

KIC 006675318

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})
006675318-01	OBS	No	0.578618	132.148111	278.8	2.031	9.9	11.2	0.73	4409	1.16	1208.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006675318-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

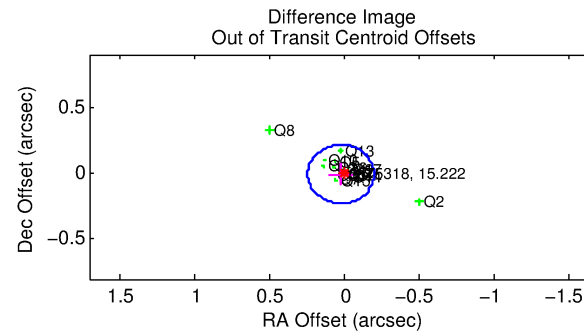
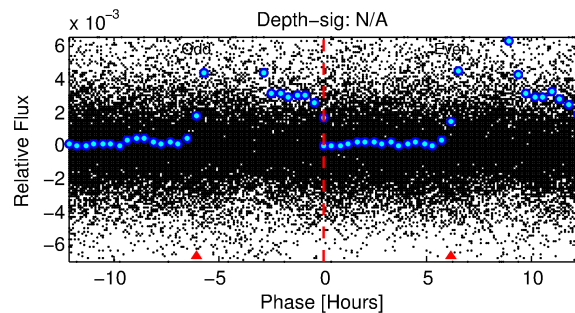
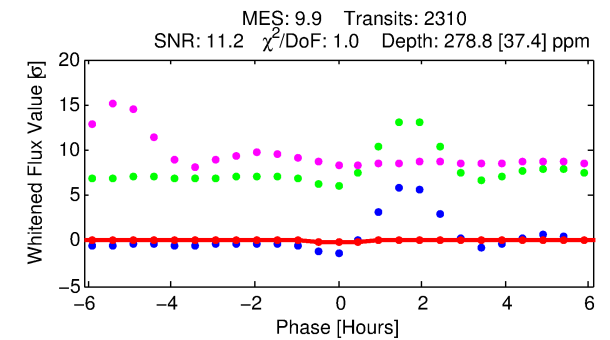
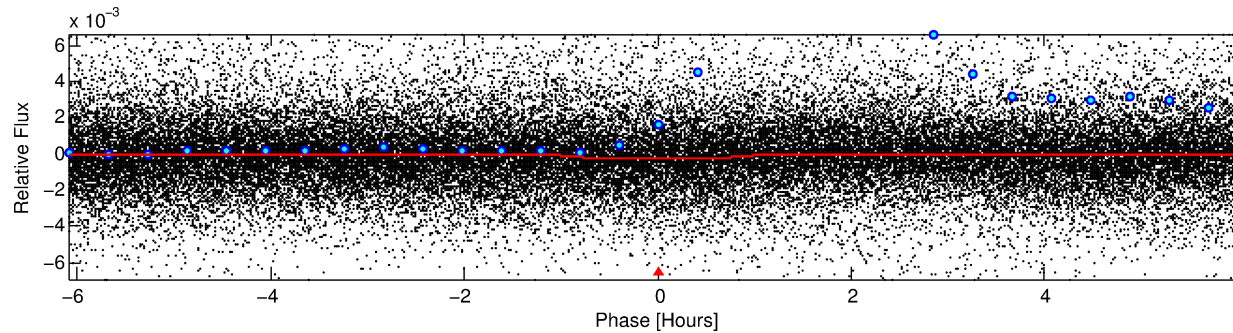
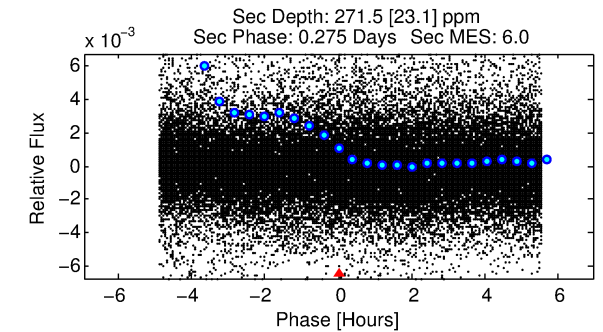
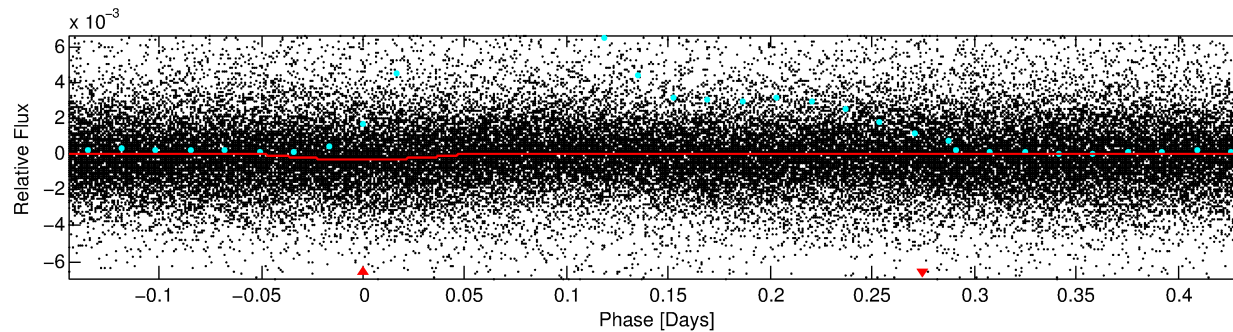
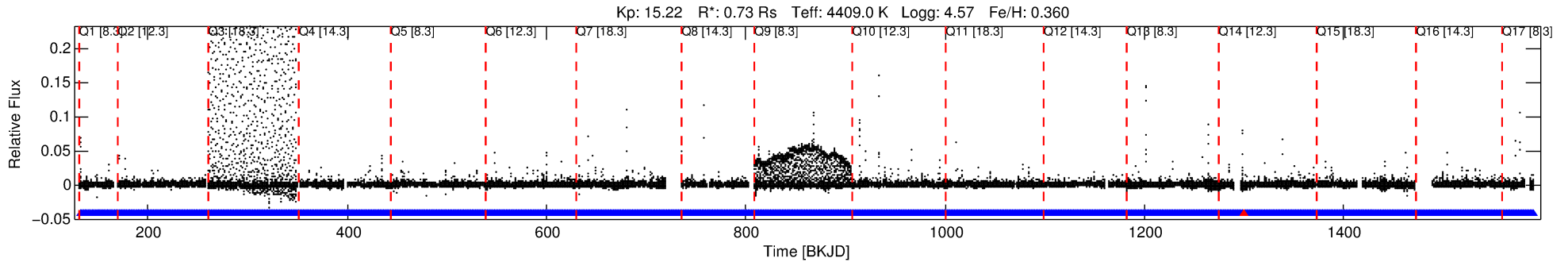
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006675318-01

No Significant Match Found

DV One-Page Summary

KIC: 6675318 Candidate: 1 of 1 Period: 0.579 d



DV Fit Results:

Period = 0.57862 [0.00001] d
Epoch = 132.1481 [0.0016] BKJD
Rp/R* = 0.0146 [0.0087]
a/R* = 2.29 [3.00]
b = 0.03 [59.70]
Seff = 1208.42 [206.17]
Teff = 1503 [64] K
Rp = 1.16 [0.70] Re
a = 0.0122 [0.0009] AU
Ag = 16.59 [19.98] [0.78σ]
Teffp = 4691 [1415] K [2.25σ]

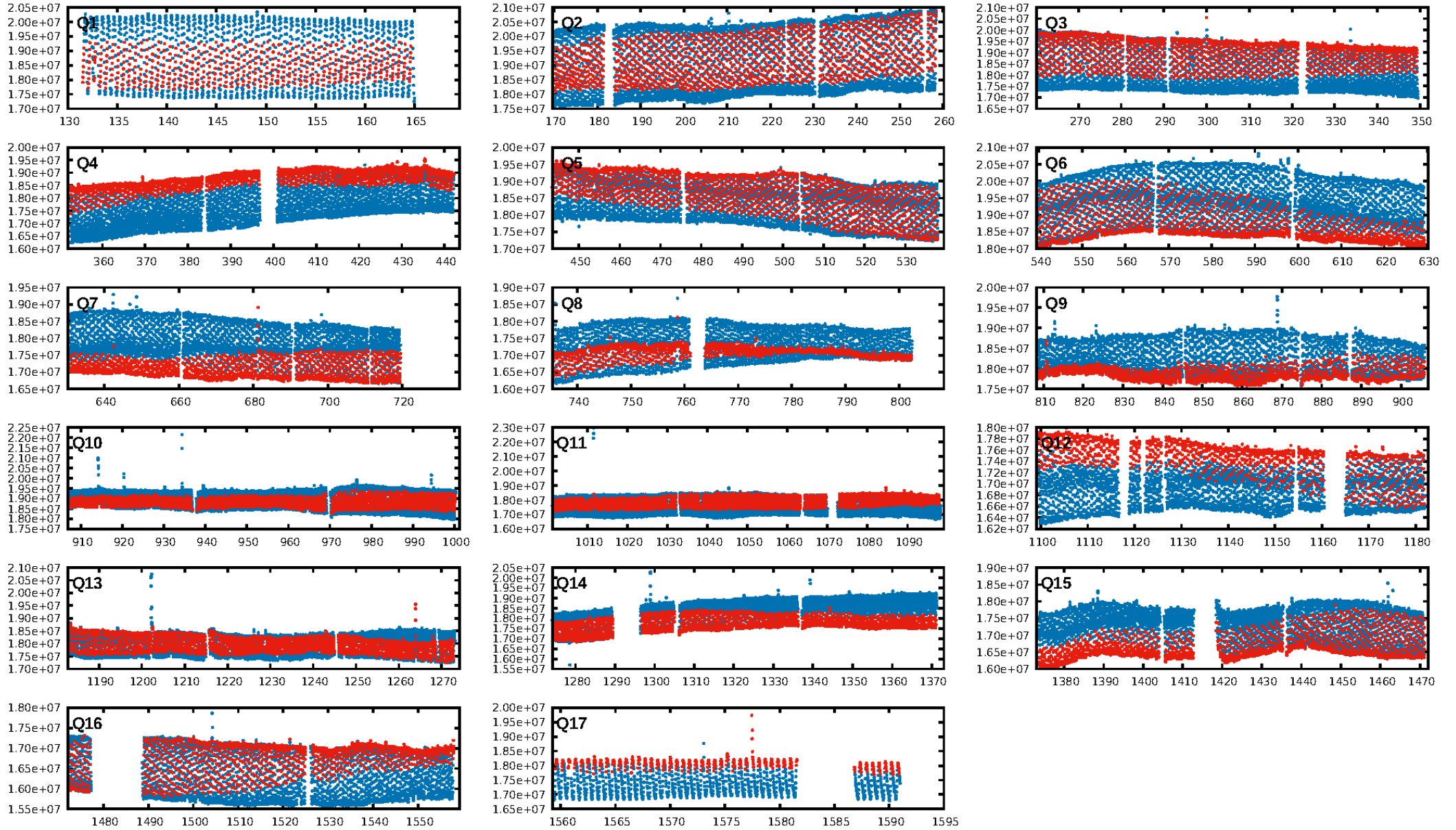
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2204/2205]
GhostDiagnostic-chr: 4.514
Centroid-sig: 94.3%
Centroid-so: 0.149 arcsec [0.57σ]
OotOffset-rm: 0.020 arcsec [0.28σ]
KicOffset-rm: 0.085 arcsec [0.93σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 1.00 [17/17]

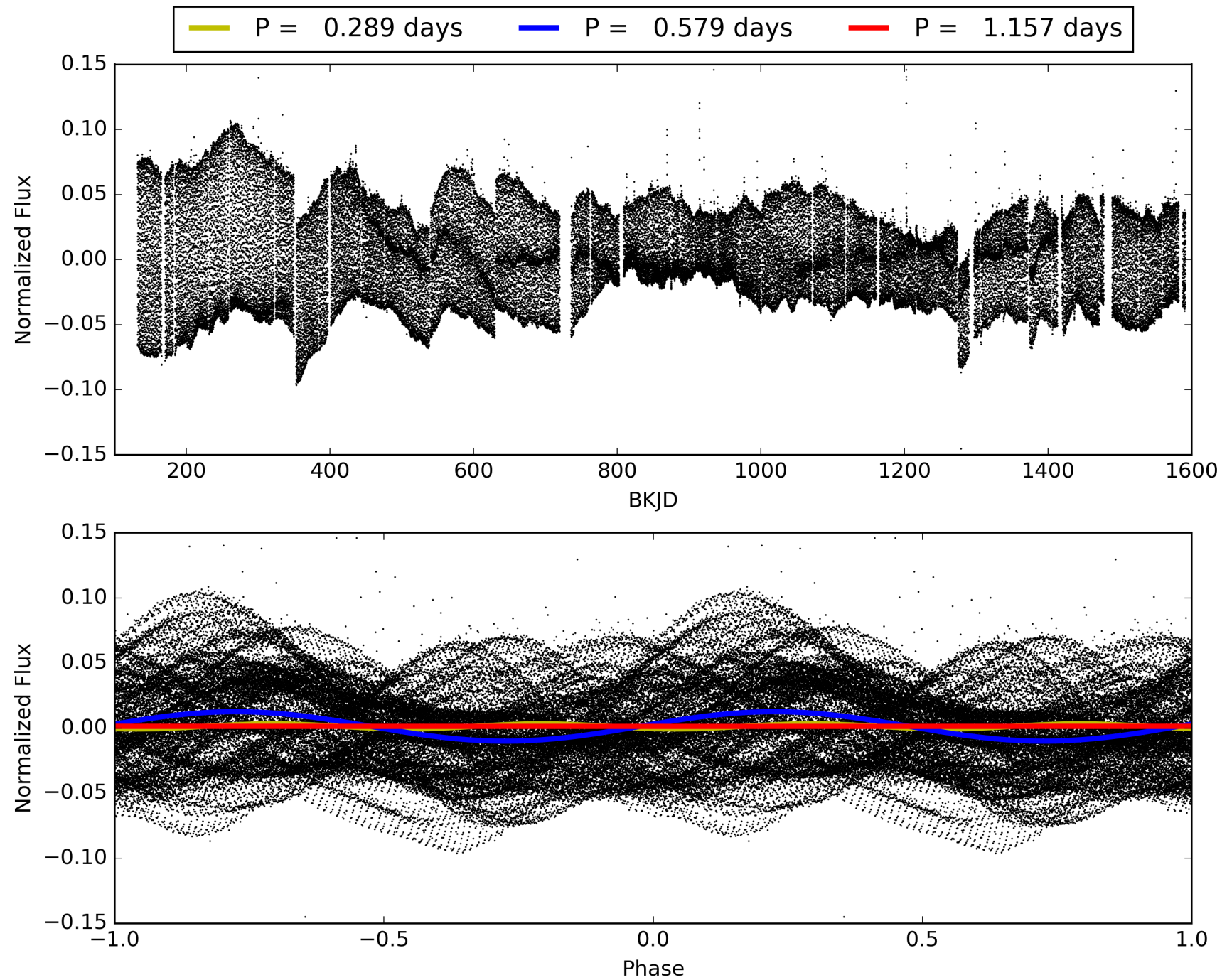
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:12:27 Z

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

TCE 006675318-01, PDC Light Curves

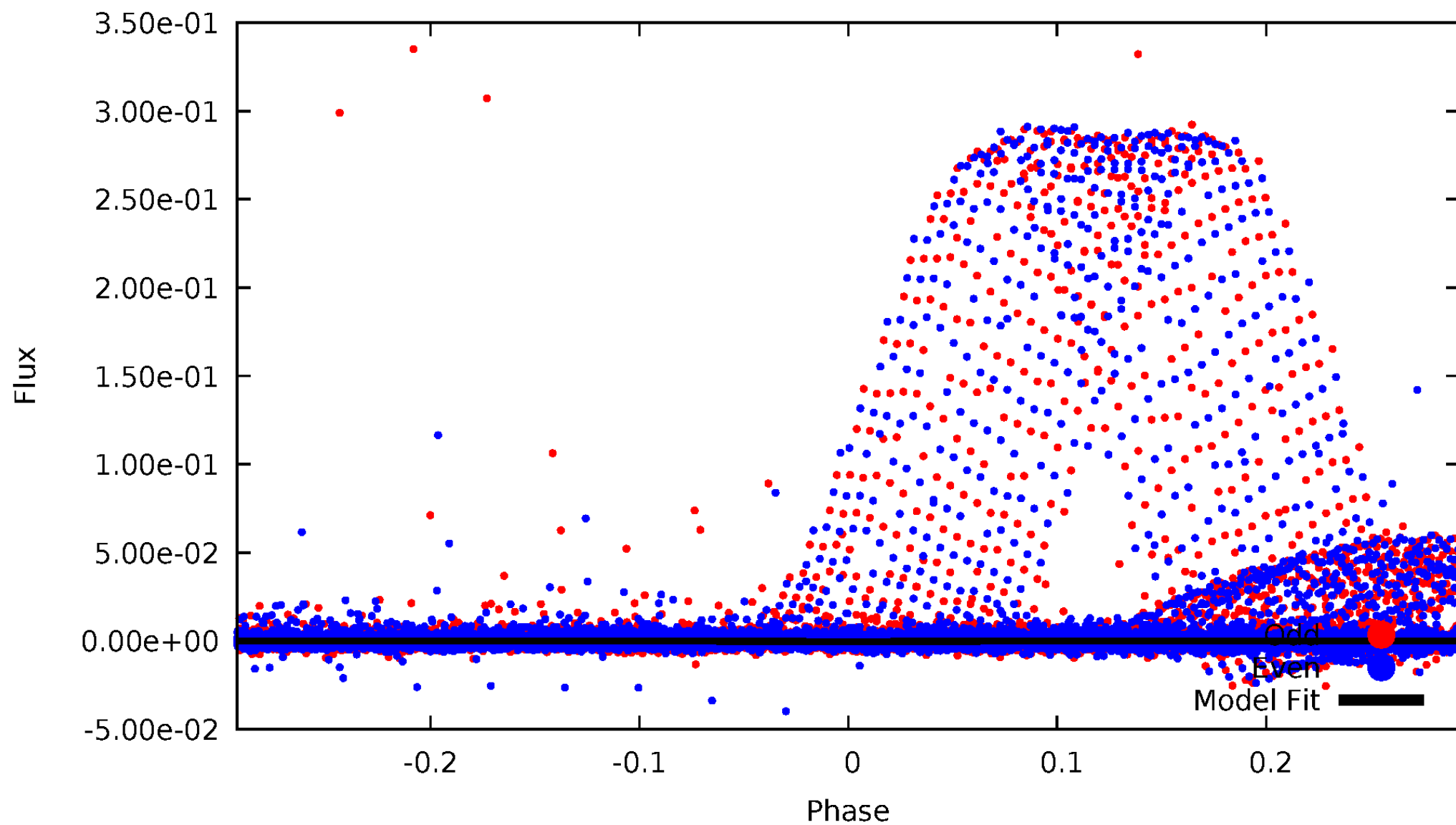


TCE 006675318-01



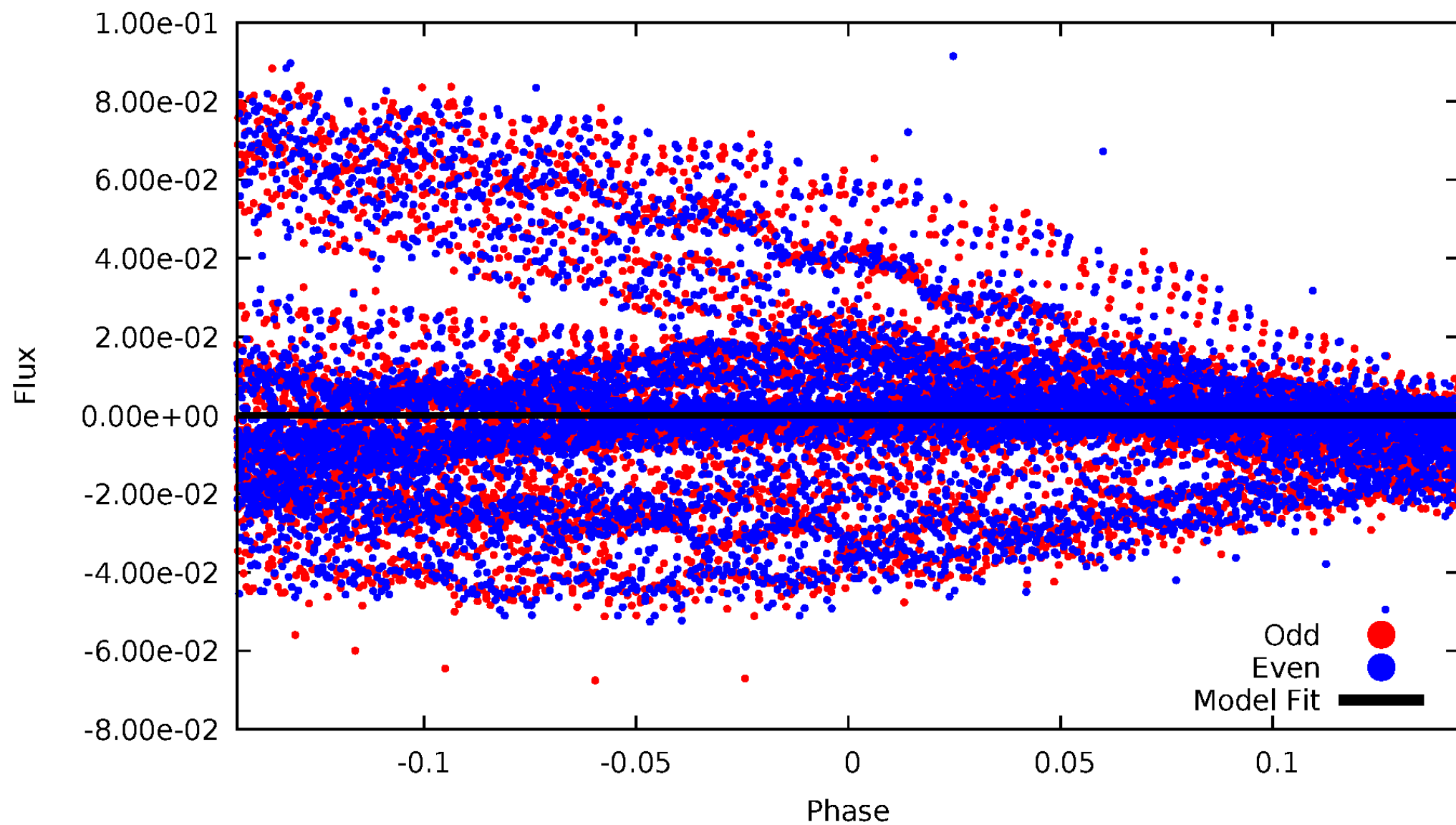
DV Odd/Even

TCE 006675318-01



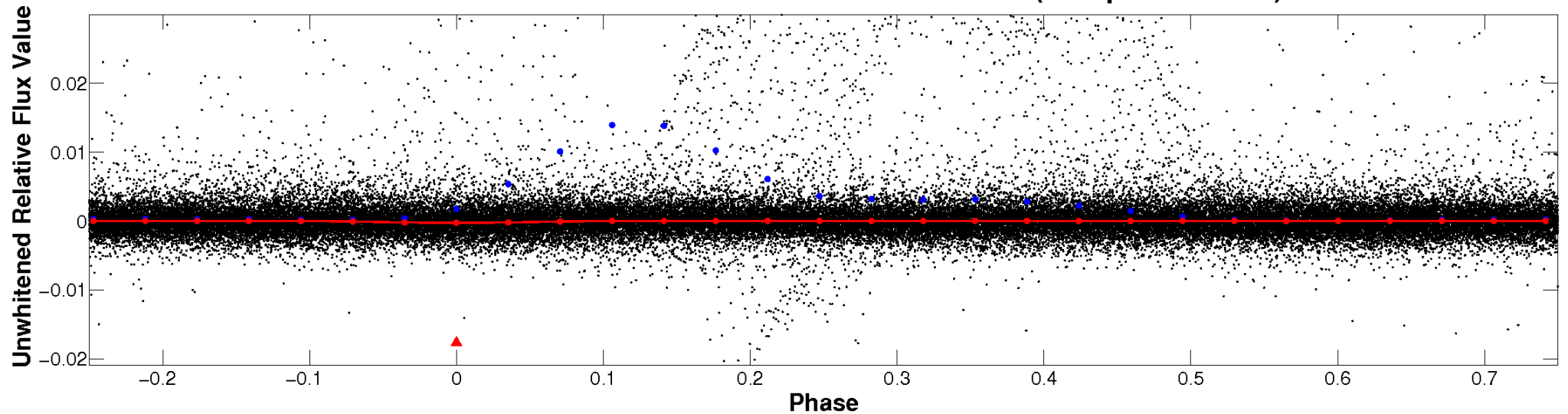
ALT Odd/Even

TCE 006675318-01

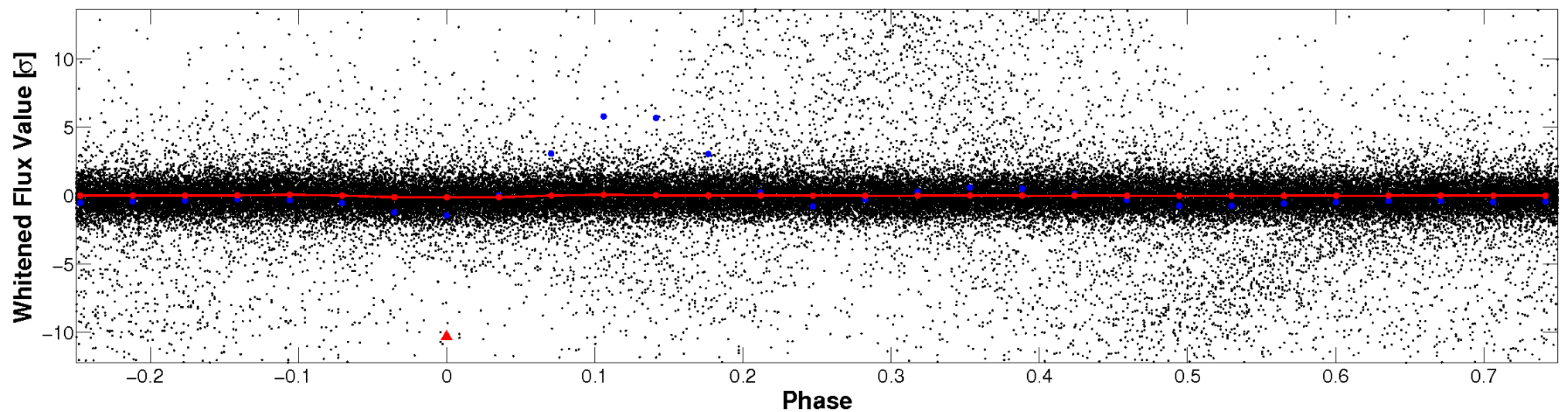


Non-Whitened Vs. Whitened Light Curve

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

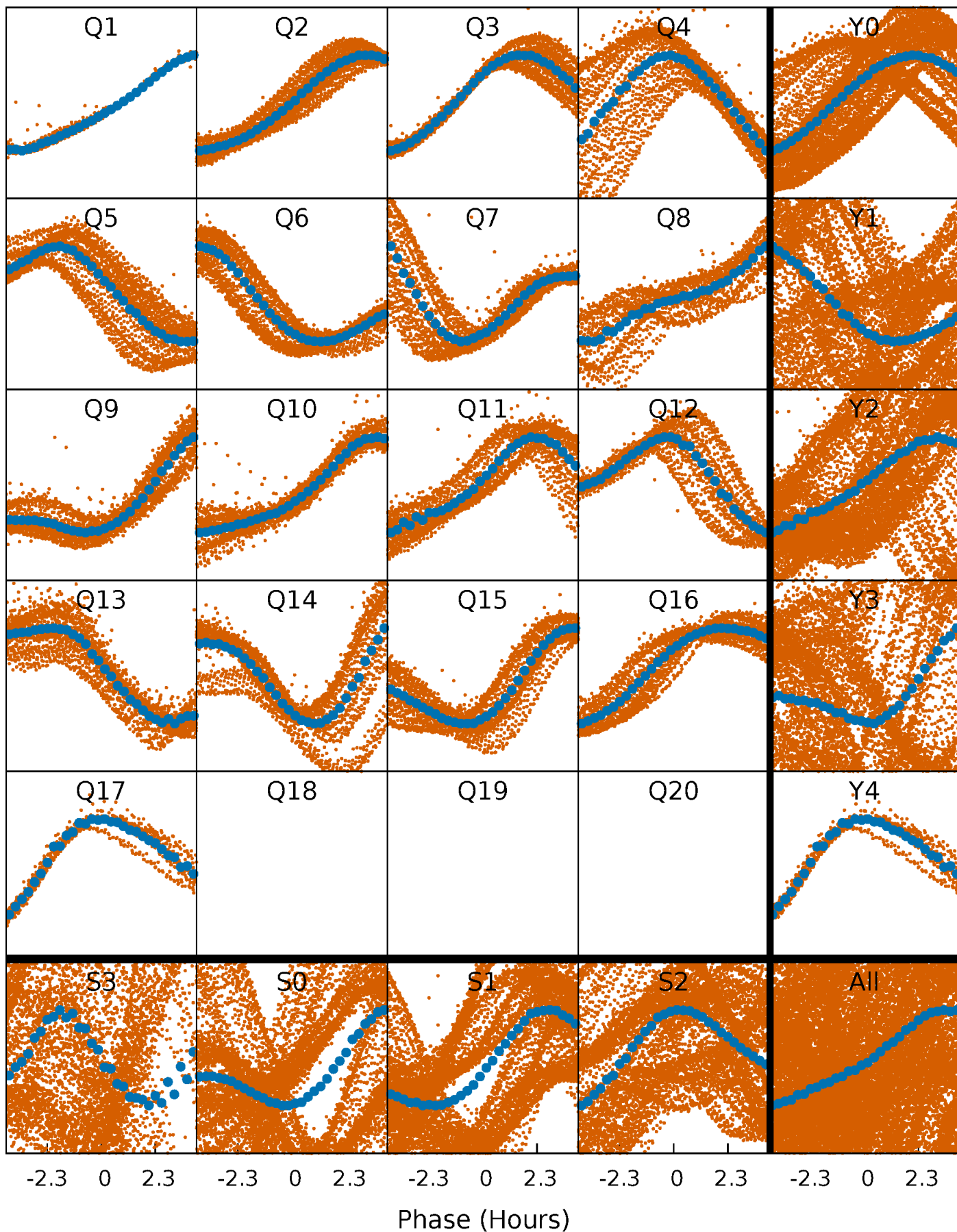


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



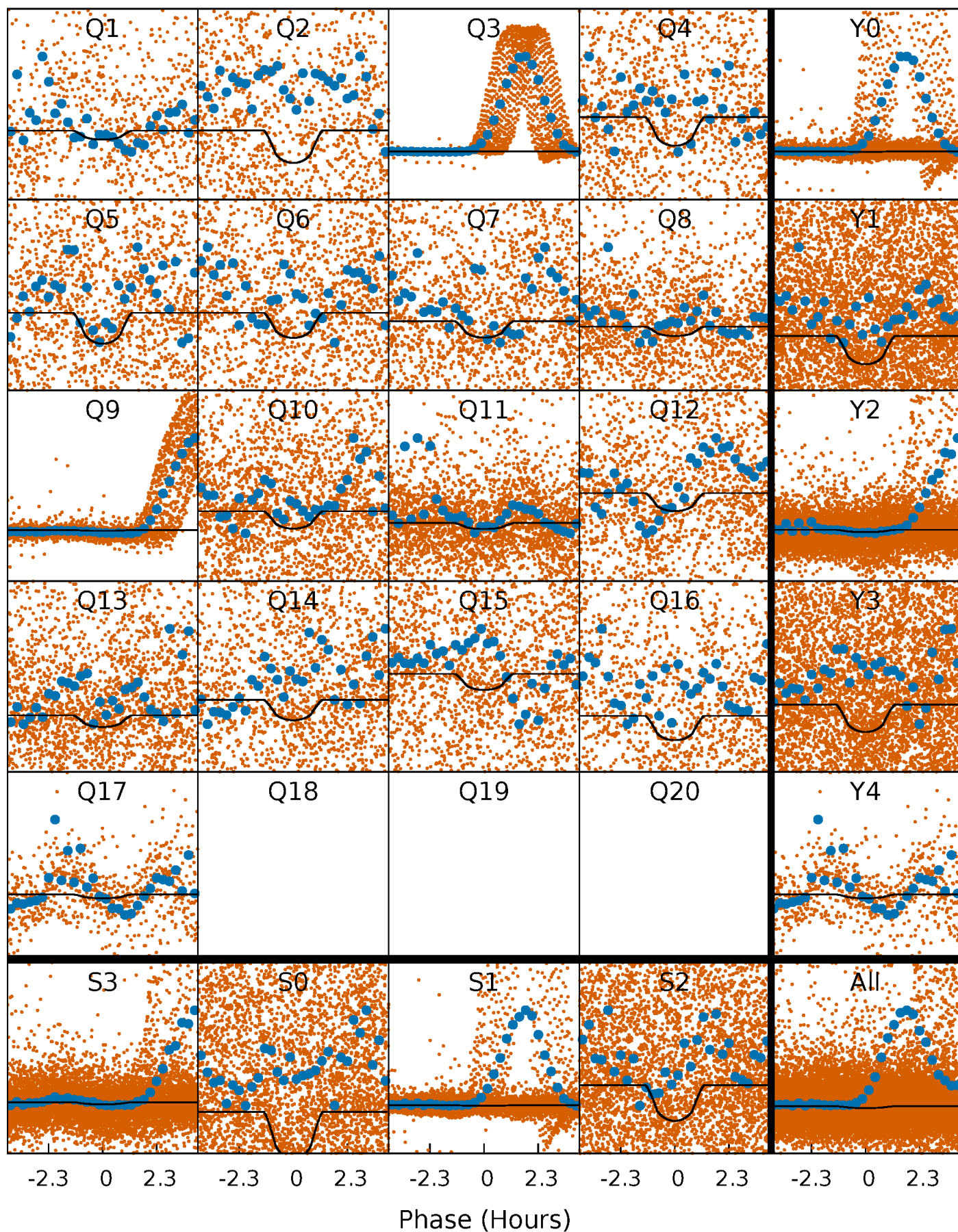
PDC Quarter-Phased Transit Curves

TCE 006675318-01 P= 0.578618 Days $T_0=132.148111$ (BKJD)



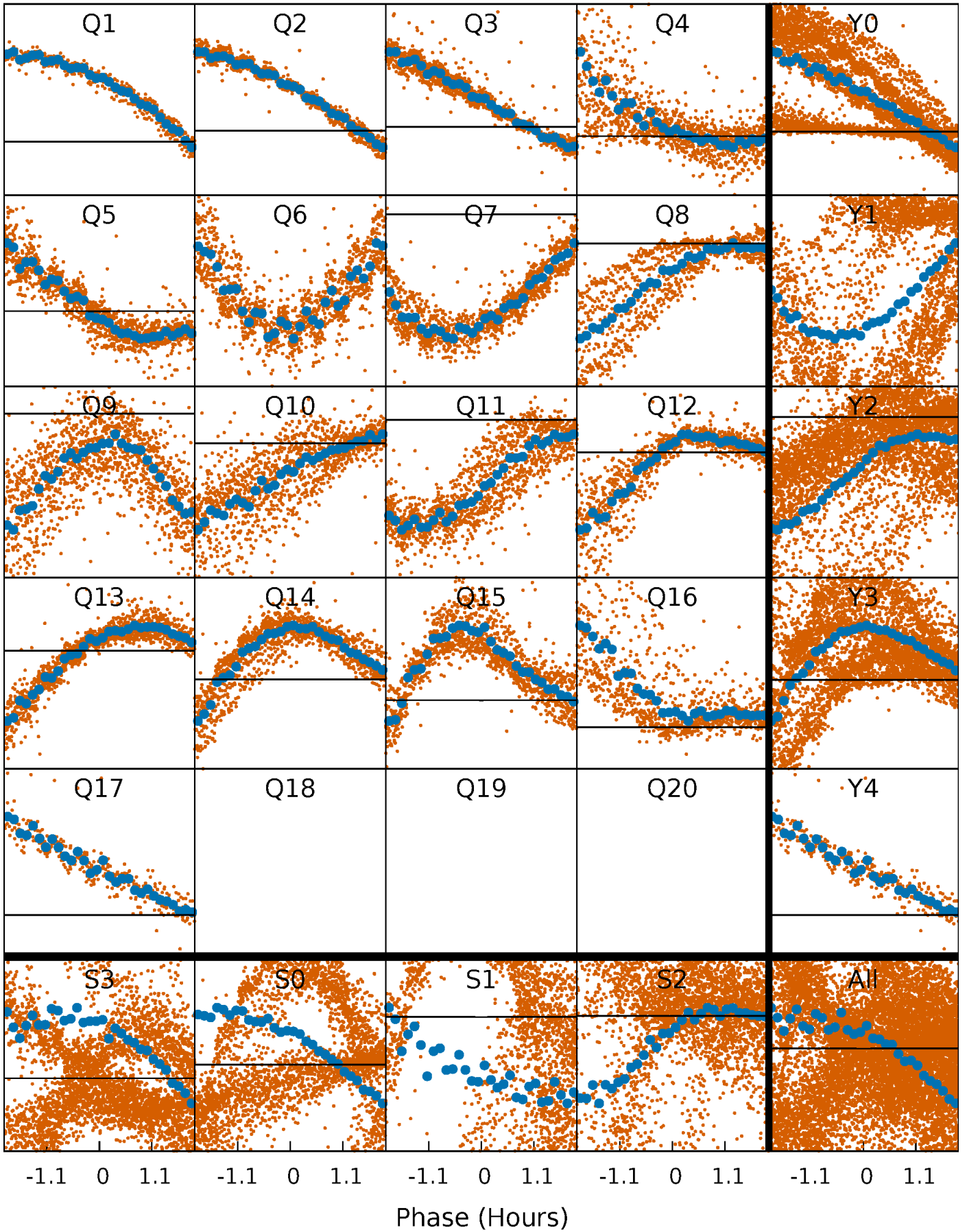
DV Quarter-Phased Transit Curves

TCE 006675318-01 P= 0.578618 Days $T_0=132.148111$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

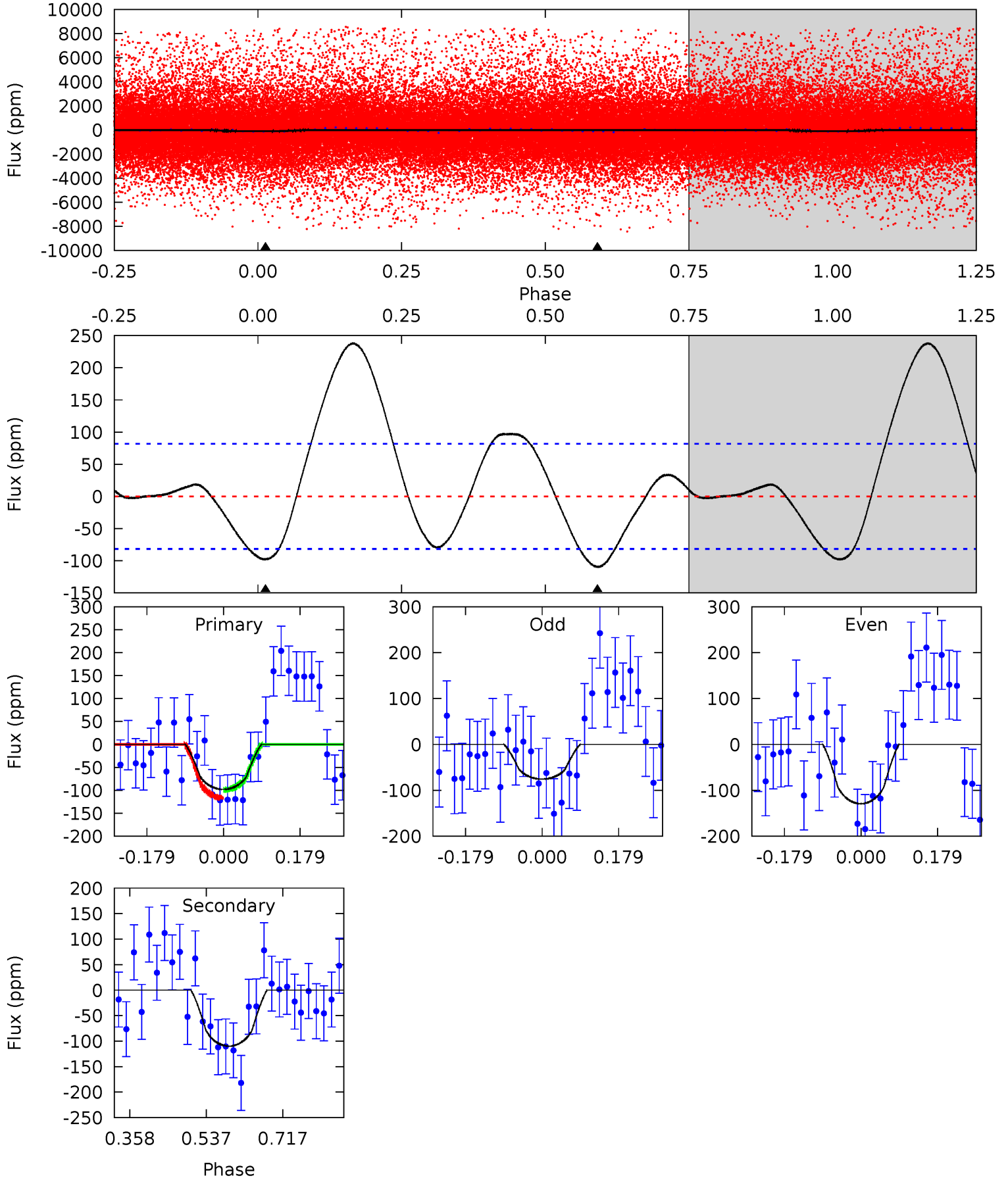
TCE 006675318-01 P= 0.578310 Days $T_0=131.835978$ (BKJD)



DV Model-Shift Uniqueness Test

006675318-01, P = 0.578618 Days, E = 130.990875 Days

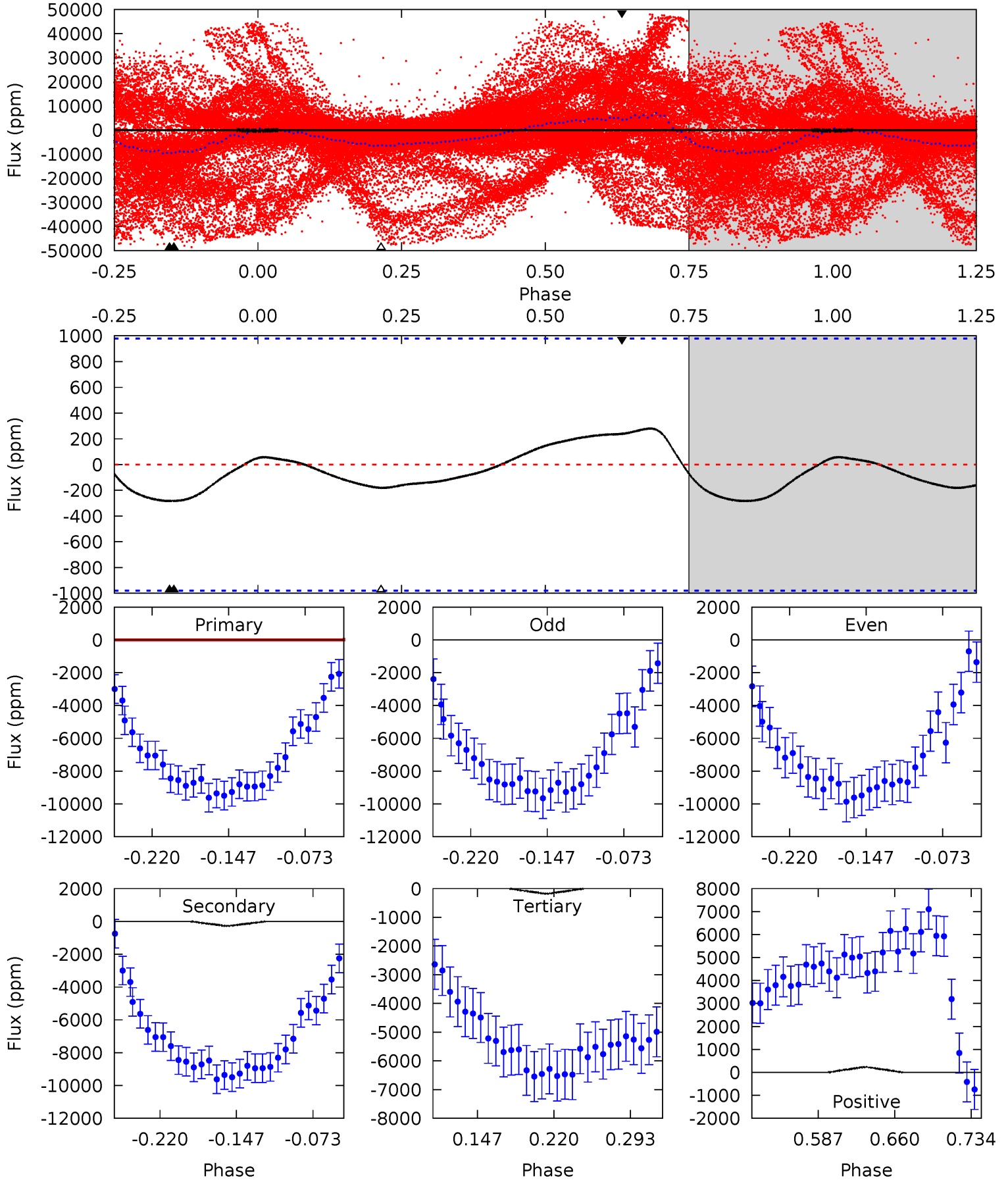
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.33	5.97	0	0	4.44	1.34	3.87	5.33	5.33	5.97	5.97	1.45	-125.3	0.68	0.47



Alt Model-Shift Uniqueness Test

006675318-01, P = 0.578310 Days, E = 131.257668 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.34	1.34	0.86	1.13	4.63	1.79	0.68	0.48	0.21	0.49	0.21	0.05	2.65	0.50	1.77



Stellar Parameters For KIC 006675318

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4409^{+132}_{-145}	$4.572^{+0.060}_{-0.016}$	$0.360^{+0.100}_{-0.300}$	$0.729^{+0.025}_{-0.063}$	$0.723^{+0.037}_{-0.050}$	$2.627^{+0.658}_{-0.152}$
	+3%/-3%	+1%/-0%	+28%/-83%	+3%/-9%	+5%/-7%	+25%/-6%
Source	PHO1	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 006675318-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-110 ± 18	$1.16^{+0.70}_{-0.61}$	2082^{+72}_{-76}	3858^{+1314}_{-617}	$6.745^{+22.991}_{-4.216}$
Alt.	-284 ± 212	$0.55^{+0.60}_{-0.37}$	2084^{+69}_{-74}	6022^{+7361}_{-2060}	57^{+587}_{-49}

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

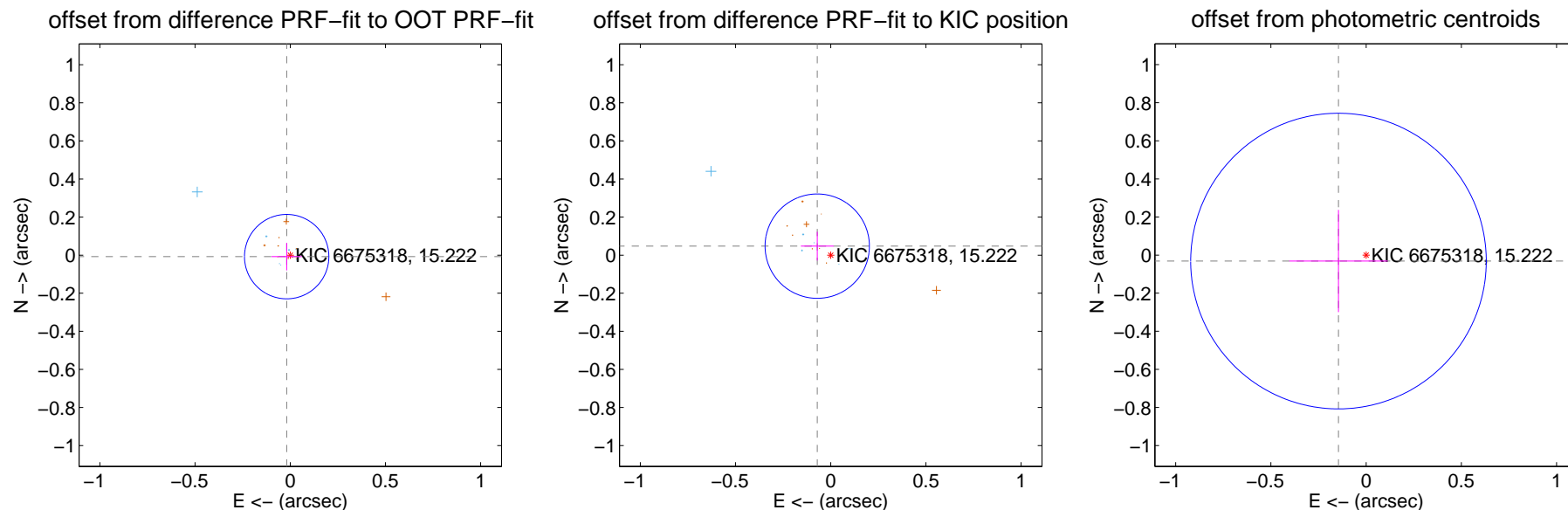
DV Centroid Data

Supplemental centroid analysis for 006675318-01. Kepler magnitude: 15.22. Transit SNR 11.24

There are 8 quarters with good PRF difference image offsets

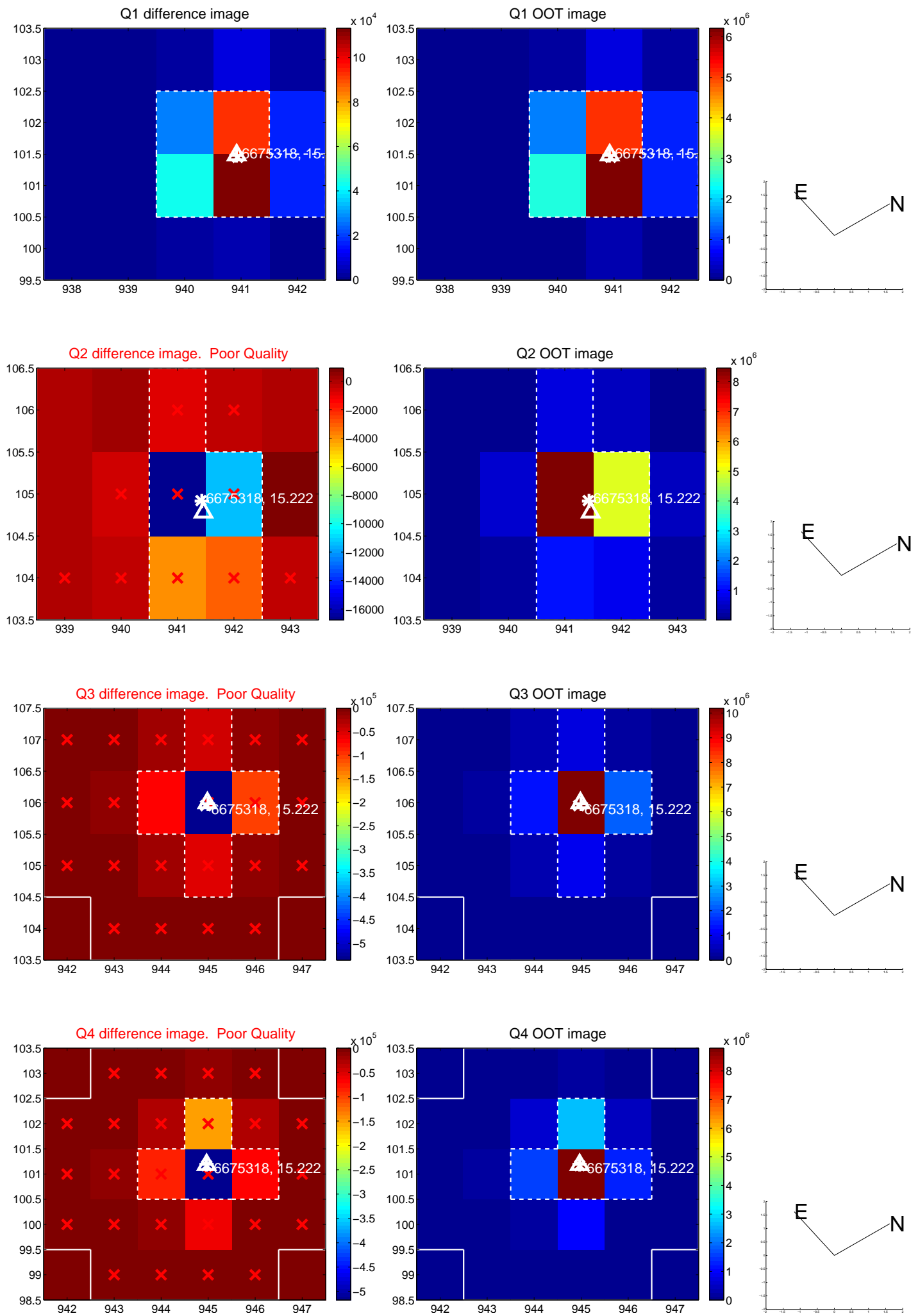
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.074	0.28	0.019 ± 0.080	-0.008 ± 0.072
PRF-fit source offset from KIC position	0.085 ± 0.091	0.93	0.071 ± 0.086	0.047 ± 0.075
photometric centroid source offset	0.15 ± 0.26	0.57	0.15 ± 0.26	-0.03 ± 0.27

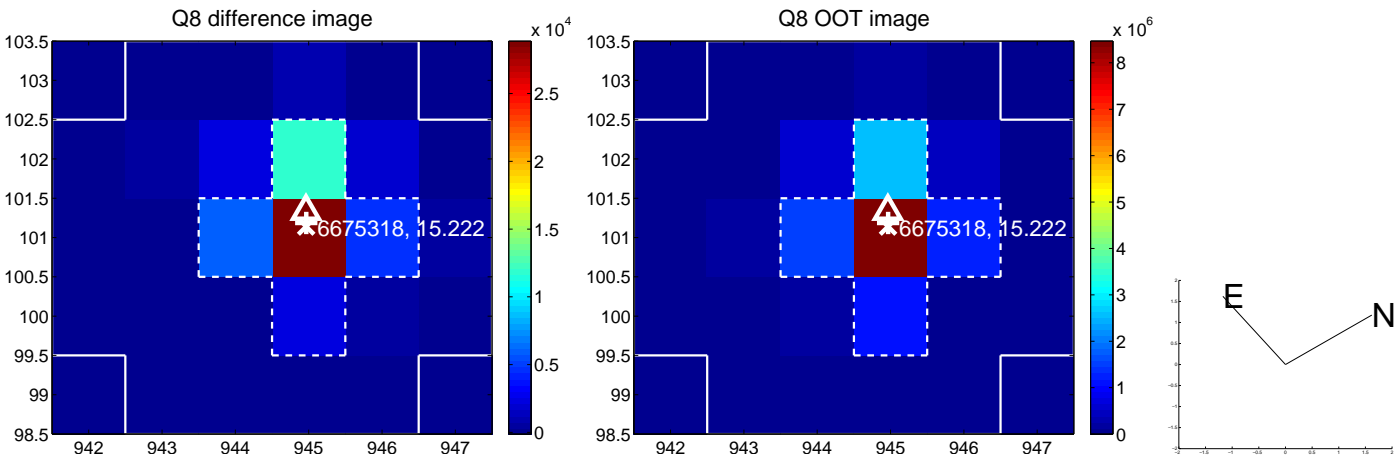
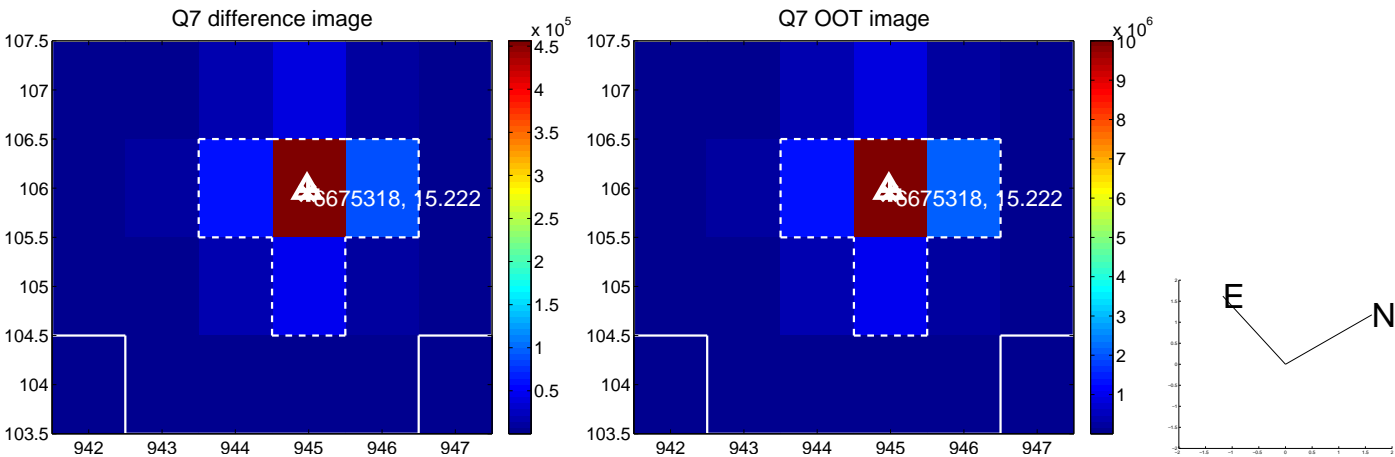
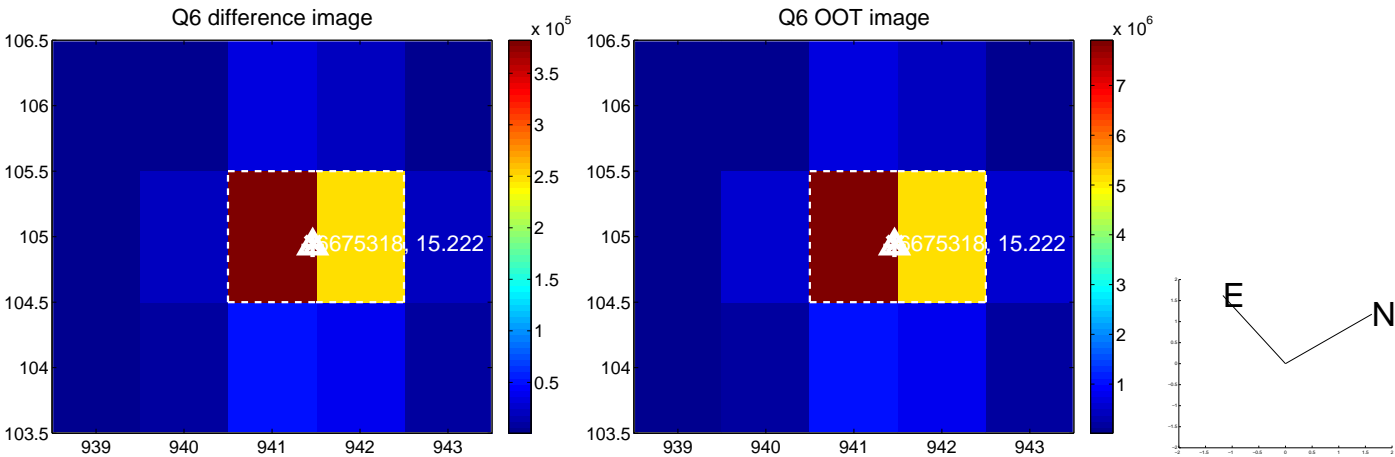
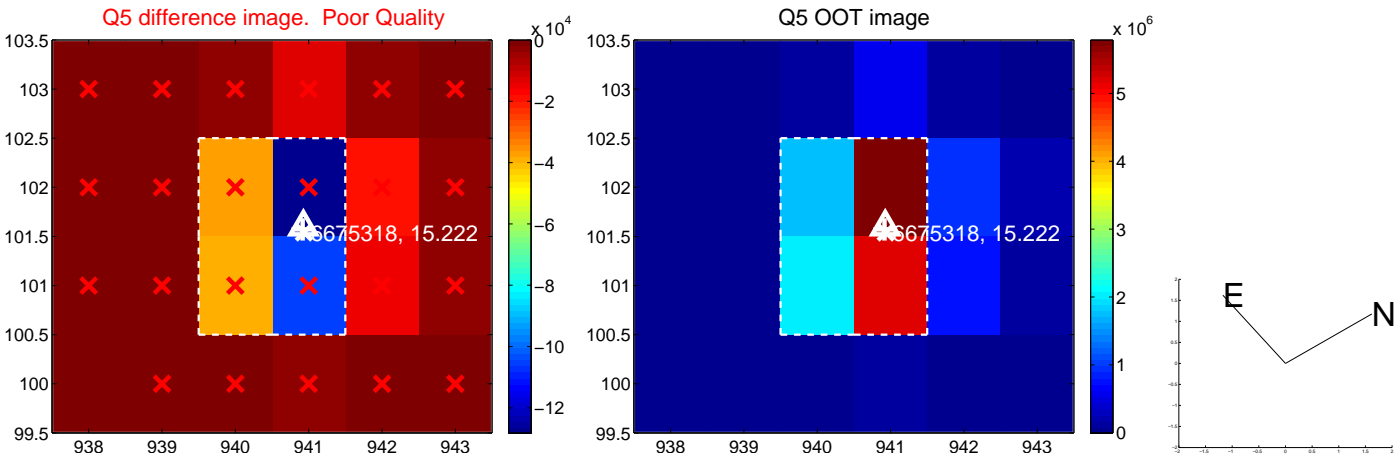


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

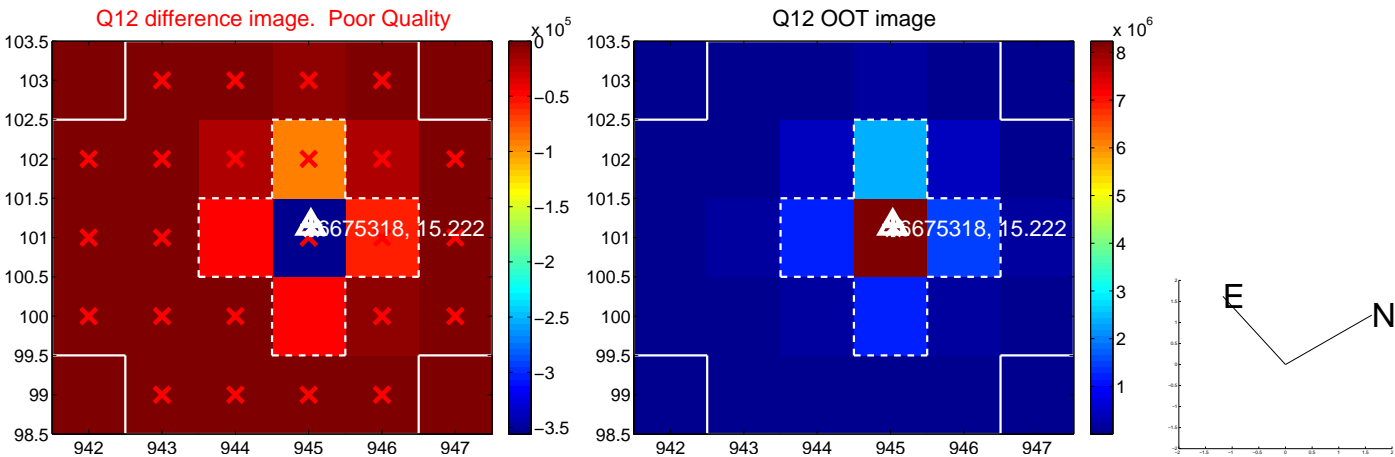
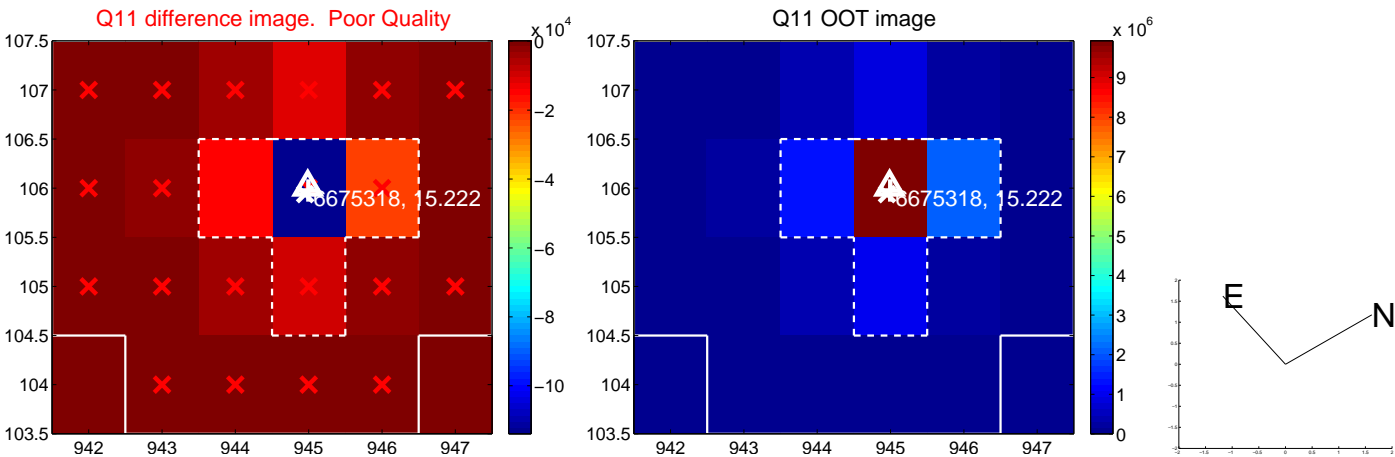
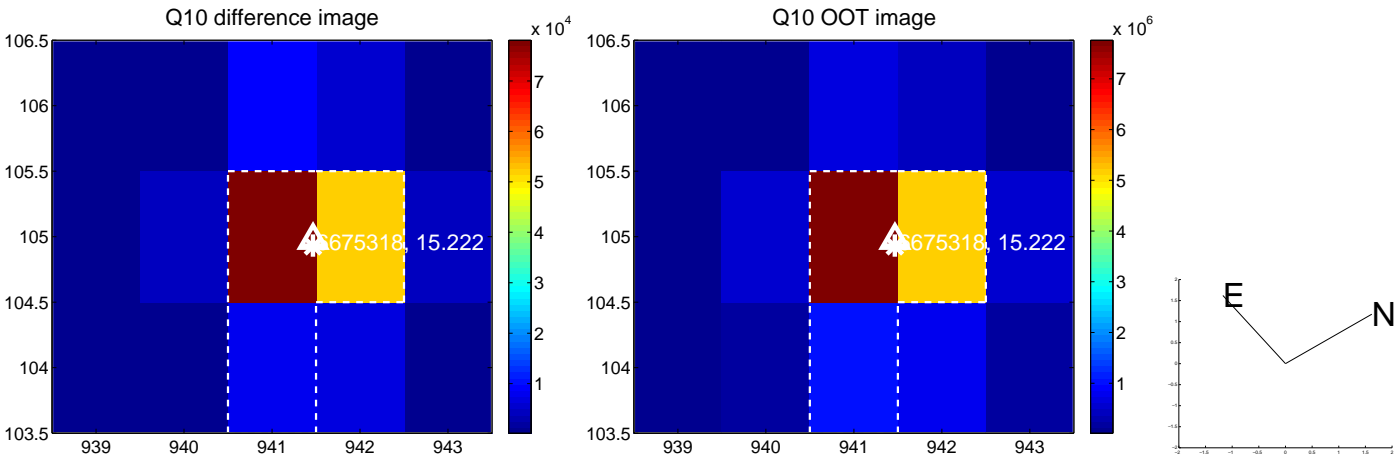
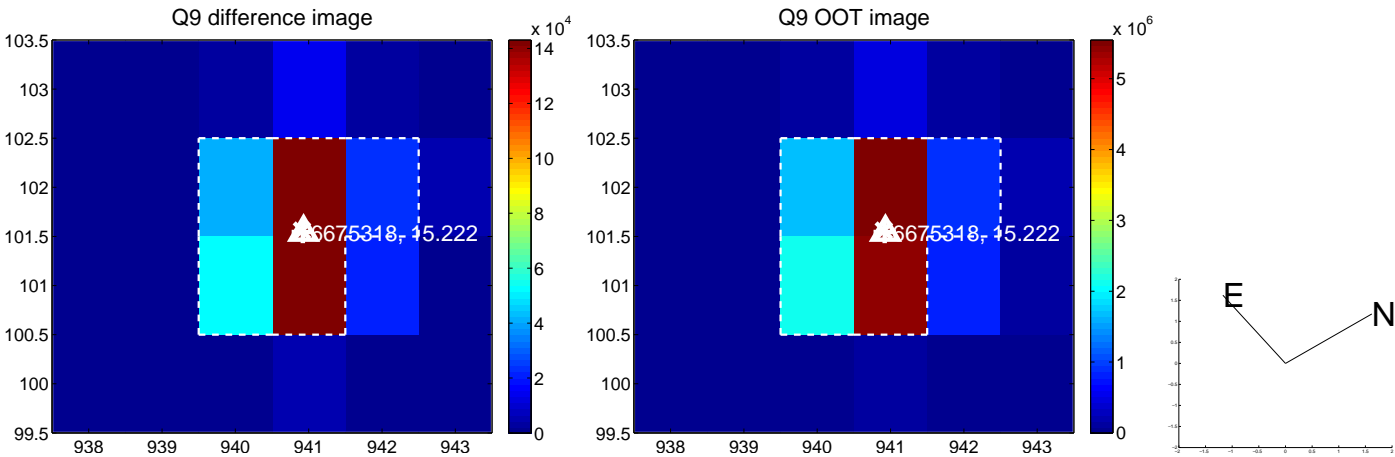
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



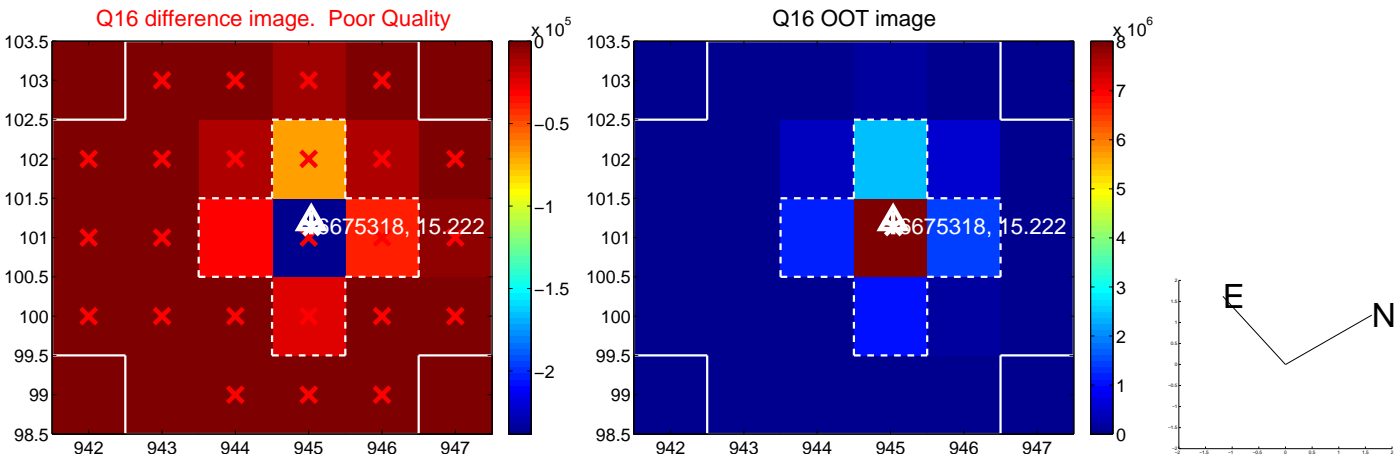
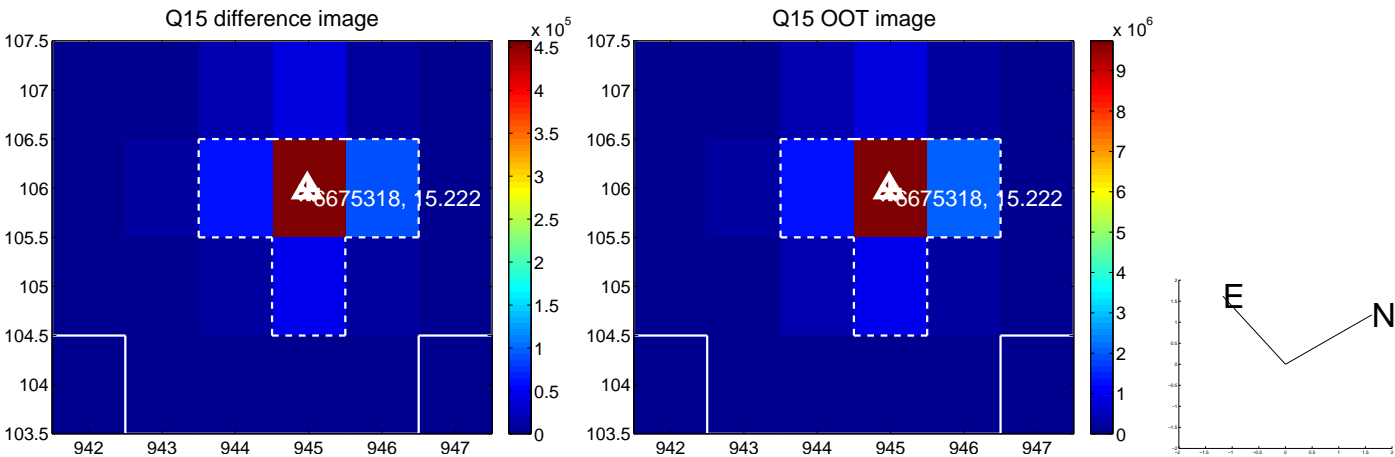
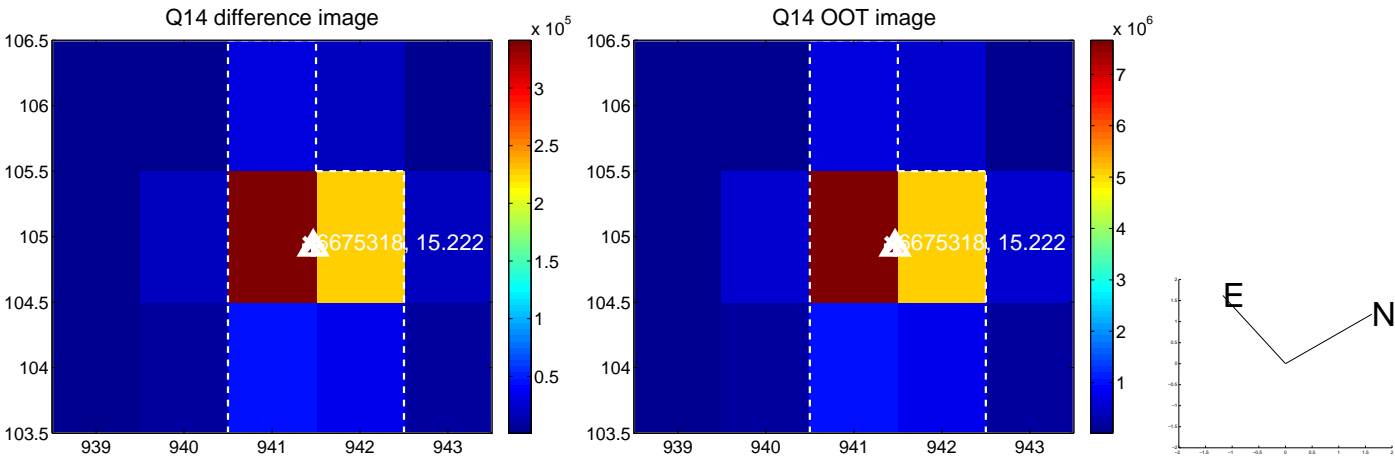
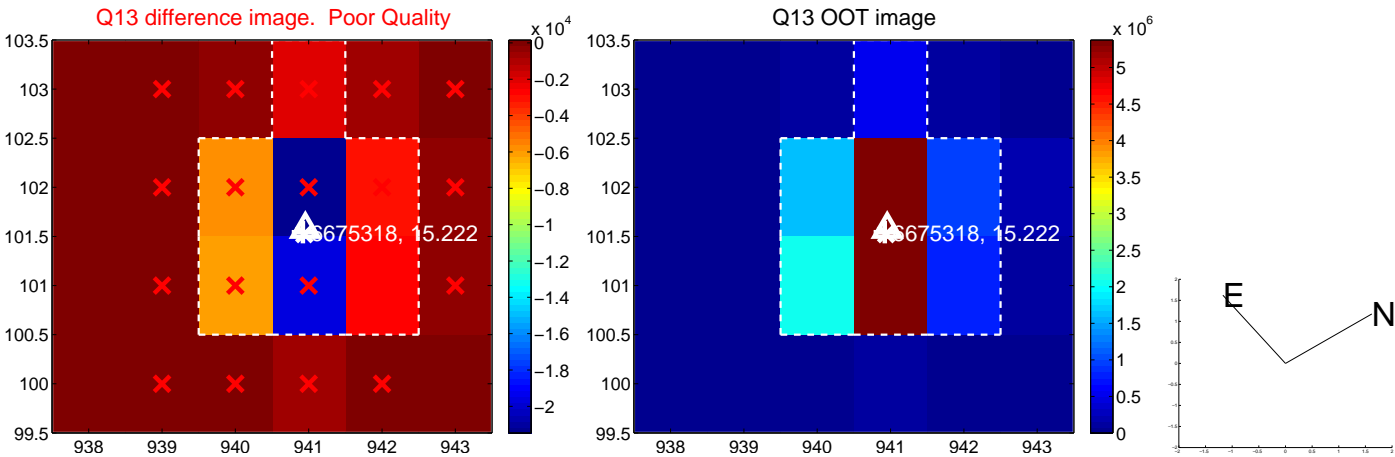
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



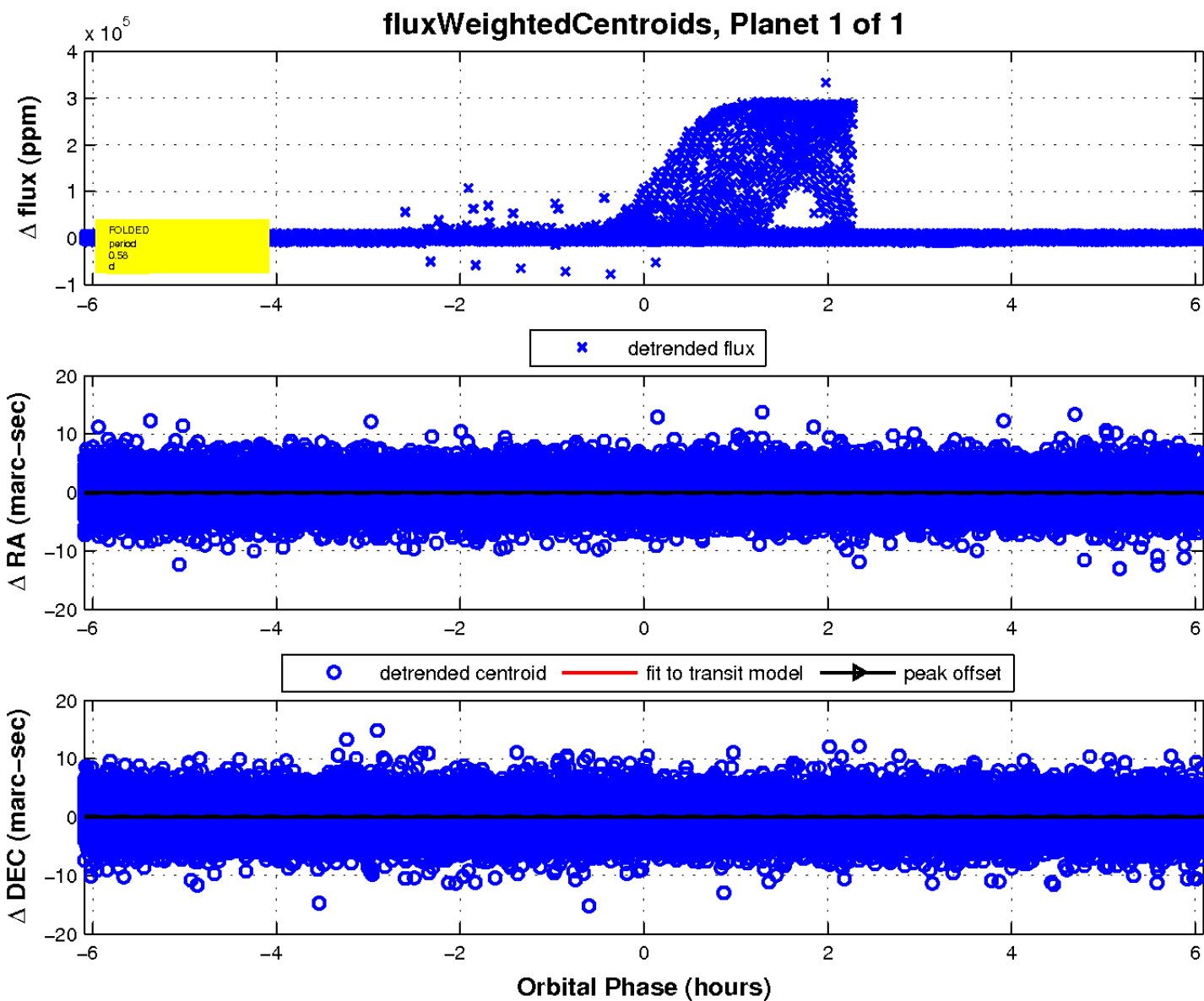
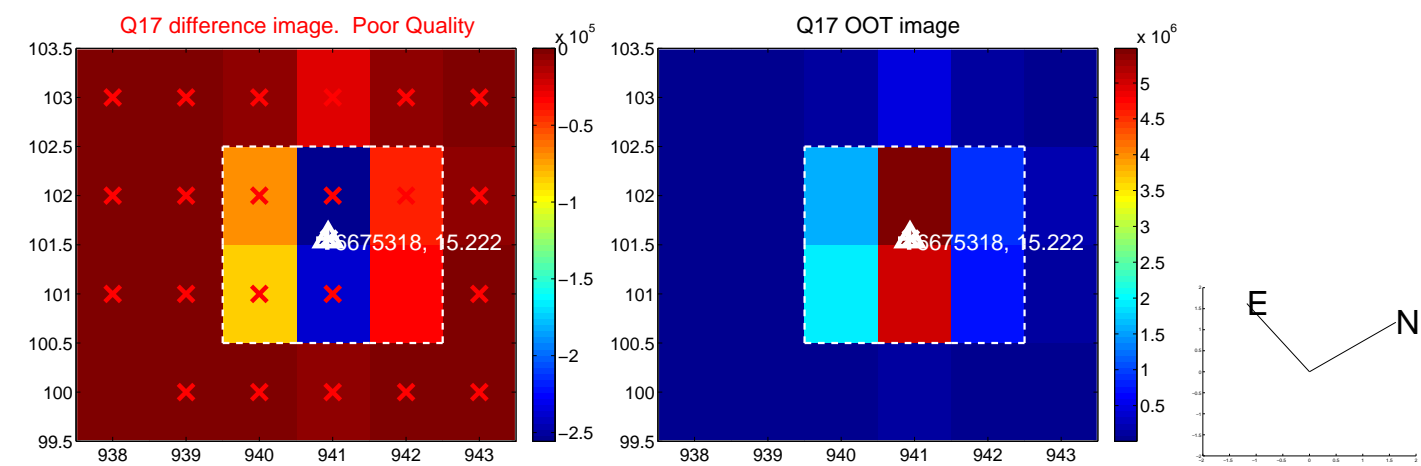
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

