

KIC 006803986

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})
006803986-01	OBS	No	1.484243	132.728653	14.6	13.327	8.0	9.5	3.25	8068	1.25	38151.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006803986-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

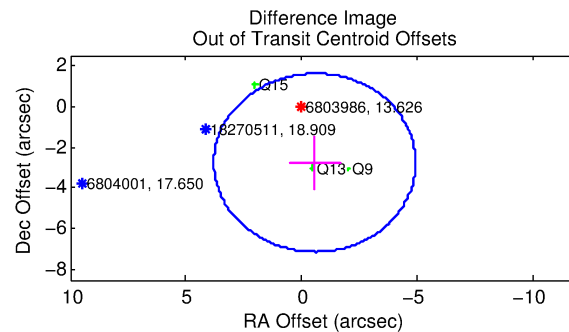
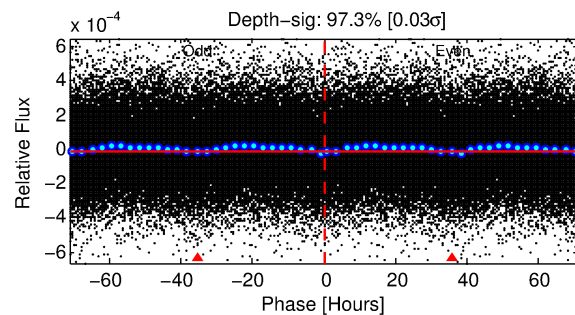
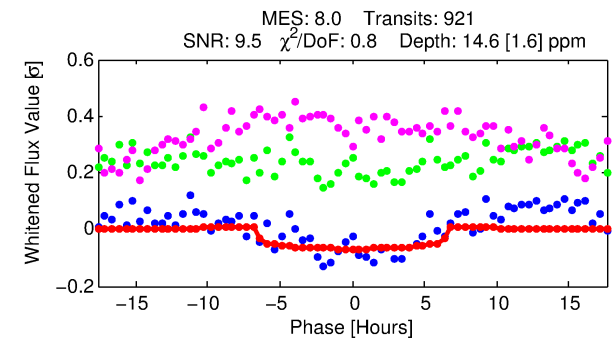
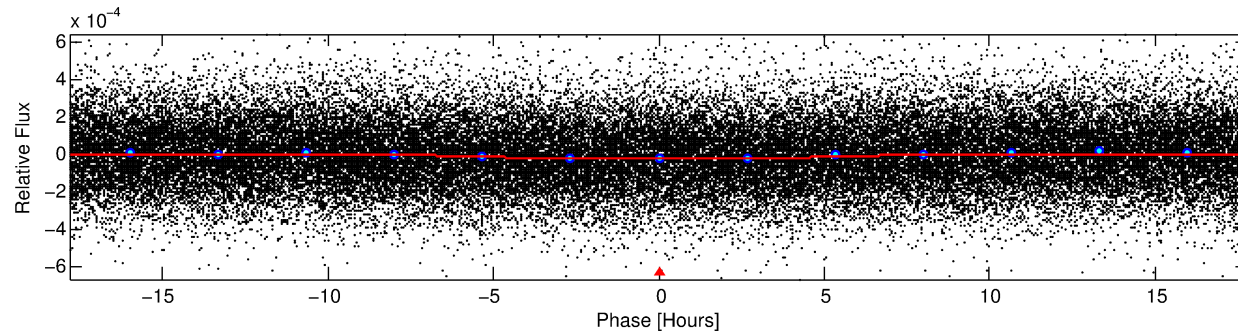
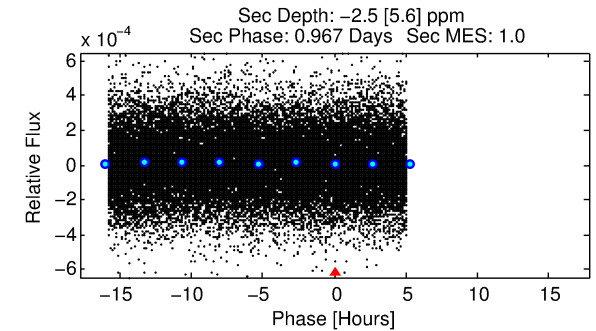
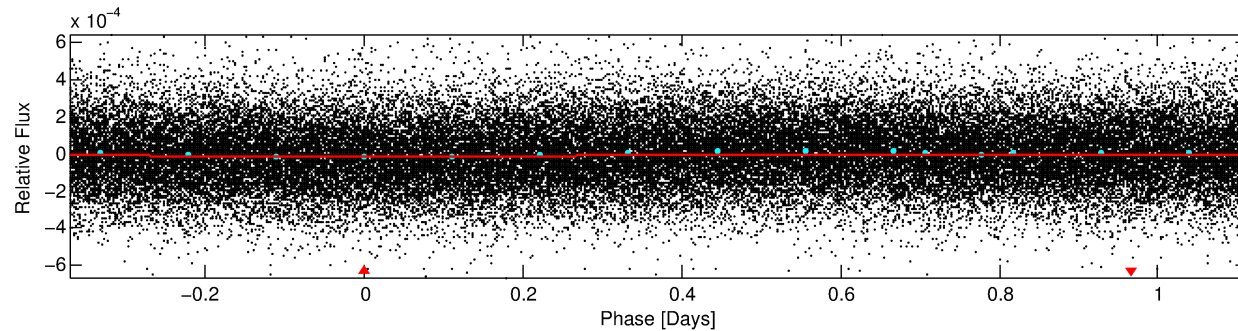
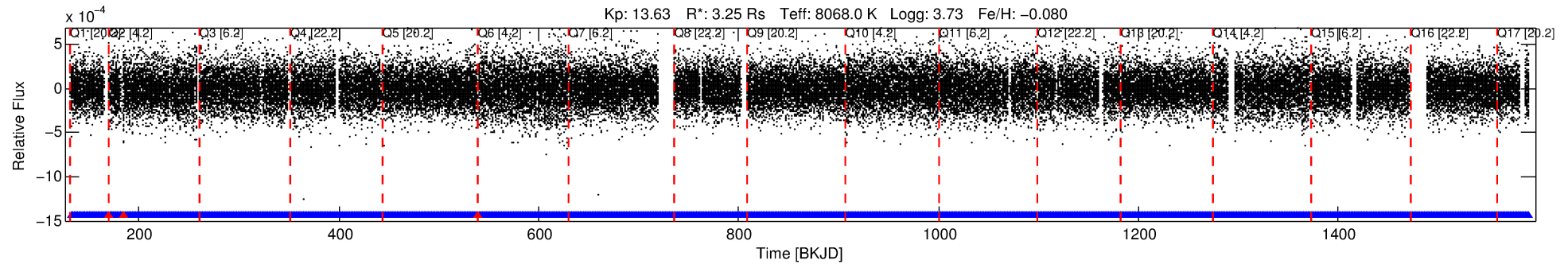
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006803986-01

No Significant Match Found

DV One-Page Summary

KIC: 6803986 Candidate: 1 of 1 Period: 1.484 d



DV Fit Results:

Period = 1.48424 [0.00003] d
Epoch = 132.7287 [0.0107] BKJD
Rp/R* = 0.0035 [0.0036]
a/R* = 1.09 [0.95]
b = 0.03 [169.78]
Seff = 38151.96 [29006.02]
Teff = 3564 [677] K
Rp = 1.25 [1.38] Re
a = 0.0324 [0.0147] AU
Ag = N/A
Teffp = N/A

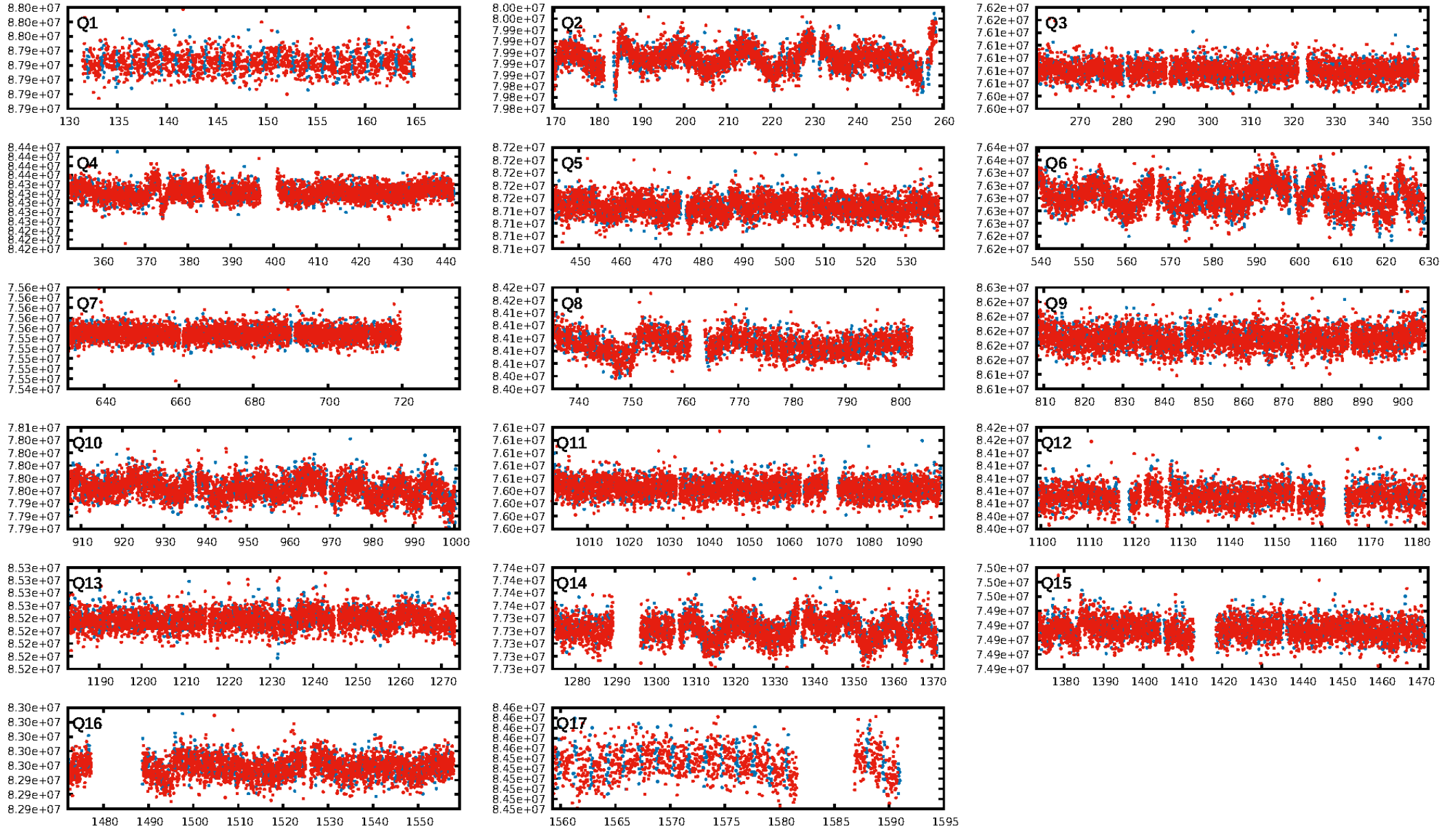
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [876/879]
GhostDiagnostic-chr: 9.121
Centroid-sig: 58.0%
Centroid-so: 0.689 arcsec [0.45σ]
OotOffset-rm: 2.819 arcsec [1.94σ]
KicOffset-rm: 2.739 arcsec [2.52σ]
OotOffset-st: 0/1/0/2 [3]
KicOffset-st: 0/1/0/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [17/17]

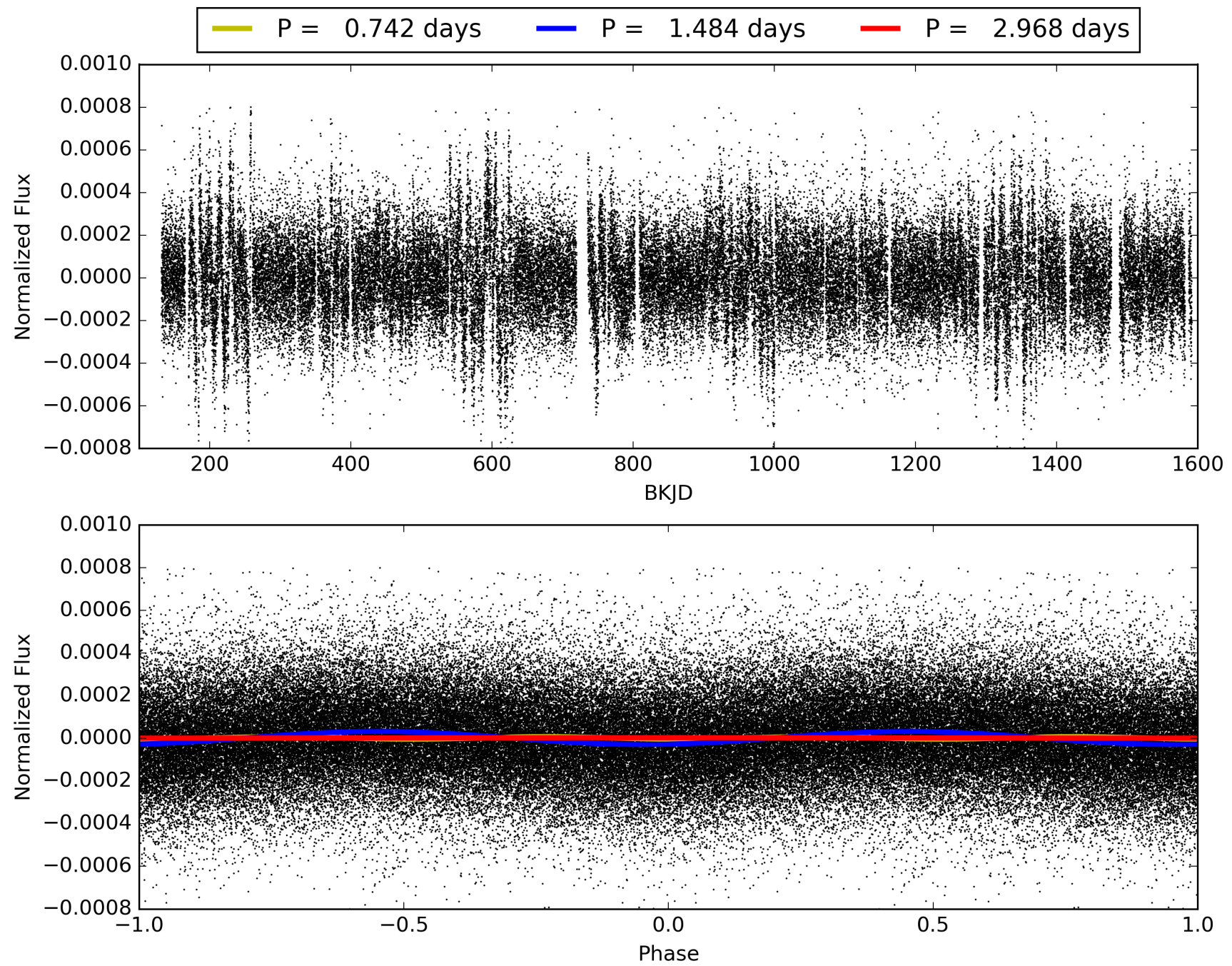
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:36:01 Z

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

TCE 006803986-01, PDC Light Curves

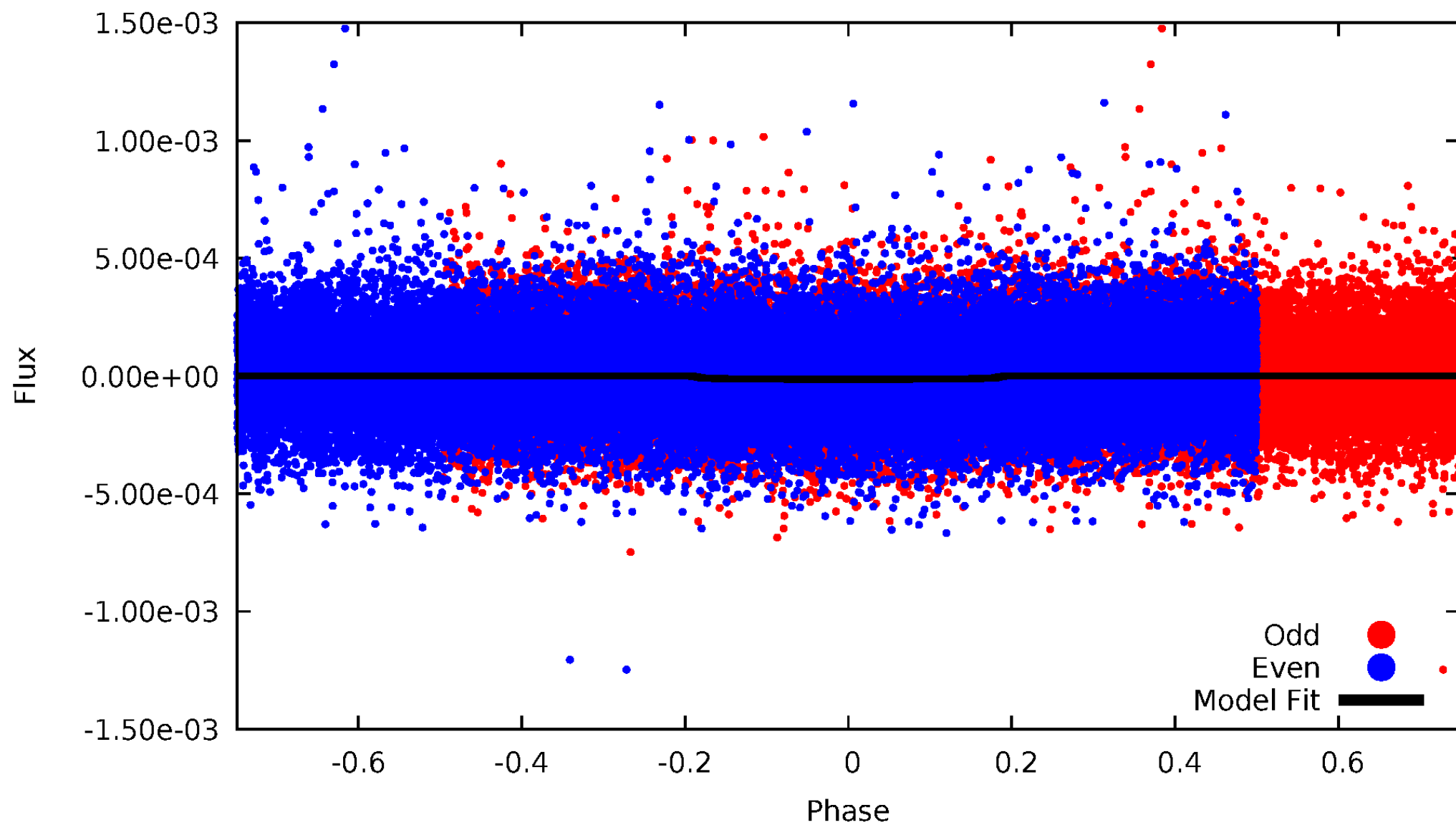


TCE 006803986-01



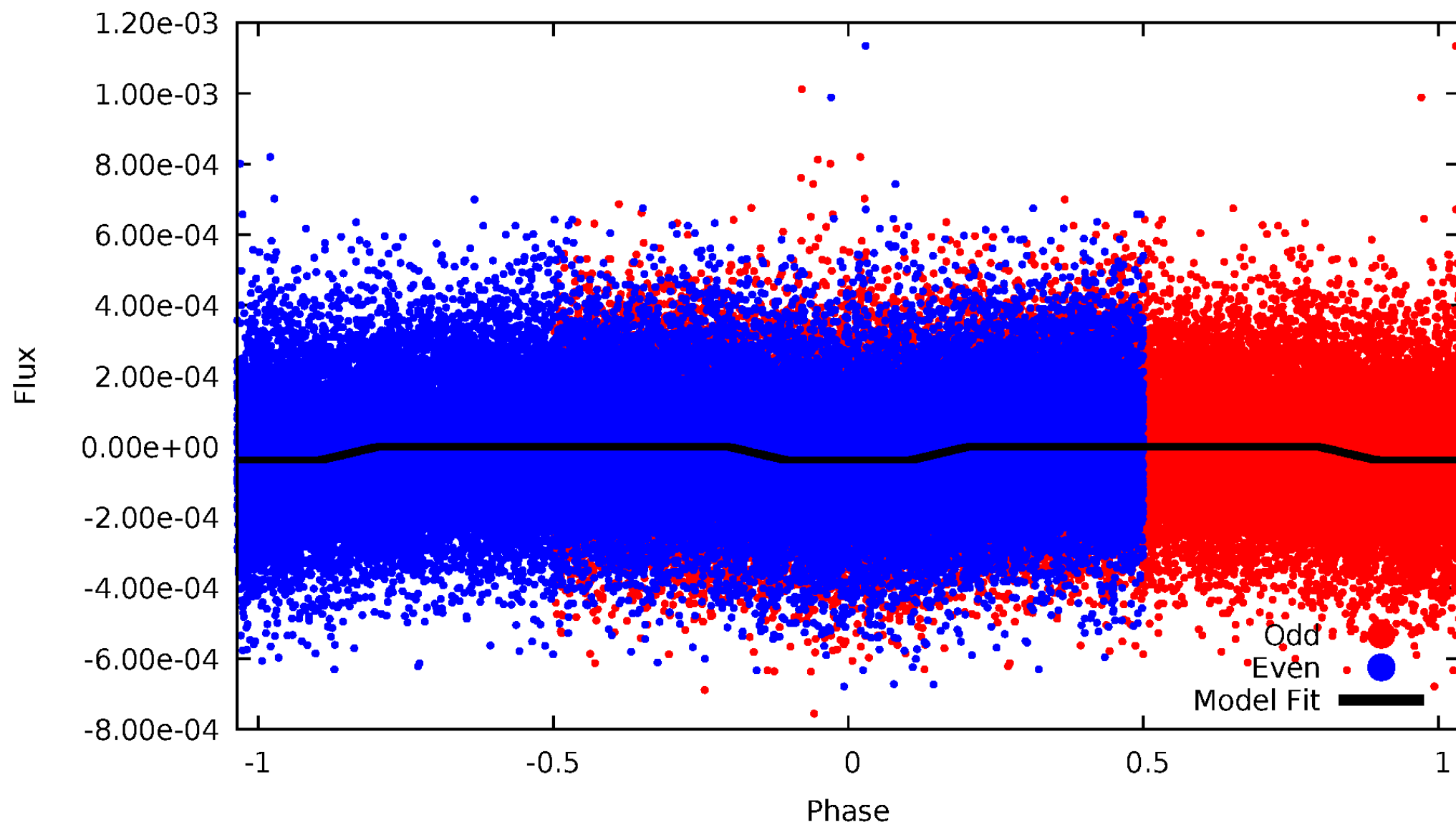
DV Odd/Even

TCE 006803986-01



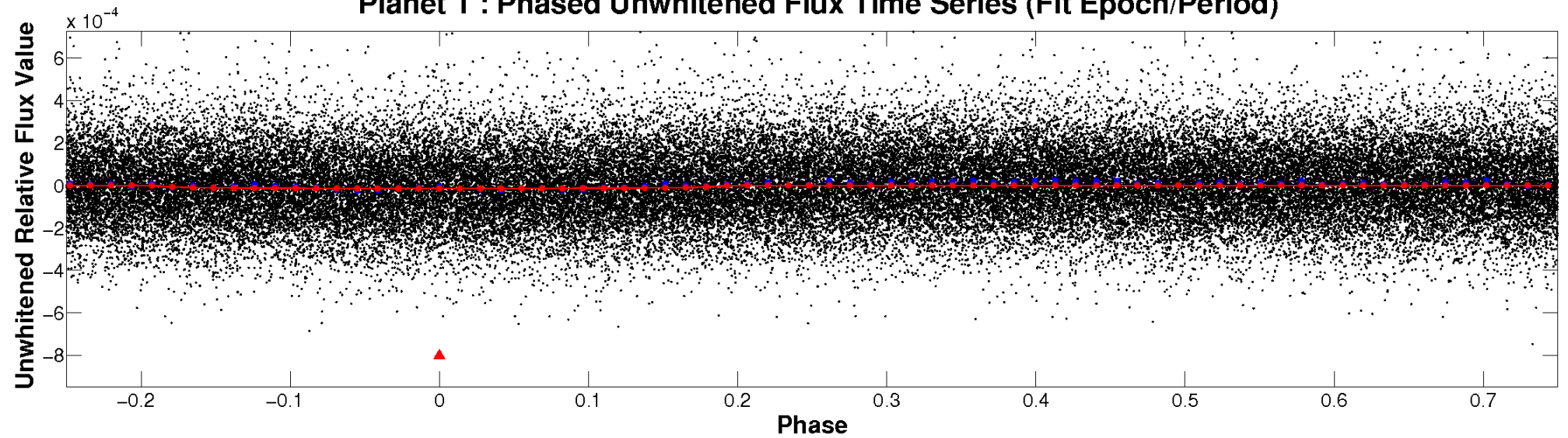
ALT Odd/Even

TCE 006803986-01

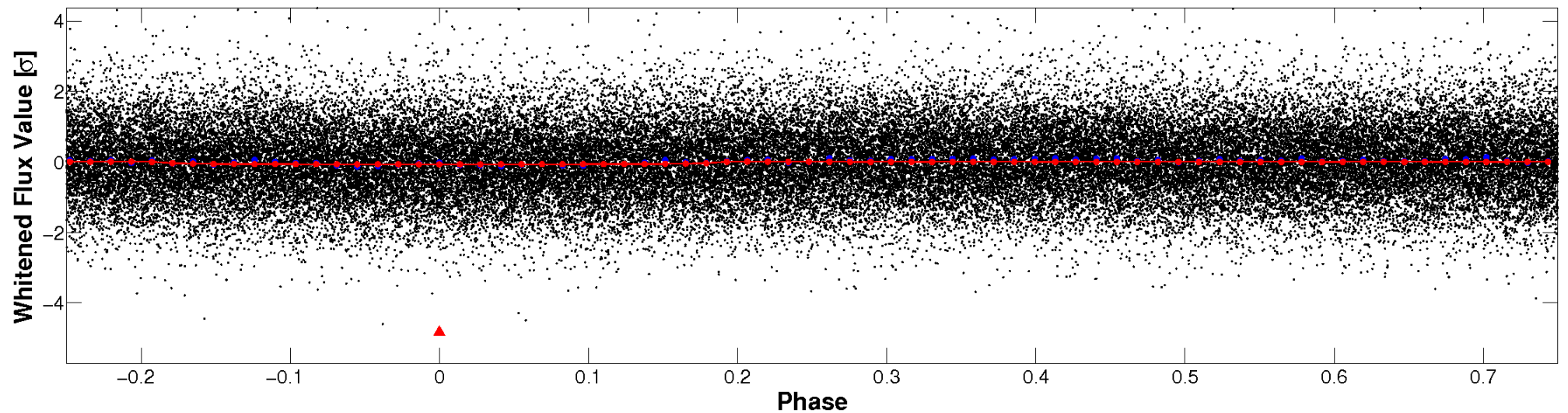


Non-Whitened Vs. Whitened Light Curve

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

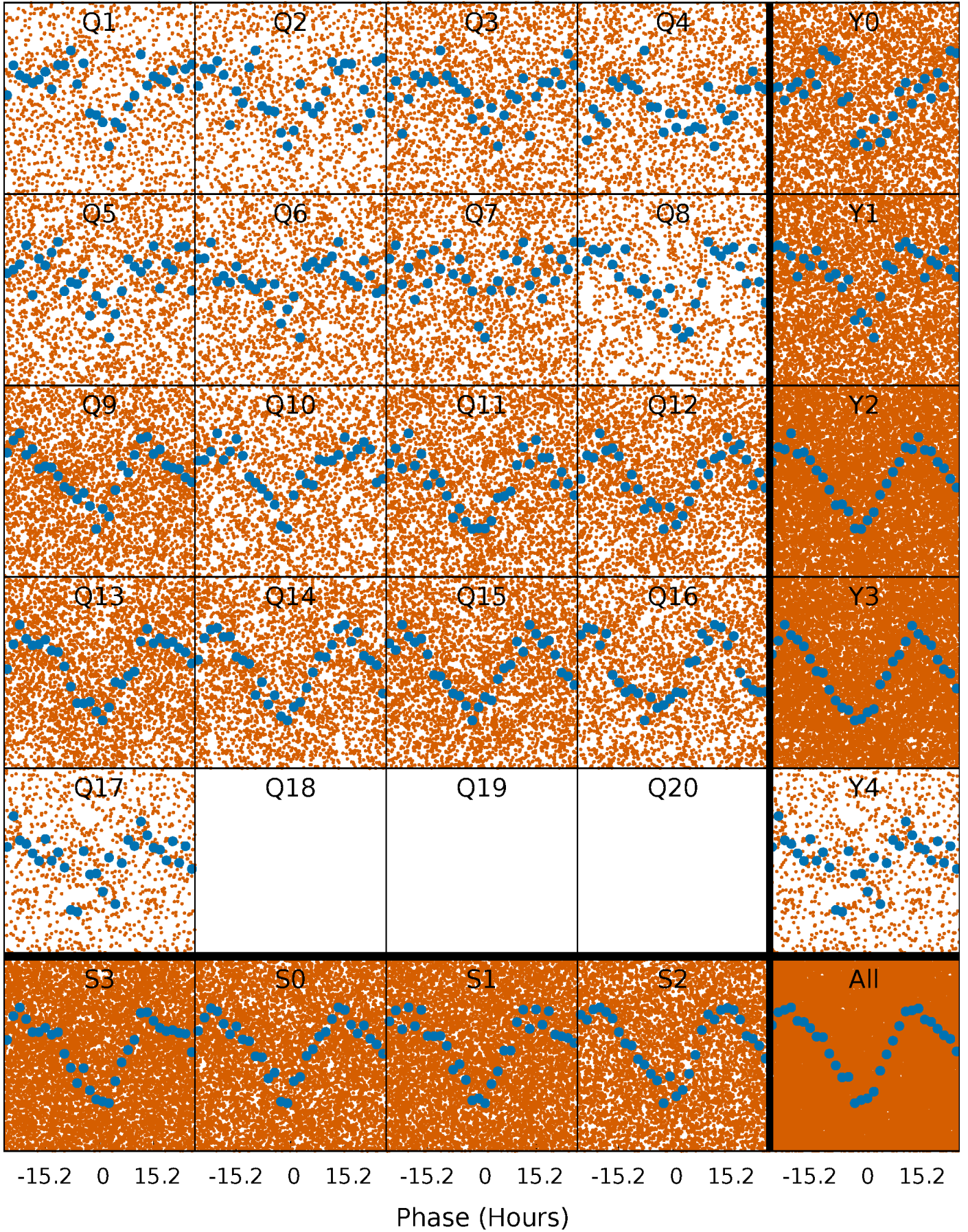


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



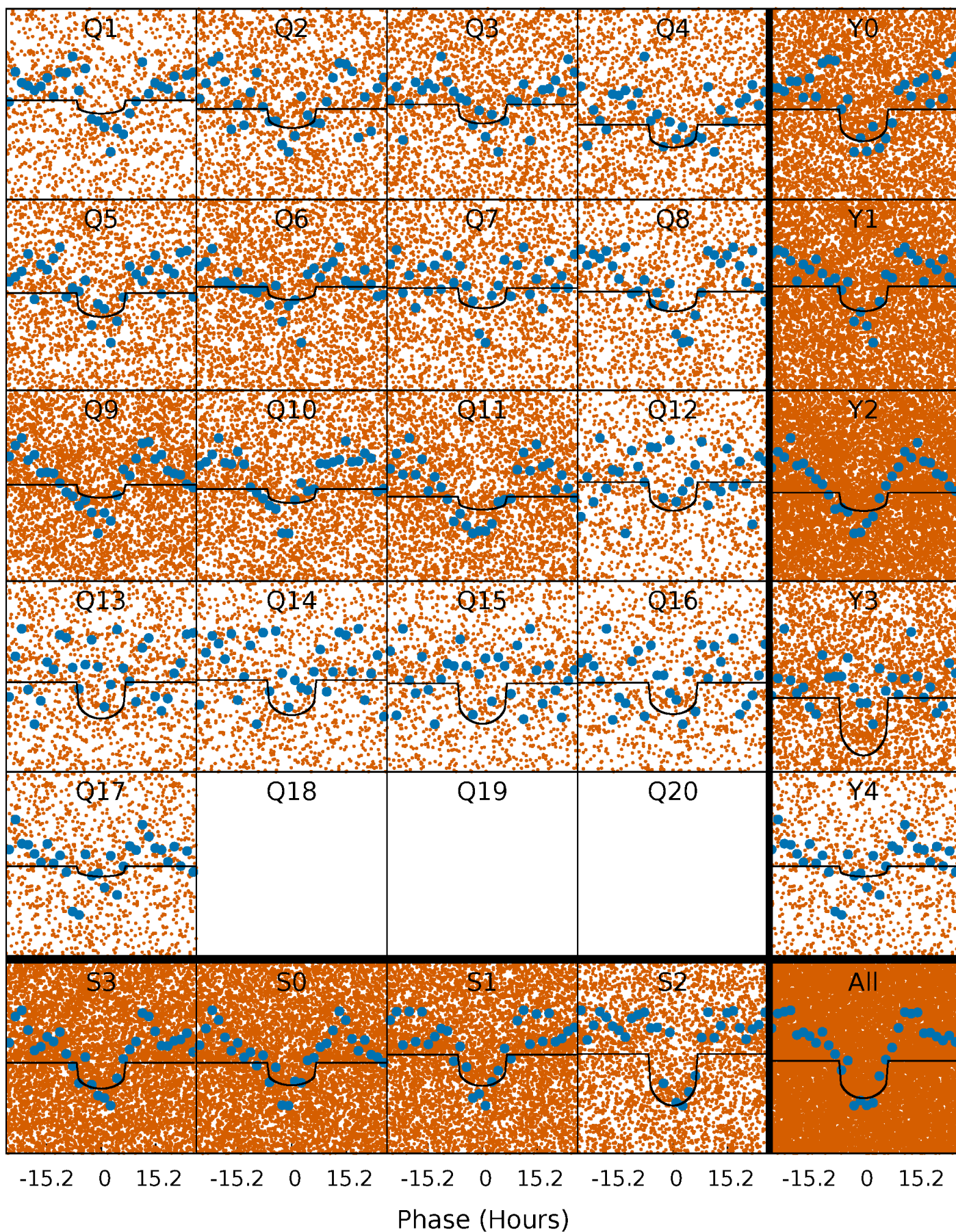
PDC Quarter-Phased Transit Curves

TCE 006803986-01 P= 1.484243 Days $T_0=132.728653$ (BKJD)



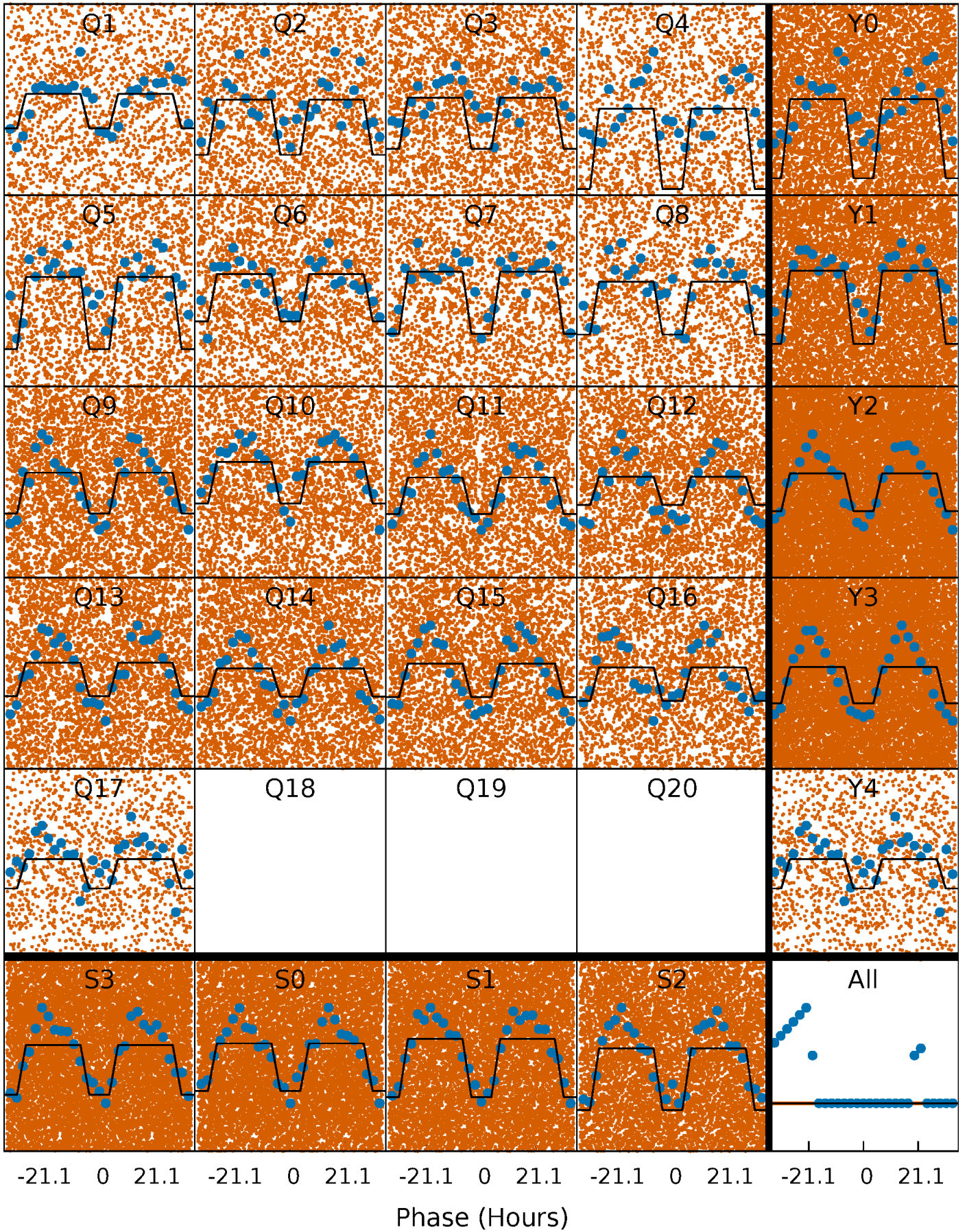
DV Quarter-Phased Transit Curves

TCE 006803986-01 P= 1.484243 Days $T_0=132.728653$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

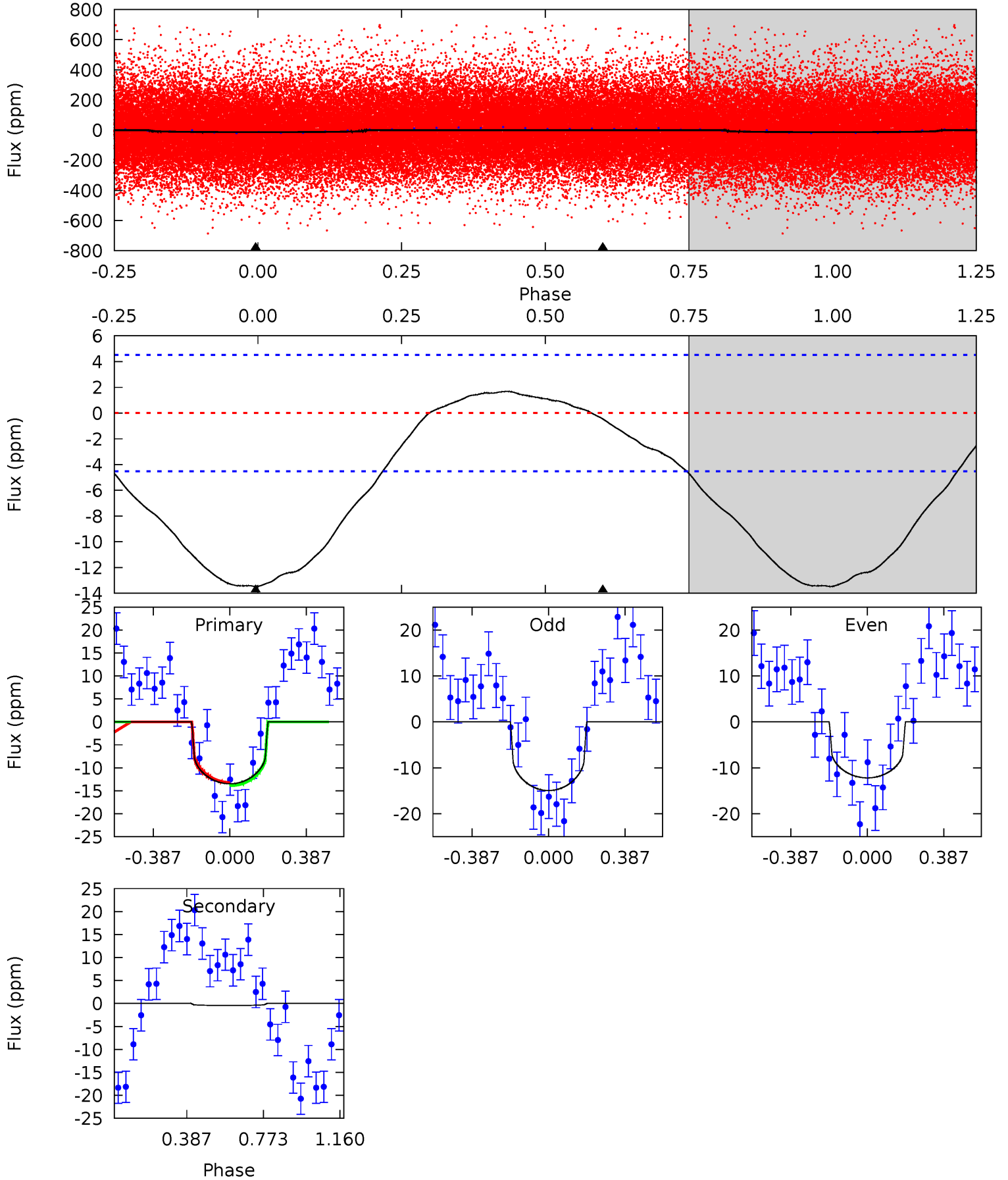
TCE 006803986-01 P= 1.484251 Days $T_0=132.691132$ (BKJD)



DV Model-Shift Uniqueness Test

006803986-01, P = 1.484243 Days, E = 131.244410 Days

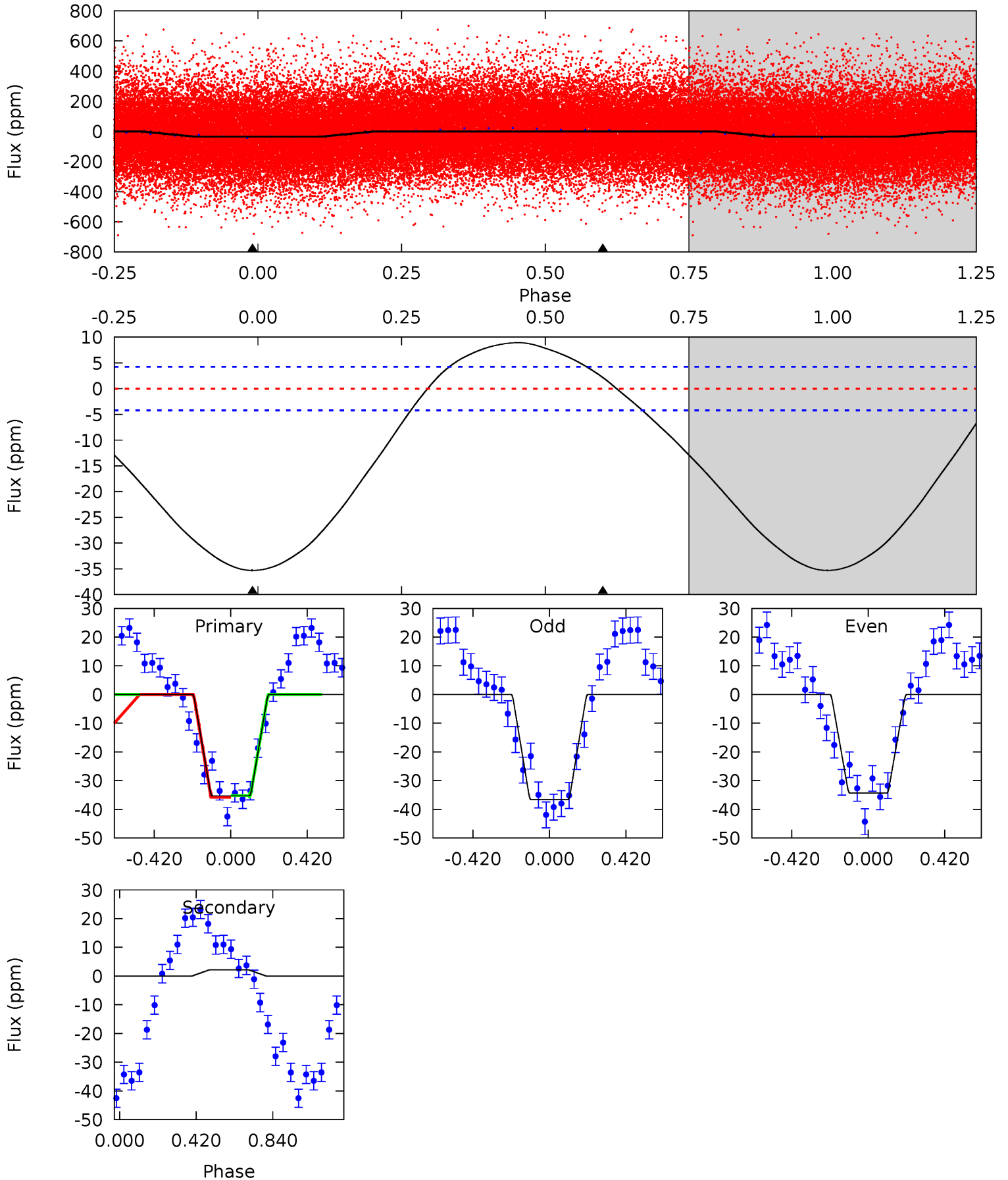
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	0.43	0	0	4.27	0.87	1.01	12.7	12.7	0.43	0.43	1.31	0.89	0.11	0.31



Alt Model-Shift Uniqueness Test

006803986-01, P = 1.484251 Days, E = 131.206881 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.4	-2.17	0	0	4.25	0.81	3.81	35.4	35.4	-2.17	-2.17	1.14	0.96	0.20	0.29



Stellar Parameters For KIC 006803986

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8068^{+224}_{-336}	$3.728^{+0.442}_{-0.104}$	$-0.080^{+0.200}_{-0.350}$	$3.246^{+0.786}_{-1.460}$	$2.054^{+0.335}_{-0.503}$	$0.085^{+0.342}_{-0.028}$
	+3%/-4%	+12%/-3%	+250%/-438%	+24%/-45%	+16%/-24%	+404%/-33%
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 006803986-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-0 ± 1	$1.37^{+1.05}_{-0.86}$	4781^{+385}_{-538}	-3800^{+8364}_{-686}	$0.085^{+0.739}_{-0.256}$
Alt.	2 ± 1	$1.96^{+1.14}_{-1.00}$	4786^{+385}_{-560}	-4664^{+398}_{-991}	$-0.299^{+0.204}_{-1.035}$

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

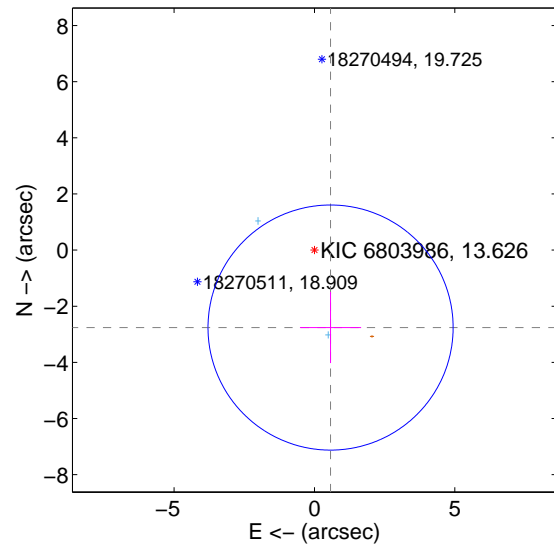
Supplemental centroid analysis for 006803986-01. Kepler magnitude: 13.63. Transit SNR 9.47

There are 2 quarters with good PRF difference image offsets

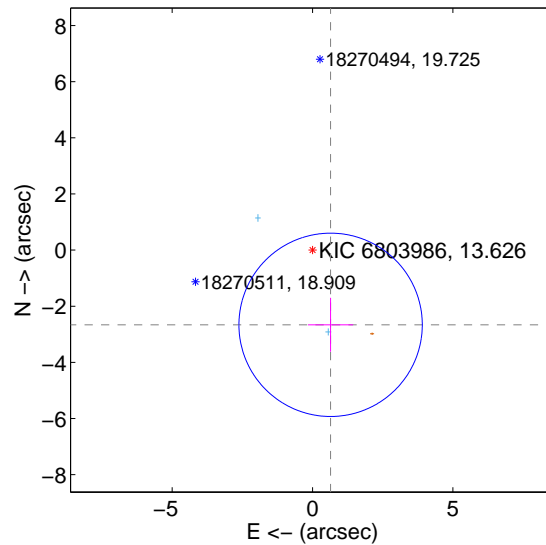
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.819 ± 1.455	1.94	-0.574 ± 1.090	-2.759 ± 1.267
PRF-fit source offset from KIC position	2.739 ± 1.089	2.52	-0.644 ± 0.803	-2.662 ± 0.961
photometric centroid source offset	0.69 ± 1.53	0.45	0.67 ± 1.53	-0.18 ± 1.50

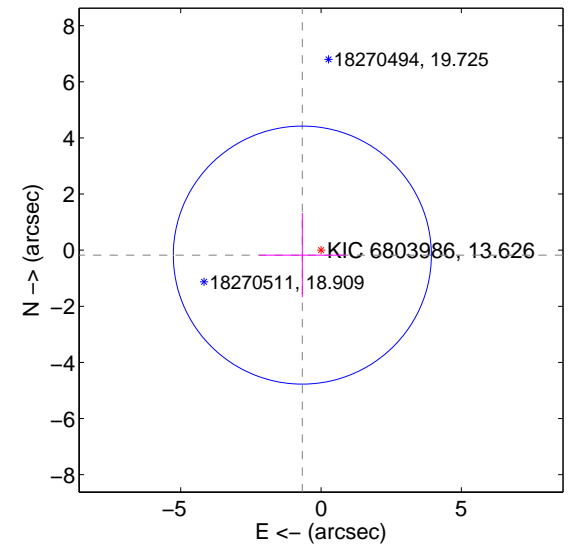
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

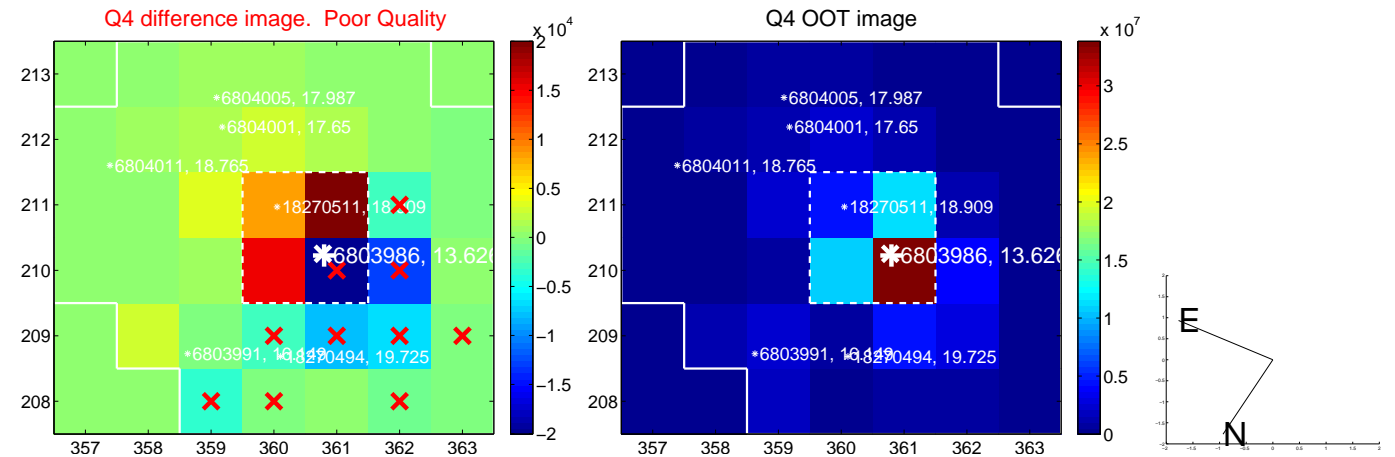
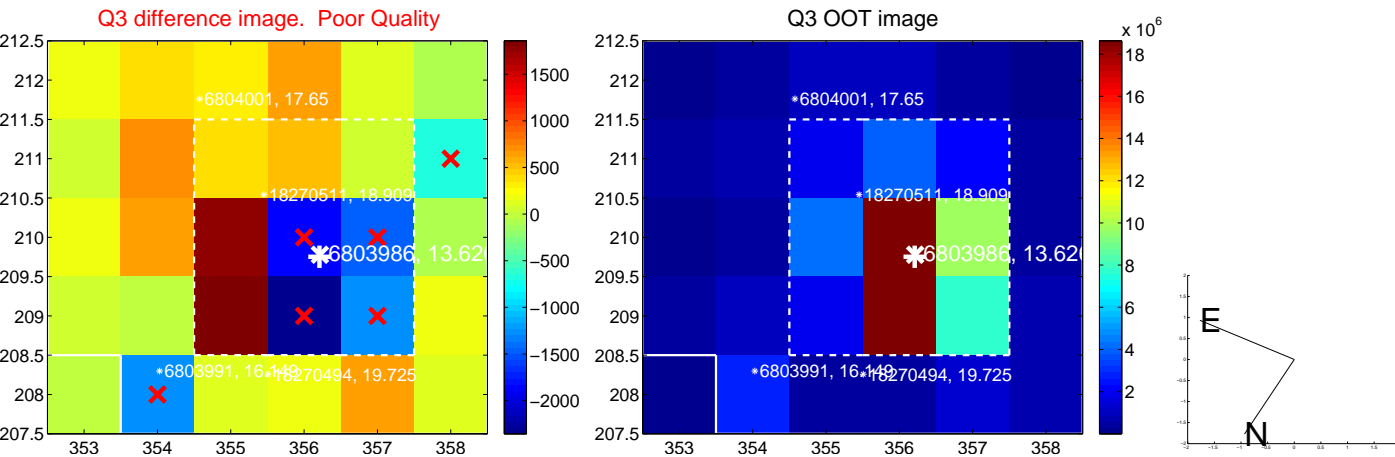
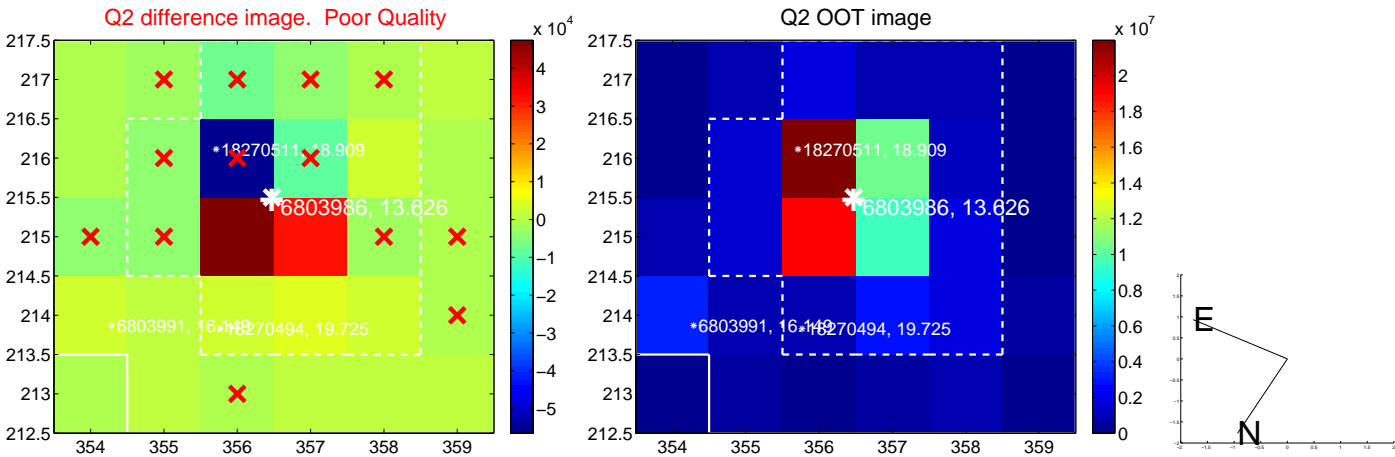
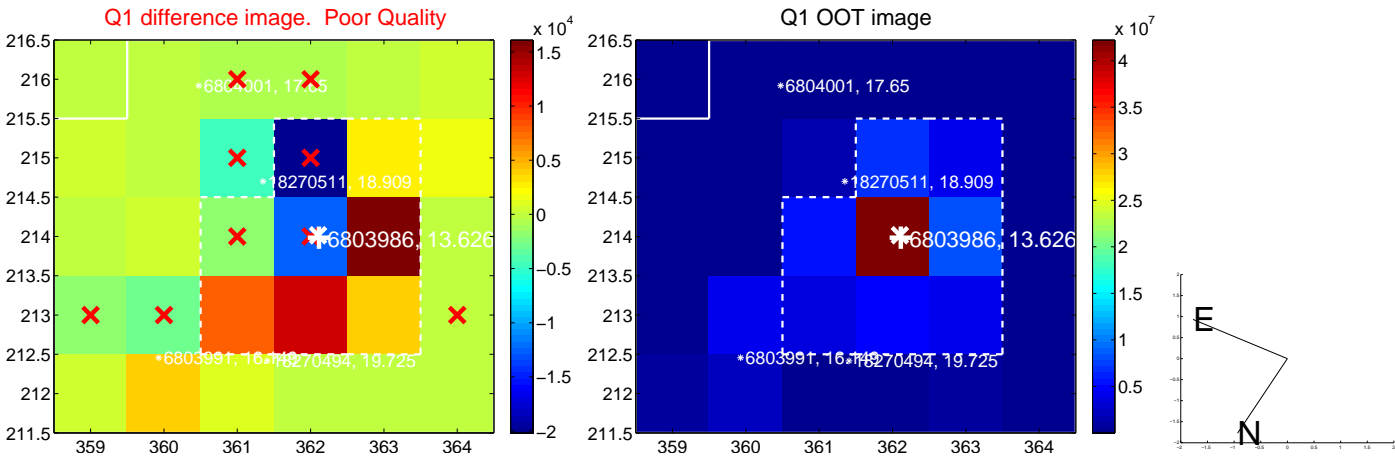


offset from photometric centroids

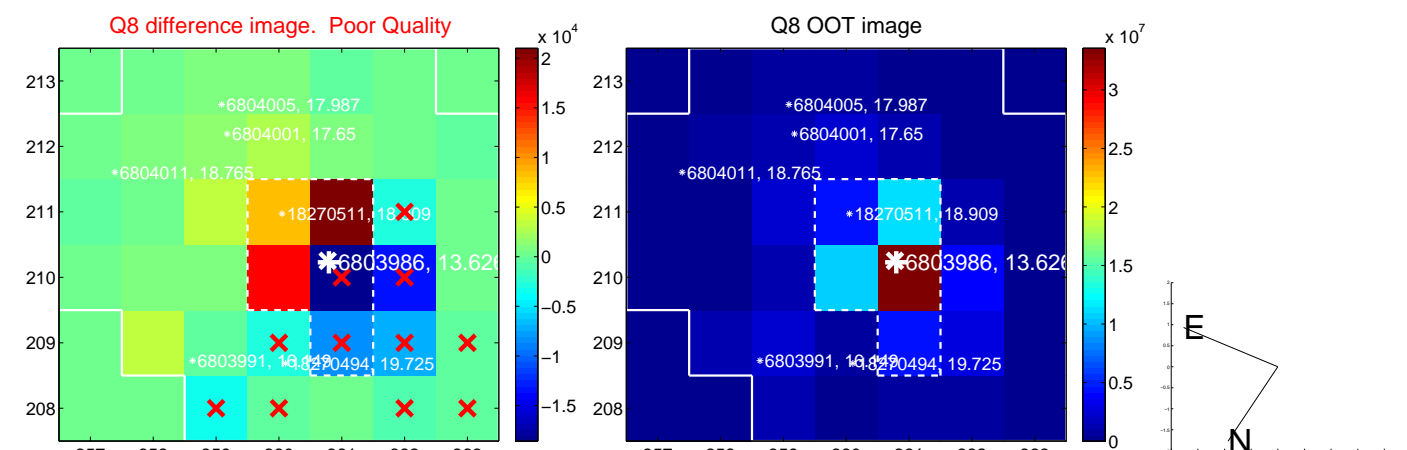
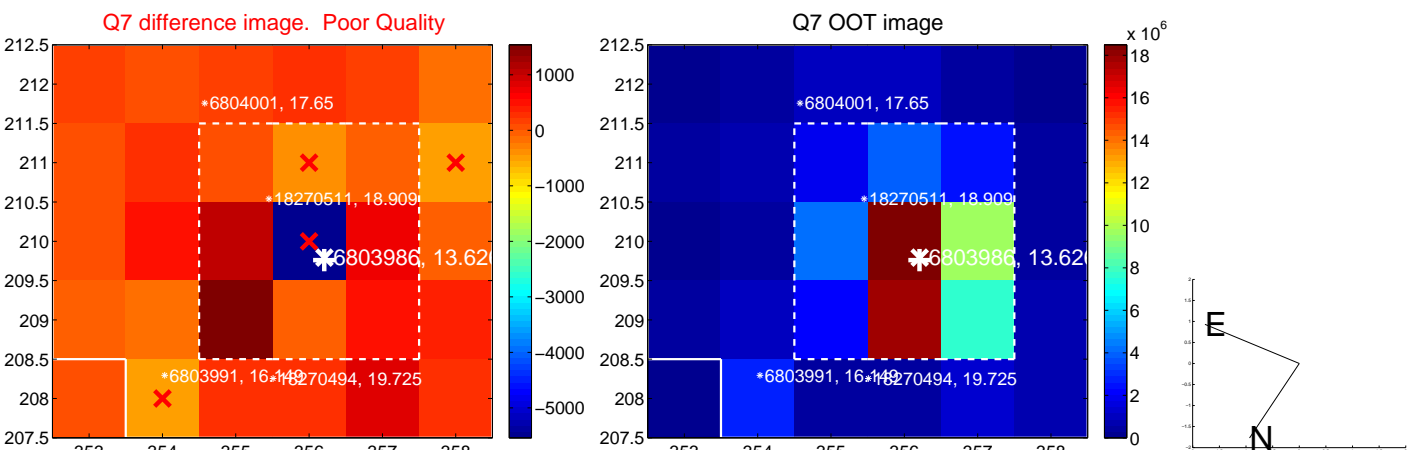
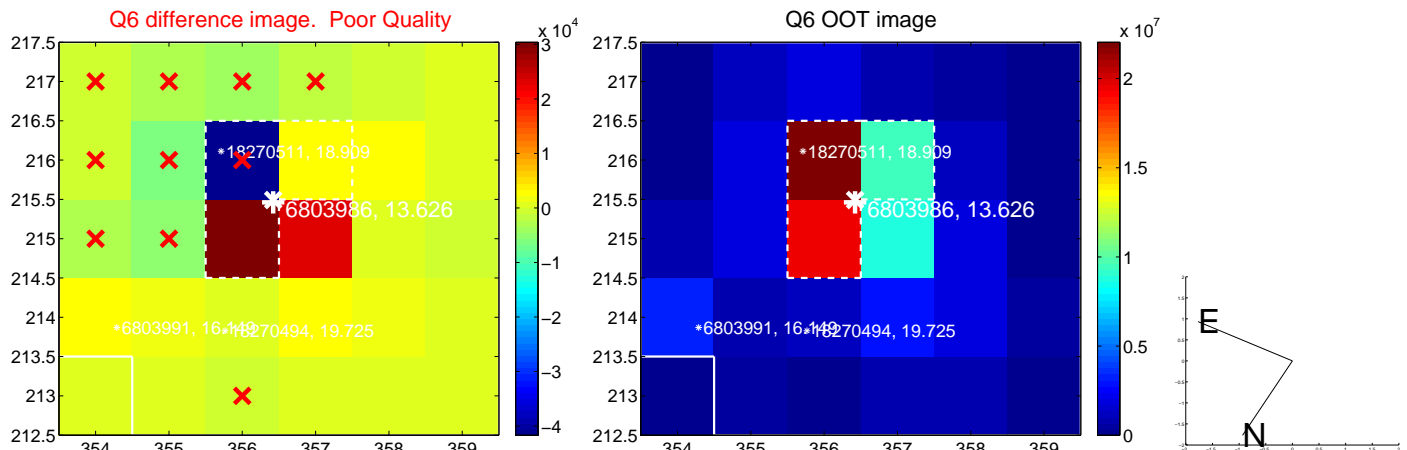
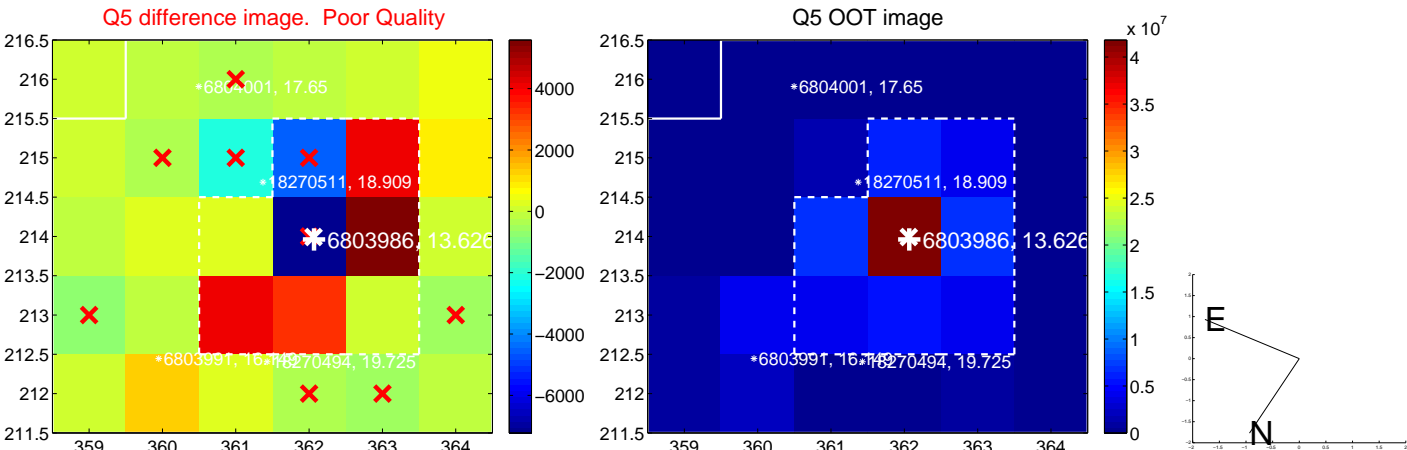


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

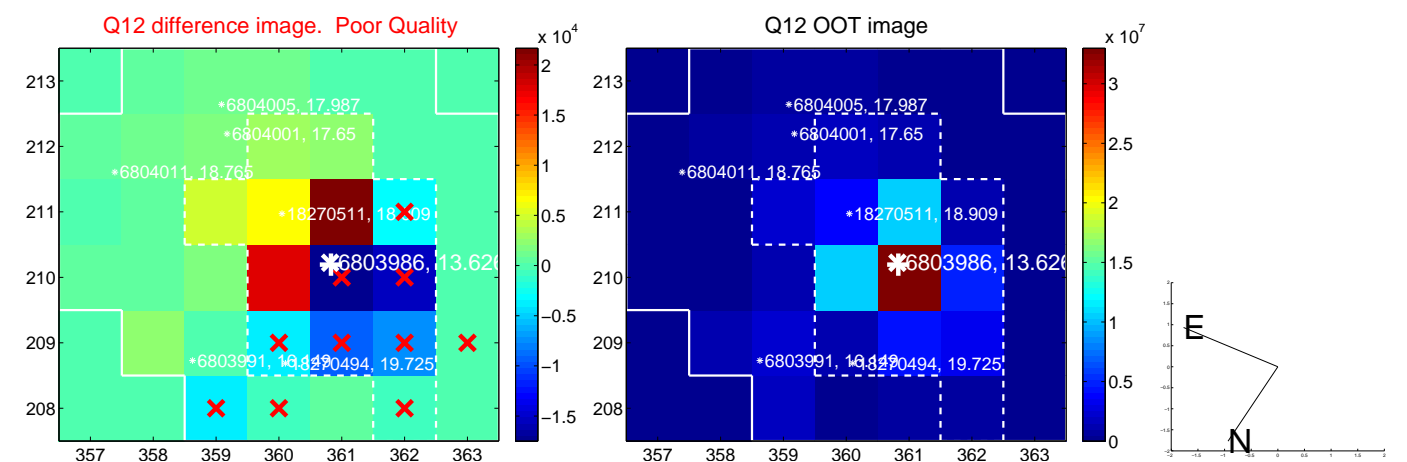
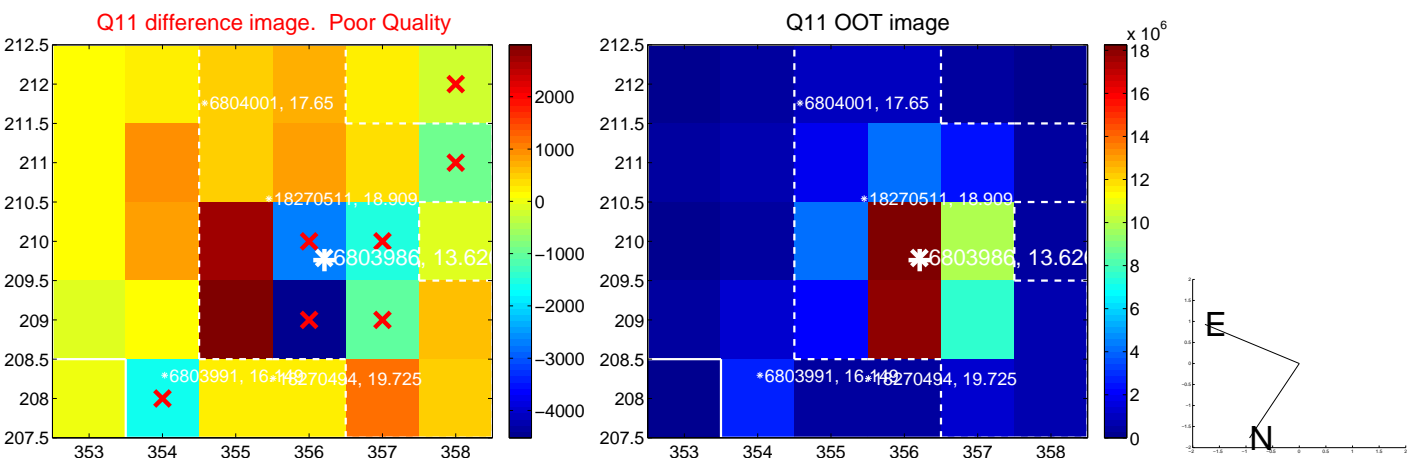
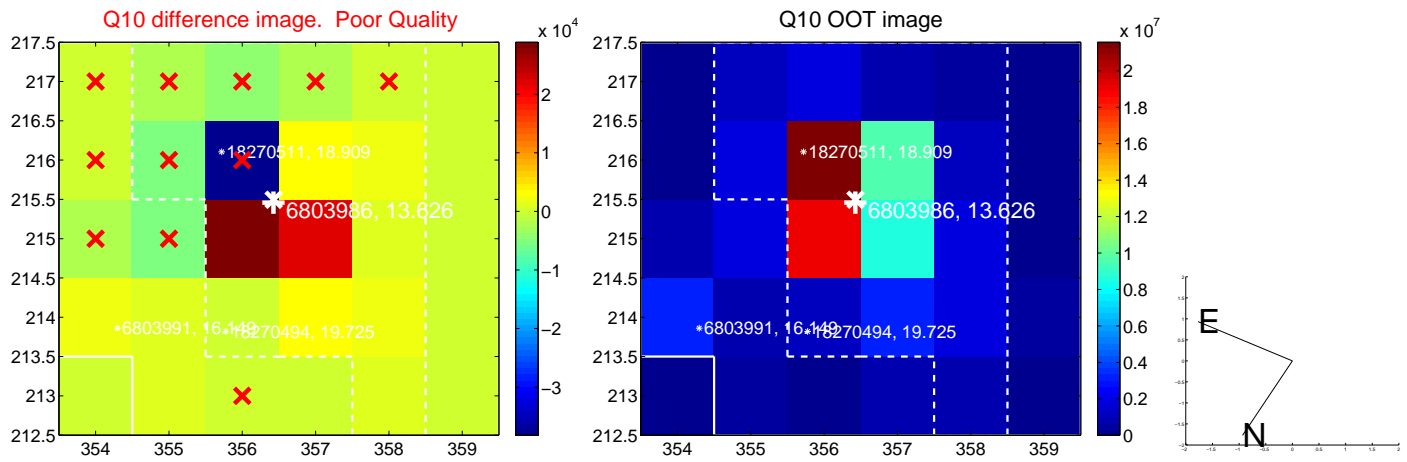
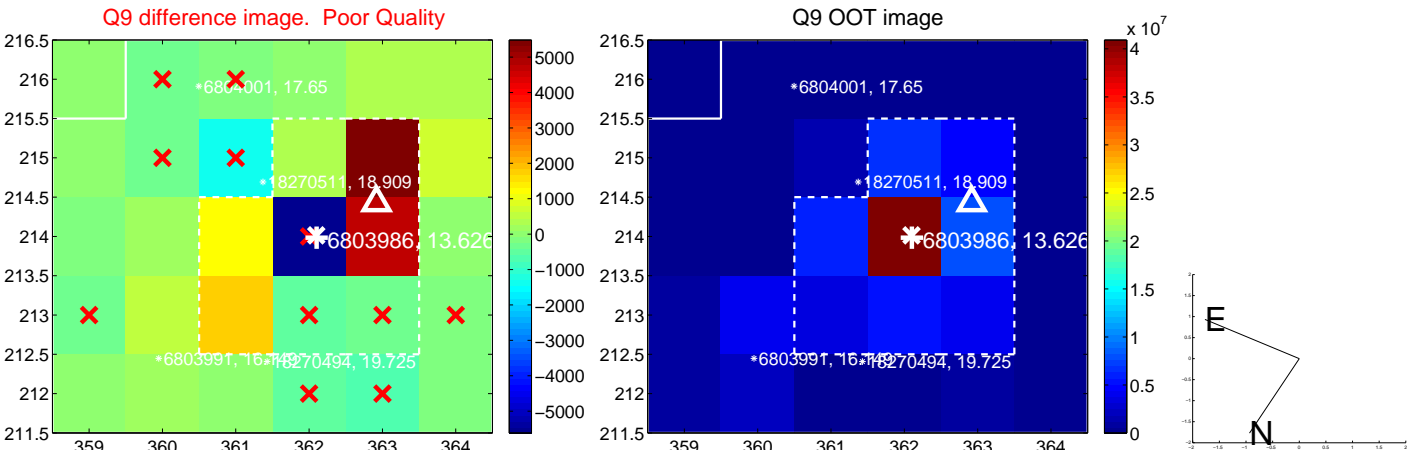
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



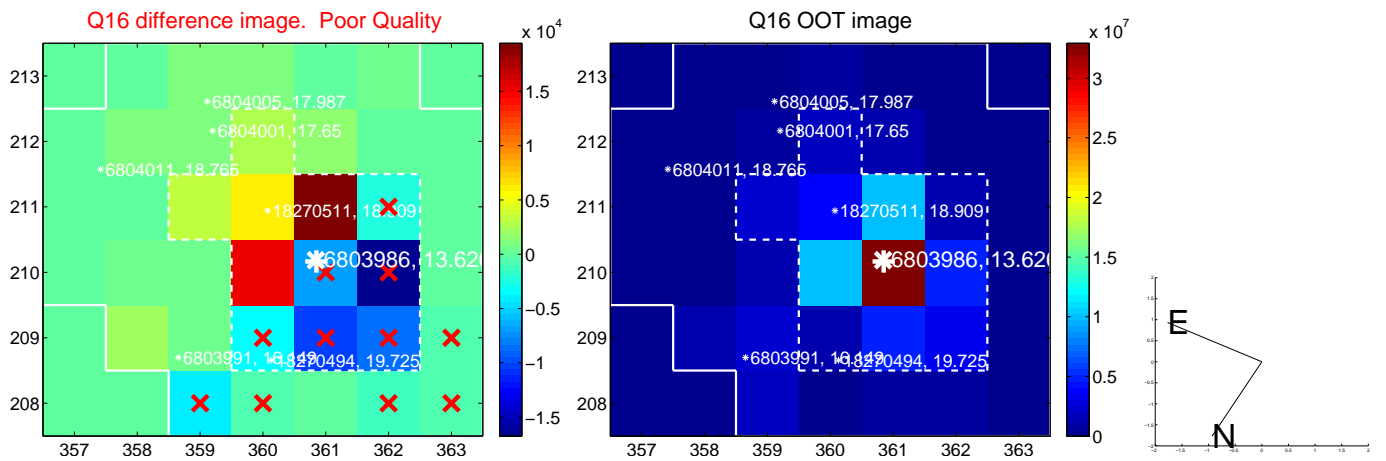
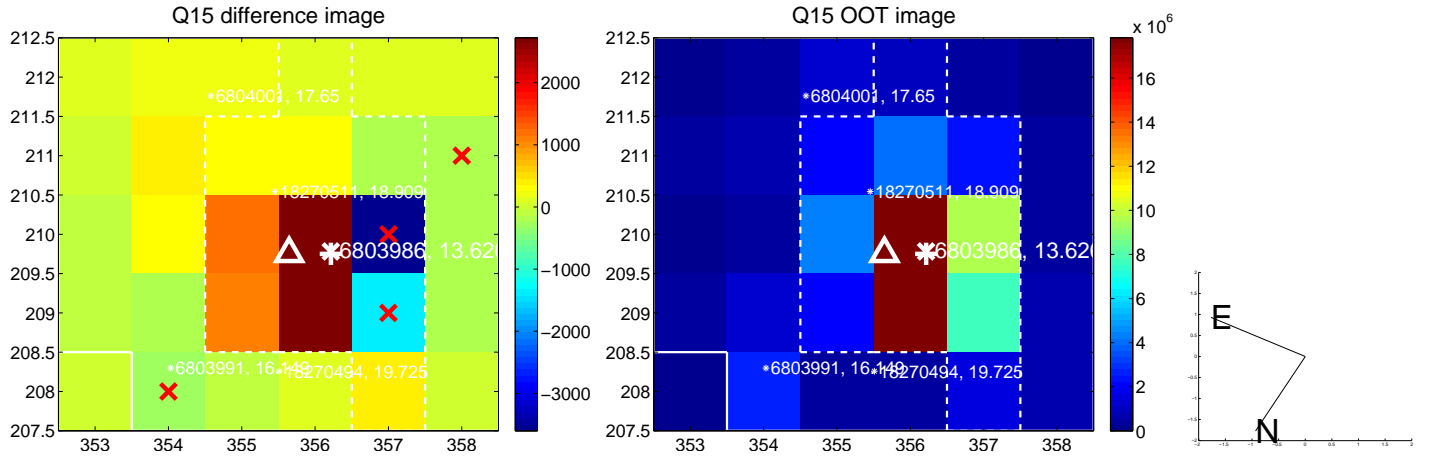
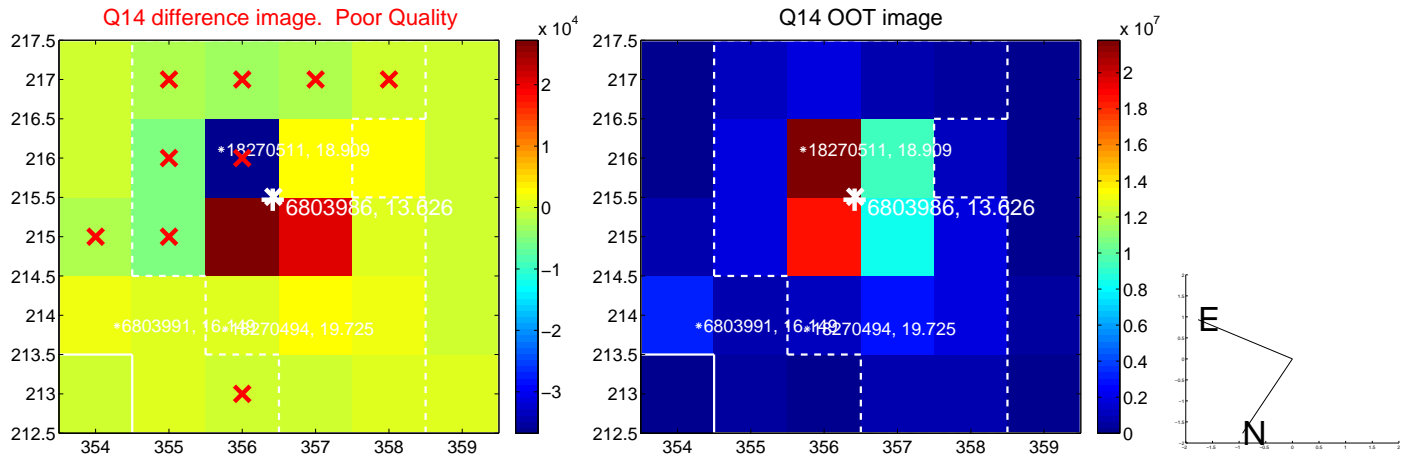
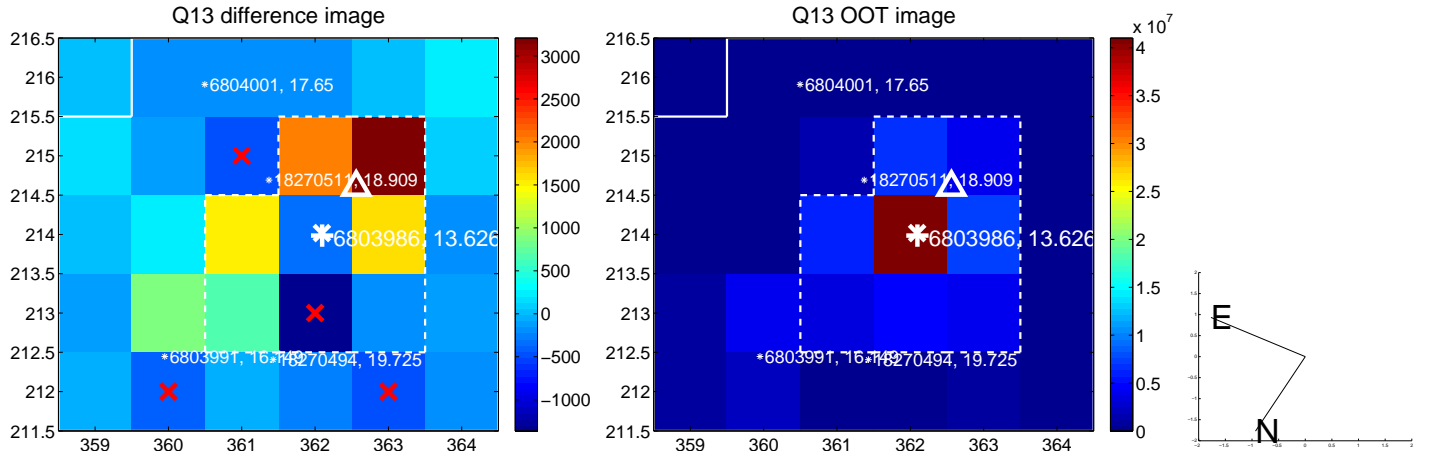
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



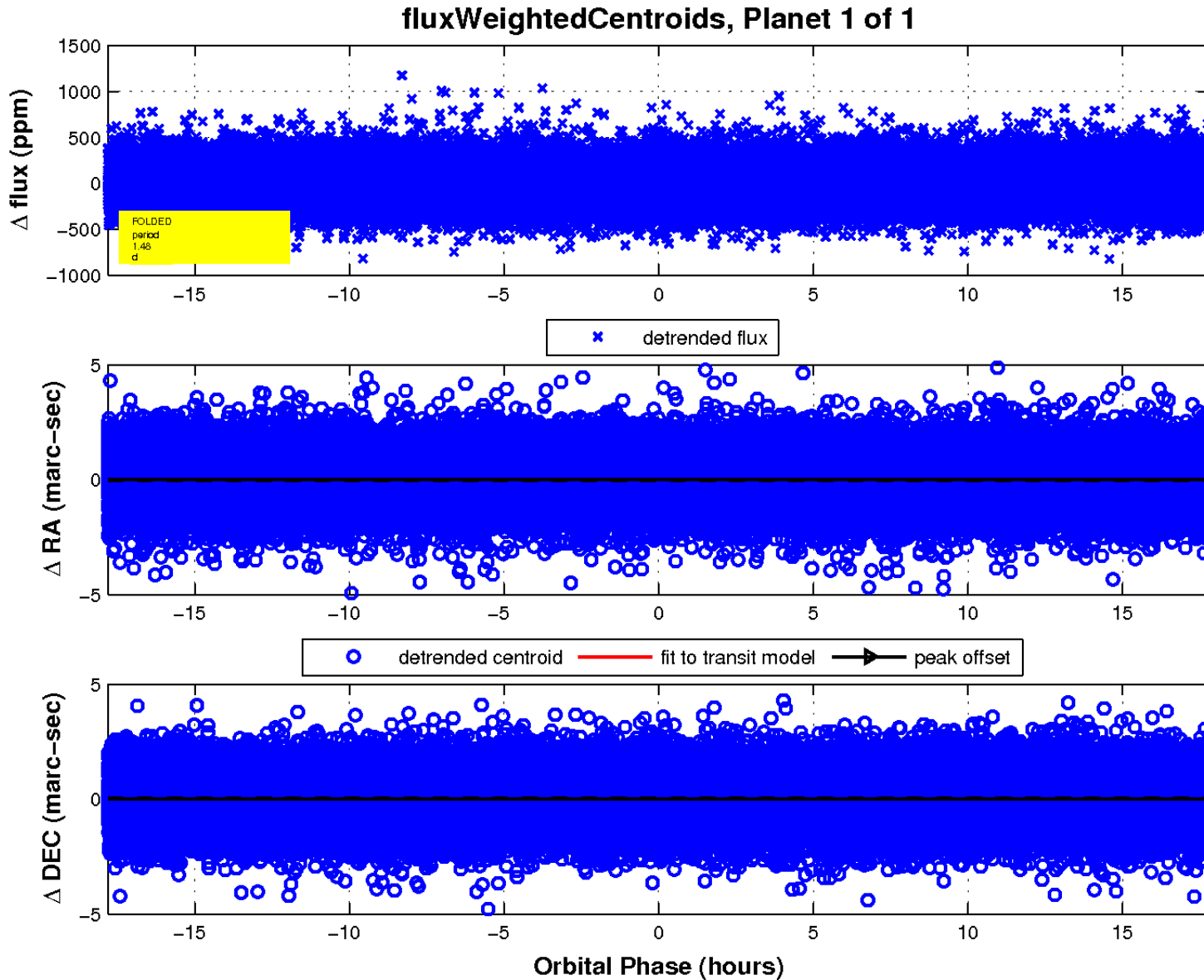
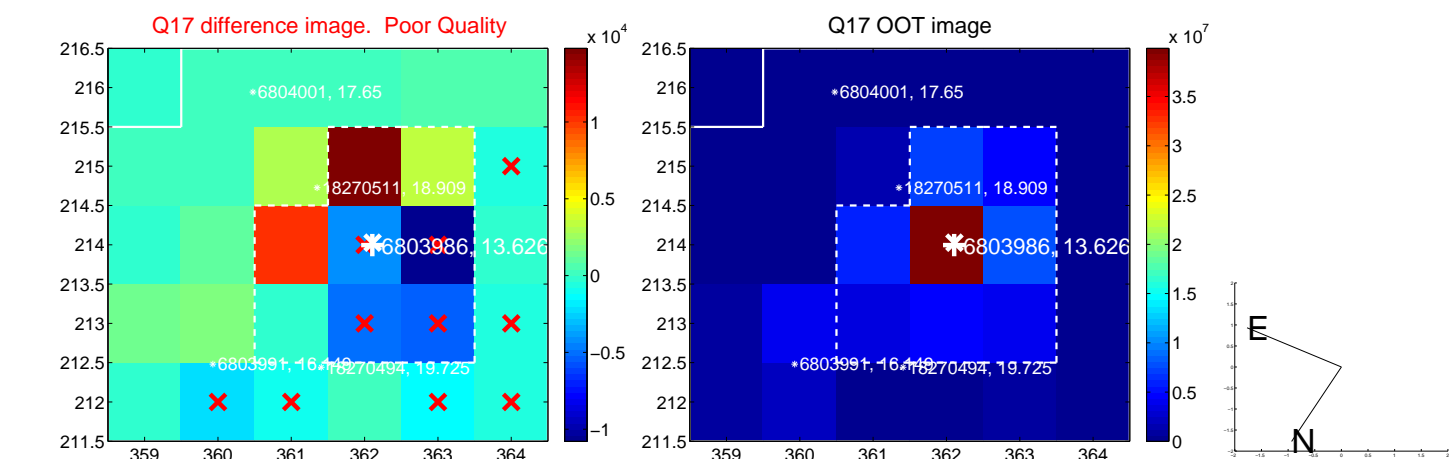
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

