

KIC 011091029

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})
011091029-01	OBS	No	17.971265	140.004220	53.2	29.272	12.2	14.4	1.00	6207	0.87	74.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011091029-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

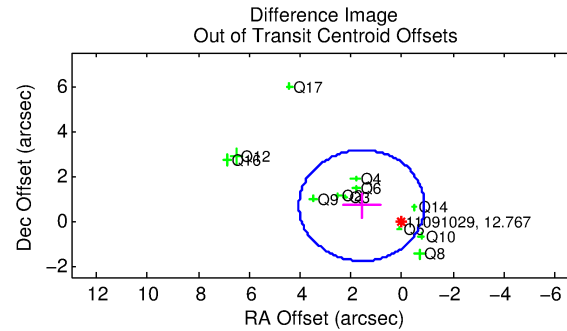
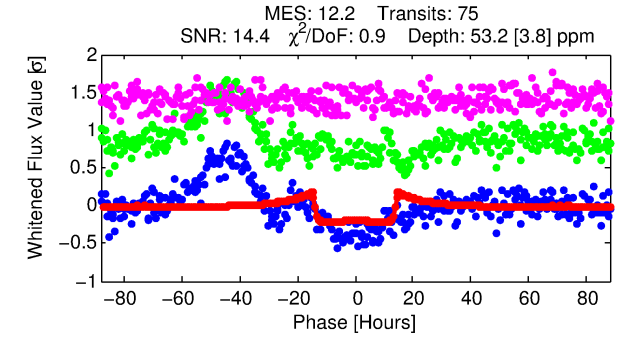
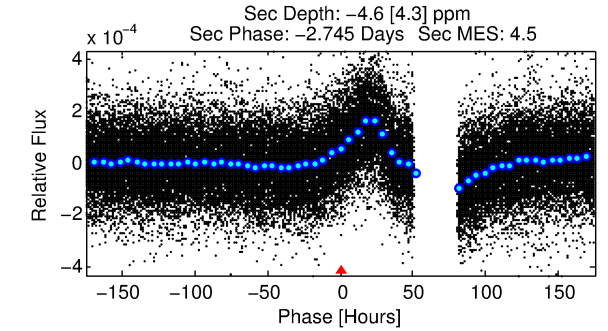
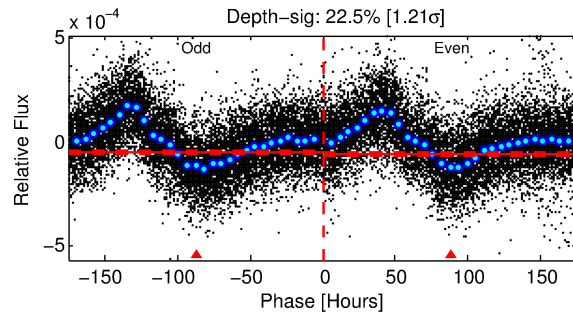
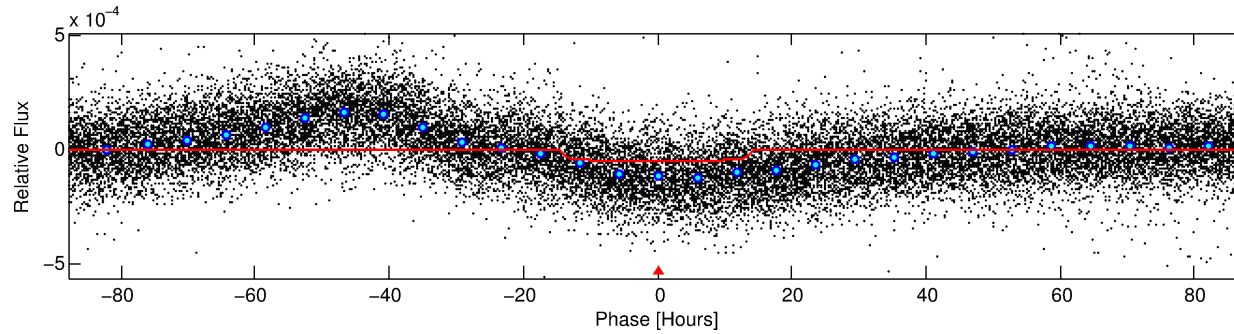
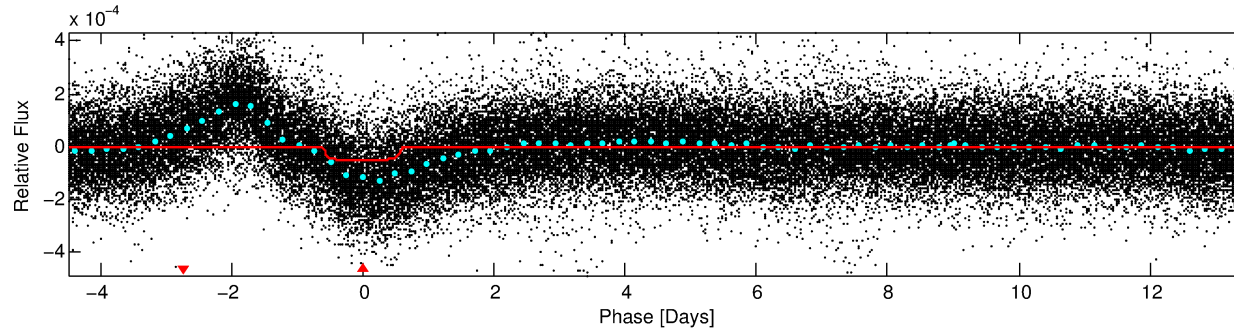
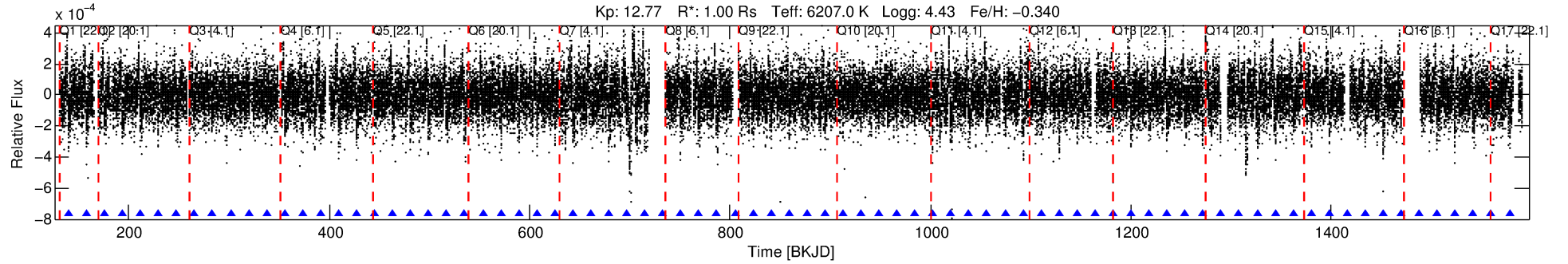
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011091029-01

No Significant Match Found

DV One-Page Summary

KIC: 11091029 Candidate: 1 of 1 Period: 17.971 d



DV Fit Results:

Period = 17.97126 [0.00037] d
Epoch = 140.0042 [0.0165] BKJD
Rp/R* = 0.0080 [0.0004]
a/R* = 2.10 [0.34]
b = 0.93 [0.03]
Seff = 74.09 [21.38]
Teq = 748 [54] K
Rp = 0.87 [0.19] Re
a = 0.1337 [0.0241] AU
Ag = N/A
Teffp = N/A

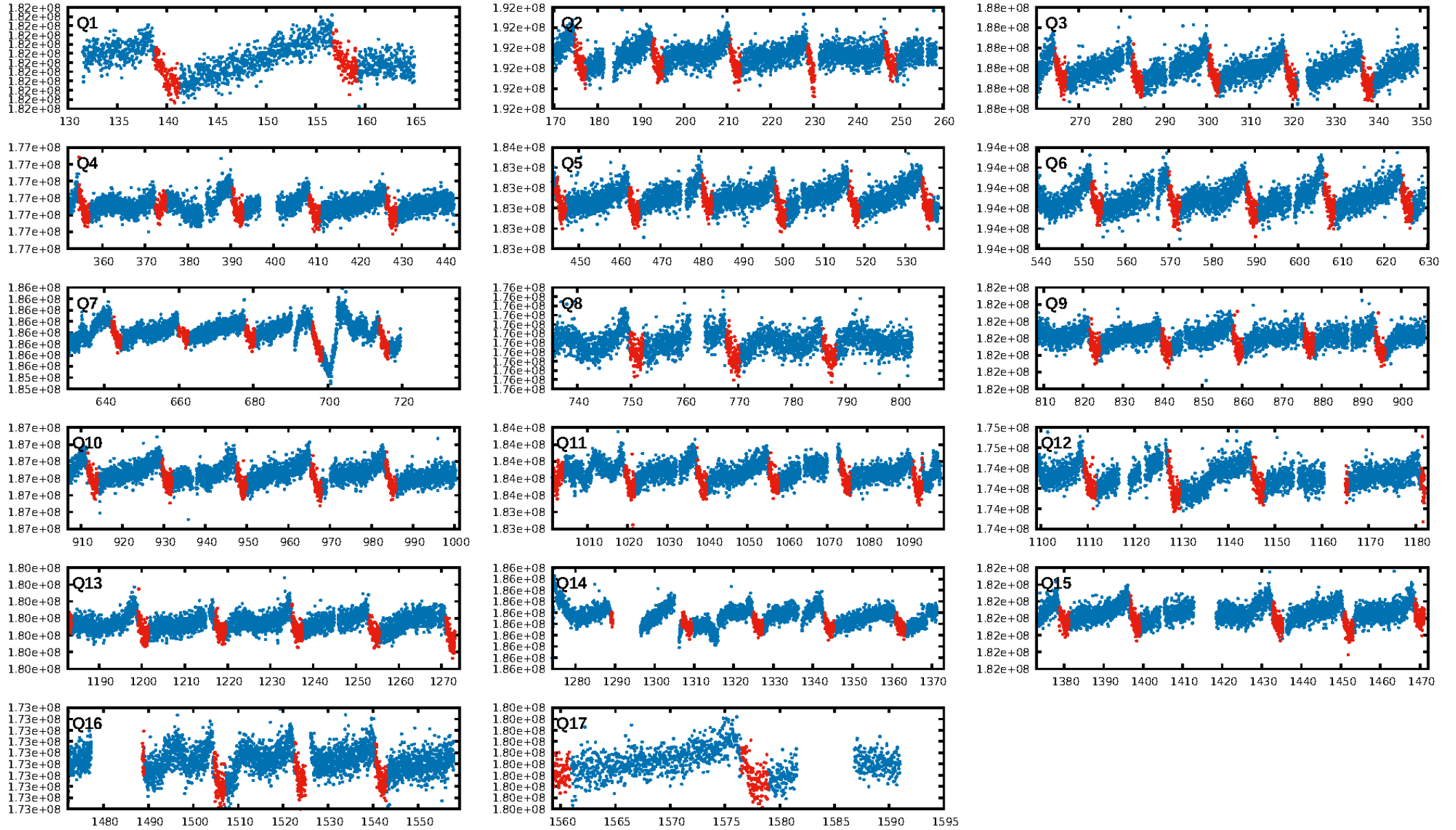
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 81.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.36e-35
RollingBand-fgt: 1.00 [71/71]
GhostDiagnostic-chr: 3.057
Centroid-sig: 0.0%
Centroid-so: 1.411 arcsec [2.29 σ]
OotOffset-rm: 1.719 arcsec [2.09 σ]
KicOffset-rm: 1.787 arcsec [2.28 σ]
OotOffset-st: 4/1/4/3 [12]
KicOffset-st: 4/1/4/3 [12]
DiffImageQuality-fgm: 0.58 [7/12]
DiffImageOverlap-fno: 1.00 [17/17]

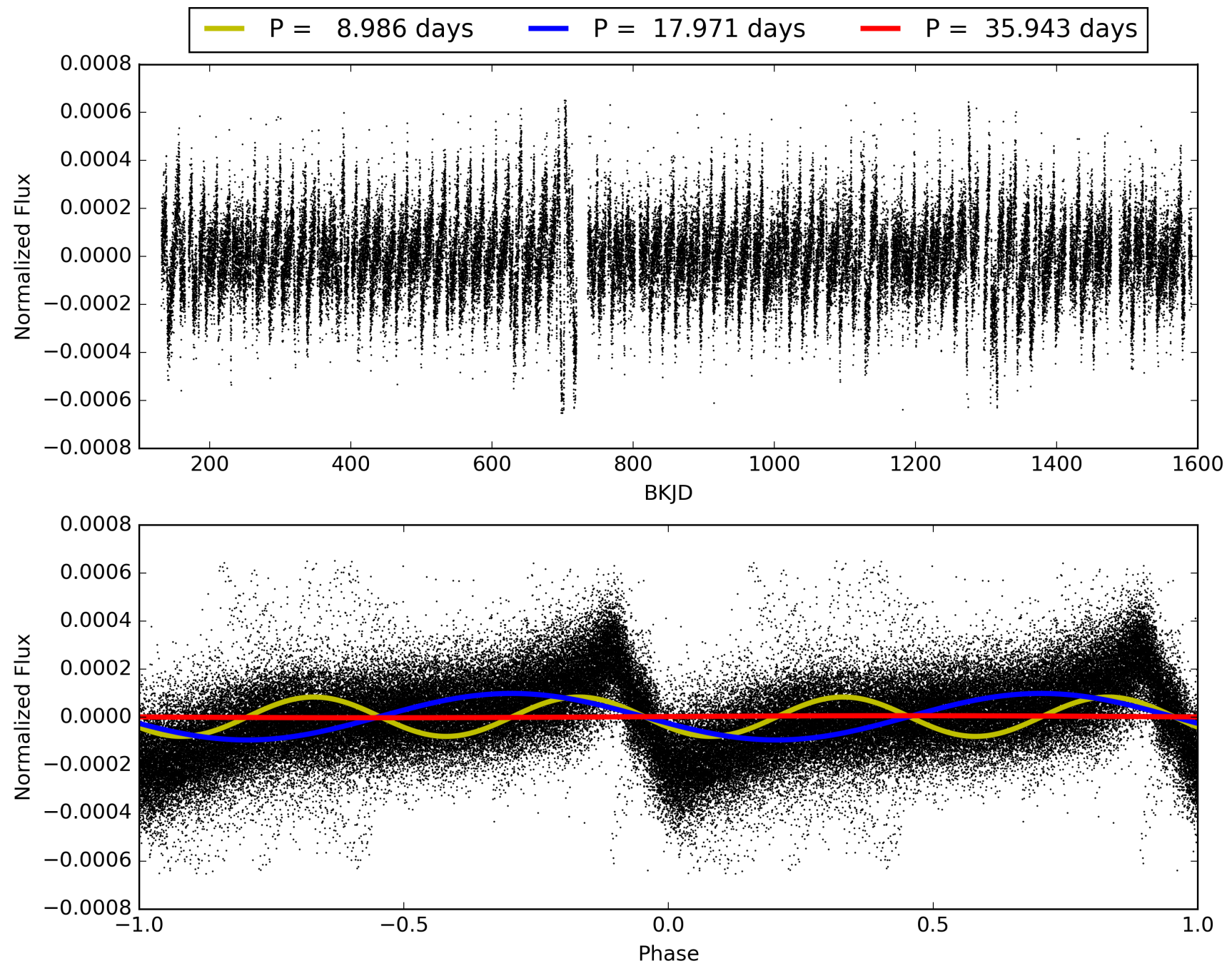
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:37:07 Z

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

TCE 011091029-01, PDC Light Curves

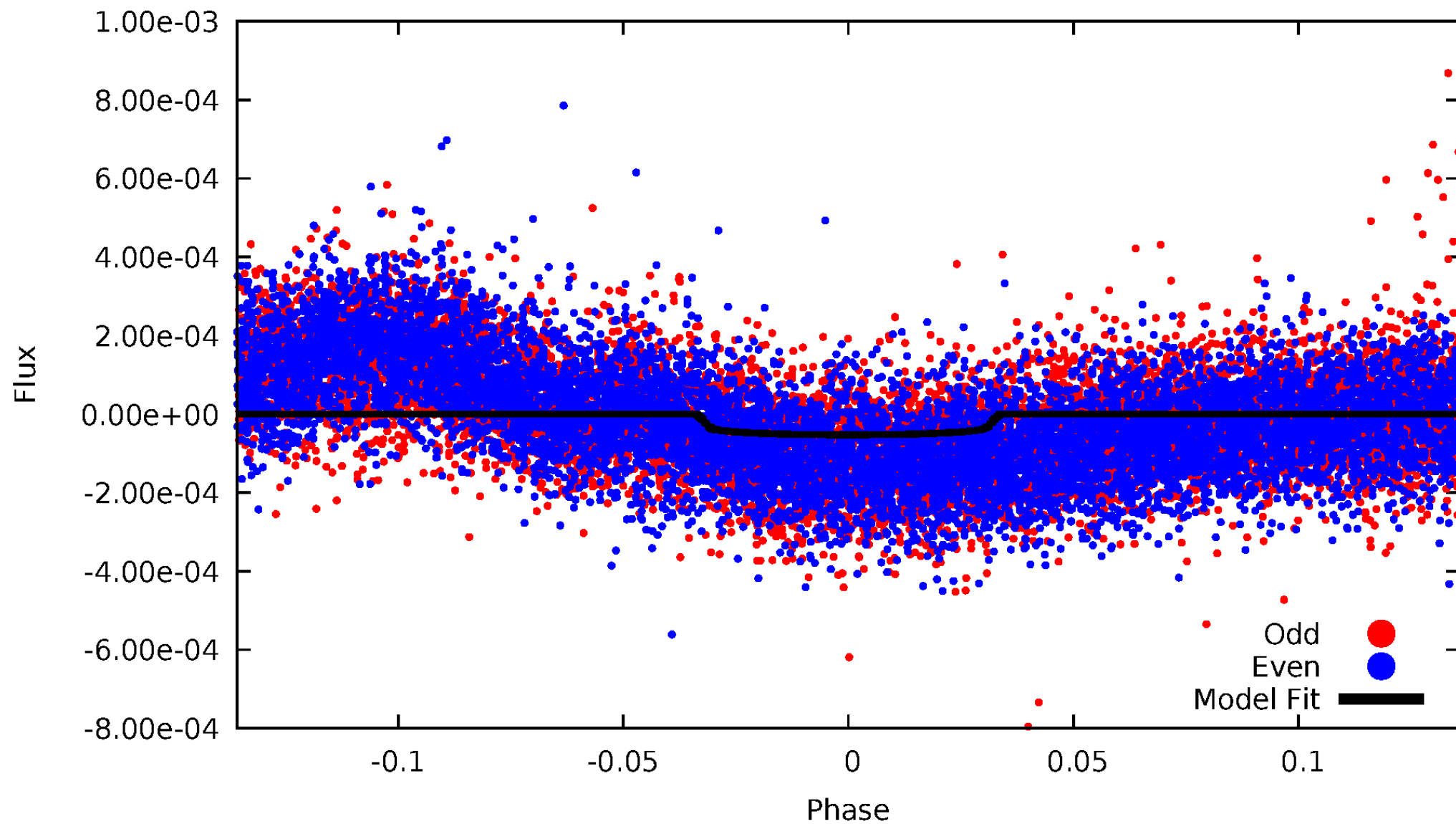


TCE 011091029-01



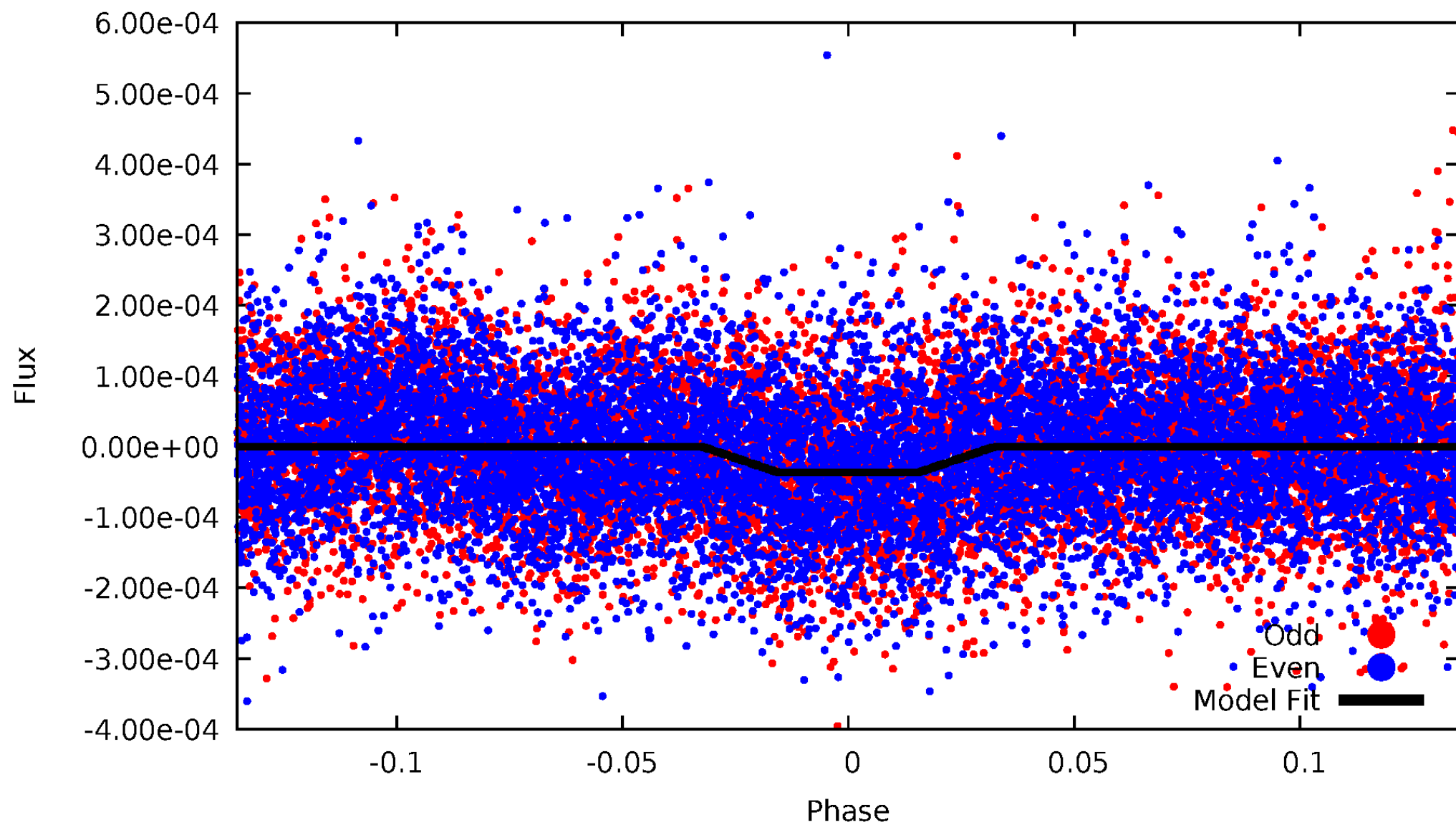
DV Odd/Even

TCE 011091029-01



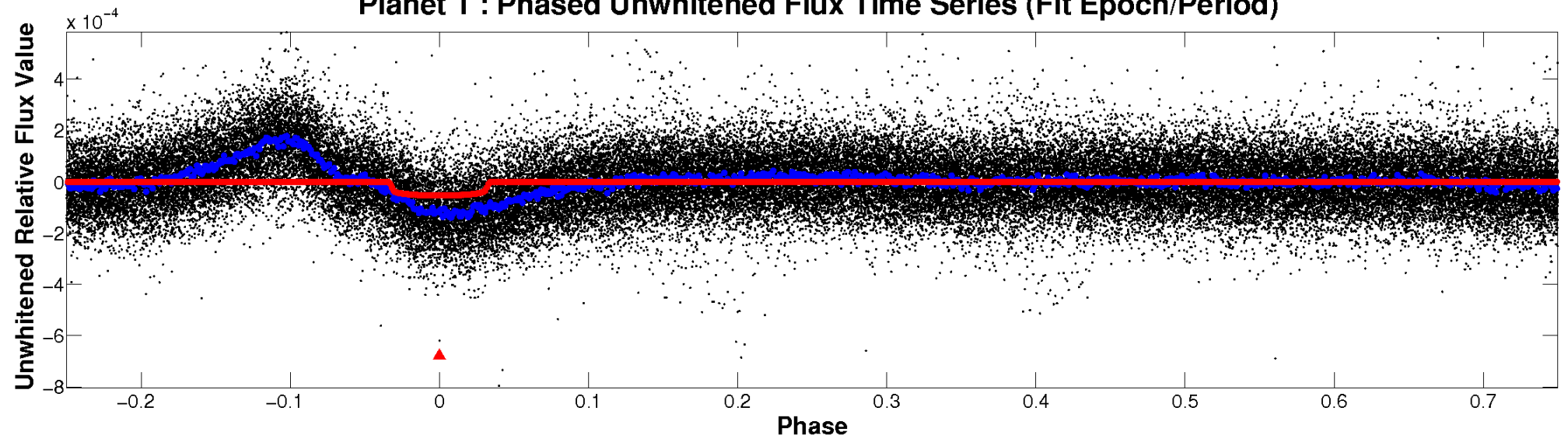
ALT Odd/Even

TCE 011091029-01

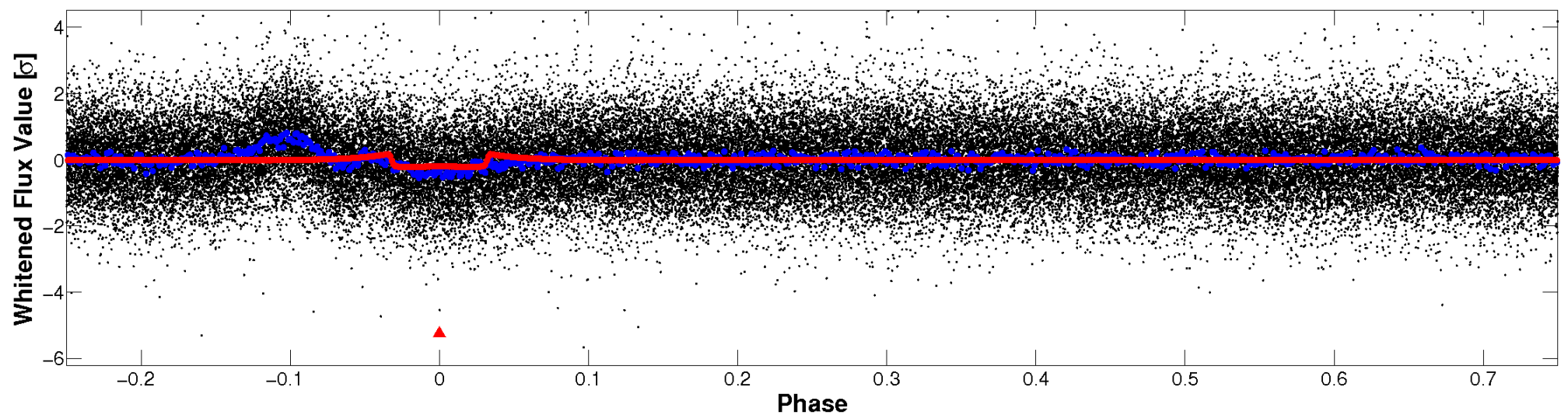


Non-Whitened Vs. Whitened Light Curve

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

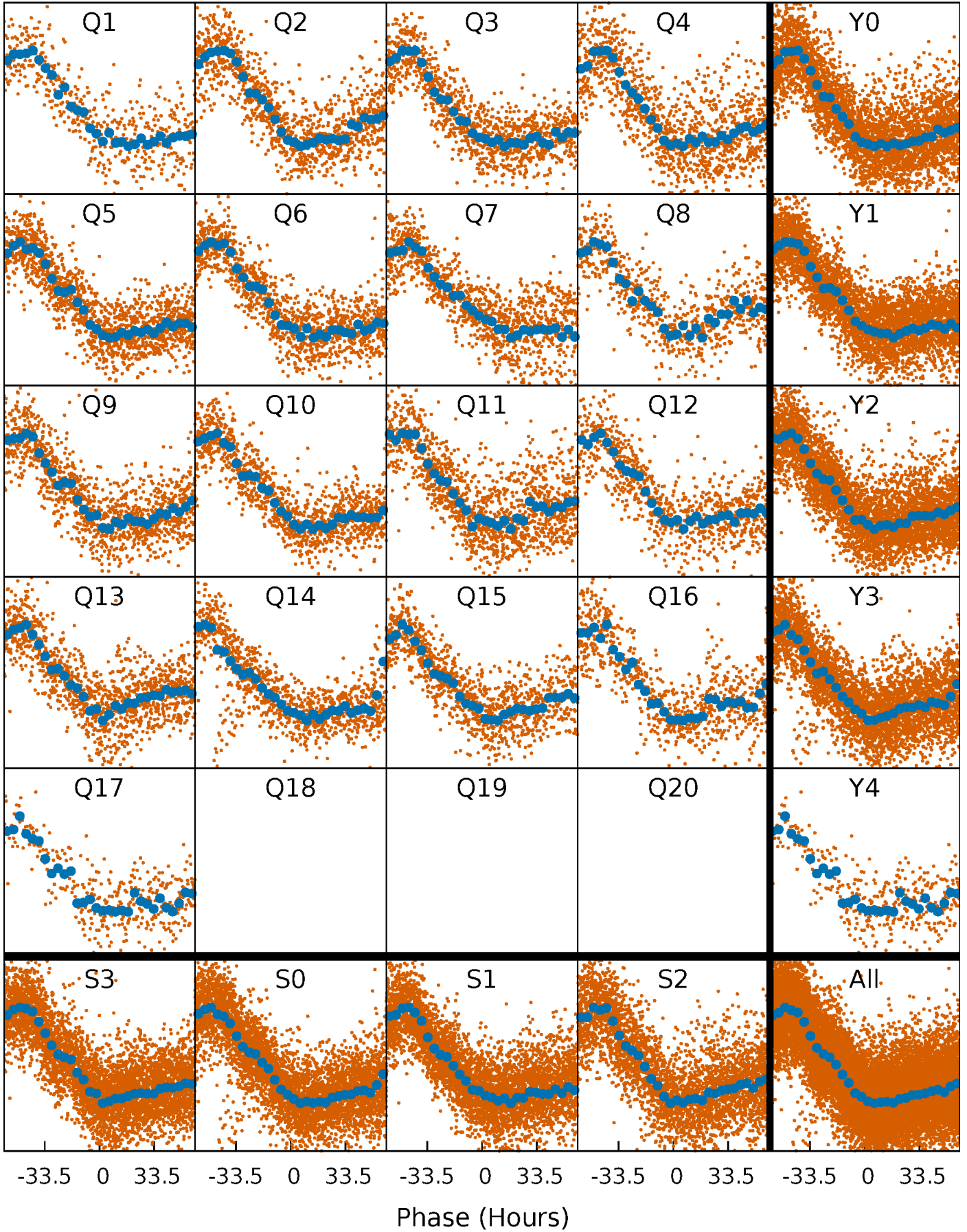


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



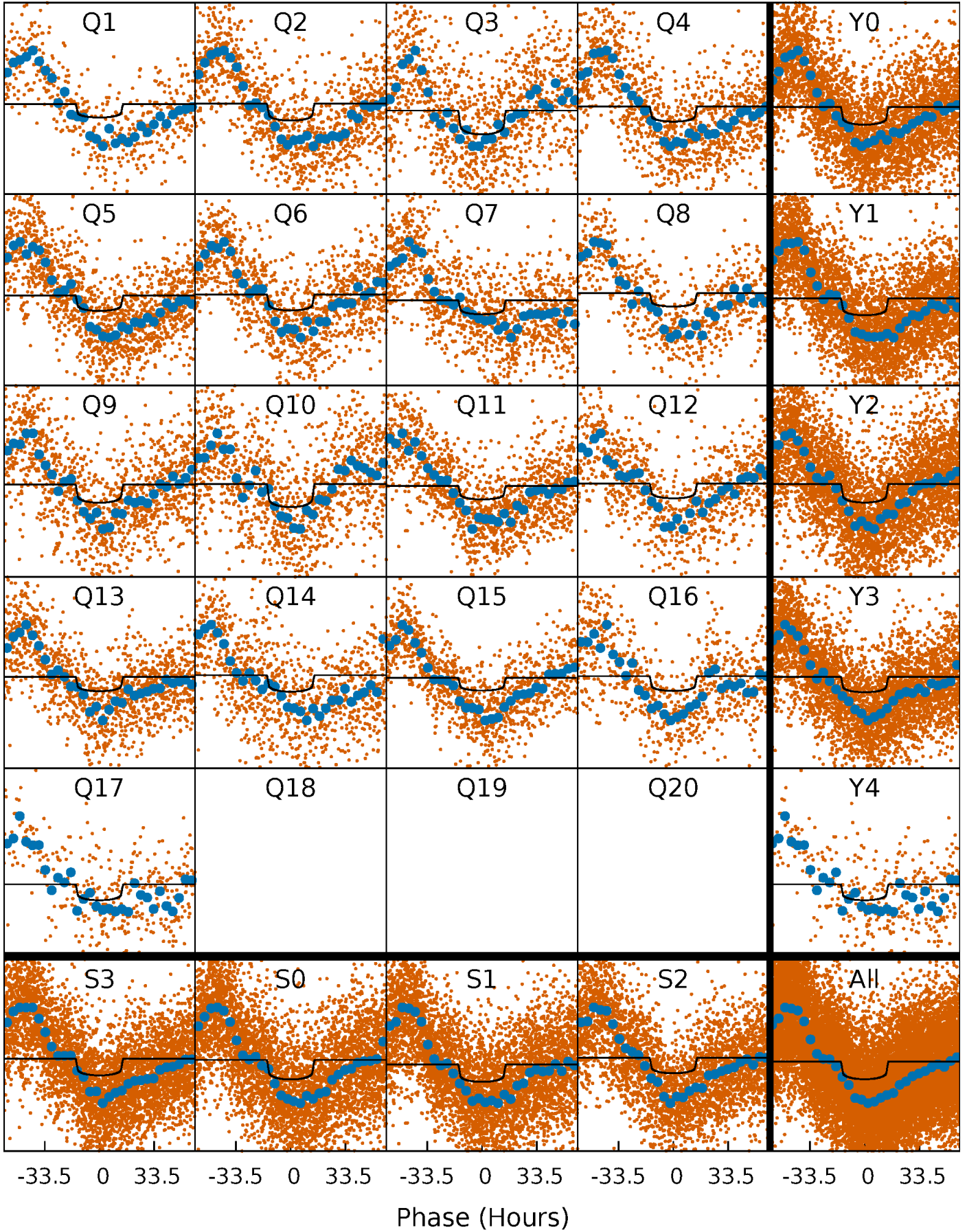
PDC Quarter-Phased Transit Curves

TCE 011091029-01 P= 17.971265 Days $T_0=140.004220$ (BKJD)



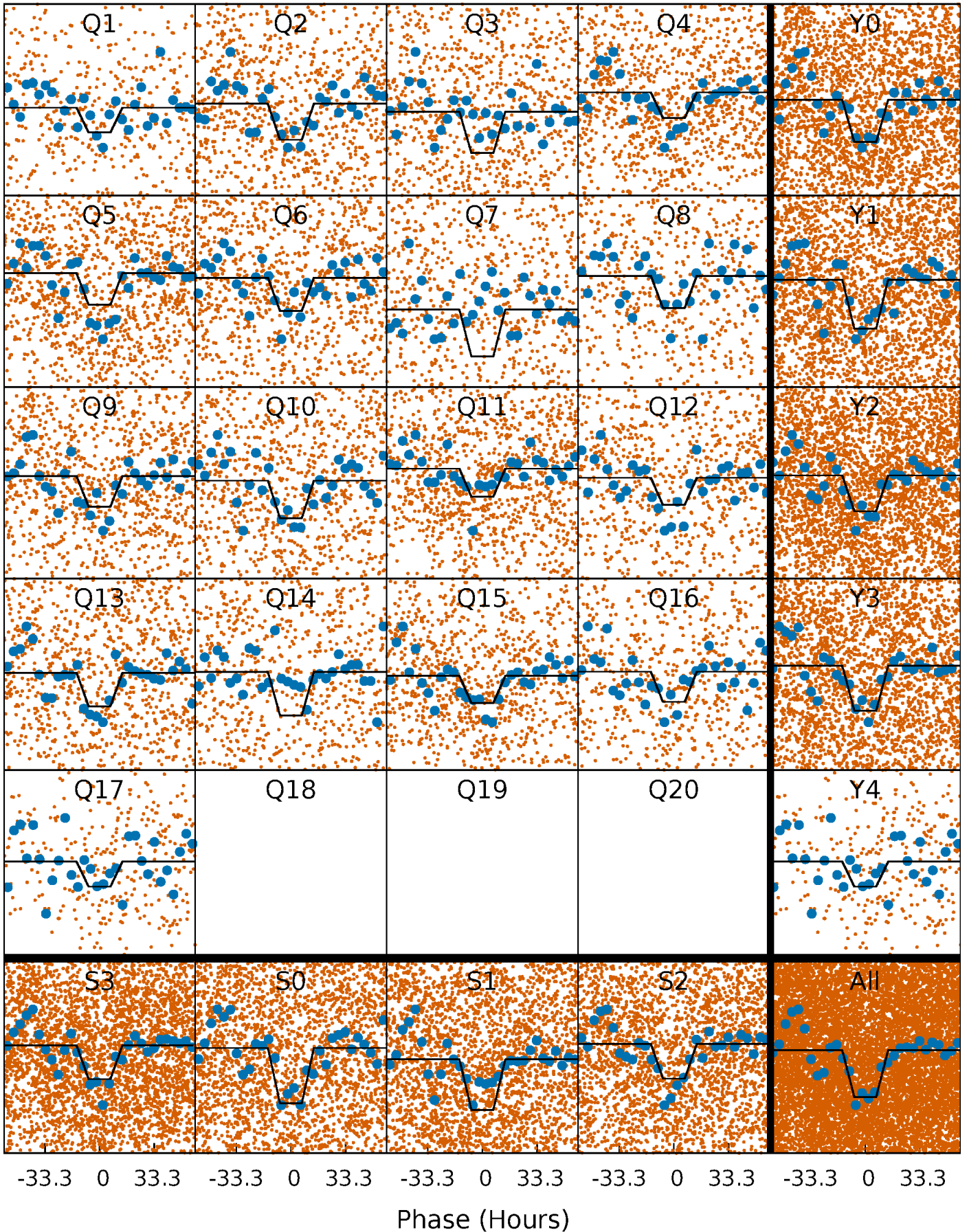
DV Quarter-Phased Transit Curves

TCE 011091029-01 P= 17.971265 Days $T_0=140.004220$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

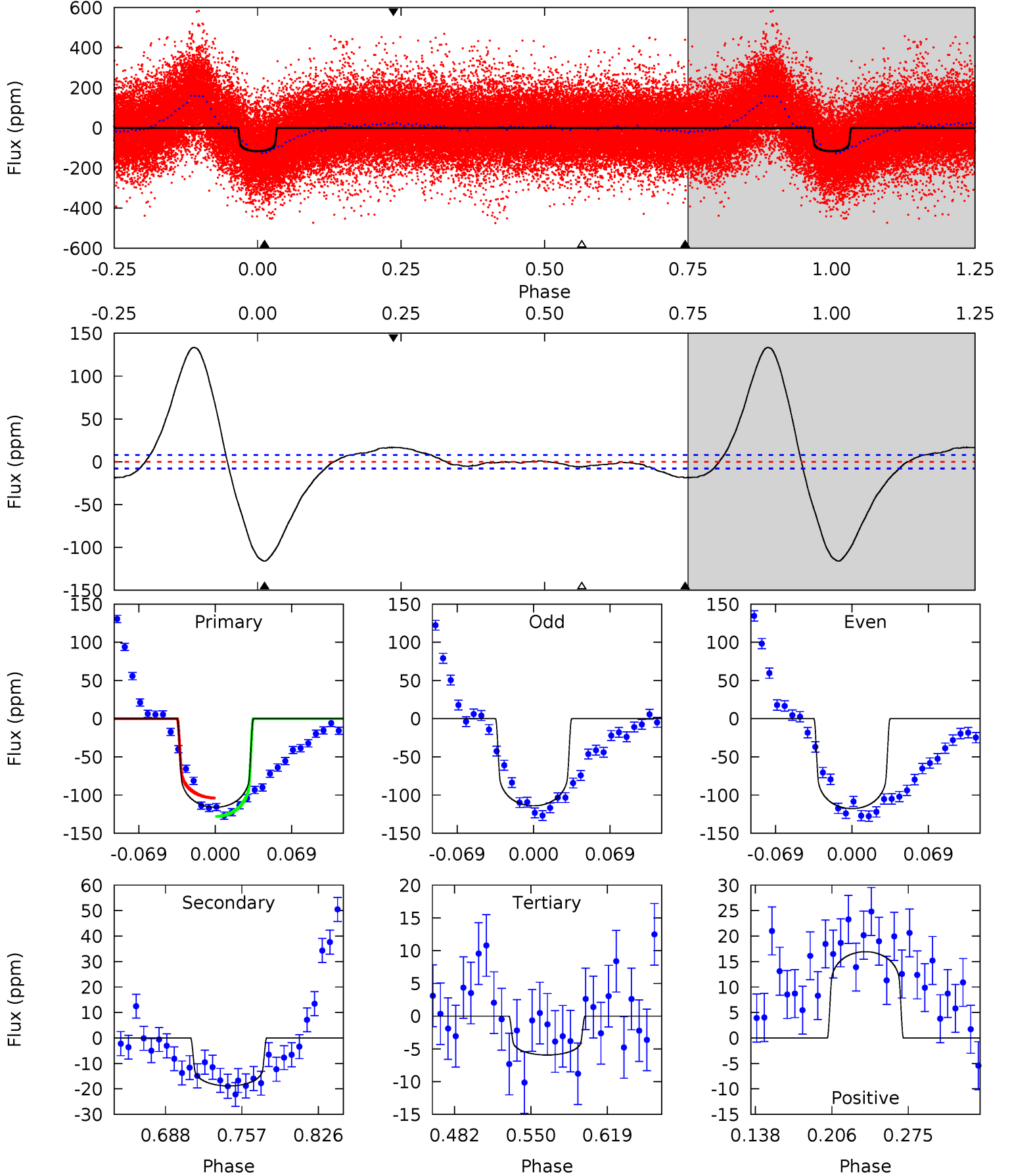
TCE 011091029-01 P= 17.972870 Days $T_0=139.932869$ (BKJD)



DV Model-Shift Uniqueness Test

011091029-01, P = 17.971265 Days, E = 122.032955 Days

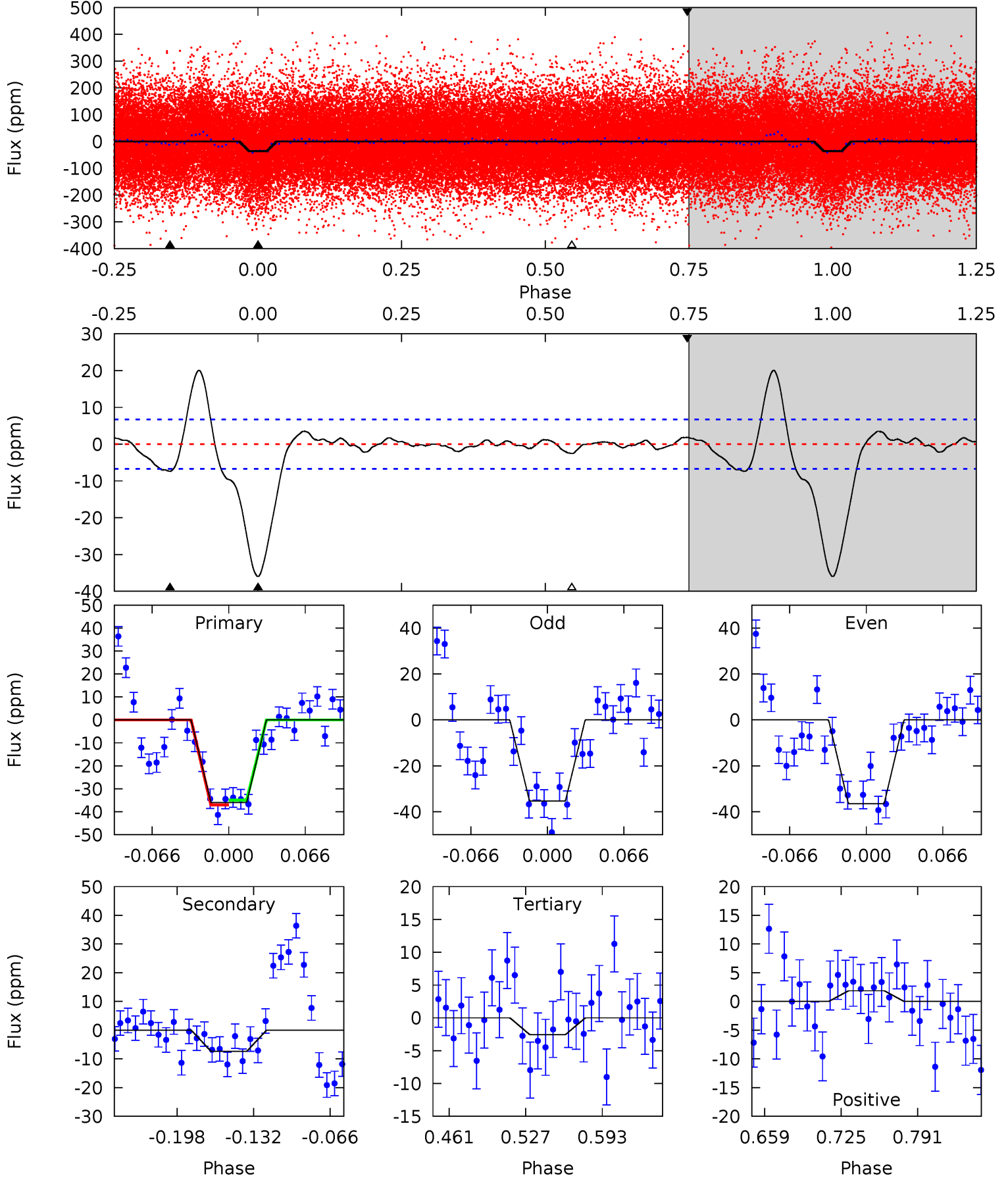
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.5	11.1	3.50	9.99	4.64	1.82	20.7	65.0	58.5	7.62	1.12	1.09	0.98	0.54	7.11



Alt Model-Shift Uniqueness Test

011091029-01, P = 17.972870 Days, E = 121.959999 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	5.09	1.76	1.29	4.65	1.84	1.00	23.1	23.6	3.32	3.80	0.38	1.00	0.36	0.73



Stellar Parameters For KIC 011091029

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6207^{+169}_{-188}	$4.434^{+0.077}_{-0.143}$	$-0.340^{+0.300}_{-0.350}$	$0.998^{+0.214}_{-0.115}$	$0.984^{+0.124}_{-0.113}$	$1.393^{+0.454}_{-0.568}$
	+3%/-3%	+2%/-3%	+88%/-103%	+21%/-12%	+13%/-11%	+33%/-41%
Source	PHO1	FLK73	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 011091029-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 2	$0.89^{+0.10}_{-0.08}$	1052^{+60}_{-46}	4702^{+181}_{-174}	234^{+51}_{-47}
Alt.	-7 ± 1	$0.67^{+0.09}_{-0.07}$	1052^{+59}_{-51}	4346^{+239}_{-221}	159^{+50}_{-43}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

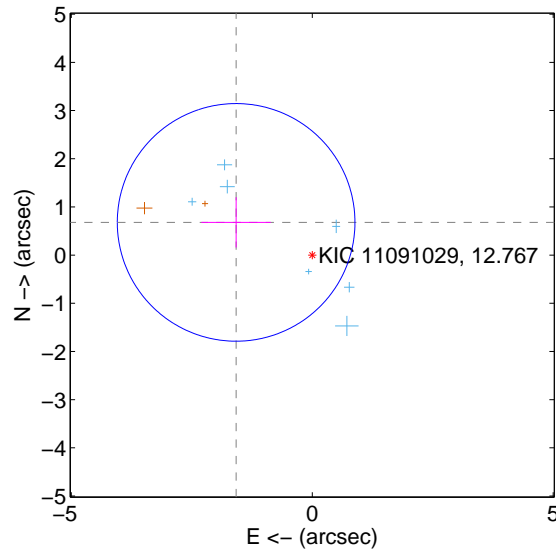
Supplemental centroid analysis for 011091029-01. Kepler magnitude: 12.77. Transit SNR 14.38

There are 7 quarters with good PRF difference image offsets

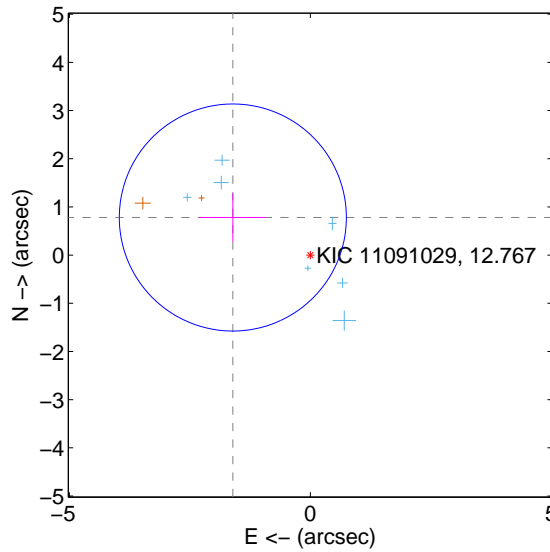
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.719 ± 0.822	2.09	1.580 ± 0.719	0.679 ± 0.522
PRF-fit source offset from KIC position	1.787 ± 0.785	2.28	1.608 ± 0.694	0.780 ± 0.500
photometric centroid source offset	1.41 ± 0.62	2.29	0.83 ± 0.59	-1.14 ± 0.63

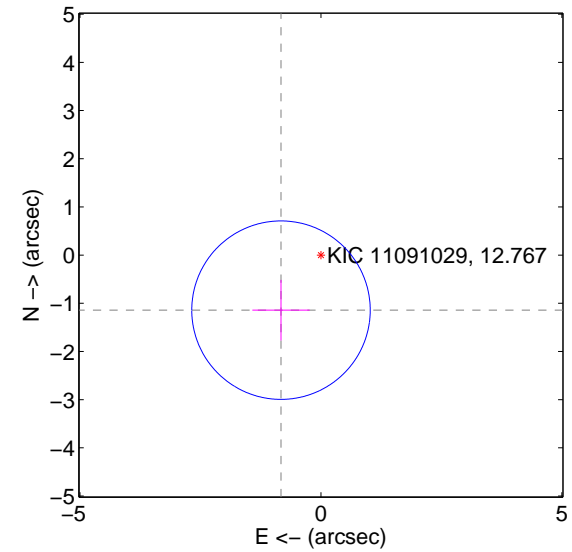
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

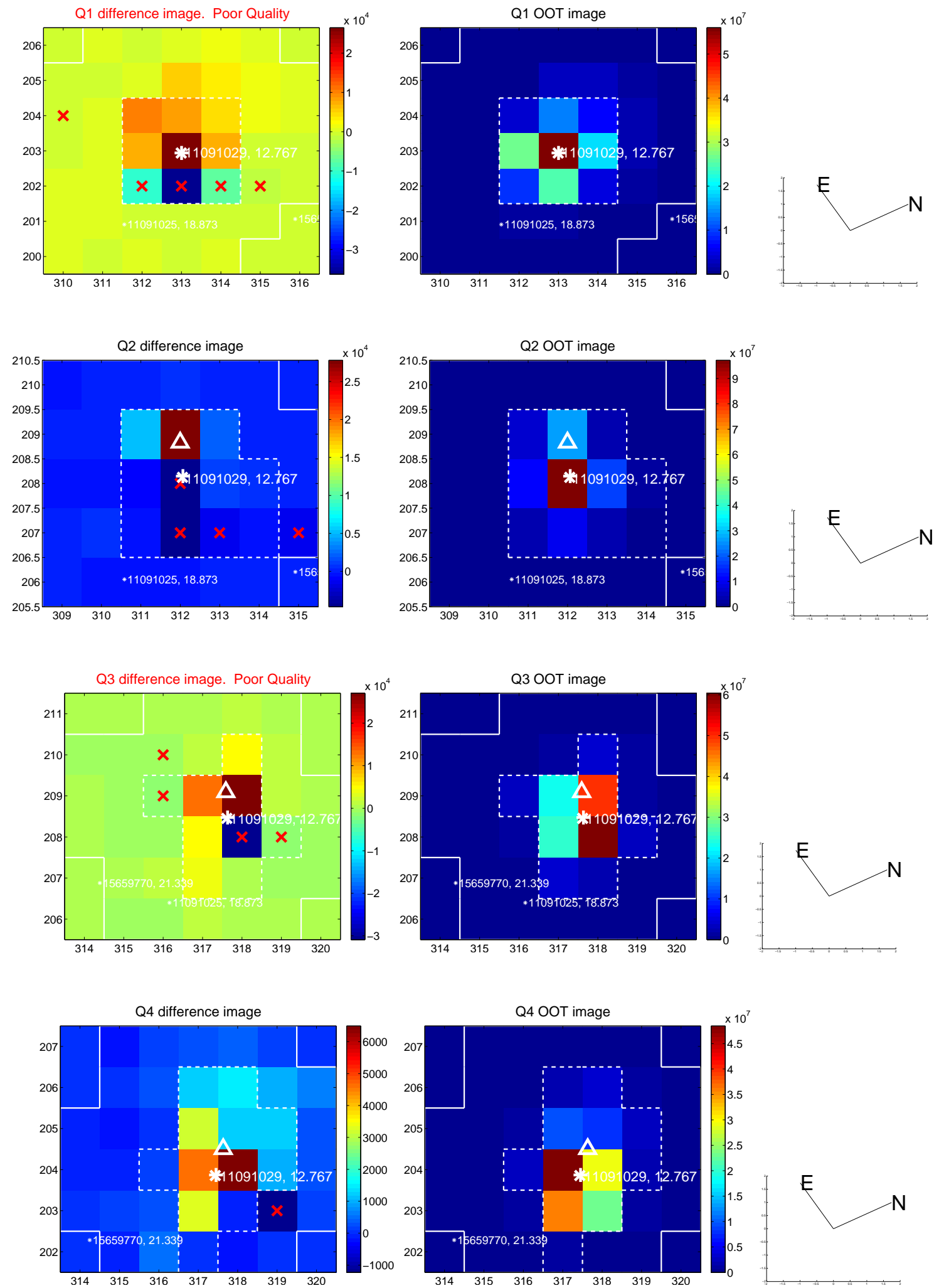


offset from photometric centroids

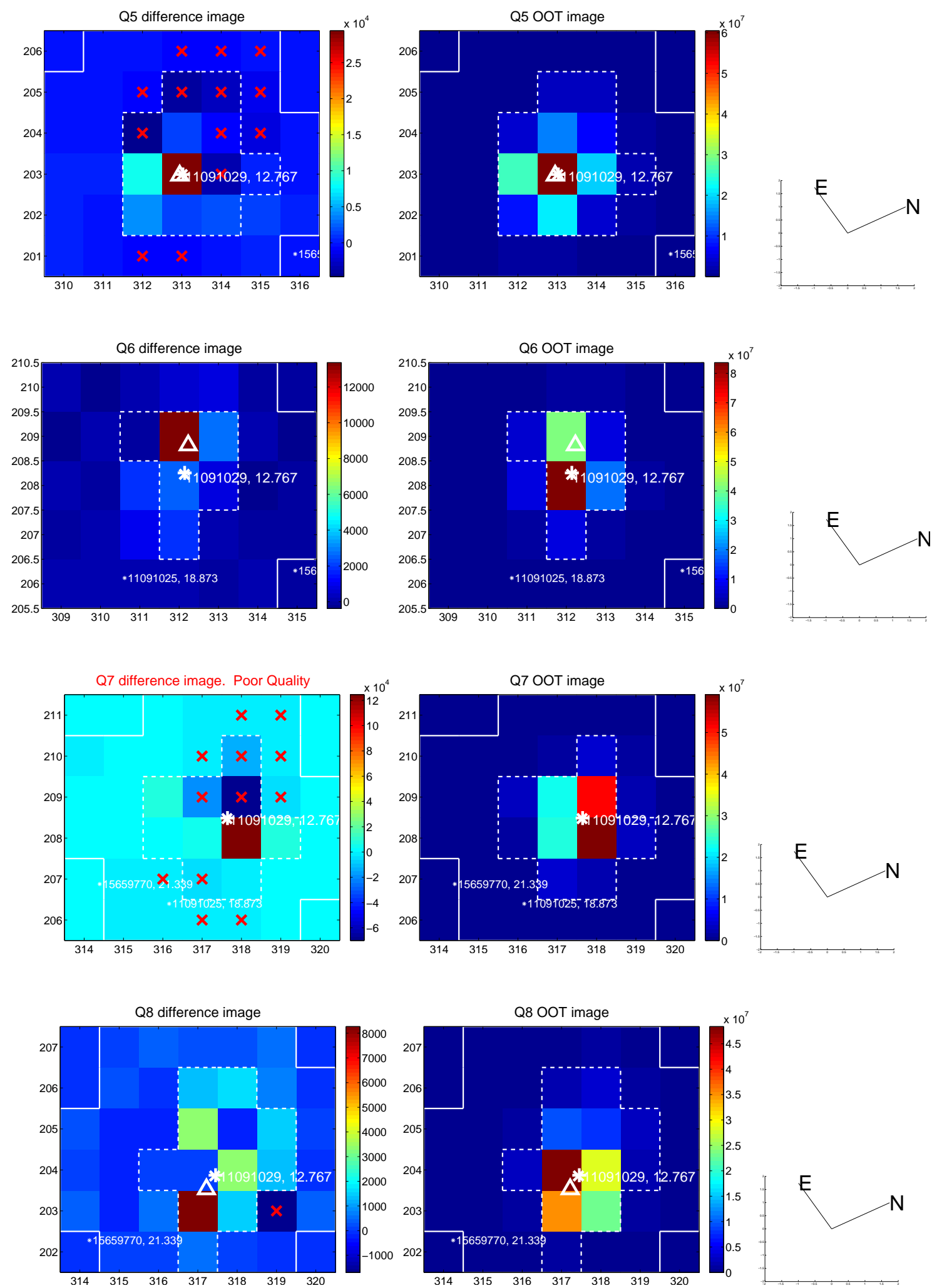


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

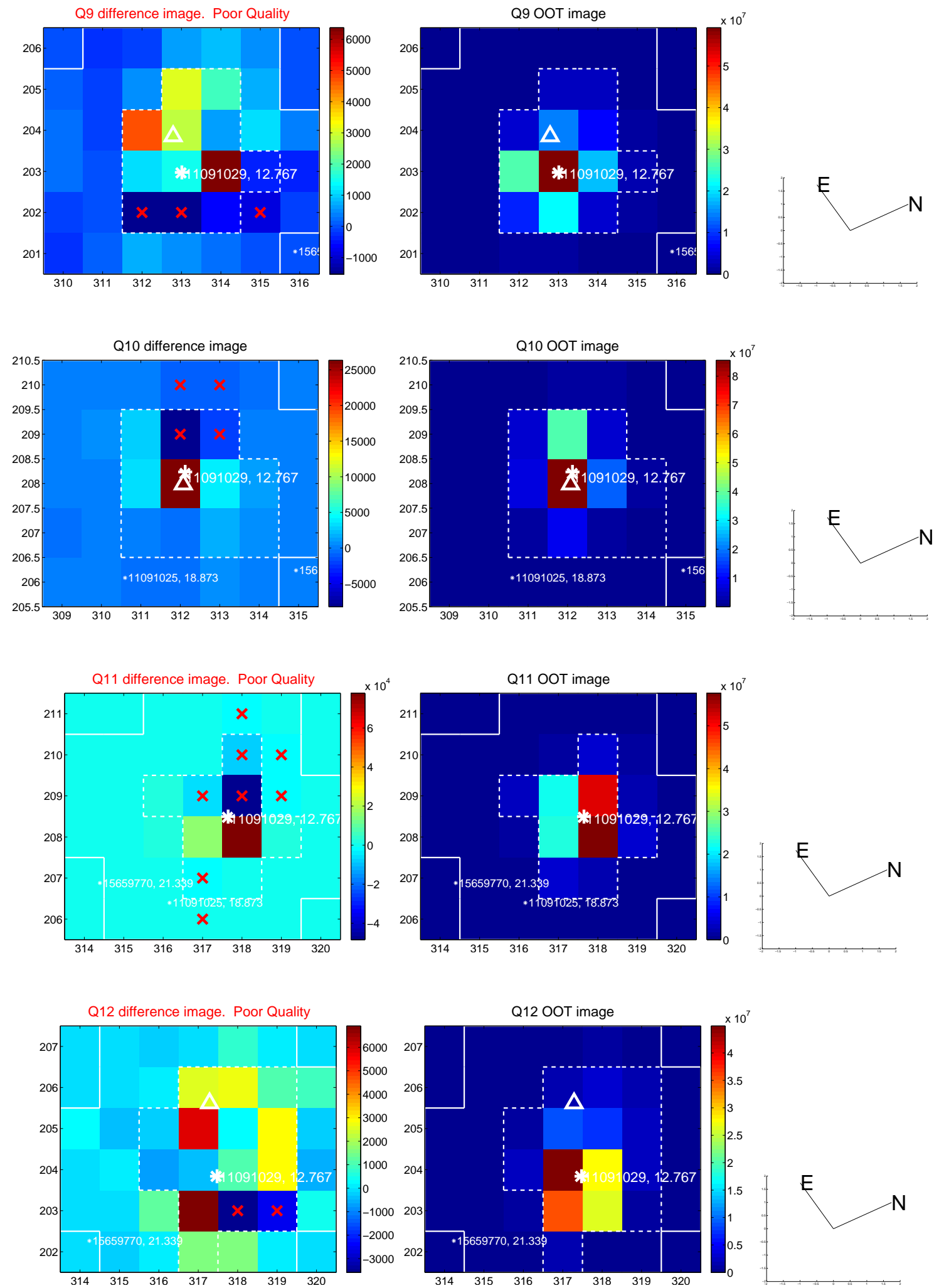
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



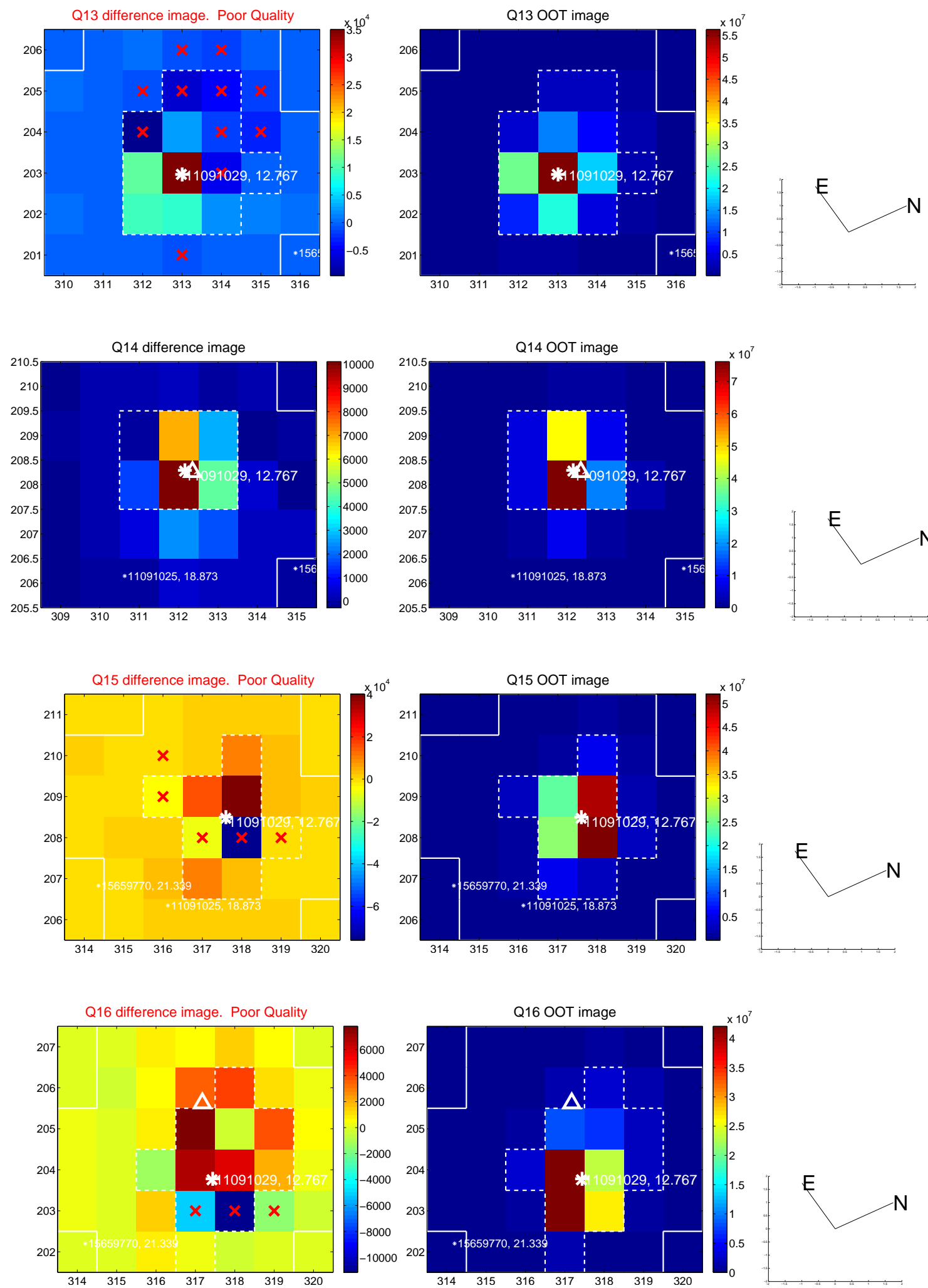
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



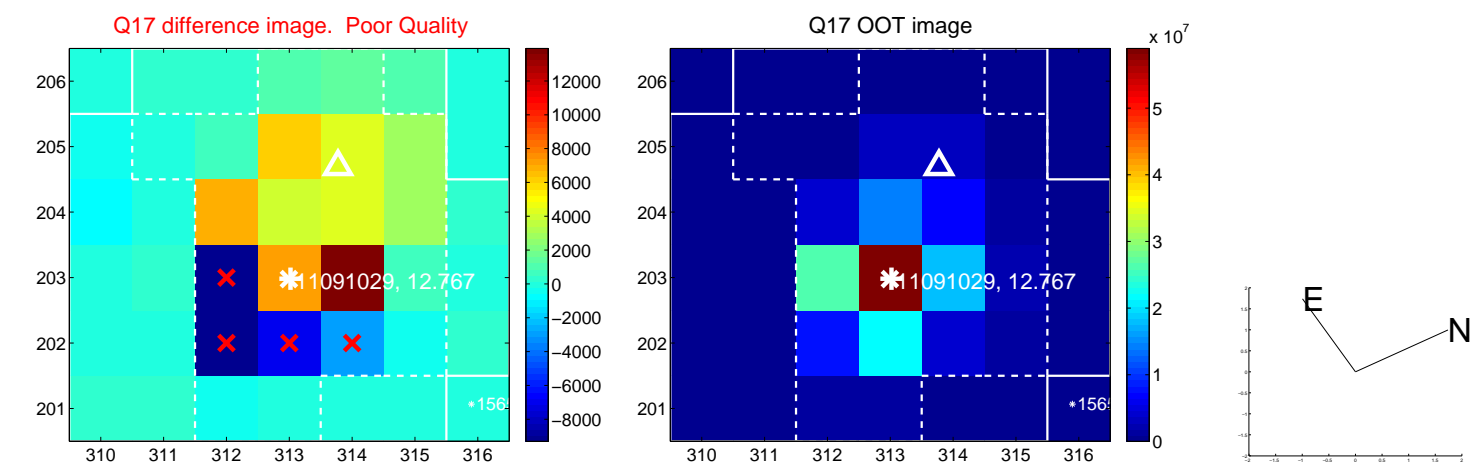
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



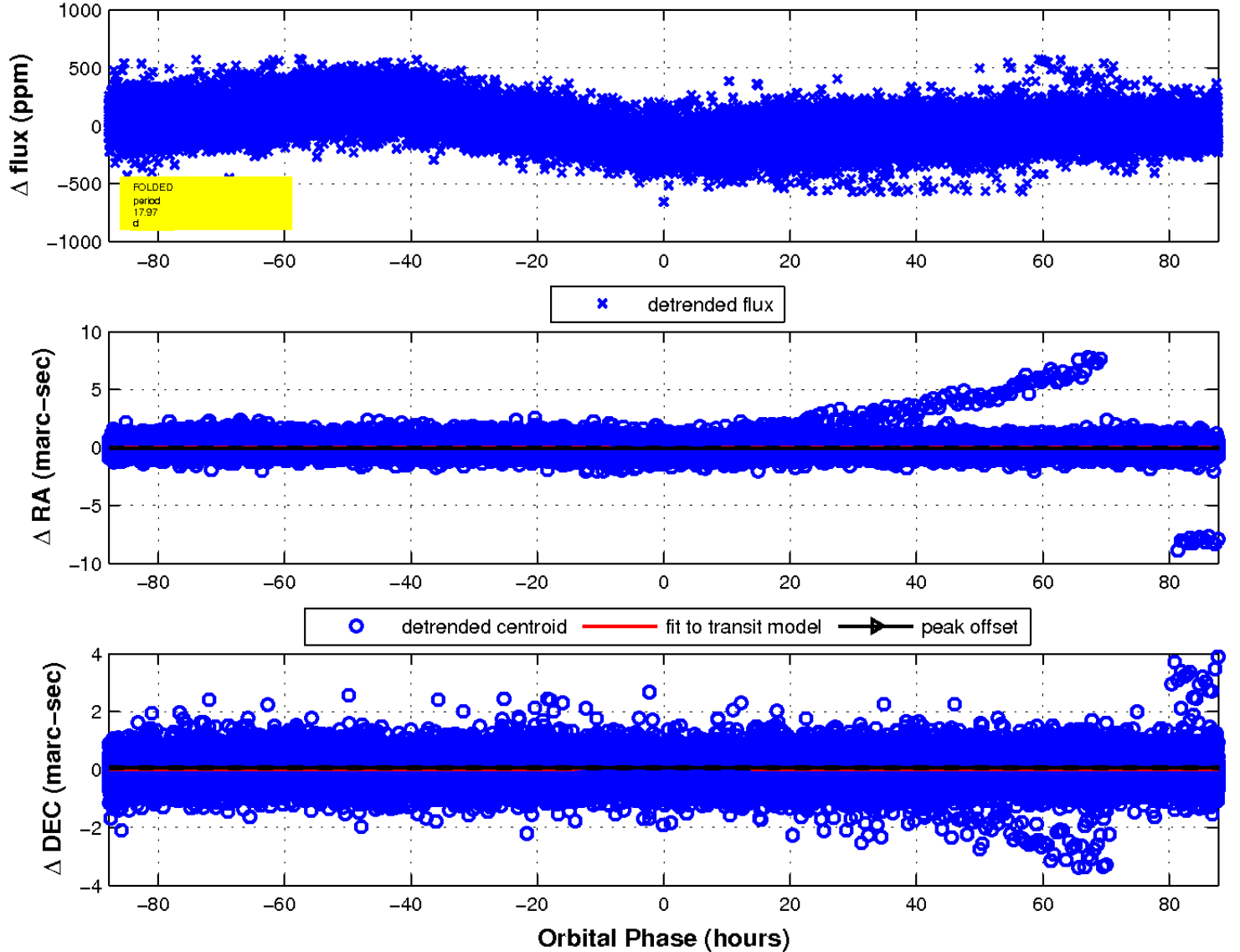
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

