

KIC 010071339

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})
010071339-01	OBS	No	0.767361	131.671077	4.9	5.980	7.9	3.6	1.63	7187	0.37	17854.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010071339-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

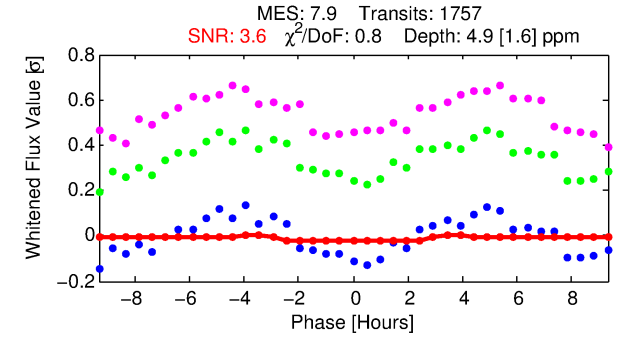
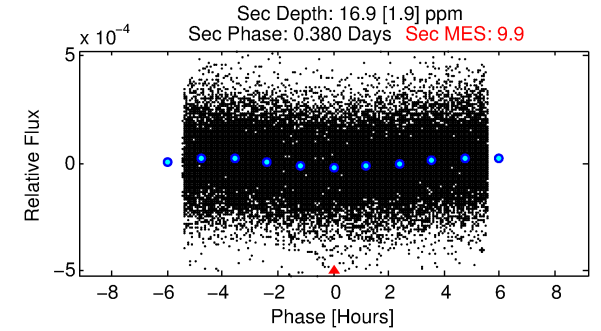
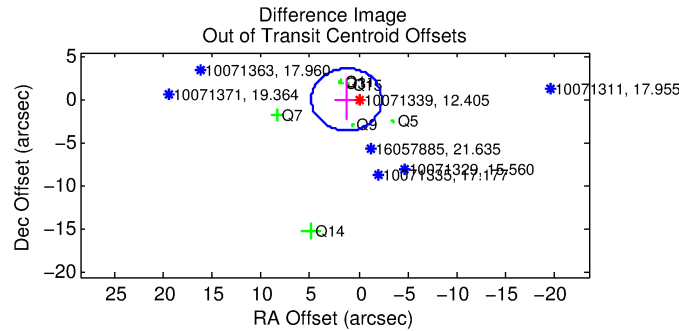
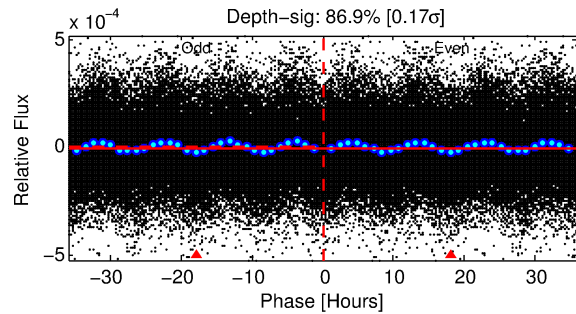
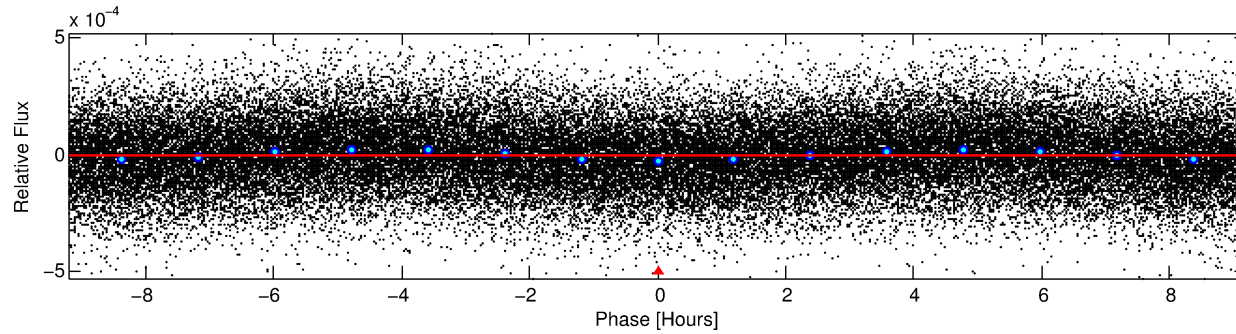
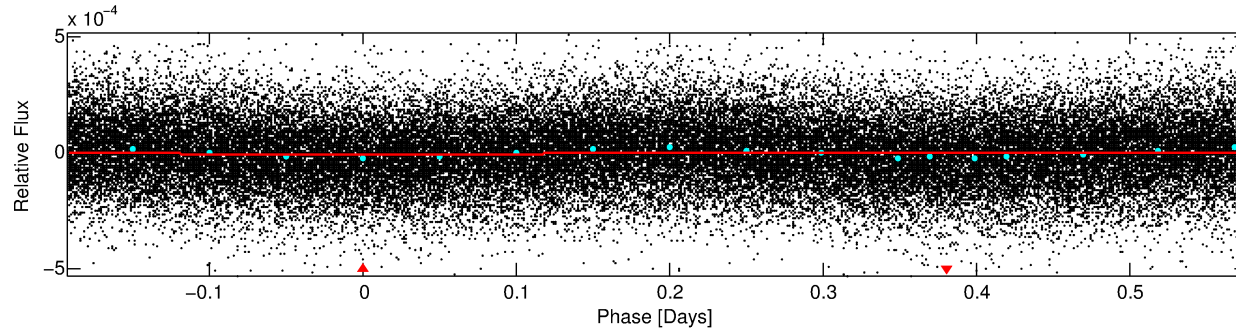
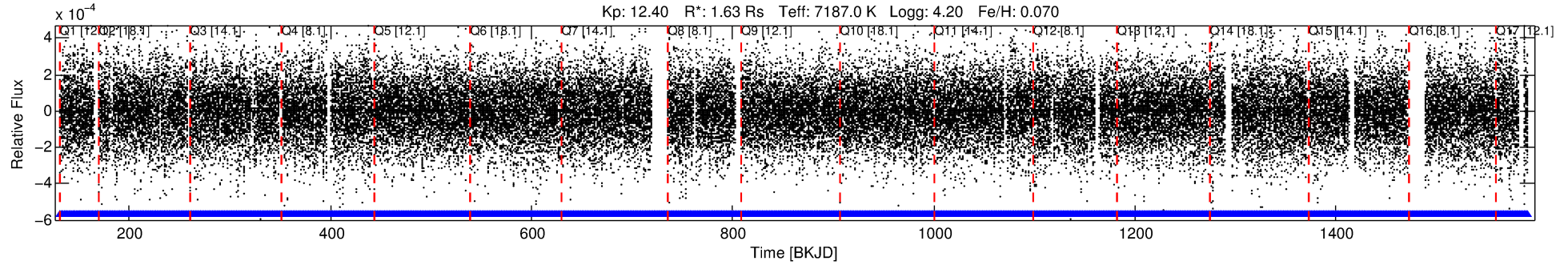
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010071339-01

No Significant Match Found

DV One-Page Summary

KIC: 10071339 Candidate: 1 of 1 Period: 0.767 d



DV Fit Results:

Period = 0.76736 [0.00004] d
Epoch = 131.6711 [0.0110] BKJD
Rp/R* = 0.0021 [0.0033]
a/R* = 1.16 [2.74]
b = 0.35 [23.61]
Seff = 17854.29 [7855.15]
Teq = 2948 [324] K
Rp = 0.37 [0.60] Re
a = 0.0189 [0.0053] AU
Ag = 24.33 [77.46] [0.30 σ]
Teffp = 10121 [8007] K [0.90 σ]

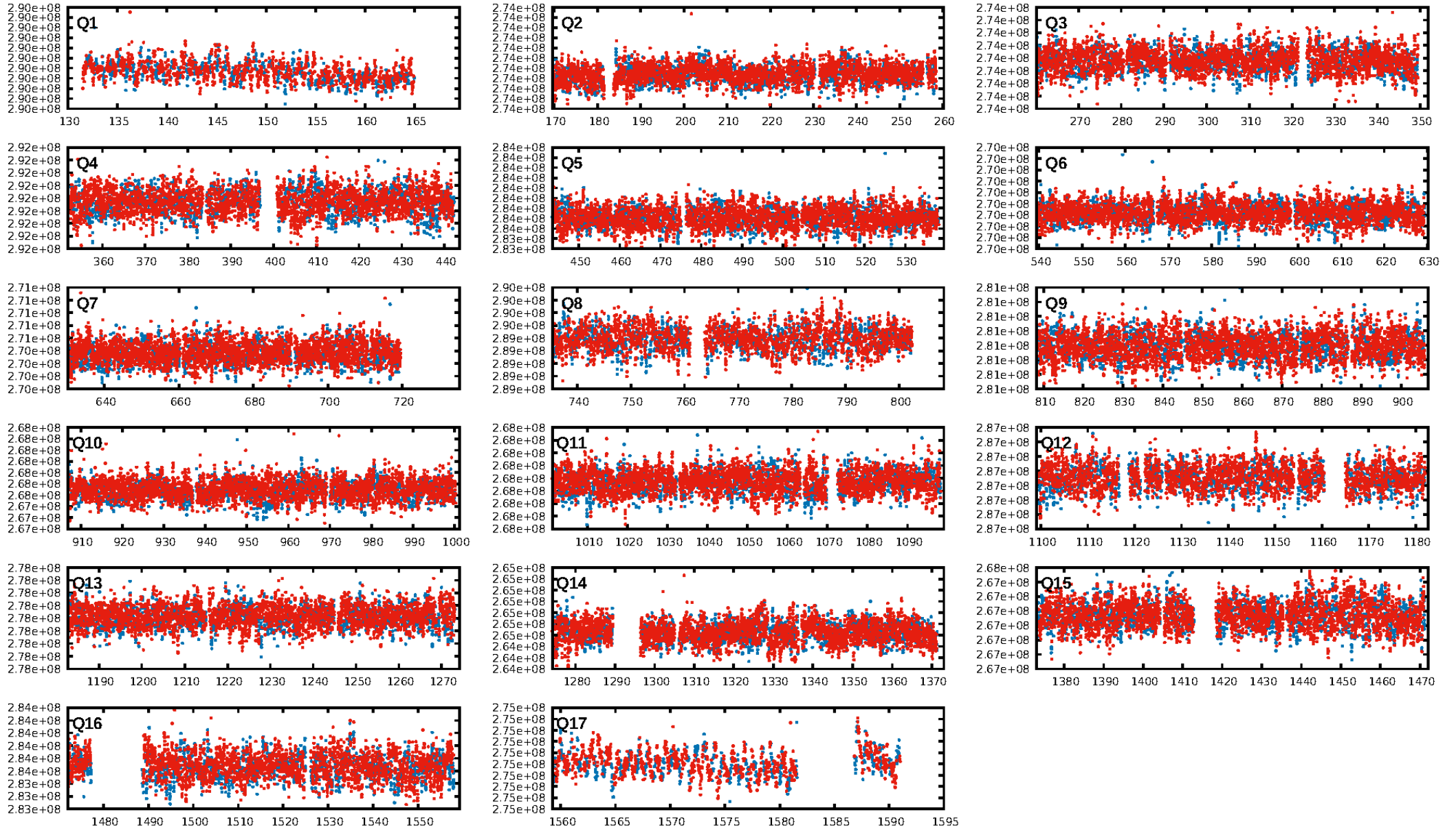
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1679/1679]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.273 arcsec [1.06 σ]
Centroid-so: N/A
KicOffset-rm: 1.152 arcsec [0.89 σ]
OotOffset-st: 1/4/0/2 [7]
KicOffset-st: 1/4/0/2 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 1.00 [17/17]

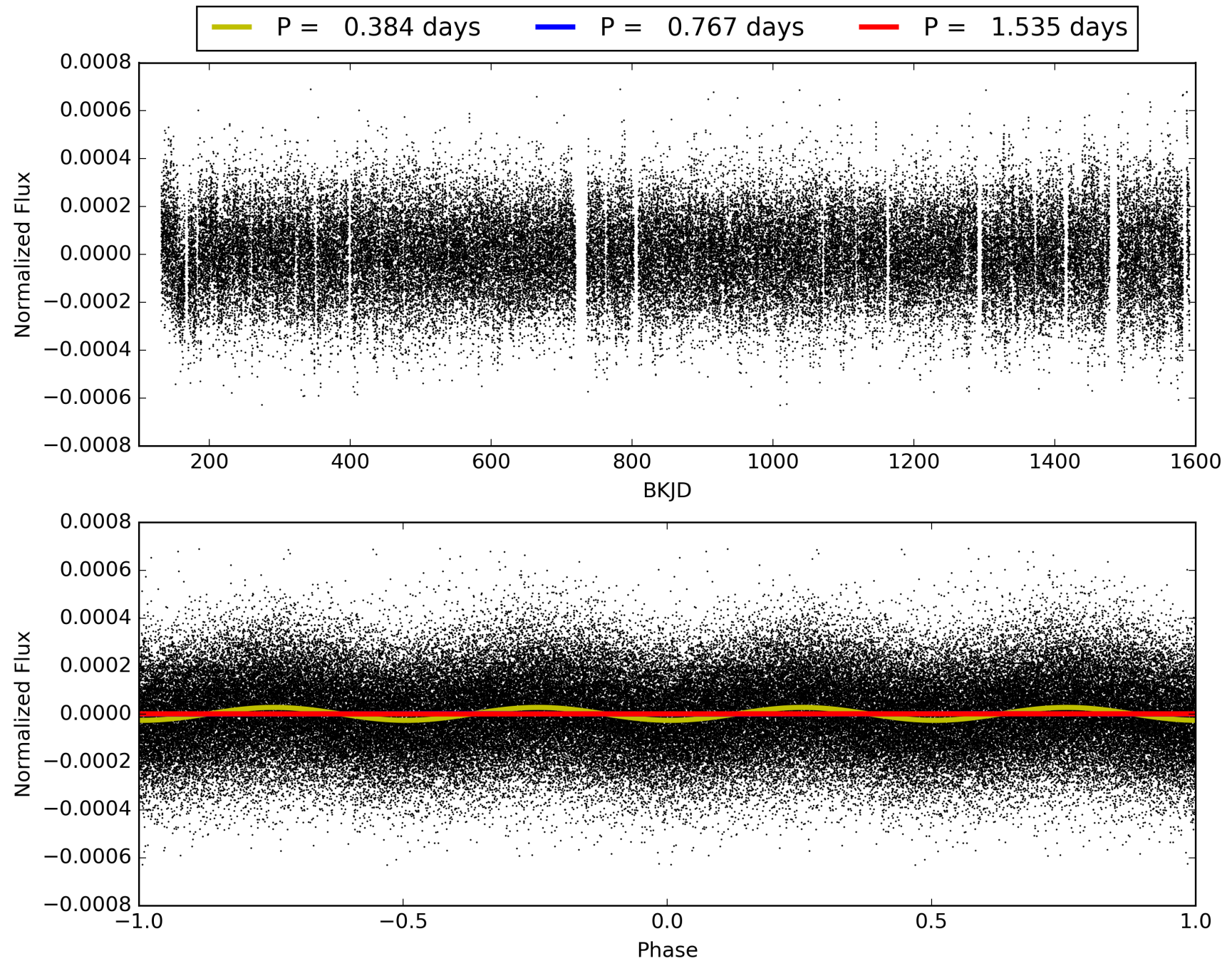
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:57:08 Z

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

TCE 010071339-01, PDC Light Curves

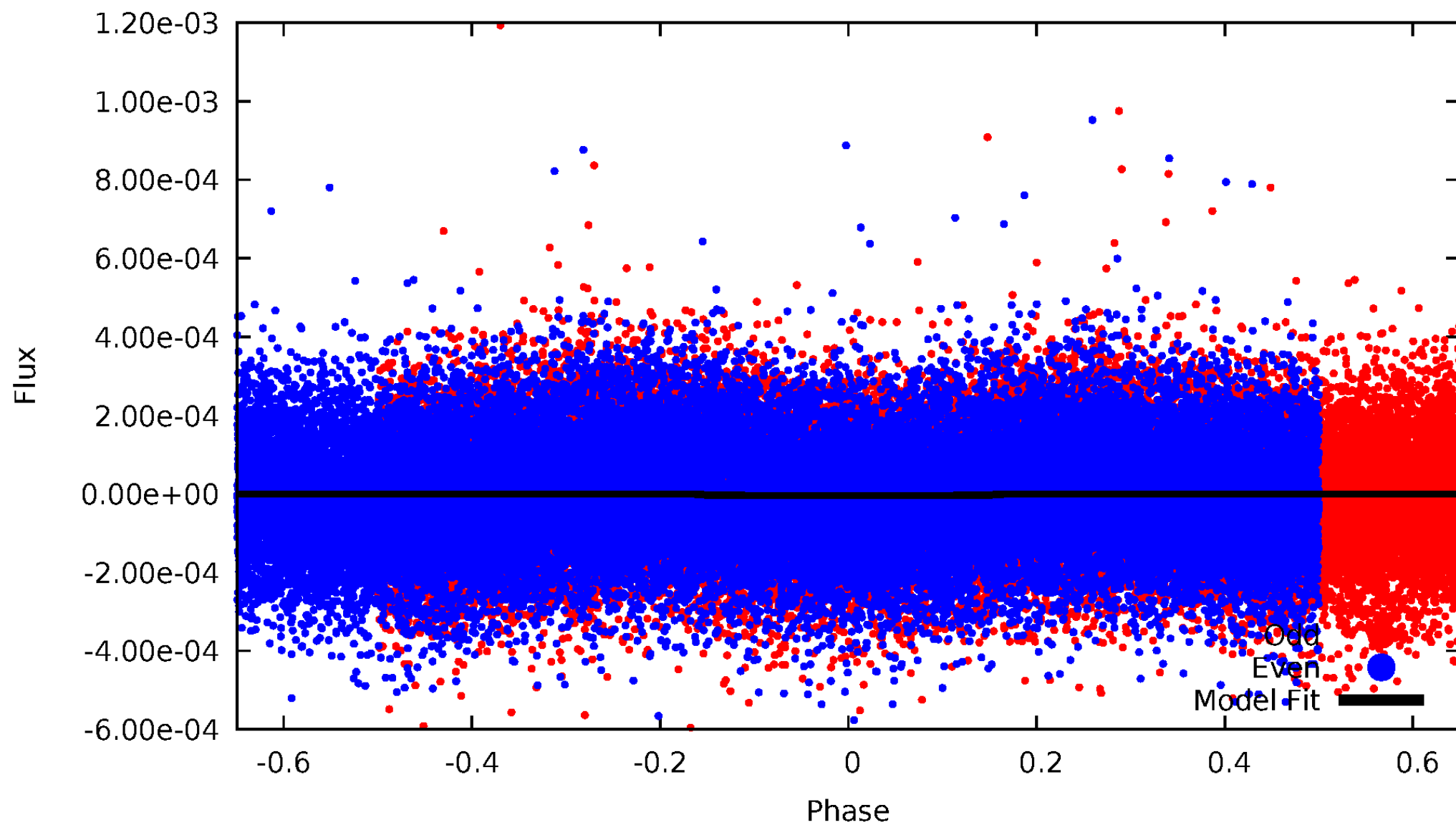


TCE 010071339-01



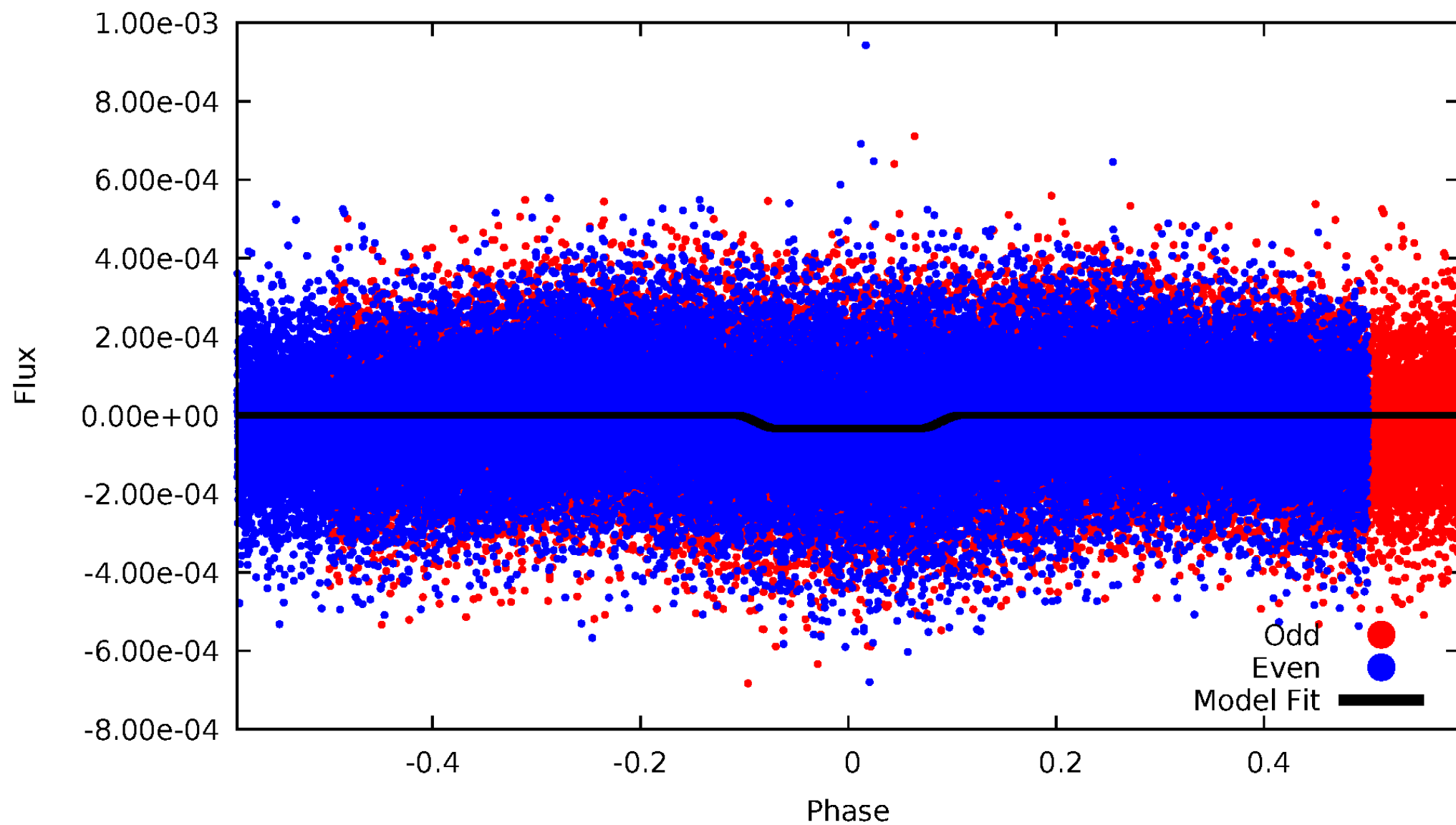
DV Odd/Even

TCE 010071339-01



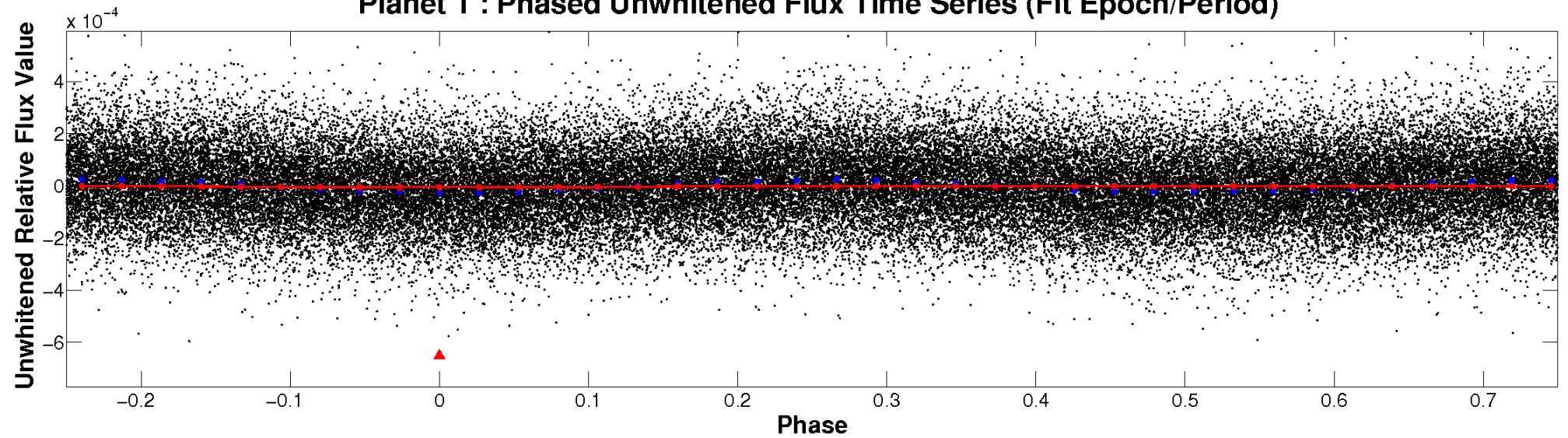
ALT Odd/Even

TCE 010071339-01

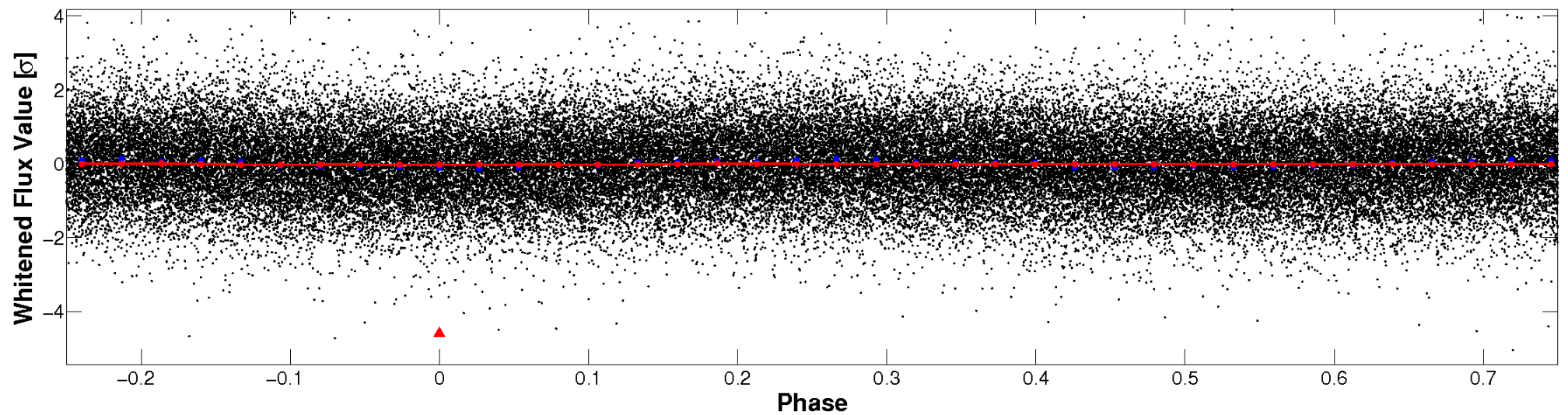


Non-Whitened Vs. Whitened Light Curve

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

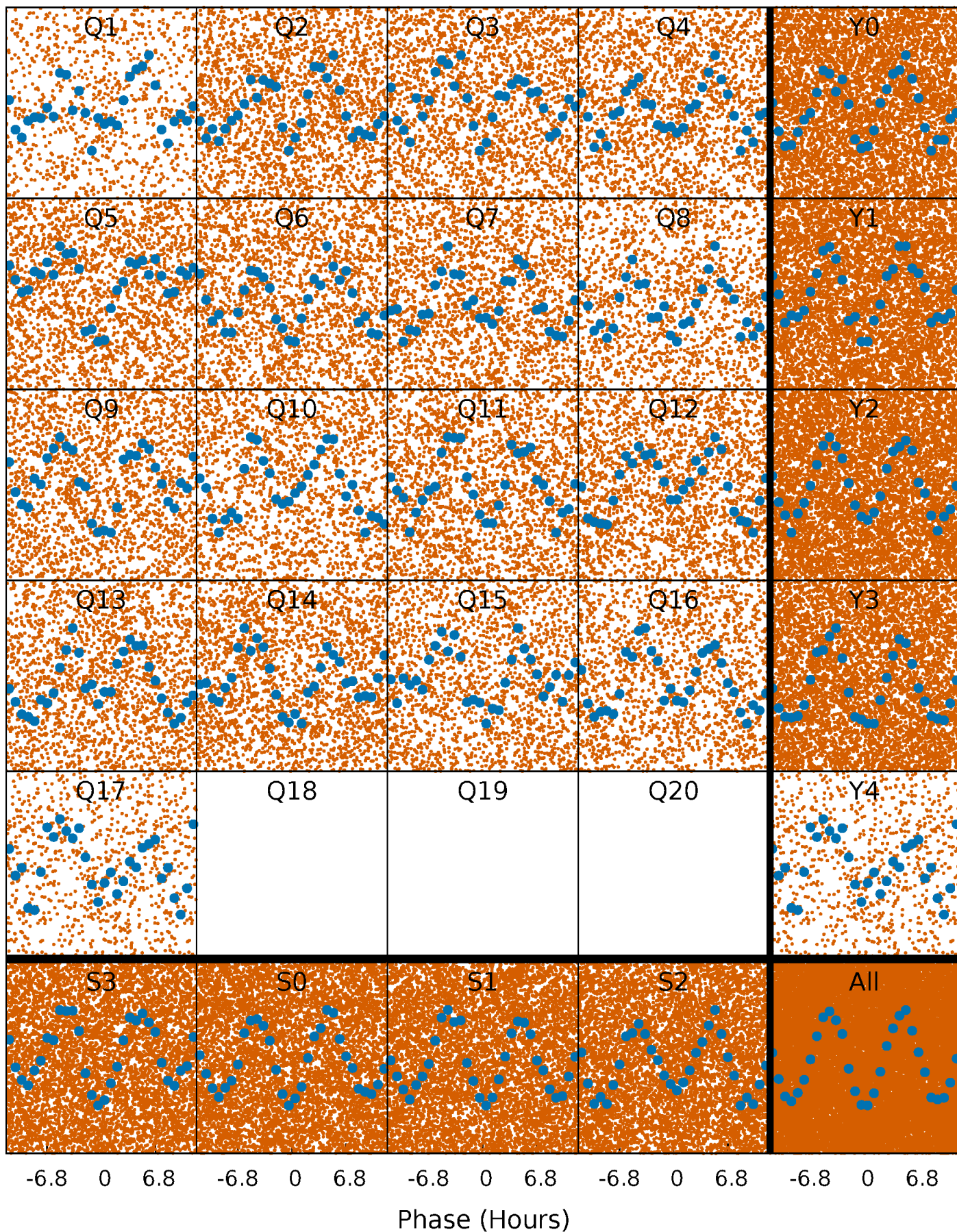


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



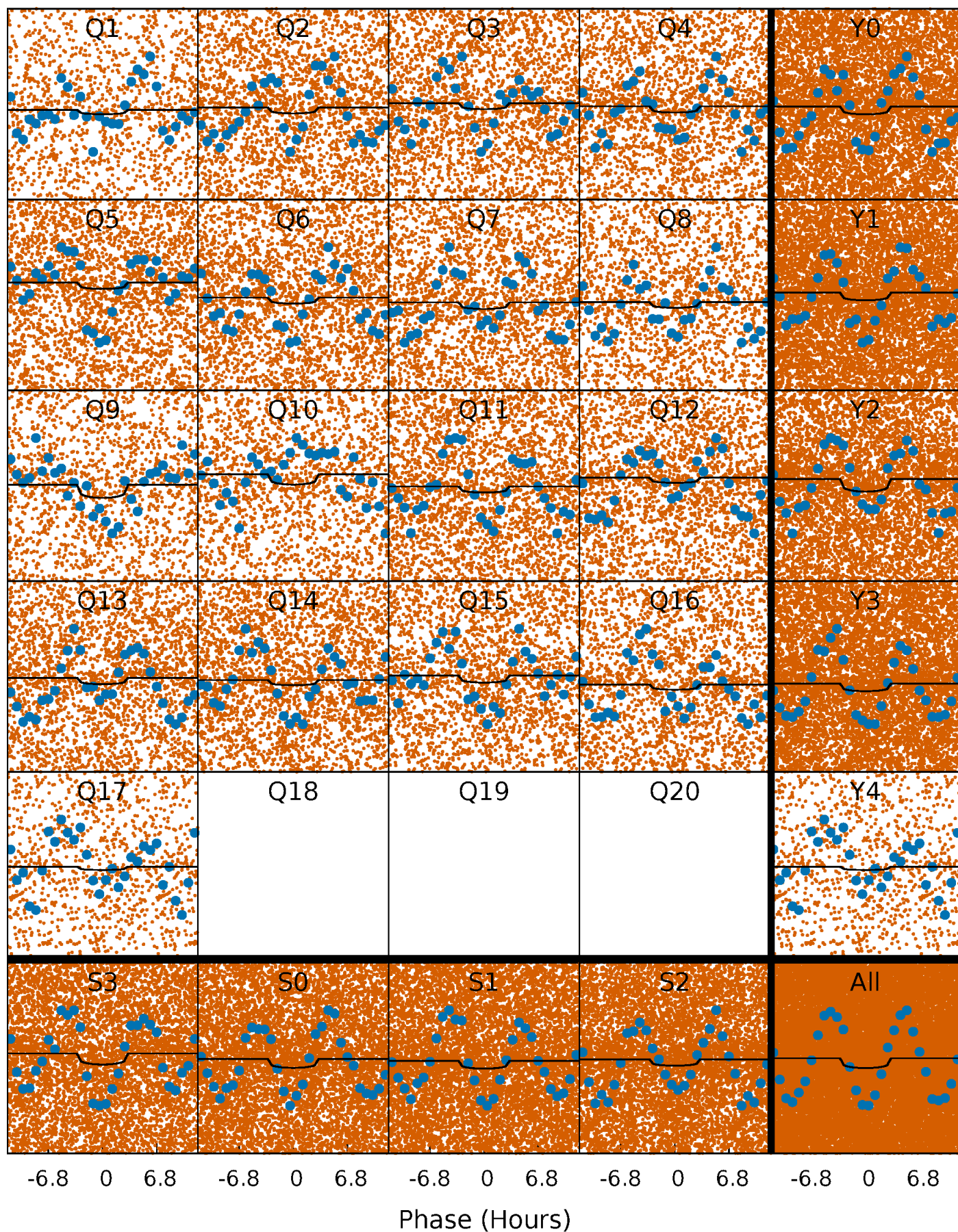
PDC Quarter-Phased Transit Curves

TCE 010071339-01 P= 0.767361 Days $T_0=131.671077$ (BKJD)



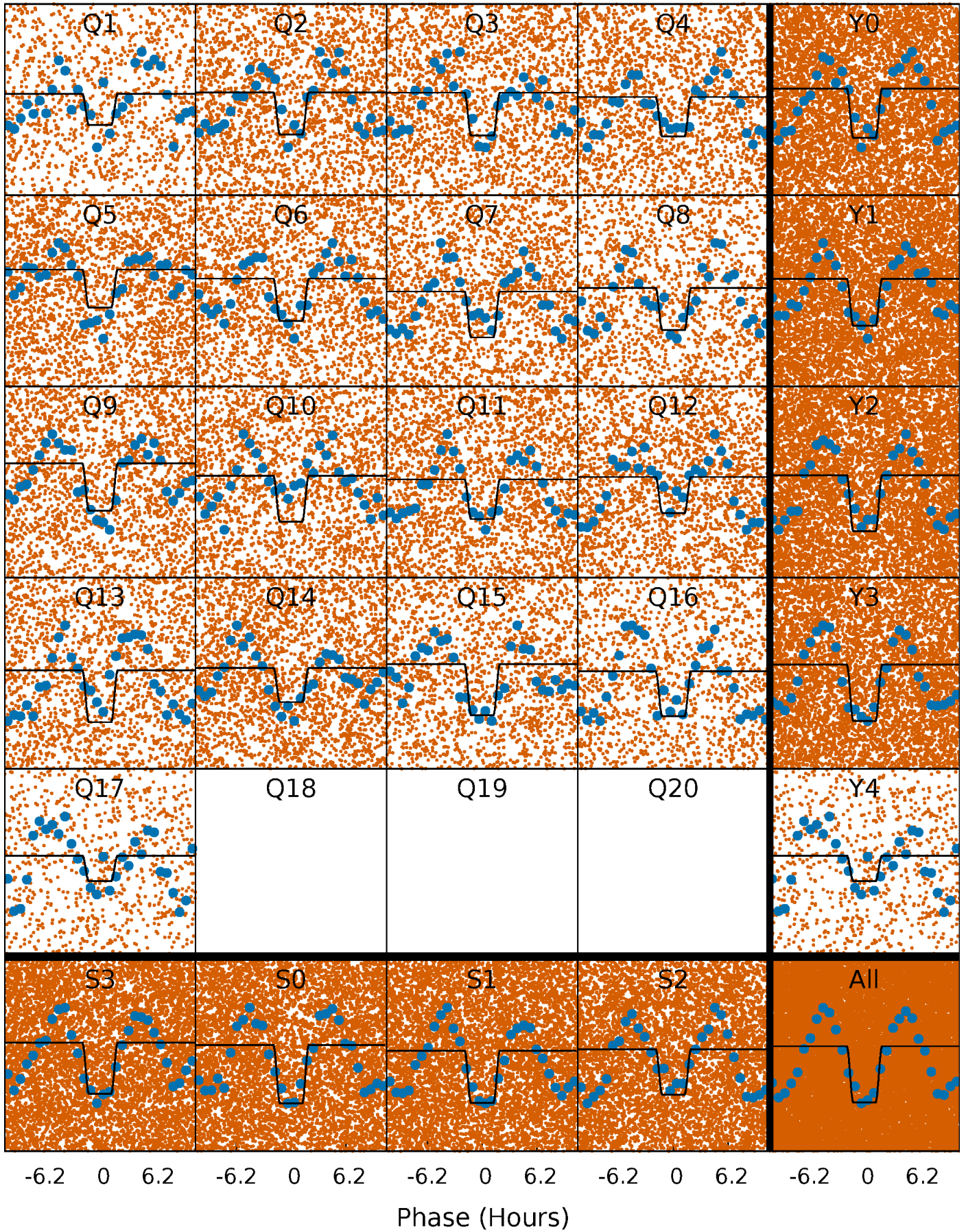
DV Quarter-Phased Transit Curves

TCE 010071339-01 P= 0.767361 Days $T_0=131.671077$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

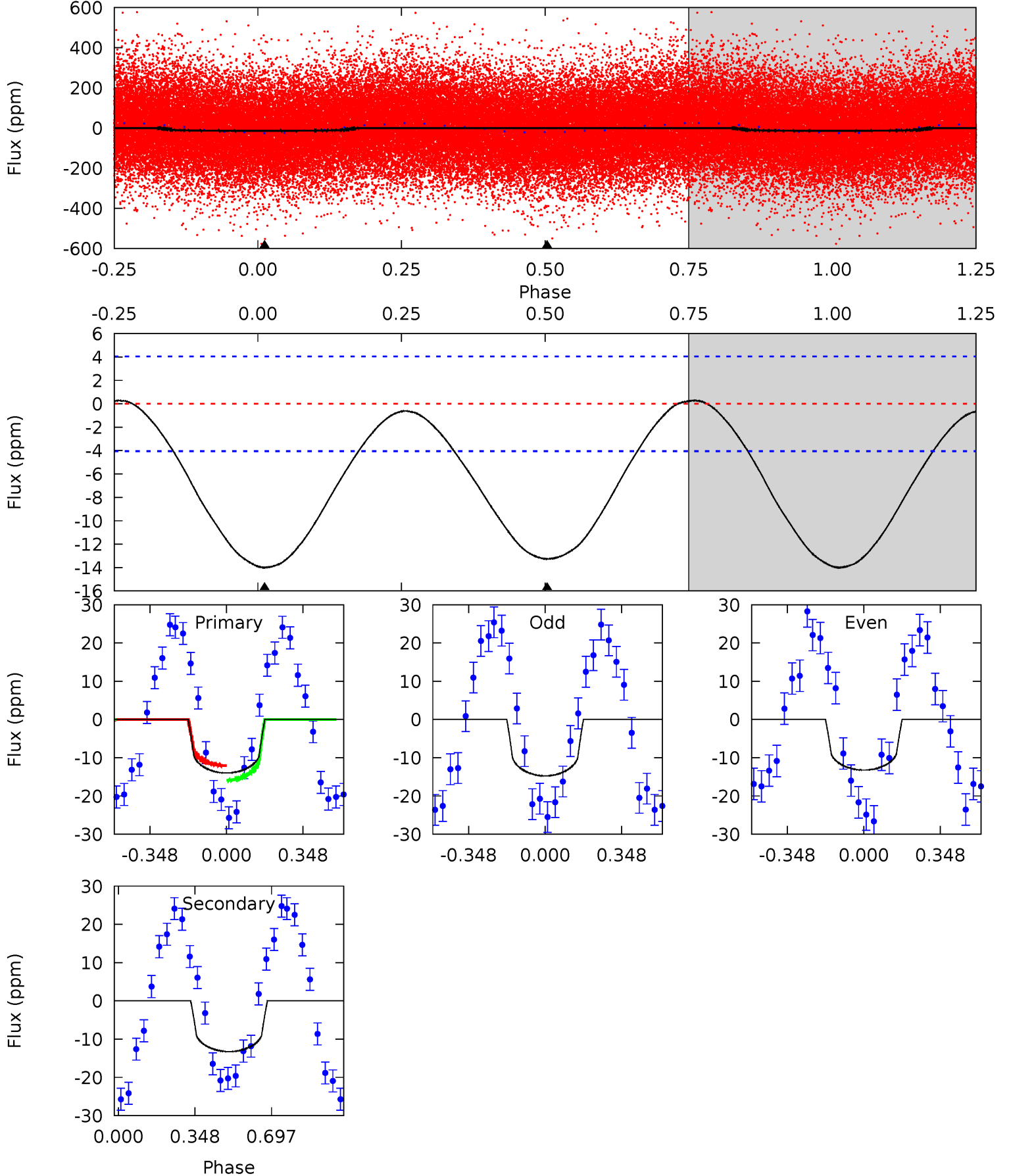
TCE 010071339-01 P= 0.767383 Days $T_0=131.656186$ (BKJD)



DV Model-Shift Uniqueness Test

010071339-01, P = 0.767361 Days, E = 130.903716 Days

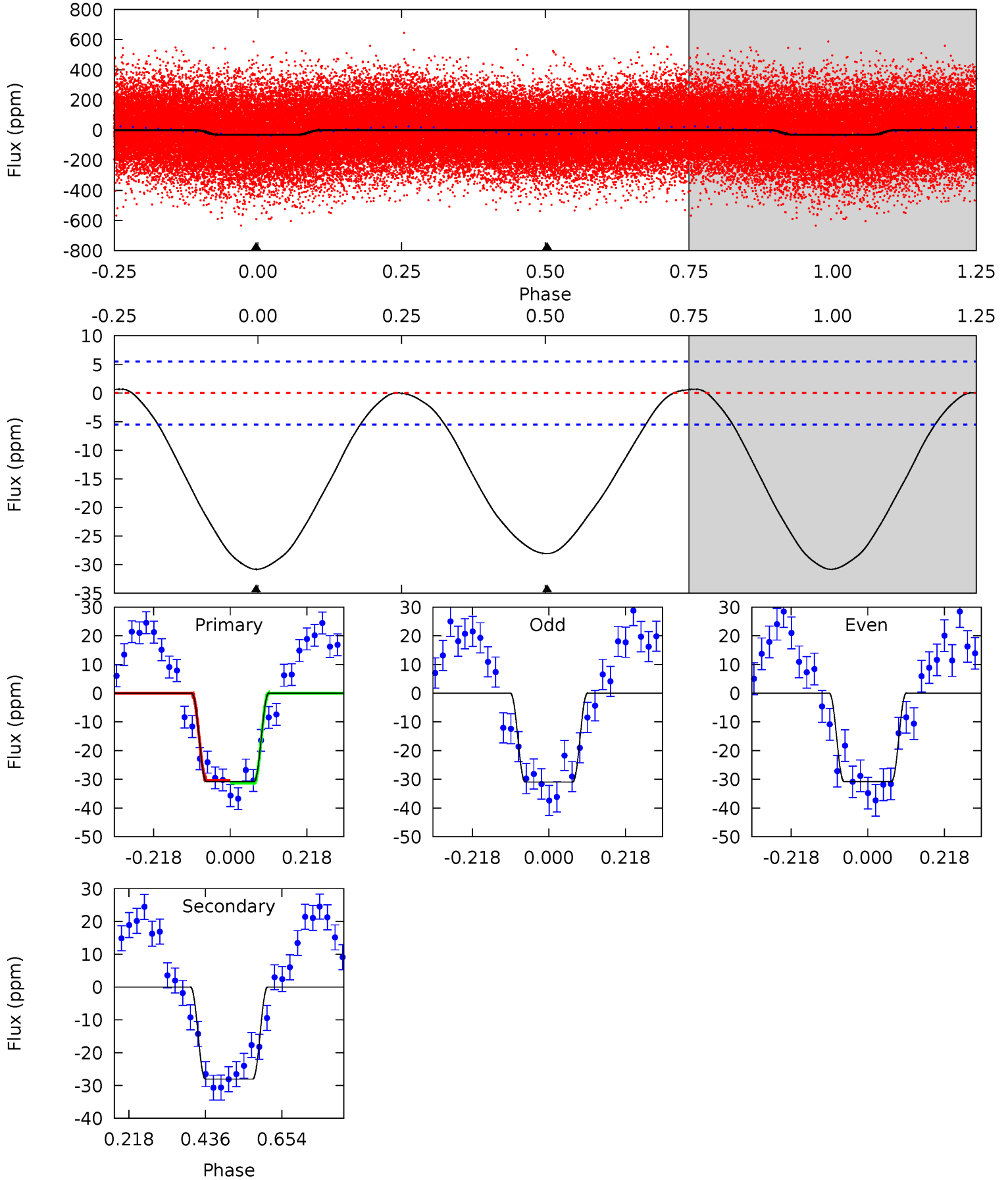
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	14.1	0	0	4.30	0.94	0.46	14.8	14.8	14.1	14.1	0.81	1.20	0.02	2.14



Alt Model-Shift Uniqueness Test

010071339-01, P = 0.767383 Days, E = 130.888803 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.6	22.4	0	0	4.40	1.23	0.45	24.6	24.6	22.4	22.4	0.08	1.19	0.02	0.34



Stellar Parameters For KIC 010071339

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7187^{+200}_{-343}	$4.196^{+0.090}_{-0.210}$	$0.070^{+0.200}_{-0.350}$	$1.633^{+0.565}_{-0.242}$	$1.526^{+0.233}_{-0.211}$	$0.494^{+0.244}_{-0.259}$
	+3%/-5%	+2%/-5%	+286%/-500%	+35%/-15%	+15%/-14%	+49%/-52%
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 010071339-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 1	$0.55^{+0.52}_{-0.37}$	4171^{+319}_{-256}	7771^{+12698}_{-2373}	$8.279^{+66.823}_{-6.062}$
Alt.	-28 ± 1	$1.09^{+0.62}_{-0.58}$	4164^{+333}_{-267}	6537^{+4098}_{-1376}	$4.448^{+15.601}_{-2.606}$

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 $A_{obs} \gg 1.0$

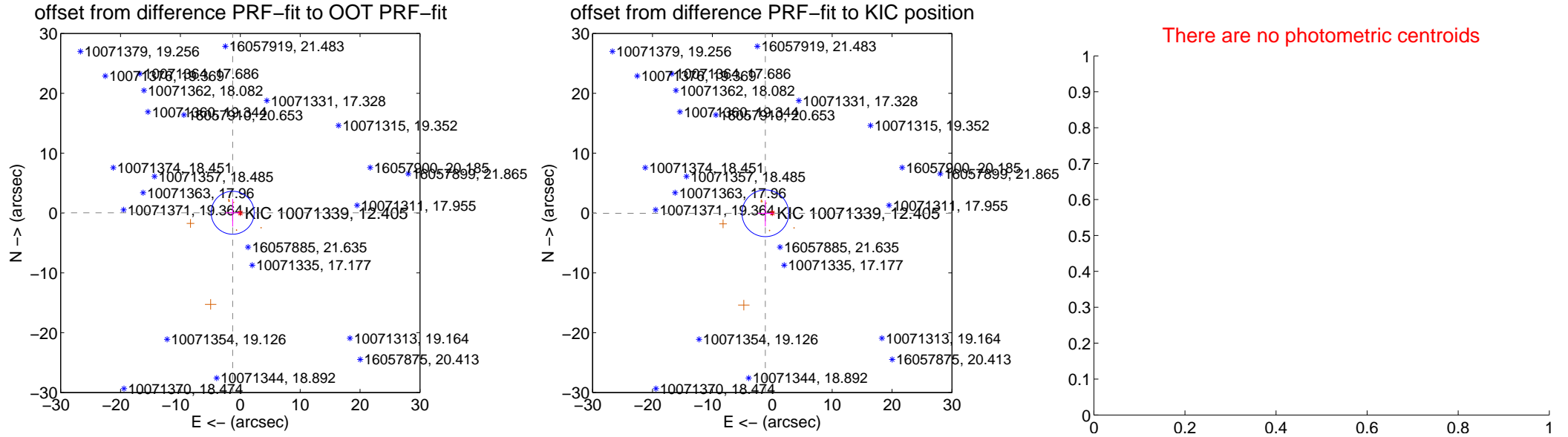
DV Centroid Data

Supplemental centroid analysis for 010071339-01. Kepler magnitude: 12.40. Transit SNR 3.57

There are 0 quarters with good PRF difference image offsets

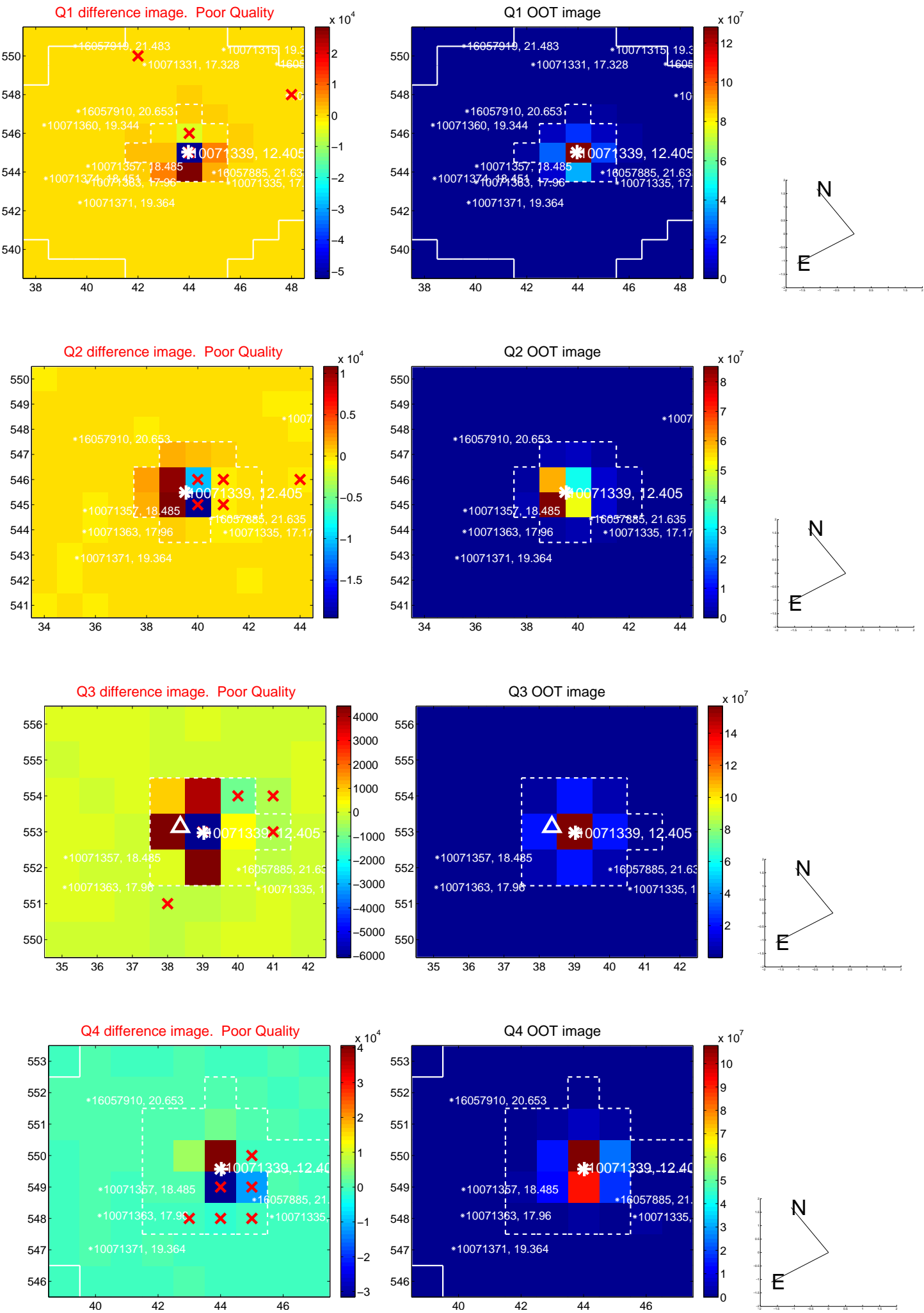
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.273 ± 1.197	1.06	1.272 ± 1.225	0.043 ± 2.312
PRF-fit source offset from KIC position	1.152 ± 1.301	0.89	1.151 ± 1.280	-0.045 ± 2.185
photometric centroid source offset	—	—	—	—

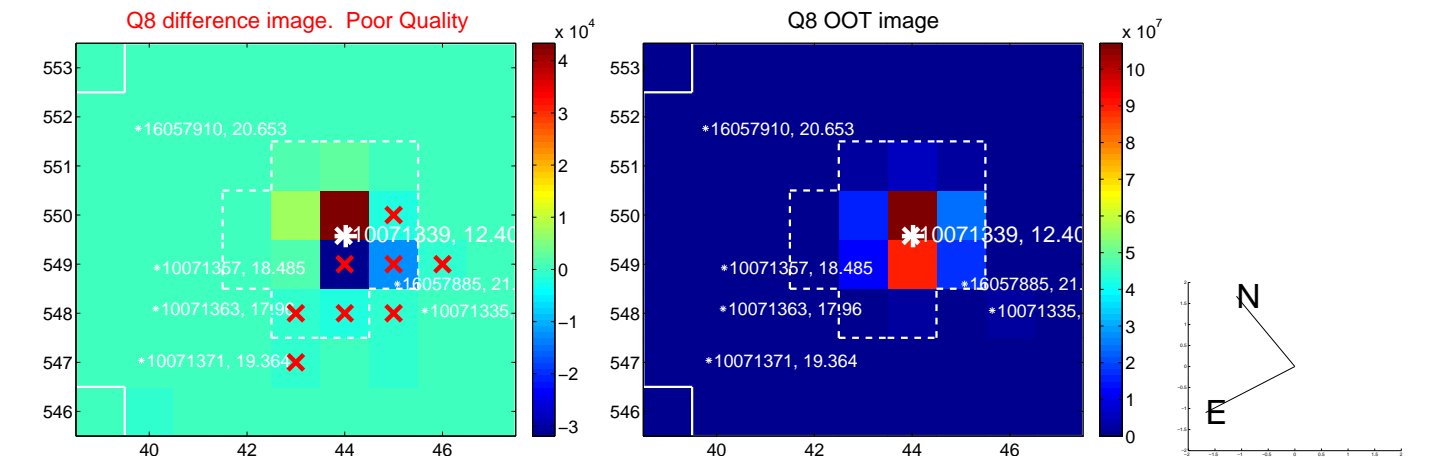
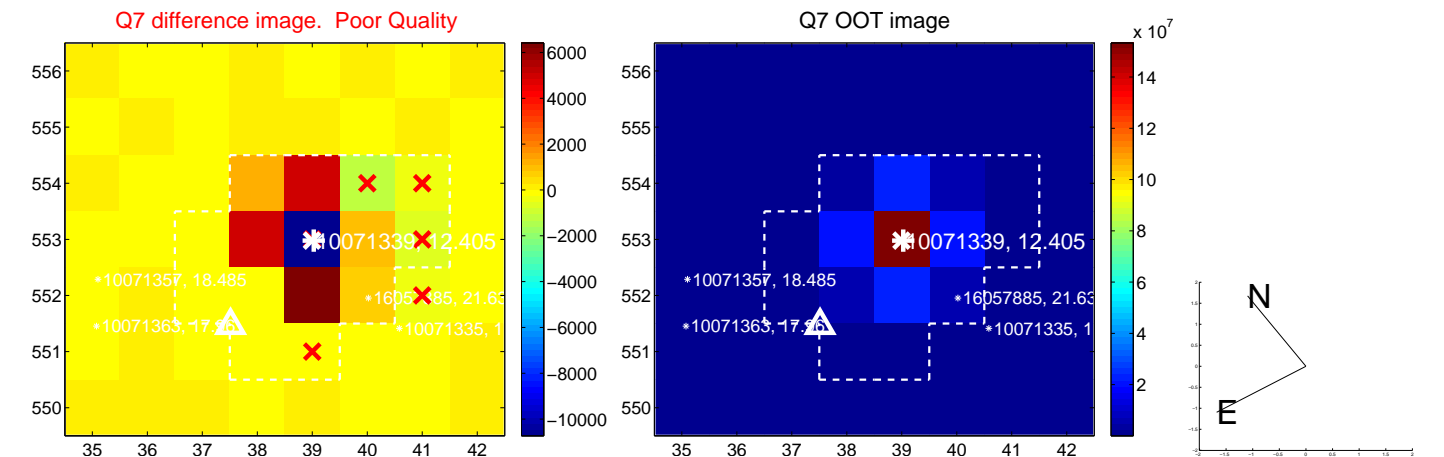
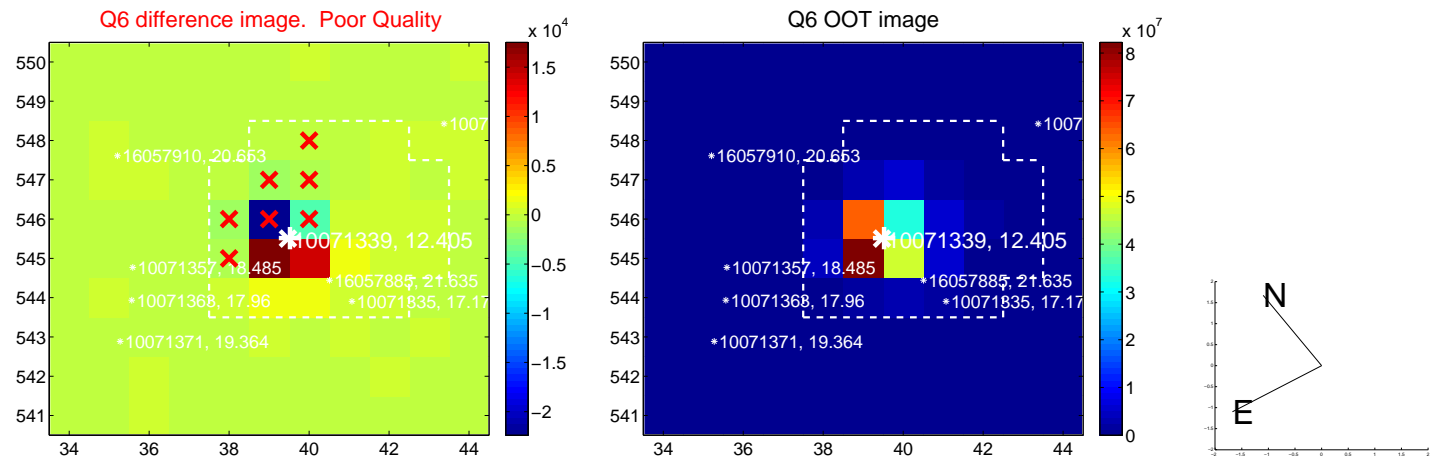
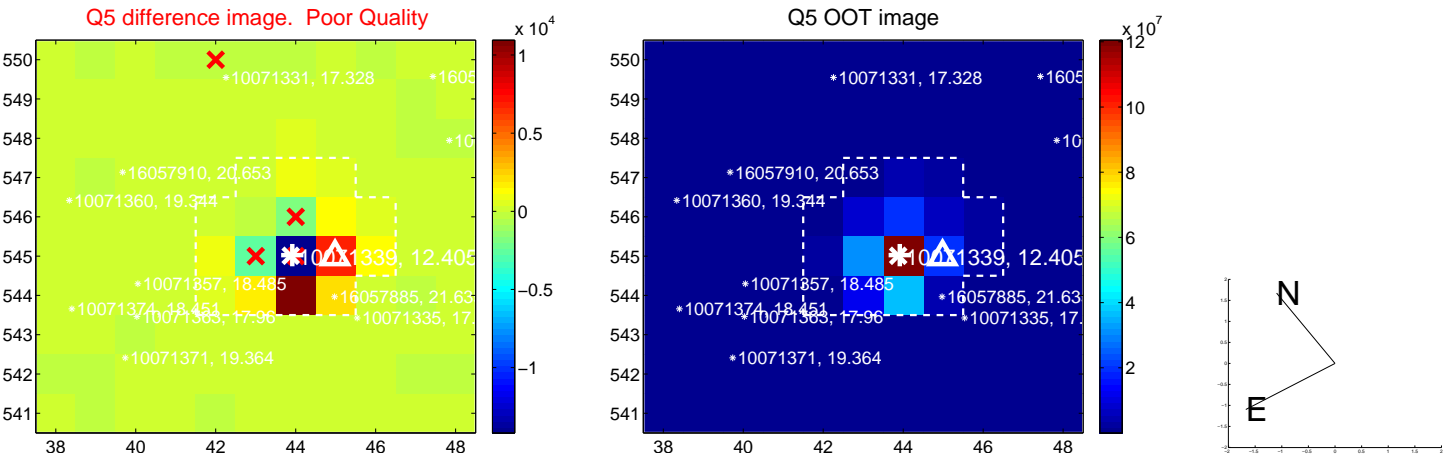


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

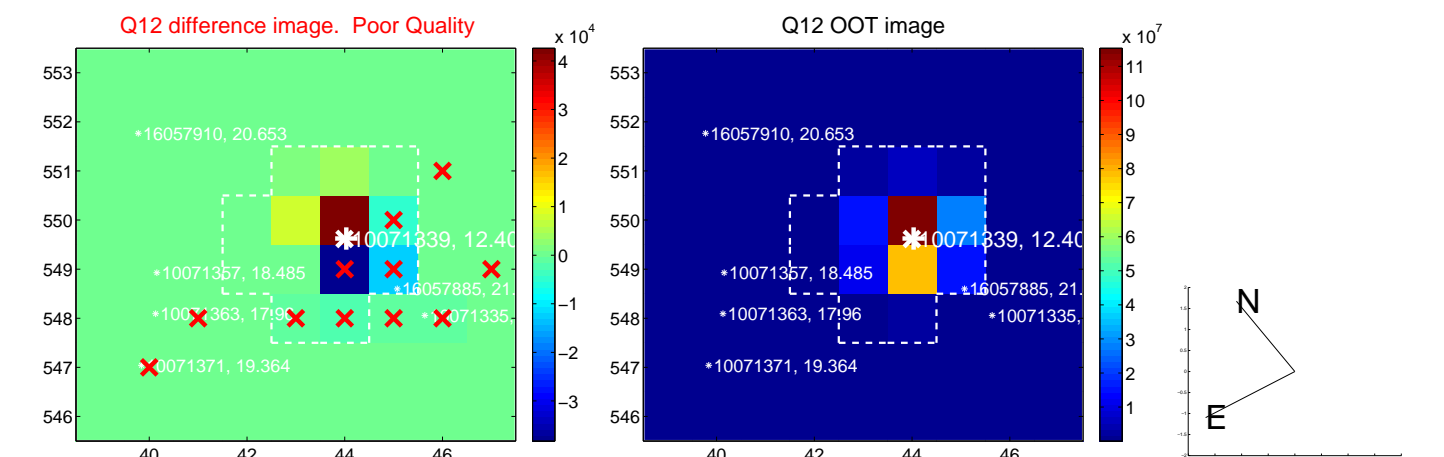
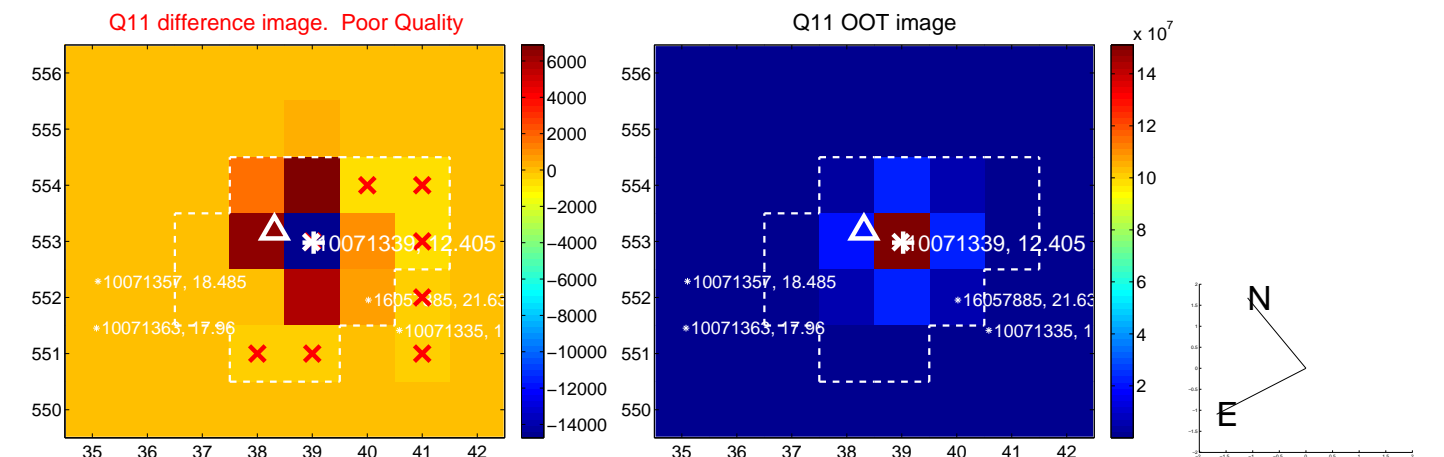
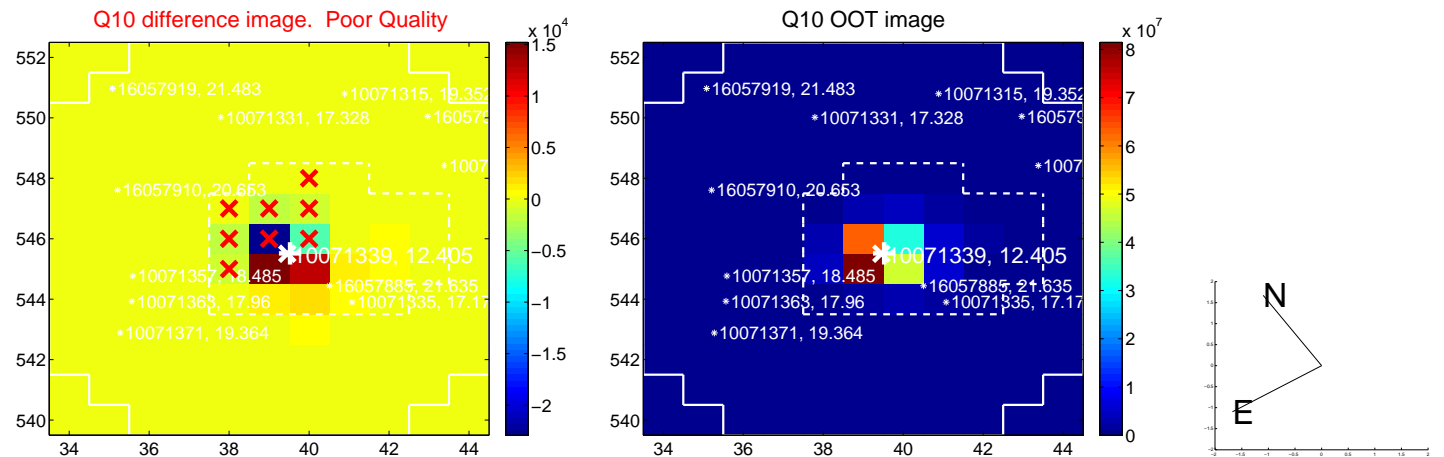
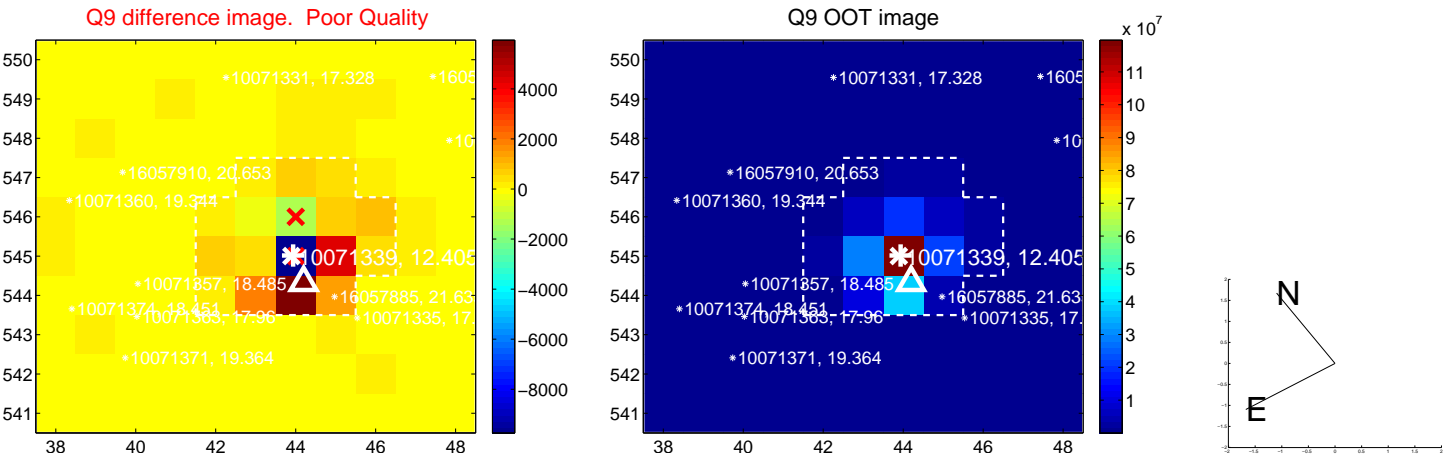
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



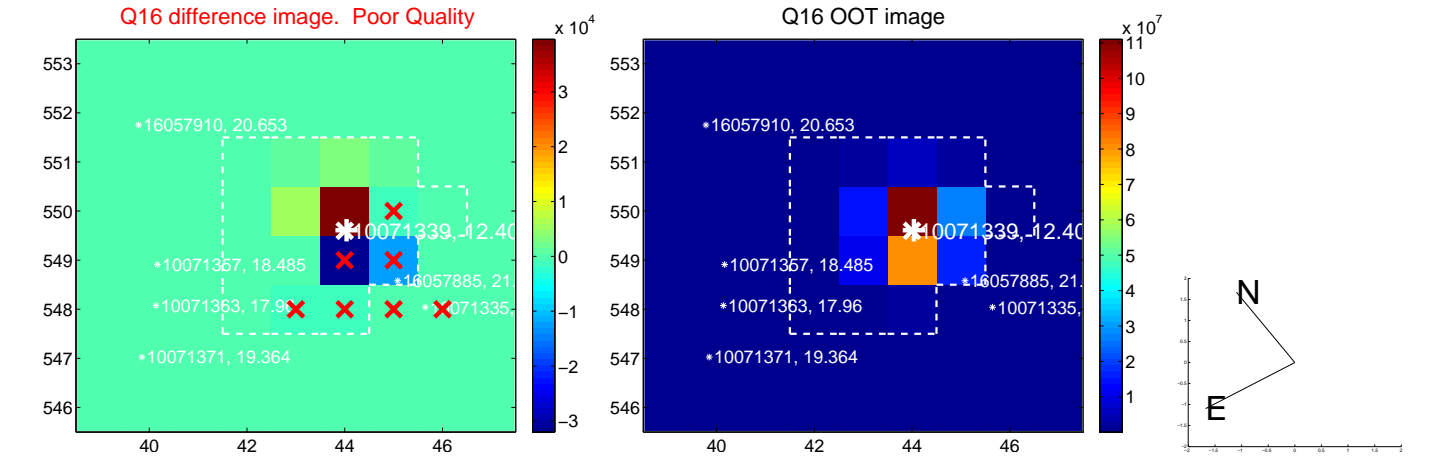
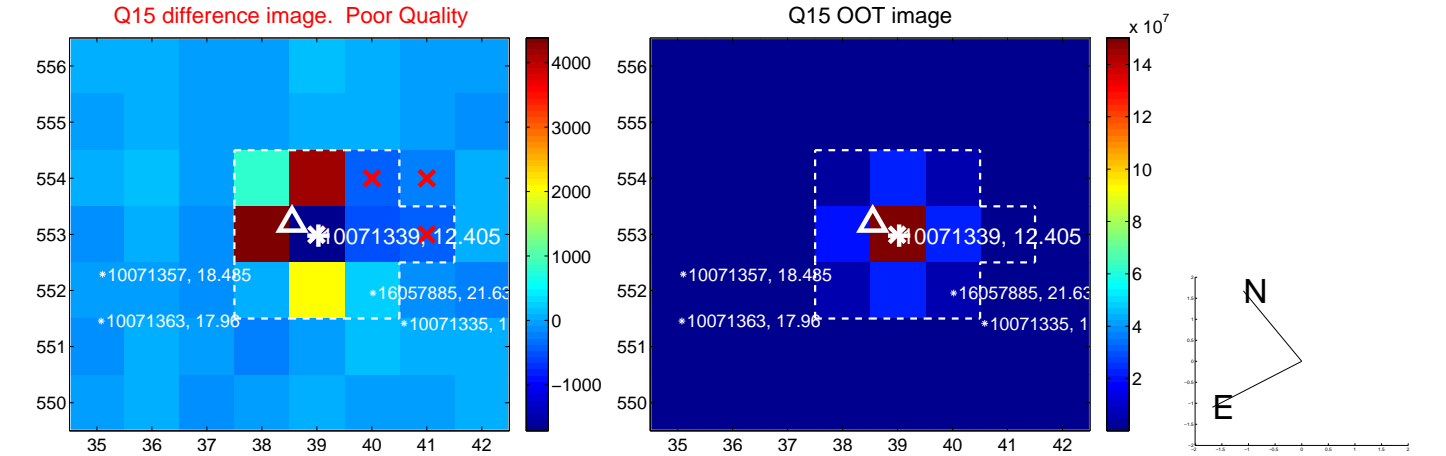
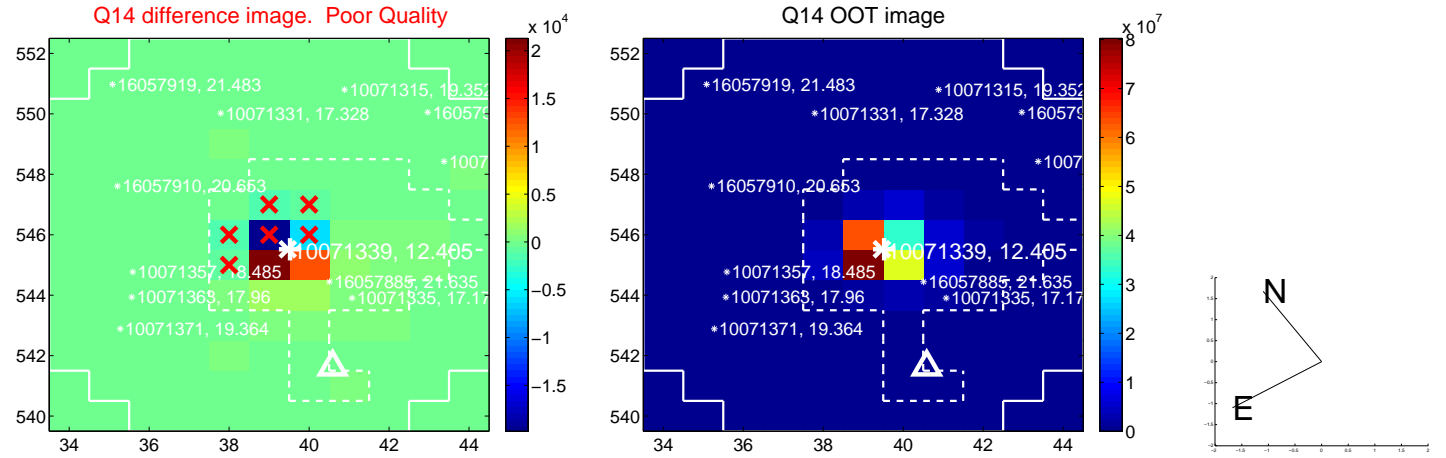
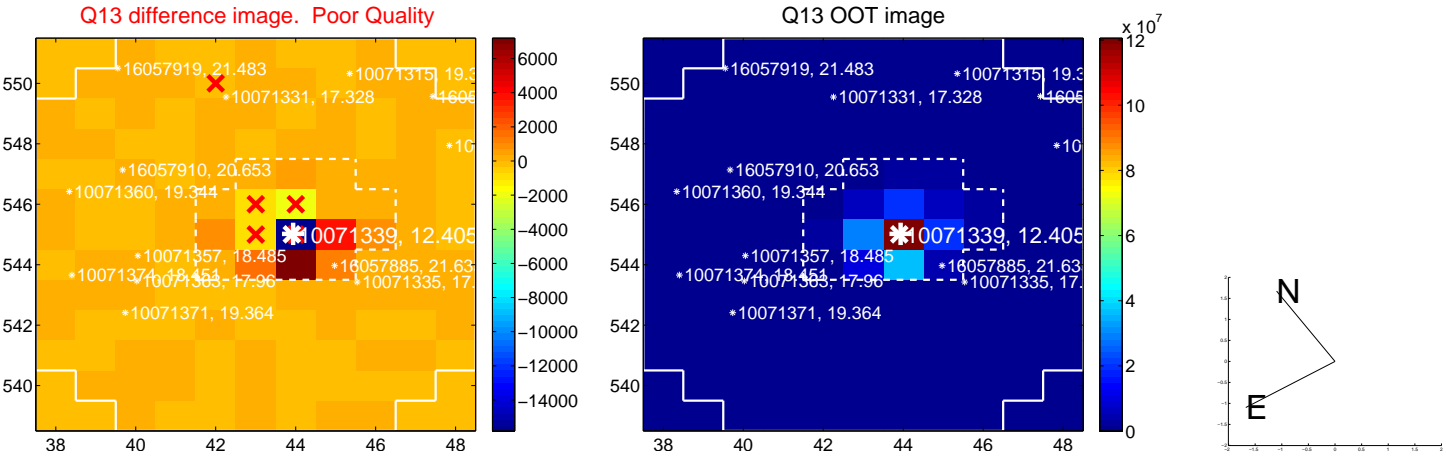
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



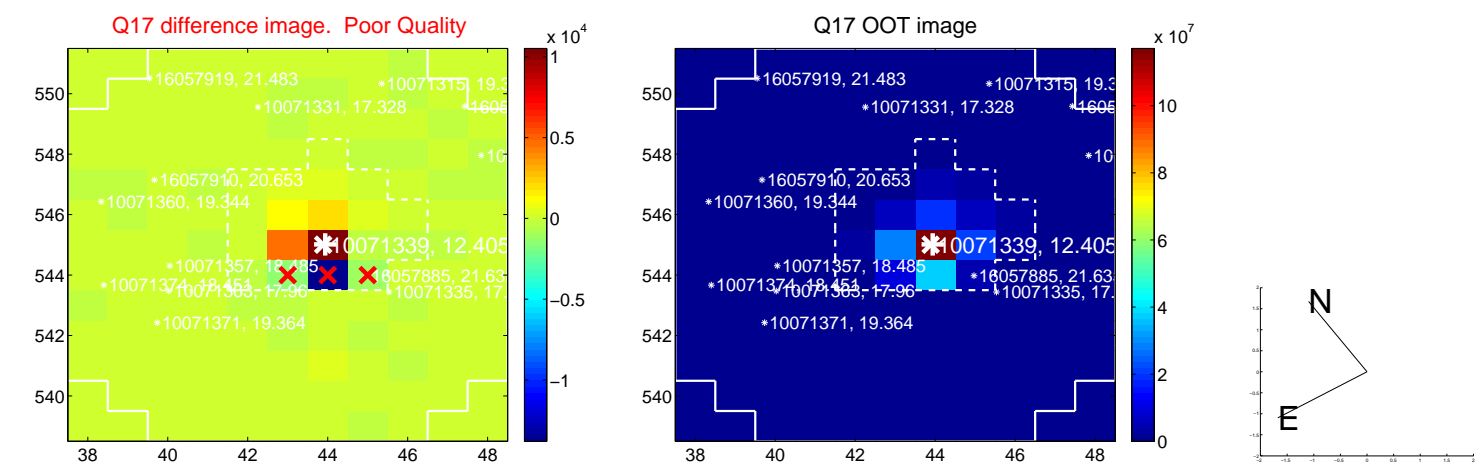
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

