

KIC 005641711

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})
005641711-01	OBS	No	4.033635	134.854641	89.4	31.132	10.8	8.4	2.11	7148	2.07	3261.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005641711-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

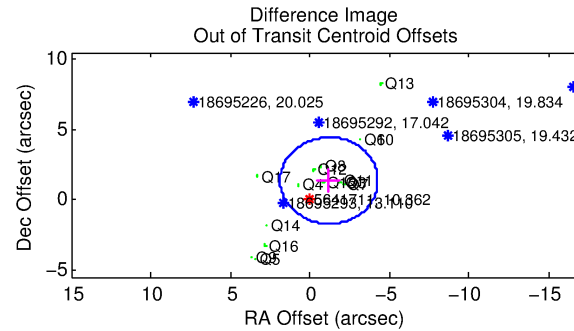
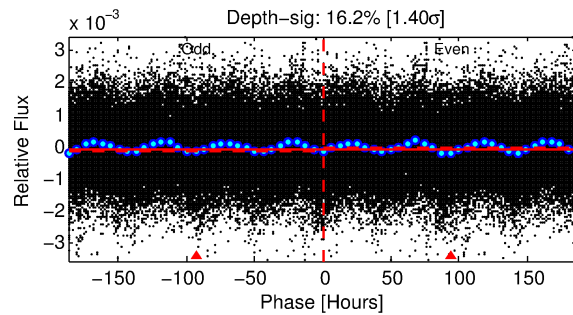
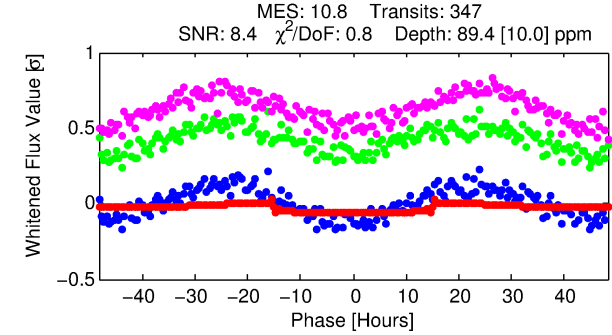
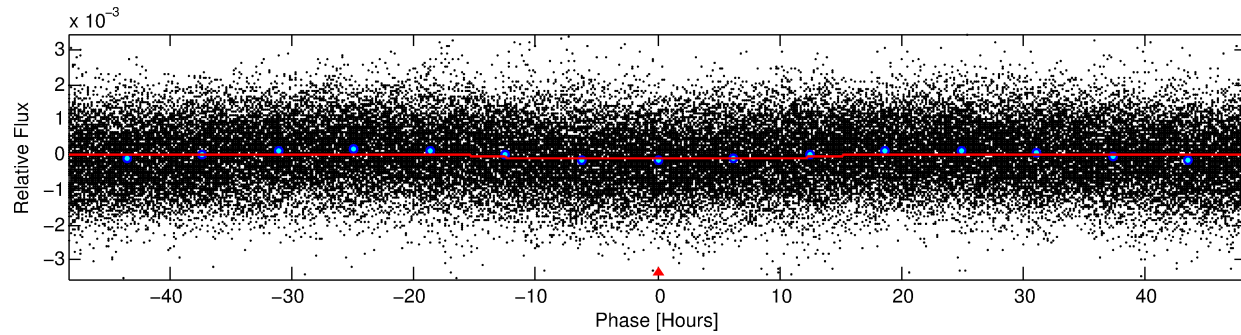
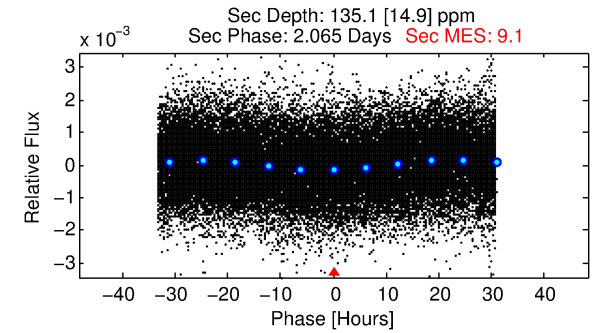
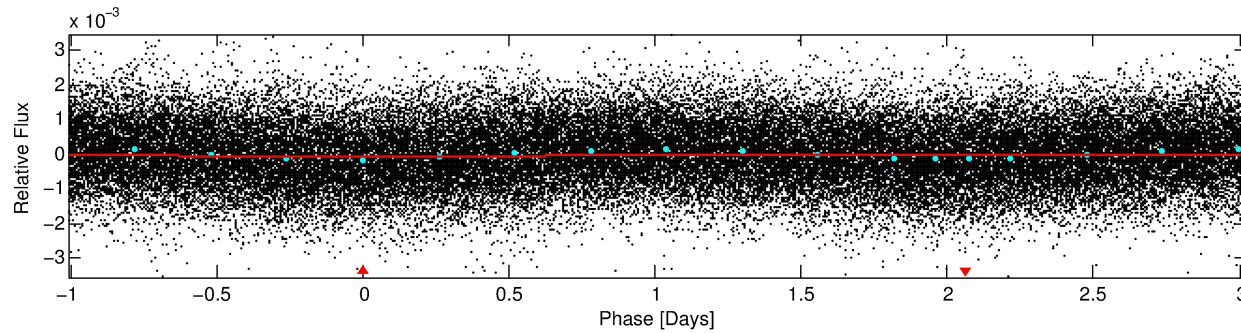
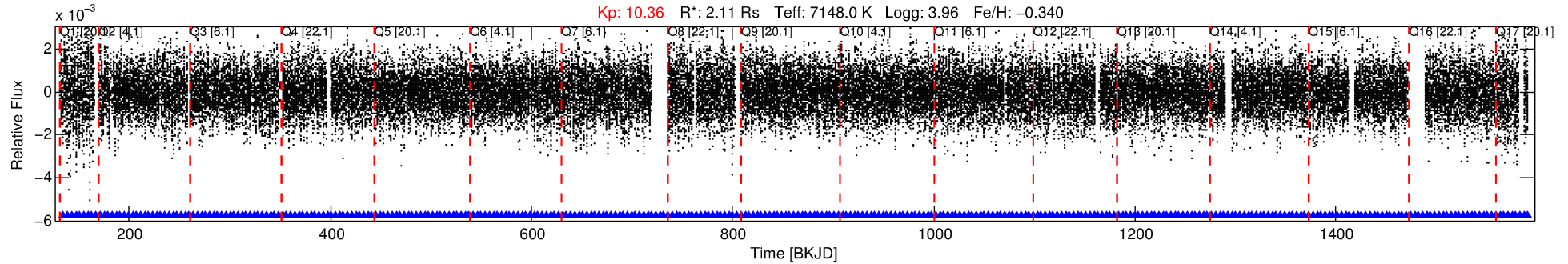
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005641711-01

No Significant Match Found

DV One-Page Summary

KIC: 5641711 Candidate: 1 of 1 Period: 4.034 d



DV Fit Results:

Period = 4.03363 [0.00008] d
Epoch = 134.8546 [0.0097] BKJD
Rp/R* = 0.0090 [0.0015]
a/R* = 1.15 [0.25]
b = 0.52 [1.30]
Seff = 3261.53 [1815.62]
Teq = 1927 [268] K
Rp = 2.07 [0.83] Re
a = 0.0565 [0.0193] AU
Ag = 55.25 [35.55] [1.53 σ]
Teffp = 8123 [756] K [7.72 σ]

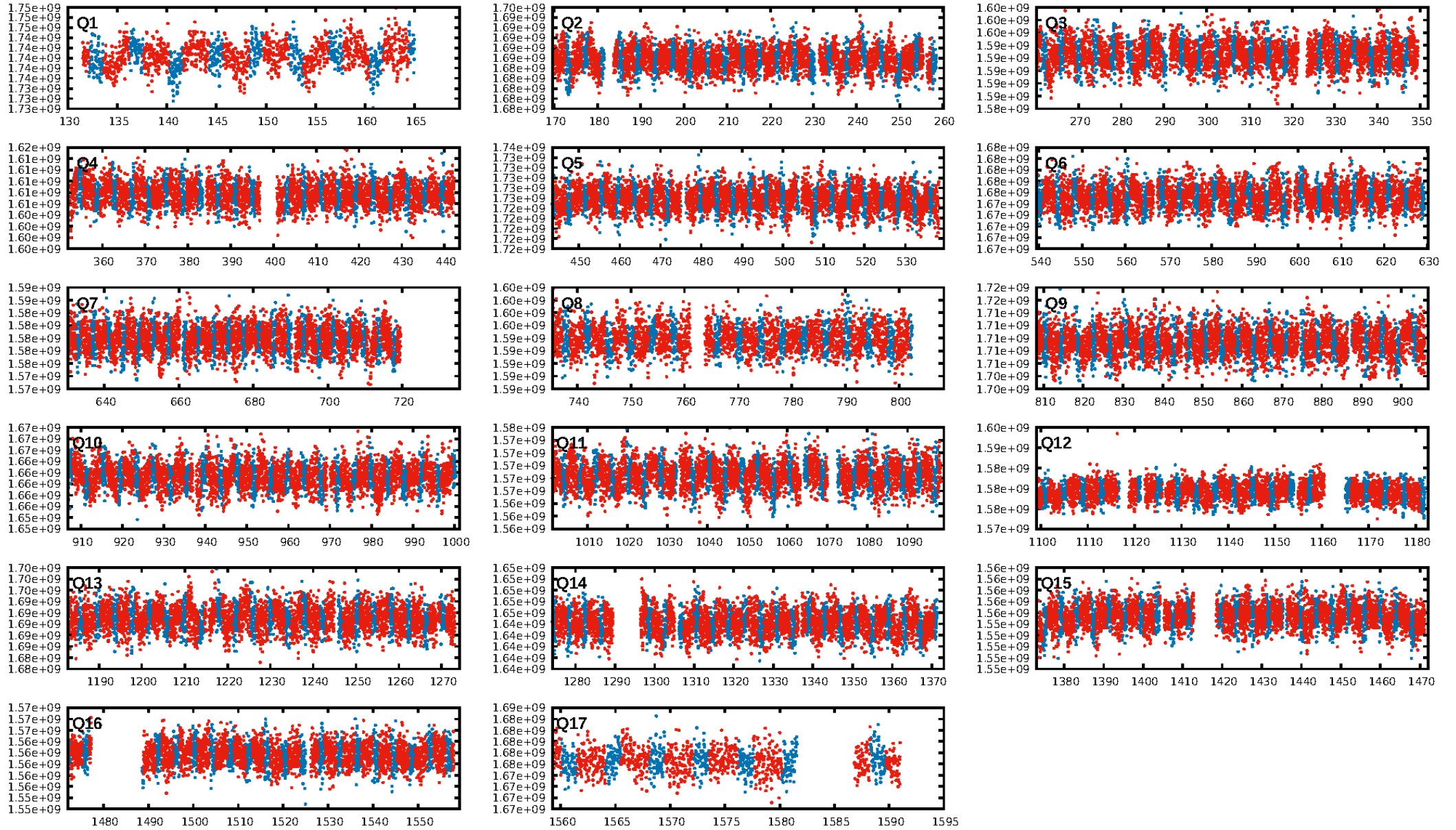
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [331/331]
GhostDiagnostic-chr: 1.022
Centroid-sig: 0.0%
Centroid-so: 2.653 arcsec [6.74 σ]
OotOffset-rm: 1.819 arcsec [1.77 σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-rm: 3.807 arcsec [3.30 σ]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 1.00 [17/17]

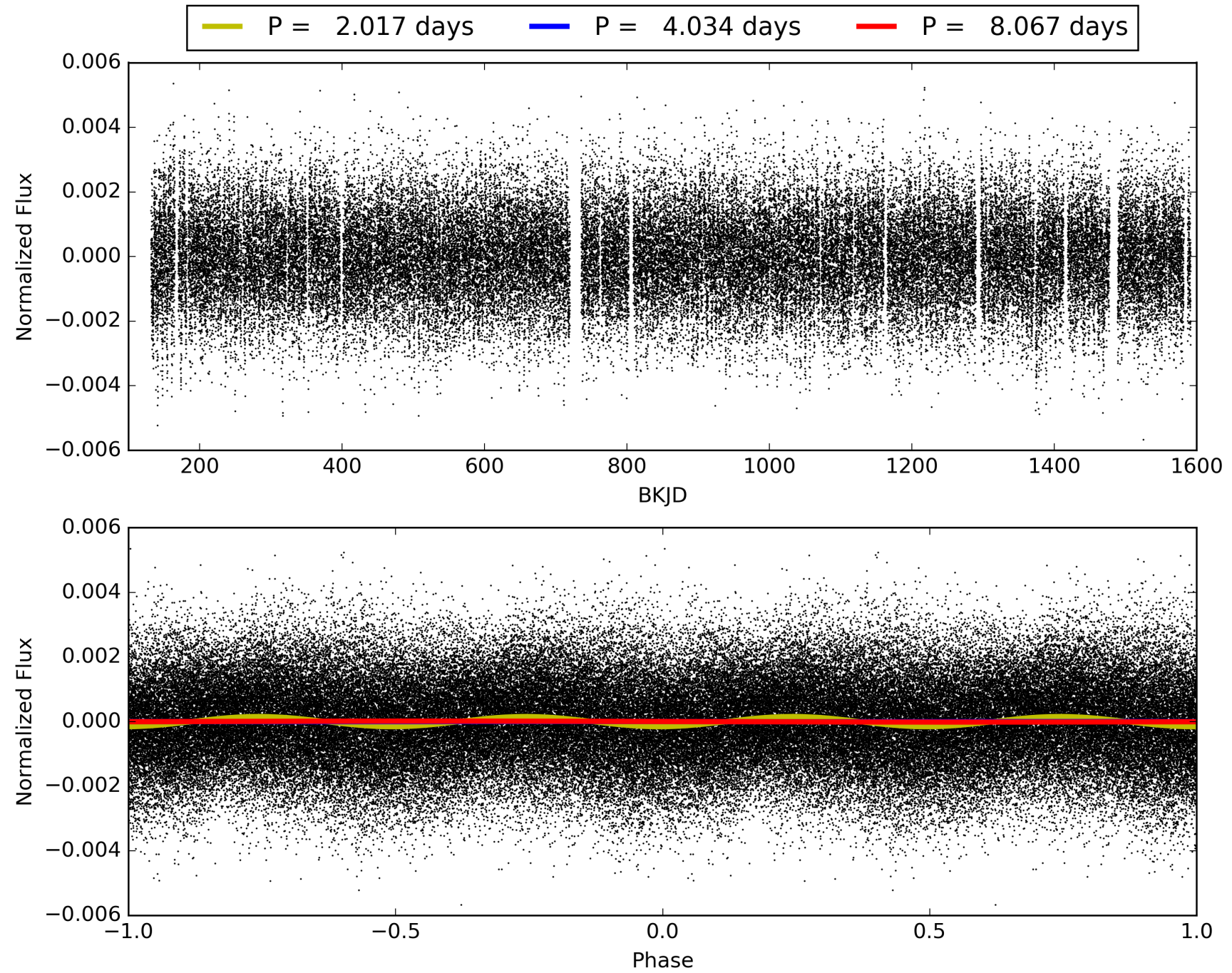
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:18:01 Z

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

TCE 005641711-01, PDC Light Curves

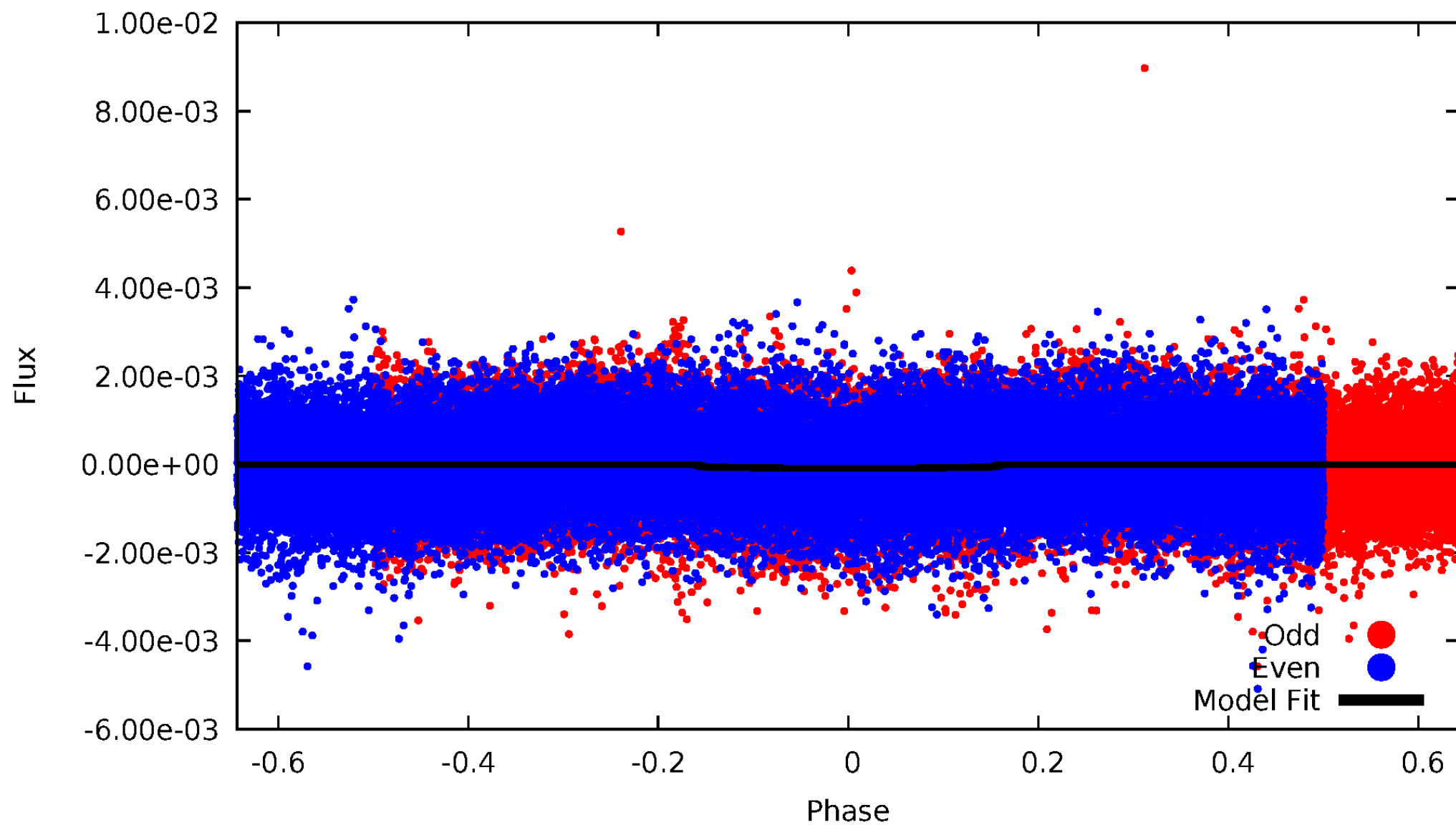


TCE 005641711-01



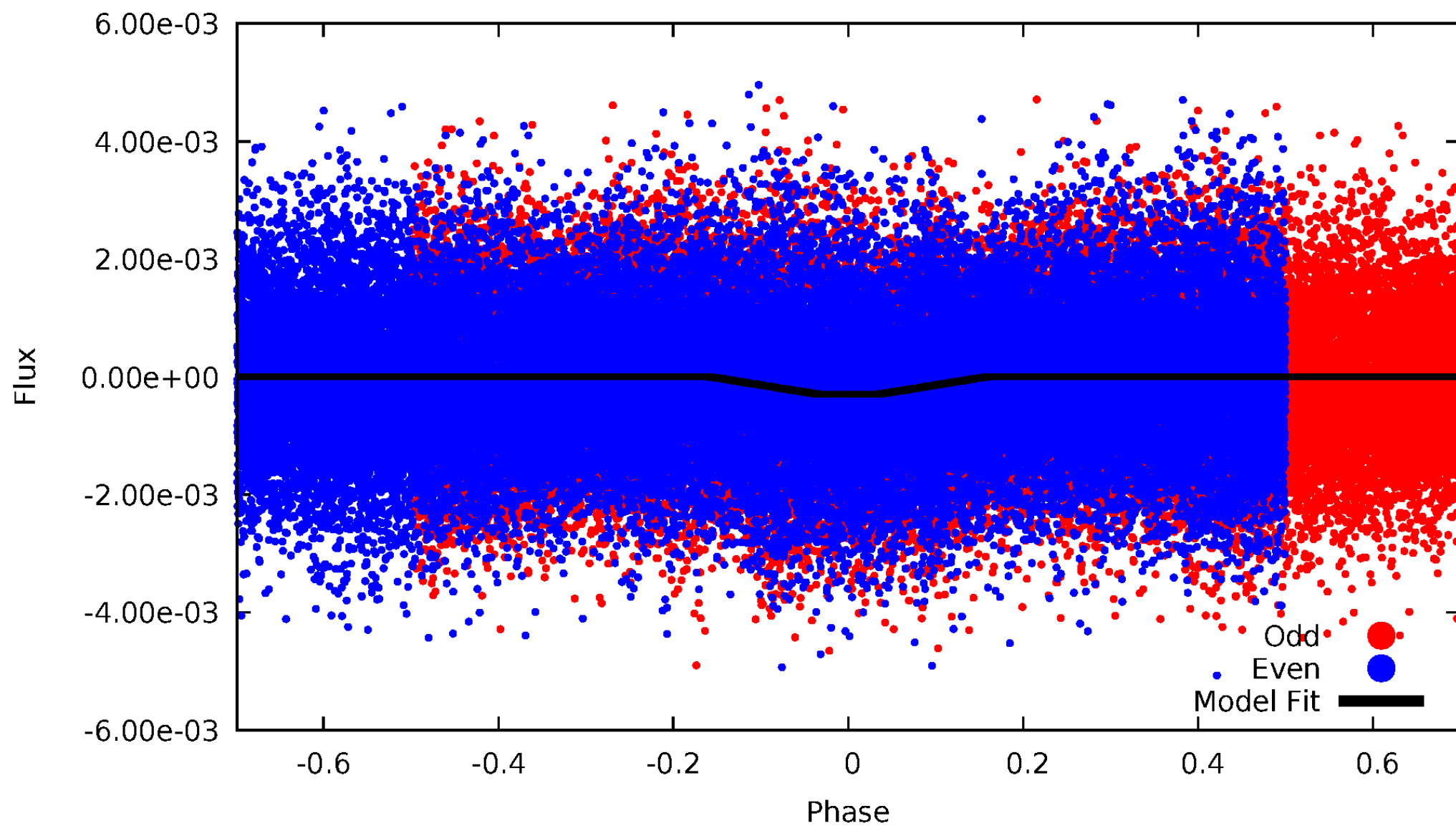
DV Odd/Even

TCE 005641711-01



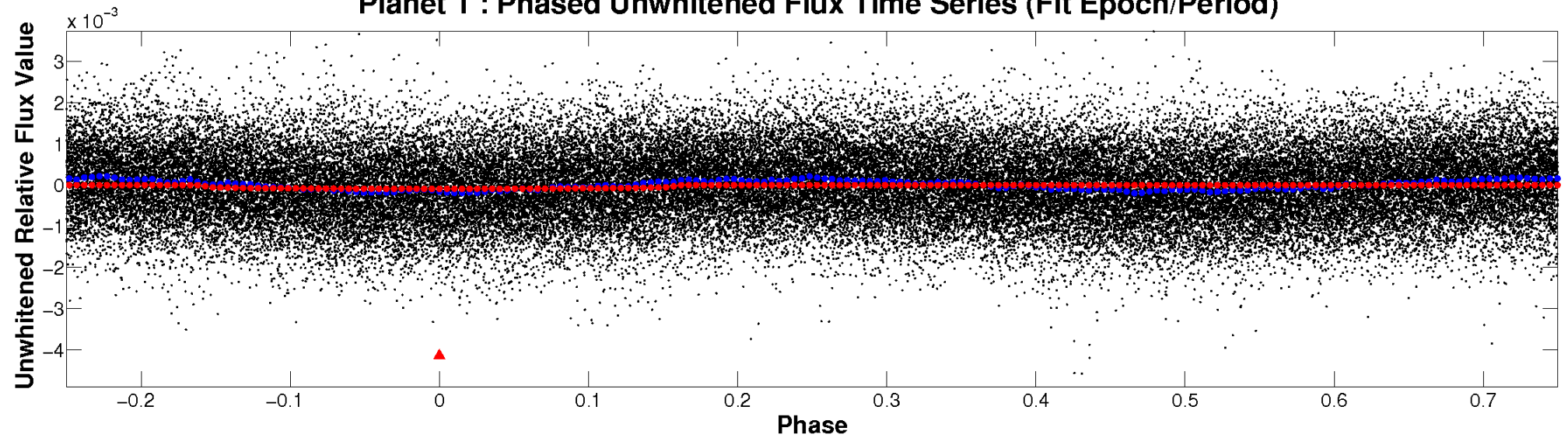
ALT Odd/Even

TCE 005641711-01

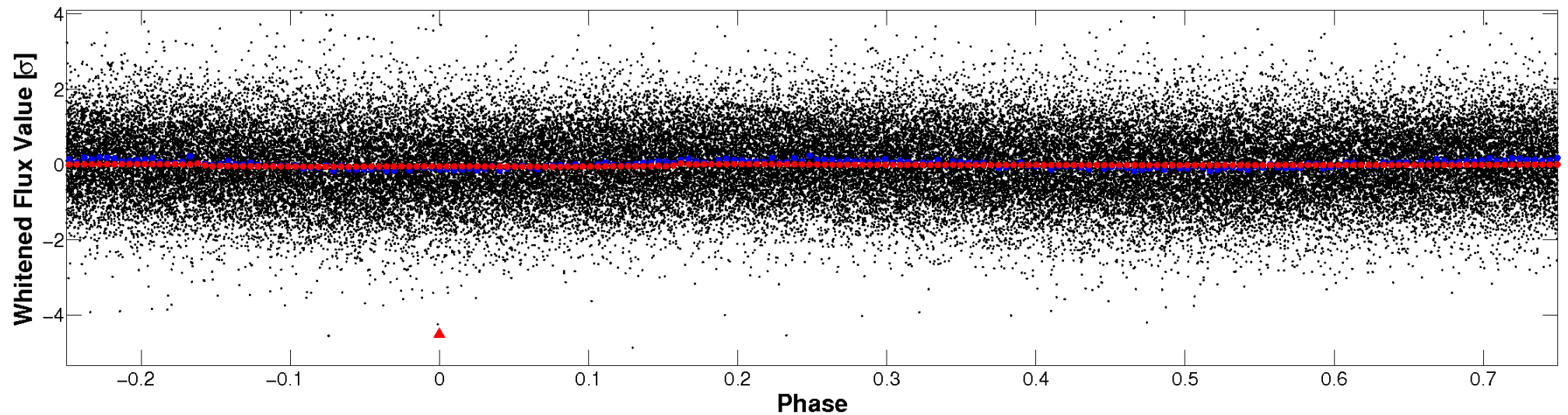


Non-Whitened Vs. Whitened Light Curve

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

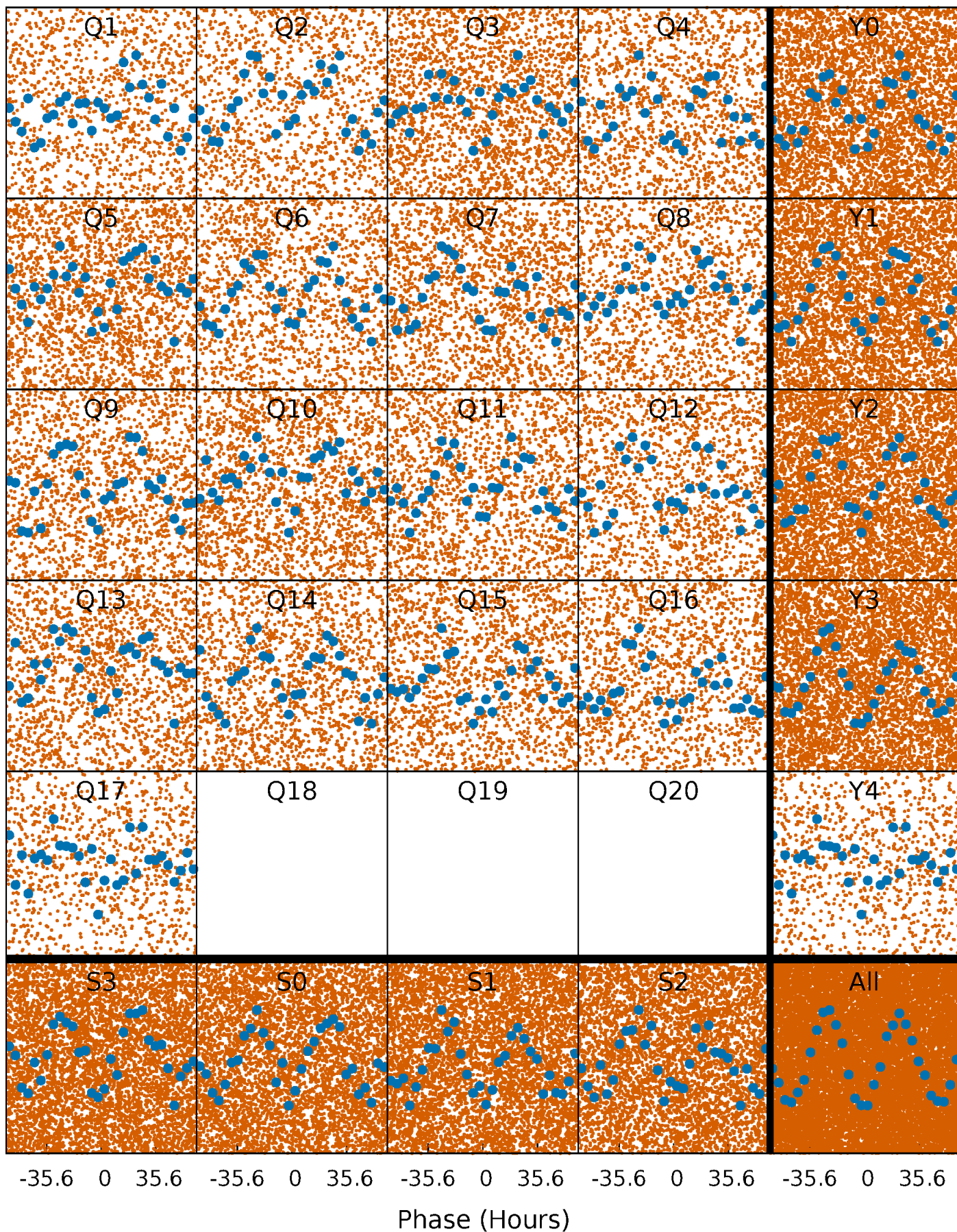


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



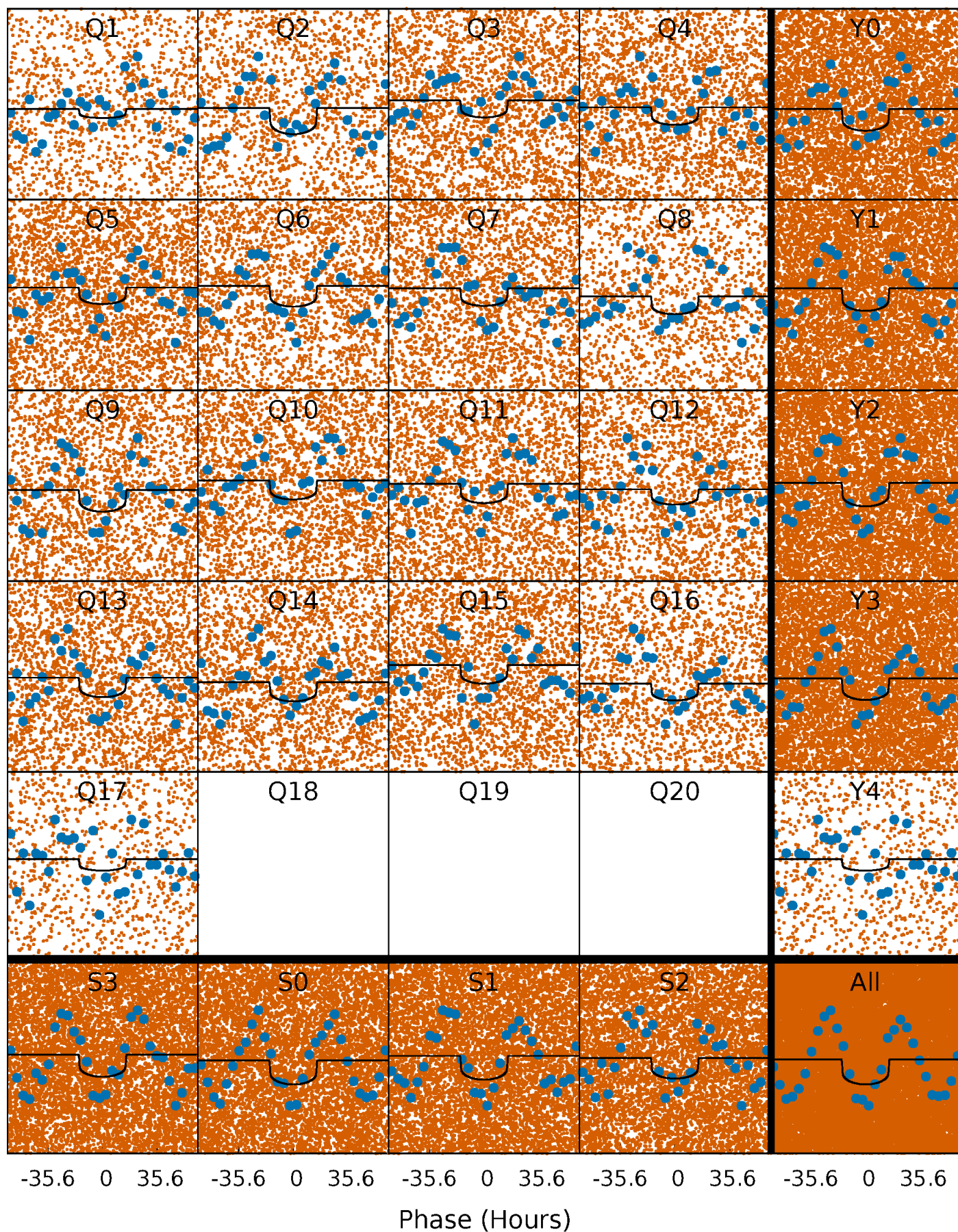
PDC Quarter-Phased Transit Curves

TCE 005641711-01 P= 4.033635 Days $T_0=134.854641$ (BKJD)



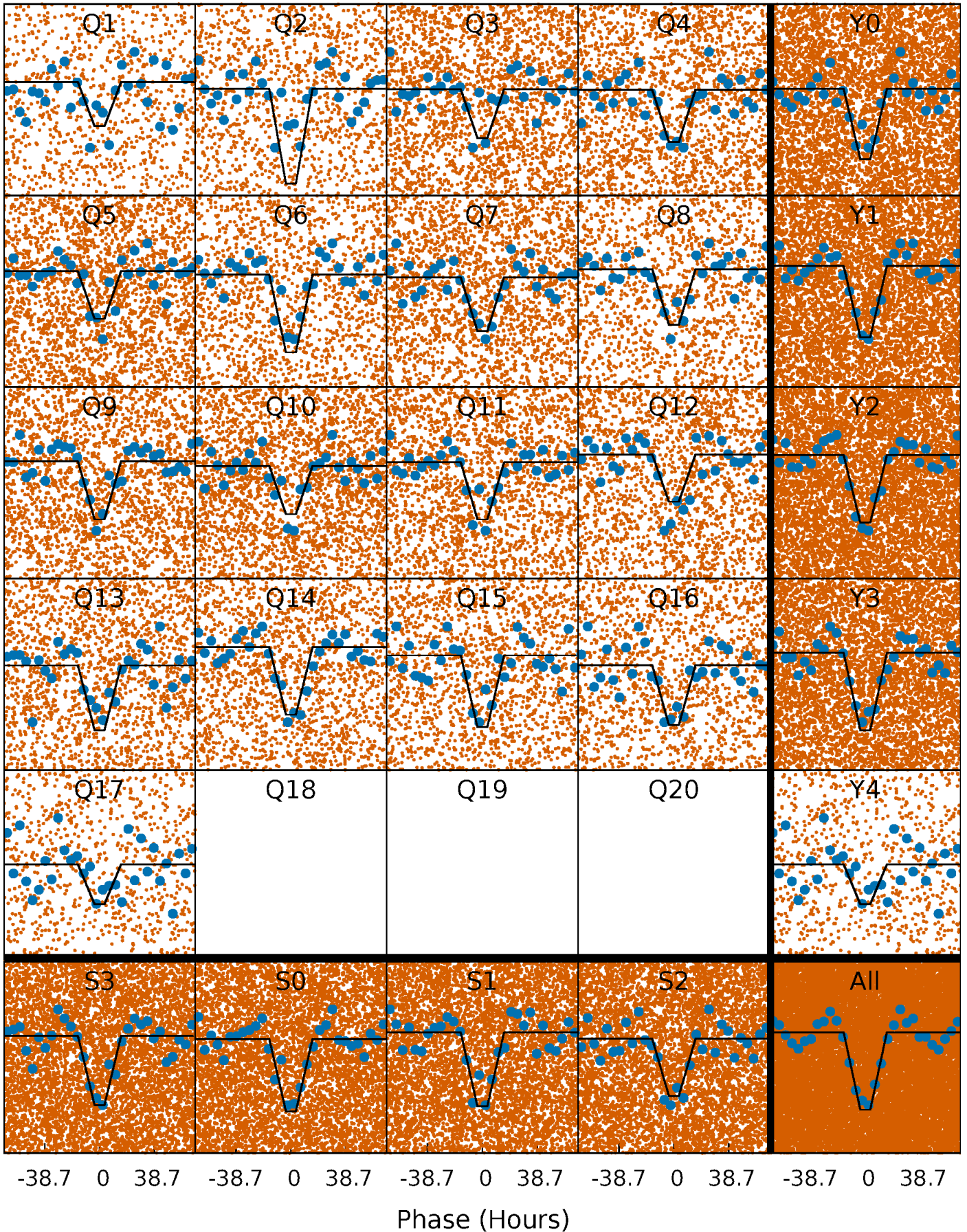
DV Quarter-Phased Transit Curves

TCE 005641711-01 P= 4.033635 Days $T_0=134.854641$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

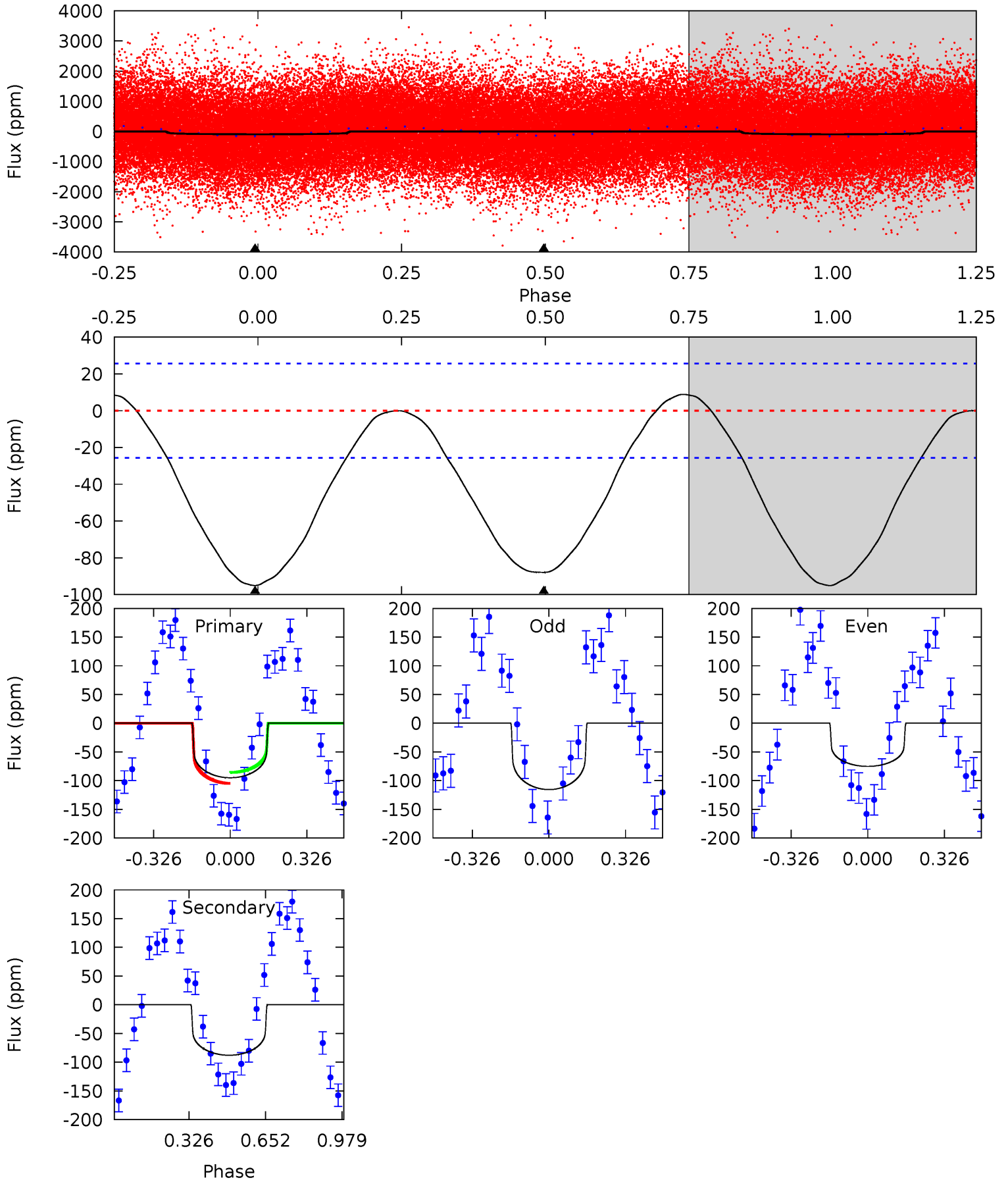
TCE 005641711-01 P= 4.033216 Days $T_0=134.895212$ (BKJD)



DV Model-Shift Uniqueness Test

005641711-01, P = 4.033635 Days, E = 130.821006 Days

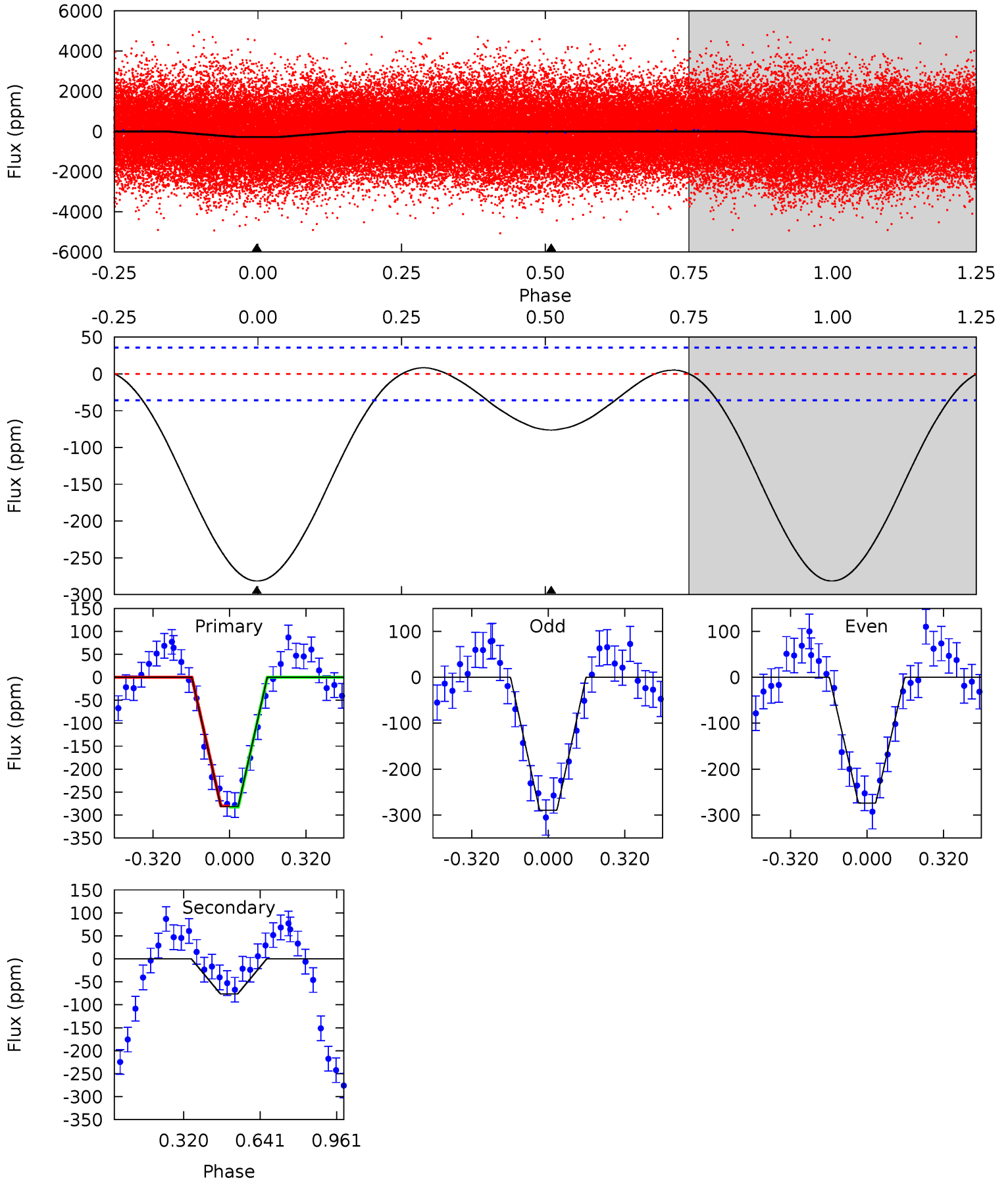
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	14.8	0	0	4.31	0.98	0.75	16.0	16.0	14.8	14.8	3.32	1.10	0.09	1.57



Alt Model-Shift Uniqueness Test

005641711-01, P = 4.033216 Days, E = 130.861996 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.8	9.18	0	0	4.31	0.99	0.80	33.8	33.8	9.18	9.18	0.94	0.03	0.03	0.16



Stellar Parameters For KIC 005641711

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7148^{+171}_{-235}	$3.959^{+0.315}_{-0.135}$	$-0.340^{+0.300}_{-0.300}$	$2.109^{+0.511}_{-0.767}$	$1.475^{+0.205}_{-0.308}$	$0.221^{+0.466}_{-0.103}$
	+2%/-3%	+8%/-3%	+88%/-88%	+24%/-36%	+14%/-21%	+211%/-47%
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 005641711-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-88 ± 6	$1.98^{+0.53}_{-0.47}$	2652^{+181}_{-224}	7281^{+883}_{-657}	39^{+28}_{-14}
Alt.	-76 ± 8	$3.76^{+0.74}_{-0.81}$	2635^{+193}_{-259}	5079^{+280}_{-254}	$9.356^{+5.397}_{-2.784}$

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

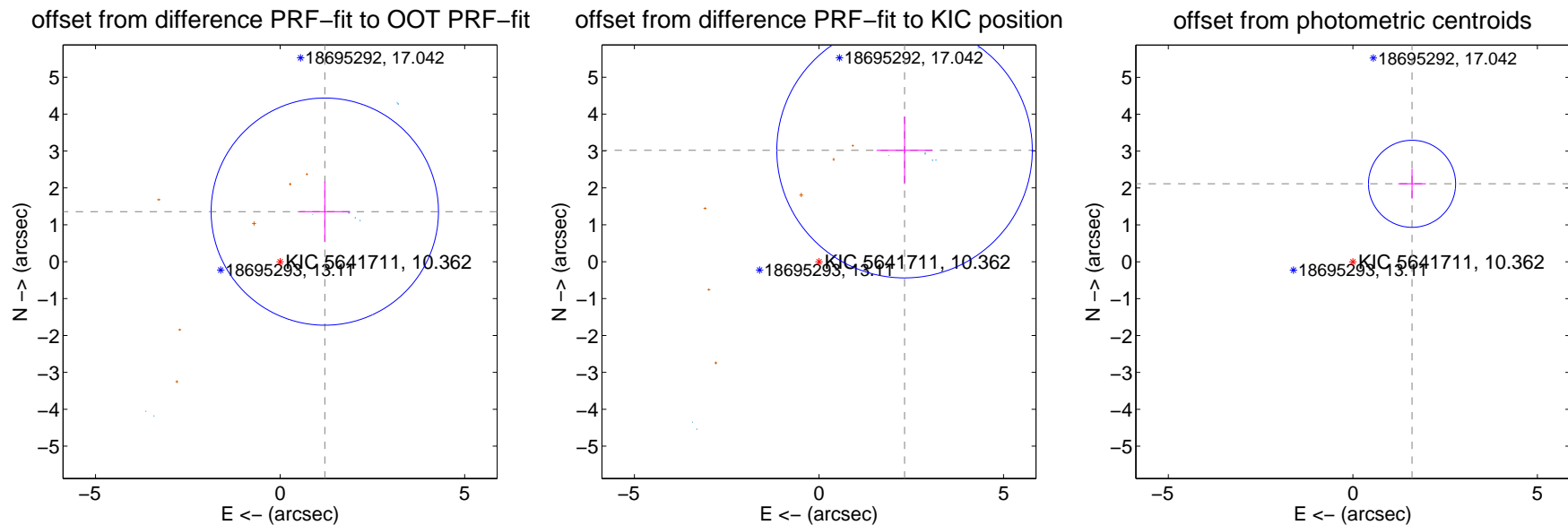
DV Centroid Data

Supplemental centroid analysis for 005641711-01. **Kepler magnitude: 10.36.** Transit SNR 8.38

There are 8 quarters with good PRF difference image offsets

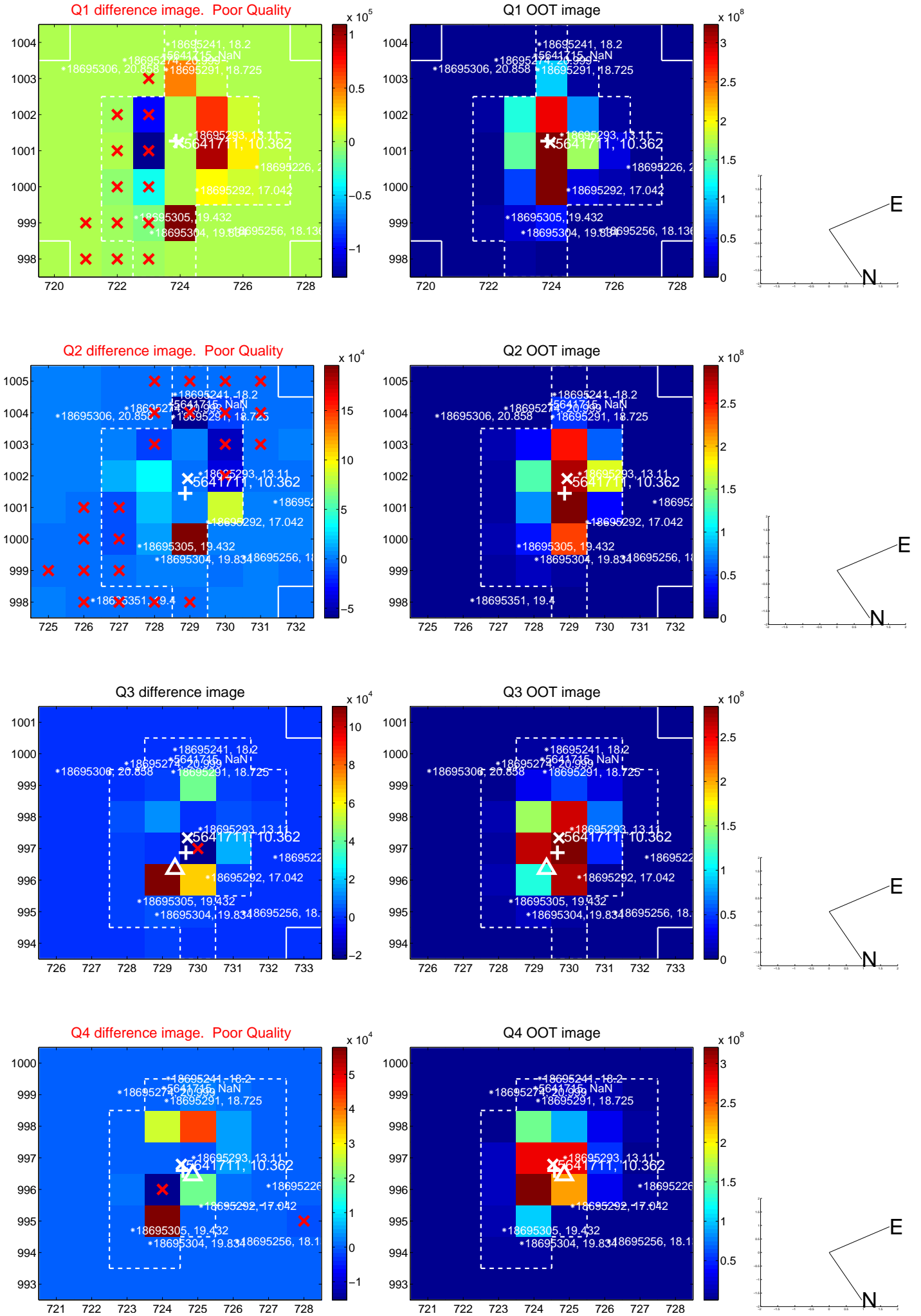
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.819 ± 1.026	1.77	-1.211 ± 0.688	1.357 ± 0.813
PRF-fit source offset from KIC position	3.807 ± 1.153	3.30	-2.318 ± 0.757	3.020 ± 0.913
photometric centroid source offset	2.65 ± 0.39	6.74	-1.60 ± 0.38	2.11 ± 0.40

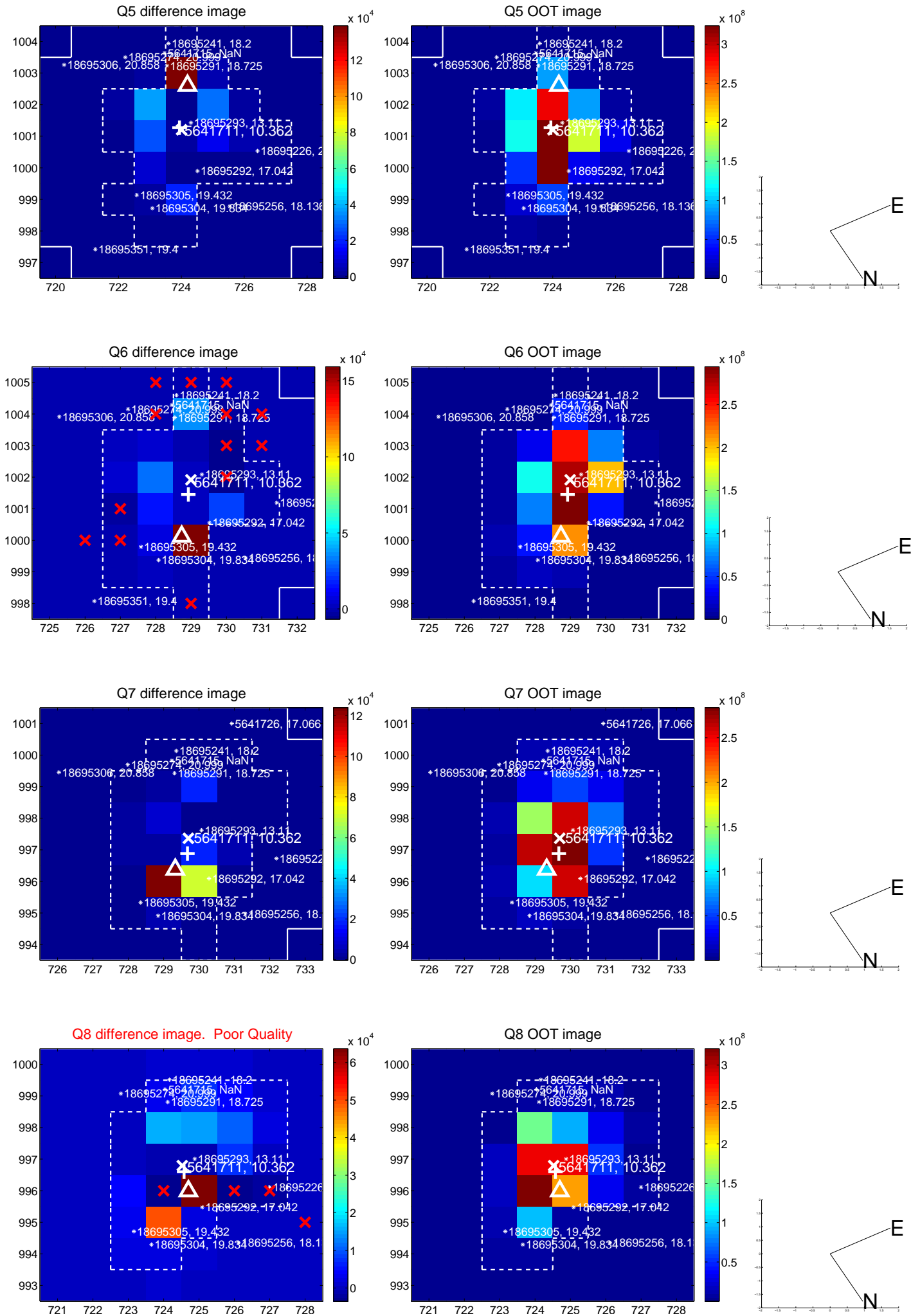


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

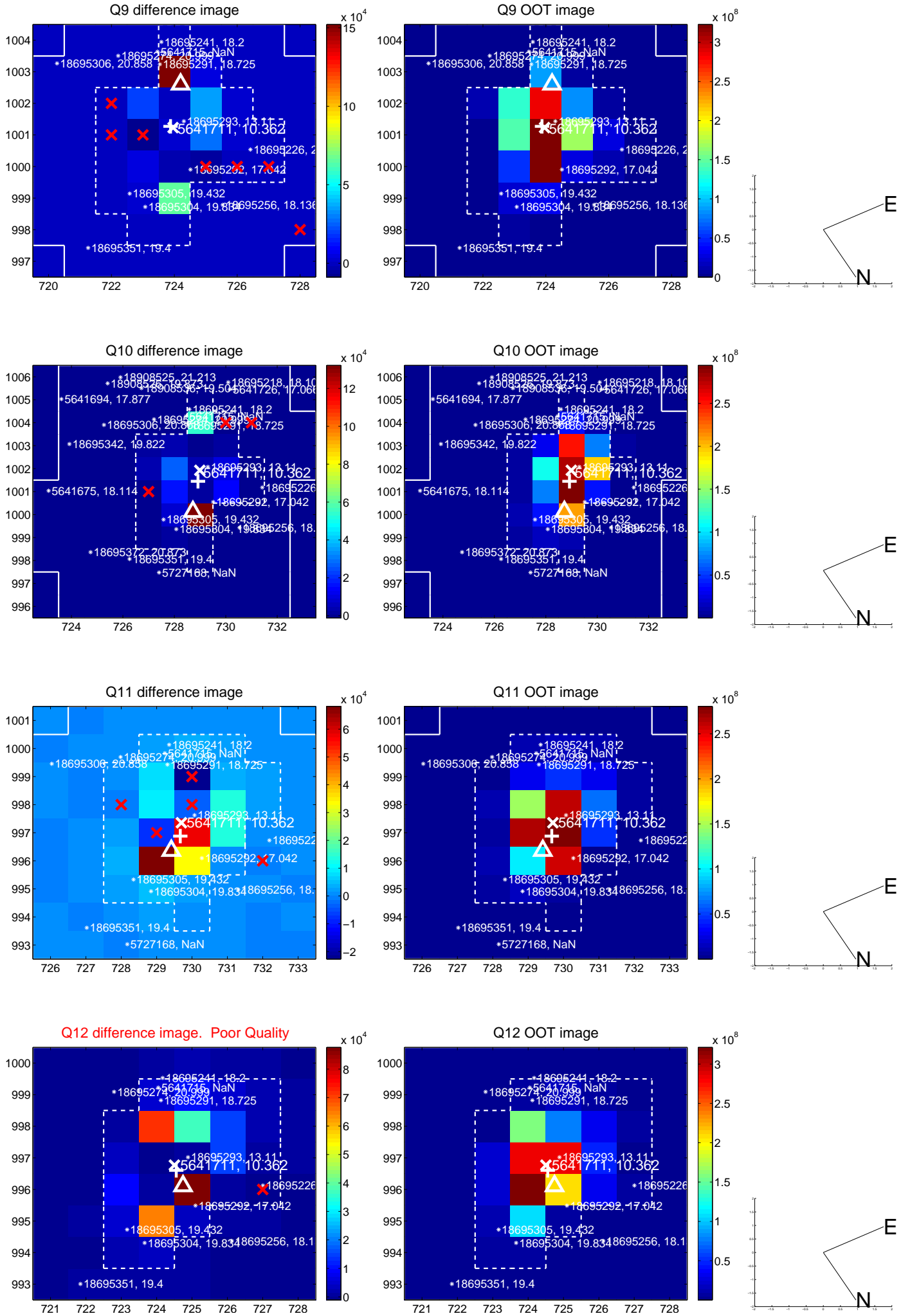
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



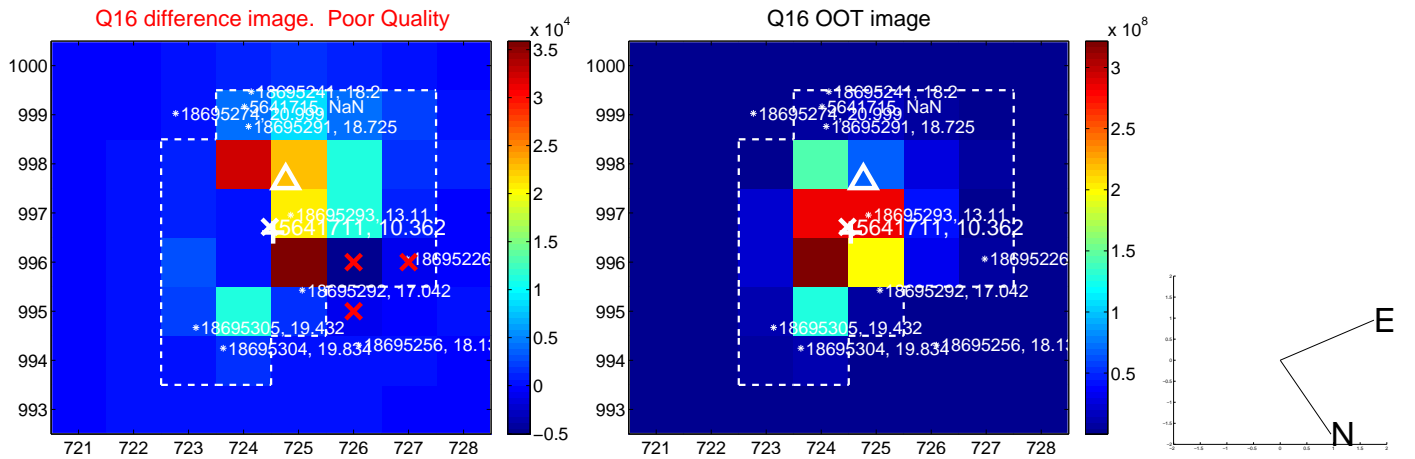
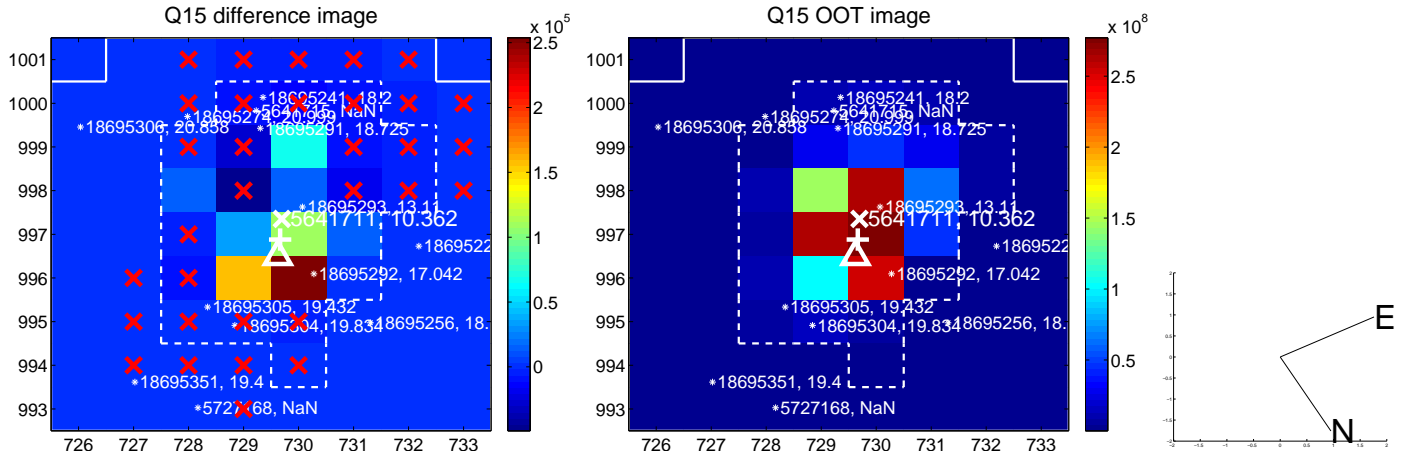
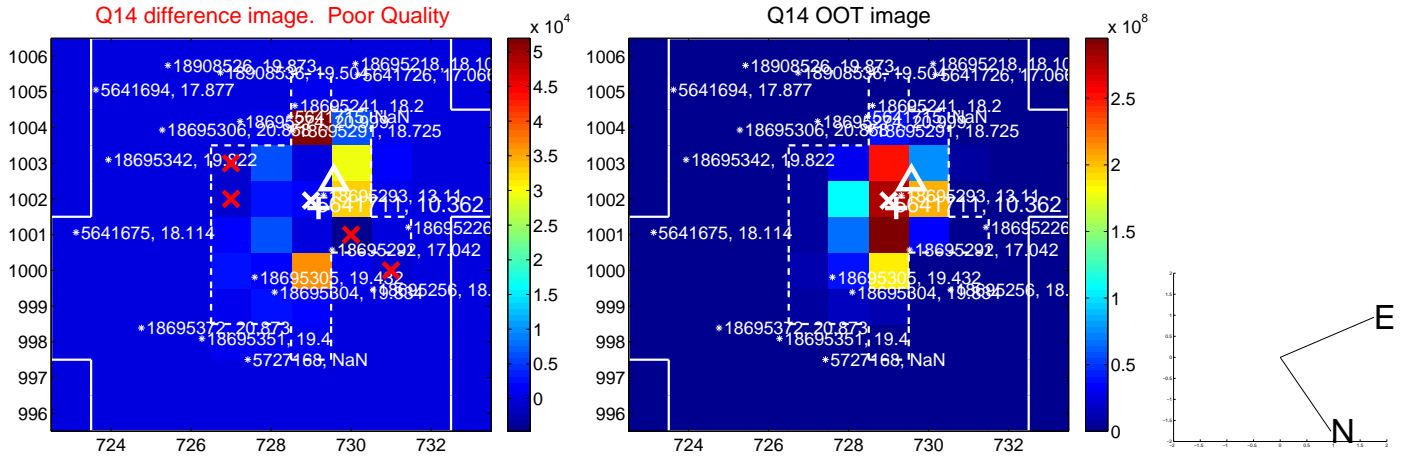
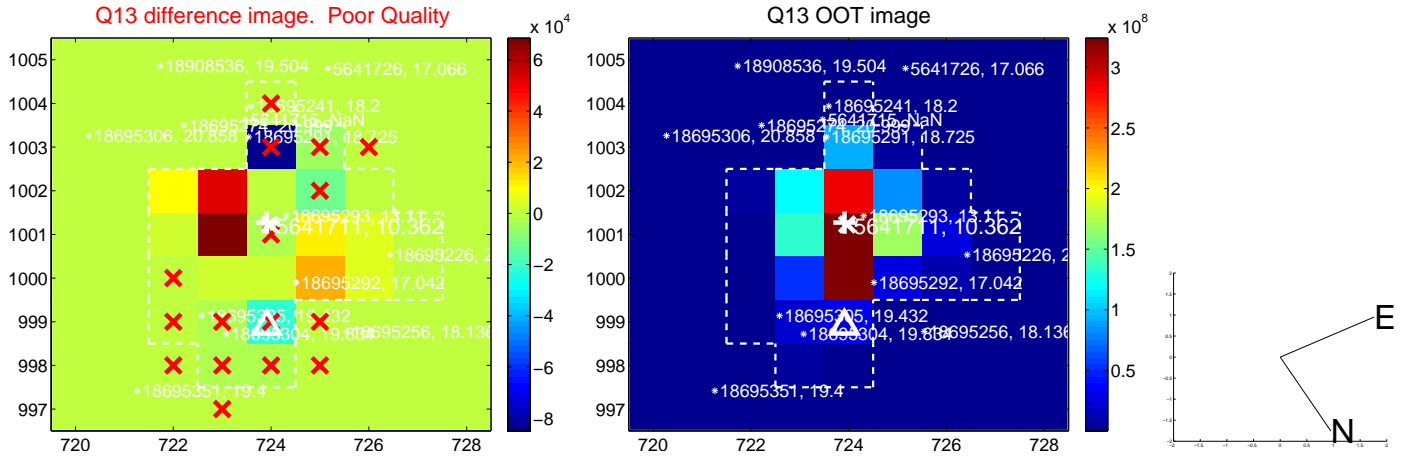
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



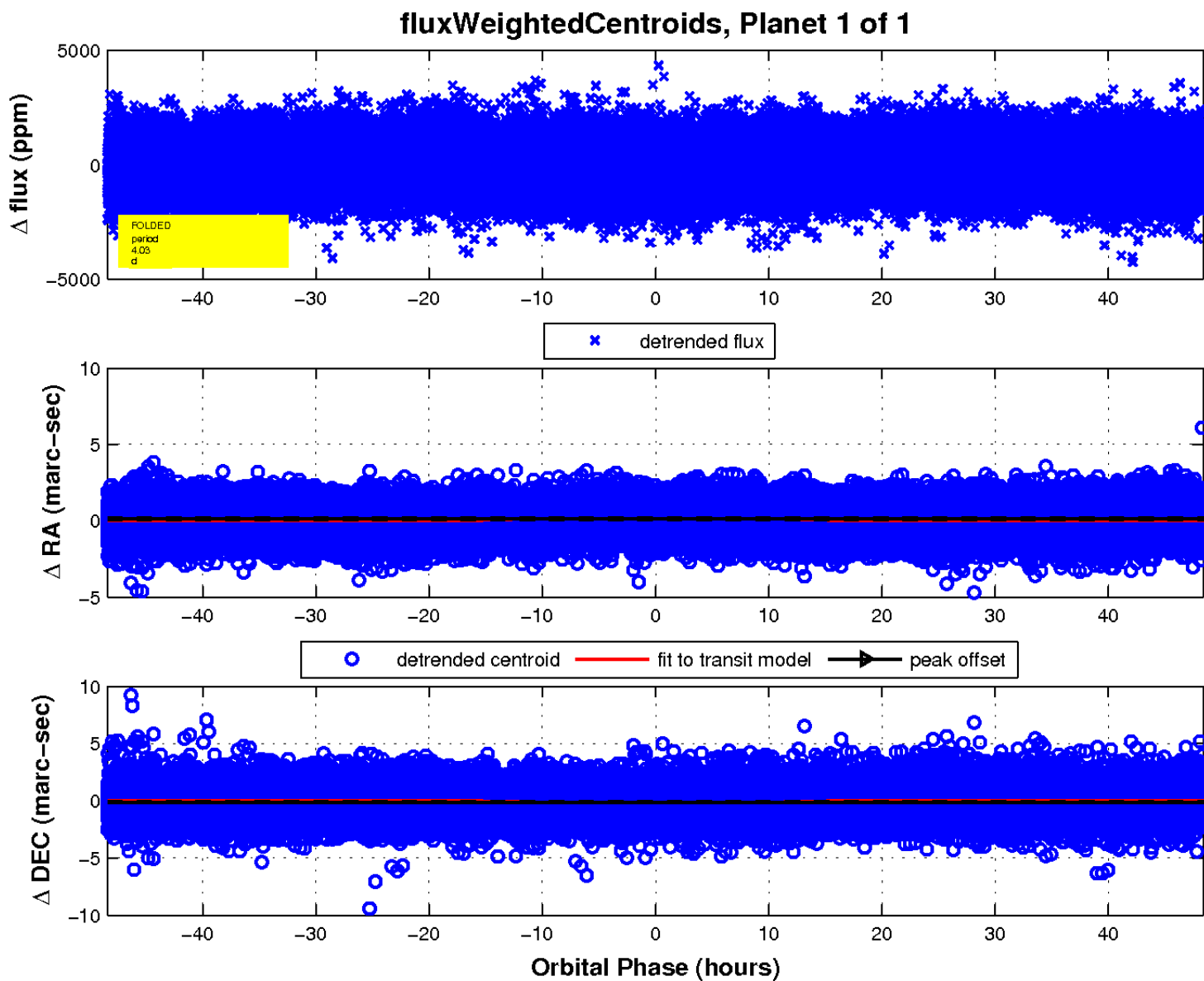
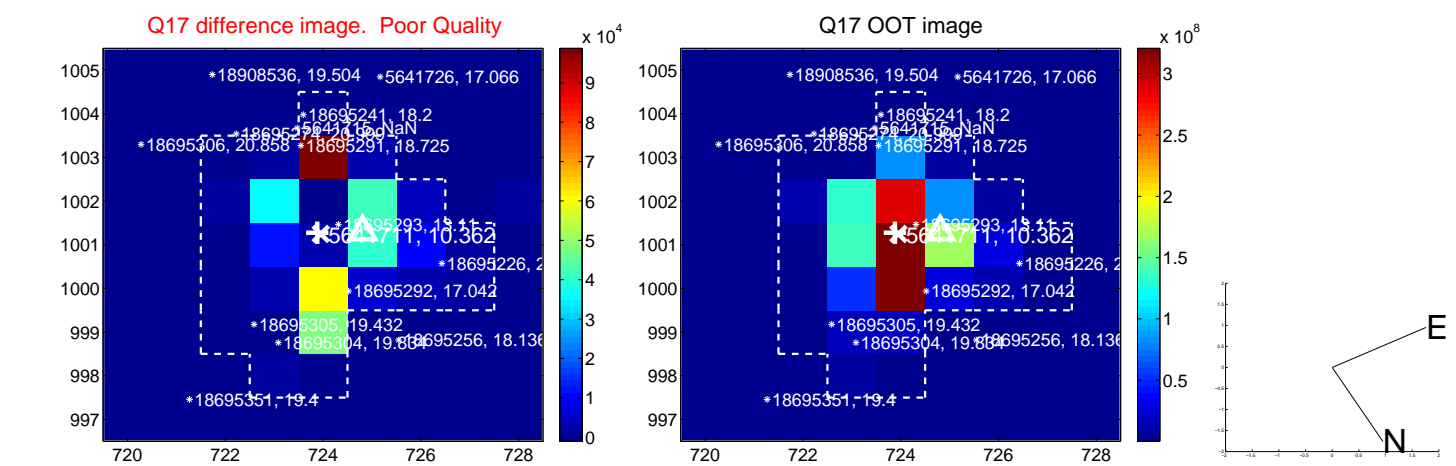
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UKIRT Image

