

KIC 005705411

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})
005705411-01	OBS	No	4.146843	133.477610	43.1	41.891	10.1	21.3	1.98	7992	1.31	3747.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005705411-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

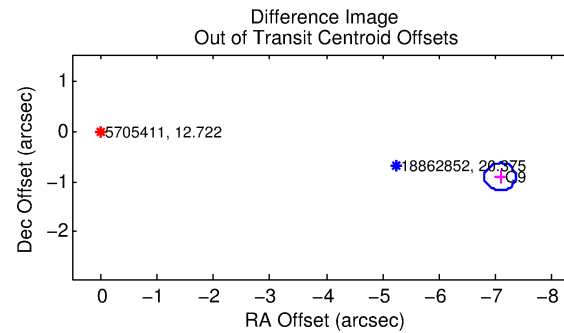
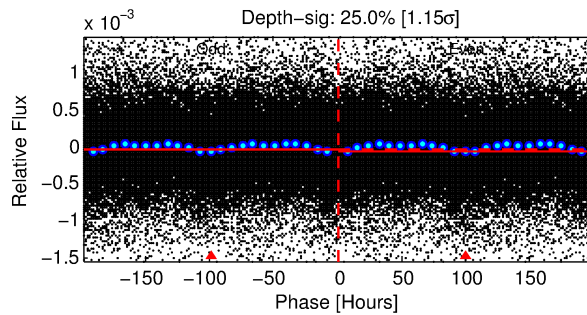
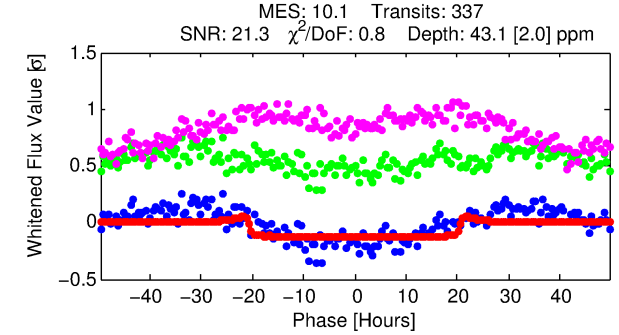
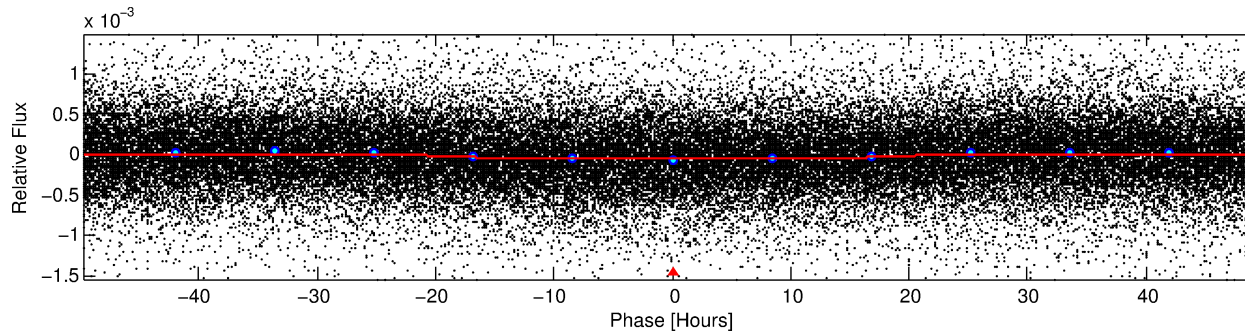
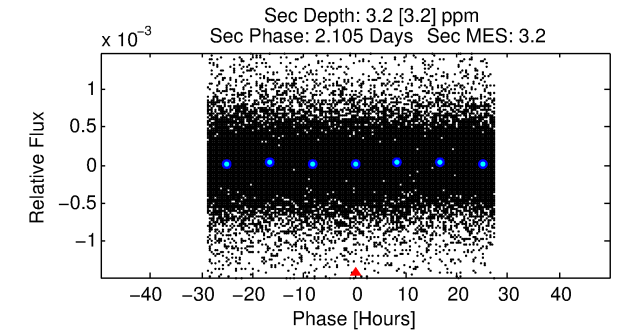
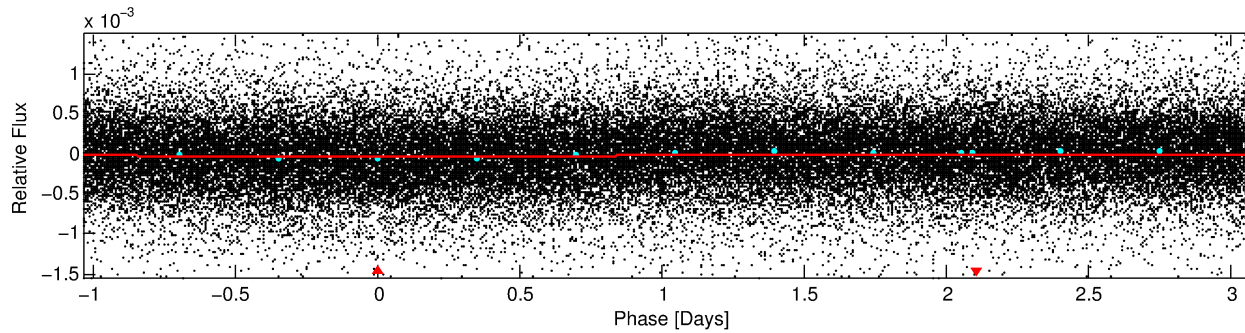
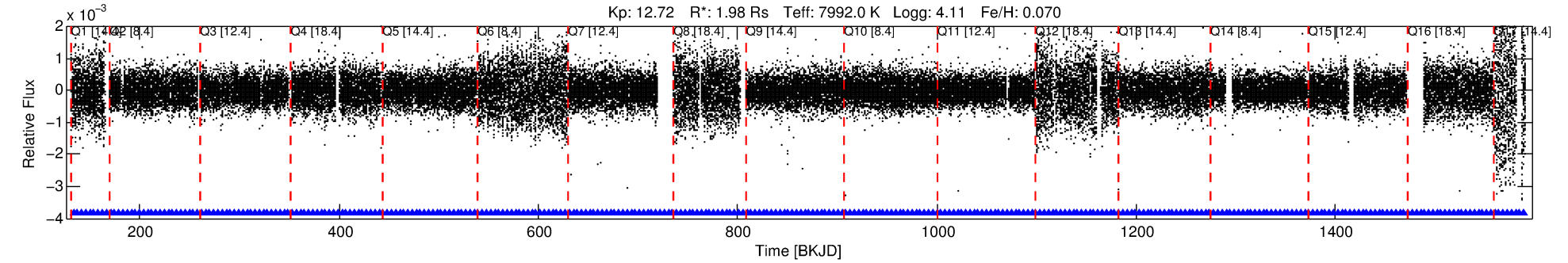
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005705411-01

No Significant Match Found

DV One-Page Summary

KIC: 5705411 Candidate: 1 of 1 Period: 4.147 d



DV Fit Results:

Period = 4.14684 [0.00008] d
Epoch = 133.4776 [0.0144] BKJD
Rp/R* = 0.0061 [0.0017]
a/R* = 1.04 [0.13]
b = 0.05 [33.08]
Seff = 3747.58 [1345.91]
Teff = 1995 [179] K
Rp = 1.31 [0.51] Re
a = 0.0617 [0.0134] AU
Ag = 3.94 [4.67] [0.63σ]
Teffp = 4345 [1259] K [1.85σ]

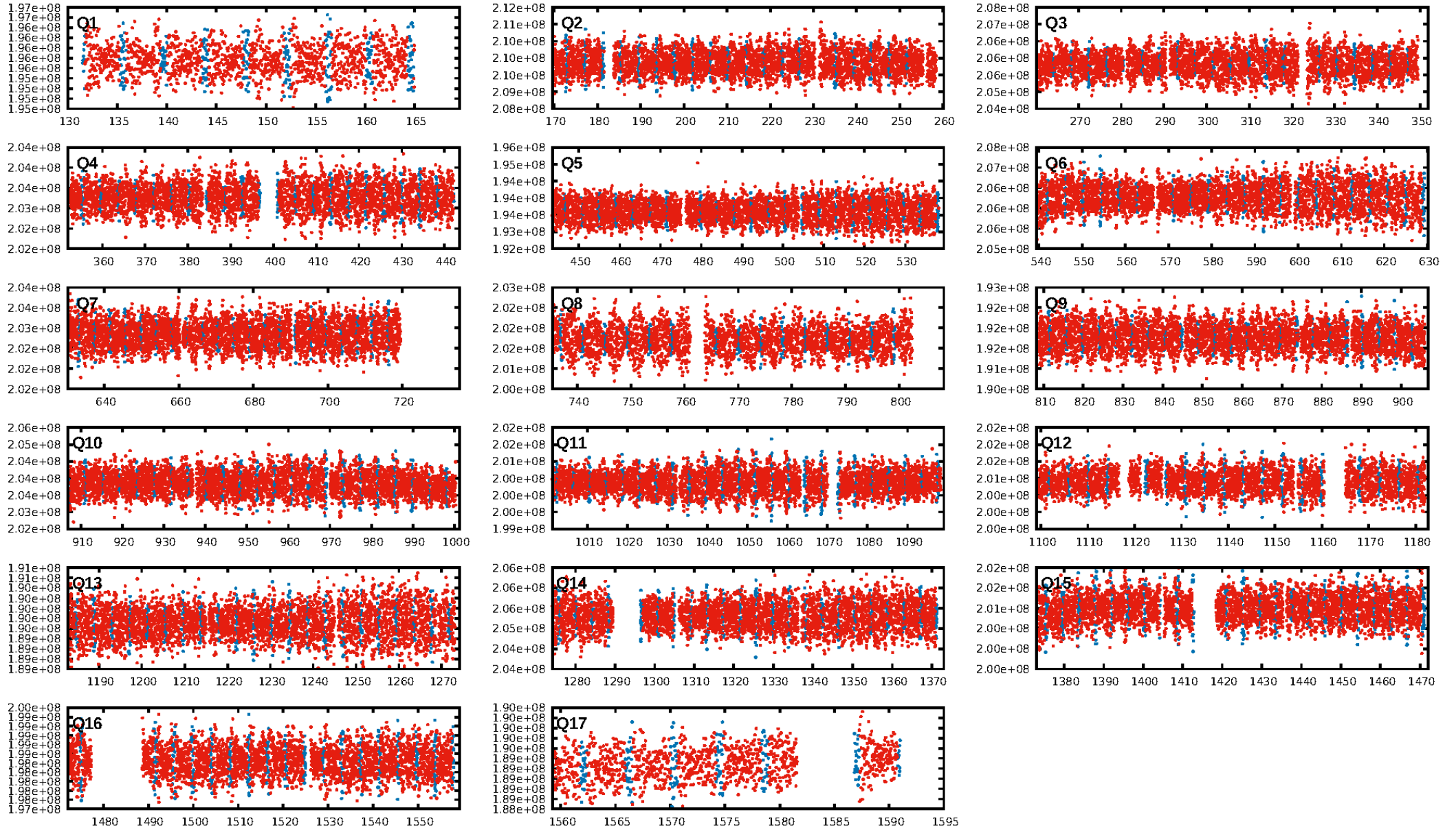
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [322/322]
GhostDiagnostic-chr: 4.88
Centroid-sig: 31.4%
Centroid-so: 0.179 arcsec [0.76σ]
OotOffset-rm: 7.135 arcsec [77.87σ]
KicOffset-rm: 7.016 arcsec [76.63σ]
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]

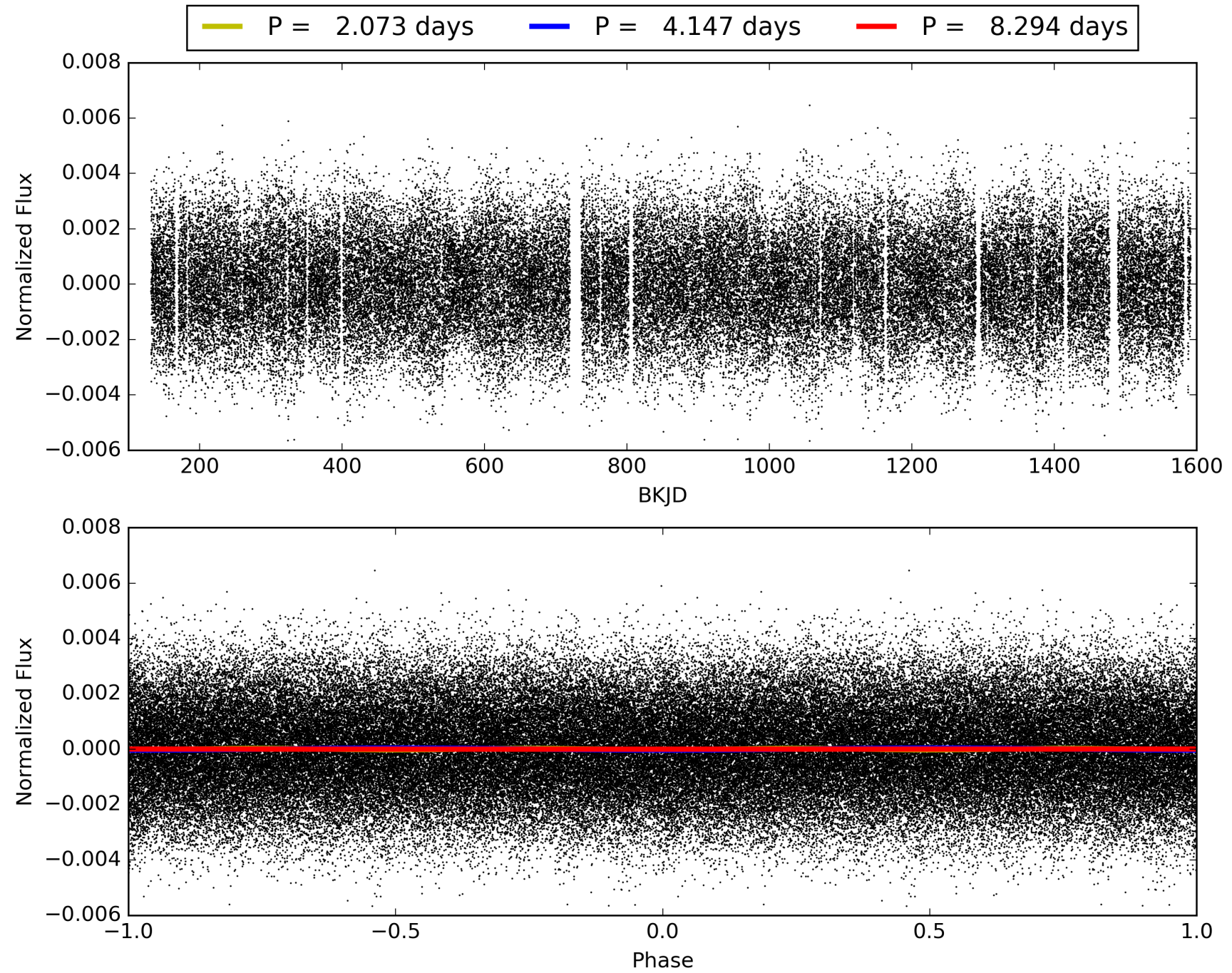
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:31:44 Z

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

TCE 005705411-01, PDC Light Curves

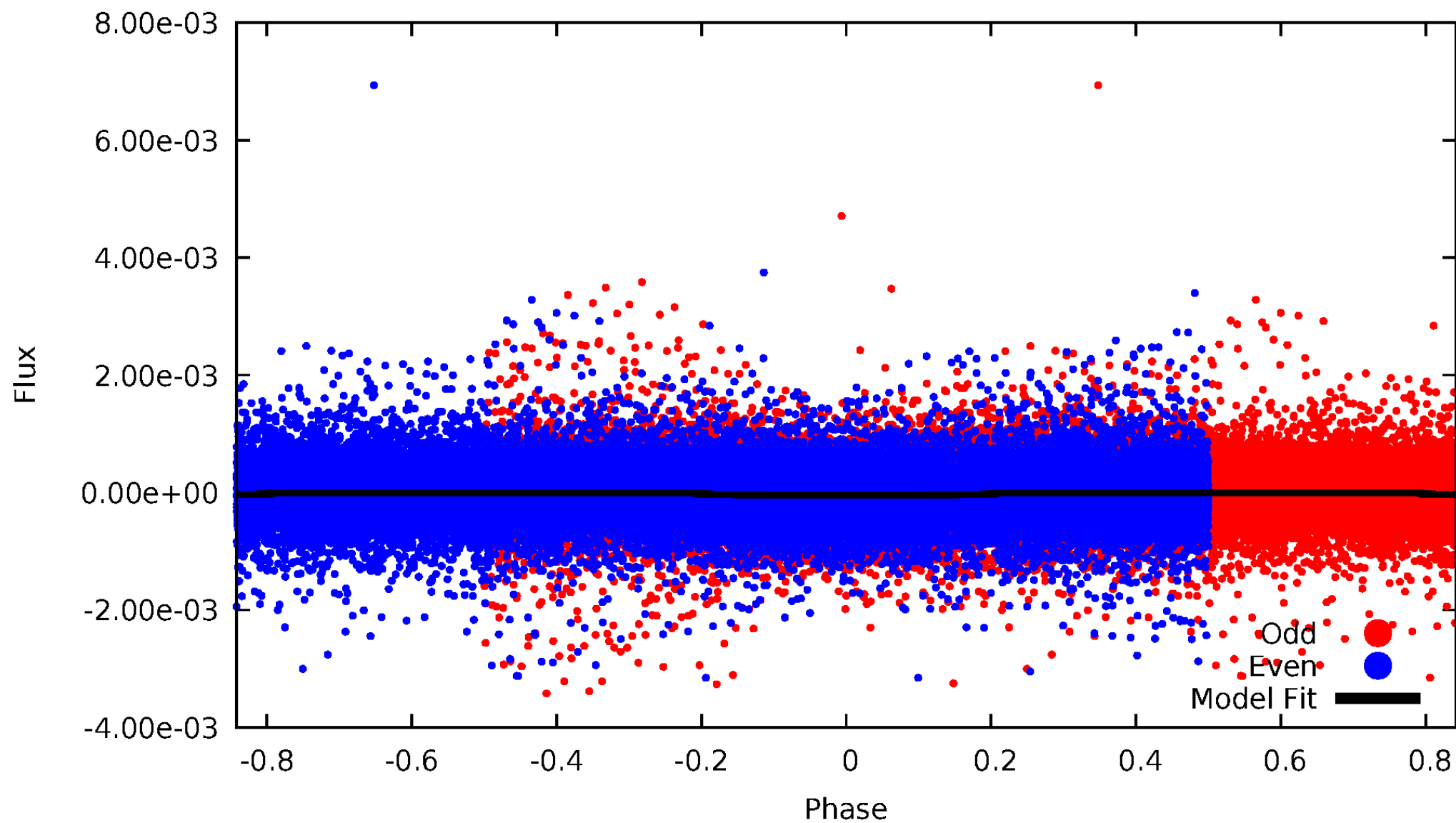


TCE 005705411-01



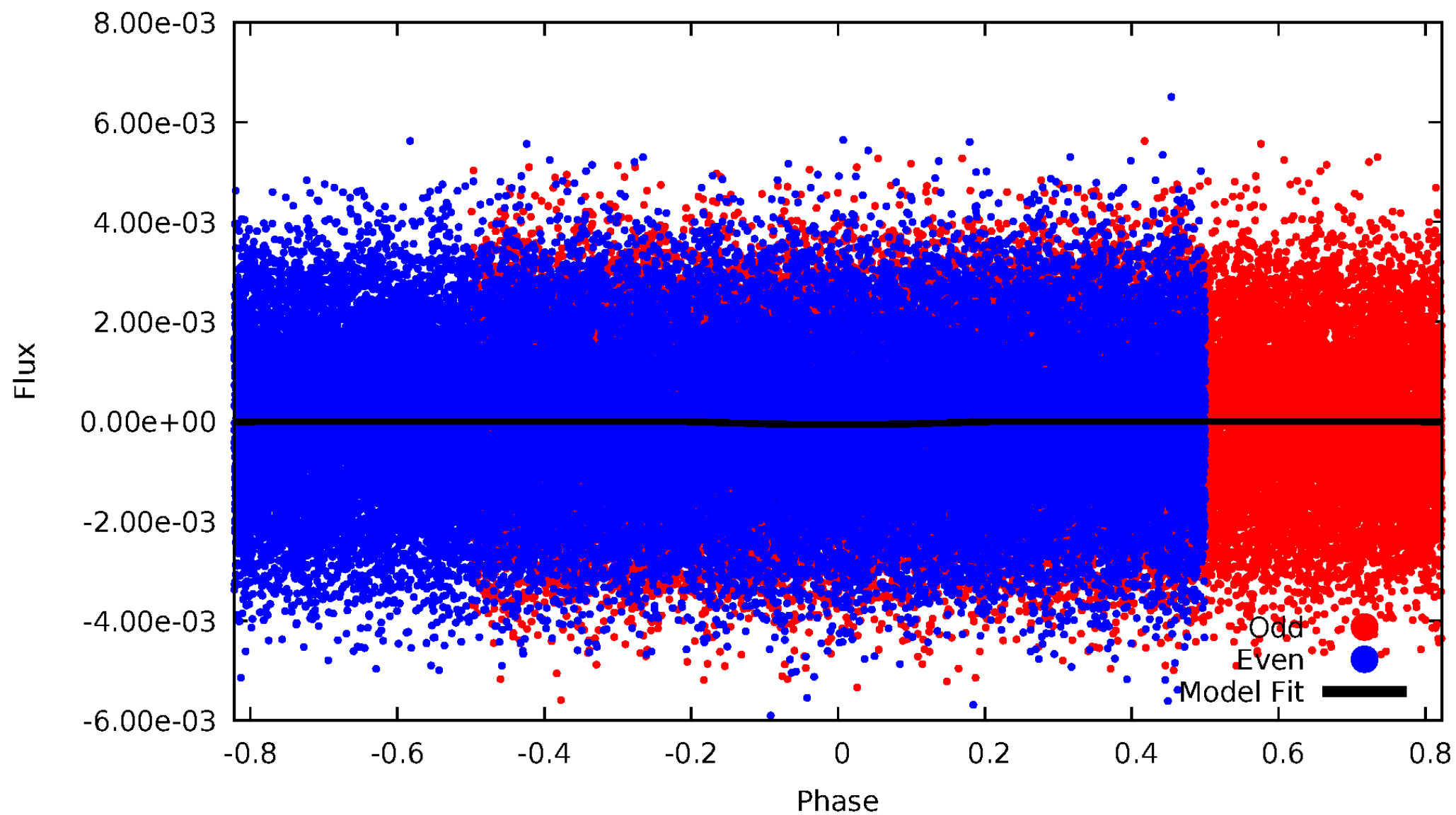
DV Odd/Even

TCE 005705411-01



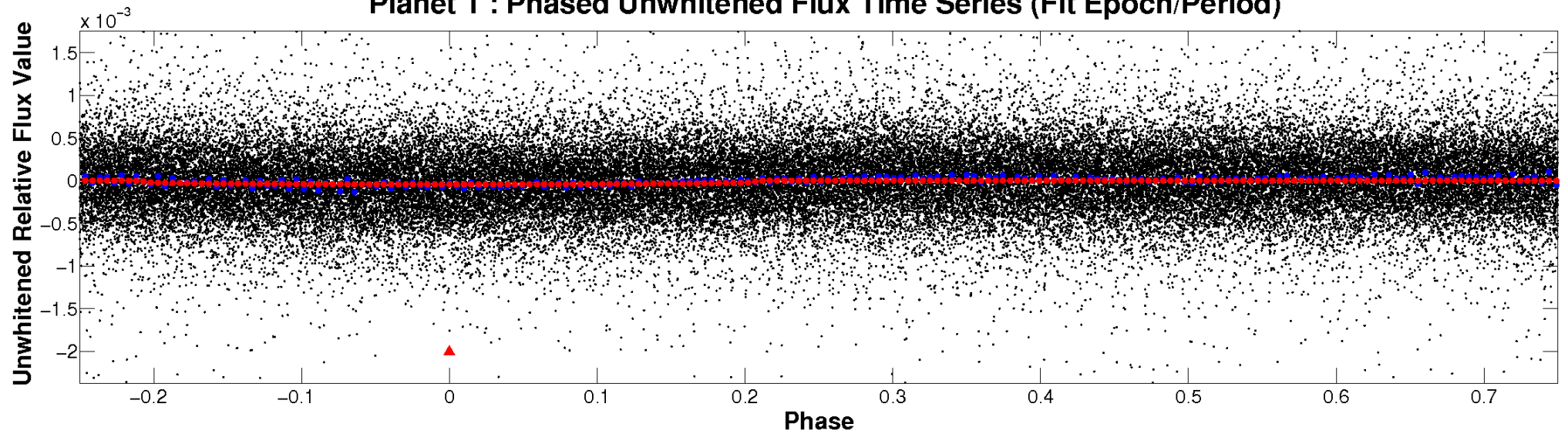
ALT Odd/Even

TCE 005705411-01

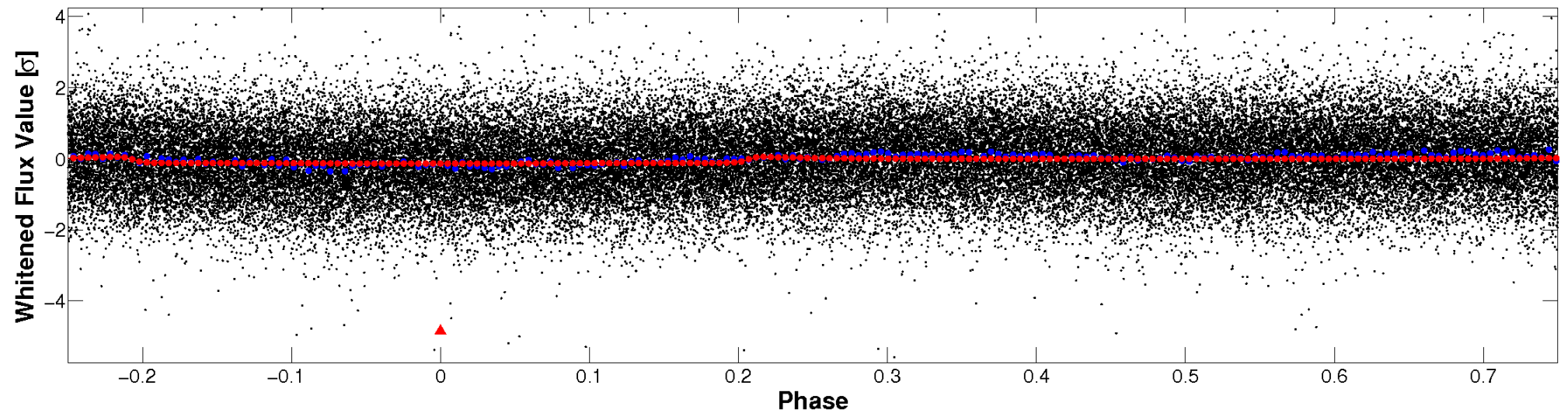


Non-Whitened Vs. Whitened Light Curve

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

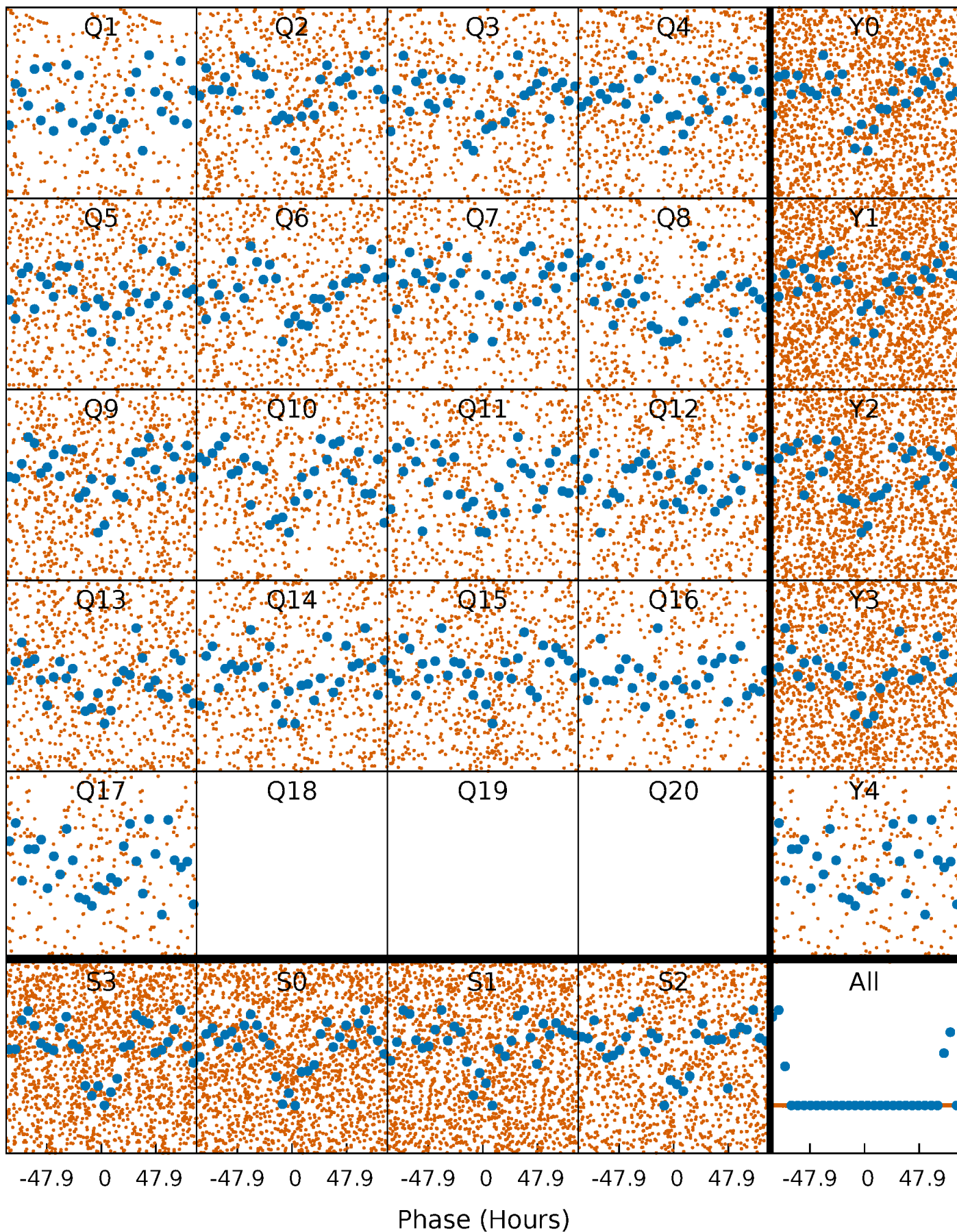


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



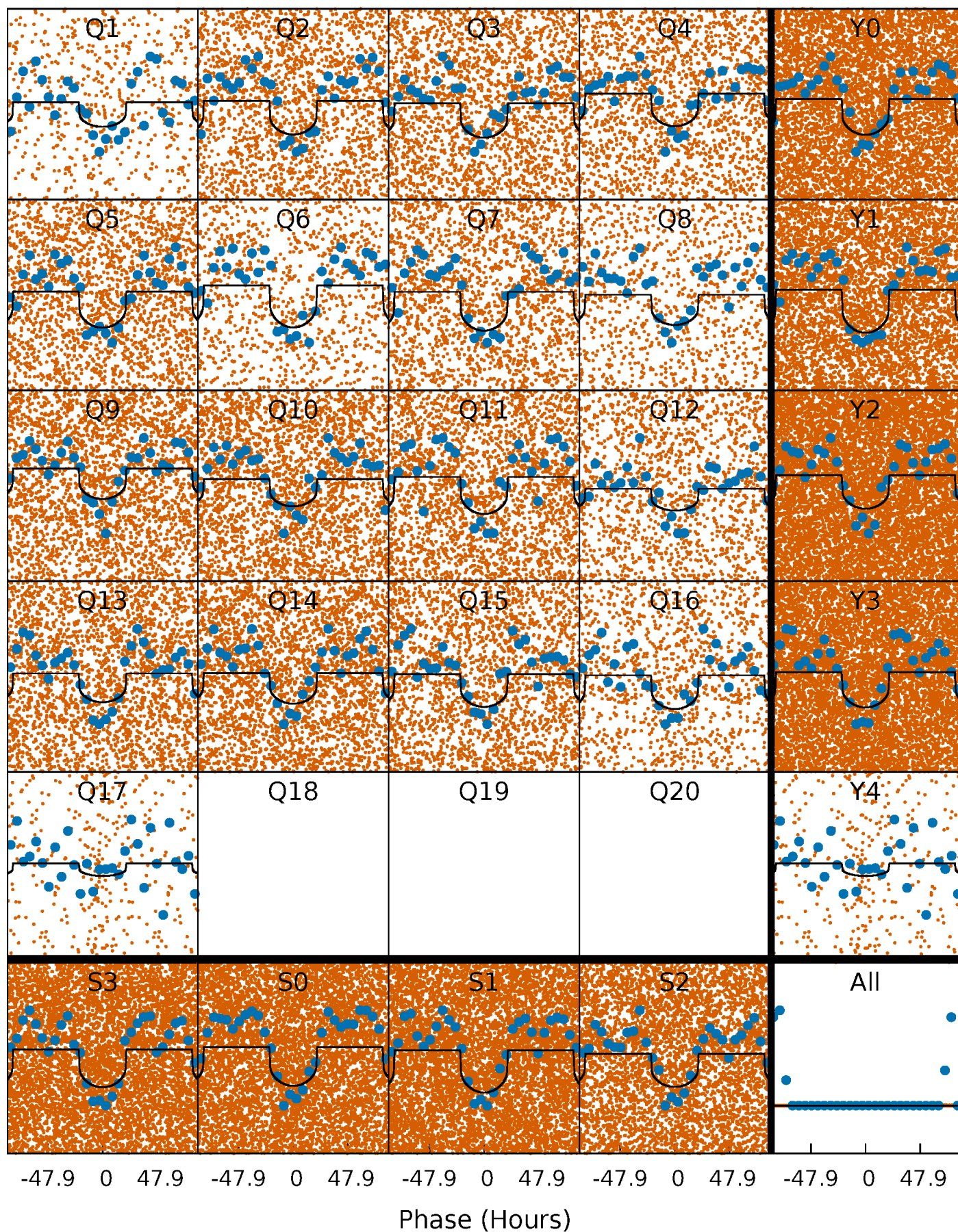
PDC Quarter-Phased Transit Curves

TCE 005705411-01 P= 4.146843 Days $T_0=133.477610$ (BKJD)



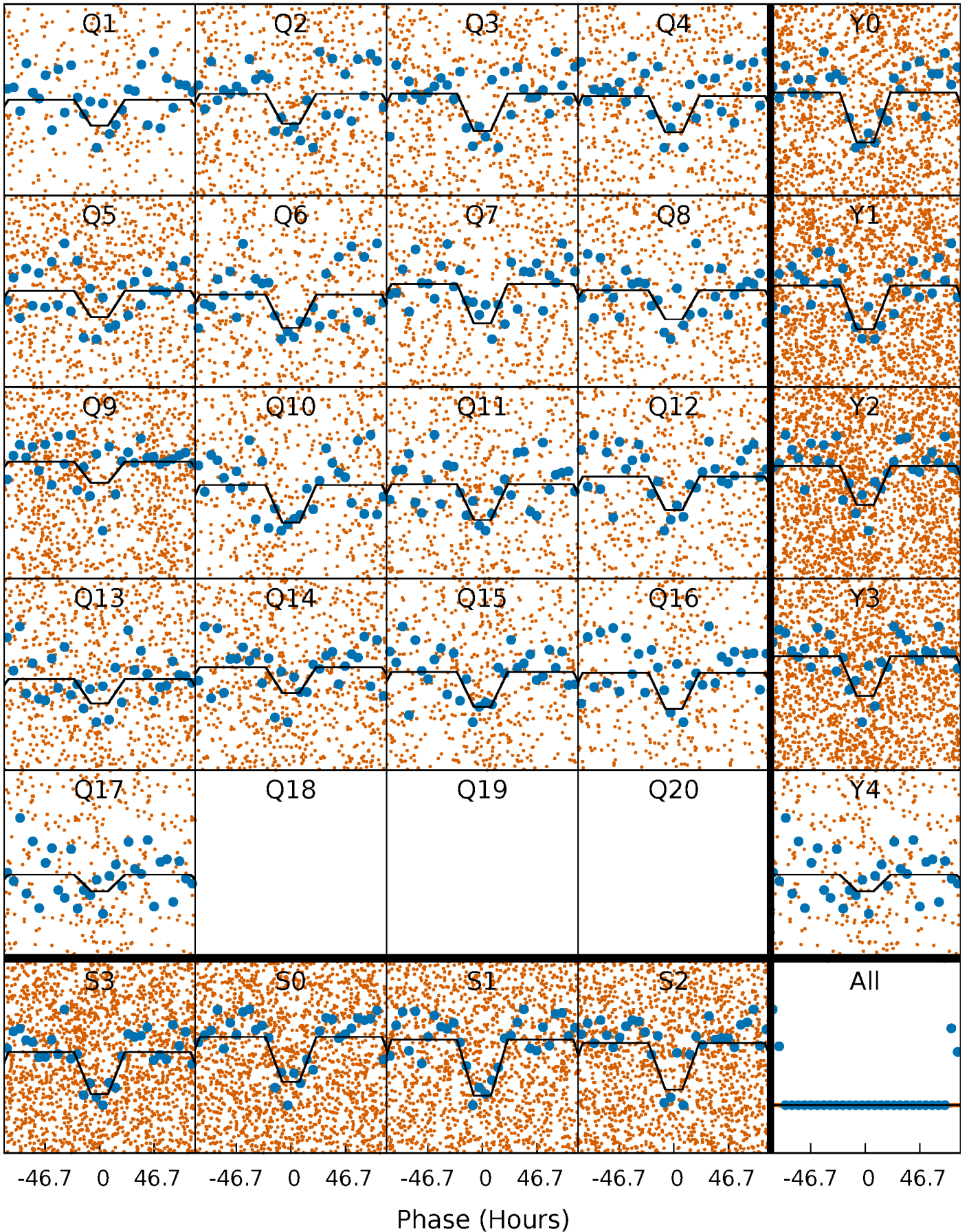
DV Quarter-Phased Transit Curves

TCE 005705411-01 P= 4.146843 Days $T_0=133.477610$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

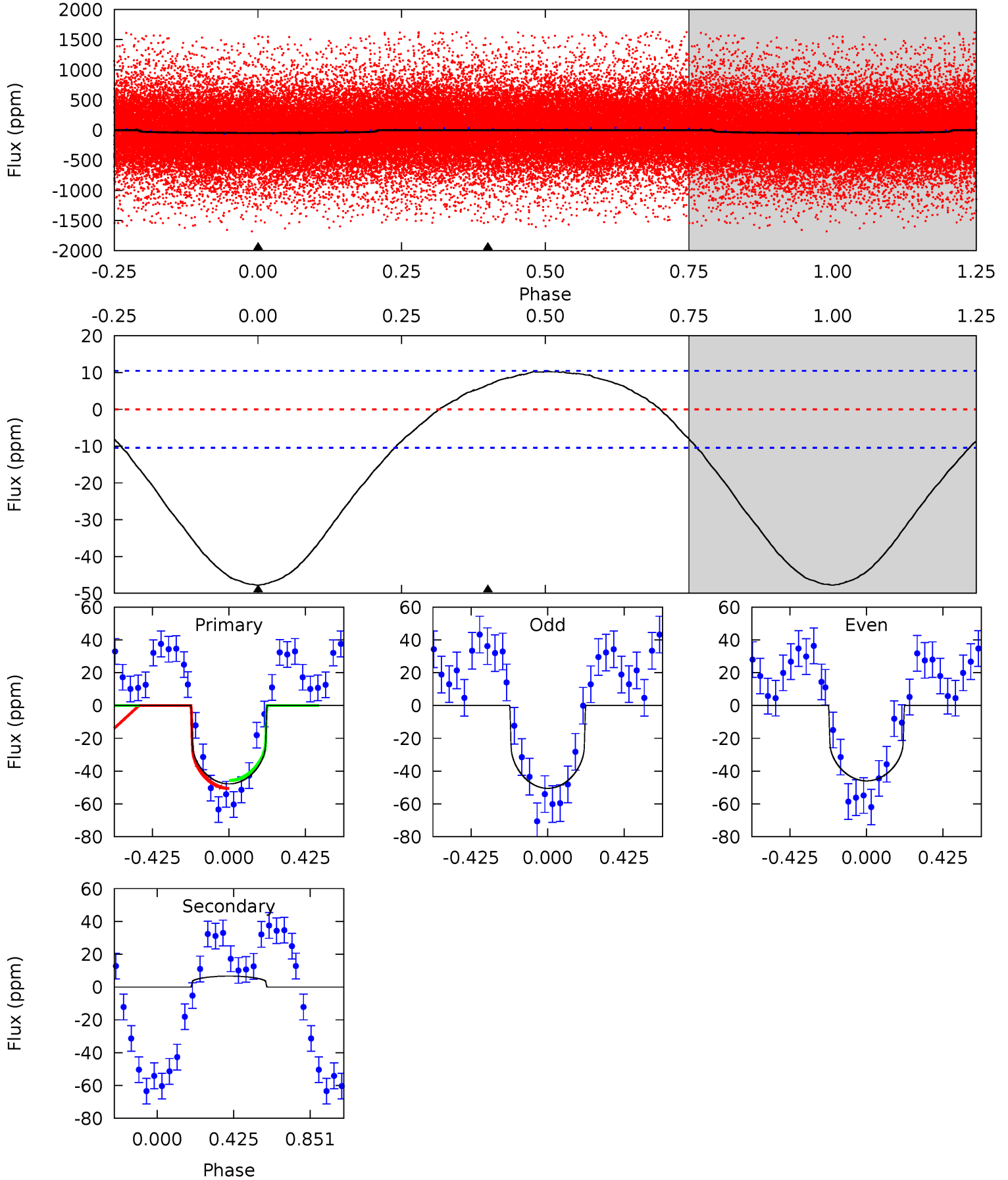
TCE 005705411-01 P= 4.147243 Days $T_0=133.418229$ (BKJD)



DV Model-Shift Uniqueness Test

005705411-01, P = 4.146843 Days, E = 129.330767 Days

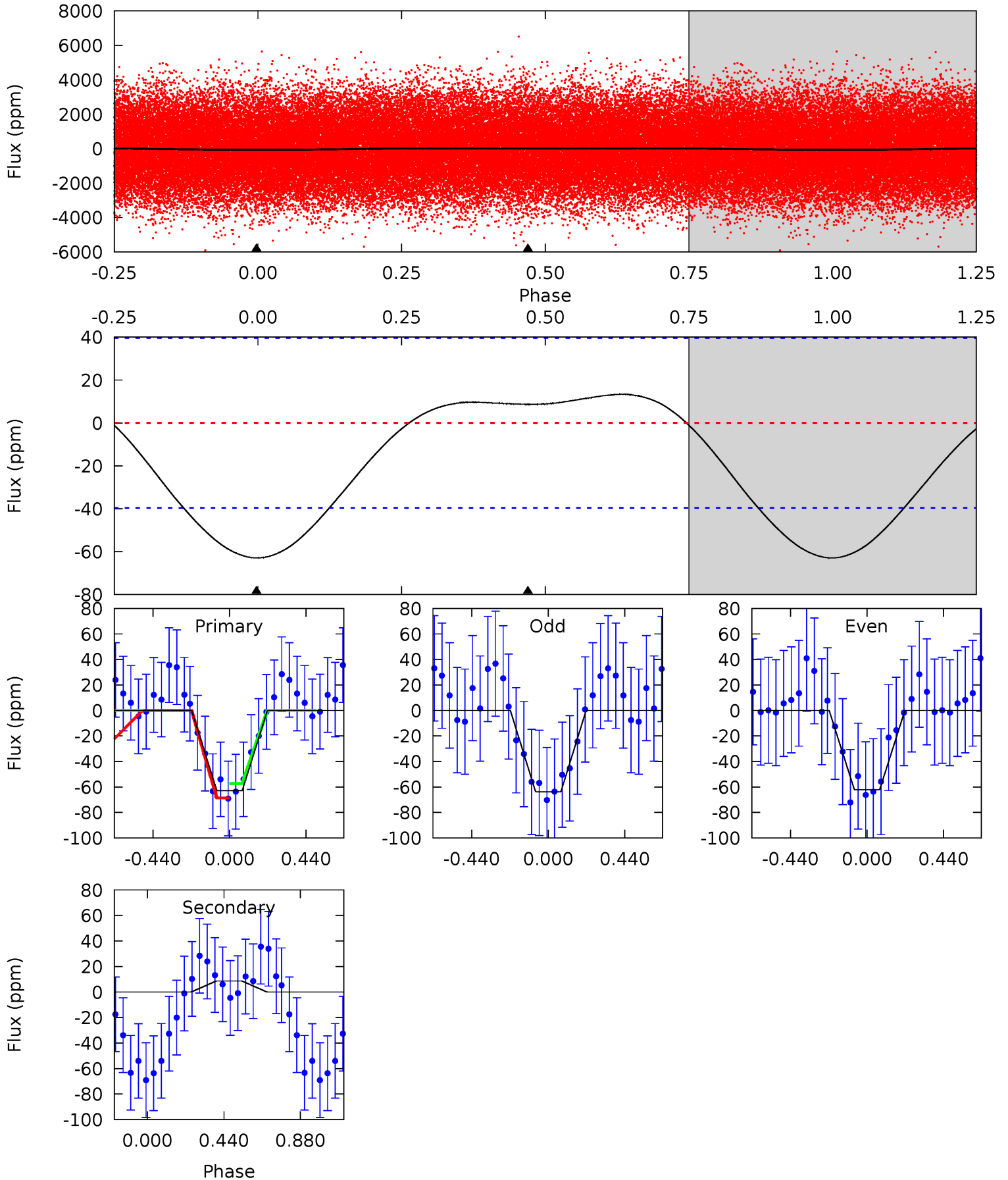
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	-2.72	0	0	4.25	0.80	1.63	19.4	19.4	-2.72	-2.72	0.93	0.94	0.18	0.97



Alt Model-Shift Uniqueness Test

005705411-01, P = 4.147243 Days, E = 129.270986 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.74	-0.93	0	0	4.24	0.77	0.63	6.74	6.74	-0.93	-0.93	0.09	0.88	0.18	0.61



Stellar Parameters For KIC 005705411

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	7992^{+221}_{-359}	$4.107^{+0.126}_{-0.168}$	$0.070^{+0.150}_{-0.400}$	$1.976^{+0.515}_{-0.386}$	$1.823^{+0.170}_{-0.292}$	$0.333^{+0.211}_{-0.151}$
	+3%/-4%	+3%/-4%	+214%/-571%	+26%/-20%	+9%/-16%	+63%/-45%
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 005705411-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	7 ± 2	$1.31^{+0.43}_{-0.38}$	2783^{+199}_{-189}	-5098^{+635}_{-956}	$-7.683^{+3.889}_{-8.988}$
Alt.	9 ± 9	$1.70^{+0.43}_{-0.39}$	2792^{+184}_{-183}	-4871^{+7601}_{-1067}	$-5.610^{+6.169}_{-9.196}$

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

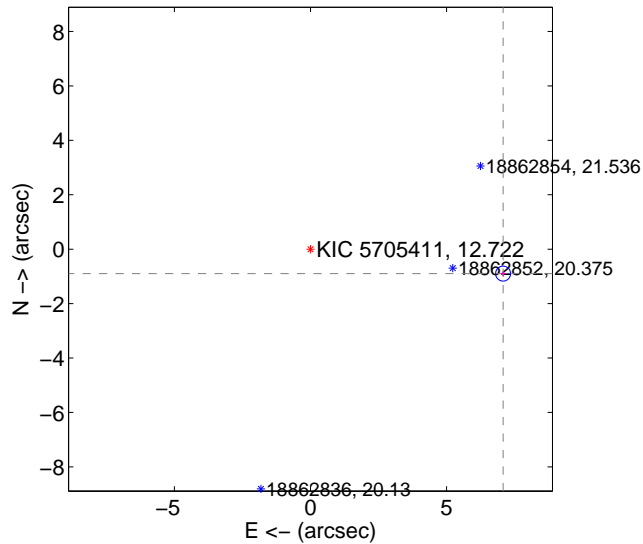
Supplemental centroid analysis for 005705411-01. Kepler magnitude: 12.72. Transit SNR 21.28

There are 0 quarters with good PRF difference image offsets

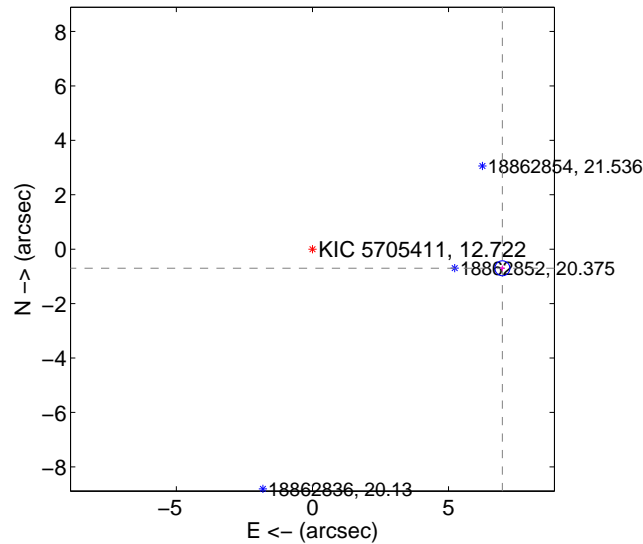
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.135 ± 0.092	77.87	-7.078 ± 0.091	-0.898 ± 0.102
PRF-fit source offset from KIC position	7.016 ± 0.092	76.63	-6.981 ± 0.091	-0.702 ± 0.102
photometric centroid source offset	0.18 ± 0.23	0.76	-0.14 ± 0.25	0.11 ± 0.21

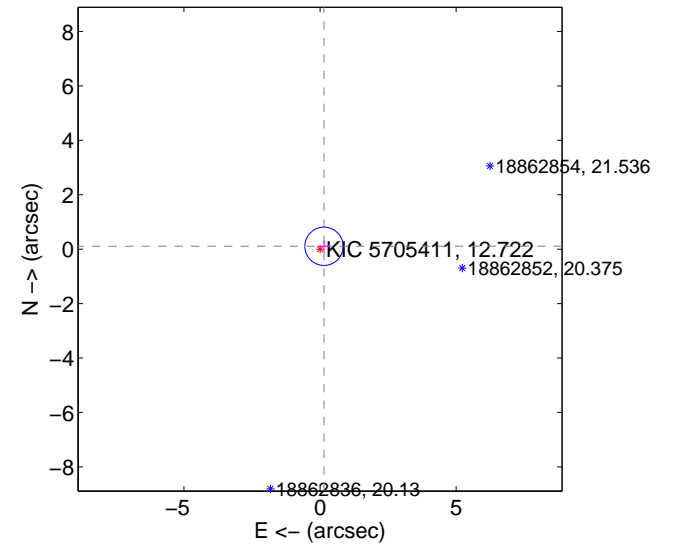
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

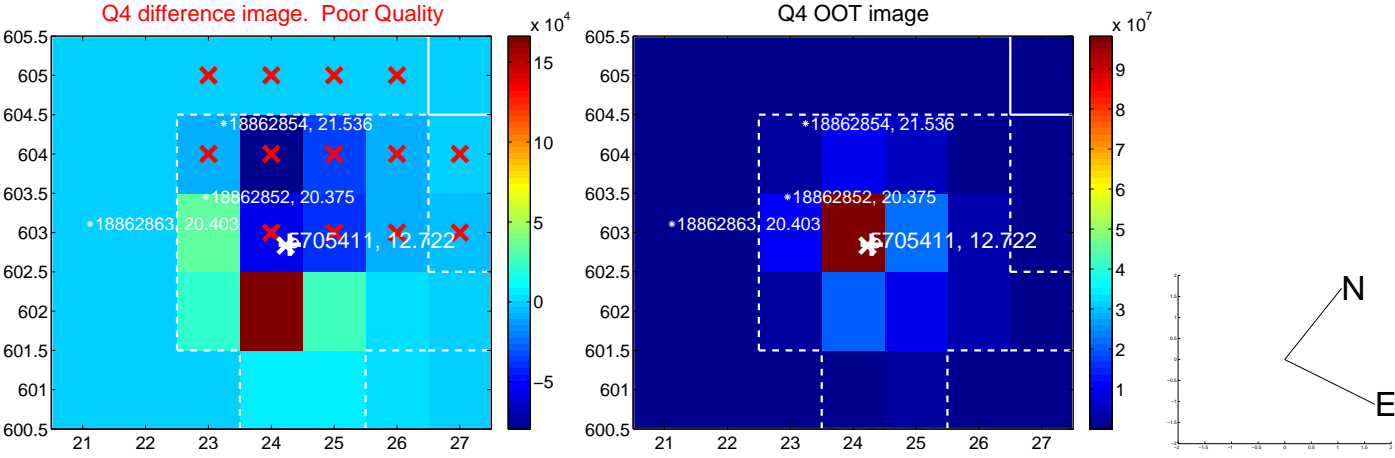
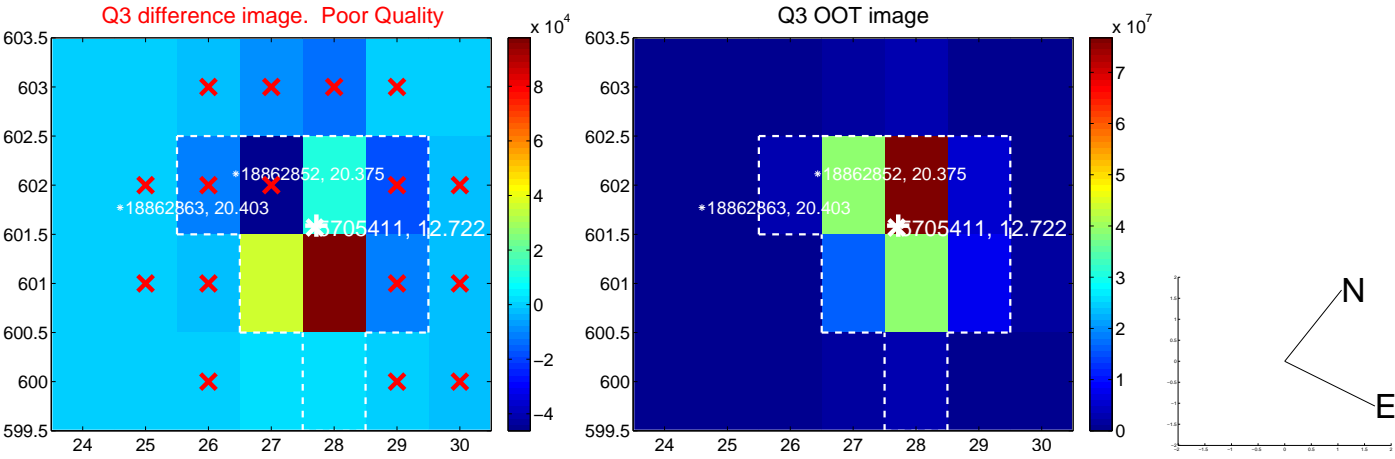
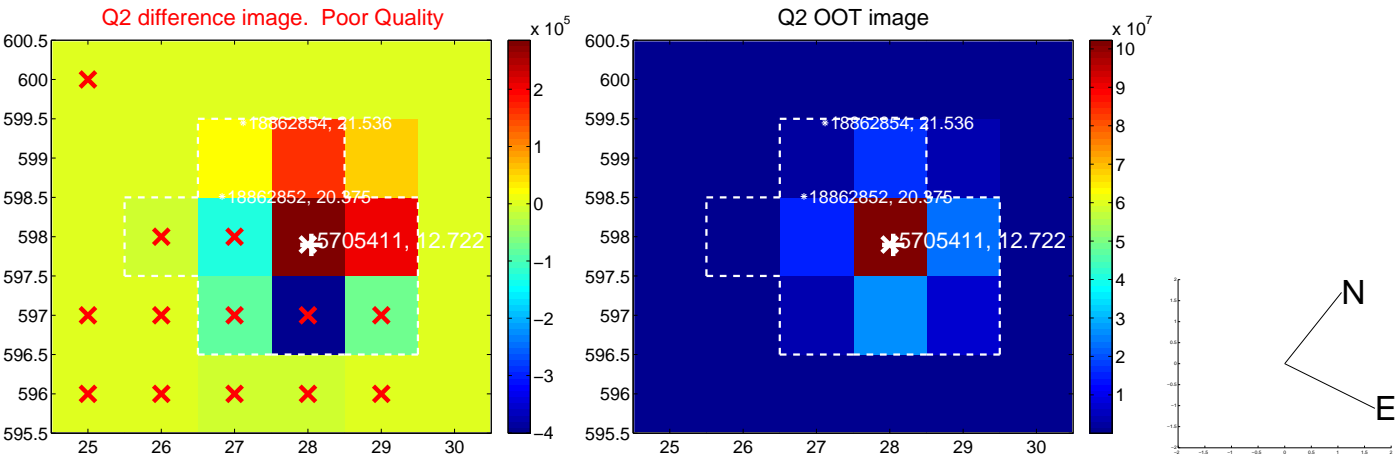
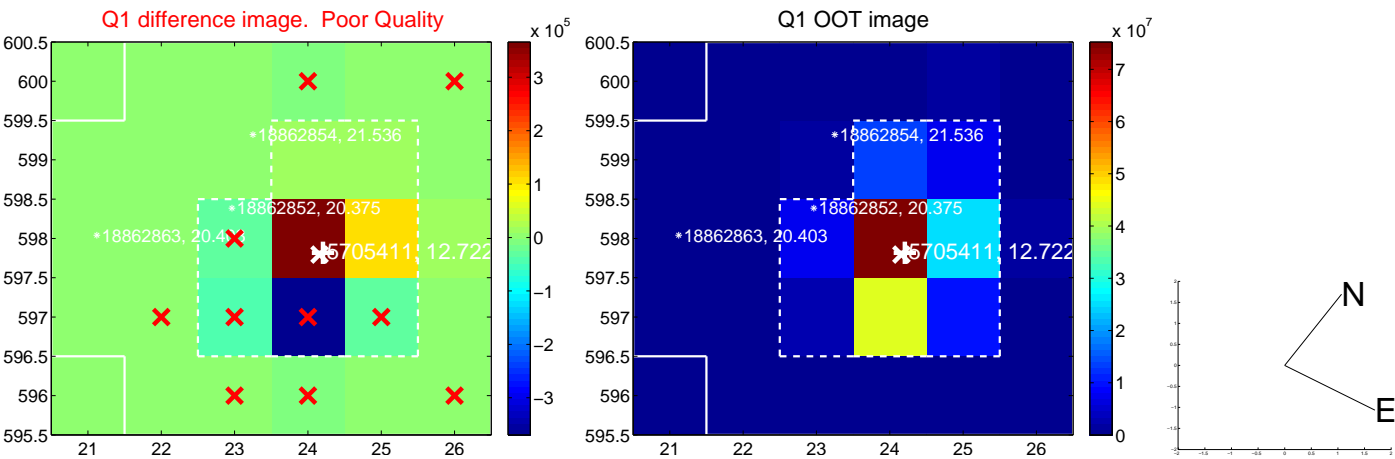


offset from photometric centroids

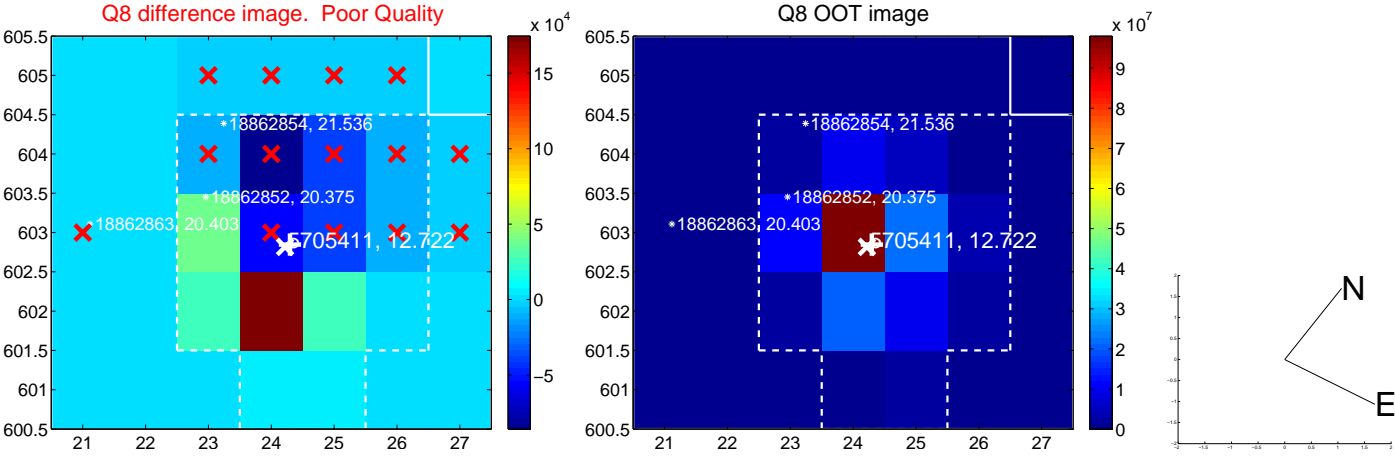
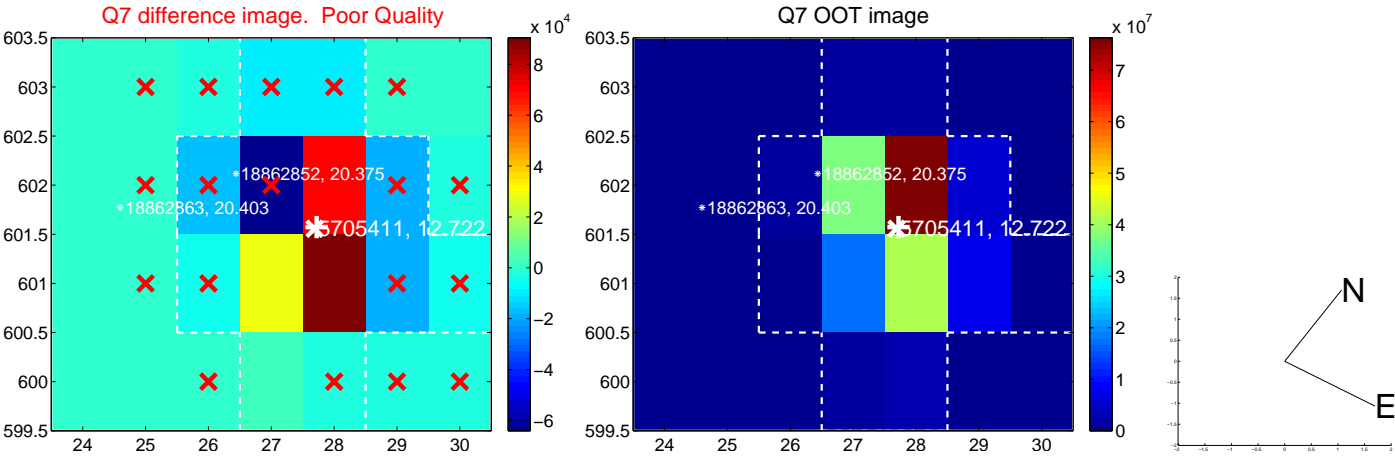
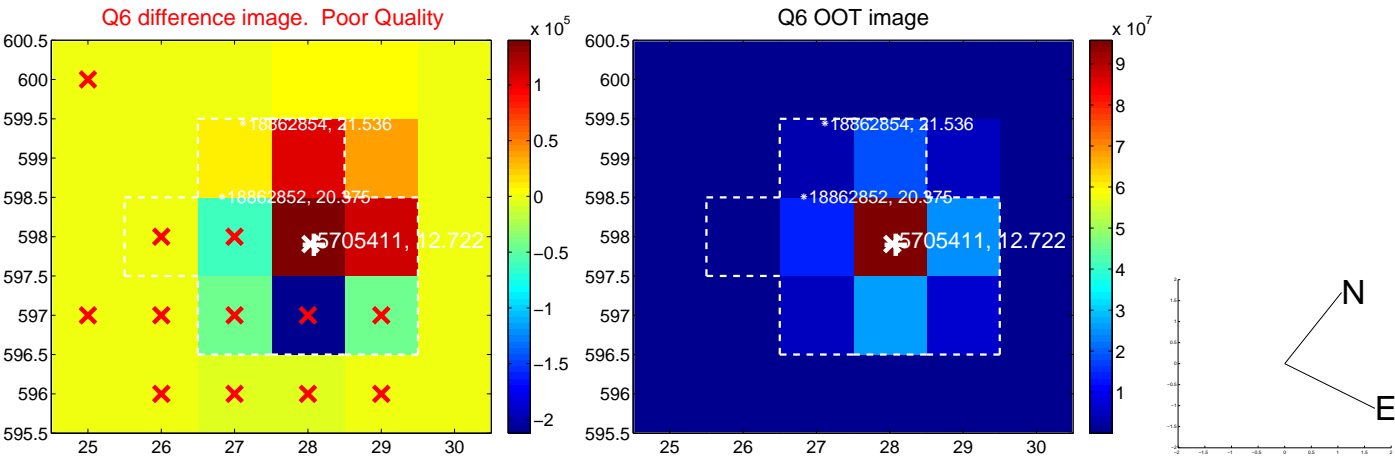
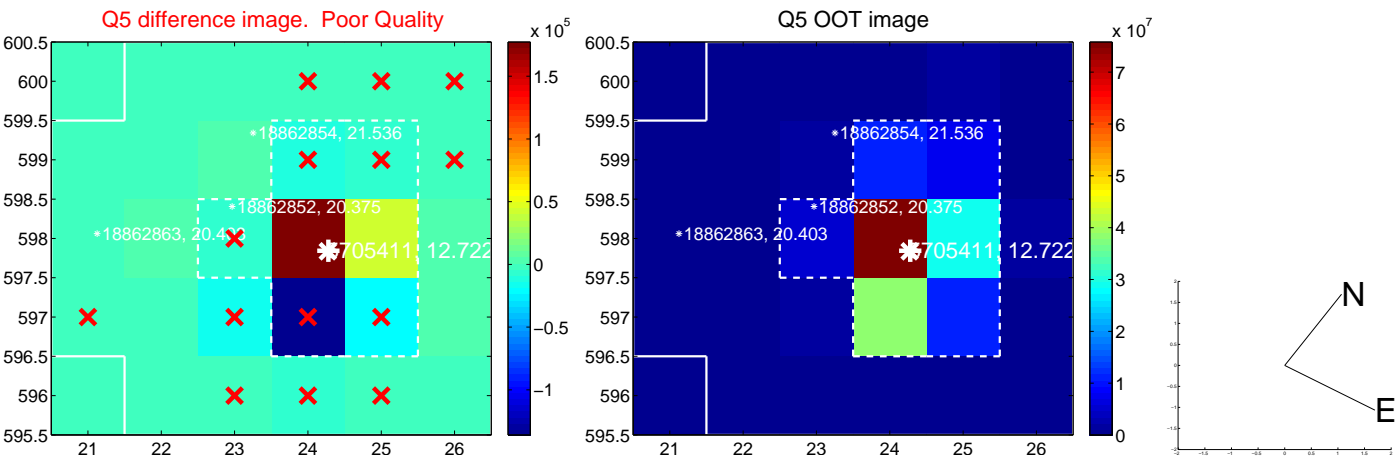


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

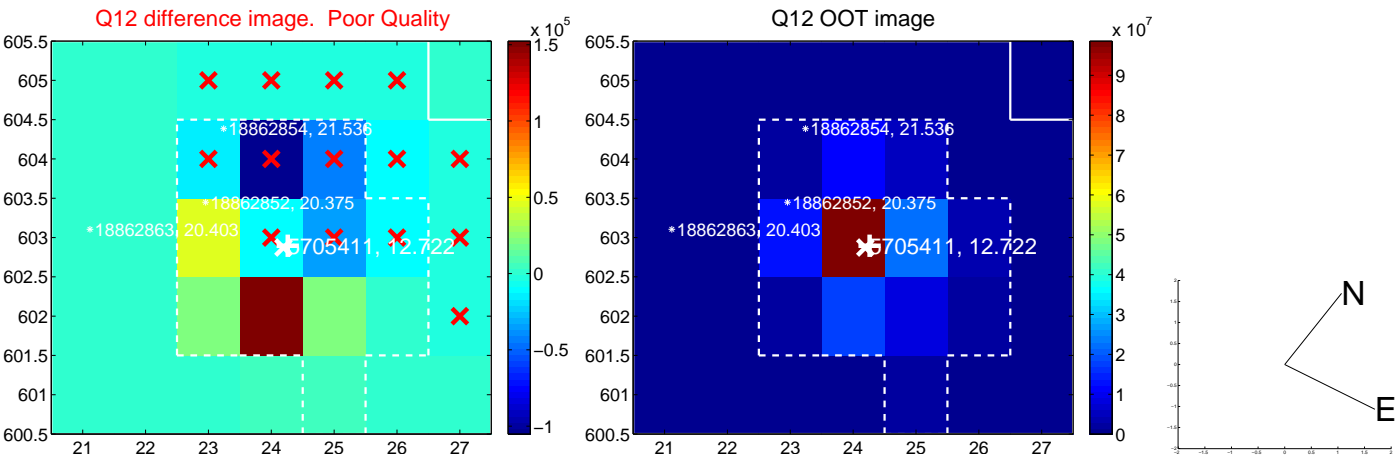
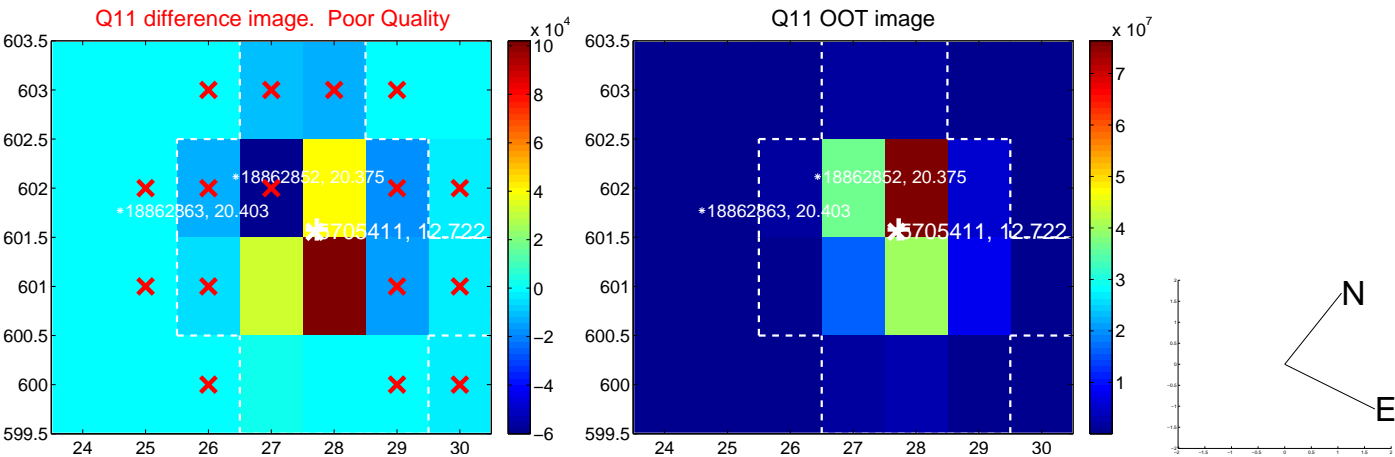
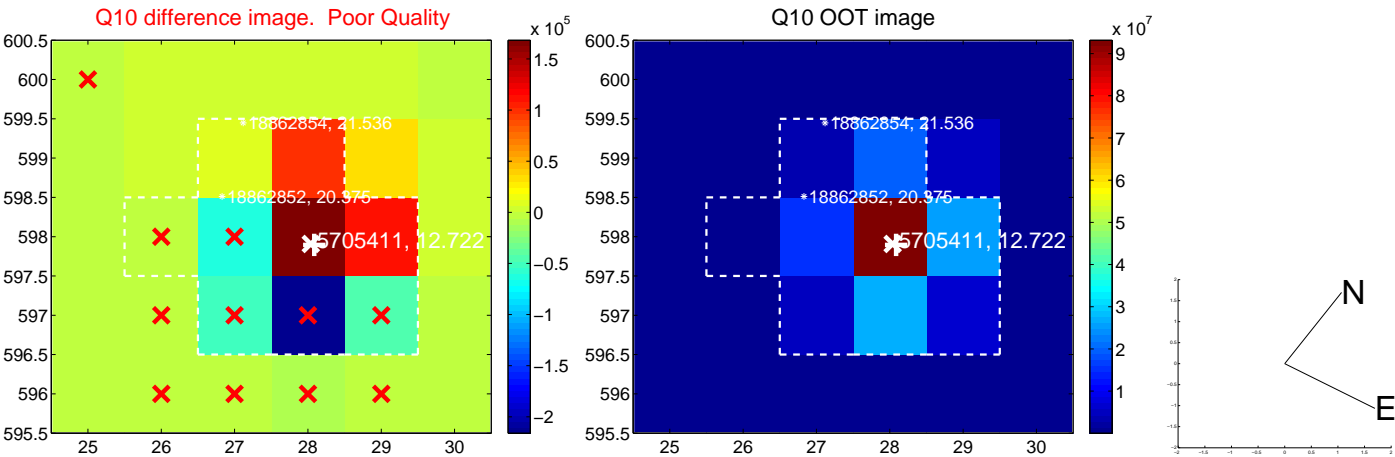
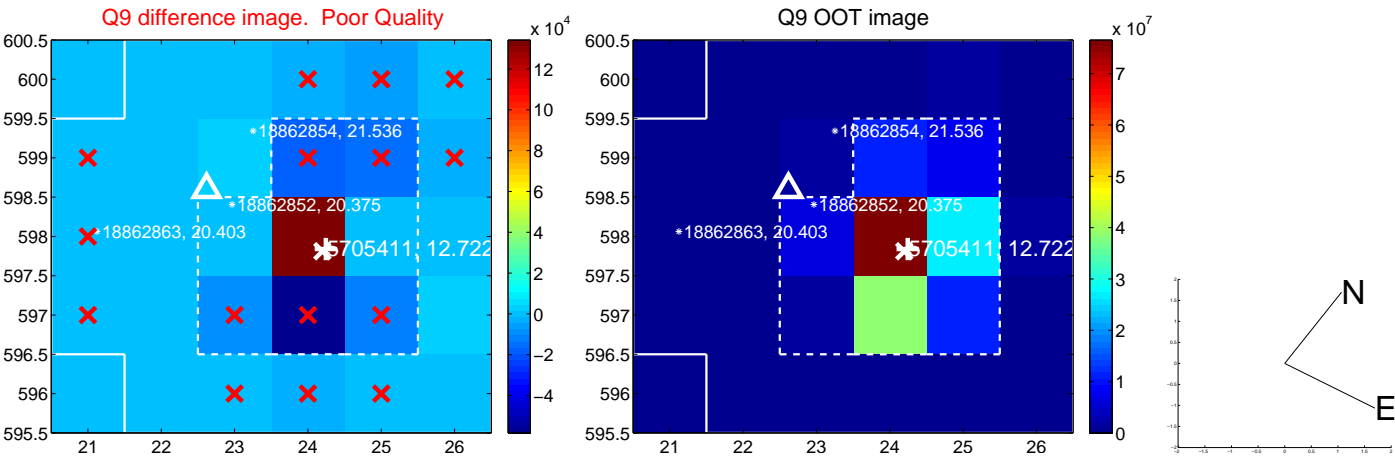
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



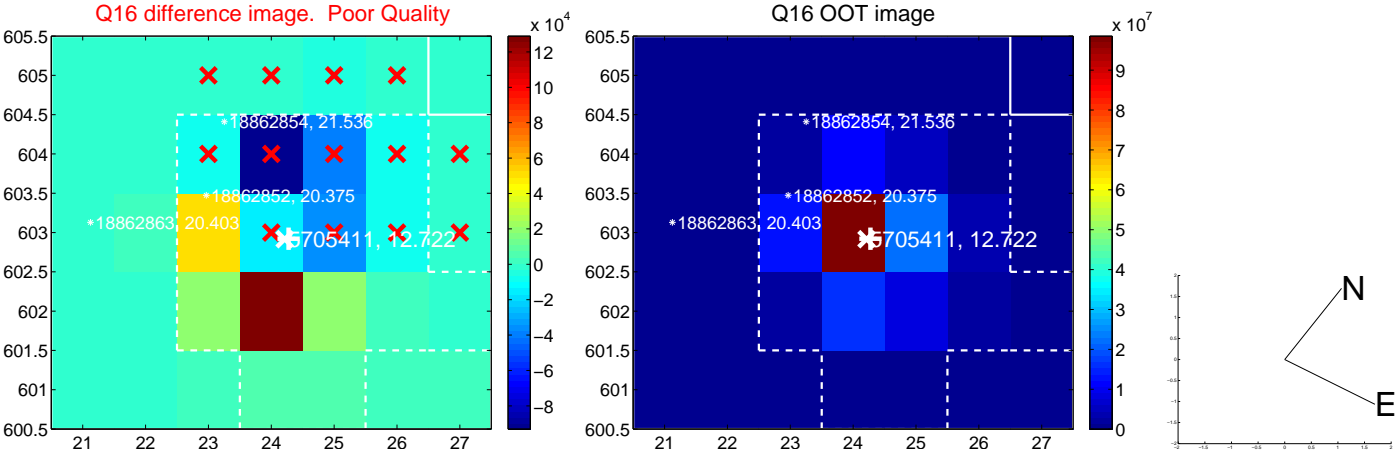
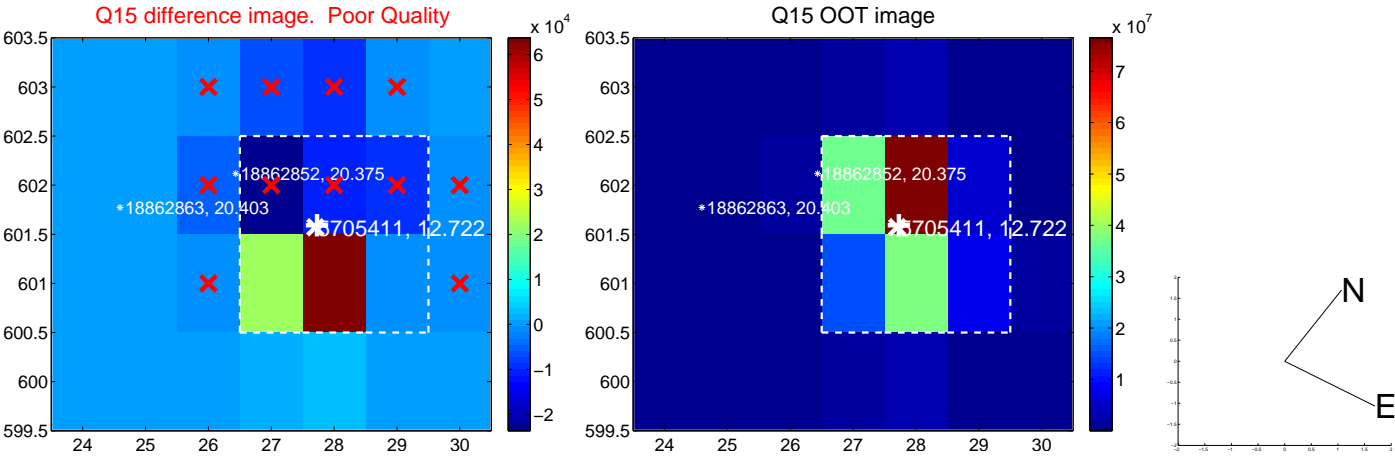
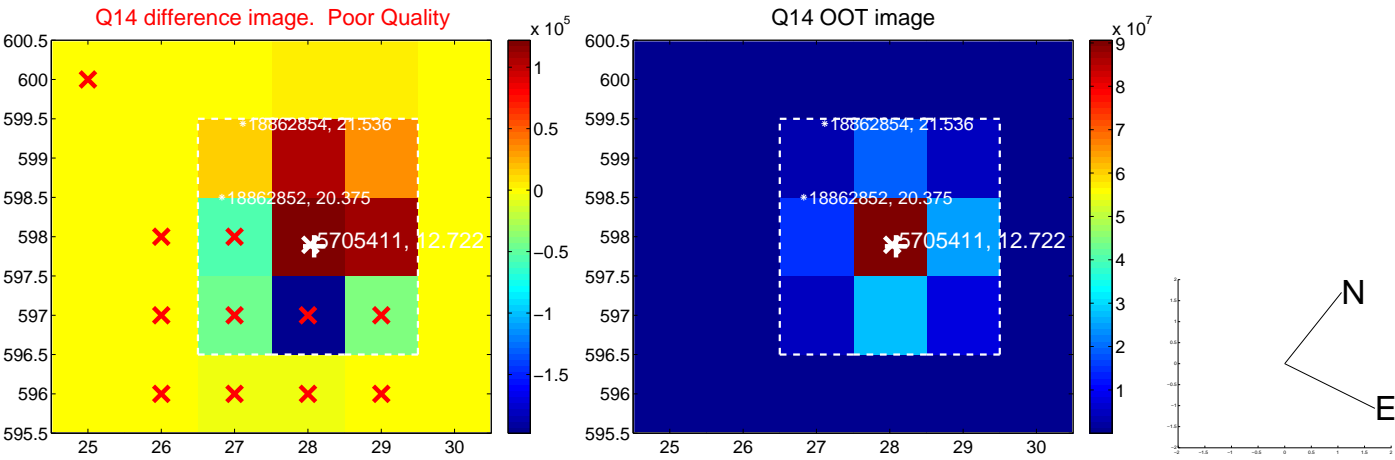
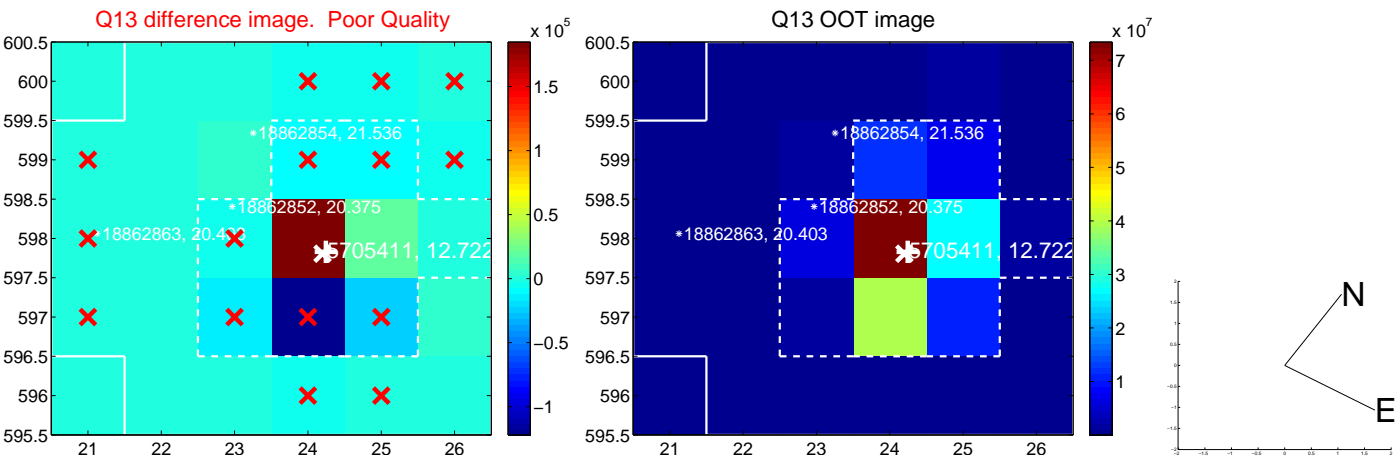
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



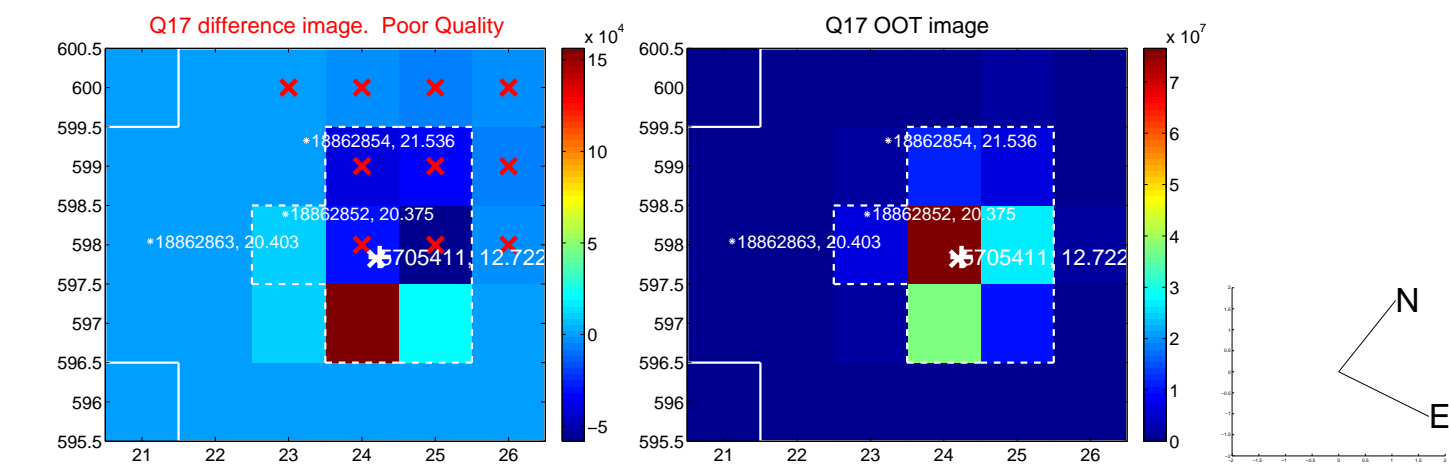
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



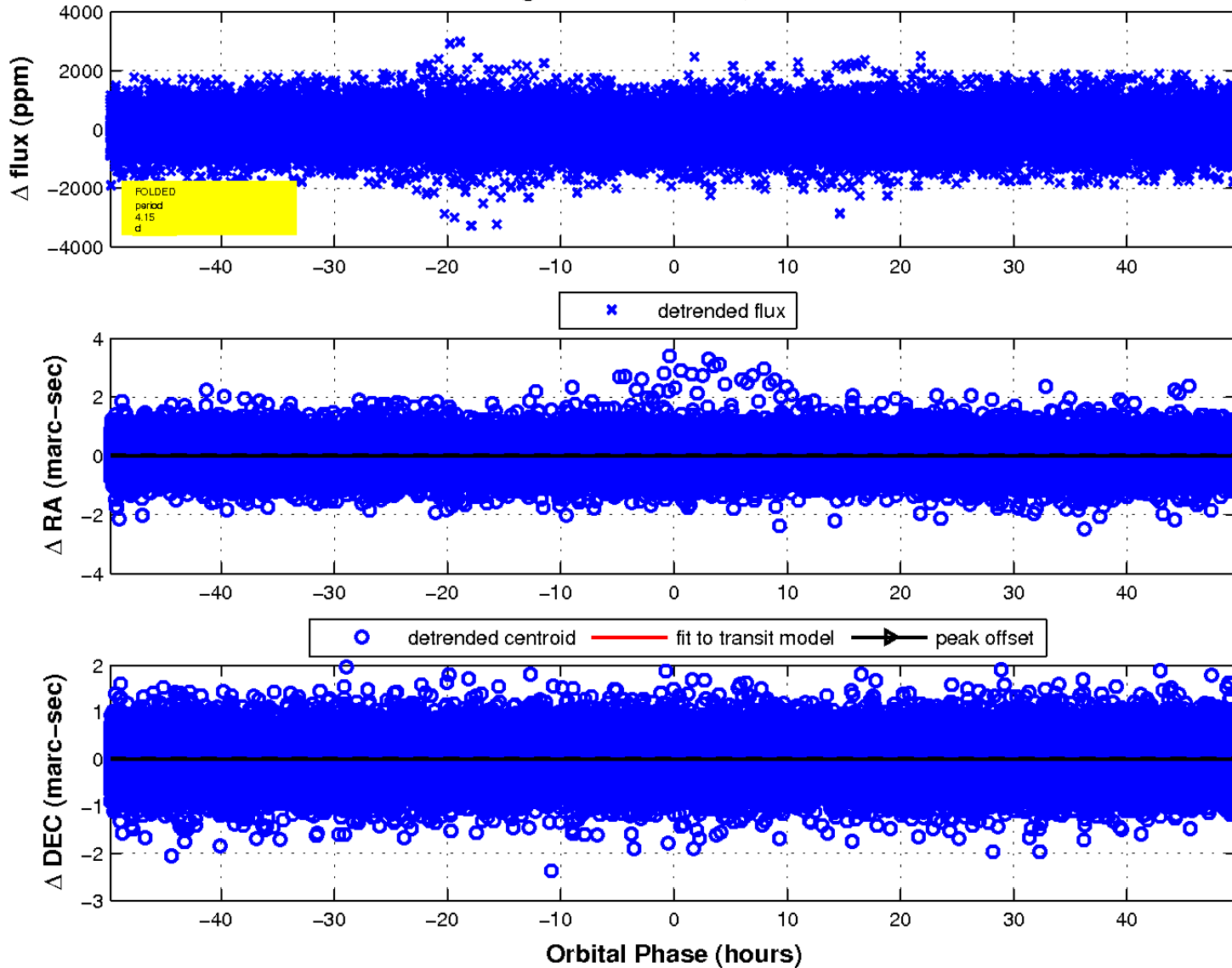
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

