

KIC 006612353

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})
006612353-01	OBS	No	2.882460	134.226978	15.6	10.300	8.3	8.4	1.58	7350	0.73	3226.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006612353-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

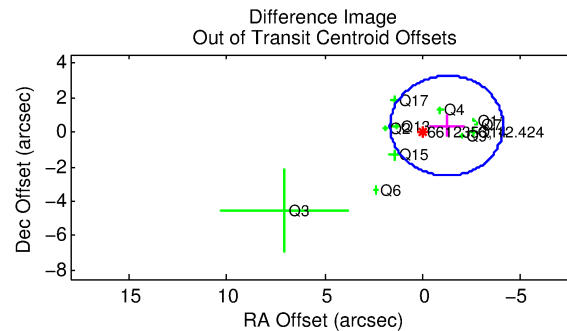
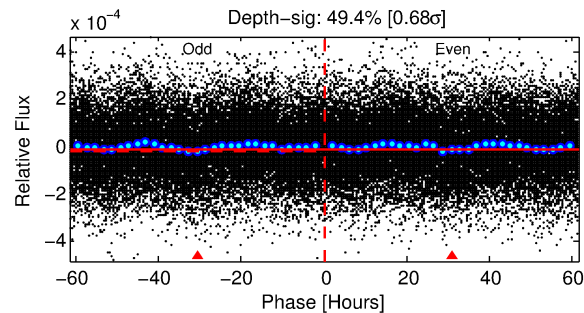
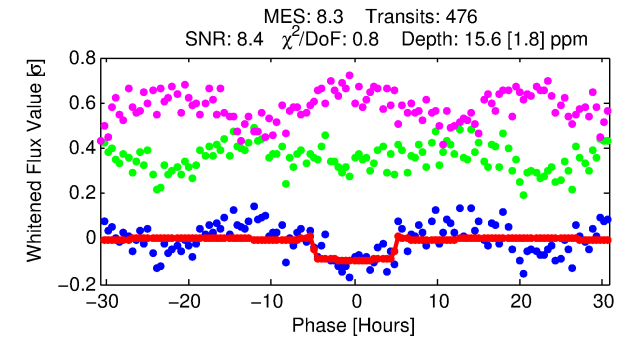
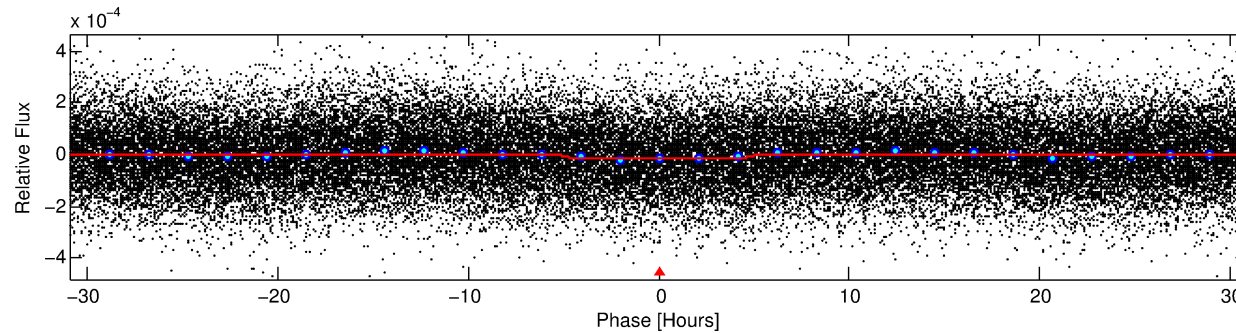
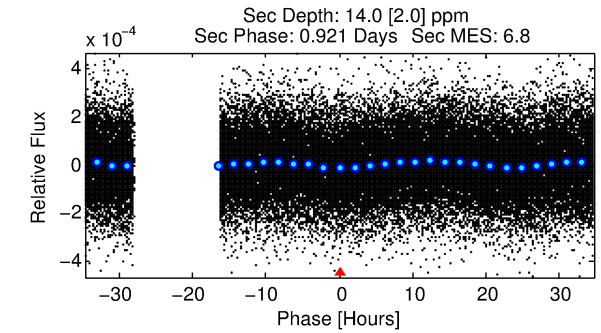
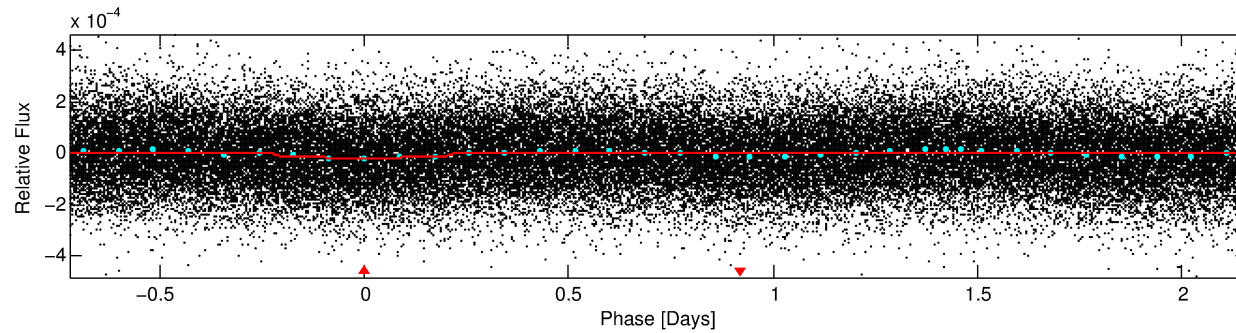
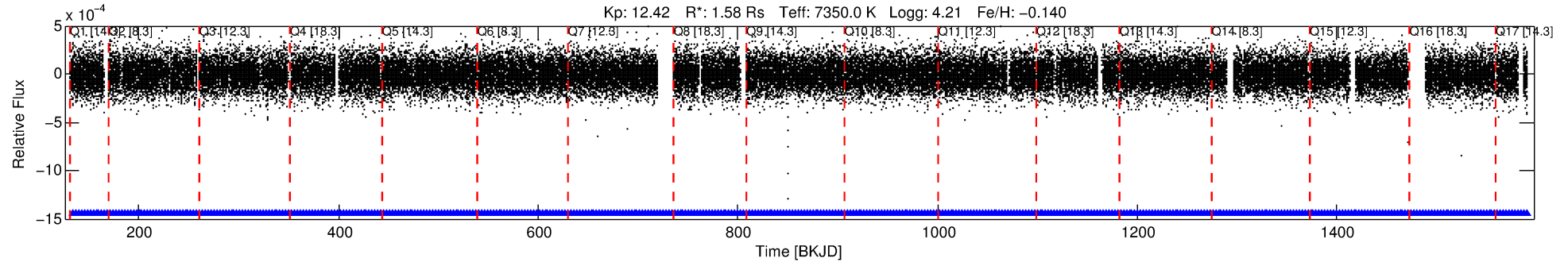
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006612353-01

No Significant Match Found

DV One-Page Summary

KIC: 6612353 Candidate: 1 of 1 Period: 2.882 d



DV Fit Results:

Period = 2.88246 [0.00005] d
Epoch = 134.2270 [0.0088] BKJD
Rp/R* = 0.0042 [0.0008]
a/R* = 1.31 [0.67]
b = 0.91 [0.23]
Seff = 3226.99 [1315.62]
Teq = 1922 [196] K
Rp = 0.73 [0.28] Re
a = 0.0450 [0.0120] AU
Ag = 29.50 [16.41] [1.74σ]
Teffp = 6925 [773] K [6.28σ]

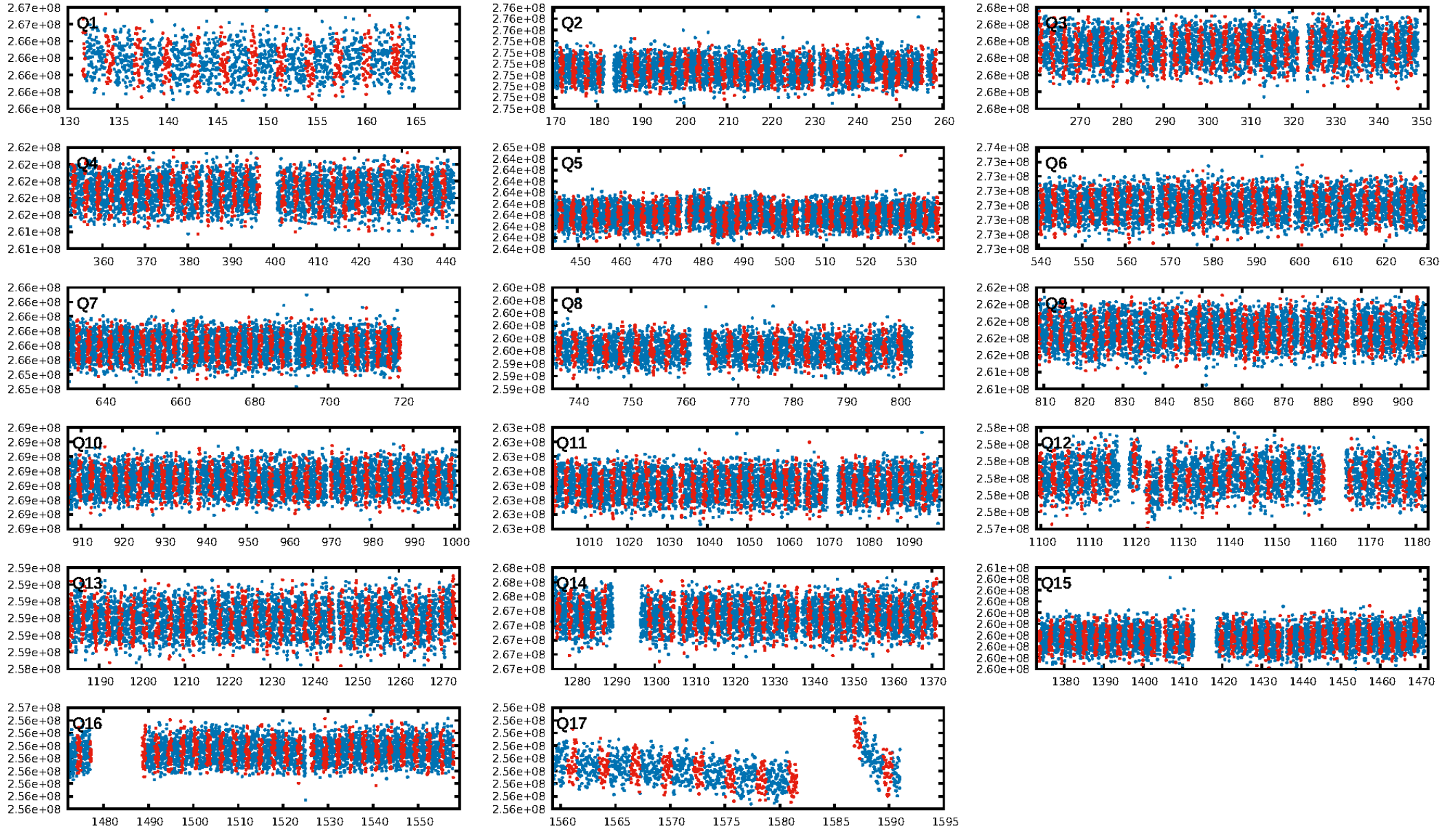
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.19e-11
RollingBand-fgt: 1.00 [454/454]
GhostDiagnostic-chr: 0.9201
Centroid-sig: 0.1%
Centroid-so: 1.500 arcsec [1.96σ]
OotOffset-rm: 1.290 arcsec [1.34σ]
KicOffset-rm: 1.300 arcsec [1.36σ]
OotOffset-st: 3/4/1/3 [11]
KicOffset-st: 3/4/1/3 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 1.00 [17/17]

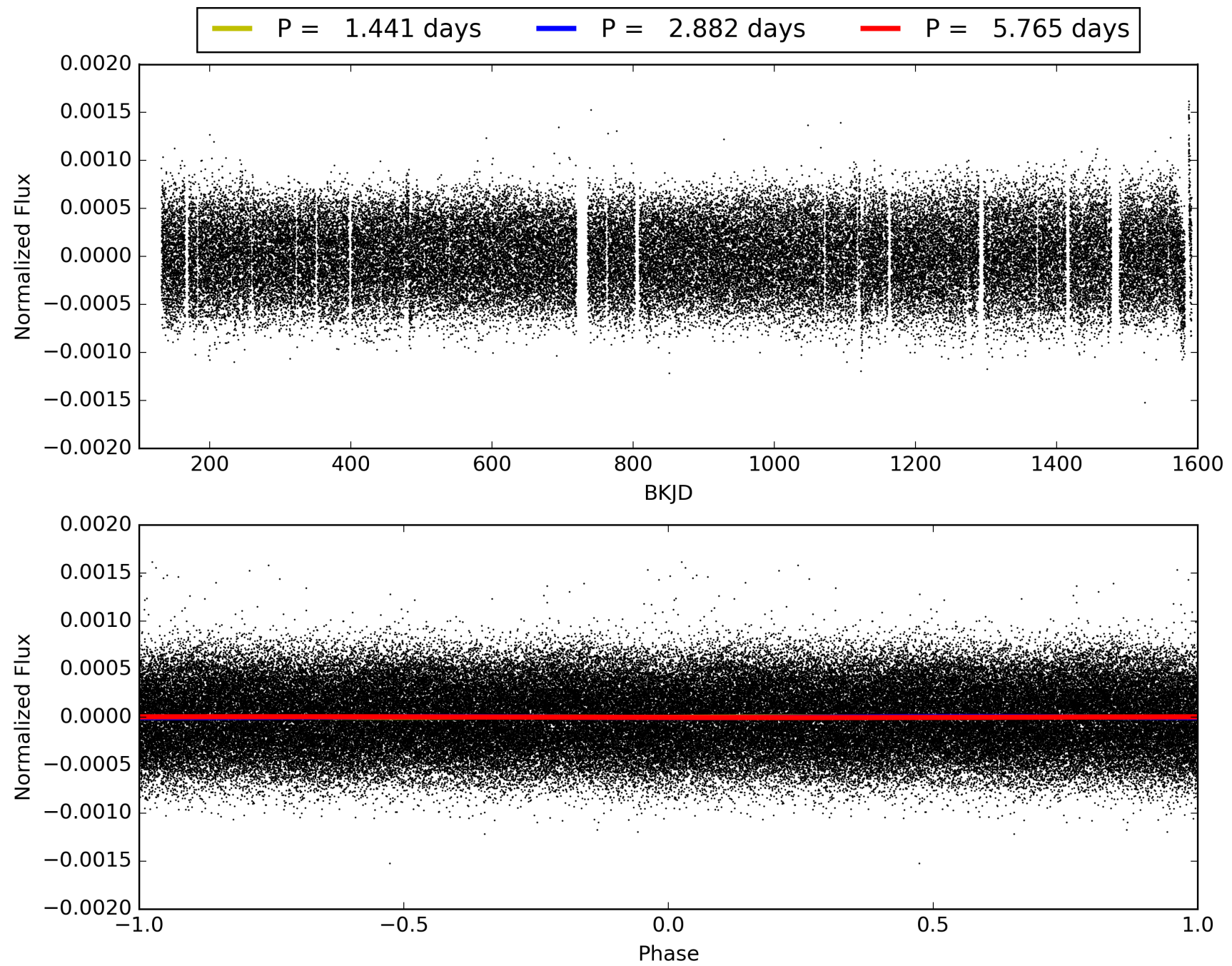
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:24:59 Z

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

TCE 006612353-01, PDC Light Curves

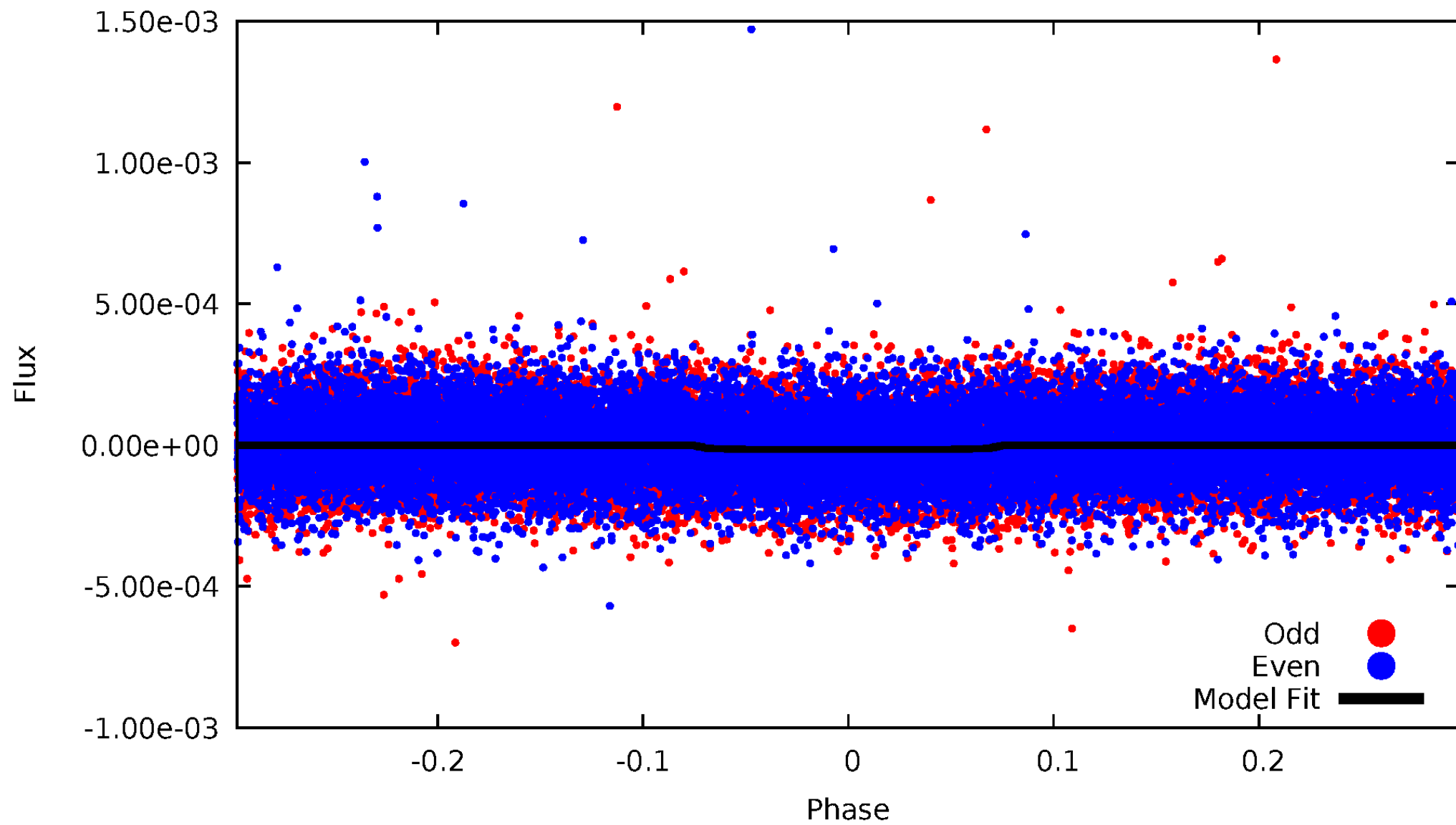


TCE 006612353-01



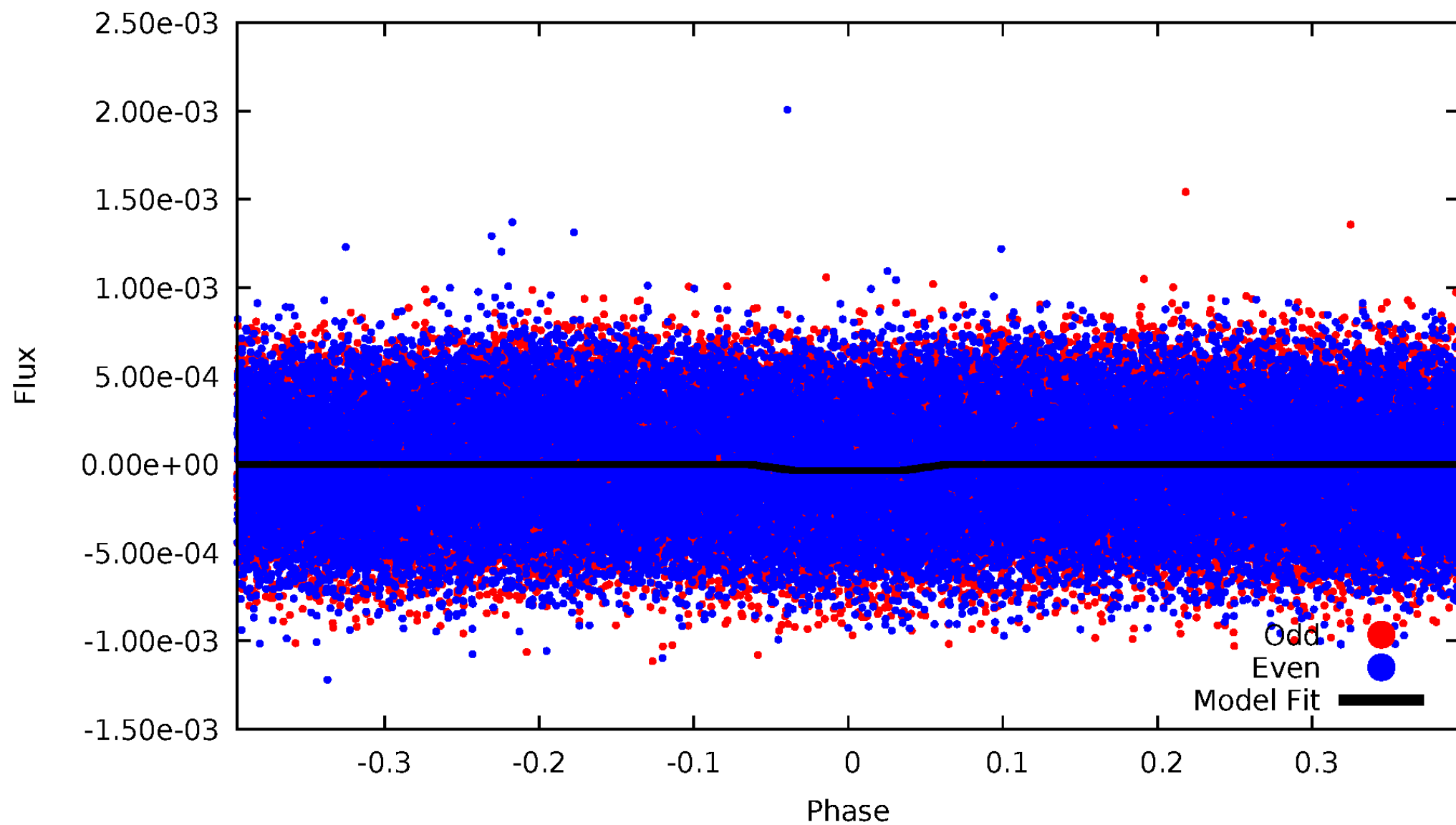
DV Odd/Even

TCE 006612353-01



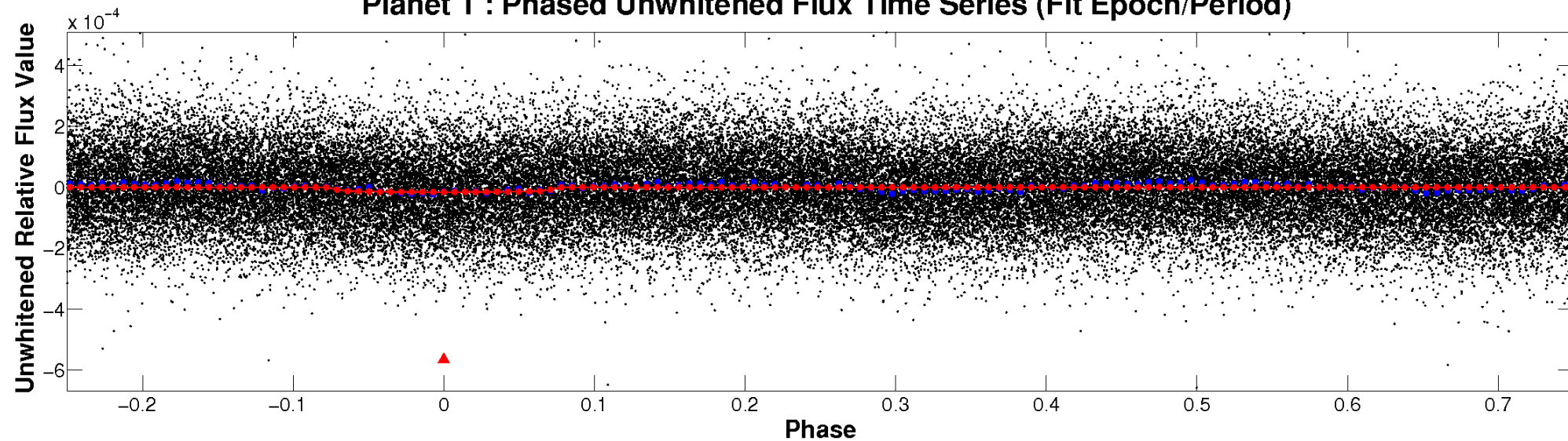
ALT Odd/Even

TCE 006612353-01

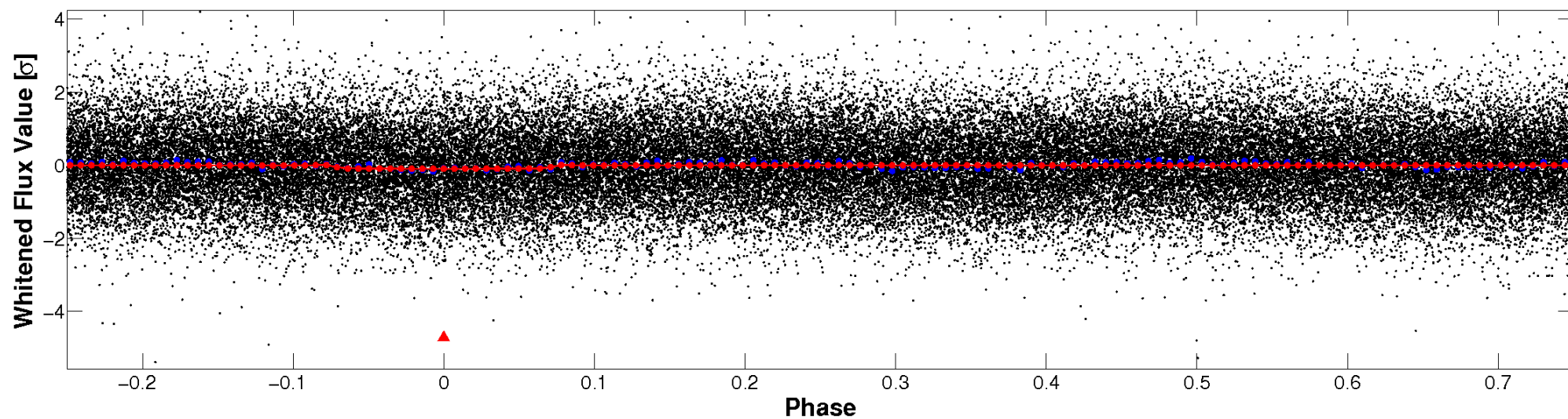


Non-Whitened Vs. Whitened Light Curve

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

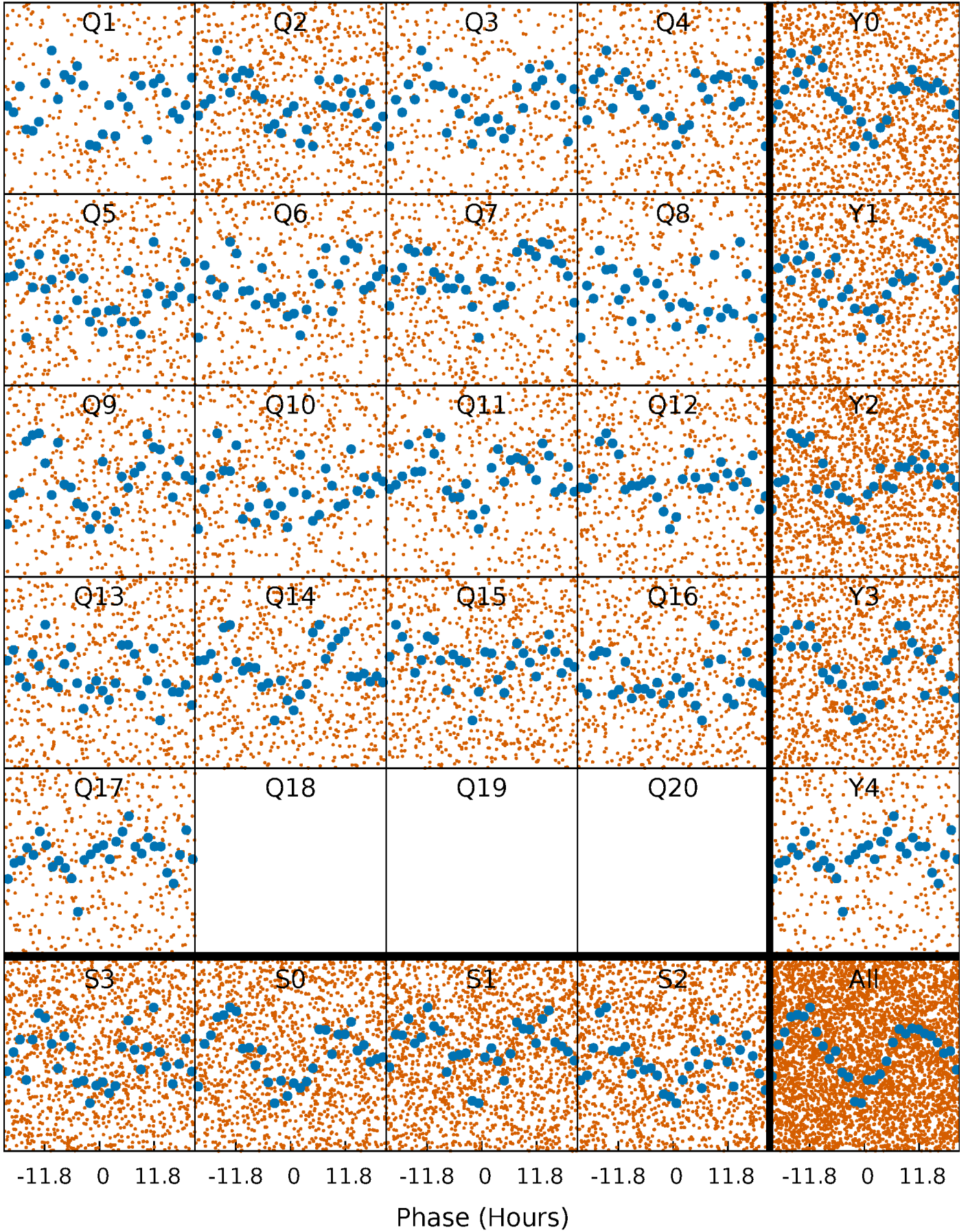


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



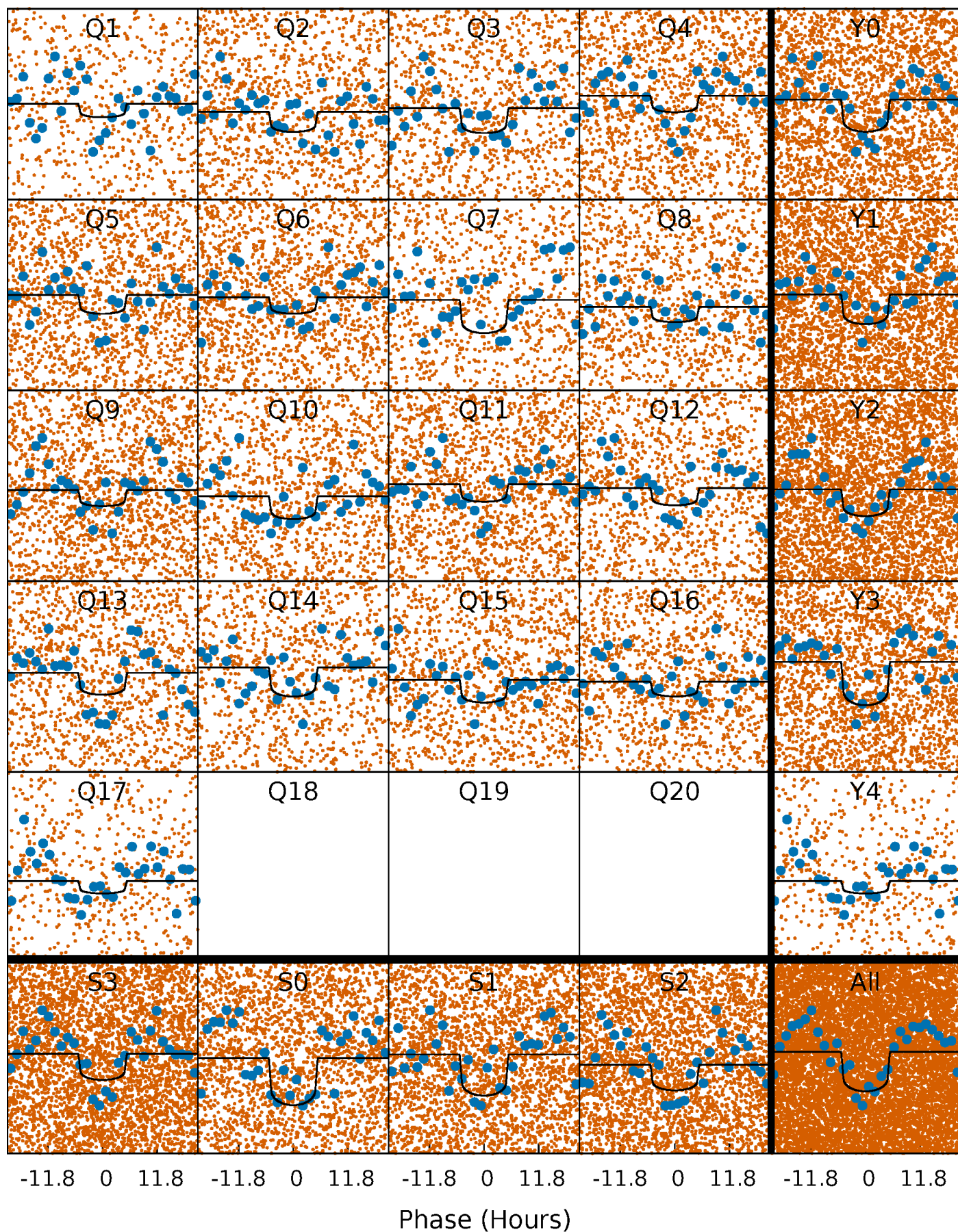
PDC Quarter-Phased Transit Curves

TCE 006612353-01 P= 2.882460 Days $T_0=134.226978$ (BKJD)



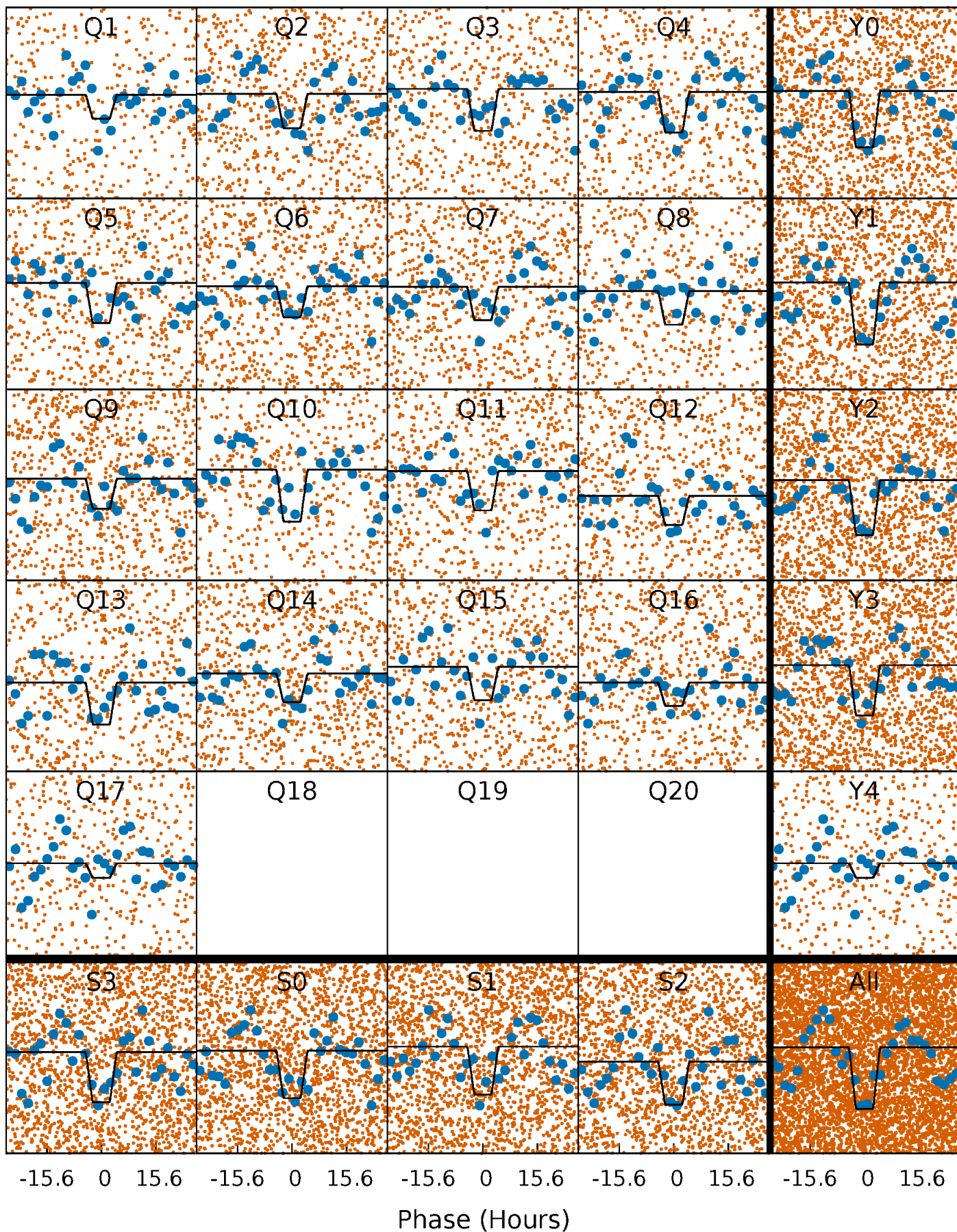
DV Quarter-Phased Transit Curves

TCE 006612353-01 P= 2.882460 Days $T_0=134.226978$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

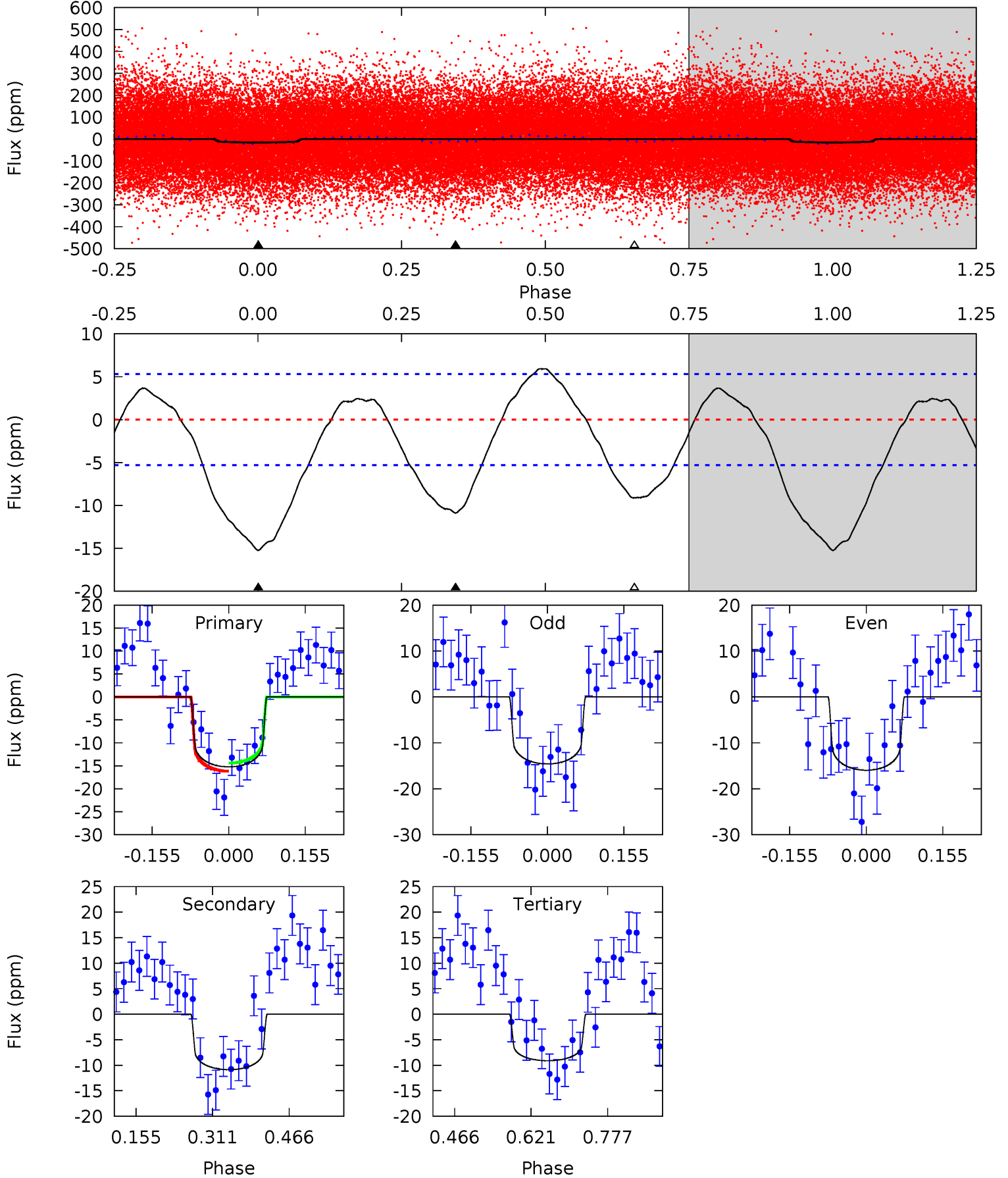
TCE 006612353-01 P= 2.882388 Days $T_0=134.214357$ (BKJD)



DV Model-Shift Uniqueness Test

006612353-01, P = 2.882460 Days, E = 131.344518 Days

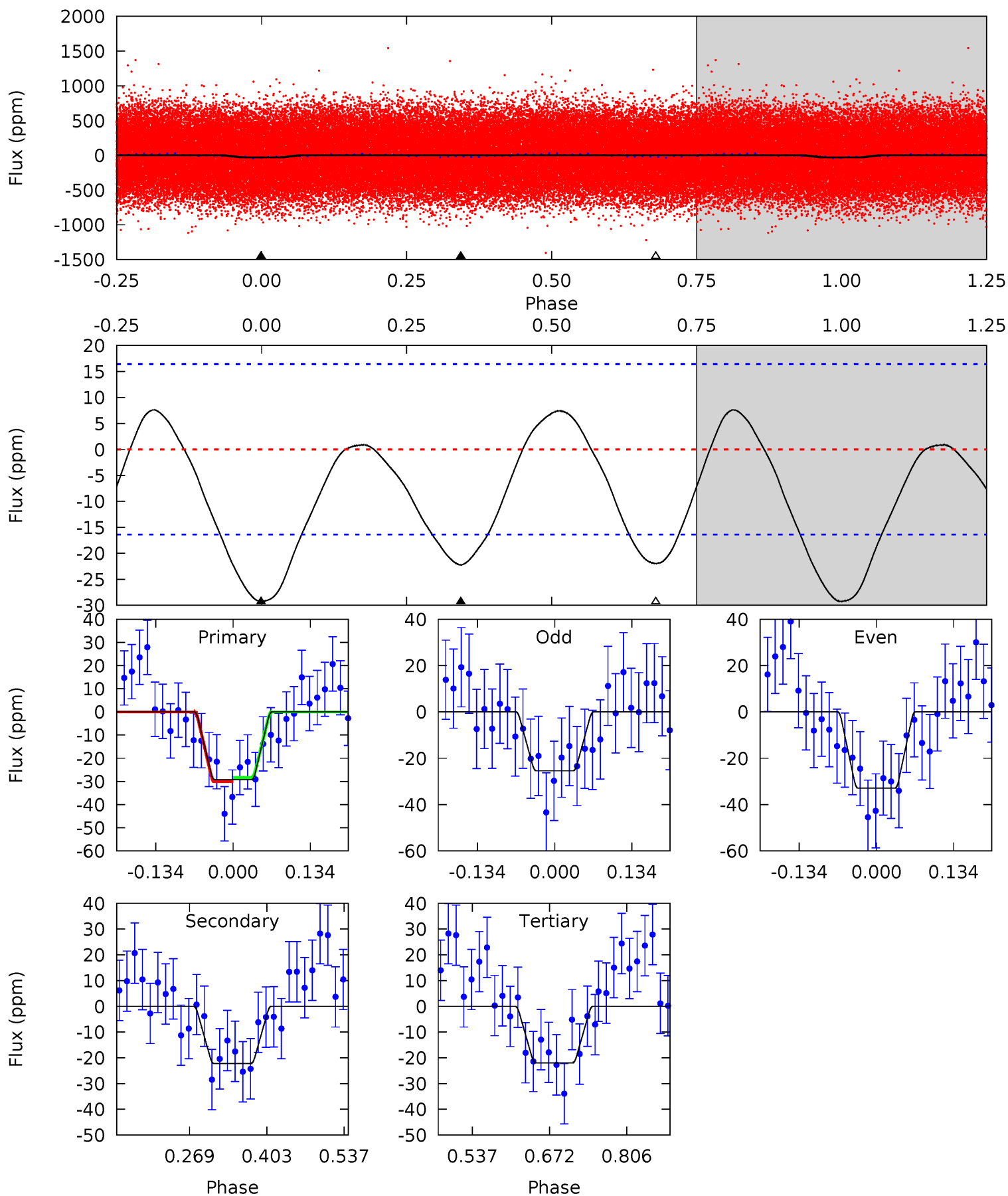
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	9.16	7.69	0	4.47	1.42	4.02	5.15	12.8	1.48	9.16	0.58	0.90	0.28	0.75



Alt Model-Shift Uniqueness Test

006612353-01, P = 2.882388 Days, E = 131.331969 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.03	6.11	6.03	0	4.50	1.50	2.70	2.00	8.03	0.08	6.11	1.03	0.99	0.21	0.24



Stellar Parameters For KIC 006612353

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7350^{+230}_{-307}	$4.205^{+0.105}_{-0.195}$	$-0.140^{+0.250}_{-0.350}$	$1.580^{+0.523}_{-0.282}$	$1.462^{+0.218}_{-0.218}$	$0.522^{+0.265}_{-0.278}$
	+3%/-4%	+2%/-5%	+179%/-250%	+33%/-18%	+15%/-15%	+51%/-53%
Source	KIC0	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 006612353-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 1	$0.74^{+0.19}_{-0.16}$	2704^{+226}_{-165}	6363^{+851}_{-584}	22^{+13}_{-8}
Alt.	-22 ± 4	$1.04^{+0.23}_{-0.17}$	2712^{+183}_{-185}	6415^{+621}_{-520}	22^{+11}_{-7}

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

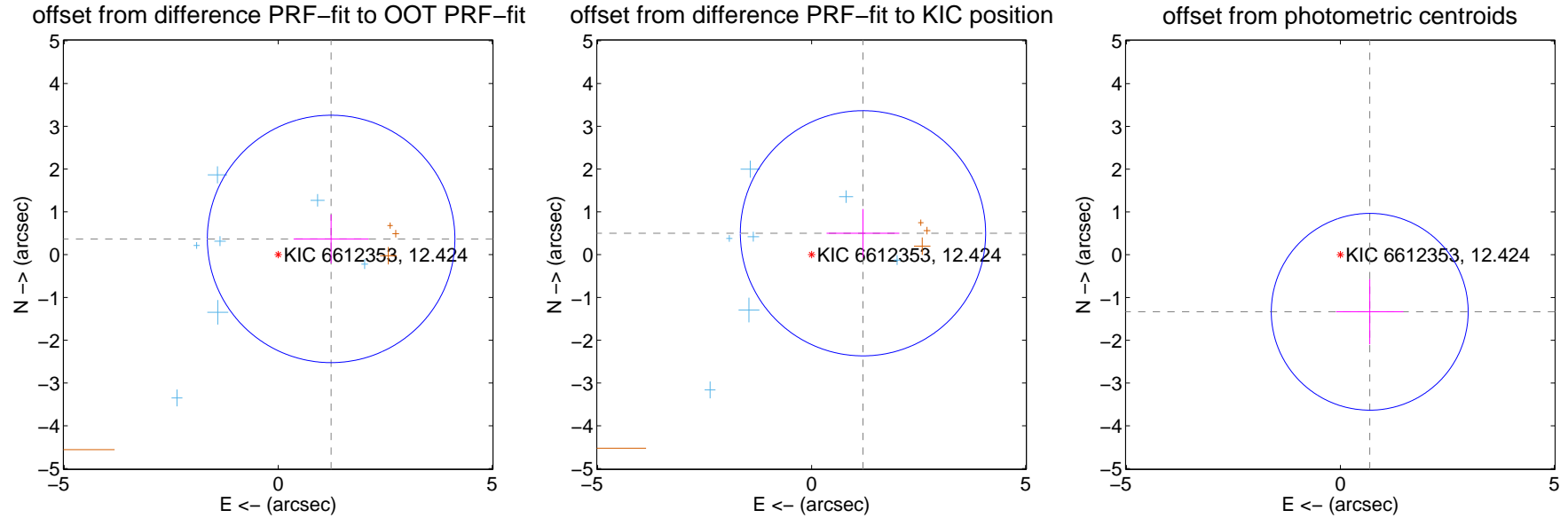
DV Centroid Data

Supplemental centroid analysis for 006612353-01. Kepler magnitude: 12.42. Transit SNR 8.42

There are 7 quarters with good PRF difference image offsets

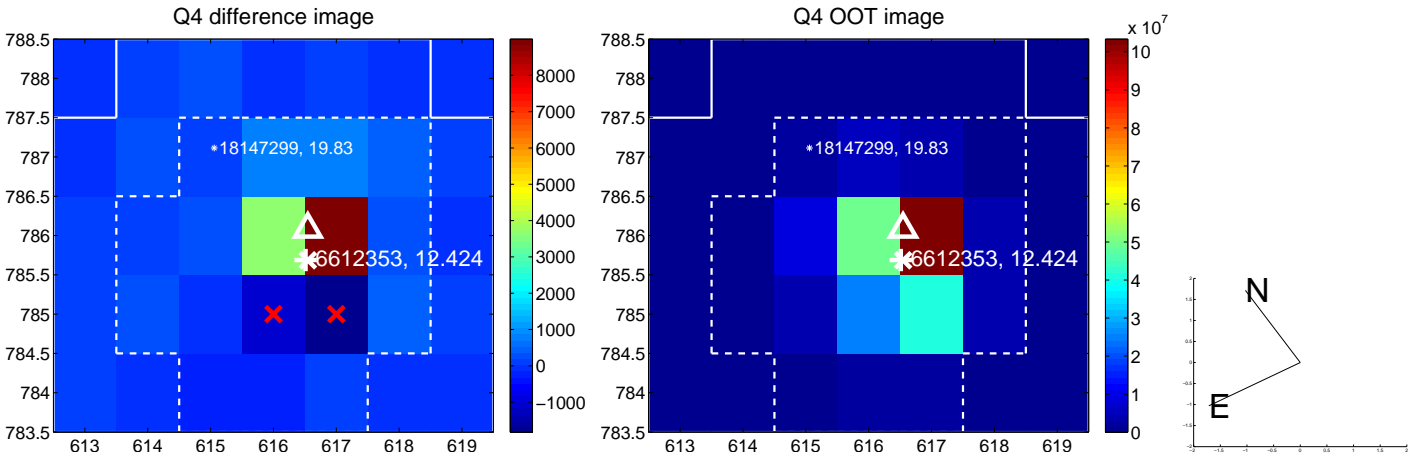
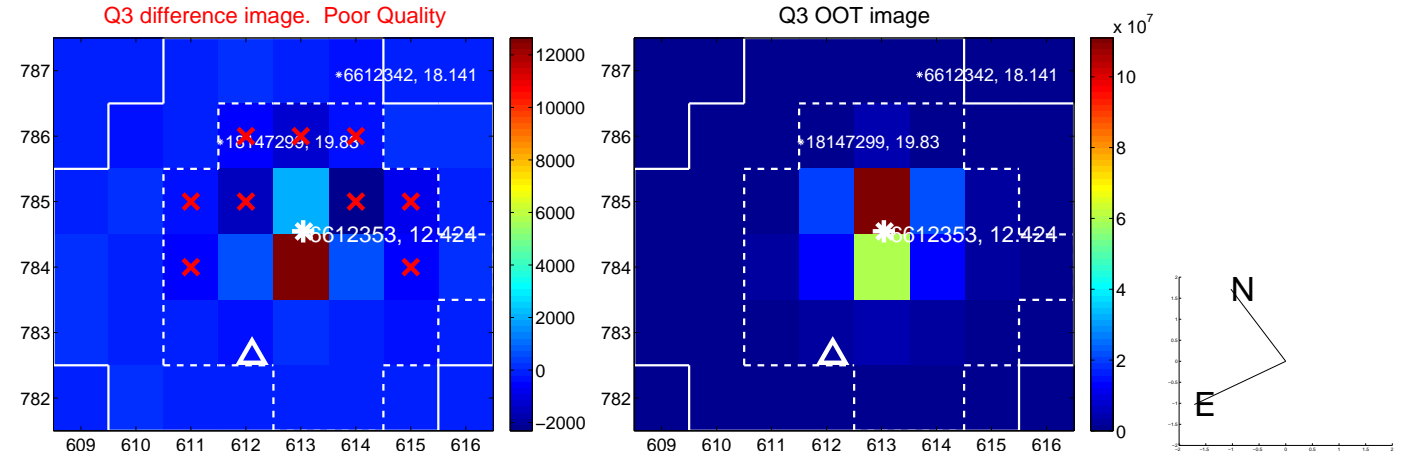
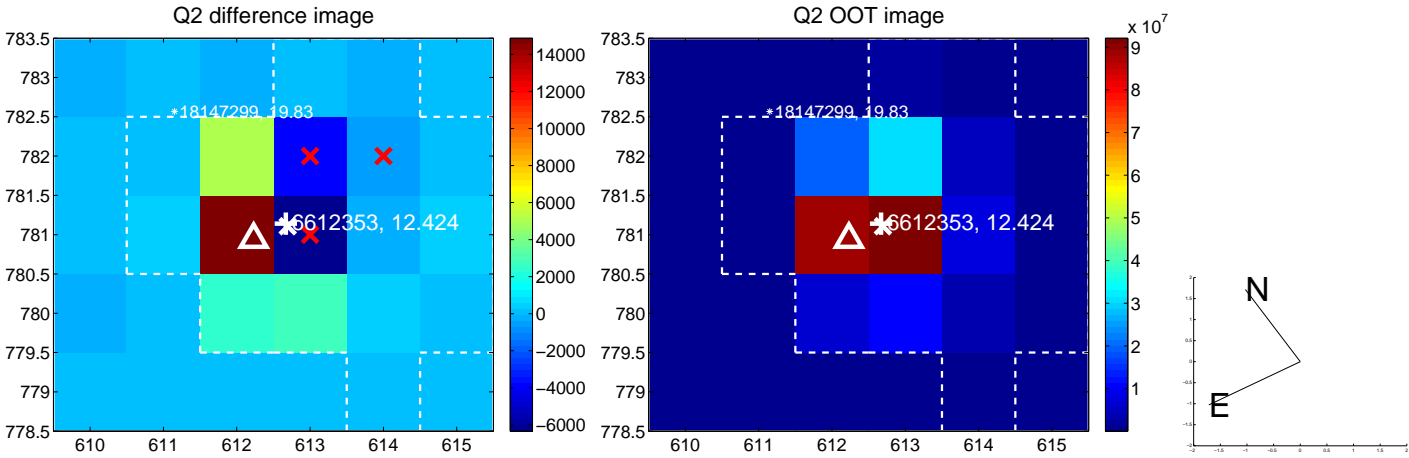
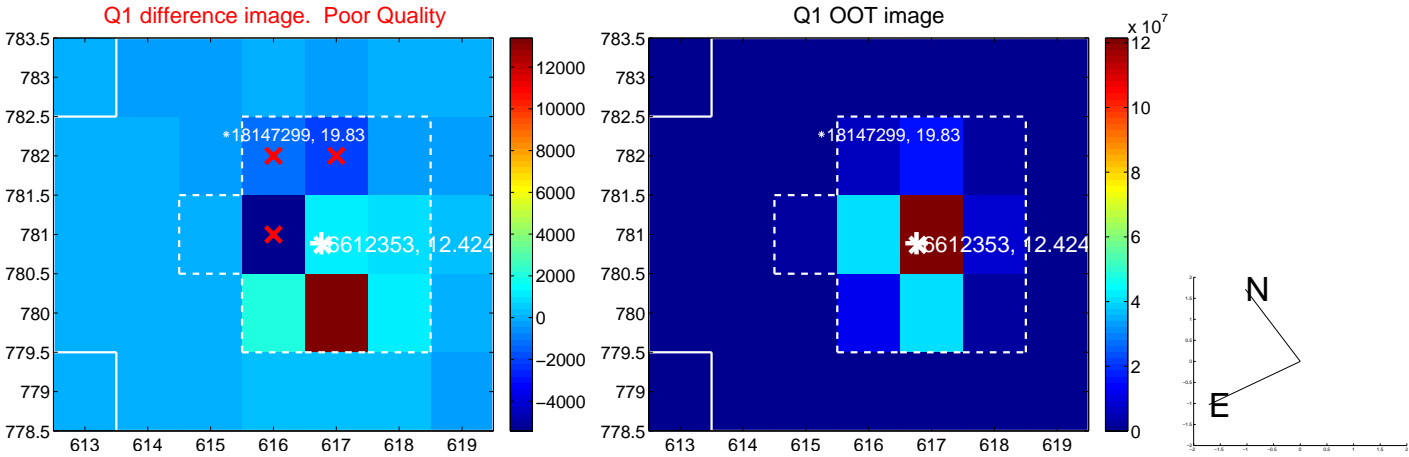
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.290 ± 0.964	1.34	-1.236 ± 0.877	0.367 ± 0.570
PRF-fit source offset from KIC position	1.300 ± 0.955	1.36	-1.201 ± 0.849	0.500 ± 0.568
photometric centroid source offset	1.50 ± 0.77	1.96	-0.69 ± 0.79	-1.33 ± 0.76

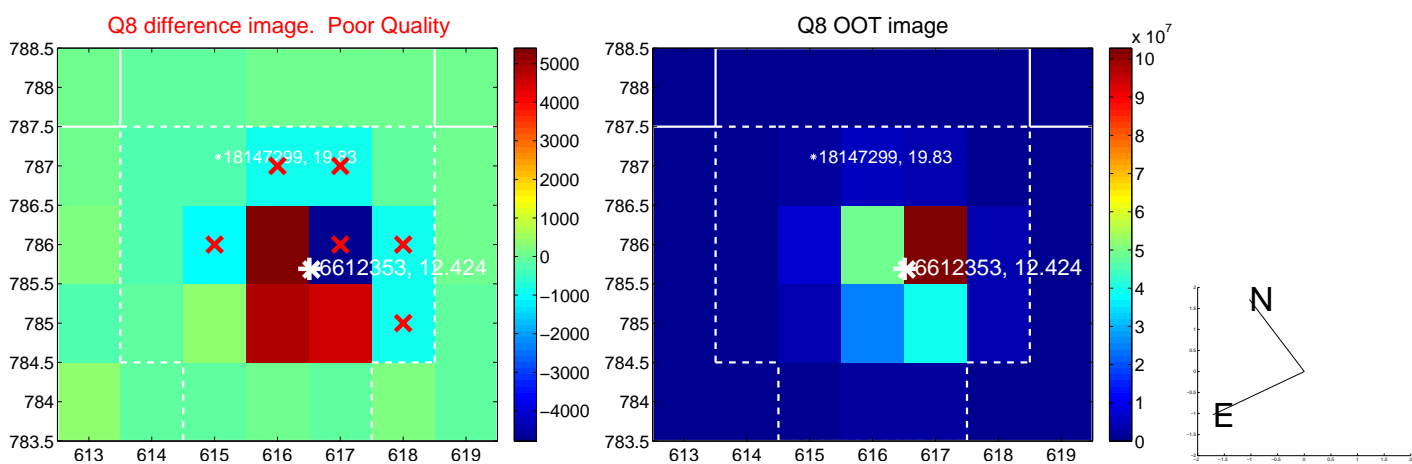
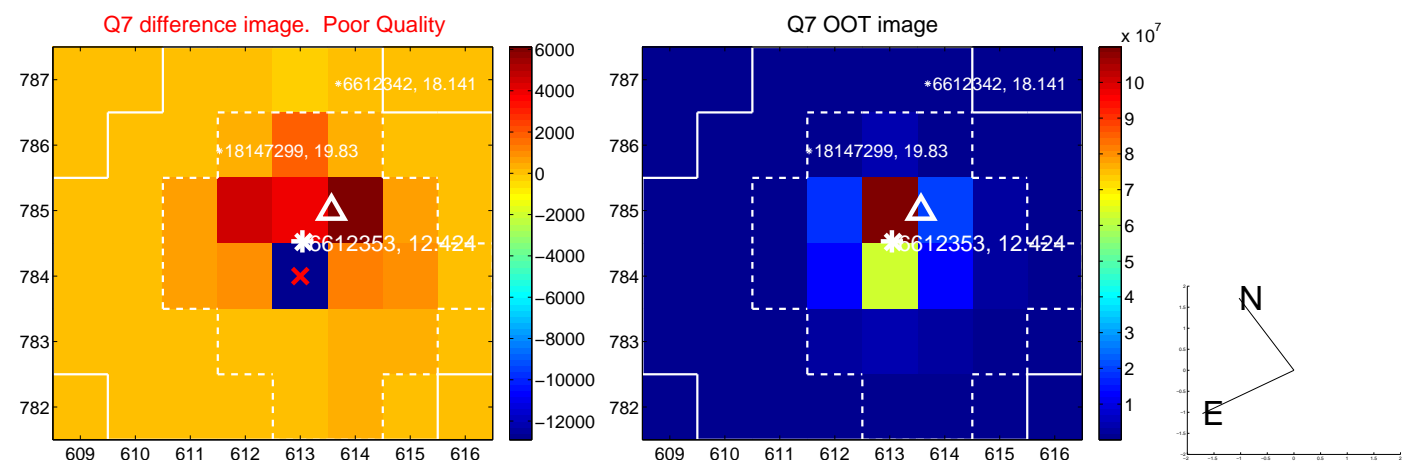
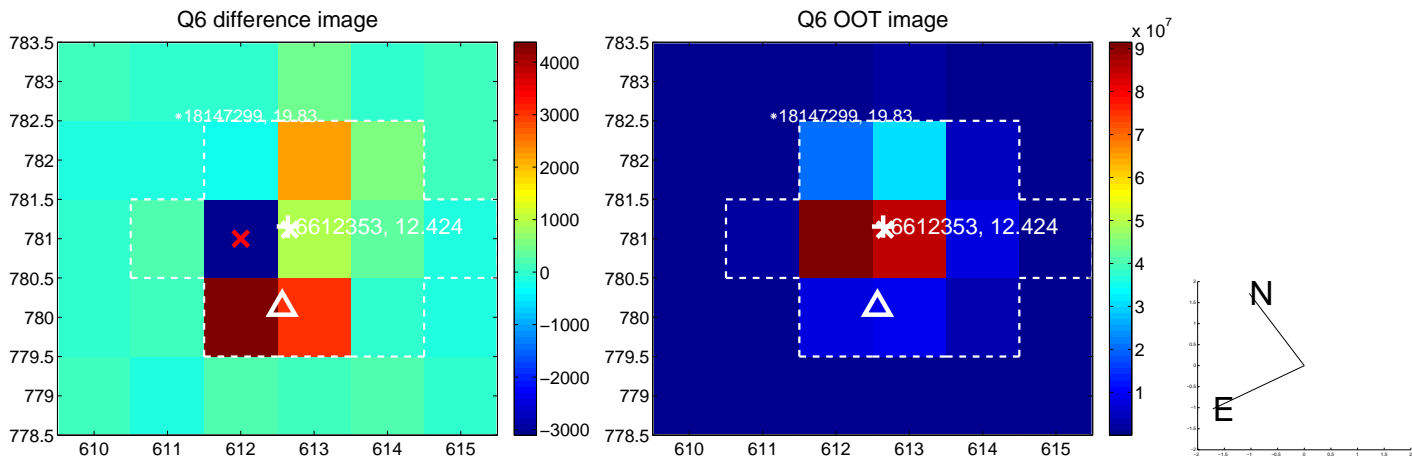
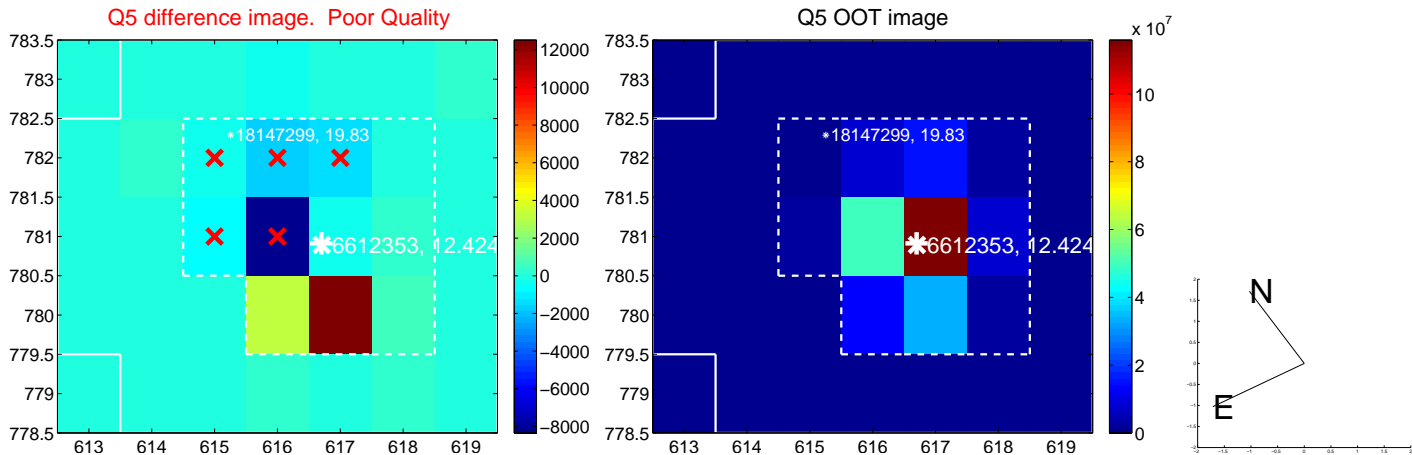


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

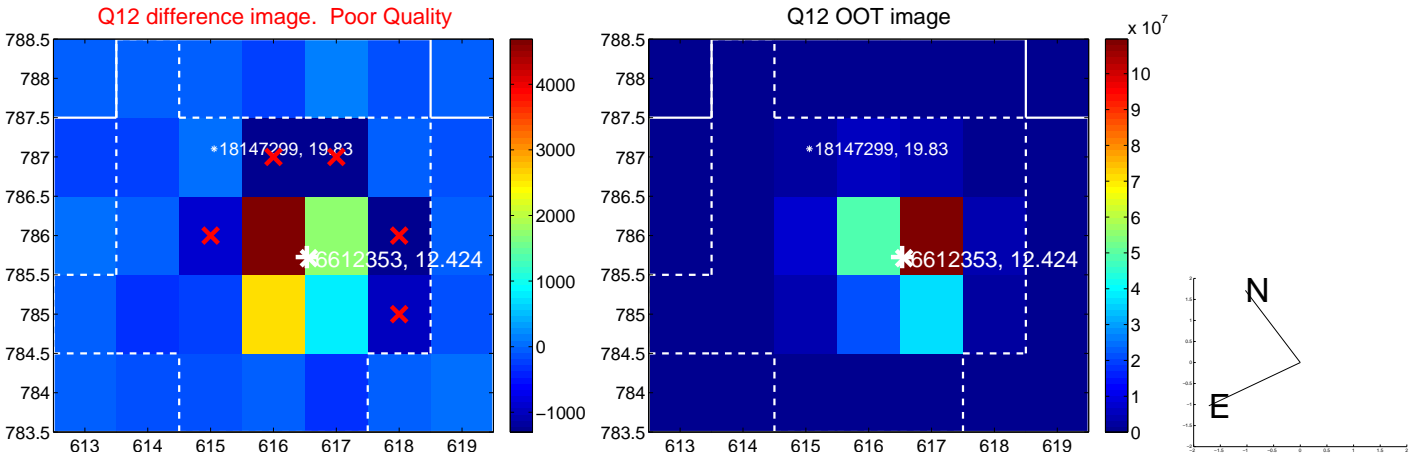
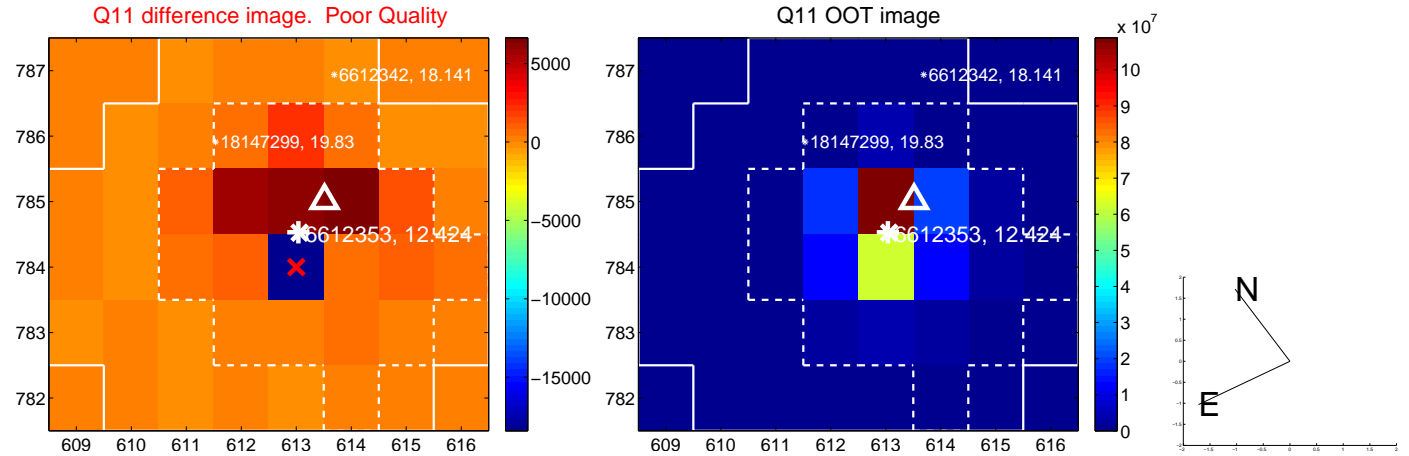
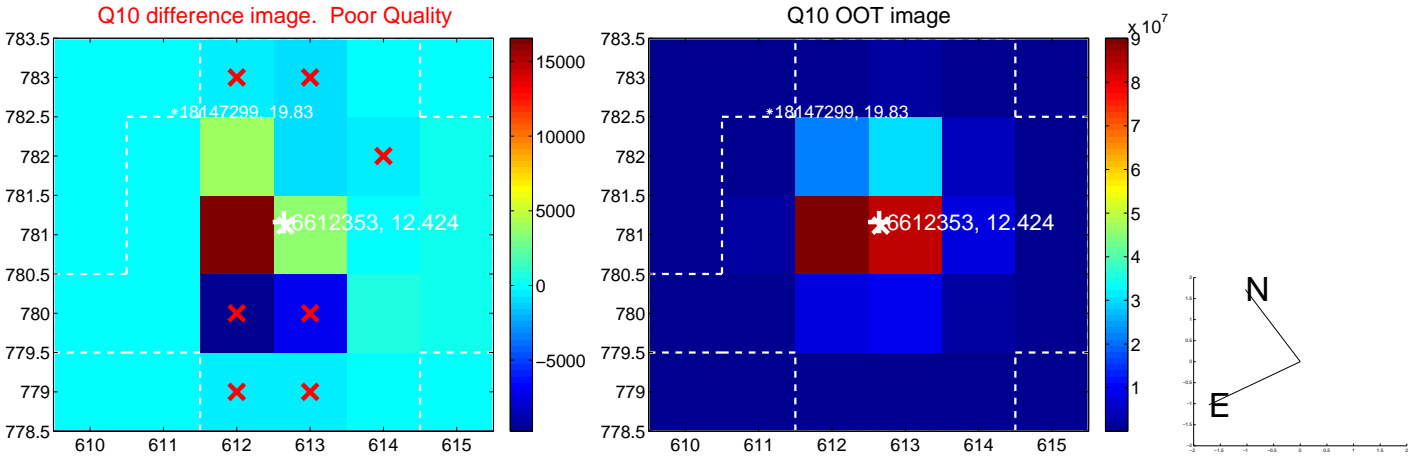
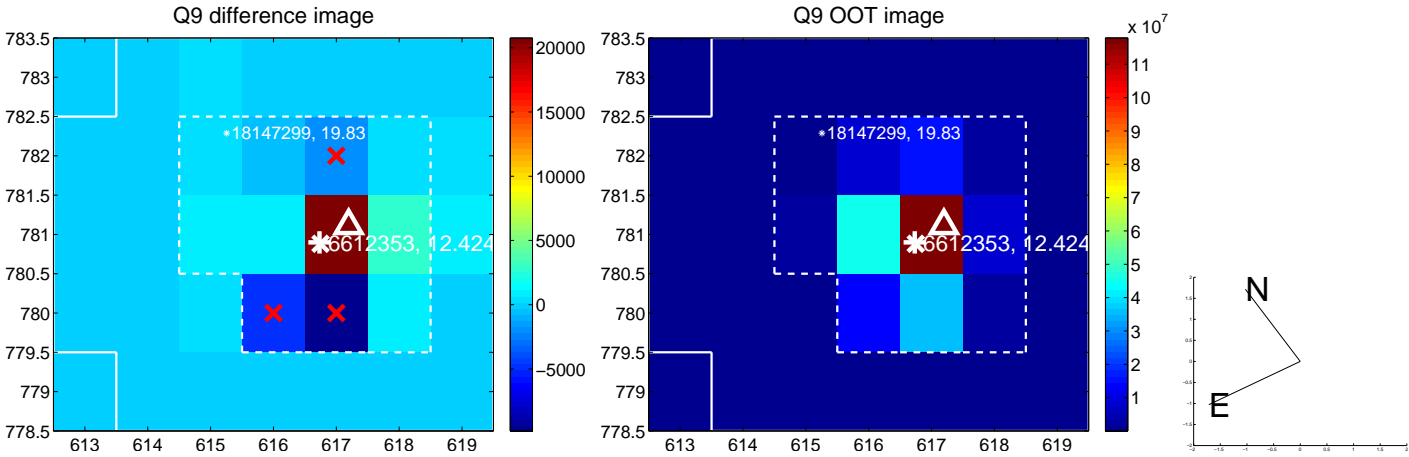
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



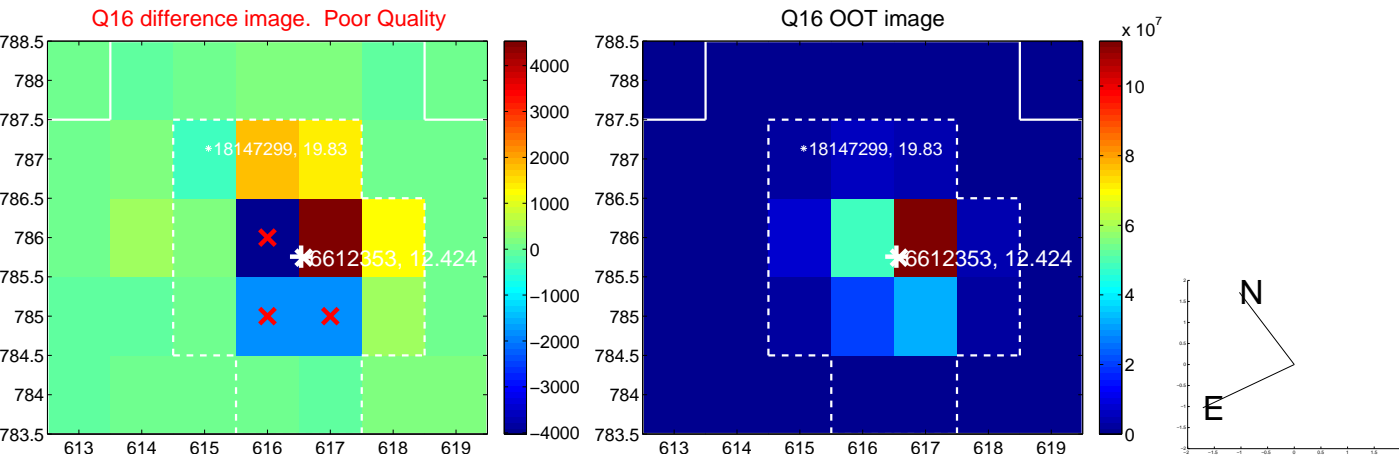
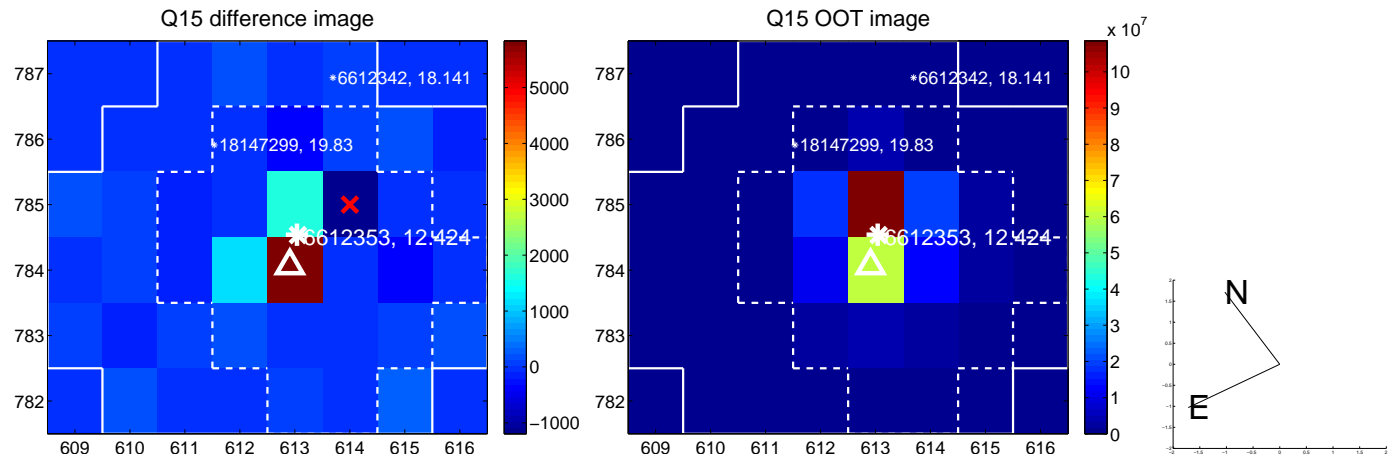
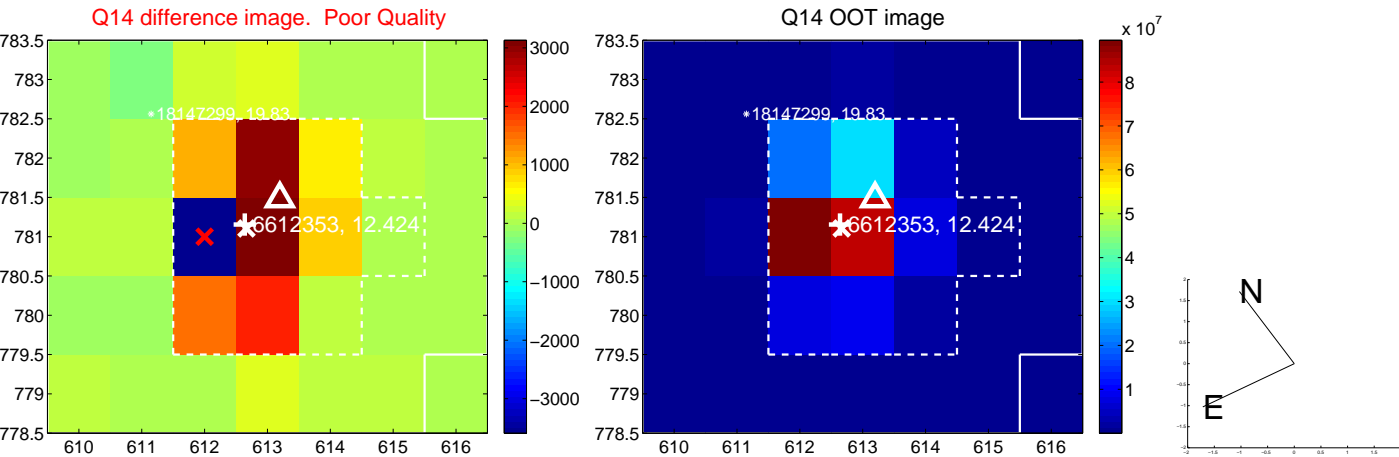
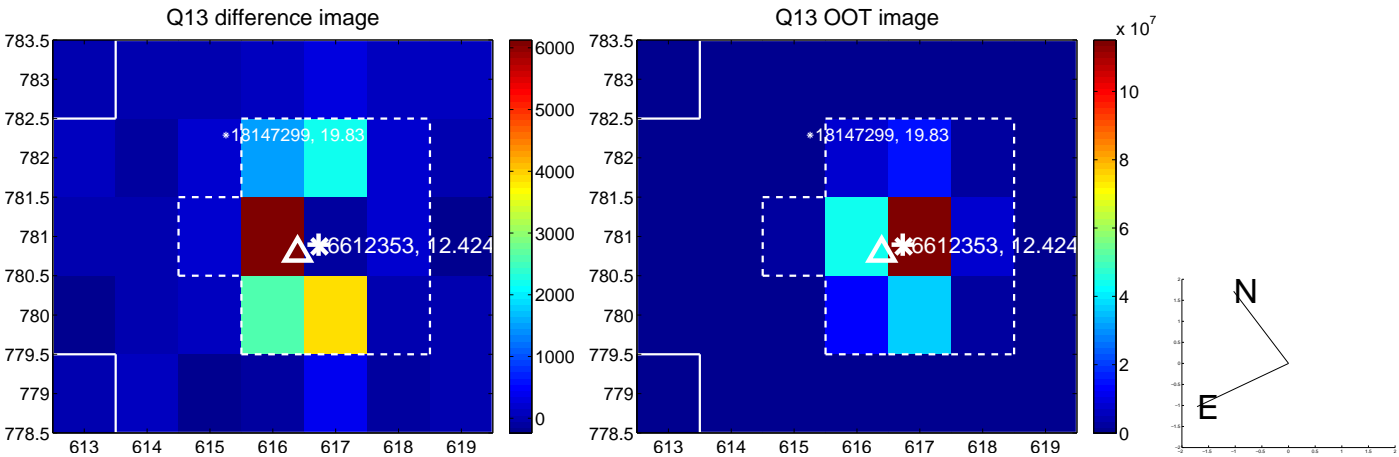
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



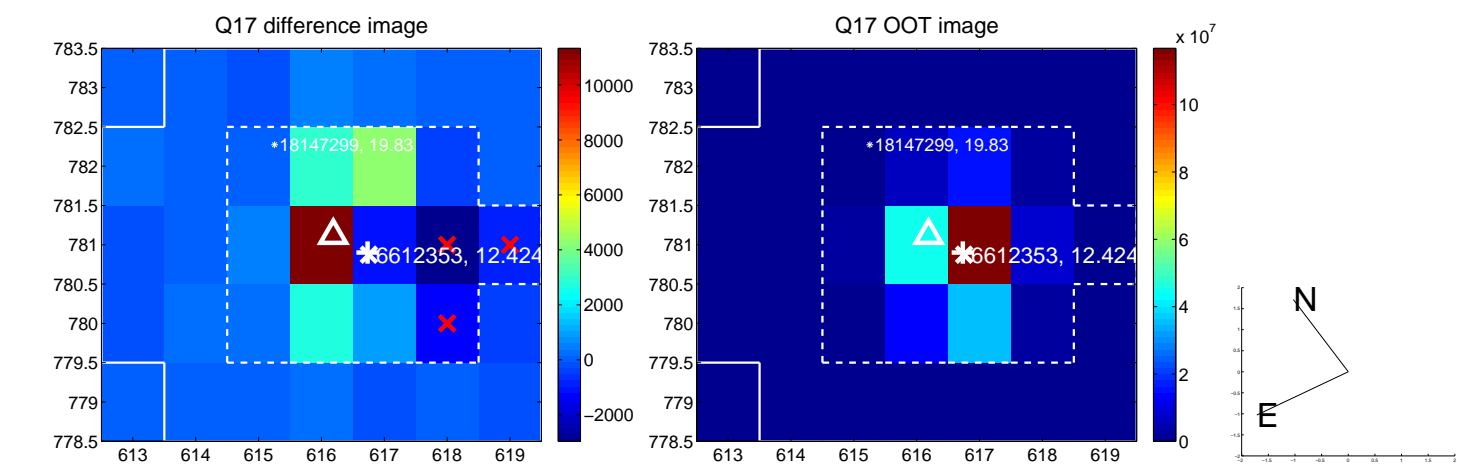
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



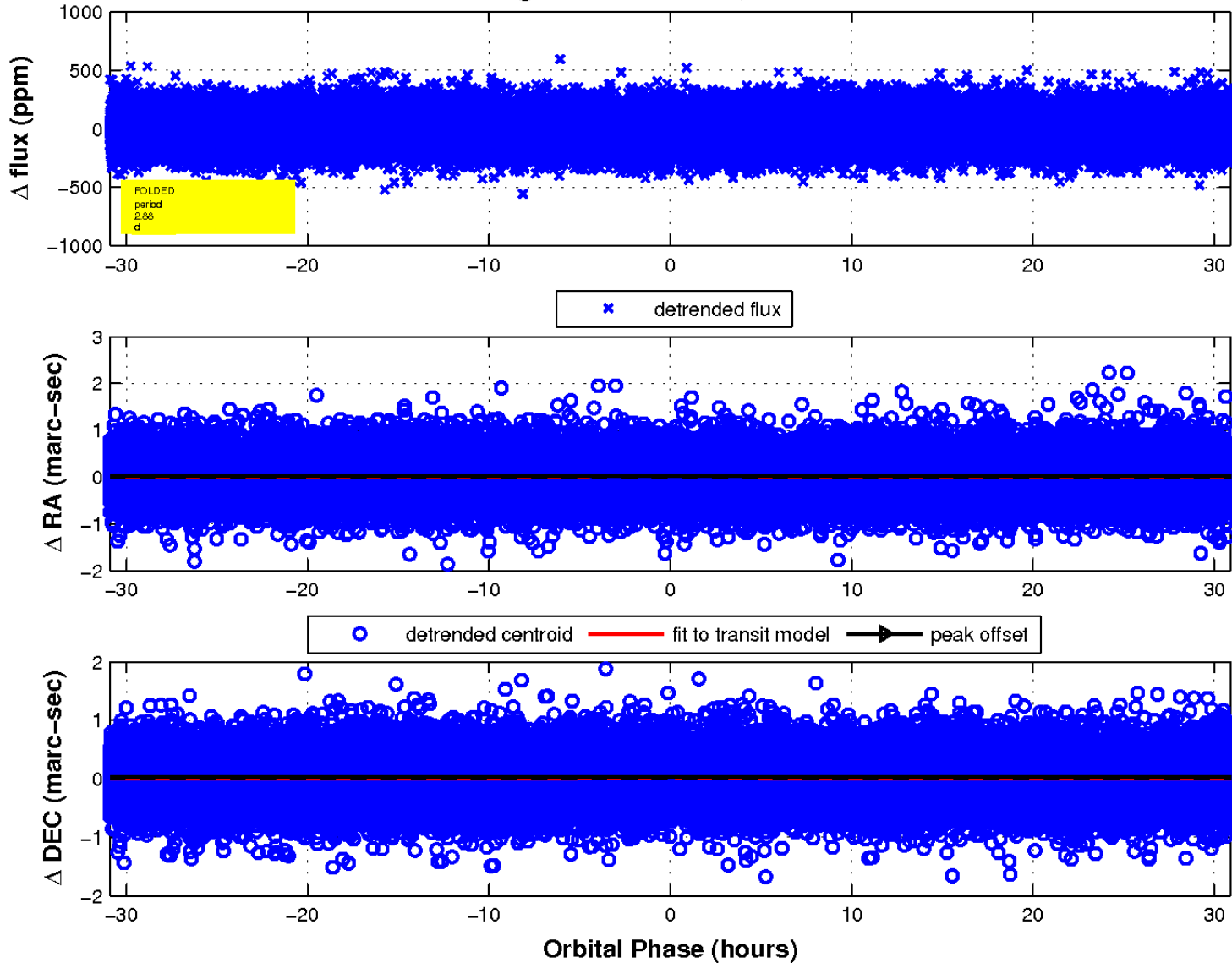
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

