

KIC 010877669

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})
010877669-01	OBS	No	0.873856	132.189110	47.2	1.764	8.2	9.9	1.01	5940	0.82	3586.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010877669-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

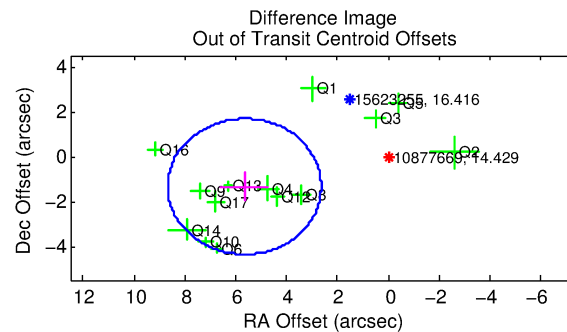
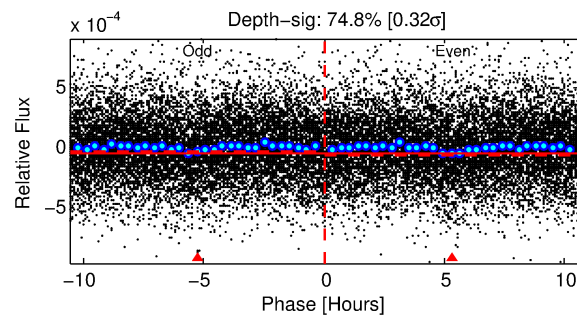
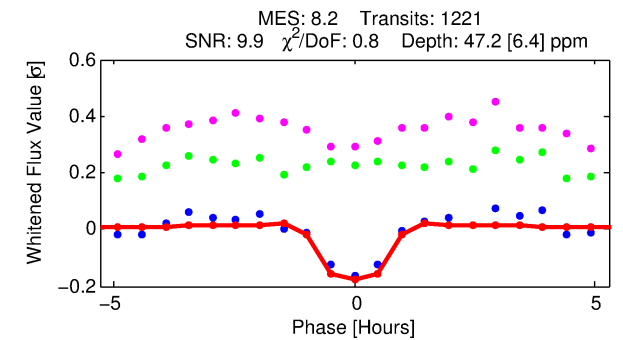
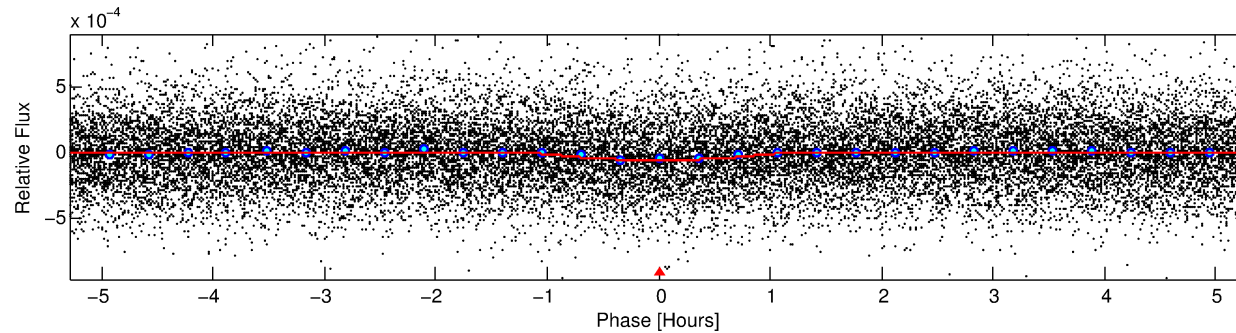
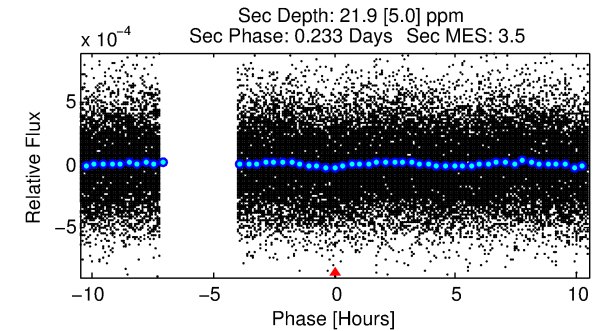
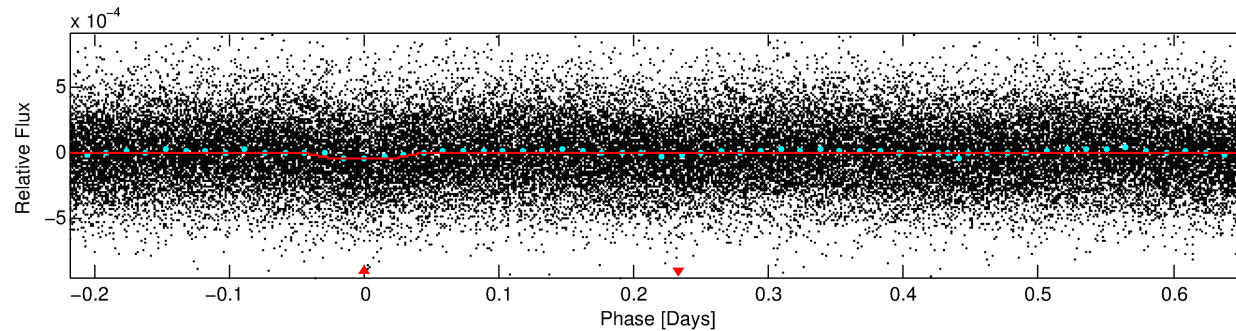
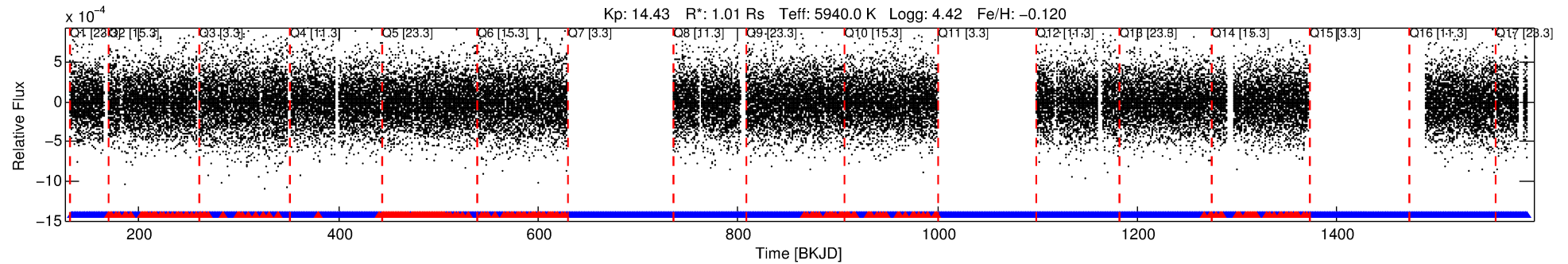
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010877669-01

No Significant Match Found

DV One-Page Summary

KIC: 10877669 Candidate: 1 of 1 Period: 0.874 d



DV Fit Results:

Period = 0.87386 [0.00001] d
Epoch = 132.1891 [0.0024] BKJD
Rp/R* = 0.0075 [0.0044]
a/R* = 1.93 [4.28]
b = 0.90 [0.63]
Seff = 3586.86 [1393.92]
Teff = 1973 [192] K
Rp = 0.82 [0.55] Re
a = 0.0178 [0.0045] AU
Ag = 5.63 [7.12] [0.65σ]
Teffp = 4699 [1428] K [1.89σ]

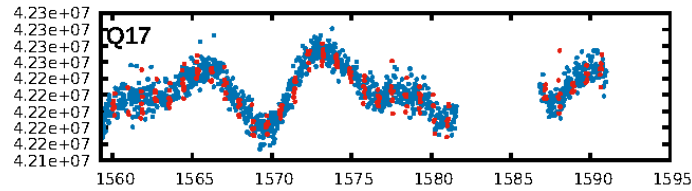
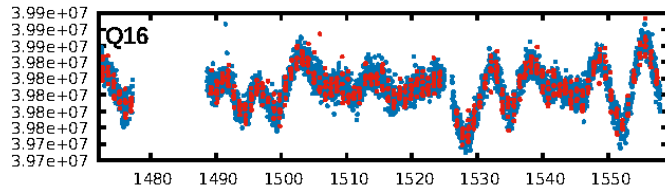
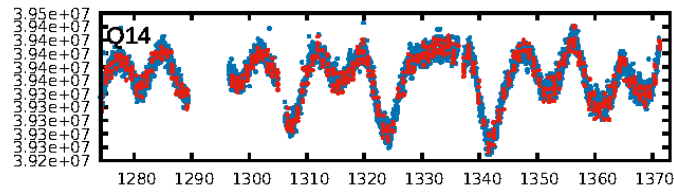
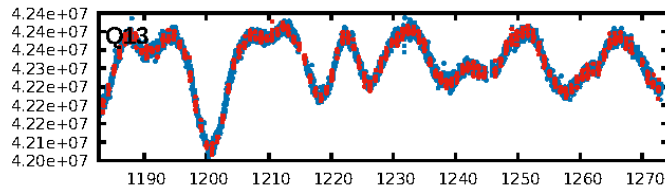
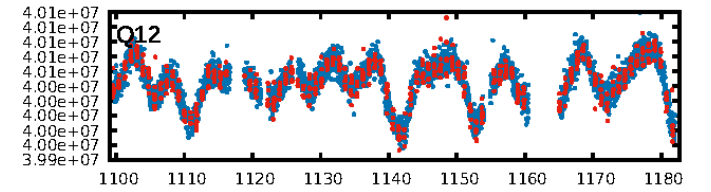
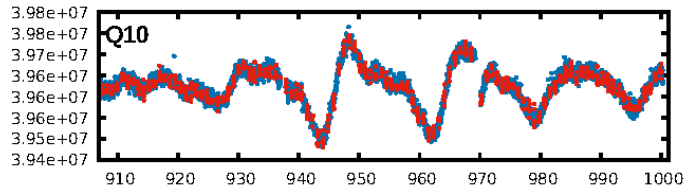
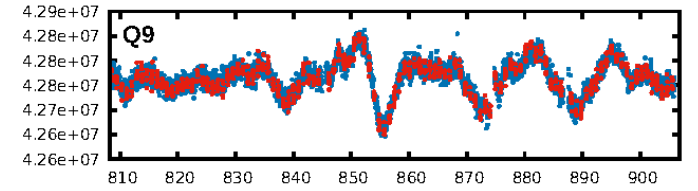
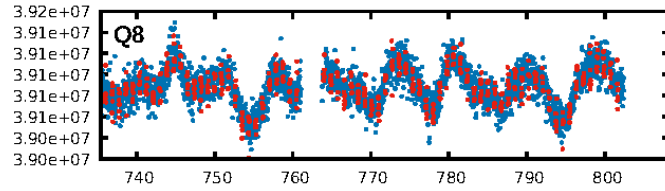
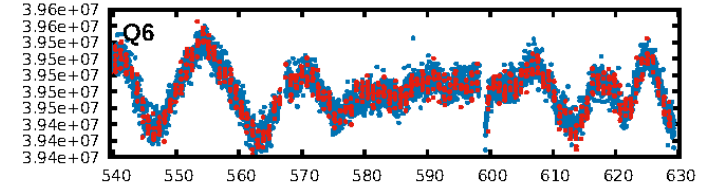
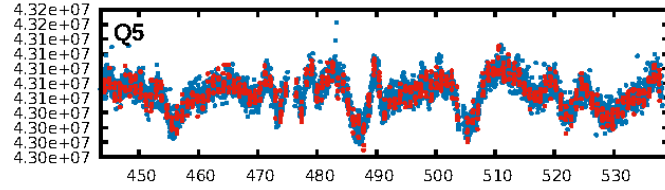
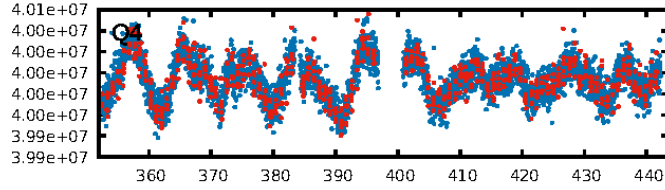
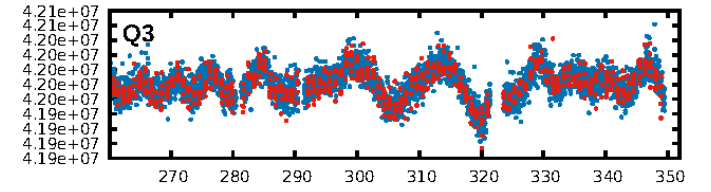
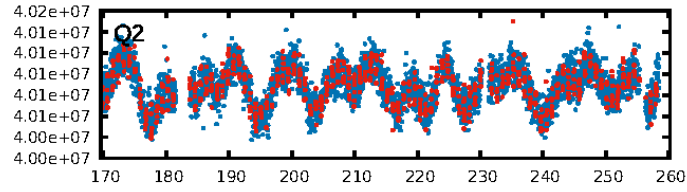
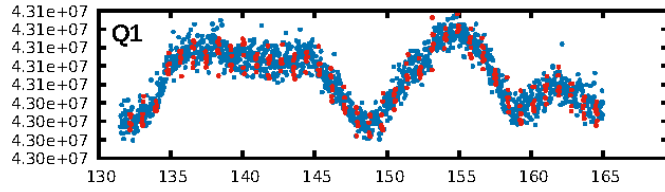
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.77e-16
RollingBand-fgt: 0.80 [918/1153]
GhostDiagnostic-chr: -0.2138
Centroid-sig: N/A
Centroid-so: 1.413 arcsec [1.02σ]
OotOffset-rm: 5.808 arcsec [5.77σ]
KicOffset-rm: 5.788 arcsec [5.90σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 0.36 [5/14]
DiffImageOverlap-fno: 1.00 [14/14]

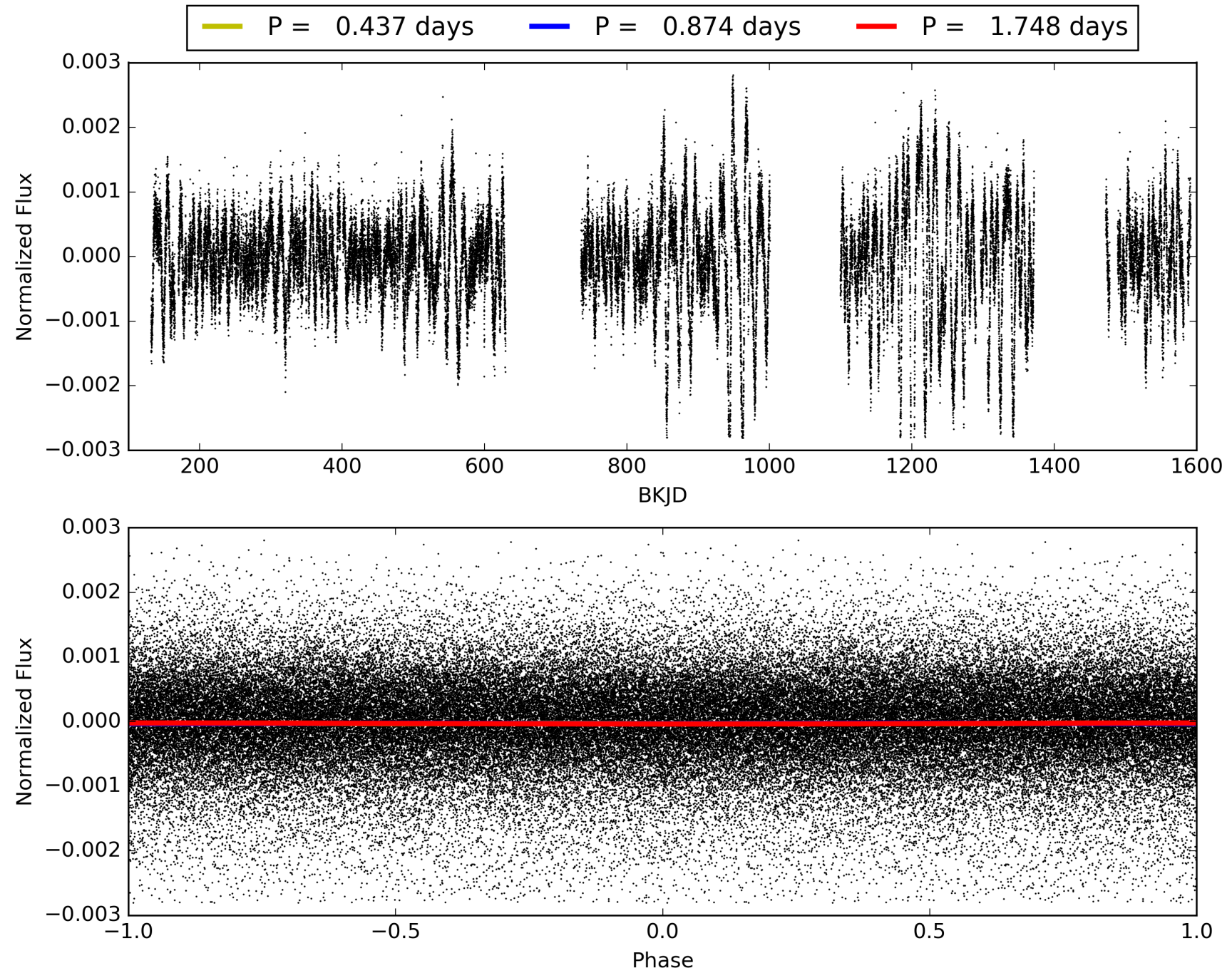
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:19:51 Z

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

TCE 010877669-01, PDC Light Curves

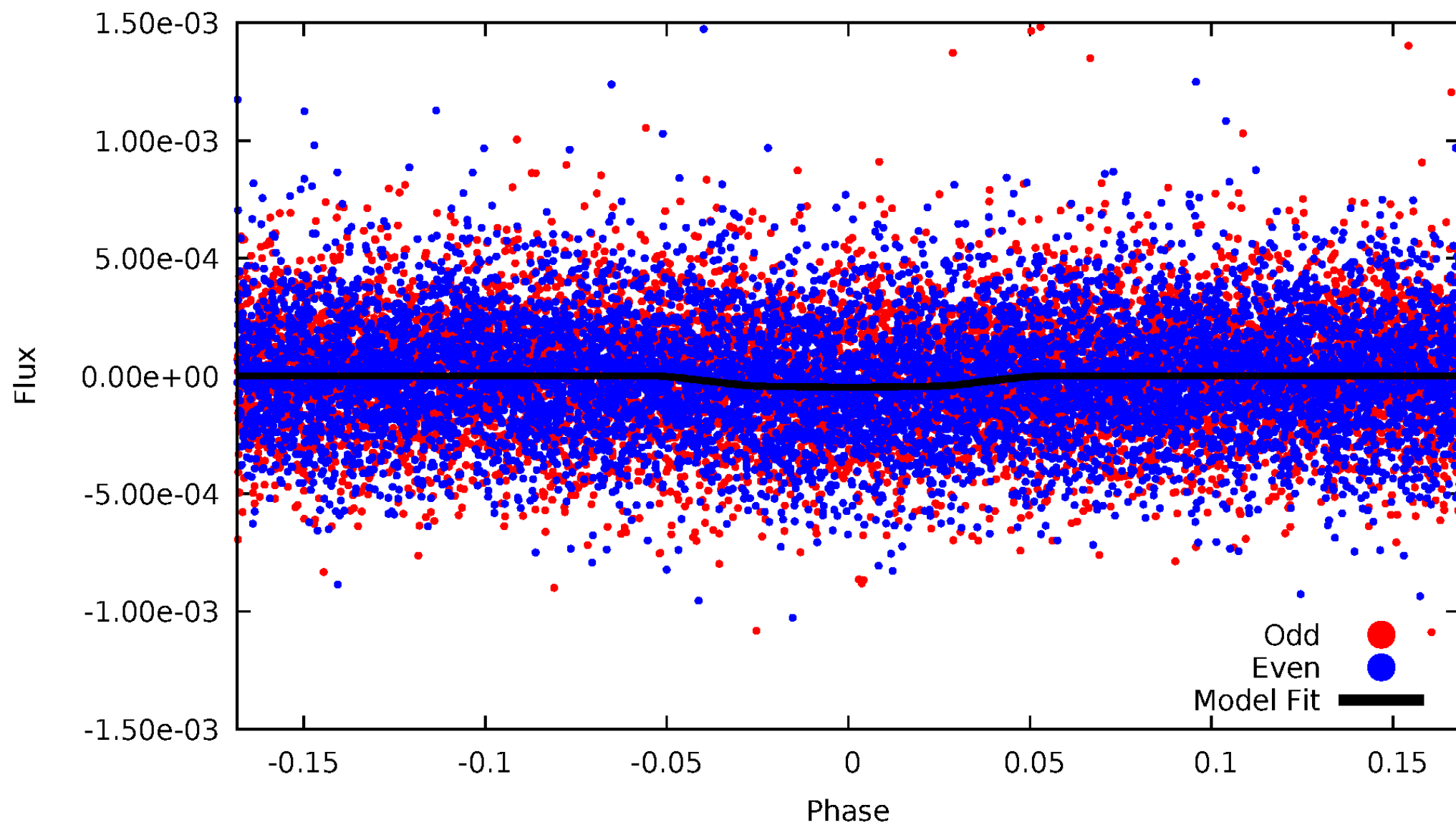


TCE 010877669-01



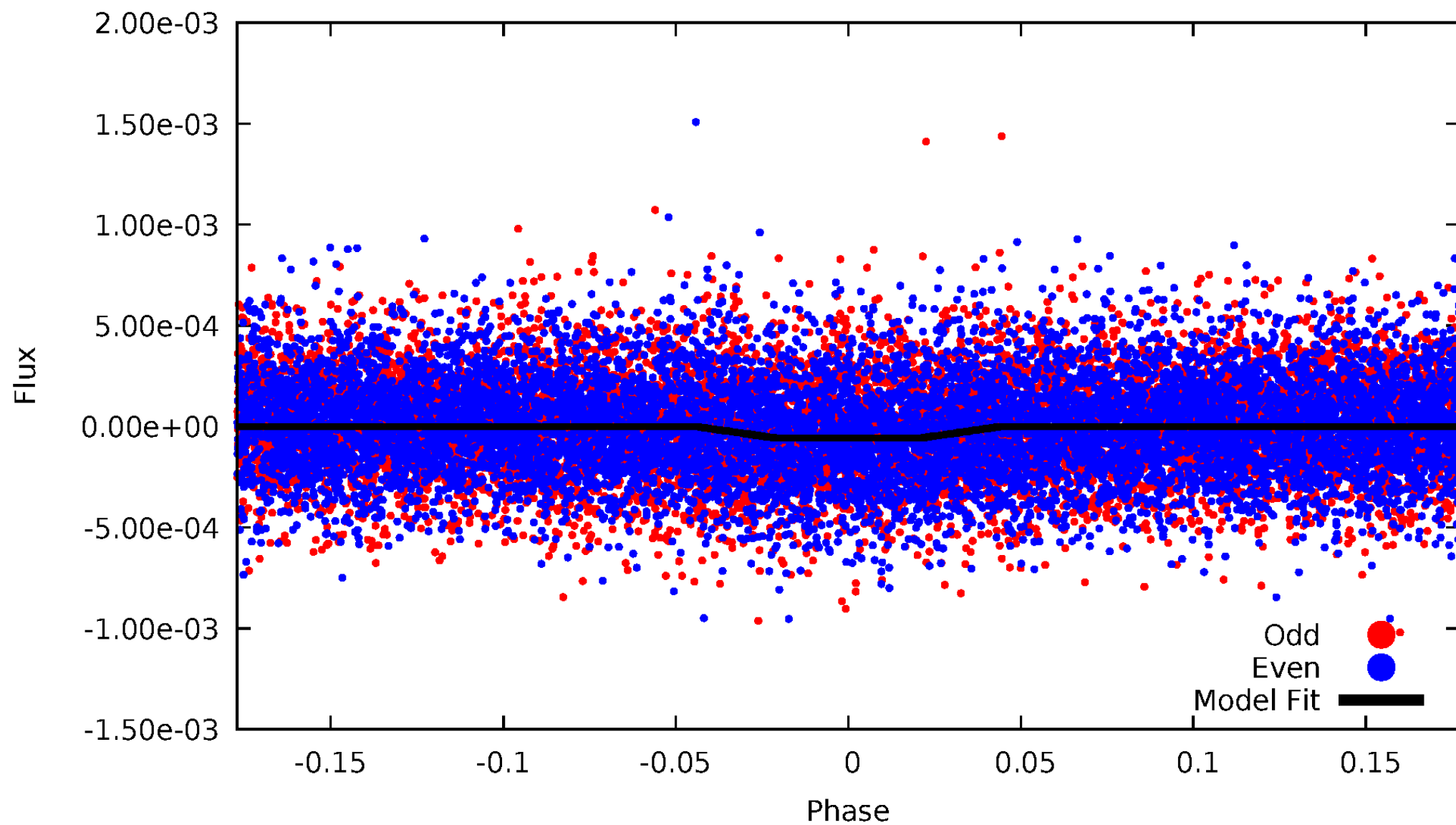
DV Odd/Even

TCE 010877669-01

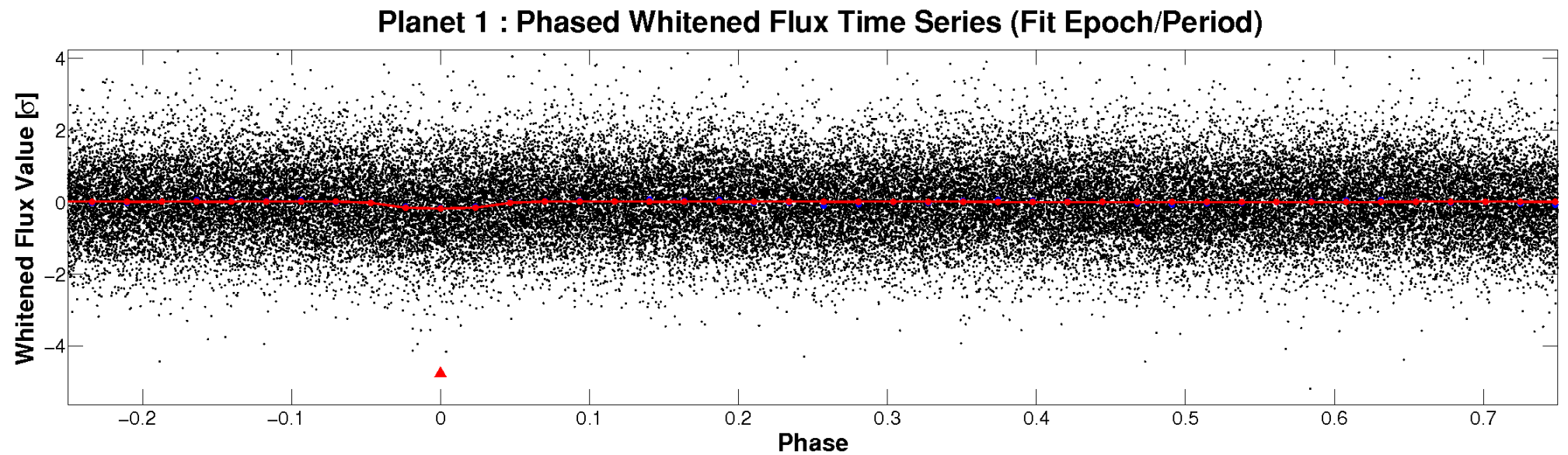
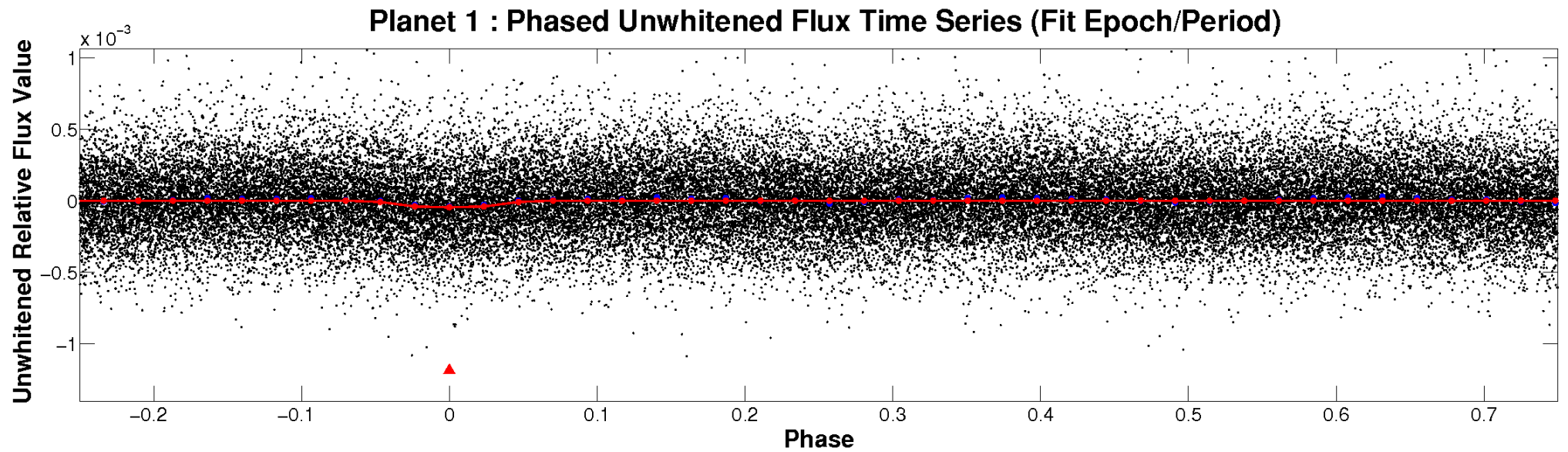


ALT Odd/Even

TCE 010877669-01

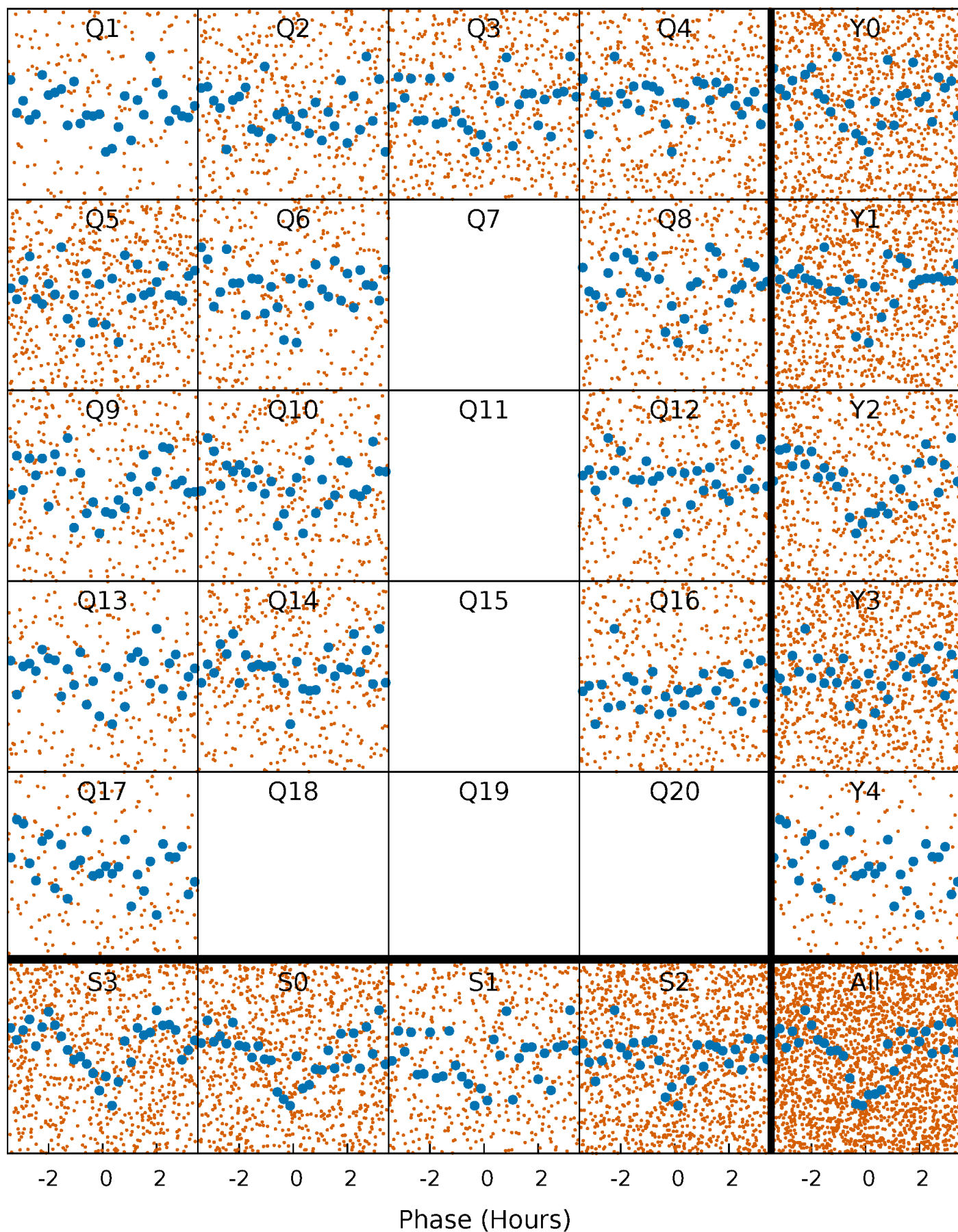


Non-Whitened Vs. Whitened Light Curve



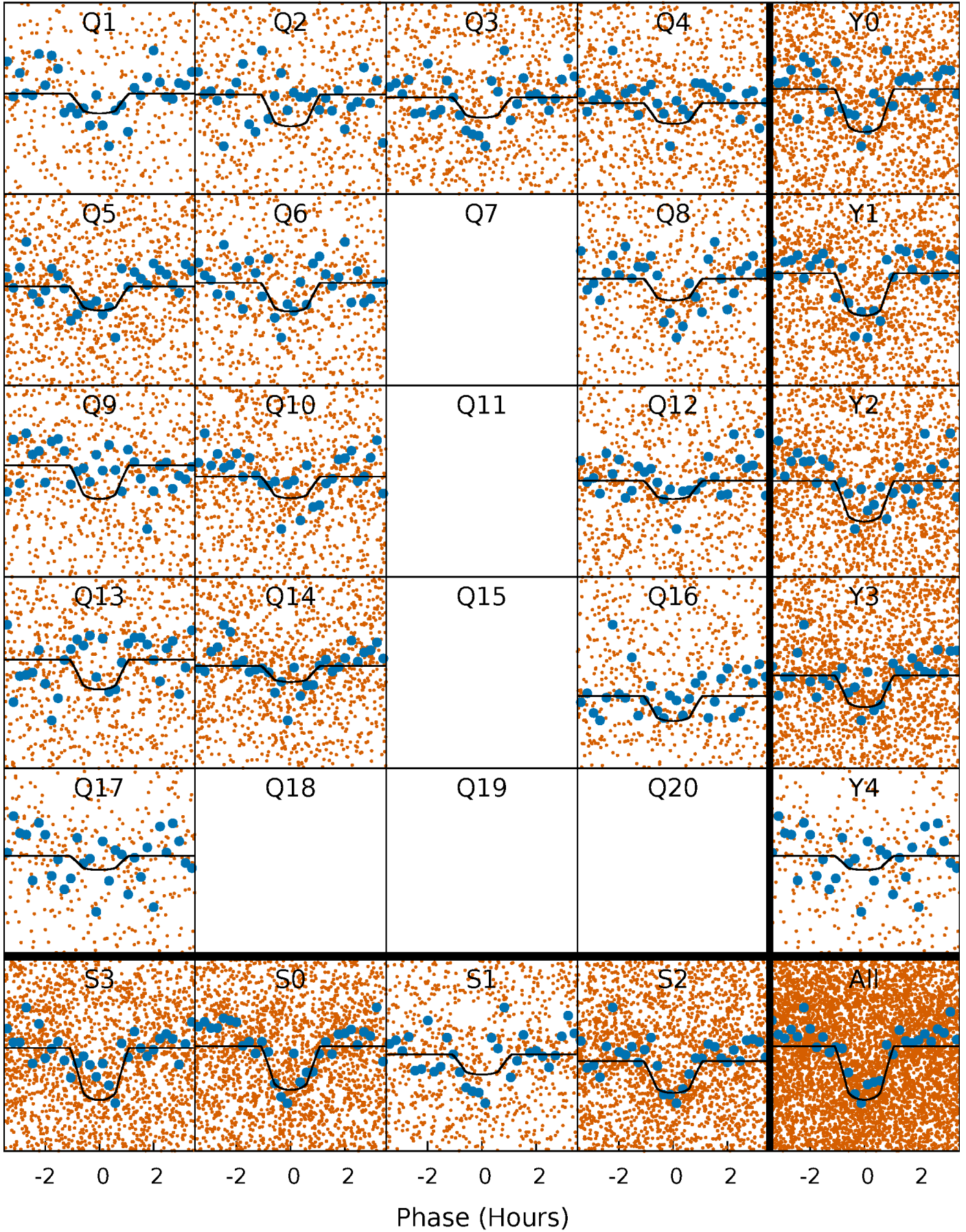
PDC Quarter-Phased Transit Curves

TCE 010877669-01 P= 0.873856 Days $T_0=132.189110$ (BKJD)



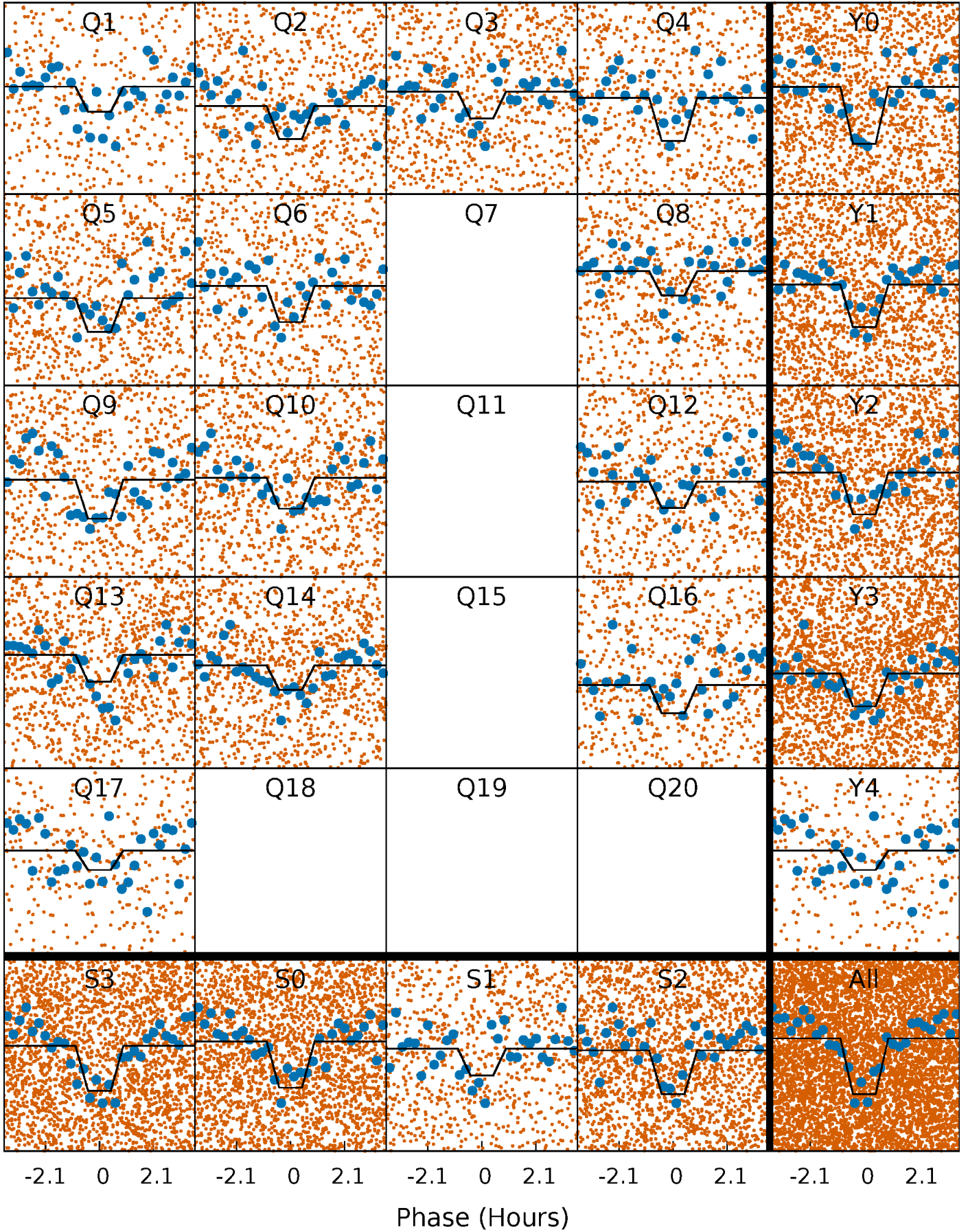
DV Quarter-Phased Transit Curves

TCE 010877669-01 P= 0.873856 Days $T_0=132.189110$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

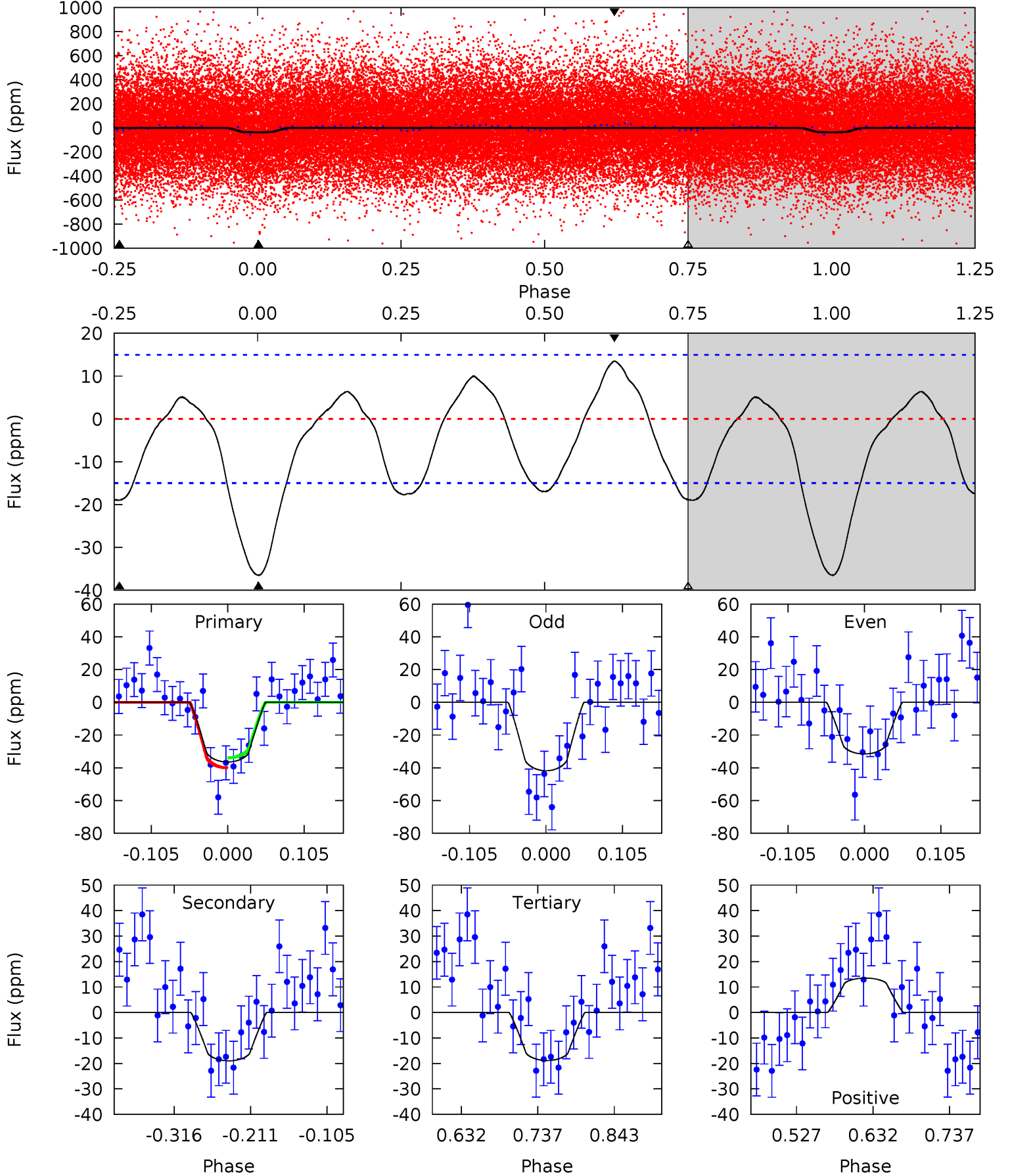
TCE 010877669-01 P= 0.873859 Days $T_0=132.188957$ (BKJD)



DV Model-Shift Uniqueness Test

010877669-01, P = 0.873856 Days, E = 131.315254 Days

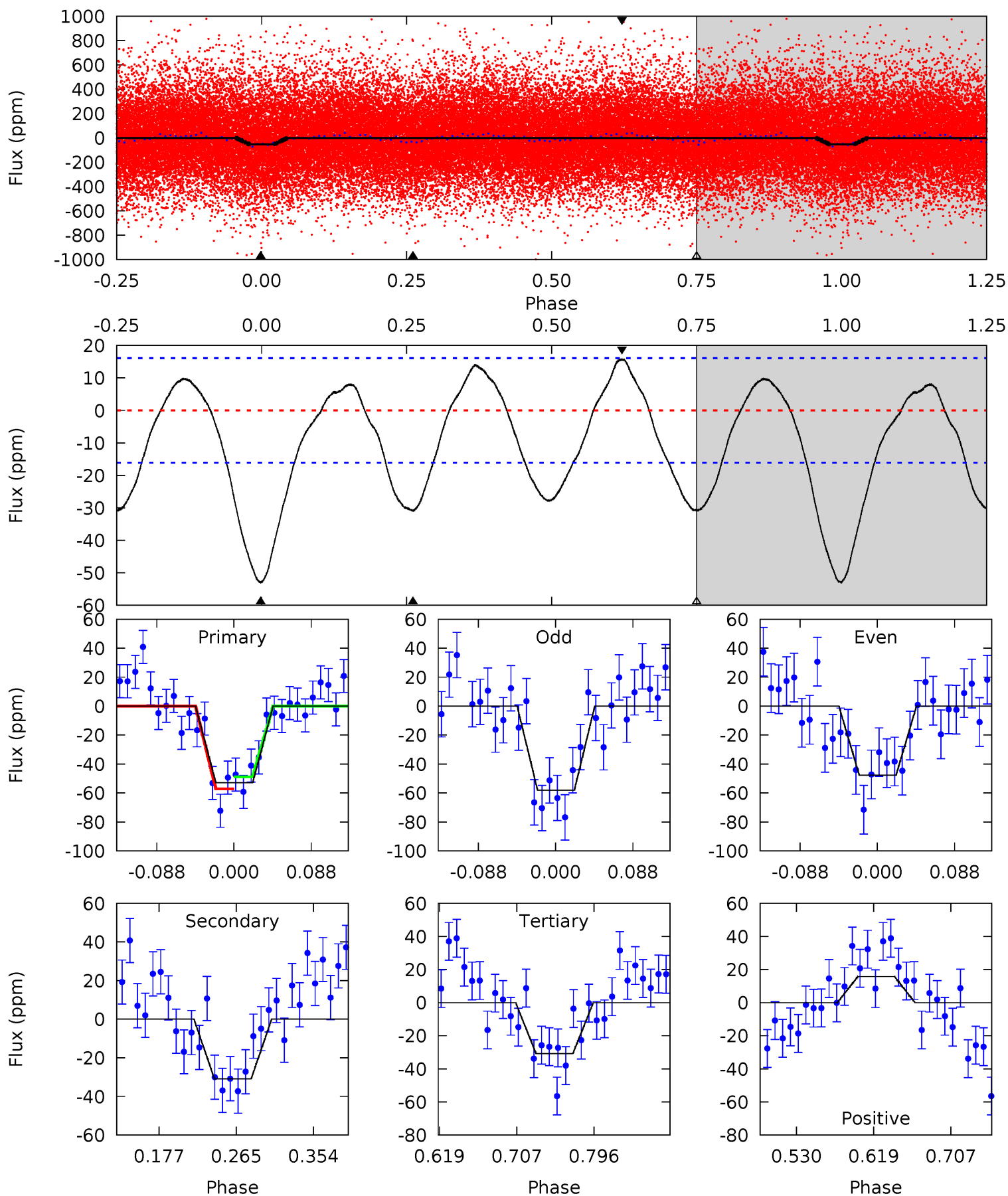
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	5.77	5.73	4.11	4.55	1.62	2.91	5.37	6.99	0.04	1.66	1.56	0.97	0.27	0.95



Alt Model-Shift Uniqueness Test

010877669-01, P = 0.873859 Days, E = 131.315098 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	8.80	8.79	4.48	4.59	1.70	4.03	6.29	10.6	0.02	4.32	1.47	1.01	0.23	1.17



Stellar Parameters For KIC 010877669

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5940^{+160}_{-178}	$4.423^{+0.087}_{-0.203}$	$-0.120^{+0.300}_{-0.300}$	$1.009^{+0.301}_{-0.129}$	$0.984^{+0.132}_{-0.119}$	$1.350^{+0.595}_{-0.659}$
	+3%/-3%	+2%/-5%	+250%/-250%	+30%/-13%	+13%/-12%	+44%/-49%
Source	PHO1	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 010877669-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-19 ± 3	$0.89^{+0.50}_{-0.49}$	2789^{+225}_{-138}	4540^{+1892}_{-749}	$4.125^{+14.167}_{-2.435}$
Alt.	-31 ± 4	$0.88^{+0.53}_{-0.49}$	2792^{+199}_{-147}	5063^{+2599}_{-903}	$6.986^{+27.207}_{-4.300}$

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

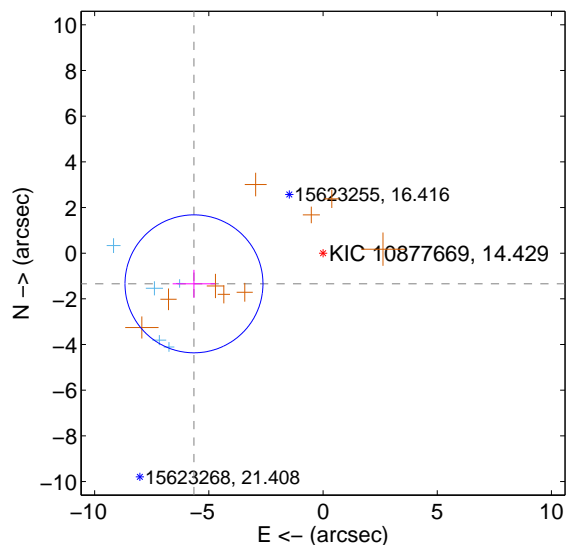
Supplemental centroid analysis for 010877669-01. Kepler magnitude: 14.43. Transit SNR 9.86

There are 5 quarters with good PRF difference image offsets

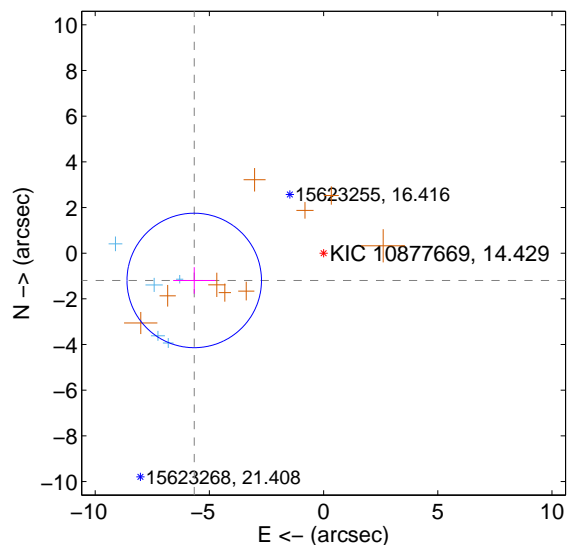
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.808 ± 1.007	5.77	5.651 ± 0.933	-1.342 ± 0.614
PRF-fit source offset from KIC position	5.788 ± 0.981	5.90	5.663 ± 0.924	-1.194 ± 0.582
photometric centroid source offset	1.41 ± 1.39	1.02	1.39 ± 1.38	0.24 ± 1.47

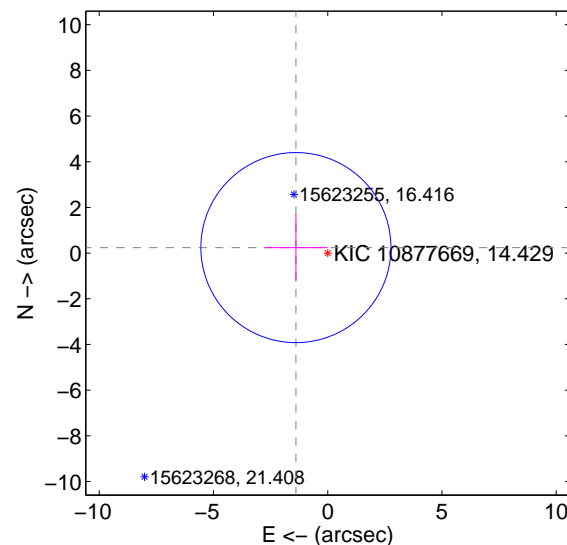
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

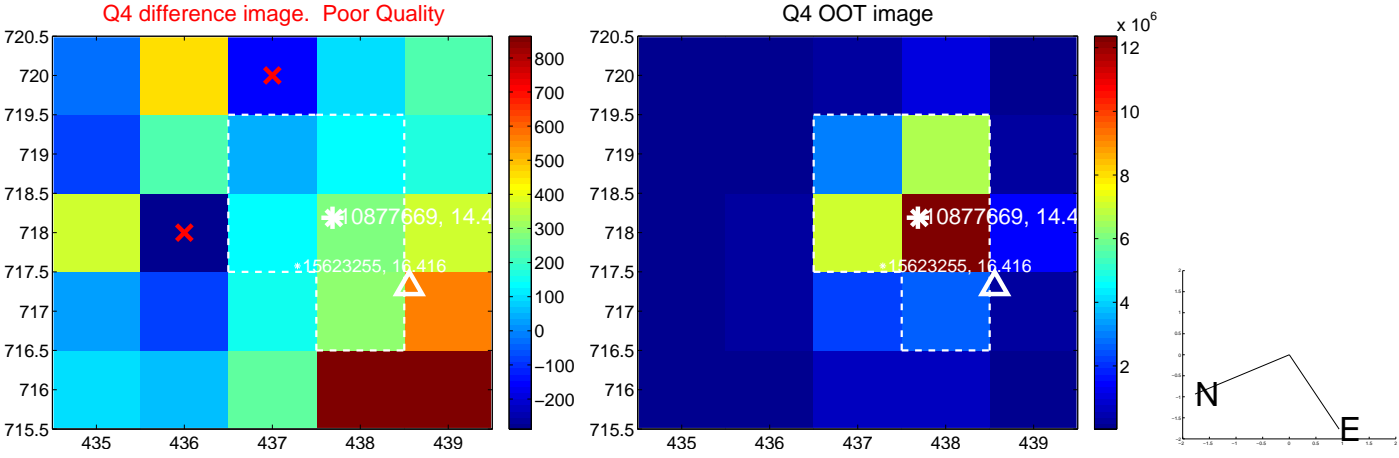
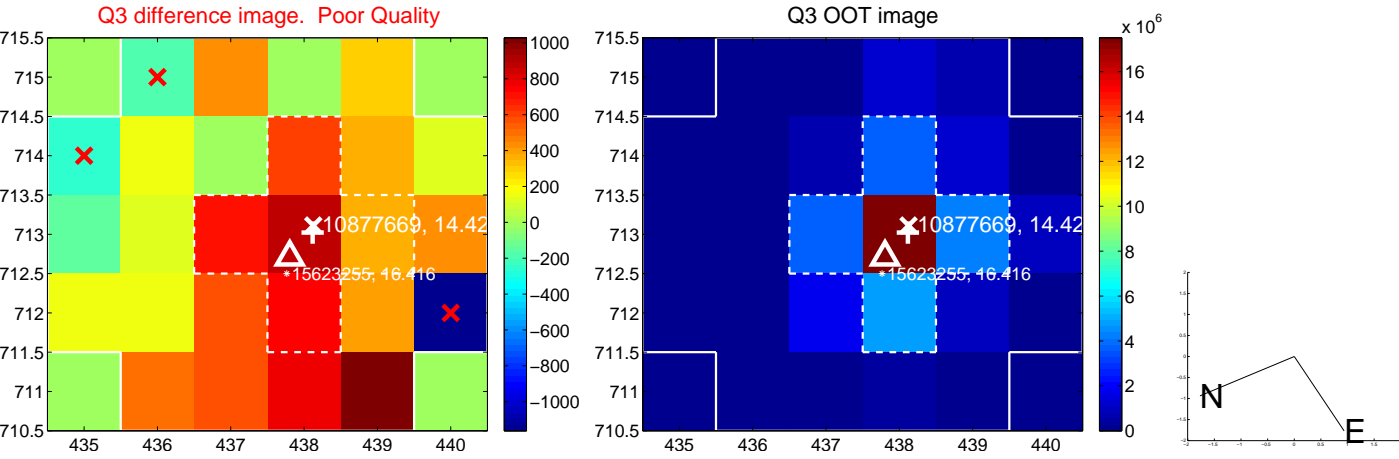
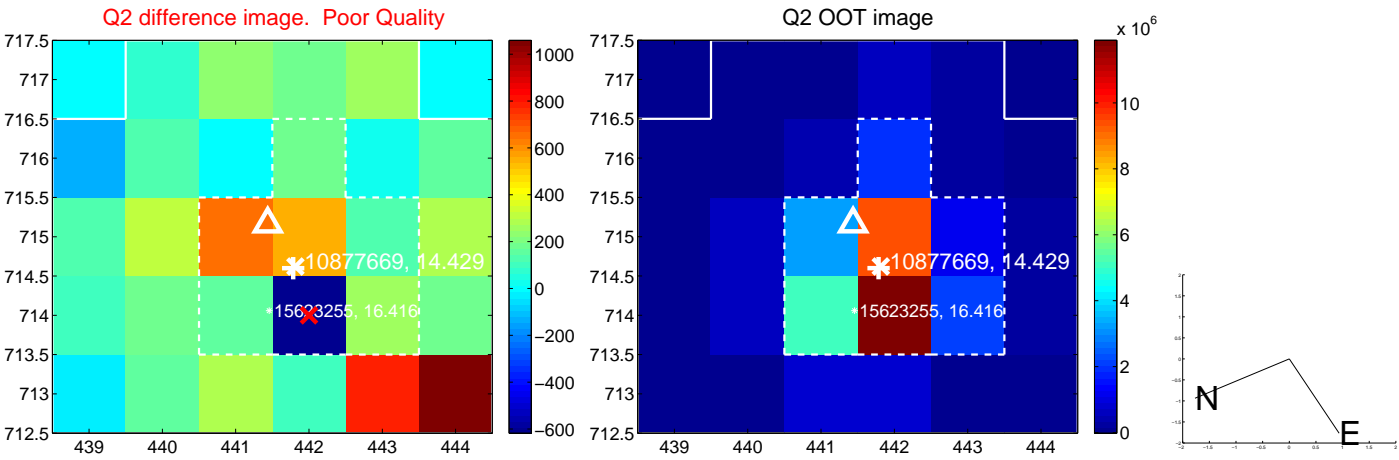
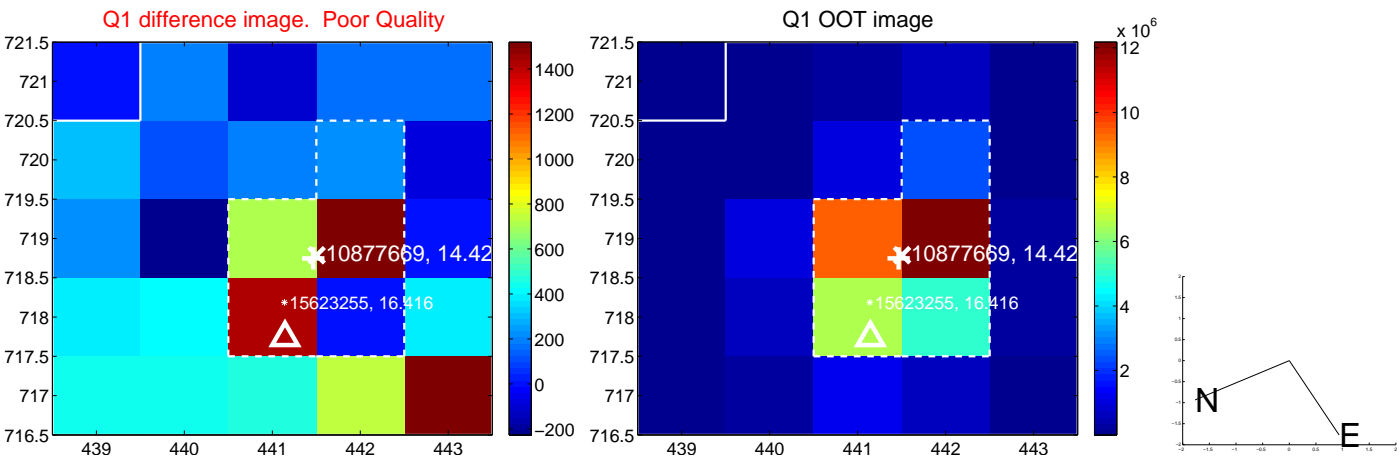


offset from photometric centroids

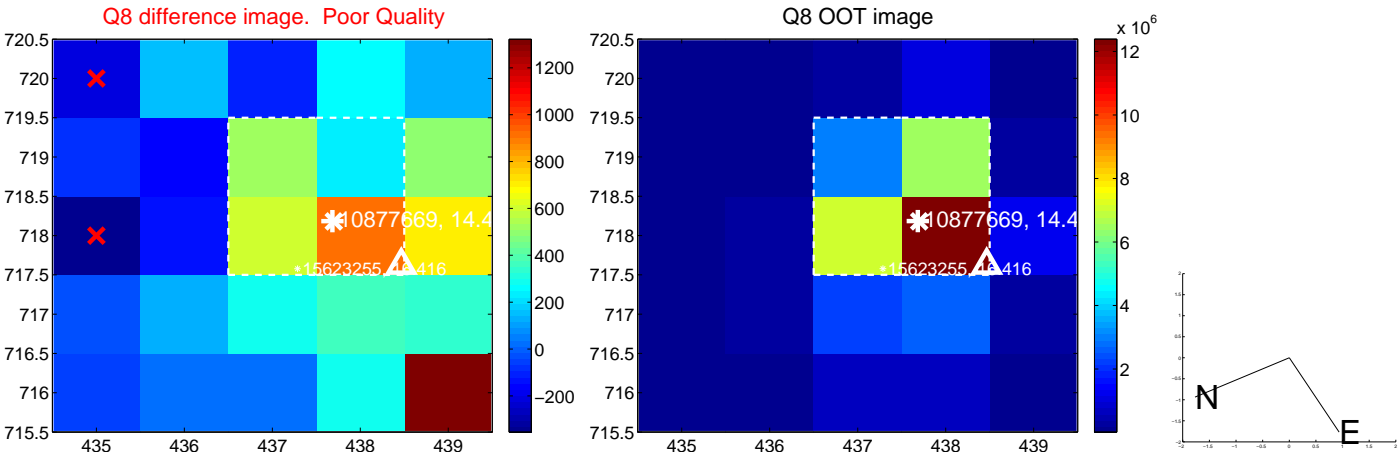
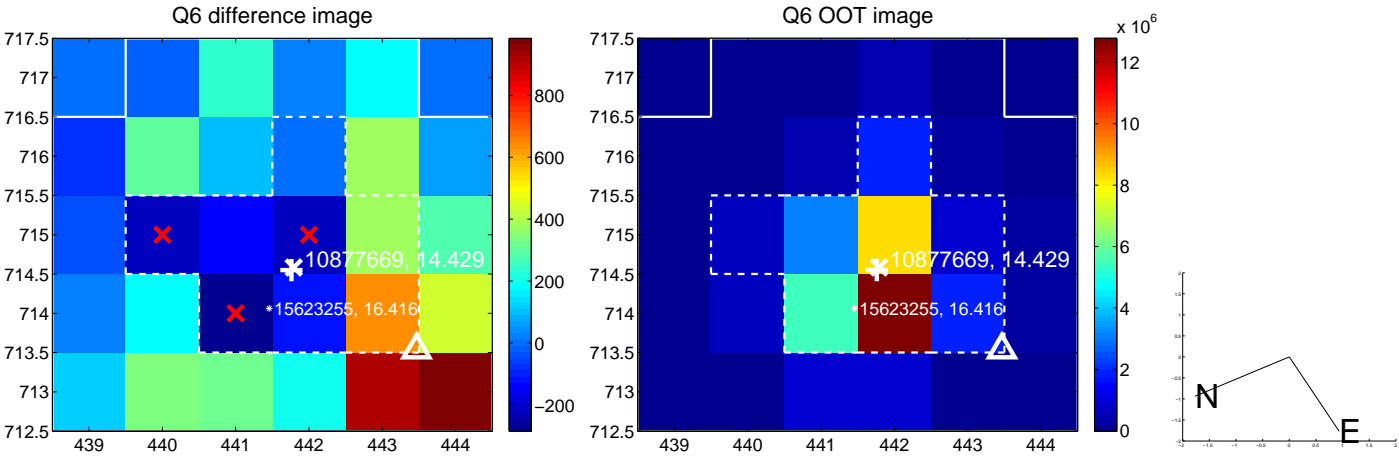
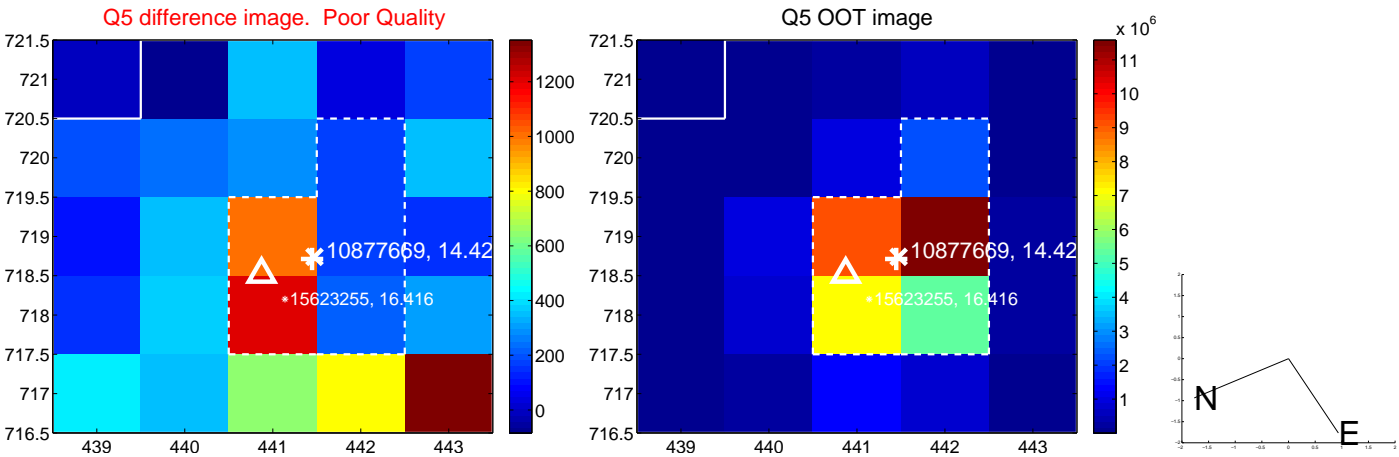


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

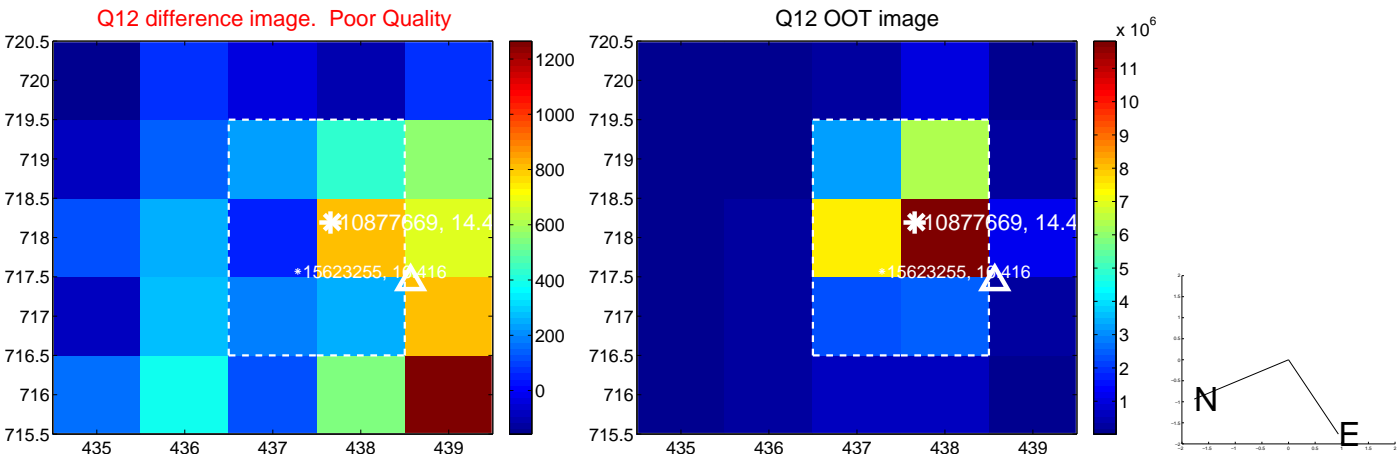
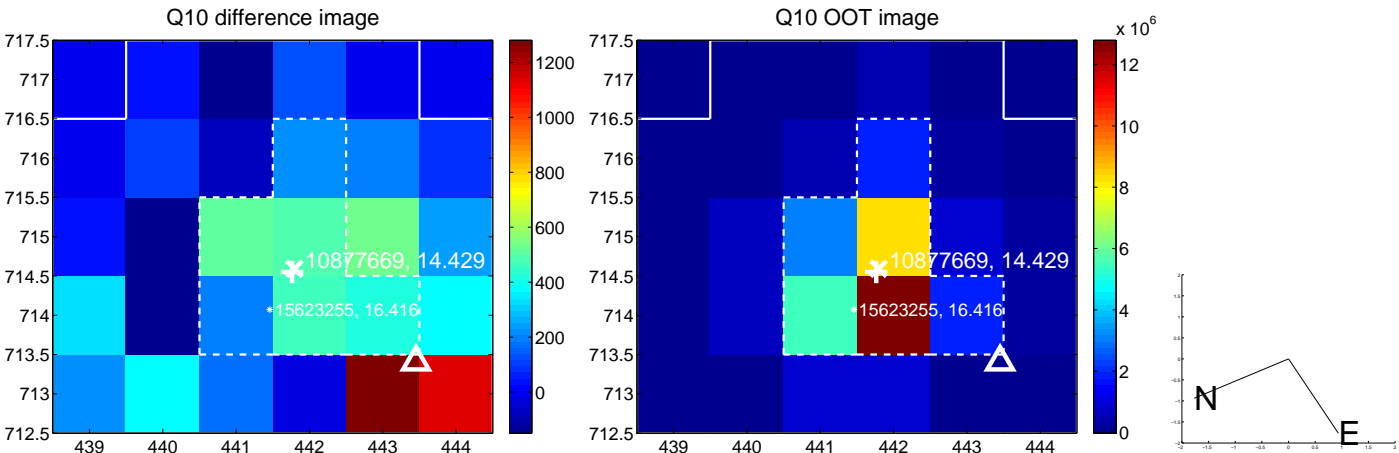
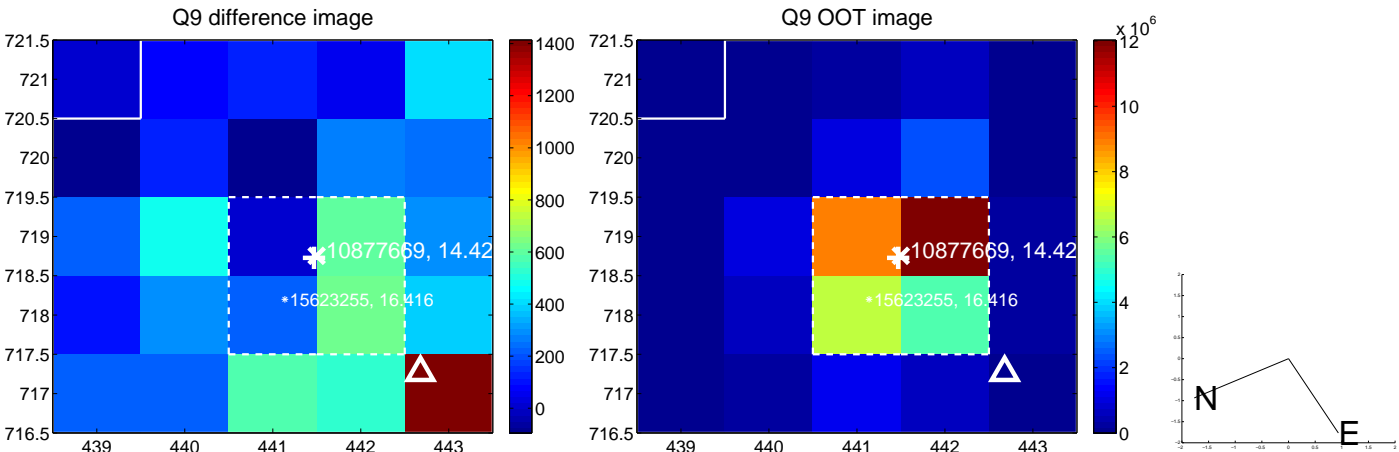
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



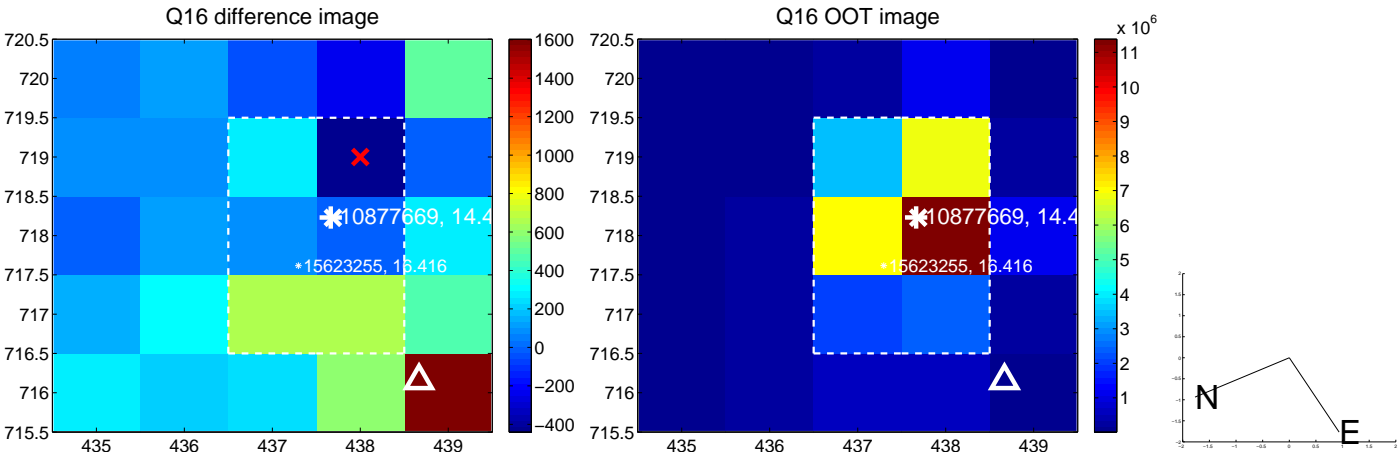
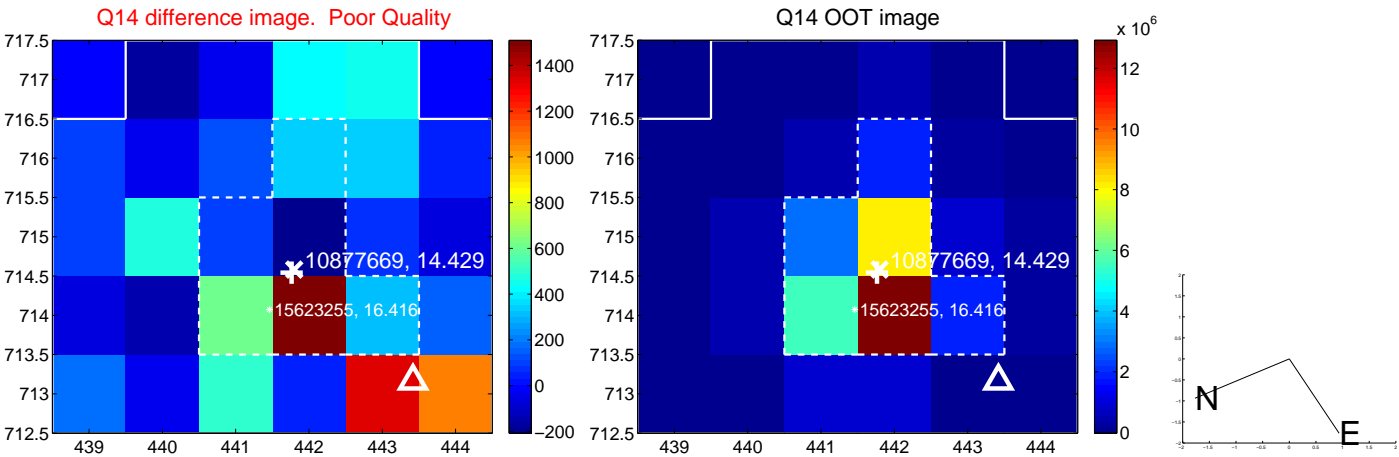
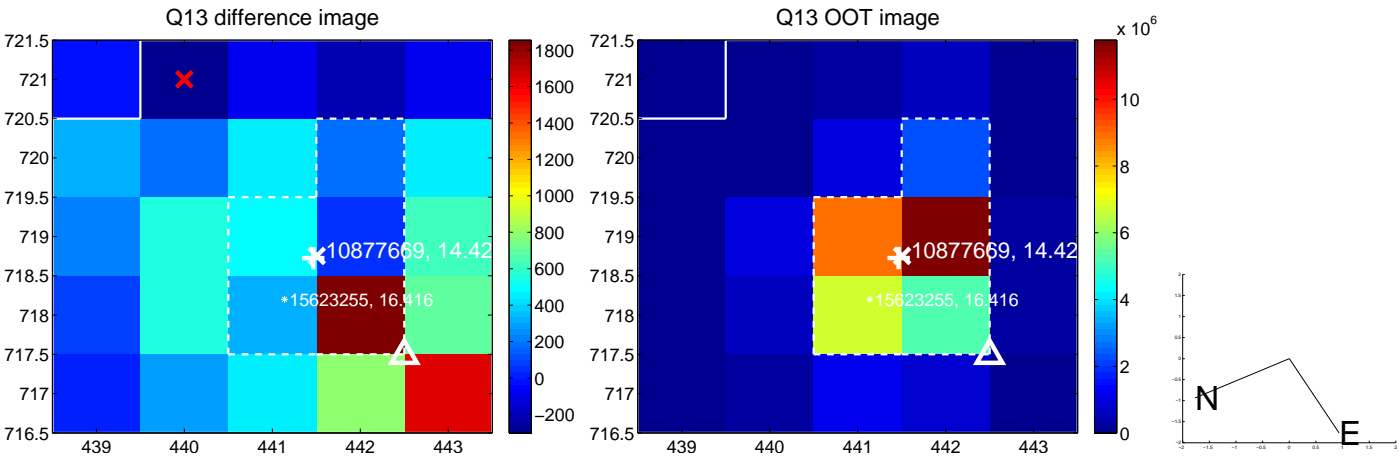
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



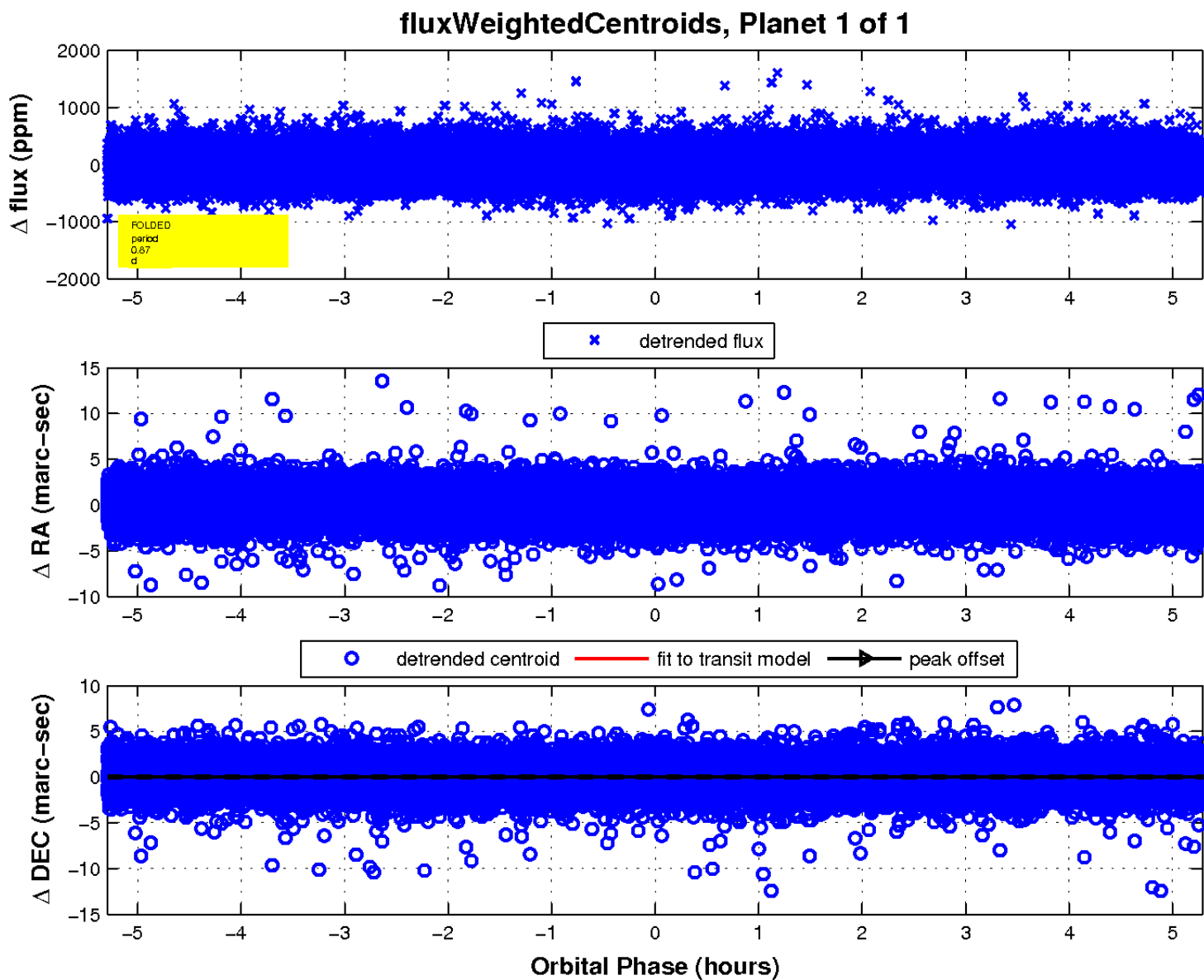
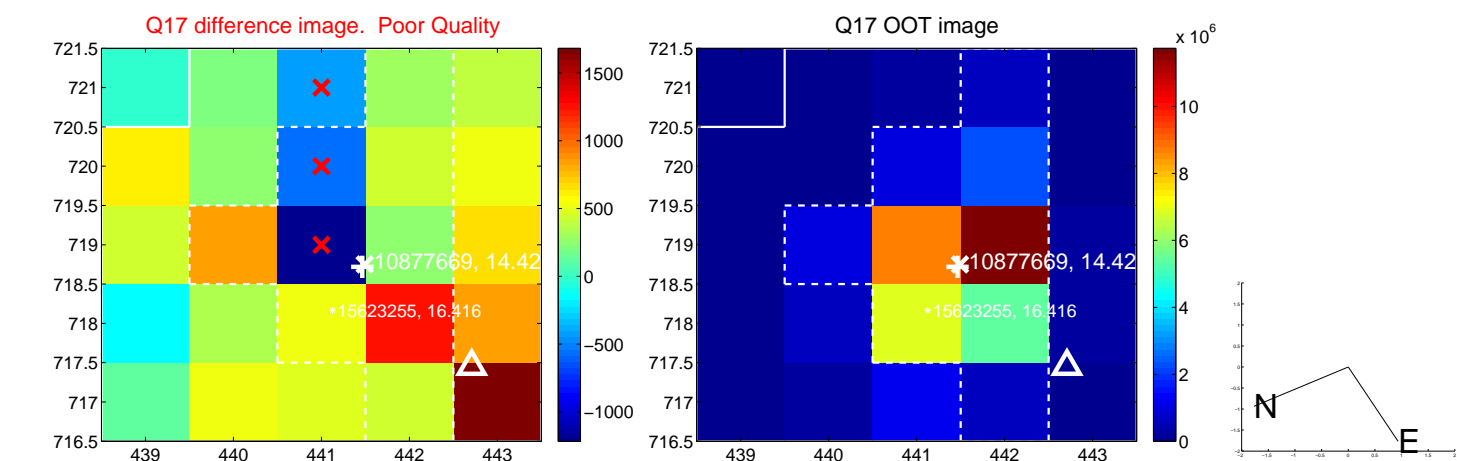
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

