

KIC 005172274

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})
005172274-01	OBS	6533.01	12.252997	133.212355	41.1	23.674	10.8	11.8	1.53	6881	1.13	328.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005172274-01	OBS	FP	0.00	1	0	0	0	LPP_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 005172274-01

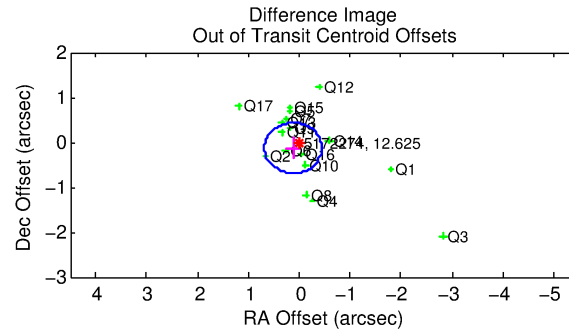
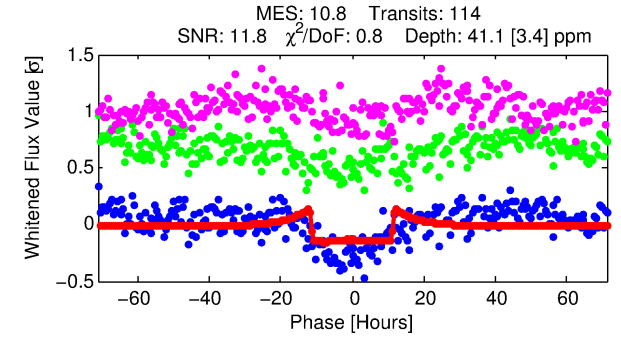
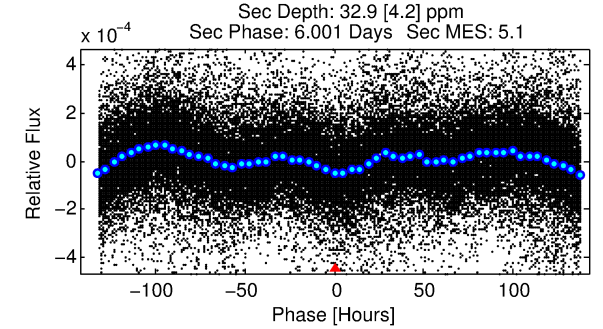
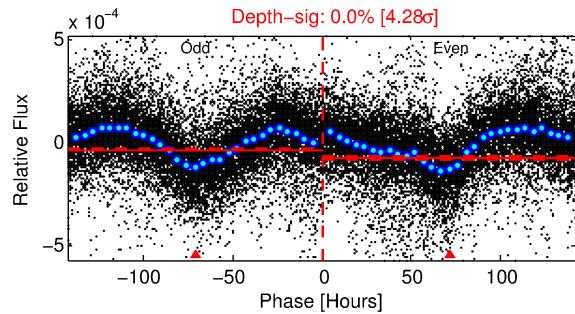
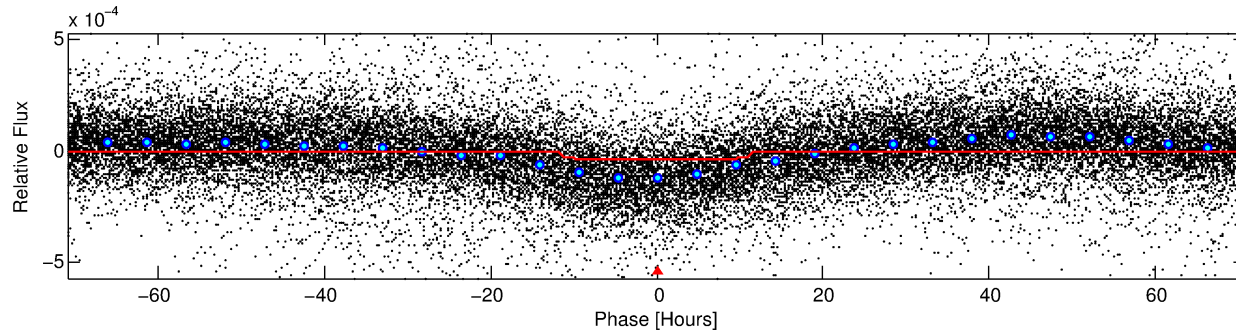
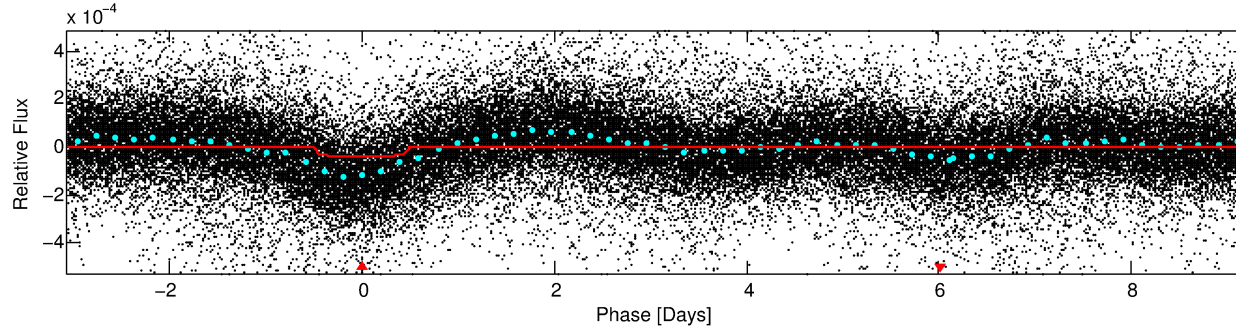
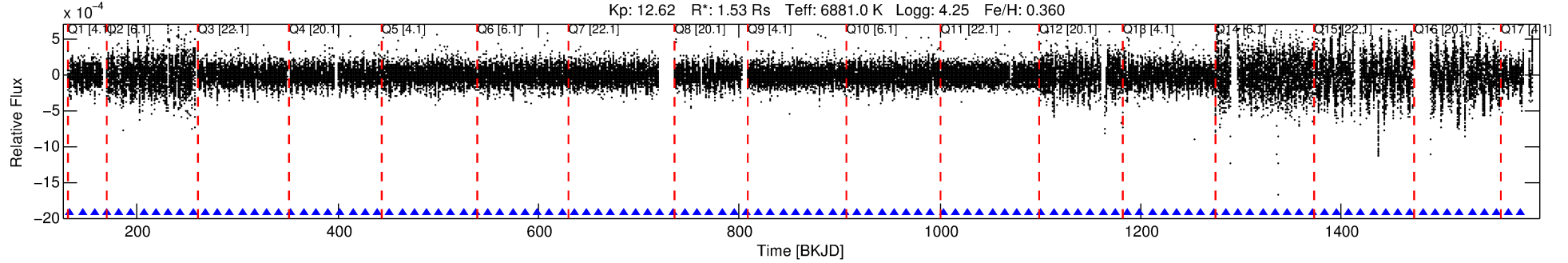
No Significant Match Found

DV One-Page Summary

KIC: 5172274 Candidate: 1 of 1 Period: 12.253 d

KOI: K06533 Corr: No Ephemeris Match

Kp: 12.62 R*: 1.53 Rs Teff: 6881.0 K Logg: 4.25 Fe/H: 0.360



DV Fit Results:

Period = 12.25300 [0.00021] d
Epoch = 133.2124 [0.0128] BKJD
Rp/R* = 0.0067 [0.0005]
a/R* = 2.14 [0.49]
b = 0.88 [0.07]
Seff = 328.39 [151.80]
Teq = 1085 [125] K
Rp = 1.13 [0.42] Re
a = 0.1200 [0.0361] AU
Ag = 204.56 [95.96] [2.12σ]
Teffp = 6347 [395] K [12.69σ]

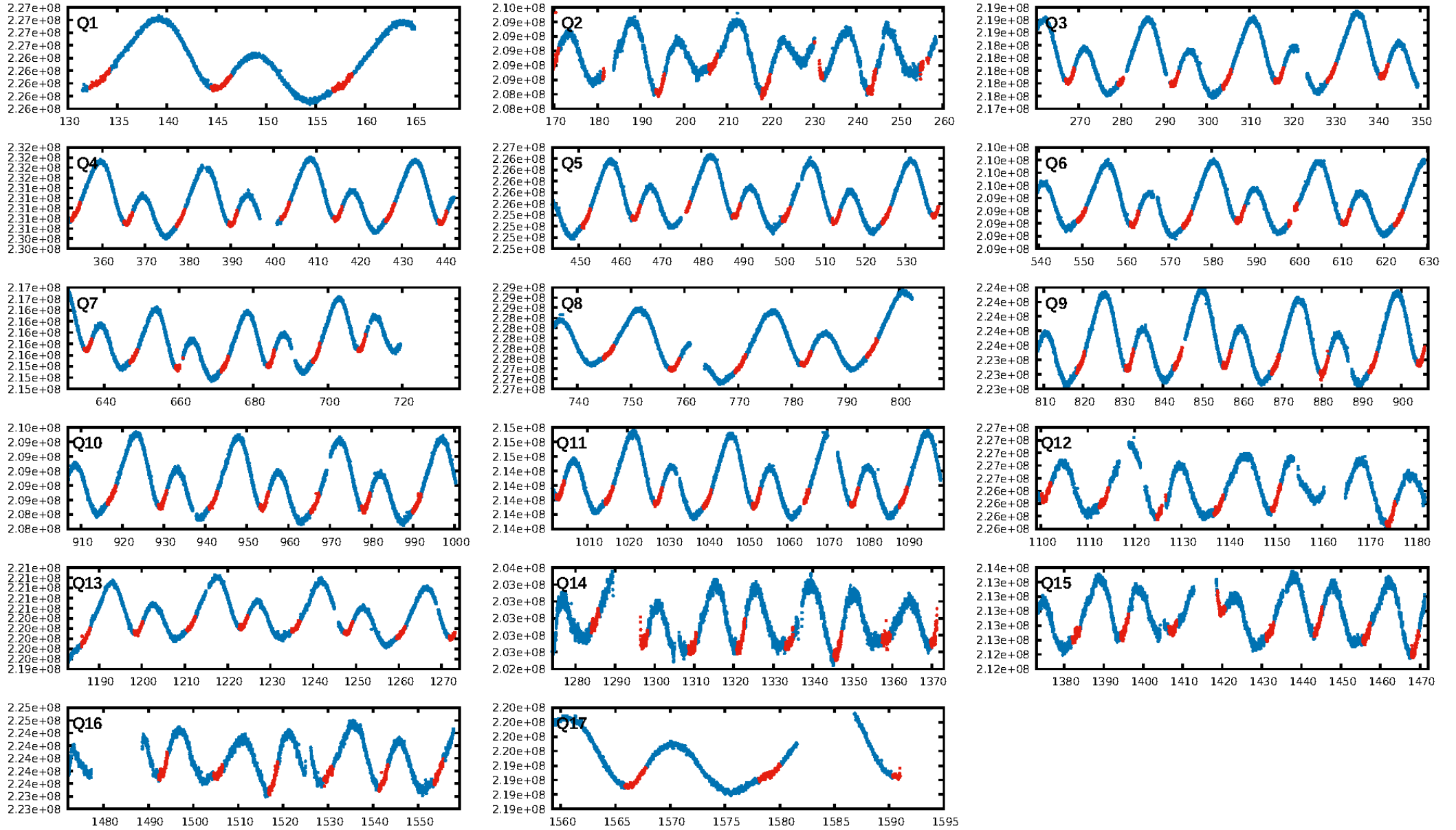
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 90.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.07e-28
RollingBand-fgt: 1.00 [108/108]
GhostDiagnostic-chr: 0.9134
Centroid-sig: 3.1%
Centroid-so: 1.275 arcsec [1.49σ]
OotOffset-rm: 0.177 arcsec [0.94σ]
KicOffset-rm: 0.211 arcsec [1.05σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

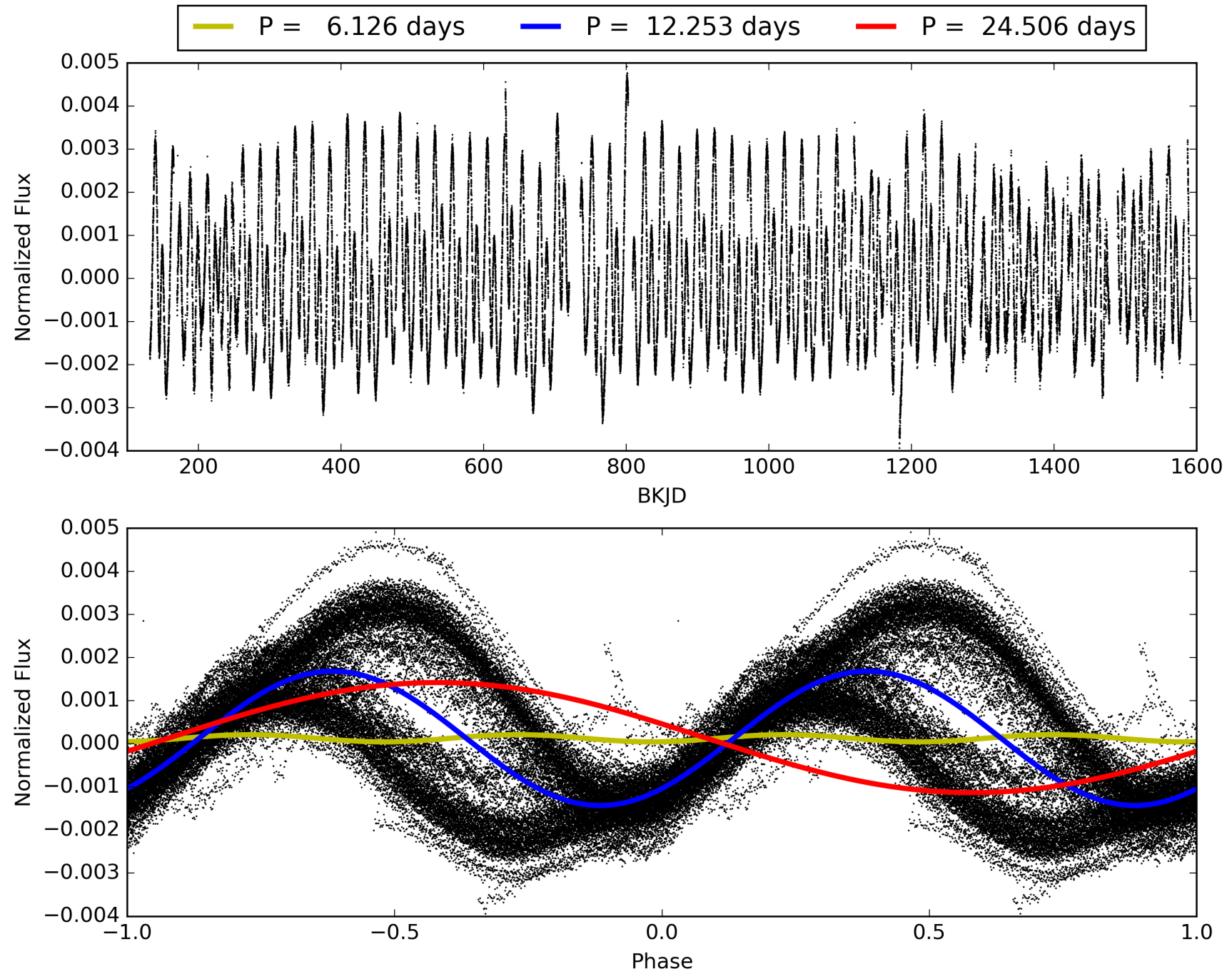
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:35:21 Z

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

TCE 005172274-01, PDC Light Curves

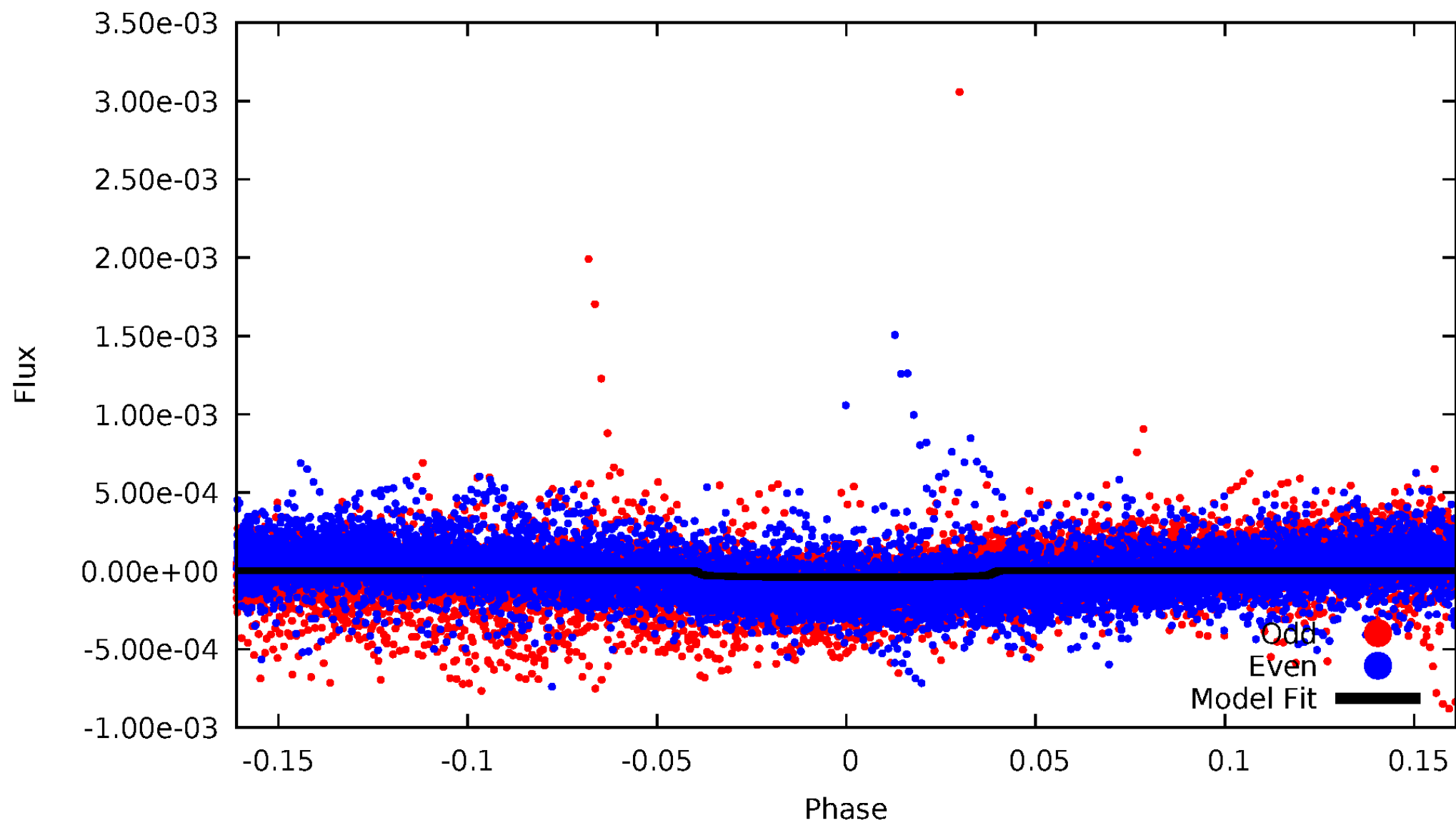


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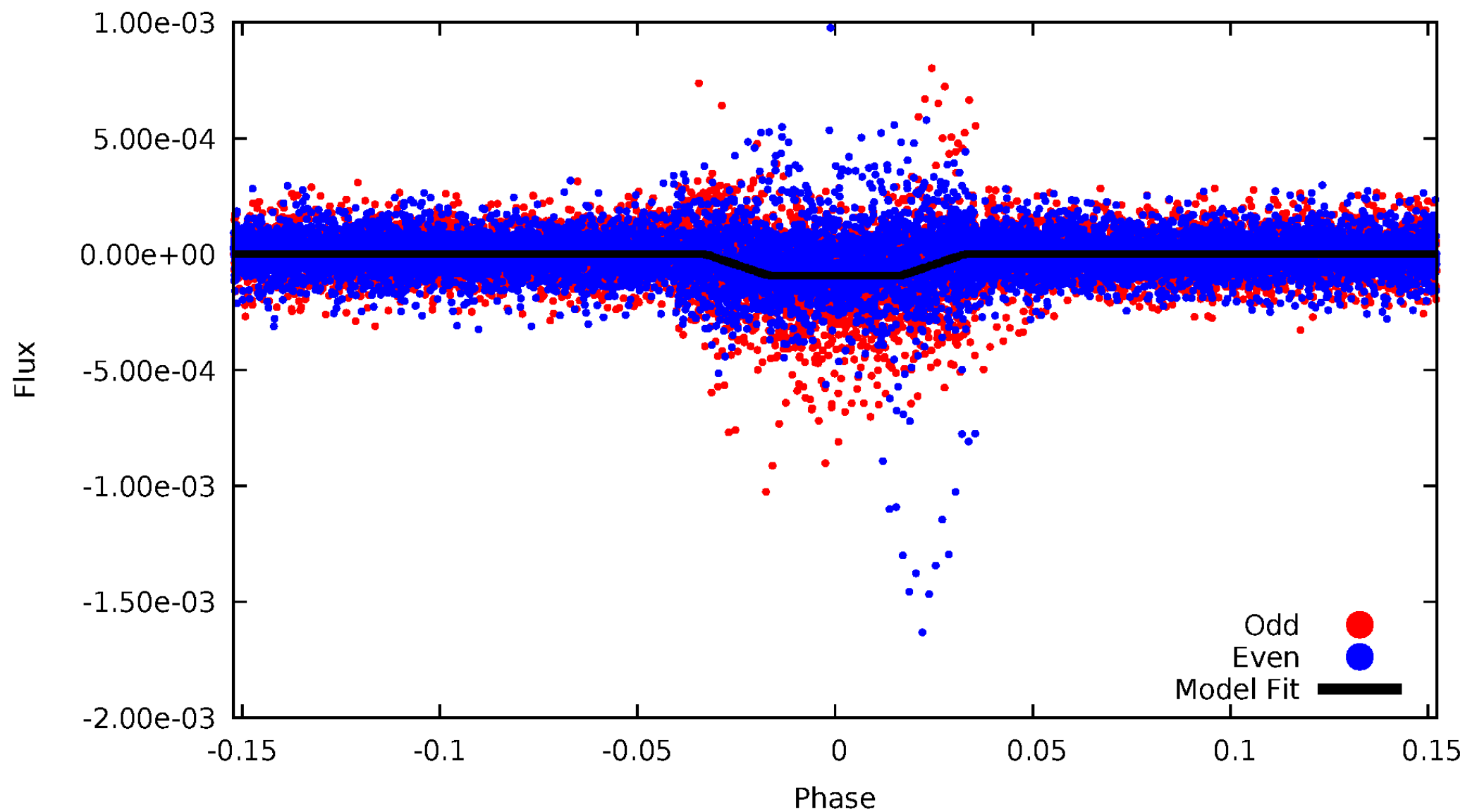
DV Odd/Even

TCE 005172274-01



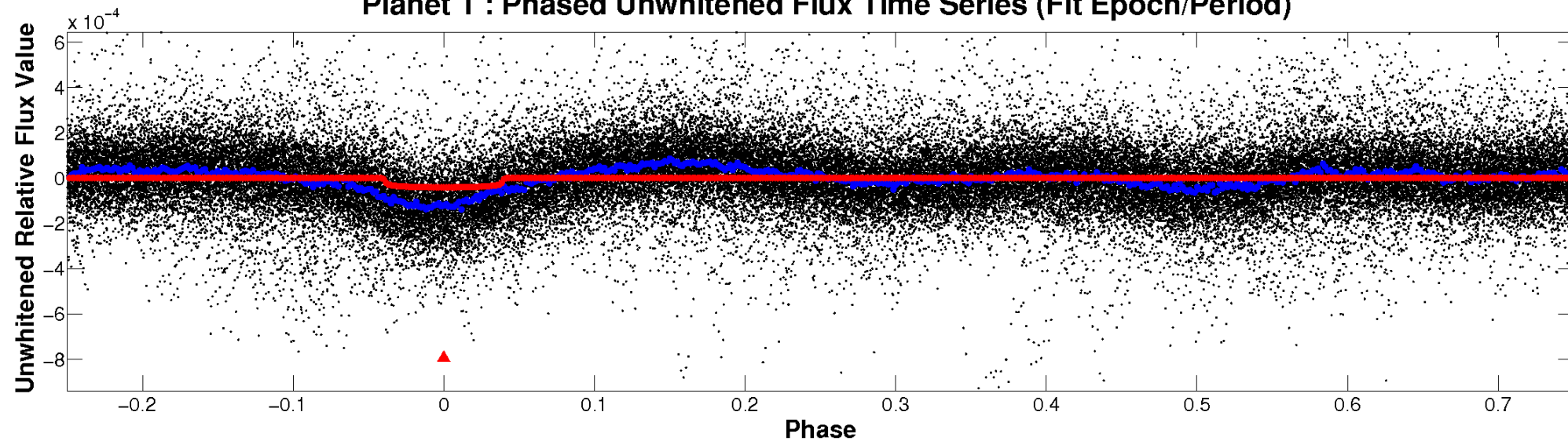
ALT Odd/Even

TCE 005172274-01

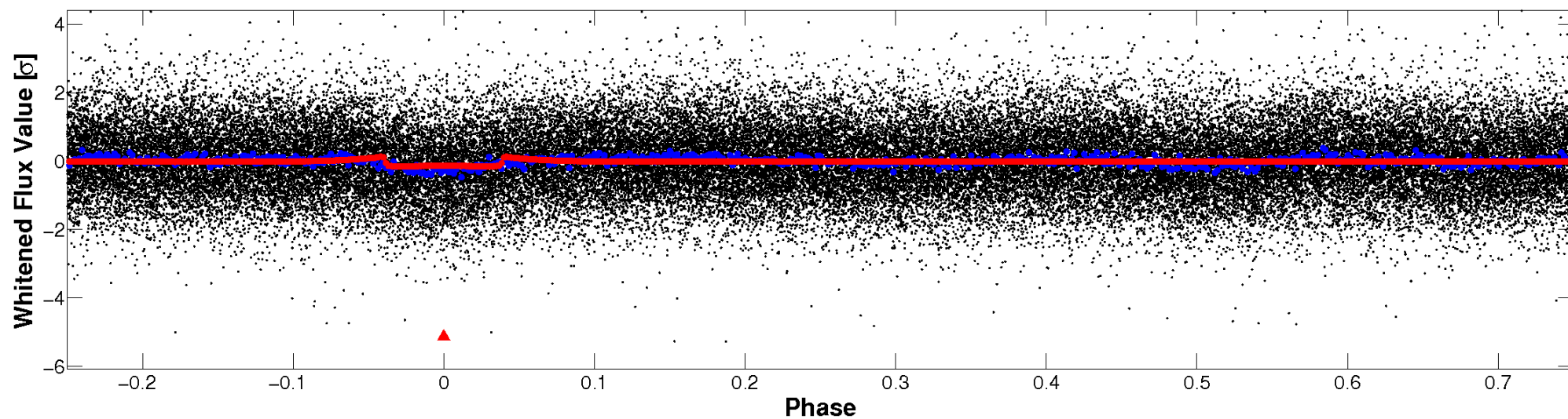


Non-Whitened Vs. Whitened Light Curve

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

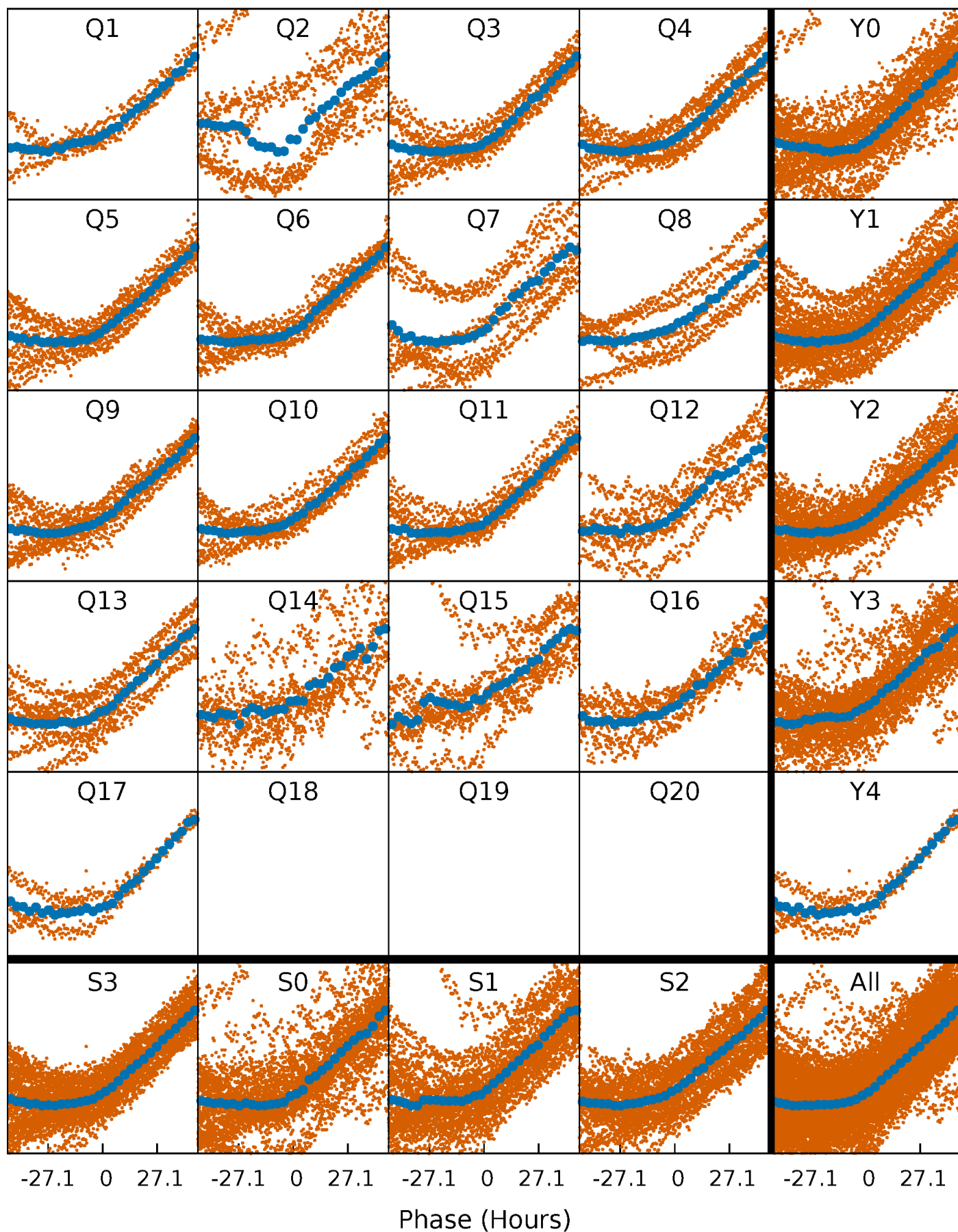


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



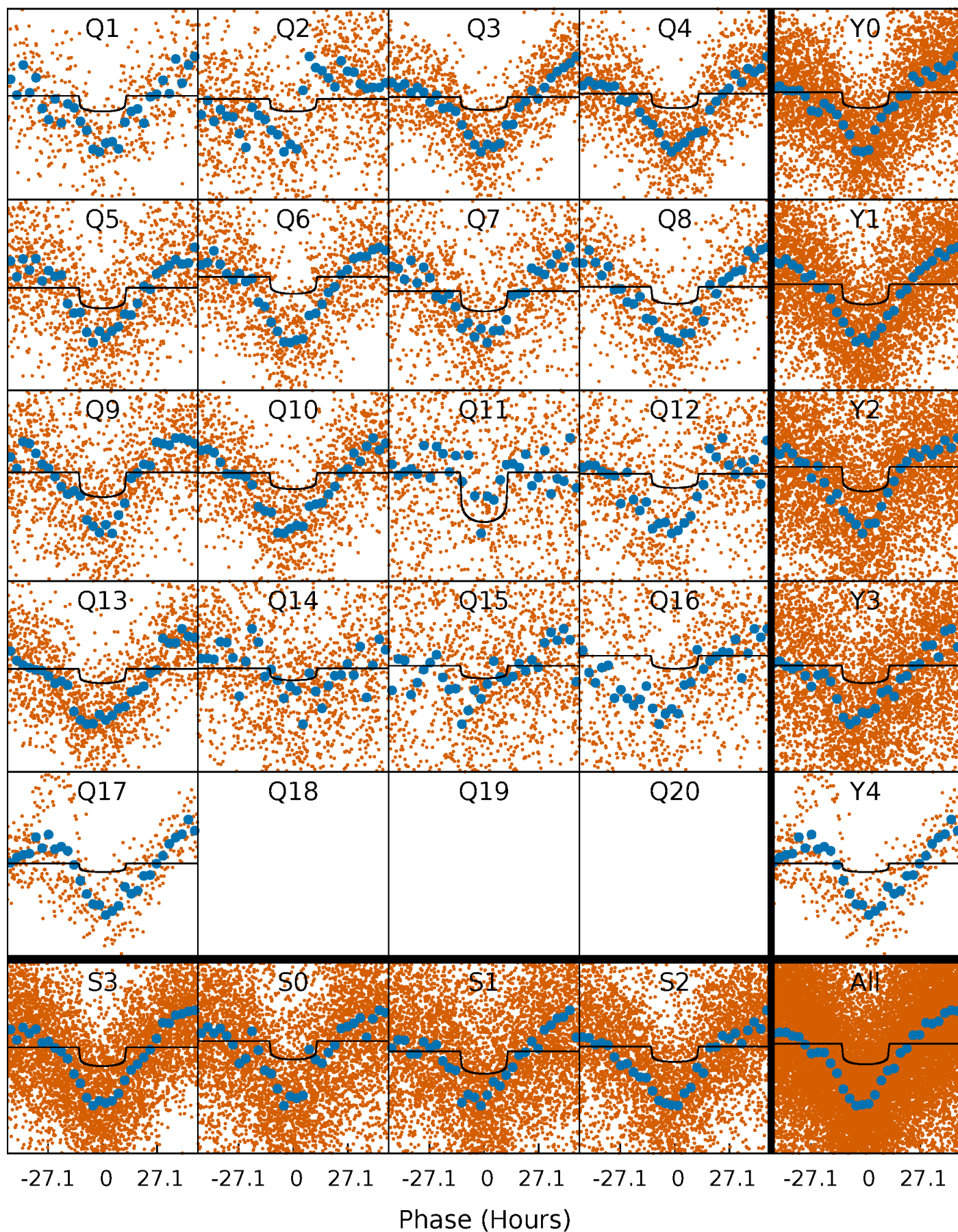
PDC Quarter-Phased Transit Curves

TCE 005172274-01 P= 12.252997 Days $T_0=133.212355$ (BKJD)



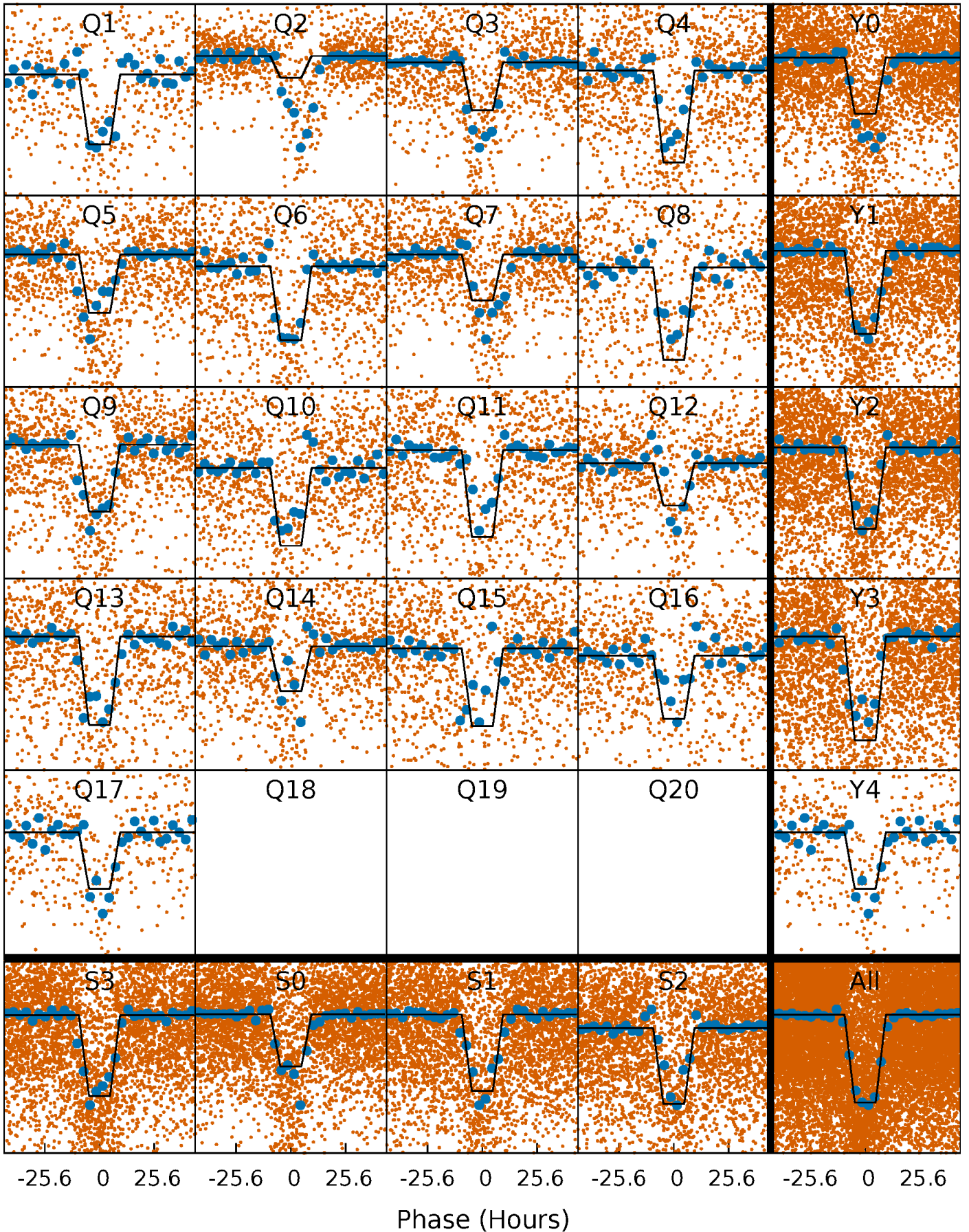
DV Quarter-Phased Transit Curves

TCE 005172274-01 P= 12.252997 Days $T_0=133.212355$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

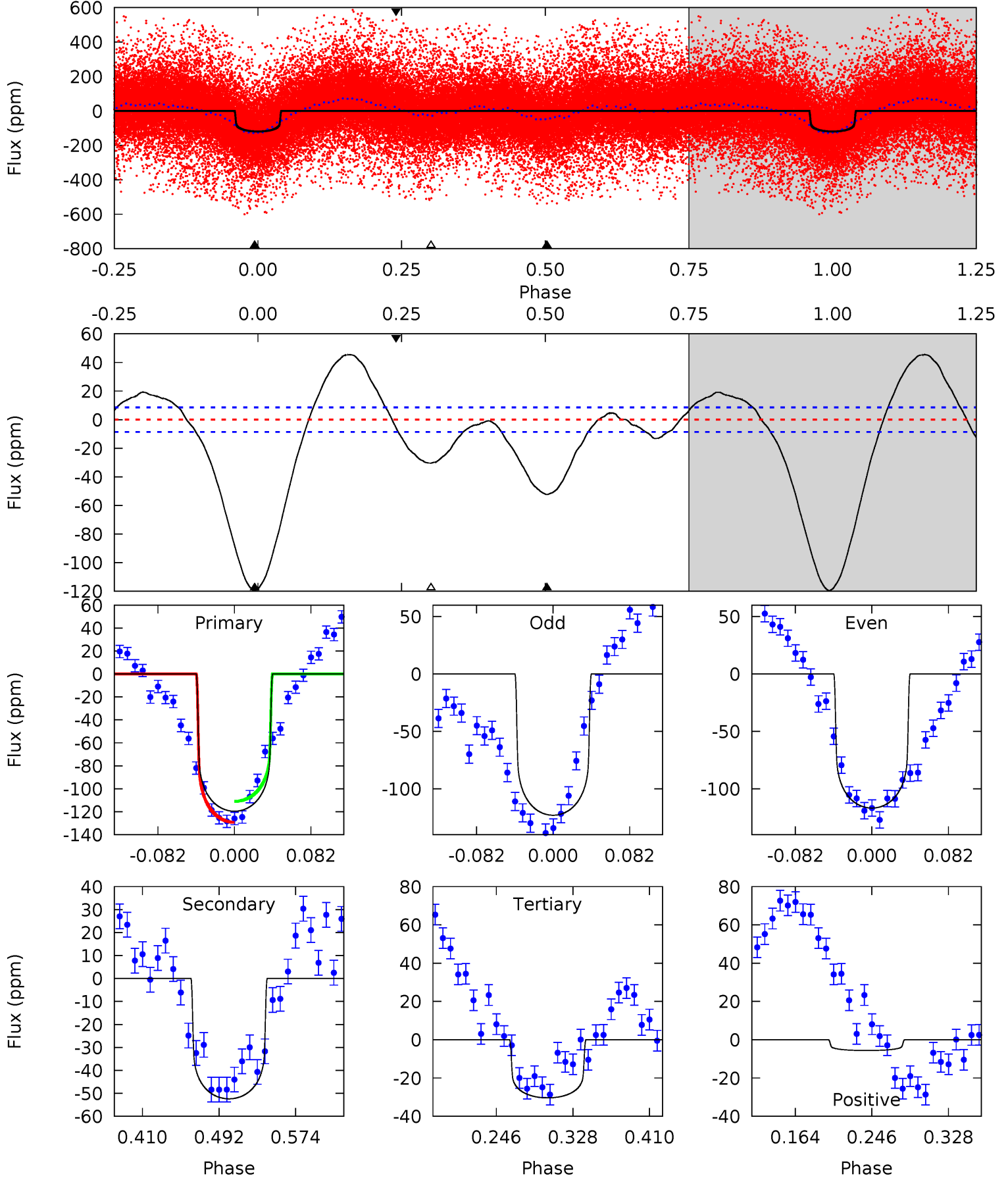
TCE 005172274-01 P= 12.253037 Days $T_0=133.220964$ (BKJD)



DV Model-Shift Uniqueness Test

005172274-01, P = 12.252997 Days, E = 120.959358 Days

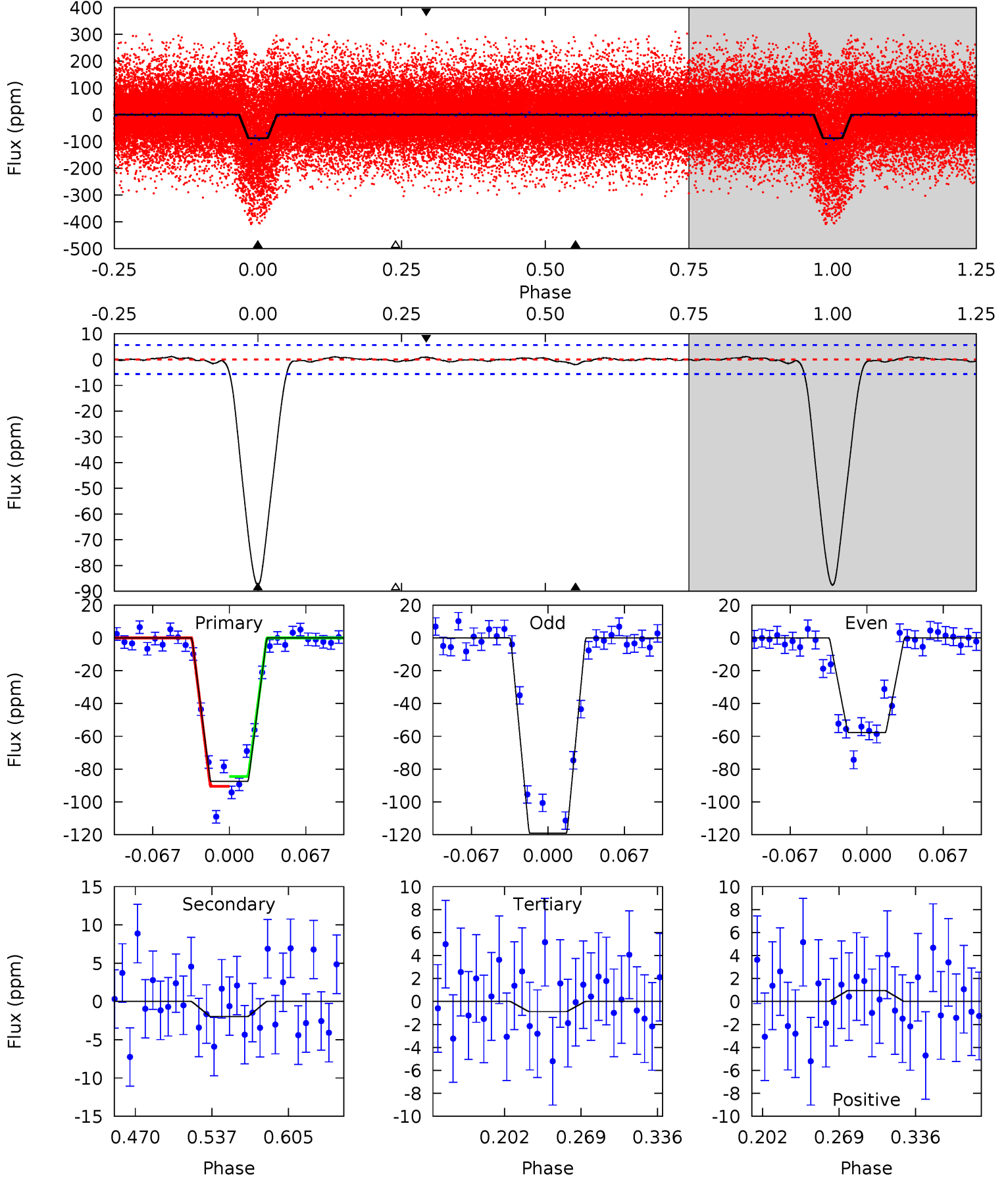
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
64.0	28.1	16.3	-3.03	4.61	1.74	10.2	47.8	67.1	11.8	31.1	1.68	0.85	0.28	4.91



Alt Model-Shift Uniqueness Test

005172274-01, $P = 12.253037$ Days, $E = 120.967927$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
72.3	1.62	0.73	0.78	4.65	1.83	0.41	71.6	71.5	0.89	0.84	25.3	1.36	0.01	2.48



Stellar Parameters For KIC 005172274

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6881^{+167}_{-287}	$4.252^{+0.058}_{-0.232}$	$0.360^{+0.100}_{-0.300}$	$1.534^{+0.559}_{-0.186}$	$1.535^{+0.202}_{-0.165}$	$0.599^{+0.191}_{-0.356}$
	+2%/-4%	+1%/-5%	+28%/-83%	+36%/-12%	+13%/-11%	+32%/-59%
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 005172274-01 / KOI 6533.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-52 ± 2	$1.17^{+0.23}_{-0.13}$	1551^{+116}_{-89}	7128^{+385}_{-356}	297^{+70}_{-81}
Alt.	-2 ± 1	$1.67^{+0.30}_{-0.16}$	1542^{+133}_{-81}	3165^{+268}_{-455}	$5.347^{+3.708}_{-3.481}$

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 $A_{\text{obs}} \gg 1.0$

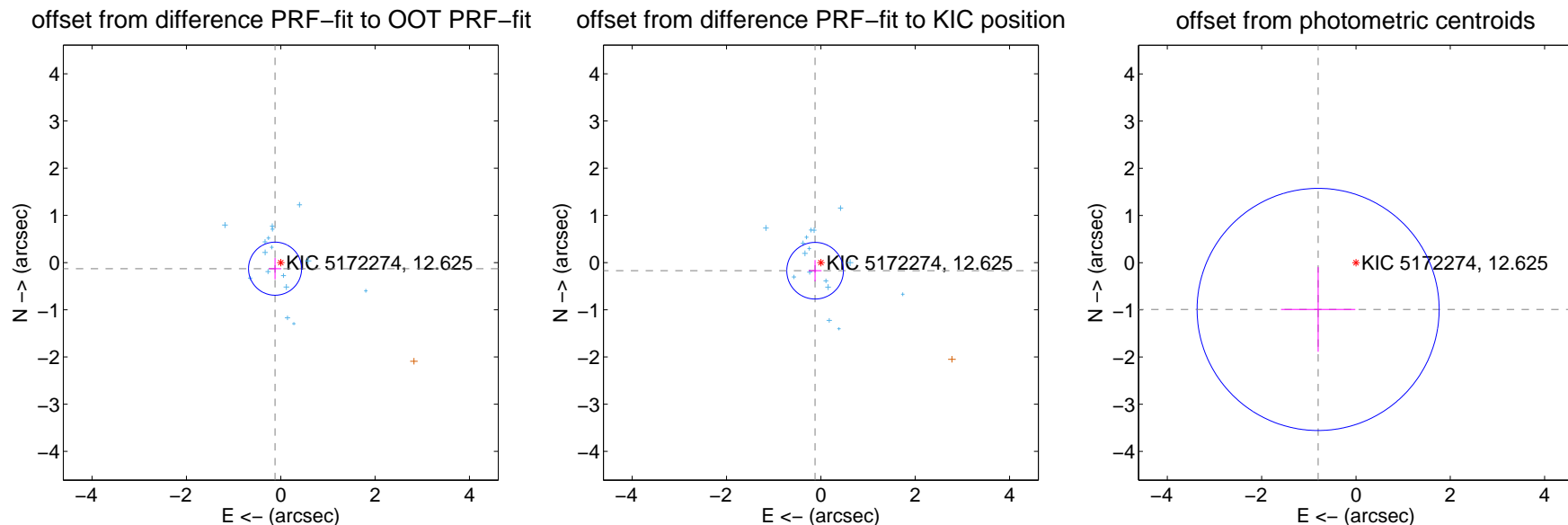
DV Centroid Data

Supplemental centroid analysis for 005172274-01. Kepler magnitude: 12.62. Transit SNR 11.78

There are 16 quarters with good PRF difference image offsets

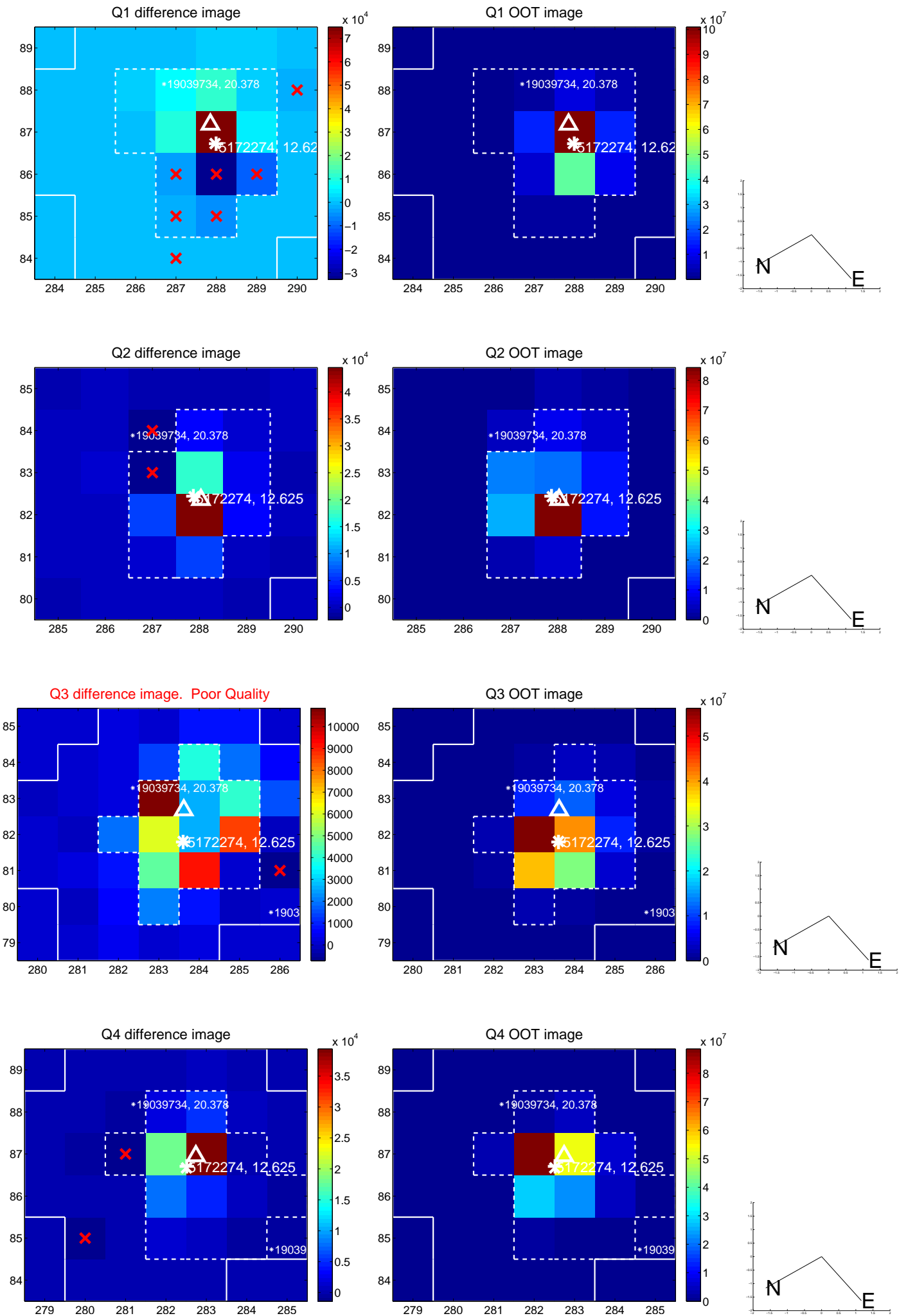
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.177 ± 0.188	0.94	0.120 ± 0.130	-0.129 ± 0.226
PRF-fit source offset from KIC position	0.211 ± 0.200	1.05	0.122 ± 0.135	-0.172 ± 0.226
photometric centroid source offset	1.28 ± 0.86	1.49	0.80 ± 0.79	-0.99 ± 0.90

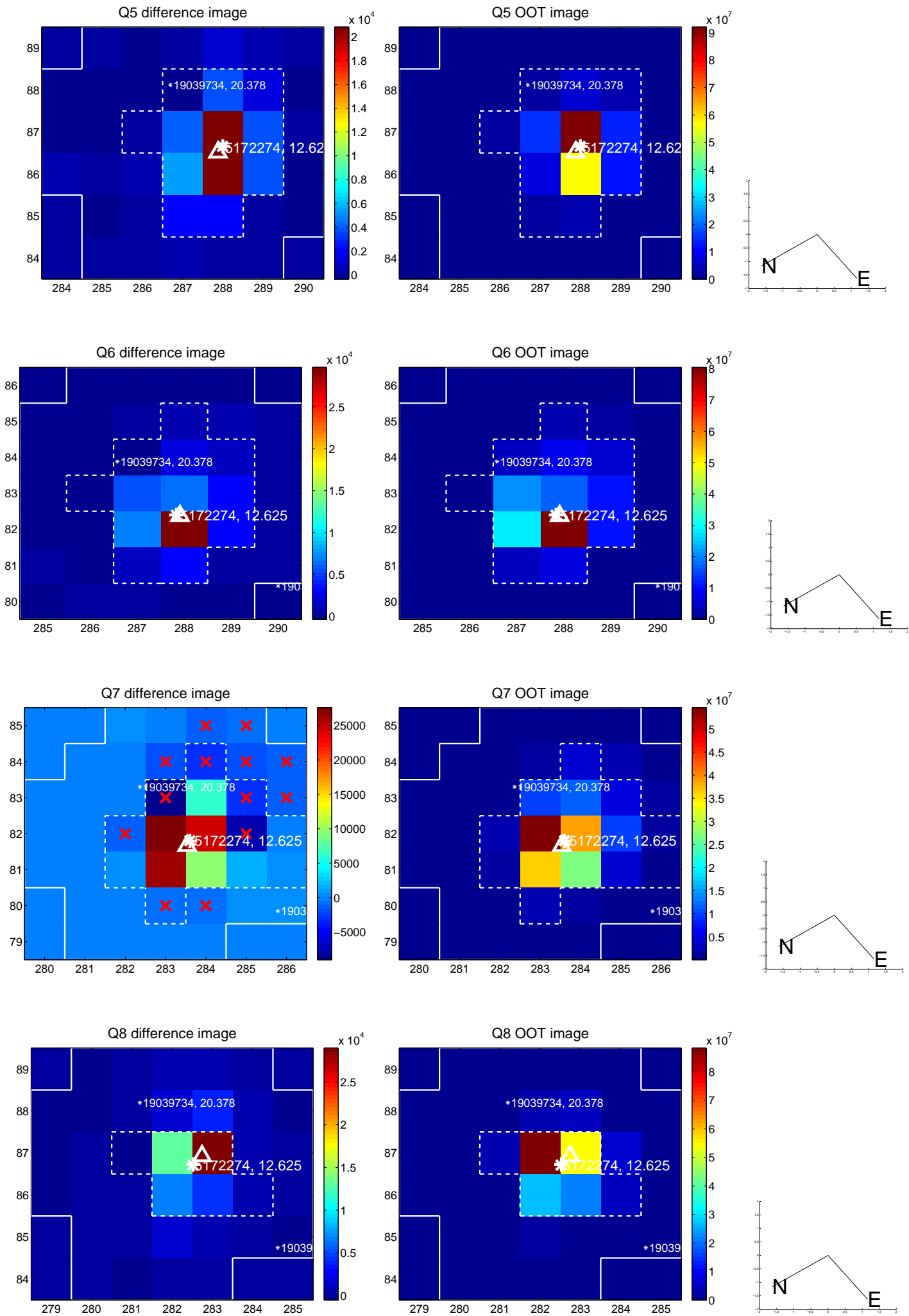


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

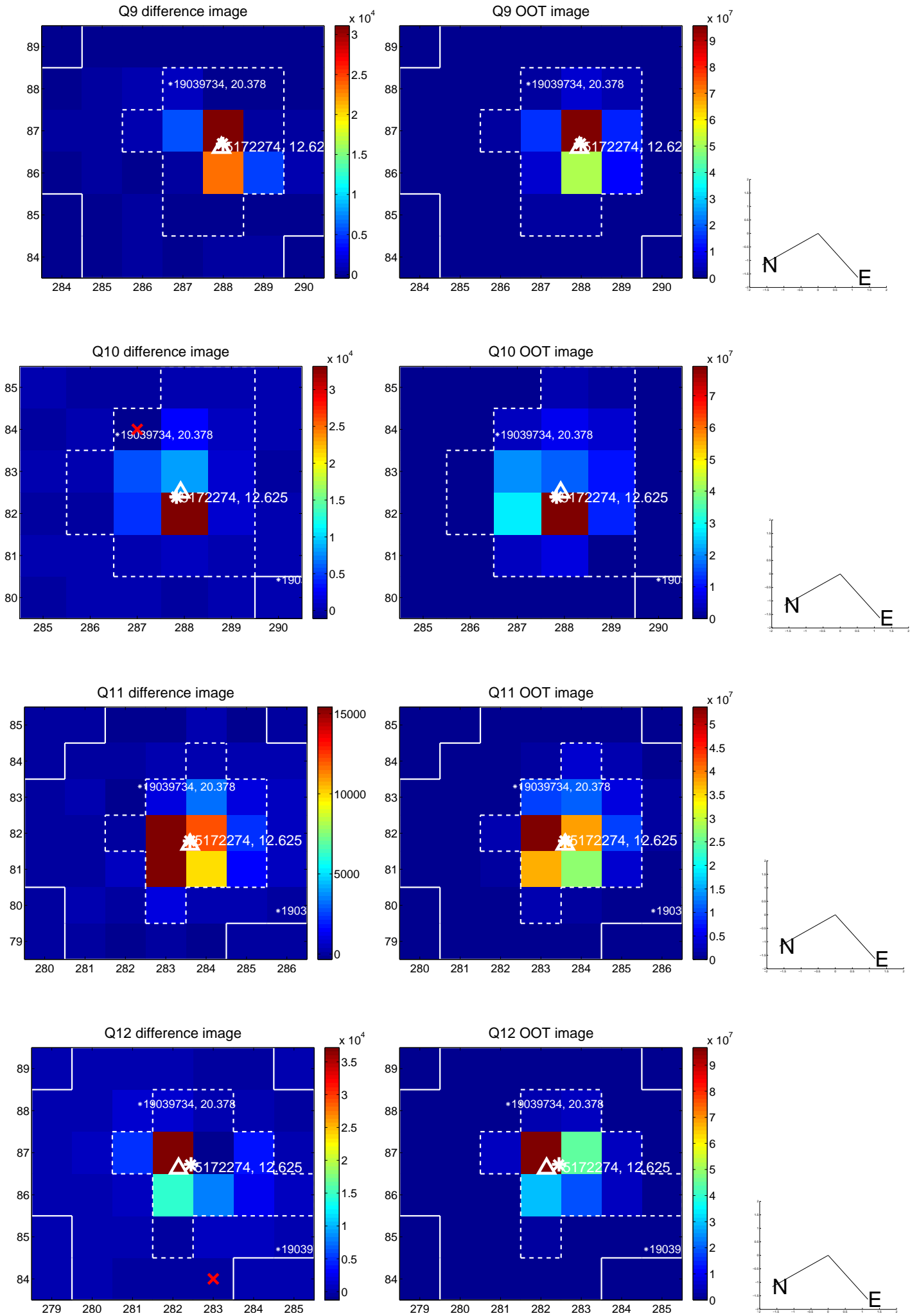
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



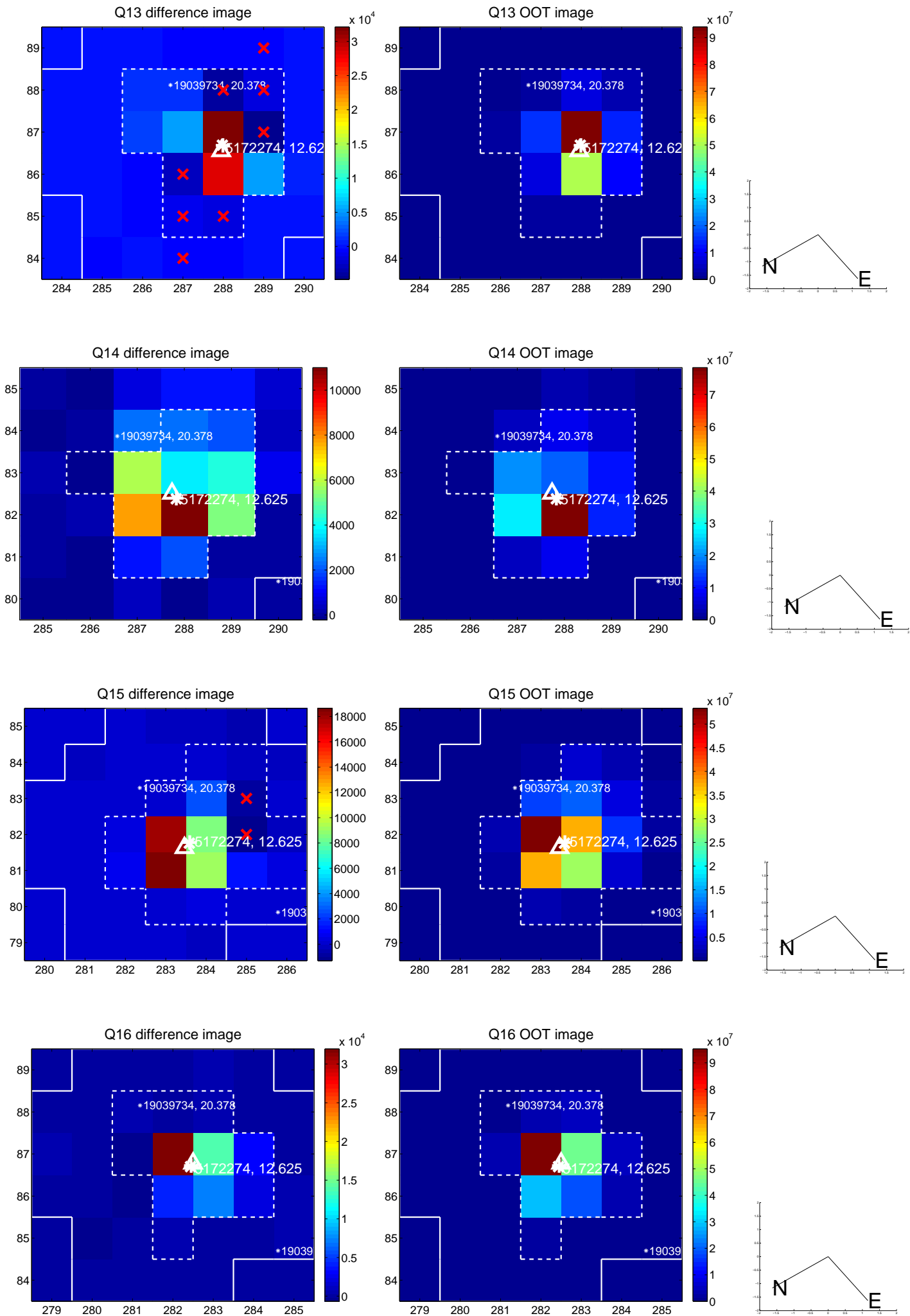
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



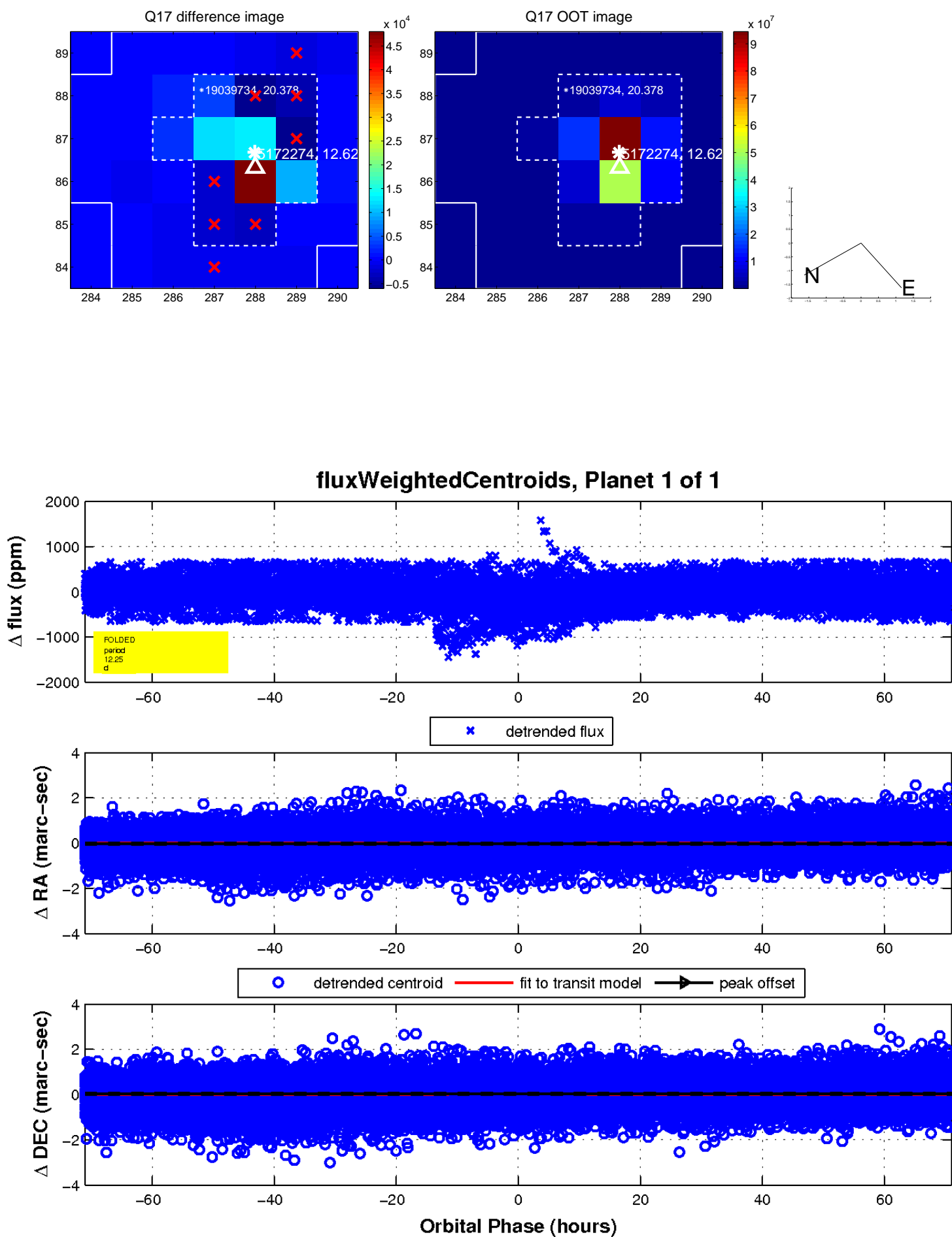
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

