

KIC 005199436

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})
005199436-01	OBS	No	2.334899	132.229406	74.5	10.007	8.5	8.6	0.90	5838	0.80	709.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005199436-01	OBS	FP	0.00	1	0	1	0	LPP_DV—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.

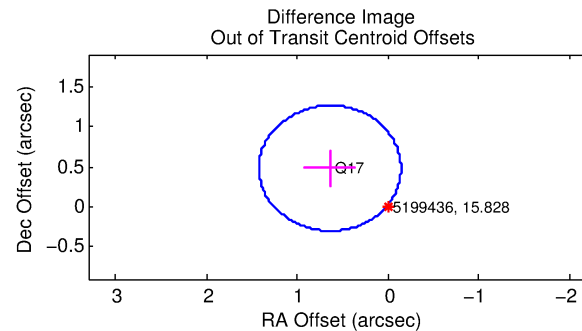
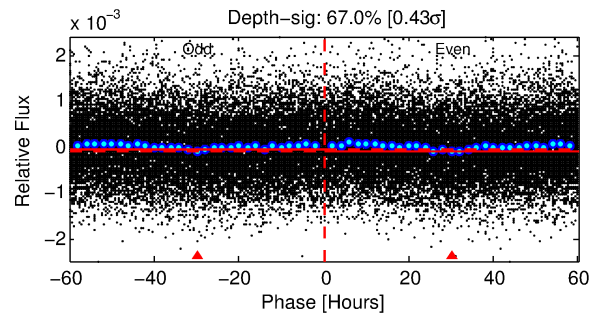
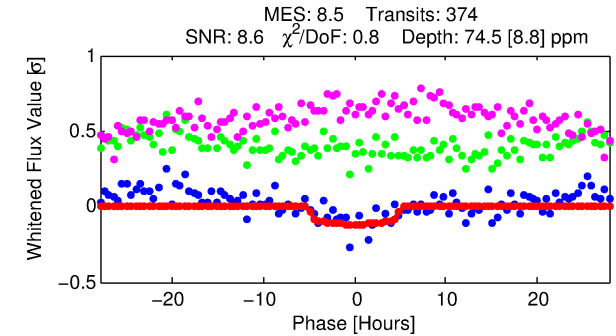
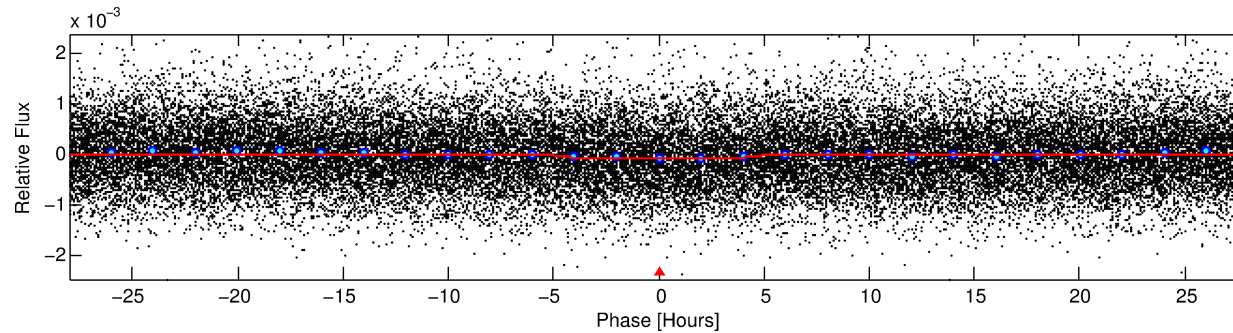
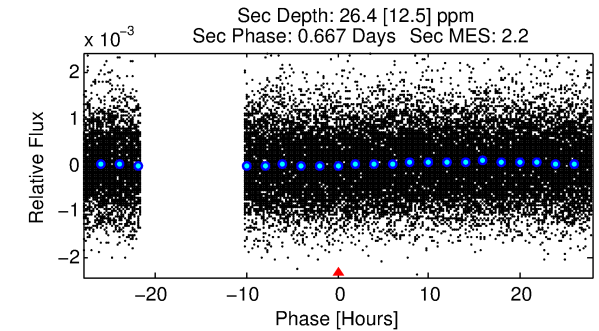
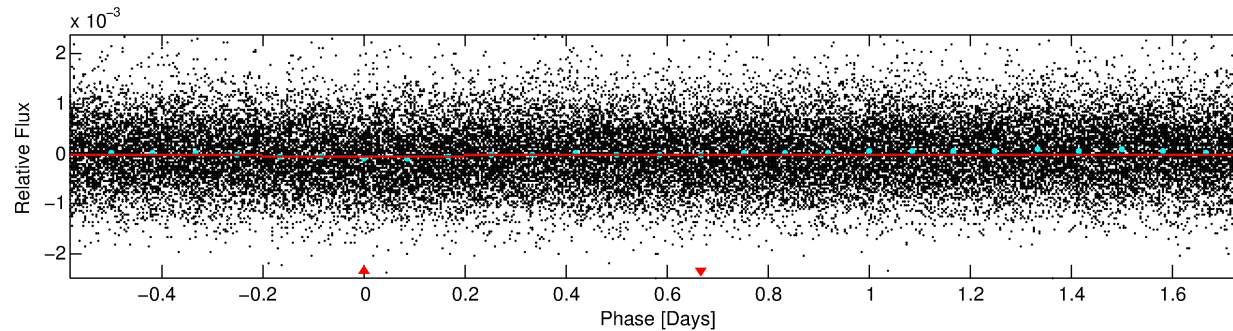
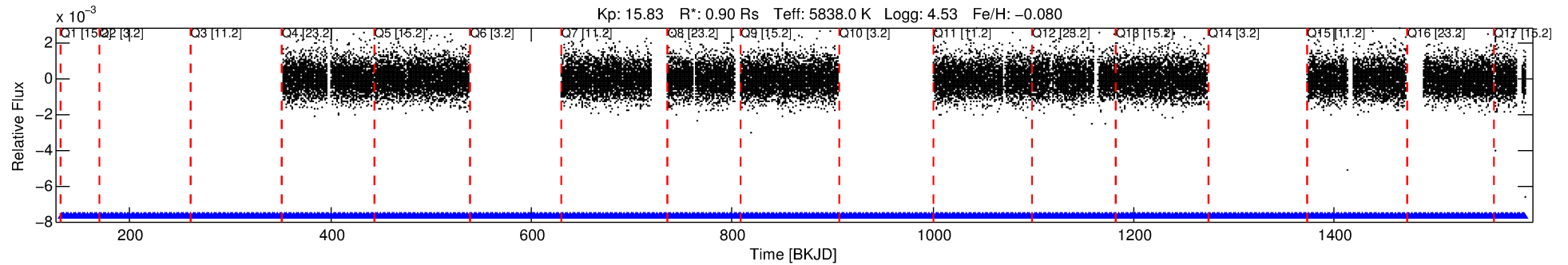
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005199436-01

No Significant Match Found

DV One-Page Summary

KIC: 5199436 Candidate: 1 of 1 Period: 2.335 d



DV Fit Results:

Period = 2.33490 [0.00005] d
Epoch = 132.2294 [0.0131] BKJD
Rp/R* = 0.0082 [0.0084]
a/R* = 1.66 [4.97]
b = 0.57 [5.61]
Seff = 709.23 [280.56]
Teq = 1316 [130] K
Rp = 0.80 [0.86] Re
a = 0.0344 [0.0088] AU
Ag = 26.72 [57.41] [0.45σ]
Teff = 4626 [2453] K [1.35σ]

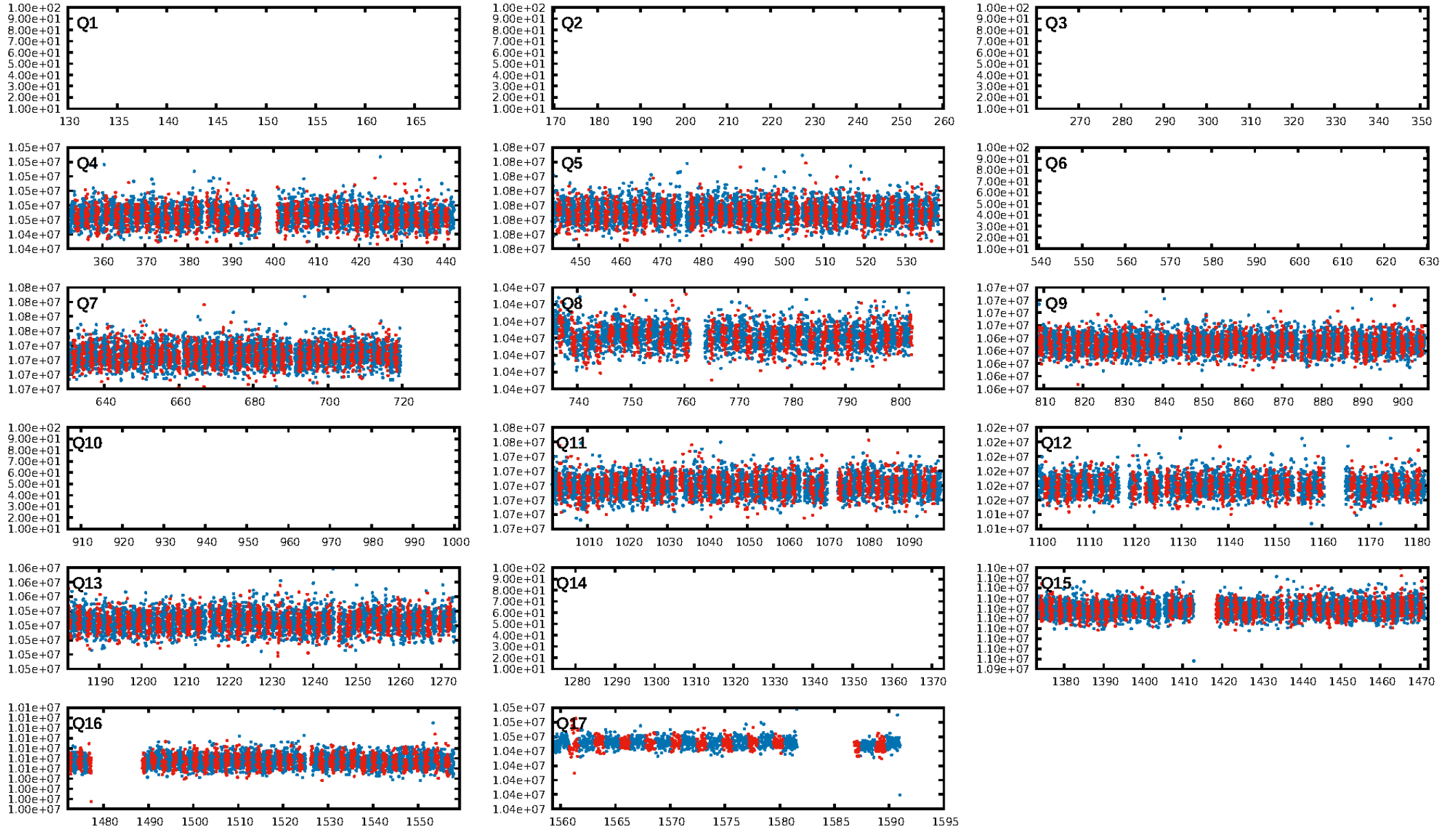
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.16e-17
RollingBand-fgt: 1.00 [363/363]
GhostDiagnostic-chr: -0.4319
Centroid-sig: 0.0%
Centroid-so: 10.447 arcsec [9.38σ]
OotOffset-rm: 0.800 arcsec [3.07σ]
KicOffset-rm: 7.430 arcsec [26.88σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [11/11]

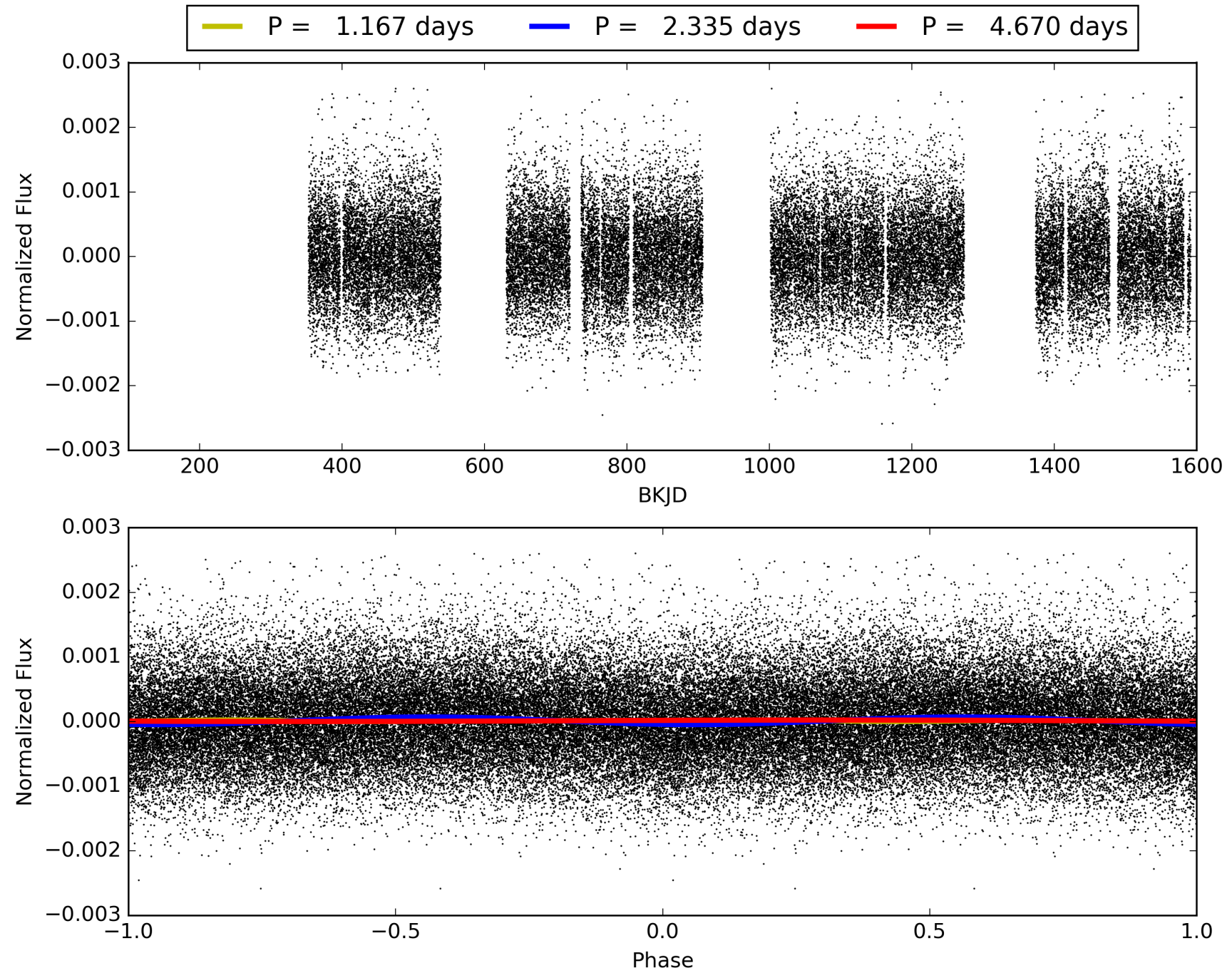
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:22:14 Z

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

TCE 005199436-01, PDC Light Curves

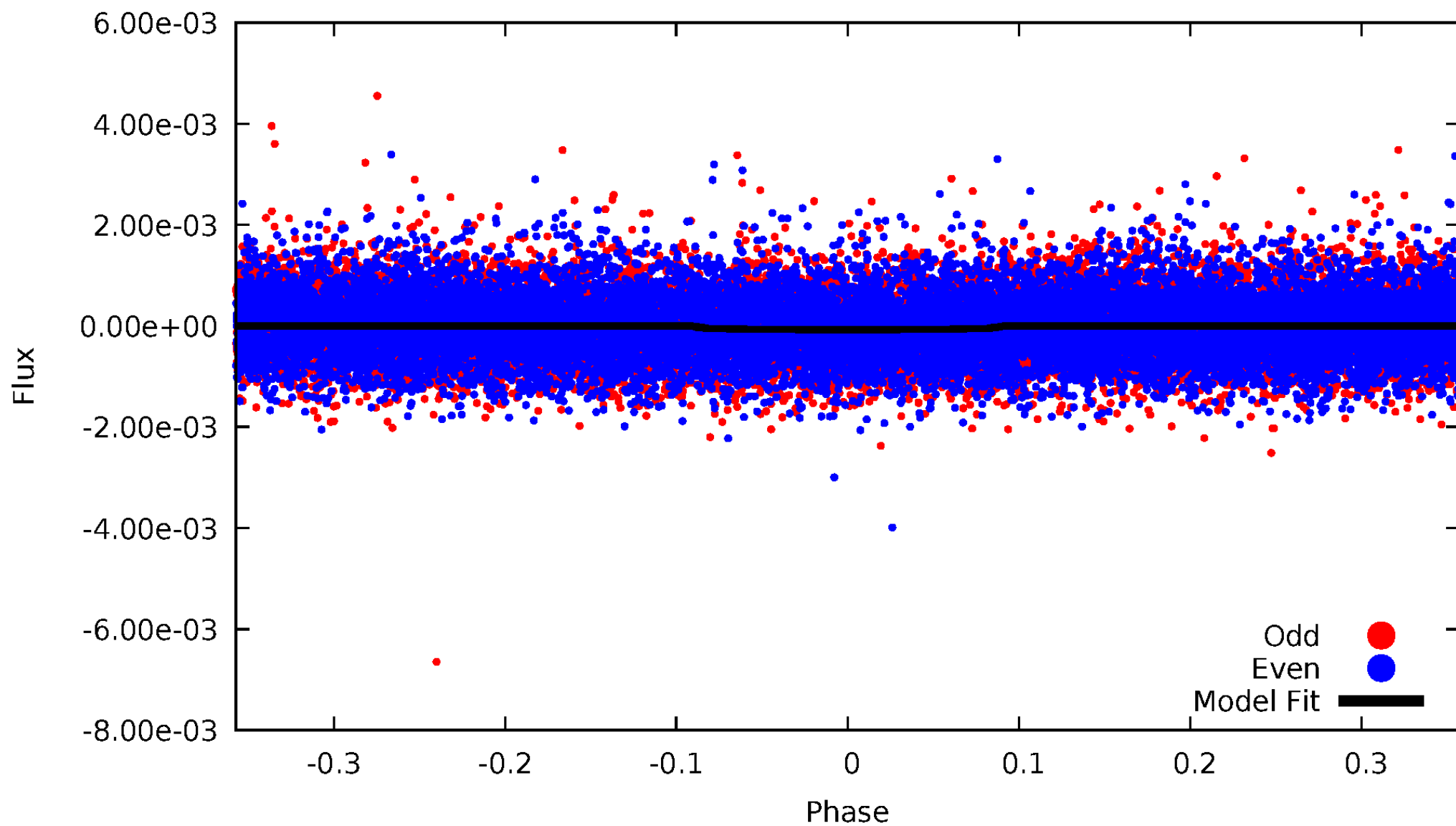


TCE 005199436-01



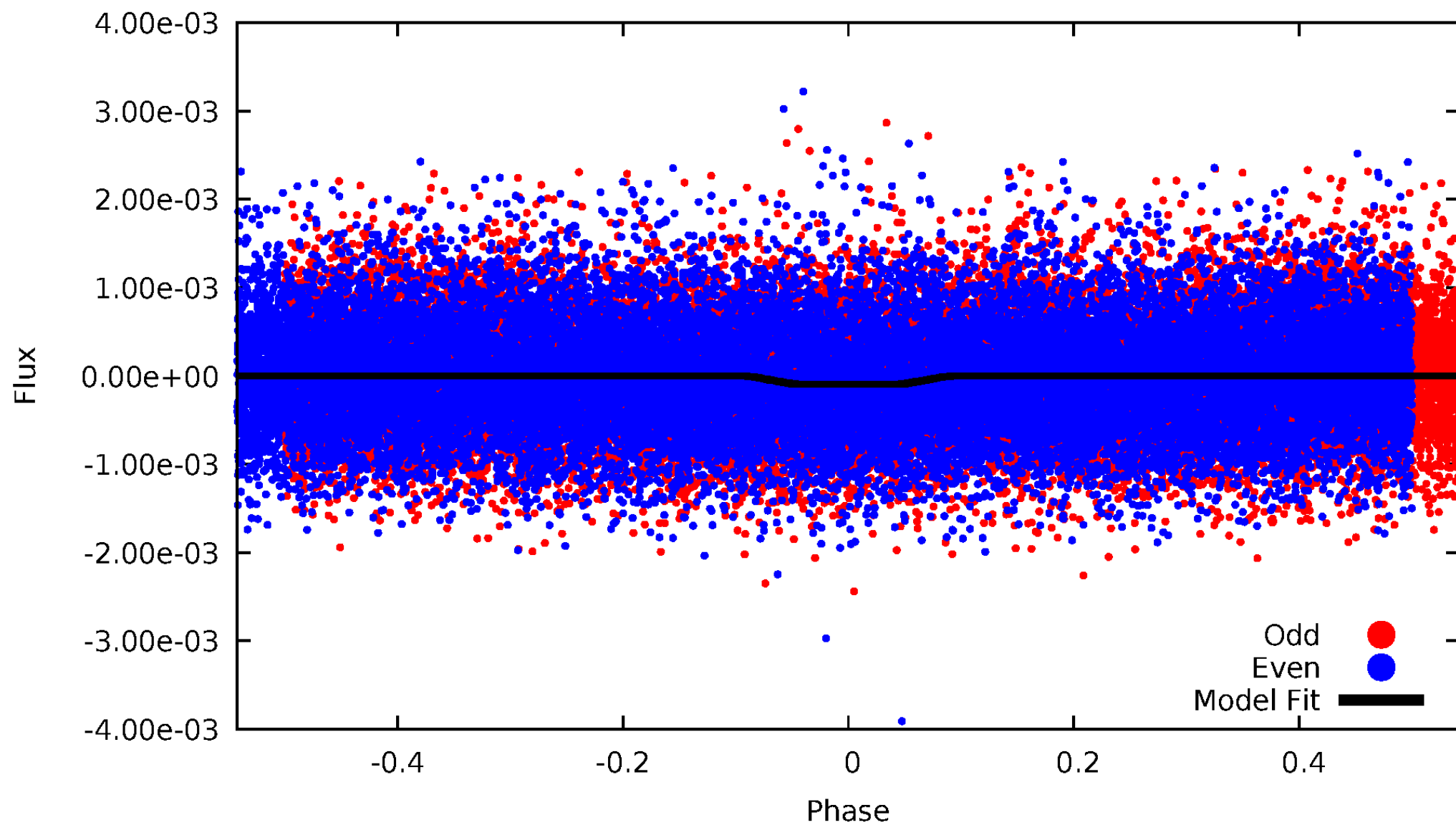
DV Odd/Even

TCE 005199436-01

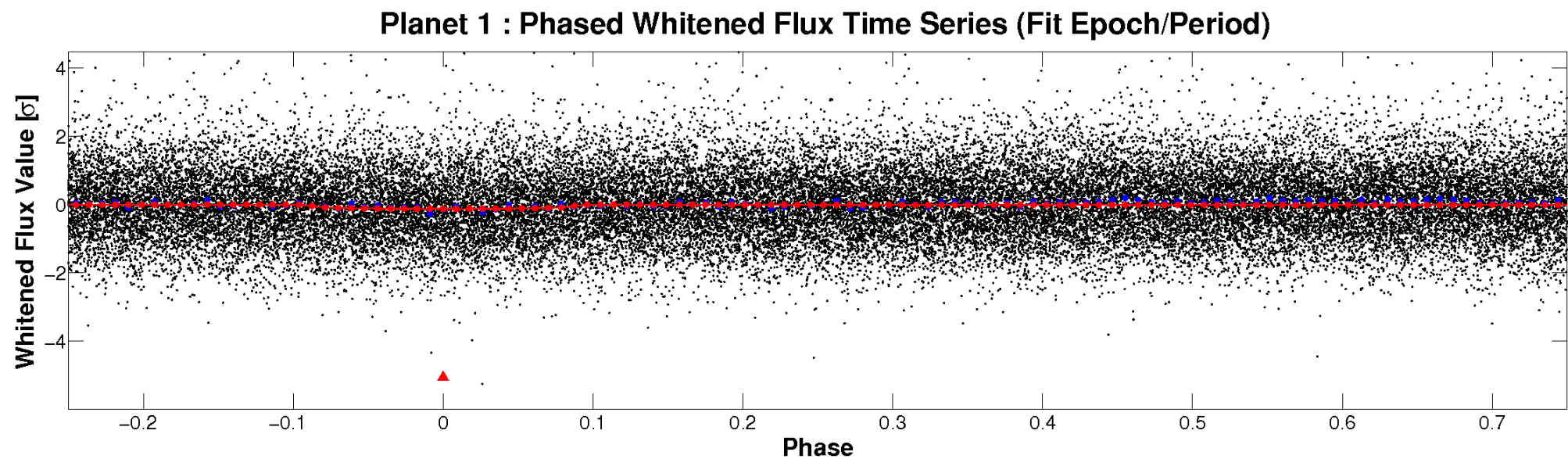
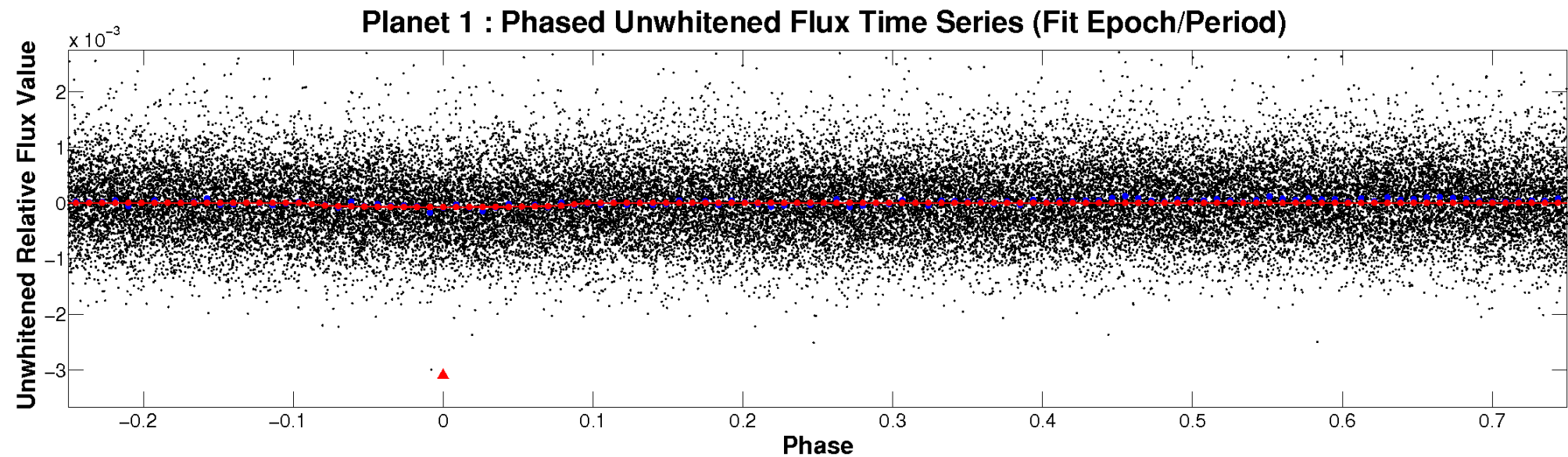


ALT Odd/Even

TCE 005199436-01

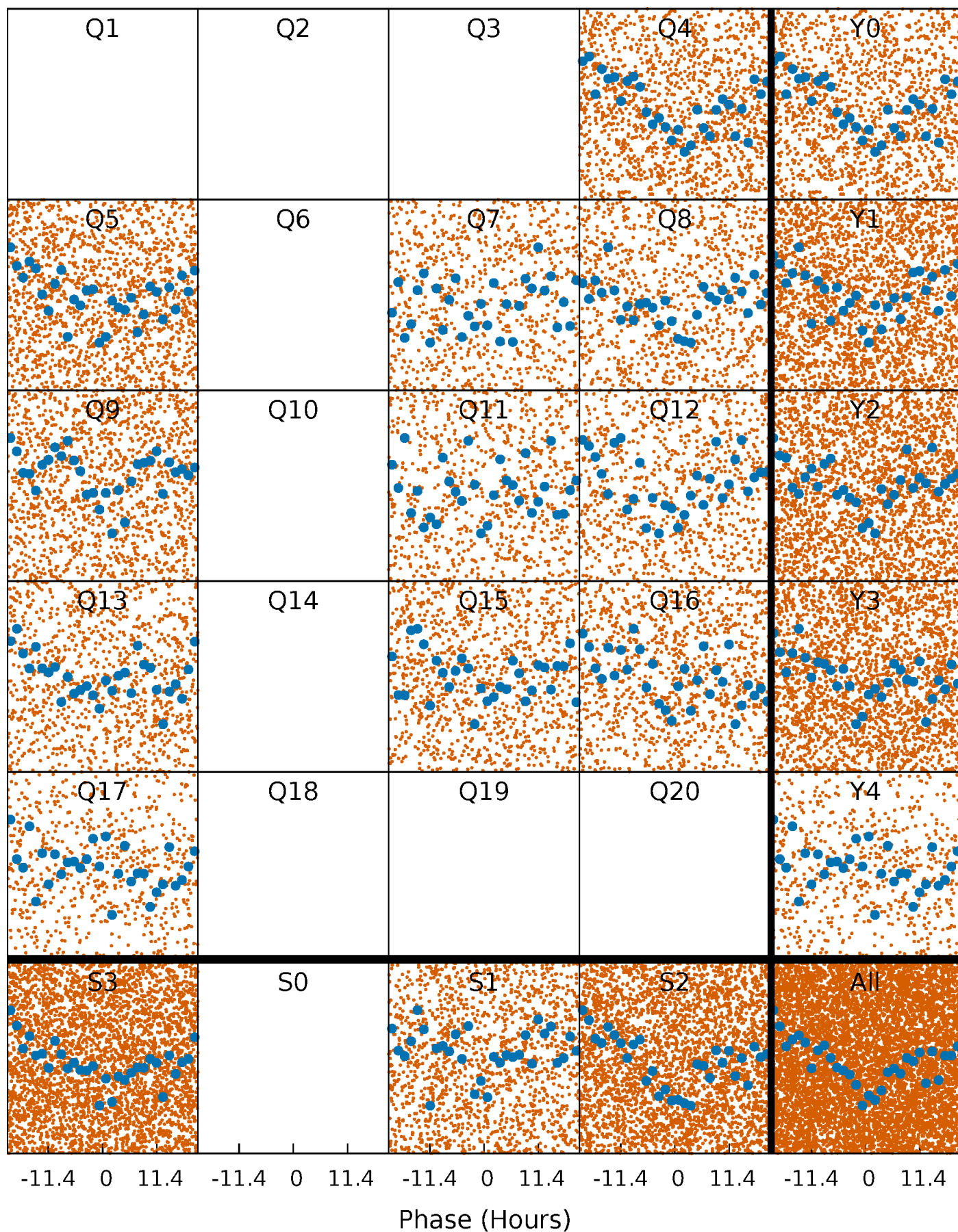


Non-Whitened Vs. Whitened Light Curve



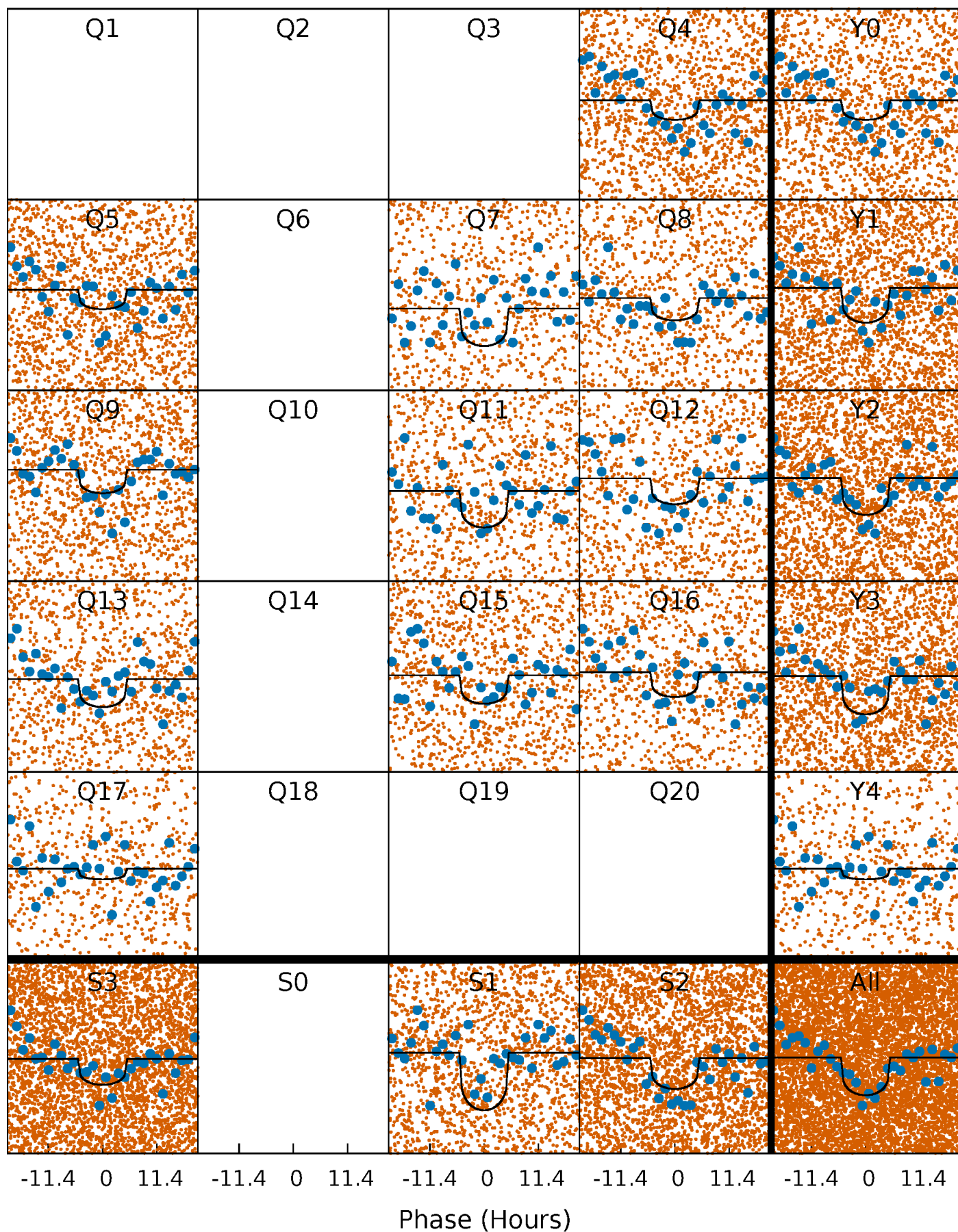
PDC Quarter-Phased Transit Curves

TCE 005199436-01 P= 2.334899 Days $T_0=132.229406$ (BKJD)



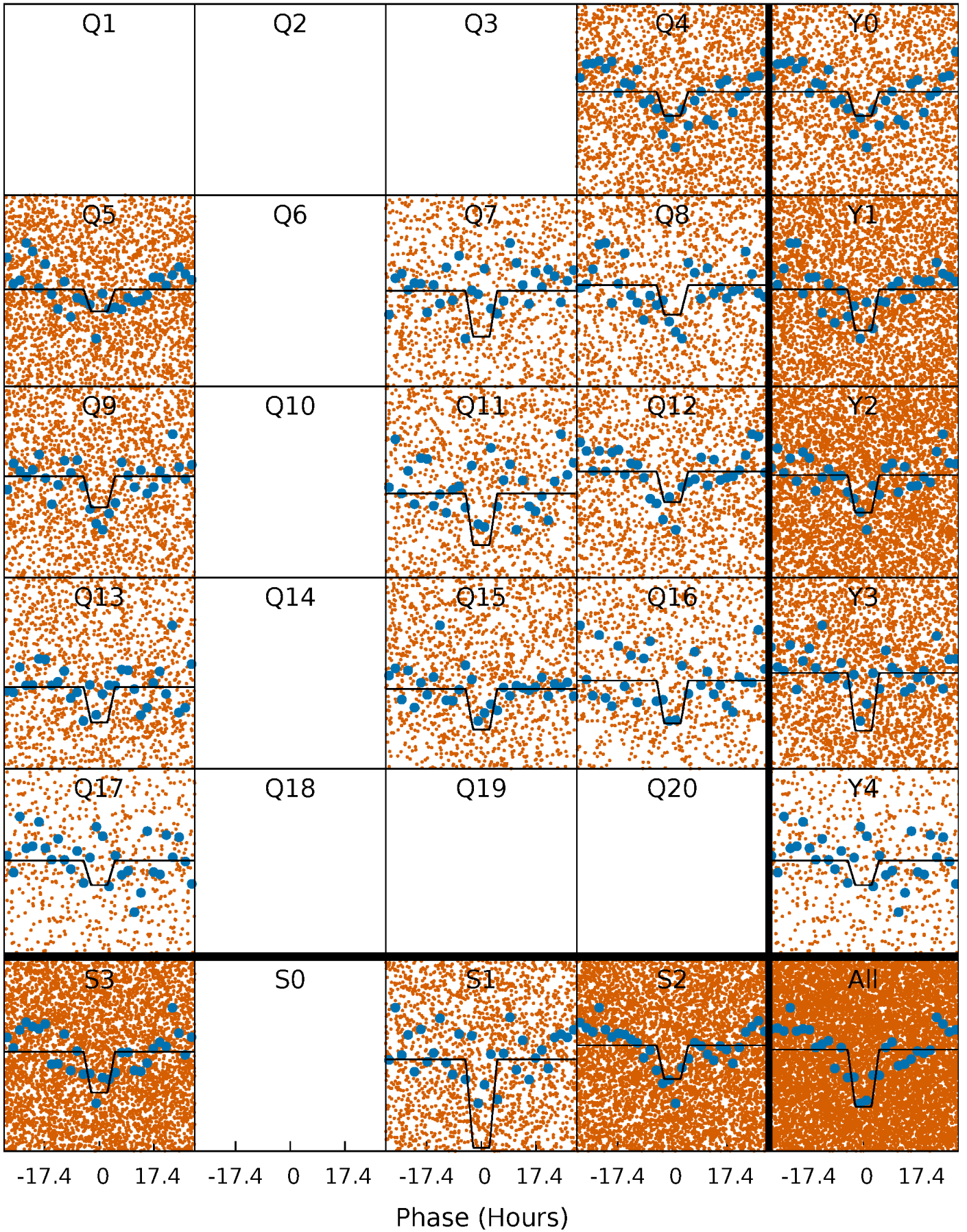
DV Quarter-Phased Transit Curves

TCE 005199436-01 P= 2.334899 Days $T_0=132.229406$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

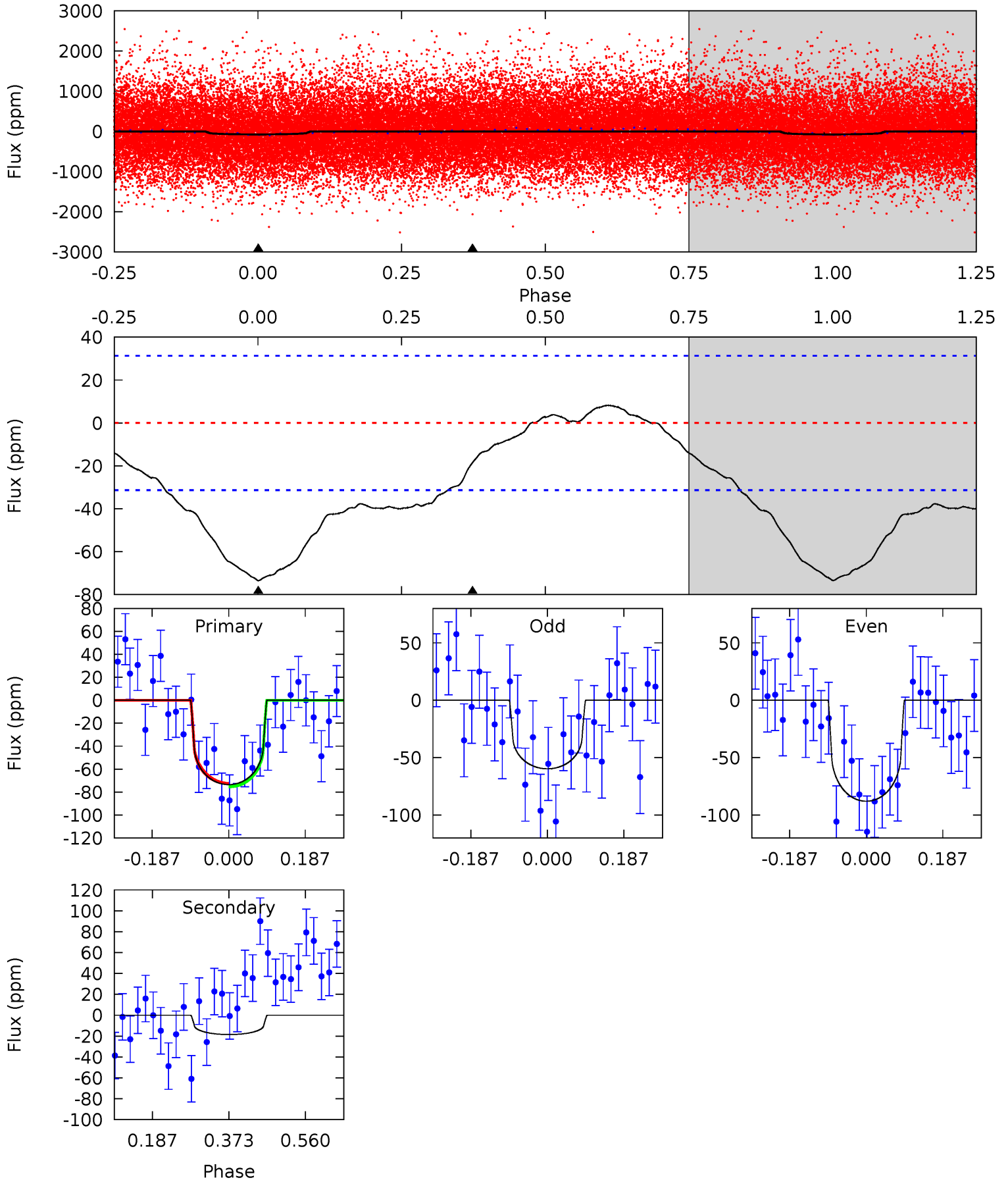
TCE 005199436-01 P= 2.334653 Days $T_0=132.329466$ (BKJD)



DV Model-Shift Uniqueness Test

005199436-01, P = 2.334899 Days, E = 132.229406 Days

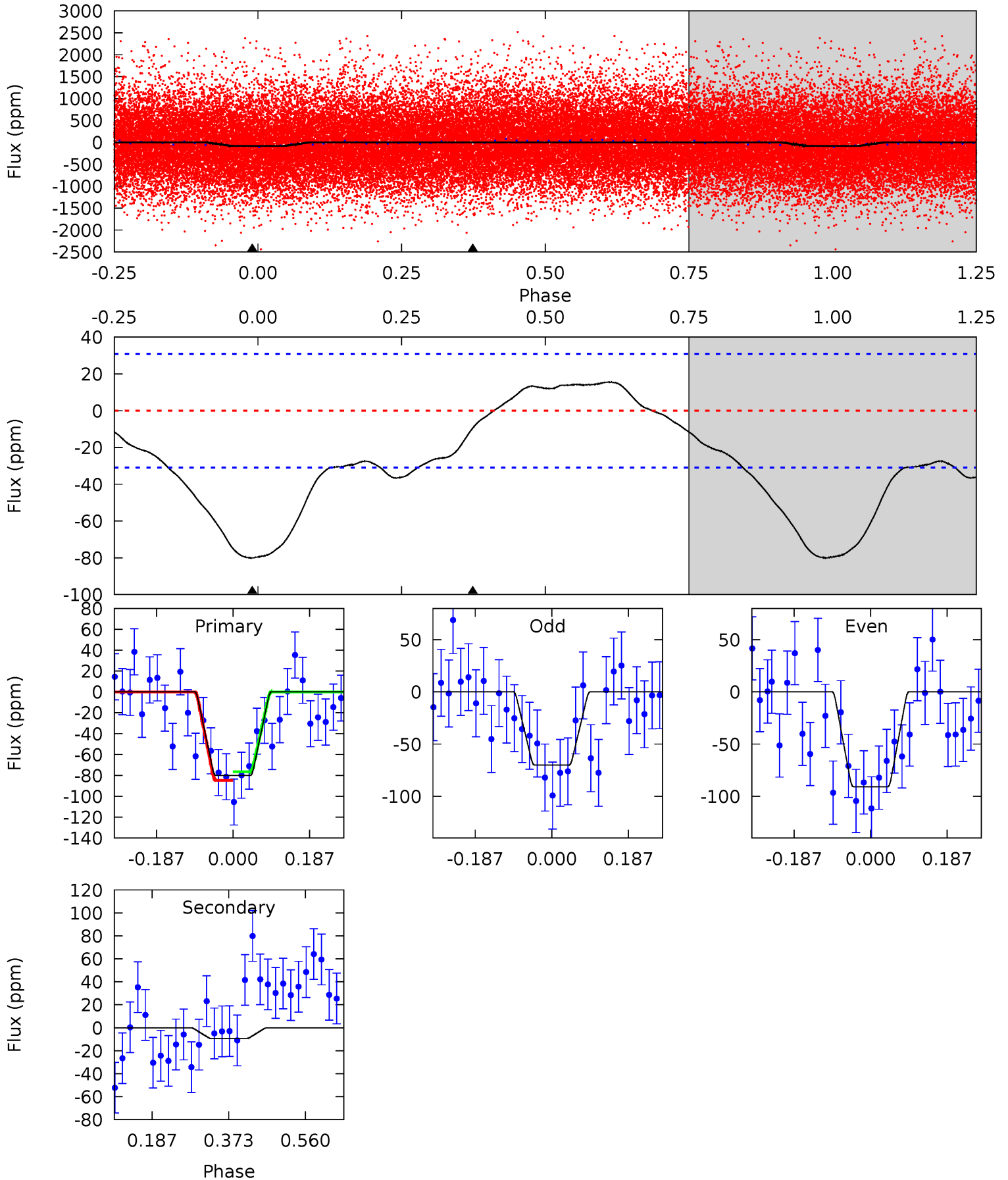
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	2.62	0	0	4.43	1.32	1.52	10.4	10.4	2.62	2.62	2.00	0.88	0.10	0.20



Alt Model-Shift Uniqueness Test

005199436-01, P = 2.334653 Days, E = 132.329466 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	1.36	0	0	4.43	1.32	1.92	11.5	11.5	1.36	1.36	1.48	1.03	0.16	0.59



Stellar Parameters For KIC 005199436

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5838^{+184}_{-204}	$4.529^{+0.038}_{-0.200}$	$-0.080^{+0.300}_{-0.300}$	$0.897^{+0.278}_{-0.087}$	$0.992^{+0.126}_{-0.126}$	$1.938^{+0.389}_{-1.002}$
	+3%/-3%	+1%/-4%	+375%/-375%	+31%/-10%	+13%/-13%	+20%/-52%
Source	KIC0	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 005199436-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-19 ± 7	$1.00^{+0.79}_{-0.63}$	1884^{+127}_{-92}	4143^{+2155}_{-832}	12^{+65}_{-9}
Alt.	-9 ± 7	$1.18^{+0.80}_{-0.74}$	1883^{+129}_{-90}	3416^{+1464}_{-815}	$3.892^{+23.226}_{-3.056}$

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 $A_{obs} \gg 1.0$

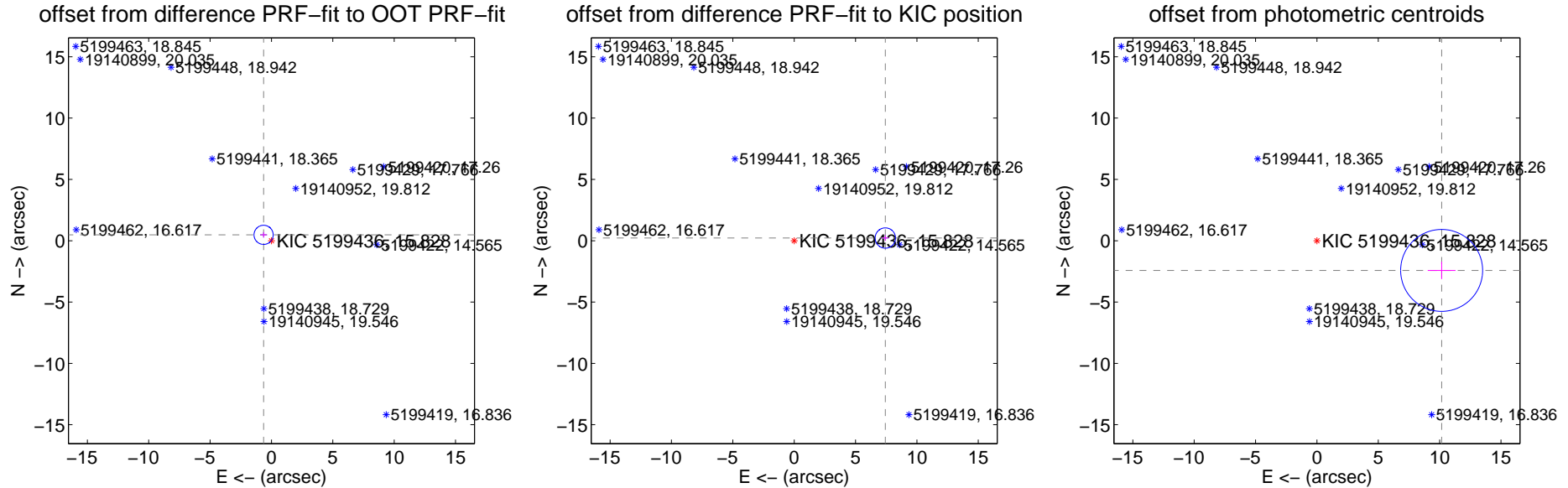
DV Centroid Data

Supplemental centroid analysis for 005199436-01. Kepler magnitude: 15.83. Transit SNR 8.58

There are 1 quarters with good PRF difference image offsets

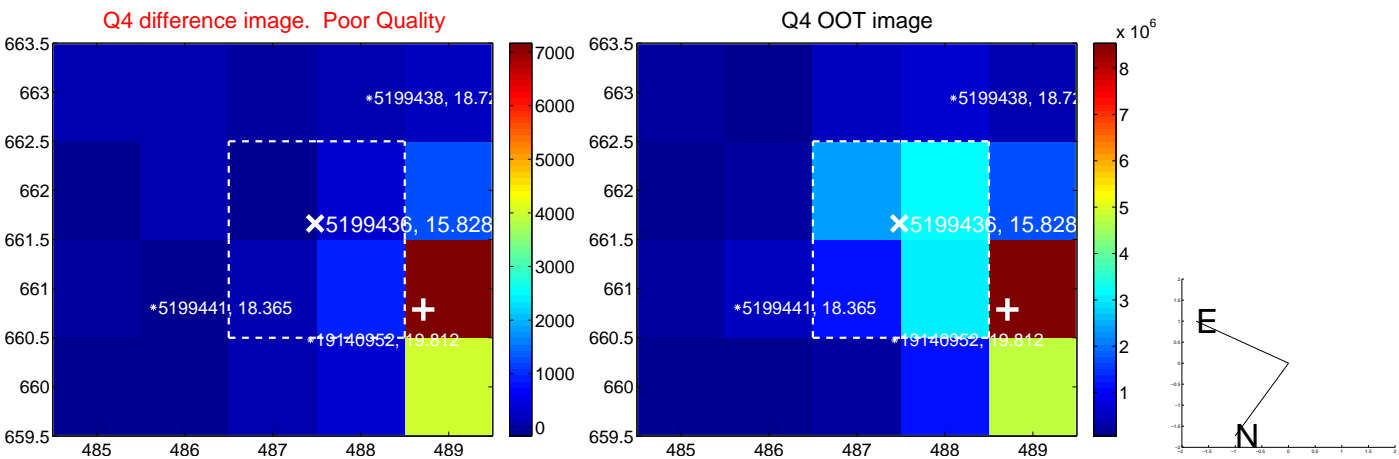
The OOT PRF centroid is offset from the target star catalog position by about 8.07 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.800 ± 0.260	3.07	0.640 ± 0.276	0.480 ± 0.229
PRF-fit source offset from KIC position	7.430 ± 0.276	26.88	-7.427 ± 0.276	0.220 ± 0.229
photometric centroid source offset	10.45 ± 1.11	9.38	-10.16 ± 1.13	-2.42 ± 0.71

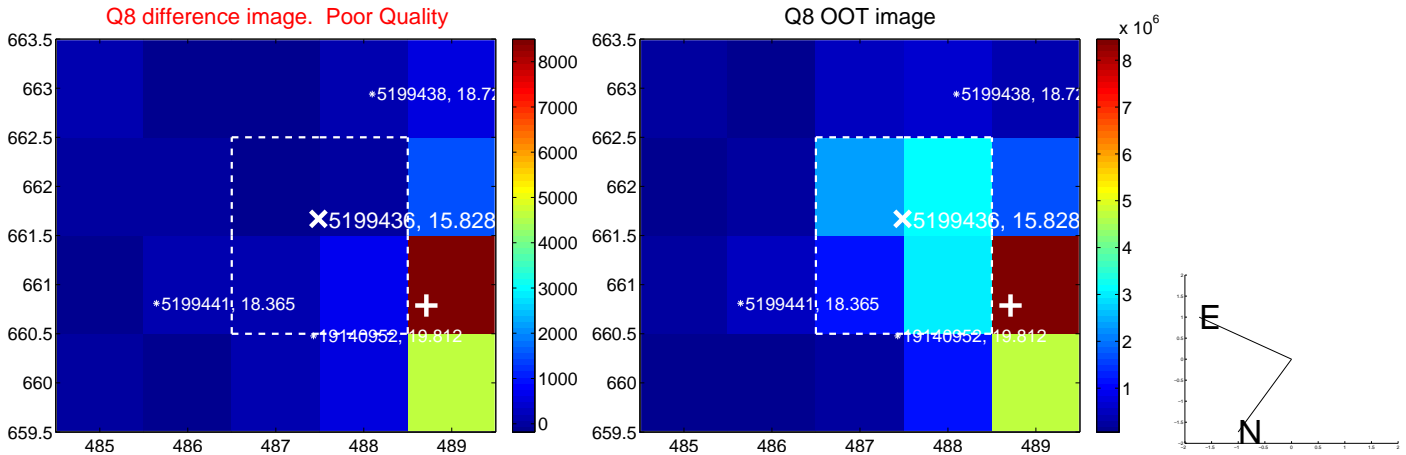
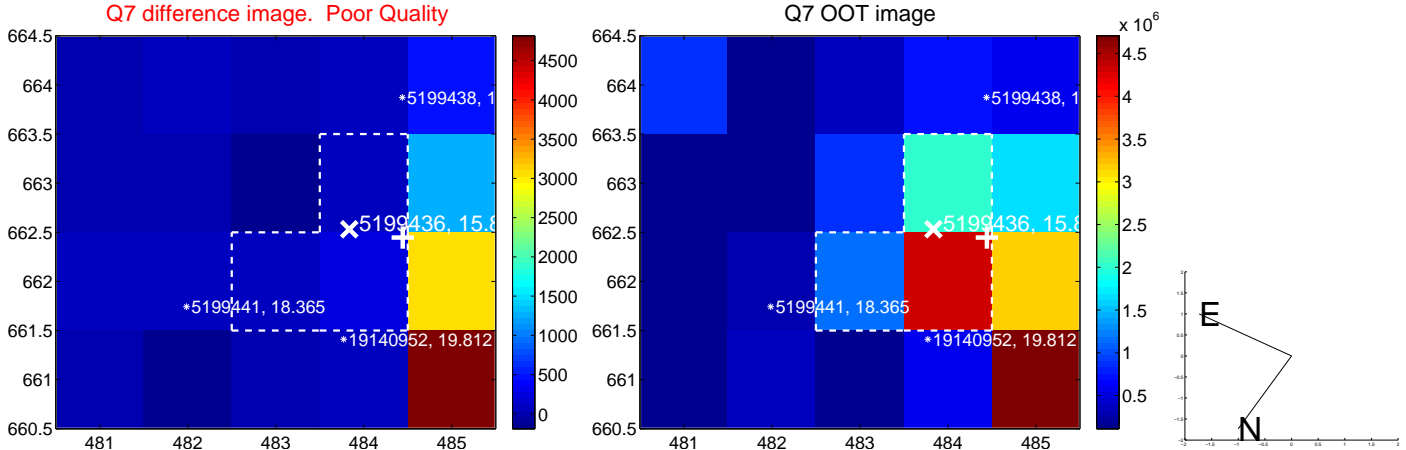
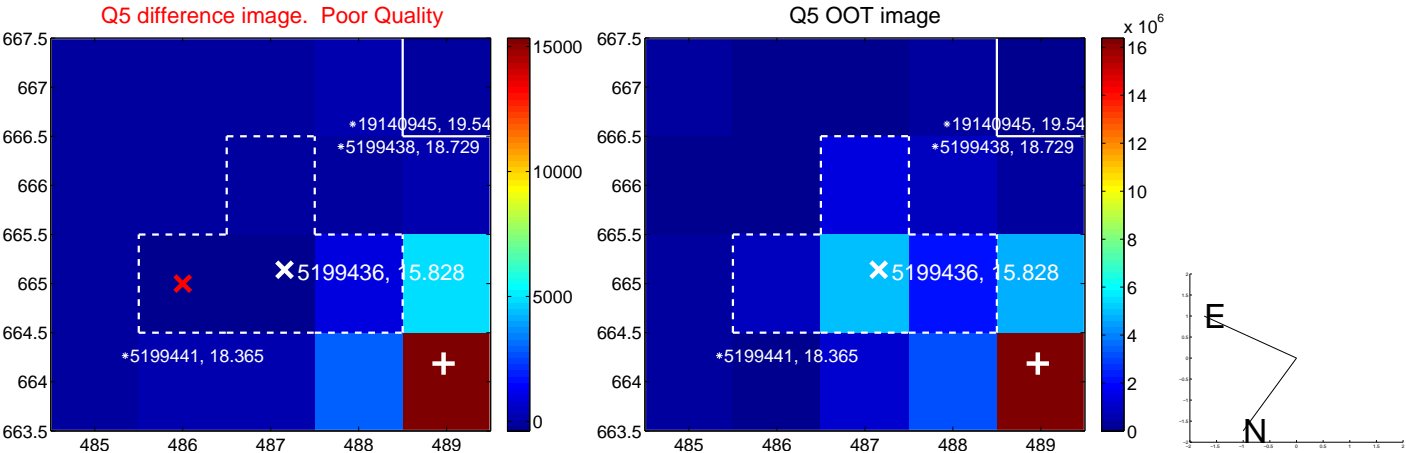


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

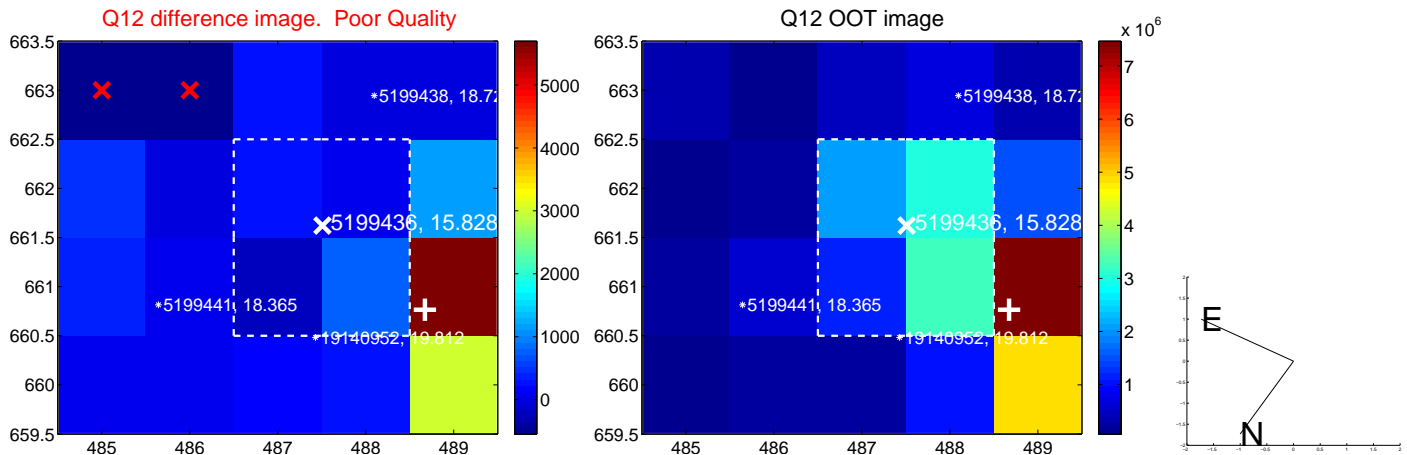
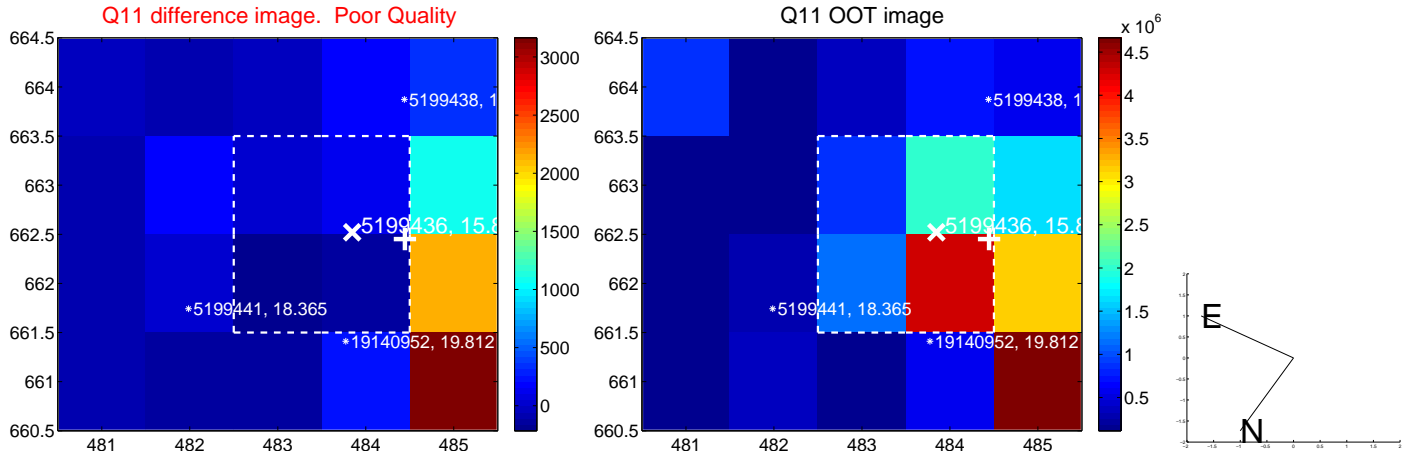
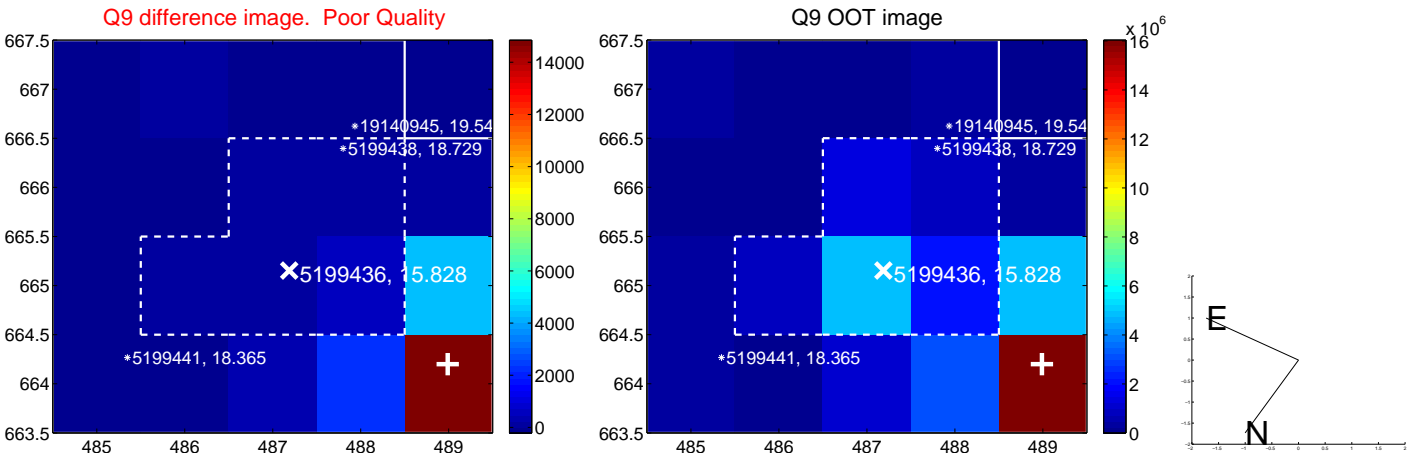
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



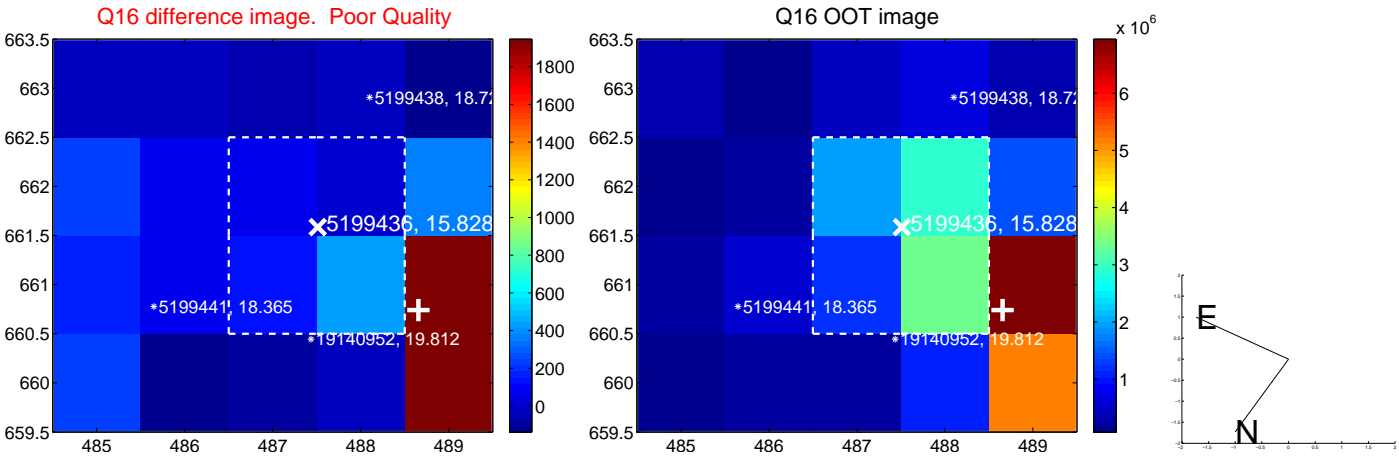
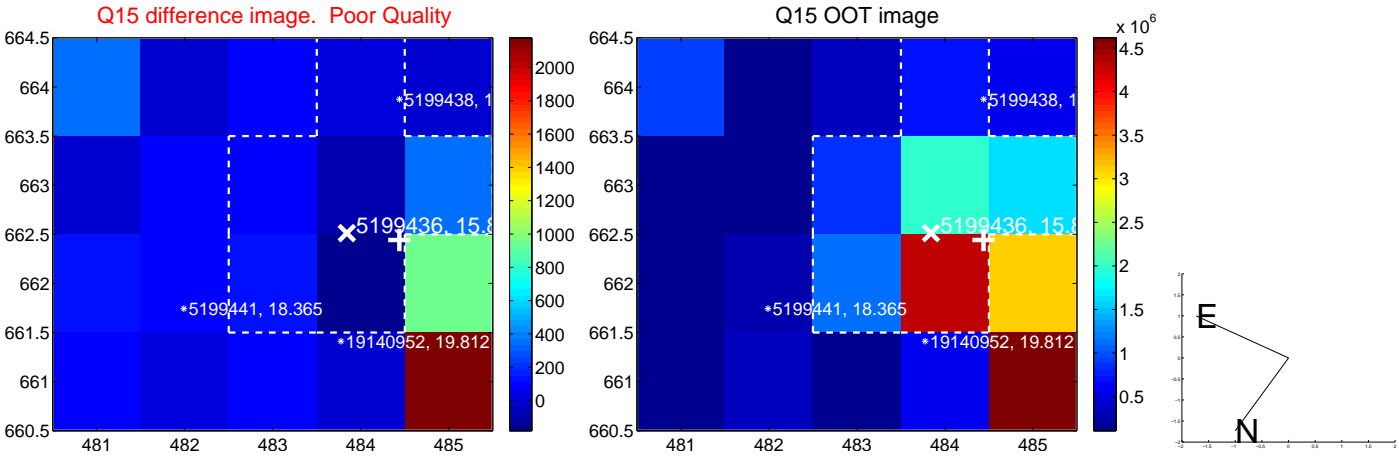
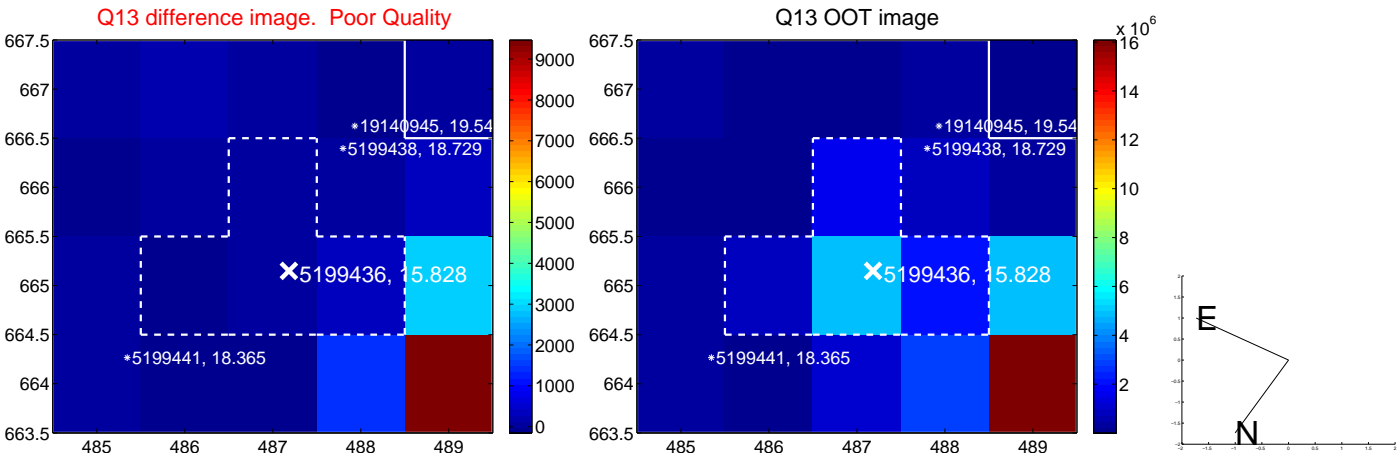
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



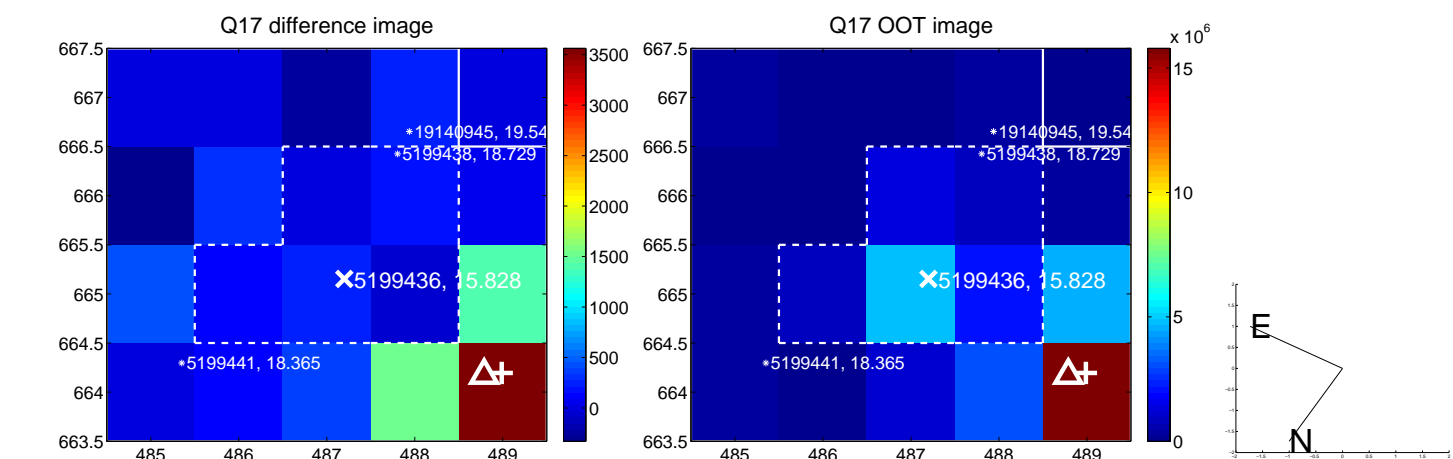
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



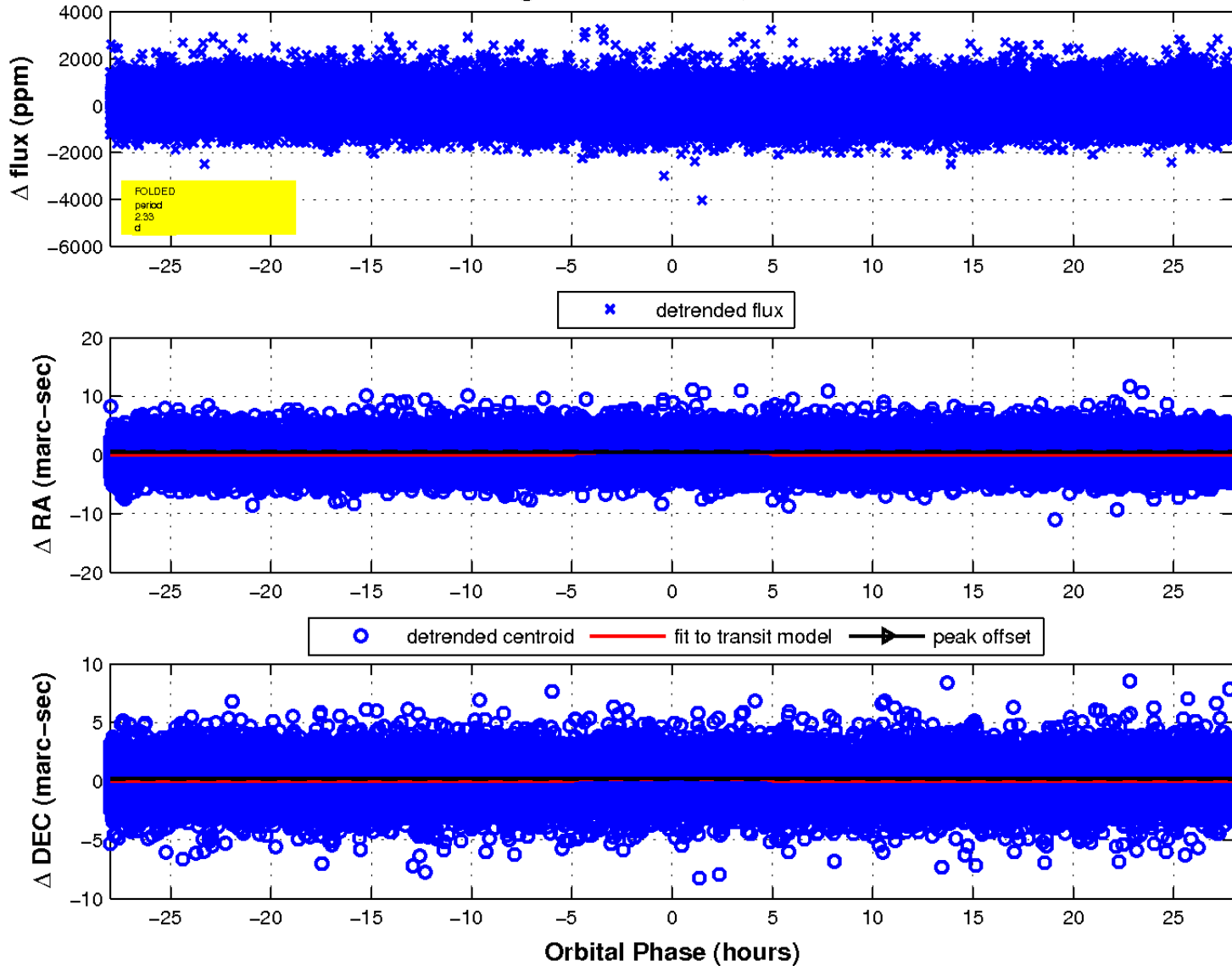
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

