

KIC 005182822

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})
005182822-01	OBS	No	1.166219	131.571723	54.5	2.207	8.4	5.5	0.53	3900	0.47	186.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005182822-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

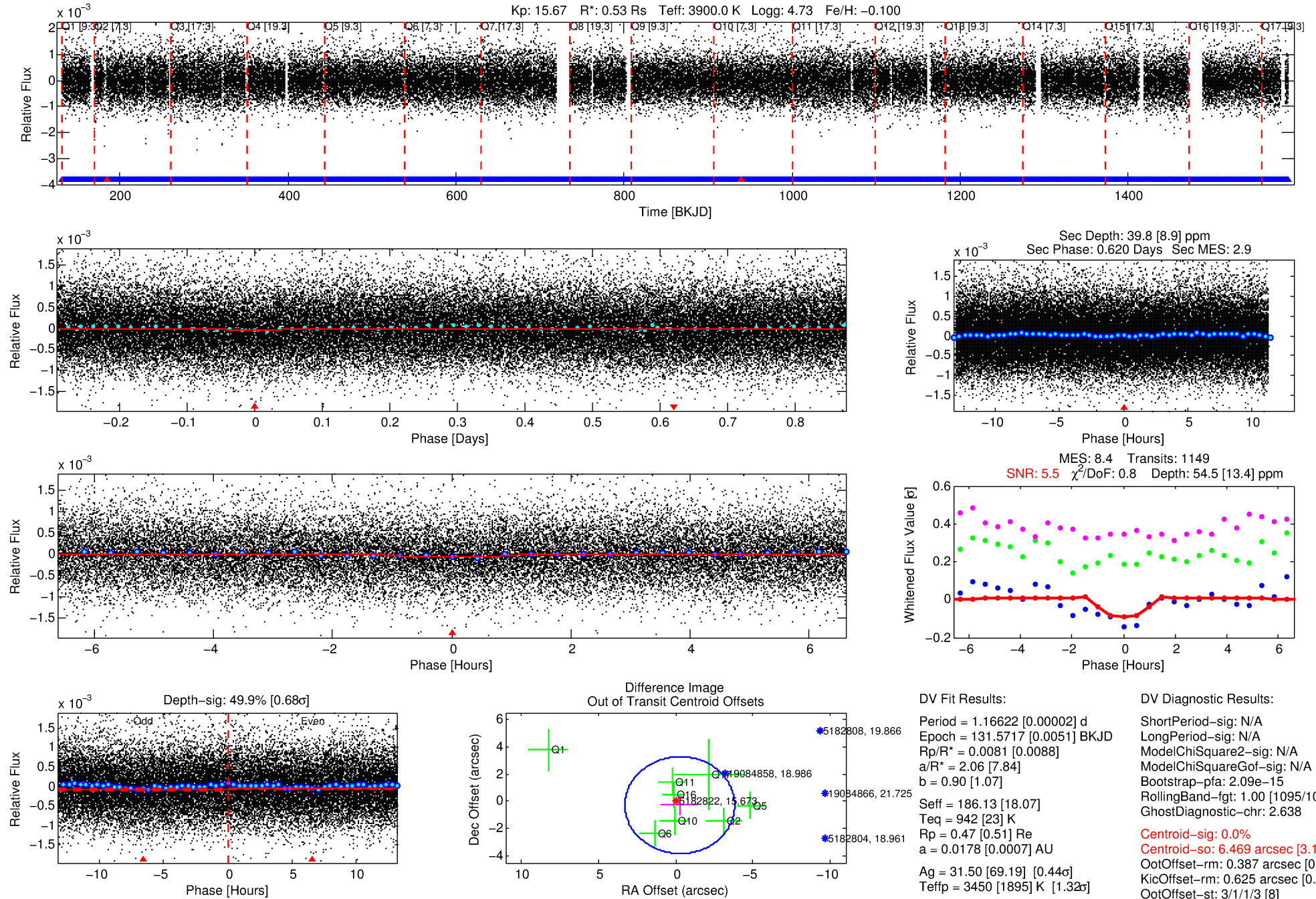
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005182822-01

No Significant Match Found

DV One-Page Summary

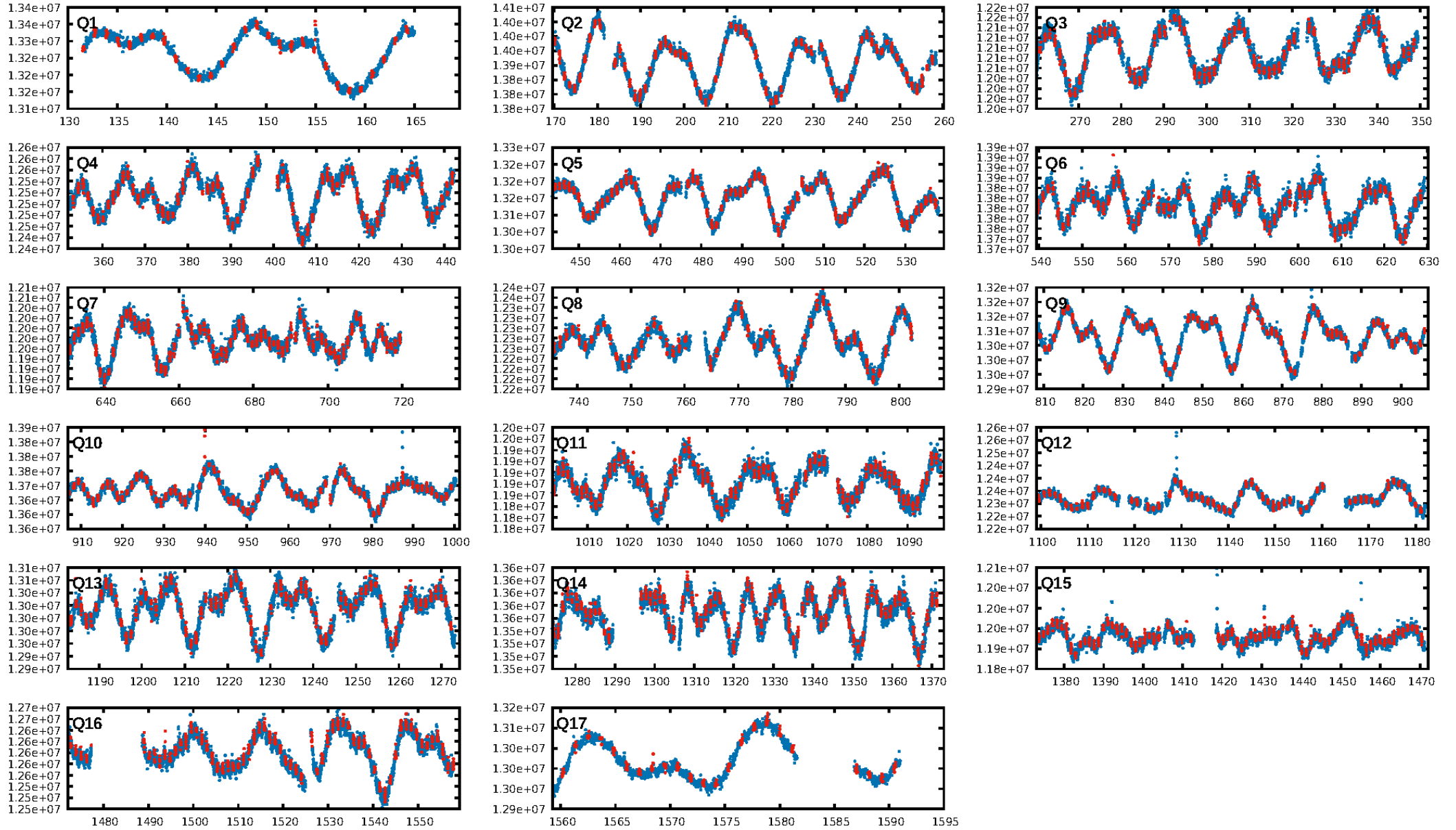
KIC: 5182822 Candidate: 1 of 1 Period: 1.166 d



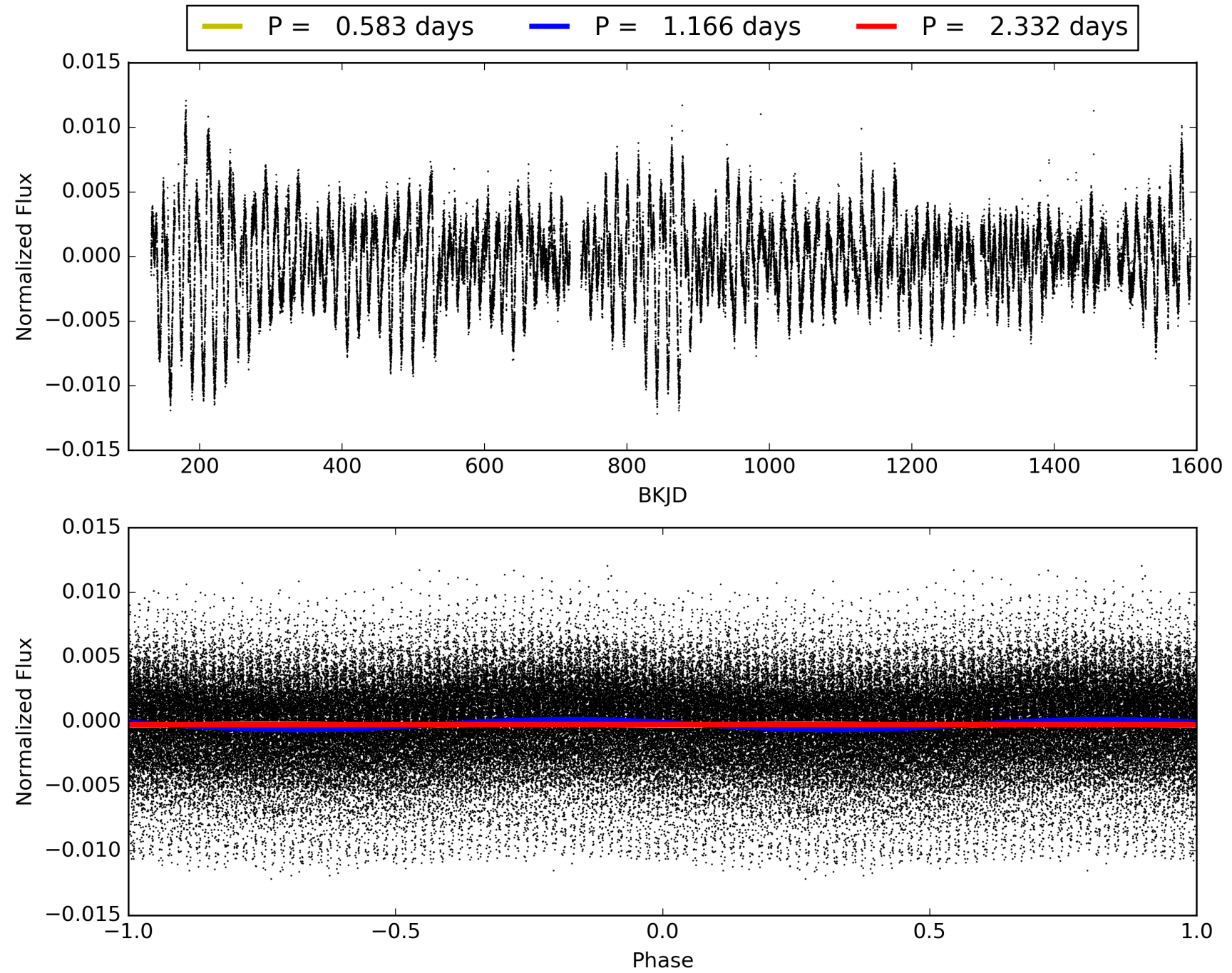
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:12:24 Z

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

TCE 005182822-01, PDC Light Curves

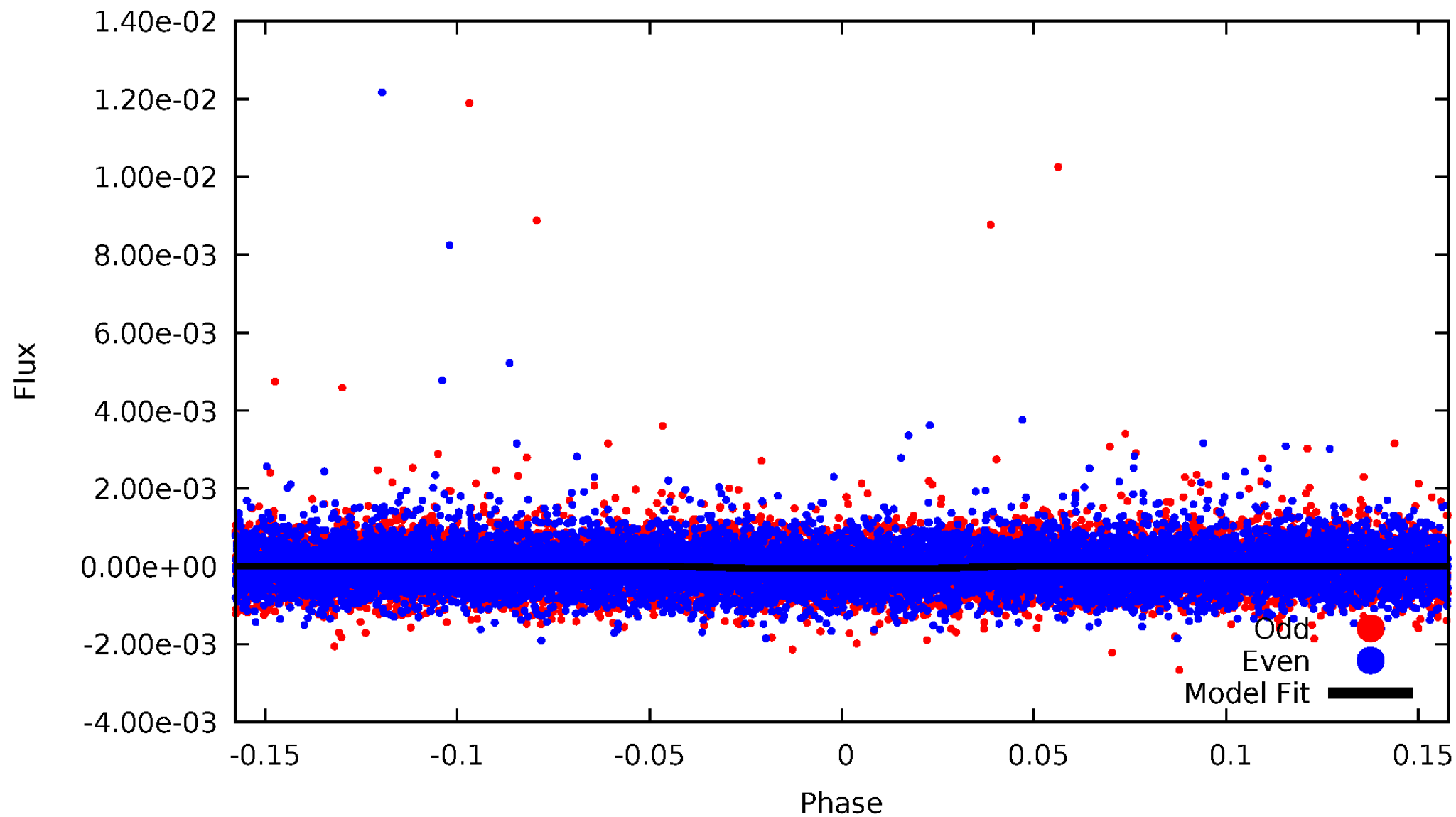


TCE 005182822-01



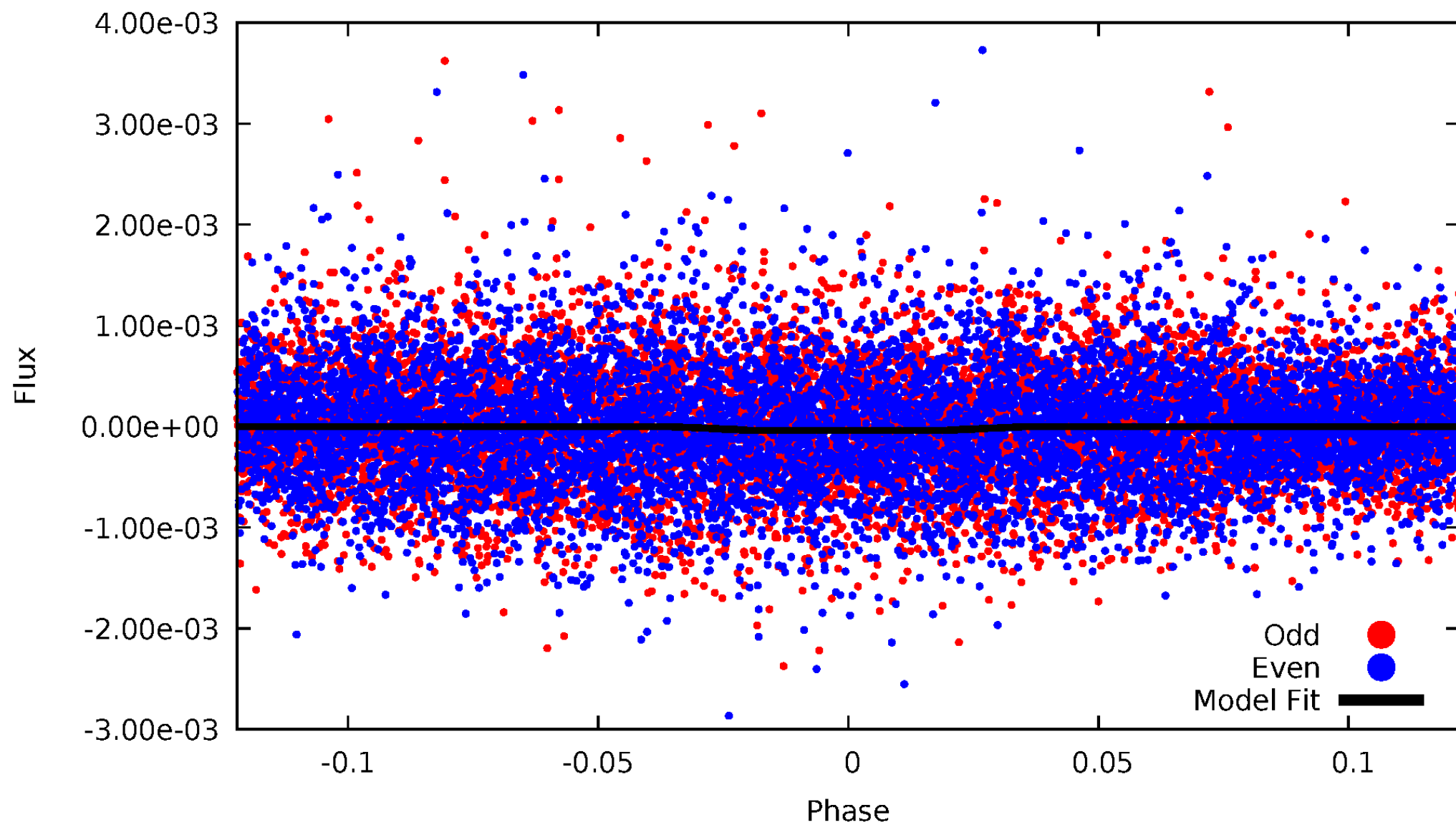
DV Odd/Even

TCE 005182822-01



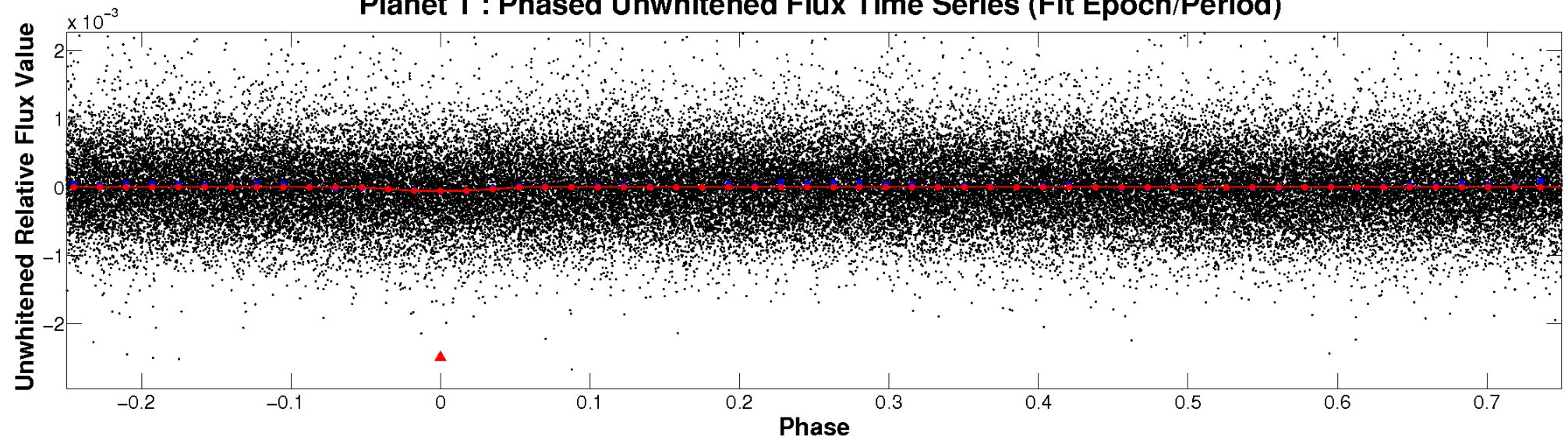
ALT Odd/Even

TCE 005182822-01

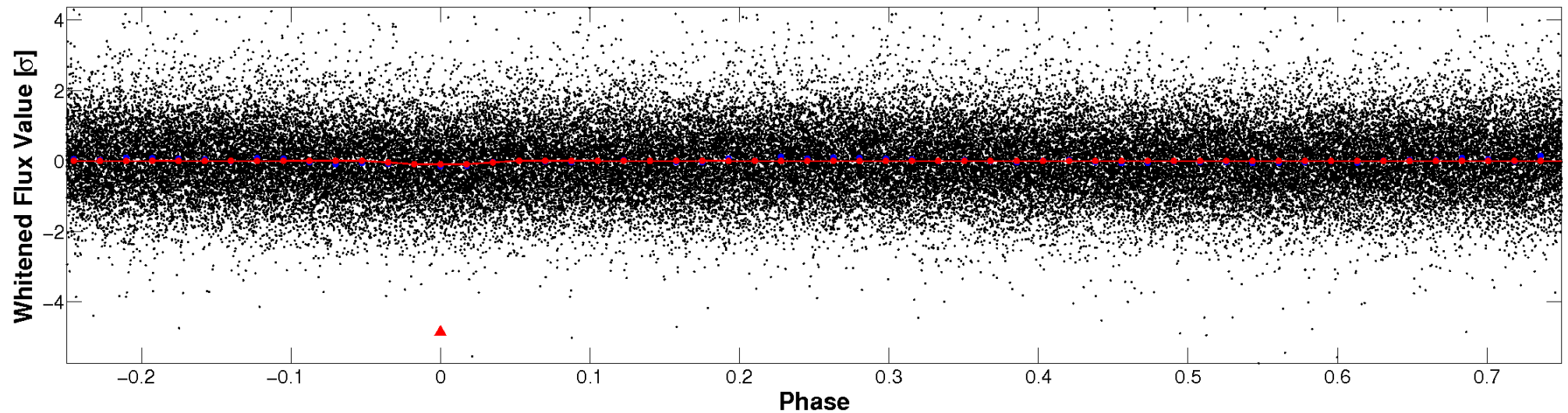


Non-Whitened Vs. Whitened Light Curve

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

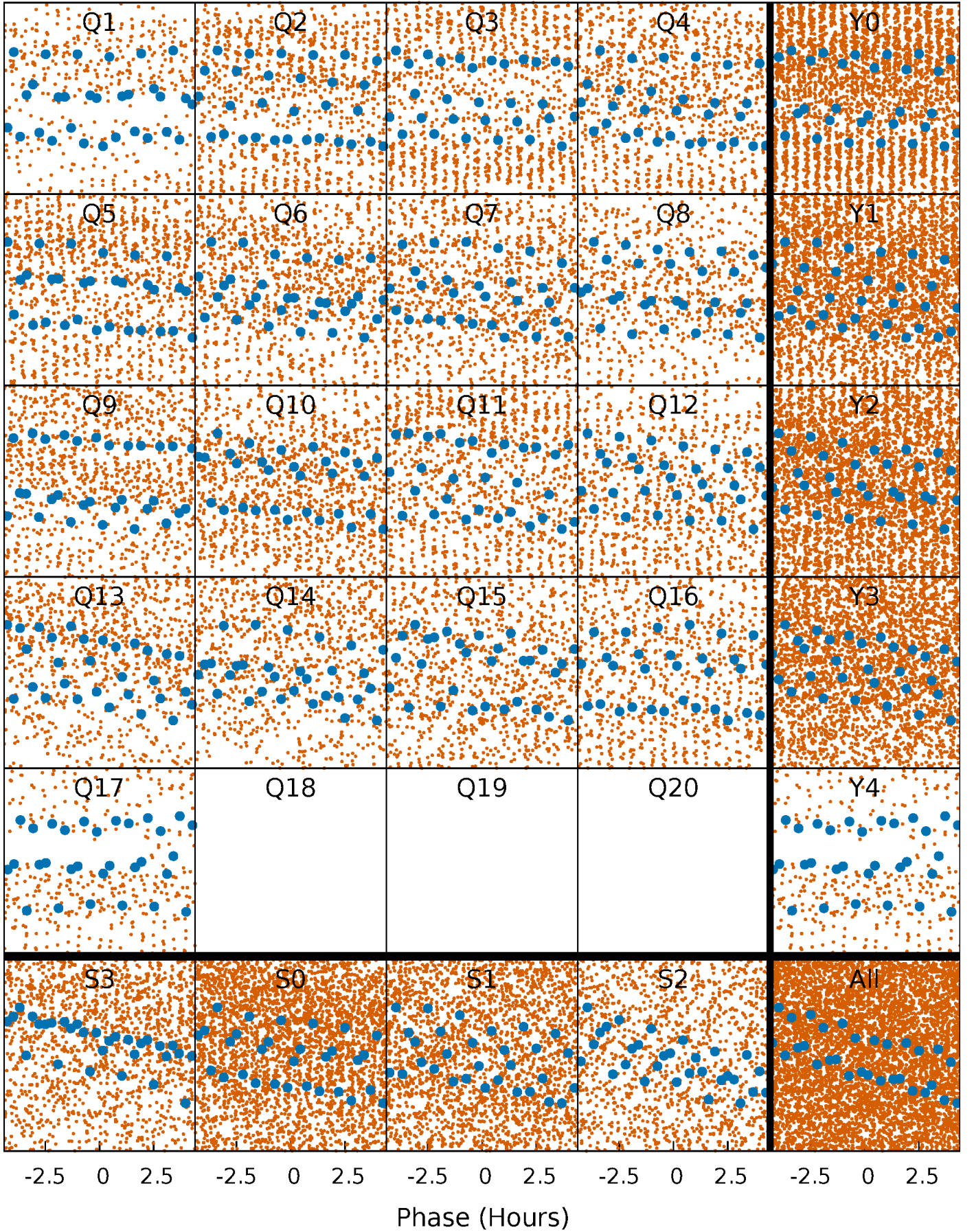


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



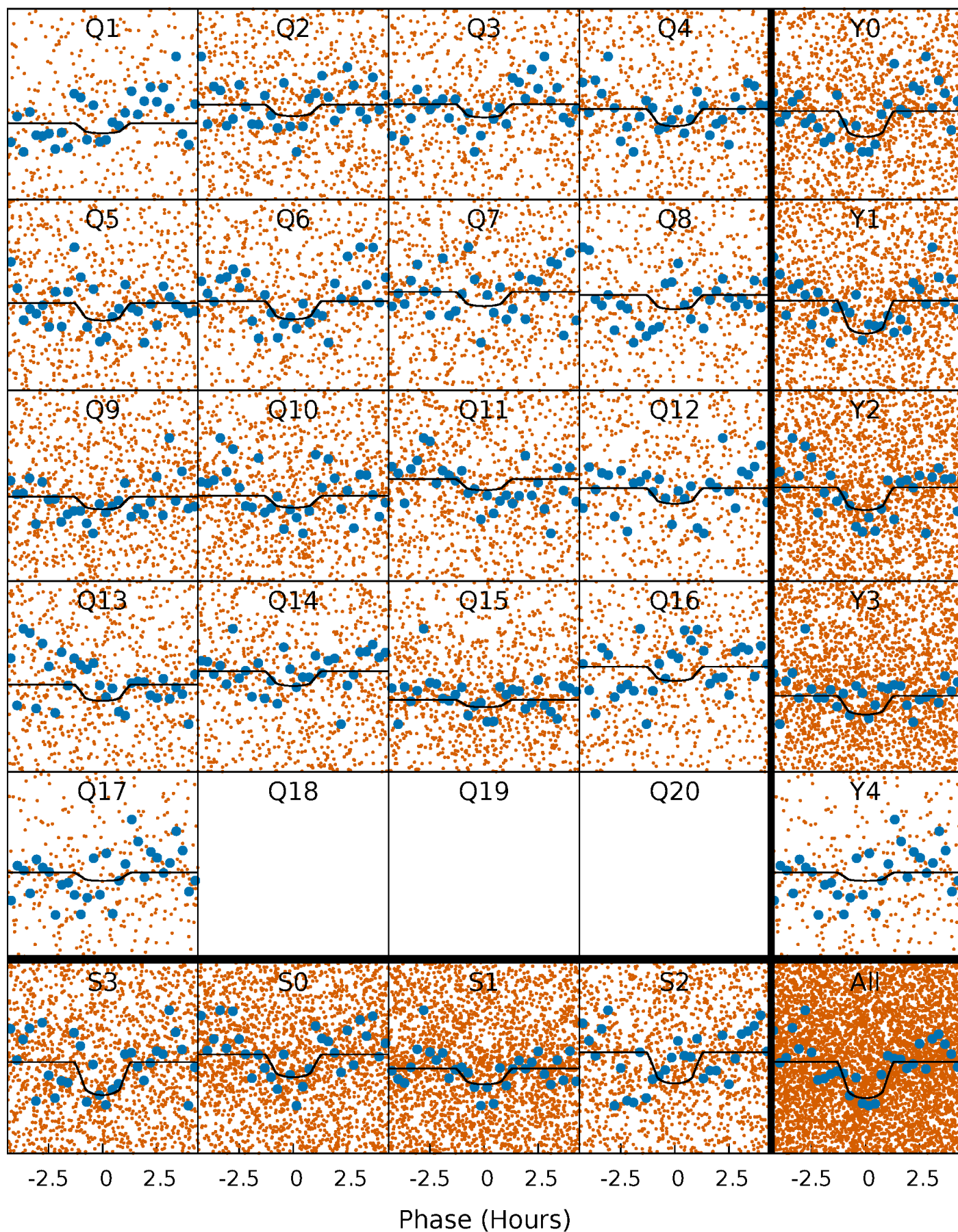
PDC Quarter-Phased Transit Curves

TCE 005182822-01 P= 1.166219 Days $T_0=131.571722$ (BKJD)



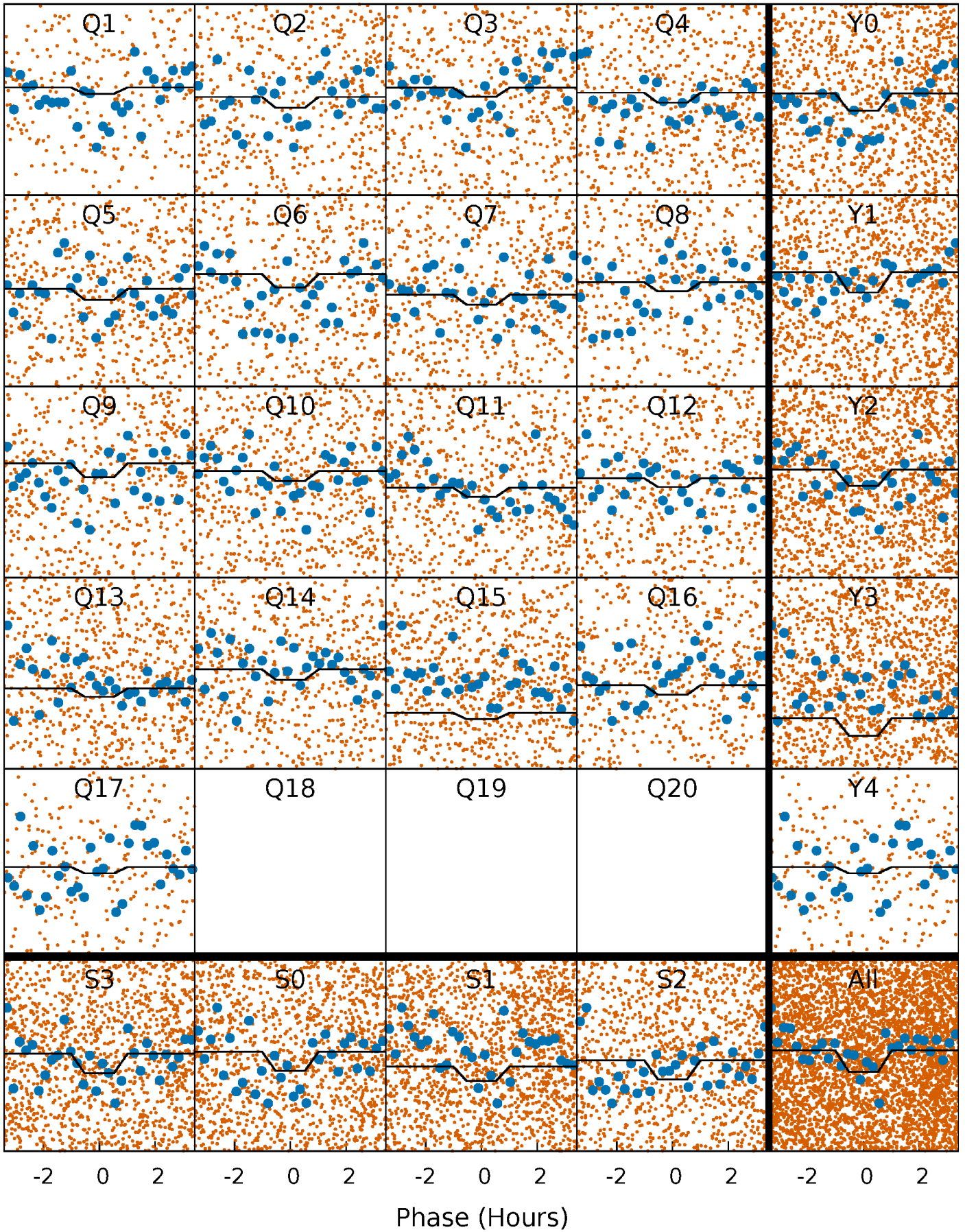
DV Quarter-Phased Transit Curves

TCE 005182822-01 P= 1.166219 Days $T_0=131.571722$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

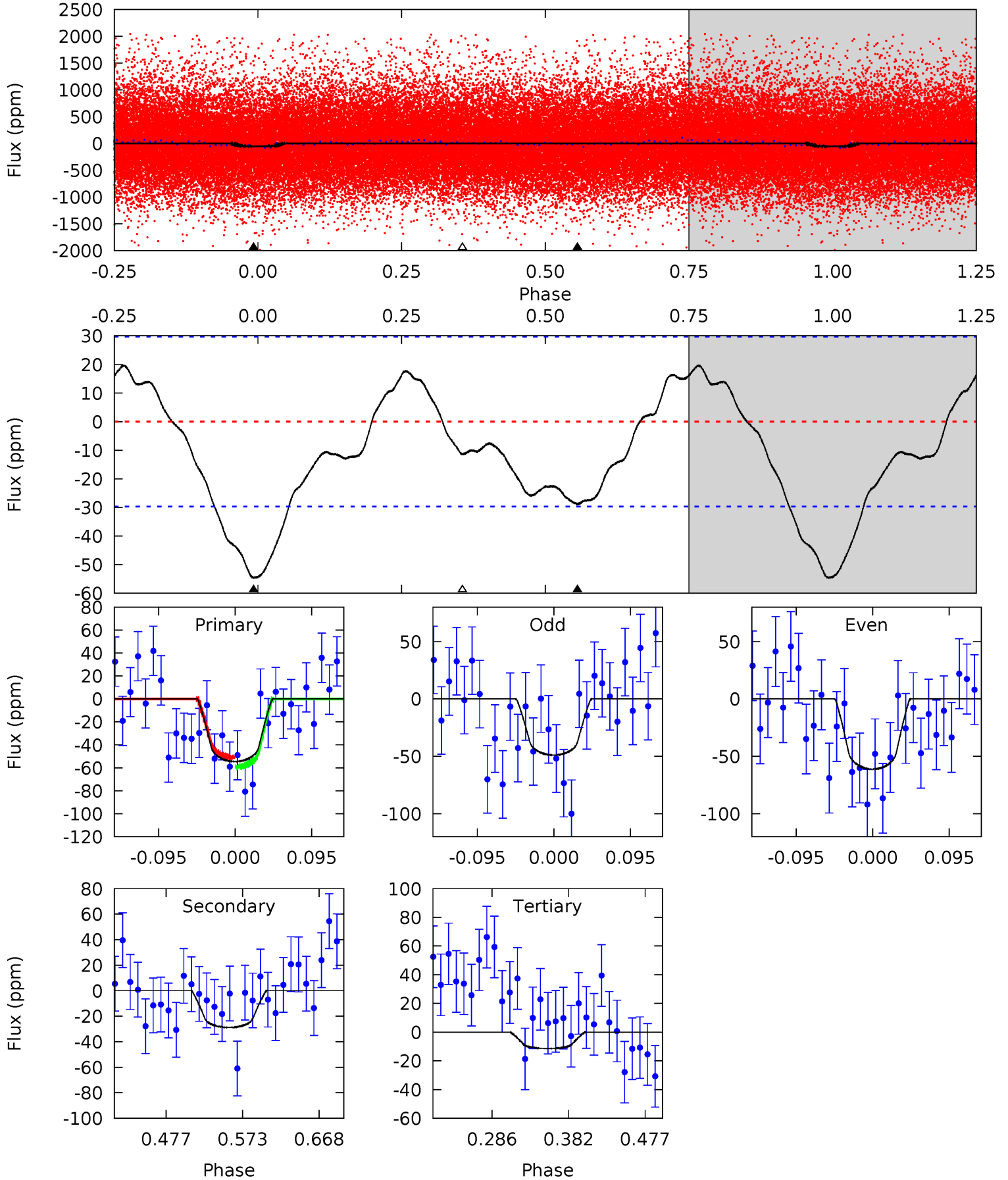
TCE 005182822-01 P= 1.166214 Days $T_0=131.572715$ (BKJD)



DV Model-Shift Uniqueness Test

005182822-01, P = 1.166219 Days, E = 130.405503 Days

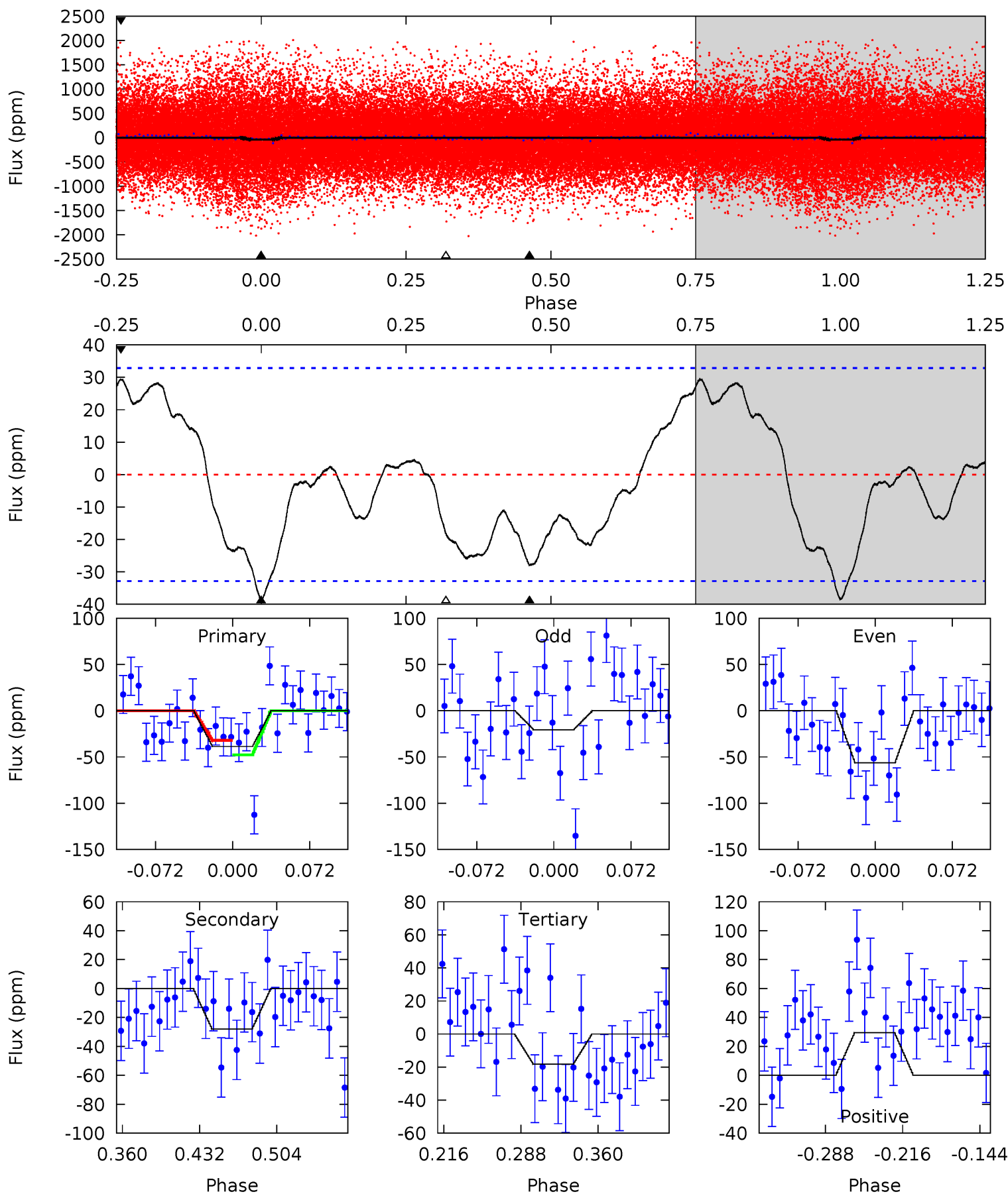
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.41	4.44	1.76	0	4.57	1.67	1.79	6.65	8.41	2.69	4.44	0.95	0.89	0.26	0.65



Alt Model-Shift Uniqueness Test

005182822-01, P = 1.166214 Days, E = 130.406501 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.44	3.96	2.58	4.16	4.63	1.80	2.25	2.87	1.29	1.38	-0.20	2.51	1.14	0.43	1.11



Stellar Parameters For KIC 005182822

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3900^{+70}_{-78}	$4.727^{+0.024}_{-0.027}$	$-0.100^{+0.100}_{-0.100}$	$0.534^{+0.026}_{-0.029}$	$0.555^{+0.025}_{-0.031}$	$5.136^{+0.624}_{-0.503}$
	+2%/-2%	+1%/-1%	+100%/-100%	+5%/-5%	+5%/-6%	+12%/-10%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 005182822-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-29 ± 6	$0.57^{+0.52}_{-0.35}$	1316^{+28}_{-30}	3218^{+1266}_{-575}	16^{+97}_{-12}
Alt.	-28 ± 7	$0.54^{+0.47}_{-0.36}$	1316^{+31}_{-30}	3220^{+1397}_{-520}	16^{+111}_{-12}

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

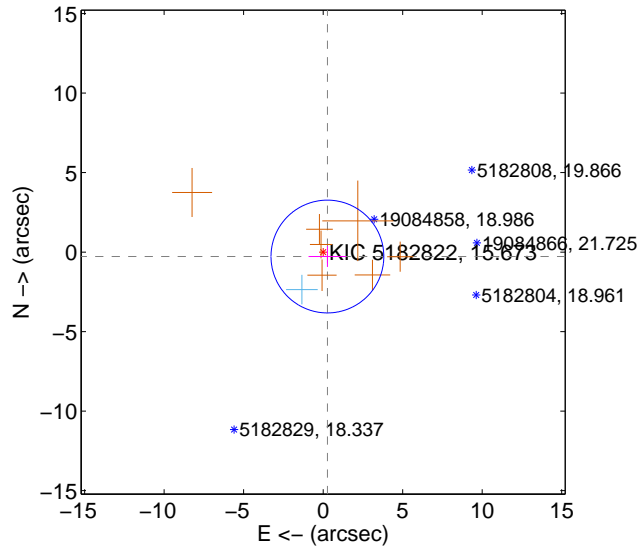
Supplemental centroid analysis for 005182822-01. Kepler magnitude: 15.67. Transit SNR 5.45

There are 1 quarters with good PRF difference image offsets

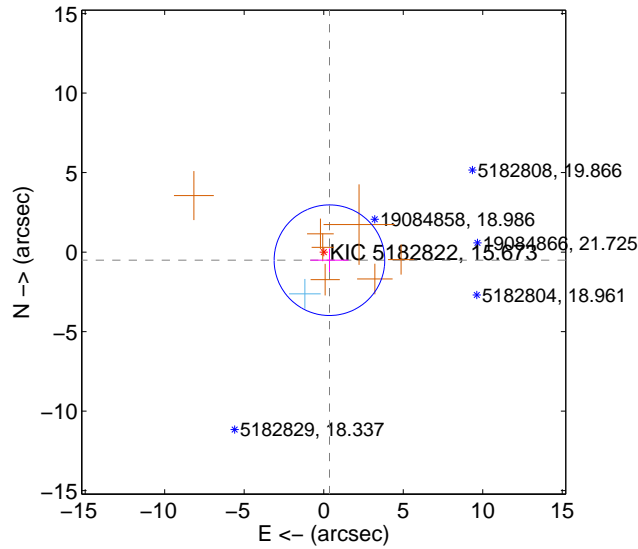
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.387 ± 1.182	0.33	-0.268 ± 1.186	-0.279 ± 0.656
PRF-fit source offset from KIC position	0.625 ± 1.159	0.54	-0.361 ± 1.200	-0.510 ± 0.735
photometric centroid source offset	6.47 ± 2.07	3.12	-5.32 ± 2.10	-3.69 ± 2.02

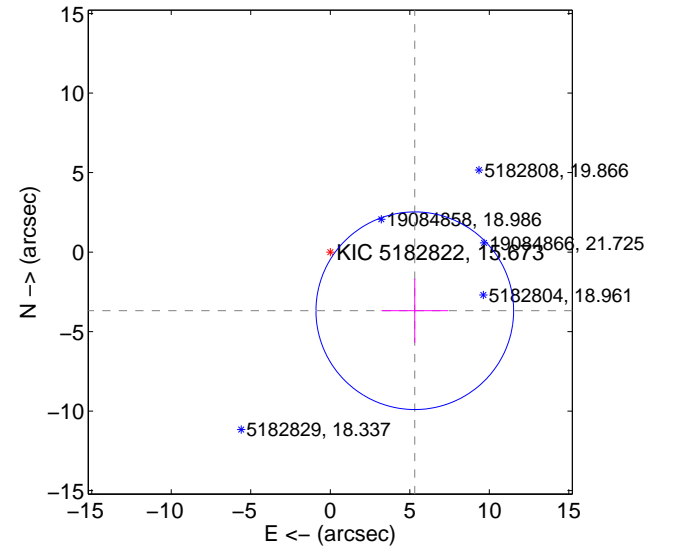
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

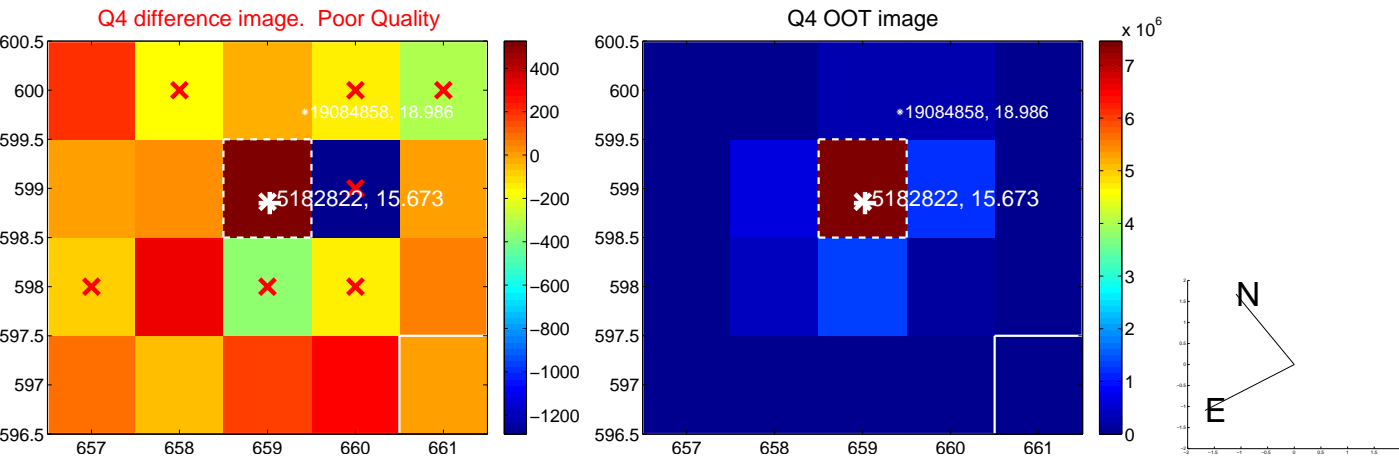
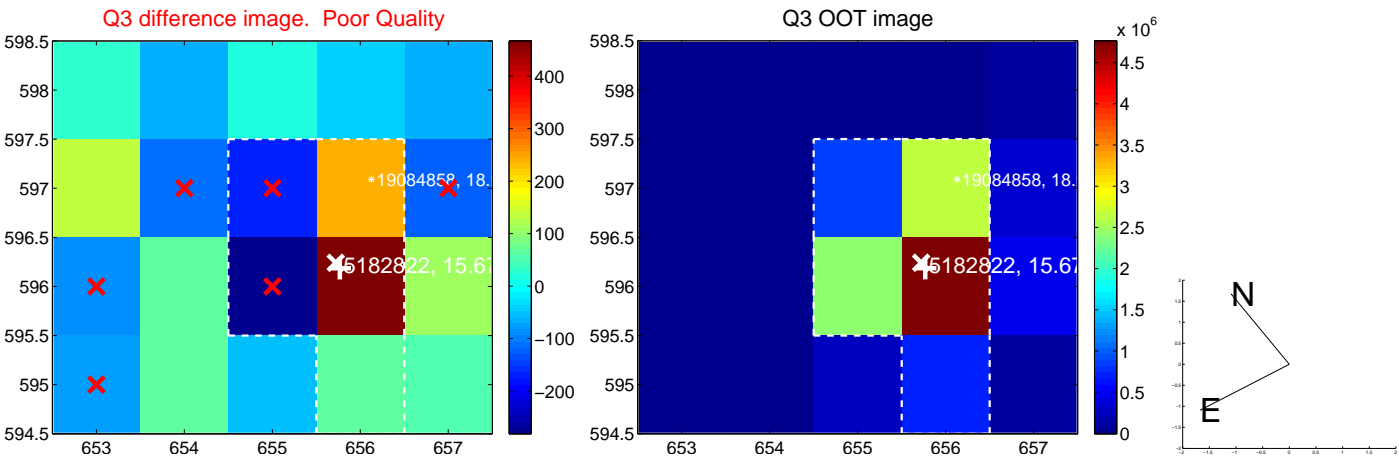
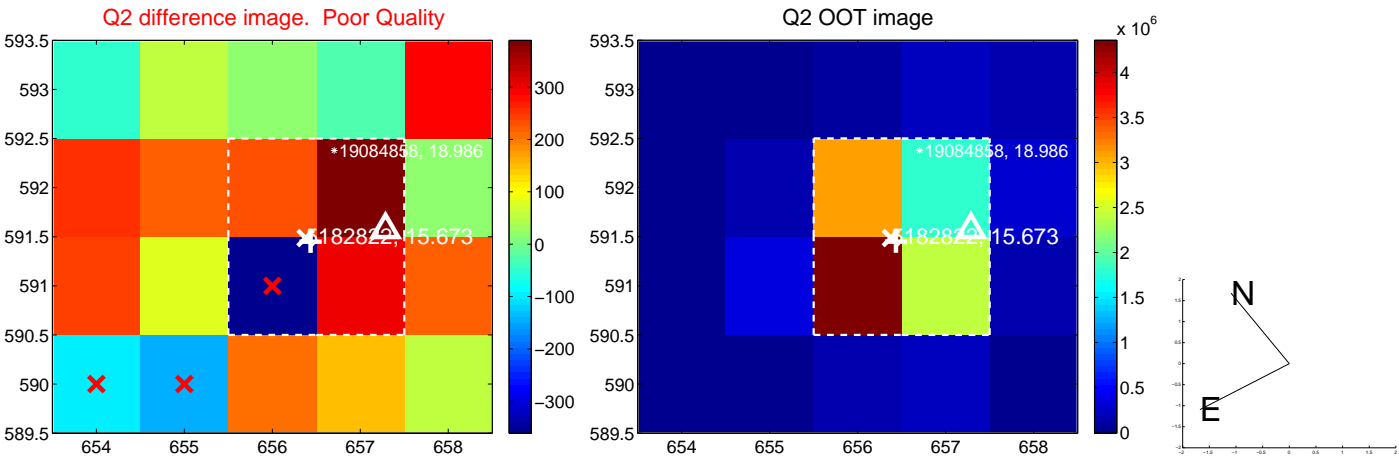
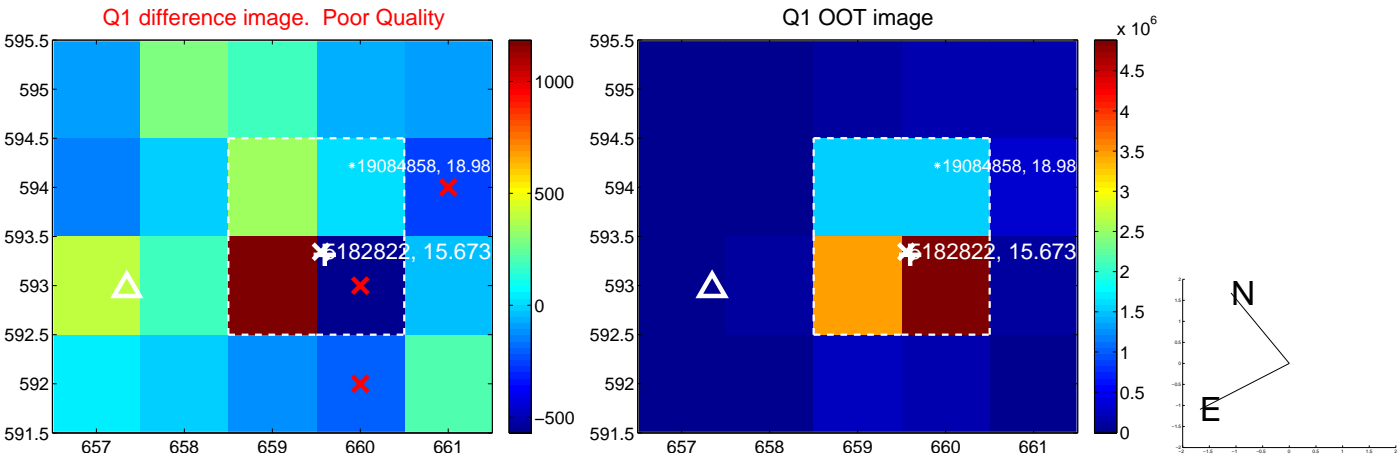


offset from photometric centroids

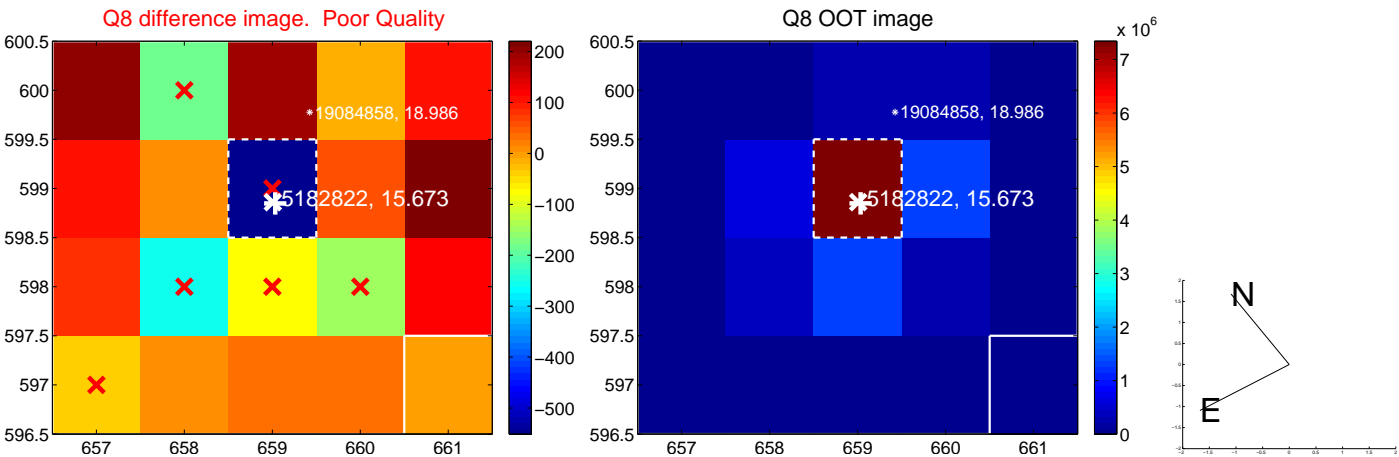
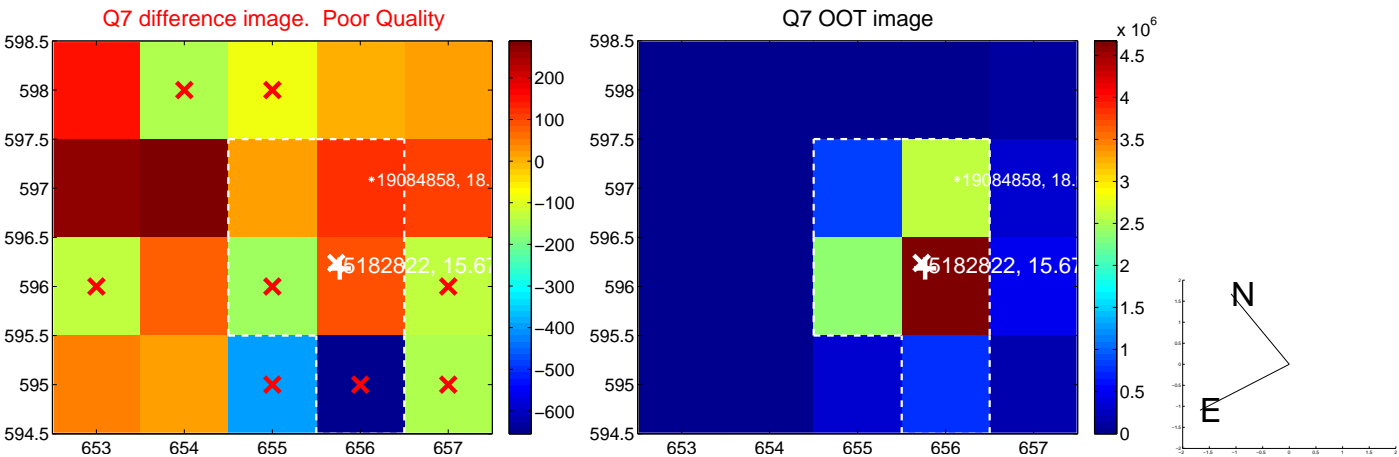
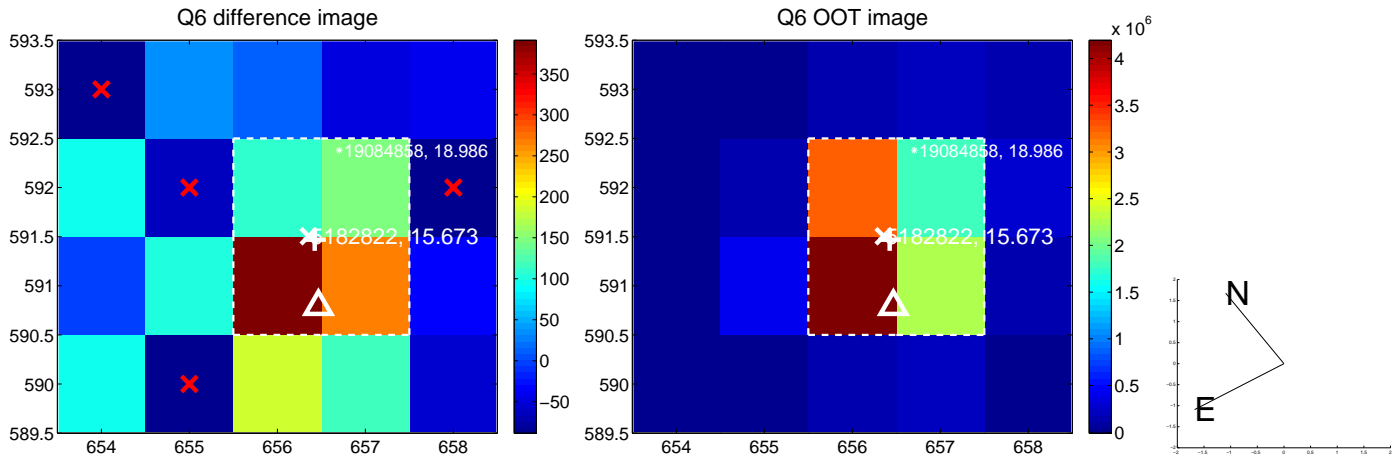
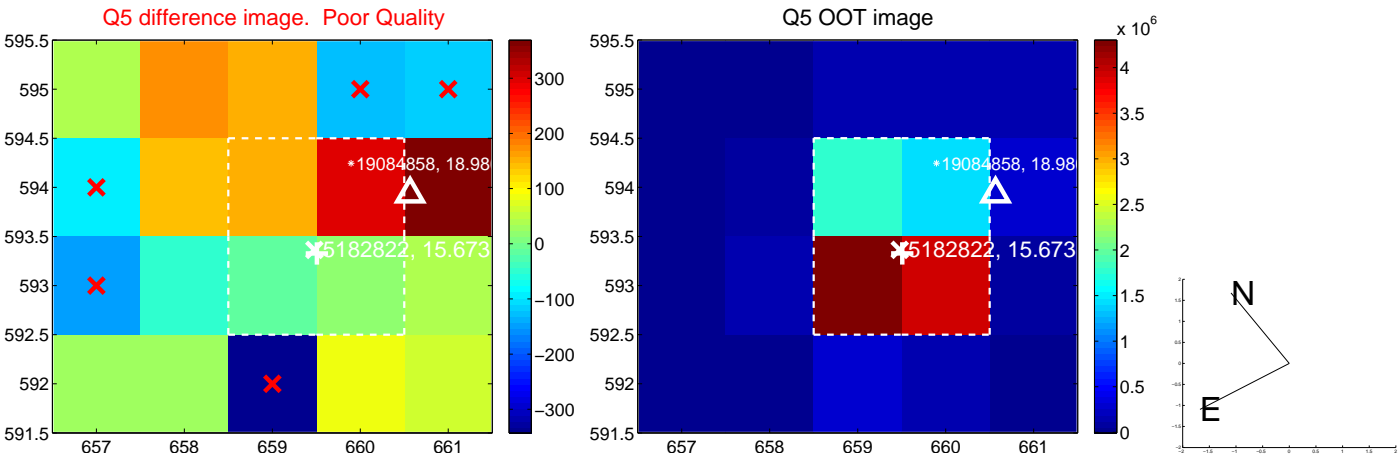


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

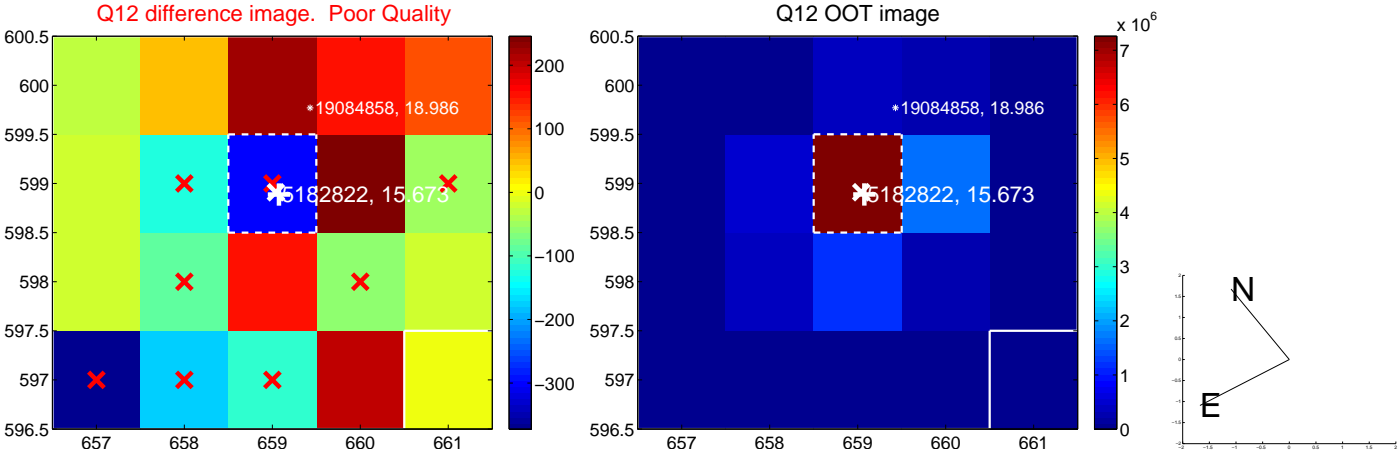
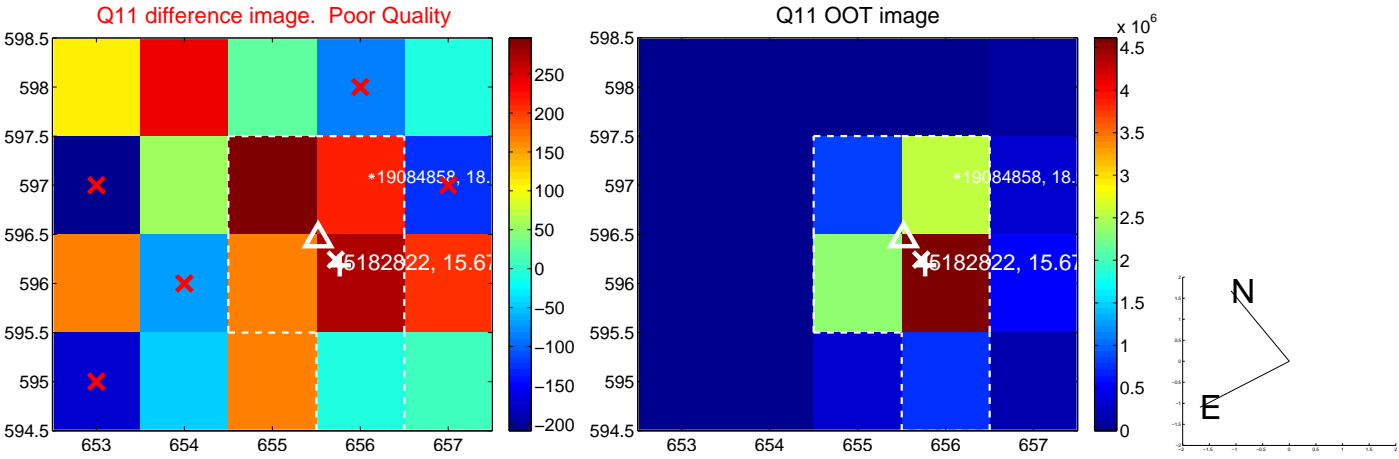
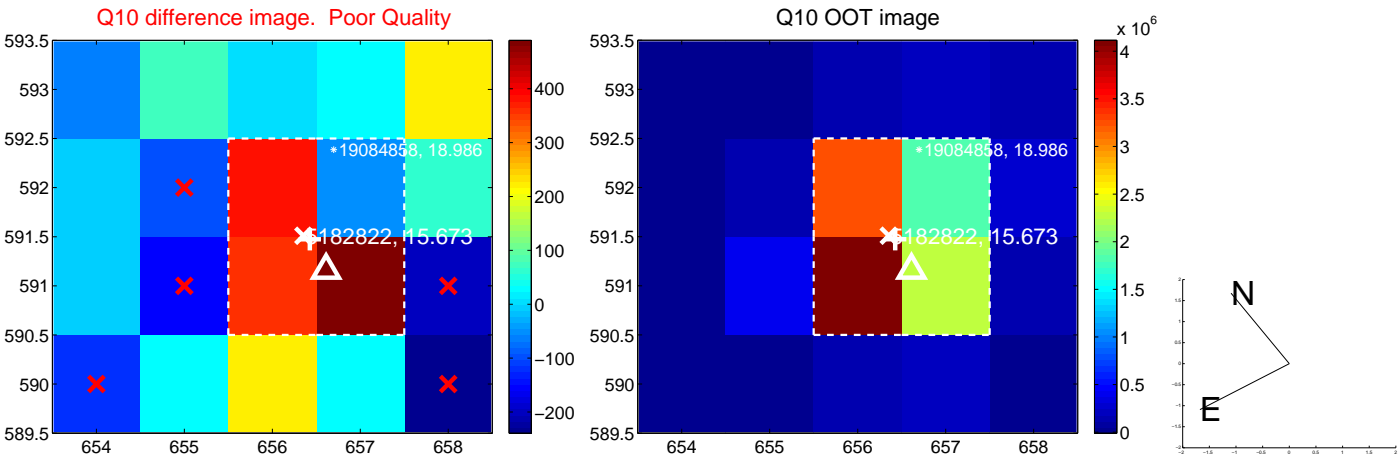
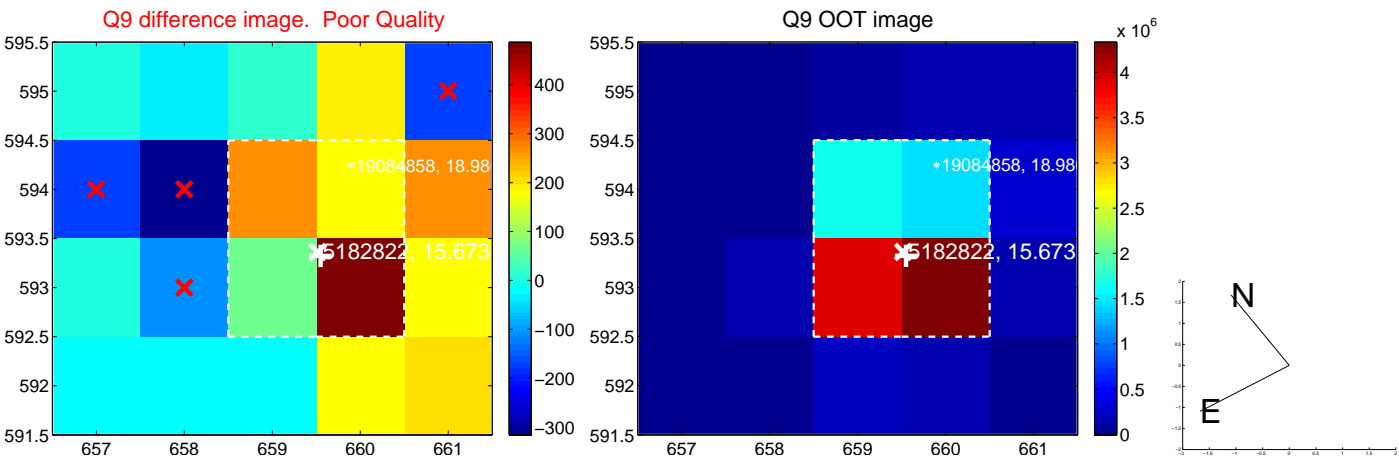
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



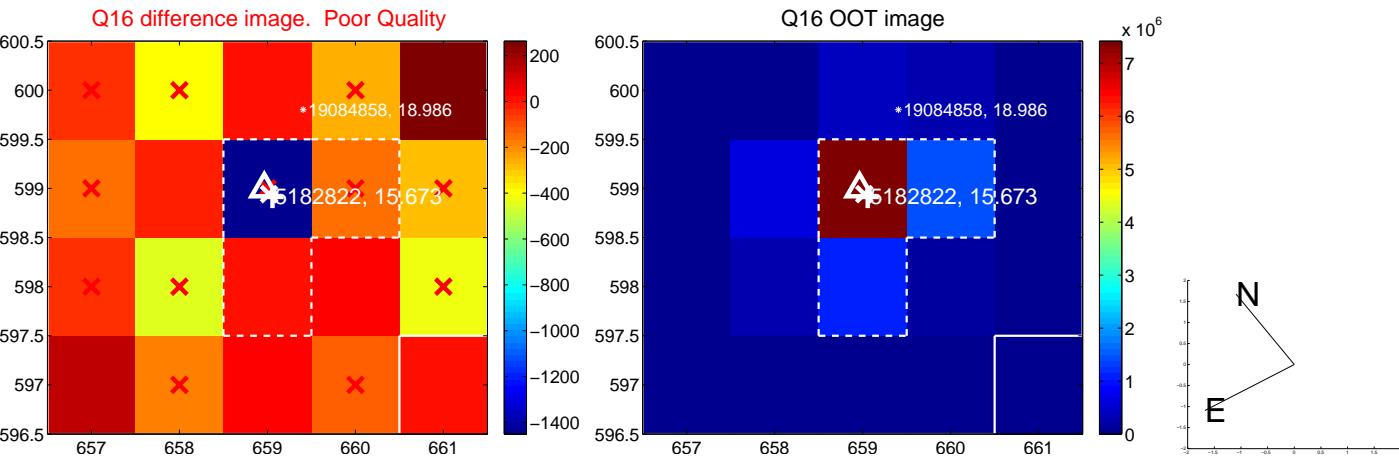
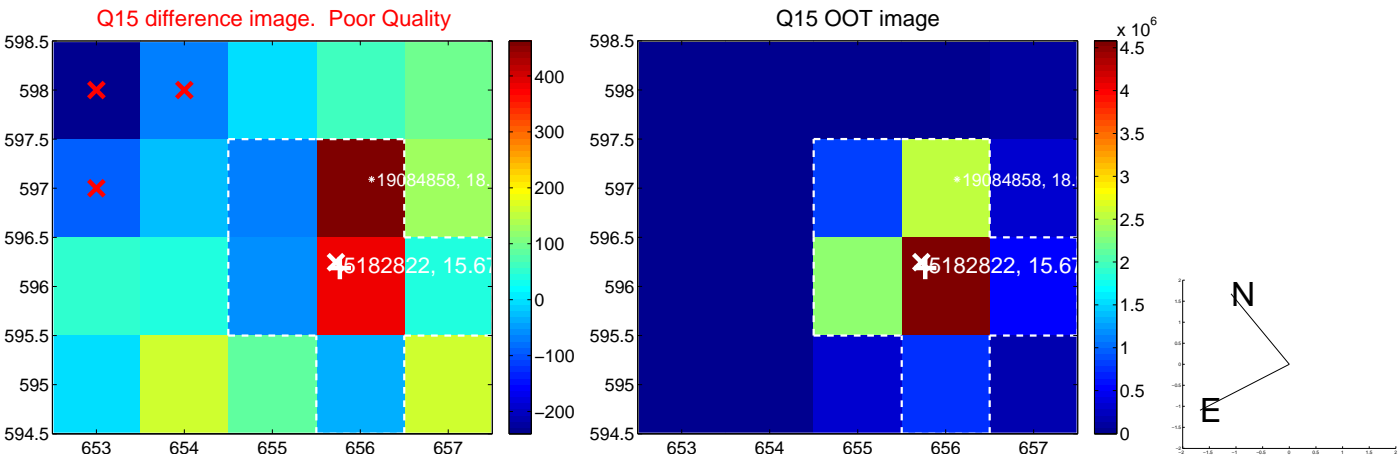
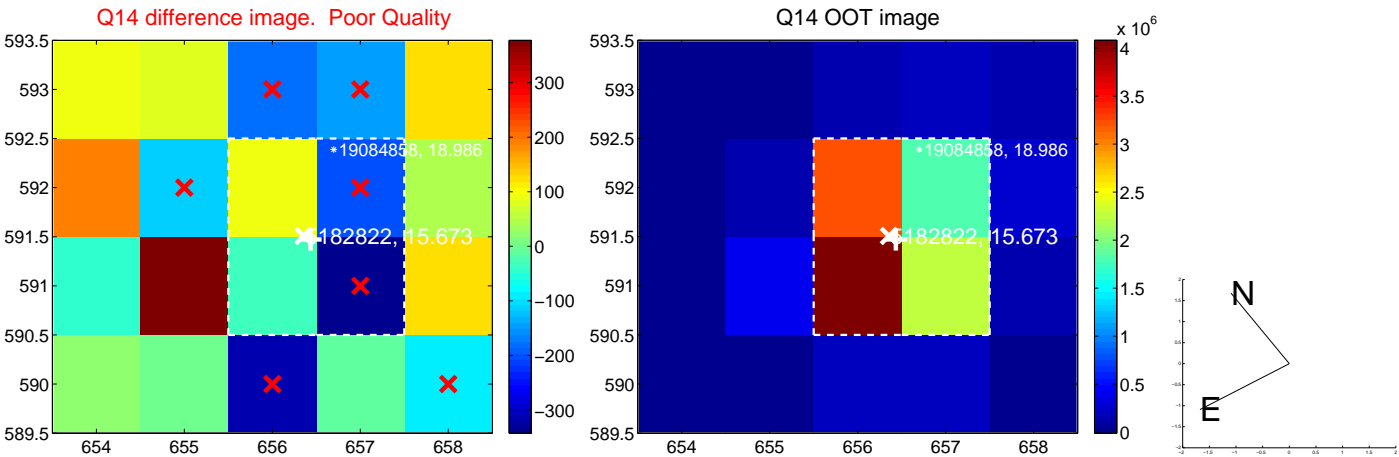
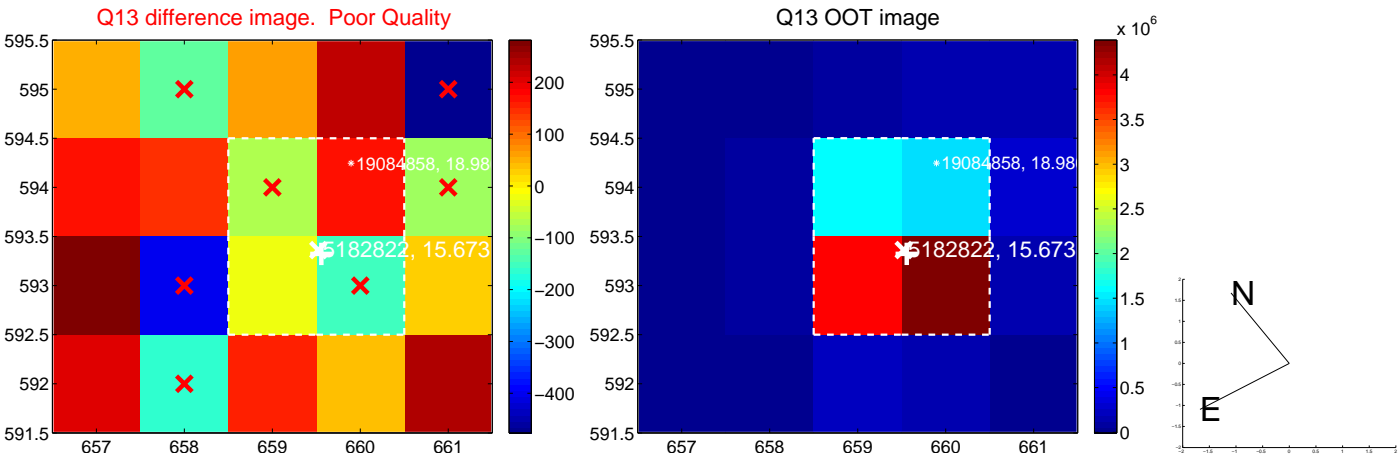
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



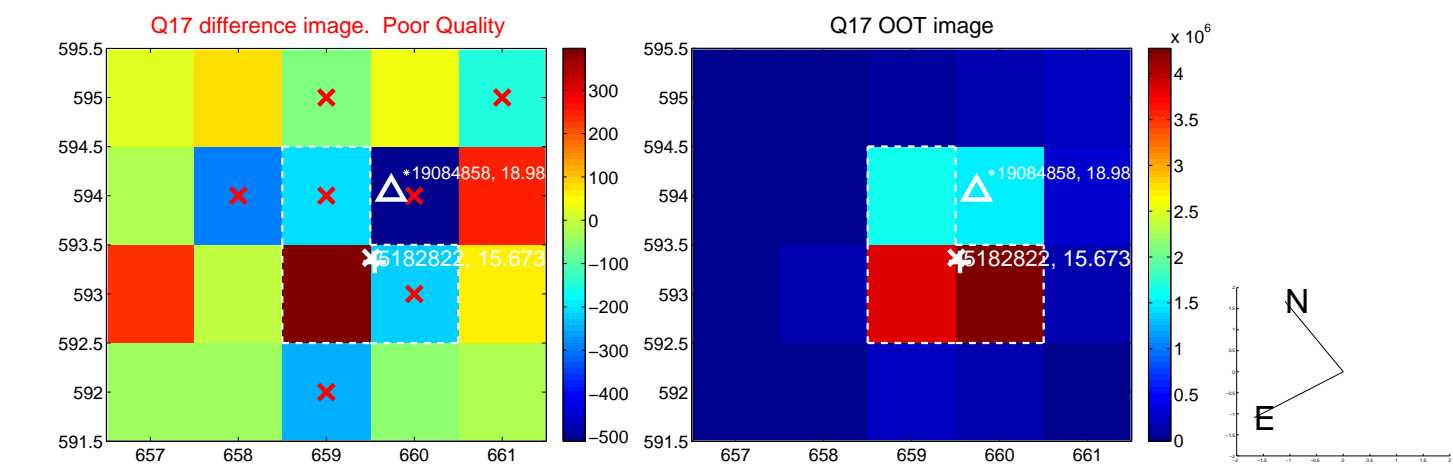
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



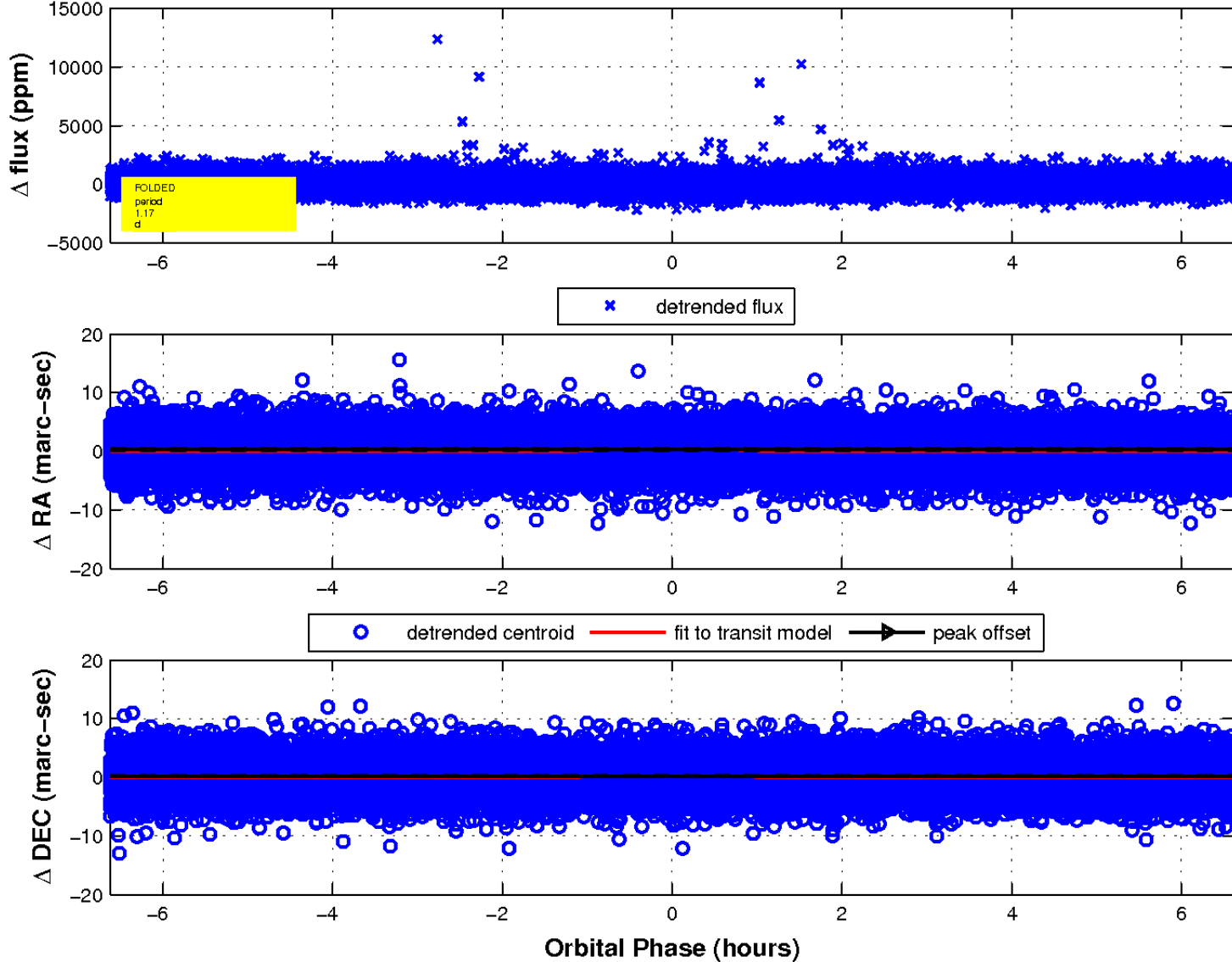
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

