

KIC 006877609

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})
006877609-01	OBS	No	1.247618	132.652569	17.1	4.143	9.0	8.7	2.35	7466	1.11	20536.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006877609-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

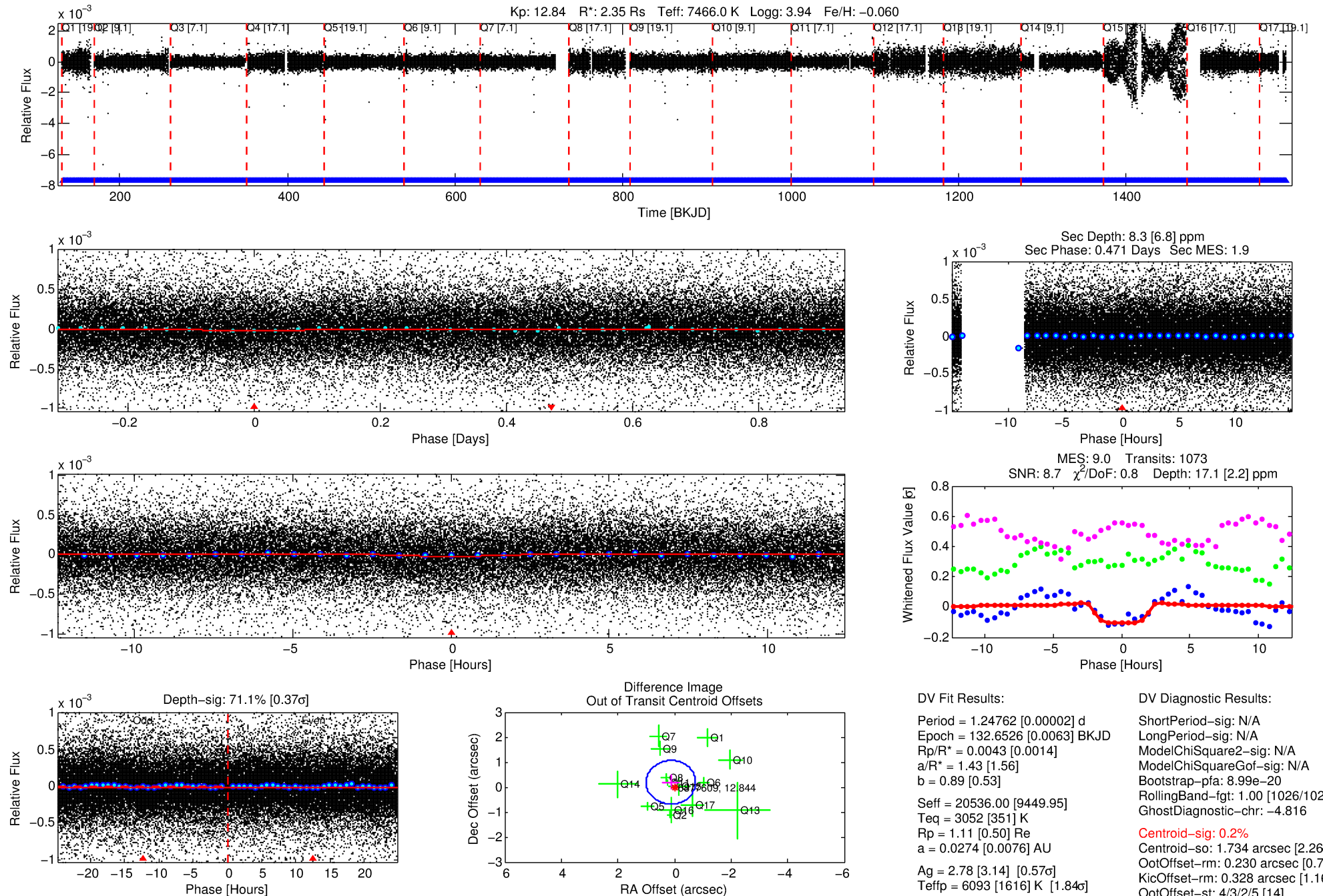
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006877609-01

No Significant Match Found

DV One-Page Summary

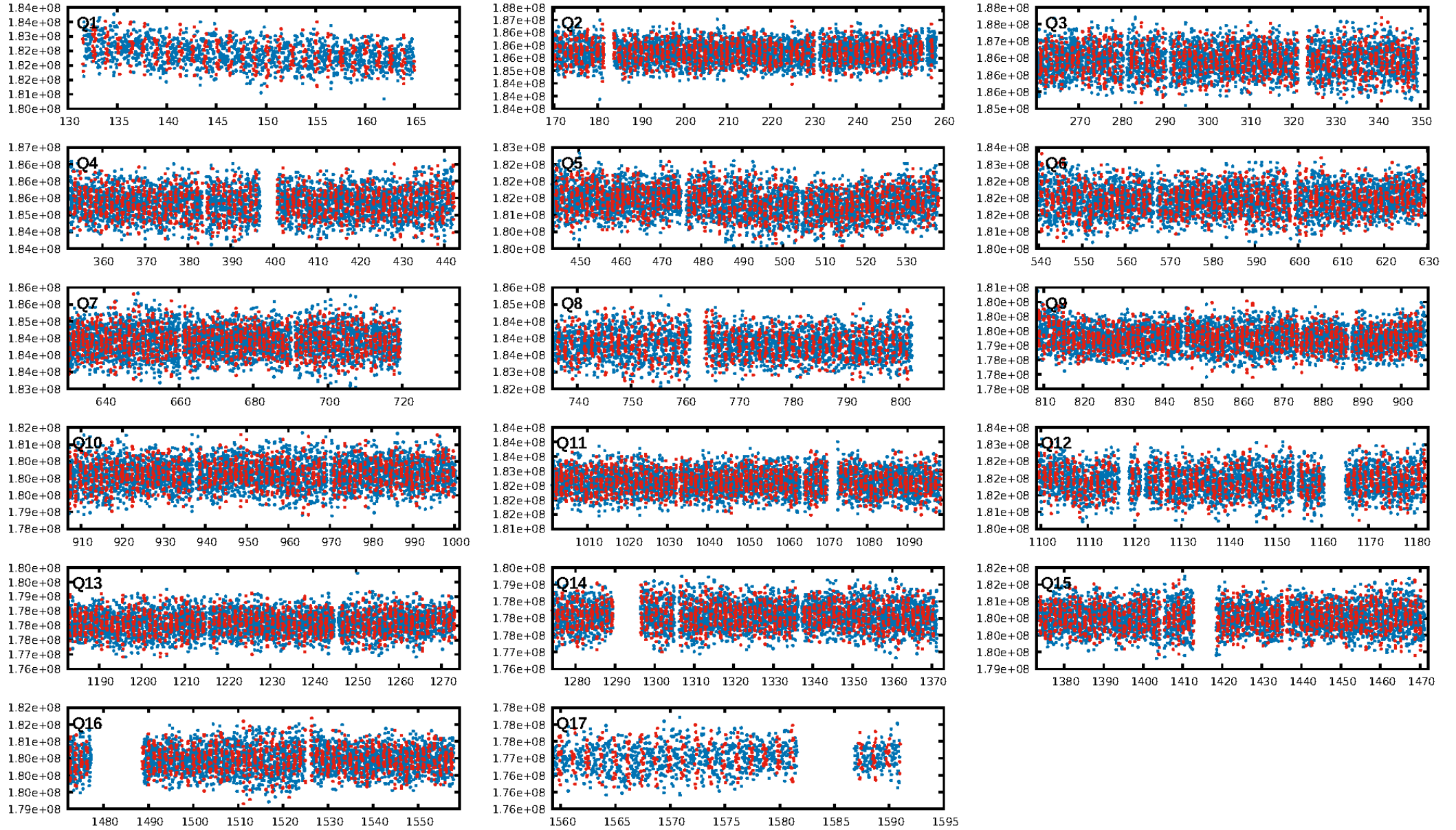
KIC: 6877609 Candidate: 1 of 1 Period: 1.248 d



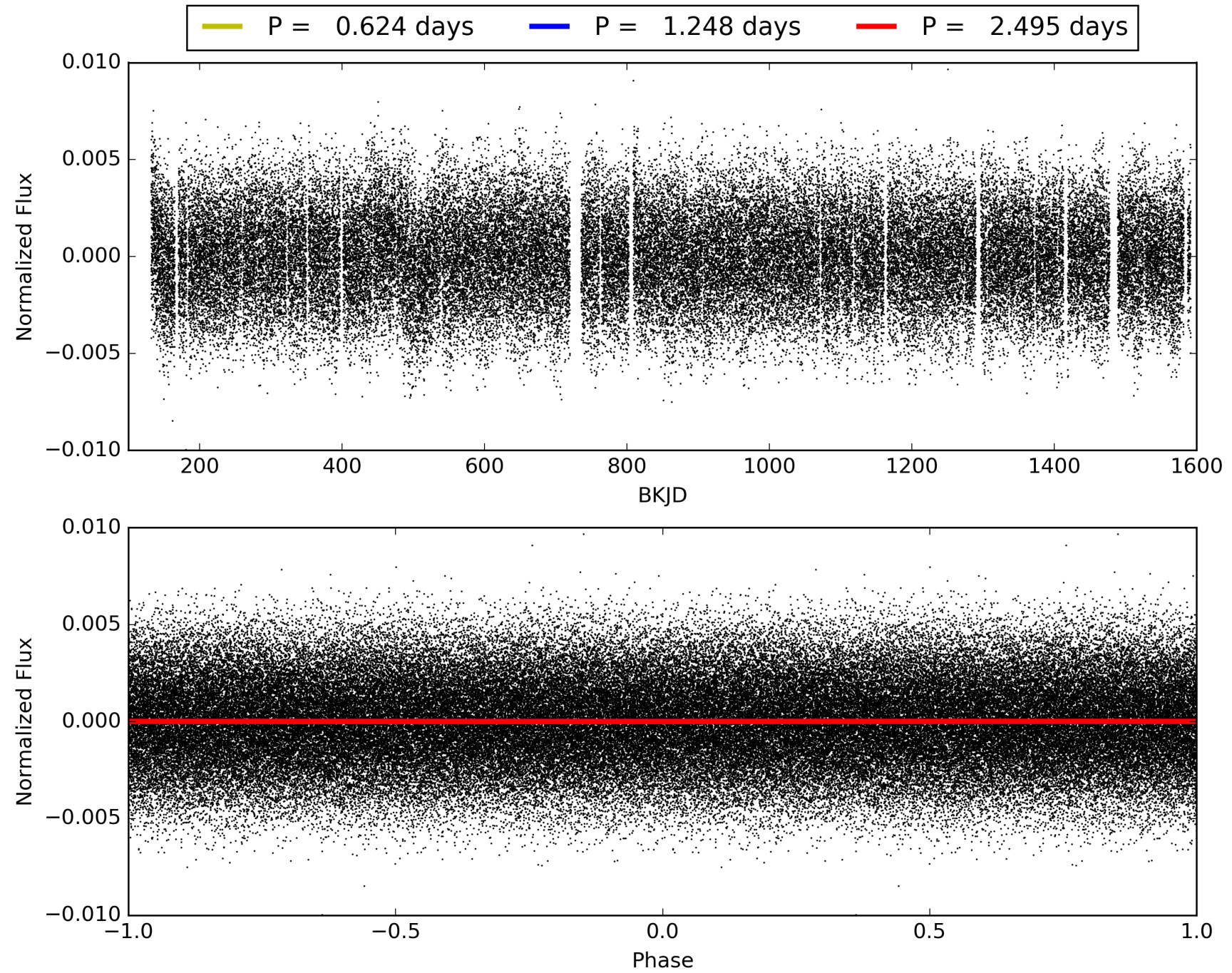
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:56:04 Z

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

TCE 006877609-01, PDC Light Curves

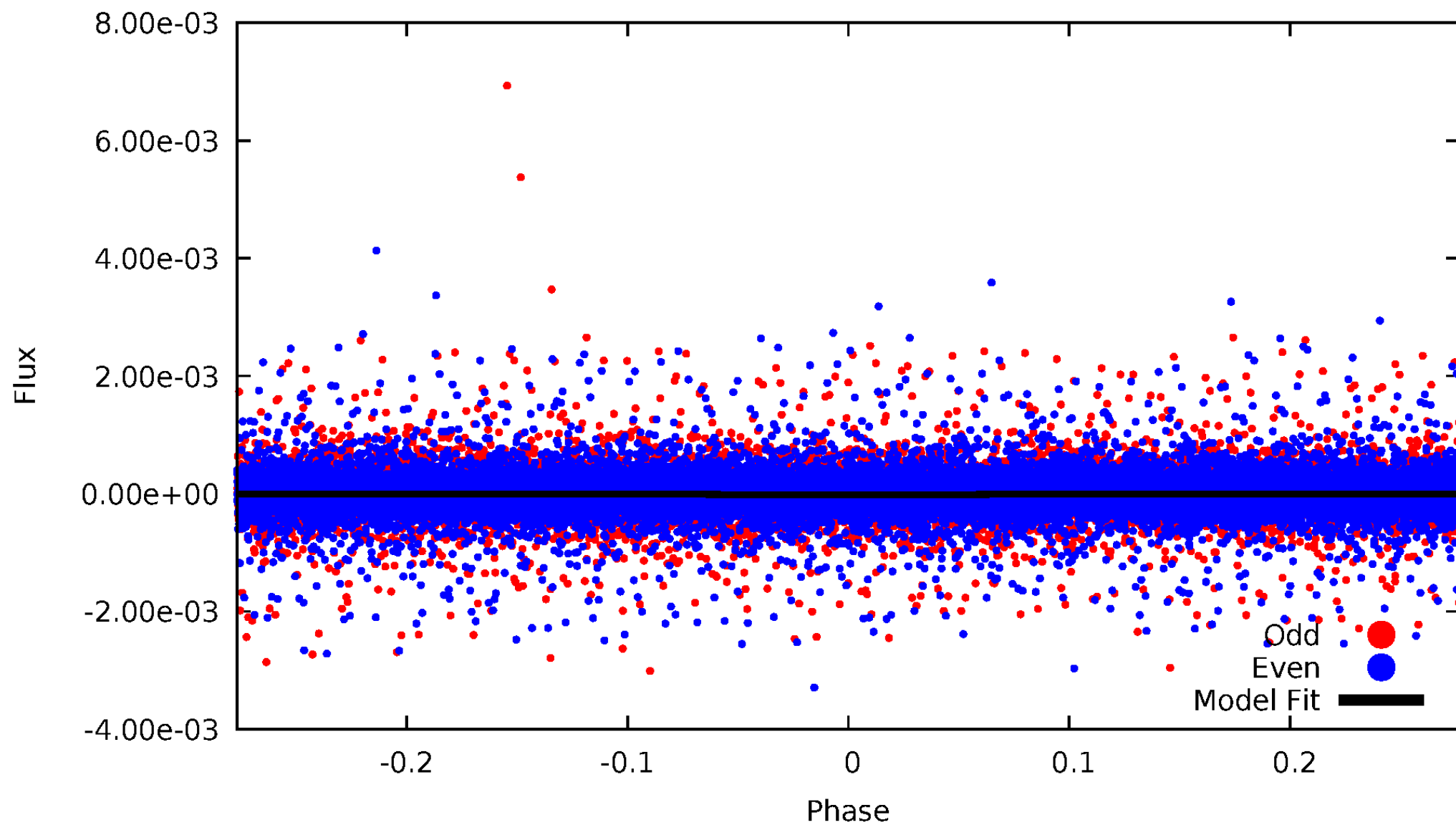


TCE 006877609-01



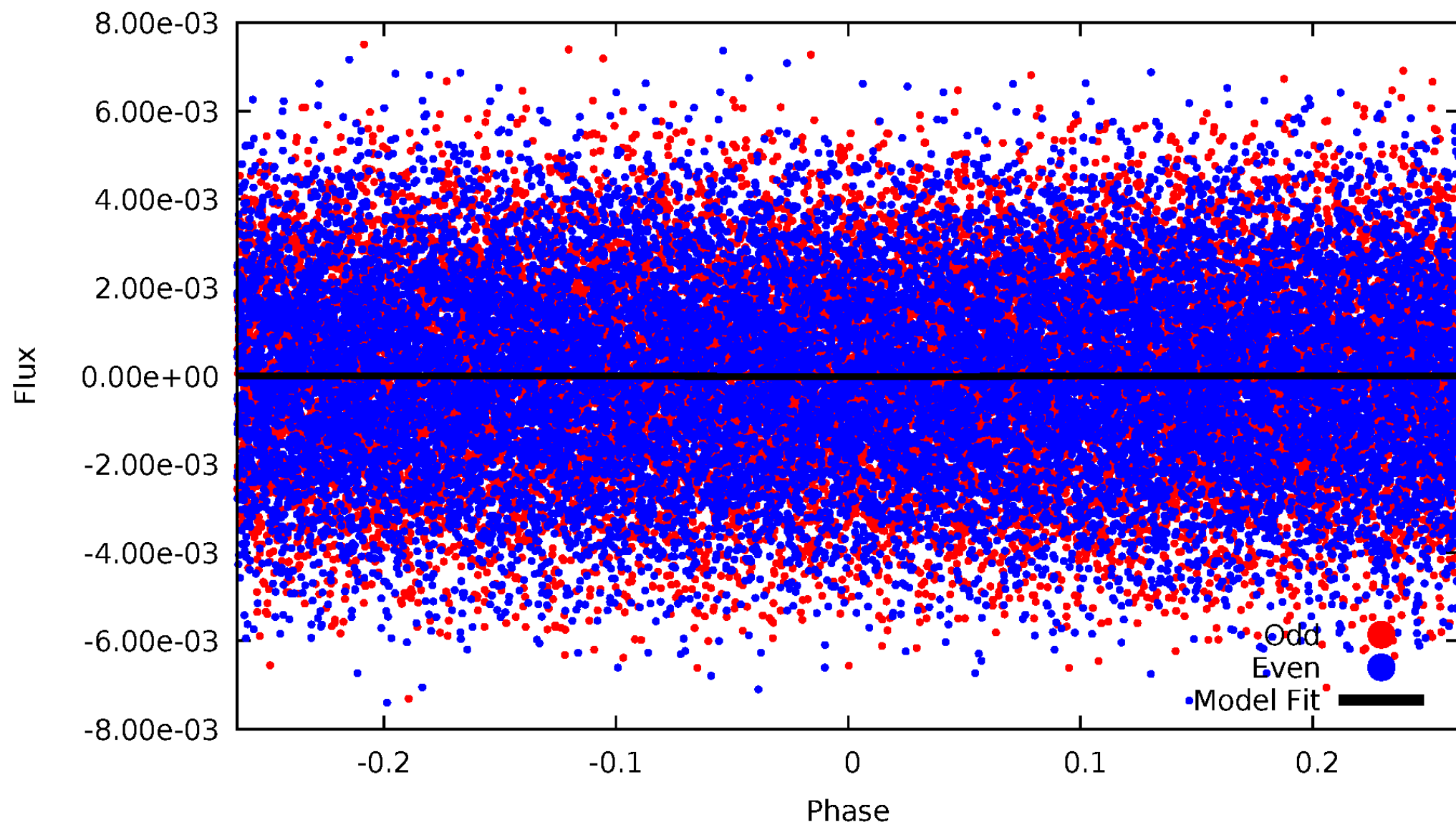
DV Odd/Even

TCE 006877609-01



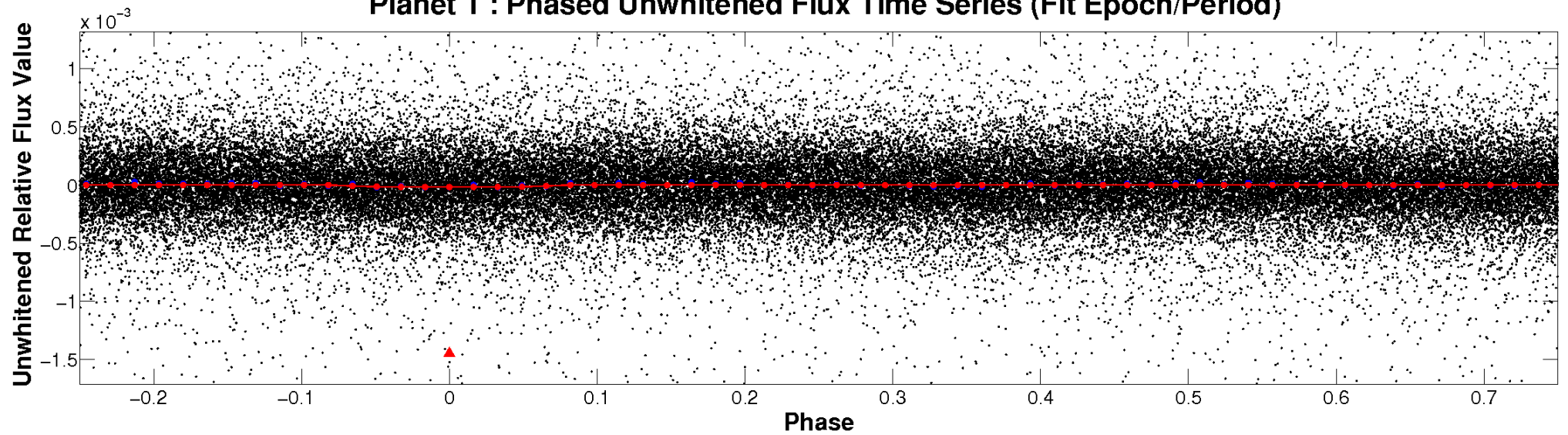
ALT Odd/Even

TCE 006877609-01

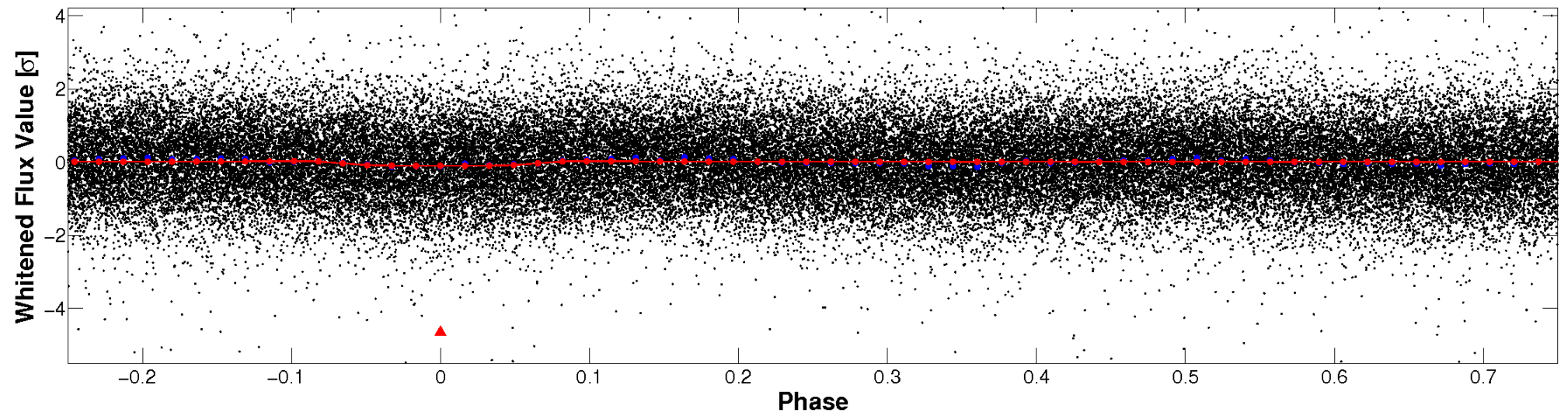


Non-Whitened Vs. Whitened Light Curve

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

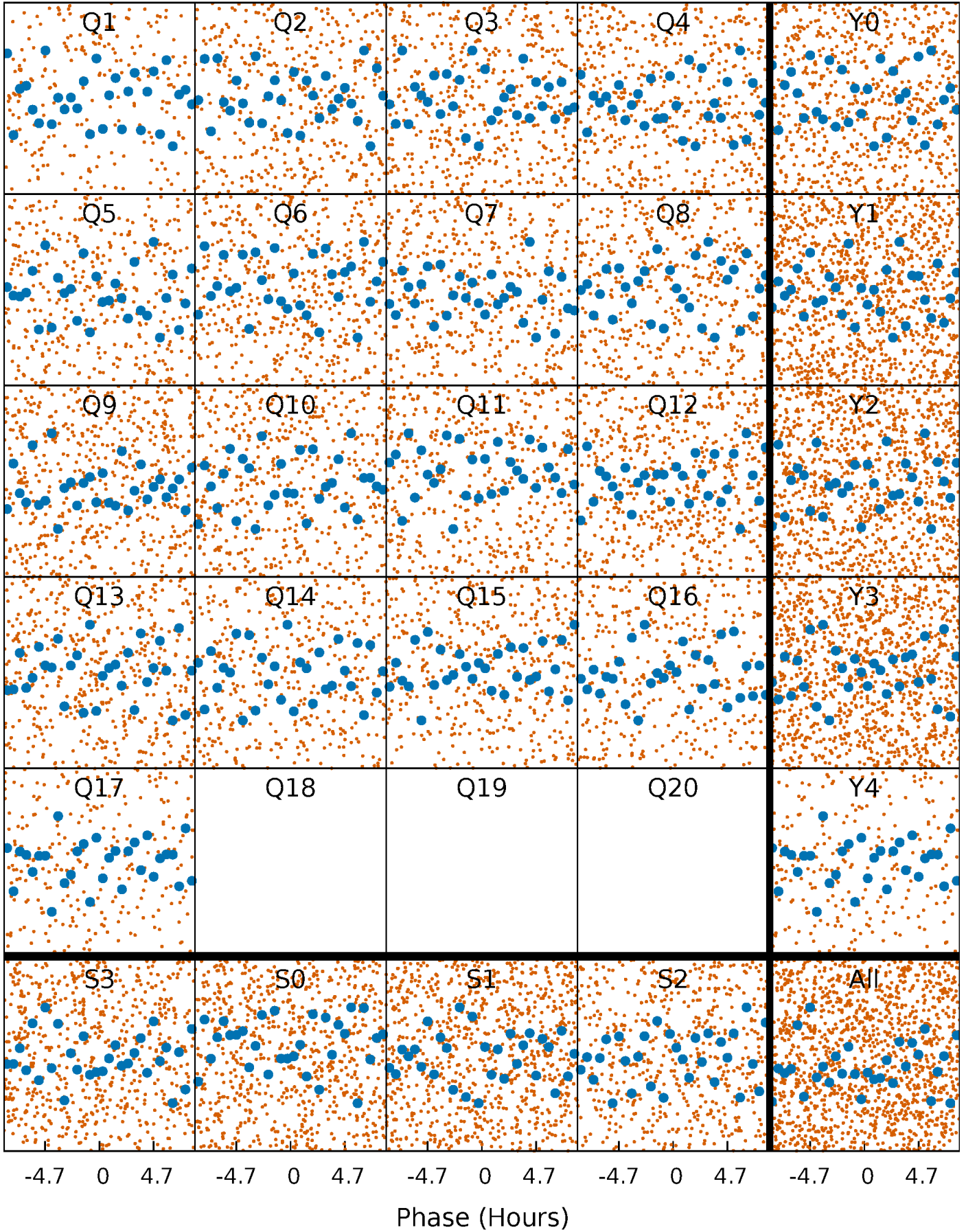


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



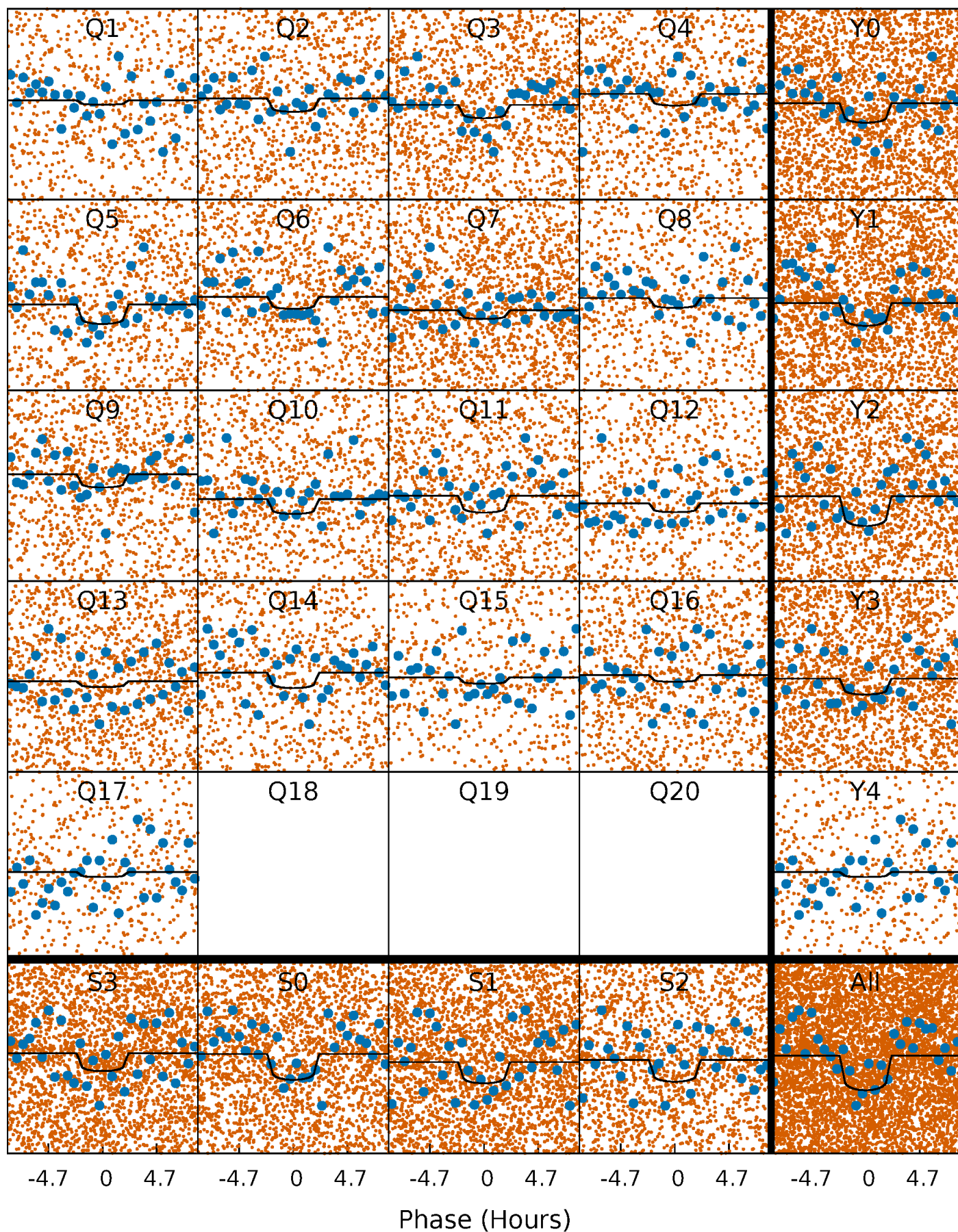
PDC Quarter-Phased Transit Curves

TCE 006877609-01 P= 1.247618 Days $T_0=132.652569$ (BKJD)



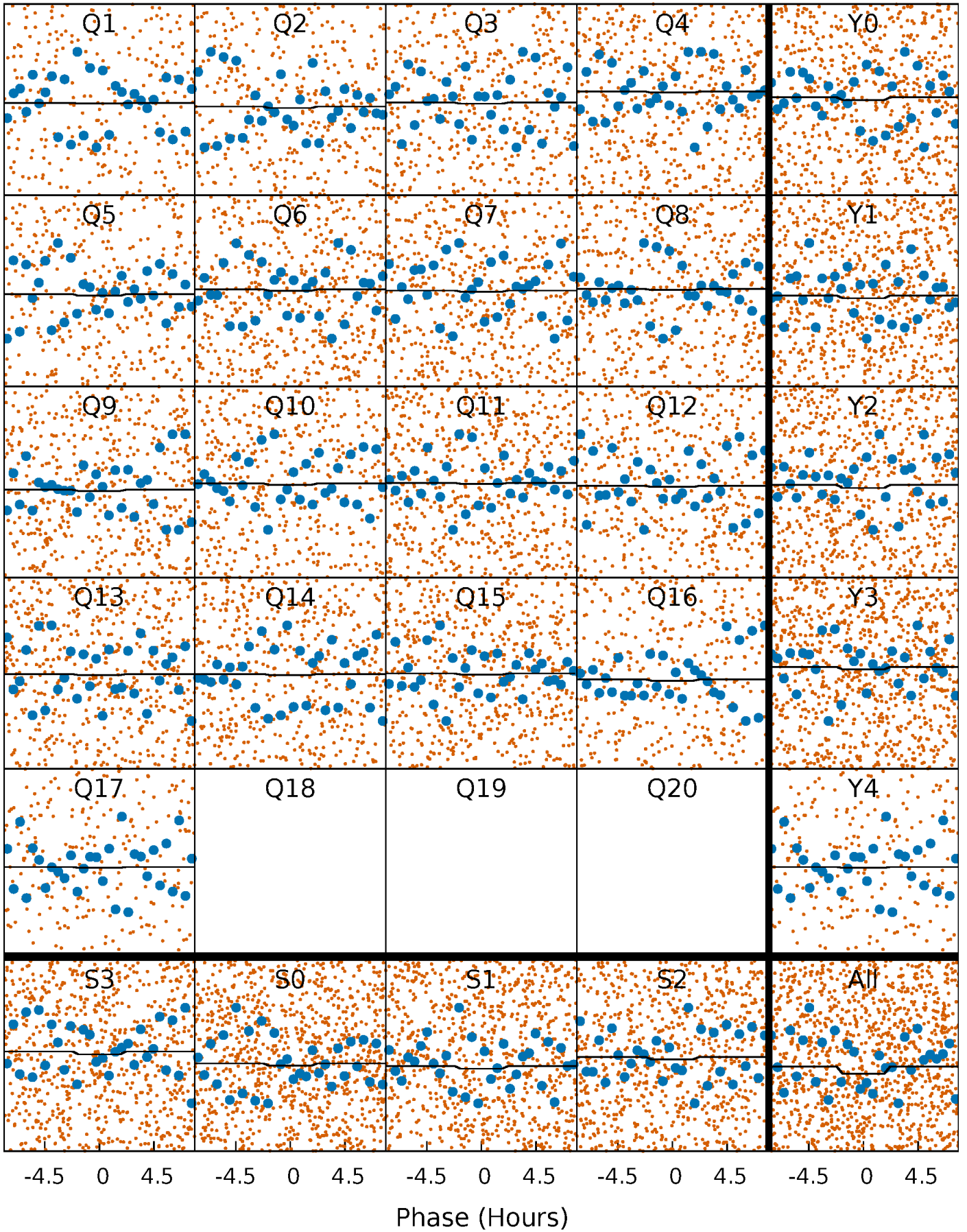
DV Quarter-Phased Transit Curves

TCE 006877609-01 P= 1.247618 Days $T_0=132.652569$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

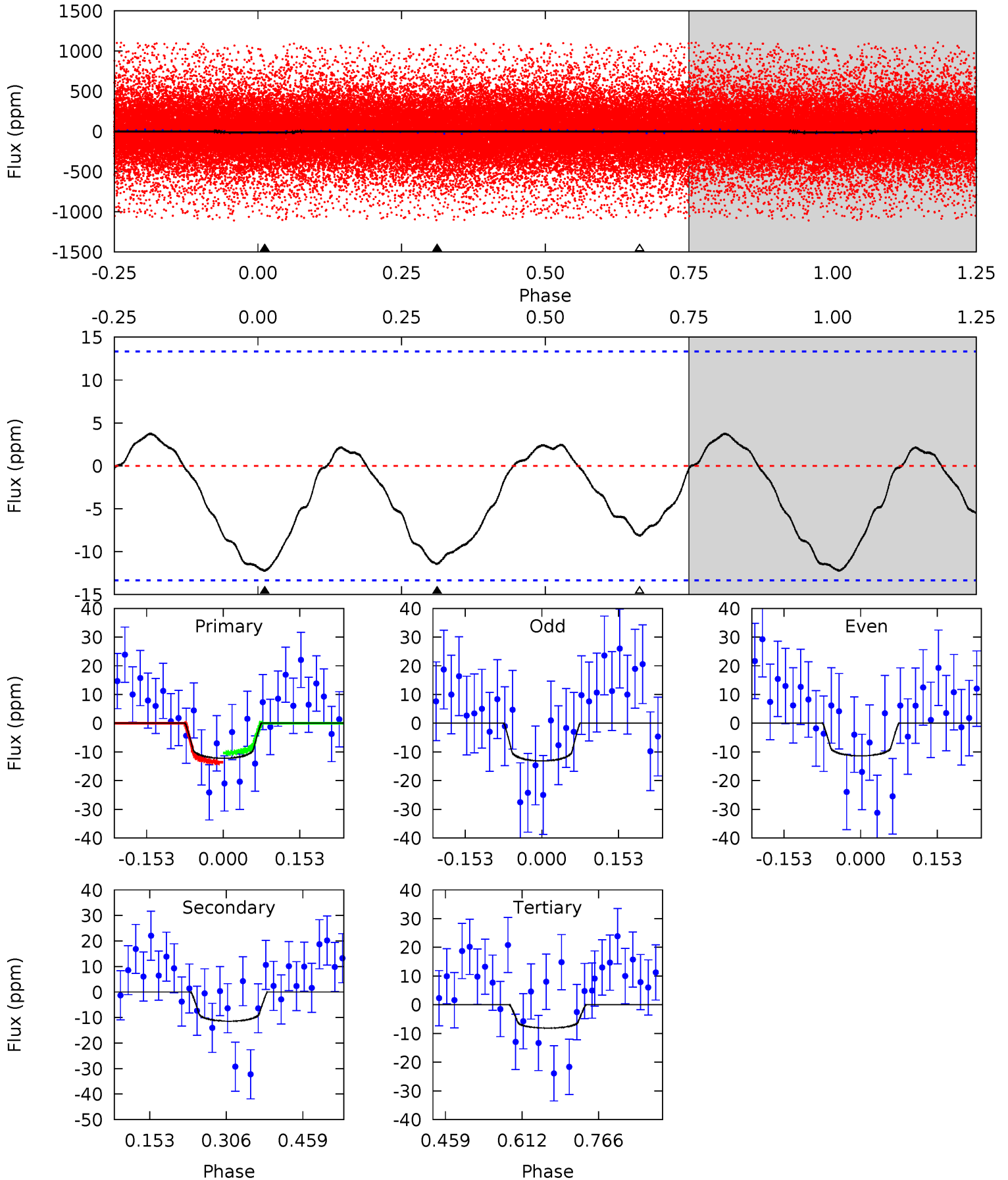
TCE 006877609-01 P= 1.247597 Days $T_0=132.618807$ (BKJD)



DV Model-Shift Uniqueness Test

006877609-01, P = 1.247618 Days, E = 131.404951 Days

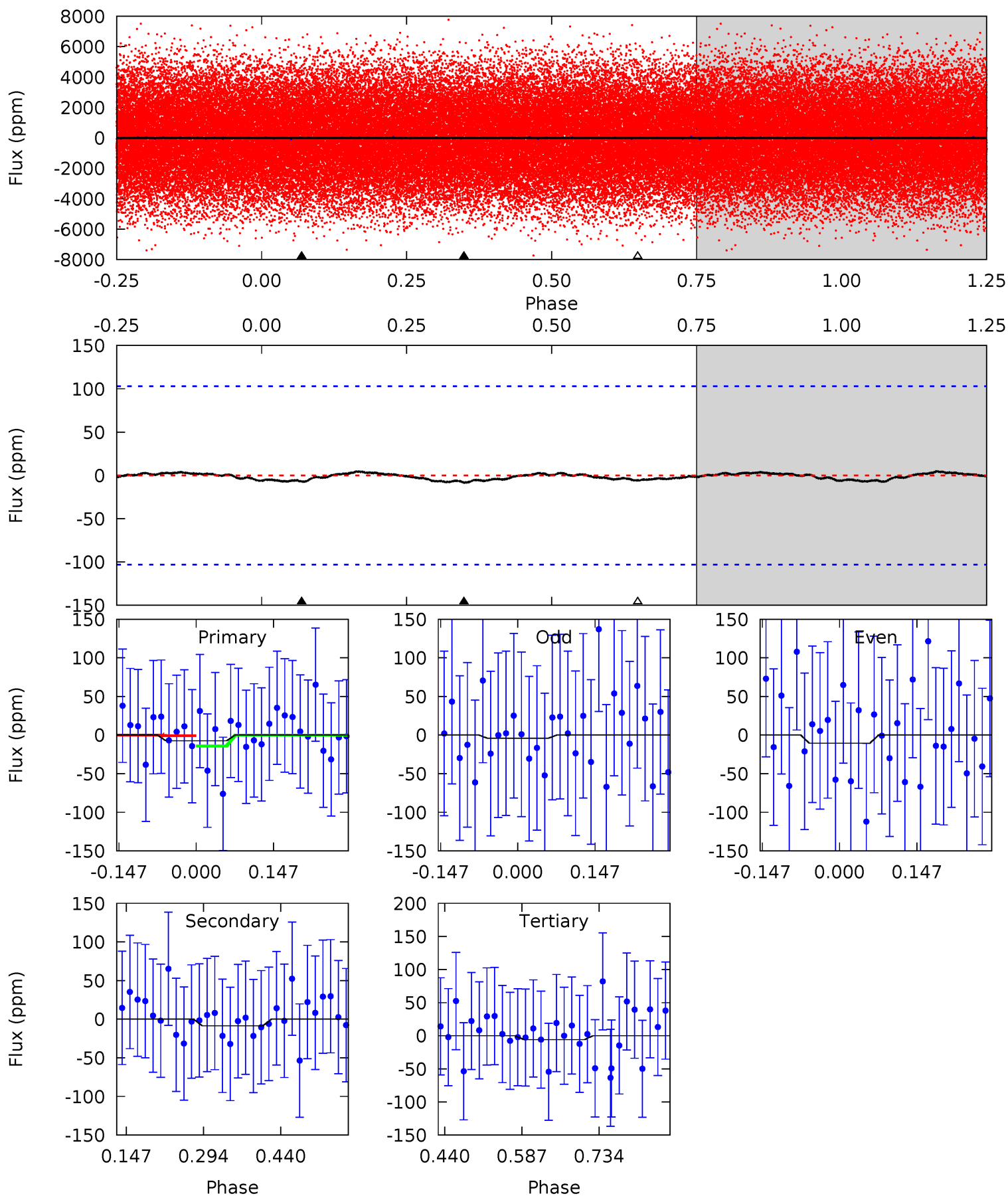
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.10	3.84	2.73	0	4.47	1.43	1.28	1.37	4.10	1.11	3.84	0.30	1.00	0.23	0.55



Alt Model-Shift Uniqueness Test

006877609-01, P = 1.247597 Days, E = 131.371210 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.32	0.38	0.26	0	4.48	1.45	0.12	0.07	0.32	0.12	0.38	0.14	0.31	0.37	0.29



Stellar Parameters For KIC 006877609

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7466^{+207}_{-311}	$3.940^{+0.247}_{-0.152}$	$-0.060^{+0.200}_{-0.300}$	$2.350^{+0.514}_{-0.707}$	$1.751^{+0.186}_{-0.346}$	$0.190^{+0.305}_{-0.077}$
	+3%/-4%	+6%/-4%	+333%/-500%	+22%/-30%	+11%/-20%	+161%/-40%
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 006877609-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 3	$1.08^{+0.38}_{-0.38}$	4234^{+300}_{-343}	6344^{+1664}_{-1028}	$3.912^{+5.359}_{-1.917}$
Alt.	-9 ± 23	$0.67^{+0.37}_{-0.31}$	4213^{+306}_{-358}	6852^{+7534}_{-16172}	$5.397^{+35.562}_{-18.432}$

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 $A_{obs} \gg 1.0$

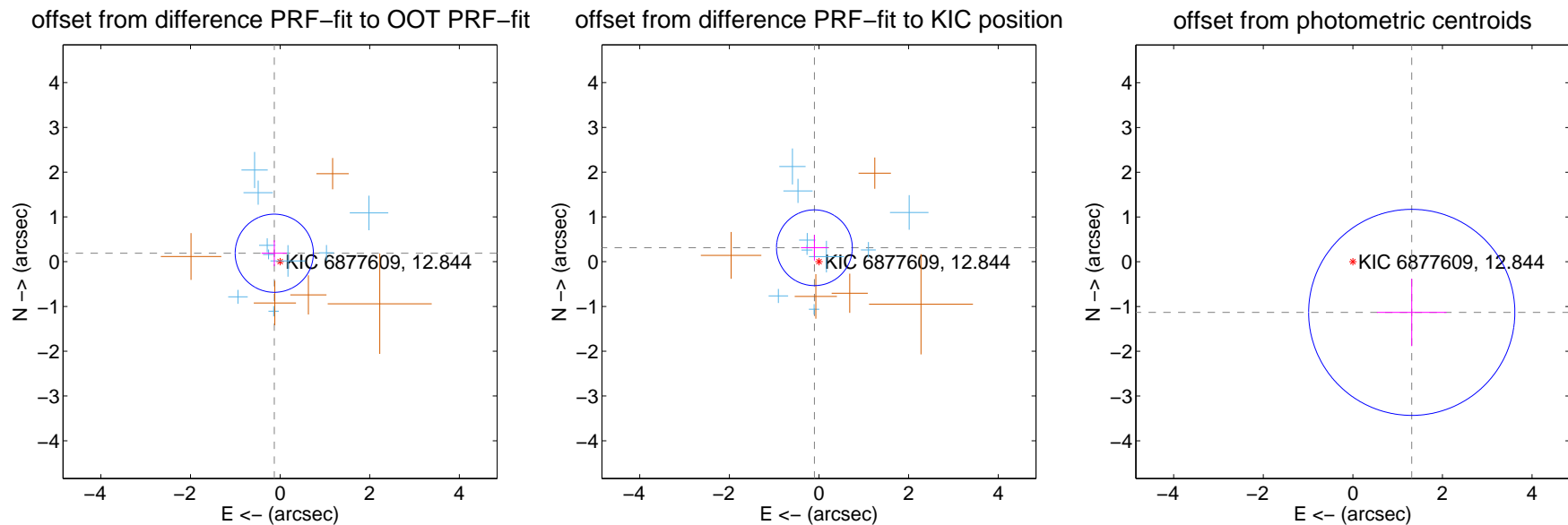
DV Centroid Data

Supplemental centroid analysis for 006877609-01. Kepler magnitude: 12.84. Transit SNR 8.68

There are 9 quarters with good PRF difference image offsets

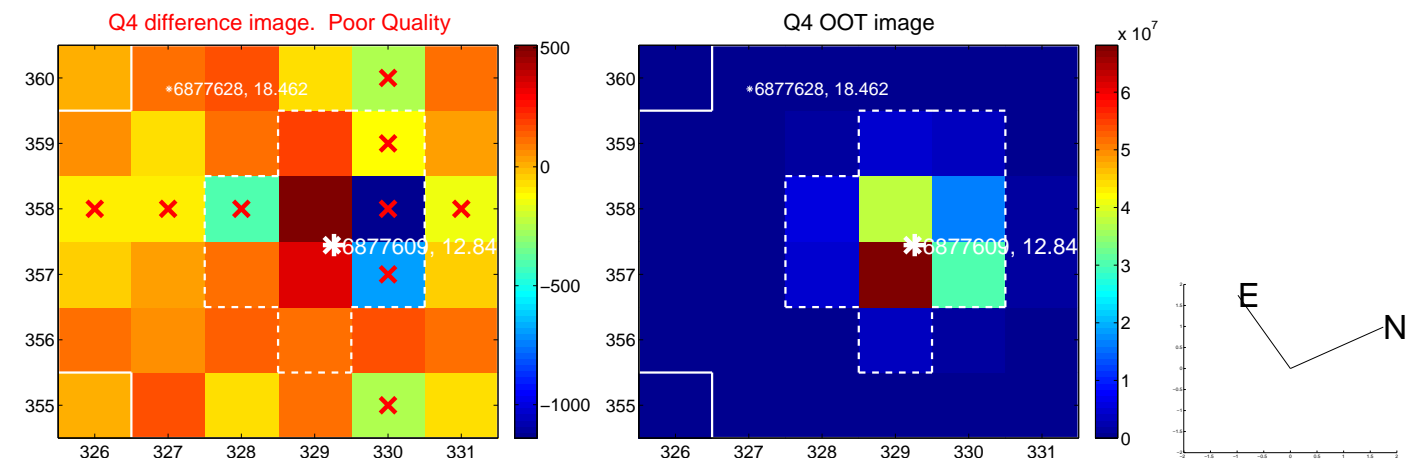
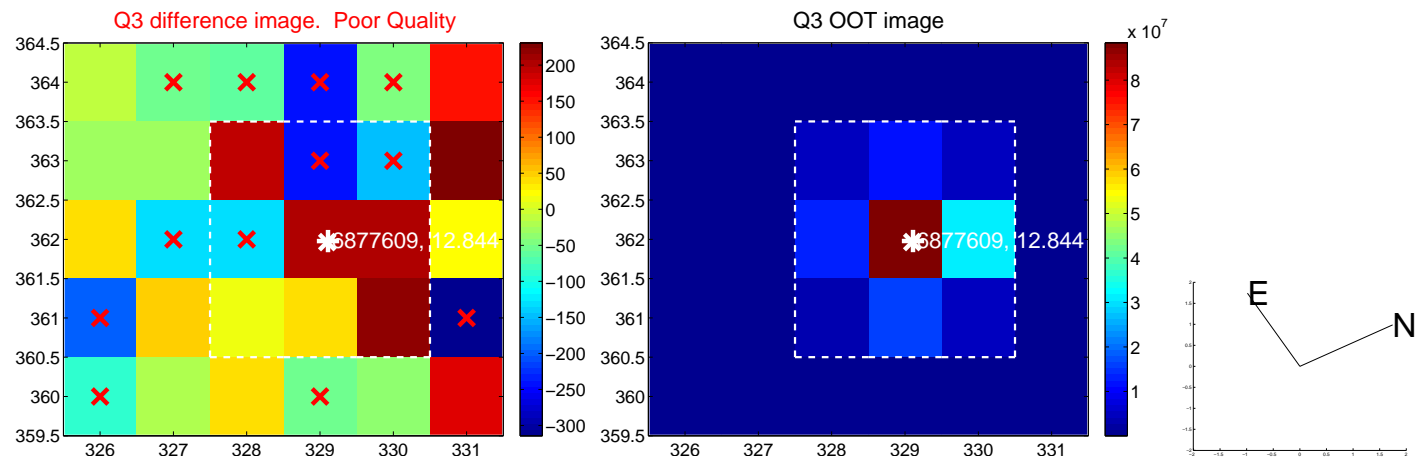
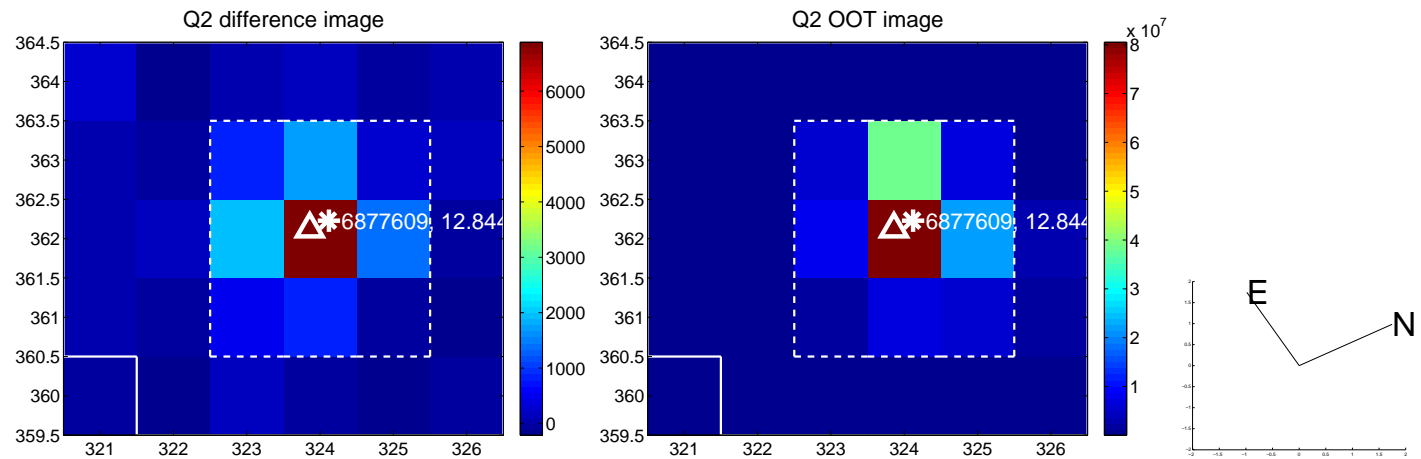
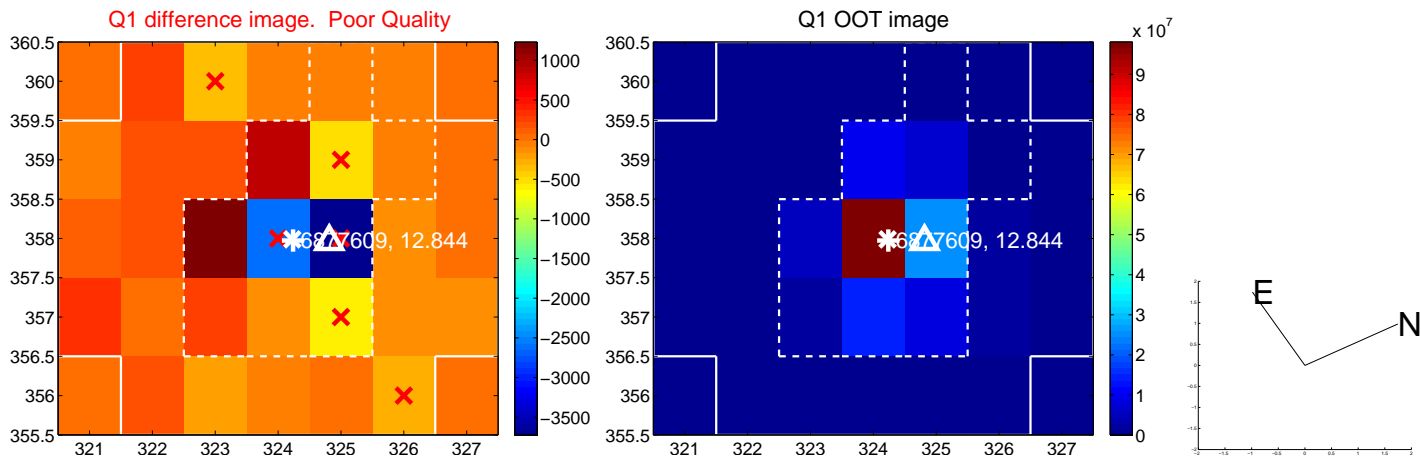
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.230 ± 0.291	0.79	0.130 ± 0.283	0.189 ± 0.289
PRF-fit source offset from KIC position	0.328 ± 0.282	1.16	0.103 ± 0.303	0.312 ± 0.284
photometric centroid source offset	1.73 ± 0.77	2.26	-1.31 ± 0.78	-1.13 ± 0.75

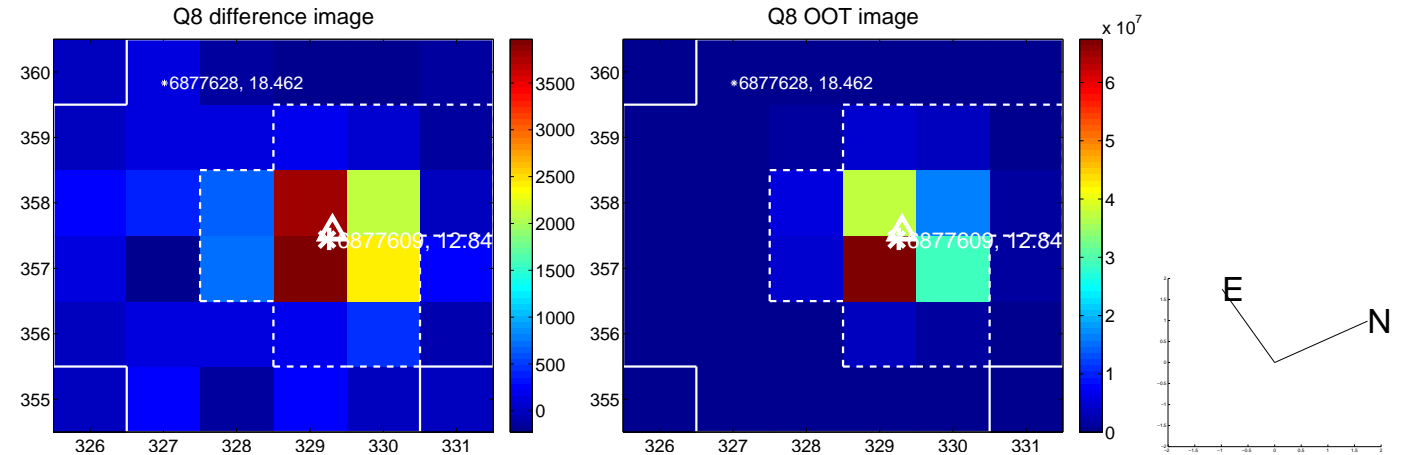
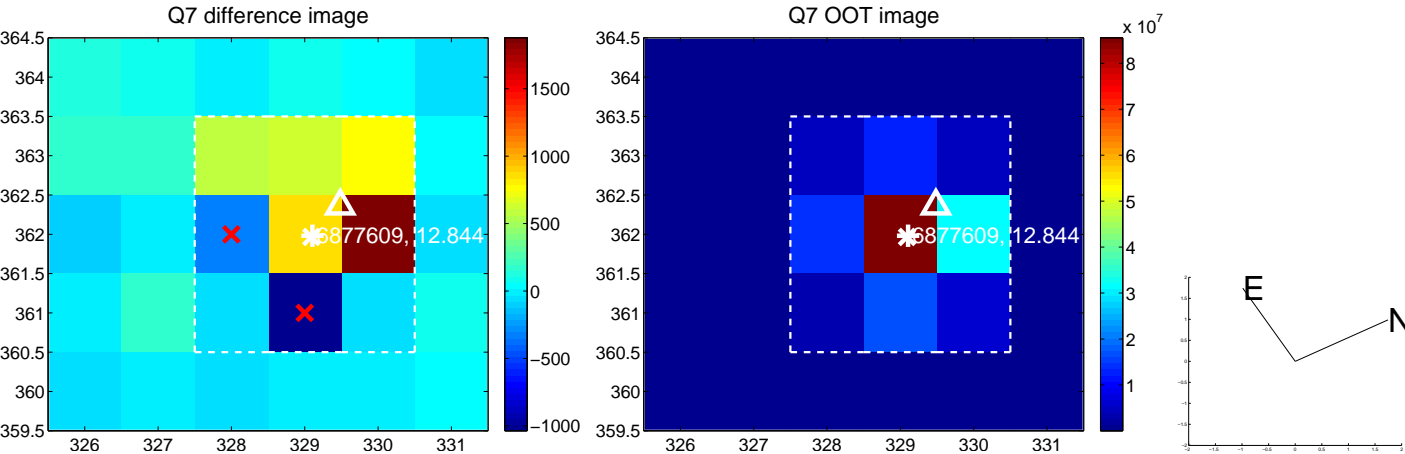
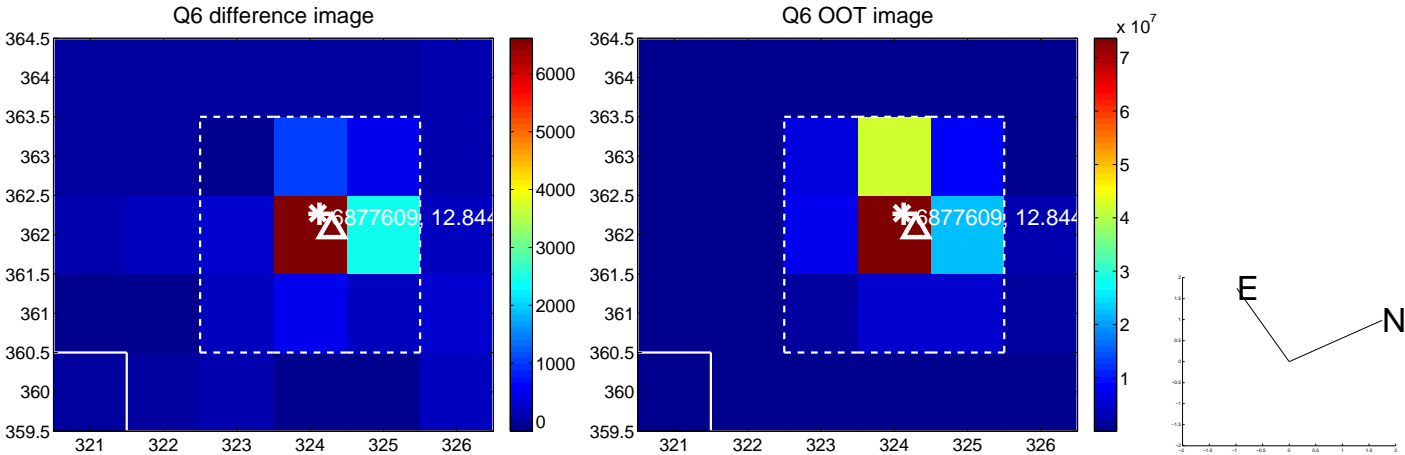
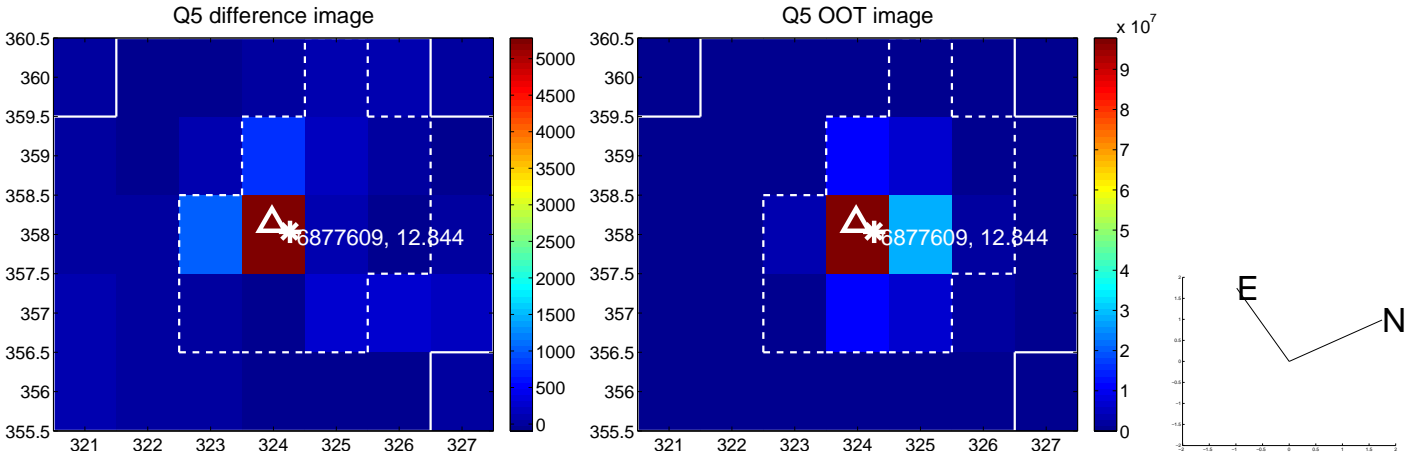


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

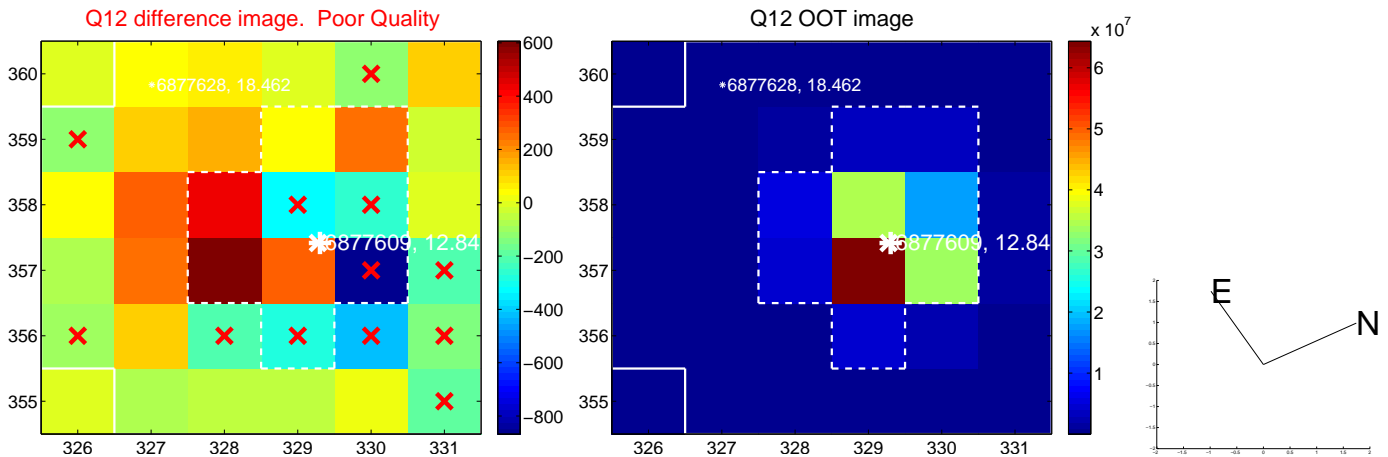
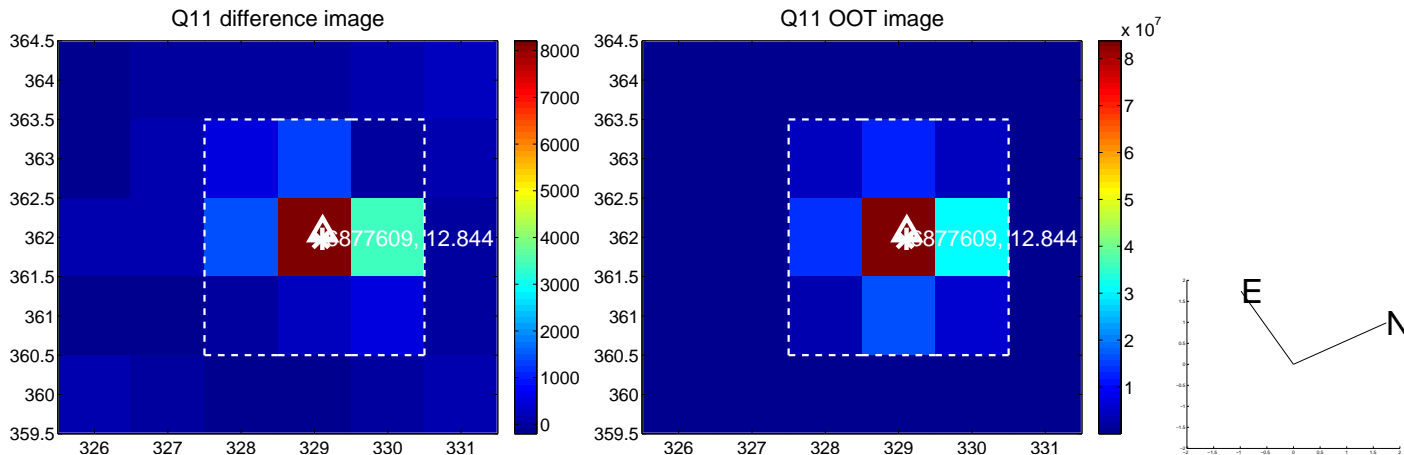
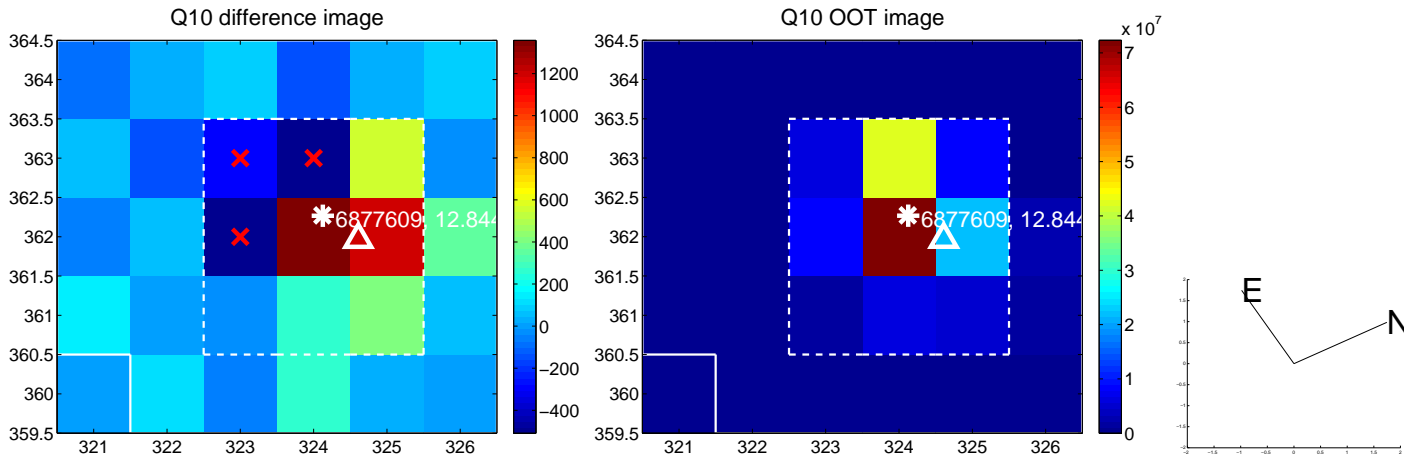
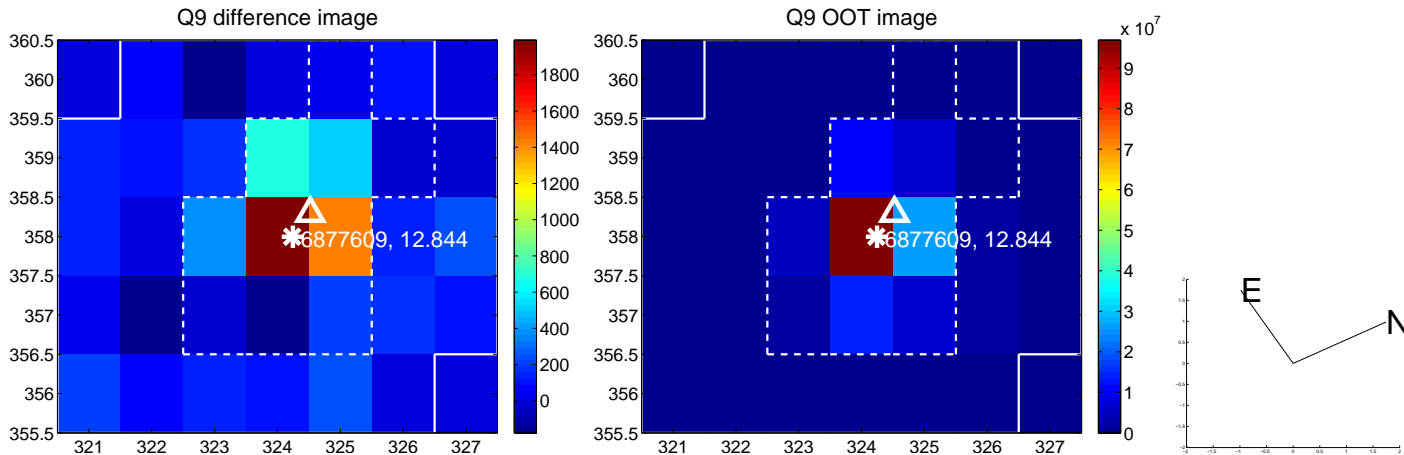
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



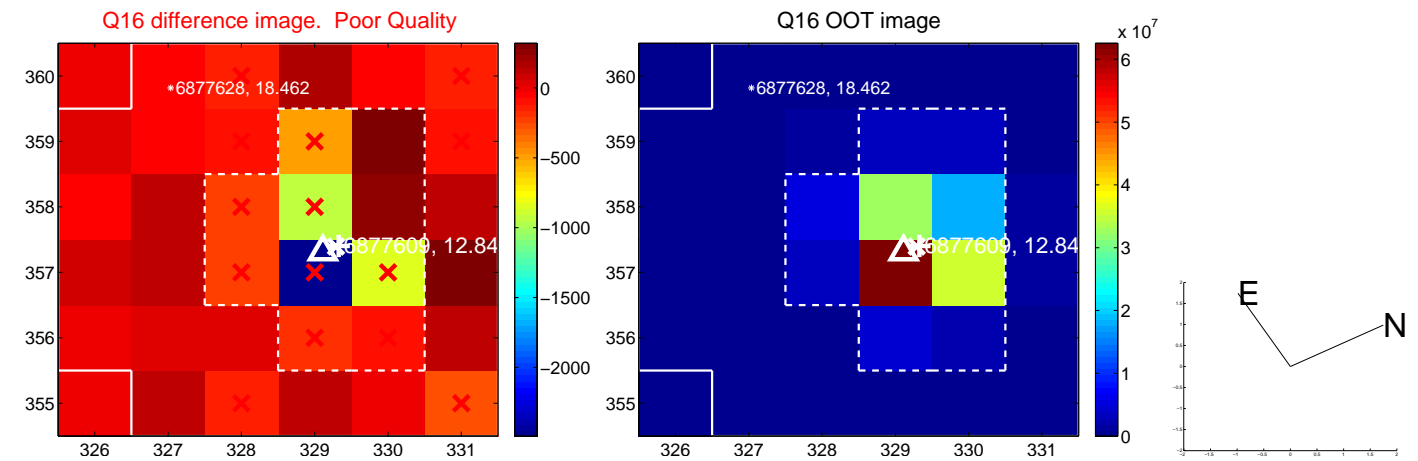
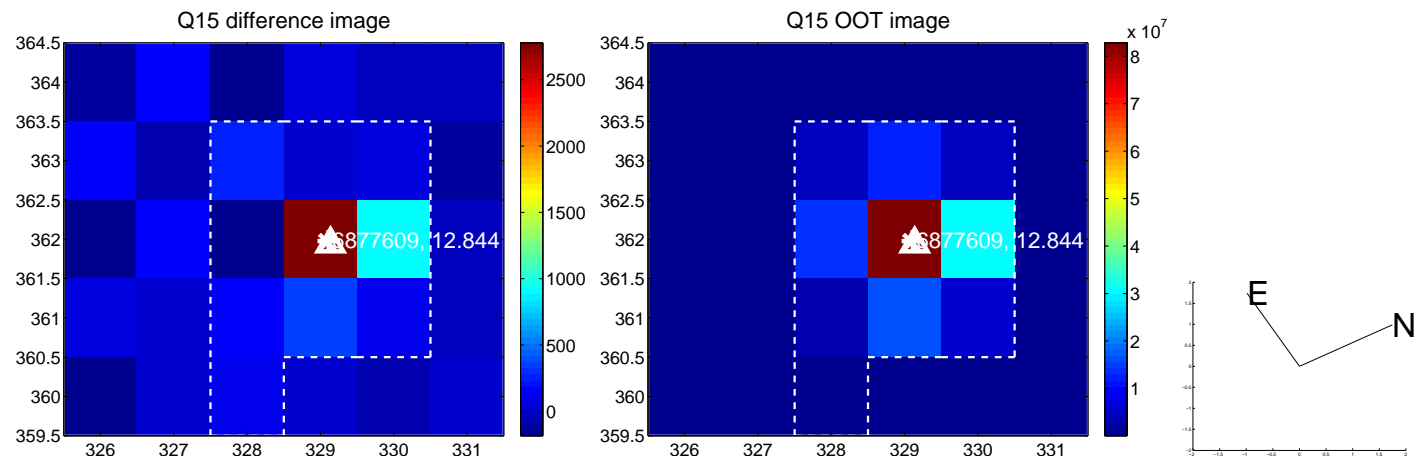
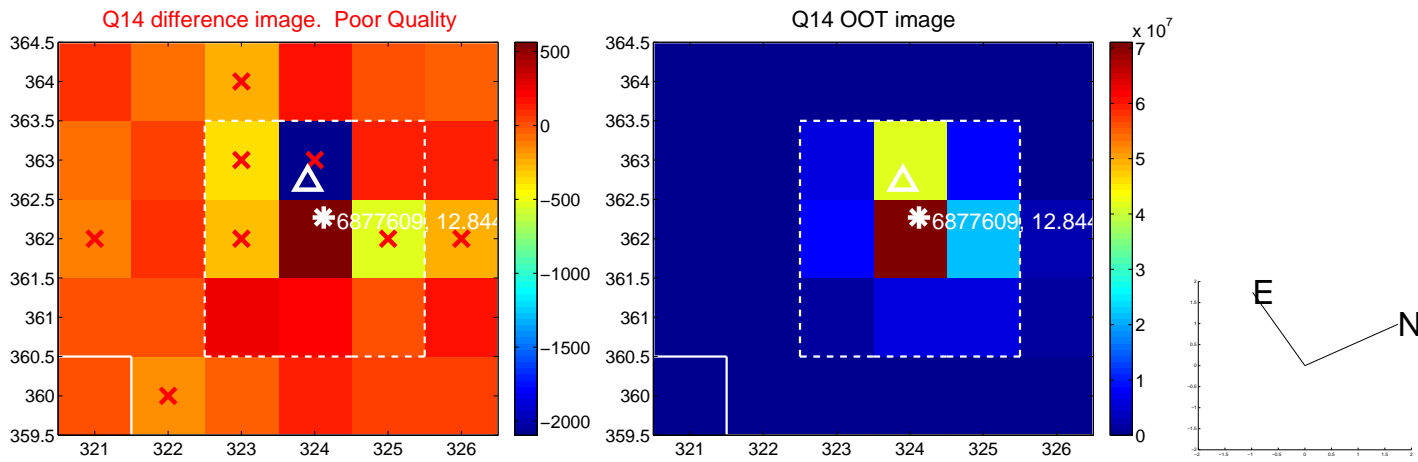
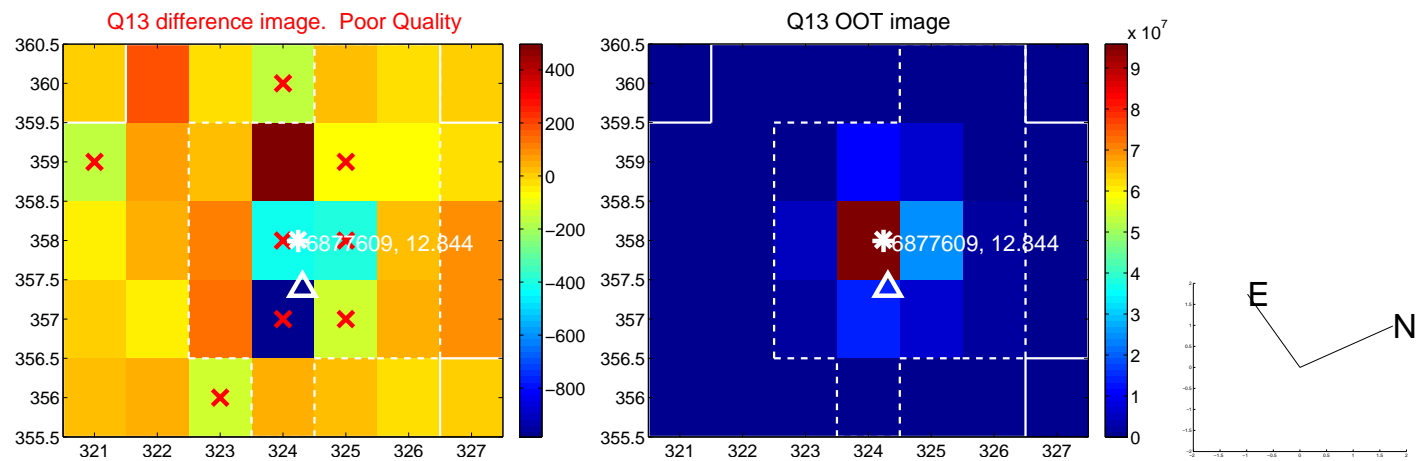
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



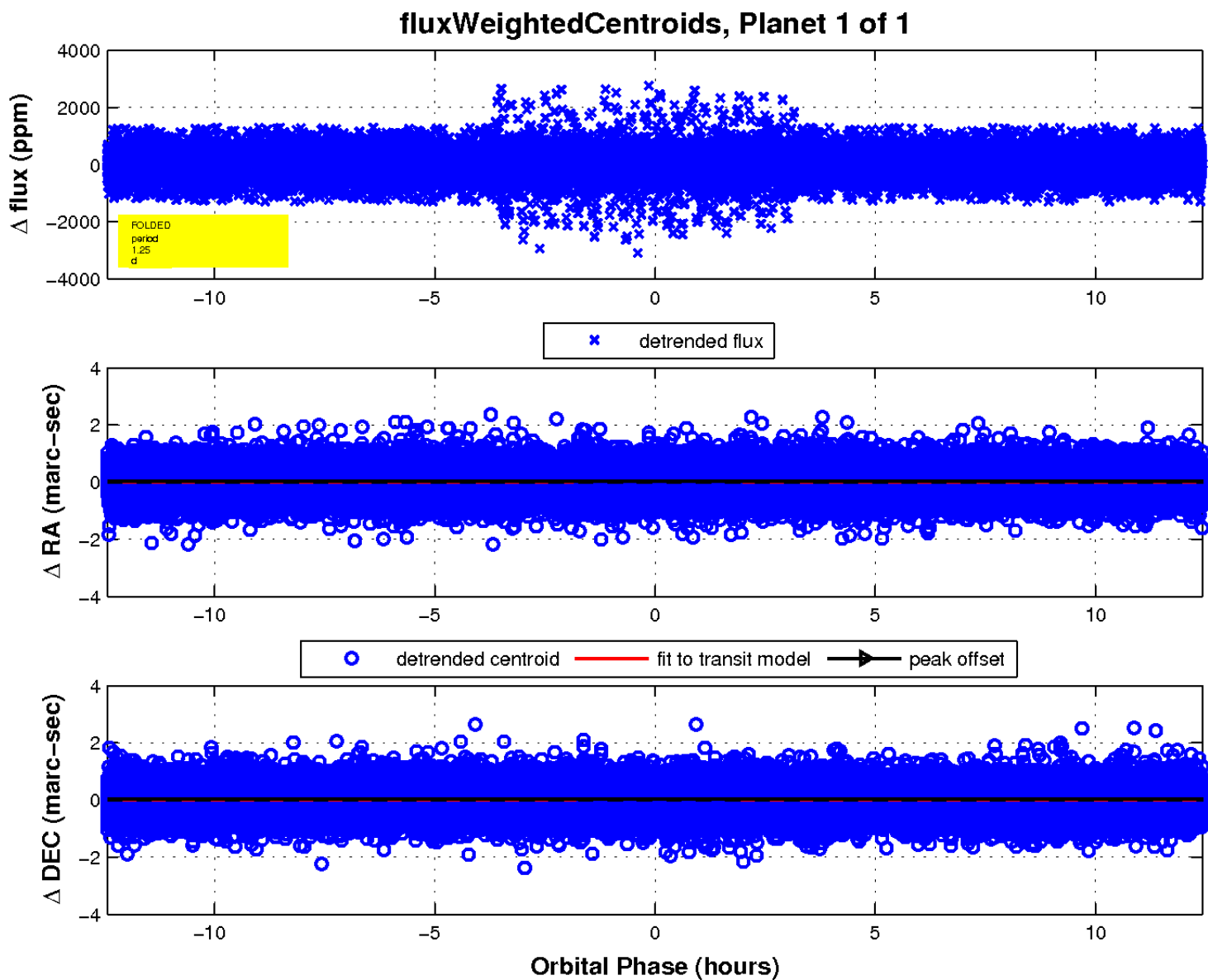
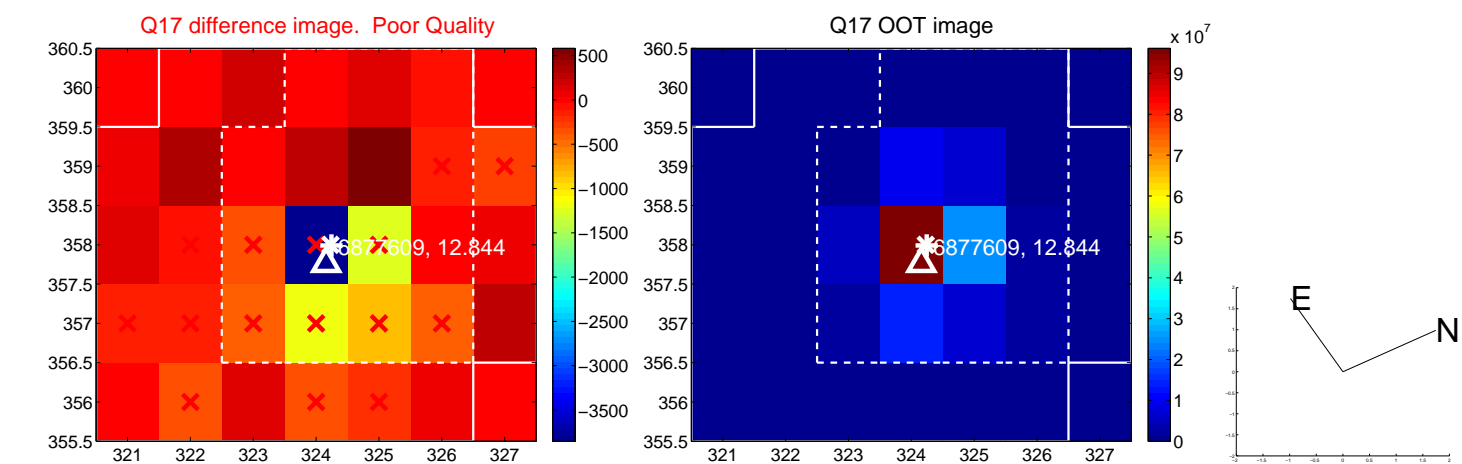
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UKIRT Image

Declination

