

KIC 010538299

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})
010538299-01	OBS	No	1.350162	131.813885	16.9	12.744	10.2	15.5	2.01	8141	0.84	18356.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010538299-01	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.

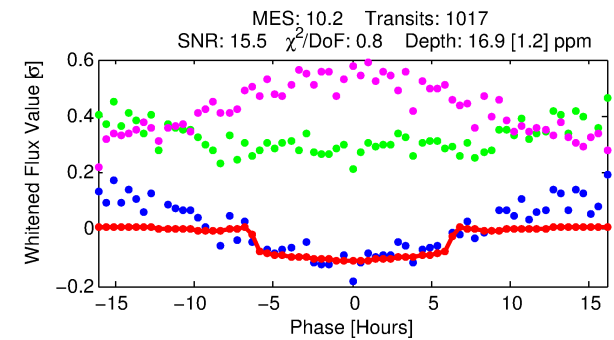
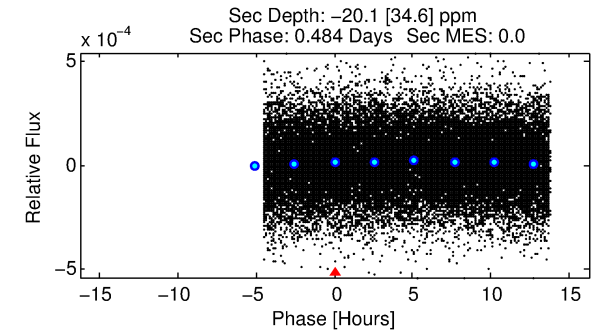
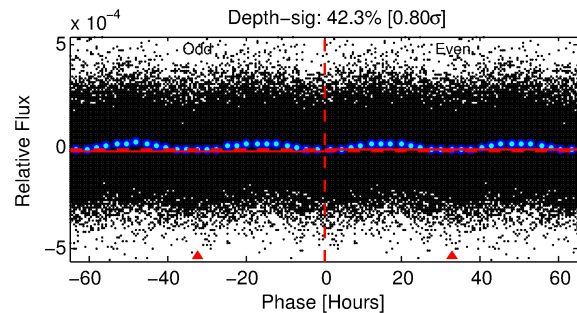
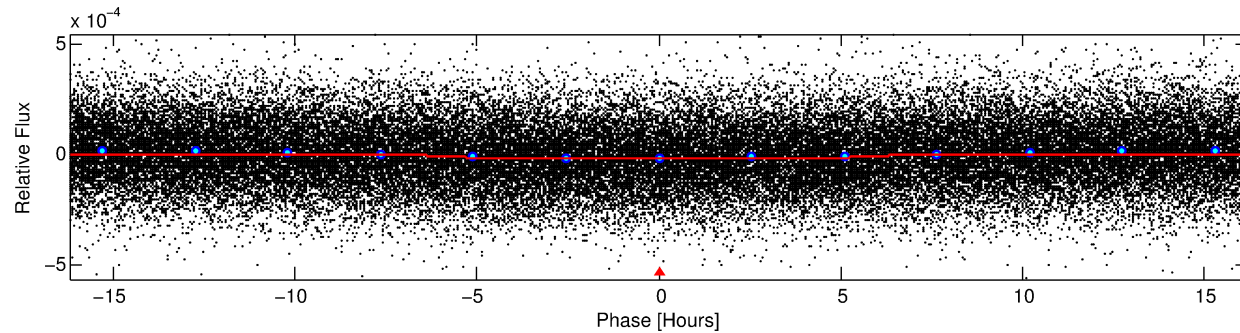
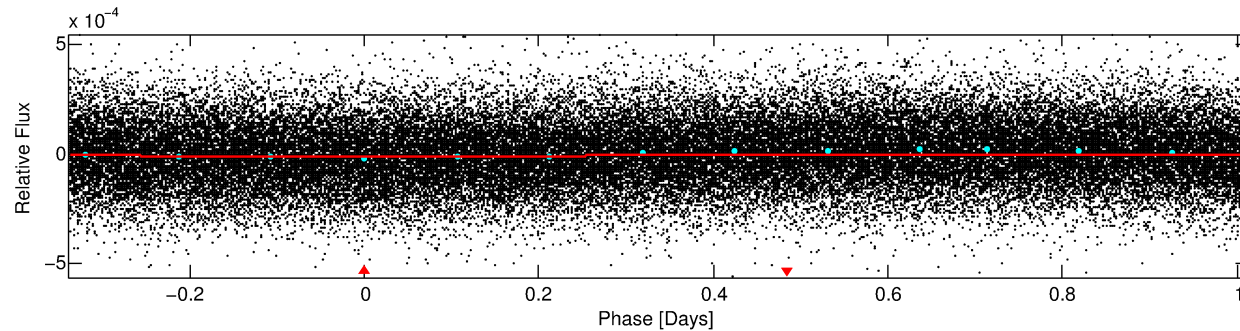
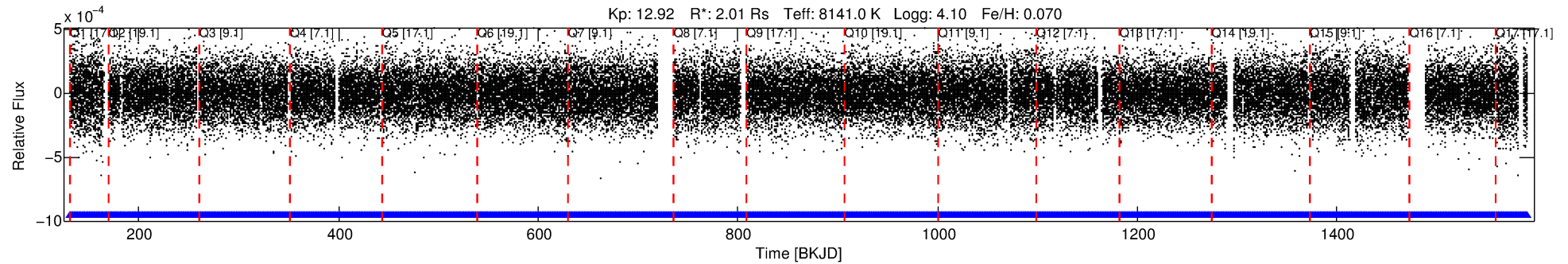
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010538299-01

No Significant Match Found

DV One-Page Summary

KIC: 10538299 Candidate: 1 of 1 Period: 1.350 d



DV Fit Results:

Period = 1.35016 [0.00002] d
Epoch = 131.8139 [0.0069] BKJD
Rp/R* = 0.0038 [0.0030]
a/R* = 1.06 [0.57]
b = 0.02 [249.10]
Seff = 18356.80 [6224.92]
Teff = 2968 [252] K
Rp = 0.84 [0.70] Re
a = 0.0295 [0.0059] AU
Ag = N/A
Teffp = N/A

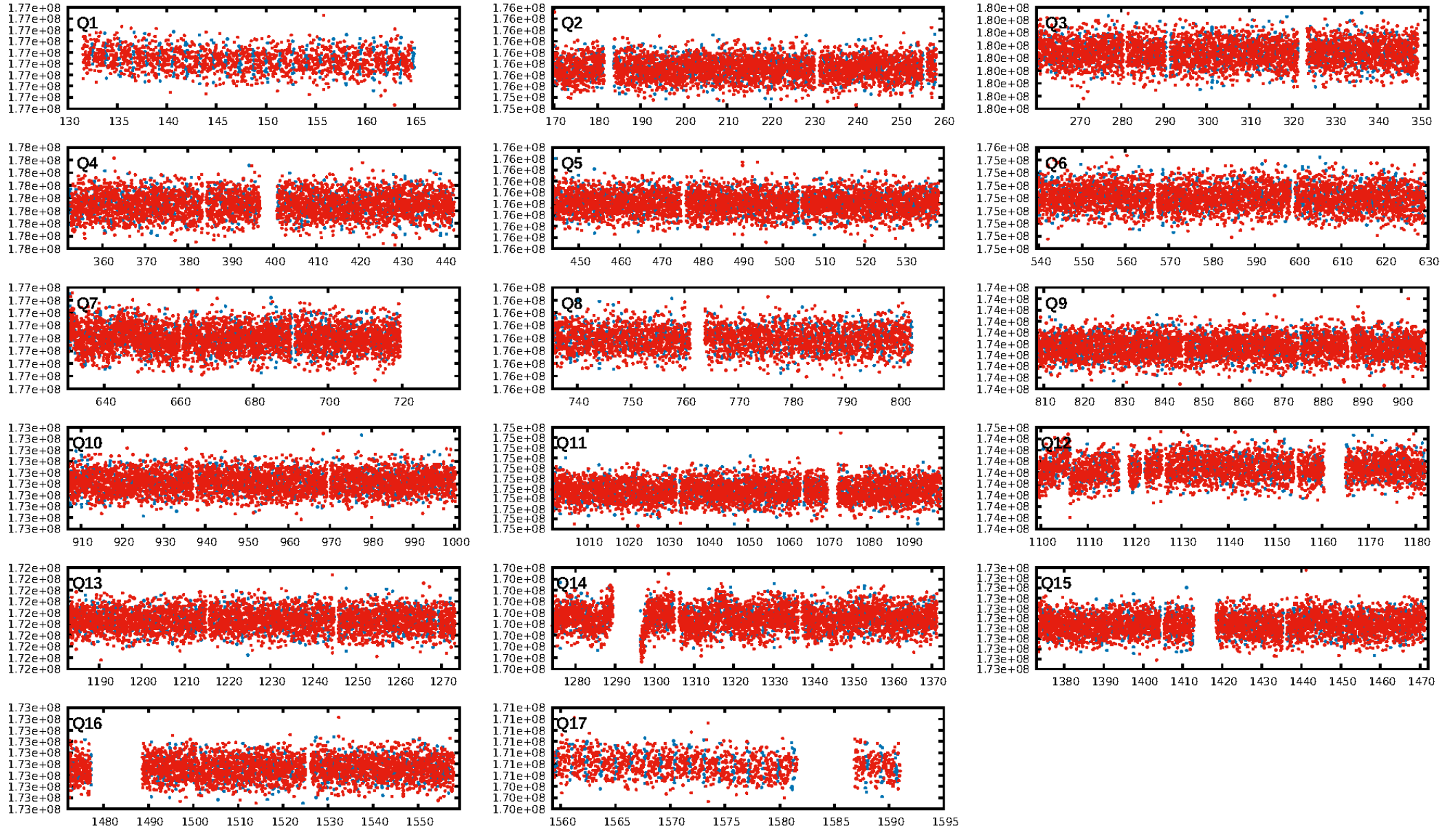
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [973/973]
GhostDiagnostic-chr: 3.139
Centroid-sig: 19.0%
Centroid-so: 0.846 arcsec [1.54 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

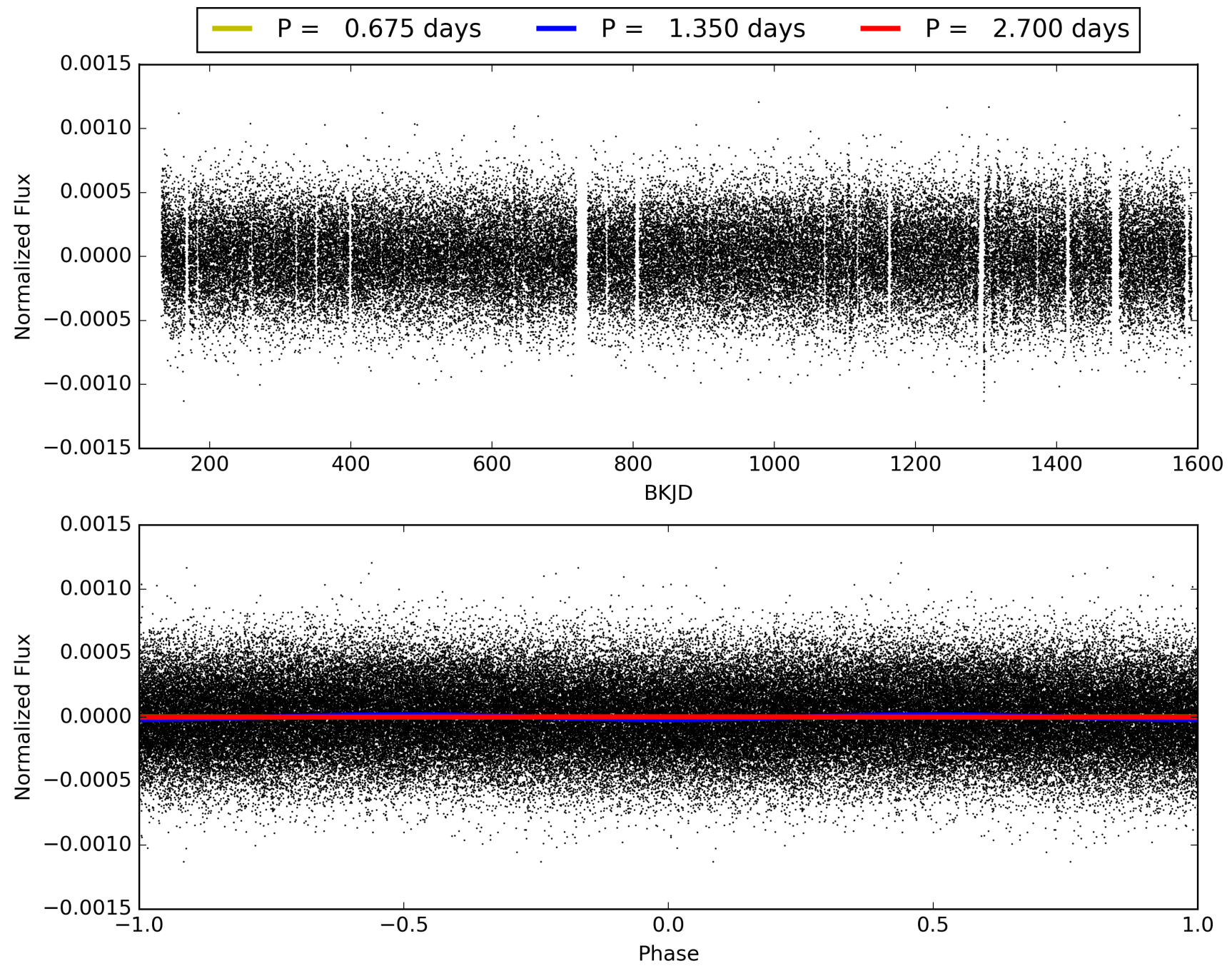
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:29:30 Z

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

TCE 010538299-01, PDC Light Curves

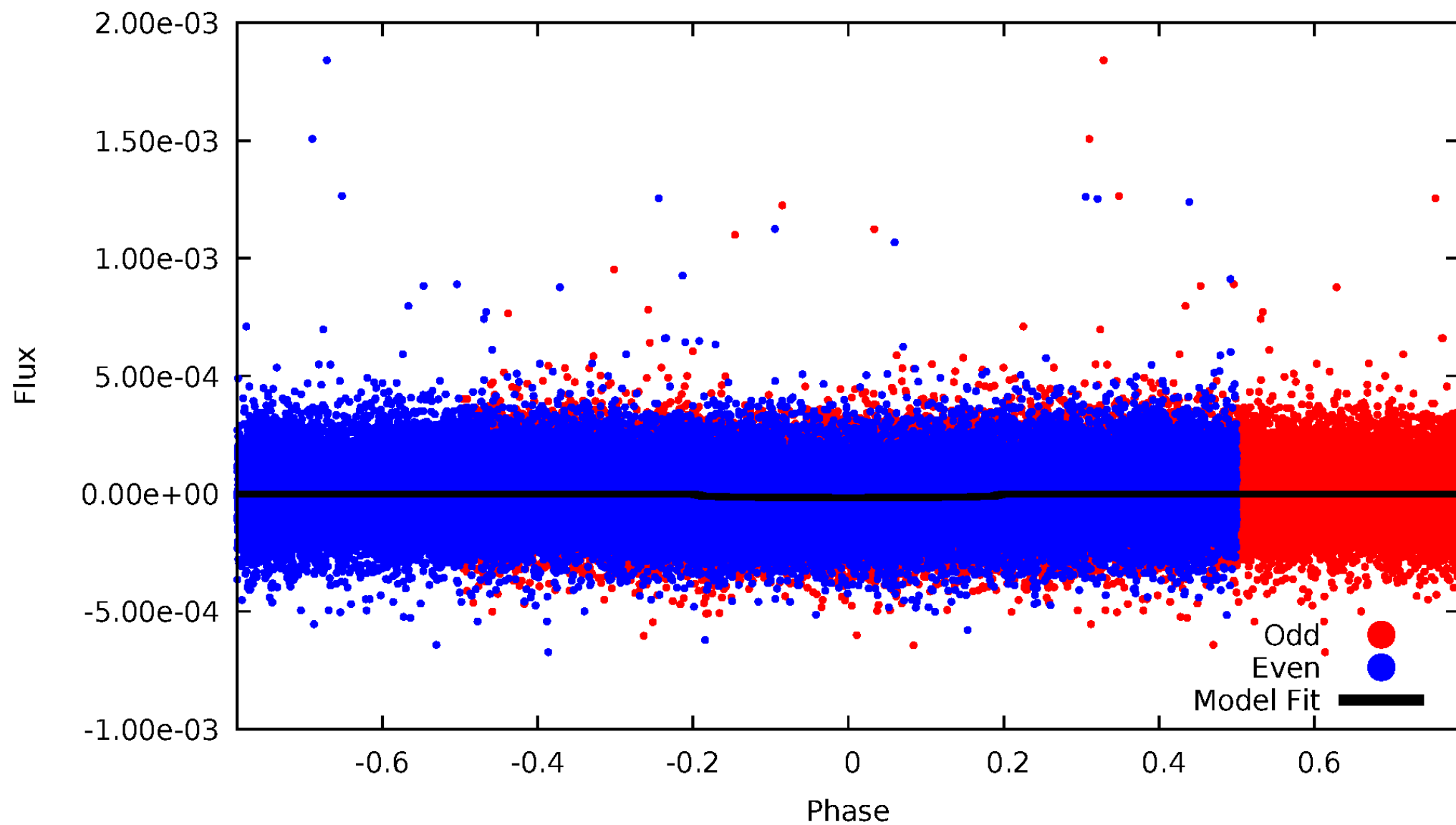


TCE 010538299-01



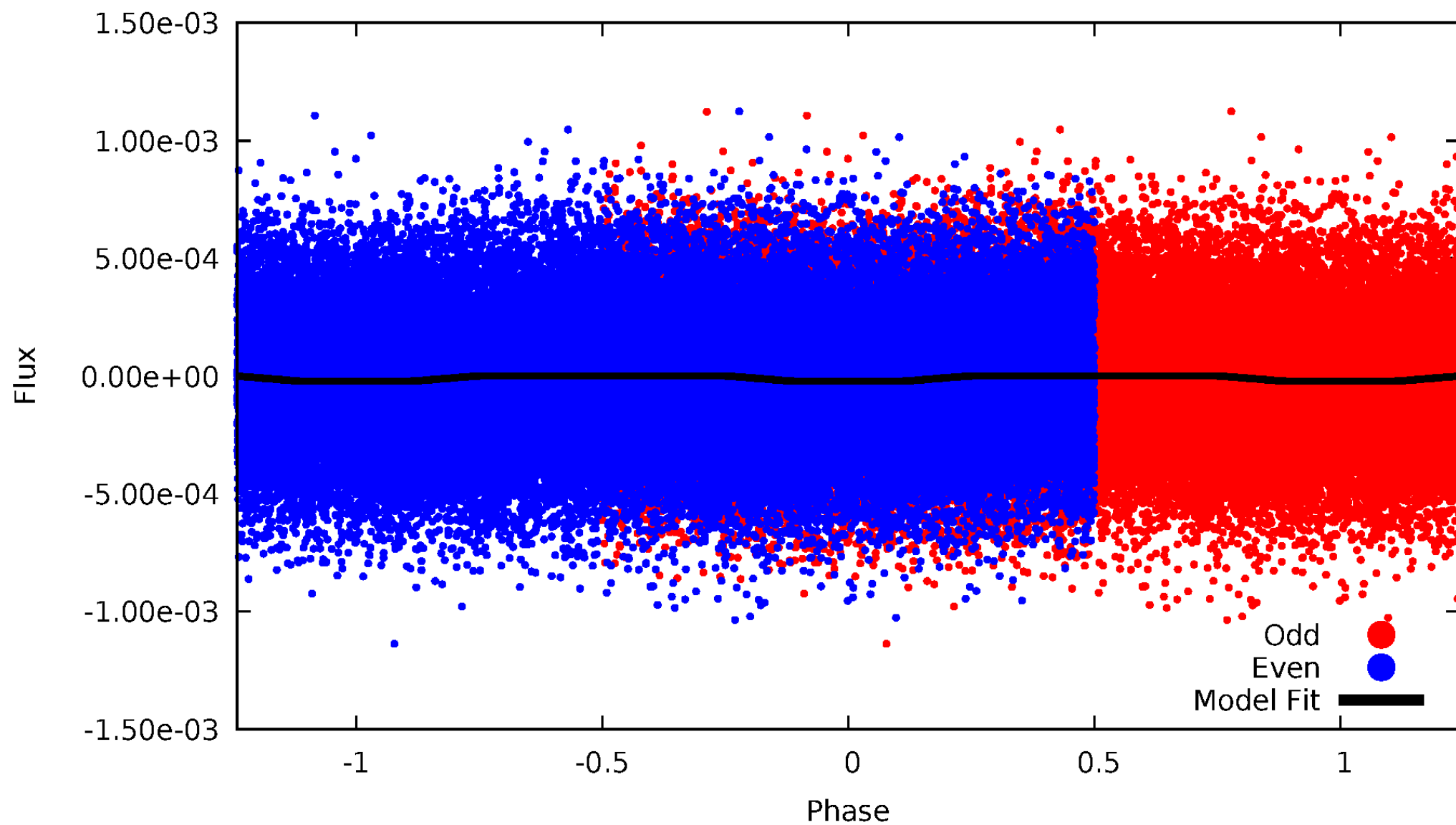
DV Odd/Even

TCE 010538299-01



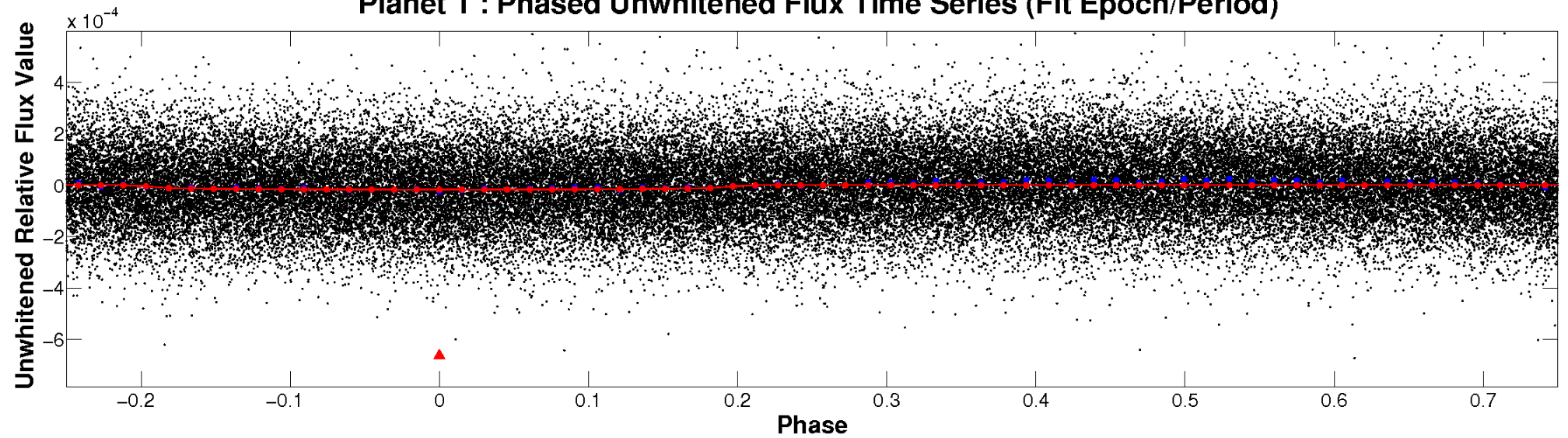
ALT Odd/Even

TCE 010538299-01

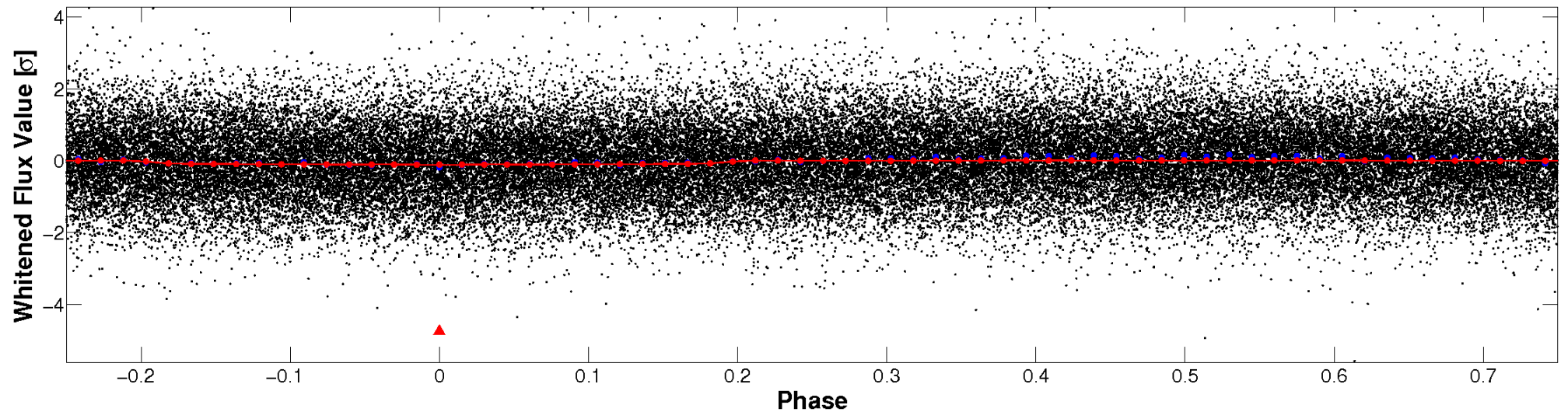


Non-Whitened Vs. Whitened Light Curve

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

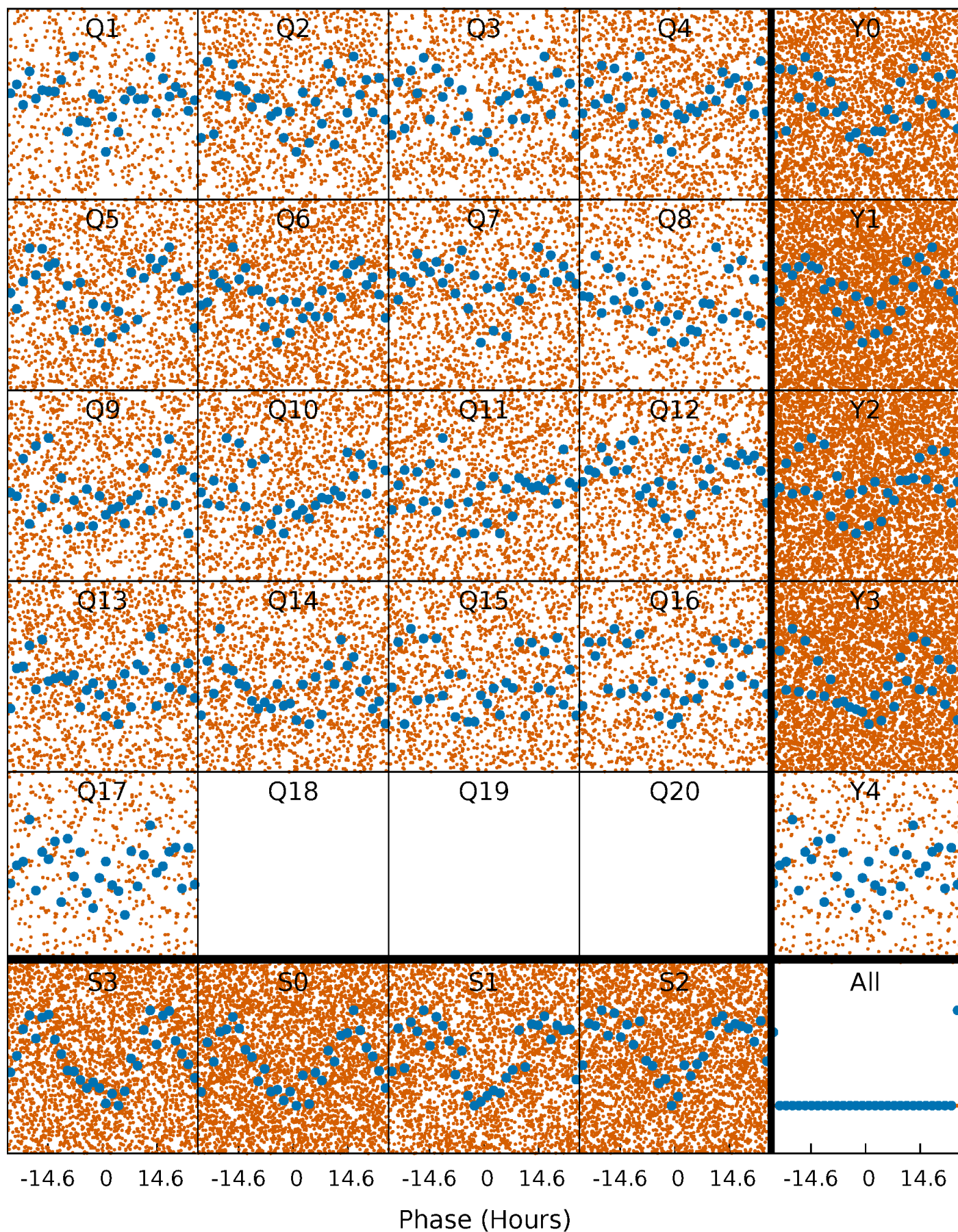


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



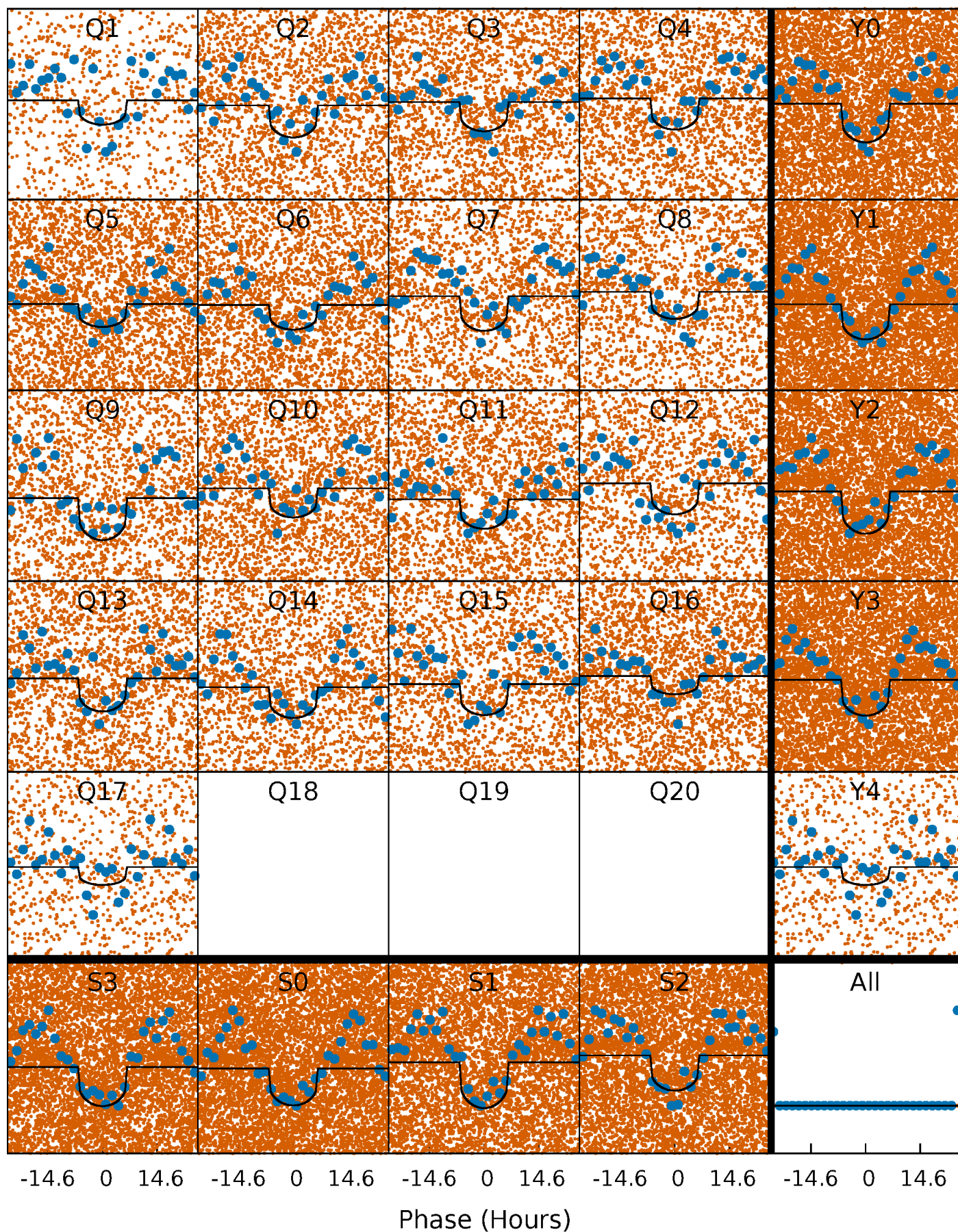
PDC Quarter-Phased Transit Curves

TCE 010538299-01 P= 1.350162 Days $T_0=131.813885$ (BKJD)



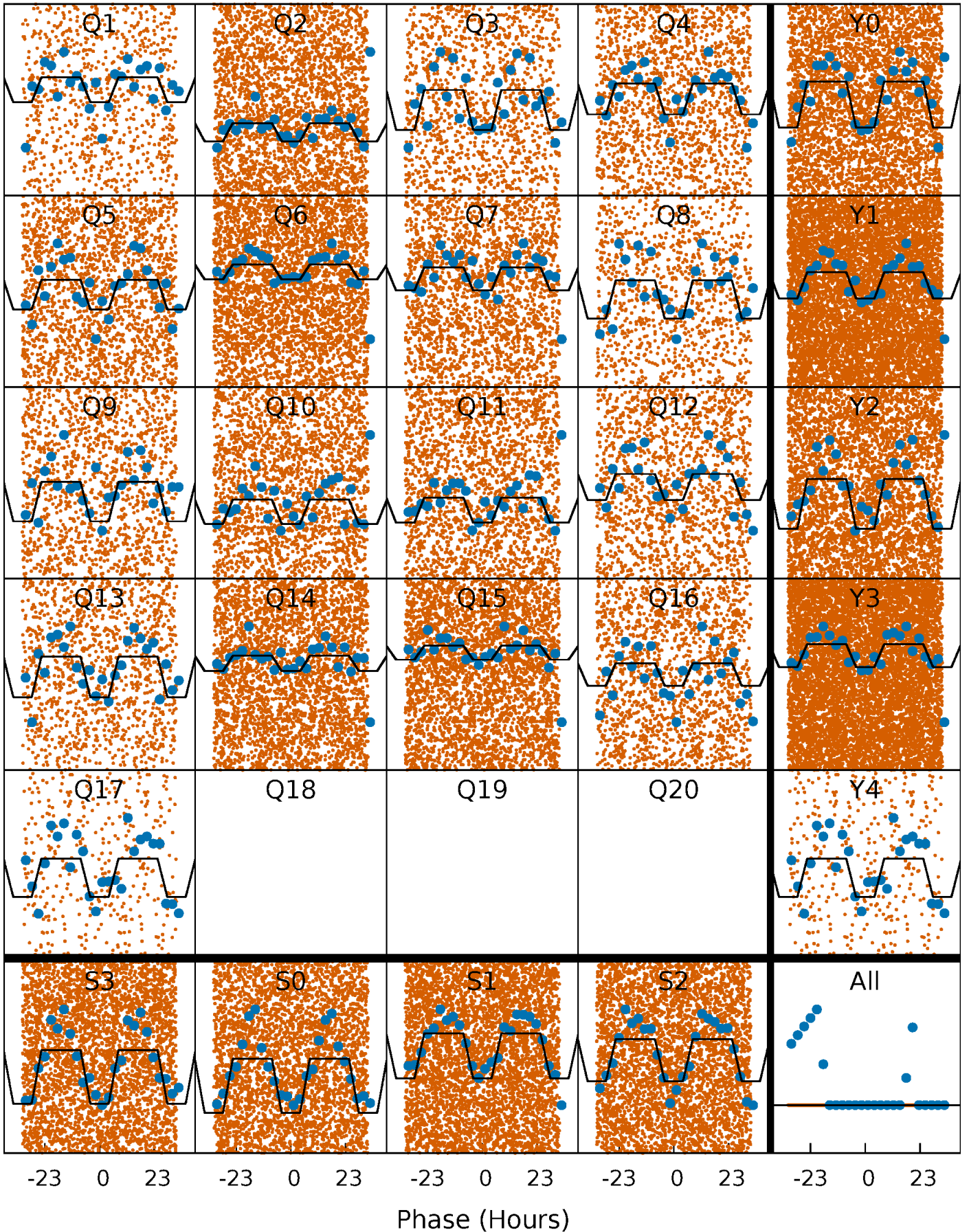
DV Quarter-Phased Transit Curves

TCE 010538299-01 P= 1.350162 Days $T_0=131.813885$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

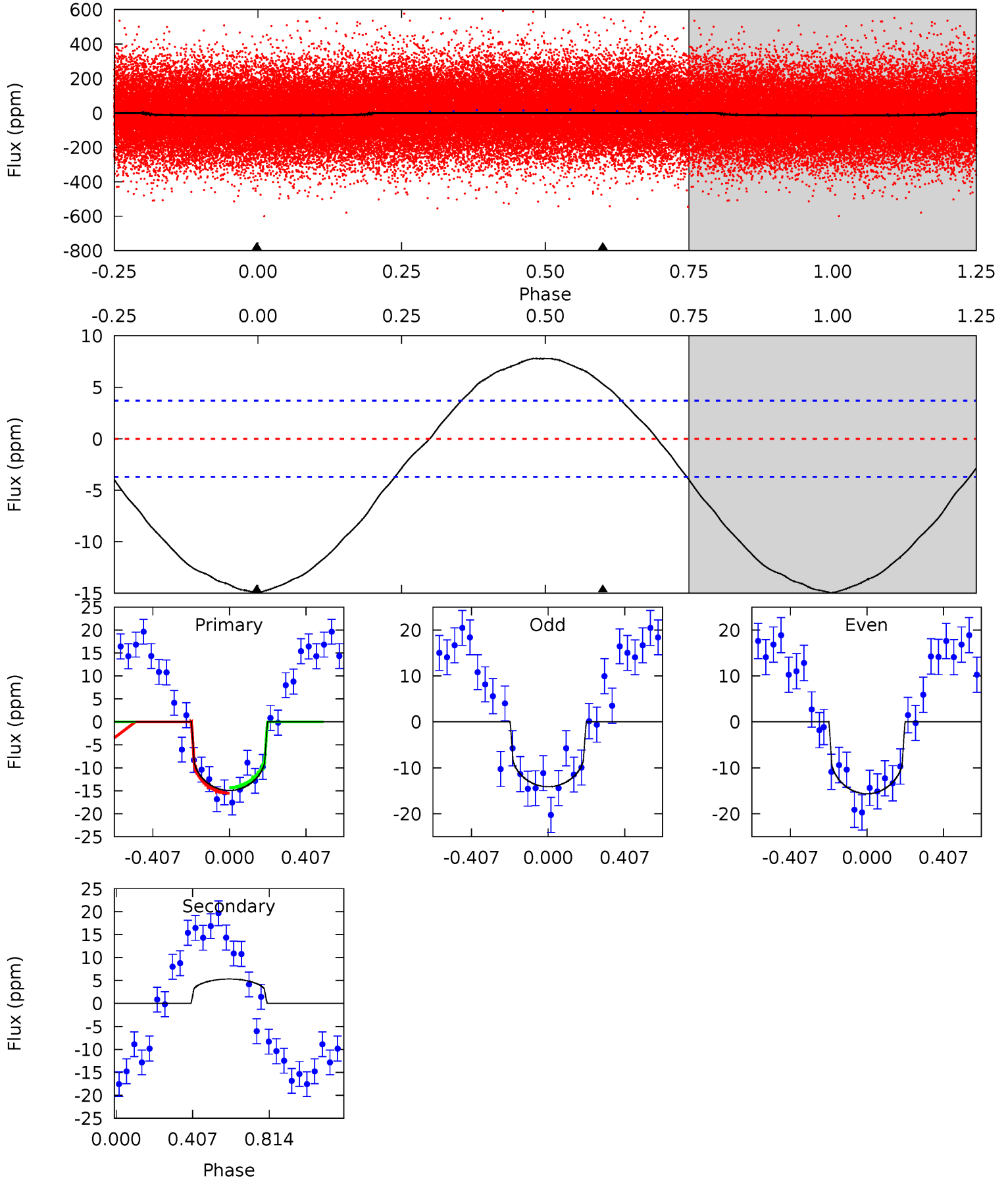
TCE 010538299-01 P= 1.350136 Days $T_0=131.823352$ (BKJD)



DV Model-Shift Uniqueness Test

010538299-01, P = 1.350162 Days, E = 130.463723 Days

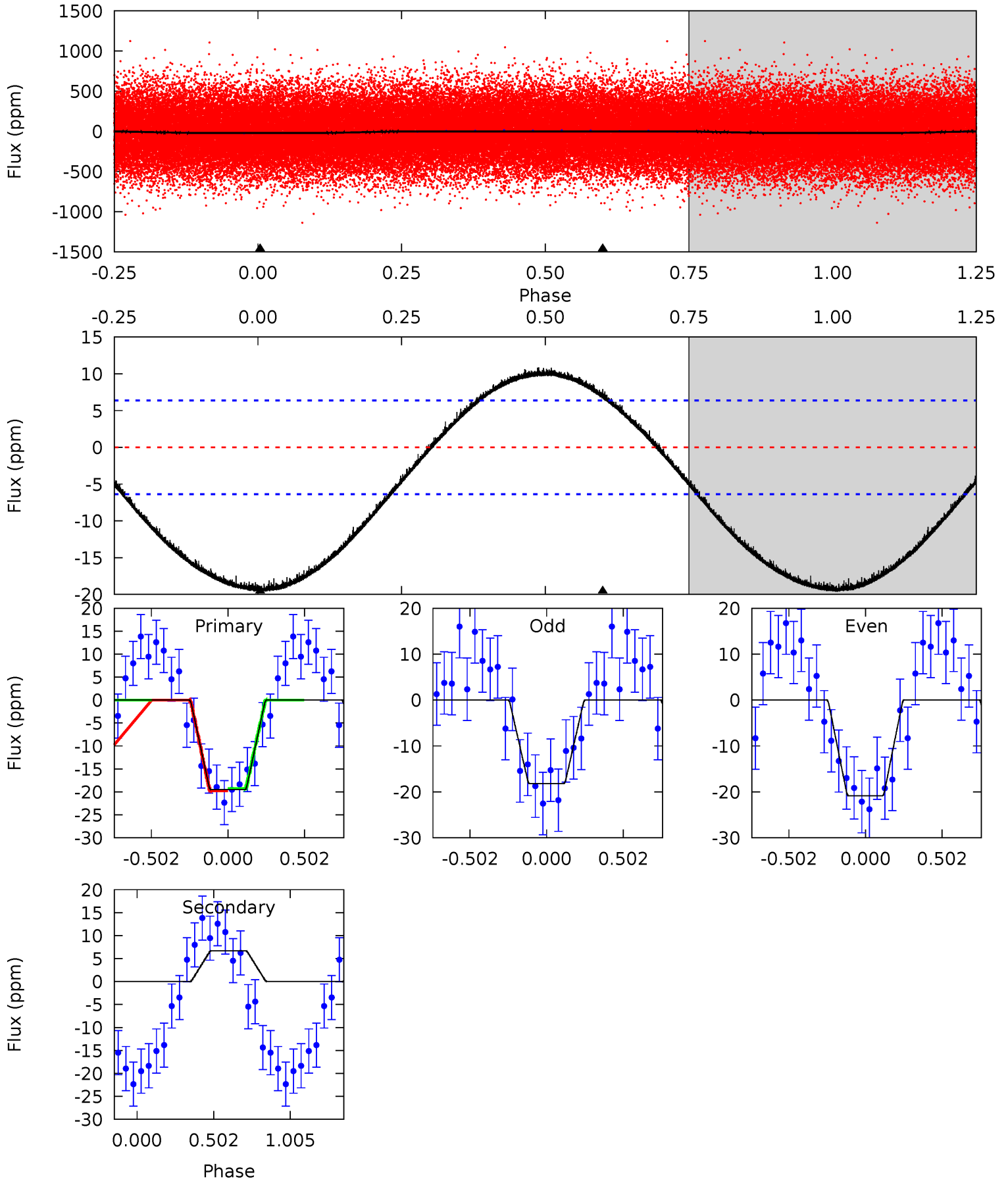
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.3	-6.15	0	0	4.26	0.83	2.12	17.3	17.3	-6.15	-6.15	0.89	1.01	0.34	0.72



Alt Model-Shift Uniqueness Test

010538299-01, P = 1.350136 Days, E = 130.473216 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	-4.43	0	0	4.21	0.67	1.70	12.9	12.9	-4.43	-4.43	0.89	0.97	0.36	0.17



Stellar Parameters For KIC 010538299

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8141^{+226}_{-368}	$4.103^{+0.126}_{-0.154}$	$0.070^{+0.250}_{-0.450}$	$2.014^{+0.491}_{-0.401}$	$1.872^{+0.245}_{-0.327}$	$0.323^{+0.208}_{-0.149}$
	+3%/-5%	+3%/-4%	+357%/-643%	+24%/-20%	+13%/-17%	+64%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010538299-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	5 ± 1	$0.94^{+0.64}_{-0.54}$	4144^{+298}_{-260}	-5951^{+1072}_{-3095}	$-2.890^{+1.901}_{-12.237}$
Alt.	7 ± 2	$1.04^{+0.64}_{-0.56}$	4147^{+265}_{-253}	-5882^{+901}_{-3206}	$-2.800^{+1.682}_{-10.804}$

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 $A_{obs} \gg 1.0$

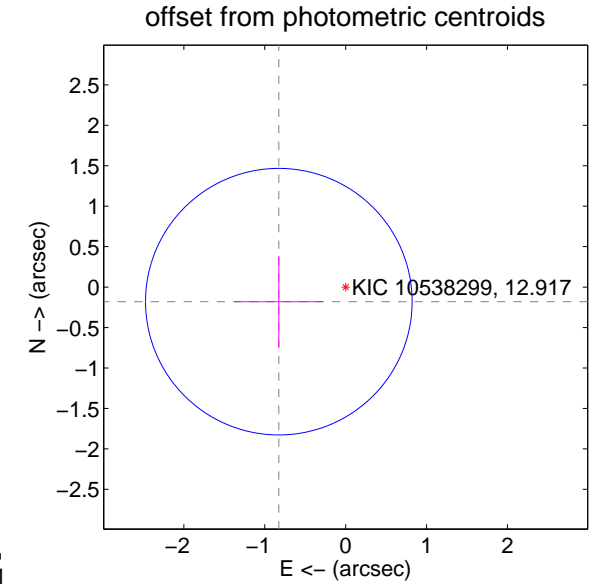
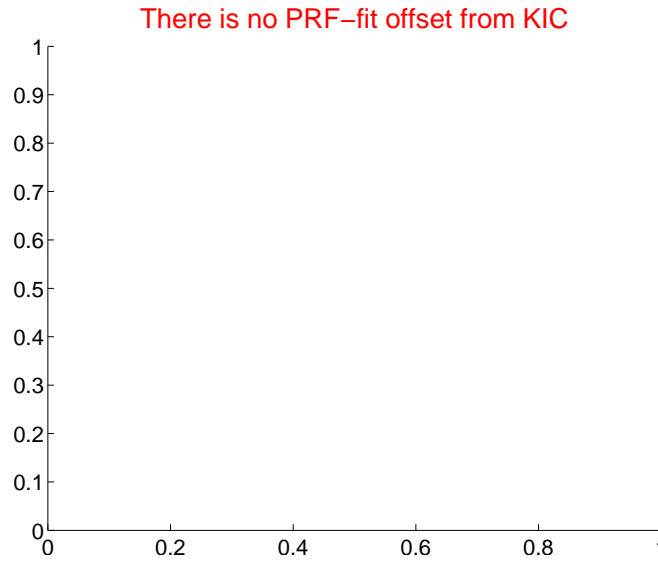
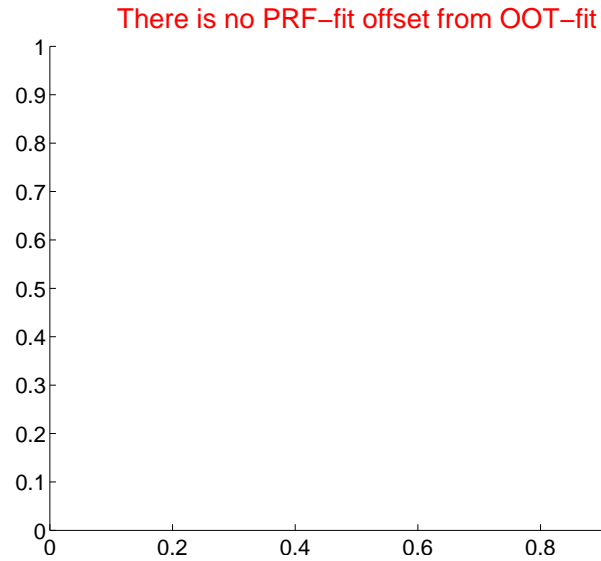
DV Centroid Data

Supplemental centroid analysis for 010538299-01. Kepler magnitude: 12.92. Transit SNR 15.51

There are 0 quarters with good PRF difference image offsets

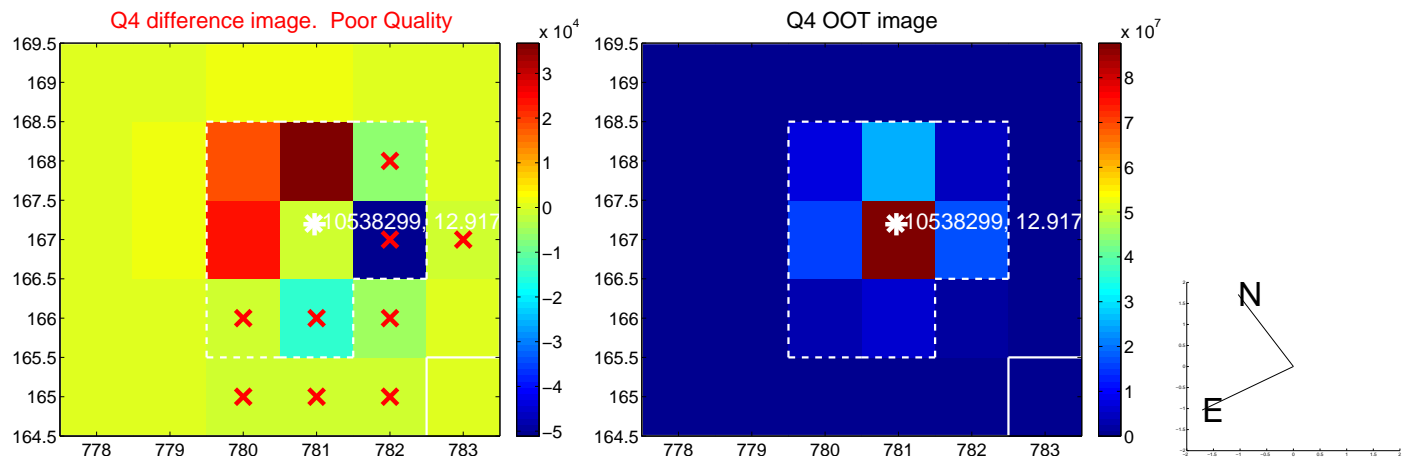
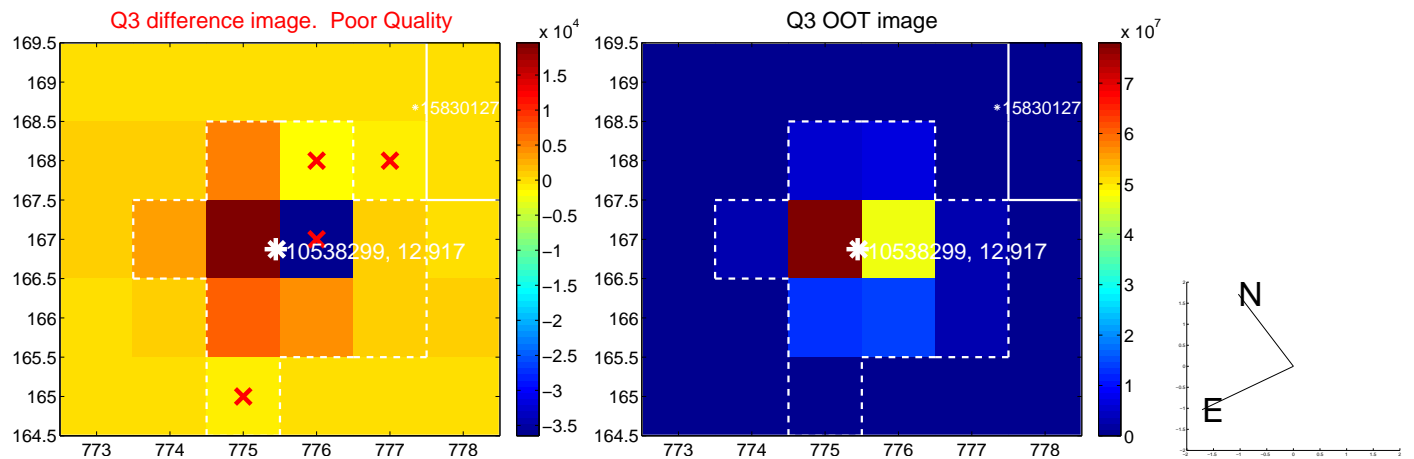
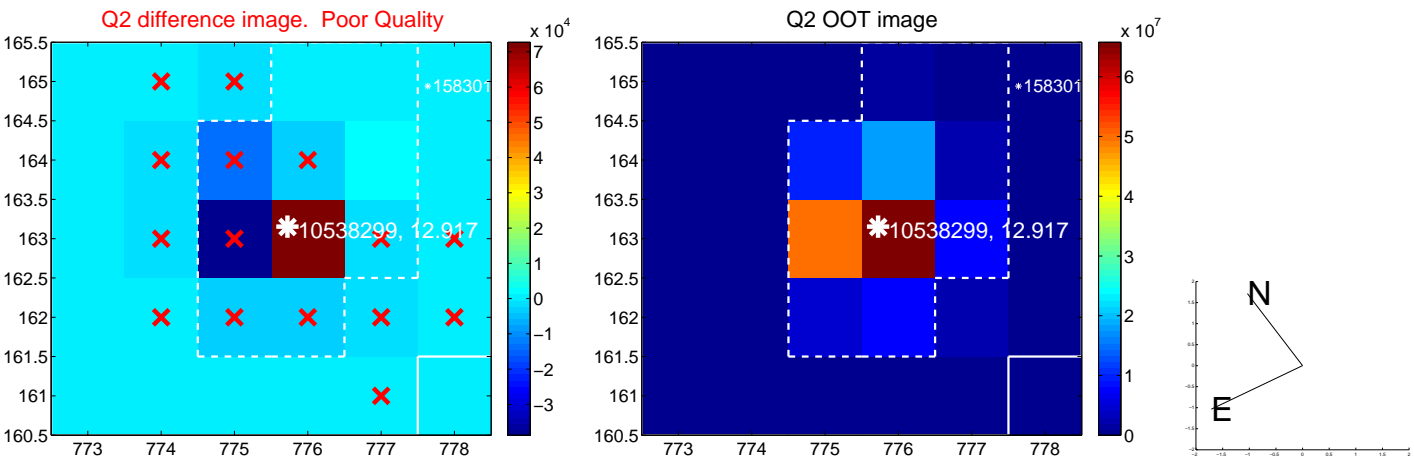
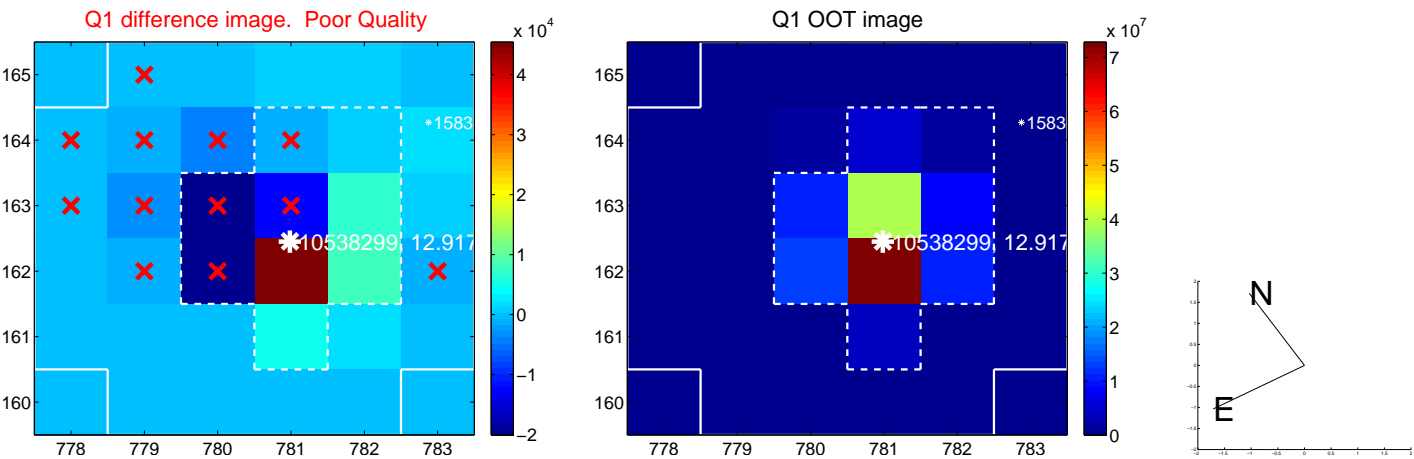
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	0.85 ± 0.55	1.54	0.83 ± 0.55	-0.18 ± 0.57

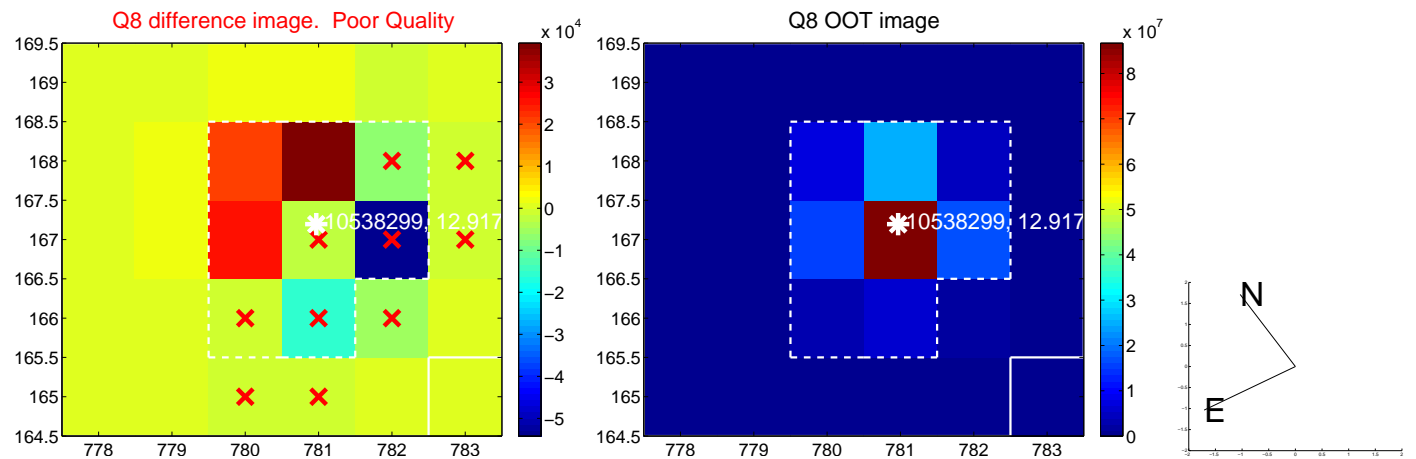
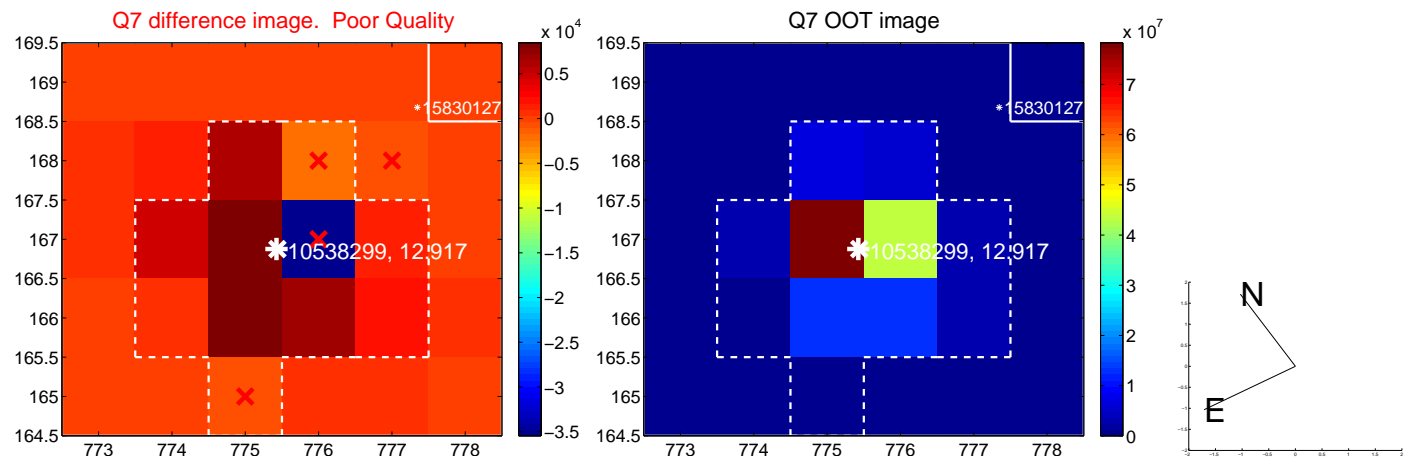
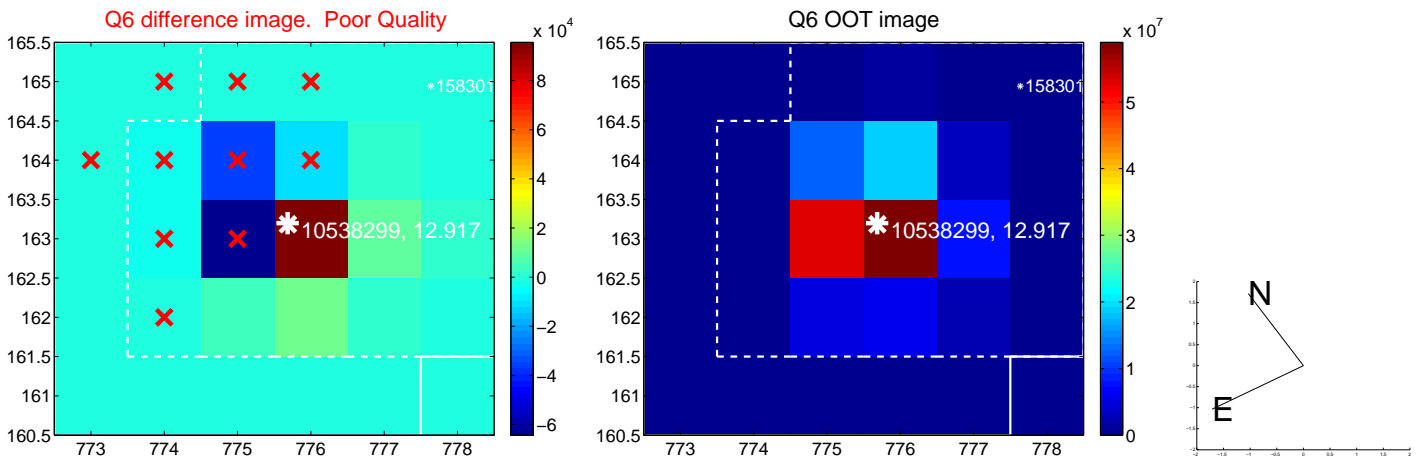
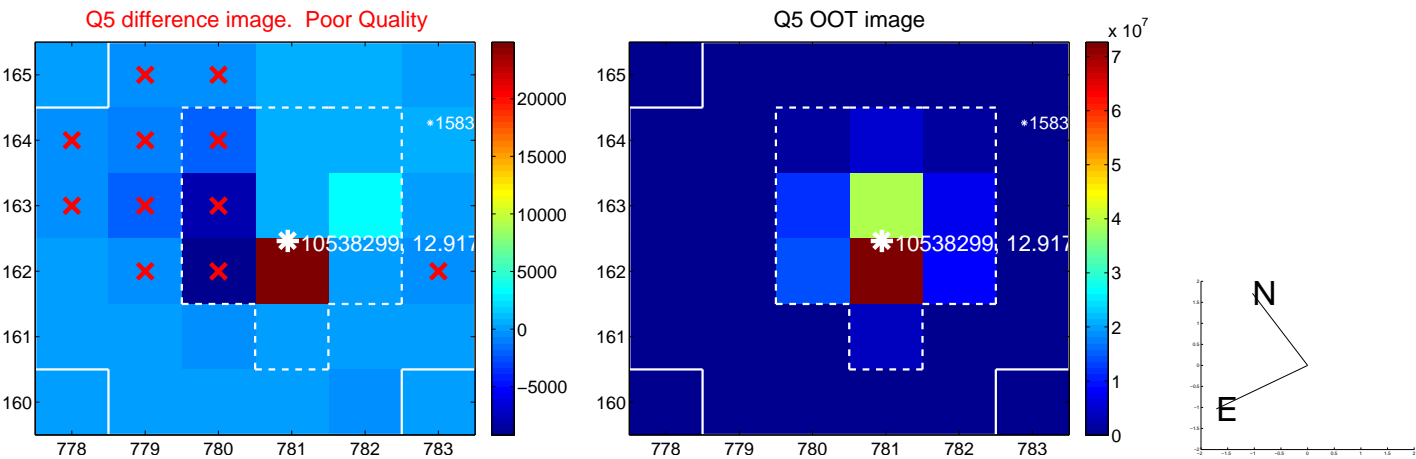


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

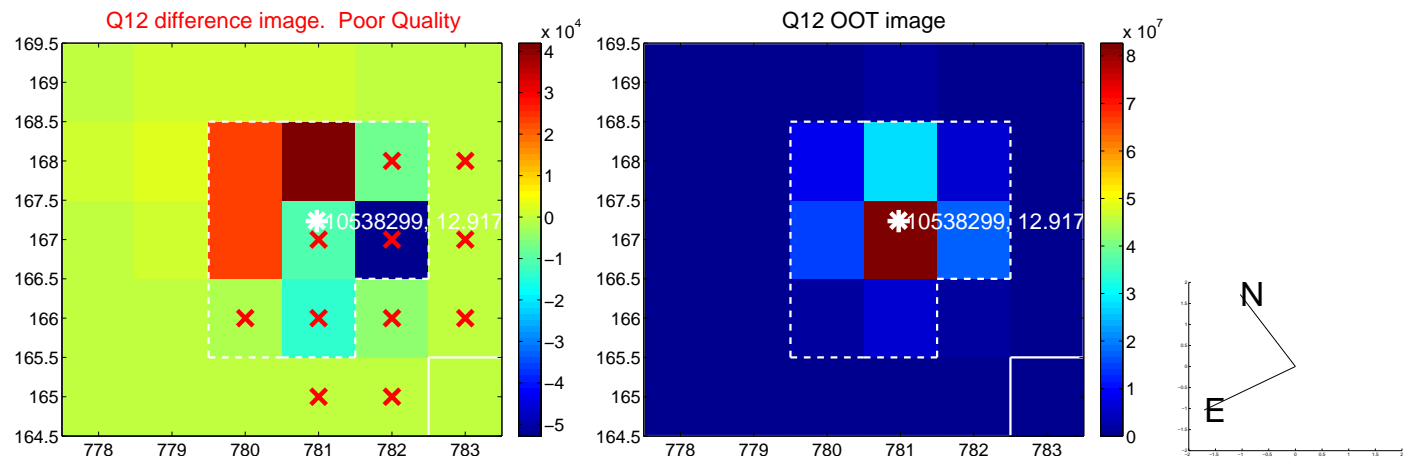
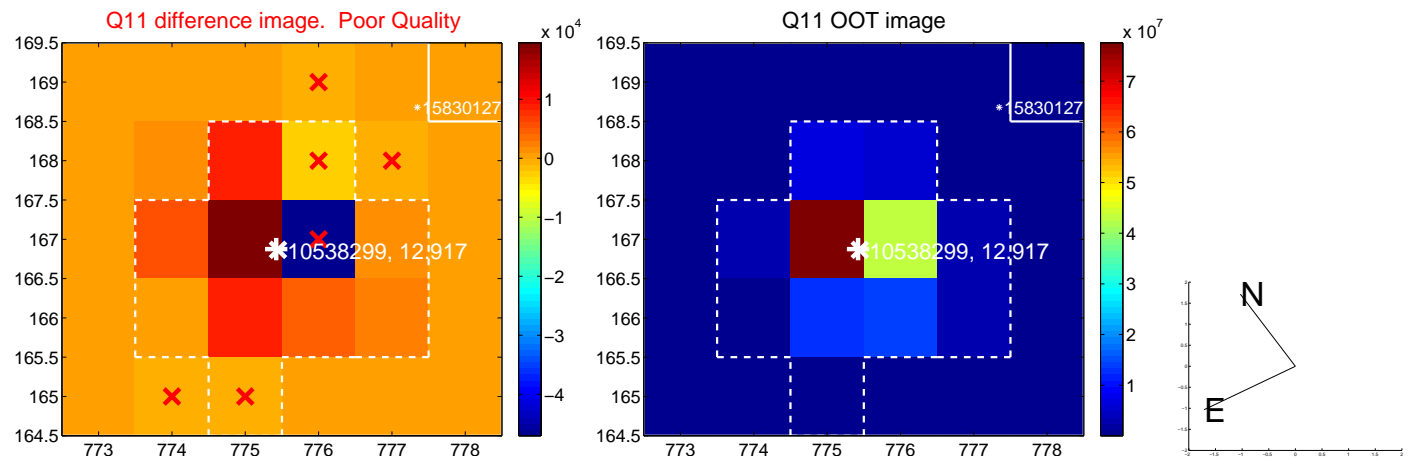
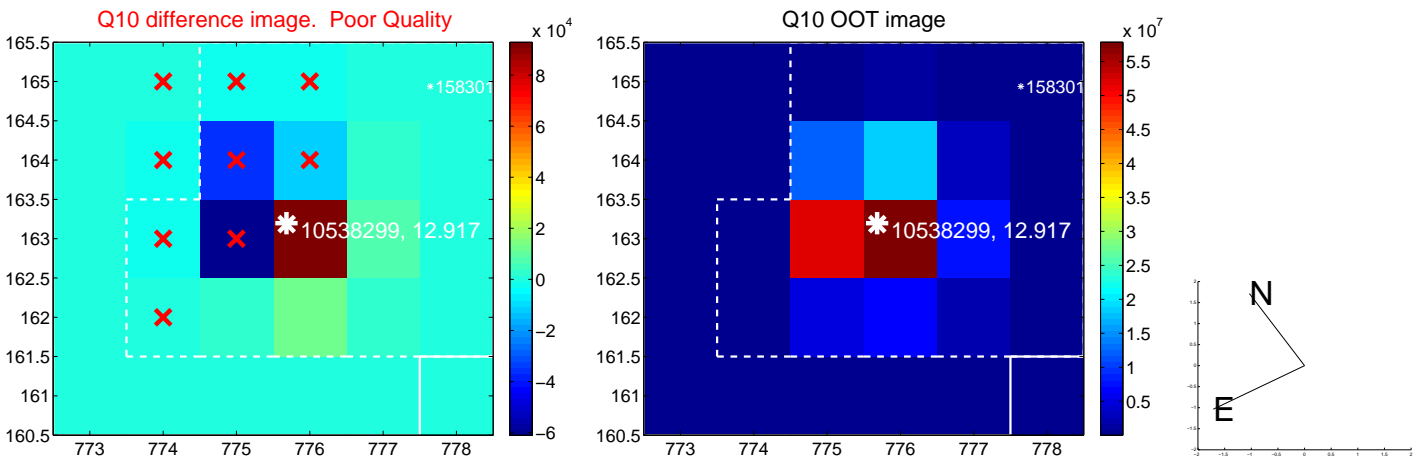
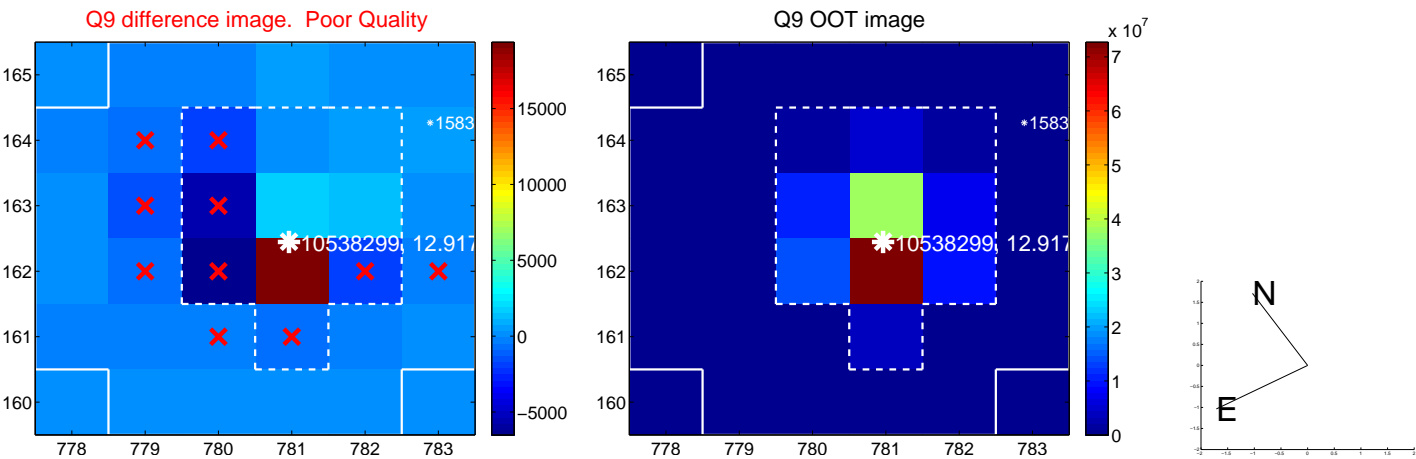
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



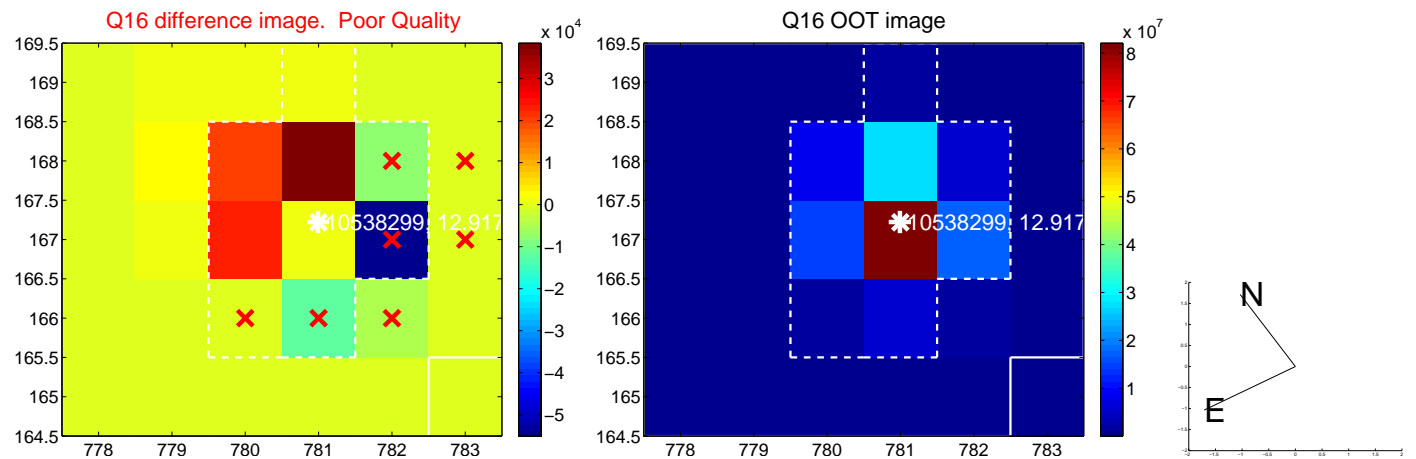
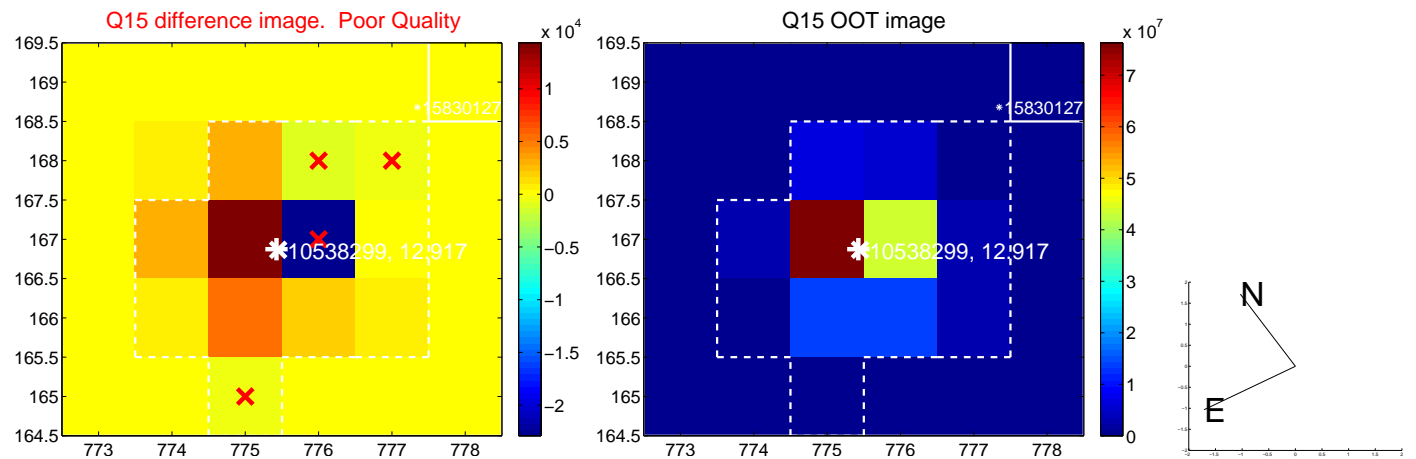
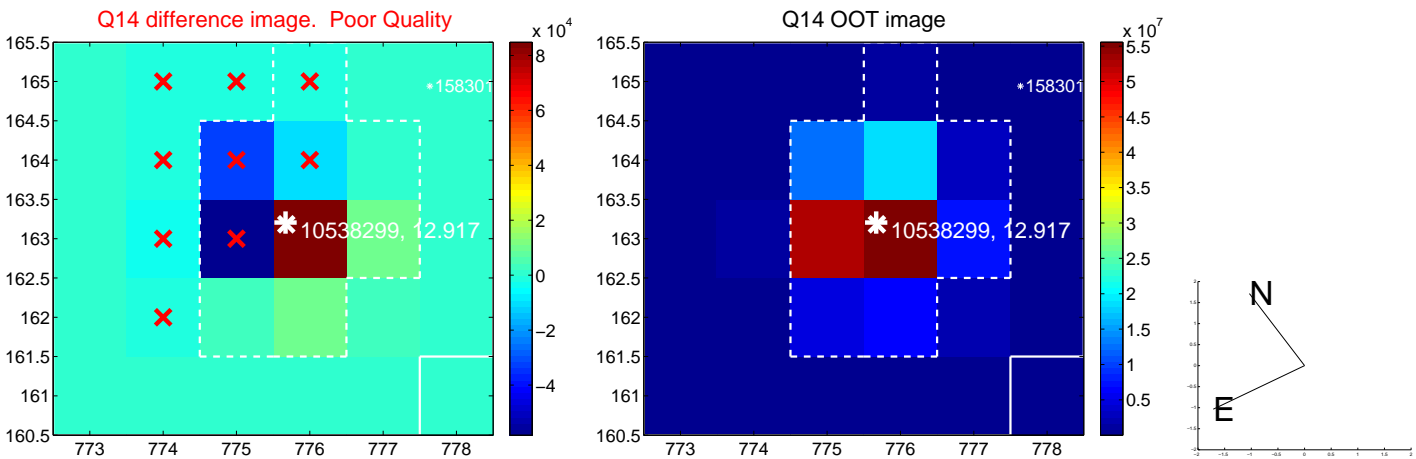
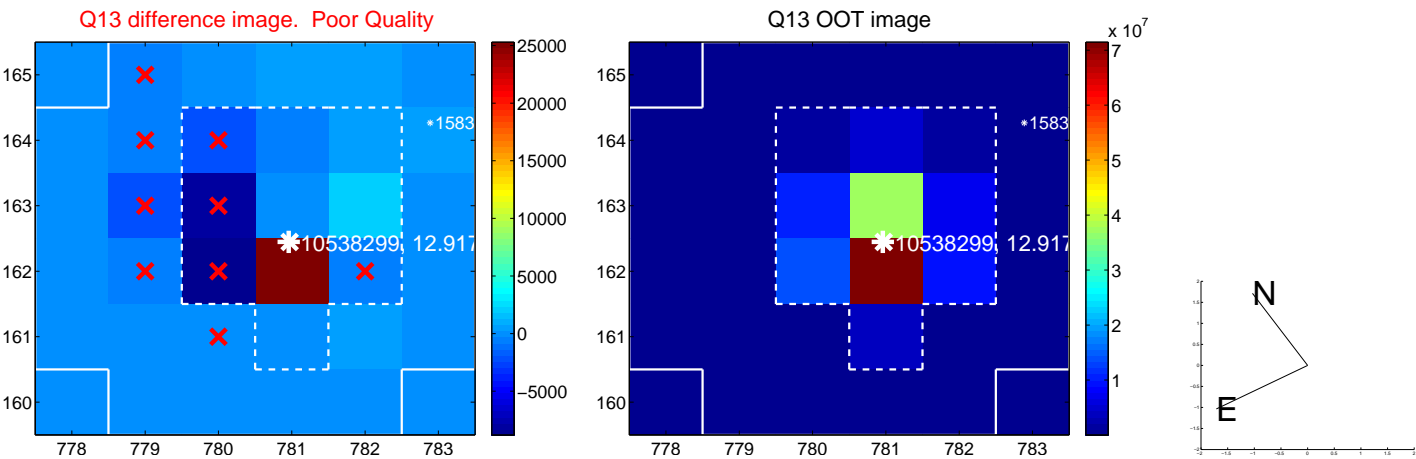
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



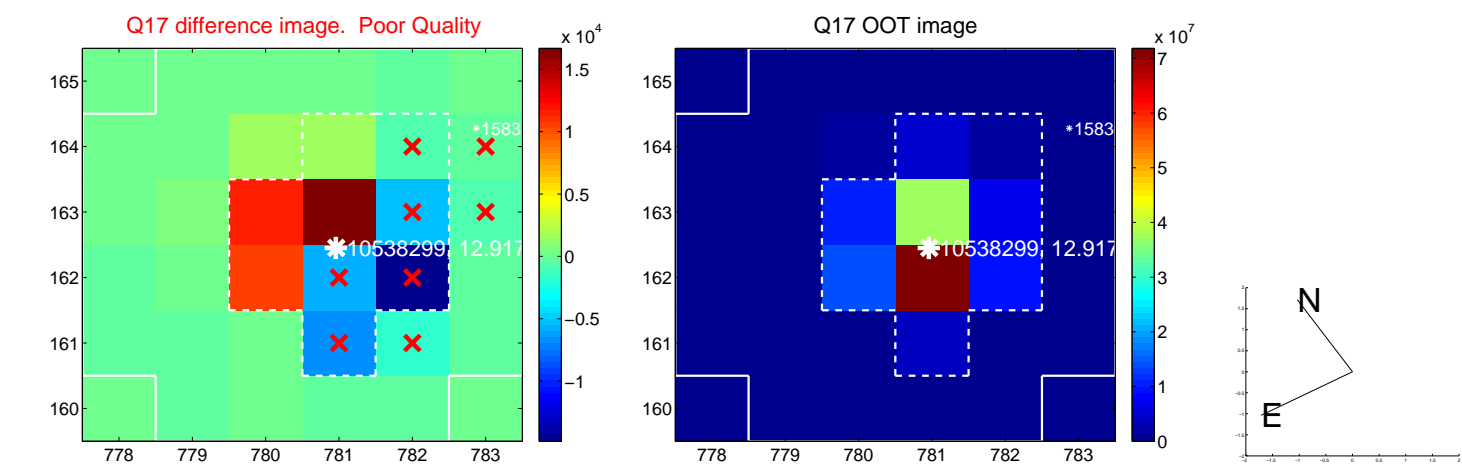
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



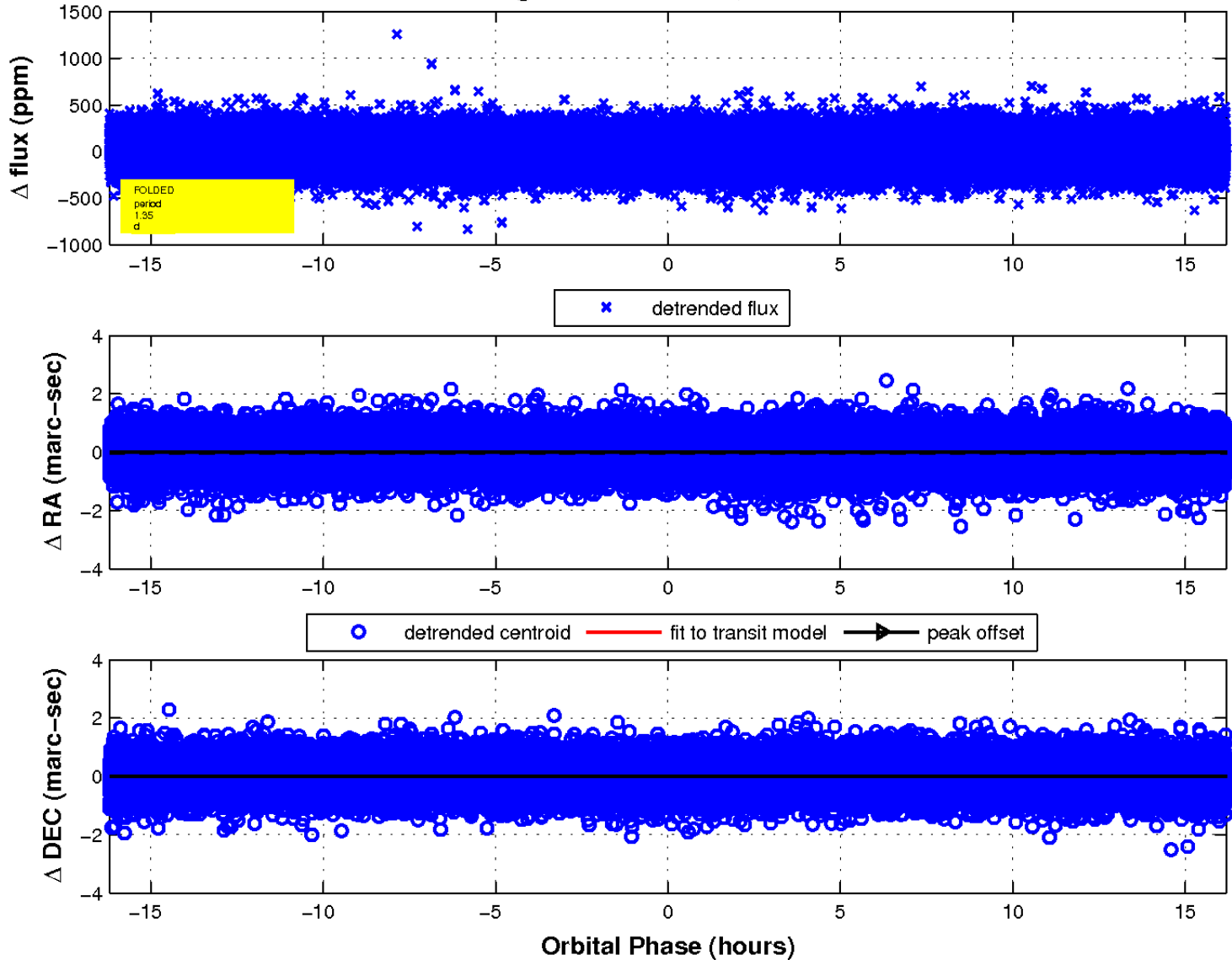
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

