

KIC 006790335

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})
006790335-01	OBS	No	2.422504	133.590897	316.2	9.254	13.9	14.6	3.52	7894	10.68	21852.82
006790335-02	OBS	No	2.422628	131.590437	300.1	22.574	10.1	12.2	3.52	7894	7.31	21851.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006790335-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
006790335-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED

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

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

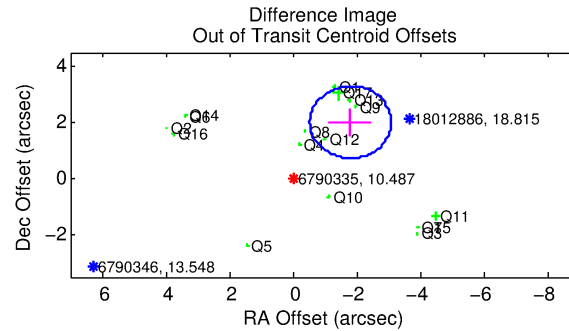
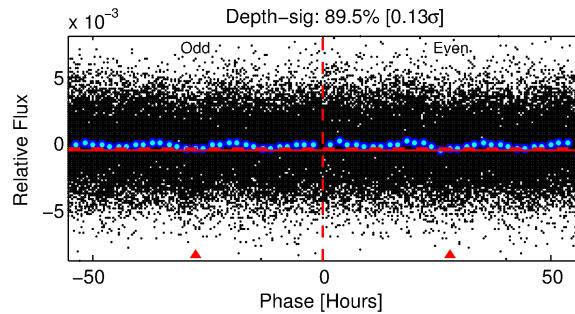
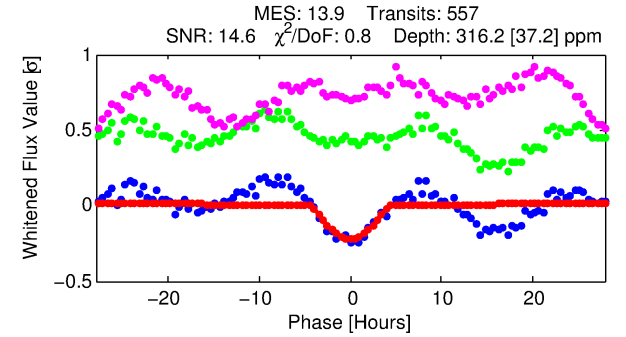
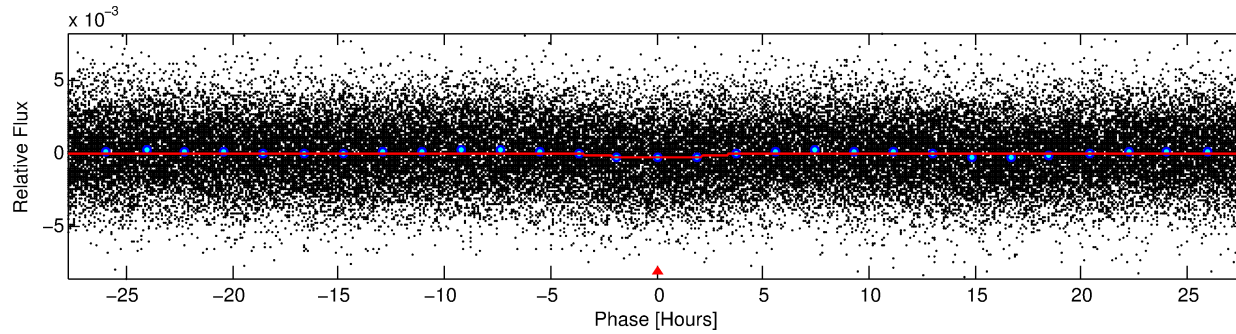
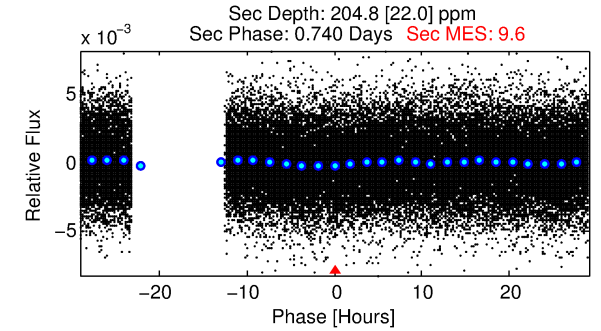
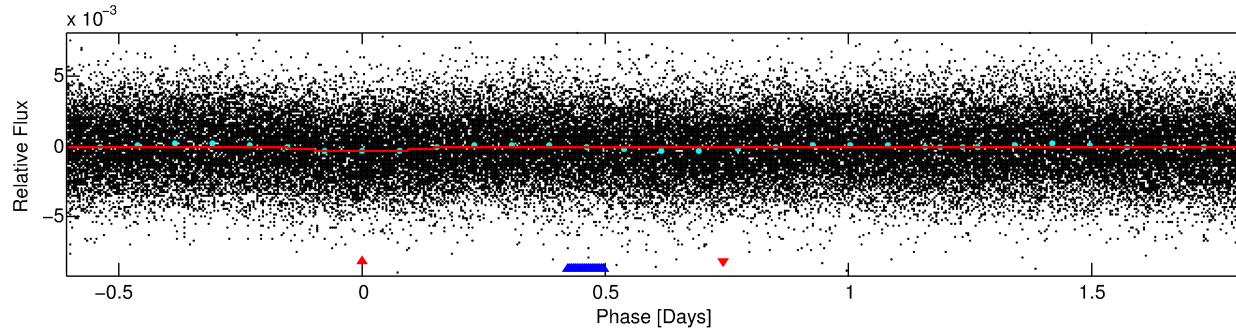
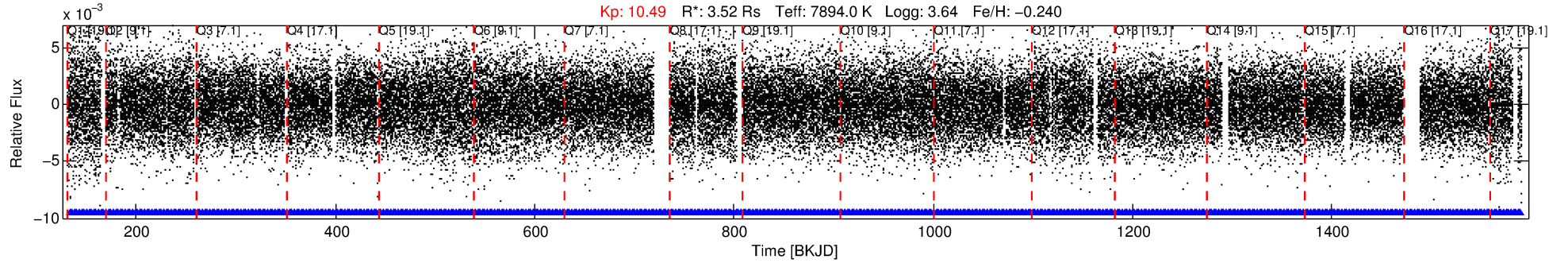
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006790335-01

No Significant Match Found

DV One-Page Summary

KIC: 6790335 Candidate: 1 of 2 Period: 2.423 d



DV Fit Results:

Period = 2.42250 [0.00004] d
Epoch = 133.5909 [0.0143] BKJD
 R_p/R^* = 0.0278 [0.0400]
 a/R^* = 1.13 [0.07]
 b = 0.99 [0.07]
 S_{eff} = 21852.82 [17608.19]
 T_{eq} = 3100 [625] K
 R_p = 10.68 [16.34] R_e
 a = 0.0444 [0.0220] AU
 A_g = 1.95 [5.83] [0.16σ]
 T_{eff} = 5665 [4089] K [0.62σ]

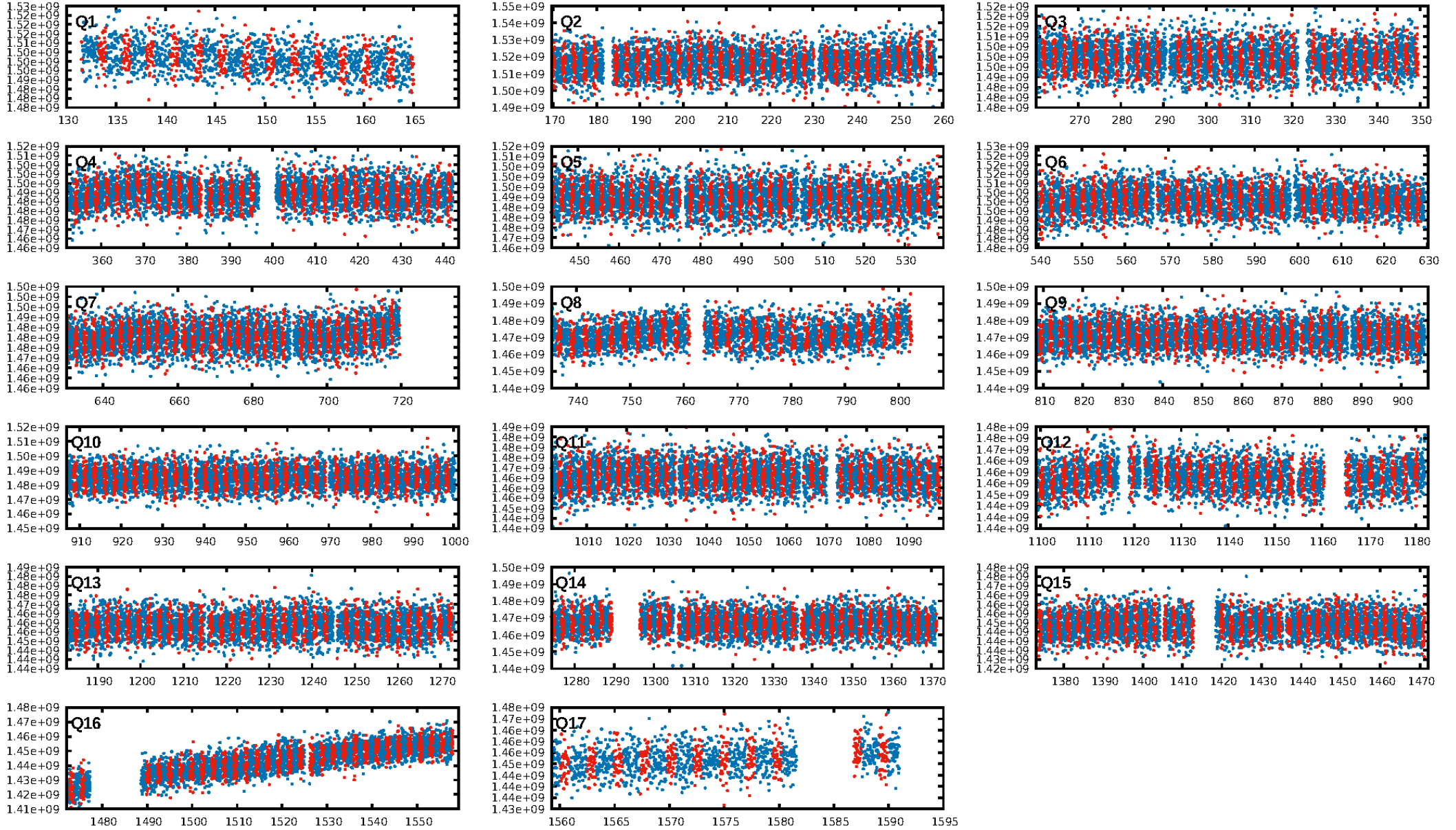
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [532/532]
GhostDiagnostic-chr: 1.124
Centroid-sig: 0.0%
Centroid-so: 0.745 arcsec [4.36σ]
OotOffset-rm: 2.706 arcsec [6.33σ]
KicOffset-rm: 2.608 arcsec [5.53σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.29 [5/17]
DiffImageOverlap-fno: 0.00 [0/17]

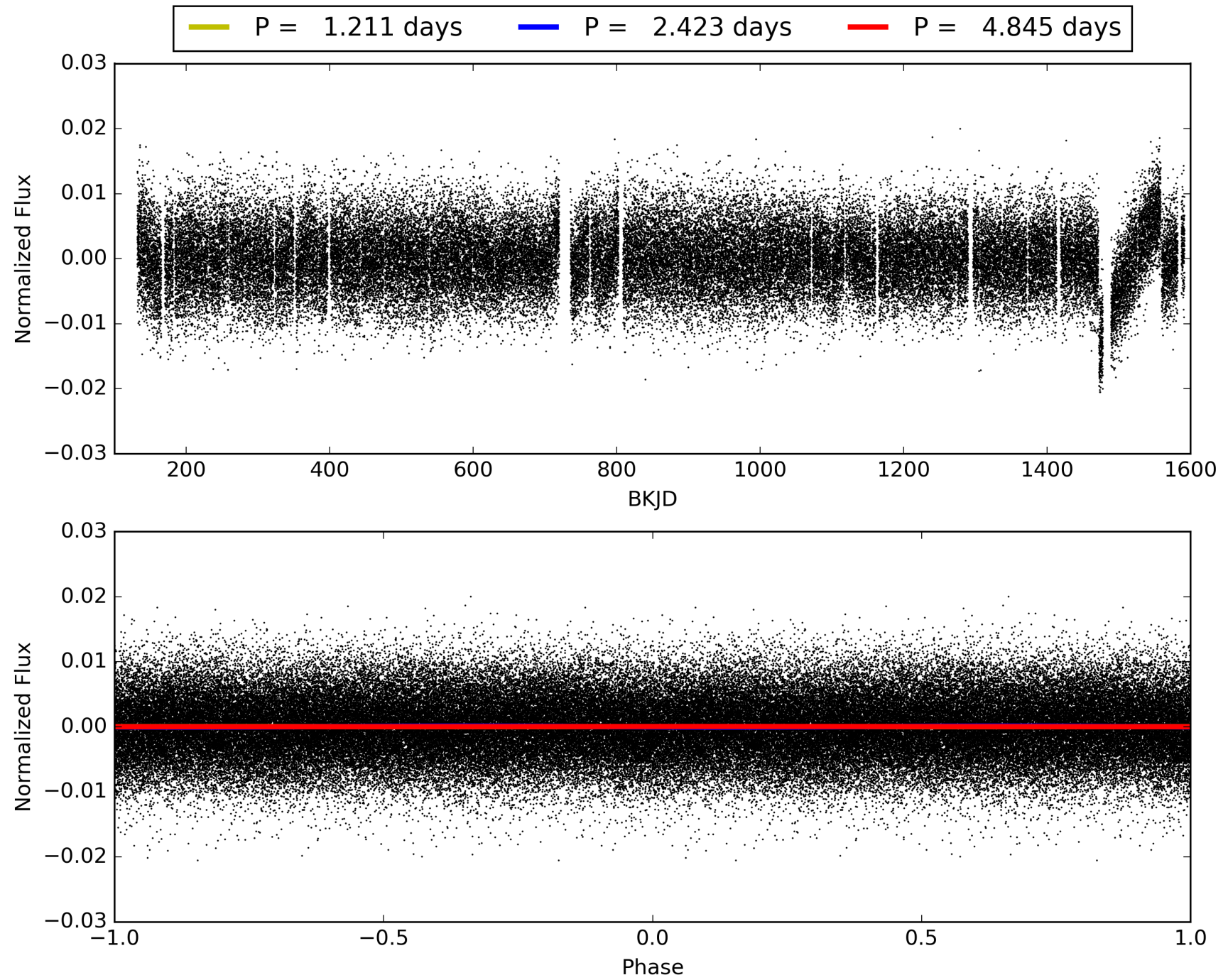
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:57:14 Z

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

TCE 006790335-01, PDC Light Curves

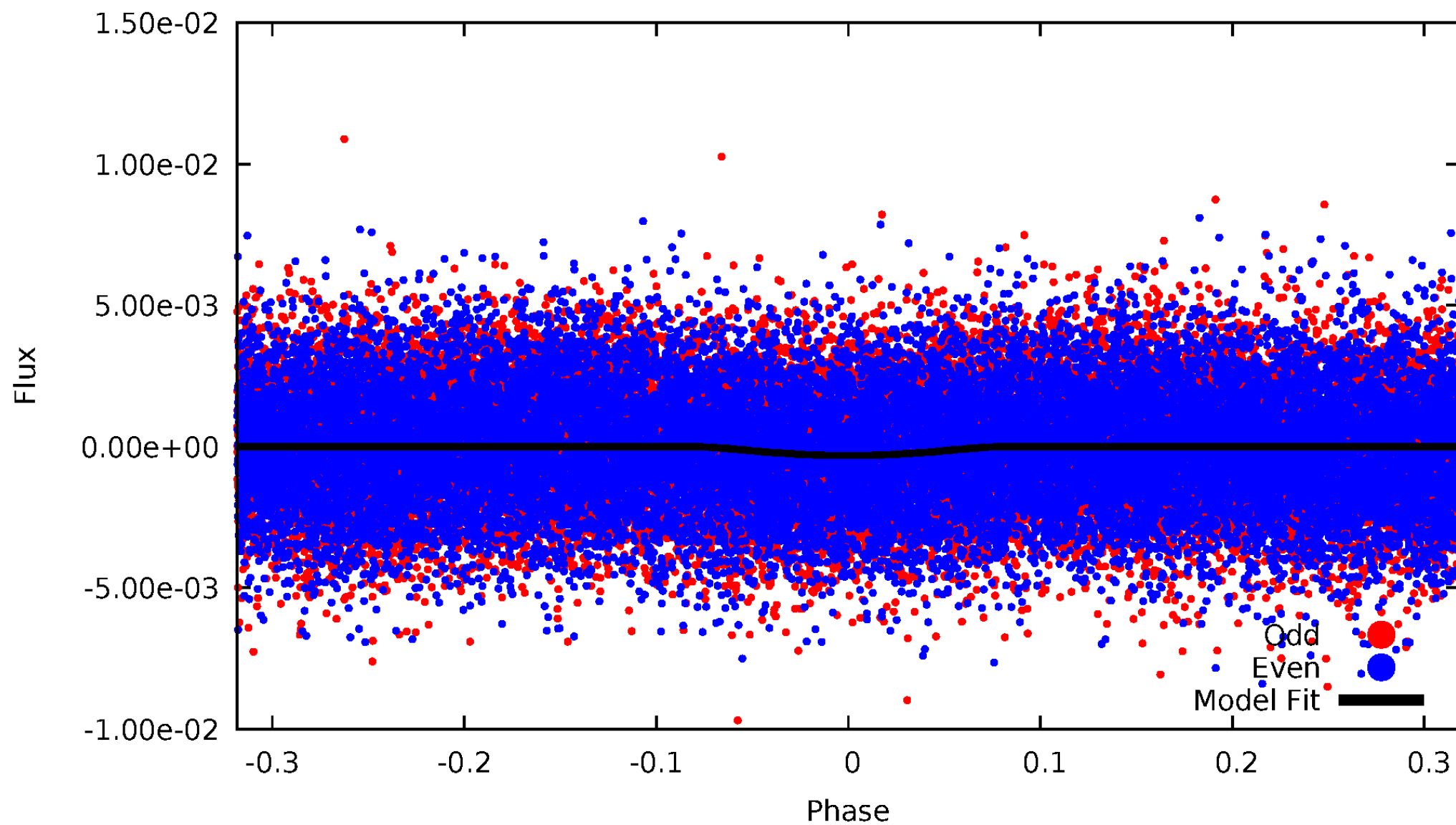


TCE 006790335-01



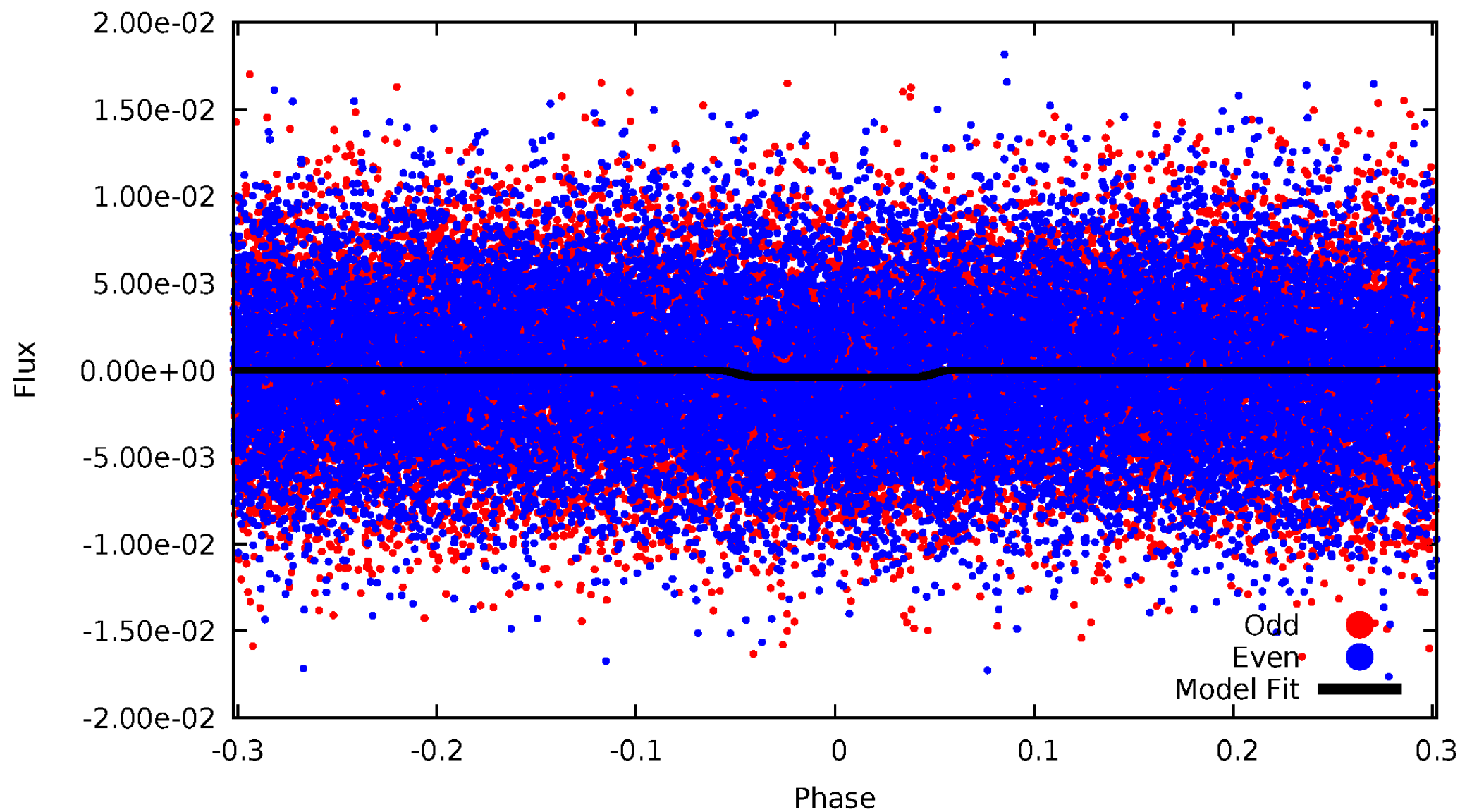
DV Odd/Even

TCE 006790335-01

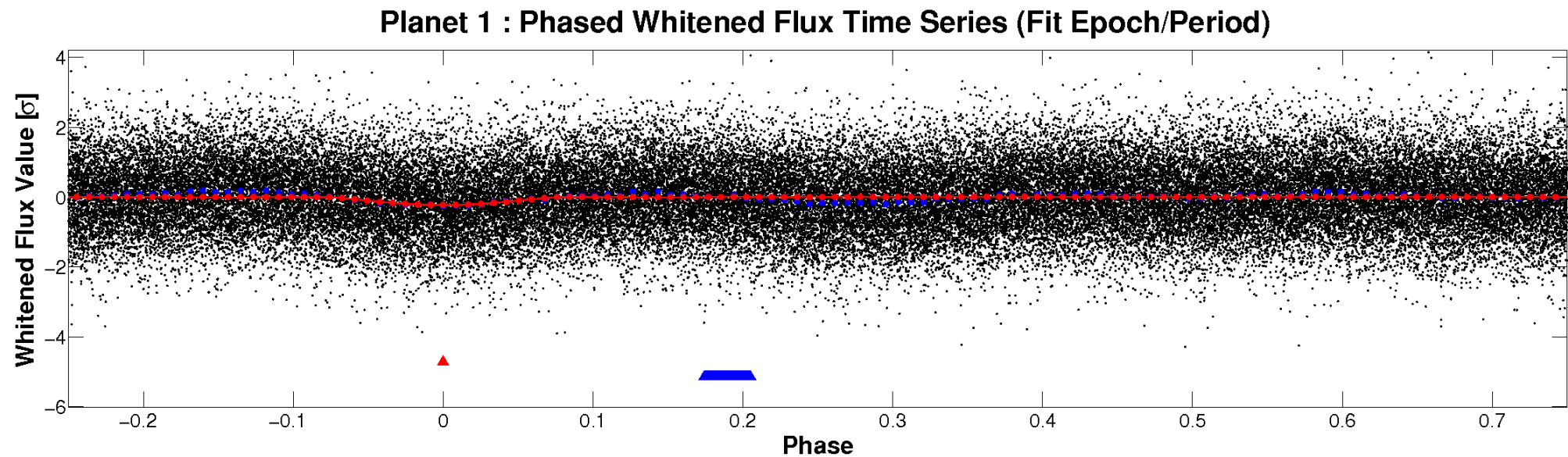
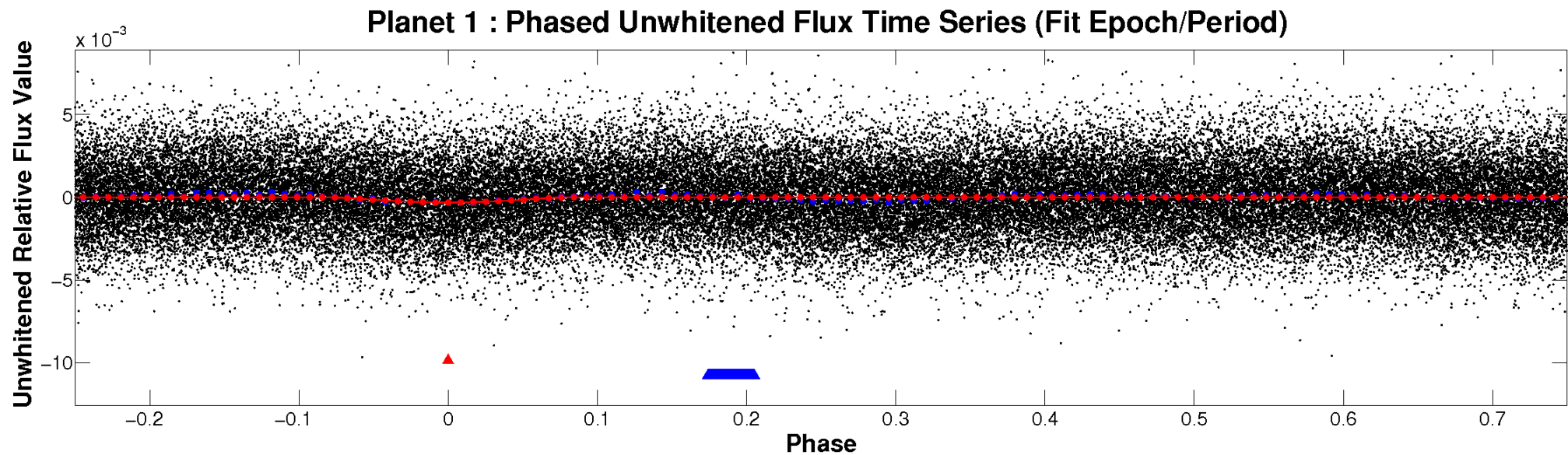


ALT Odd/Even

TCE 006790335-01

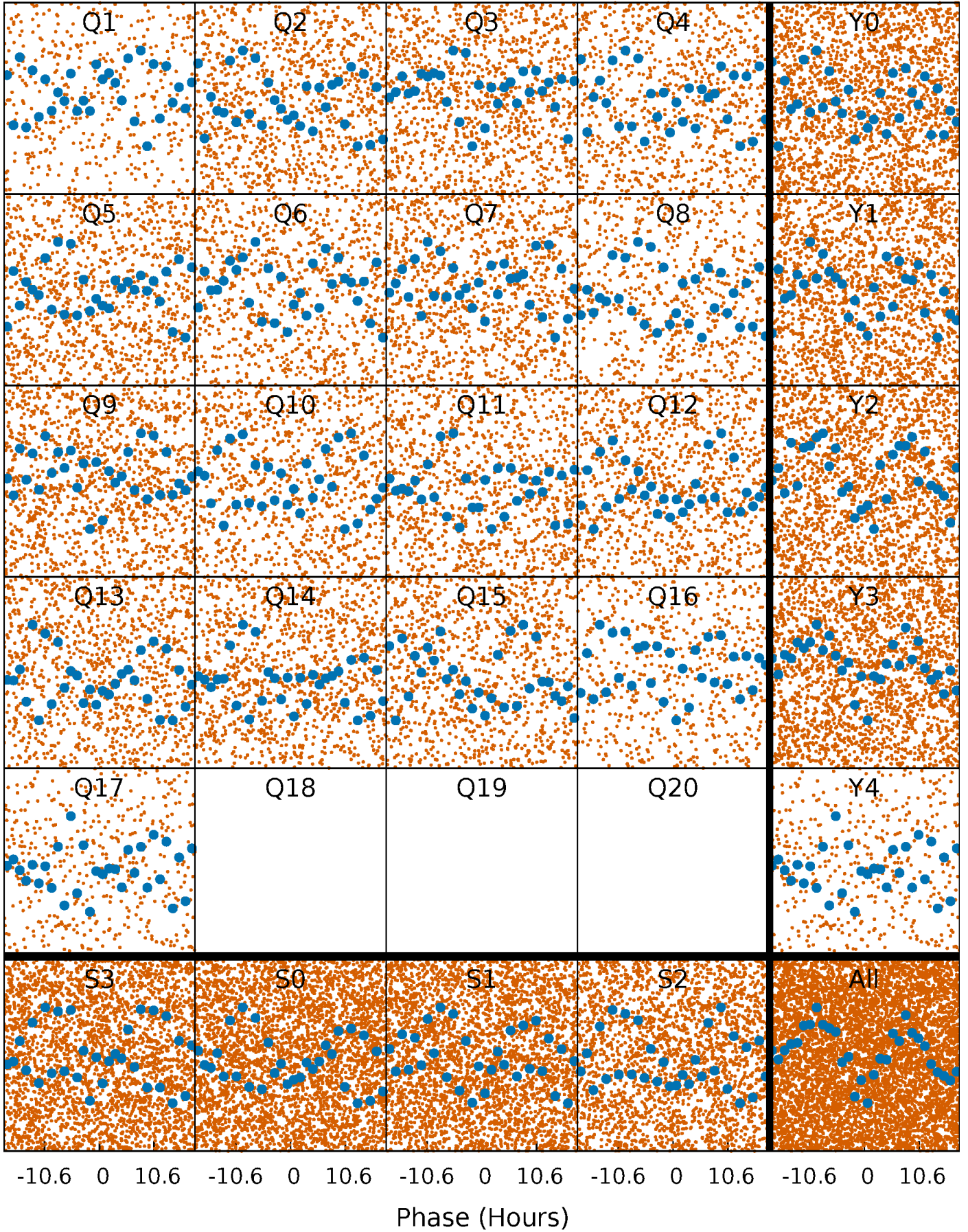


Non-Whitened Vs. Whitened Light Curve



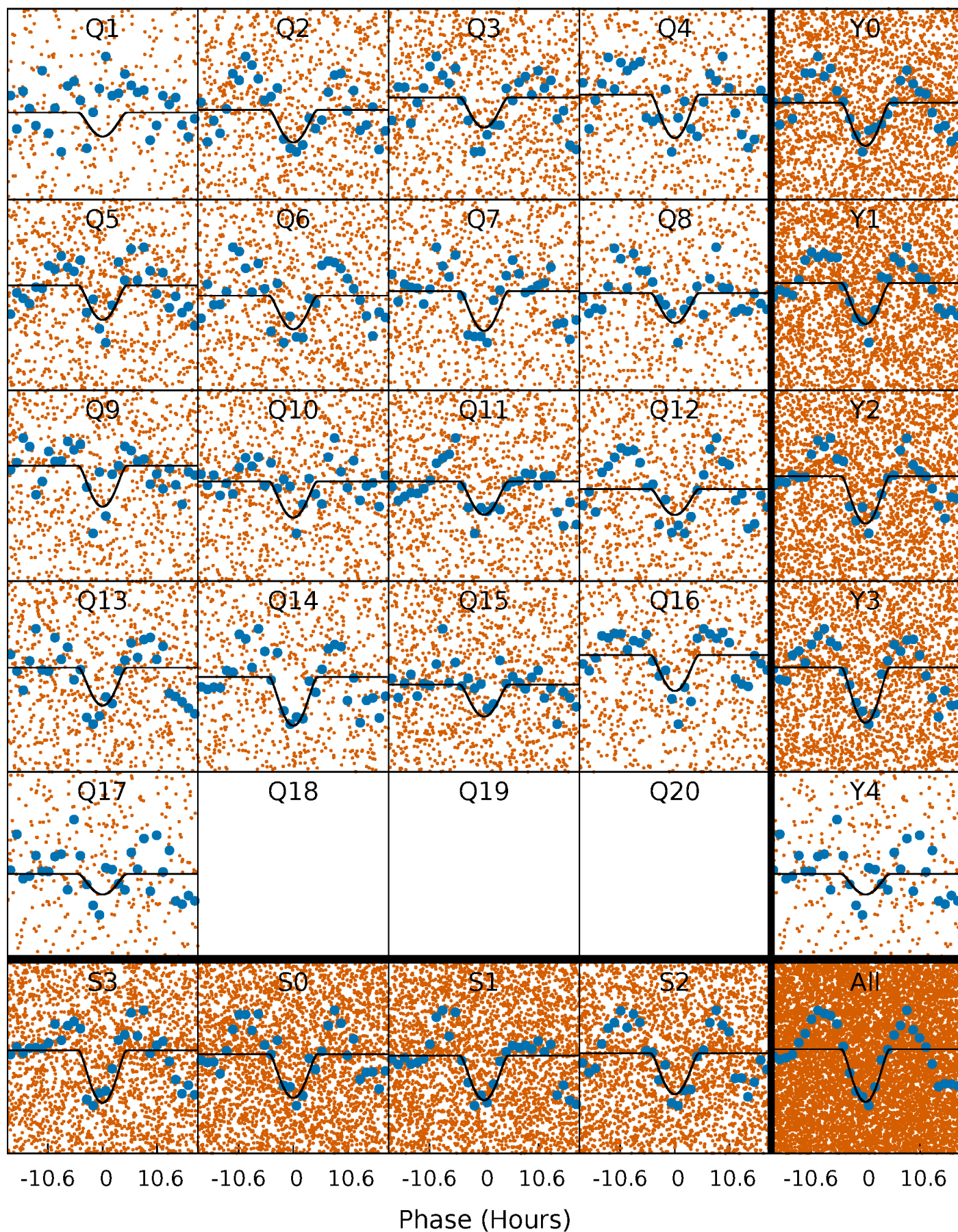
PDC Quarter-Phased Transit Curves

TCE 006790335-01 P= 2.422504 Days $T_0=133.590897$ (BKJD)



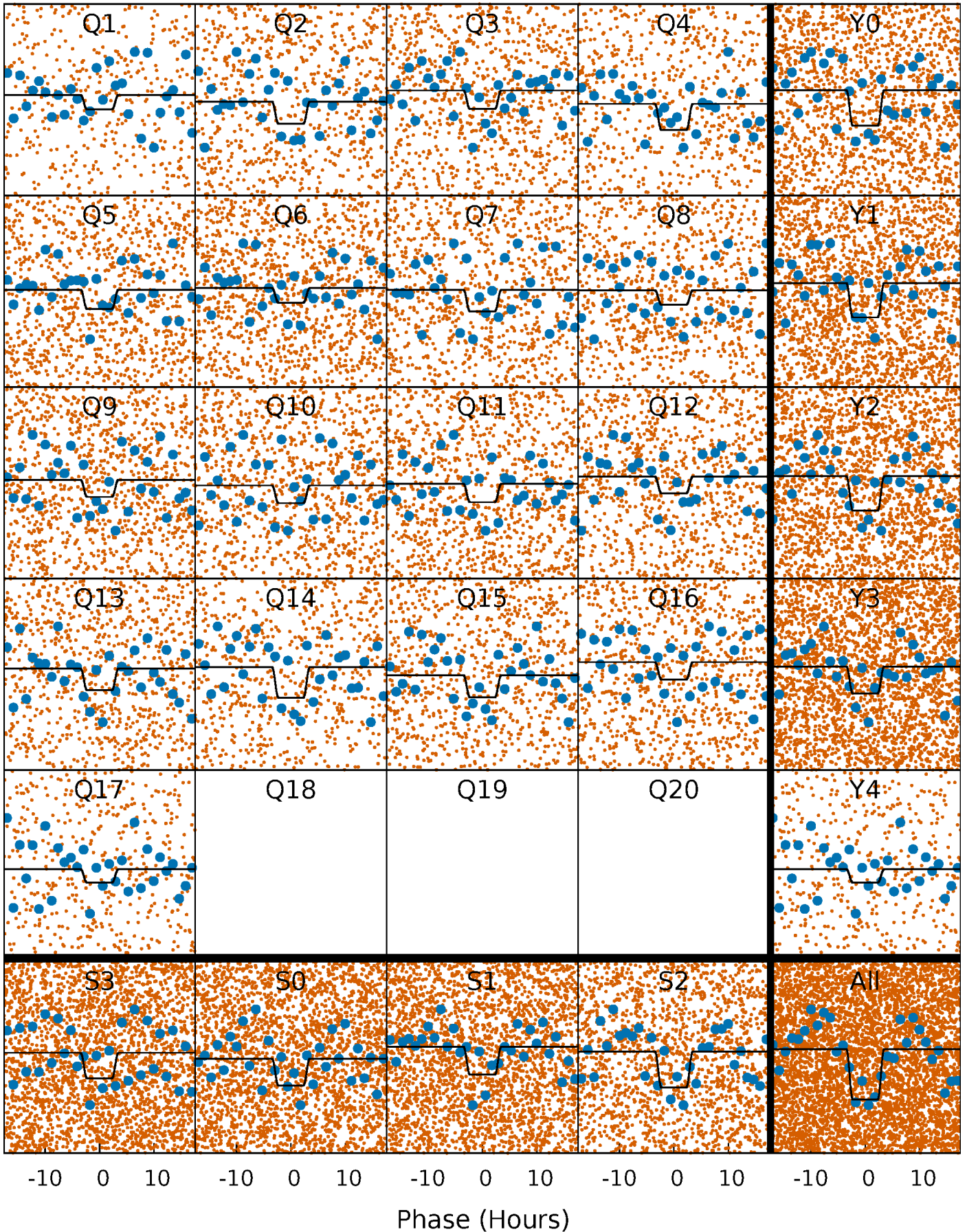
DV Quarter-Phased Transit Curves

TCE 006790335-01 P= 2.422504 Days $T_0=133.590897$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

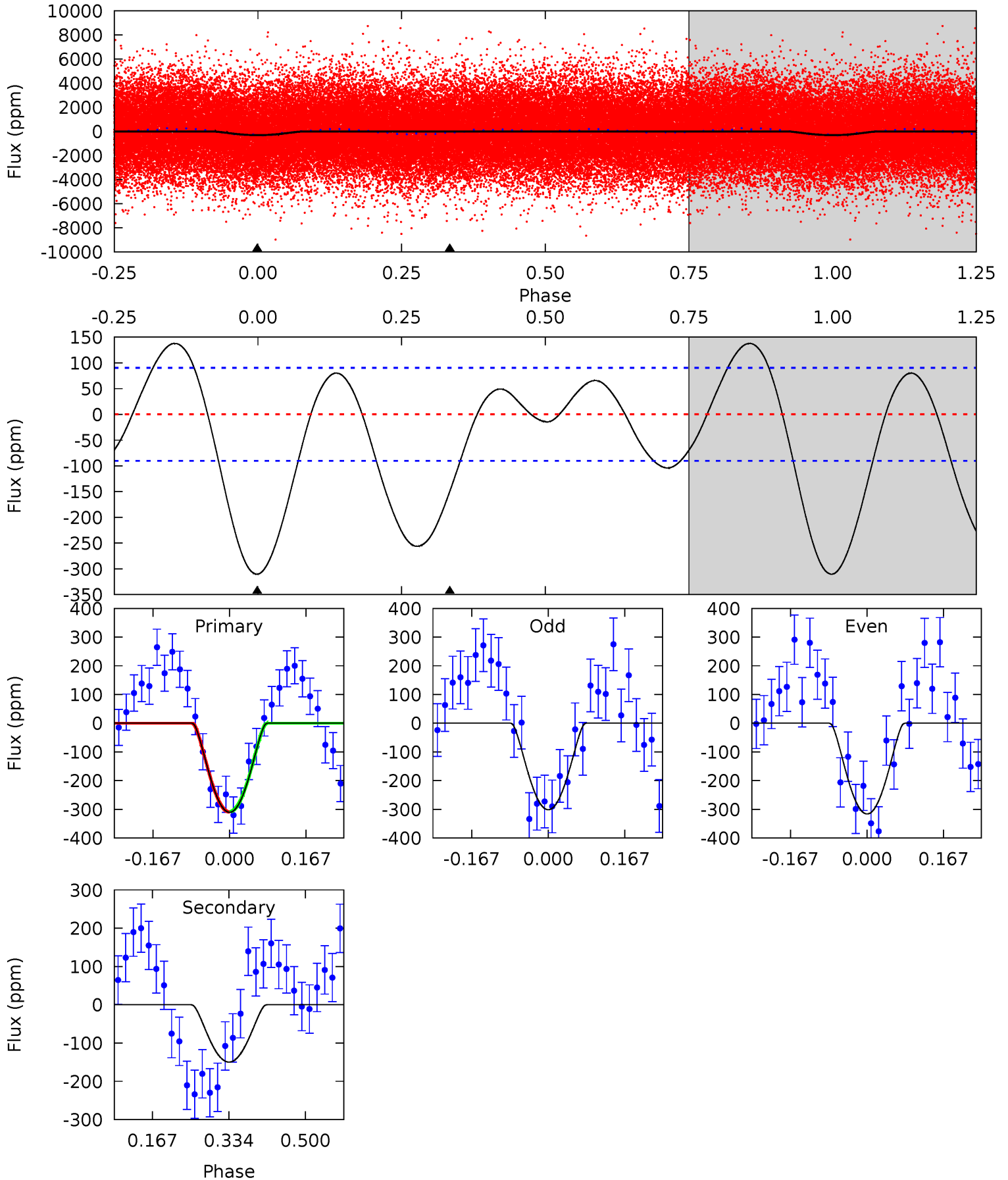
TCE 006790335-01 P= 2.422577 Days $T_0=133.550416$ (BKJD)



DV Model-Shift Uniqueness Test

006790335-01, P = 2.422504 Days, E = 131.168393 Days

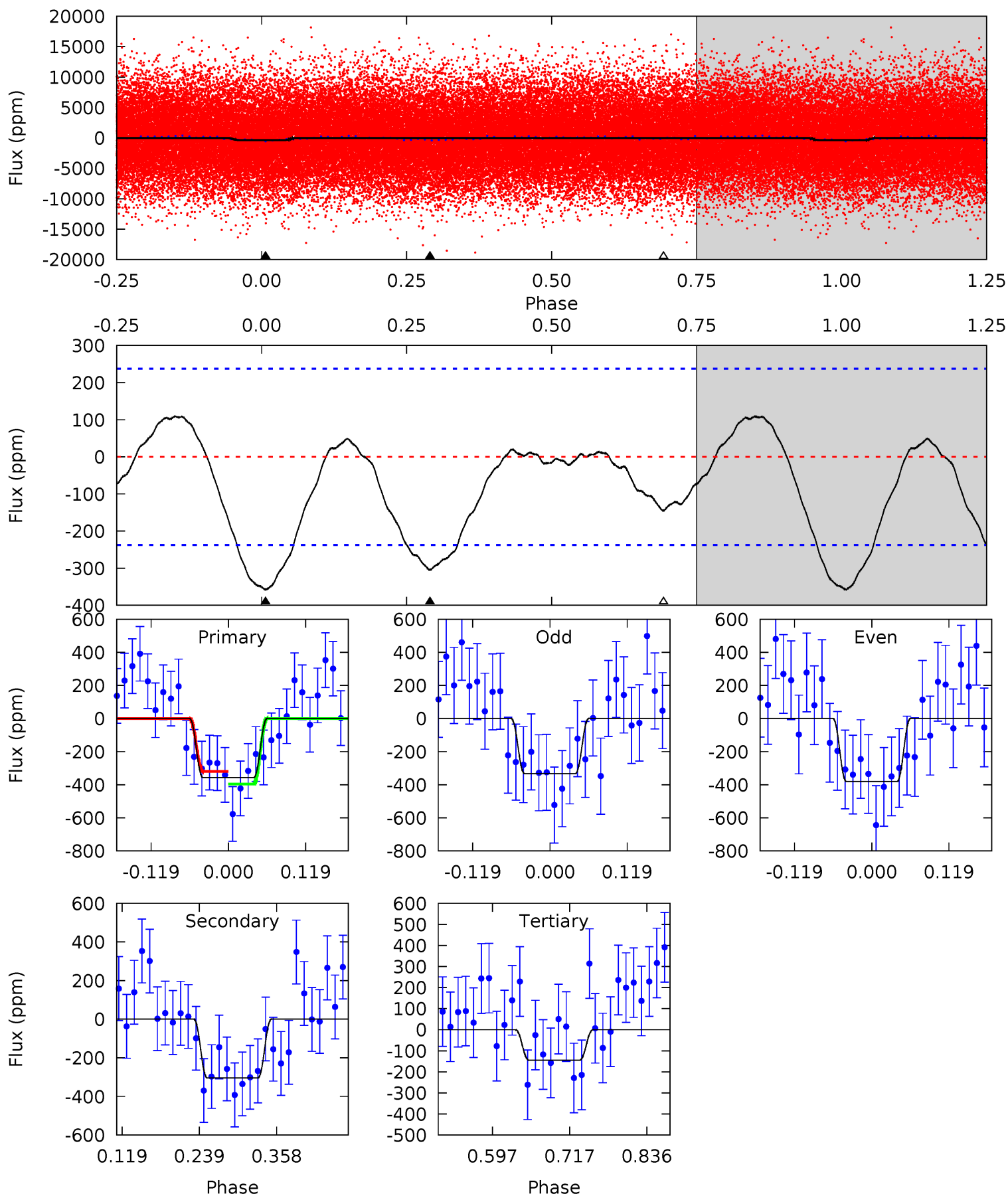
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	7.38	0	0	4.46	1.38	3.04	15.3	15.3	7.38	7.38	0.37	1.20	0.31	0.03



Alt Model-Shift Uniqueness Test

006790335-01, P = 2.422577 Days, E = 131.127839 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.81	5.81	2.76	0	4.53	1.56	1.26	4.05	6.81	3.05	5.81	0.45	1.14	0.23	0.73



Stellar Parameters For KIC 006790335

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7894^{+220}_{-303}	$3.644^{+0.464}_{-0.087}$	$-0.240^{+0.200}_{-0.300}$	$3.521^{+0.606}_{-1.817}$	$1.995^{+0.321}_{-0.499}$	$0.064^{+0.353}_{-0.018}$
	+3%/-4%	+13%/-2%	+83%/-125%	+17%/-52%	+16%/-25%	+548%/-28%
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 006790335-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-150 ± 20	$13.88^{+13.35}_{-9.70}$	4211^{+283}_{-546}	4101^{+3578}_{-7137}	$0.841^{+8.284}_{-0.621}$
Alt.	-305 ± 52	$12.19^{+12.97}_{-7.42}$	4179^{+285}_{-492}	5209^{+3993}_{-1633}	$2.230^{+12.449}_{-1.695}$

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

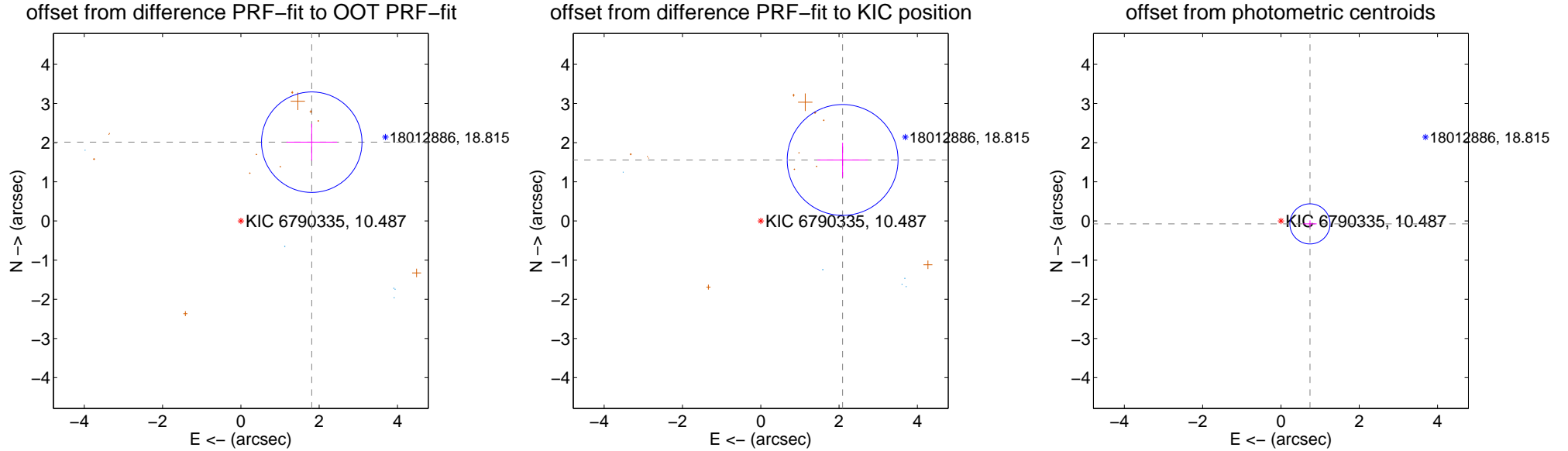
DV Centroid Data

Supplemental centroid analysis for 006790335-01. **Kepler magnitude: 10.49.** Transit SNR 14.60

There are 5 quarters with good PRF difference image offsets

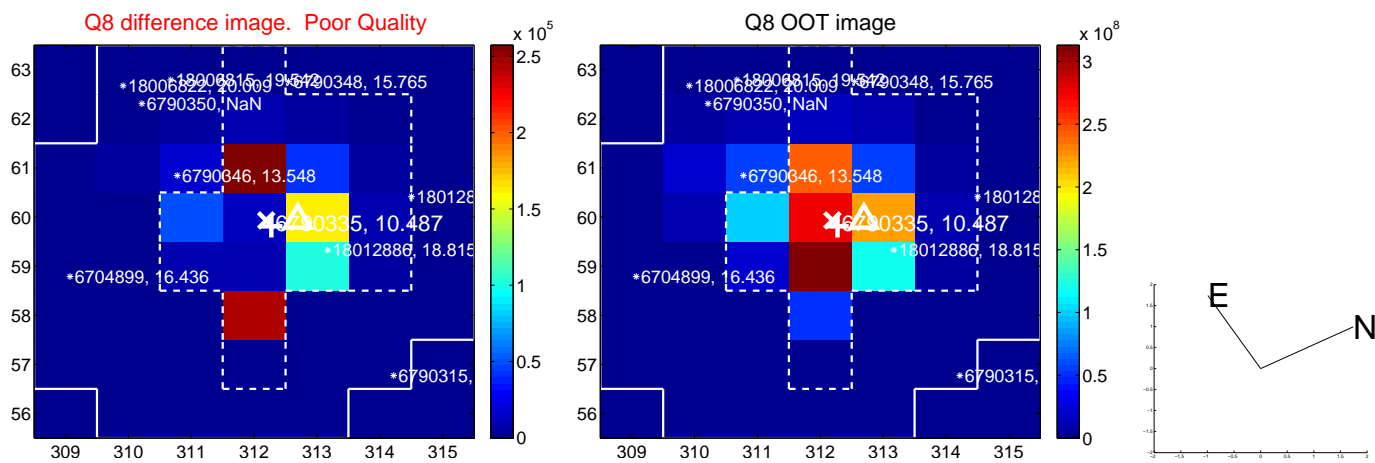
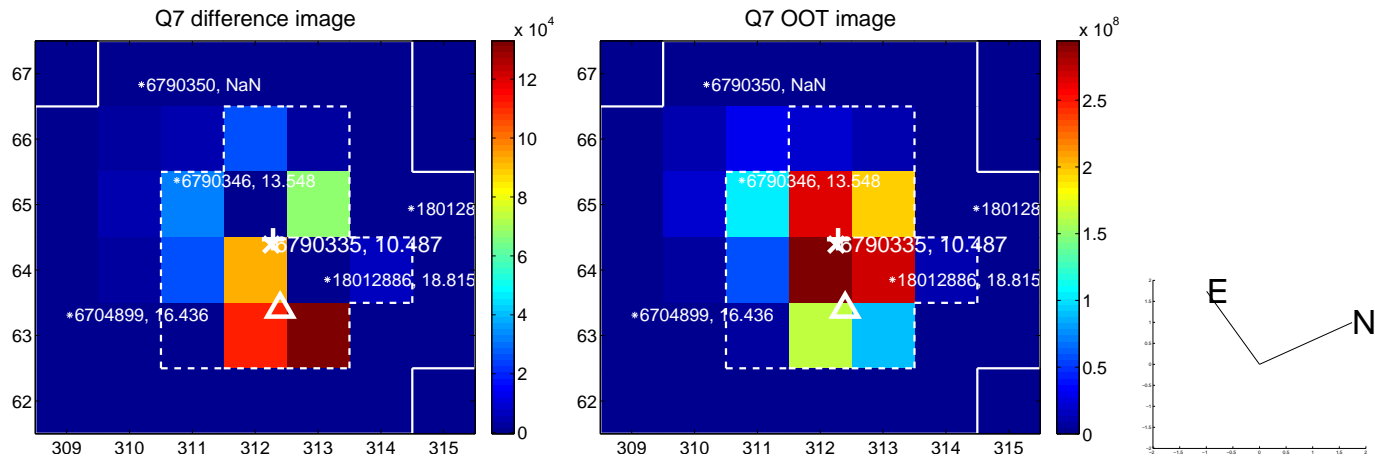
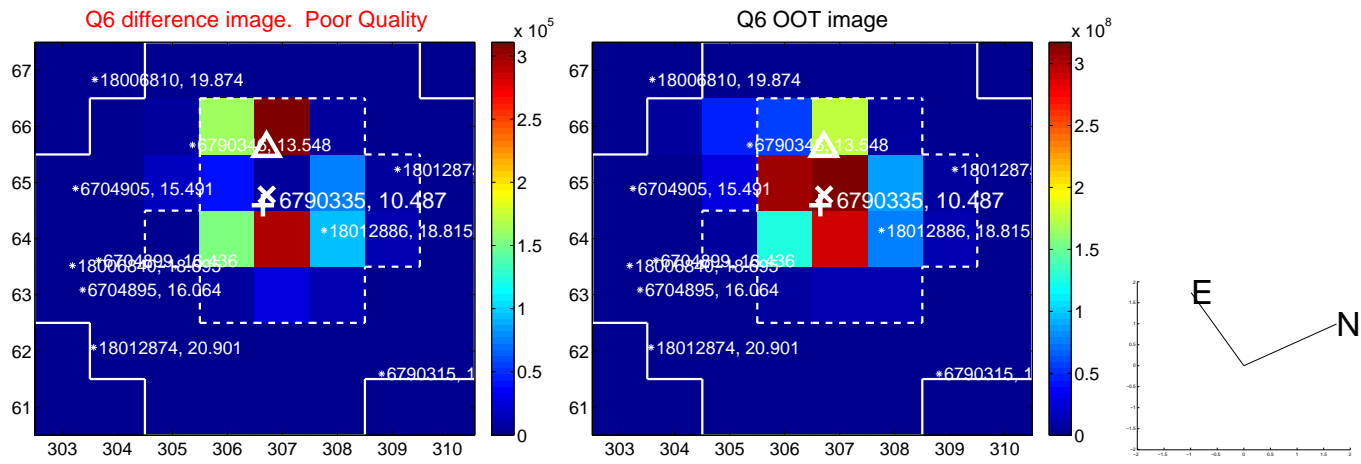
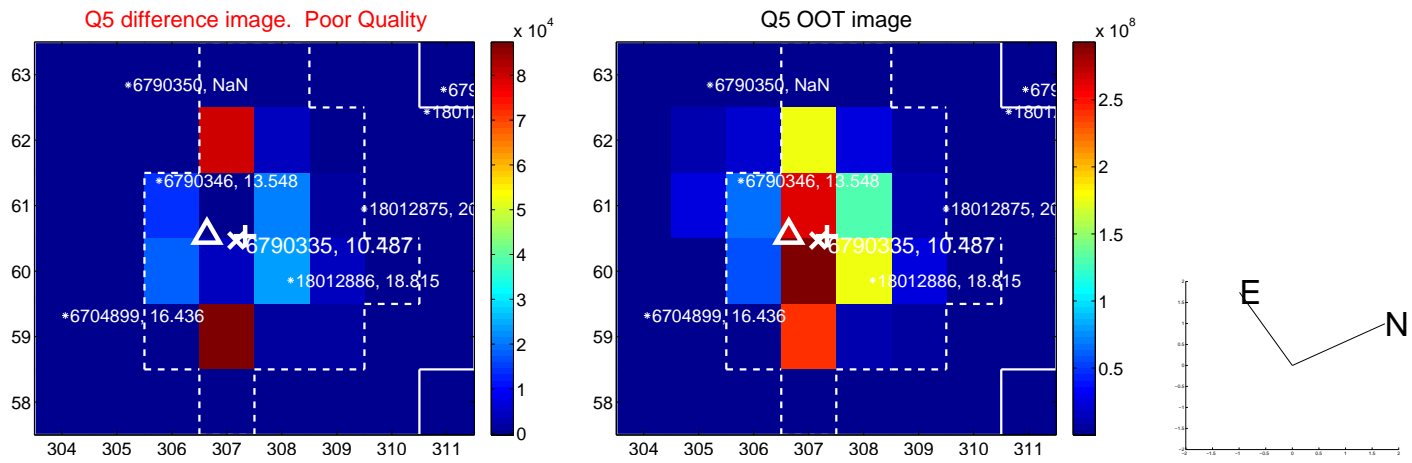
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.706 ± 0.428	6.33	-1.810 ± 0.647	2.012 ± 0.470
PRF-fit source offset from KIC position	2.608 ± 0.472	5.53	-2.091 ± 0.647	1.558 ± 0.438
photometric centroid source offset	0.74 ± 0.17	4.36	-0.74 ± 0.17	-0.07 ± 0.09

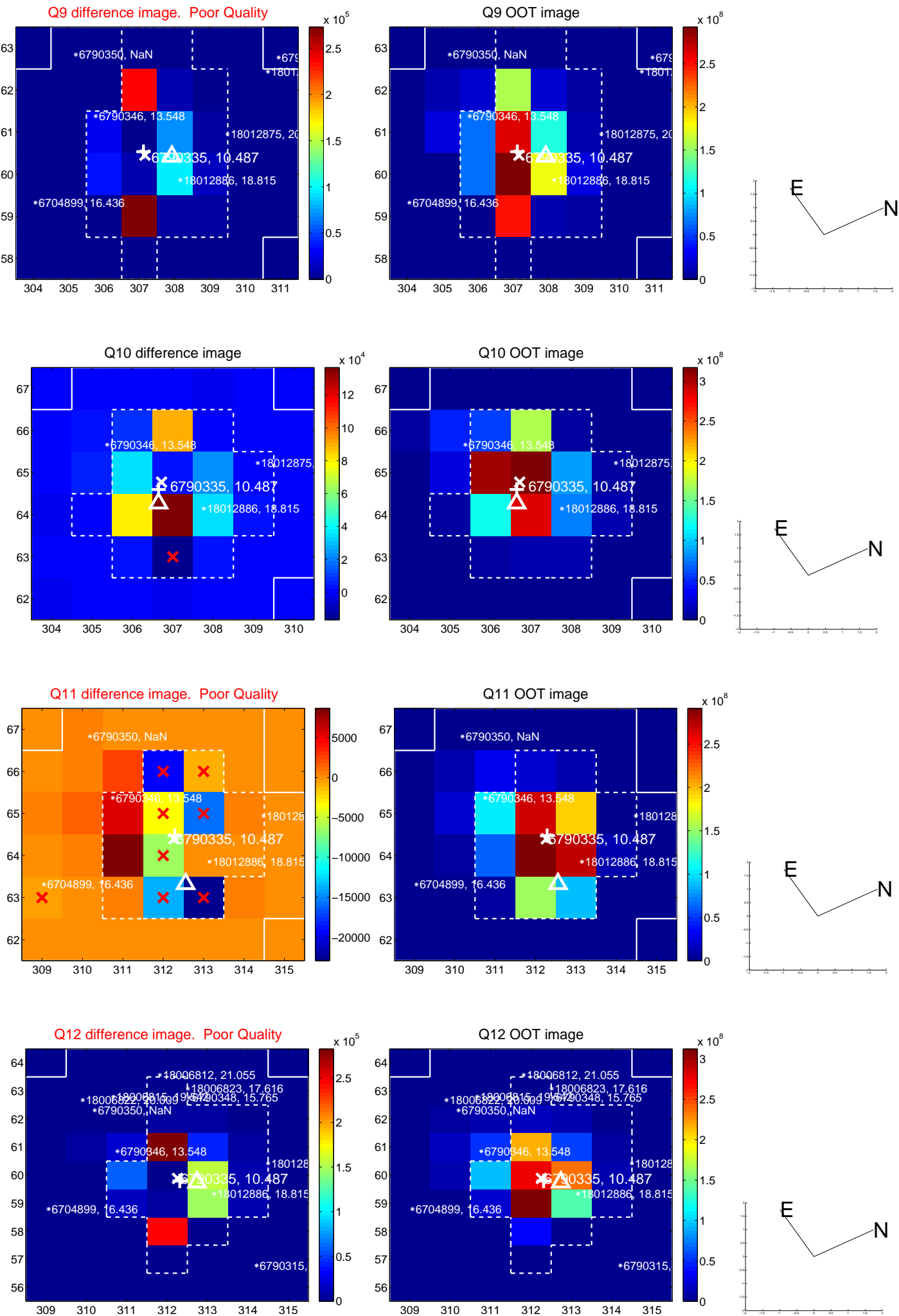


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

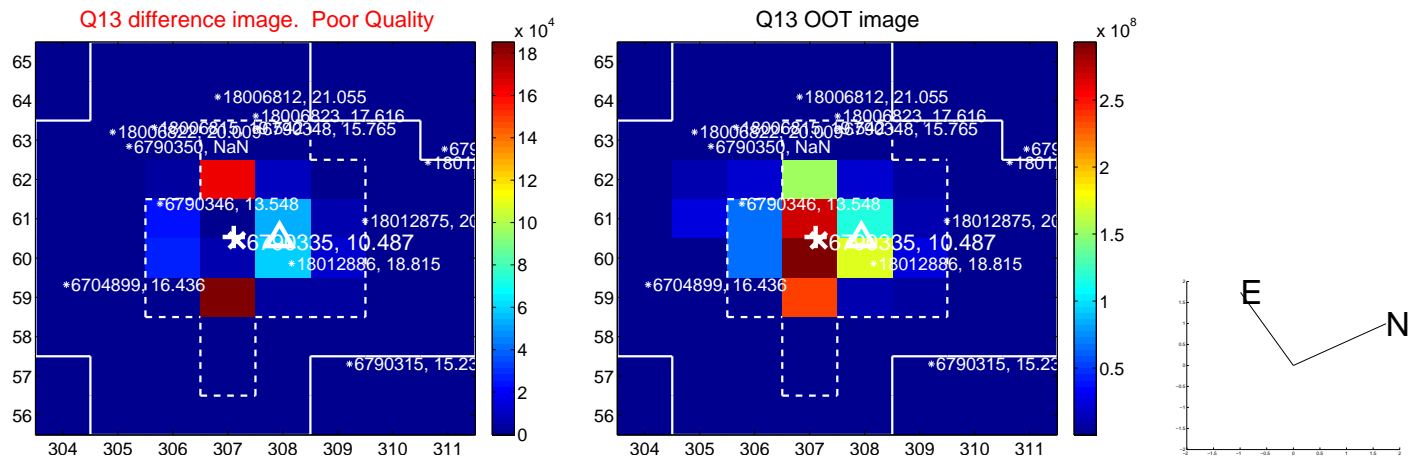
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



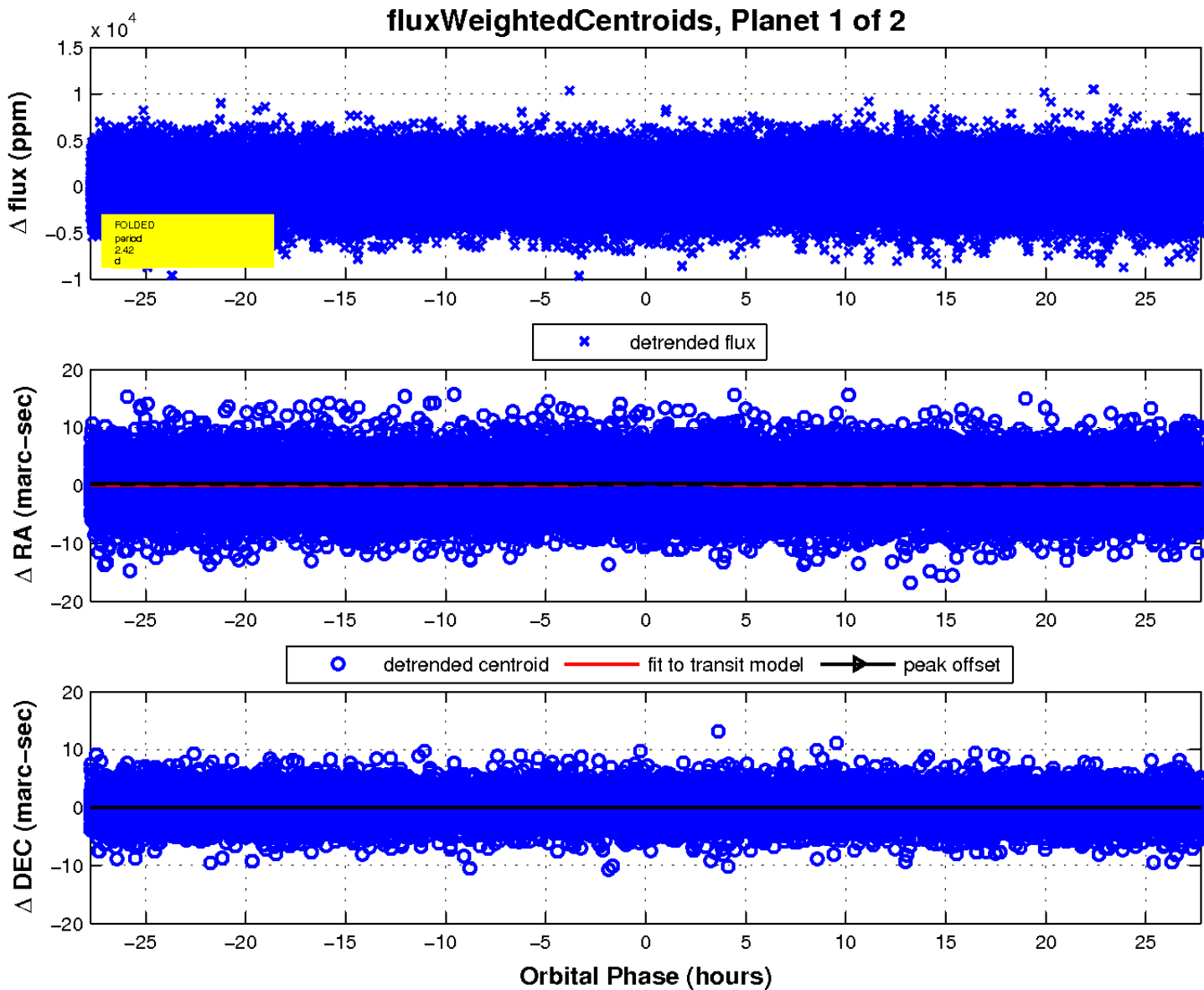
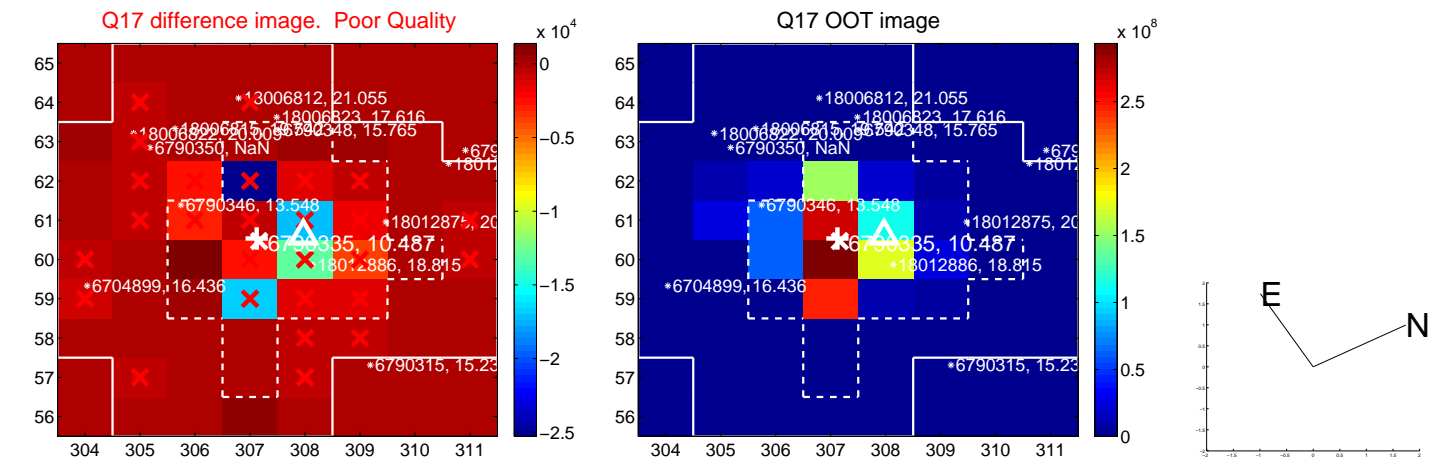
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



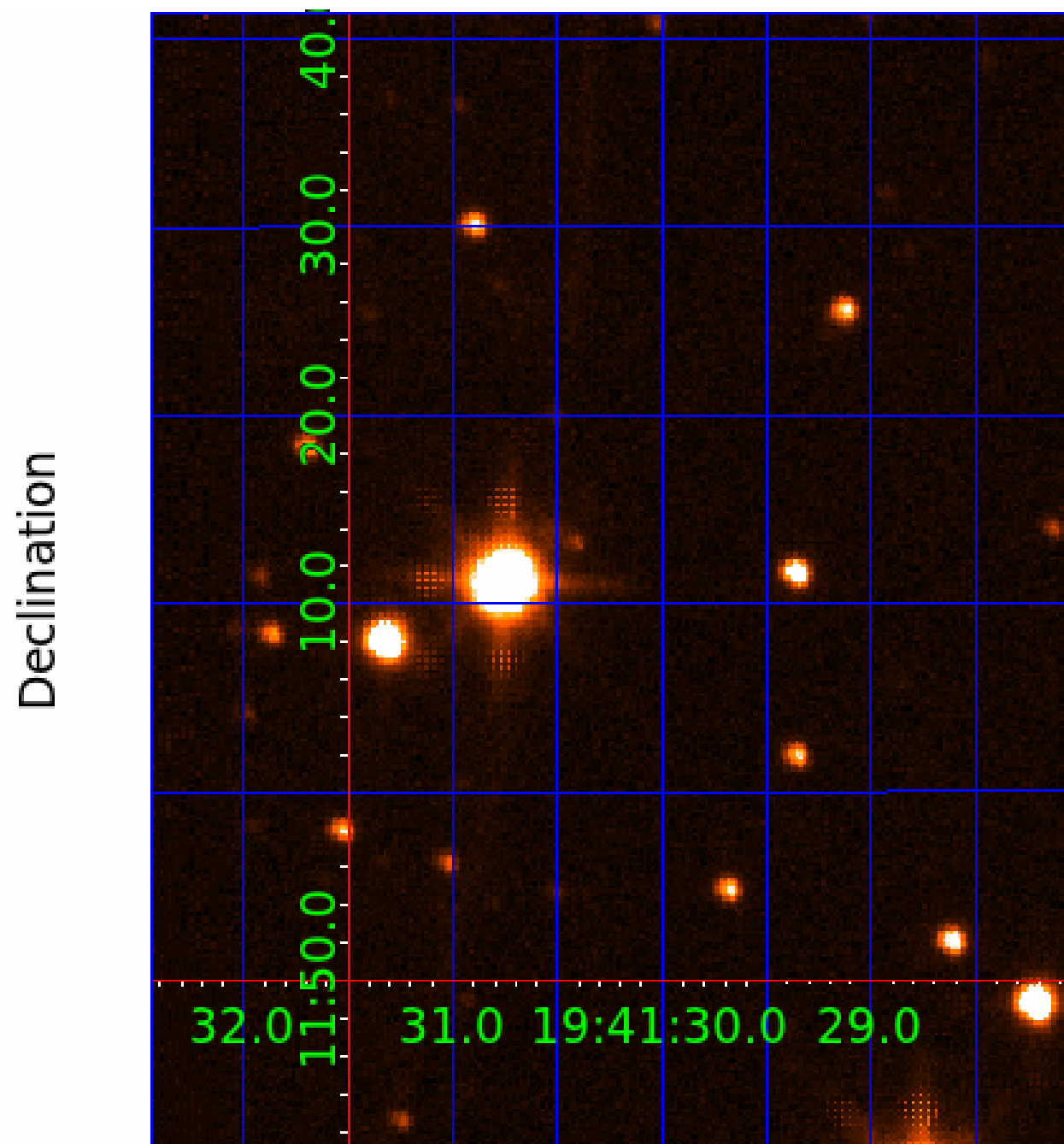
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006790335

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})
006790335-01	OBS	No	2.422504	133.590897	316.2	9.254	13.9	14.6	3.52	7894	10.68	21852.82
006790335-02	OBS	No	2.422628	131.590437	300.1	22.574	10.1	12.2	3.52	7894	7.31	21851.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006790335-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
006790335-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED

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

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

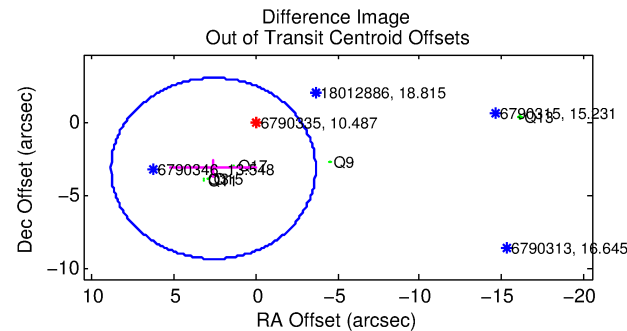
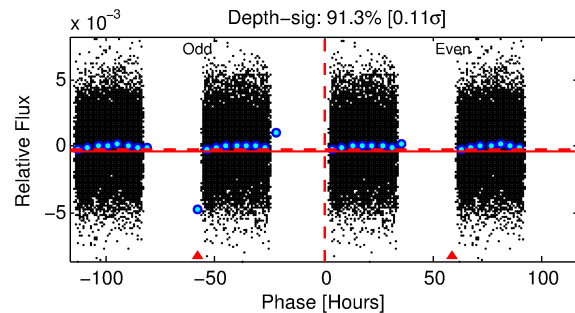
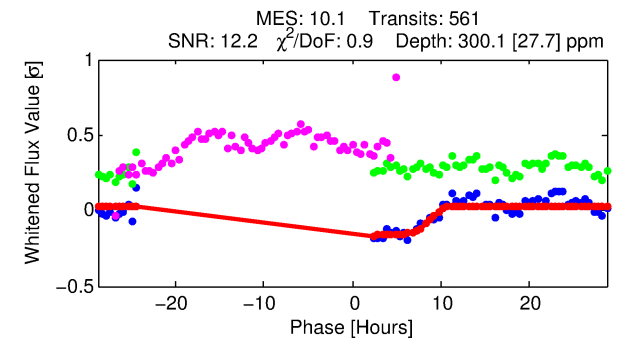
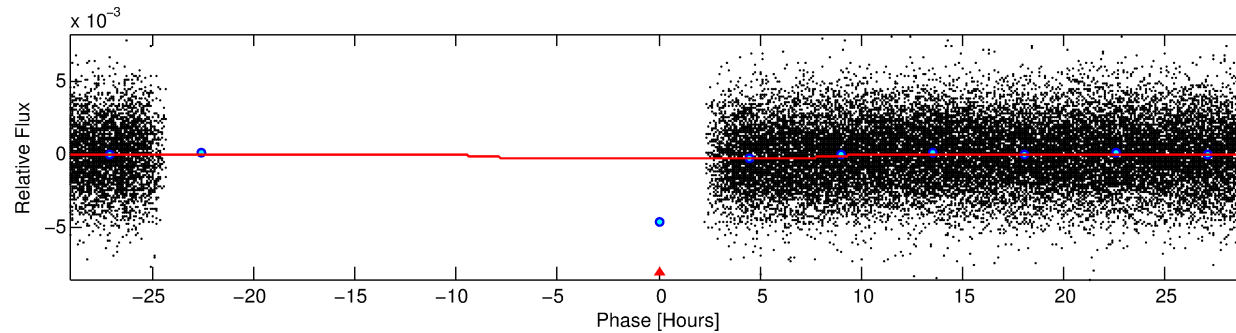
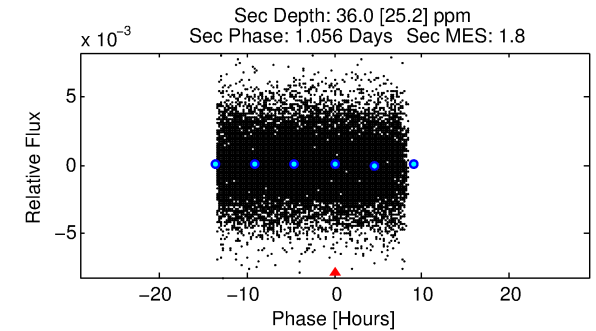
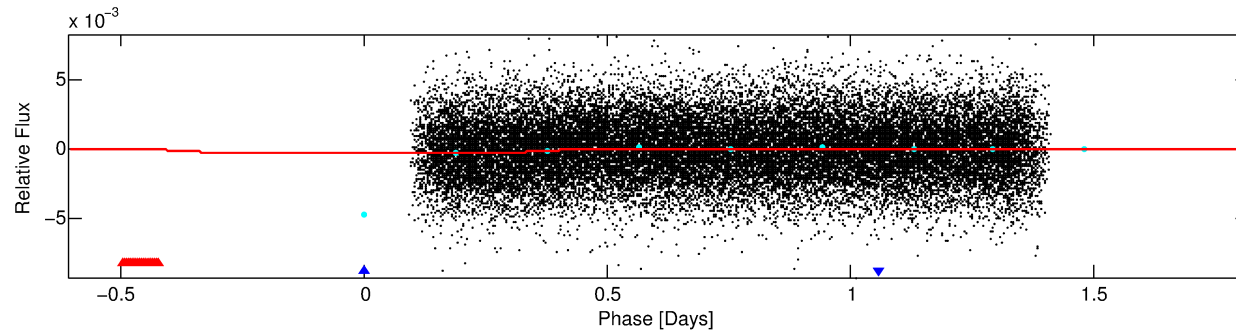
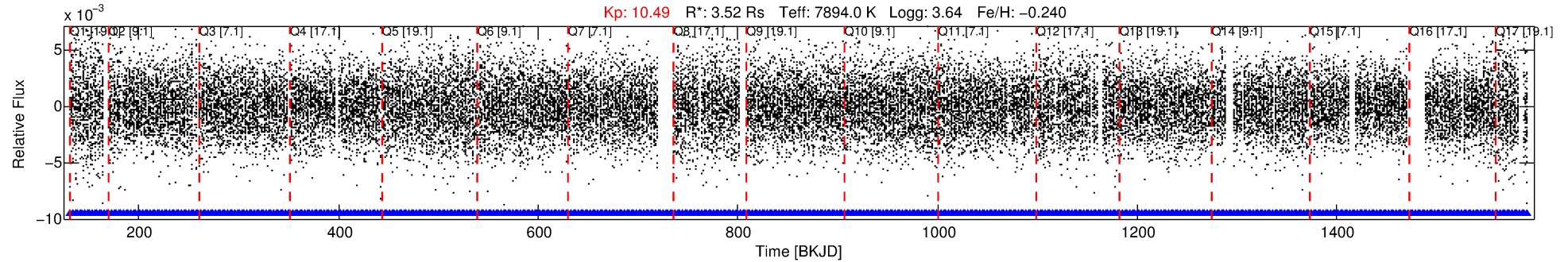
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006790335-02

No Significant Match Found

DV One-Page Summary

KIC: 6790335 Candidate: 2 of 2 Period: 2.423 d



DV Fit Results:

Period = 2.42263 [0.00008] d
Epoch = 131.5904 [0.0651] BKJD
 $R_p/R^* = 0.0190$ [0.0013]
 $a/R^* = 1.03$ [0.02]
 $b = 0.93$ [0.04]
 $S_{\text{eff}} = 21851.33$ [17606.98]
 $T_{\text{eq}} = 3100$ [625] K
 $R_p = 7.31$ [3.80] R_e
 $a = 0.0444$ [0.0220] AU
 $A_g = 0.73$ [0.78] $[-0.35\sigma]$
 $T_{\text{eff}} = 4432$ [806] K [1.31σ]

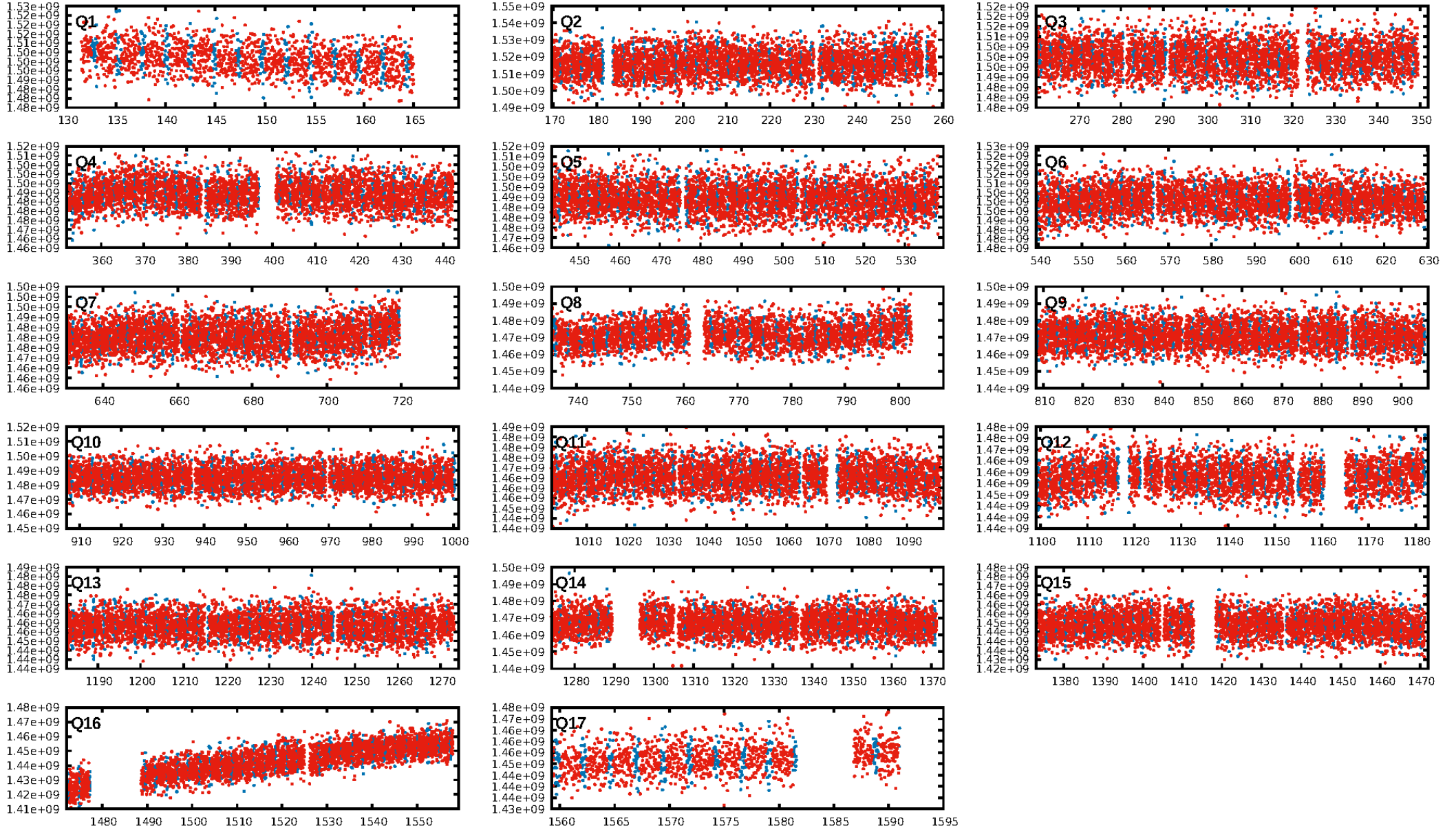
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [536/536]
GhostDiagnostic-chr: 1.11
Centroid-sig: 0.1%
Centroid-so: 0.352 arcsec [2.73σ]
OotOffset-rm: 4.048 arcsec [1.95σ]
KicOffset-rm: 4.176 arcsec [1.57σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 0.00 [0/17]

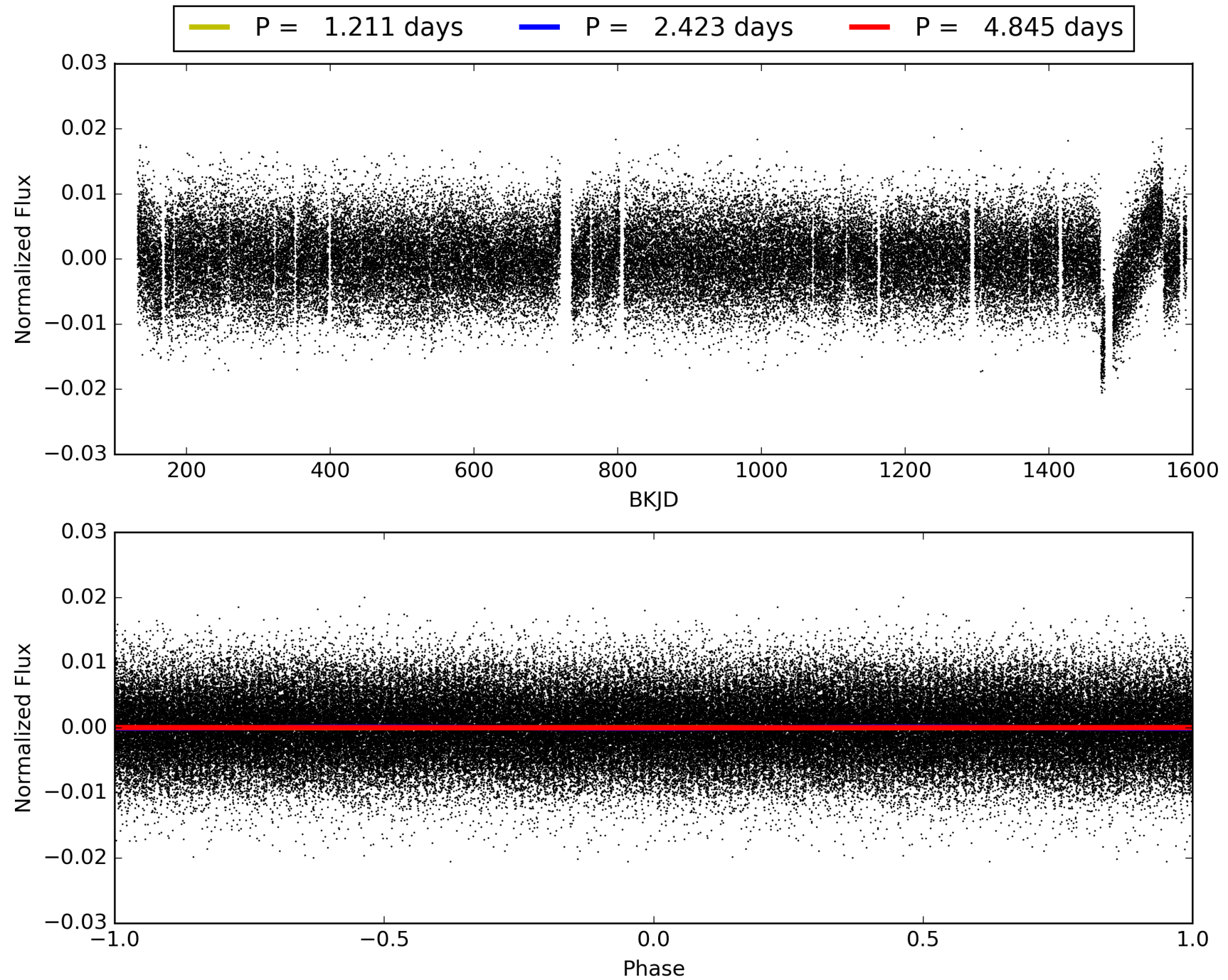
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:57:29 Z

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

TCE 006790335-02, PDC Light Curves

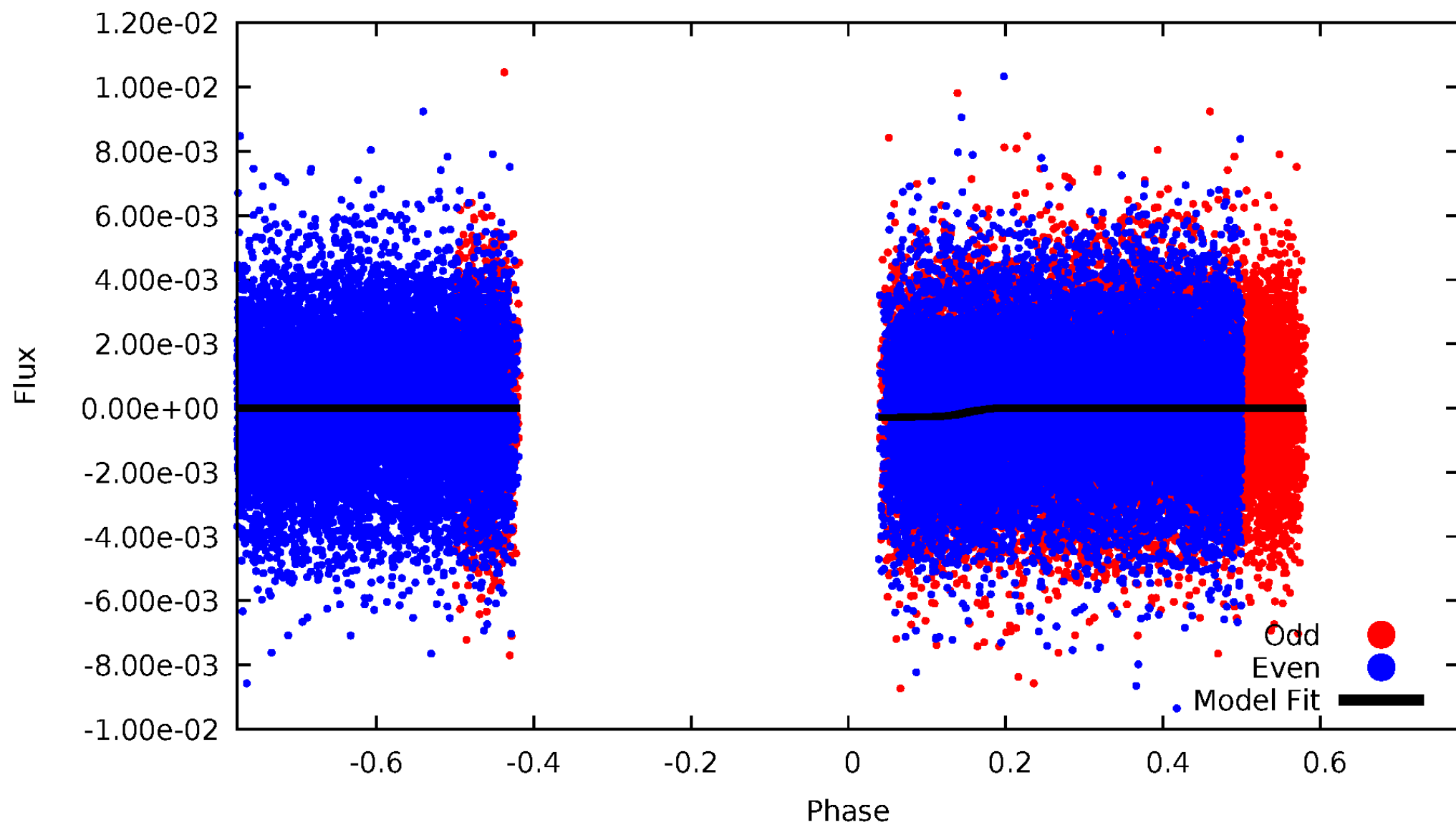


TCE 006790335-02



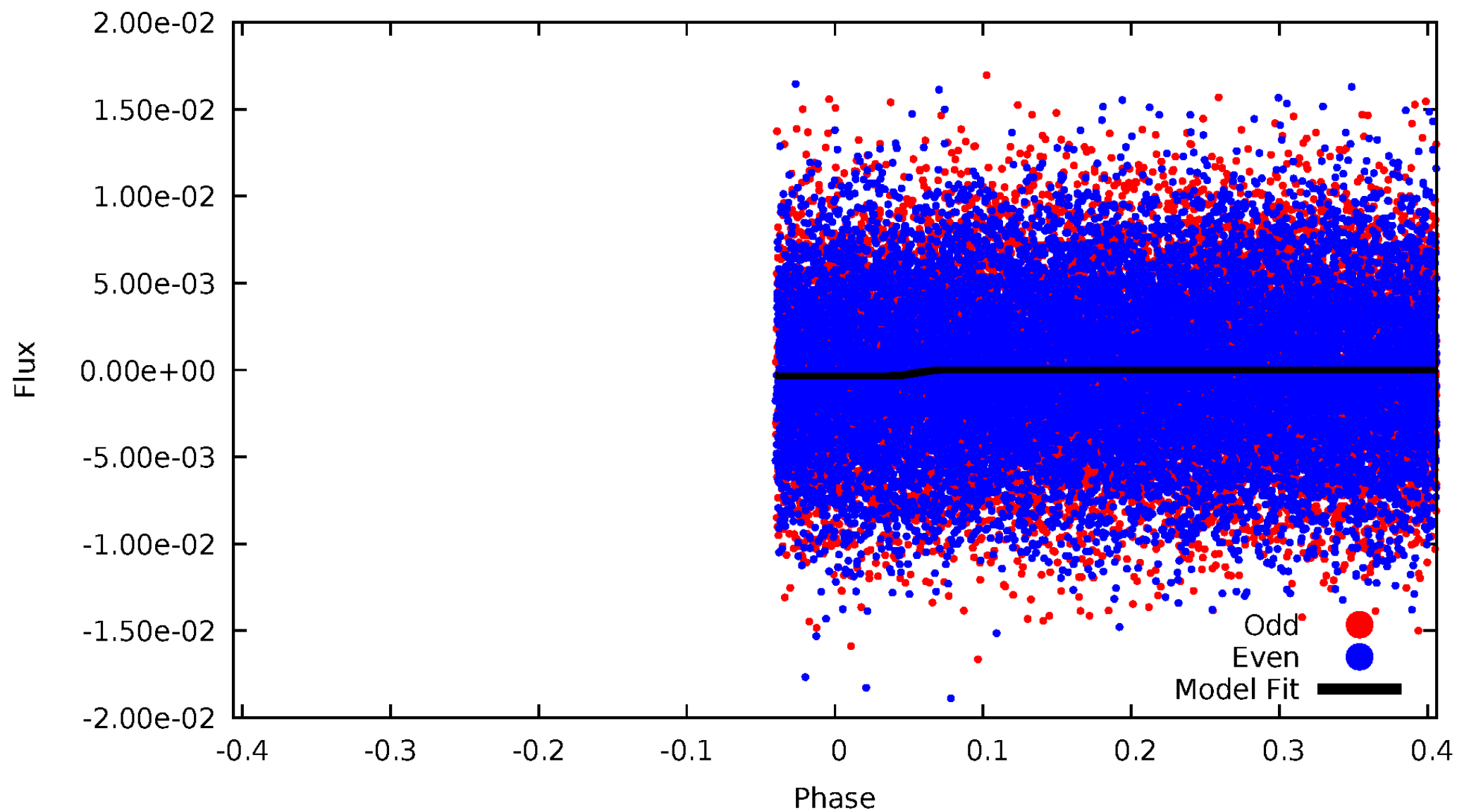
DV Odd/Even

TCE 006790335-02



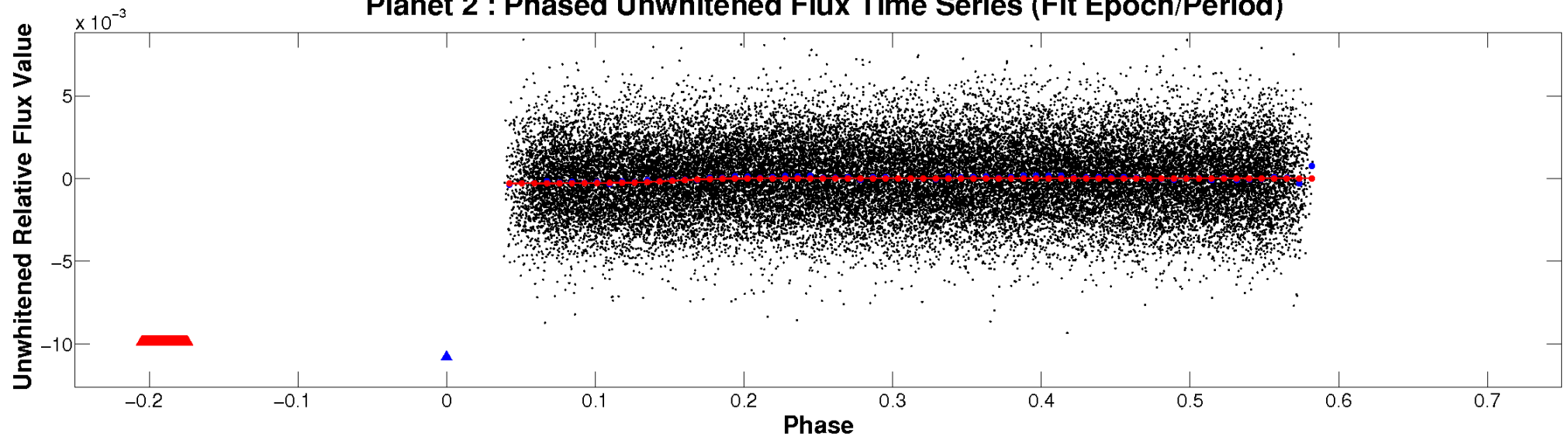
ALT Odd/Even

TCE 006790335-02

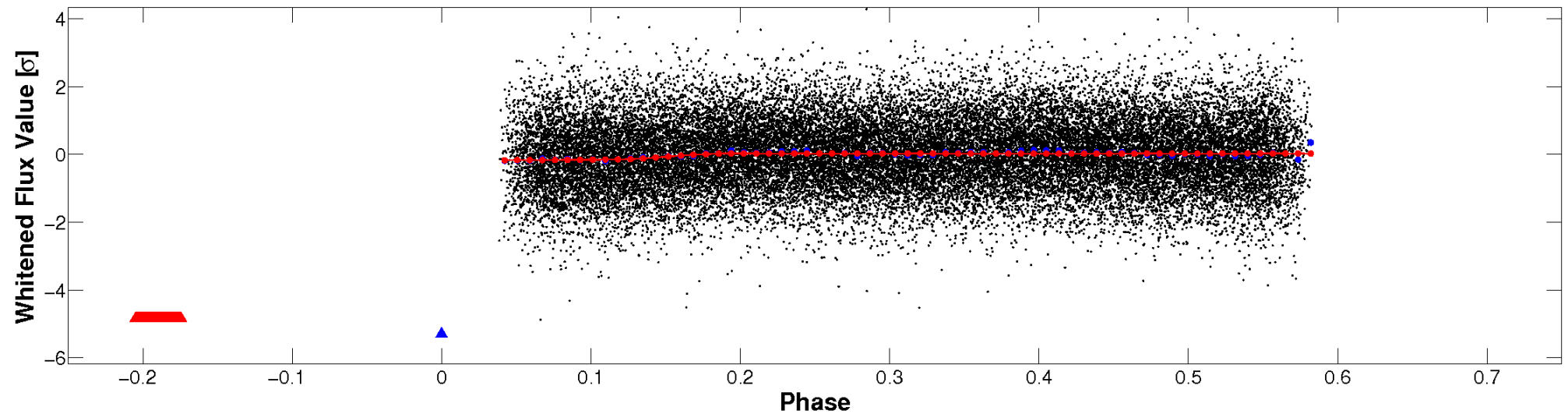


Non-Whitened Vs. Whitened Light Curve

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

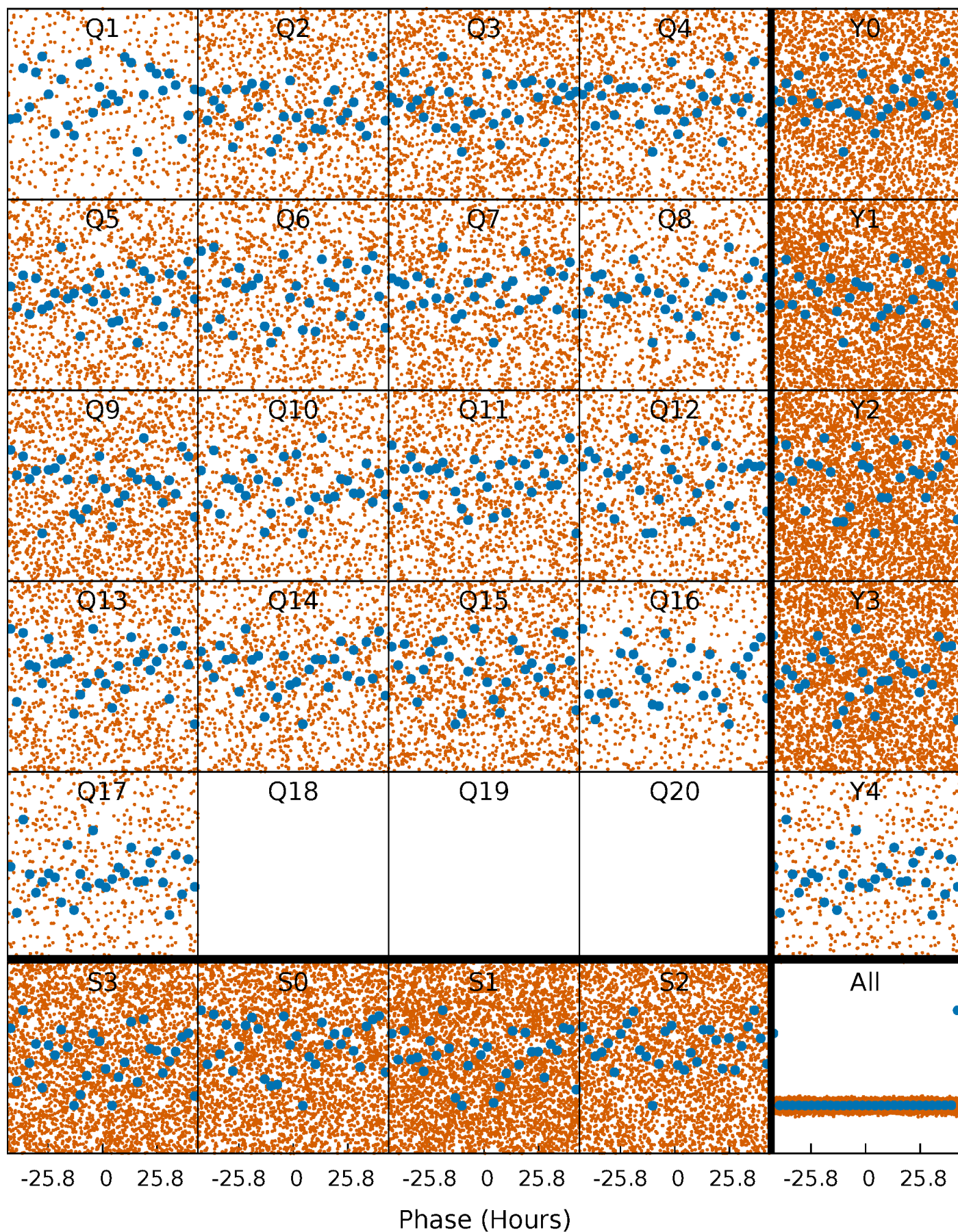


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



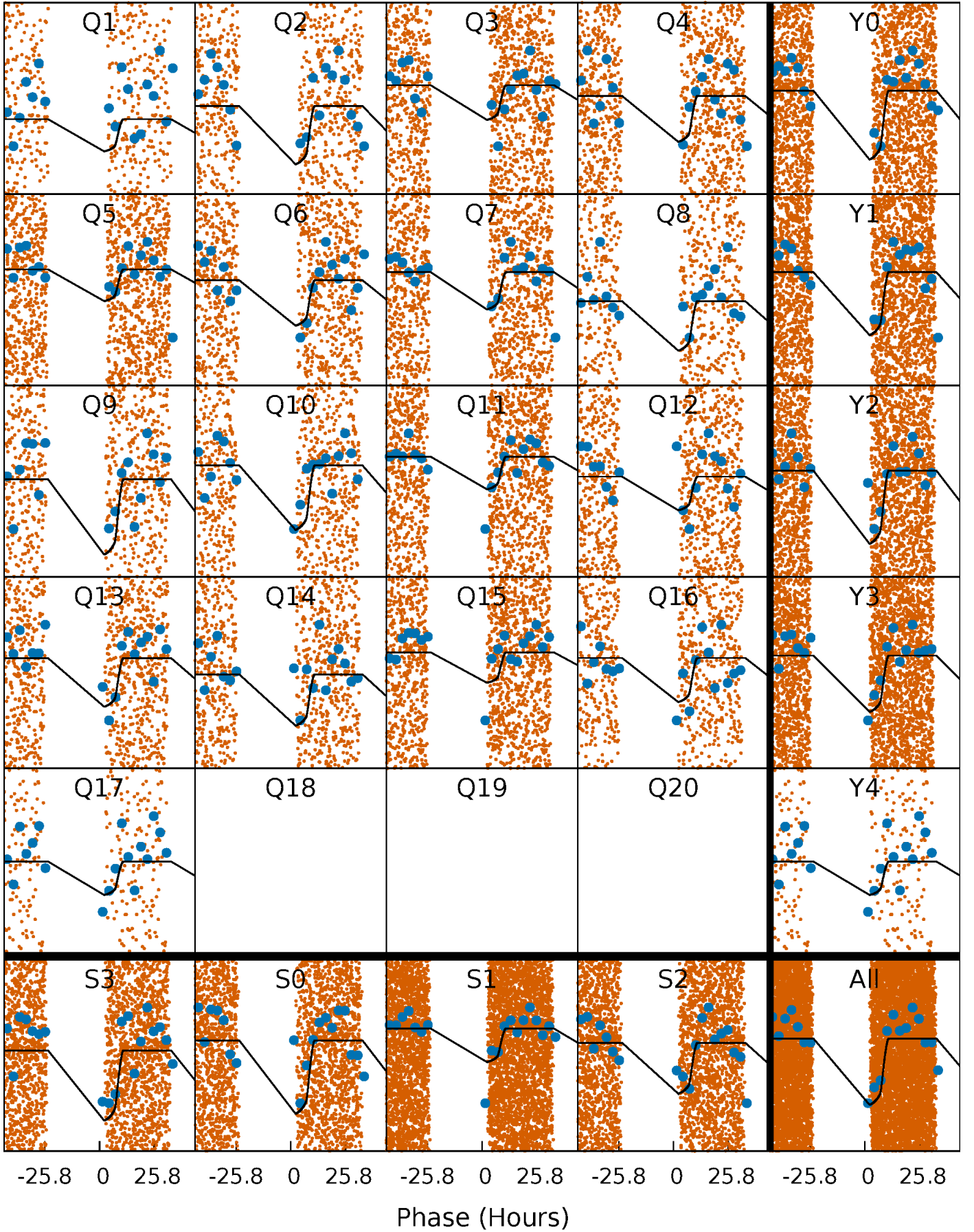
PDC Quarter-Phased Transit Curves

TCE 006790335-02 P= 2.422628 Days $T_0=131.590437$ (BKJD)



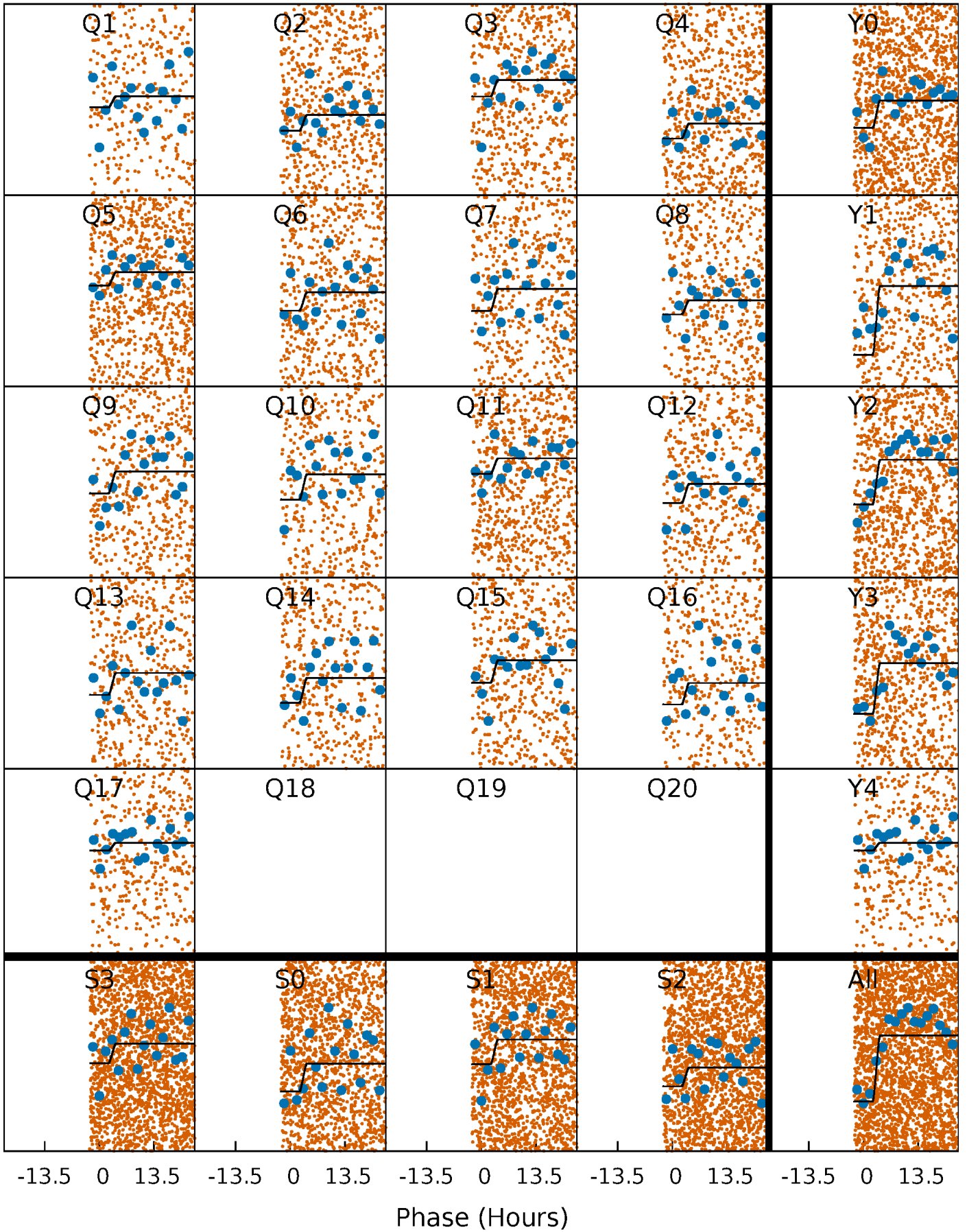
DV Quarter-Phased Transit Curves

TCE 006790335-02 P= 2.422628 Days $T_0=131.590437$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

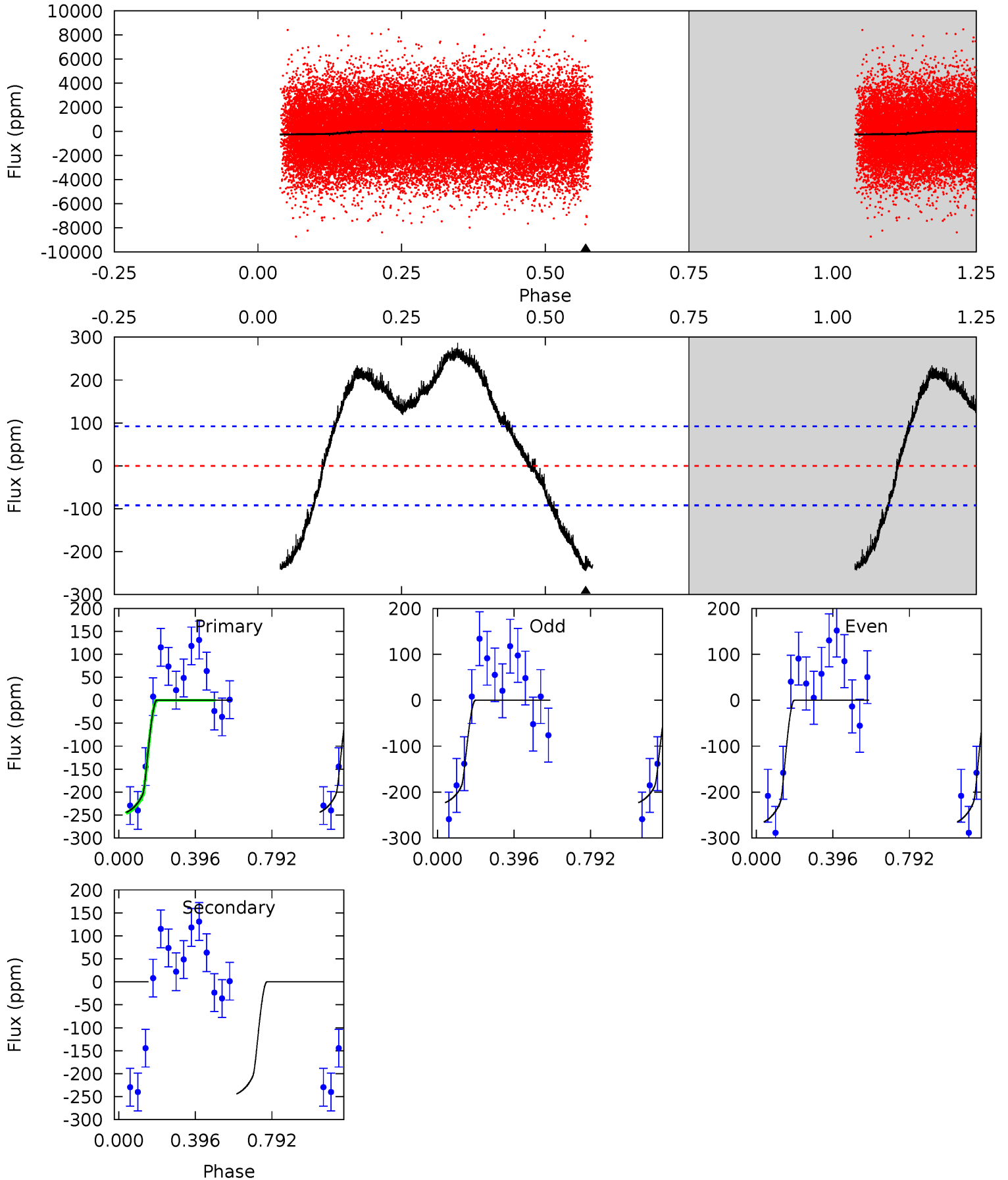
TCE 006790335-02 P= 2.422494 Days $T_0=131.854418$ (BKJD)



DV Model-Shift Uniqueness Test

006790335-02, P = 2.422628 Days, E = 131.590437 Days

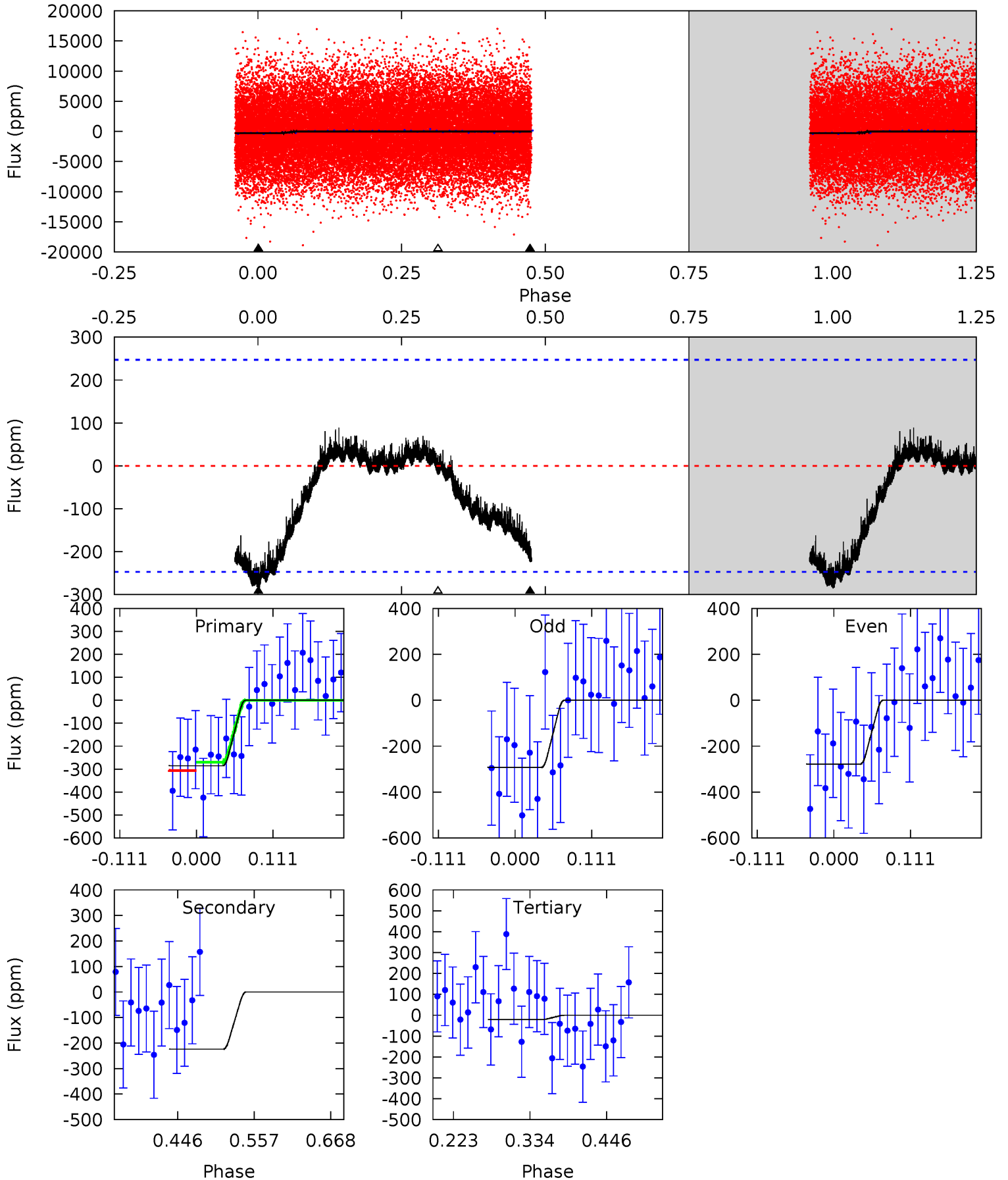
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	11.3	0	0	4.27	0.85	6.70	11.3	11.3	11.3	11.3	0.96	1.70	0.54	0



Alt Model-Shift Uniqueness Test

006790335-02, P = 2.422494 Days, E = 129.431924 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.25	4.12	0.38	0	4.54	1.59	0.85	4.87	5.25	3.74	4.12	0.13	1.23	0.24	0.32



Stellar Parameters For KIC 006790335

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7894^{+220}_{-303}	$3.644^{+0.464}_{-0.087}$	$-0.240^{+0.200}_{-0.300}$	$3.521^{+0.606}_{-1.817}$	$1.995^{+0.321}_{-0.499}$	$0.064^{+0.353}_{-0.018}$
	+3%/-4%	+13%/-2%	+83%/-125%	+17%/-52%	+16%/-25%	+548%/-28%
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 006790335-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-244 ± 22	$6.94^{+1.17}_{-1.66}$	4196^{+298}_{-534}	6916^{+375}_{-404}	$5.694^{+3.655}_{-1.611}$
Alt.	-224 ± 54	$6.64^{+1.06}_{-1.72}$	4180^{+307}_{-525}	6902^{+639}_{-582}	$5.737^{+4.269}_{-1.951}$

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

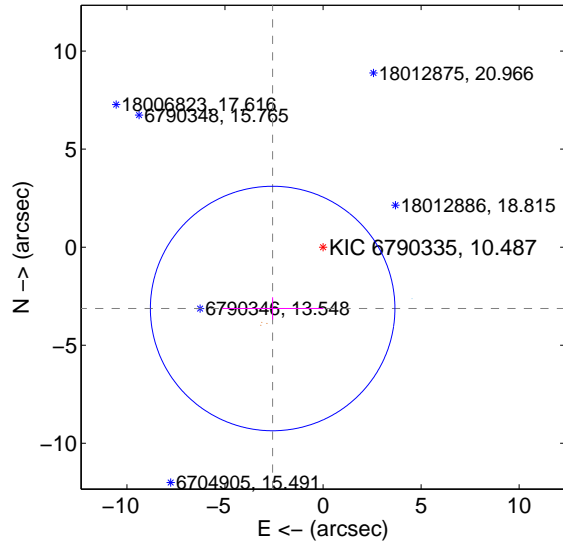
Supplemental centroid analysis for 006790335-02. **Kepler magnitude: 10.49.** Transit SNR 12.16

There are 1 quarters with good PRF difference image offsets

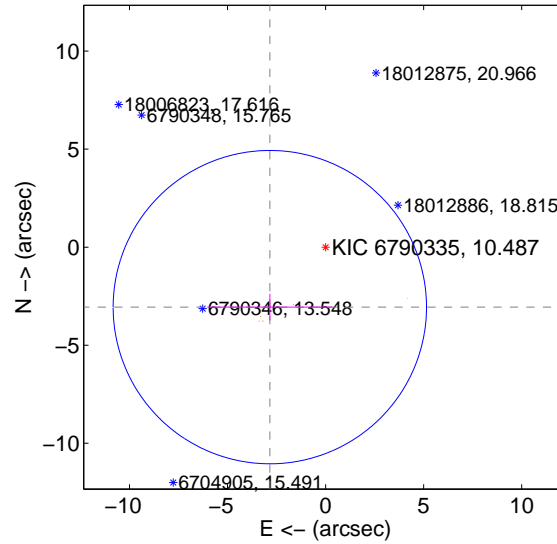
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.048 ± 2.078	1.95	2.570 ± 2.591	-3.128 ± 0.572
PRF-fit source offset from KIC position	4.176 ± 2.663	1.57	2.843 ± 3.191	-3.058 ± 0.679
photometric centroid source offset	0.35 ± 0.13	2.73	-0.34 ± 0.13	-0.11 ± 0.08

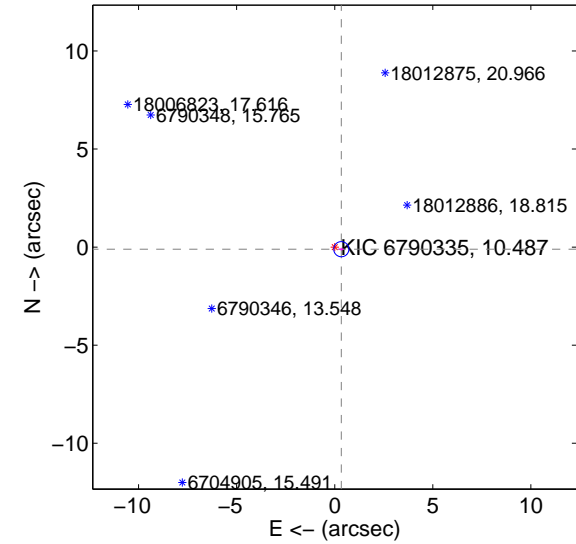
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

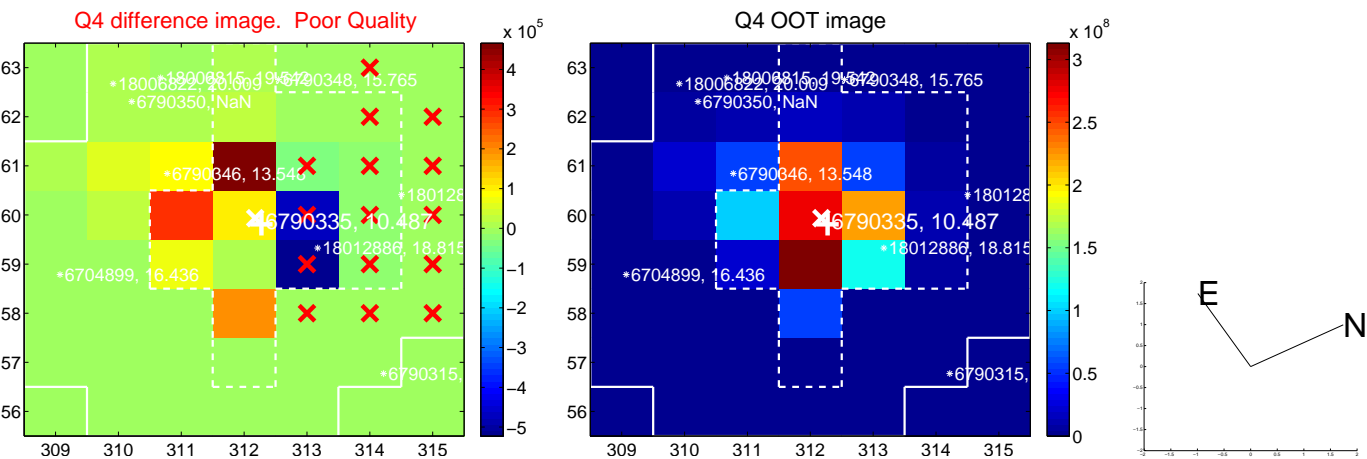
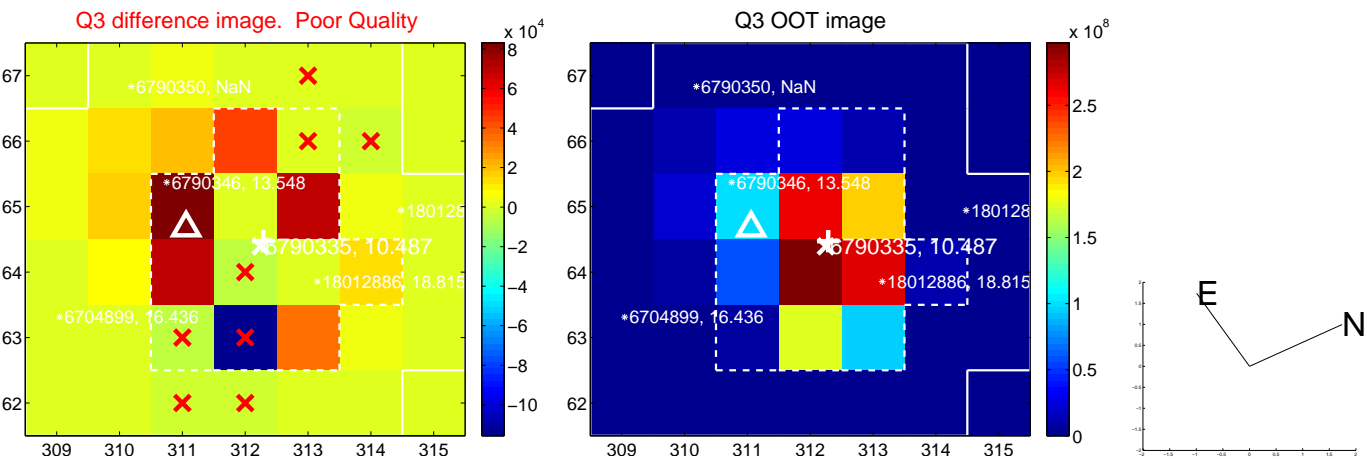
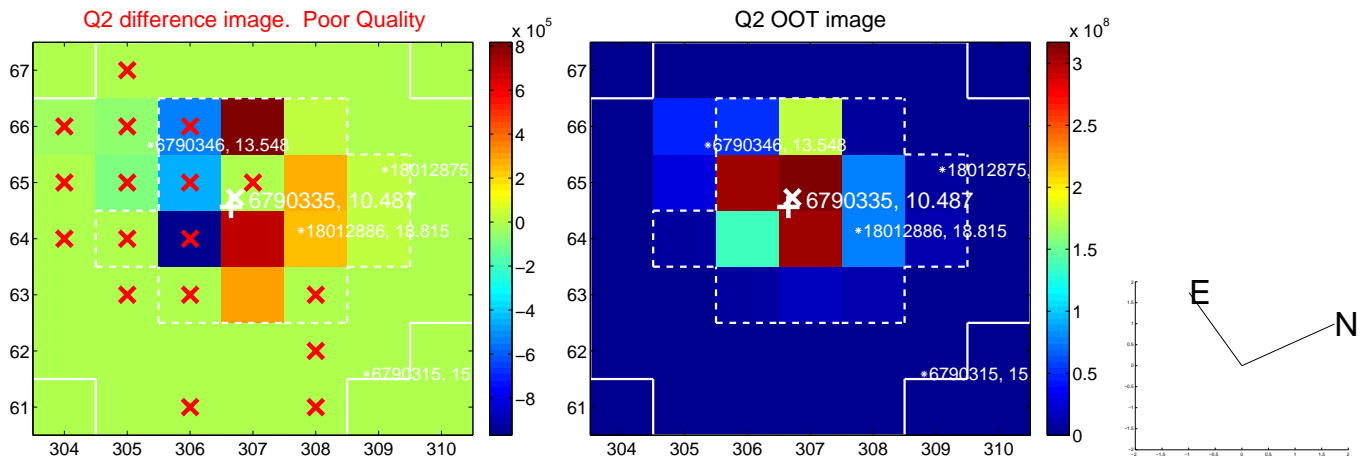
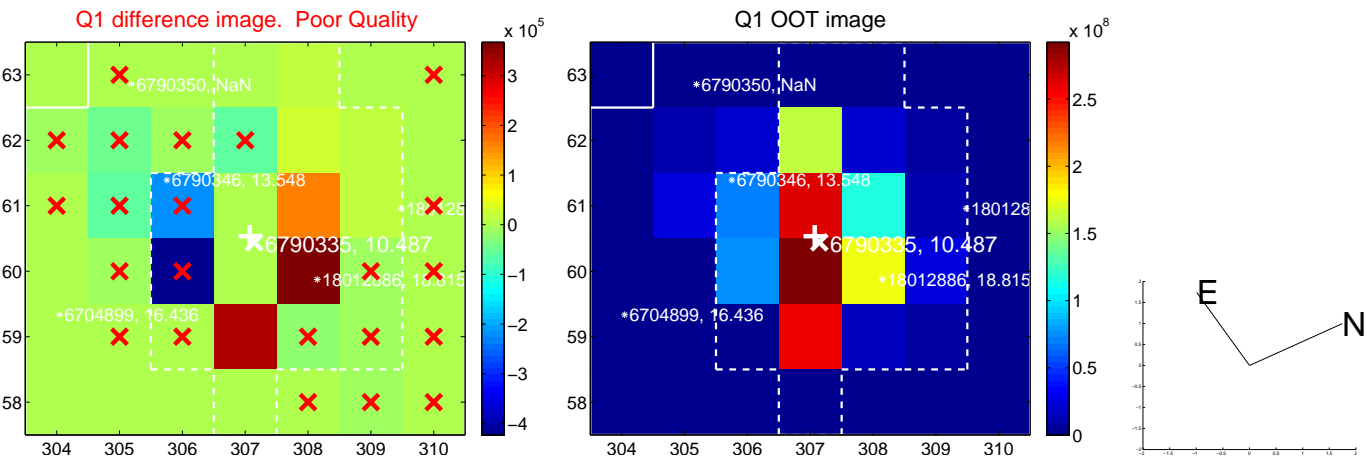


offset from photometric centroids

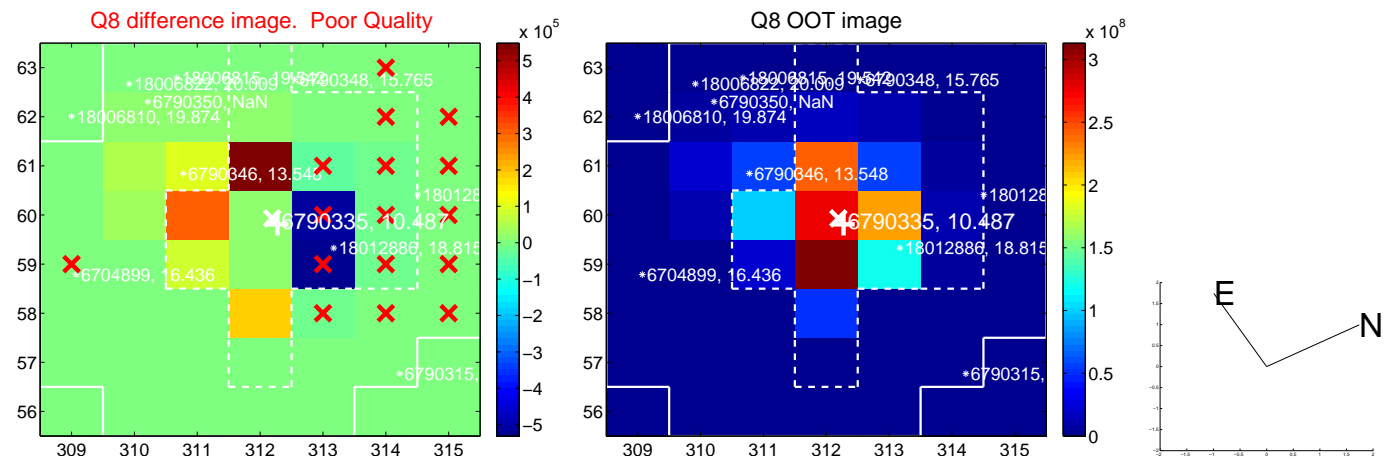
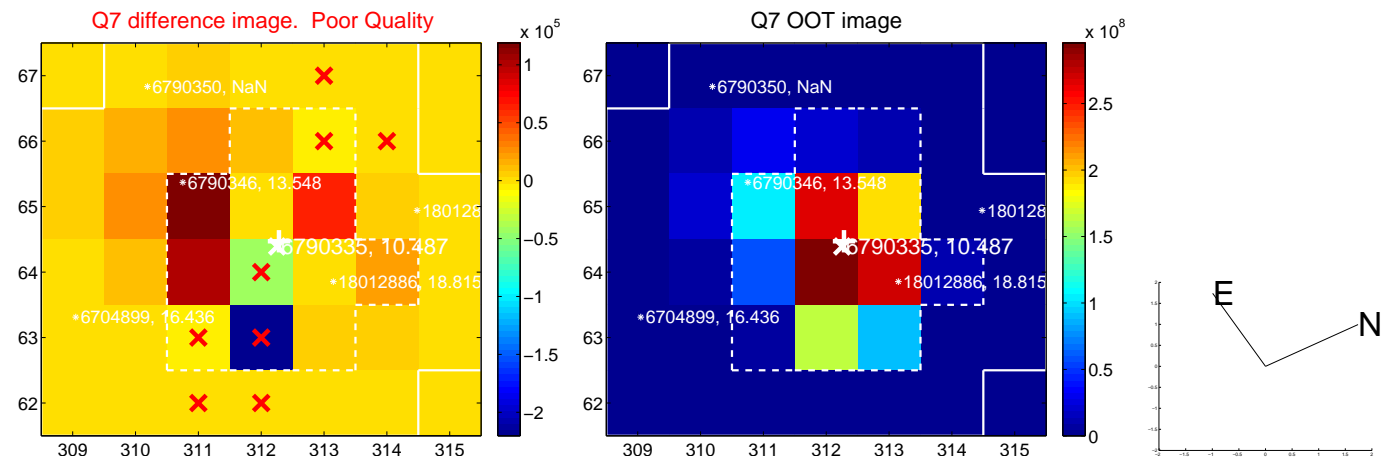
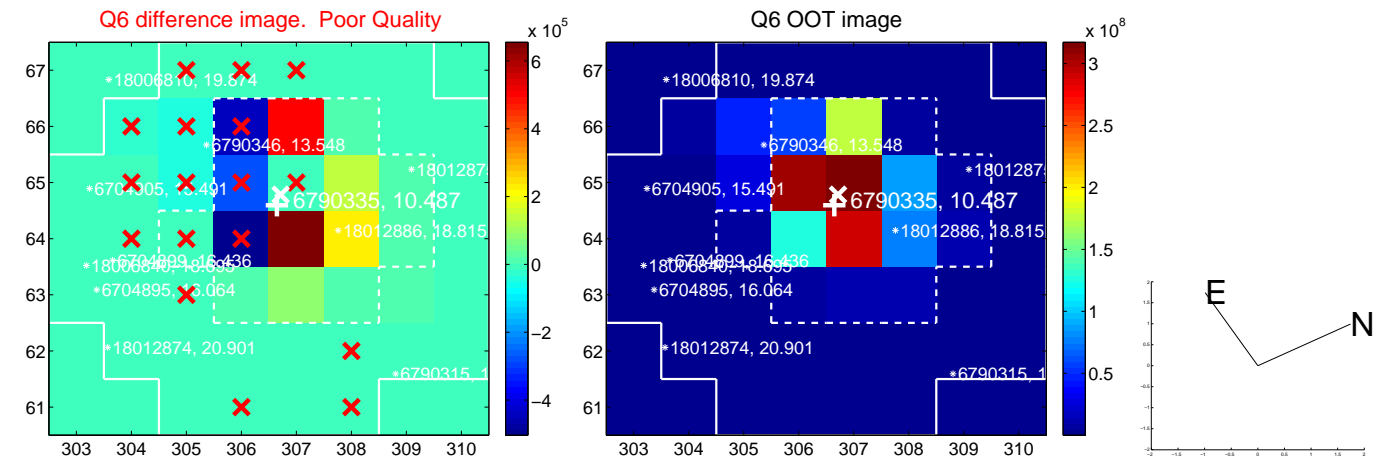
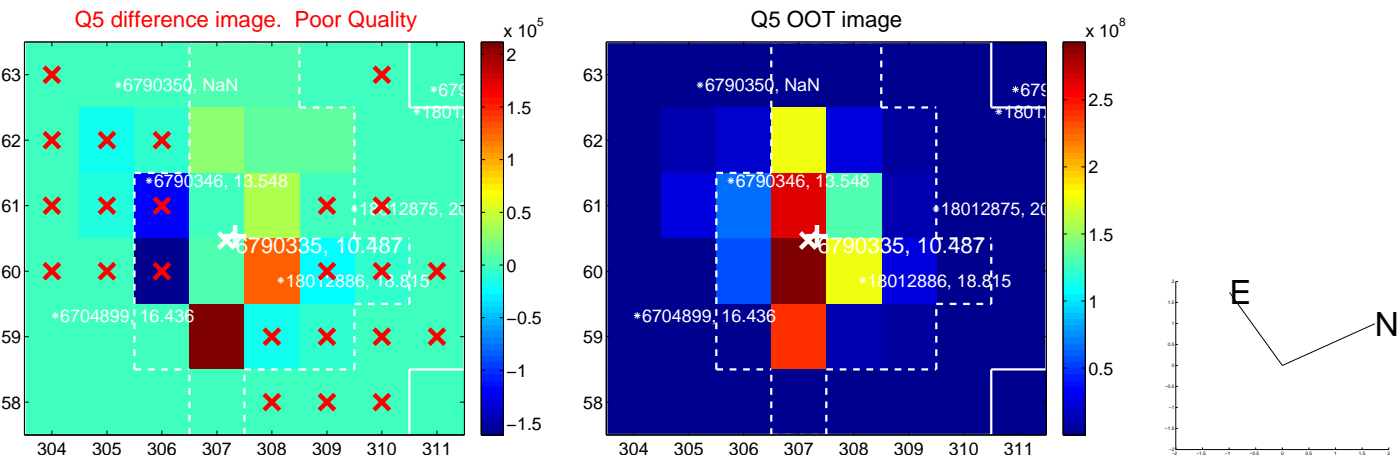


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

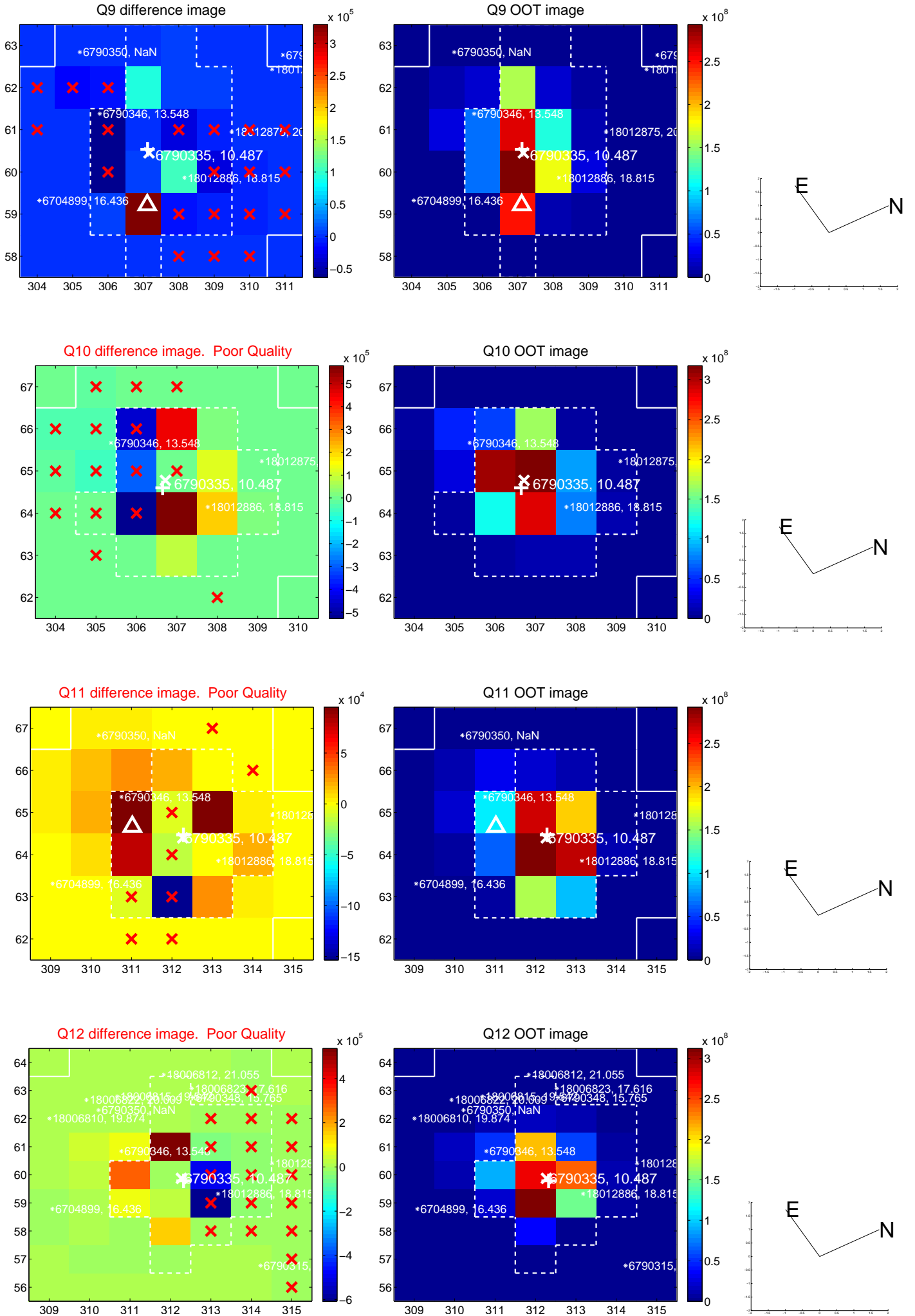
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



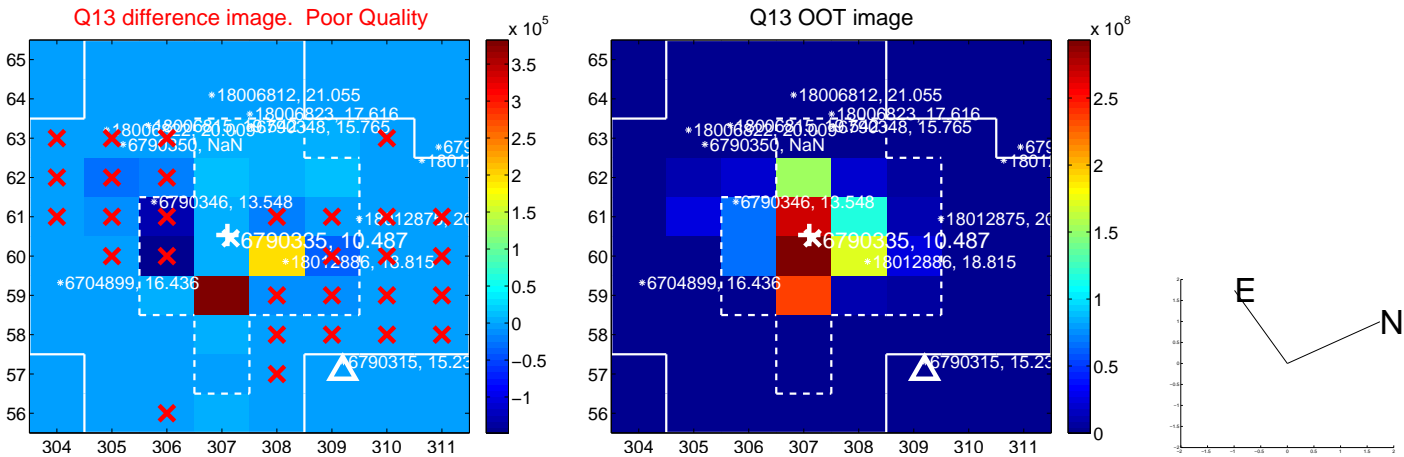
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



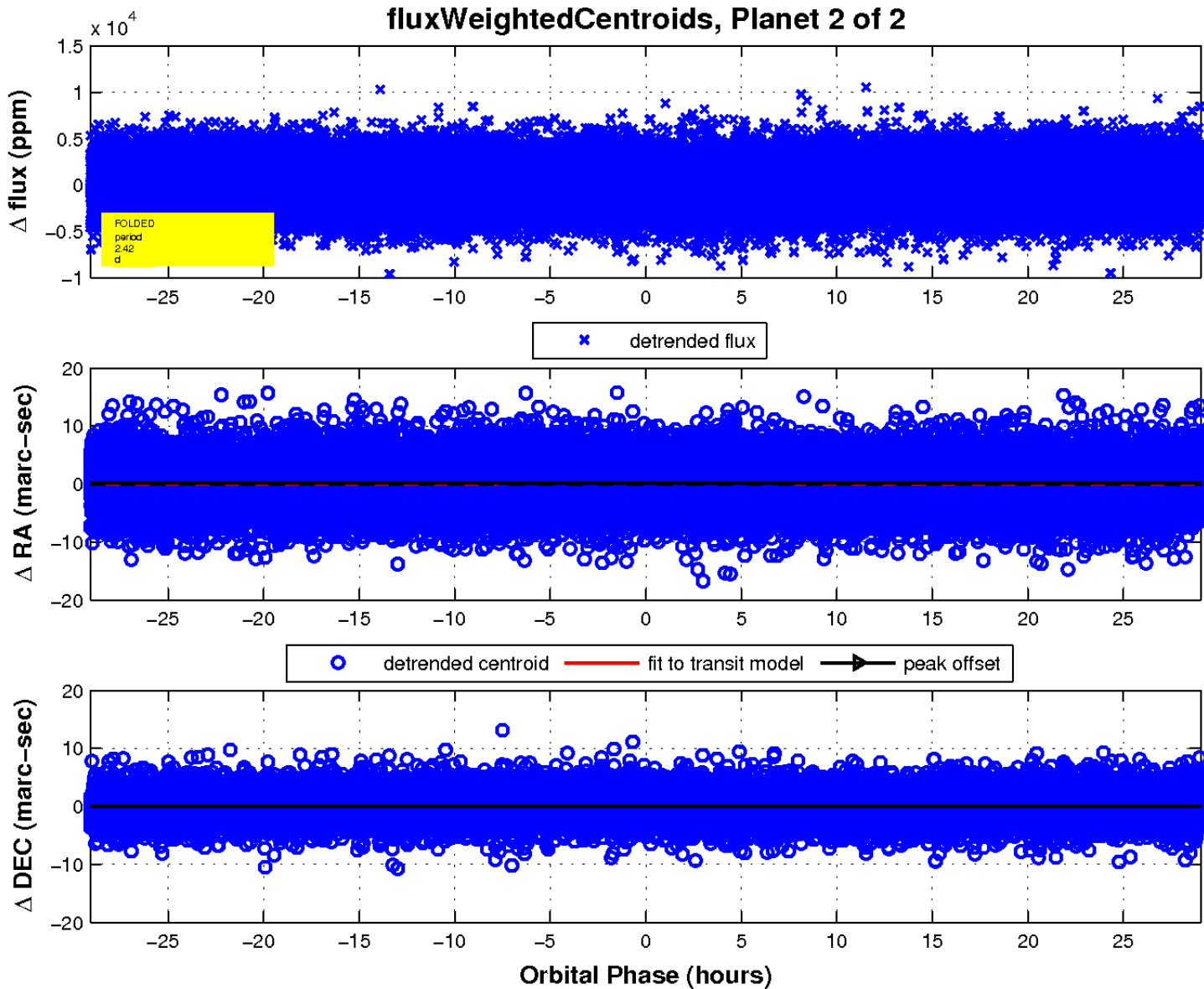
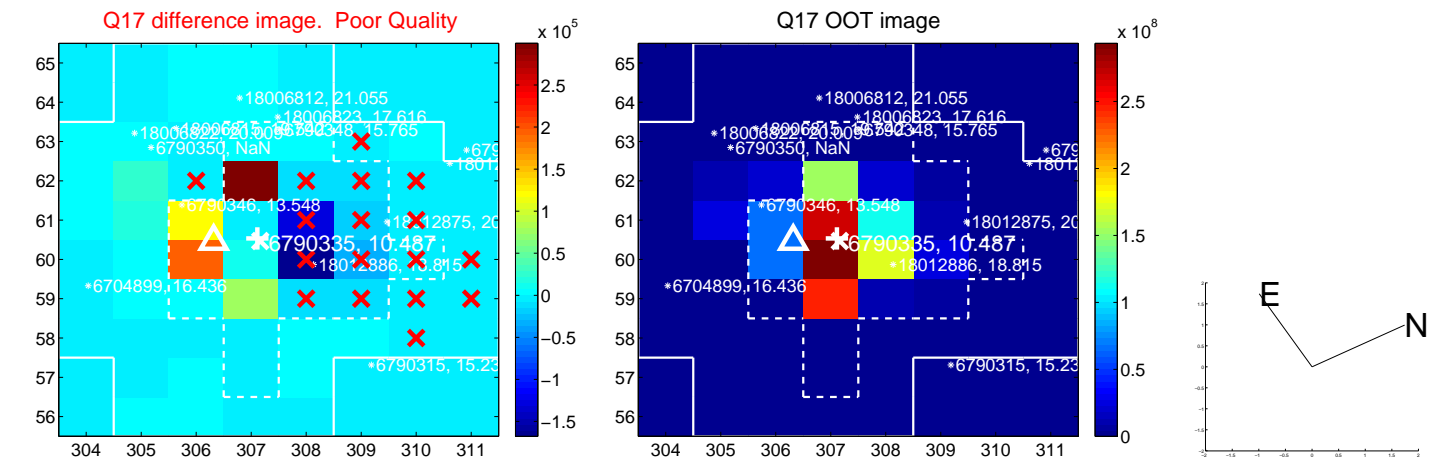
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

