

KIC 008166299

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})
008166299-01	OBS	No	1.176187	131.572294	161.6	4.500	8.4	-1.0	1.60	6866	2.05	8442.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008166299-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS

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

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

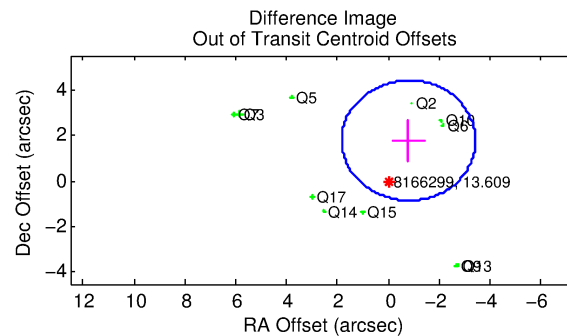
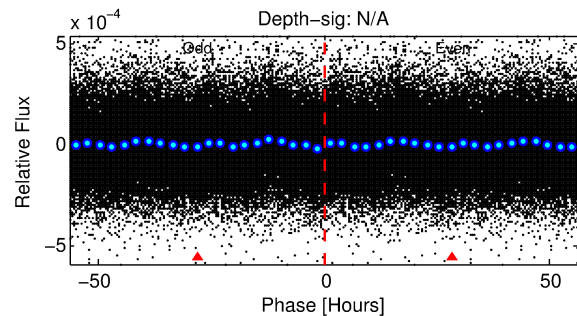
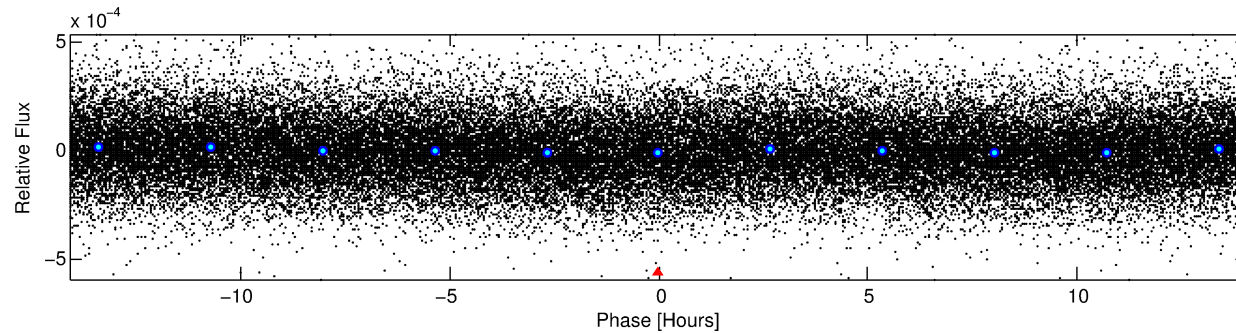
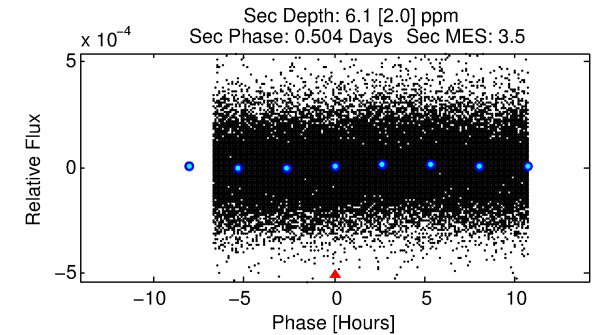
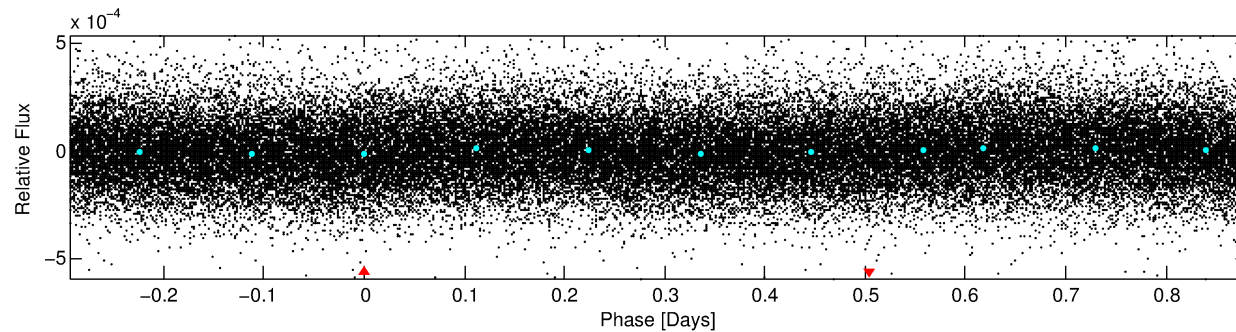
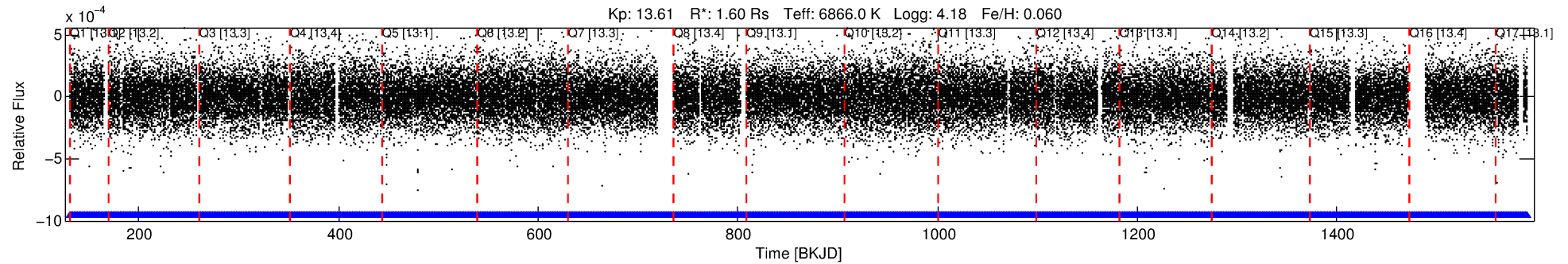
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008166299-01

No Significant Match Found

DV One-Page Summary

KIC: 8166299 Candidate: 1 of 1 Period: 1.176 d



TPS TCE Results:

Period = 1.17619 d
Epoch = 131.5723 BKJD

DV fit results are unavailable

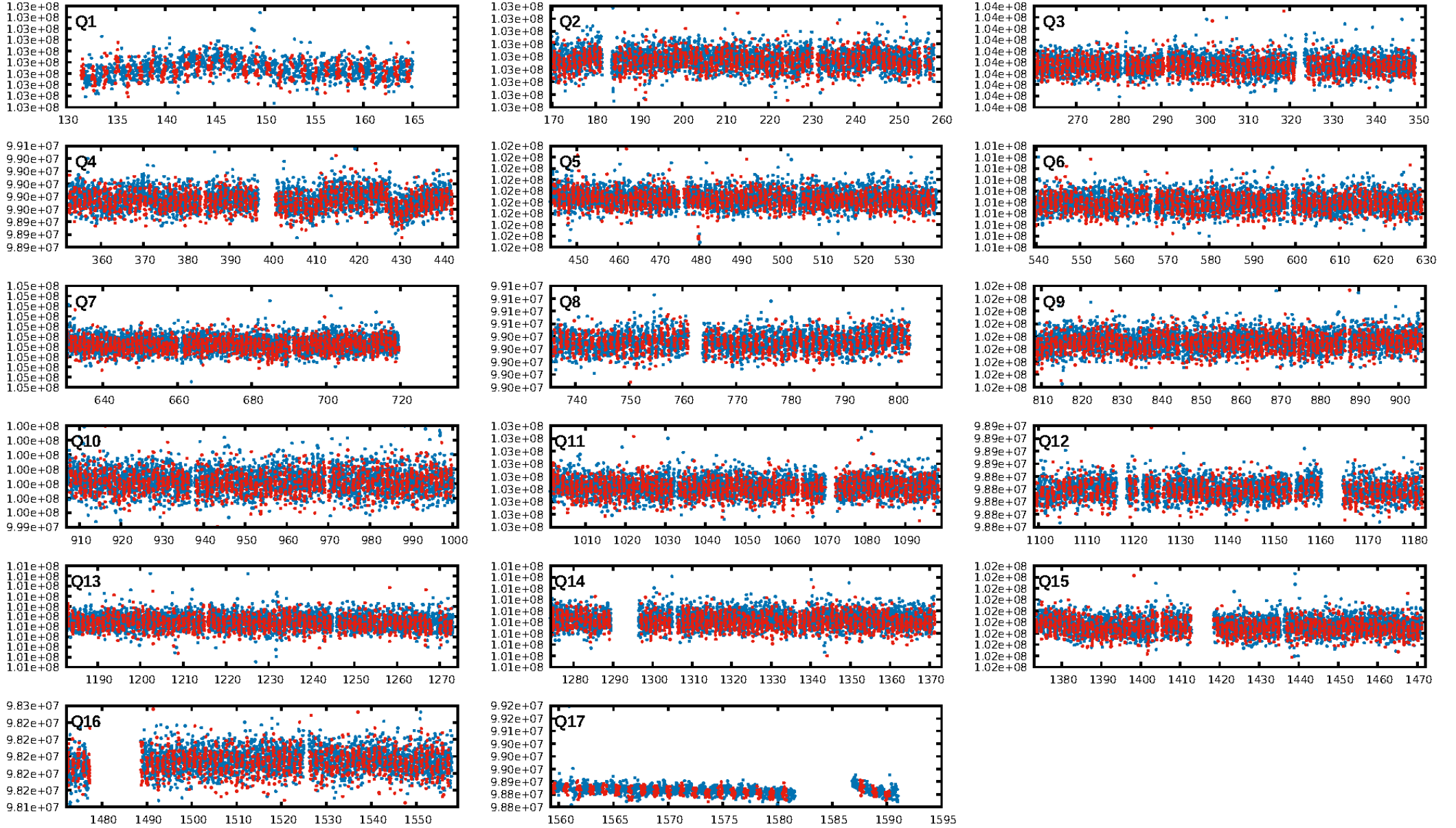
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.13e-15
RollingBand-fgt: 1.00 [1109/1109]
GhostDiagnostic-chr: 2.326
Centroid-sig: 79.9%
Centroid-so: 0.394 arcsec [1.04 σ]
OotOffset-rm: 1.952 arcsec [2.23 σ]
KicOffset-rm: 1.979 arcsec [2.30 σ]
OotOffset-st: 4/3/0/4 [11]
KicOffset-st: 4/3/0/4 [11]
DiffImageQuality-fgm: 0.09 [1/11]
DiffImageOverlap-fno: 1.00 [17/17]

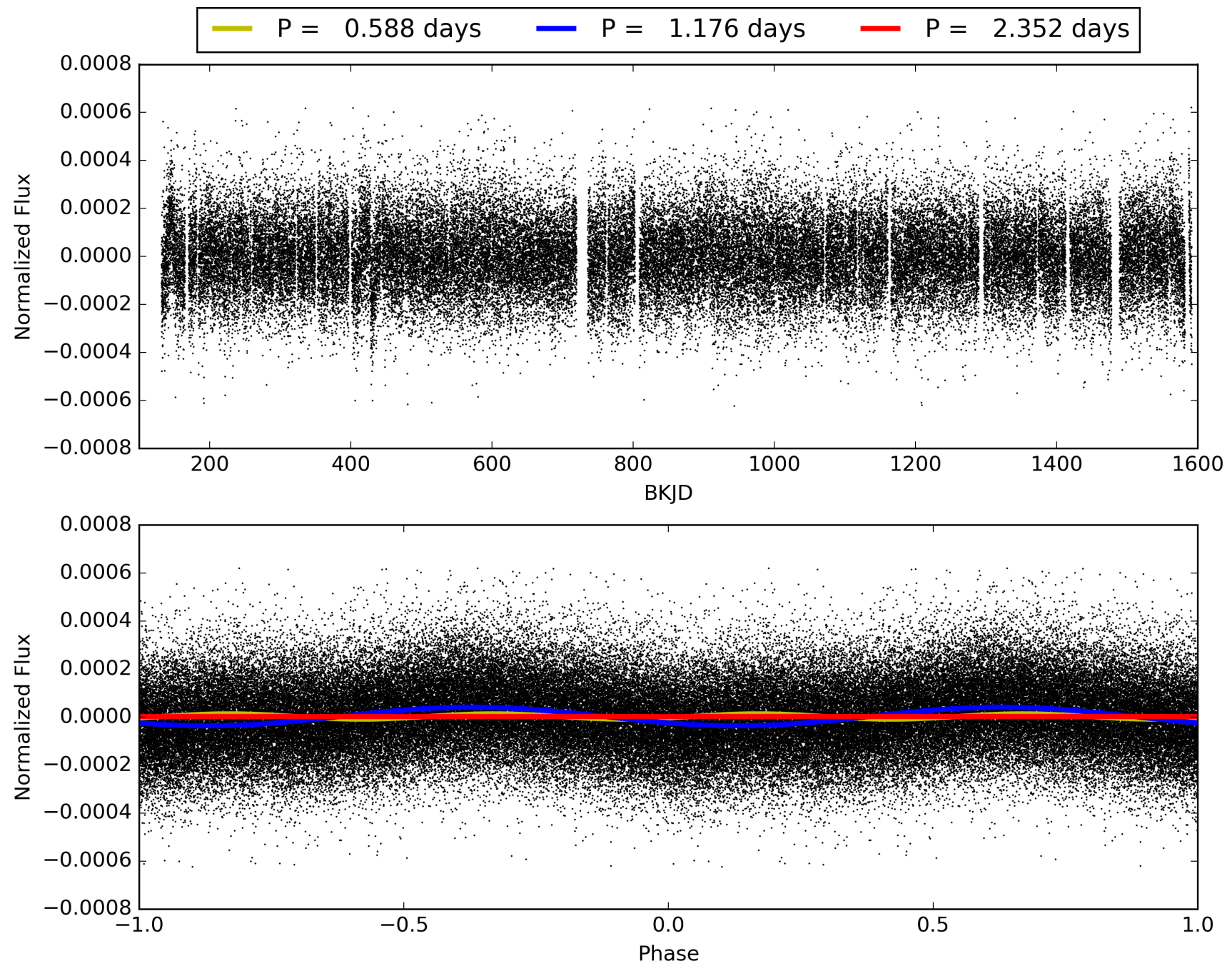
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:06:53 Z

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

TCE 008166299-01, PDC Light Curves

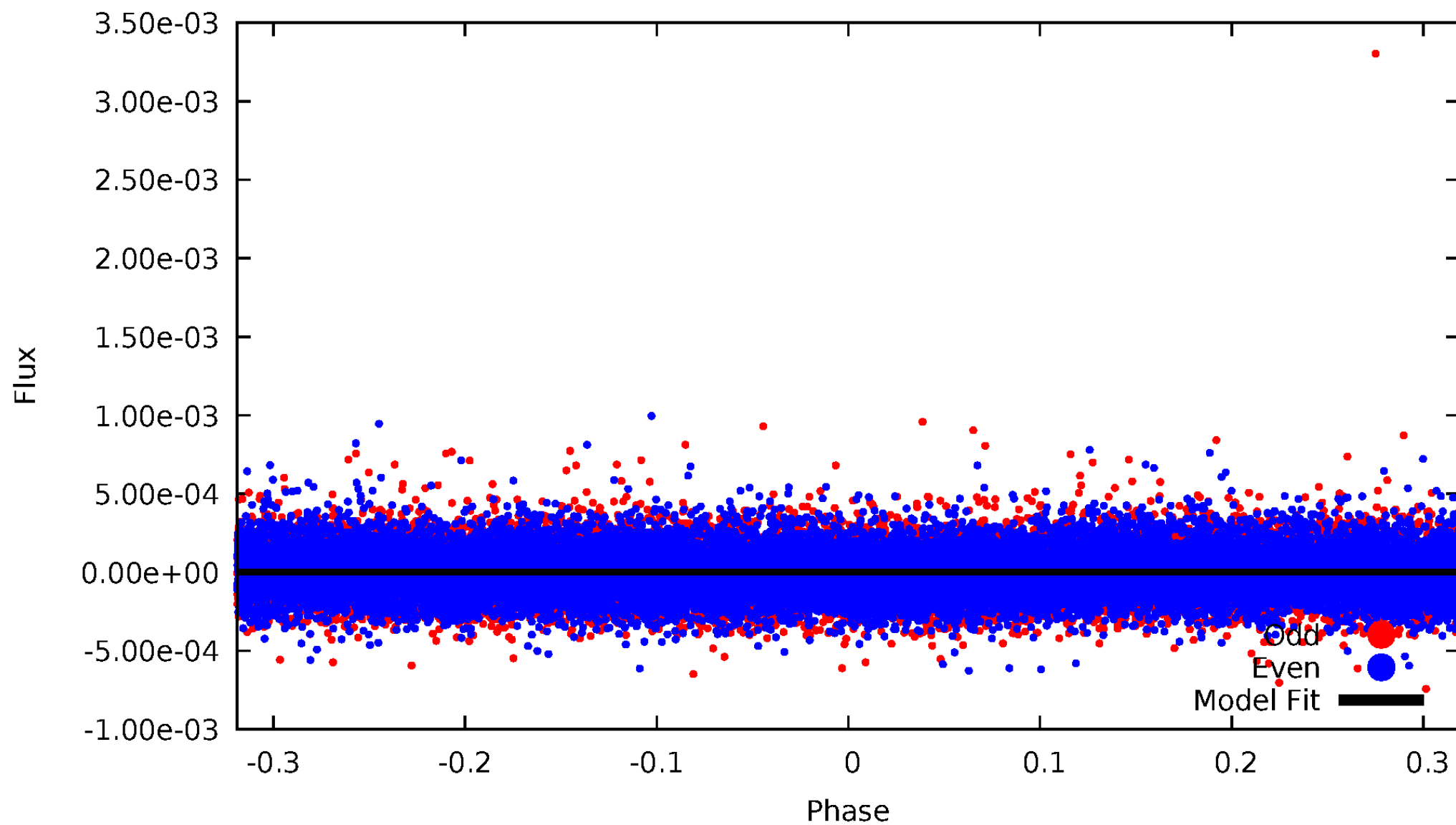


TCE 008166299-01



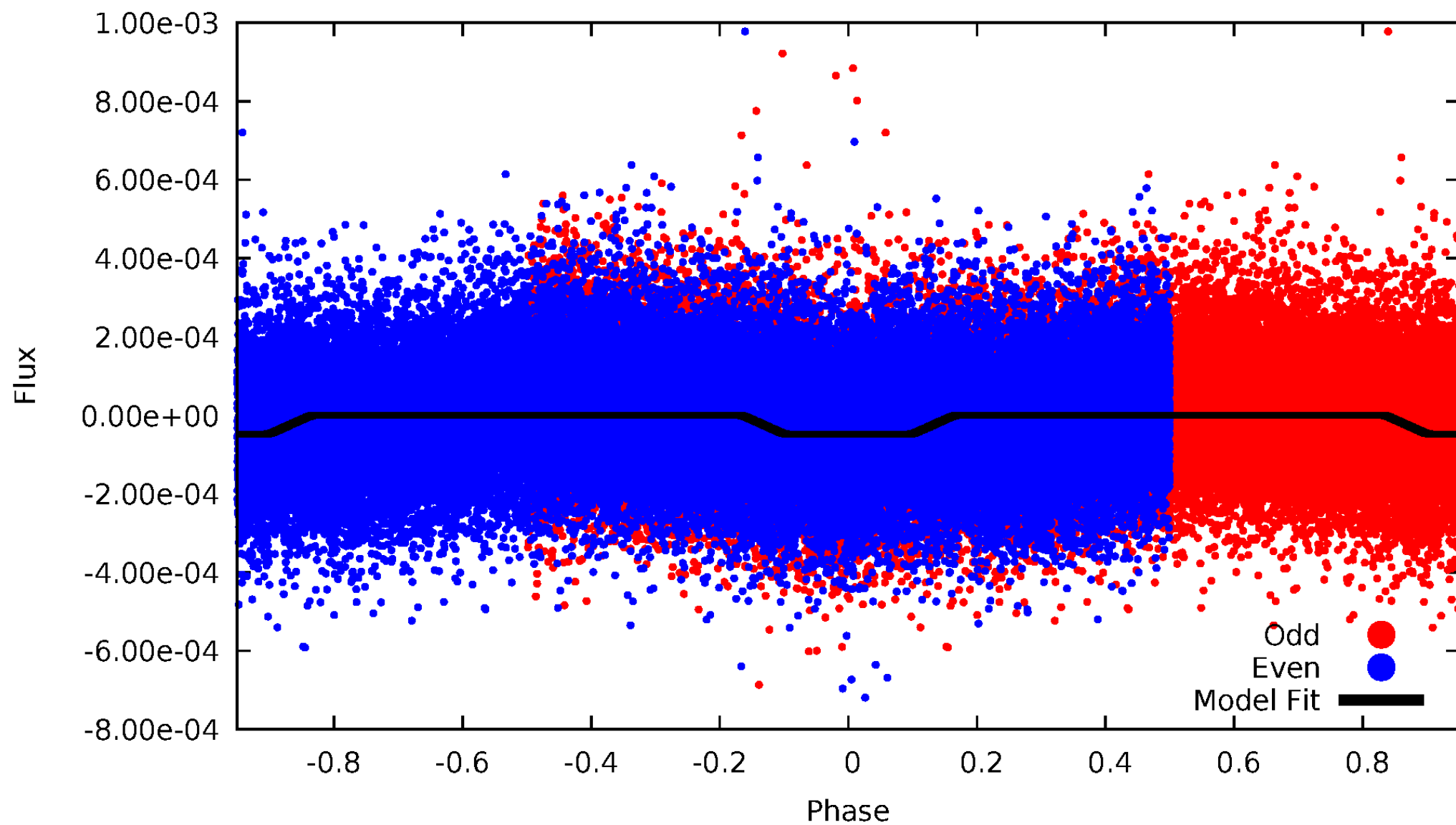
DV Odd/Even

TCE 008166299-01



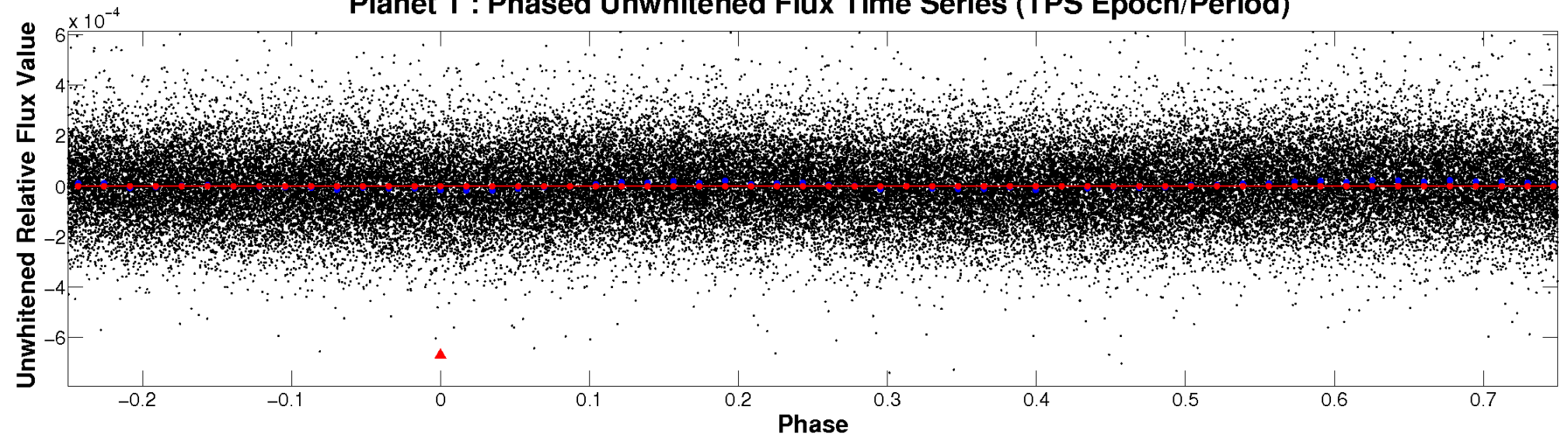
ALT Odd/Even

TCE 008166299-01

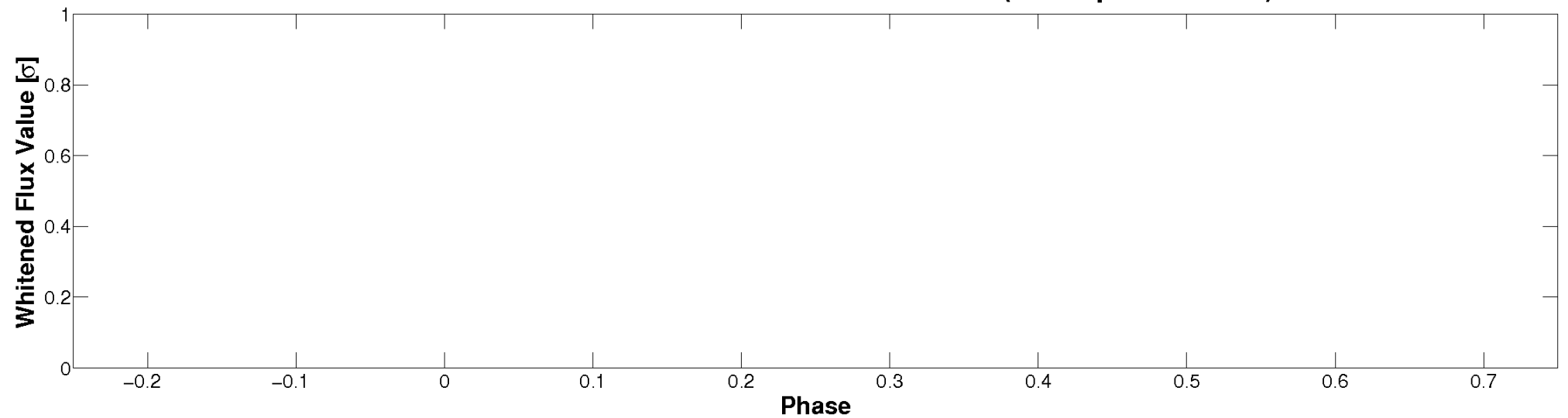


Non-Whitened Vs. Whitened Light Curve

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

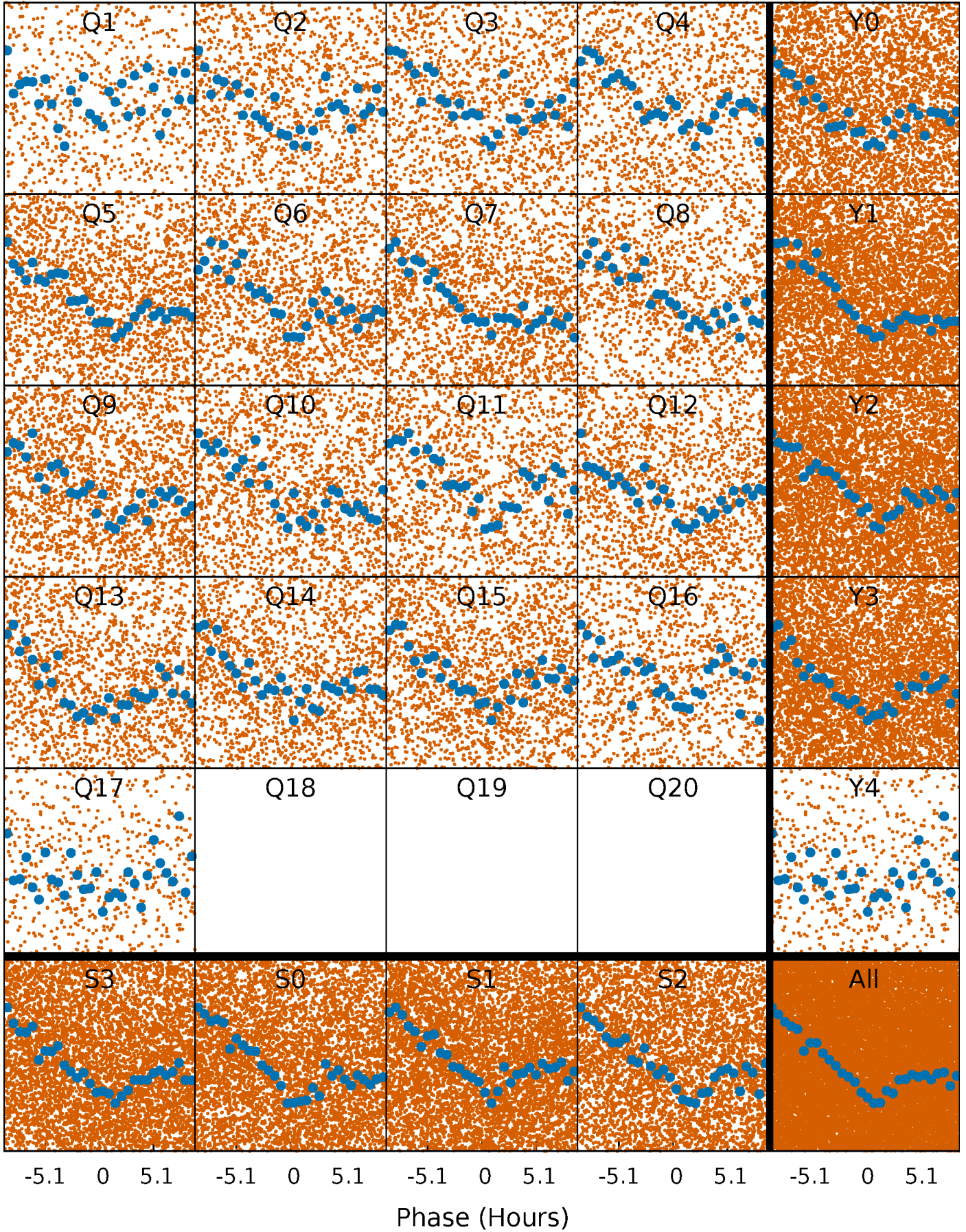


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



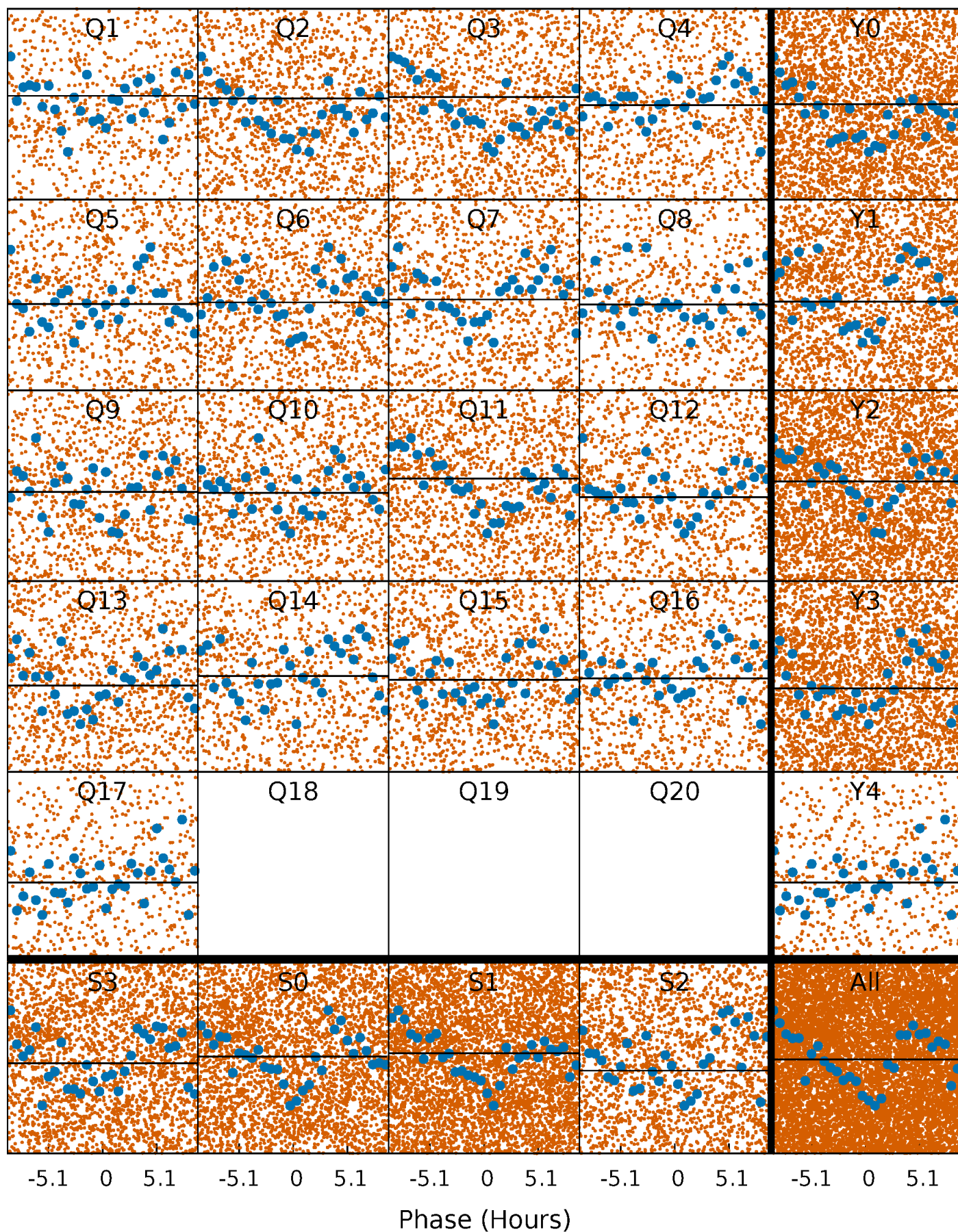
PDC Quarter-Phased Transit Curves

TCE 008166299-01 P= 1.176187 Days $T_0=131.572294$ (BKJD)



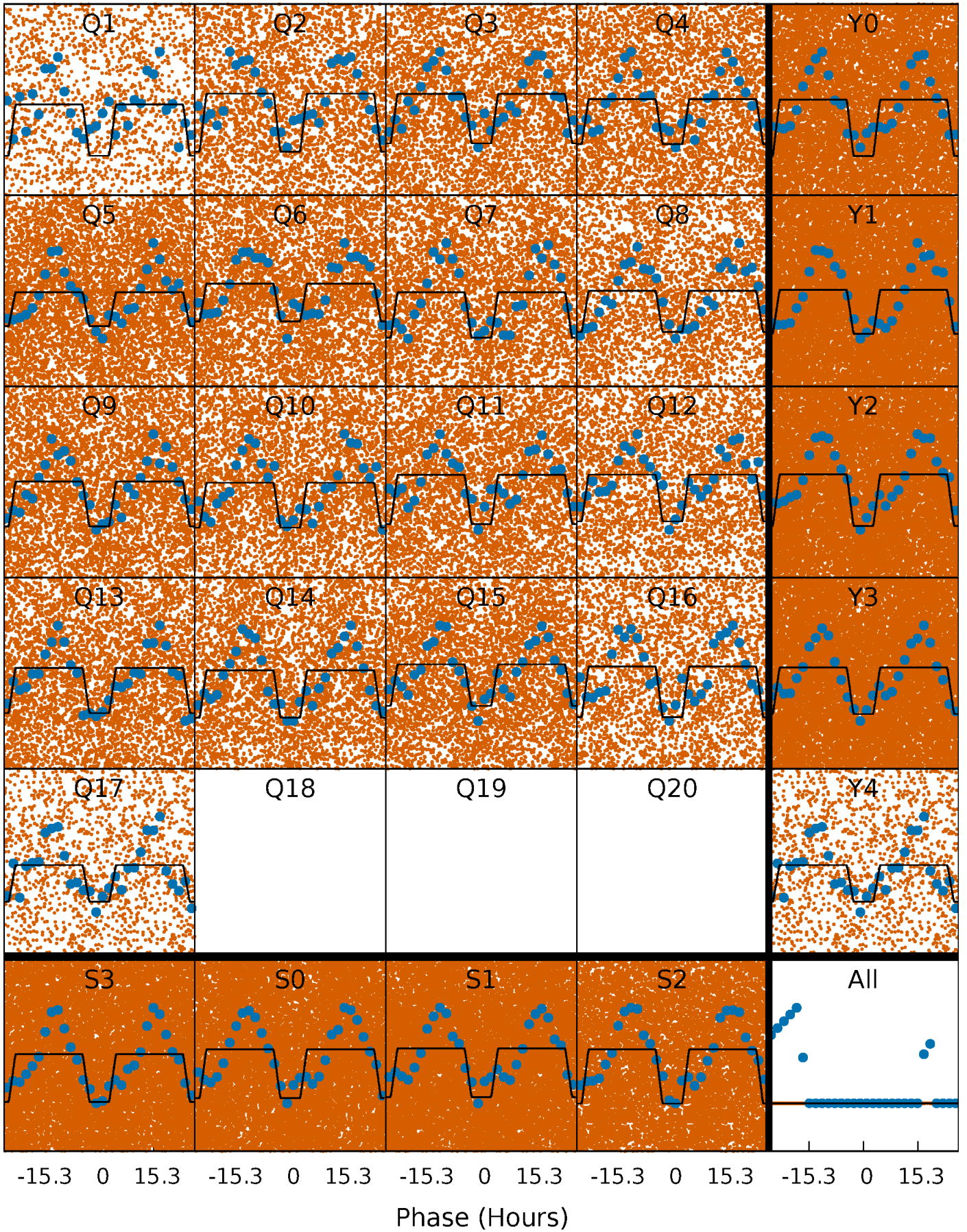
DV Quarter-Phased Transit Curves

TCE 008166299-01 P= 1.176187 Days $T_0=131.572294$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

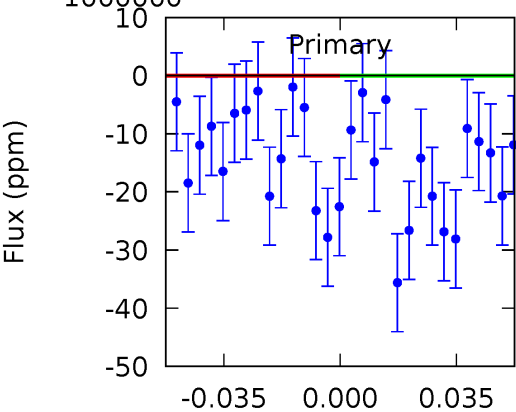
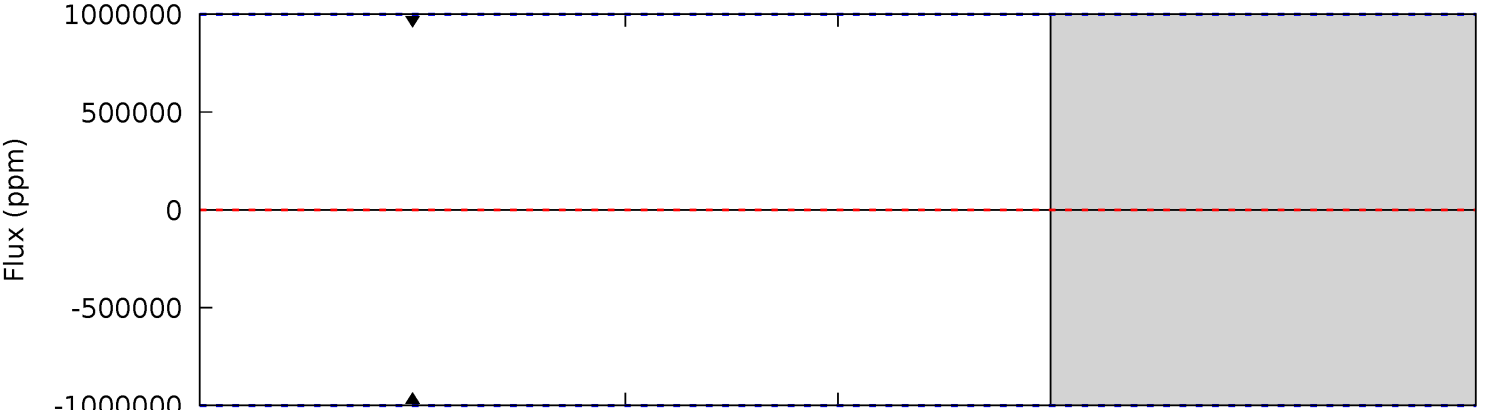
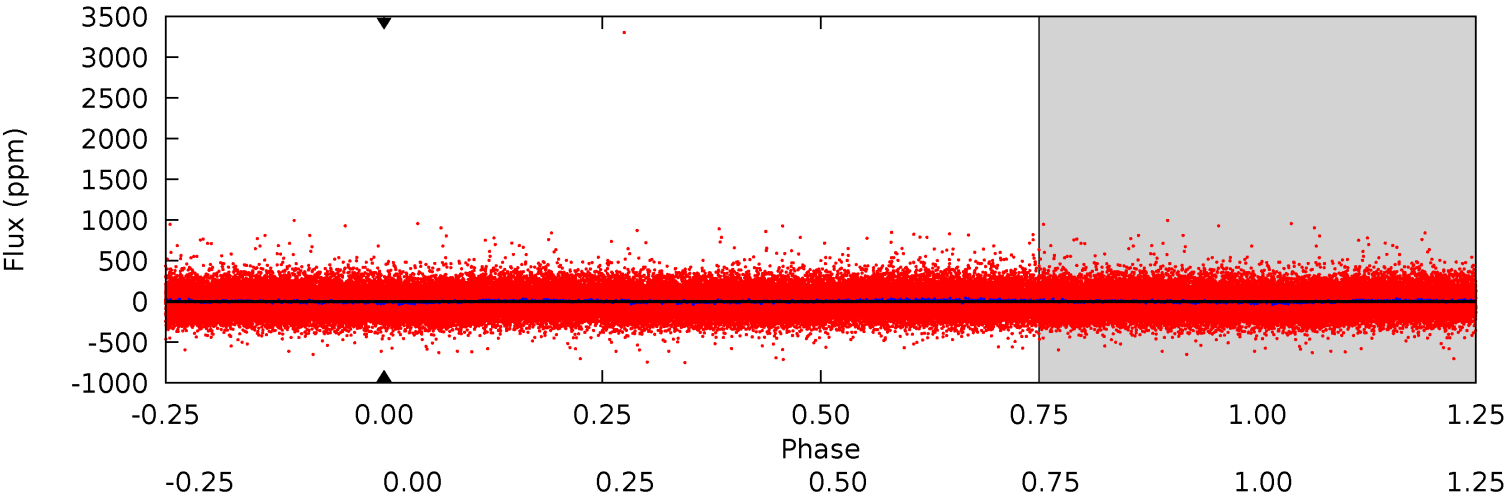
TCE 008166299-01 P= 1.176187 Days $T_0=131.640513$ (BKJD)



DV Model-Shift Uniqueness Test

008166299-01, P = 1.176187 Days, E = 130.396107 Days

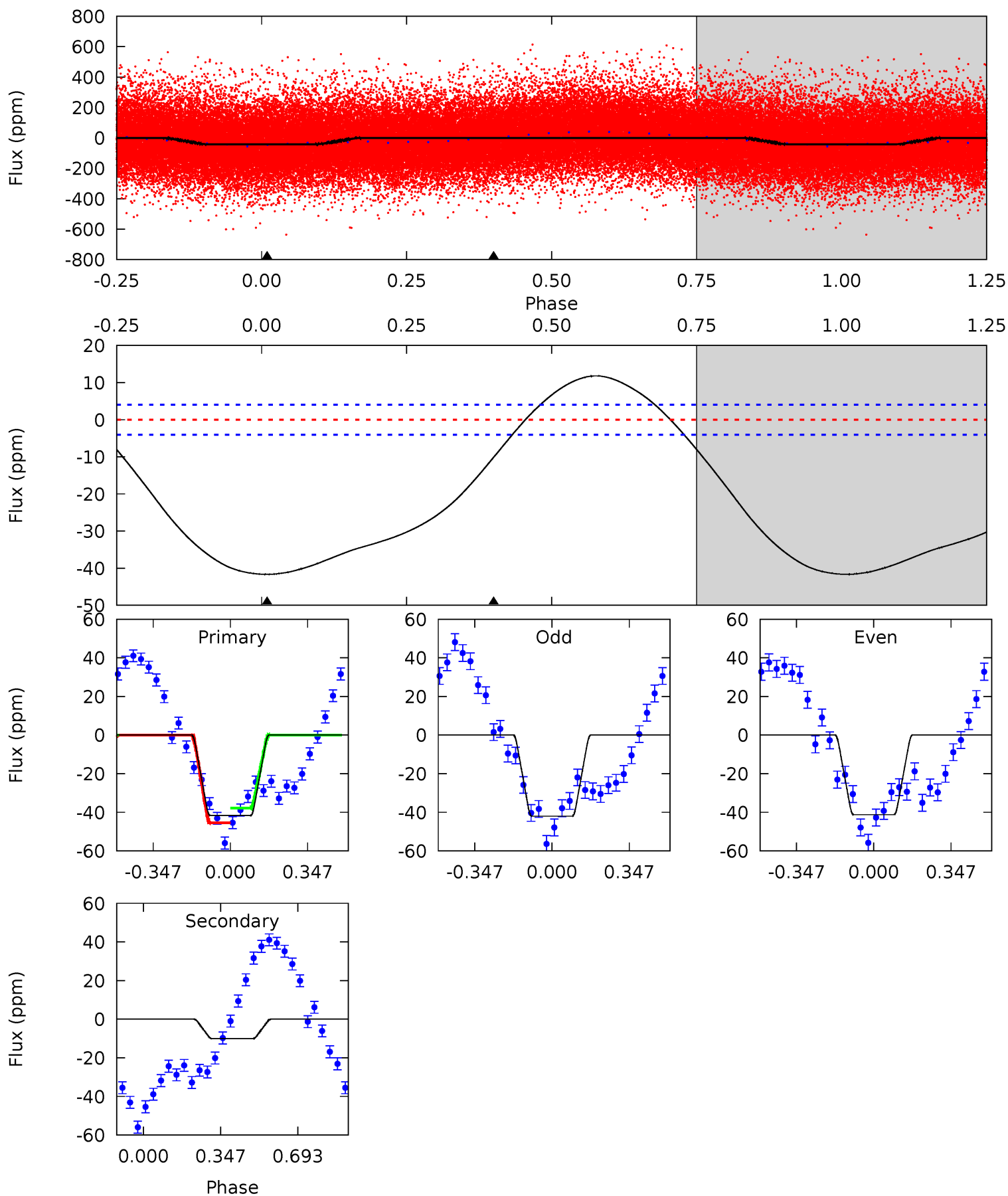
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008166299-01, P = 1.176187 Days, E = 130.464326 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.3	10.8	0	0	4.30	0.94	5.09	44.3	44.3	10.8	10.8	0.43	1.00	0.22	4.10



Stellar Parameters For KIC 008166299

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6866^{+189}_{-307}	$4.185^{+0.112}_{-0.192}$	$0.060^{+0.200}_{-0.350}$	$1.600^{+0.534}_{-0.288}$	$1.429^{+0.218}_{-0.218}$	$0.491^{+0.303}_{-0.250}$
	+3%/-4%	+3%/-5%	+333%/-583%	+33%/-18%	+15%/-15%	+62%/-51%
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 008166299-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$13.08^{+13.52}_{-9.00}$	3431^{+272}_{-203}	5662^{+35191}_{-35981}	$4.805^{+467.053}_{-335.537}$
Alt.	-10 ± 1	$13.10^{+12.20}_{-9.40}$	3419^{+263}_{-219}	-3247^{+647}_{-177}	$0.020^{+0.225}_{-0.015}$

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

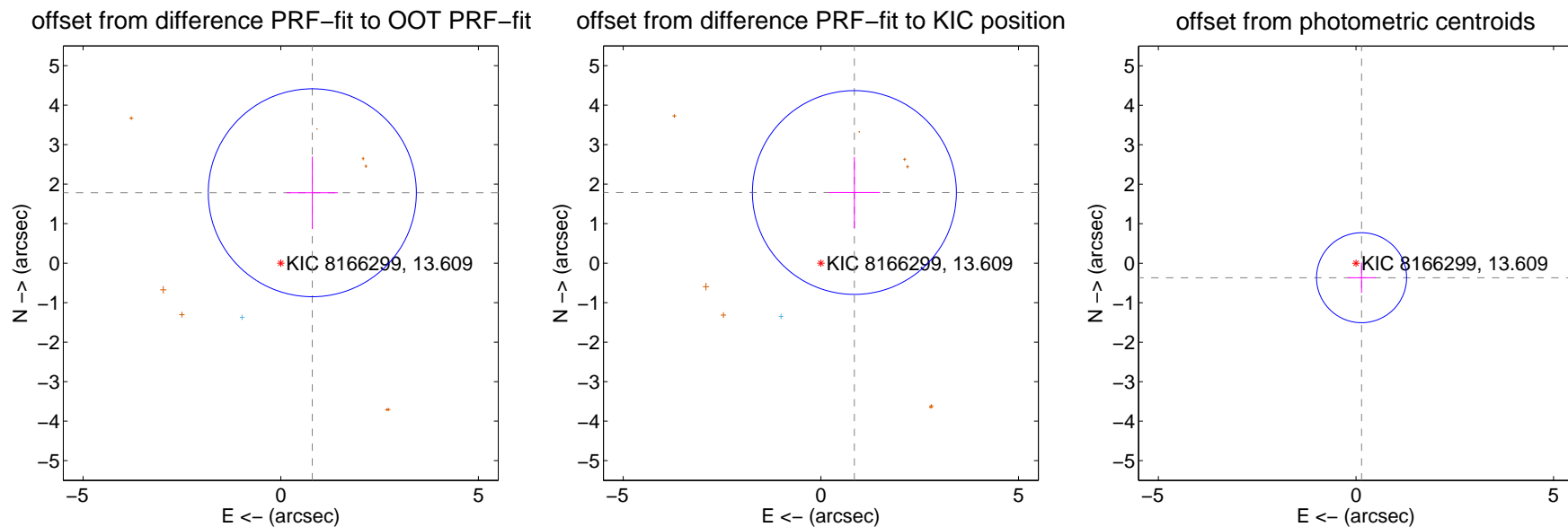
DV Centroid Data

Supplemental centroid analysis for 008166299-01. Kepler magnitude: 13.61. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

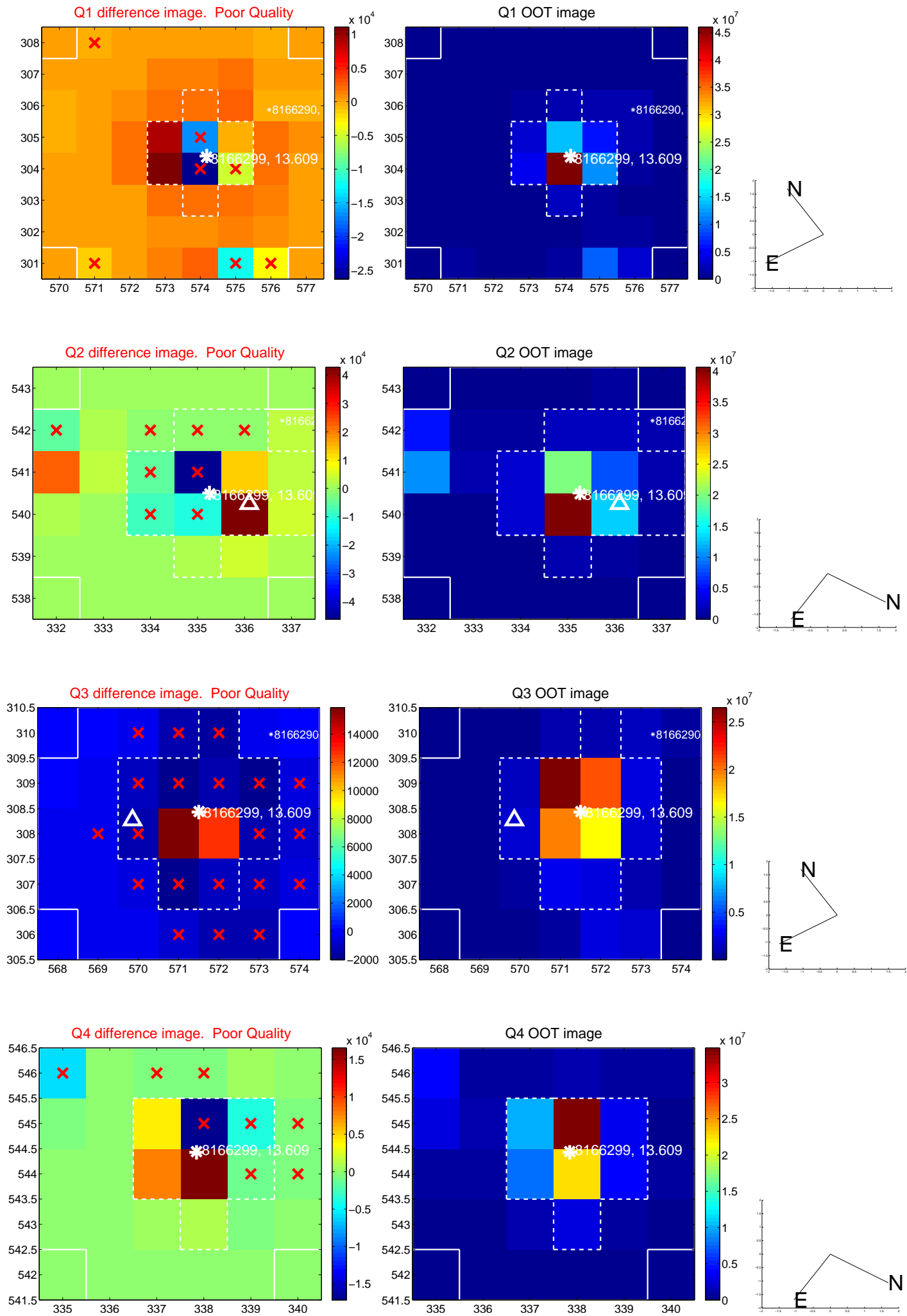
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.952 ± 0.877	2.23	-0.798 ± 0.645	1.782 ± 0.917
PRF-fit source offset from KIC position	1.979 ± 0.860	2.30	-0.848 ± 0.650	1.788 ± 0.900
photometric centroid source offset	0.39 ± 0.38	1.04	-0.14 ± 0.35	-0.37 ± 0.38

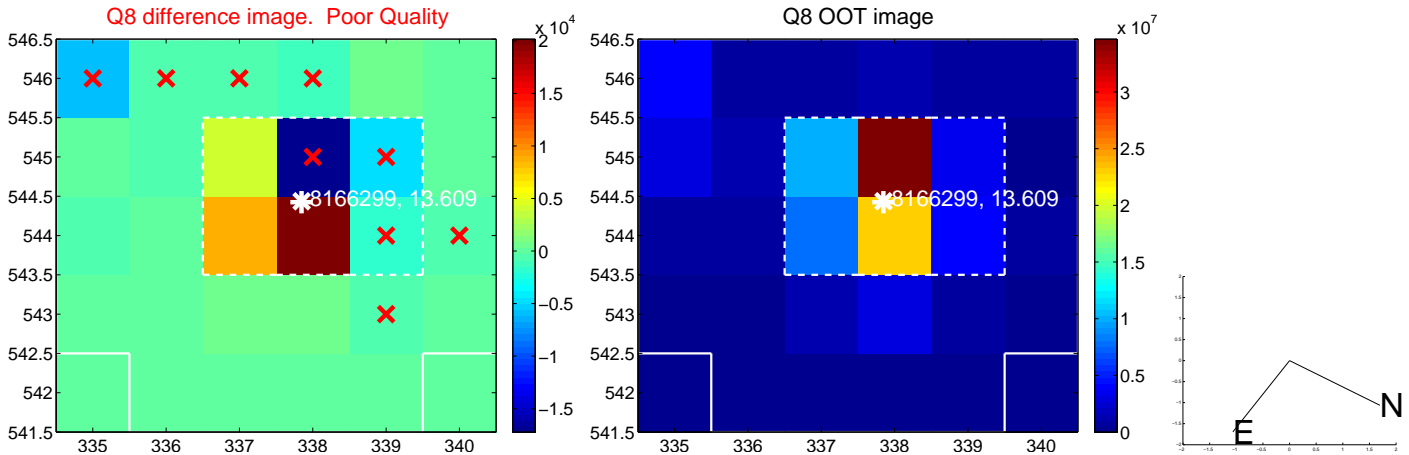
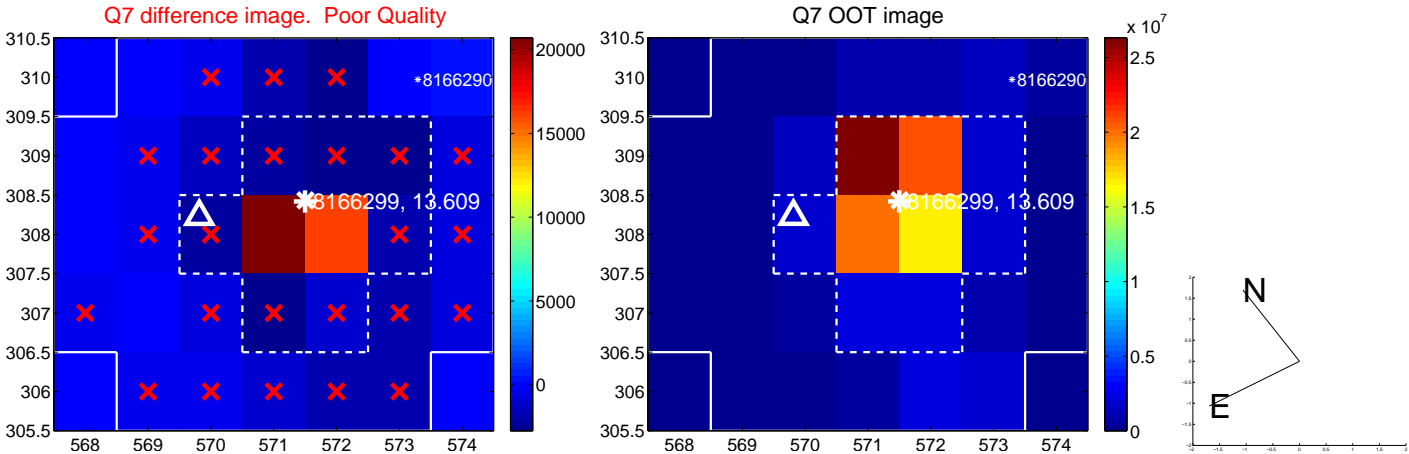
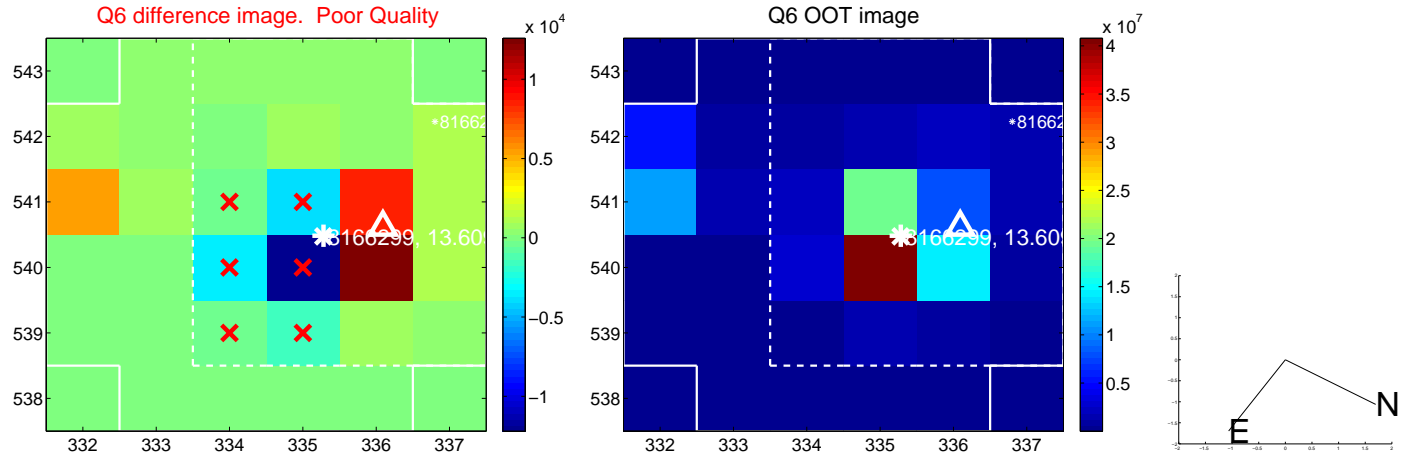
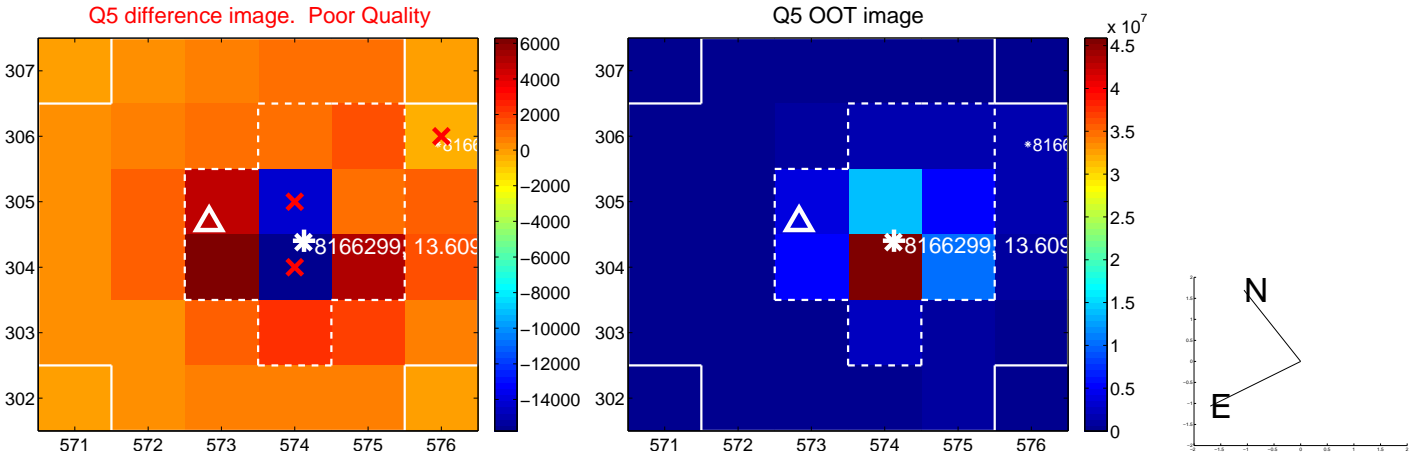


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

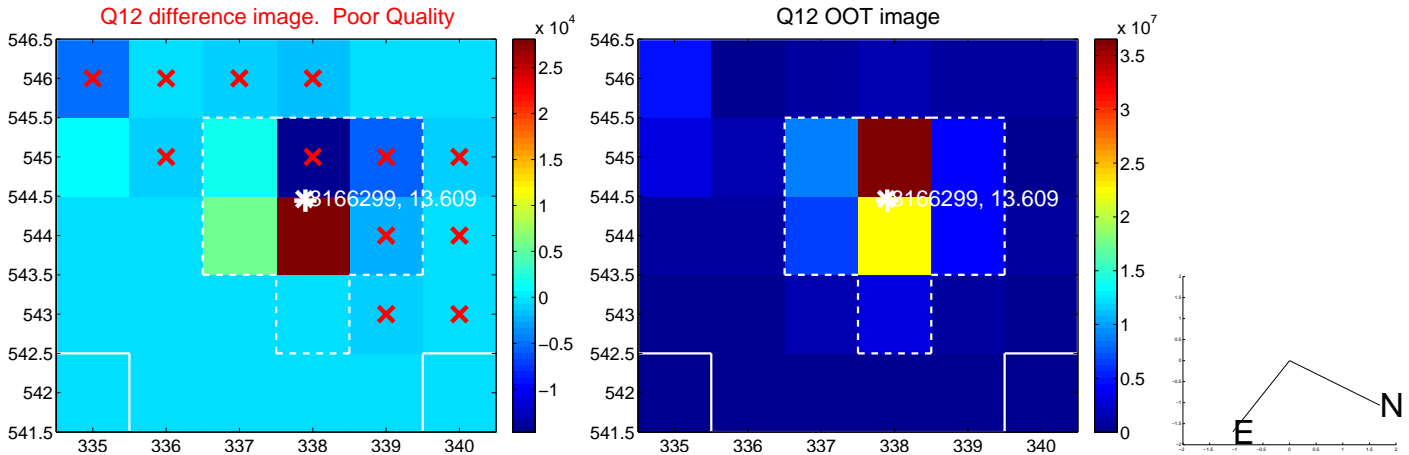
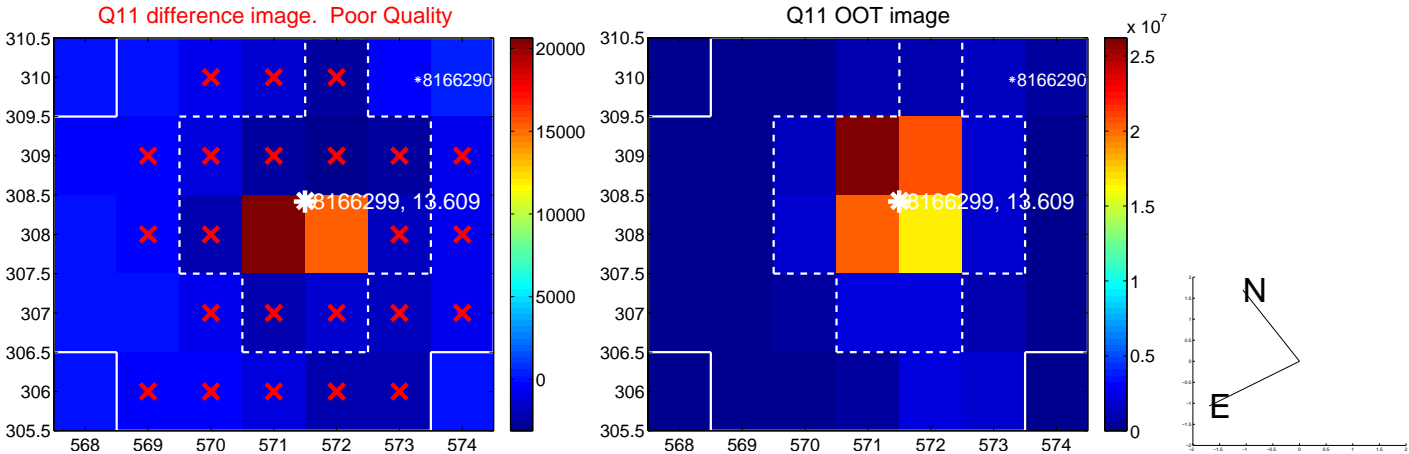
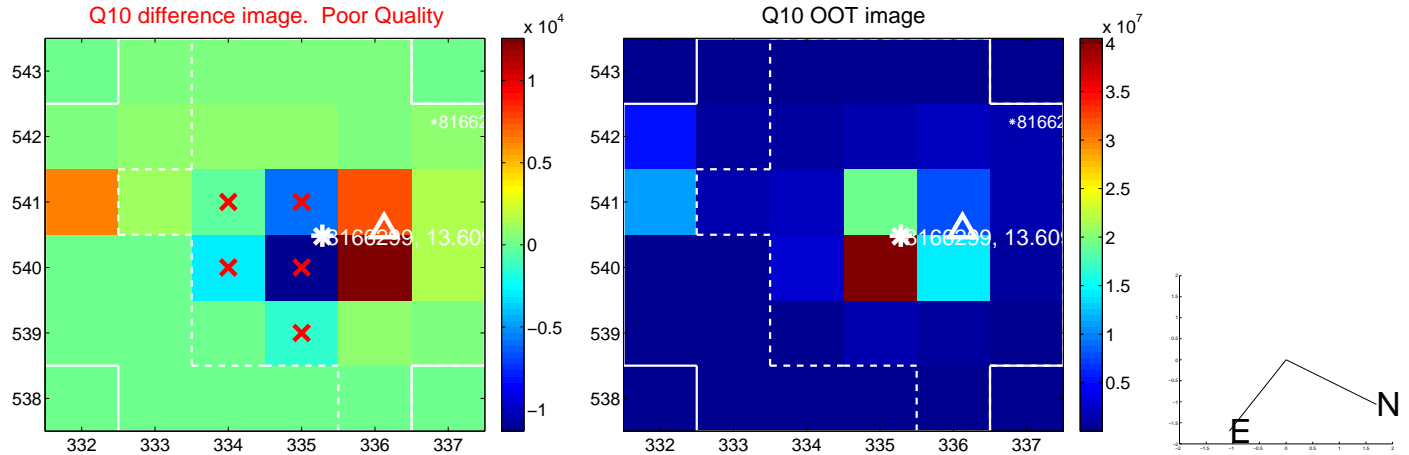
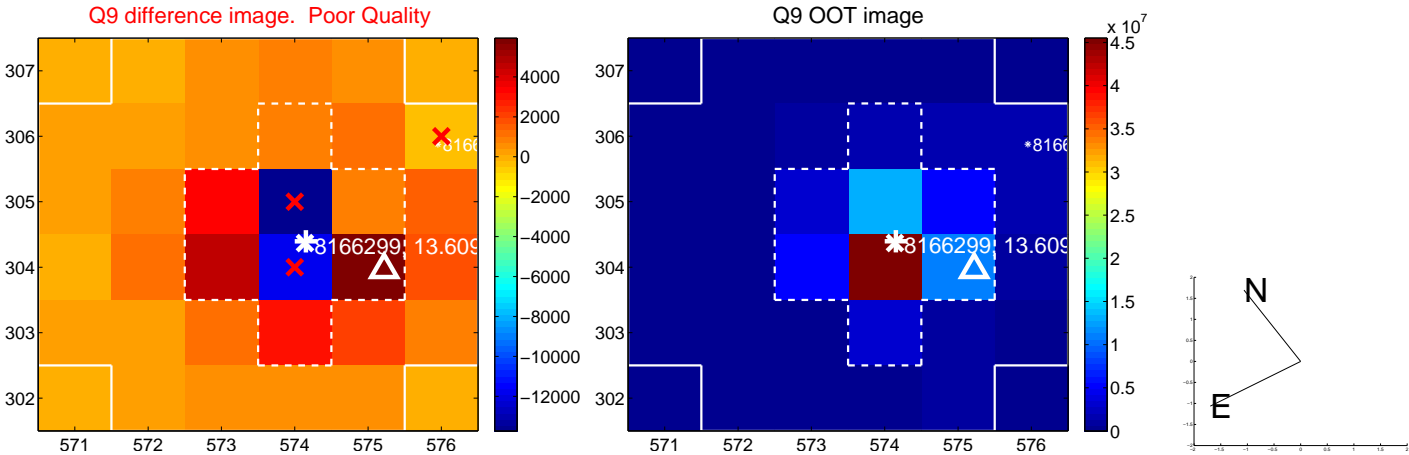
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



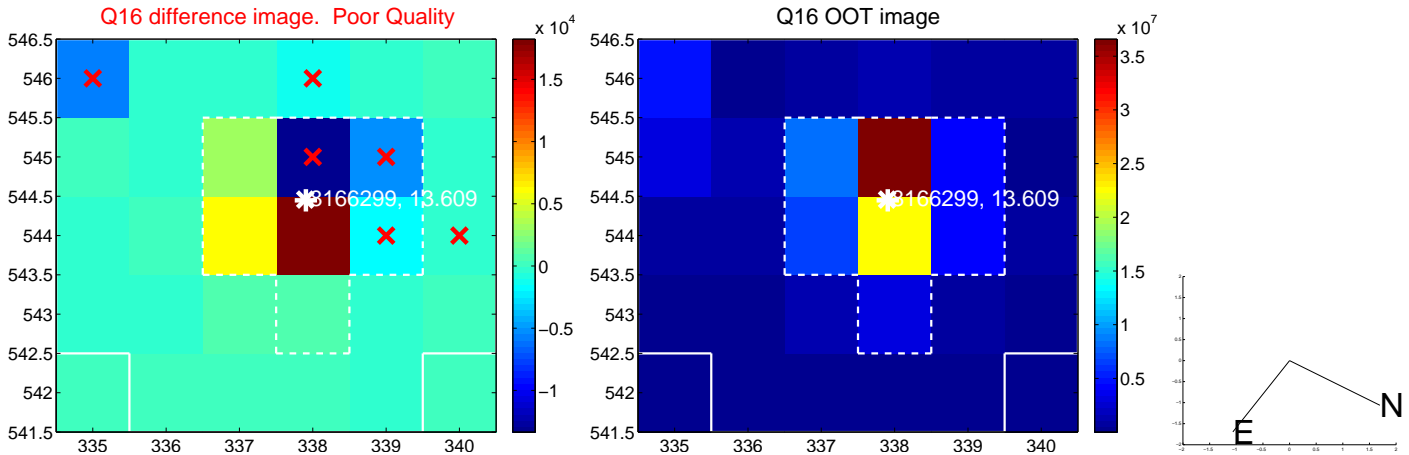
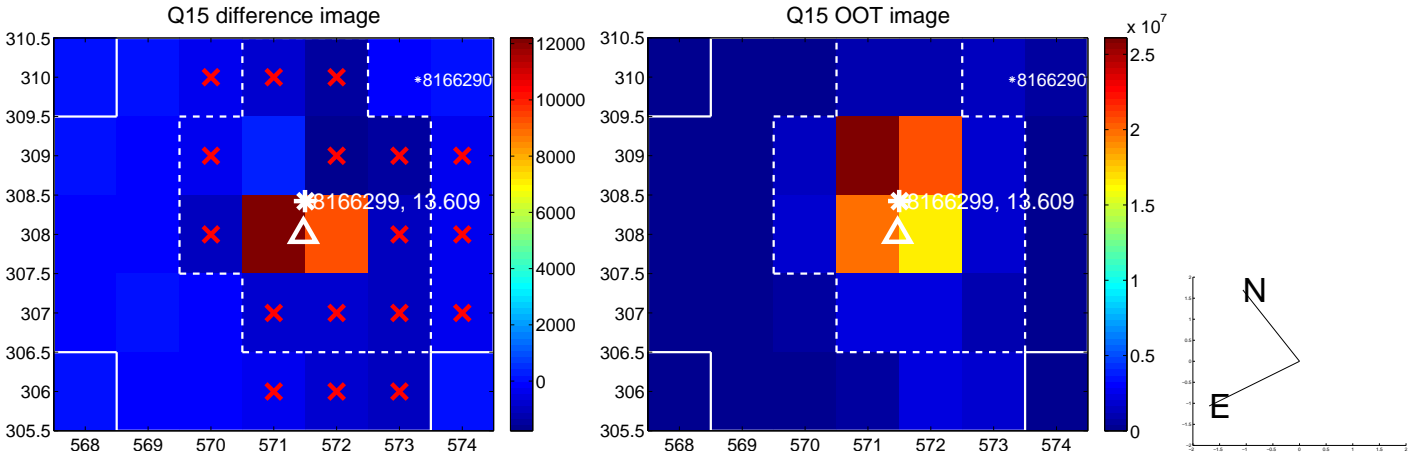
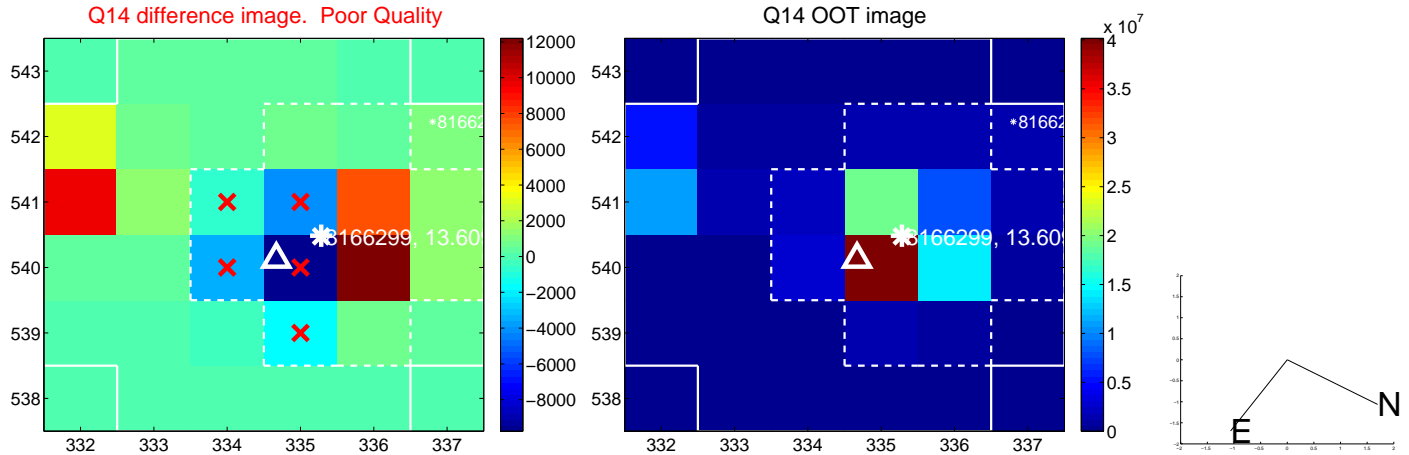
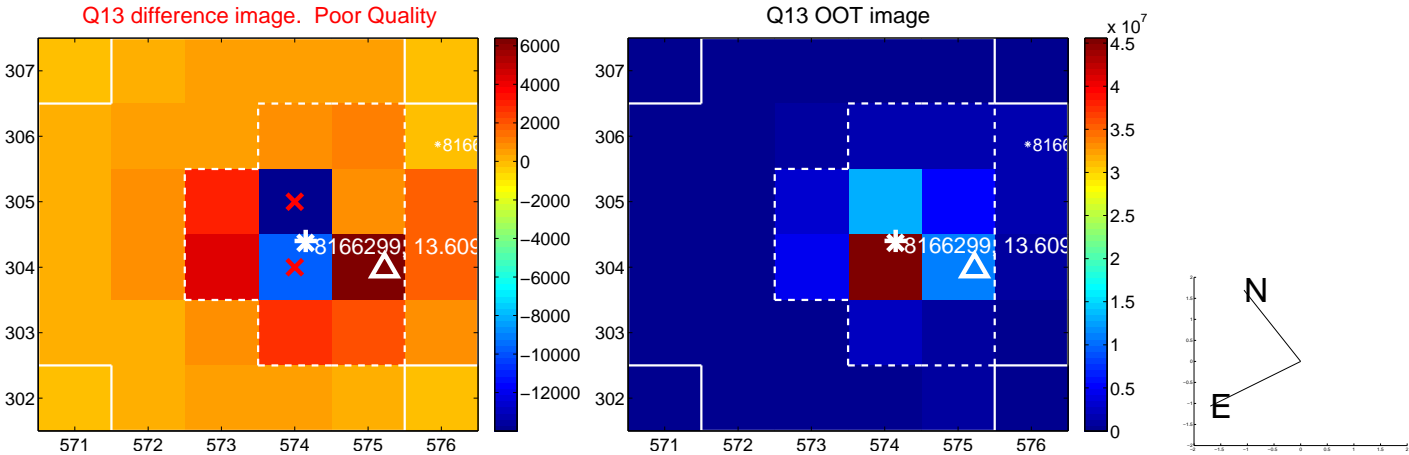
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



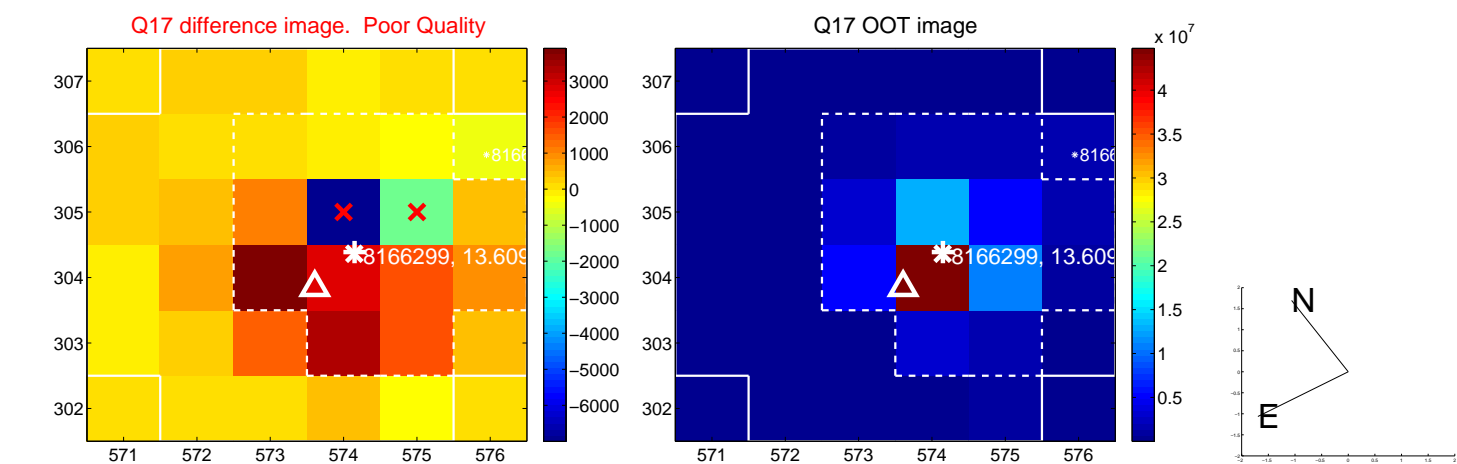
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



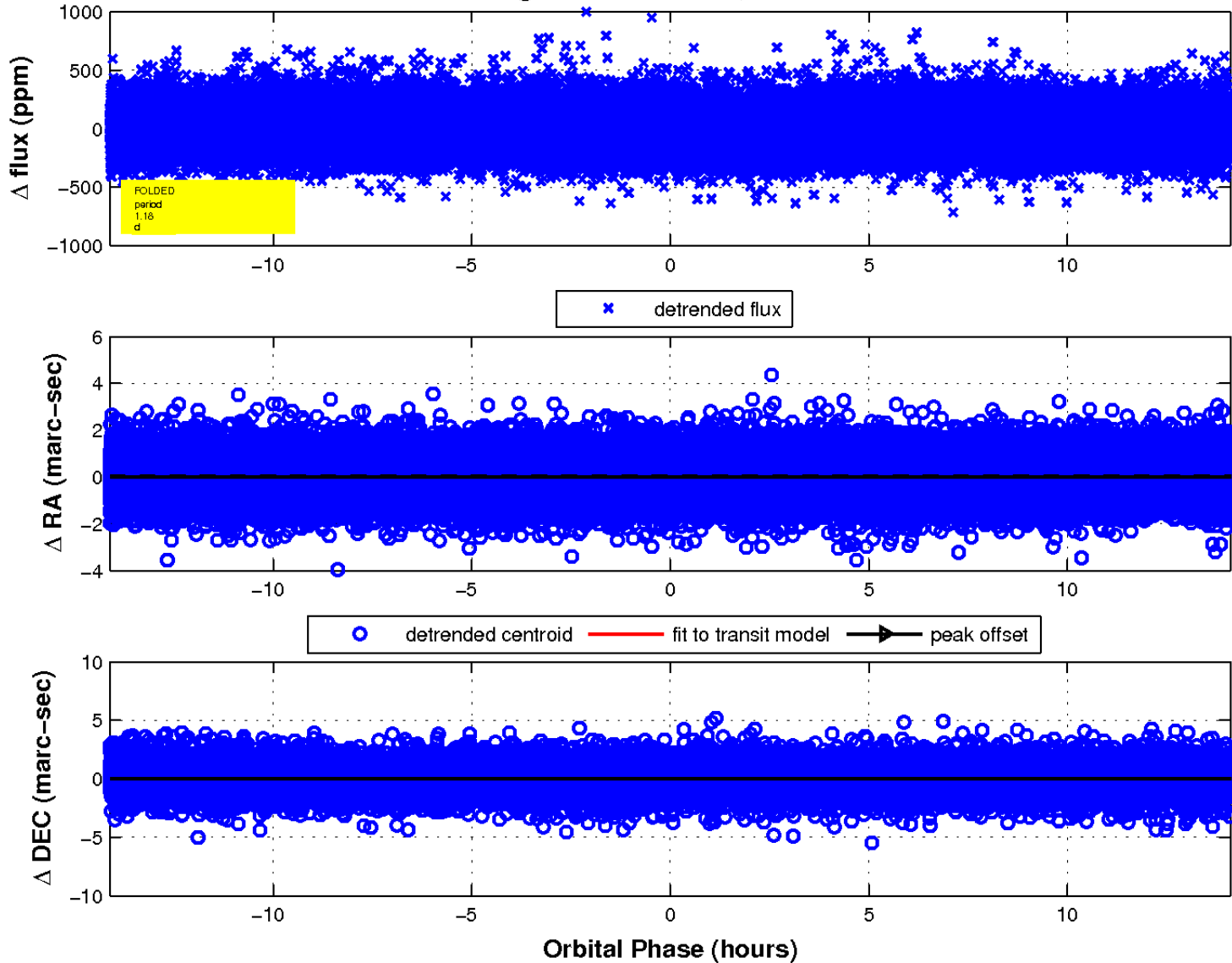
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

