

KIC 009540994

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})
009540994-01	OBS	No	0.536554	131.809257	0.2	0.835	7.4	0.0	0.93	5793	0.06	5334.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009540994-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_UNCERTAIN

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

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

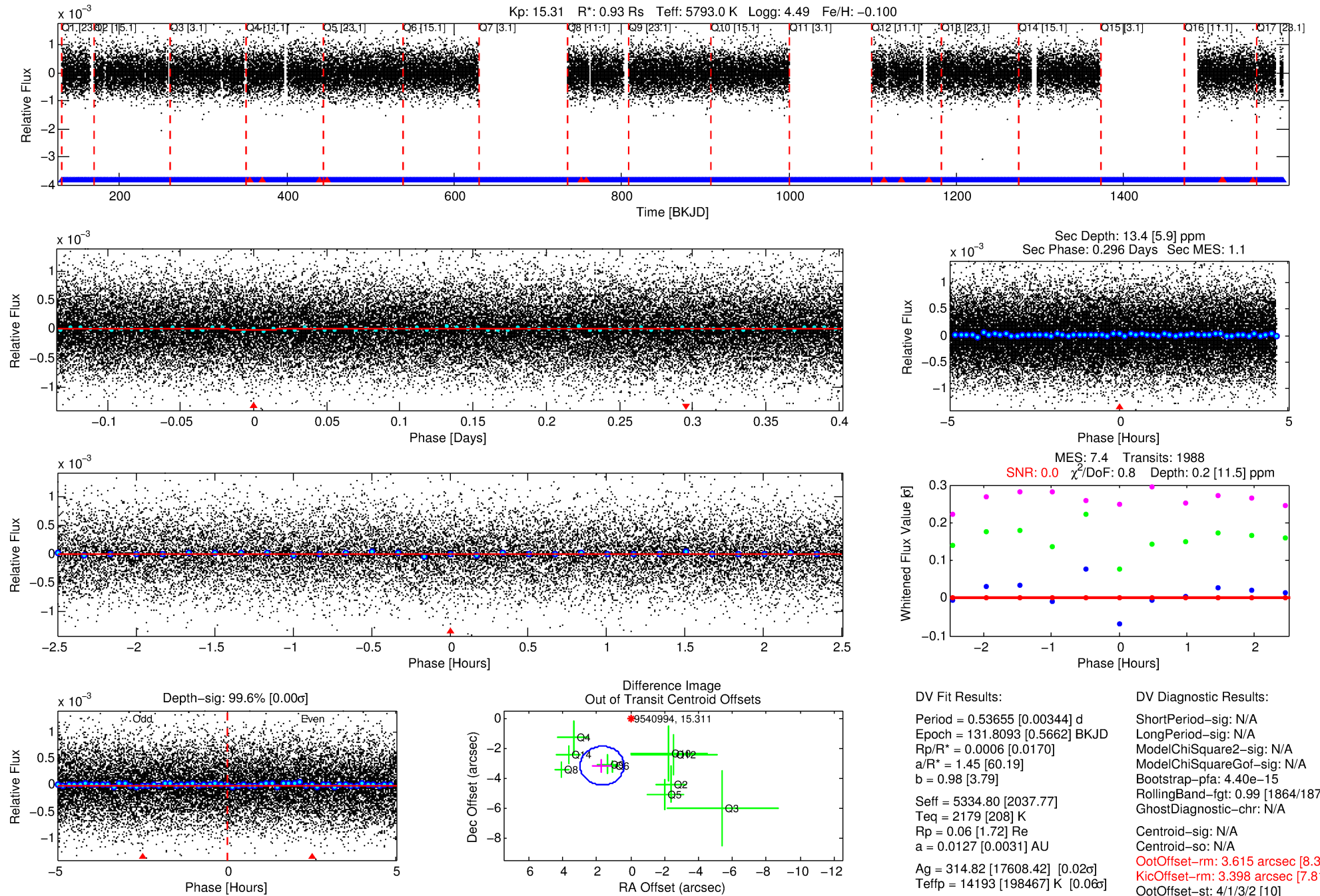
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009540994-01

No Significant Match Found

DV One-Page Summary

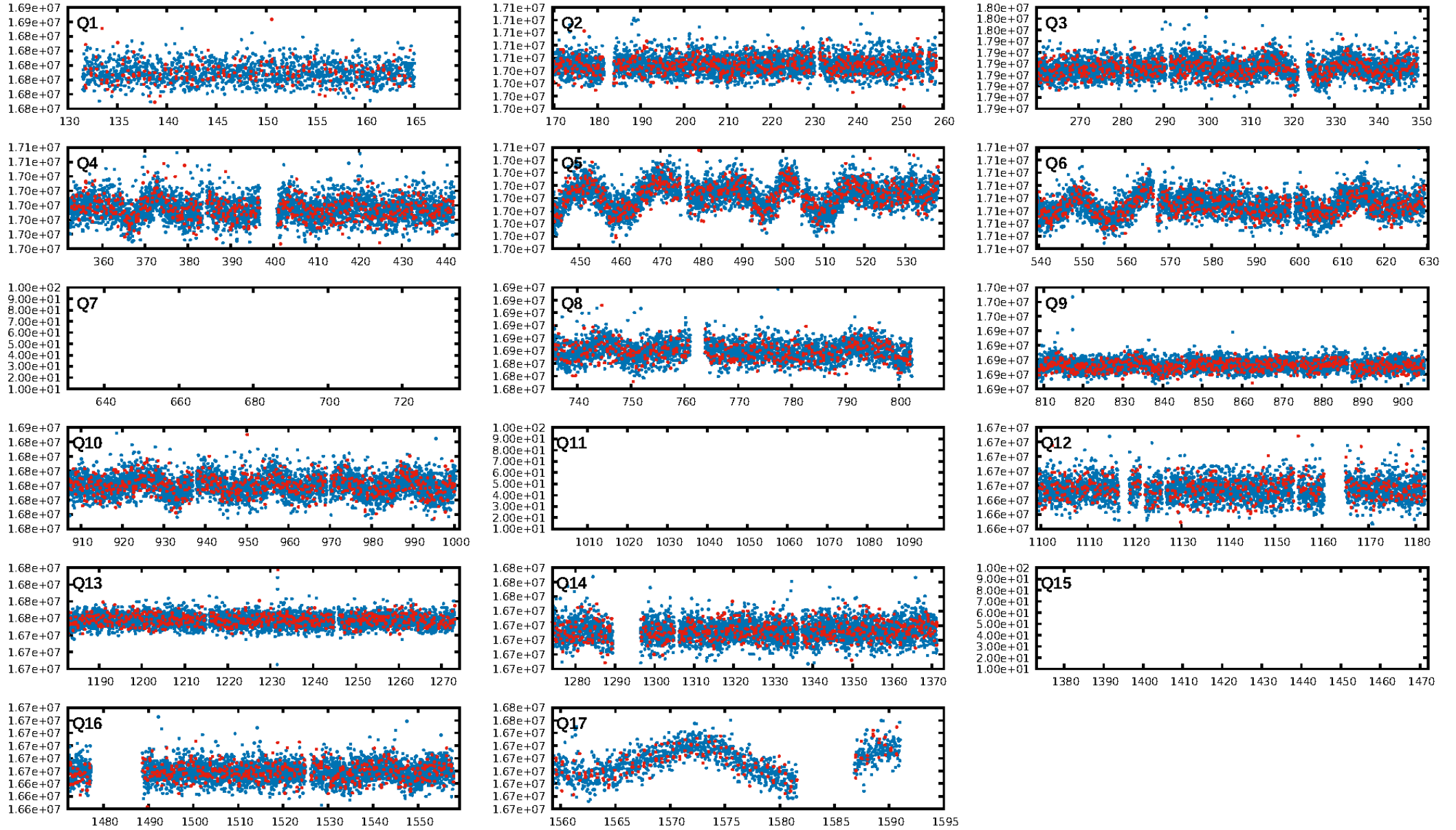
KIC: 9540994 Candidate: 1 of 1 Period: 0.537 d



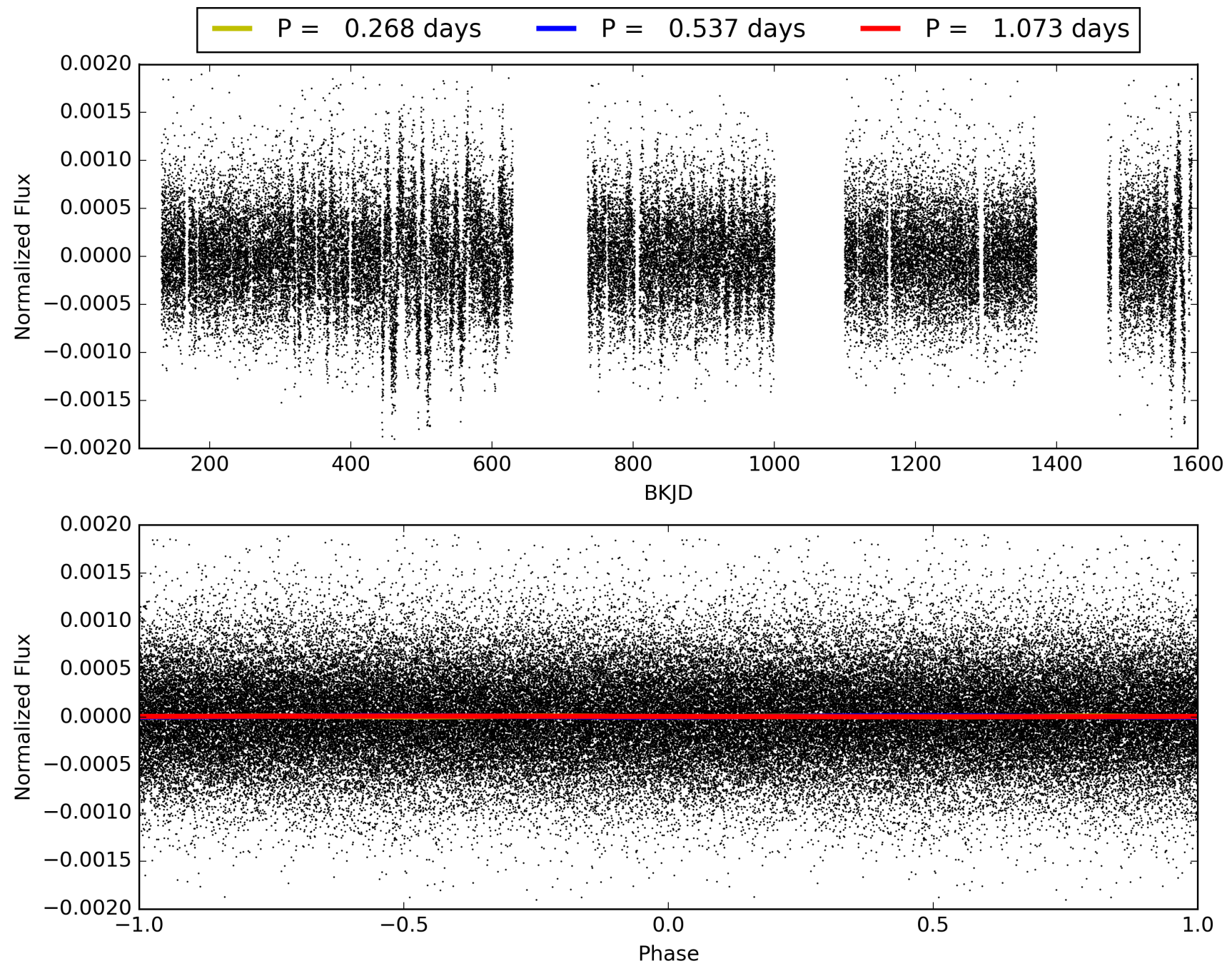
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:00:31 Z

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

TCE 009540994-01, PDC Light Curves

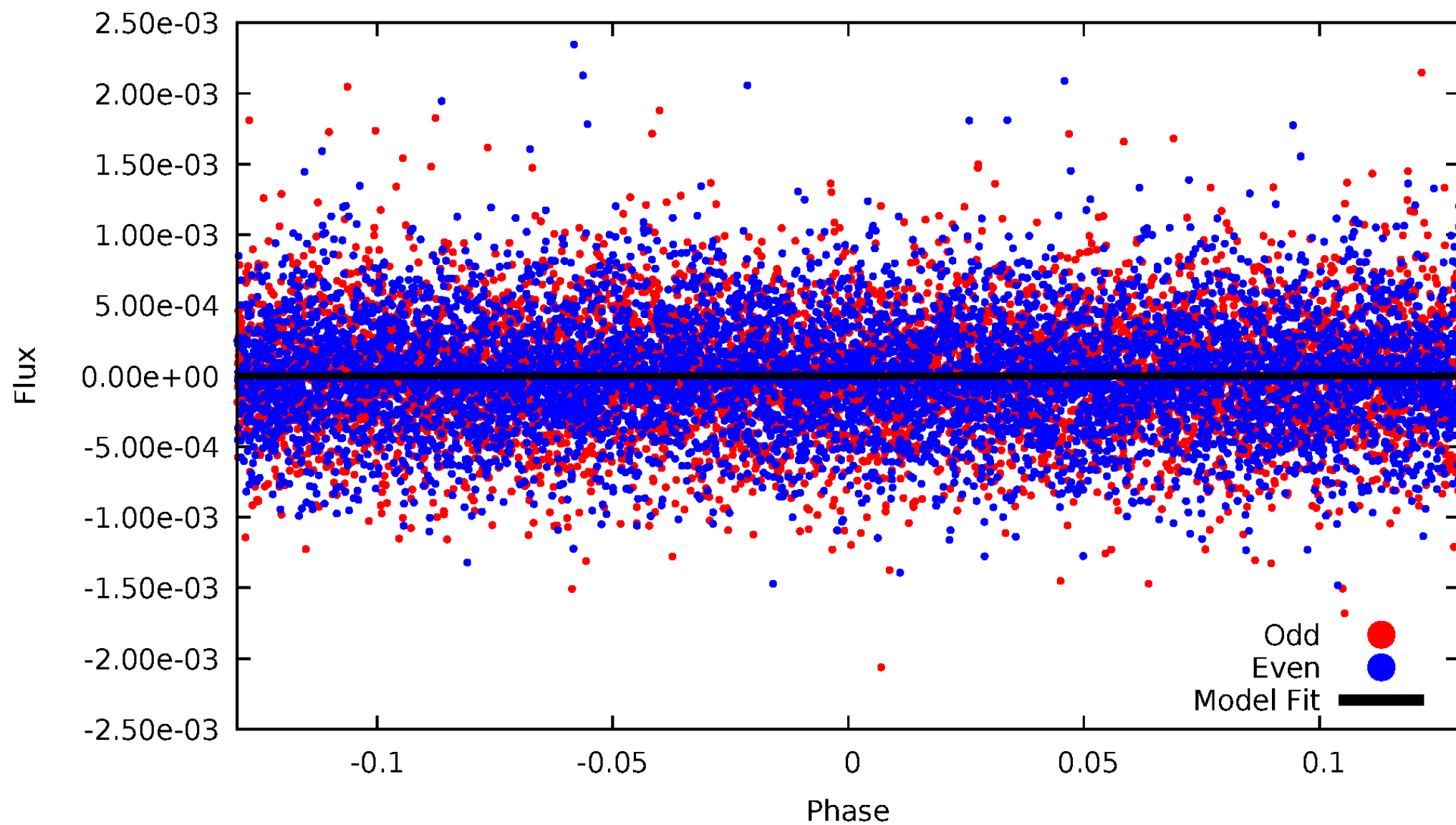


TCE 009540994-01



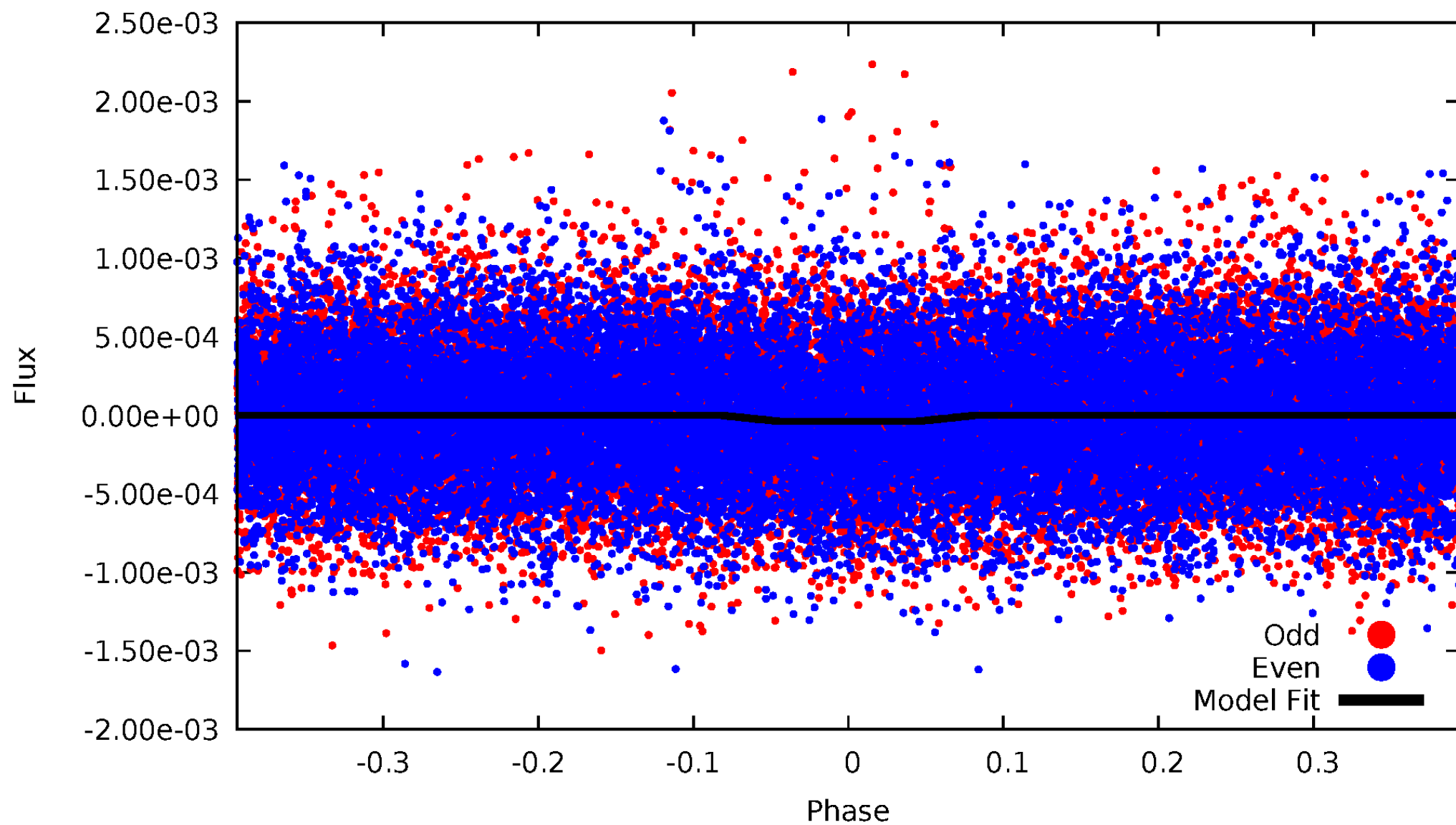
DV Odd/Even

TCE 009540994-01



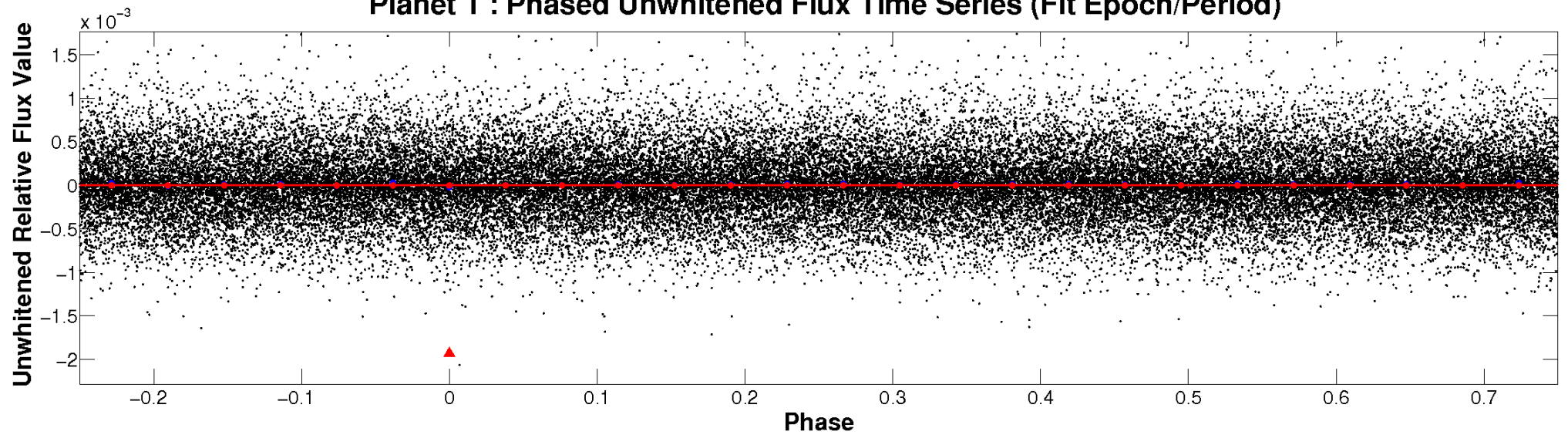
ALT Odd/Even

TCE 009540994-01

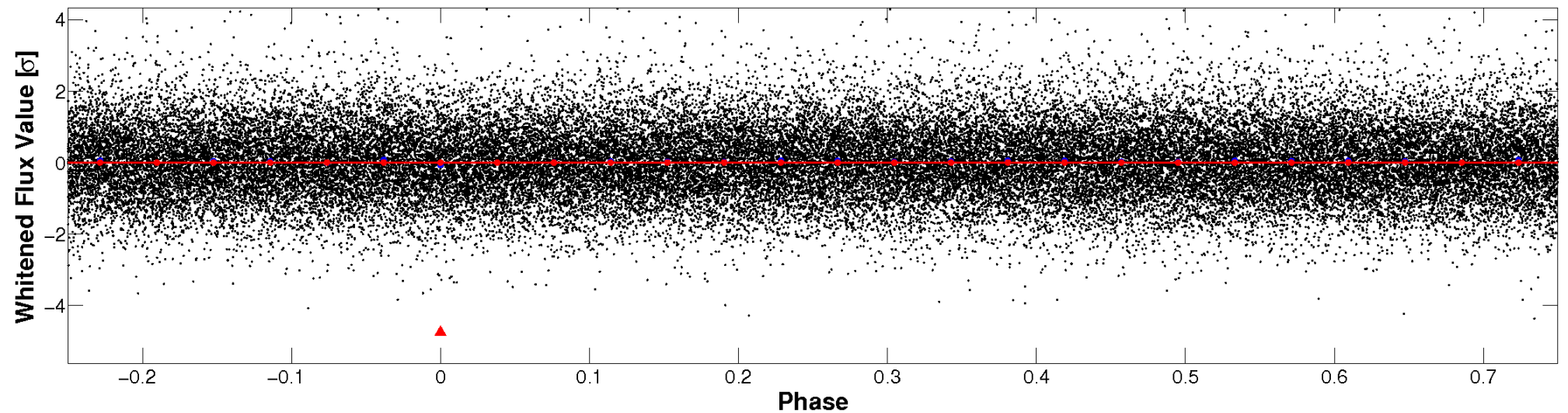


Non-Whitened Vs. Whitened Light Curve

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

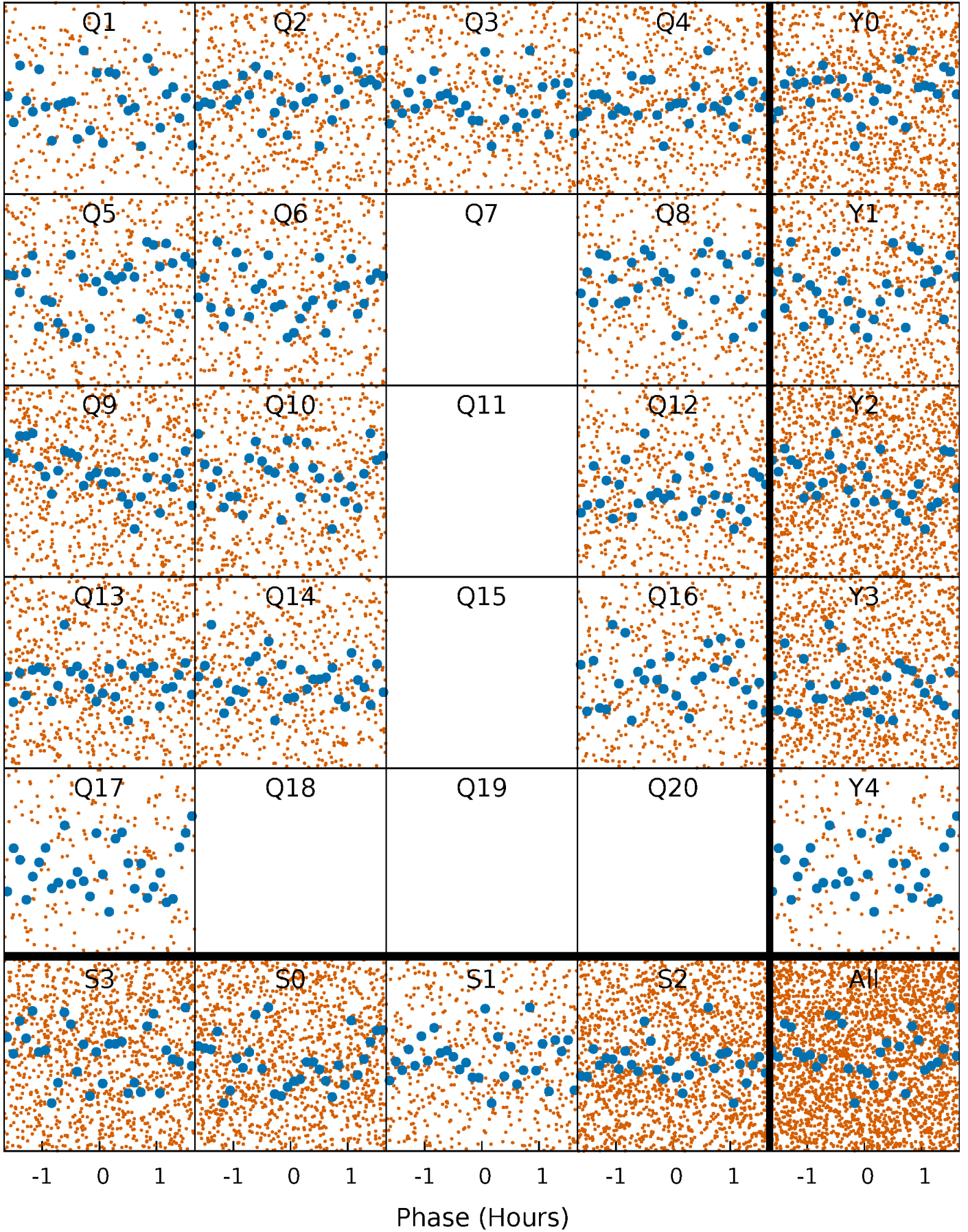


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



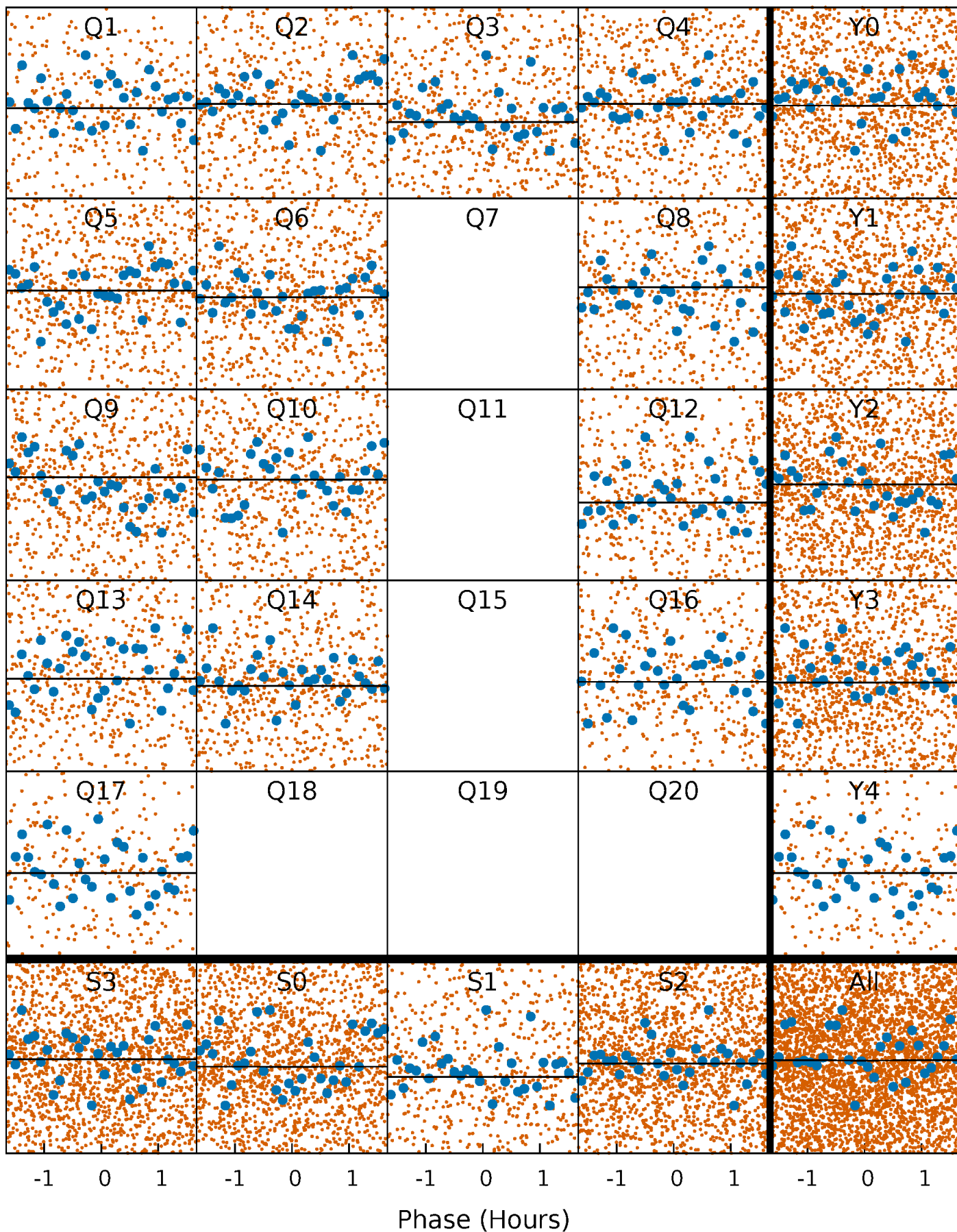
PDC Quarter-Phased Transit Curves

TCE 009540994-01 P= 0.536554 Days $T_0=131.809257$ (BKJD)



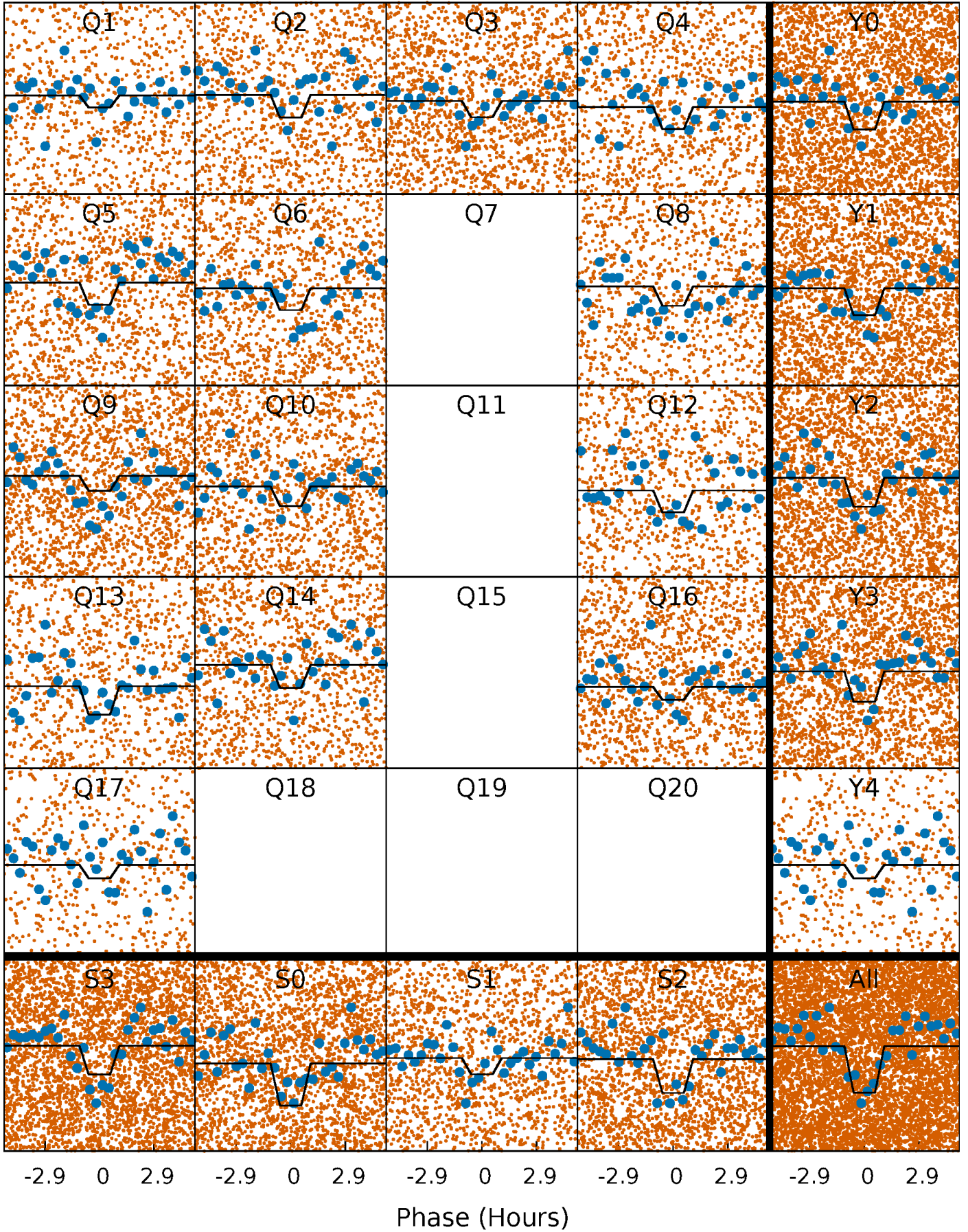
DV Quarter-Phased Transit Curves

TCE 009540994-01 P= 0.536554 Days $T_0=131.809257$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

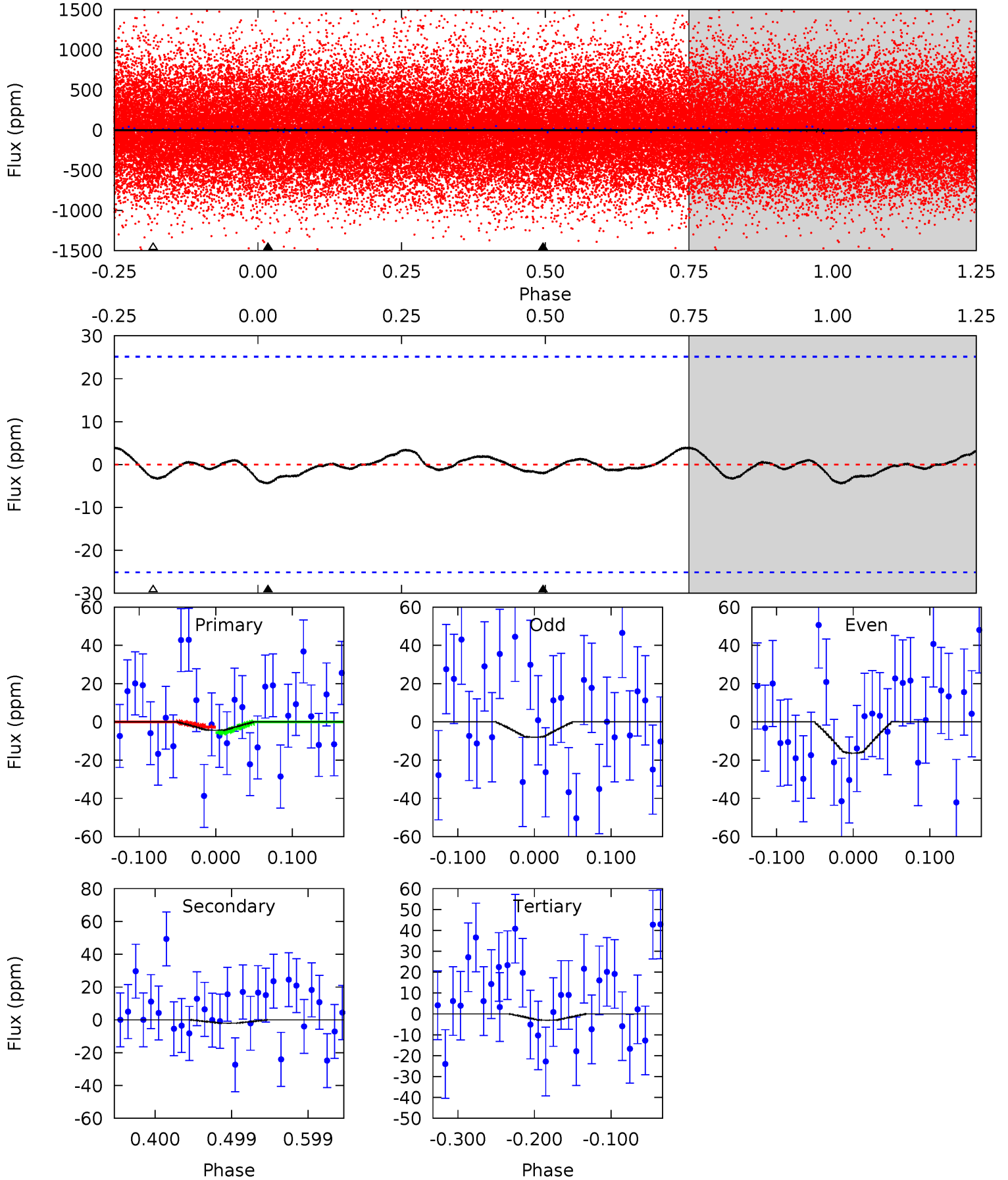
TCE 009540994-01 P= 0.536648 Days $T_0=131.718162$ (BKJD)



DV Model-Shift Uniqueness Test

009540994-01, P = 0.536554 Days, E = 131.272703 Days

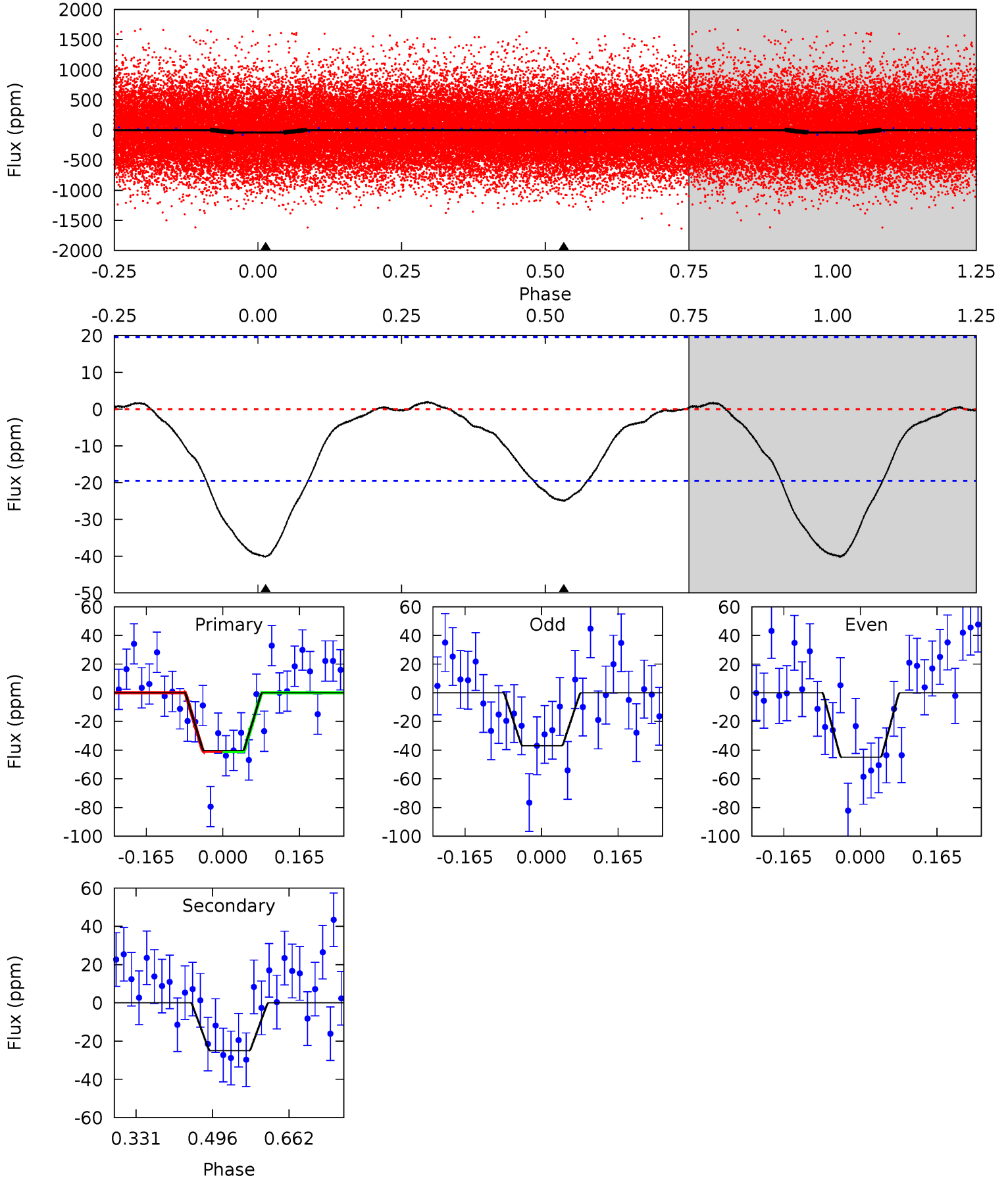
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.80	0.37	0.55	0	4.57	1.65	0.31	0.25	0.80	-0.18	0.37	0.76	0.14	0.47	0.26



Alt Model-Shift Uniqueness Test

009540994-01, P = 0.536648 Days, E = 131.181514 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.17	5.70	0	0	4.46	1.39	0.31	9.17	9.17	5.70	5.70	0.91	0.85	0.05	0.02



Stellar Parameters For KIC 009540994

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5793^{+156}_{-173}	$4.485^{+0.062}_{-0.200}$	$-0.100^{+0.300}_{-0.300}$	$0.925^{+0.268}_{-0.115}$	$0.954^{+0.114}_{-0.102}$	$1.696^{+0.548}_{-0.849}$
	+3%/-3%	+1%/-4%	+300%/-300%	+29%/-12%	+12%/-11%	+32%/-50%
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 009540994-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2 ± 6	$1.17^{+1.44}_{-0.83}$	3109^{+212}_{-154}	-3017^{+6963}_{-455}	$0.070^{+1.527}_{-0.261}$
Alt.	-25 ± 4	$1.52^{+1.39}_{-1.03}$	3115^{+214}_{-163}	3584^{+2442}_{-6056}	$0.966^{+8.563}_{-0.717}$

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 $A_{obs} \gg 1.0$

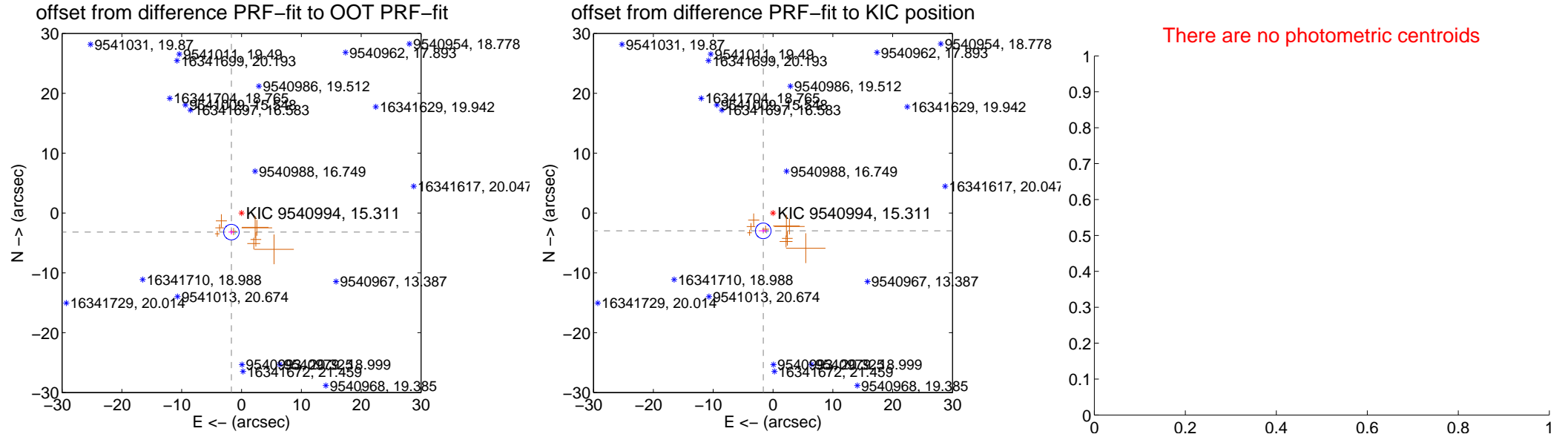
DV Centroid Data

Supplemental centroid analysis for 009540994-01. Kepler magnitude: 15.31. Transit SNR 0.03

There are 1 quarters with good PRF difference image offsets

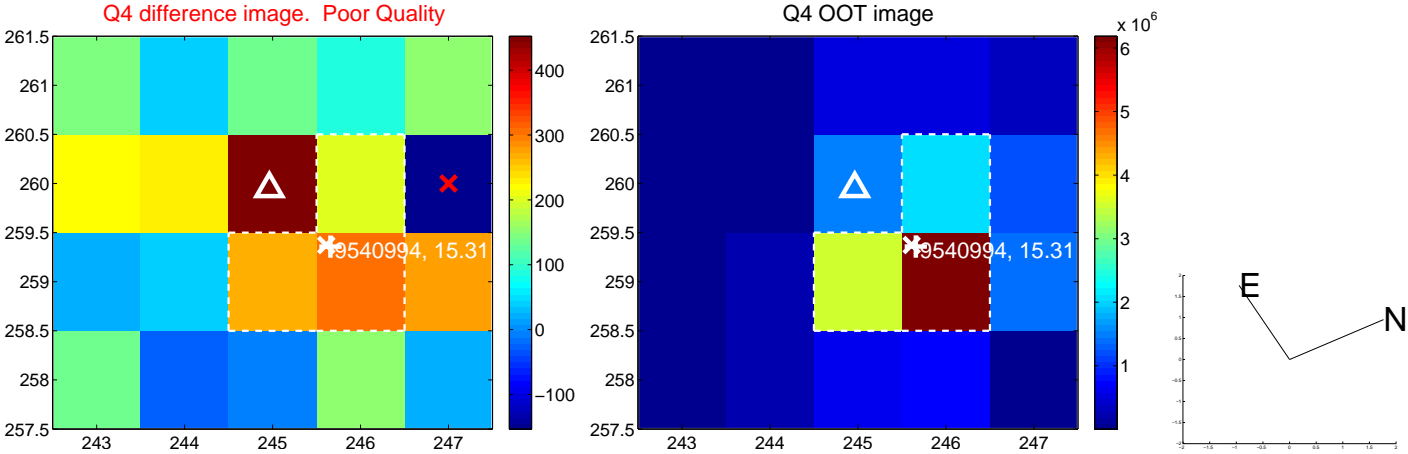
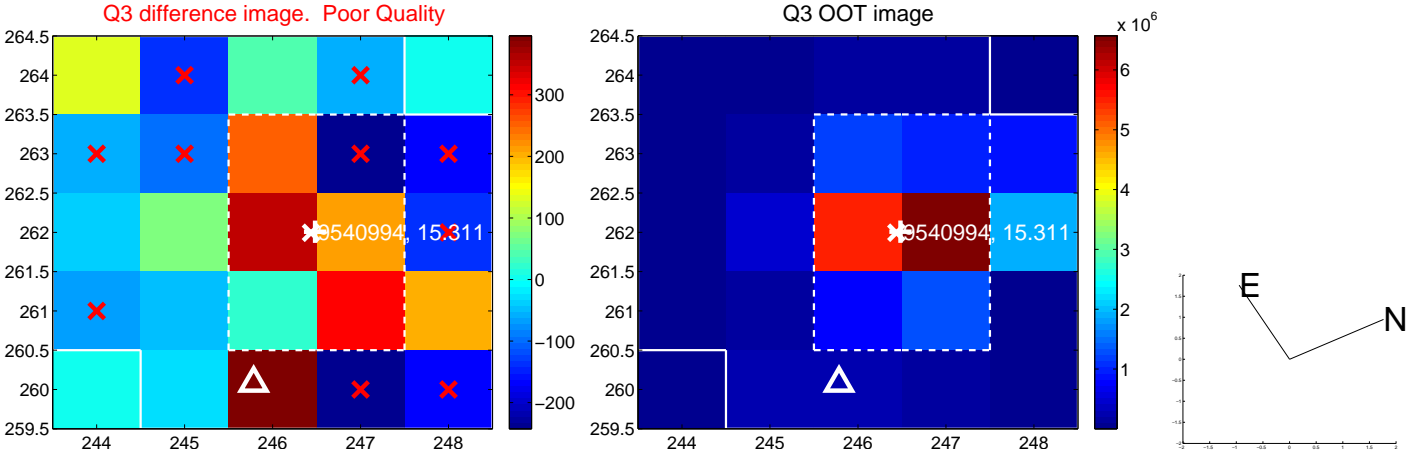
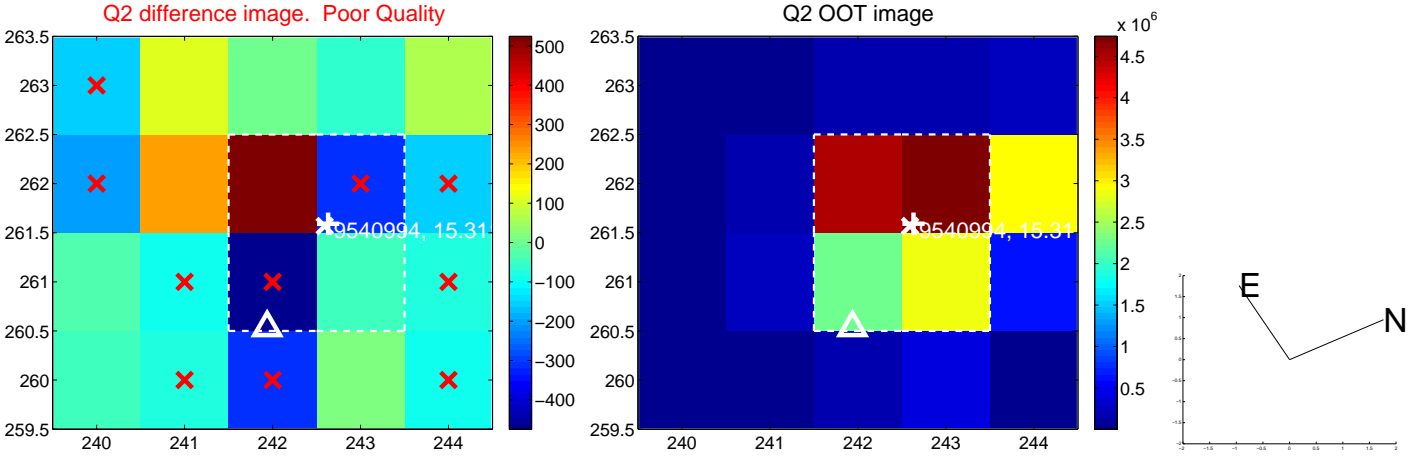
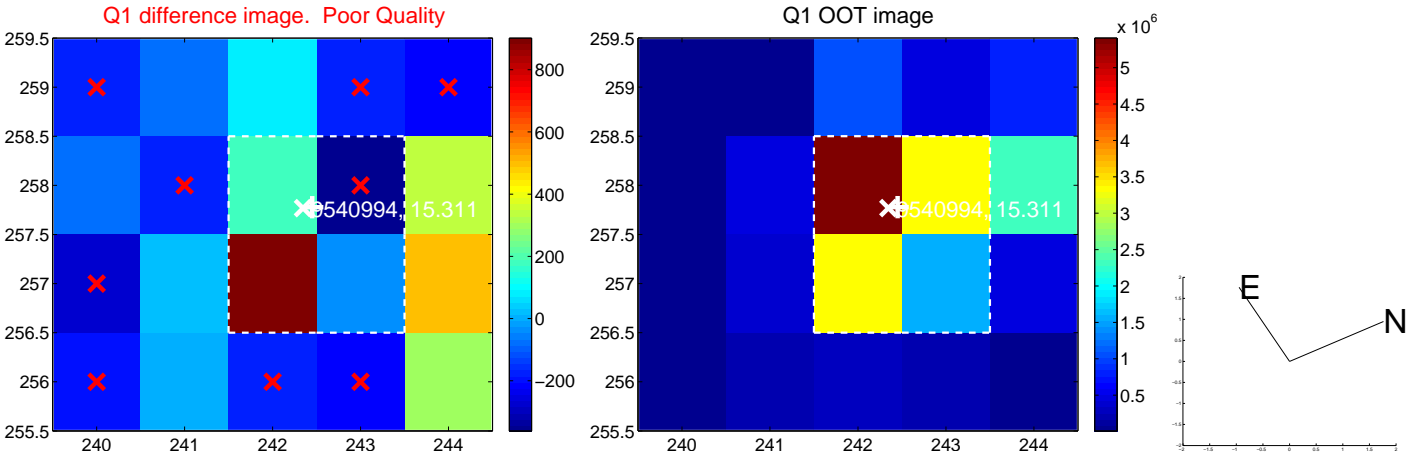
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.615 ± 0.432	8.36	1.692 ± 0.516	-3.194 ± 0.406
PRF-fit source offset from KIC position	3.398 ± 0.435	7.81	1.633 ± 0.756	-2.980 ± 0.274
photometric centroid source offset	—	—	—	—

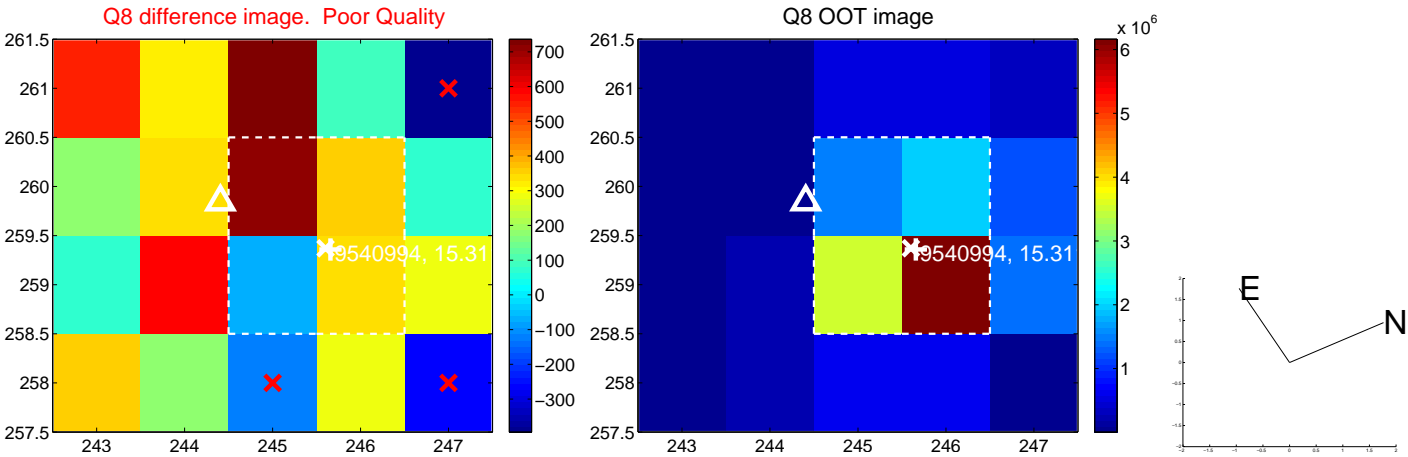
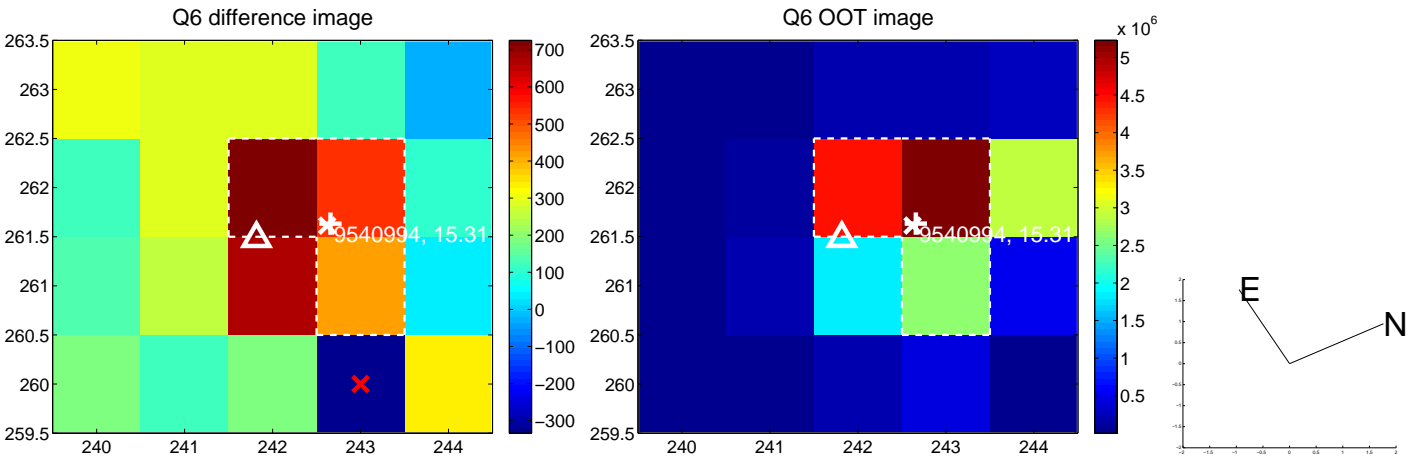
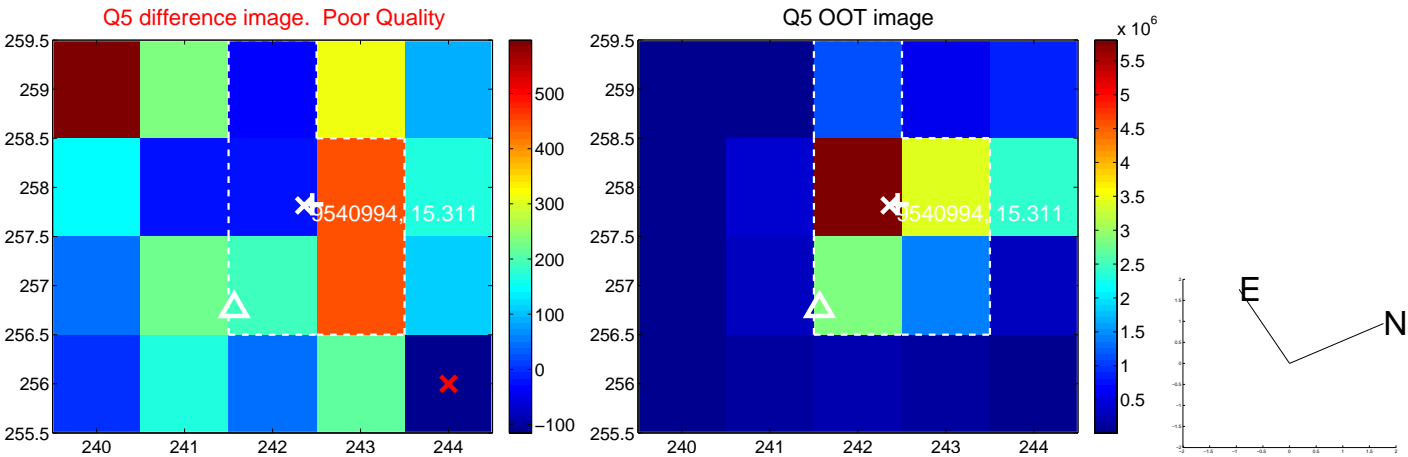


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

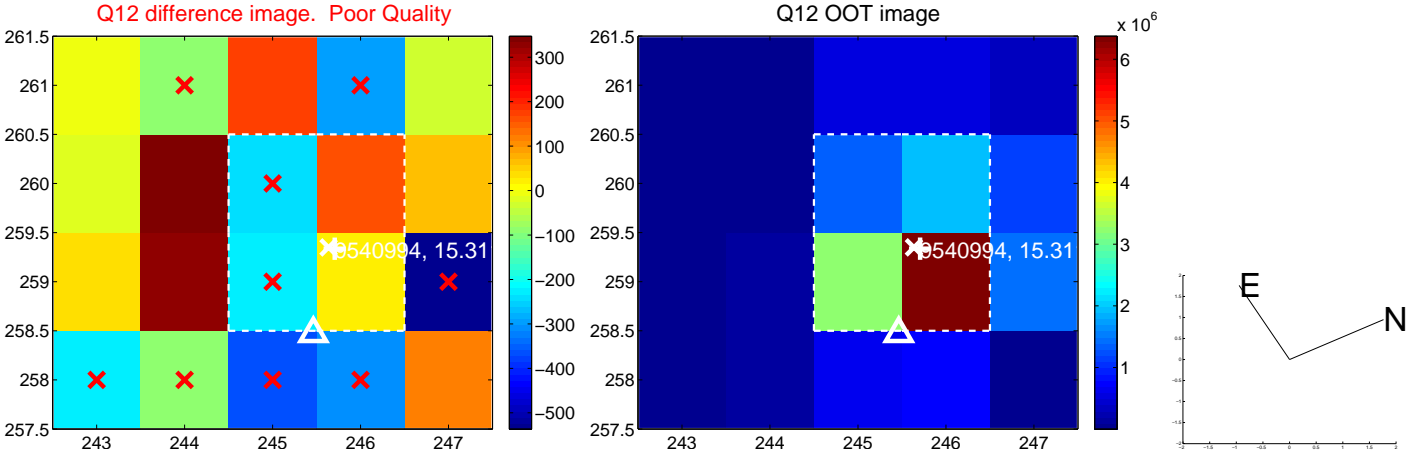
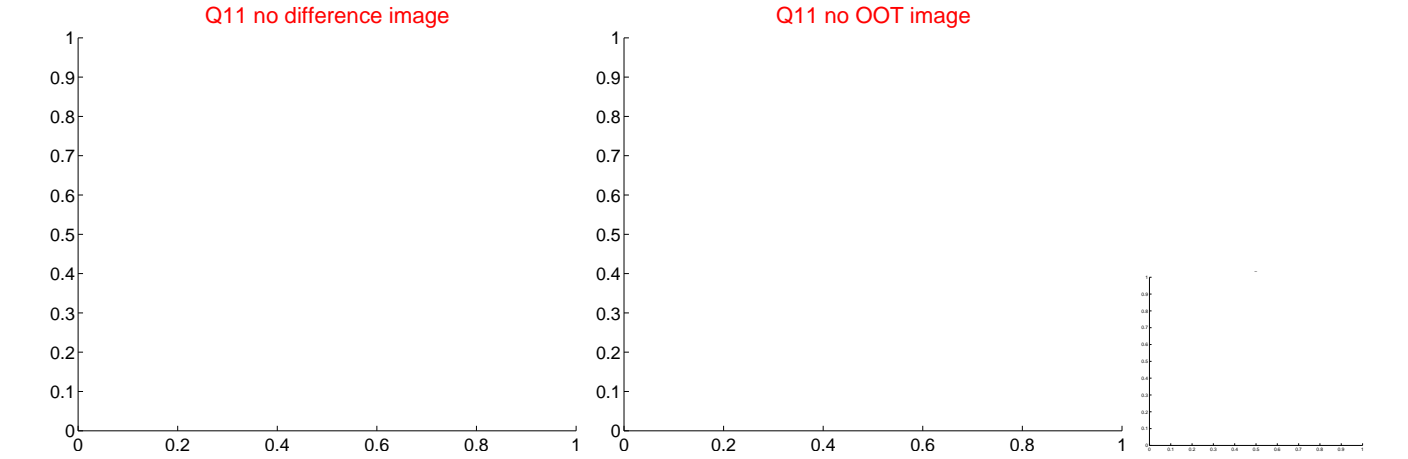
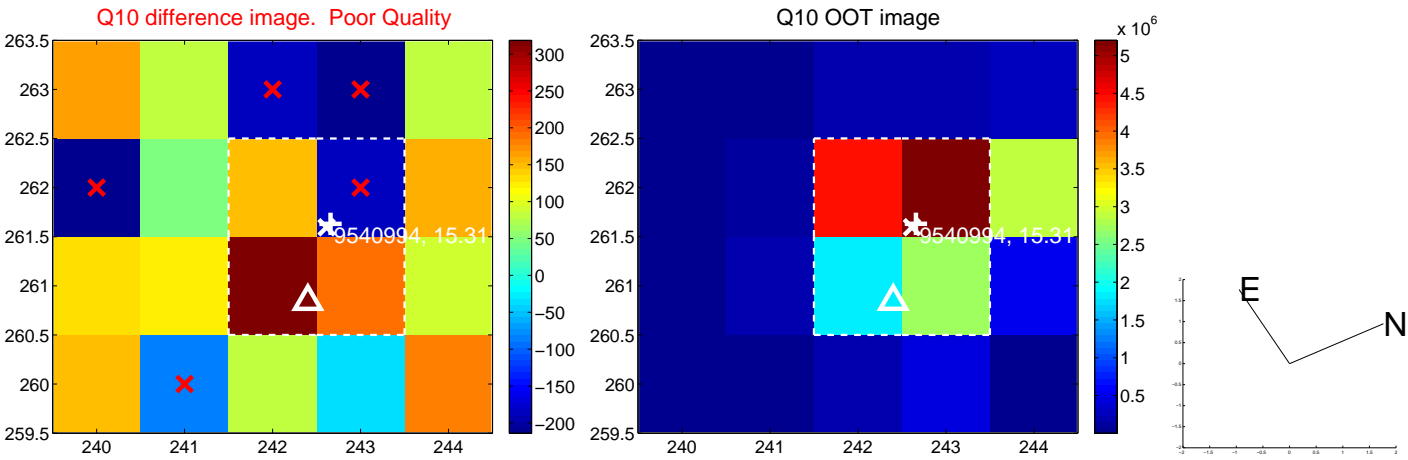
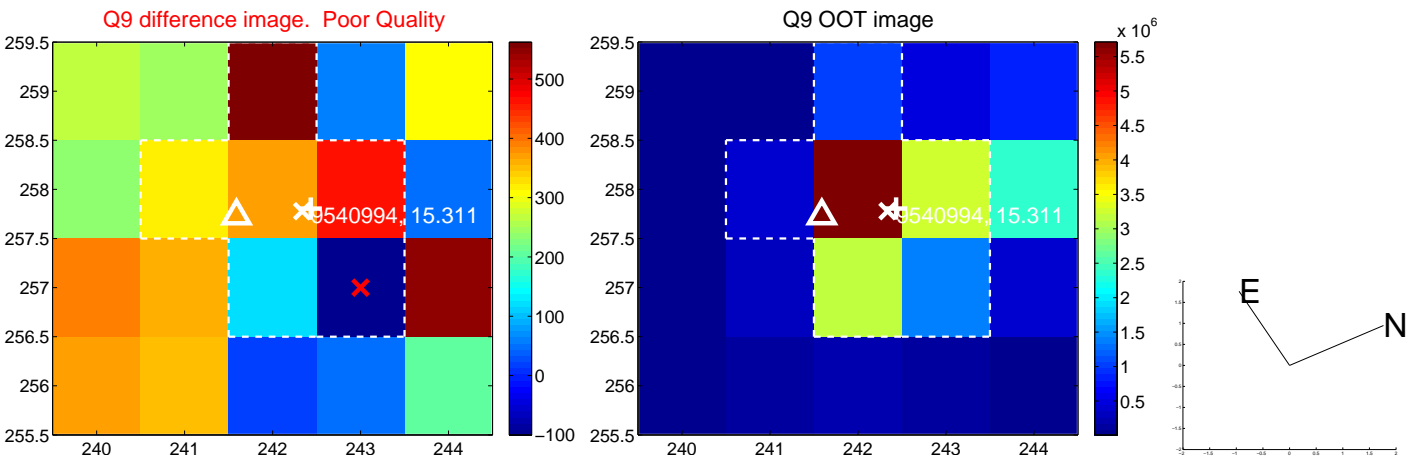
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



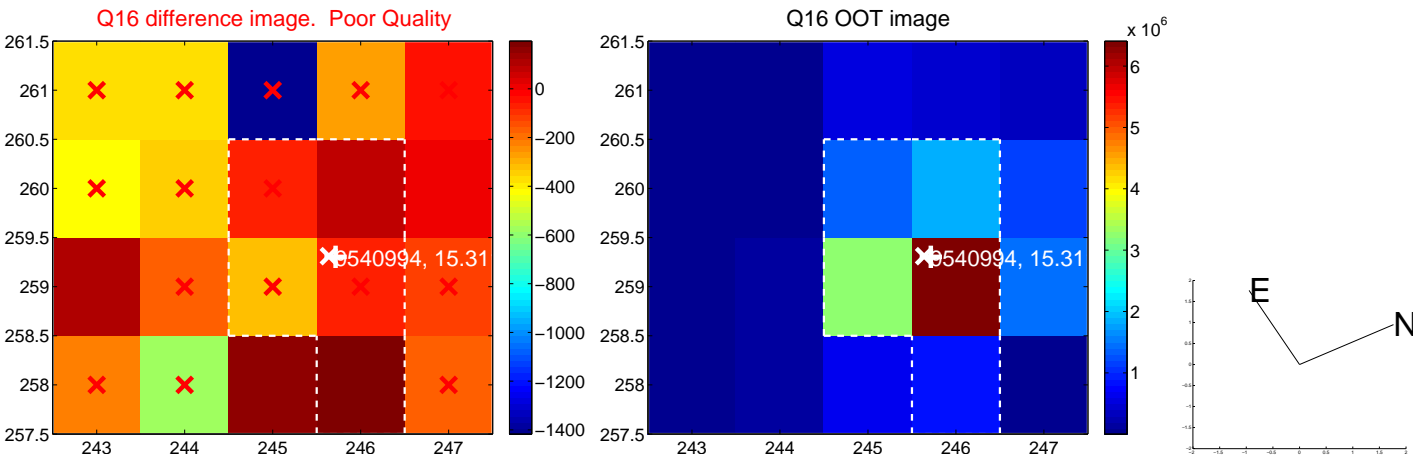
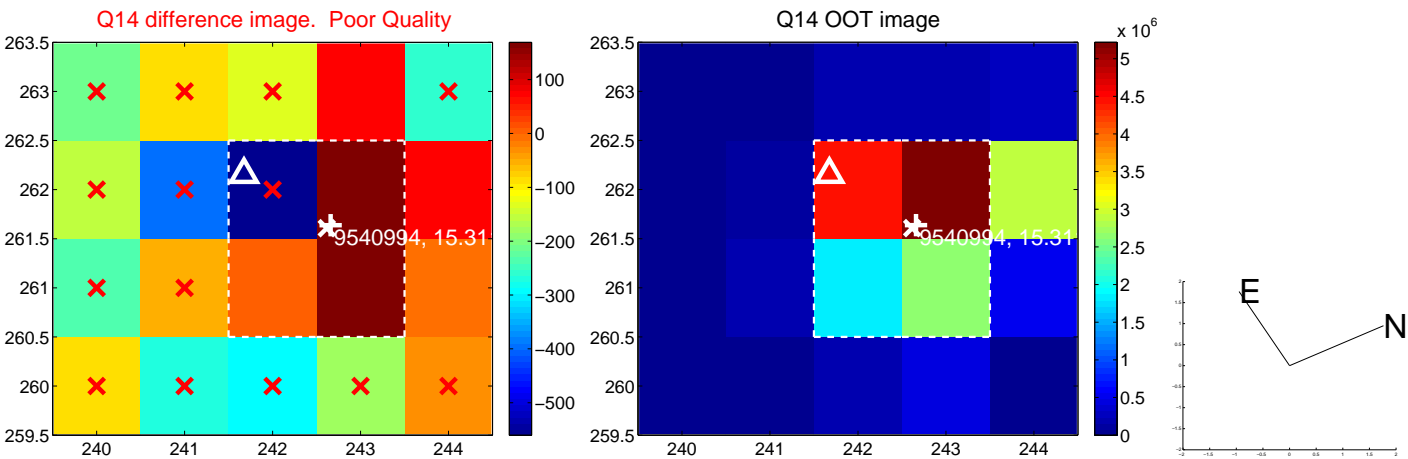
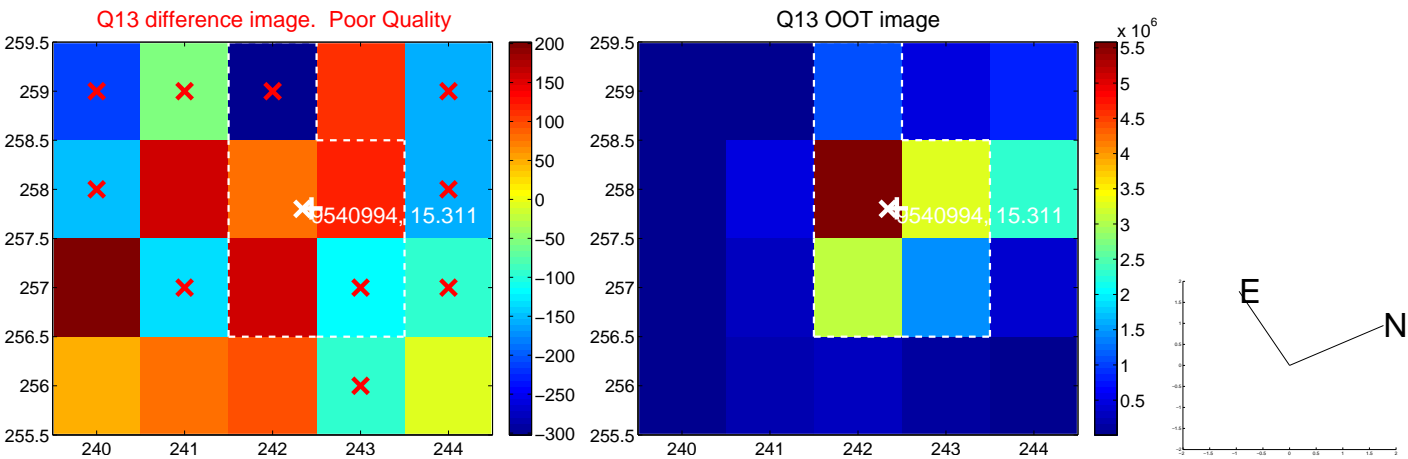
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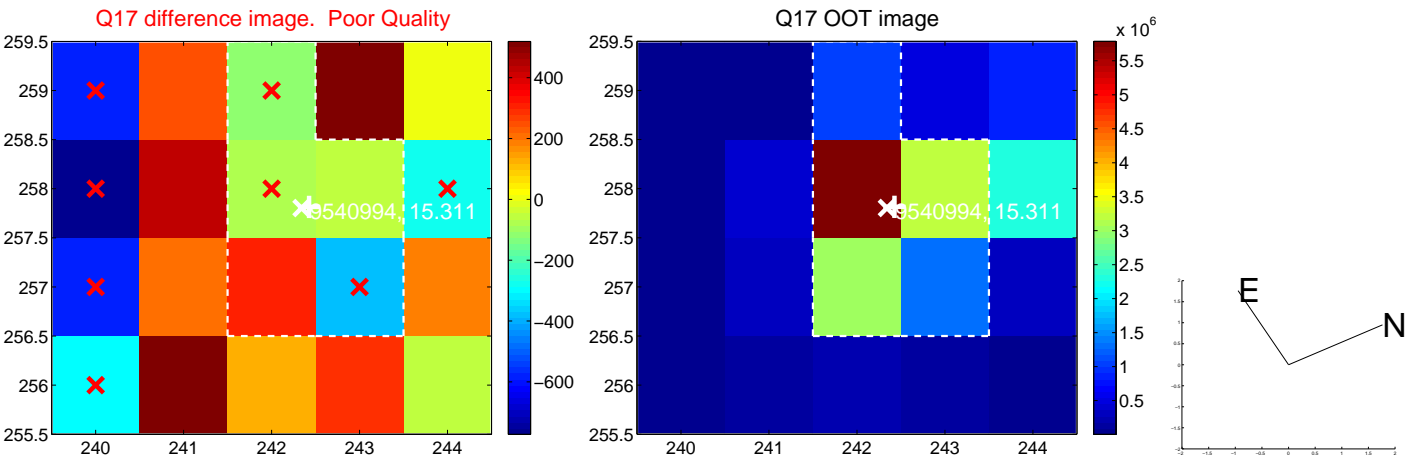
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folded centroid time series figure for this object.

UKIRT Image

Declination

