

KIC 008906294

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})
008906294-01	OBS	No	0.915798	131.885015	144.6	8.020	16.6	19.0	3.21	6891	5.20	41022.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008906294-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

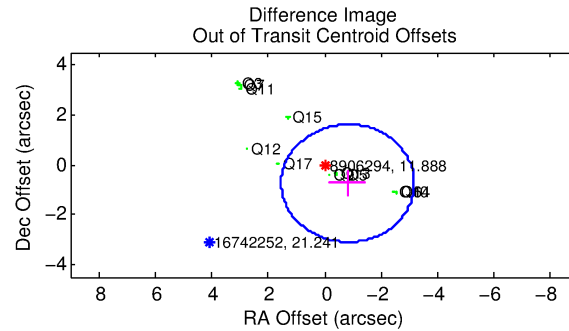
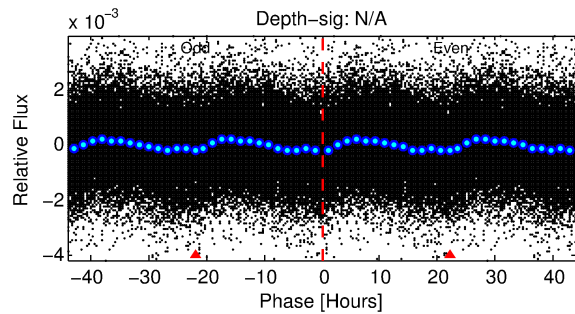
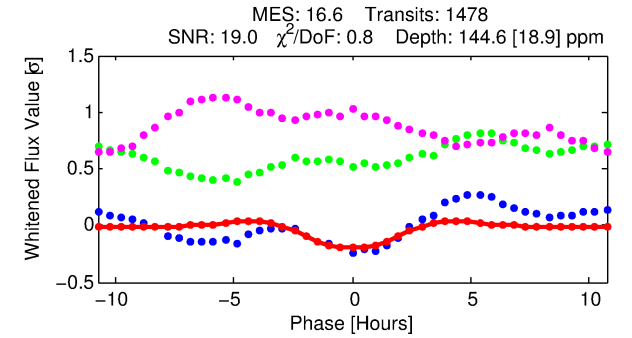
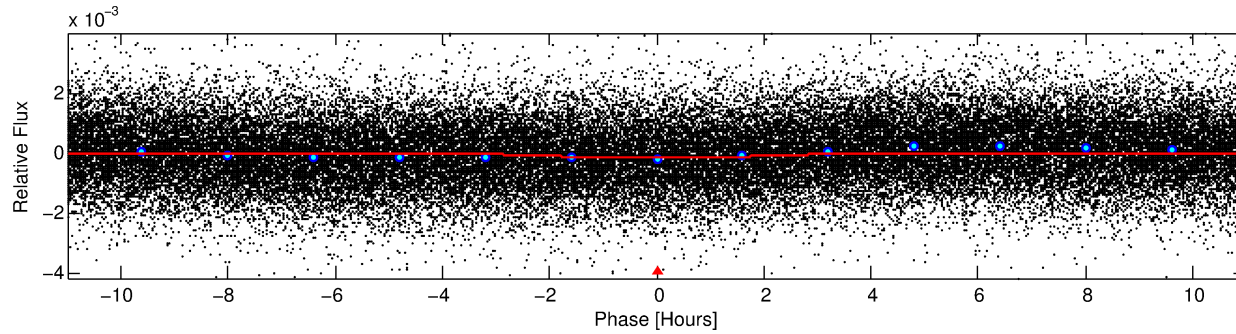
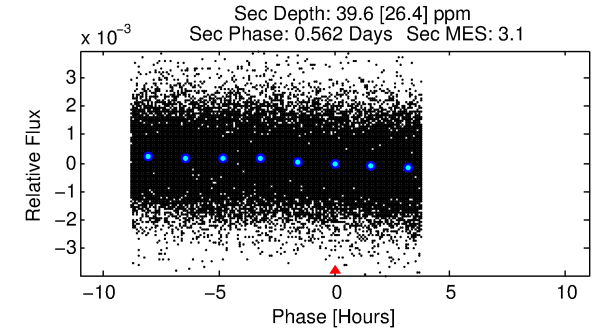
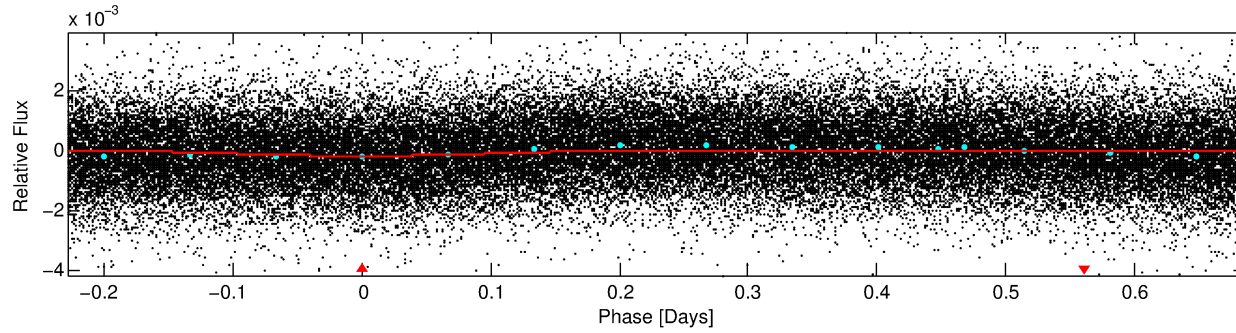
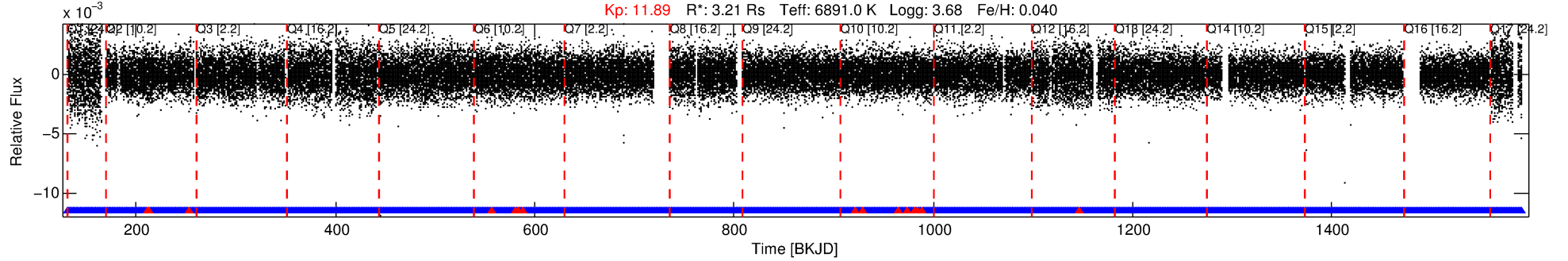
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008906294-01

No Significant Match Found

DV One-Page Summary

KIC: 8906294 Candidate: 1 of 1 Period: 0.916 d



DV Fit Results:

Period = 0.91580 [0.00001] d
Epoch = 131.8850 [0.0050] BKJD
Rp/R* = 0.0149 [0.0013]
a/R* = 1.02 [0.00]
b = 0.99 [0.01]
Seff = 41022.57 [33078.55]
Teff = 3629 [732] K
Rp = 5.20 [2.66] Re
a = 0.0225 [0.0111] AU
Ag = 0.41 [0.43] [-1.38σ]
Teffp = 4486 [794] K [0.79σ]

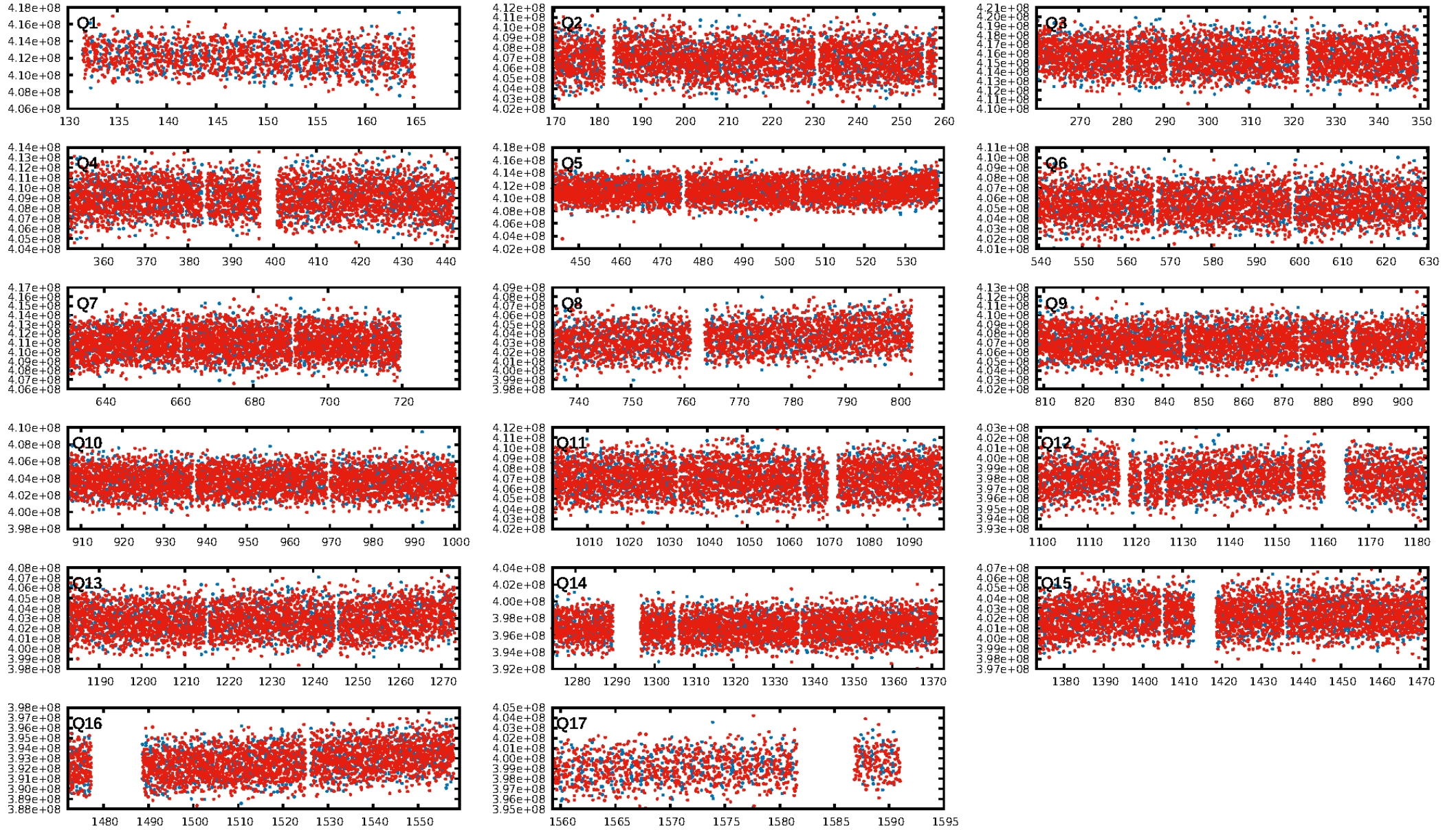
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1395/1411]
GhostDiagnostic-chr: 2.019
Centroid-sig: 0.0%
Centroid-so: 0.396 arcsec [3.08σ]
OotOffset-rm: 1.106 arcsec [1.41σ]
KicOffset-rm: 1.042 arcsec [1.29σ]
OotOffset-st: 3/4/1/4 [12]
KicOffset-st: 3/4/1/4 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 1.00 [17/17]

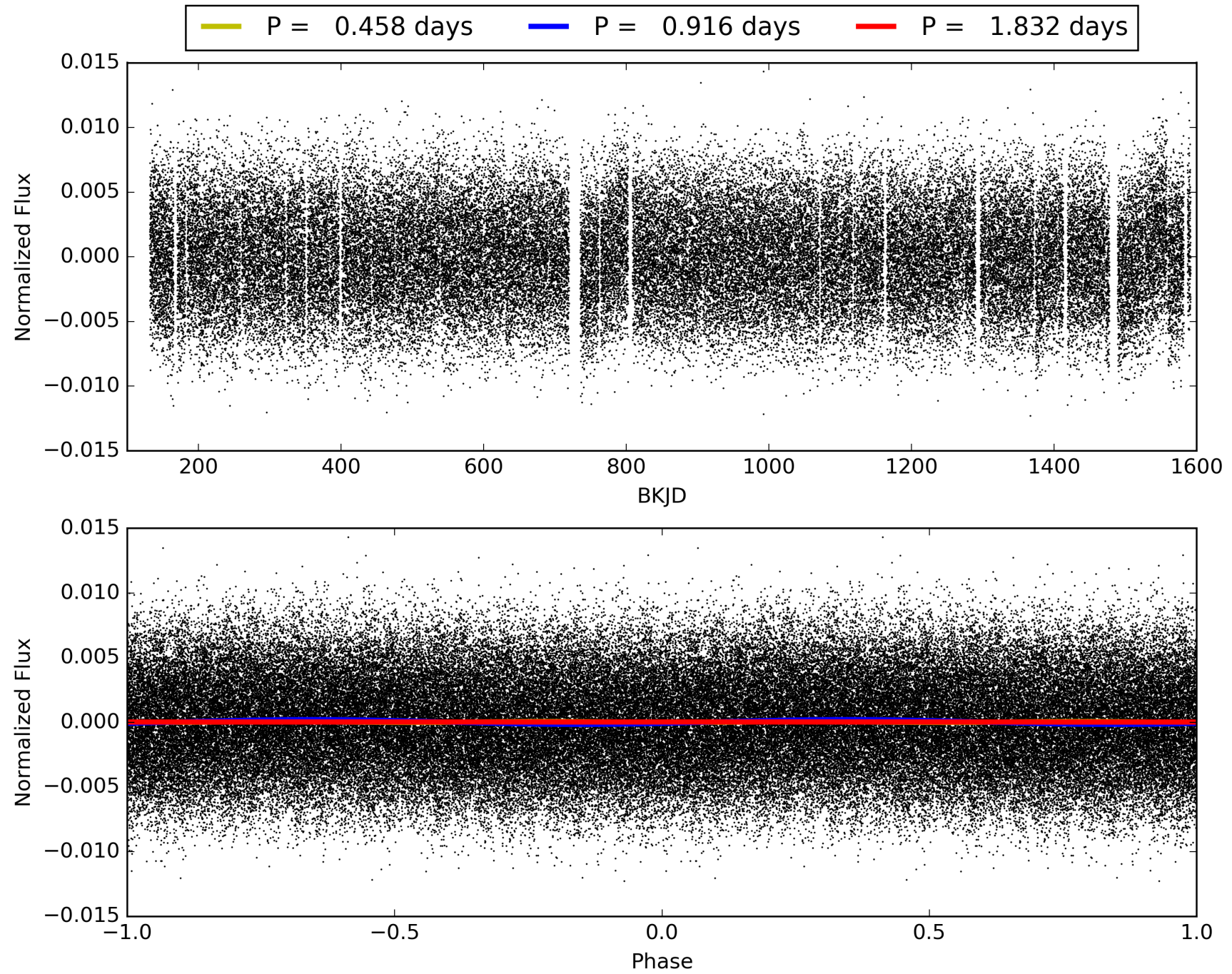
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:21:36 Z

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

TCE 008906294-01, PDC Light Curves

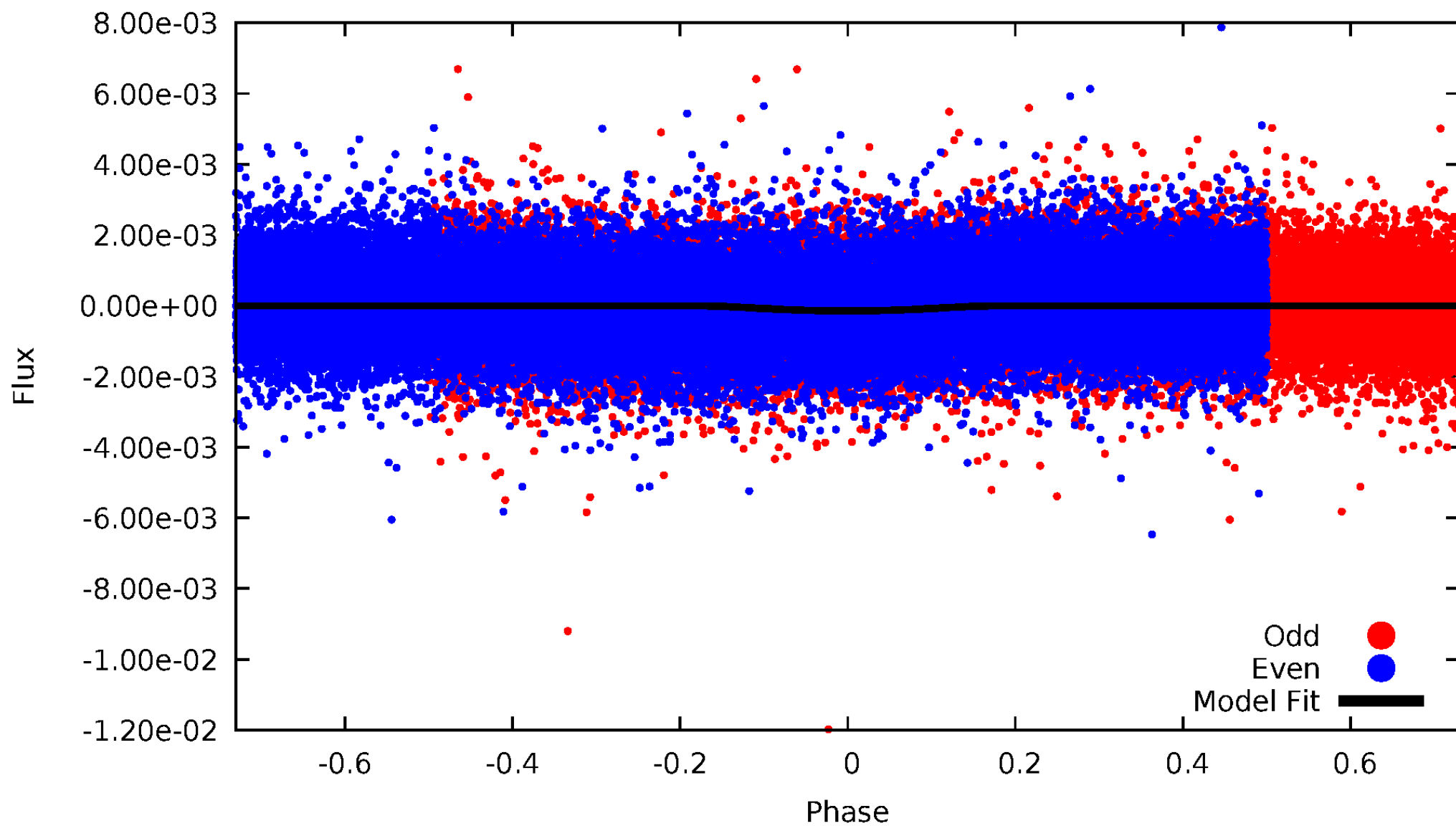


TCE 008906294-01



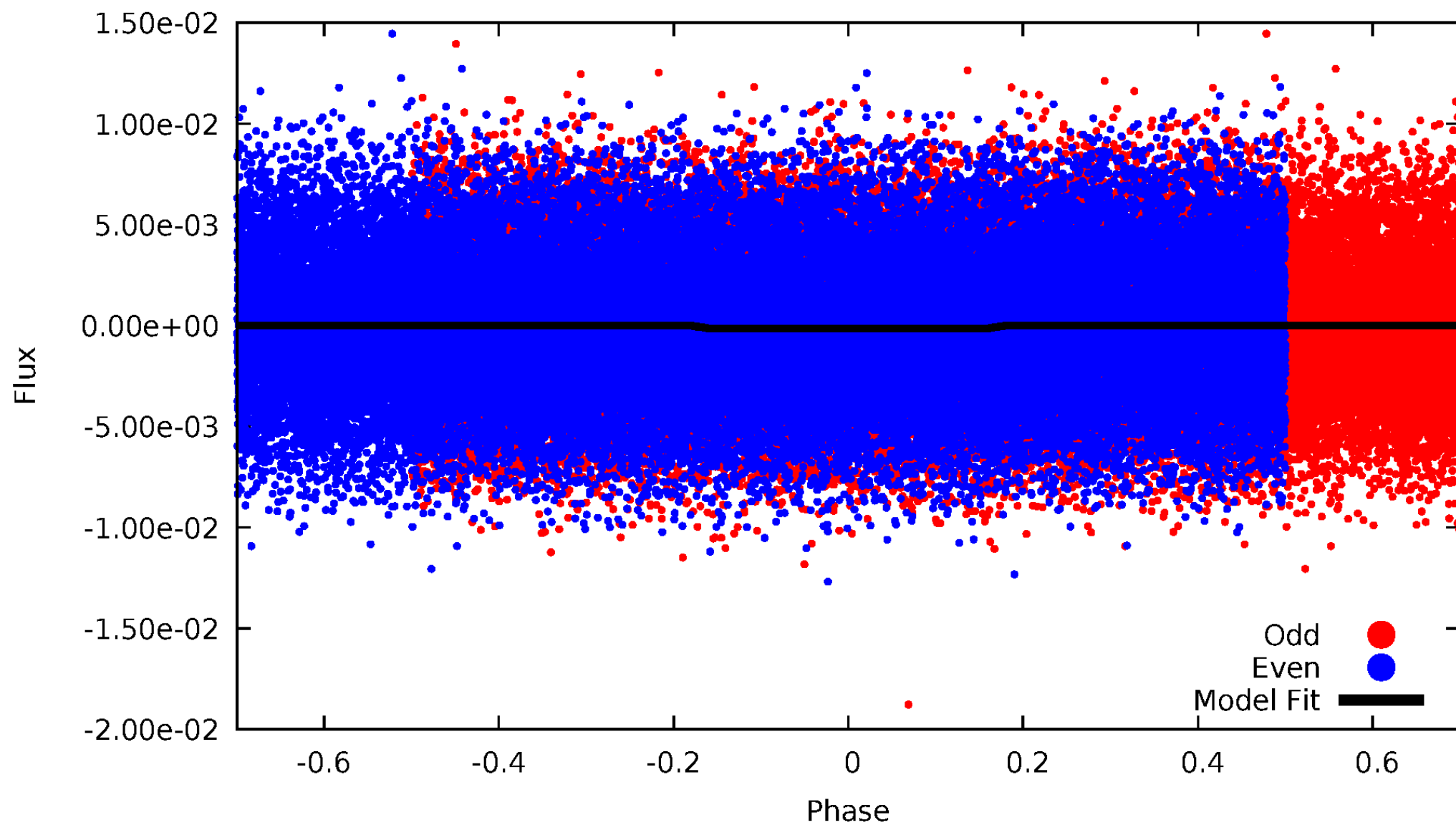
DV Odd/Even

TCE 008906294-01



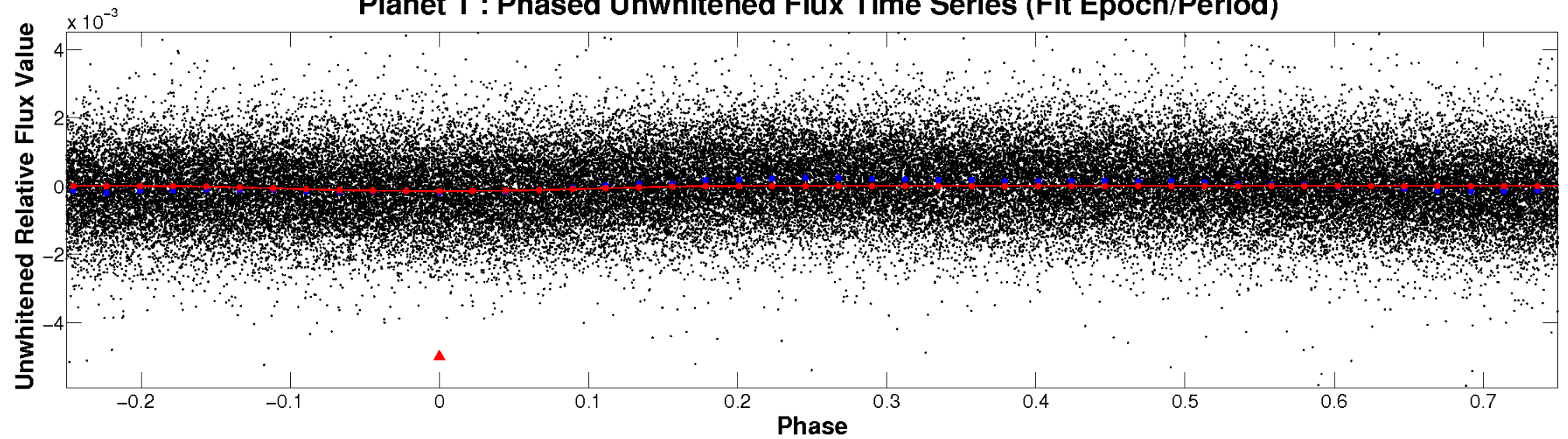
ALT Odd/Even

TCE 008906294-01

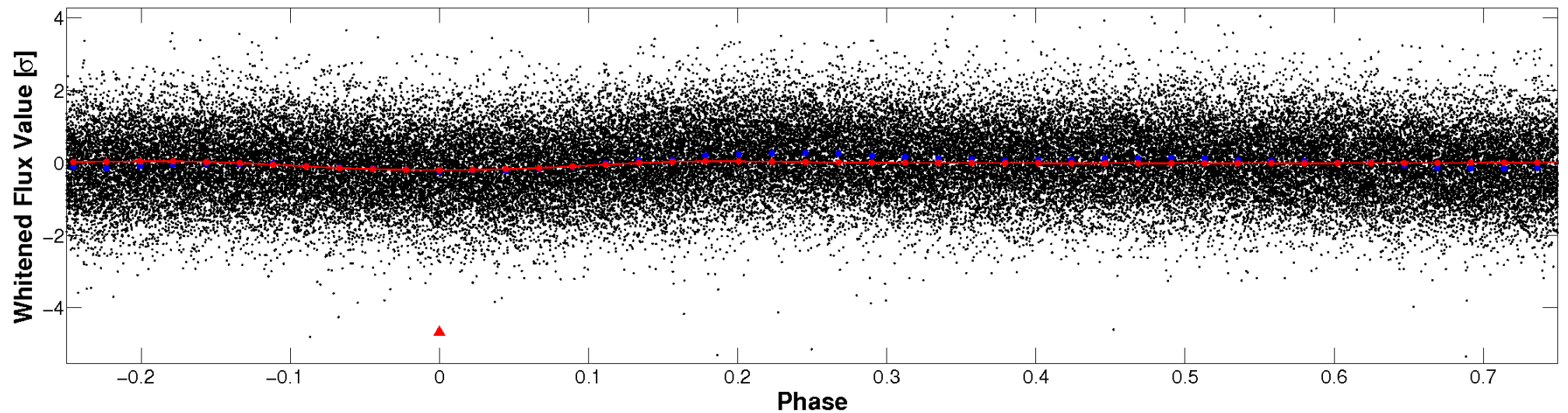


Non-Whitened Vs. Whitened Light Curve

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

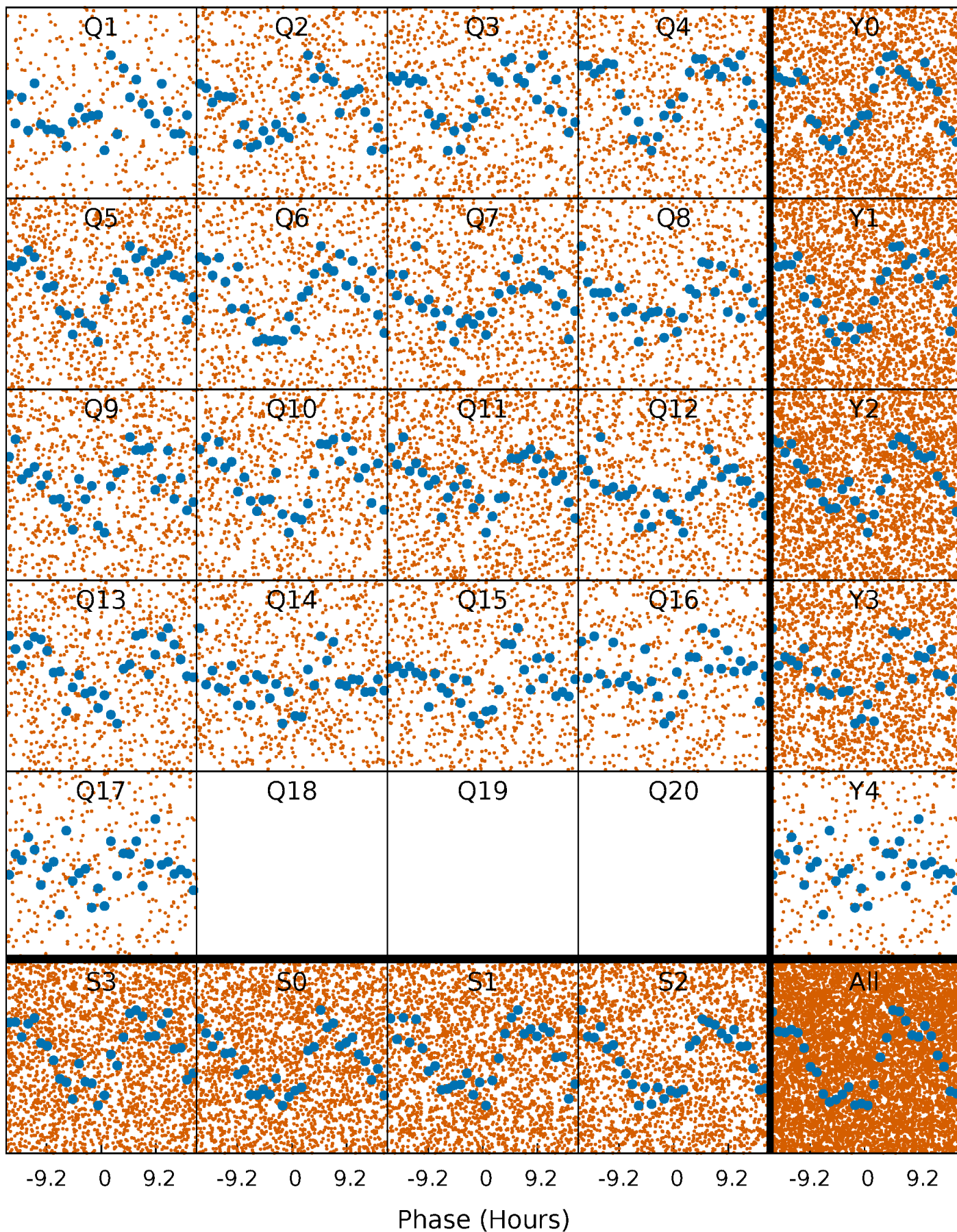


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



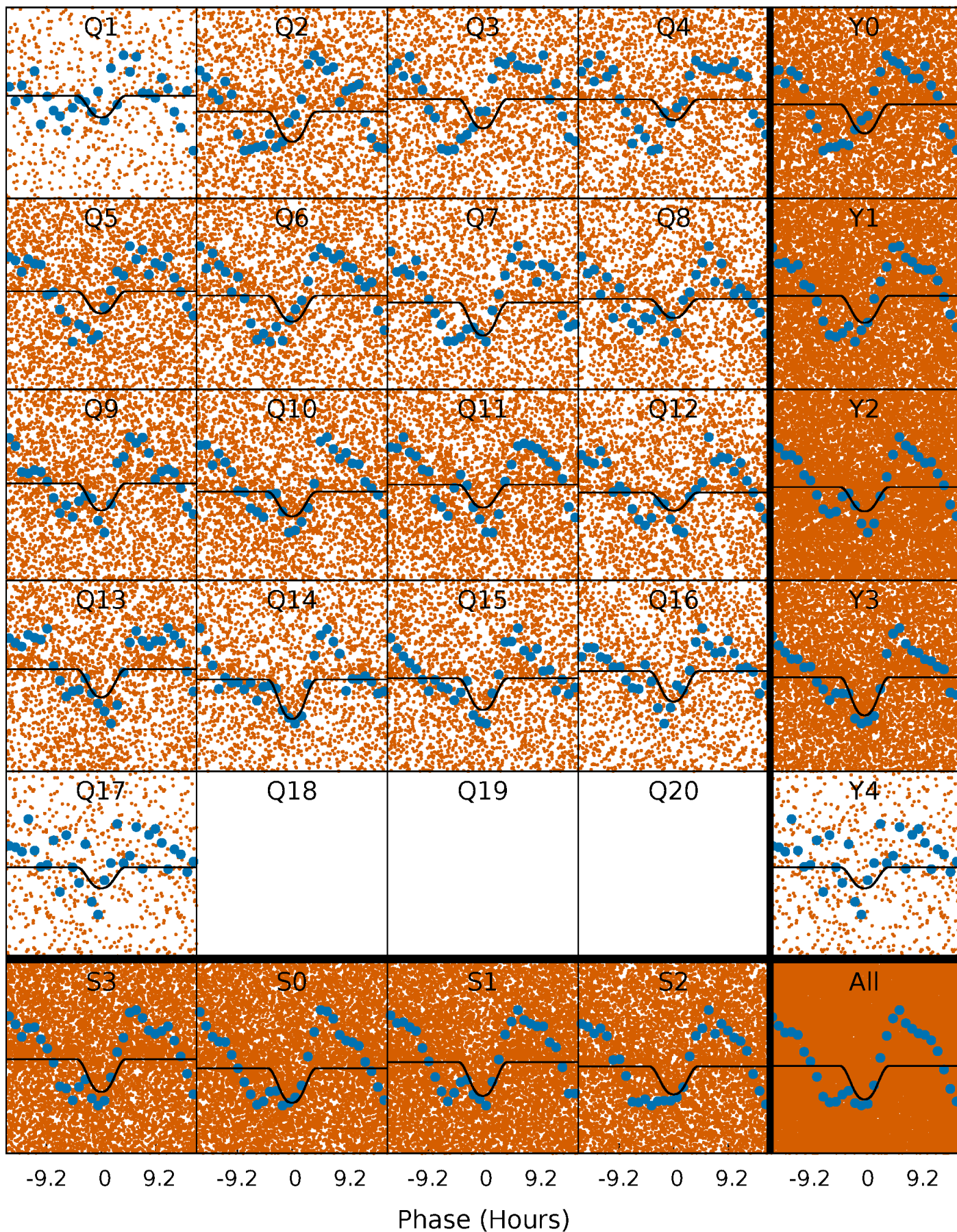
PDC Quarter-Phased Transit Curves

TCE 008906294-01 P= 0.915798 Days $T_0=131.885015$ (BKJD)



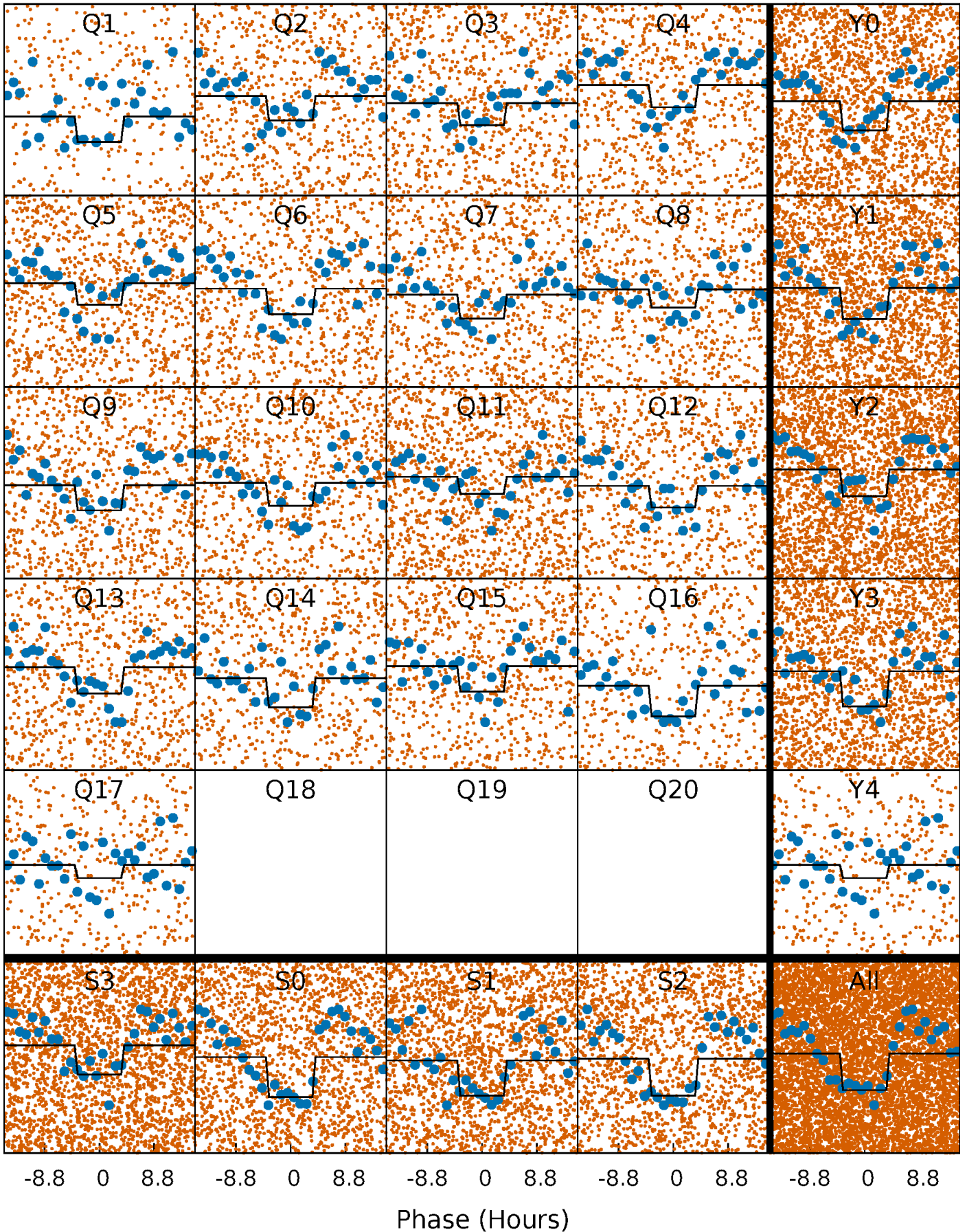
DV Quarter-Phased Transit Curves

TCE 008906294-01 P= 0.915798 Days $T_0=131.885015$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

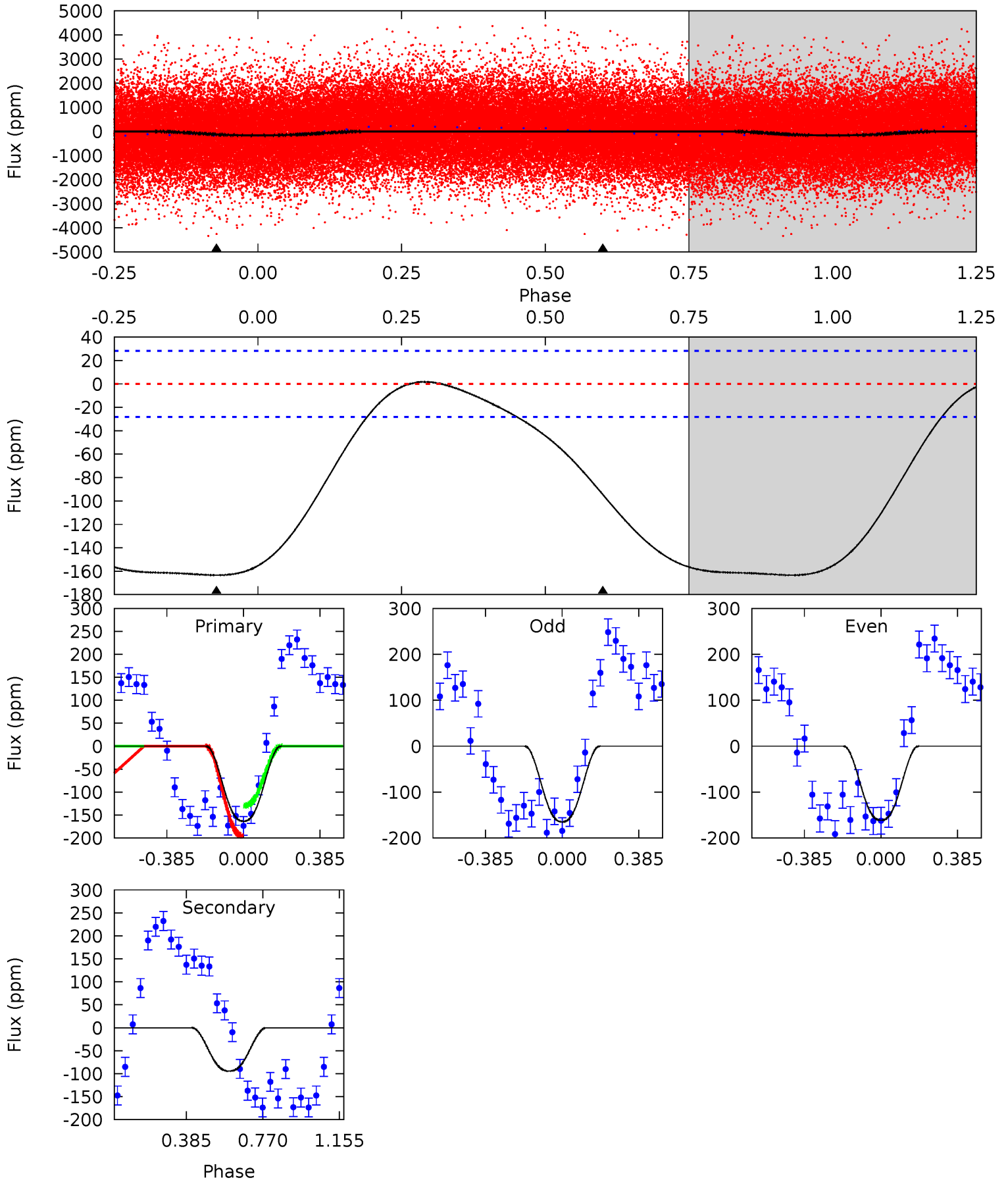
TCE 008906294-01 P= 0.915839 Days $T_0=131.787074$ (BKJD)



DV Model-Shift Uniqueness Test

008906294-01, P = 0.915798 Days, E = 130.969217 Days

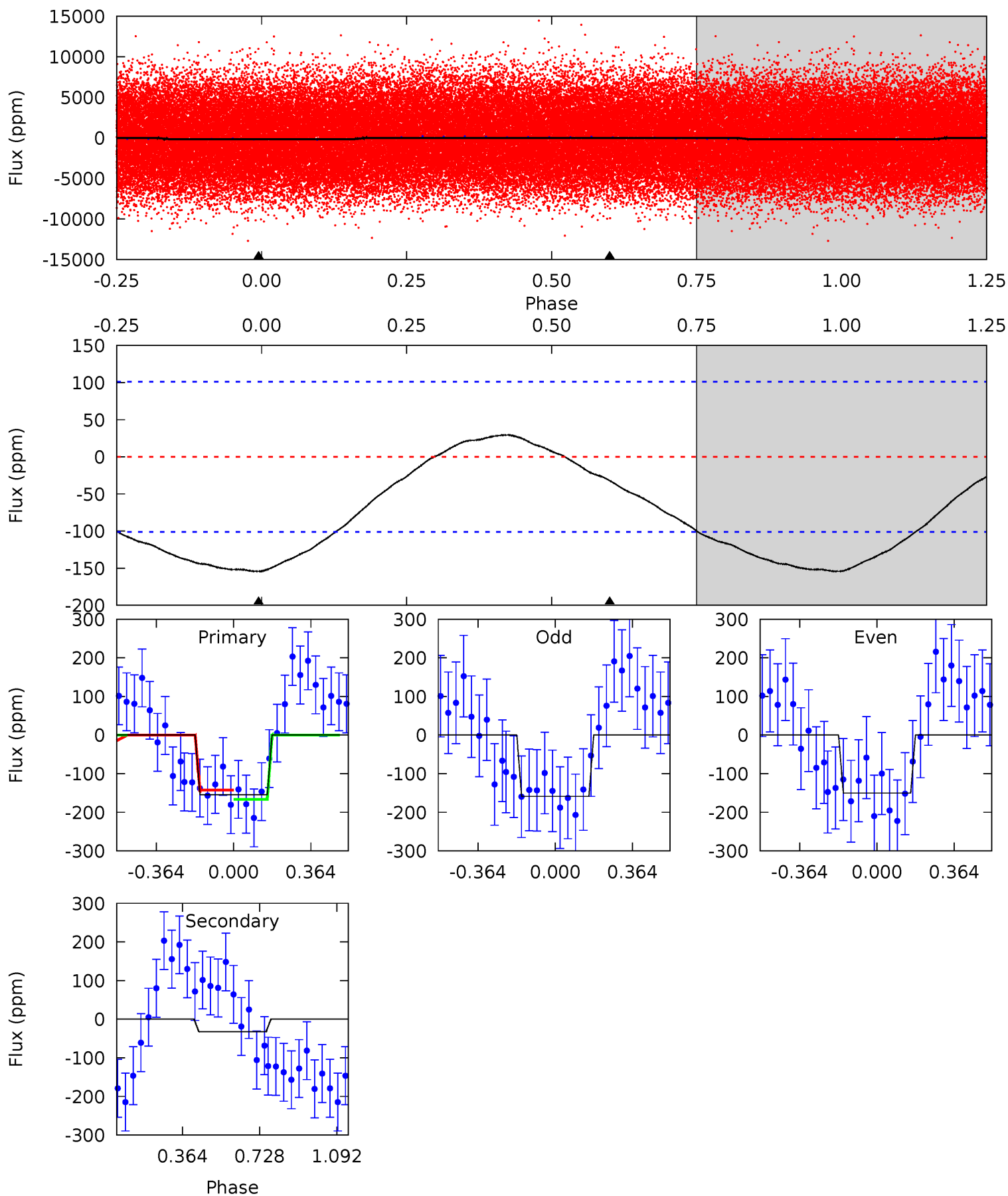
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.8	14.3	0	0	4.27	0.87	0.75	24.8	24.8	14.3	14.3	0.27	1.34	0.01	5.02



Alt Model-Shift Uniqueness Test

008906294-01, P = 0.915839 Days, E = 130.871235 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.54	1.36	0	0	4.29	0.91	0.60	6.54	6.54	1.36	1.36	0.18	1.01	0.16	0.51



Stellar Parameters For KIC 008906294

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6891^{+167}_{-263}	$3.684^{+0.467}_{-0.082}$	$0.040^{+0.250}_{-0.300}$	$3.207^{+0.505}_{-1.617}$	$1.814^{+0.195}_{-0.455}$	$0.077^{+0.369}_{-0.020}$
	+2%/-4%	+13%/-2%	+625%/-750%	+16%/-50%	+11%/-25%	+477%/-26%
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 008906294-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-94 ± 7	$4.83^{+0.94}_{-1.22}$	4878^{+335}_{-613}	5173^{+351}_{-342}	$1.143^{+0.779}_{-0.331}$
Alt.	-32 ± 24	$4.02^{+0.83}_{-0.97}$	4898^{+333}_{-617}	4064^{+957}_{-7780}	$0.544^{+0.635}_{-0.390}$

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 $A_{obs} \gg 1.0$

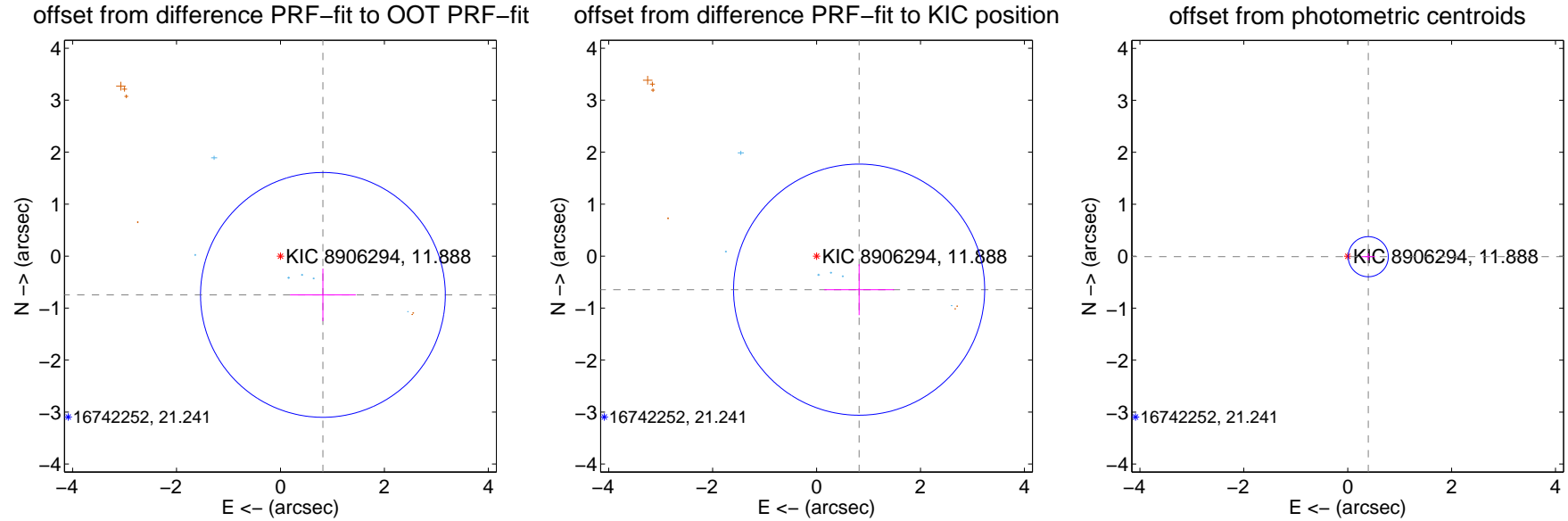
DV Centroid Data

Supplemental centroid analysis for 008906294-01. **Kepler magnitude: 11.89.** Transit SNR 19.03

There are 6 quarters with good PRF difference image offsets

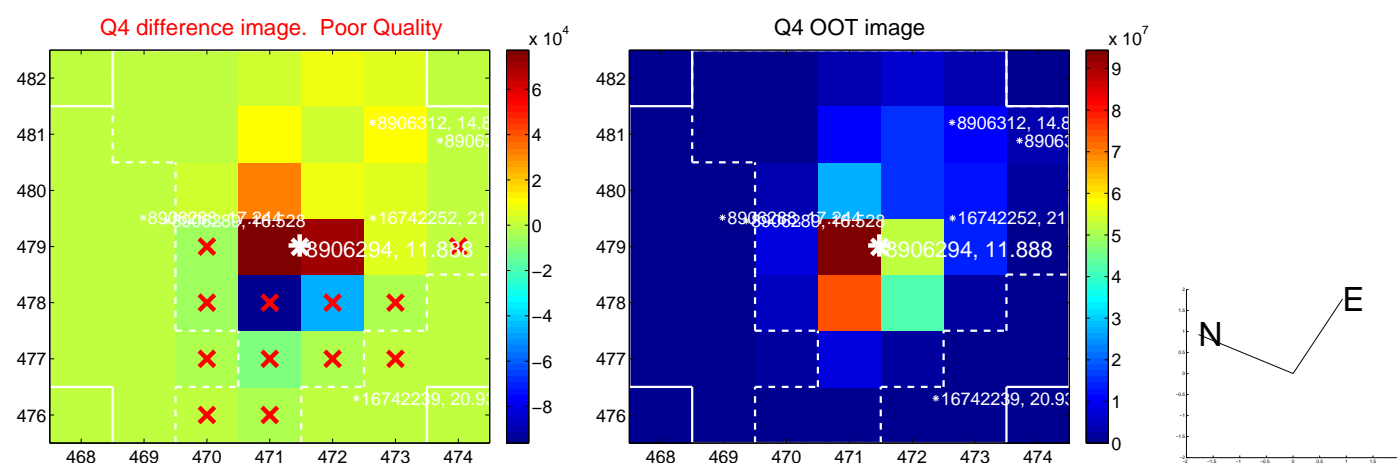
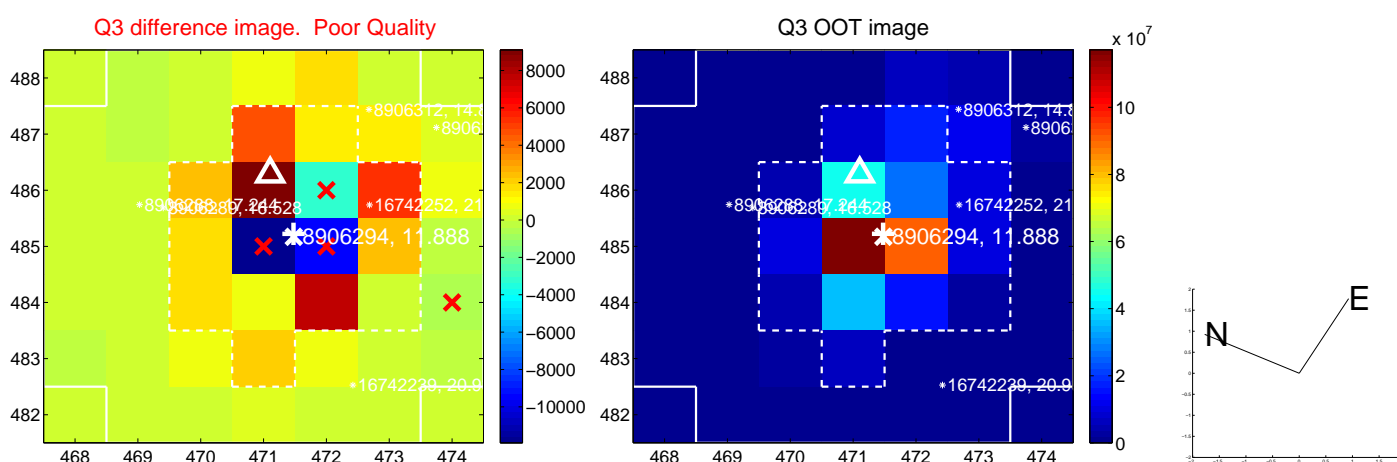
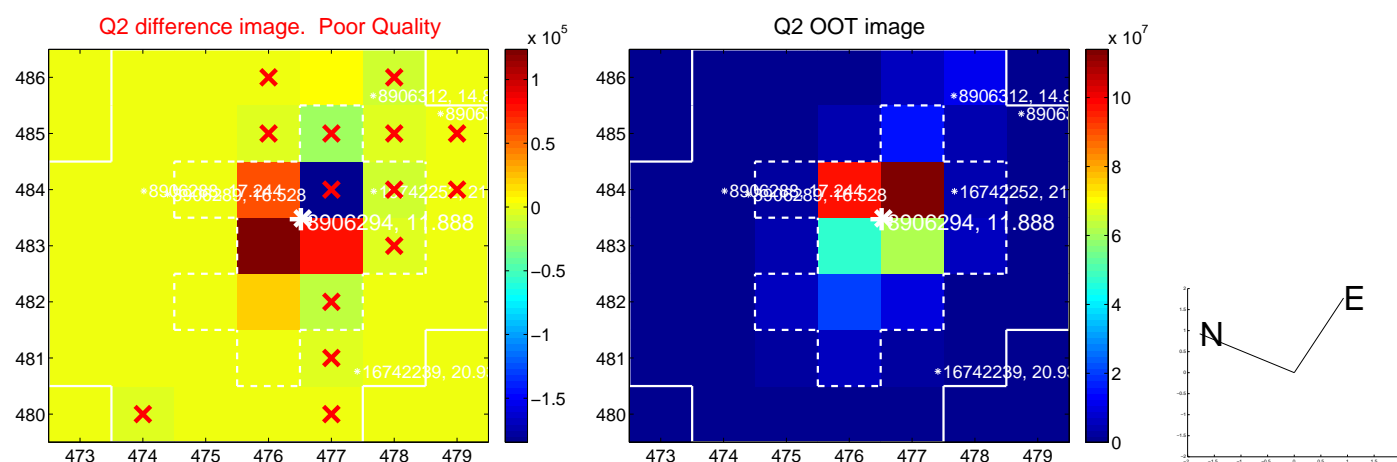
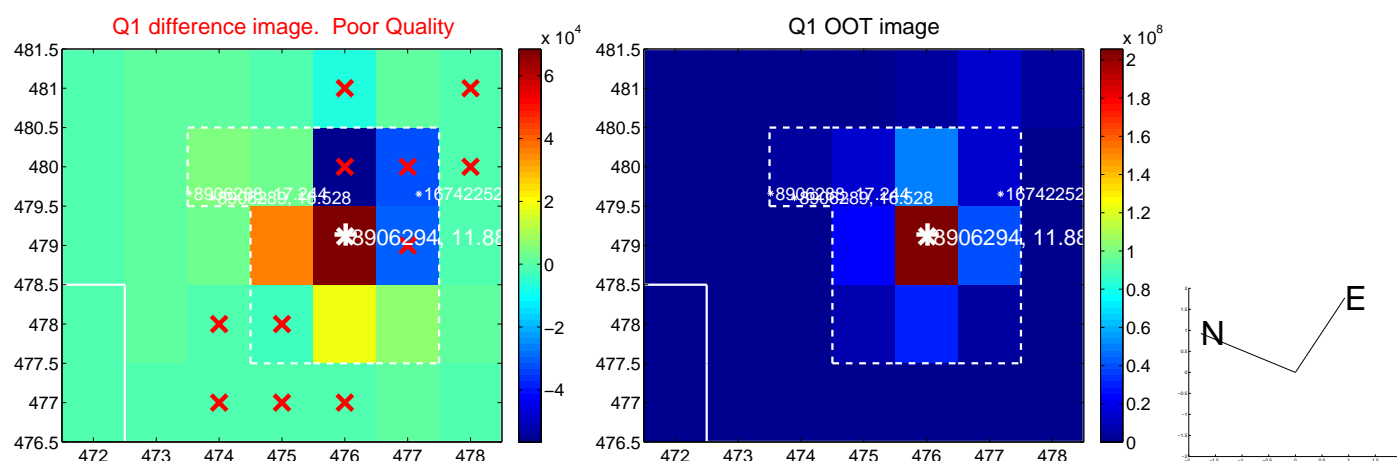
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.106 ± 0.785	1.41	-0.817 ± 0.632	-0.746 ± 0.506
PRF-fit source offset from KIC position	1.042 ± 0.805	1.29	-0.819 ± 0.672	-0.645 ± 0.490
photometric centroid source offset	0.40 ± 0.13	3.08	-0.40 ± 0.13	-0.01 ± 0.07

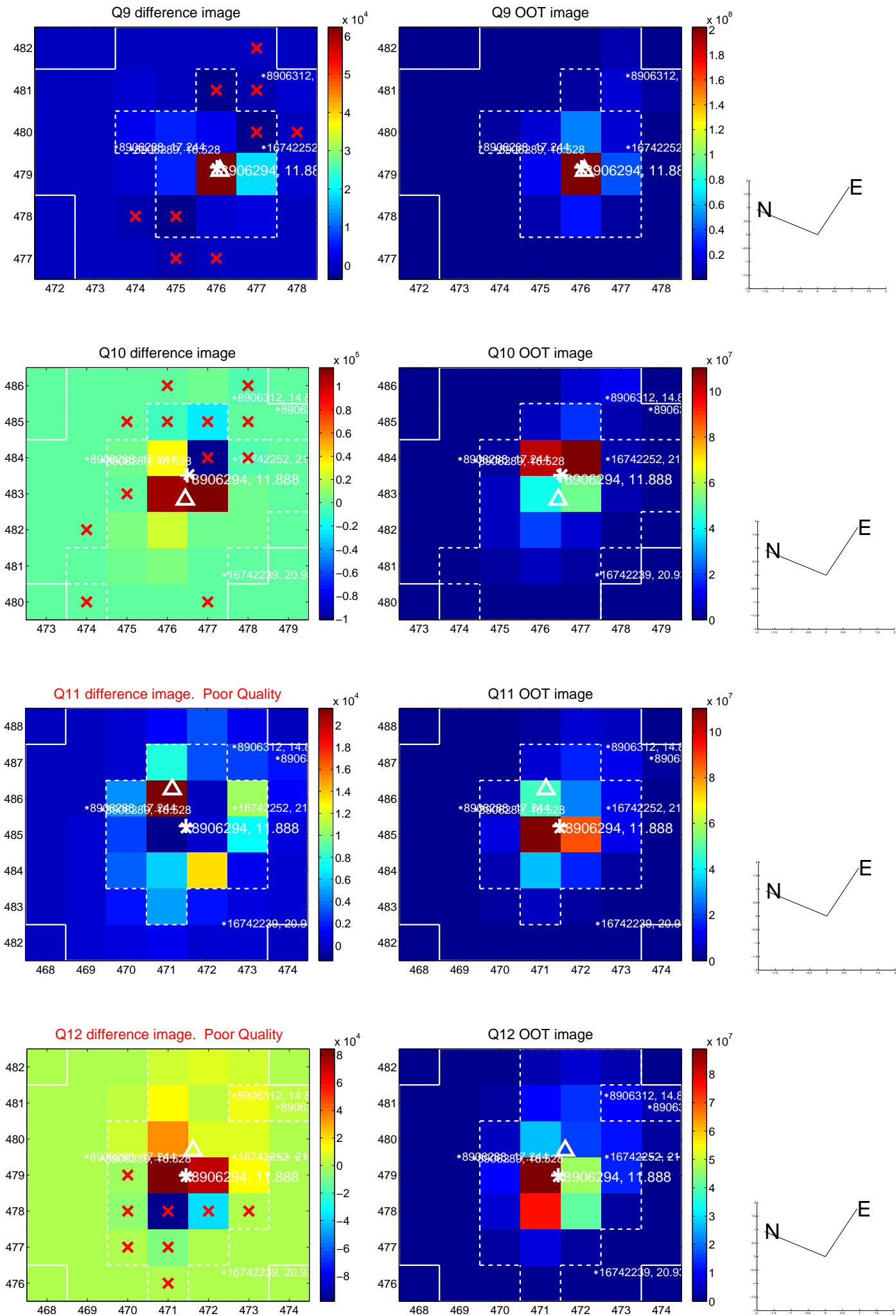


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



UKIRT Image

Declination

