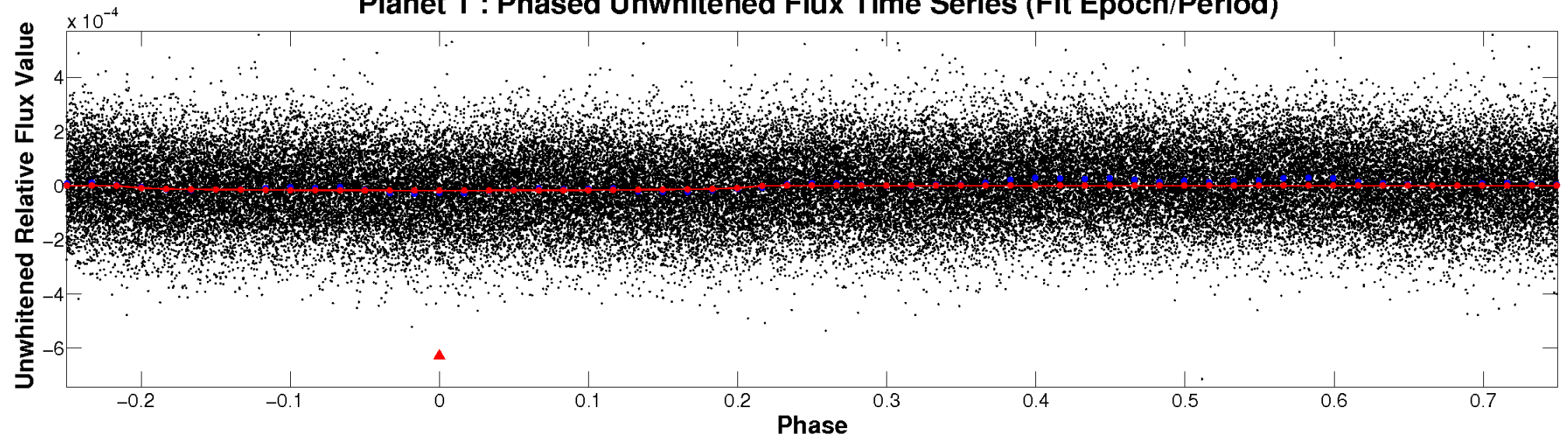
ALT Odd/Even

TCE 008443311-01

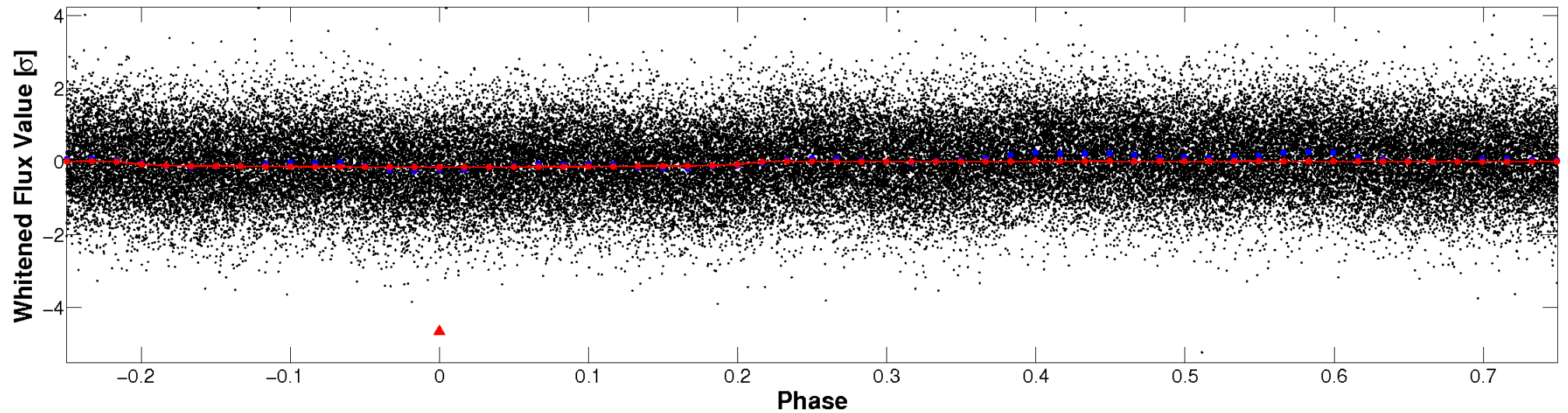


Non-Whitened Vs. Whitened Light Curve

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

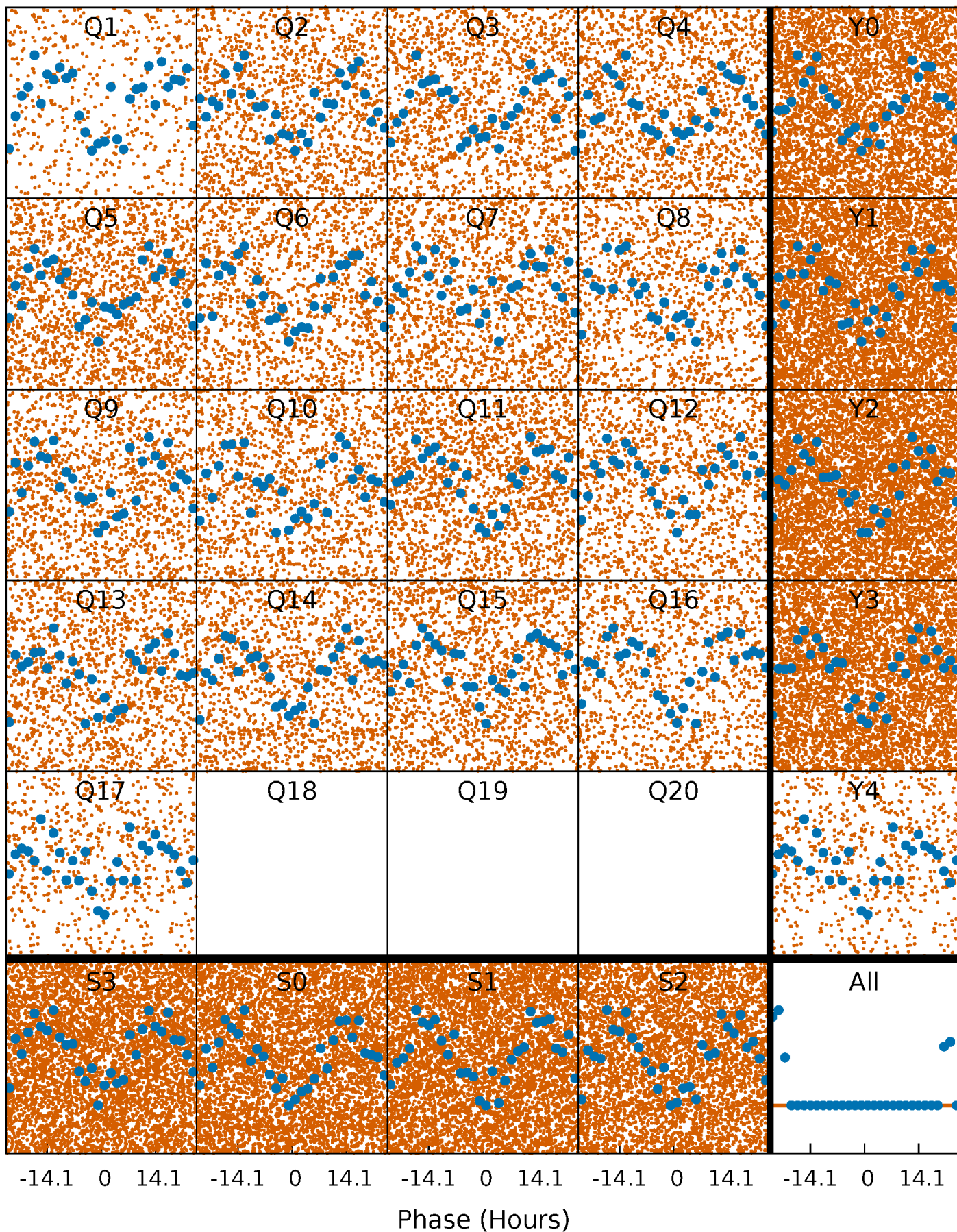


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



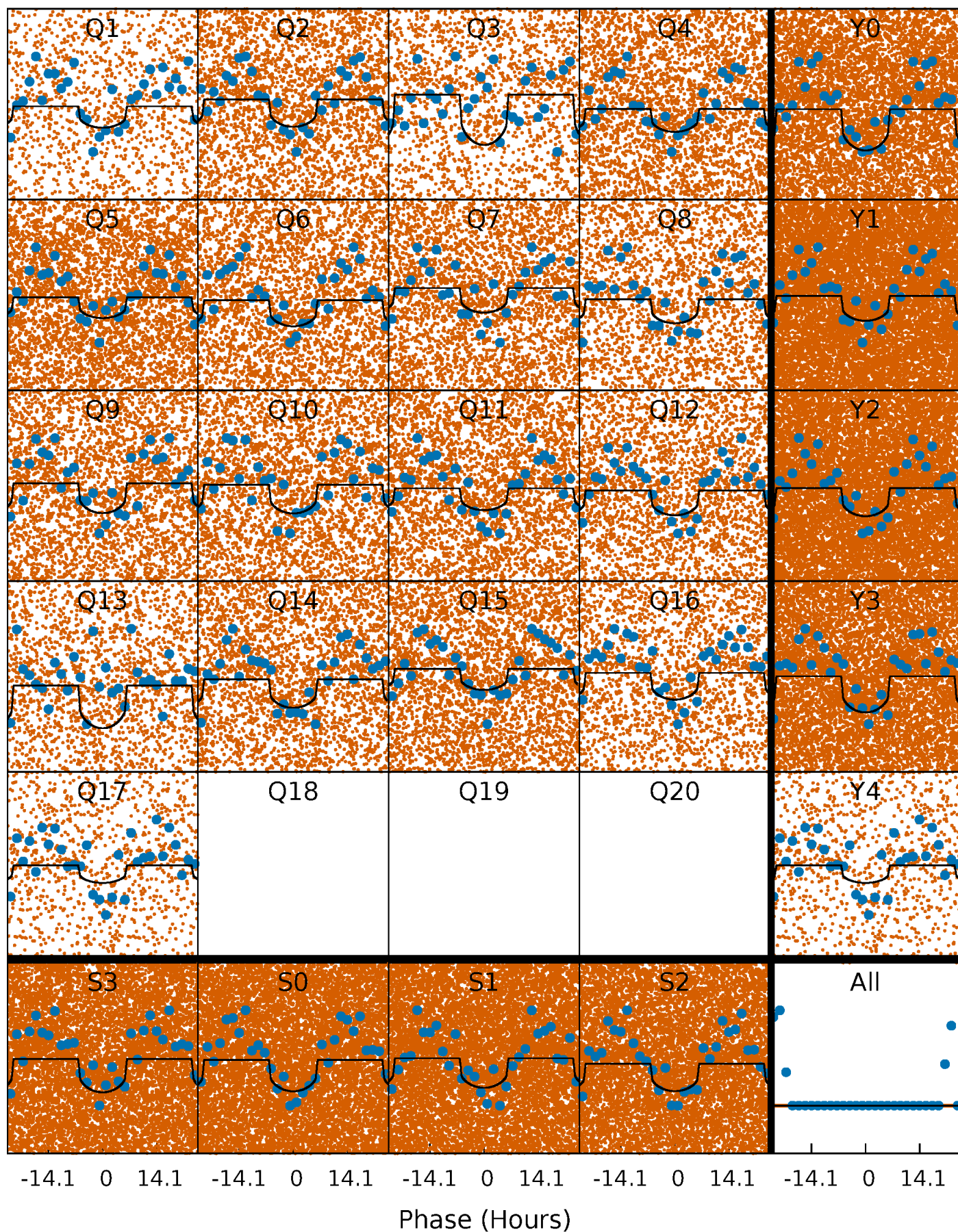
PDC Quarter-Phased Transit Curves

TCE 008443311-01 P= 1.227250 Days $T_0=132.426998$ (BKJD)



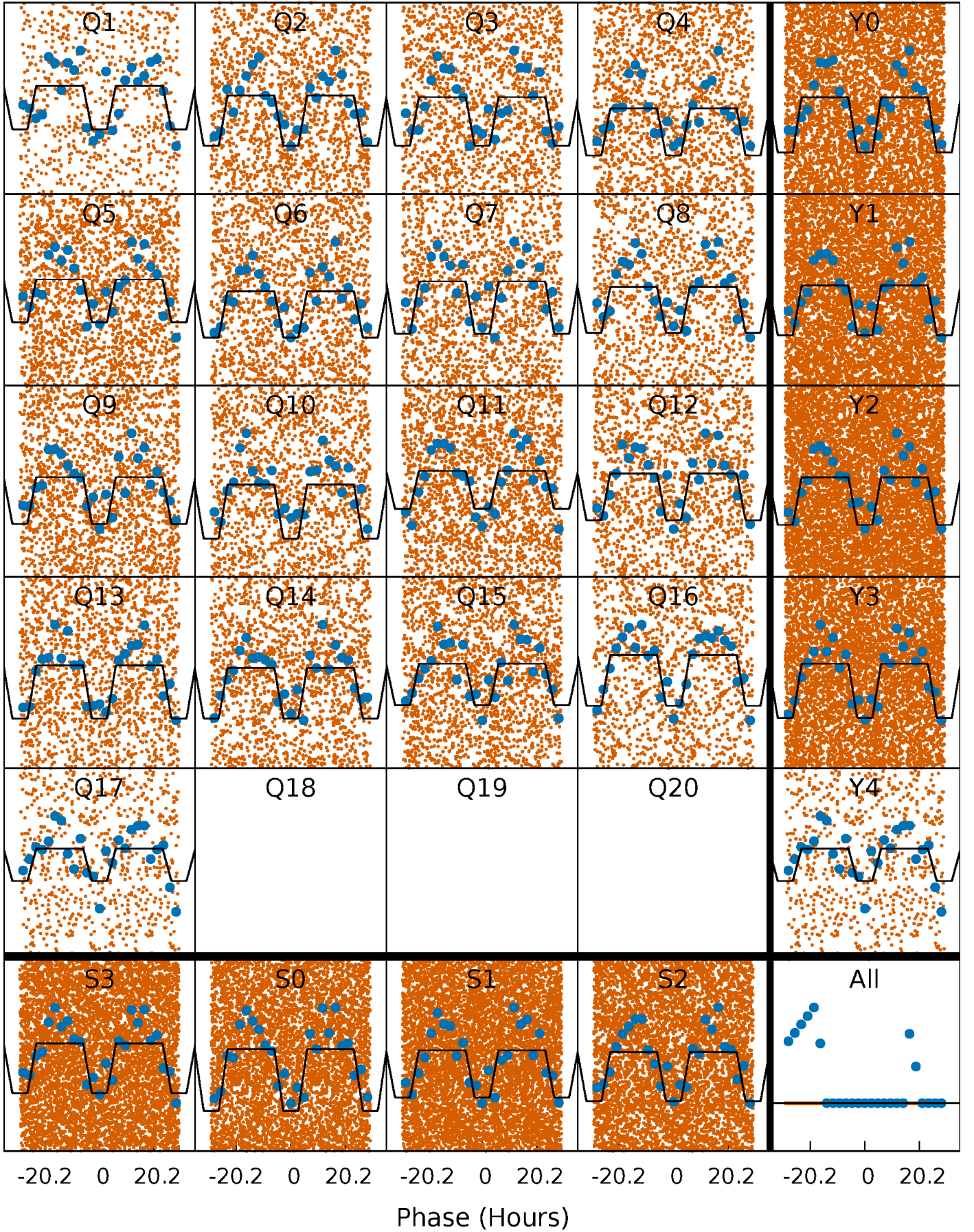
DV Quarter-Phased Transit Curves

TCE 008443311-01 P= 1.227250 Days $T_0=132.426998$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

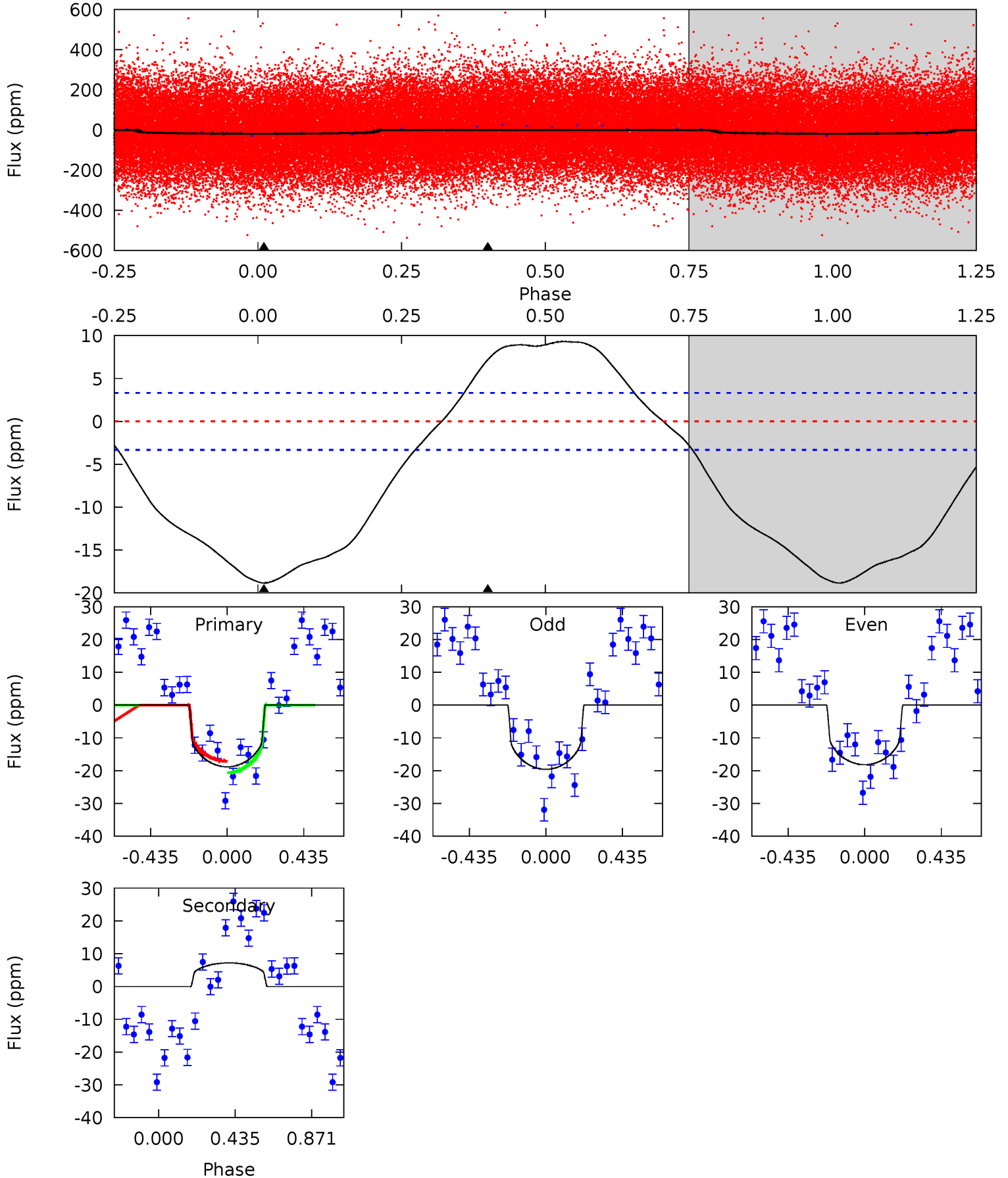
TCE 008443311-01 $P = 1.227304$ Days $T_0 = 132.410103$ (BKJD)



DV Model-Shift Uniqueness Test

008443311-01, P = 1.227250 Days, E = 131.199748 Days

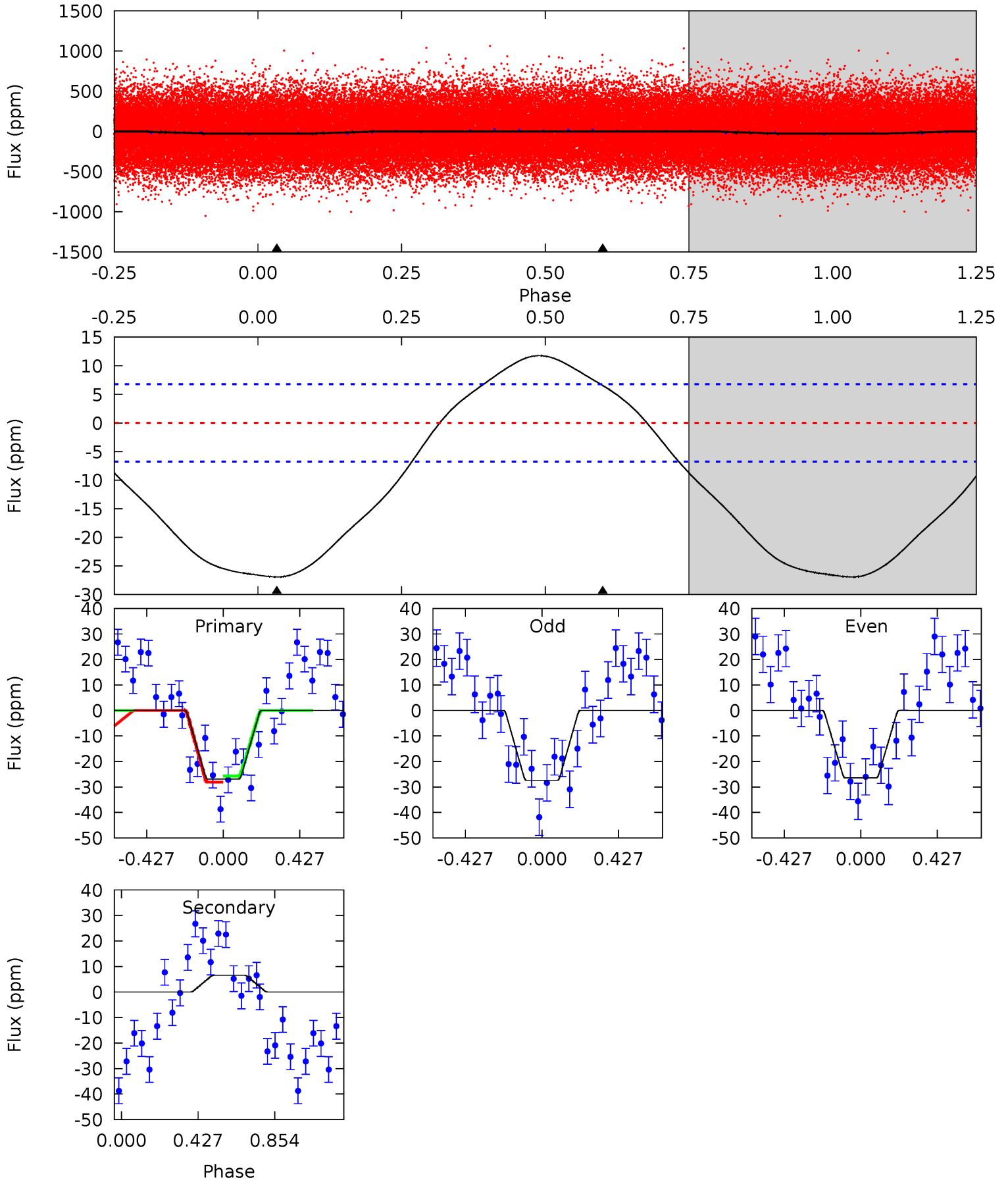
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	-9.22	0	0	4.25	0.78	2.30	24.2	24.2	-9.22	-9.22	0.91	0.99	0.33	2.22



Alt Model-Shift Uniqueness Test

008443311-01, P = 1.227304 Days, E = 131.182799 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	-4.10	0	0	4.25	0.79	2.23	16.9	16.9	-4.10	-4.10	0.31	1.09	0.30	0.76



Stellar Parameters For KIC 008443311

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8059^{+222}_{-361}	$3.745^{+0.390}_{-0.130}$	$0.070^{+0.200}_{-0.400}$	$3.350^{+0.848}_{-1.454}$	$2.274^{+0.295}_{-0.689}$	$0.085^{+0.300}_{-0.033}$
	+3%/-4%	+10%/-3%	+286%/-571%	+25%/-43%	+13%/-30%	+352%/-39%
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 008443311-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	7 ± 1	$1.33^{+0.65}_{-0.60}$	5141^{+414}_{-545}	-6661^{+945}_{-2152}	$-1.928^{+1.084}_{-4.299}$
Alt.	7 ± 2	$1.89^{+0.75}_{-0.69}$	5124^{+432}_{-585}	-5682^{+537}_{-936}	$-0.850^{+0.440}_{-1.231}$

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 $A_{obs} \gg 1.0$

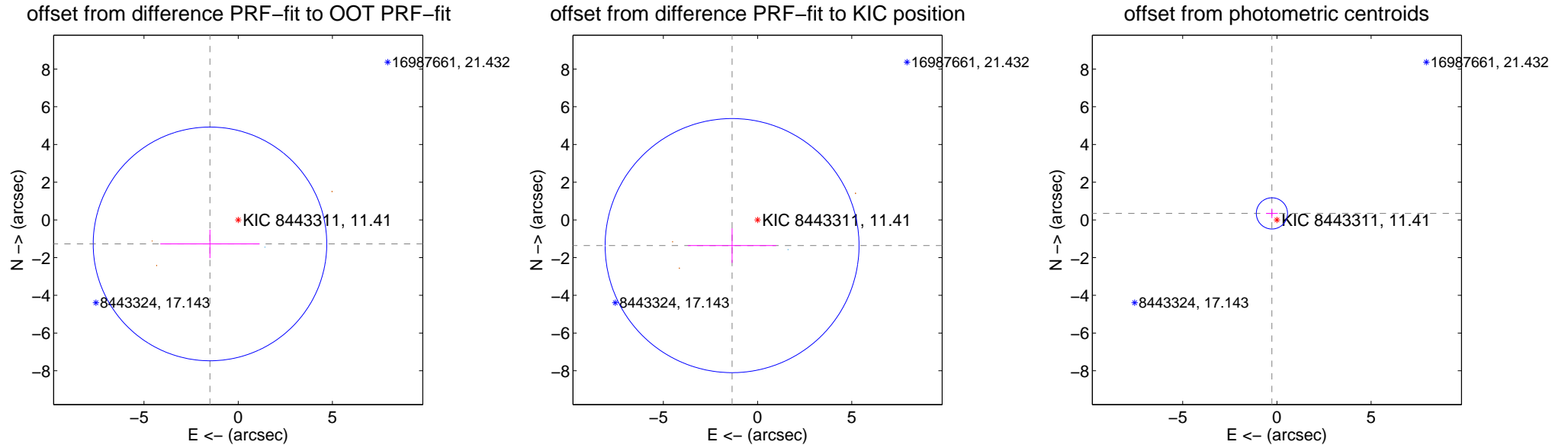
DV Centroid Data

Supplemental centroid analysis for 008443311-01. **Kepler magnitude: 11.41.** Transit SNR 21.75

There are 1 quarters with good PRF difference image offsets

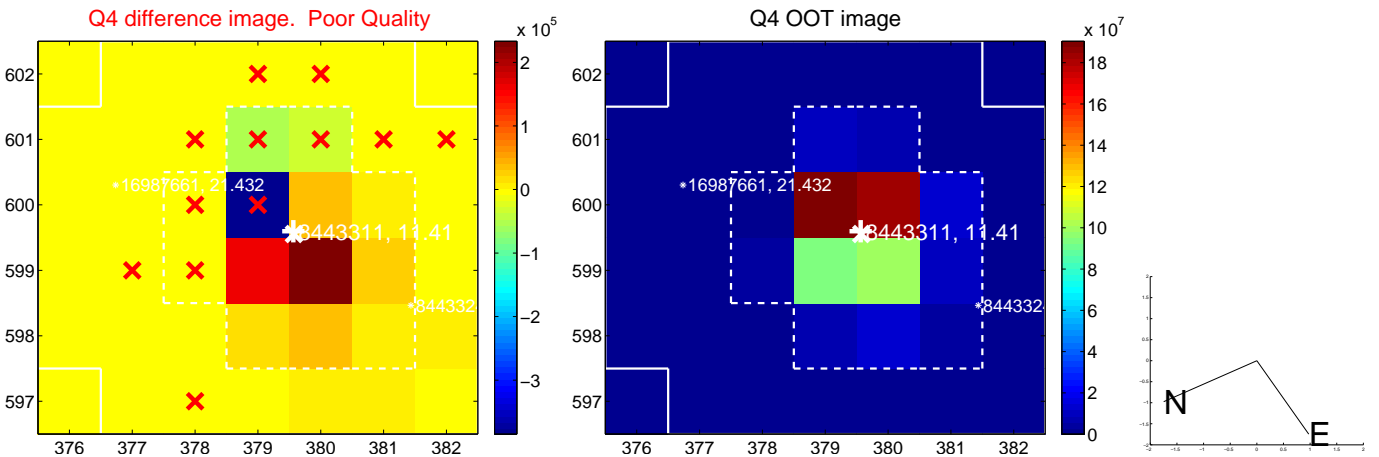
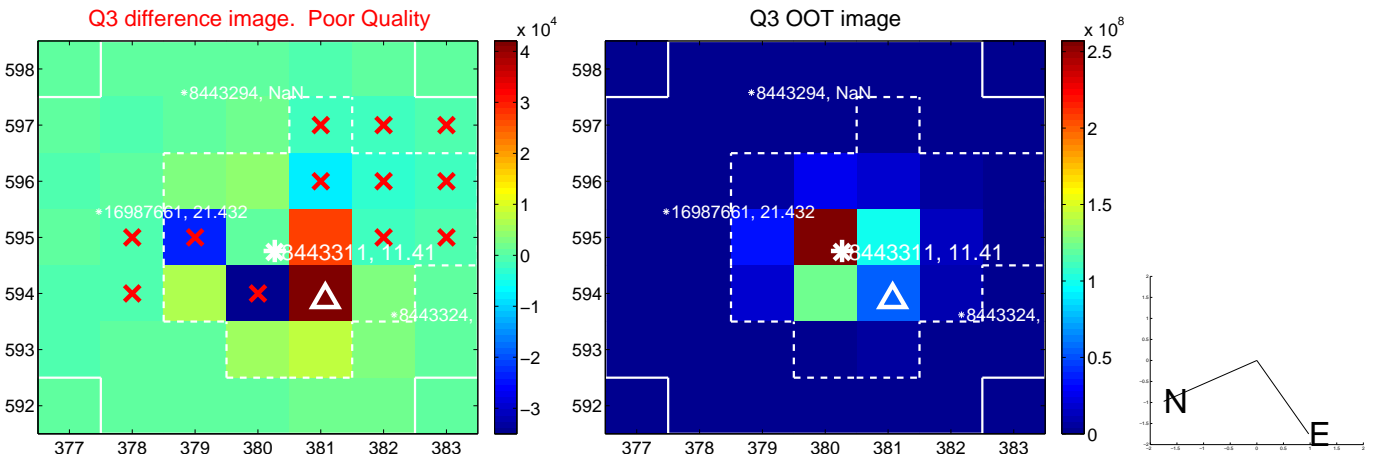
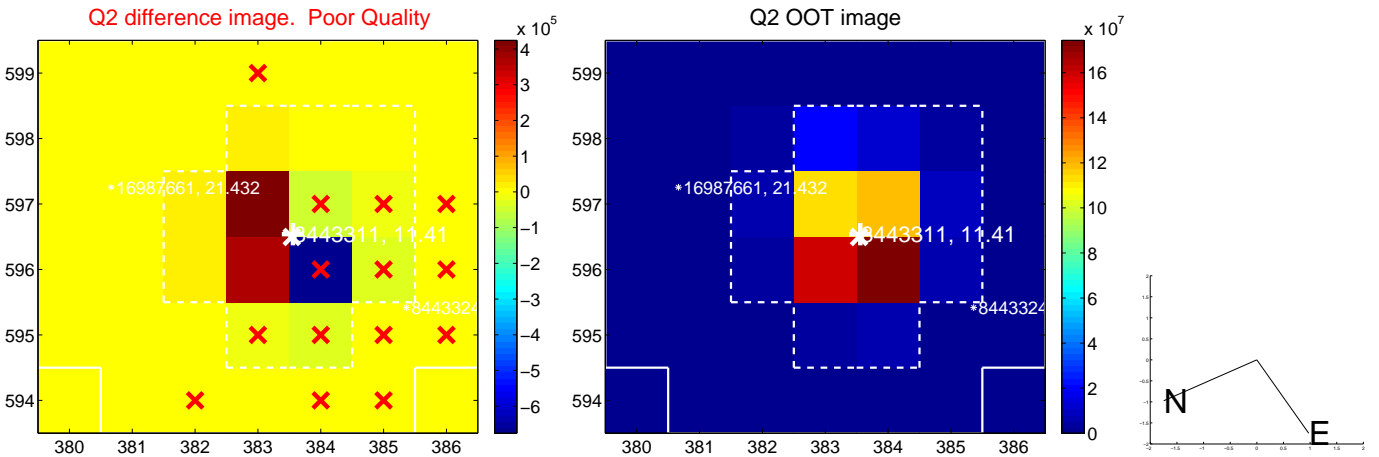
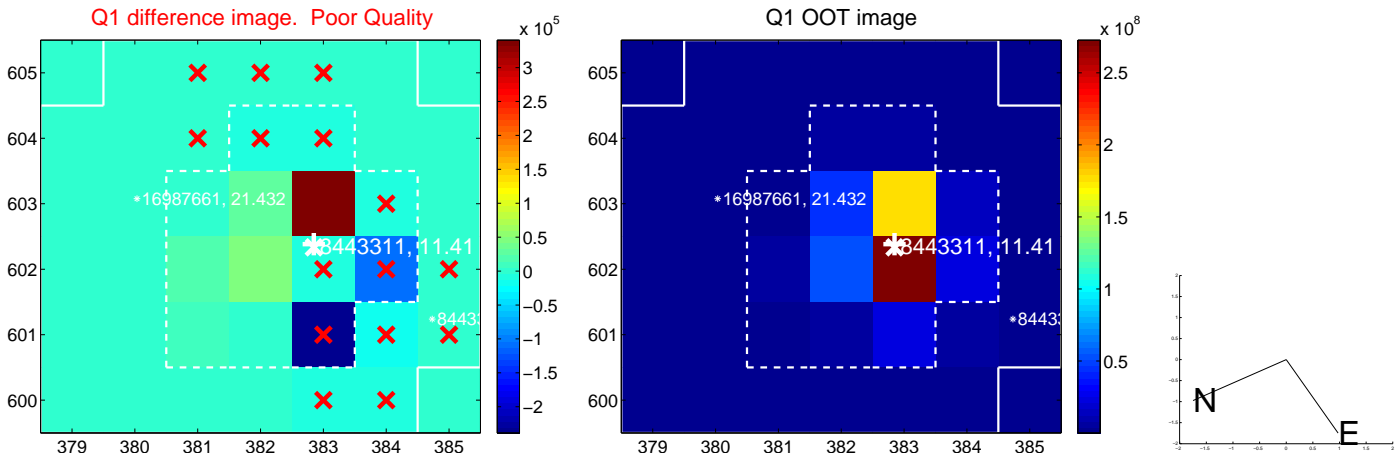
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.965 ± 2.065	0.95	1.497 ± 2.634	-1.273 ± 0.756
PRF-fit source offset from KIC position	1.919 ± 2.246	0.85	1.351 ± 2.343	-1.363 ± 0.915
photometric centroid source offset	0.43 ± 0.28	1.58	0.26 ± 0.31	0.35 ± 0.25

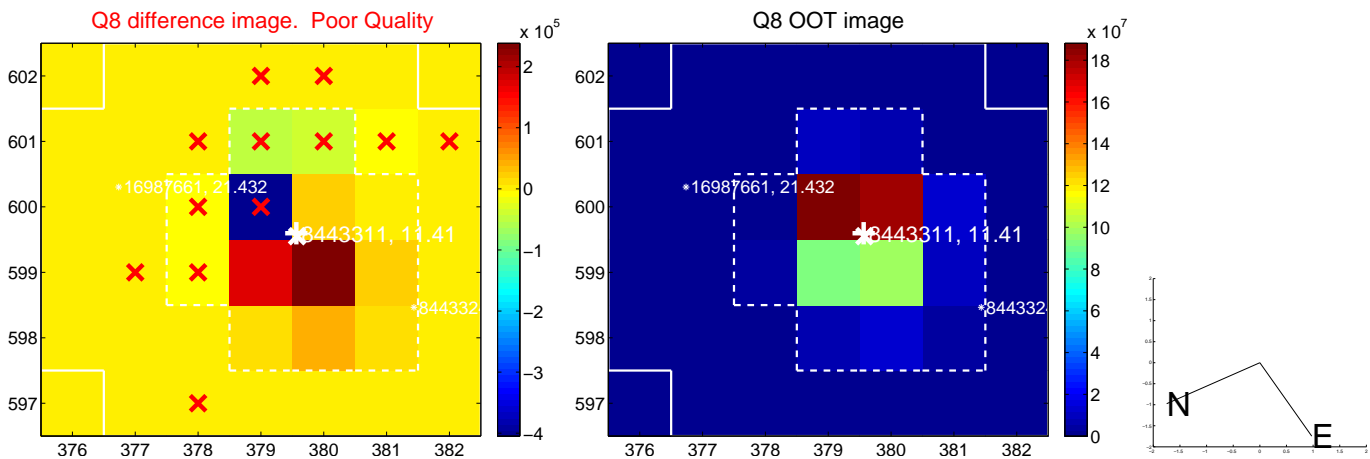
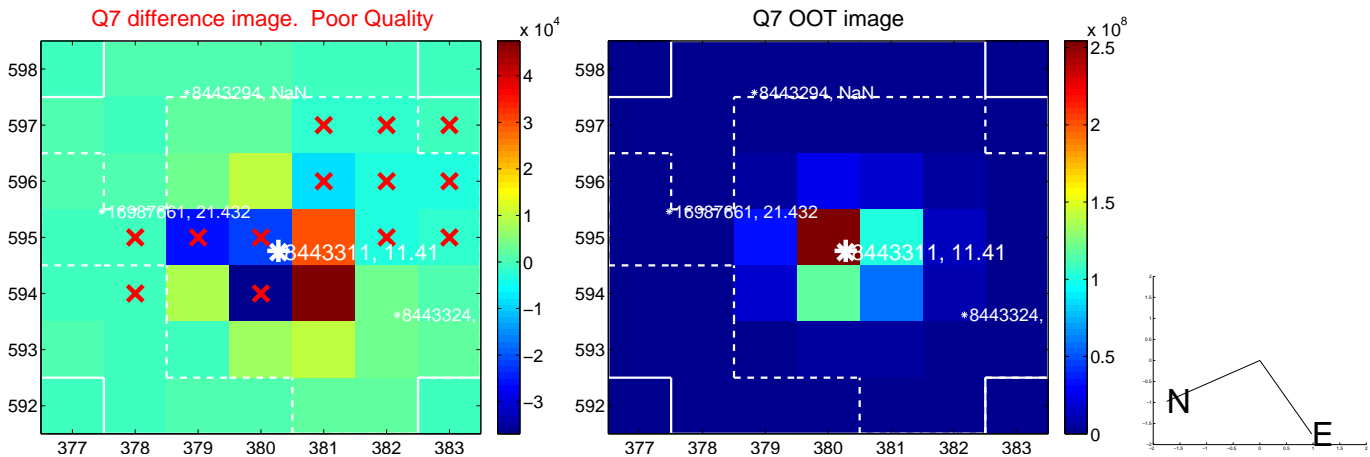
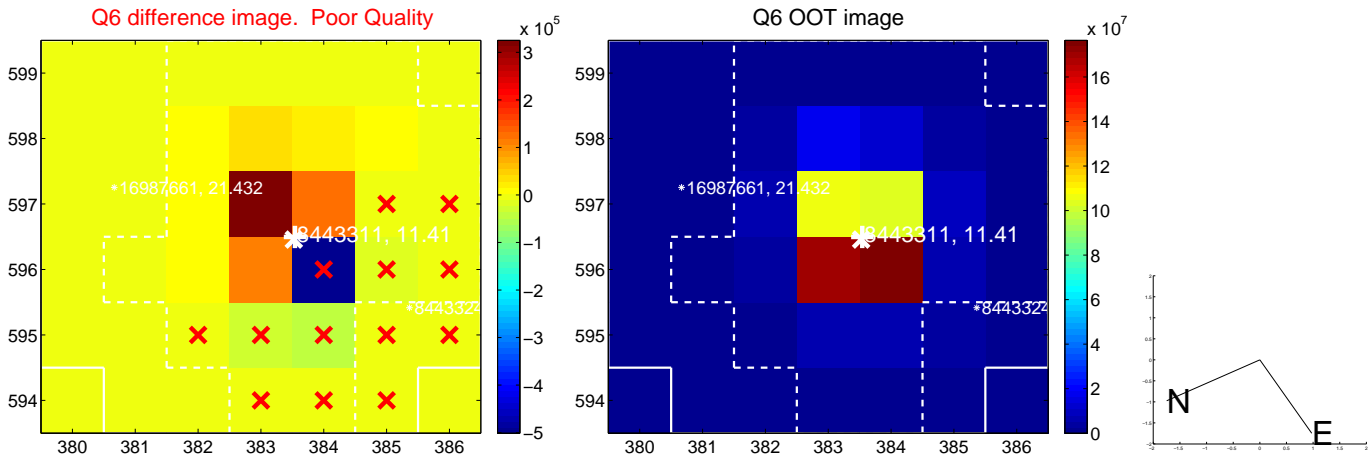
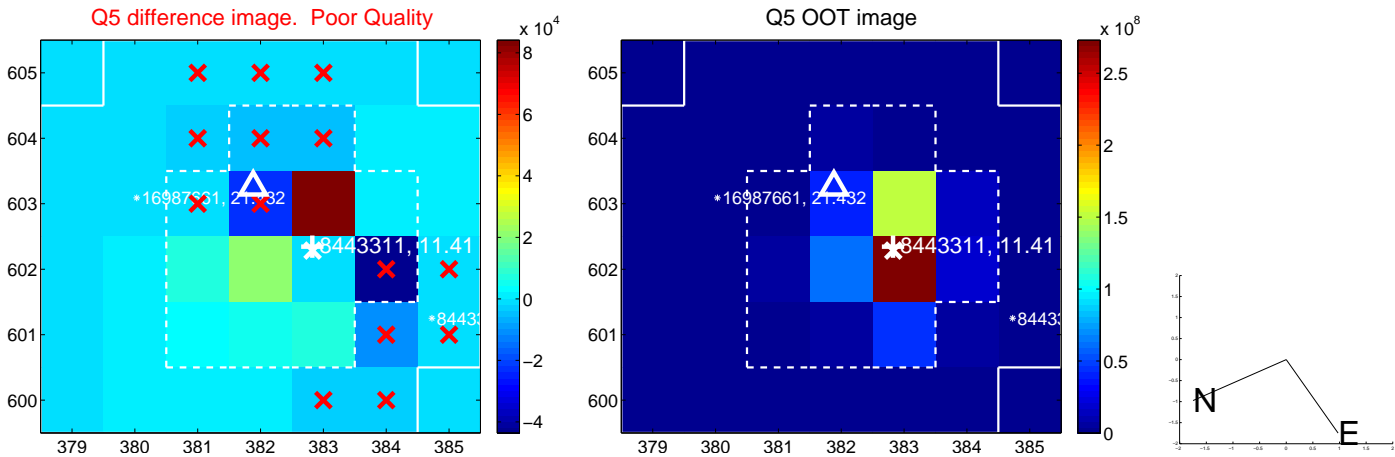


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

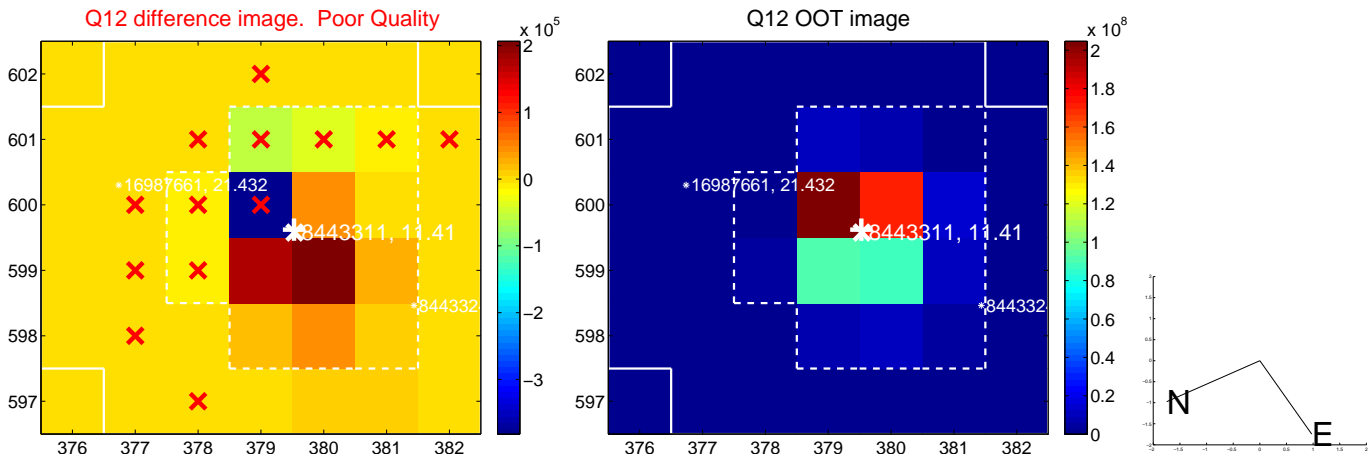
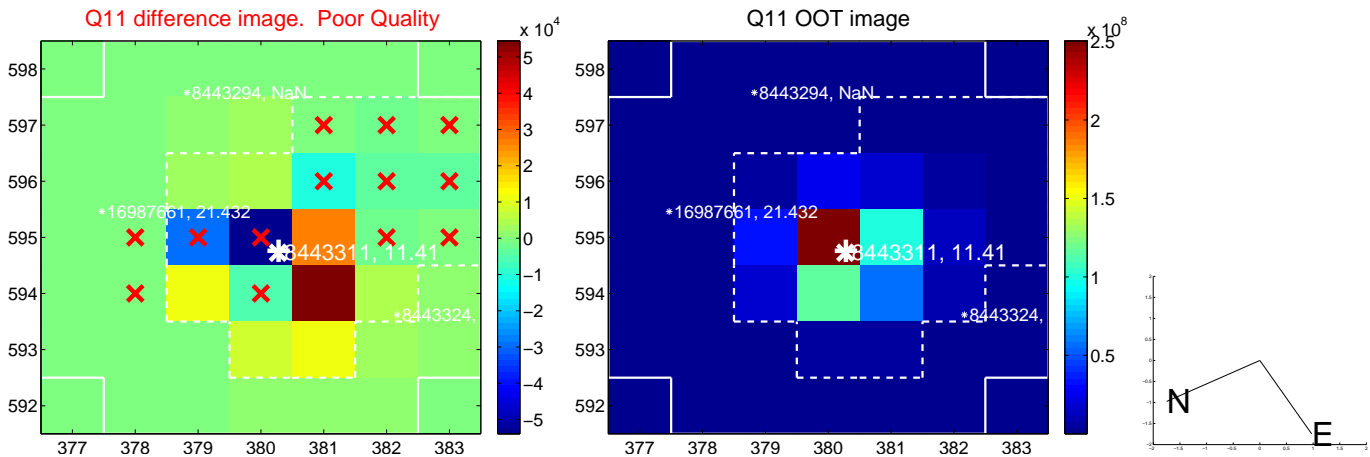
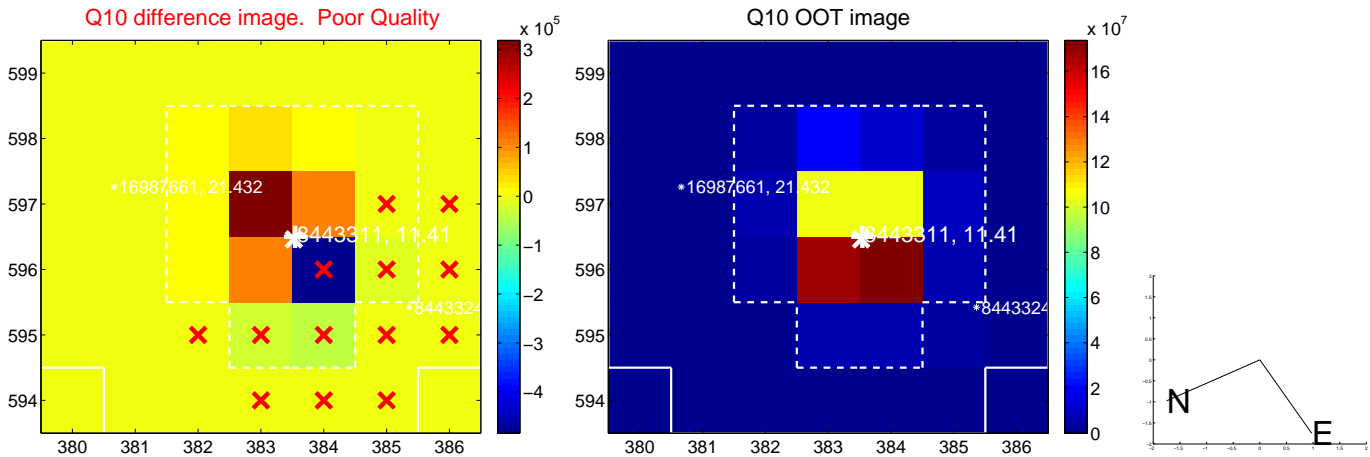
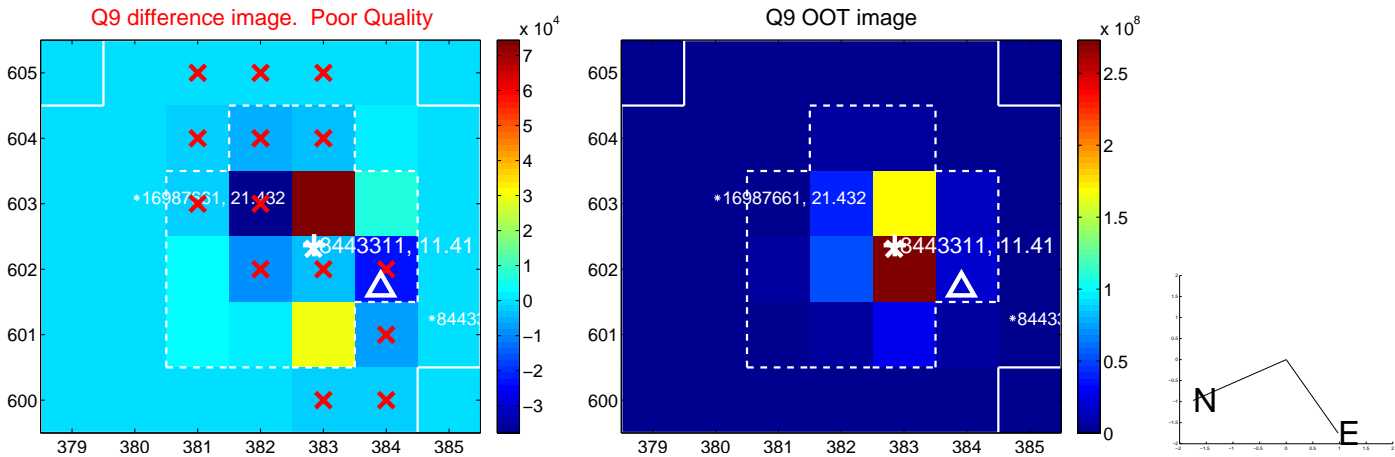
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



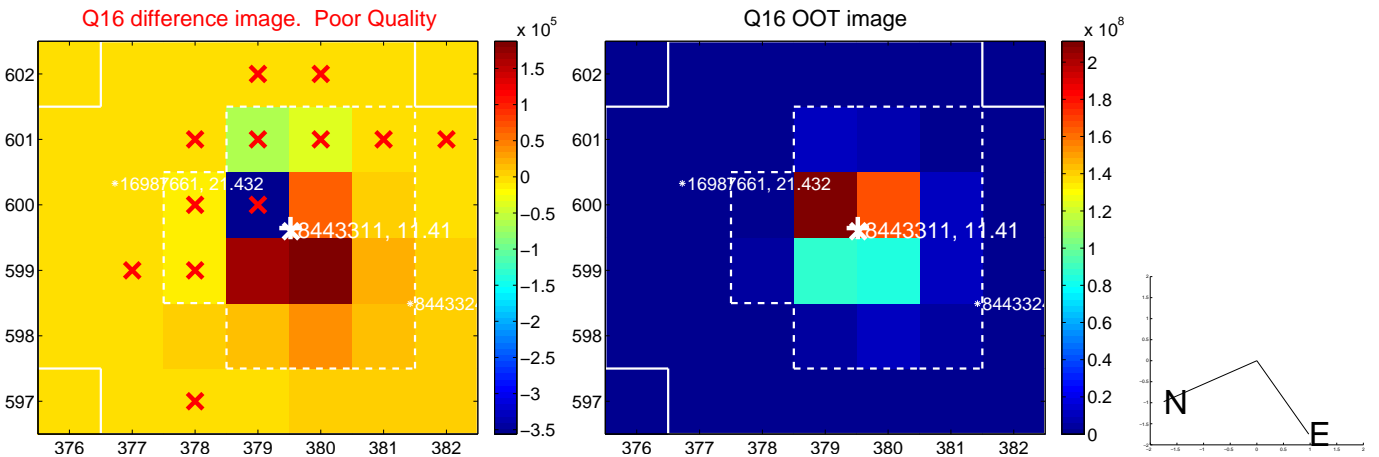
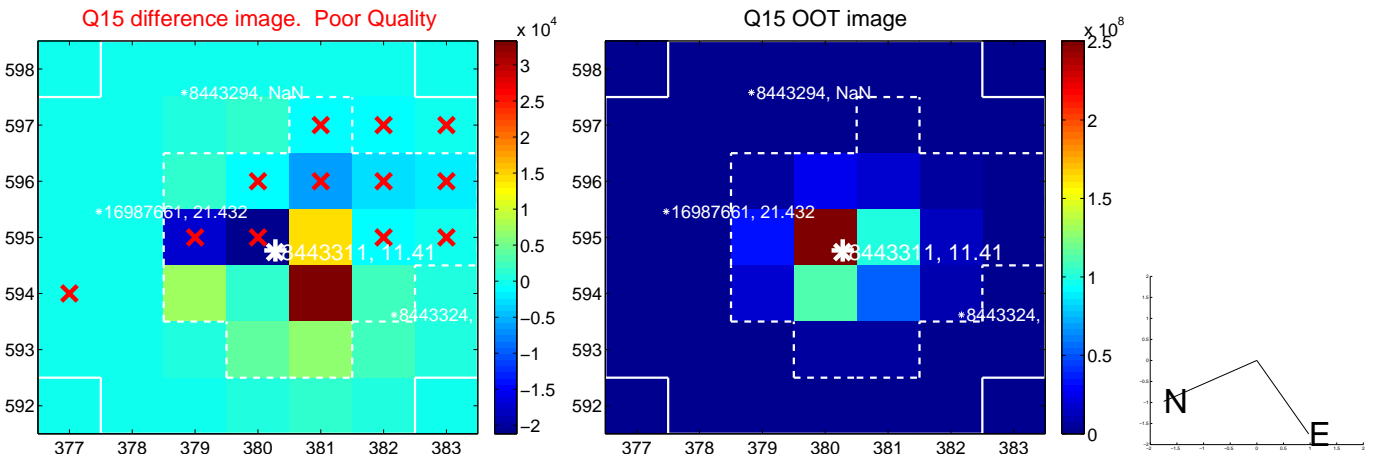
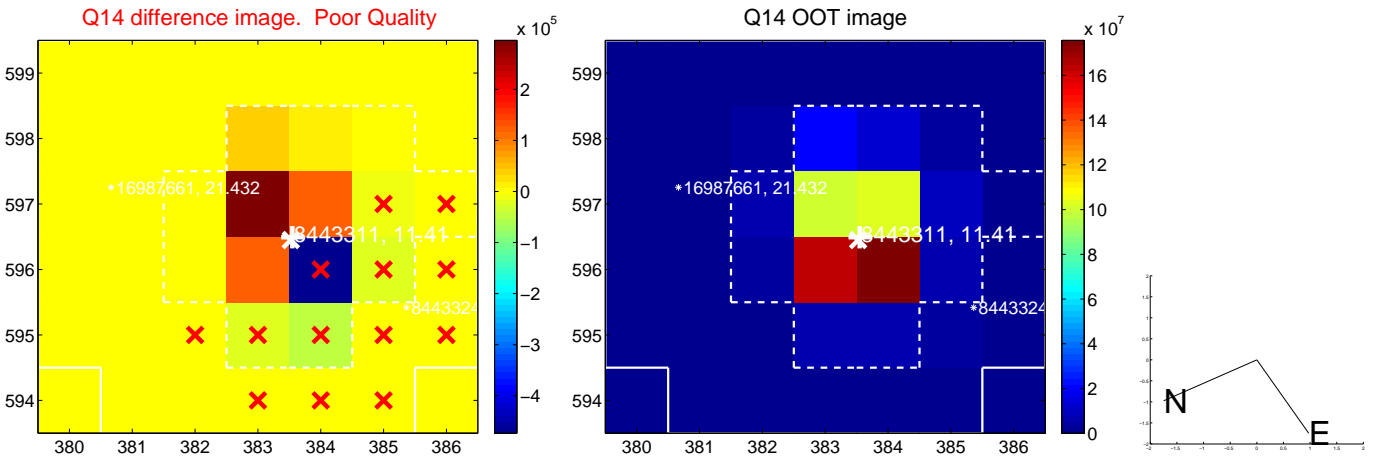
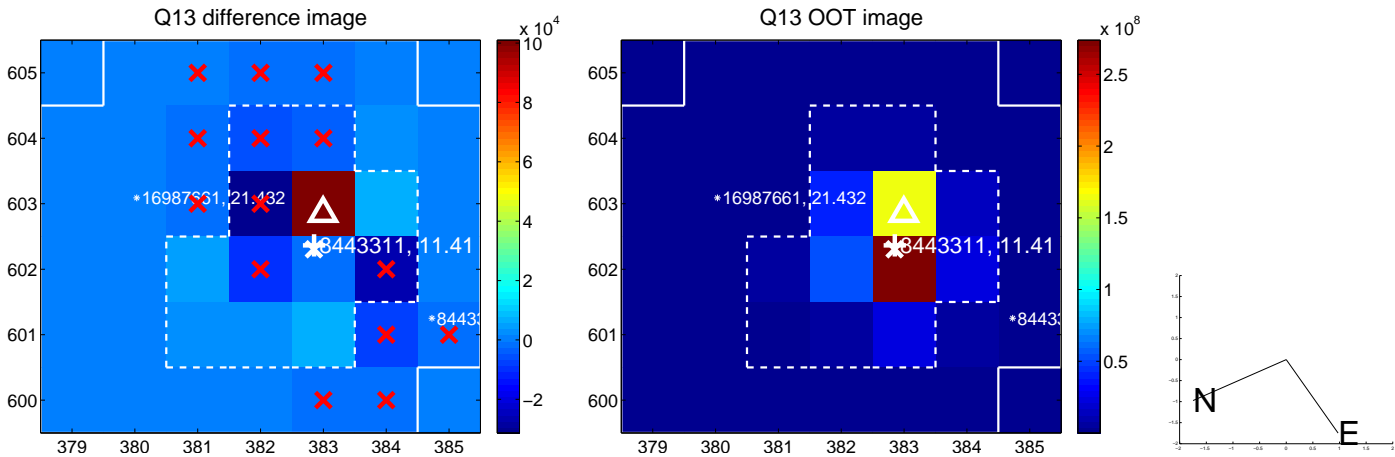
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



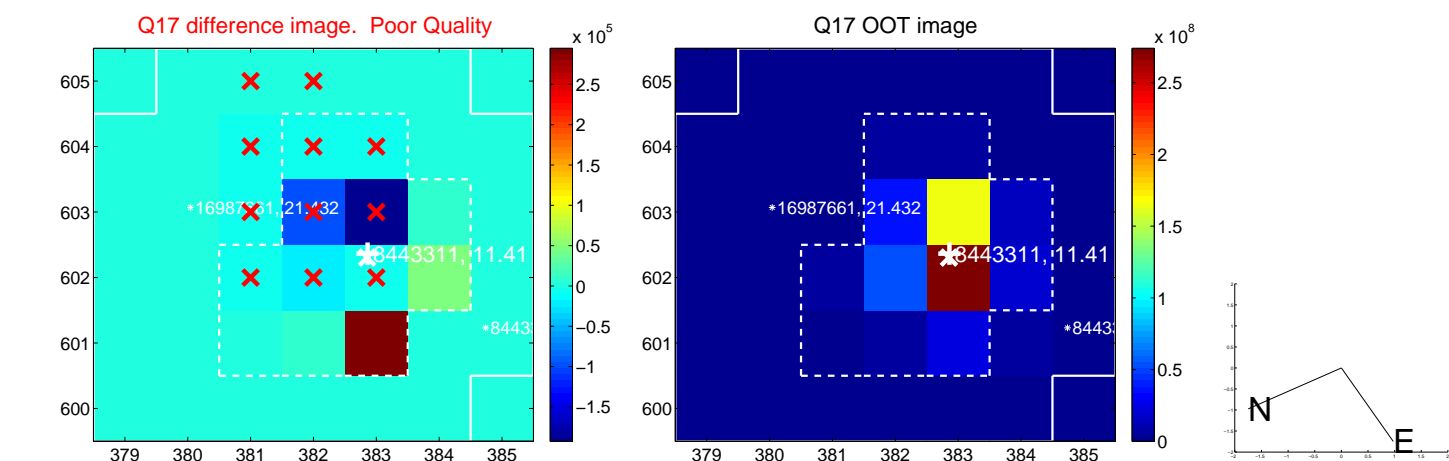
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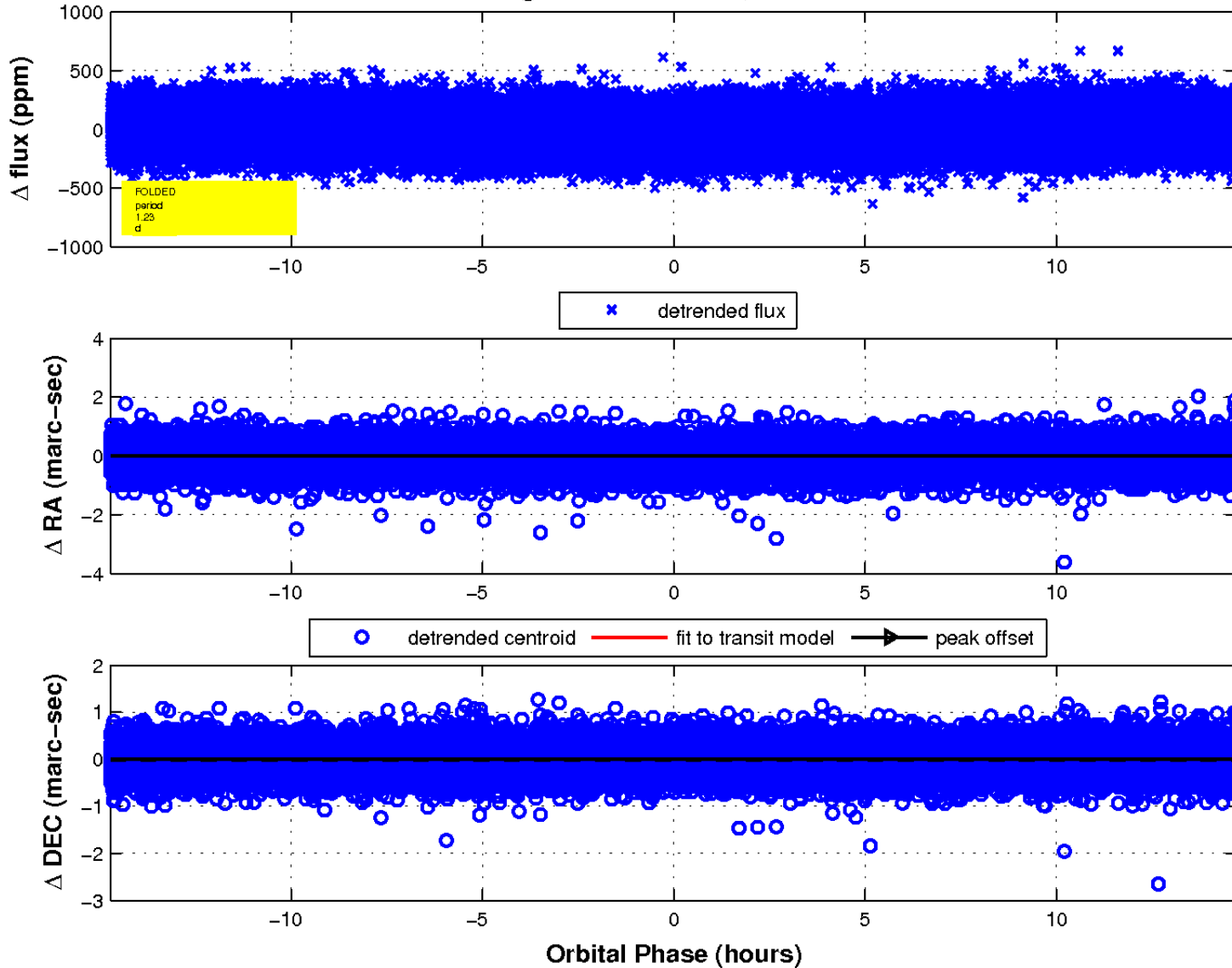
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

