

KIC 009519275

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})
009519275-01	OBS	No	0.579736	131.740454	76.4	5.792	9.8	13.6	0.40	3578	0.34	224.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009519275-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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

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

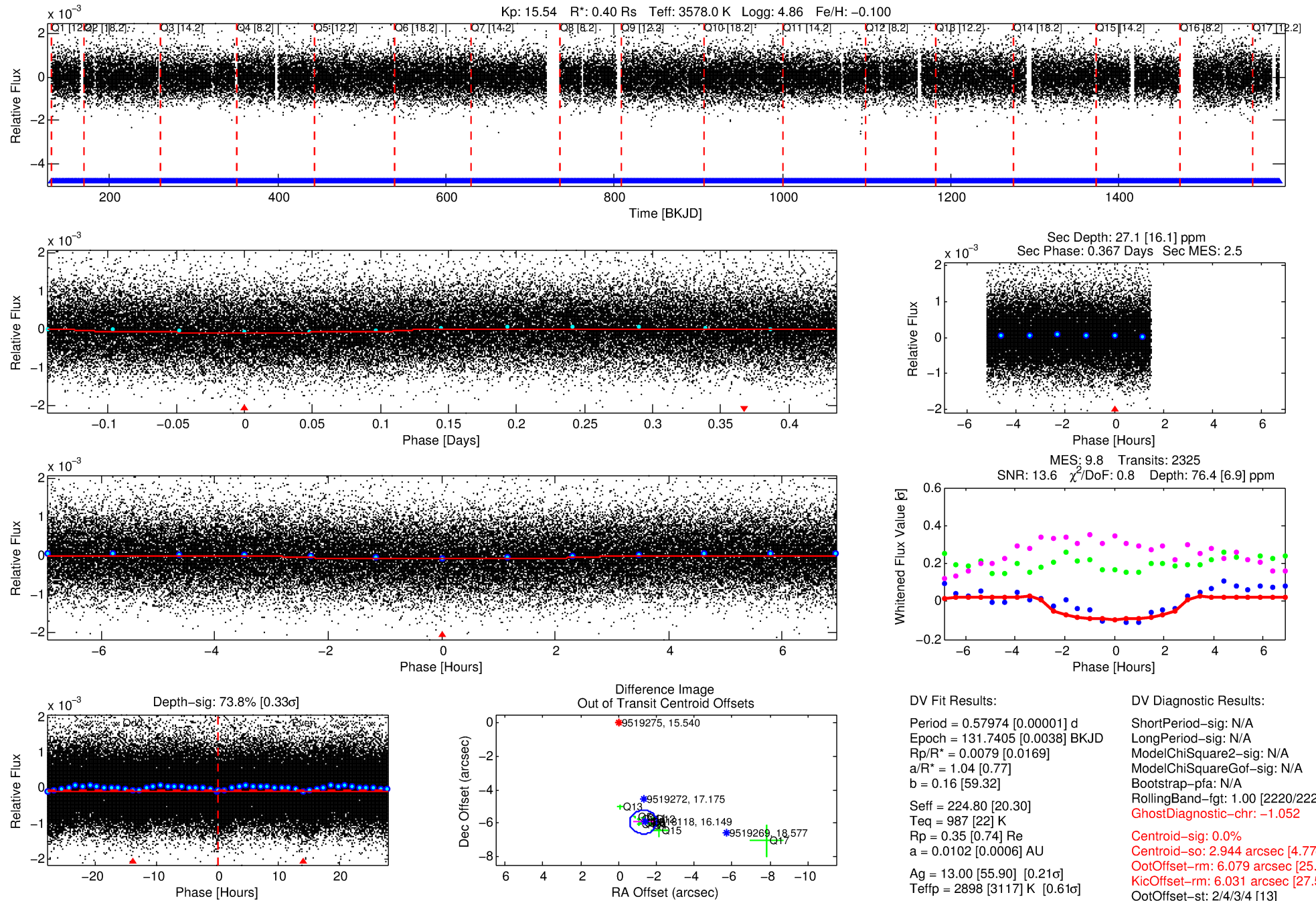
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009519275-01

No Significant Match Found

DV One-Page Summary

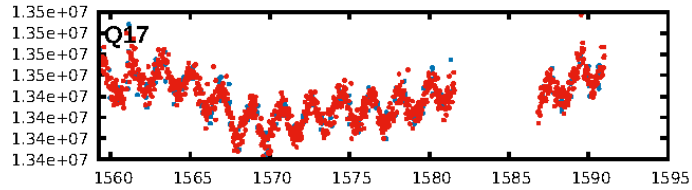
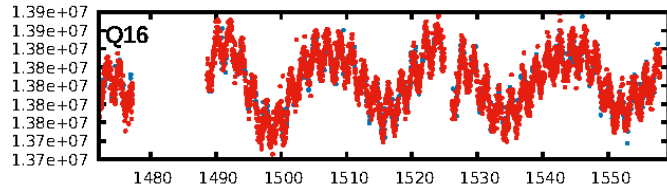
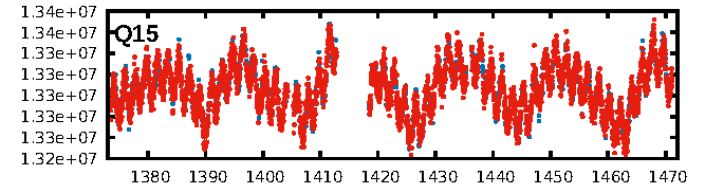
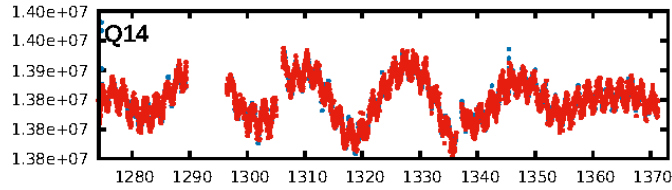
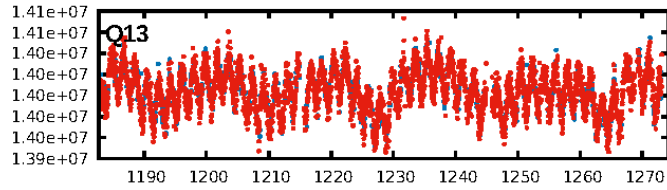
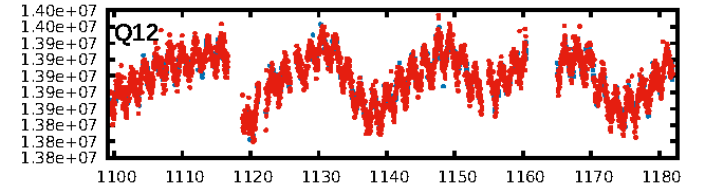
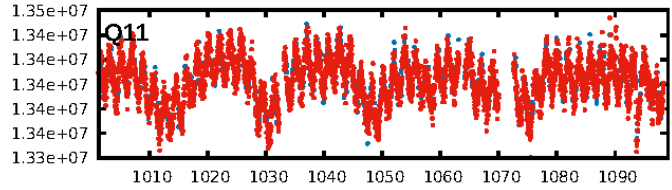
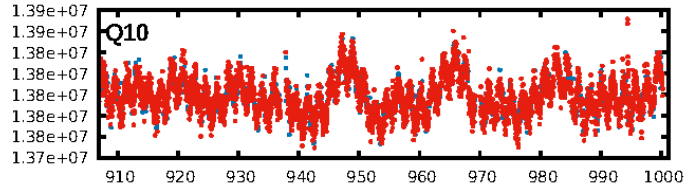
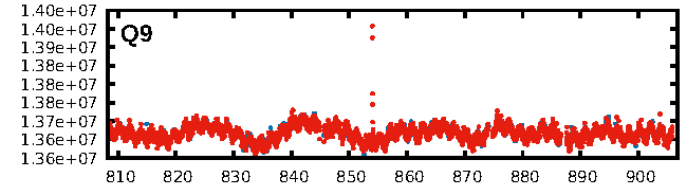
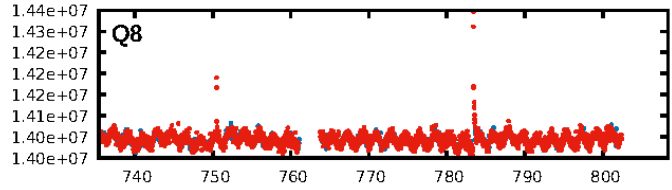
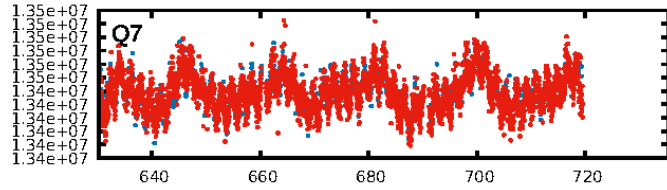
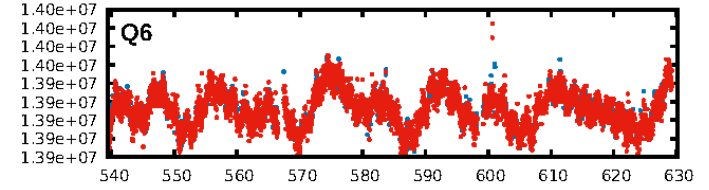
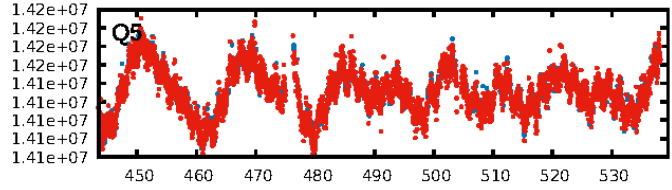
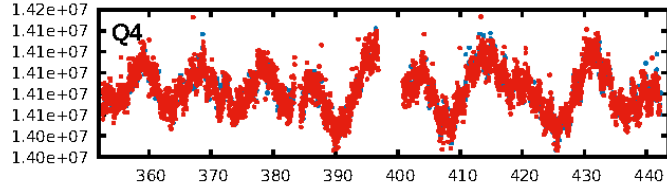
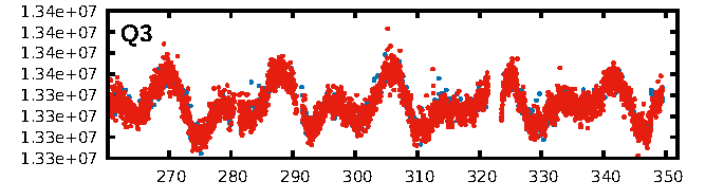
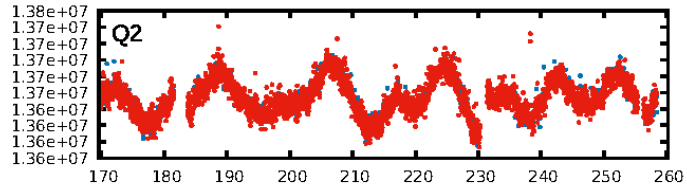
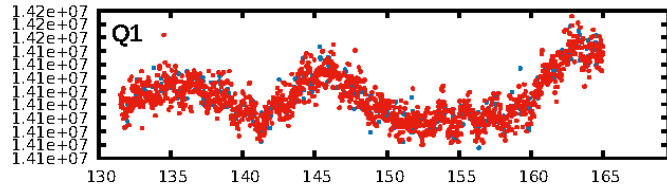
KIC: 9519275 Candidate: 1 of 1 Period: 0.580 d



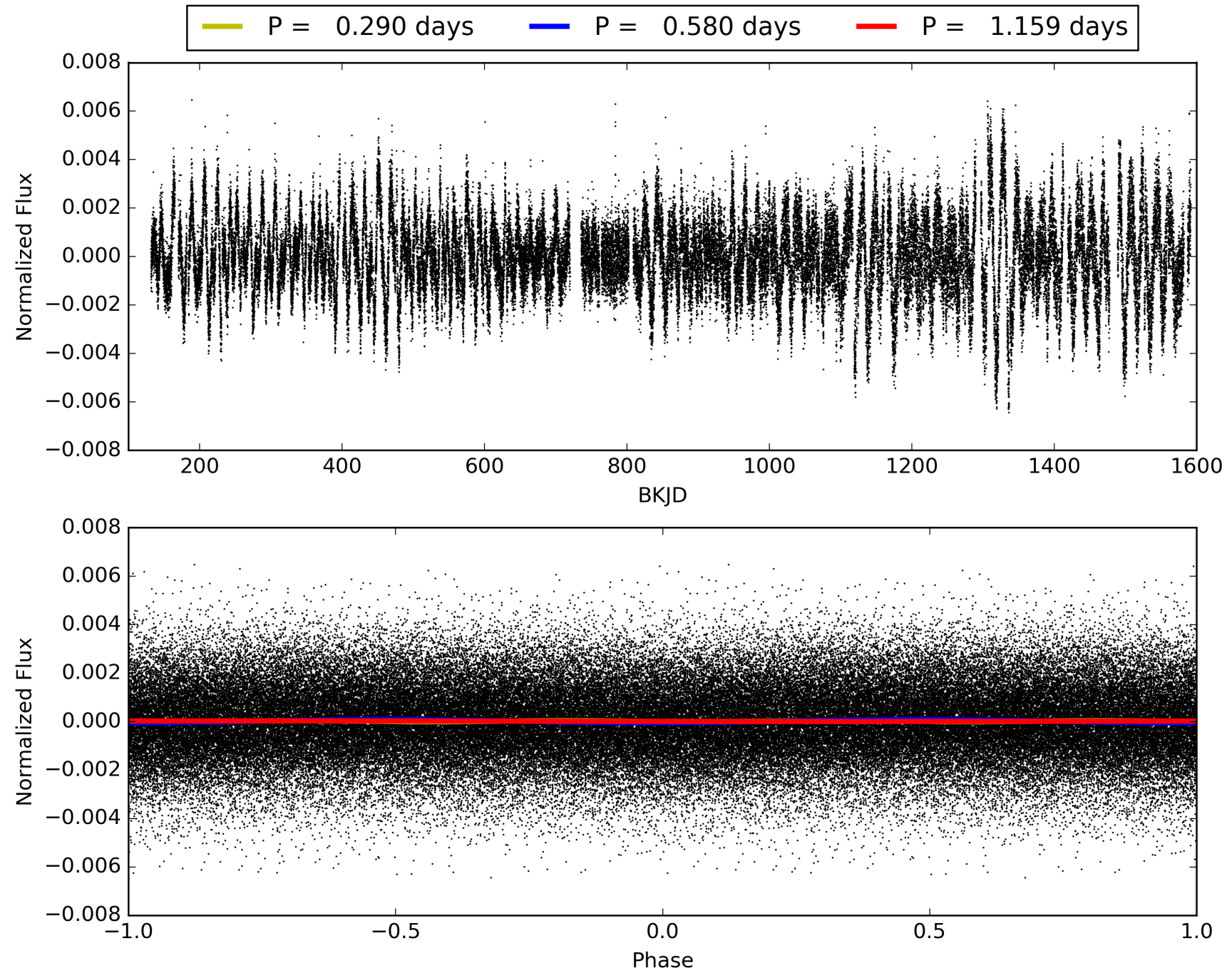
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:18:15 Z

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

TCE 009519275-01, PDC Light Curves

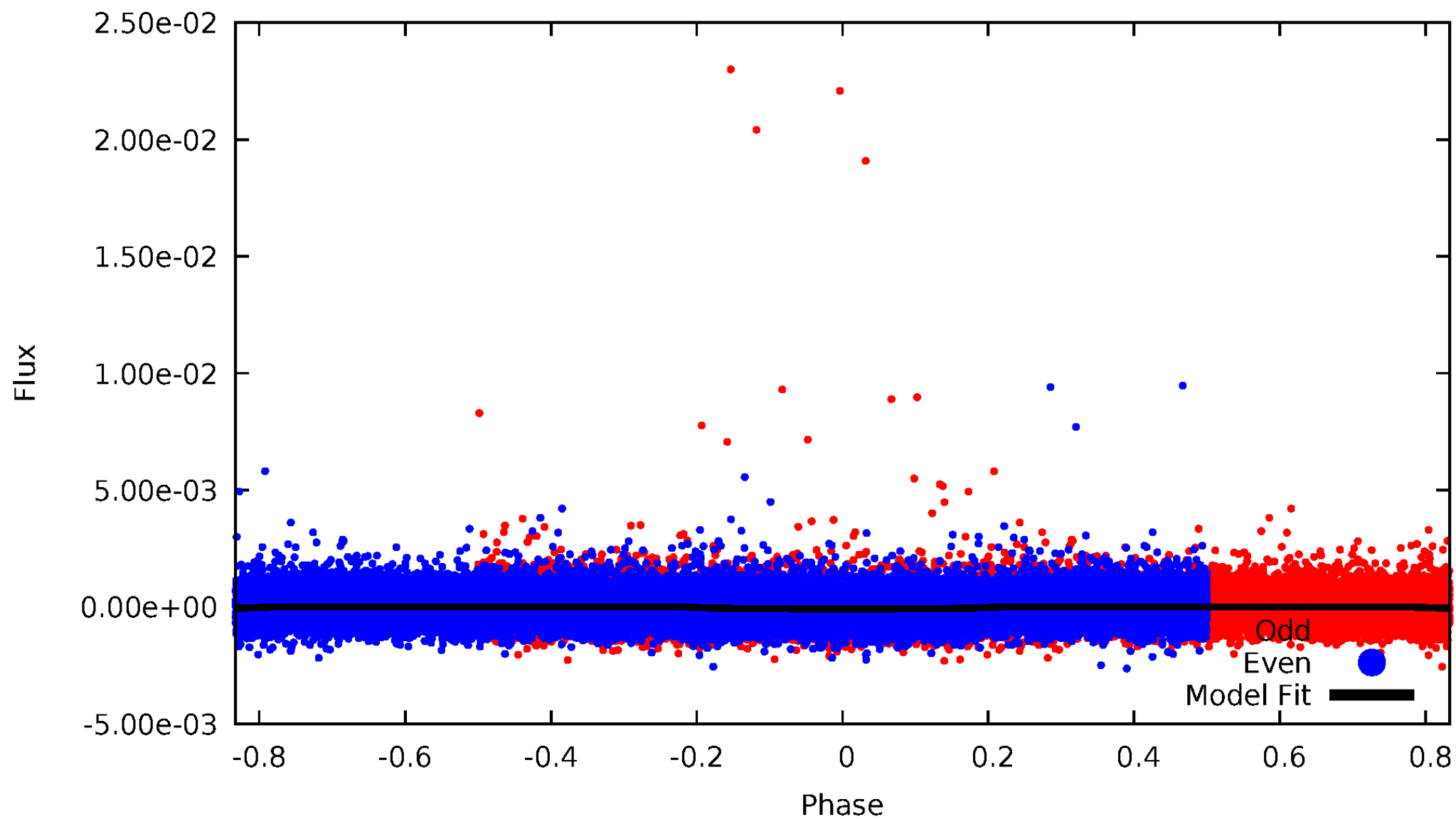


TCE 009519275-01



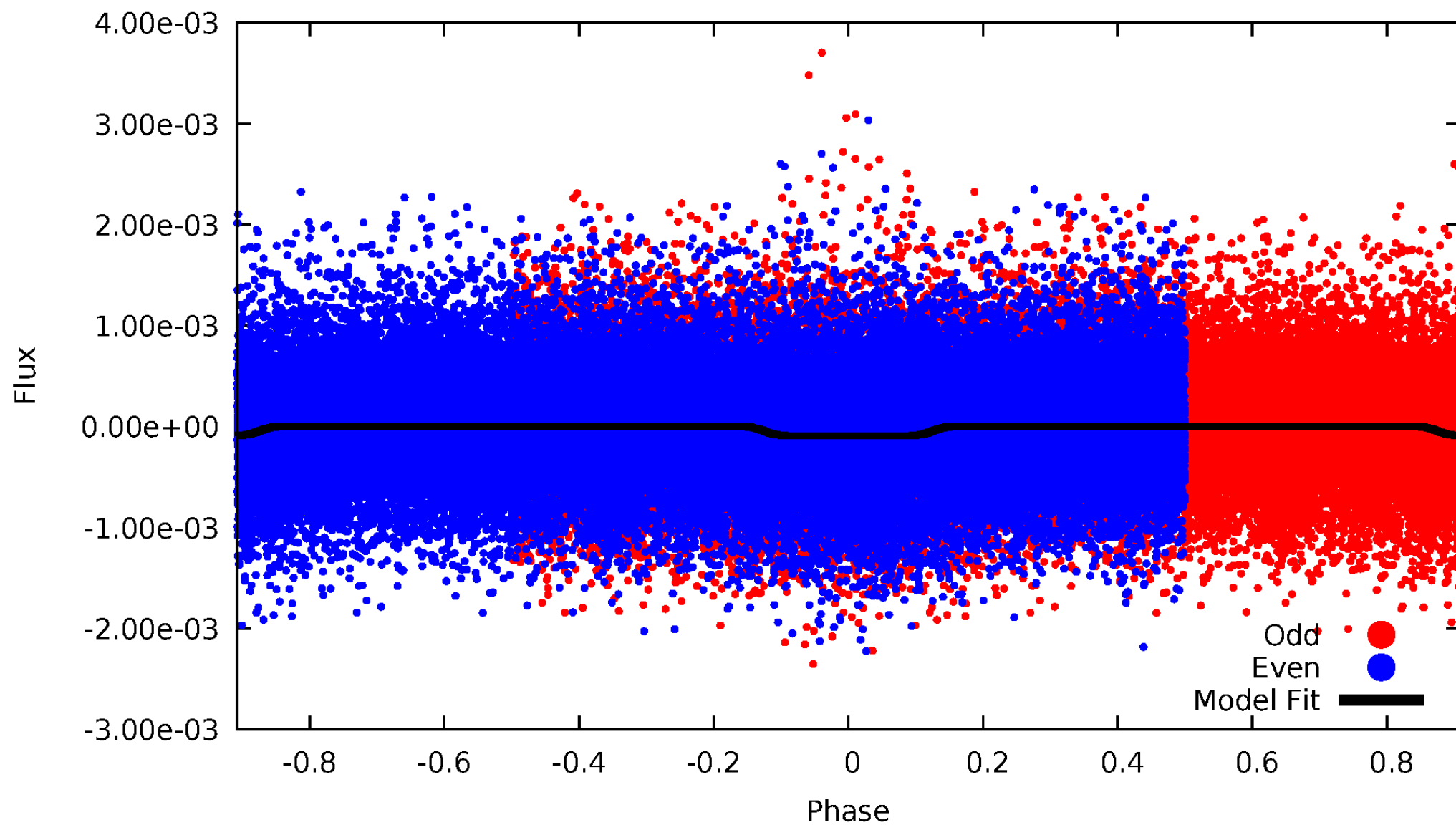
DV Odd/Even

TCE 009519275-01



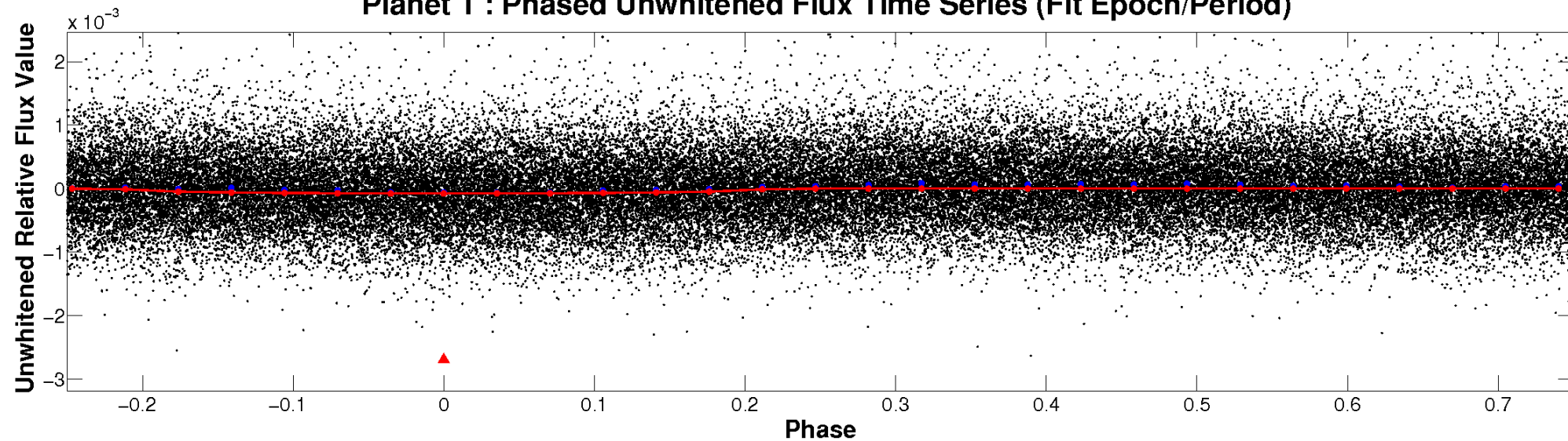
ALT Odd/Even

TCE 009519275-01

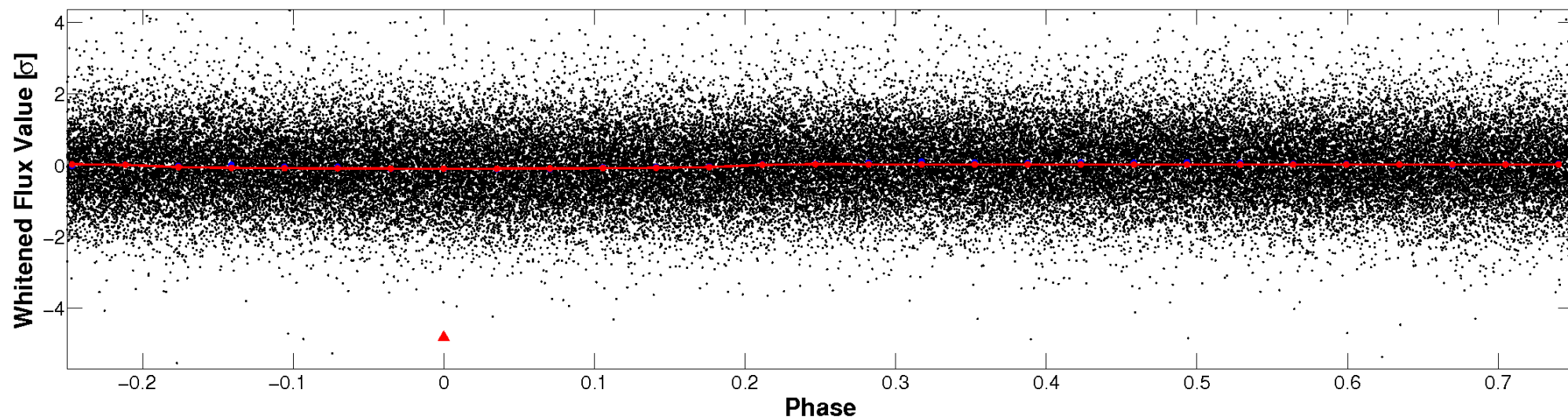


Non-Whitened Vs. Whitened Light Curve

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

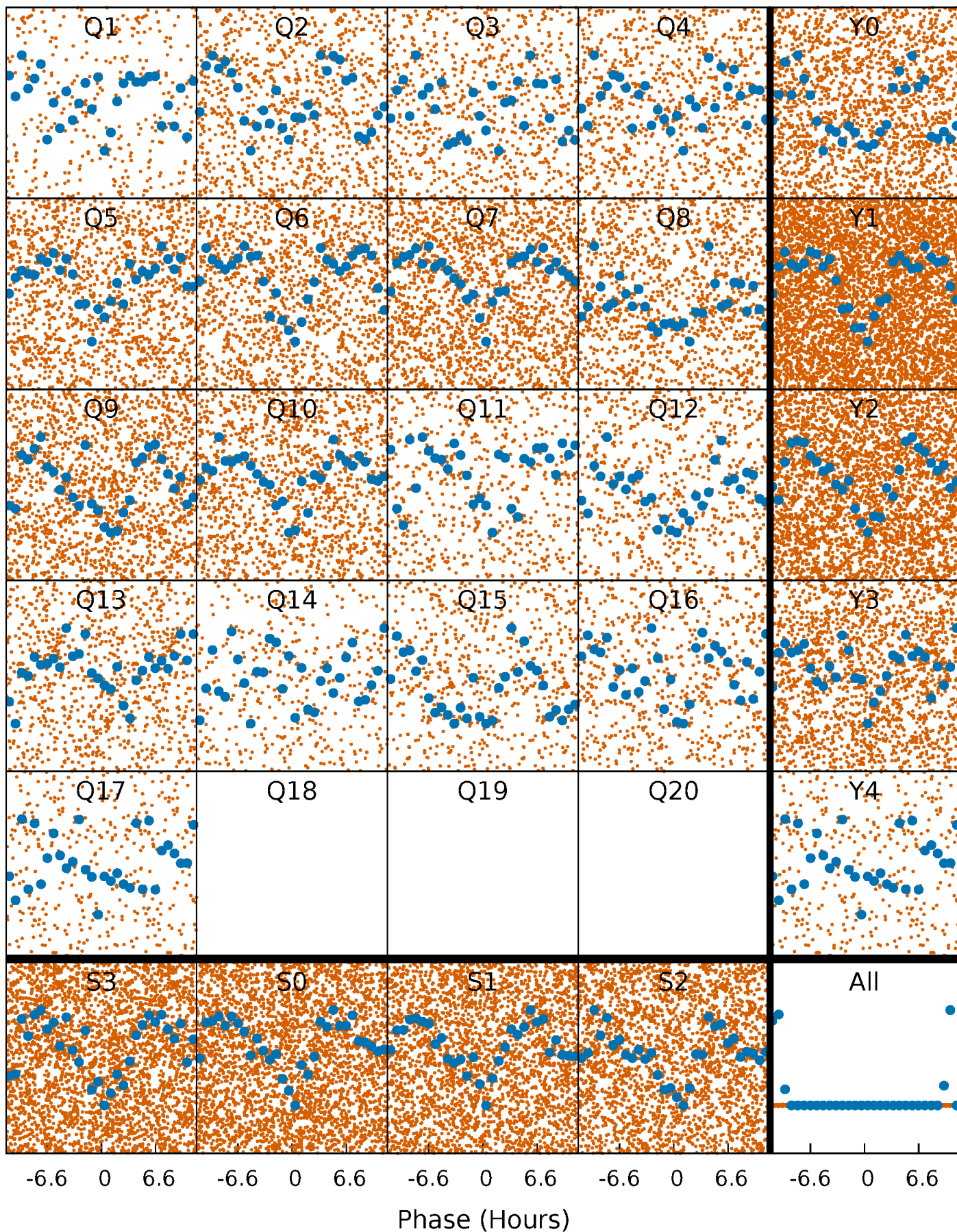


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



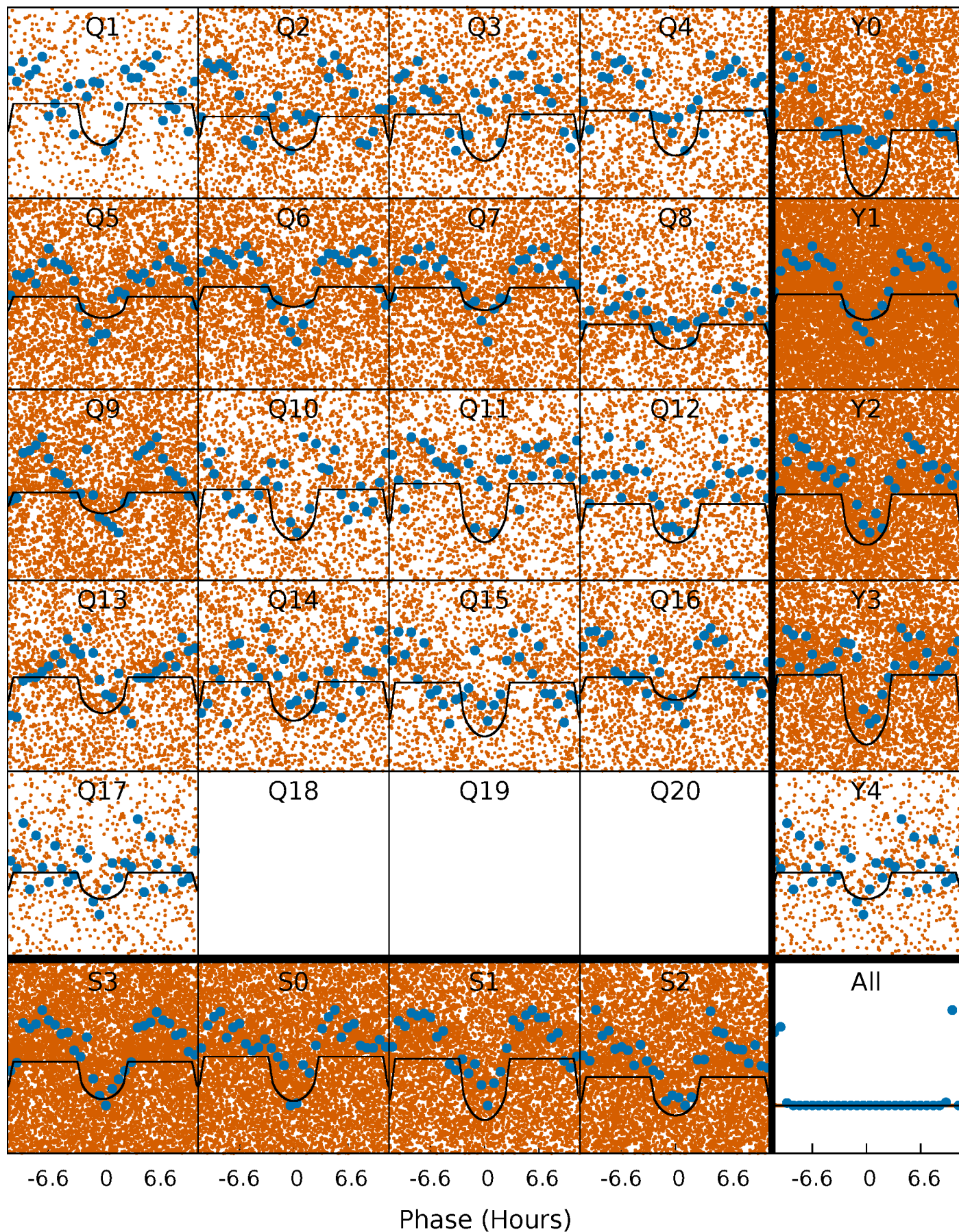
PDC Quarter-Phased Transit Curves

TCE 009519275-01 P= 0.579736 Days $T_0=131.740454$ (BKJD)



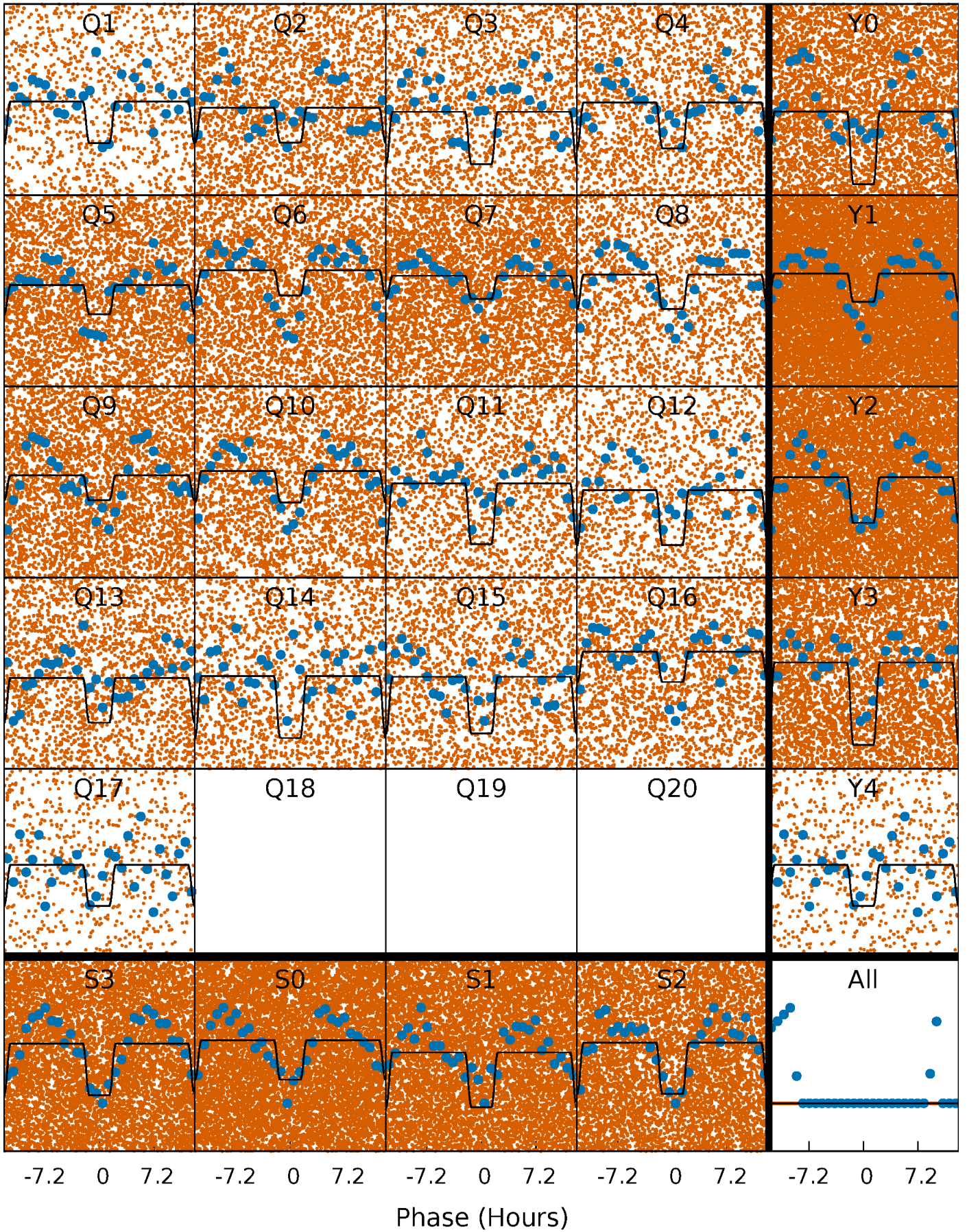
DV Quarter-Phased Transit Curves

TCE 009519275-01 P= 0.579736 Days $T_0=131.740454$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

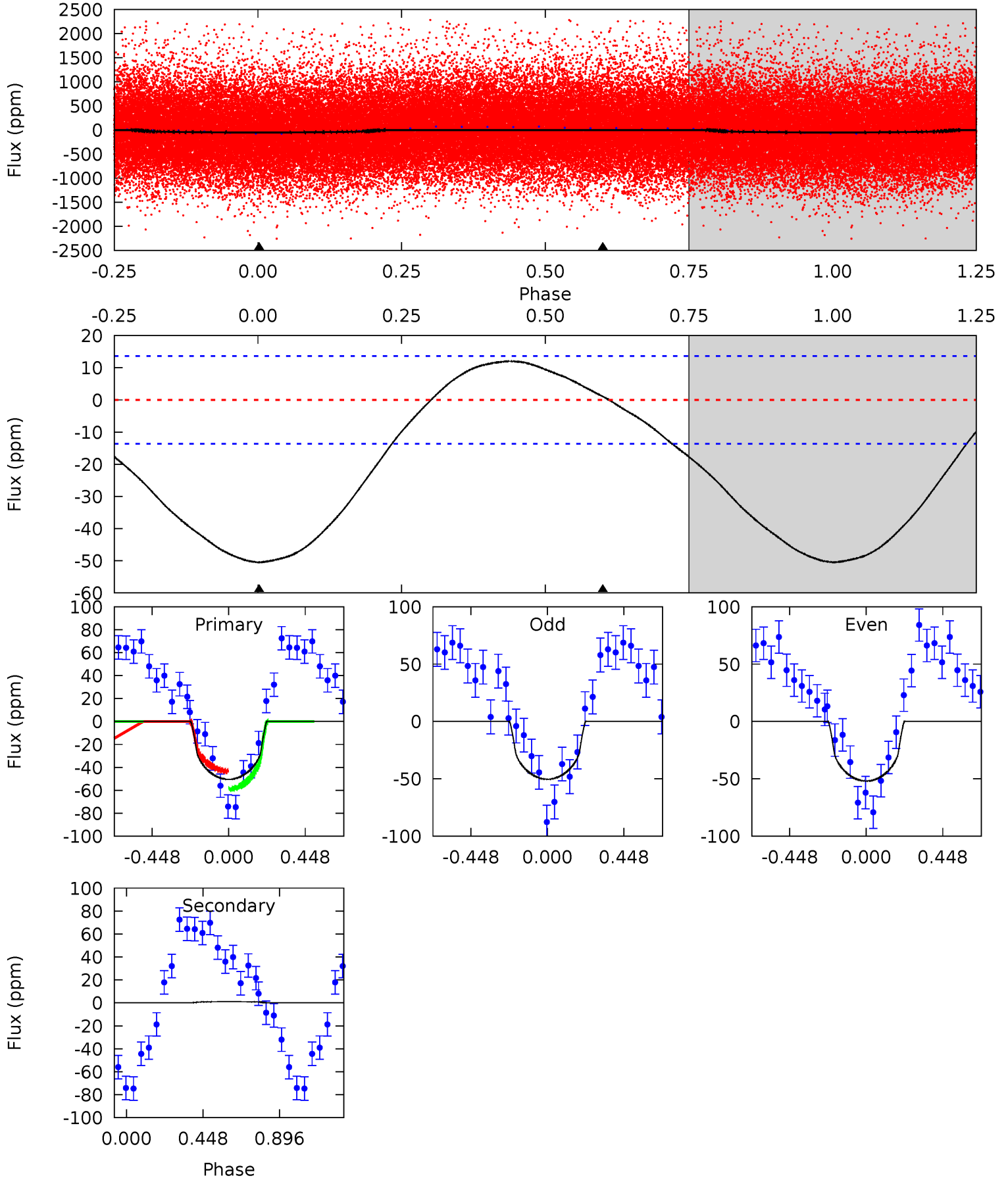
TCE 009519275-01 P= 0.579747 Days $T_0=131.734227$ (BKJD)



DV Model-Shift Uniqueness Test

009519275-01, P = 0.579736 Days, E = 131.160718 Days

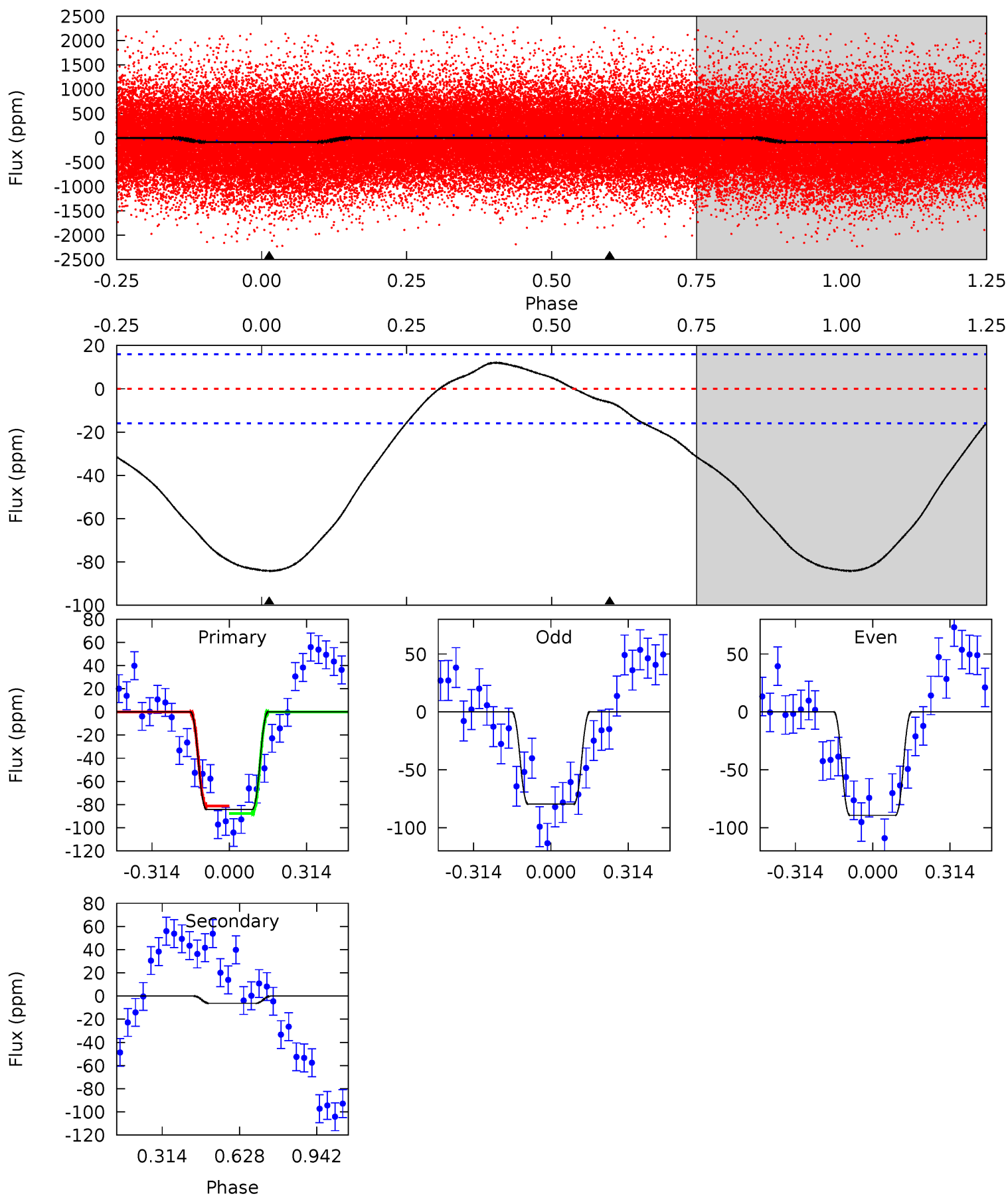
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	-0.34	0	0	4.24	0.76	1.58	15.7	15.7	-0.34	-0.34	0.25	0.73	0.19	2.44



Alt Model-Shift Uniqueness Test

009519275-01, P = 0.579747 Days, E = 131.154480 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.8	1.71	0	0	4.32	1.01	1.65	22.8	22.8	1.71	1.71	1.31	1.02	0.13	0.84



Stellar Parameters For KIC 009519275

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3578^{+43}_{-48}	$4.860^{+0.032}_{-0.032}$	$-0.100^{+0.100}_{-0.100}$	$0.399^{+0.029}_{-0.032}$	$0.422^{+0.031}_{-0.038}$	$9.374^{+1.628}_{-1.257}$
	+1%/-1%	+1%/-1%	+100%/-100%	+7%/-8%	+7%/-9%	+17%/-13%
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 009519275-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	1 ± 3	$0.65^{+0.65}_{-0.43}$	1380^{+28}_{-25}	-2040^{+3671}_{-342}	$-0.072^{+0.408}_{-1.138}$
Alt.	-6 ± 4	$0.69^{+0.66}_{-0.46}$	1379^{+26}_{-25}	2027^{+799}_{-3903}	$0.653^{+5.694}_{-0.517}$

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

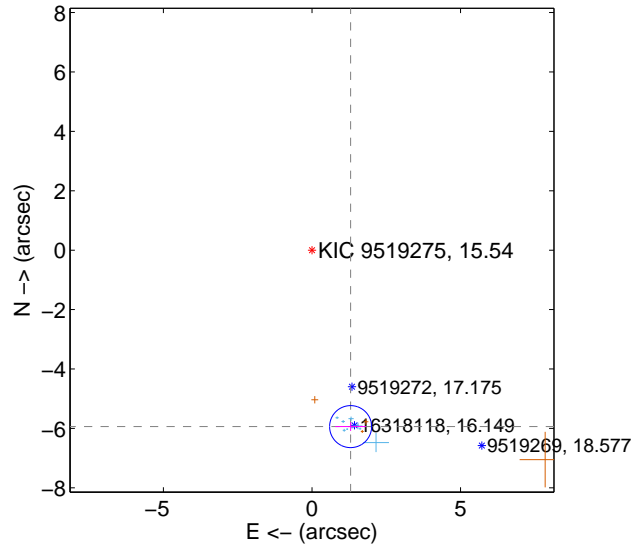
Supplemental centroid analysis for 009519275-01. Kepler magnitude: 15.54. Transit SNR 13.62

There are 9 quarters with good PRF difference image offsets

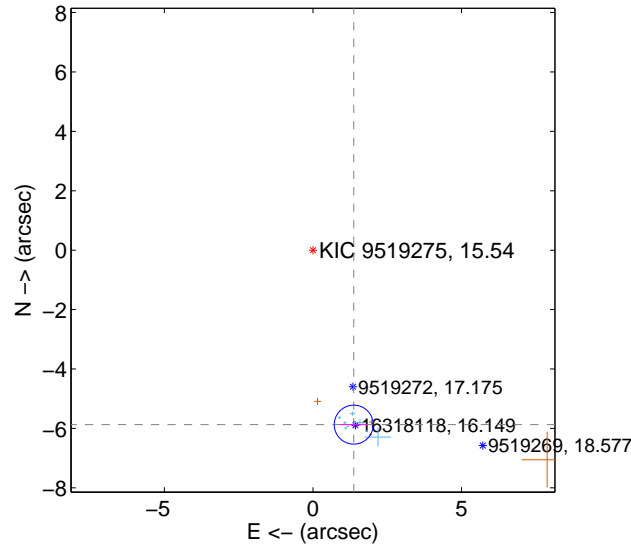
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.079 ± 0.236	25.80	-1.300 ± 0.516	-5.939 ± 0.144
PRF-fit source offset from KIC position	6.031 ± 0.219	27.58	-1.374 ± 0.472	-5.872 ± 0.131
photometric centroid source offset	2.94 ± 0.62	4.77	-2.60 ± 0.59	-1.37 ± 0.70

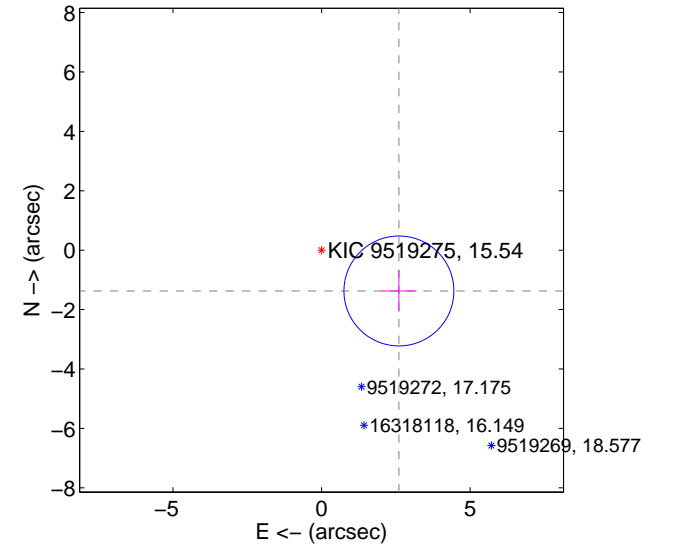
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

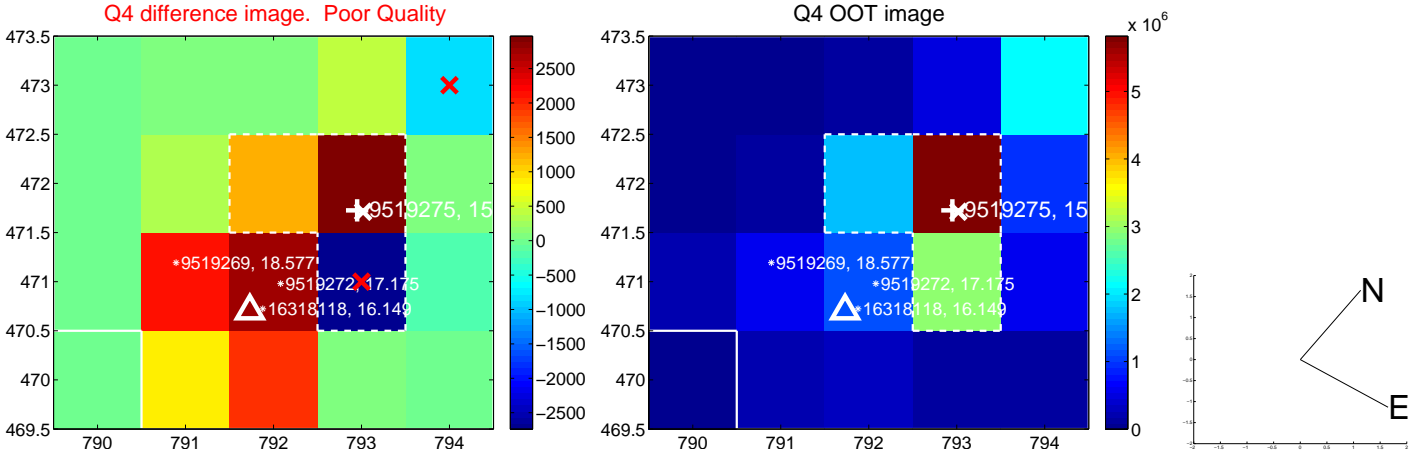
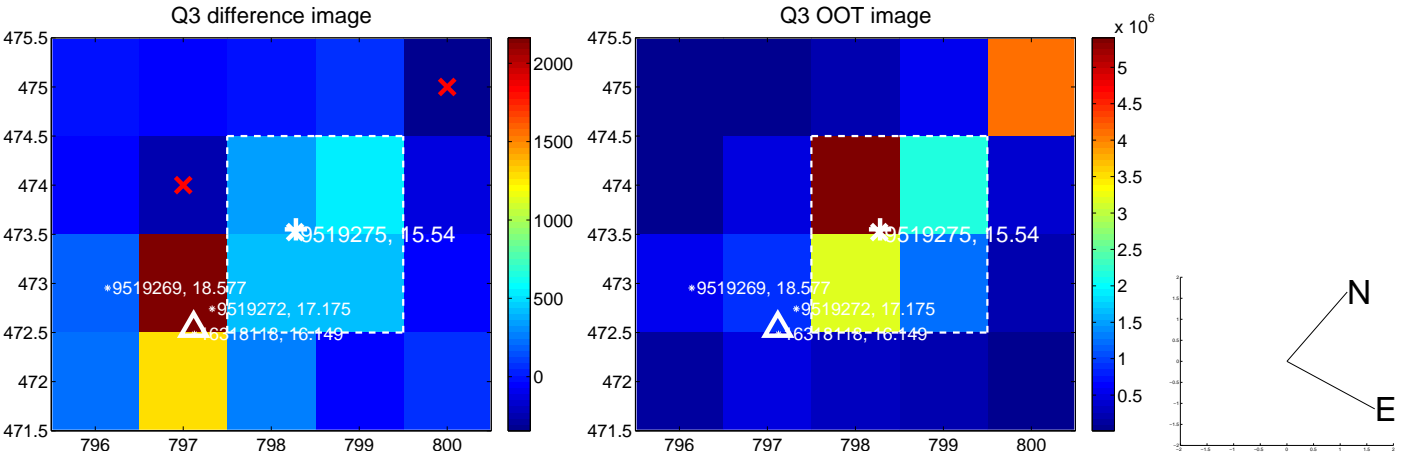
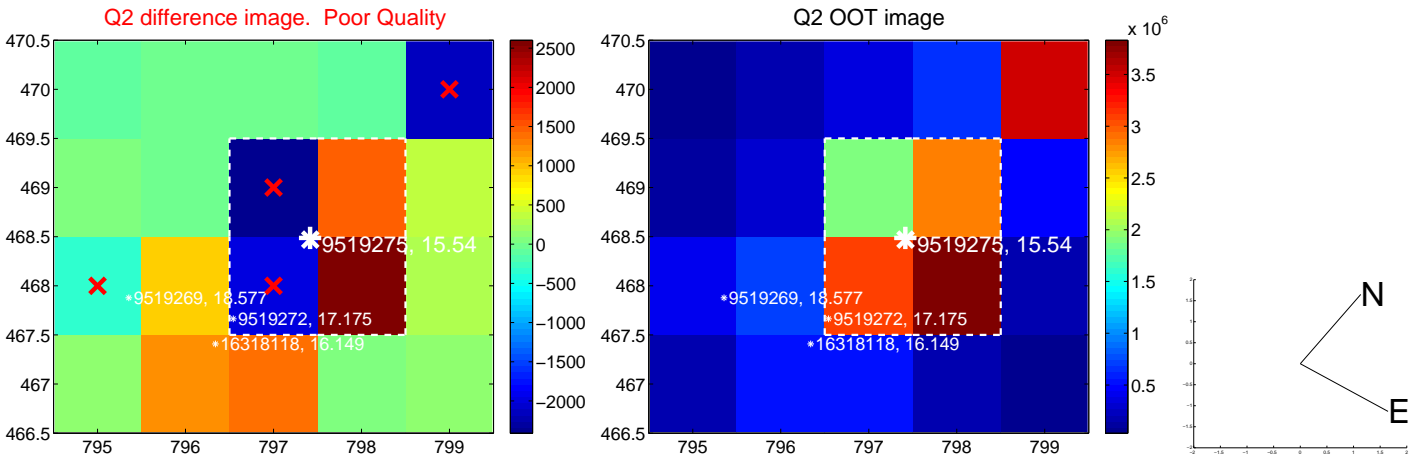
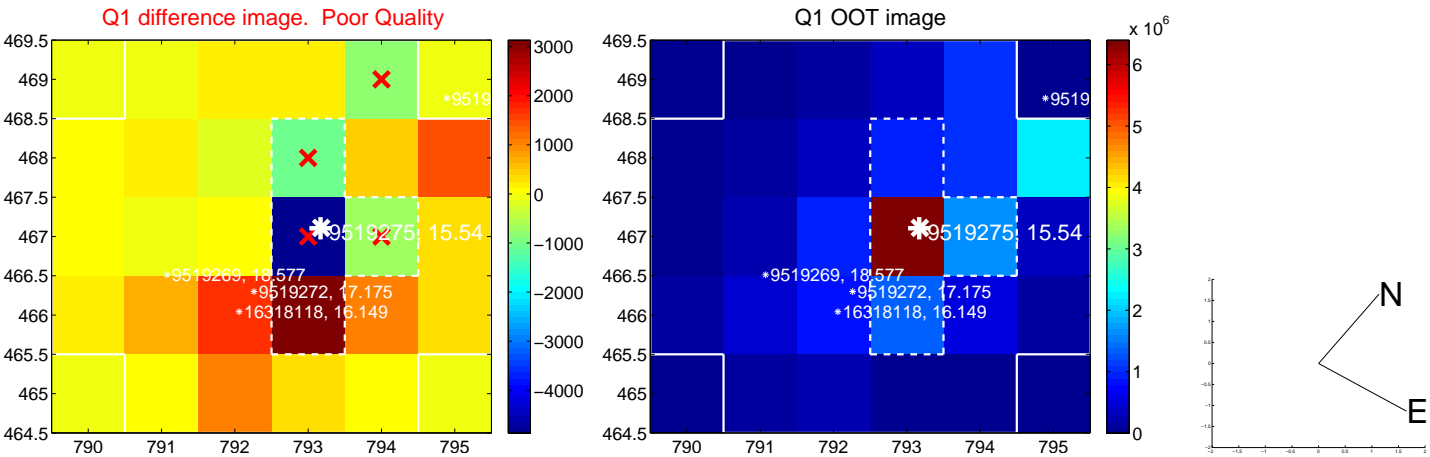


offset from photometric centroids

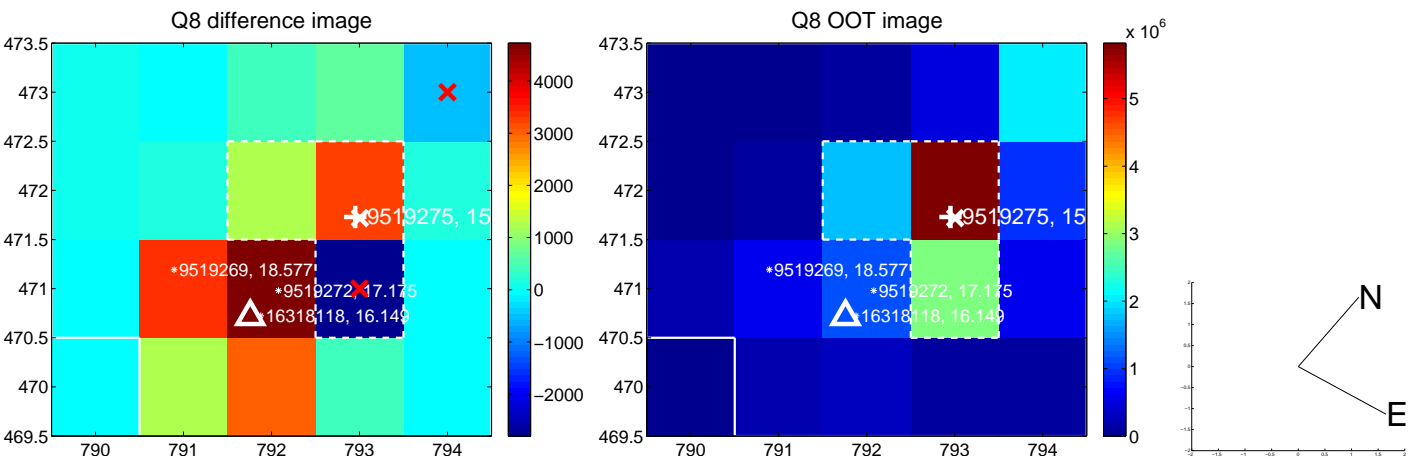
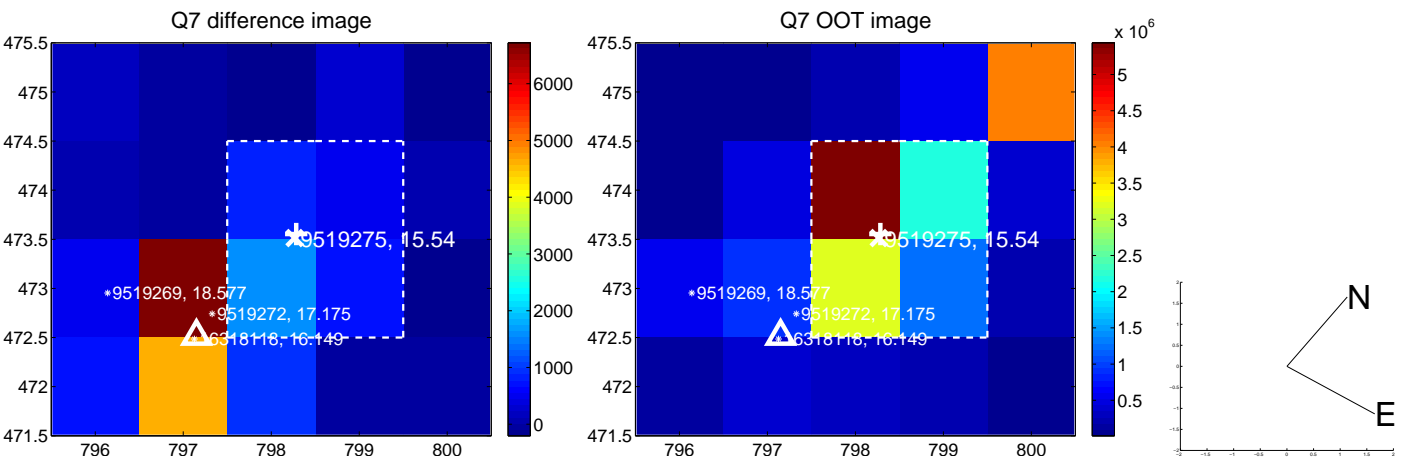
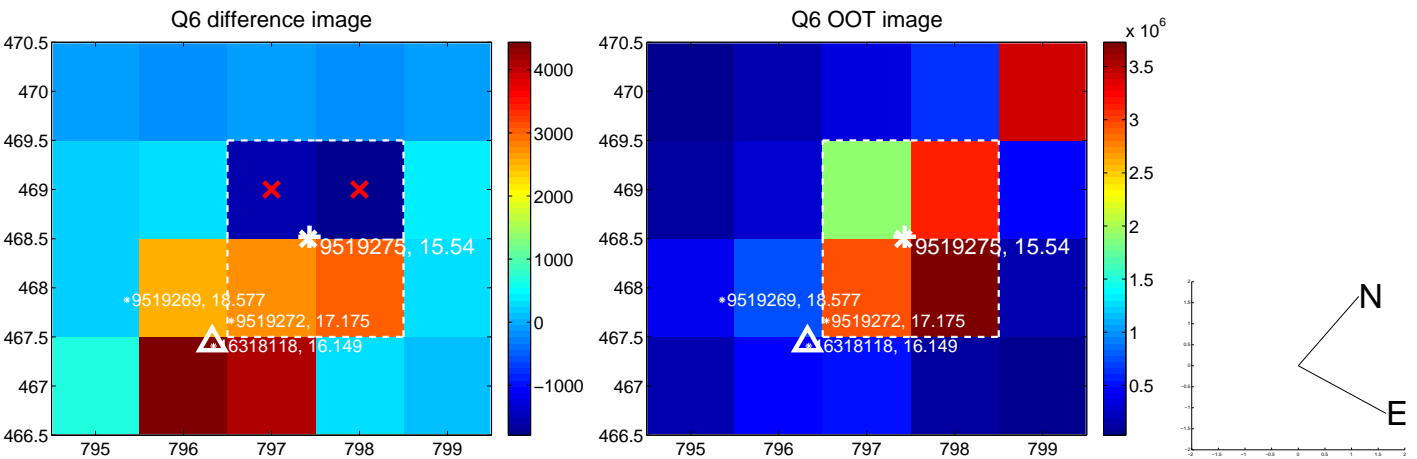
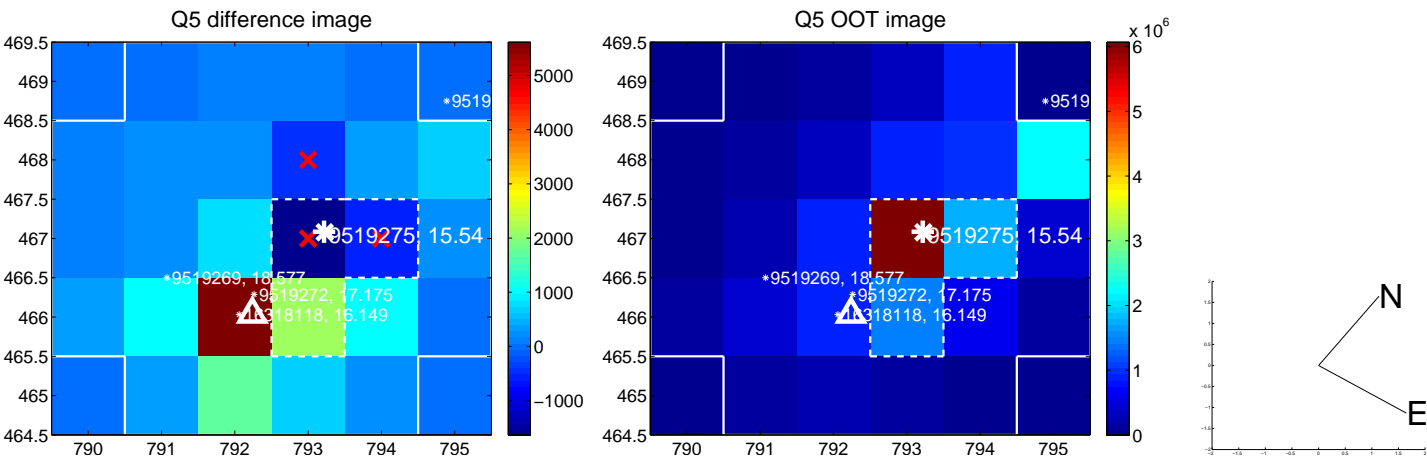


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

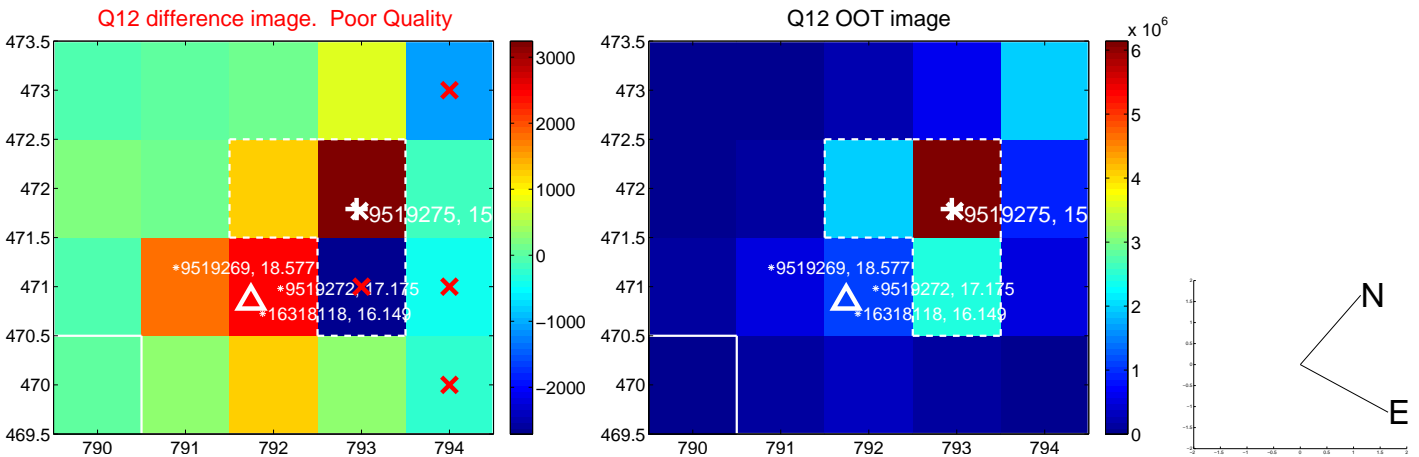
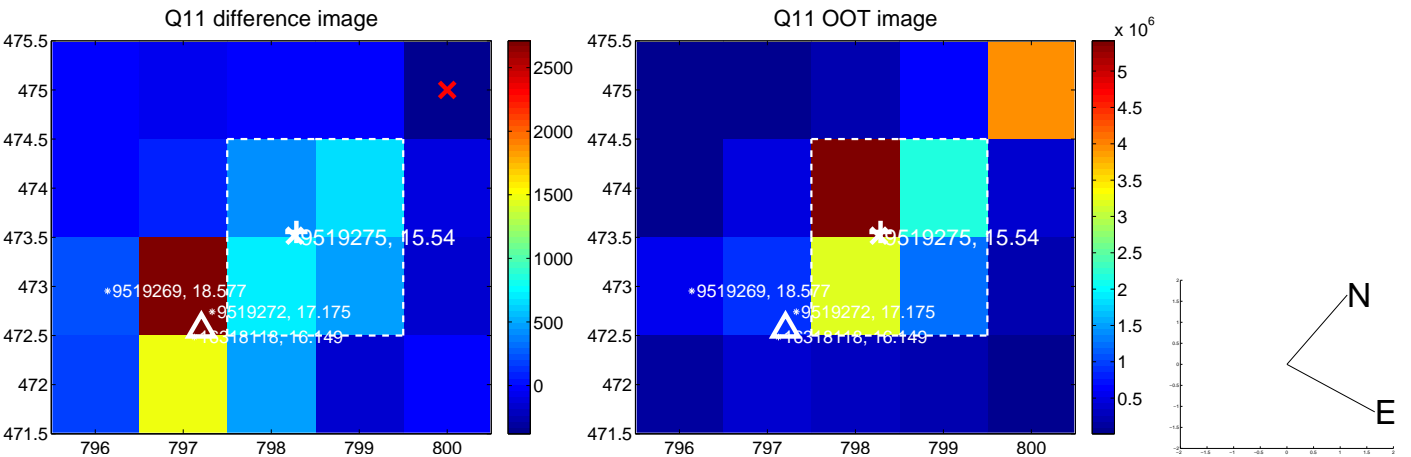
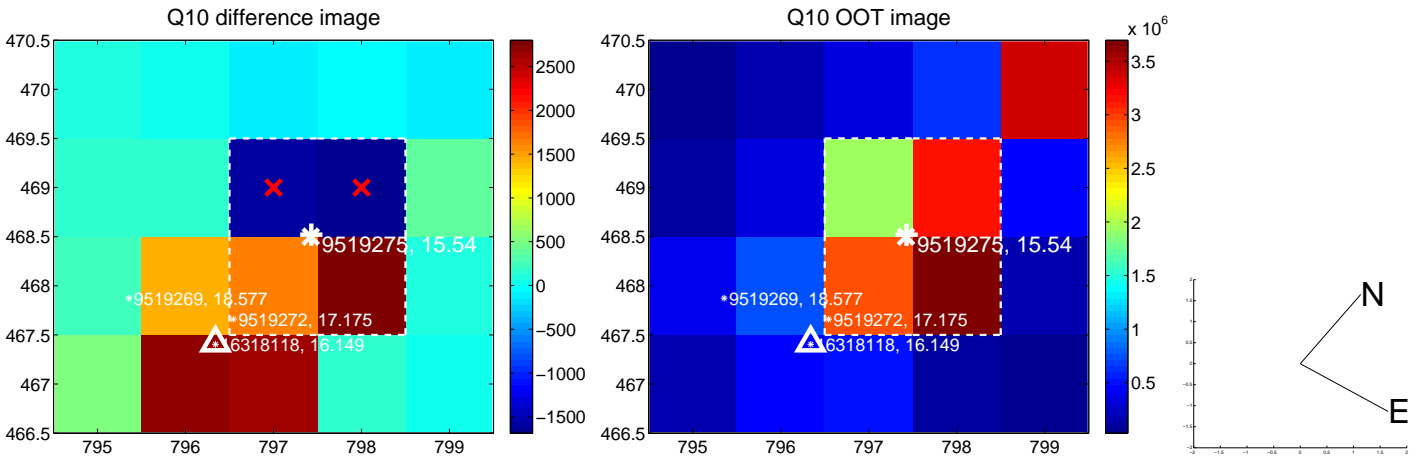
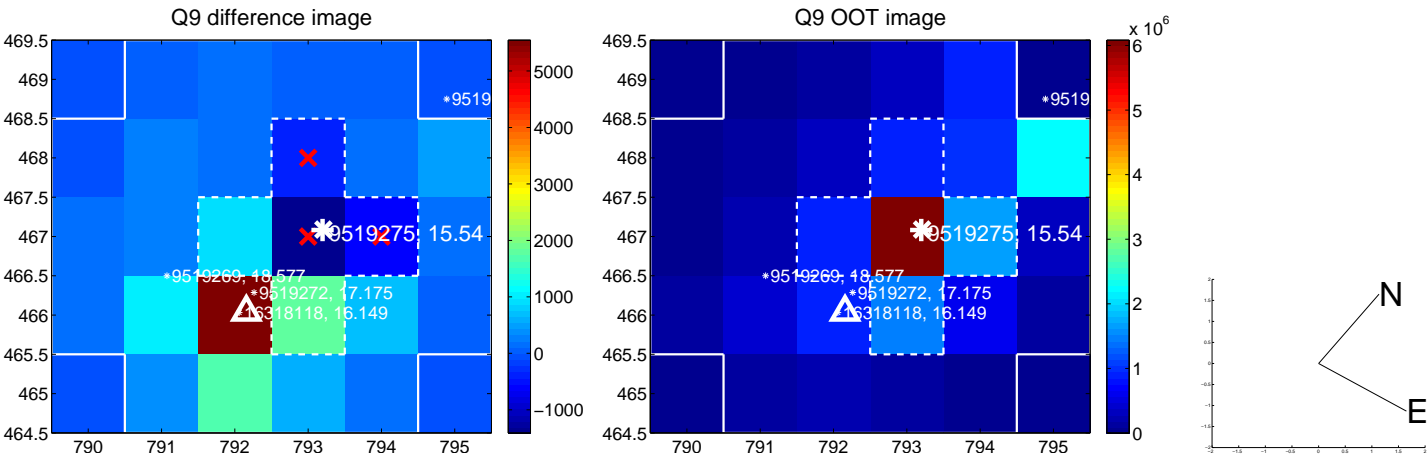
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



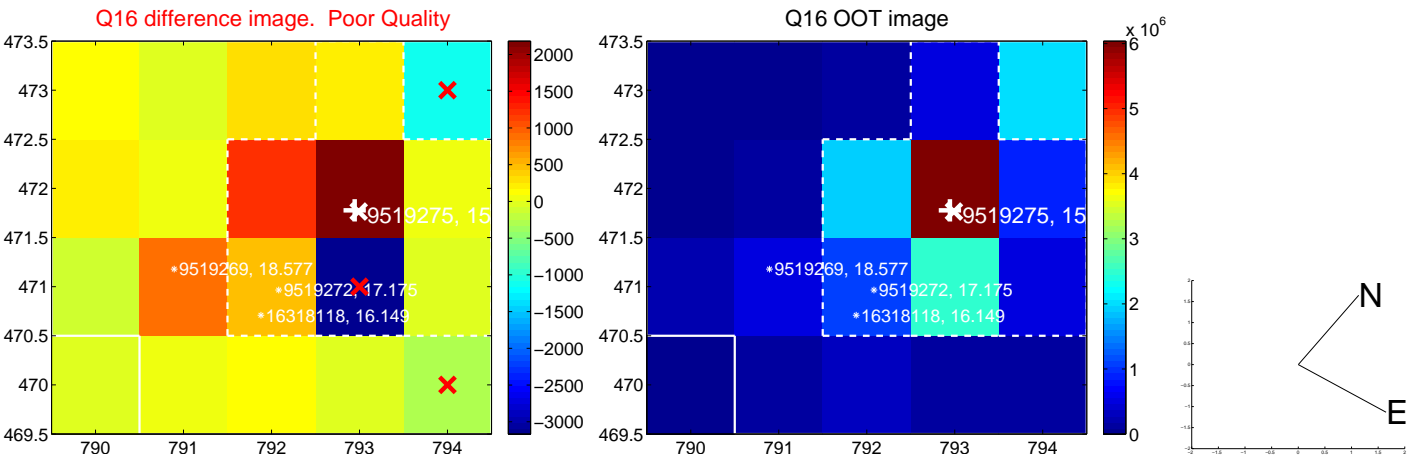
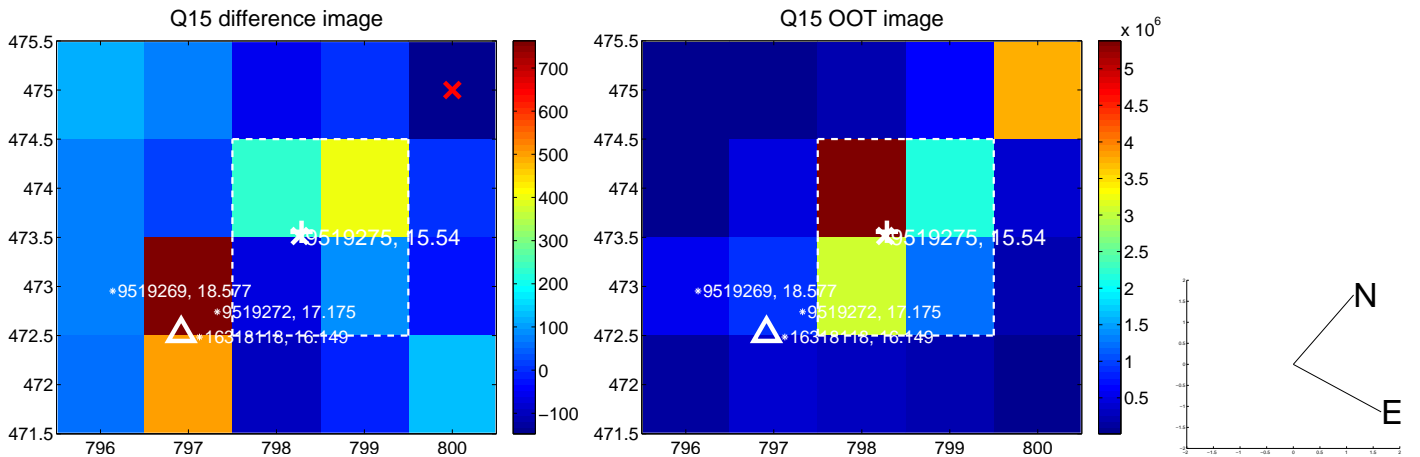
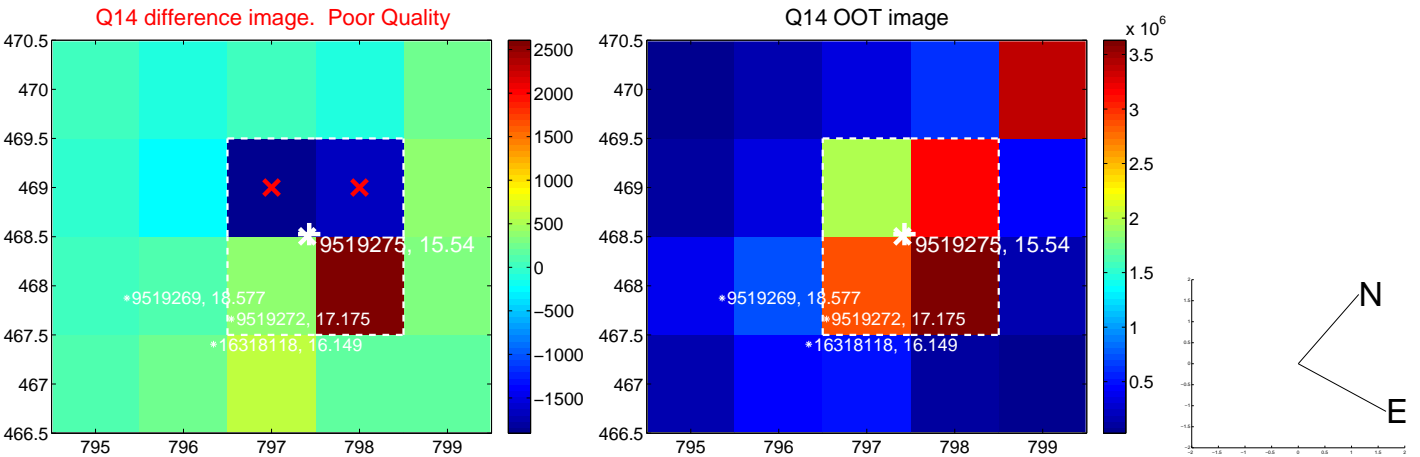
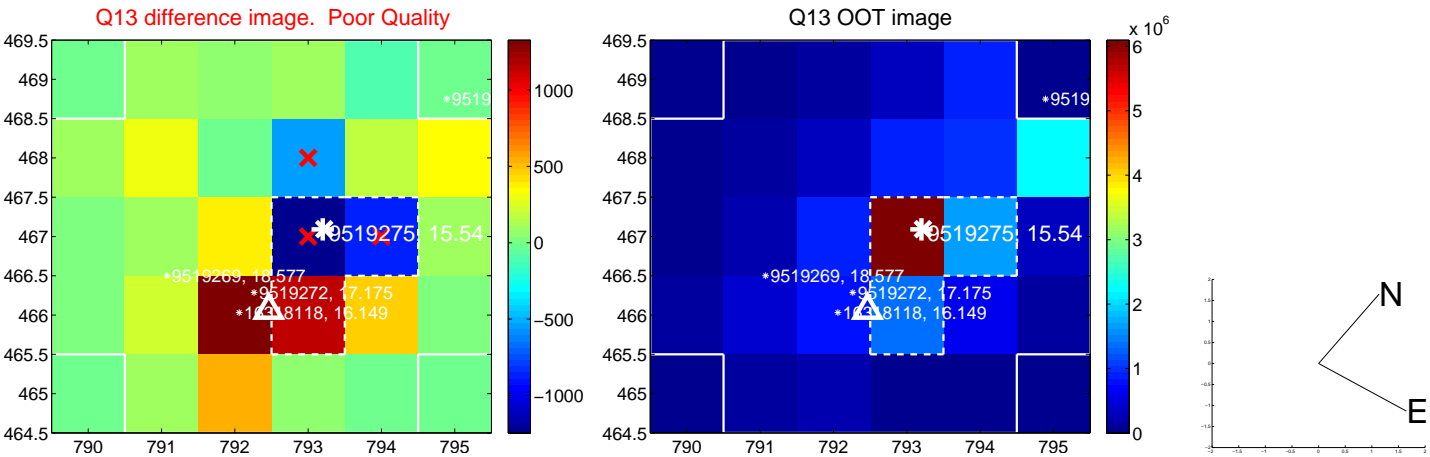
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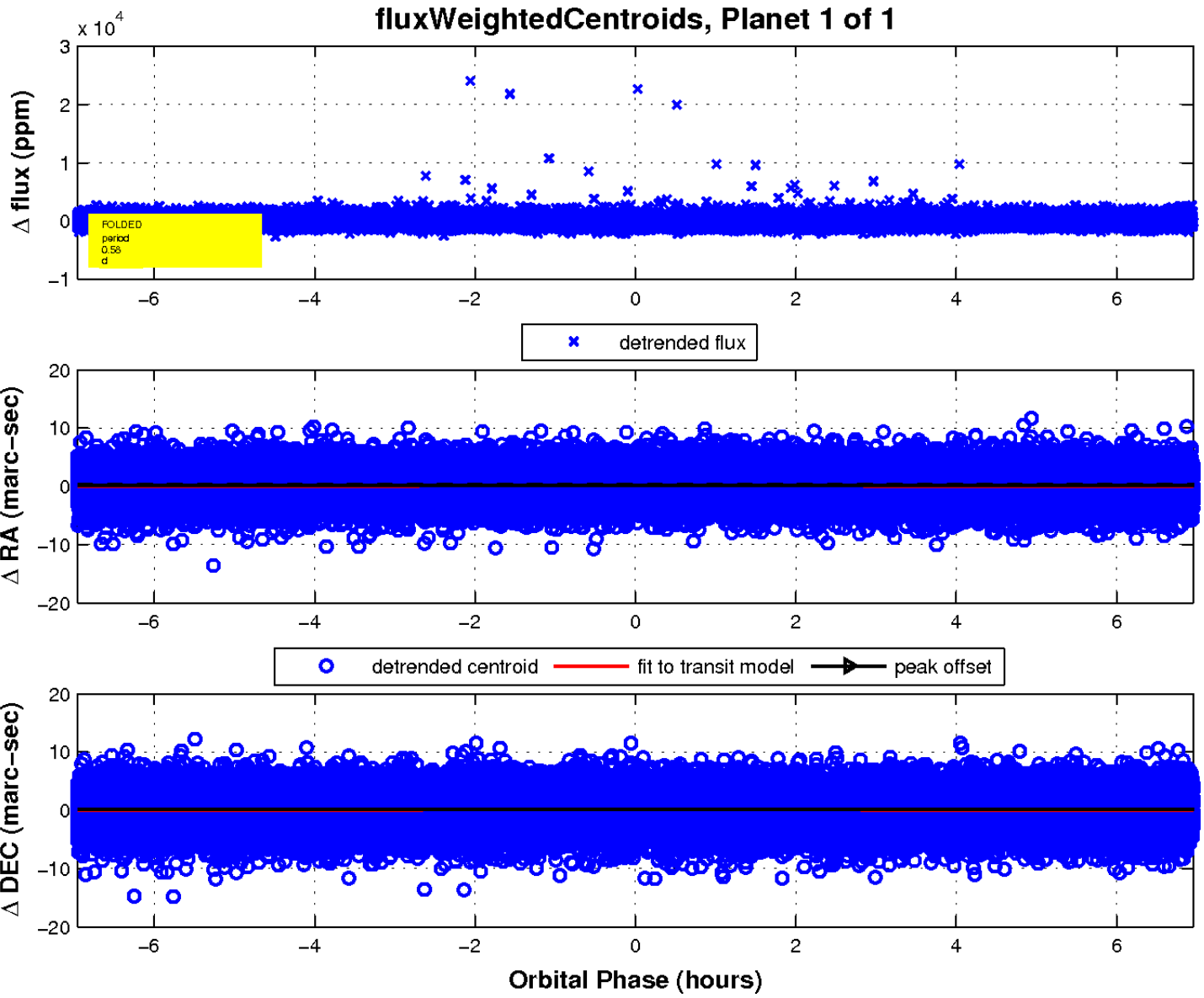
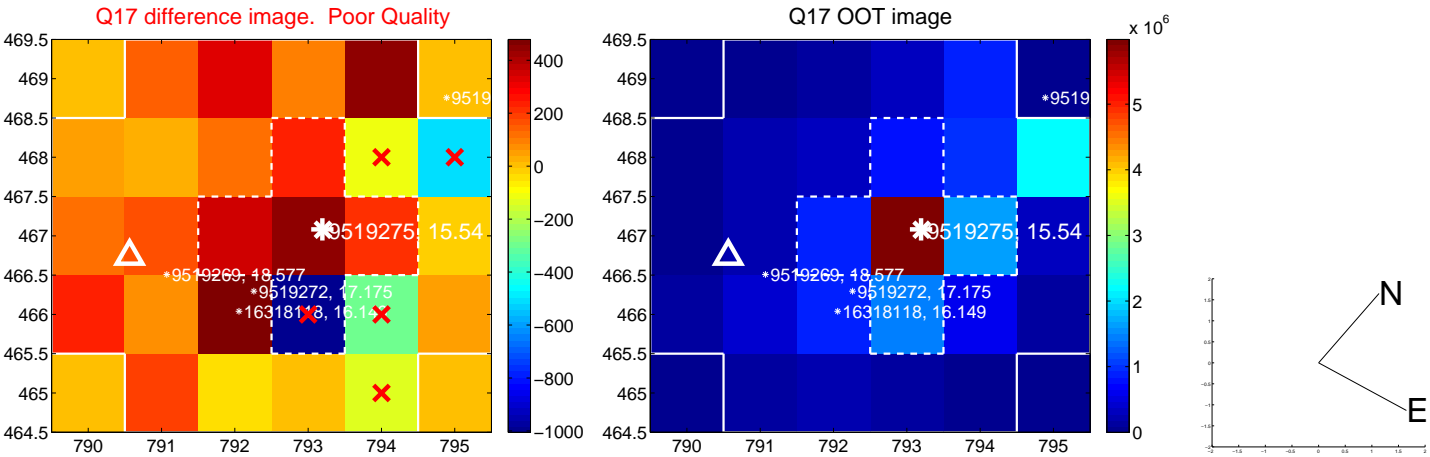
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

