

KIC 011231334

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})
011231334-01	OBS	0258.01	4.157466	135.078798	1177.6	6.814	129.2	145.8	3.13	6529	20.18	4511.26
011231334-02	OBS	No	4.157404	133.008611	146.8	6.931	18.6	20.8	3.13	6529	6.09	4511.35
011231334-03	OBS	No	233.196509	165.581981	235.5	7.878	10.0	4.9	3.13	6529	5.23	21.01
011231334-04	OBS	No	266.547707	277.188533	323.0	2.264	9.7	6.8	3.13	6529	6.09	17.58
011231334-05	OBS	No	295.097624	165.618920	433.1	5.721	8.5	9.1	3.13	6529	12.61	15.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011231334-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_SATURATED
011231334-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_SATURATED
011231334-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED
011231334-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
011231334-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

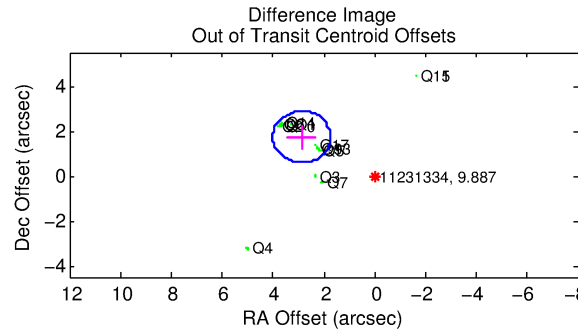
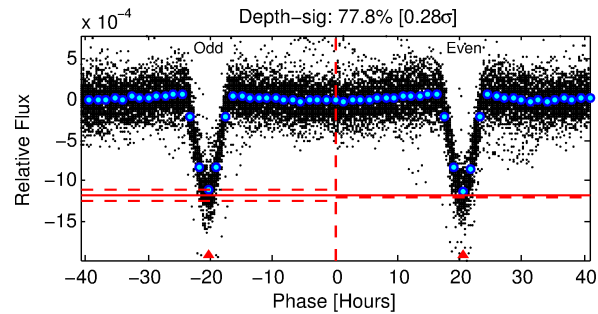
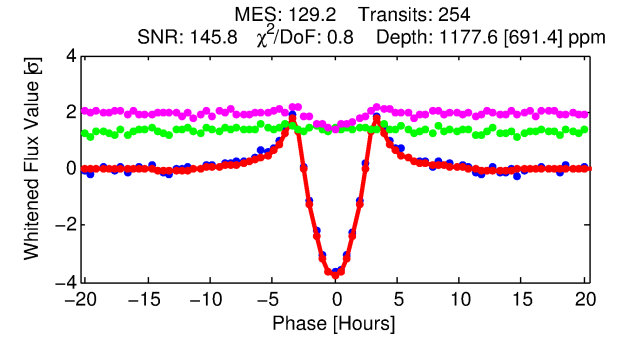
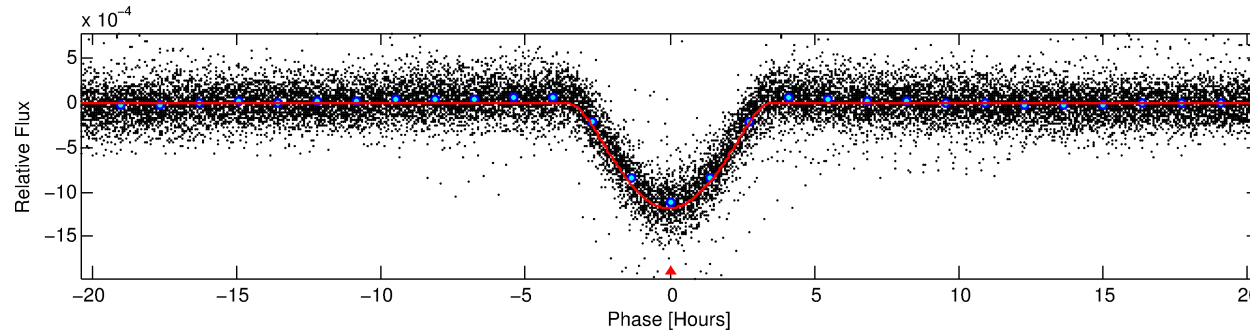
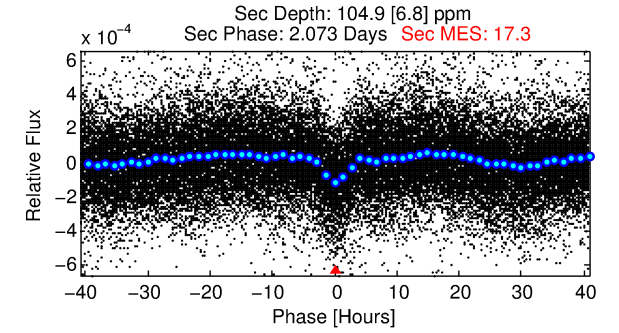
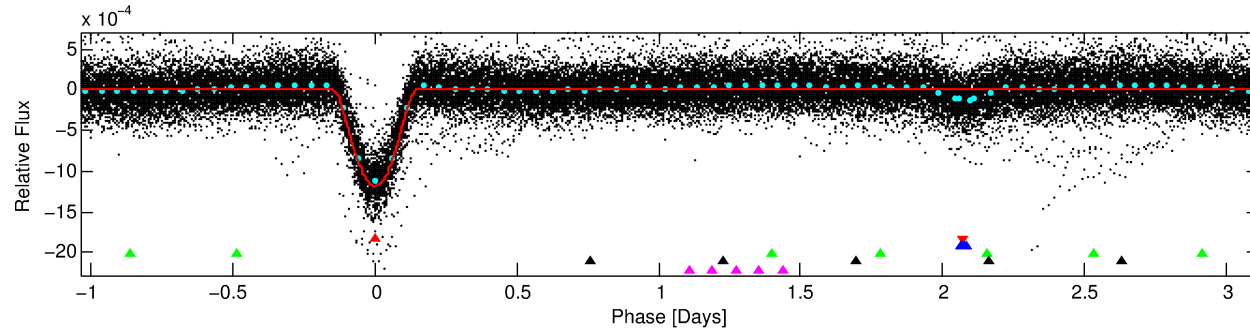
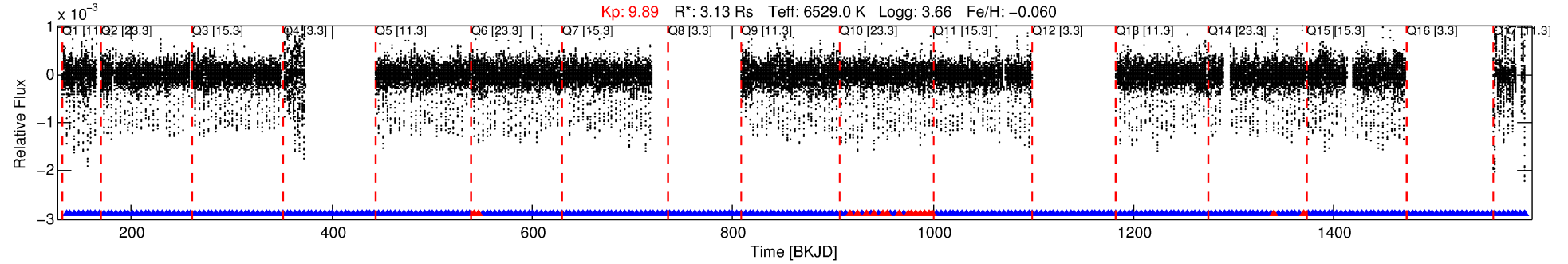
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011231334-01

No Significant Match Found

DV One-Page Summary

KIC: 11231334 Candidate: 1 of 5 Period: 4.157 d
KOI: K00258.01 Corr: 0.962



DV Fit Results:

Period = 4.15747 [0.00000] d
Epoch = 135.0788 [0.0006] BKJD
Rp/R* = 0.0591 [0.0064]
a/R* = 1.92 [0.03]
b = 1.00 [0.01]
Seff = 4511.26 [2483.96]
Teq = 2090 [288] K
Rp = 20.18 [7.86] Re
a = 0.0595 [0.0206] AU
Ag = 0.50 [0.29] [-1.70σ]
Teffp = 2718 [170] K [1.88σ]

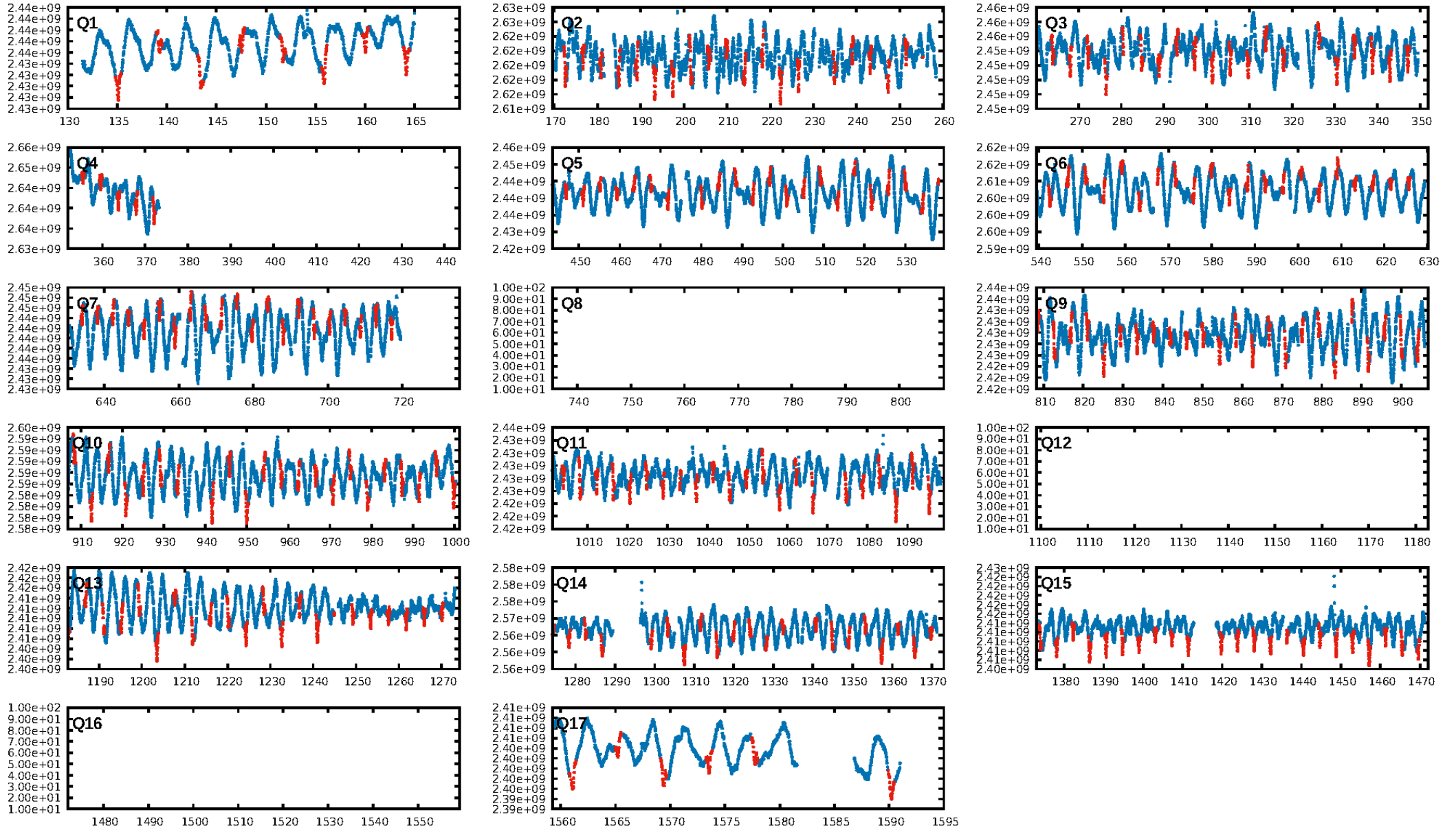
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [527.74σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.92 [217/235]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 0.780 arcsec [24.34σ]
OotOffset-rm: 3.356 arcsec [8.82σ]
KicOffset-rm: 3.331 arcsec [19.65σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 0.07 [1/14]
DiffImageOverlap-fno: 1.00 [14/14]

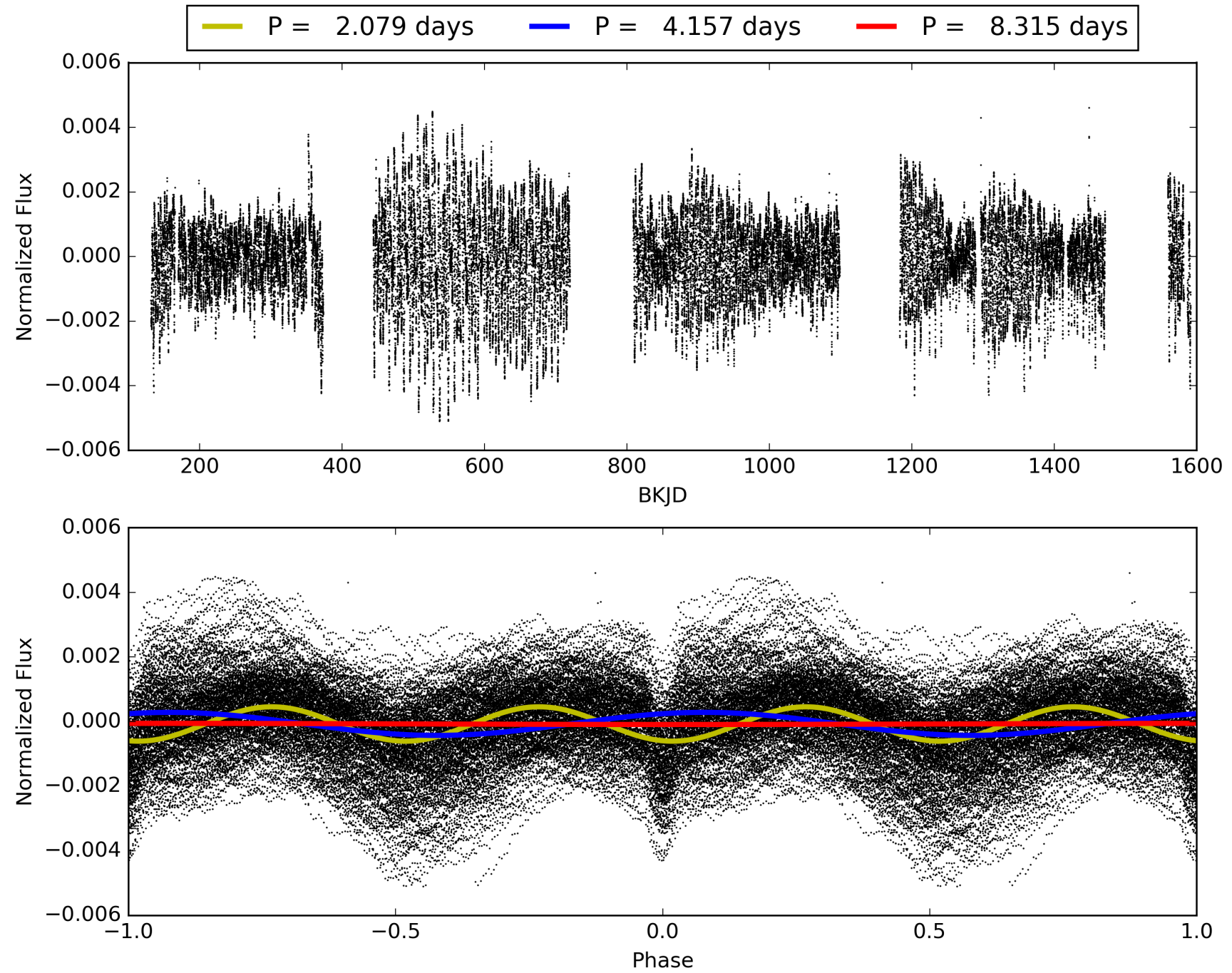
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:28:52 Z

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

TCE 011231334-01, PDC Light Curves

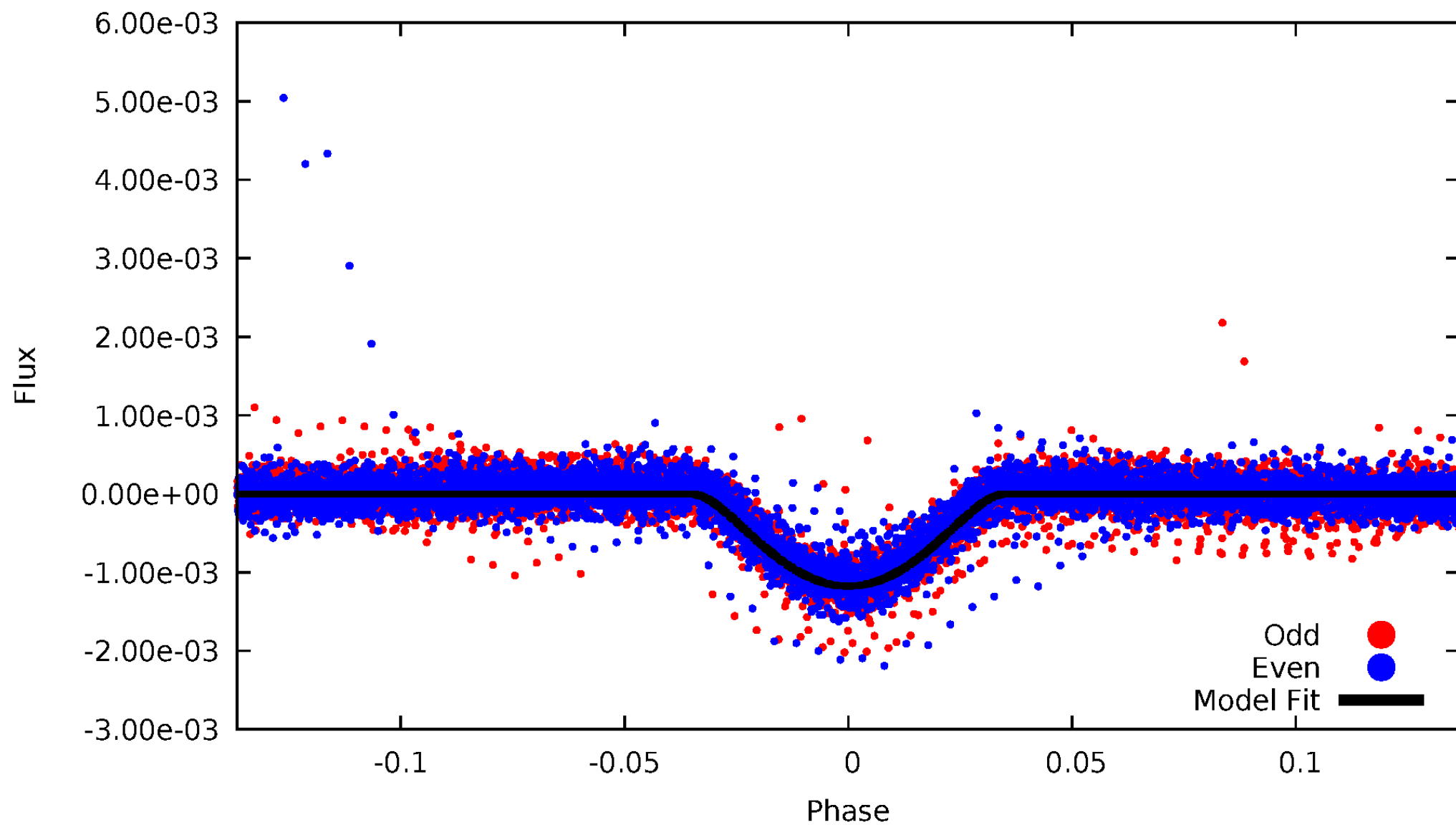


TCE 011231334-01



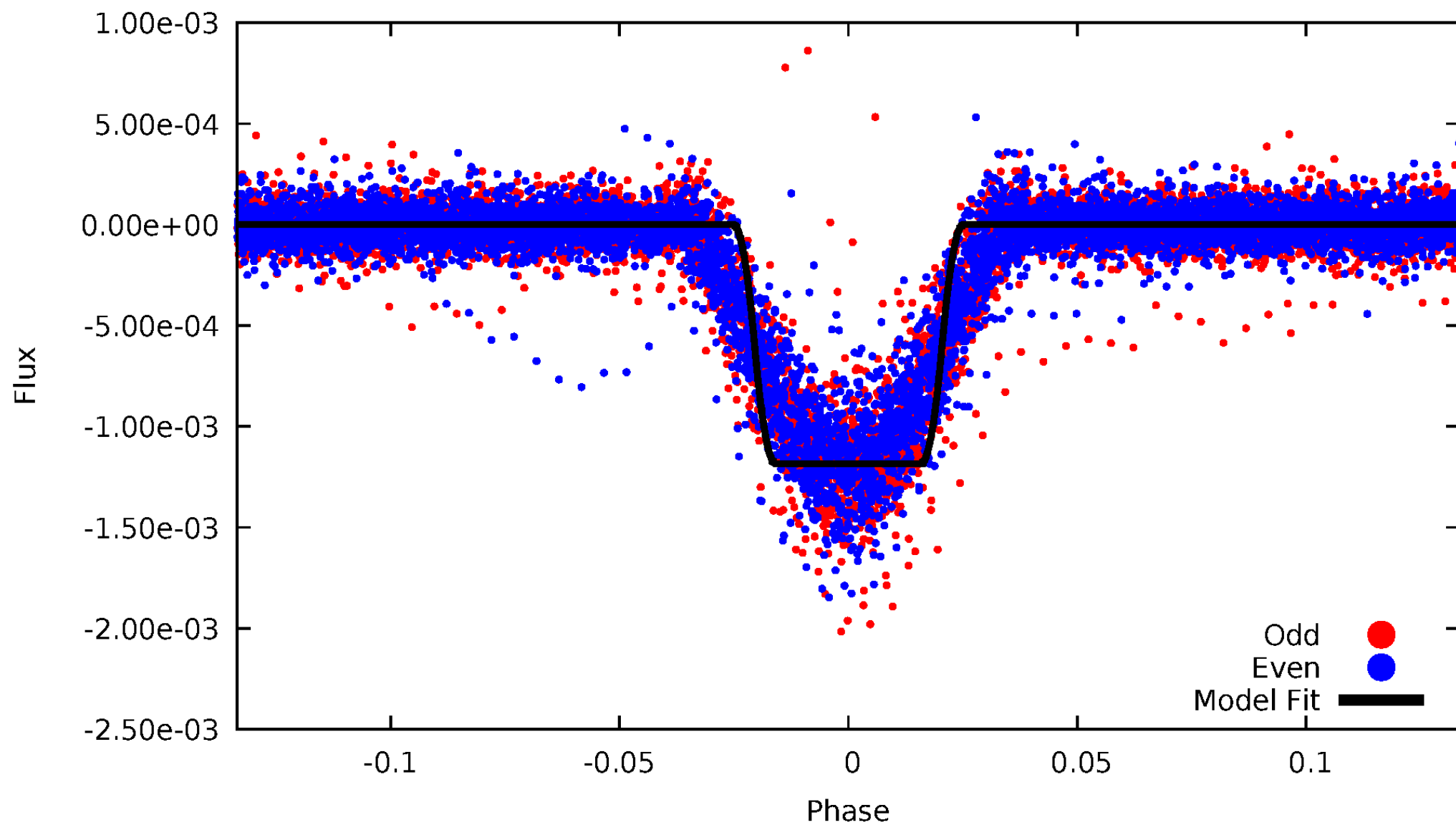
DV Odd/Even

TCE 011231334-01



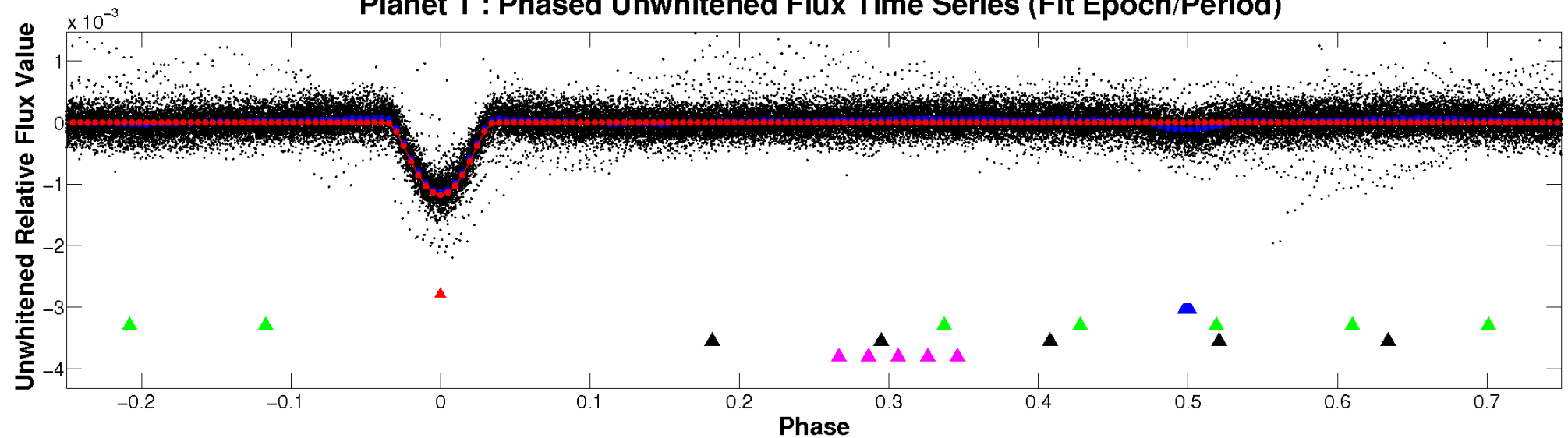
ALT Odd/Even

TCE 011231334-01

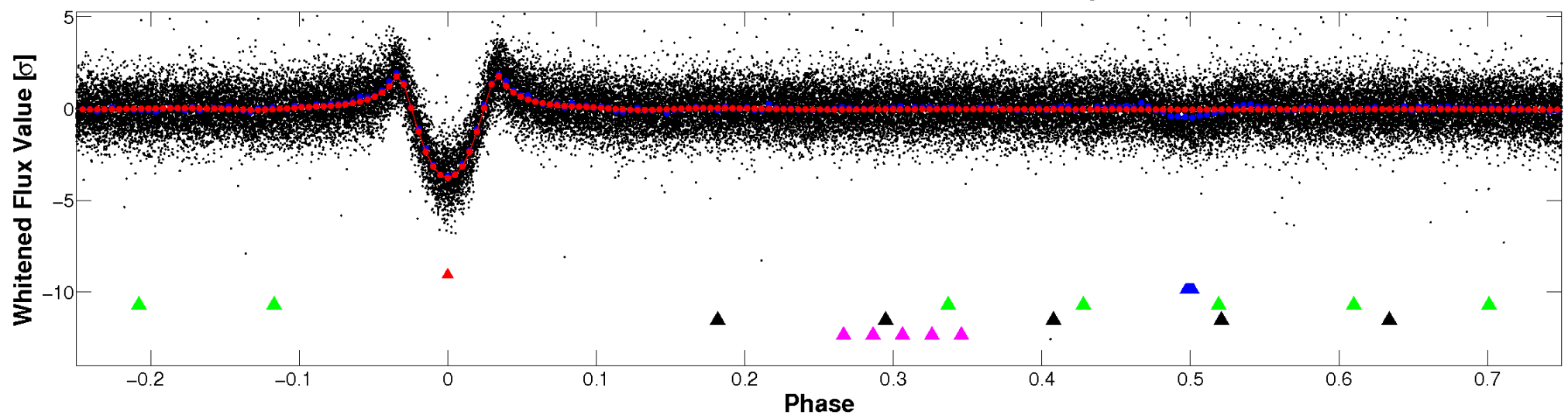


Non-Whitened Vs. Whitened Light Curve

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

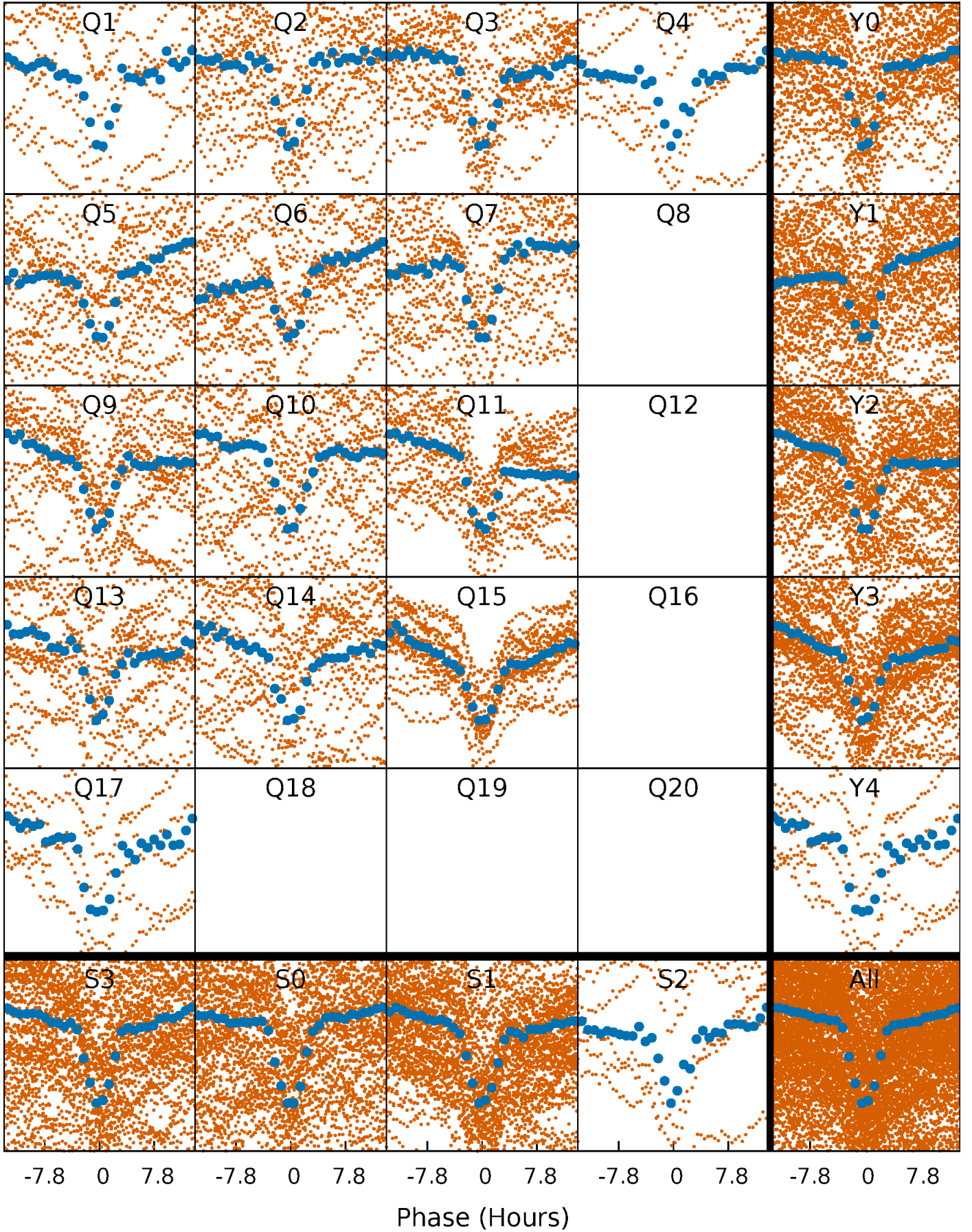


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



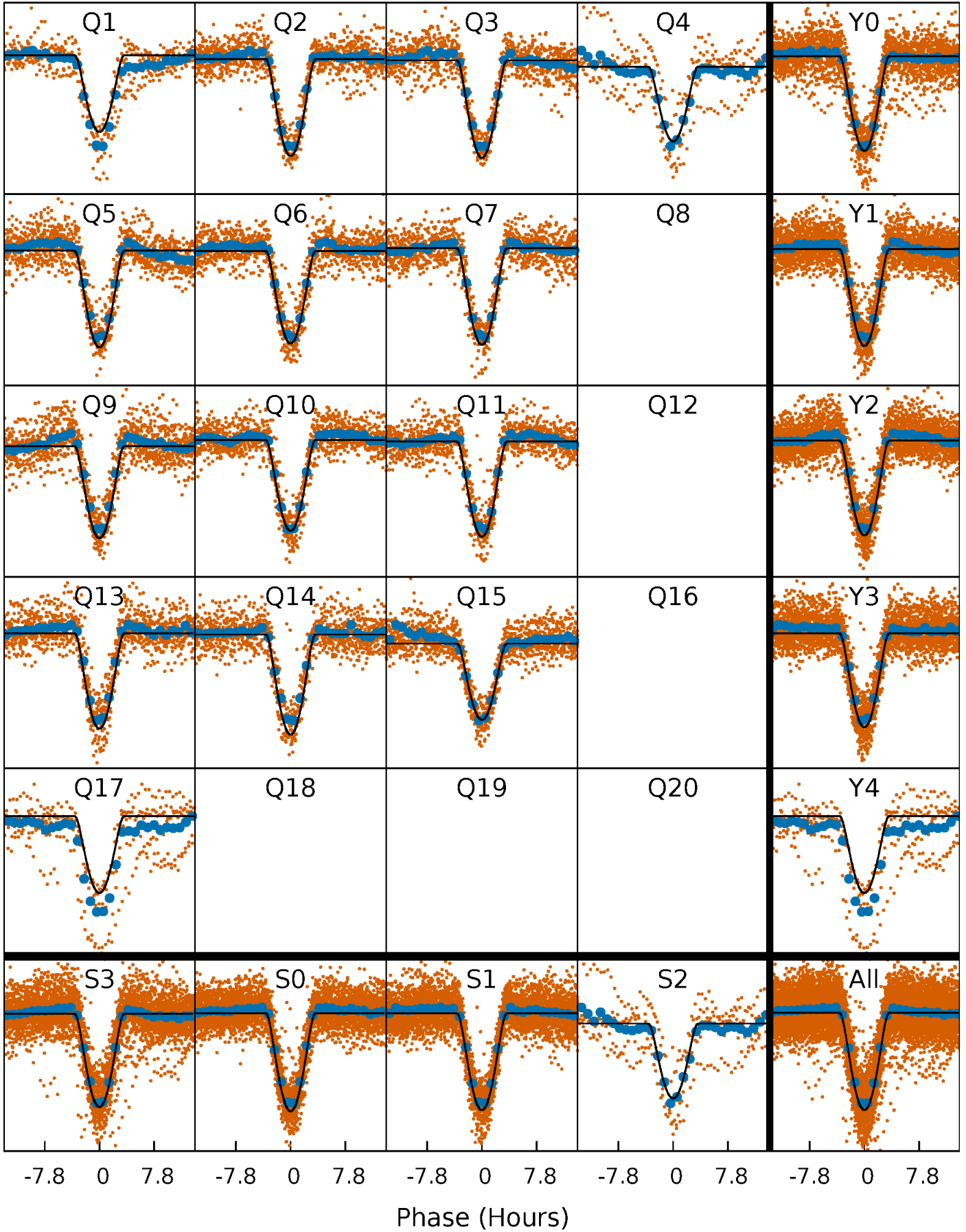
PDC Quarter-Phased Transit Curves

TCE 011231334-01 P= 4.157466 Days $T_0=135.078798$ (BKJD)



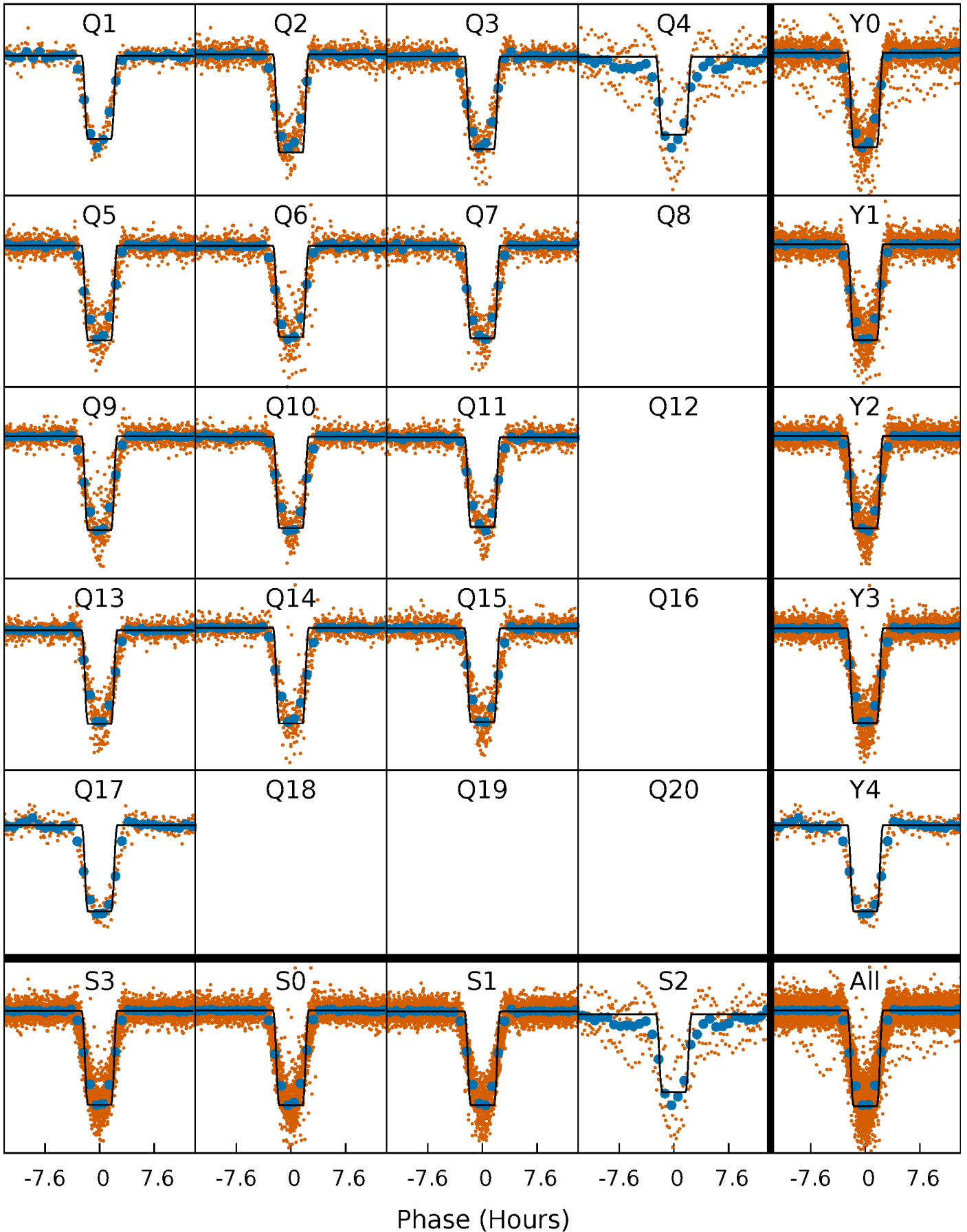
DV Quarter-Phased Transit Curves

TCE 011231334-01 P= 4.157466 Days $T_0=135.078798$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

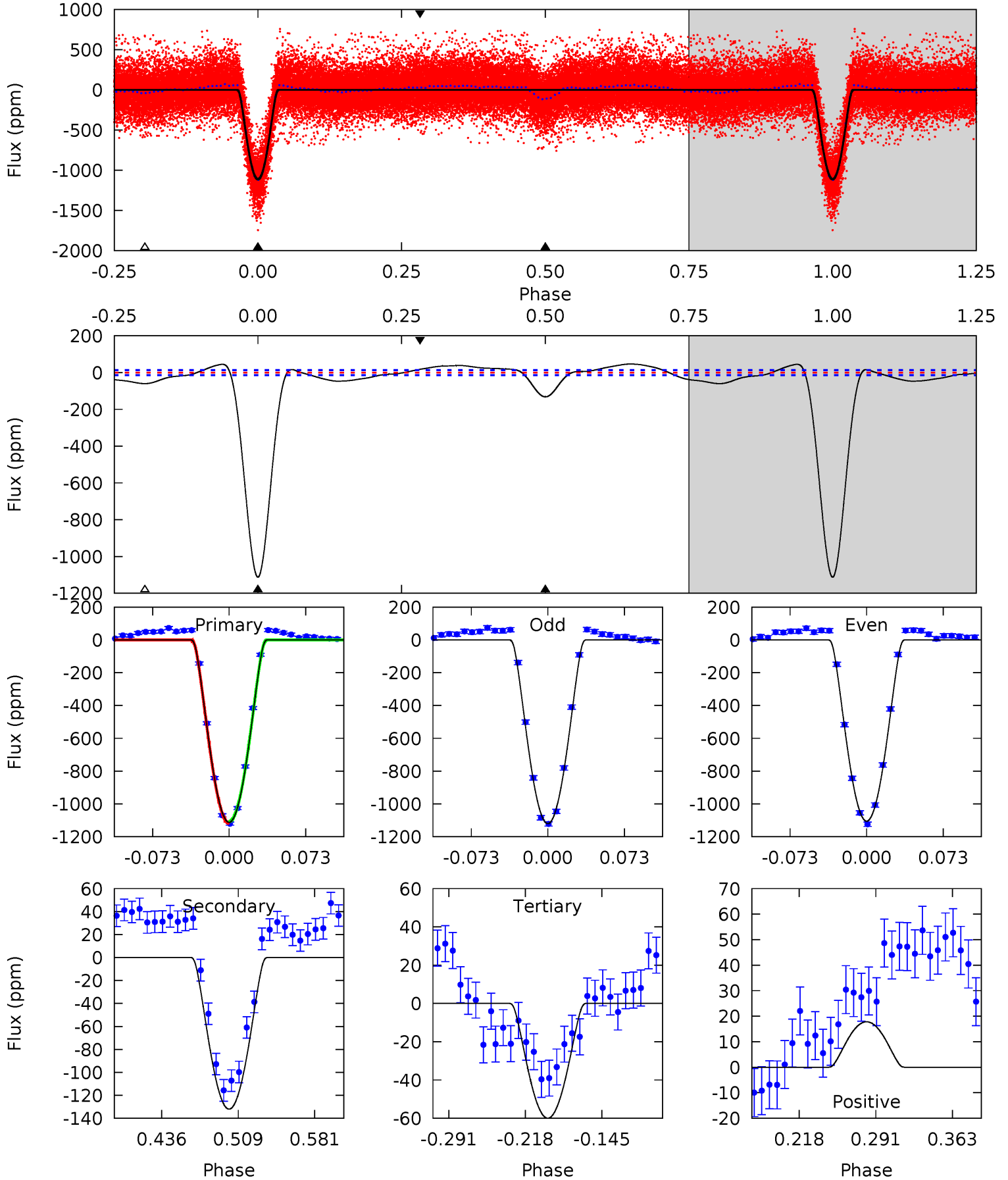
TCE 011231334-01 P= 4.157408 Days $T_0=135.088572$ (BKJD)



DV Model-Shift Uniqueness Test

011231334-01, P = 4.157466 Days, E = 130.921332 Days

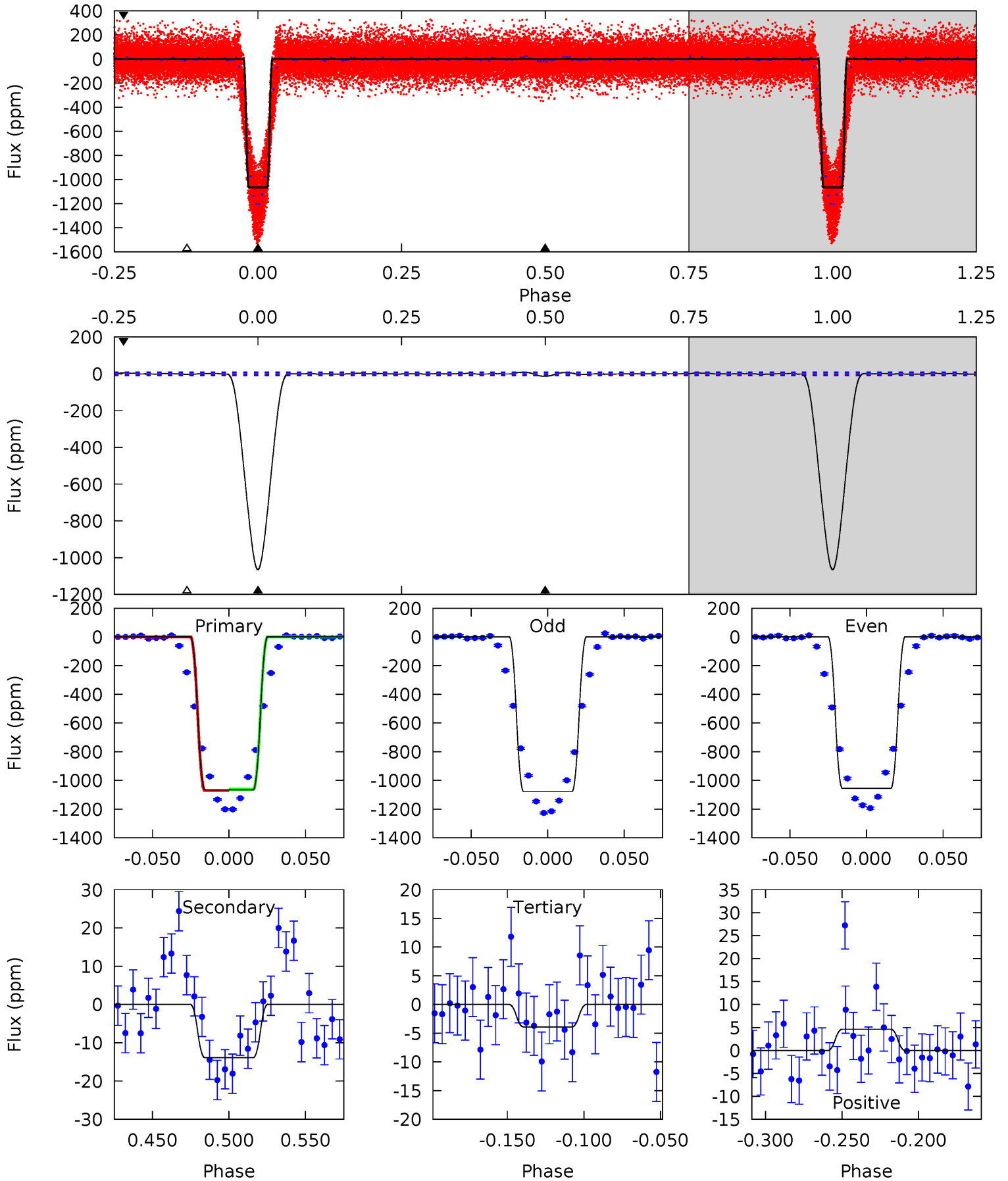
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
373.5	44.3	20.1	5.98	4.63	1.79	10.7	353.3	367.5	24.2	38.3	2.59	1.01	0.04	1.75



Alt Model-Shift Uniqueness Test

011231334-01, P = 4.157408 Days, E = 130.931164 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
624.2	8.14	2.29	2.71	4.71	1.96	0.91	621.9	621.5	5.85	5.43	6.31	0.99	0.01	2.63



Stellar Parameters For KIC 011231334

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6529^{+156}_{-176}	$3.657^{+0.312}_{-0.078}$	$-0.060^{+0.300}_{-0.250}$	$3.131^{+0.468}_{-1.171}$	$1.623^{+0.206}_{-0.335}$	$0.075^{+0.169}_{-0.019}$
	+2%/-3%	+9%/-2%	+500%/-417%	+15%/-37%	+13%/-21%	+226%/-26%
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 011231334-01 / KOI 0258.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-132 ± 3	$19.37^{+3.22}_{-3.91}$	2860^{+158}_{-252}	3125^{+191}_{-204}	$0.692^{+0.372}_{-0.172}$
Alt.	-14 ± 2	$11.15^{+2.63}_{-2.80}$	2855^{+163}_{-240}	-2540^{+4962}_{-252}	$0.216^{+0.156}_{-0.073}$

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 $A_{obs} \gg 1.0$

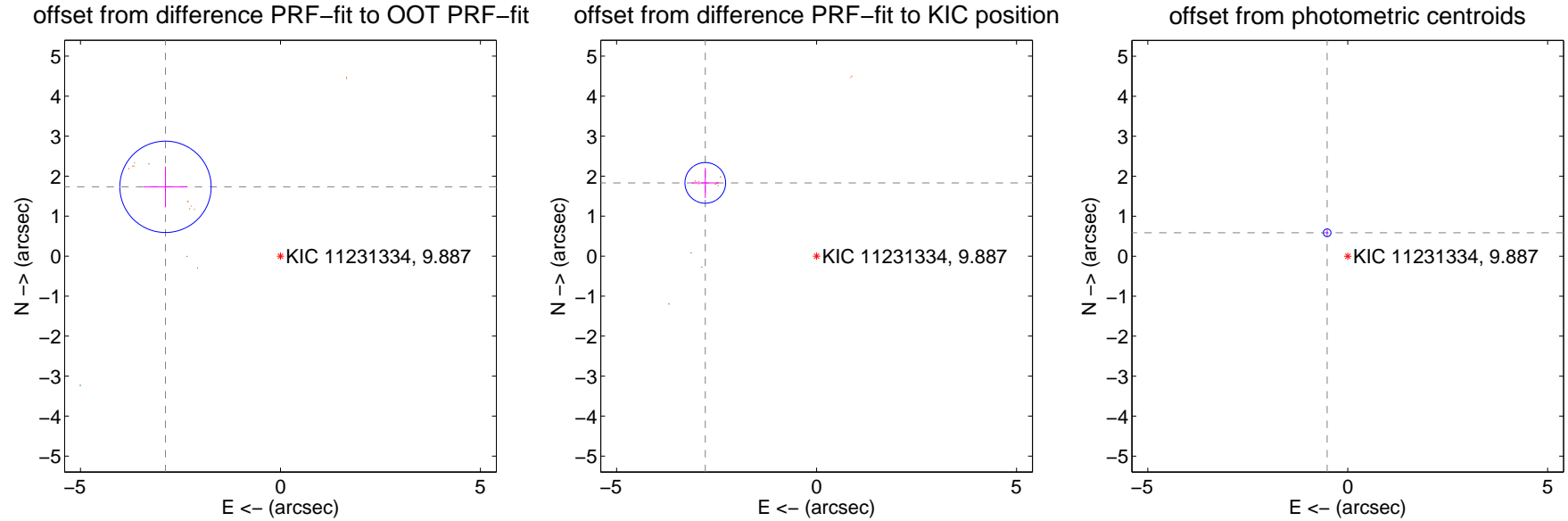
DV Centroid Data

Supplemental centroid analysis for 011231334-01. **Kepler magnitude: 9.89.** Transit SNR 145.79

There are 1 quarters with good PRF difference image offsets

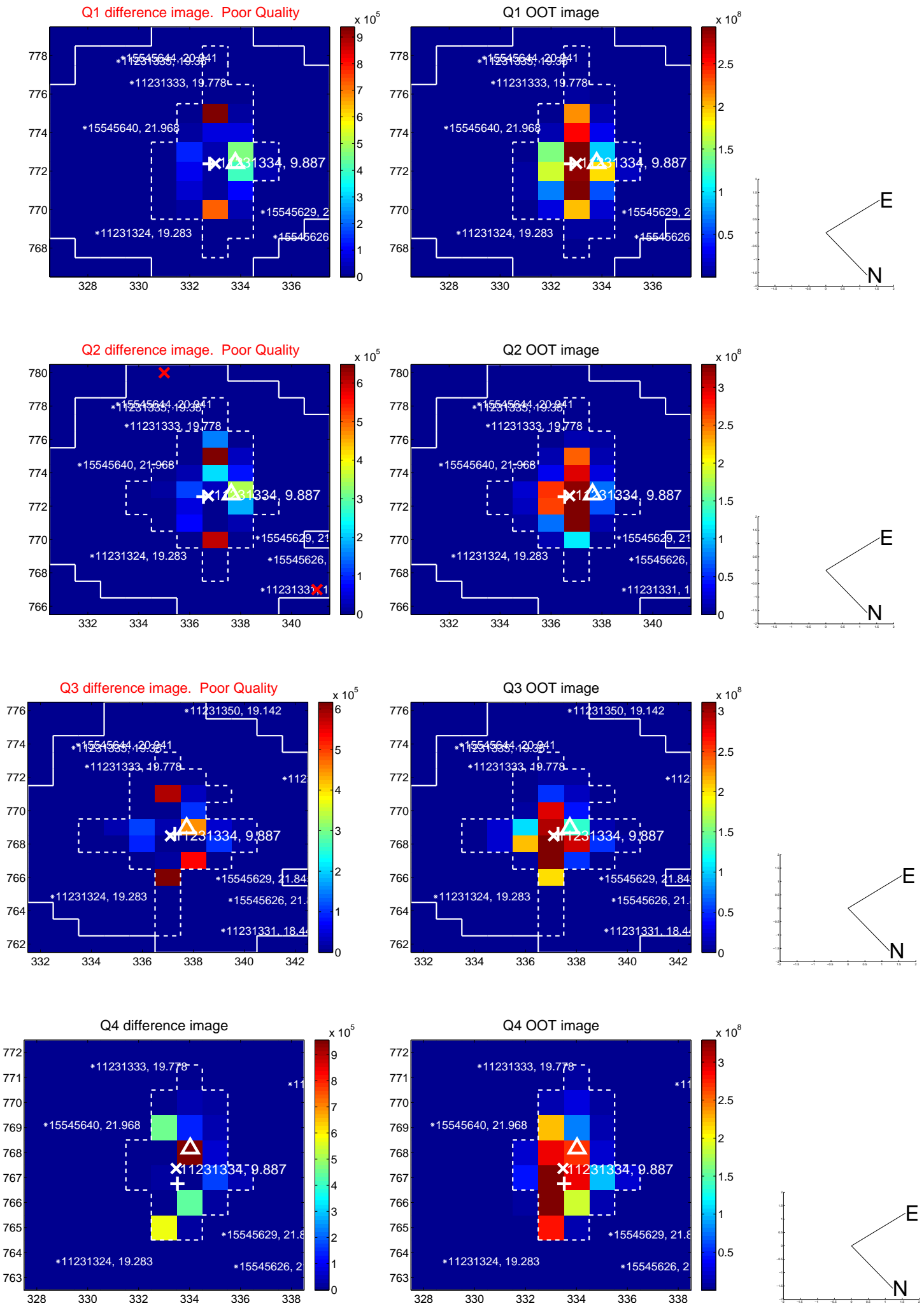
The direct PRF centroid is offset from the target star catalog position by about 0.62 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.356 ± 0.381	8.82	2.874 ± 0.550	1.733 ± 0.507
PRF-fit source offset from KIC position	3.331 ± 0.170	19.65	2.783 ± 0.341	1.831 ± 0.376
photometric centroid source offset	0.78 ± 0.03	24.34	0.51 ± 0.03	0.59 ± 0.03

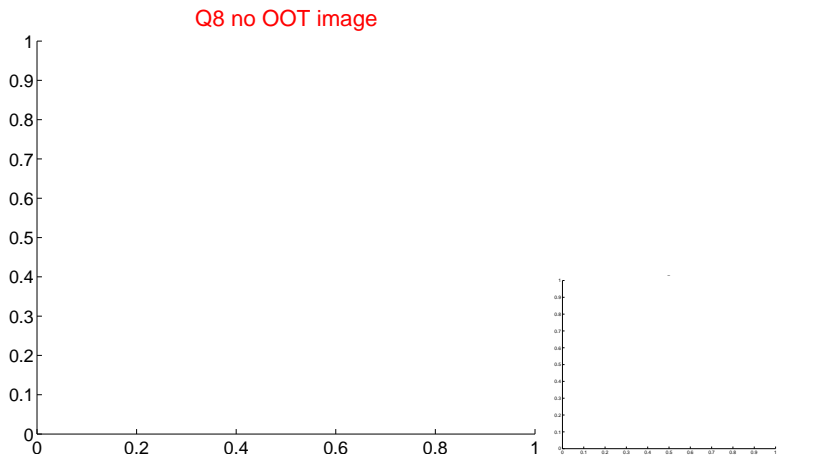
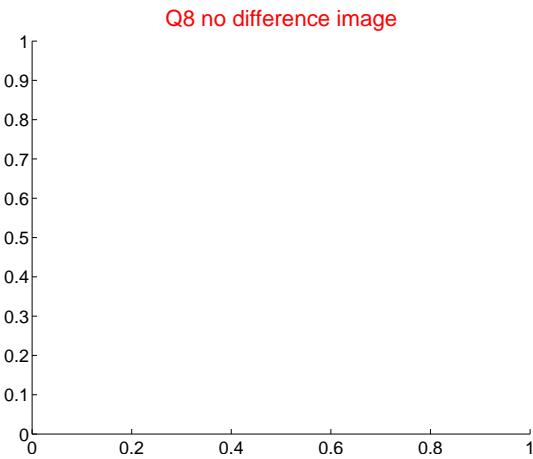
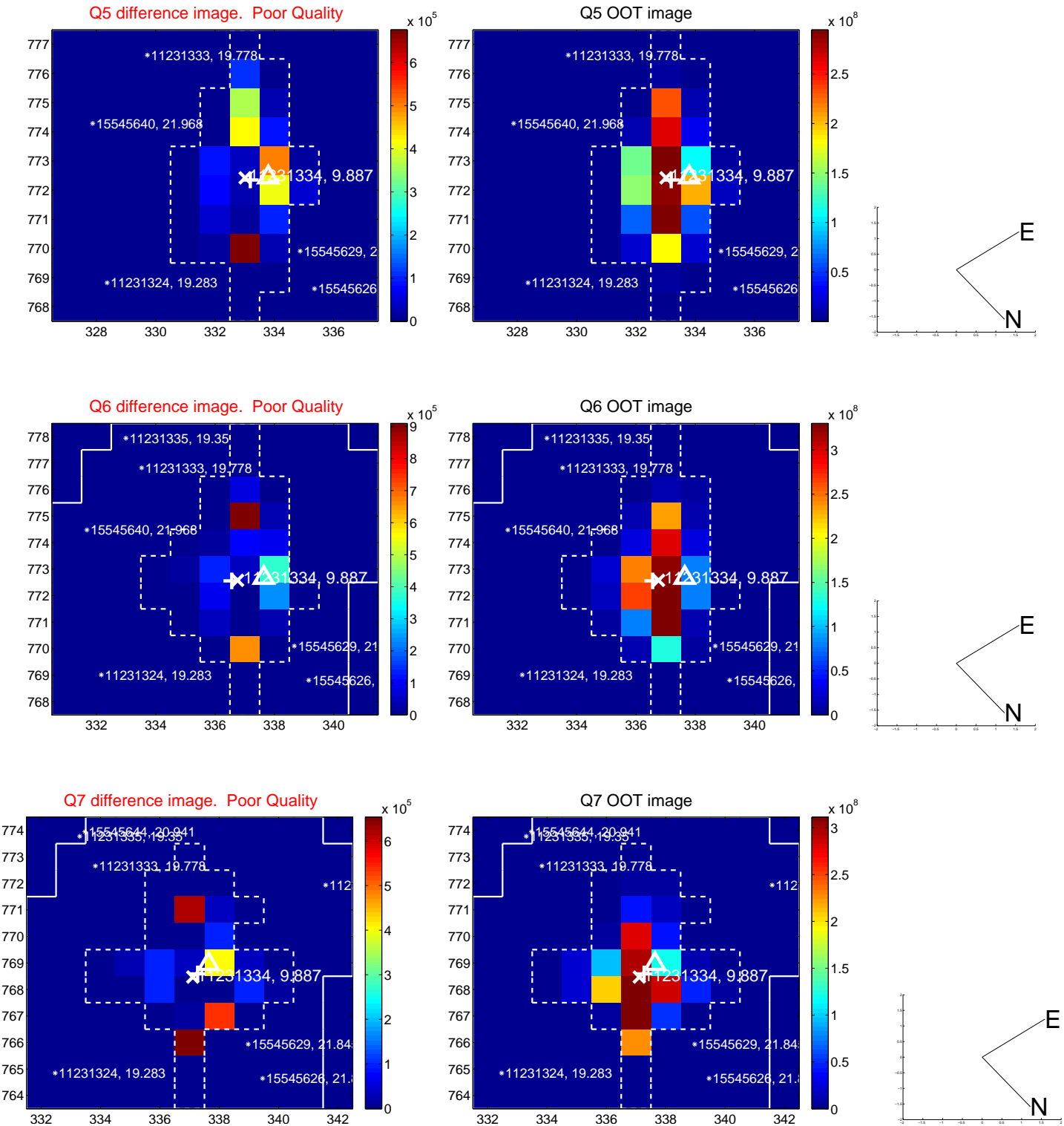


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

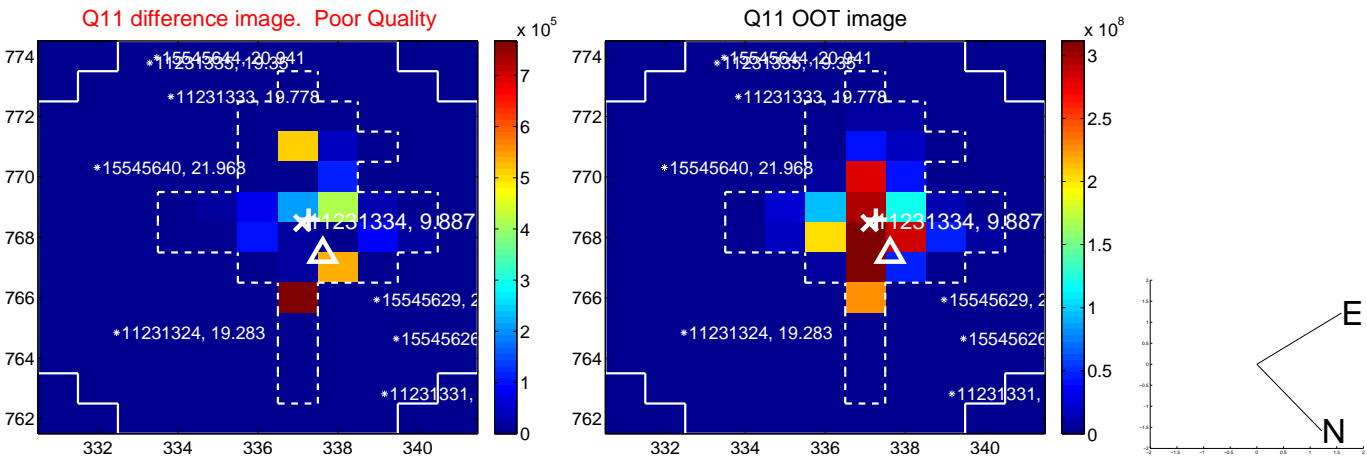
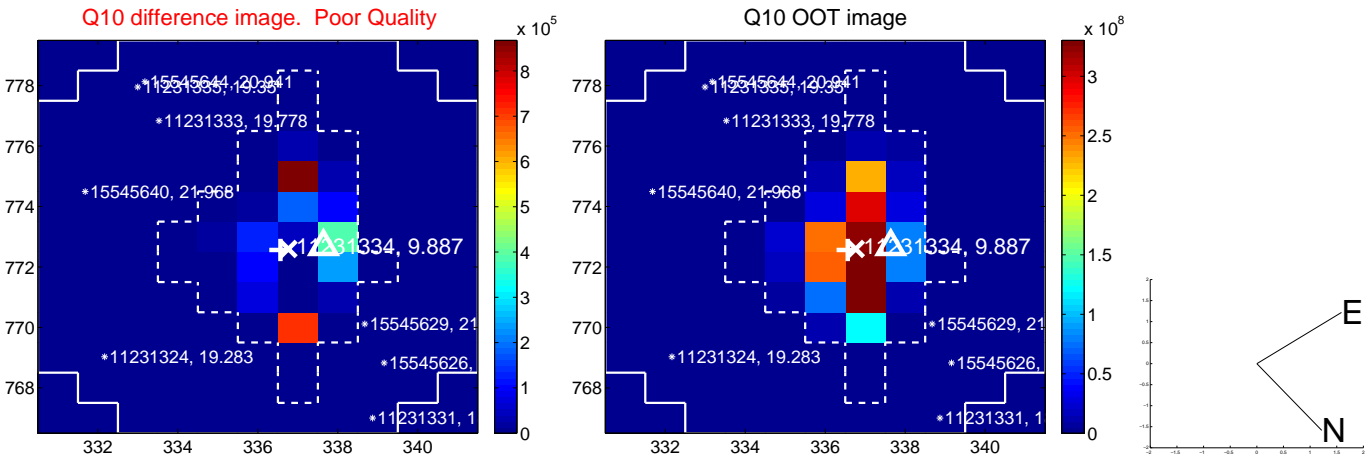
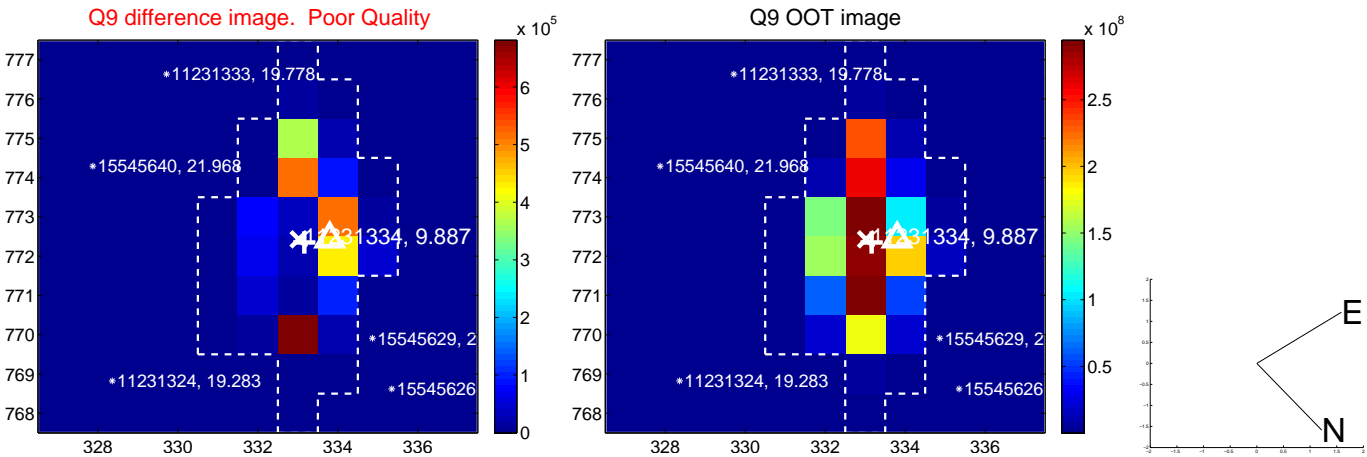
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



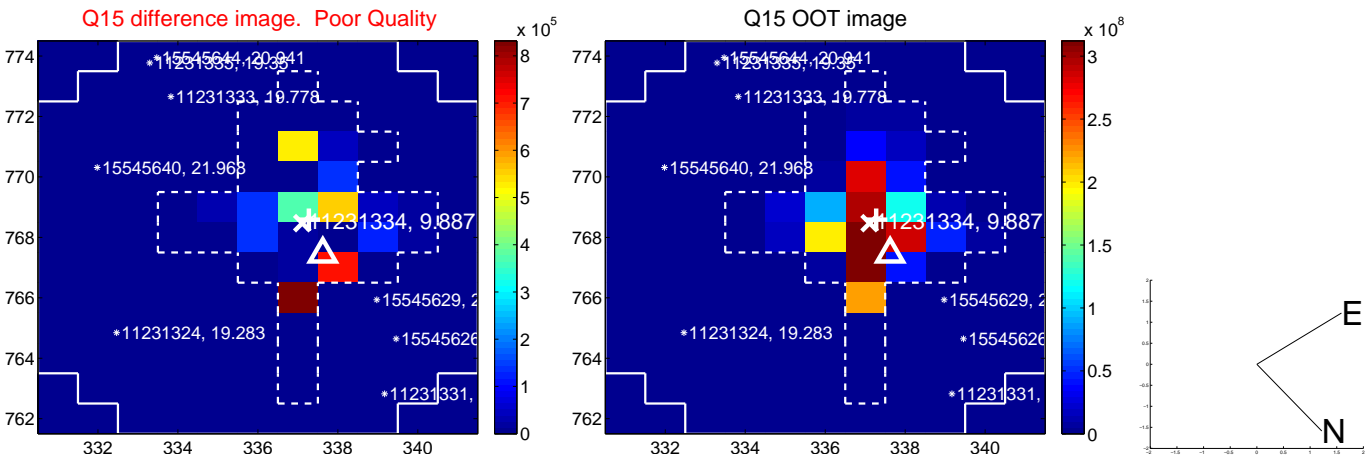
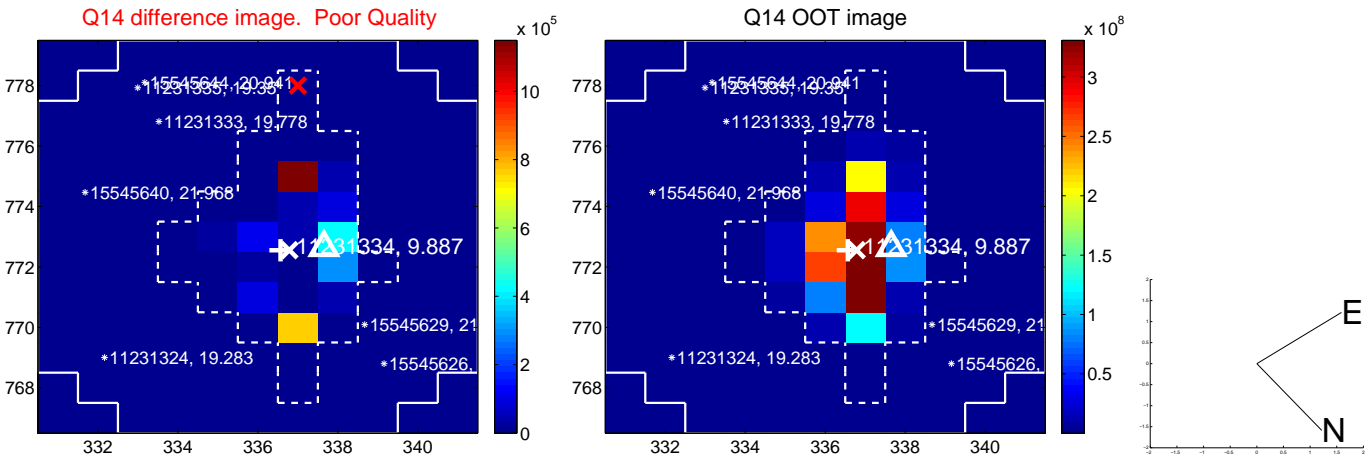
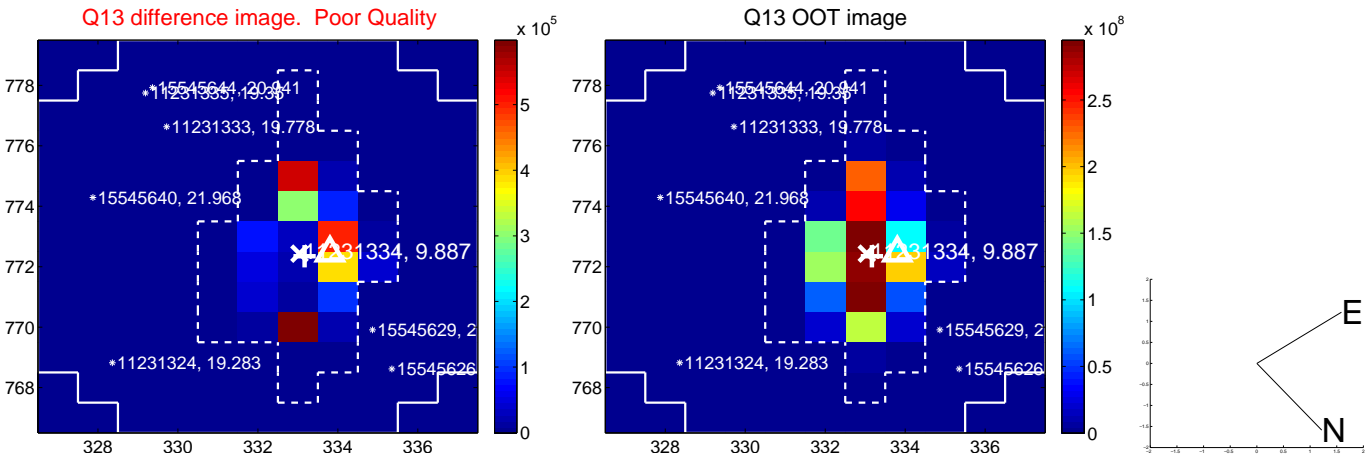
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



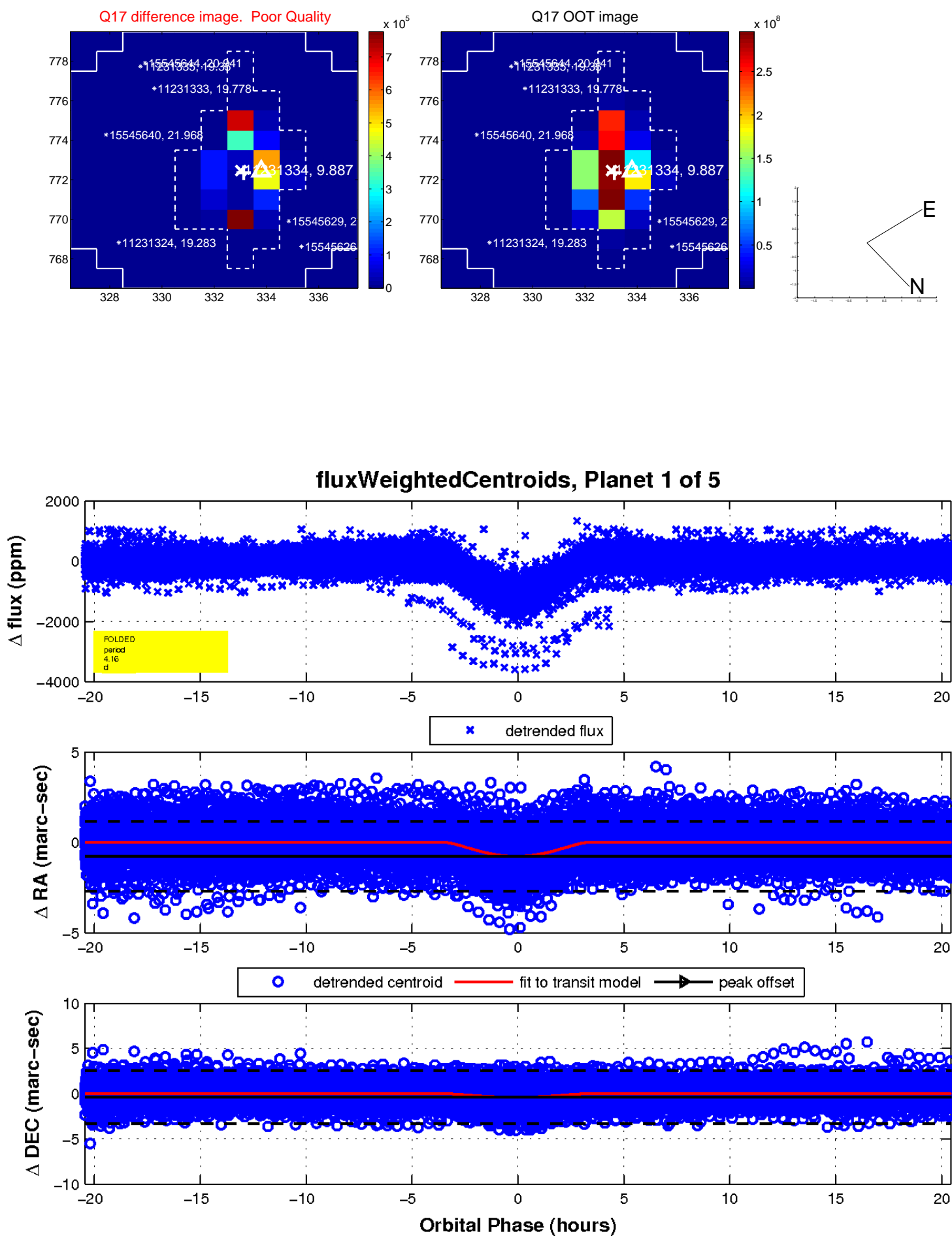
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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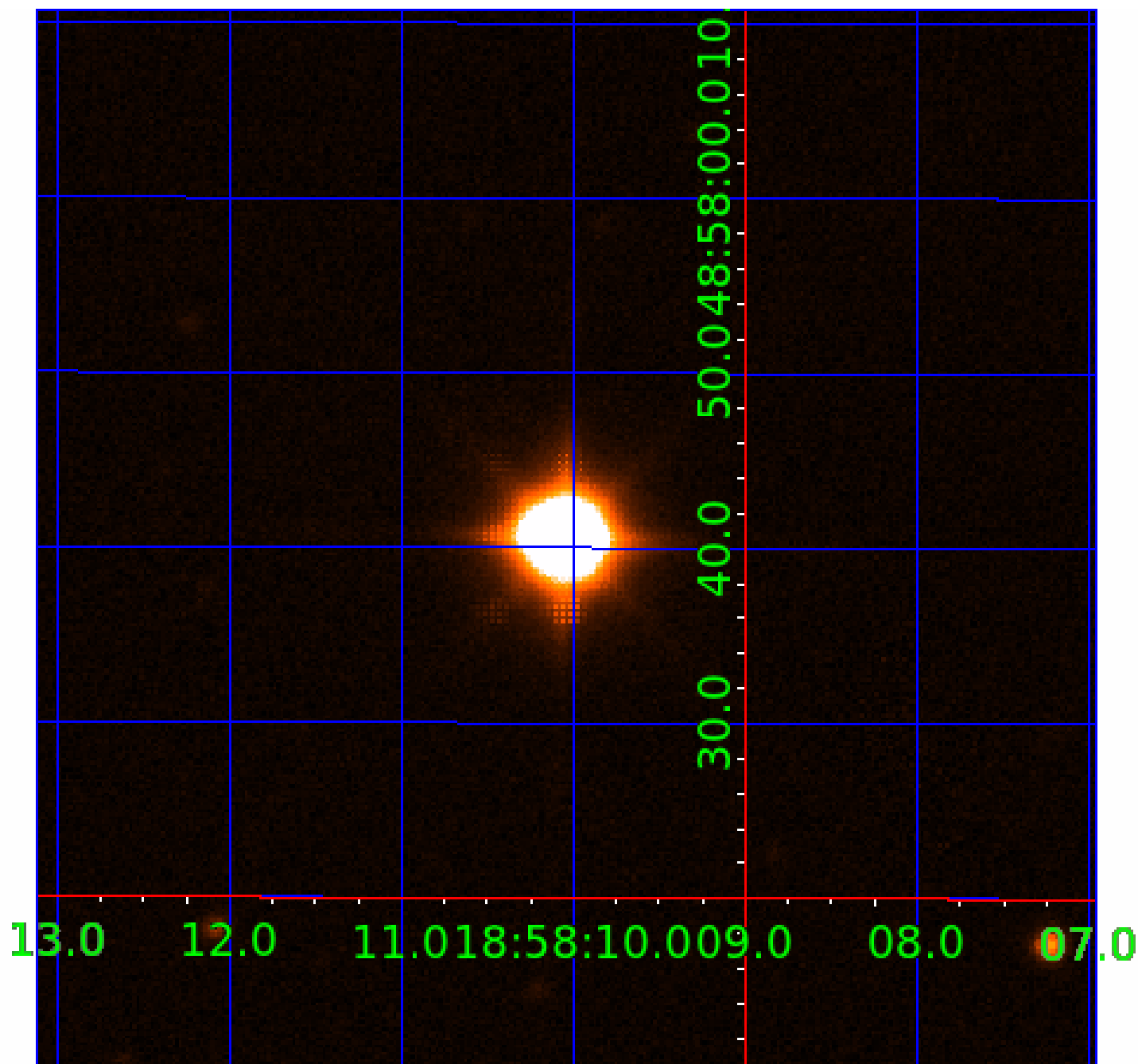


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011231334

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})
011231334-01	OBS	0258.01	4.157466	135.078798	1177.6	6.814	129.2	145.8	3.13	6529	20.18	4511.26
011231334-02	OBS	No	4.157404	133.008611	146.8	6.931	18.6	20.8	3.13	6529	6.09	4511.35
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011231334-04	OBS	No	266.547707	277.188533	323.0	2.264	9.7	6.8	3.13	6529	6.09	17.58
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011231334-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_SATURATED
011231334-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_SATURATED
011231334-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED
011231334-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
011231334-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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 011231334-02

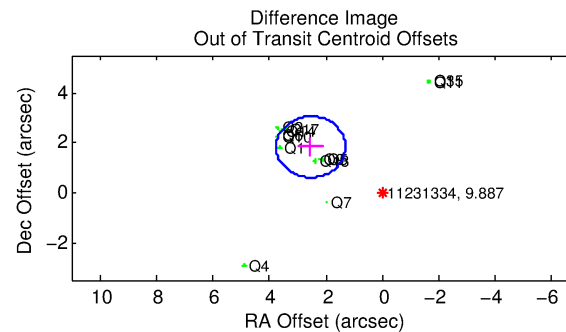
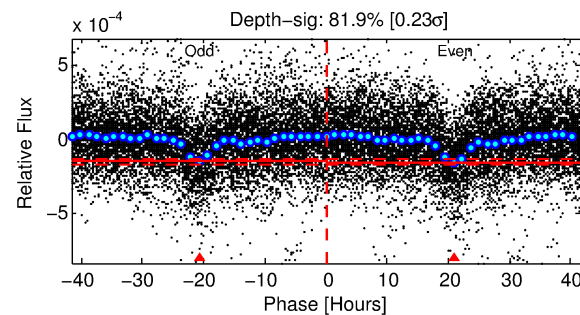
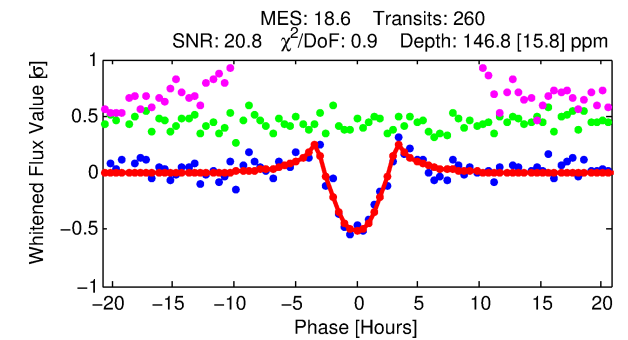
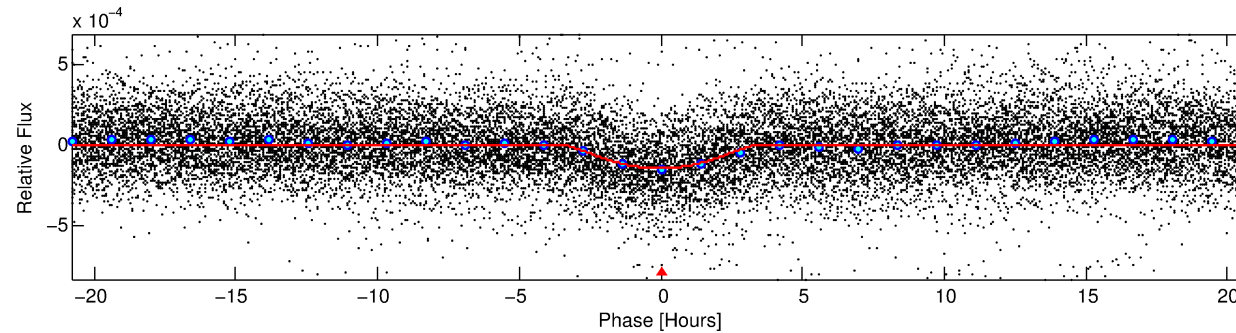
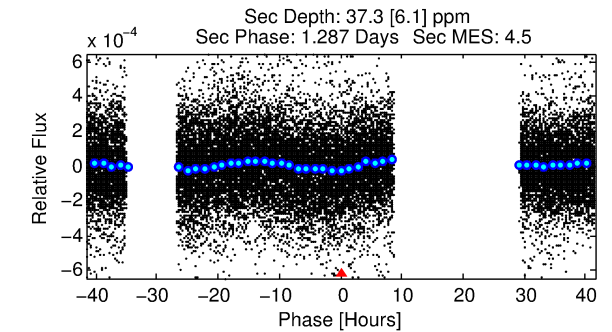
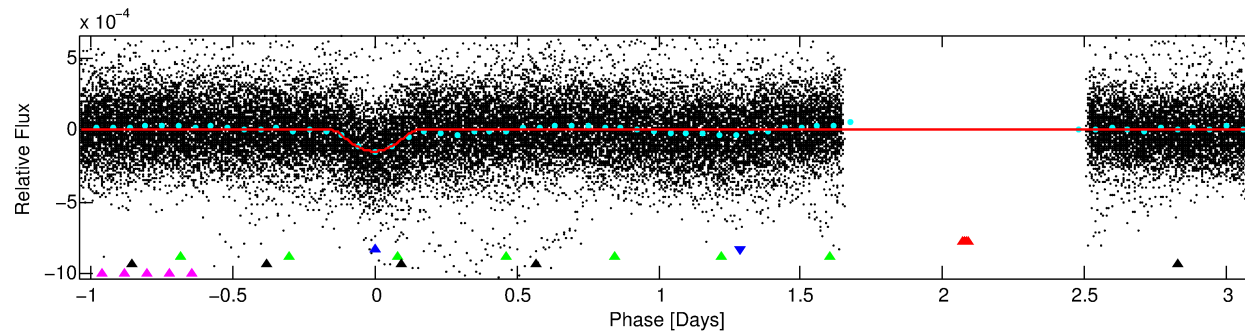
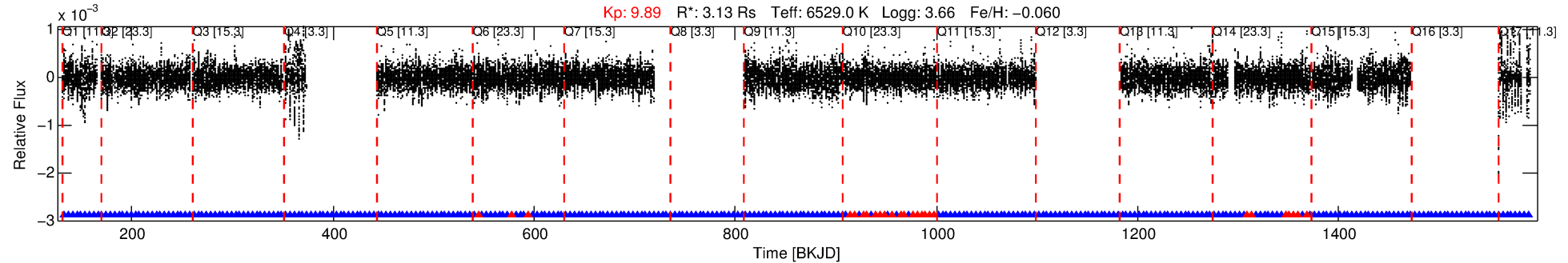
No Significant Match Found

DV One-Page Summary

KIC: 11231334 Candidate: 2 of 5 Period: 4.157 d

KOI: K00258 Corr: No Ephemeris Match

Kp: 9.89 R*: 3.13 Rs Teff: 6529.0 K Logg: 3.66 Fe/H: -0.060



DV Fit Results:

Period = 4.15740 [0.00003] d
Epoch = 133.0086 [0.0047] BKJD
Rp/R* = 0.0178 [0.0053]
a/R* = 1.44 [0.08]
b = 0.99 [0.01]
Seff = 4511.35 [2484.01]
Teq = 2090 [288] K
Rp = 6.09 [2.91] Re
a = 0.0595 [0.0206] AU
Ag = 1.96 [1.61] [0.60σ]
Teffp = 3822 [599] K [2.61σ]

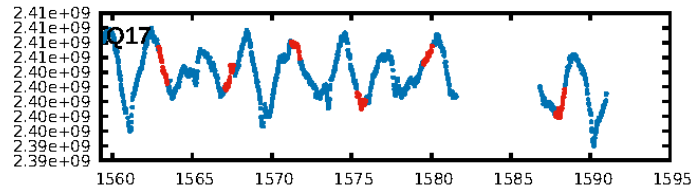
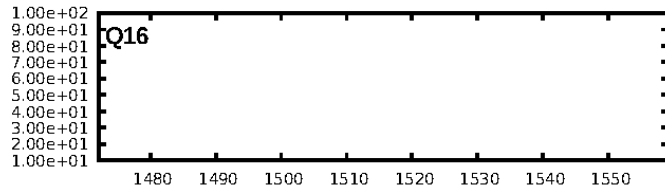
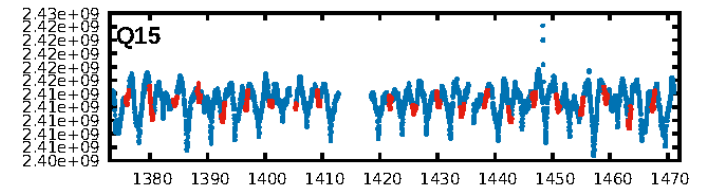
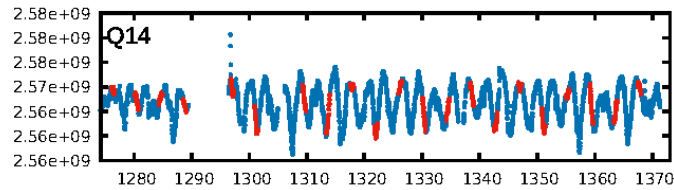
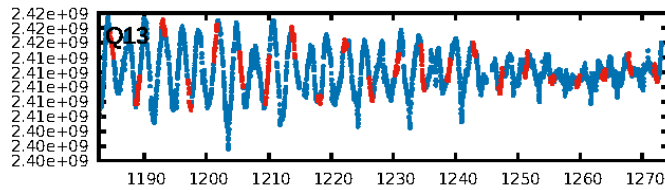
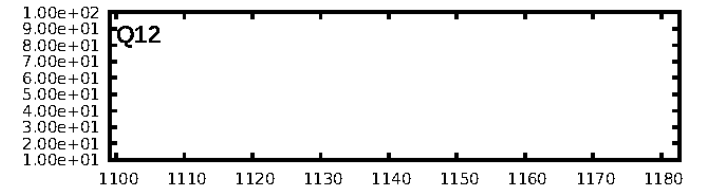
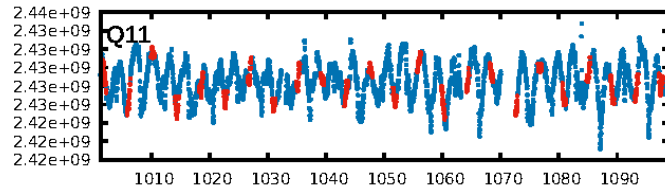
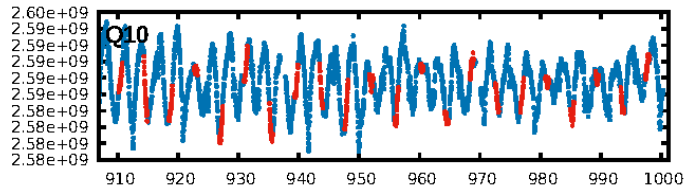
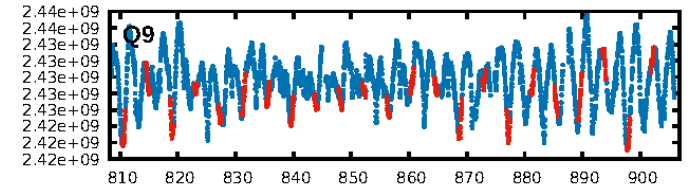
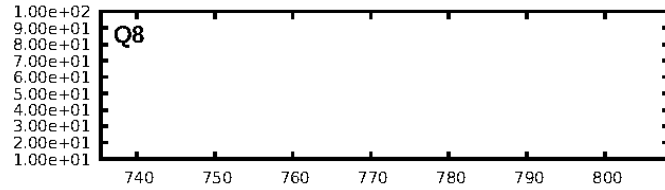
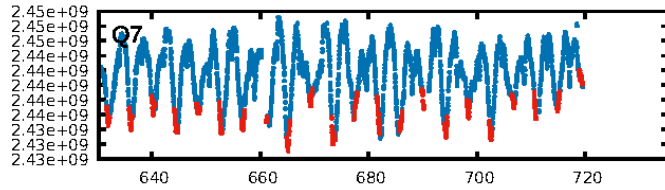
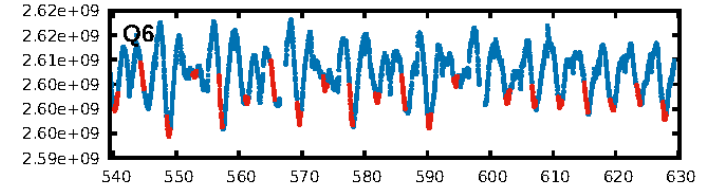
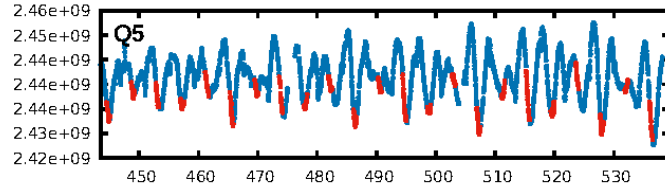
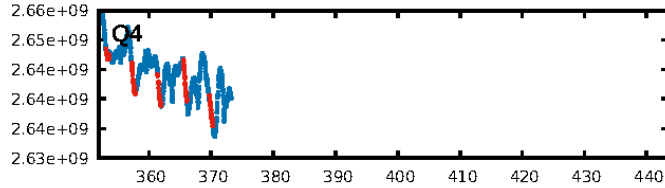
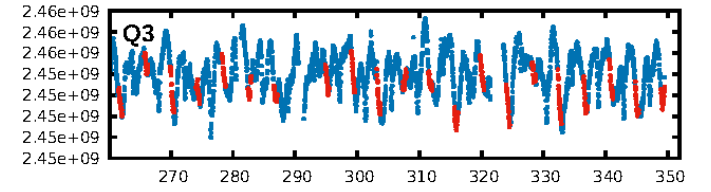
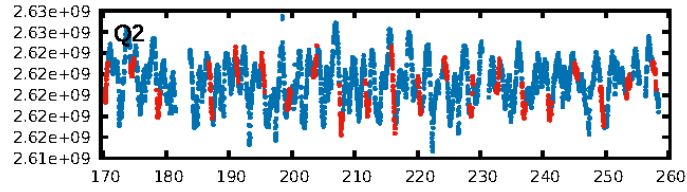
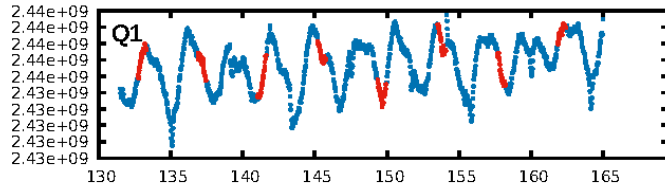
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.82e-50
RollingBand-fgt: 0.89 [215/241]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.2%
Centroid-so: 0.916 arcsec [3.66σ]
OotOffset-rm: 3.129 arcsec [7.68σ]
KicOffset-rm: 3.379 arcsec [18.17σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 0.21 [3/14]
DiffImageOverlap-fno: 1.00 [14/14]

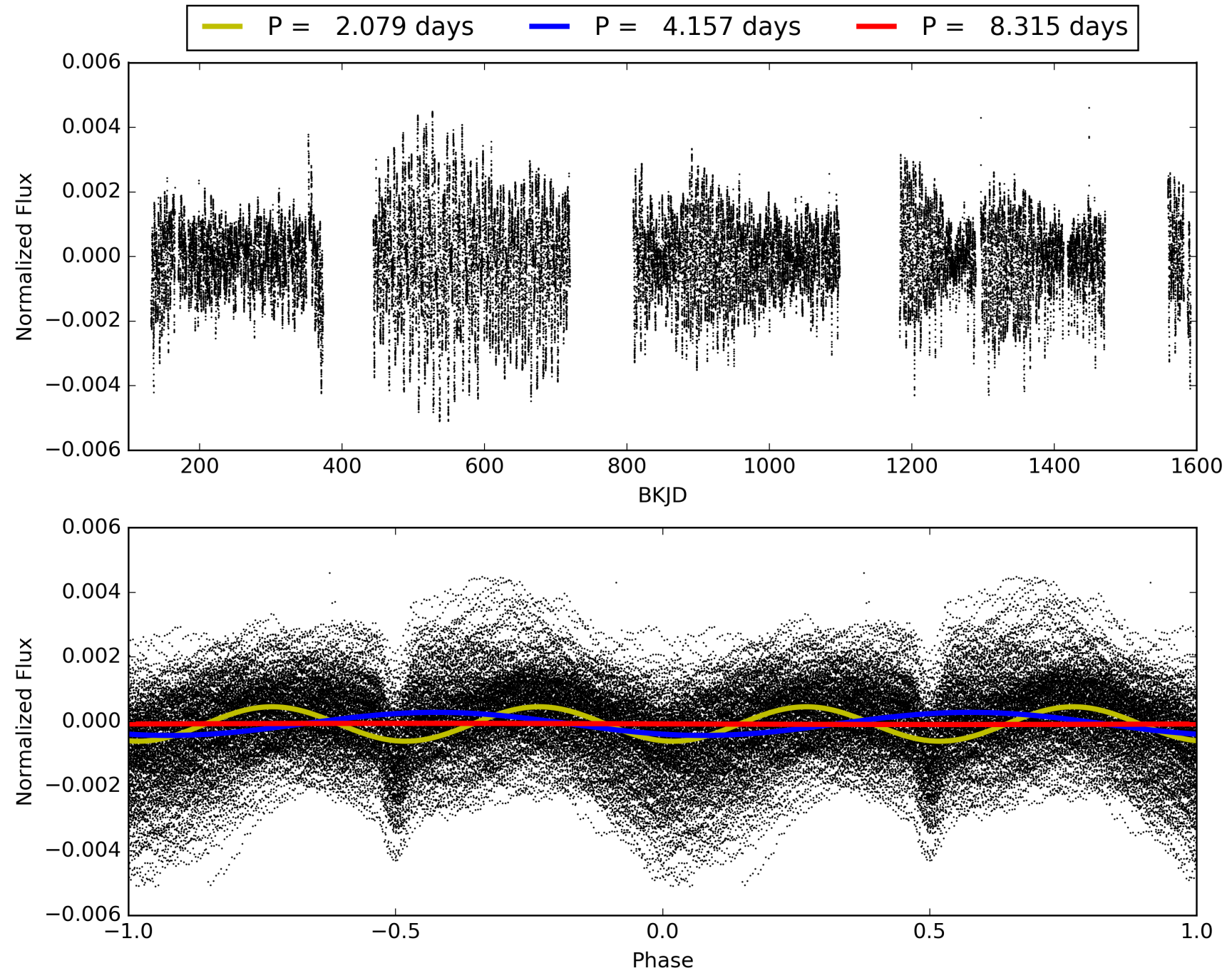
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:29:00 Z

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

TCE 011231334-02, PDC Light Curves

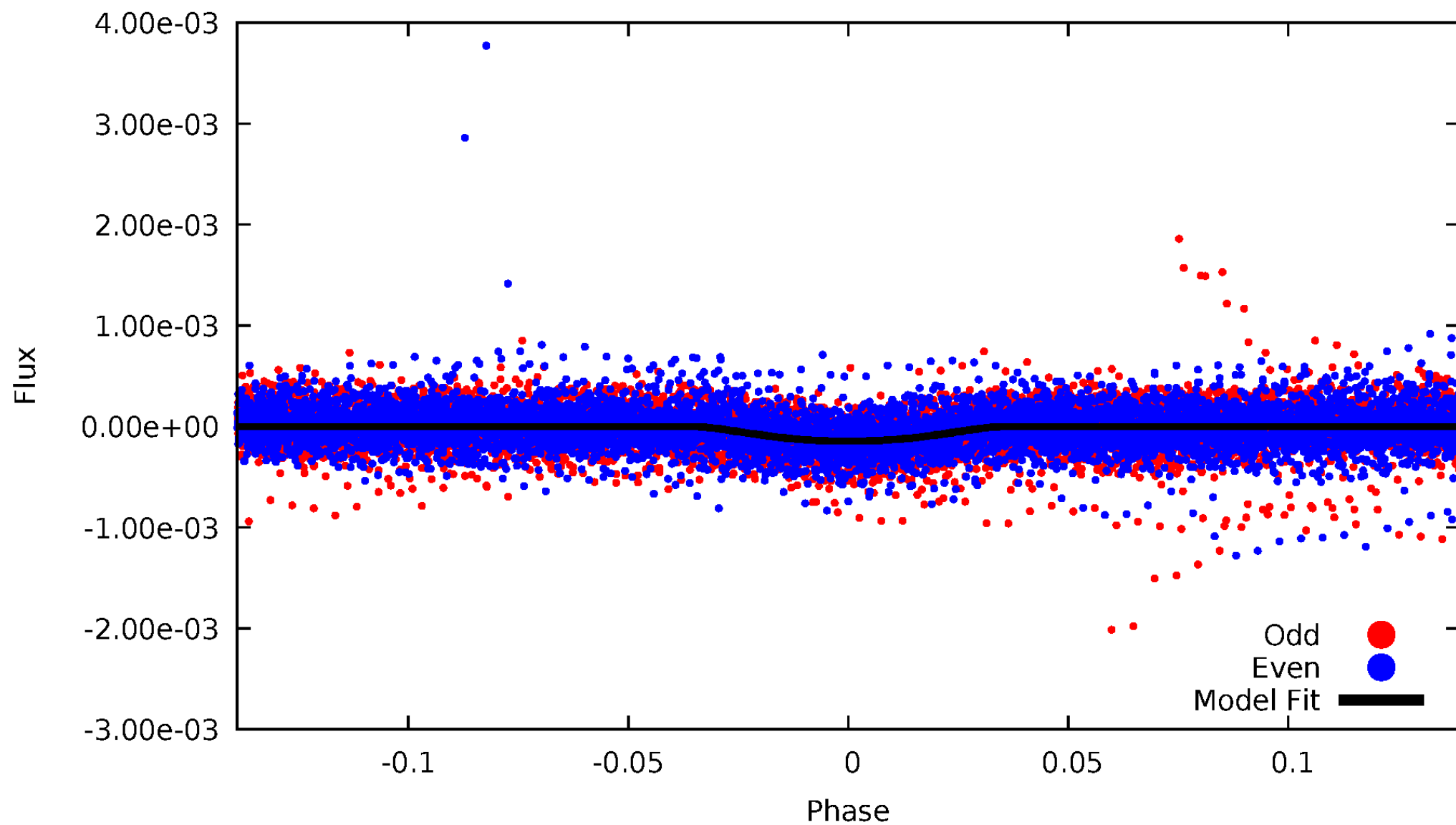


TCE 011231334-02



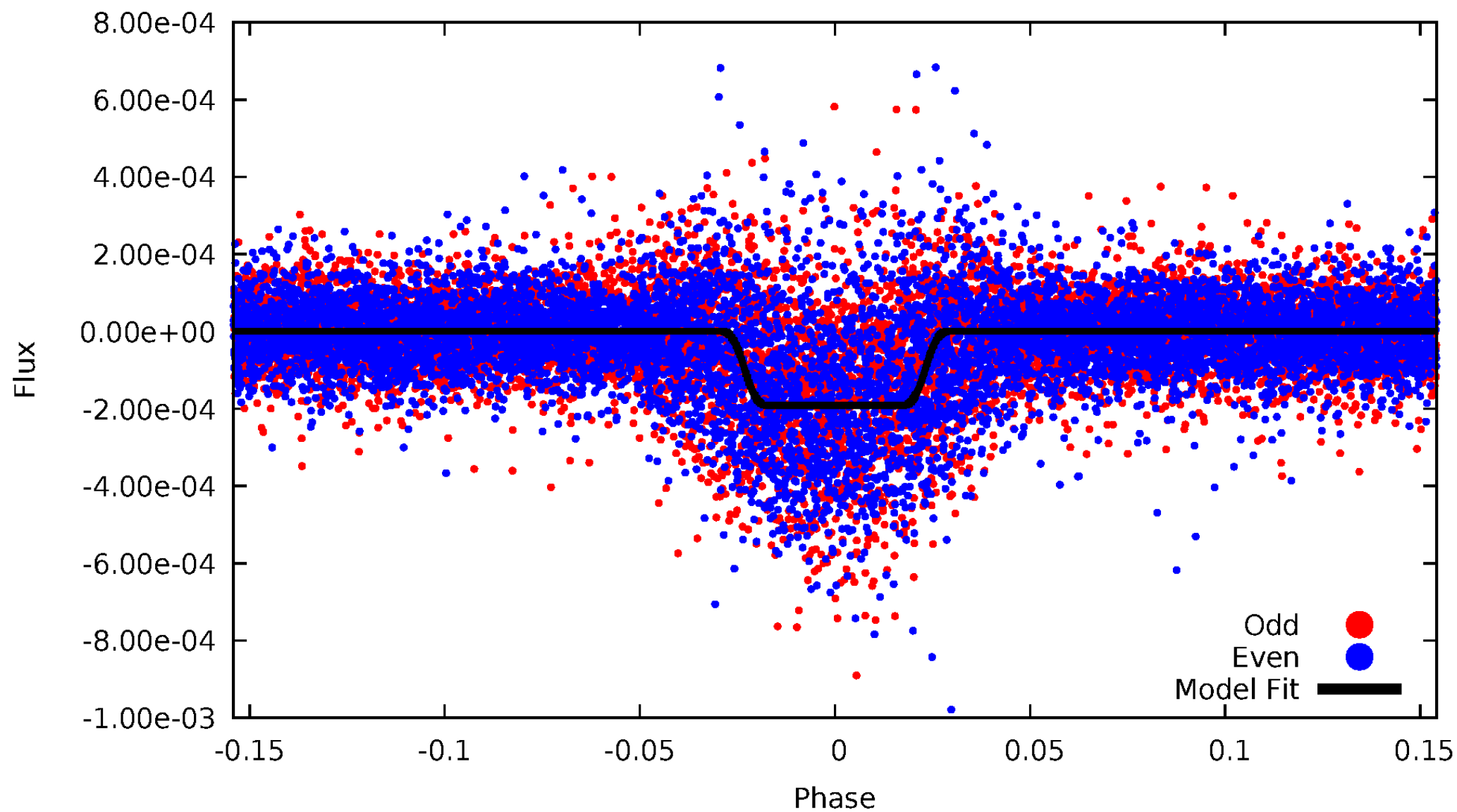
DV Odd/Even

TCE 011231334-02



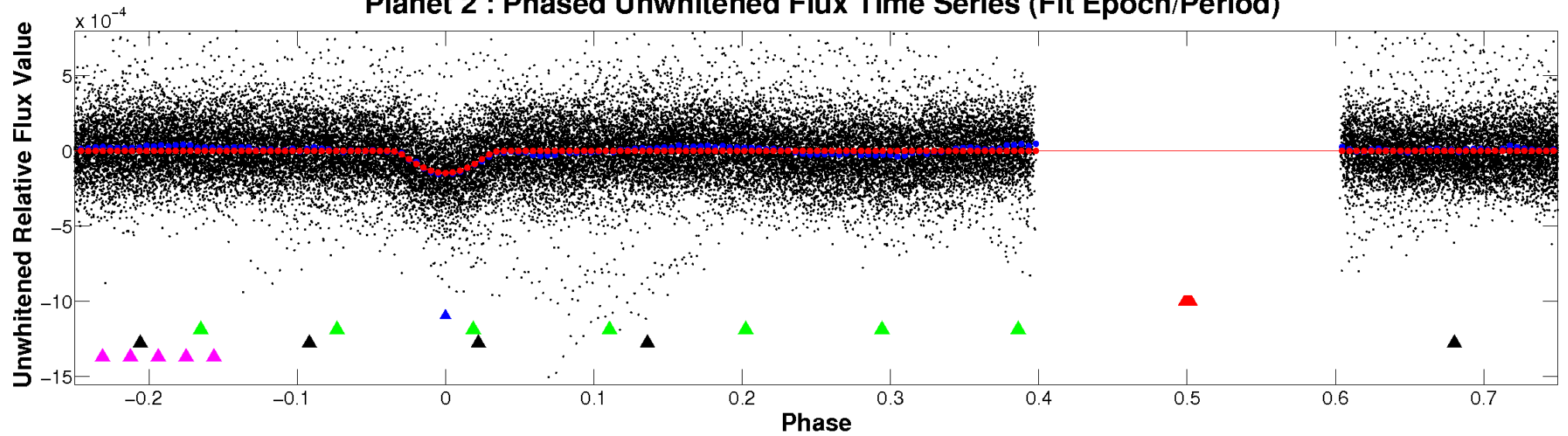
ALT Odd/Even

TCE 011231334-02

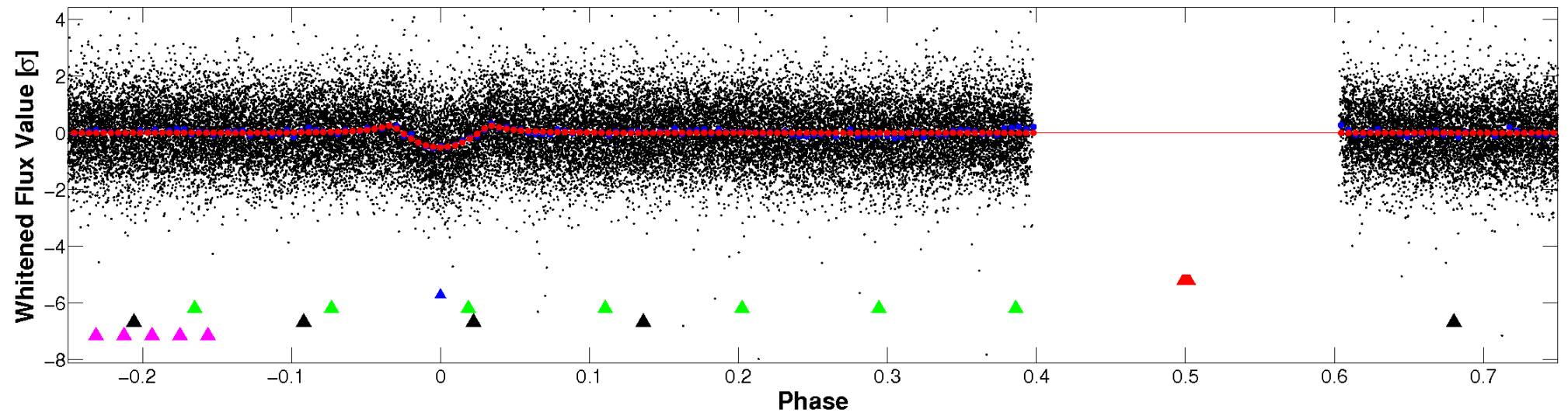


Non-Whitened Vs. Whitened Light Curve

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

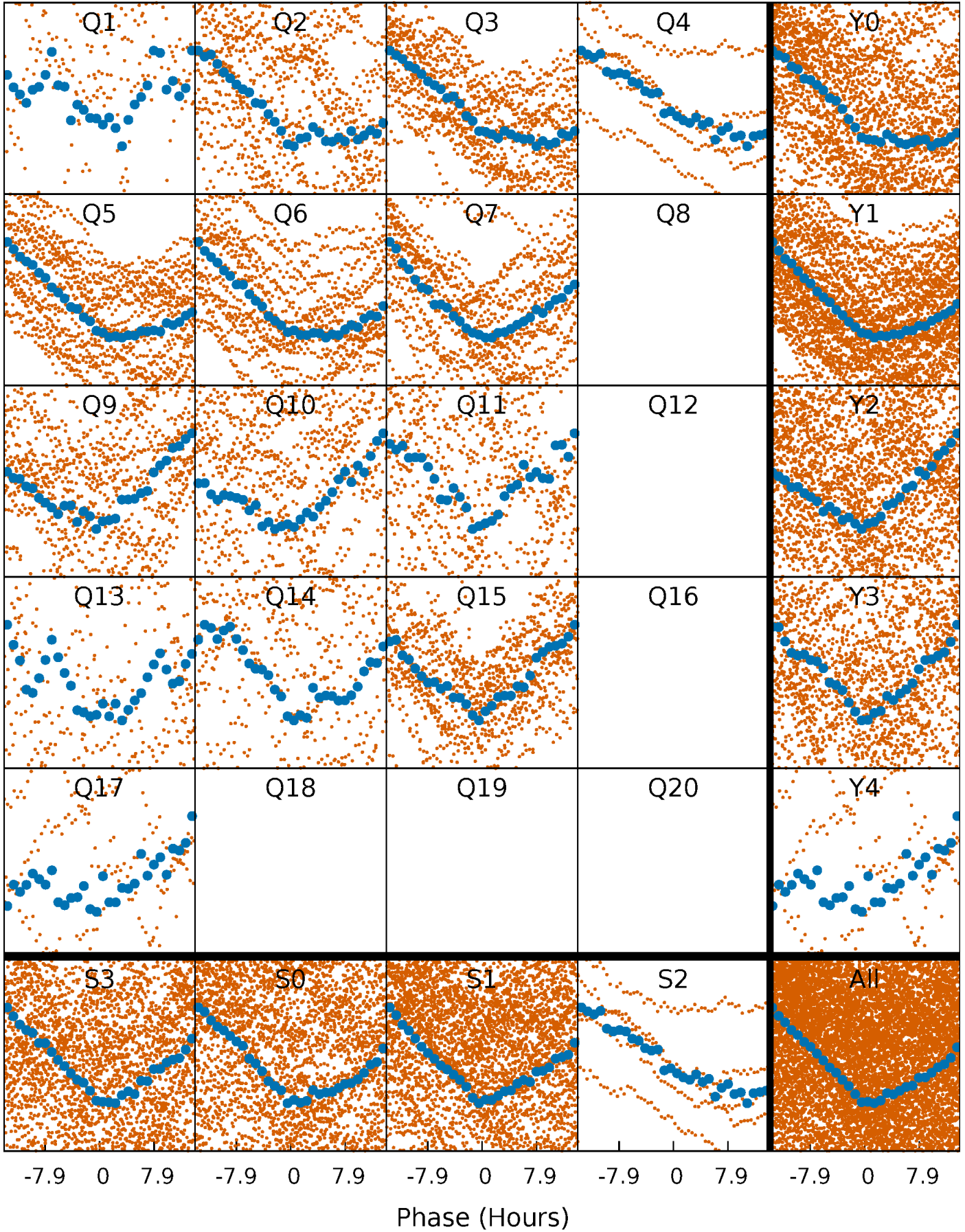


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



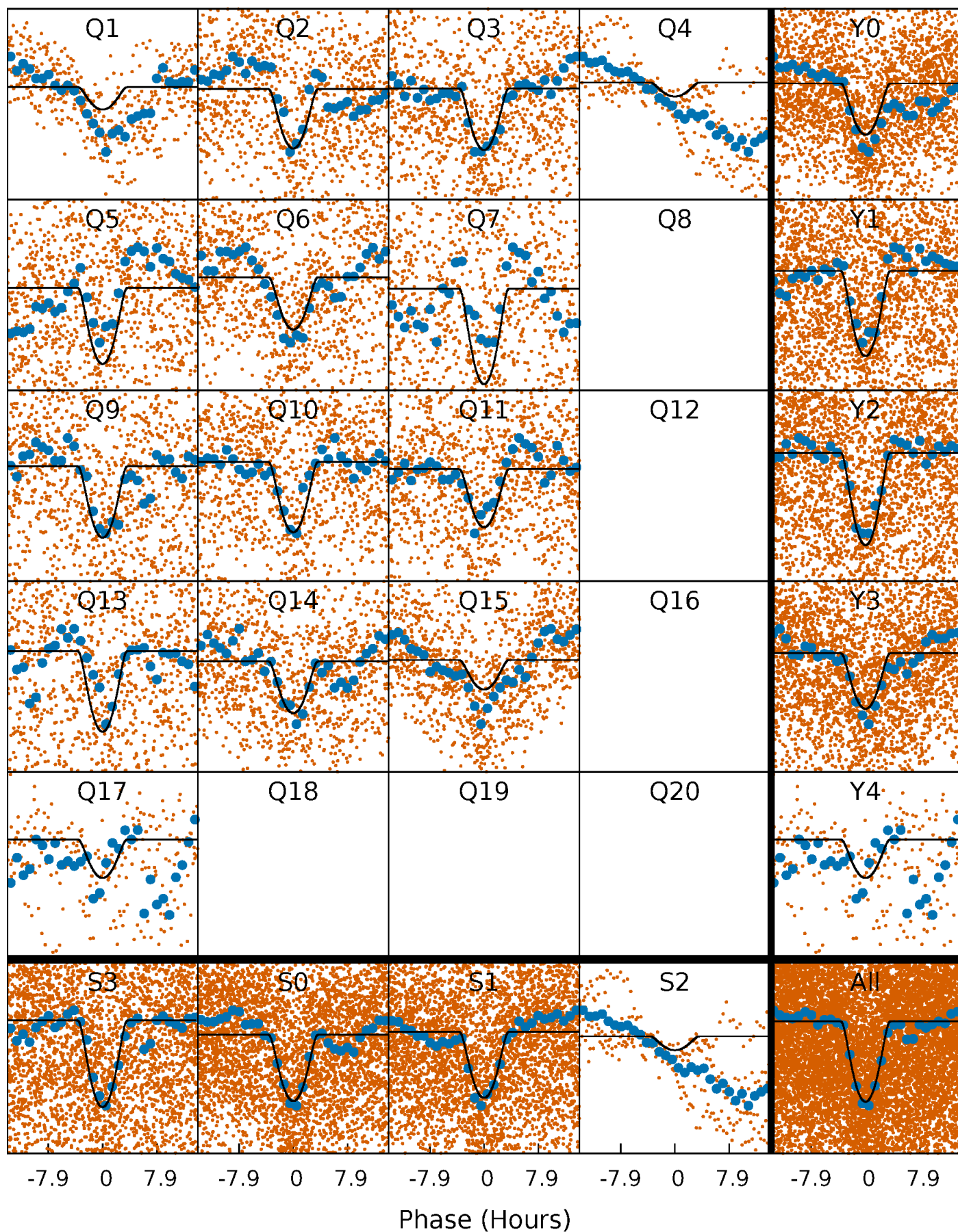
PDC Quarter-Phased Transit Curves

TCE 011231334-02 P= 4.157404 Days $T_0=133.008611$ (BKJD)



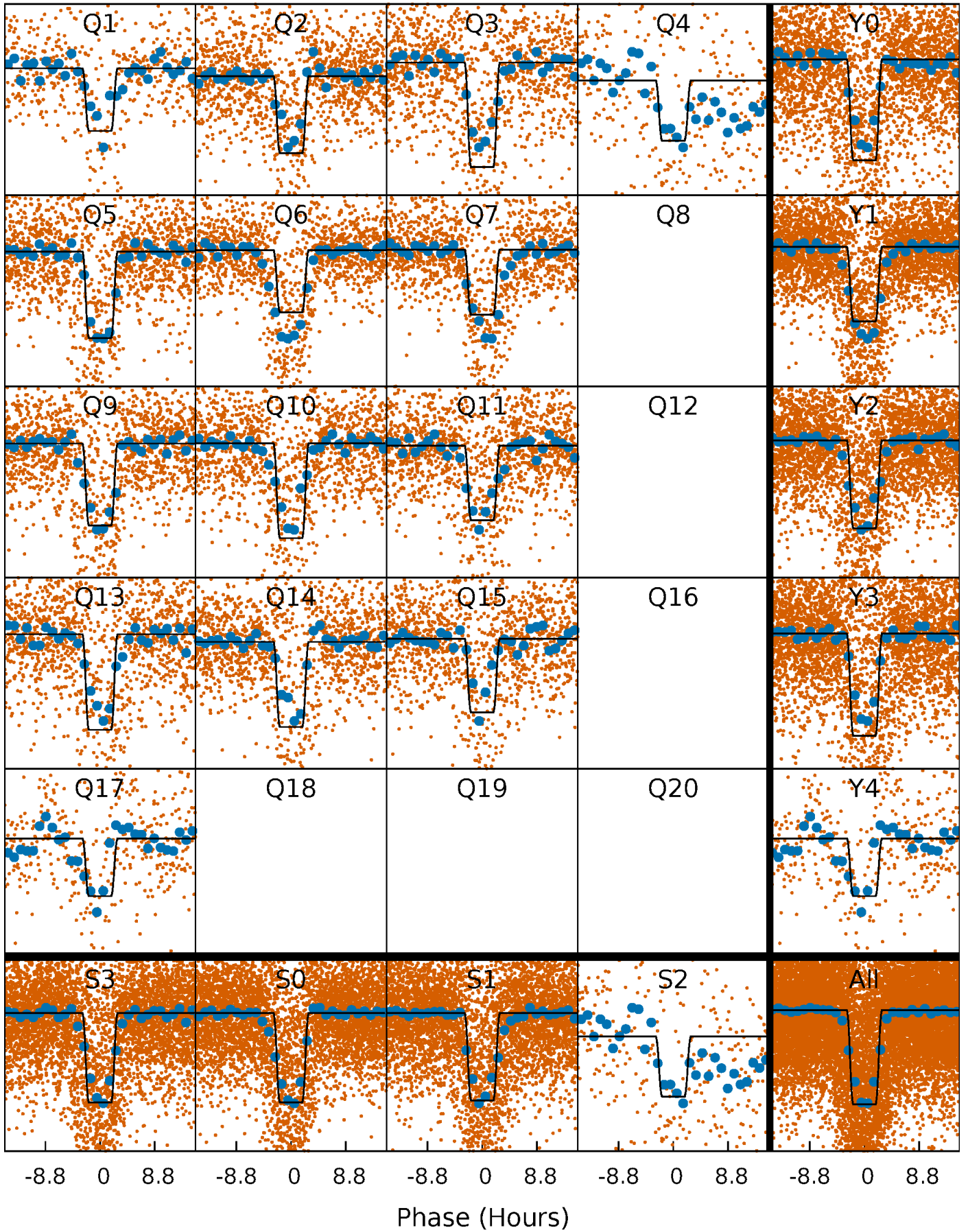
DV Quarter-Phased Transit Curves

TCE 011231334-02 P= 4.157404 Days $T_0=133.008611$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

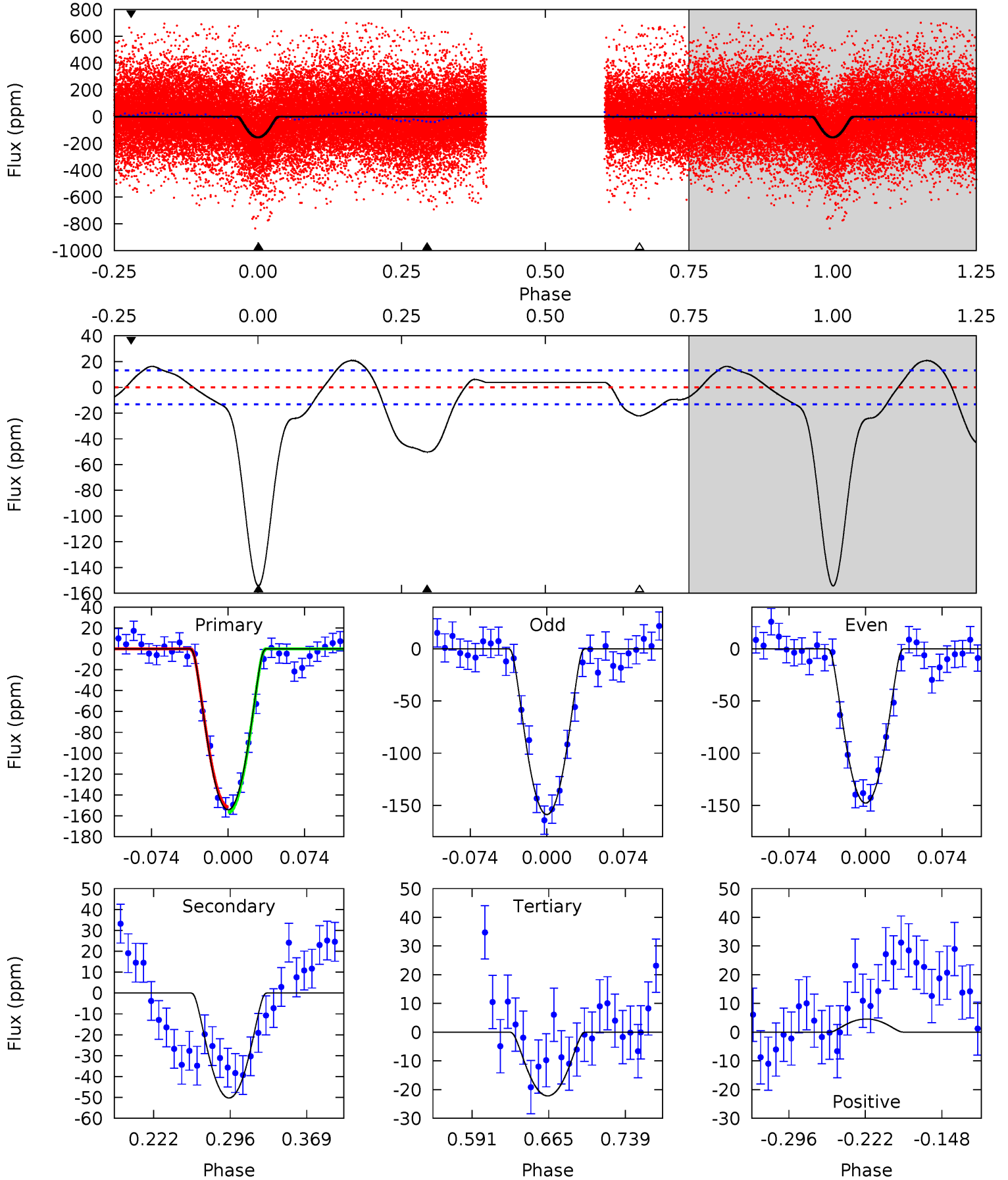
TCE 011231334-02 P= 4.157398 Days $T_0=133.011788$ (BKJD)



DV Model-Shift Uniqueness Test

011231334-02, P = 4.157404 Days, E = 128.851207 Days

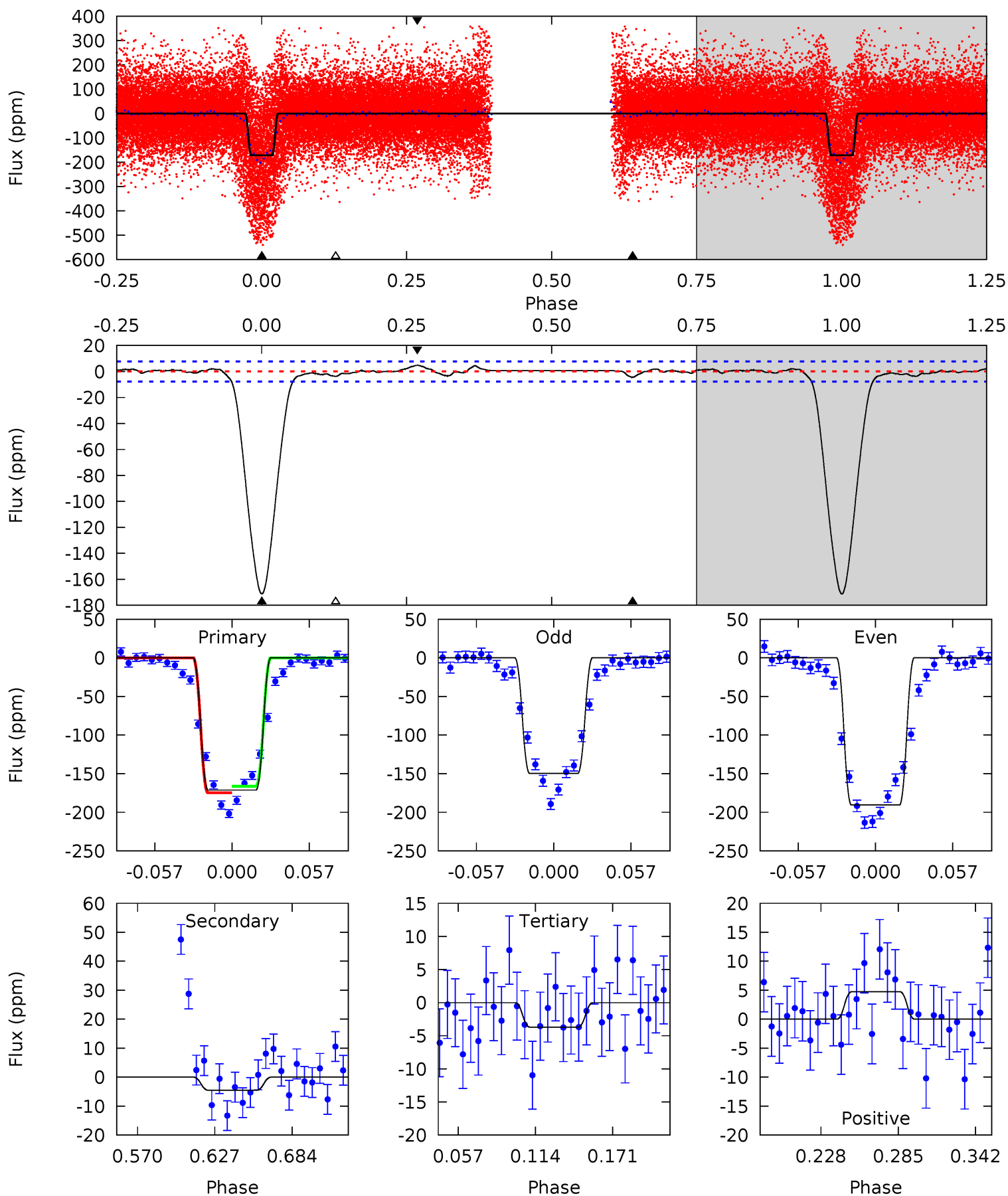
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.2	17.7	7.81	1.61	4.63	1.79	4.40	46.4	52.6	9.87	16.1	1.94	1.13	0.12	0.90



Alt Model-Shift Uniqueness Test

011231334-02, P = 4.157398 Days, E = 128.854390 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
103.6	2.74	2.24	2.87	4.68	1.90	1.10	101.4	100.7	0.50	-0.13	12.2	1.01	0.03	2.65



Stellar Parameters For KIC 011231334

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6529^{+156}_{-176}	$3.657^{+0.312}_{-0.078}$	$-0.060^{+0.300}_{-0.250}$	$3.131^{+0.468}_{-1.171}$	$1.623^{+0.206}_{-0.335}$	$0.075^{+0.169}_{-0.019}$
	+2%/-3%	+9%/-2%	+500%/-417%	+15%/-37%	+13%/-21%	+226%/-26%
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 011231334-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-50 ± 3	$5.59^{+2.04}_{-1.80}$	2864^{+160}_{-251}	4269^{+722}_{-437}	$3.055^{+3.714}_{-1.379}$
Alt.	-5 ± 2	$4.31^{+1.90}_{-1.68}$	2854^{+153}_{-263}	2714^{+786}_{-5332}	$0.457^{+0.787}_{-0.263}$

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

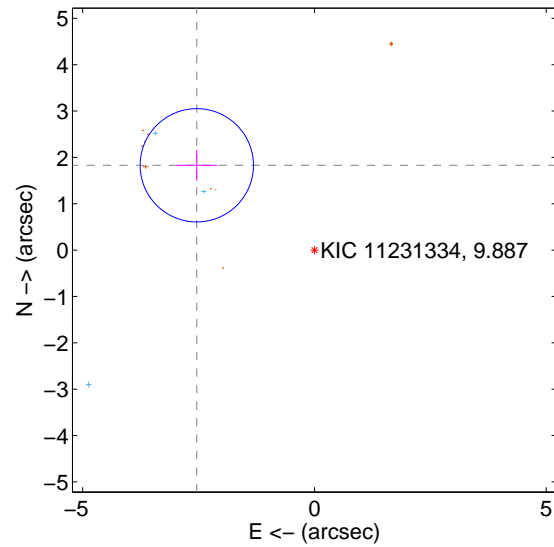
Supplemental centroid analysis for 011231334-02. **Kepler magnitude: 9.89.** Transit SNR 20.80

There are 3 quarters with good PRF difference image offsets

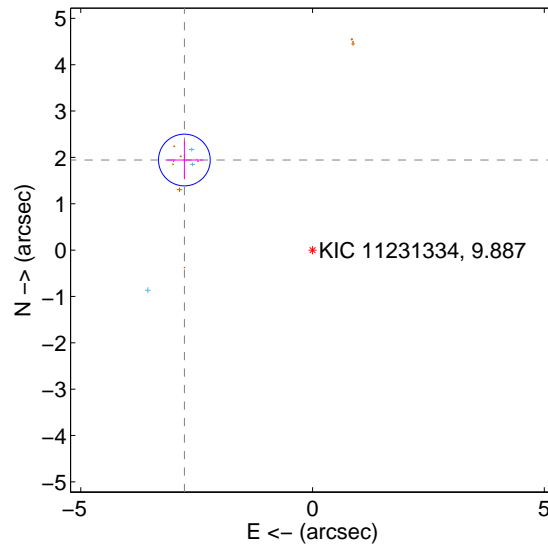
The direct PRF centroid is offset from the target star catalog position by about 0.90 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.129 ± 0.407	7.68	2.538 ± 0.440	1.830 ± 0.335
PRF-fit source offset from KIC position	3.379 ± 0.186	18.17	2.765 ± 0.406	1.943 ± 0.412
photometric centroid source offset	0.92 ± 0.25	3.66	-0.78 ± 0.25	0.47 ± 0.25

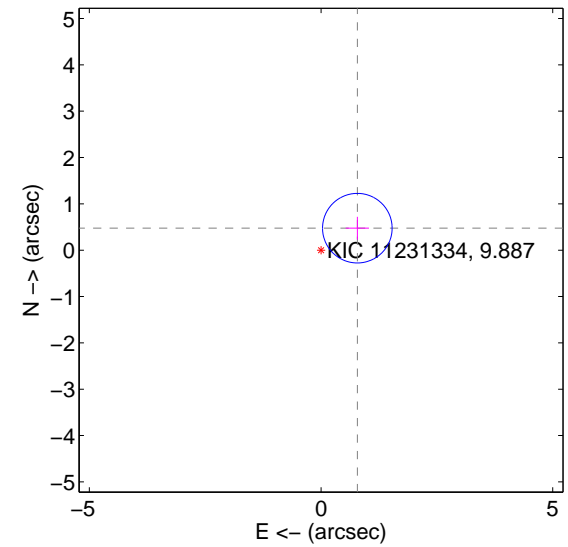
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

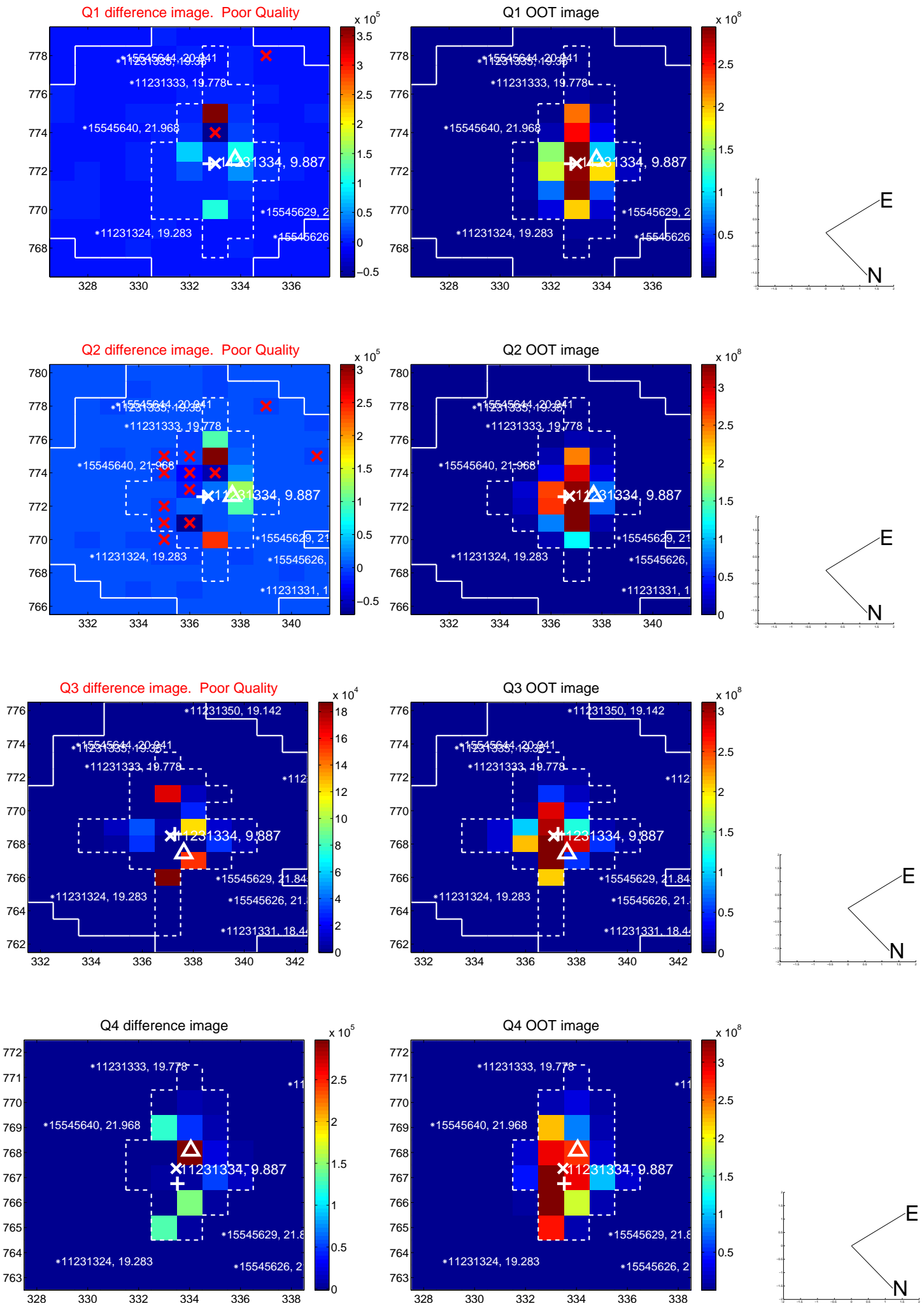


offset from photometric centroids

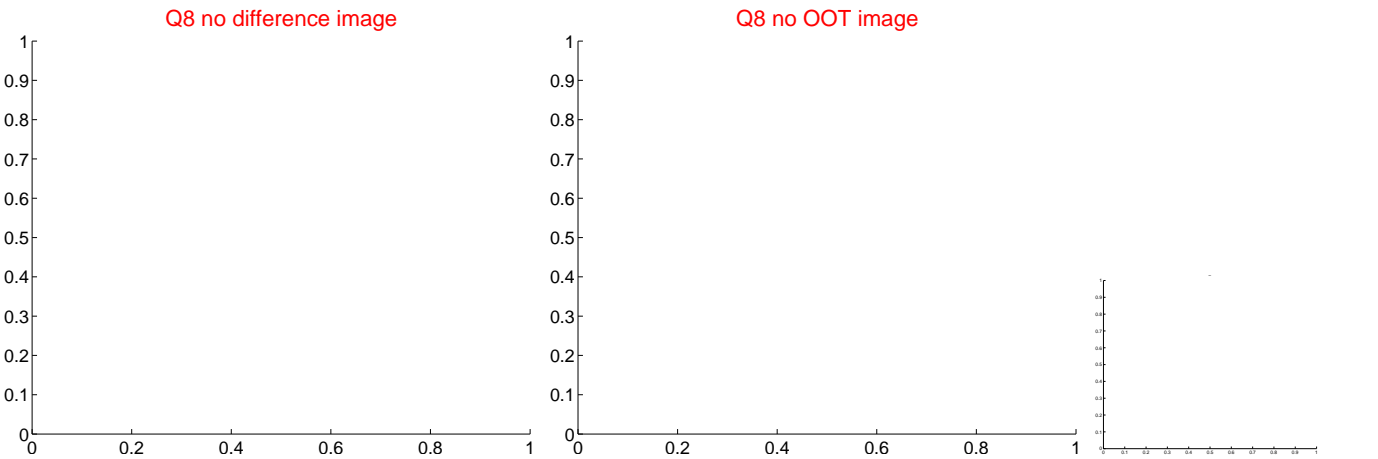
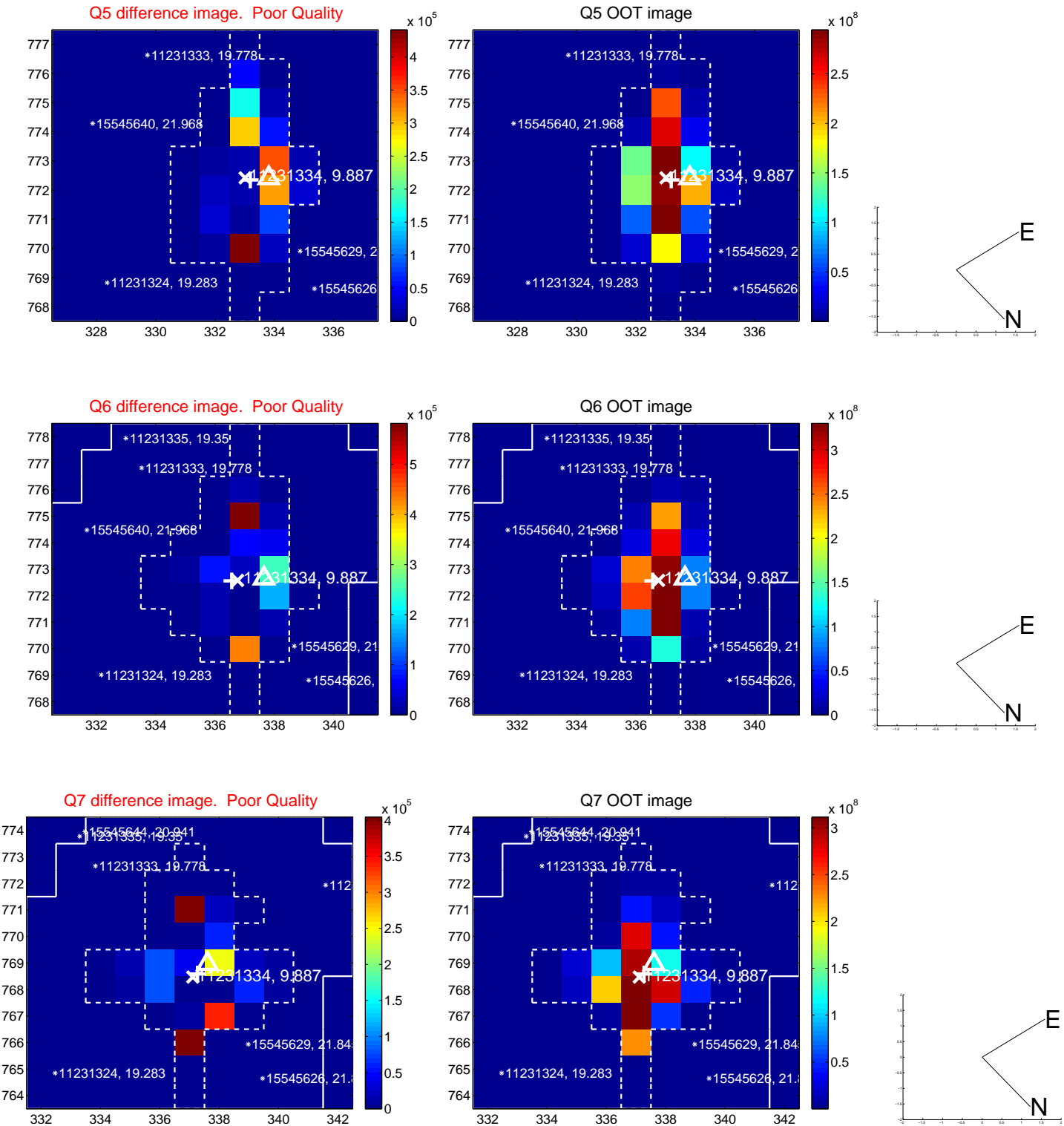


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

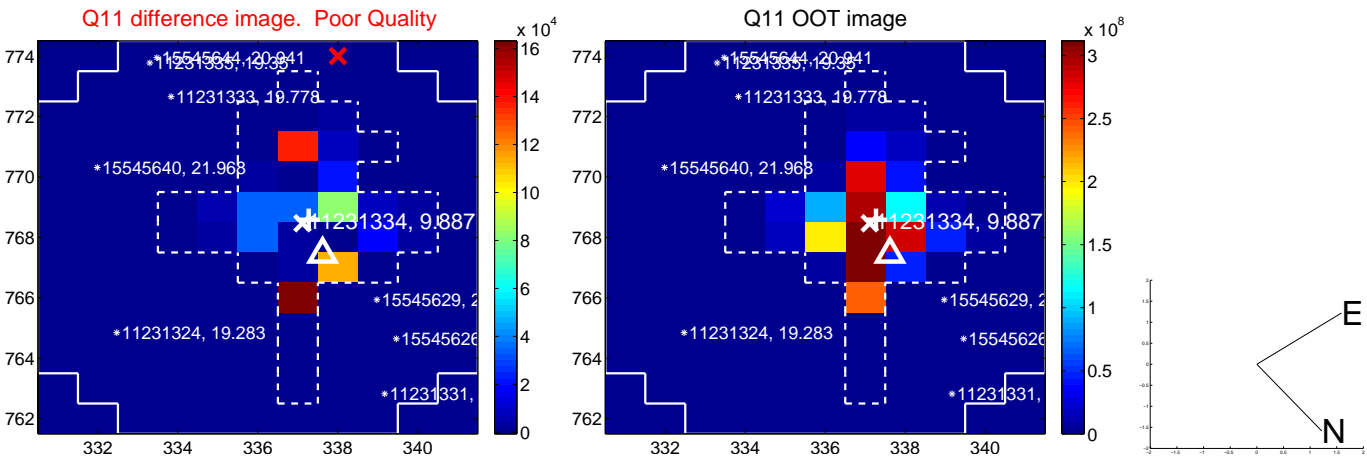
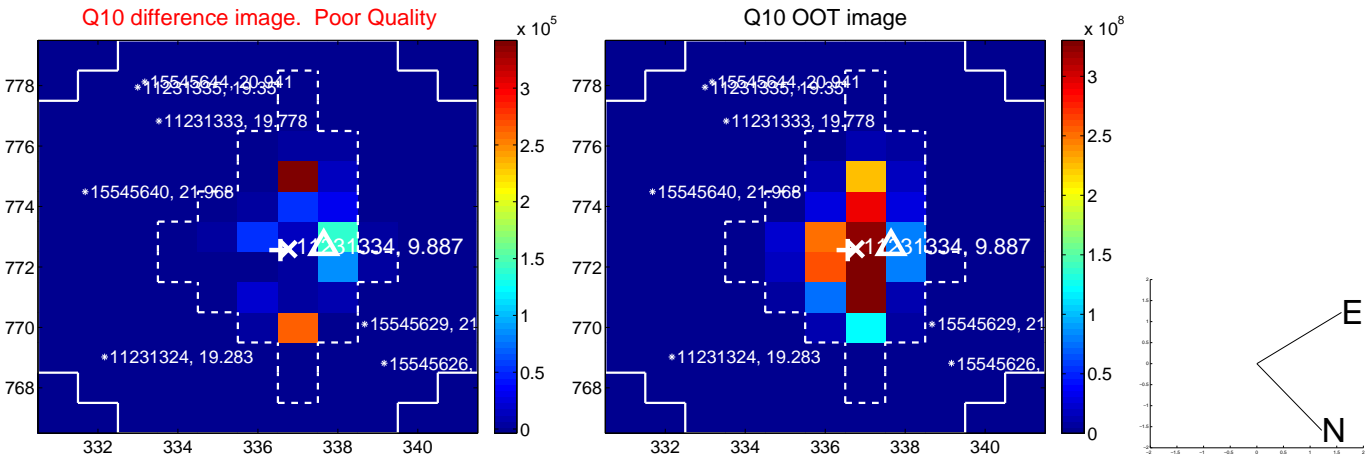
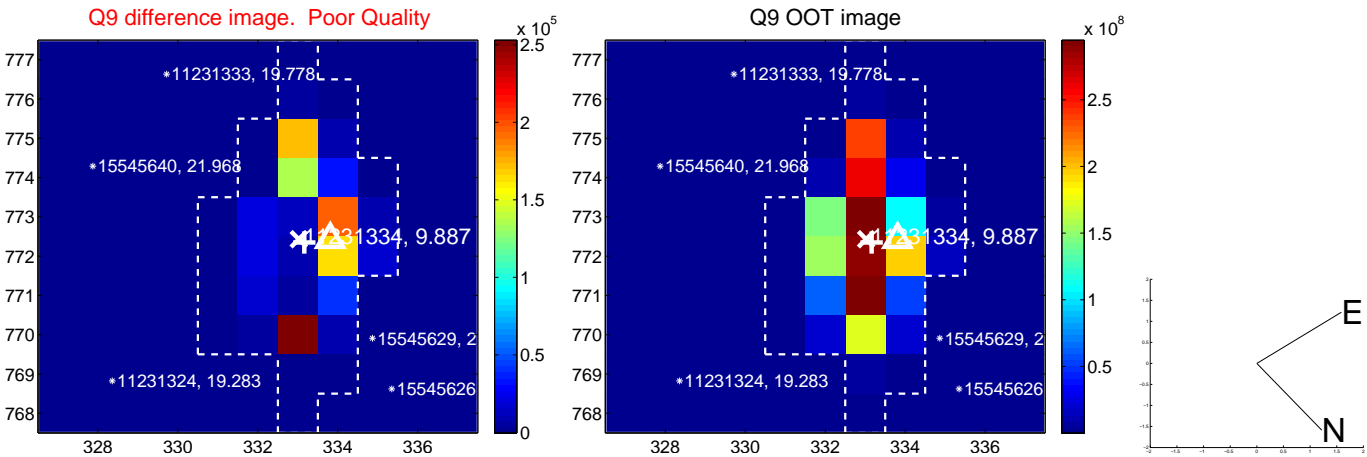
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



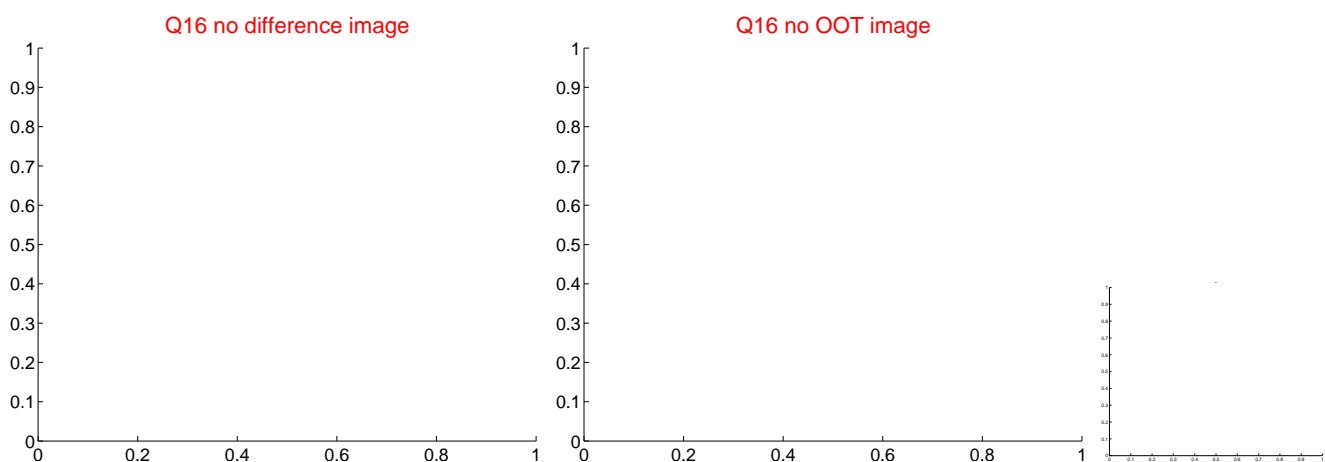
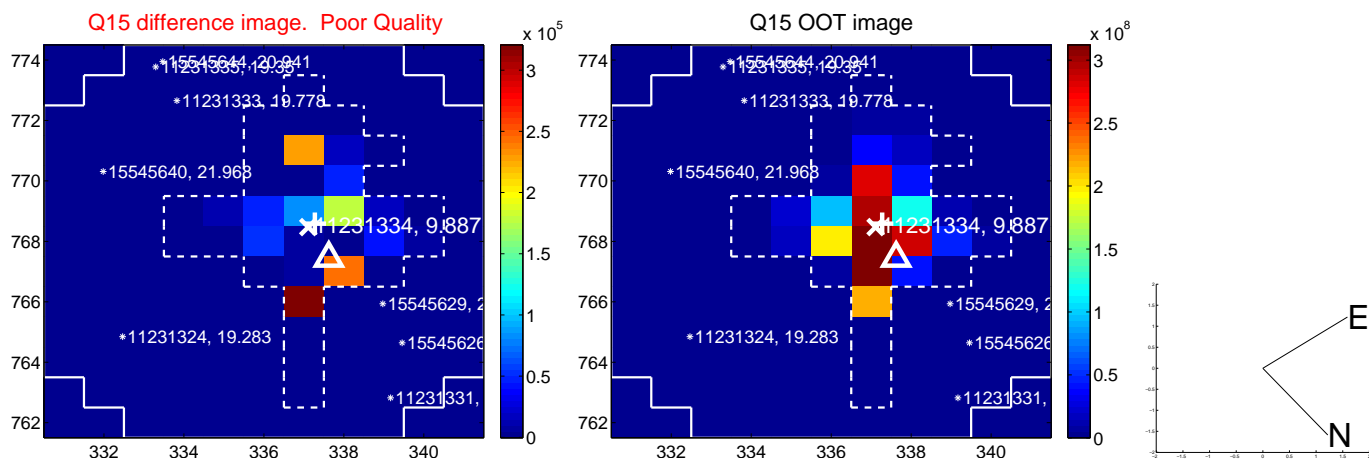
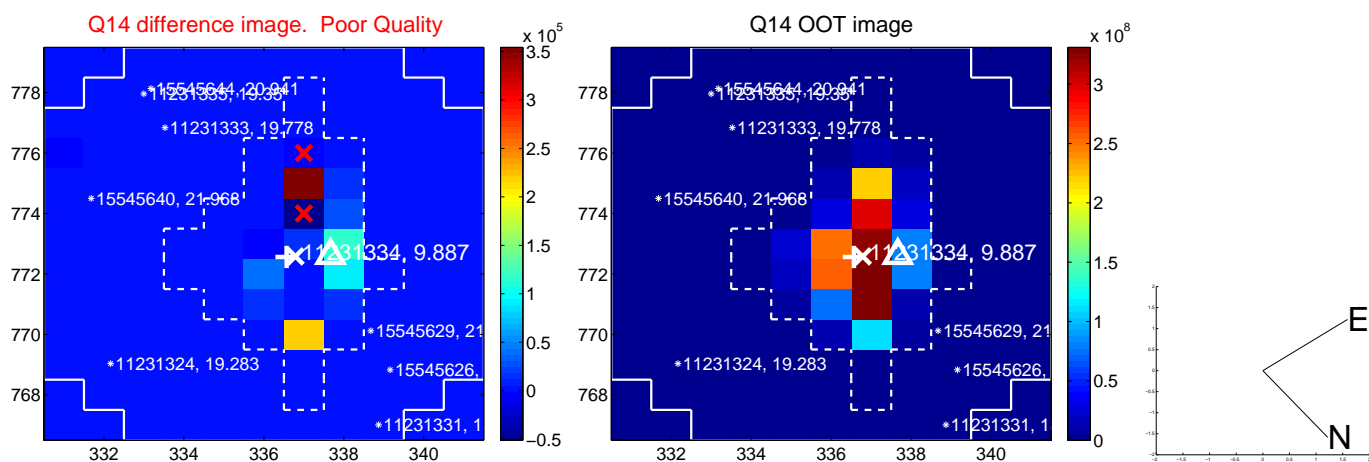
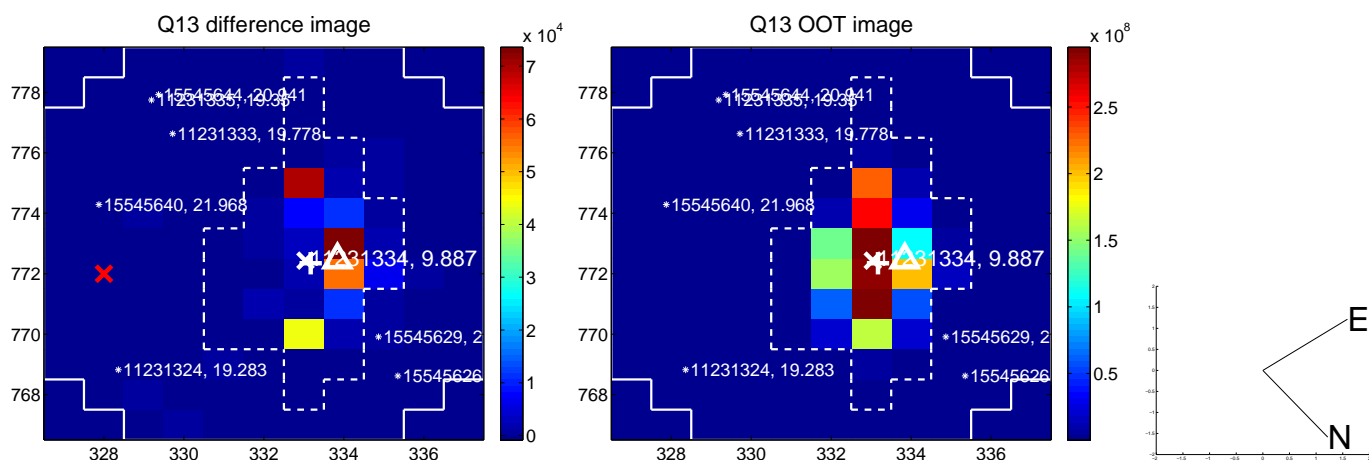
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



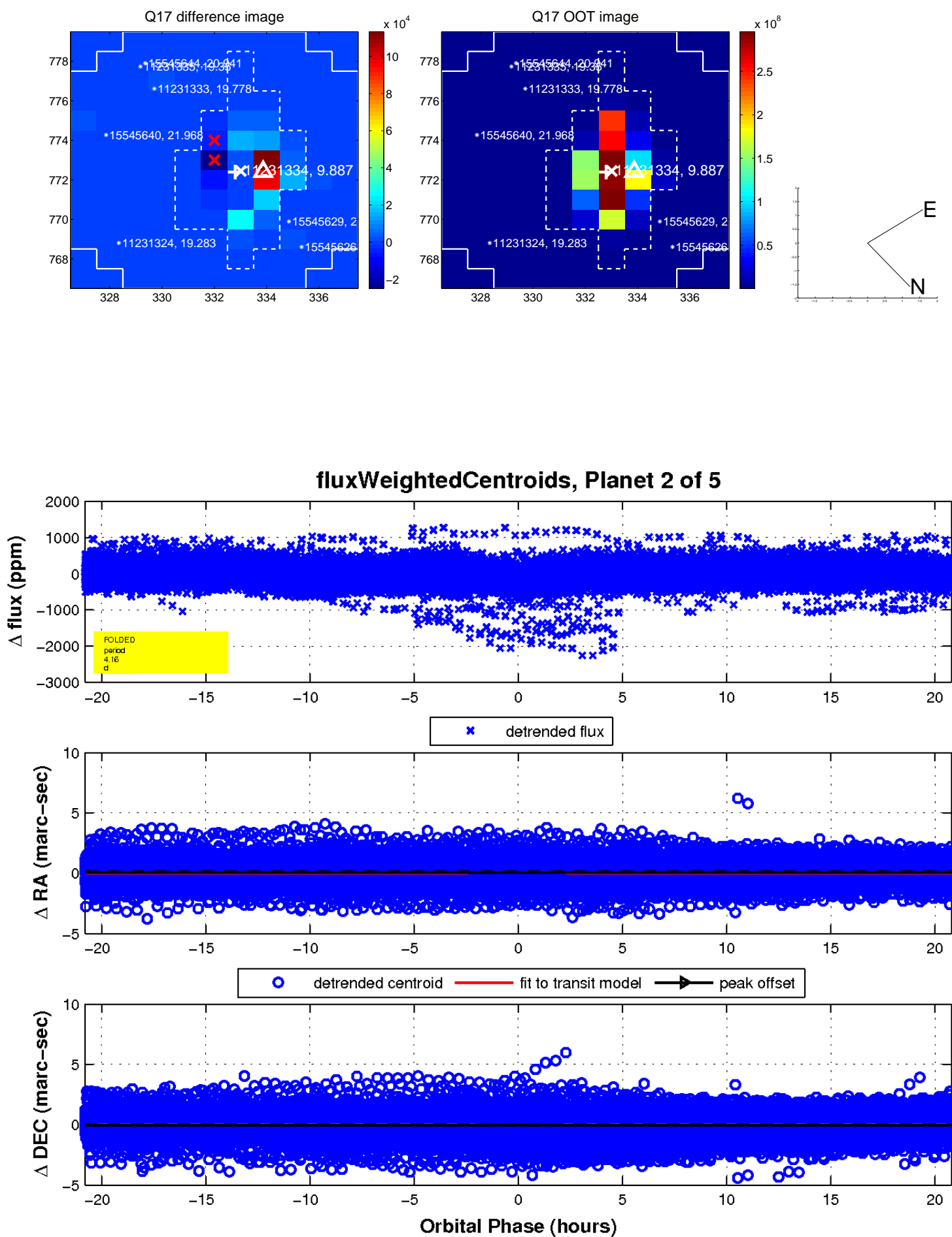
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

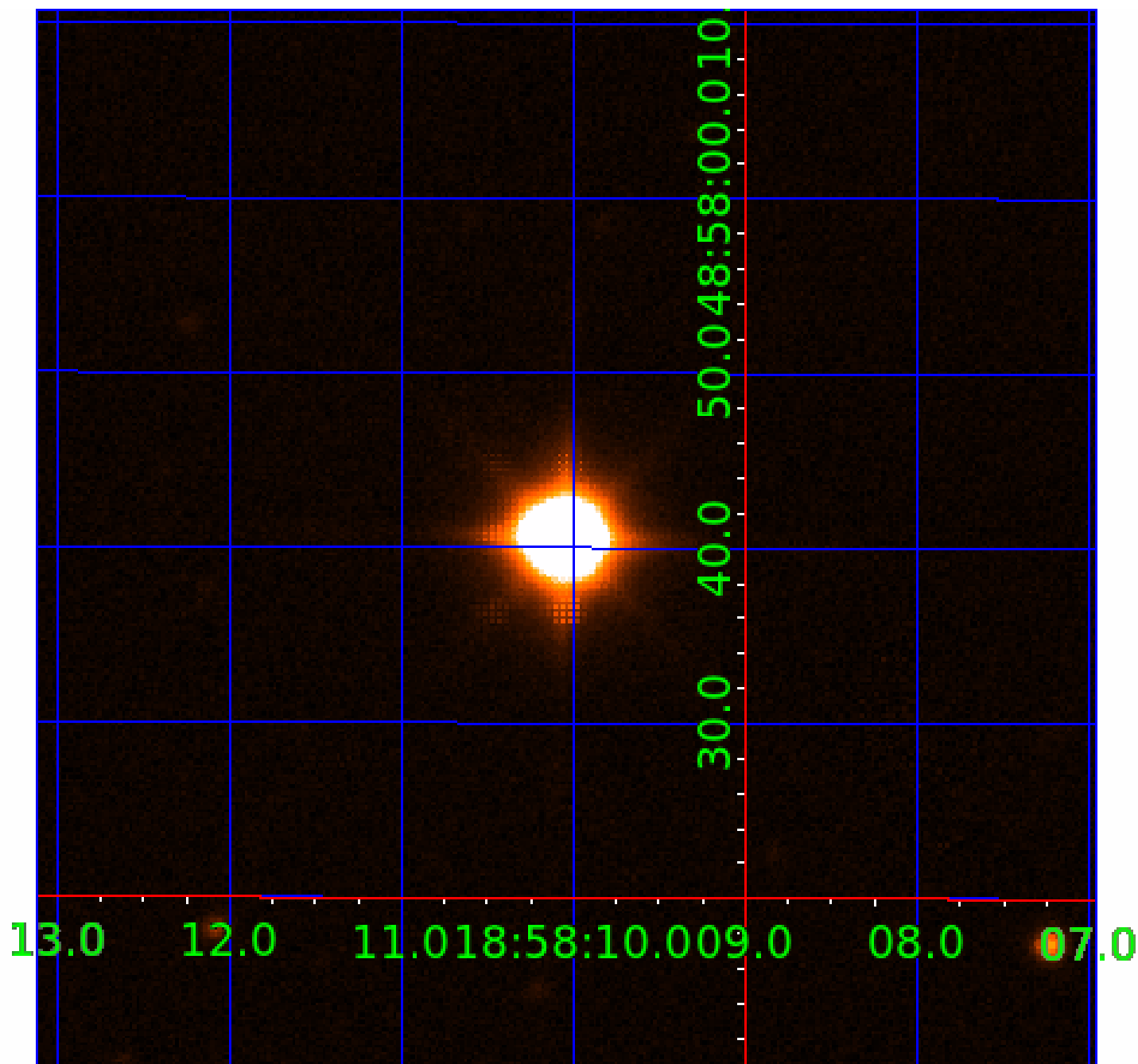


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011231334

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})
011231334-01	OBS	0258.01	4.157466	135.078798	1177.6	6.814	129.2	145.8	3.13	6529	20.18	4511.26
011231334-02	OBS	No	4.157404	133.008611	146.8	6.931	18.6	20.8	3.13	6529	6.09	4511.35
011231334-03	OBS	No	233.196509	165.581981	235.5	7.878	10.0	4.9	3.13	6529	5.23	21.01
011231334-04	OBS	No	266.547707	277.188533	323.0	2.264	9.7	6.8	3.13	6529	6.09	17.58
011231334-05	OBS	No	295.097624	165.618920	433.1	5.721	8.5	9.1	3.13	6529	12.61	15.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011231334-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_SATURATED
011231334-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_SATURATED
011231334-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED
011231334-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
011231334-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

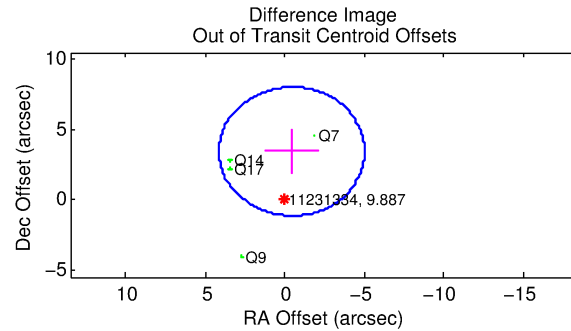
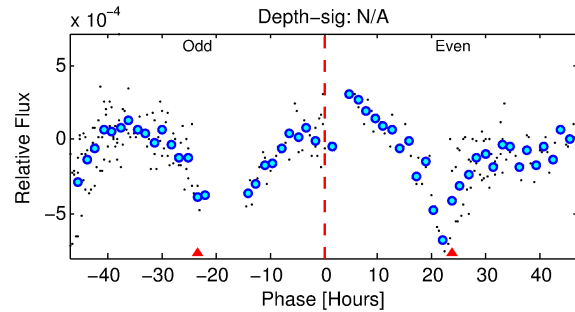
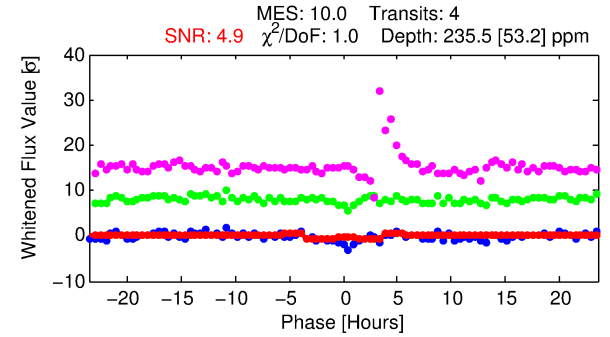
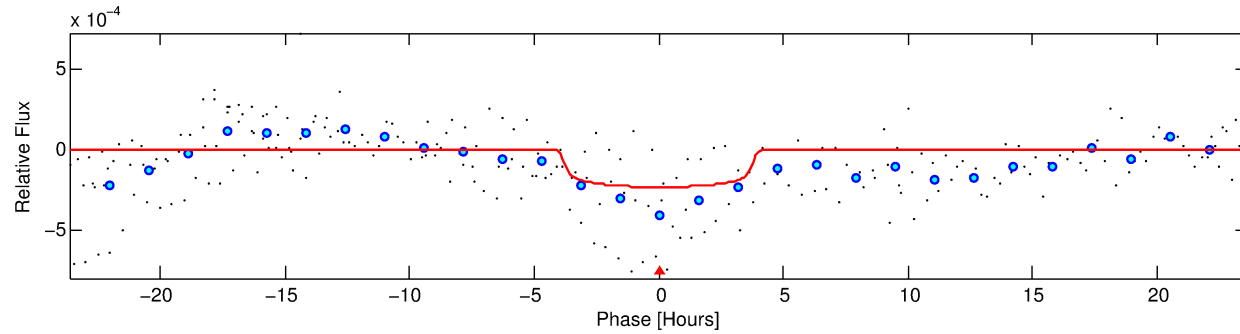
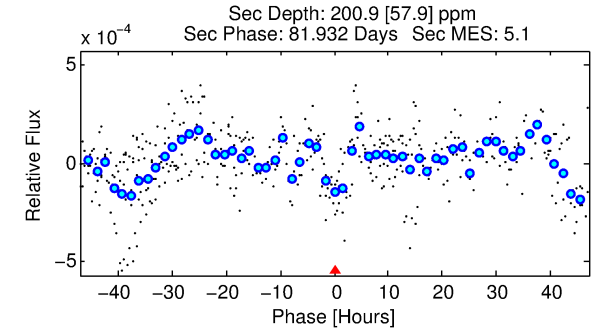
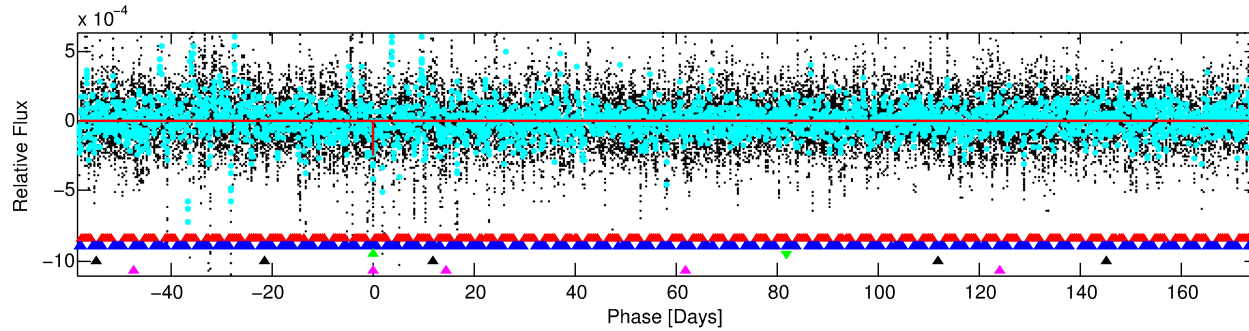
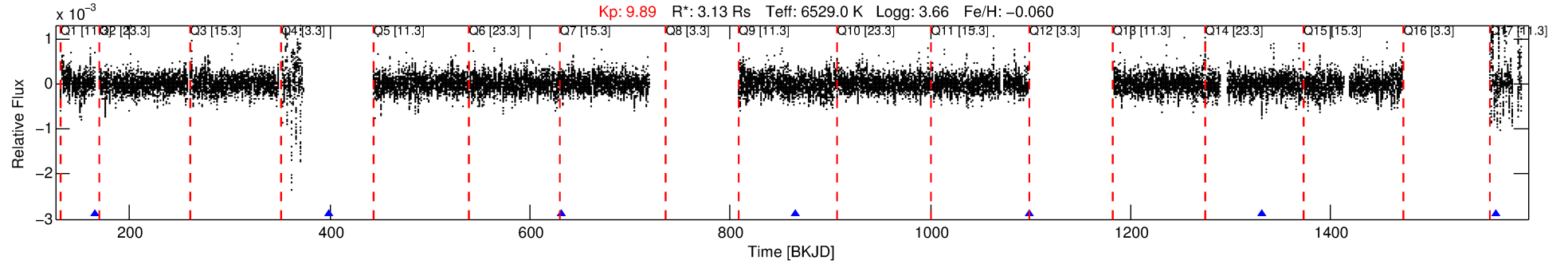
Ephemeris Match Information For 011231334-03

No Significant Match Found

DV One-Page Summary

KIC: 11231334 Candidate: 3 of 5 Period: 233.197 d

KOI: K00258 Corr: No Ephemeris Match



DV Fit Results:

Period = 233.19651 [0.00865] d
Epoch = 165.5820 [0.0427] BKJD
 $R_p/R^* = 0.0153$ [0.0073]
 $a/R^* = 152.18$ [386.88]
 $b = 0.76$ [1.41]
 $S_{\text{eff}} = 21.01$ [11.57]
 $T_{\text{eq}} = 546$ [75] K
 $R_p = 5.23$ [3.16] R_e
 $a = 0.8716$ [0.3013] AU
 $A_g = 3067.48$ [3464.45] [0.89] σ
 $T_{\text{eff}} = 6282$ [1567] K [3.66] σ

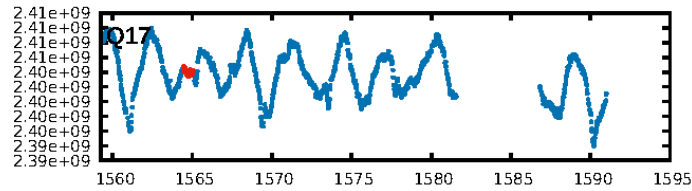
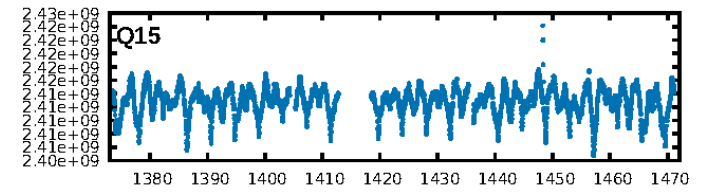
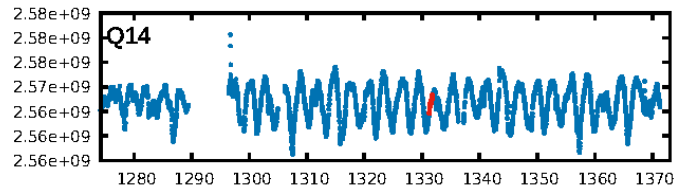
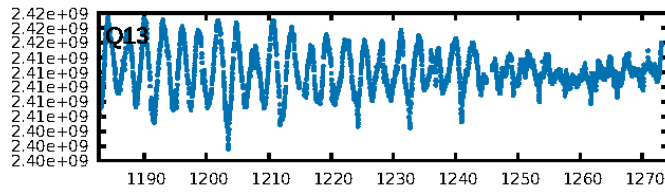
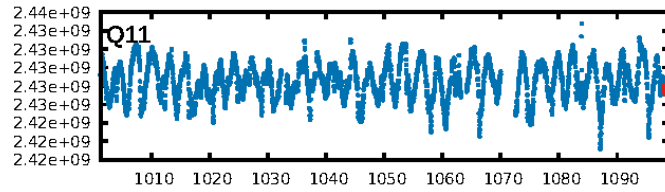
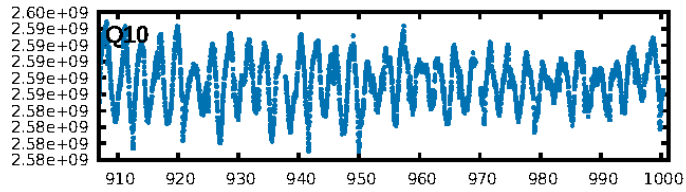
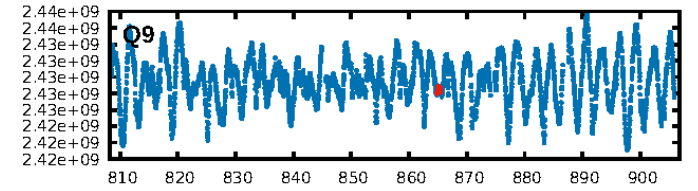
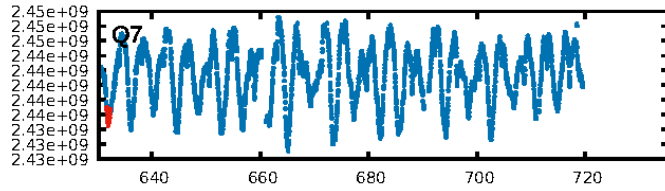
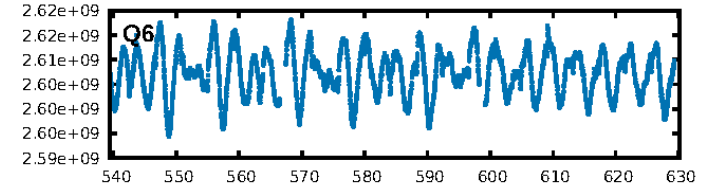
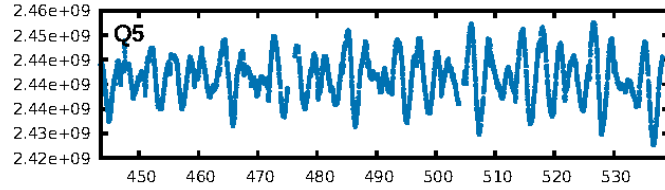
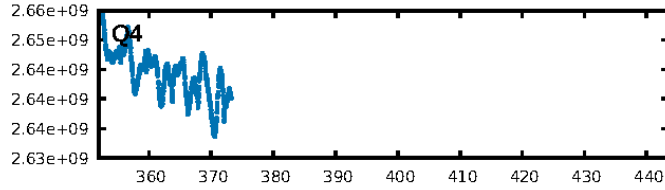
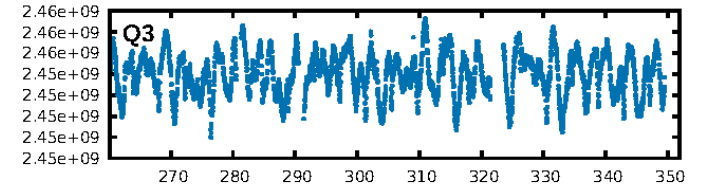
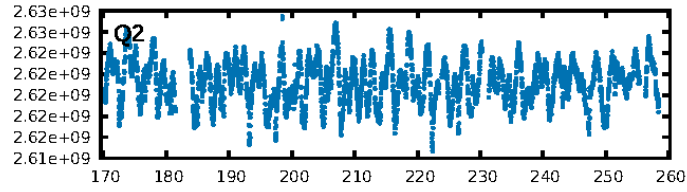
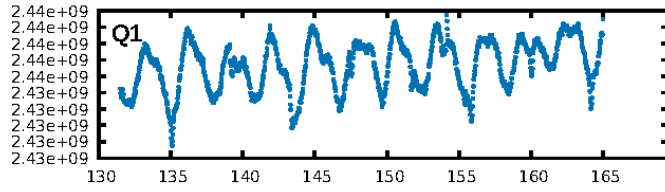
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [527.74] σ
LongPeriod-sig: 100.0% [97.65] σ
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.48e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 95.9%
Centroid-so: 0.235 arcsec [0.23] σ
OotOffset-rm: 3.465 arcsec [2.27] σ
KicOffset-rm: 3.366 arcsec [1.88] σ
OotOffset-st: 1/1/0/2 [4]
KicOffset-st: 1/1/0/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.25 [1/4]

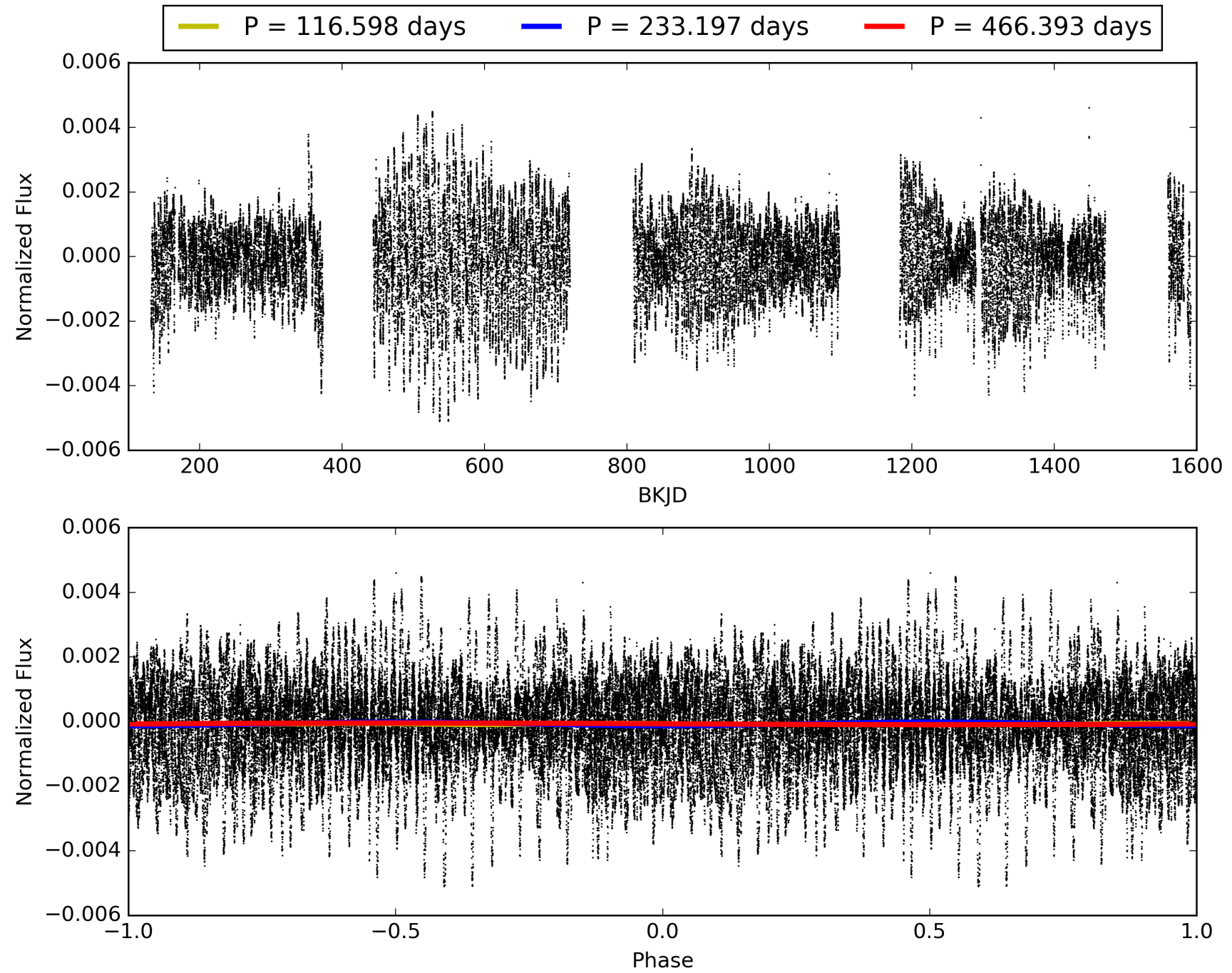
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:29:08 Z

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

TCE 011231334-03, PDC Light Curves

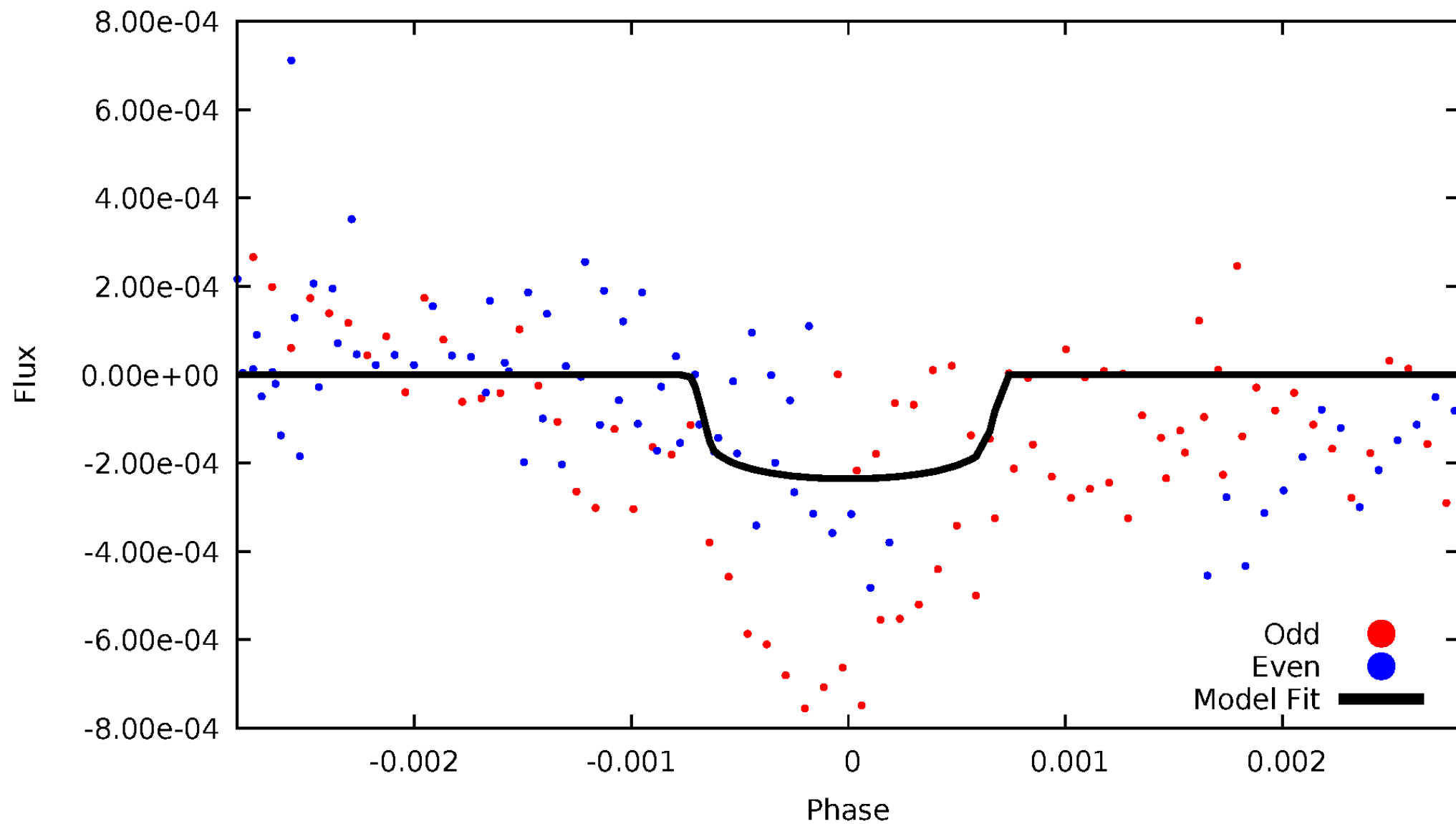


TCE 011231334-03



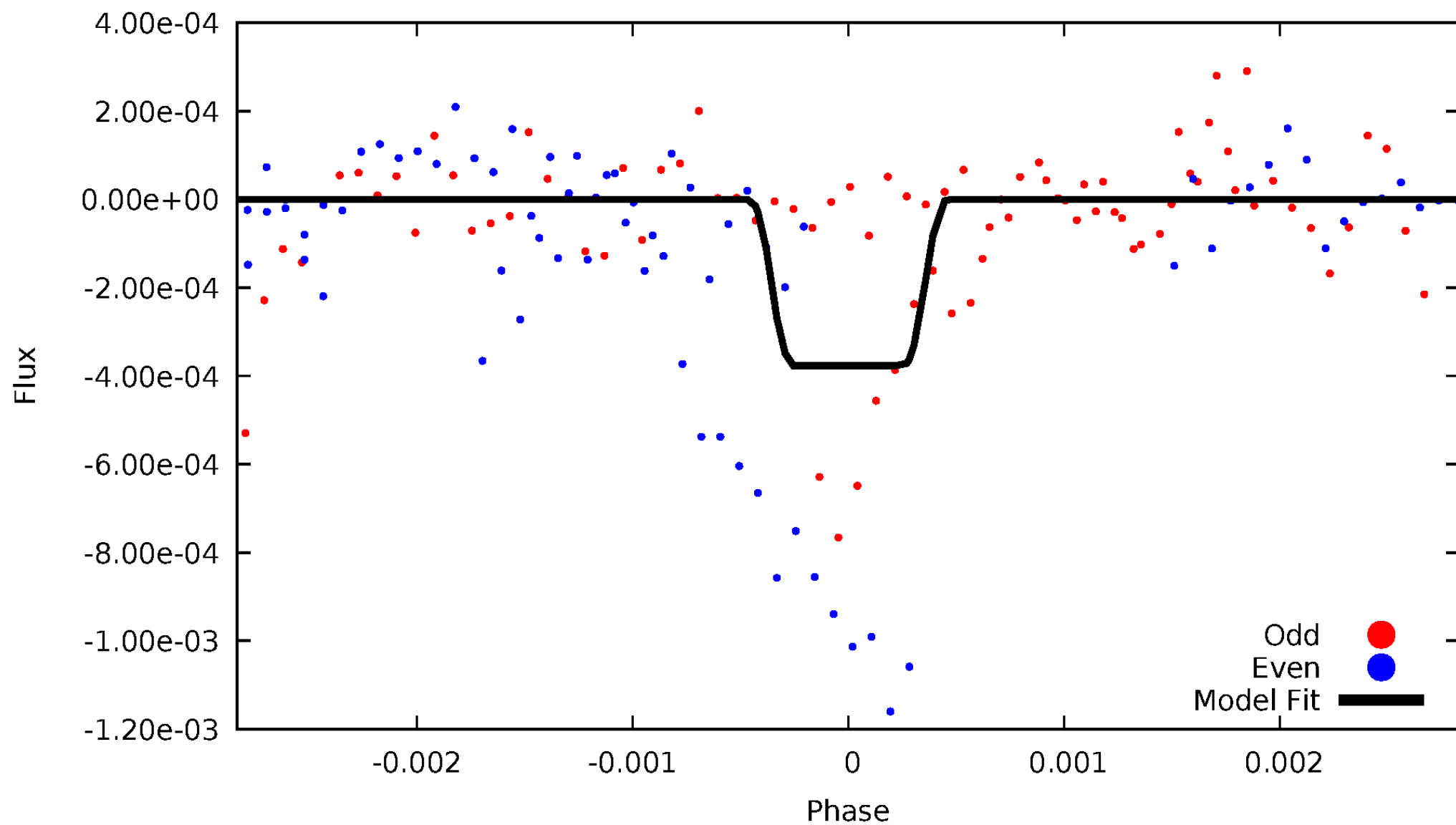
DV Odd/Even

TCE 011231334-03



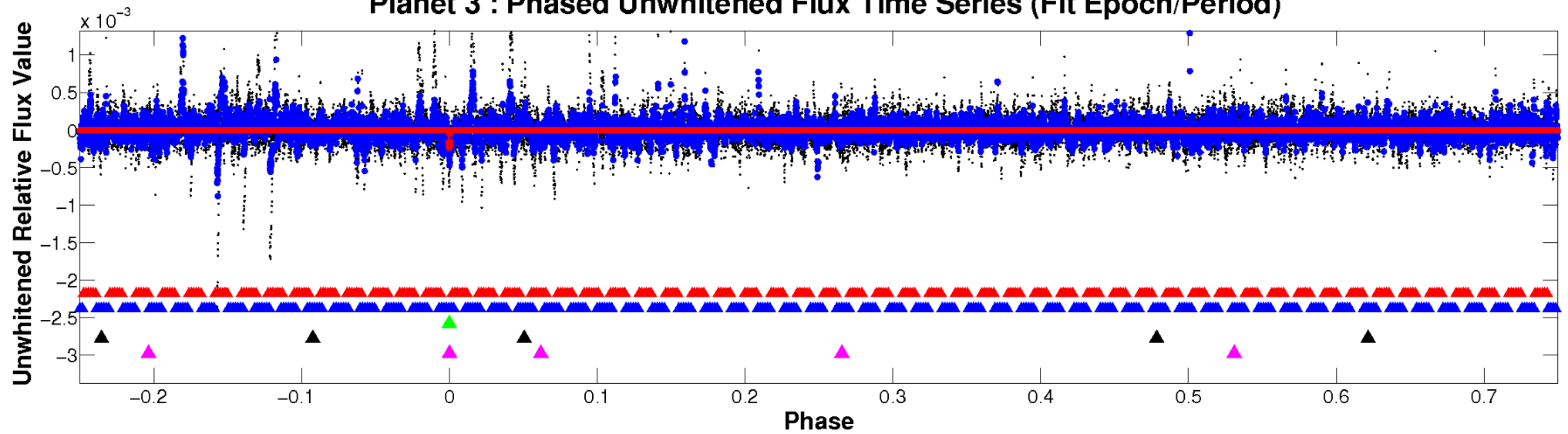
ALT Odd/Even

TCE 011231334-03

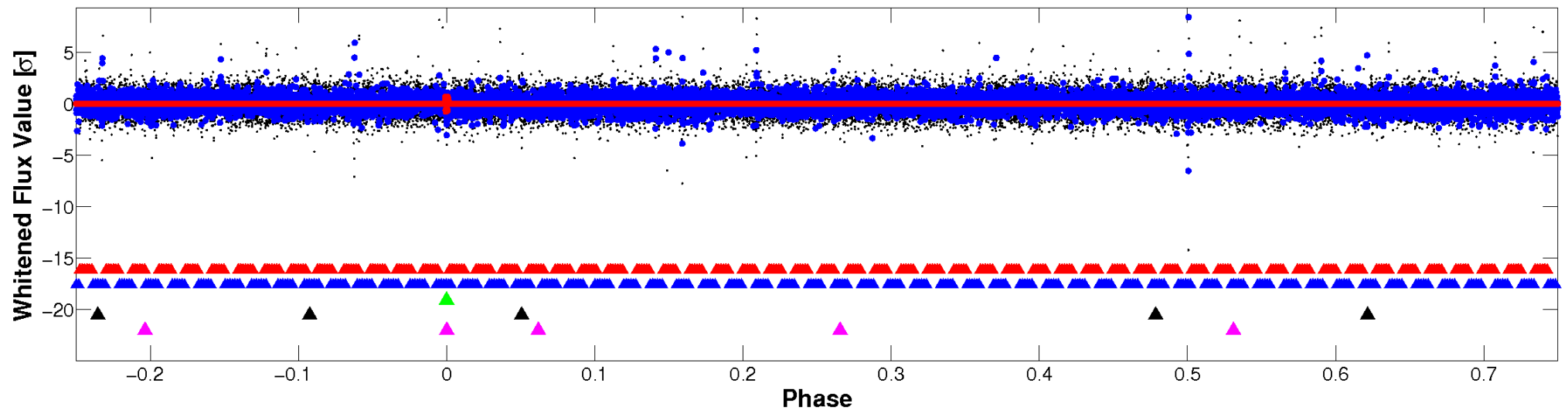


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

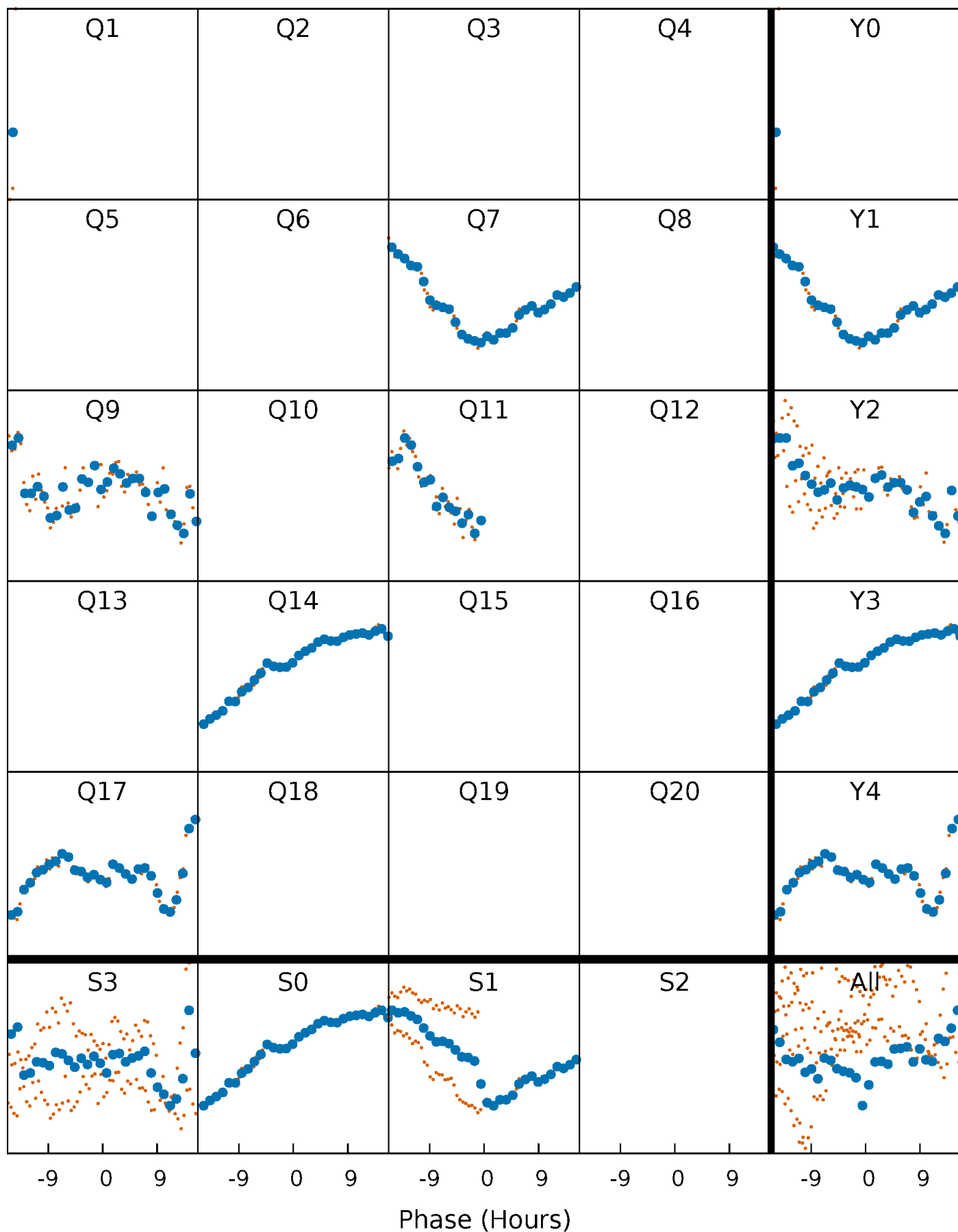


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



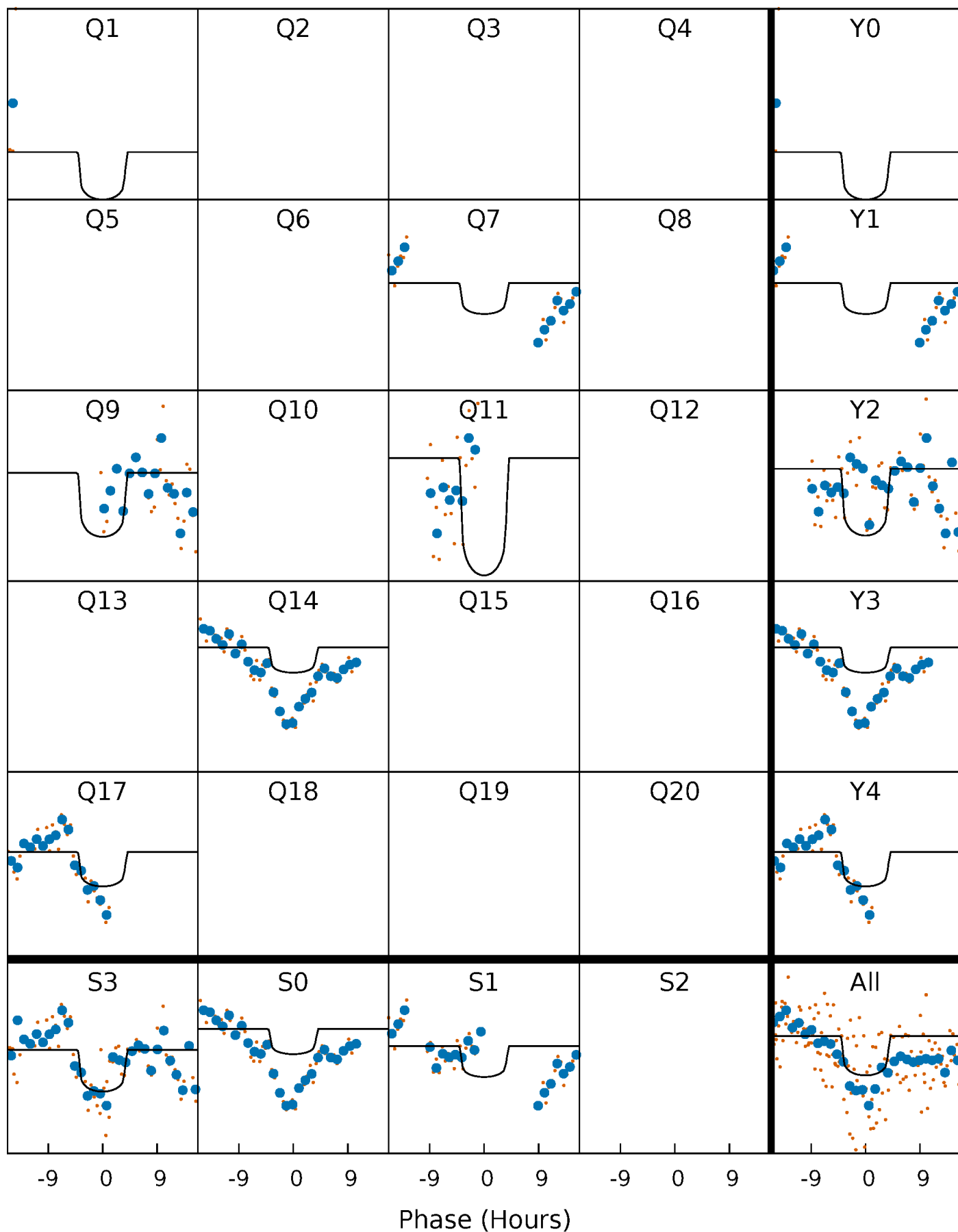
PDC Quarter-Phased Transit Curves

TCE 011231334-03 P=233.196509 Days $T_0=165.581981$ (BKJD)



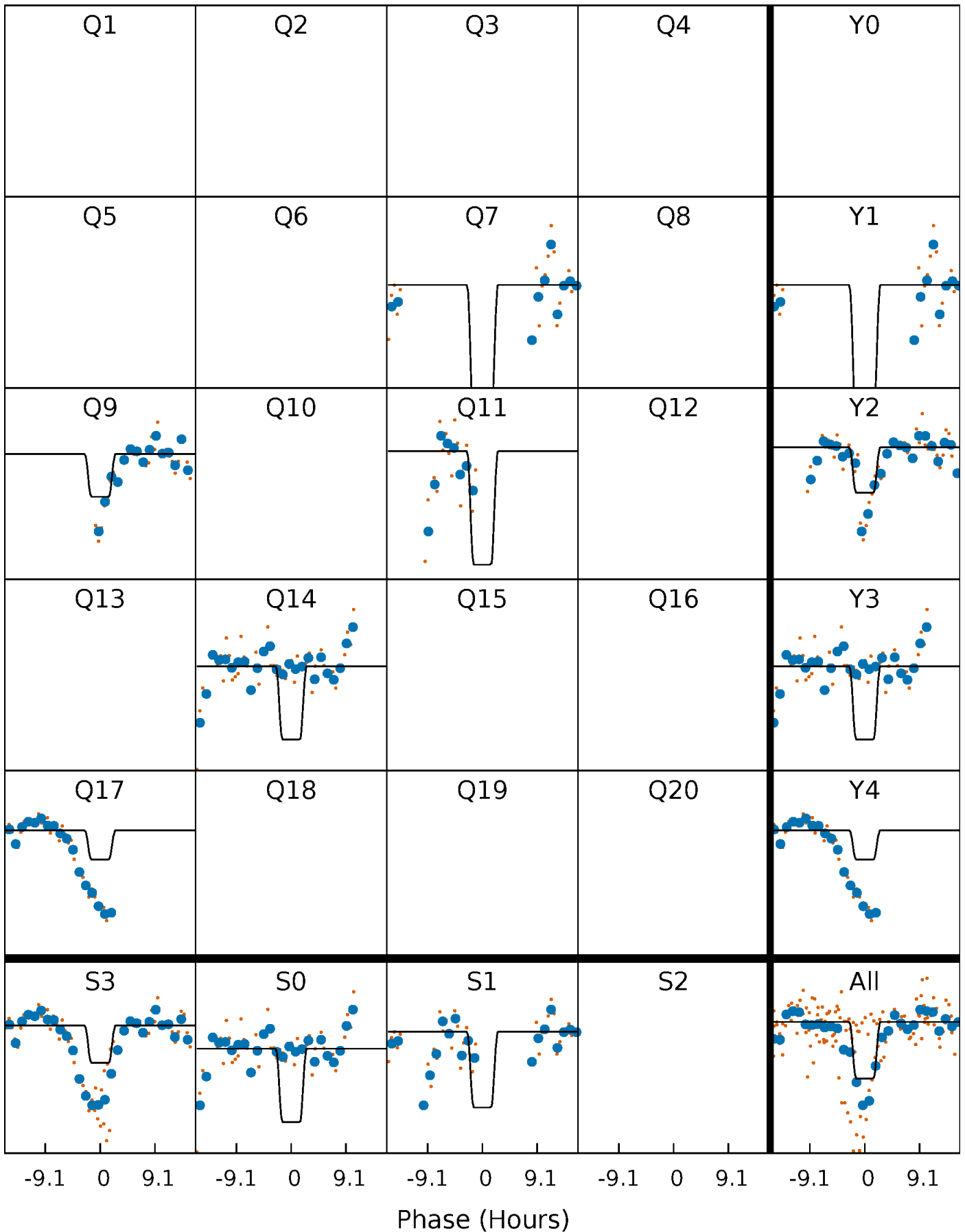
DV Quarter-Phased Transit Curves

TCE 011231334-03 P=233.196509 Days $T_0=165.581981$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

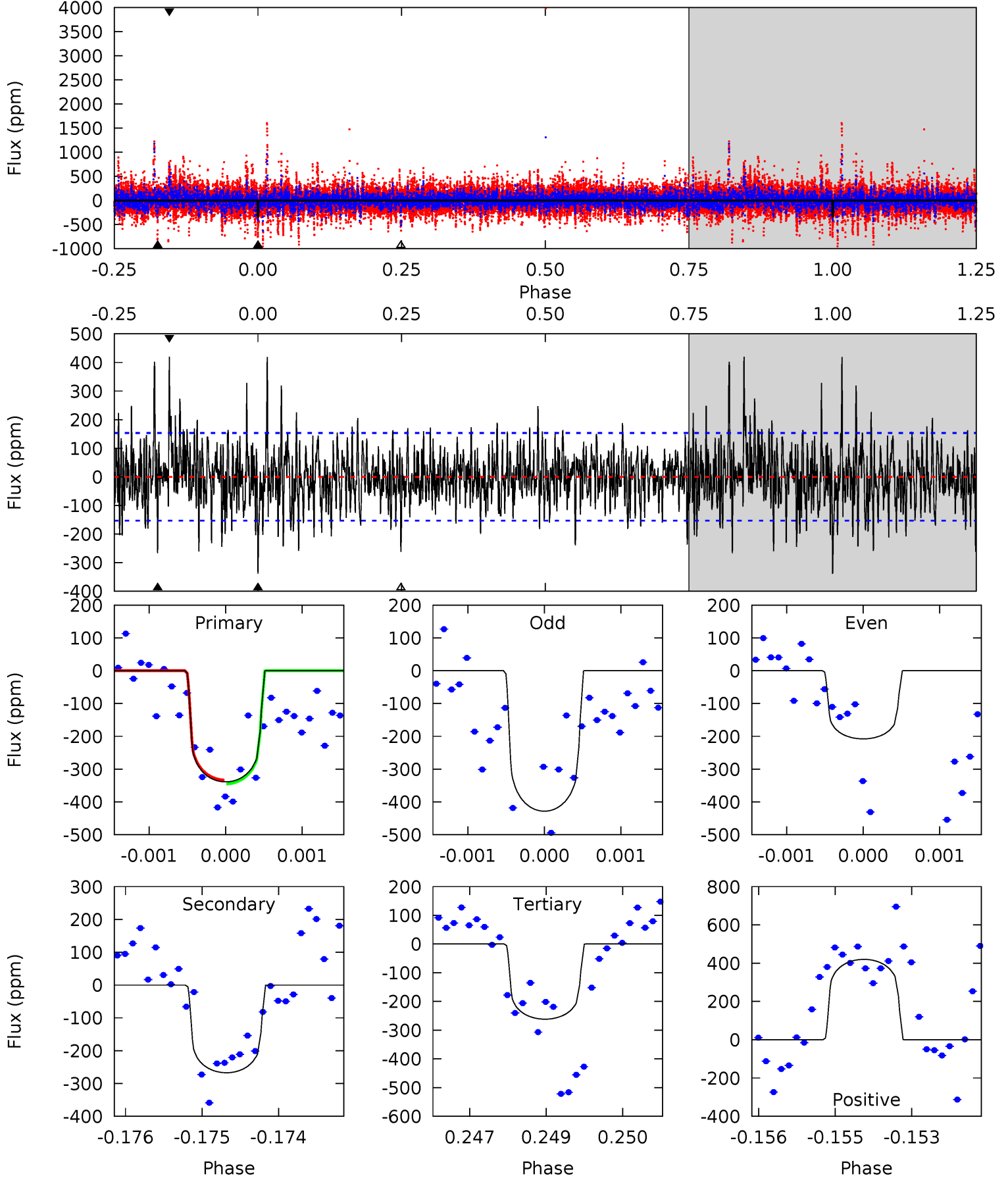
TCE 011231334-03 P=233.182649 Days $T_0=165.643383$ (BKJD)



DV Model-Shift Uniqueness Test

011231334-03, P = 233.196509 Days, E = 165.581981 Days

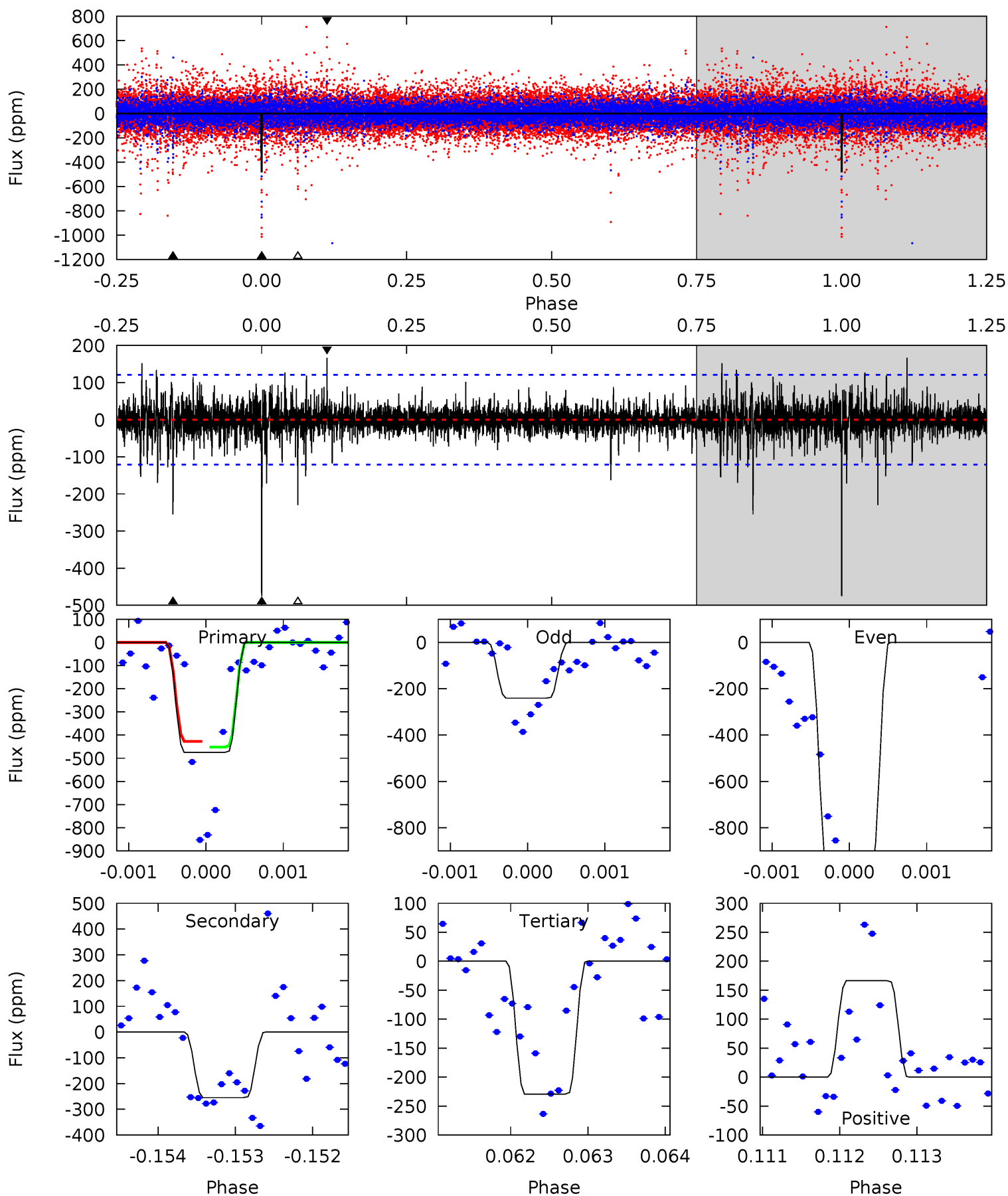
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	9.39	9.20	14.8	5.39	3.19	2.84	2.71	-2.85	0.19	-5.37	3.53	1.26	0.55	0.21



Alt Model-Shift Uniqueness Test

011231334-03, P = 233.182649 Days, E = 165.643383 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.5	11.5	10.4	7.52	5.47	3.32	1.31	11.1	13.9	1.13	3.98	15.6	1.24	0.26	0.55



Stellar Parameters For KIC 011231334

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6529^{+156}_{-176}	$3.657^{+0.312}_{-0.078}$	$-0.060^{+0.300}_{-0.250}$	$3.131^{+0.468}_{-1.171}$	$1.623^{+0.206}_{-0.335}$	$0.075^{+0.169}_{-0.019}$
	+2%/-3%	+9%/-2%	+500%/-417%	+15%/-37%	+13%/-21%	+226%/-26%
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 011231334-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-267 ± 28	$4.86^{+2.54}_{-2.17}$	749^{+42}_{-66}	6774^{+2715}_{-1234}	4630^{+9863}_{-2591}
Alt.	-254 ± 22	$6.17^{+2.61}_{-2.50}$	749^{+41}_{-73}	5890^{+1720}_{-806}	2766^{+5080}_{-1389}

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 $A_{obs} \gg 1.0$

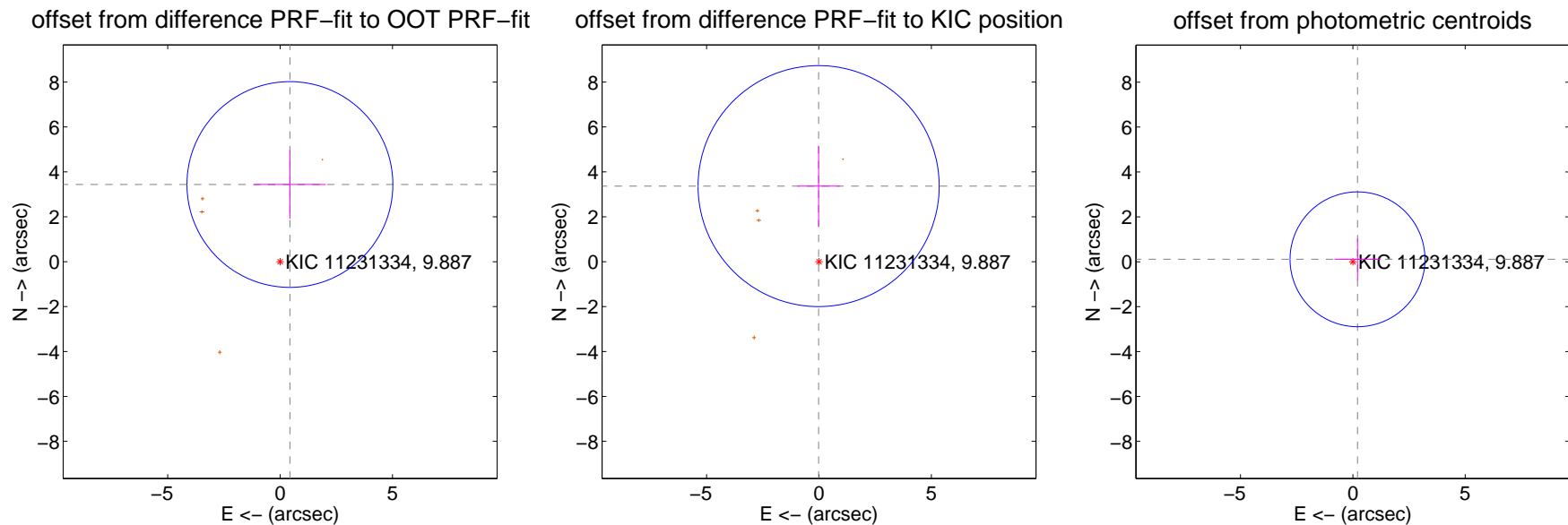
DV Centroid Data

Supplemental centroid analysis for 011231334-03. **Kepler magnitude: 9.89.** Transit SNR 4.86

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.88 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.465 ± 1.527	2.27	-0.436 ± 1.602	3.437 ± 1.526
PRF-fit source offset from KIC position	3.366 ± 1.788	1.88	0.016 ± 0.941	3.366 ± 1.792
photometric centroid source offset	0.23 ± 1.00	0.23	-0.21 ± 1.02	0.11 ± 0.93



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.

Q5 no difference image



Q5 no OOT image



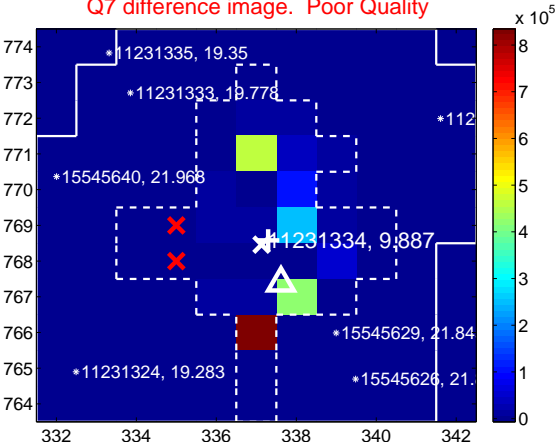
Q6 no difference image



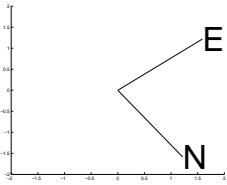
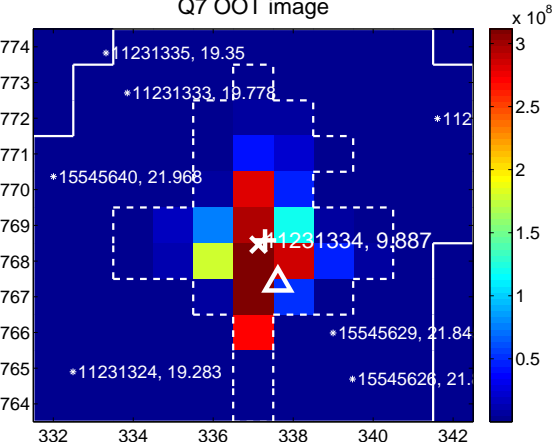
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



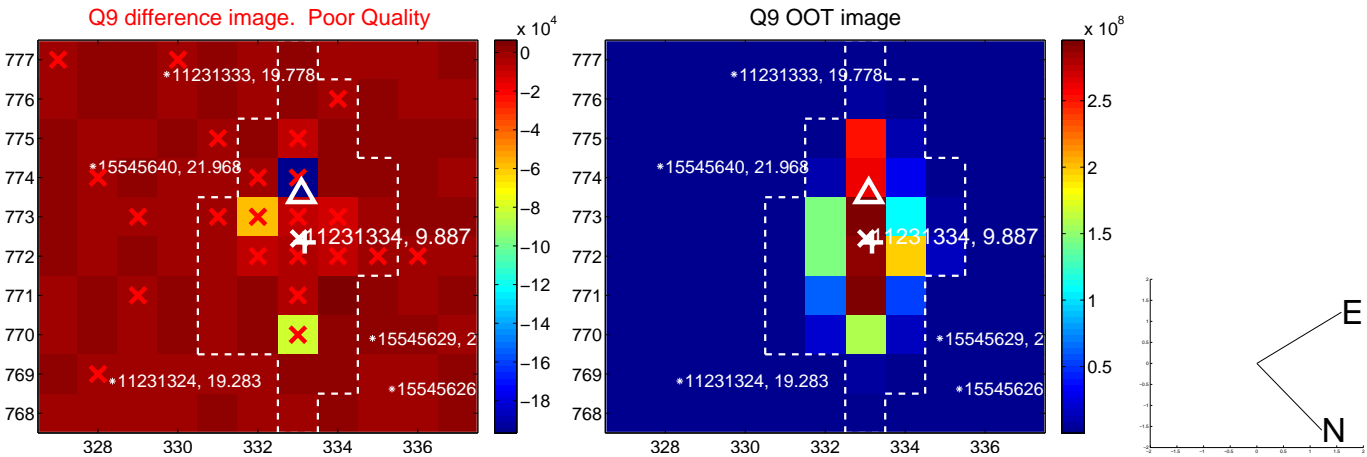
Q8 no difference image



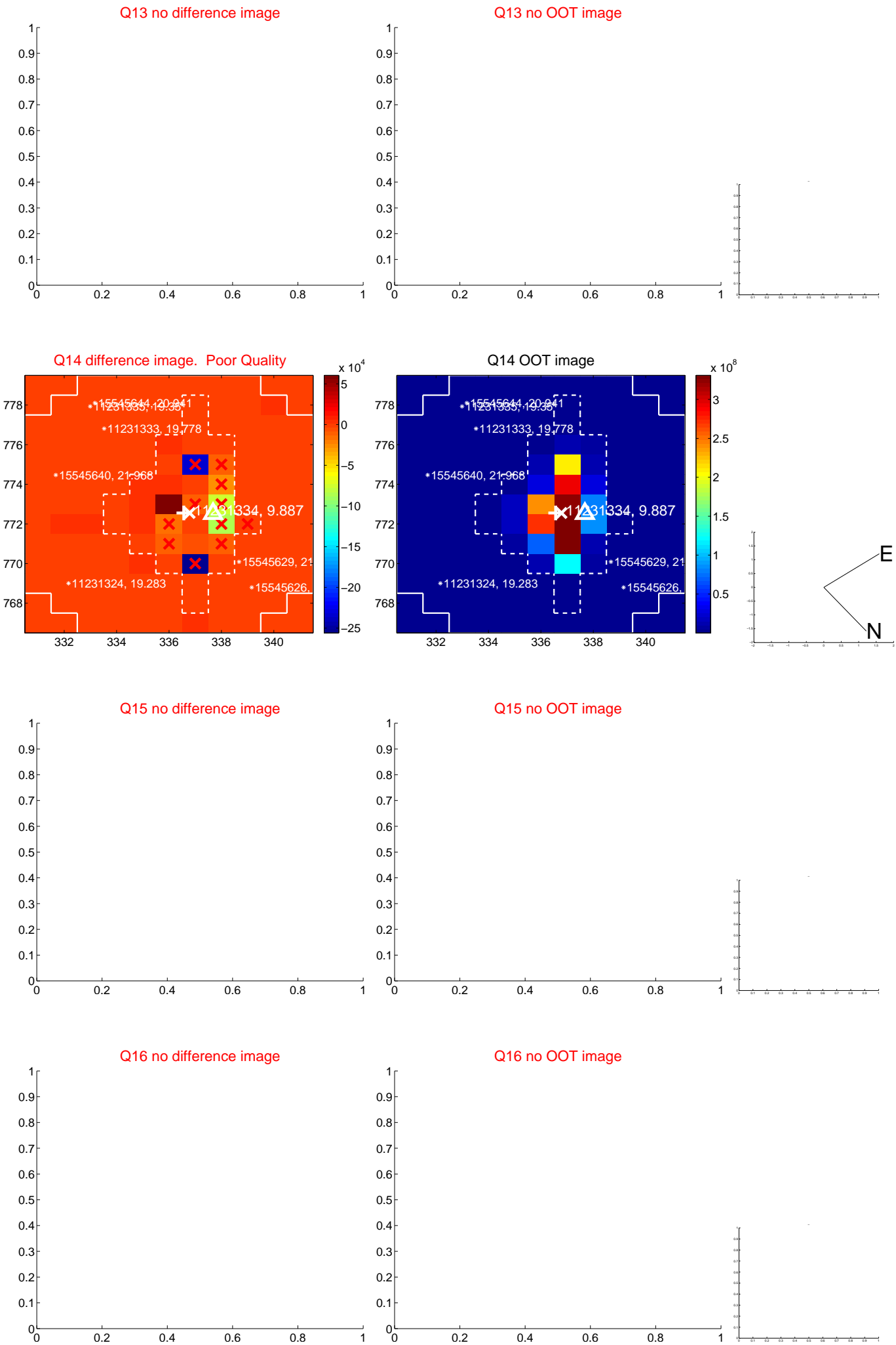
Q8 no OOT image



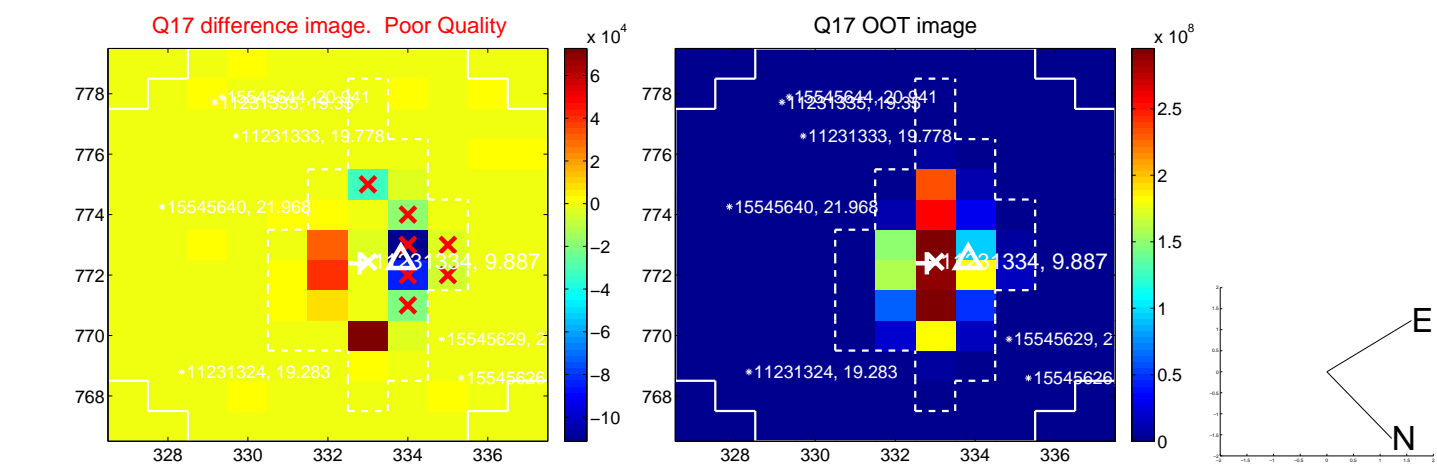
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



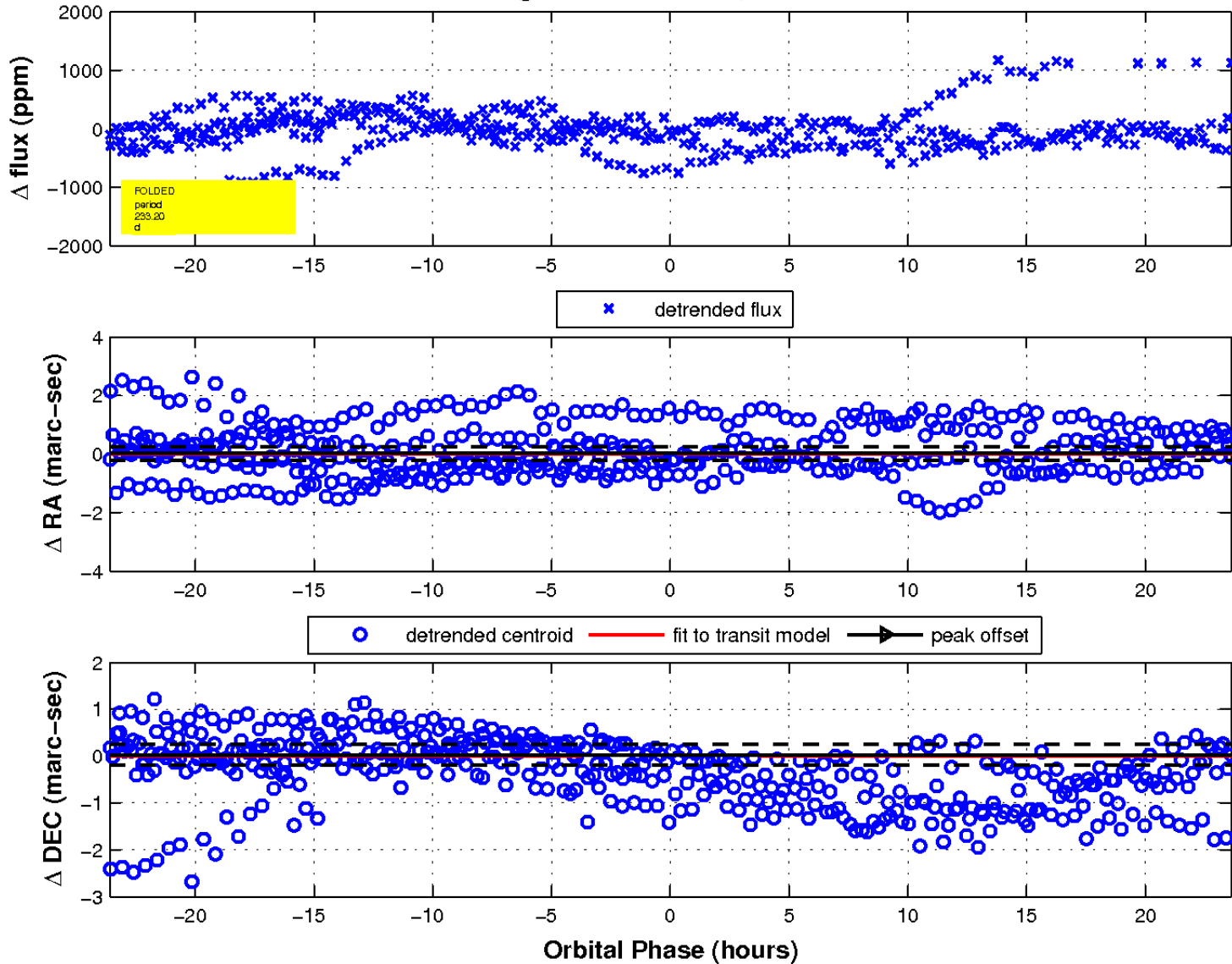
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

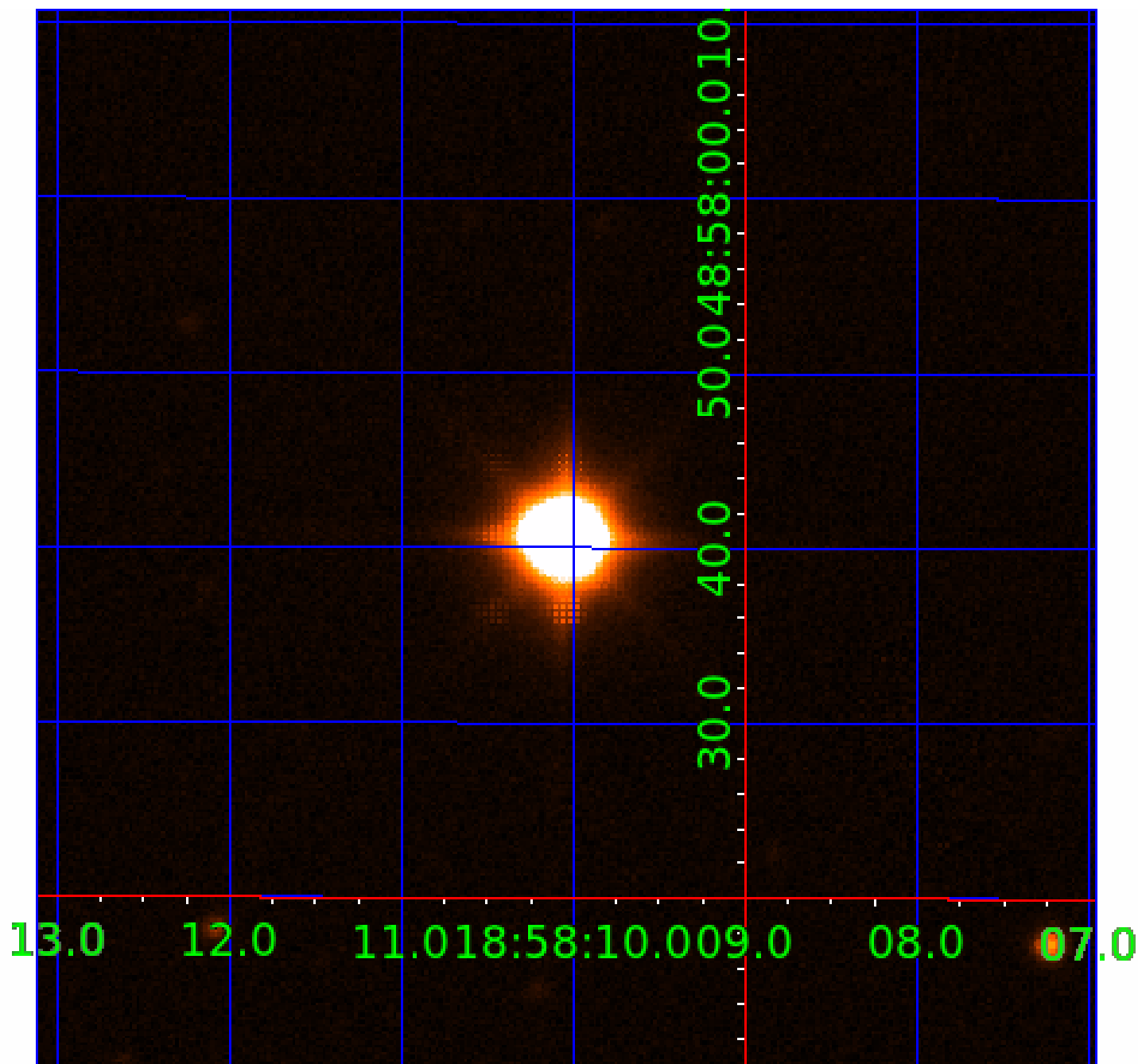


fluxWeightedCentroids, Planet 3 of 5



UKIRT Image

Declination



KIC 011231334

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})
011231334-01	OBS	0258.01	4.157466	135.078798	1177.6	6.814	129.2	145.8	3.13	6529	20.18	4511.26
011231334-02	OBS	No	4.157404	133.008611	146.8	6.931	18.6	20.8	3.13	6529	6.09	4511.35
011231334-03	OBS	No	233.196509	165.581981	235.5	7.878	10.0	4.9	3.13	6529	5.23	21.01
011231334-04	OBS	No	266.547707	277.188533	323.0	2.264	9.7	6.8	3.13	6529	6.09	17.58
011231334-05	OBS	No	295.097624	165.618920	433.1	5.721	8.5	9.1	3.13	6529	12.61	15.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011231334-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_SATURATED
011231334-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_SATURATED
011231334-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED
011231334-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
011231334-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

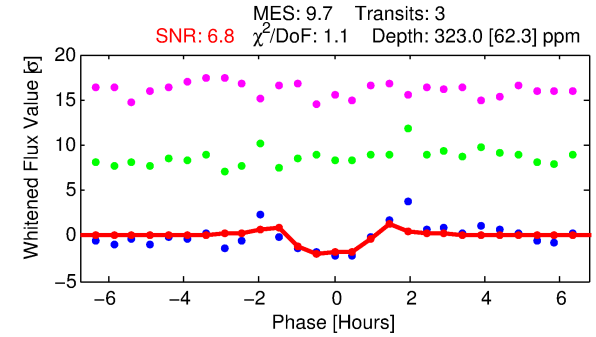
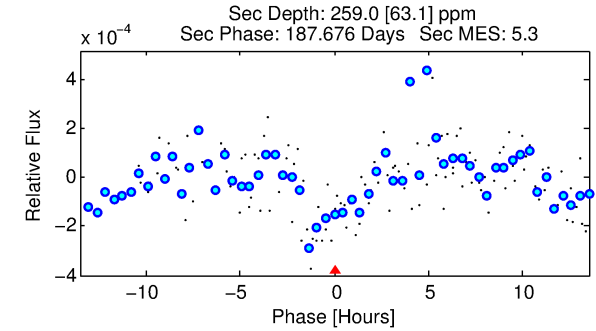
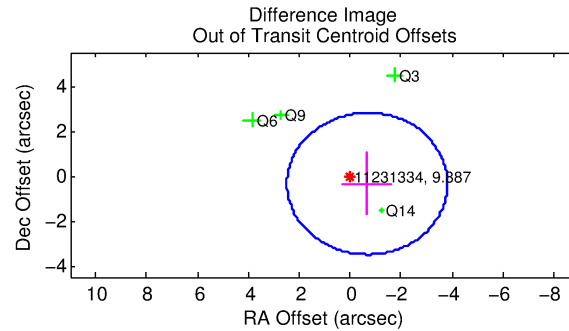
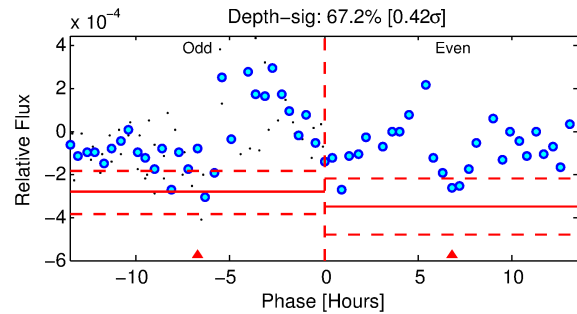
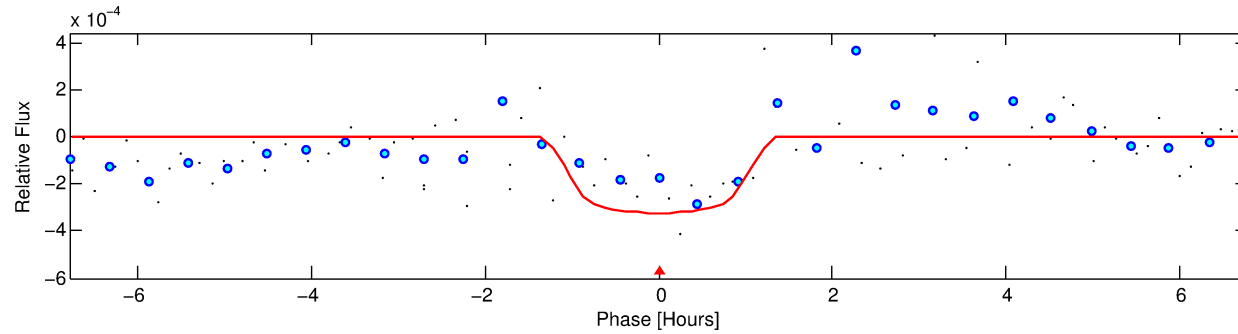
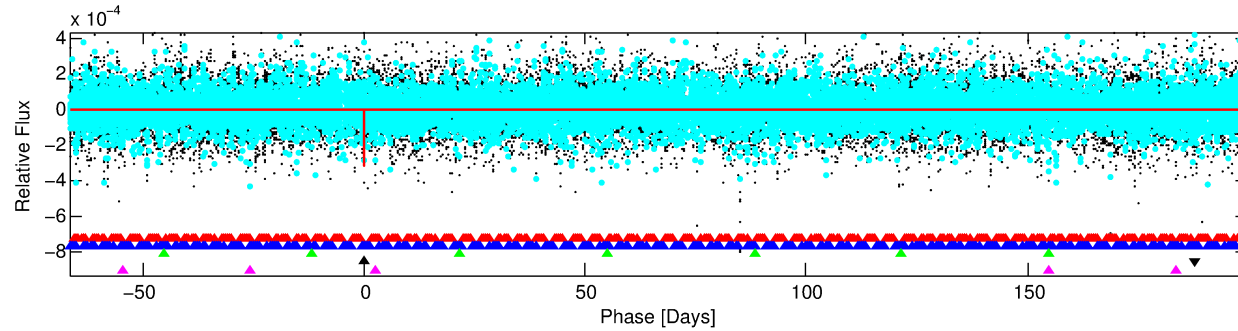
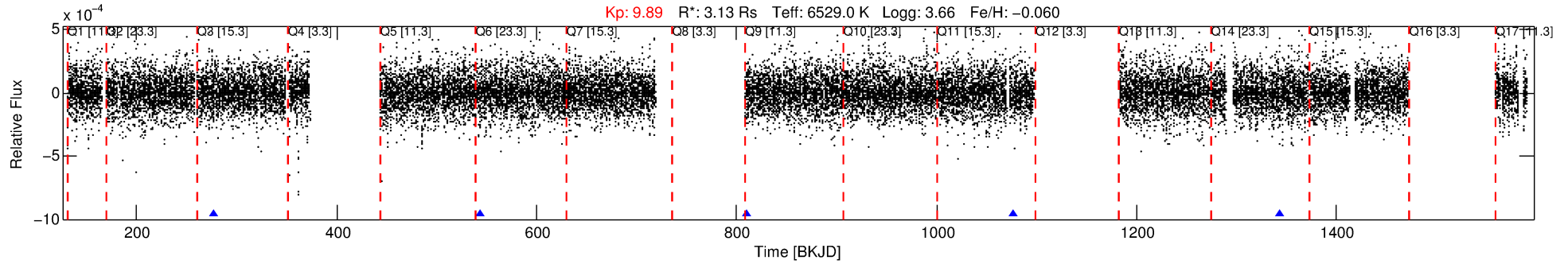
Ephemeris Match Information For 011231334-04

No Significant Match Found

DV One-Page Summary

KIC: 11231334 Candidate: 4 of 5 Period: 266.548 d

KOI: K00258 Corr: No Ephemeris Match



DV Fit Results:

Period = 266.54771 [0.00276] d
Epoch = 277.1885 [0.0053] BKJD
Rp/R* = 0.0178 [0.0215]
a/R* = 630.71 [4255.51]
b = 0.74 [4.13]
Seff = 17.58 [9.68]
Teq = 522 [72] K
Rp = 6.09 [7.68] Re
a = 0.9528 [0.3294] AU
Ag = 3483.07 [8635.41] [0.40 σ]
Teffp = 6202 [3755] K [1.51 σ]

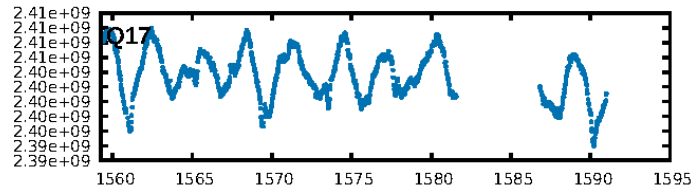
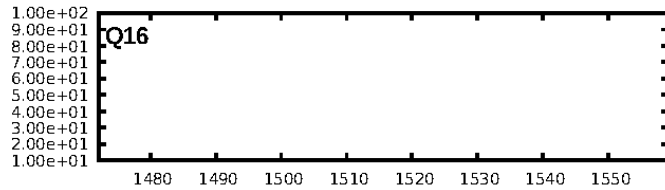
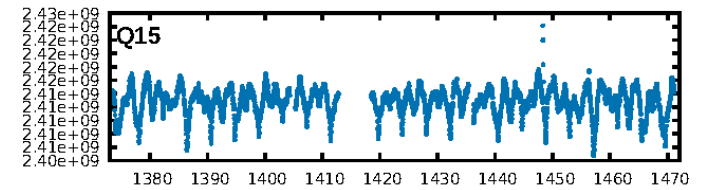
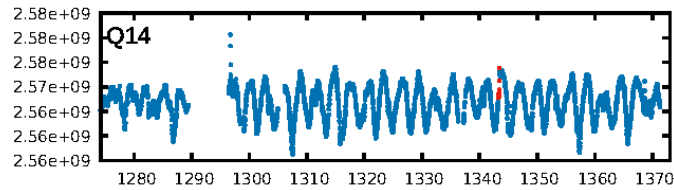
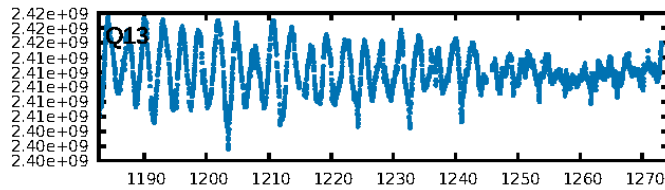
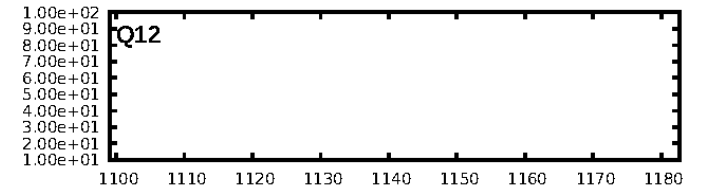
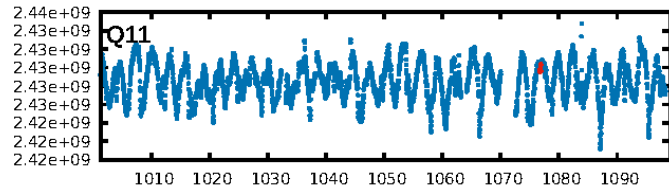
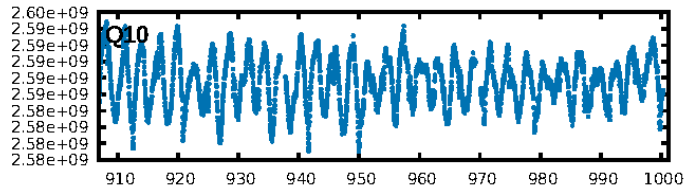
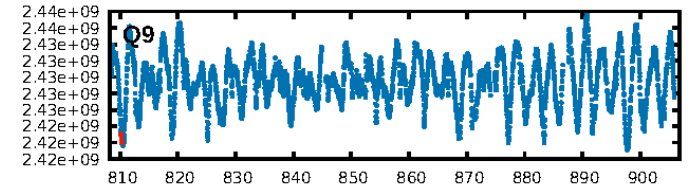
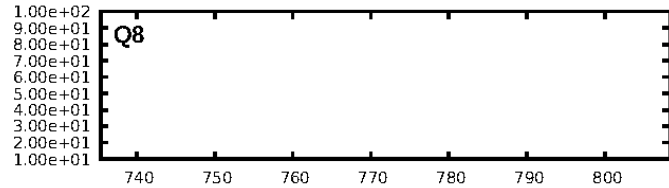
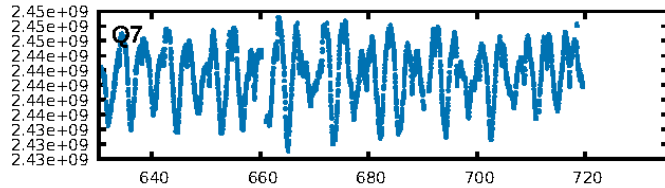
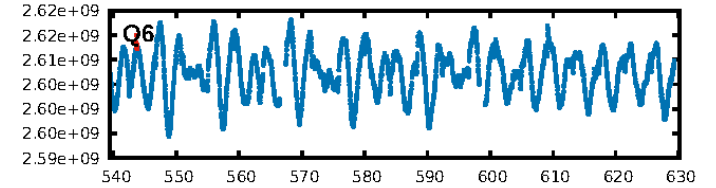
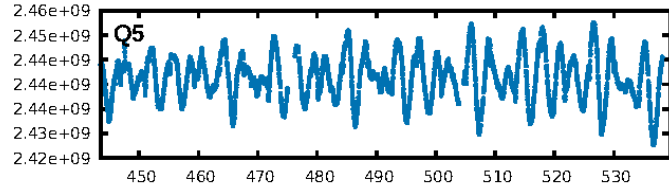
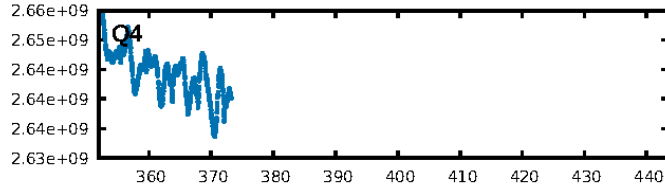
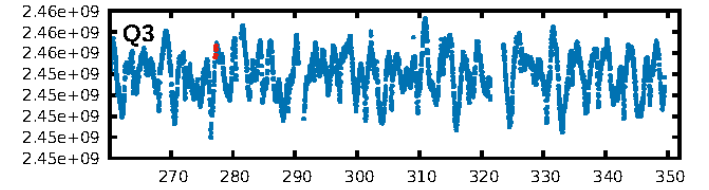
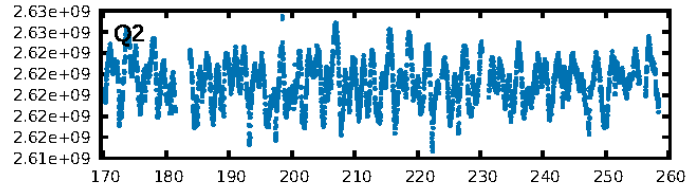
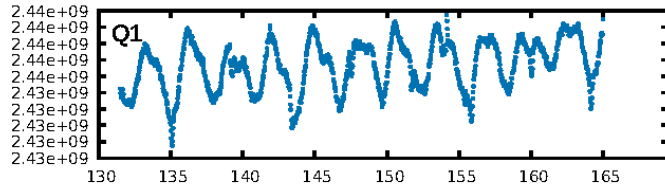
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [97.65 σ]
LongPeriod-sig: 100.0% [111.37 σ]
ModelChiSquare2-sig: 31.4%
ModelChiSquareGof-sig: 87.2%
Bootstrap-pfa: 6.63e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 13.8%
Centroid-so: 1.074 arcsec [1.78 σ]
OotOffset-rm: 0.758 arcsec [0.72 σ]
KicOffset-rm: 1.506 arcsec [1.14 σ]
OotOffset-st: 2/1/0/1 [4]
KicOffset-st: 2/1/0/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.60 [3/5]

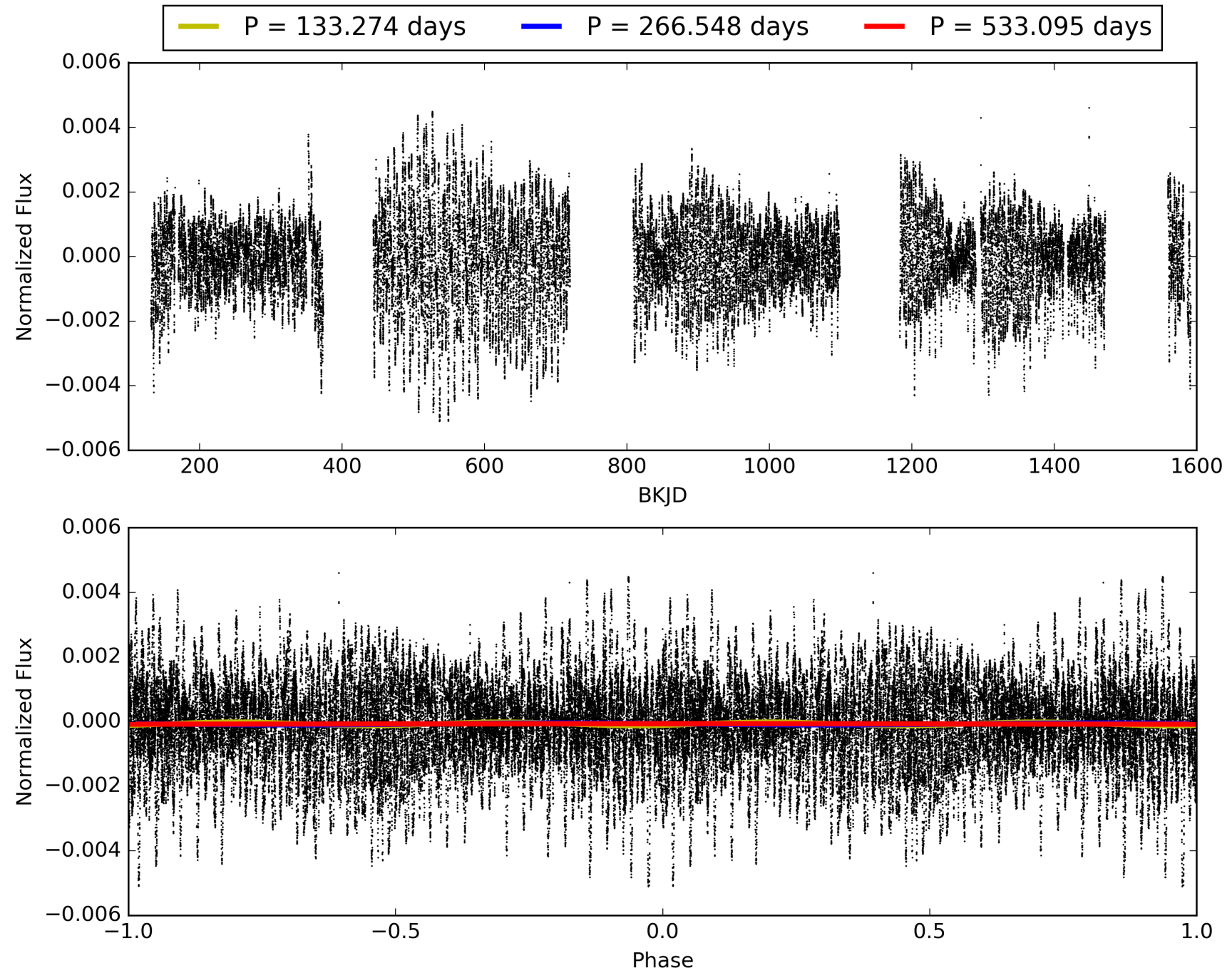
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:29:17 Z

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

TCE 011231334-04, PDC Light Curves

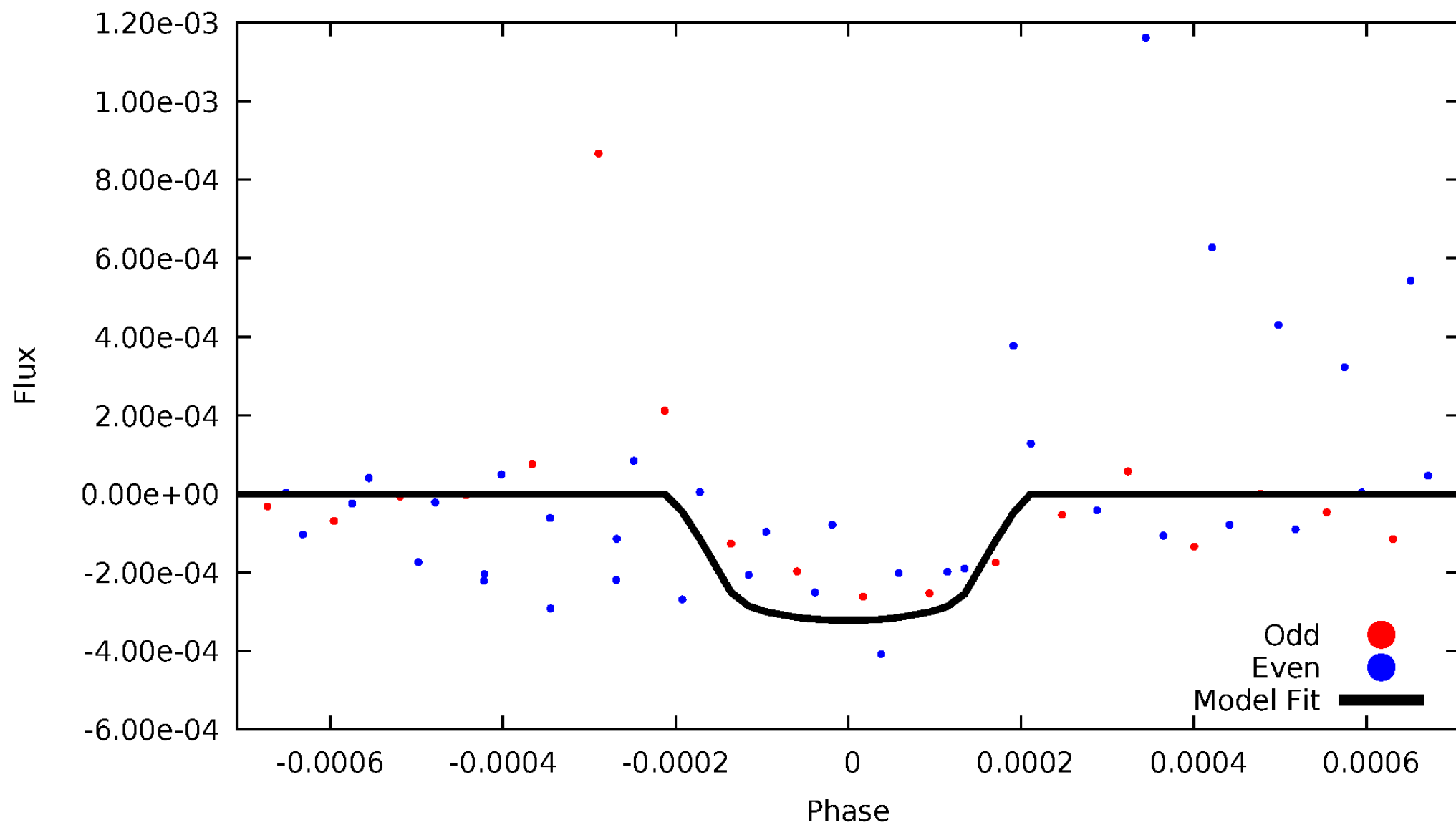


TCE 011231334-04



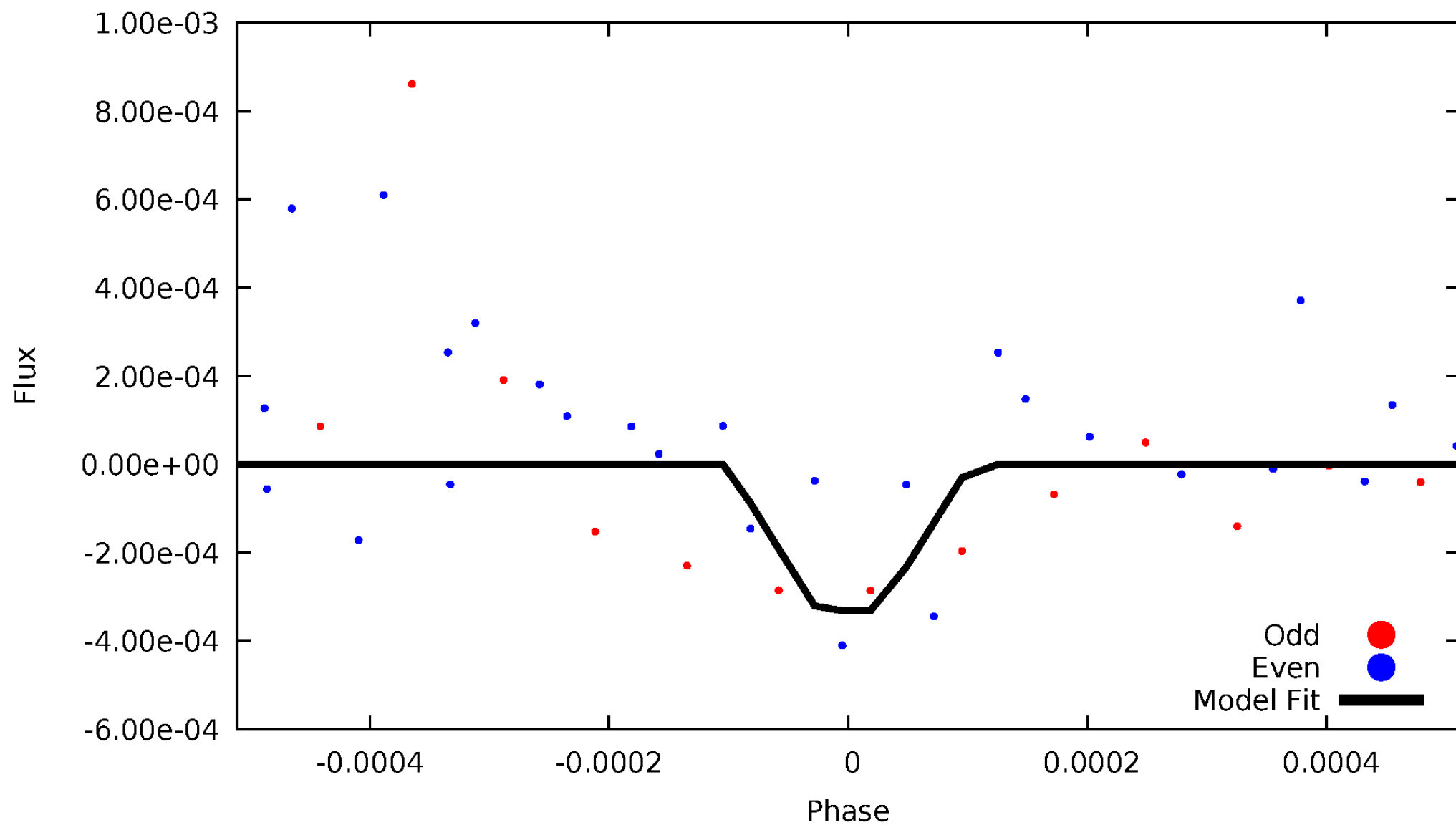
DV Odd/Even

TCE 011231334-04



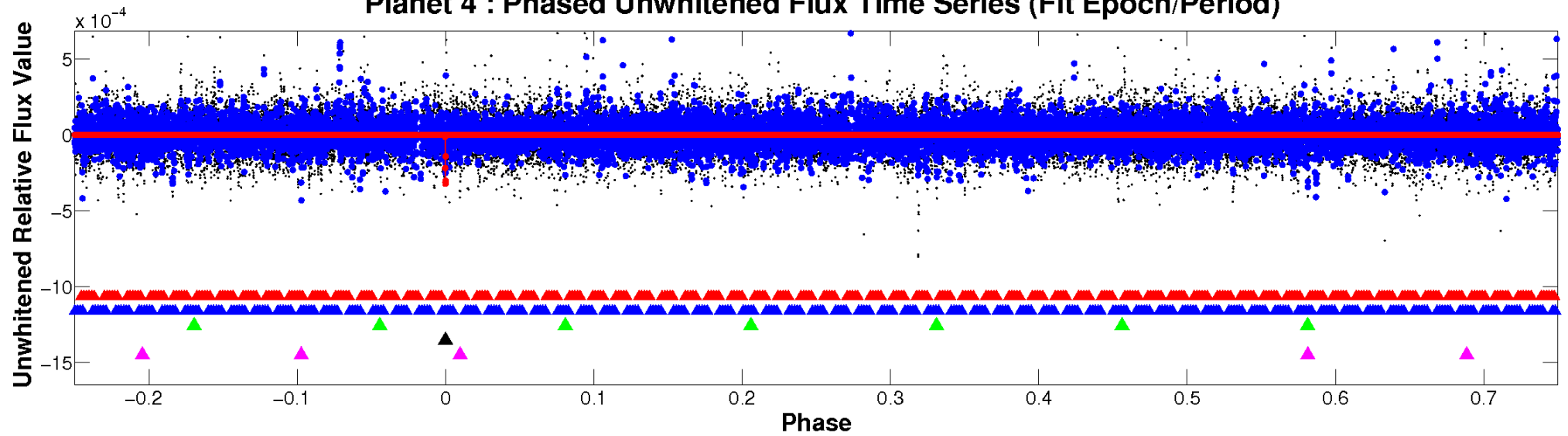
ALT Odd/Even

TCE 011231334-04

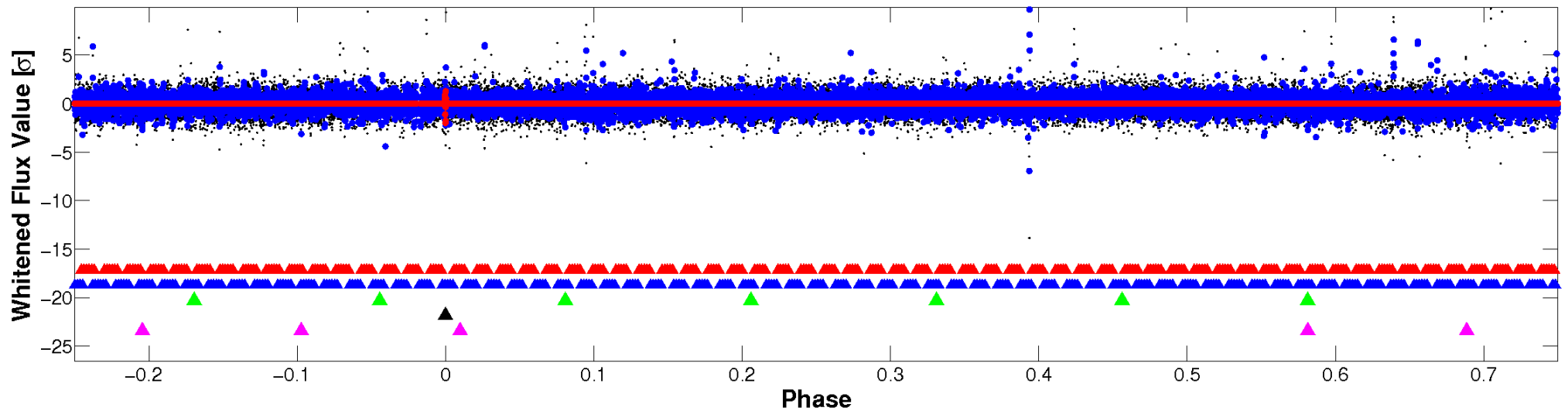


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

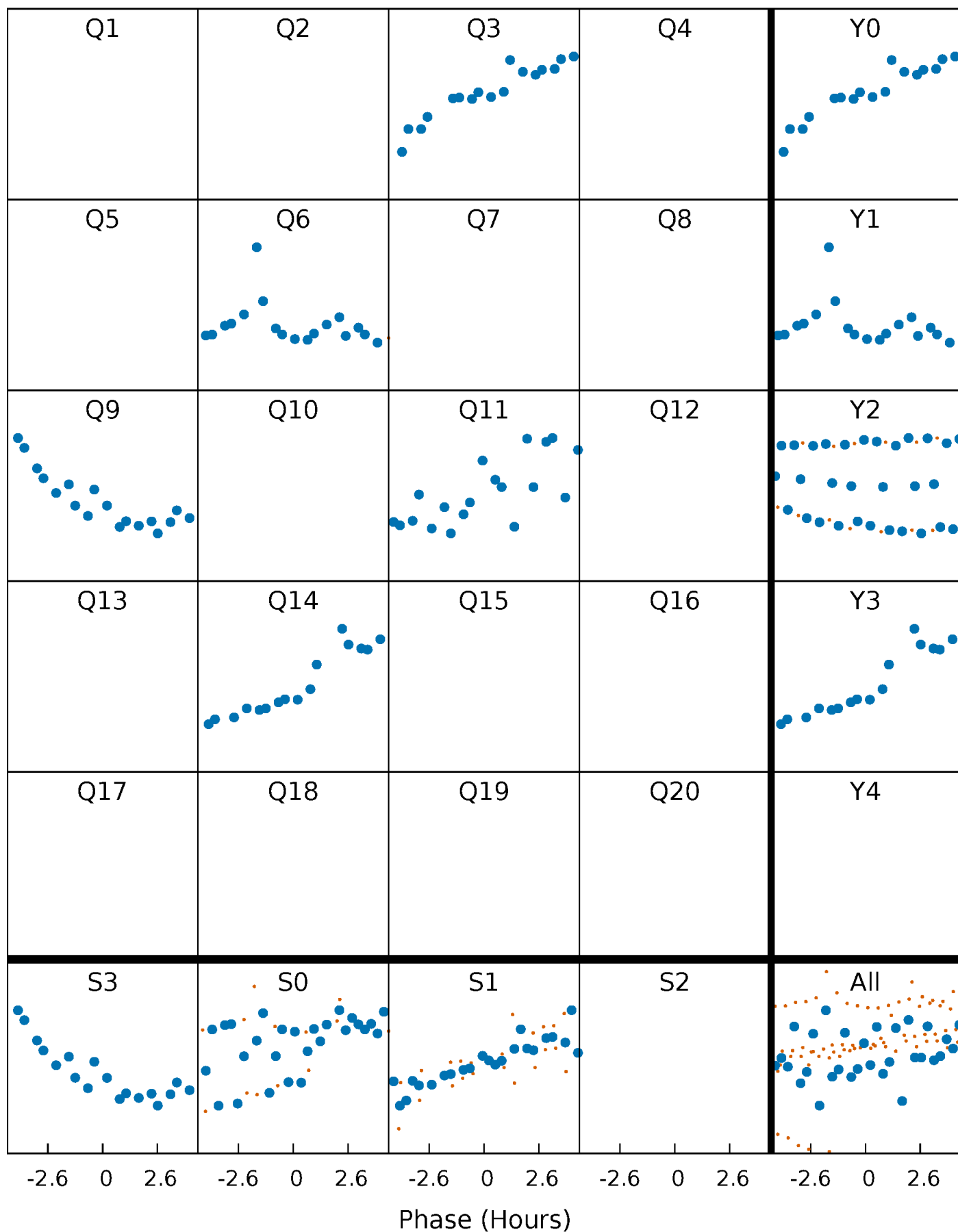


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



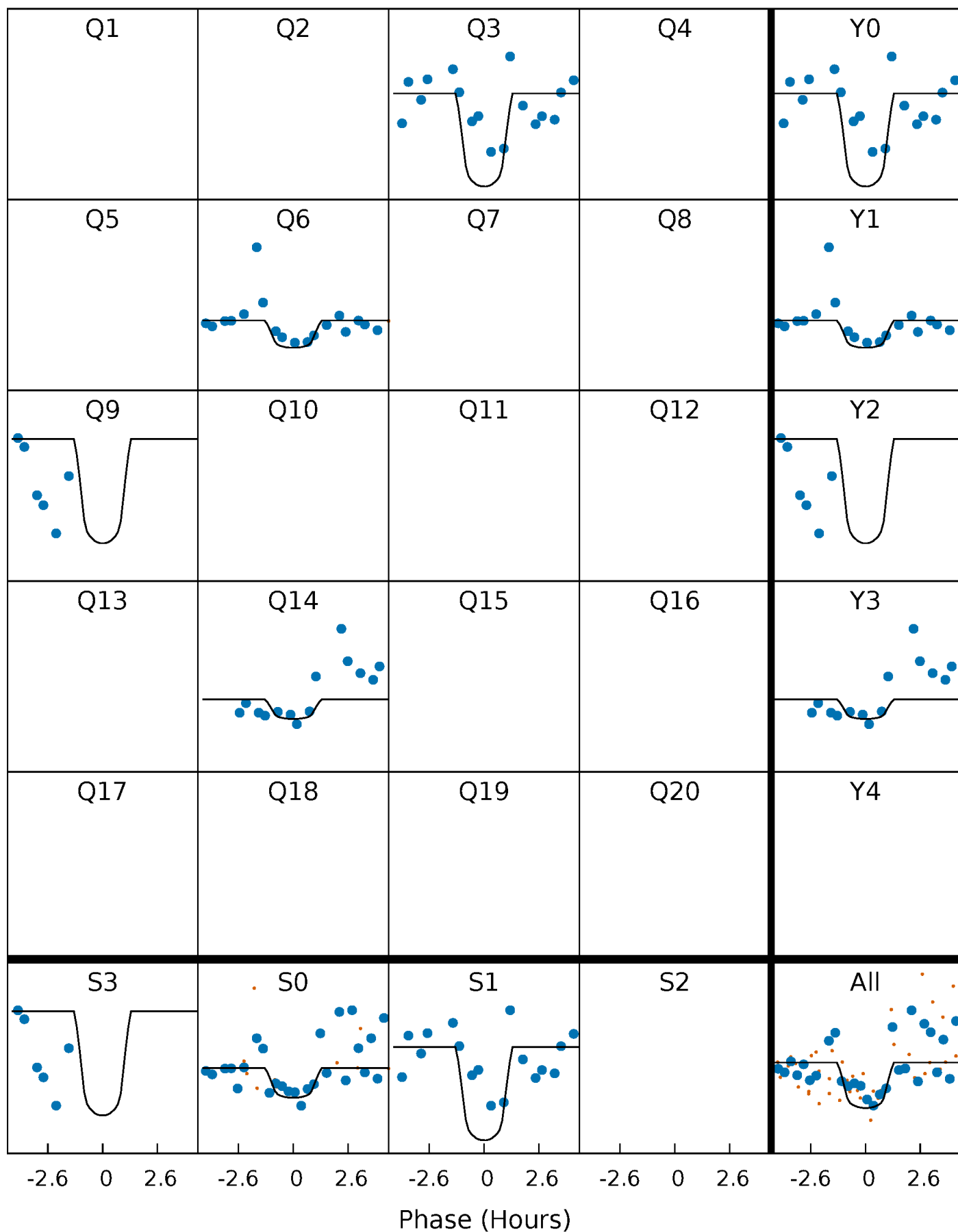
PDC Quarter-Phased Transit Curves

TCE 011231334-04 P=266.547707 Days $T_0=277.188533$ (BKJD)



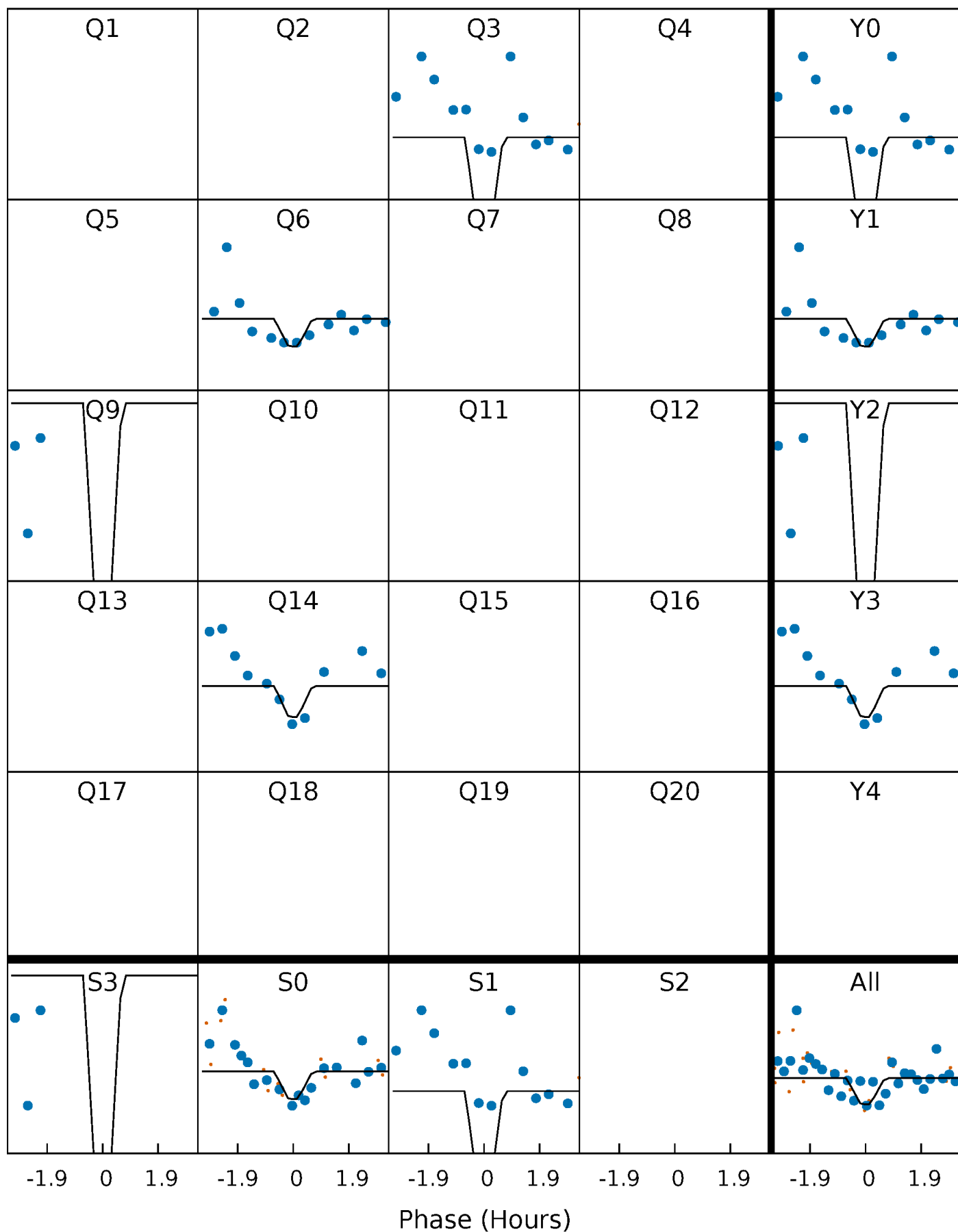
DV Quarter-Phased Transit Curves

TCE 011231334-04 P=266.547707 Days $T_0=277.188533$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

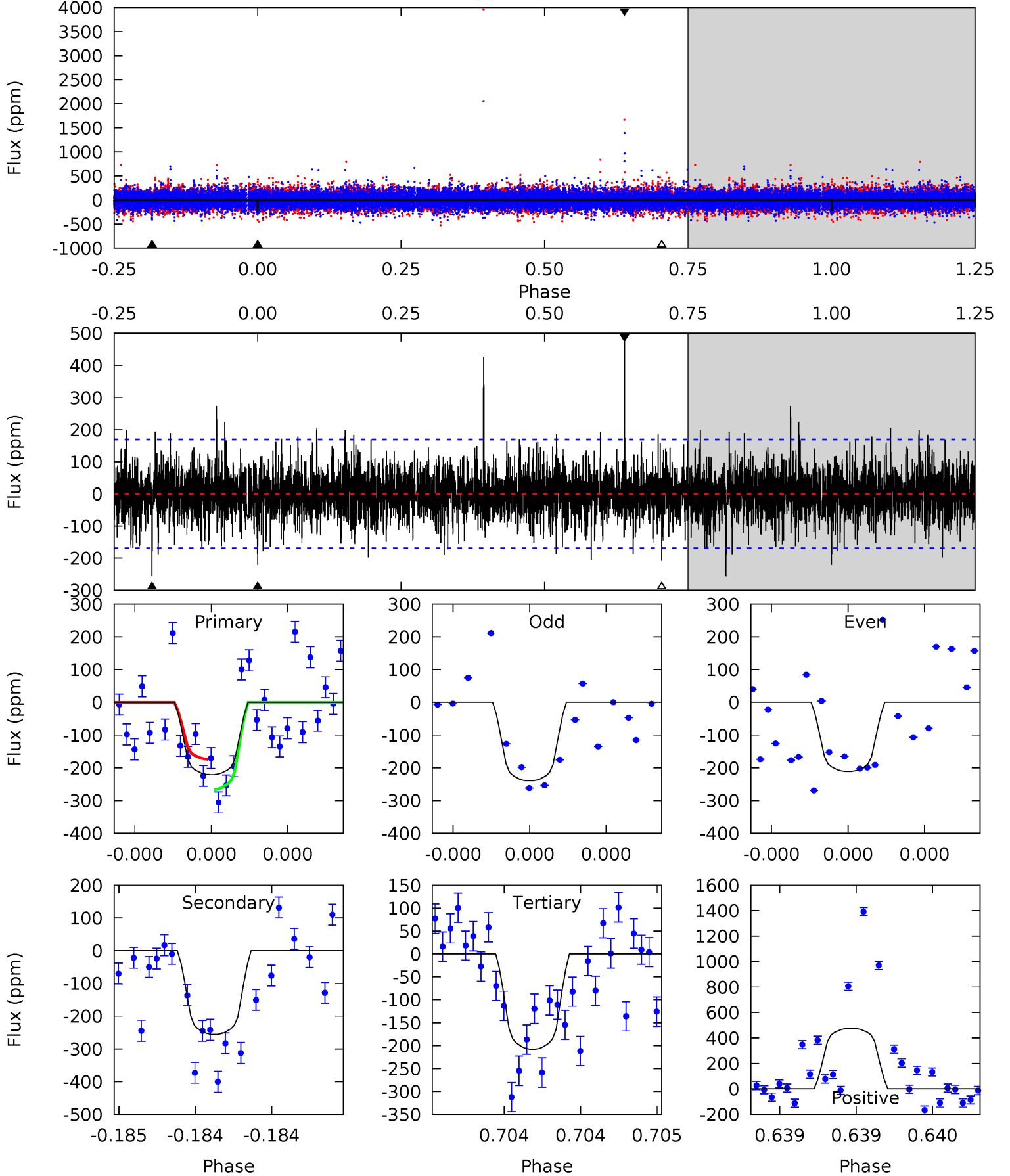
TCE 011231334-04 P=266.544830 Days $T_0=277.211531$ (BKJD)



DV Model-Shift Uniqueness Test

011231334-04, P = 266.547707 Days, E = 10.640826 Days

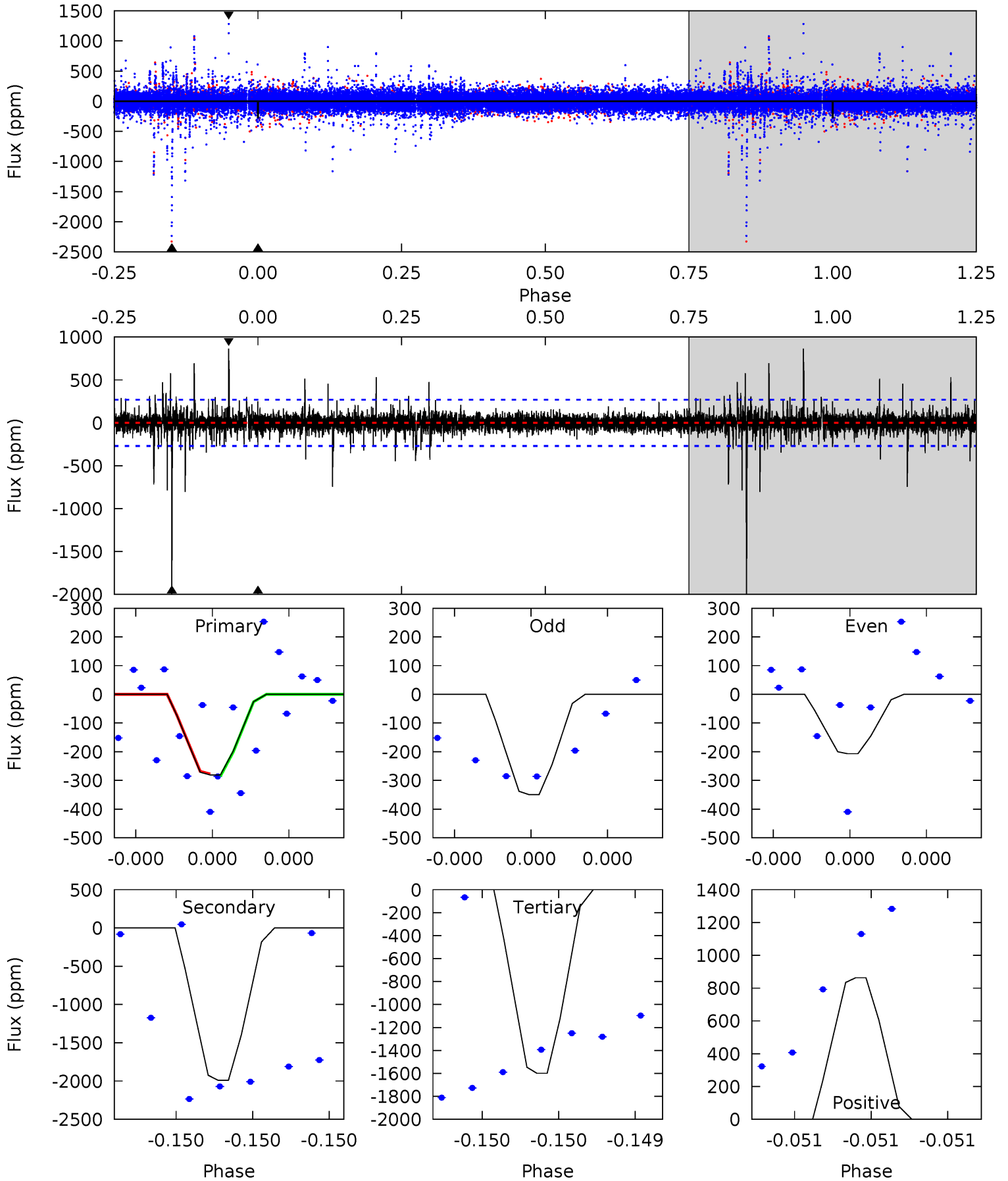
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.29	8.45	6.86	15.7	5.60	3.52	1.86	0.43	-8.42	1.58	-7.26	0.42	0.92	0.65	1.52



Alt Model-Shift Uniqueness Test

011231334-04, P = 266.544830 Days, E = 10.666701 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.98	42.4	34.1	18.4	5.75	3.75	1.63	-28.1	-12.4	8.33	24.0	1.01	0.83	0.30	0.08



Stellar Parameters For KIC 011231334

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6529^{+156}_{-176}	$3.657^{+0.312}_{-0.078}$	$-0.060^{+0.300}_{-0.250}$	$3.131^{+0.468}_{-1.171}$	$1.623^{+0.206}_{-0.335}$	$0.075^{+0.169}_{-0.019}$
	+2%/-3%	+9%/-2%	+500%/-417%	+15%/-37%	+13%/-21%	+226%/-26%
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 011231334-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-256 ± 30	$6.93^{+6.34}_{-4.70}$	716^{+39}_{-68}	5576^{+5153}_{-1272}	2576^{+22054}_{-1844}
Alt.	-1991 ± 47	$7.46^{+6.73}_{-4.77}$	714^{+39}_{-69}	9457^{+15165}_{-2883}	$17704^{+116178}_{-12573}$

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

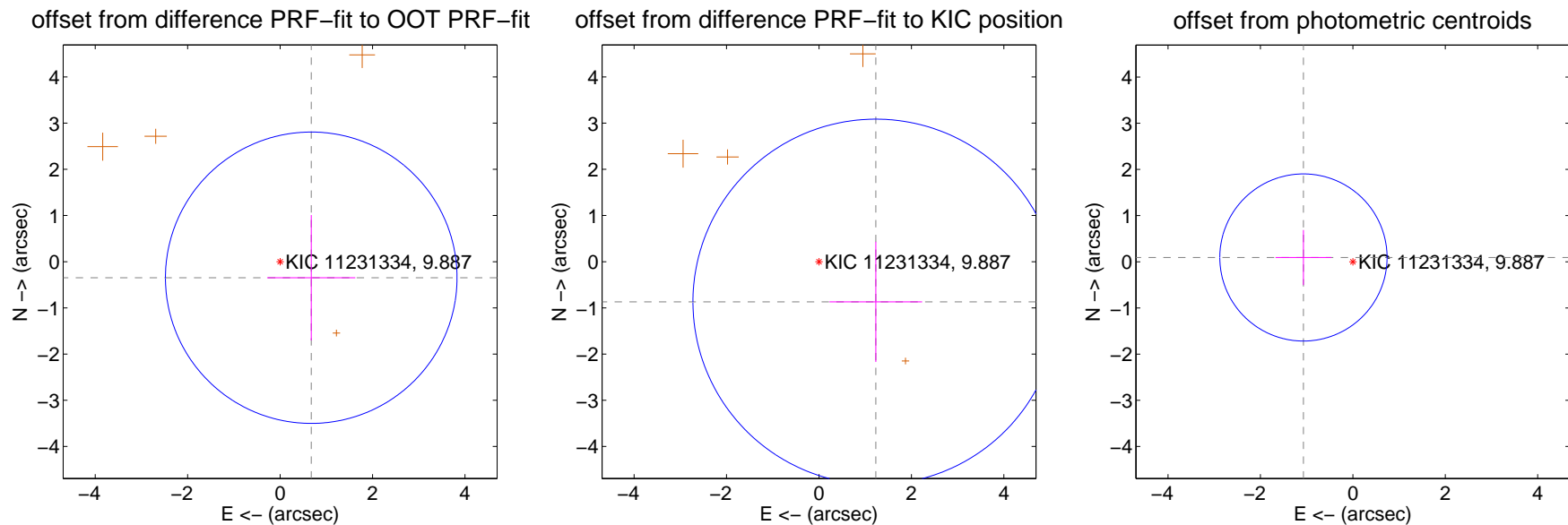
DV Centroid Data

Supplemental centroid analysis for 011231334-04. **Kepler magnitude: 9.89.** Transit SNR 6.76

There are 0 quarters with good PRF difference image offsets

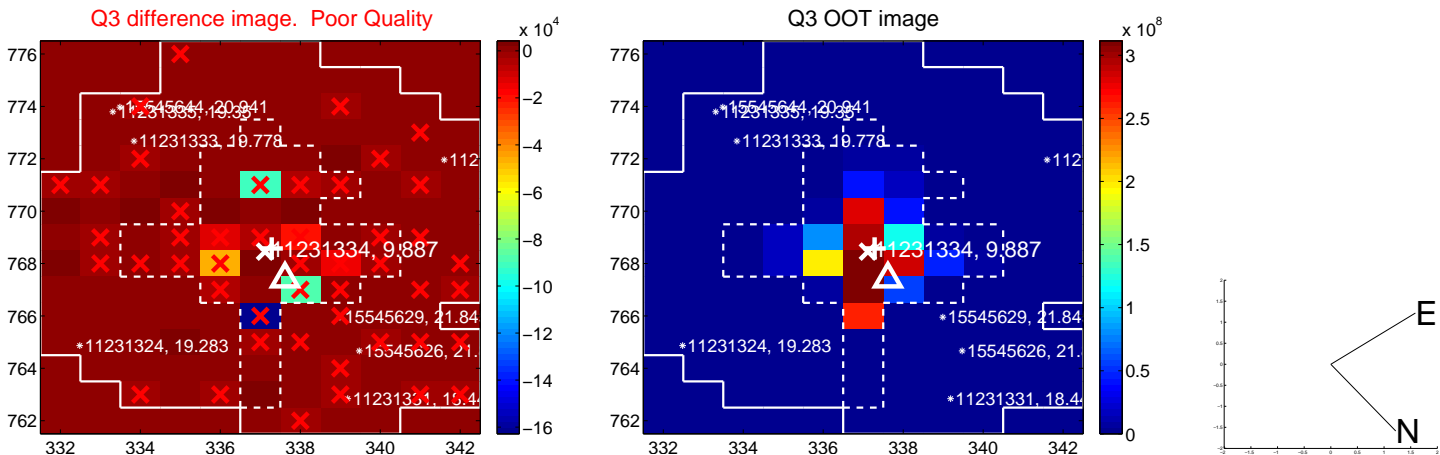
The direct PRF centroid is offset from the target star catalog position by about 0.89 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.758 ± 1.052	0.72	-0.674 ± 0.954	-0.347 ± 1.358
PRF-fit source offset from KIC position	1.506 ± 1.319	1.14	-1.229 ± 1.004	-0.870 ± 1.303
photometric centroid source offset	1.07 ± 0.60	1.78	1.07 ± 0.60	0.09 ± 0.60

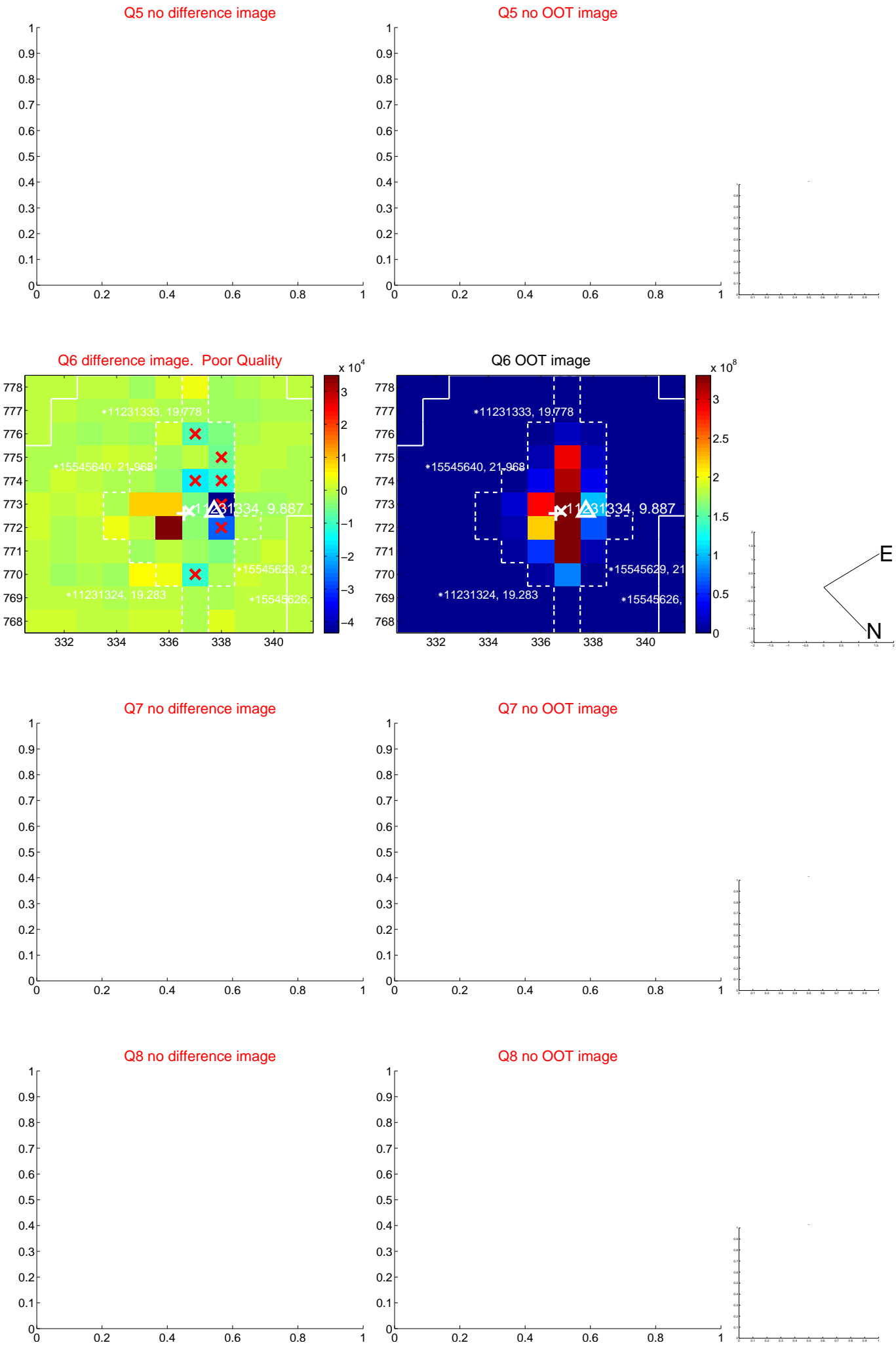


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

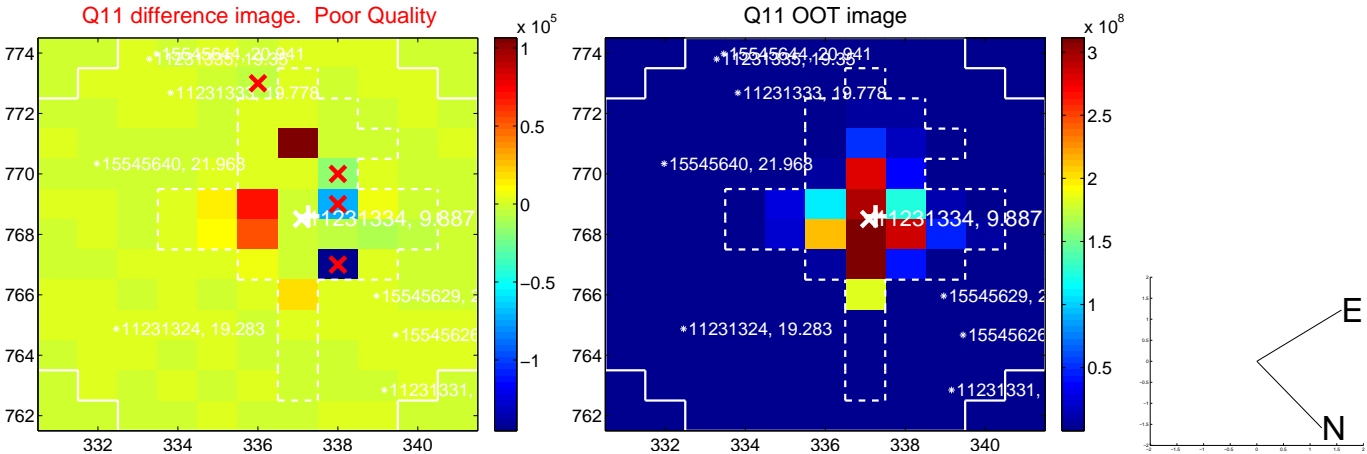
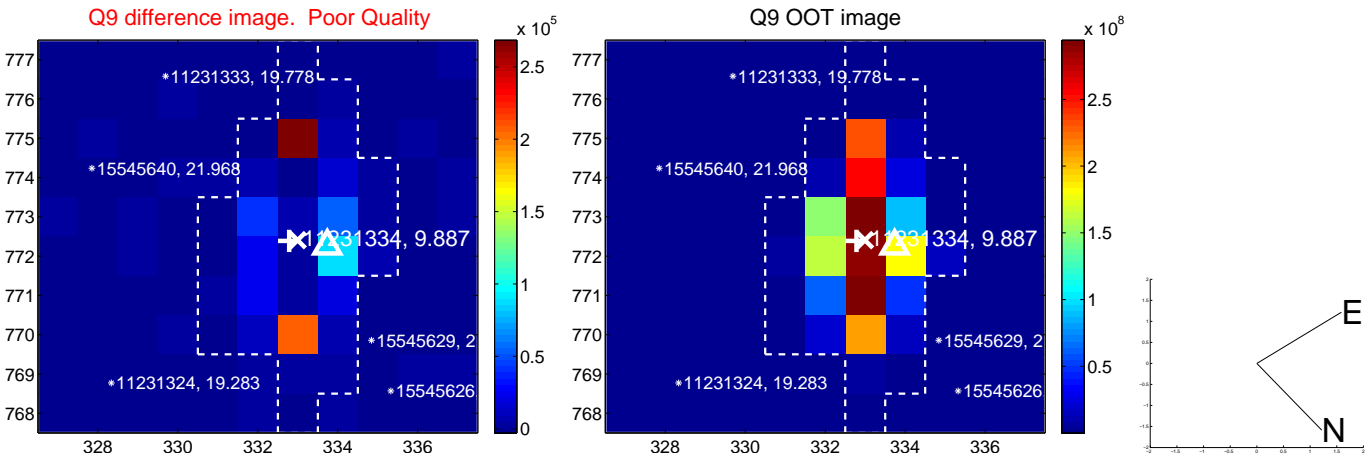
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



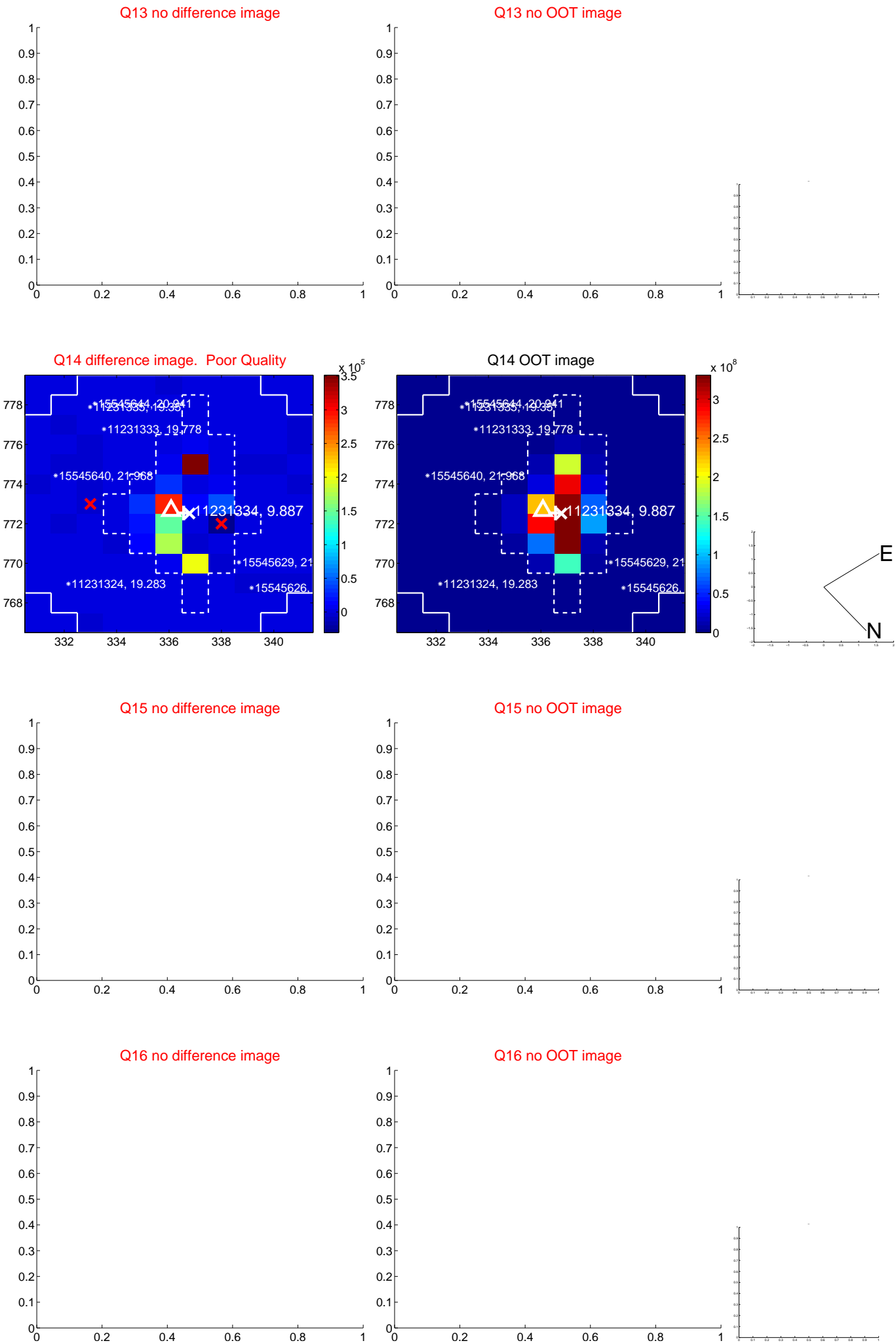
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



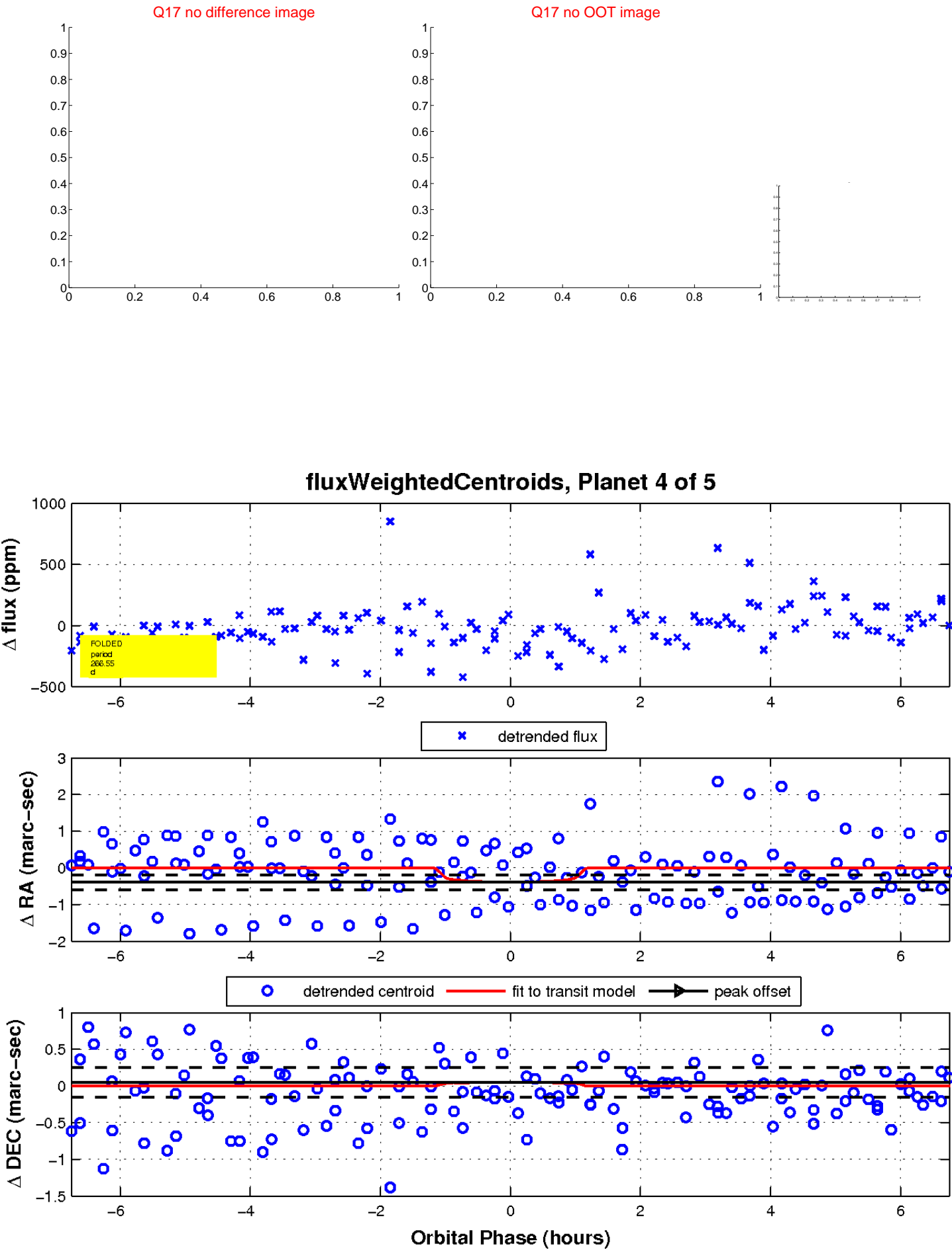
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

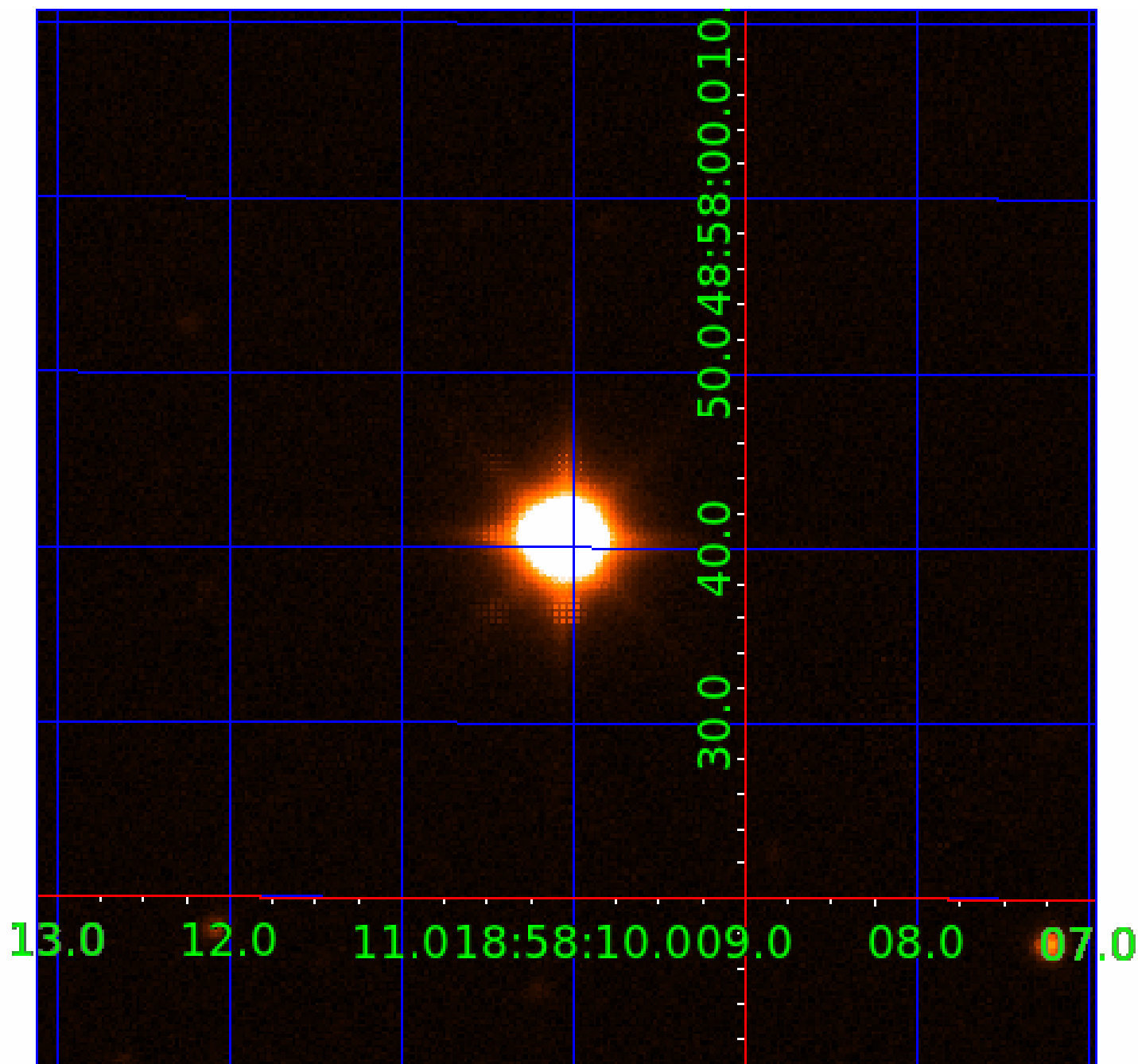


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011231334

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})
011231334-01	OBS	0258.01	4.157466	135.078798	1177.6	6.814	129.2	145.8	3.13	6529	20.18	4511.26
011231334-02	OBS	No	4.157404	133.008611	146.8	6.931	18.6	20.8	3.13	6529	6.09	4511.35
011231334-03	OBS	No	233.196509	165.581981	235.5	7.878	10.0	4.9	3.13	6529	5.23	21.01
011231334-04	OBS	No	266.547707	277.188533	323.0	2.264	9.7	6.8	3.13	6529	6.09	17.58
011231334-05	OBS	No	295.097624	165.618920	433.1	5.721	8.5	9.1	3.13	6529	12.61	15.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011231334-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_SATURATED
011231334-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_SATURATED
011231334-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED
011231334-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
011231334-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

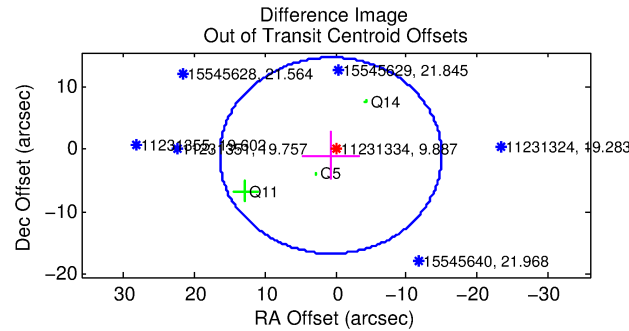
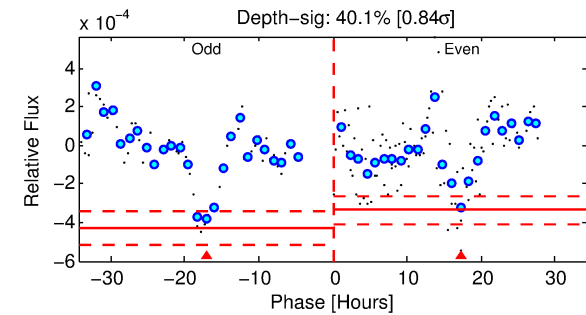
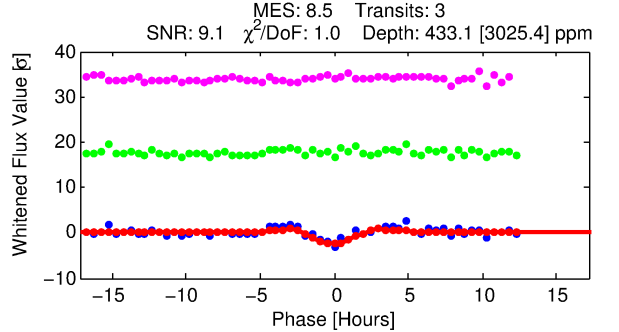
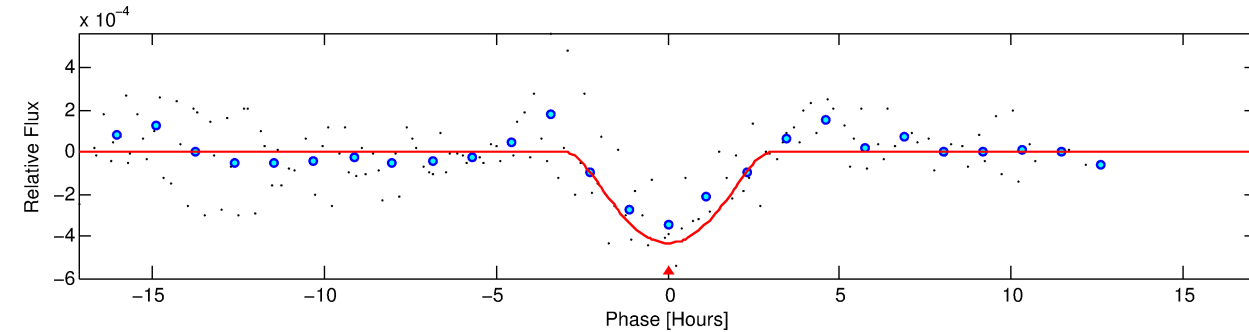
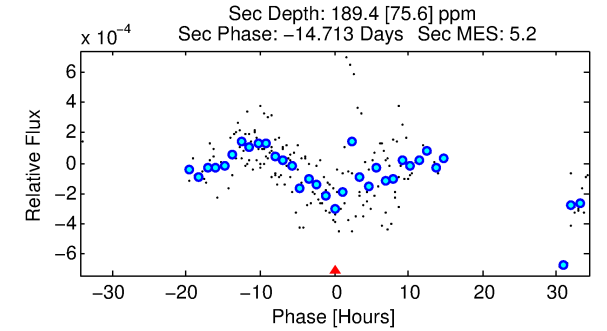
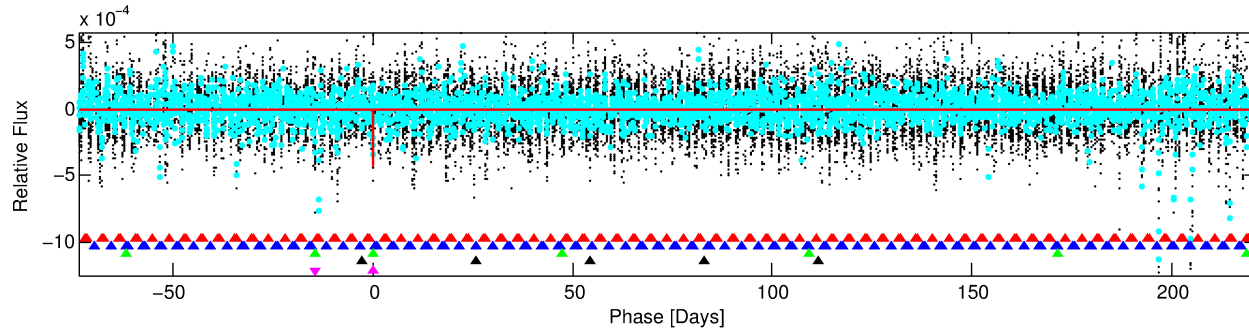
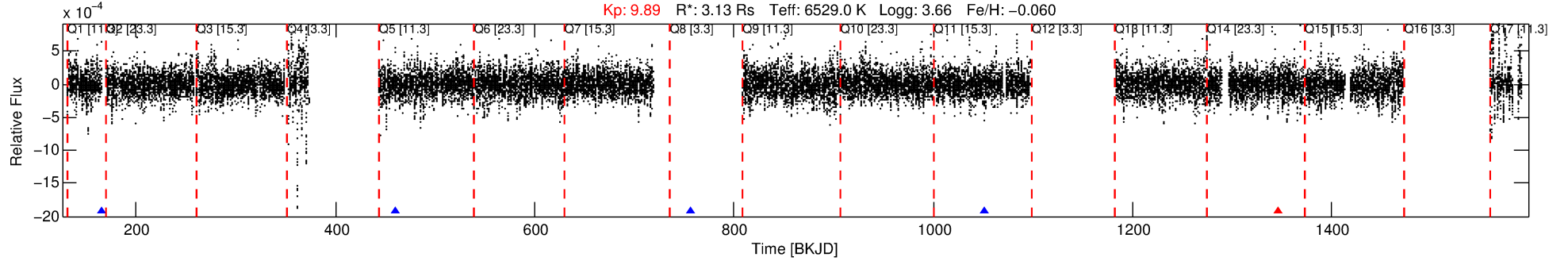
Ephemeris Match Information For 011231334-05

No Significant Match Found

DV One-Page Summary

KIC: 11231334 Candidate: 5 of 5 Period: 295.098 d

KOI: K00258 Corr: No Ephemeris Match



DV Fit Results:

Period = 295.09762 [0.00411] d
Epoch = 165.6189 [0.0122] BKJD
 $R_p/R^* = 0.0369$ [0.0942]
 $a/R^* = 108.06$ [70.10]
 $b = 1.00$ [0.04]
 $\text{Seff} = 15.35$ [8.45]
 $T_{\text{eq}} = 505$ [69] K
 $R_p = 12.61$ [32.53] R_e
 $a = 1.0197$ [0.3525] AU
 $A_g = 681.34$ [3507.51] [0.19 σ]
 $T_{\text{eff}} = 3987$ [5104] K [0.68 σ]

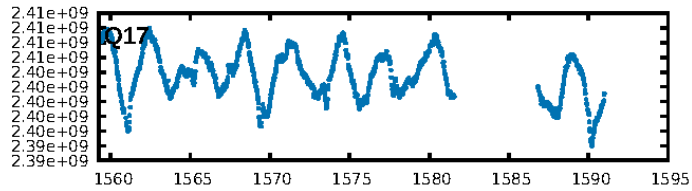
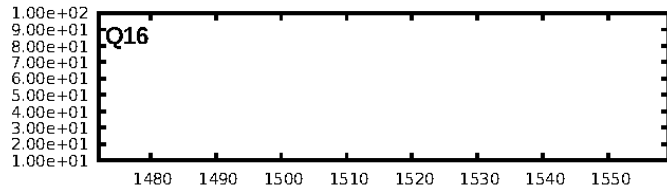
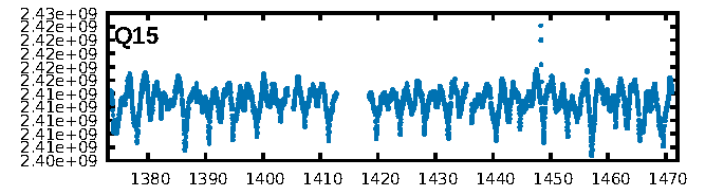
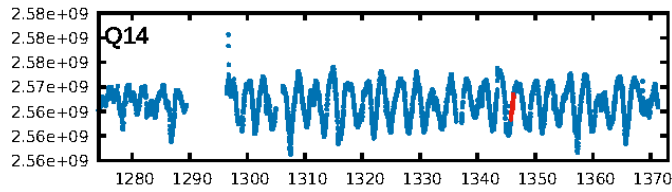
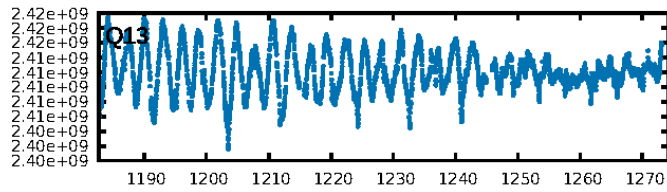
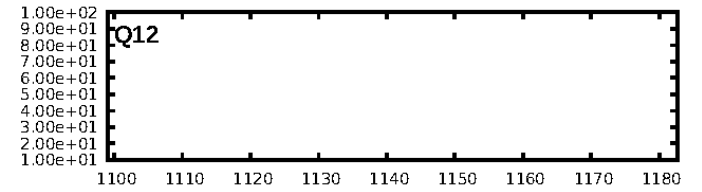
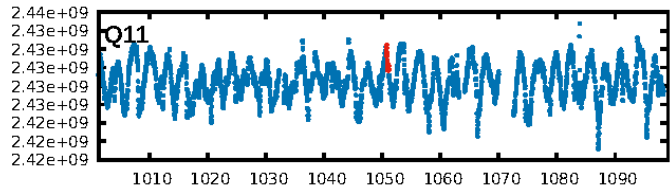
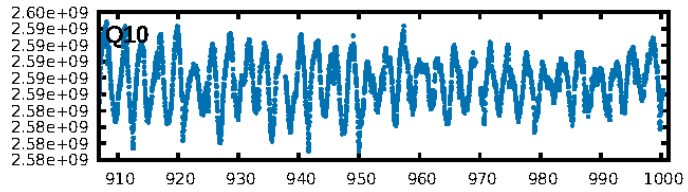
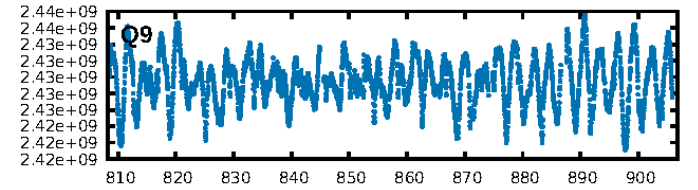
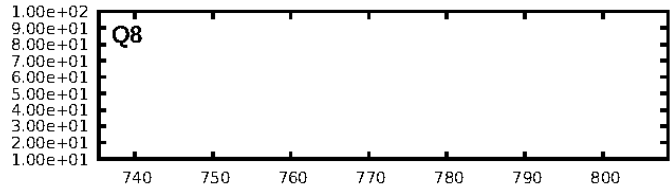
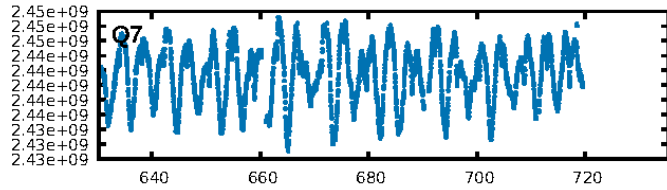
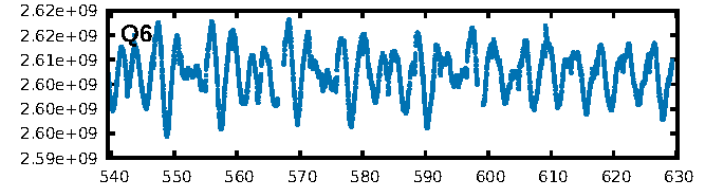
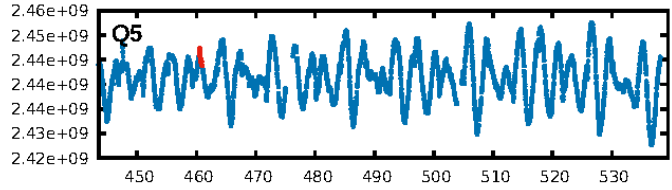
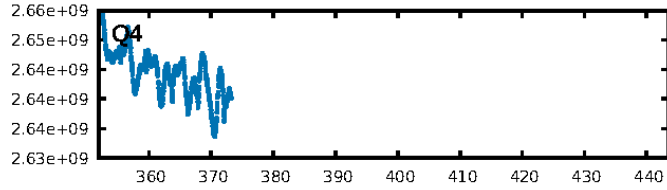
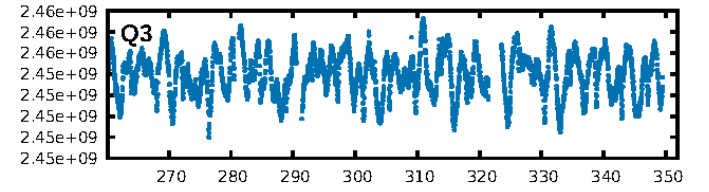
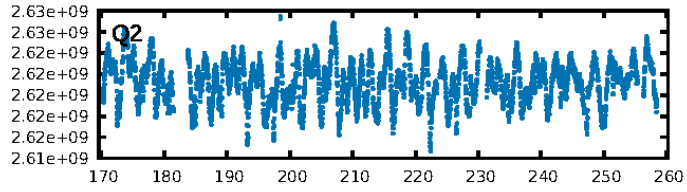
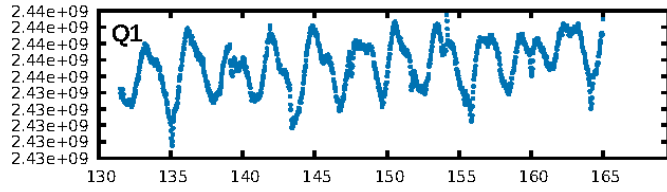
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [111.37 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 75.0%
ModelChiSquareGof-sig: 89.0%
Bootstrap-pfa: 4.91e-10
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 14.8%
Centroid-so: 0.542 arcsec [0.83 σ]
OotOffset-rm: 1.249 arcsec [0.24 σ]
KicOffset-rm: 0.975 arcsec [0.17 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

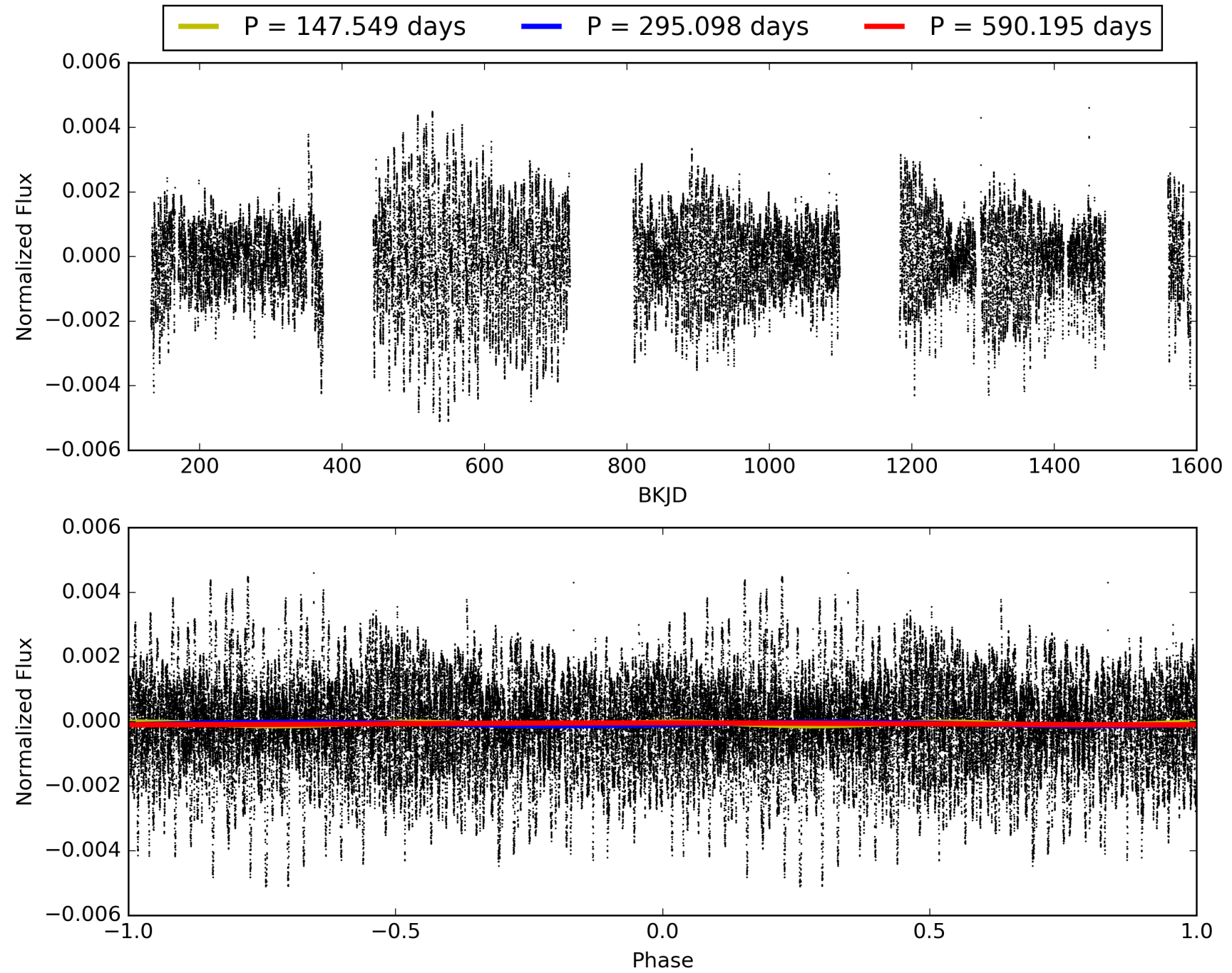
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:29:25 Z

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

TCE 011231334-05, PDC Light Curves

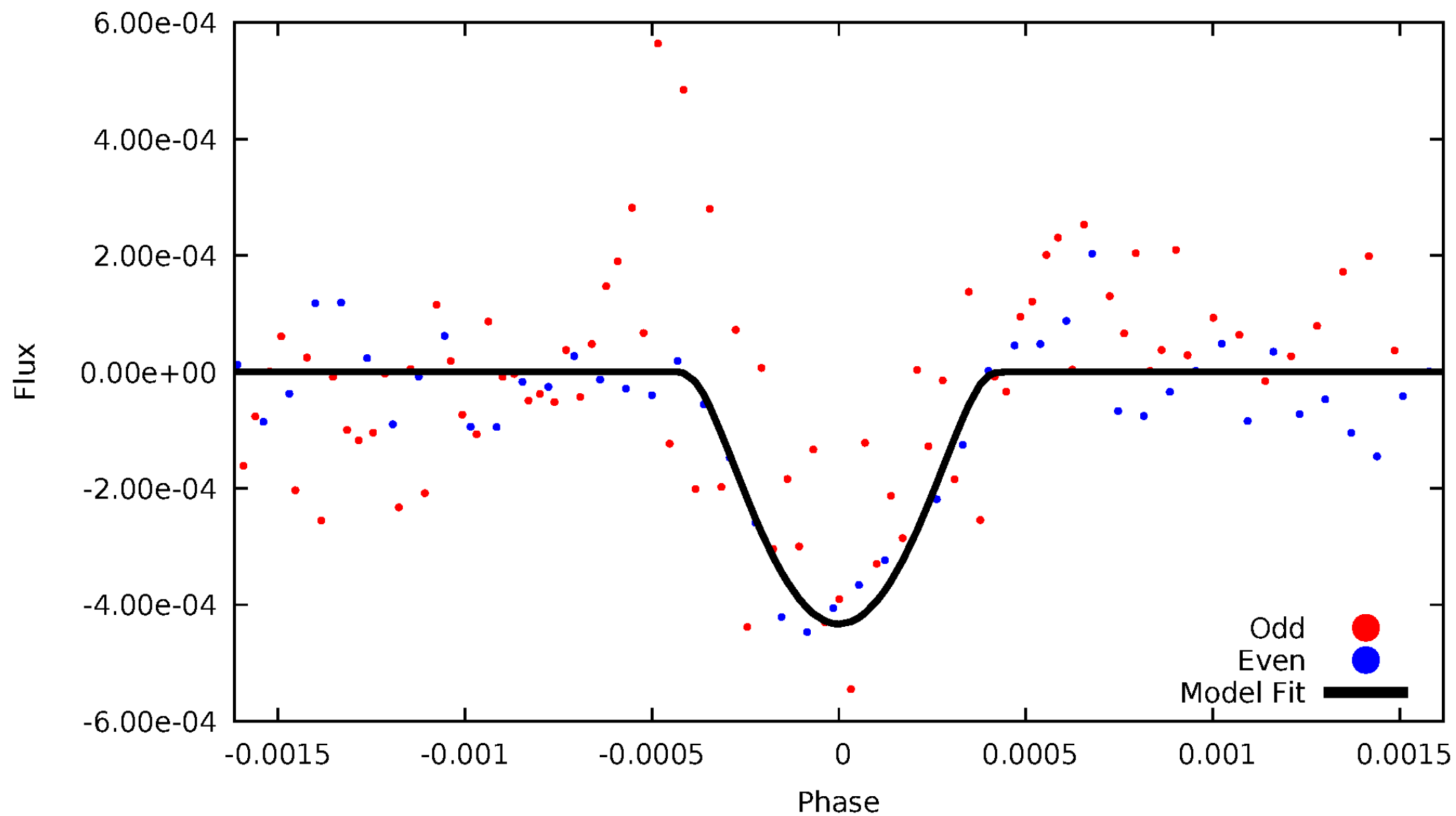


TCE 011231334-05



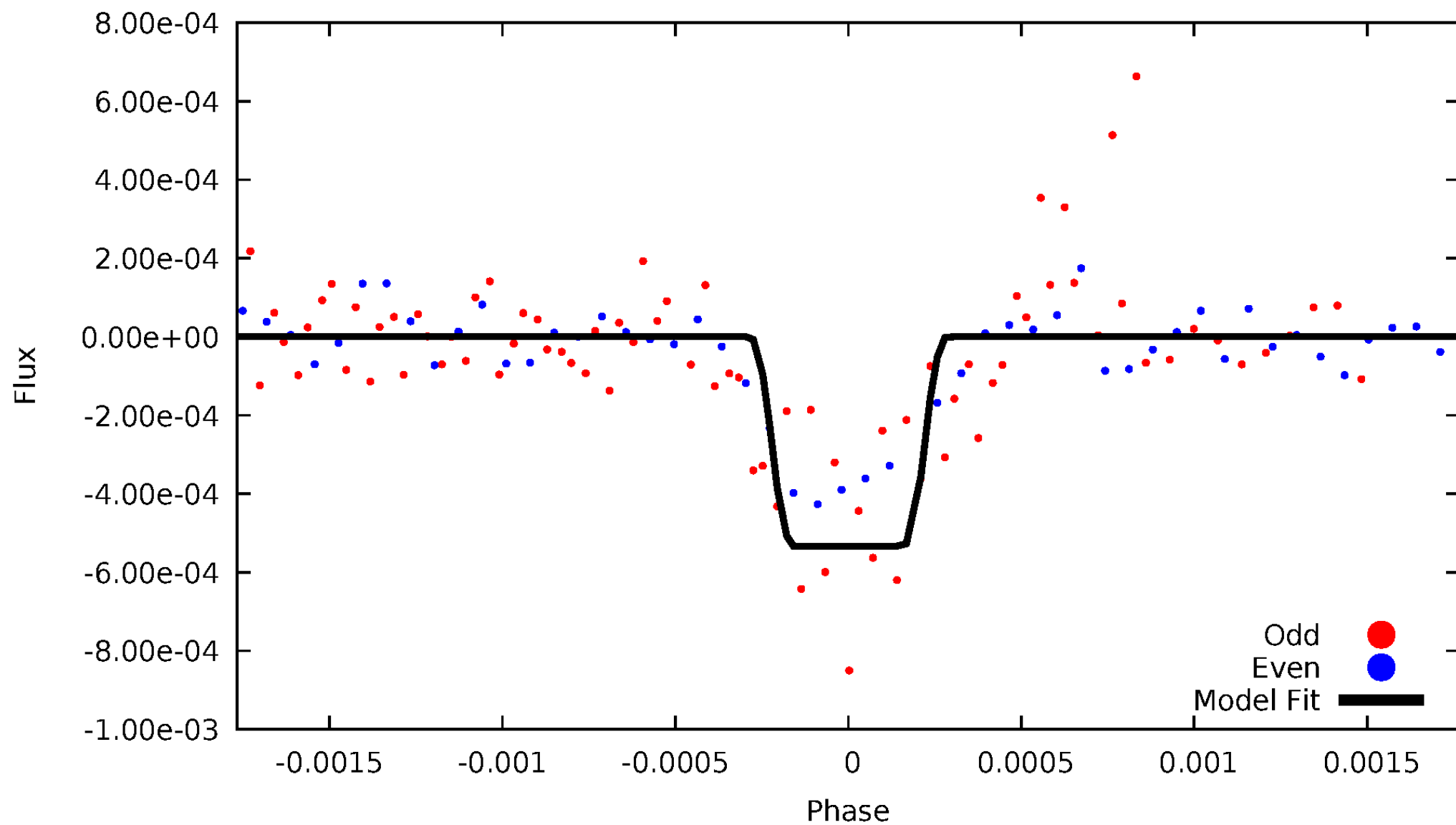
DV Odd/Even

TCE 011231334-05



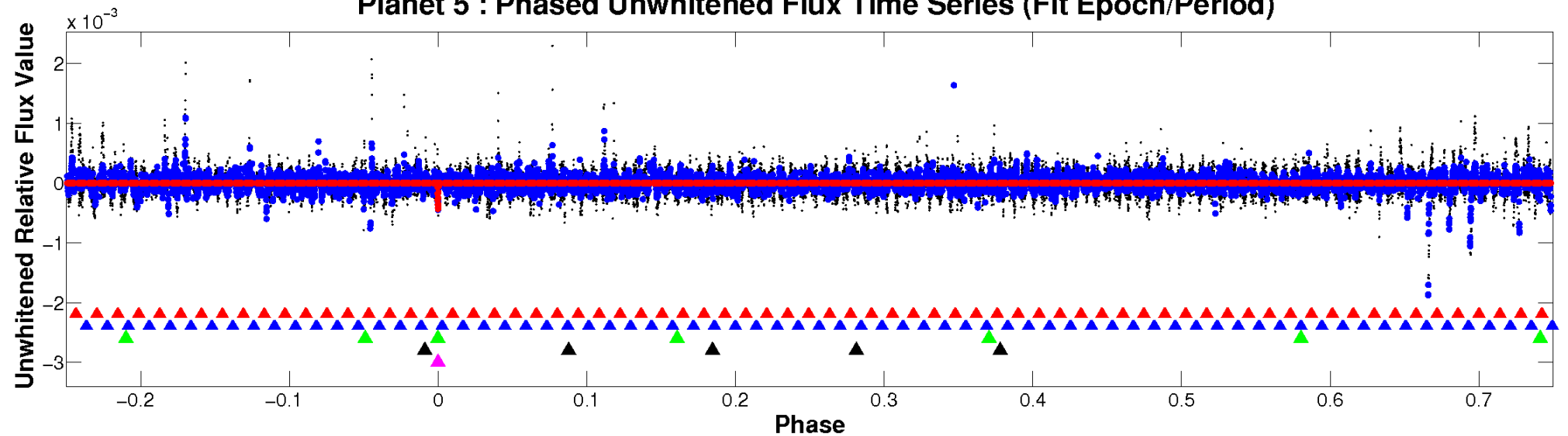
ALT Odd/Even

TCE 011231334-05

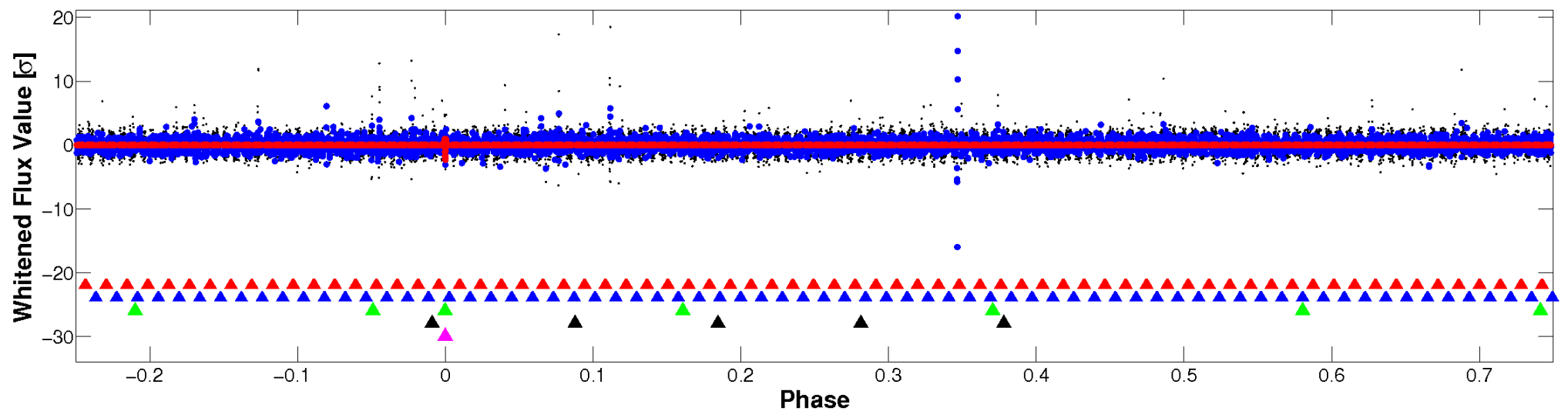


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

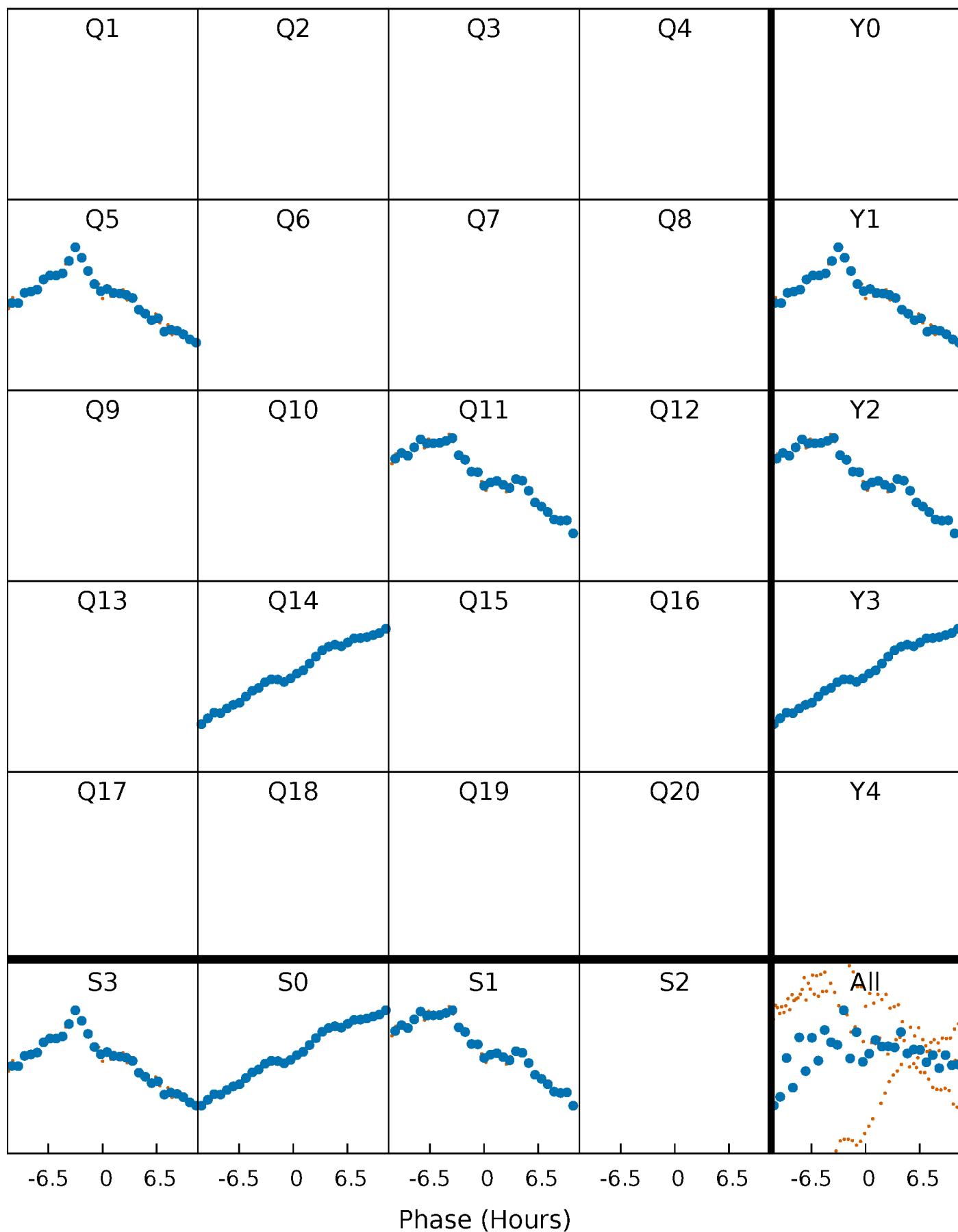


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



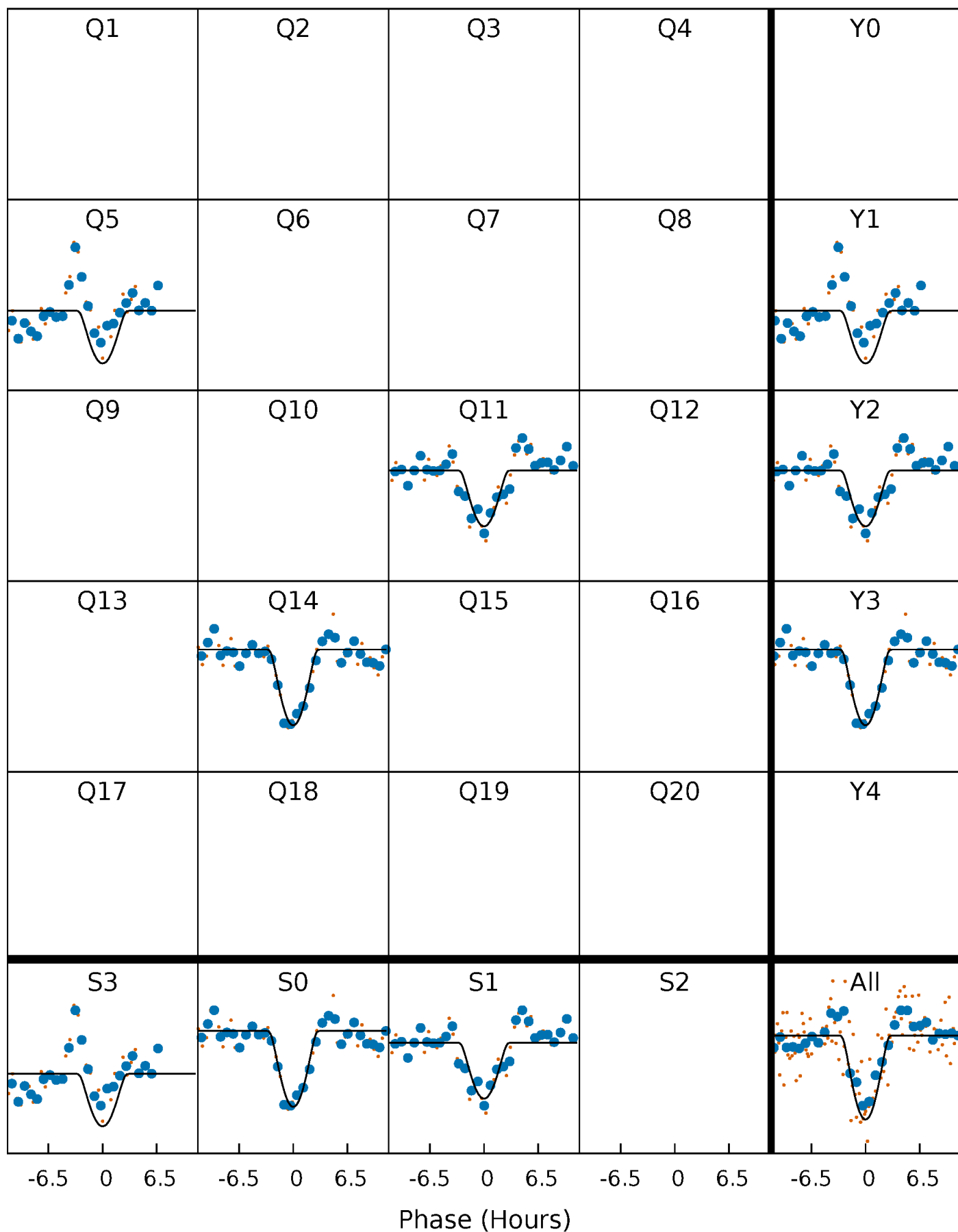
PDC Quarter-Phased Transit Curves

TCE 011231334-05 $P=295.097624$ Days $T_0=165.618920$ (BKJD)



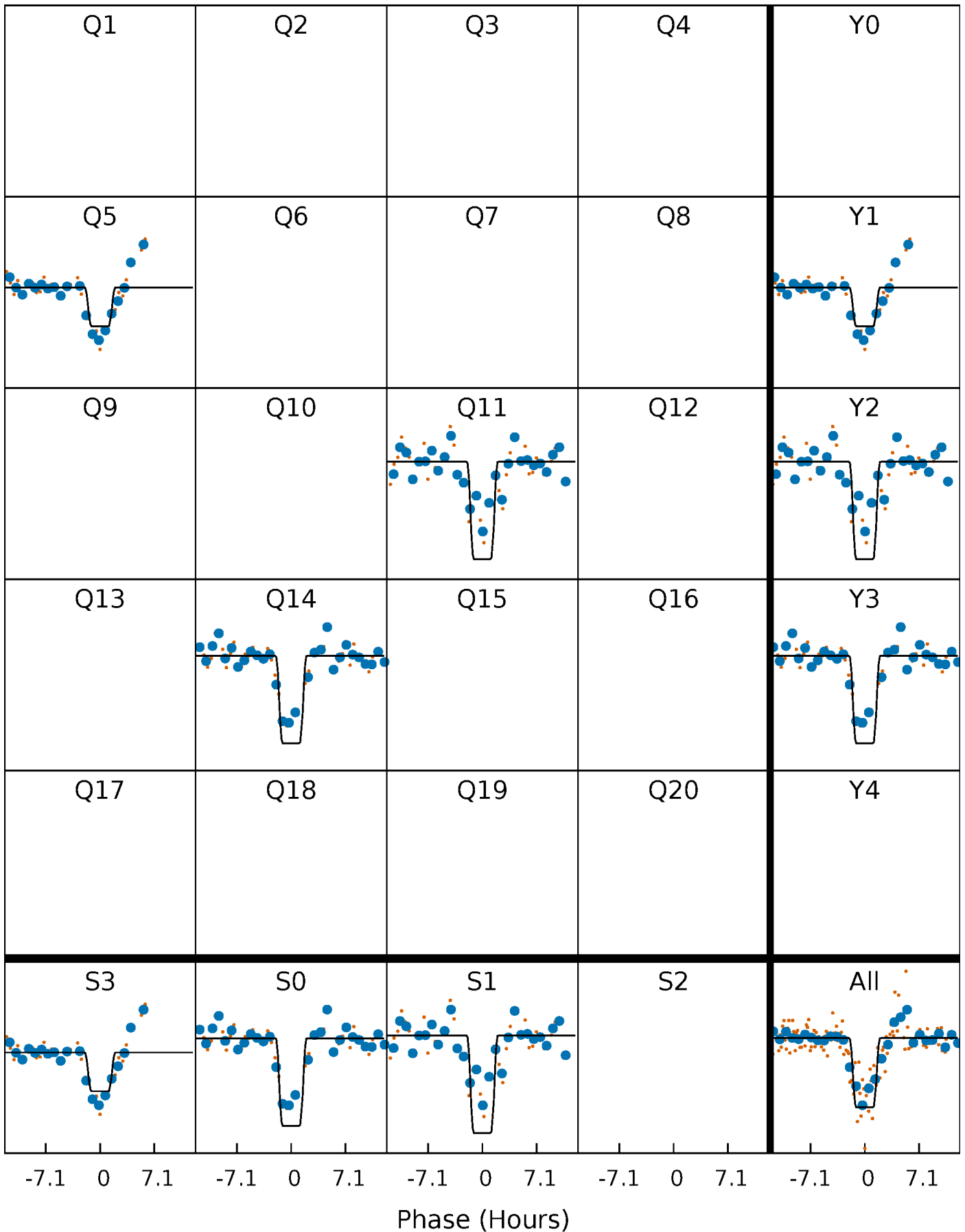
DV Quarter-Phased Transit Curves

TCE 011231334-05 $P=295.097624$ Days $T_0=165.618920$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

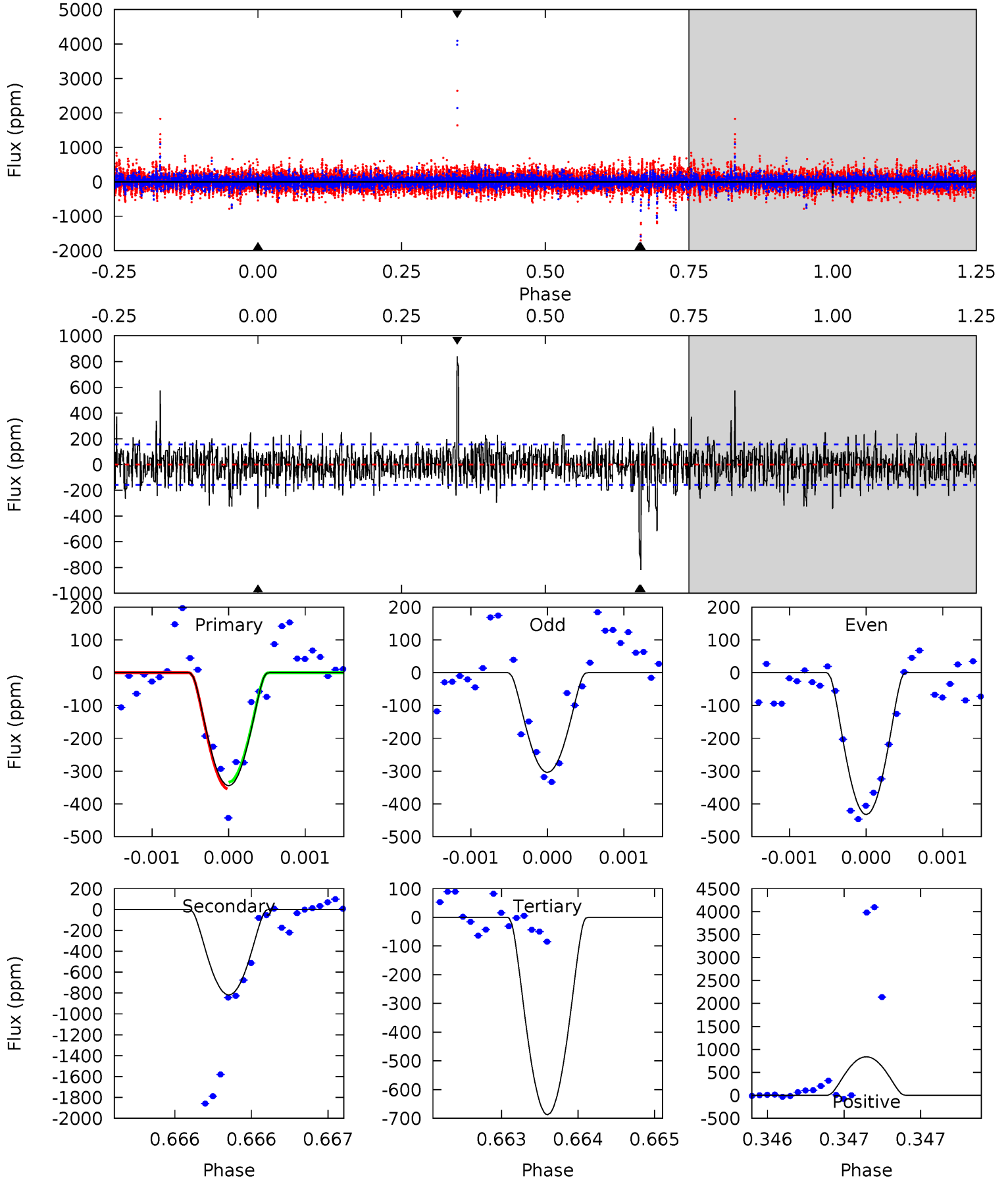
TCE 011231334-05 $P=295.098170$ Days $T_0=165.618035$ (BKJD)



DV Model-Shift Uniqueness Test

011231334-05, P = 295.097624 Days, E = 165.618920 Days

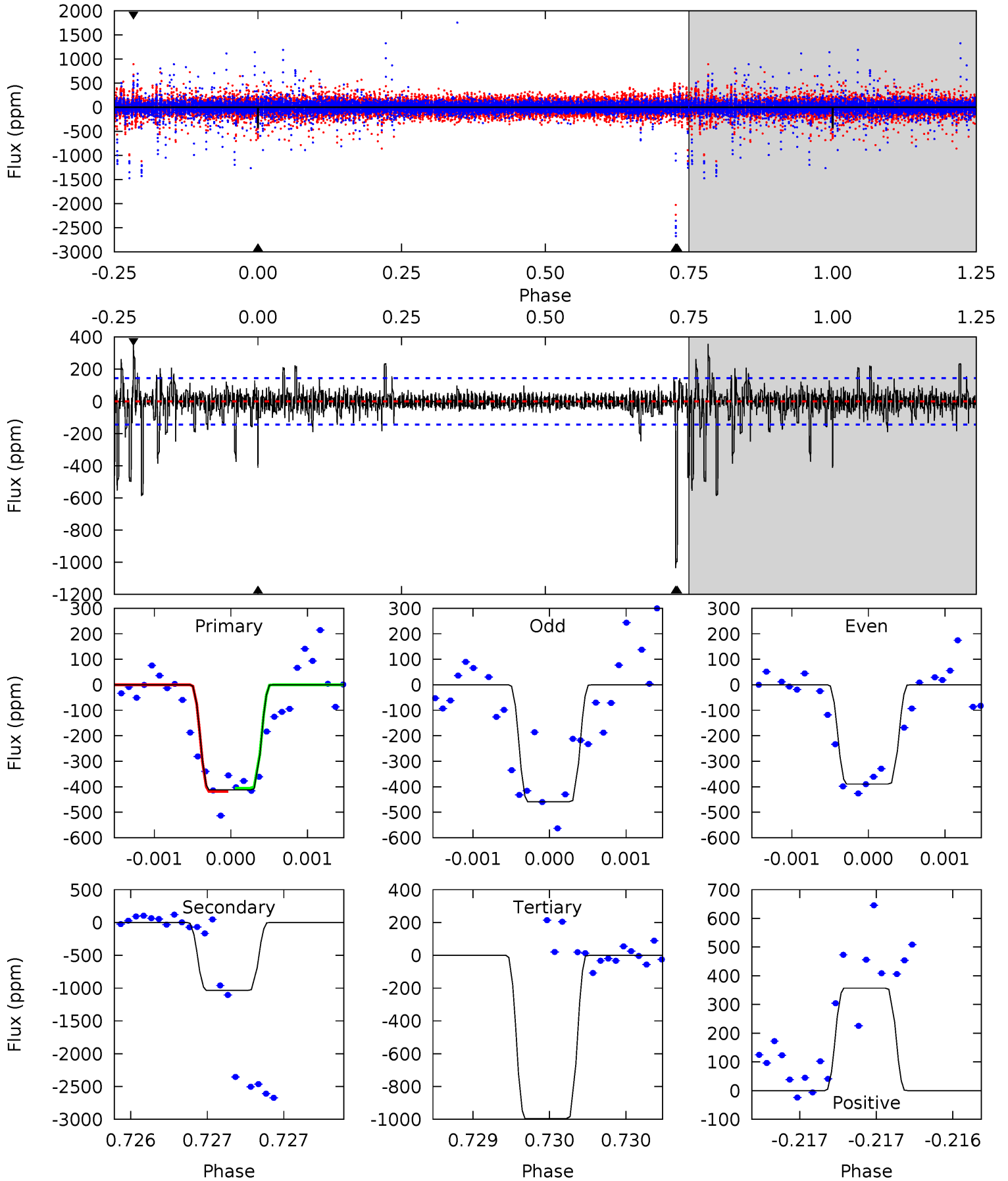
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	28.6	24.0	29.3	5.48	3.34	3.22	-12.0	-17.3	4.56	-0.76	2.03	0.80	0.51	0.36



Alt Model-Shift Uniqueness Test

011231334-05, P = 295.098170 Days, E = 165.618035 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	39.9	38.4	13.8	5.56	3.45	1.80	-22.5	2.14	1.56	26.2	1.06	1.12	0.26	0.27



Stellar Parameters For KIC 011231334

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6529^{+156}_{-176}	$3.657^{+0.312}_{-0.078}$	$-0.060^{+0.300}_{-0.250}$	$3.131^{+0.468}_{-1.171}$	$1.623^{+0.206}_{-0.335}$	$0.075^{+0.169}_{-0.019}$
	+2%/-3%	+9%/-2%	+500%/-417%	+15%/-37%	+13%/-21%	+226%/-26%
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 011231334-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-818 ± 29	$24.65^{+25.51}_{-17.54}$	693^{+37}_{-64}	4191^{+3179}_{-841}	766^{+9007}_{-576}
Alt.	-1036 ± 26	$23.11^{+21.93}_{-15.93}$	689^{+38}_{-62}	4505^{+3372}_{-921}	1137^{+10249}_{-846}

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

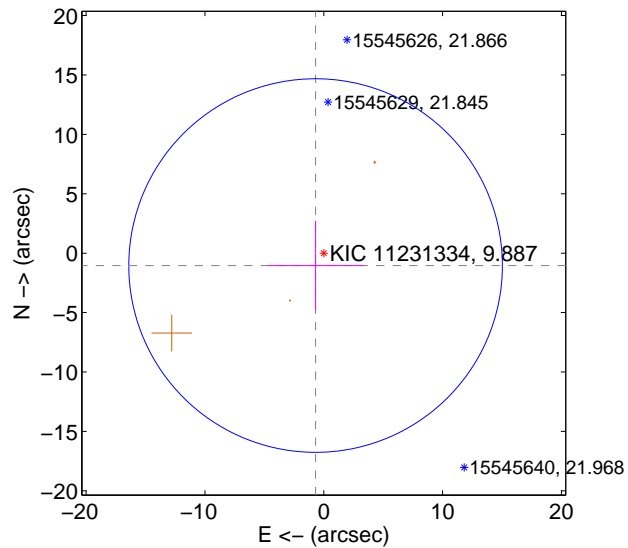
Supplemental centroid analysis for 011231334-05. **Kepler magnitude: 9.89.** Transit SNR 9.09

There are 0 quarters with good PRF difference image offsets

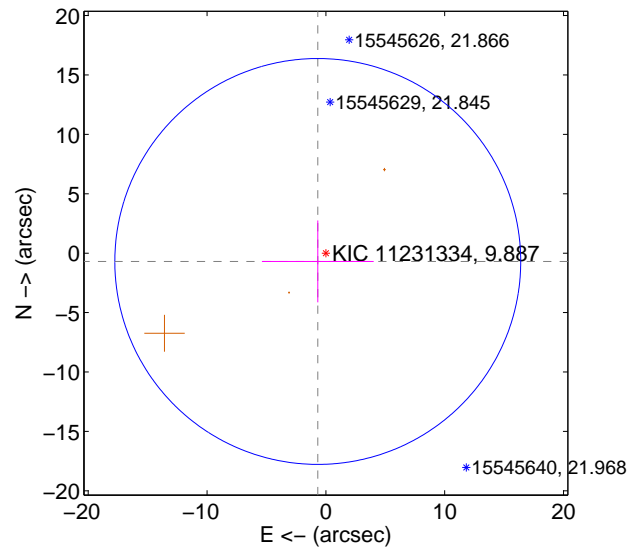
The direct PRF centroid is offset from the target star catalog position by about 0.89 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.249 ± 5.240	0.24	0.688 ± 4.029	-1.042 ± 3.763
PRF-fit source offset from KIC position	0.975 ± 5.693	0.17	0.681 ± 4.701	-0.698 ± 3.445
photometric centroid source offset	0.54 ± 0.65	0.83	0.41 ± 0.64	-0.35 ± 0.67

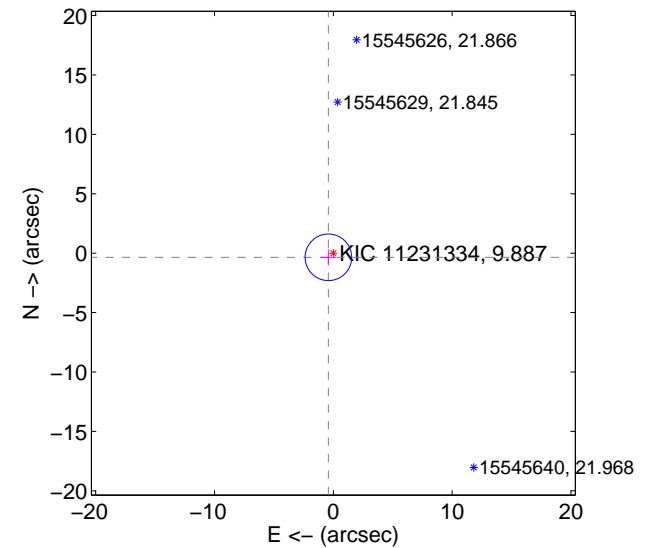
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

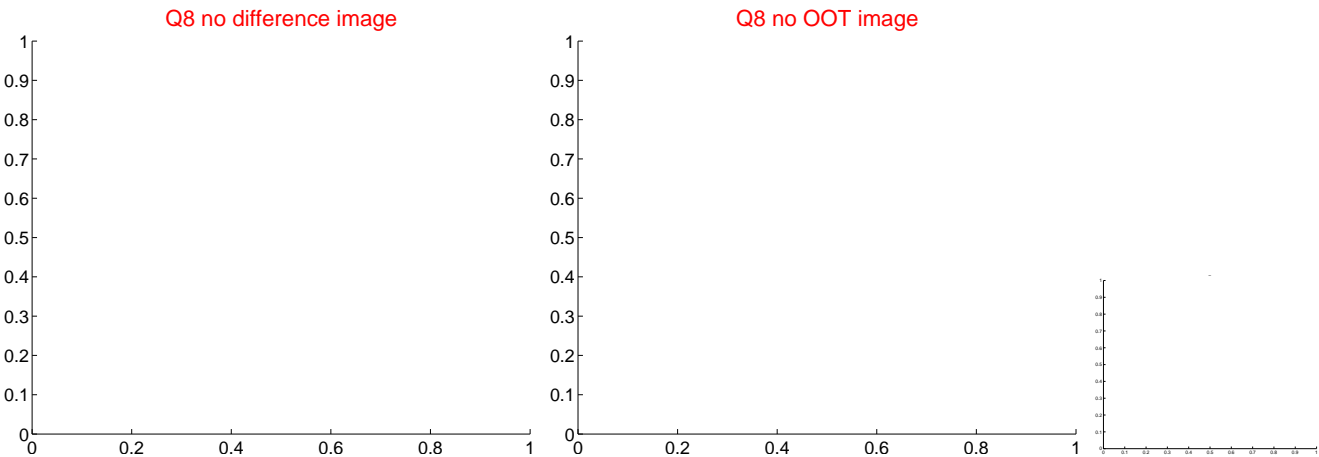
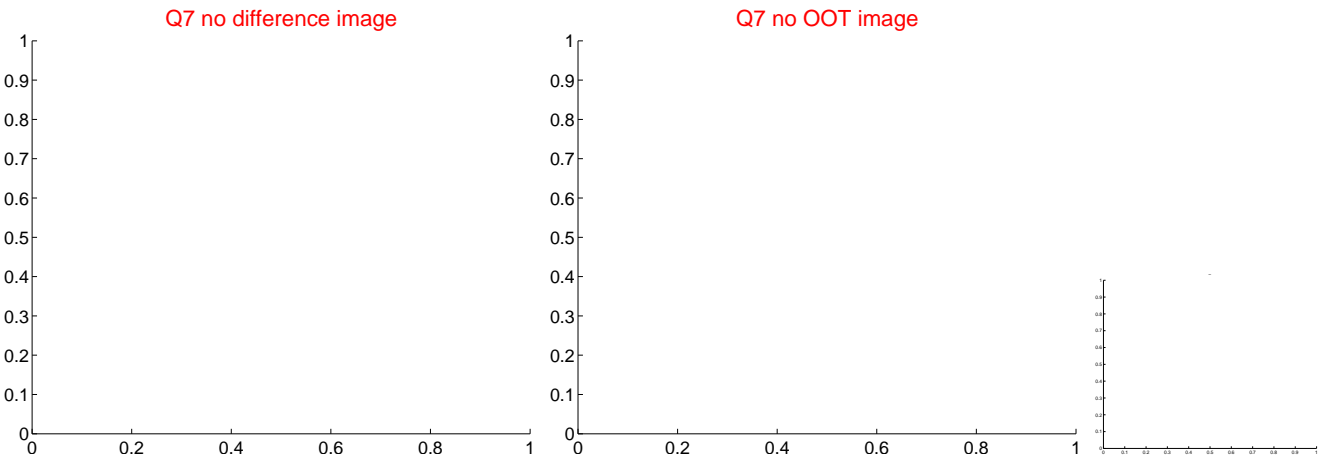
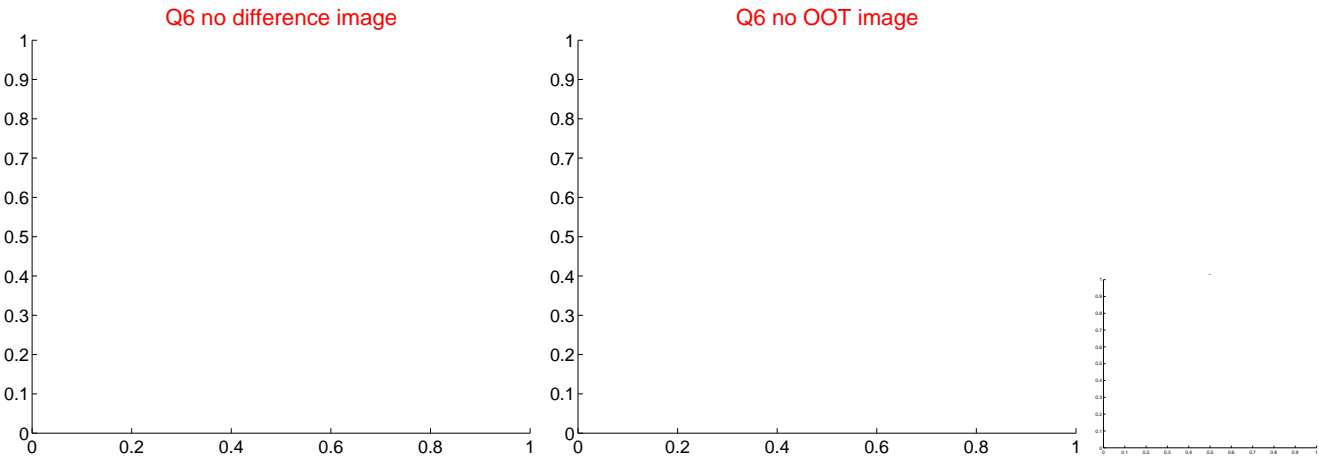
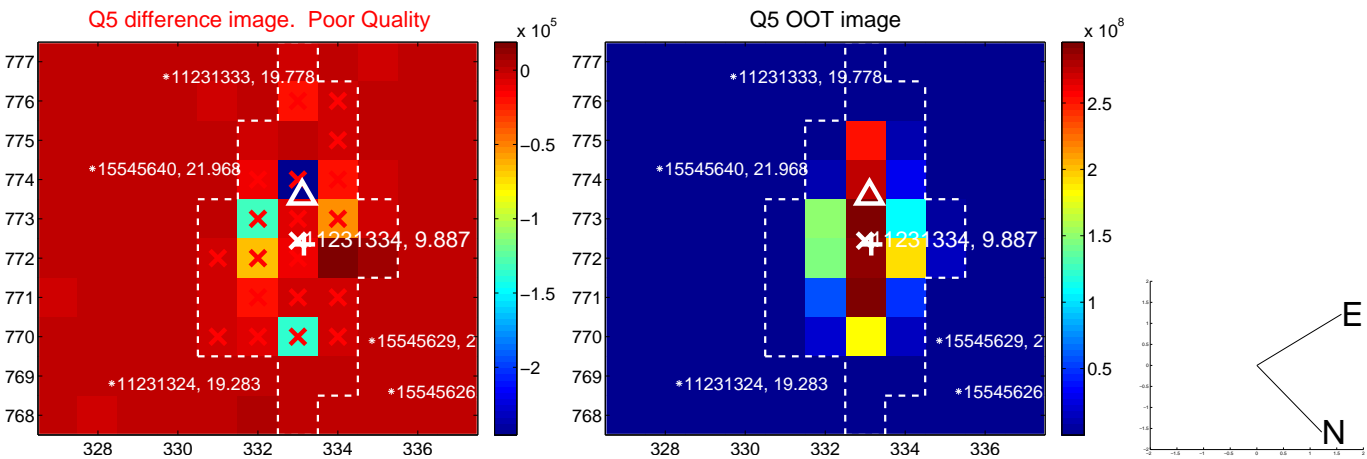


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

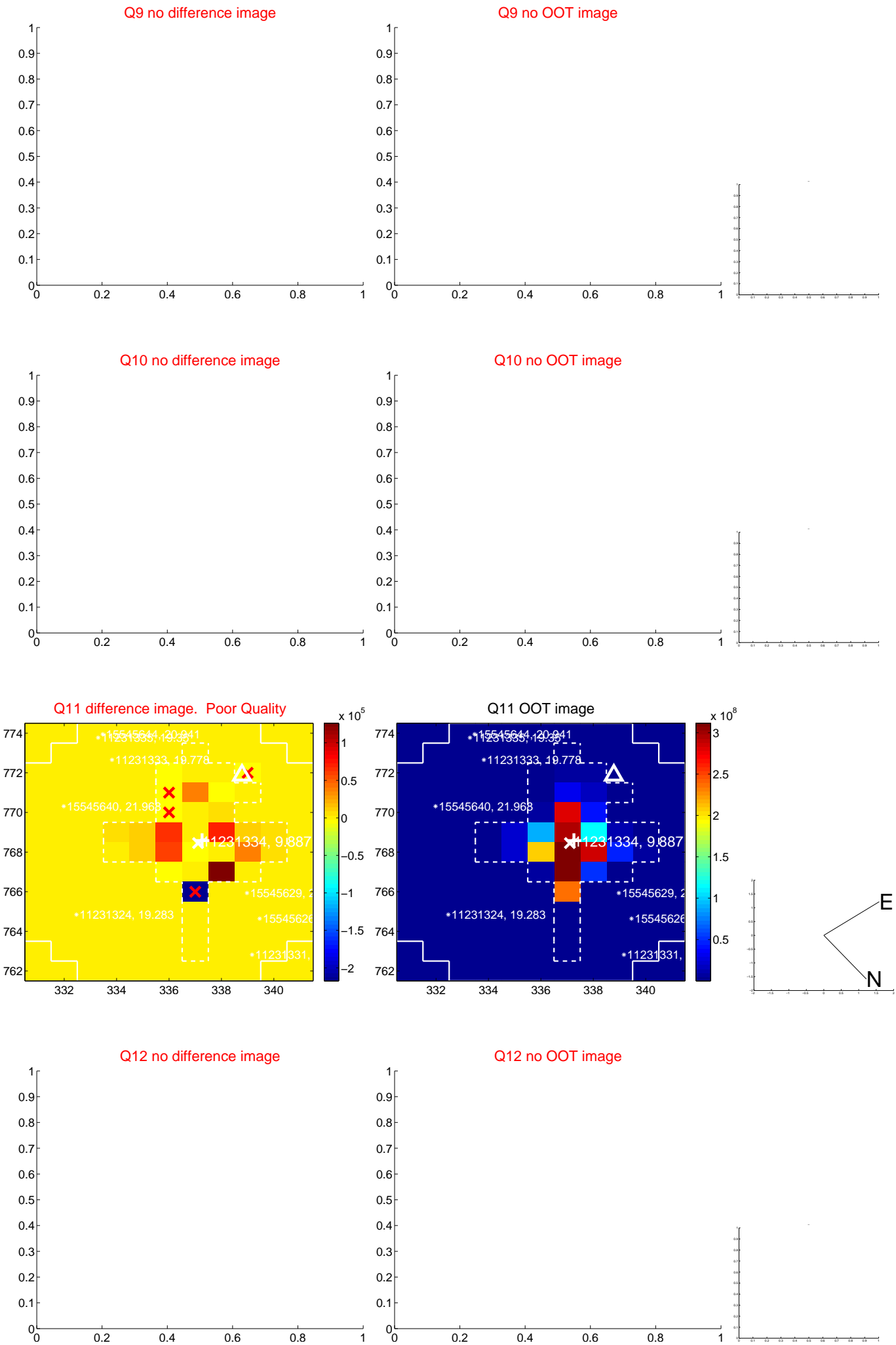
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



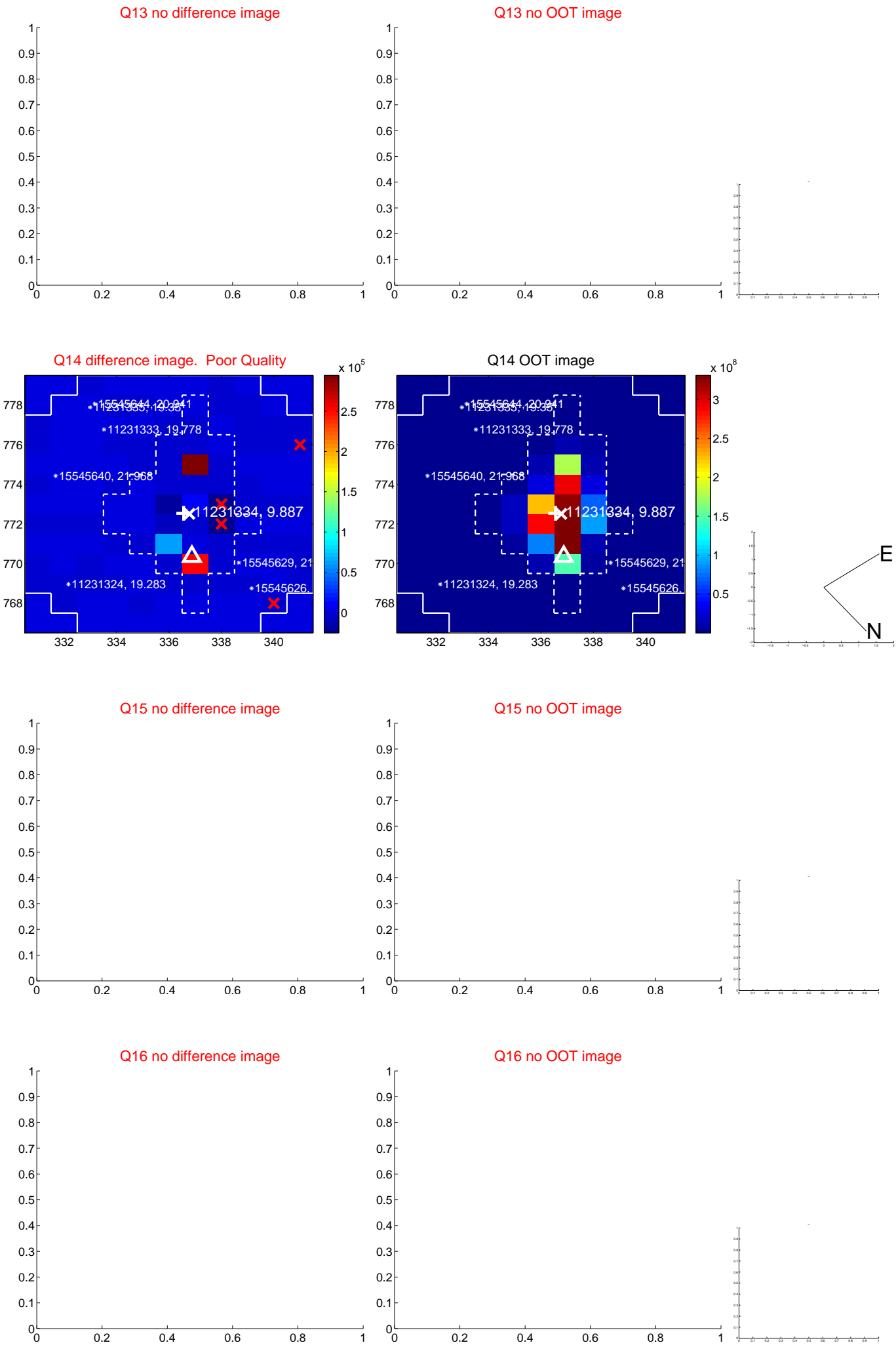
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



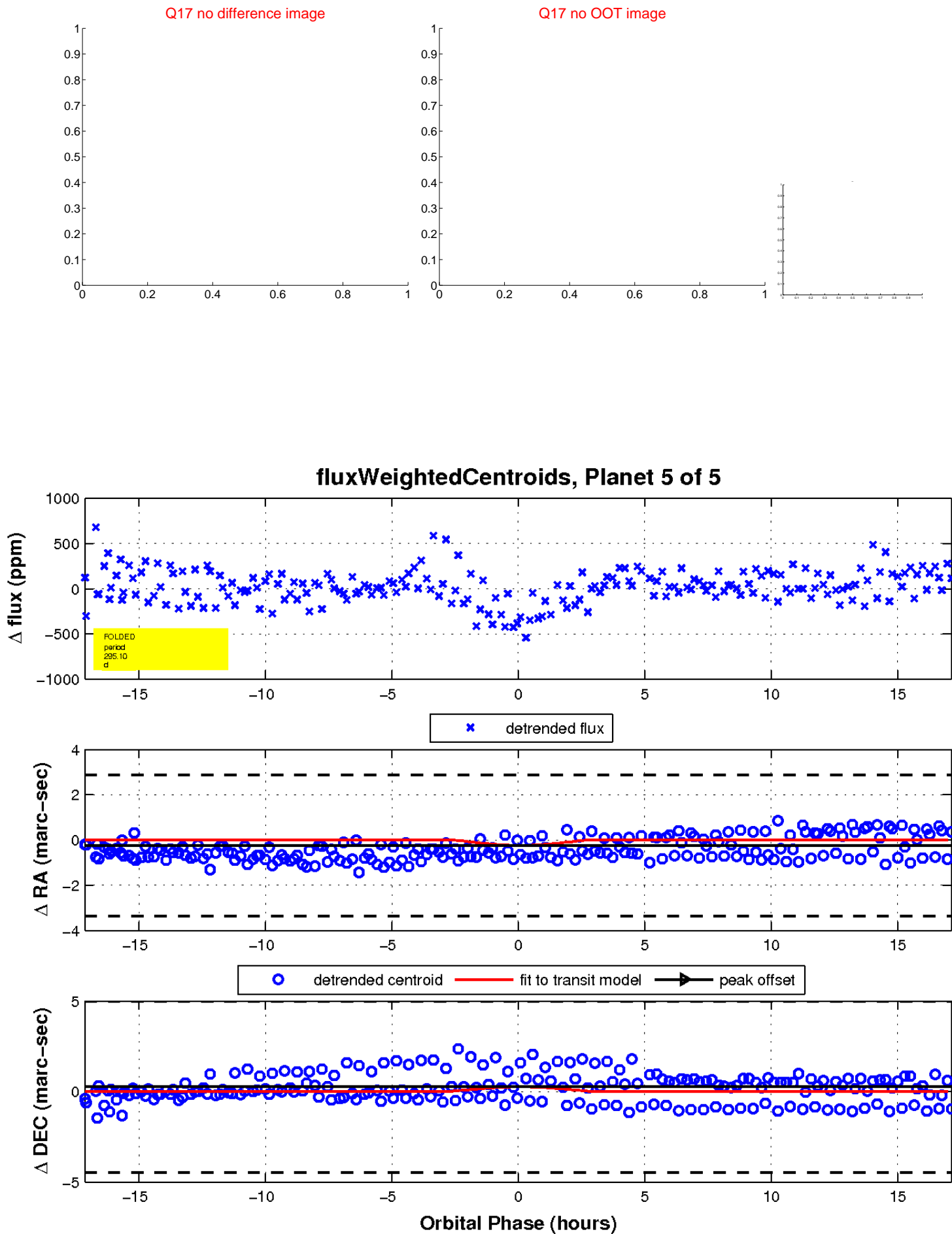
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

