

KIC 006542001

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})
006542001-01	OBS	No	2.045840	131.542045	61.3	18.456	8.9	15.1	1.32	6473	1.04	2498.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006542001-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

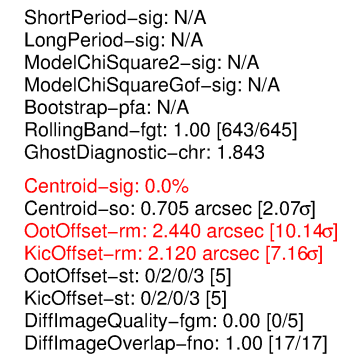
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

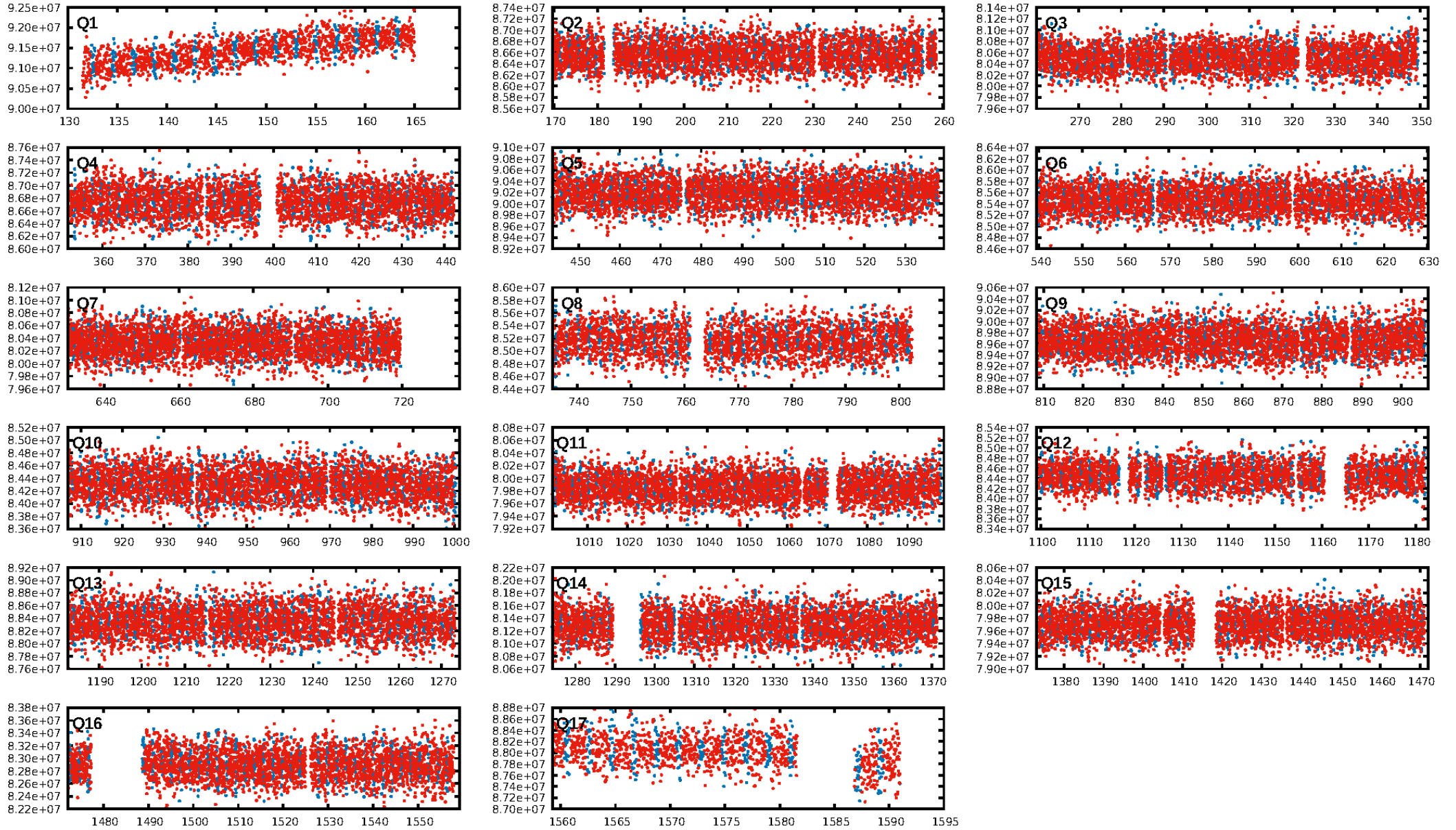
Ephemeris Match Information For 006542001-01

No Significant Match Found

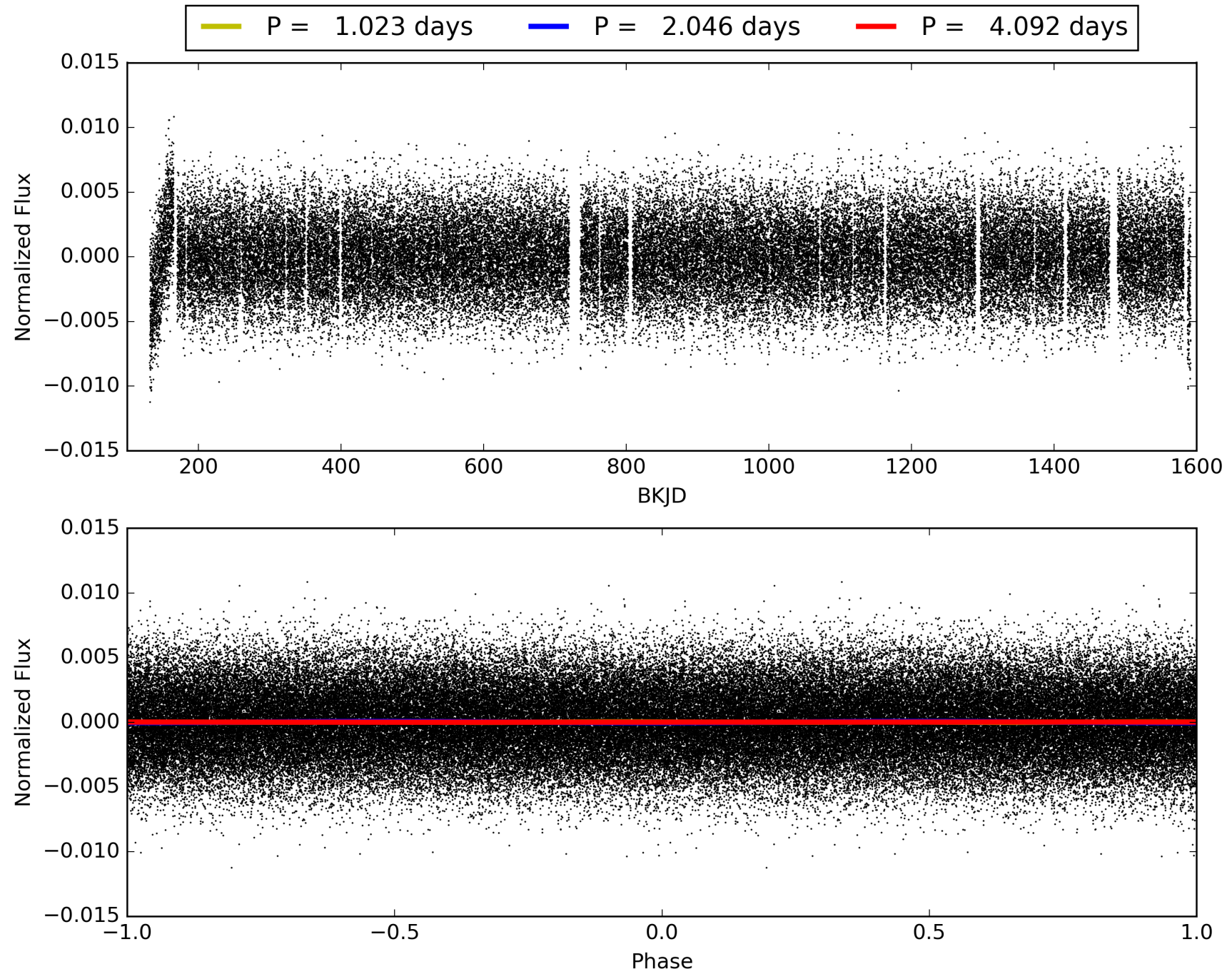
KIC: 6542001 Candidate: 1 of 1 Period: 2.046 d



TCE 006542001-01, PDC Light Curves

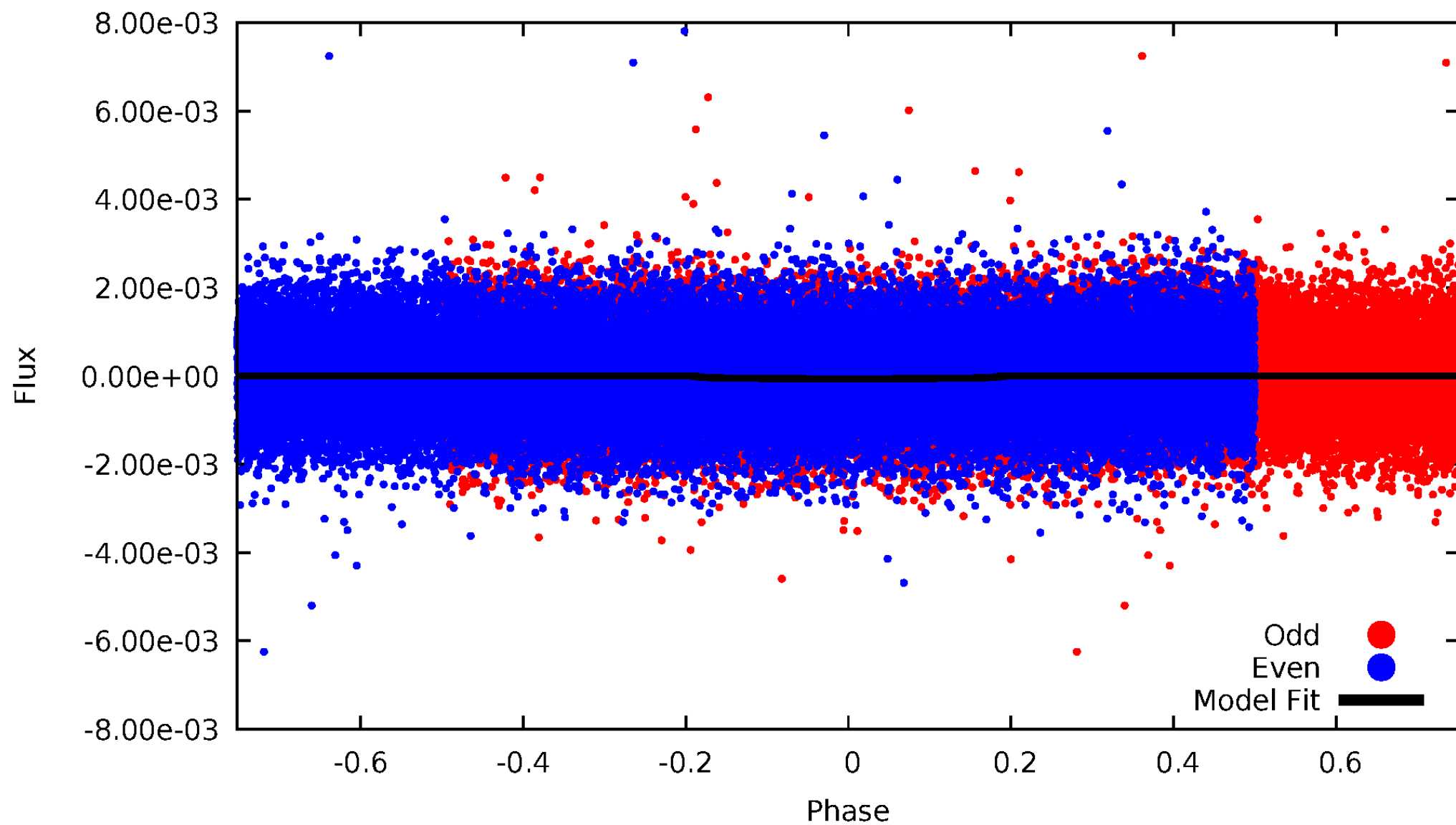


TCE 006542001-01



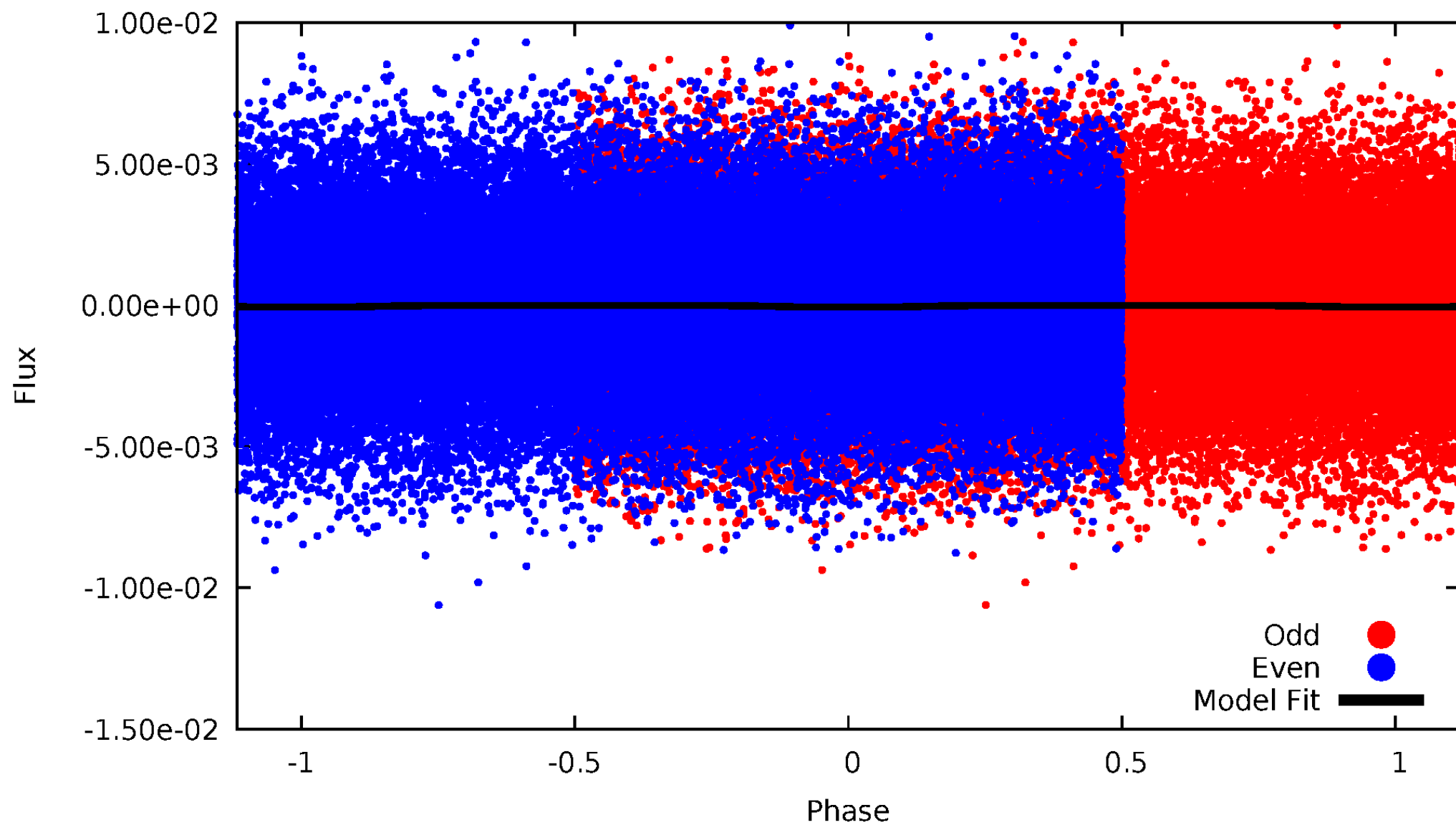
DV Odd/Even

TCE 006542001-01

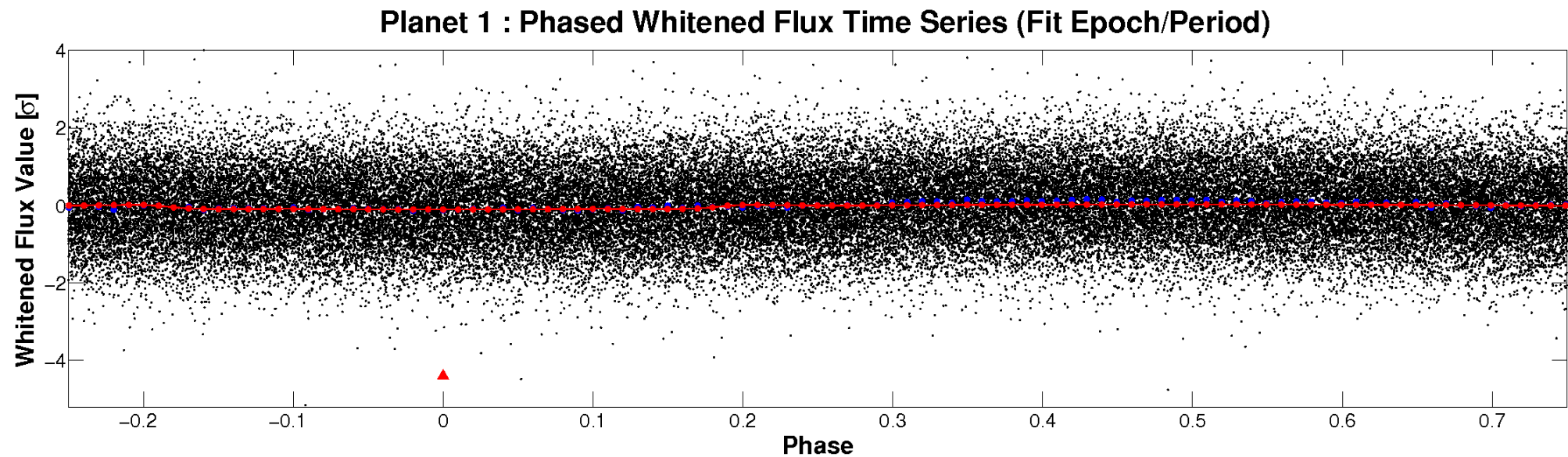
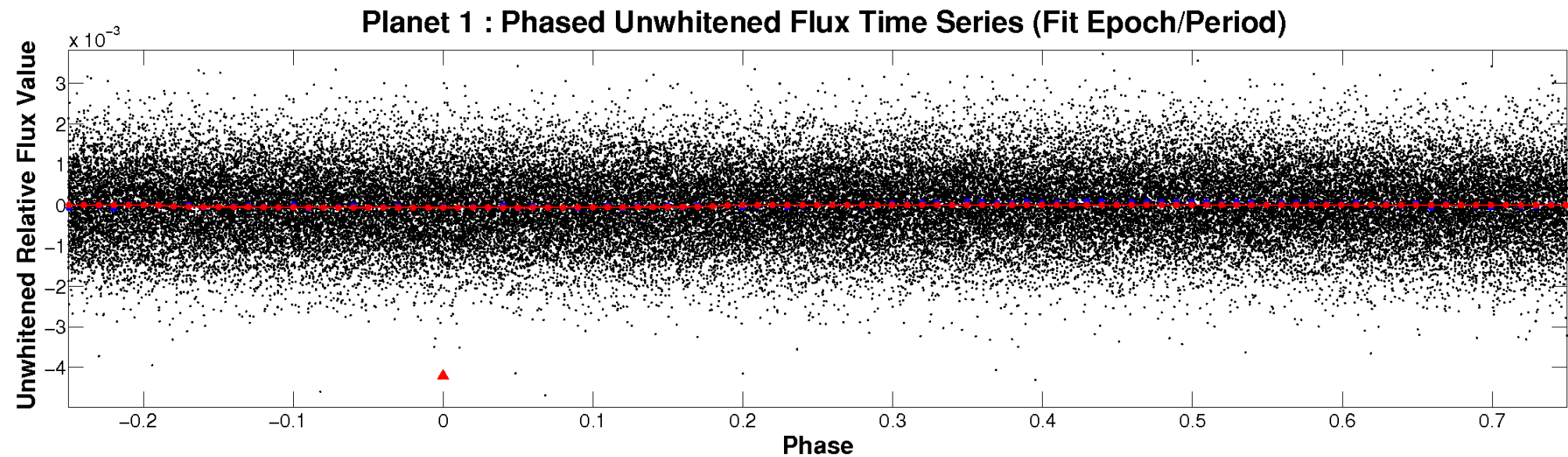


ALT Odd/Even

TCE 006542001-01

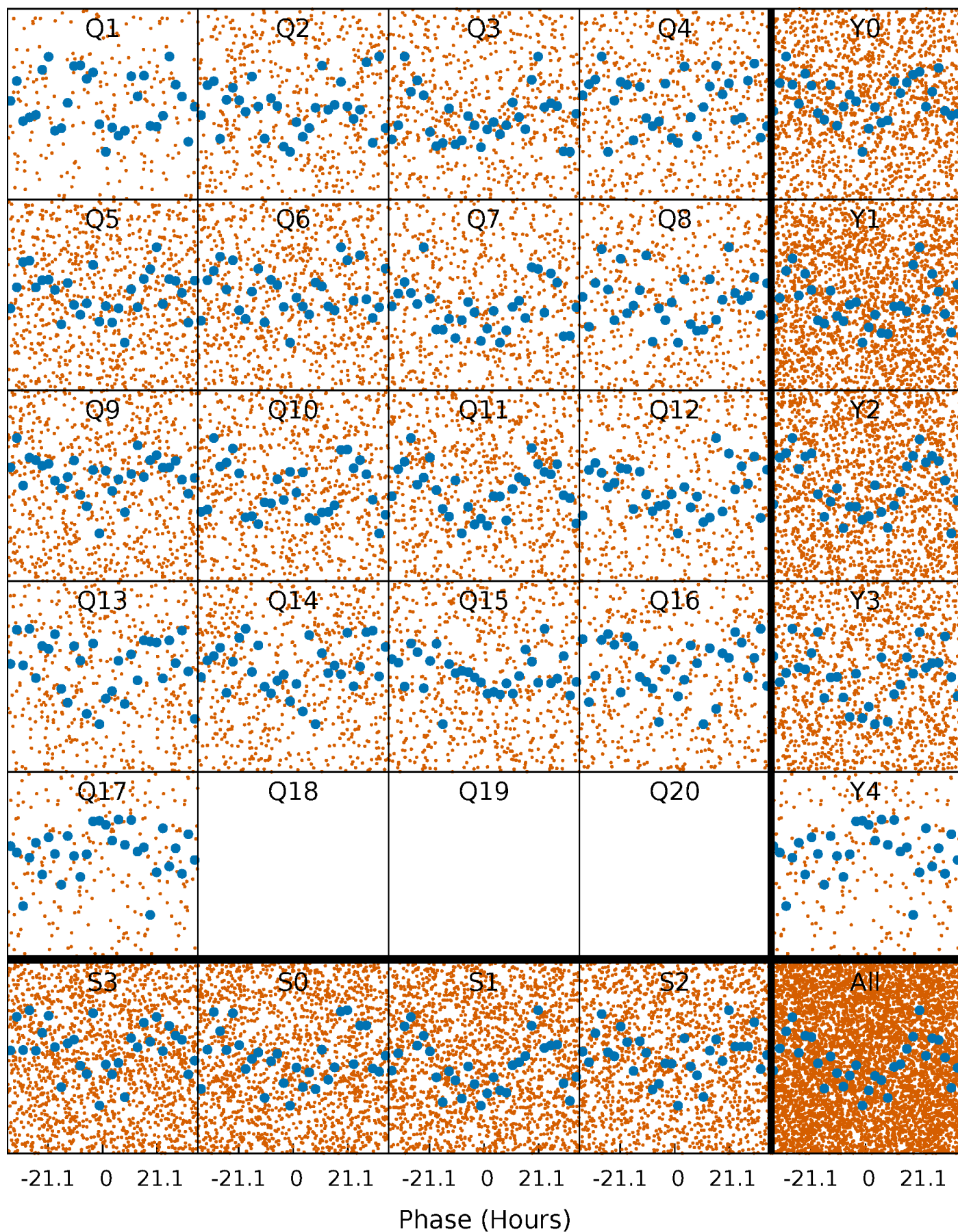


Non-Whitened Vs. Whitened Light Curve



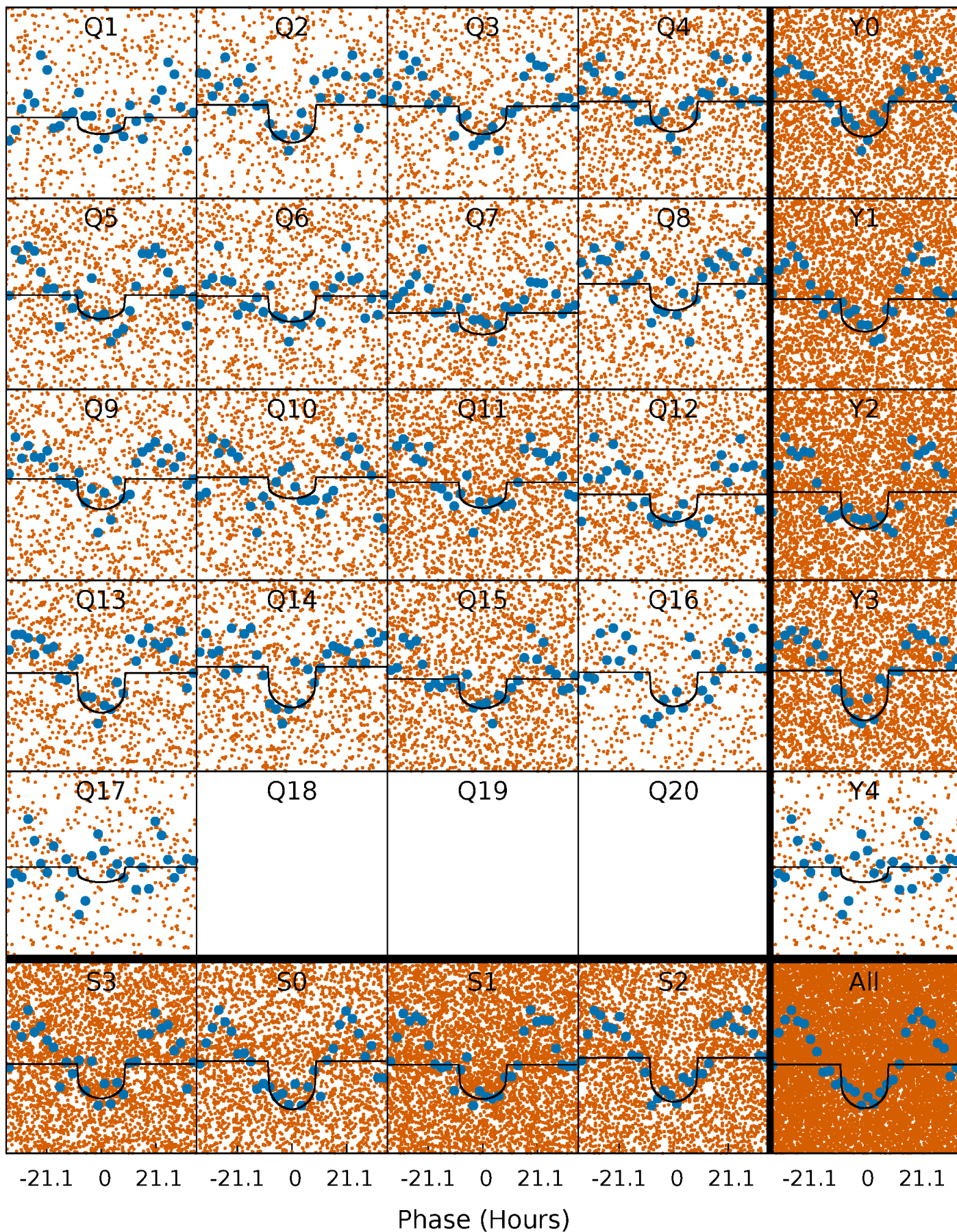
PDC Quarter-Phased Transit Curves

TCE 006542001-01 P= 2.045840 Days $T_0=131.542045$ (BKJD)



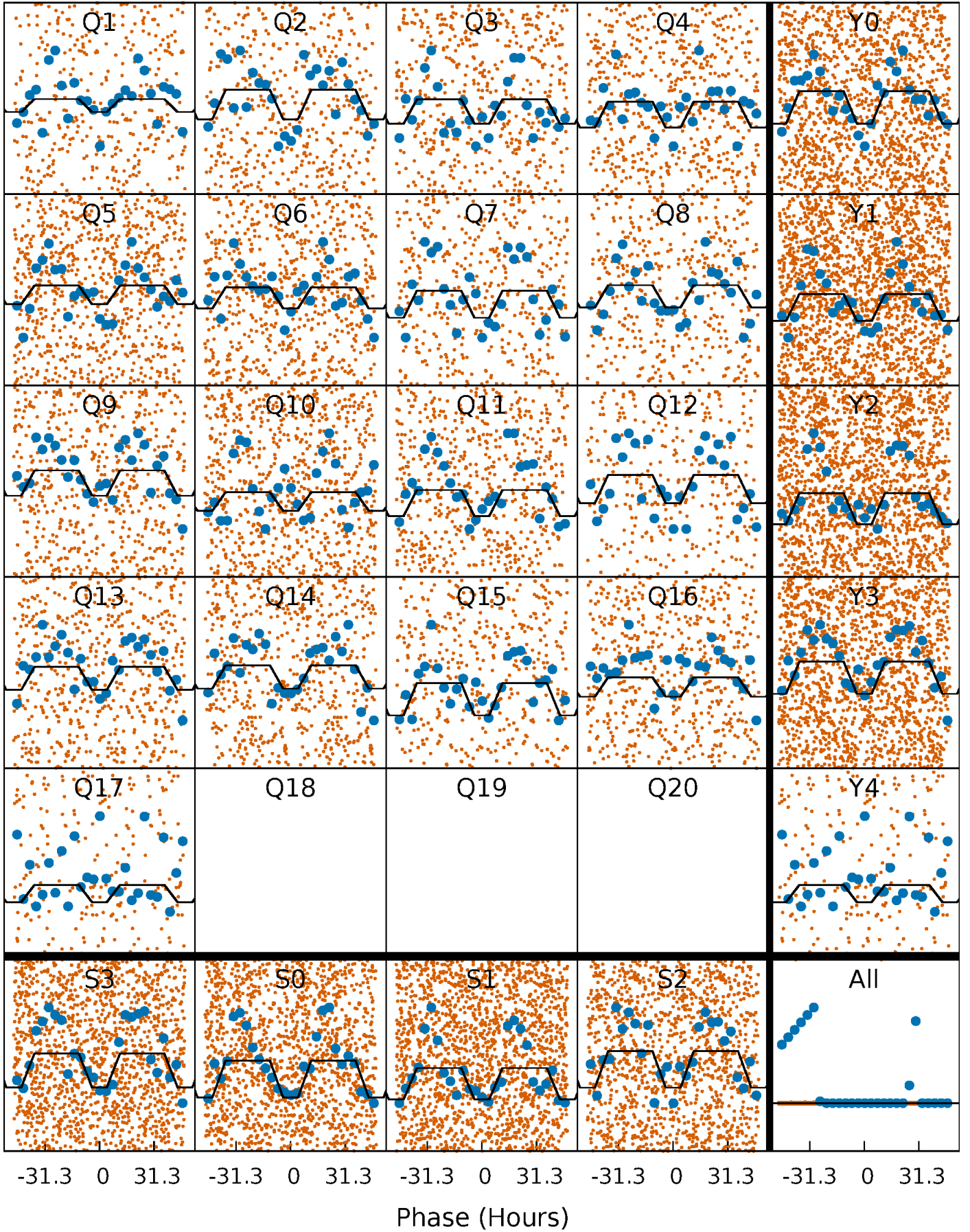
DV Quarter-Phased Transit Curves

TCE 006542001-01 P= 2.045840 Days $T_0=131.542045$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

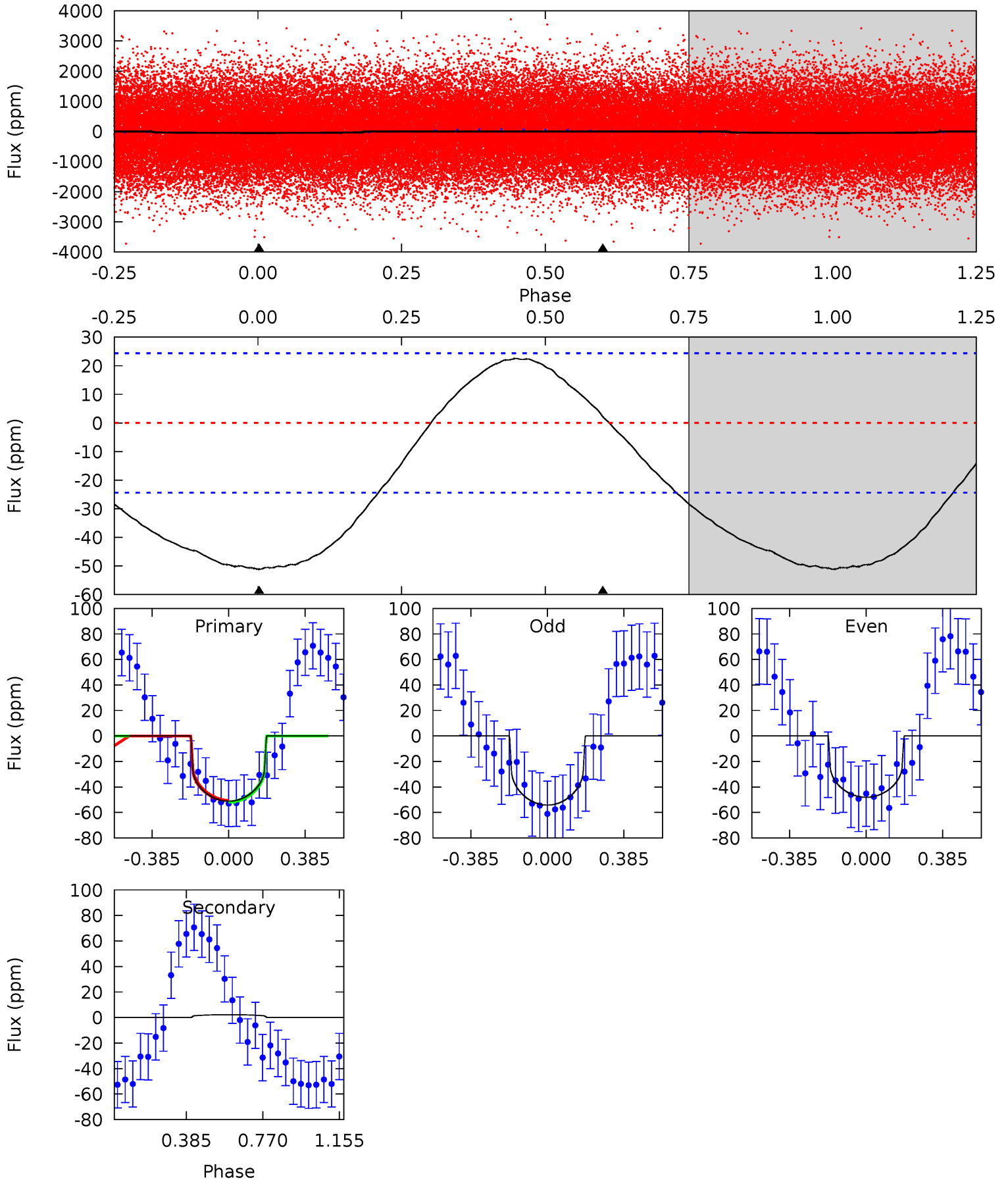
TCE 006542001-01 $P = 2.045771$ Days $T_0 = 131.638223$ (BKJD)



DV Model-Shift Uniqueness Test

006542001-01, P = 2.045840 Days, E = 129.496205 Days

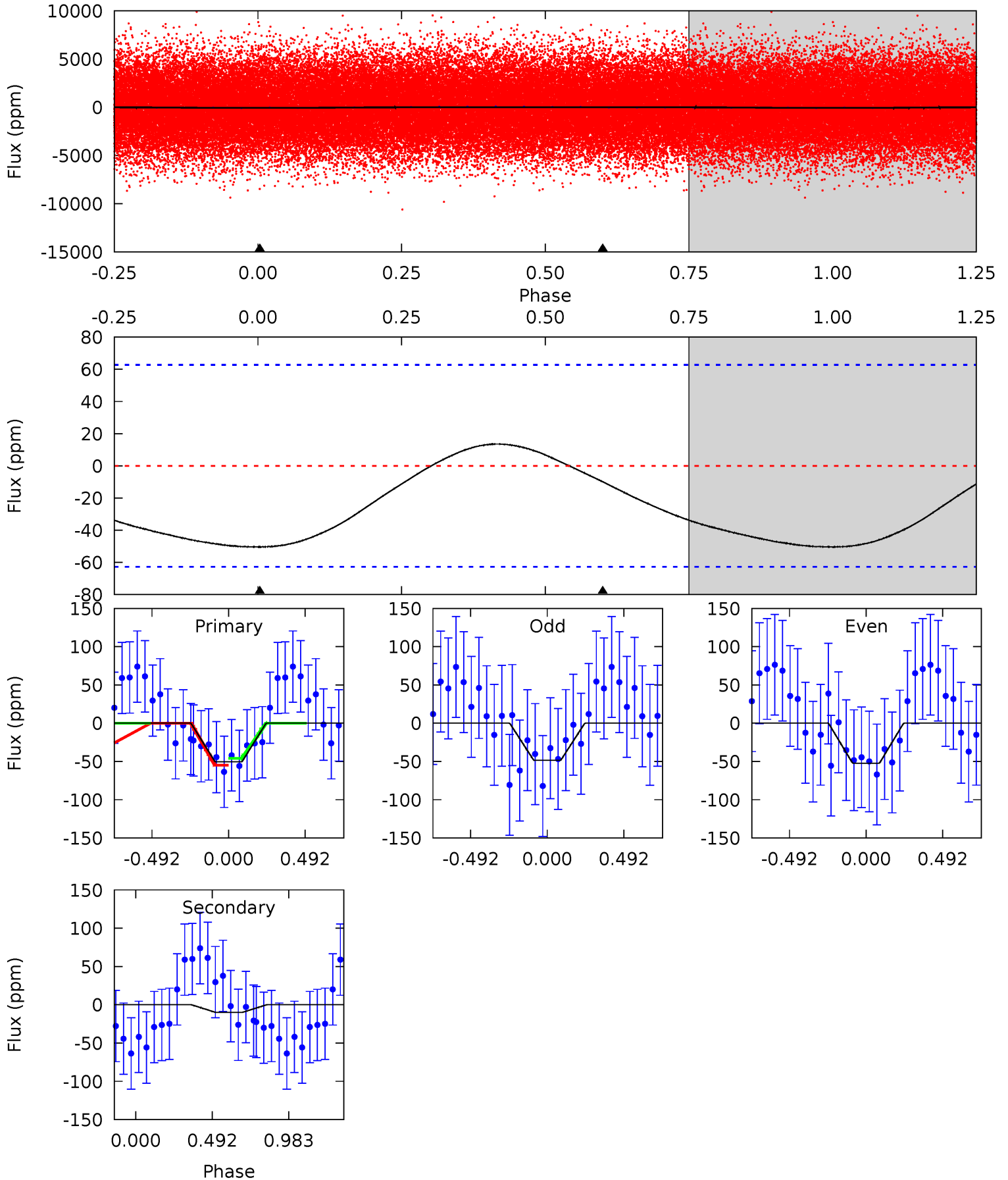
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.97	-0.39	0	0	4.27	0.87	1.29	8.97	8.97	-0.39	-0.39	0.54	1.05	0.31	0.11



Alt Model-Shift Uniqueness Test

006542001-01, P = 2.045771 Days, E = 129.592452 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.39	0.67	0	0	4.22	0.69	0.38	3.39	3.39	0.67	0.67	0.12	0.56	0.21	0.31



Stellar Parameters For KIC 006542001

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6473^{+155}_{-194}	$4.262^{+0.128}_{-0.192}$	$-0.160^{+0.250}_{-0.300}$	$1.325^{+0.404}_{-0.249}$	$1.172^{+0.192}_{-0.157}$	$0.710^{+0.429}_{-0.358}$
	+2%/-3%	+3%/-5%	+156%/-188%	+30%/-19%	+16%/-13%	+60%/-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 006542001-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	2 ± 6	$1.14^{+0.84}_{-0.70}$	2541^{+181}_{-156}	-3384^{+6832}_{-1345}	$-0.736^{+2.248}_{-6.203}$
Alt.	-10 ± 15	$1.17^{+0.82}_{-0.68}$	2535^{+178}_{-134}	3966^{+2159}_{-7807}	$3.104^{+20.842}_{-5.034}$

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

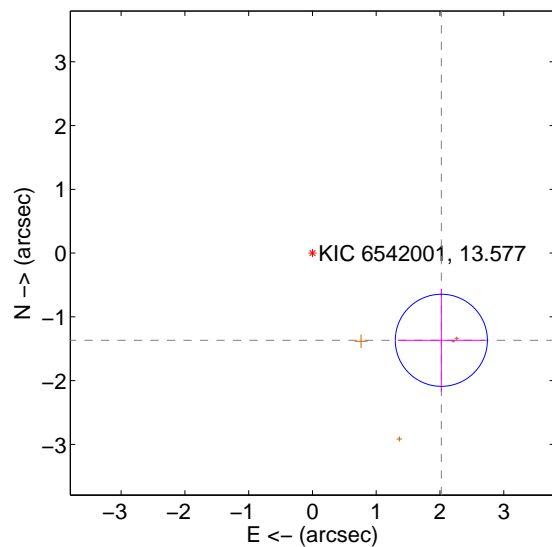
Supplemental centroid analysis for 006542001-01. Kepler magnitude: 13.58. Transit SNR 15.13

There are 0 quarters with good PRF difference image offsets

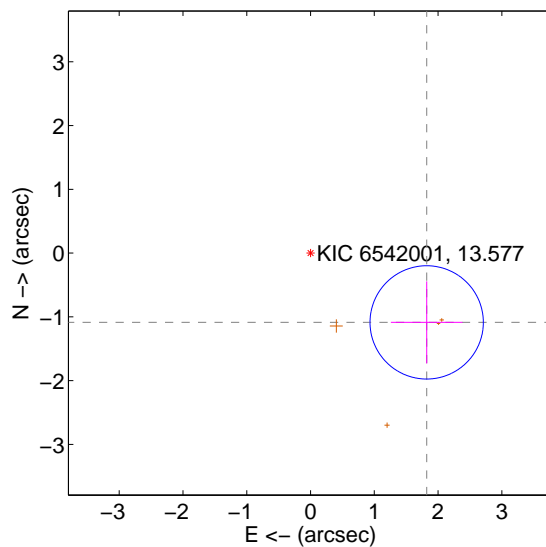
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.440 ± 0.241	10.14	-2.021 ± 0.679	-1.367 ± 0.809
PRF-fit source offset from KIC position	2.120 ± 0.296	7.16	-1.821 ± 0.560	-1.086 ± 0.644
photometric centroid source offset	0.71 ± 0.34	2.07	0.70 ± 0.34	-0.10 ± 0.28

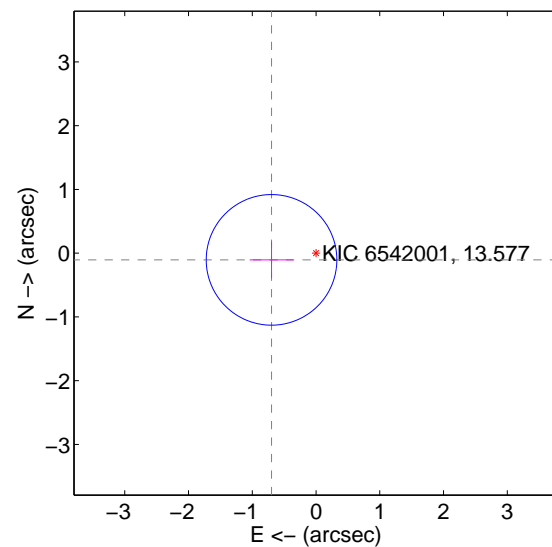
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

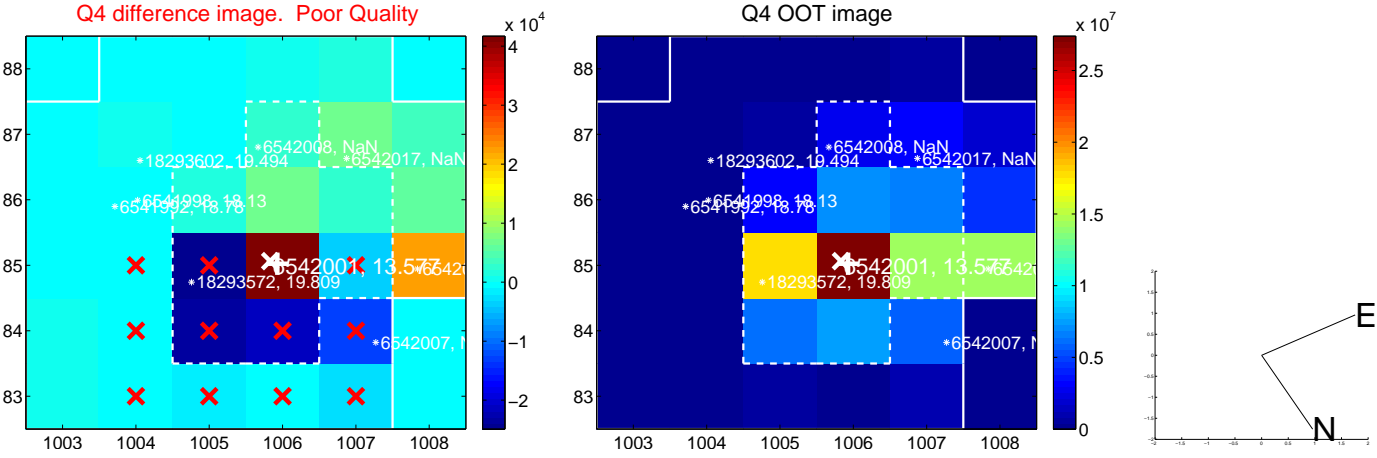
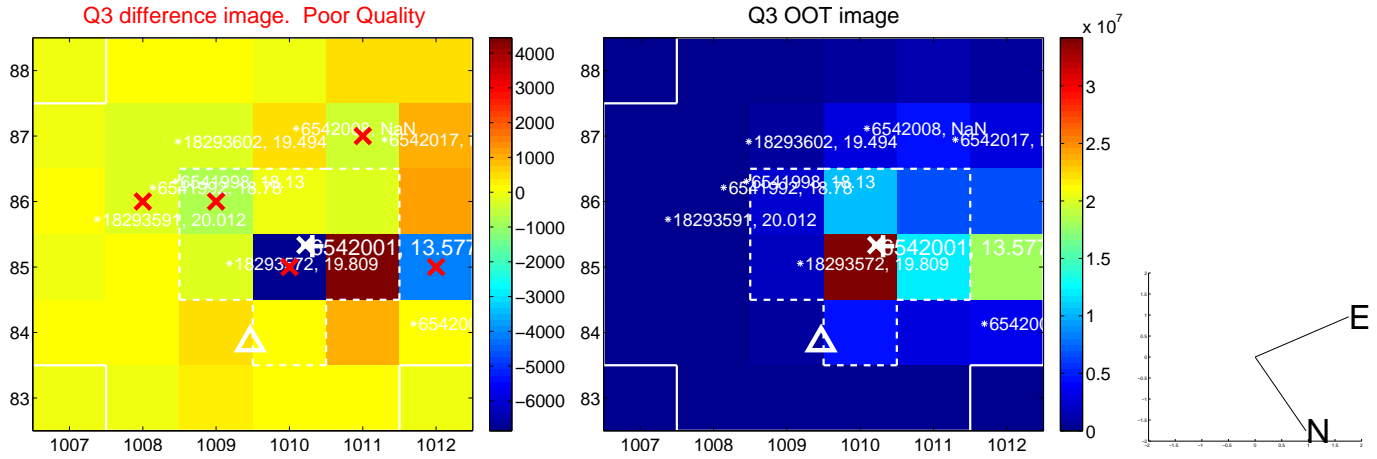
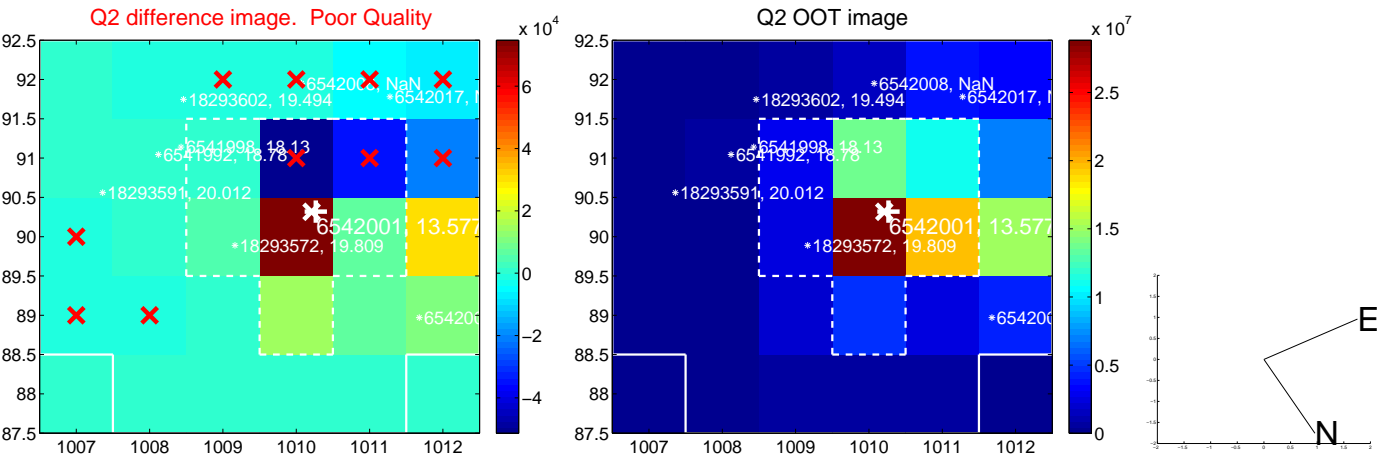
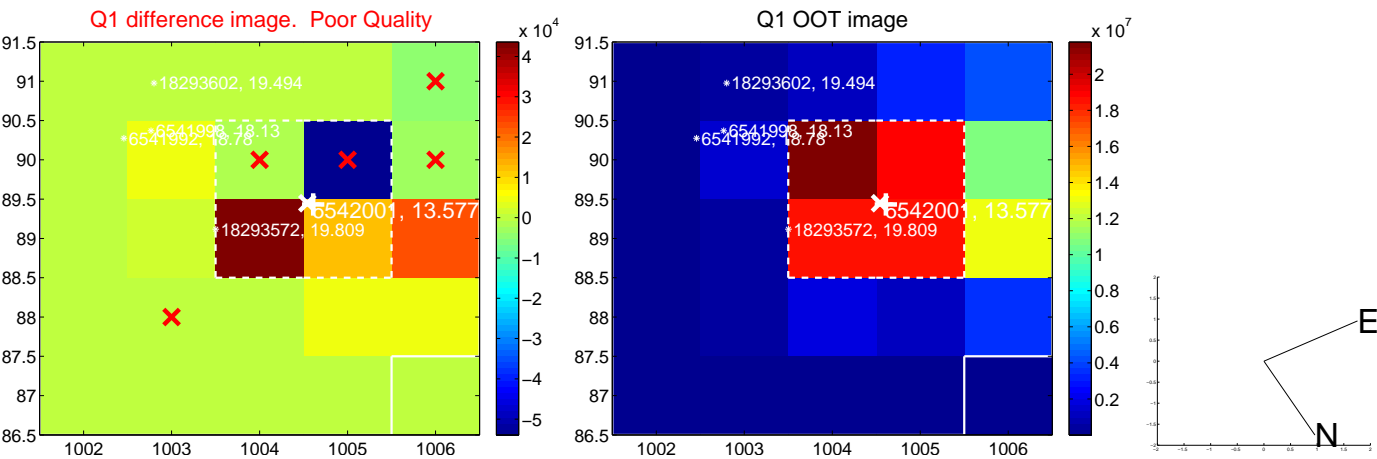


offset from photometric centroids

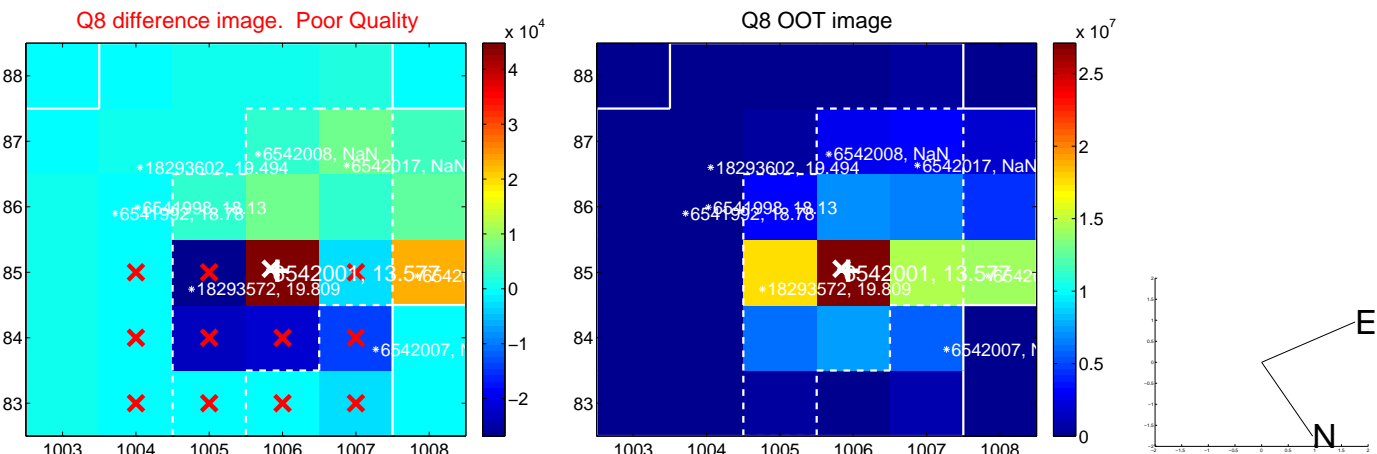
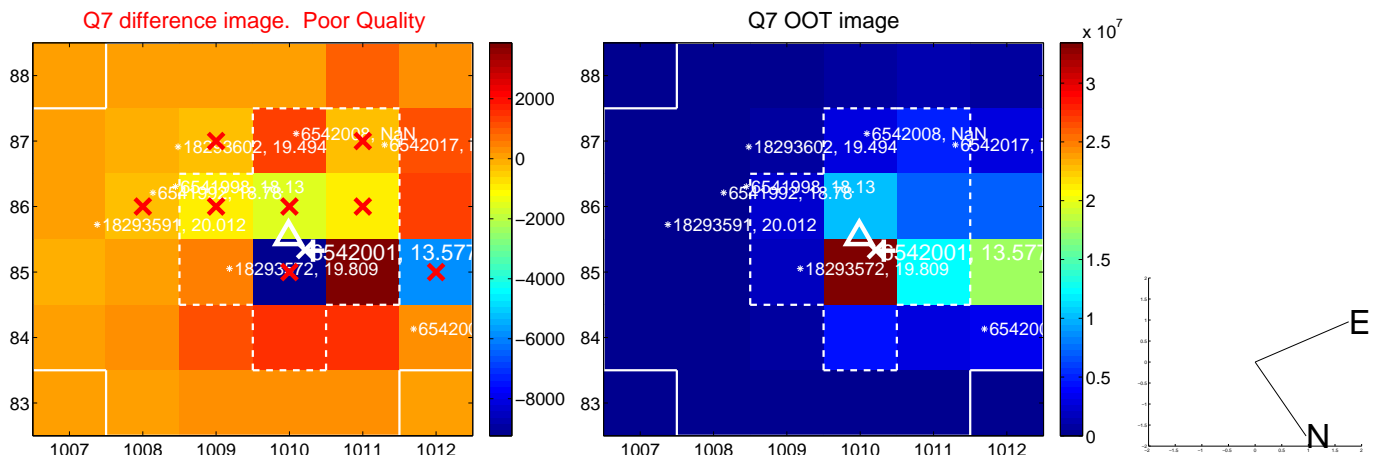
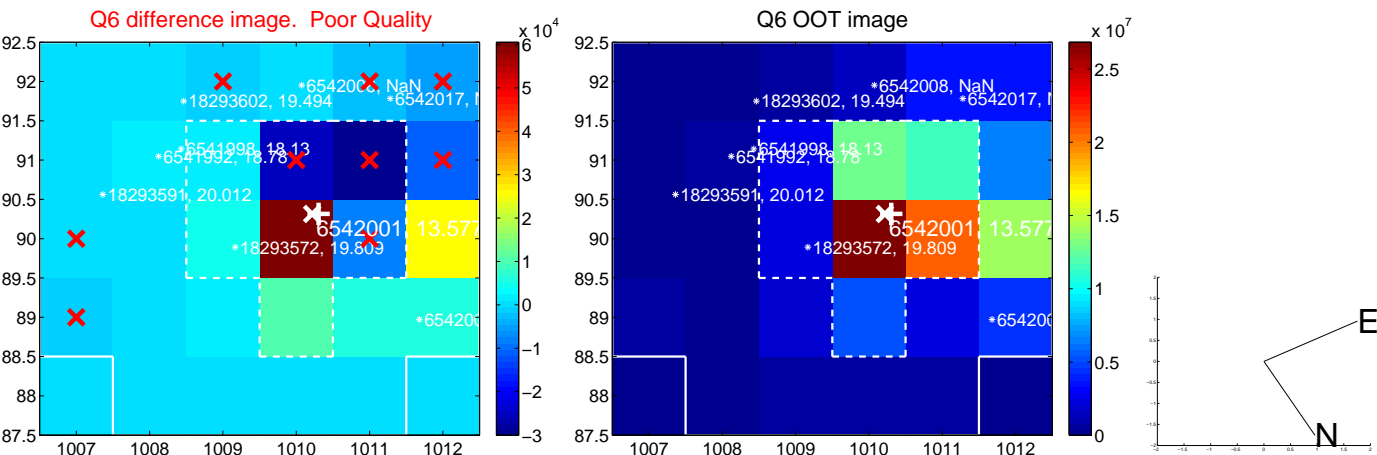
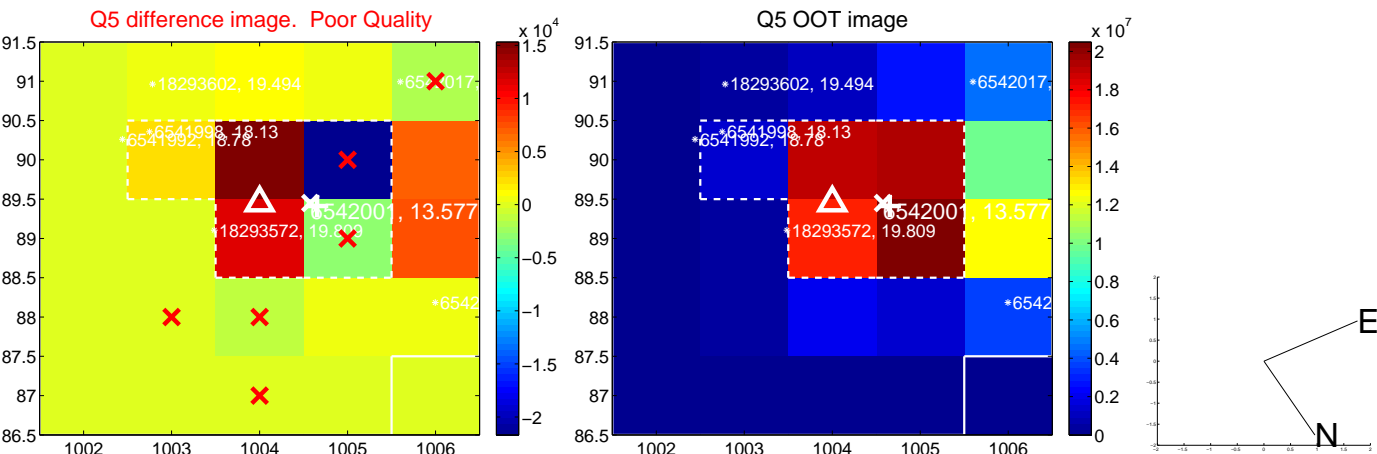


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

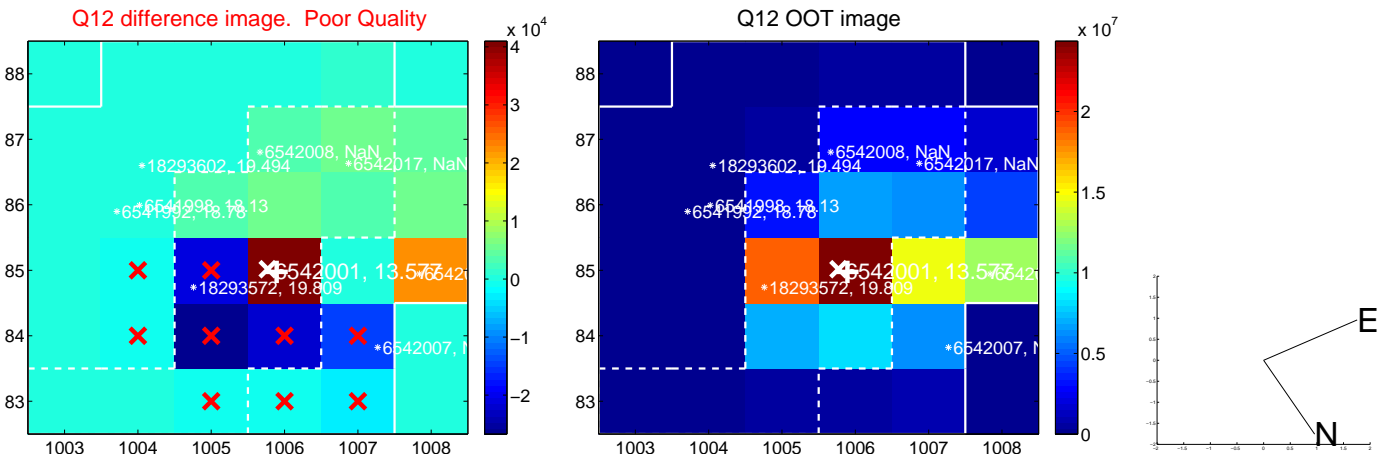
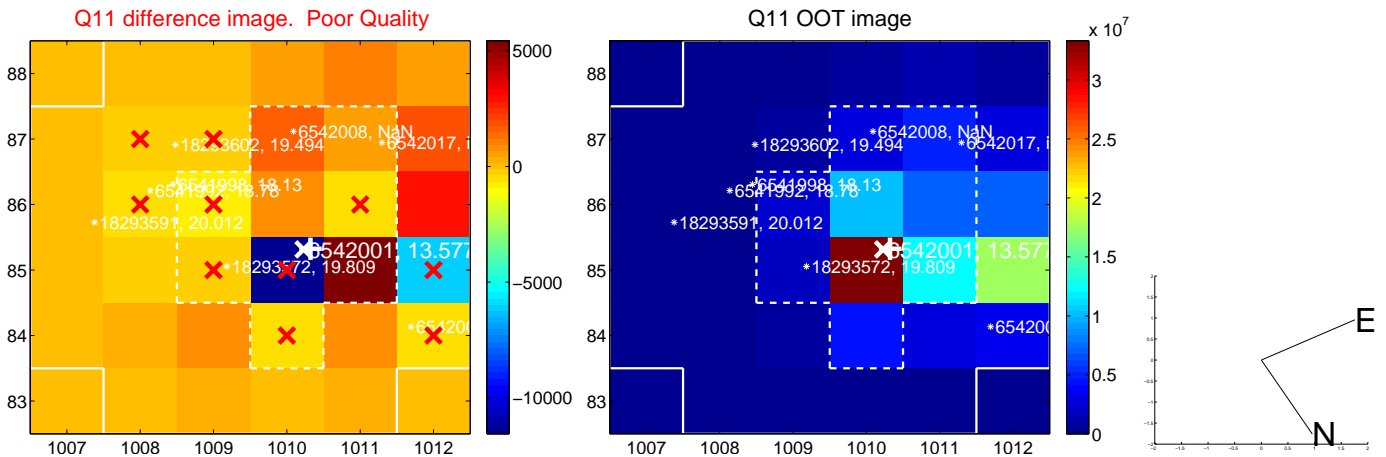
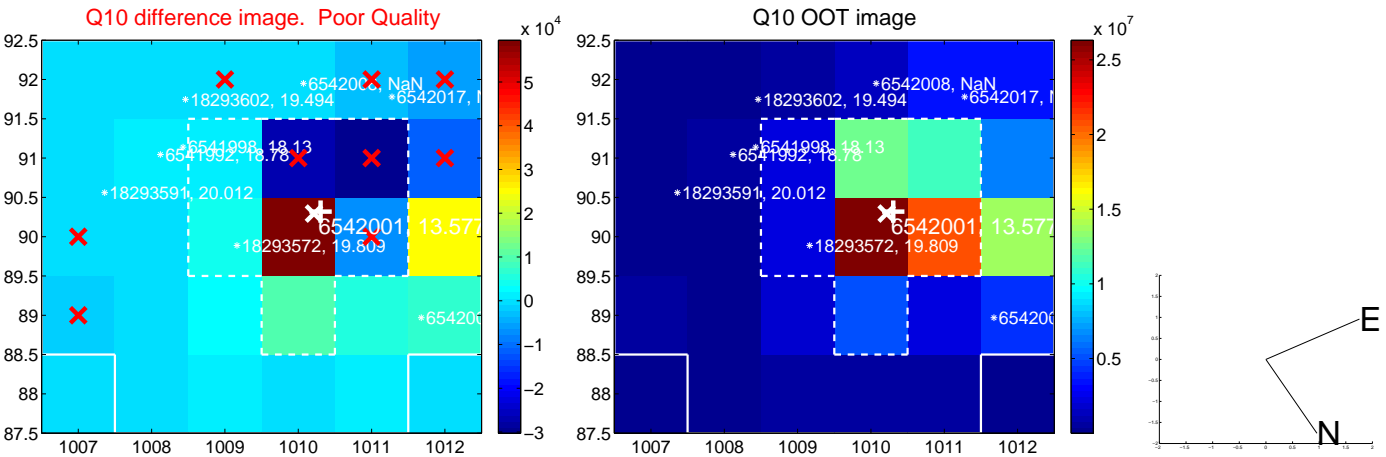
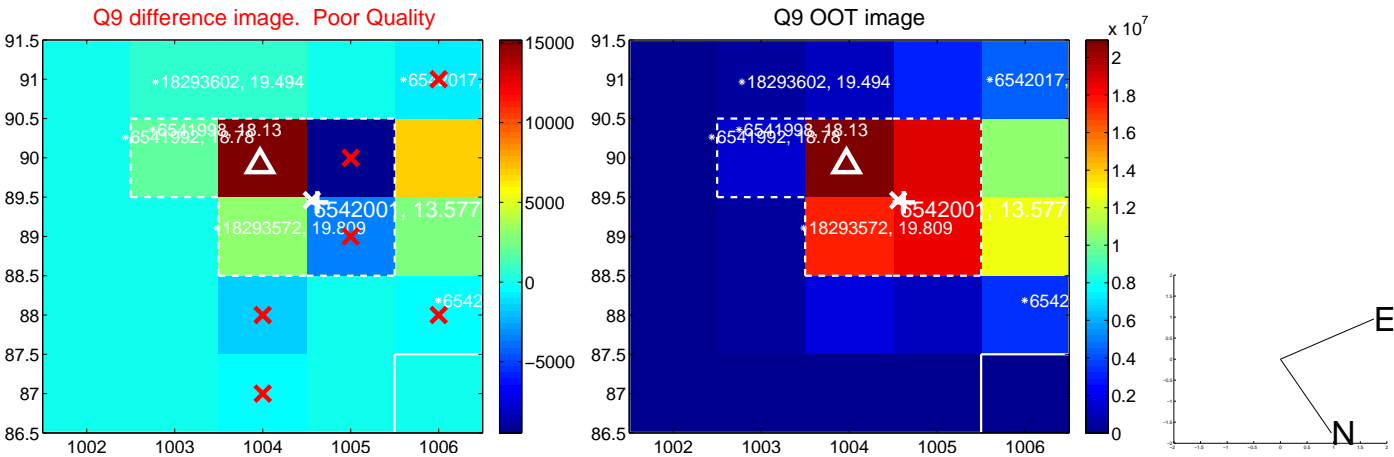
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



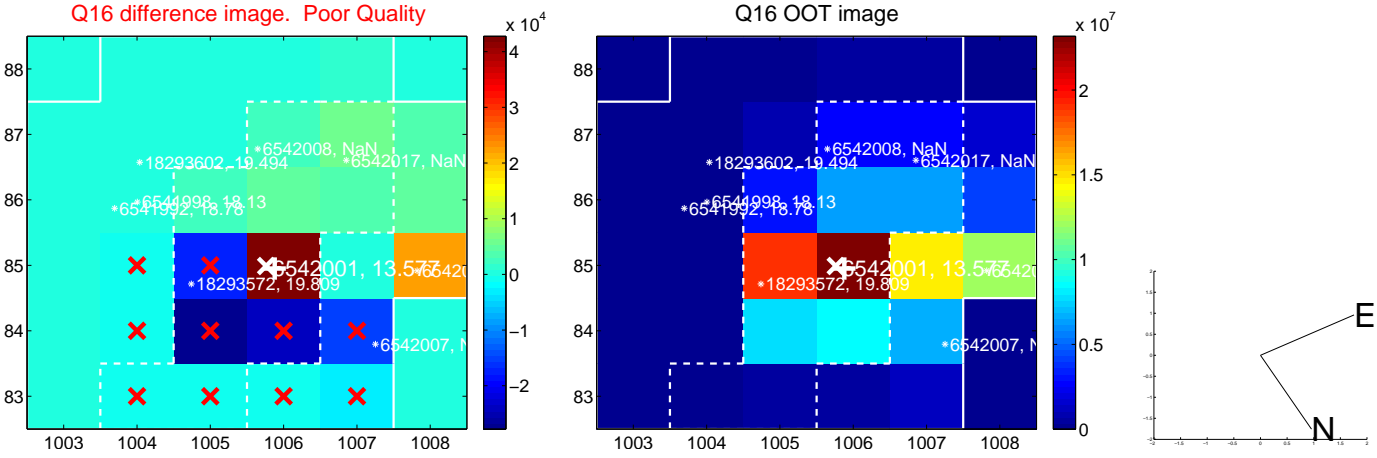
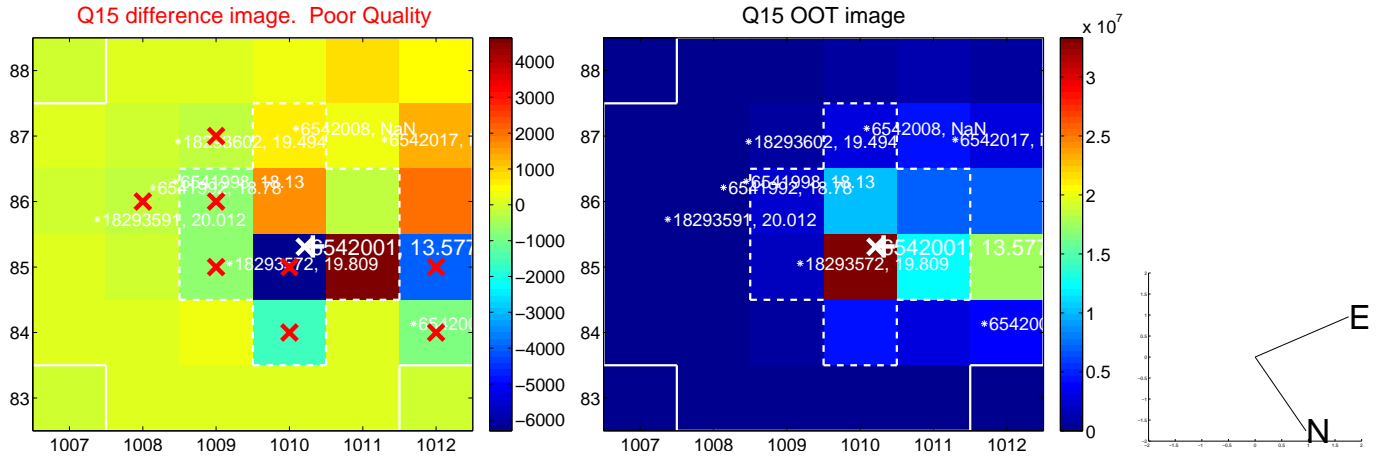
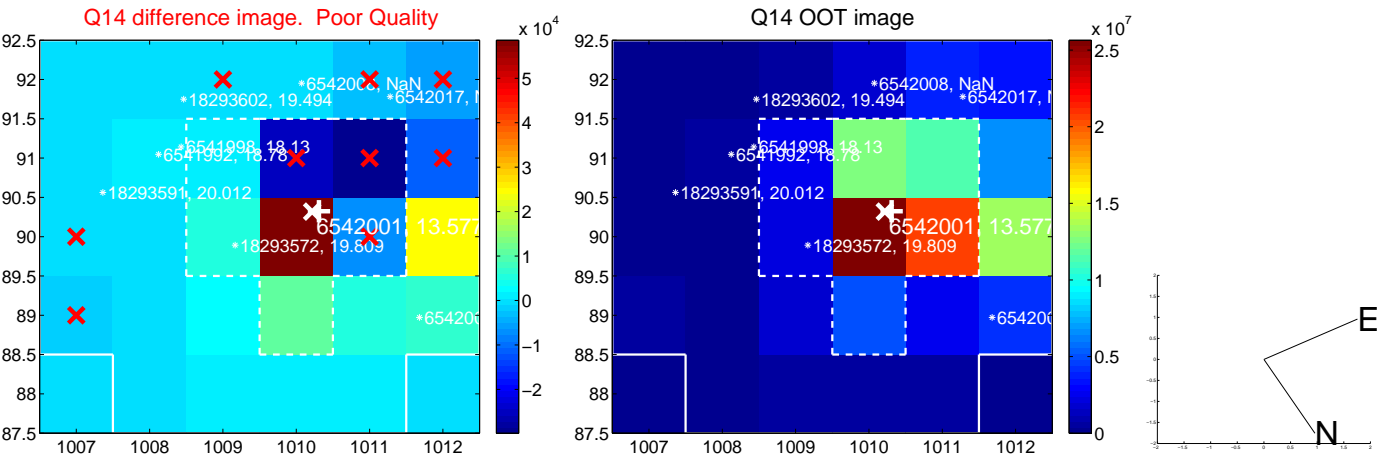
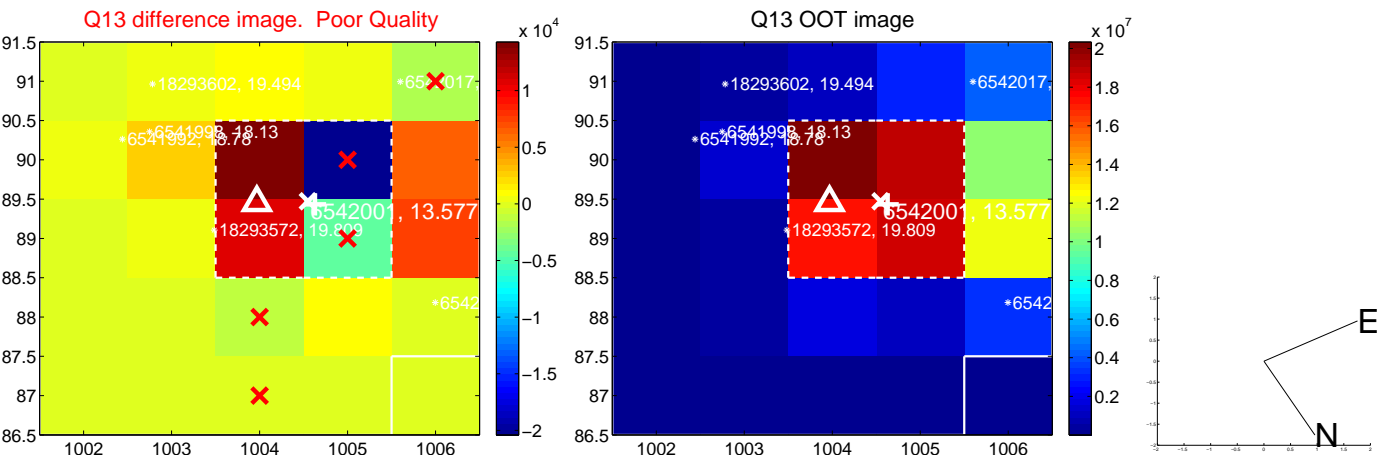
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



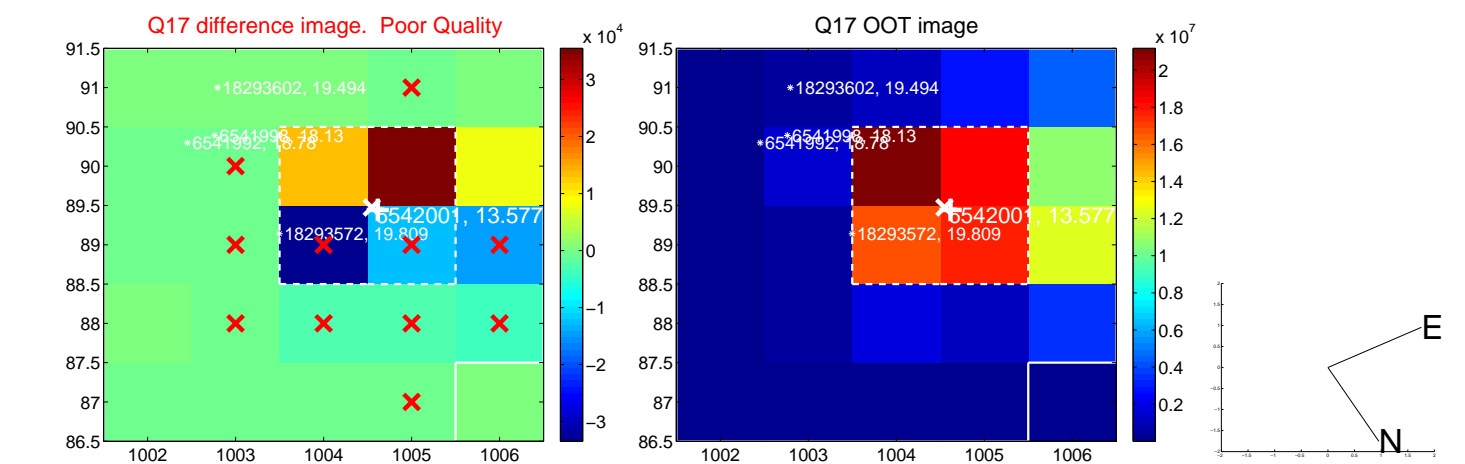
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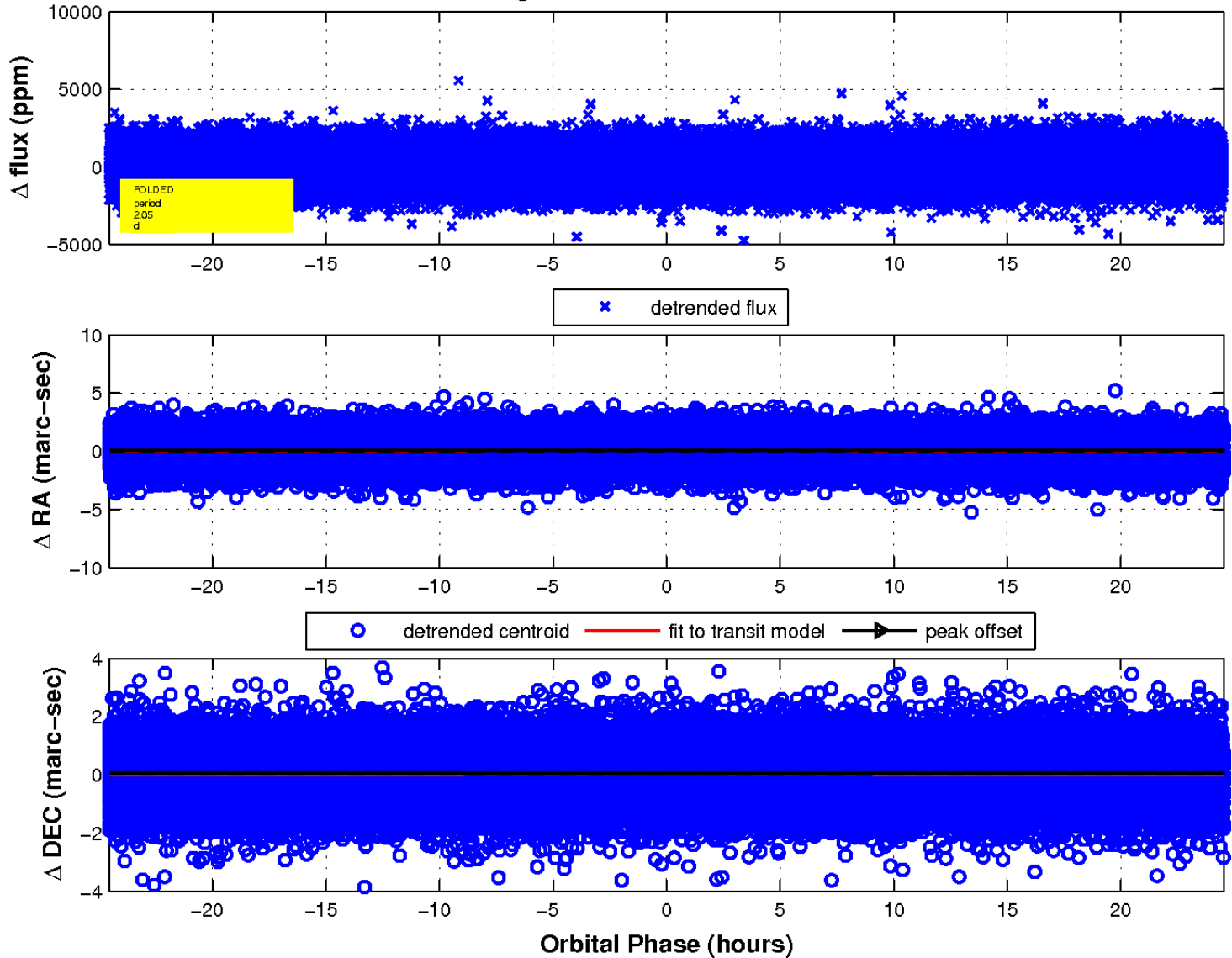
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

