

KIC 008264667

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})
008264667-01	OBS	No	1.469809	132.473456	58.3	2.740	9.2	9.7	1.77	7370	1.81	9856.41
008264667-02	OBS	No	2.251274	132.767264	64.9	5.719	7.7	6.6	1.77	7370	1.66	5582.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264667-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008264667-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

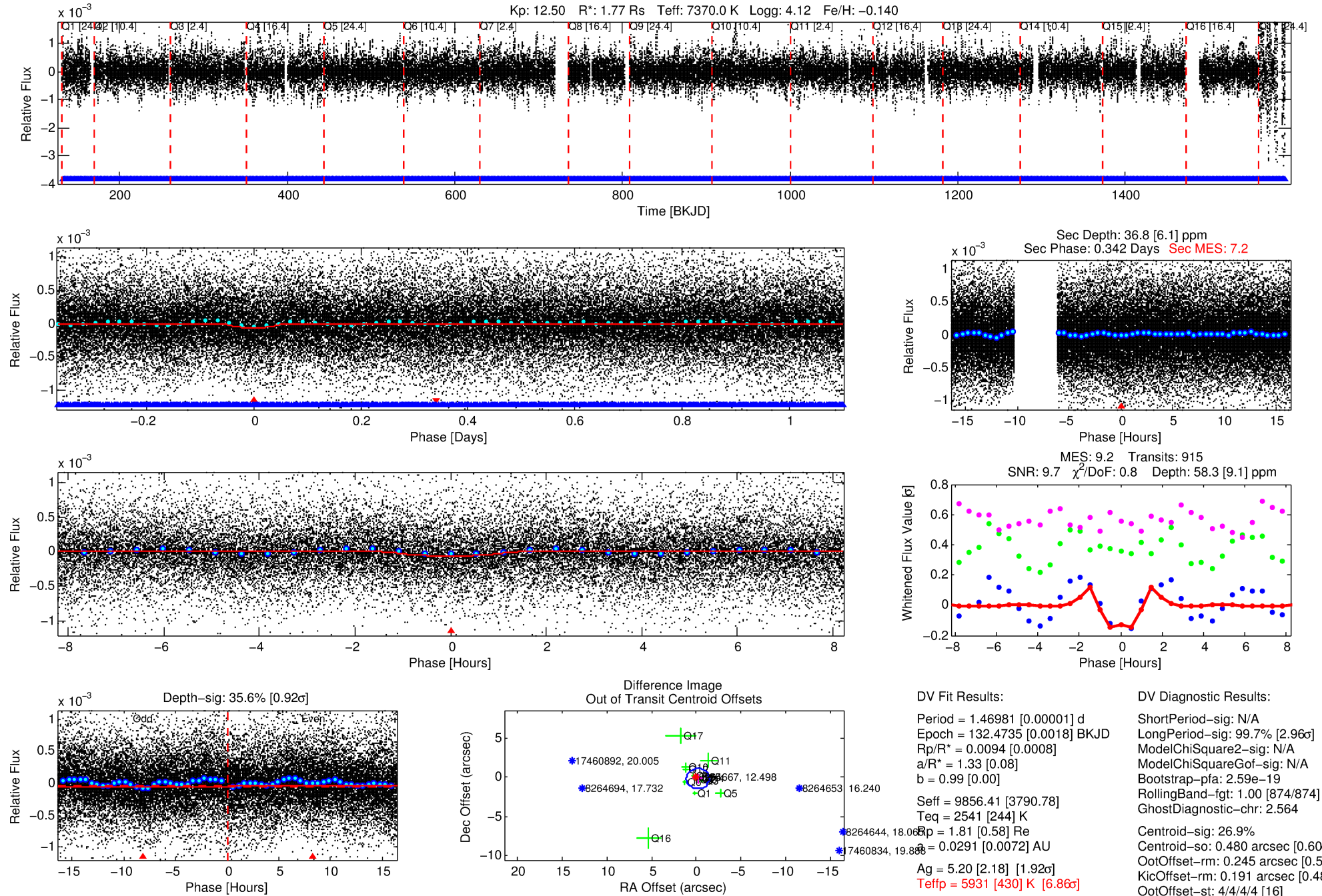
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264667-01

No Significant Match Found

DV One-Page Summary

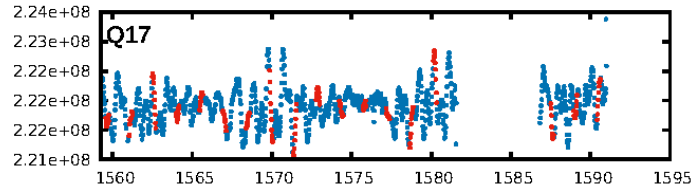
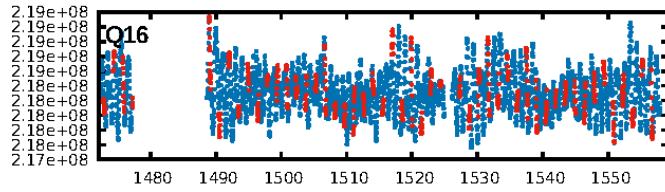
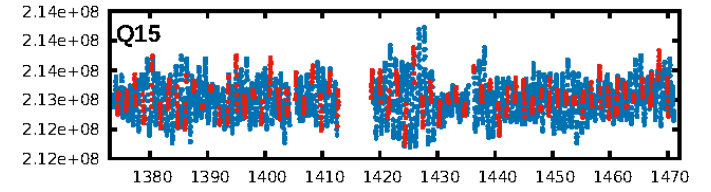
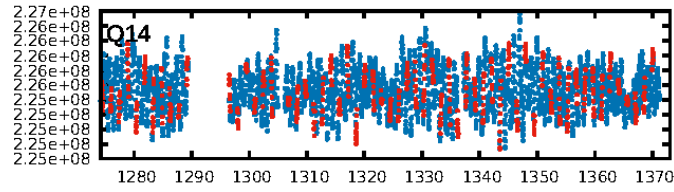
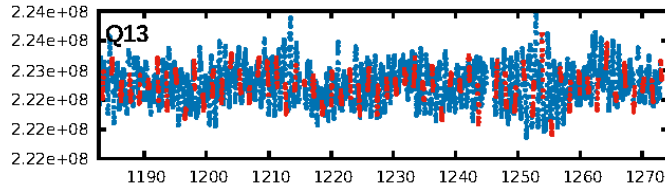
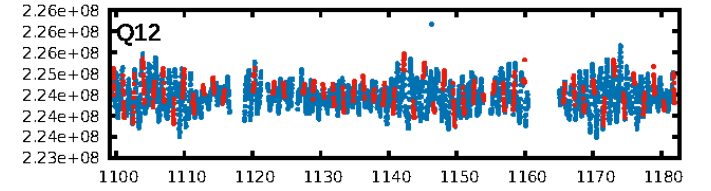
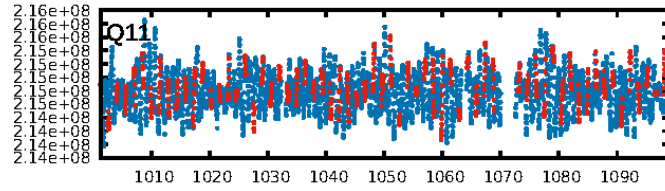
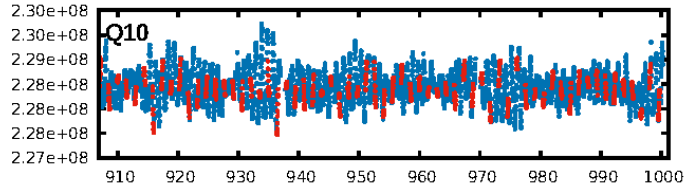
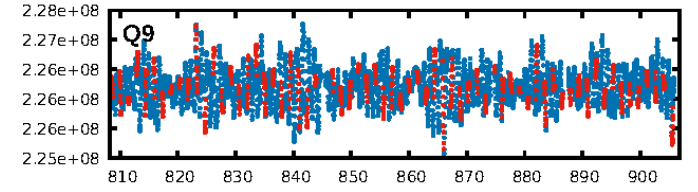
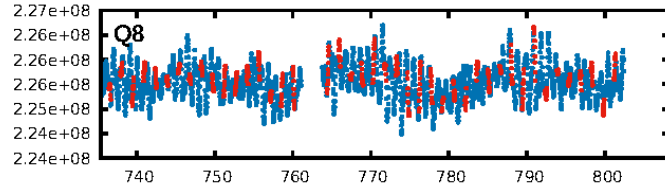
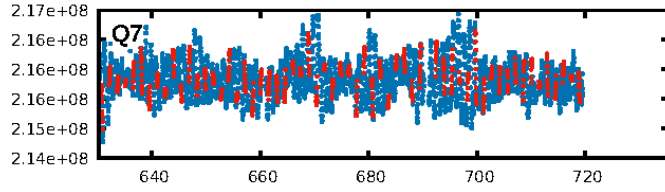
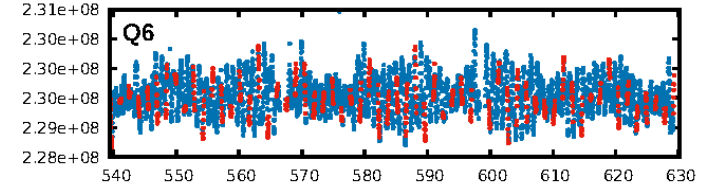
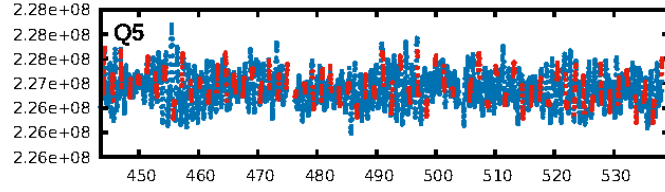
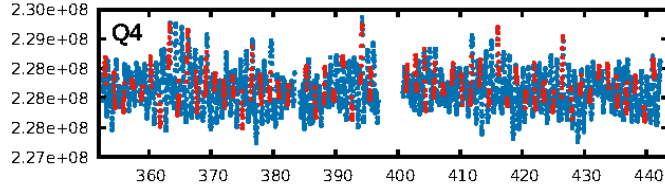
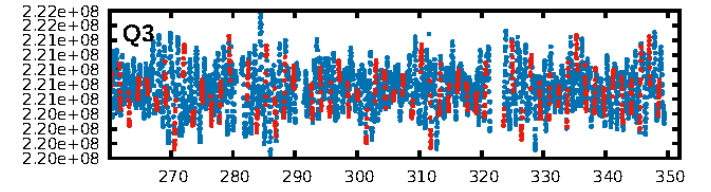
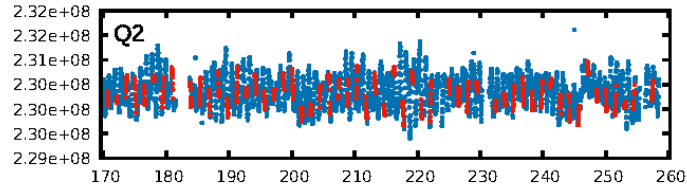
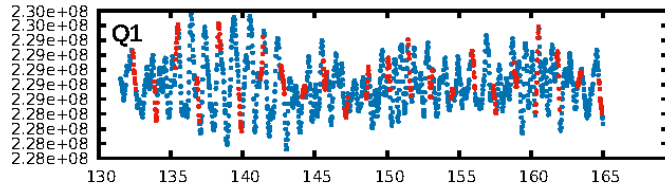
KIC: 8264667 Candidate: 1 of 2 Period: 1.470 d



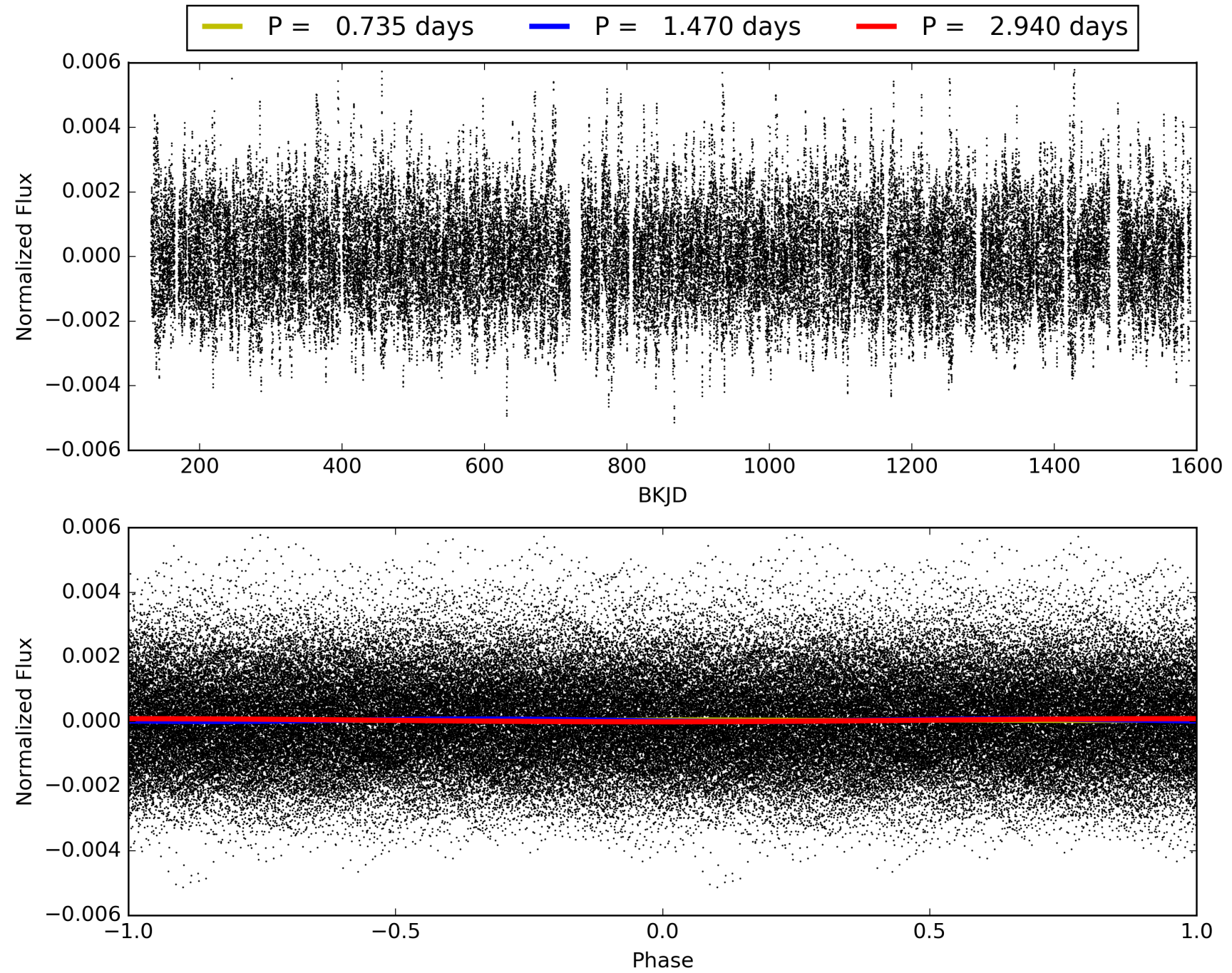
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008264667-01, PDC Light Curves

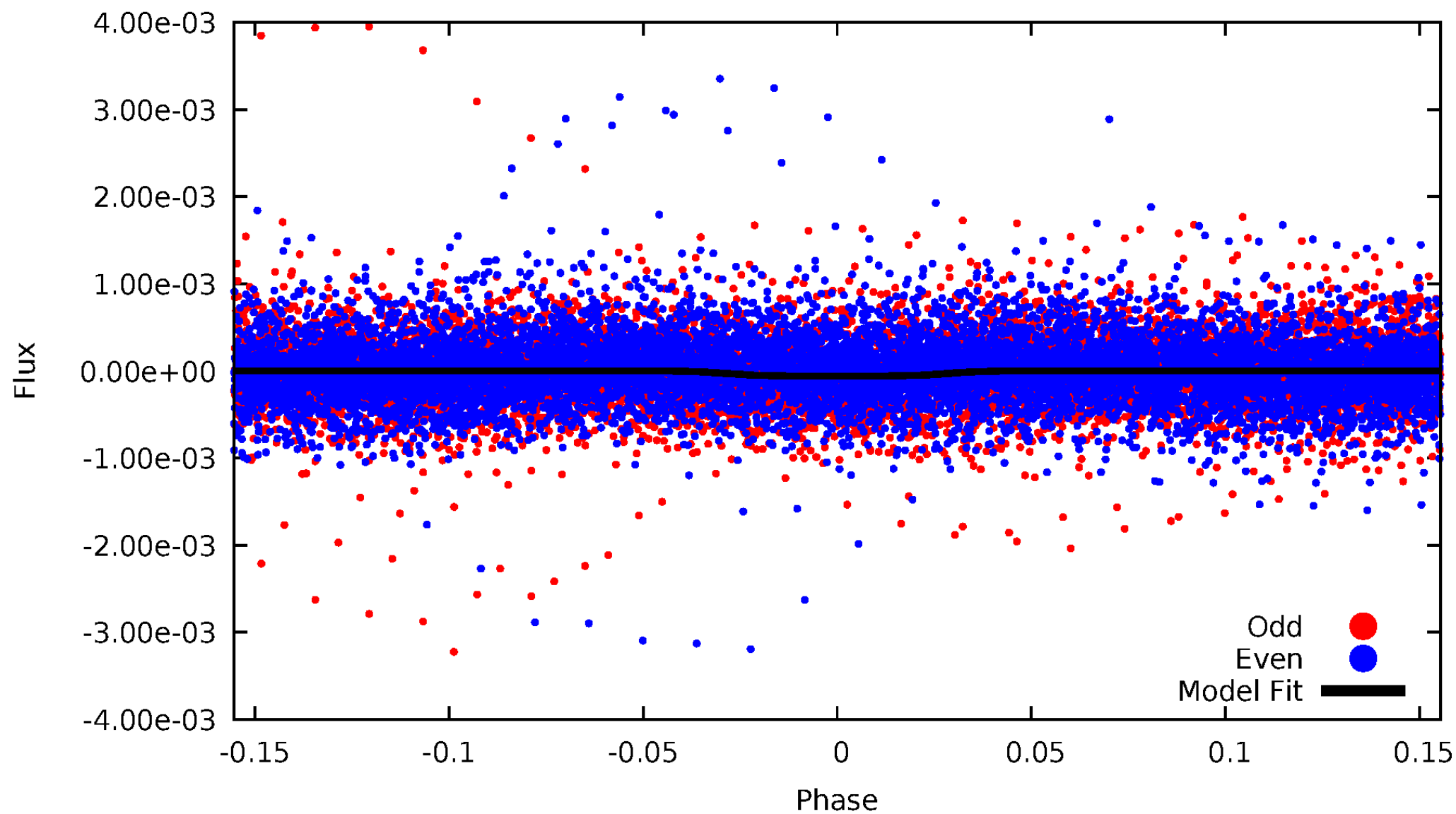


TCE 008264667-01



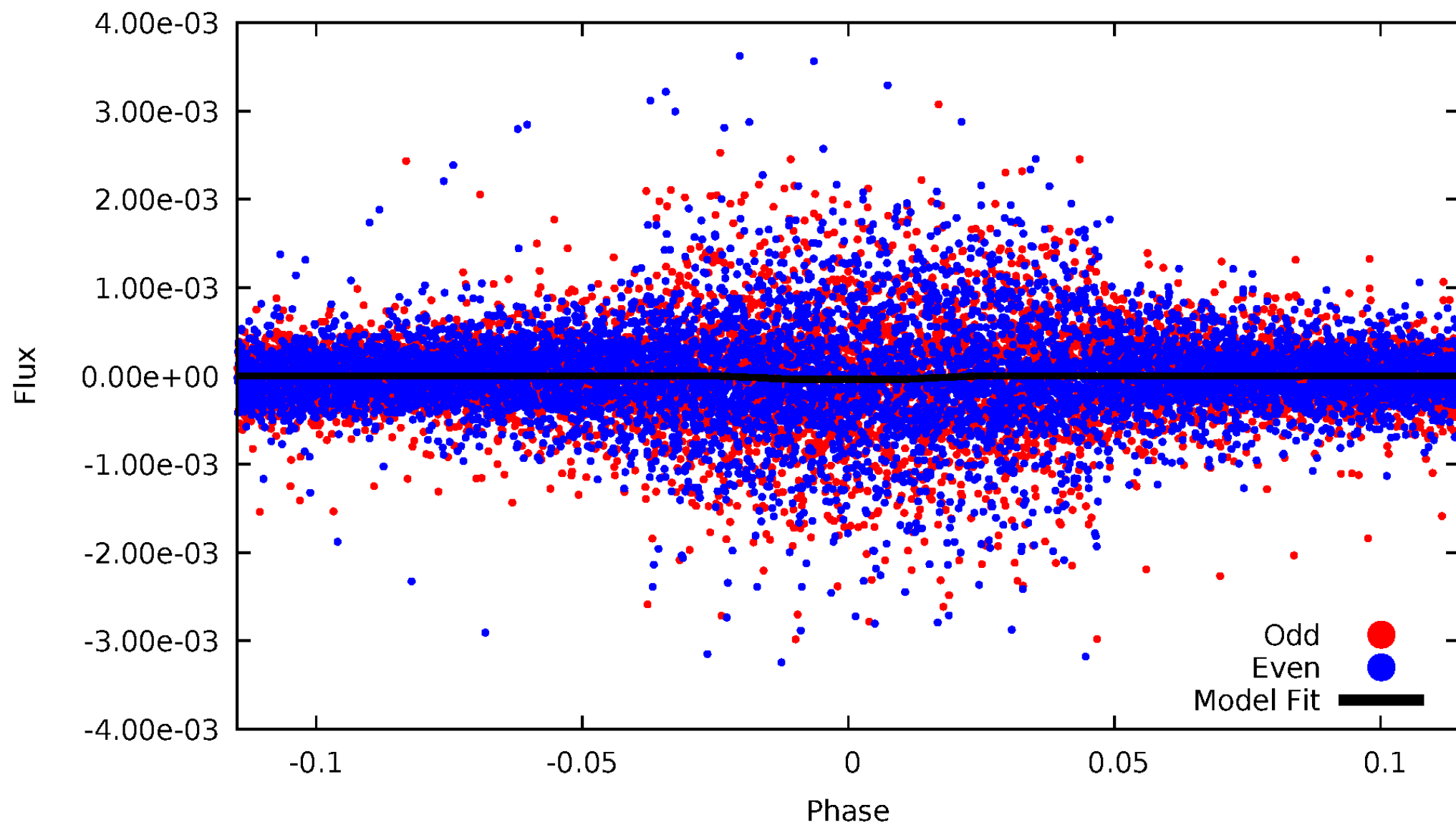
DV Odd/Even

TCE 008264667-01



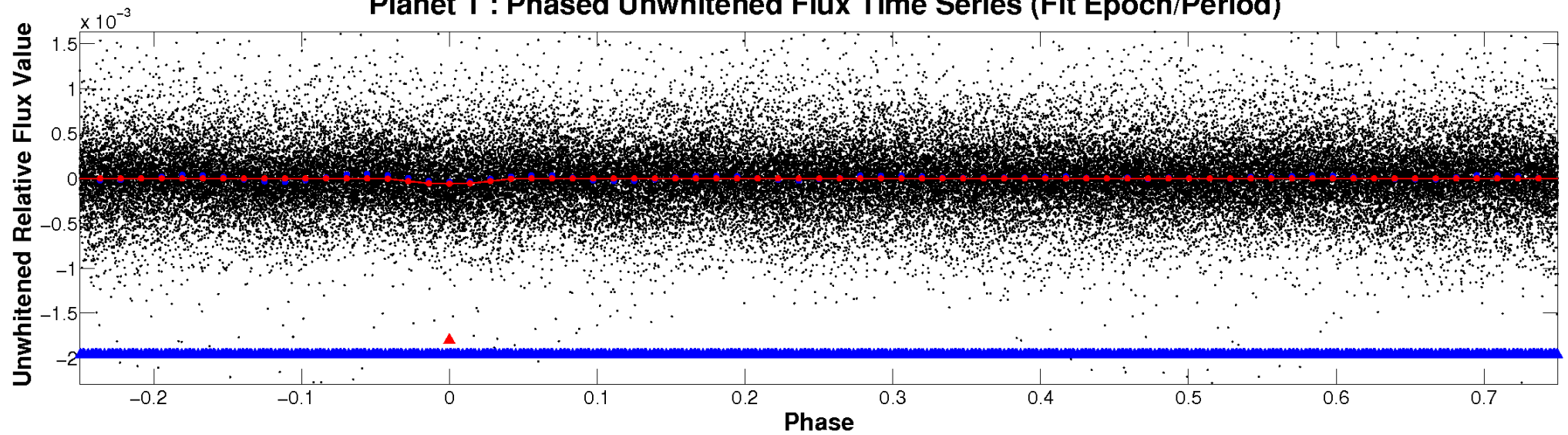
ALT Odd/Even

TCE 008264667-01

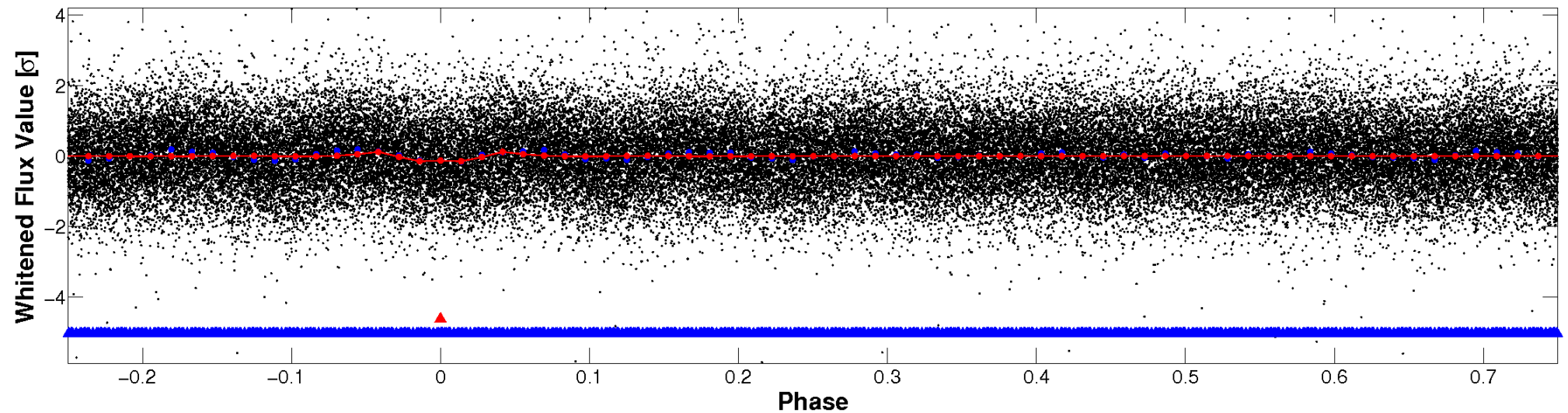


Non-Whitened Vs. Whitened Light Curve

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

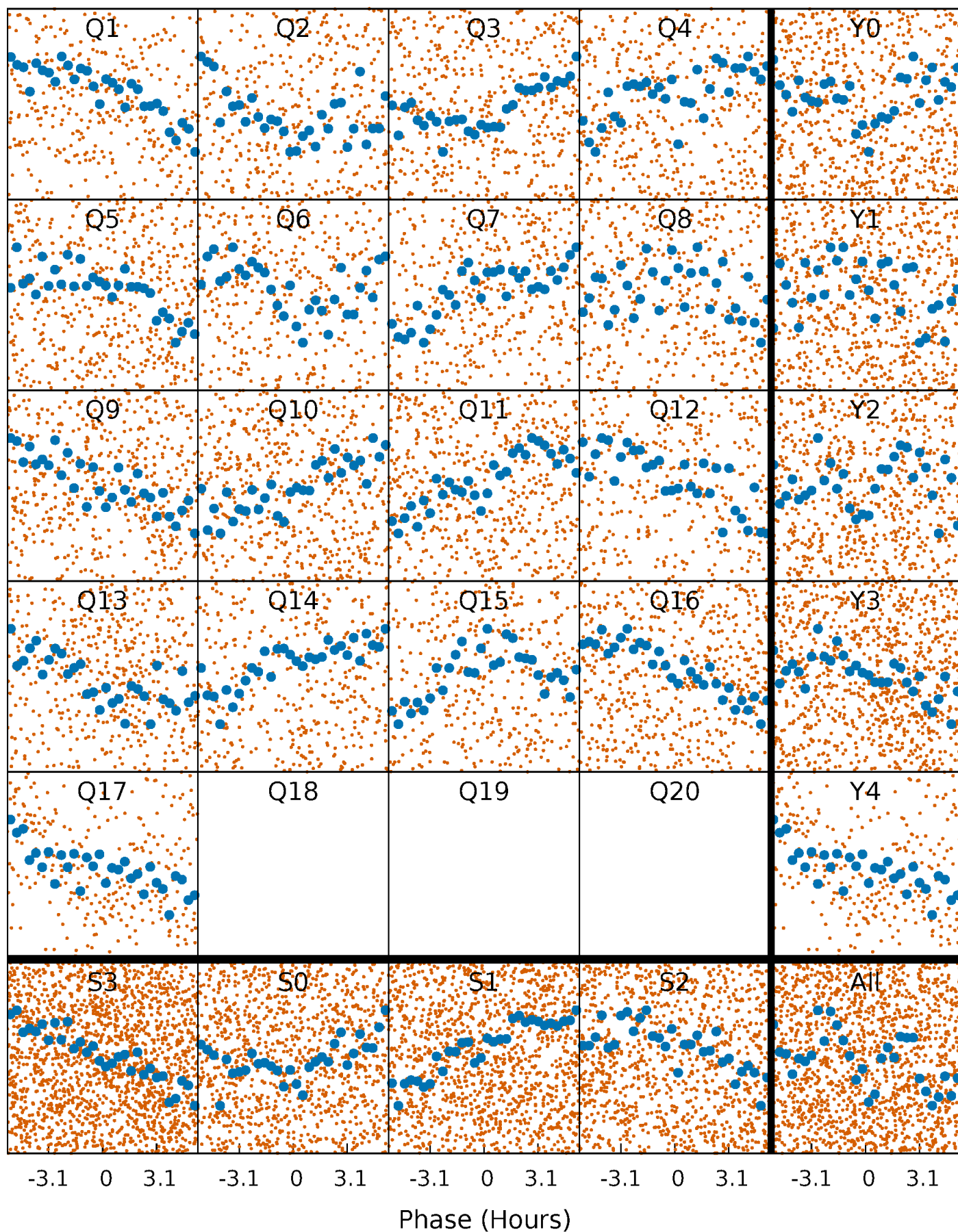


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



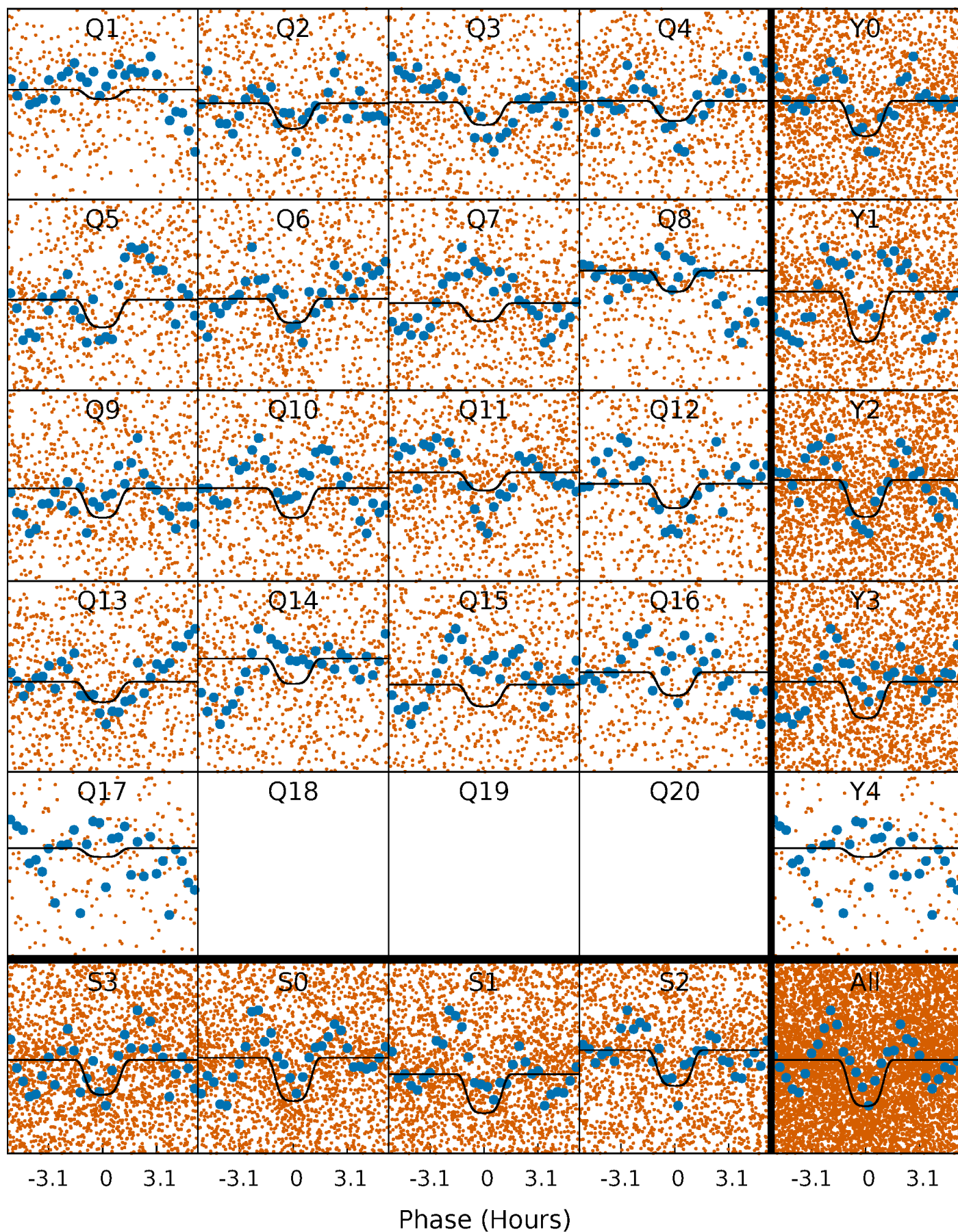
PDC Quarter-Phased Transit Curves

TCE 008264667-01 P= 1.469809 Days $T_0=132.473456$ (BKJD)



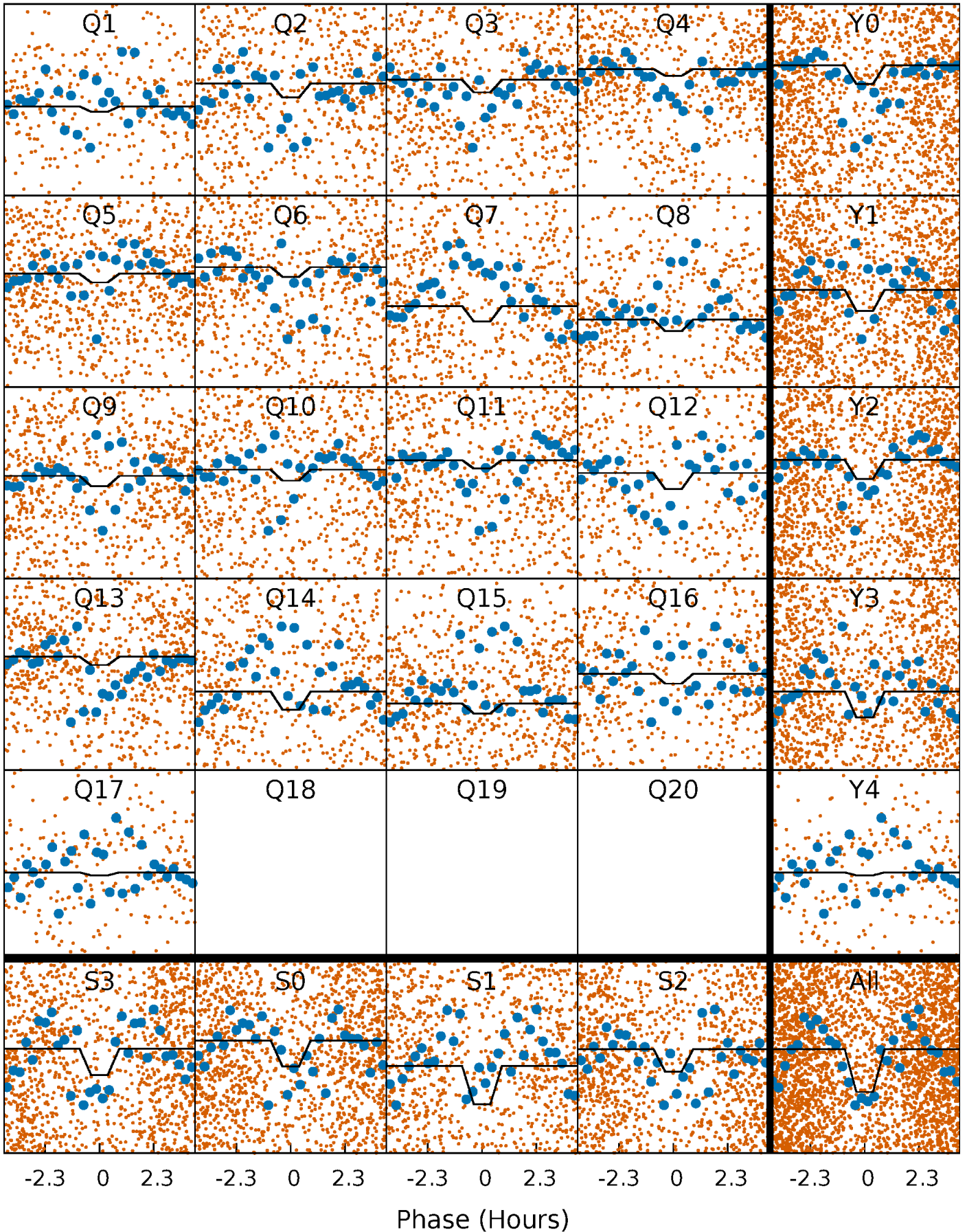
DV Quarter-Phased Transit Curves

TCE 008264667-01 P= 1.469809 Days $T_0=132.473456$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

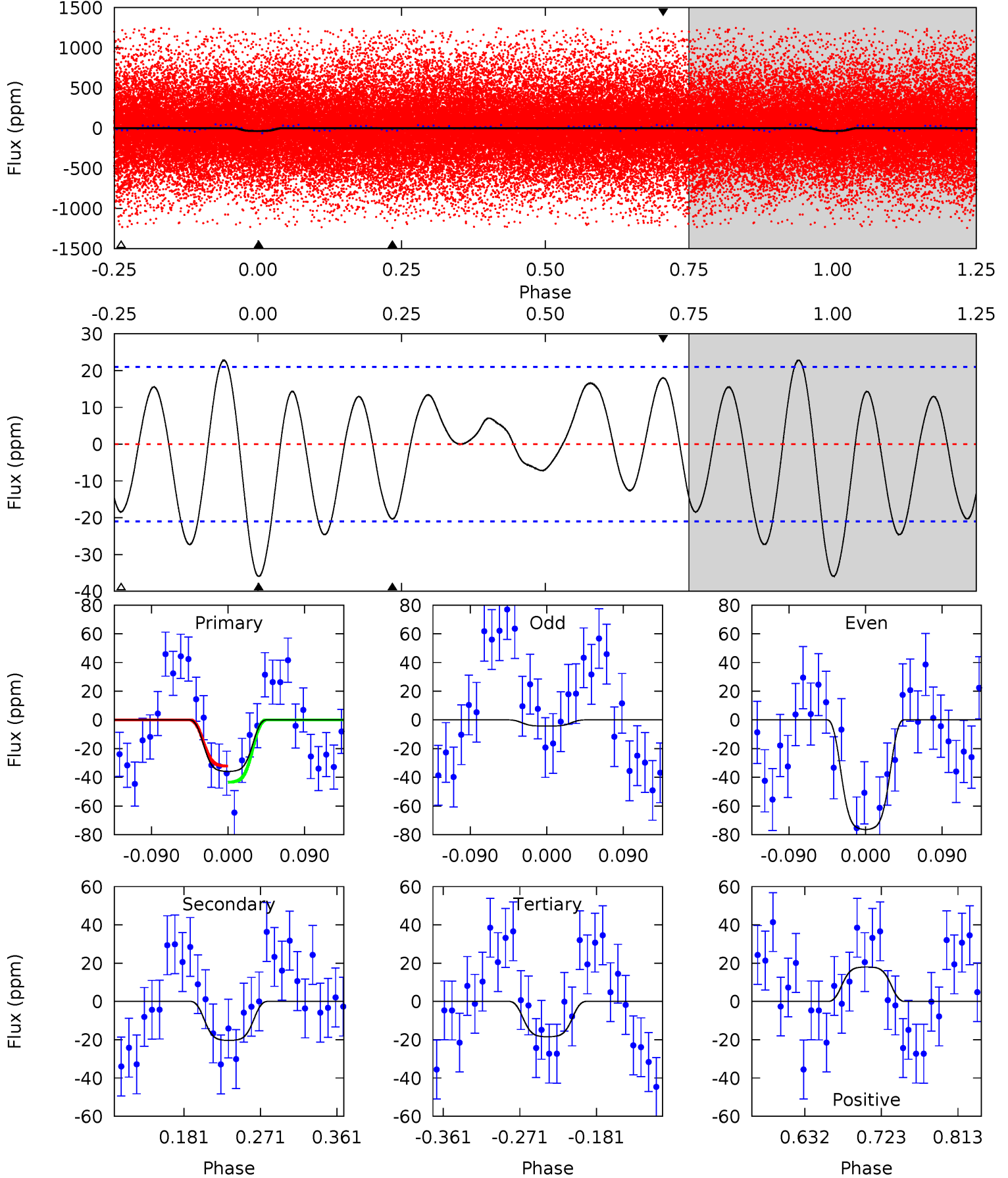
TCE 008264667-01 P= 1.469782 Days $T_0=132.485926$ (BKJD)



DV Model-Shift Uniqueness Test

008264667-01, P = 1.469809 Days, E = 131.003647 Days

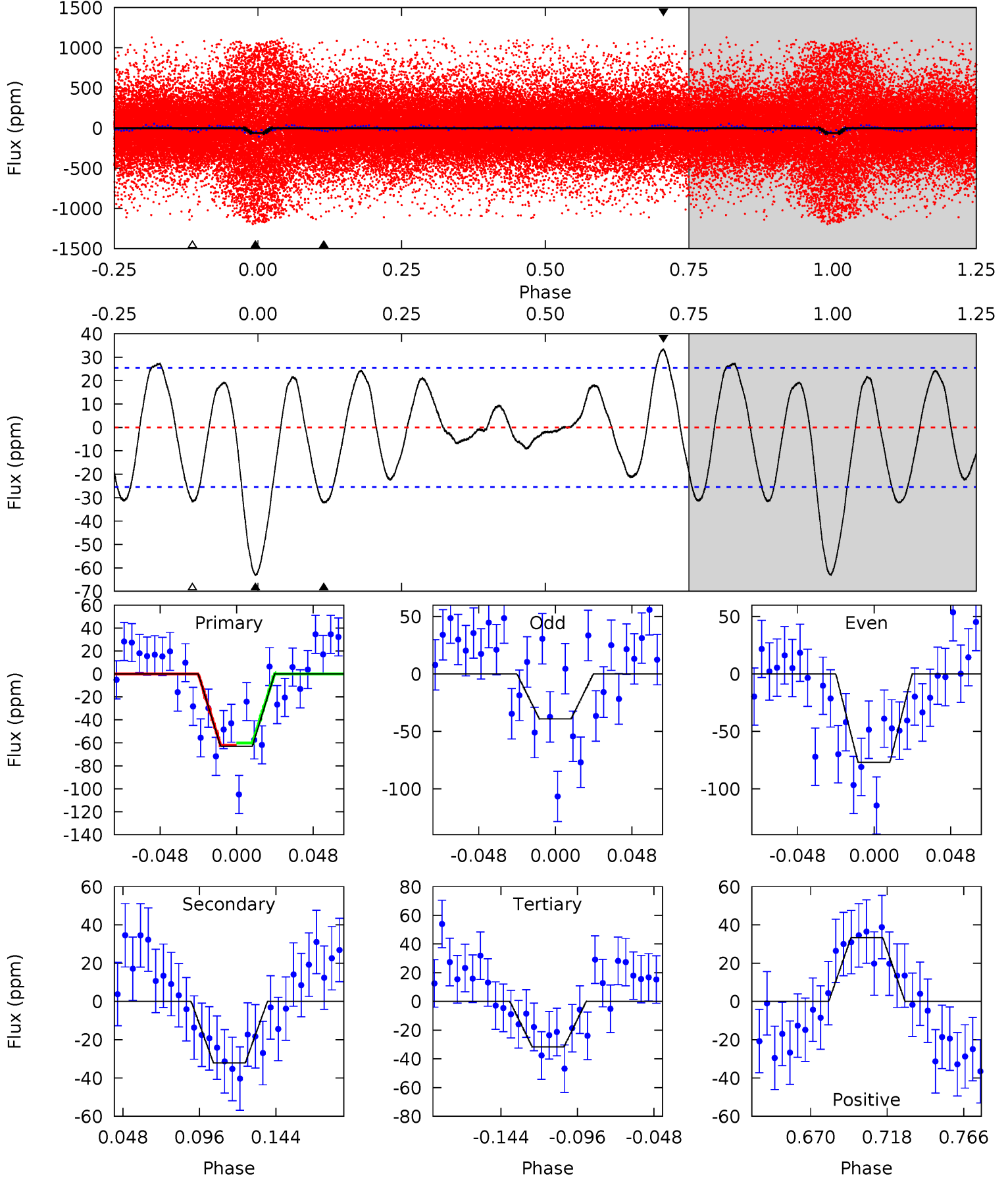
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.86	4.45	4.03	3.94	4.59	1.69	2.57	3.82	3.92	0.42	0.51	7.88	0.50	0.39	1.22



Alt Model-Shift Uniqueness Test

008264667-01, P = 1.469782 Days, E = 131.016144 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	5.95	5.86	6.18	4.72	1.98	2.85	5.82	5.50	0.09	-0.23	3.50	0.77	0.35	0



Stellar Parameters For KIC 008264667

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7370^{+230}_{-307}	$4.120^{+0.149}_{-0.182}$	$-0.140^{+0.250}_{-0.350}$	$1.774^{+0.546}_{-0.409}$	$1.511^{+0.222}_{-0.247}$	$0.381^{+0.297}_{-0.194}$
	+3%/-4%	+4%/-4%	+179%/-250%	+31%/-23%	+15%/-16%	+78%/-51%
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 008264667-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-20 ± 5	$1.82^{+0.32}_{-0.27}$	3551^{+278}_{-253}	4944^{+381}_{-346}	$2.727^{+1.252}_{-0.890}$
Alt.	-32 ± 5	$1.21^{+0.25}_{-0.20}$	3559^{+282}_{-253}	6860^{+788}_{-543}	$9.835^{+5.231}_{-3.211}$

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 $A_{obs} \gg 1.0$

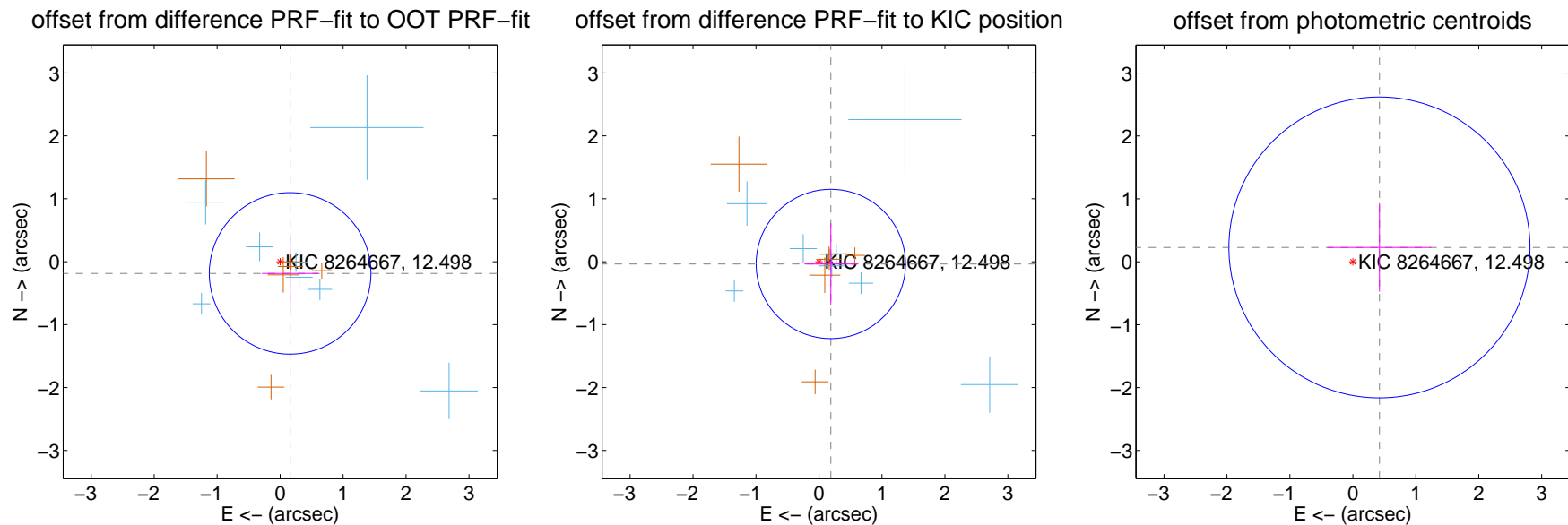
DV Centroid Data

Supplemental centroid analysis for 008264667-01. Kepler magnitude: 12.50. Transit SNR 9.66

There are 8 quarters with good PRF difference image offsets

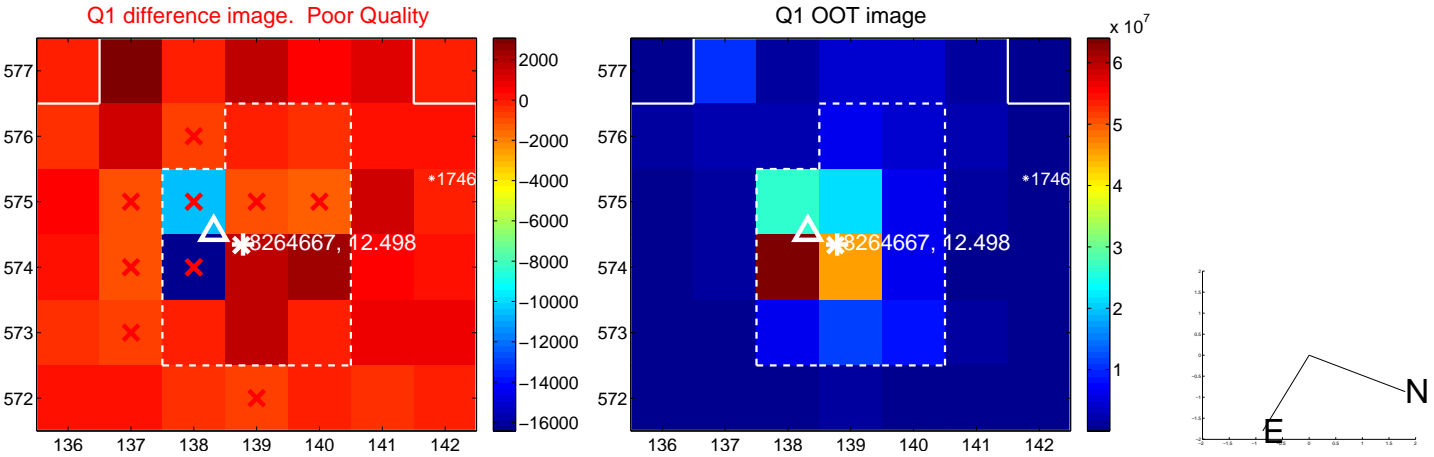
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.245 ± 0.428	0.57	-0.159 ± 0.448	-0.186 ± 0.603
PRF-fit source offset from KIC position	0.191 ± 0.395	0.48	-0.188 ± 0.421	-0.036 ± 0.647
photometric centroid source offset	0.48 ± 0.80	0.60	-0.42 ± 0.82	0.23 ± 0.70

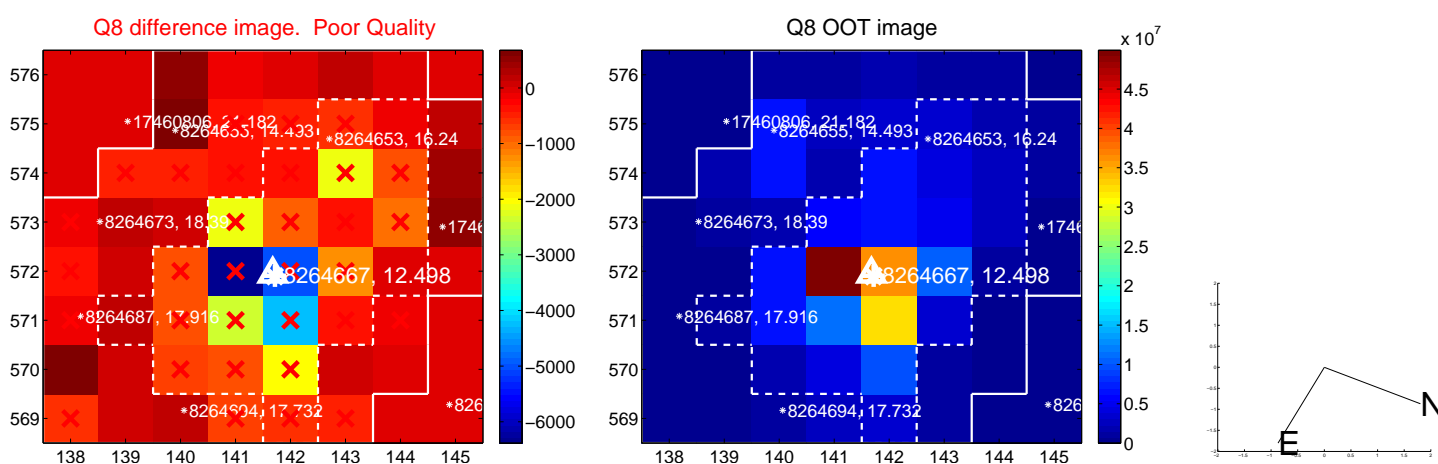
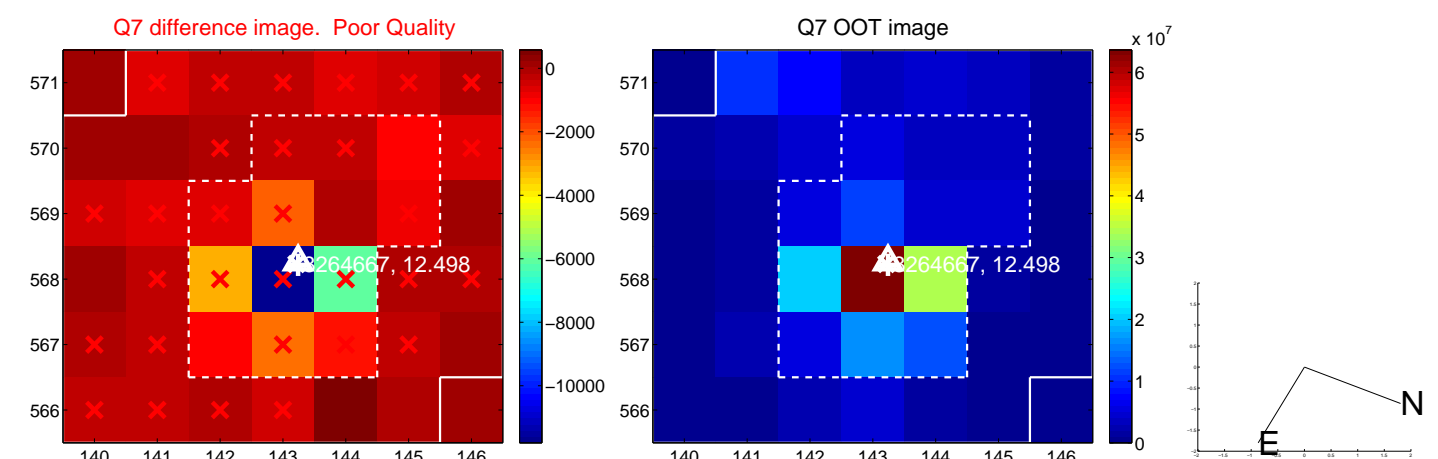
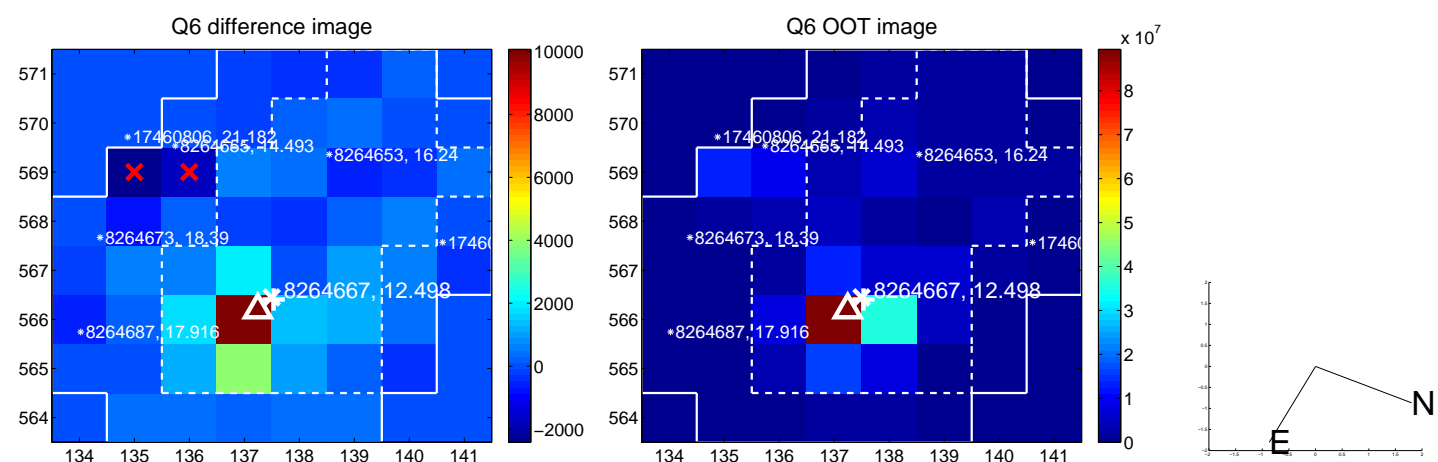
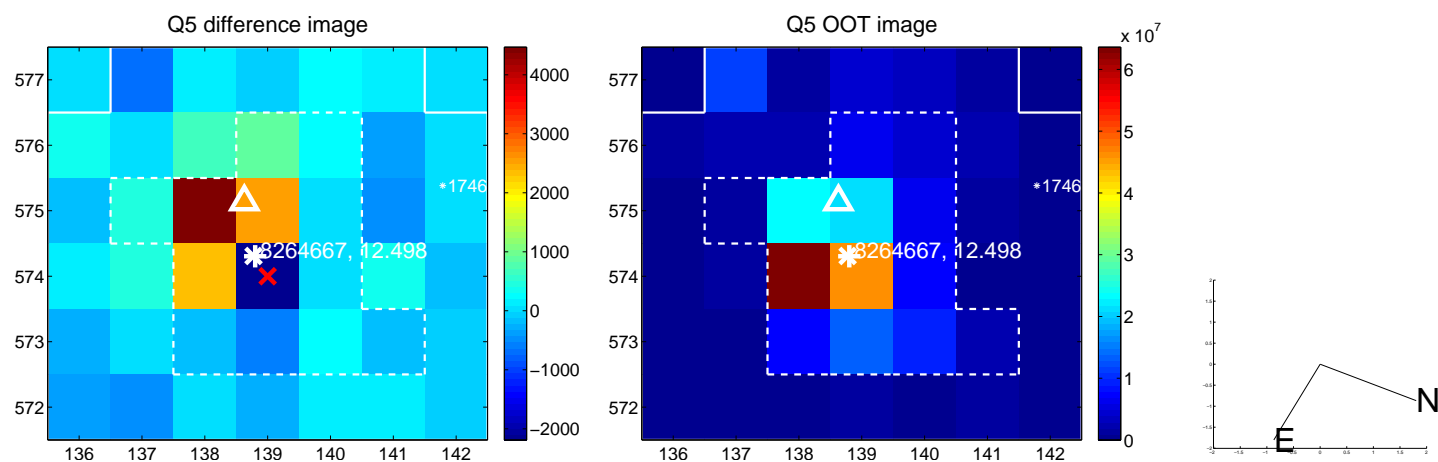


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

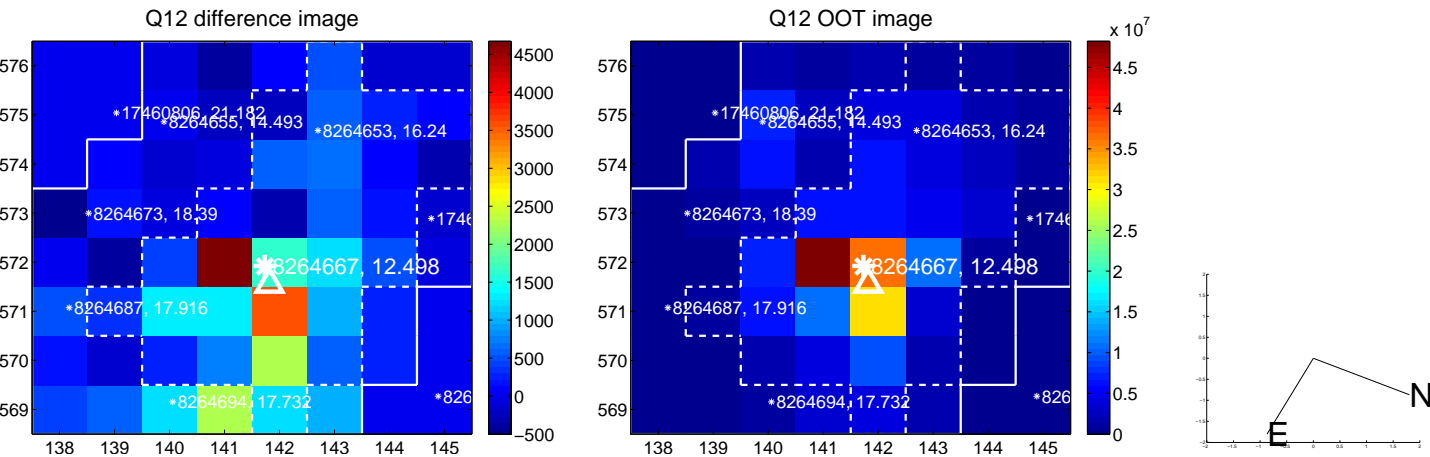
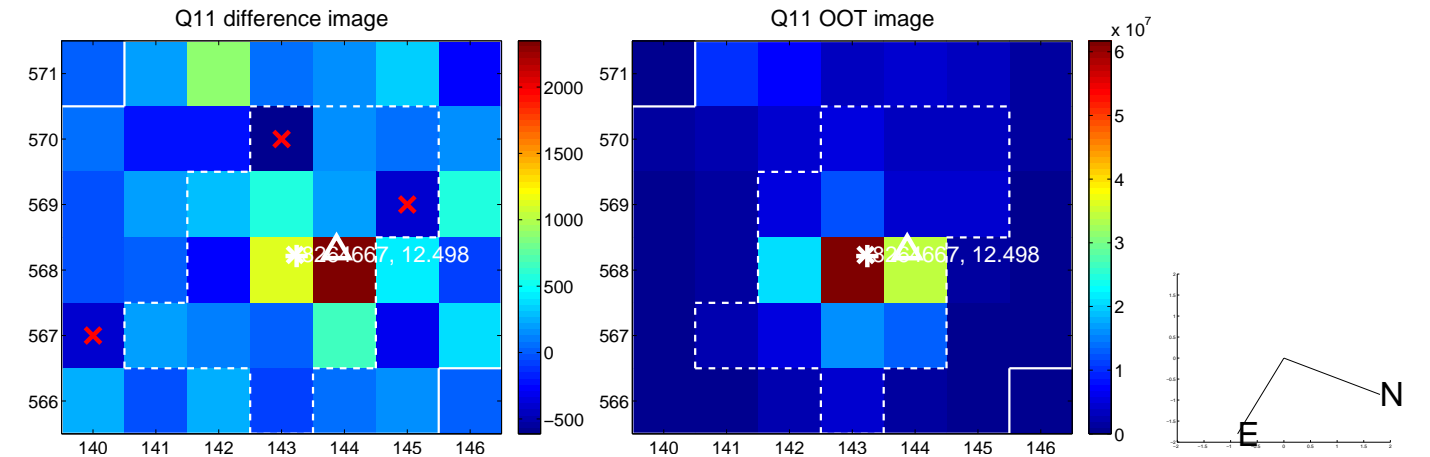
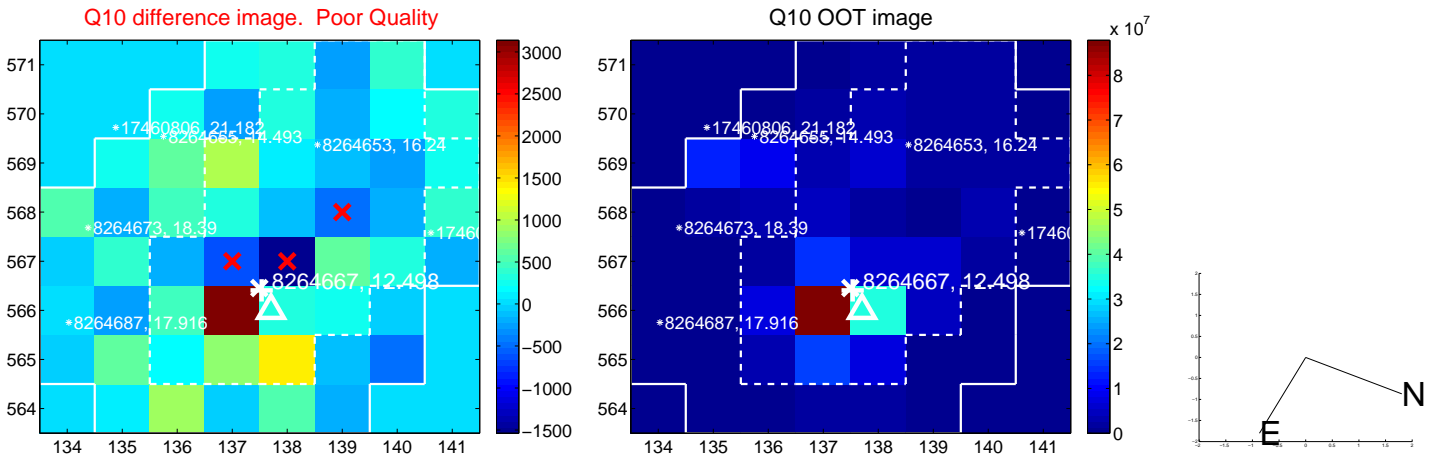
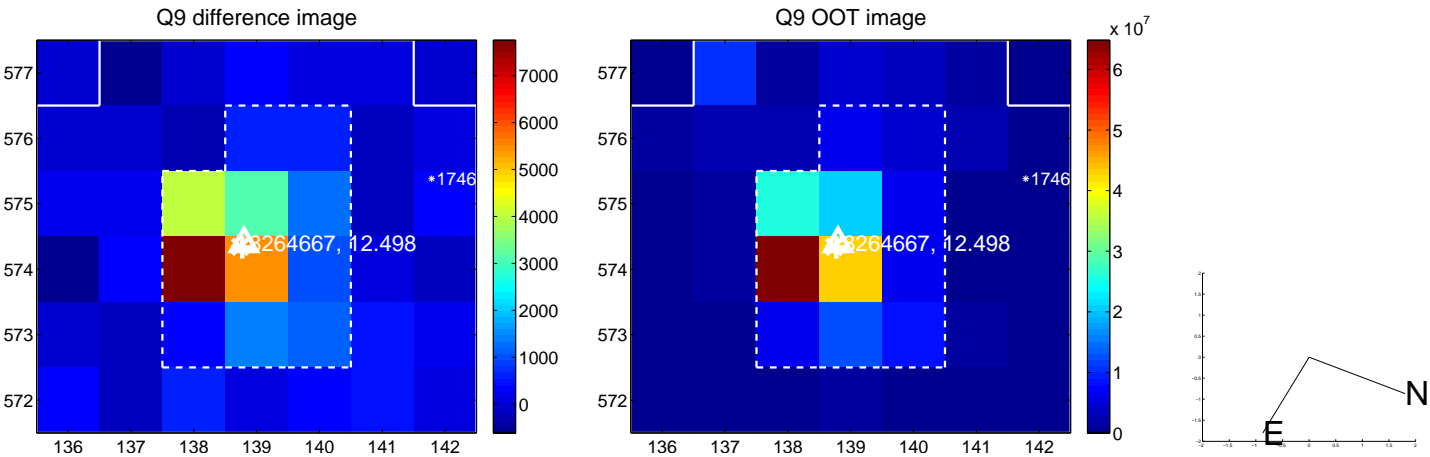
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



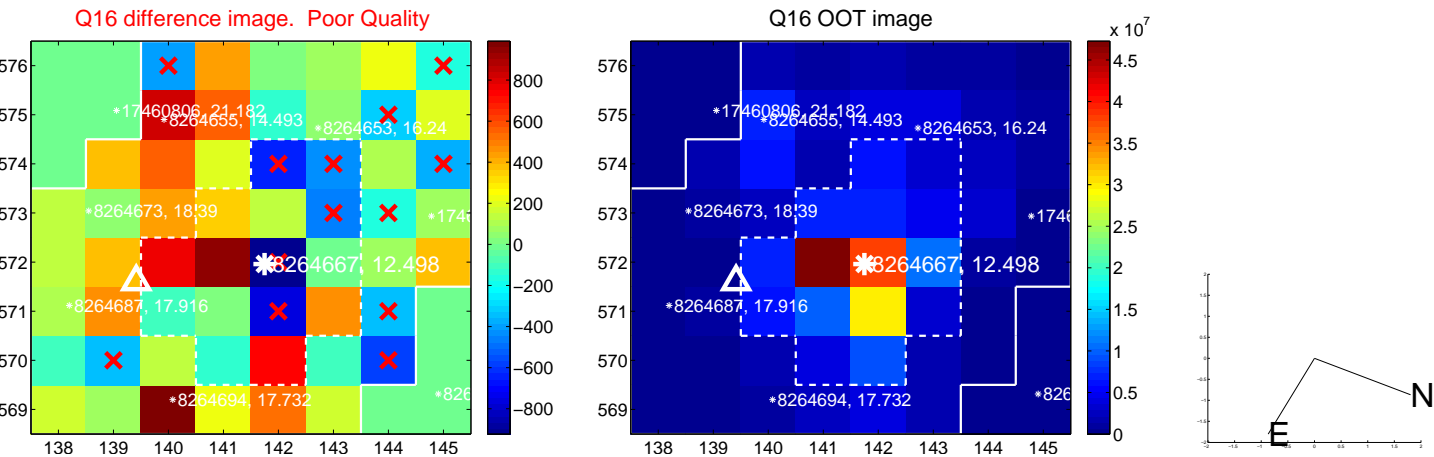
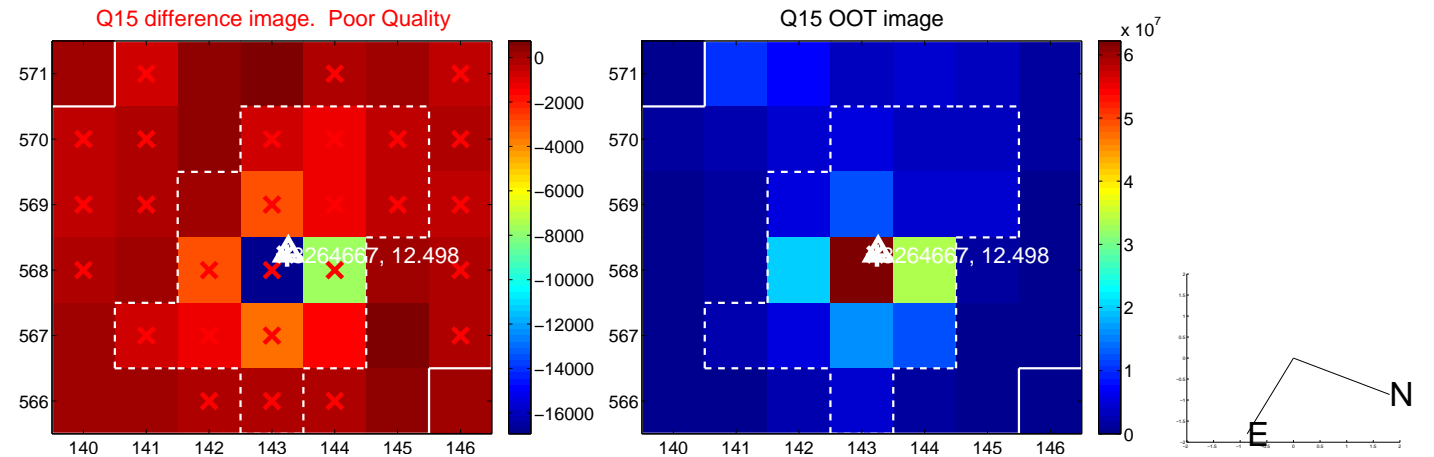
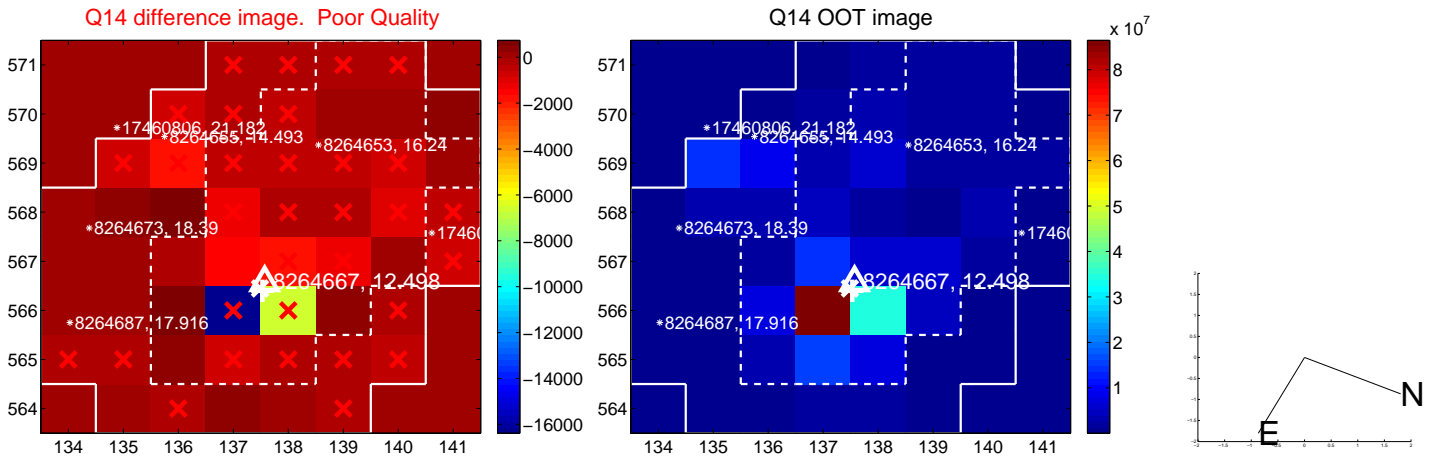
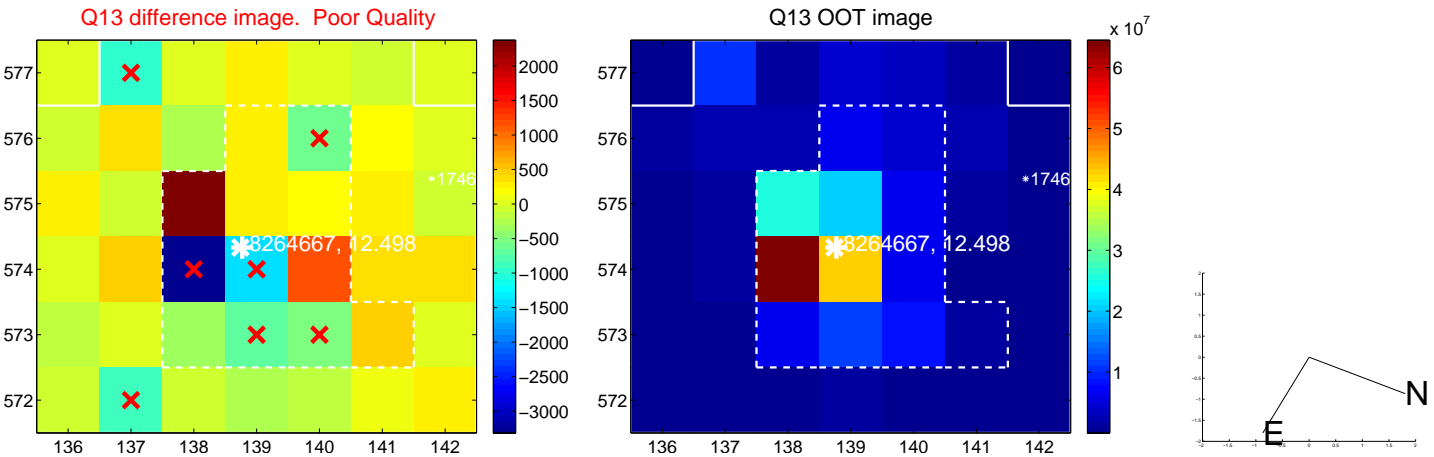
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



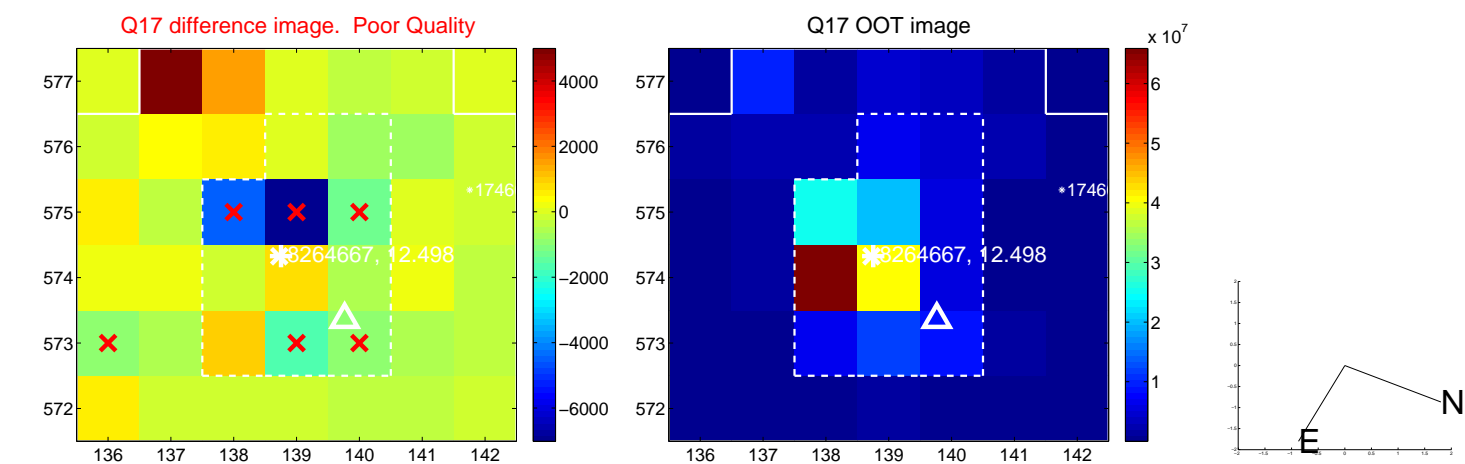
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



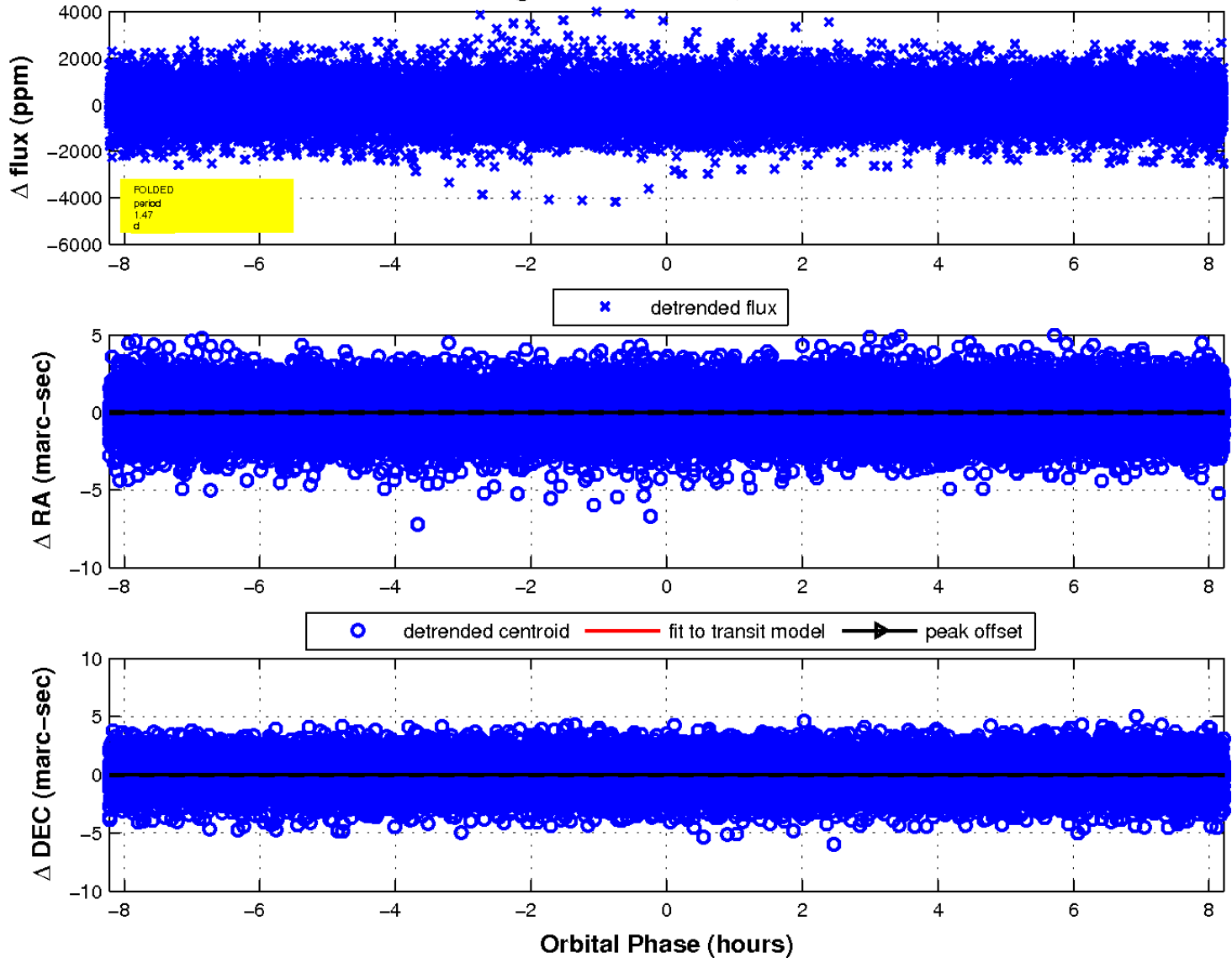
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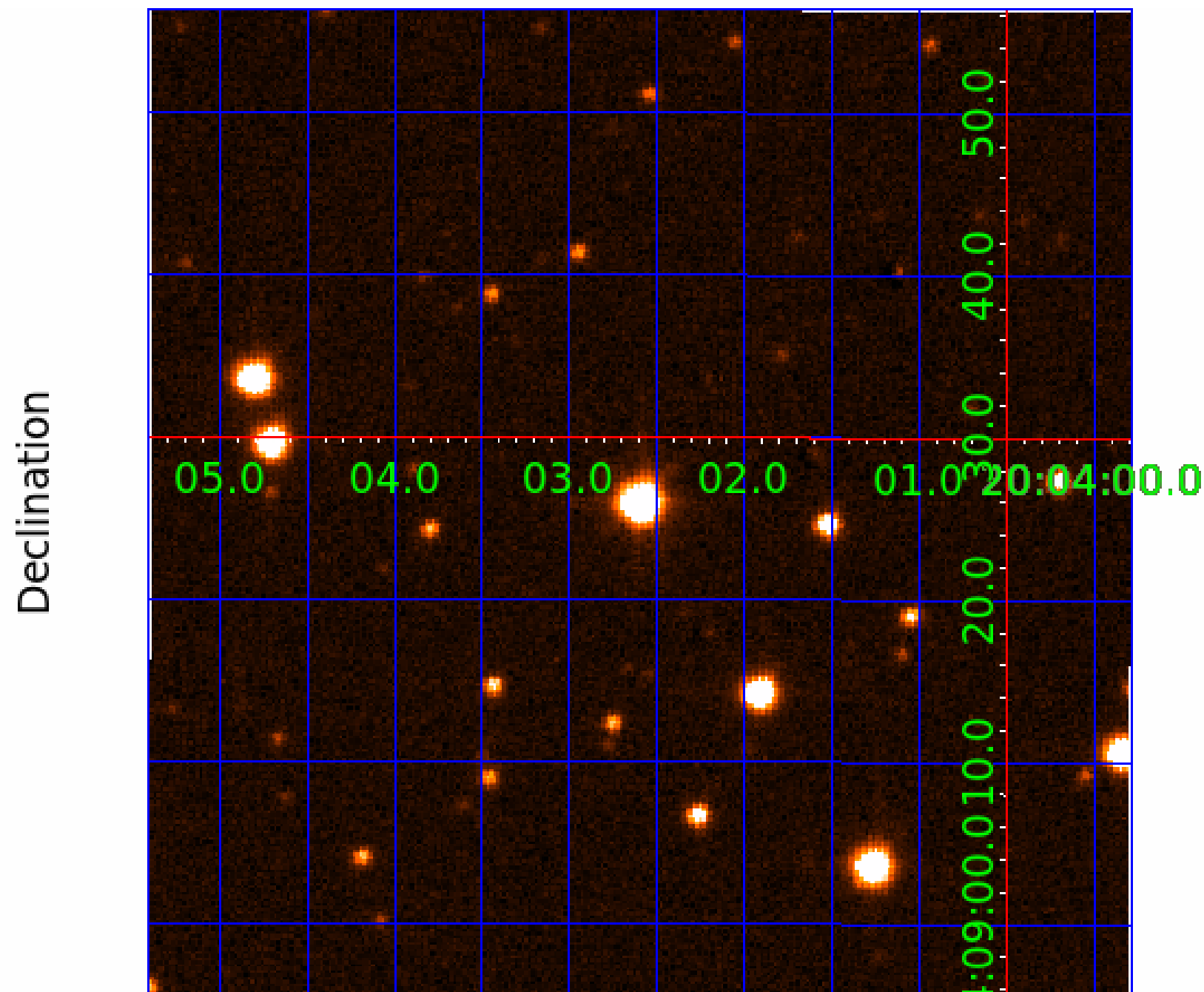
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 2



UKIRT Image



KIC 008264667

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})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264667-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008264667-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

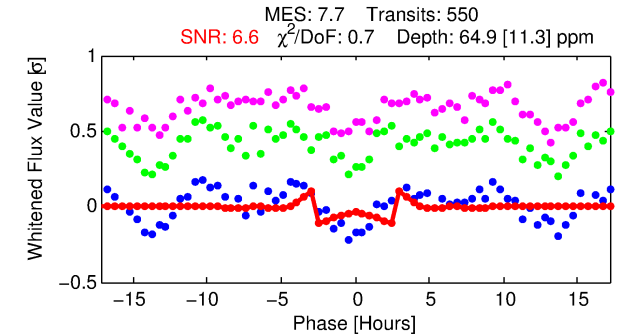
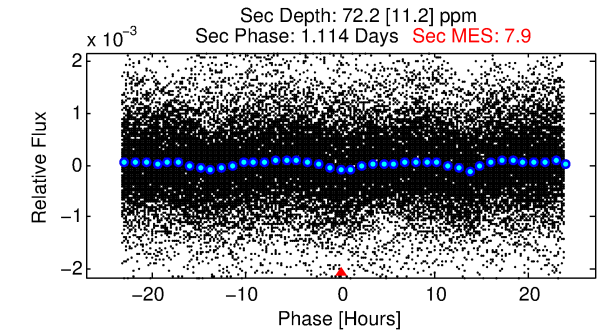
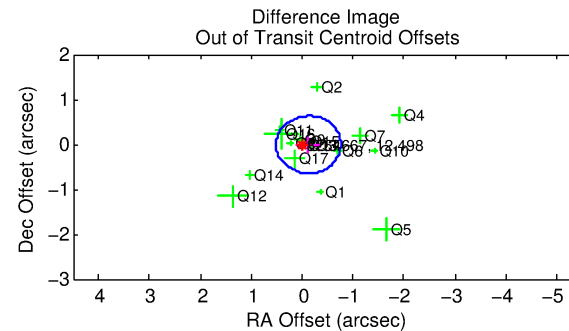
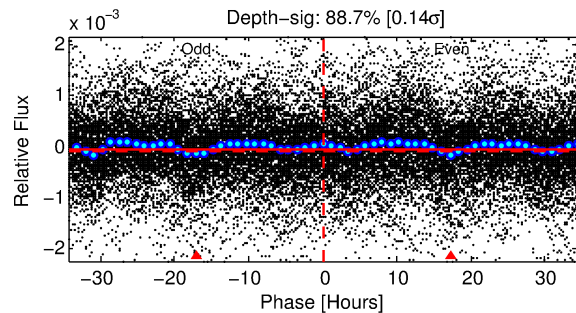
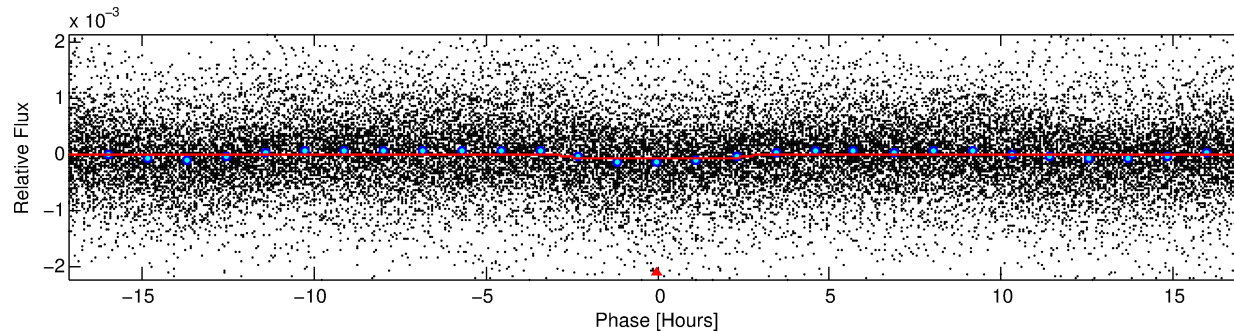
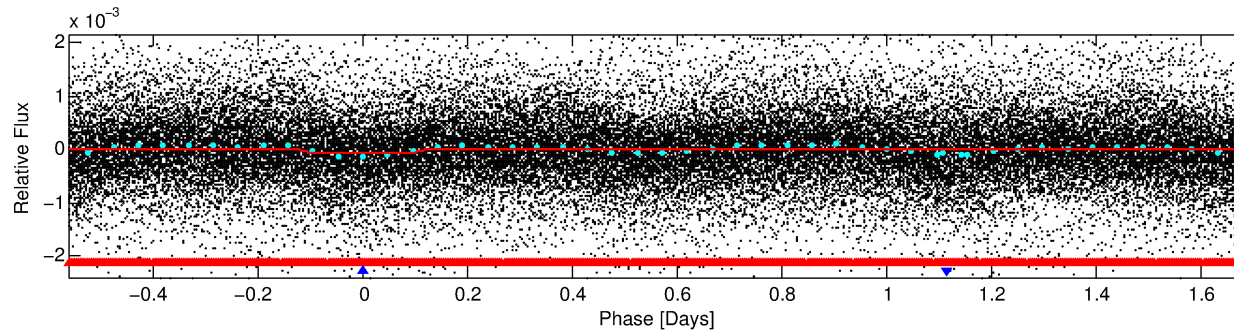
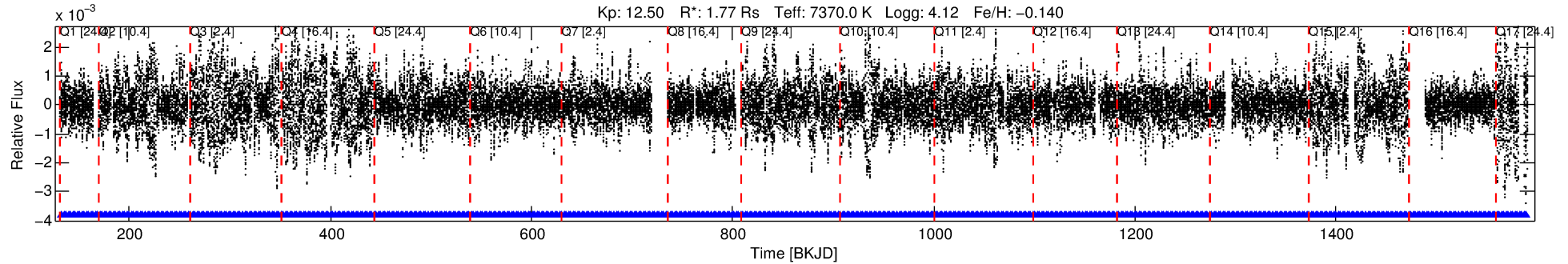
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264667-02

No Significant Match Found

DV One-Page Summary

KIC: 8264667 Candidate: 2 of 2 Period: 2.251 d



DV Fit Results:

Period = 2.25127 [0.00002] d
Epoch = 132.7673 [0.0024] BKJD
Rp/R* = 0.0086 [0.0013]
a/R* = 1.66 [0.74]
b = 0.90 [0.15]
Seff = 5582.50 [2147.03]
Teff = 2204 [212] K
Rp = 1.66 [0.57] Re
a = 0.0386 [0.0096] AU
Ag = 21.46 [10.51] [1.95 σ]
Teffp = 7335 [704] K [6.98 σ]

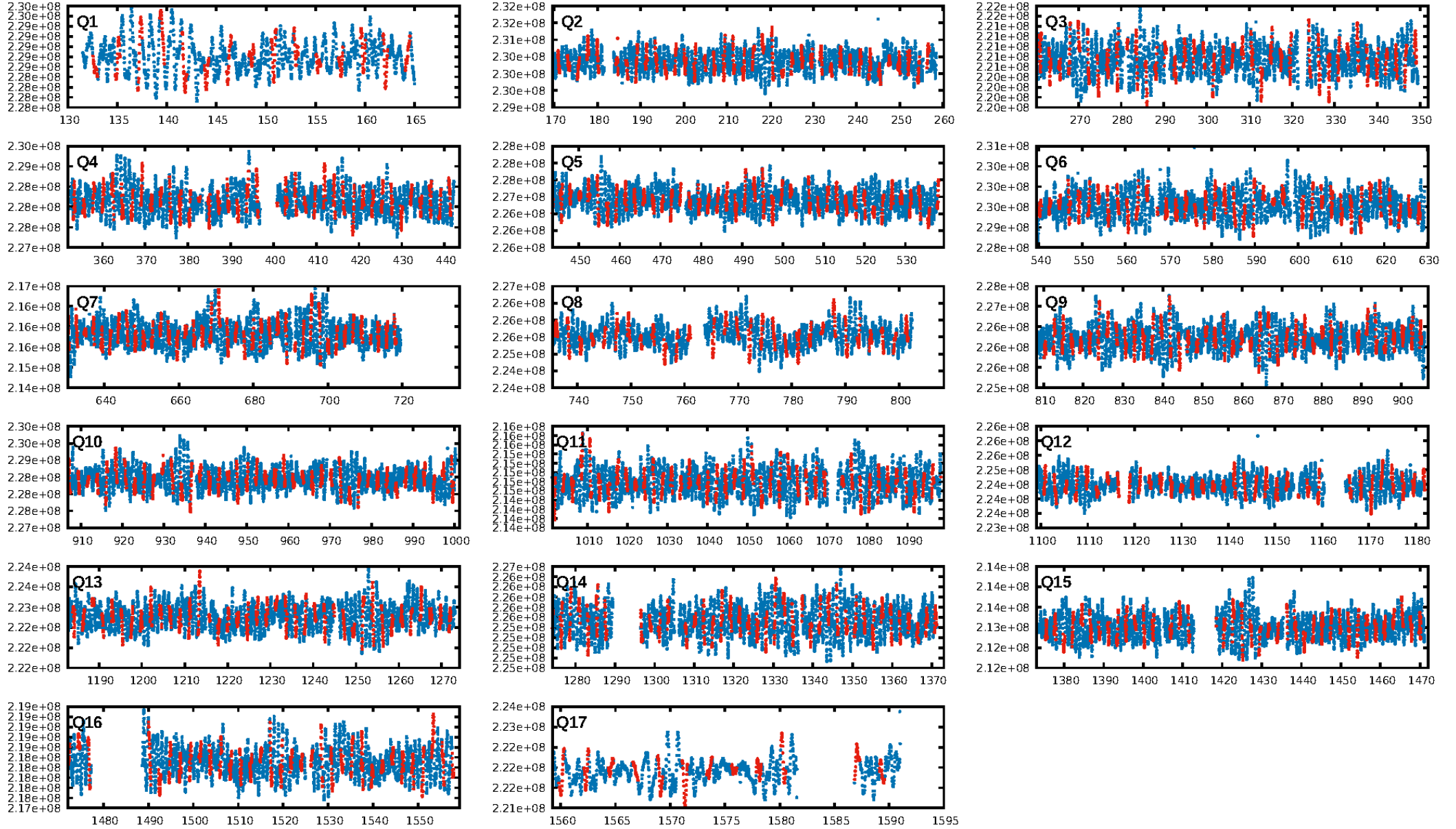
DV Diagnostic Results:

ShortPeriod-sig: 99.7% [2.96 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.11e-12
RollingBand-fgt: 1.00 [525/525]
GhostDiagnostic-chr: 0.5293
Centroid-sig: 0.0%
Centroid-so: 1.728 arcsec [2.38 σ]
OotOffset-rm: 0.123 arcsec [0.58 σ]
KicOffset-rm: 0.193 arcsec [0.95 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.82 [14/17]
DiffImageOverlap-fno: 1.00 [17/17]

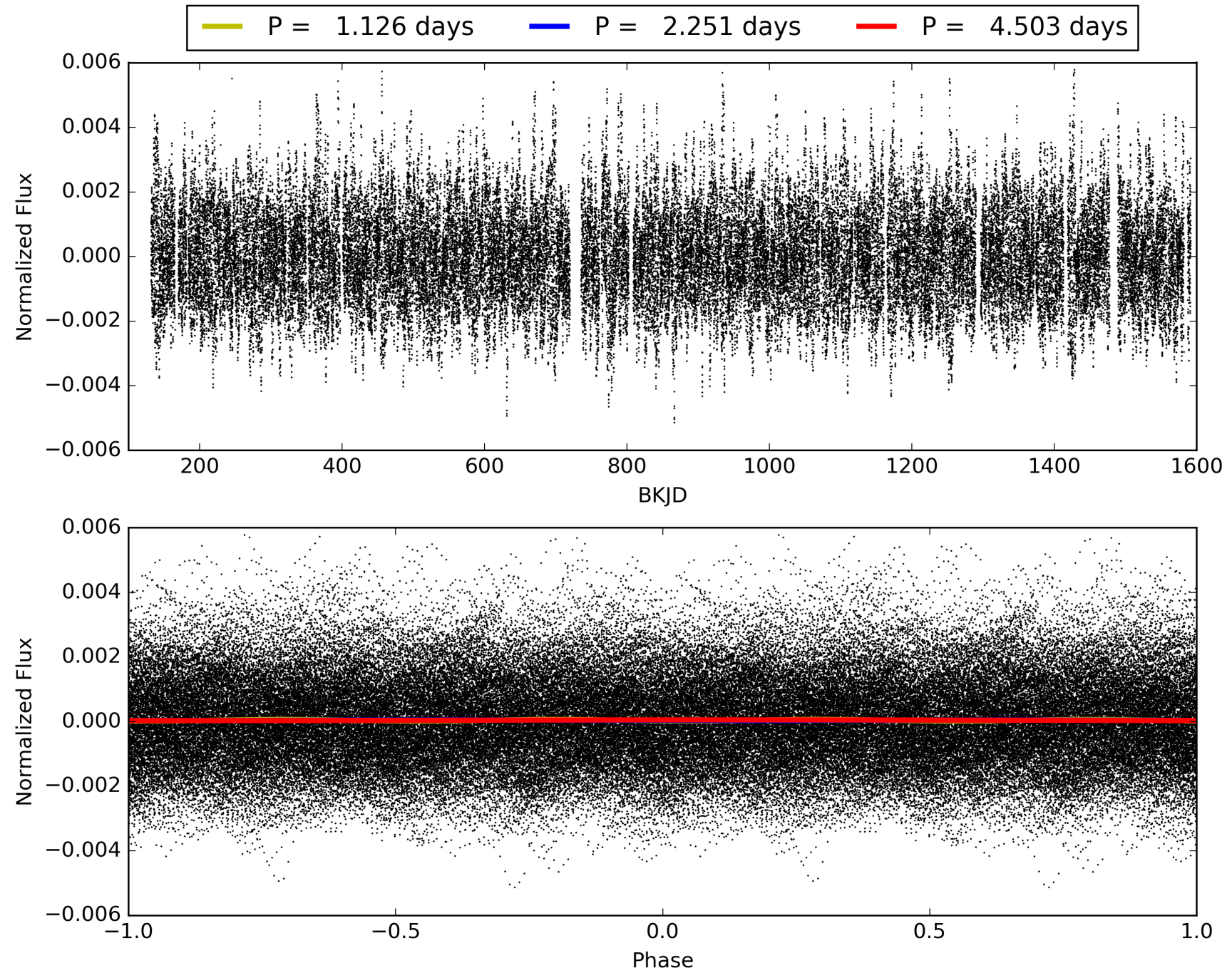
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008264667-02, PDC Light Curves

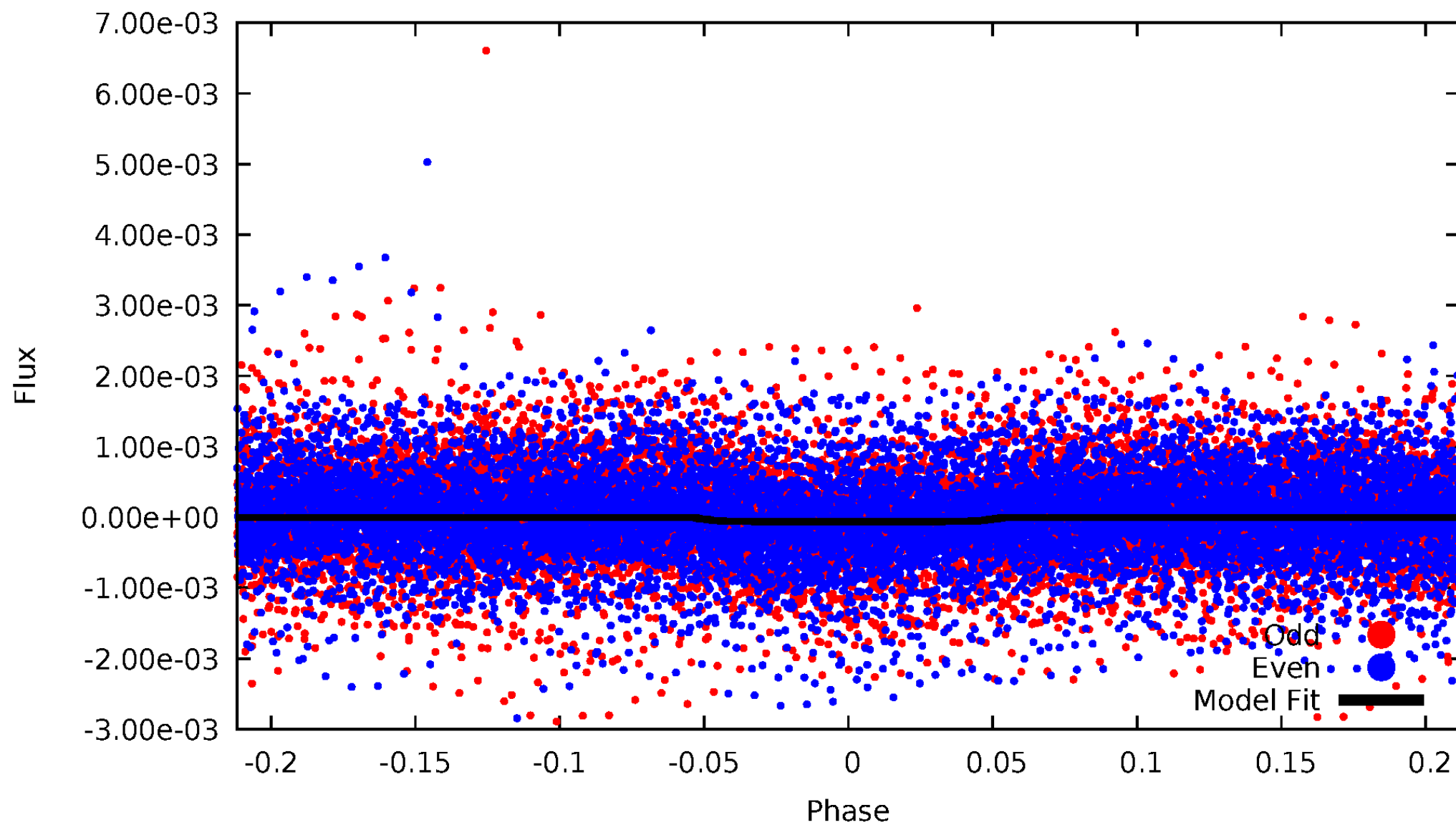


TCE 008264667-02



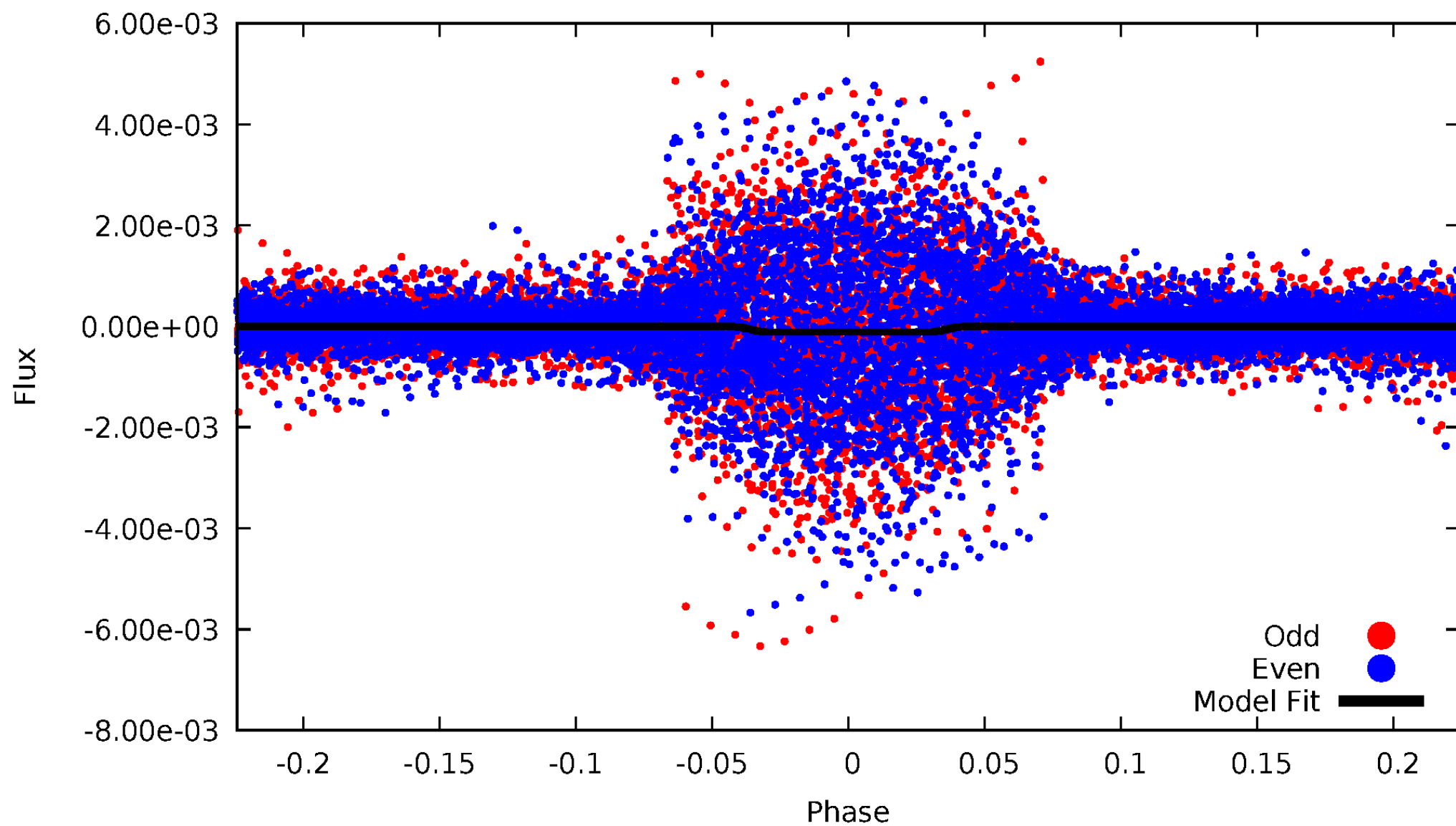
DV Odd/Even

TCE 008264667-02



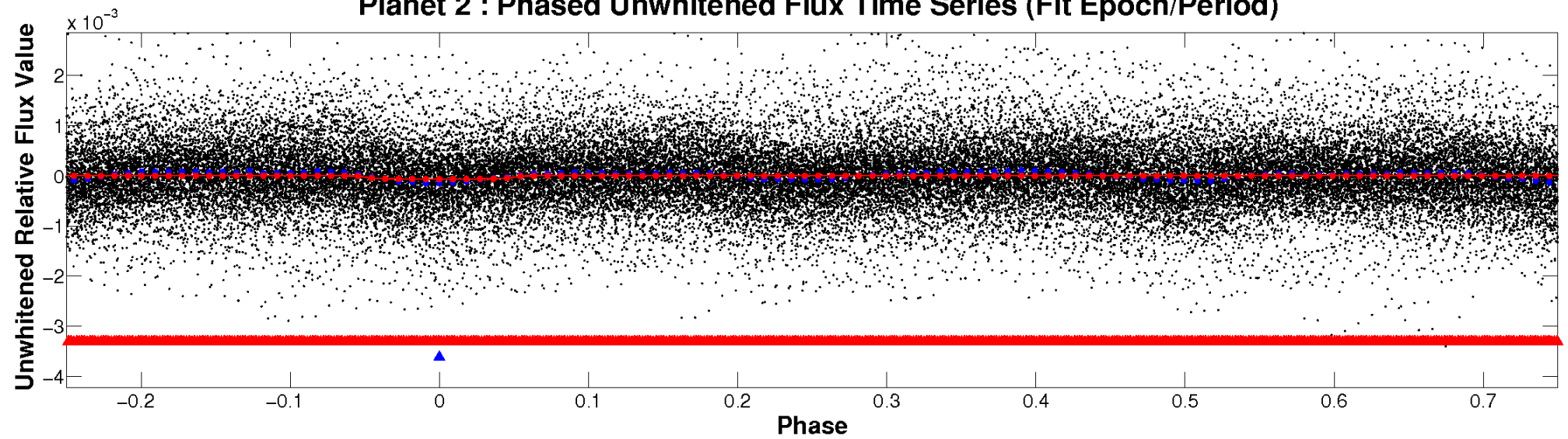
ALT Odd/Even

TCE 008264667-02

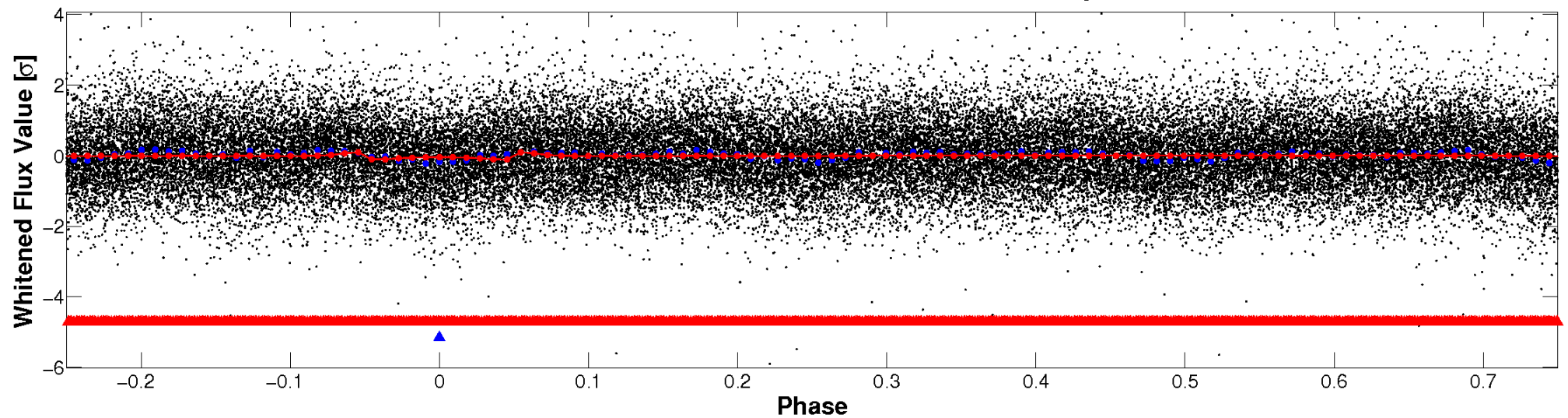


Non-Whitened Vs. Whitened Light Curve

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

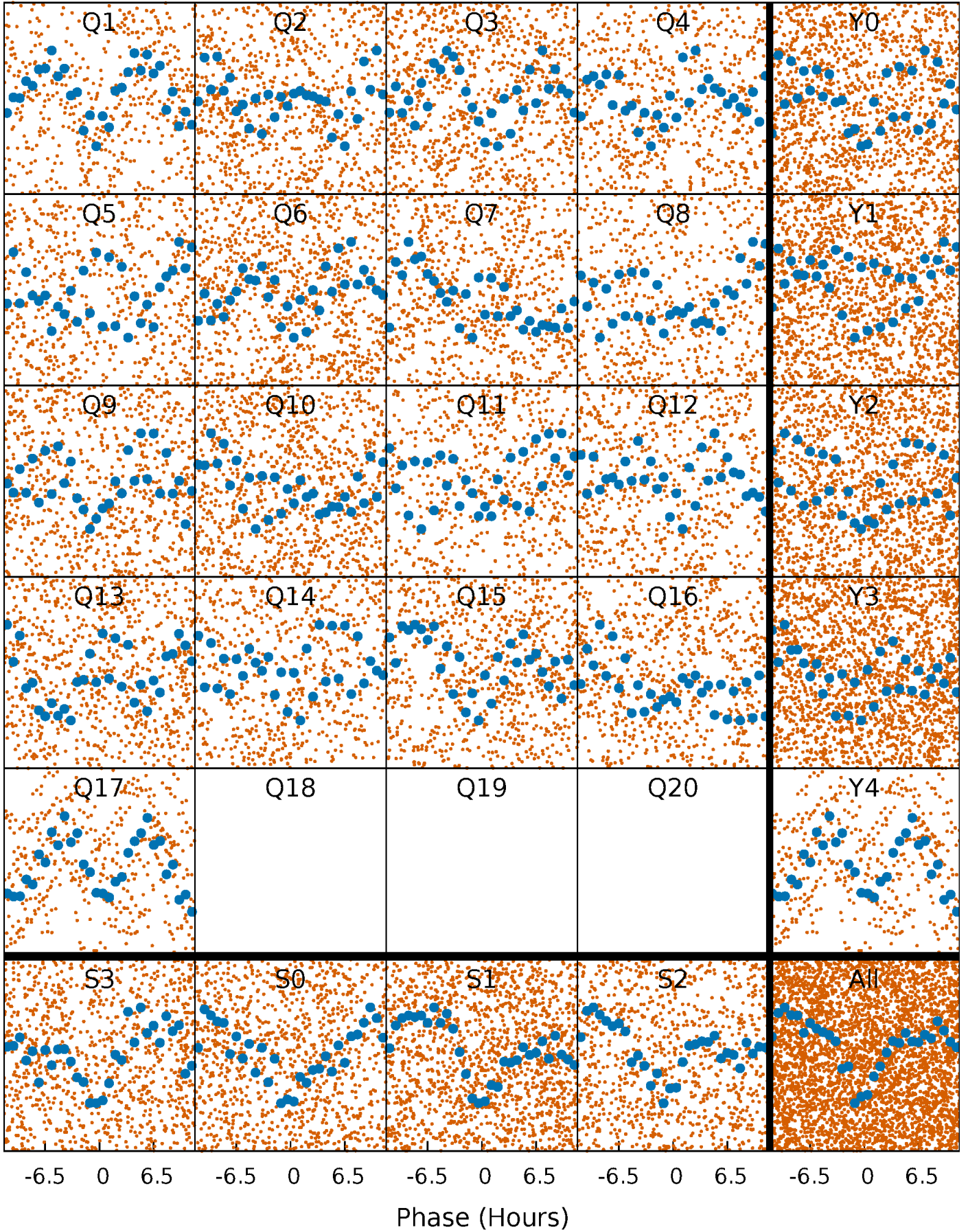


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



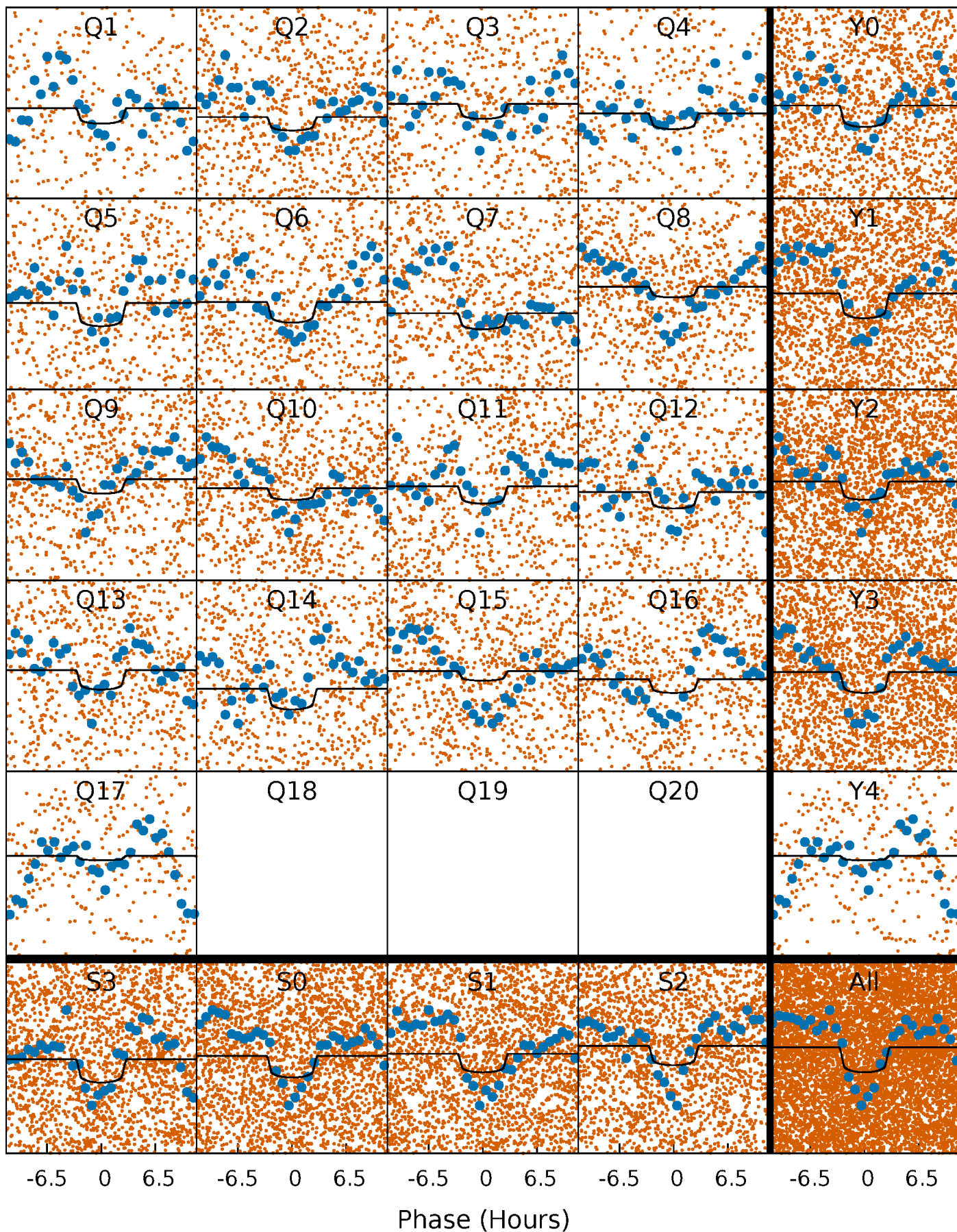
PDC Quarter-Phased Transit Curves

TCE 008264667-02 P= 2.251274 Days $T_0=132.767264$ (BKJD)



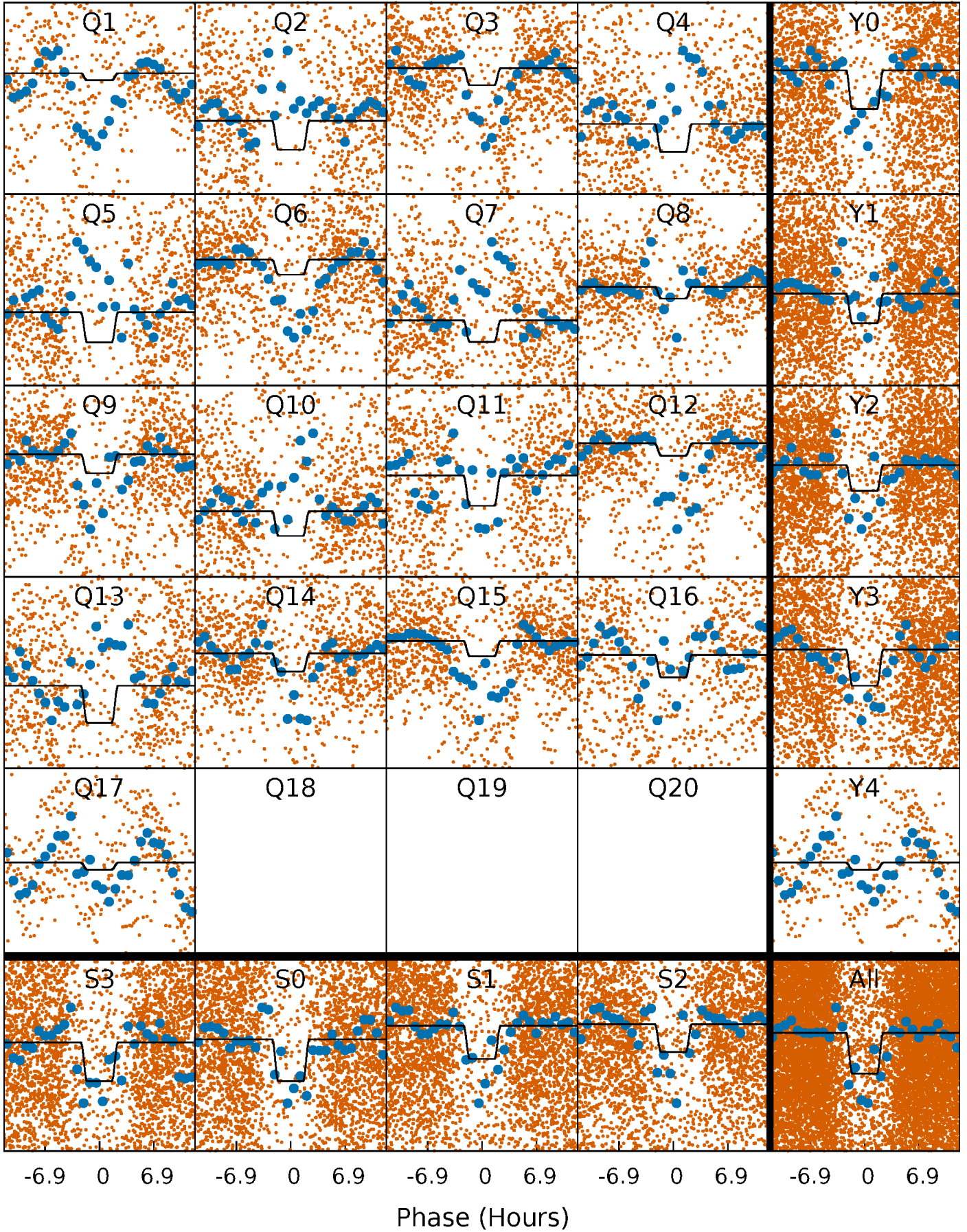
DV Quarter-Phased Transit Curves

TCE 008264667-02 P= 2.251274 Days $T_0=132.767264$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

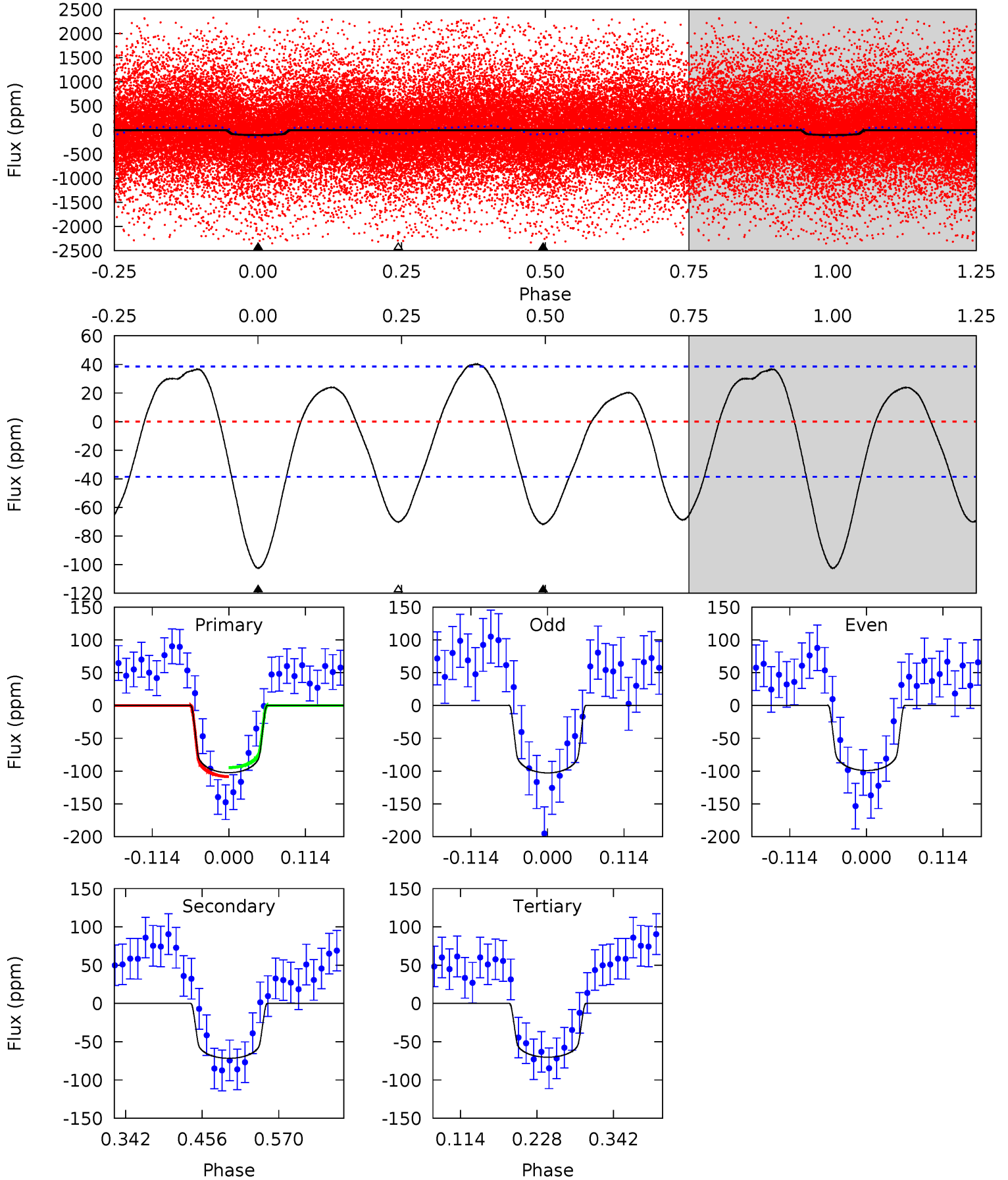
TCE 008264667-02 P= 2.251231 Days $T_0=132.772502$ (BKJD)



DV Model-Shift Uniqueness Test

008264667-02, P = 2.251274 Days, E = 130.515990 Days

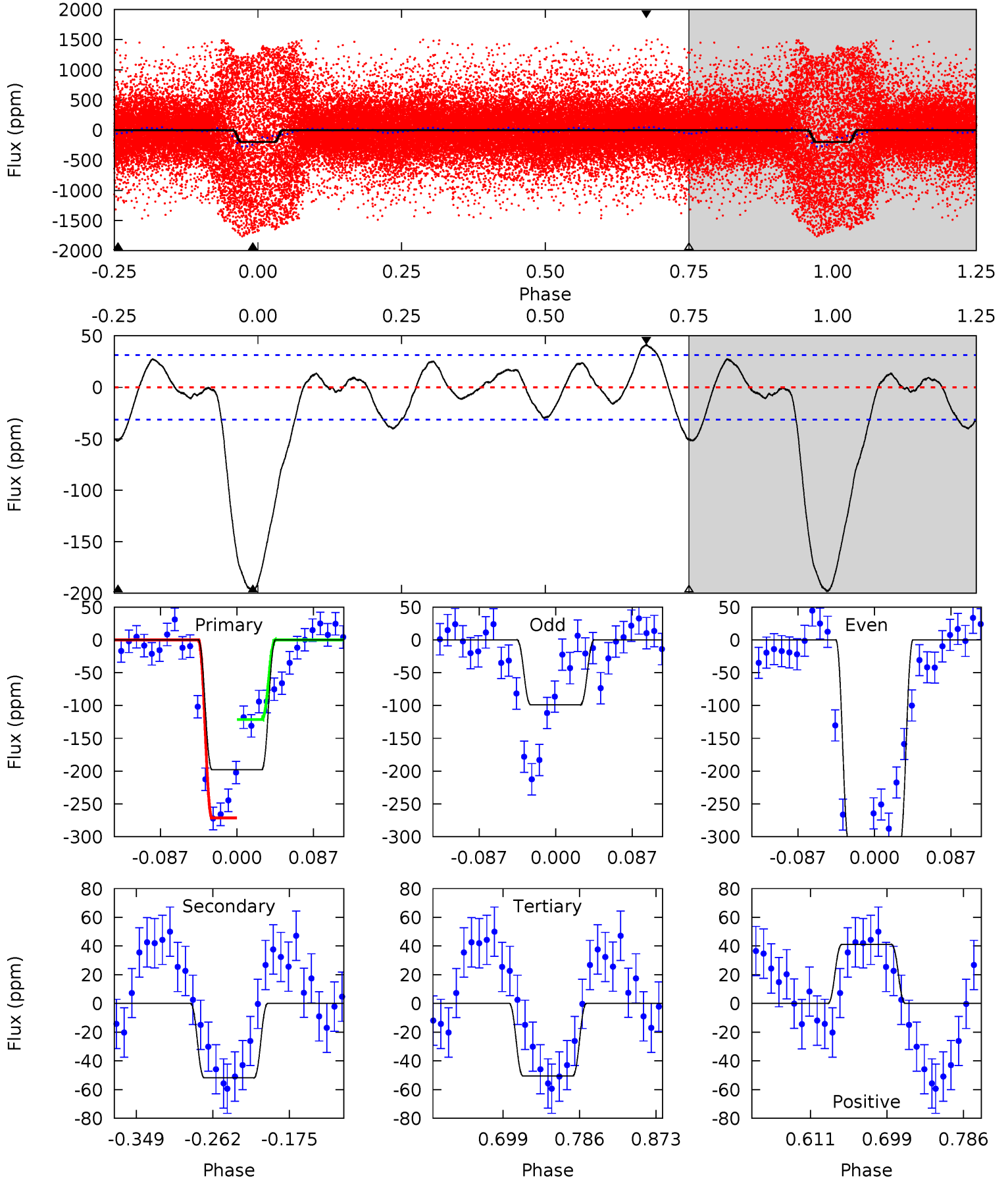
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	8.44	8.26	0	4.54	1.58	4.21	3.80	12.1	0.17	8.44	0.22	1.56	0.28	0.81



Alt Model-Shift Uniqueness Test

008264667-02, P = 2.251231 Days, E = 130.521271 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.0	7.59	7.39	6.01	4.59	1.71	2.69	21.6	23.0	0.20	1.58	15.6	1.05	0.17	11.1



Stellar Parameters For KIC 008264667

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7370^{+230}_{-307}	$4.120^{+0.149}_{-0.182}$	$-0.140^{+0.250}_{-0.350}$	$1.774^{+0.546}_{-0.409}$	$1.511^{+0.222}_{-0.247}$	$0.381^{+0.297}_{-0.194}$
	+3%/-4%	+4%/-4%	+179%/-250%	+31%/-23%	+15%/-16%	+78%/-51%
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 008264667-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-72 ± 8	$1.65^{+0.39}_{-0.33}$	3073^{+256}_{-214}	7239^{+859}_{-610}	21^{+12}_{-7}
Alt.	-52 ± 7	$2.09^{+0.41}_{-0.36}$	3082^{+253}_{-200}	5888^{+491}_{-425}	$9.528^{+4.573}_{-3.117}$

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

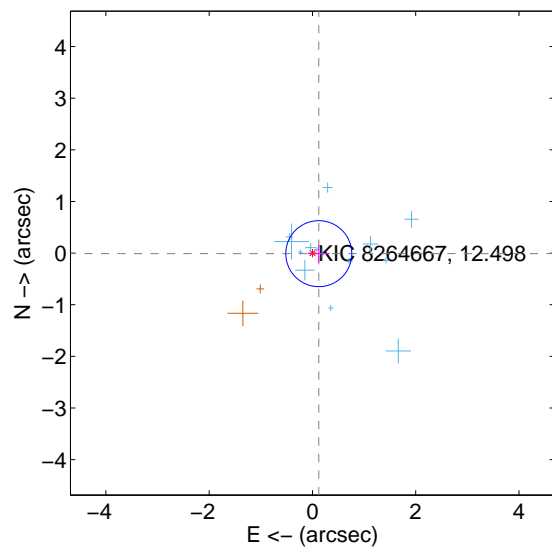
Supplemental centroid analysis for 008264667-02. Kepler magnitude: 12.50. Transit SNR 6.61

There are 14 quarters with good PRF difference image offsets

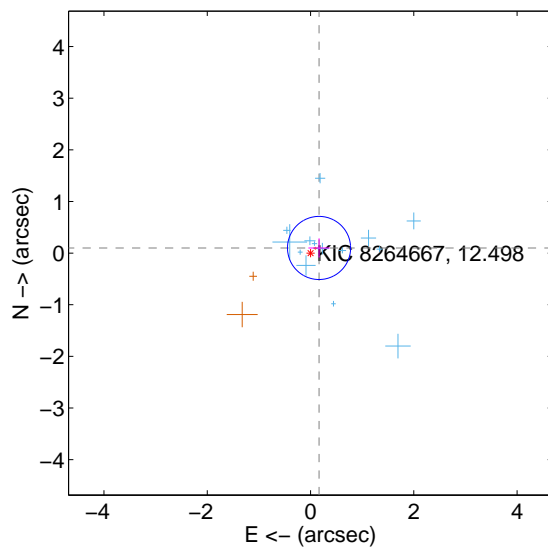
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.123 ± 0.213	0.58	-0.123 ± 0.214	-0.011 ± 0.174
PRF-fit source offset from KIC position	0.193 ± 0.204	0.95	-0.165 ± 0.206	0.100 ± 0.185
photometric centroid source offset	1.73 ± 0.73	2.38	-0.85 ± 0.79	1.51 ± 0.70

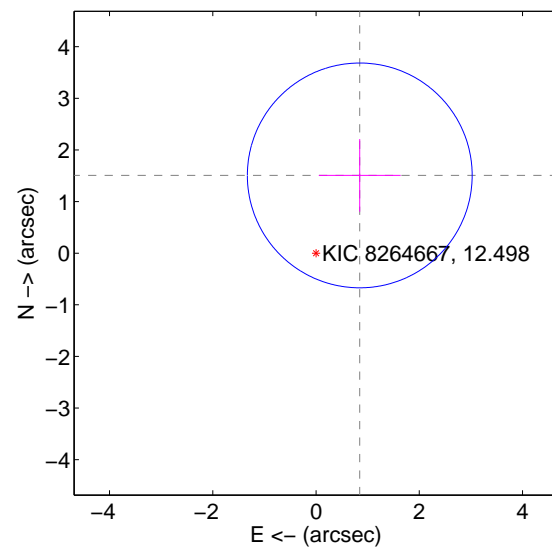
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

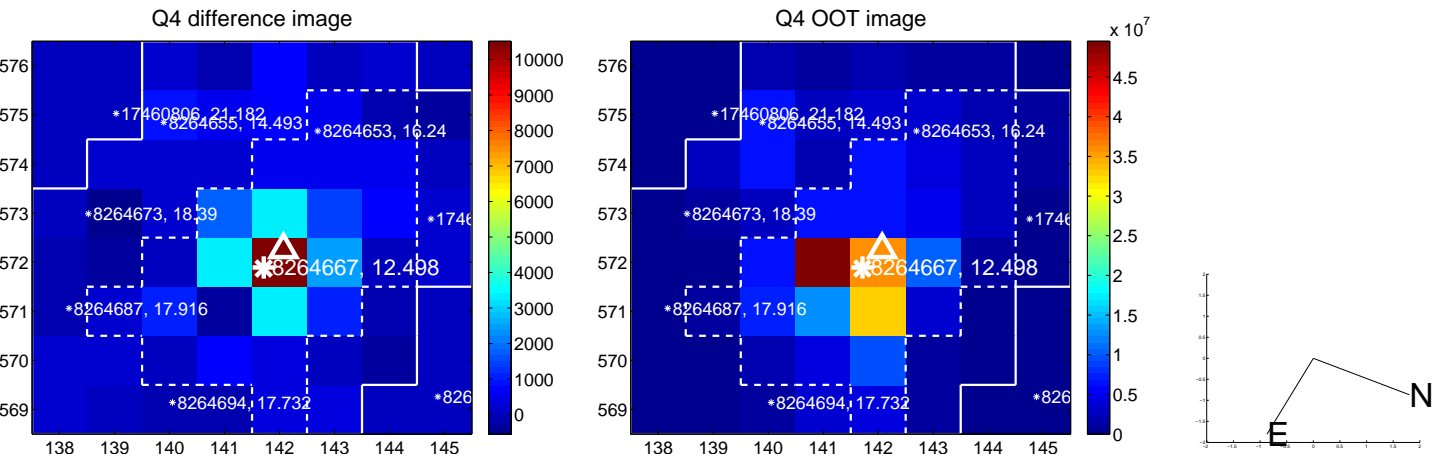
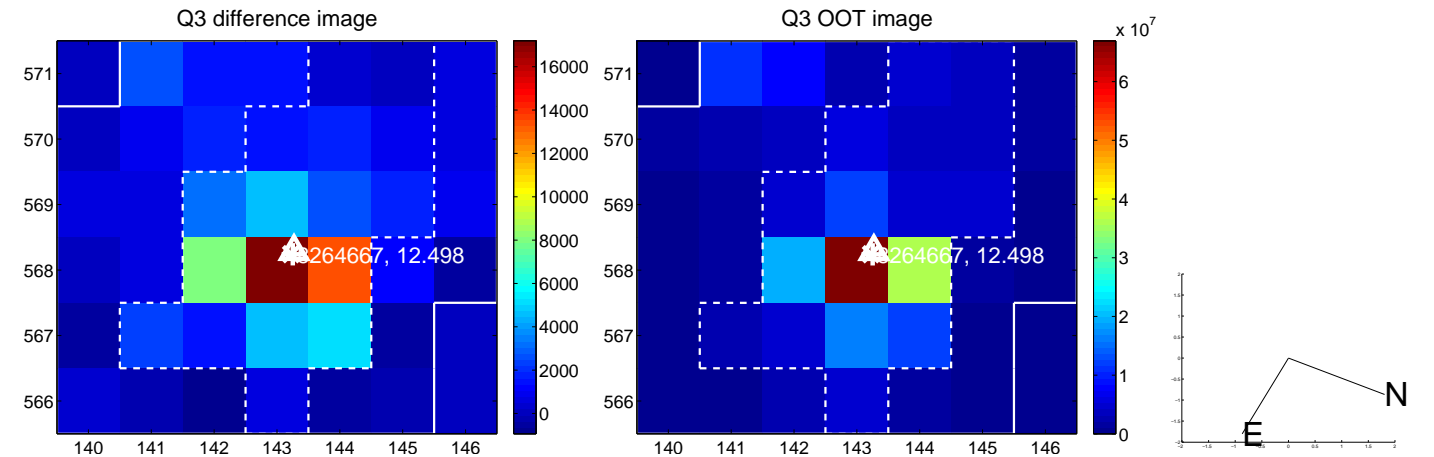
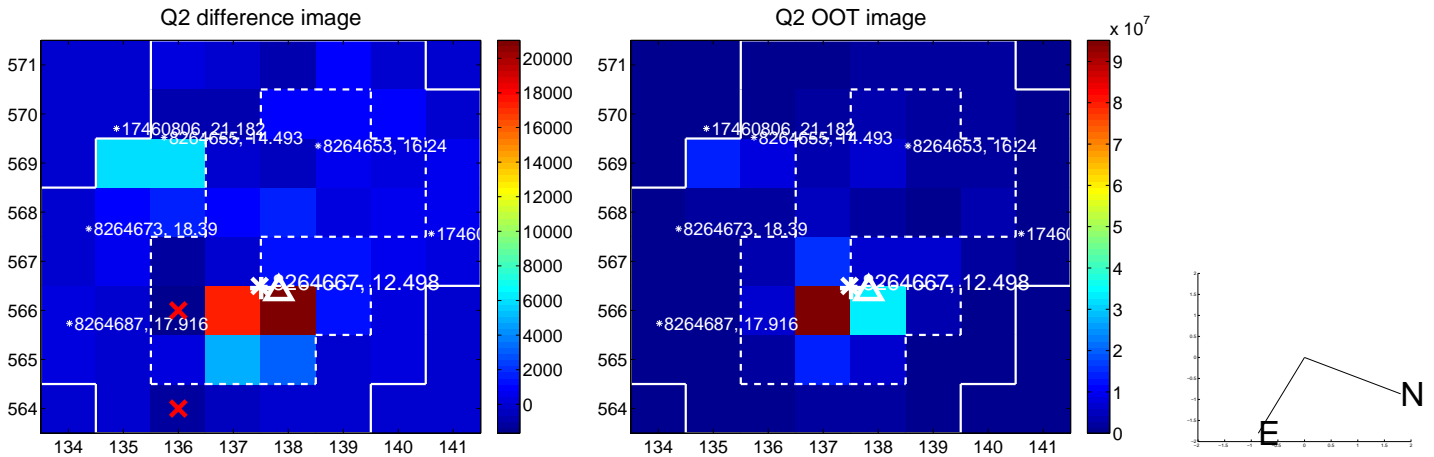
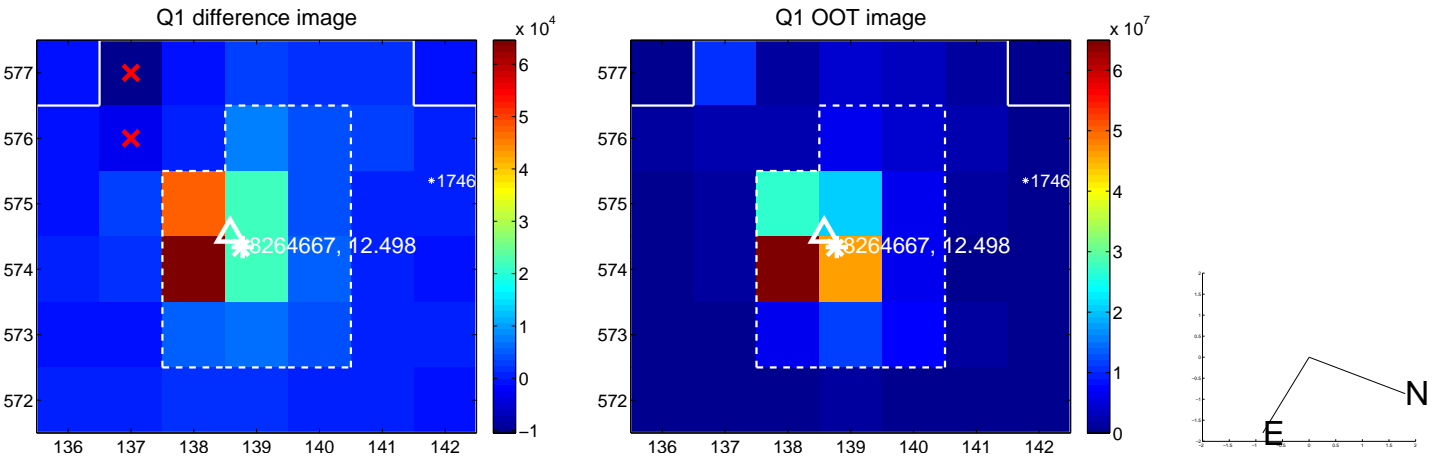


offset from photometric centroids

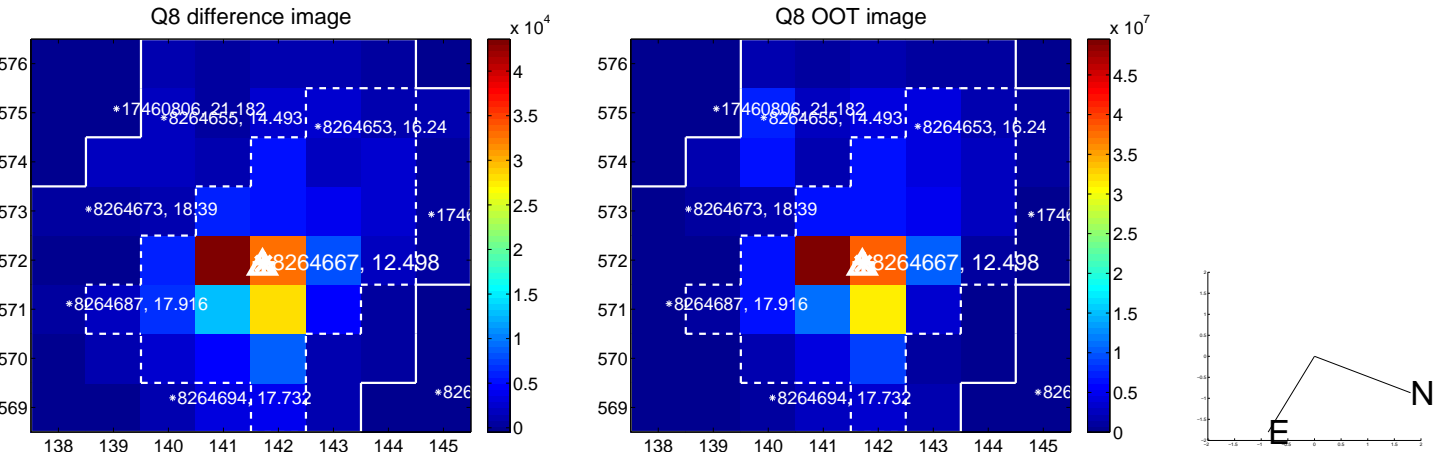
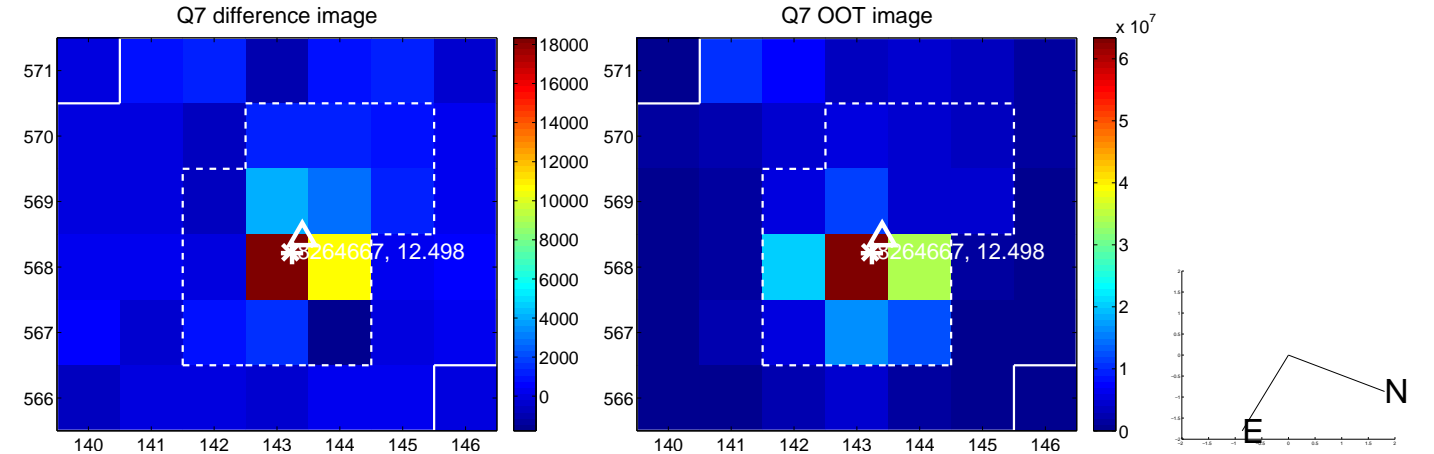
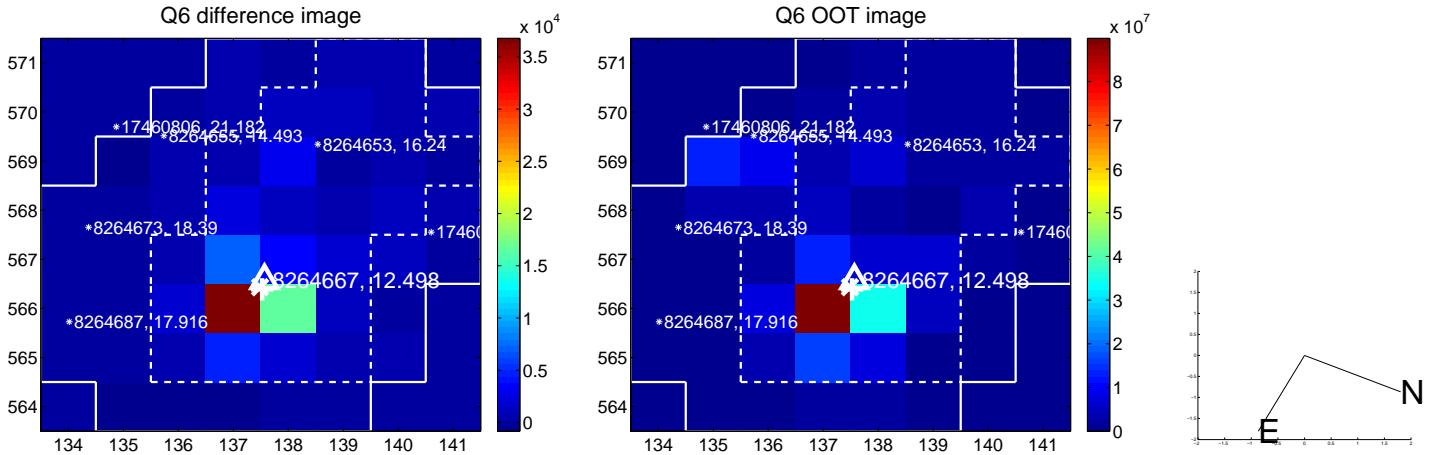
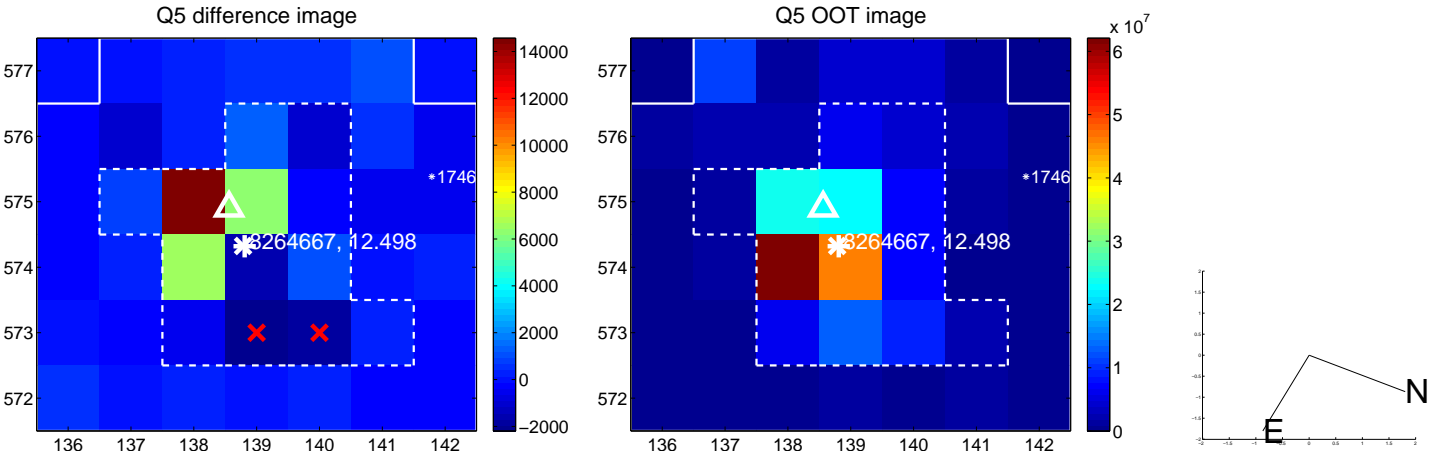


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

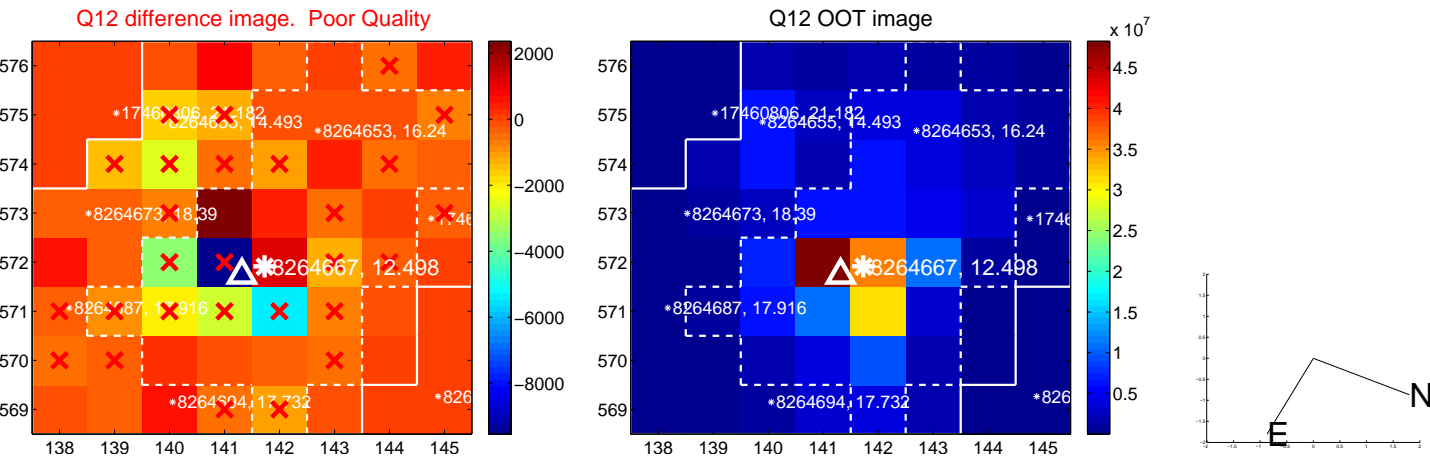
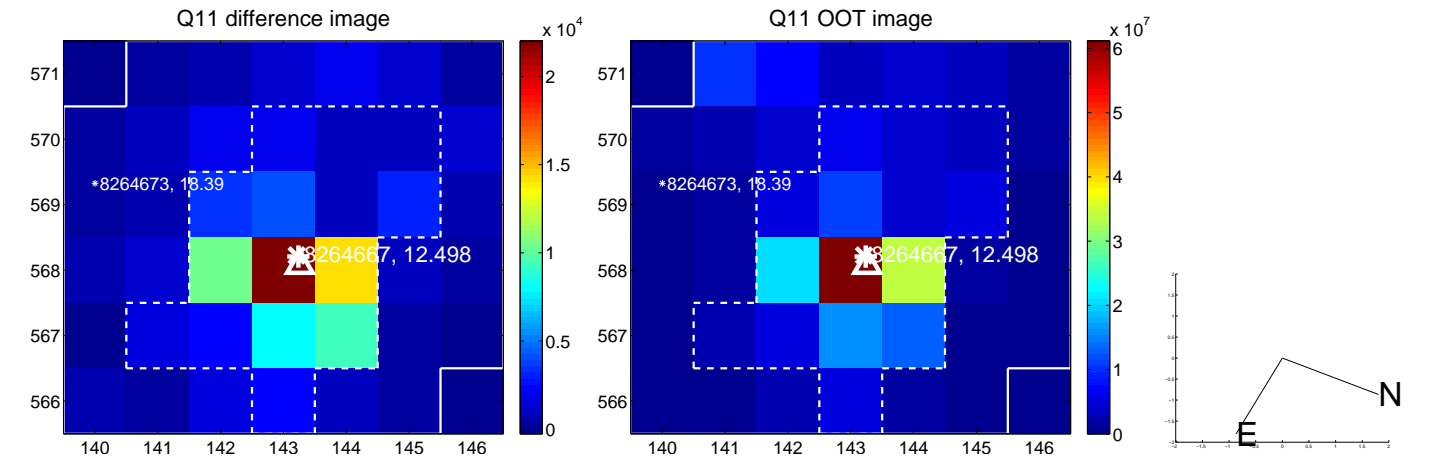
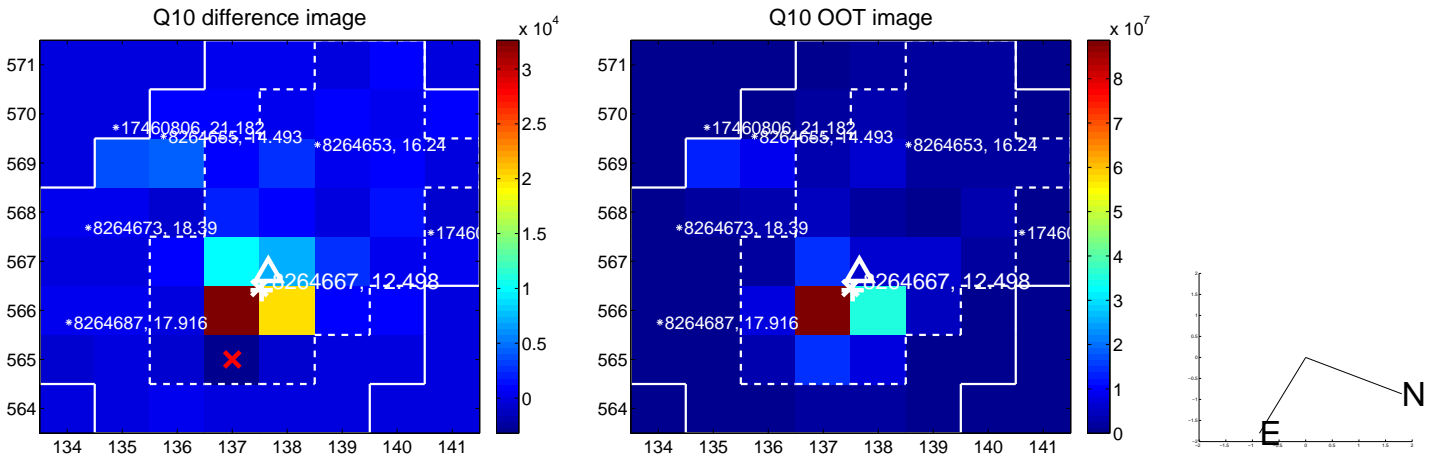
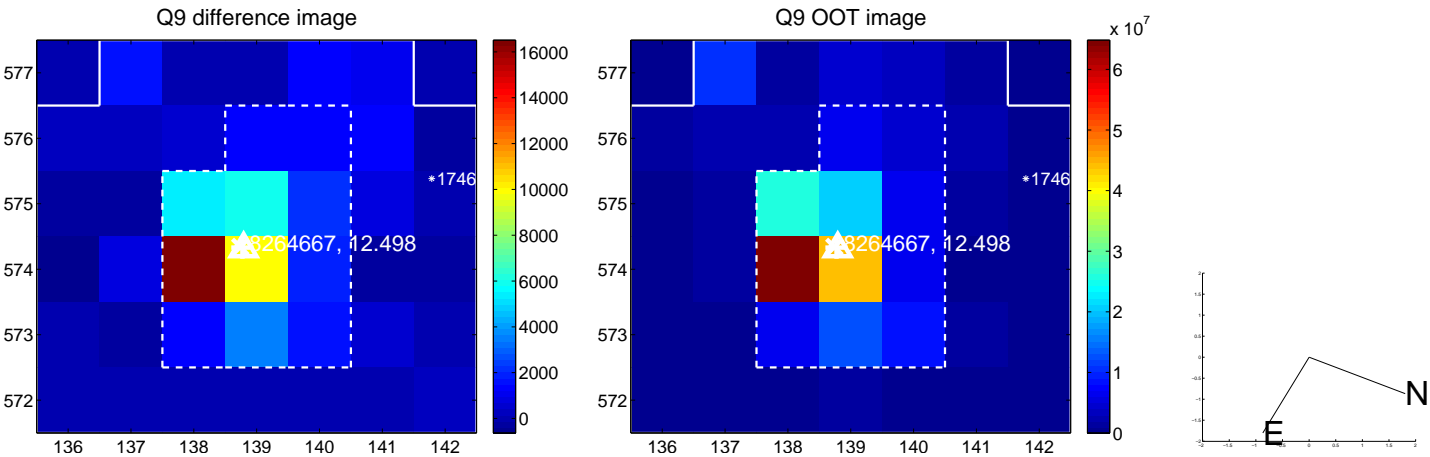
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



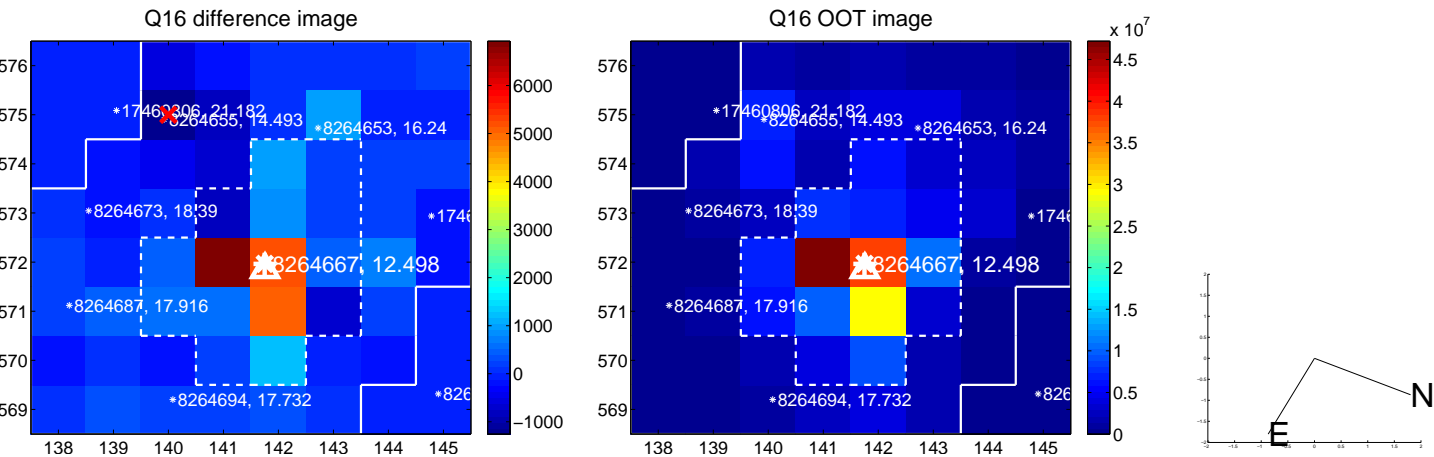
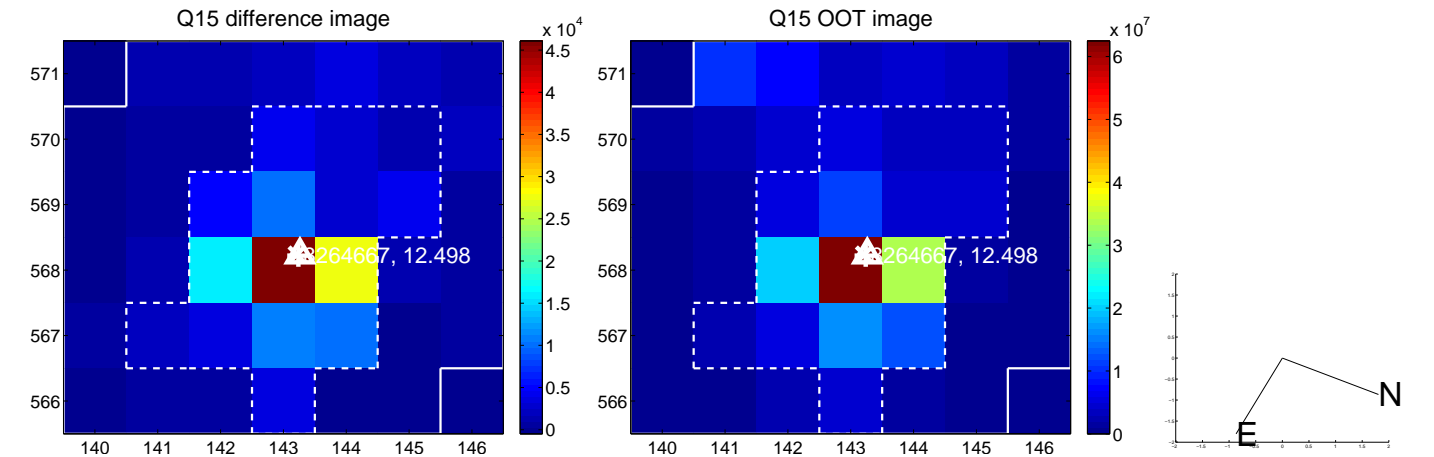
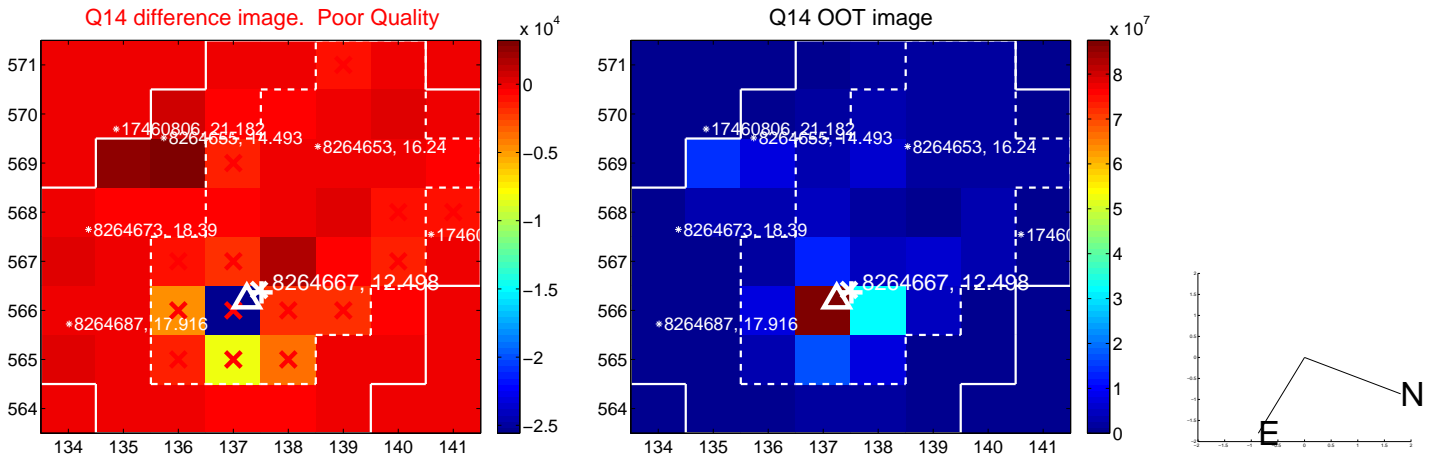
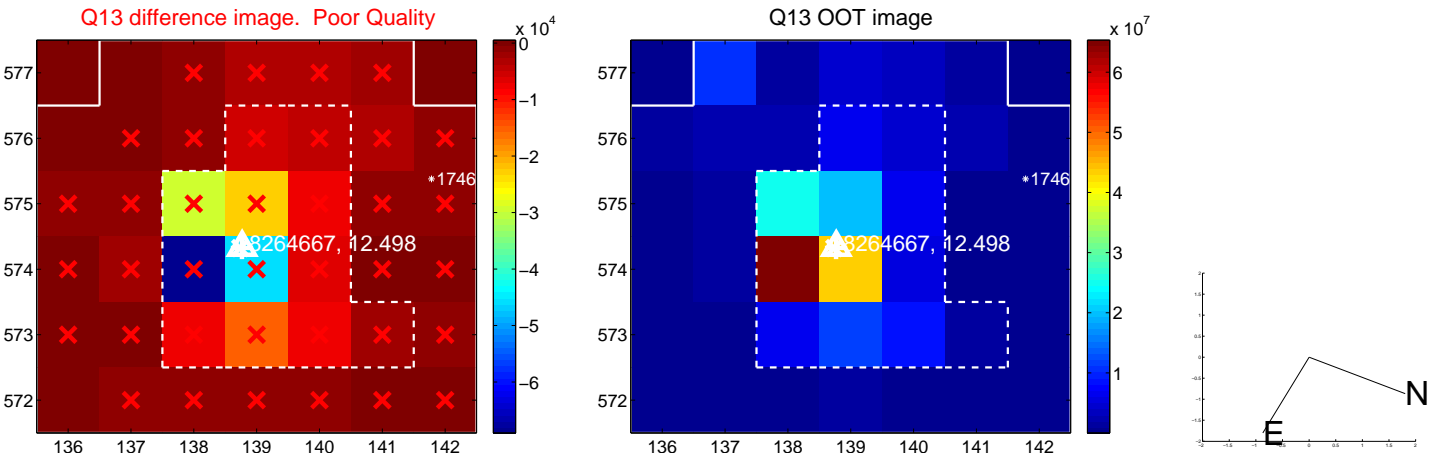
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



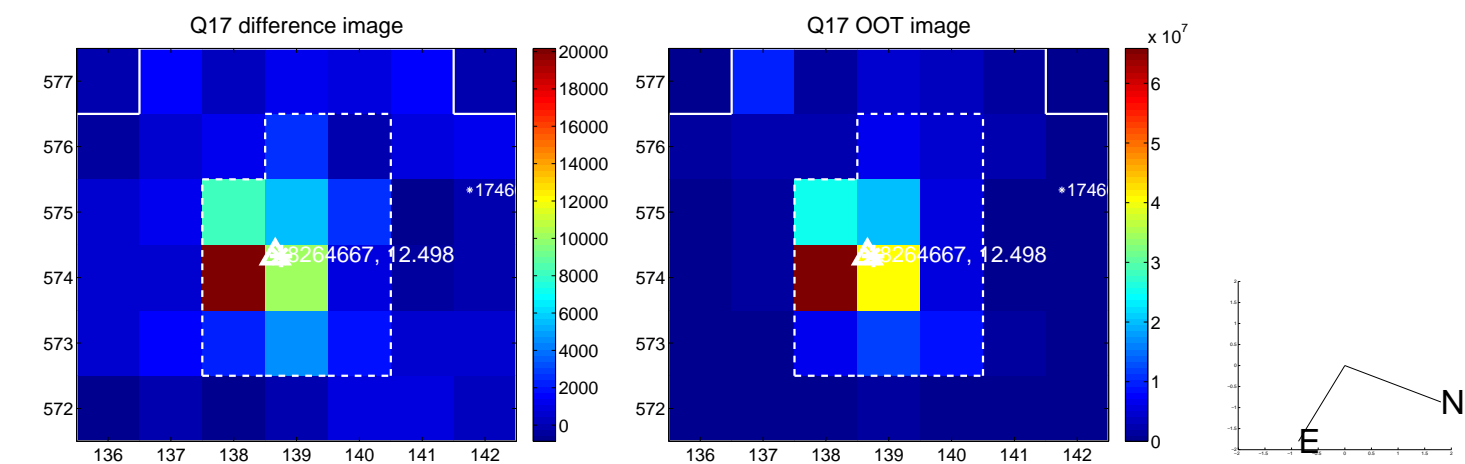
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



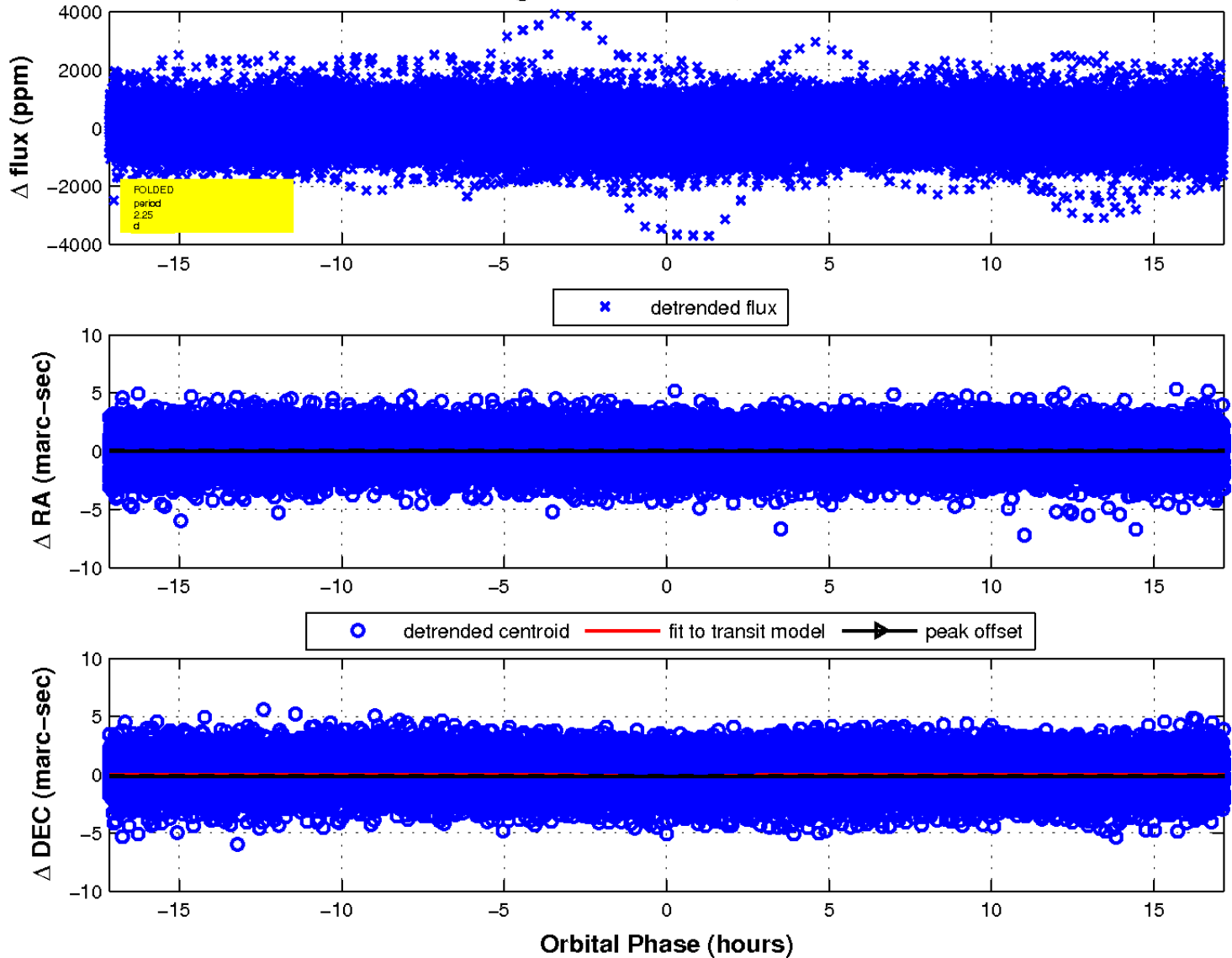
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 2 of 2



UKIRT Image

