

KIC 007335713

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})
007335713-01	OBS	3250.01	1.147390	131.957268	59.3	1.387	8.5	10.5	5.77	5261	5.41	0.00
007335713-02	OBS	No	1.147407	132.513083	54.1	1.770	10.4	10.8	5.77	5261	5.08	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007335713-01	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
007335713-02	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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.

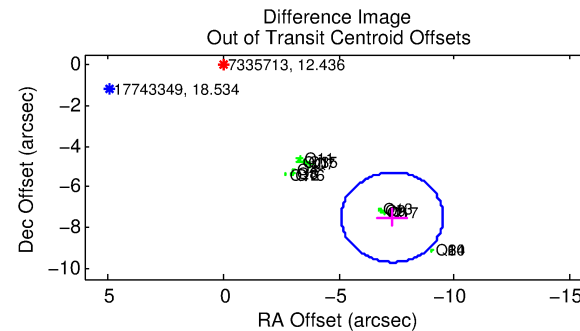
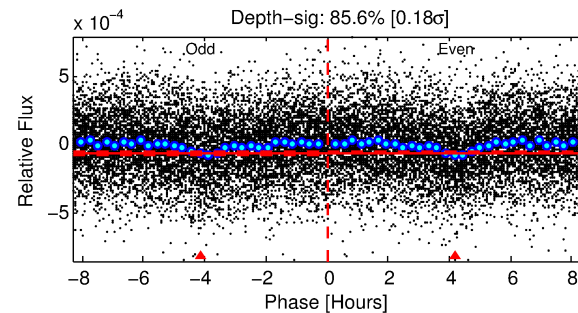
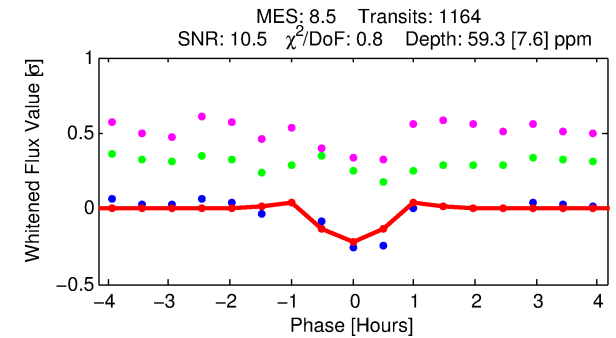
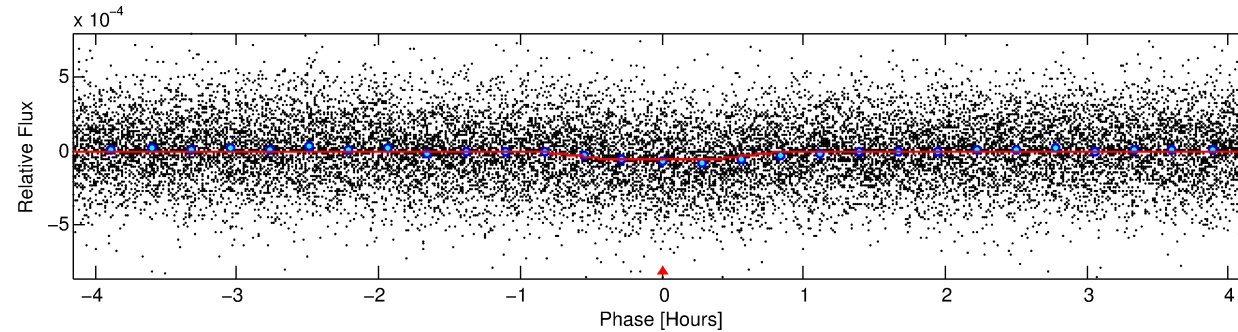
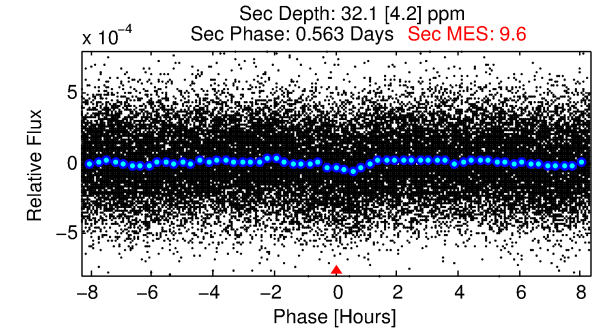
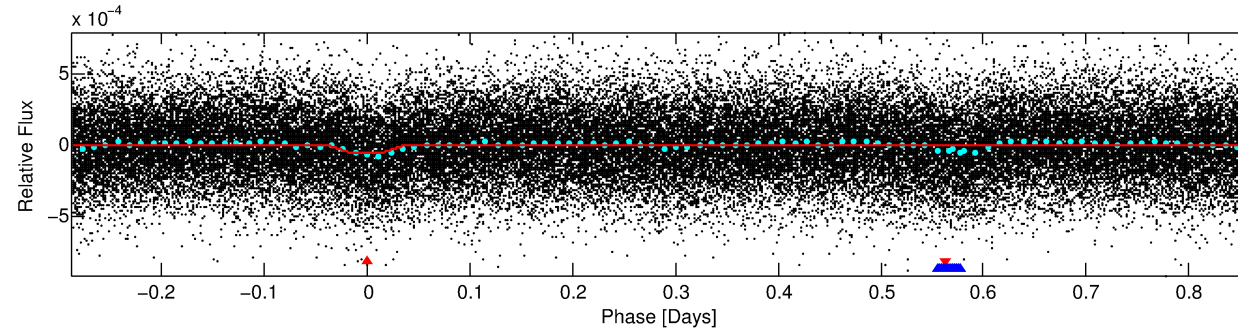
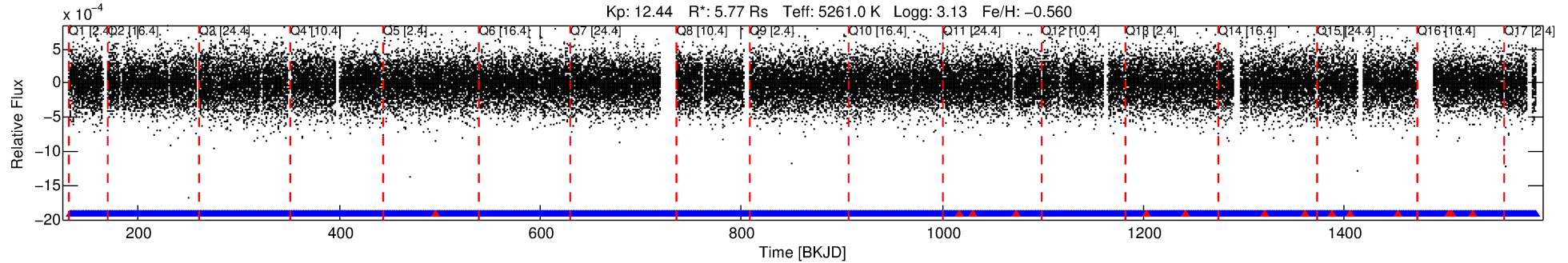
Ephemeris Match Information For 007335713-01

No Significant Match Found

DV One-Page Summary

KIC: 7335713 Candidate: 1 of 2 Period: 1.147 d
KOI: K03250 Corr: No Ephemeris Match

Kp: 12.44 R*: 5.77 Rs Teff: 5261.0 K Logg: 3.13 Fe/H: -0.560



DV Fit Results:

Period = 1.14739 [0.00001] d
Epoch = 131.9573 [0.0016] BKJD
Rp/R* = 0.0086 [0.0046]
a/R* = 2.87 [6.20]
b = 0.91 [0.46]
Seff = N/A
Teq = N/A
Rp = 5.41 [3.44] Re
a = N/A
Ag = N/A
Teff = N/A

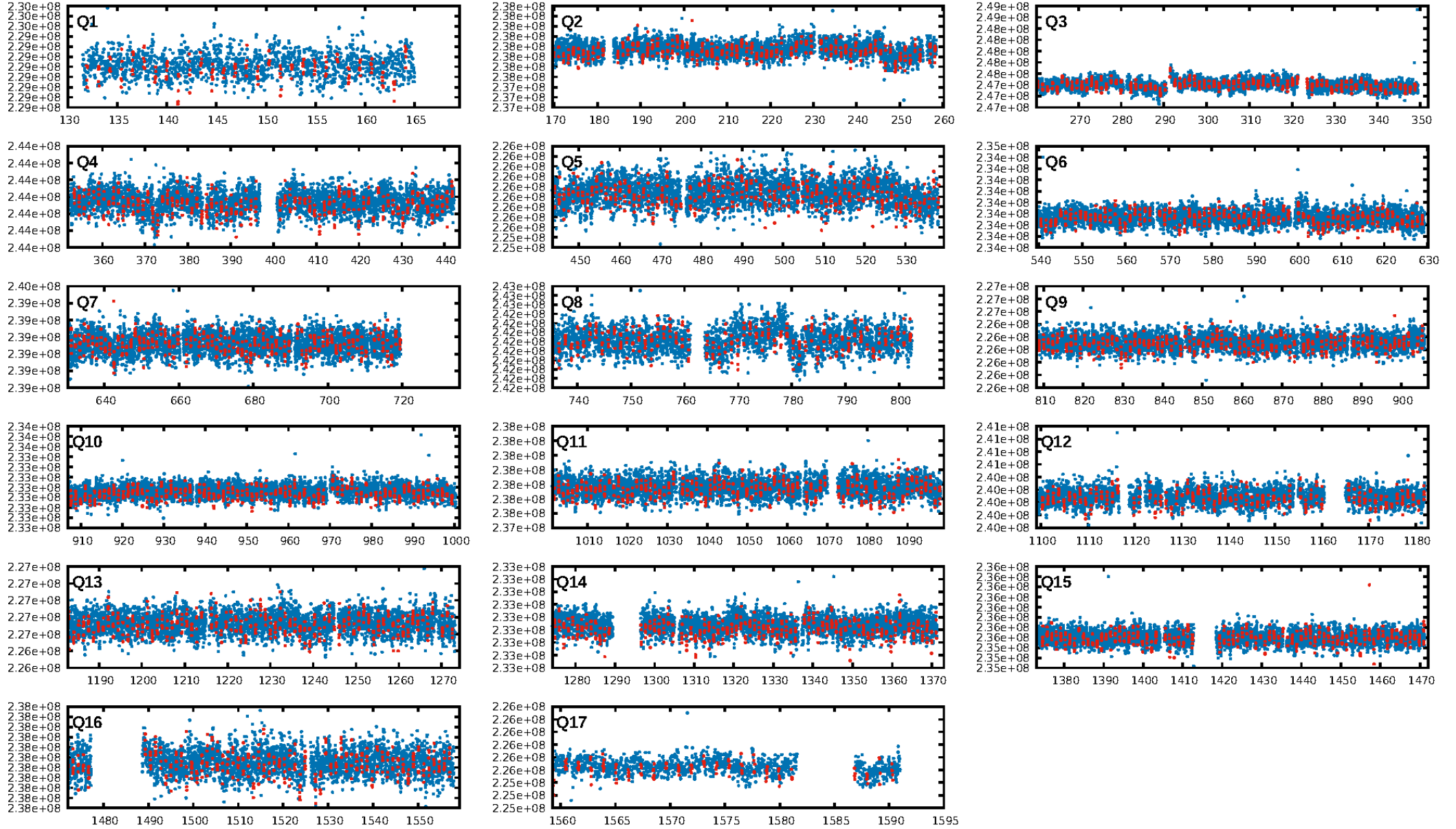
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.65e-14
RollingBand-fgt: 0.99 [1096/1111]
GhostDiagnostic-chr: -0.03902
Centroid-sig: 0.0%
Centroid-so: 3.926 arcsec [8.75σ]
OotOffset-rm: 10.461 arcsec [14.26σ]
KicOffset-rm: 10.575 arcsec [15.57σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

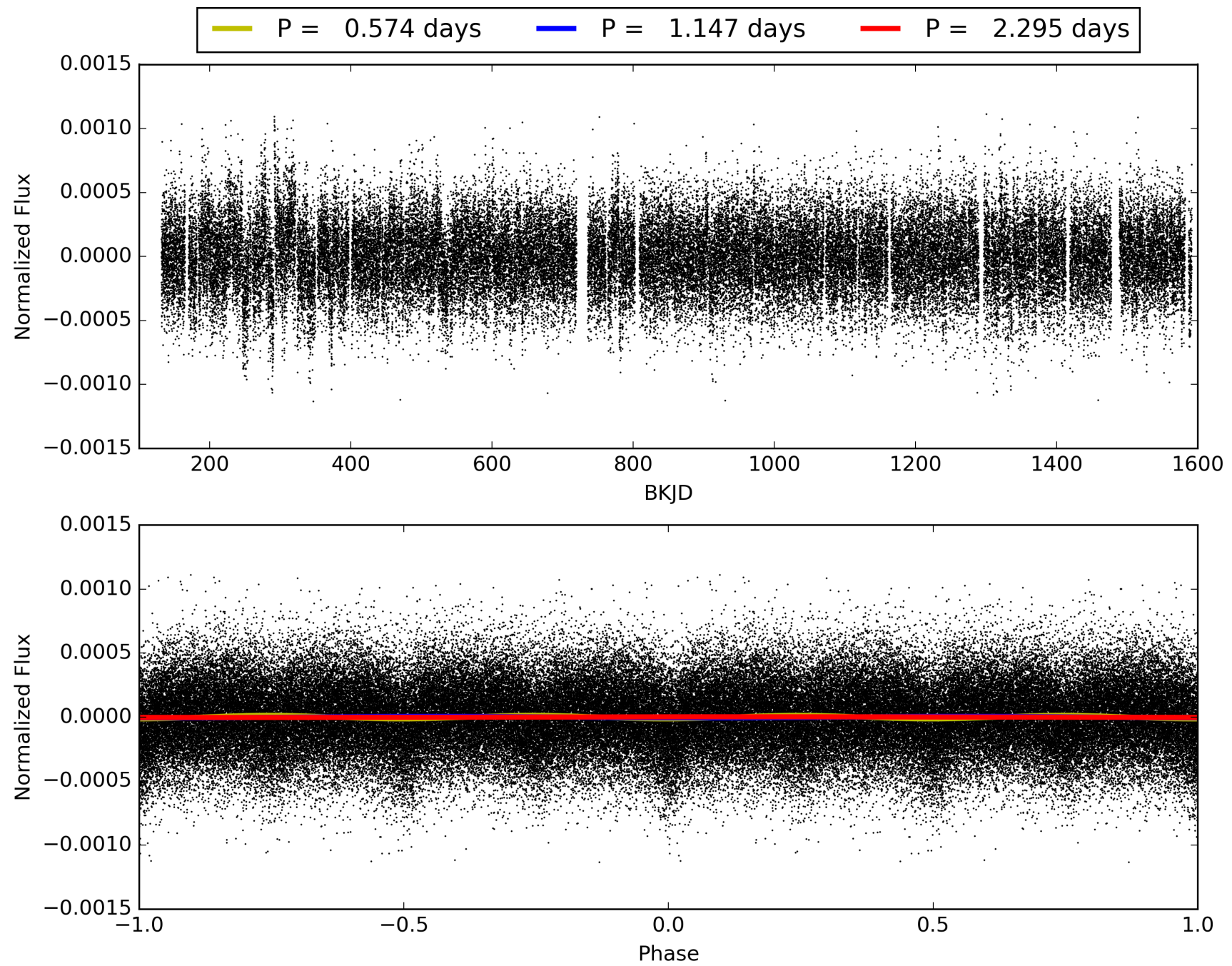
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007335713-01, PDC Light Curves

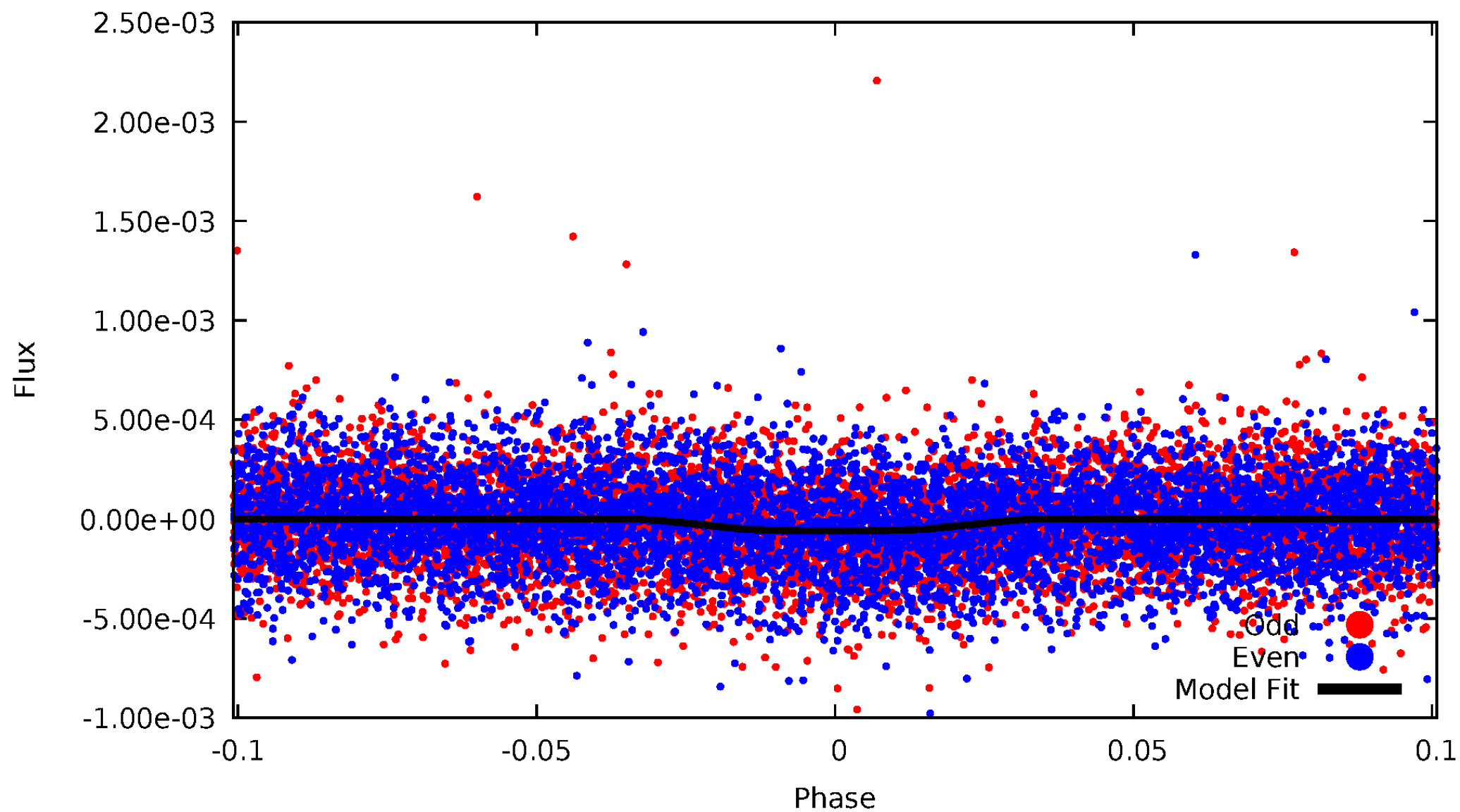


TCE 007335713-01



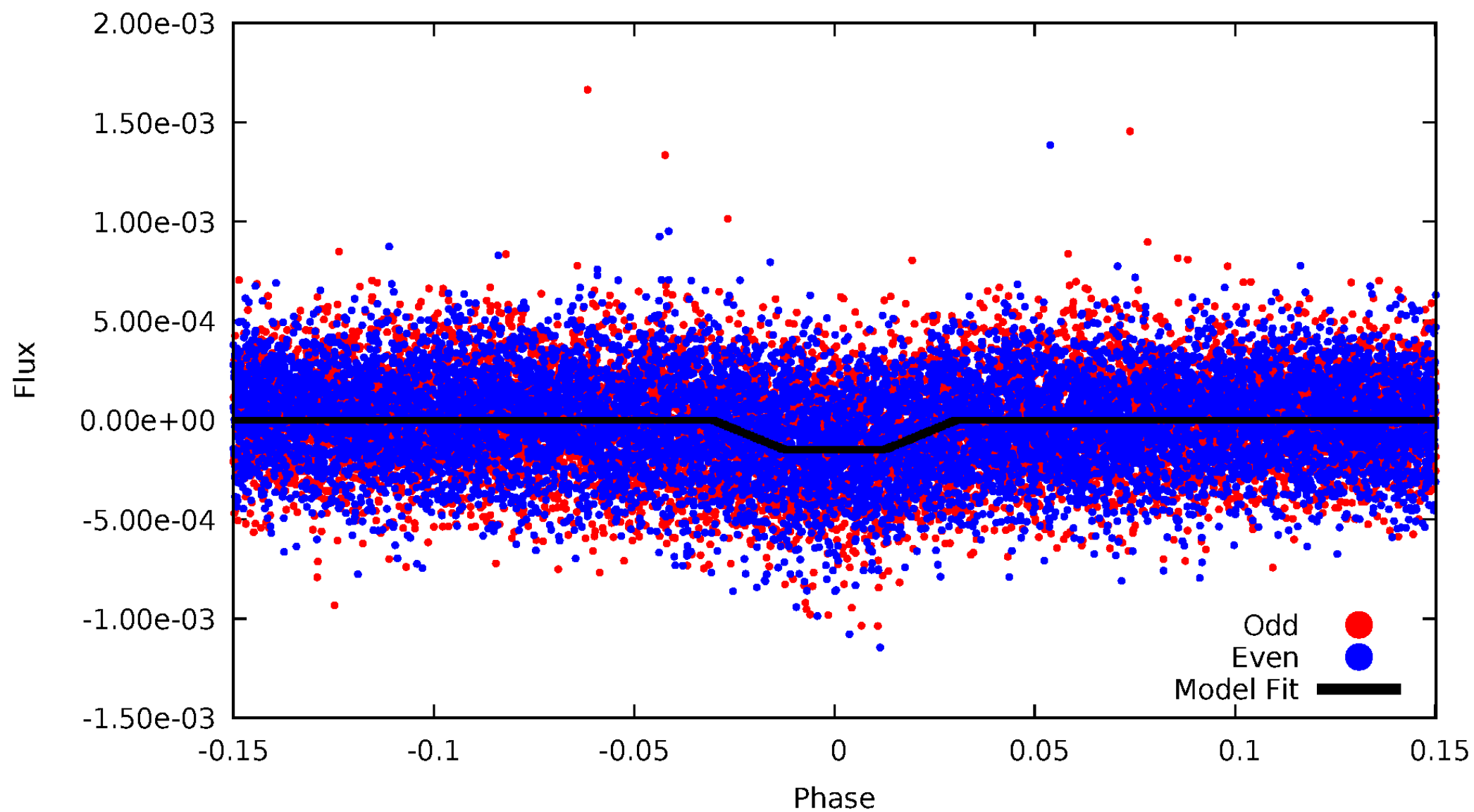
DV Odd/Even

TCE 007335713-01



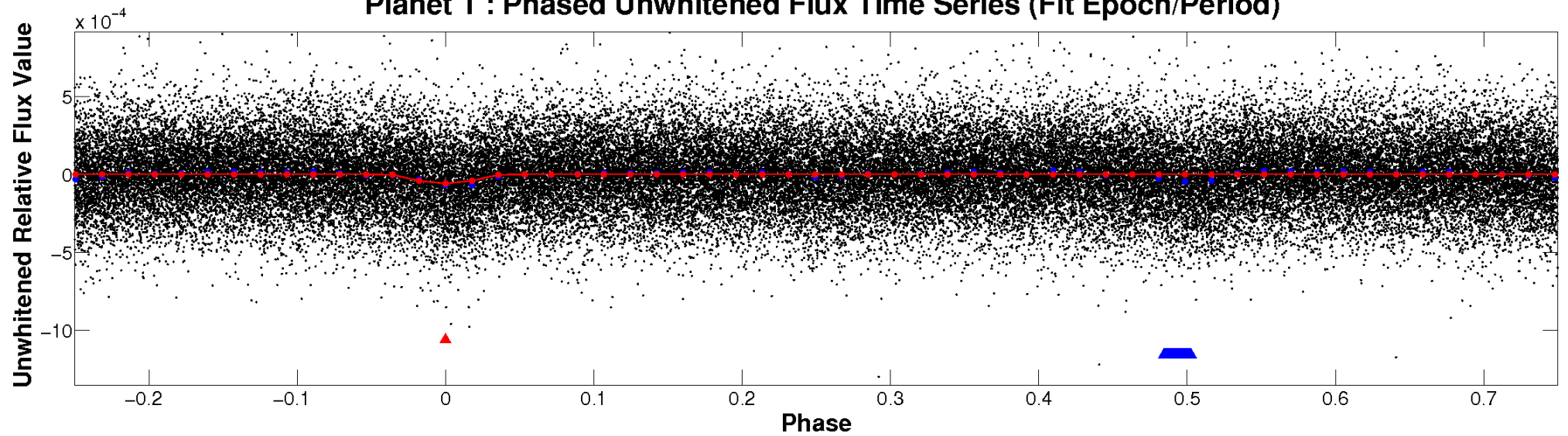
ALT Odd/Even

TCE 007335713-01

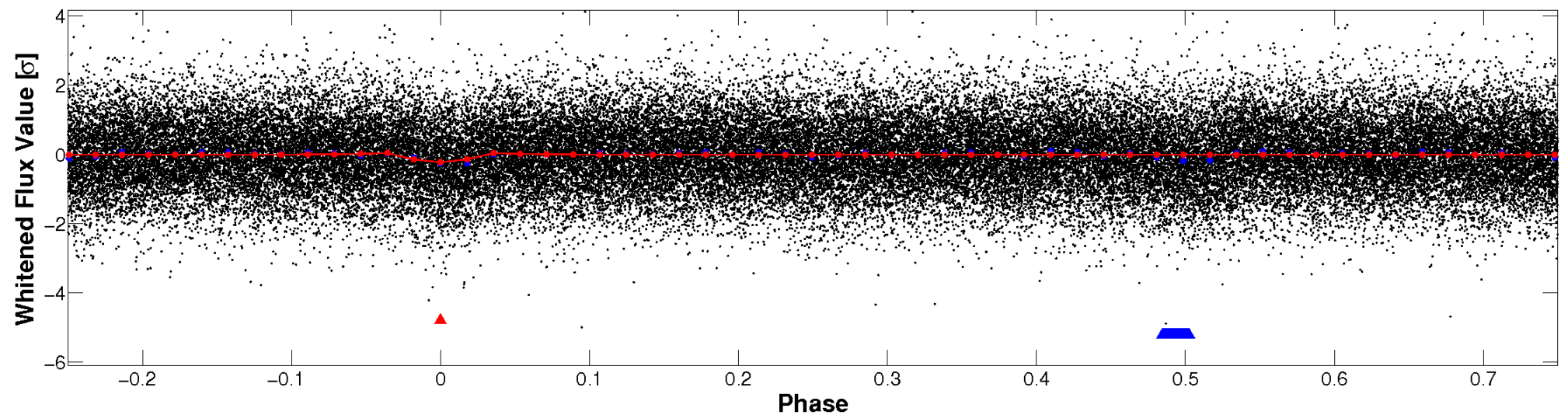


Non-Whitened Vs. Whitened Light Curve

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

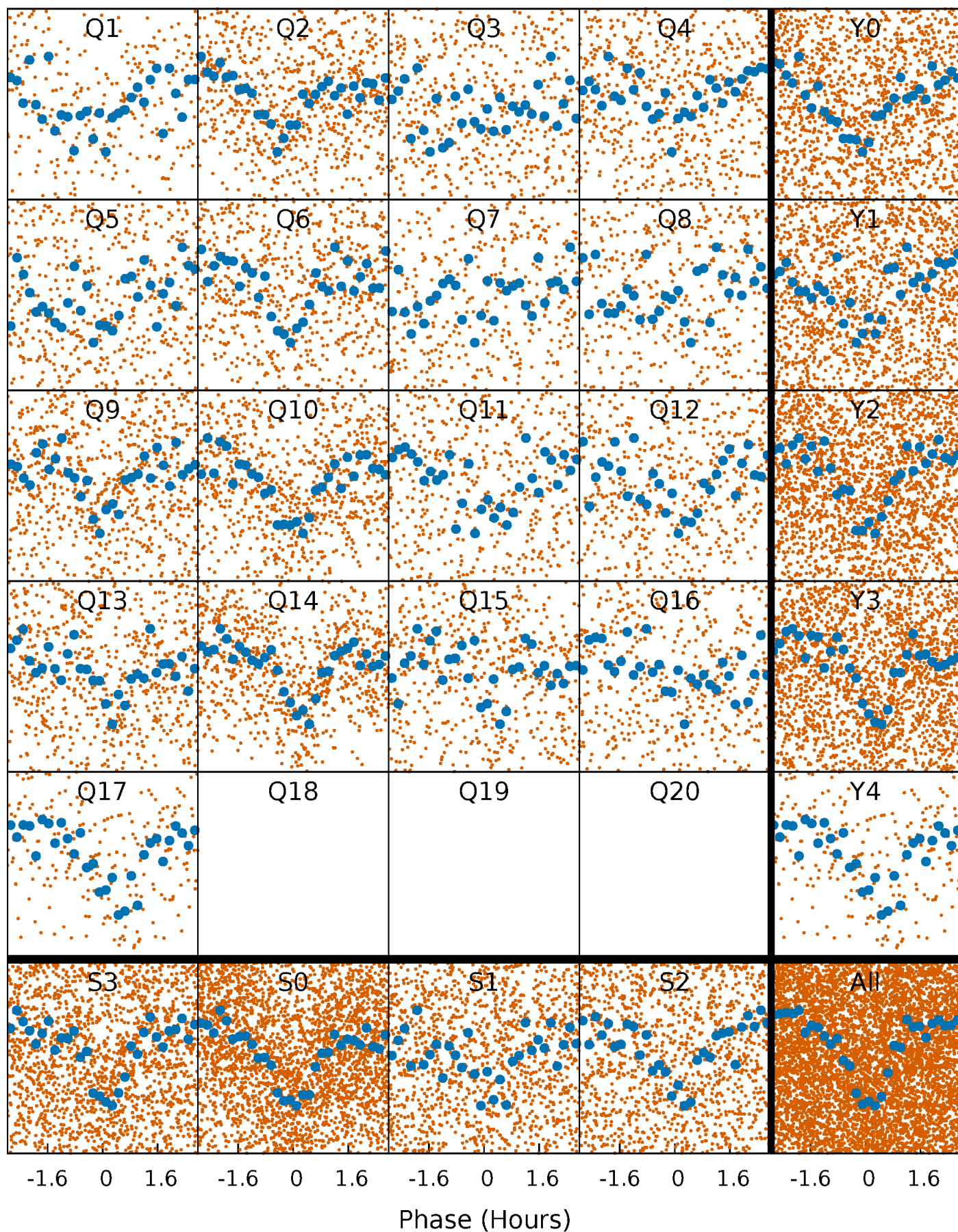


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



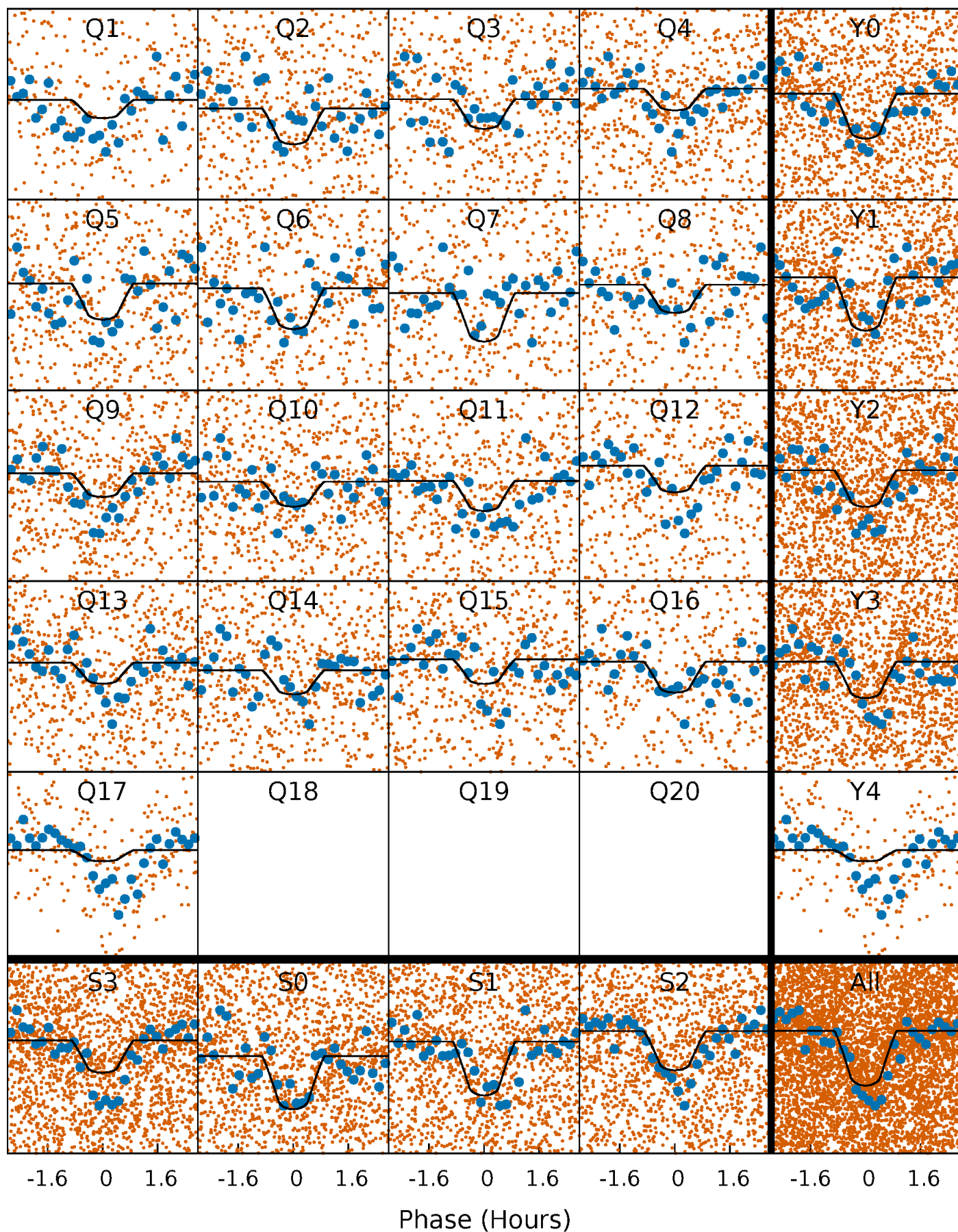
PDC Quarter-Phased Transit Curves

TCE 007335713-01 P= 1.147390 Days $T_0=131.957268$ (BKJD)



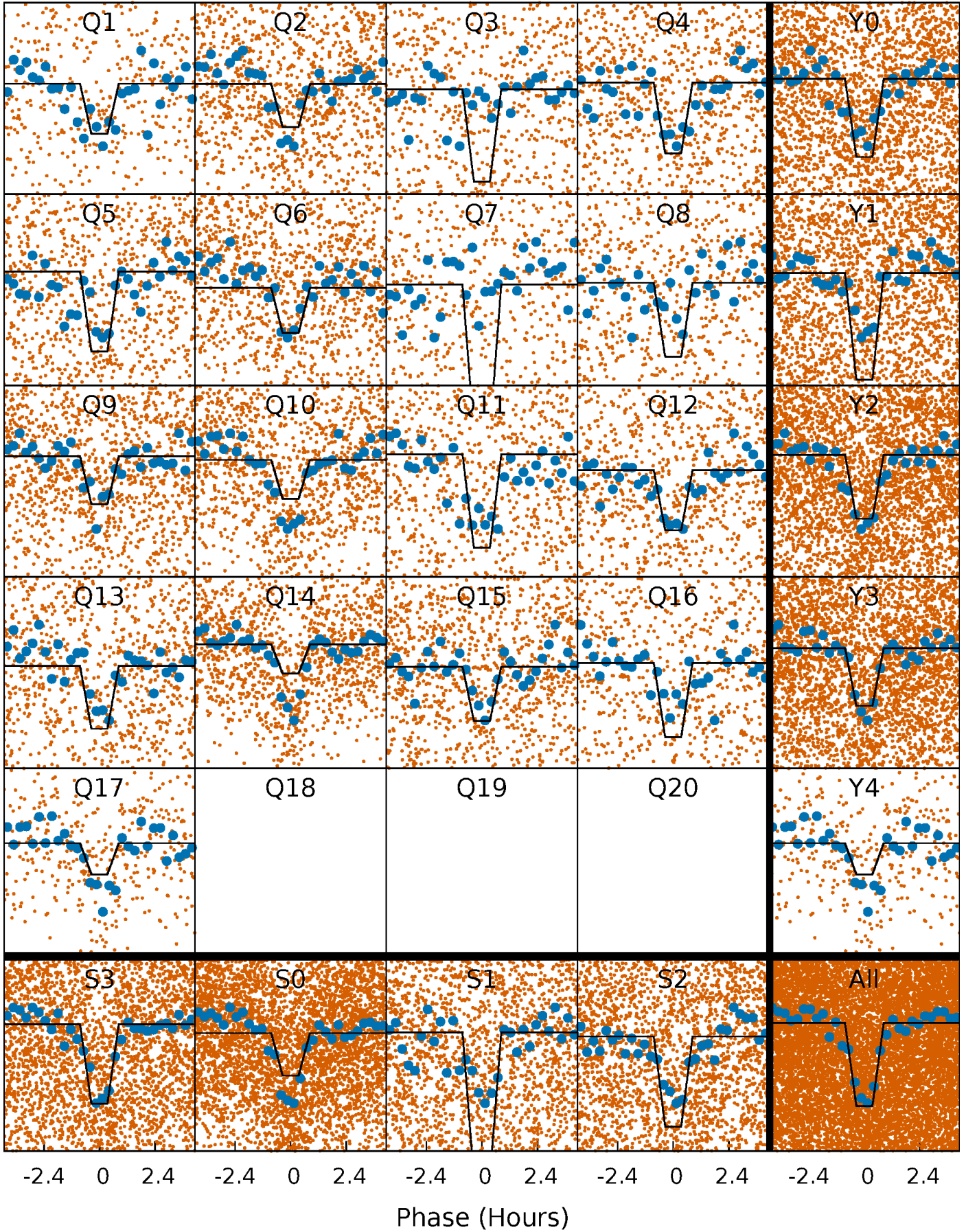
DV Quarter-Phased Transit Curves

TCE 007335713-01 P= 1.147390 Days $T_0=131.957268$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

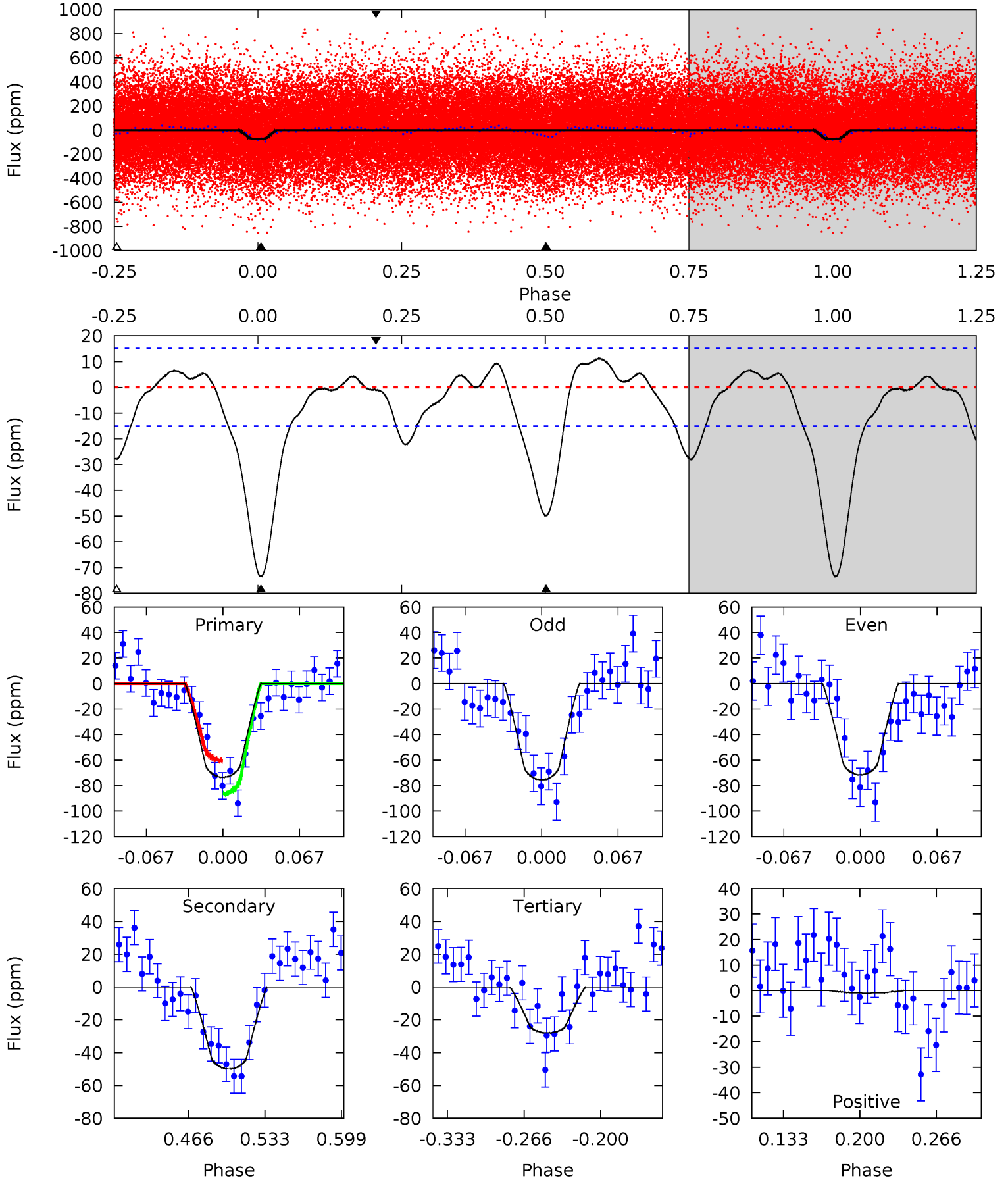
TCE 007335713-01 P= 1.147410 Days $T_0=131.946537$ (BKJD)



DV Model-Shift Uniqueness Test

007335713-01, P = 1.147390 Days, E = 130.809878 Days

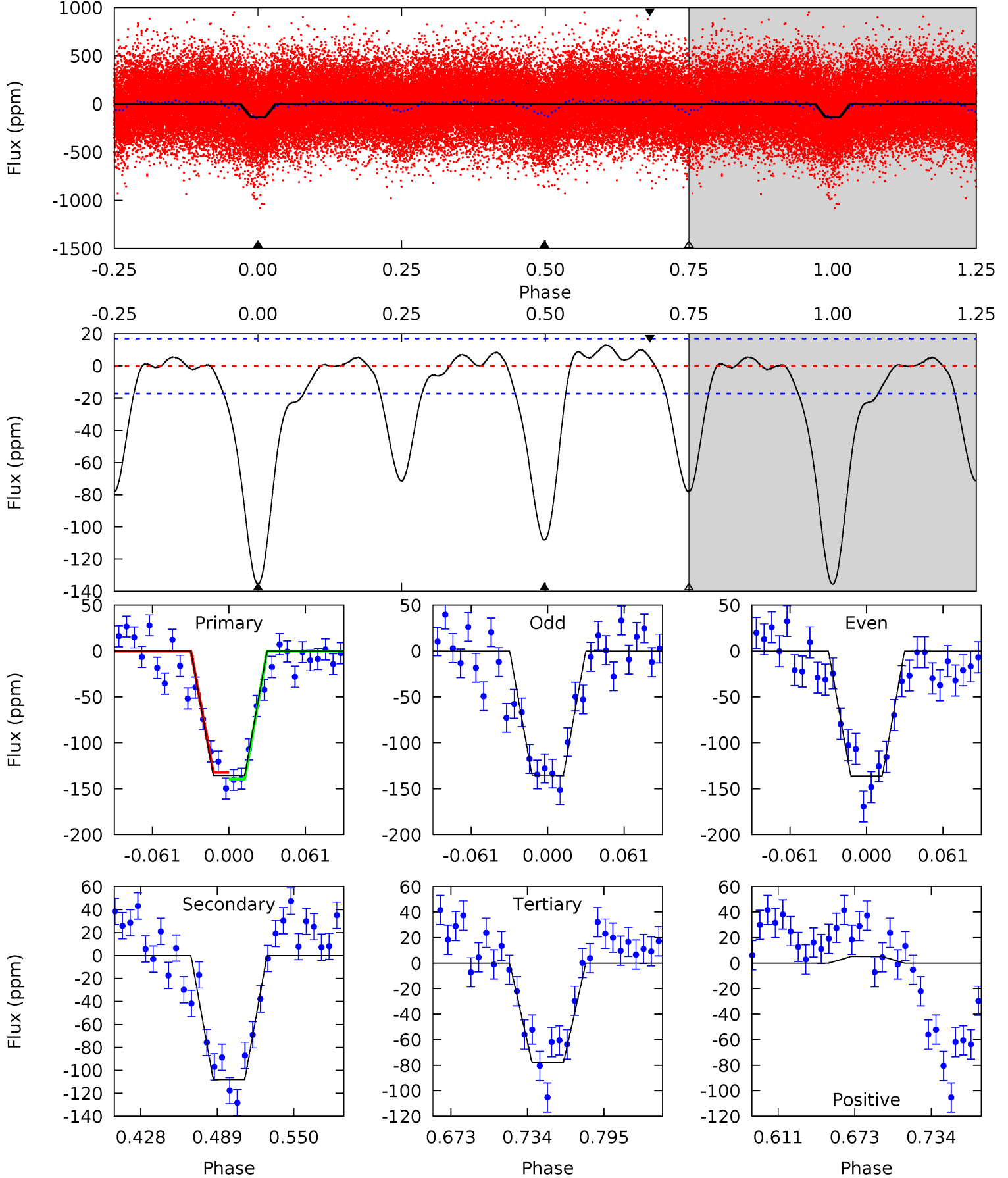
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	15.4	8.59	-0.29	4.65	1.83	2.80	14.0	22.9	6.77	15.7	0.60	1.14	0.13	4.03



Alt Model-Shift Uniqueness Test

007335713-01, P = 1.147410 Days, E = 130.799127 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.0	29.4	21.2	1.41	4.67	1.87	6.16	15.7	35.5	8.22	28.0	0.14	1.09	0.09	1.00



Stellar Parameters For KIC 007335713

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5261^{+91}_{-143}	$3.130^{+0.222}_{-0.148}$	$-0.560^{+0.200}_{-0.300}$	$5.769^{+1.078}_{-2.001}$	$1.639^{+0.167}_{-0.625}$	$0.012^{+0.017}_{-0.005}$
	+2%/-3%	+7%/-5%	+36%/-54%	+19%/-35%	+10%/-38%	+143%/-38%
Source	PHO1	FLK73	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 007335713-01 / KOI 3250.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-50 ± 3	$5.29^{+3.12}_{-2.79}$	4887^{+287}_{-375}	4152^{+2404}_{-7392}	$0.612^{+2.158}_{-0.373}$
Alt.	-108 ± 4	$7.38^{+3.35}_{-2.89}$	4886^{+287}_{-371}	4316^{+1417}_{-1410}	$0.663^{+1.064}_{-0.332}$

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 $A_{obs} \gg 1.0$

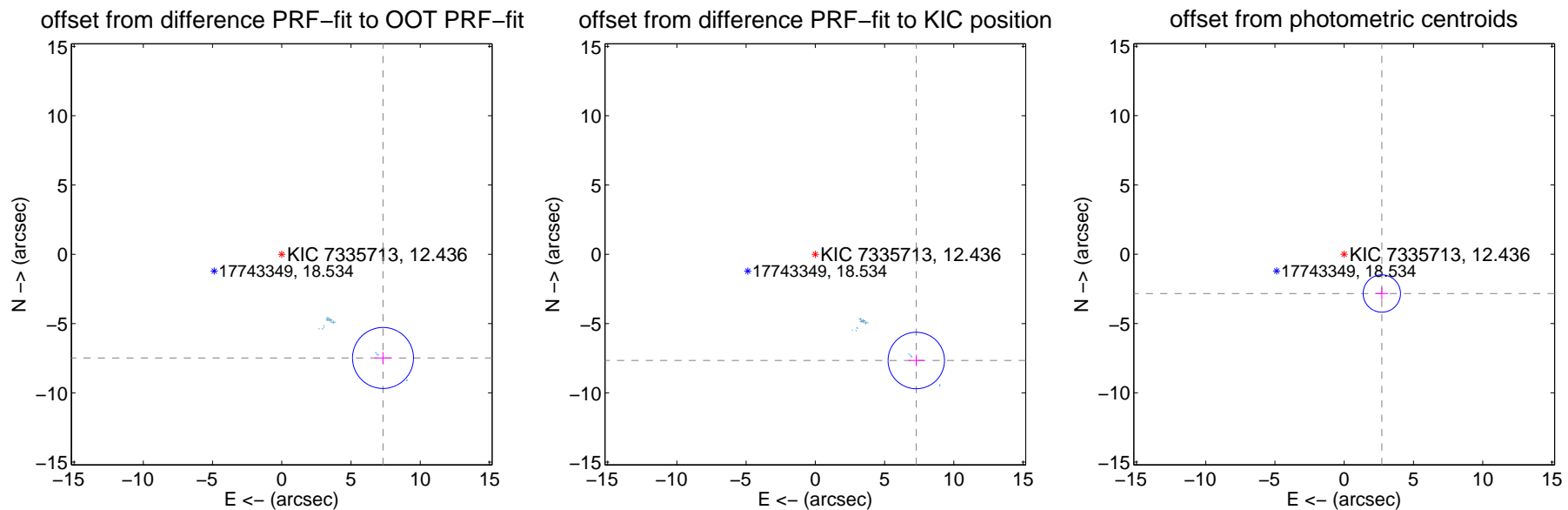
DV Centroid Data

Supplemental centroid analysis for 007335713-01. Kepler magnitude: 12.44. Transit SNR 10.47

There are 16 quarters with good PRF difference image offsets

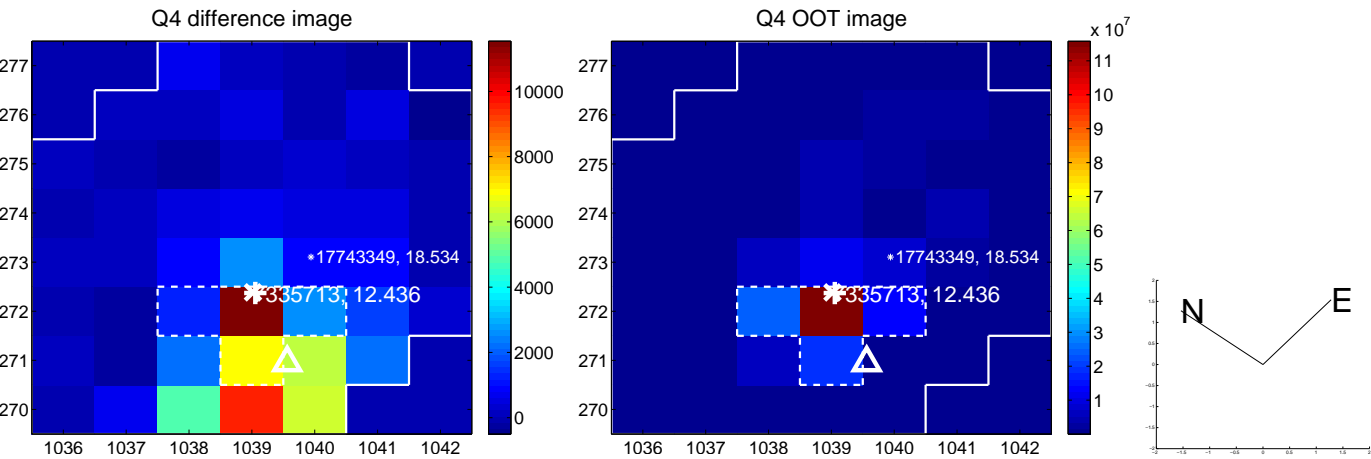
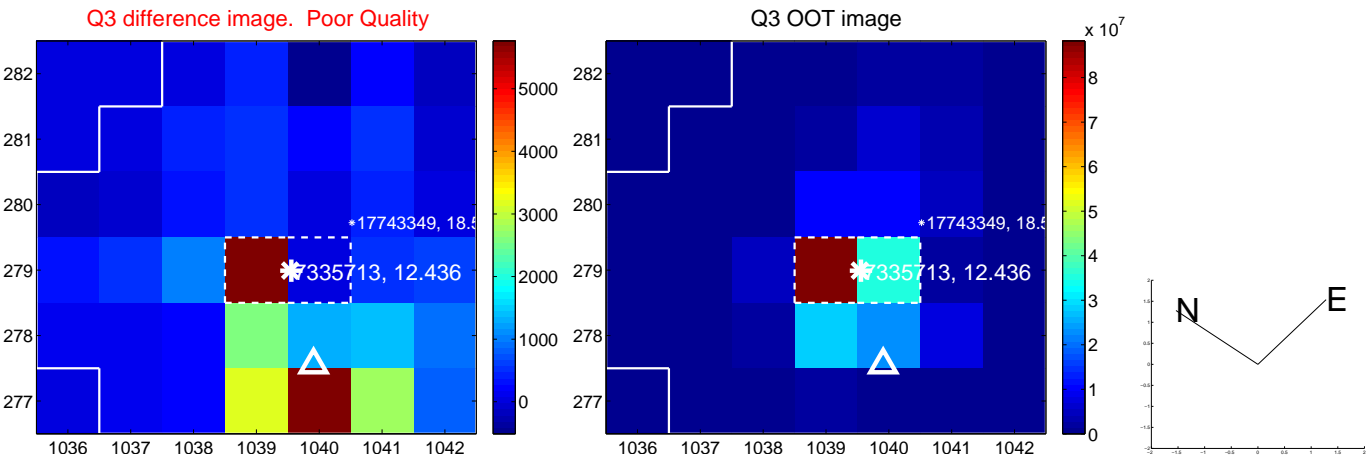
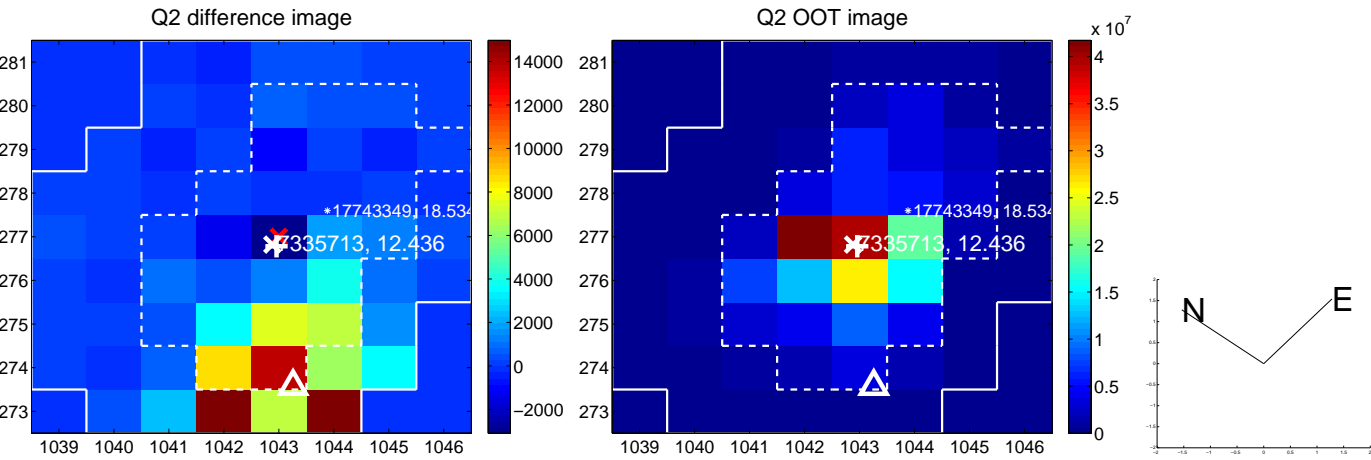
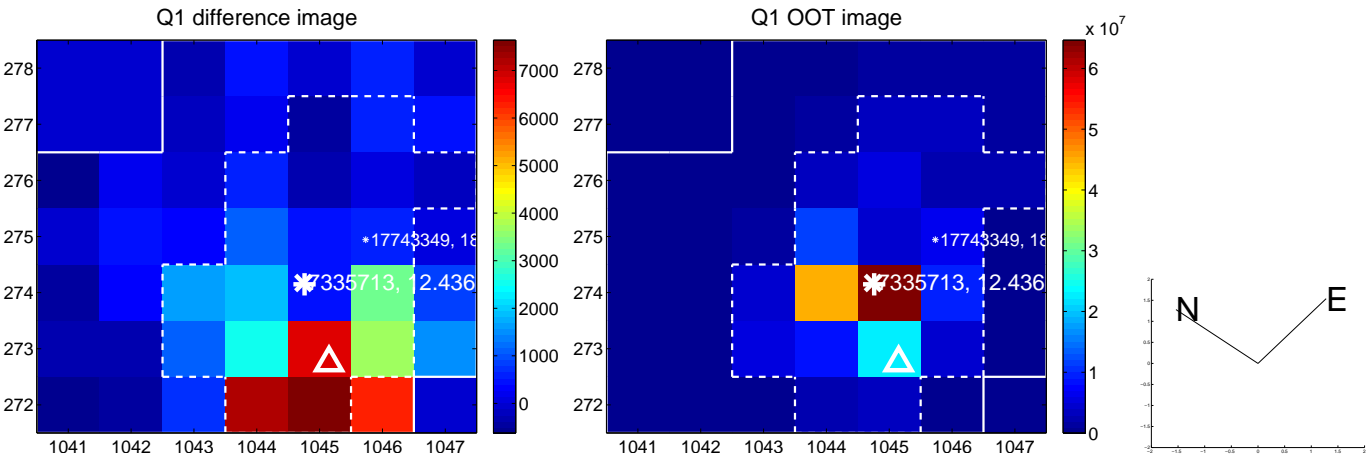
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.461 ± 0.734	14.26	-7.310 ± 0.620	-7.483 ± 0.431
PRF-fit source offset from KIC position	10.575 ± 0.679	15.57	-7.287 ± 0.560	-7.664 ± 0.414
photometric centroid source offset	3.93 ± 0.45	8.75	-2.72 ± 0.46	-2.84 ± 0.44

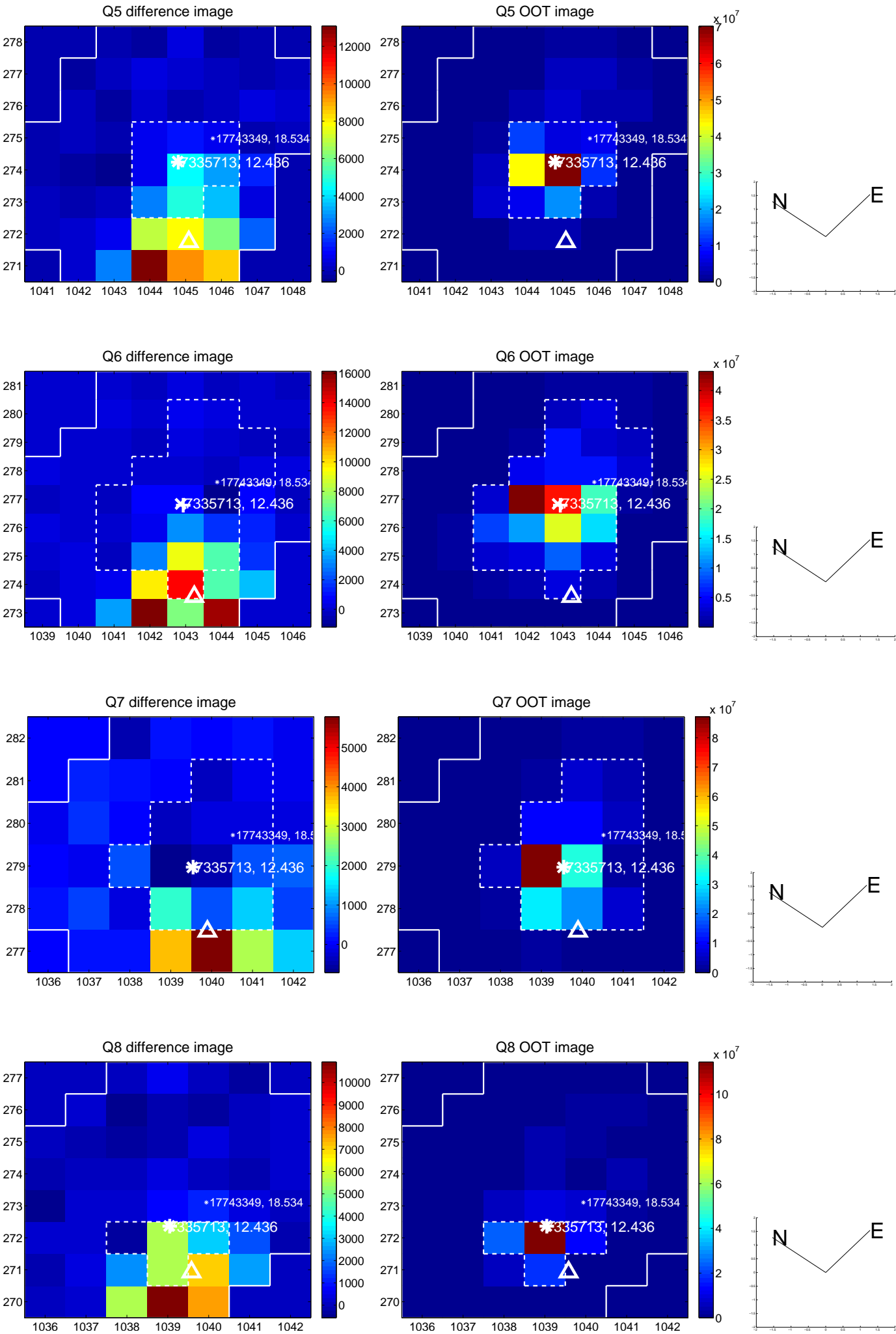


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

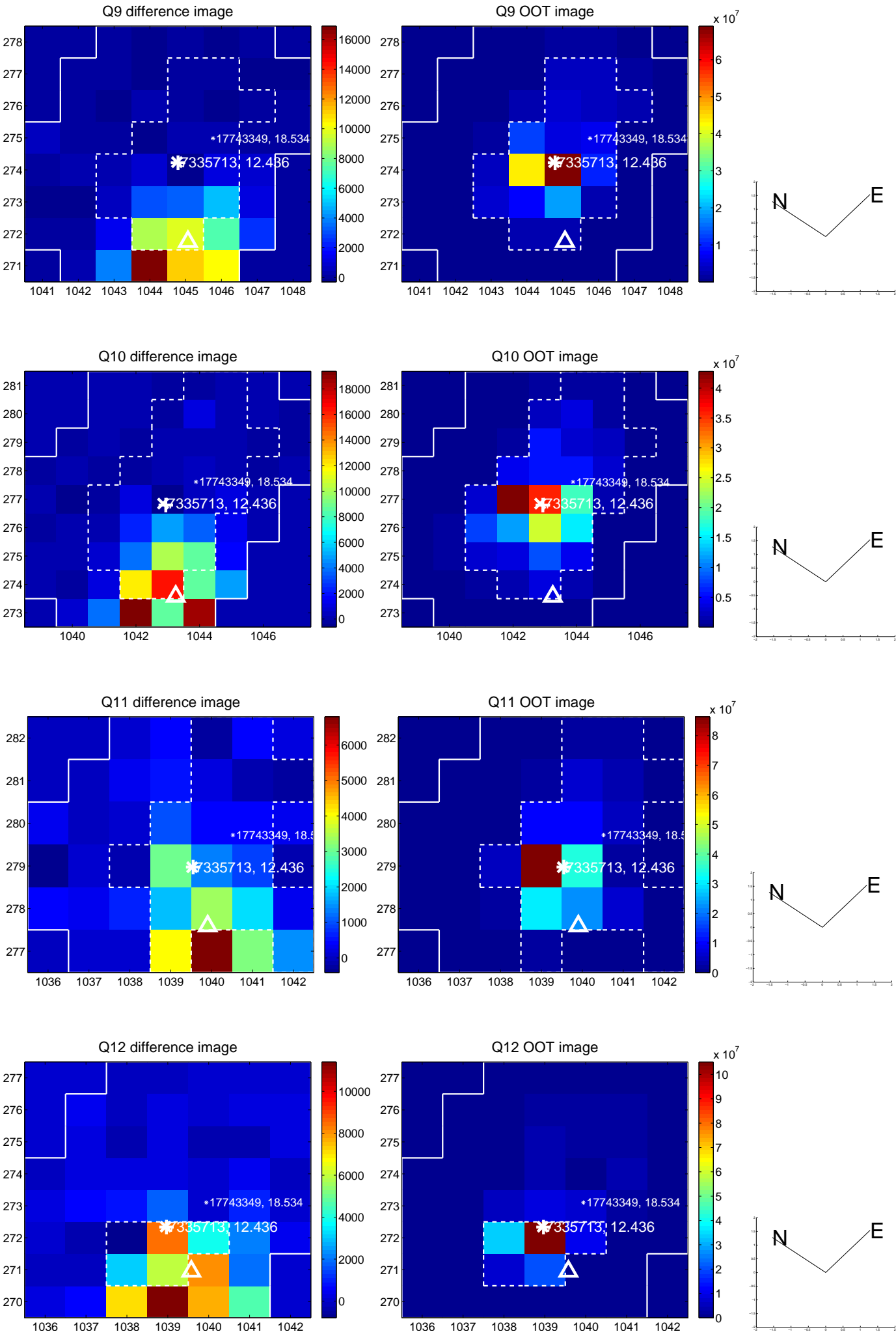
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



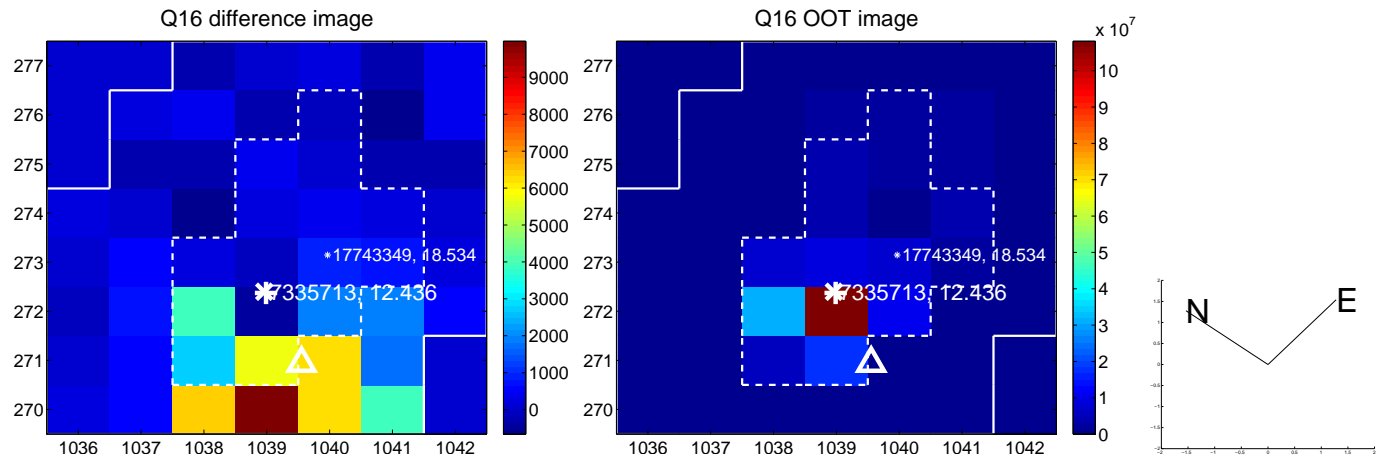
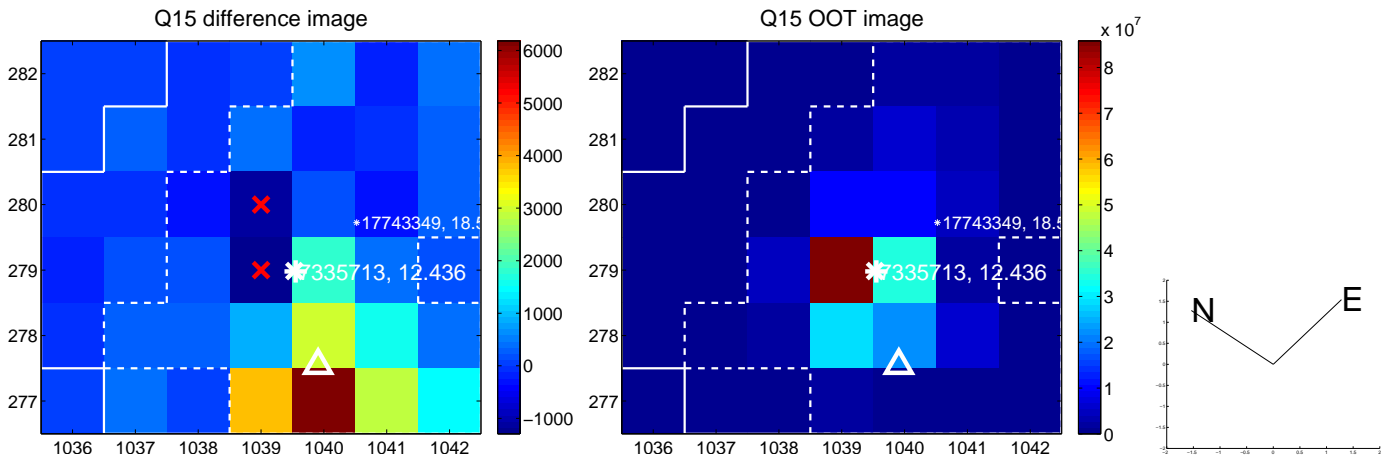
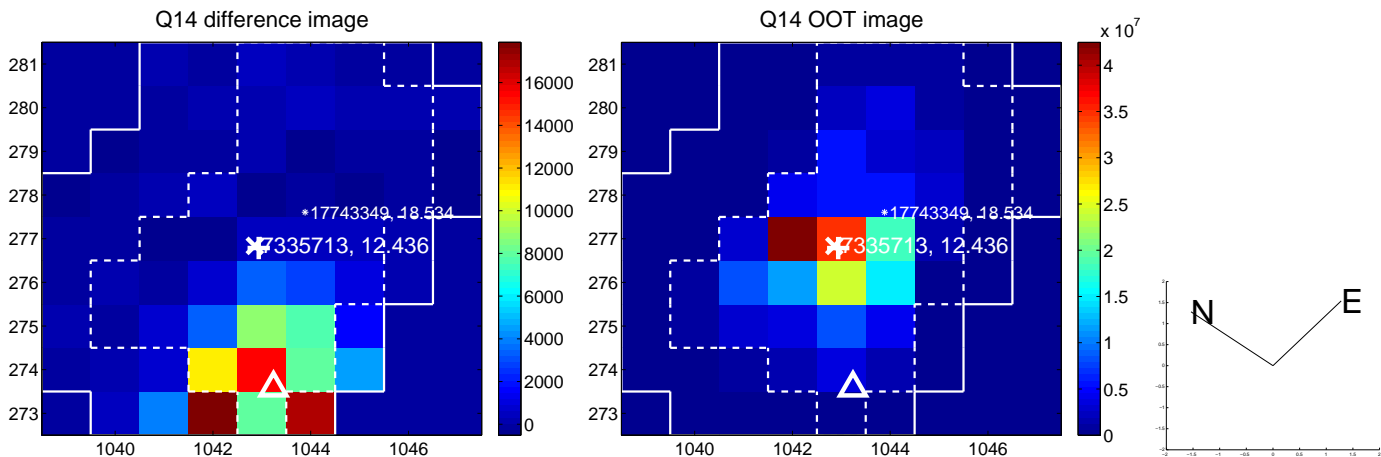
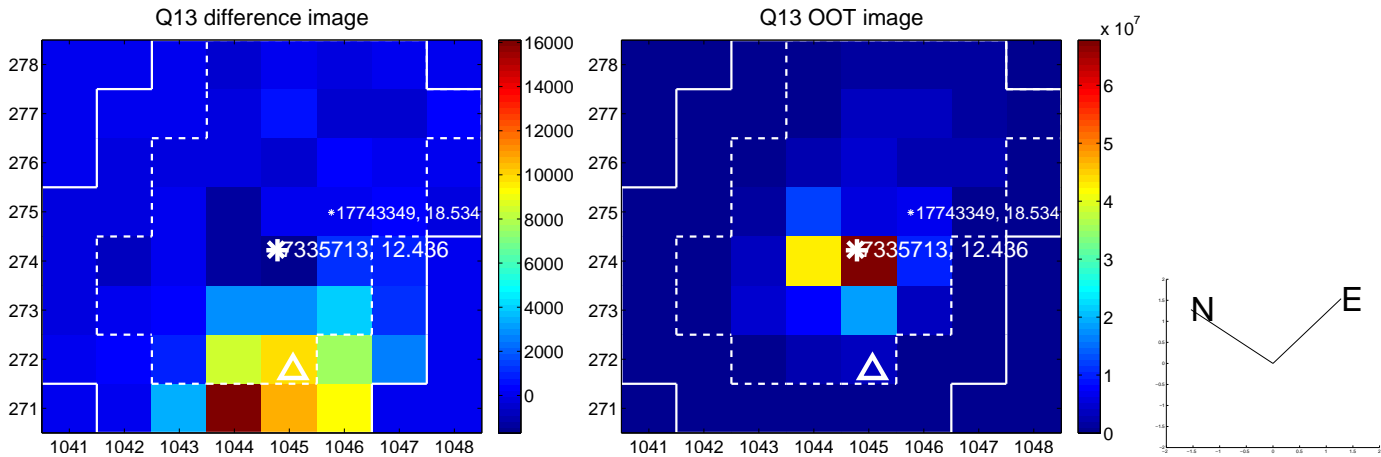
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



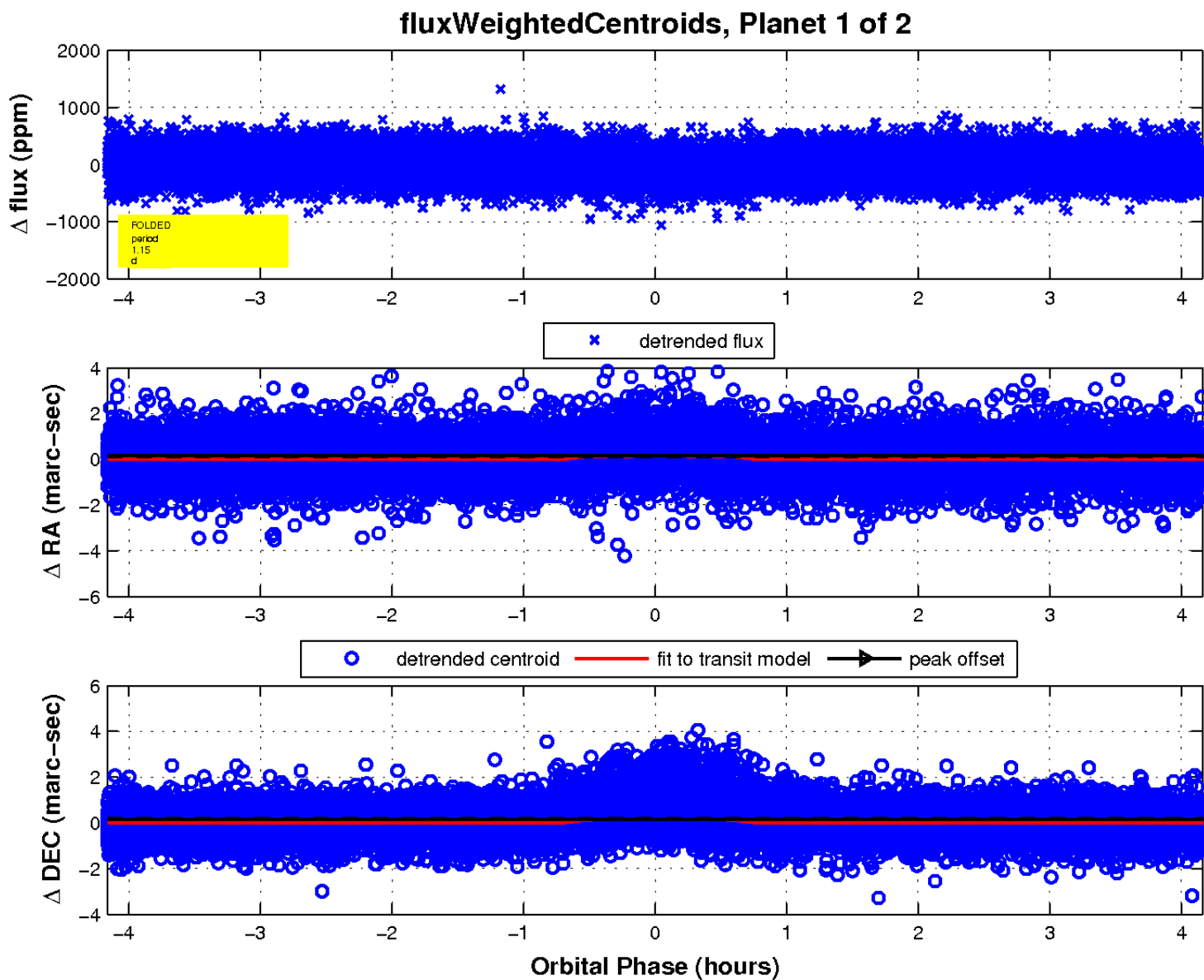
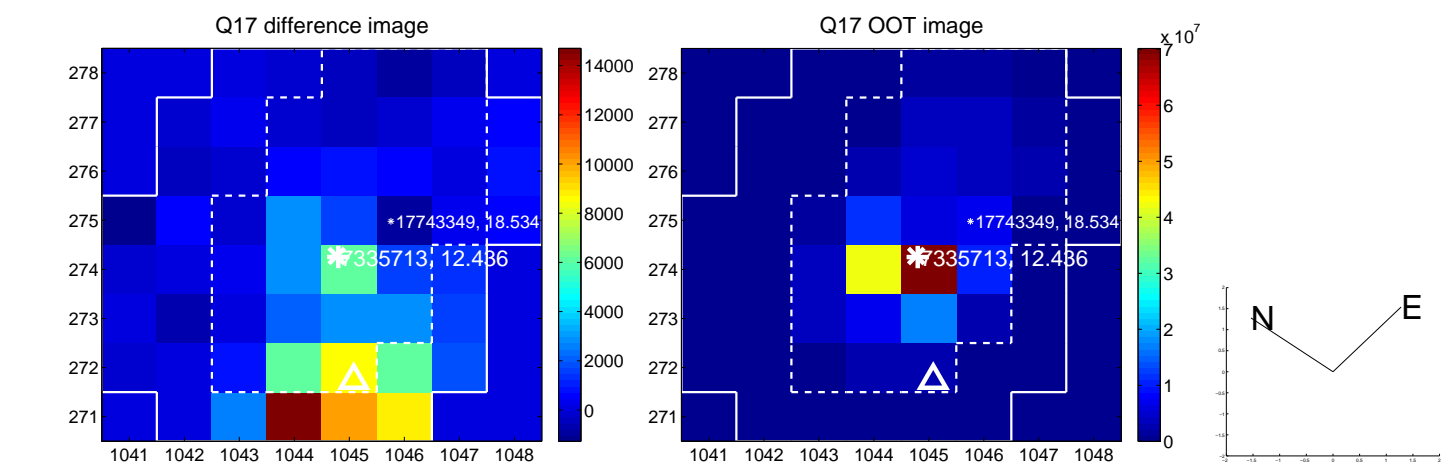
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

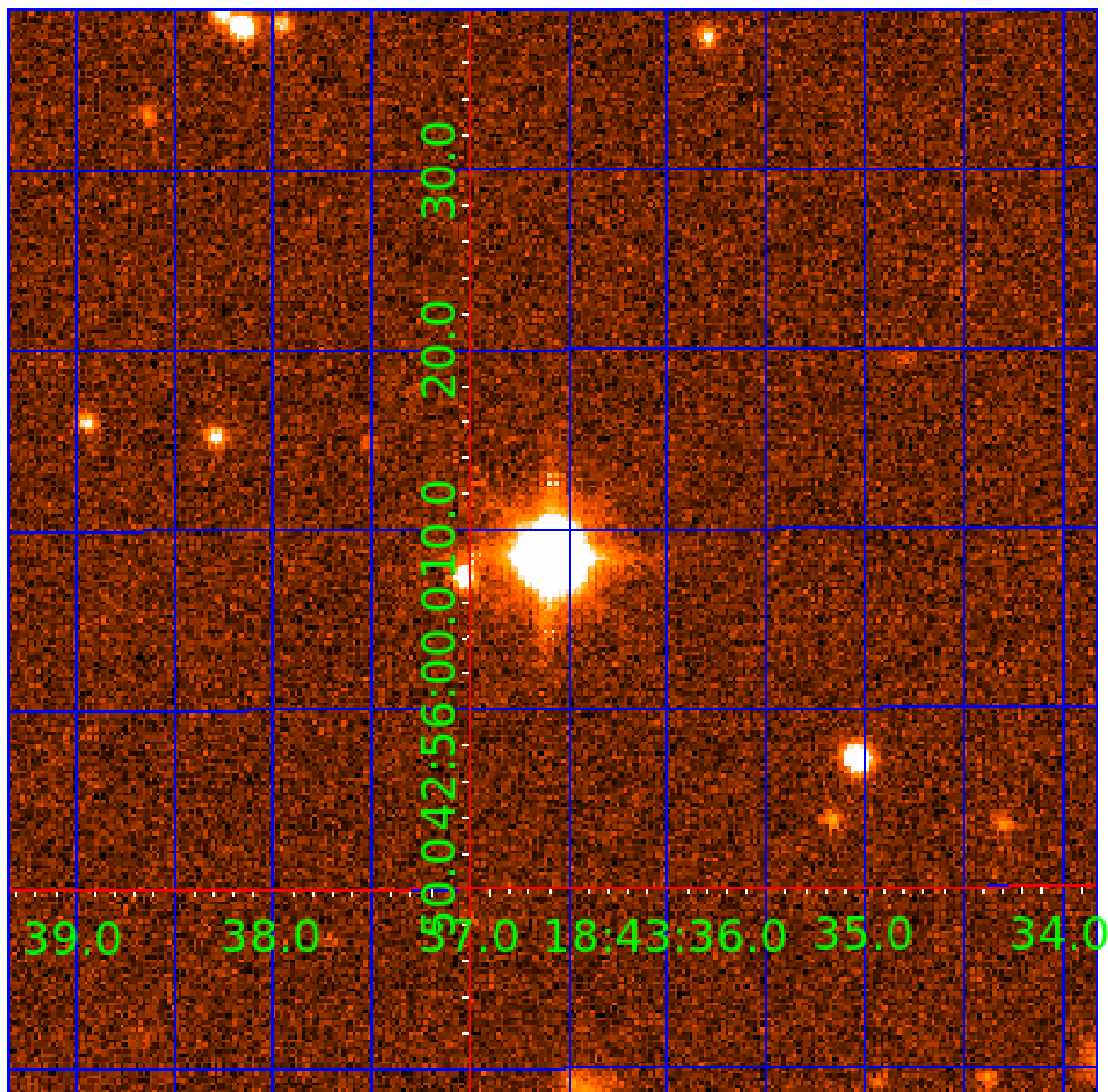


white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007335713

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})
007335713-01	OBS	3250.01	1.147390	131.957268	59.3	1.387	8.5	10.5	5.77	5261	5.41	0.00
007335713-02	OBS	No	1.147407	132.513083	54.1	1.770	10.4	10.8	5.77	5261	5.08	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007335713-01	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
007335713-02	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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.

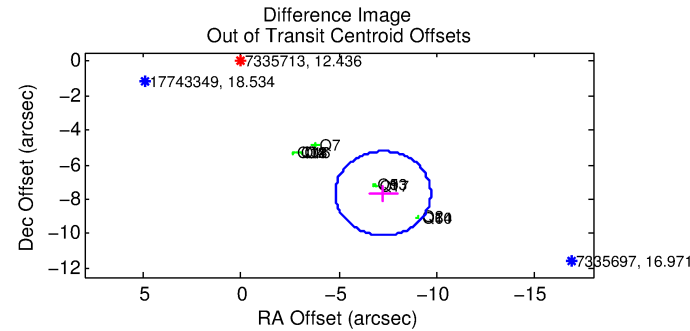
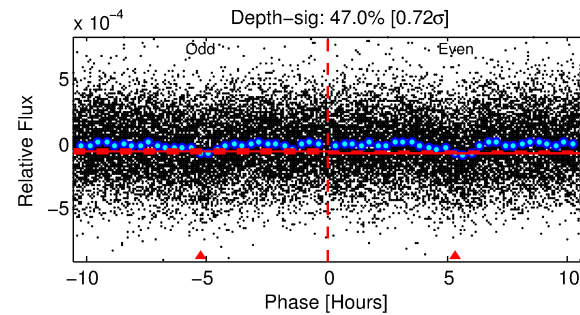
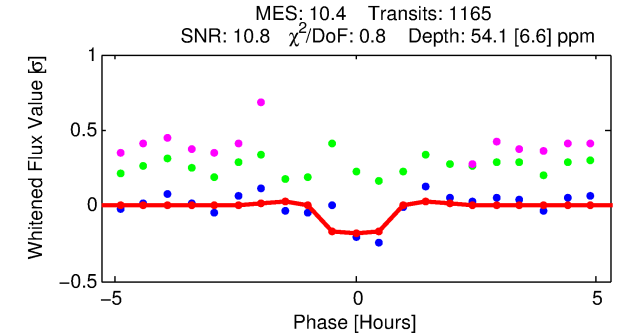
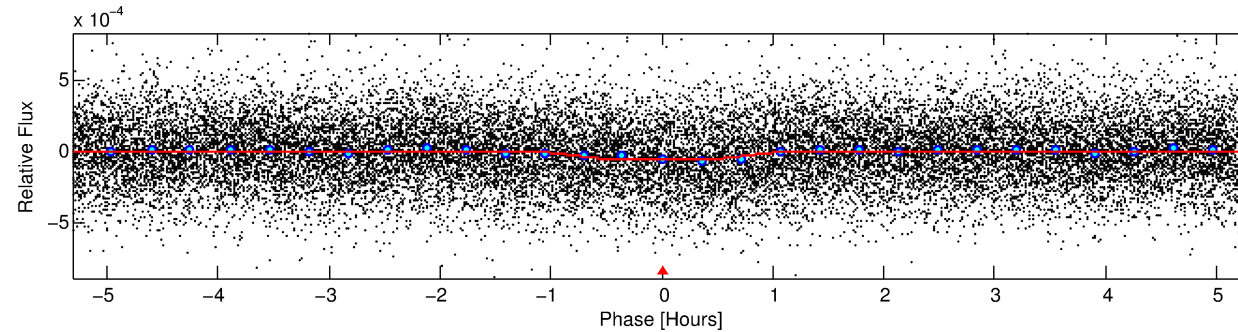
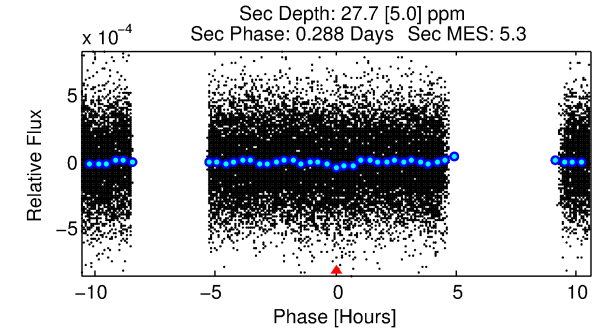
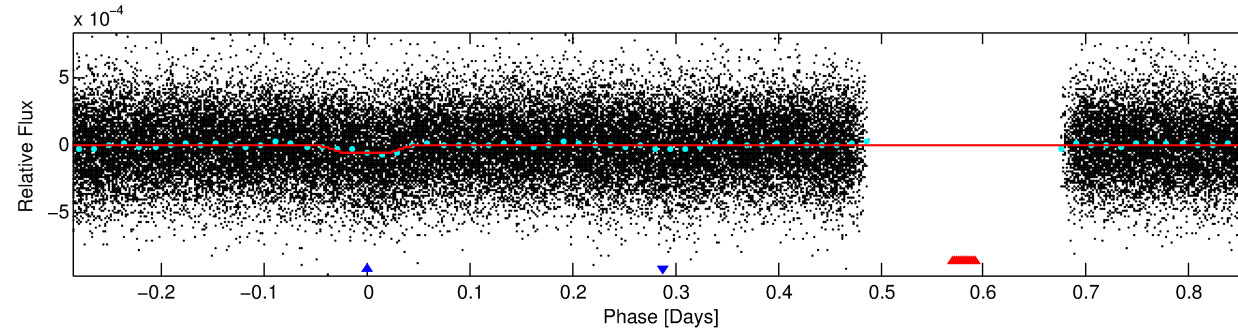
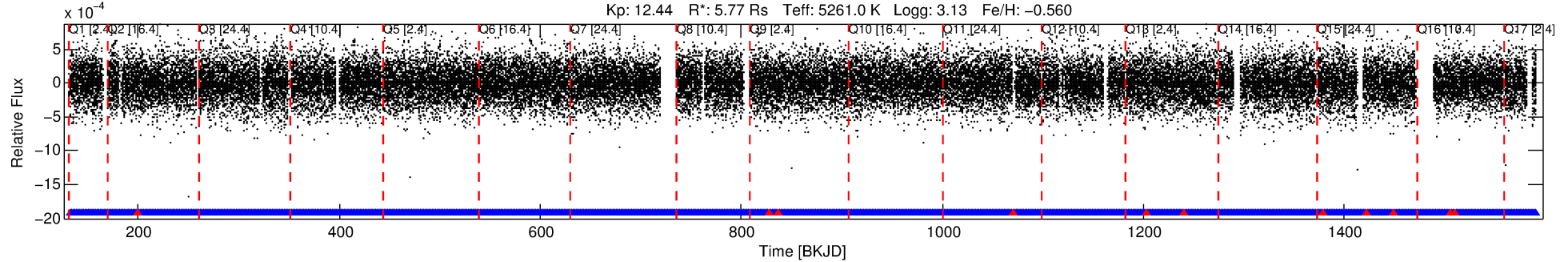
Ephemeris Match Information For 007335713-02

No Significant Match Found

DV One-Page Summary

KIC: 7335713 Candidate: 2 of 2 Period: 1.147 d
KOI: K03250 Corr: No Ephemeris Match

Kp: 12.44 R*: 5.77 Rs Teff: 5261.0 K Logg: 3.13 Fe/H: -0.560



DV Fit Results:

Period = 1.14741 [0.00001] d
Epoch = 132.5131 [0.0018] BKJD
Rp/R* = 0.0081 [0.0036]
a/R* = 2.43 [4.14]
b = 0.90 [0.44]
Seff = N/A
Teq = N/A
Rp = 5.09 [2.89] Re
a = N/A
Ag = N/A
Teff = N/A

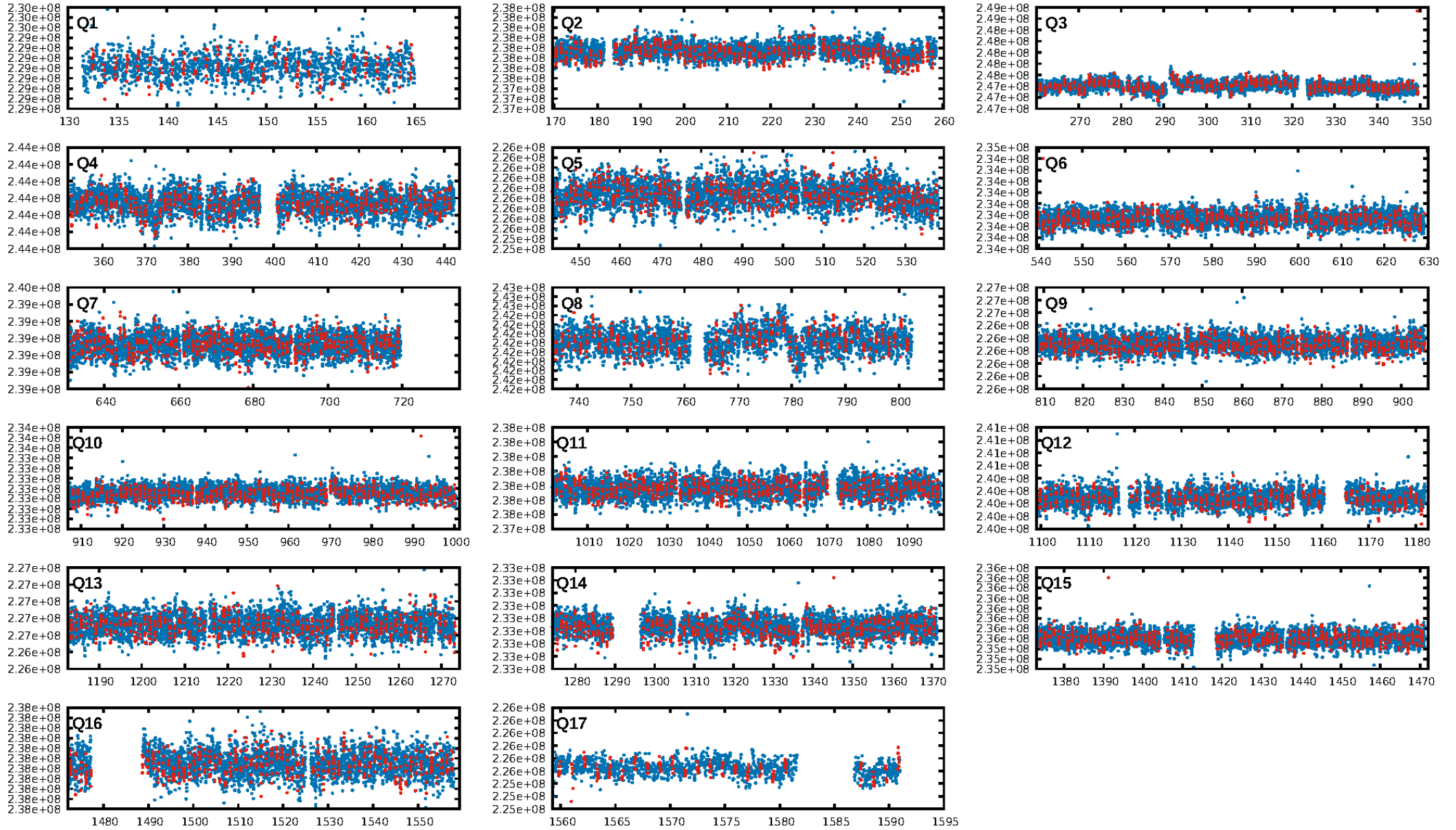
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.13e-22
RollingBand-fgt: 0.99 [1102/1113]
GhostDiagnostic-chr: -0.4833
Centroid-sig: 0.0%
Centroid-so: 3.799 arcsec [8.92σ]
OotOffset-rm: 10.554 arcsec [12.96σ]
KicOffset-rm: 10.704 arcsec [11.94σ]
OotOffset-st: 4/1/4/4 [13]
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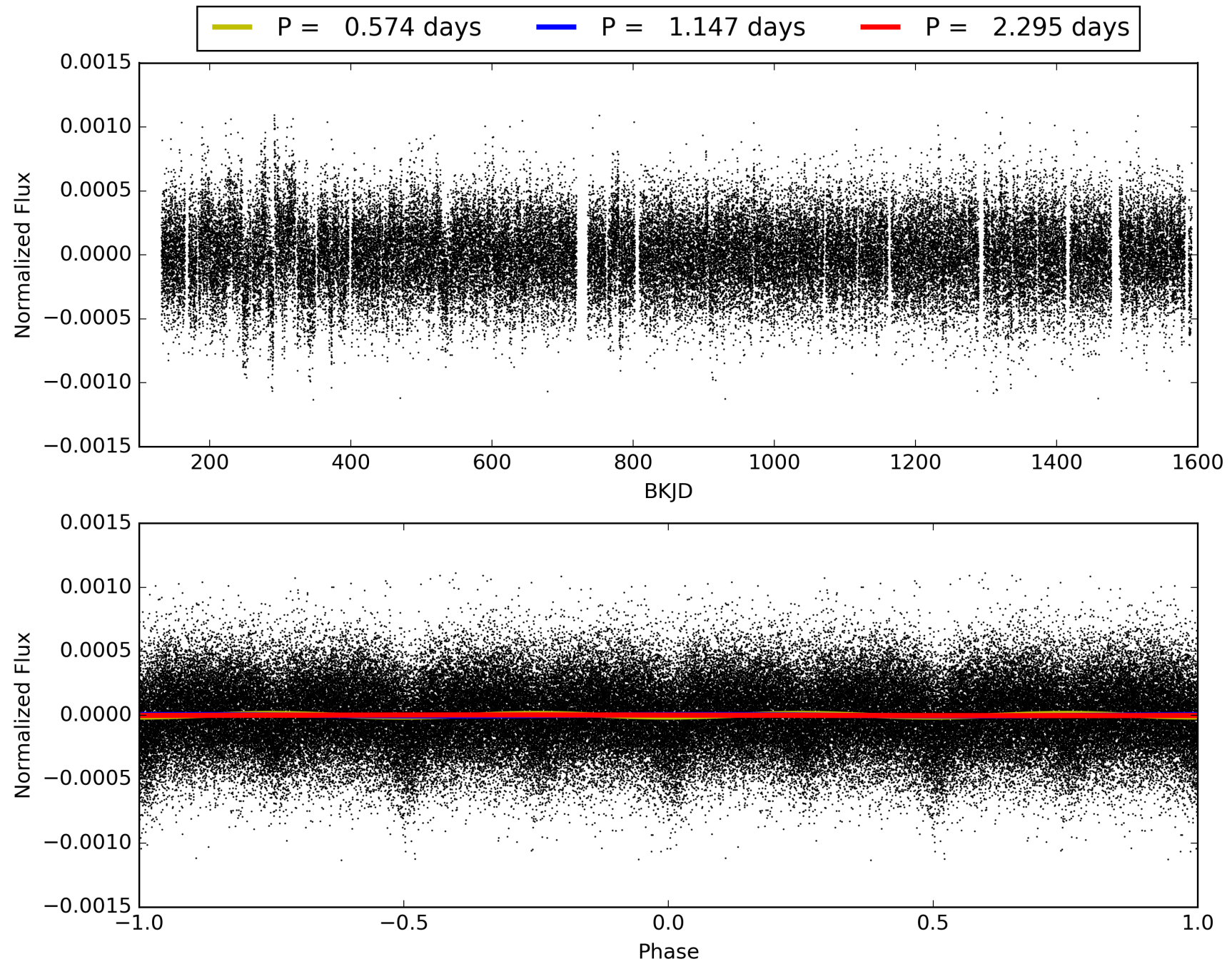
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007335713-02, PDC Light Curves

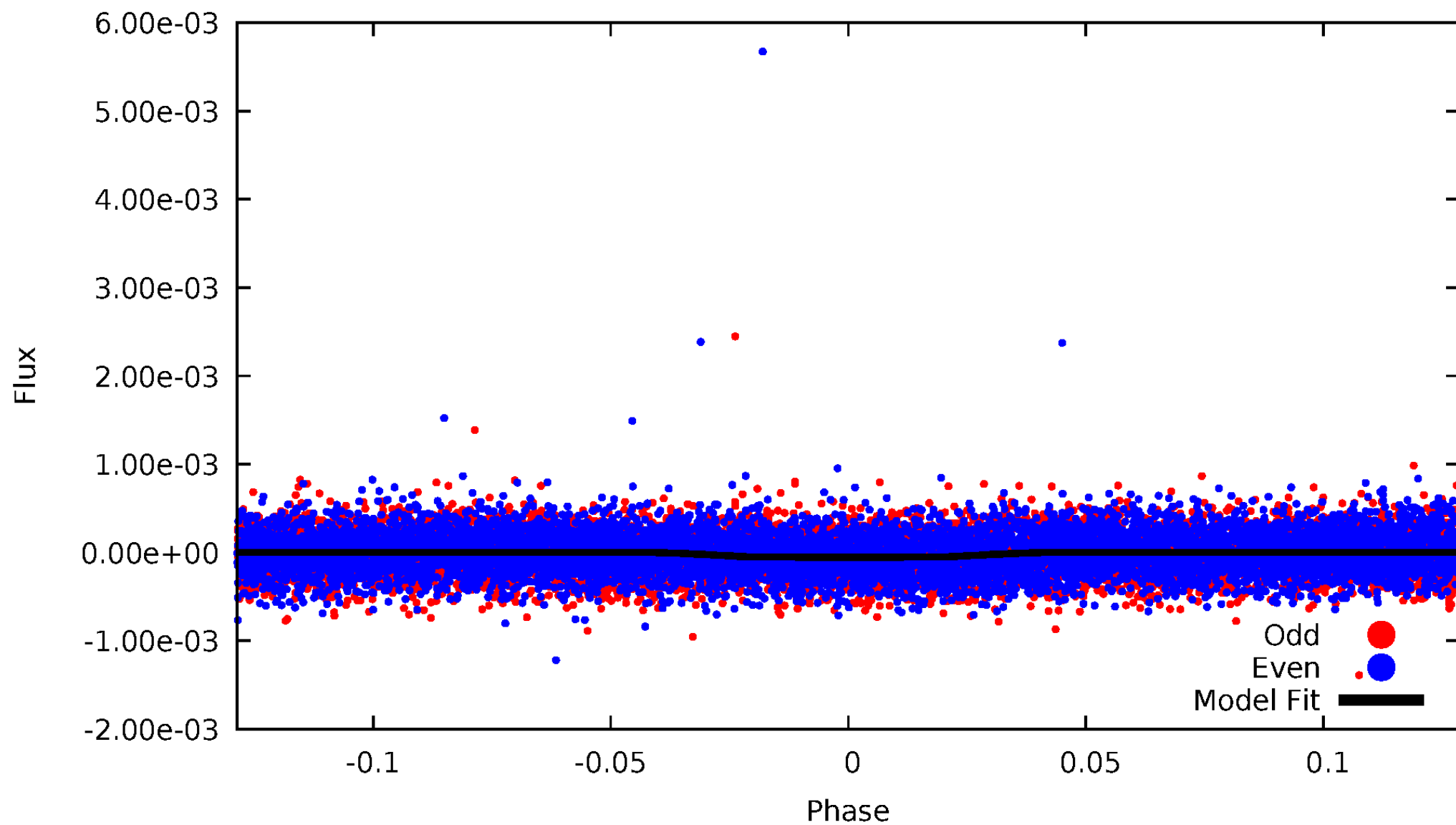


TCE 007335713-02



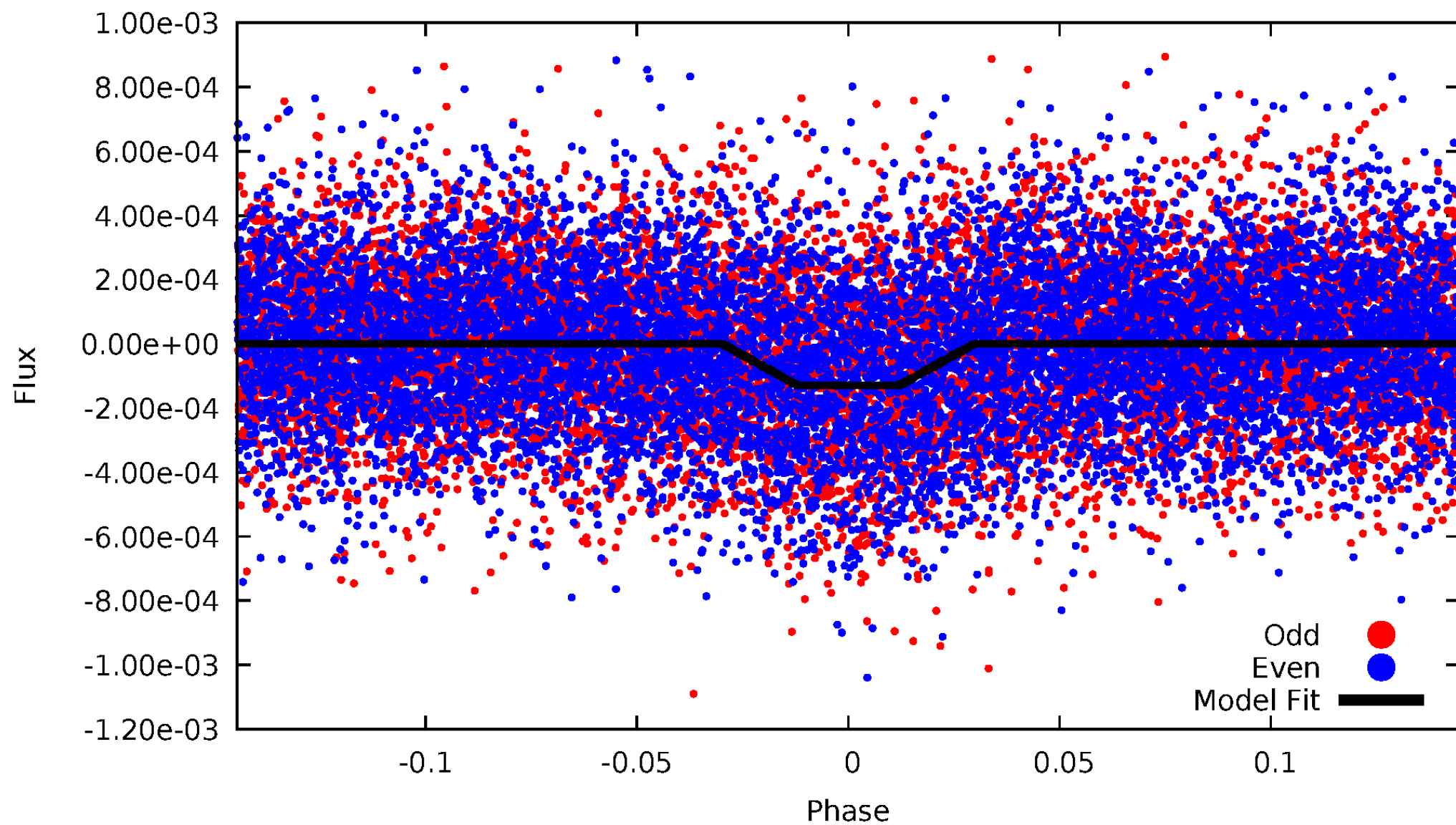
DV Odd/Even

TCE 007335713-02



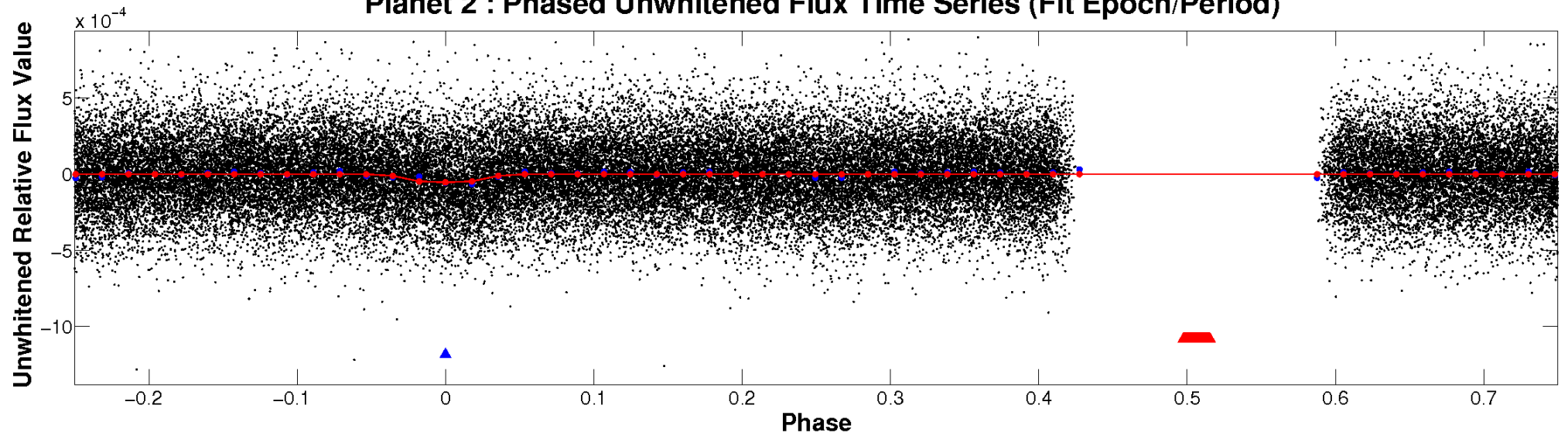
ALT Odd/Even

TCE 007335713-02

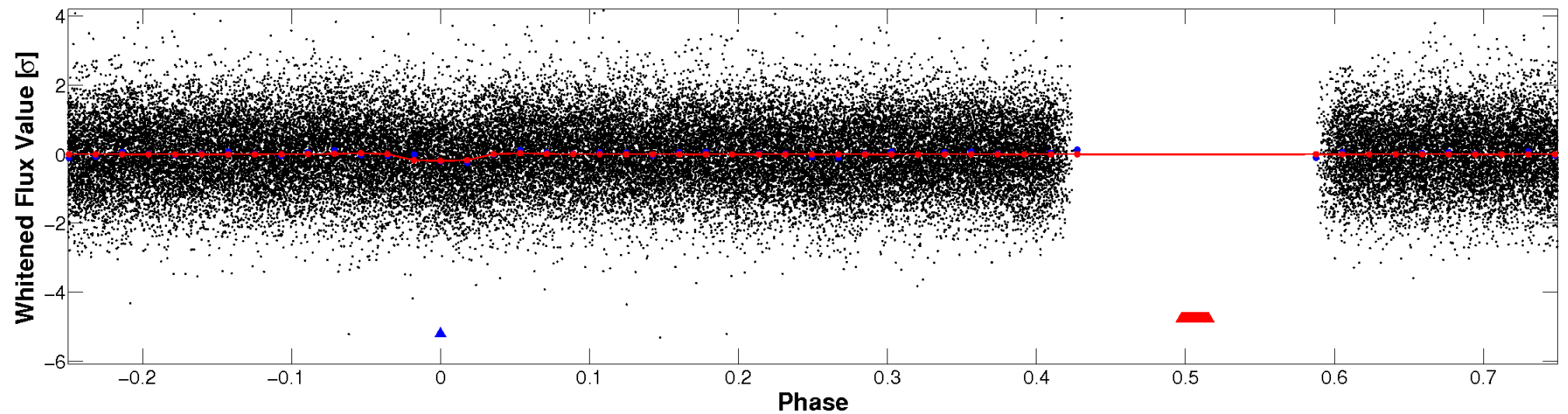


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

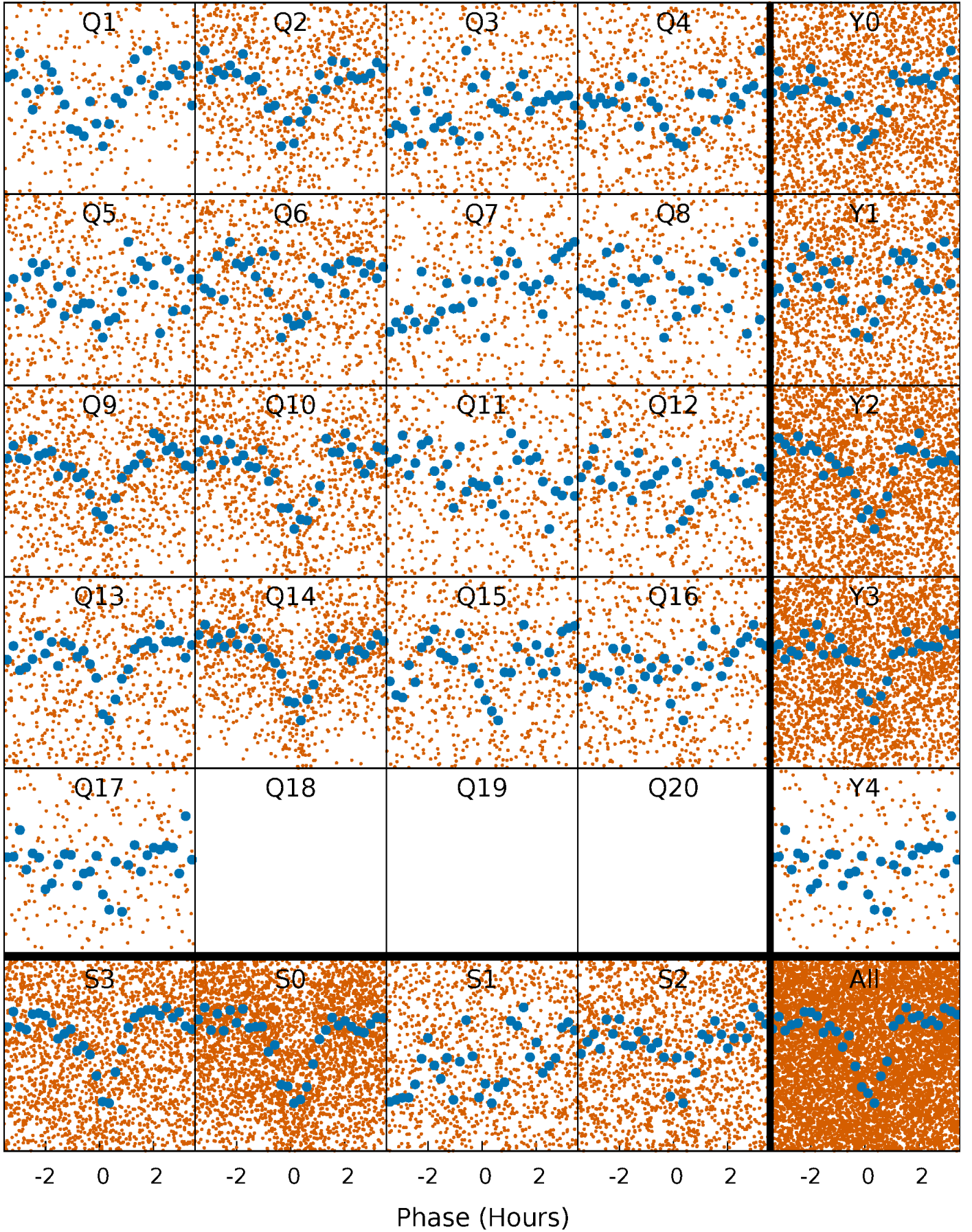


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



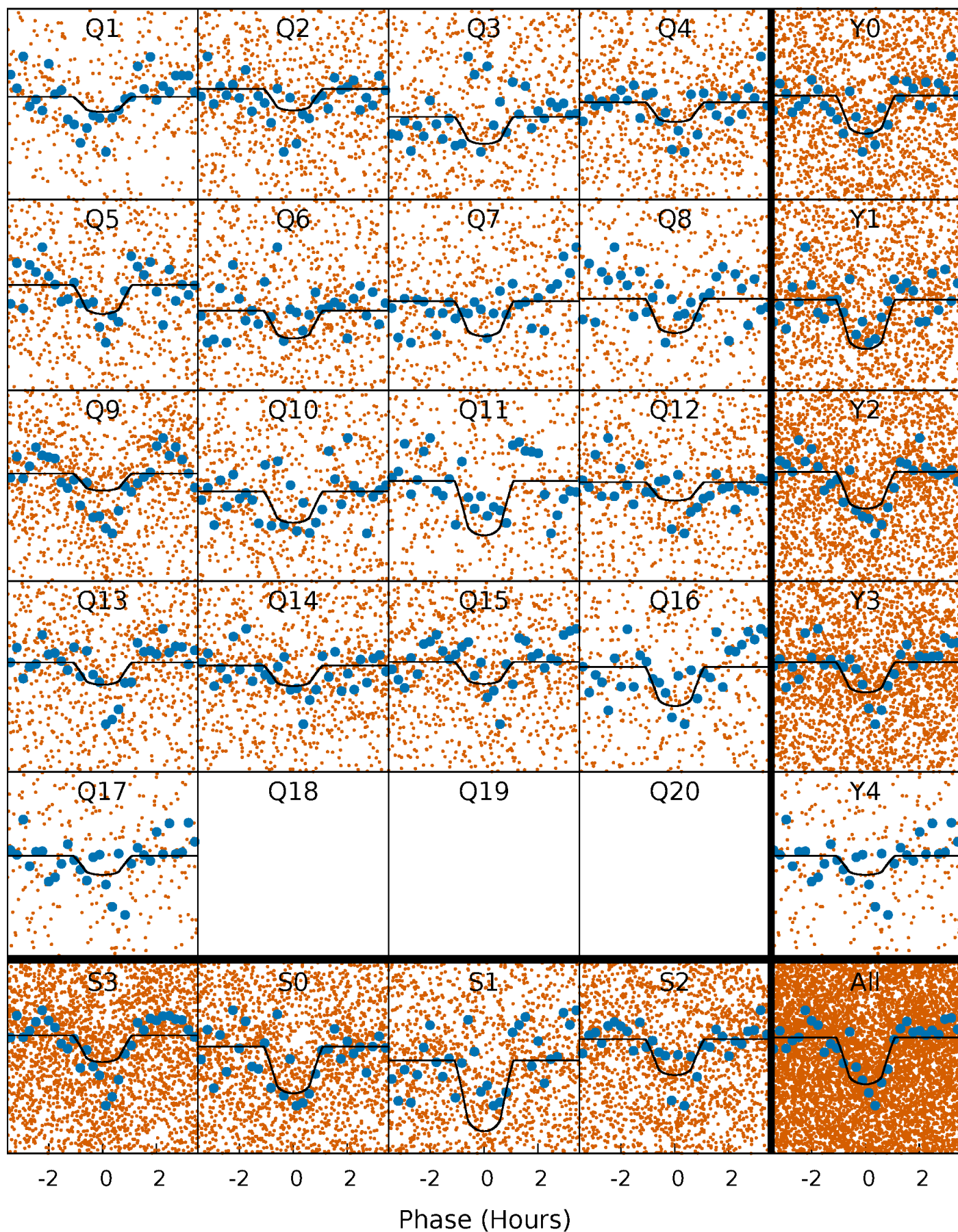
PDC Quarter-Phased Transit Curves

TCE 007335713-02 P= 1.147407 Days $T_0=132.513083$ (BKJD)



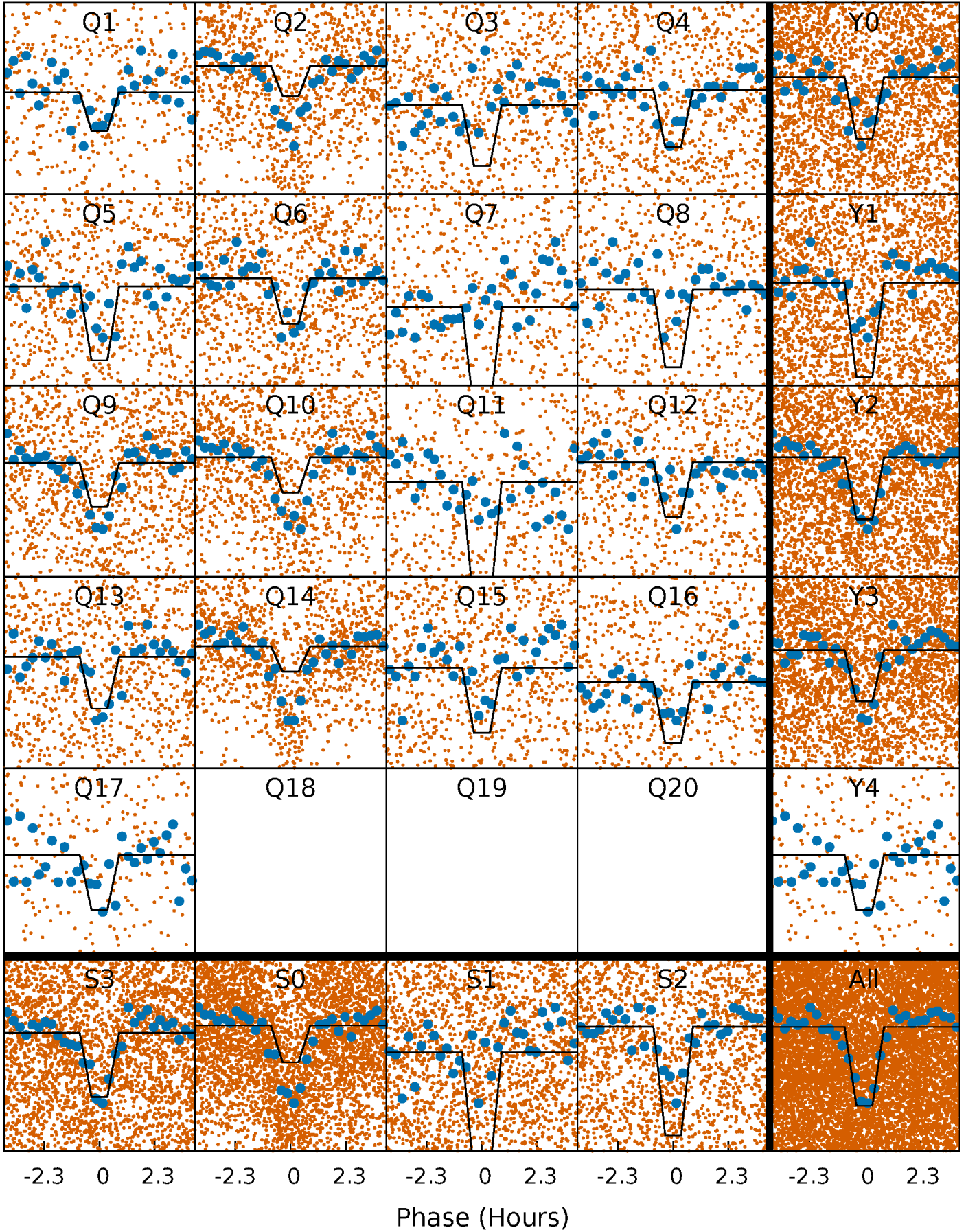
DV Quarter-Phased Transit Curves

TCE 007335713-02 P= 1.147407 Days $T_0=132.513083$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

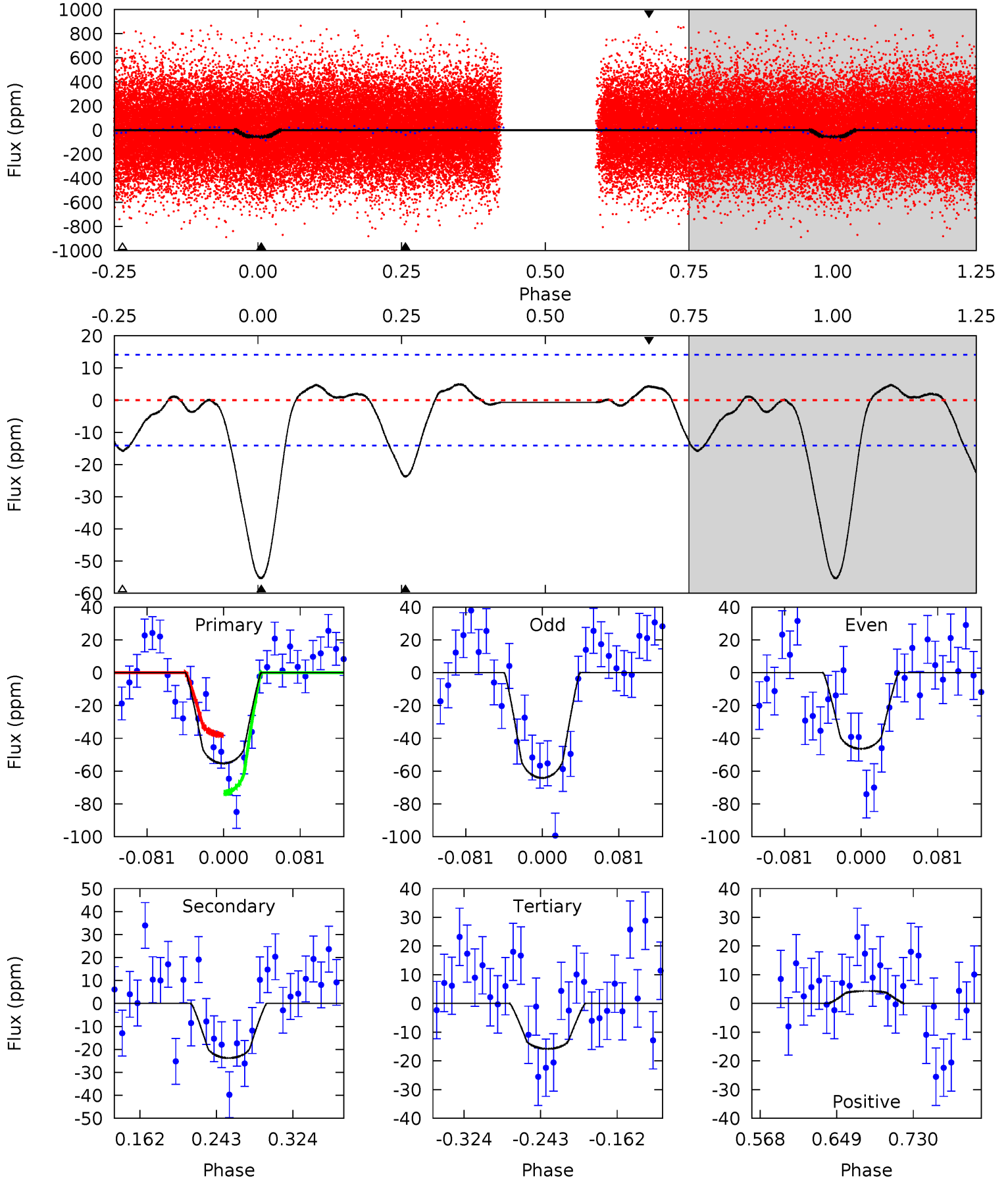
TCE 007335713-02 P= 1.147420 Days $T_0=132.511416$ (BKJD)



DV Model-Shift Uniqueness Test

007335713-02, P = 1.147407 Days, E = 131.365676 Days

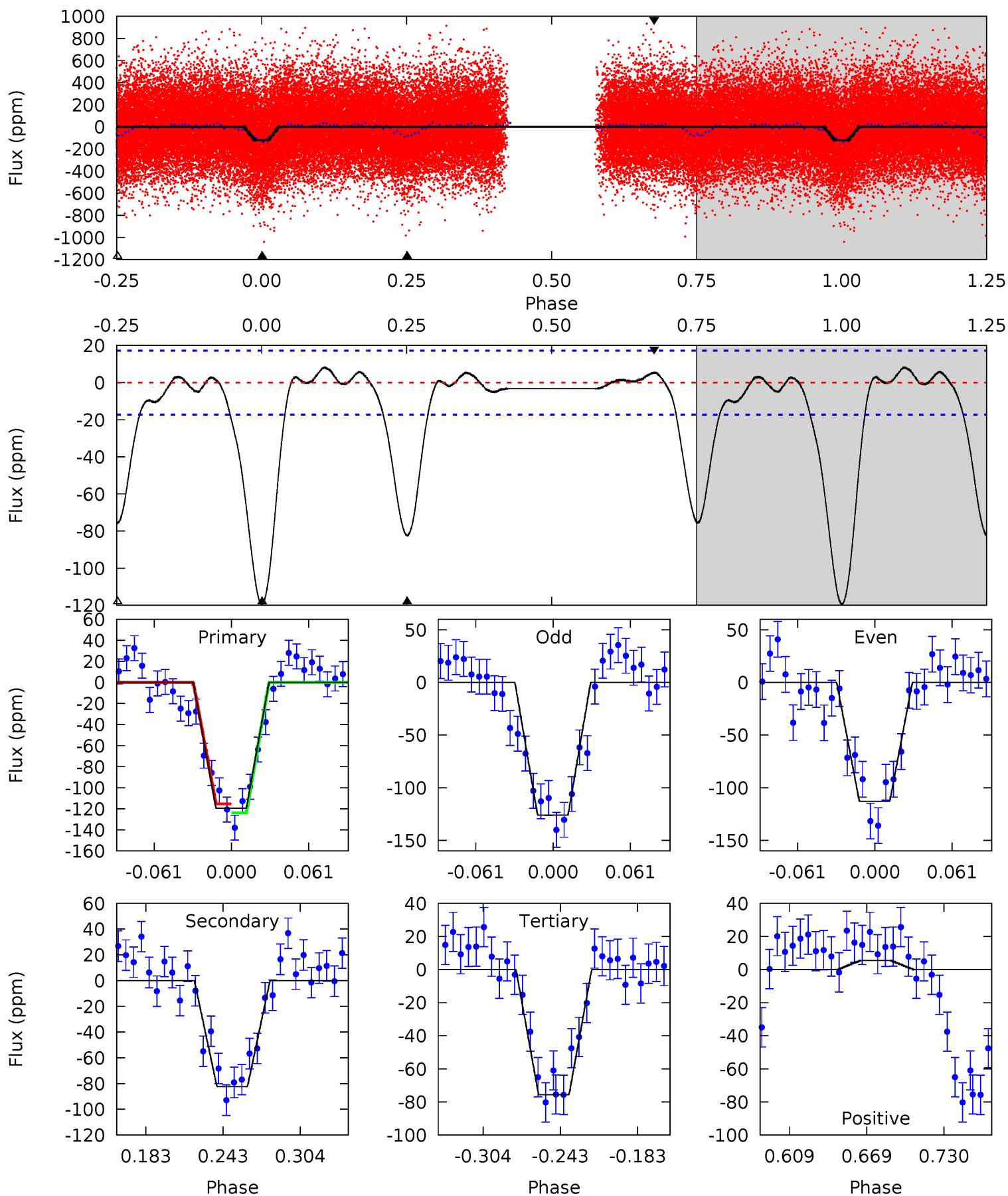
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.1	7.78	5.17	1.42	4.61	1.74	1.68	12.9	16.7	2.60	6.35	2.92	0.94	0.08	5.79



Alt Model-Shift Uniqueness Test

007335713-02, P = 1.147420 Days, E = 131.363996 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.3	22.3	20.4	1.47	4.67	1.87	5.05	11.9	30.8	1.83	20.8	1.79	1.07	0.06	1.18



Stellar Parameters For KIC 007335713

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5261^{+91}_{-143}	$3.130^{+0.222}_{-0.148}$	$-0.560^{+0.200}_{-0.300}$	$5.769^{+1.078}_{-2.001}$	$1.639^{+0.167}_{-0.625}$	$0.012^{+0.017}_{-0.005}$
	+2%/-3%	+7%/-5%	+36%/-54%	+19%/-35%	+10%/-38%	+143%/-38%
Source	PHO1	FLK73	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 007335713-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 3	$4.95^{+2.53}_{-2.18}$	4863^{+316}_{-350}	2720^{+2236}_{-6495}	$0.319^{+0.737}_{-0.171}$
Alt.	-82 ± 4	$6.93^{+2.70}_{-2.46}$	4880^{+291}_{-372}	4104^{+1144}_{-1725}	$0.583^{+0.796}_{-0.278}$

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 $A_{obs} \gg 1.0$

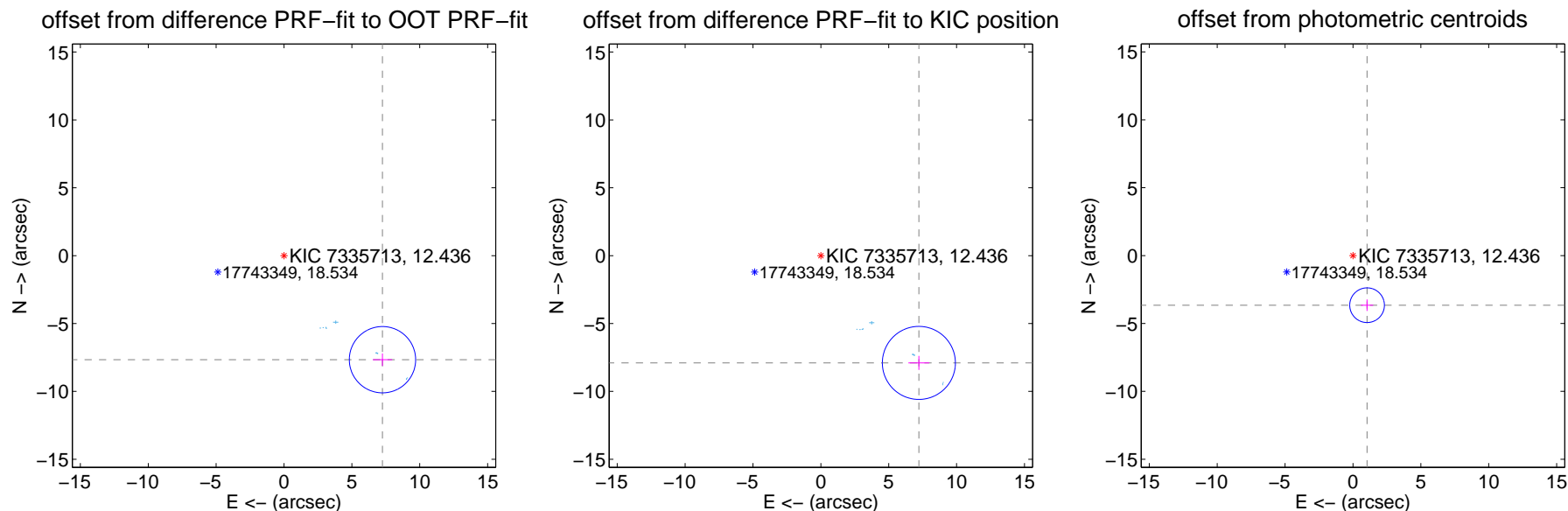
DV Centroid Data

Supplemental centroid analysis for 007335713-02. Kepler magnitude: 12.44. Transit SNR 10.76

There are 13 quarters with good PRF difference image offsets

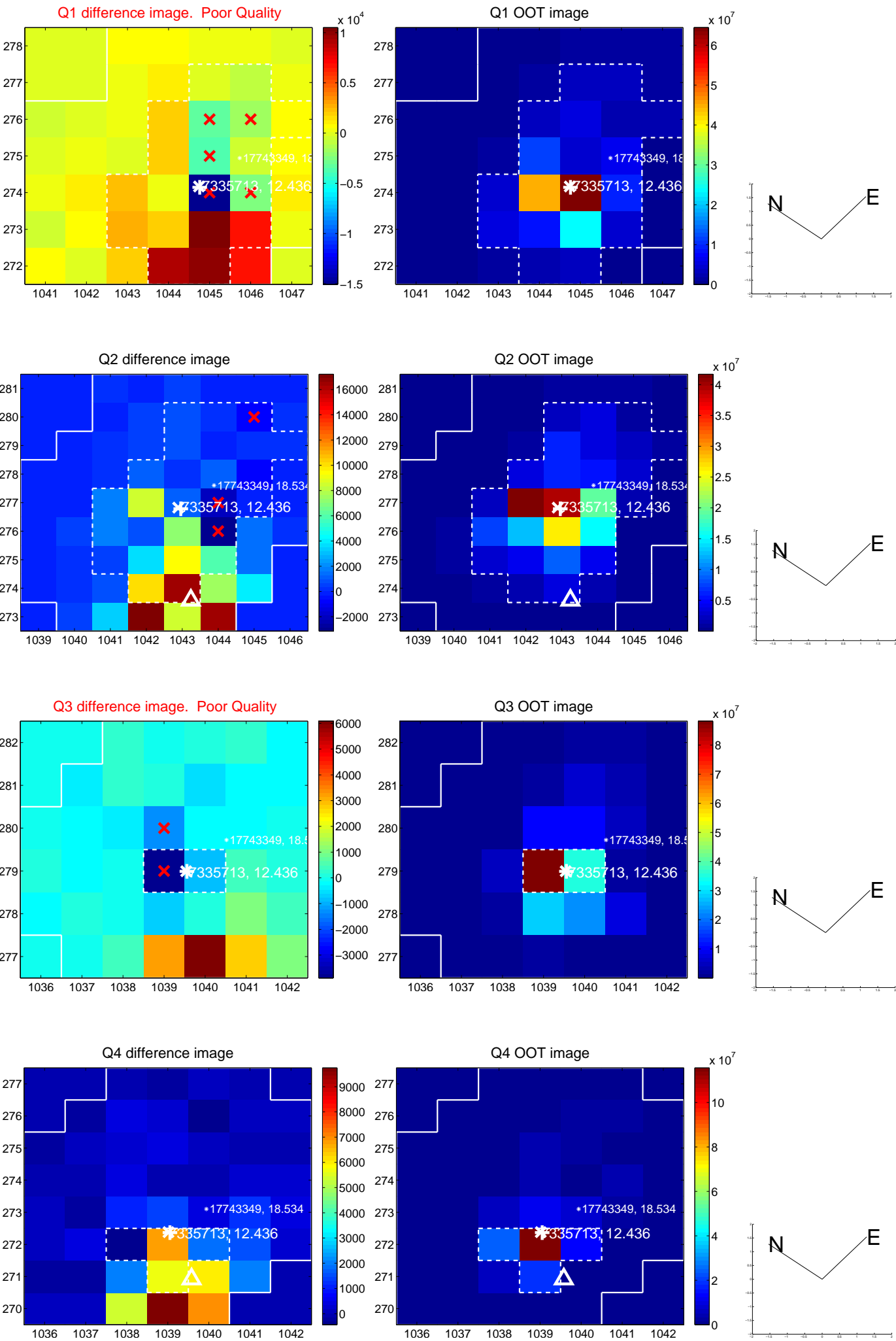
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.554 ± 0.814	12.96	-7.255 ± 0.712	-7.665 ± 0.458
PRF-fit source offset from KIC position	10.704 ± 0.897	11.94	-7.221 ± 0.771	-7.901 ± 0.520
photometric centroid source offset	3.80 ± 0.43	8.92	-1.04 ± 0.45	-3.65 ± 0.42

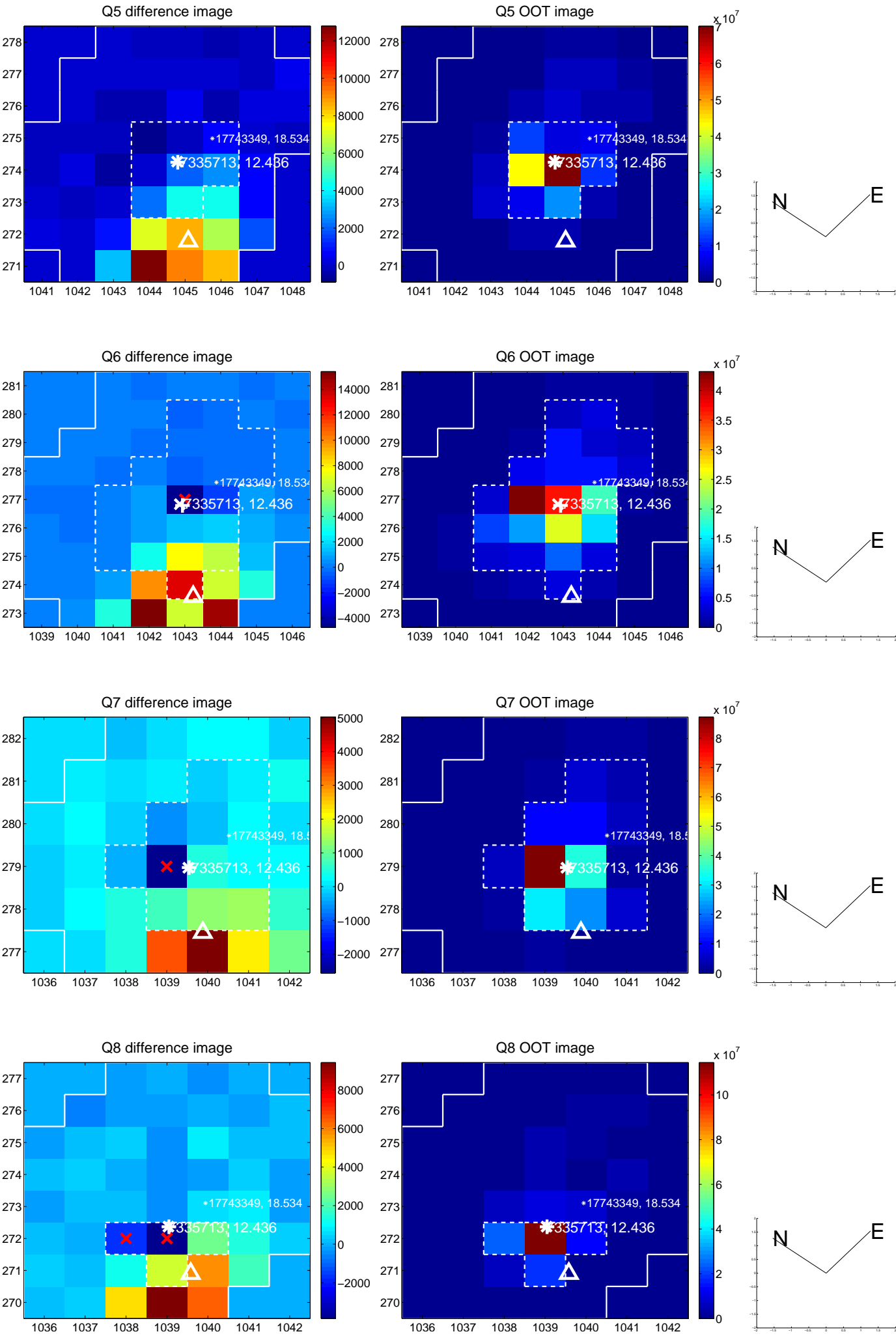


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

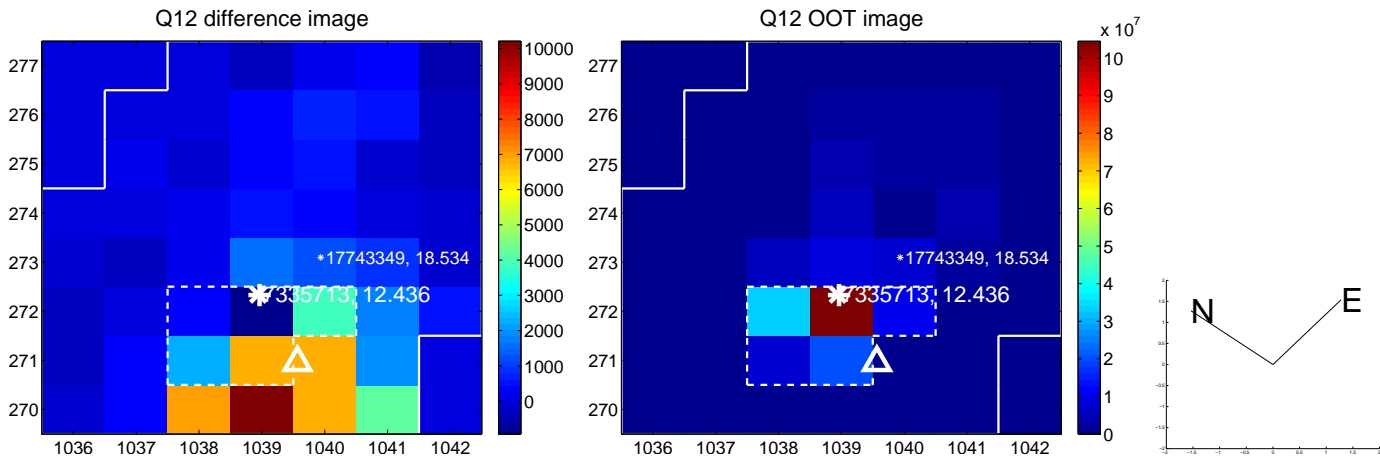
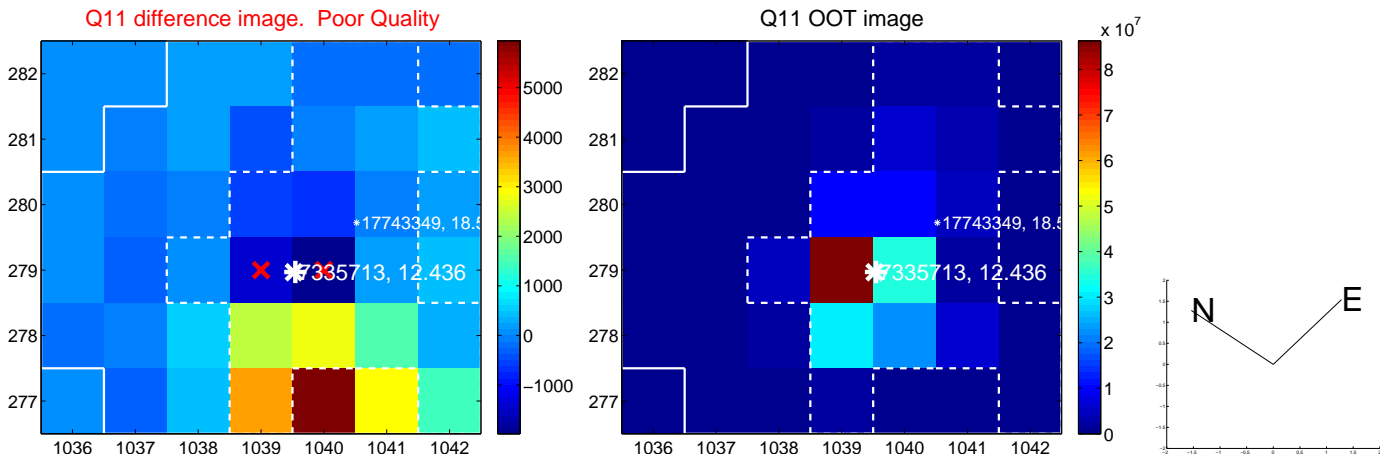
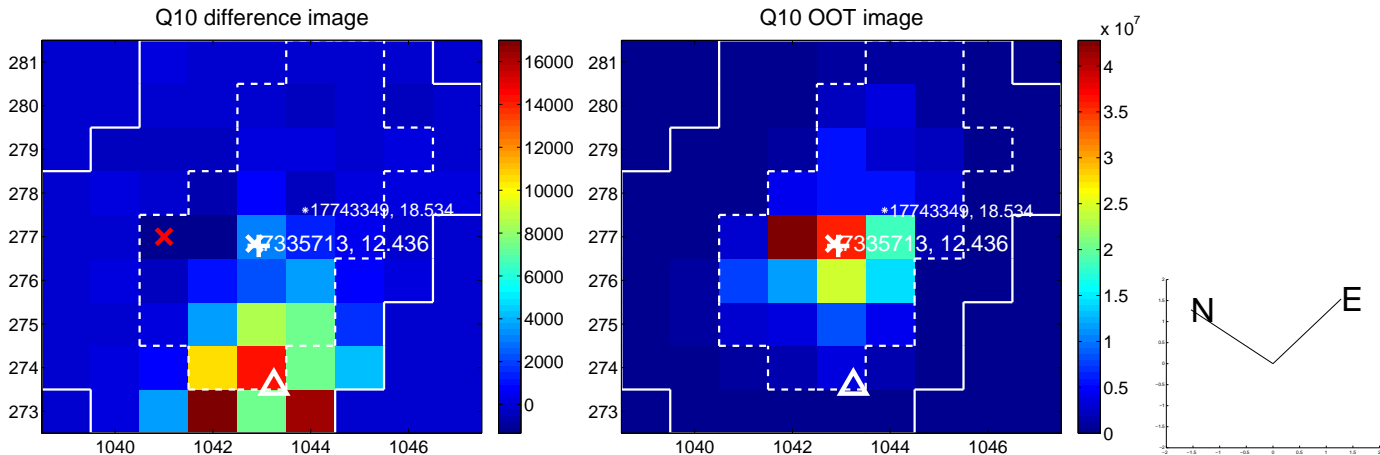
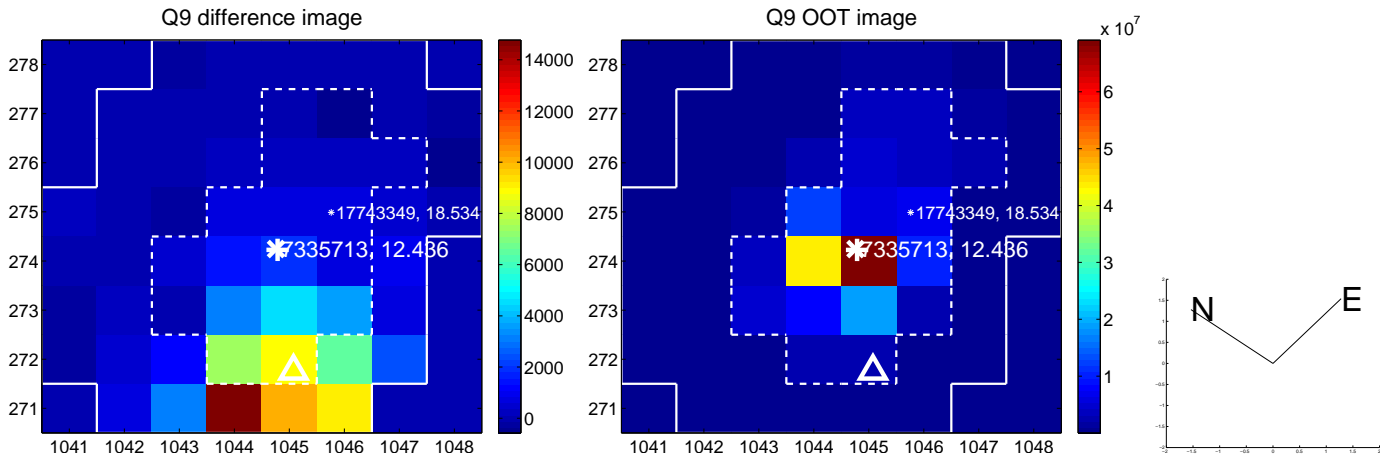
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



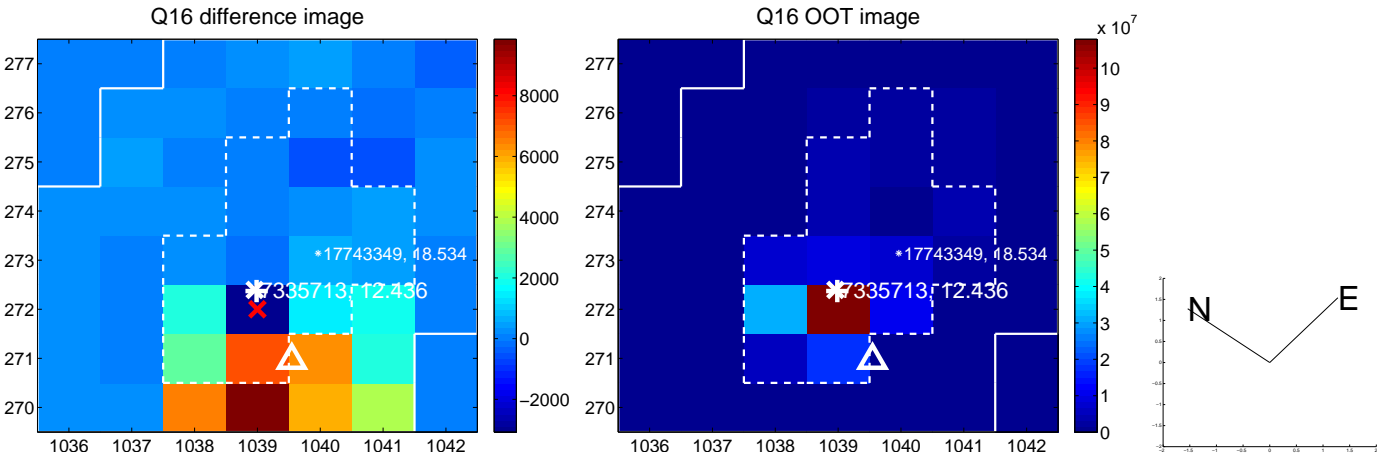
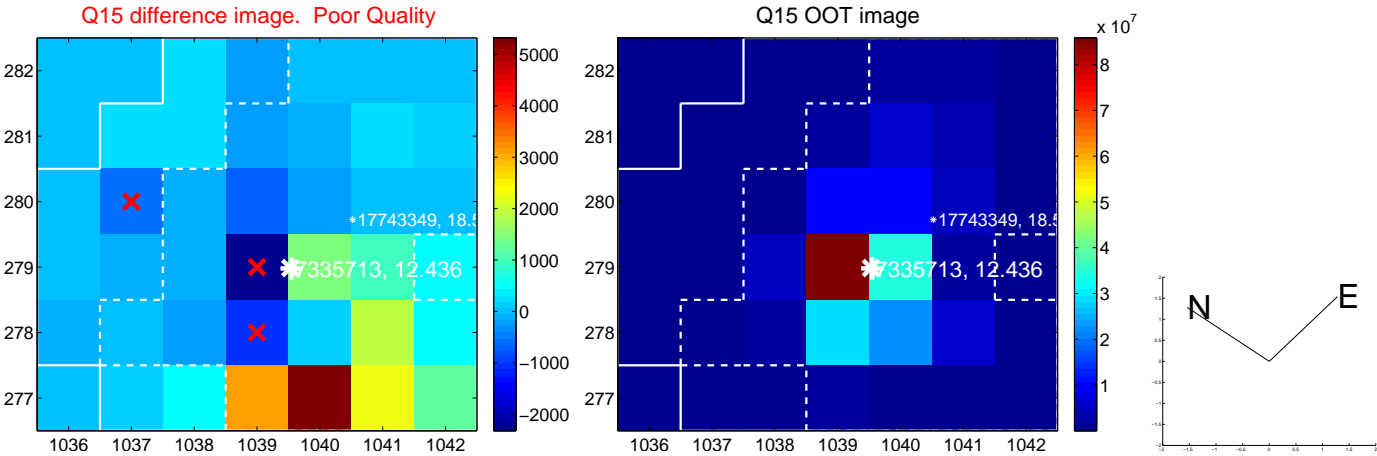
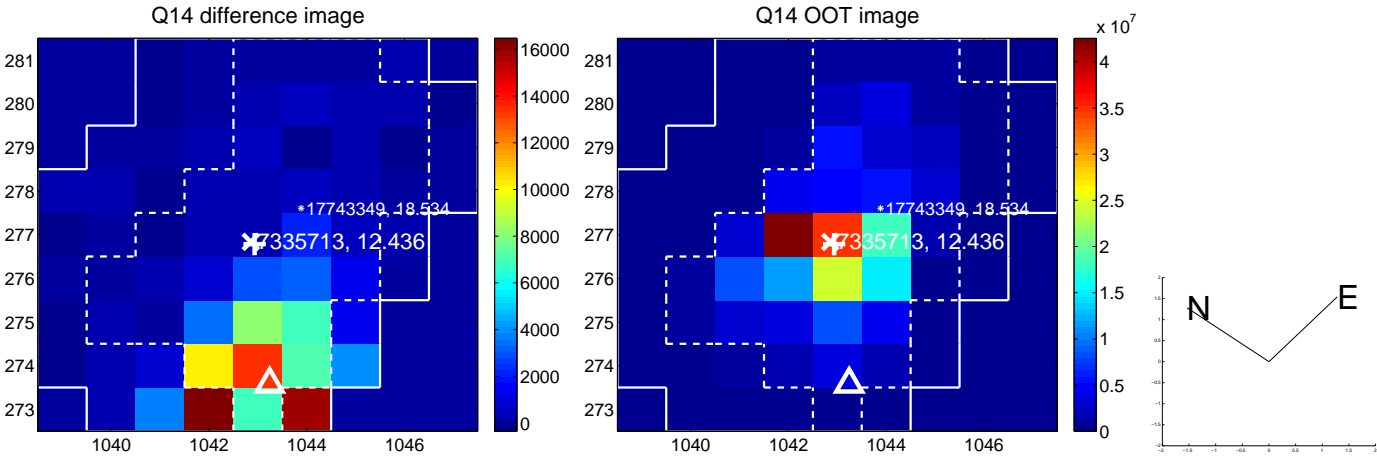
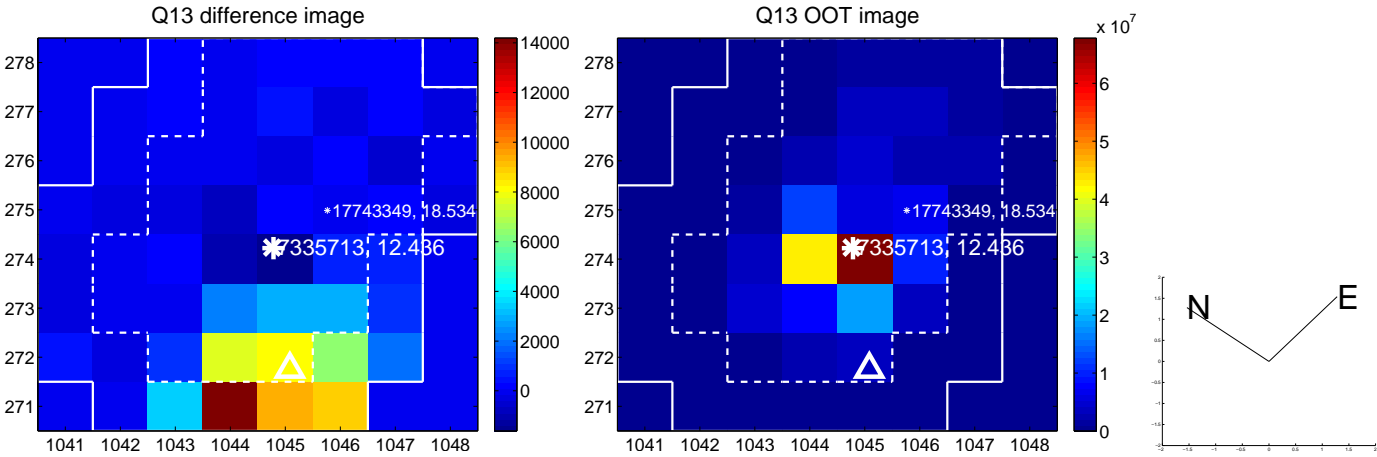
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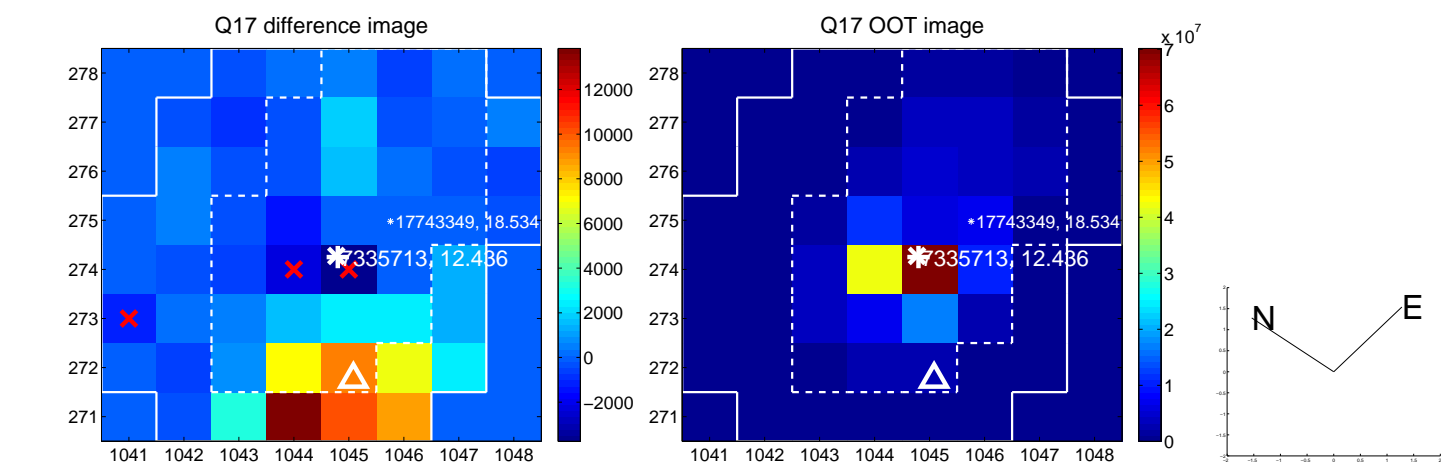
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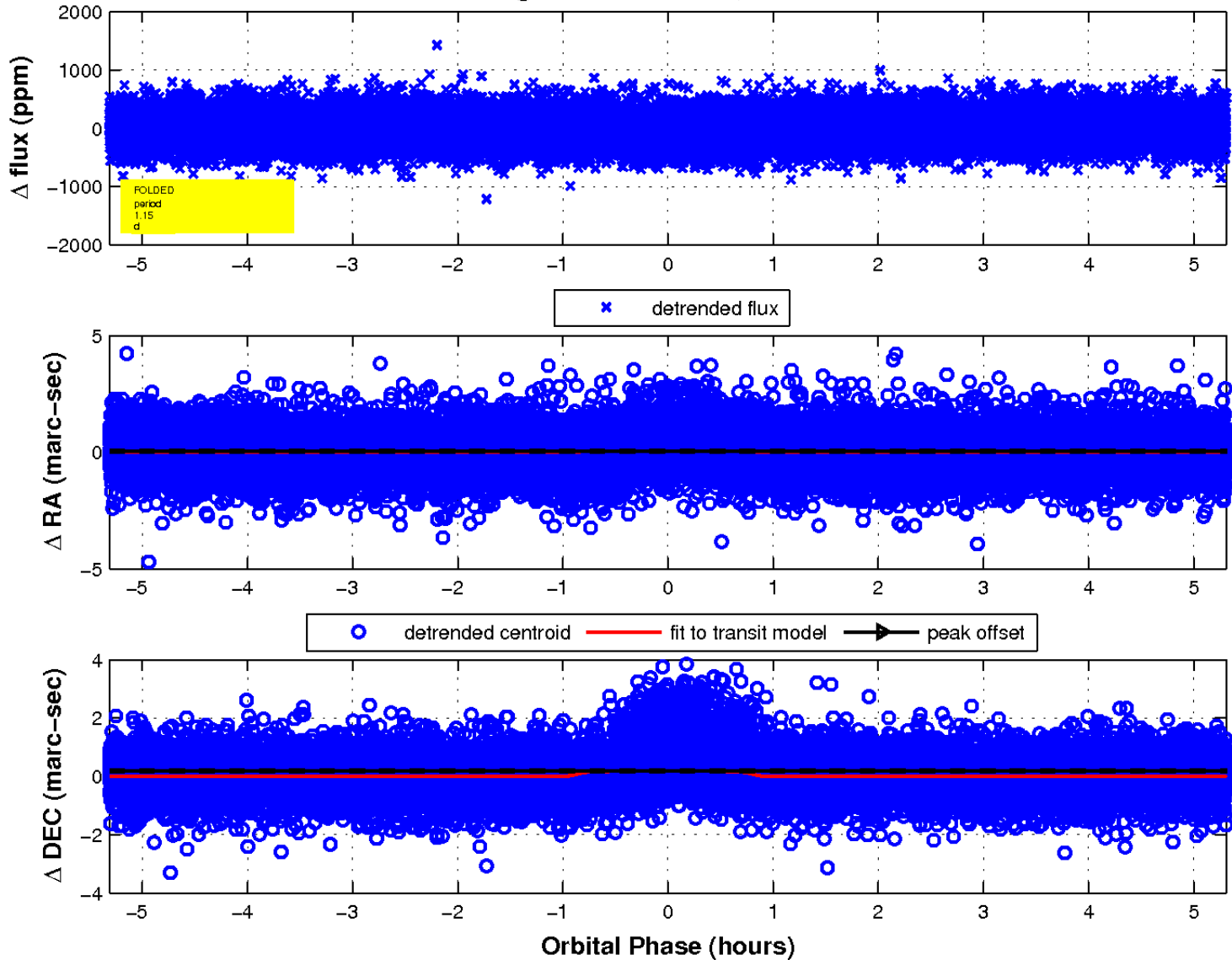
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fluxWeightedCentroids, Planet 2 of 2



UKIRT Image

Declination

