

KIC 007367431

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})
007367431-01	OBS	No	0.576001	132.029989	56.4	6.912	9.2	15.1	0.54	3929	0.47	498.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007367431-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

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

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

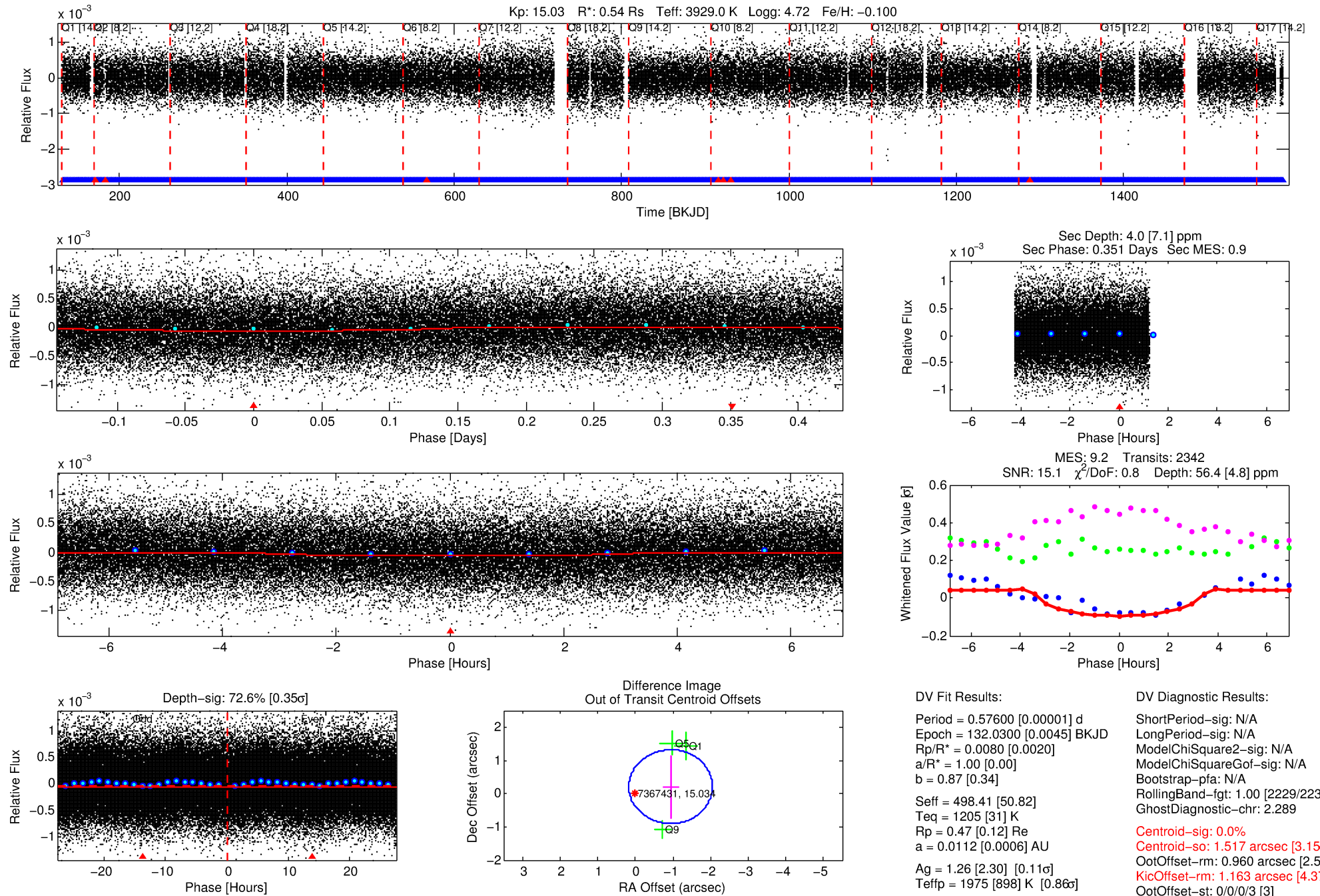
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007367431-01

No Significant Match Found

DV One-Page Summary

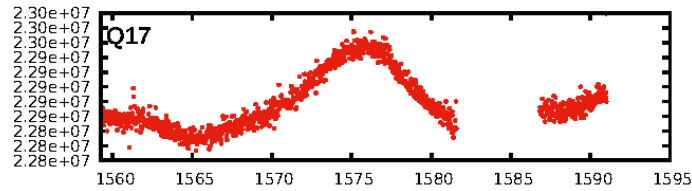
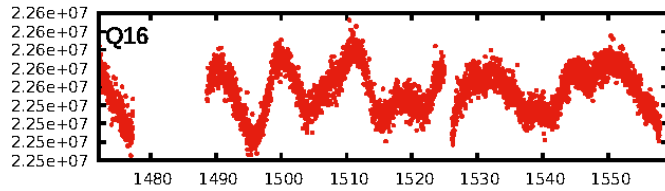
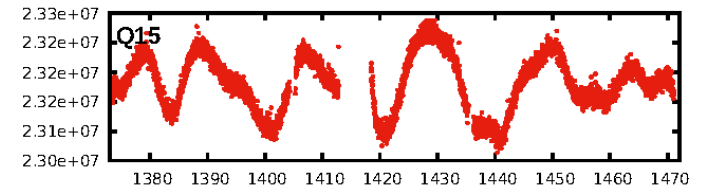
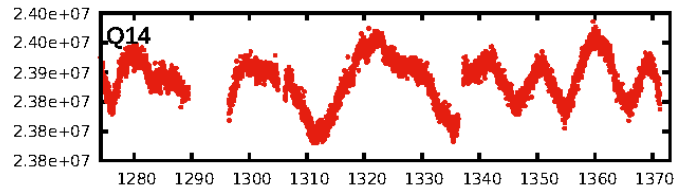
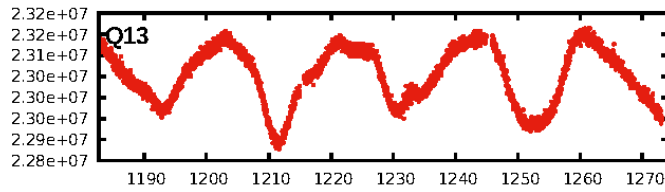
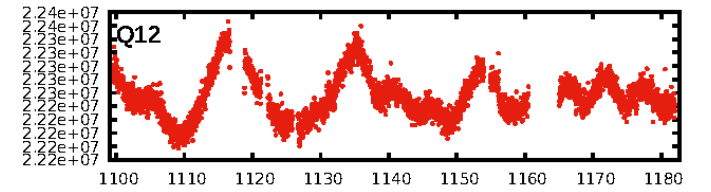
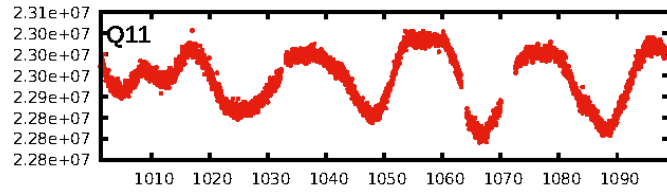
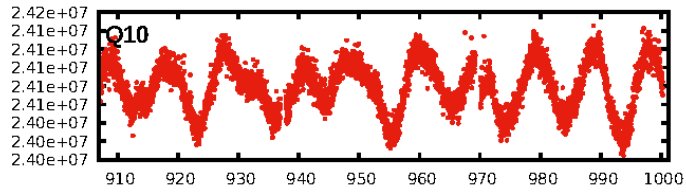
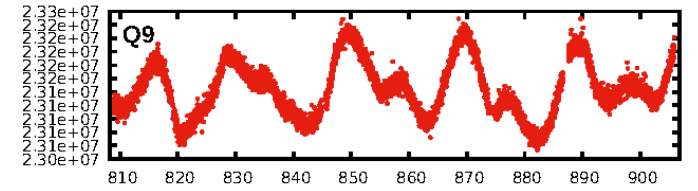
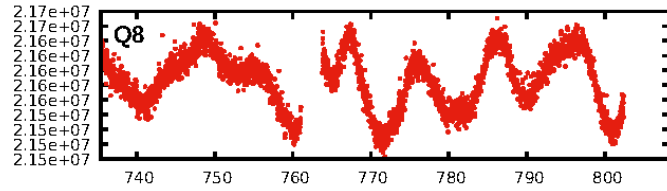
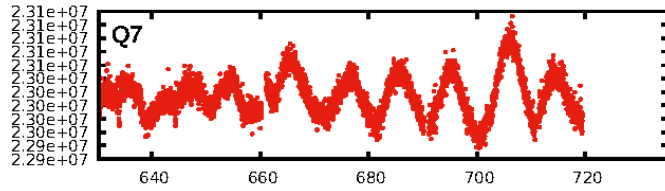
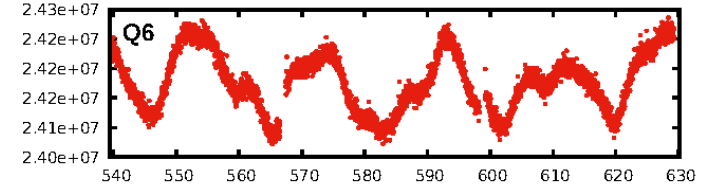
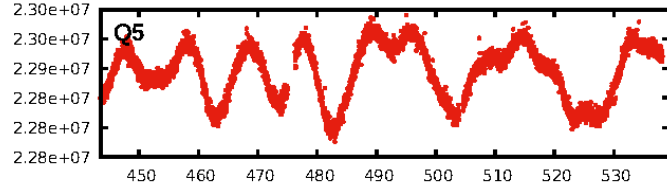
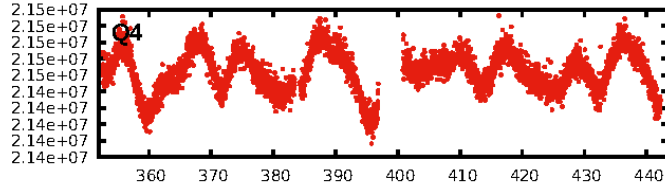
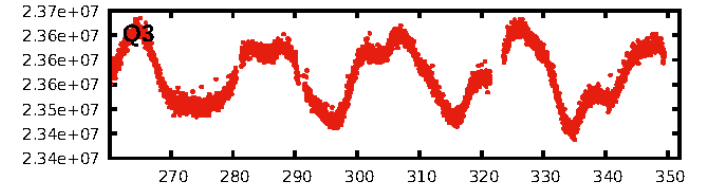
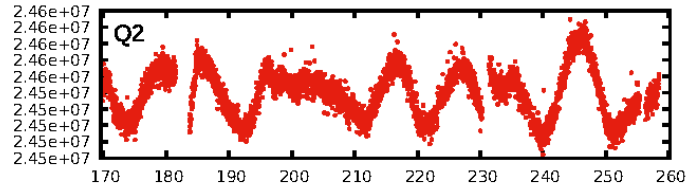
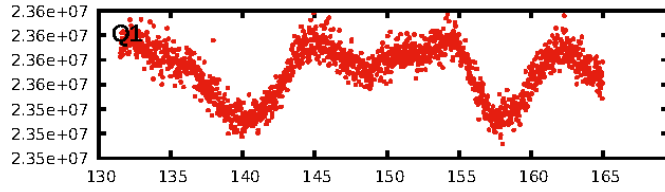
KIC: 7367431 Candidate: 1 of 1 Period: 0.576 d



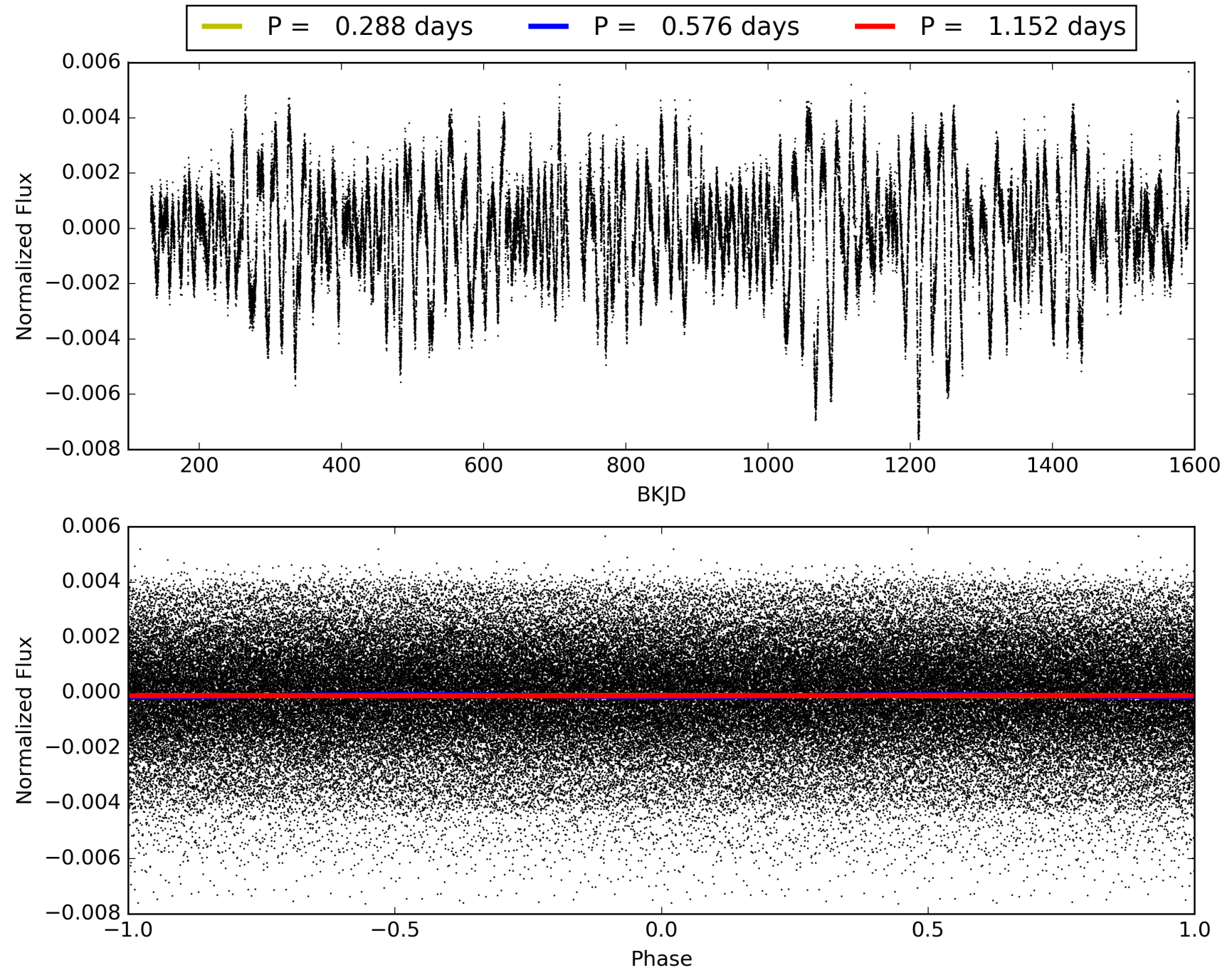
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:25:50 Z

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

TCE 007367431-01, PDC Light Curves

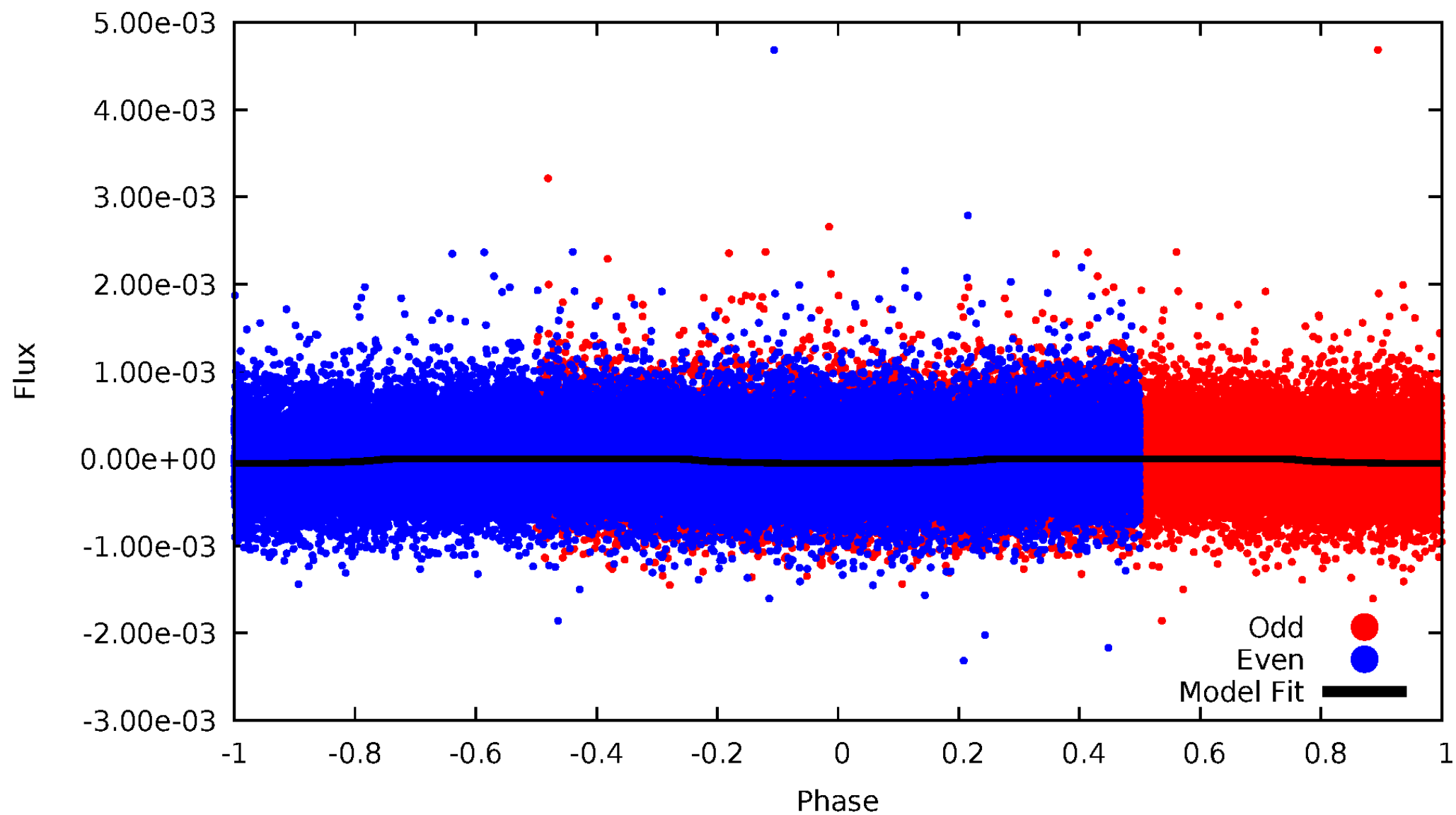


TCE 007367431-01



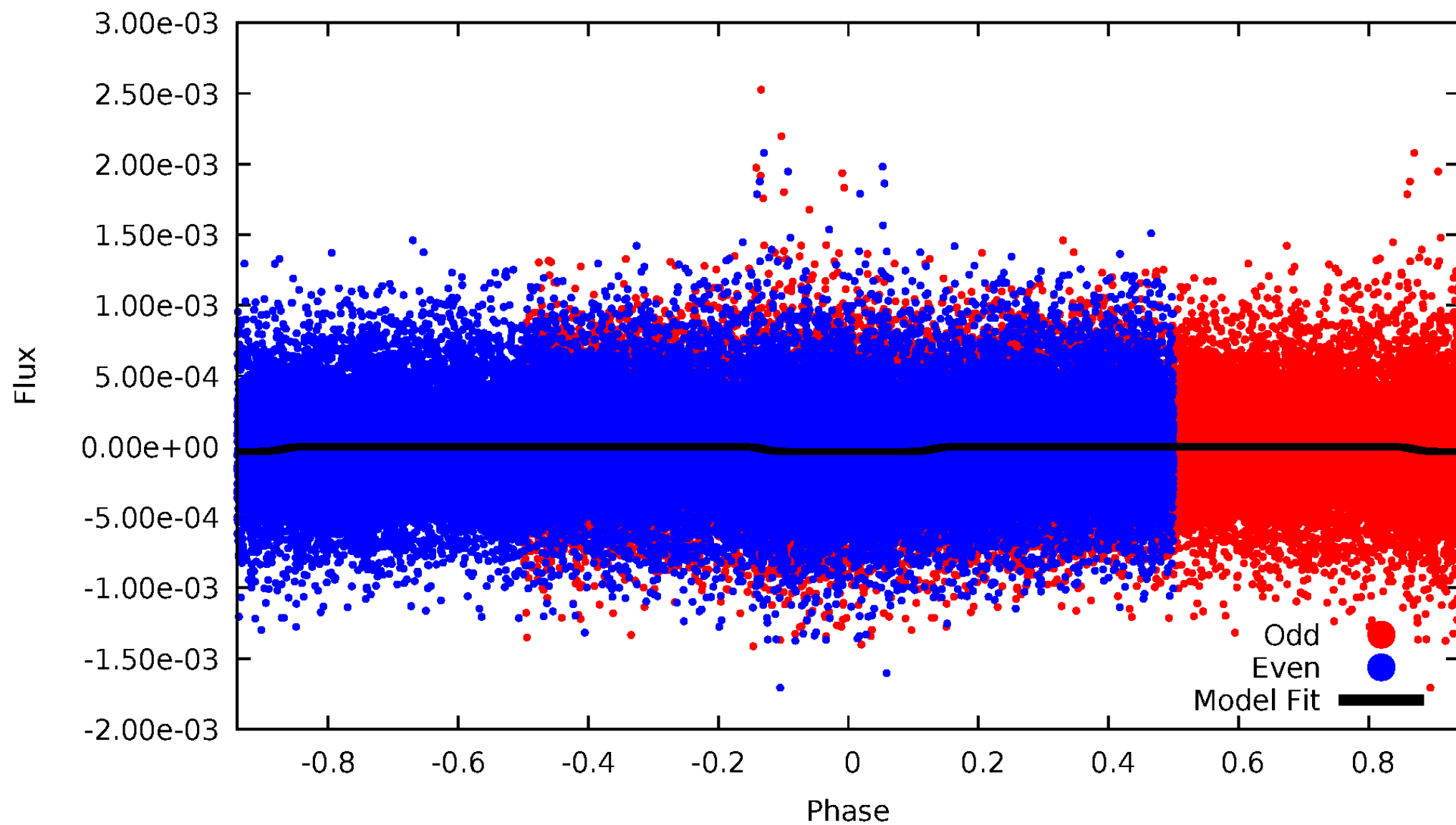
DV Odd/Even

TCE 007367431-01

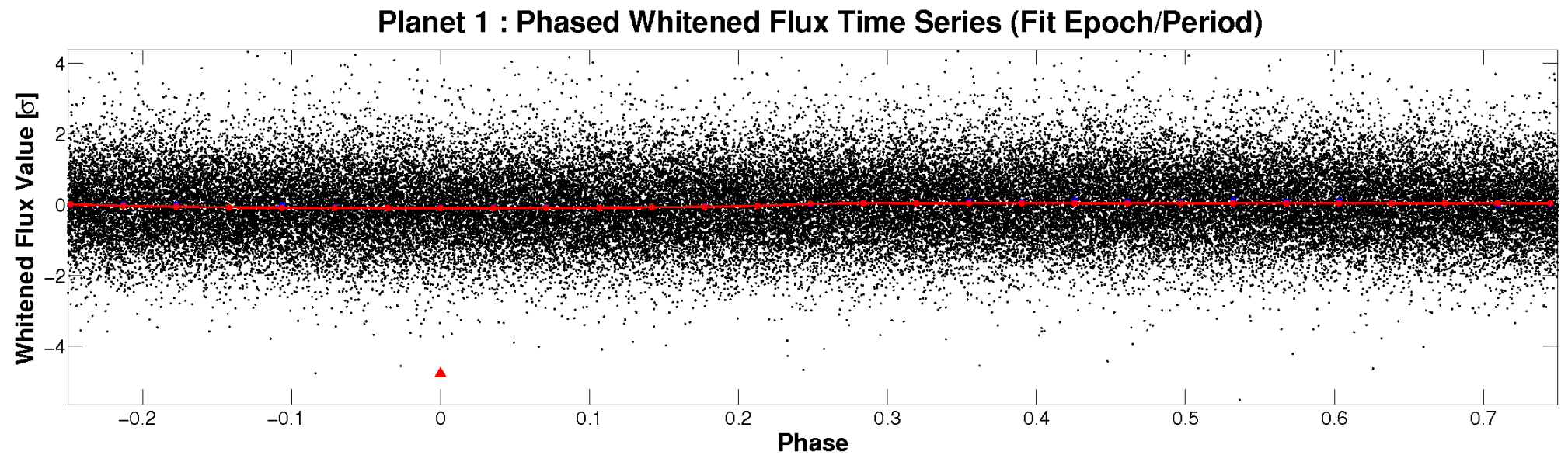
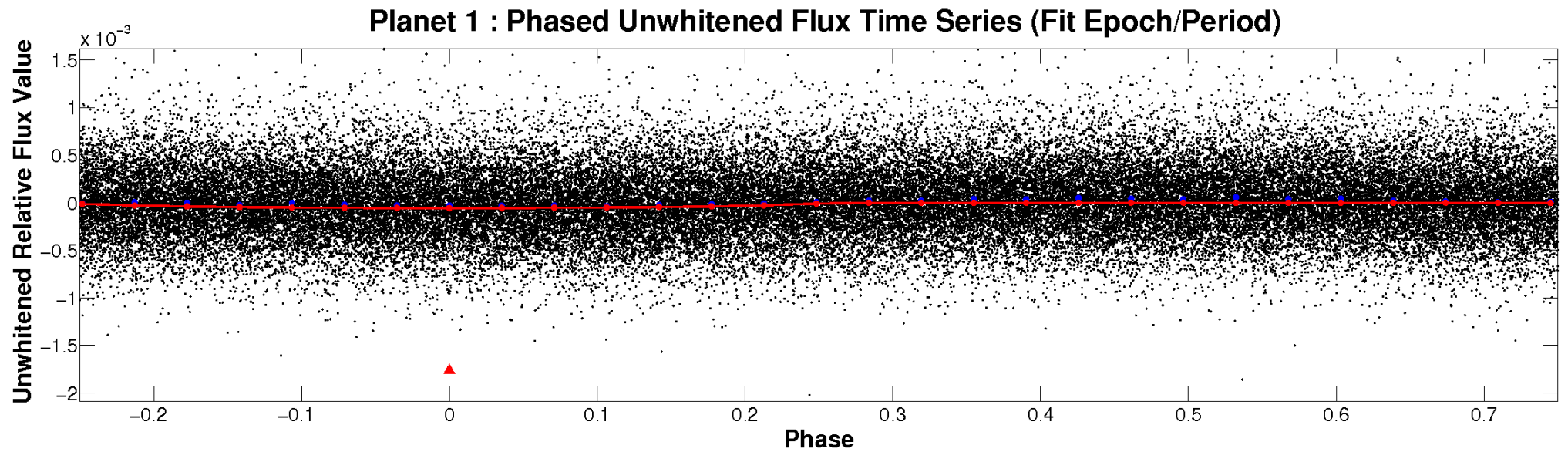


ALT Odd/Even

TCE 007367431-01

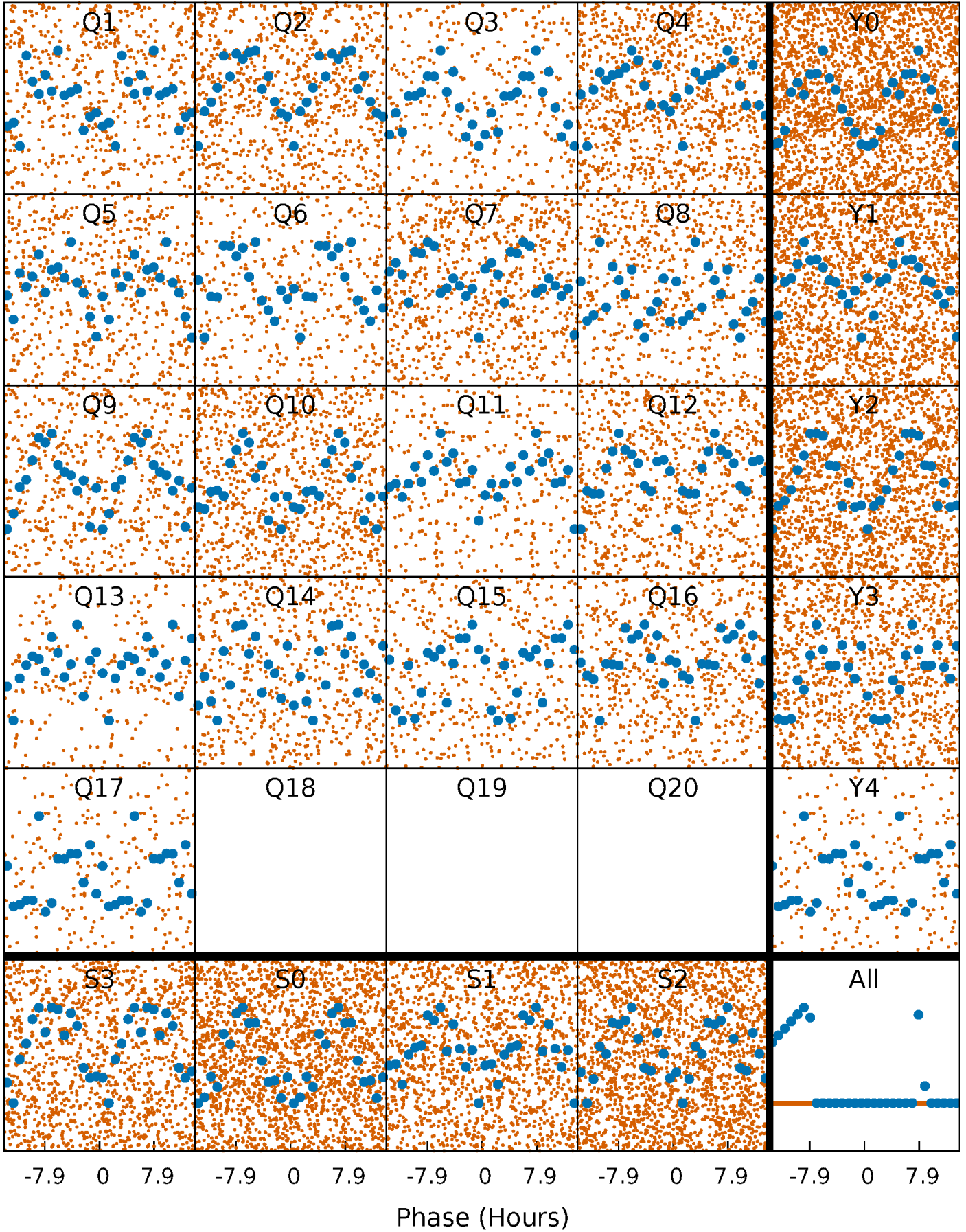


Non-Whitened Vs. Whitened Light Curve



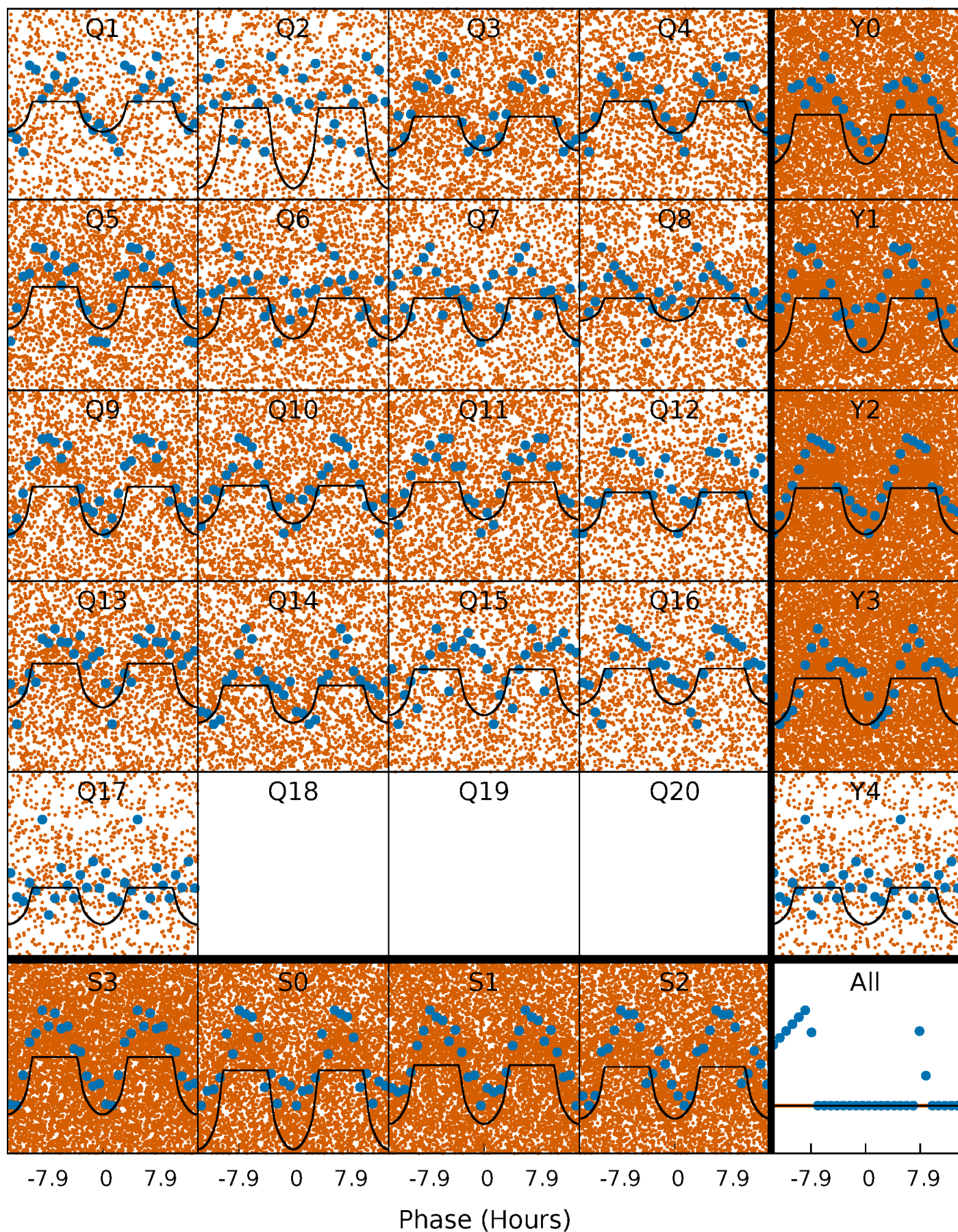
PDC Quarter-Phased Transit Curves

TCE 007367431-01 P= 0.576001 Days $T_0=132.029989$ (BKJD)



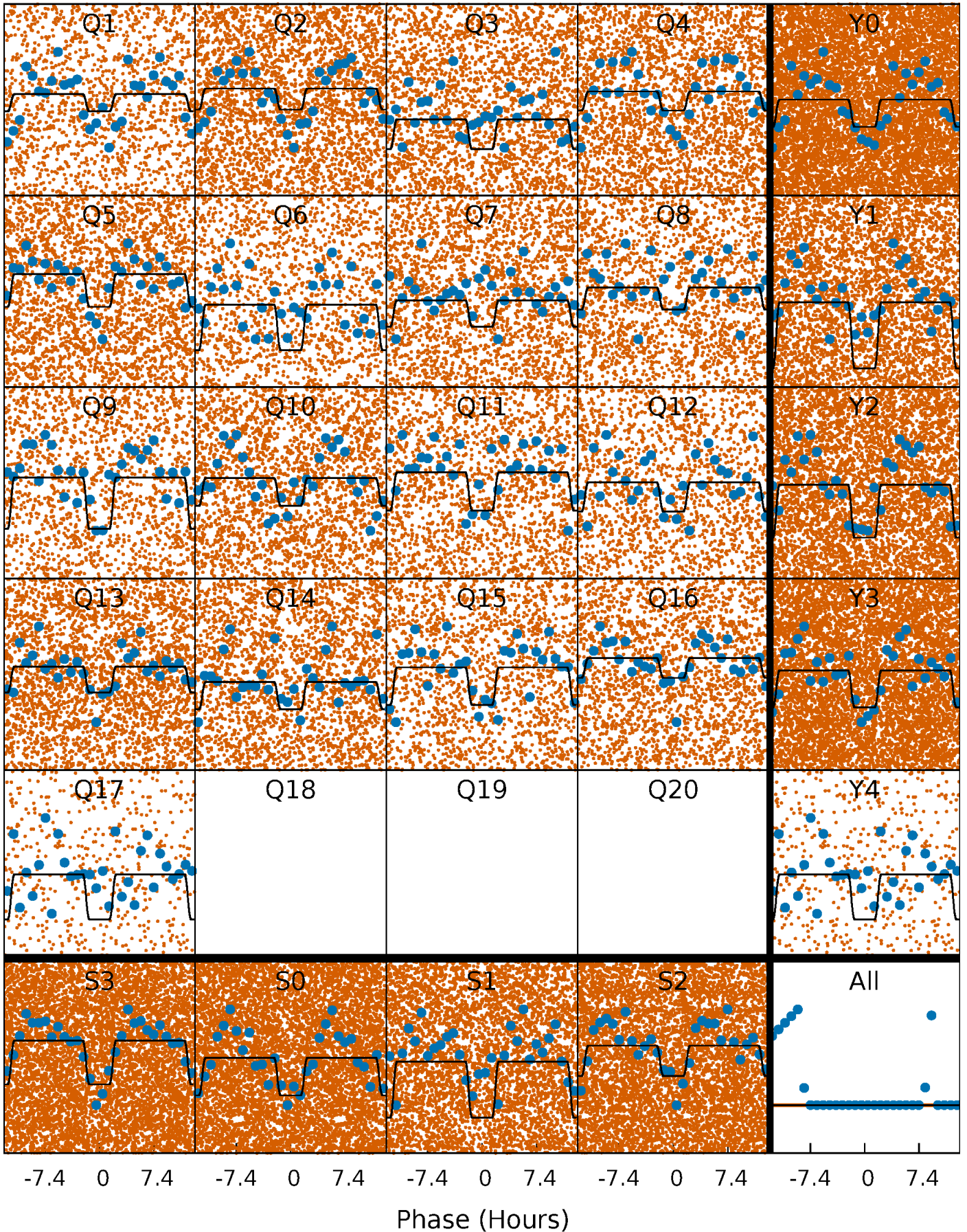
DV Quarter-Phased Transit Curves

TCE 007367431-01 P= 0.576001 Days $T_0=132.029989$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

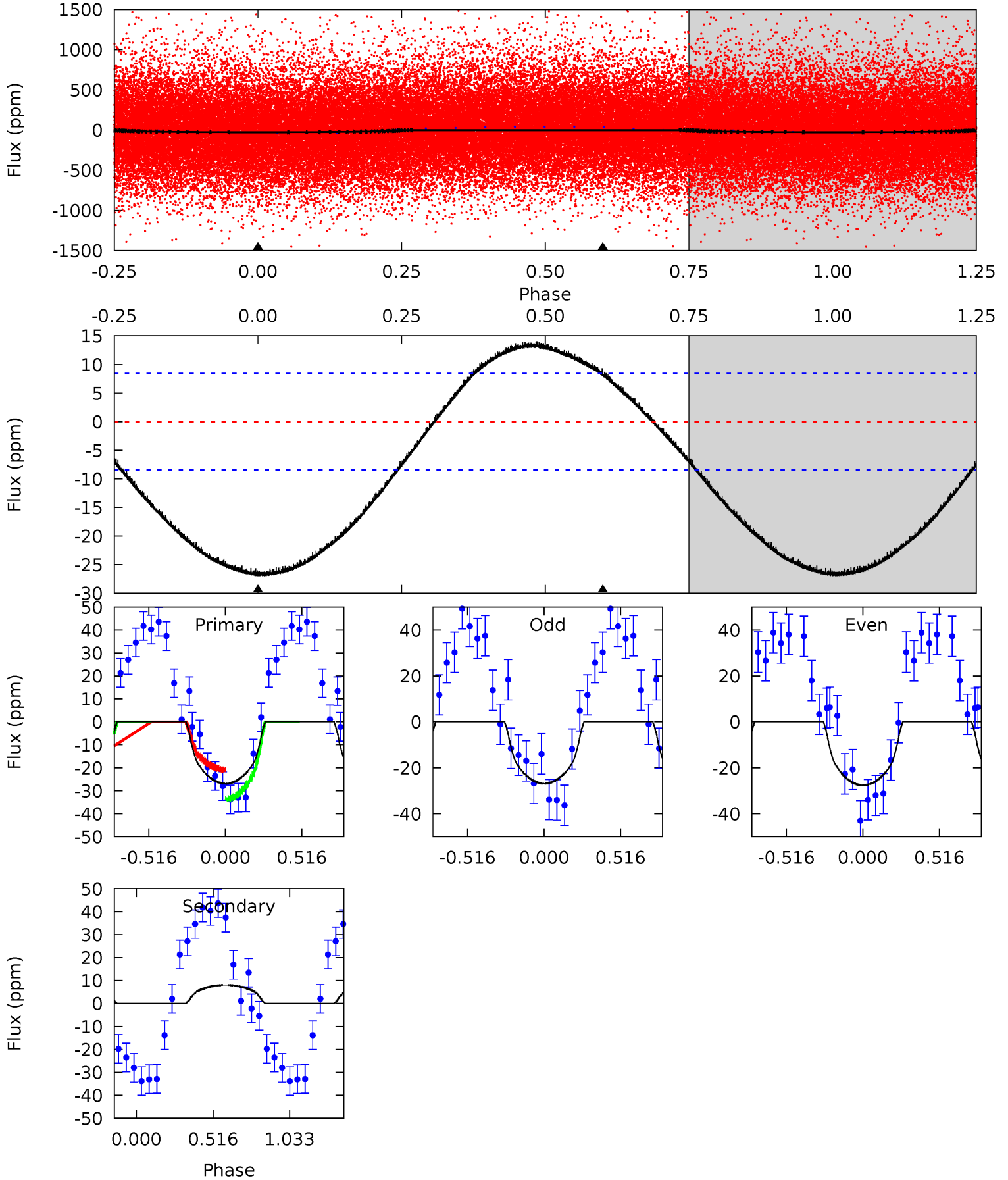
TCE 007367431-01 P= 0.576052 Days $T_0=132.008791$ (BKJD)



DV Model-Shift Uniqueness Test

007367431-01, P = 0.576001 Days, E = 131.453988 Days

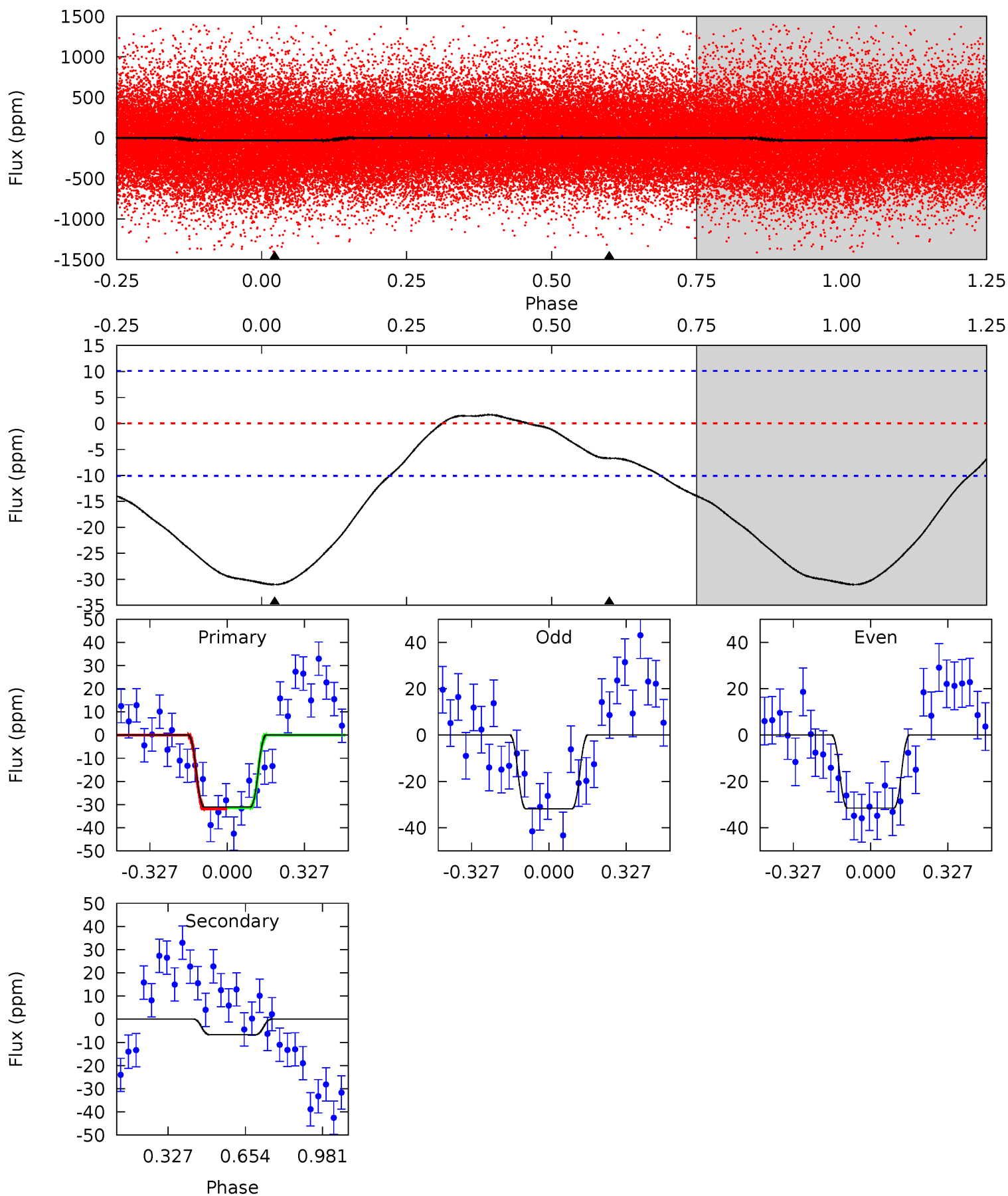
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	-4.03	0	0	4.21	0.65	1.95	13.5	13.5	-4.03	-4.03	0.19	0.88	0.34	3.21



Alt Model-Shift Uniqueness Test

007367431-01, P = 0.576052 Days, E = 131.432739 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	2.86	0	0	4.31	0.98	0.94	13.2	13.2	2.86	2.86	0.06	0.95	0.05	0.11



Stellar Parameters For KIC 007367431

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3929^{+70}_{-78}	$4.723^{+0.030}_{-0.030}$	$-0.100^{+0.200}_{-0.200}$	$0.541^{+0.033}_{-0.036}$	$0.564^{+0.032}_{-0.041}$	$5.022^{+0.739}_{-0.583}$
	+2%/-2%	+1%/-1%	+200%/-200%	+6%/-7%	+6%/-7%	+15%/-12%
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 007367431-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	8 ± 2	$0.47^{+0.13}_{-0.12}$	1682^{+37}_{-36}	-2888^{+170}_{-241}	$-2.392^{+0.965}_{-1.993}$
Alt.	-7 ± 2	$0.34^{+0.12}_{-0.12}$	1682^{+42}_{-37}	3007^{+455}_{-325}	$3.843^{+5.572}_{-2.014}$

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

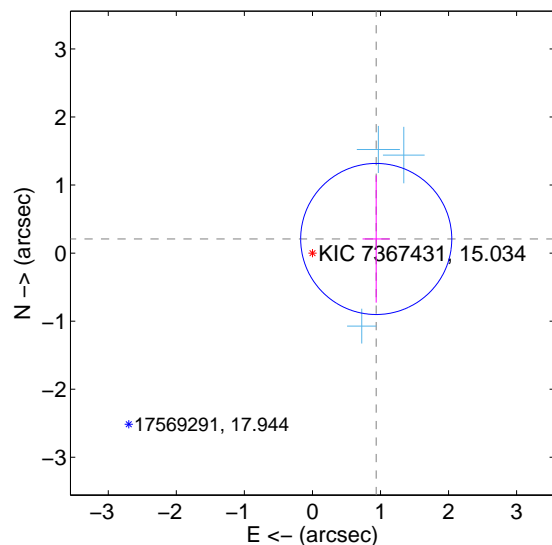
Supplemental centroid analysis for 007367431-01. Kepler magnitude: 15.03. Transit SNR 15.14

There are 3 quarters with good PRF difference image offsets

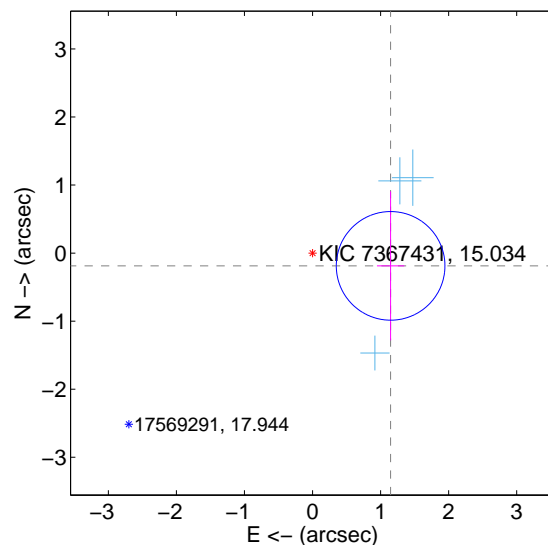
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.960 ± 0.370	2.59	-0.937 ± 0.201	0.208 ± 0.935
PRF-fit source offset from KIC position	1.163 ± 0.266	4.37	-1.148 ± 0.202	-0.188 ± 1.094
photometric centroid source offset	1.52 ± 0.48	3.15	0.71 ± 0.50	-1.34 ± 0.48

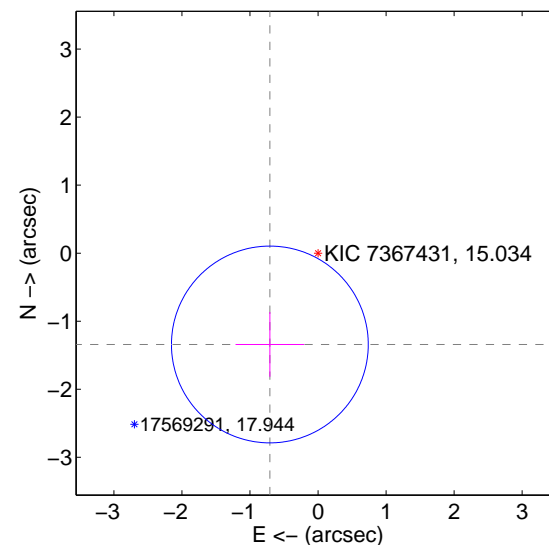
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

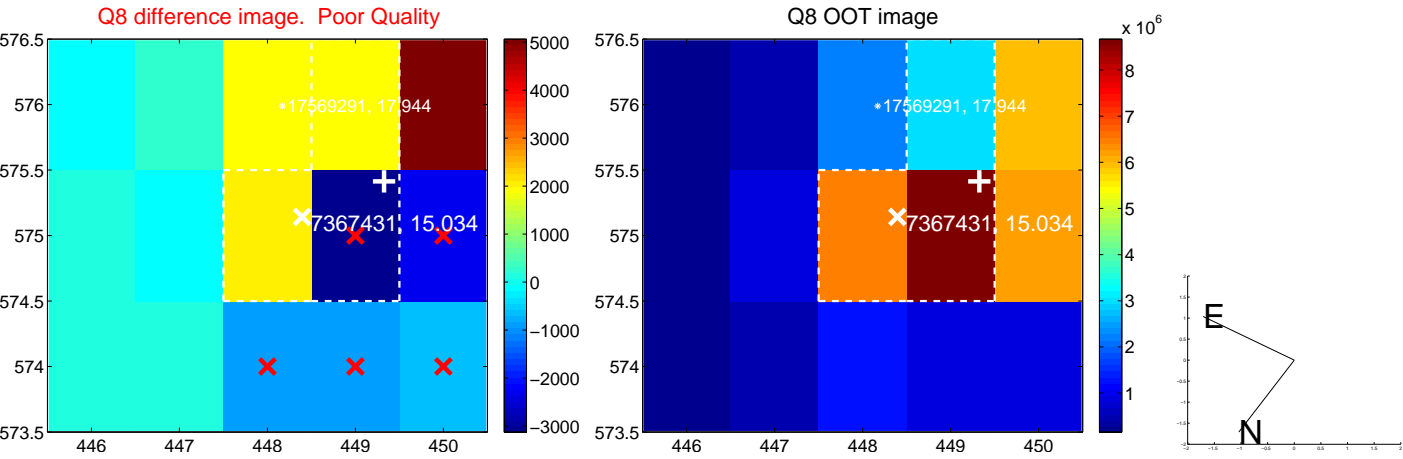
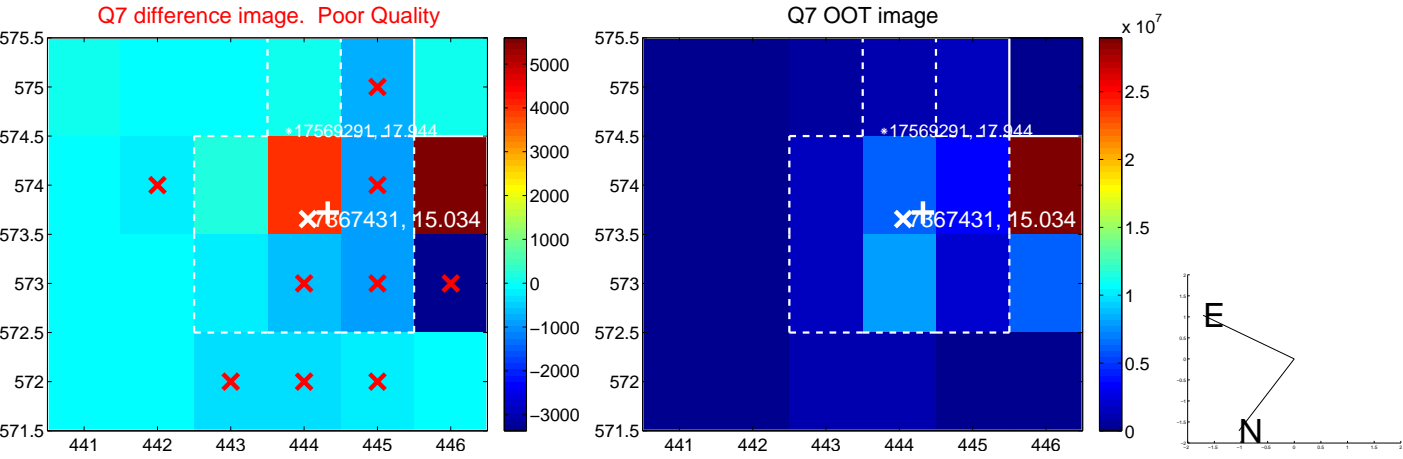
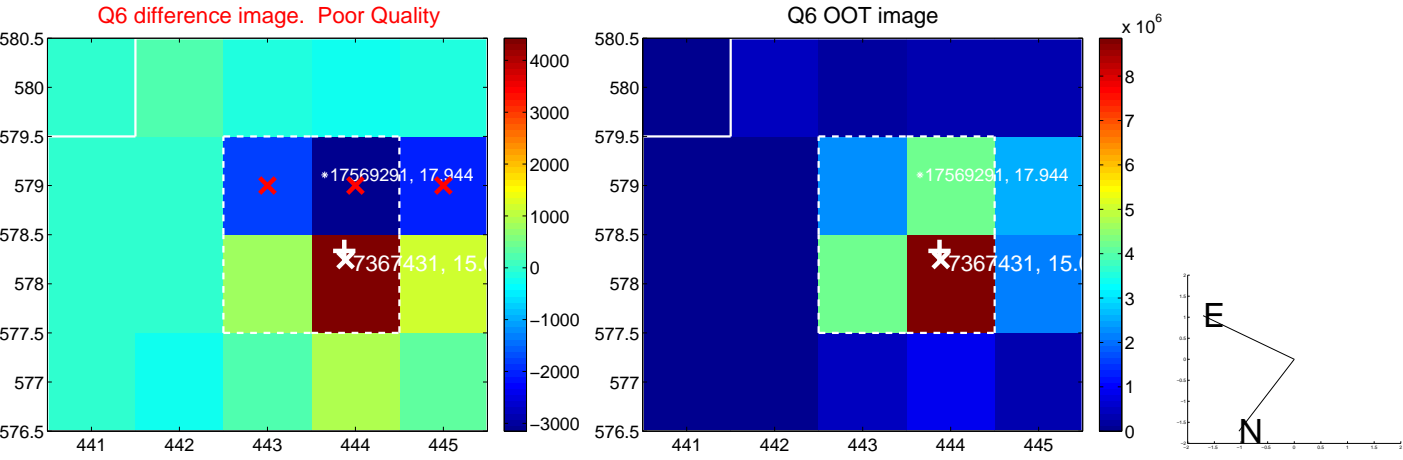
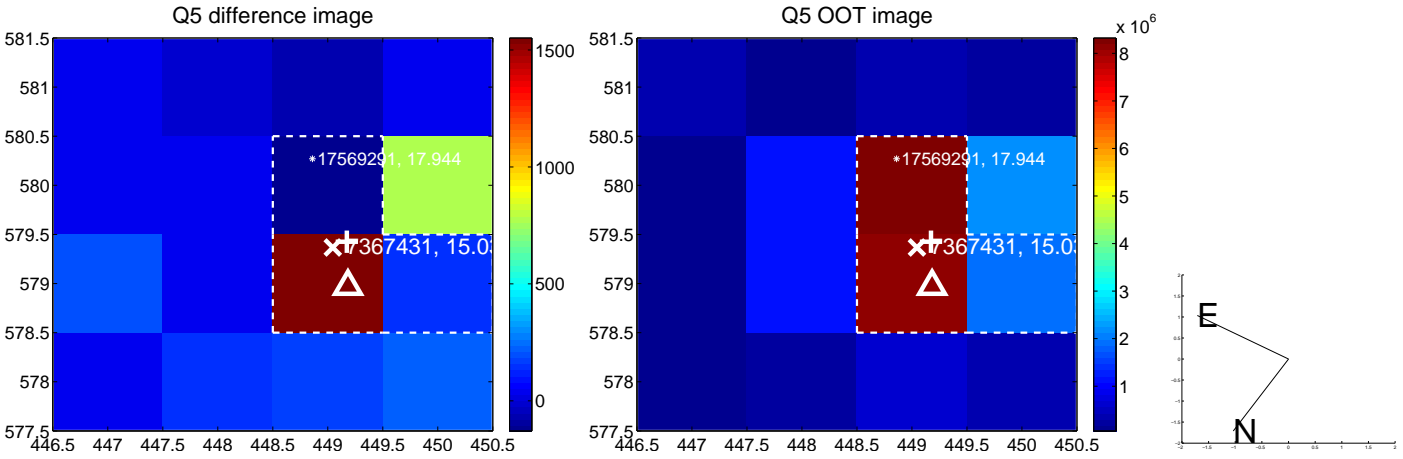


offset from photometric centroids

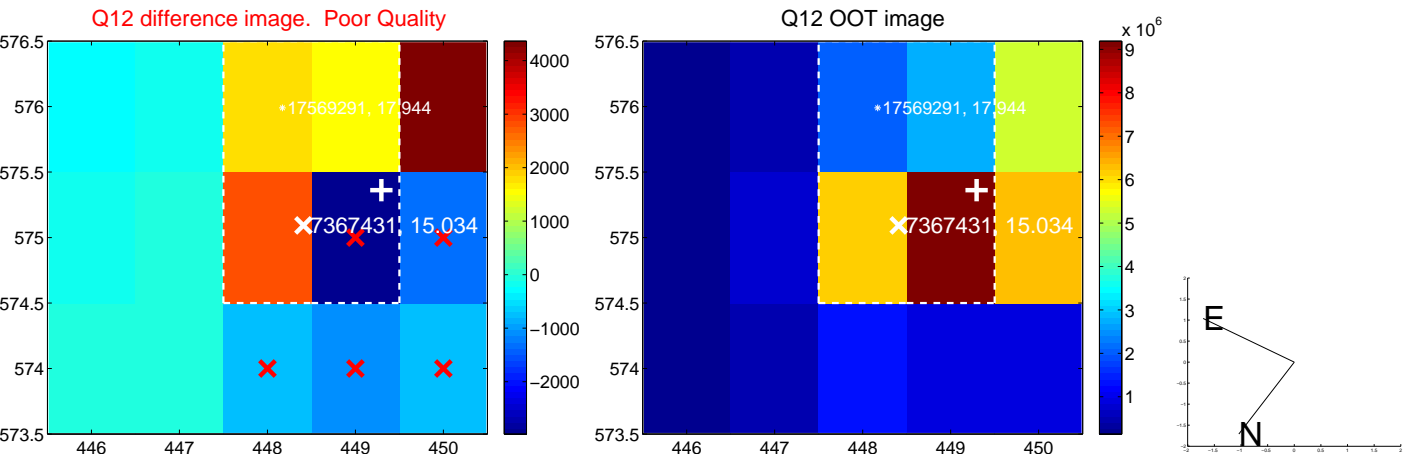
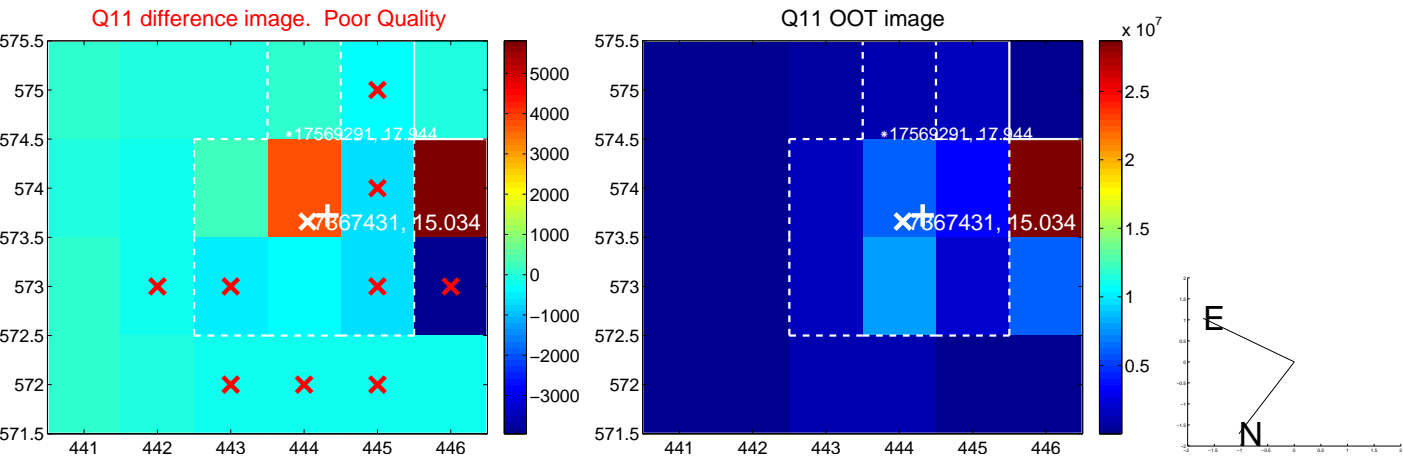
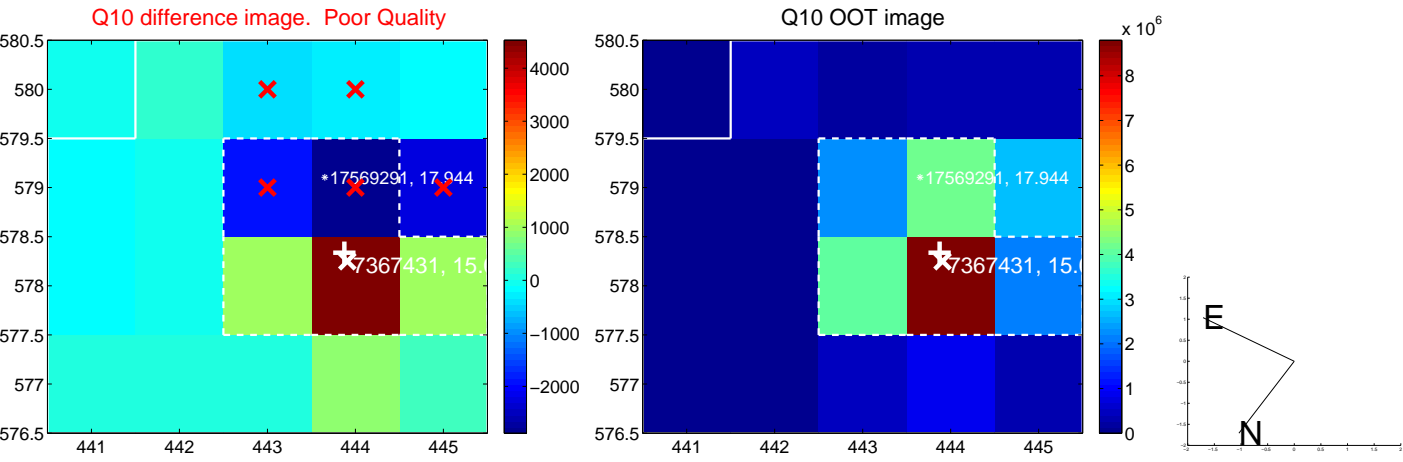
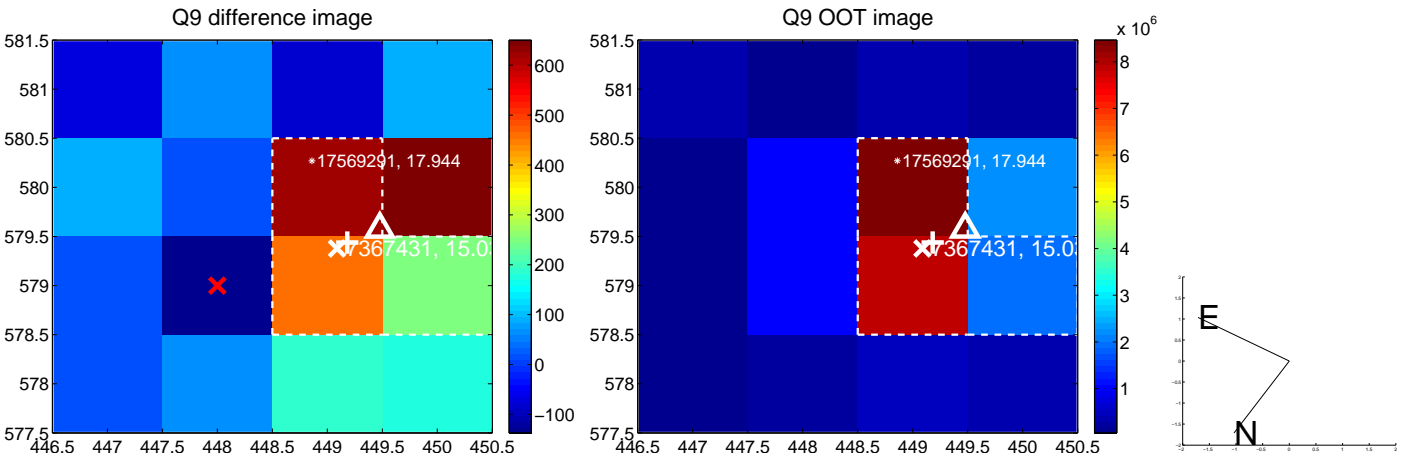


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

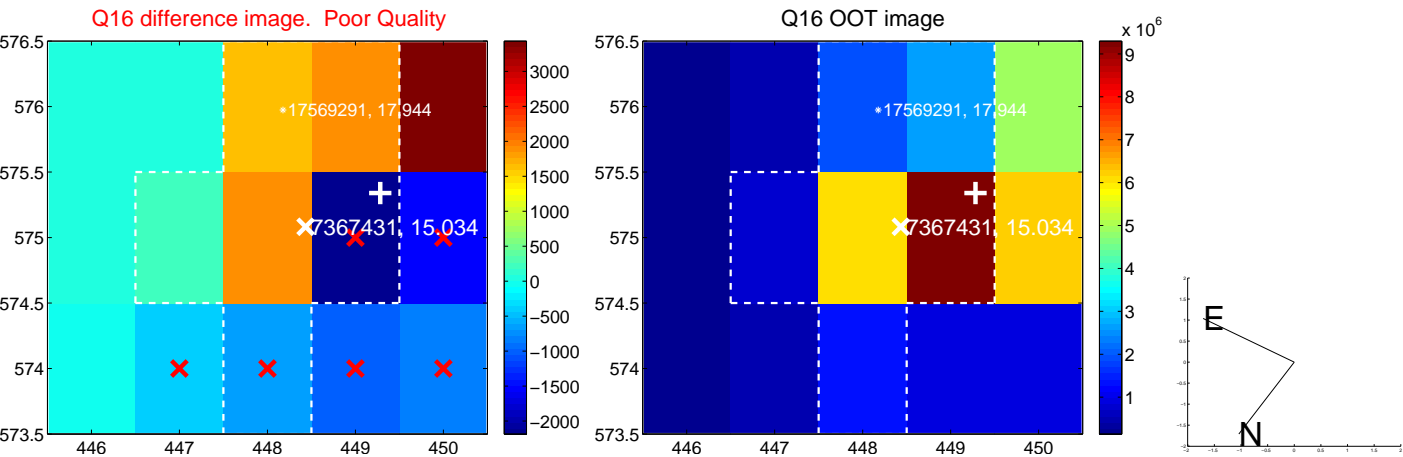
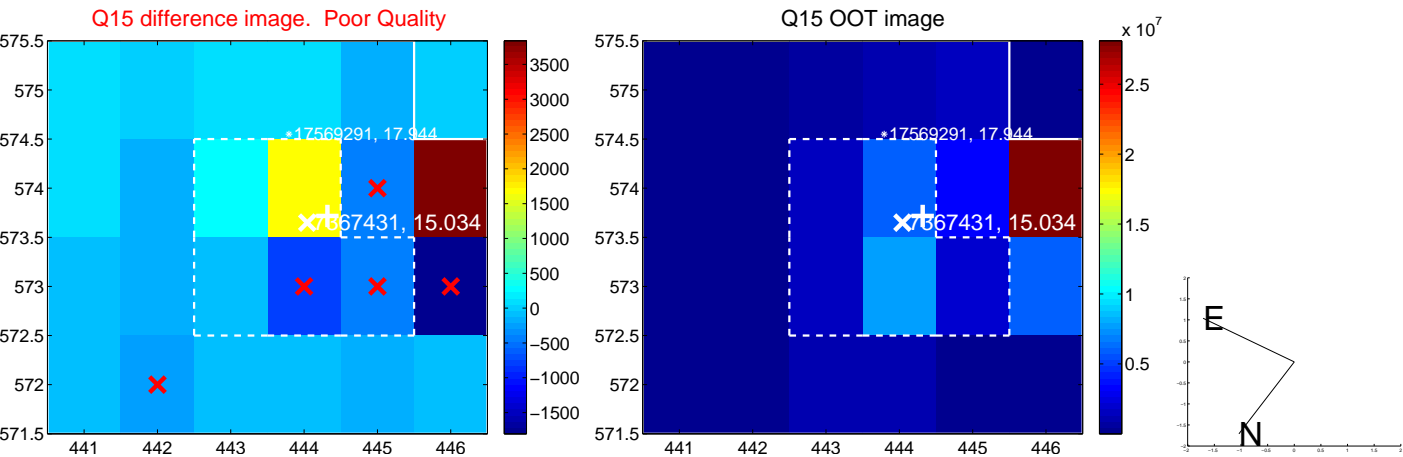
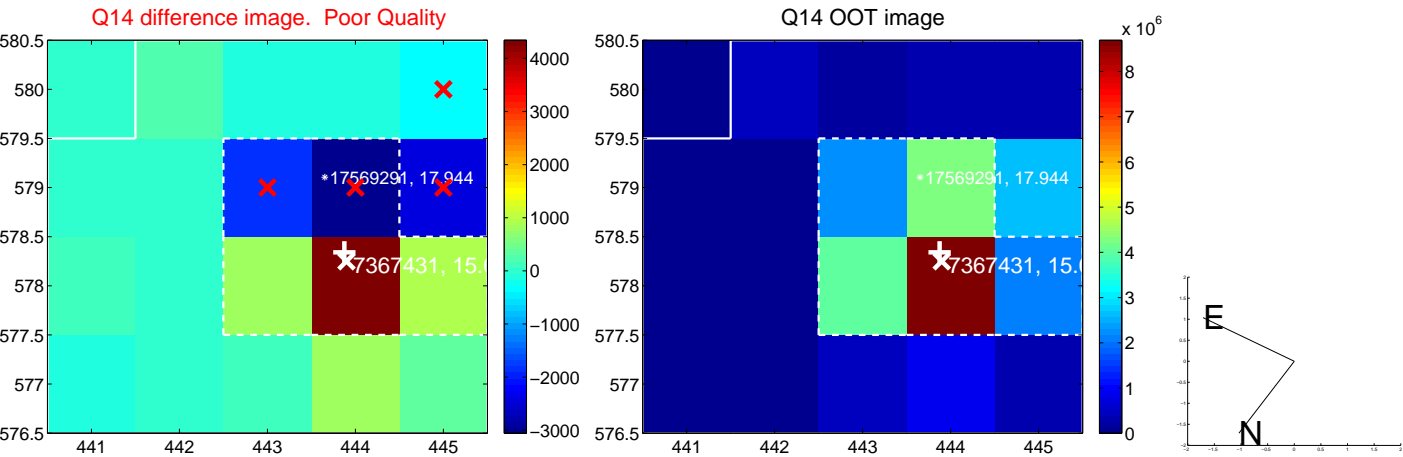
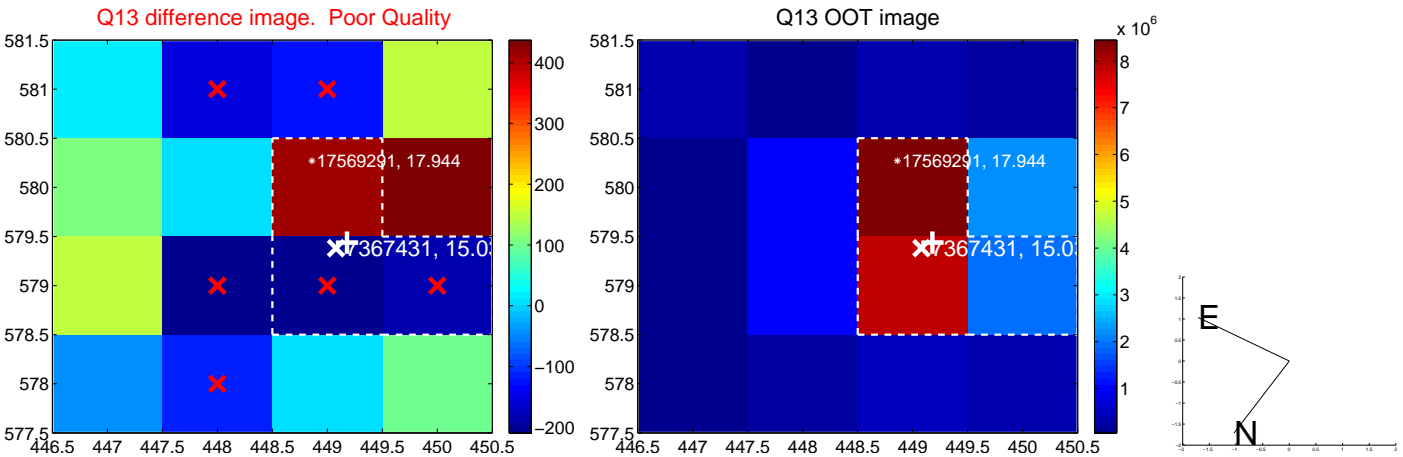
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



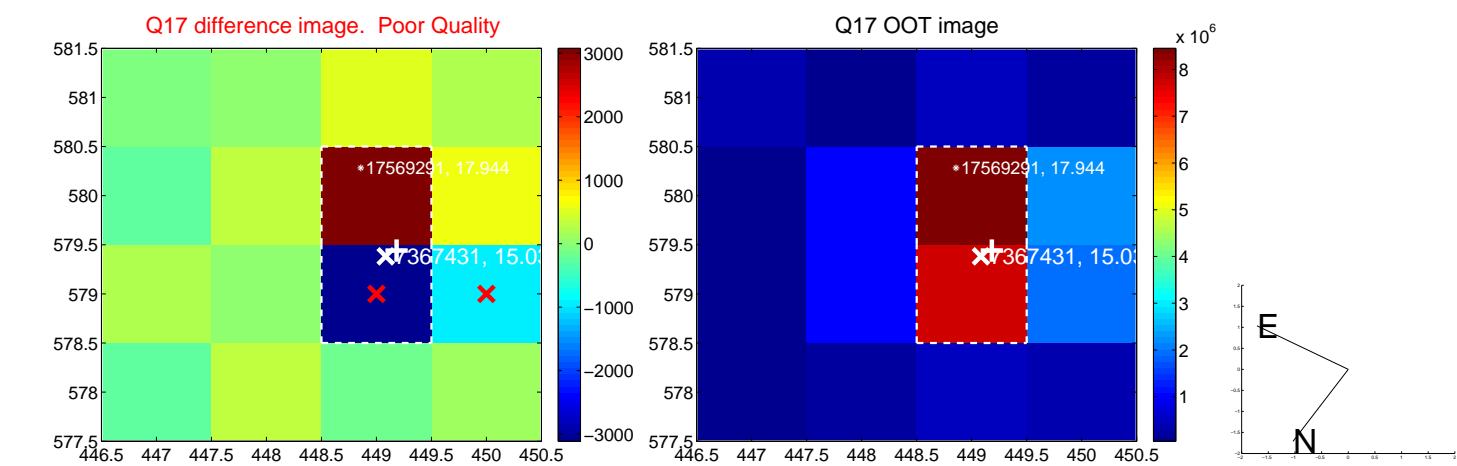
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



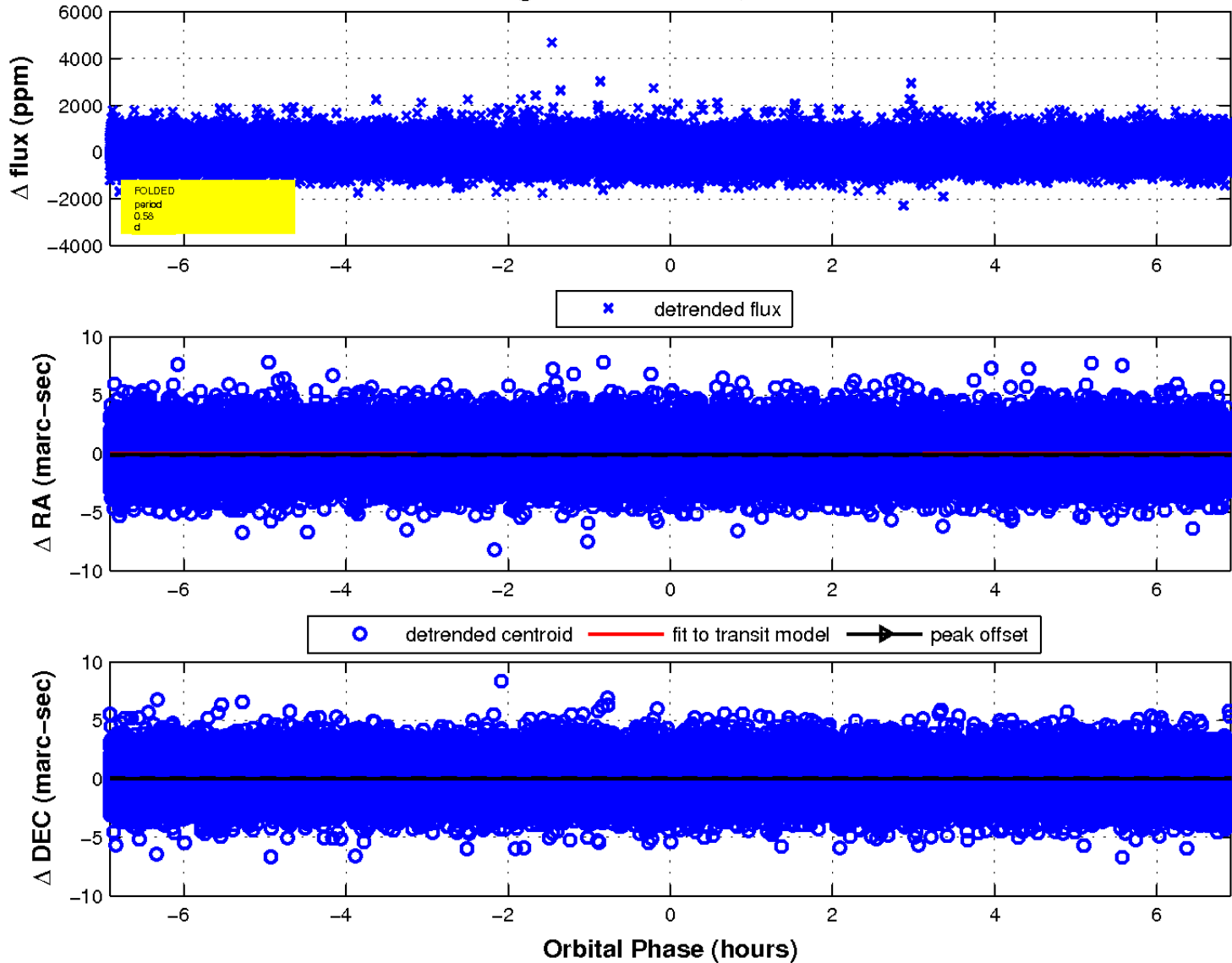
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

