

KIC 009304367

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})
009304367-01	OBS	No	0.807924	131.711028	28.9	7.285	8.5	6.3	9.90	6674	5.36	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009304367-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

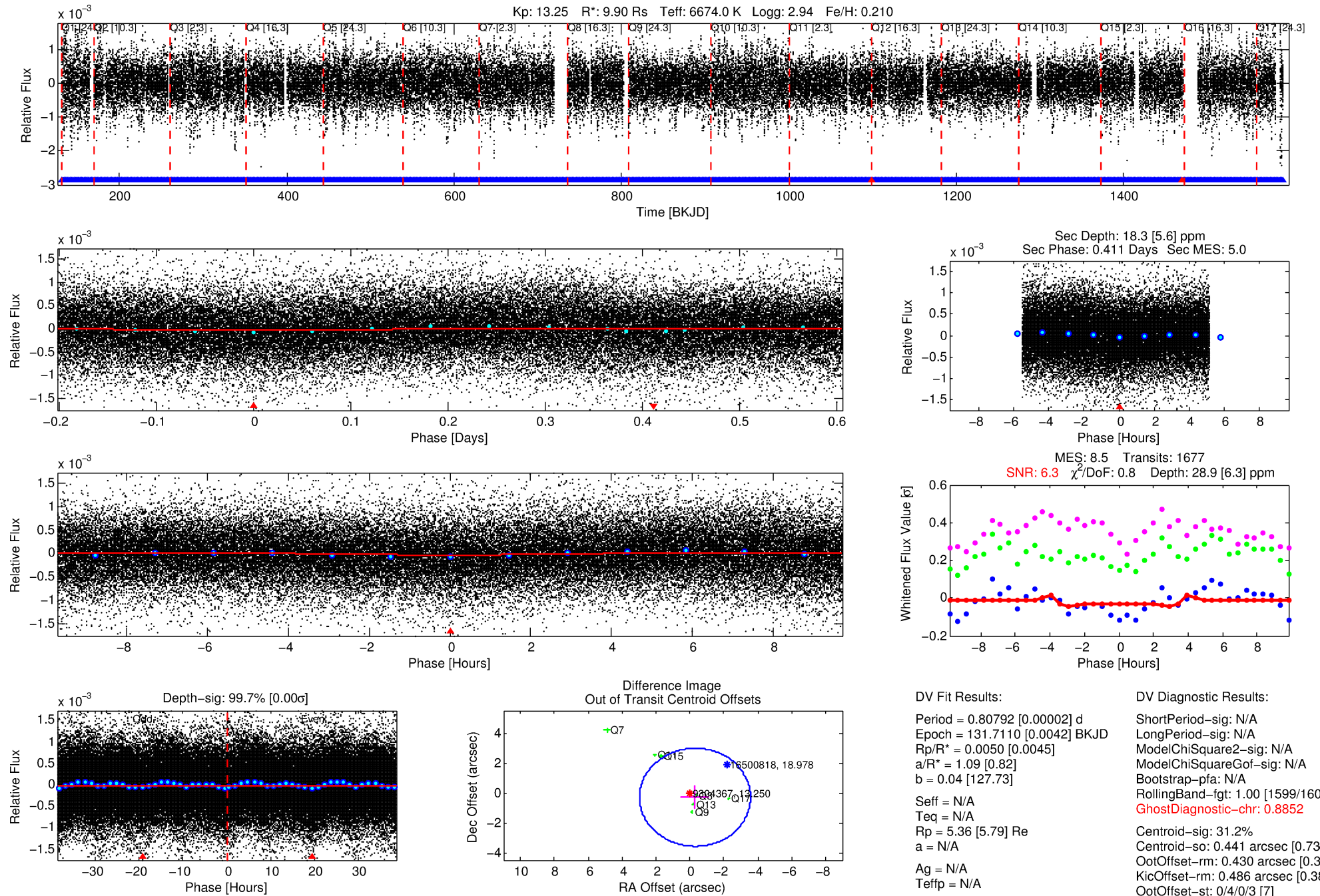
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009304367-01

No Significant Match Found

DV One-Page Summary

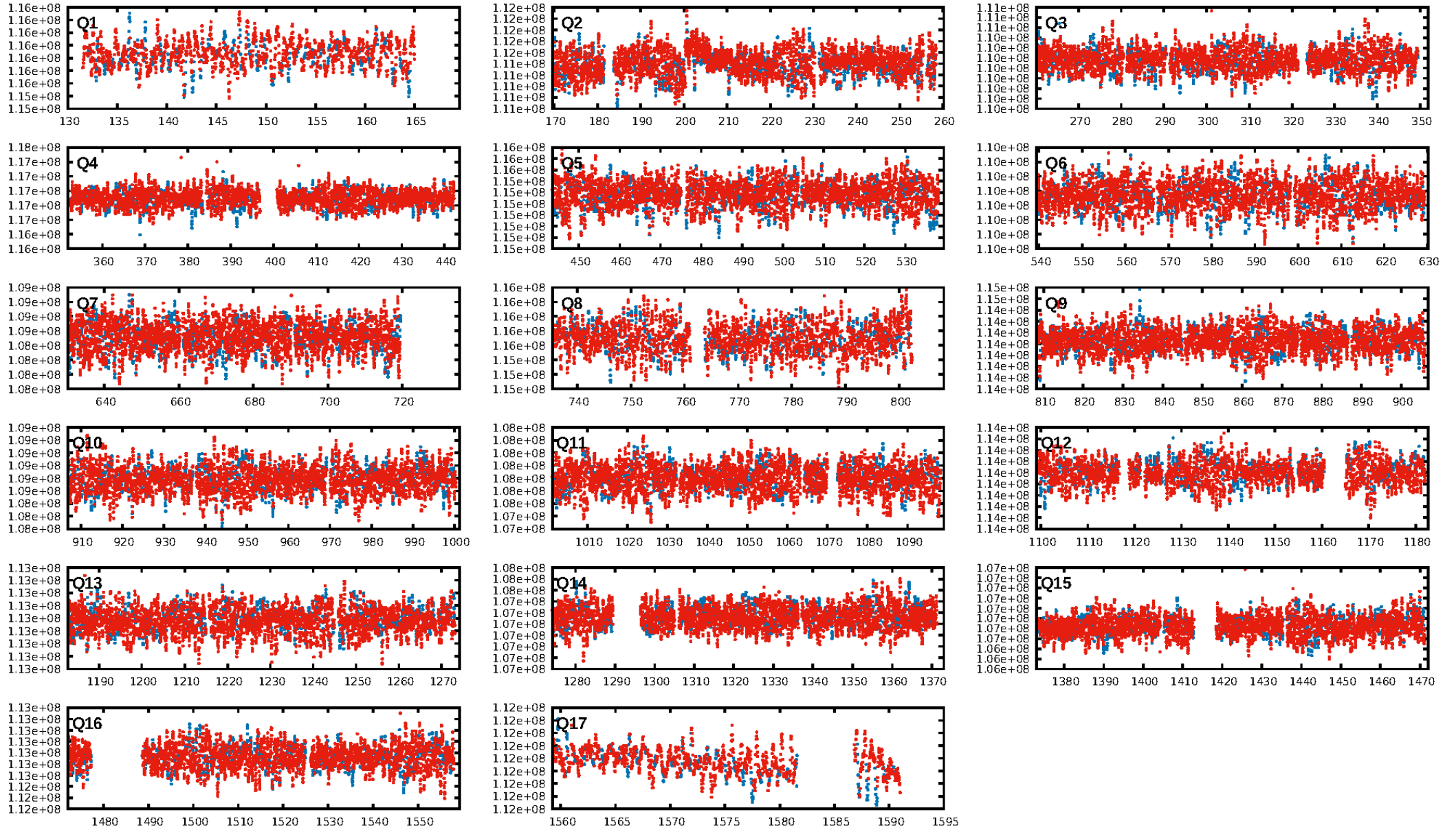
KIC: 9304367 Candidate: 1 of 1 Period: 0.808 d



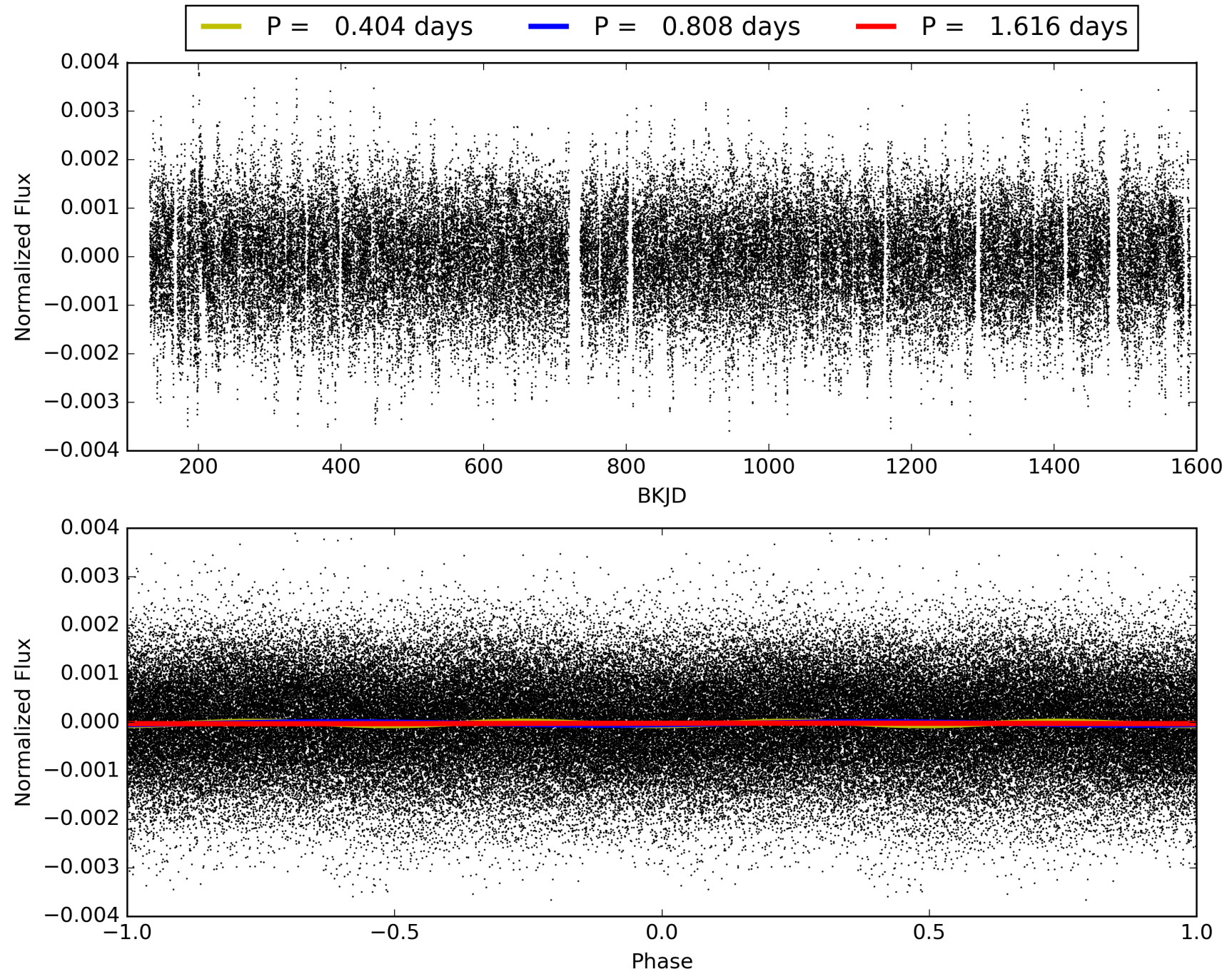
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:05:18 Z

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

TCE 009304367-01, PDC Light Curves

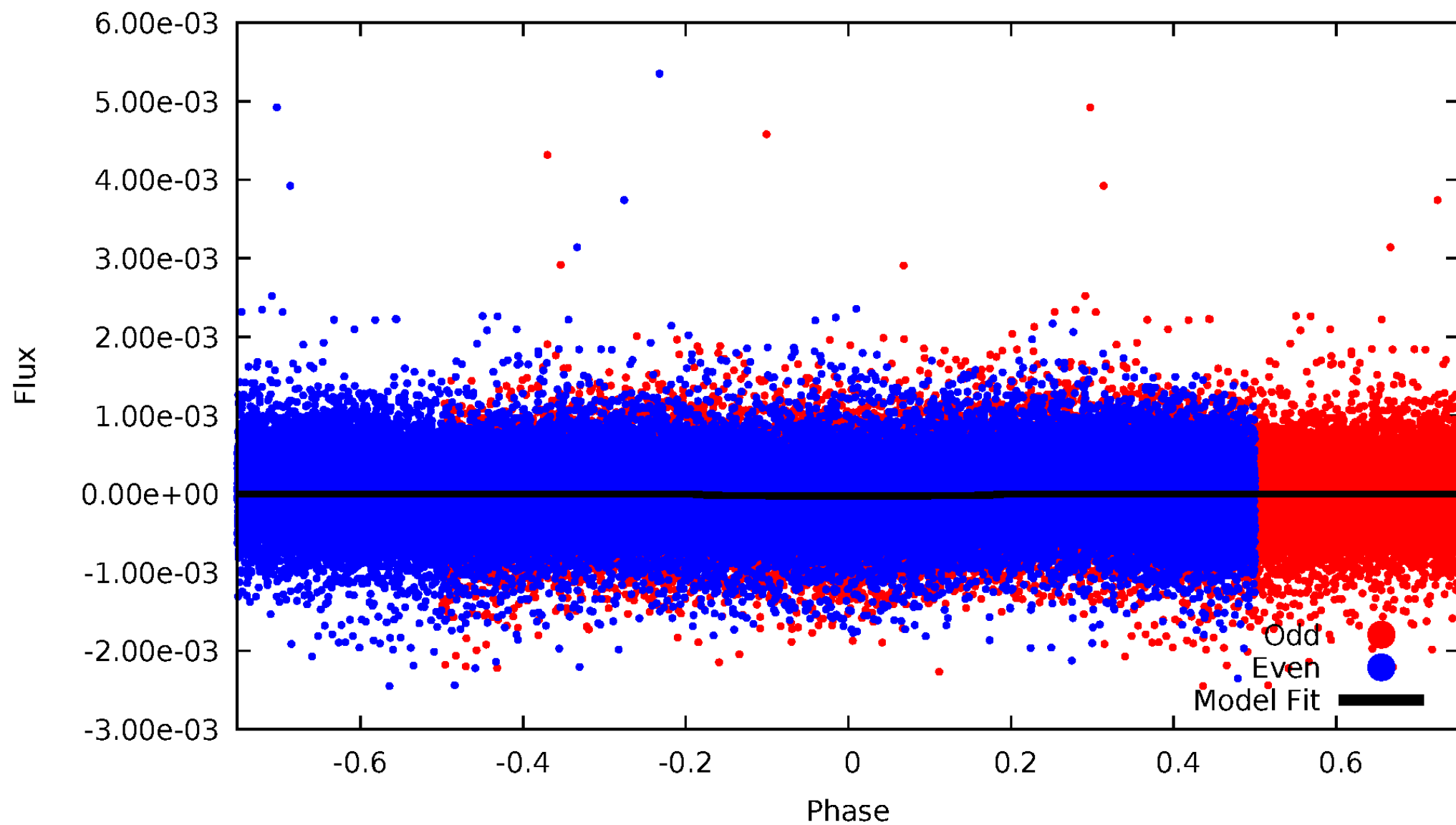


TCE 009304367-01



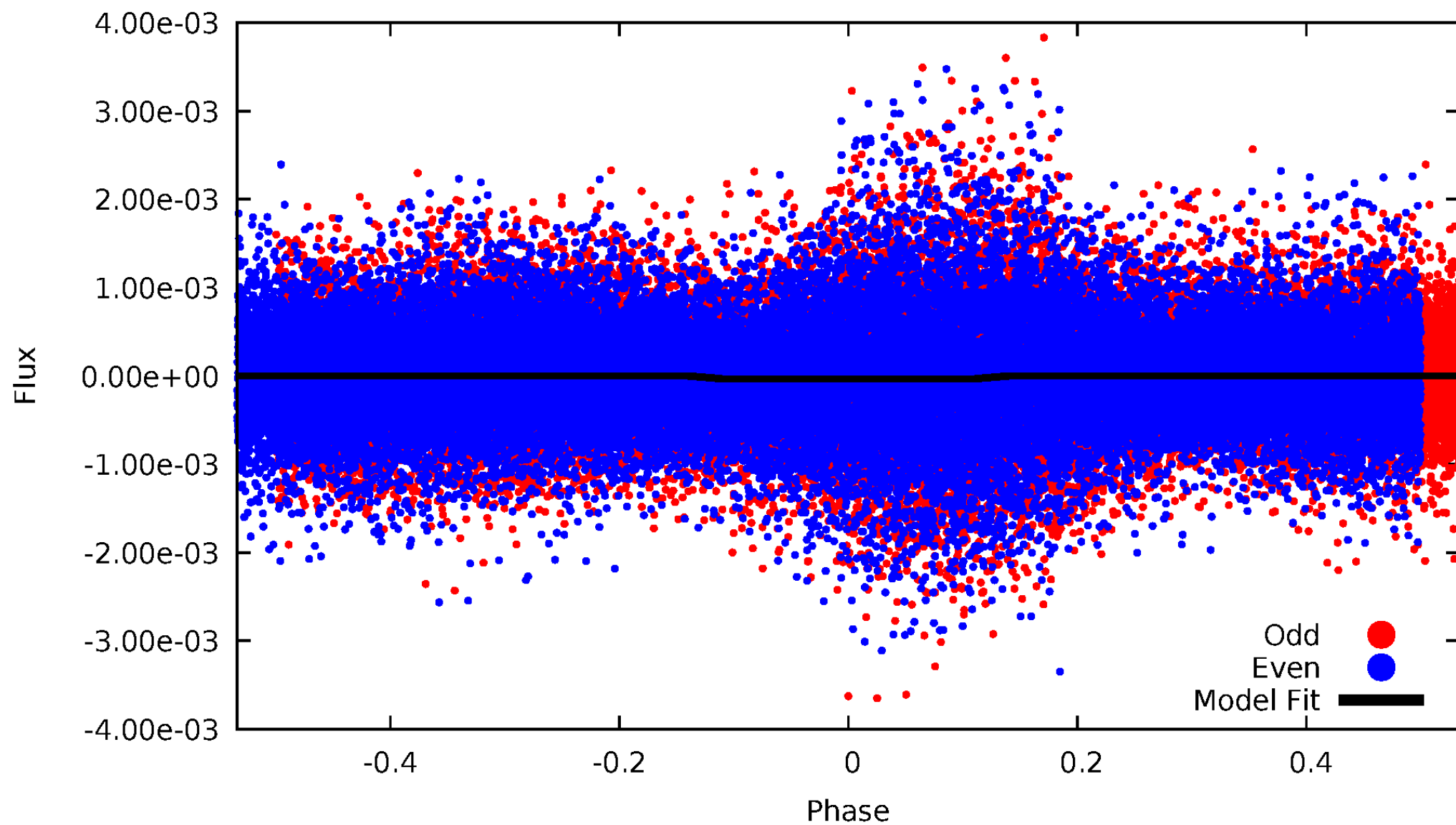
DV Odd/Even

TCE 009304367-01



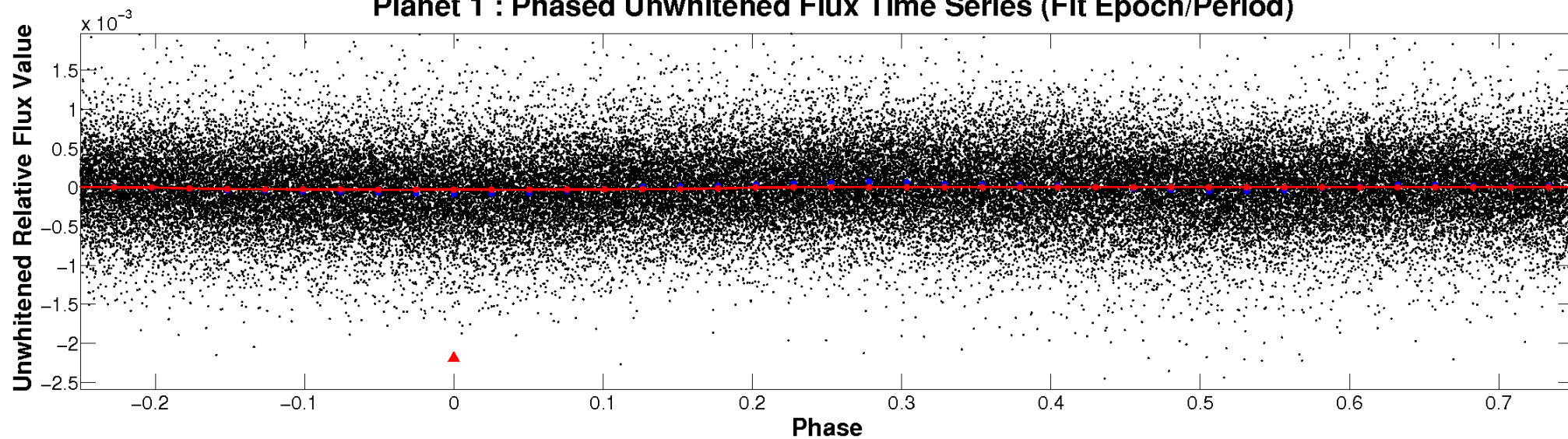
ALT Odd/Even

TCE 009304367-01

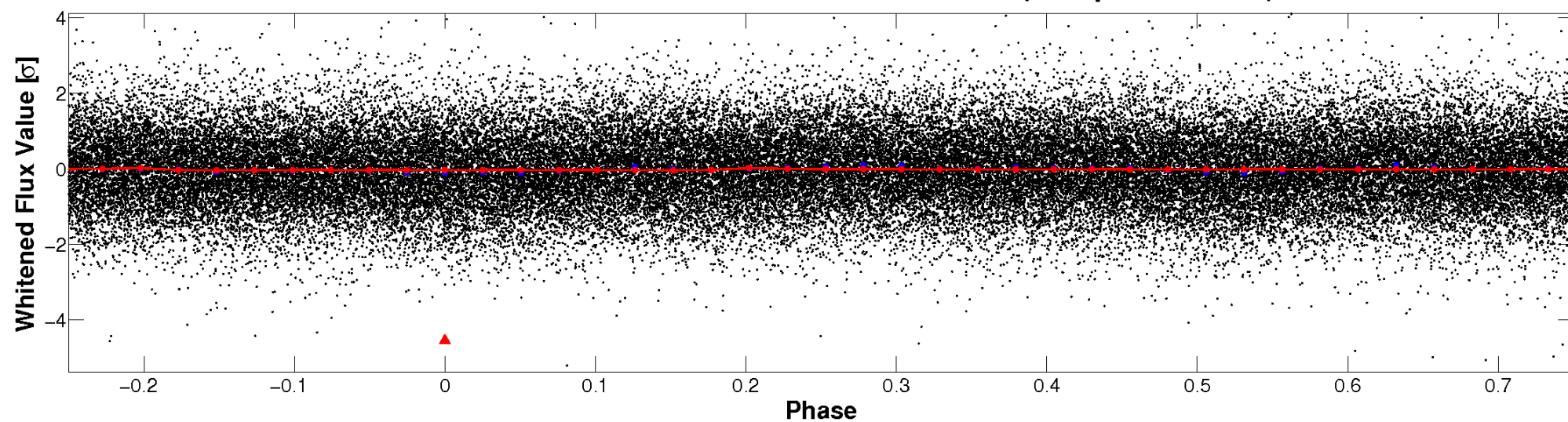


Non-Whitened Vs. Whitened Light Curve

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

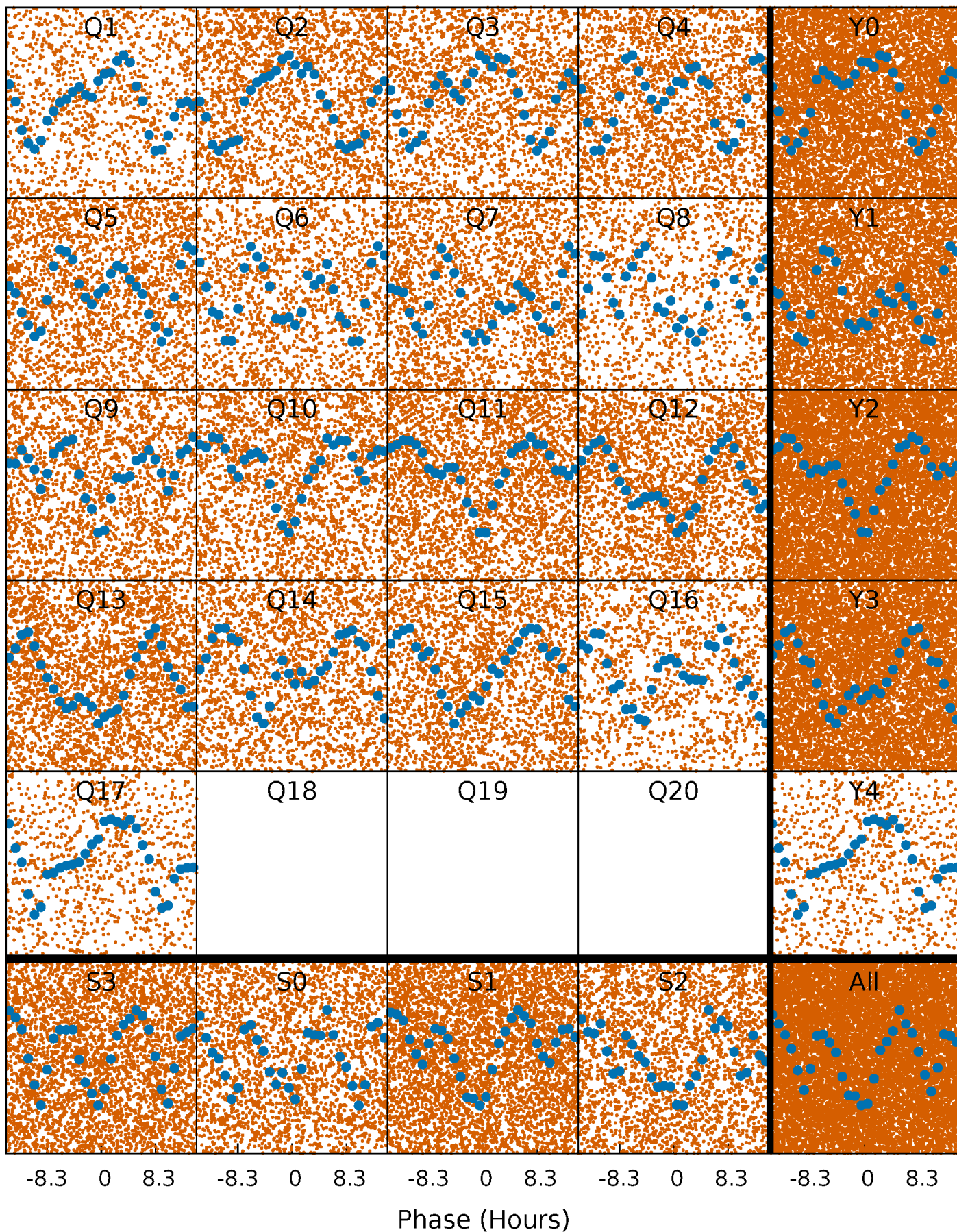


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



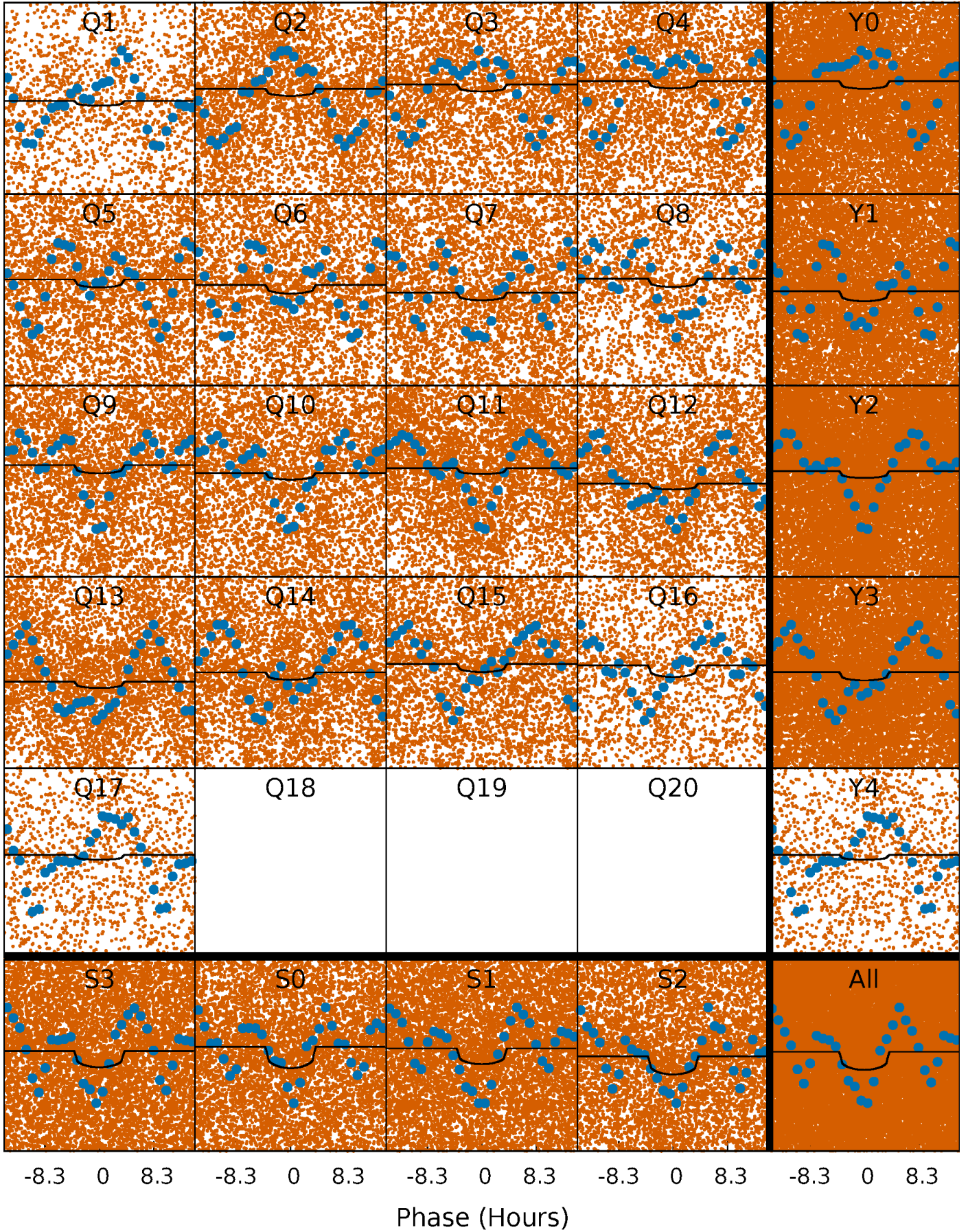
PDC Quarter-Phased Transit Curves

TCE 009304367-01 P= 0.807924 Days $T_0=131.711028$ (BKJD)



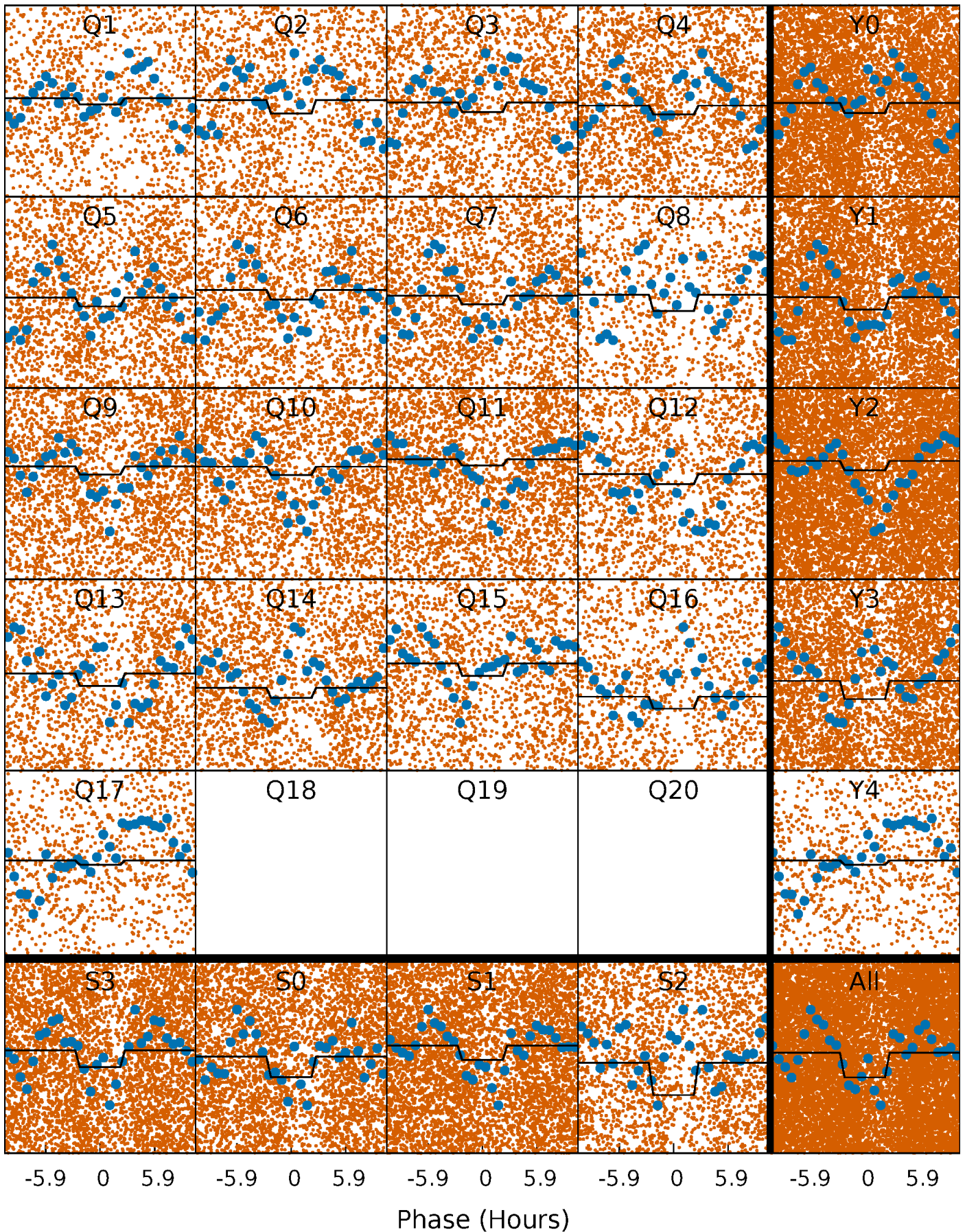
DV Quarter-Phased Transit Curves

TCE 009304367-01 P= 0.807924 Days $T_0=131.711028$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

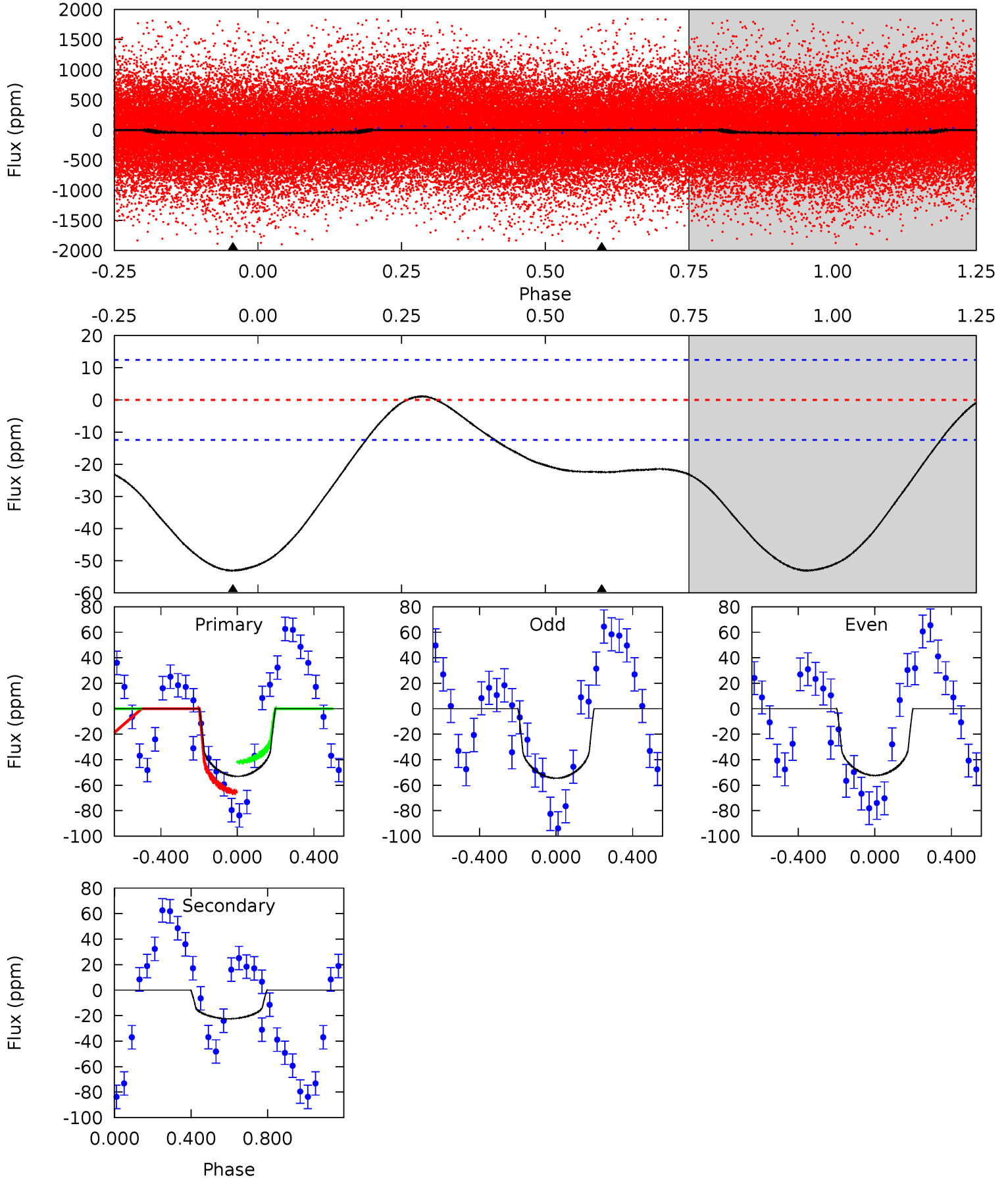
TCE 009304367-01 P= 0.807871 Days $T_0=131.704565$ (BKJD)



DV Model-Shift Uniqueness Test

009304367-01, P = 0.807924 Days, E = 130.903104 Days

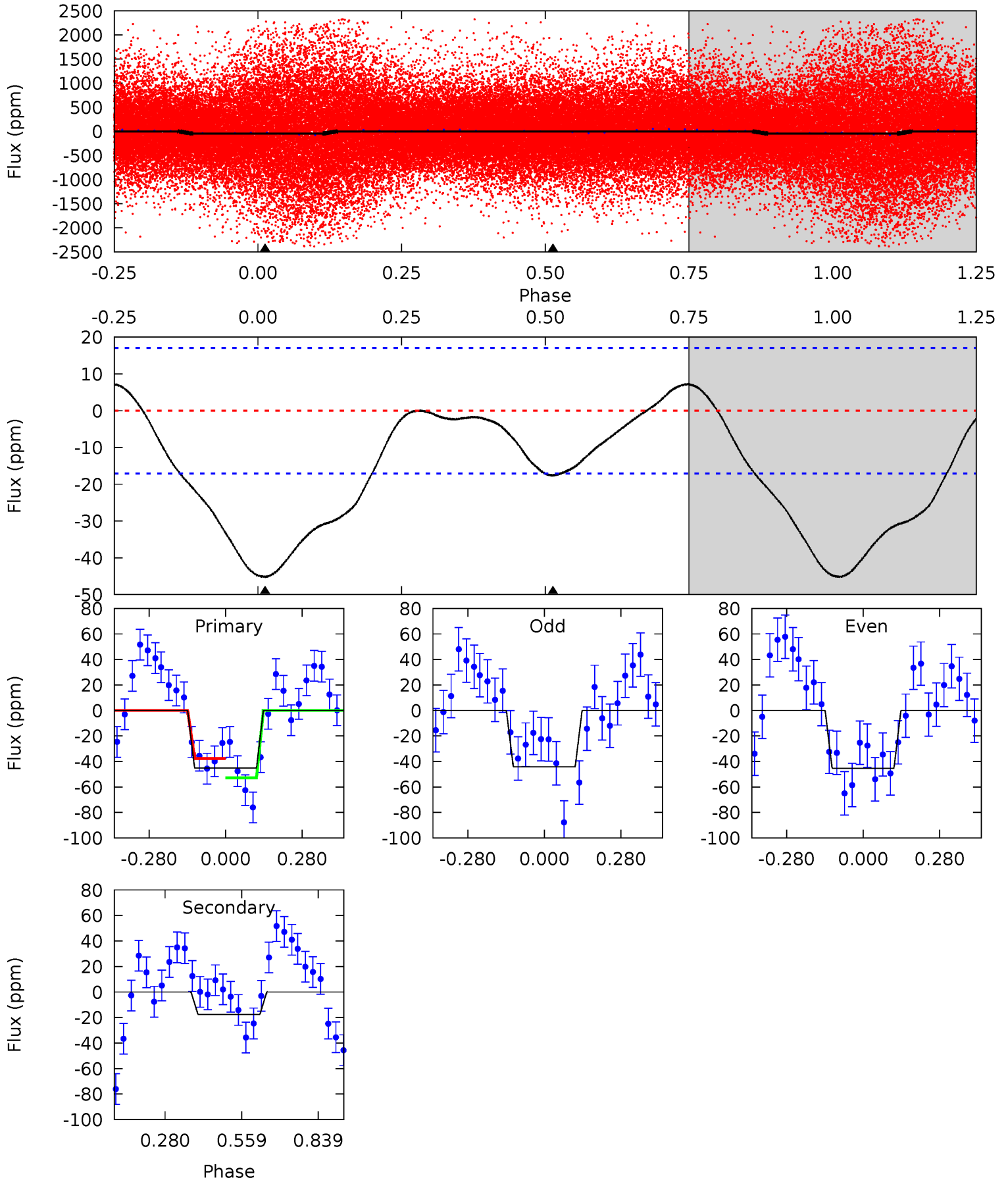
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	7.68	0	0	4.26	0.84	0.49	18.2	18.2	7.68	7.68	0.37	1.32	0.02	3.94



Alt Model-Shift Uniqueness Test

009304367-01, P = 0.807871 Days, E = 130.896694 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	4.48	0	0	4.34	1.08	0.99	11.5	11.5	4.48	4.48	0.14	0.90	0.14	1.92



Stellar Parameters For KIC 009304367

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6674^{+161}_{-277}	$2.941^{+0.639}_{-0.071}$	$0.210^{+0.150}_{-0.250}$	$9.900^{+1.479}_{-5.915}$	$3.117^{+0.196}_{-1.108}$	$0.005^{+0.042}_{-0.001}$
	+2%/-4%	+22%/-2%	+71%/-119%	+15%/-60%	+6%/-36%	+939%/-24%
Source	PHO1	FLK73	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 009304367-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-22 ± 3	$5.23^{+4.11}_{-3.17}$	7789^{+624}_{-1100}	-3728^{+13178}_{-2248}	$0.270^{+1.390}_{-0.185}$
Alt.	-18 ± 4	$5.37^{+4.59}_{-3.30}$	7738^{+696}_{-1237}	-4662^{+12842}_{-1626}	$0.198^{+1.162}_{-0.142}$

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 $A_{obs} \gg 1.0$

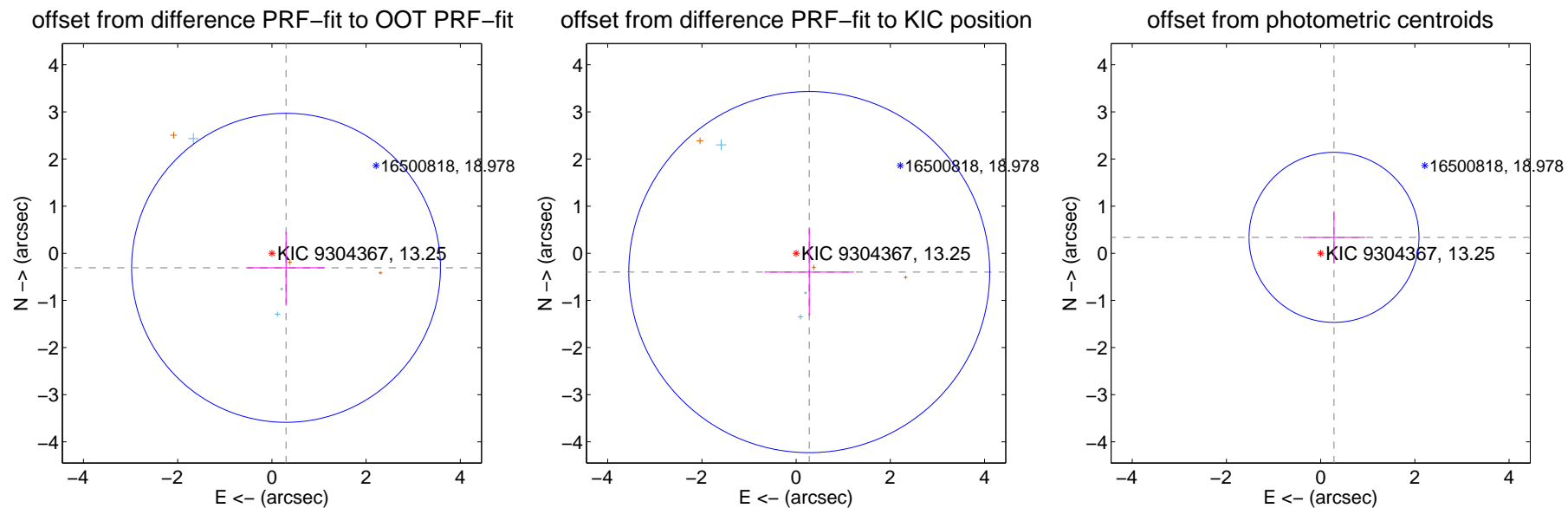
DV Centroid Data

Supplemental centroid analysis for 009304367-01. Kepler magnitude: 13.25. Transit SNR 6.34

There are 3 quarters with good PRF difference image offsets

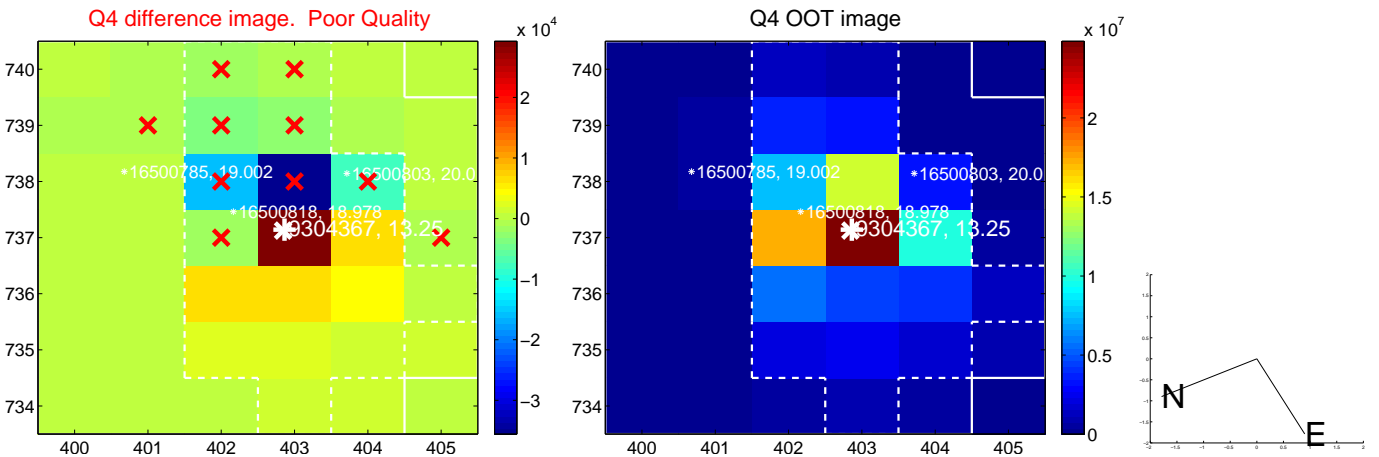
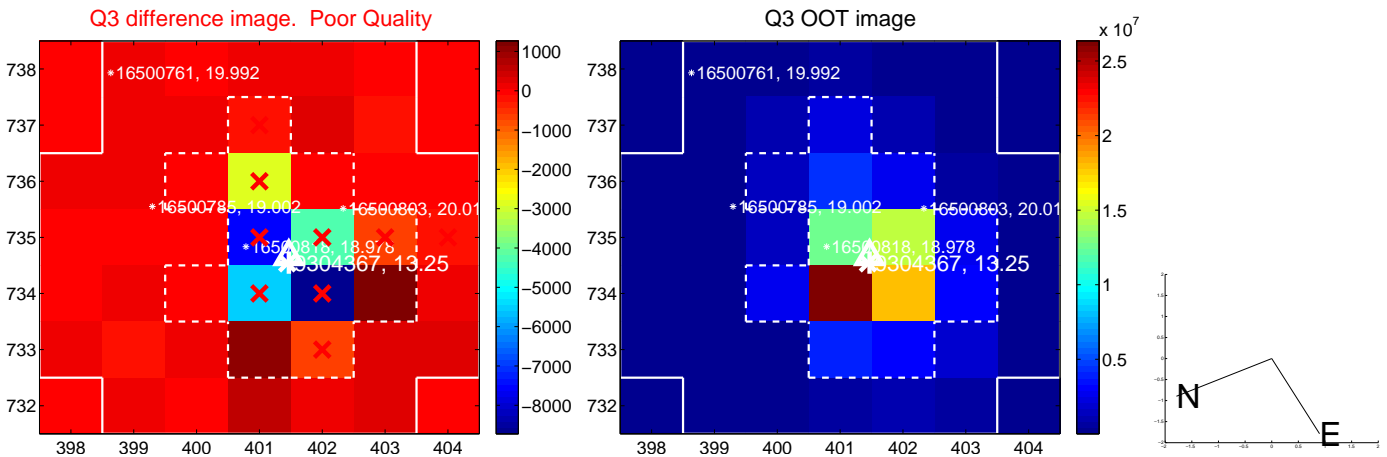
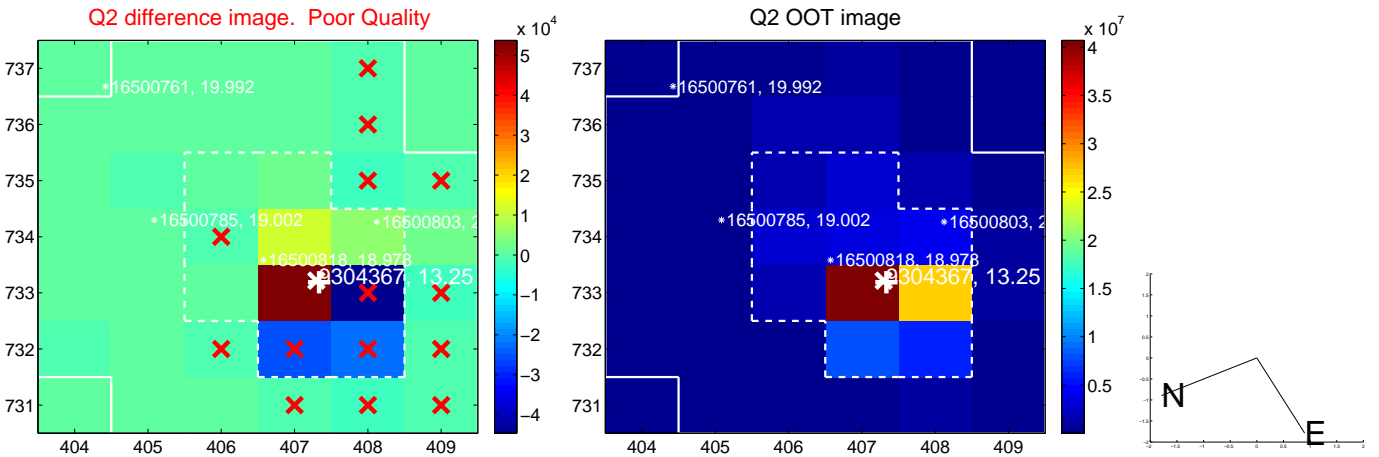
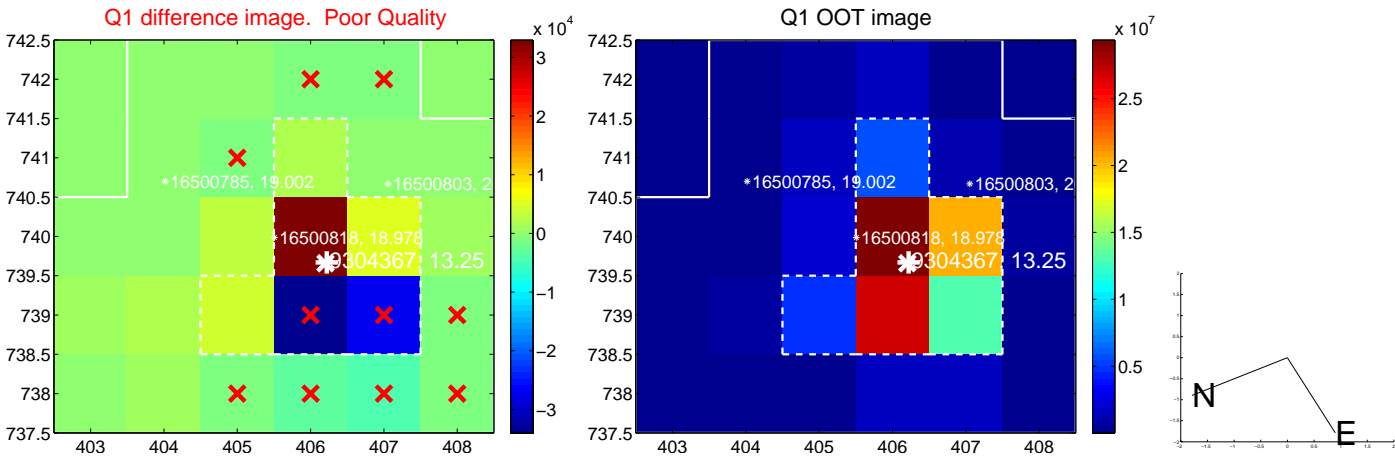
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.430 ± 1.092	0.39	-0.300 ± 0.820	-0.308 ± 0.764
PRF-fit source offset from KIC position	0.486 ± 1.277	0.38	-0.279 ± 0.949	-0.399 ± 0.924
photometric centroid source offset	0.44 ± 0.60	0.73	-0.28 ± 0.66	0.34 ± 0.56

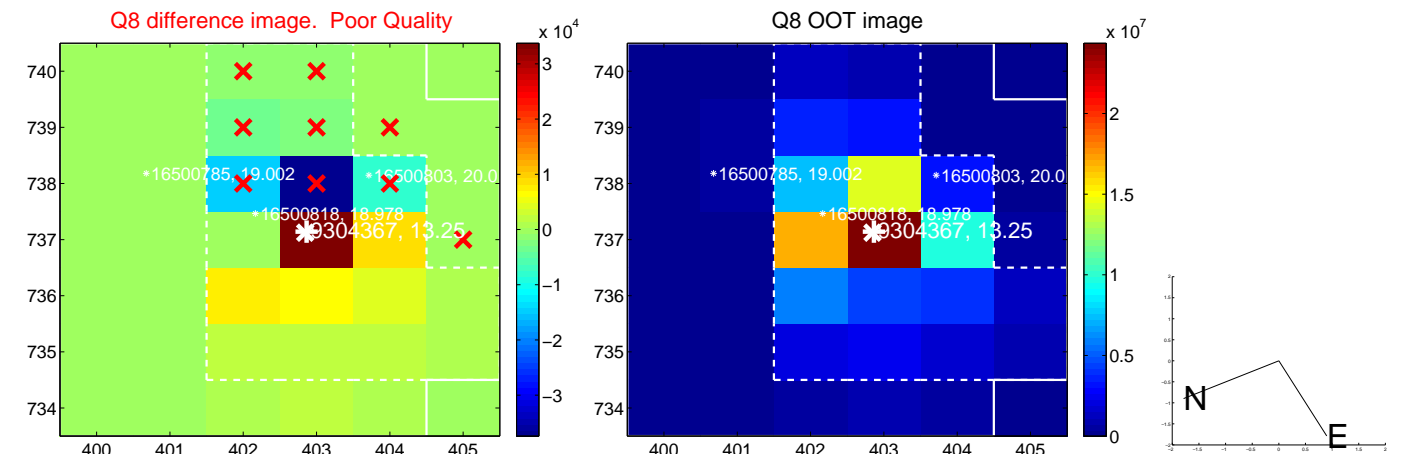
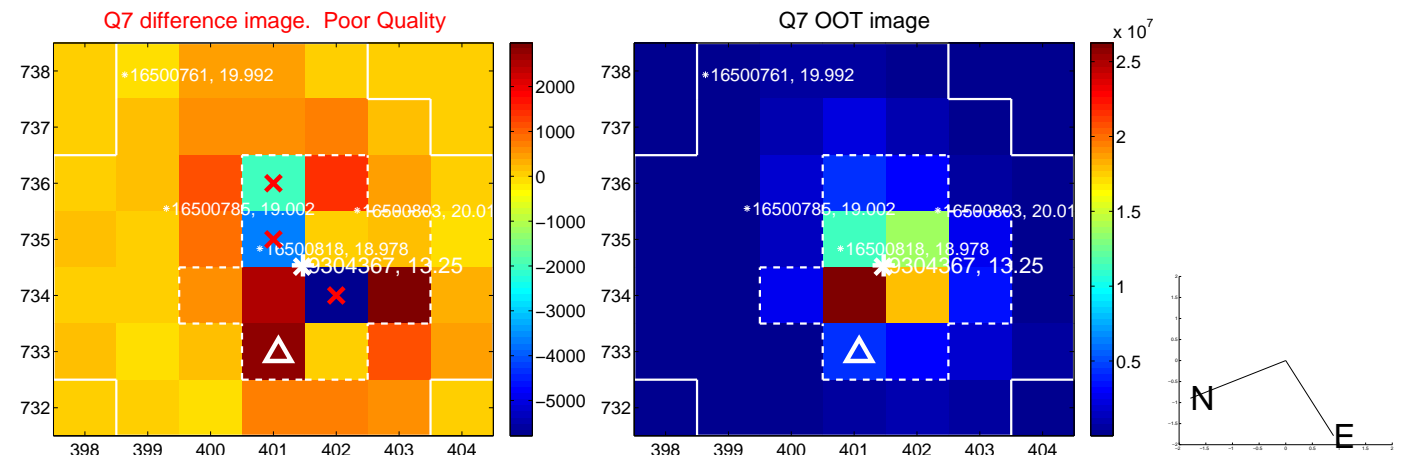
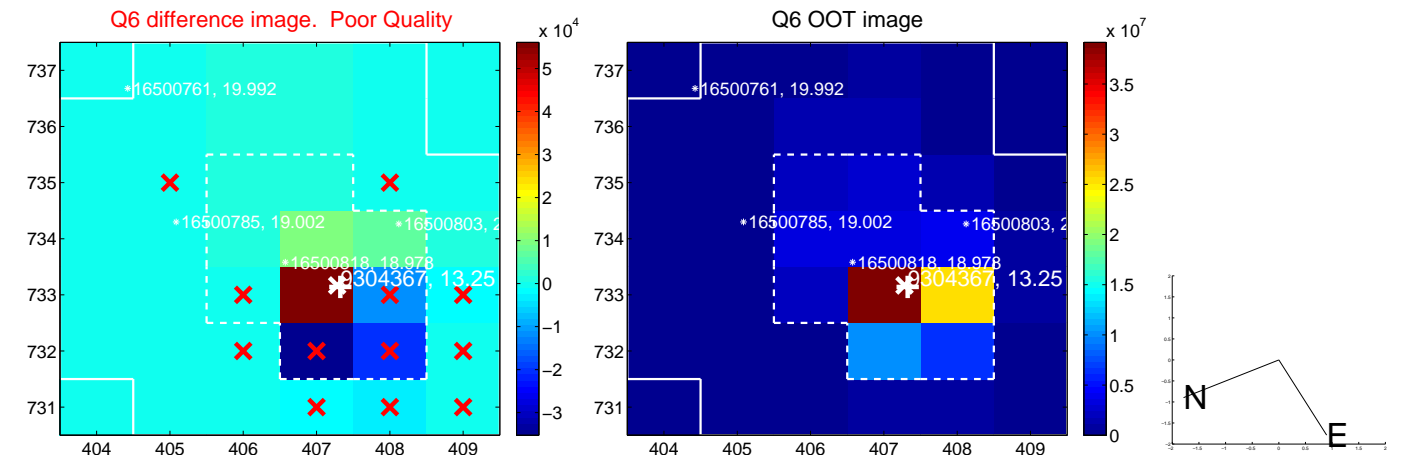
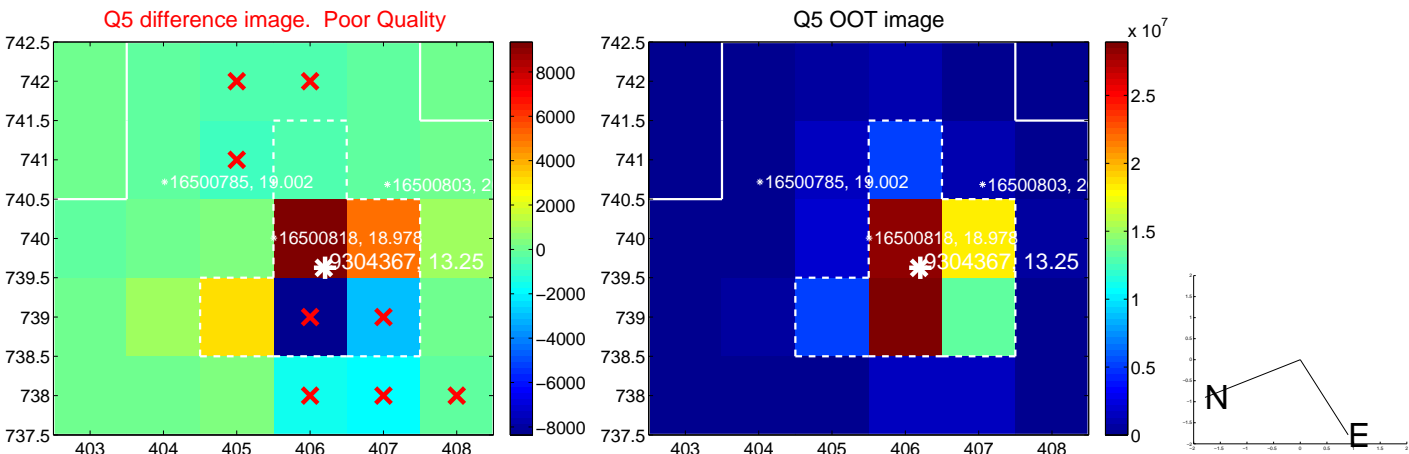


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

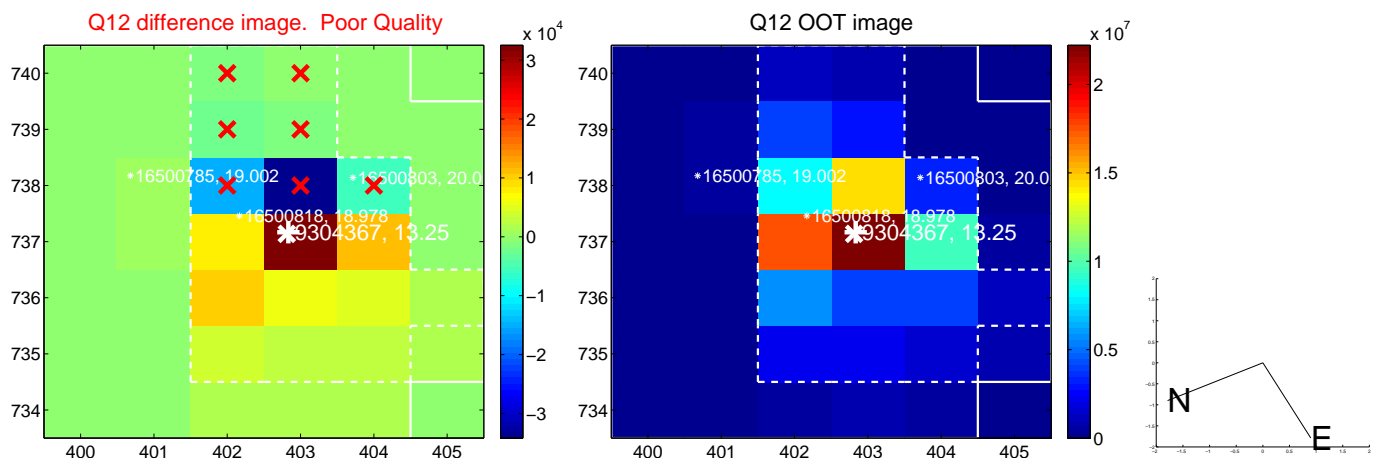
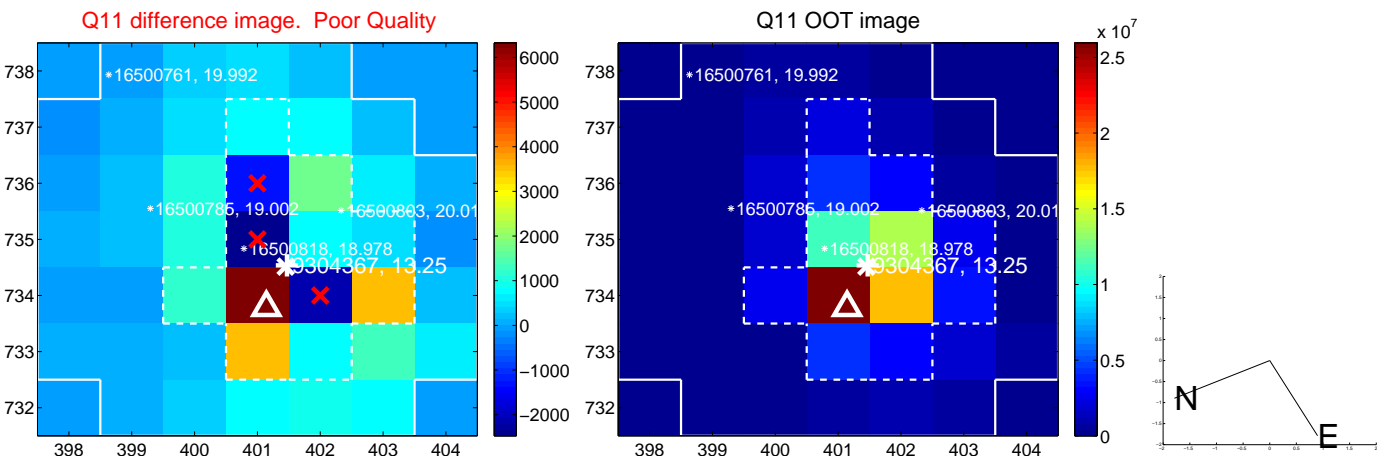
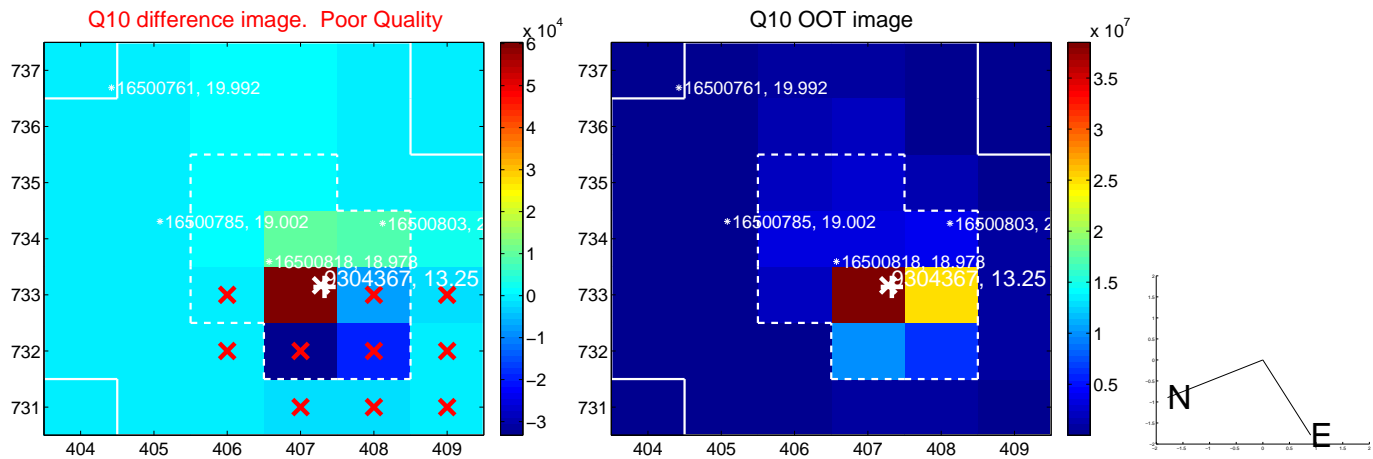
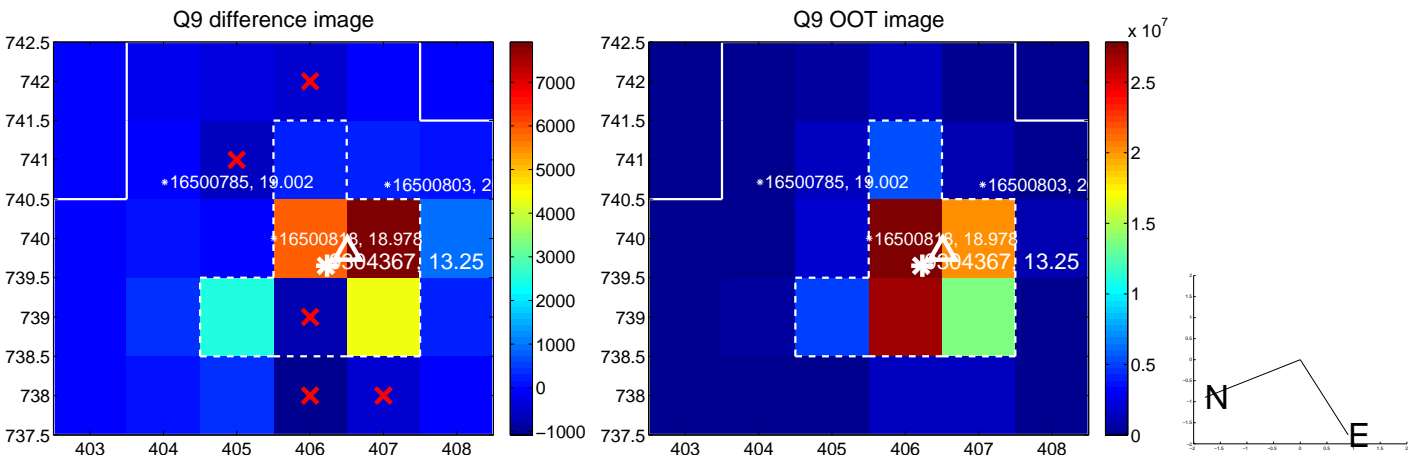
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



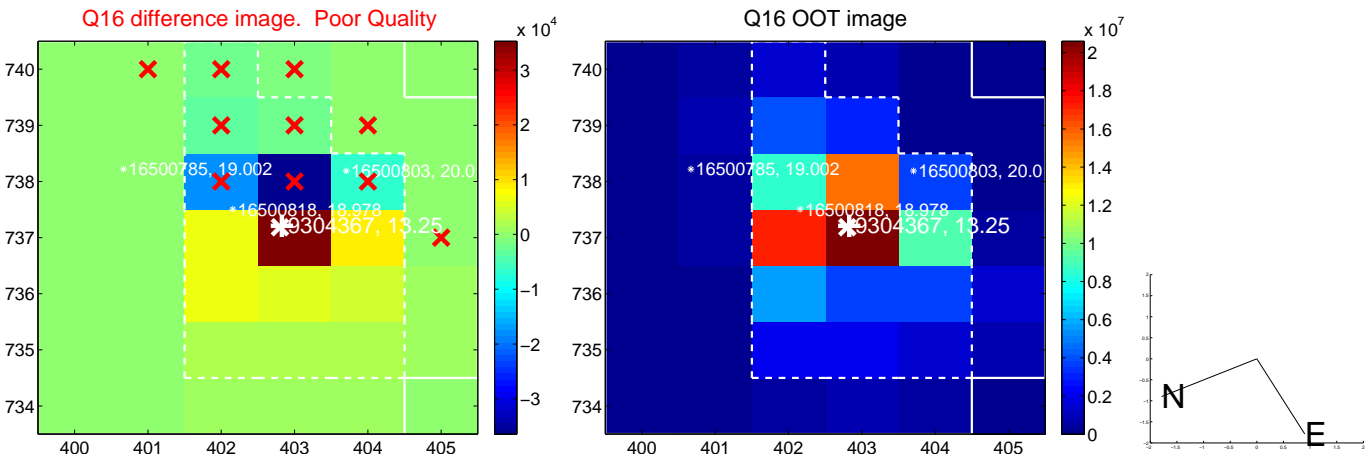
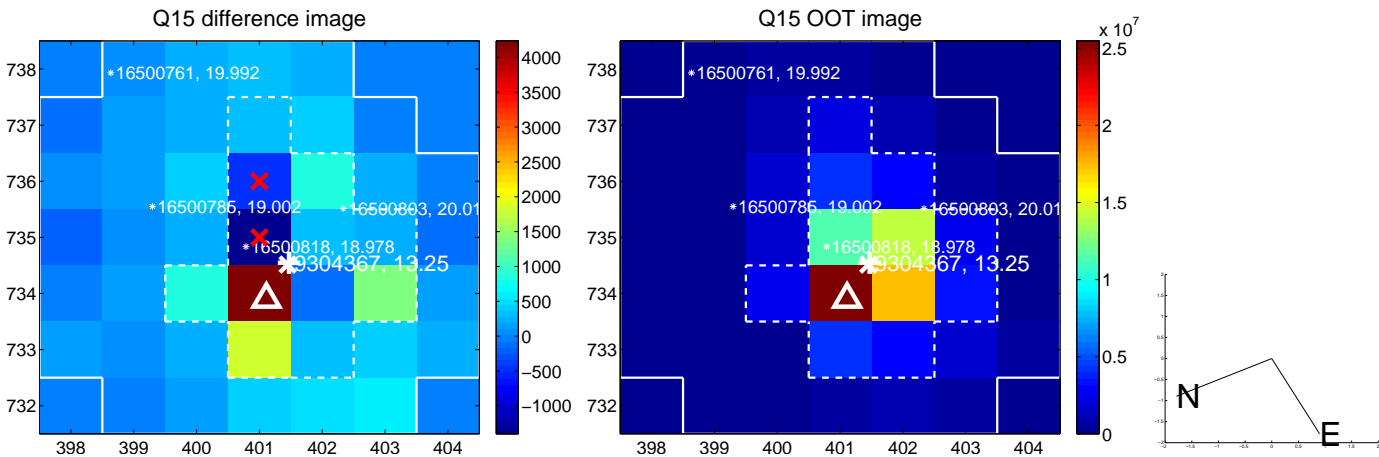
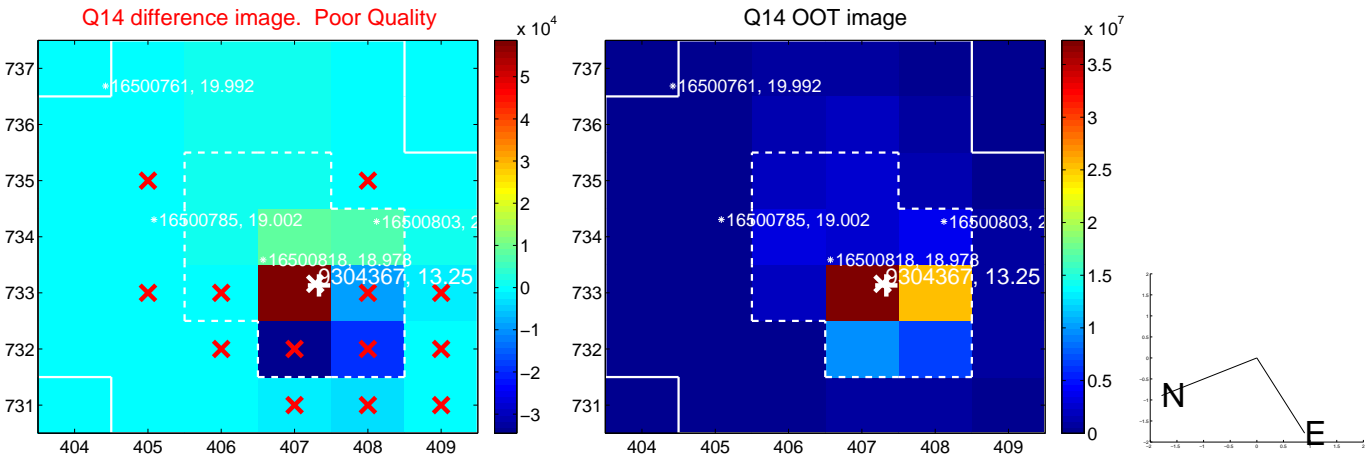
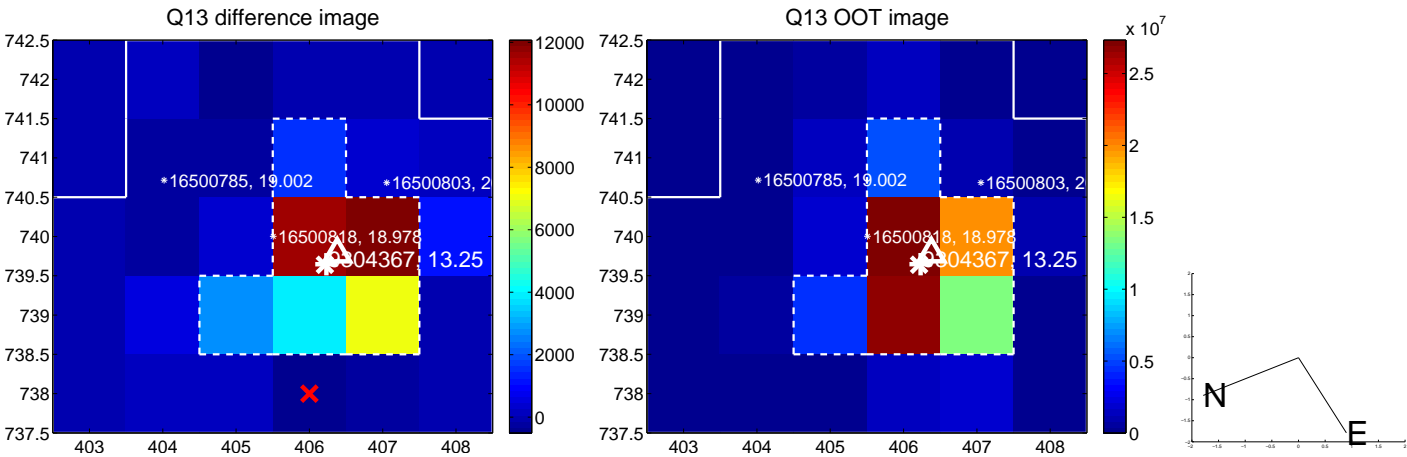
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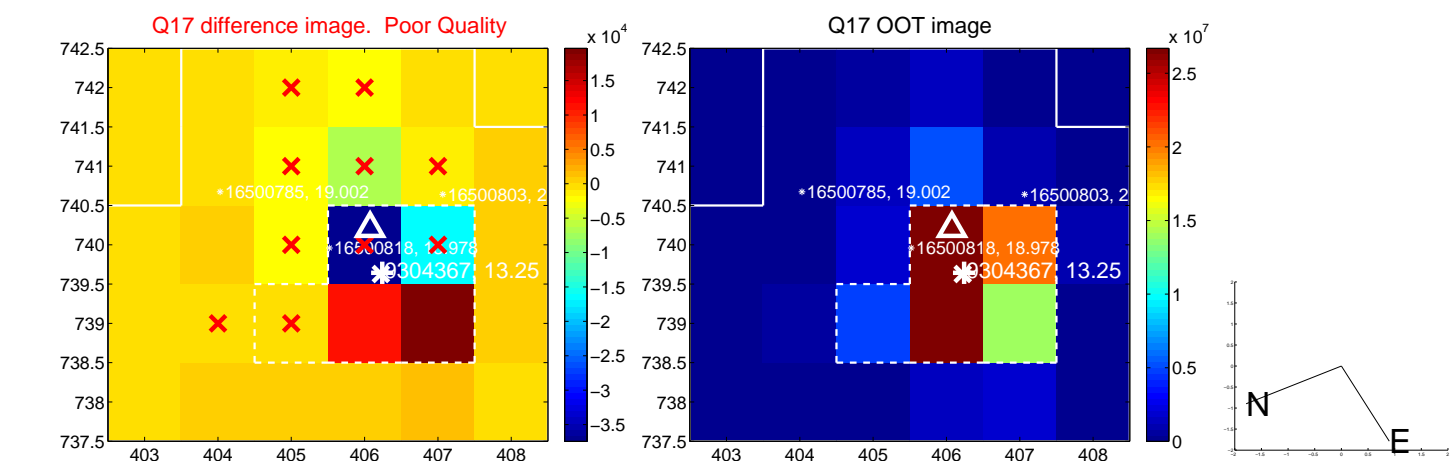
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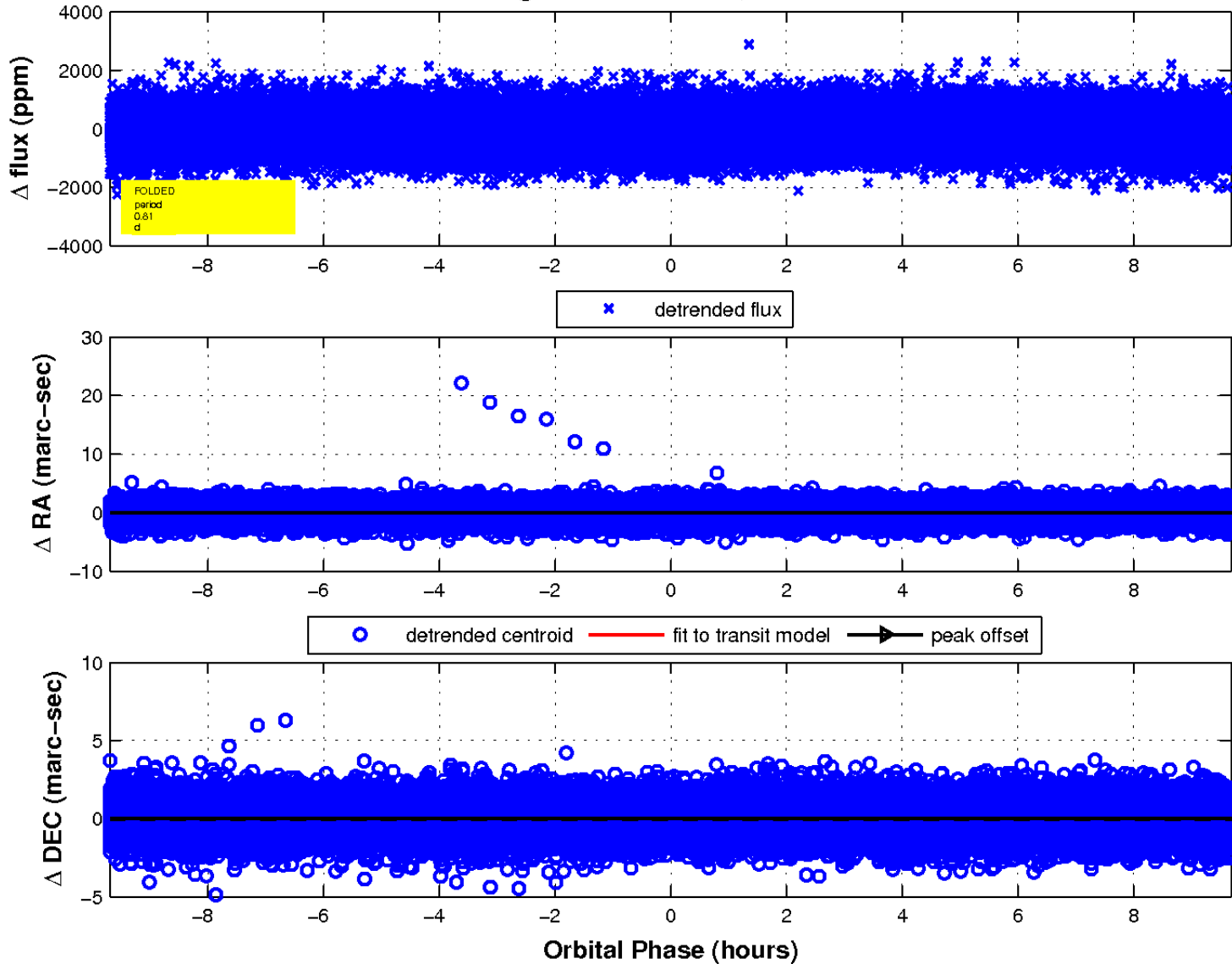
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

