

KIC 008013289

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})
008013289-01	OBS	6952.01	10.645218	140.288393	76.4	43.682	10.4	18.8	1.47	5930	1.95	275.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008013289-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

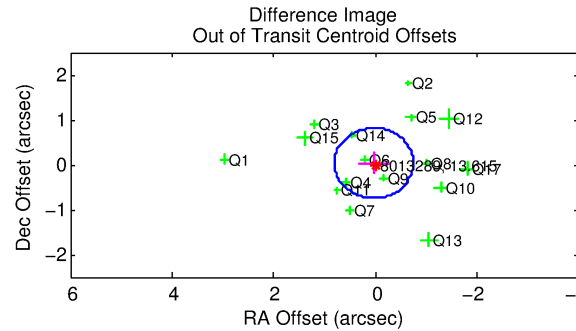
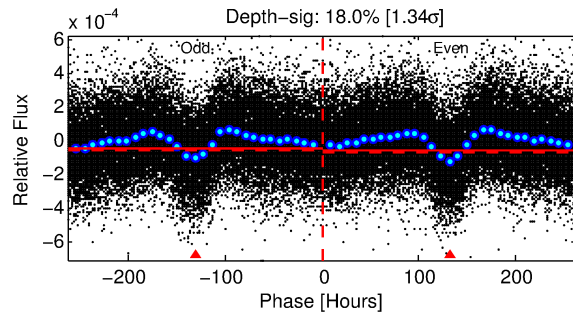
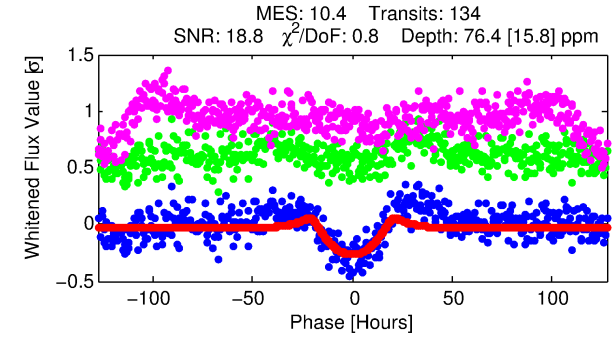
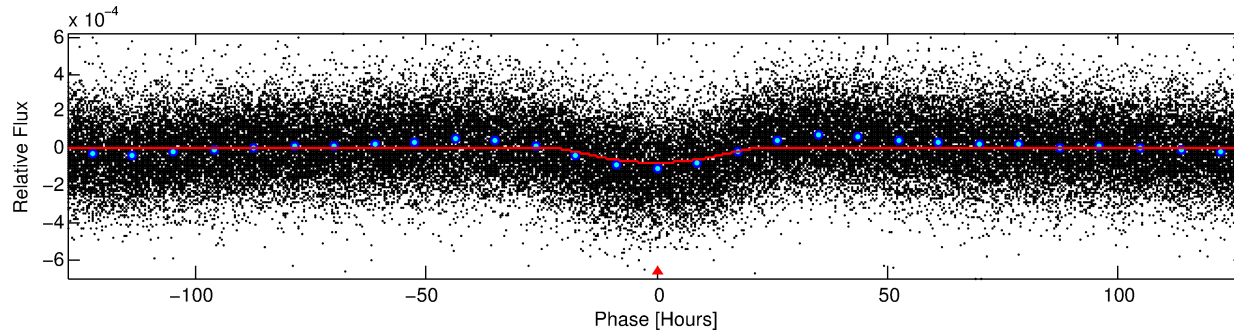
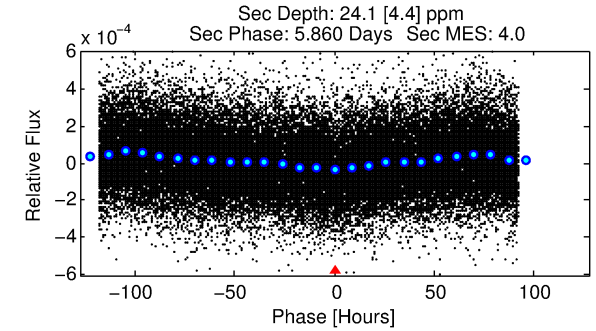
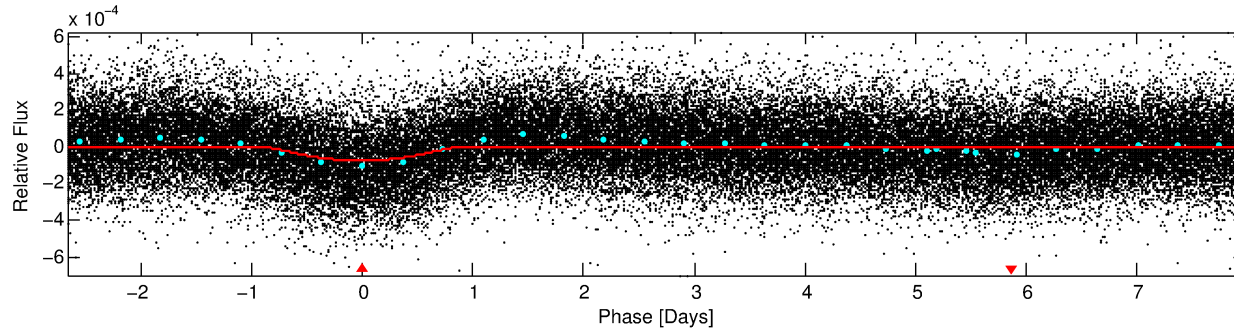
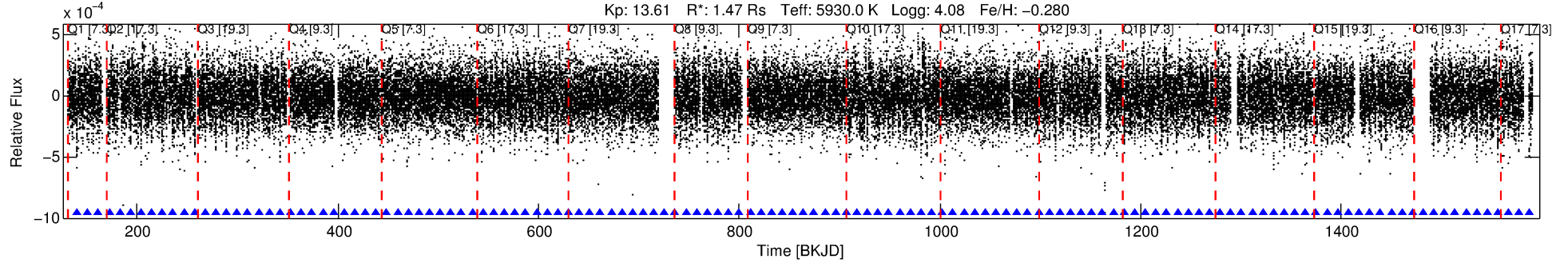
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008013289-01

No Significant Match Found

DV One-Page Summary

KIC: 8013289 Candidate: 1 of 1 Period: 10.645 d
KOI: K06952.01 Corr: 0.904



DV Fit Results:

Period = 10.64522 [0.00061] d
Epoch = 140.2884 [0.0443] BKJD
Rp/R* = 0.0121 [0.0025]
a/R* = 1.07 [0.01]
b = 0.99 [0.01]
Seff = 275.24 [170.19]
Teq = 1039 [161] K
Rp = 1.95 [0.79] Re
a = 0.0935 [0.0338] AU
Ag = 30.37 [22.97] [1.28σ]
Teffp = 3770 [446] K [5.76σ]

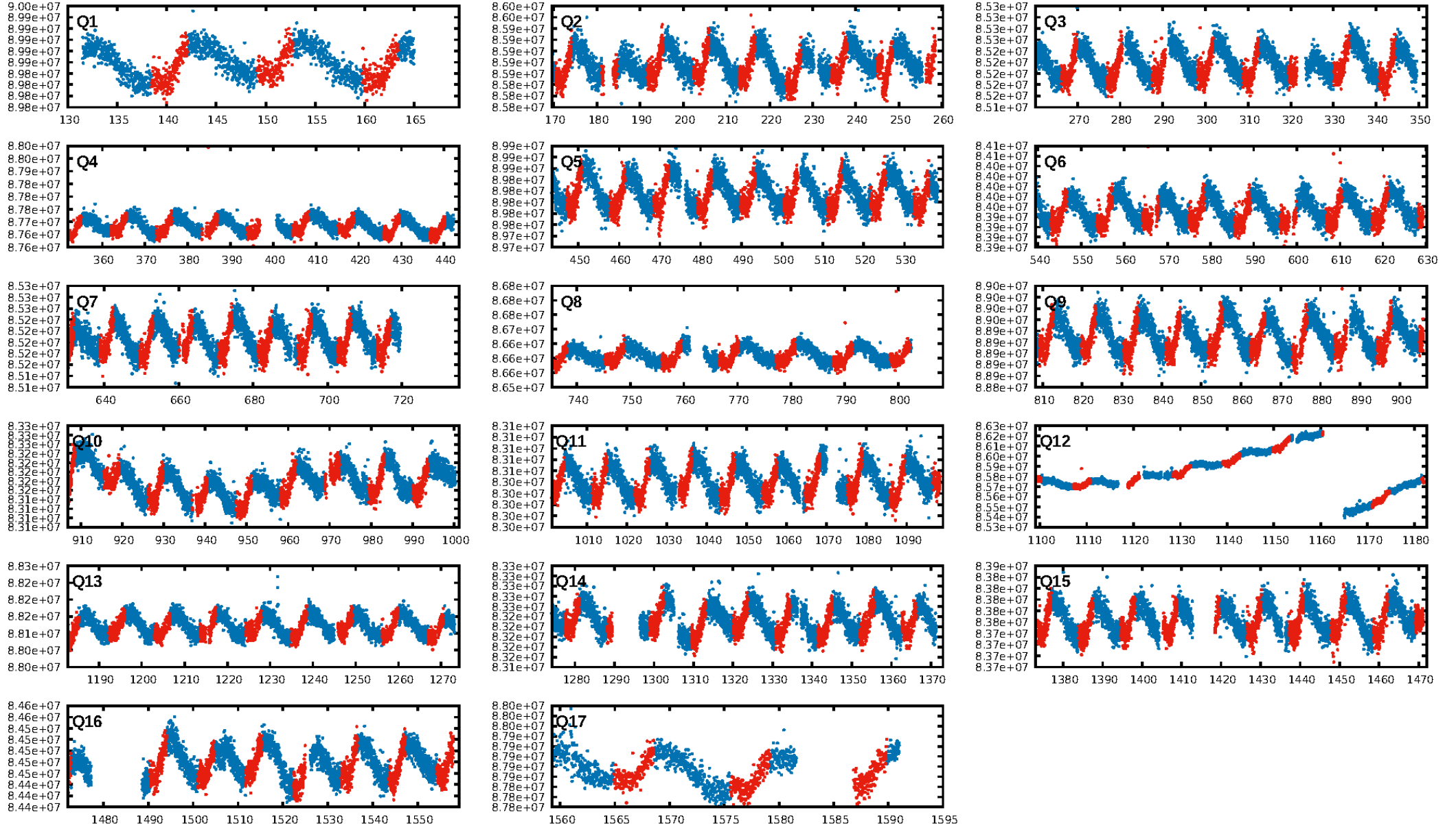
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.57e-24
RollingBand-fgt: 1.00 [128/128]
GhostDiagnostic-chr: 2.384
Centroid-sig: 0.5%
Centroid-so: 0.879 arcsec [2.19σ]
OotOffset-rm: 0.047 arcsec [0.18σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-rm: 0.218 arcsec [1.01σ]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [16/16]

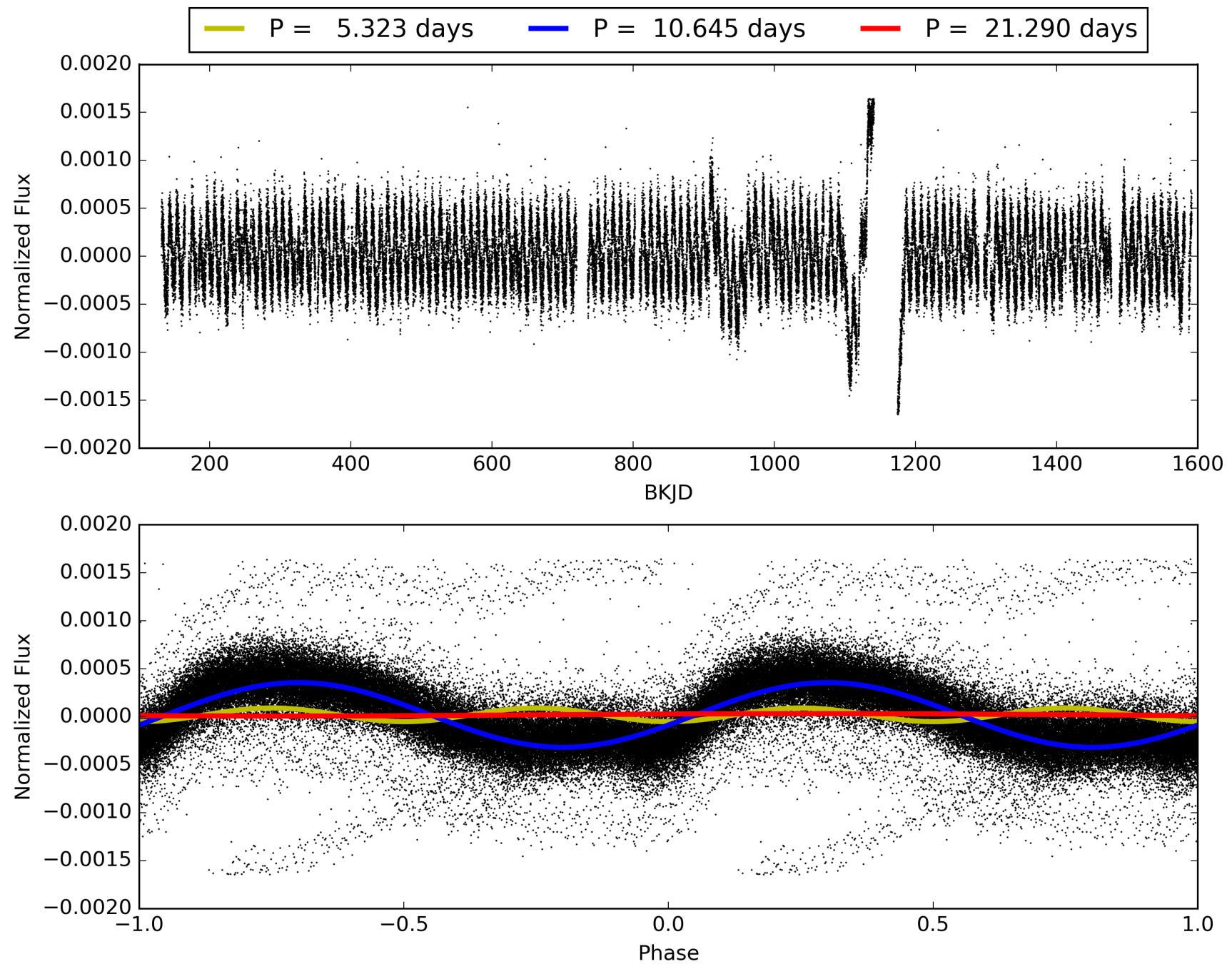
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:13:10 Z

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

TCE 008013289-01, PDC Light Curves

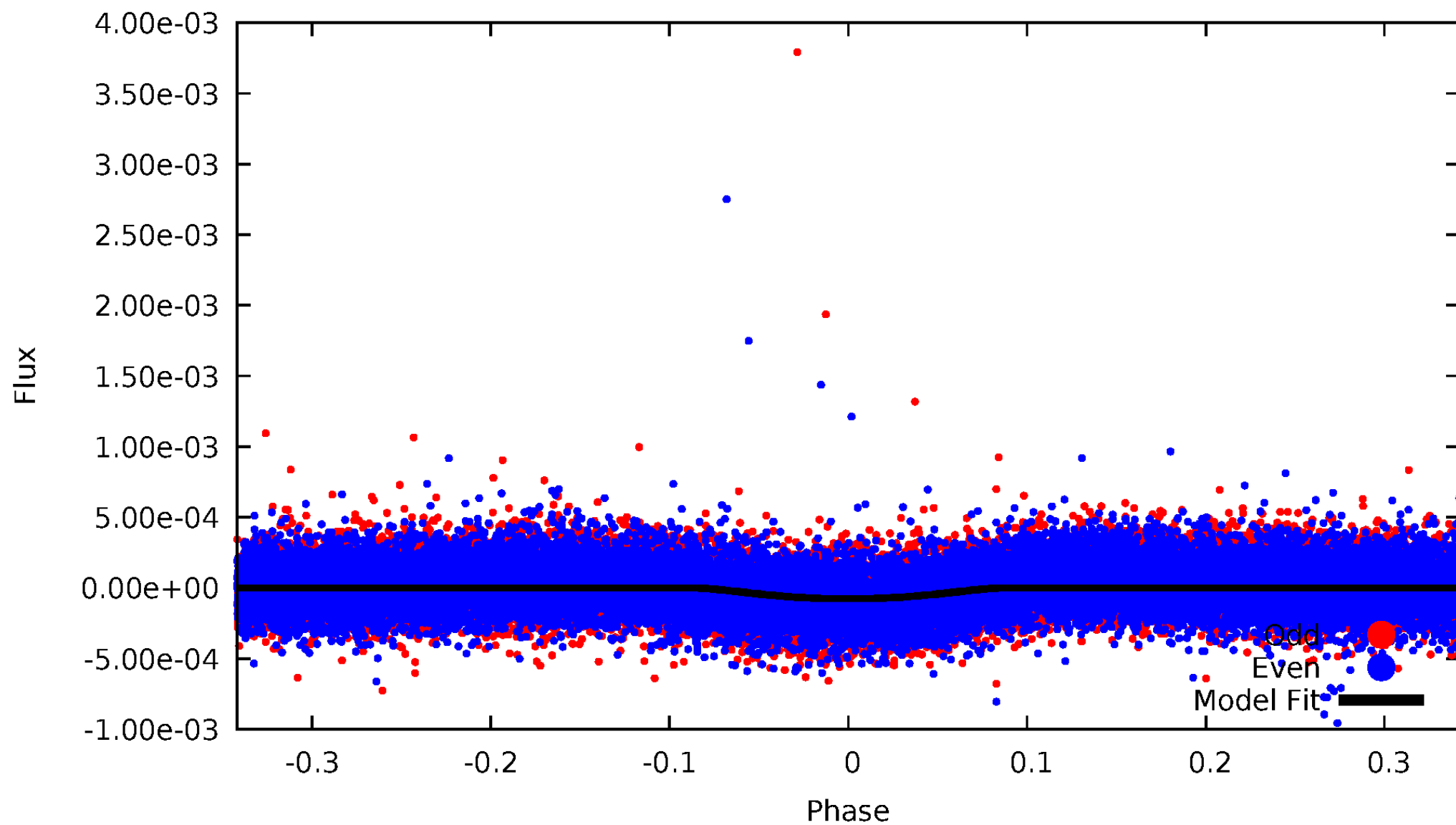


TCE 008013289-01



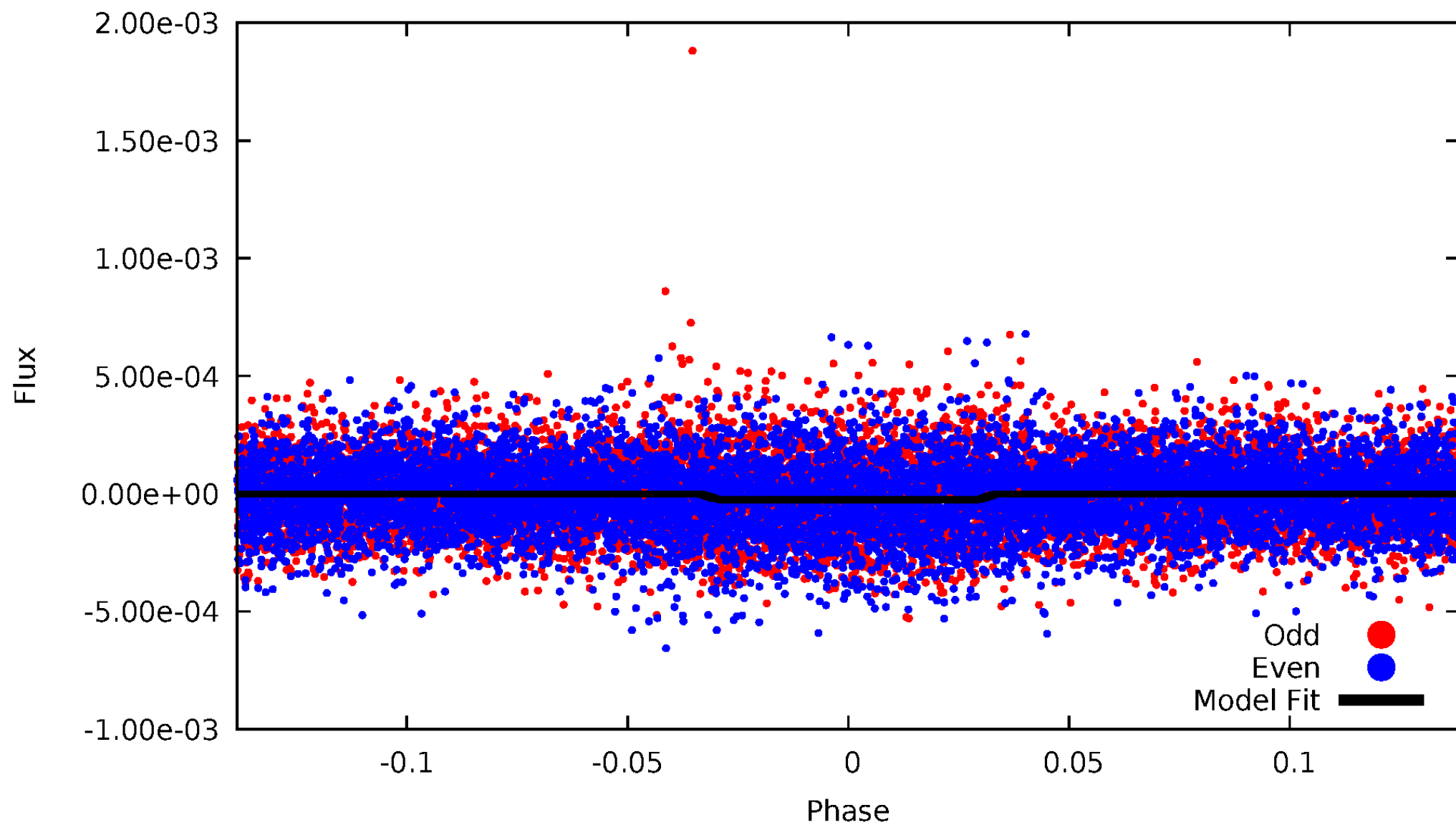
DV Odd/Even

TCE 008013289-01



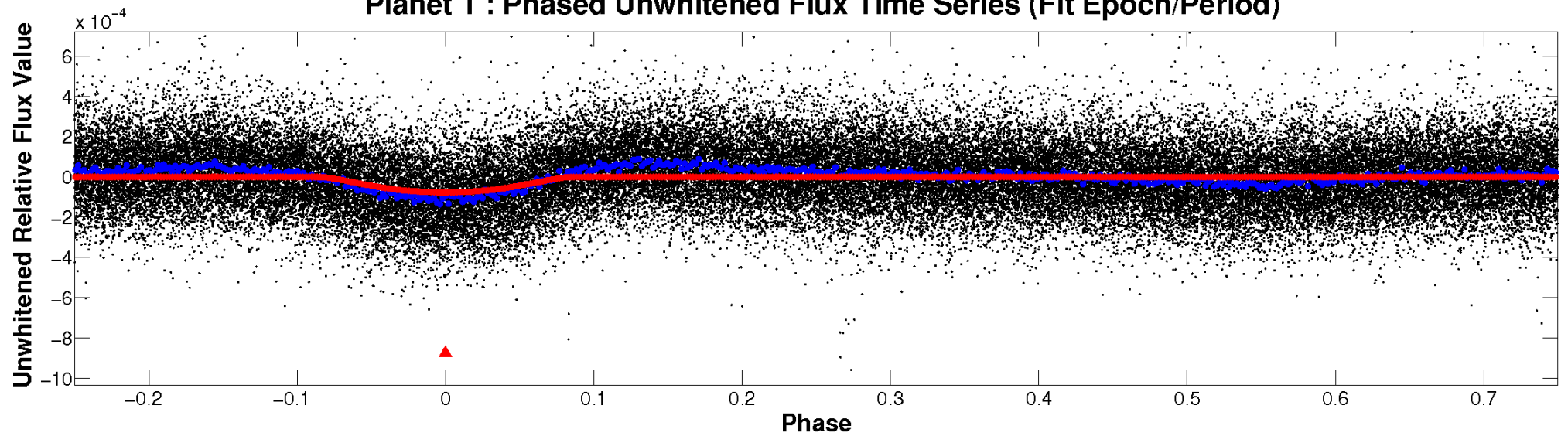
ALT Odd/Even

TCE 008013289-01

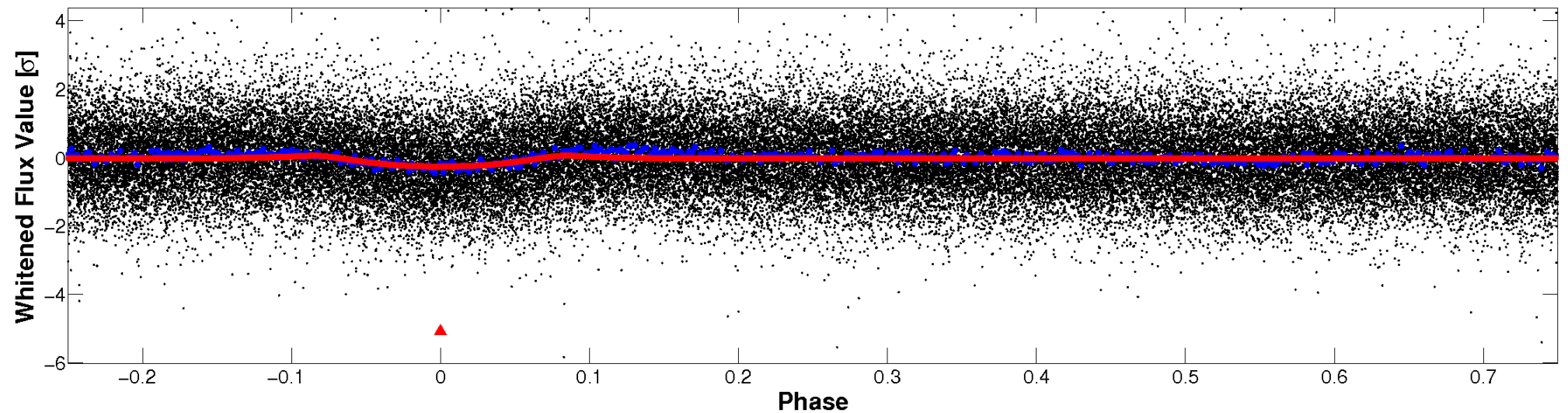


Non-Whitened Vs. Whitened Light Curve

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

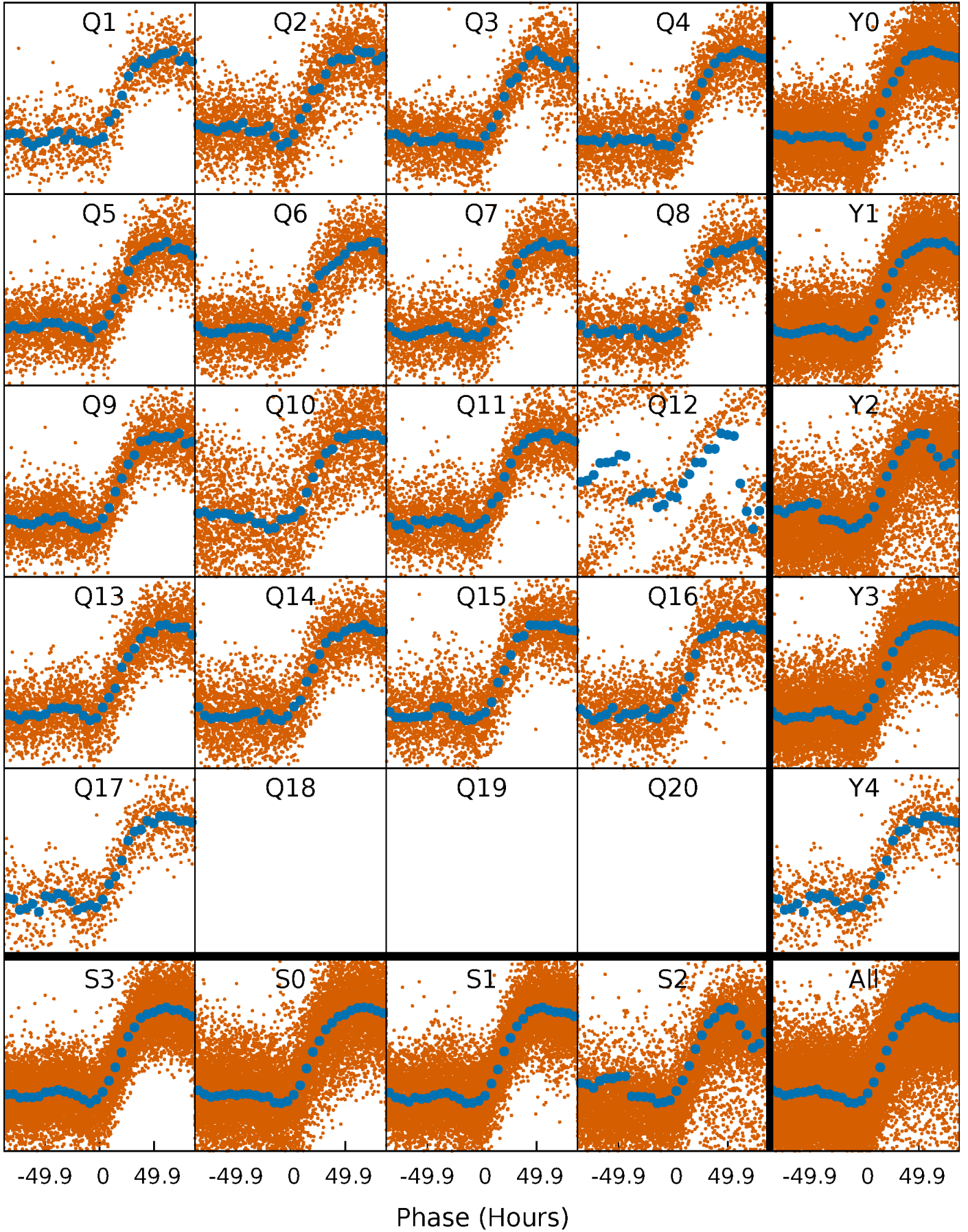


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



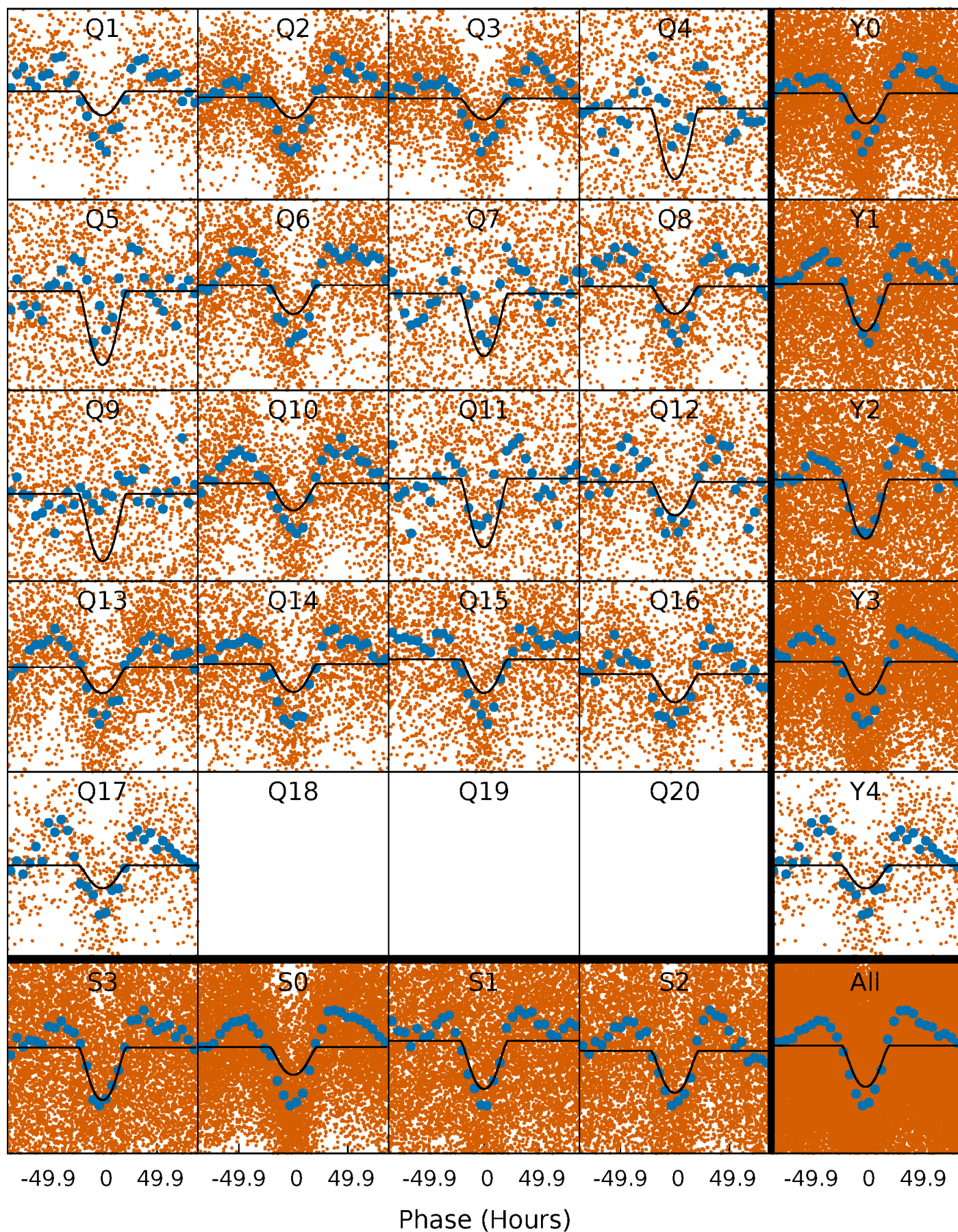
PDC Quarter-Phased Transit Curves

TCE 008013289-01 P= 10.645218 Days $T_0=140.288393$ (BKJD)



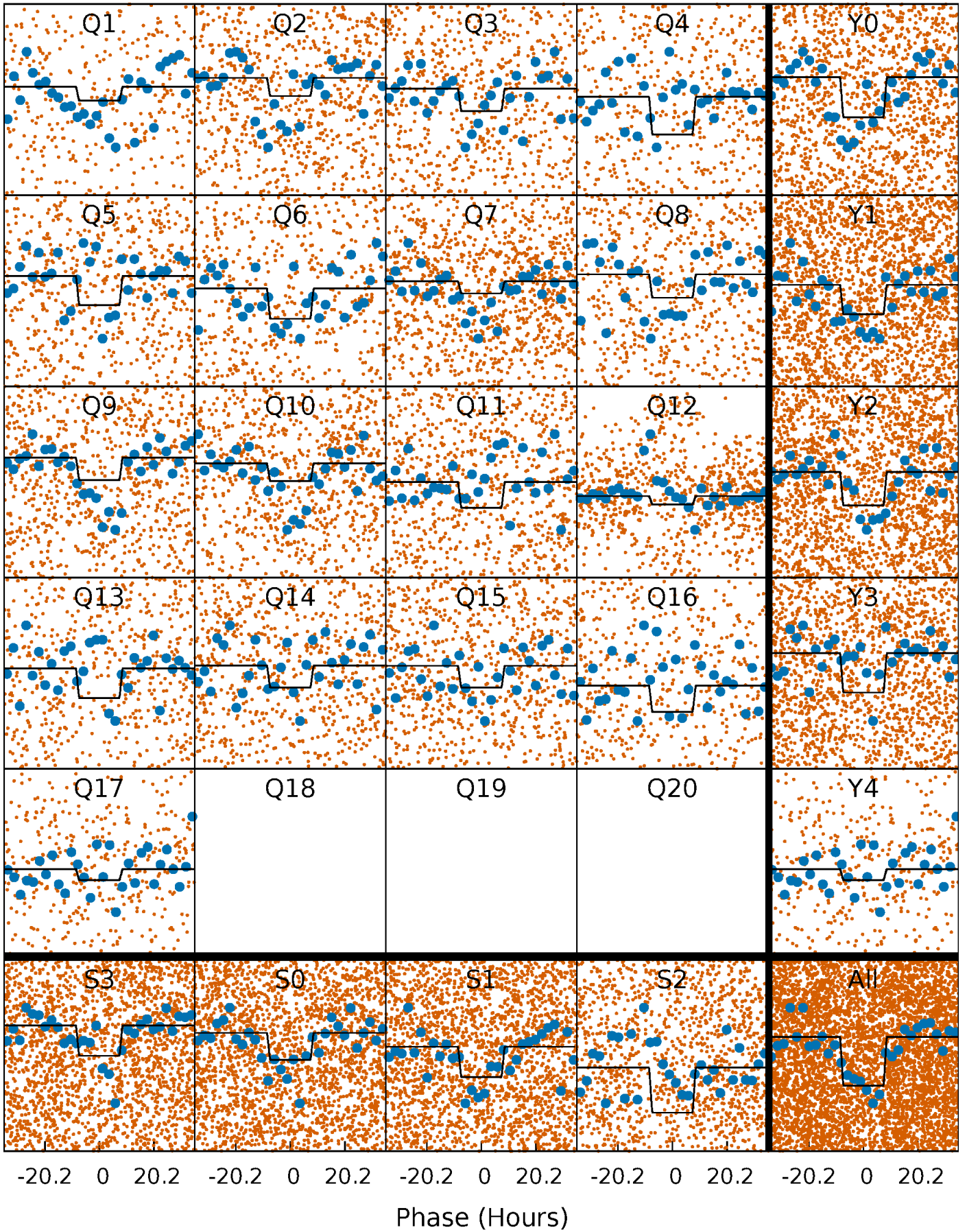
DV Quarter-Phased Transit Curves

TCE 008013289-01 P= 10.645218 Days $T_0=140.288393$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

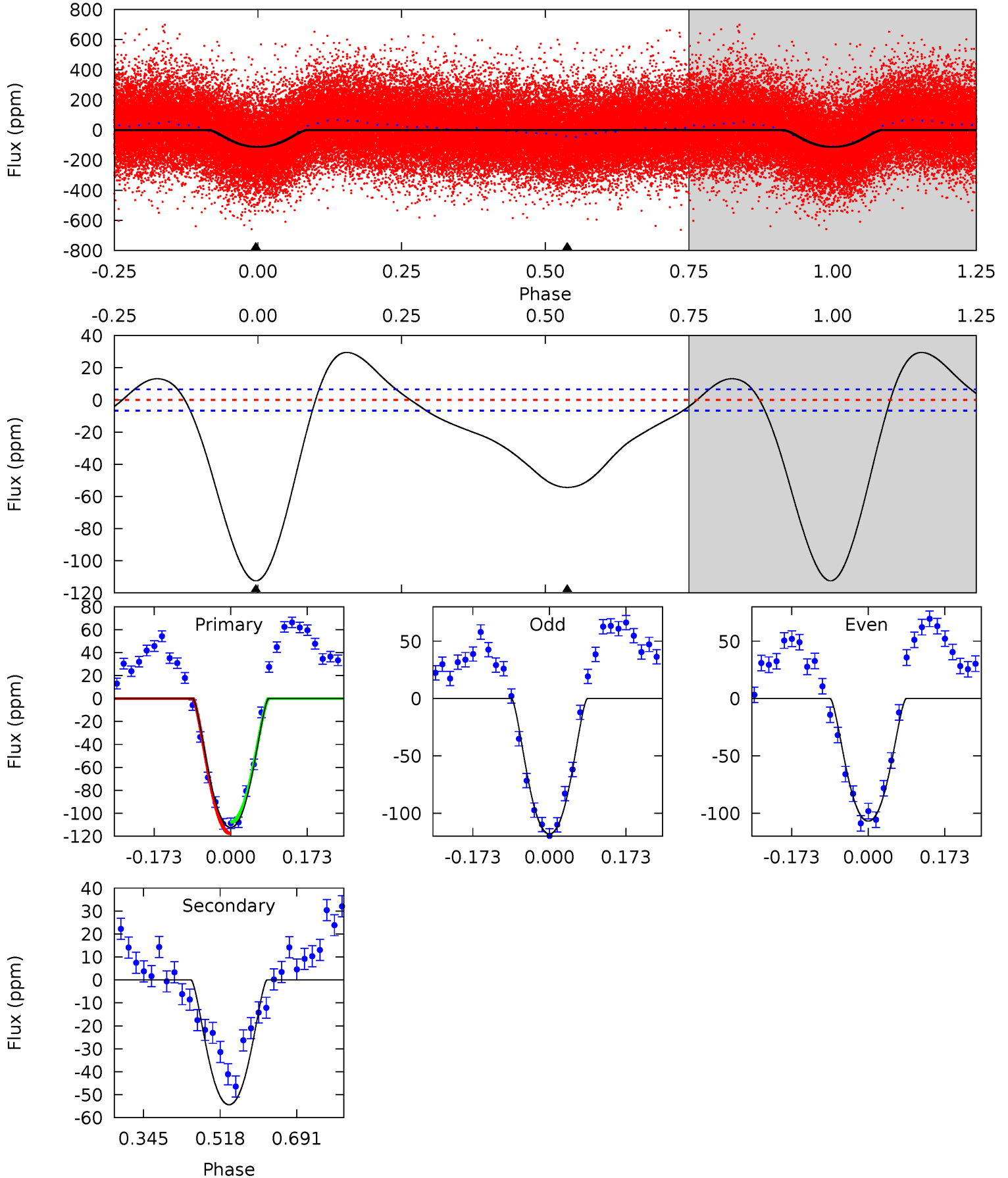
TCE 008013289-01 P= 10.647837 Days $T_0=140.291557$ (BKJD)



DV Model-Shift Uniqueness Test

008013289-01, $P = 10.645218$ Days, $E = 129.643175$ Days

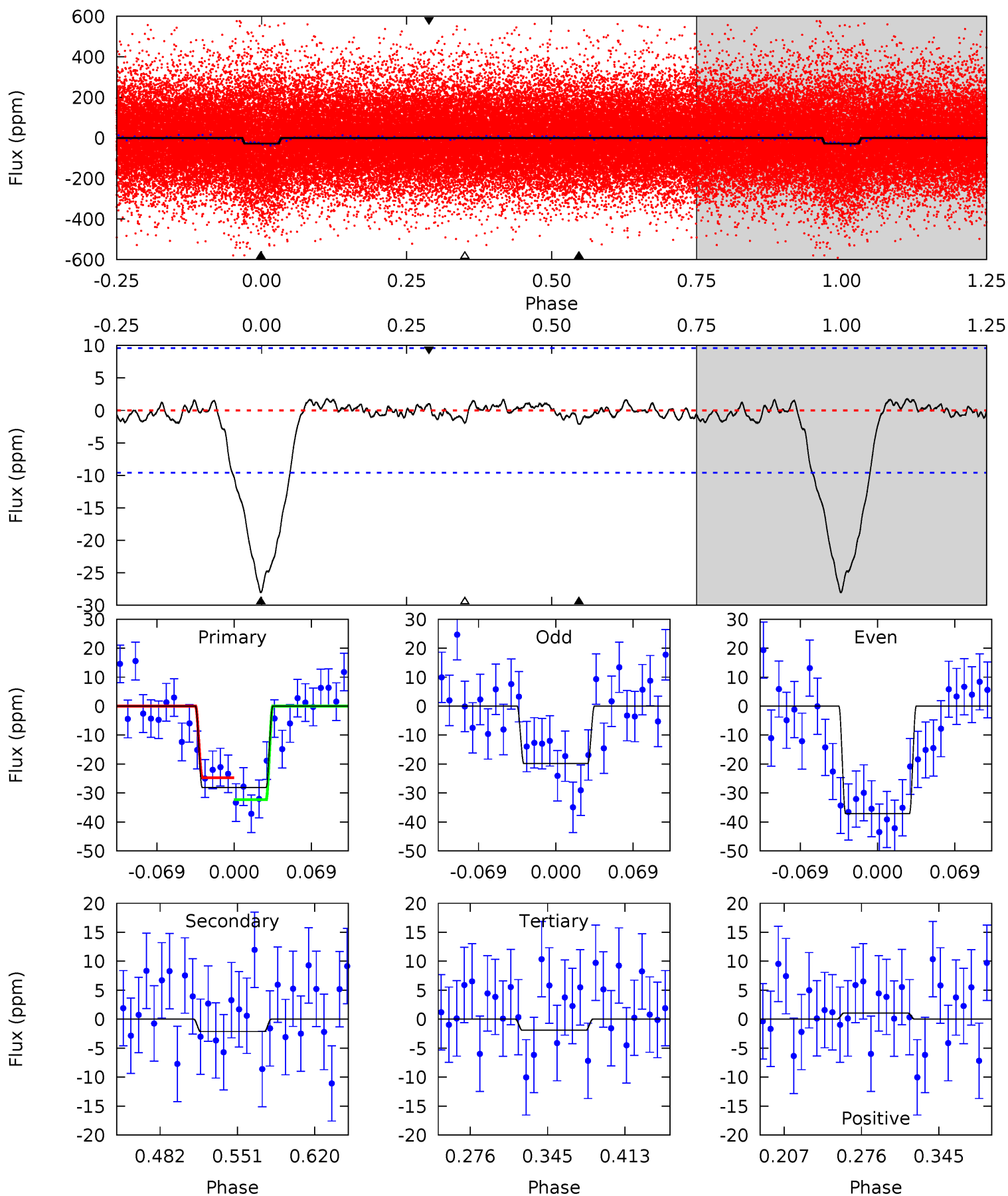
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
75.6	36.6	0	0	4.45	1.36	8.38	75.6	75.6	36.6	36.6	3.75	0.47	0.21	3.38



Alt Model-Shift Uniqueness Test

008013289-01, $P = 10.647837$ Days, $E = 129.643720$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	1.03	0.93	0.51	4.64	1.82	0.41	12.6	13.1	0.10	0.51	4.18	0.80	0.06	0



Stellar Parameters For KIC 008013289

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5930^{+196}_{-196}	$4.084^{+0.364}_{-0.156}$	$-0.280^{+0.300}_{-0.300}$	$1.473^{+0.369}_{-0.507}$	$0.960^{+0.141}_{-0.115}$	$0.423^{+1.064}_{-0.191}$
	+3%/-3%	+9%/-4%	+107%/-107%	+25%/-34%	+15%/-12%	+252%/-45%
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 008013289-01 / KOI 6952.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-54 ± 1	$1.82^{+0.59}_{-0.49}$	1426^{+120}_{-151}	4754^{+519}_{-368}	79^{+66}_{-34}
Alt.	-2 ± 2	$0.75^{+0.44}_{-0.35}$	1430^{+112}_{-144}	3522^{+1155}_{-1183}	15^{+61}_{-14}

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

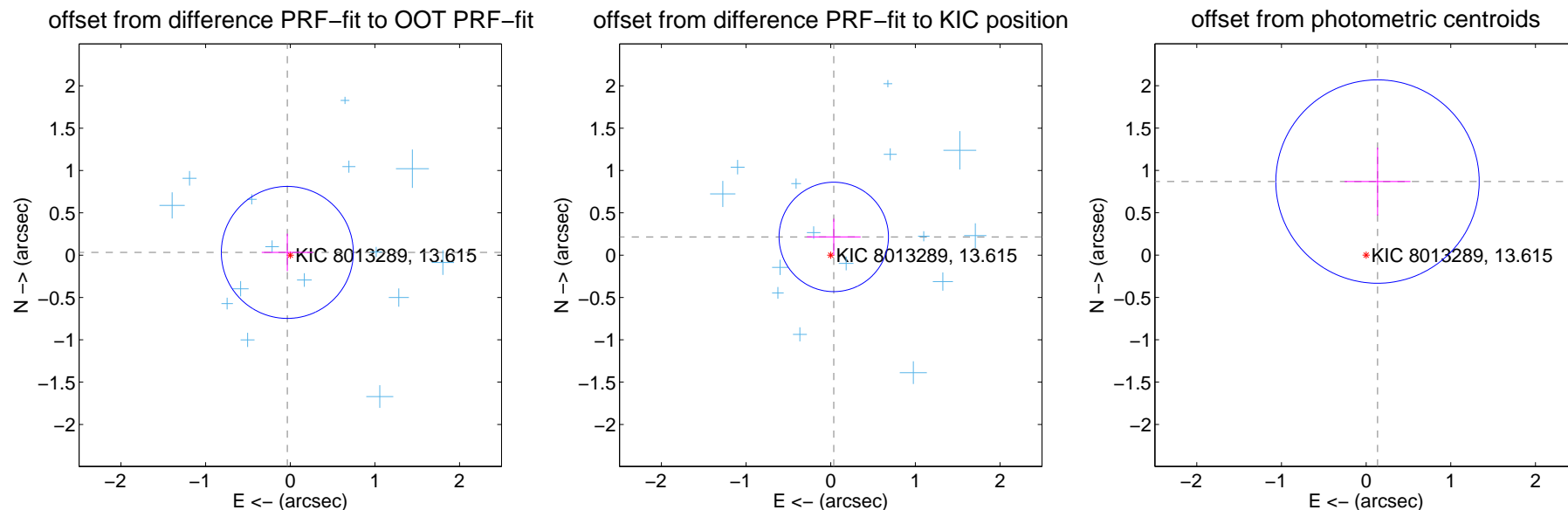
DV Centroid Data

Supplemental centroid analysis for 008013289-01. Kepler magnitude: 13.62. Transit SNR 18.80

There are 15 quarters with good PRF difference image offsets

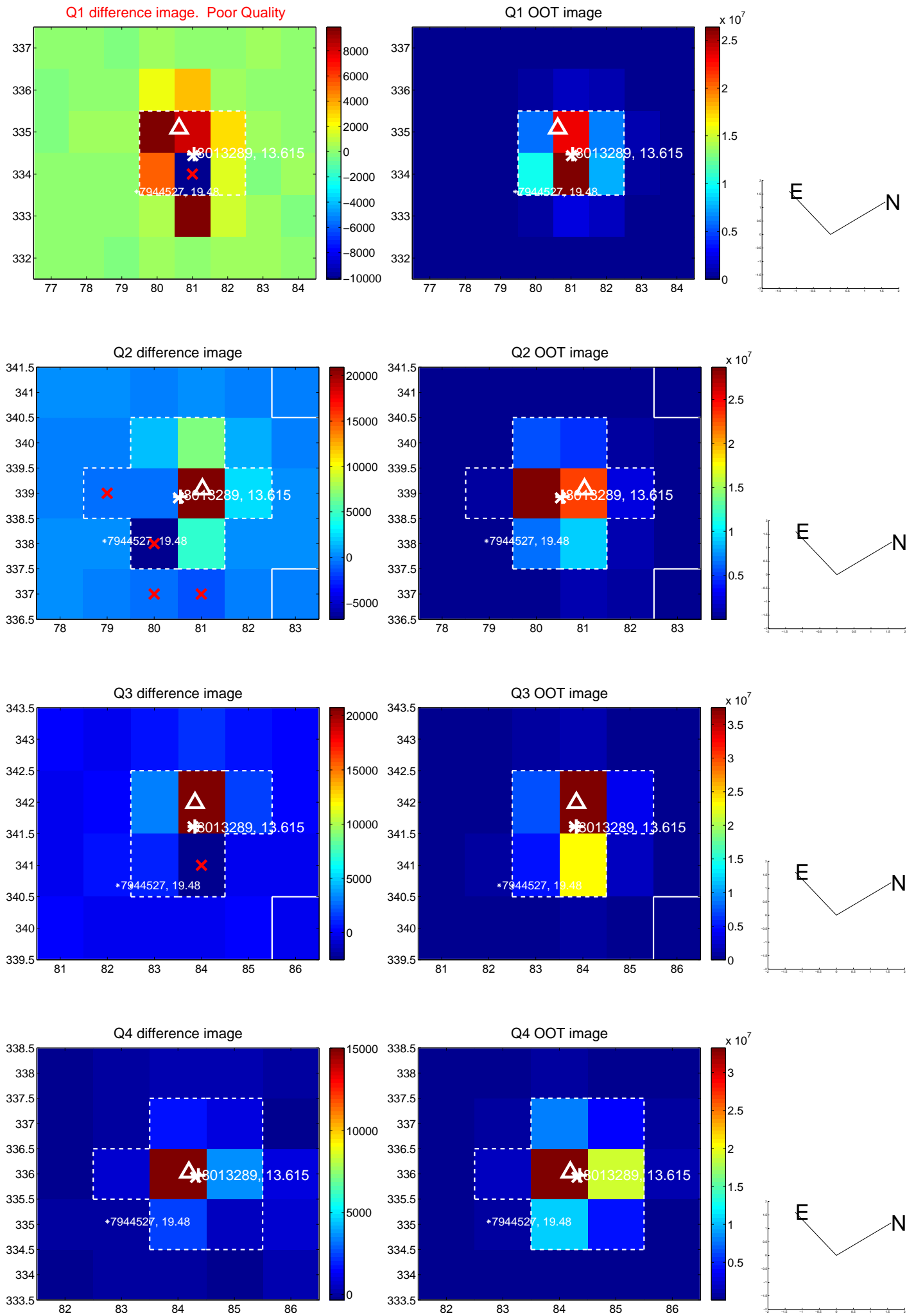
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.047 ± 0.260	0.18	0.035 ± 0.303	0.032 ± 0.221
PRF-fit source offset from KIC position	0.218 ± 0.215	1.01	-0.036 ± 0.318	0.215 ± 0.215
photometric centroid source offset	0.88 ± 0.40	2.19	-0.13 ± 0.39	0.87 ± 0.40

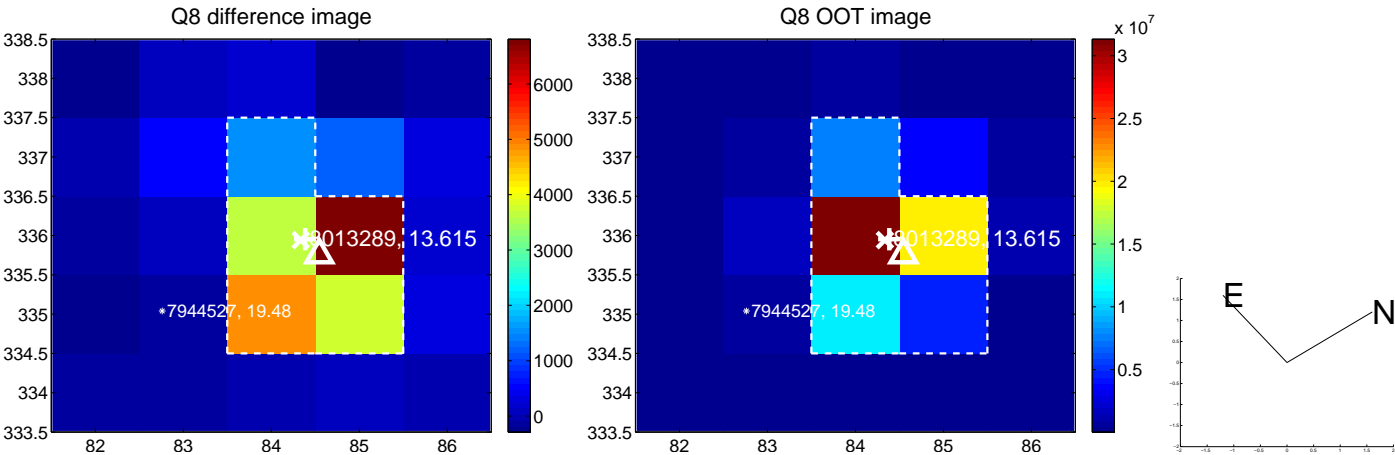
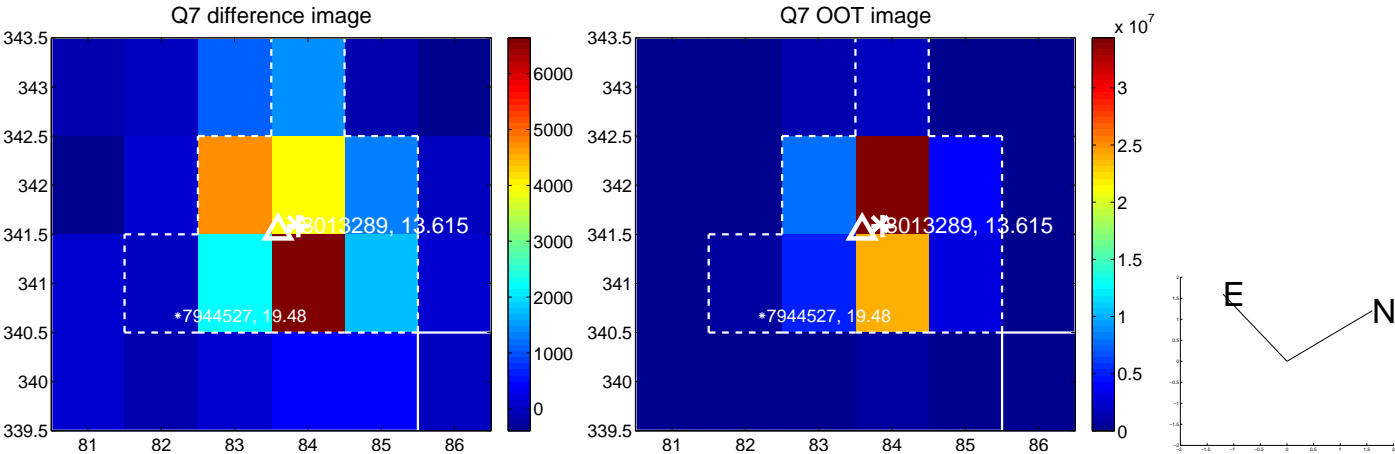
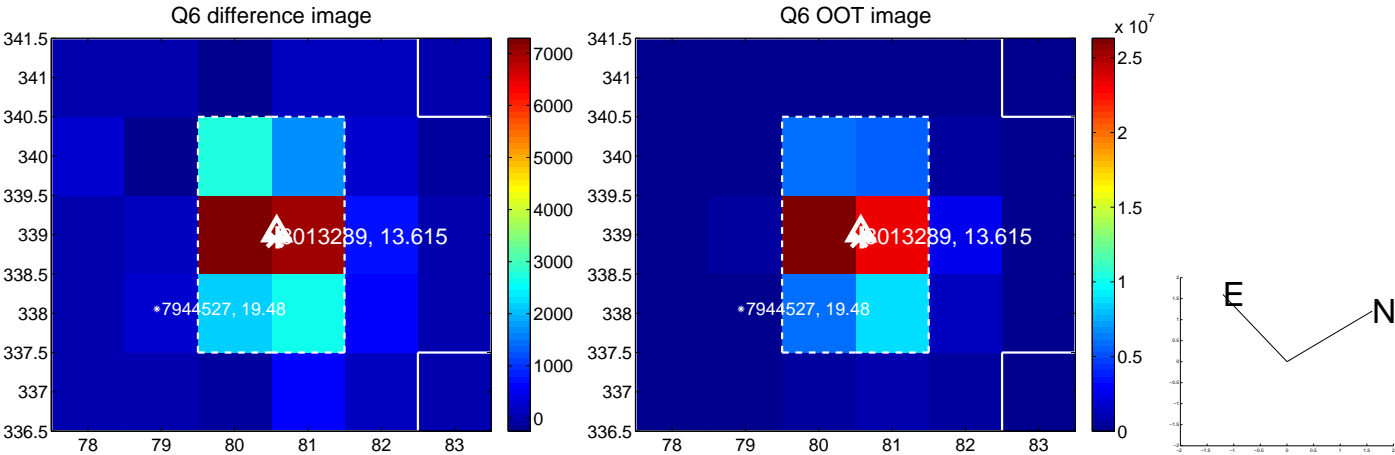
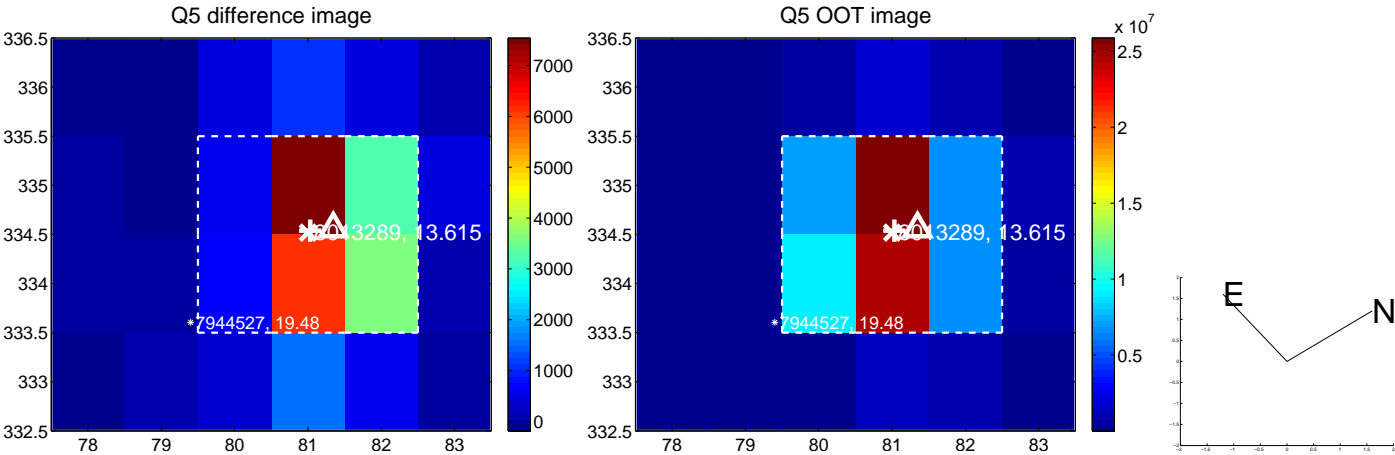


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

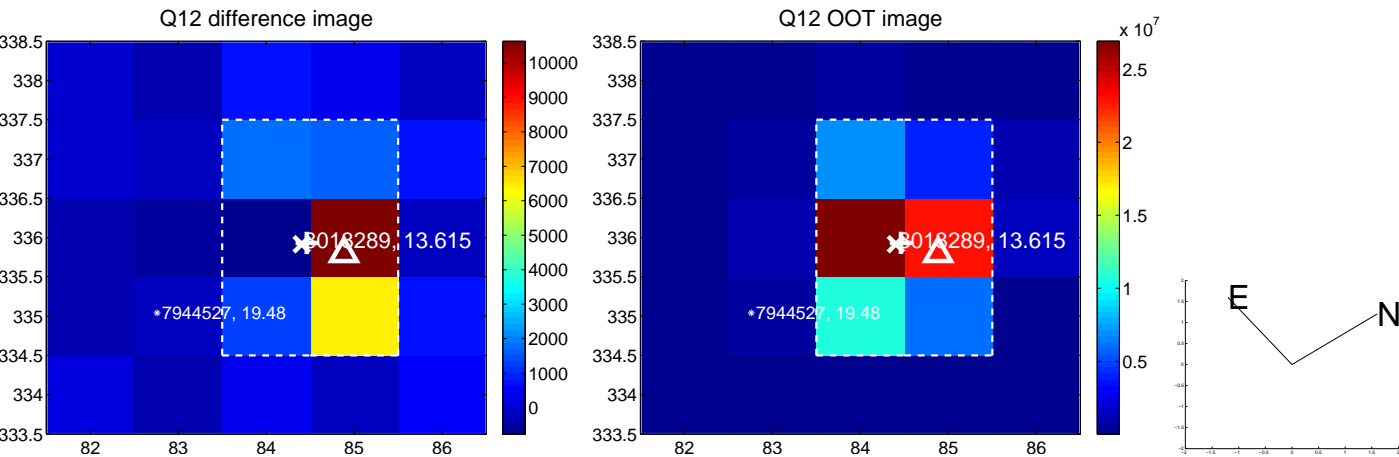
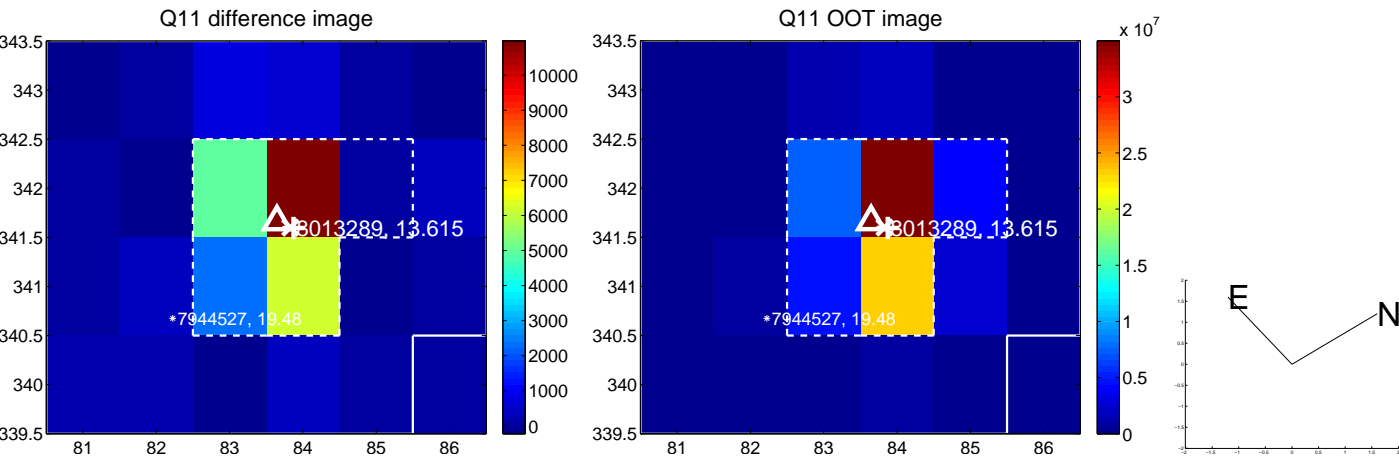
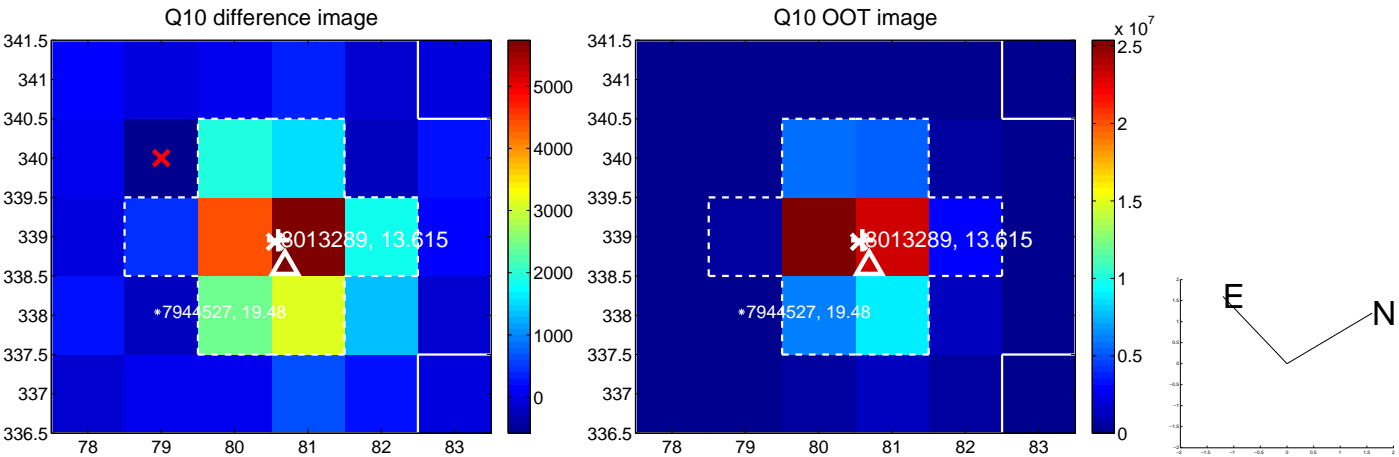
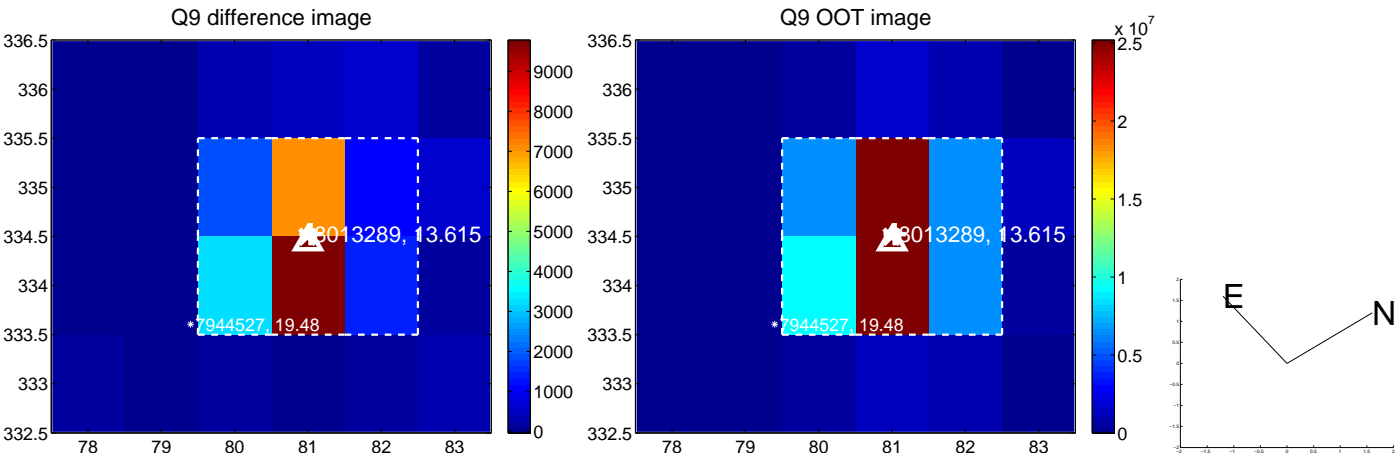
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



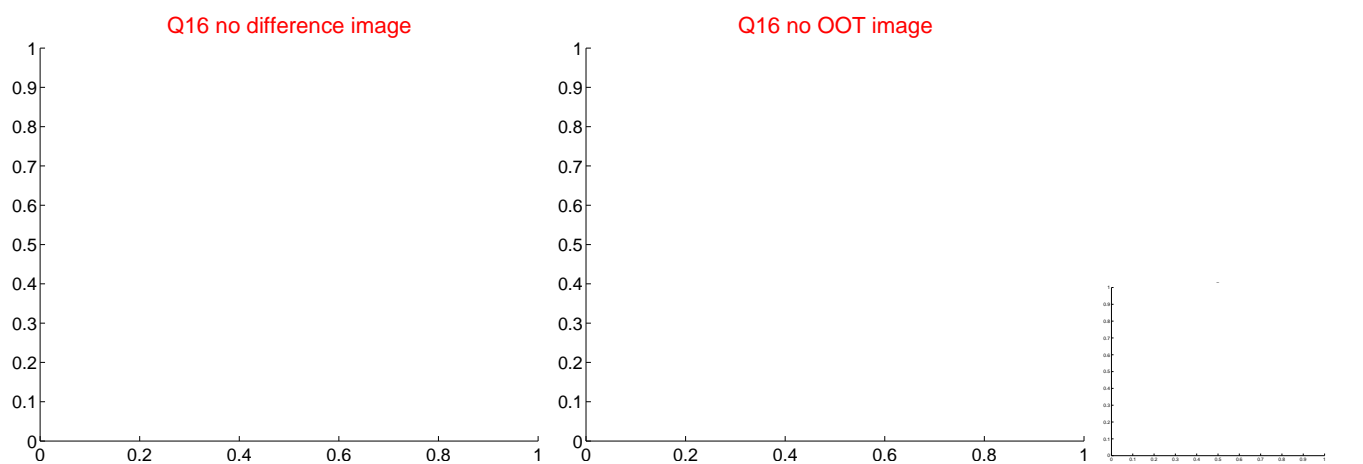
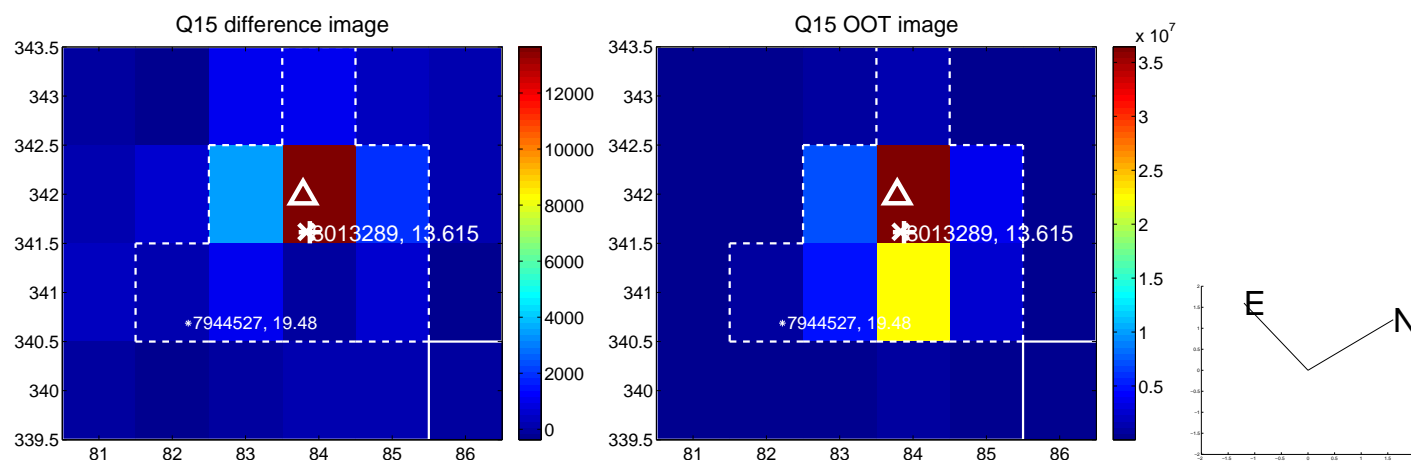
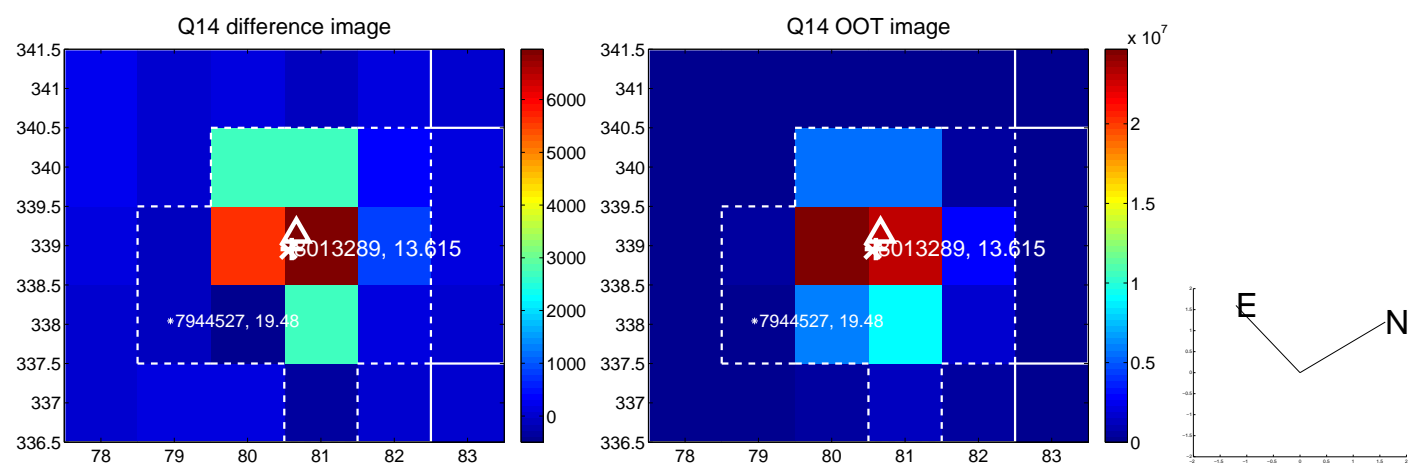
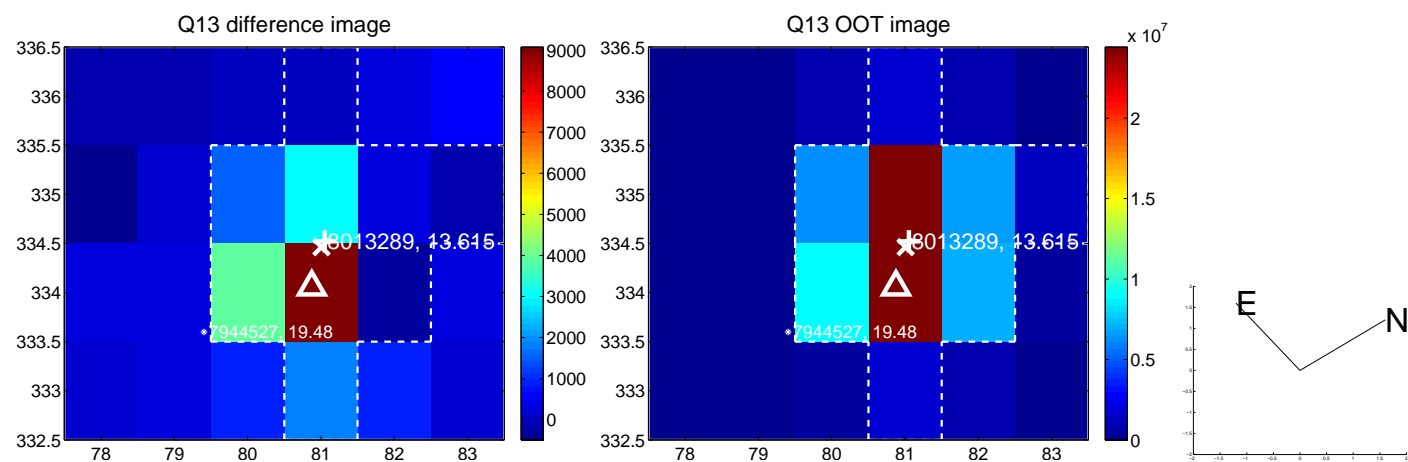
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



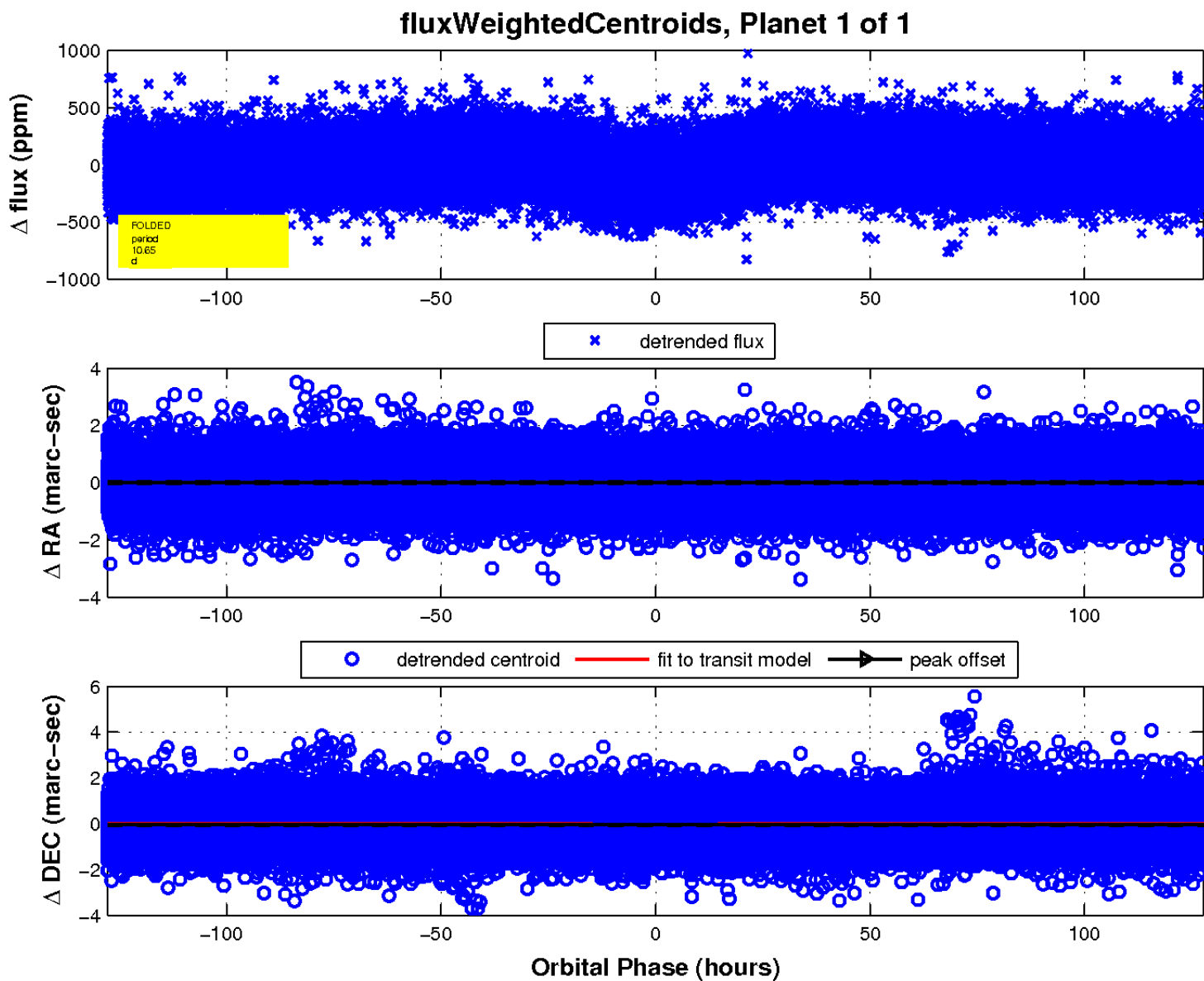
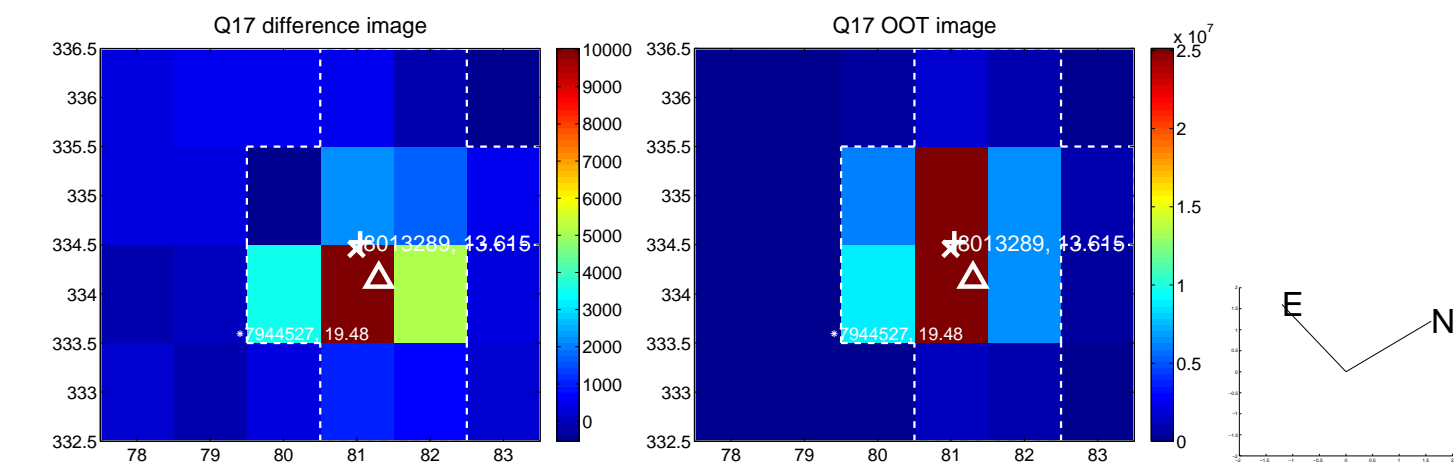
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

