

KIC 006866346

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})
006866346-01	OBS	No	2.775985	132.170778	62.0	33.312	8.6	14.3	0.77	5411	0.79	340.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006866346-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_MEAS

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

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

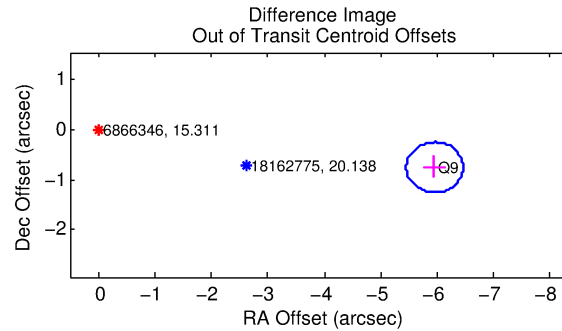
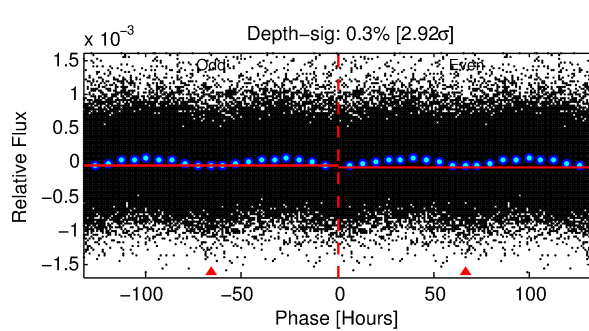
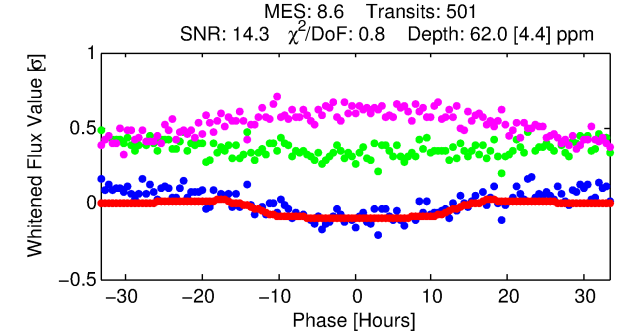
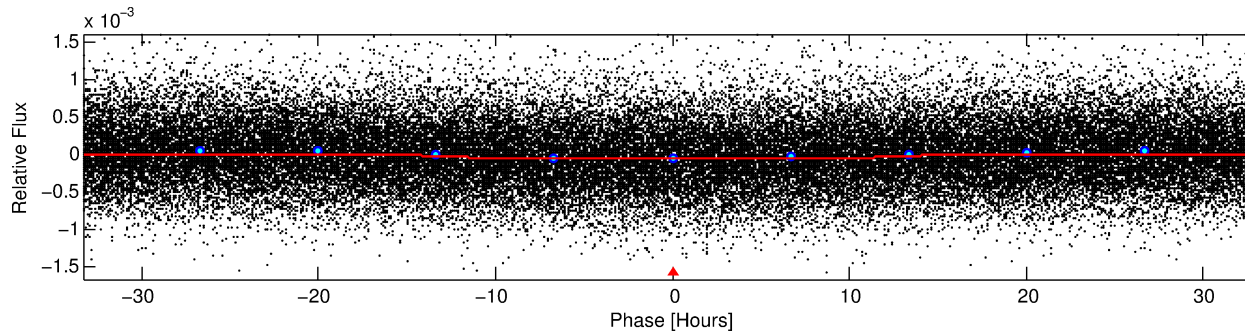
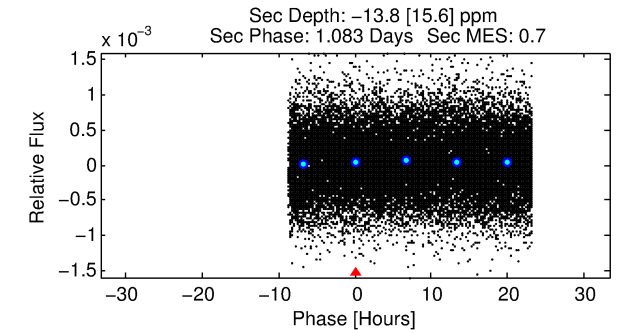
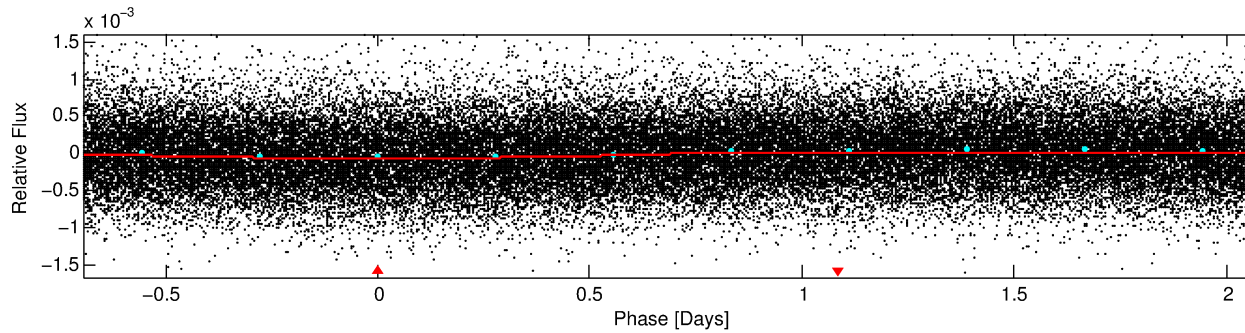
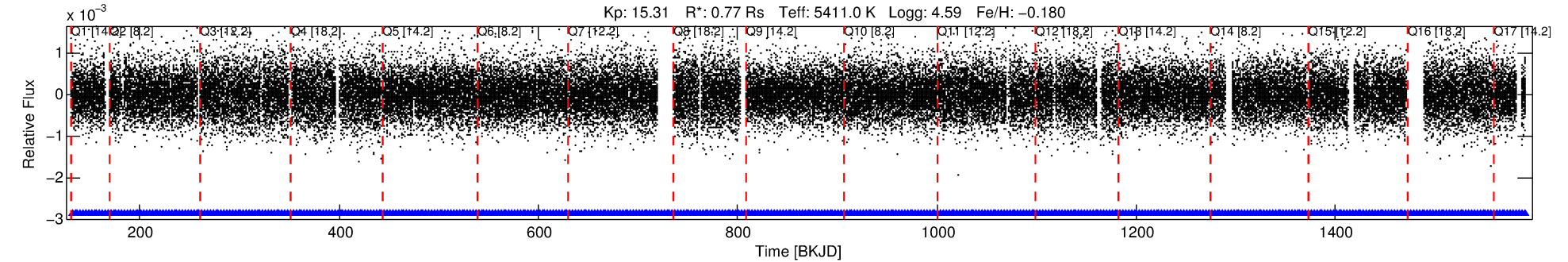
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006866346-01

No Significant Match Found

DV One-Page Summary

KIC: 6866346 Candidate: 1 of 1 Period: 2.776 d



DV Fit Results:

Period = 2.77599 [0.00010] d
Epoch = 132.1708 [0.0277] BKJD
Rp/R* = 0.0093 [0.0006]
a/R* = 1.00 [0.00]
b = 0.95 [0.03]
Seff = 340.36 [84.76]
Teff = 1095 [68] K
Rp = 0.79 [0.15] Re
a = 0.0368 [0.0055] AU
Ag = N/A
Teffp = N/A

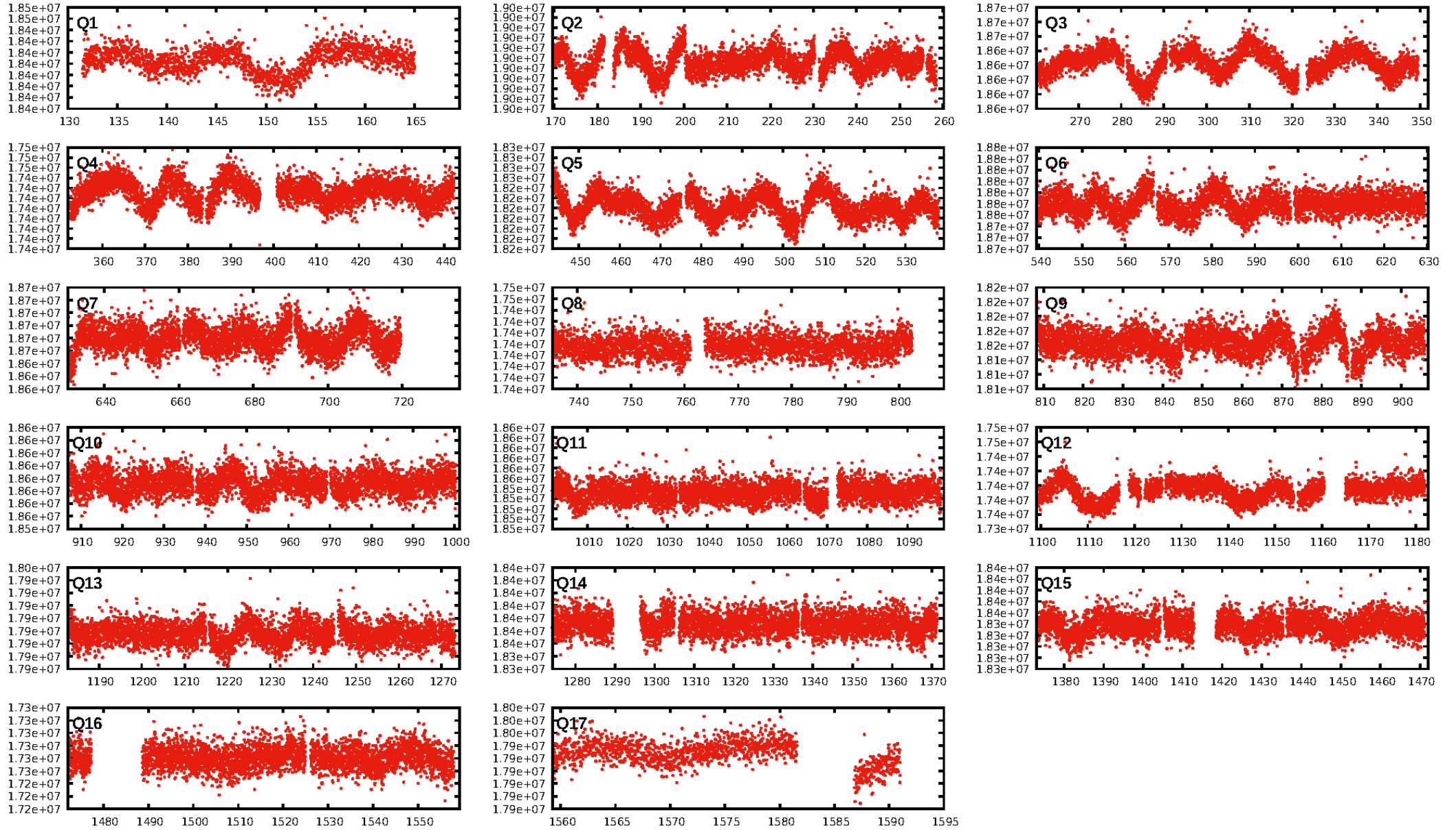
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [477/477]
GhostDiagnostic-chr: 2.637
Centroid-sig: 0.0%
Centroid-so: 2.247 arcsec [3.18σ]
OotOffset-rm: 6.000 arcsec [35.66σ]
KicOffset-rm: 5.961 arcsec [35.49σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [17/17]

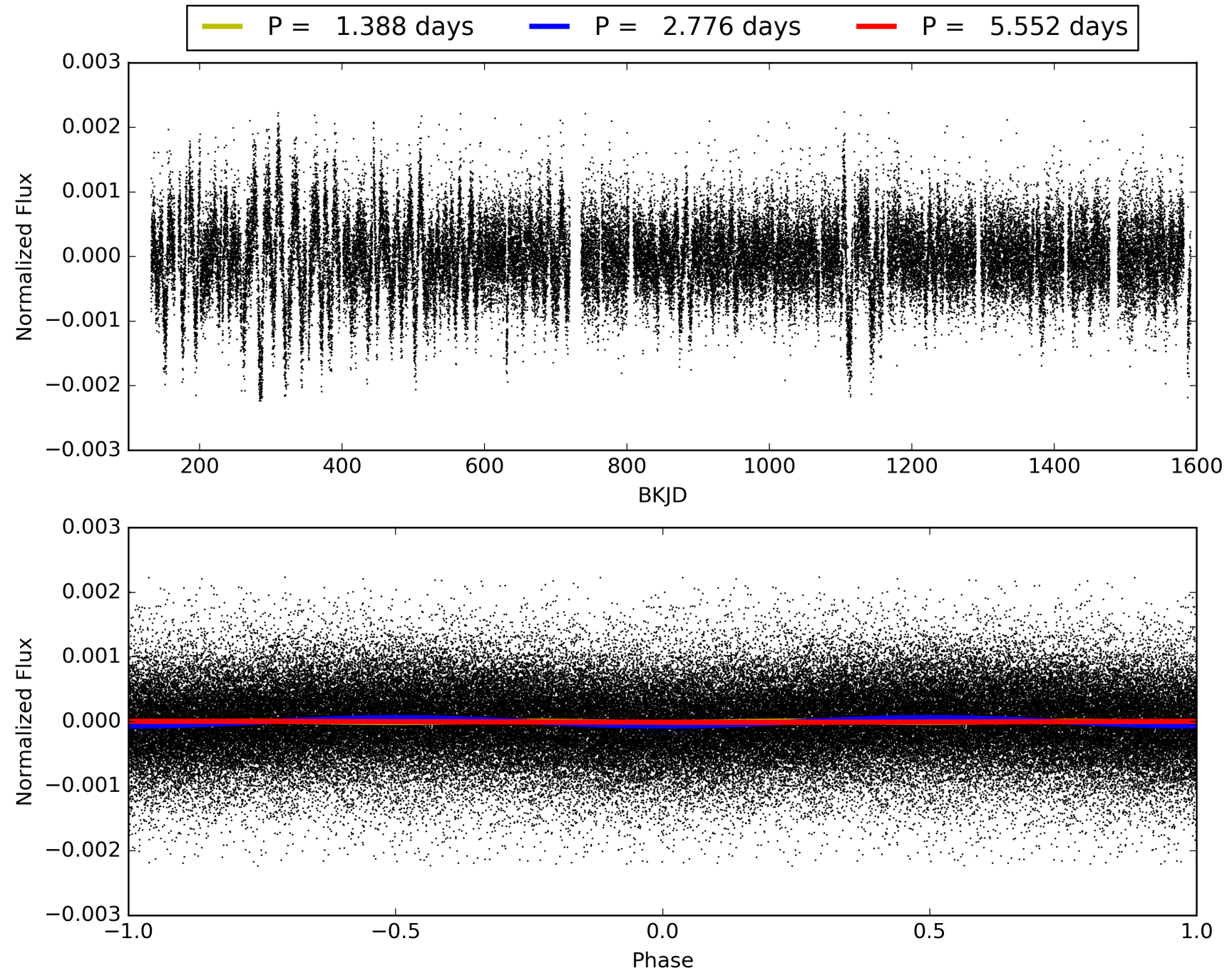
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:34:49 Z

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

TCE 006866346-01, PDC Light Curves

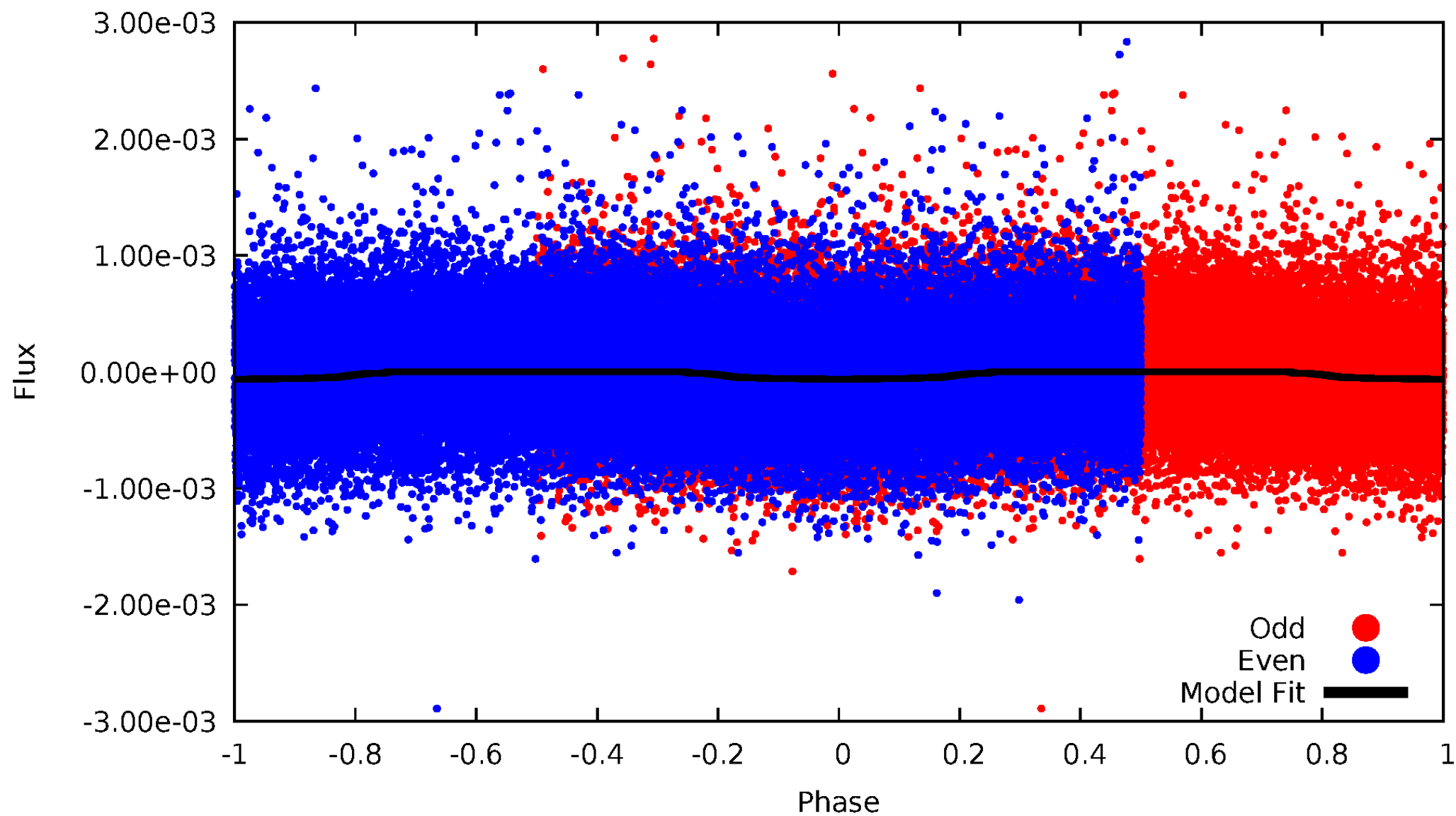


TCE 006866346-01



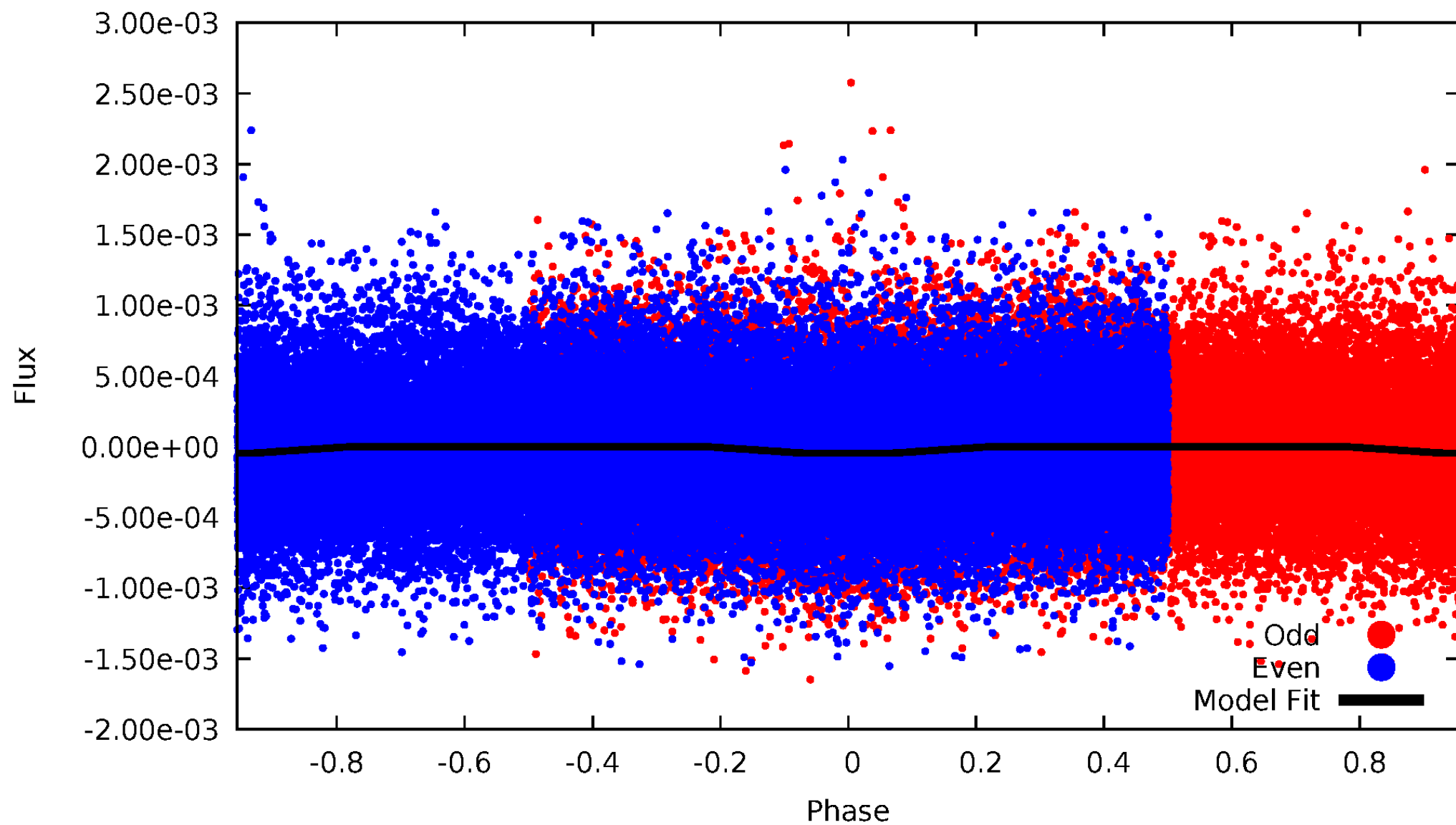
DV Odd/Even

TCE 006866346-01



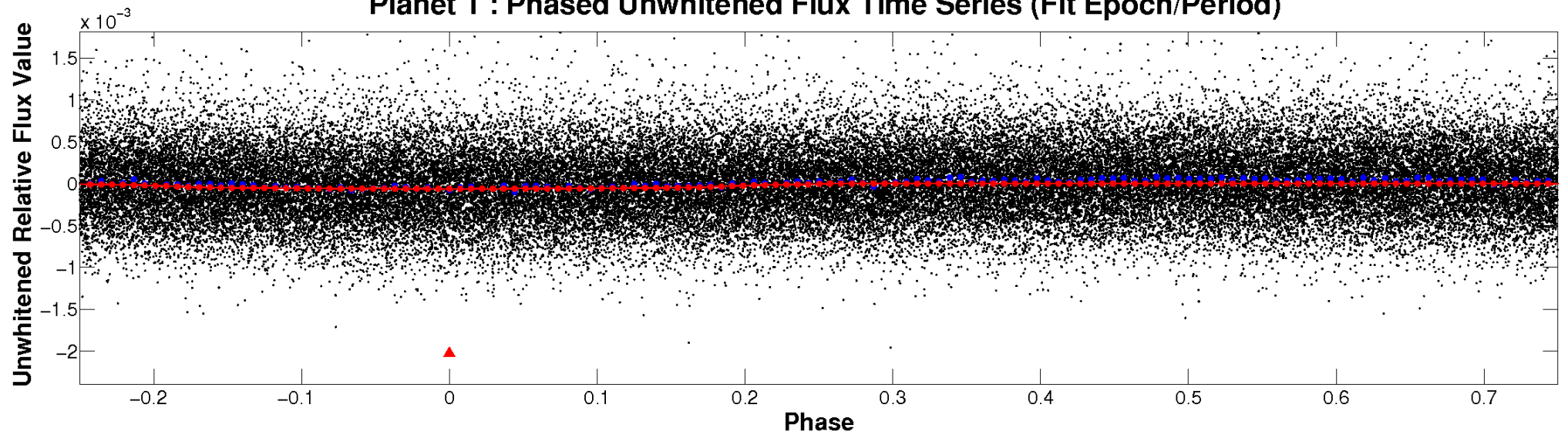
ALT Odd/Even

TCE 006866346-01

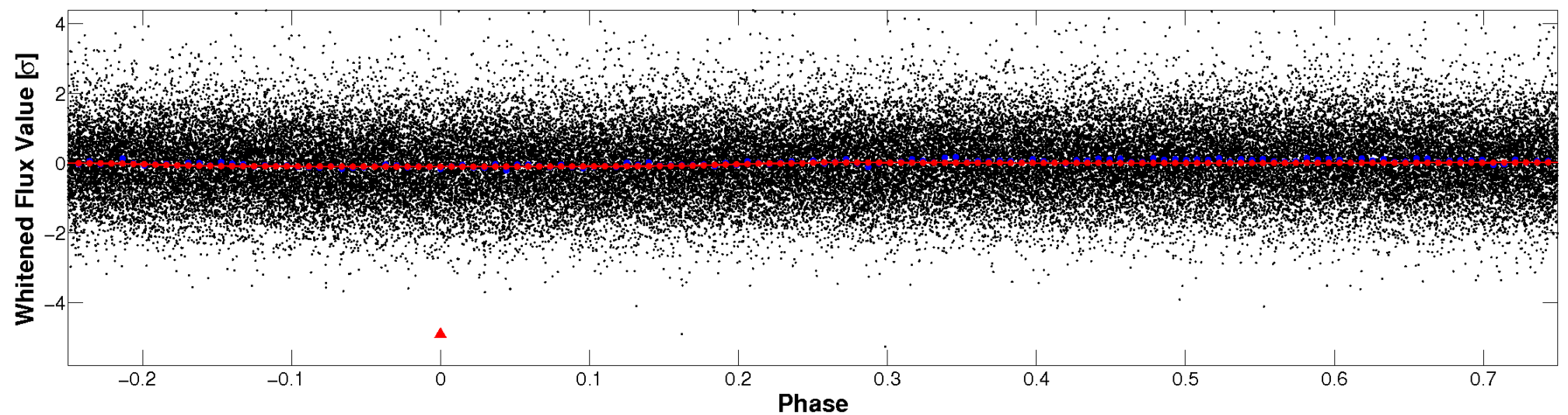


Non-Whitened Vs. Whitened Light Curve

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

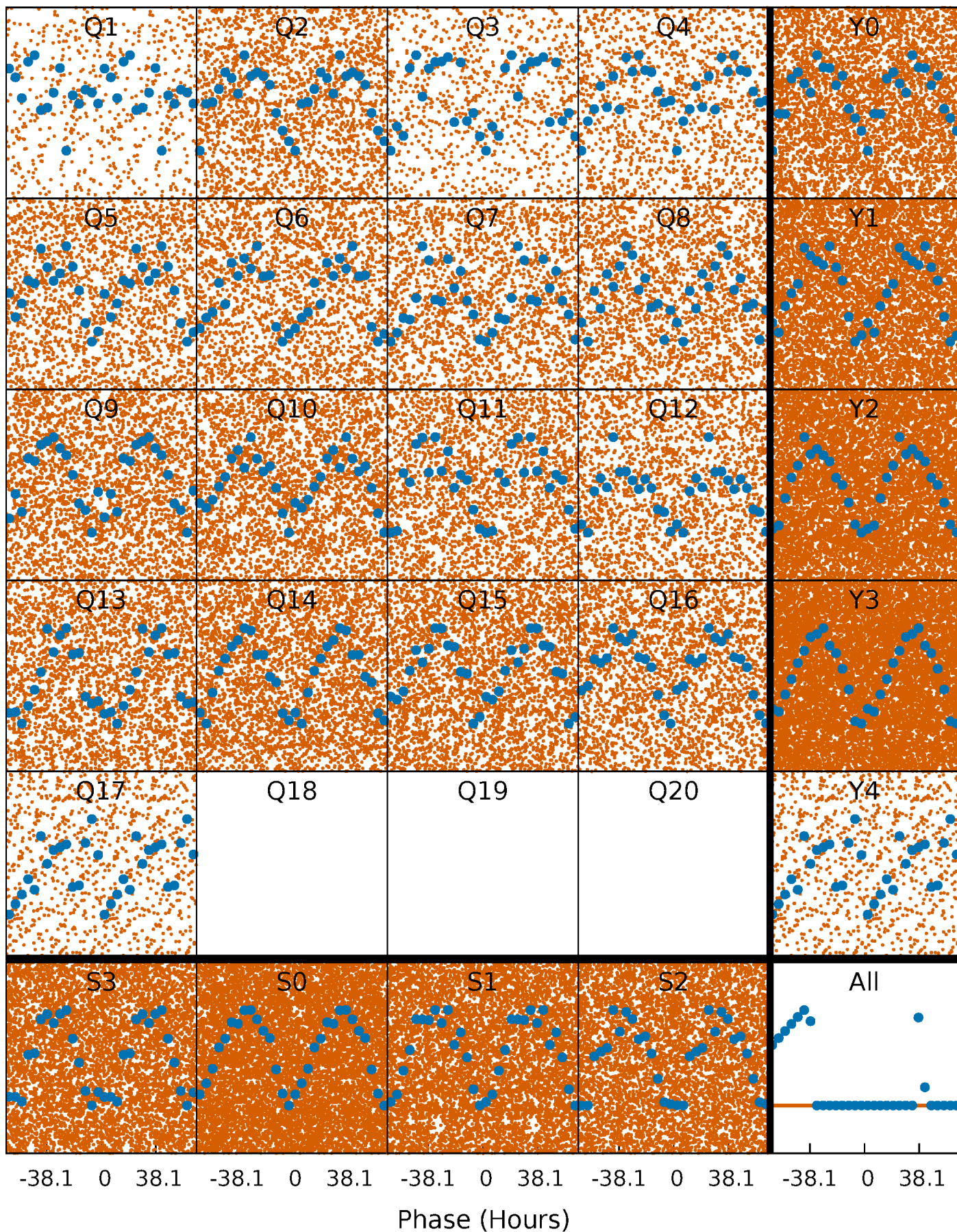


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



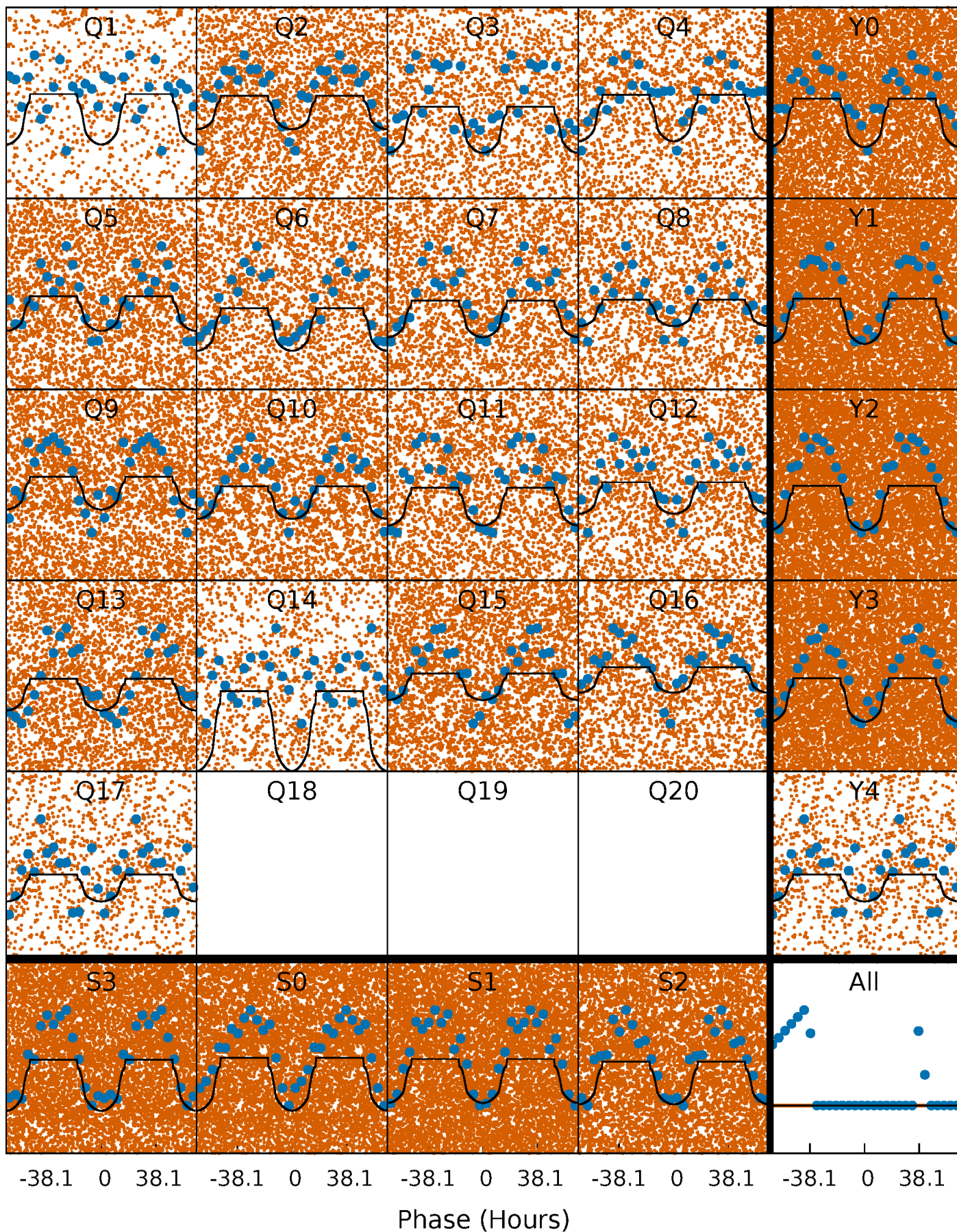
PDC Quarter-Phased Transit Curves

TCE 006866346-01 P= 2.775985 Days $T_0=132.170778$ (BKJD)



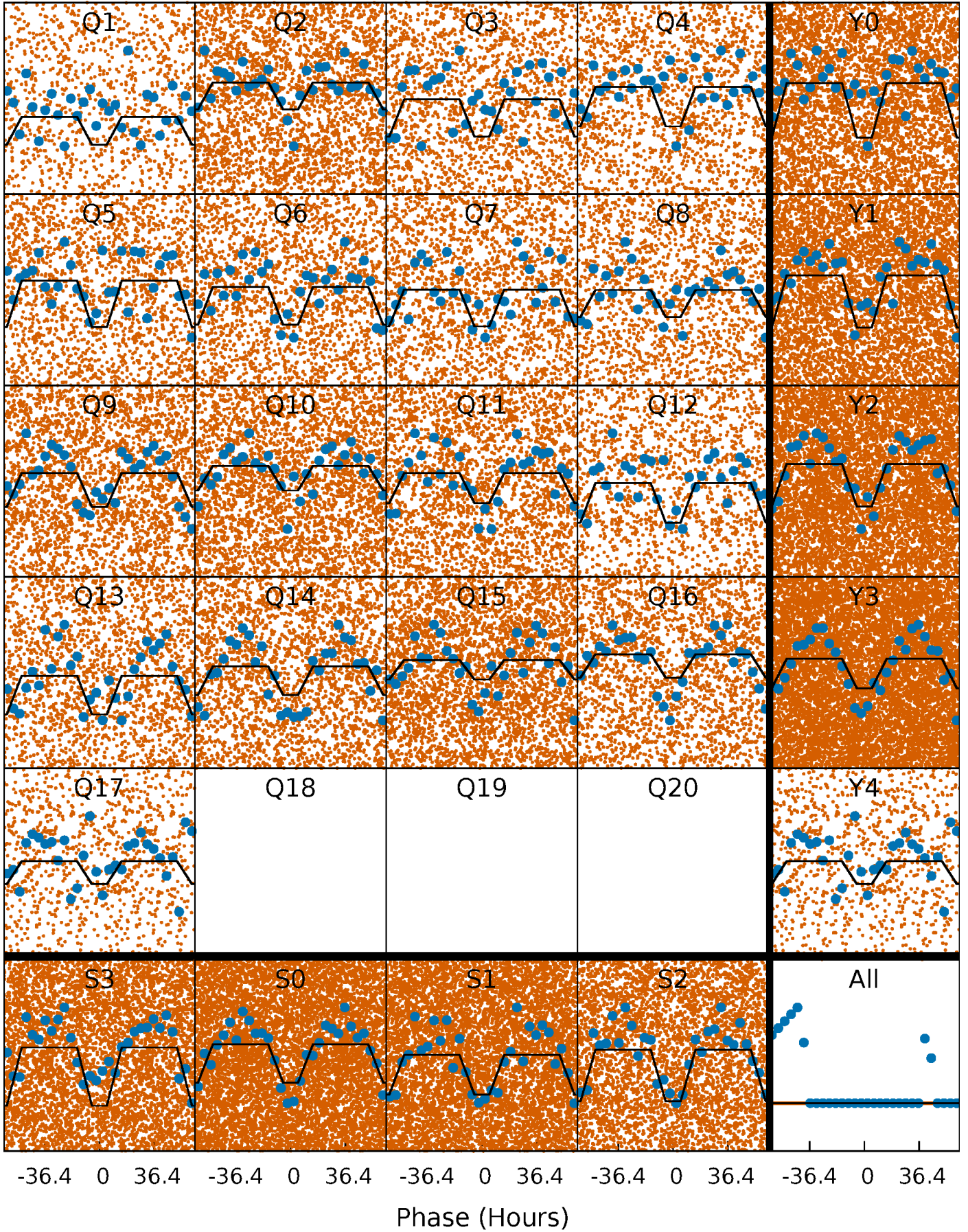
DV Quarter-Phased Transit Curves

TCE 006866346-01 P= 2.775985 Days $T_0=132.170778$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

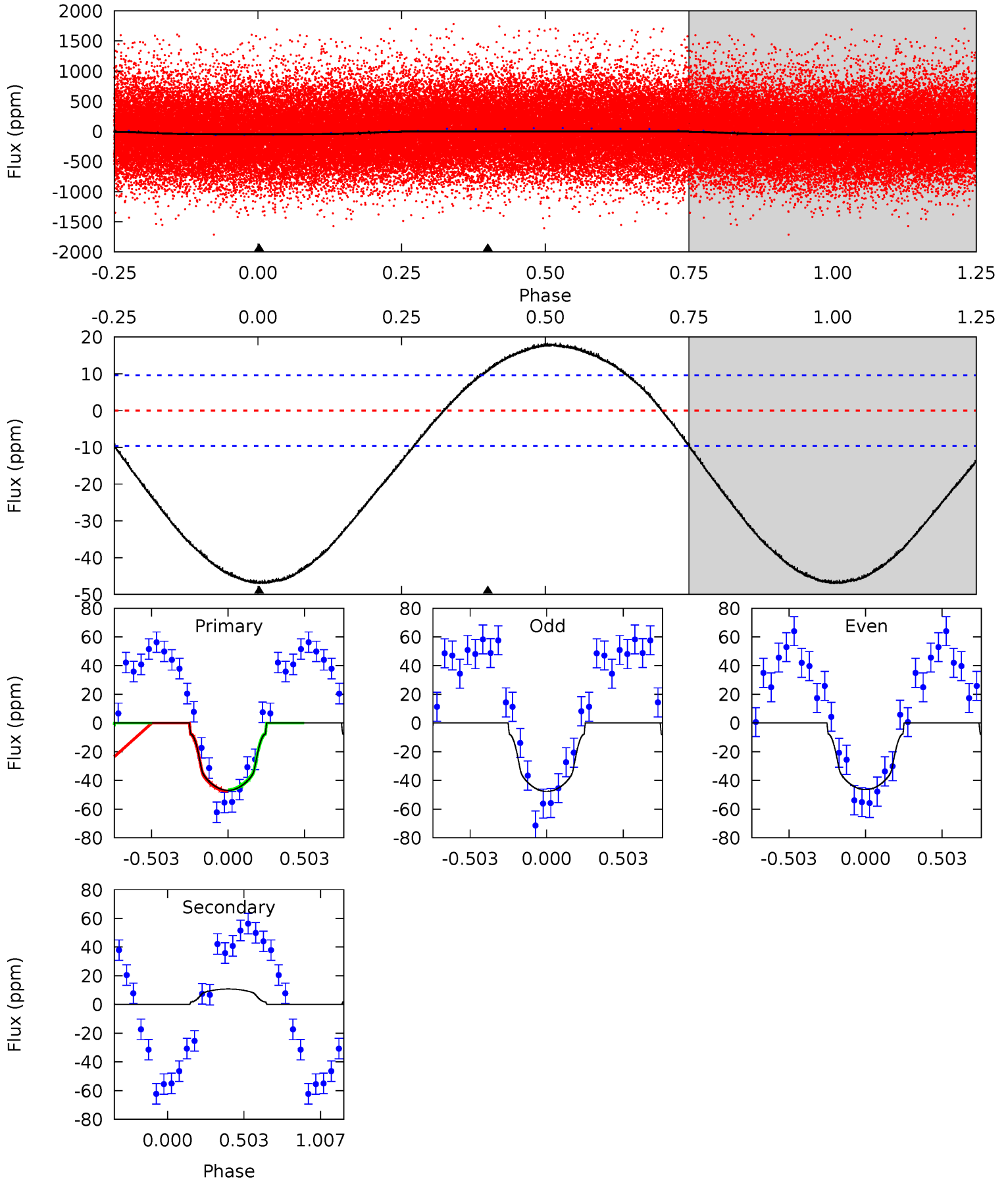
TCE 006866346-01 P= 2.775958 Days $T_0=132.136916$ (BKJD)



DV Model-Shift Uniqueness Test

006866346-01, P = 2.775985 Days, E = 129.394793 Days

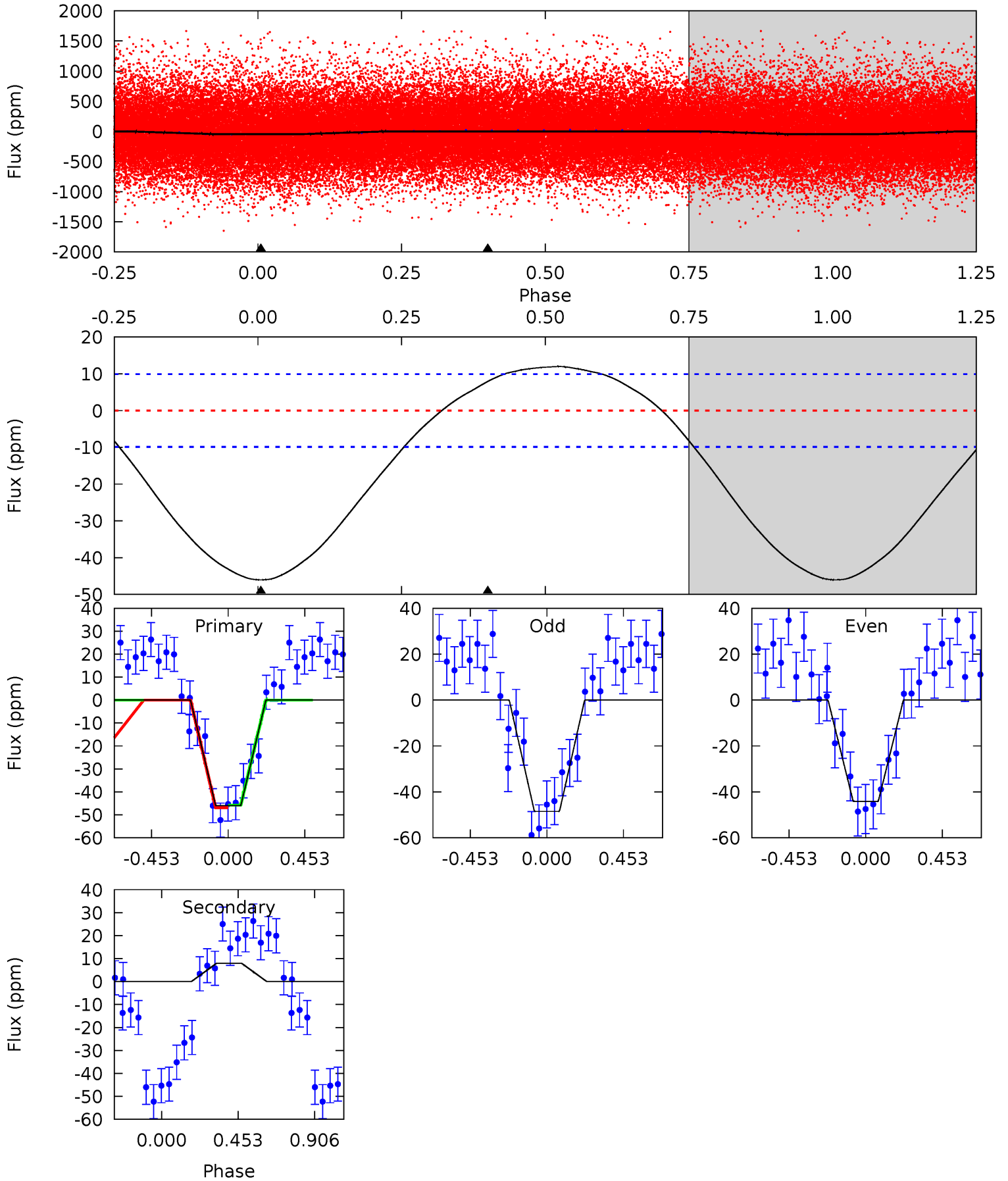
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.6	-4.75	0	0	4.21	0.67	2.48	20.6	20.6	-4.75	-4.75	0.28	1.14	0.28	0.18



Alt Model-Shift Uniqueness Test

006866346-01, P = 2.775958 Days, E = 129.360958 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.7	-3.40	0	0	4.24	0.75	1.85	19.7	19.7	-3.40	-3.40	0.93	0.89	0.21	0.24



Stellar Parameters For KIC 006866346

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5411^{+161}_{-145}	$4.595^{+0.030}_{-0.120}$	$-0.180^{+0.300}_{-0.300}$	$0.774^{+0.137}_{-0.063}$	$0.867^{+0.081}_{-0.099}$	$2.639^{+0.430}_{-0.964}$
	+3%/-3%	+1%/-3%	+167%/-167%	+18%/-8%	+9%/-11%	+16%/-37%
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 006866346-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	11 ± 2	$0.81^{+0.09}_{-0.07}$	1554^{+74}_{-55}	-3655^{+172}_{-161}	$-12.006^{+3.317}_{-4.036}$
Alt.	8 ± 2	$0.58^{+0.07}_{-0.07}$	1558^{+69}_{-59}	-3860^{+237}_{-238}	$-16.660^{+5.429}_{-7.279}$

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

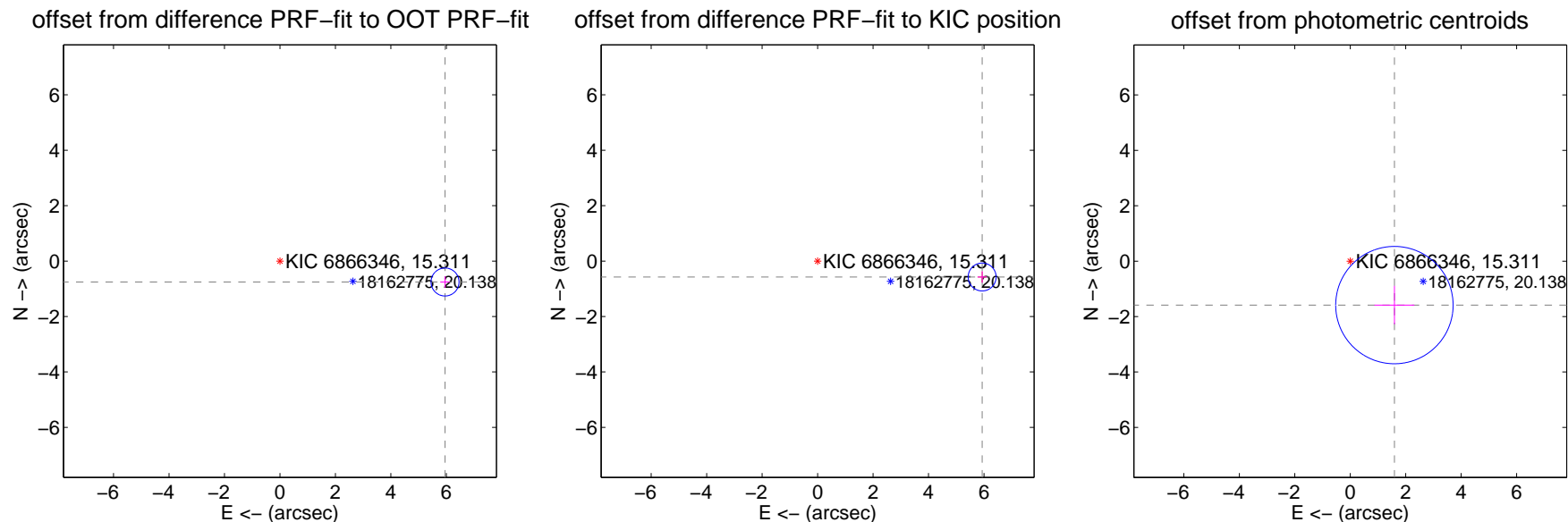
DV Centroid Data

Supplemental centroid analysis for 006866346-01. Kepler magnitude: 15.31. Transit SNR 14.28

There are 0 quarters with good PRF difference image offsets

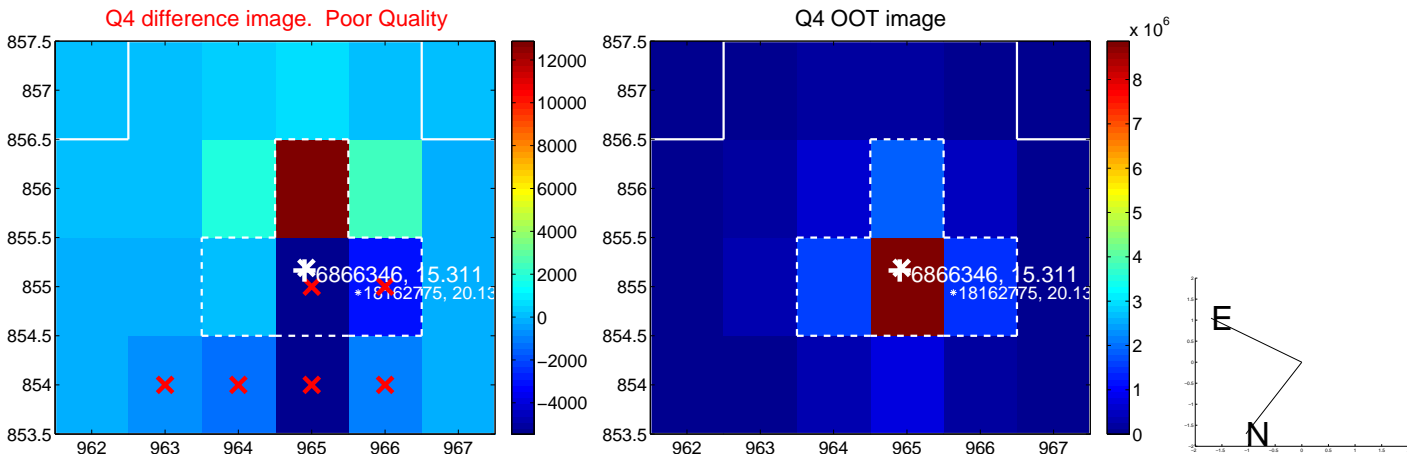
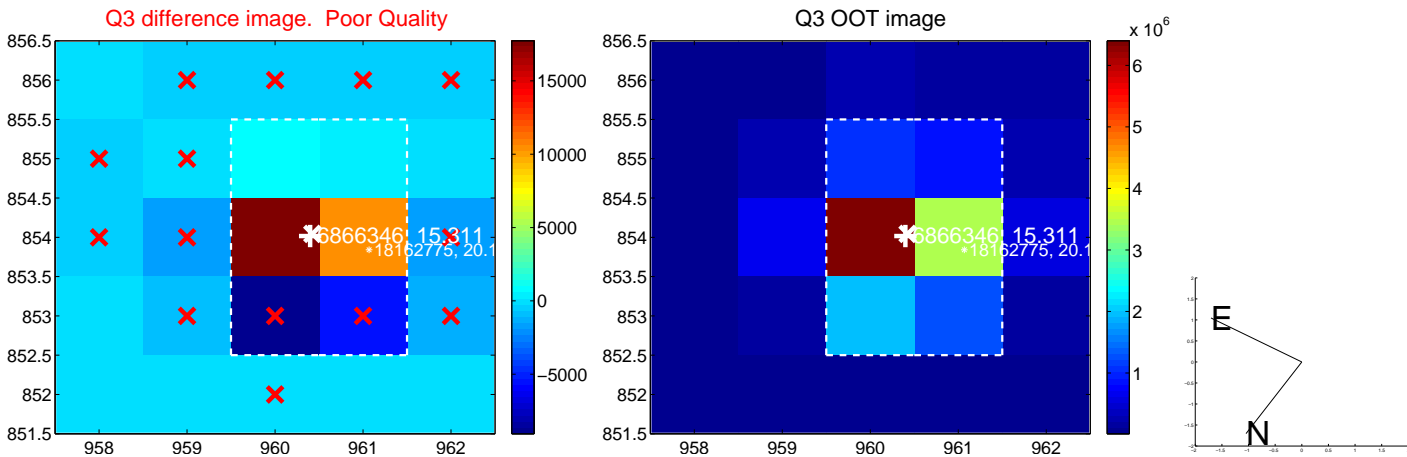
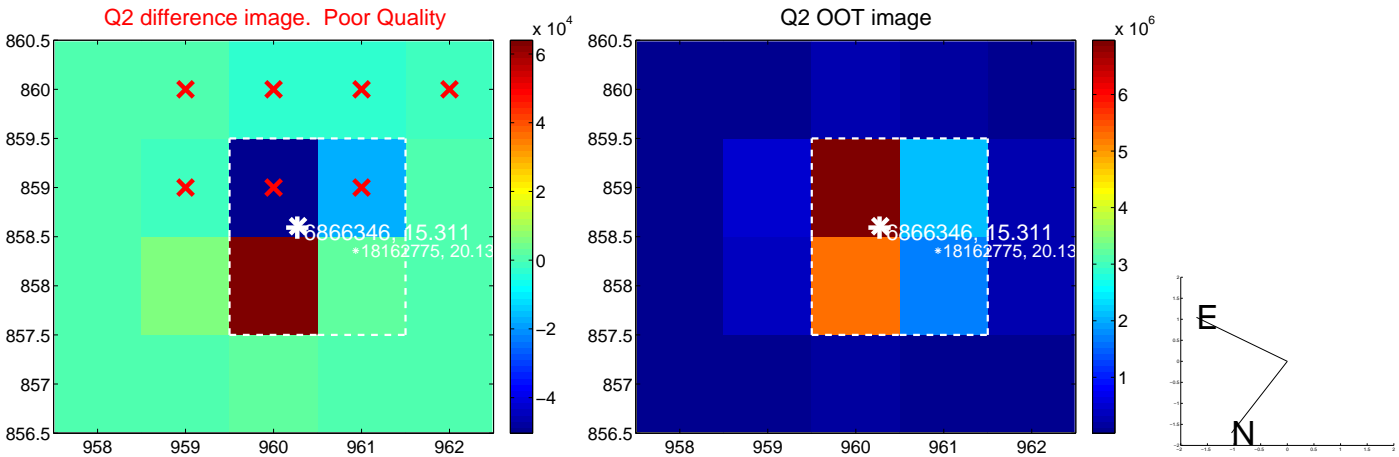
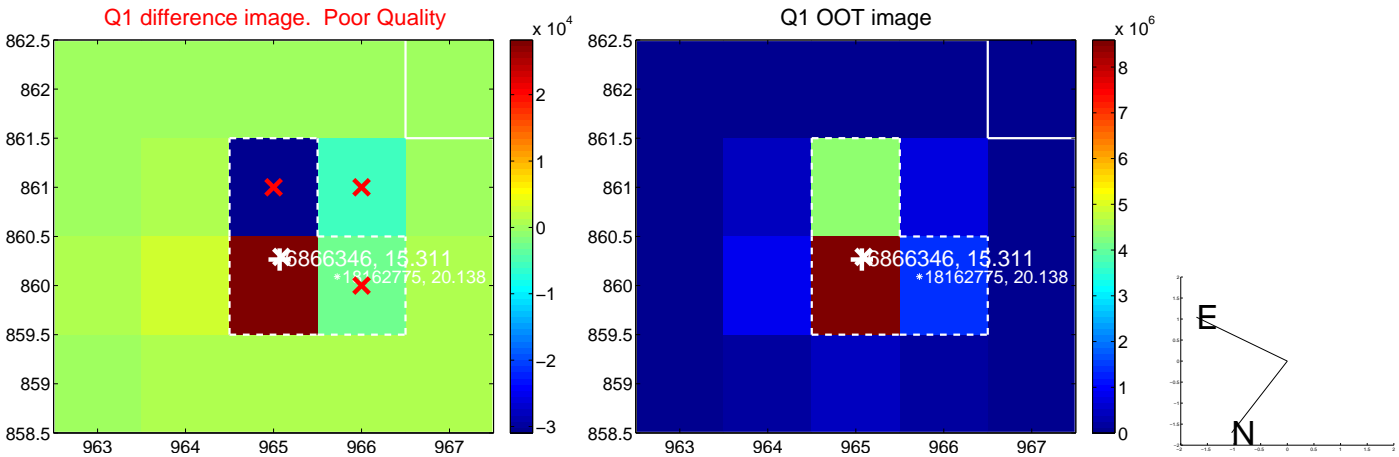
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.000 ± 0.168	35.66	-5.952 ± 0.168	-0.754 ± 0.208
PRF-fit source offset from KIC position	5.961 ± 0.168	35.49	-5.933 ± 0.168	-0.574 ± 0.208
photometric centroid source offset	2.25 ± 0.71	3.18	-1.59 ± 0.72	-1.59 ± 0.69

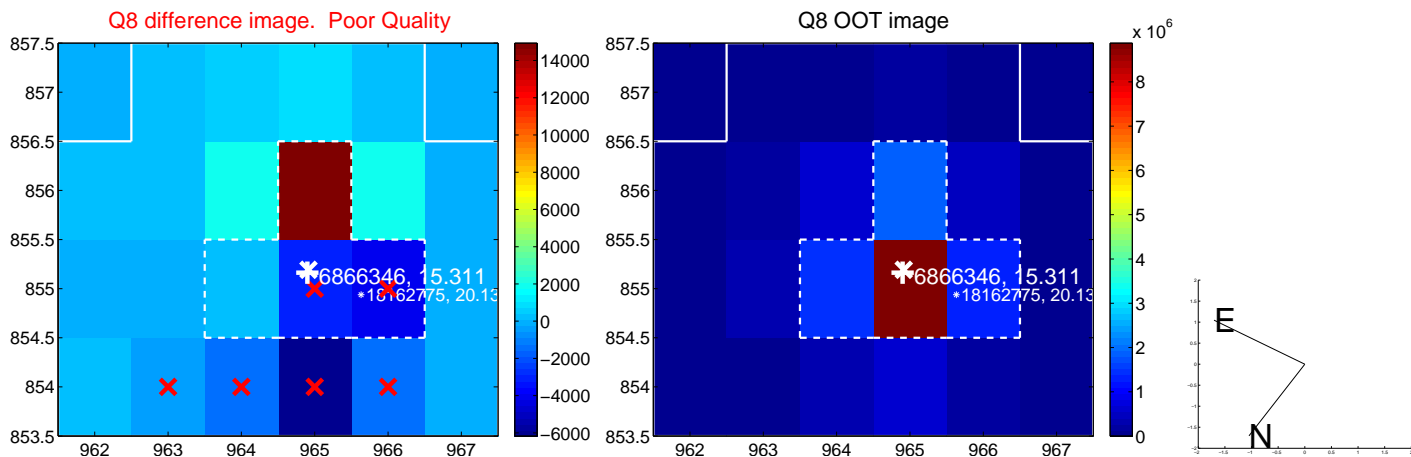
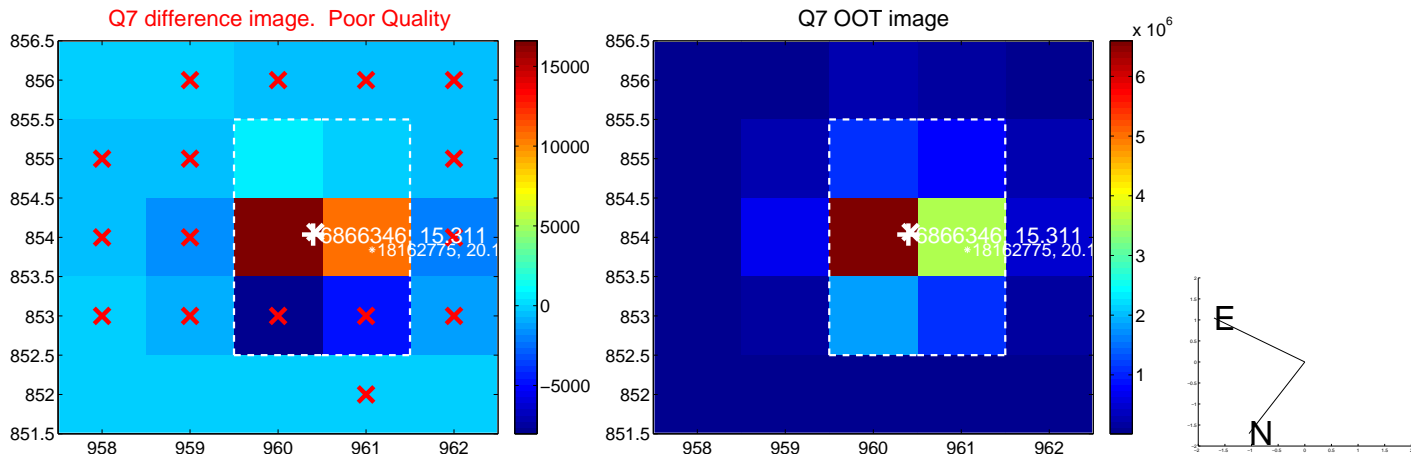
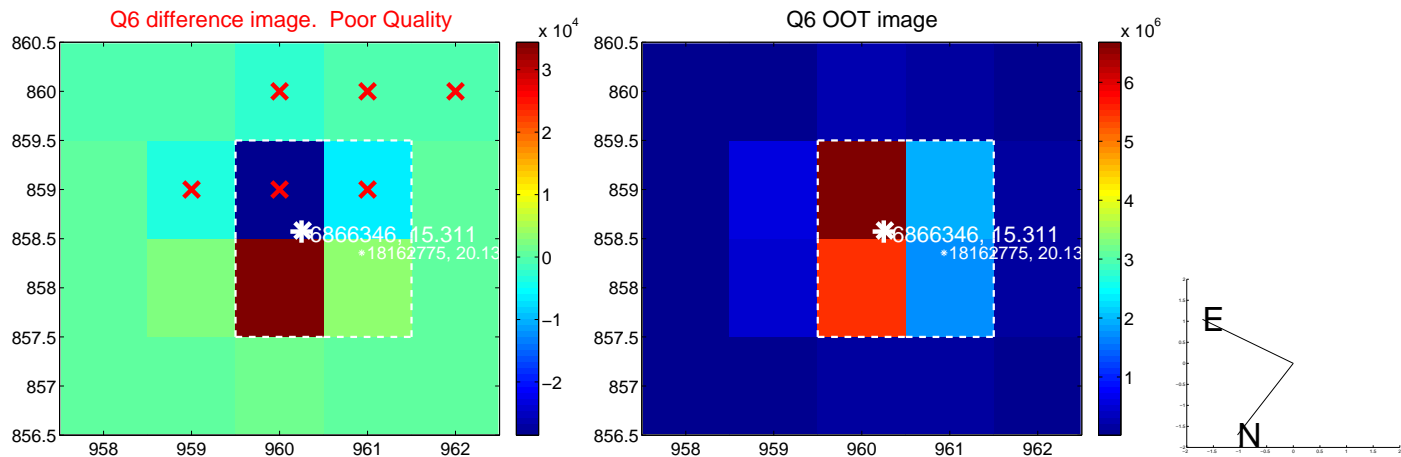
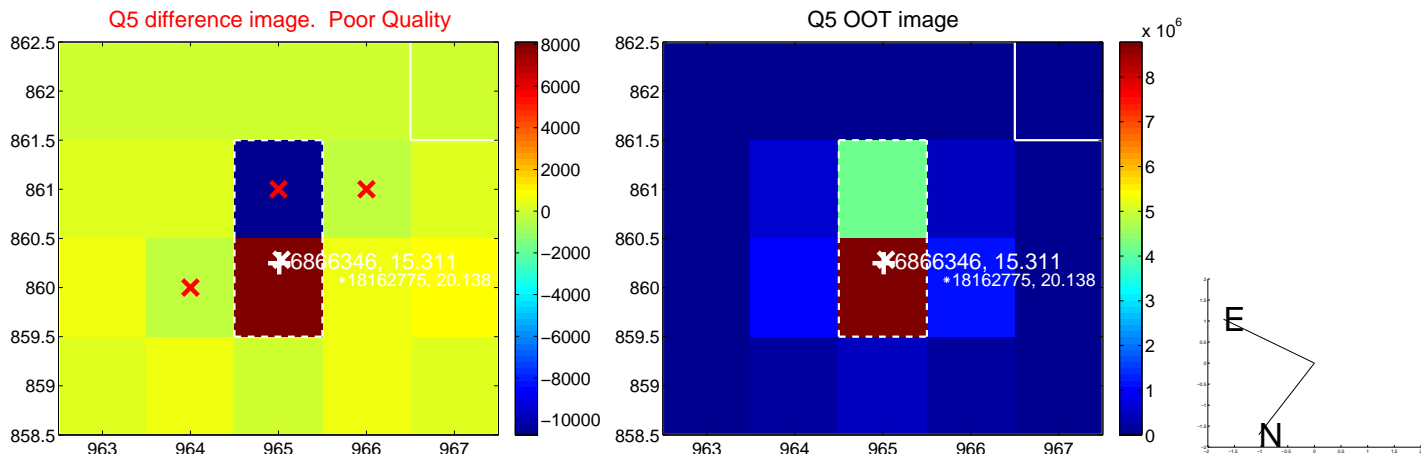


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

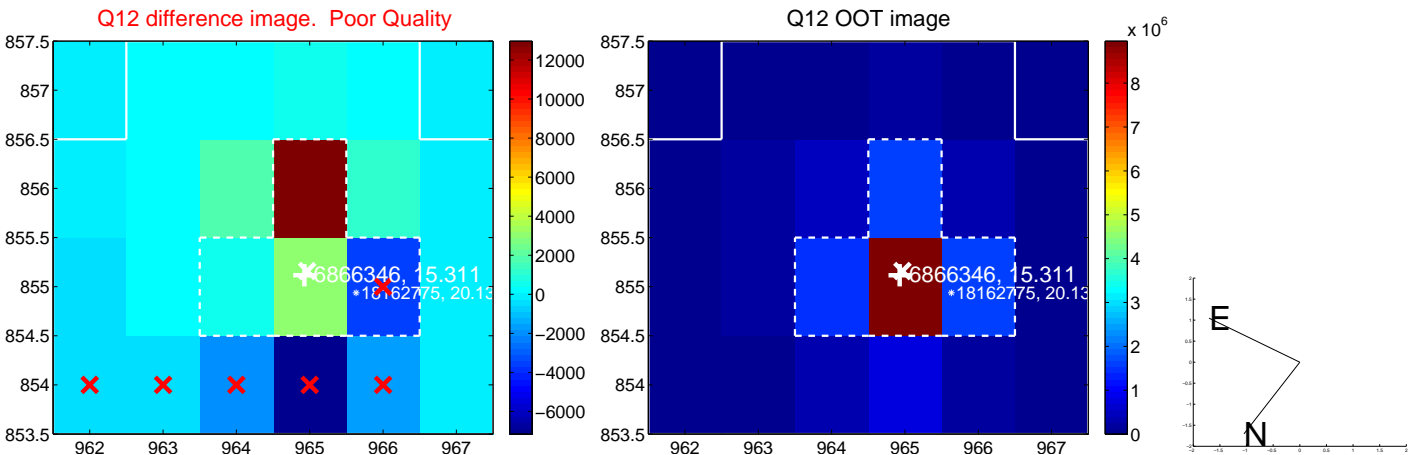
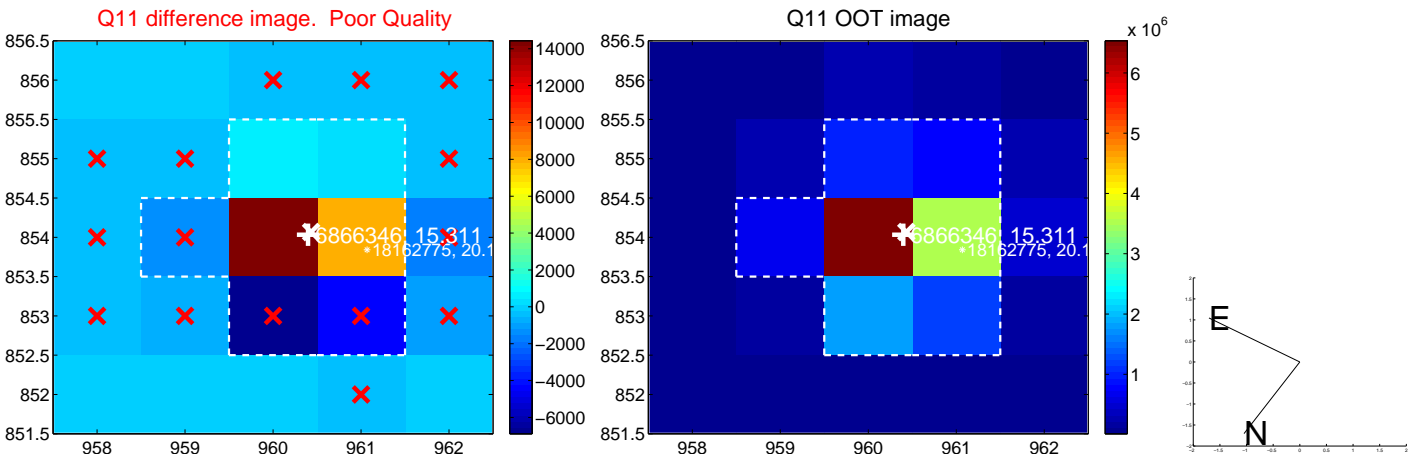
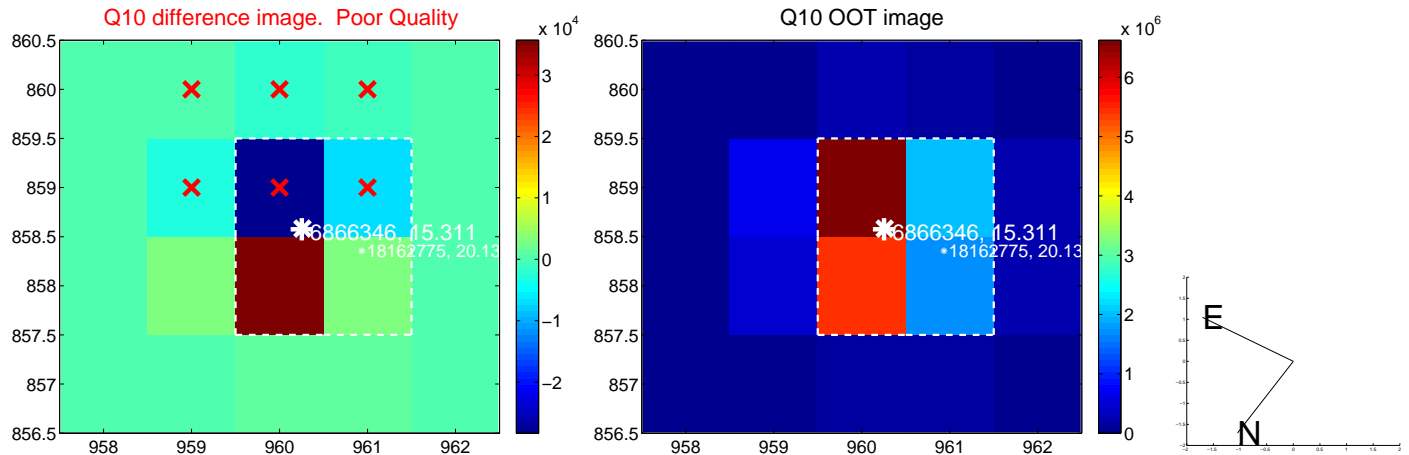
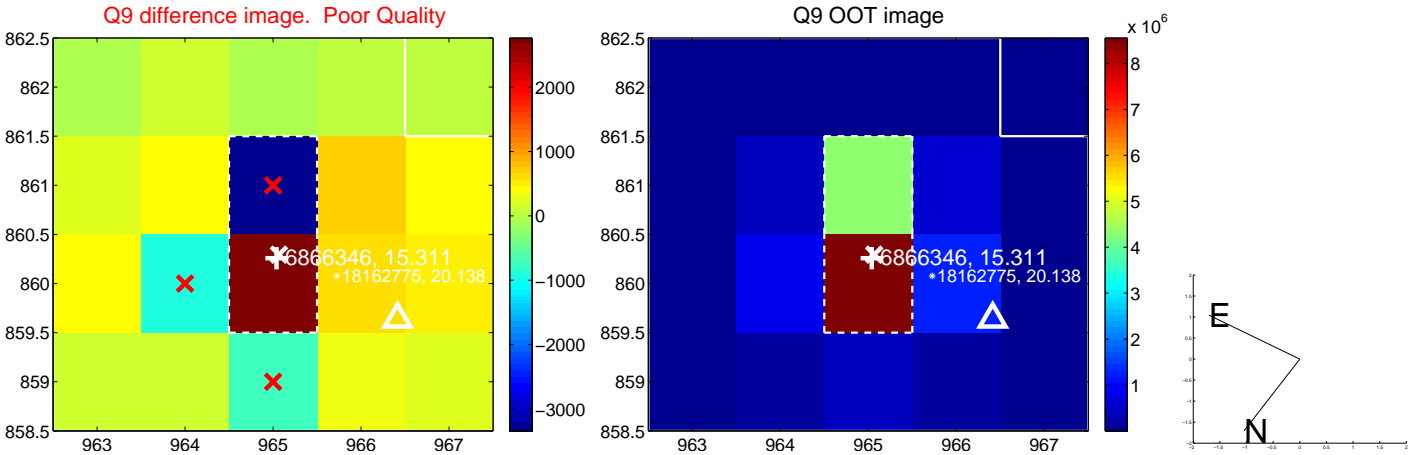
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



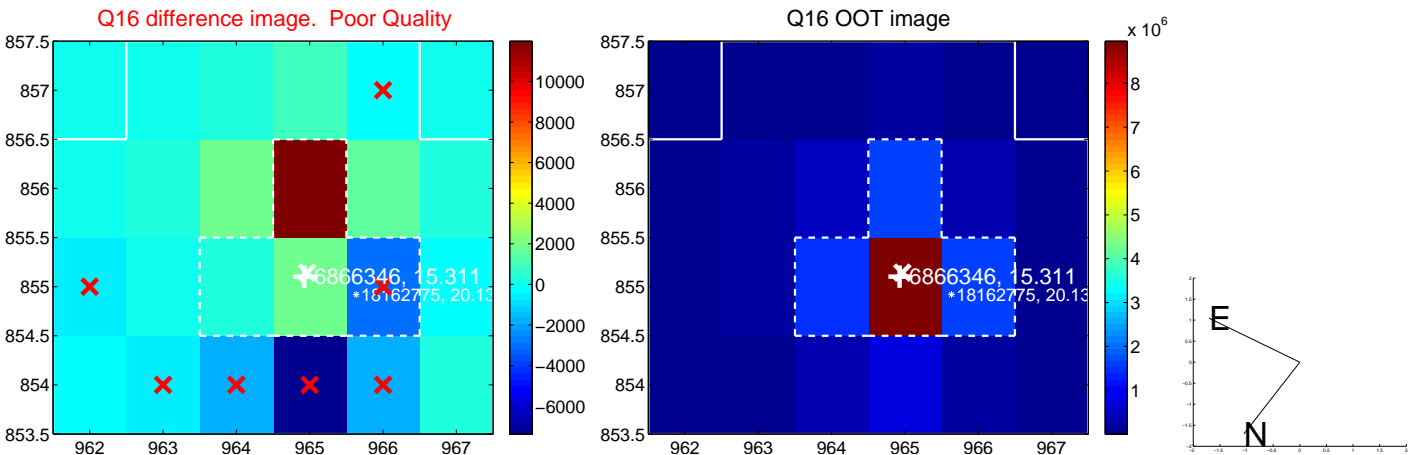
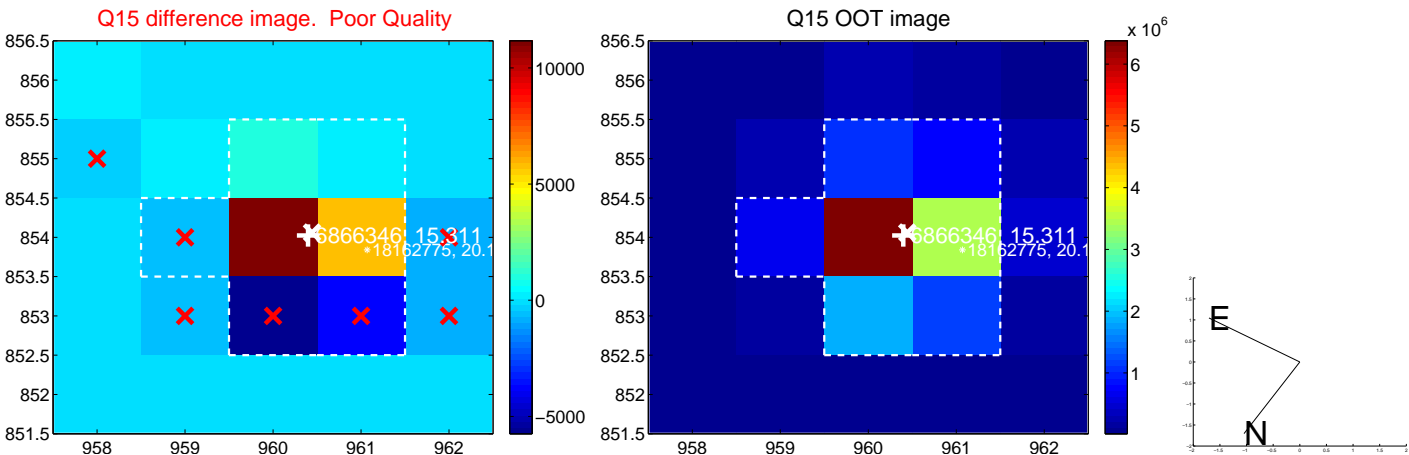
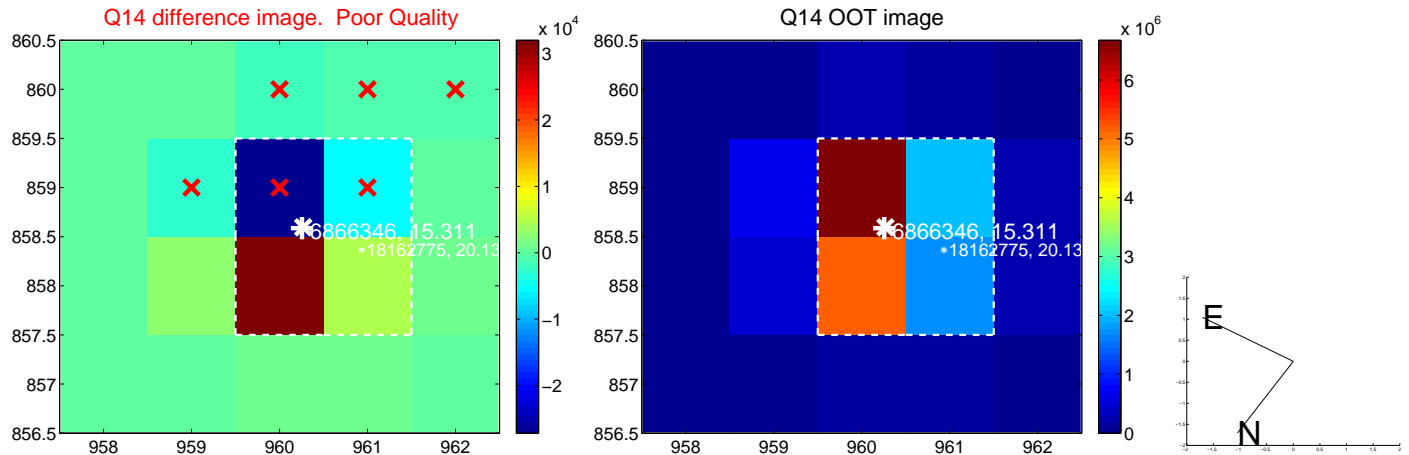
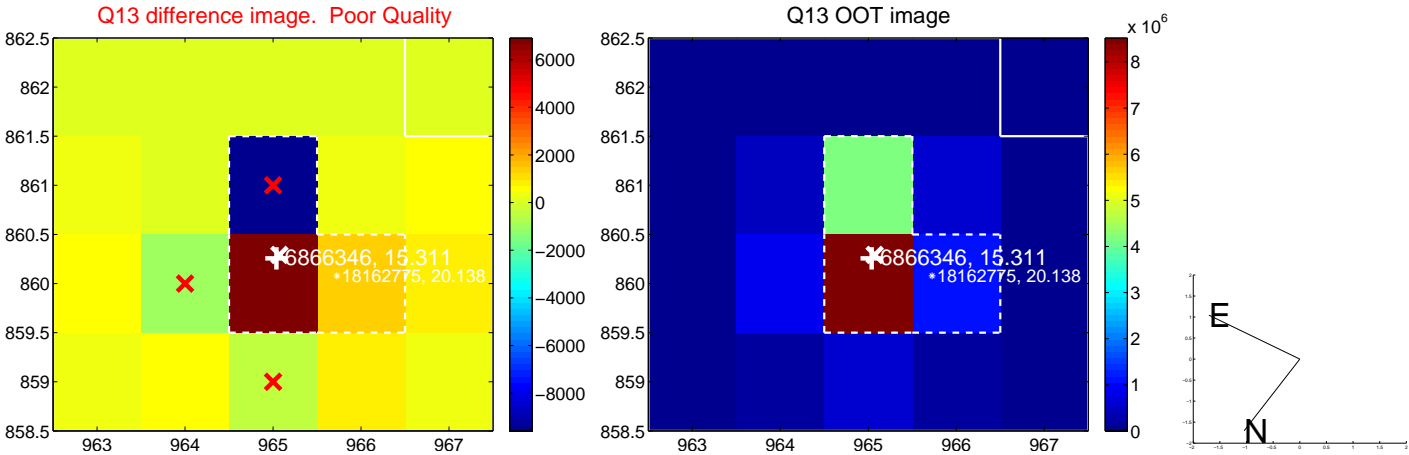
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



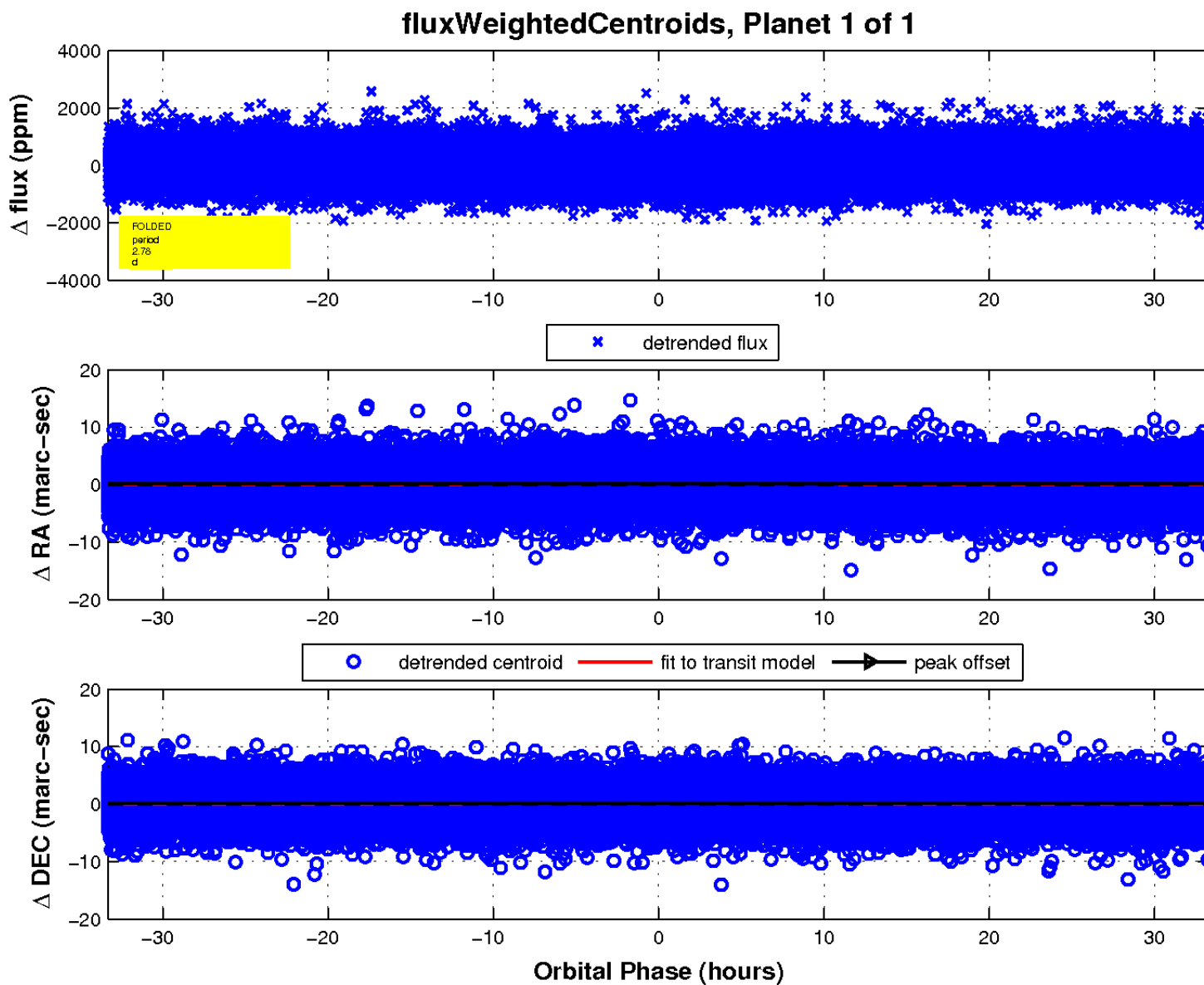
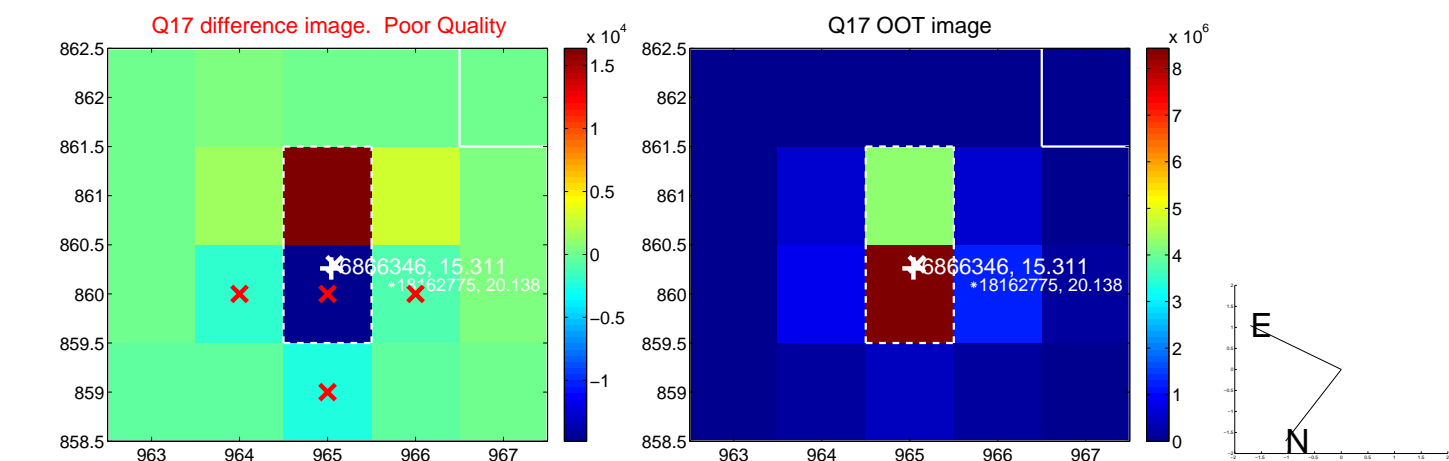
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

