

KIC 007351433

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})
007351433-01	OBS	No	1.061443	131.850728	93.6	9.895	10.2	12.0	2.23	7519	2.19	26842.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007351433-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

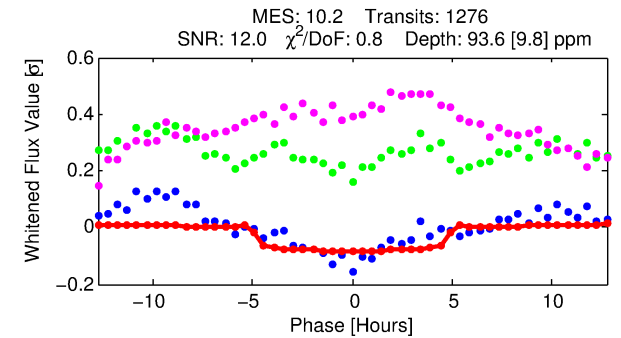
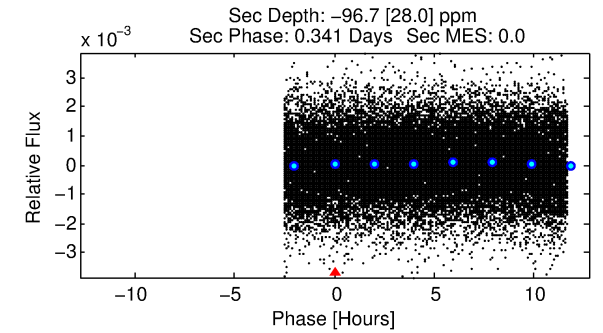
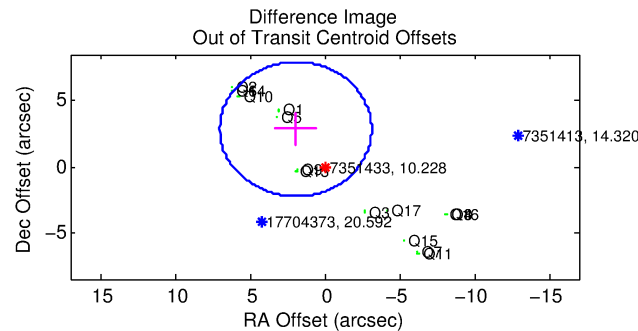
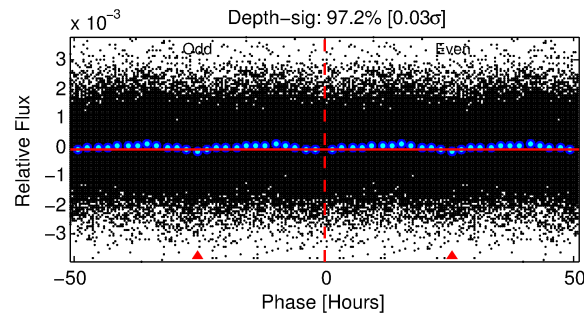
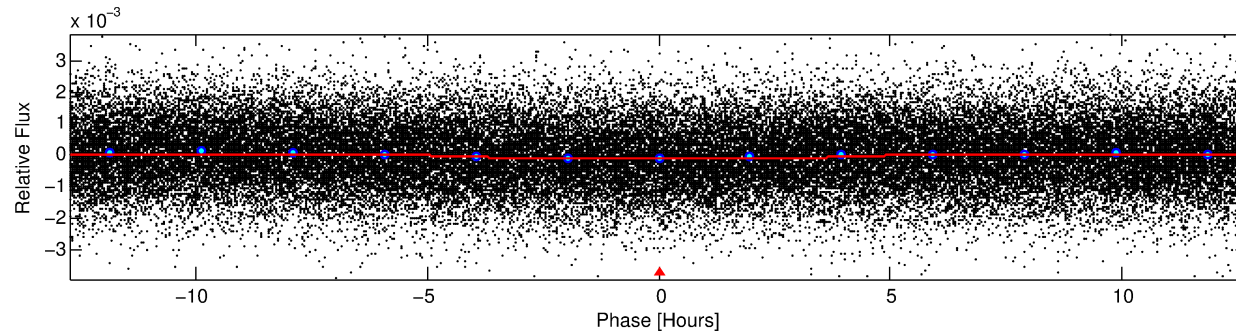
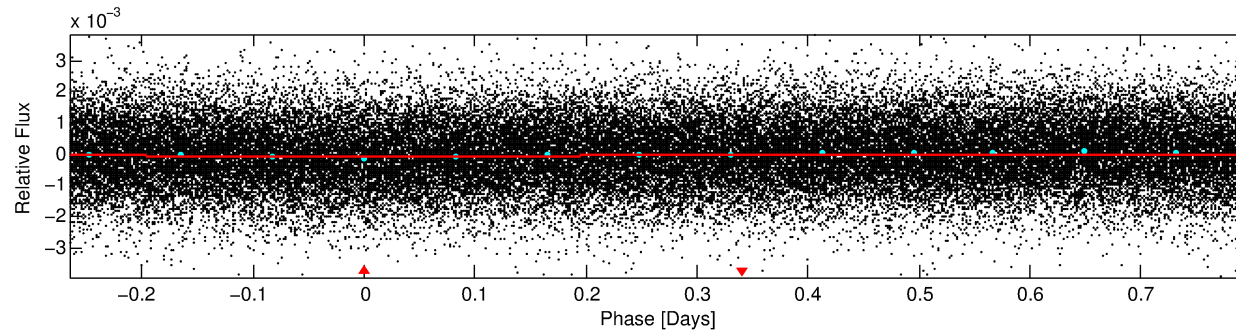
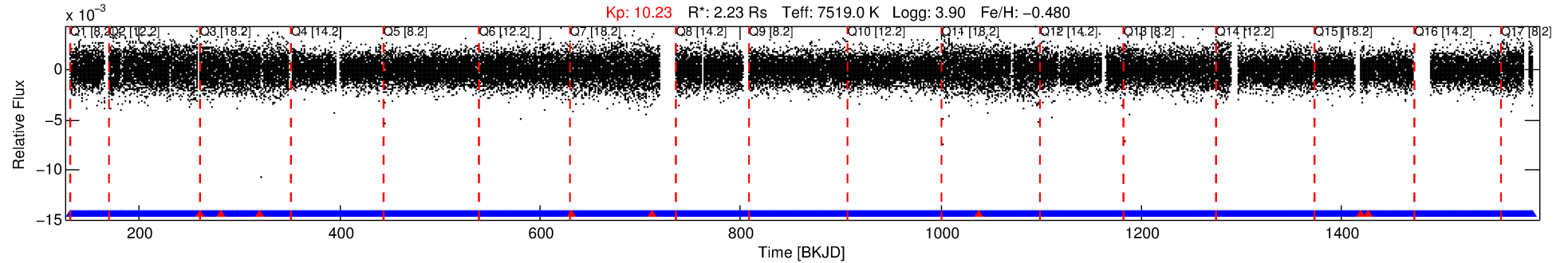
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007351433-01

No Significant Match Found

DV One-Page Summary

KIC: 7351433 Candidate: 1 of 1 Period: 1.061 d



DV Fit Results:

Period = 1.06144 [0.00002] d
Epoch = 131.8507 [0.0070] BKJD
Rp/R* = 0.0090 [0.0088]
a/R* = 1.07 [0.80]
b = 0.21 [27.08]
Seff = 26842.27 [17032.33]
Teq = 3264 [518] K
Rp = 2.19 [2.31] Re
a = 0.0230 [0.0088] AU
Ag = N/A
Teffp = N/A

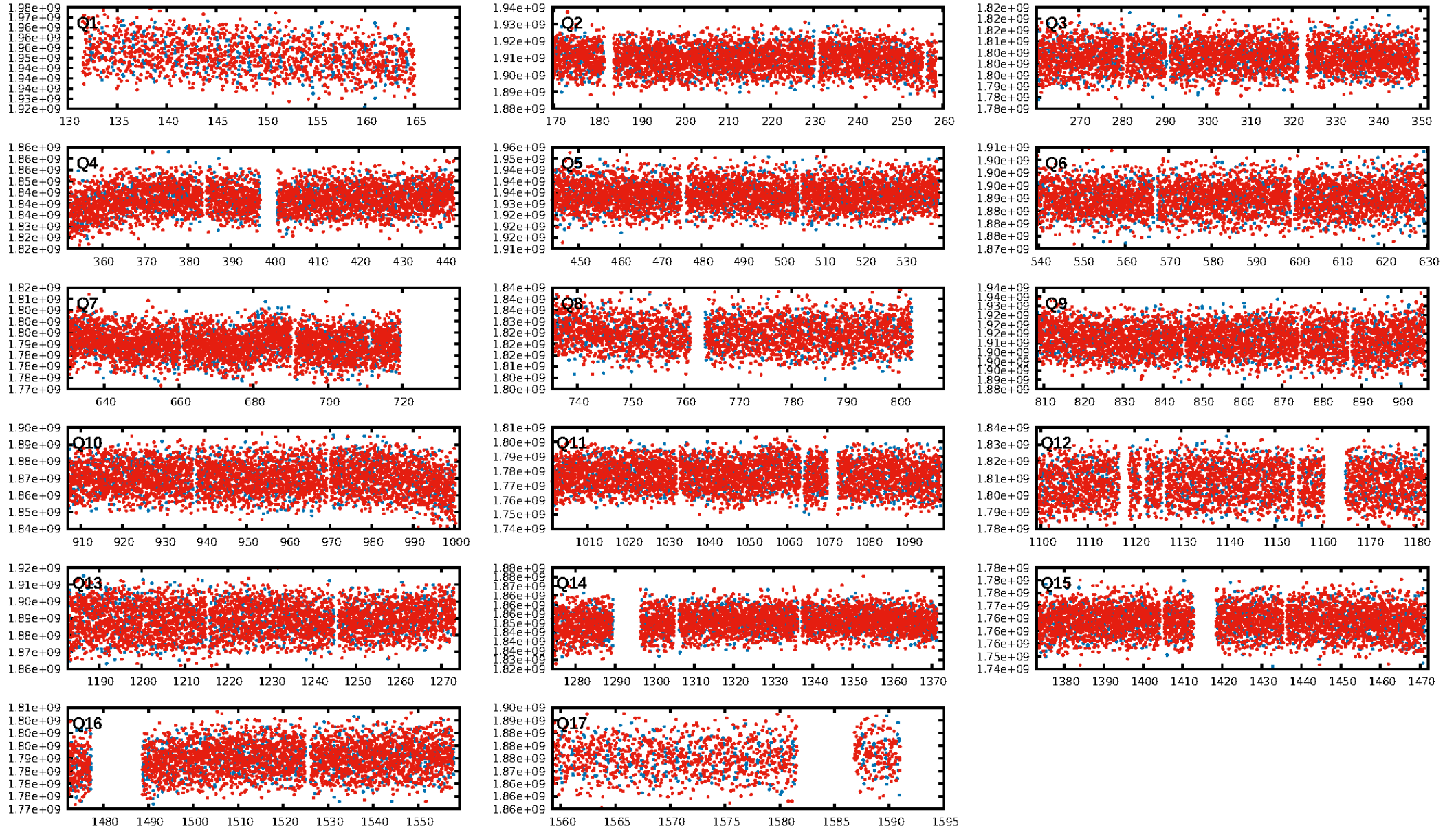
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1210/1218]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 1.038 arcsec [6.95 σ]
OotOffset-rm: 3.429 arcsec [2.03 σ]
KicOffset-rm: 3.926 arcsec [2.52 σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.38 [6/16]
DiffImageOverlap-fno: 1.00 [17/17]

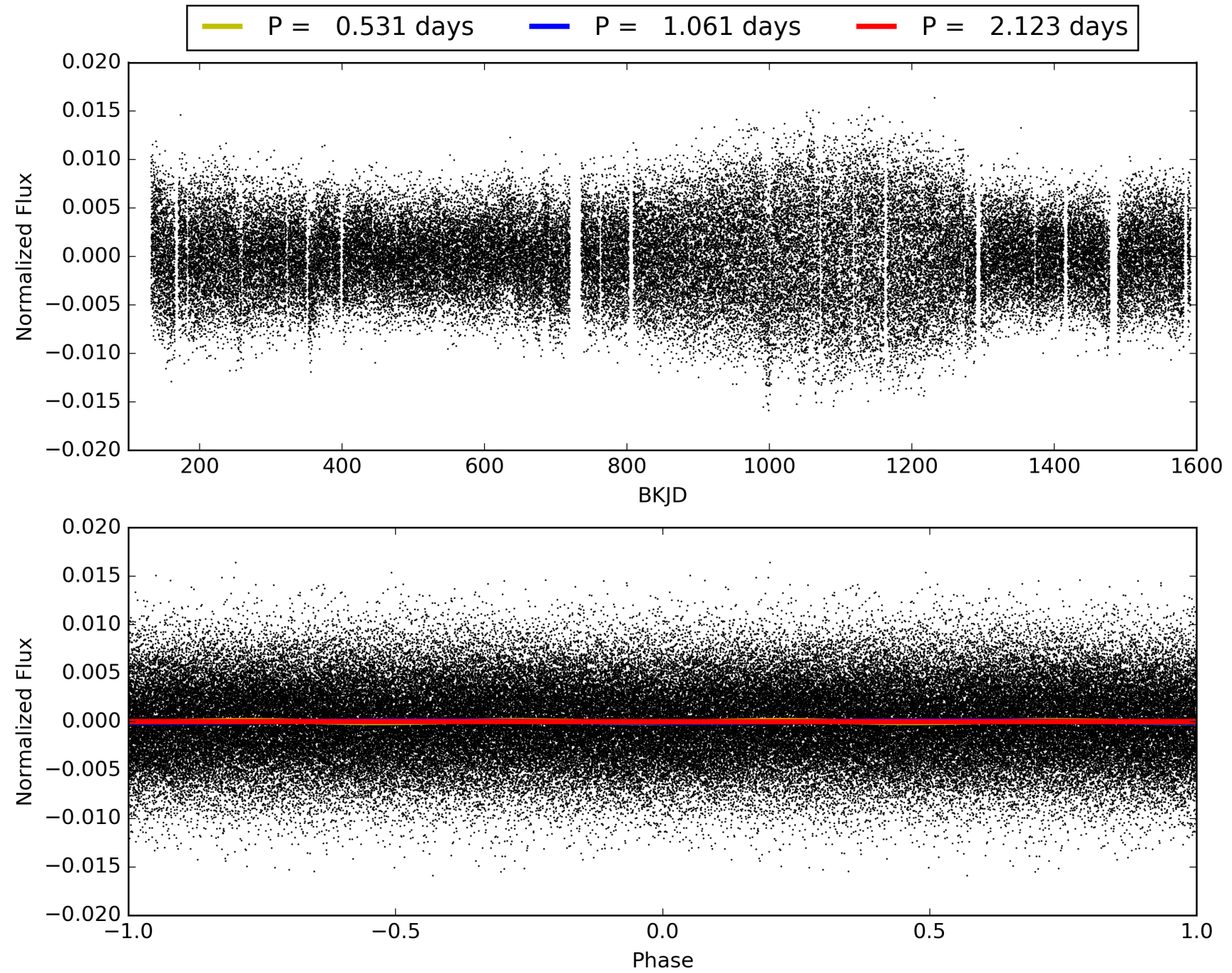
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:27:35 Z

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

TCE 007351433-01, PDC Light Curves

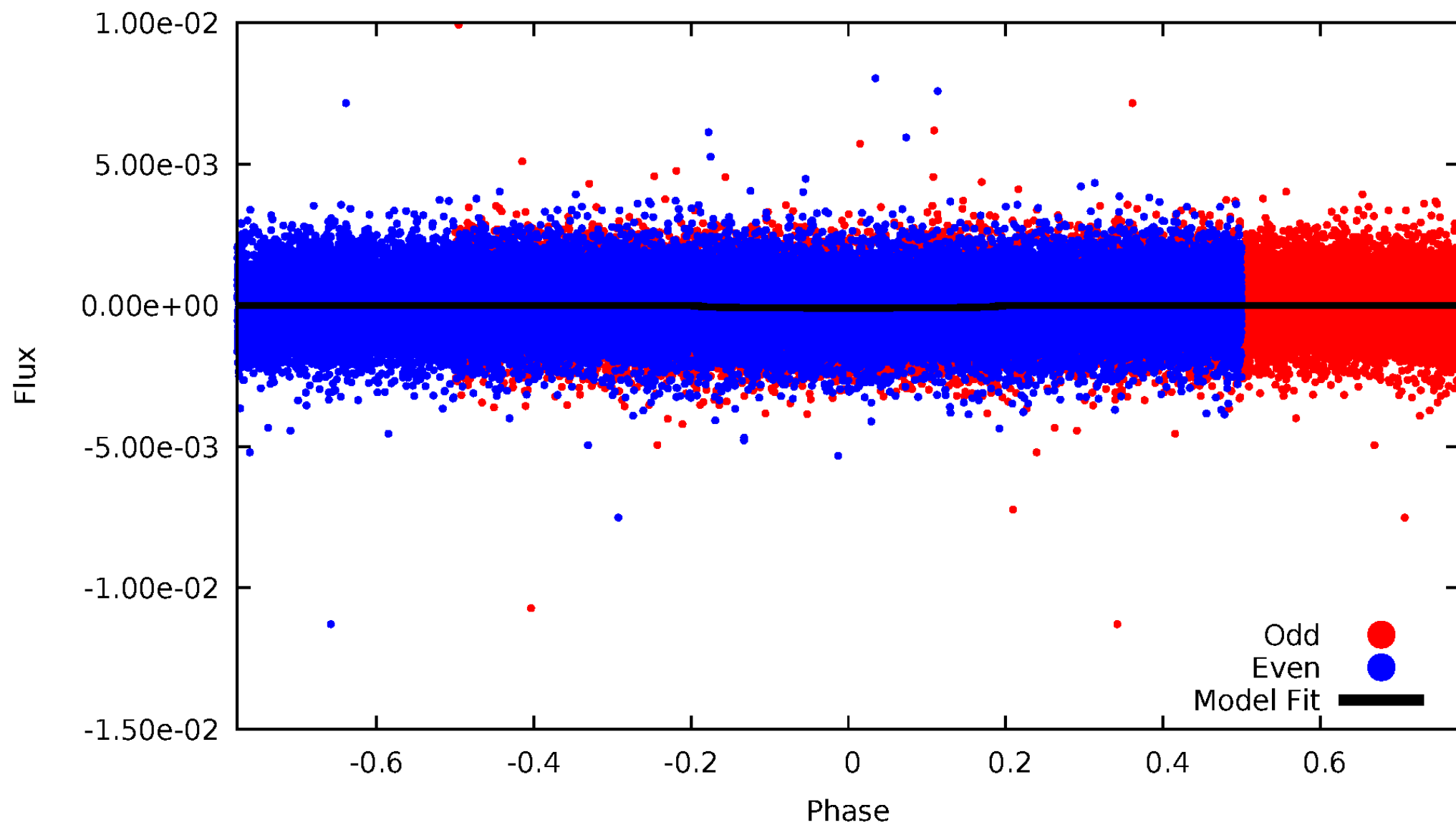


TCE 007351433-01



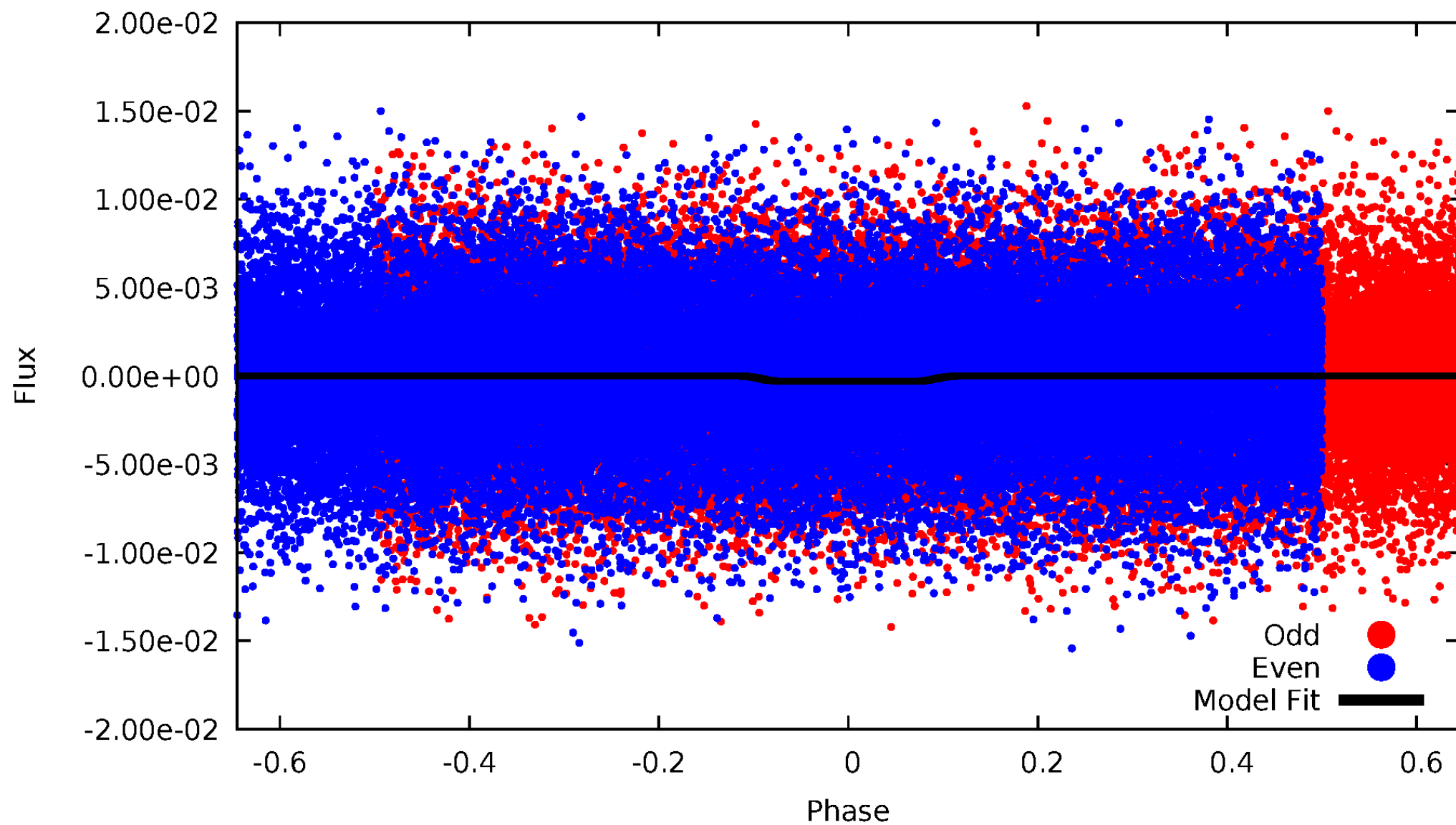
DV Odd/Even

TCE 007351433-01



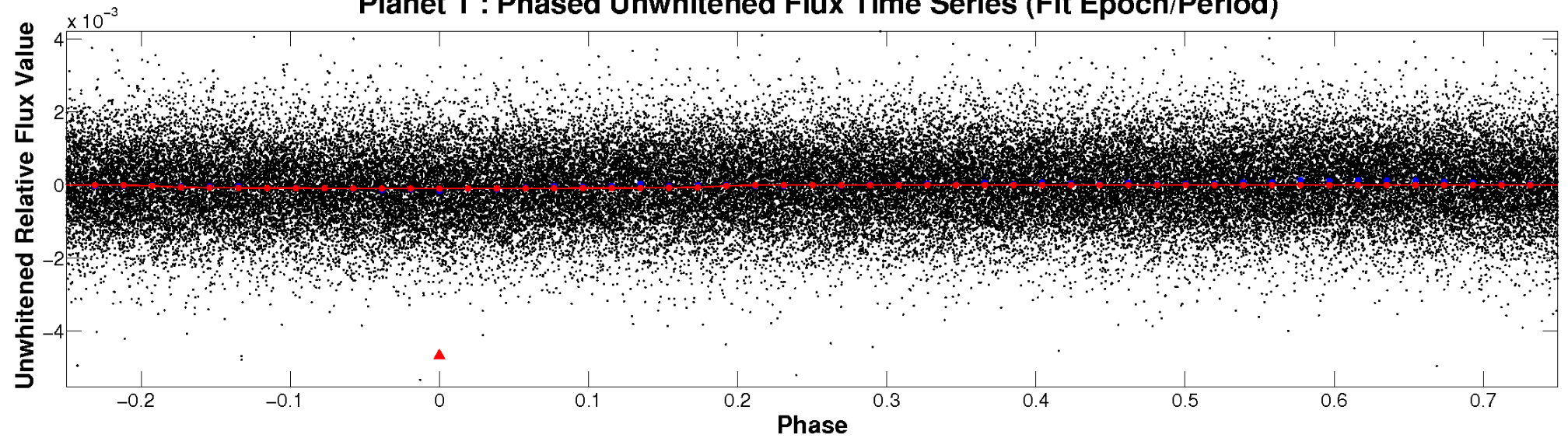
ALT Odd/Even

TCE 007351433-01

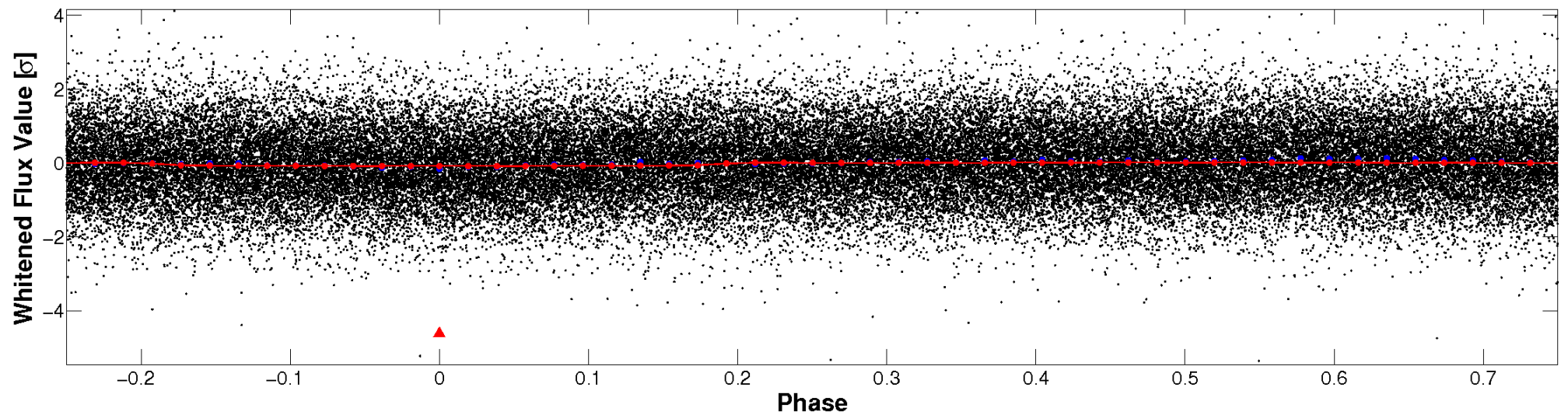


Non-Whitened Vs. Whitened Light Curve

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

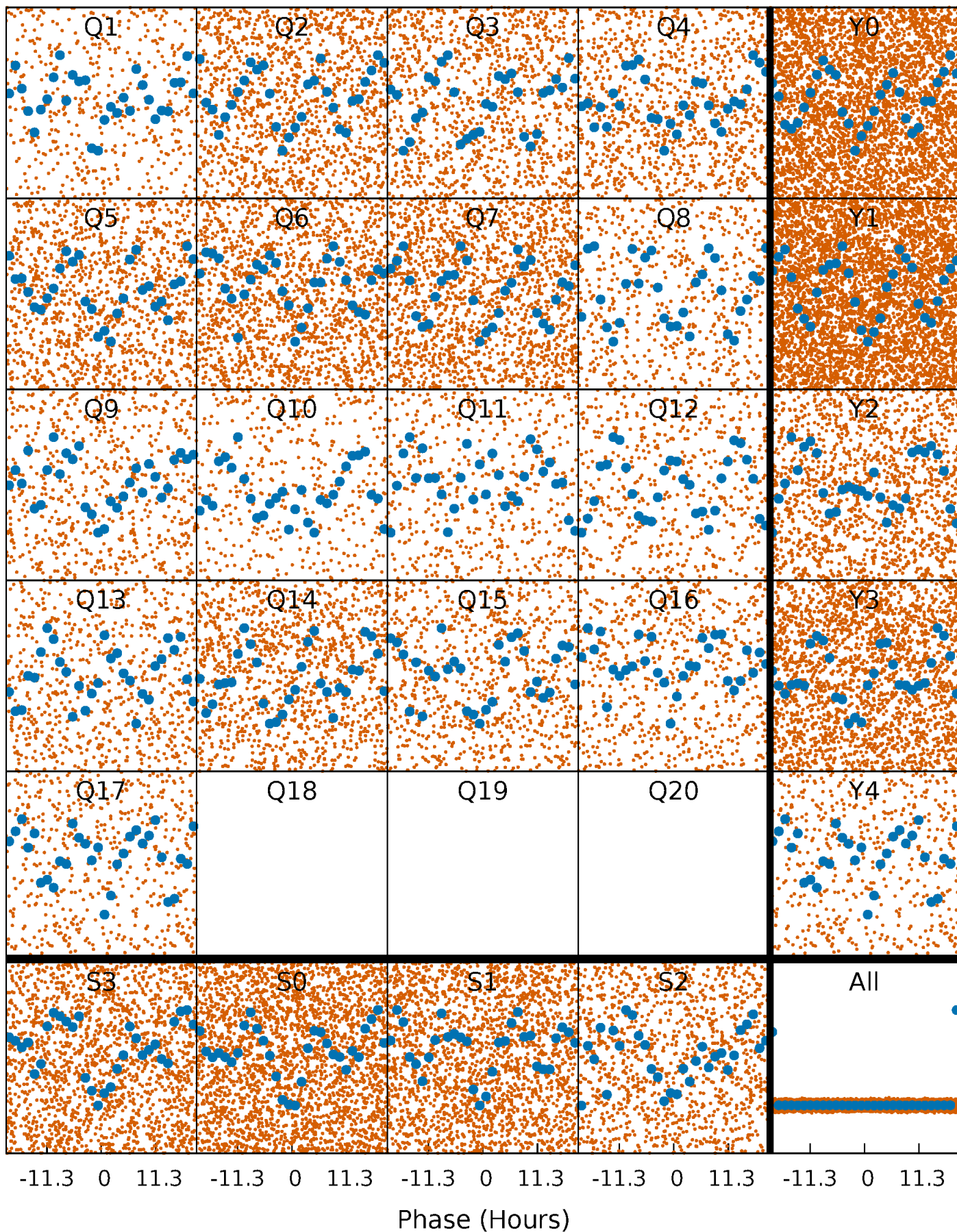


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



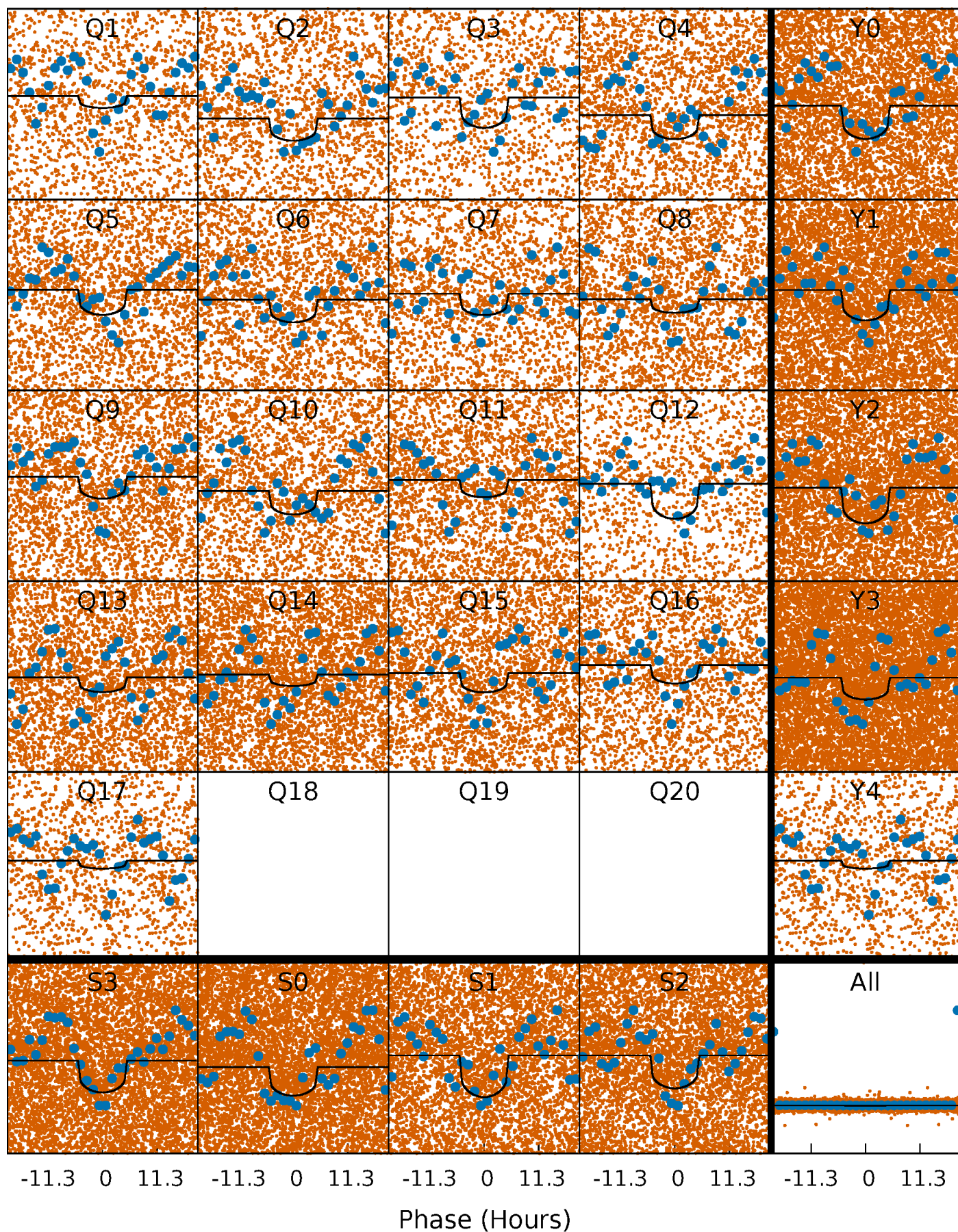
PDC Quarter-Phased Transit Curves

TCE 007351433-01 P= 1.061443 Days $T_0=131.850728$ (BKJD)



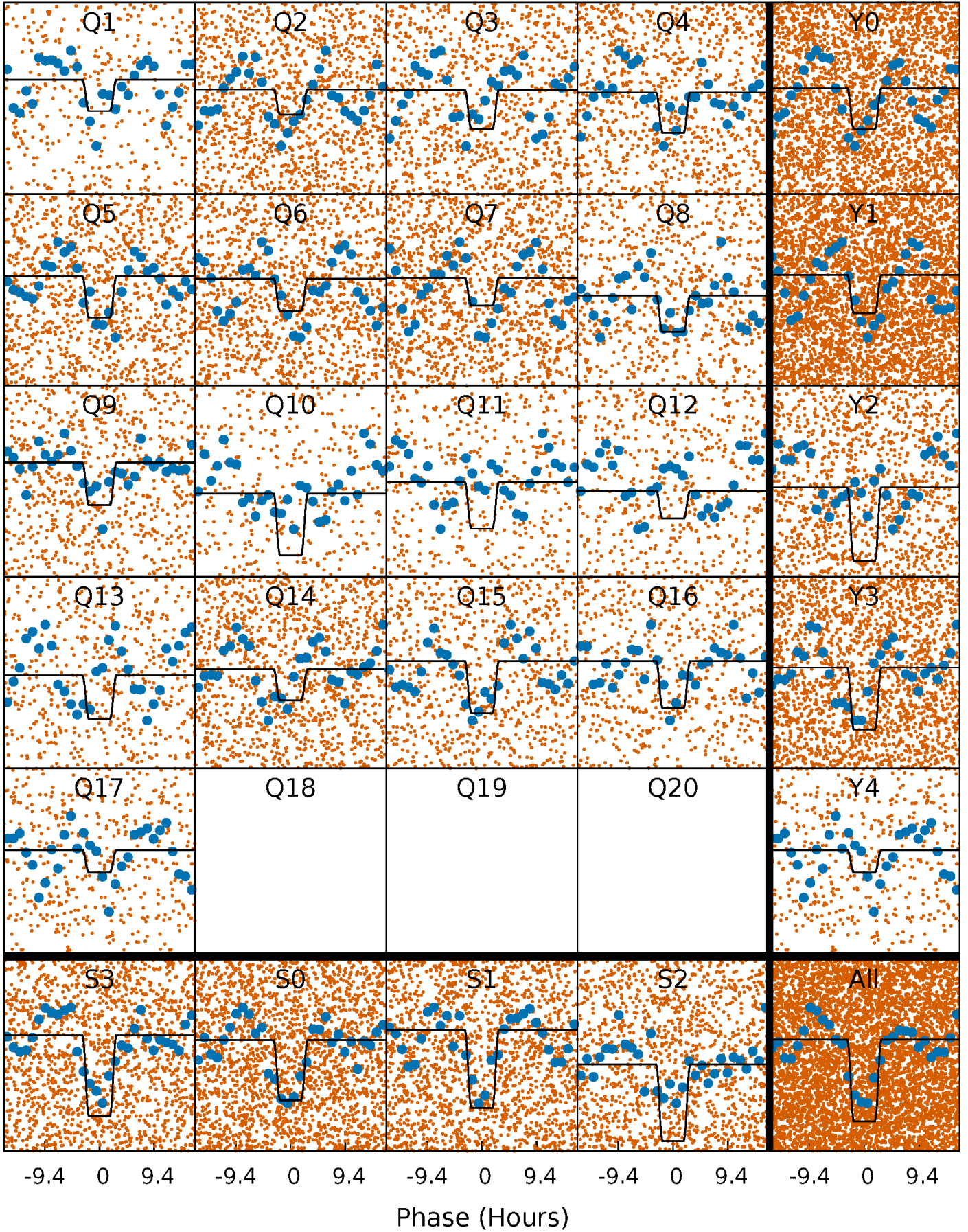
DV Quarter-Phased Transit Curves

TCE 007351433-01 P= 1.061443 Days $T_0=131.850728$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

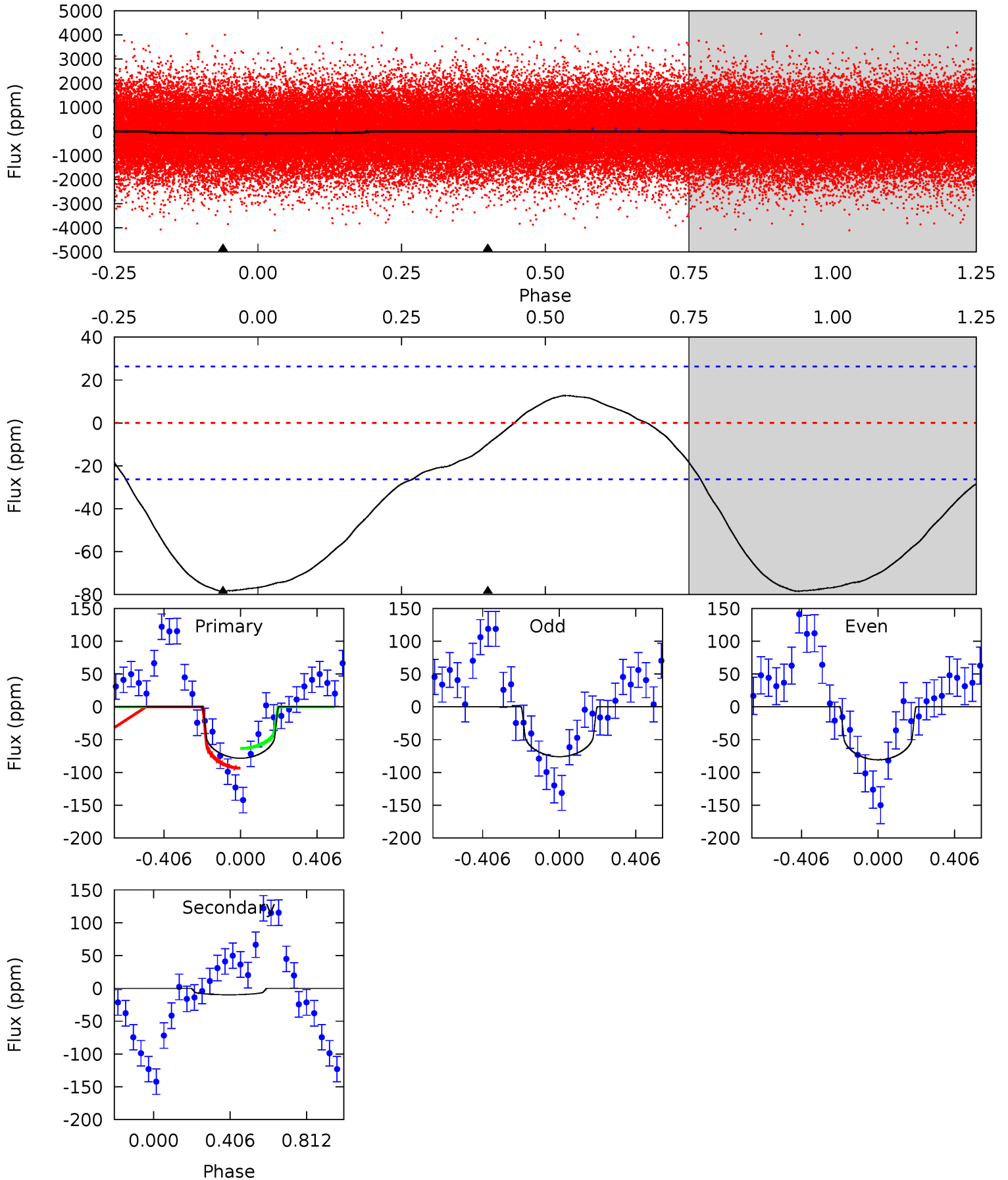
TCE 007351433-01 P= 1.061428 Days $T_0=131.850061$ (BKJD)



DV Model-Shift Uniqueness Test

007351433-01, P = 1.061443 Days, E = 130.789285 Days

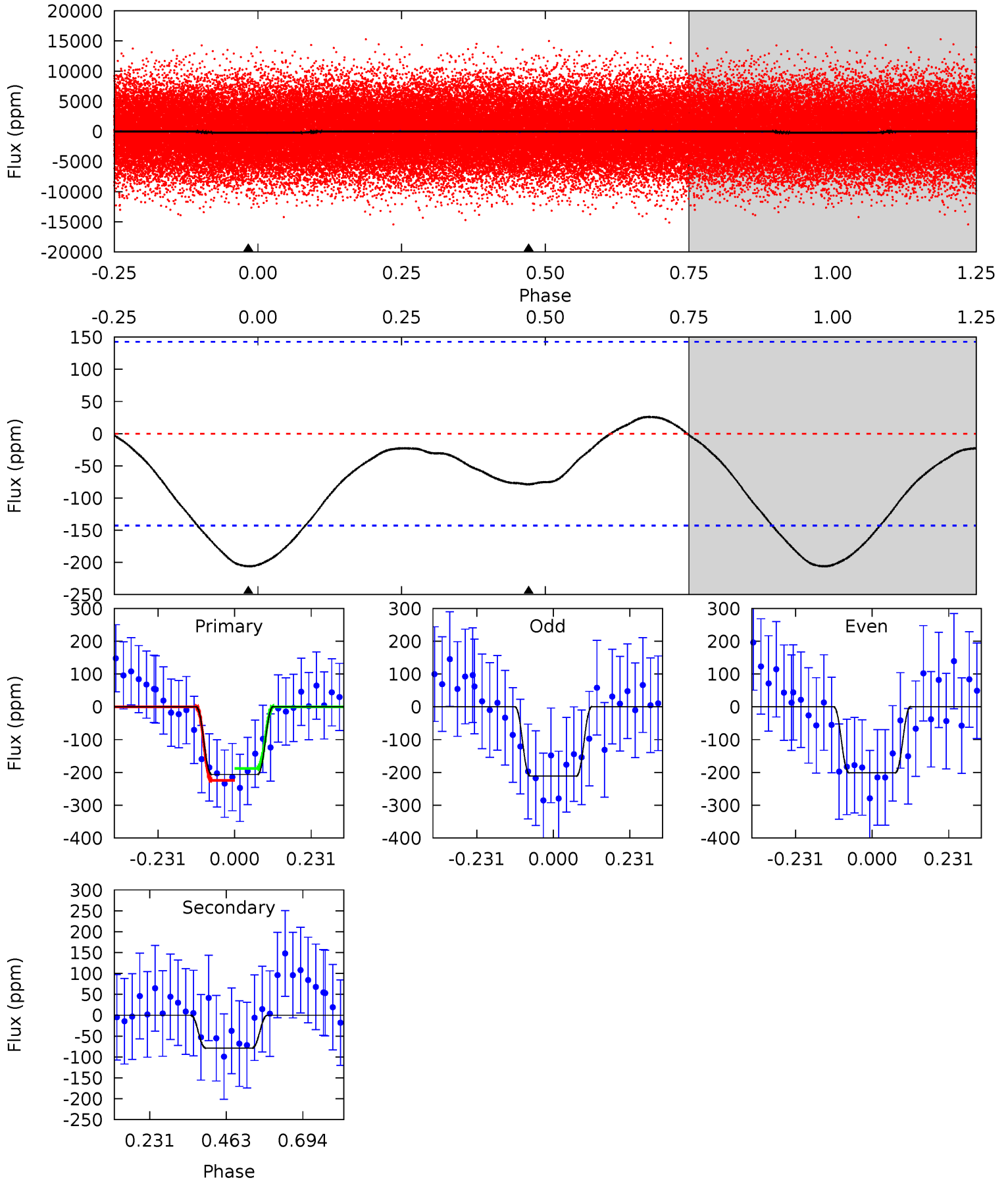
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	1.59	0	0	4.26	0.83	2.82	12.7	12.7	1.59	1.59	0.39	1.02	0.14	2.46



Alt Model-Shift Uniqueness Test

007351433-01, P = 1.061428 Days, E = 130.788633 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.33	2.42	0	0	4.39	1.20	0.62	6.33	6.33	2.42	2.42	0.15	0.95	0.11	0.55



Stellar Parameters For KIC 007351433

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7519^{+233}_{-311}	$3.901^{+0.360}_{-0.120}$	$-0.480^{+0.250}_{-0.300}$	$2.227^{+0.475}_{-0.883}$	$1.441^{+0.210}_{-0.257}$	$0.184^{+0.476}_{-0.068}$
	+3%/-4%	+9%/-3%	+52%/-62%	+21%/-40%	+15%/-18%	+259%/-37%
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 007351433-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 6	$2.40^{+1.98}_{-1.50}$	4478^{+315}_{-514}	3457^{+2891}_{-7207}	$0.438^{+3.089}_{-0.343}$
Alt.	-79 ± 33	$4.02^{+2.32}_{-1.97}$	4467^{+322}_{-448}	4948^{+2088}_{-1320}	$1.379^{+3.981}_{-0.896}$

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 $A_{obs} \gg 1.0$

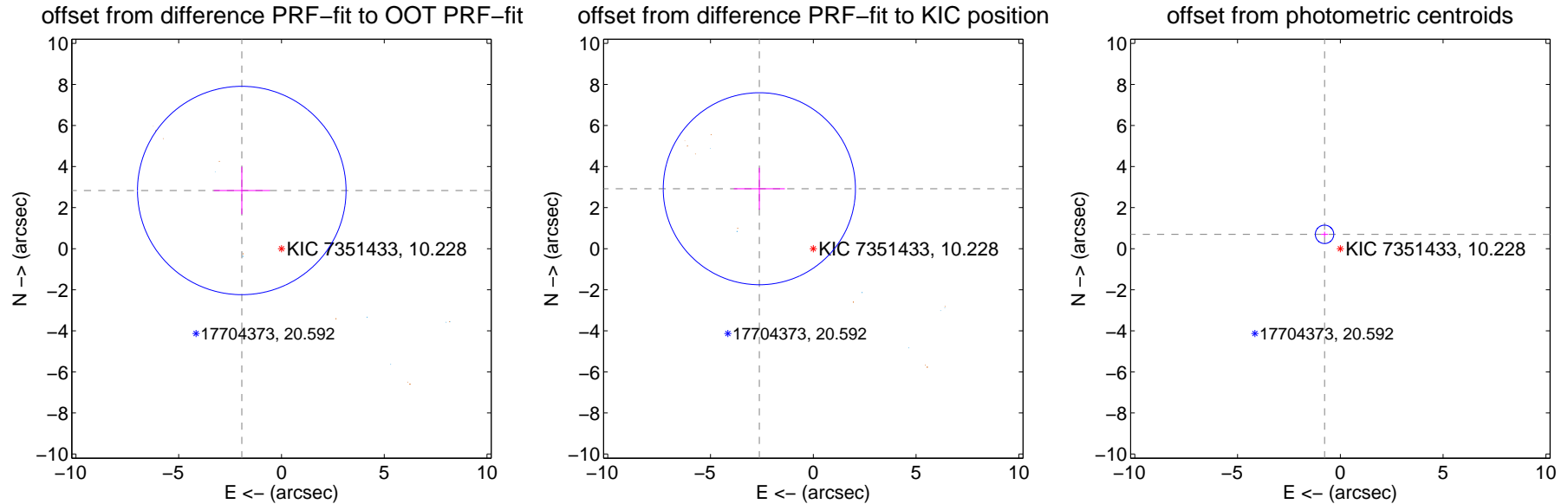
DV Centroid Data

Supplemental centroid analysis for 007351433-01. **Kepler magnitude: 10.23.** Transit SNR 11.99

There are 6 quarters with good PRF difference image offsets

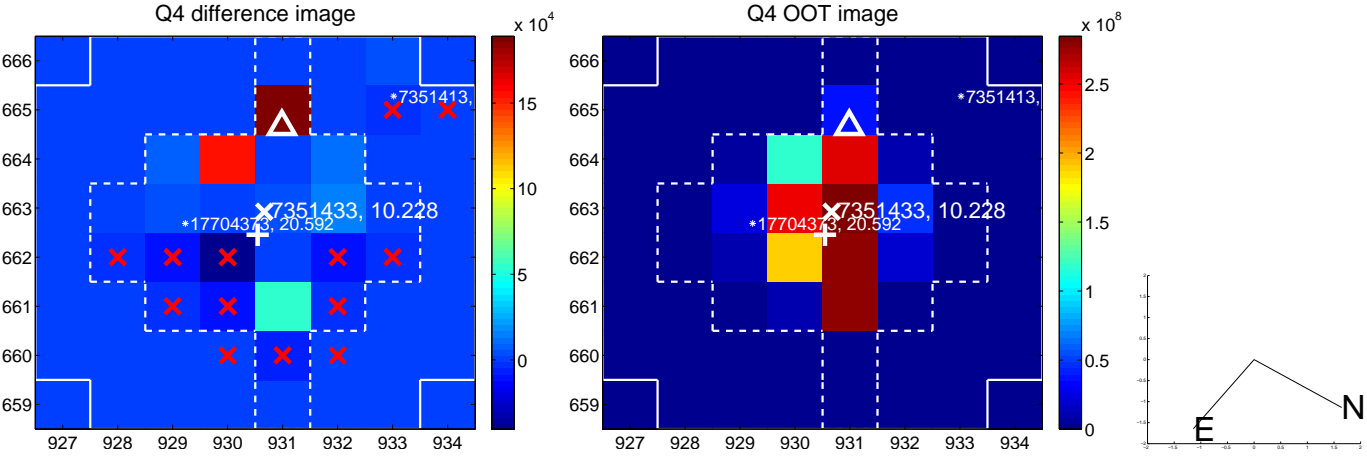
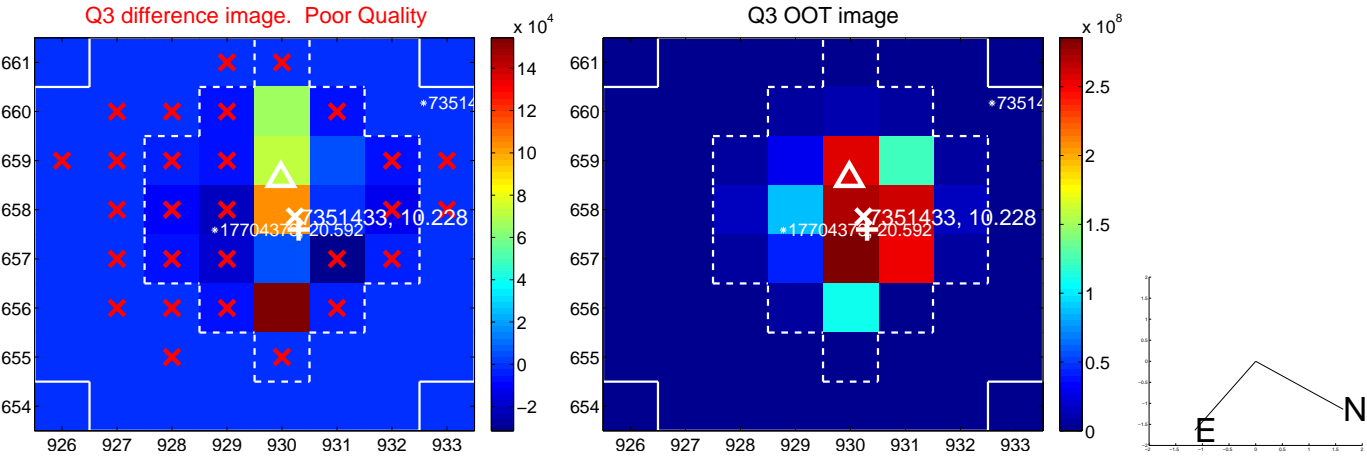
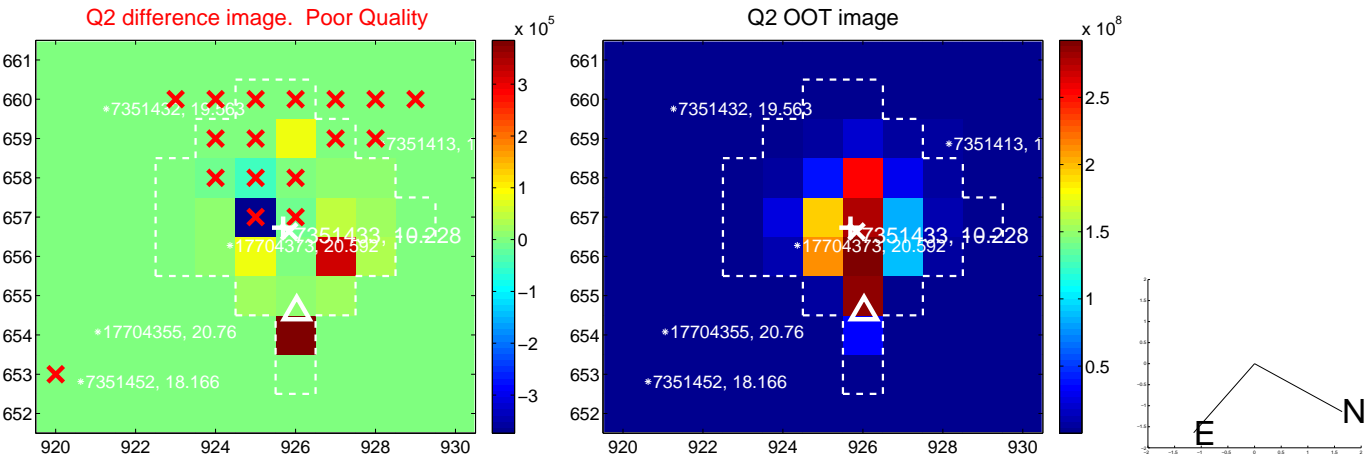
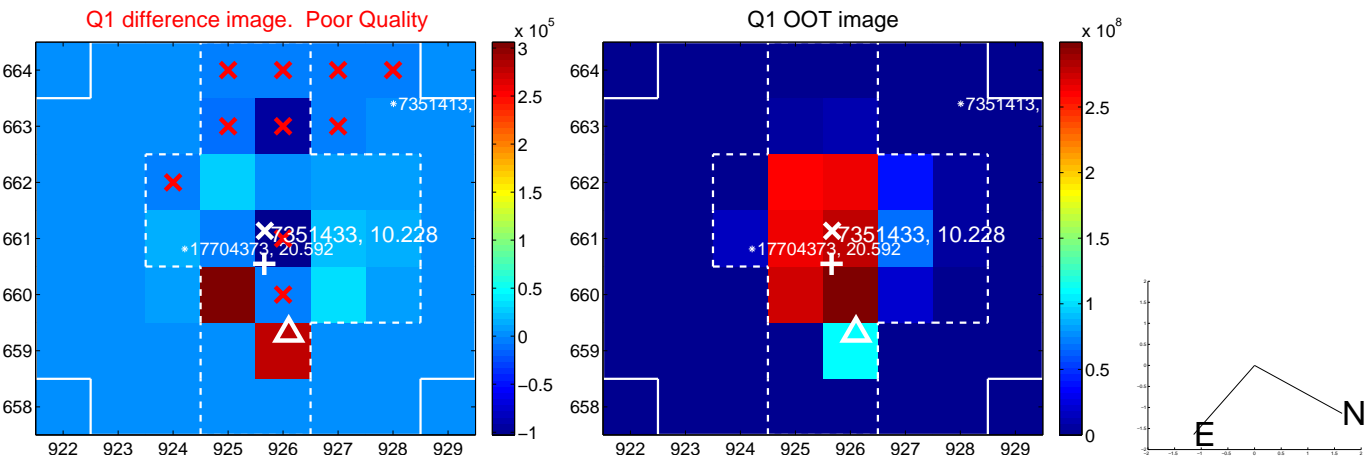
The OOT PRF centroid is offset from the target star catalog position by about 2.16 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.429 ± 1.691	2.03	1.931 ± 1.365	2.834 ± 1.156
PRF-fit source offset from KIC position	3.926 ± 1.558	2.52	2.624 ± 1.239	2.920 ± 1.019
photometric centroid source offset	1.04 ± 0.15	6.95	0.77 ± 0.16	0.70 ± 0.13

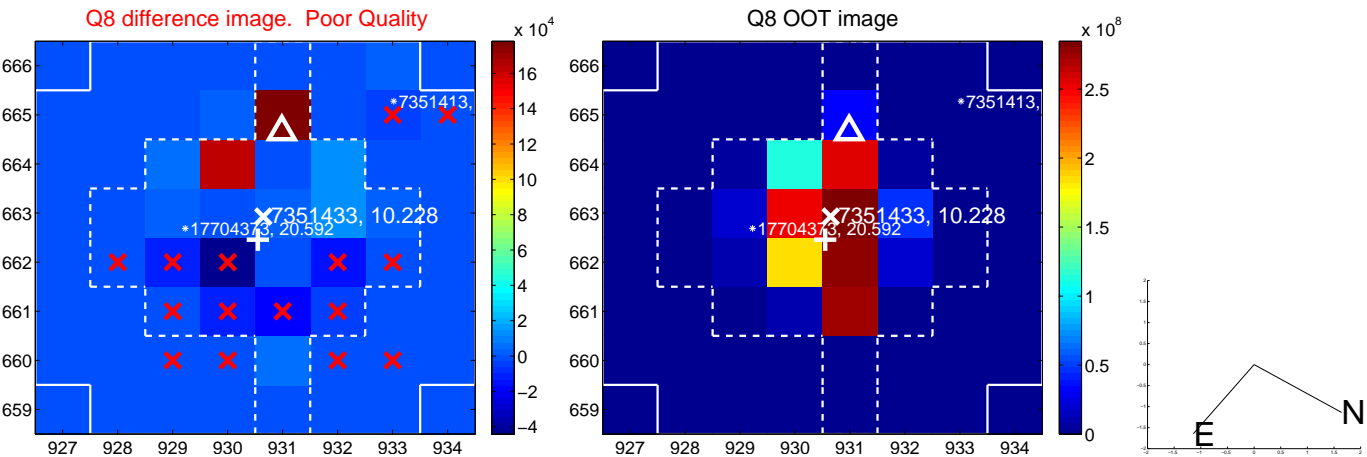
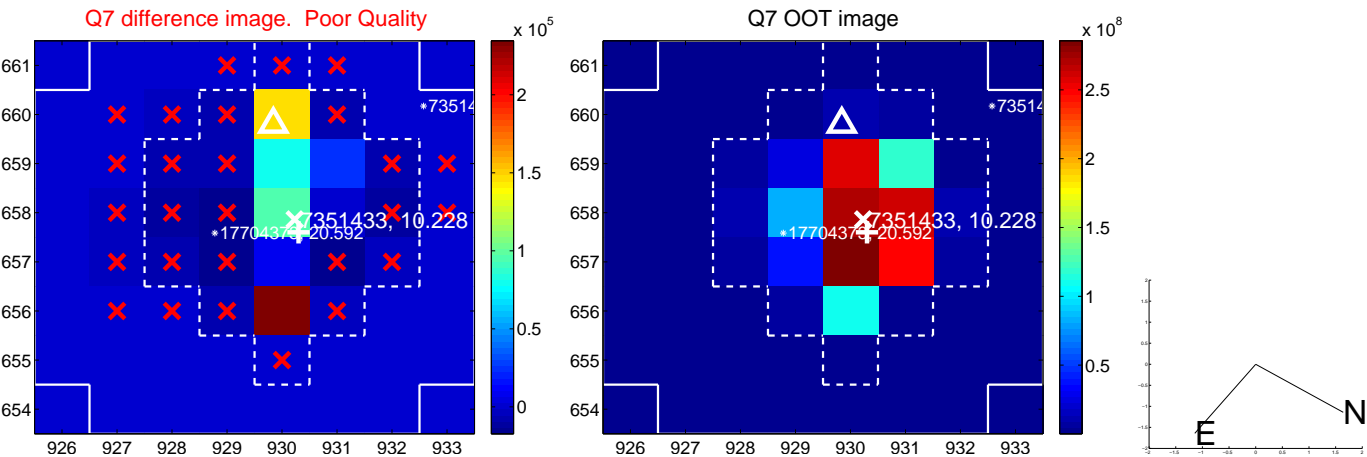
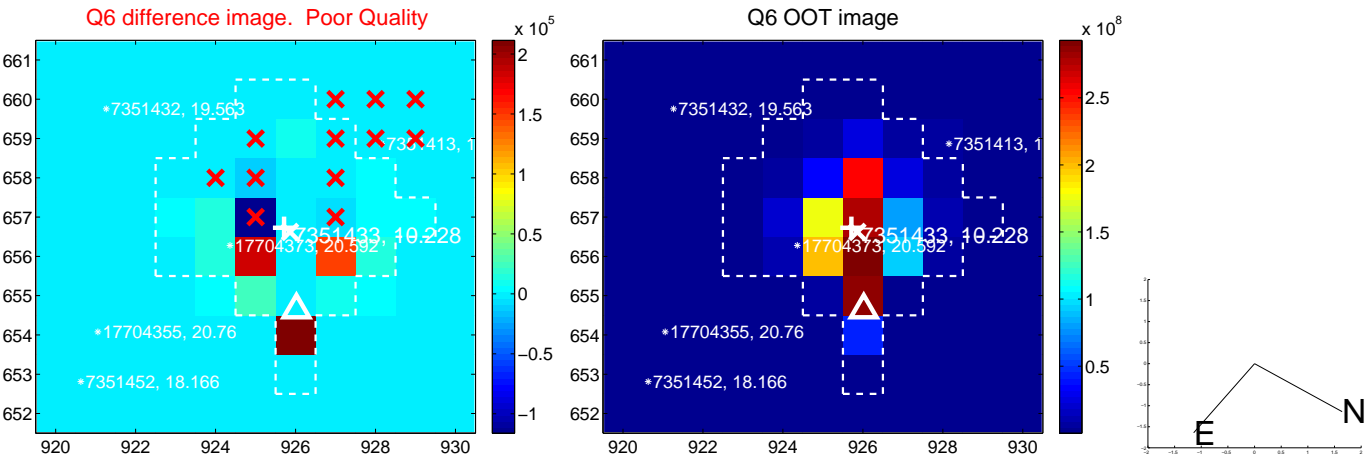
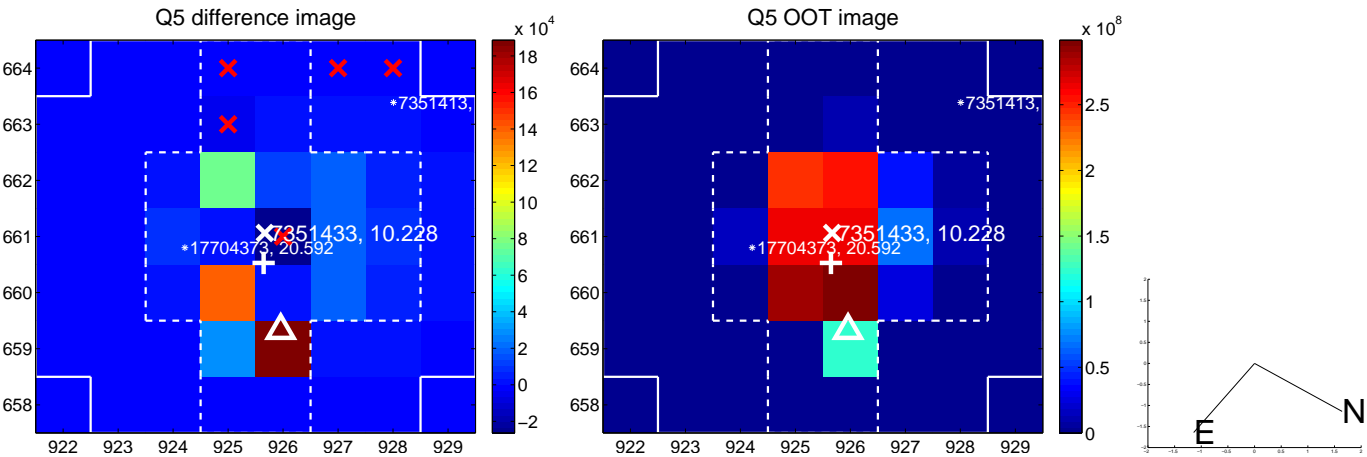


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

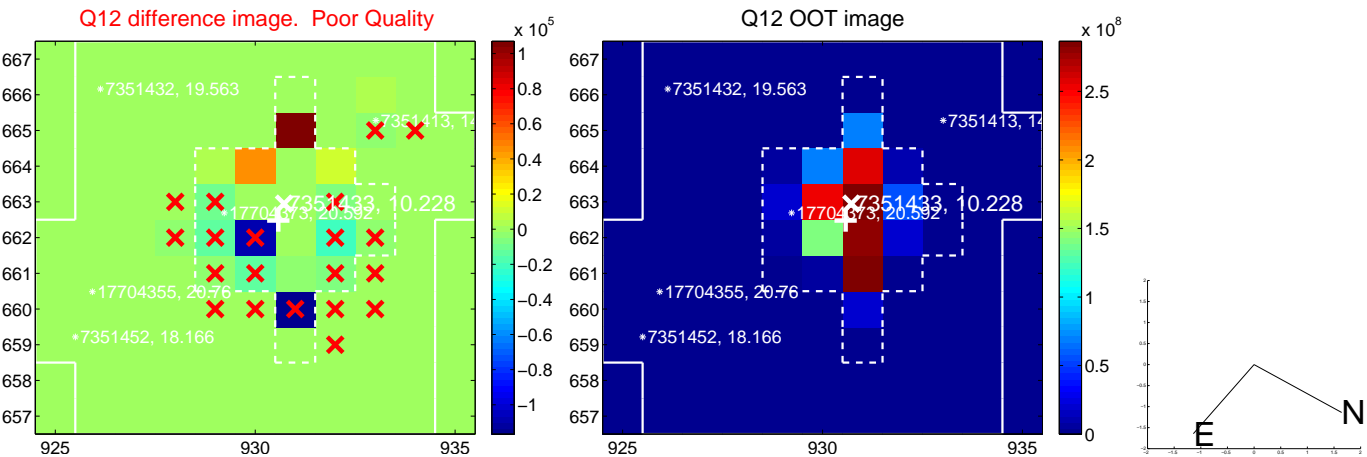
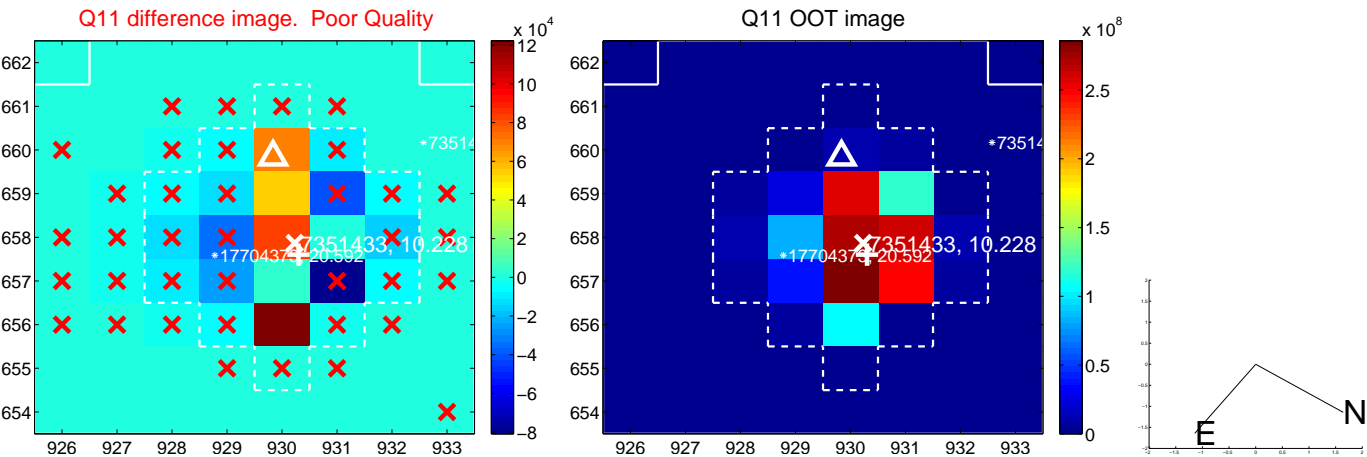
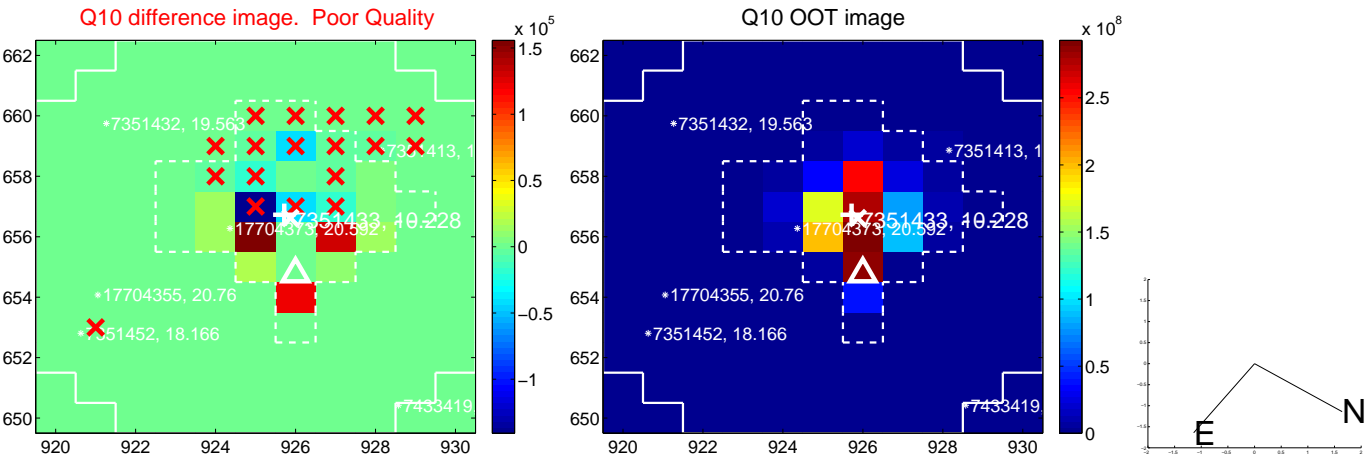
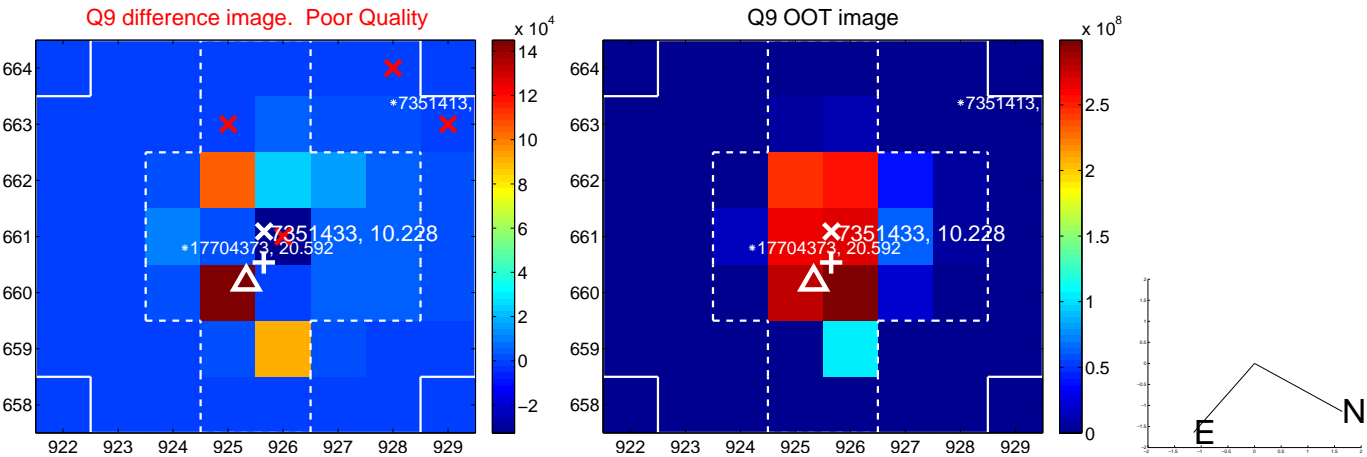
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



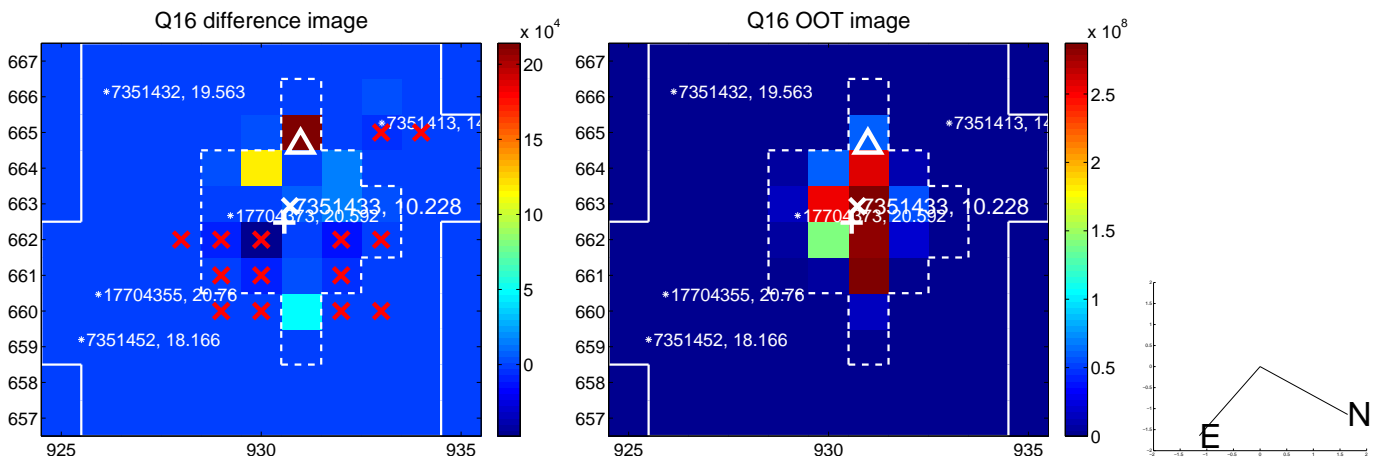
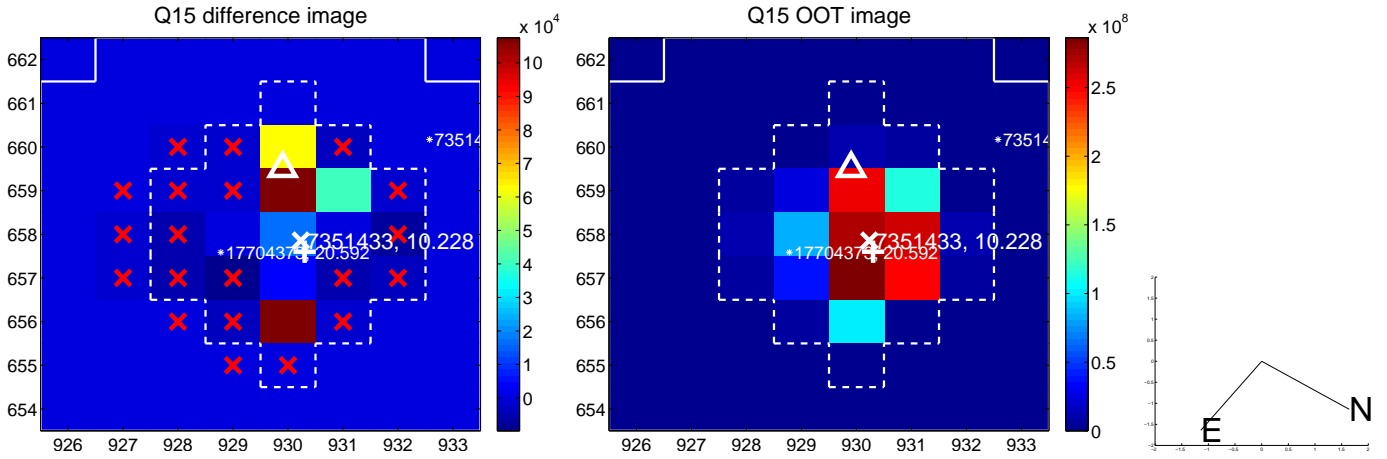
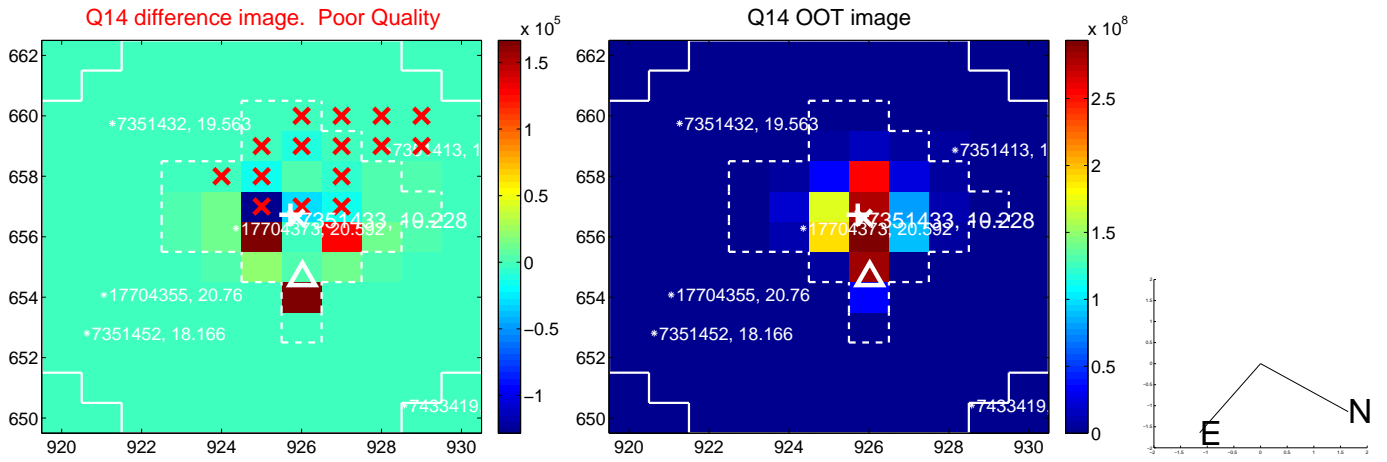
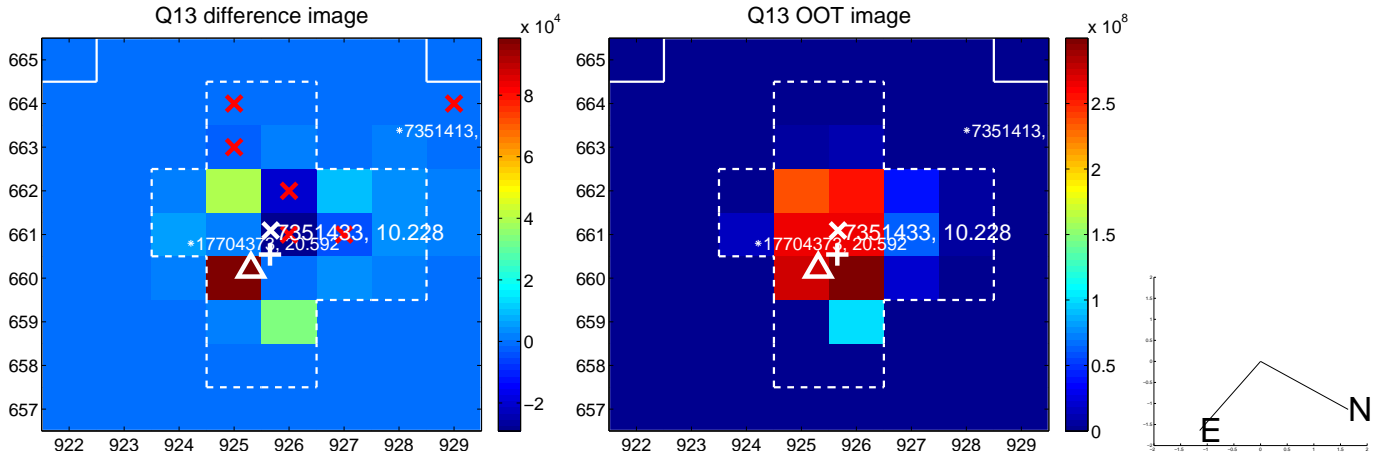
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



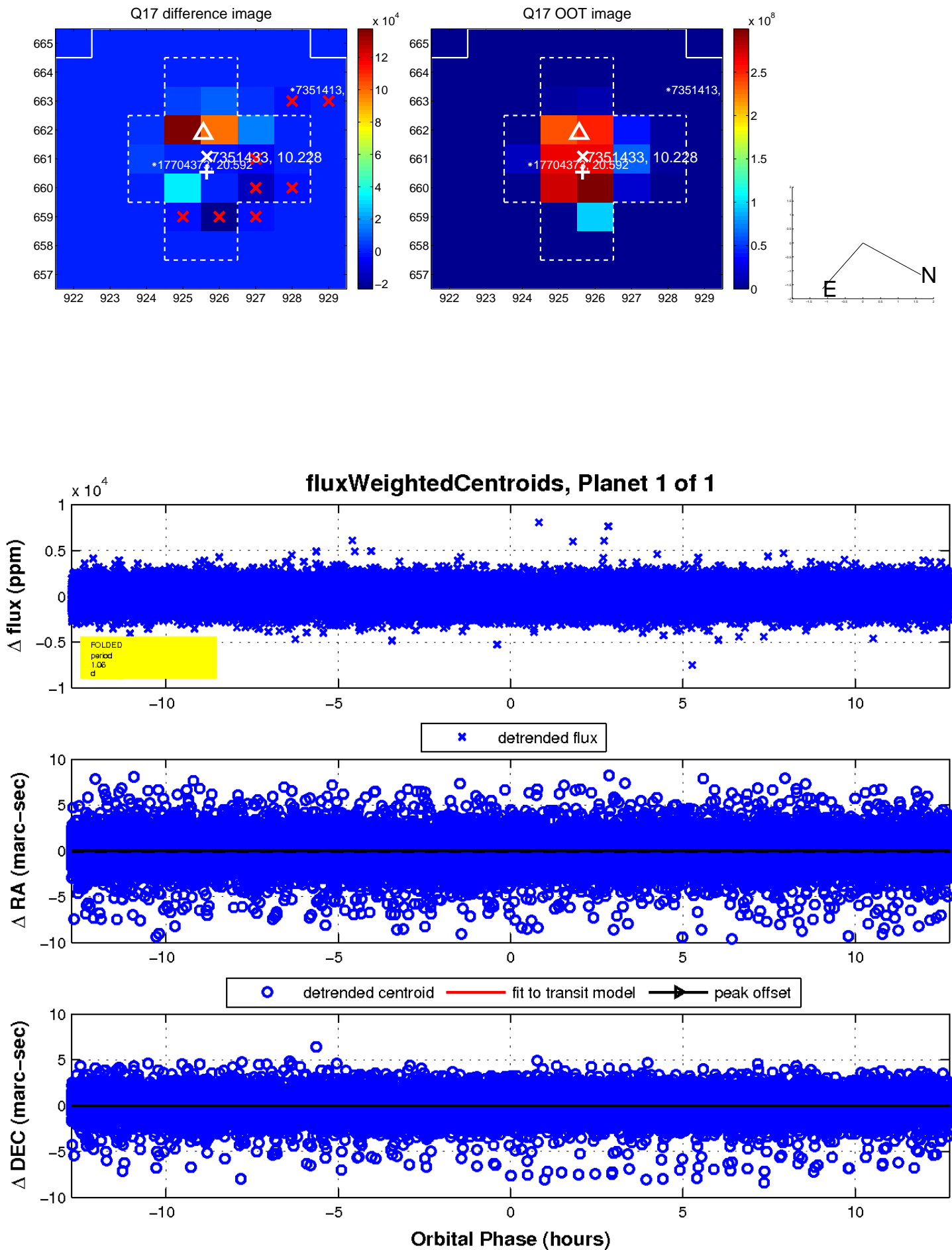
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

