

KIC 004945877

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})
004945877-01	OBS	1936.01	1.339678	132.164818	26.7	1.887	31.0	35.1	2.25	8867	1.35	33482.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945877-01	OBS	PC	1.00	0	0	0	0	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 004945877-01

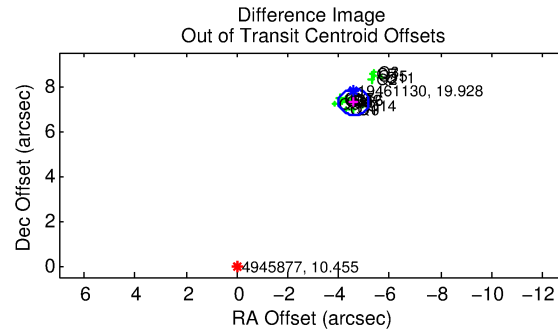
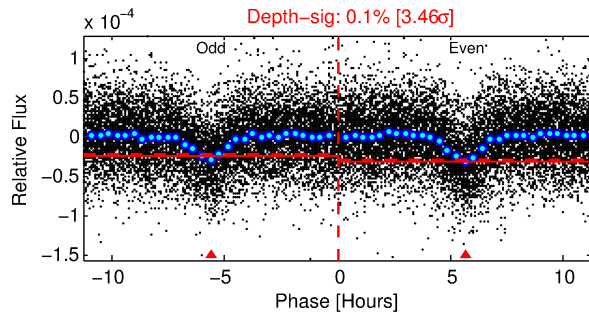
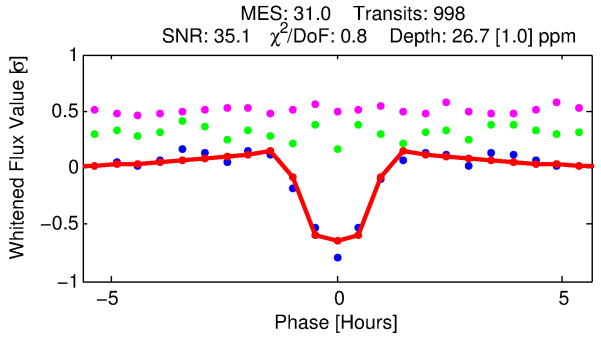
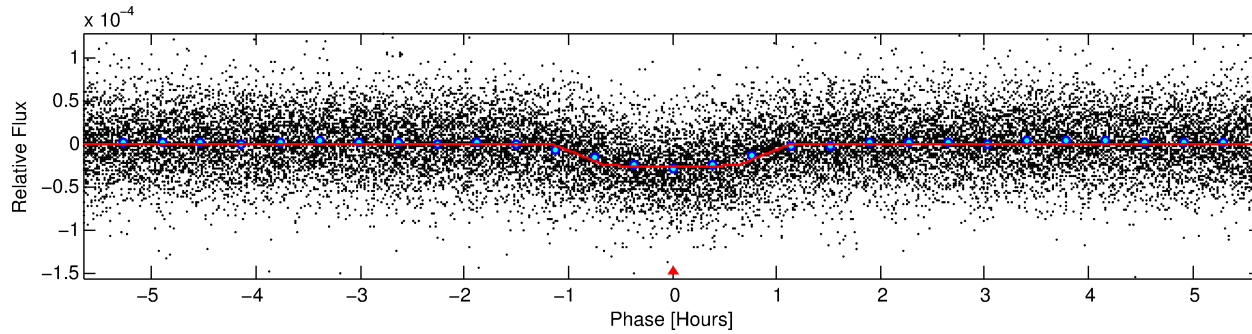
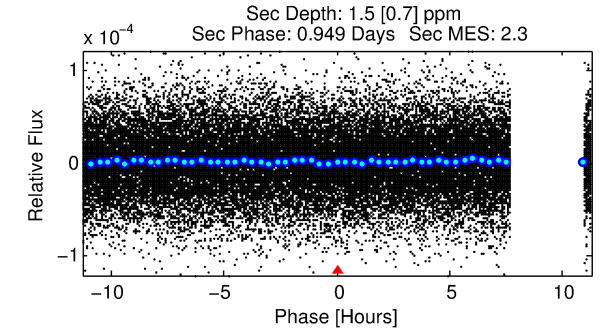
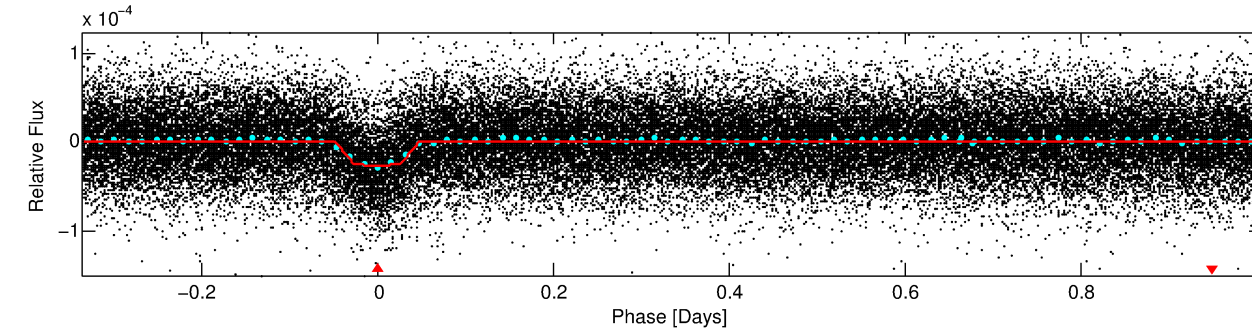
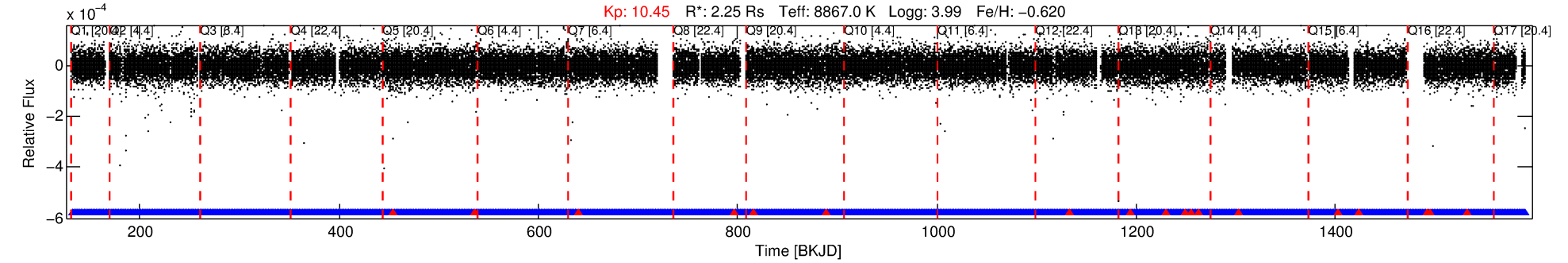
No Significant Match Found

DV One-Page Summary

KIC: 4945877 Candidate: 1 of 1 Period: 1.340 d

KOI: K01936.01 Corr: 0.973

Kp: 10.45 R*: 2.25 Rs Teff: 8867.0 K Logg: 3.99 Fe/H: -0.620



DV Fit Results:

Period = 1.33968 [0.00000] d
Epoch = 132.1648 [0.0007] BKJD
Rp/R* = 0.0055 [0.0004]
a/R* = 2.58 [1.07]
b = 0.90 [0.10]
Seff = 33482.01 [9689.13]
Teq = 3449 [250] K
Rp = 1.35 [0.31] Re
a = 0.0289 [0.0055] AU
Ag = 0.38 [0.21] [-2.89σ]
Teffp = 4192 [505] K [1.32σ]

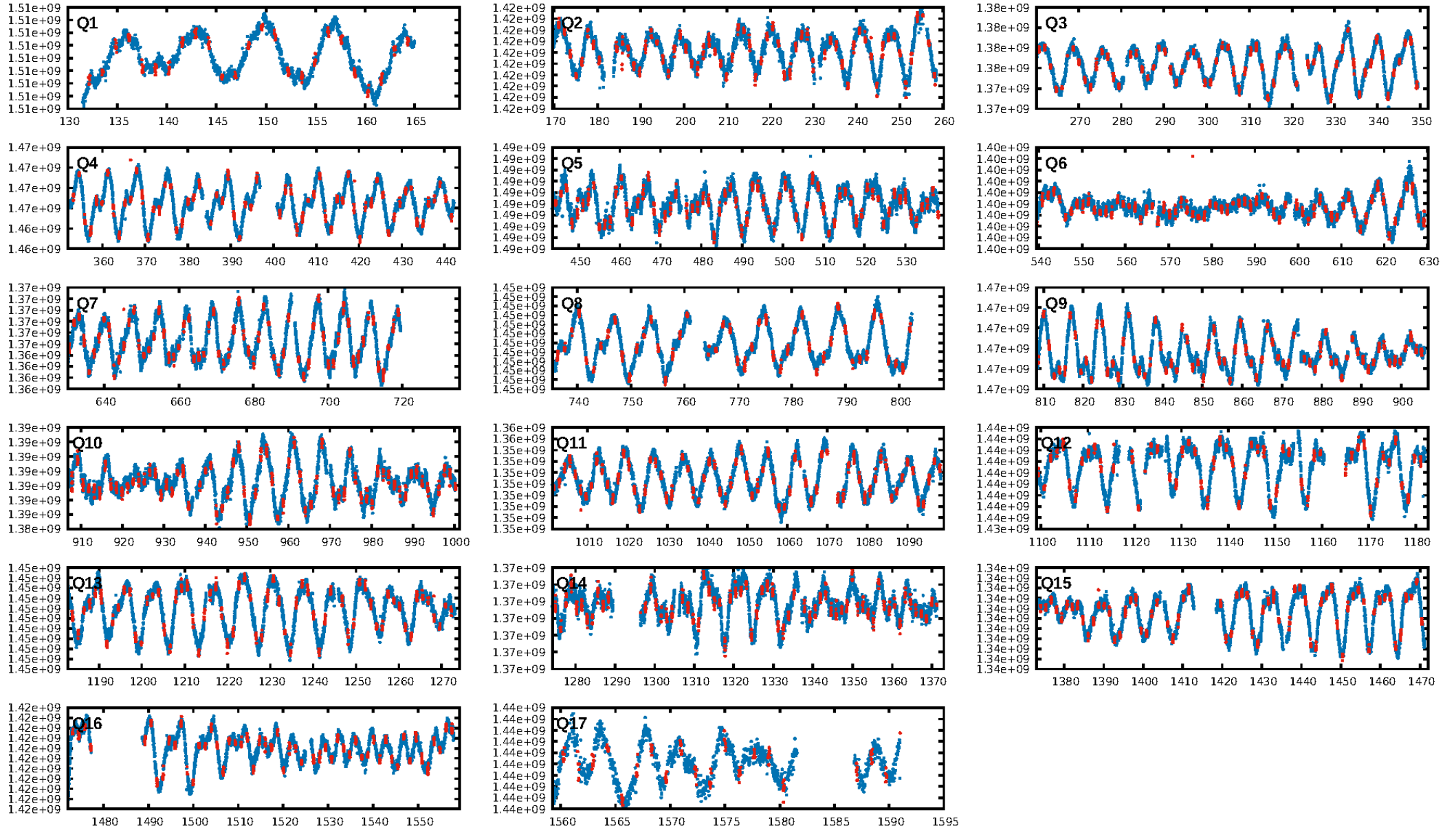
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.40e-199
RollingBand-fgt: 0.98 [936/954]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 9.656 arcsec [18.06σ]
OotOffset-rm: 8.619 arcsec [43.79σ]
KicOffset-rm: 8.805 arcsec [77.58σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.76 [13/17]
DiffImageOverlap-fno: 1.00 [17/17]

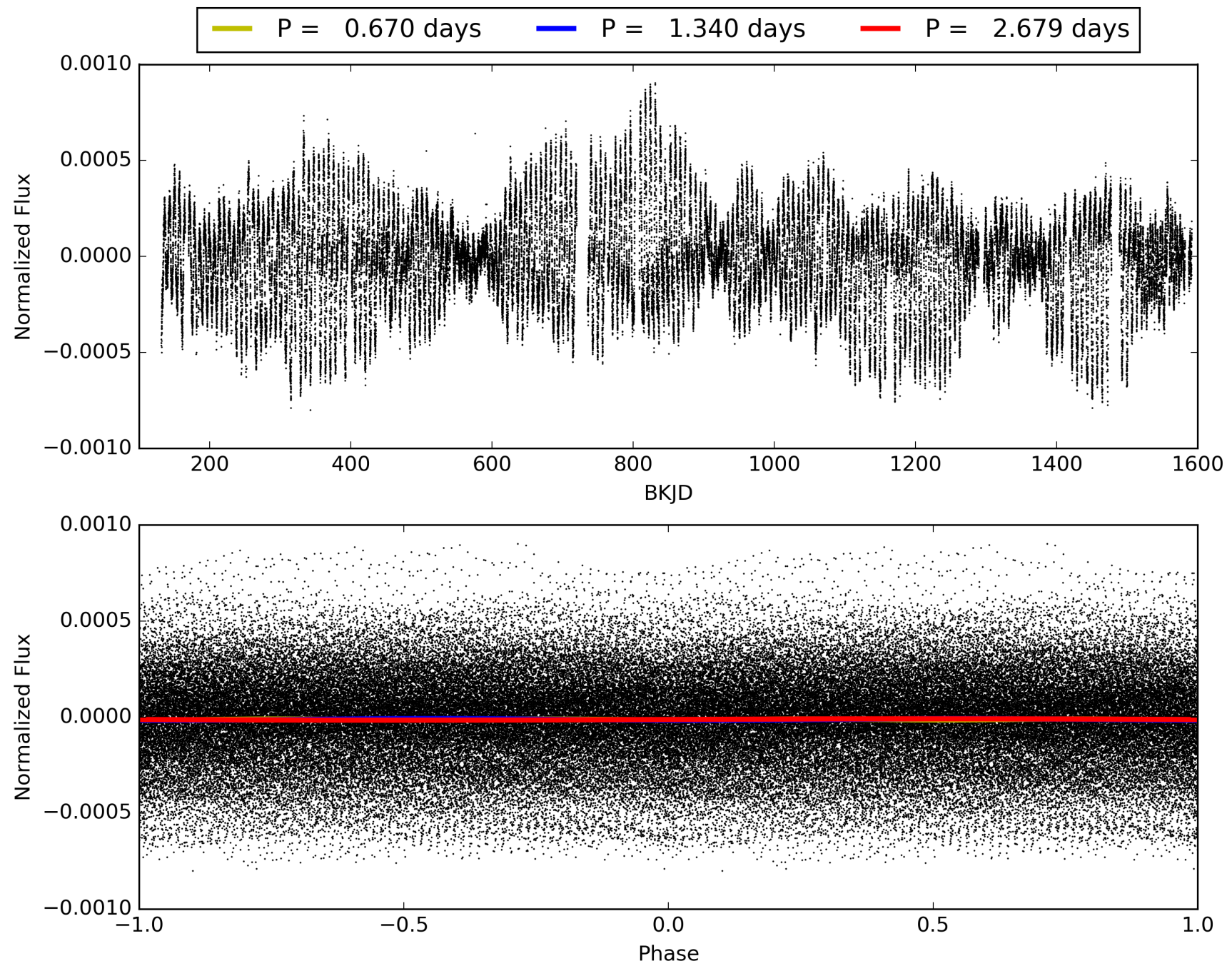
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:49:18 Z

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

TCE 004945877-01, PDC Light Curves

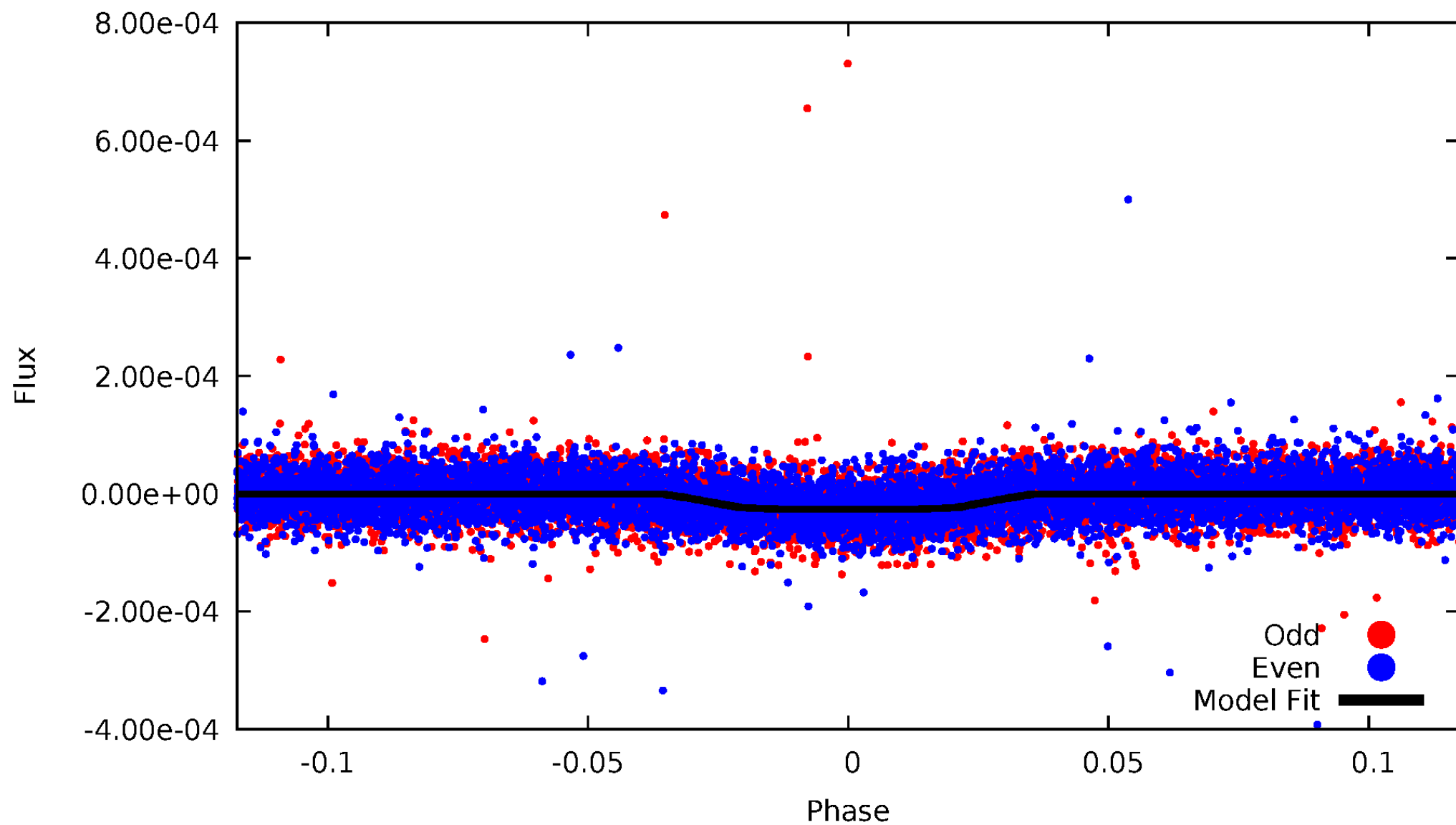


TCE 004945877-01



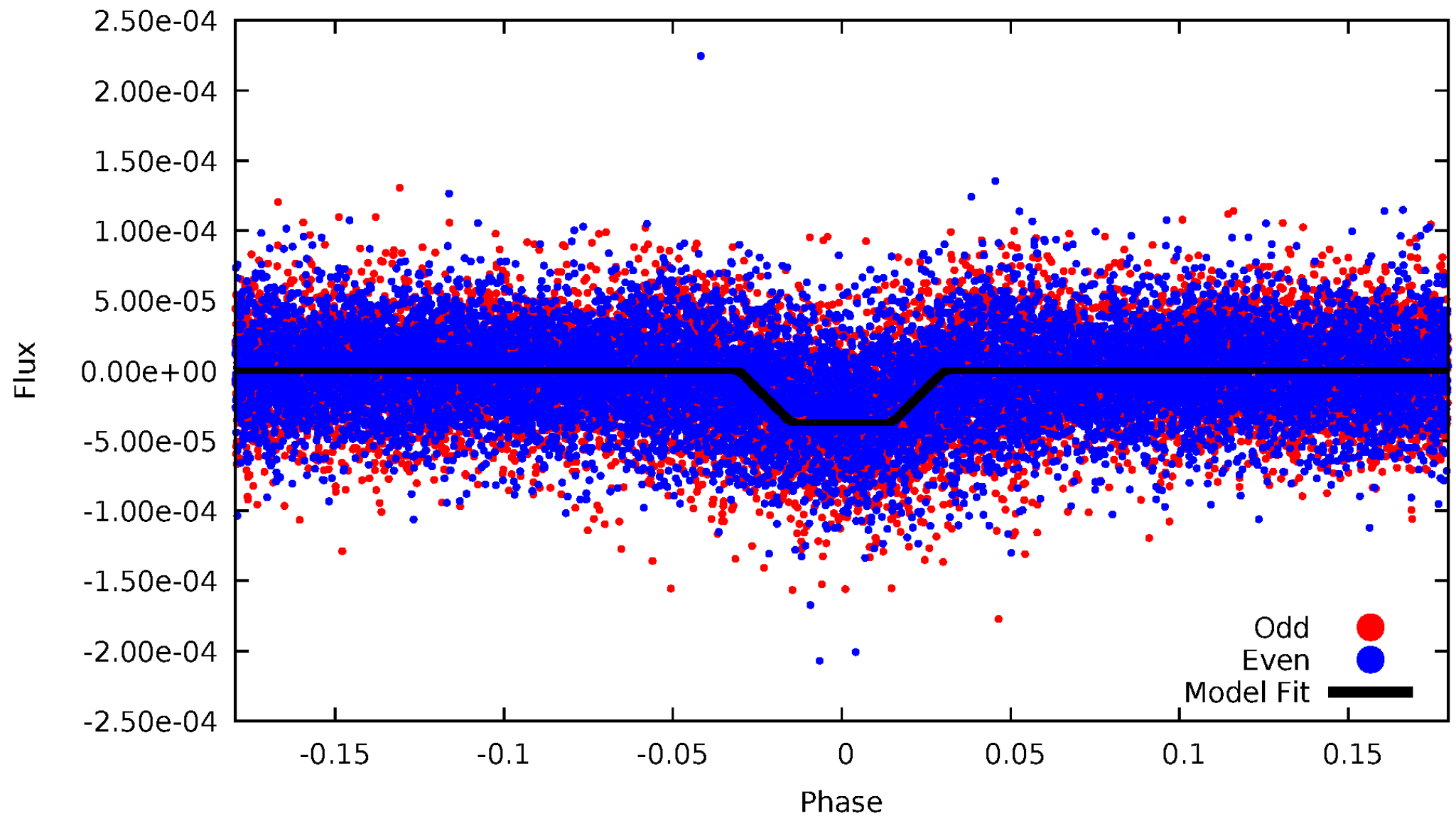
DV Odd/Even

TCE 004945877-01



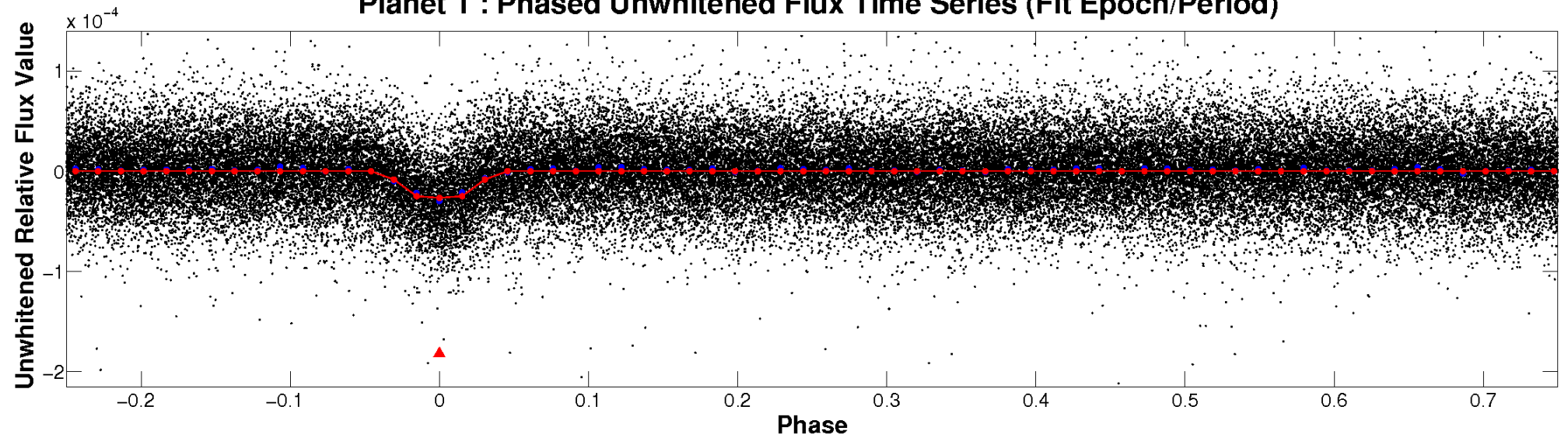
ALT Odd/Even

TCE 004945877-01

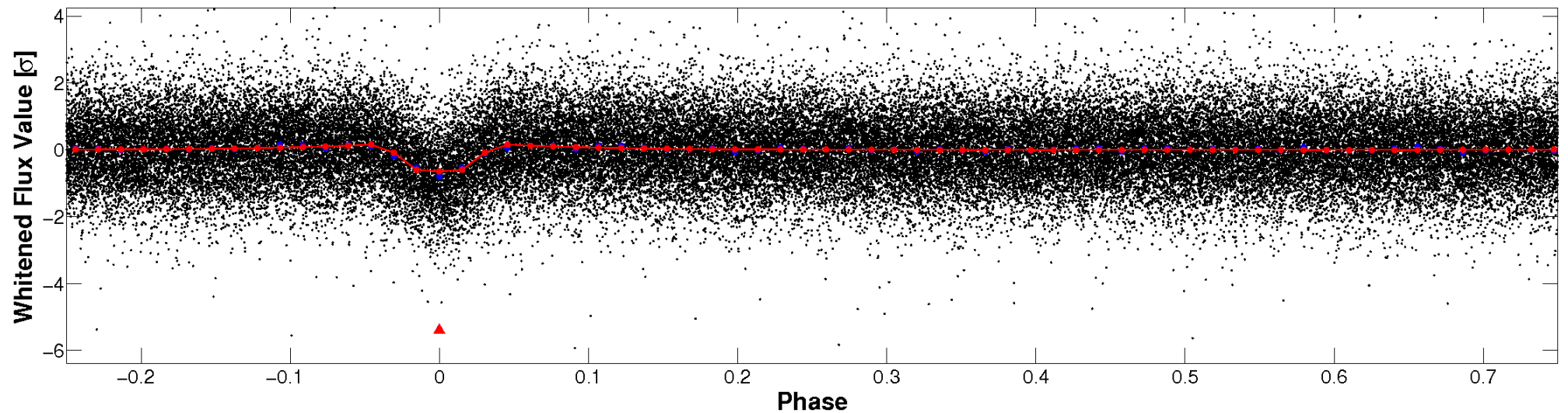


Non-Whitened Vs. Whitened Light Curve

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

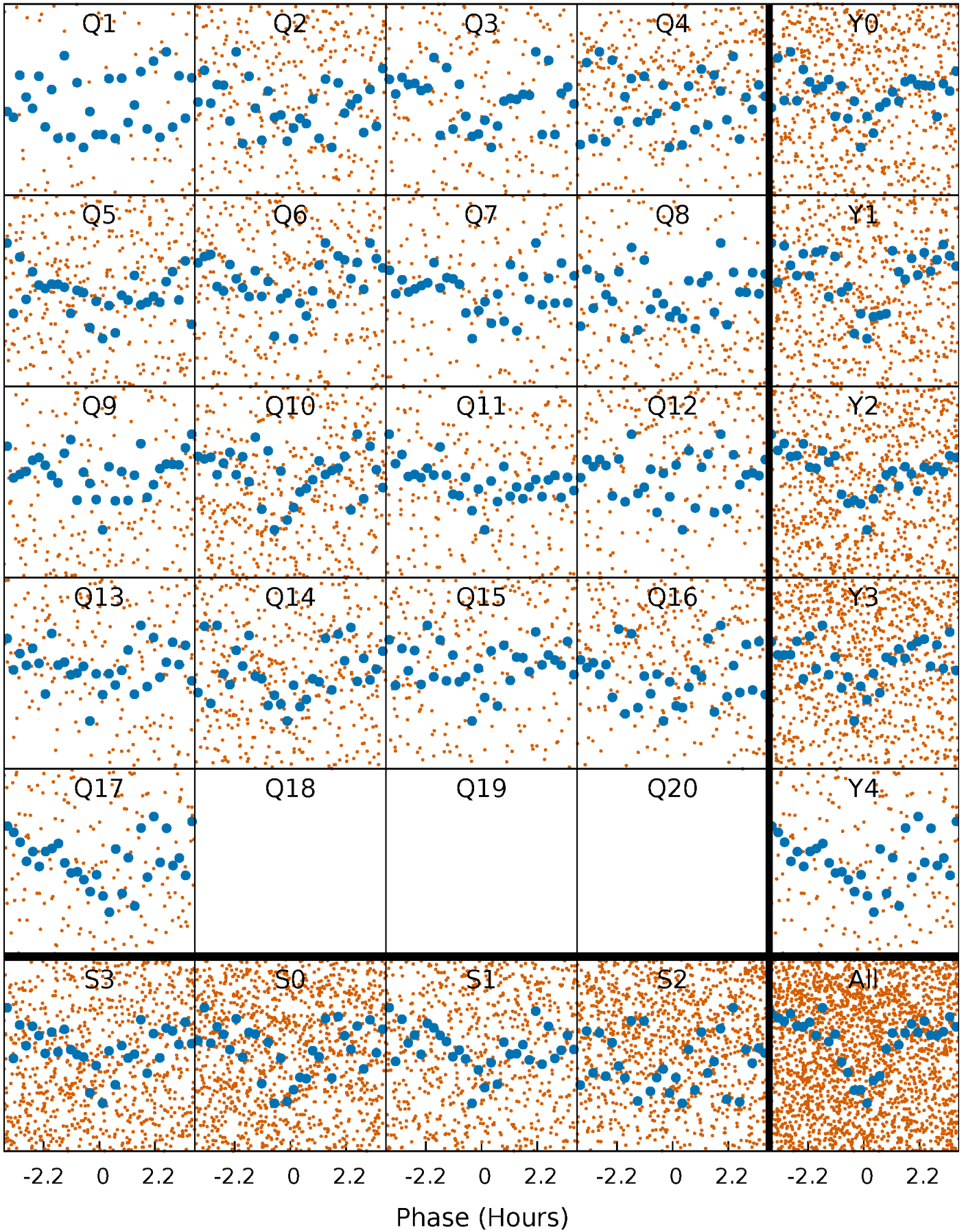


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



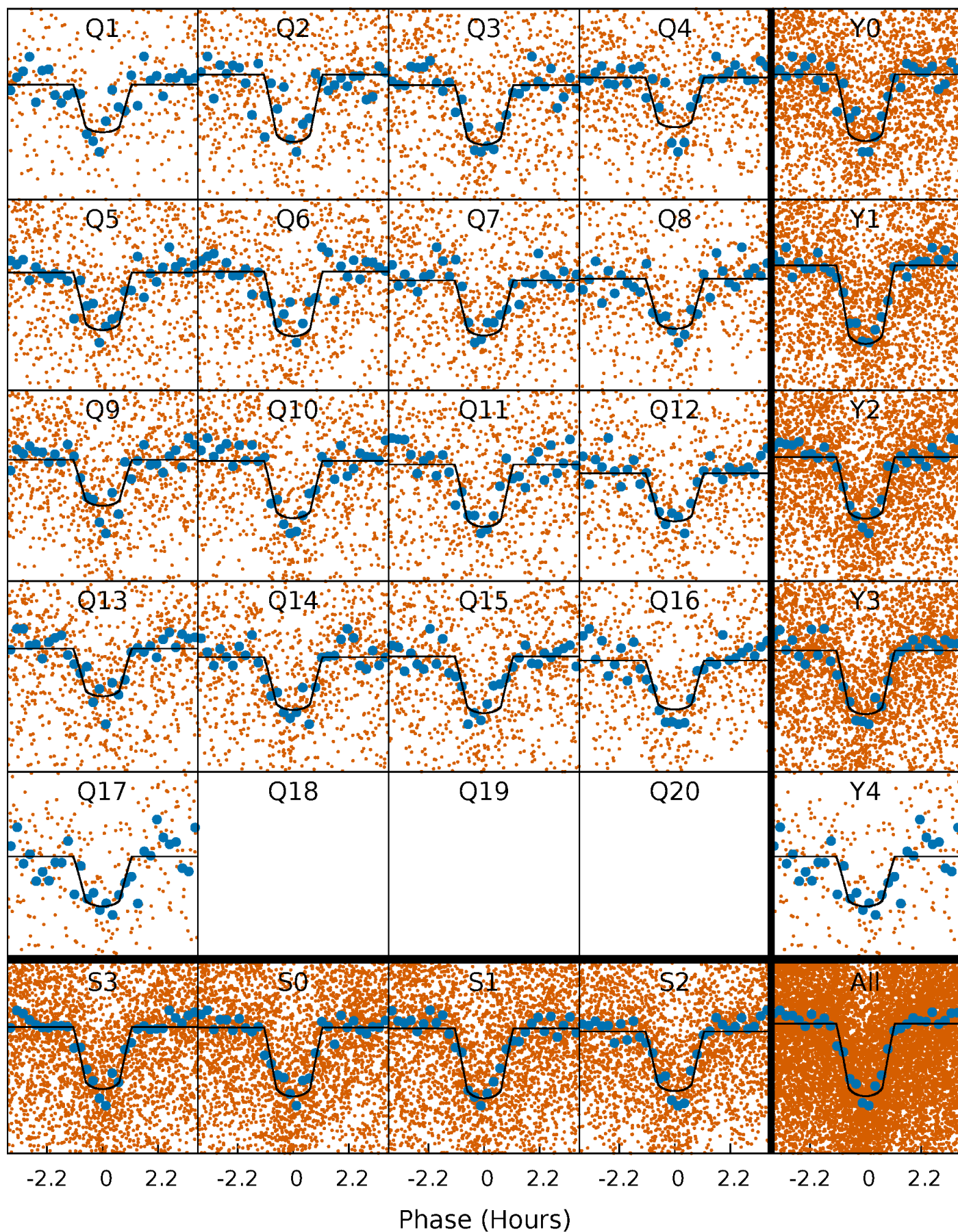
PDC Quarter-Phased Transit Curves

TCE 004945877-01 P= 1.339678 Days $T_0=132.164818$ (BKJD)



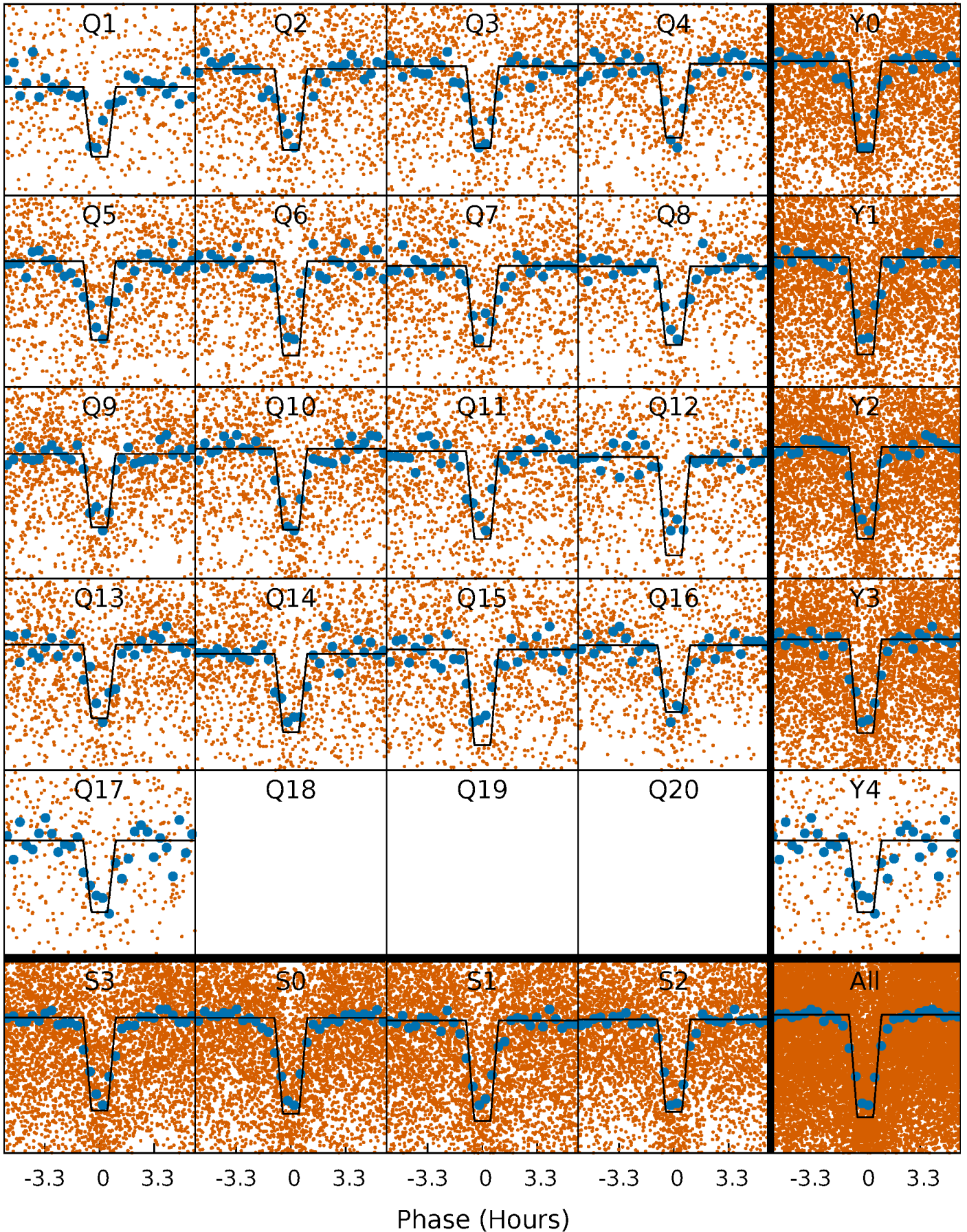
DV Quarter-Phased Transit Curves

TCE 004945877-01 P= 1.339678 Days $T_0=132.164818$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

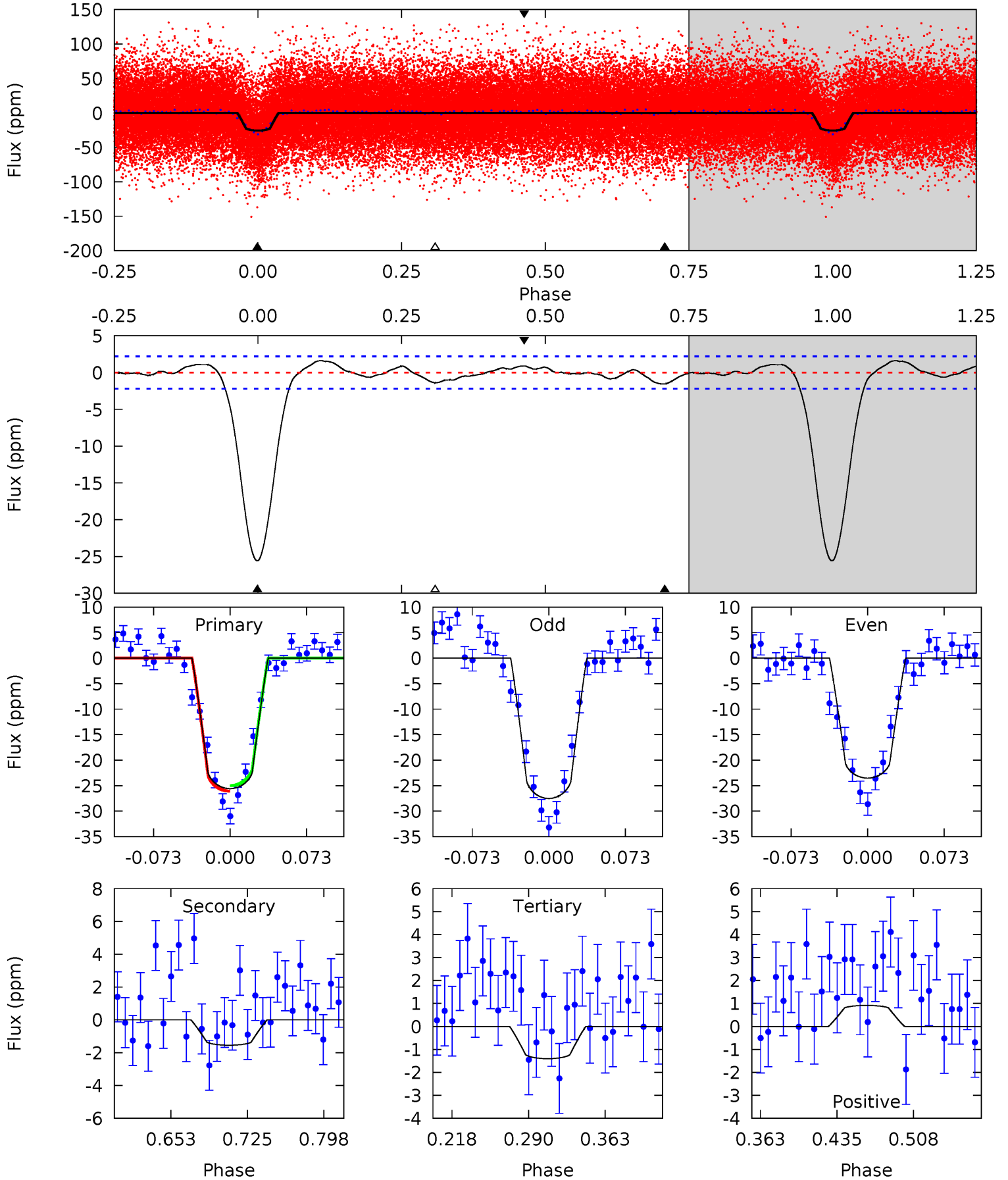
TCE 004945877-01 P= 1.339672 Days $T_0=132.166543$ (BKJD)



DV Model-Shift Uniqueness Test

004945877-01, P = 1.339678 Days, E = 130.825140 Days

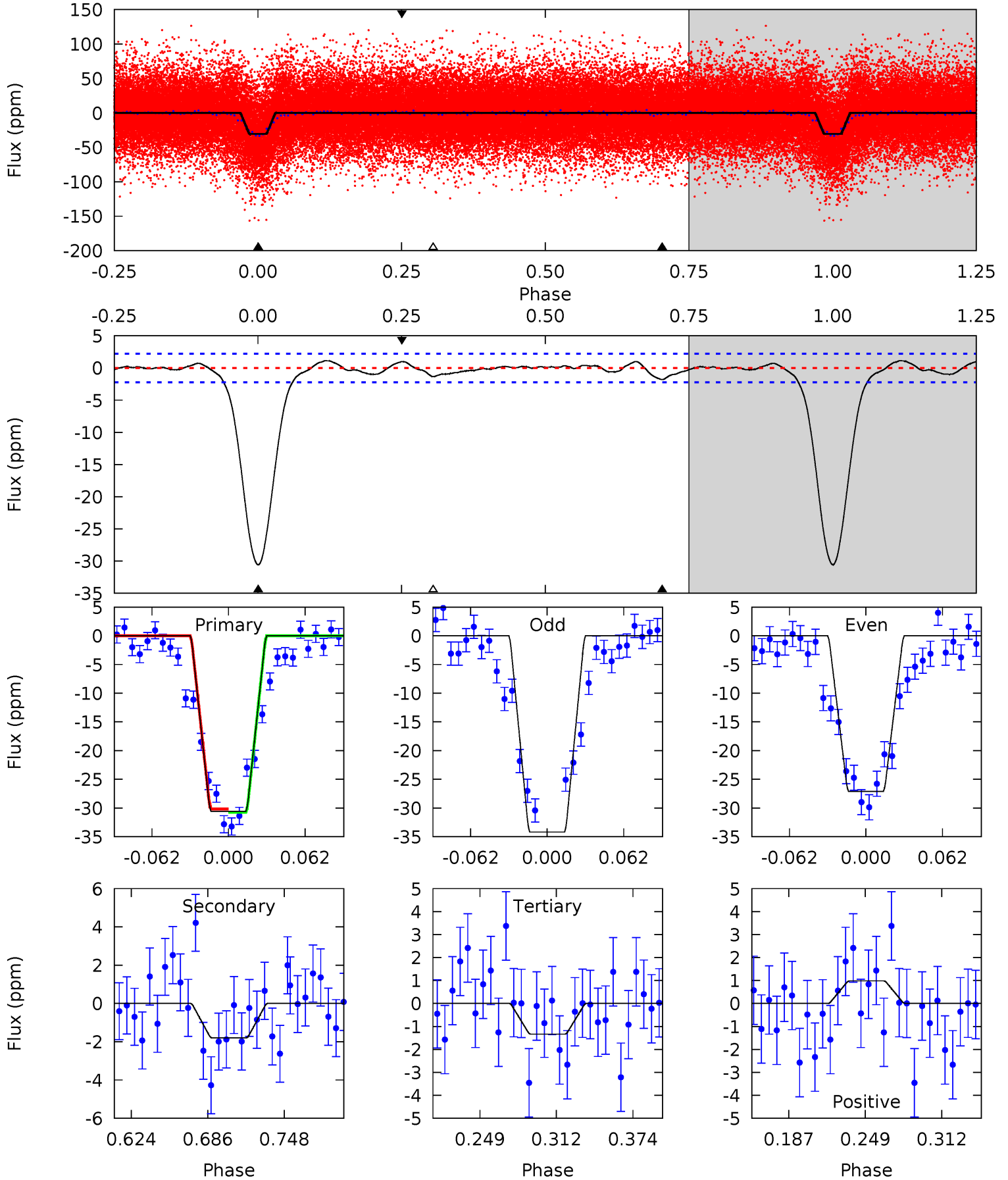
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.9	3.26	2.96	1.93	4.63	1.80	1.42	51.0	52.0	0.30	1.33	4.21	0.98	0.06	1.13



Alt Model-Shift Uniqueness Test

004945877-01, P = 1.339672 Days, E = 130.826871 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
64.2	3.77	2.80	2.06	4.66	1.86	1.14	61.4	62.1	0.97	1.71	7.46	1.00	0.04	0.59



Stellar Parameters For KIC 004945877

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8867^{+70}_{-88}	$3.988^{+0.161}_{-0.069}$	$-0.620^{+0.100}_{-0.200}$	$2.245^{+0.209}_{-0.489}$	$1.789^{+0.022}_{-0.212}$	$0.223^{+0.186}_{-0.051}$
	+1%/-1%	+4%/-2%	+16%/-32%	+9%/-22%	+1%/-12%	+84%/-23%
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 004945877-01 / KOI 1936.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 0	$1.31^{+0.14}_{-0.16}$	4797^{+149}_{-232}	3422^{+520}_{-6255}	$0.411^{+0.183}_{-0.140}$
Alt.	-2 ± 0	$1.45^{+0.13}_{-0.18}$	4797^{+155}_{-256}	3317^{+488}_{-6110}	$0.392^{+0.158}_{-0.118}$

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 $A_{obs} \gg 1.0$

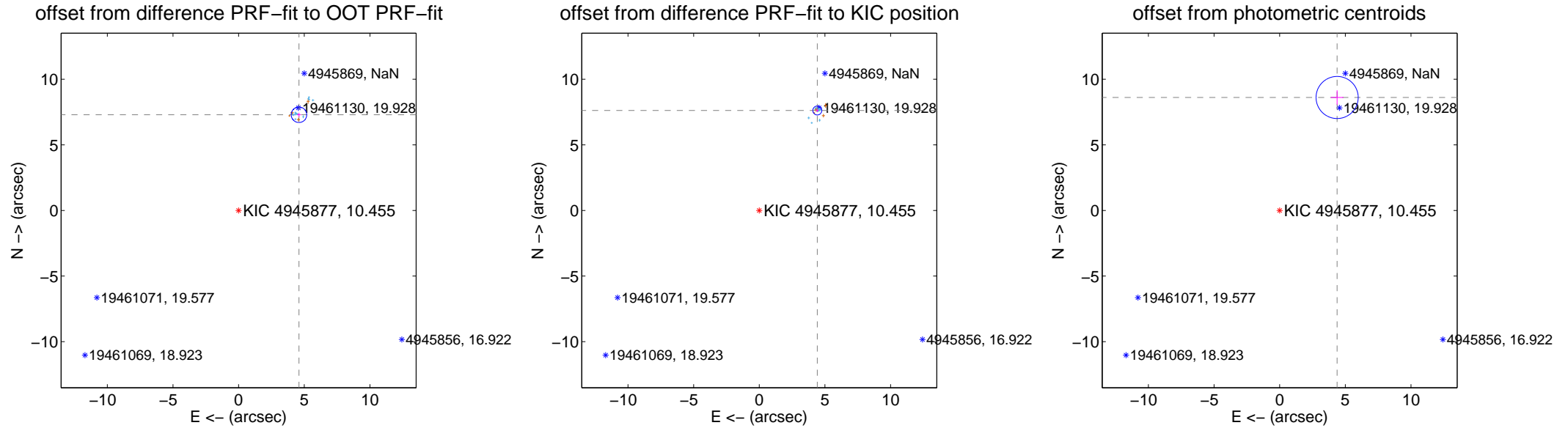
DV Centroid Data

Supplemental centroid analysis for 004945877-01. **Kepler magnitude: 10.46.** Transit SNR 35.12

There are 13 quarters with good PRF difference image offsets

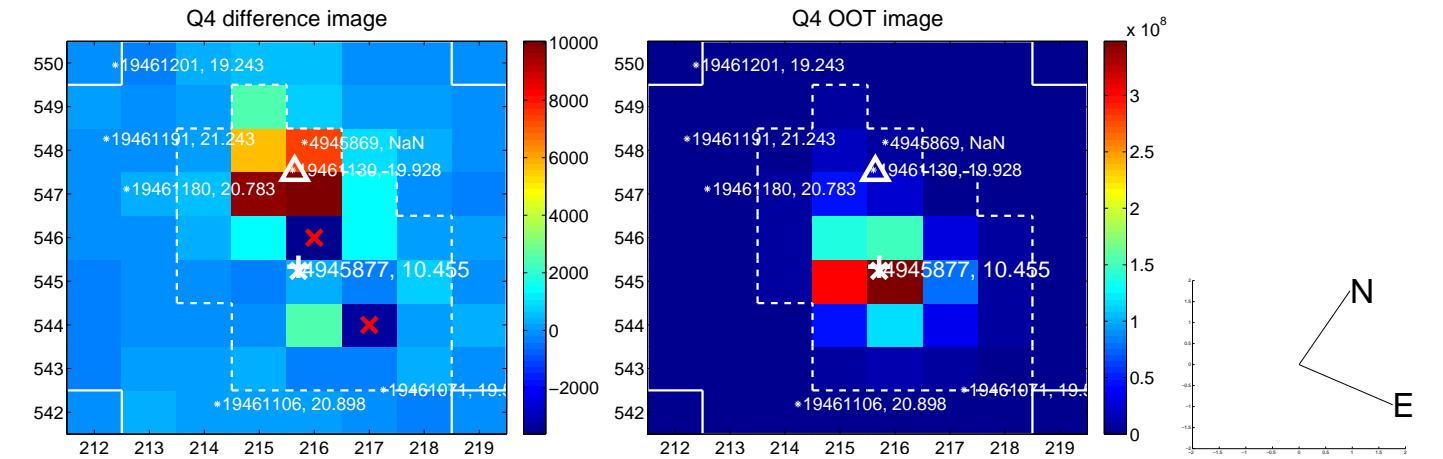
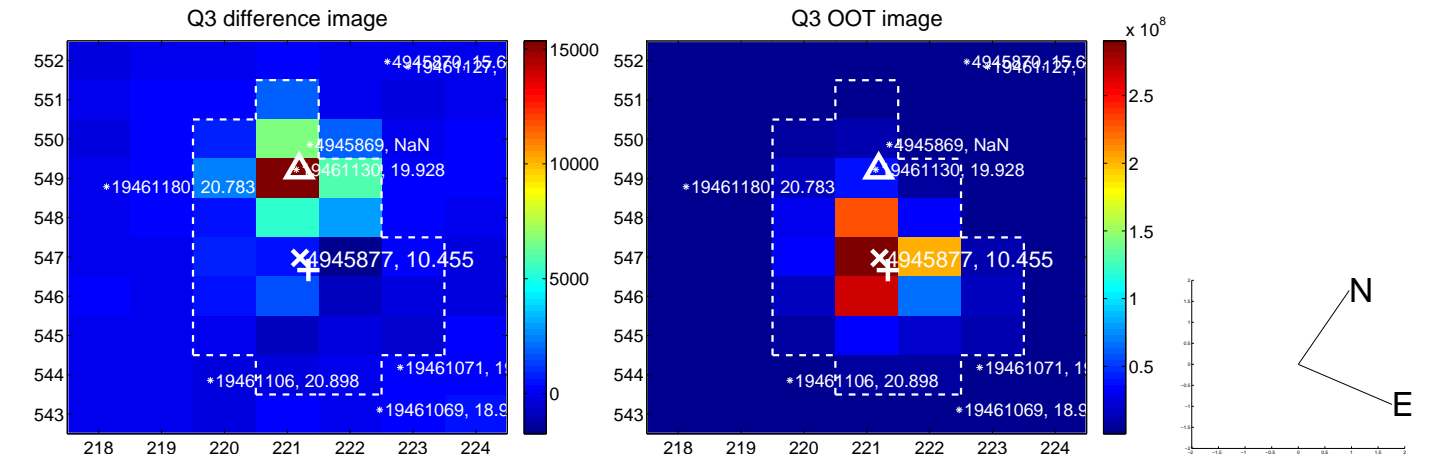
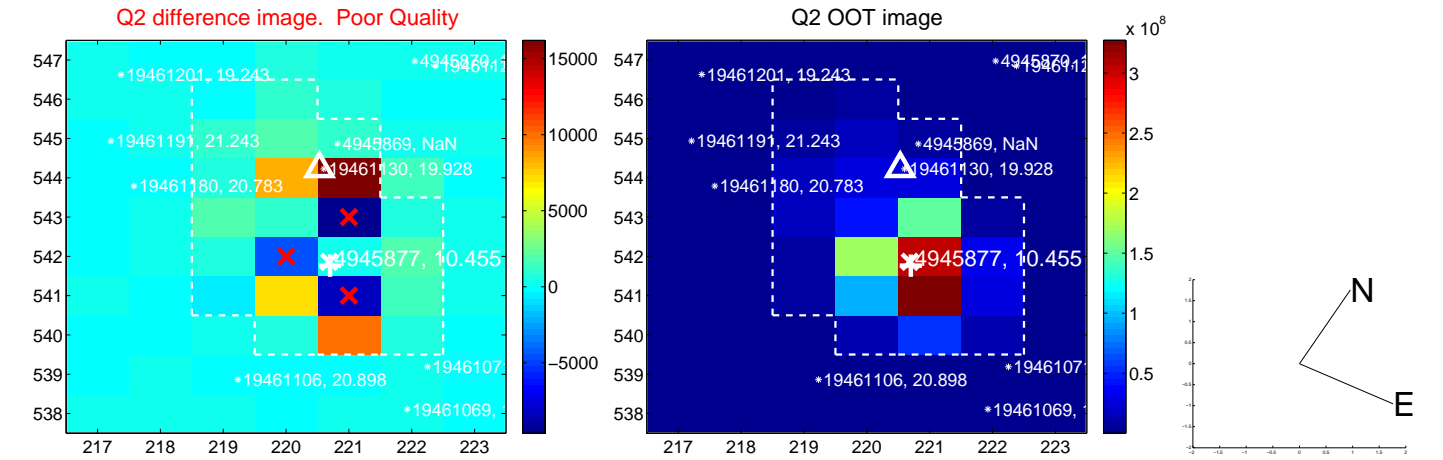
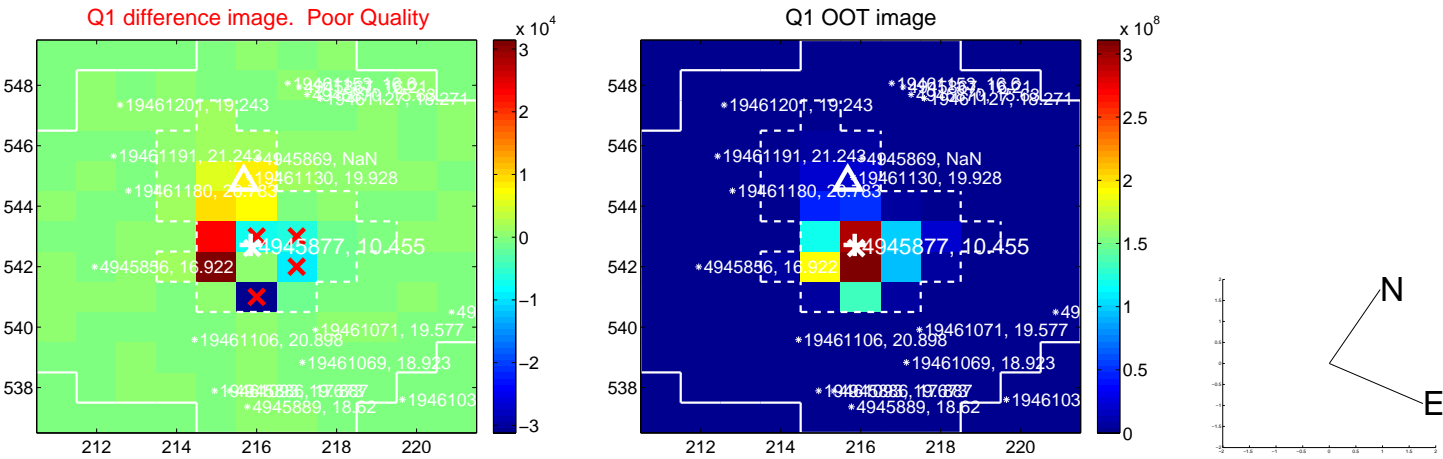
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.619 \pm 0.197	43.79	-4.594 \pm 0.151	7.292 \pm 0.157
PRF-fit source offset from KIC position	8.805 \pm 0.113	77.58	-4.416 \pm 0.098	7.617 \pm 0.104
photometric centroid source offset	9.66 \pm 0.53	18.06	-4.37 \pm 0.48	8.61 \pm 0.55

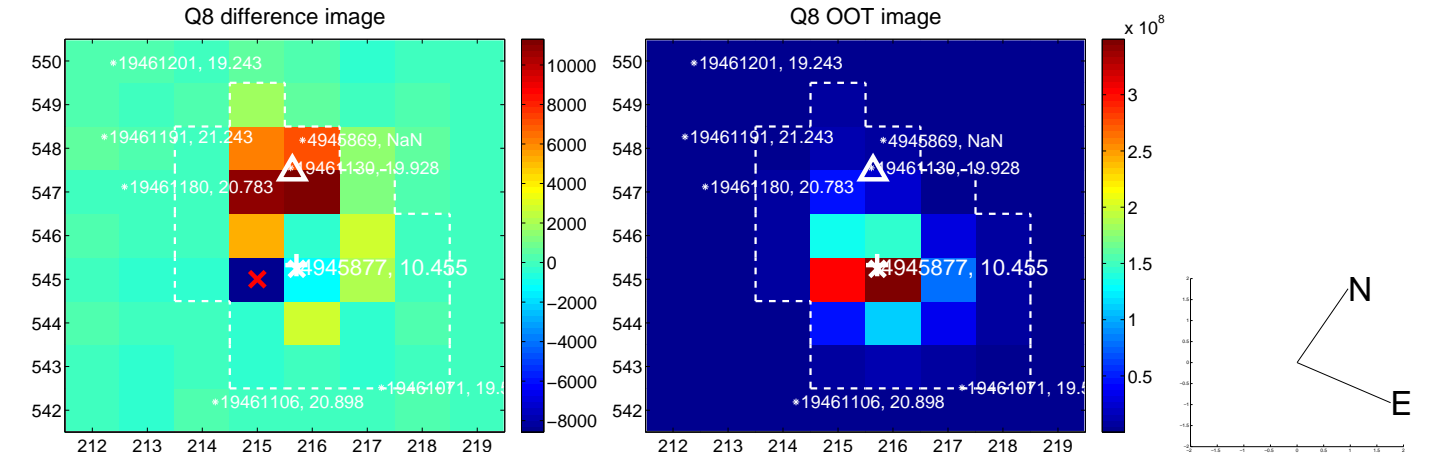
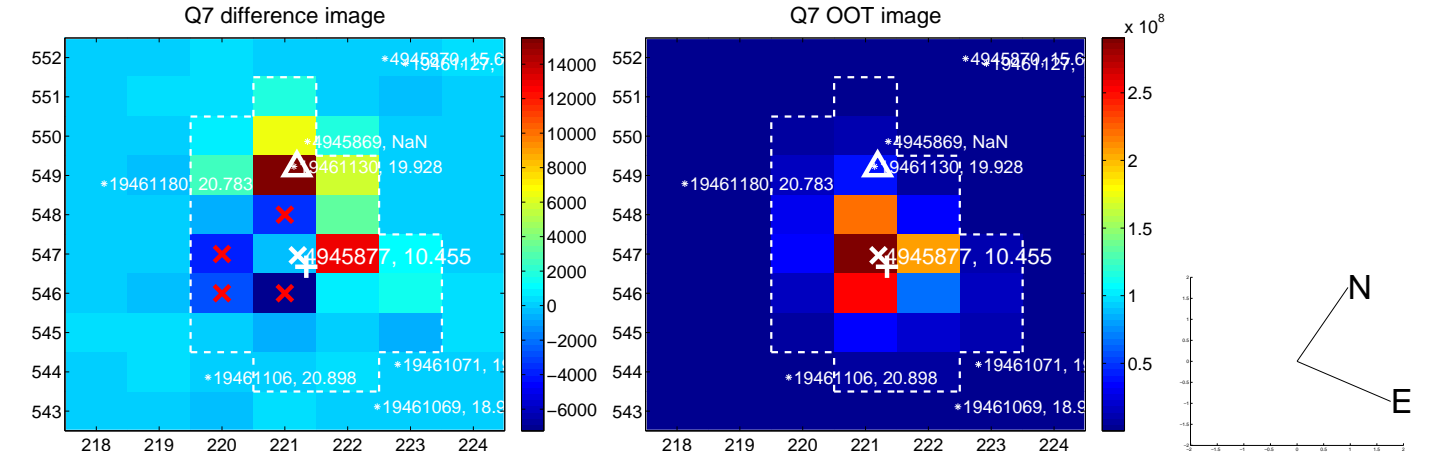
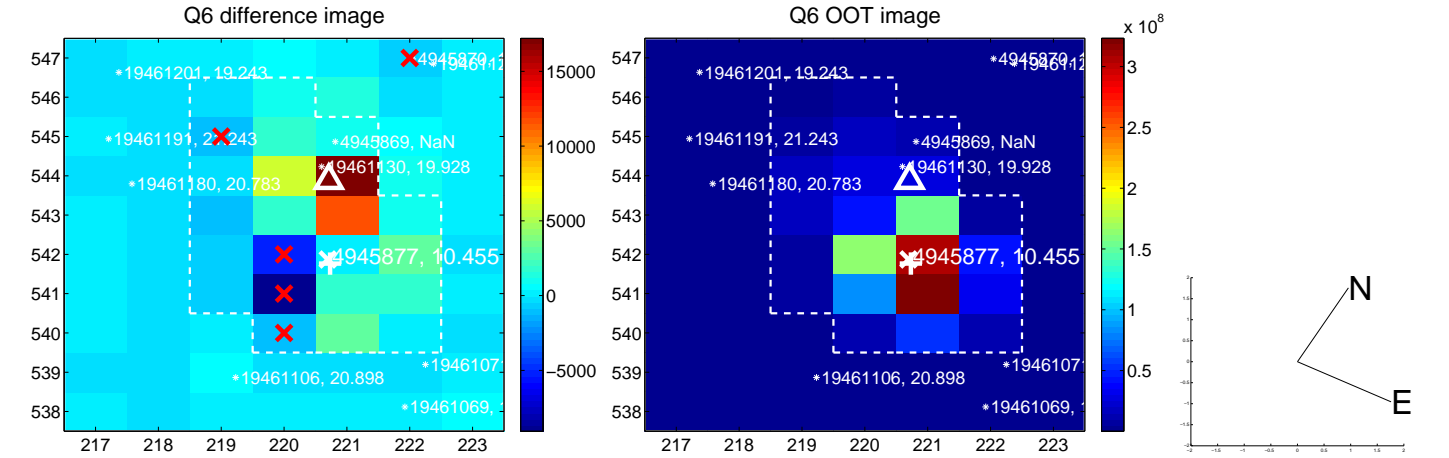
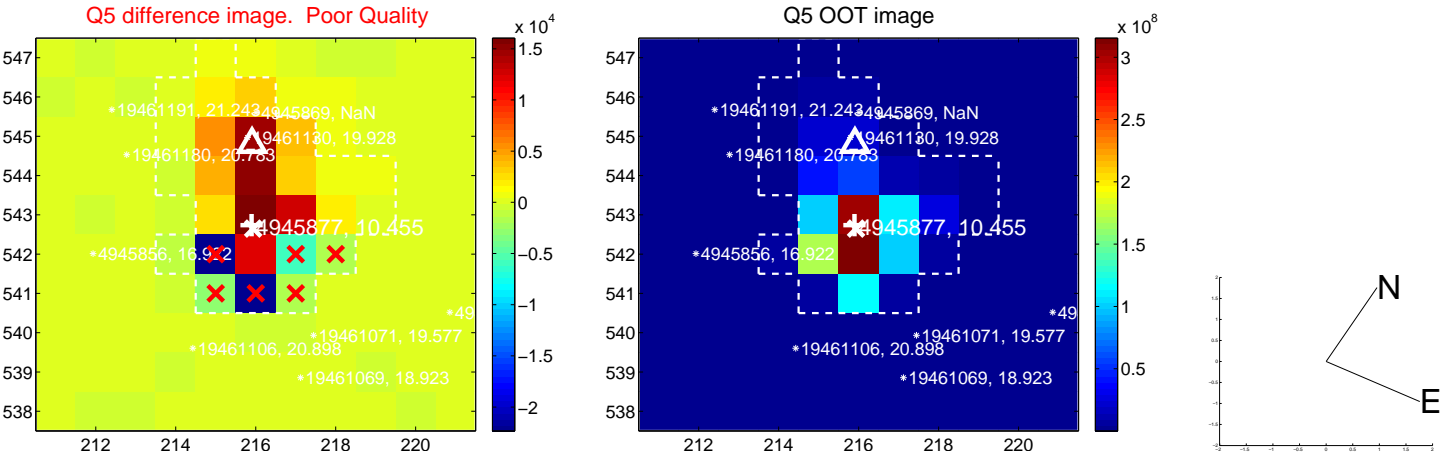


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

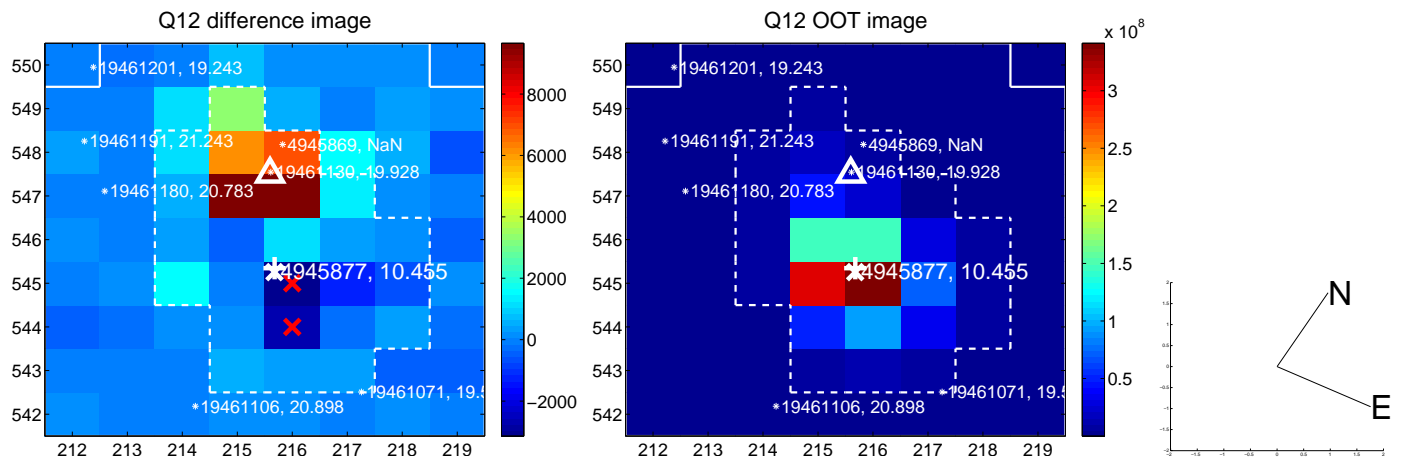
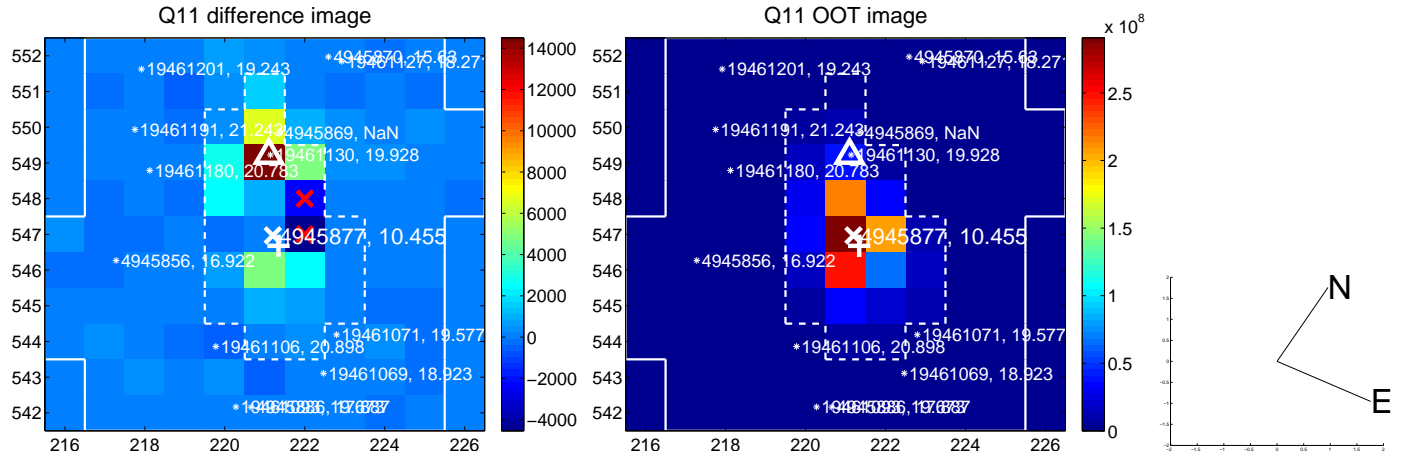
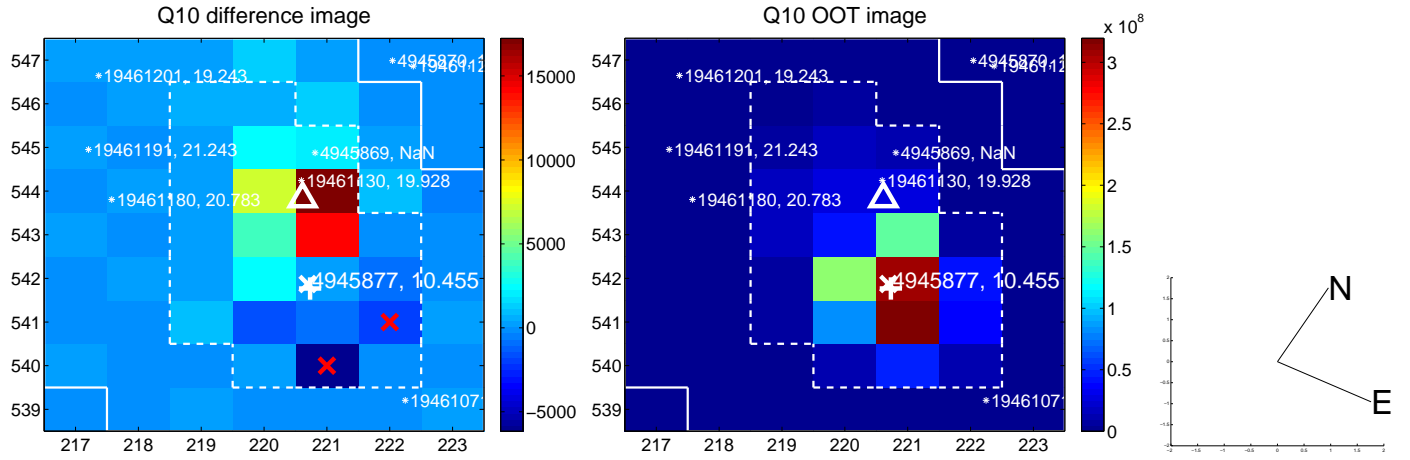
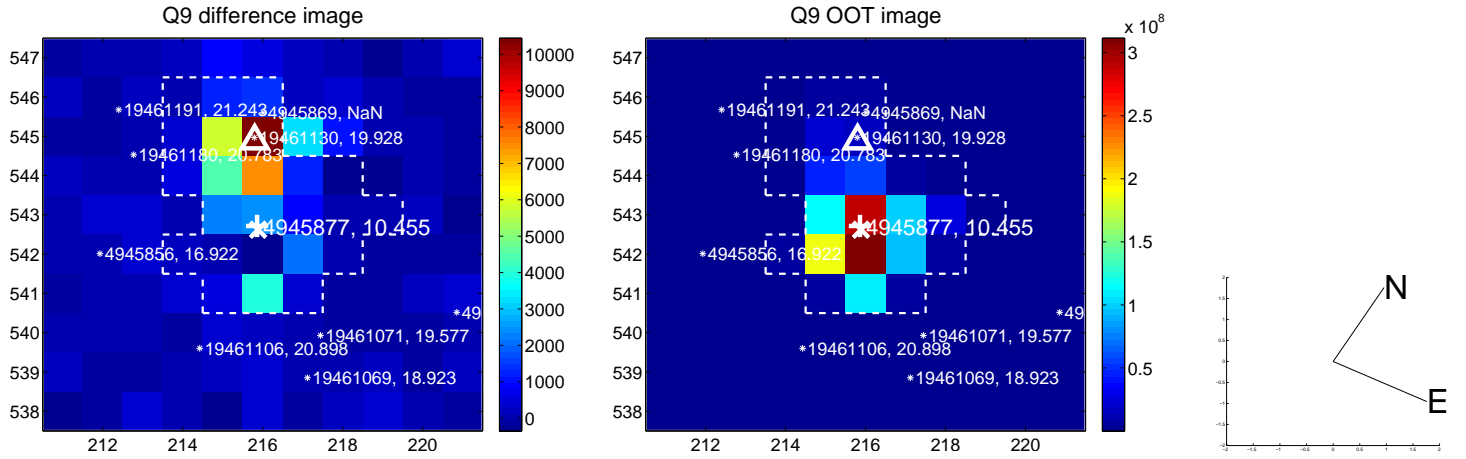
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



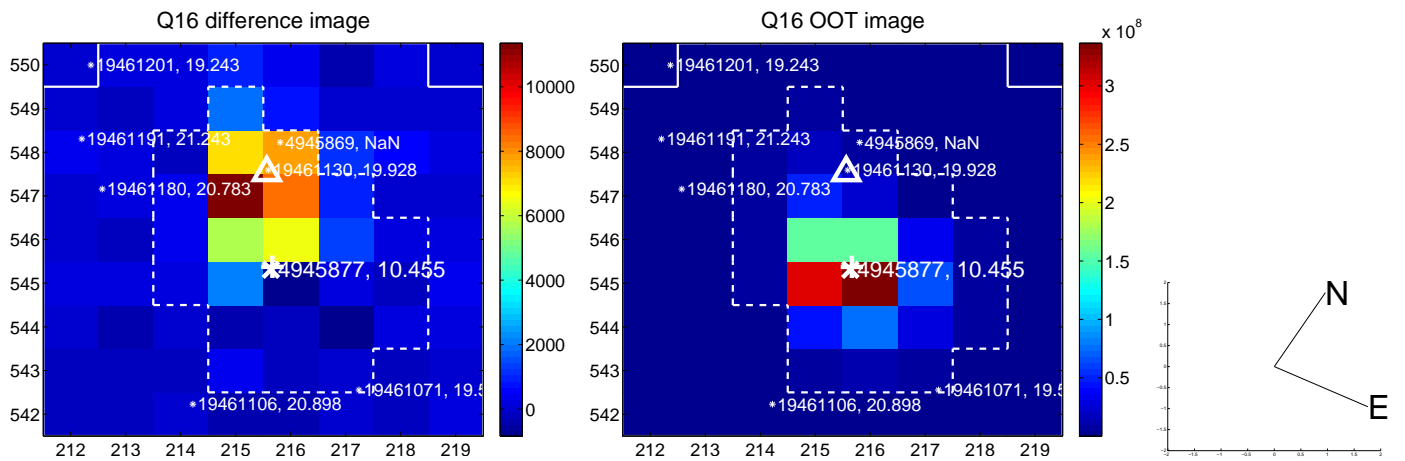
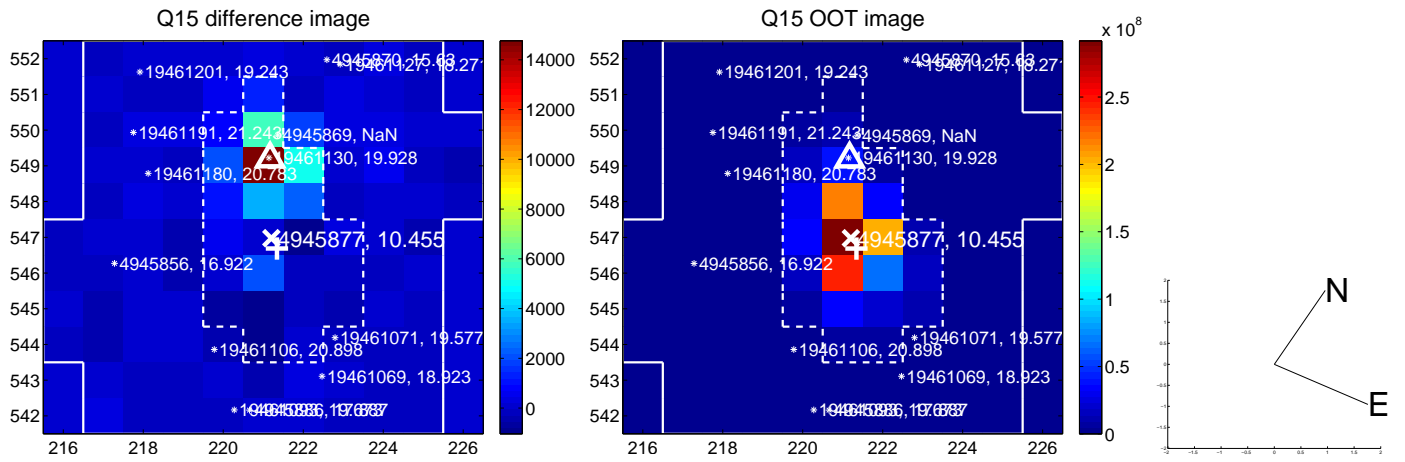
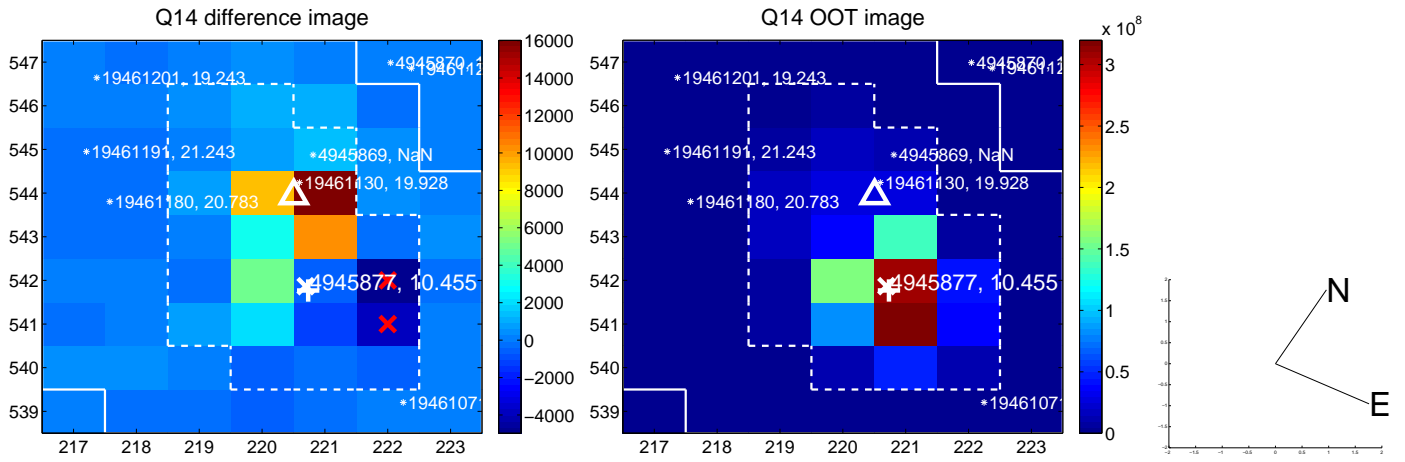
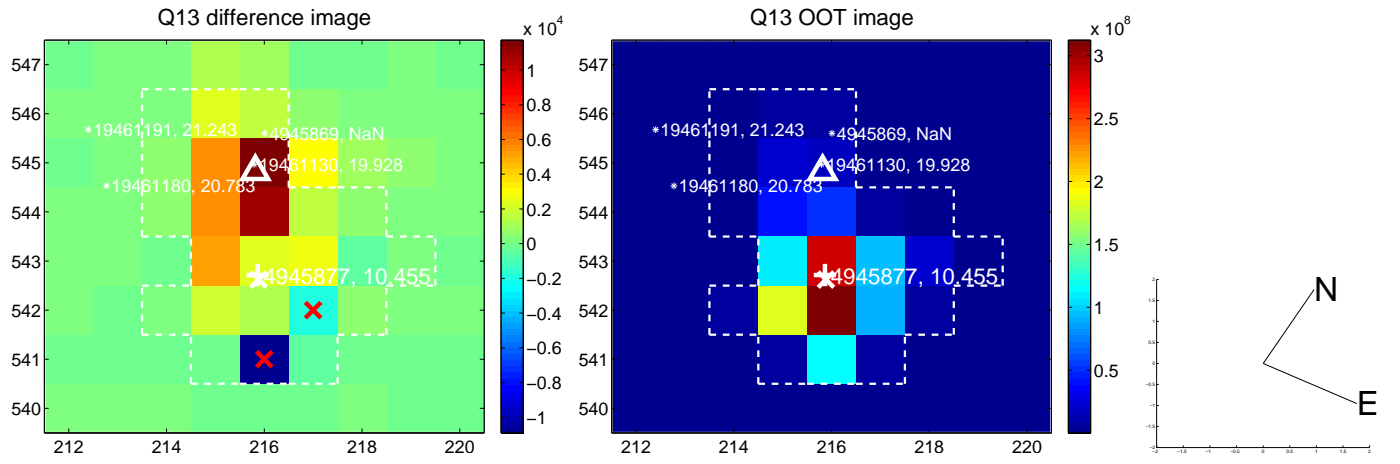
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



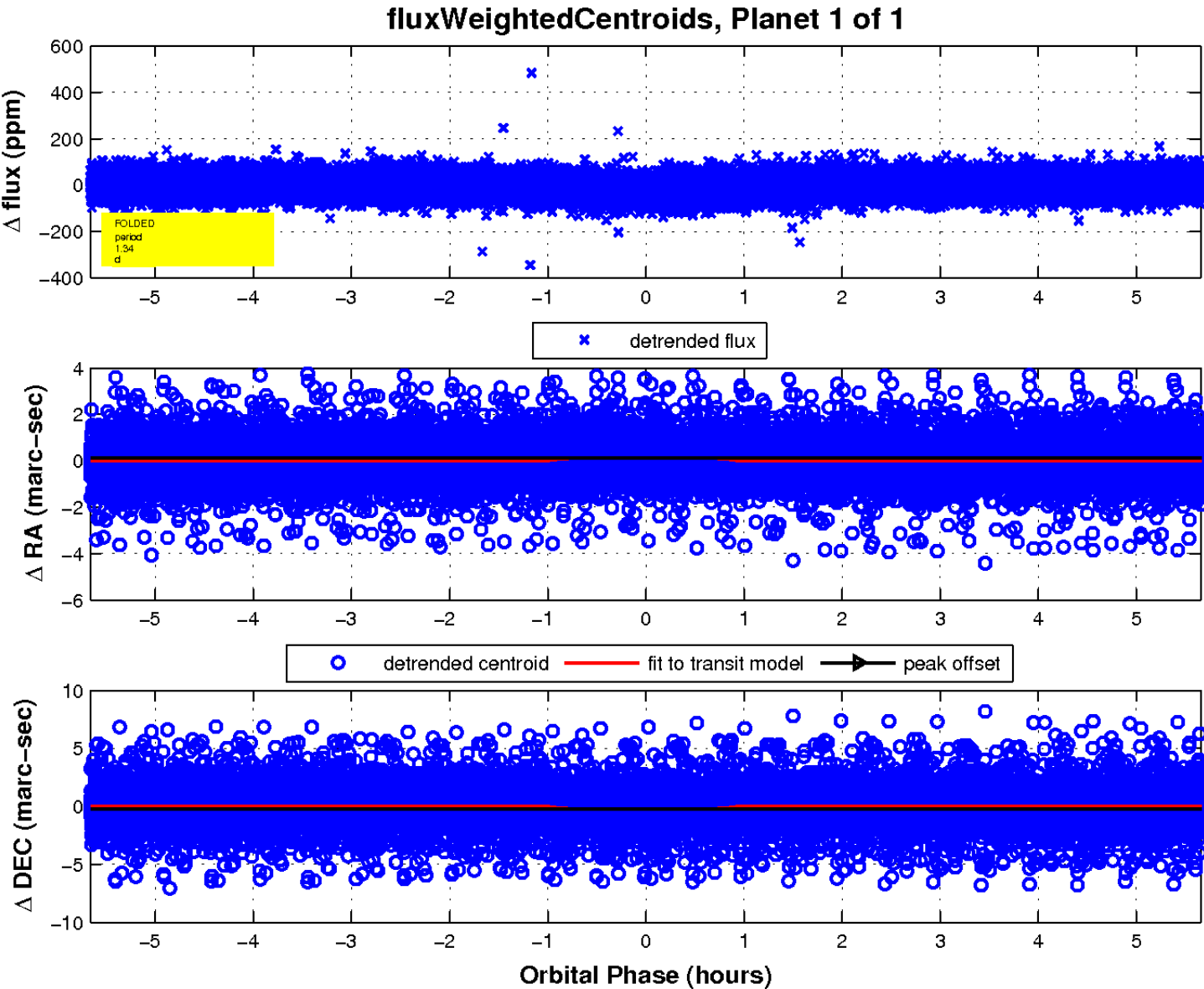
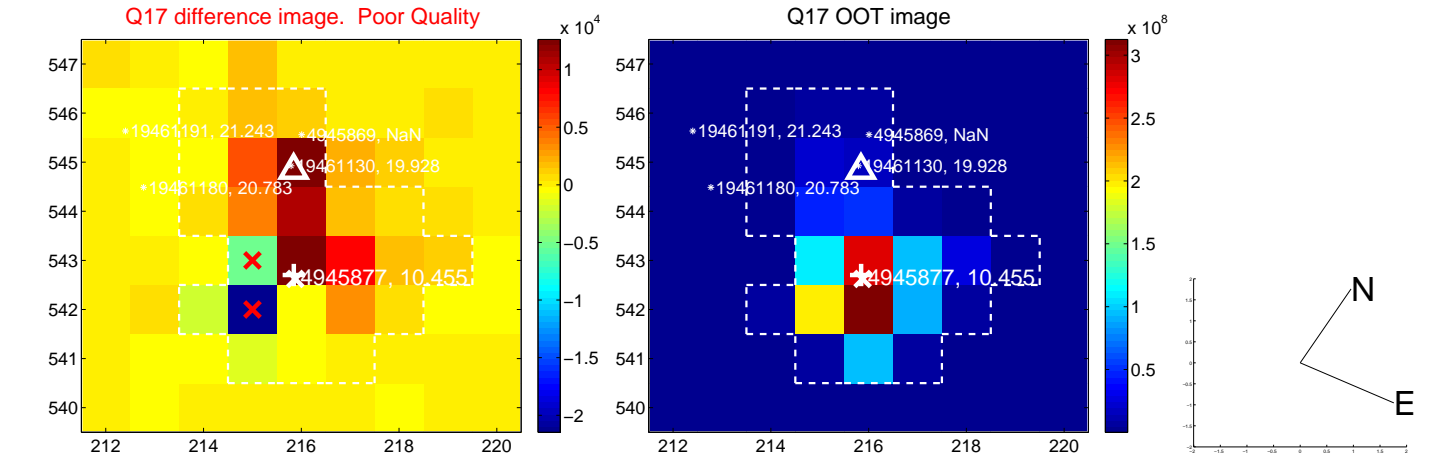
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

