

KIC 004930913

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})
004930913-01	OBS	No	0.806429	132.022922	34.3	8.011	9.1	13.8	1.05	5726	0.61	3996.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004930913-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

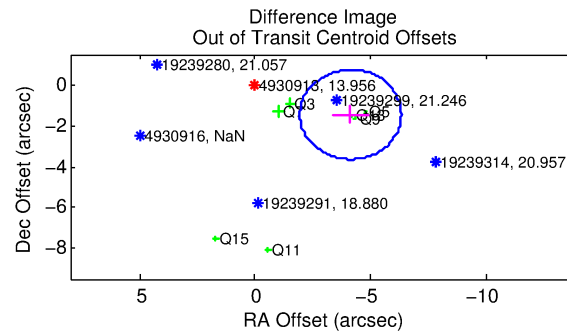
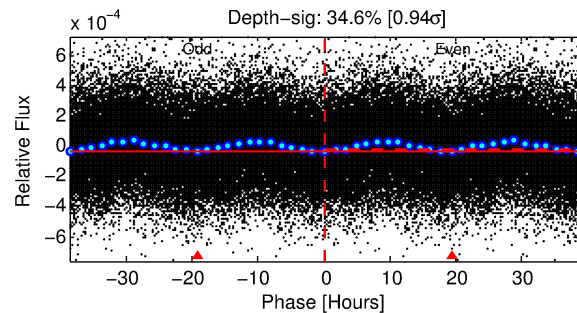
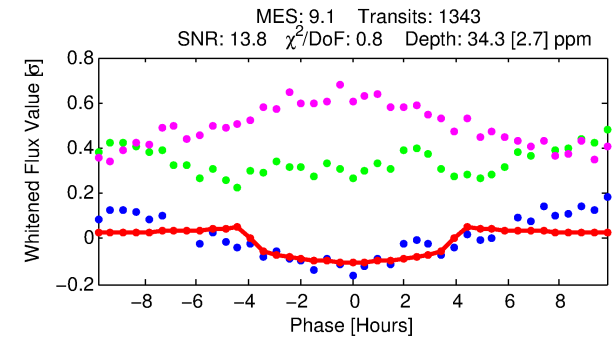
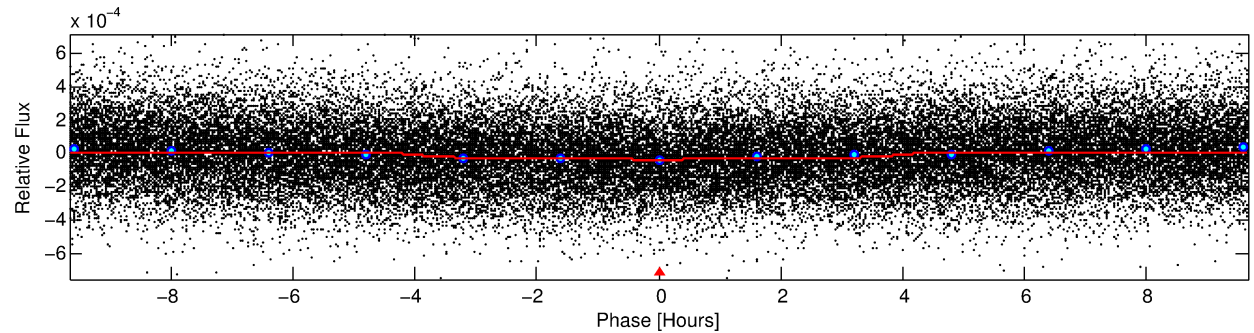
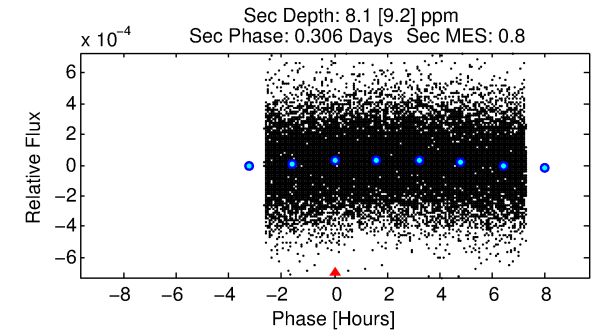
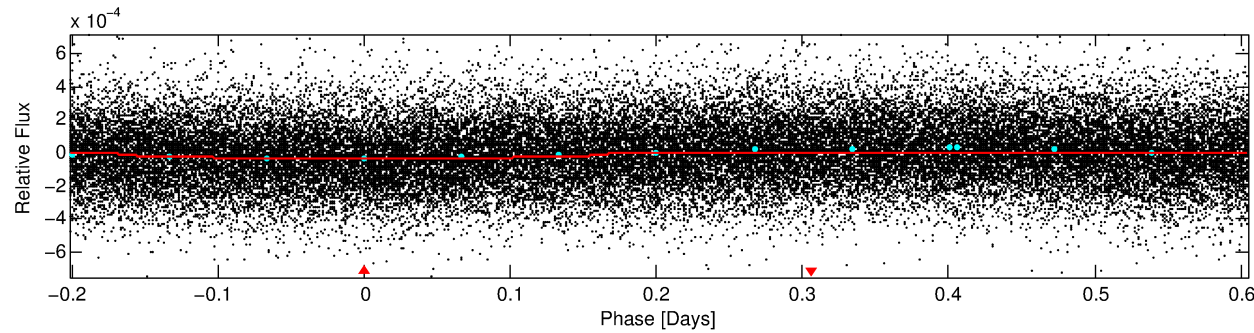
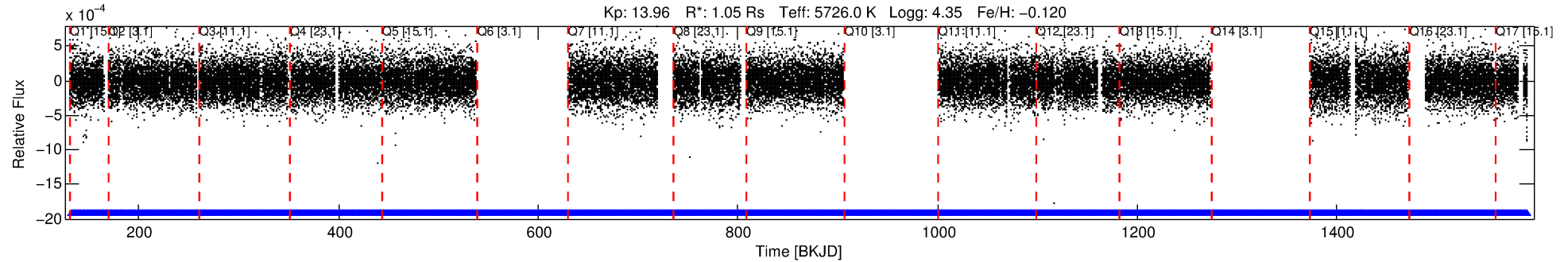
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004930913-01

No Significant Match Found

DV One-Page Summary

KIC: 4930913 Candidate: 1 of 1 Period: 0.806 d



DV Fit Results:

Period = 0.80643 [0.00001] d
Epoch = 132.0229 [0.0043] BKJD
Rp/R* = 0.0053 [0.0032]
a/R* = 1.04 [0.22]
b = 0.03 [82.84]
Seff = 3996.81 [917.51]
Teq = 2027 [116] K
Rp = 0.61 [0.38] Re
a = 0.0164 [0.0023] AU
Ag = 3.18 [5.36] [0.41σ]
Teffp = 4187 [1749] K [1.23σ]

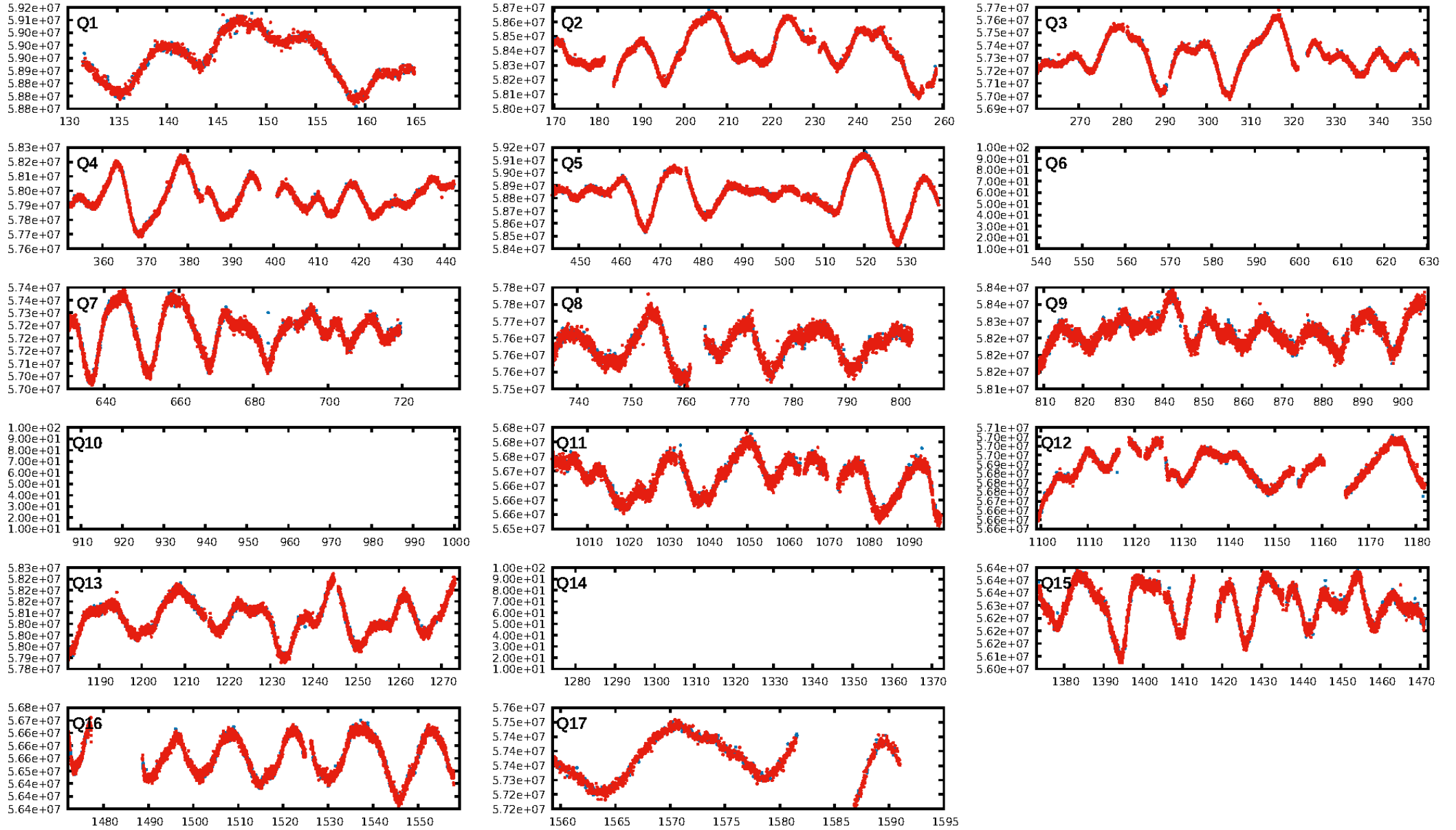
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1267/1267]
GhostDiagnostic-chr: -1.668
Centroid-sig: 0.0%
Centroid-so: 5.253 arcsec [8.32σ]
OotOffset-rm: 4.370 arcsec [5.98σ]
KicOffset-rm: 4.370 arcsec [6.09σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 1.00 [14/14]

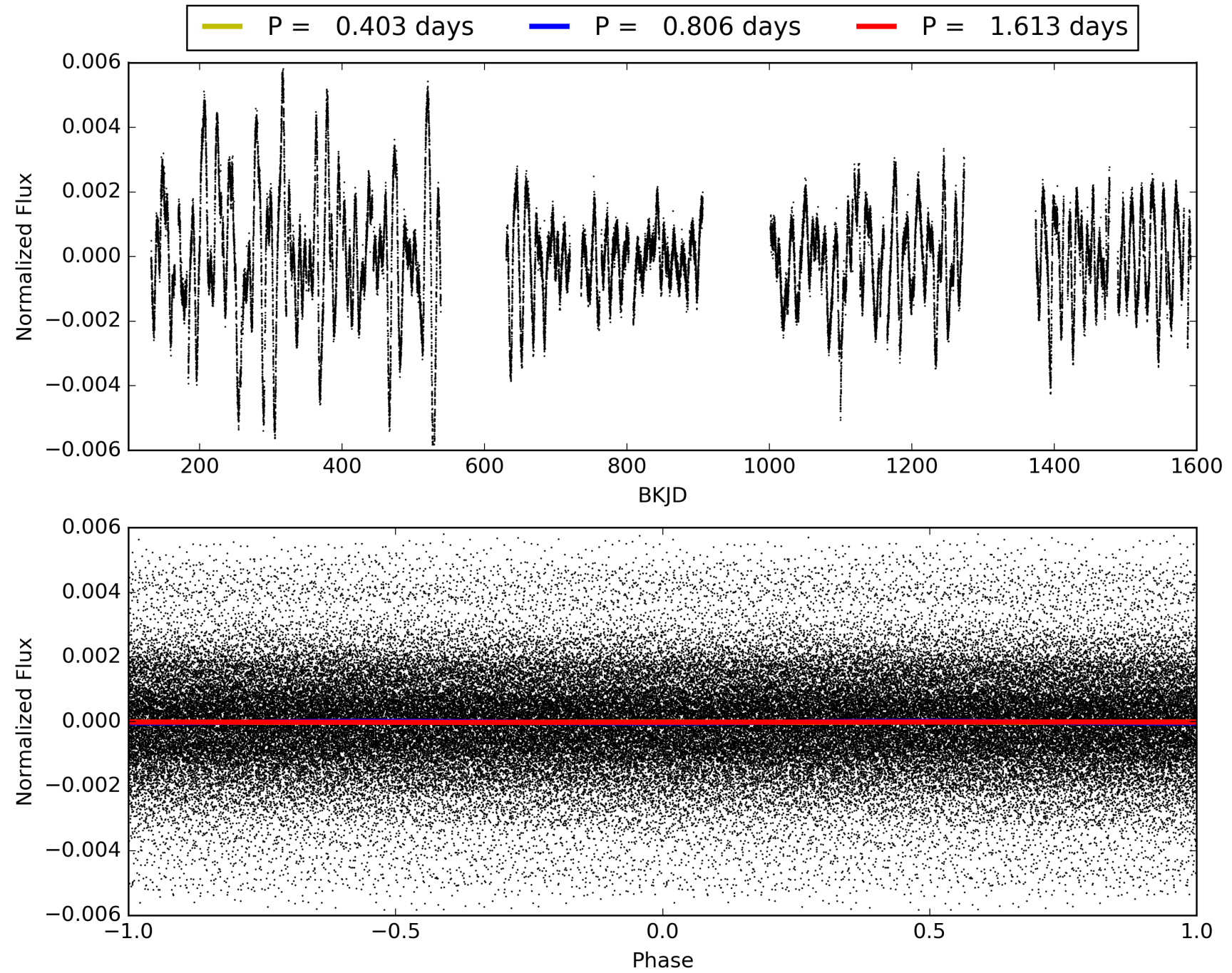
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:47:37 Z

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

TCE 004930913-01, PDC Light Curves

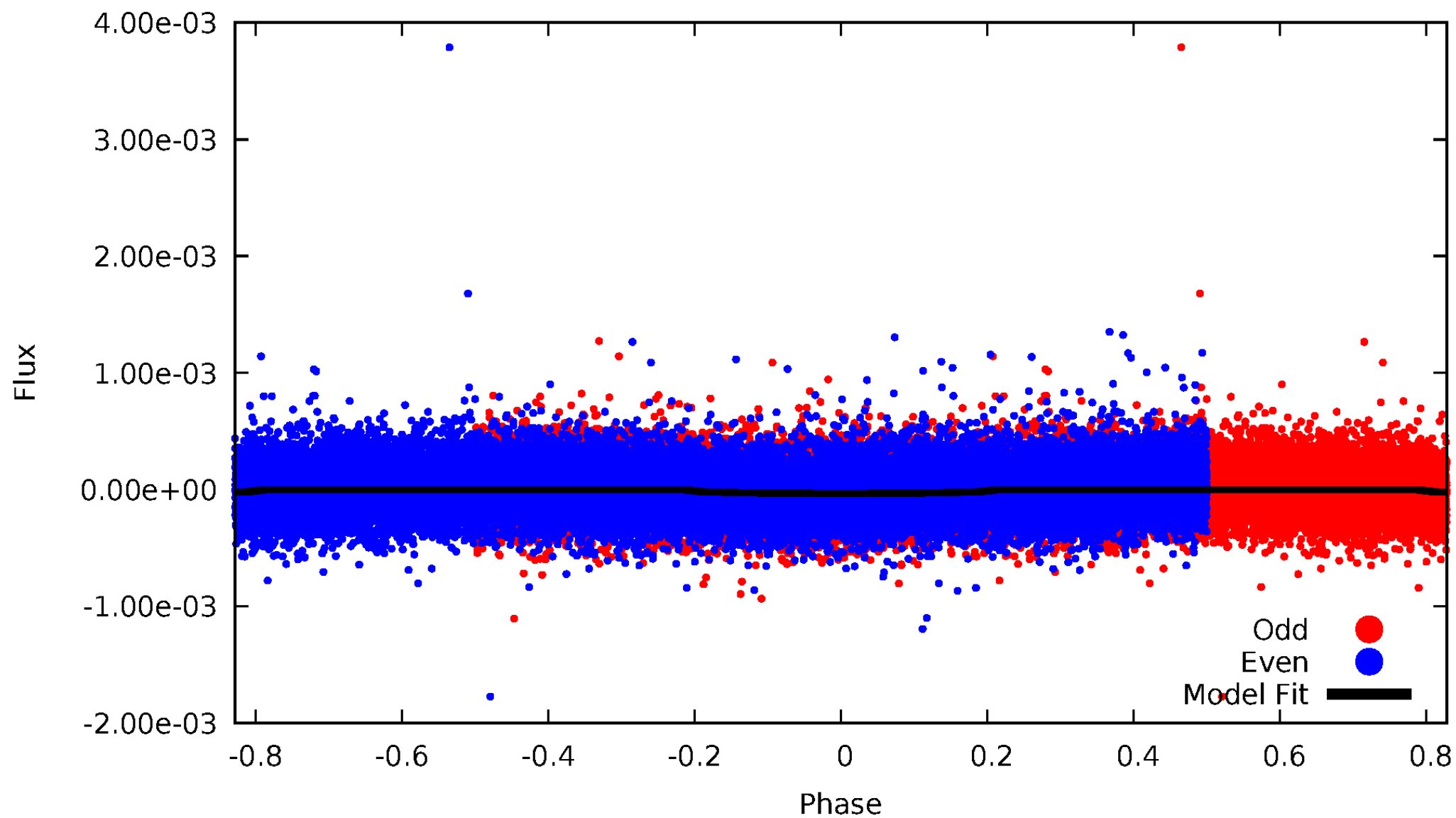


TCE 004930913-01



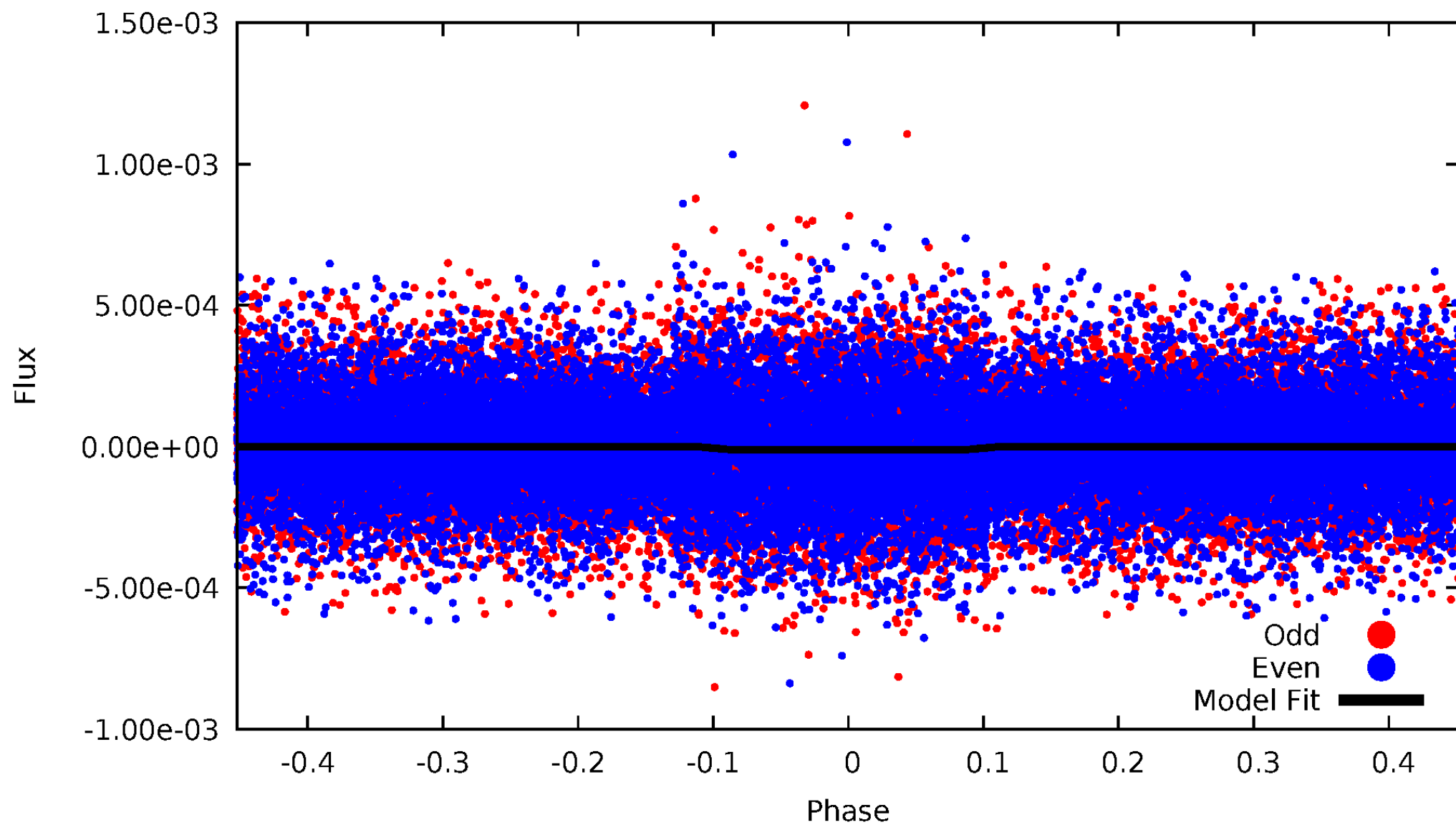
DV Odd/Even

TCE 004930913-01



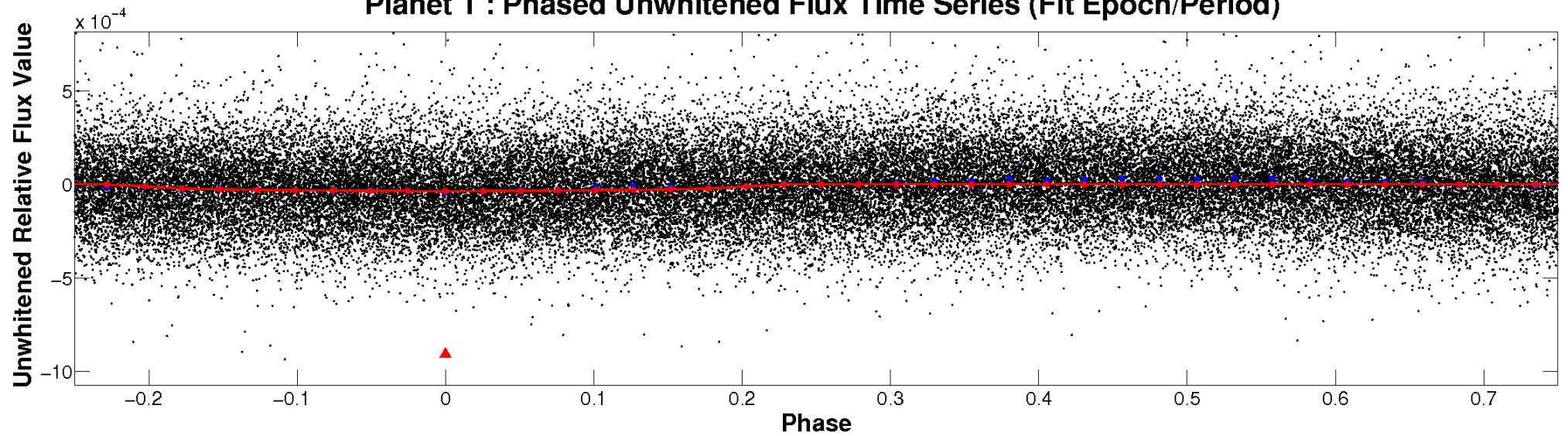
ALT Odd/Even

TCE 004930913-01

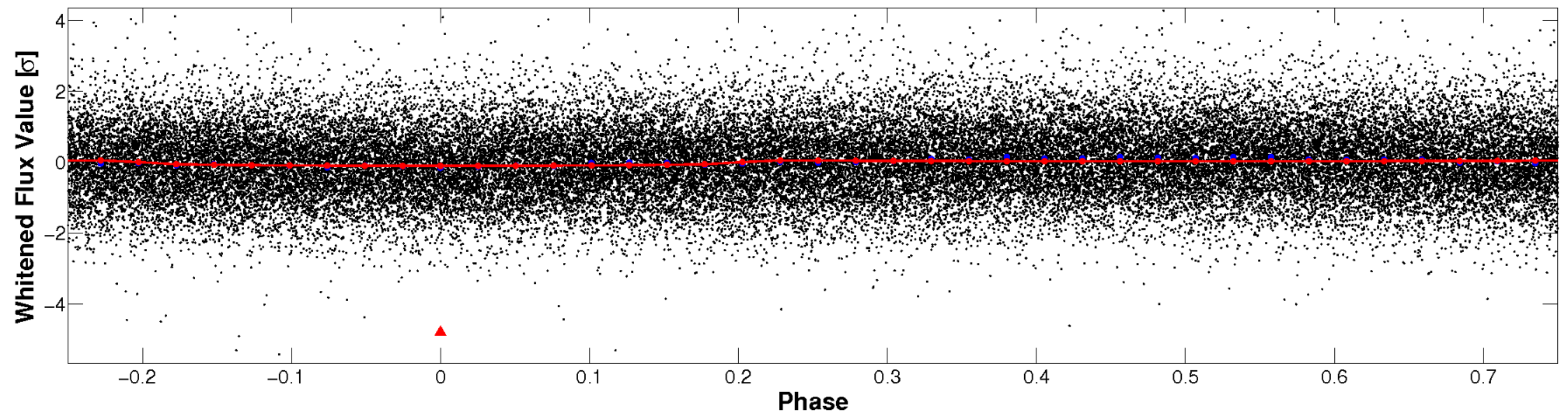


Non-Whitened Vs. Whitened Light Curve

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

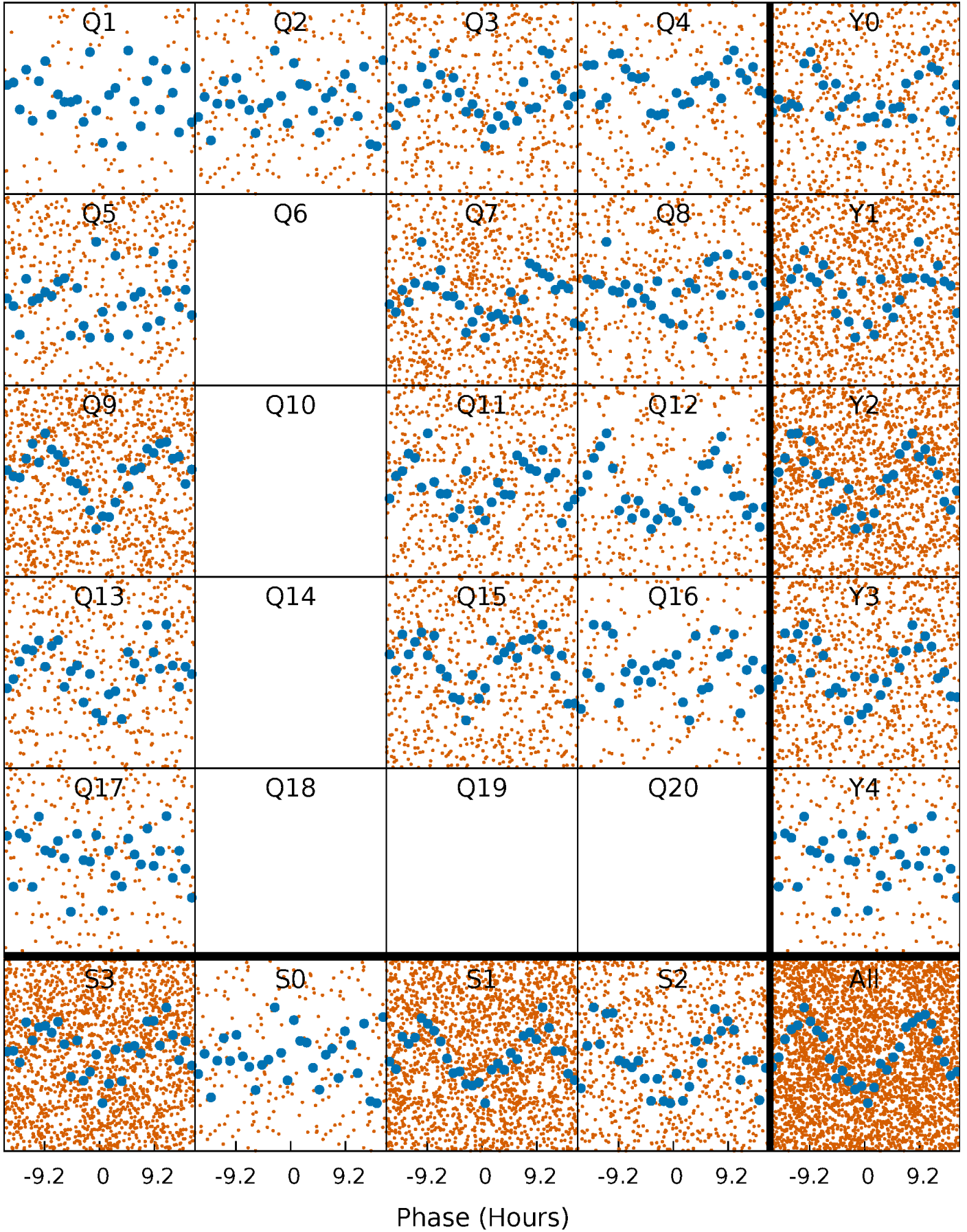


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



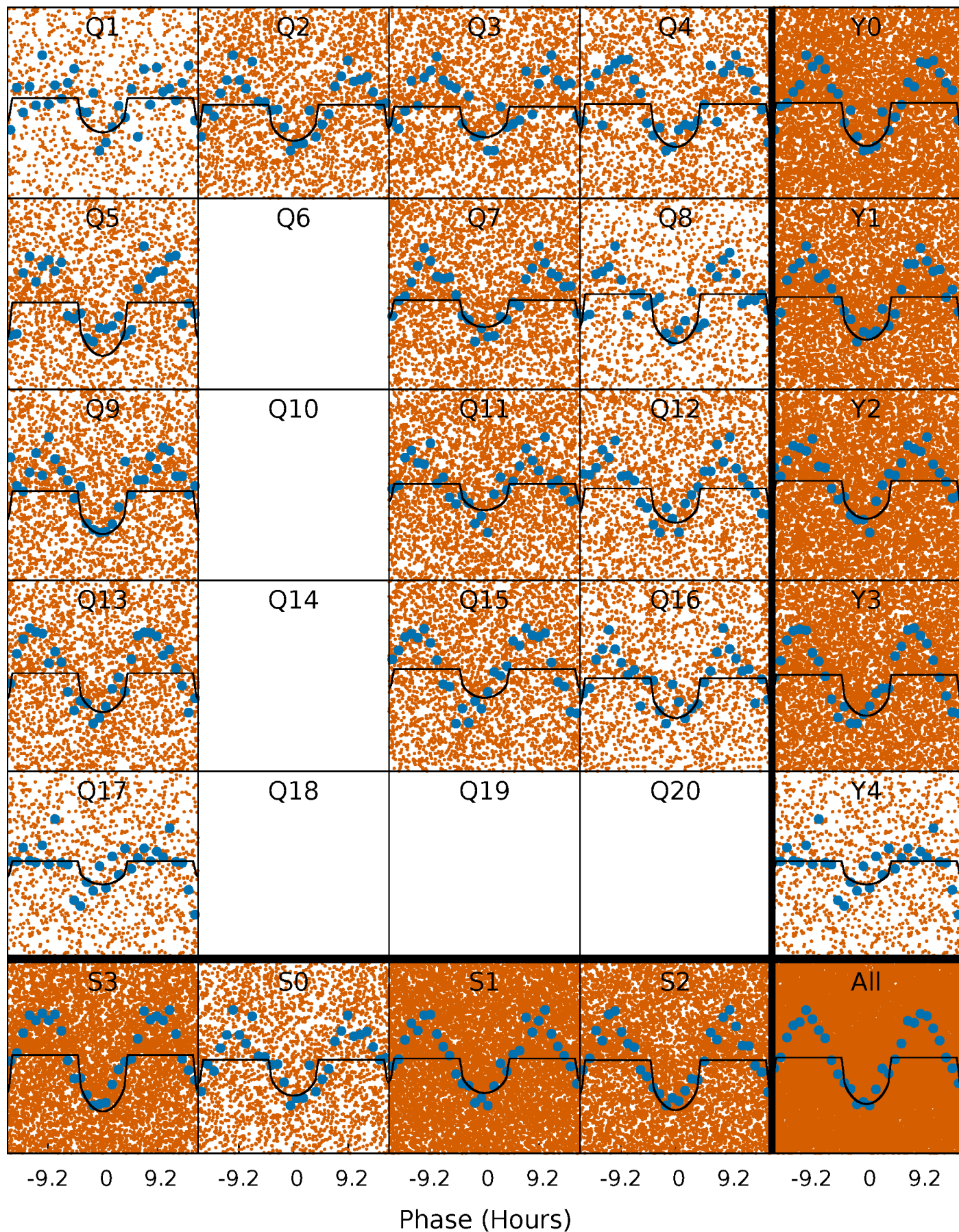
PDC Quarter-Phased Transit Curves

TCE 004930913-01 P= 0.806429 Days $T_0=132.022922$ (BKJD)



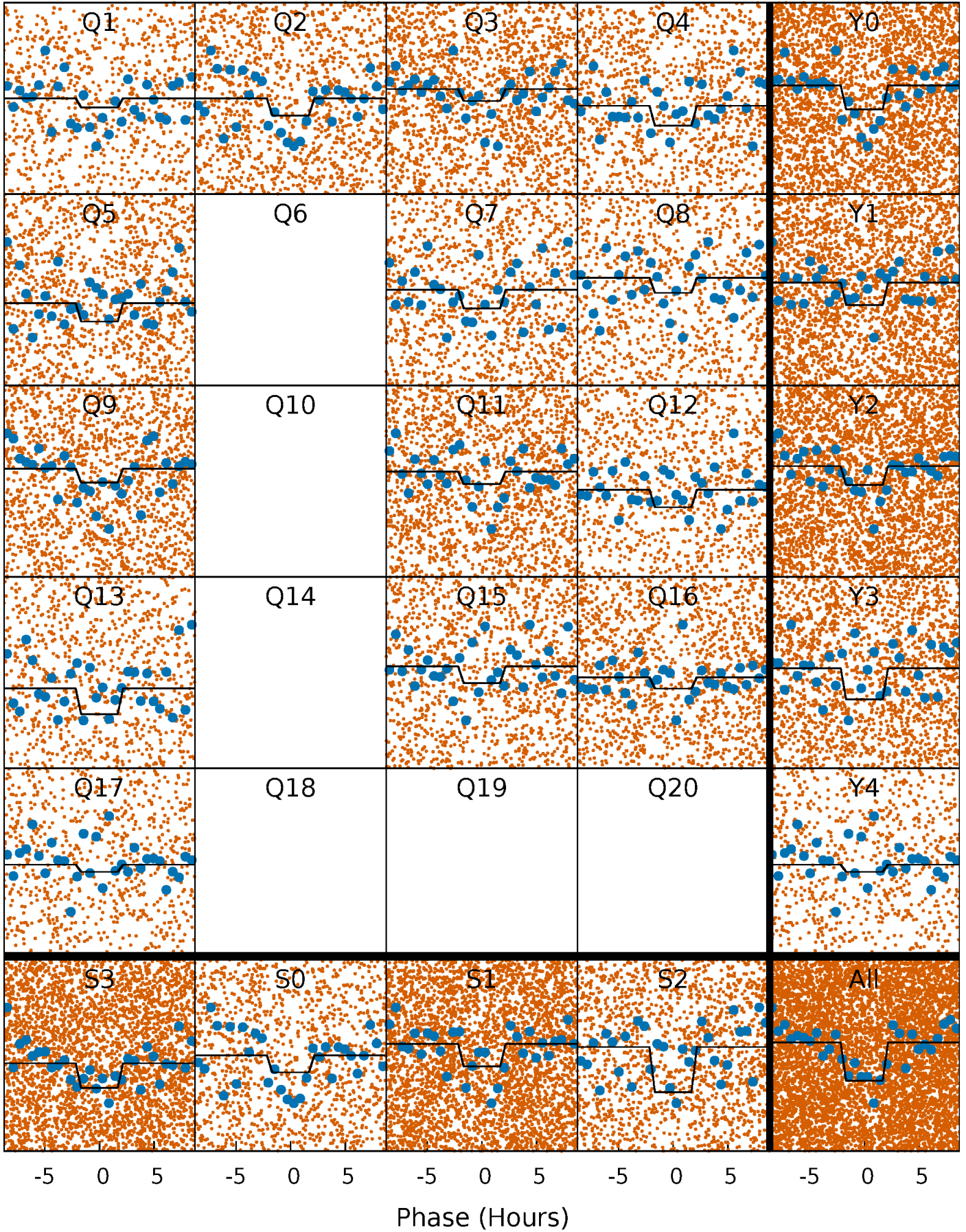
DV Quarter-Phased Transit Curves

TCE 004930913-01 P= 0.806429 Days $T_0=132.022922$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

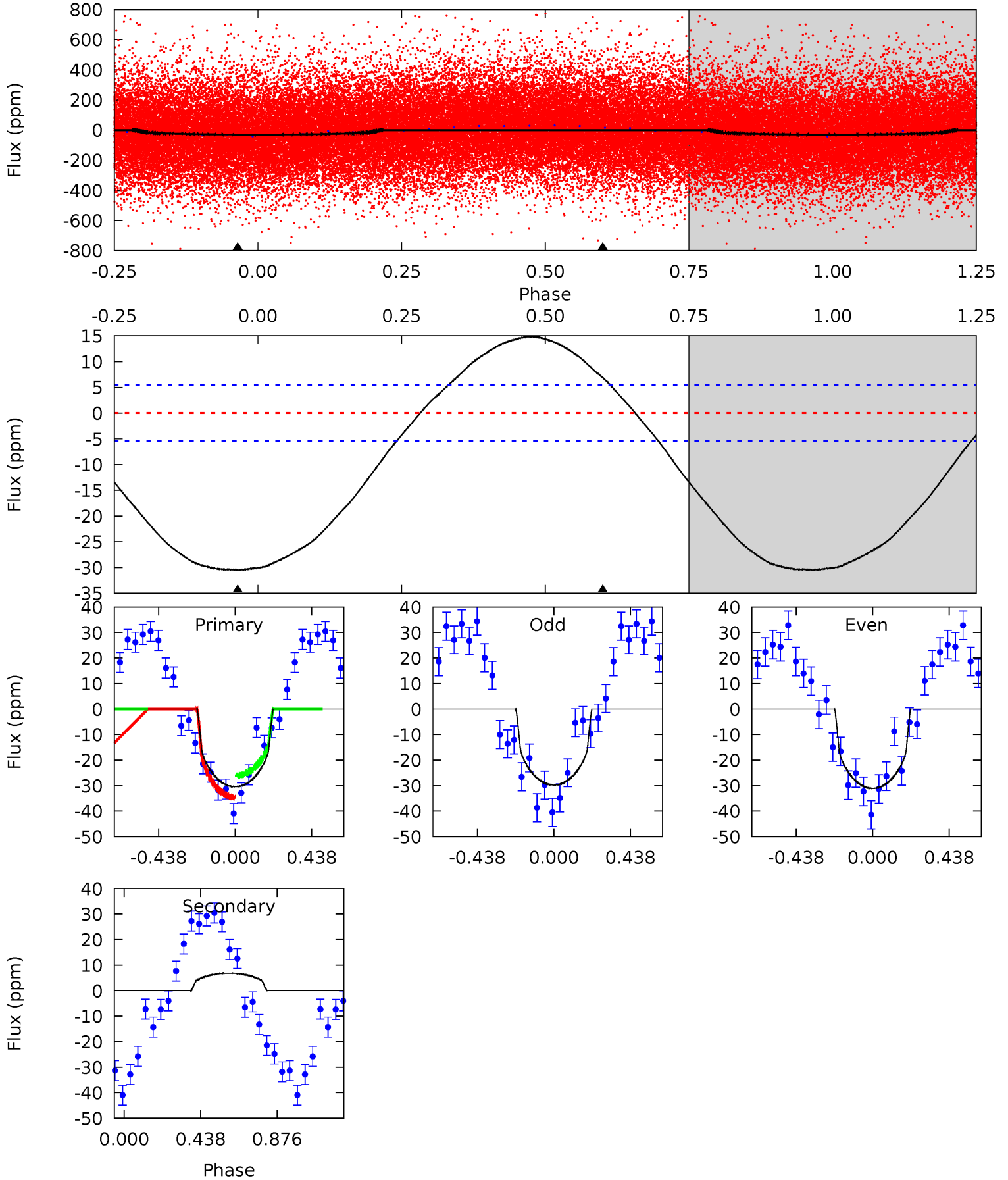
TCE 004930913-01 P= 0.806382 Days $T_0=132.033990$ (BKJD)



DV Model-Shift Uniqueness Test

004930913-01, P = 0.806429 Days, E = 131.216493 Days

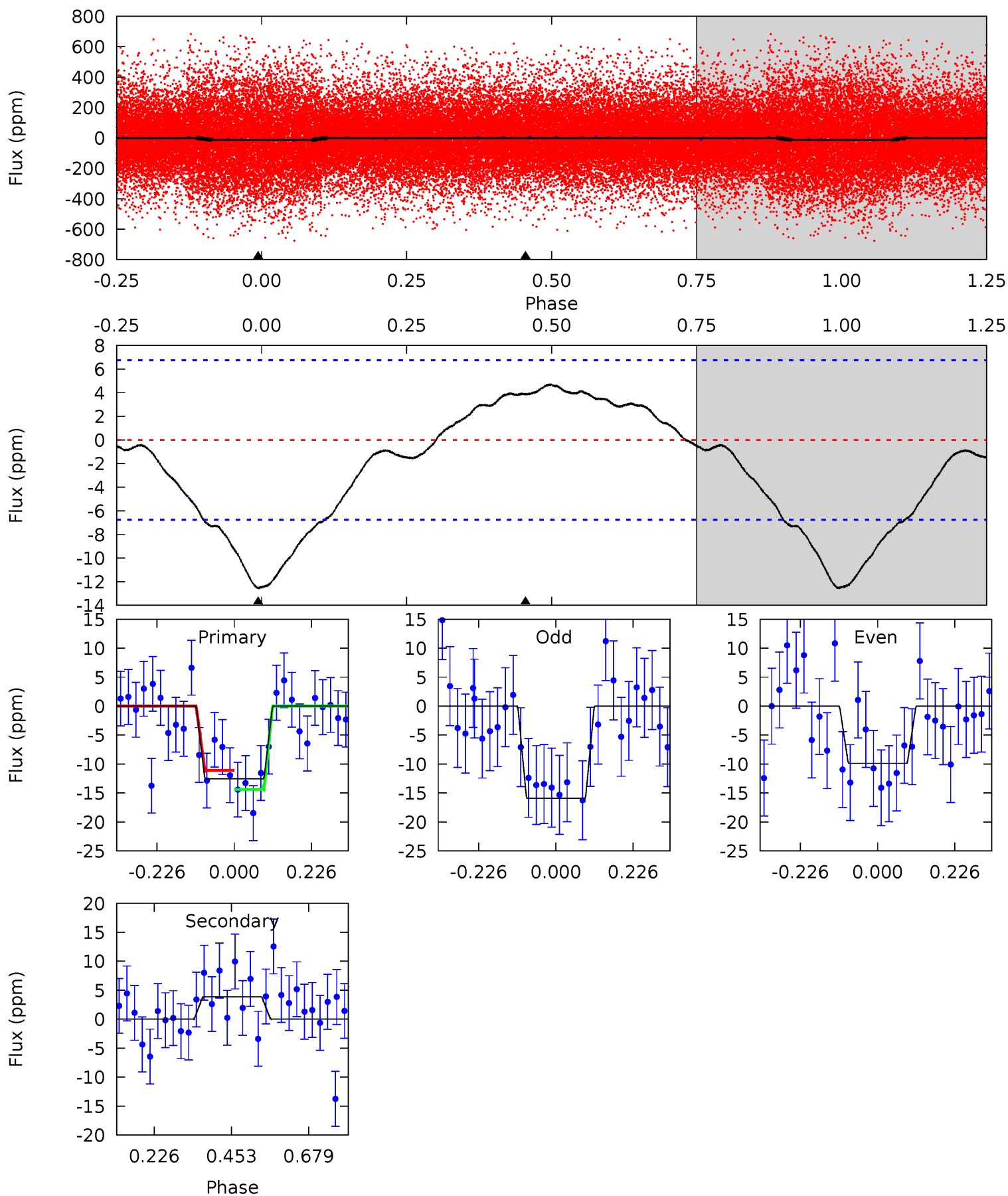
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.8	-5.37	0	0	4.24	0.78	2.82	23.8	23.8	-5.37	-5.37	0.51	1.06	0.33	3.37



Alt Model-Shift Uniqueness Test

004930913-01, P = 0.806382 Days, E = 131.227608 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.16	-2.50	0	0	4.39	1.21	0.62	8.16	8.16	-2.50	-2.50	1.97	0.89	0.27	1.09



Stellar Parameters For KIC 004930913

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5726^{+77}_{-77}	$4.346^{+0.132}_{-0.108}$	$-0.120^{+0.150}_{-0.150}$	$1.055^{+0.148}_{-0.134}$	$0.901^{+0.072}_{-0.046}$	$1.079^{+0.598}_{-0.326}$
	+1%/-1%	+3%/-2%	+125%/-125%	+14%/-13%	+8%/-5%	+55%/-30%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004930913-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	7 ± 1	$0.63^{+0.35}_{-0.34}$	2826^{+112}_{-133}	-4302^{+560}_{-1498}	$-2.561^{+1.537}_{-9.320}$
Alt.	4 ± 2	$0.48^{+0.32}_{-0.29}$	2830^{+115}_{-119}	-4254^{+674}_{-1823}	$-2.403^{+1.708}_{-12.036}$

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

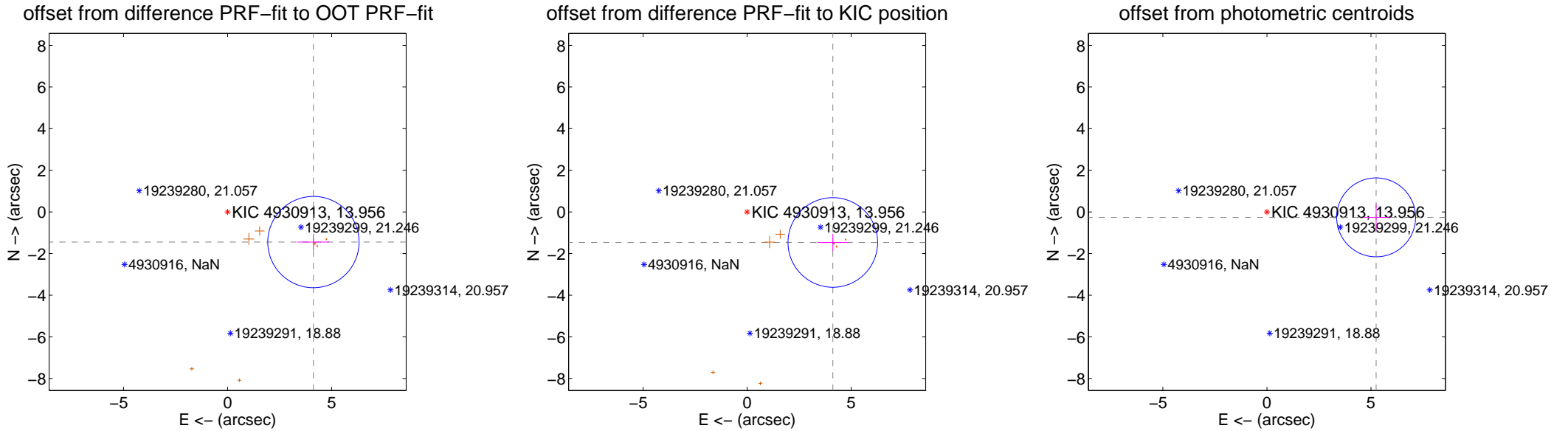
DV Centroid Data

Supplemental centroid analysis for 004930913-01. Kepler magnitude: 13.96. Transit SNR 13.79

There are 0 quarters with good PRF difference image offsets

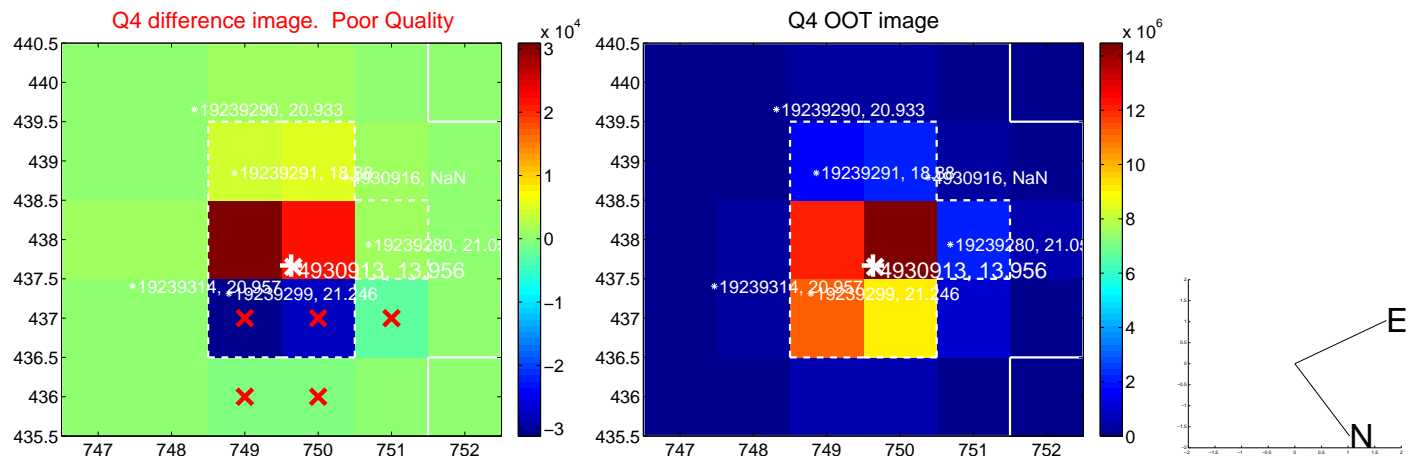
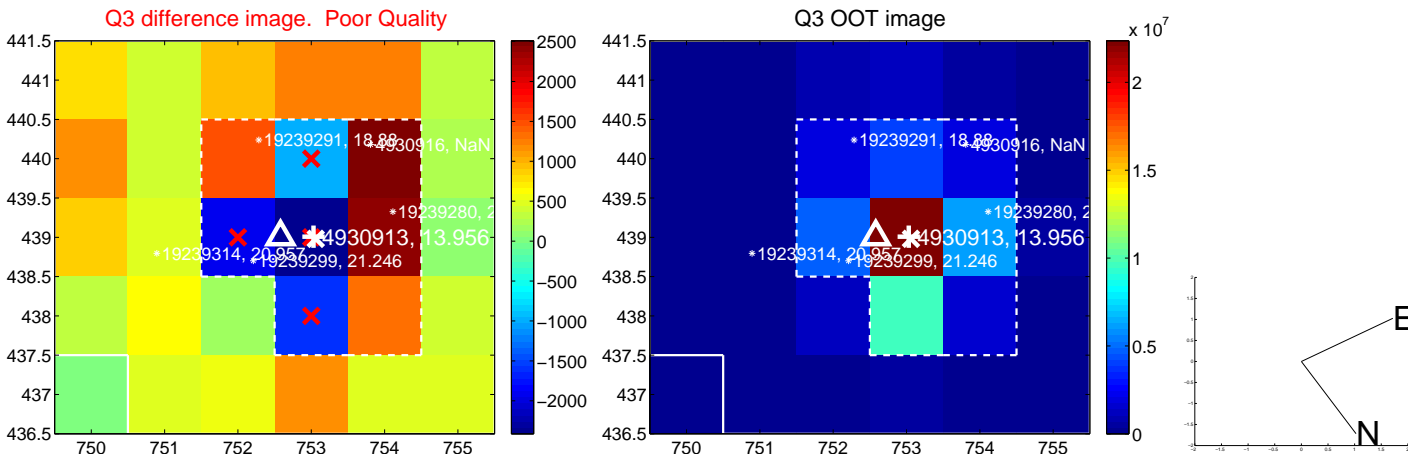
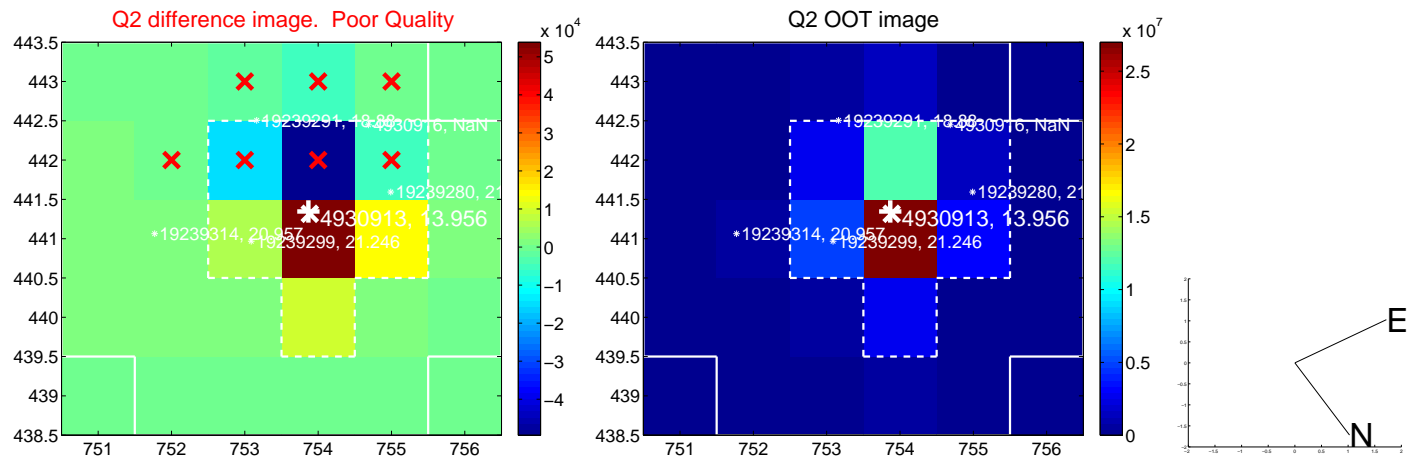
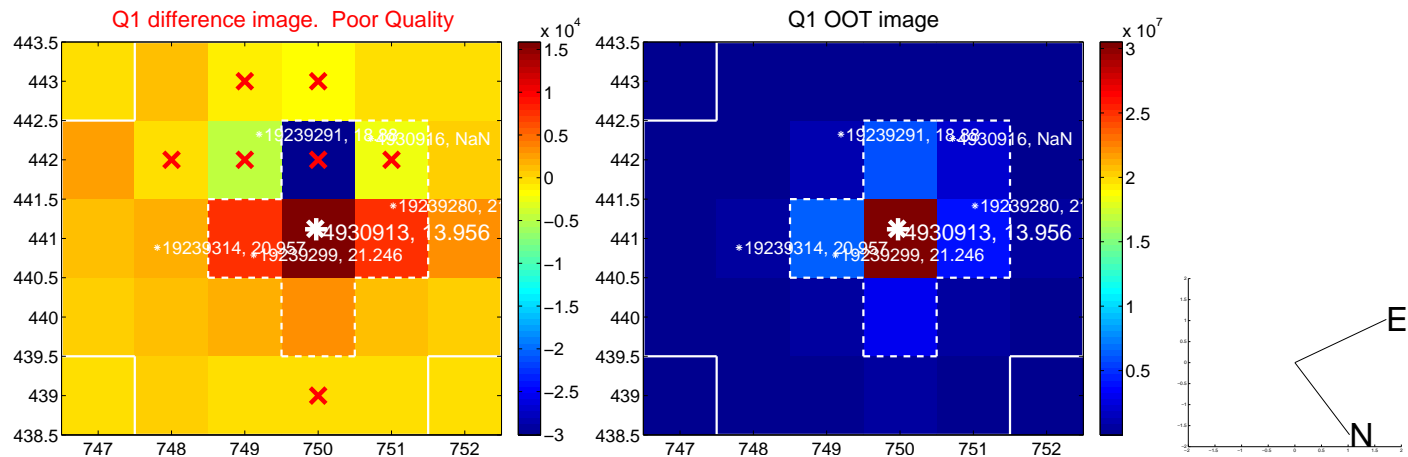
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.370 ± 0.731	5.98	-4.123 ± 0.762	-1.447 ± 0.401
PRF-fit source offset from KIC position	4.370 ± 0.717	6.09	-4.117 ± 0.748	-1.466 ± 0.407
photometric centroid source offset	5.25 ± 0.63	8.32	-5.25 ± 0.63	-0.26 ± 0.63

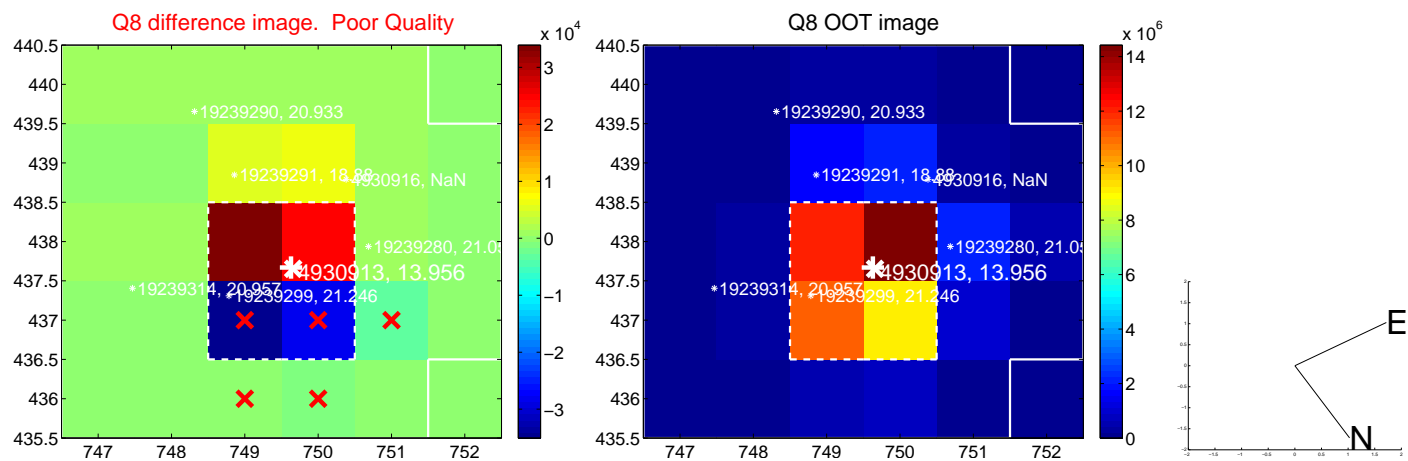
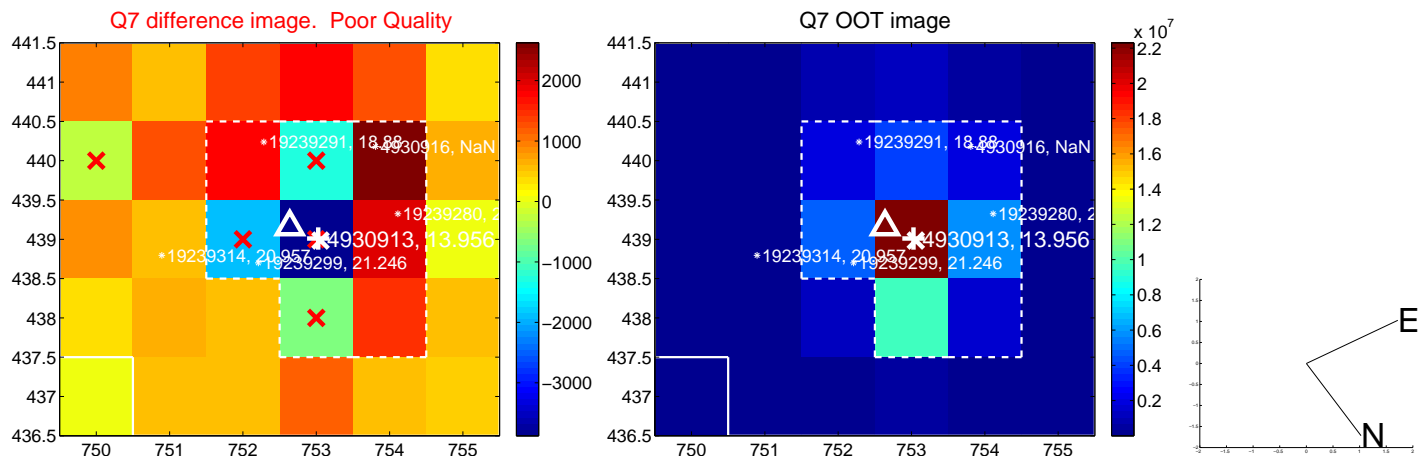
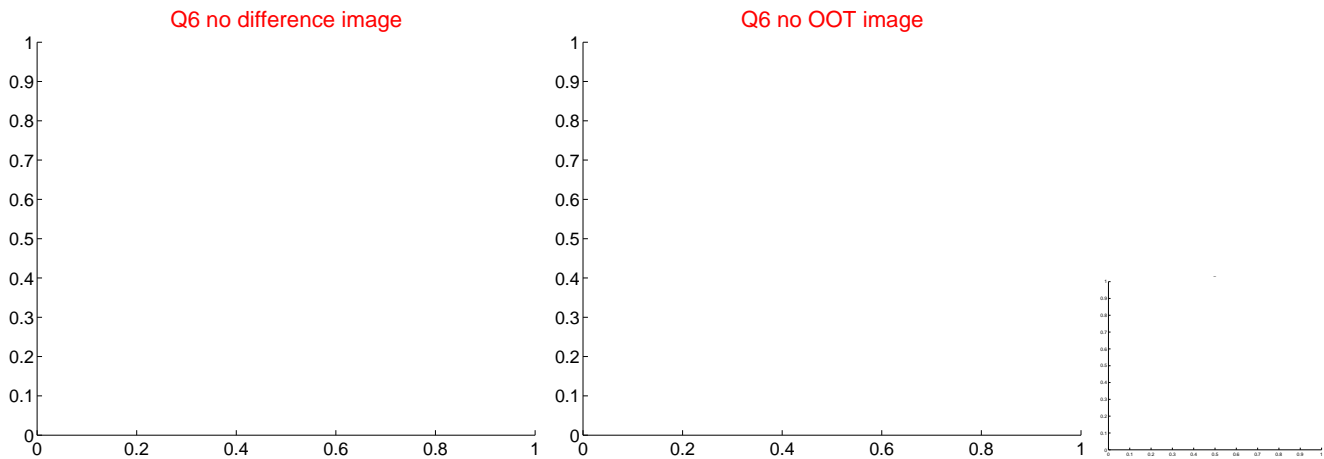
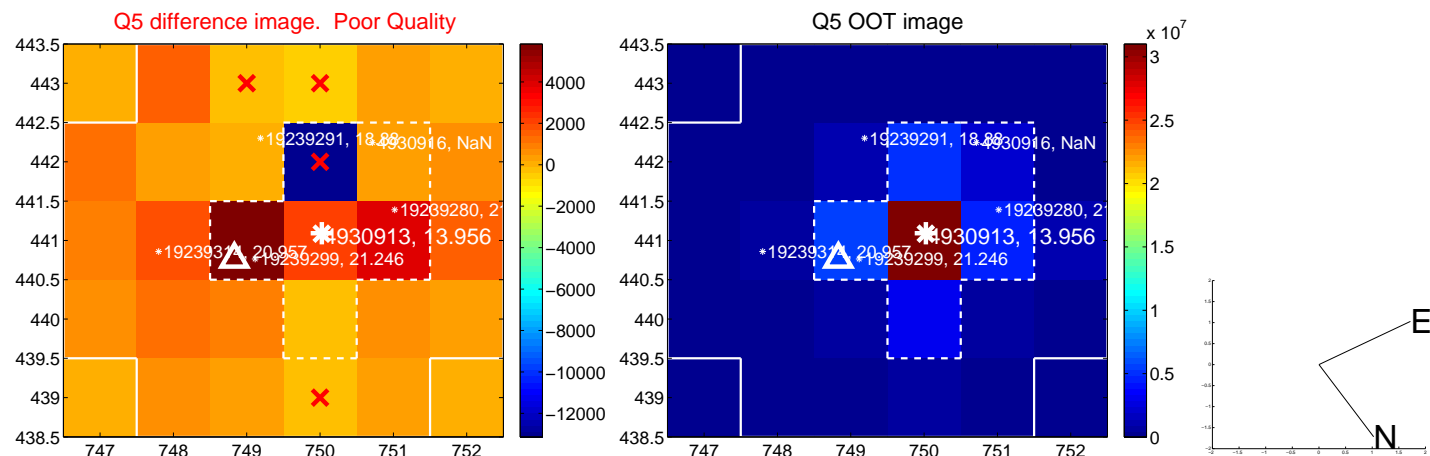


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

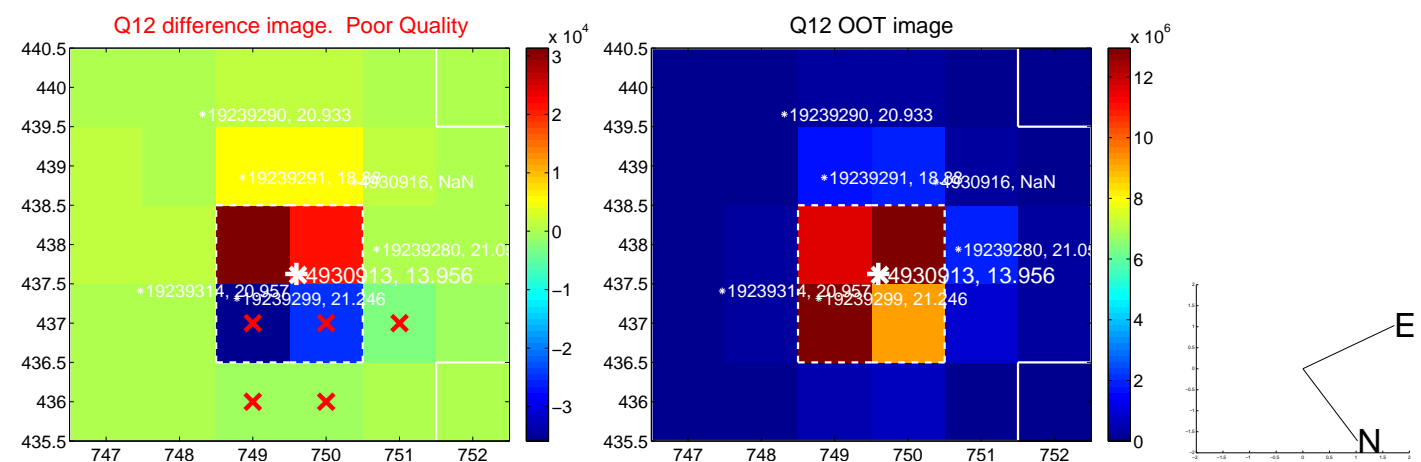
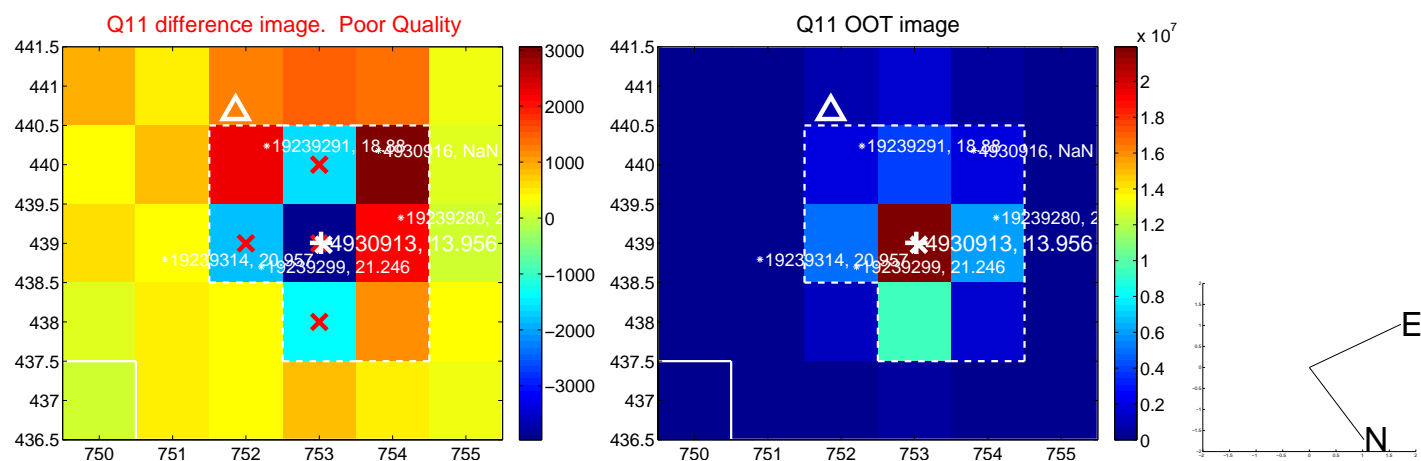
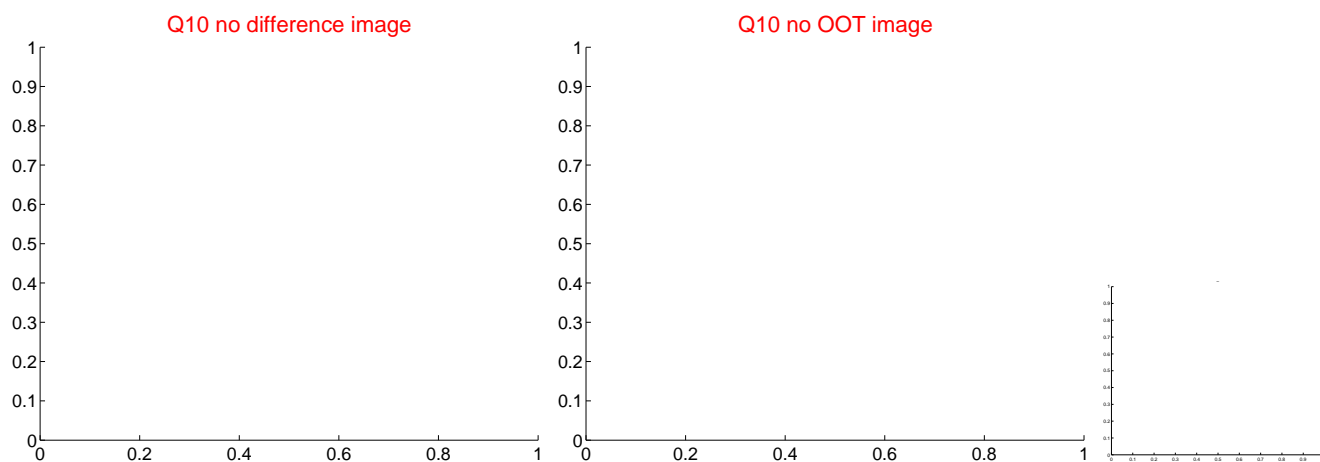
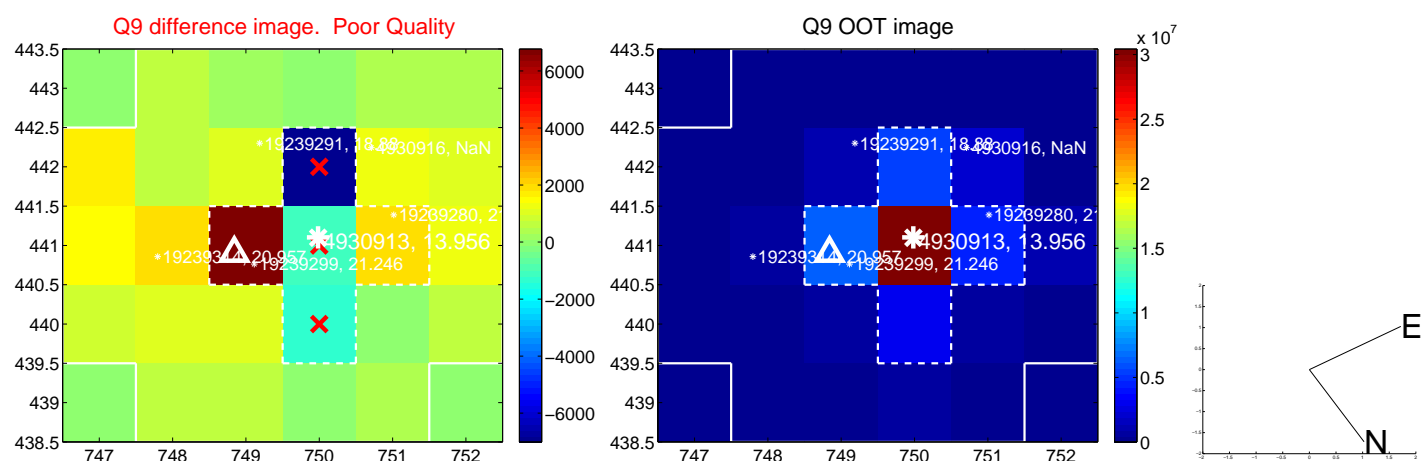
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



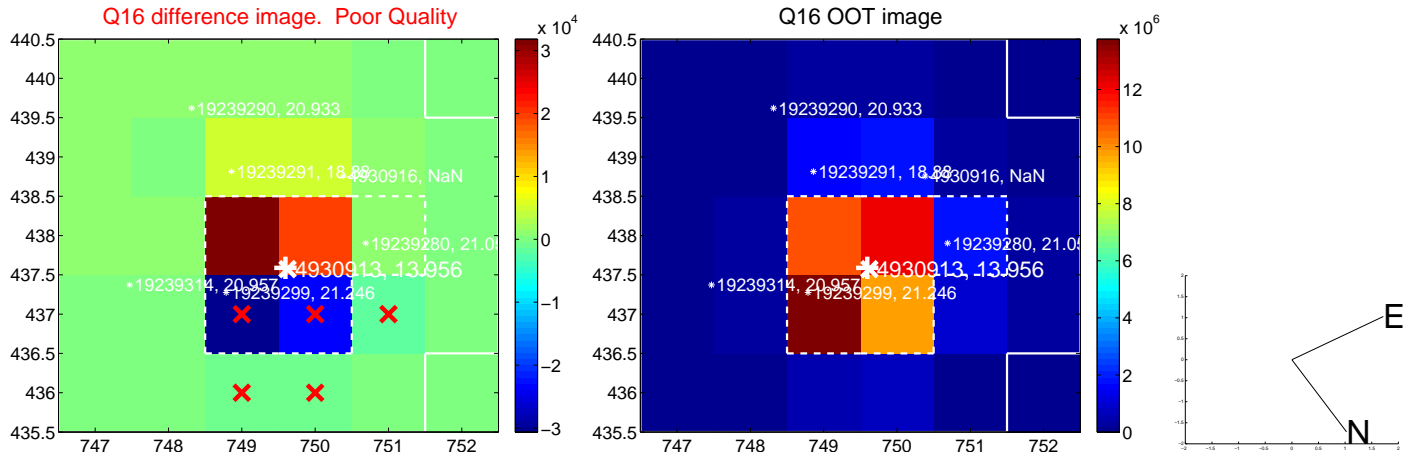
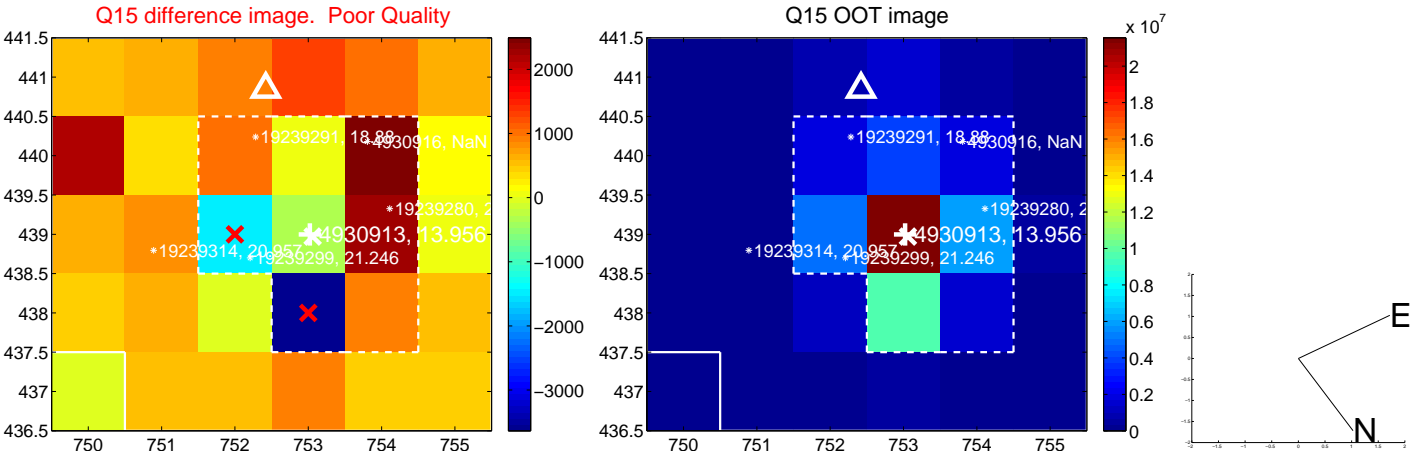
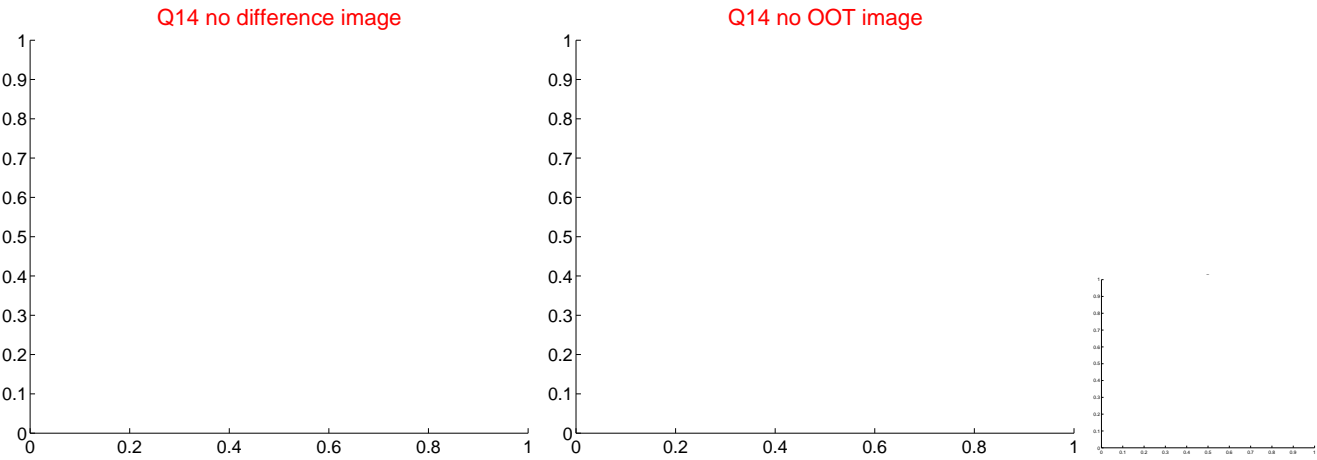
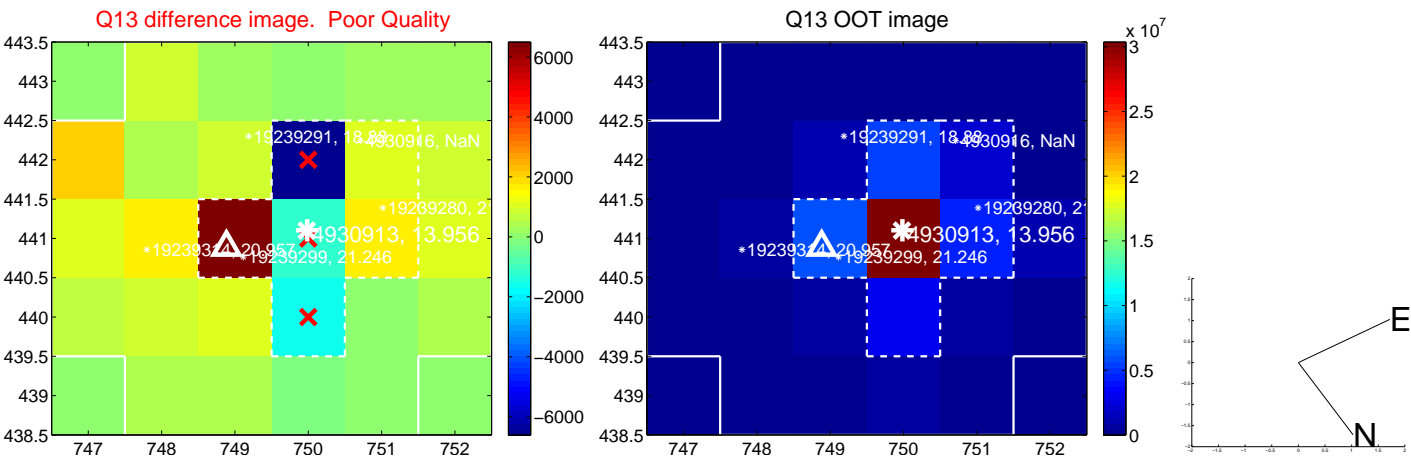
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



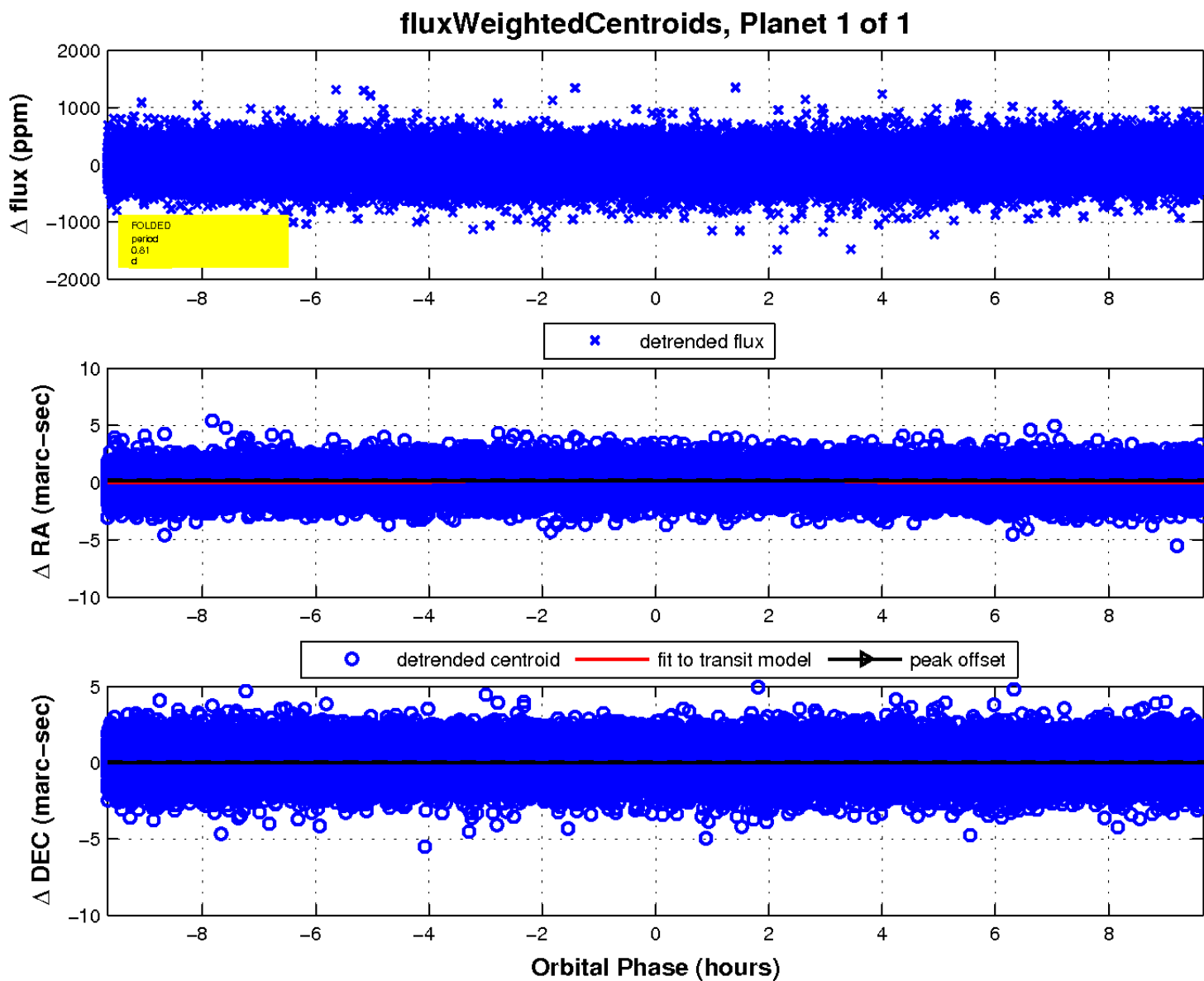
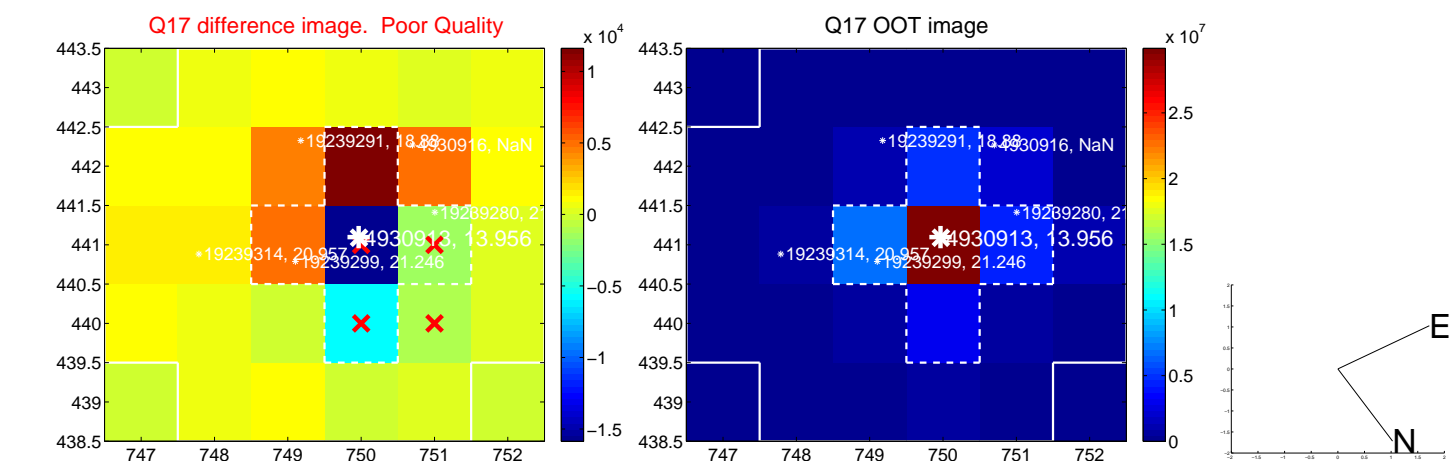
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UKIRT Image

Declination

