

KIC 007115427

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})
007115427-01	OBS	No	0.566704	131.964427	0.0	5.558	11.1	0.0	0.92	6351	0.00	6843.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007115427-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_UNRESOLVED_OFFSET—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.

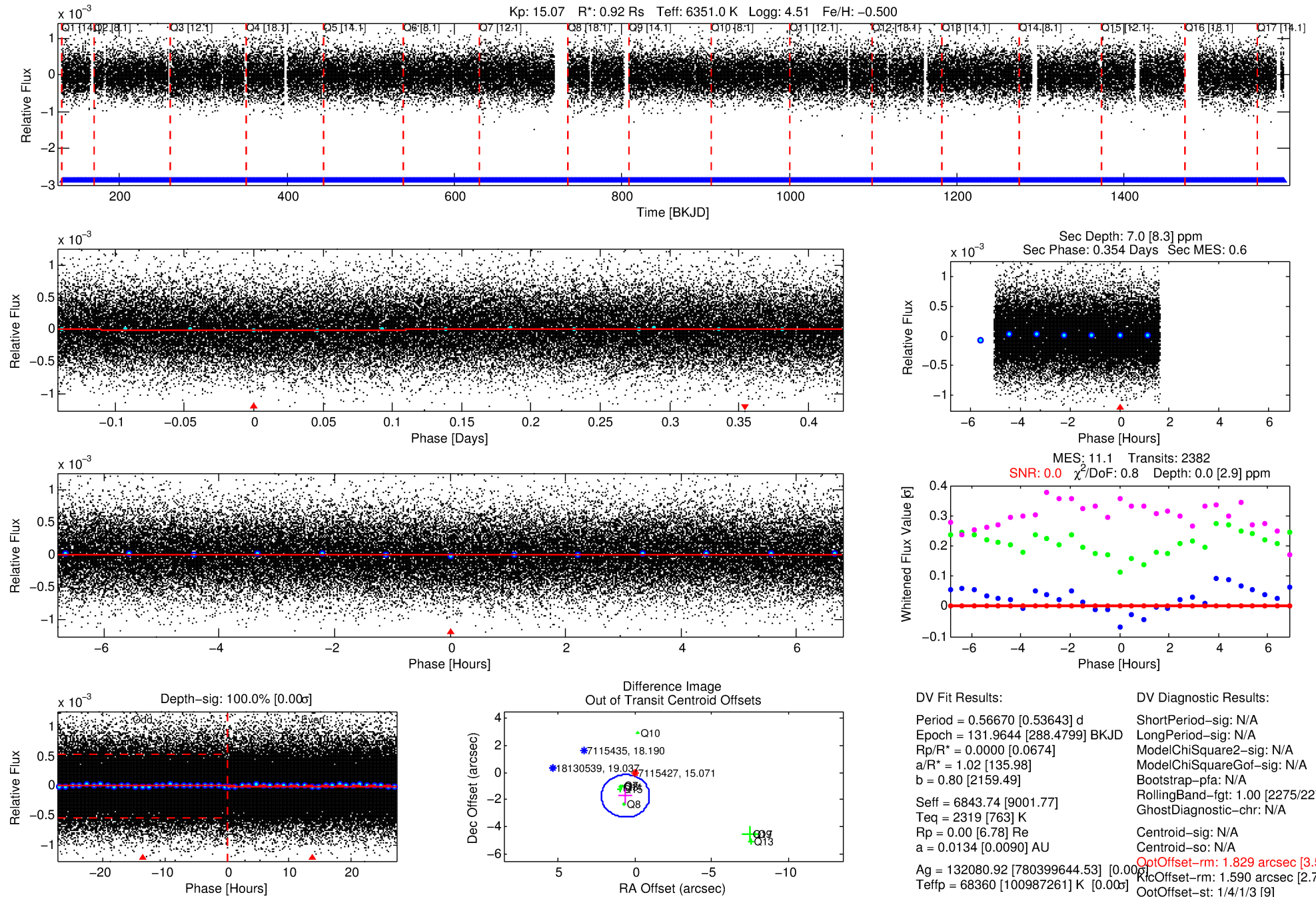
Ephemeris Match Information For 007115427-01

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
007115427-01	7115427	RR-Lyr-pri	7198959	1:1	1002.4	5	-253	7.86	15.07	623300.00	Direct-PRF	0	2.69	6.55

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

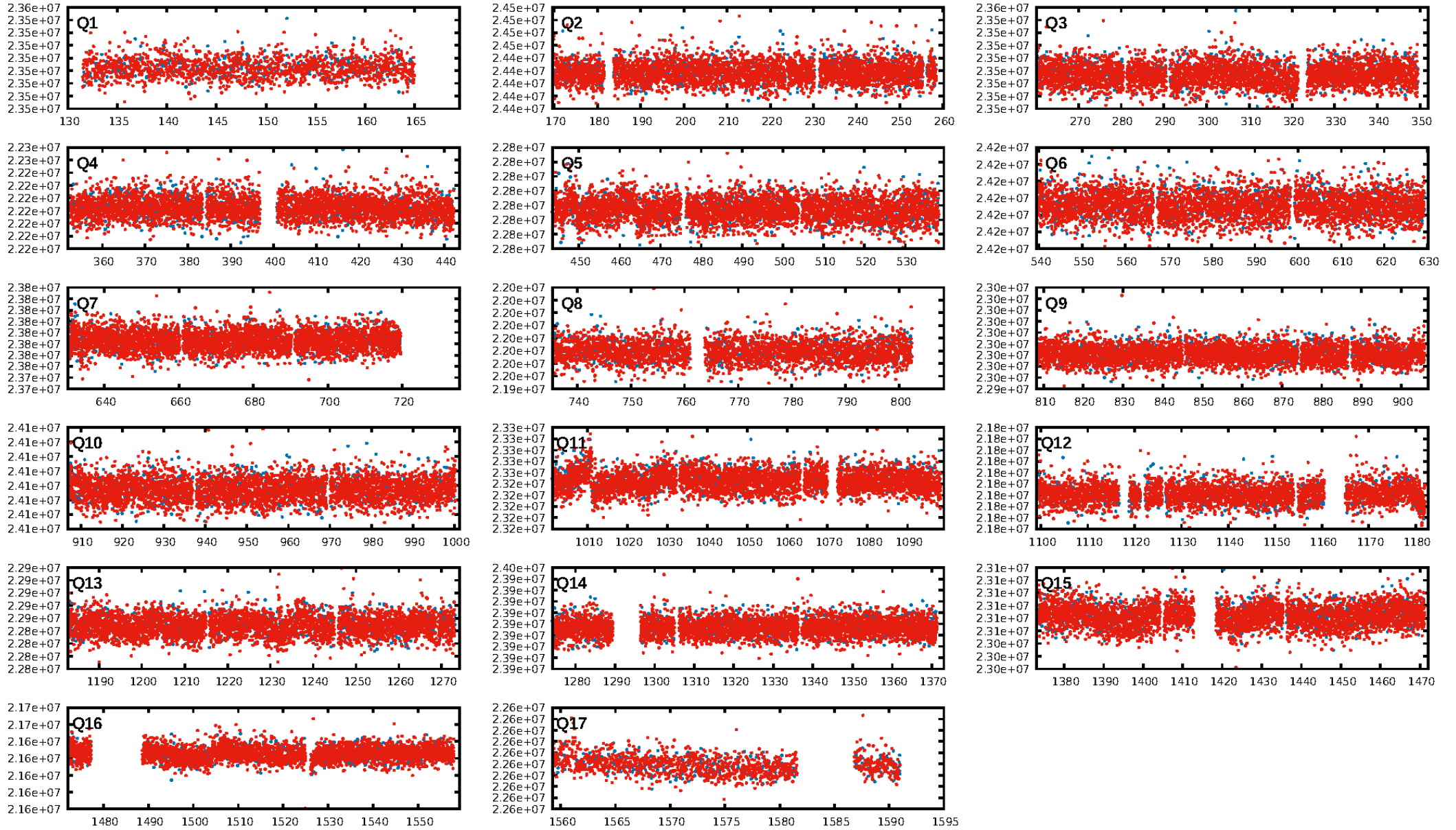
KIC: 7115427 Candidate: 1 of 1 Period: 0.567 d



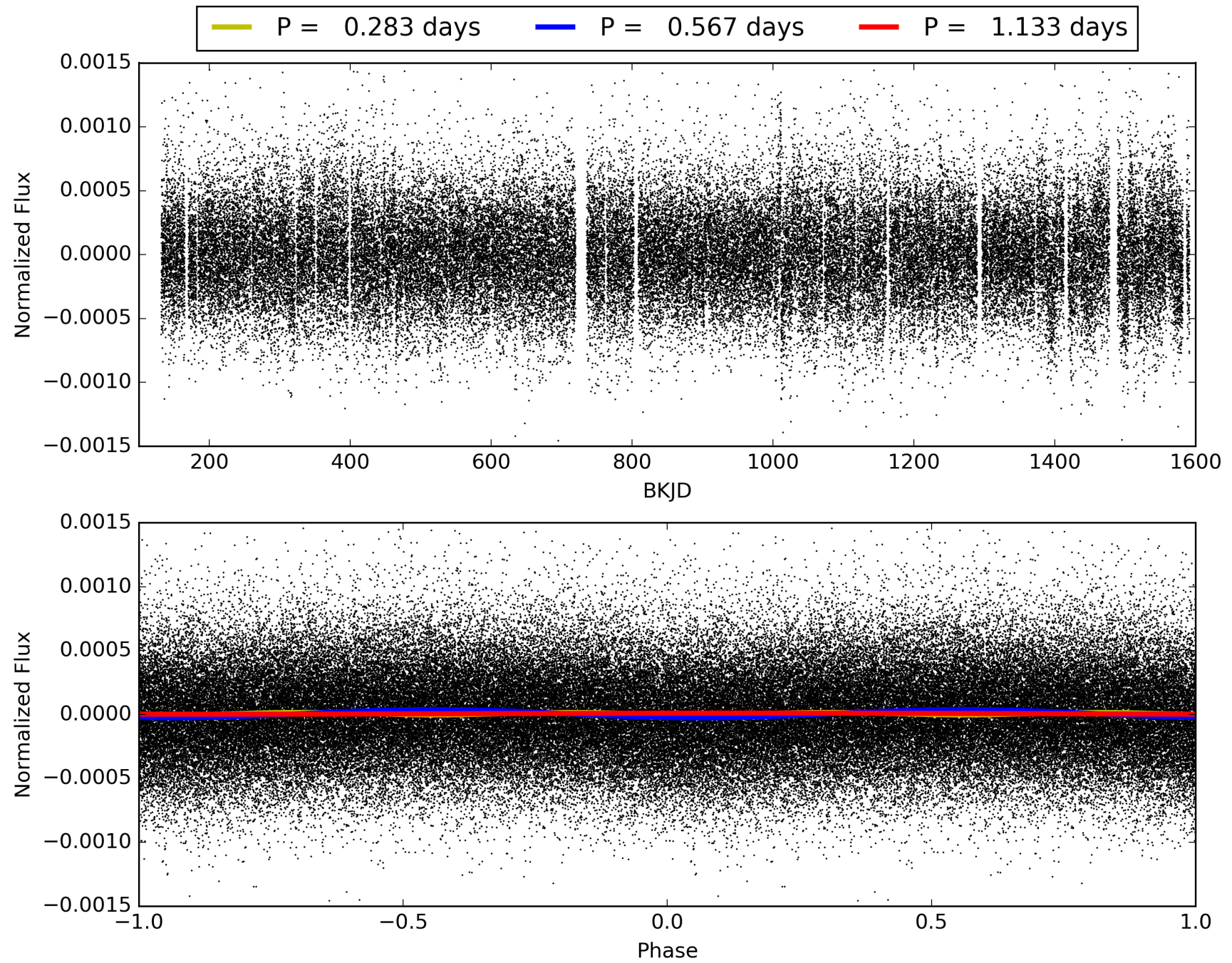
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:09:10 Z

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

TCE 007115427-01, PDC Light Curves

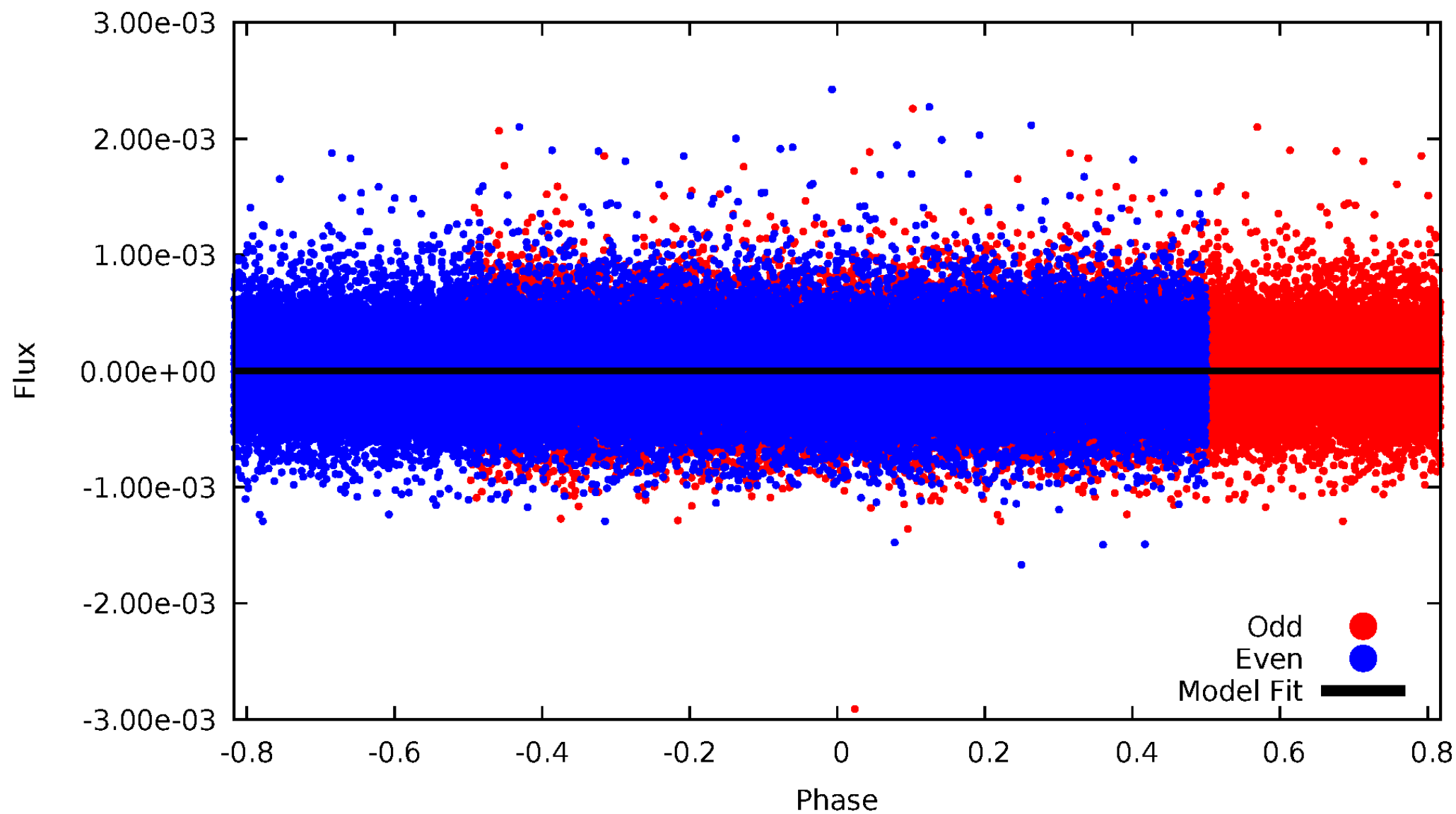


TCE 007115427-01



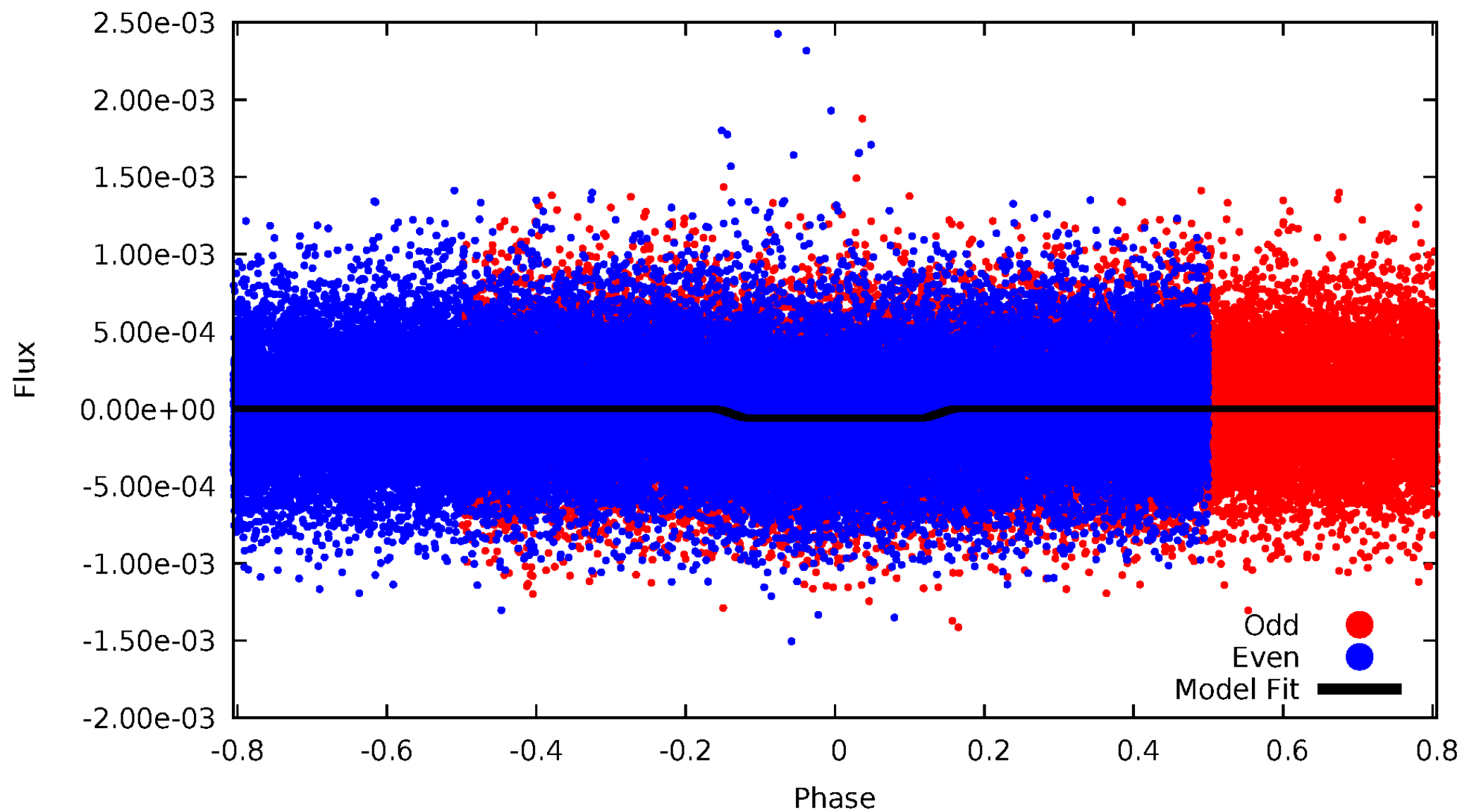
DV Odd/Even

TCE 007115427-01



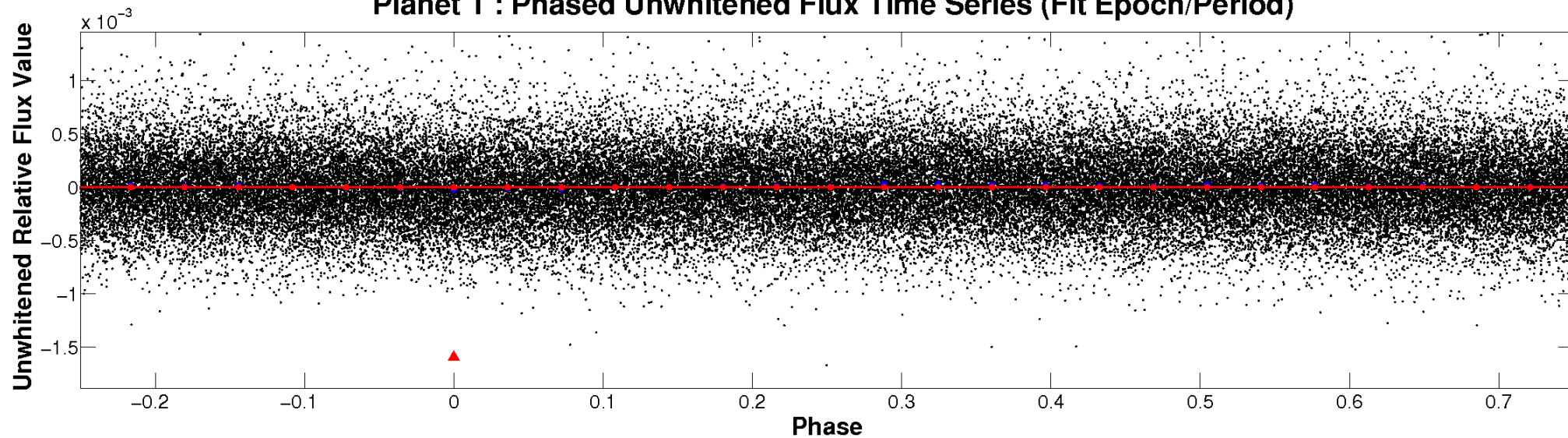
ALT Odd/Even

TCE 007115427-01

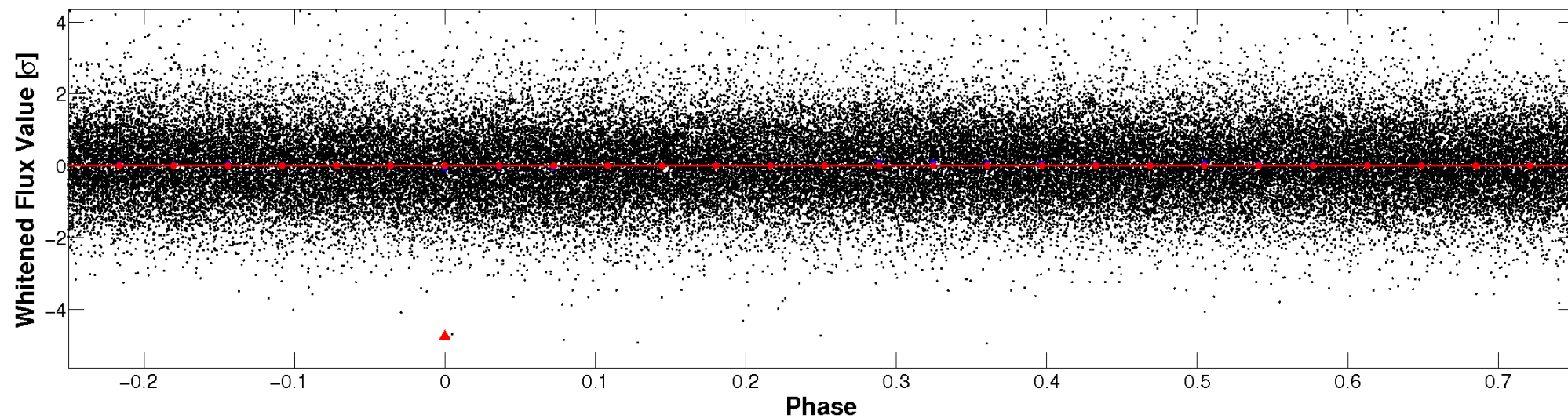


Non-Whitened Vs. Whitened Light Curve

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

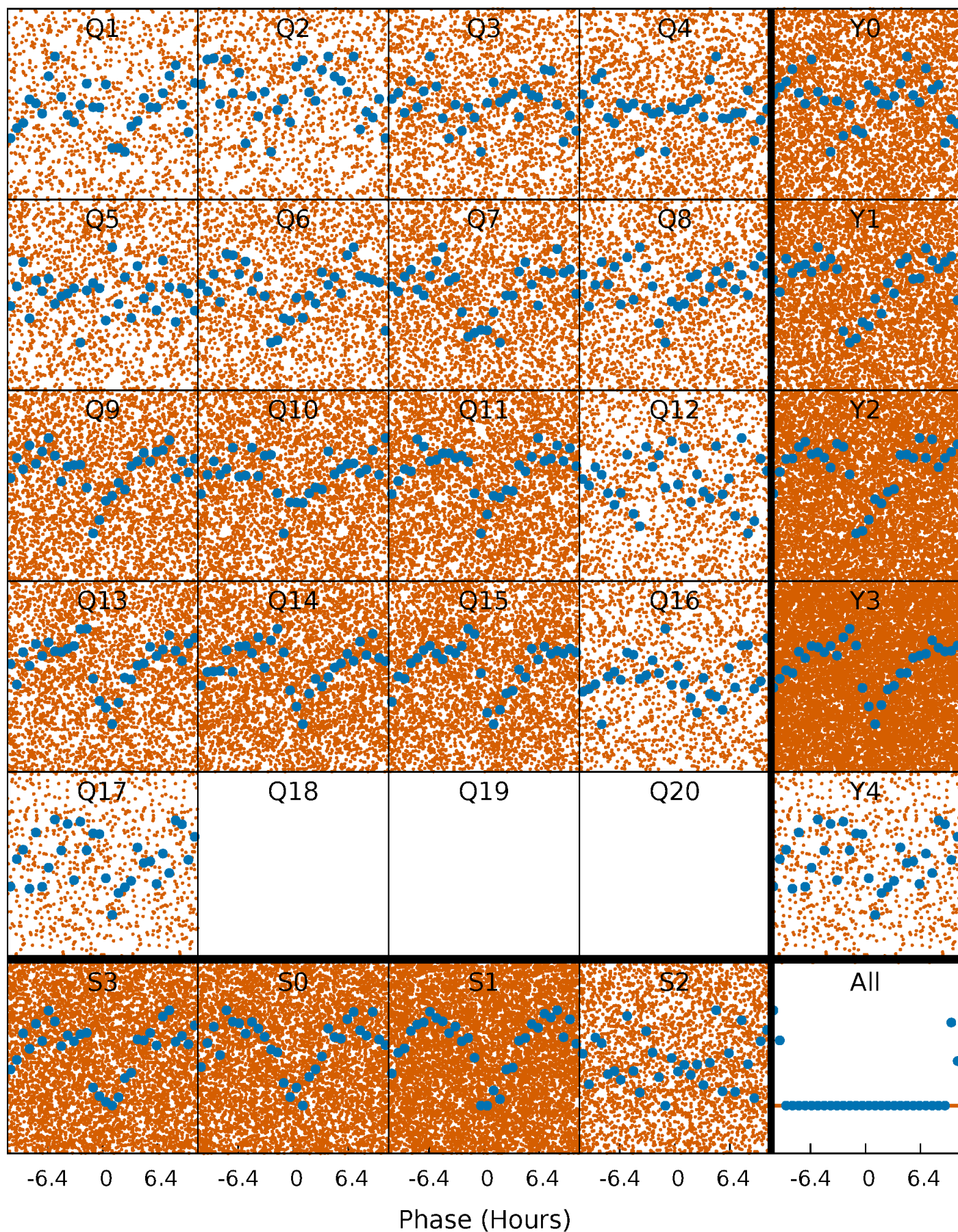


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



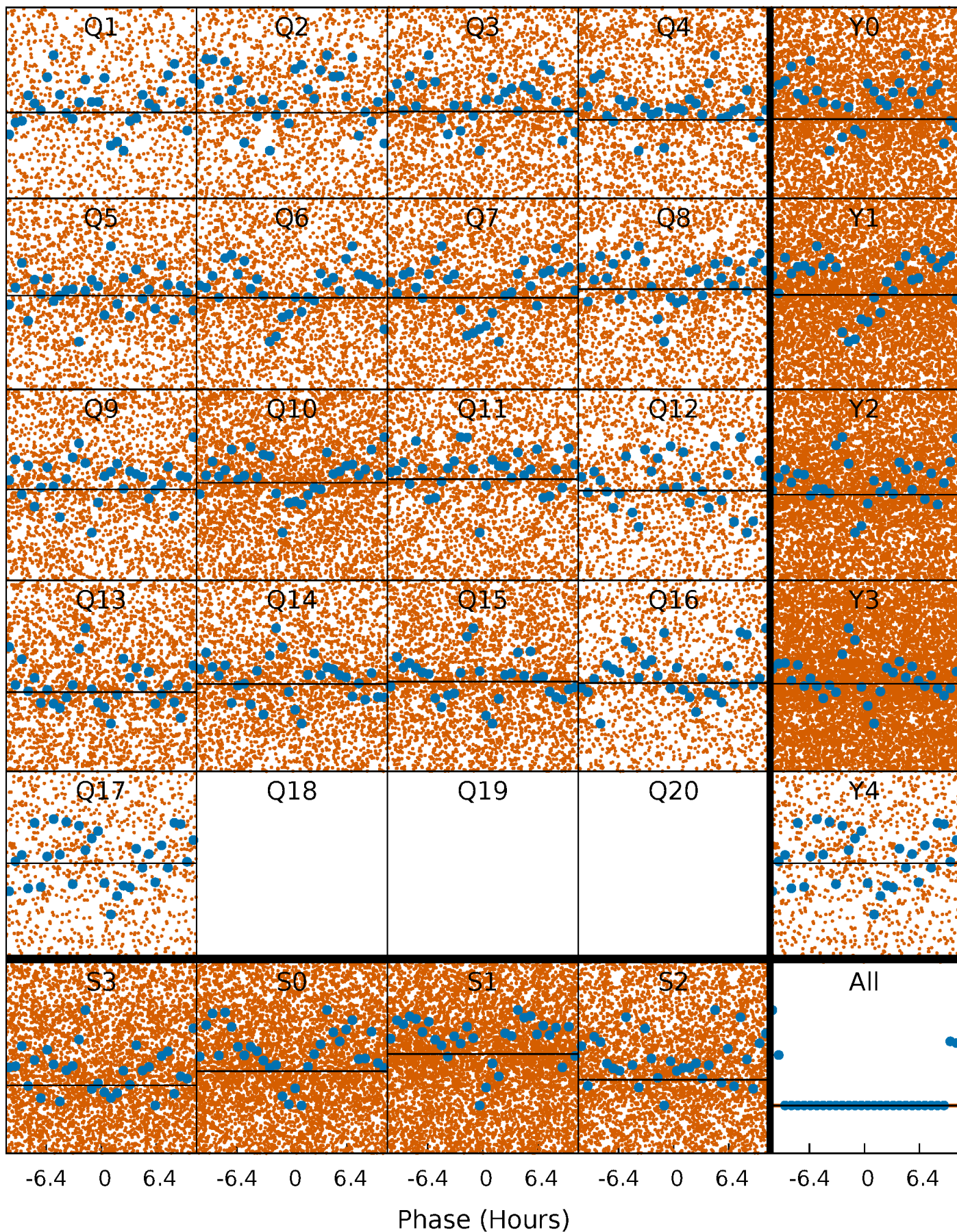
PDC Quarter-Phased Transit Curves

TCE 007115427-01 P= 0.566704 Days $T_0=131.964427$ (BKJD)



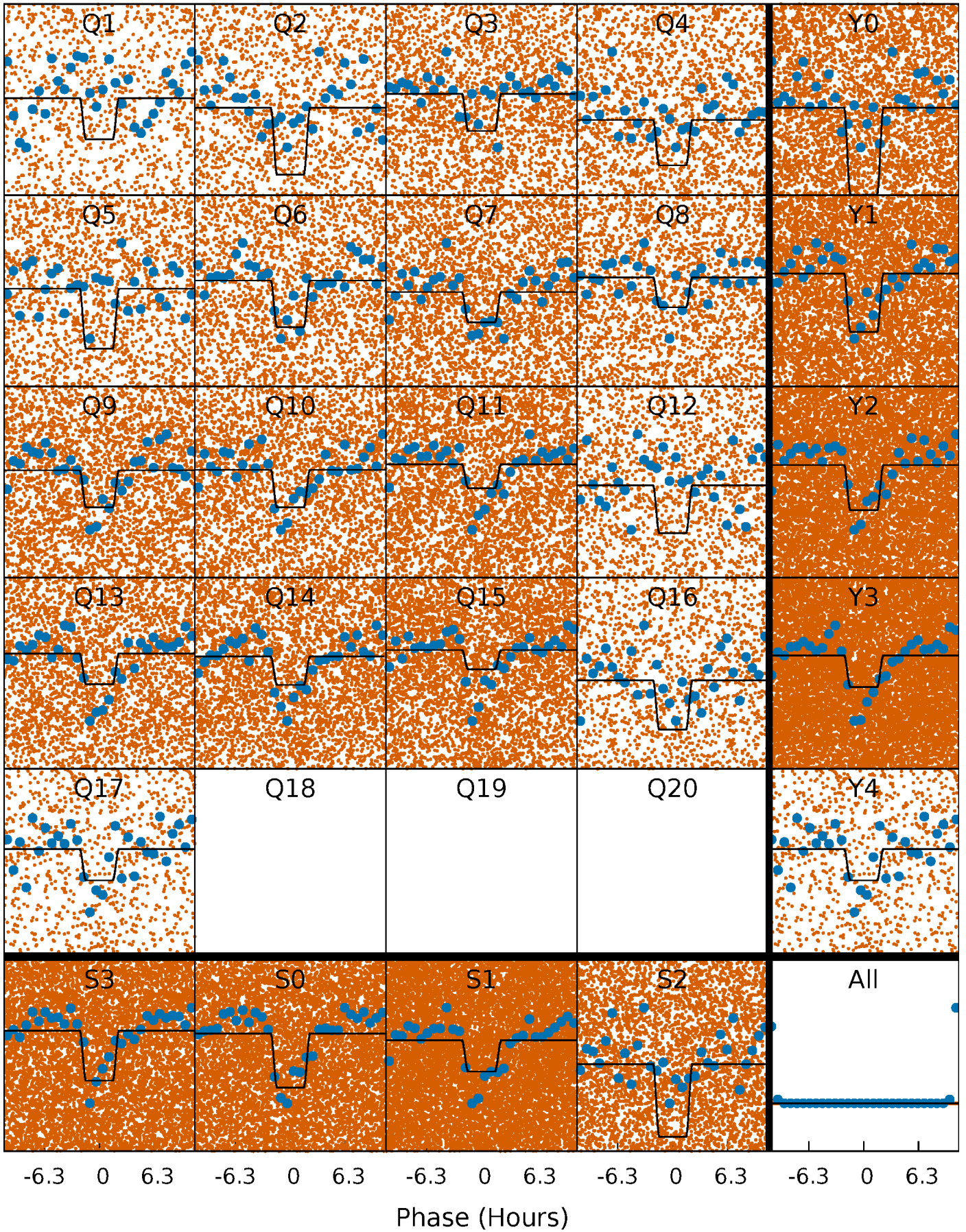
DV Quarter-Phased Transit Curves

TCE 007115427-01 P= 0.566704 Days $T_0=131.964427$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

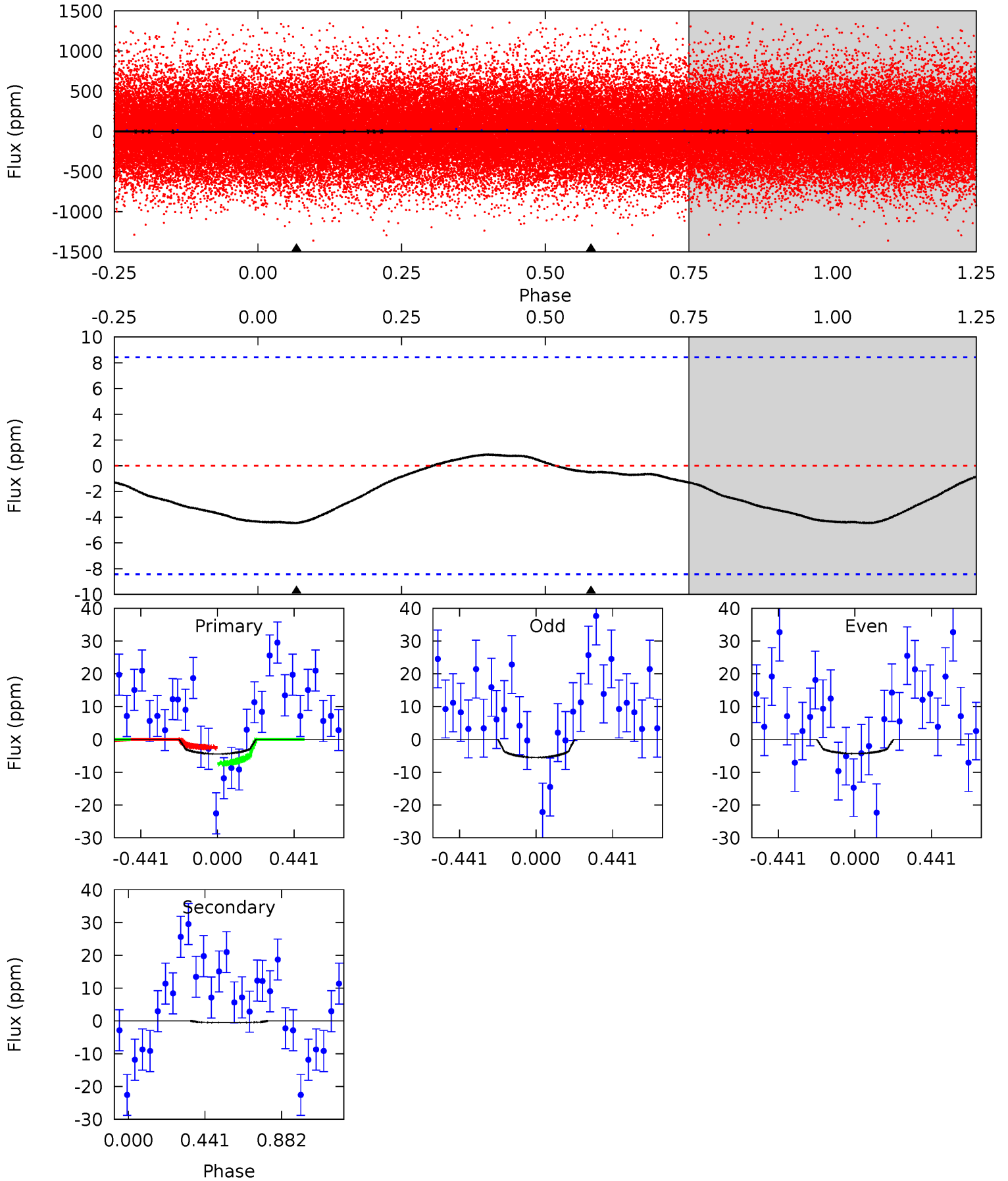
TCE 007115427-01 P= 0.566788 Days $T_0=131.850656$ (BKJD)



DV Model-Shift Uniqueness Test

007115427-01, P = 0.566704 Days, E = 131.397723 Days

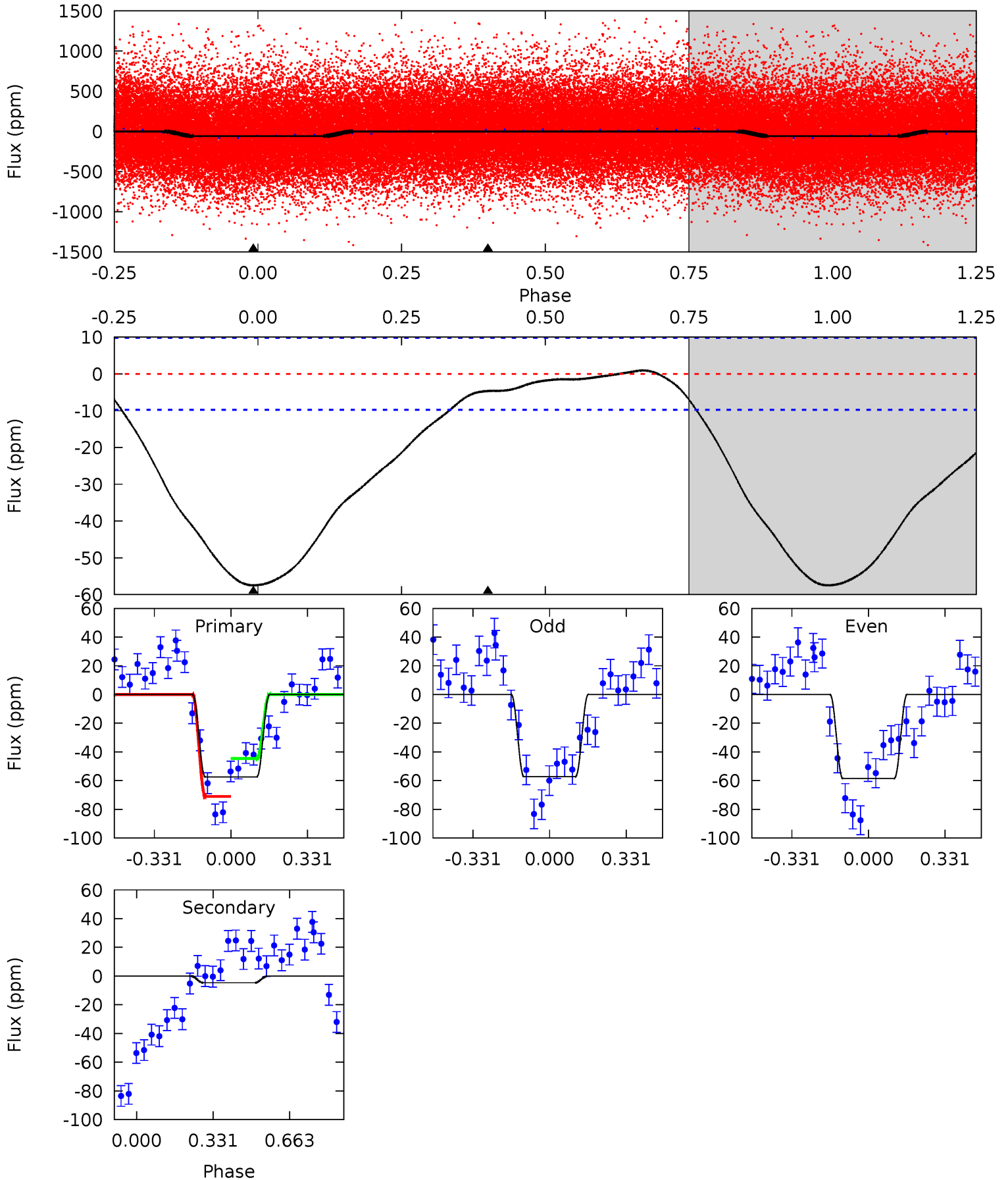
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.24	0.26	0	0	4.24	0.77	0.67	2.24	2.24	0.26	0.26	0.29	1.13	0.16	1.27



Alt Model-Shift Uniqueness Test

007115427-01, P = 0.566788 Days, E = 131.283868 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	2.05	0	0	4.31	0.97	0.92	25.3	25.3	2.05	2.05	0.28	0.98	0.02	5.87



Stellar Parameters For KIC 007115427

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6351^{+171}_{-209}	$4.513^{+0.048}_{-0.192}$	$-0.500^{+0.250}_{-0.350}$	$0.921^{+0.251}_{-0.084}$	$1.008^{+0.115}_{-0.128}$	$1.819^{+0.450}_{-0.877}$
	+3%/-3%	+1%/-4%	+50%/-70%	+27%/-9%	+11%/-13%	+25%/-48%
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 007115427-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 2	$5.04^{+5.40}_{-3.53}$	3150^{+1029}_{-556}	-3185^{+392}_{-681}	$0.001^{+0.022}_{-0.008}$
Alt.	-5 ± 2	$4.87^{+5.63}_{-3.38}$	3182^{+1221}_{-581}	-3091^{+615}_{-781}	$0.016^{+0.202}_{-0.015}$

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 $A_{obs} \gg 1.0$

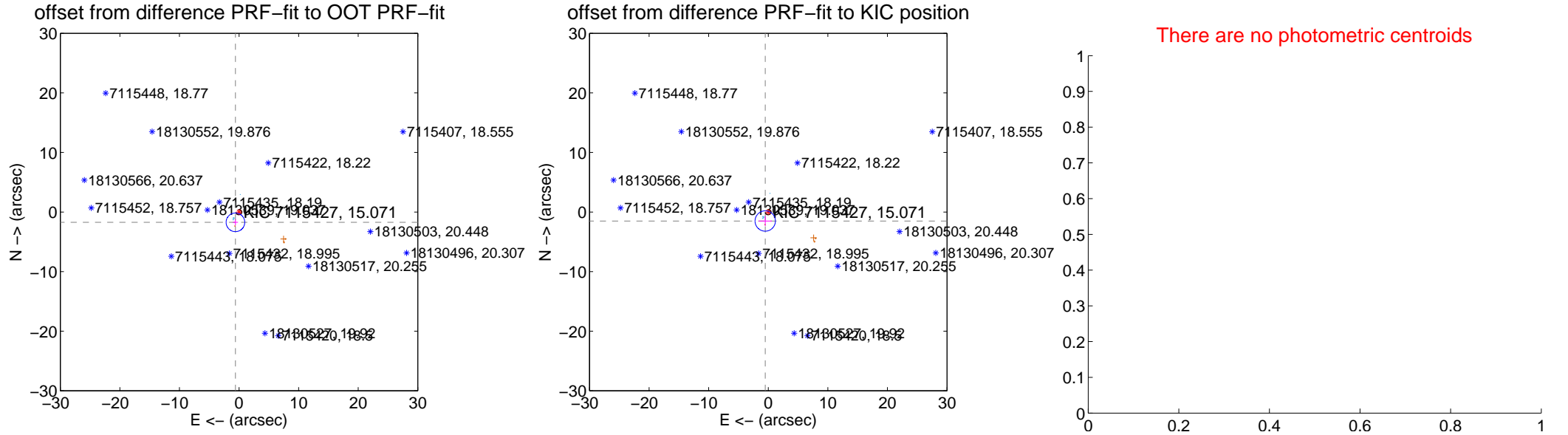
DV Centroid Data

Supplemental centroid analysis for 007115427-01. Kepler magnitude: 15.07. Transit SNR 0.00

There are 5 quarters with good PRF difference image offsets

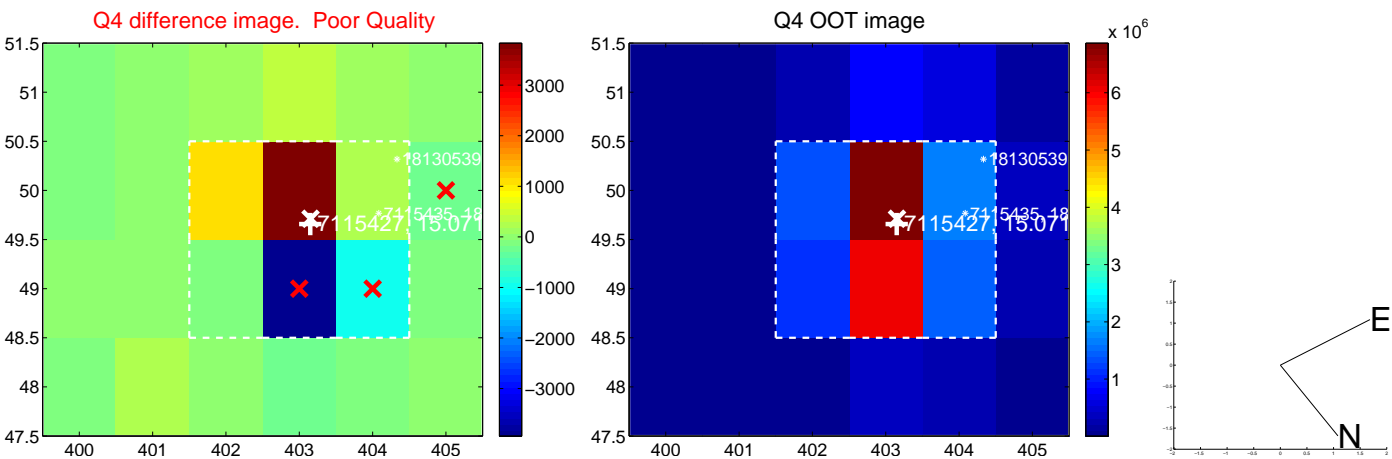
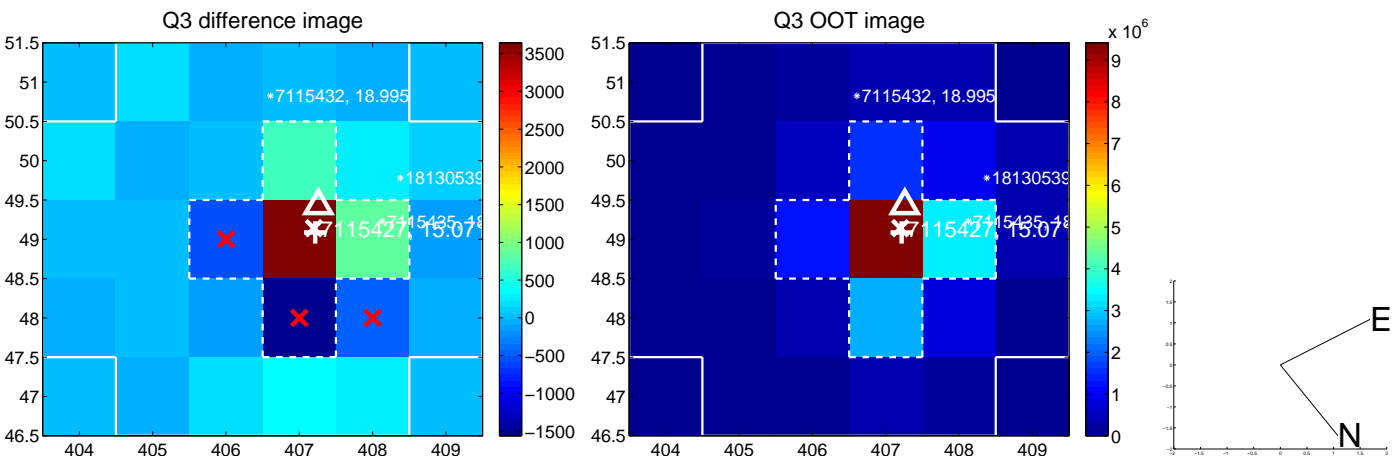
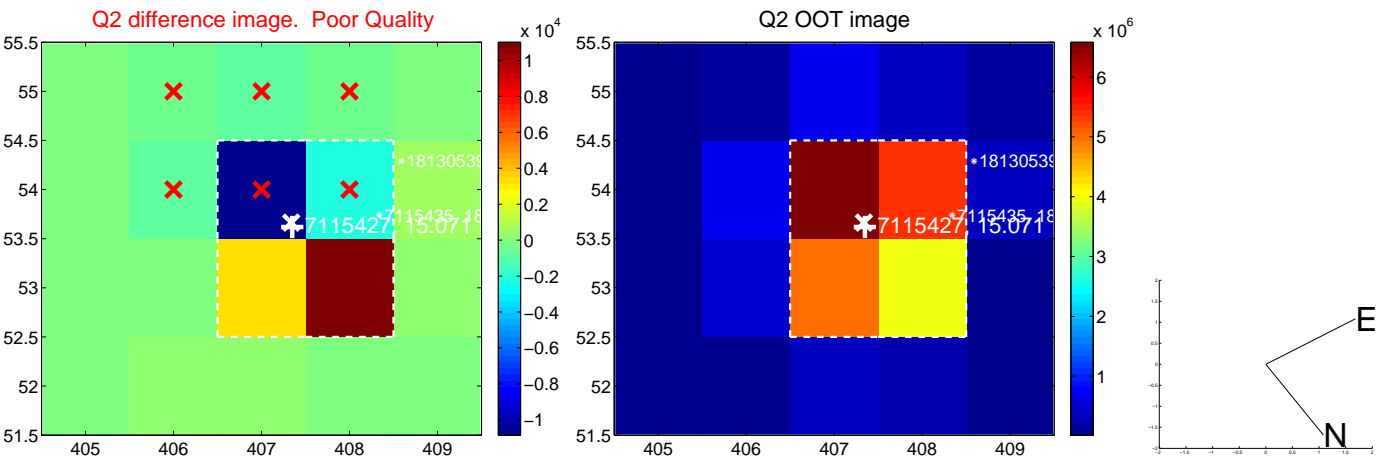
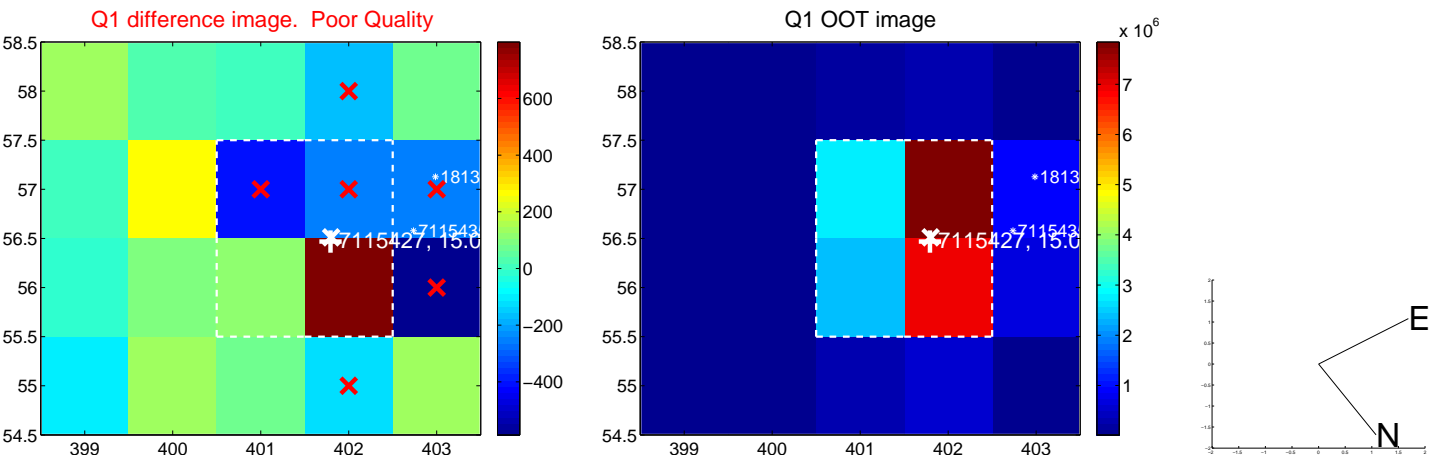
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.829 \pm 0.522	3.51	0.608 \pm 0.437	-1.725 \pm 0.531
PRF-fit source offset from KIC position	1.590 \pm 0.570	2.79	0.510 \pm 1.103	-1.506 \pm 0.833
photometric centroid source offset	—	—	—	—

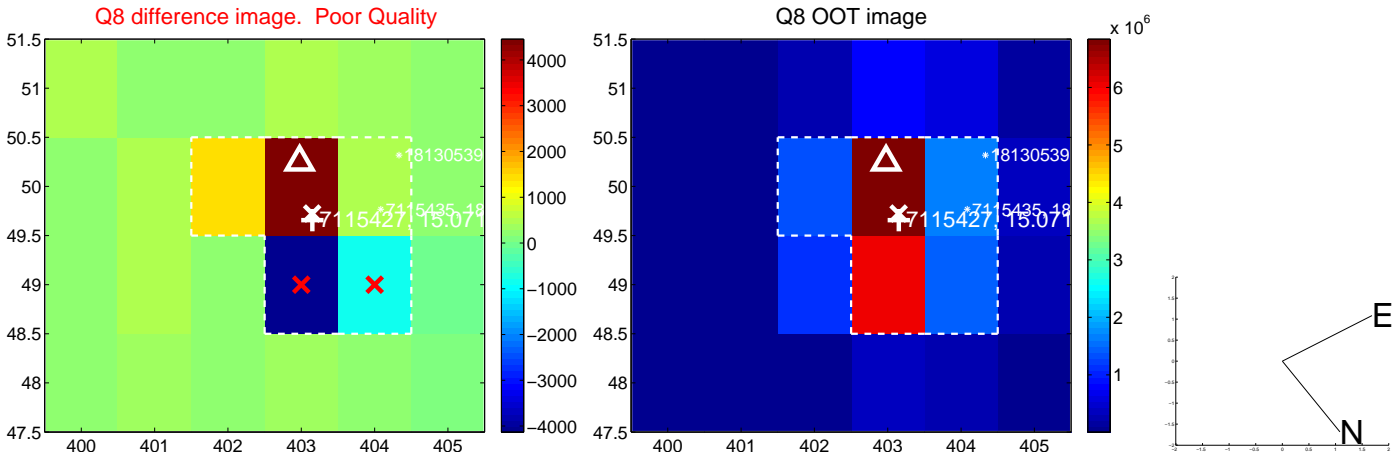
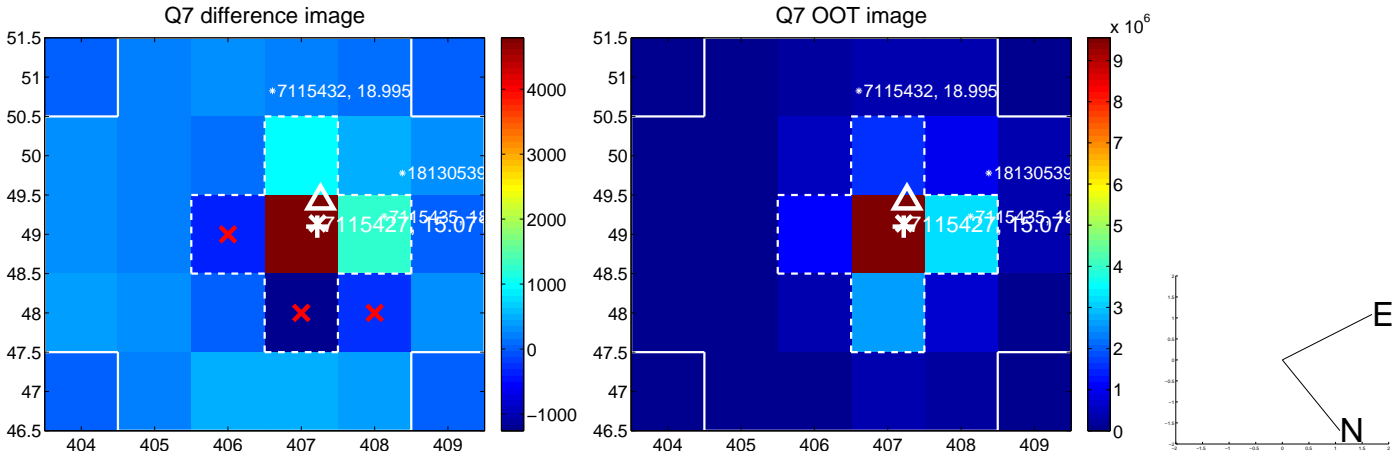
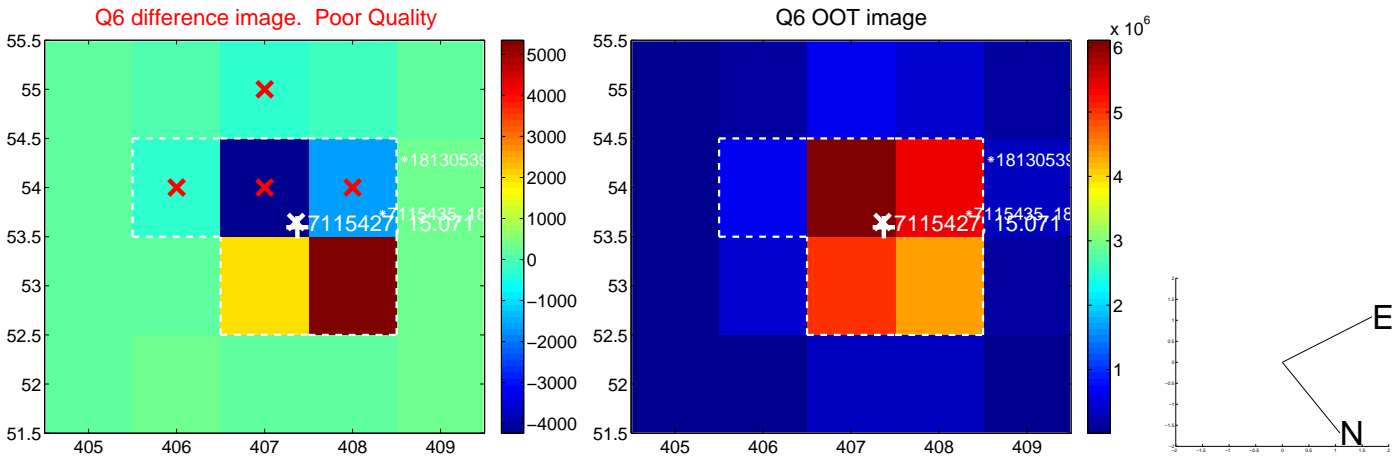
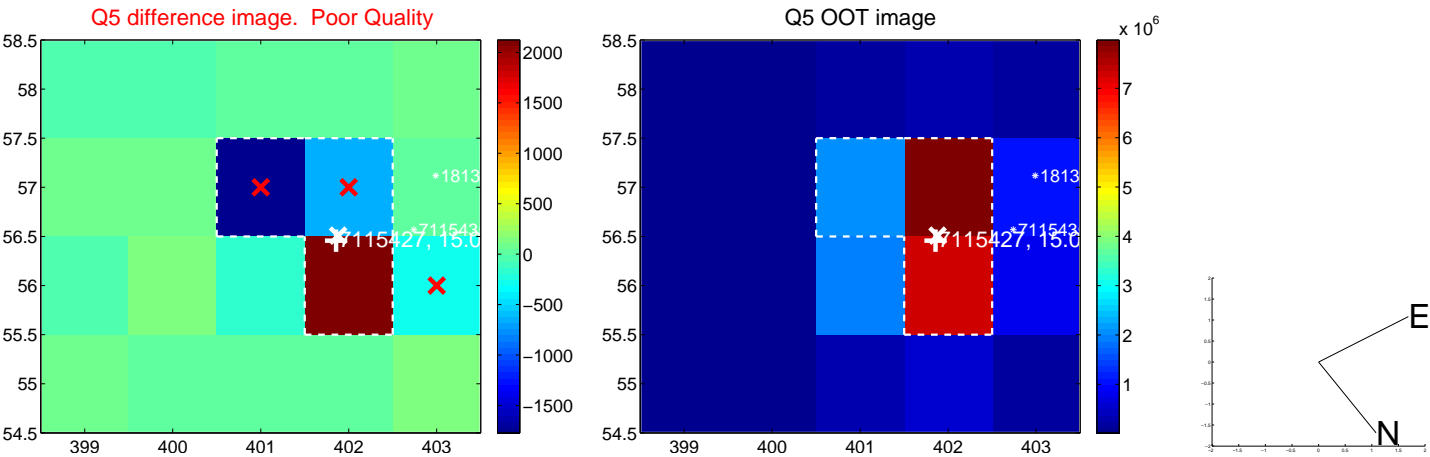


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

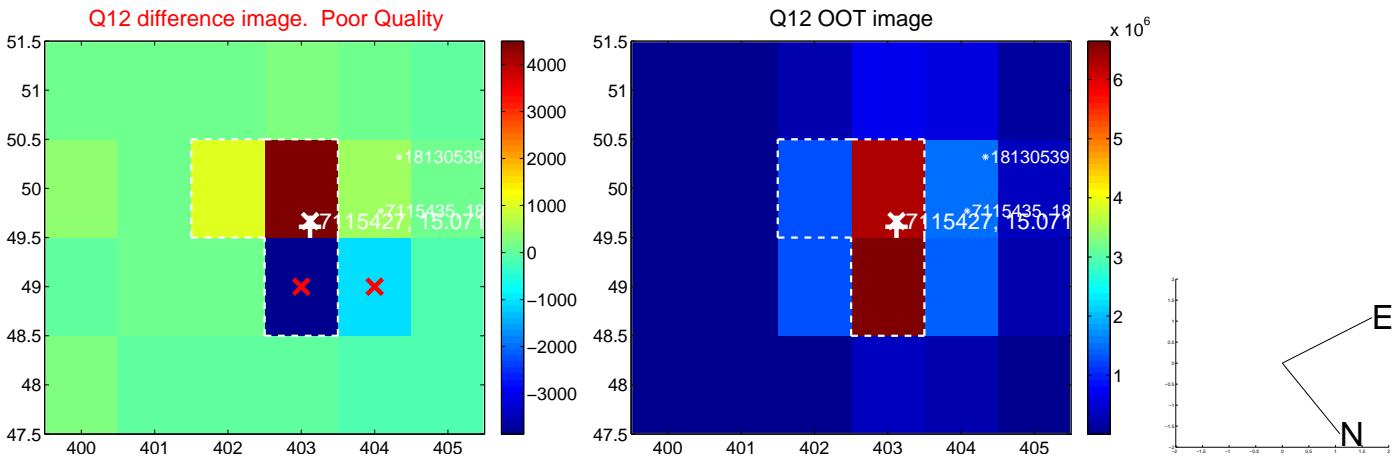
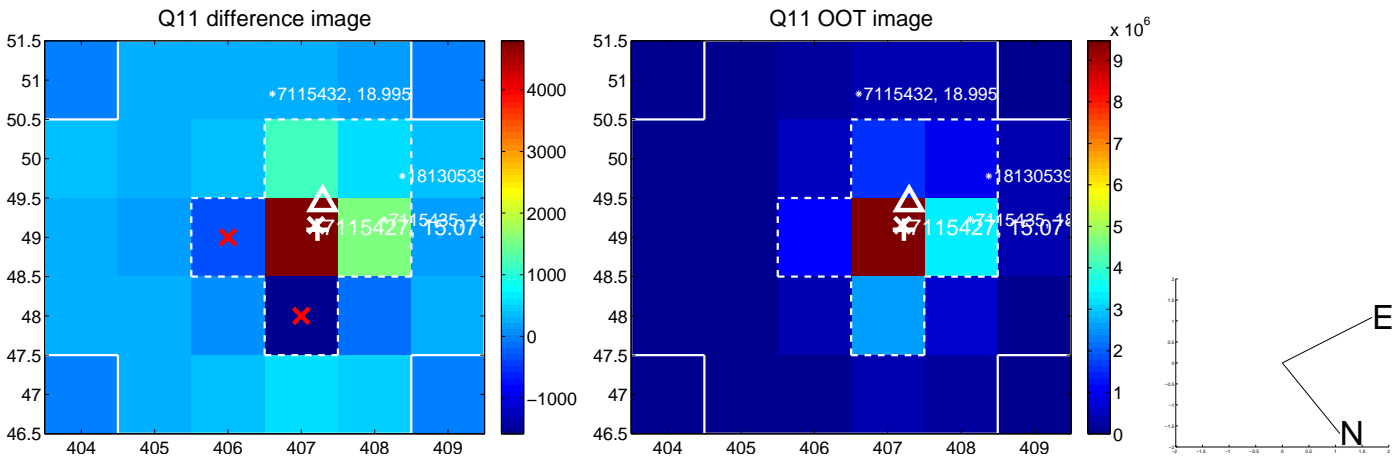
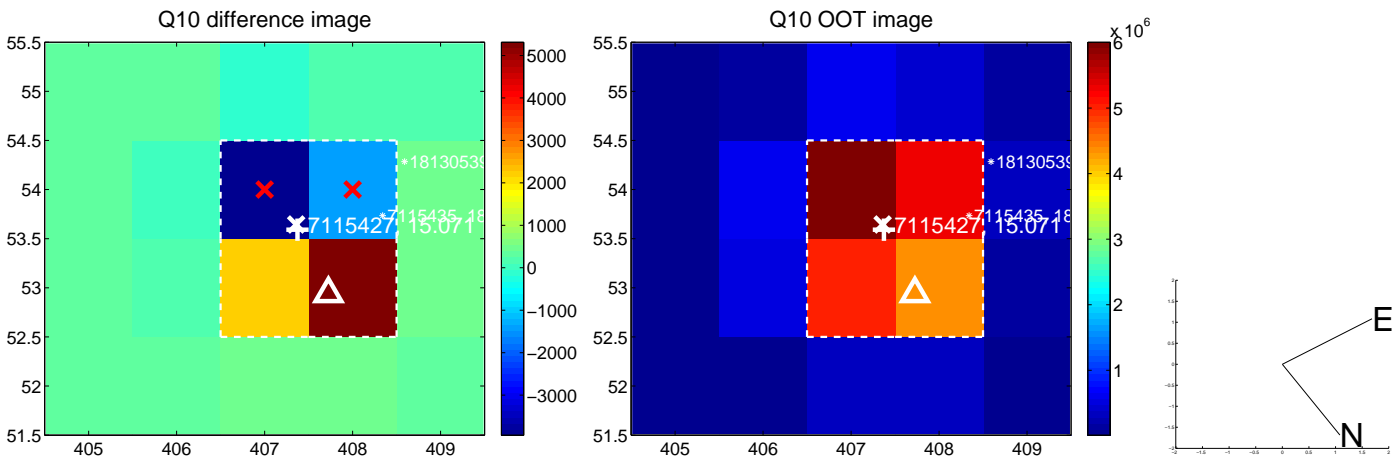
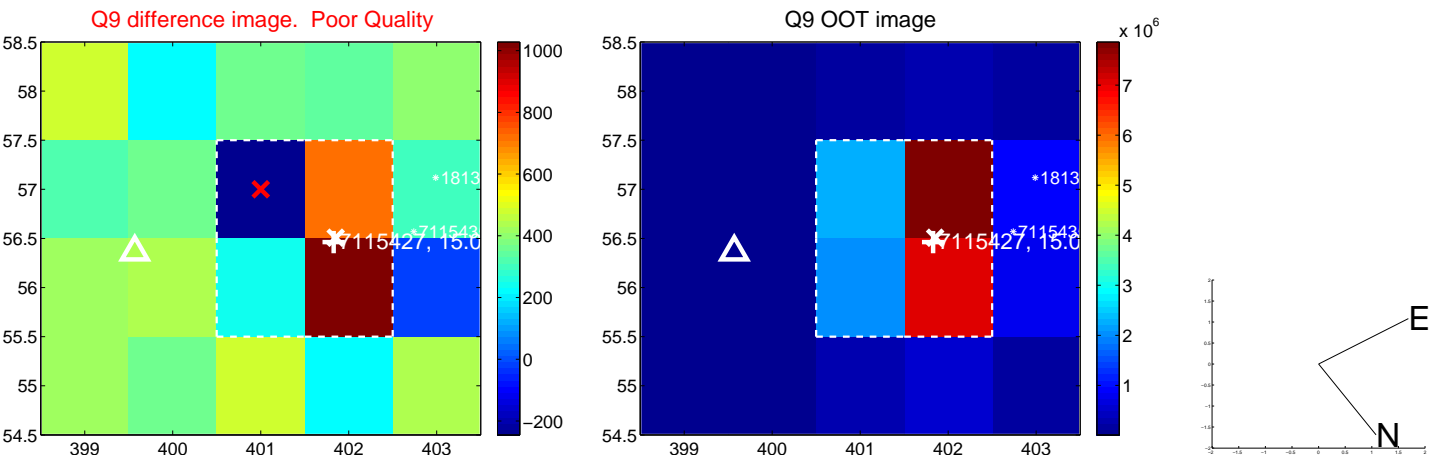
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



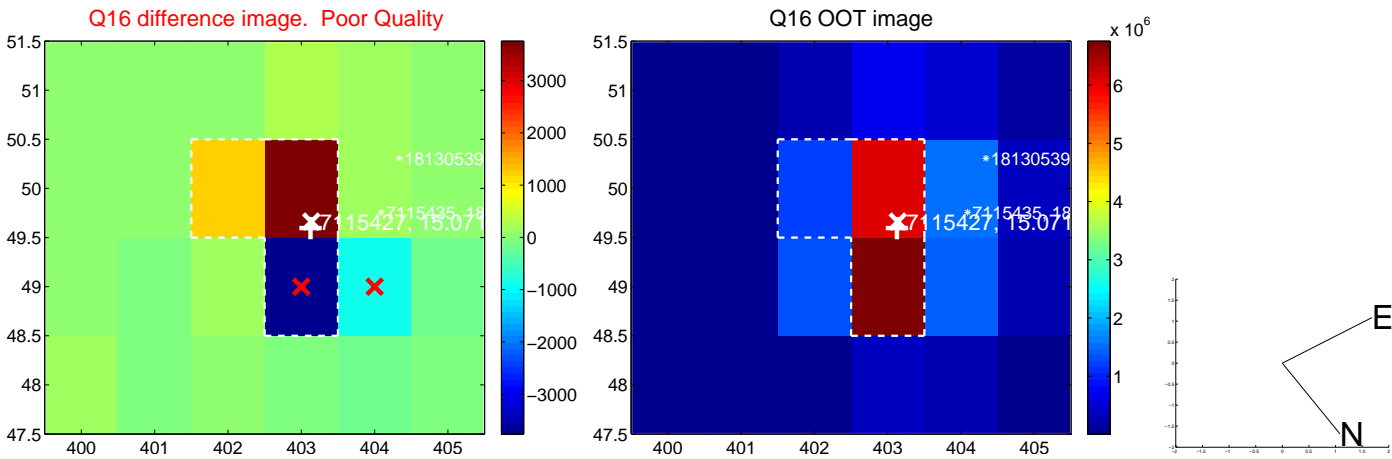
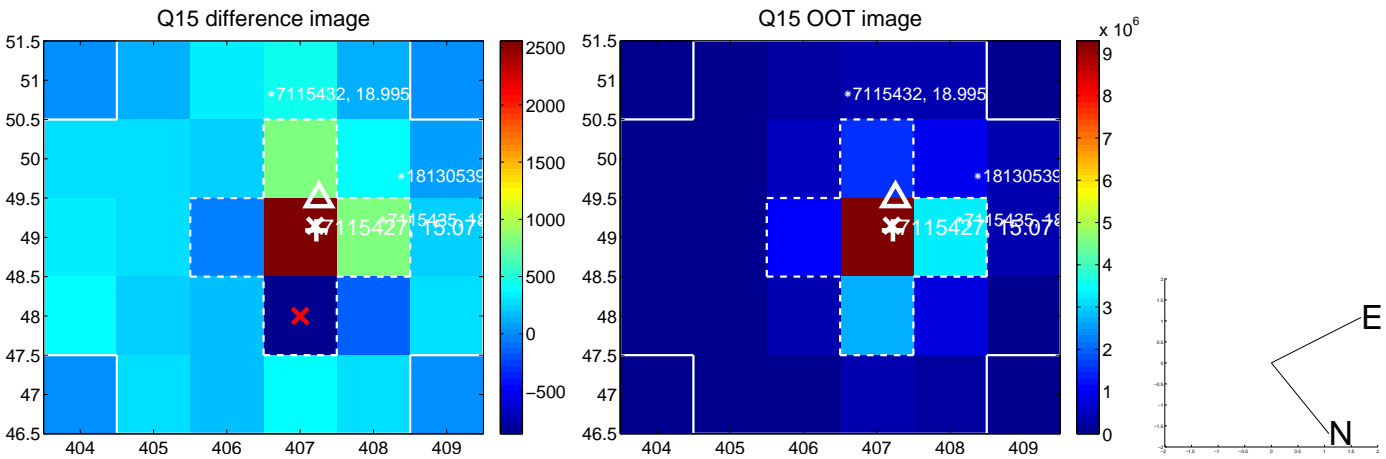
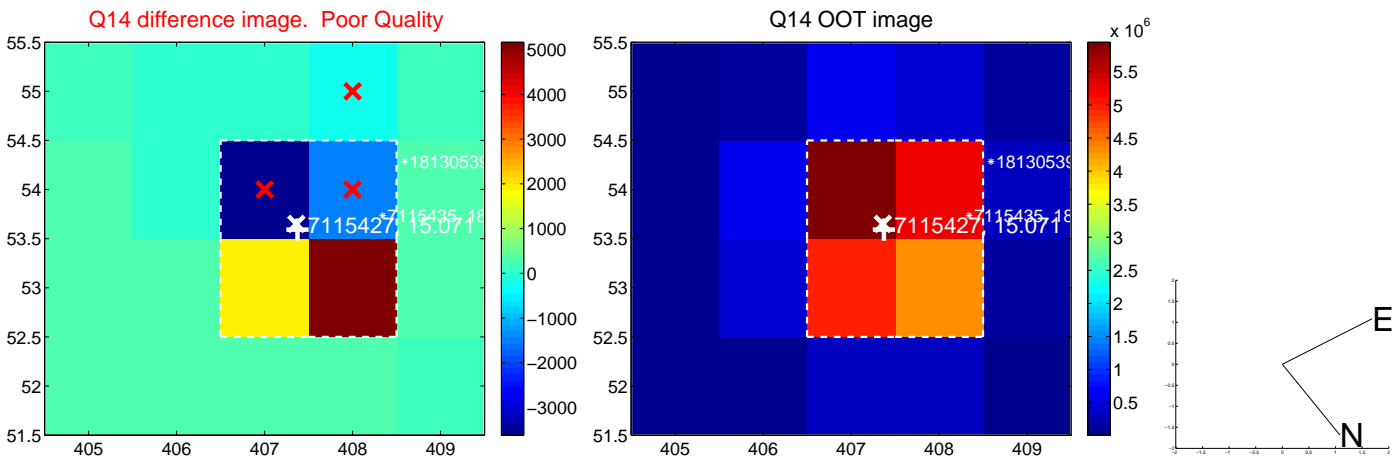
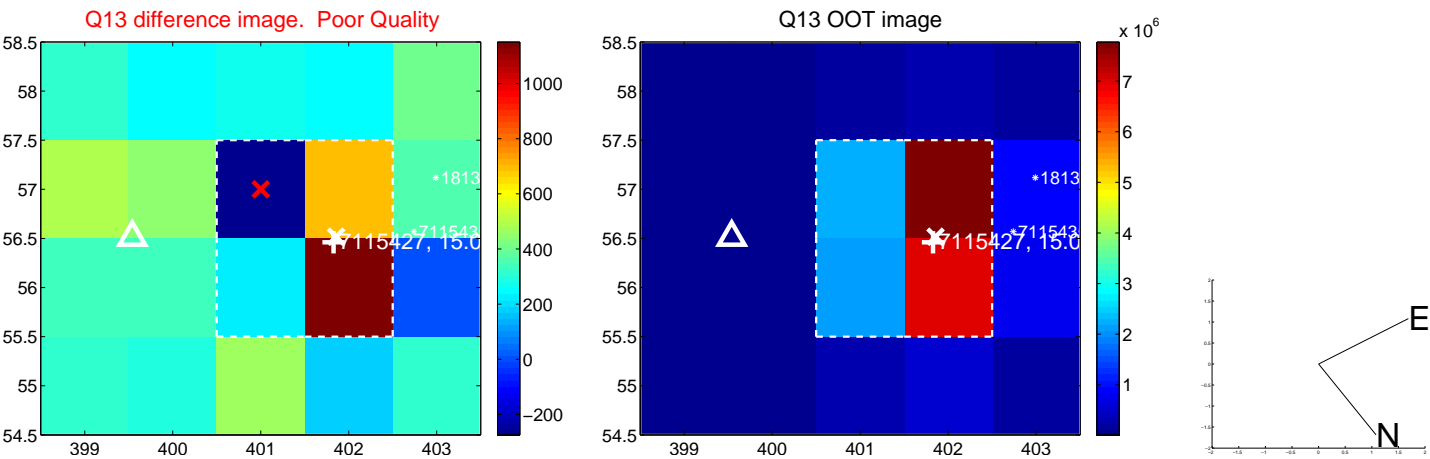
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



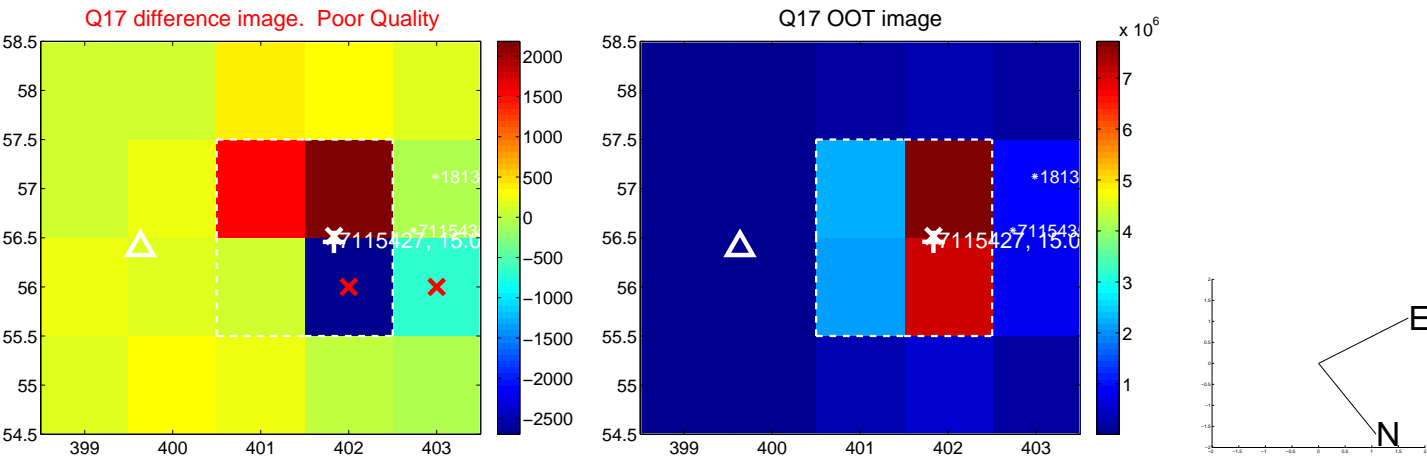
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

