

KIC 007200457

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})
007200457-01	OBS	No	0.566760	131.876022	34.1	3.382	8.1	5.9	0.91	5978	0.62	5465.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007200457-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_KIC_POS—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.

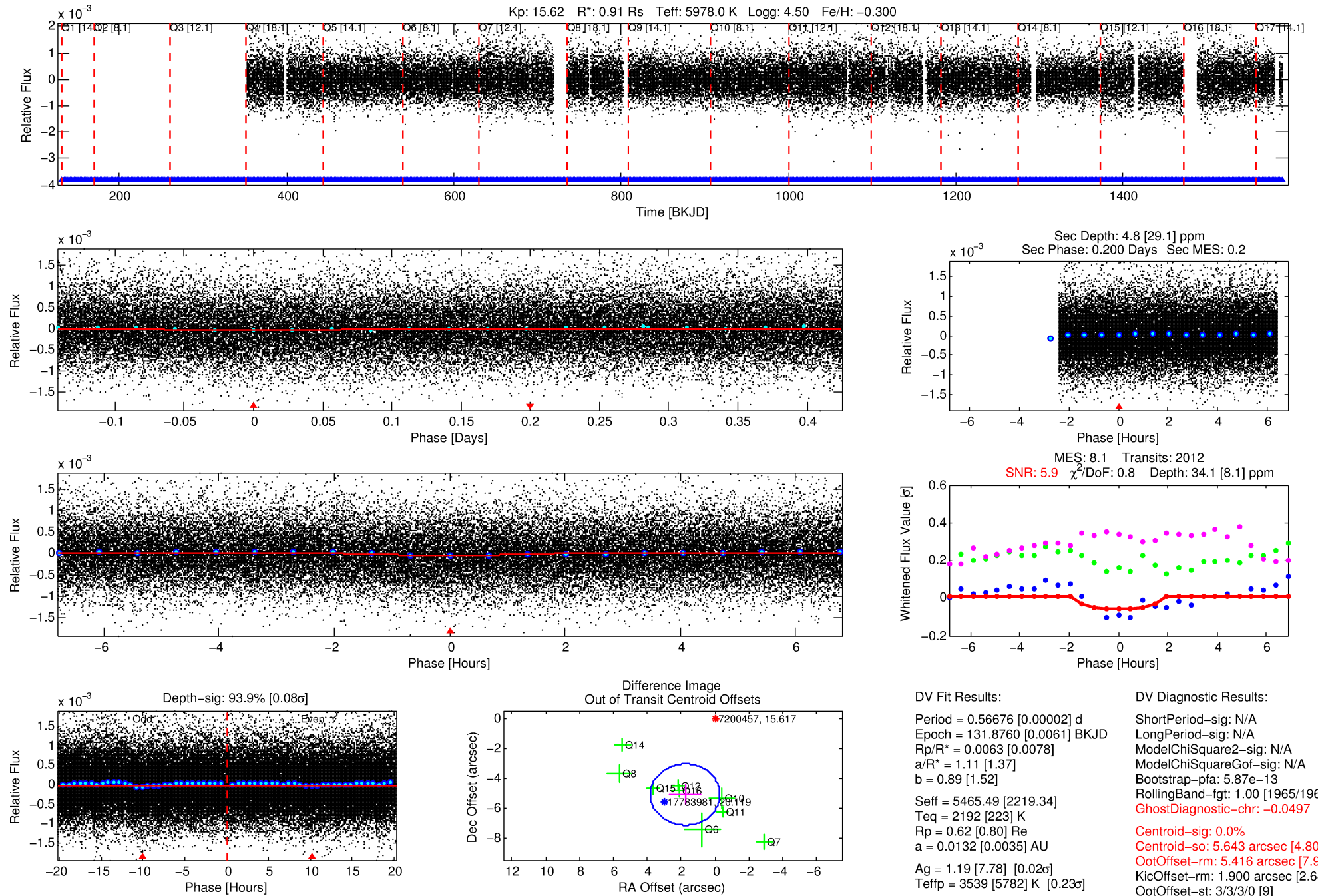
Ephemeris Match Information For 007200457-01

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
007200457-01	7200457	RR-Lyr-pri	7198959	1:1	1200.5	178	244	7.86	15.62	18332.00	Direct-PRF	0	2.39	20.94

Notes: P₁:P₂ 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. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ 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

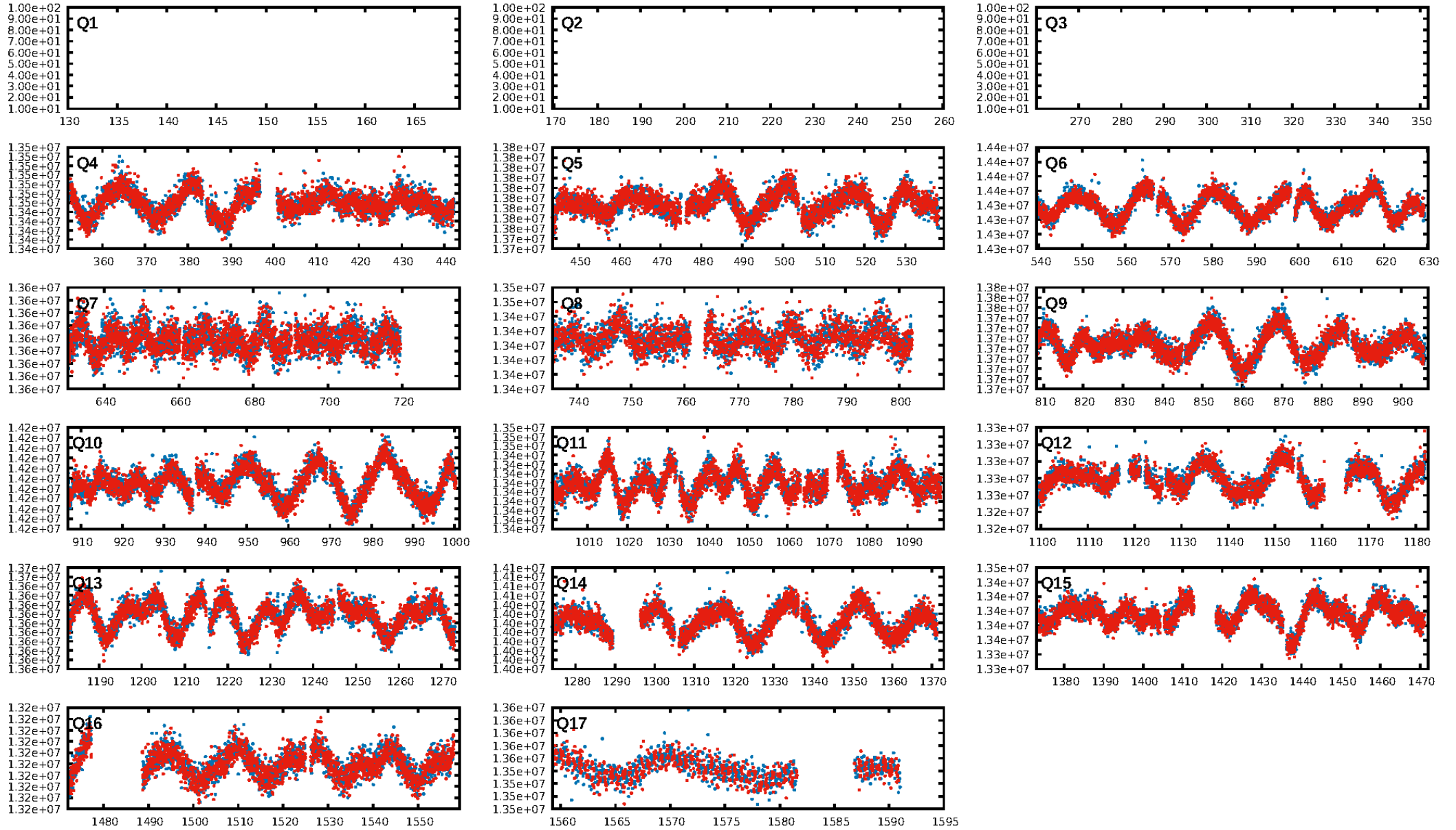
KIC: 7200457 Candidate: 1 of 1 Period: 0.567 d



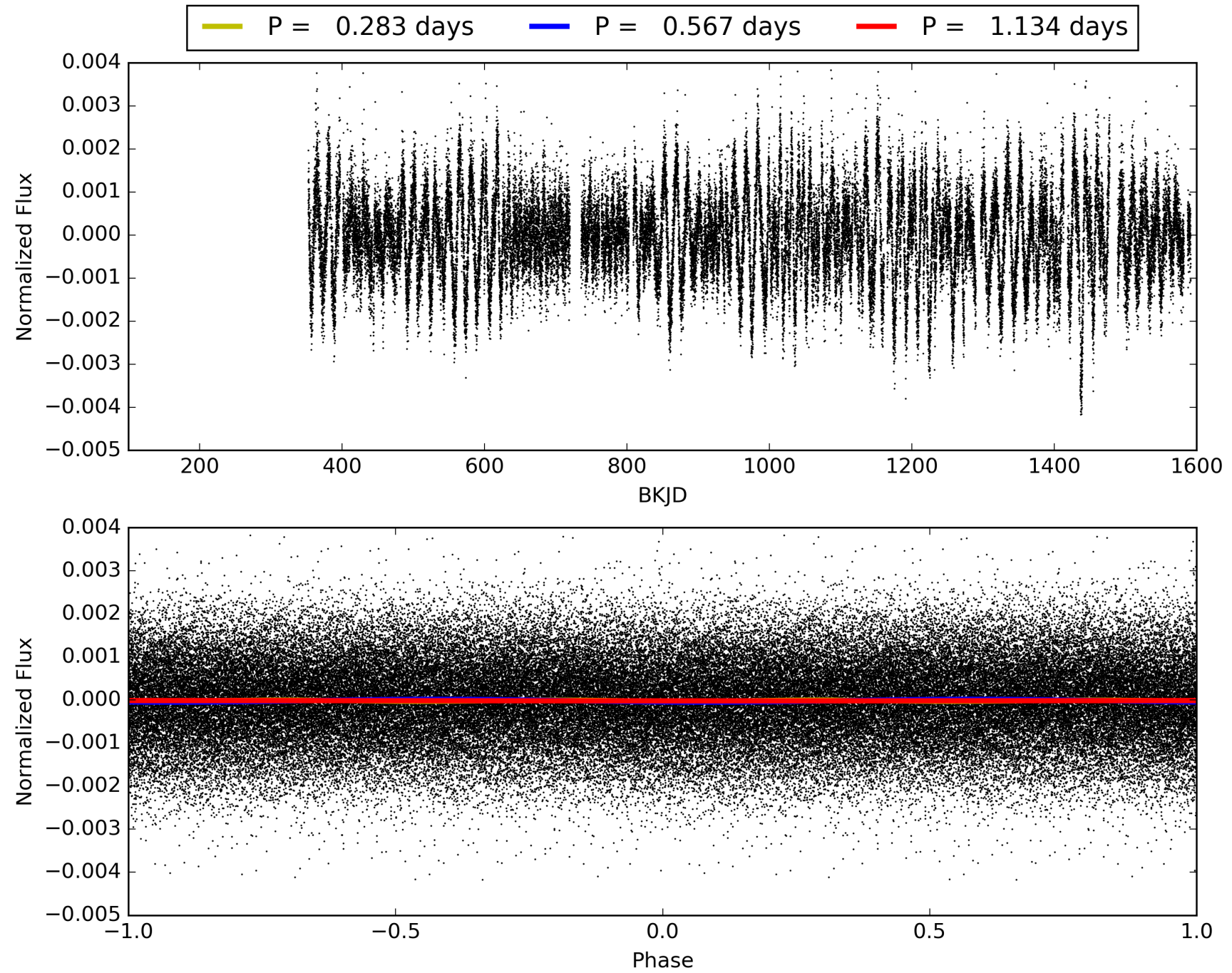
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:47:16 Z

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

TCE 007200457-01, PDC Light Curves

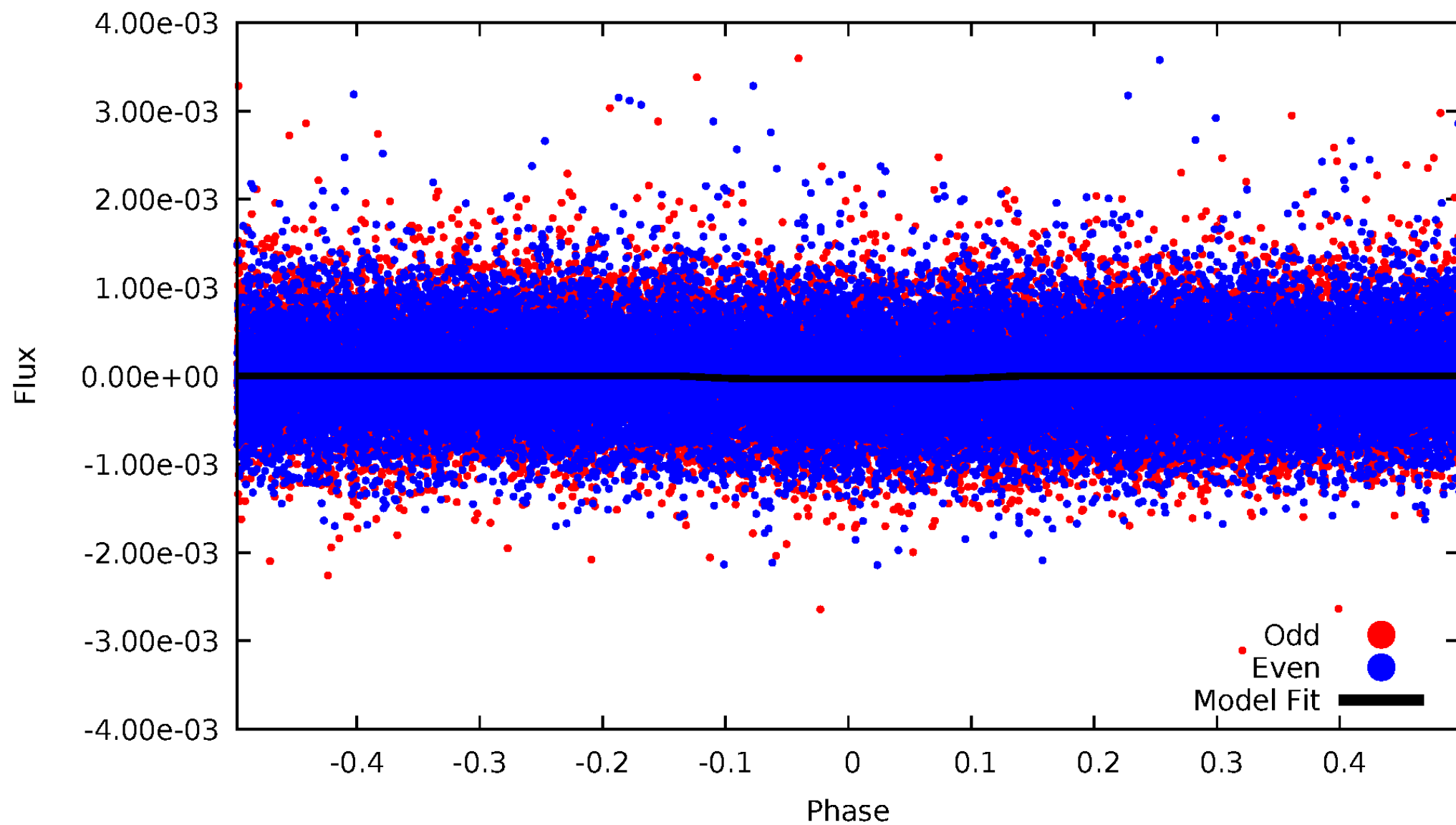


TCE 007200457-01



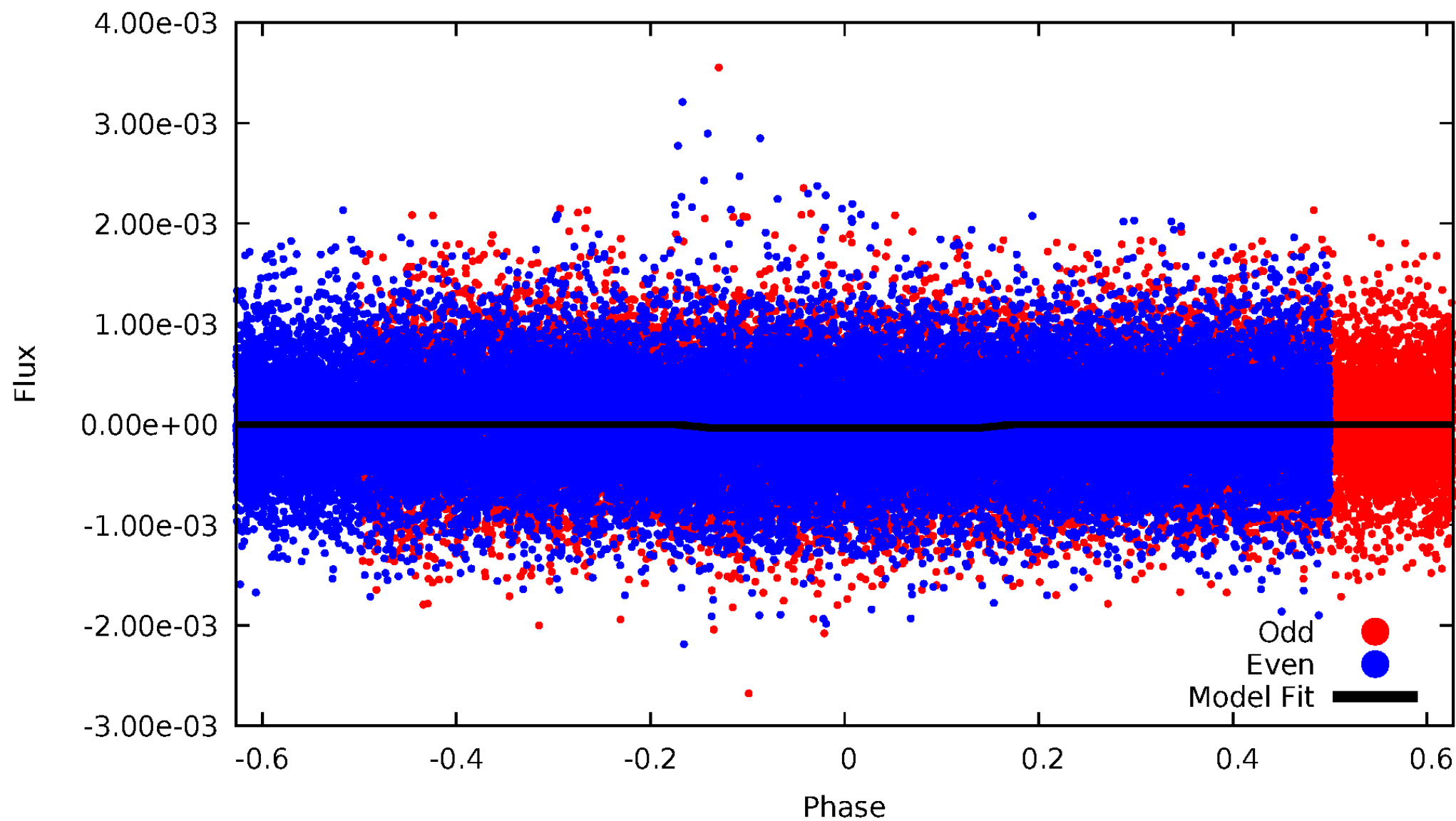
DV Odd/Even

TCE 007200457-01



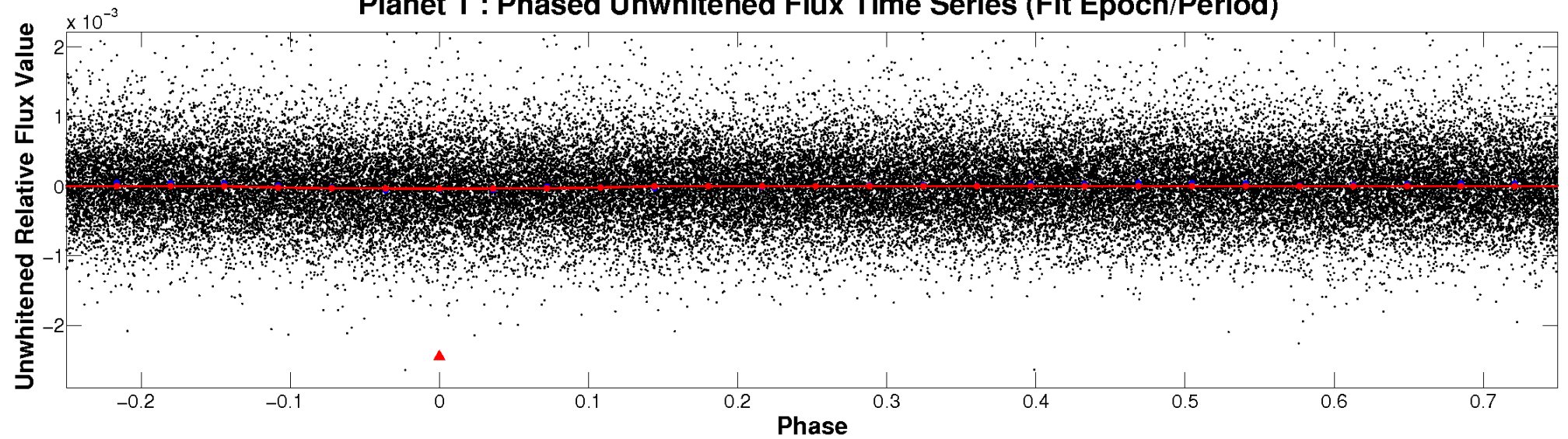
ALT Odd/Even

TCE 007200457-01

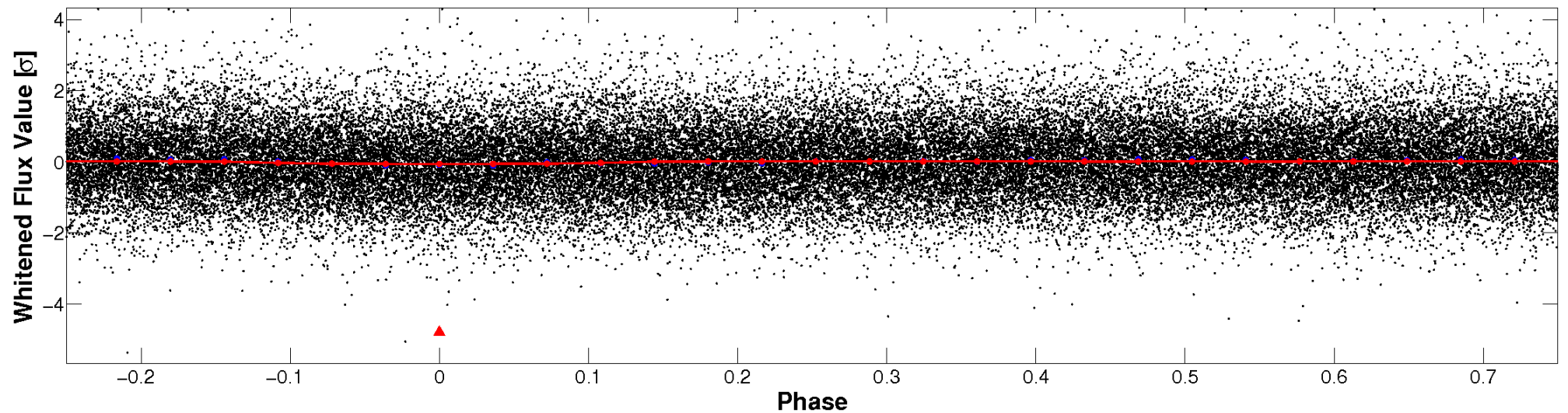


Non-Whitened Vs. Whitened Light Curve

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

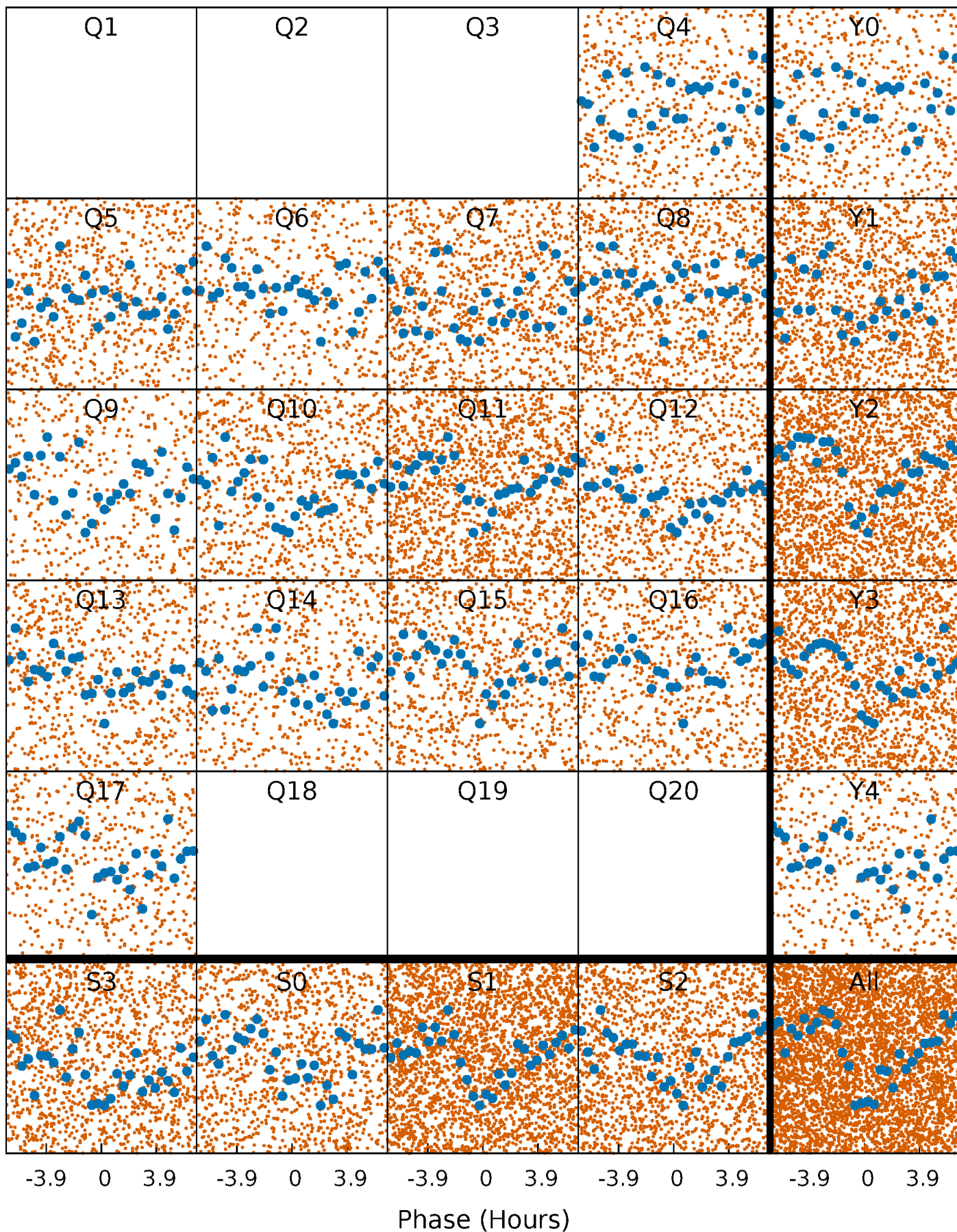


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



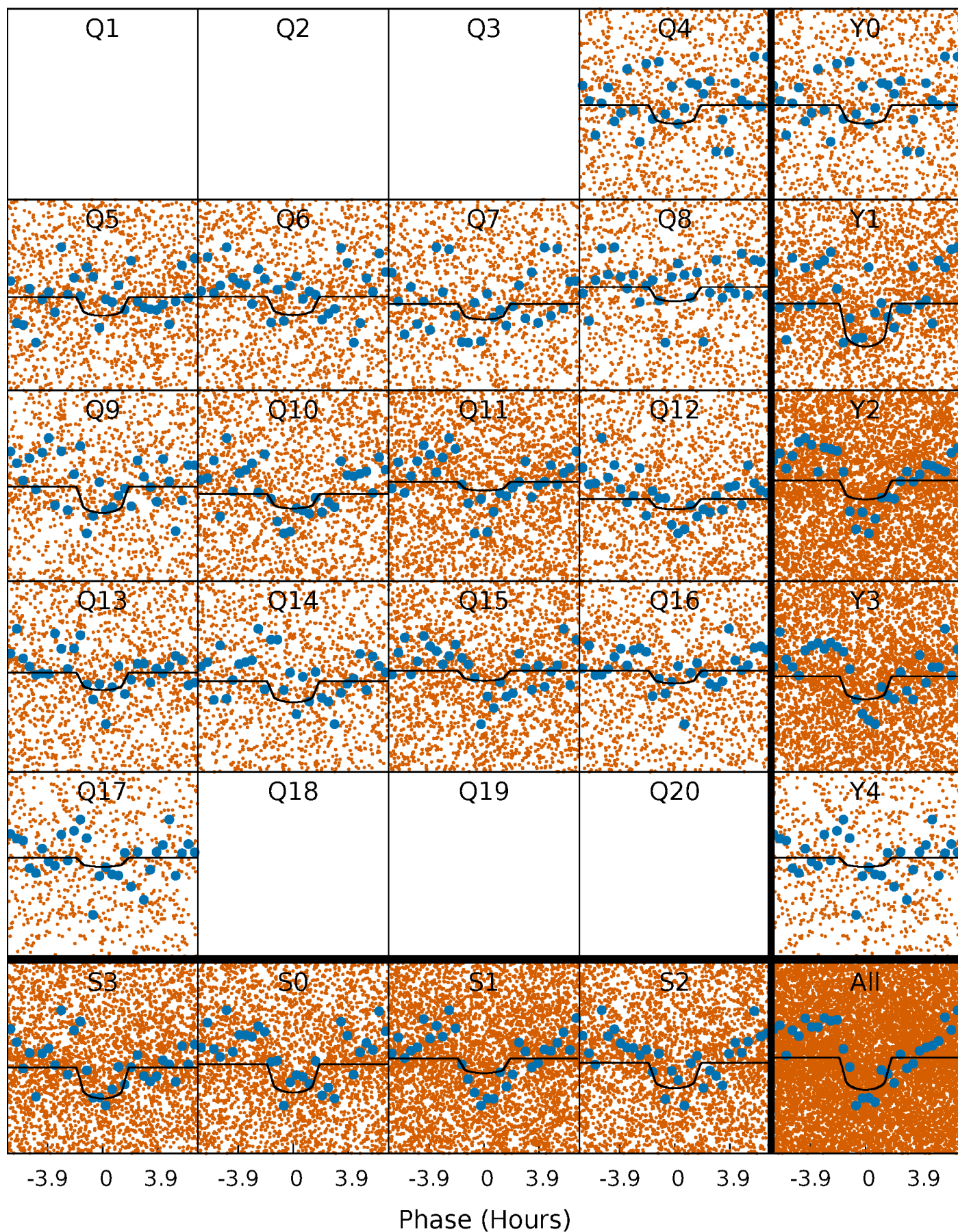
PDC Quarter-Phased Transit Curves

TCE 007200457-01 P= 0.566760 Days $T_0=131.876022$ (BKJD)



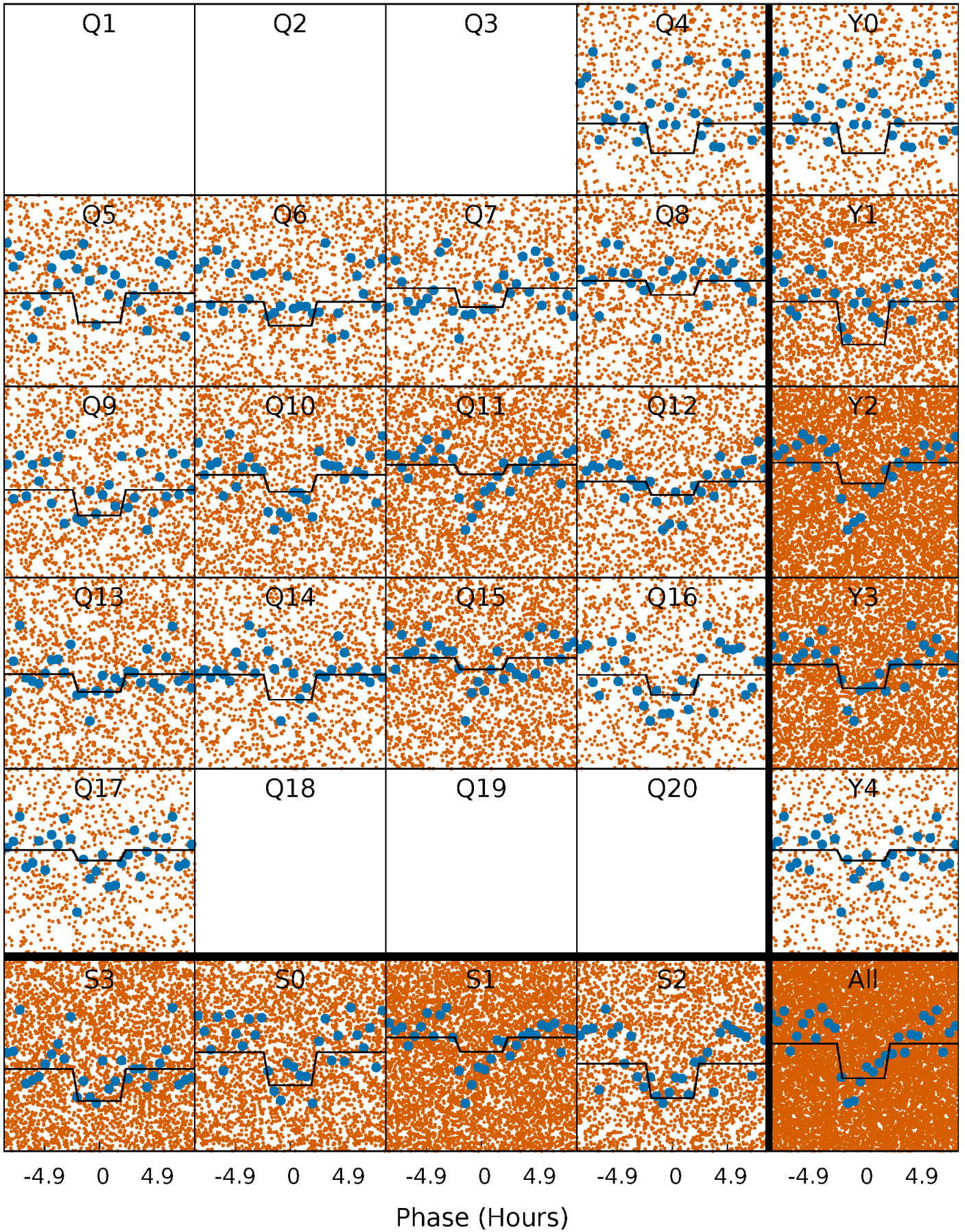
DV Quarter-Phased Transit Curves

TCE 007200457-01 P= 0.566760 Days $T_0=131.876022$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

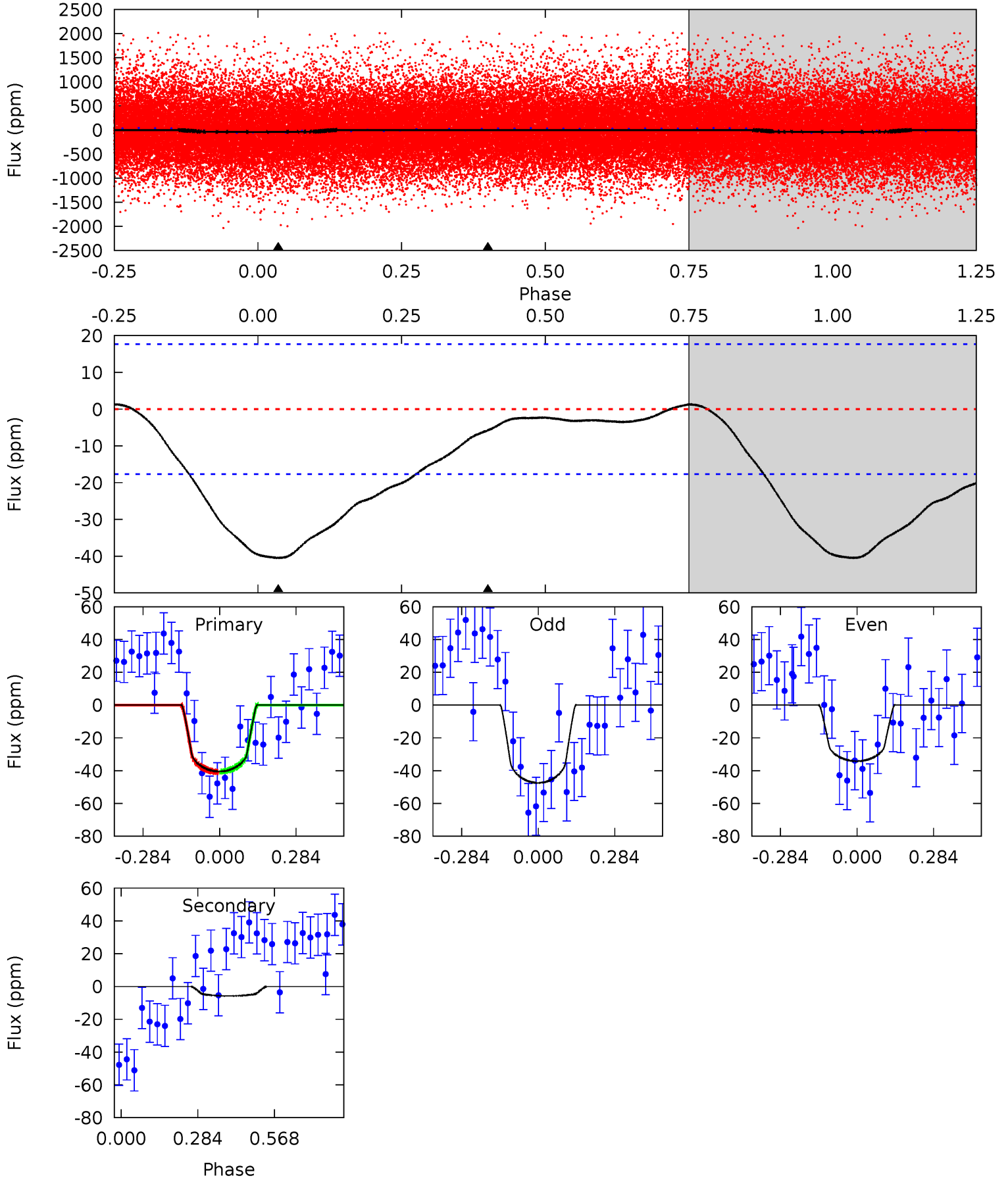
TCE 007200457-01 P= 0.566782 Days $T_0=131.877198$ (BKJD)



DV Model-Shift Uniqueness Test

007200457-01, P = 0.566760 Days, E = 131.876022 Days

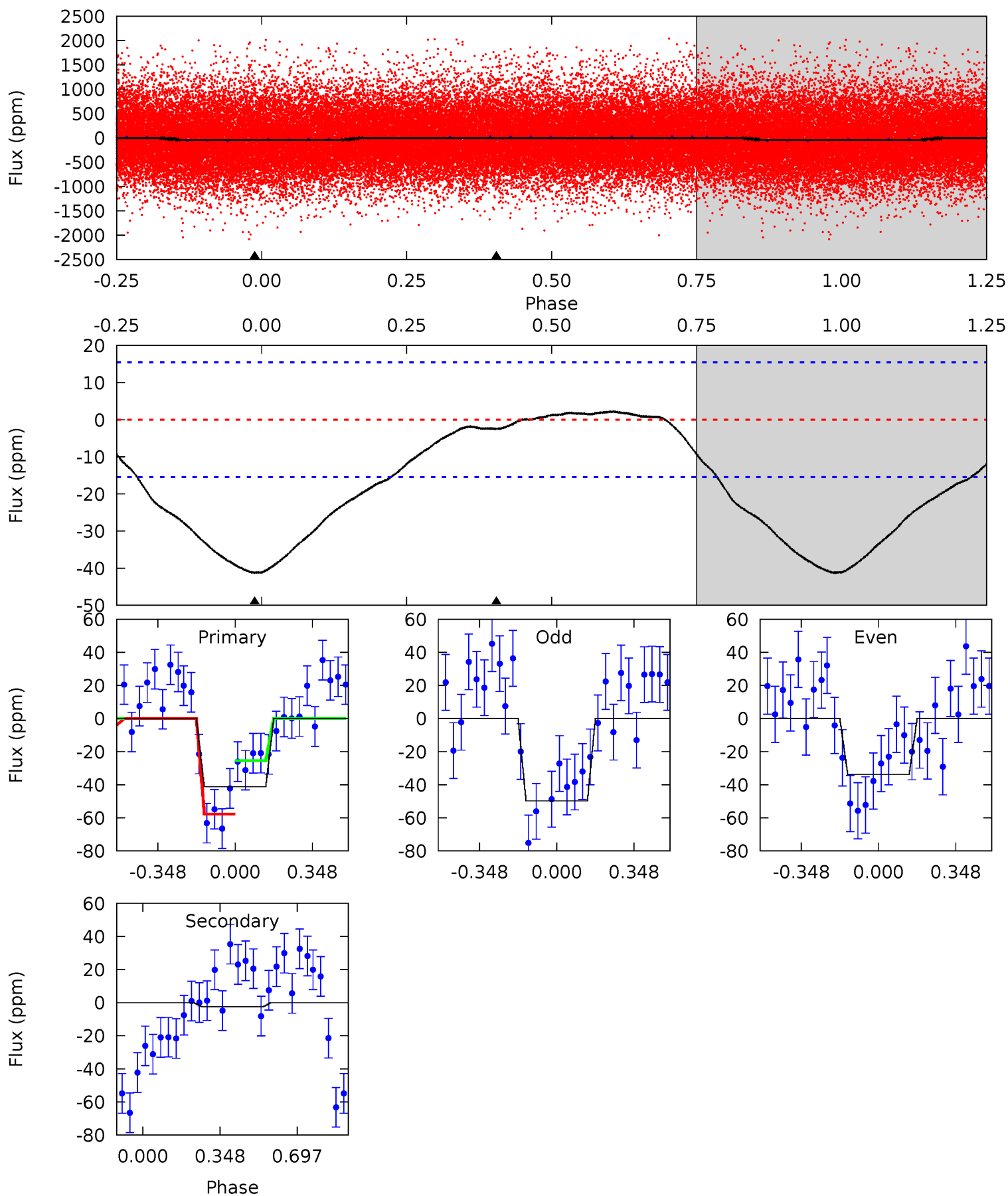
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.93	1.42	0	0	4.34	1.07	0.35	9.93	9.93	1.42	1.42	1.66	0.95	0.03	0.04



Alt Model-Shift Uniqueness Test

007200457-01, P = 0.566782 Days, E = 131.877198 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	0.70	0	0	4.30	0.94	0.83	11.5	11.5	0.70	0.70	2.24	0.86	0.05	4.53



Stellar Parameters For KIC 007200457

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5978^{+188}_{-209}	$4.496^{+0.065}_{-0.208}$	$-0.300^{+0.300}_{-0.300}$	$0.909^{+0.284}_{-0.095}$	$0.946^{+0.118}_{-0.118}$	$1.773^{+0.490}_{-0.924}$
	+3%/-3%	+1%/-5%	+100%/-100%	+31%/-10%	+12%/-12%	+28%/-52%
Source	KIC0	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 007200457-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 4	$0.86^{+0.68}_{-0.55}$	3114^{+232}_{-149}	3121^{+1989}_{-6132}	$0.566^{+4.019}_{-0.461}$
Alt.	-3 ± 4	$0.86^{+0.76}_{-0.53}$	3103^{+231}_{-159}	-2592^{+6807}_{-747}	$0.226^{+1.716}_{-0.316}$

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 $A_{obs} \gg 1.0$

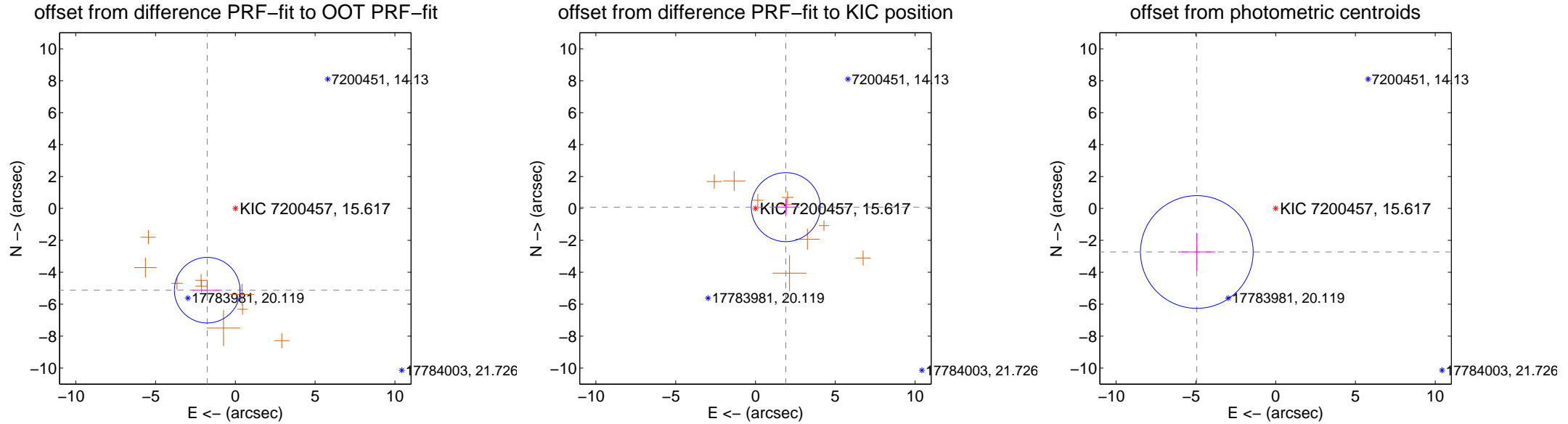
DV Centroid Data

Supplemental centroid analysis for 007200457-01. Kepler magnitude: 15.62. Transit SNR 5.90

There are 0 quarters with good PRF difference image offsets

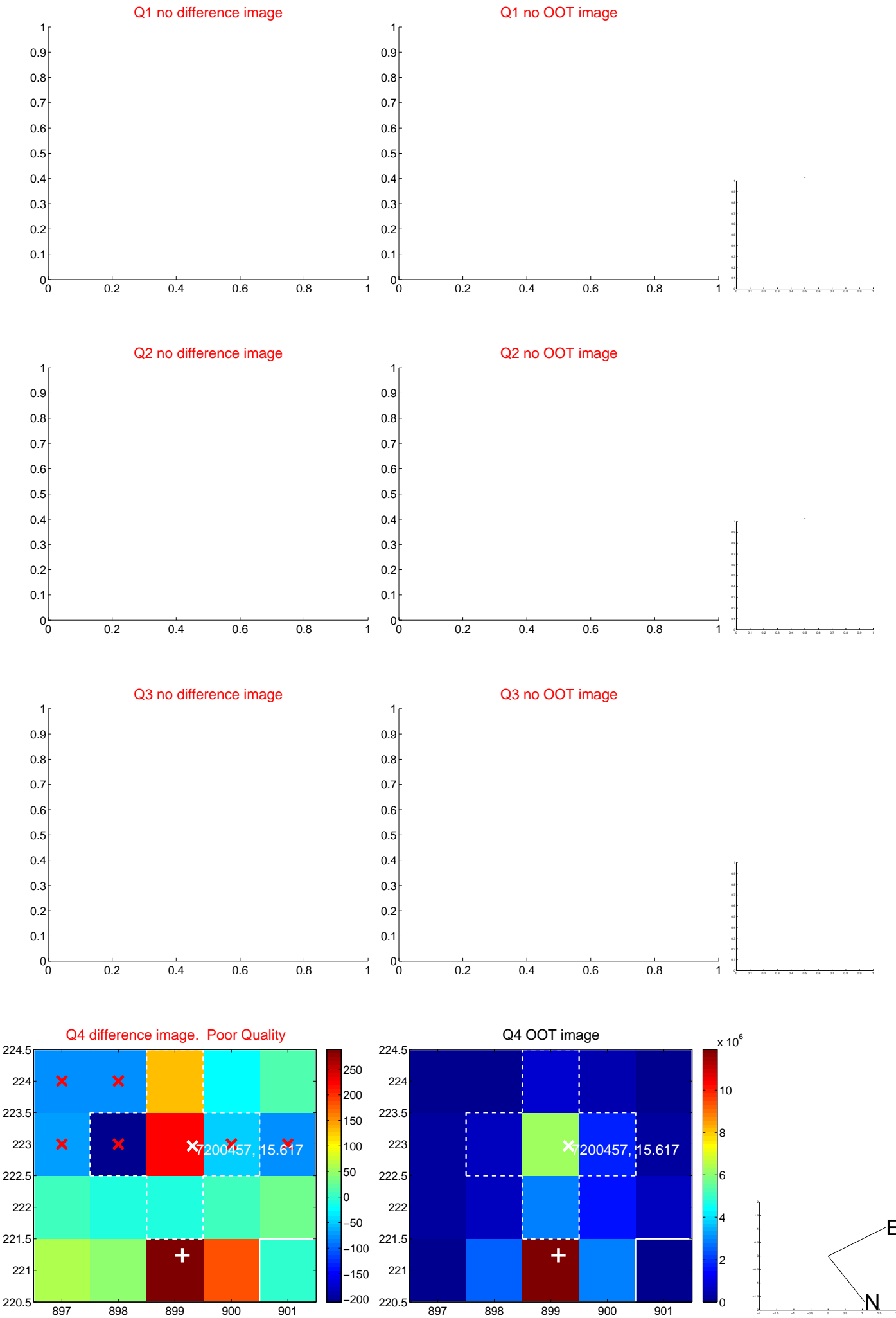
The OOT PRF centroid is offset from the target star catalog position by about 6.52 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.416 ± 0.685	7.91	1.763 ± 0.929	-5.121 ± 0.650
PRF-fit source offset from KIC position	1.900 ± 0.720	2.64	-1.899 ± 0.721	0.081 ± 0.483
photometric centroid source offset	5.64 ± 1.18	4.80	4.94 ± 1.17	-2.73 ± 1.20

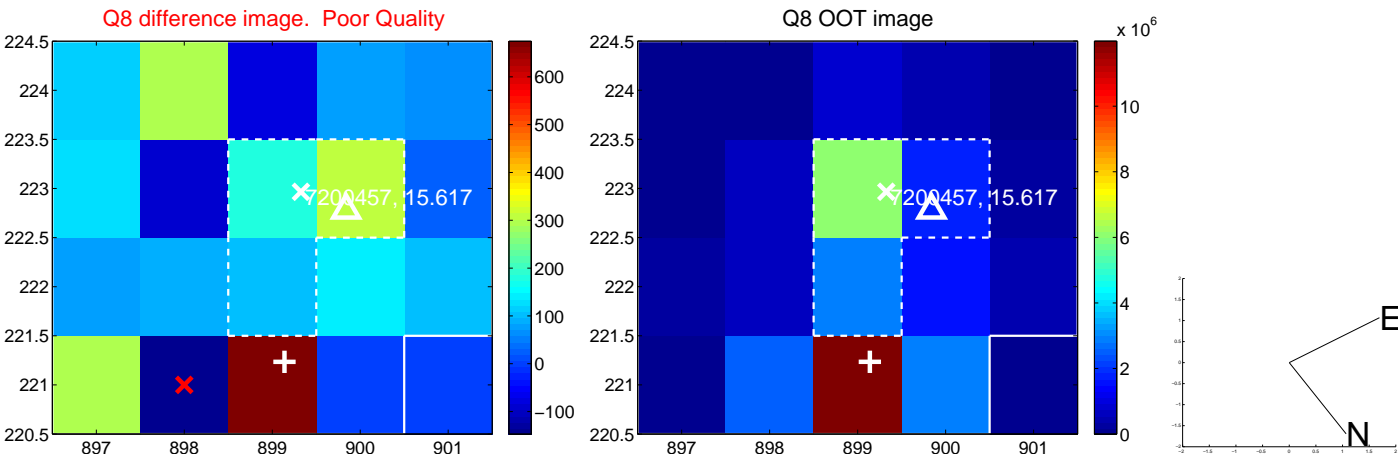
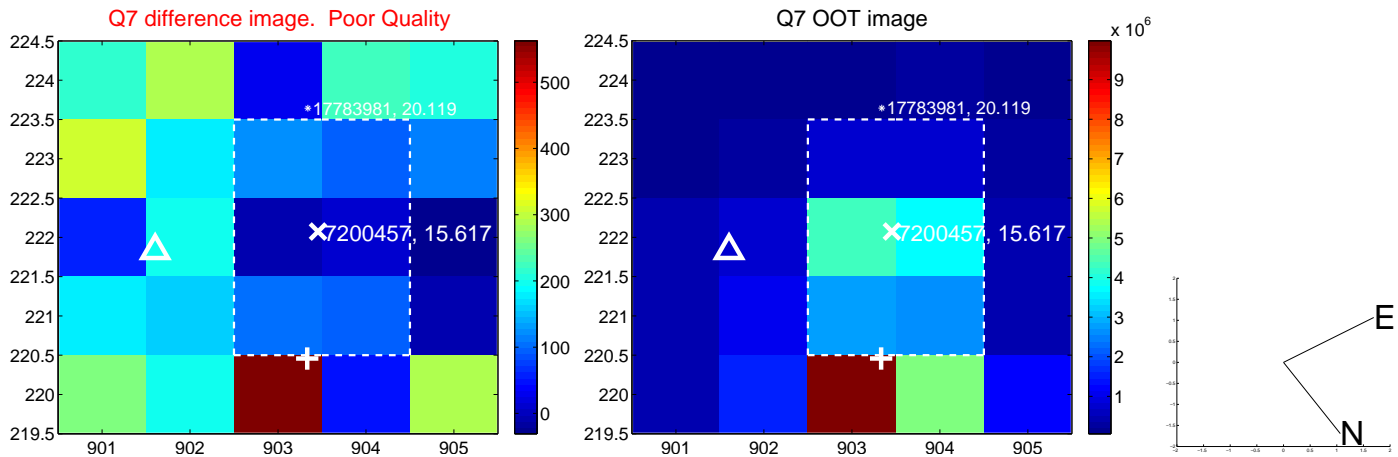
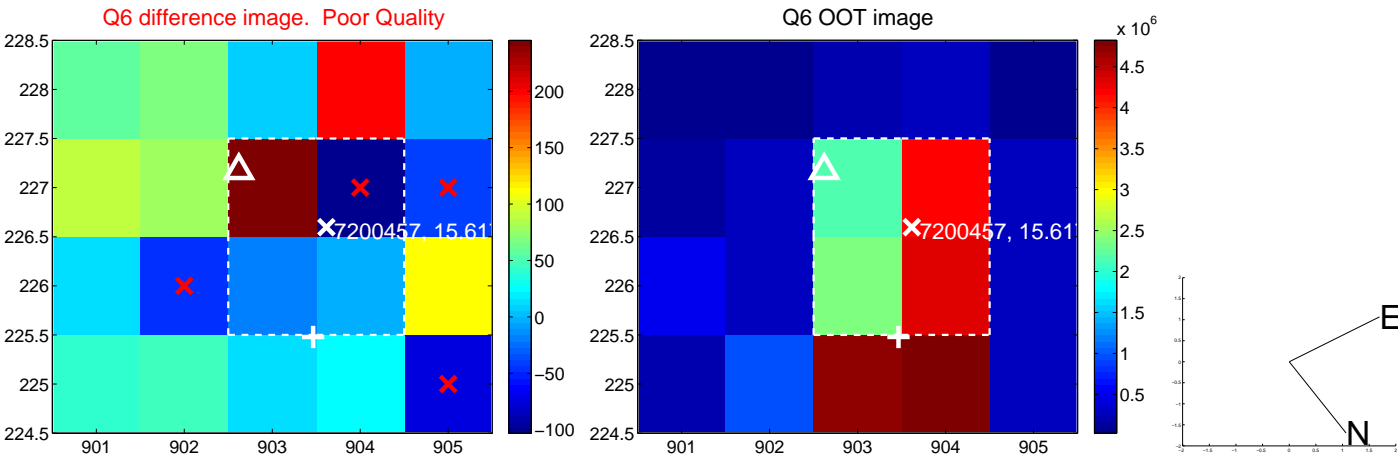
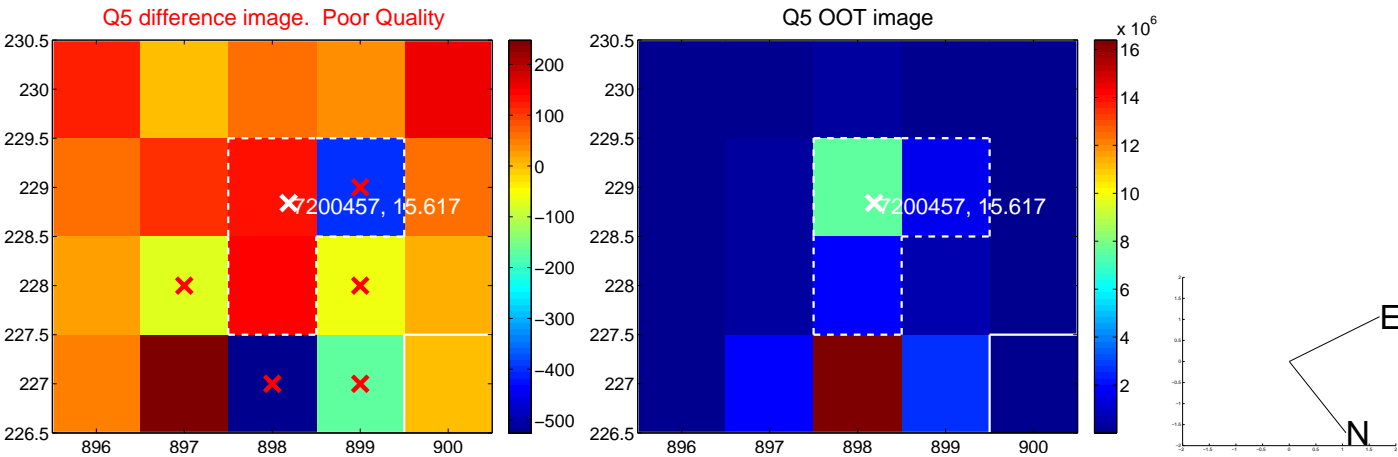


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

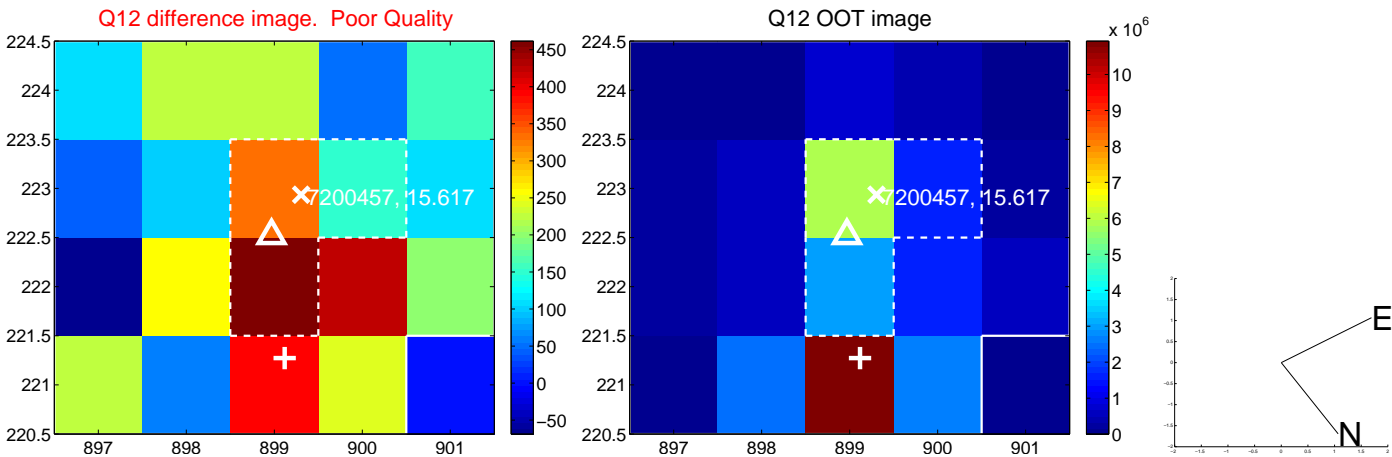
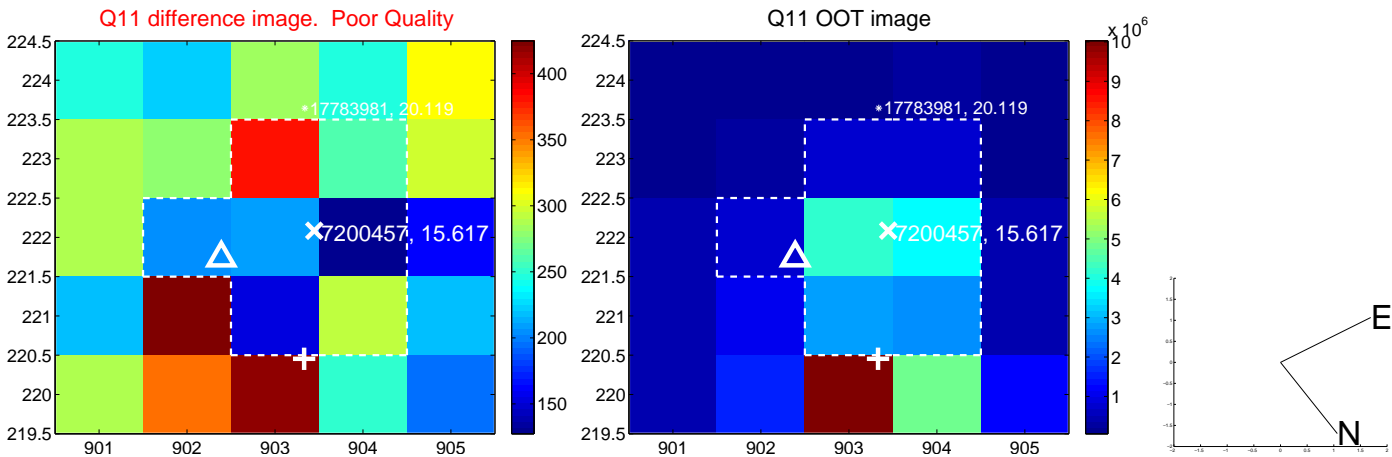
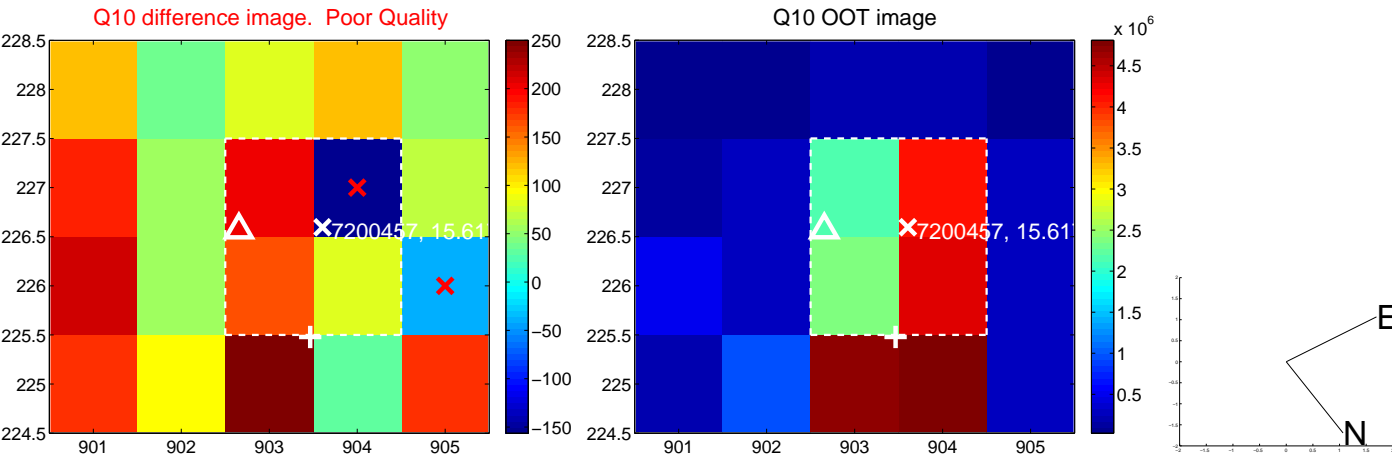
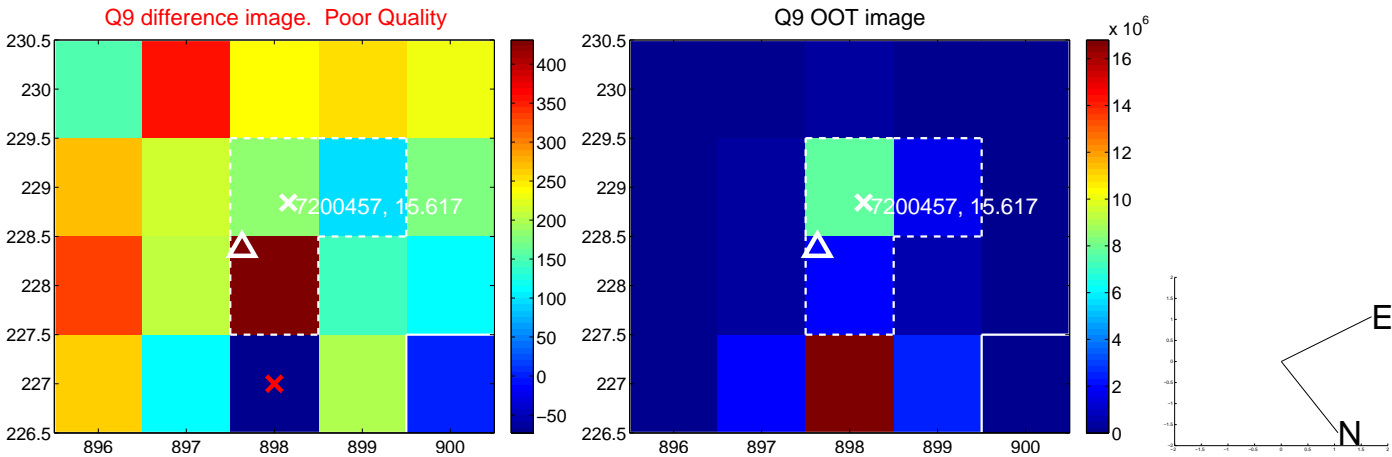
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



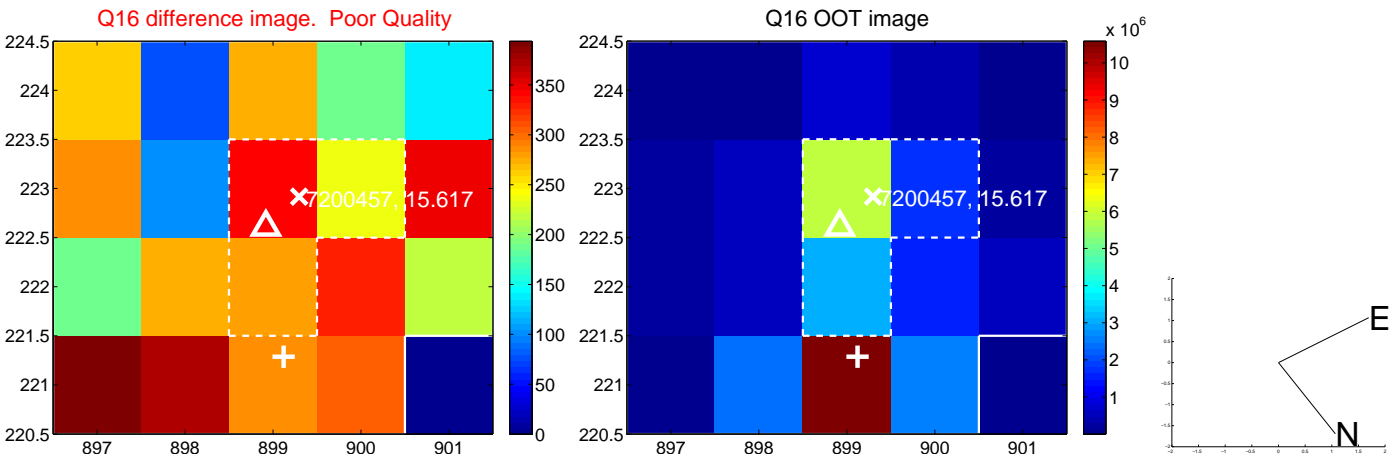
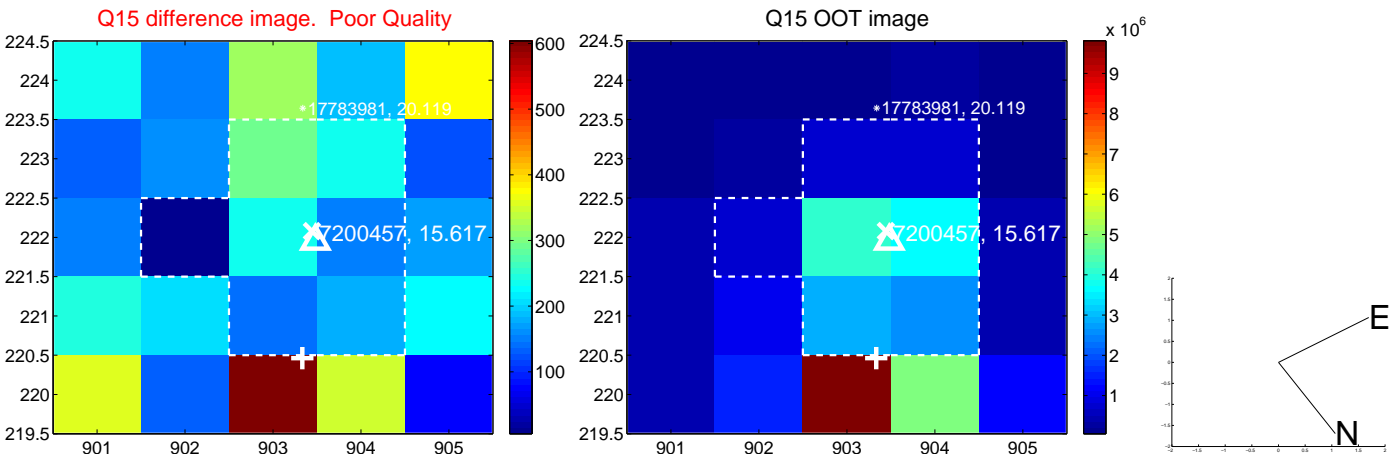
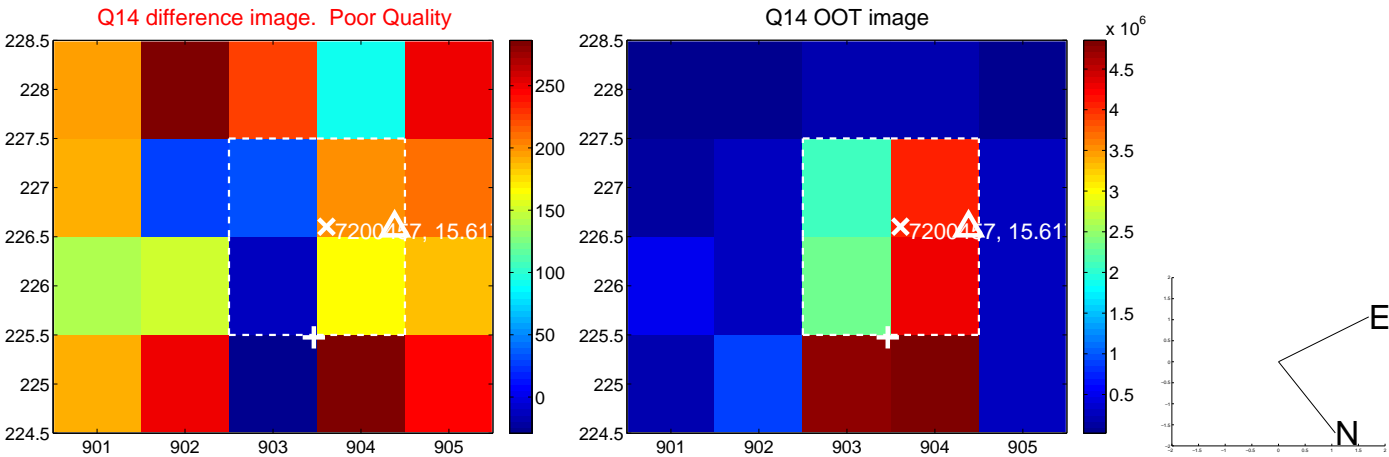
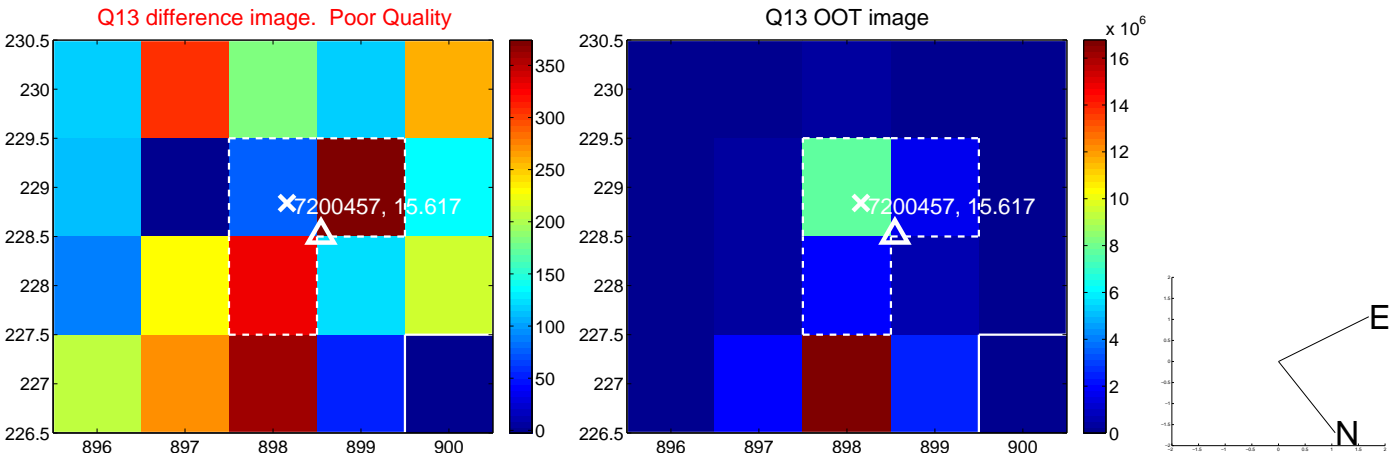
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



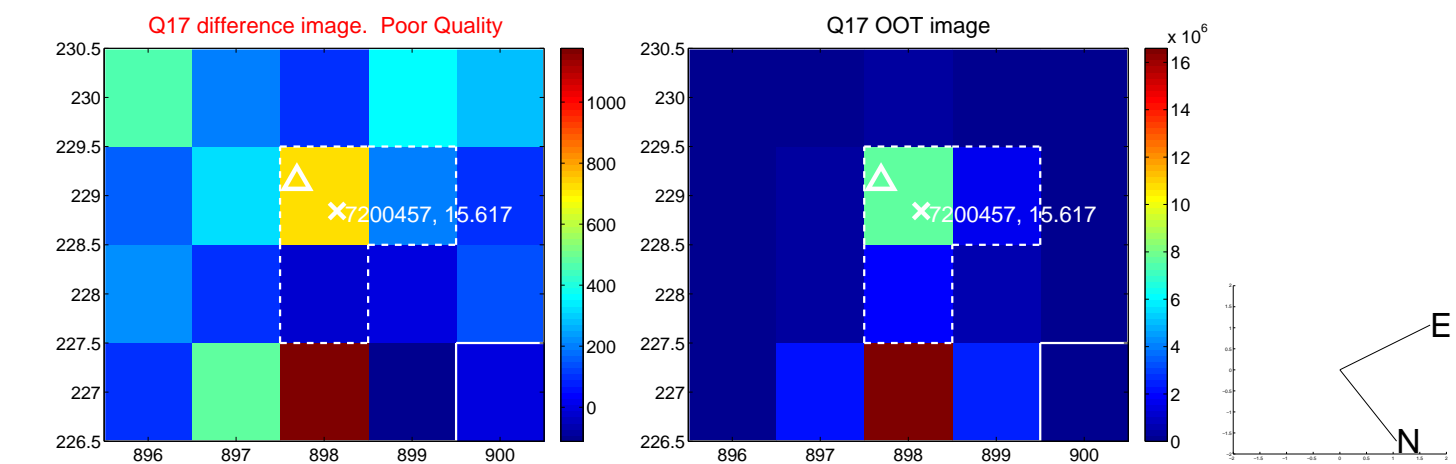
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



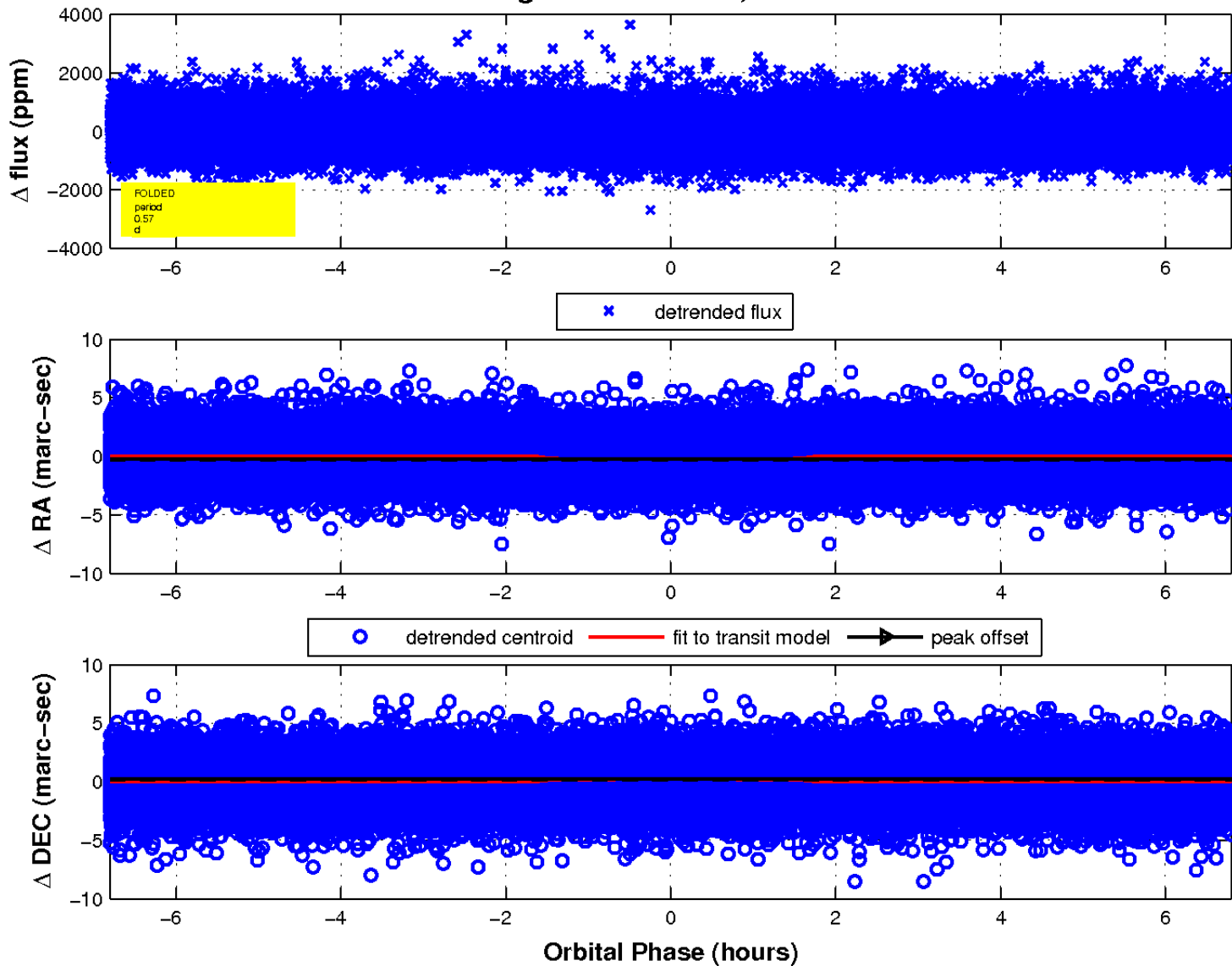
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

