

KIC 009308289

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})
009308289-01	OBS	No	3.375177	132.876833	51.8	20.616	8.5	8.8	0.94	6106	0.68	562.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009308289-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL — LPP_DV — MOD_NONUNIQ_DV

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

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

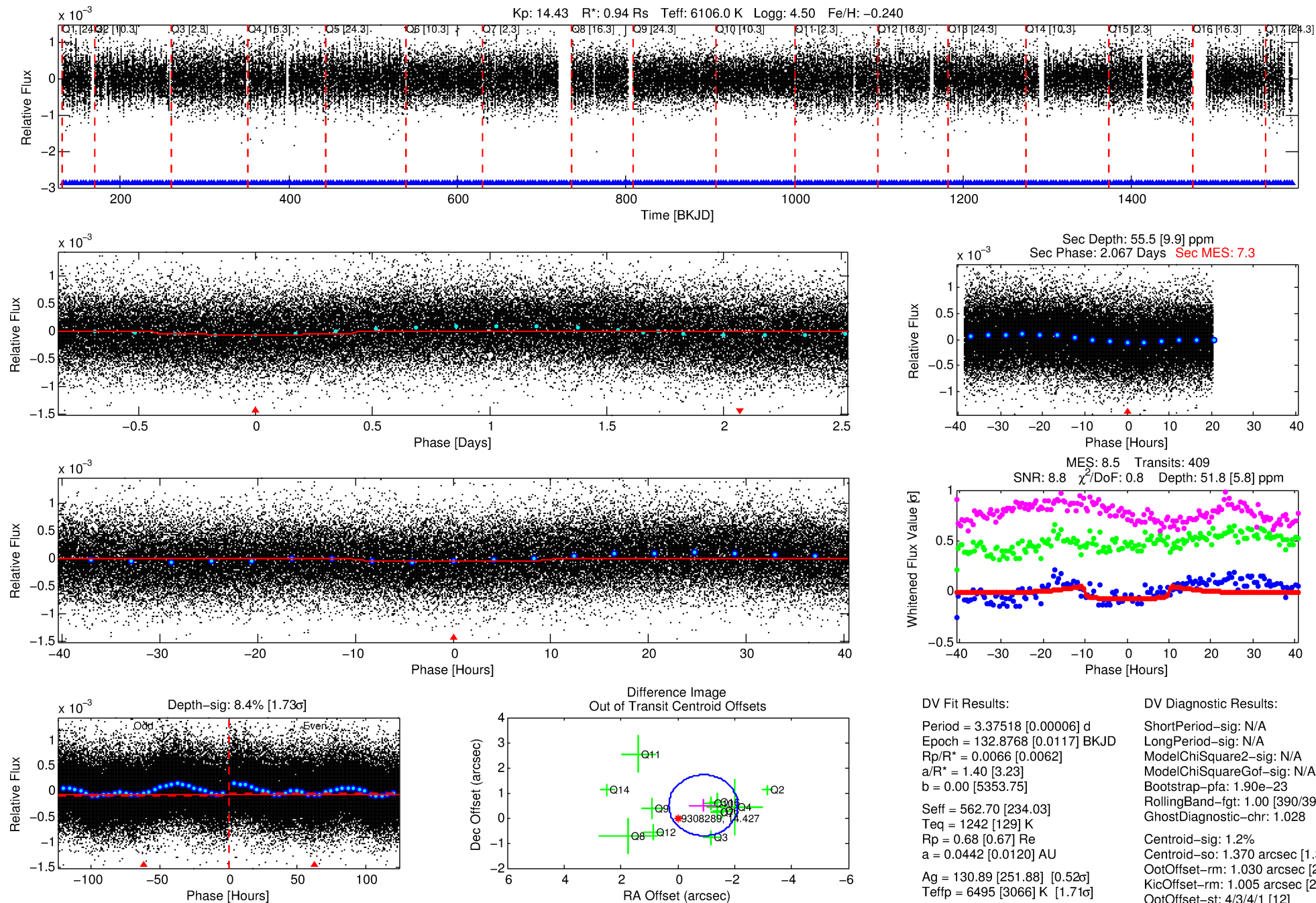
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009308289-01

No Significant Match Found

DV One-Page Summary

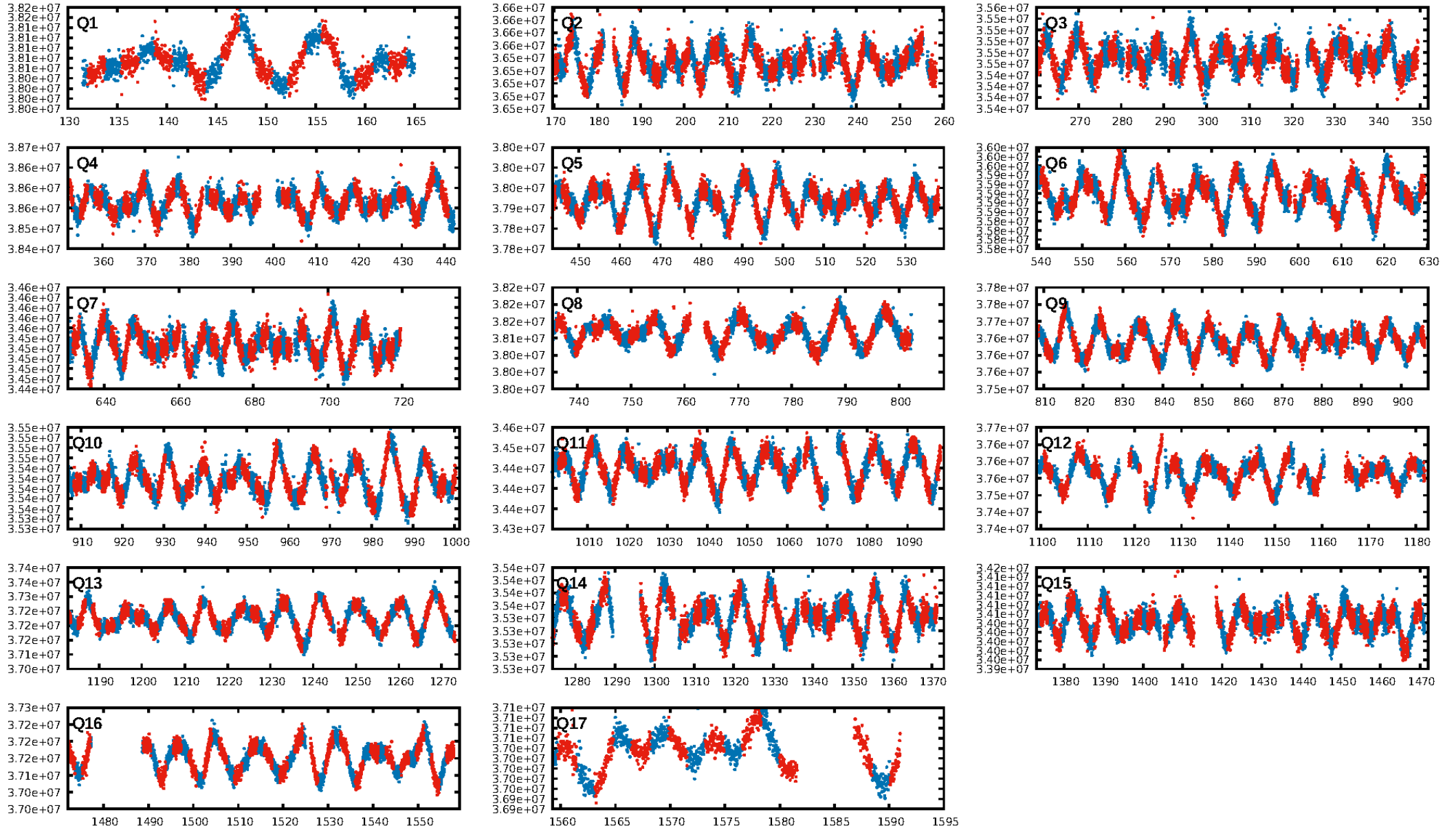
KIC: 9308289 Candidate: 1 of 1 Period: 3.375 d



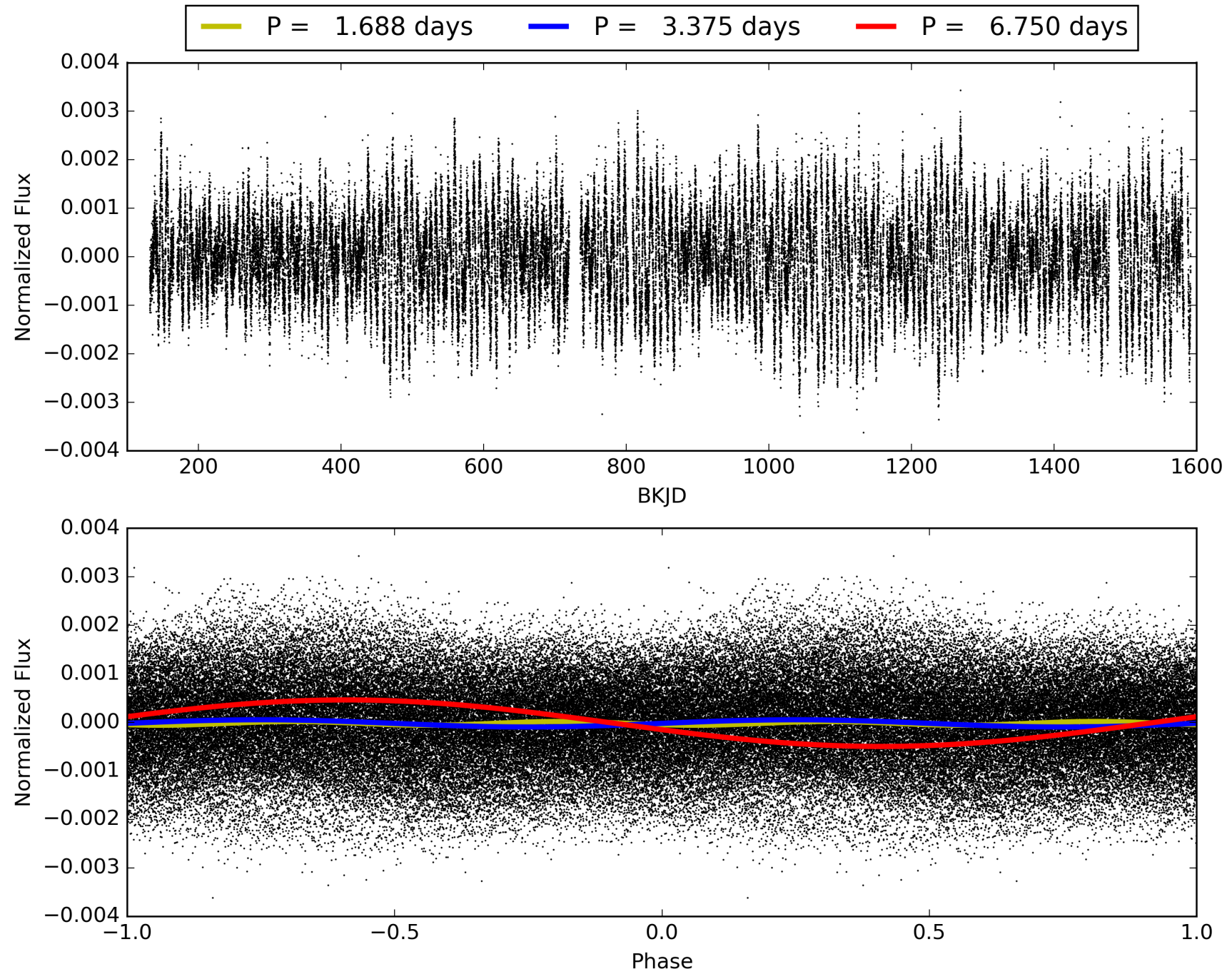
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:06:27 Z

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

TCE 009308289-01, PDC Light Curves

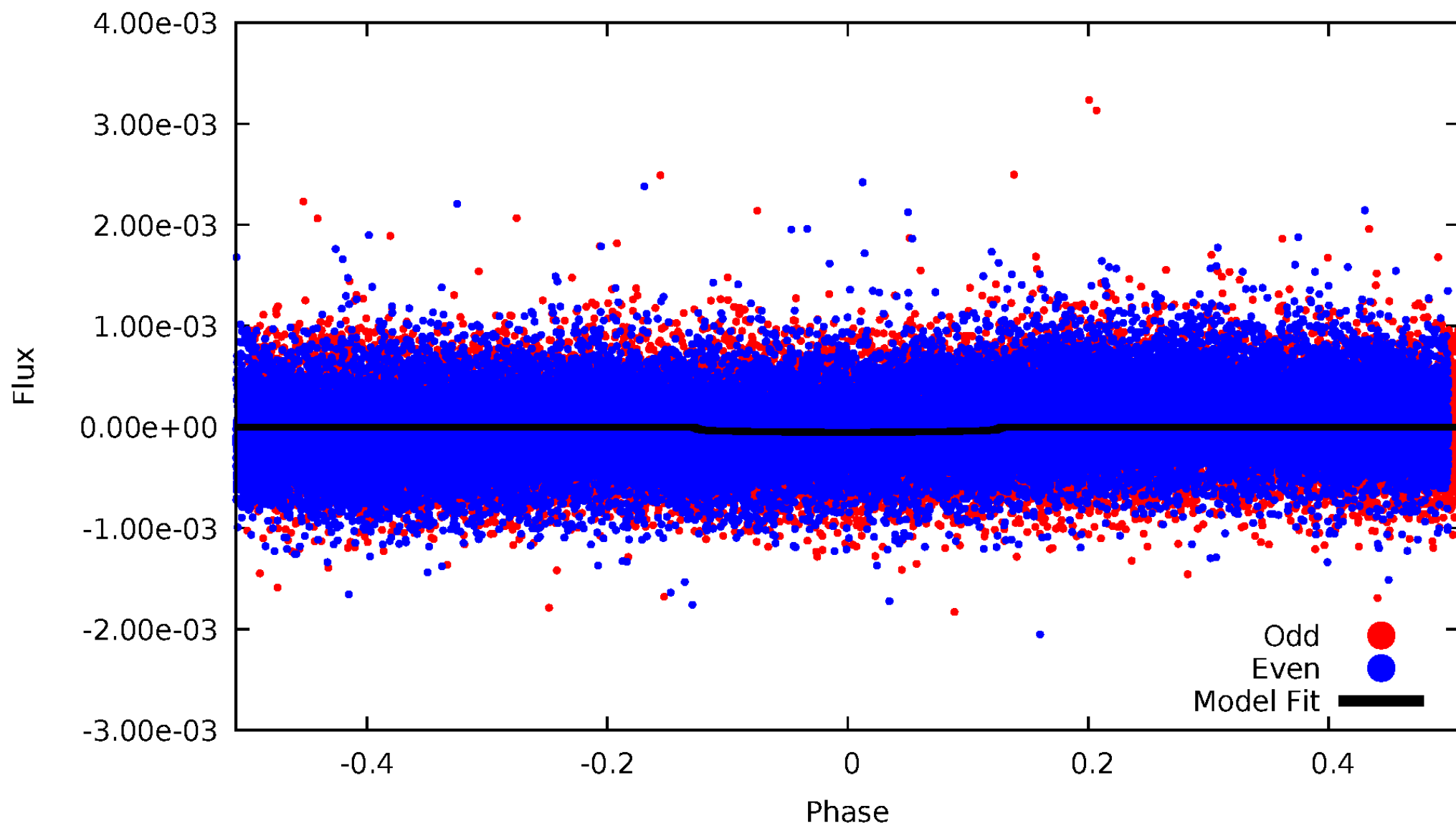


TCE 009308289-01



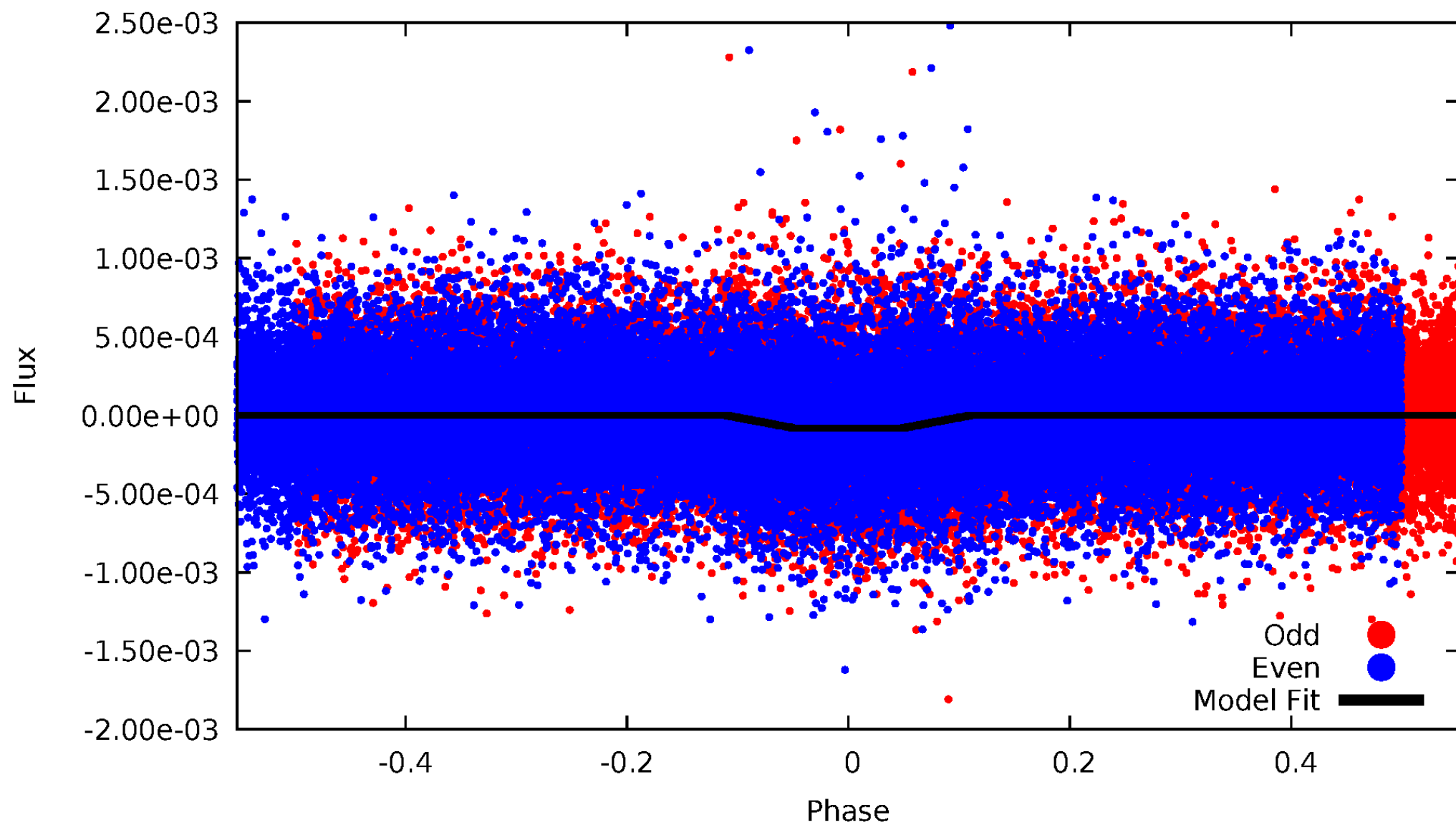
DV Odd/Even

TCE 009308289-01



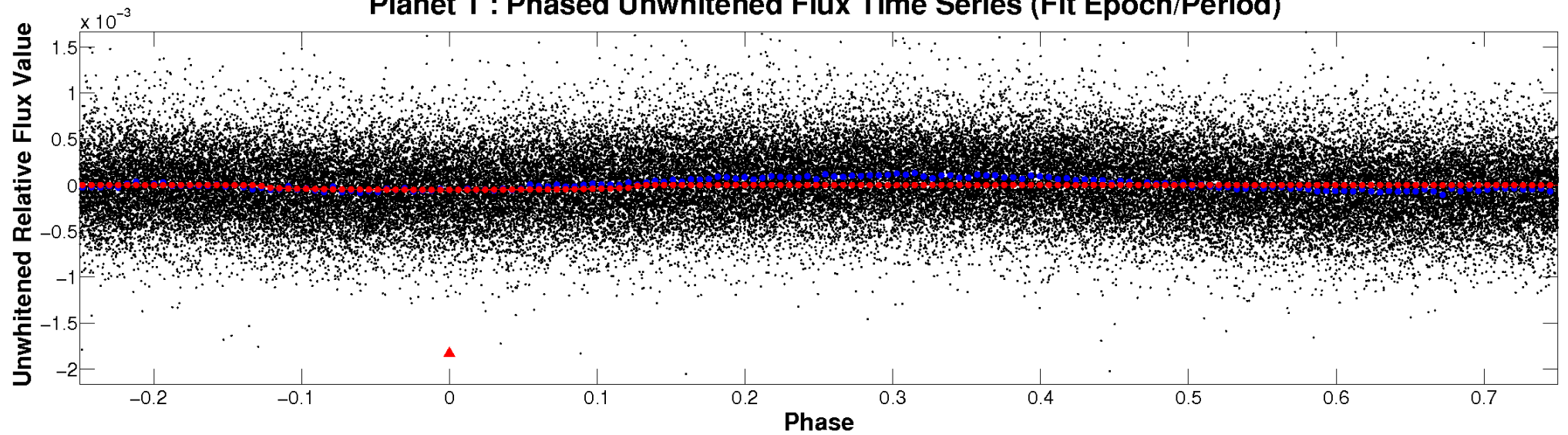
ALT Odd/Even

TCE 009308289-01

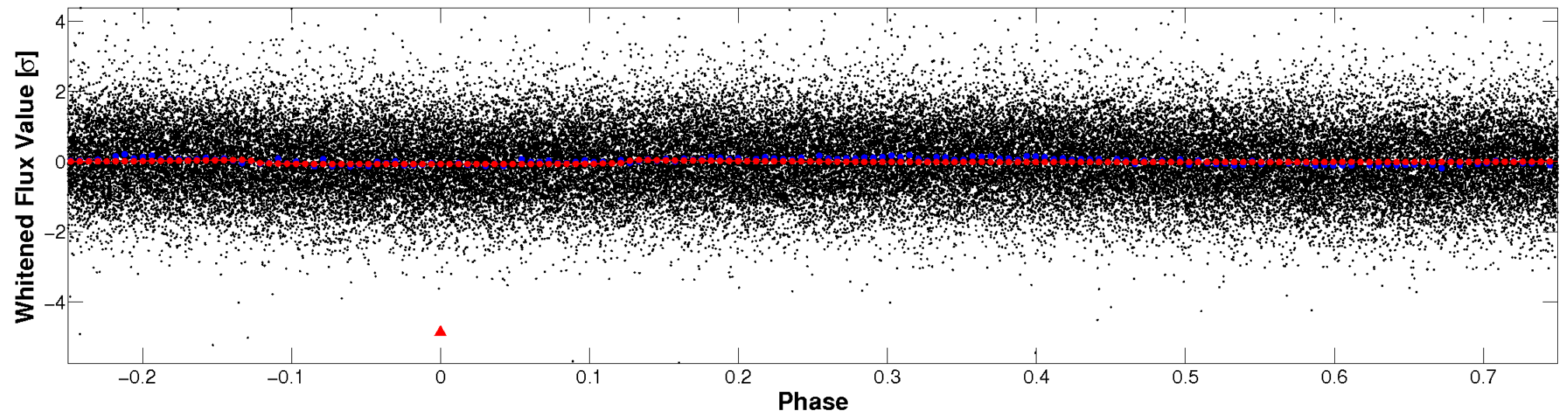


Non-Whitened Vs. Whitened Light Curve

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

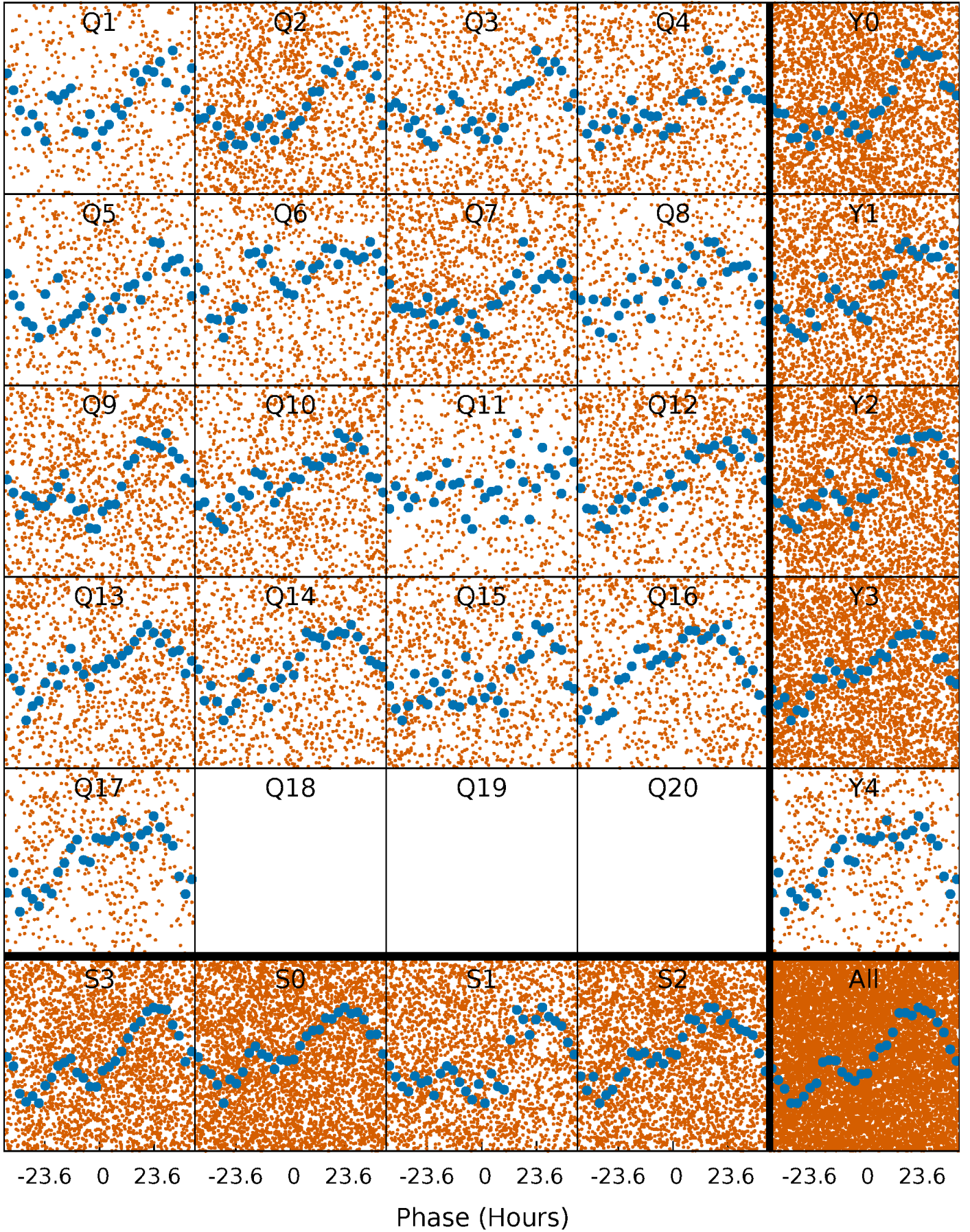


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



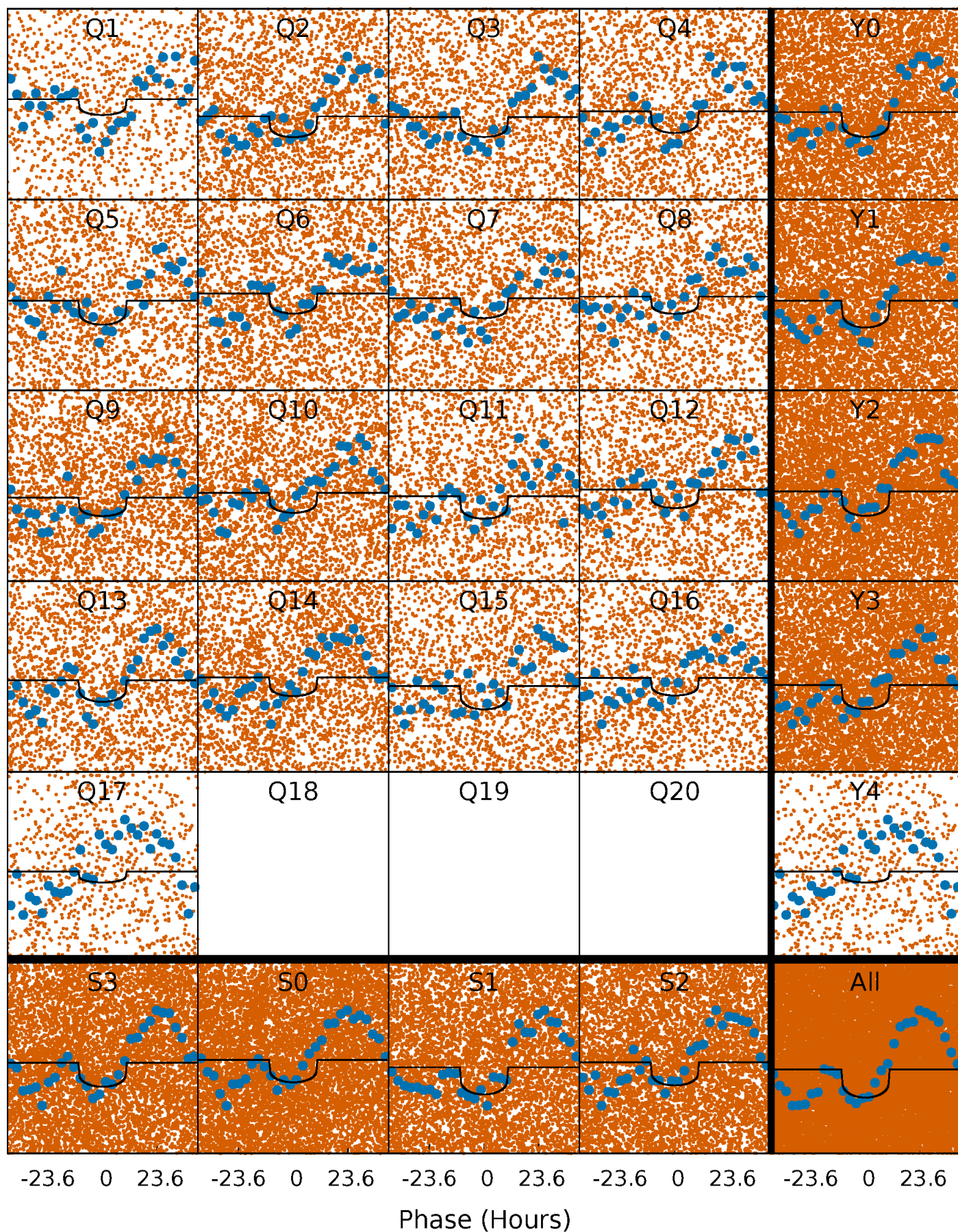
PDC Quarter-Phased Transit Curves

TCE 009308289-01 P= 3.375177 Days $T_0=132.876833$ (BKJD)



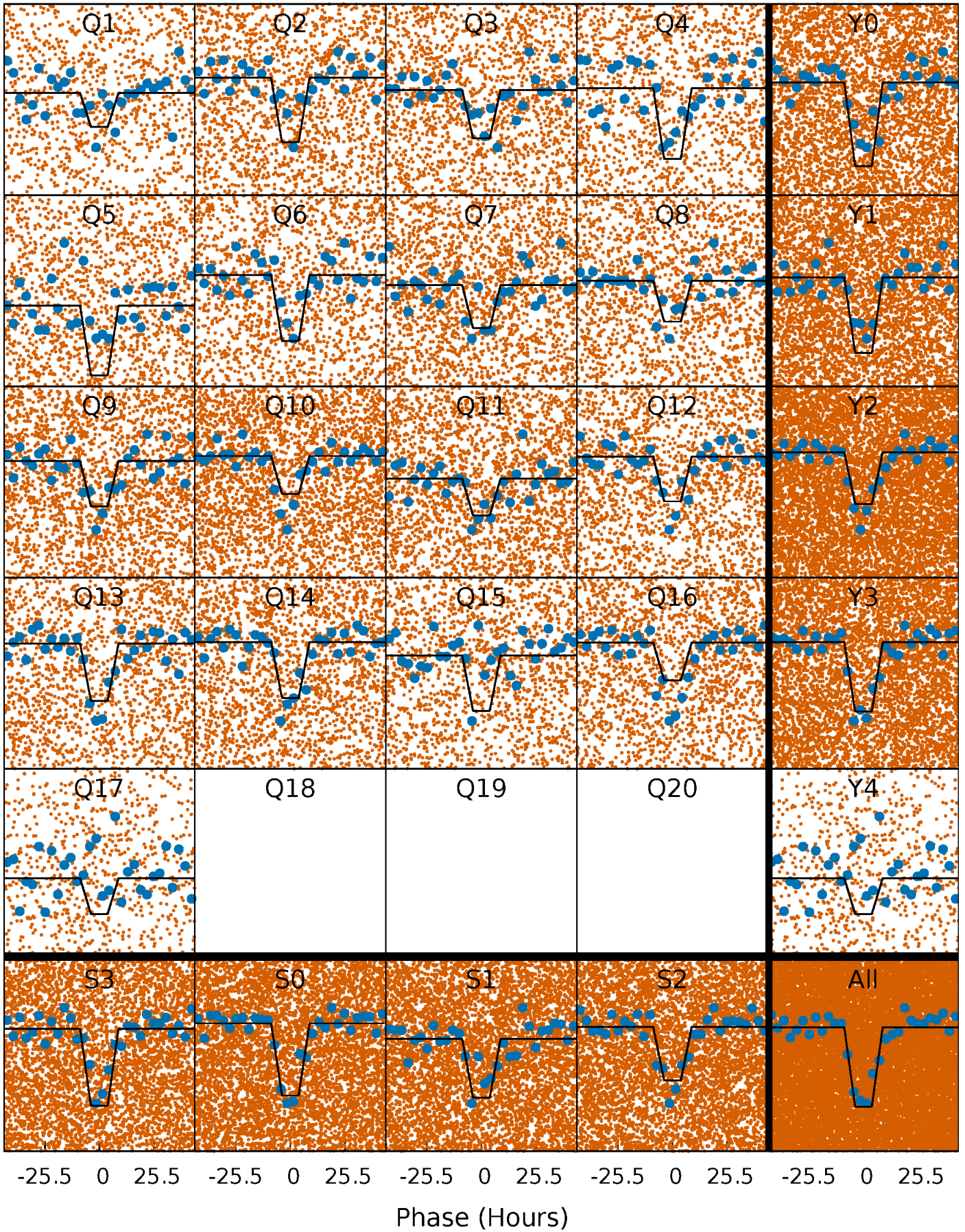
DV Quarter-Phased Transit Curves

TCE 009308289-01 P= 3.375177 Days $T_0=132.876833$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

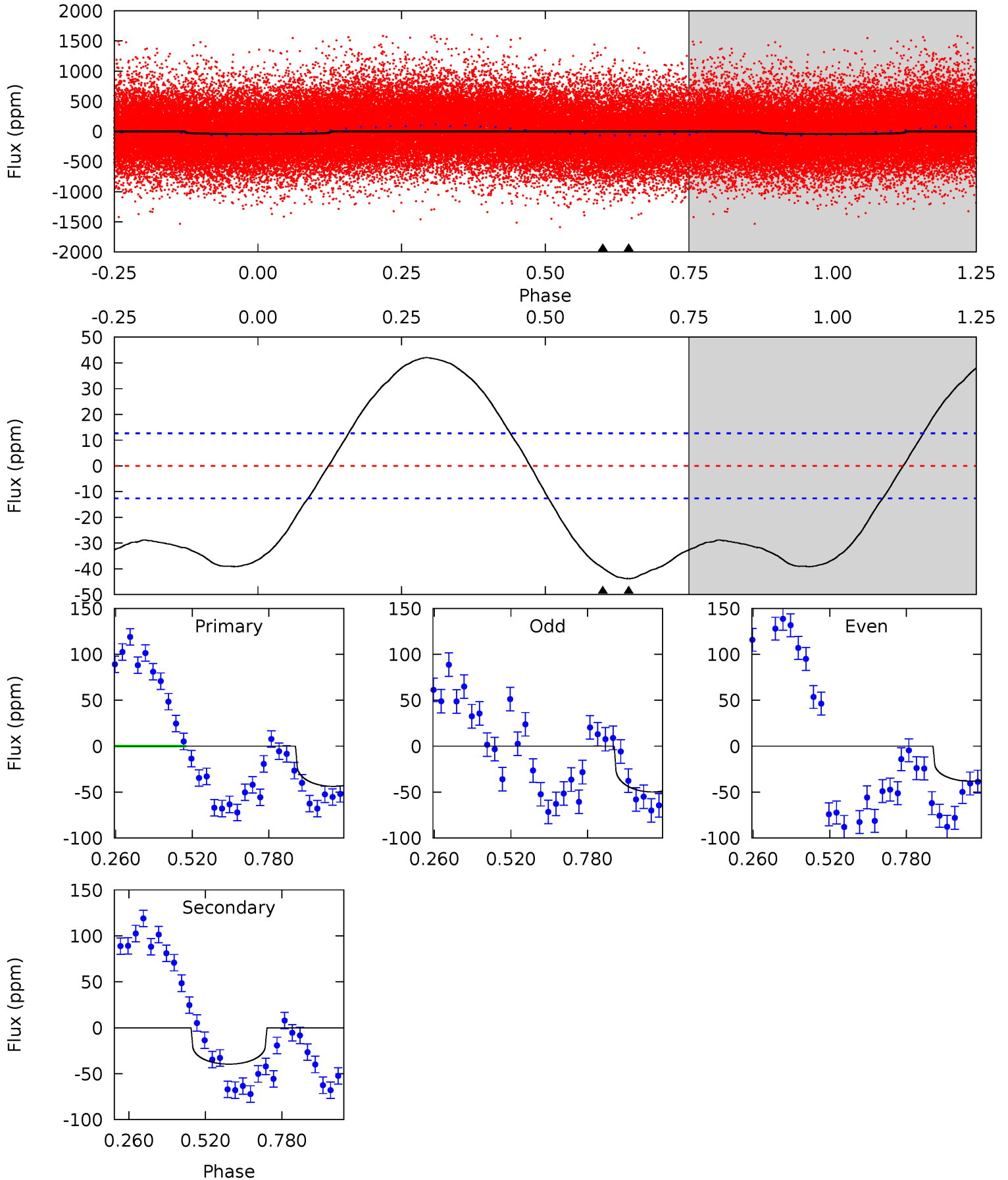
TCE 009308289-01 P= 3.374290 Days $T_0=132.943157$ (BKJD)



DV Model-Shift Uniqueness Test

009308289-01, P = 3.375177 Days, E = 129.501656 Days

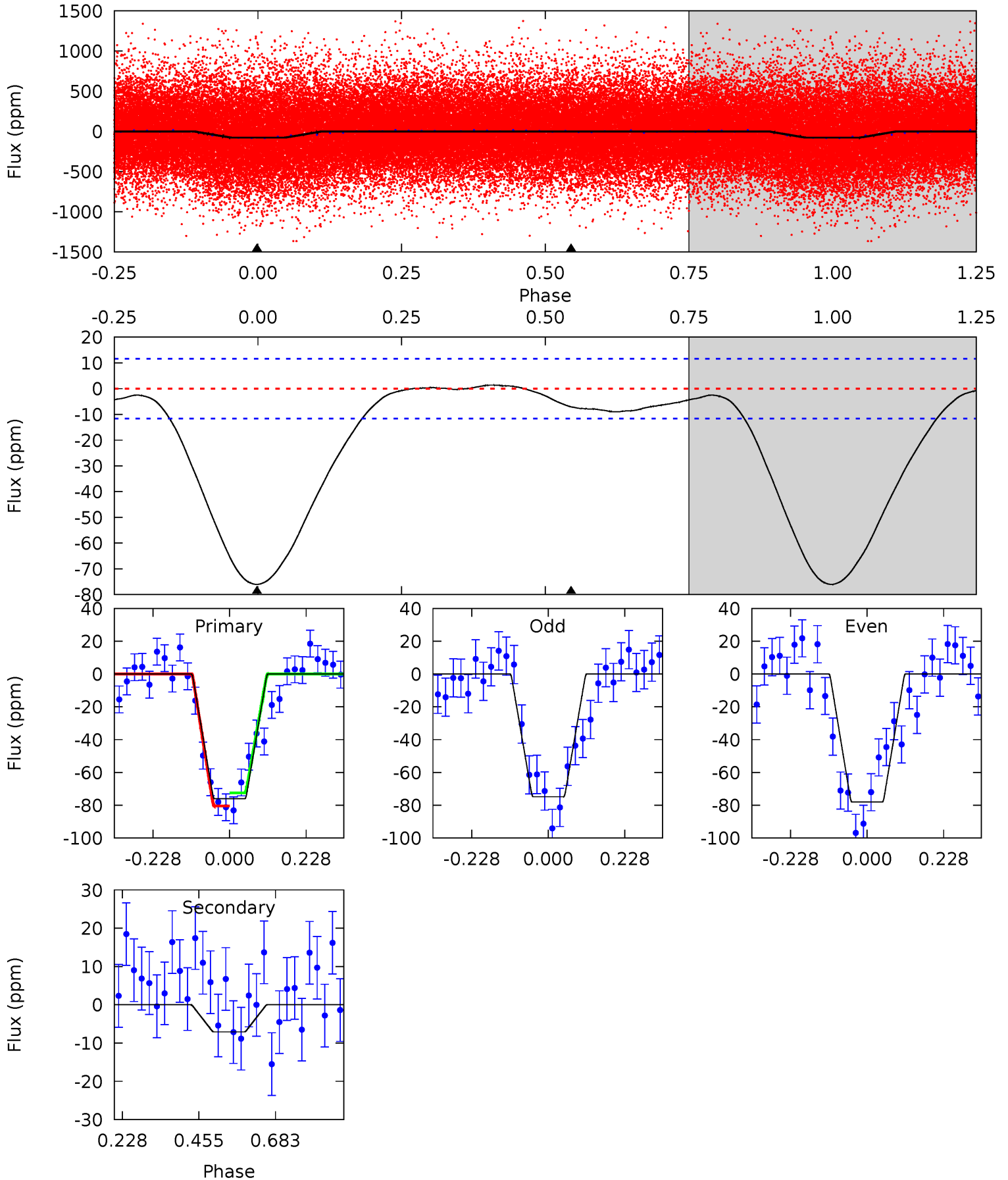
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	13.7	0	0	4.36	1.13	10.8	15.1	15.1	13.7	13.7	2.05	0.95	0.49	6.13



Alt Model-Shift Uniqueness Test

009308289-01, P = 3.374290 Days, E = 129.568867 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.7	2.67	0	0	4.39	1.21	0.40	28.7	28.7	2.67	2.67	0.60	0.97	0.02	1.50



Stellar Parameters For KIC 009308289

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6106^{+182}_{-200}	$4.497^{+0.054}_{-0.216}$	$-0.240^{+0.250}_{-0.300}$	$0.940^{+0.302}_{-0.101}$	$1.013^{+0.139}_{-0.139}$	$1.716^{+0.478}_{-0.930}$
	+3%/-3%	+1%/-5%	+104%/-125%	+32%/-11%	+14%/-14%	+28%/-54%
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 009308289-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-40 ± 3	$0.87^{+0.62}_{-0.54}$	1782^{+132}_{-92}	5419^{+3857}_{-1067}	57^{+319}_{-37}
Alt.	-7 ± 3	$1.03^{+0.64}_{-0.55}$	1775^{+131}_{-91}	3600^{+1386}_{-605}	$6.868^{+30.514}_{-4.677}$

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

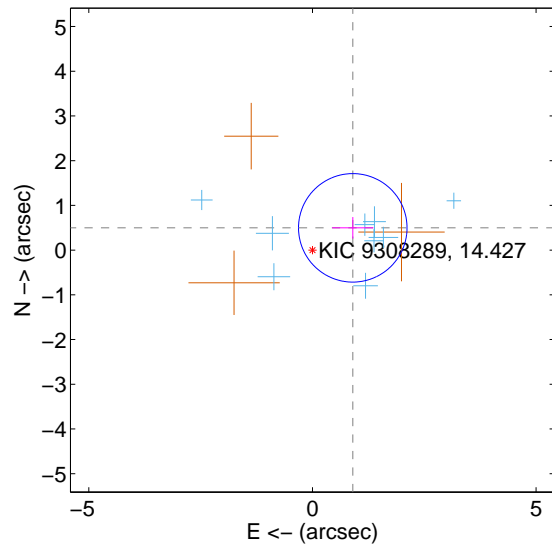
Supplemental centroid analysis for 009308289-01. Kepler magnitude: 14.43. Transit SNR 8.84

There are 9 quarters with good PRF difference image offsets

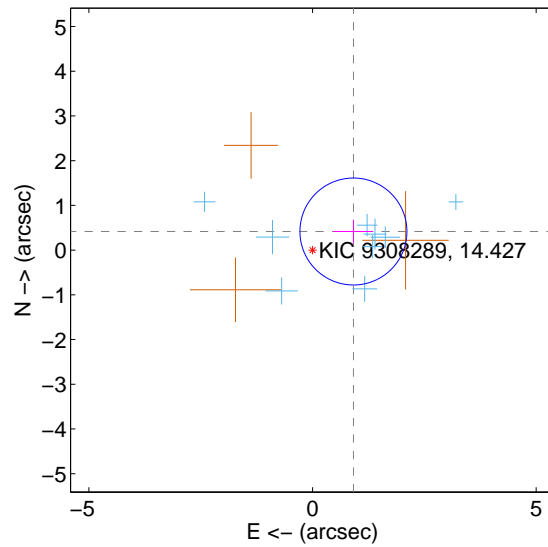
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.030 ± 0.404	2.55	-0.902 ± 0.462	0.497 ± 0.241
PRF-fit source offset from KIC position	1.005 ± 0.399	2.52	-0.915 ± 0.442	0.416 ± 0.264
photometric centroid source offset	1.37 ± 1.05	1.31	0.41 ± 0.99	1.31 ± 1.05

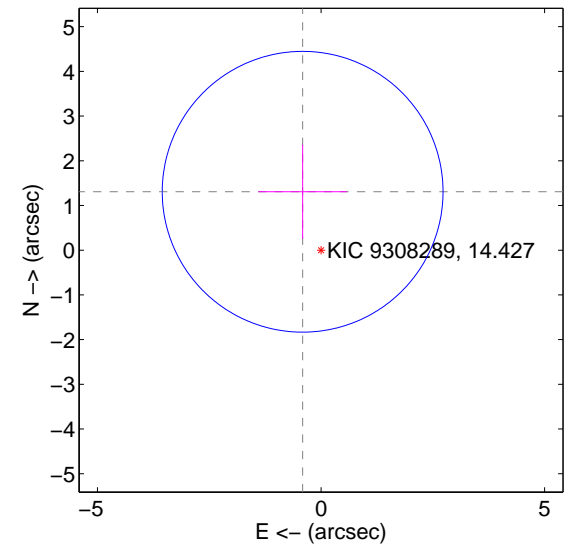
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

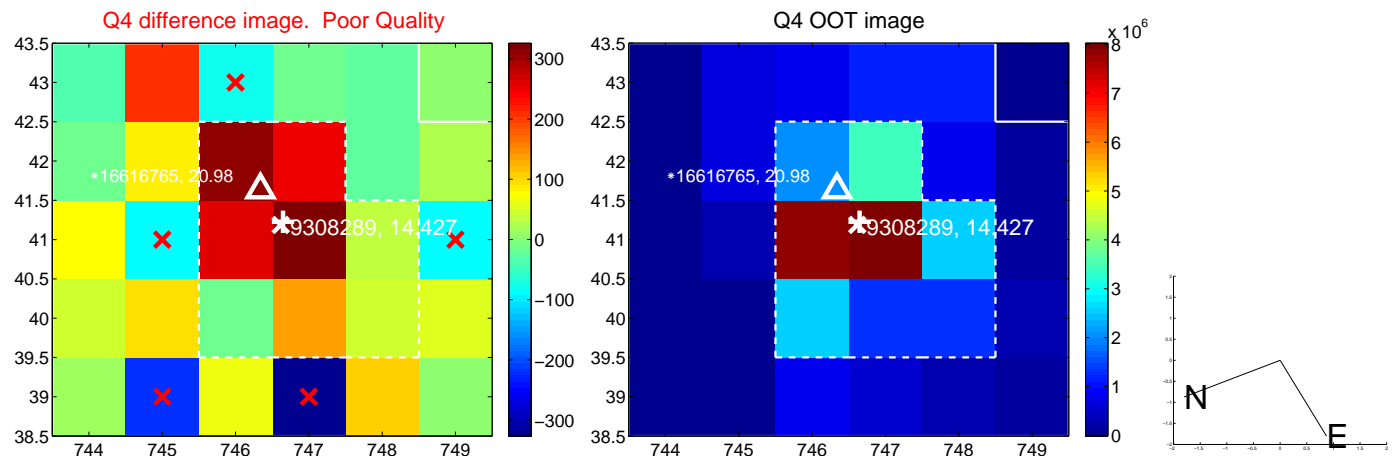
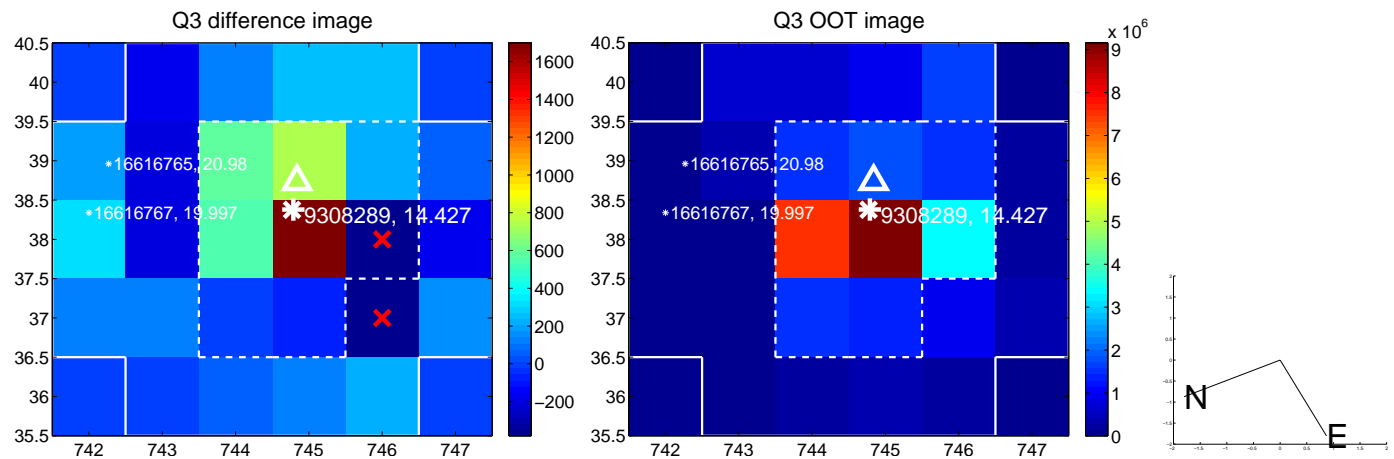
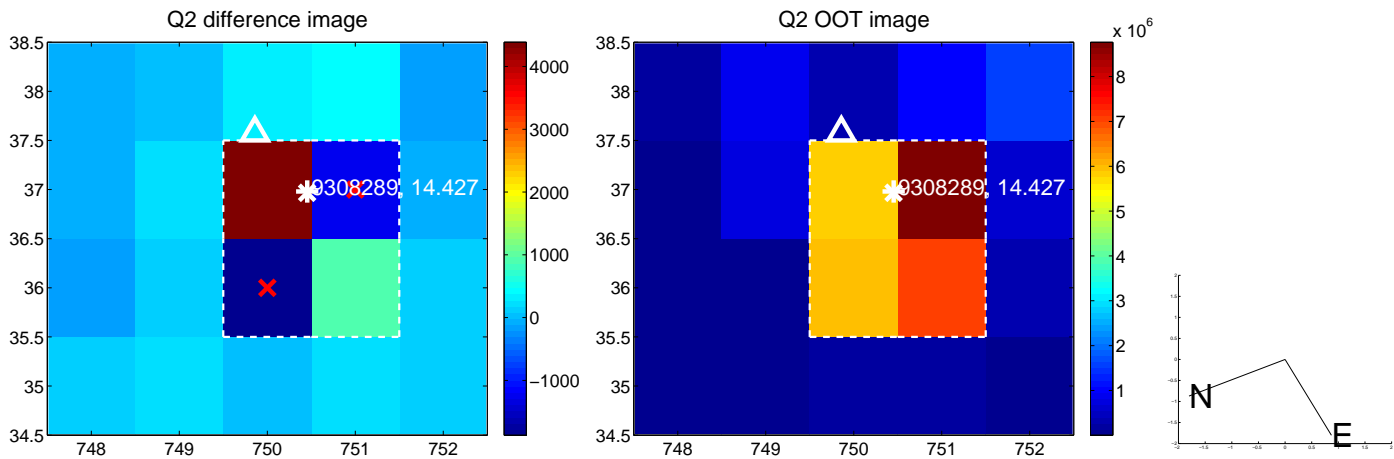
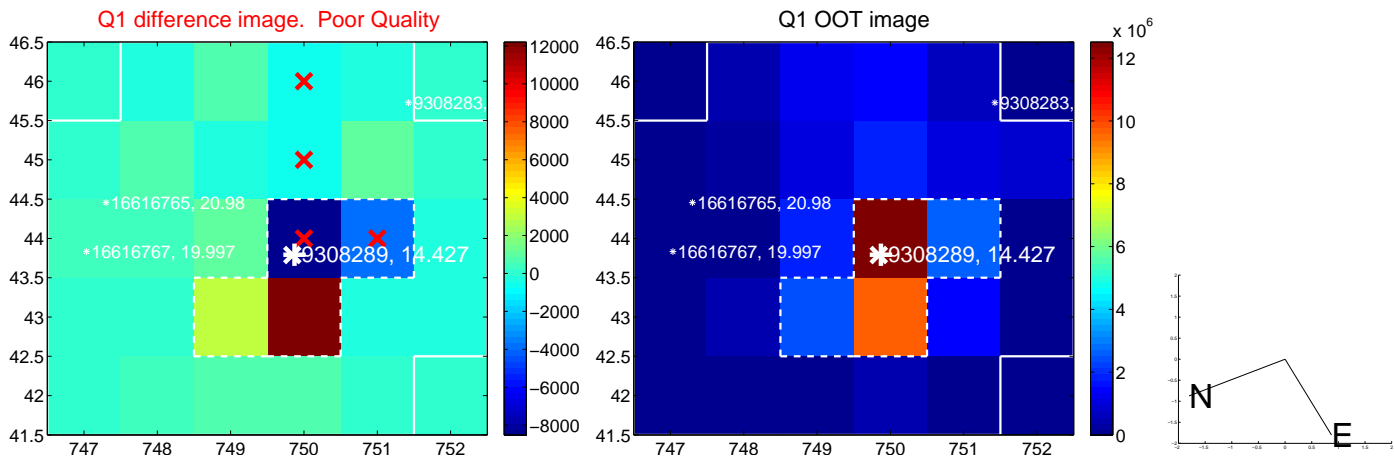


offset from photometric centroids

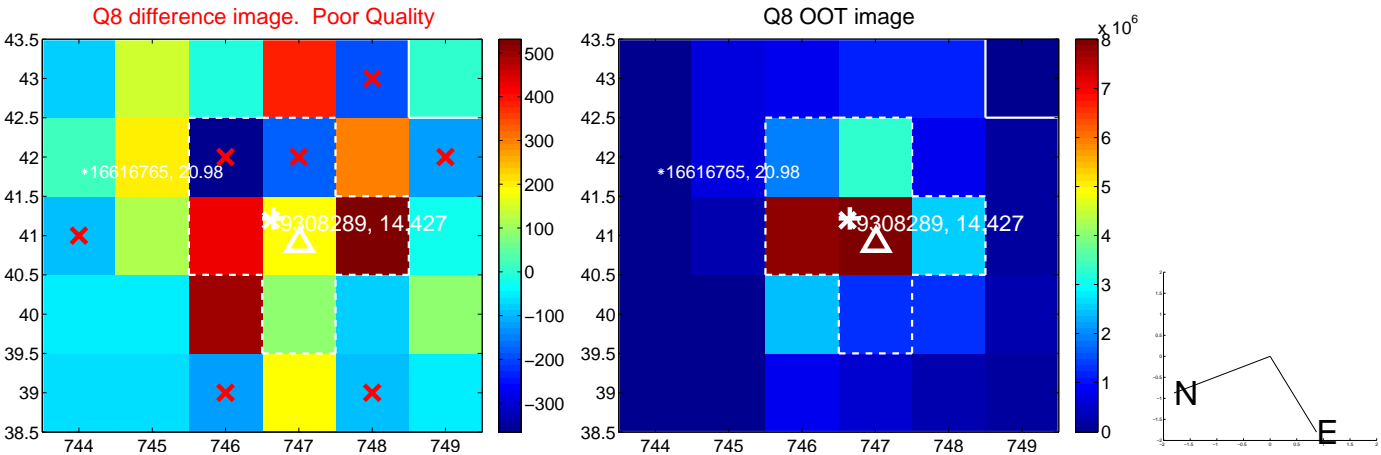
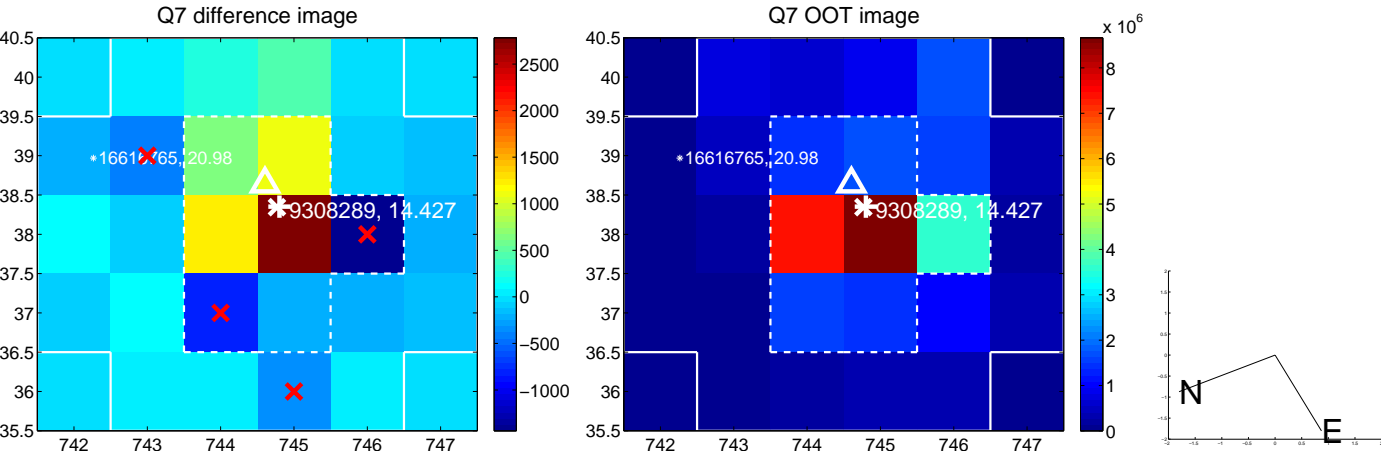
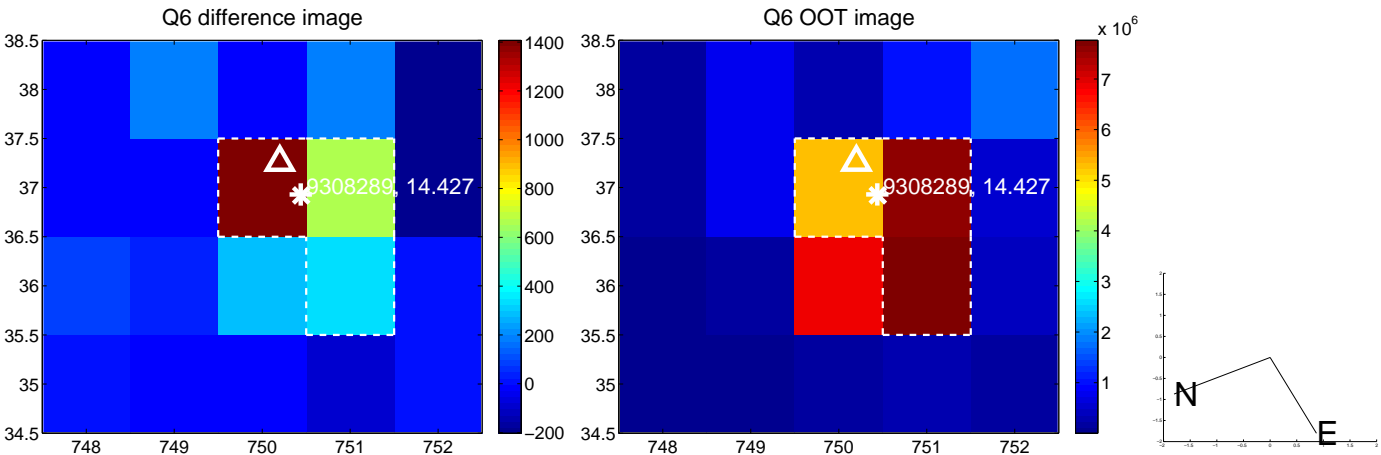
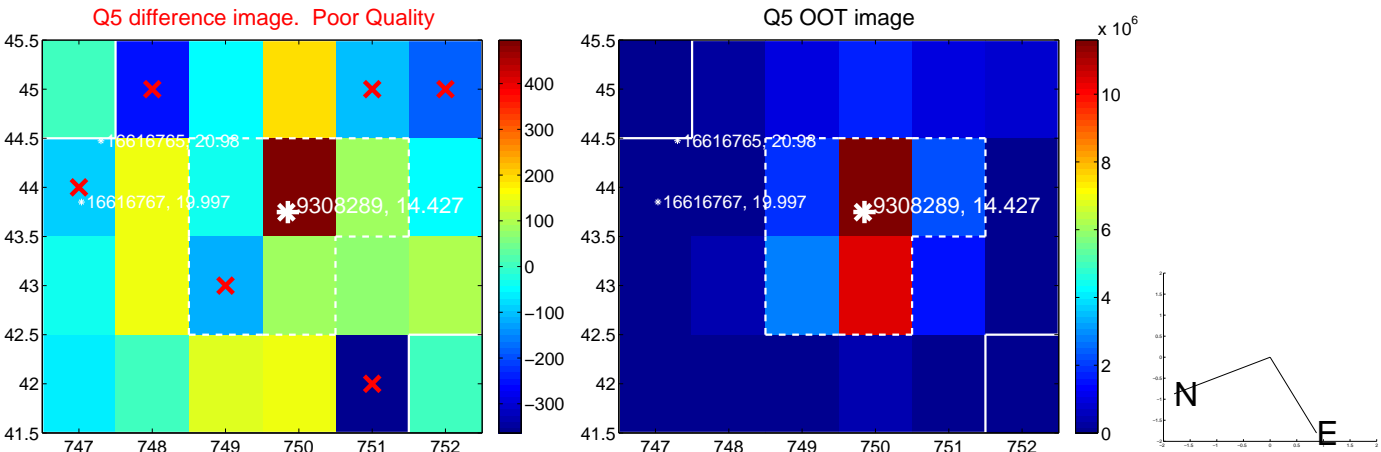


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

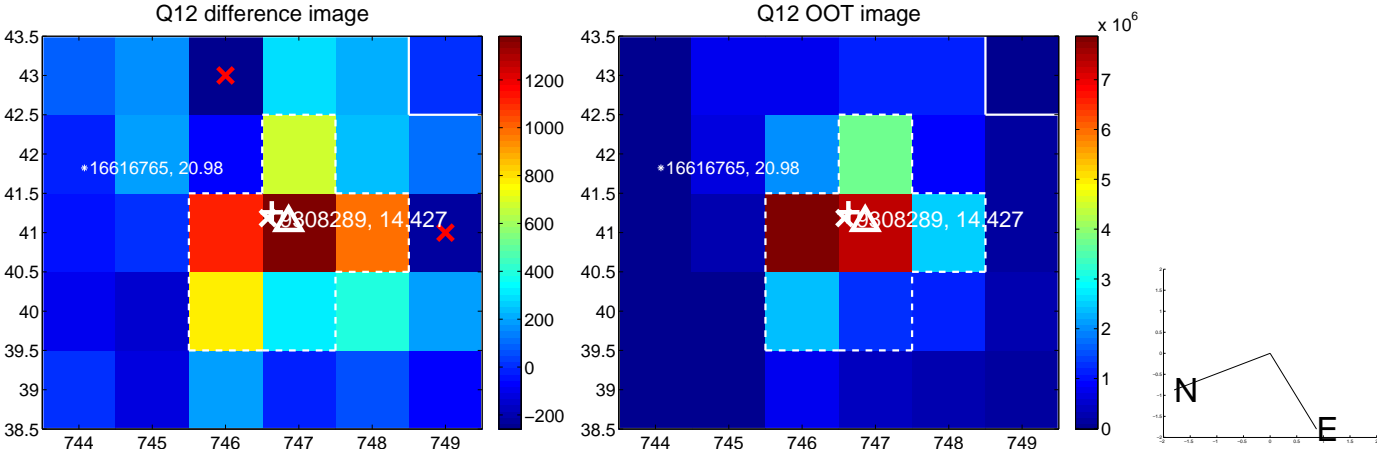
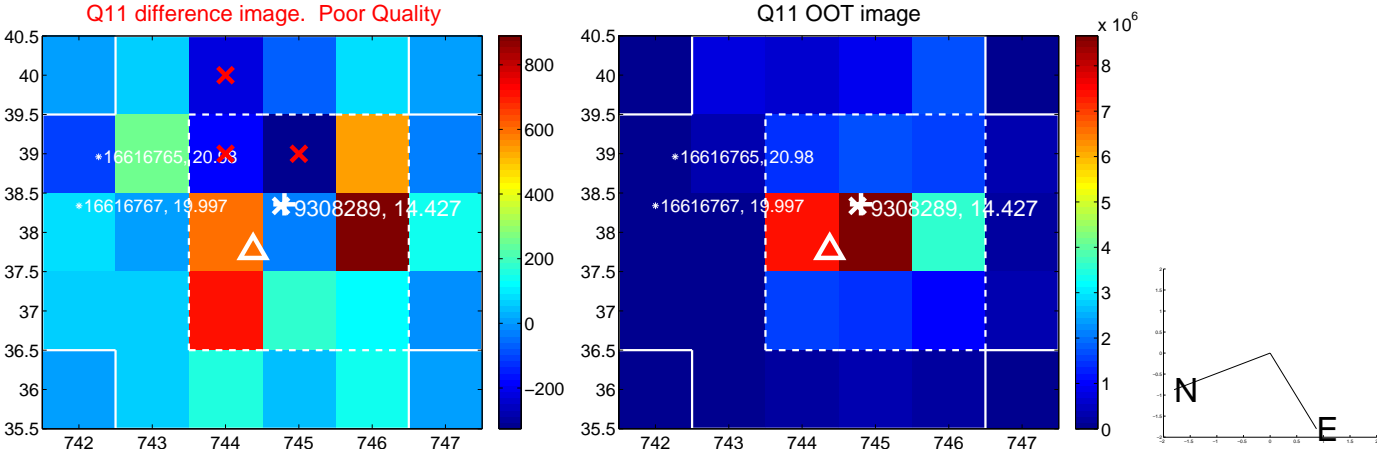
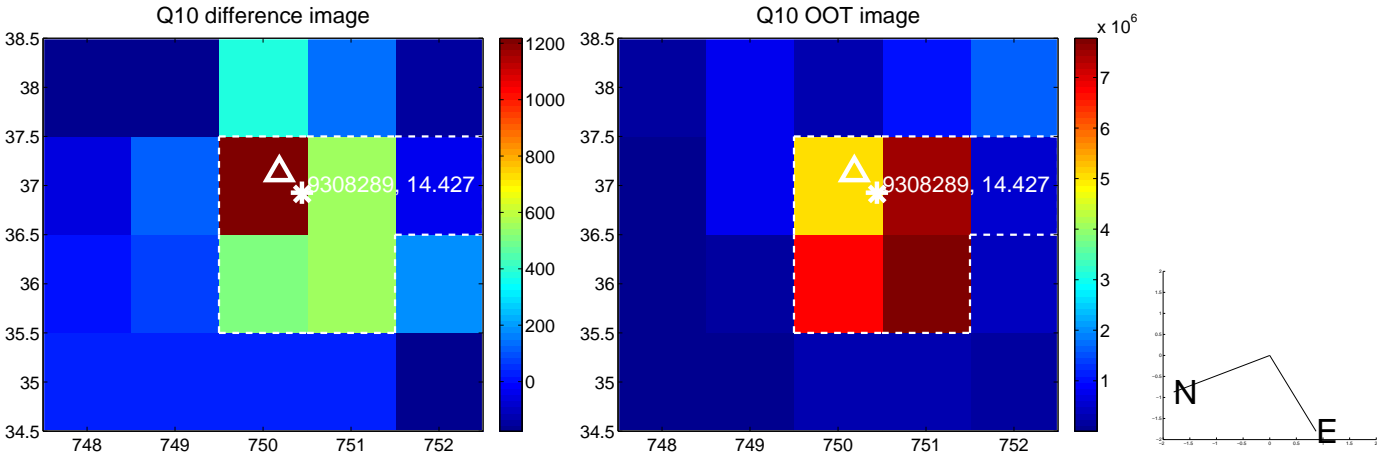
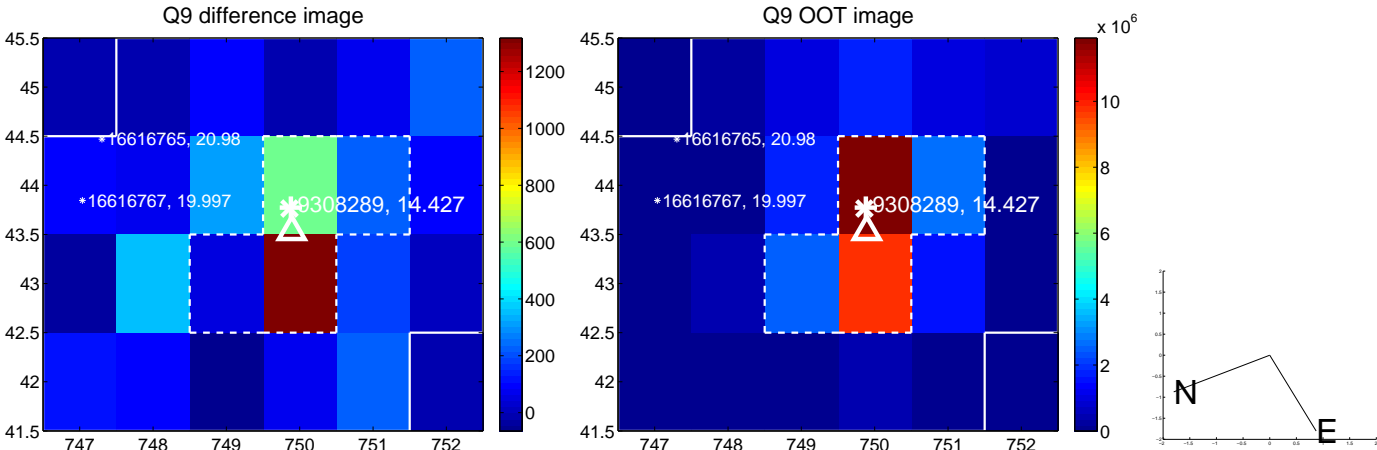
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



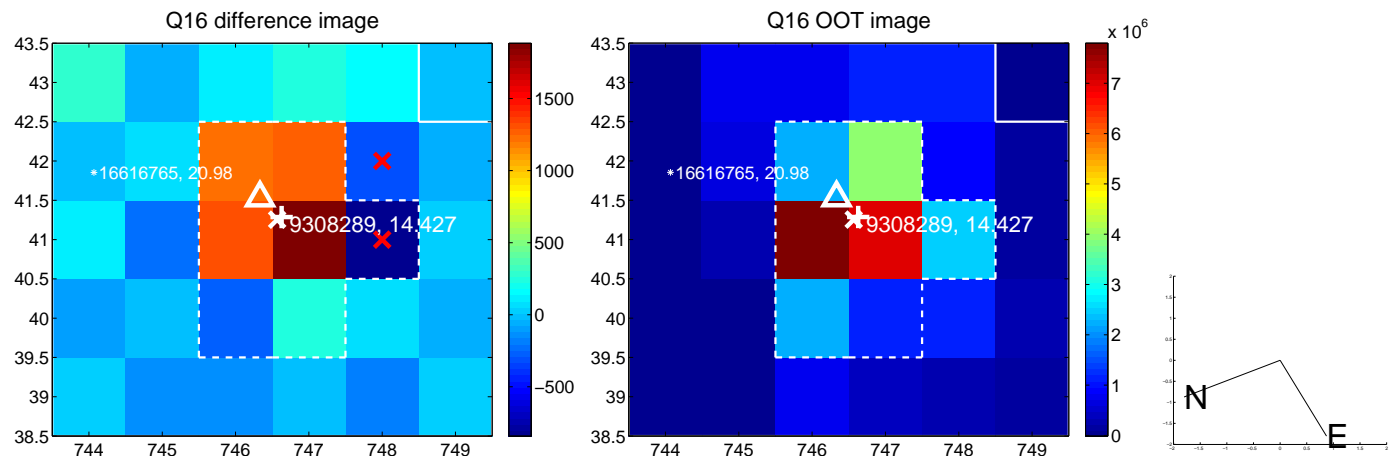
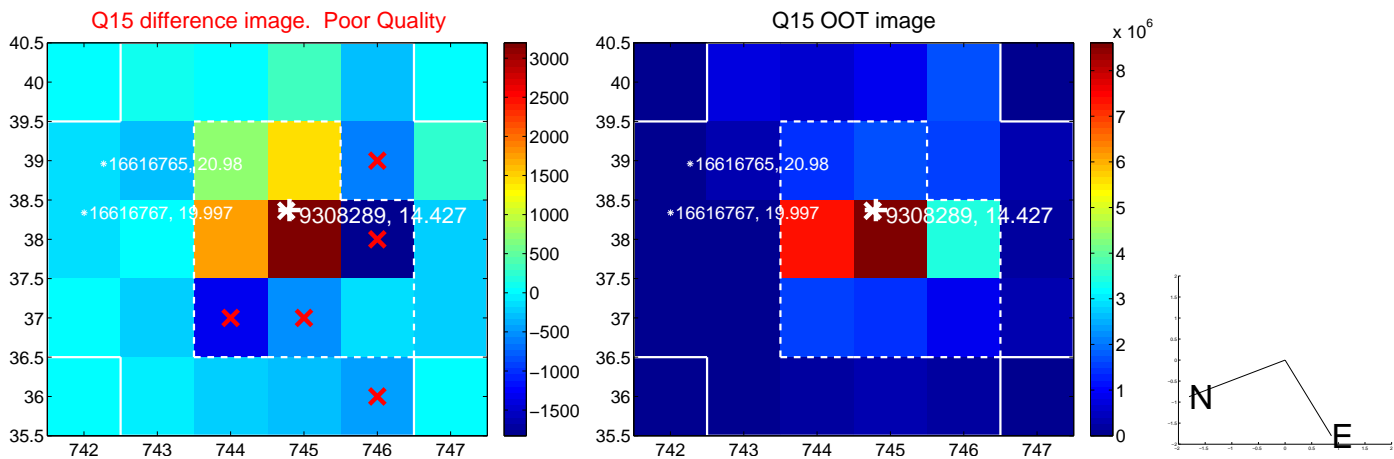
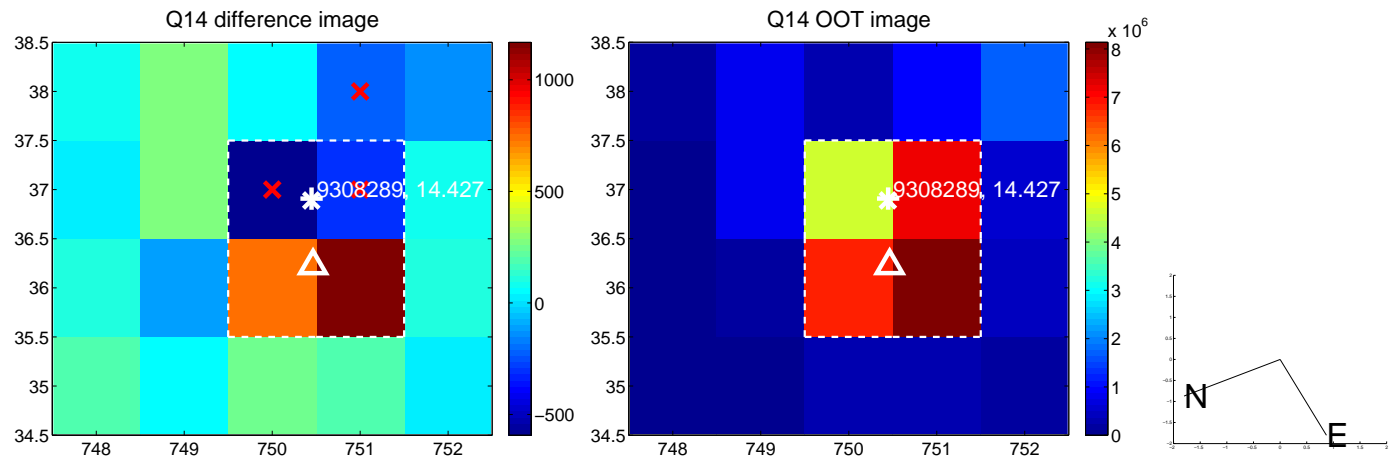
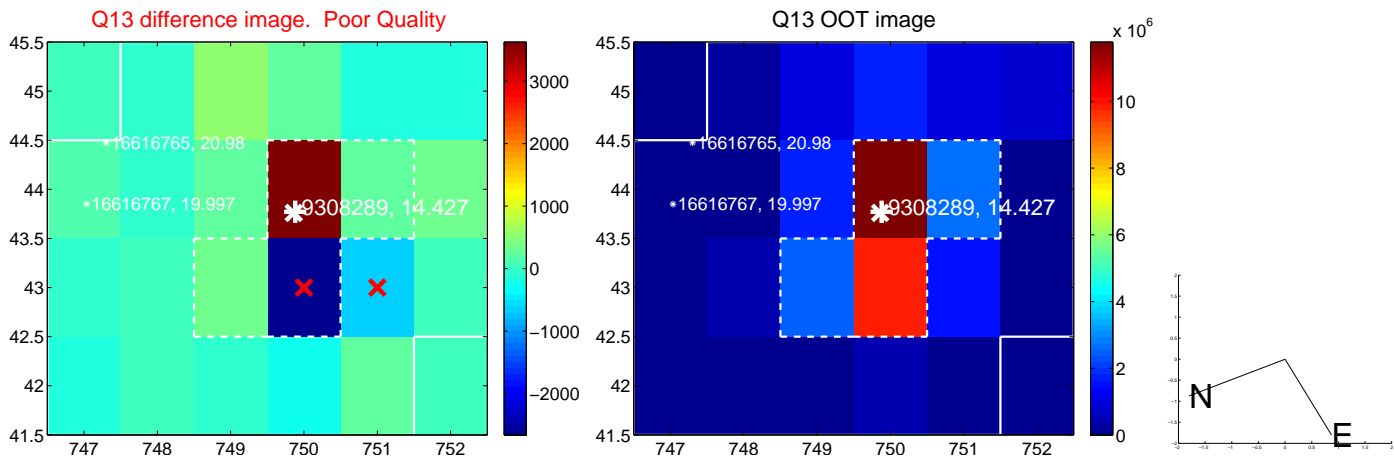
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



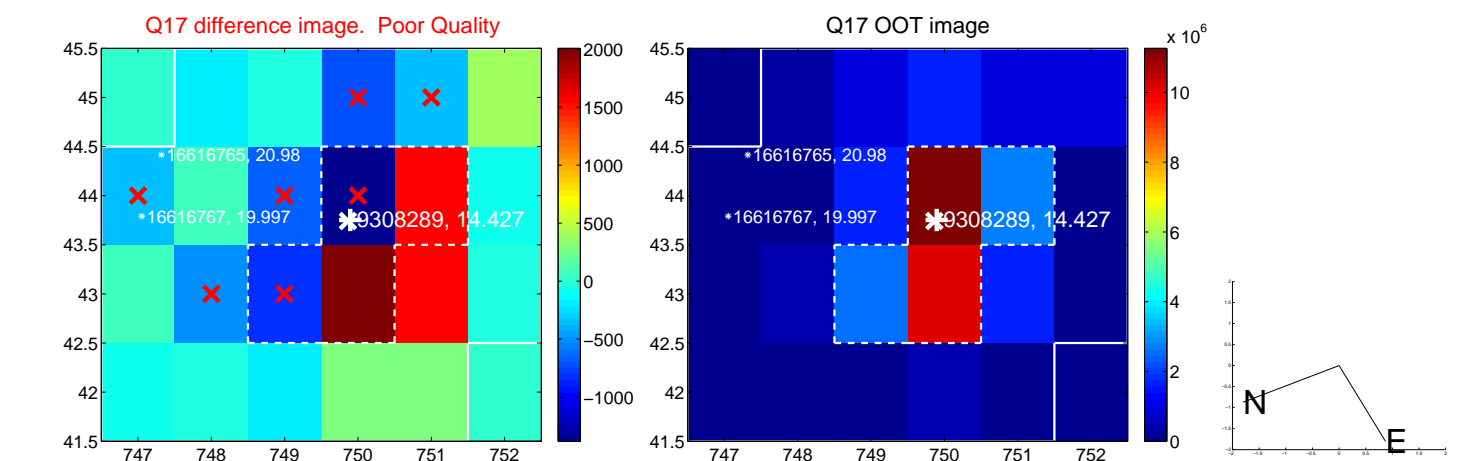
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



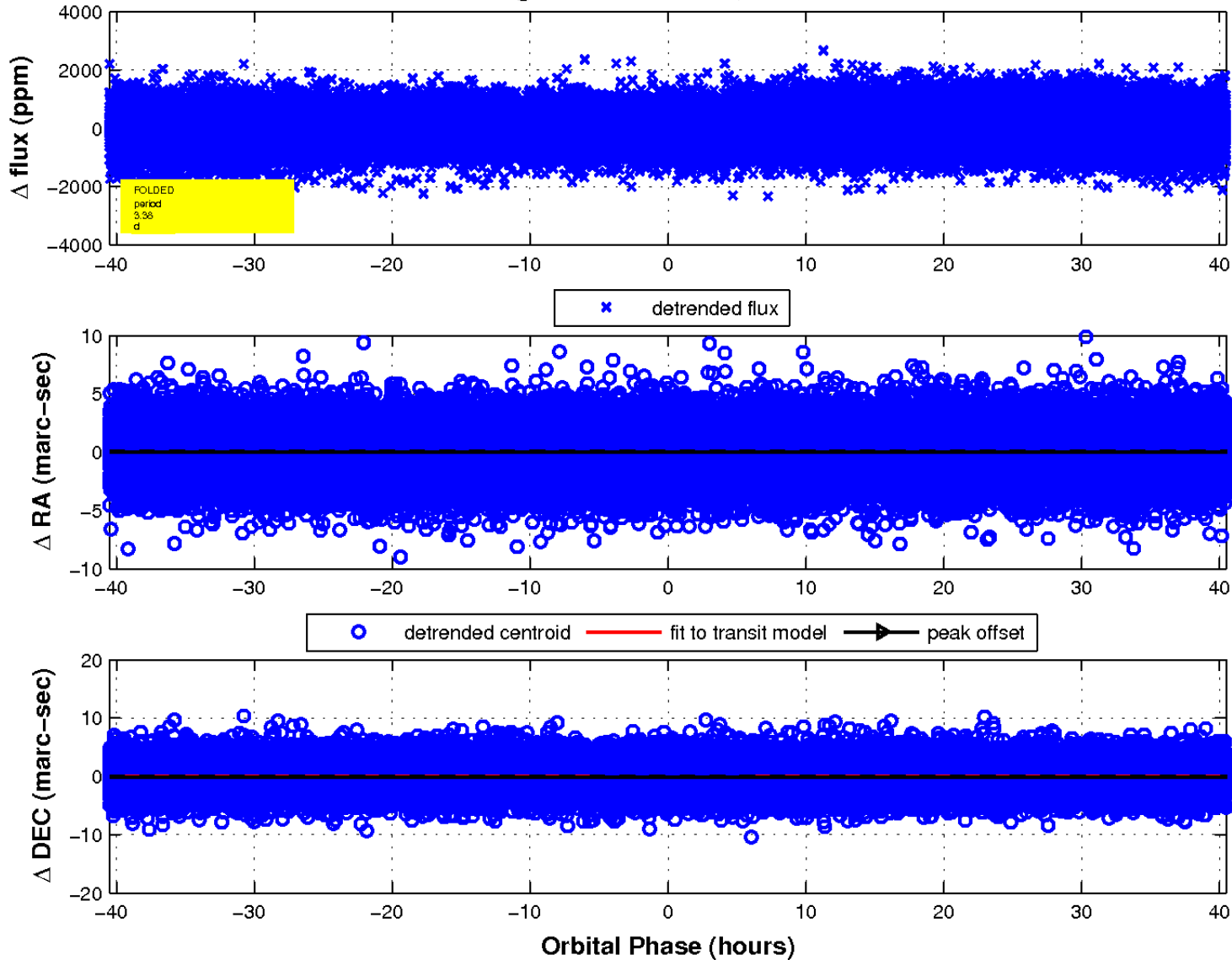
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

