

KIC 007200269

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})
007200269-01	OBS	No	0.566790	131.843794	9.5	4.338	11.1	12.0	1.31	5993	0.41	10836.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007200269-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH

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.

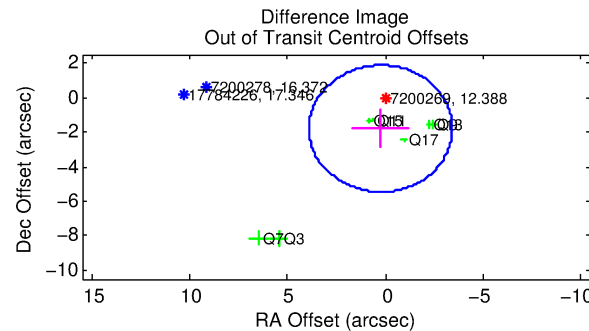
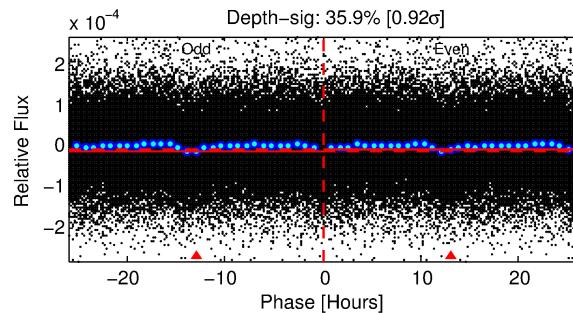
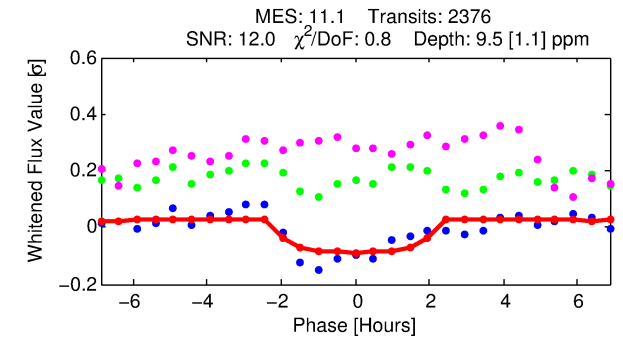
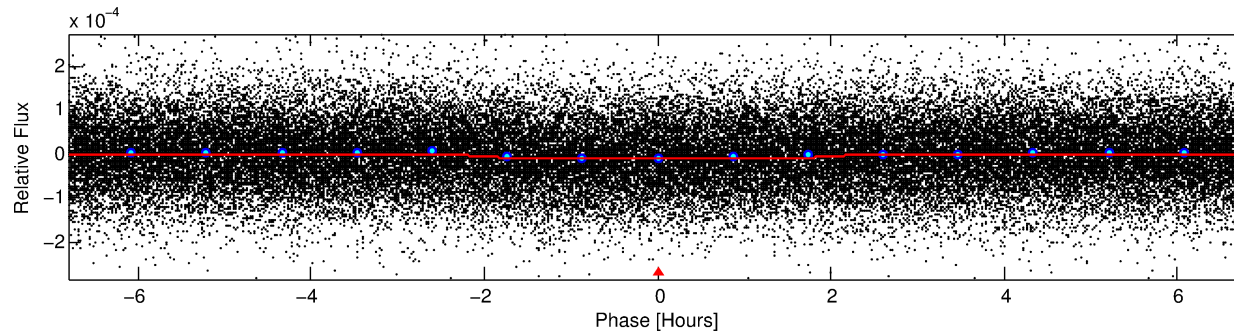
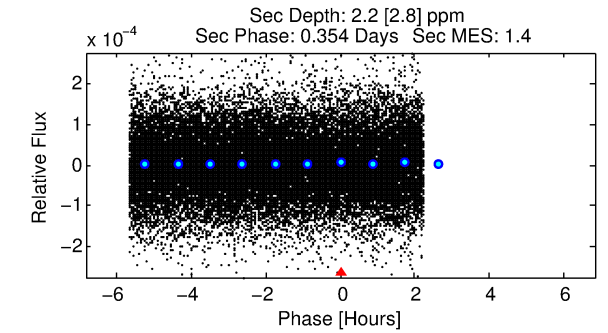
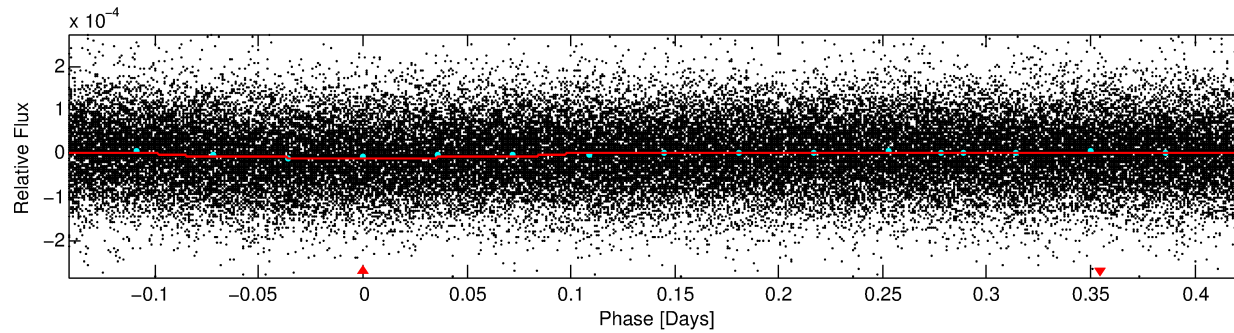
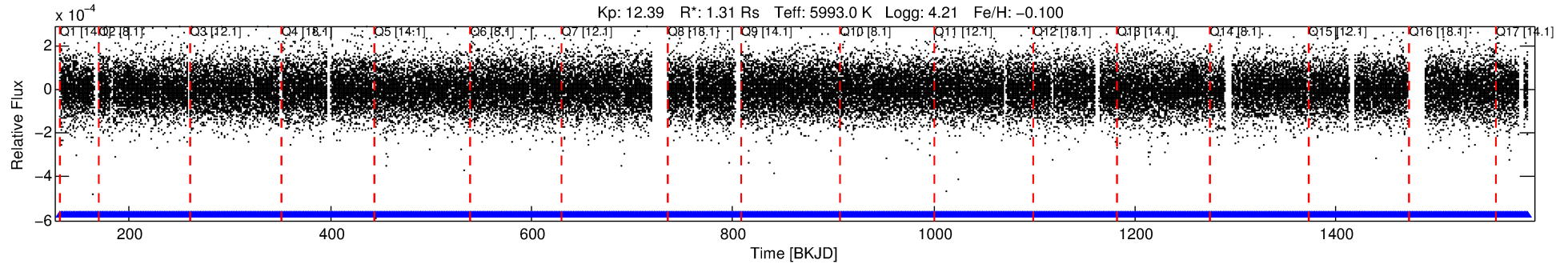
Ephemeris Match Information For 007200269-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007200269-01	7200269	RR-Lyr-pri	7198959	1:1	1033.4	152	210	7.86	12.39	62330.00	Direct-PRF	0	1.56	17.37

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7200269 Candidate: 1 of 1 Period: 0.567 d



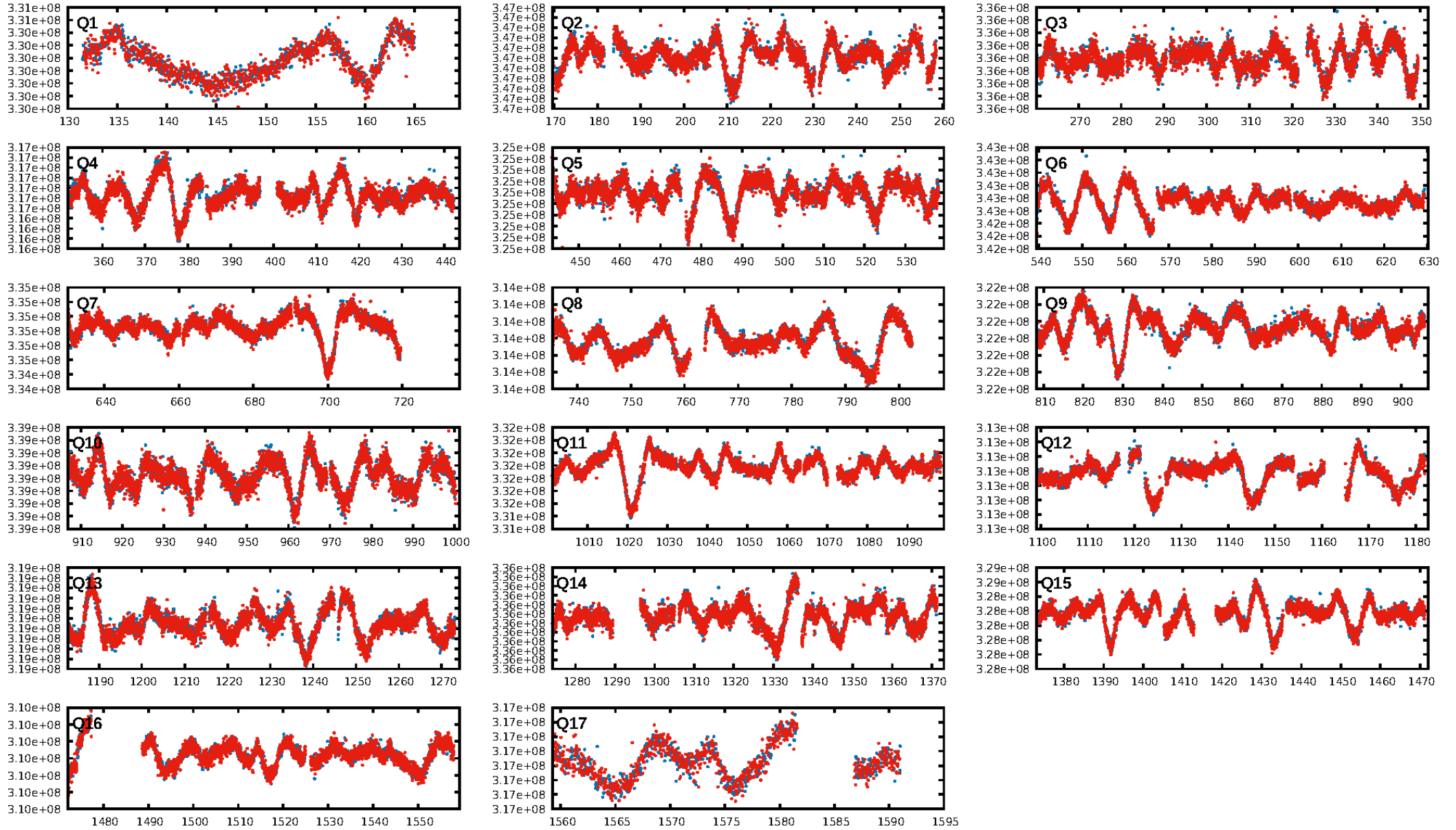
DV Fit Results:

Period = 0.56679 [0.00001] d
Epoch = 131.8438 [0.0033] BKJD
Rp/R* = 0.0029 [0.0016]
a/R* = 1.15 [0.74]
b = 0.50 [4.10]
Seff = 10836.04 [4434.39]
Teq = 2602 [266] K
Rp = 0.41 [0.26] Re
a = 0.0135 [0.0034] AU
Ag = 1.31 [2.26] [0.14σ]
Teffp = 4307 [1808] K [0.93σ]

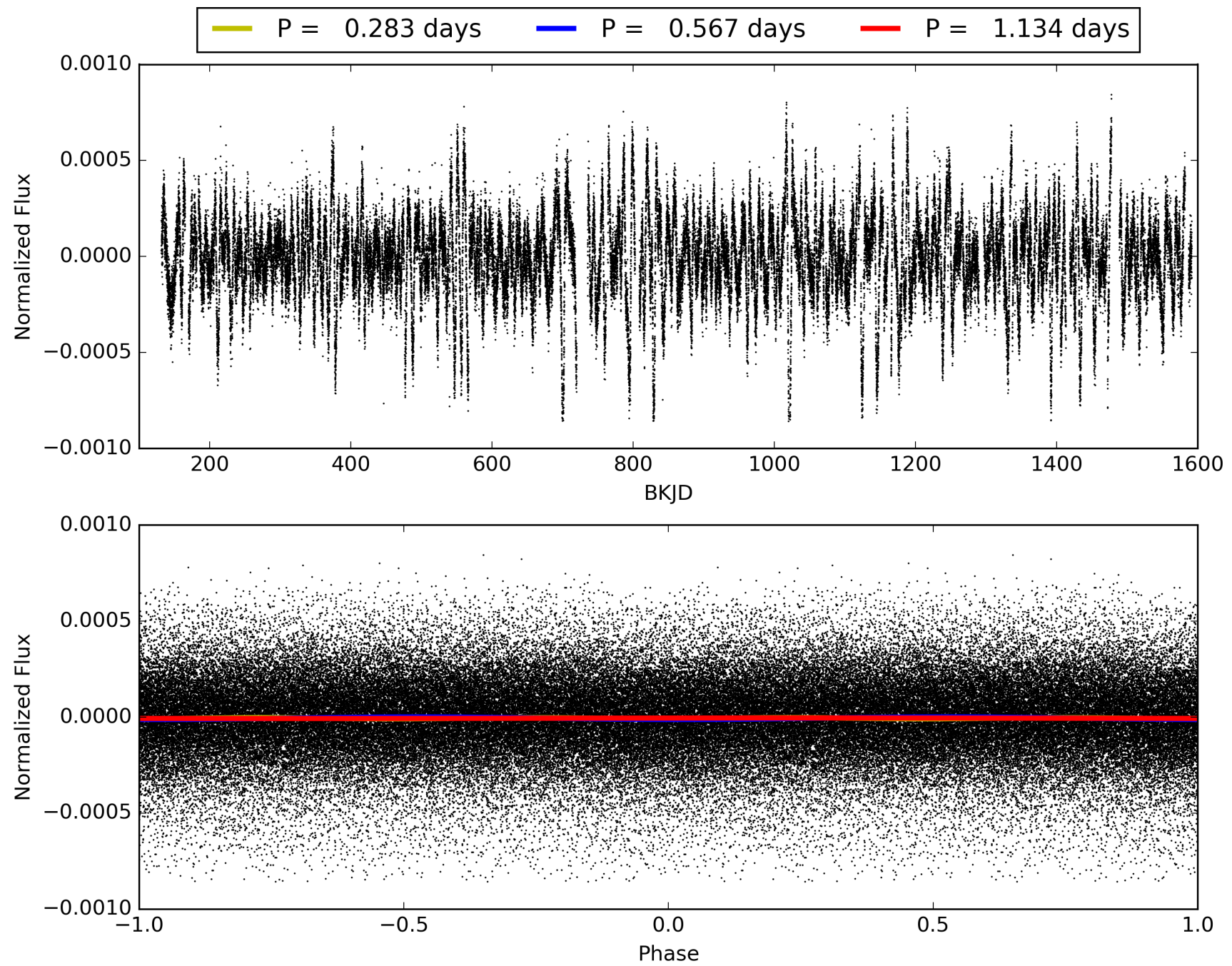
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.07e-20
RollingBand-fgt: 1.00 [2270/2270]
GhostDiagnostic-chr: 0.1019
Centroid-sig: 0.0%
Centroid-so: 2.964 arcsec [3.80σ]
OotOffset-rm: 1.812 arcsec [1.48σ]
KicOffset-rm: 1.879 arcsec [1.75σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.29 [2/7]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007200269-01, PDC Light Curves

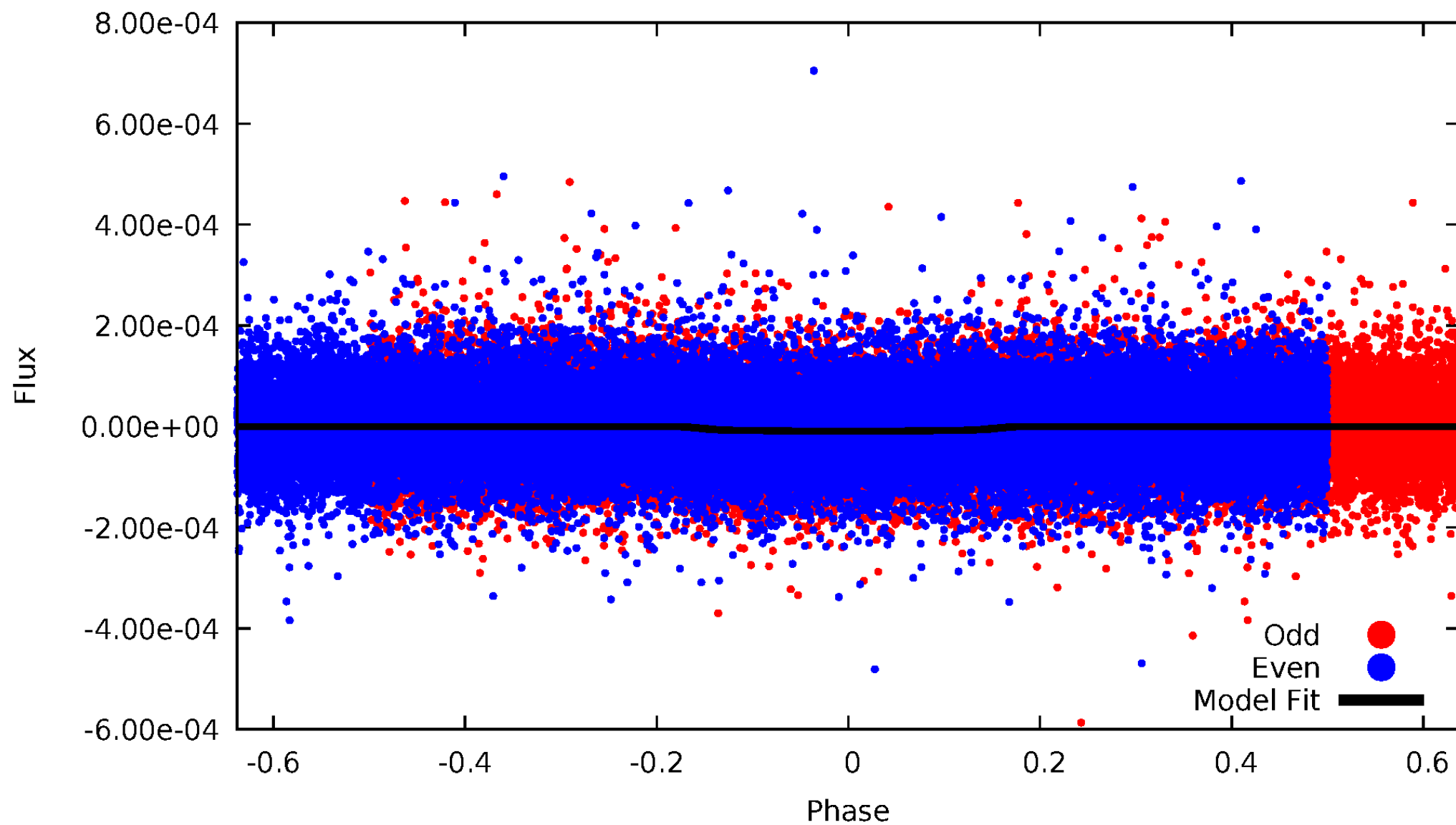


TCE 007200269-01



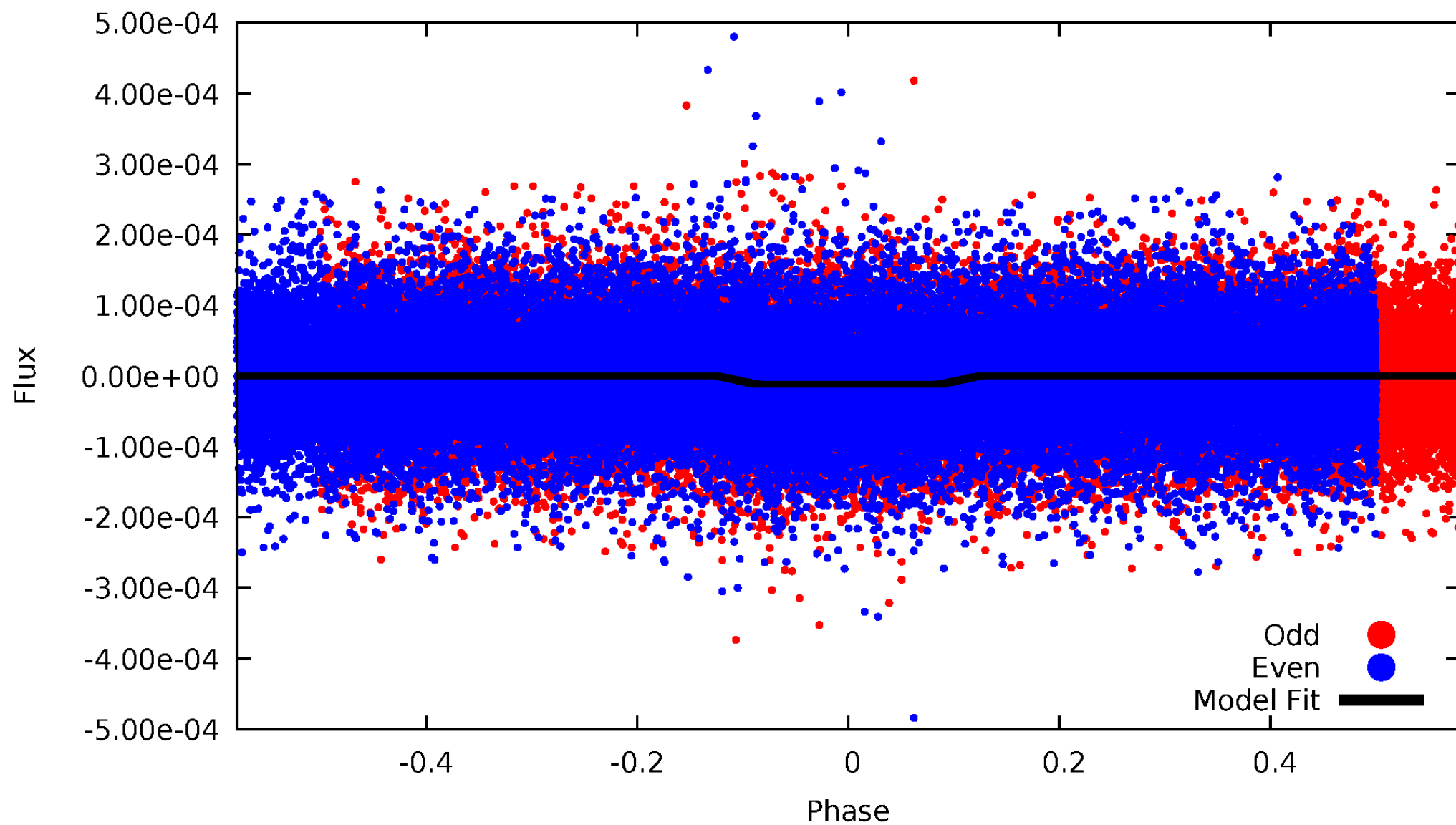
DV Odd/Even

TCE 007200269-01



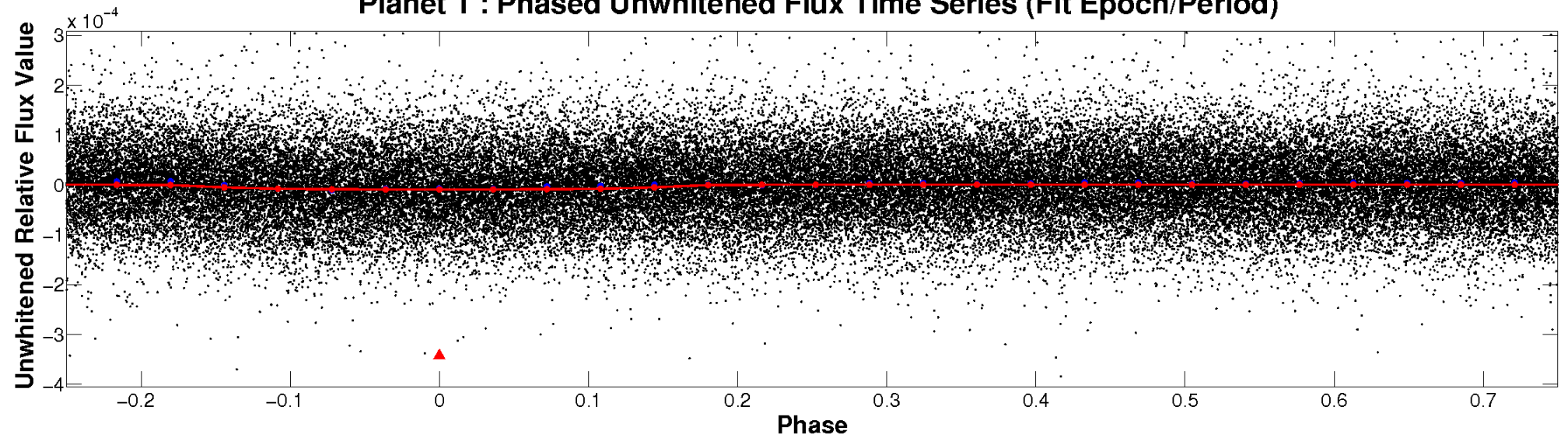
ALT Odd/Even

TCE 007200269-01

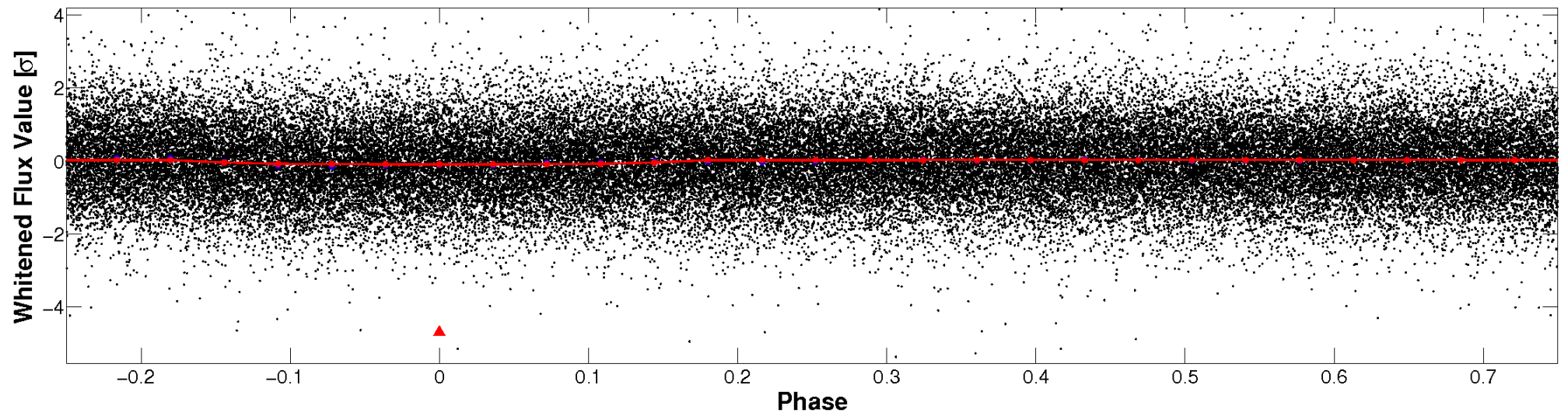


Non-Whitened Vs. Whitened Light Curve

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

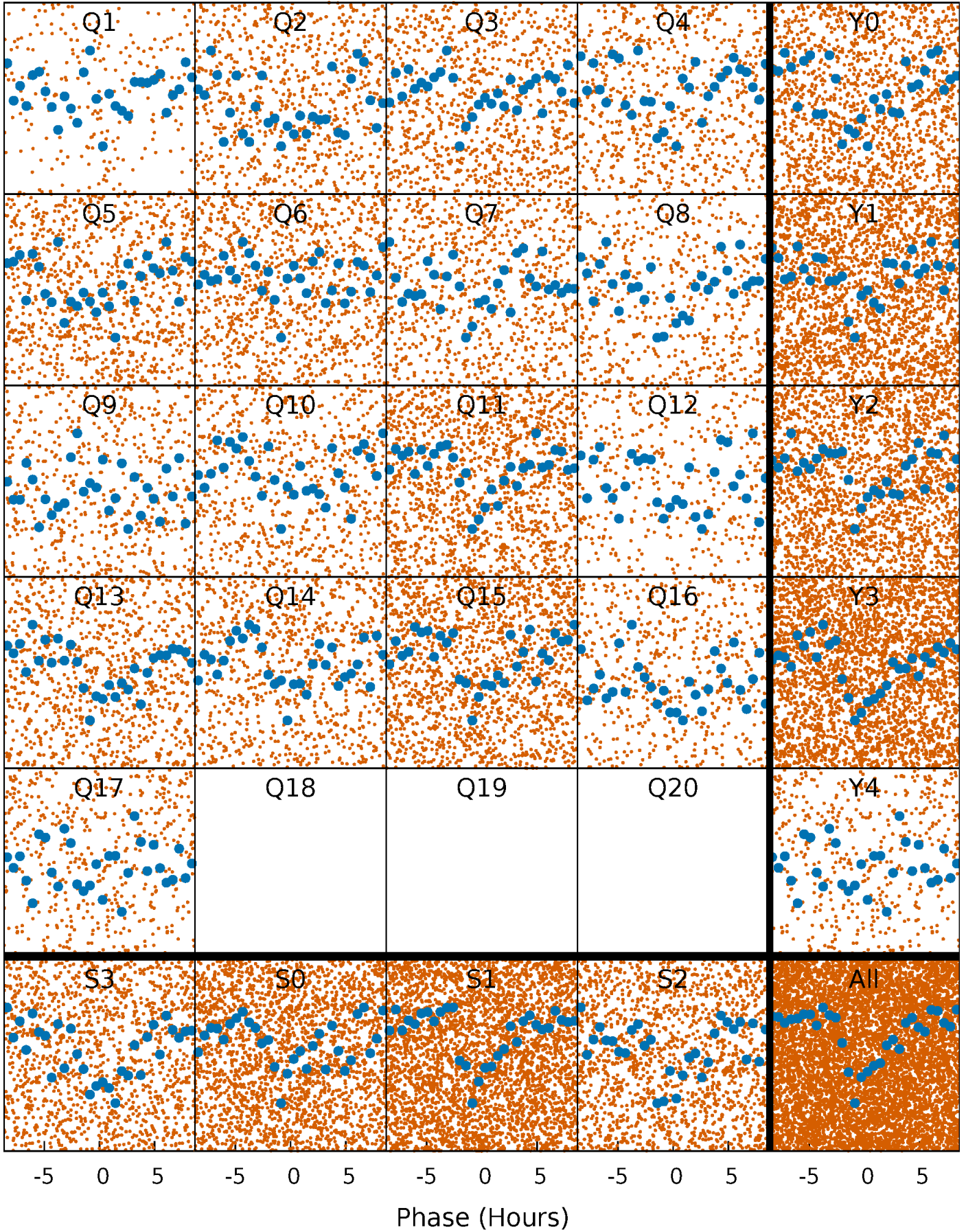


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



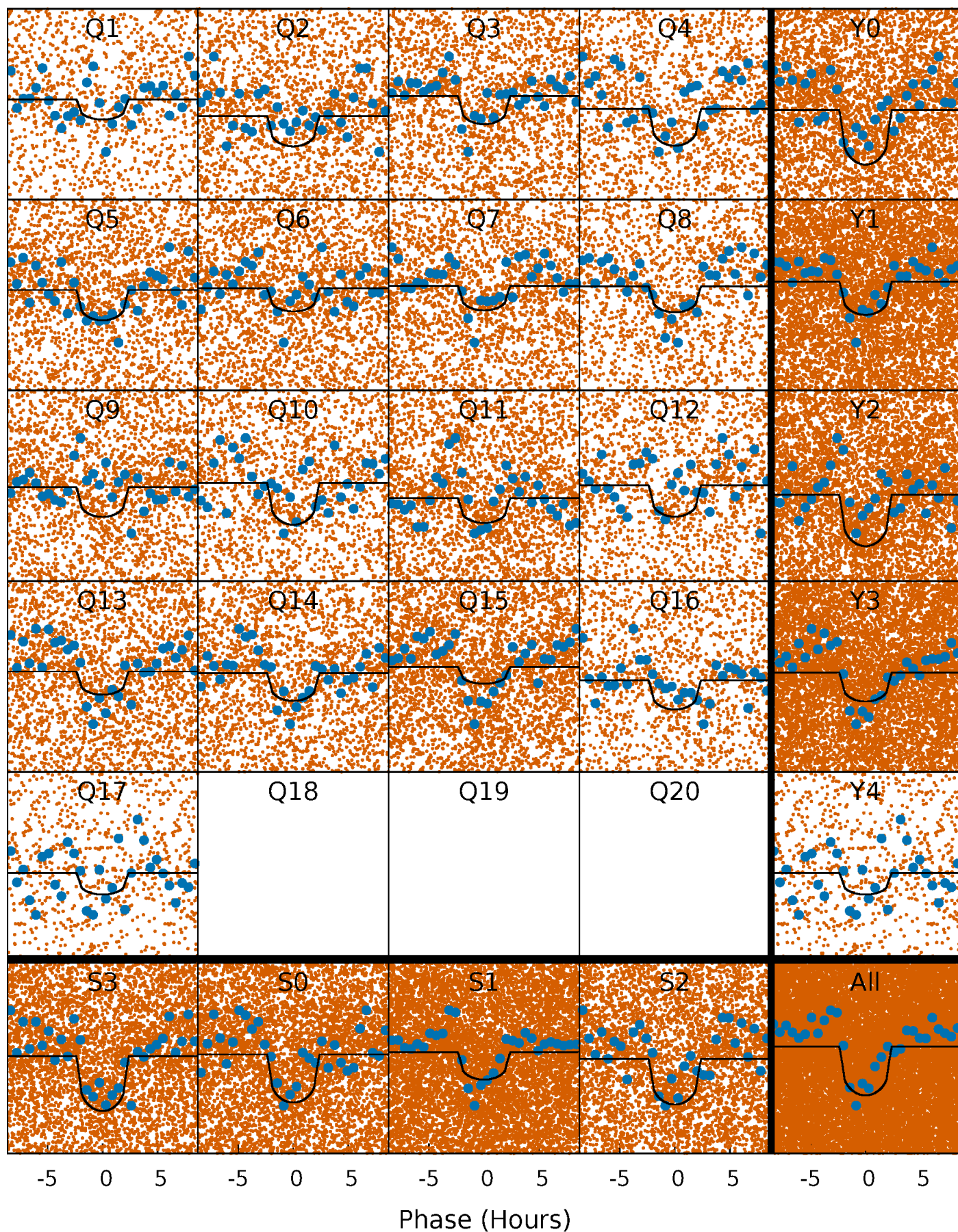
PDC Quarter-Phased Transit Curves

TCE 007200269-01 P= 0.566790 Days $T_0=131.843794$ (BKJD)



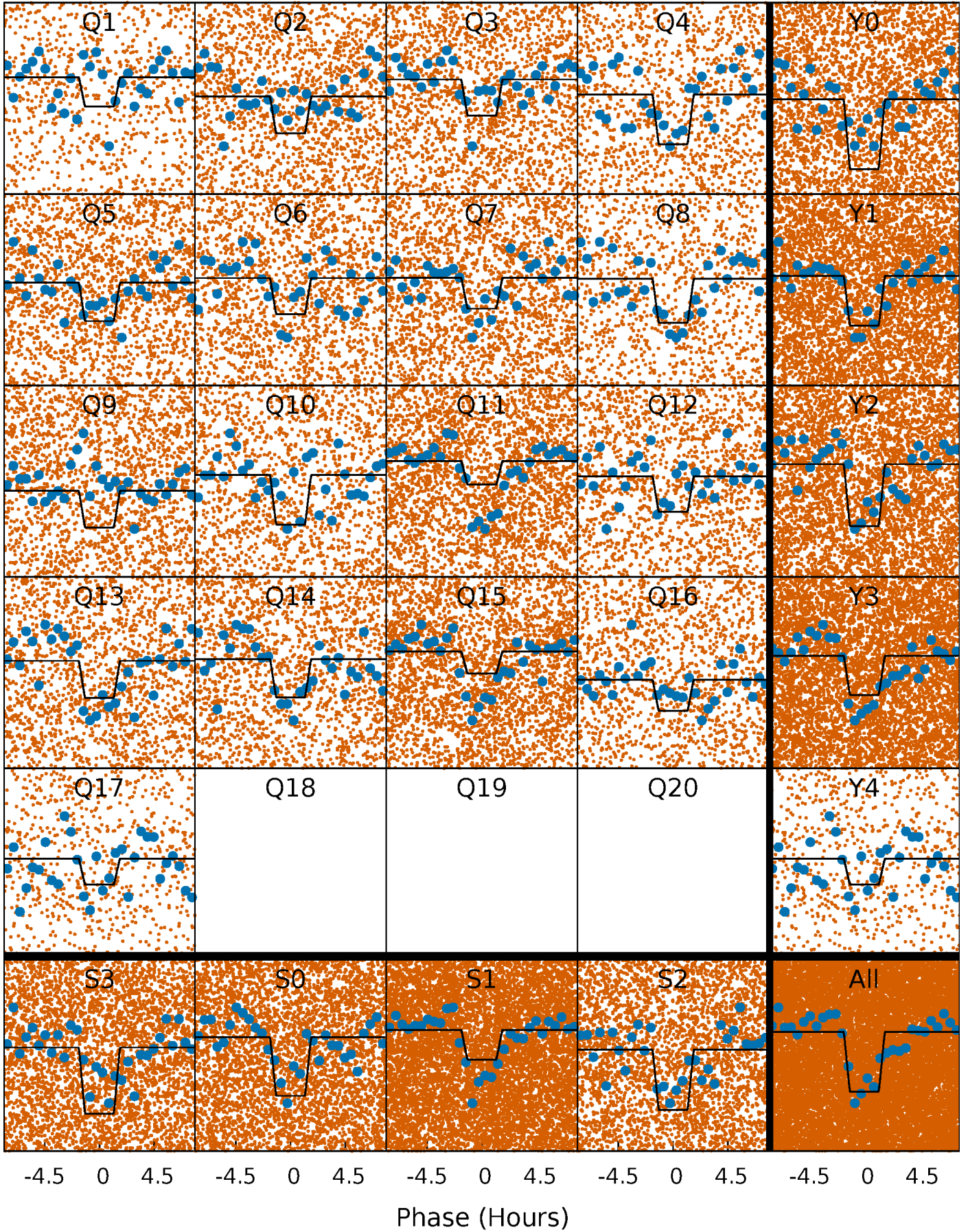
DV Quarter-Phased Transit Curves

TCE 007200269-01 P= 0.566790 Days $T_0=131.843794$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

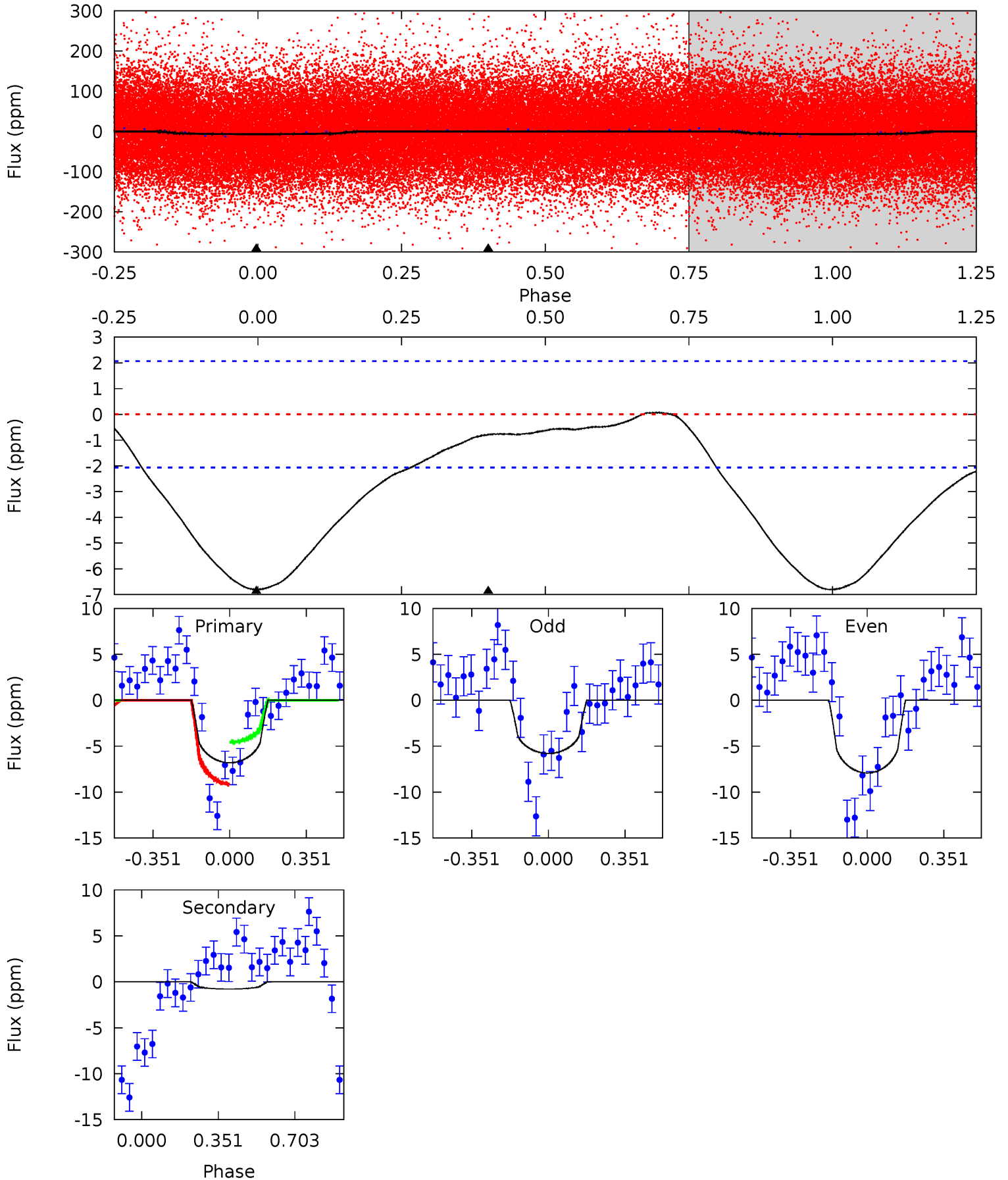
TCE 007200269-01 P= 0.566795 Days $T_0=131.823958$ (BKJD)



DV Model-Shift Uniqueness Test

007200269-01, P = 0.566790 Days, E = 131.277004 Days

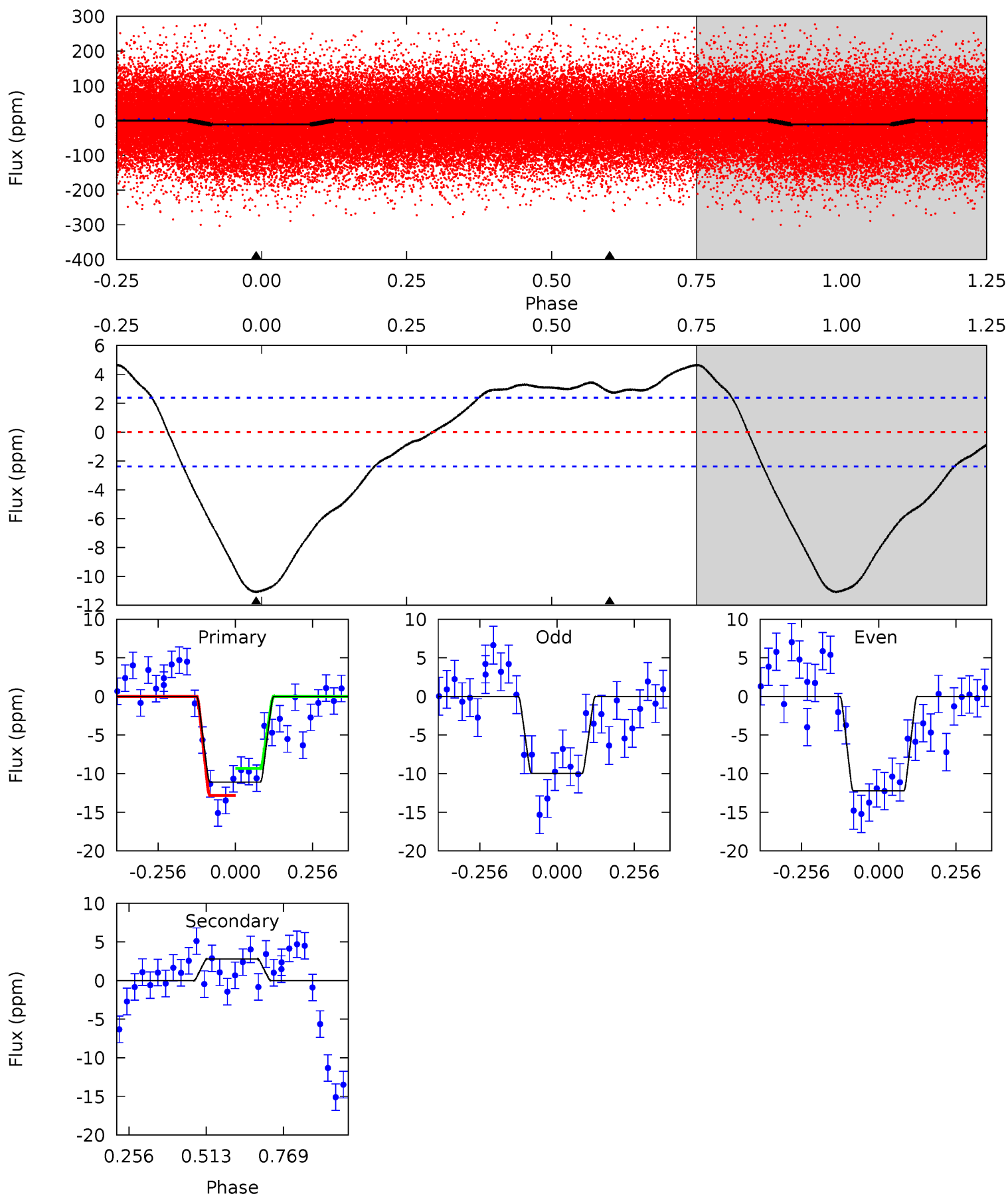
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	1.65	0	0	4.29	0.93	0.30	14.2	14.2	1.65	1.65	2.18	0.95	0.01	4.77



Alt Model-Shift Uniqueness Test

007200269-01, P = 0.566795 Days, E = 131.257163 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	-5.11	0	0	4.36	1.14	1.24	20.4	20.4	-5.11	-5.11	2.07	1.06	0.30	3.20



Stellar Parameters For KIC 007200269

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5993^{+189}_{-210}	$4.214^{+0.220}_{-0.180}$	$-0.100^{+0.300}_{-0.300}$	$1.306^{+0.360}_{-0.360}$	$1.019^{+0.153}_{-0.126}$	$0.644^{+0.872}_{-0.301}$
	+3%/-4%	+5%/-4%	+300%/-300%	+28%/-28%	+15%/-12%	+135%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007200269-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 0	$0.44^{+0.26}_{-0.22}$	3639^{+273}_{-287}	2699^{+1738}_{-5993}	$0.352^{+1.252}_{-0.248}$
Alt.	3 ± 1	$0.49^{+0.23}_{-0.24}$	3626^{+286}_{-292}	-4614^{+524}_{-1204}	$-1.150^{+0.635}_{-3.087}$

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

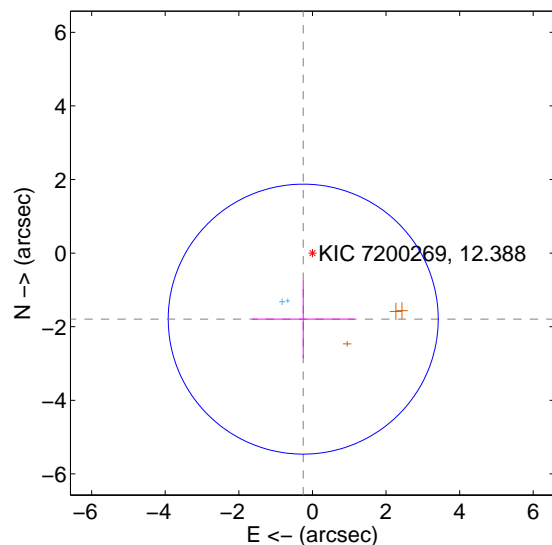
Supplemental centroid analysis for 007200269-01. Kepler magnitude: 12.39. Transit SNR 11.95

There are 2 quarters with good PRF difference image offsets

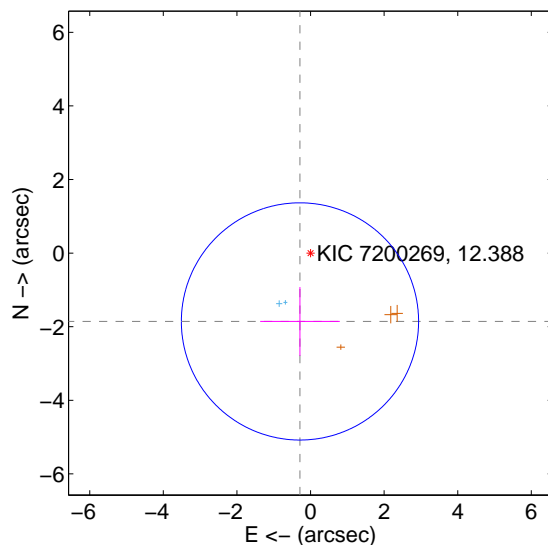
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.812 ± 1.223	1.48	0.250 ± 1.391	-1.795 ± 1.056
PRF-fit source offset from KIC position	1.879 ± 1.074	1.75	0.287 ± 1.082	-1.857 ± 0.933
photometric centroid source offset	2.96 ± 0.78	3.80	-2.30 ± 0.78	-1.87 ± 0.78

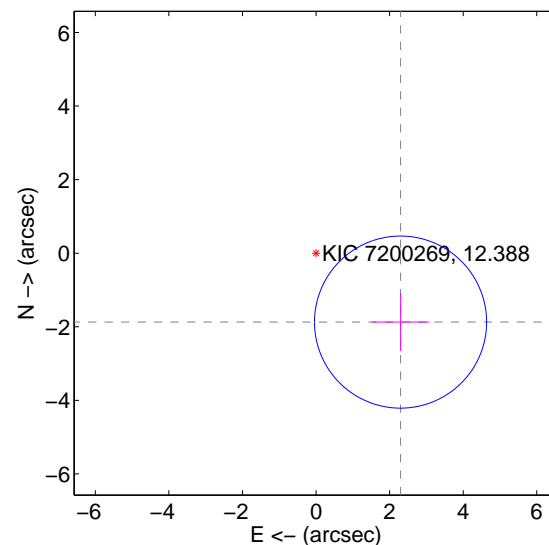
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

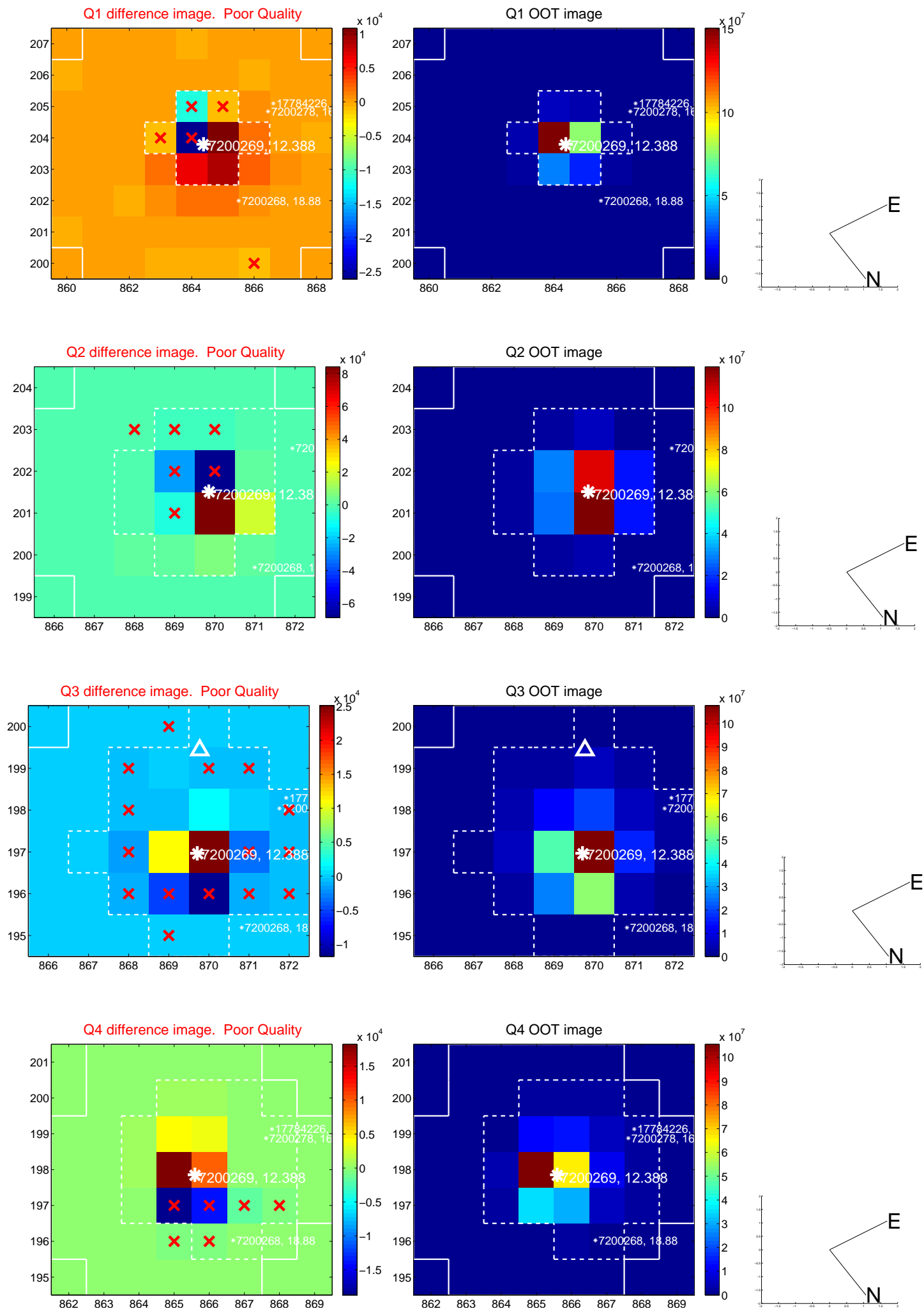


offset from photometric centroids

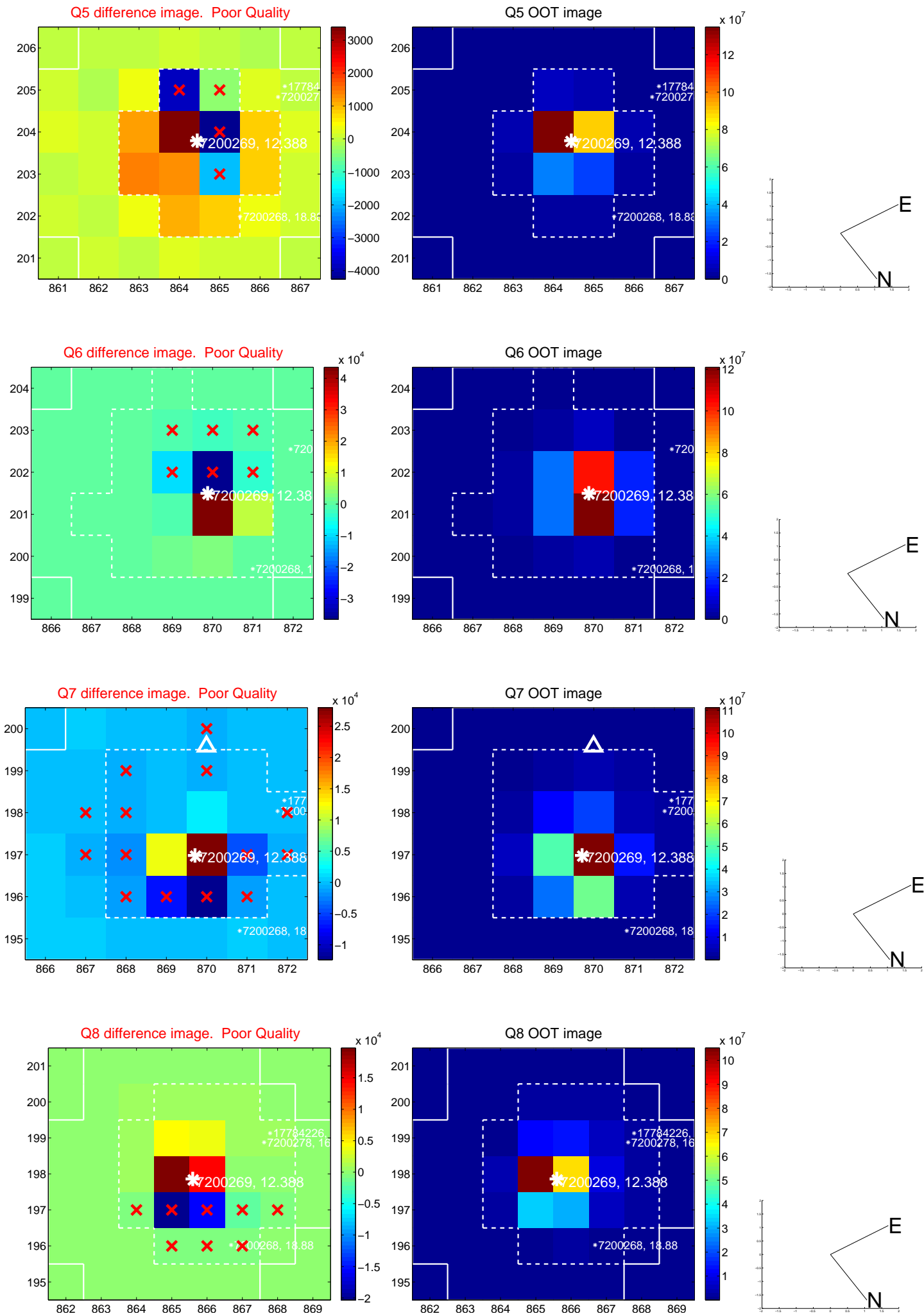


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

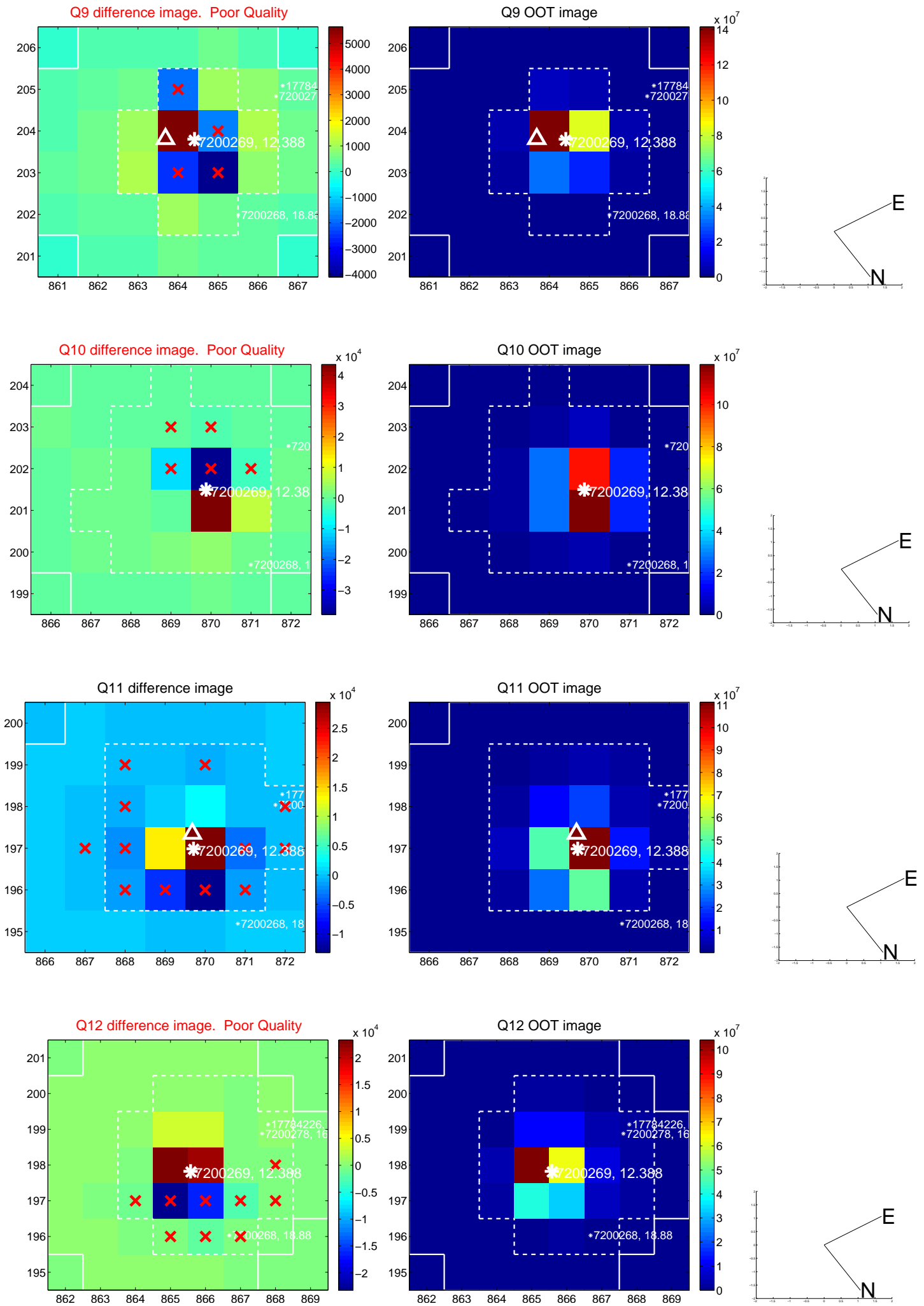
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



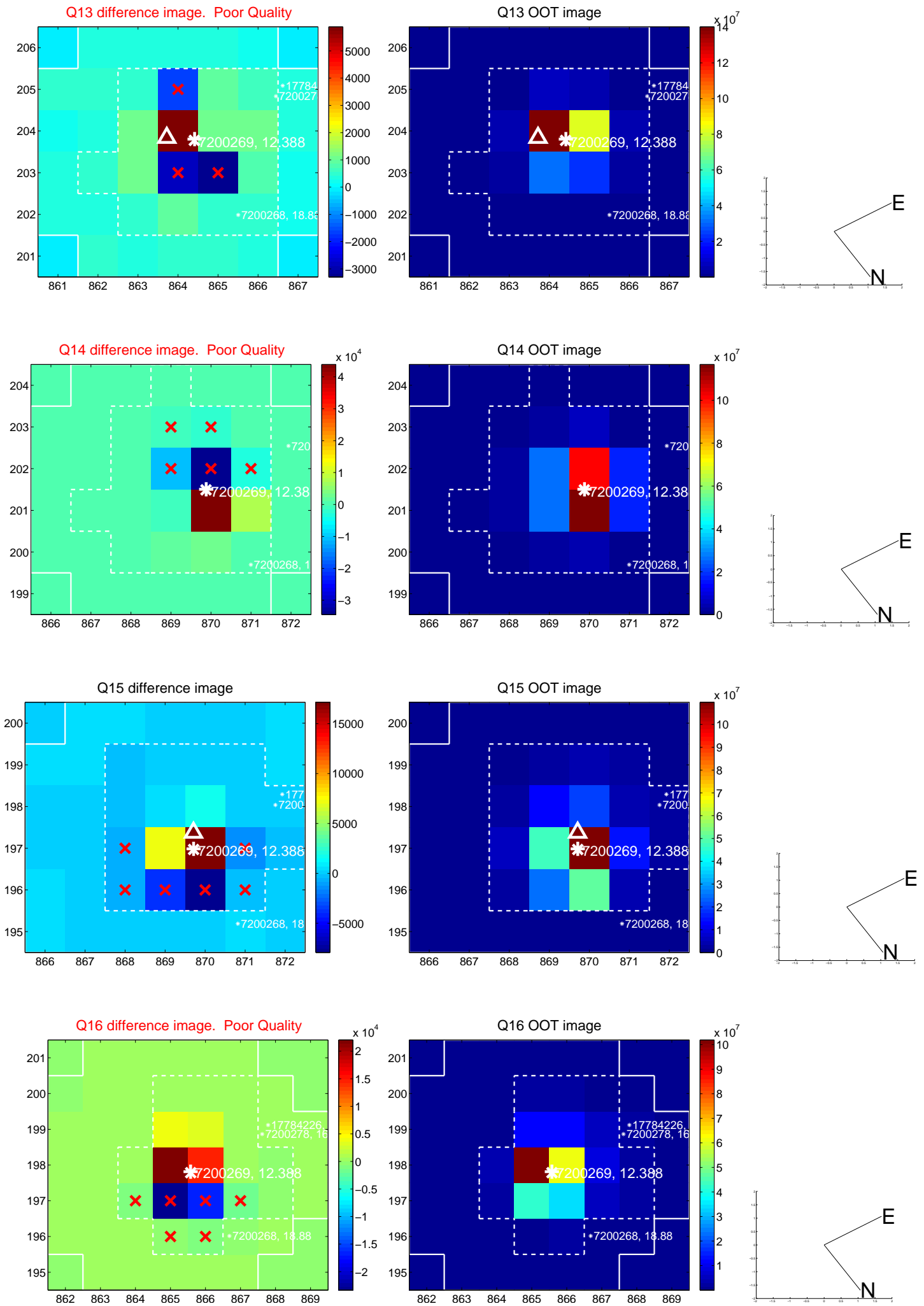
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



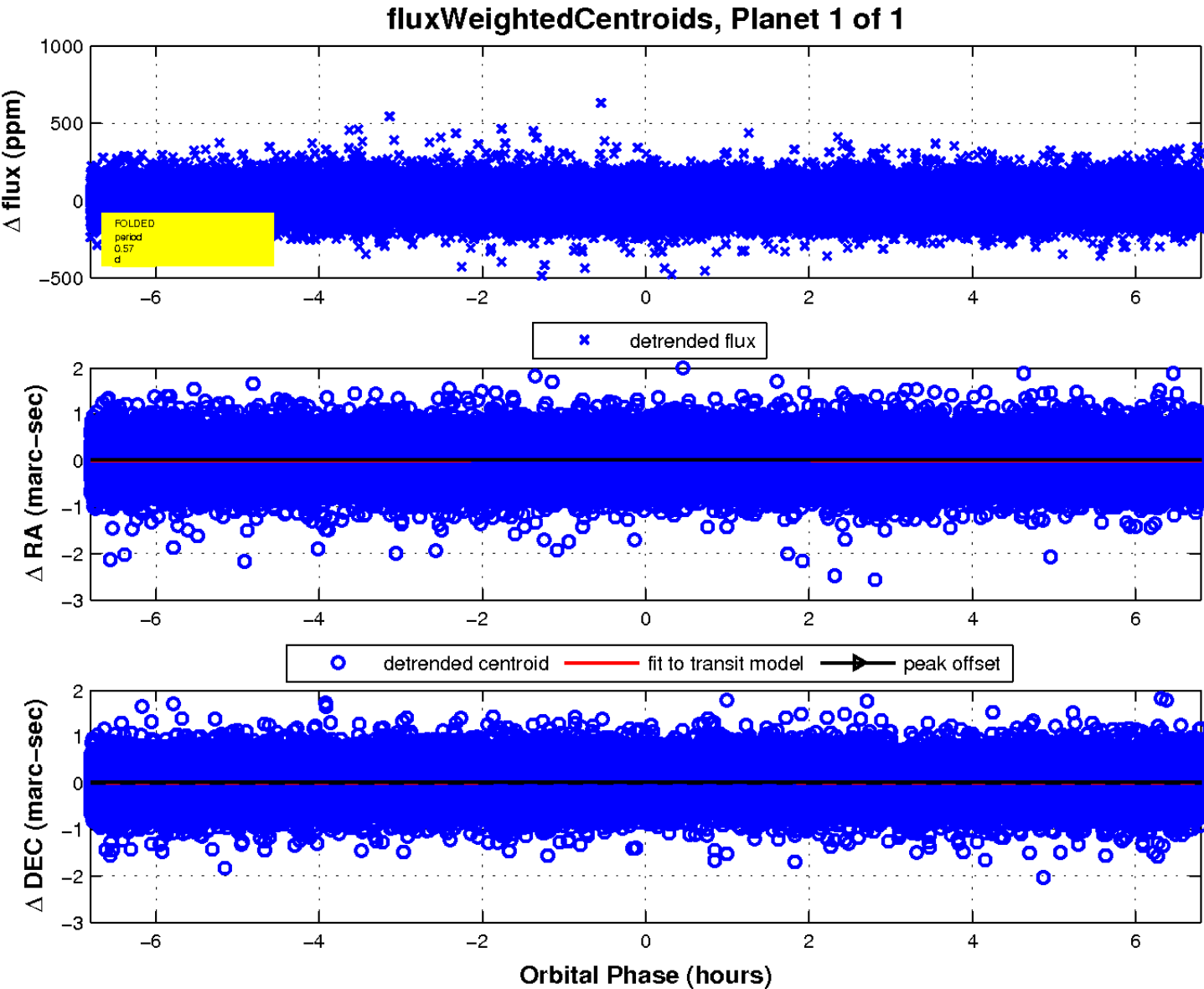
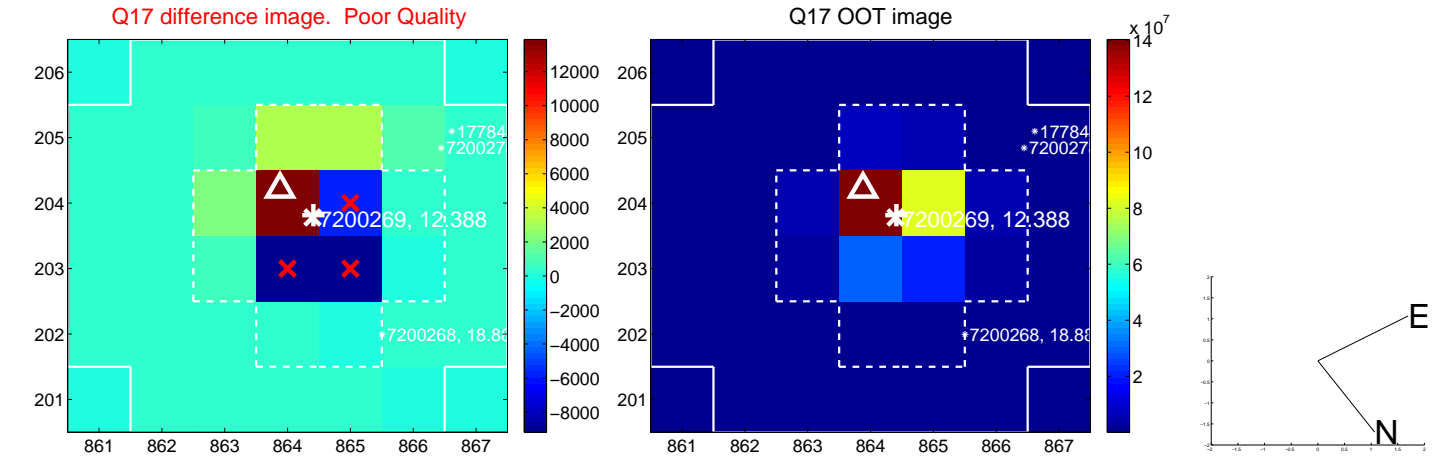
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

