

KIC 009005042

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})
009005042-01	OBS	No	0.640434	132.031827	35.1	3.101	9.0	7.0	0.89	5868	0.62	4046.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009005042-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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.

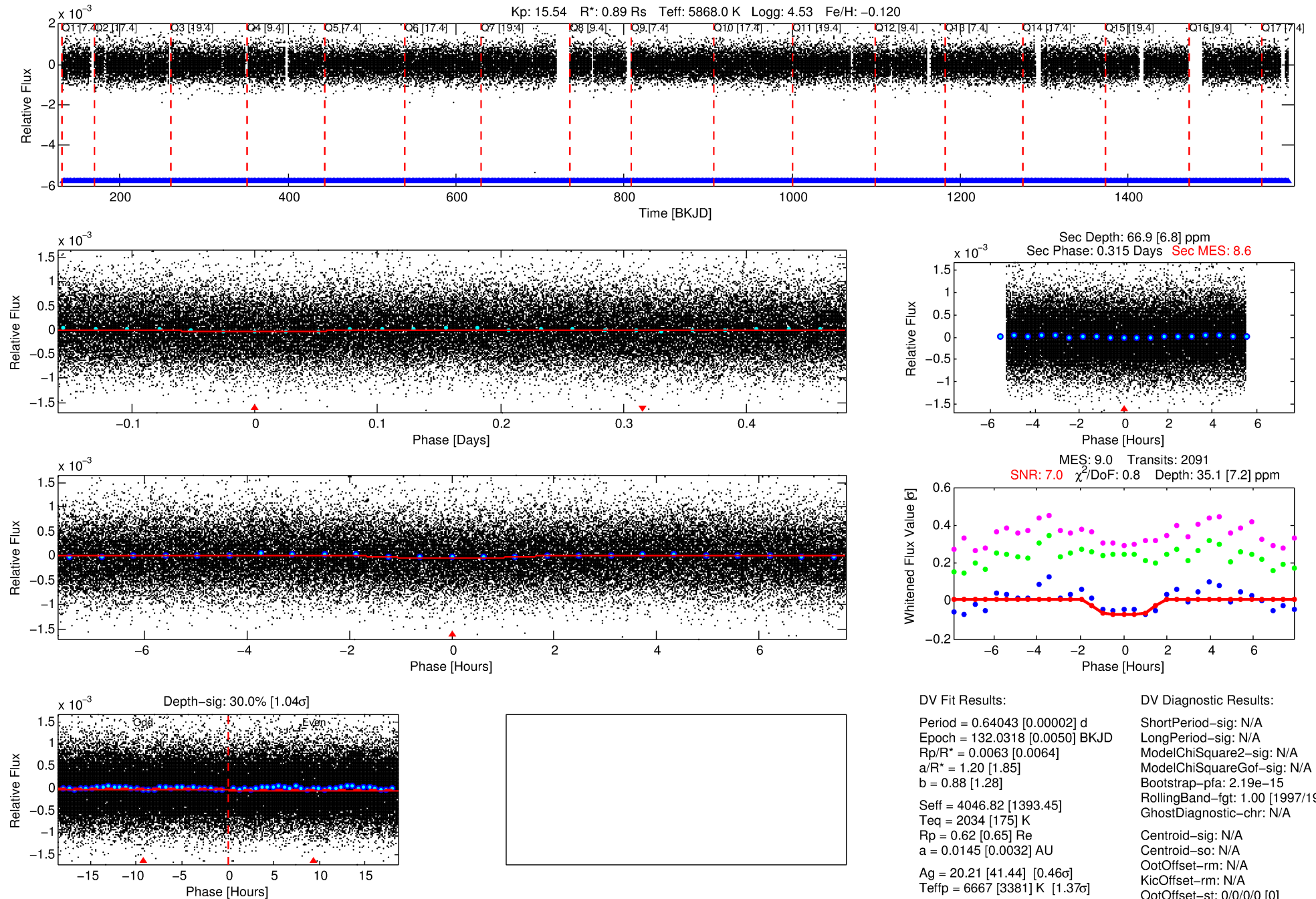
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009005042-01

No Significant Match Found

DV One-Page Summary

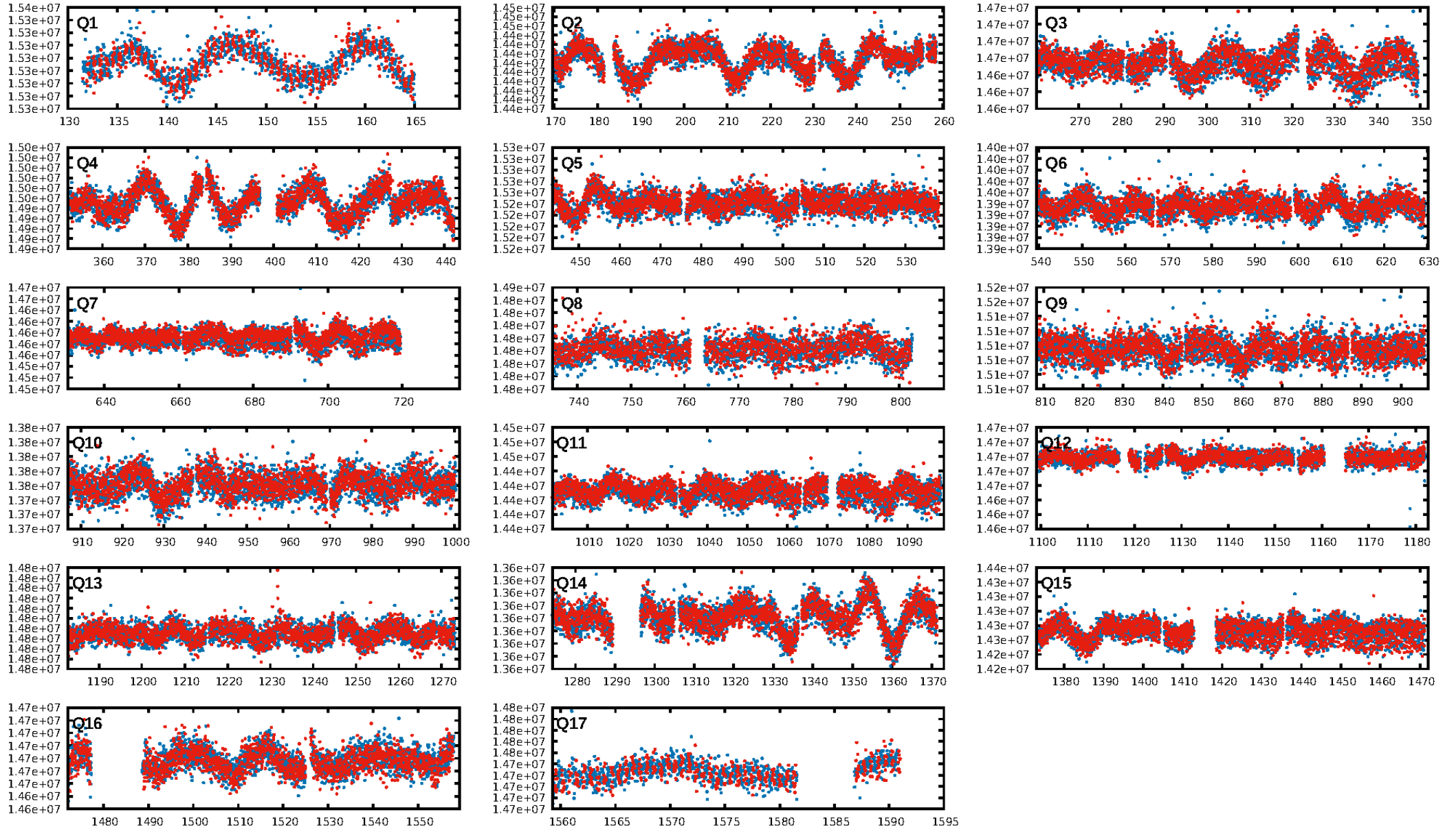
KIC: 9005042 Candidate: 1 of 1 Period: 0.640 d



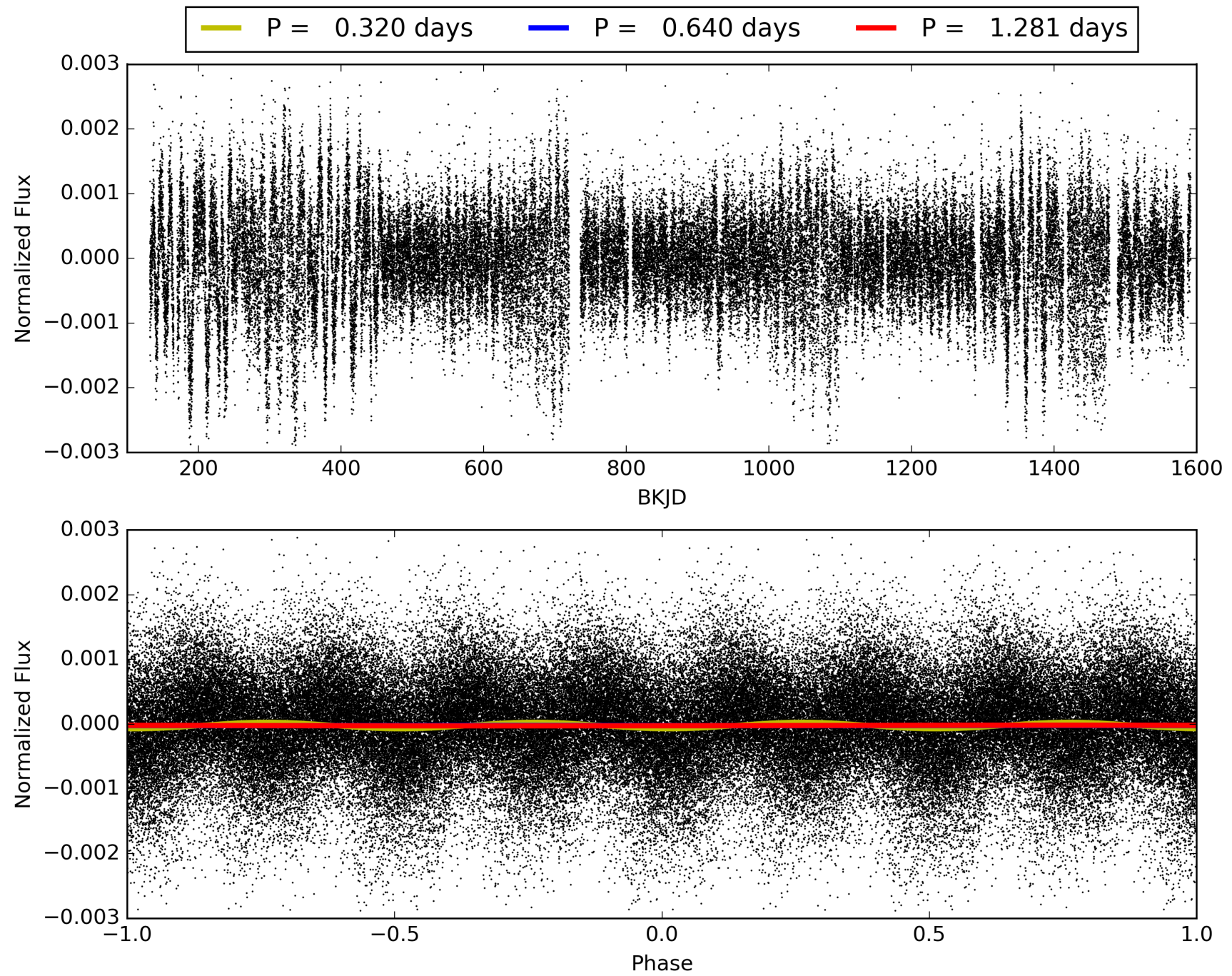
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 11:26:11 Z

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

TCE 009005042-01, PDC Light Curves

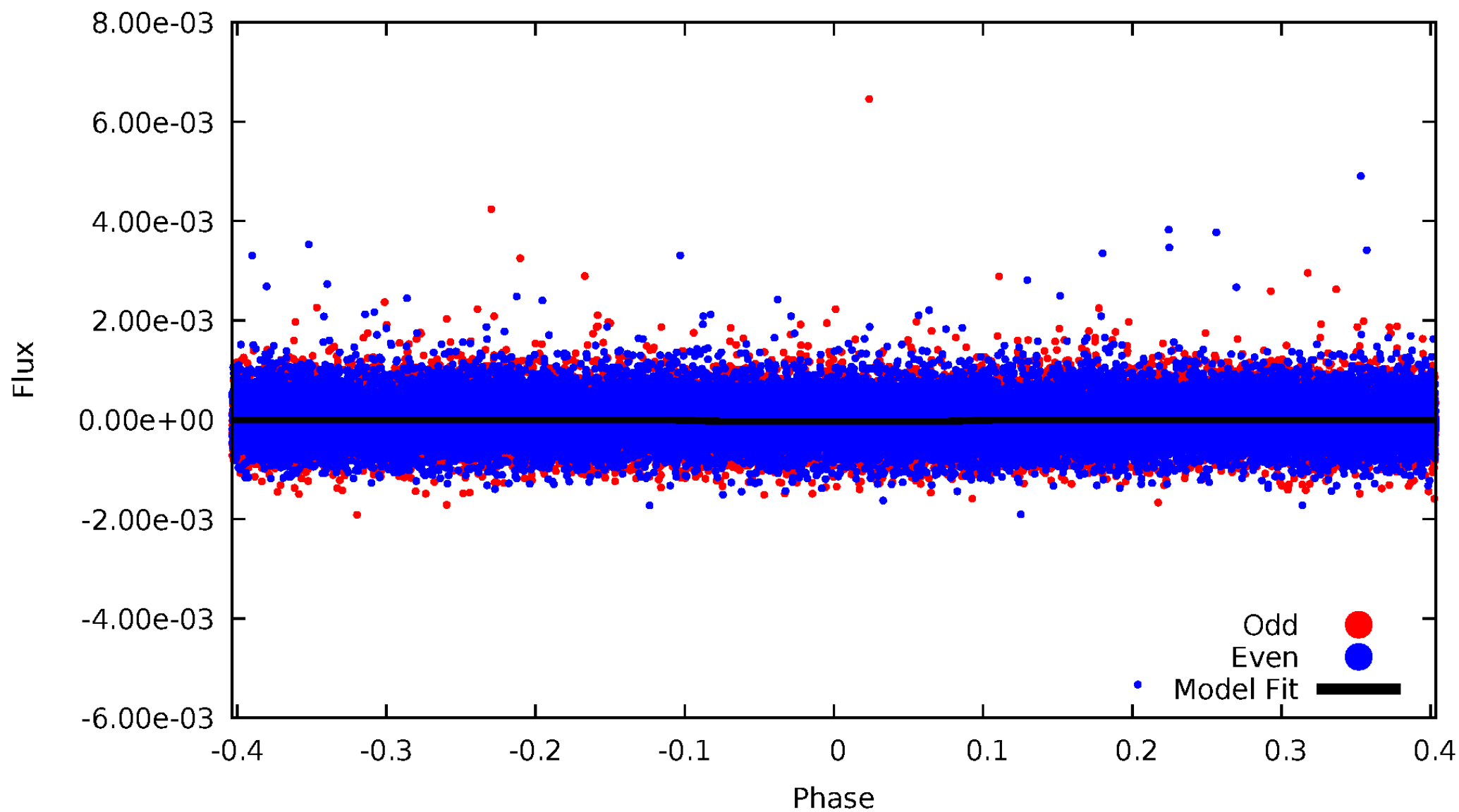


TCE 009005042-01



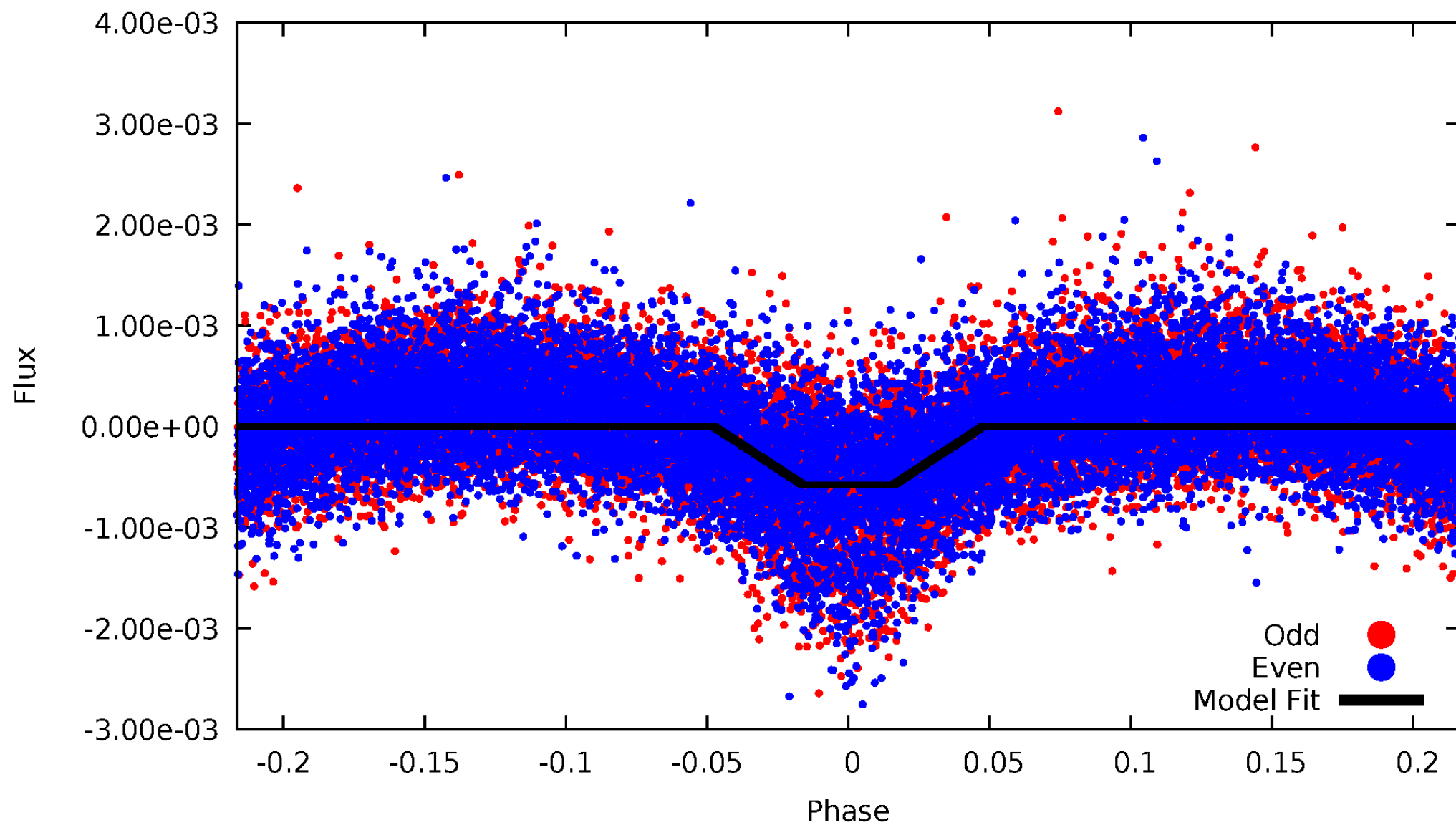
DV Odd/Even

TCE 009005042-01



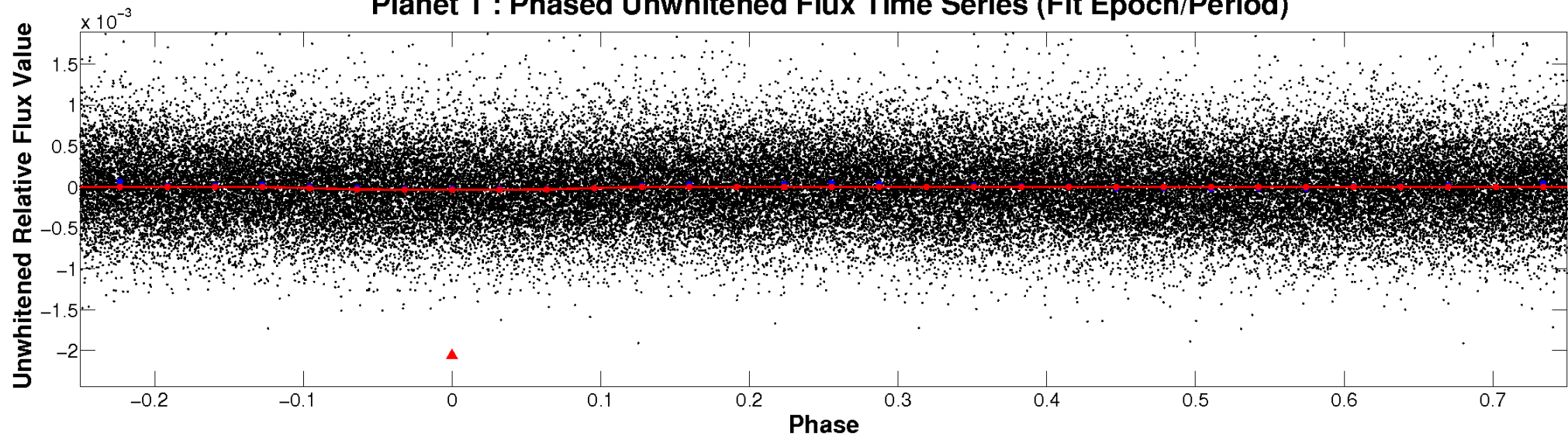
ALT Odd/Even

TCE 009005042-01

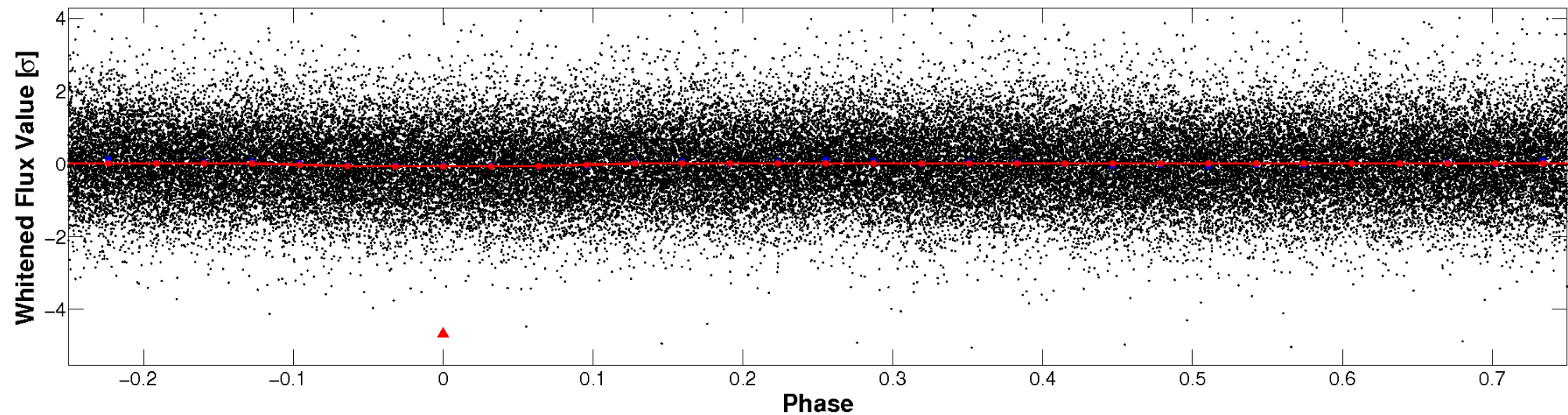


Non-Whitened Vs. Whitened Light Curve

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

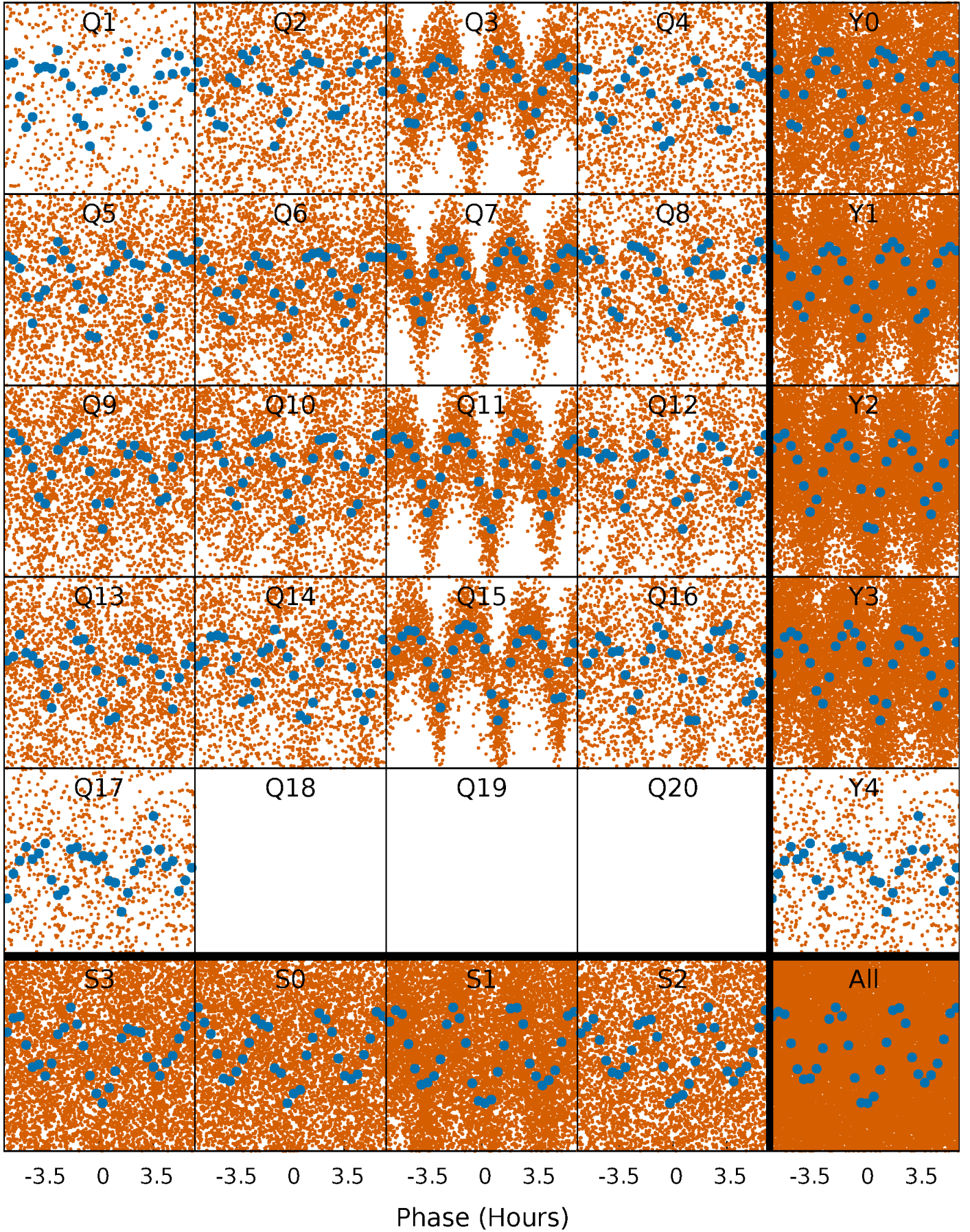


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



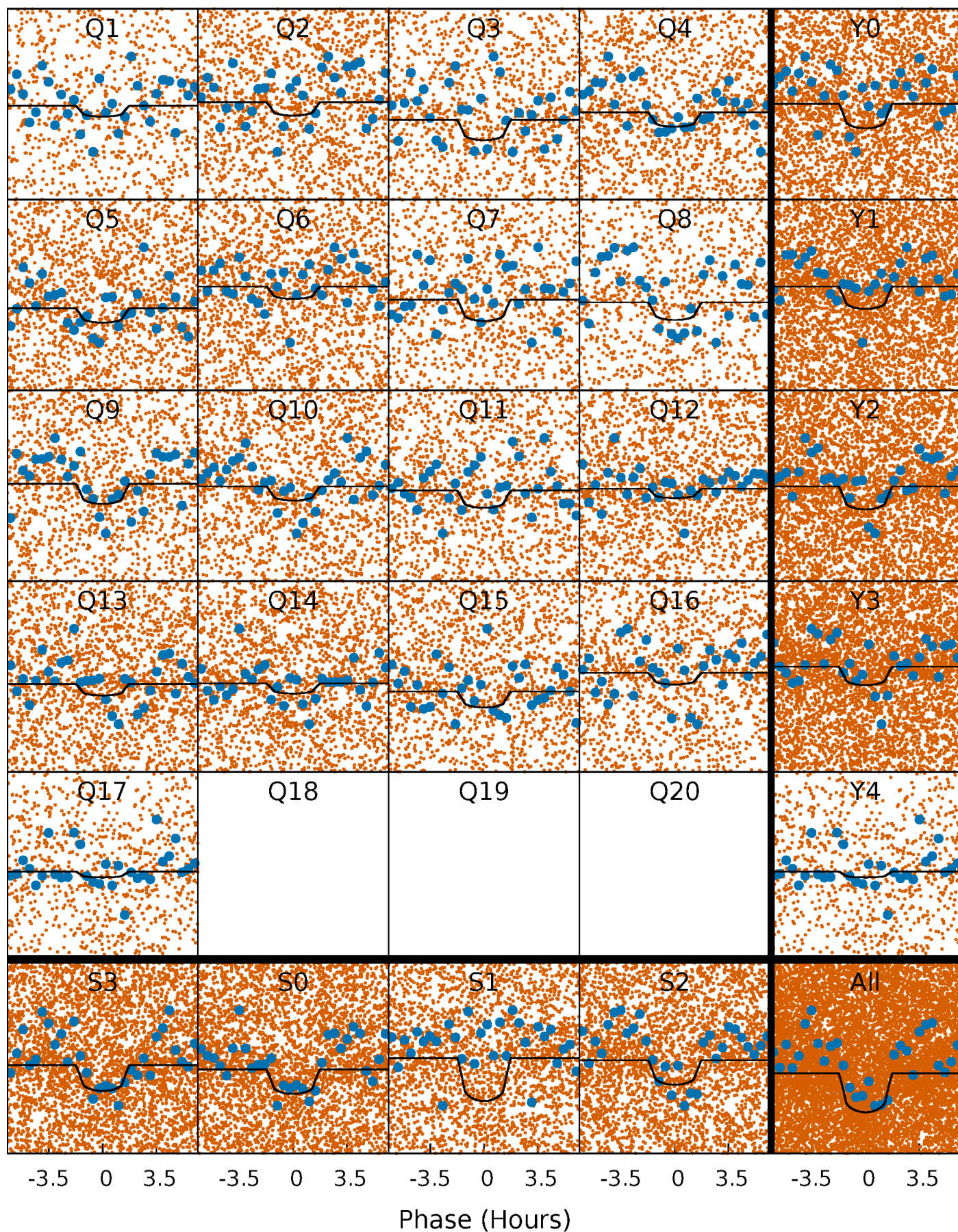
PDC Quarter-Phased Transit Curves

TCE 009005042-01 P= 0.640434 Days $T_0=132.031827$ (BKJD)



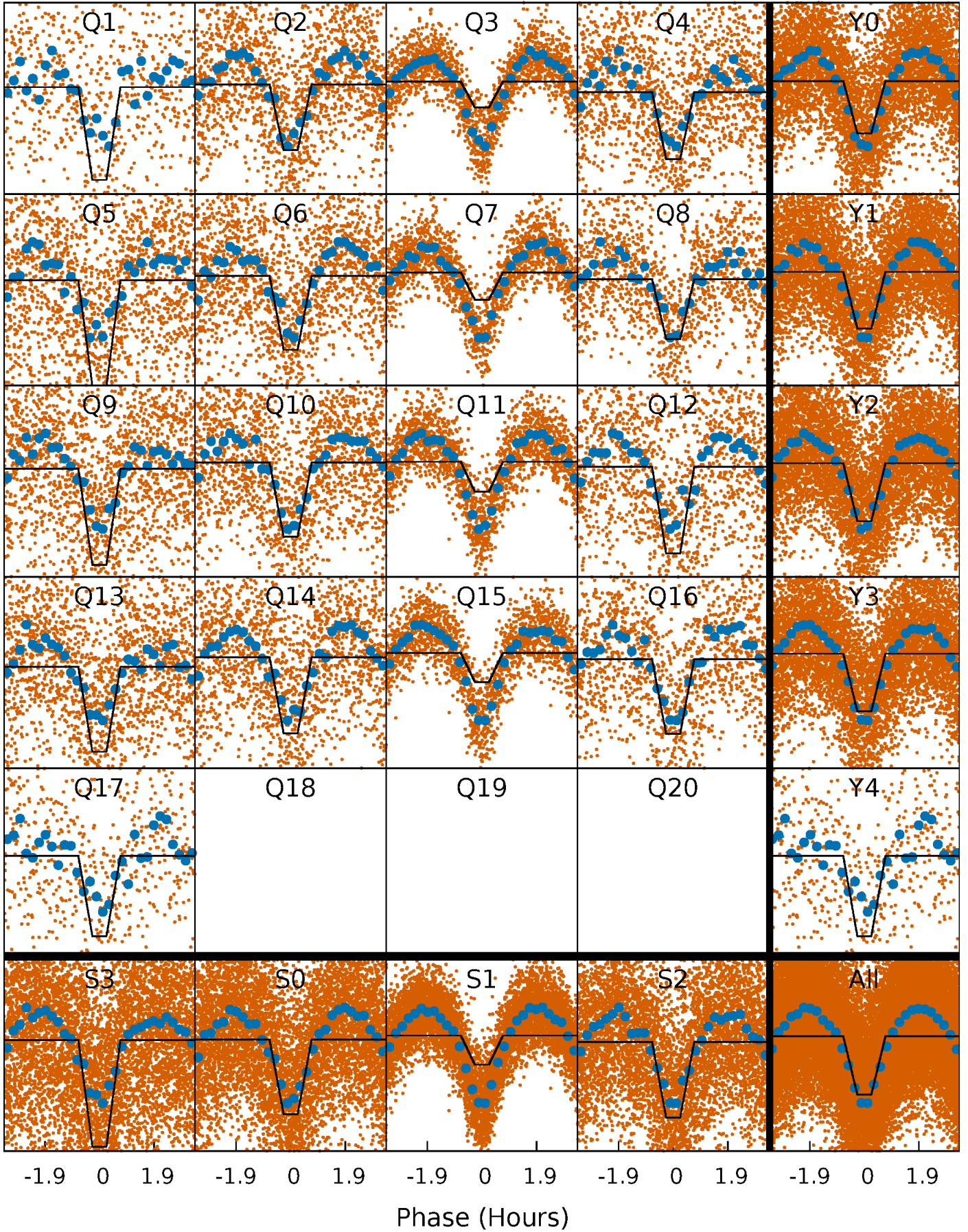
DV Quarter-Phased Transit Curves

TCE 009005042-01 P= 0.640434 Days $T_0=132.031827$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

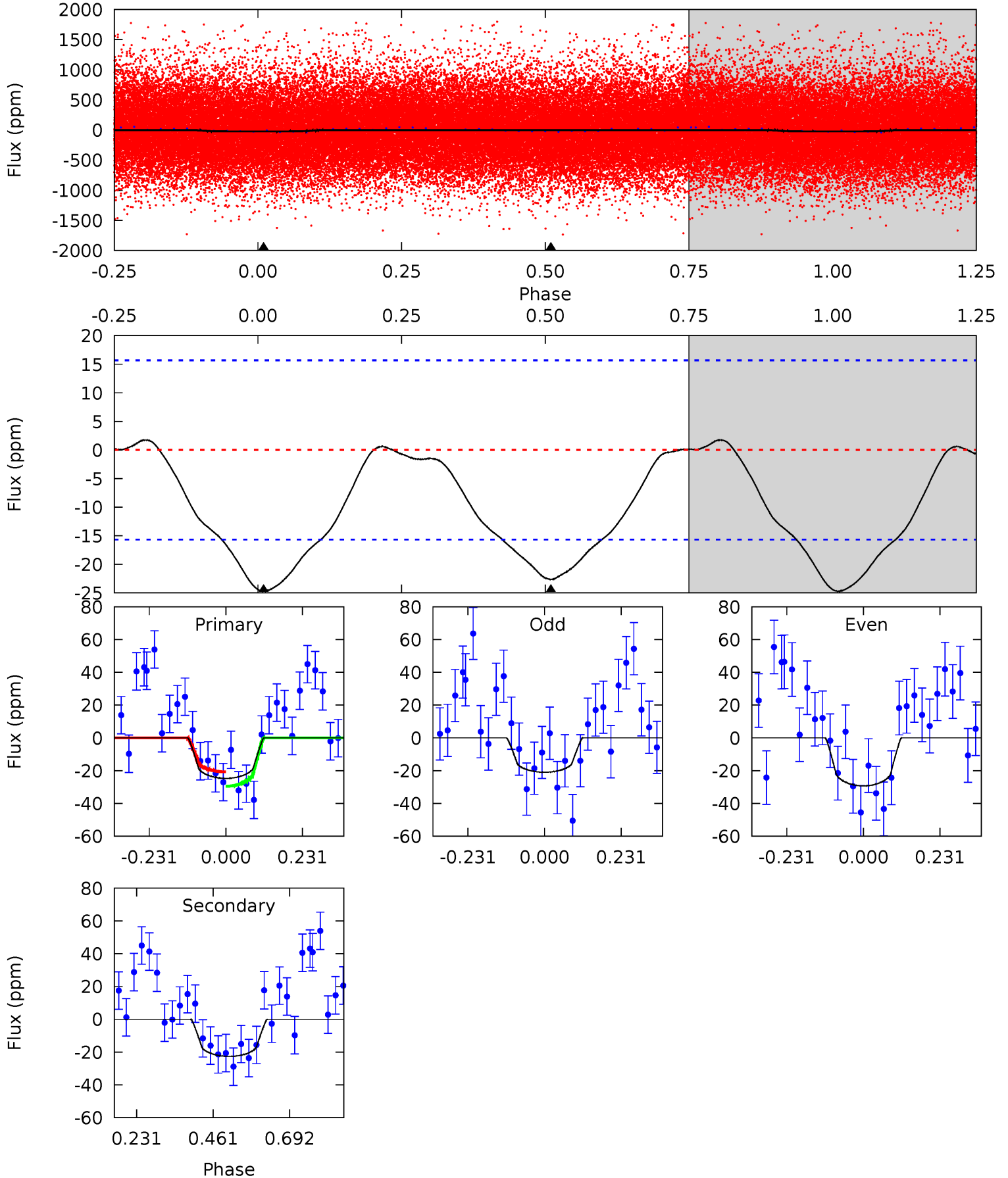
TCE 009005042-01 P= 0.640476 Days $T_0=131.992682$ (BKJD)



DV Model-Shift Uniqueness Test

009005042-01, P = 0.640434 Days, E = 131.391393 Days

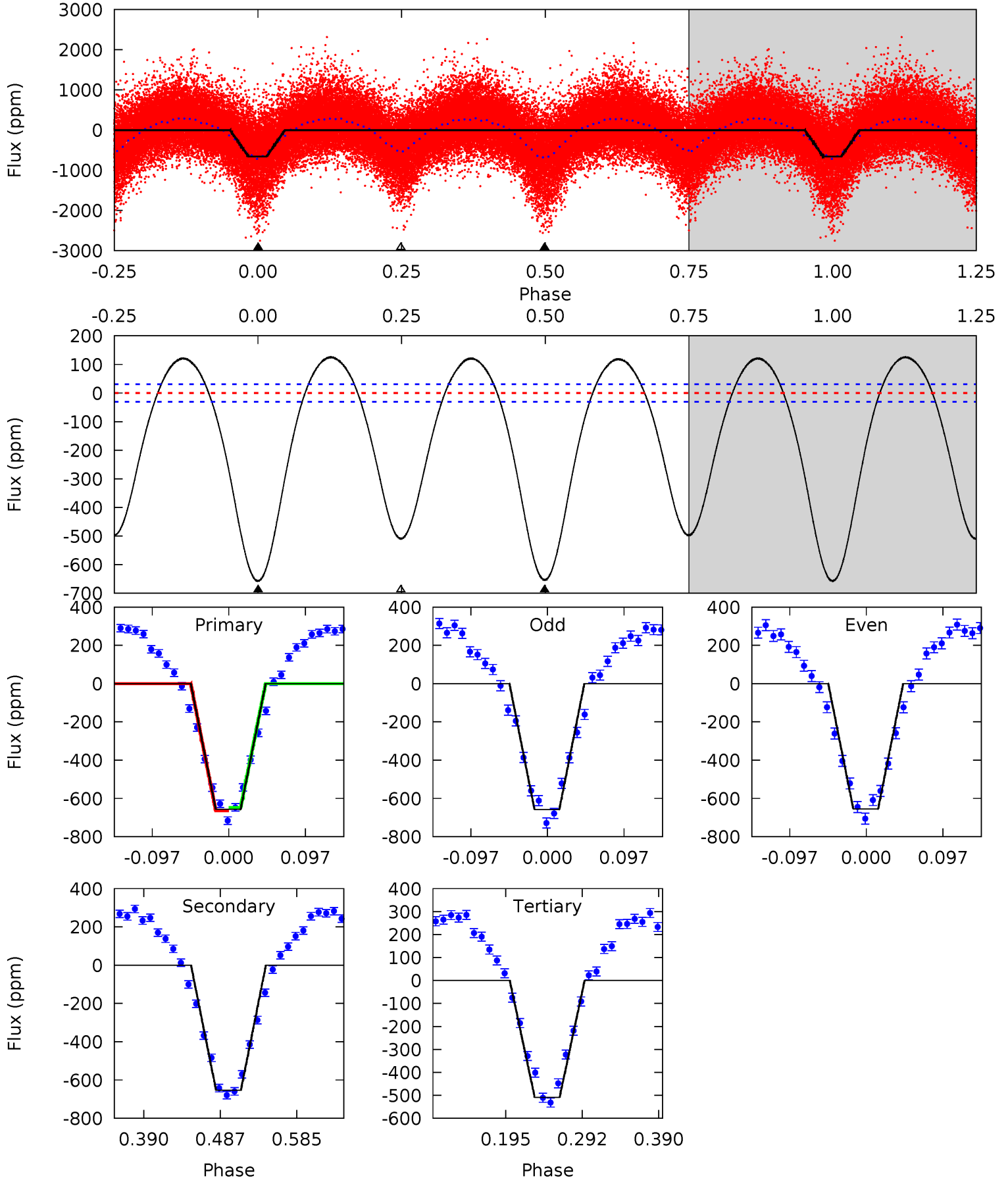
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.91	6.34	0	0	4.39	1.20	0.21	6.91	6.91	6.34	6.34	1.17	0.71	0.07	1.25



Alt Model-Shift Uniqueness Test

009005042-01, P = 0.640476 Days, E = 131.352206 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
97.8	97.3	75.8	0	4.57	1.66	32.5	22.0	97.8	21.5	97.3	0.20	1.15	0.16	1.35



Stellar Parameters For KIC 009005042

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5868^{+146}_{-175}	$4.530^{+0.042}_{-0.178}$	$-0.120^{+0.300}_{-0.300}$	$0.894^{+0.231}_{-0.093}$	$0.987^{+0.104}_{-0.127}$	$1.946^{+0.440}_{-0.937}$
	+2%/-3%	+1%/-4%	+250%/-250%	+26%/-10%	+11%/-13%	+23%/-48%
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 009005042-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-23 ± 4	$0.79^{+0.56}_{-0.52}$	2909^{+187}_{-126}	4703^{+3381}_{-973}	$4.139^{+32.362}_{-2.807}$
Alt.	-653 ± 7	$2.48^{+0.72}_{-0.75}$	2898^{+182}_{-123}	6017^{+1120}_{-677}	12^{+12}_{-5}

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 $A_{\text{obs}} \gg 1.0$

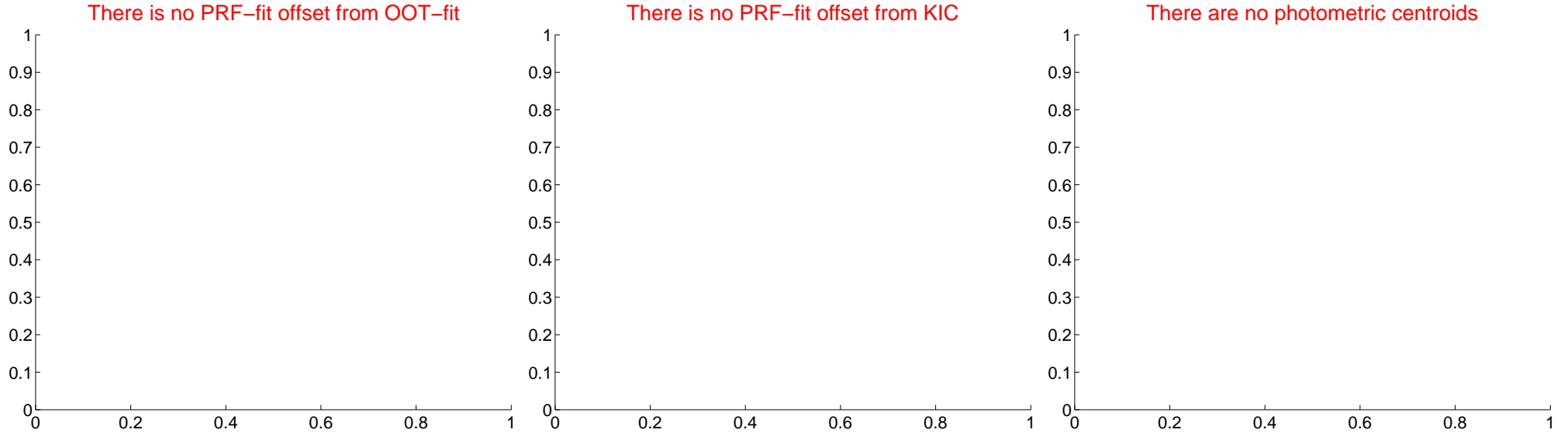
DV Centroid Data

Supplemental centroid analysis for 009005042-01. Kepler magnitude: 15.54. Transit SNR 7.03

There are 0 quarters with good PRF difference image offsets

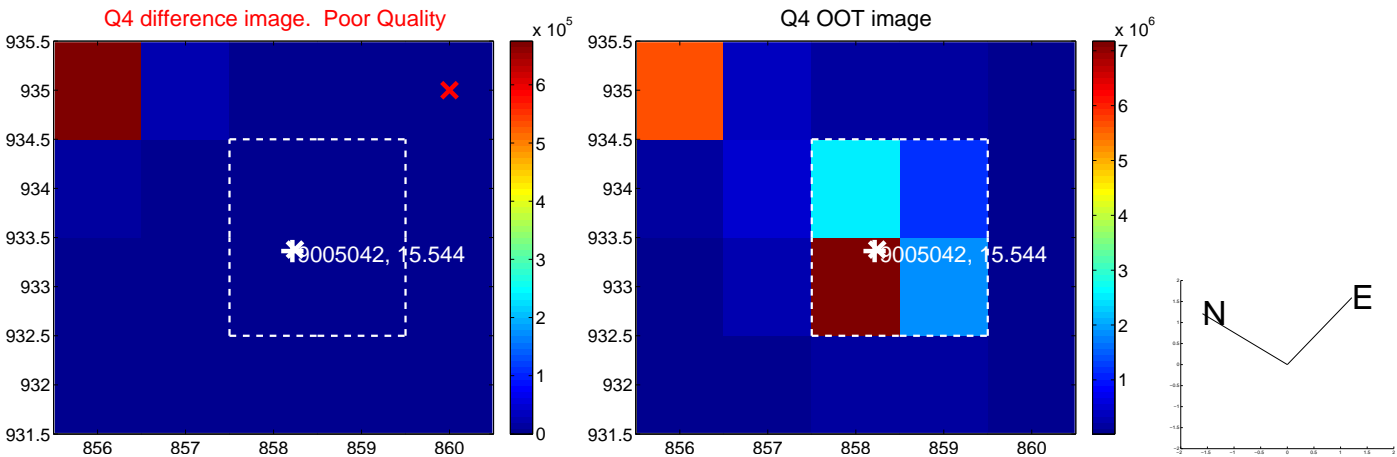
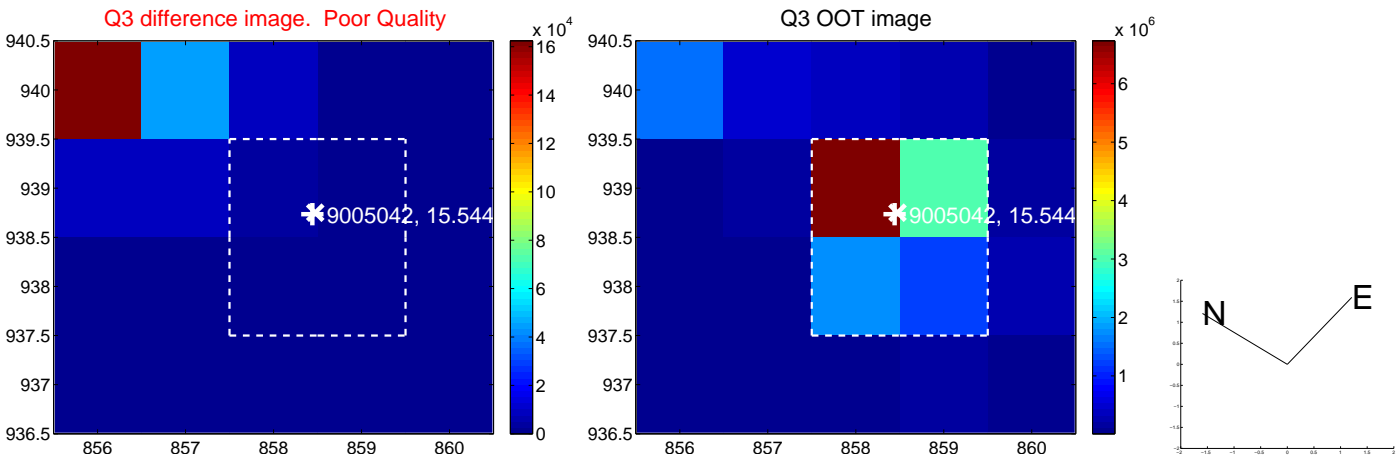
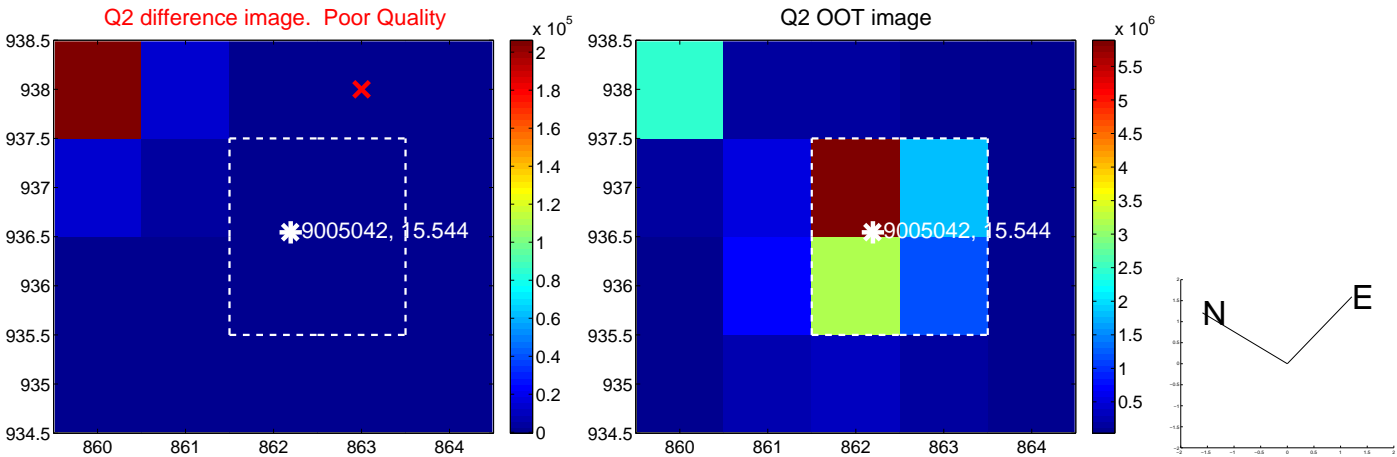
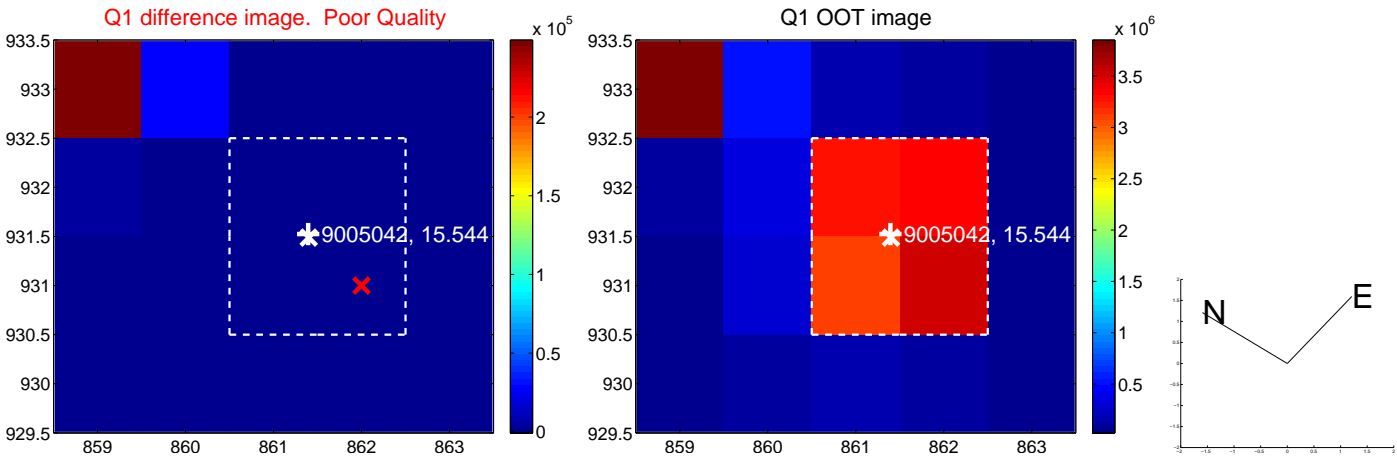
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—

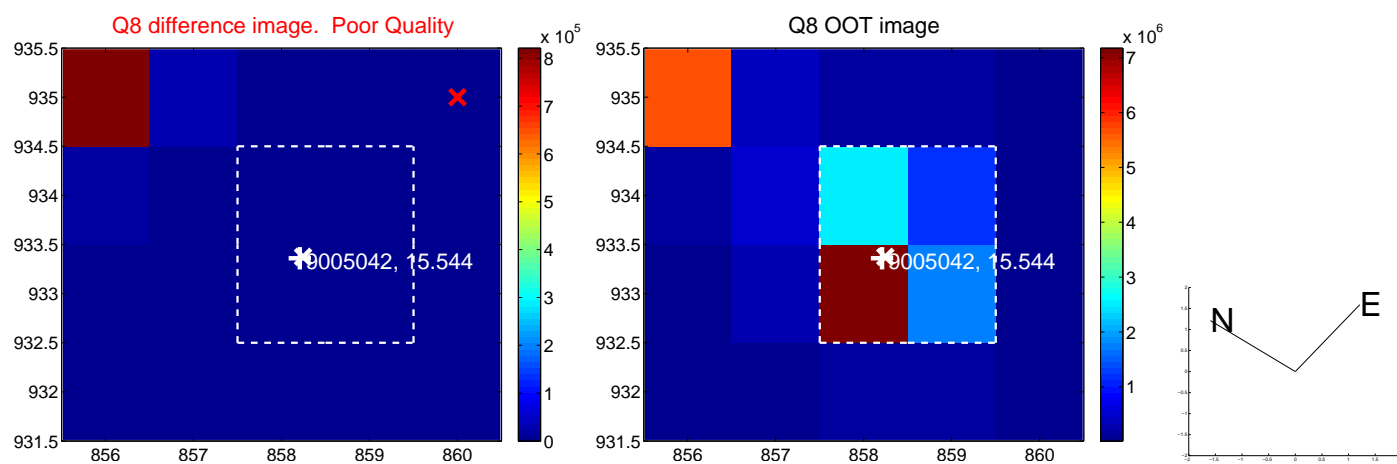
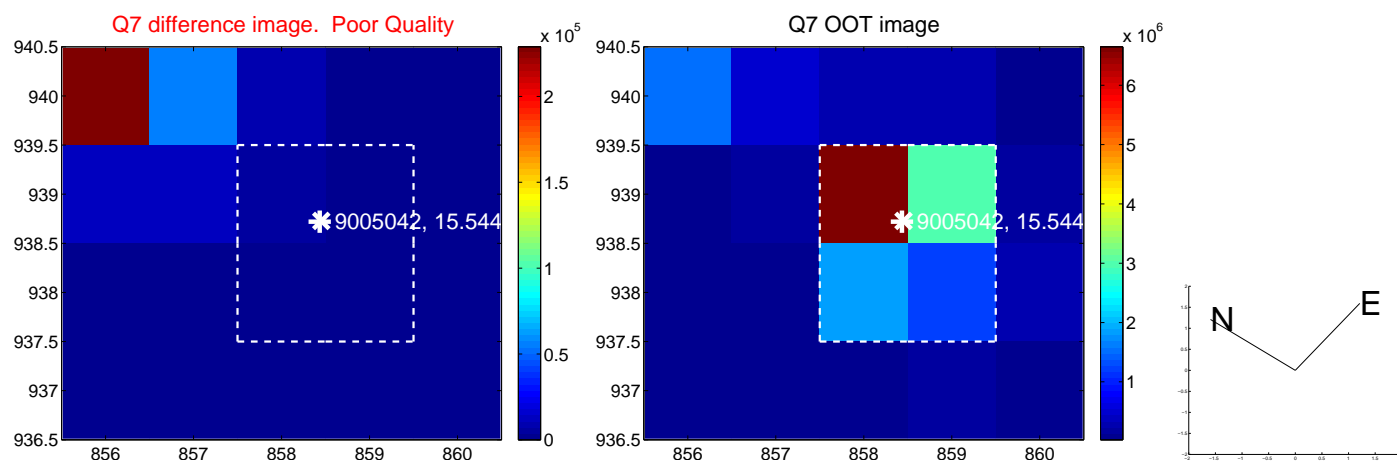
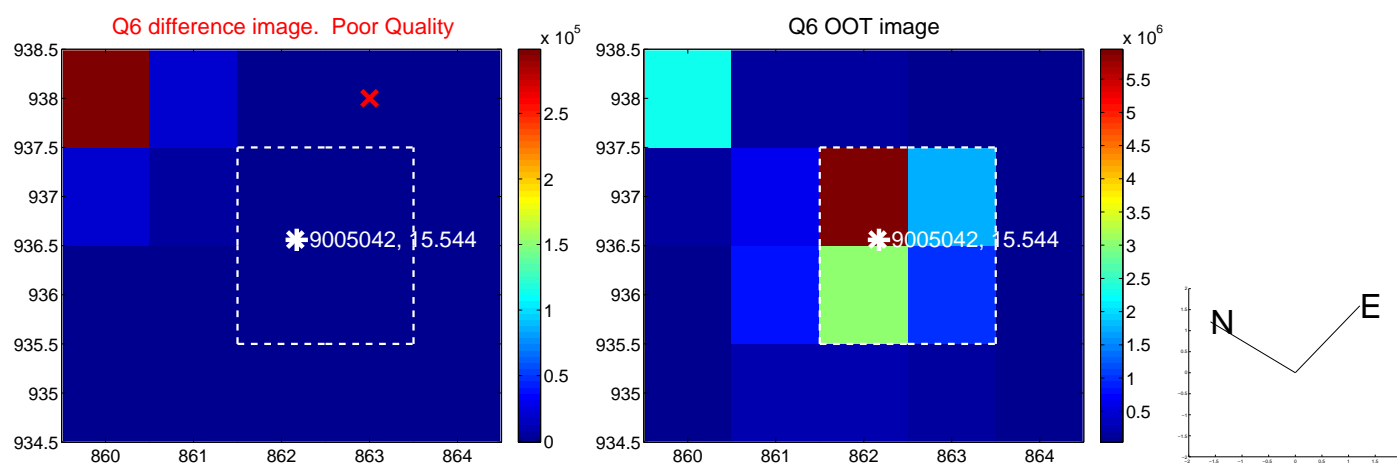
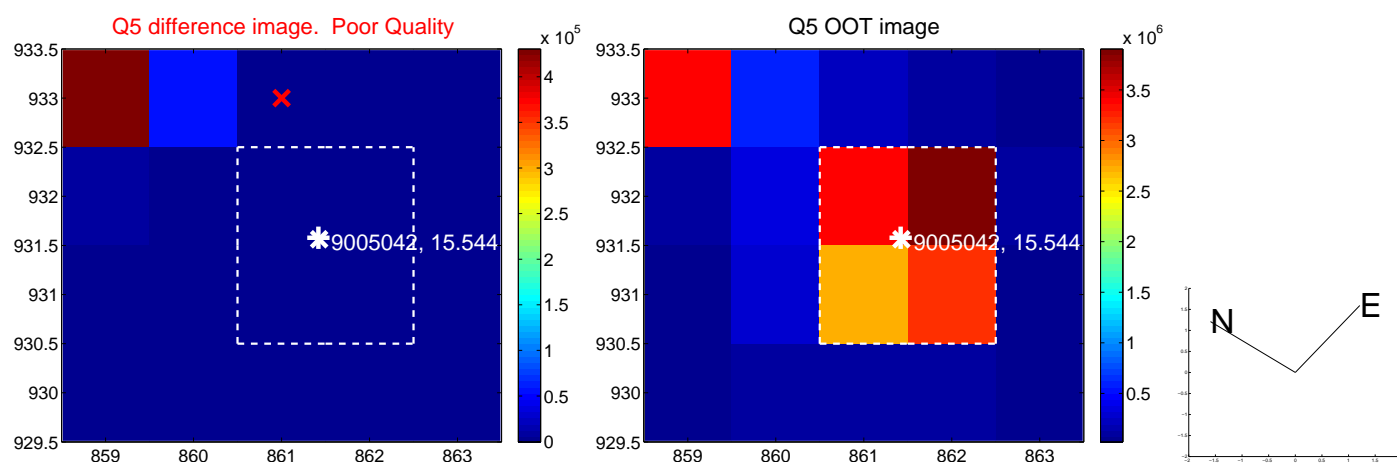


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

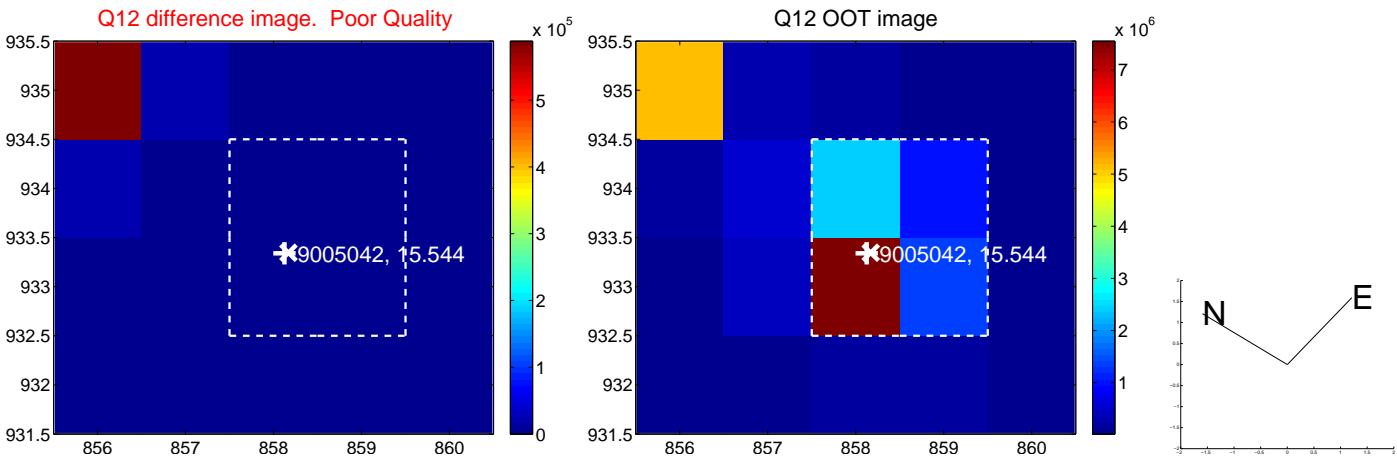
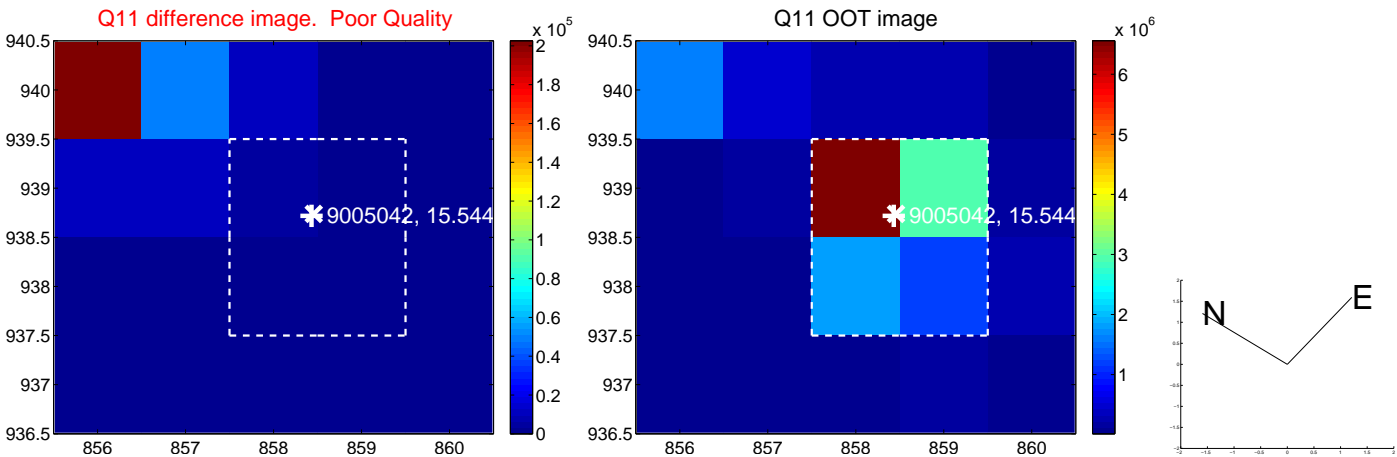
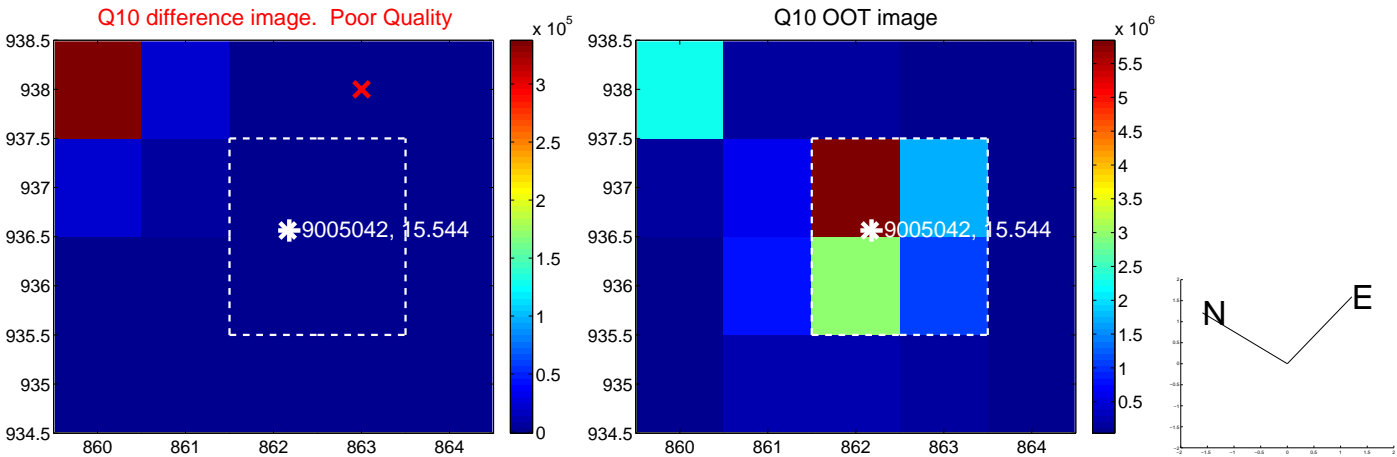
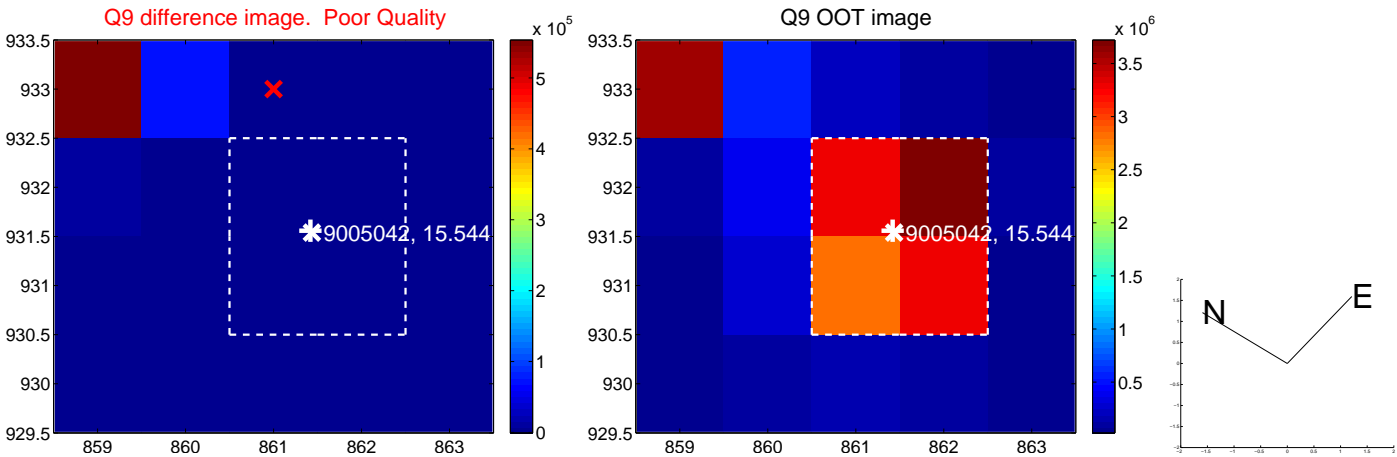
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



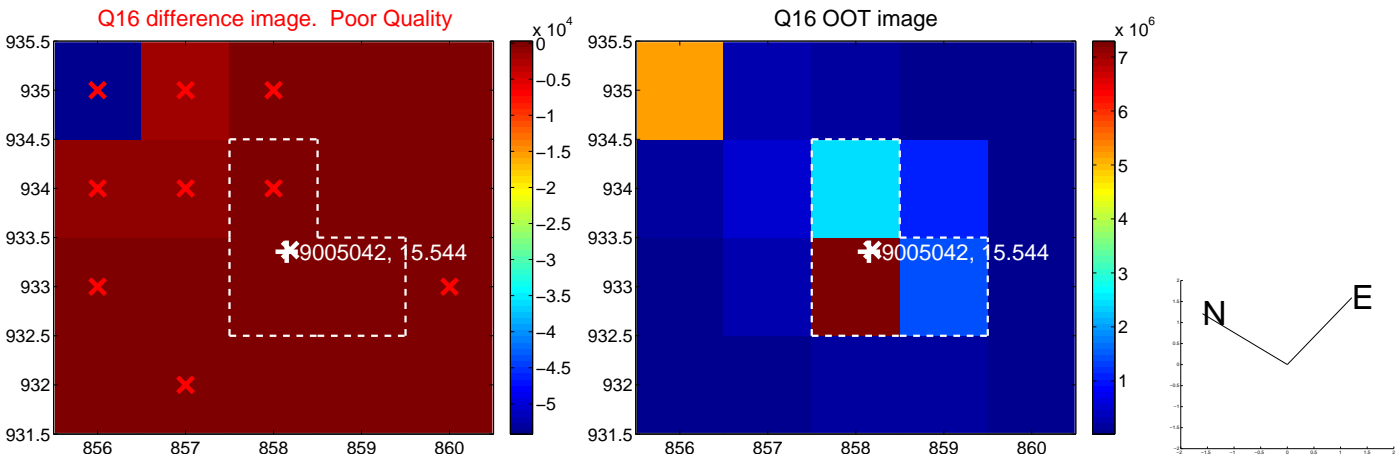
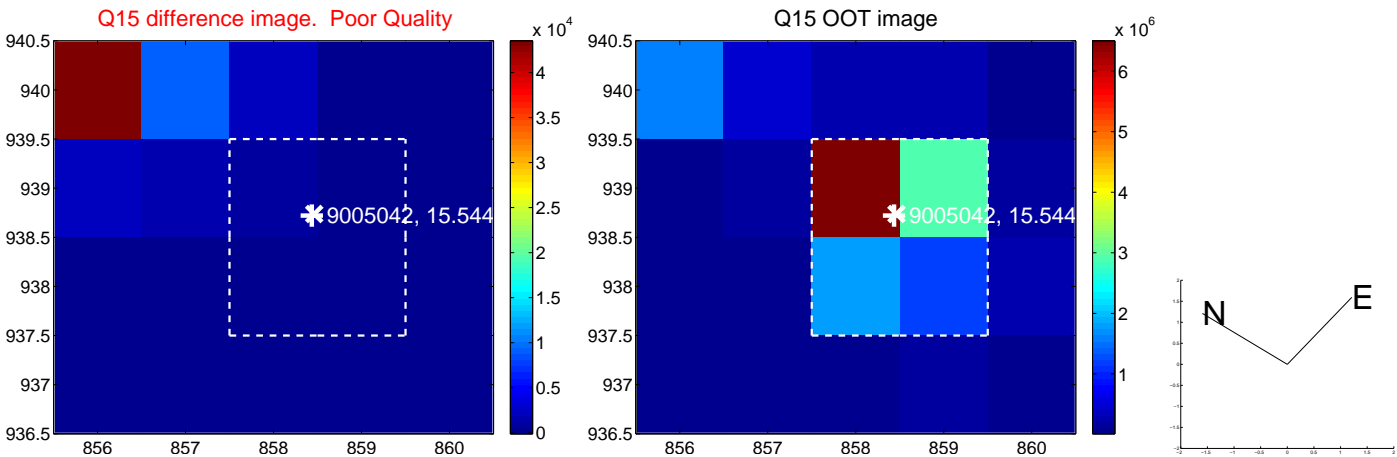
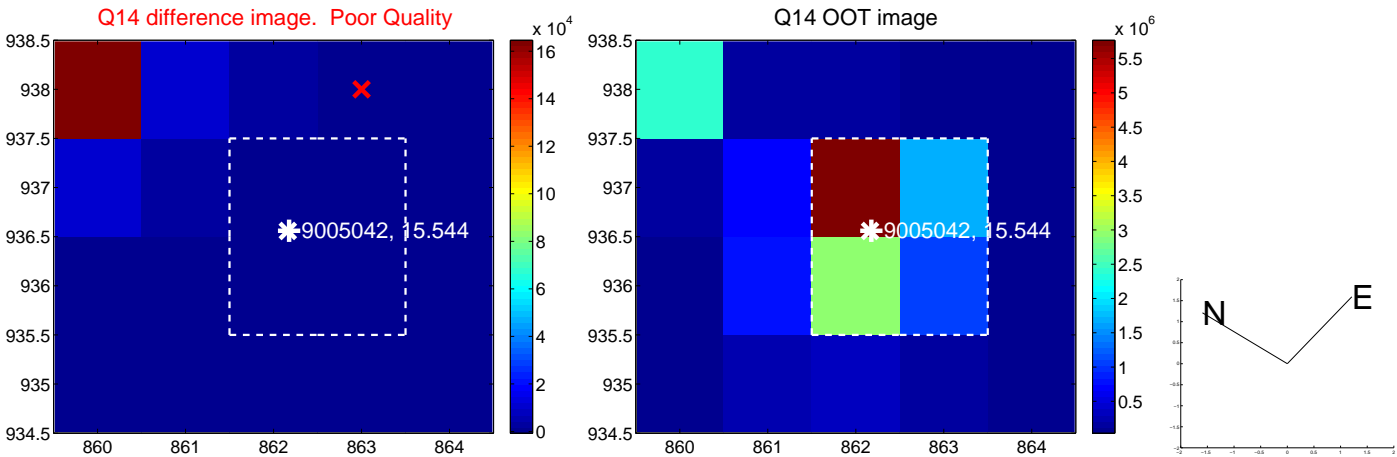
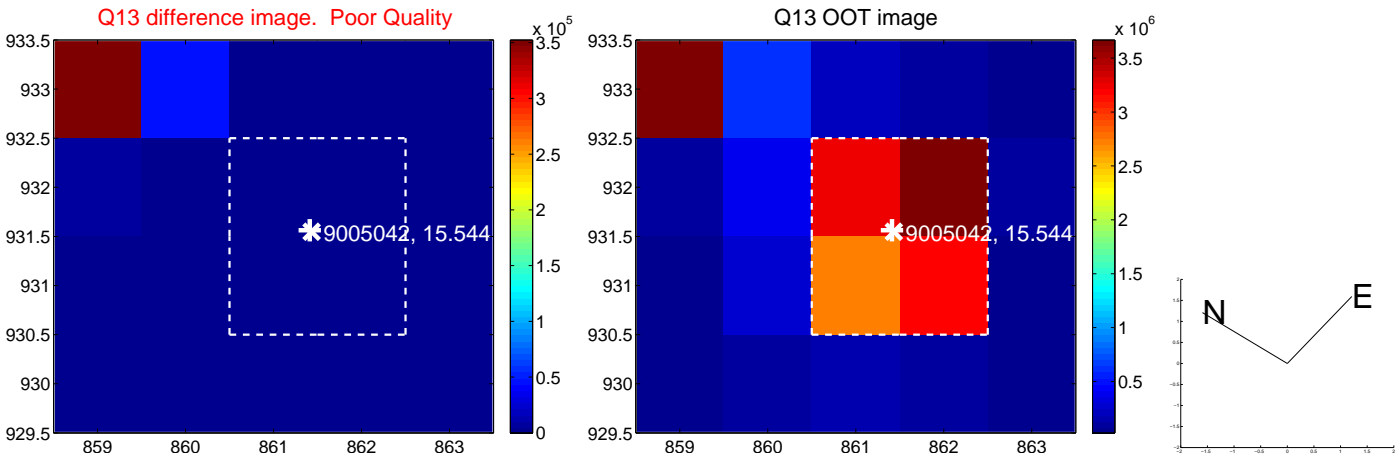
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



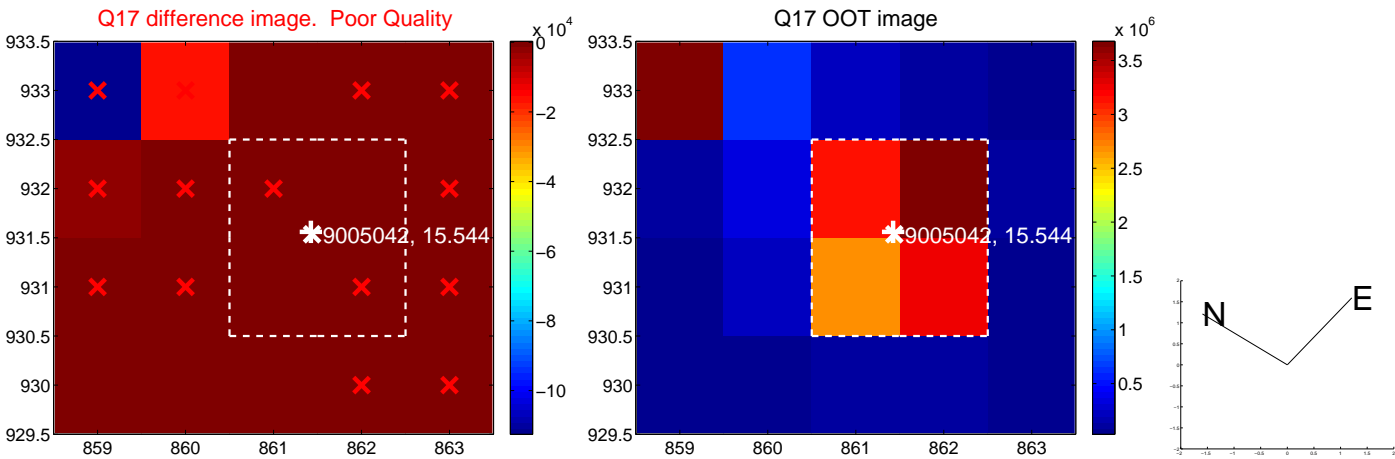
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folded centroid time series figure for this object.

UKIRT Image

Declination

