

KIC 008410490

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})
008410490-01	OBS	No	1.362085	131.631208	17.9	14.275	8.7	10.2	0.87	5821	0.42	1446.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008410490-01	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.

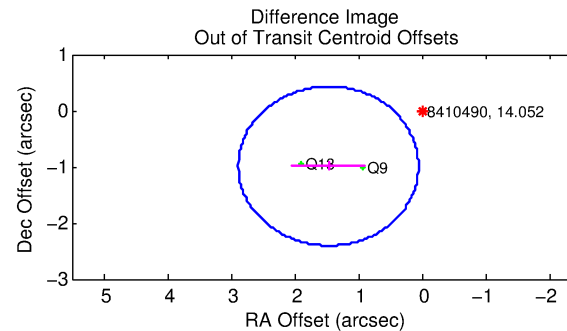
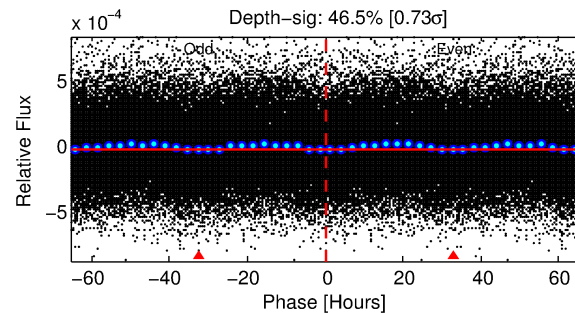
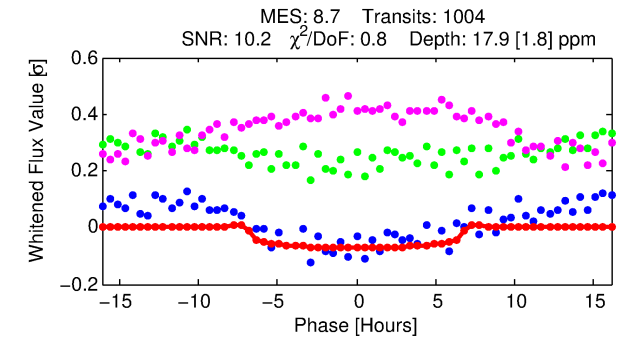
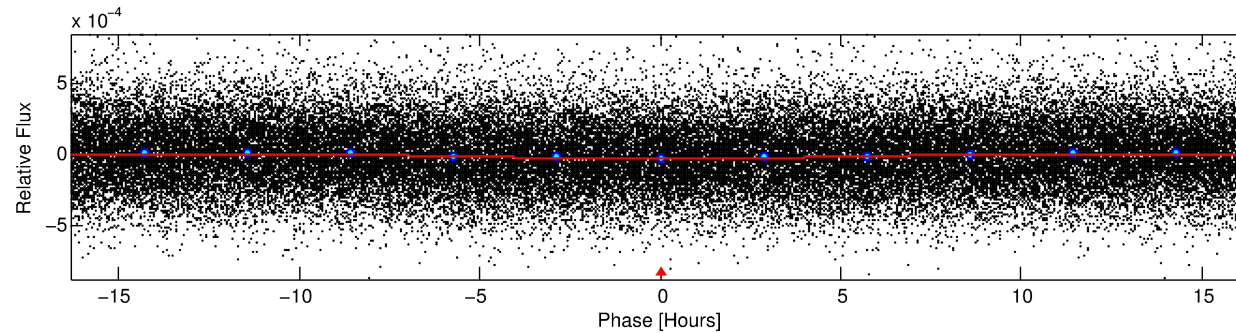
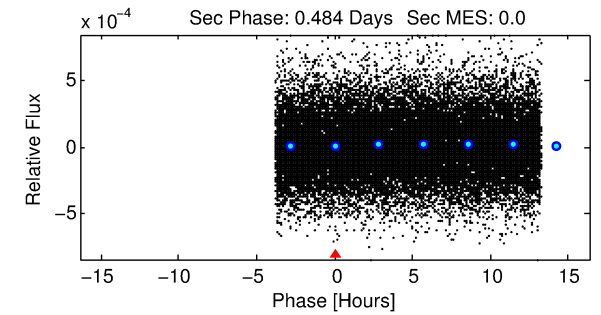
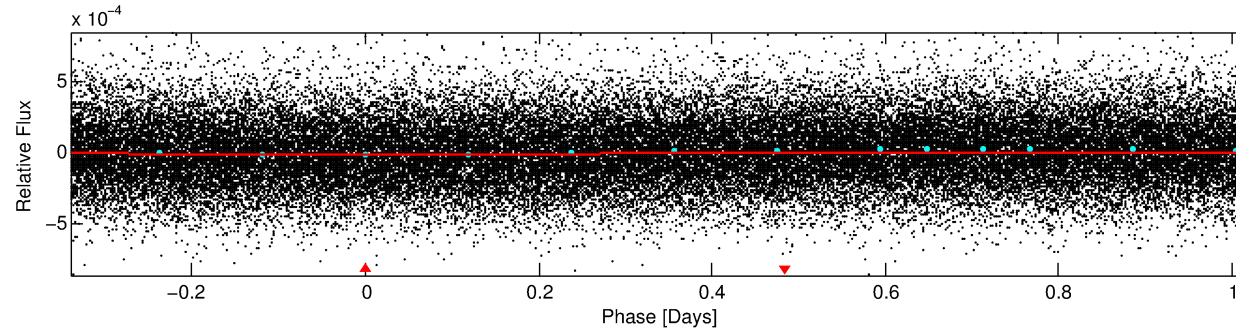
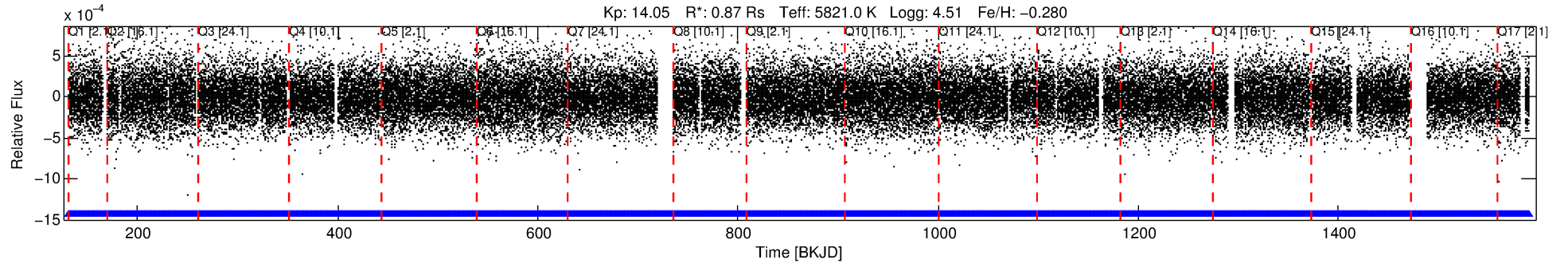
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008410490-01

No Significant Match Found

DV One-Page Summary

KIC: 8410490 Candidate: 1 of 1 Period: 1.362 d



DV Fit Results:

Period = 1.36208 [0.00003] d
Epoch = 131.6312 [0.0138] BKJD
Rp/R* = 0.0044 [0.0015]
a/R* = 1.01 [0.03]
b = 0.85 [0.54]
Seff = 1446.41 [525.00]
Teq = 1573 [143] K
Rp = 0.42 [0.19] Re
a = 0.0233 [0.0056] AU
Ag = N/A
Teffp = N/A

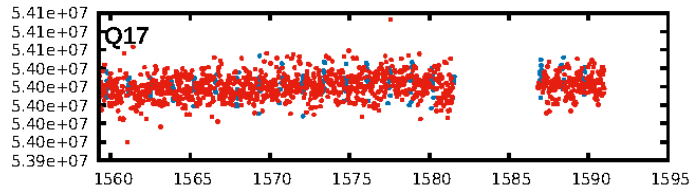
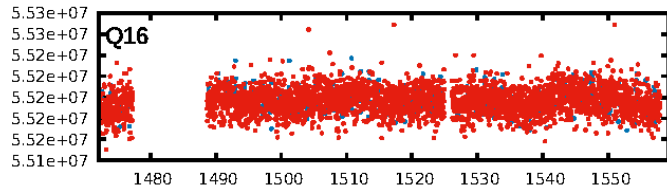
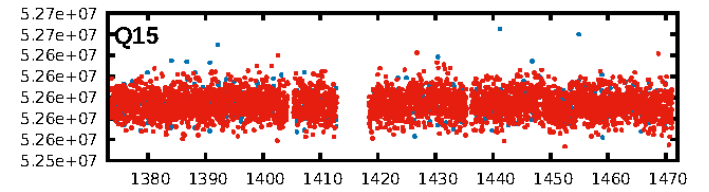
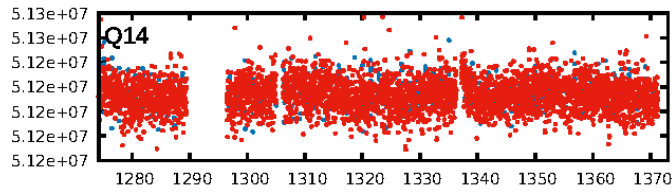
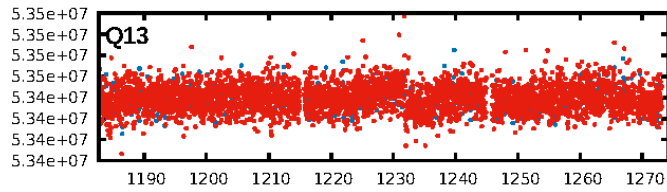
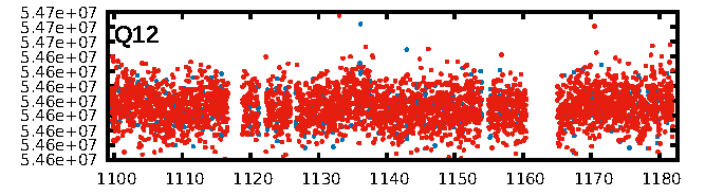
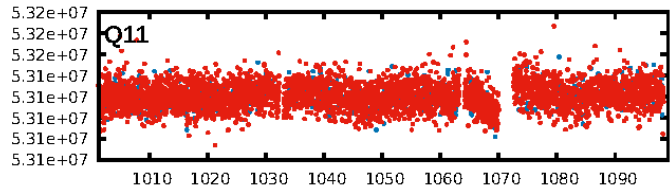
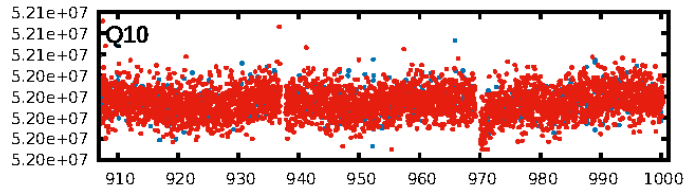
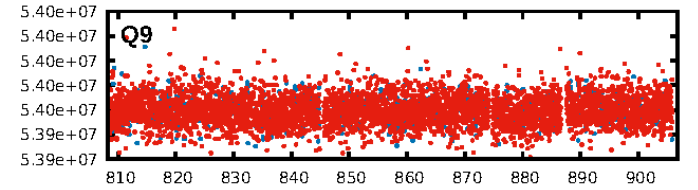
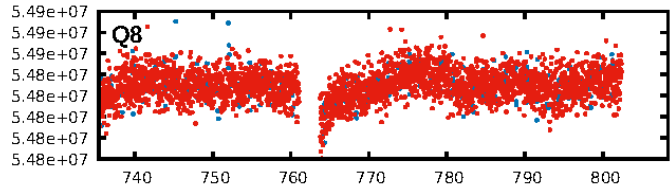
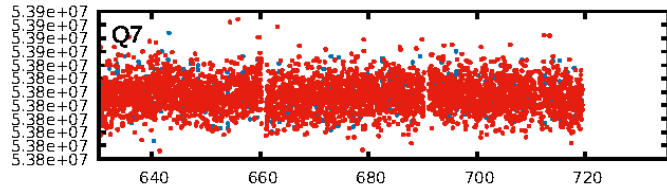
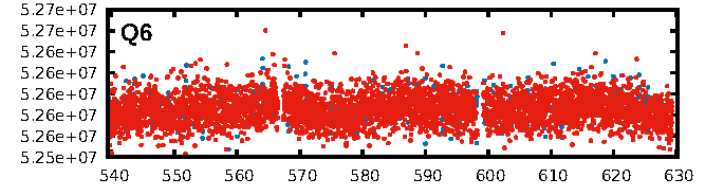
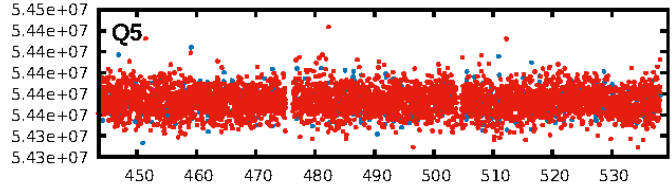
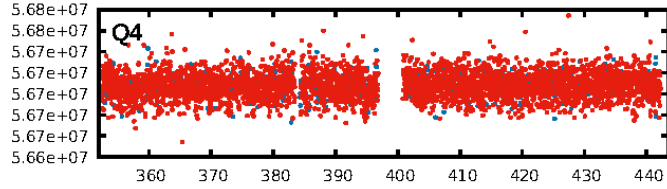
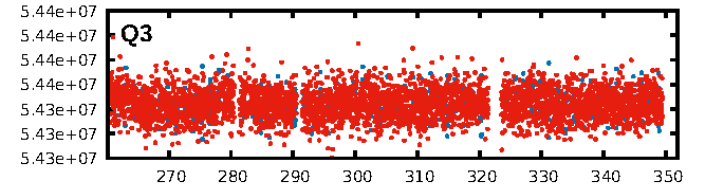
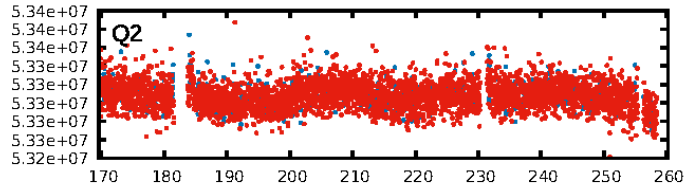
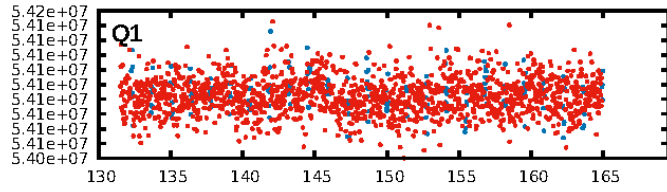
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [959/959]
GhostDiagnostic-chr: 0.4367
Centroid-sig: 0.0%
Centroid-so: 14.345 arcsec [11.01σ]
OotOffset-rm: 1.771 arcsec [3.75σ]
KicOffset-rm: 1.839 arcsec [4.12σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [17/17]

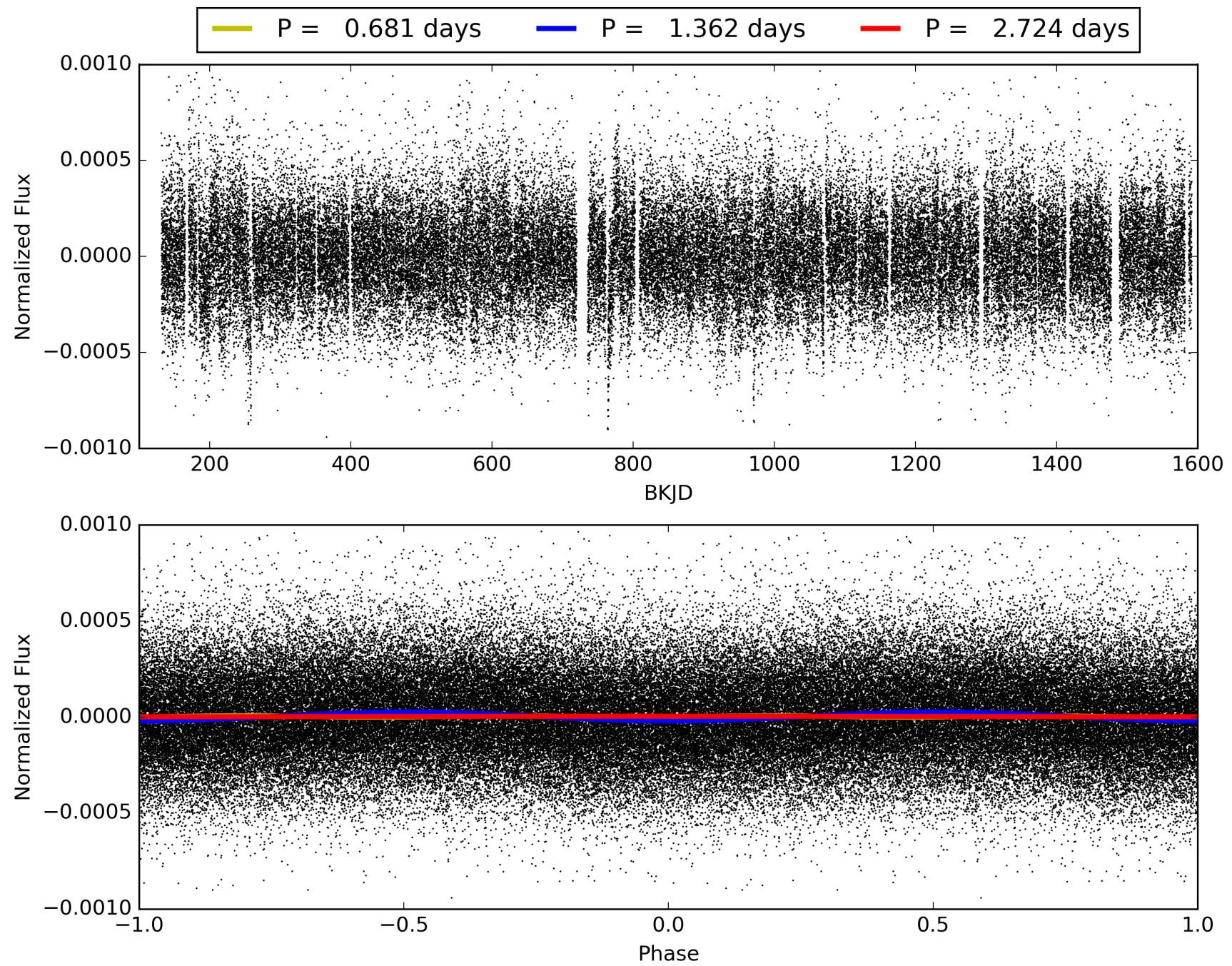
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:04:54 Z

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

TCE 008410490-01, PDC Light Curves

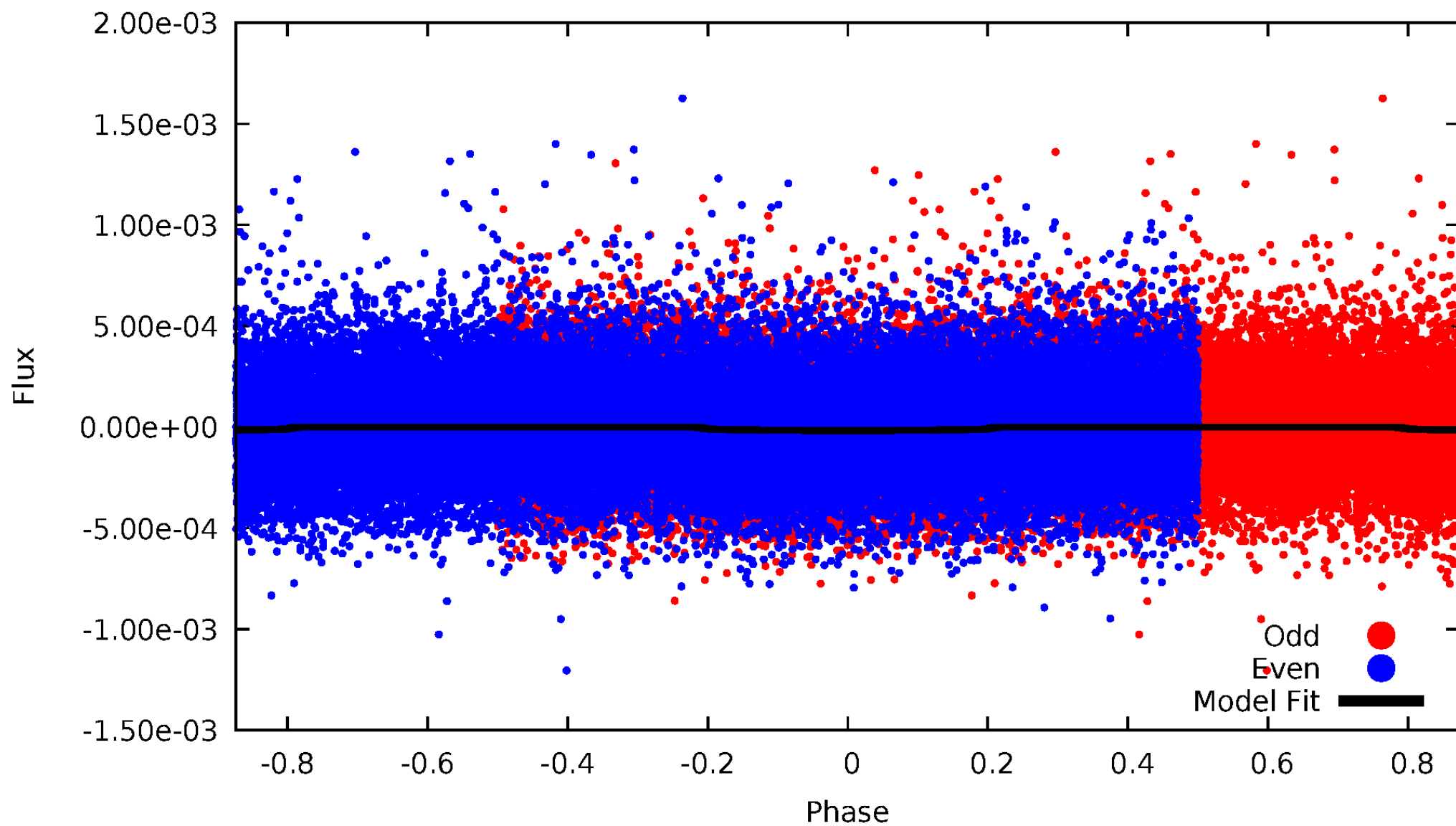


TCE 008410490-01



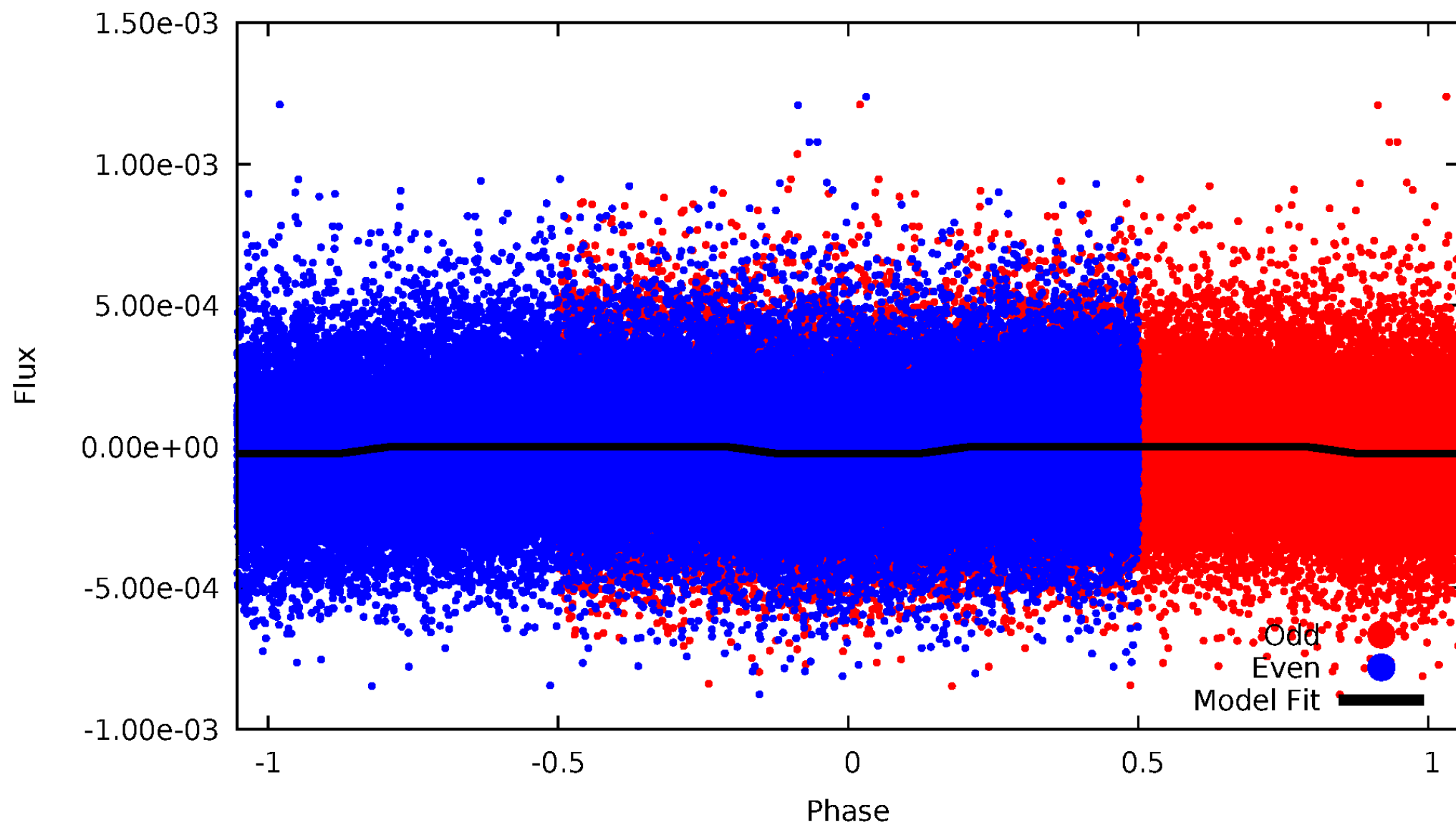
DV Odd/Even

TCE 008410490-01



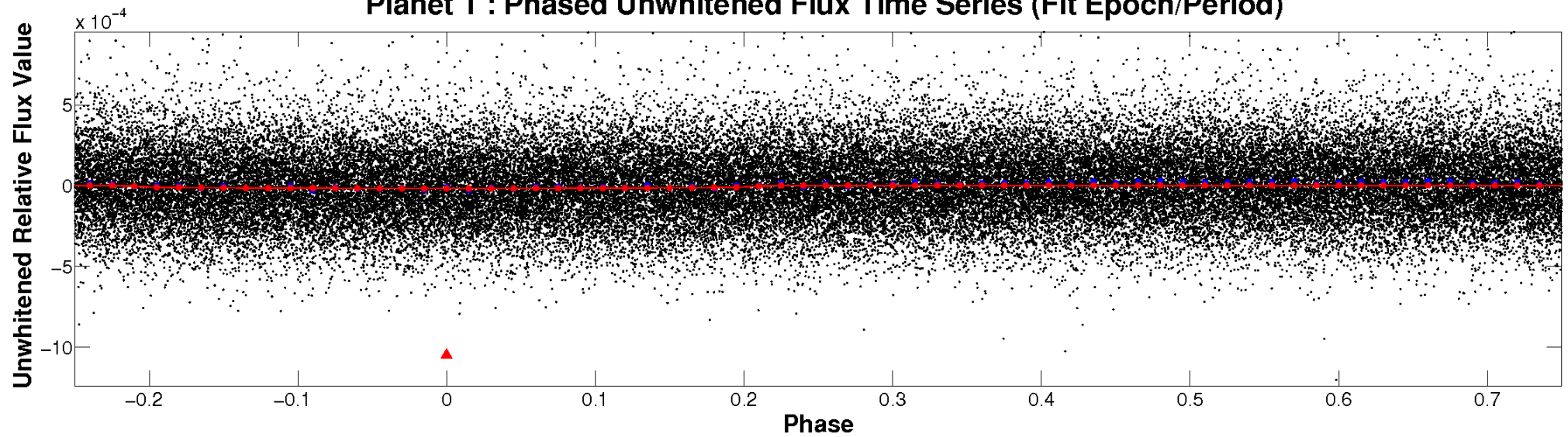
ALT Odd/Even

TCE 008410490-01

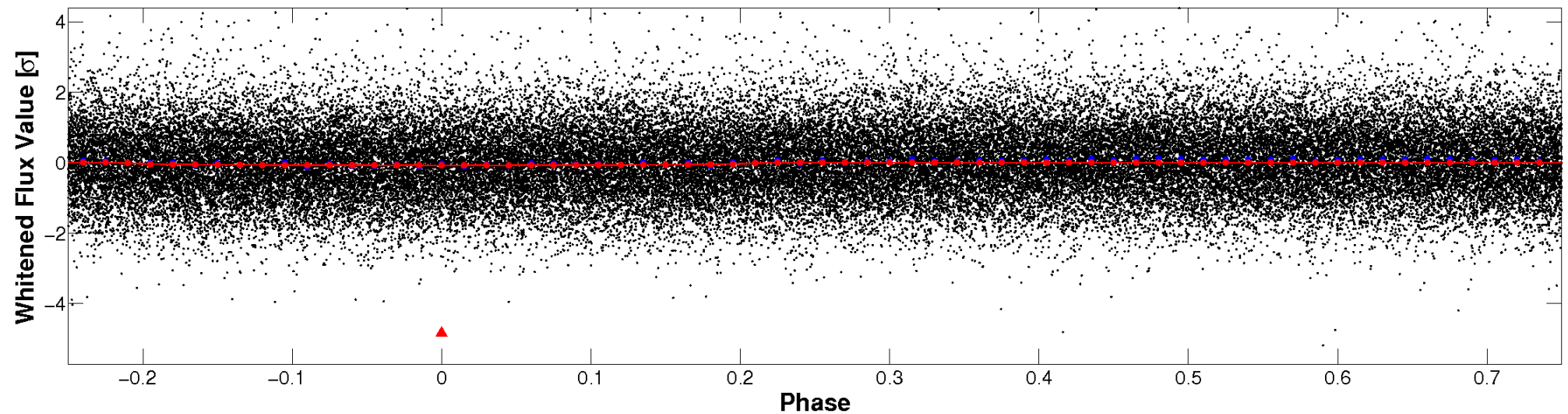


Non-Whitened Vs. Whitened Light Curve

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

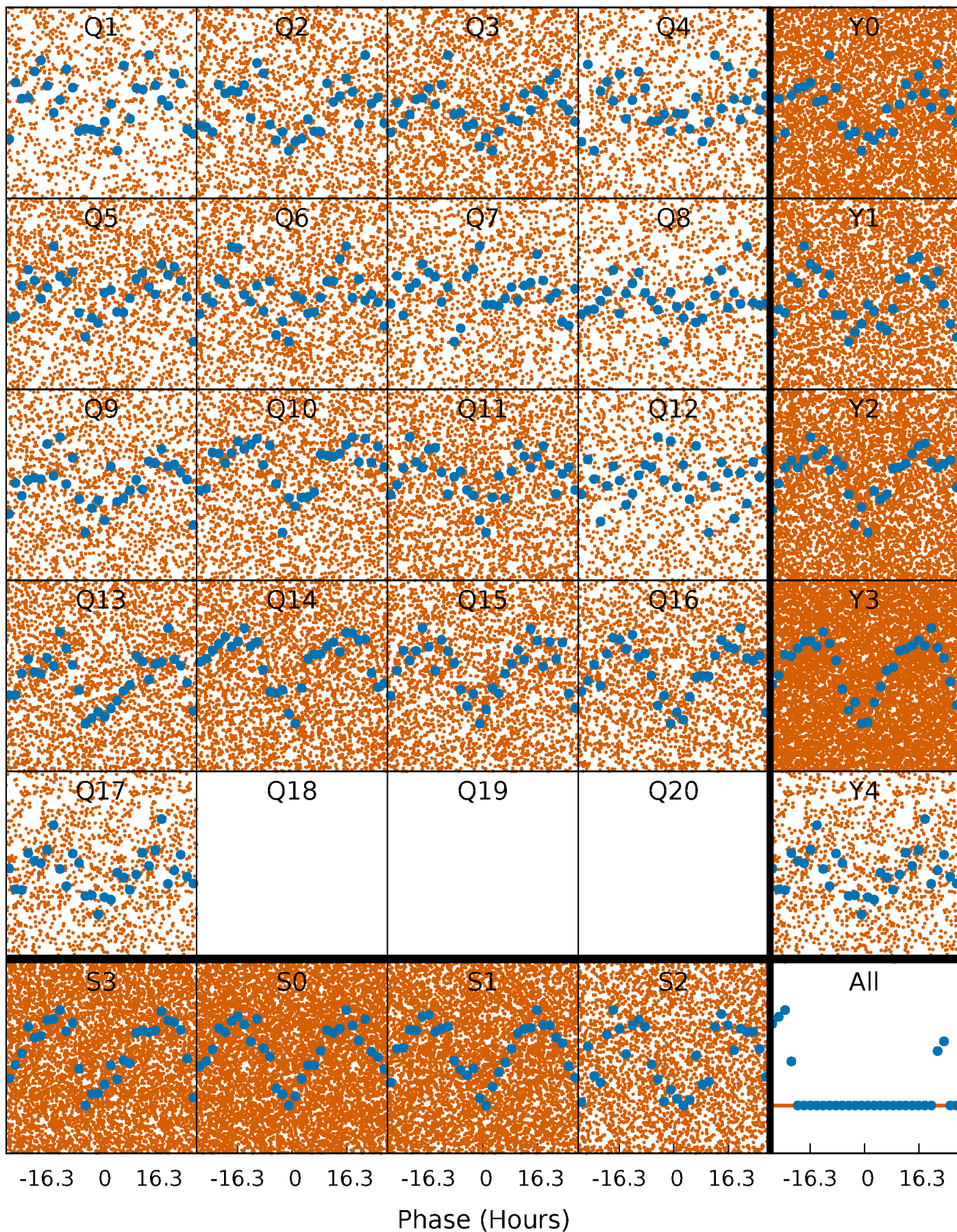


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



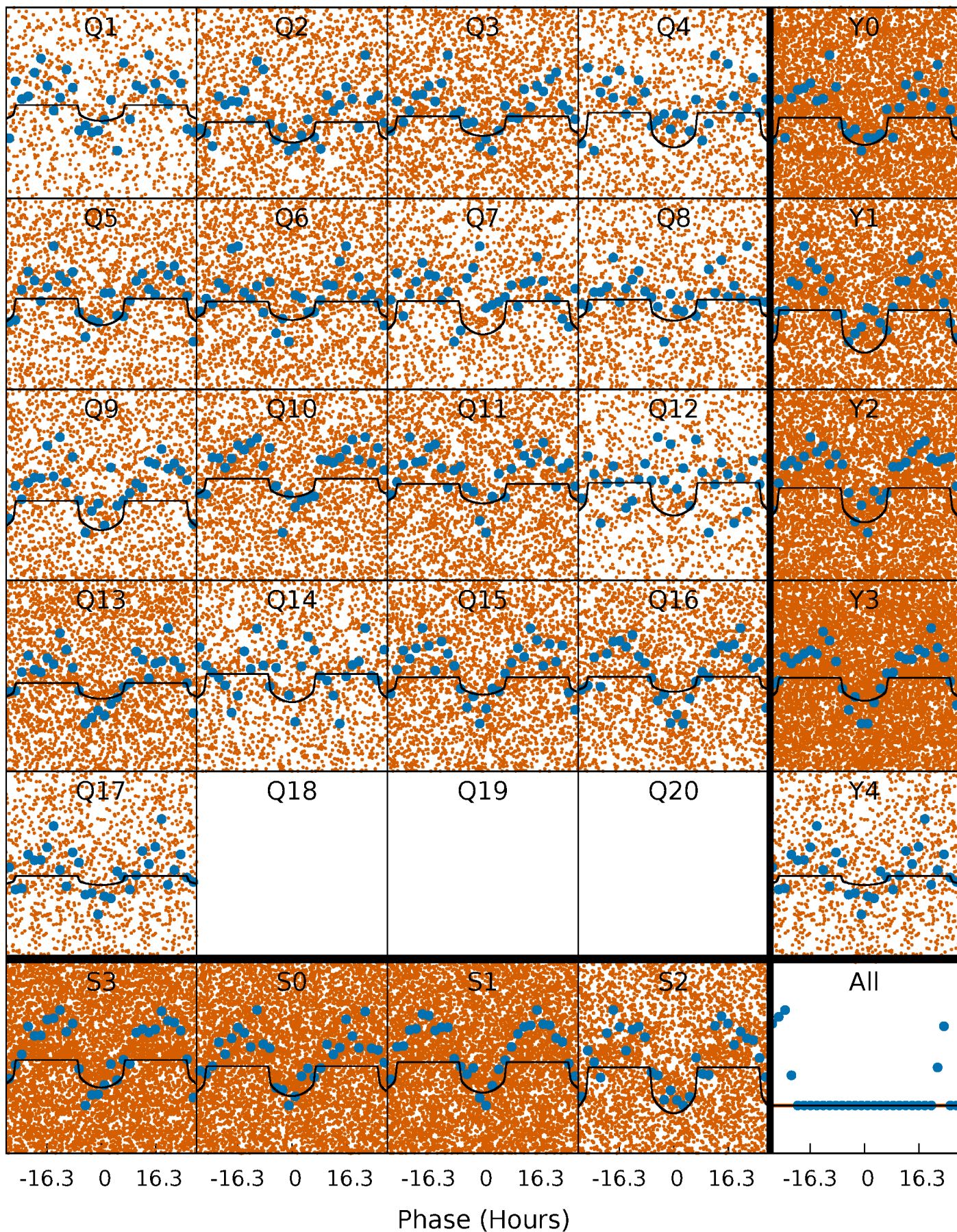
PDC Quarter-Phased Transit Curves

TCE 008410490-01 P= 1.362085 Days $T_0=131.631208$ (BKJD)



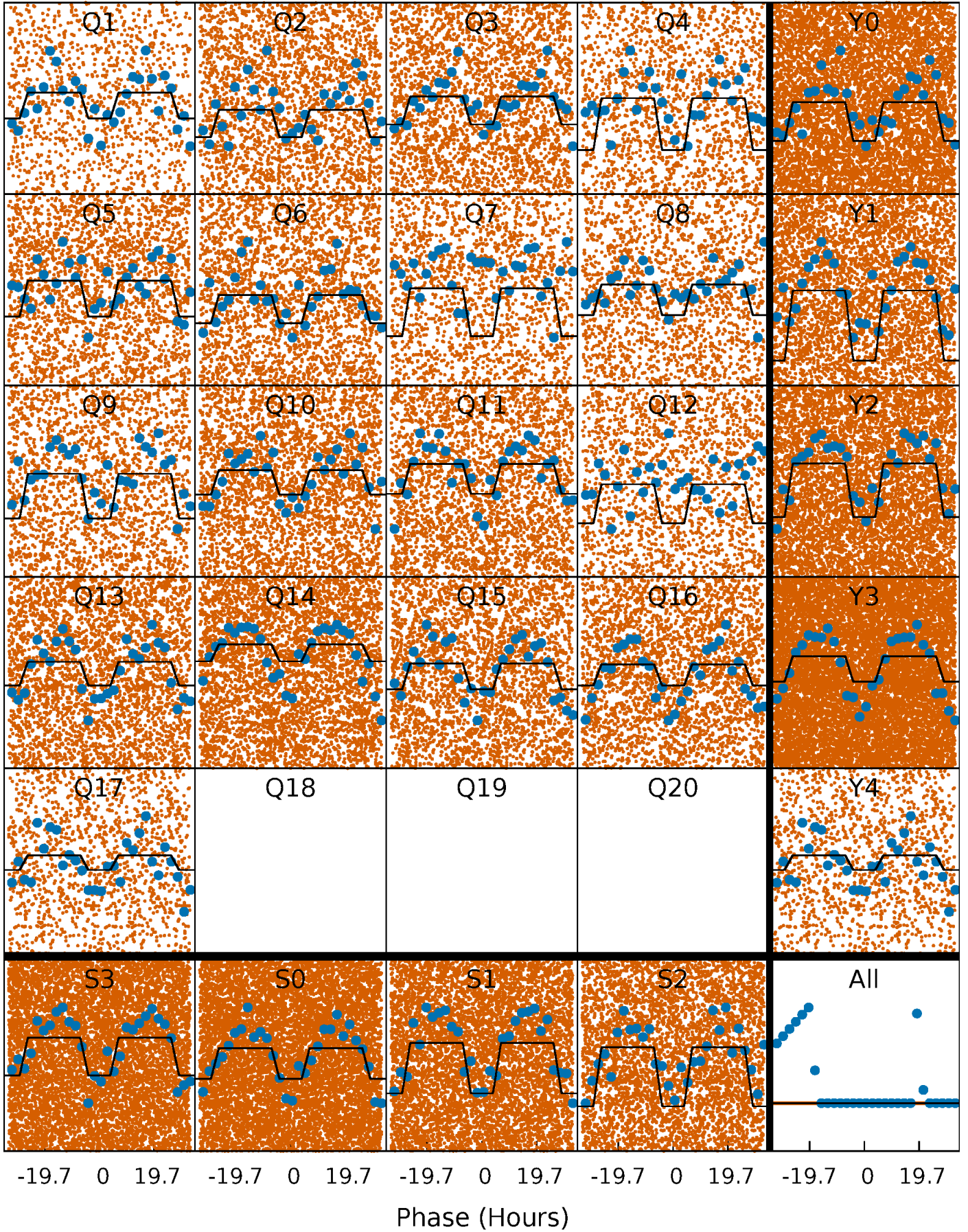
DV Quarter-Phased Transit Curves

TCE 008410490-01 P= 1.362085 Days $T_0=131.631208$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

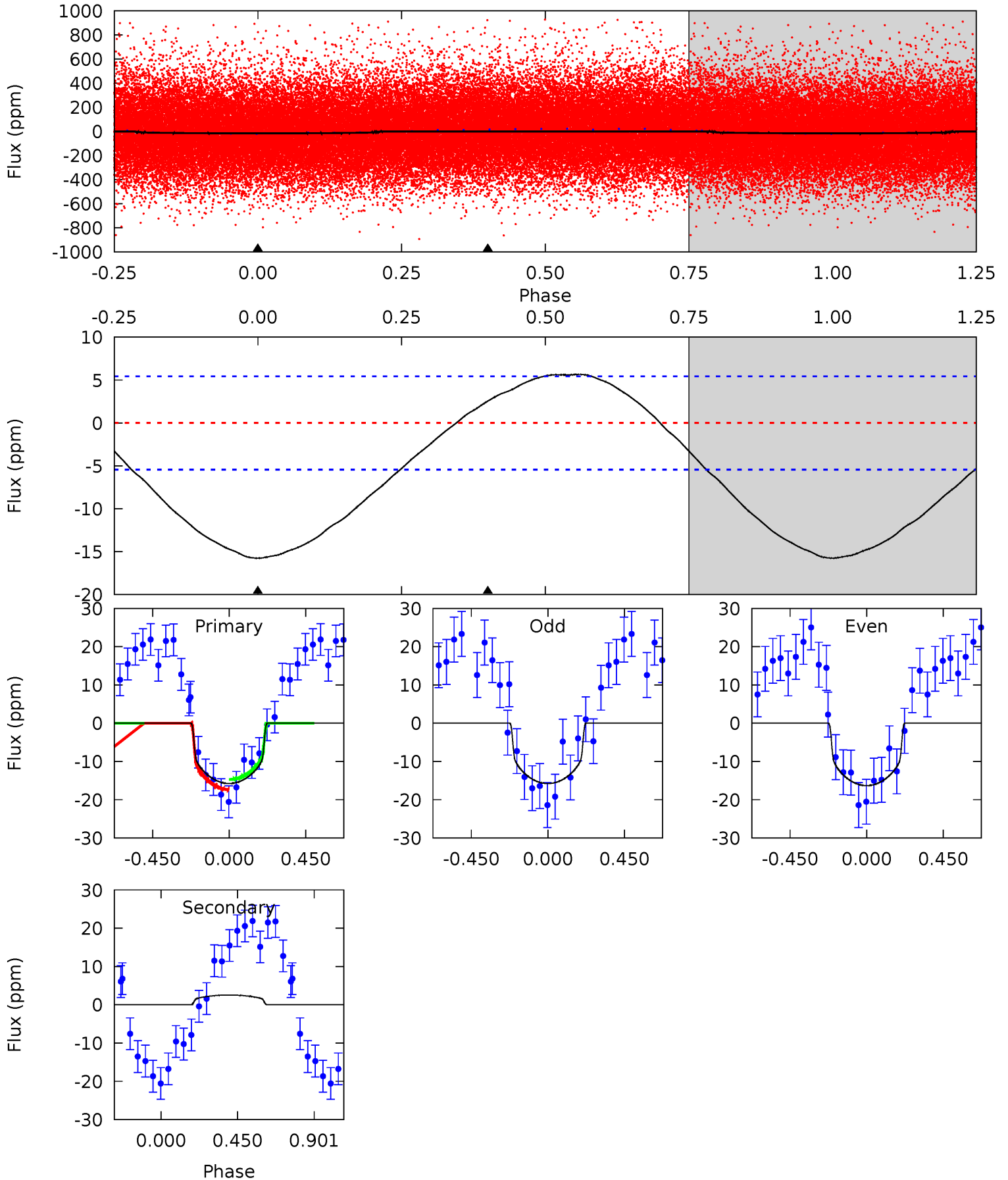
TCE 008410490-01 P= 1.362209 Days $T_0=131.547730$ (BKJD)



DV Model-Shift Uniqueness Test

008410490-01, P = 1.362085 Days, E = 130.269123 Days

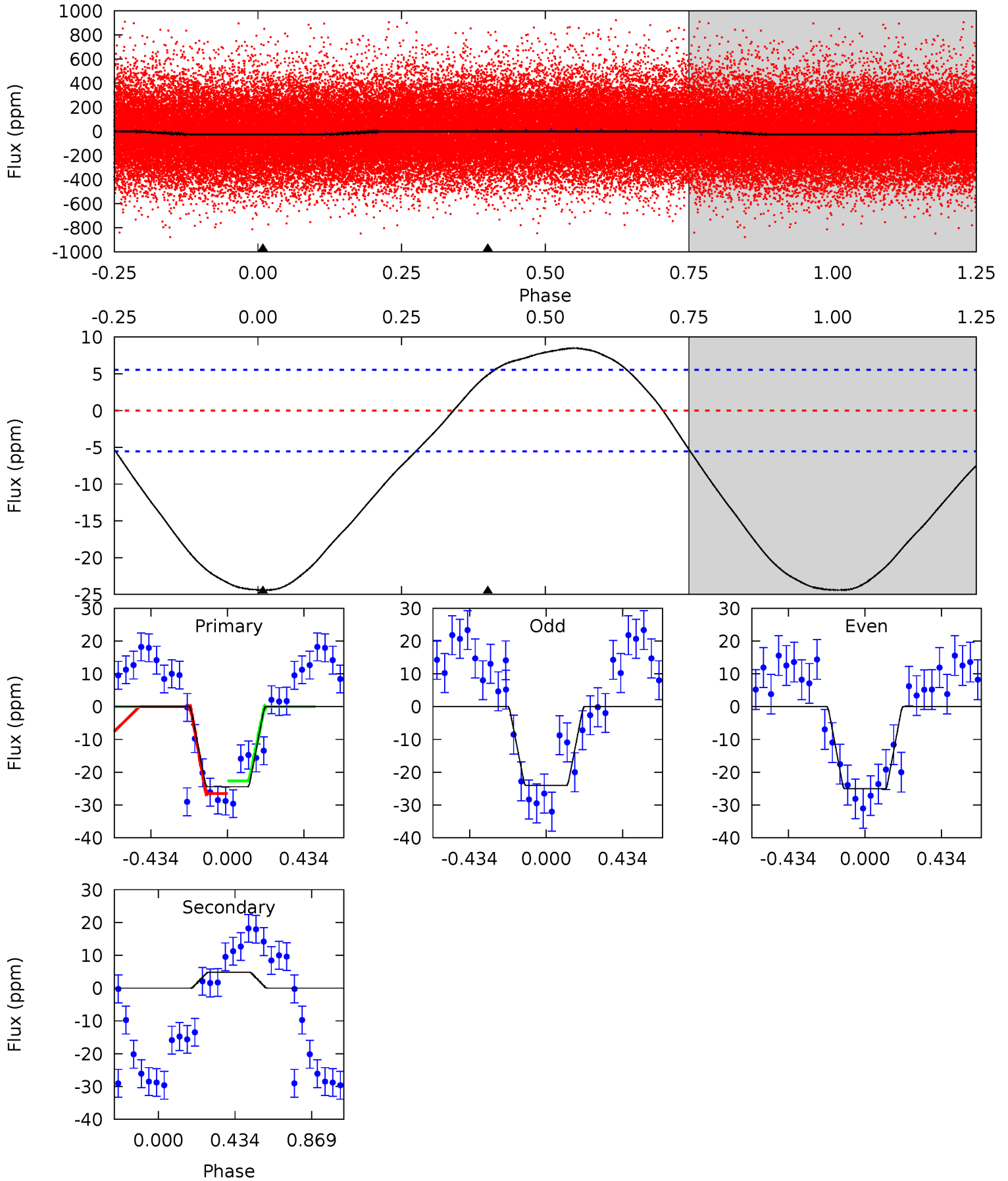
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	-1.99	0	0	4.24	0.75	1.48	12.3	12.3	-1.99	-1.99	0.21	0.95	0.26	1.02



Alt Model-Shift Uniqueness Test

008410490-01, P = 1.362209 Days, E = 130.185521 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	-3.72	0	0	4.25	0.78	2.45	18.7	18.7	-3.72	-3.72	0.39	1.06	0.26	1.50



Stellar Parameters For KIC 008410490

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5821^{+157}_{-157}	$4.513^{+0.062}_{-0.188}$	$-0.280^{+0.300}_{-0.300}$	$0.872^{+0.251}_{-0.084}$	$0.905^{+0.111}_{-0.101}$	$1.921^{+0.491}_{-0.946}$
	+3%/-3%	+1%/-4%	+107%/-107%	+29%/-10%	+12%/-11%	+26%/-49%
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 008410490-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	3 ± 1	$0.43^{+0.16}_{-0.14}$	2238^{+148}_{-105}	-3896^{+459}_{-648}	$-3.894^{+2.374}_{-5.370}$
Alt.	5 ± 1	$0.50^{+0.16}_{-0.14}$	2229^{+157}_{-90}	-4159^{+418}_{-672}	$-5.789^{+2.945}_{-6.956}$

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

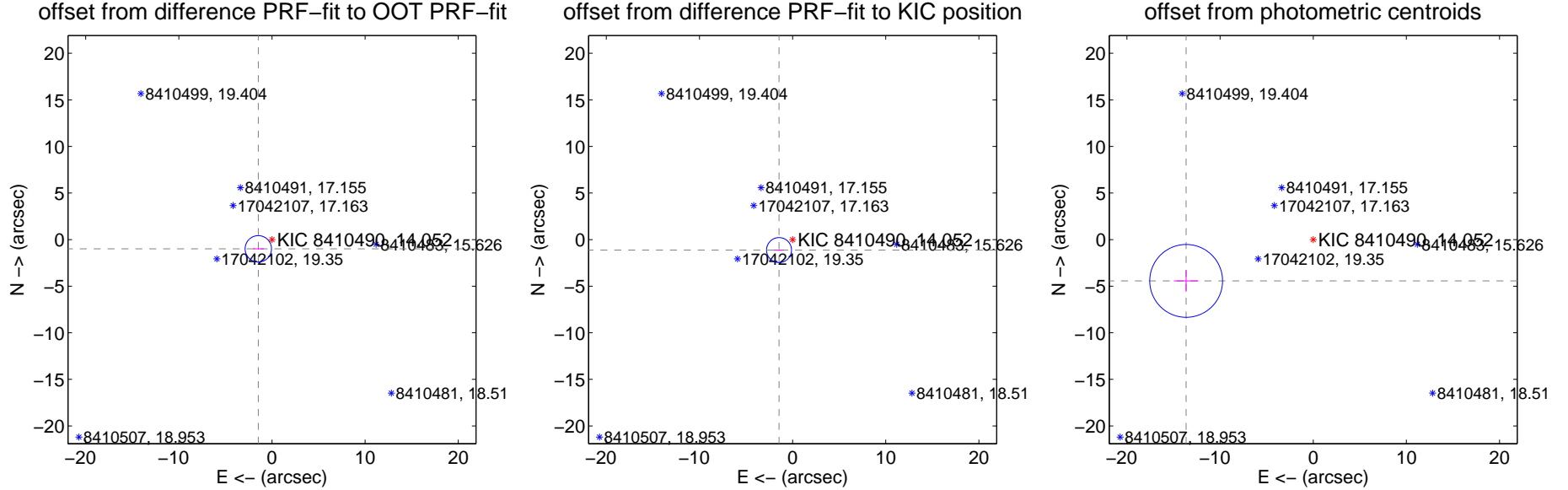
DV Centroid Data

Supplemental centroid analysis for 008410490-01. Kepler magnitude: 14.05. Transit SNR 10.24

There are 1 quarters with good PRF difference image offsets

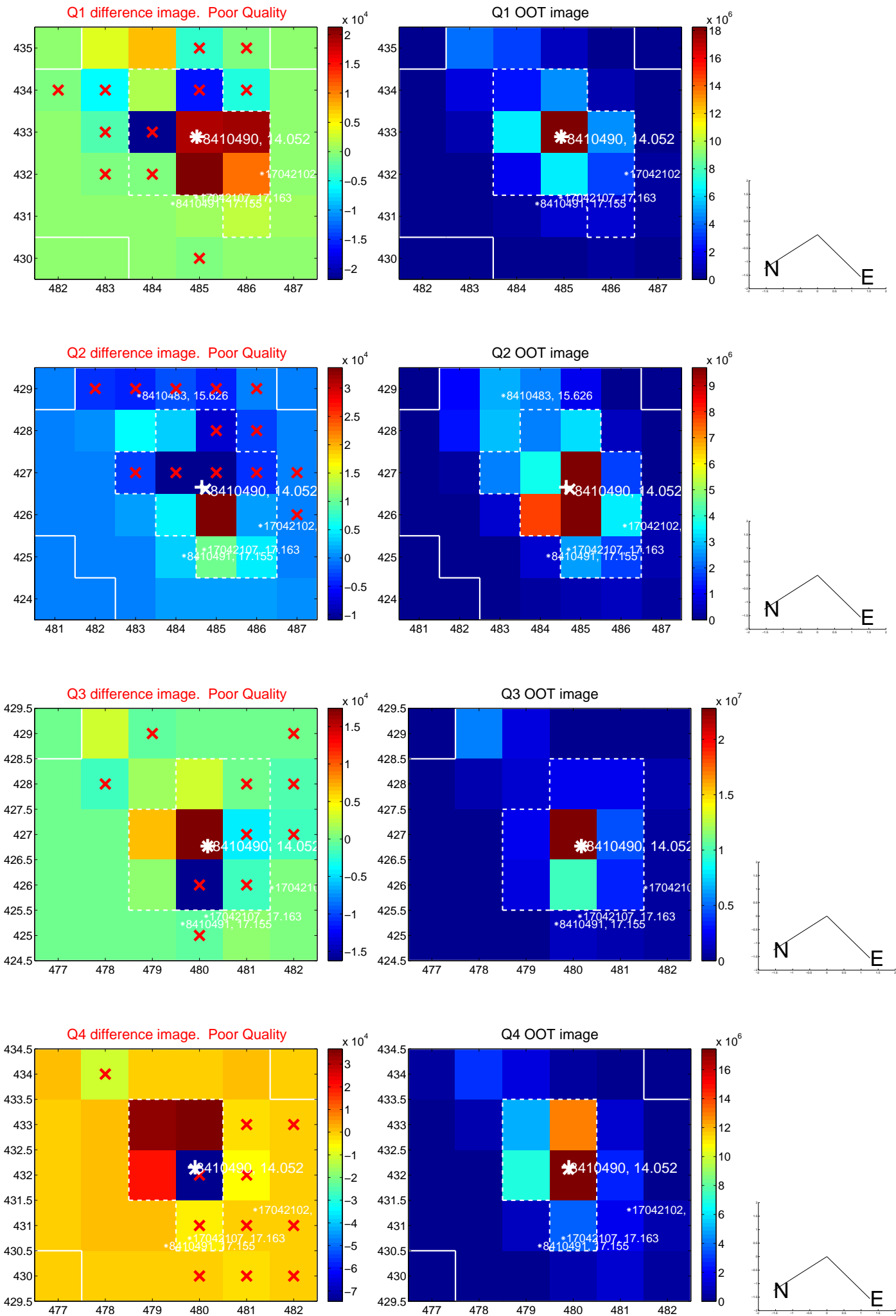
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.771 ± 0.472	3.75	1.468 ± 0.567	-0.990 ± 0.077
PRF-fit source offset from KIC position	1.839 ± 0.447	4.12	1.455 ± 0.562	-1.124 ± 0.068
photometric centroid source offset	14.35 ± 1.30	11.01	13.64 ± 1.32	-4.43 ± 1.16

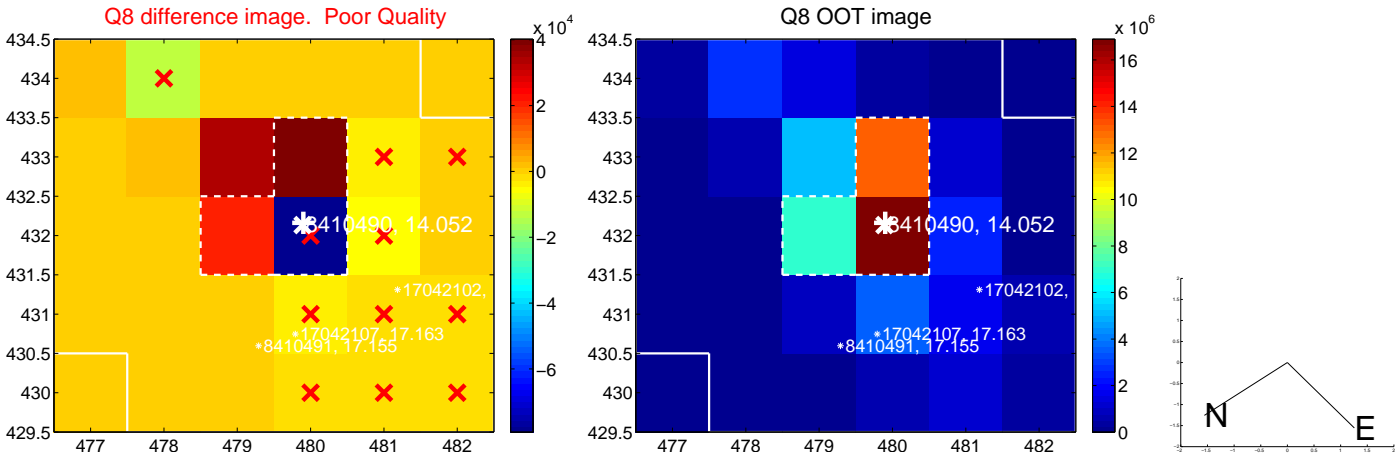
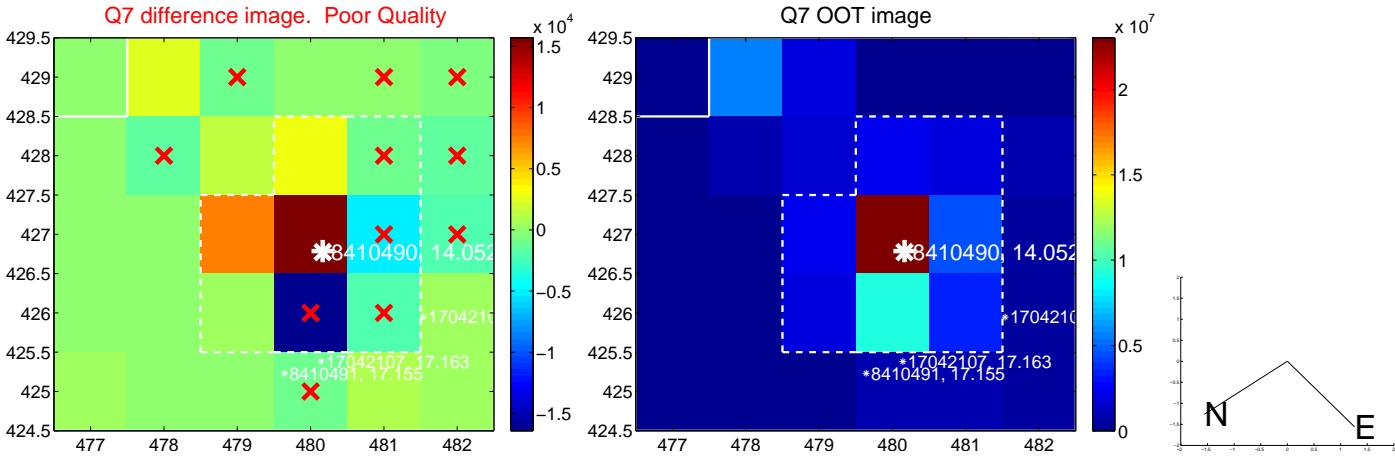
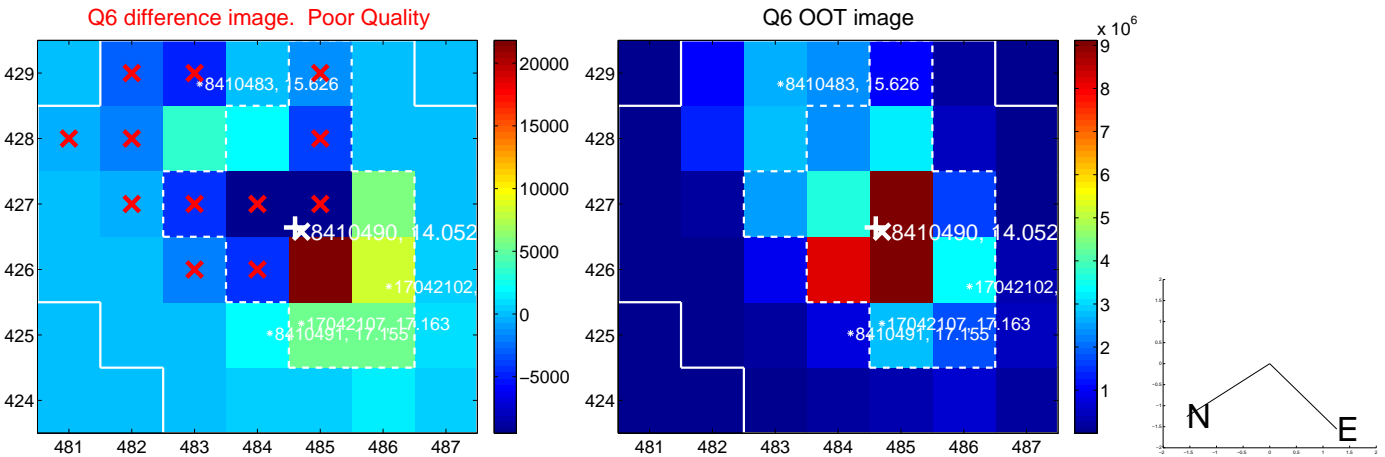
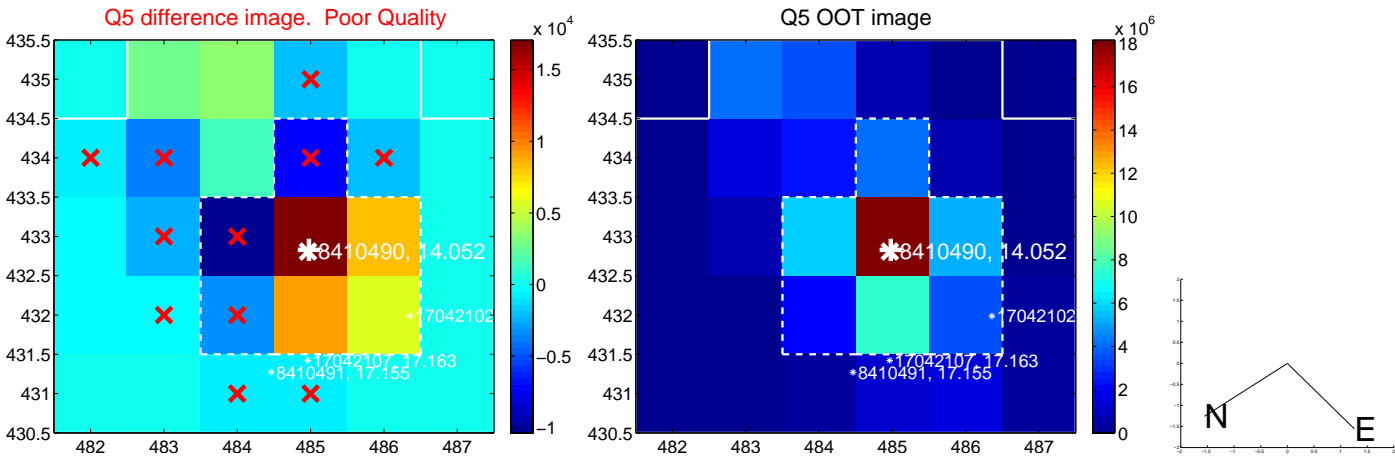


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

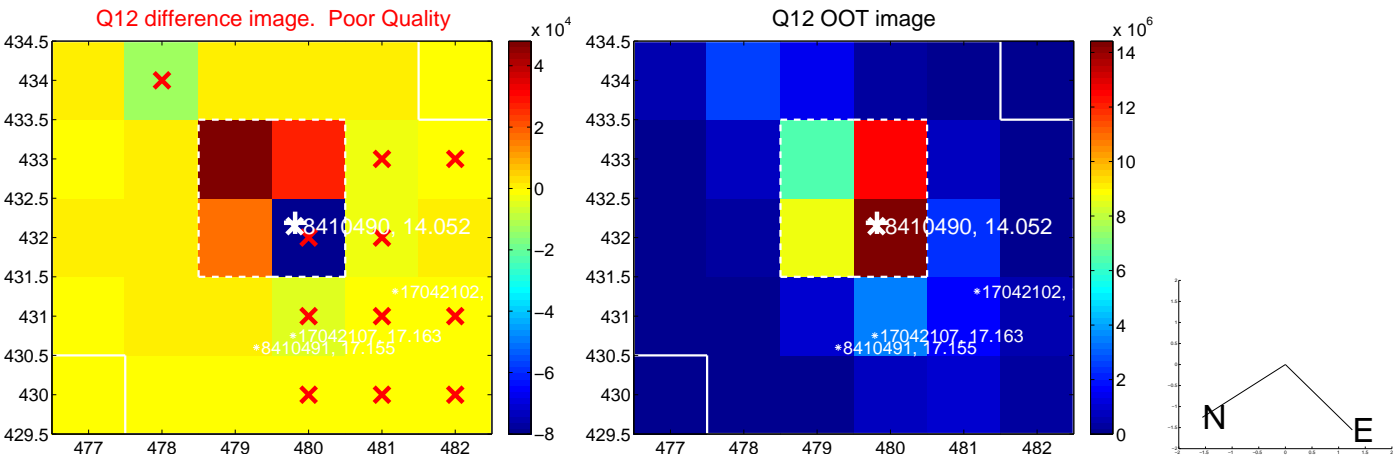
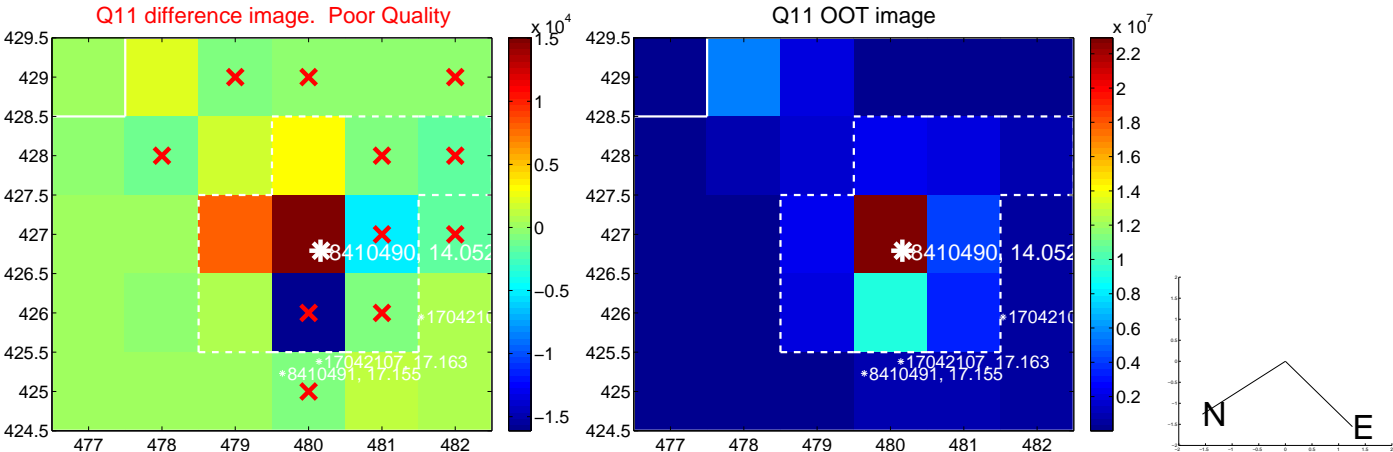
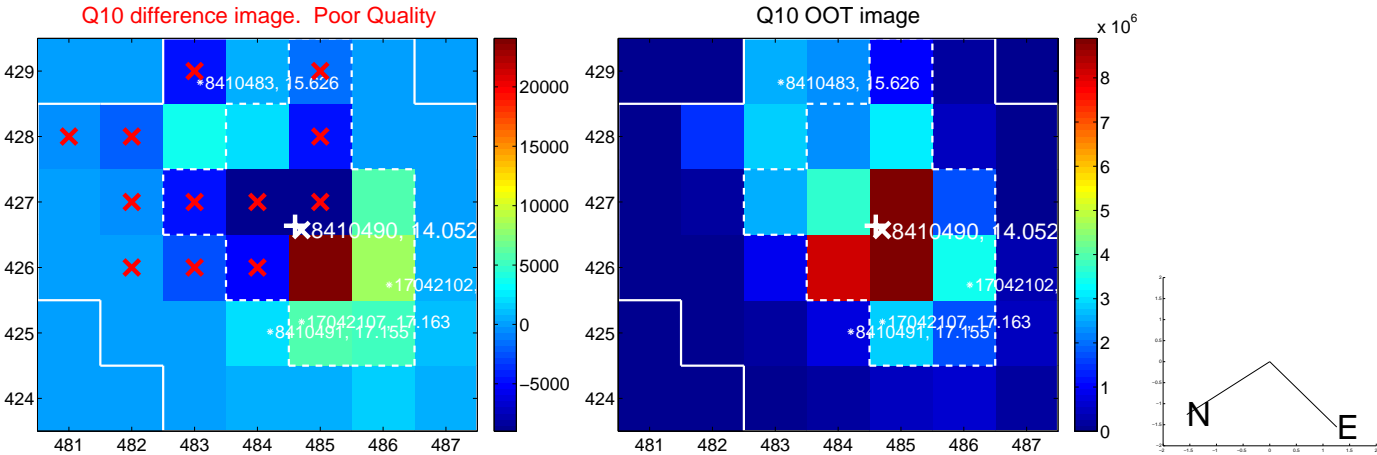
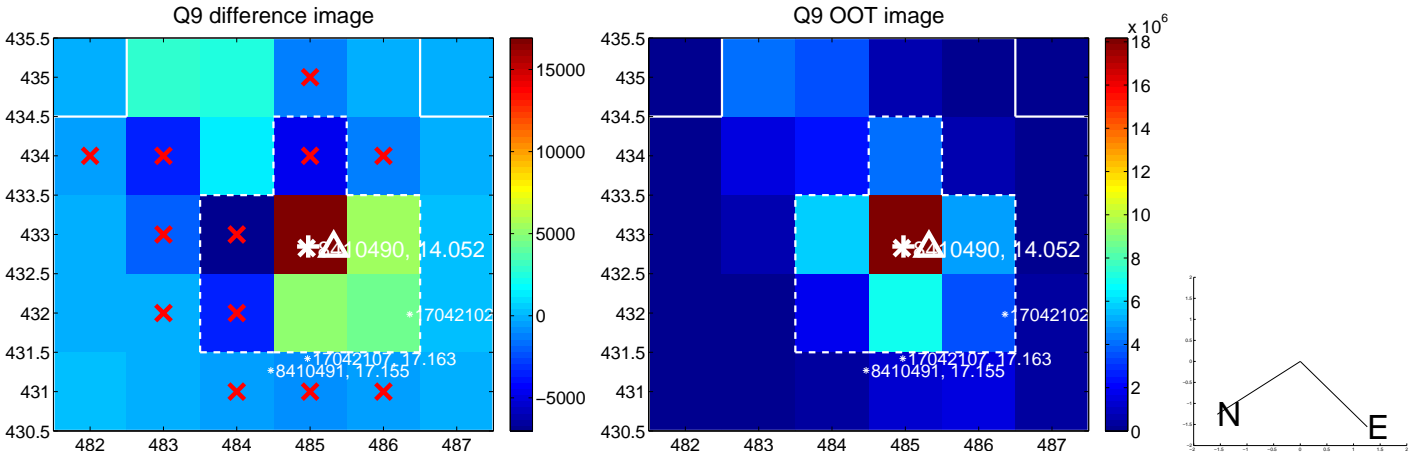
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



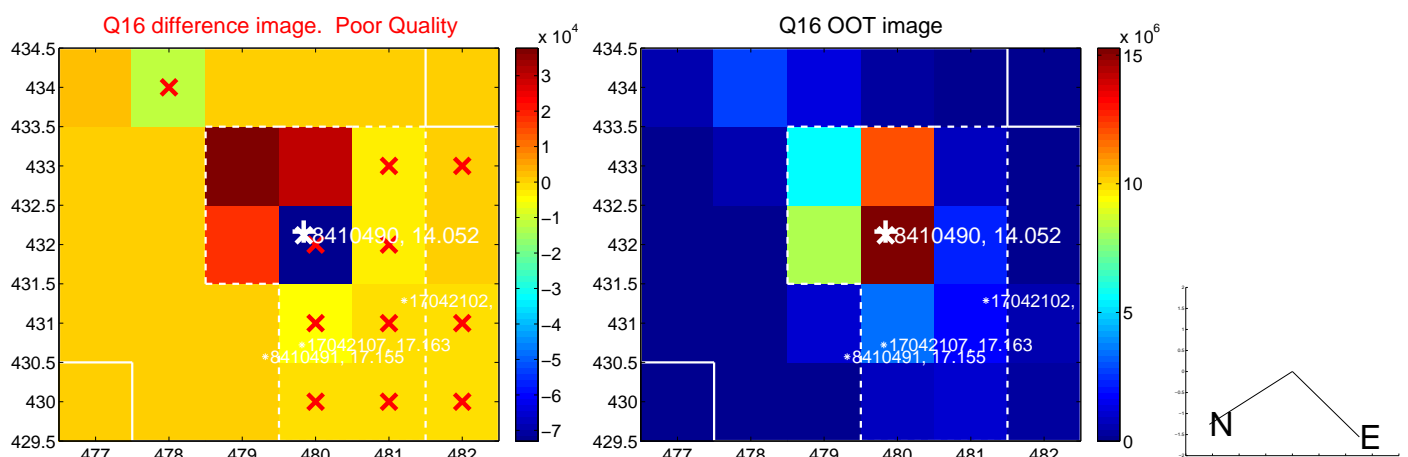
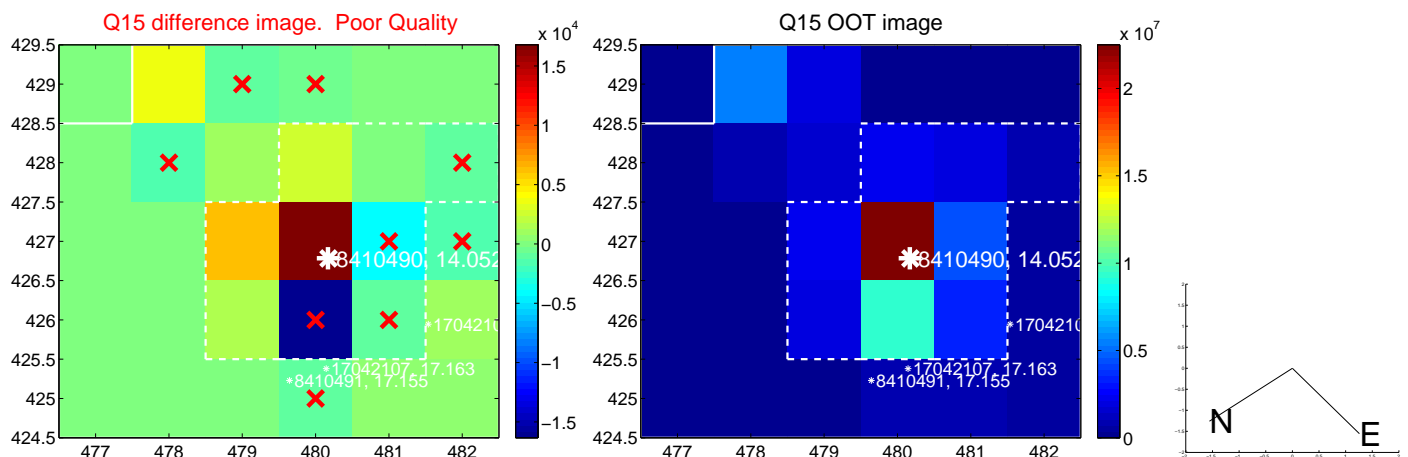
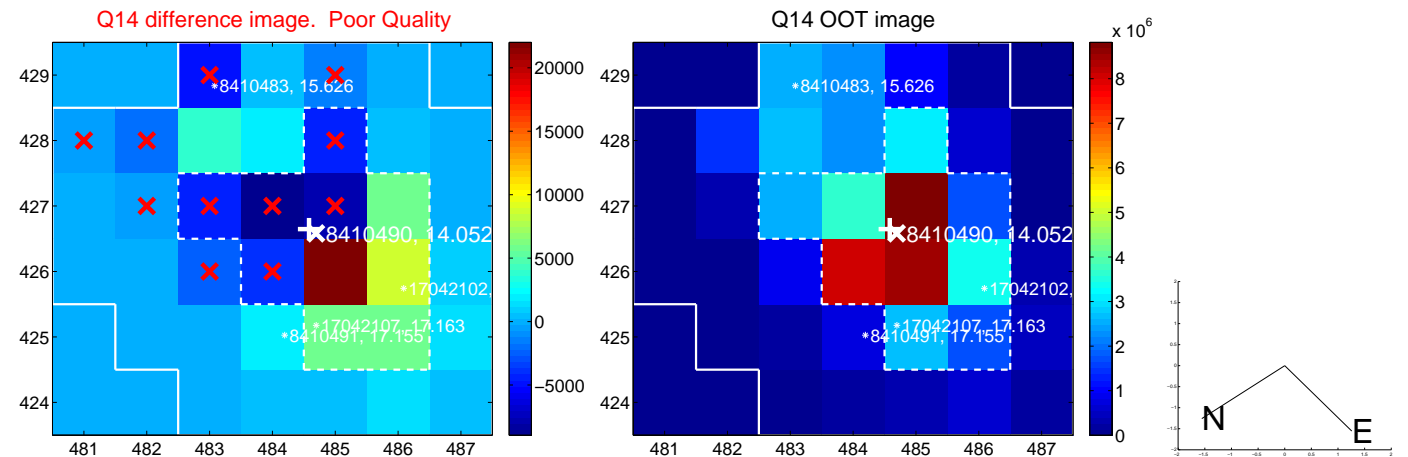
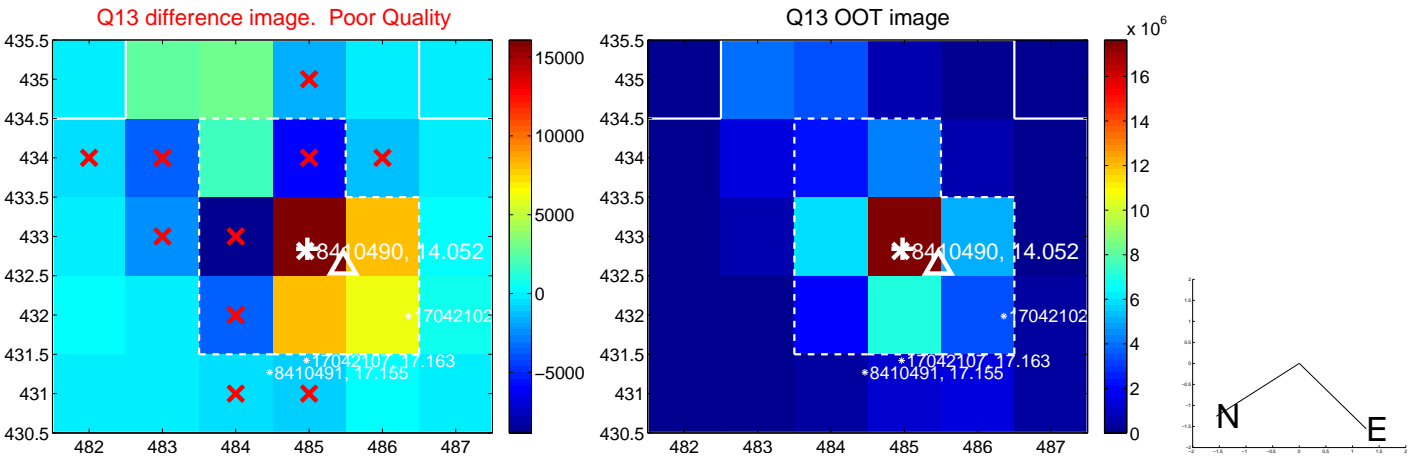
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



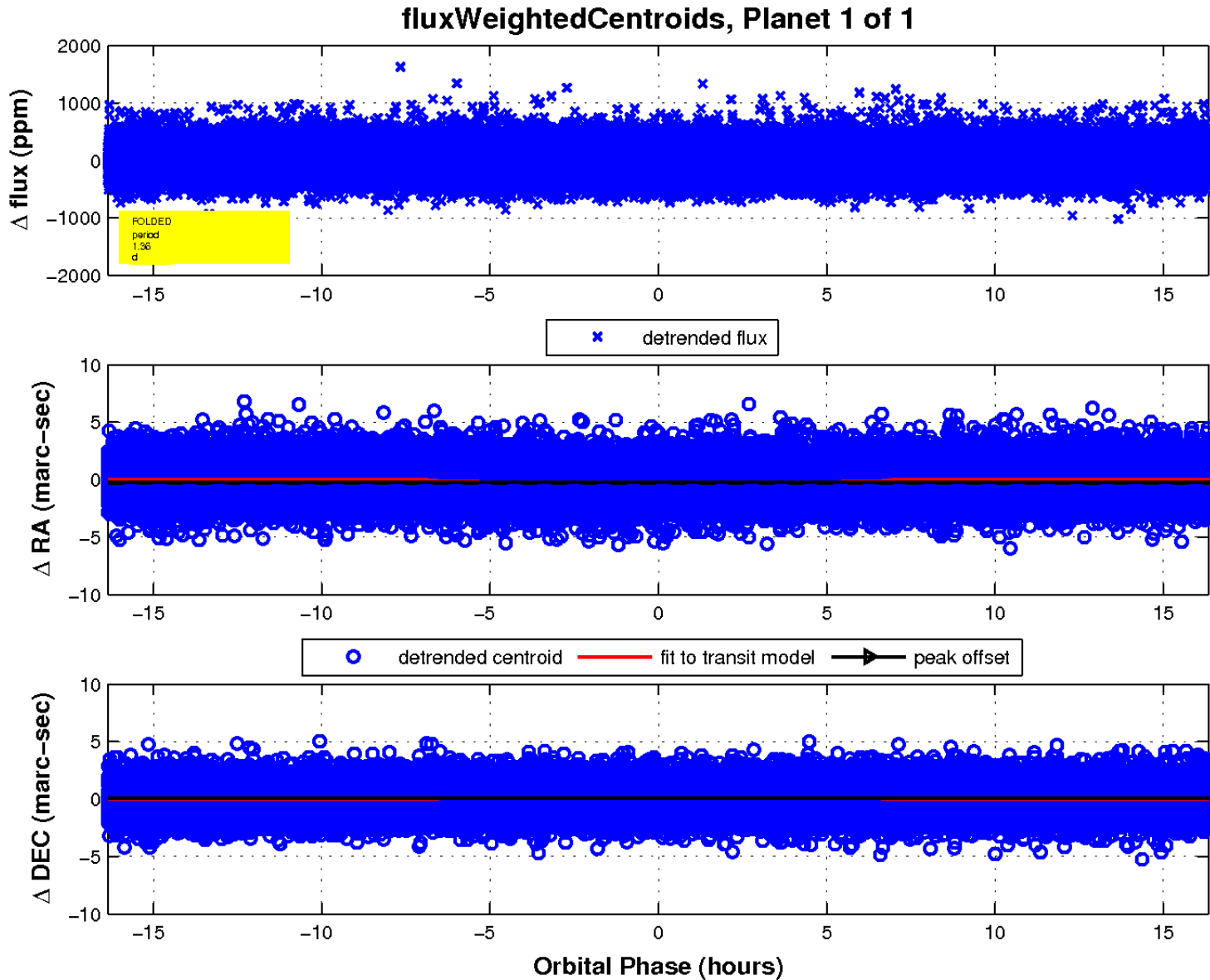
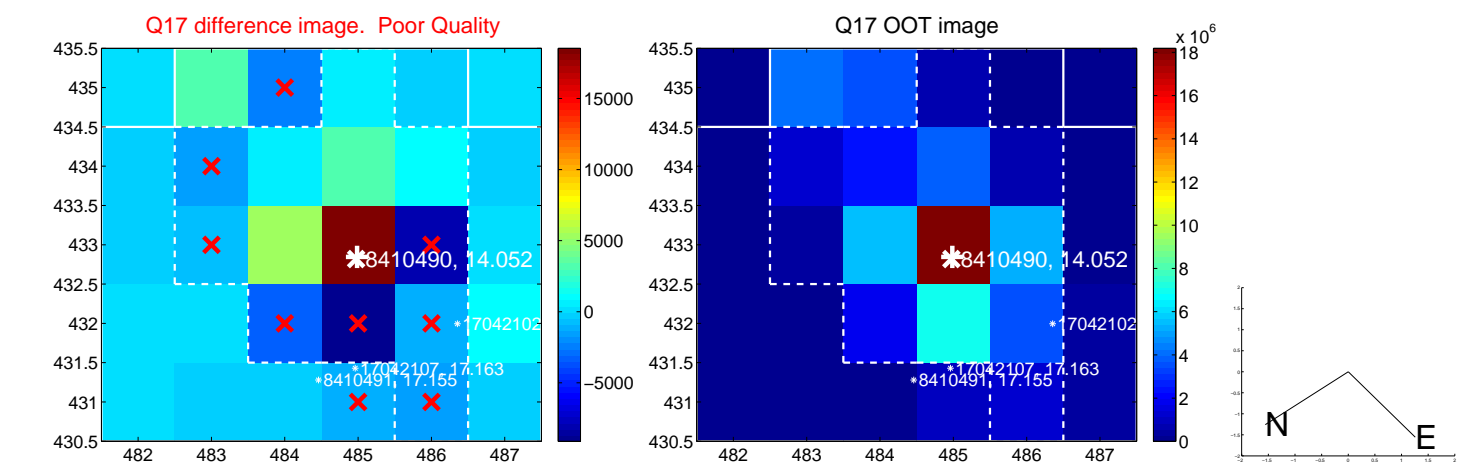
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UKIRT Image

Declination

