

KIC 007834612

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})
007834612-01	OBS	No	0.536811	132.109402	450.2	1.334	13.2	15.9	3.49	7673	8.66	0.00
007834612-02	OBS	No	0.536810	131.843333	423.0	1.416	13.8	16.2	3.49	7673	8.39	0.00
007834612-03	OBS	No	1.359701	132.351338	889.1	1.787	9.7	12.2	3.49	7673	11.16	40586.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834612-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_SATURATED
007834612-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007834612-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_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.

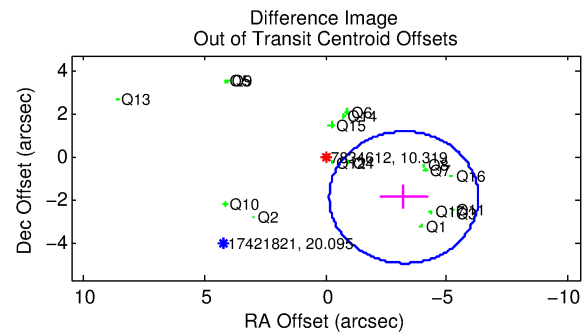
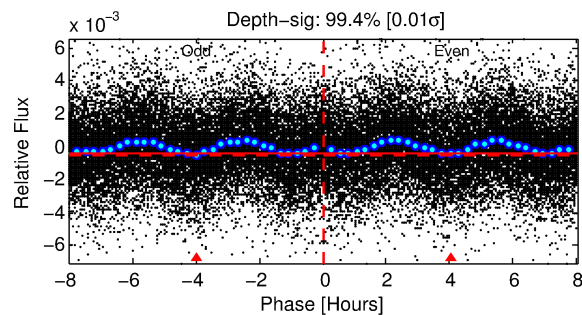
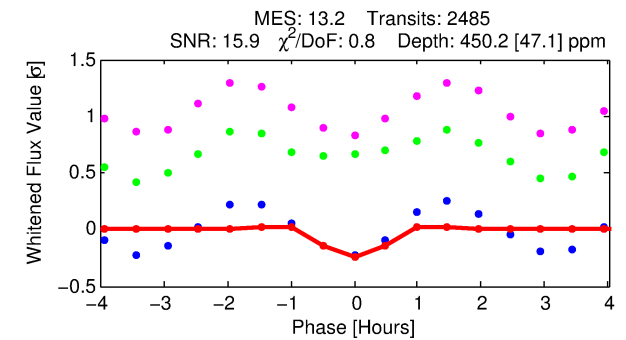
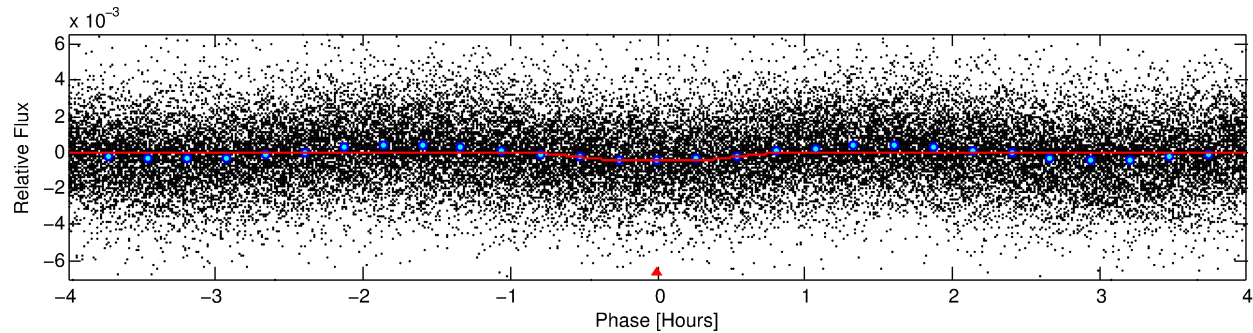
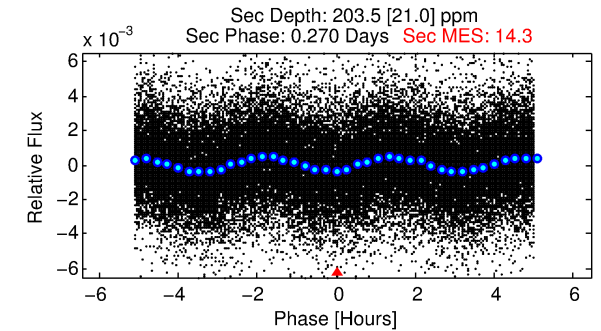
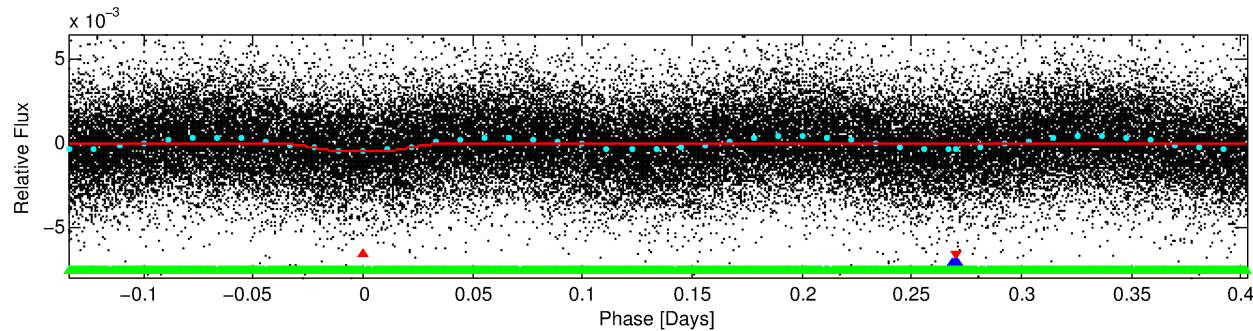
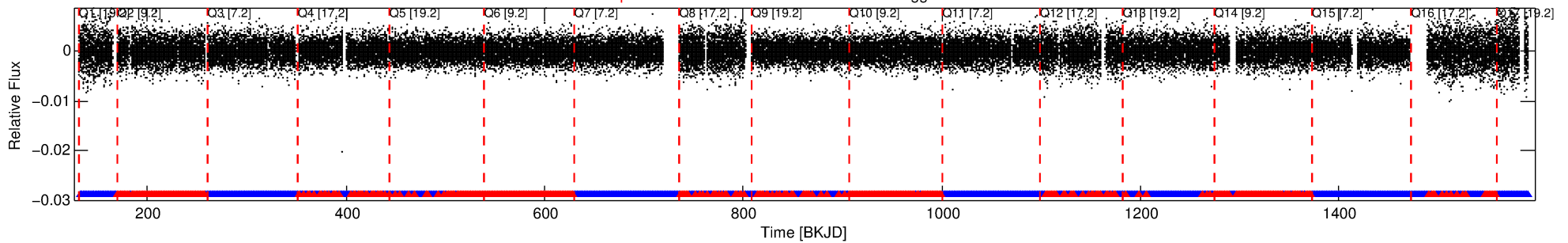
Ephemeris Match Information For 007834612-01

No Significant Match Found

DV One-Page Summary

KIC: 7834612 Candidate: 1 of 3 Period: 0.537 d

Kp: 10.32 R*: 3.49 Rs Teff: 7673.0 K Logg: 3.67 Fe/H: -0.060



DV Fit Results:

Period = 0.53681 [0.00001] d
Epoch = 132.1094 [0.0012] BKJD
Rp/R* = 0.0227 [0.0067]
a/R* = 1.77 [2.10]
b = 0.90 [0.38]
Seff = N/A
Teq = N/A
Rp = 8.66 [5.12] Re
a = N/A
Ag = N/A
Teffp = N/A

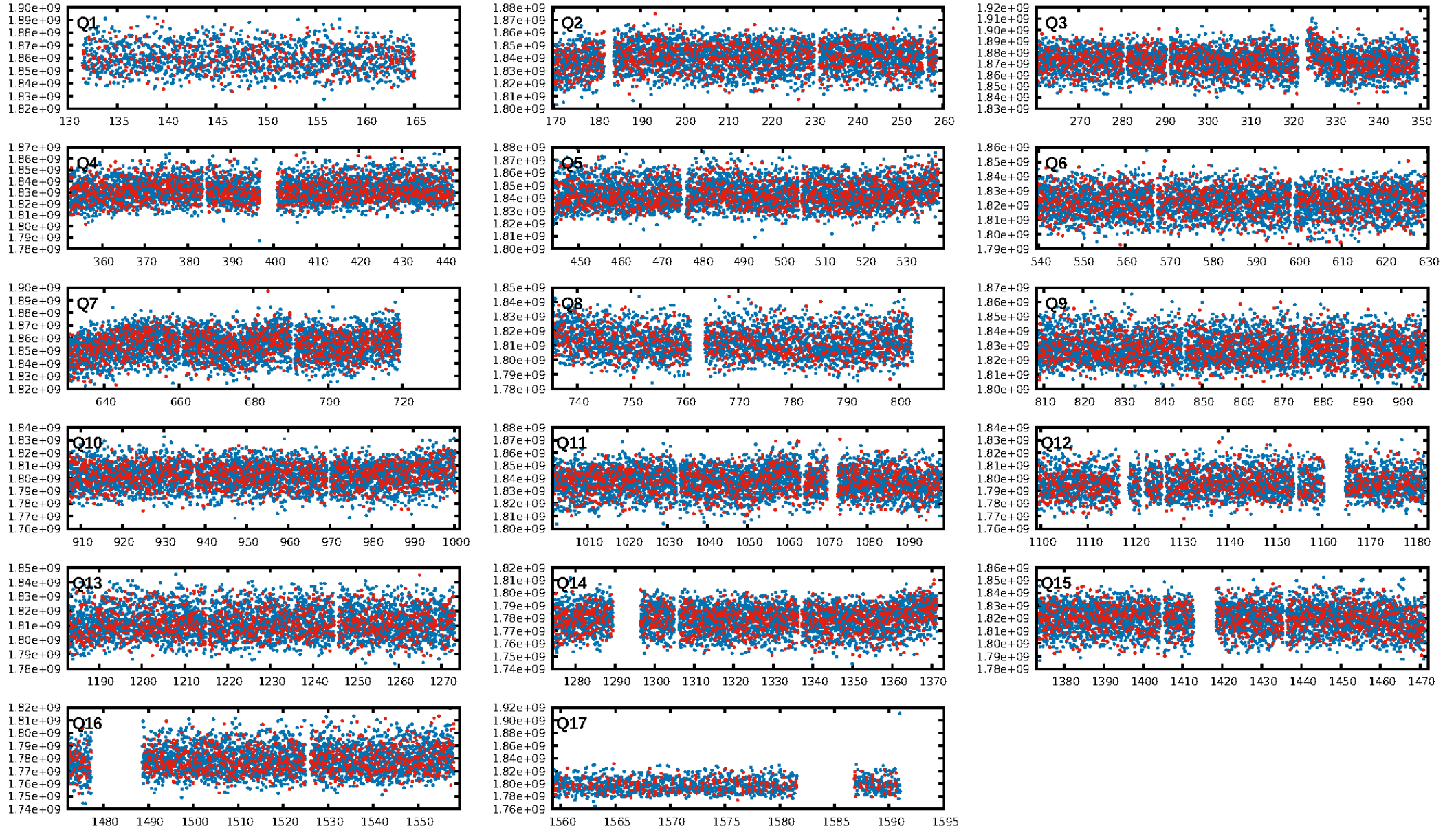
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [8.85σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.18e-15
RollingBand-fgt: 0.66 [1561/2372]
GhostDiagnostic-chr: 0.889
Centroid-sig: N/A
Centroid-so: 0.267 arcsec [2.83σ]
OotOffset-rm: 3.741 arcsec [3.64σ]
KicOffset-rm: 4.419 arcsec [4.60σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.18 [3/17]
DiffImageOverlap-fno: 1.00 [17/17]

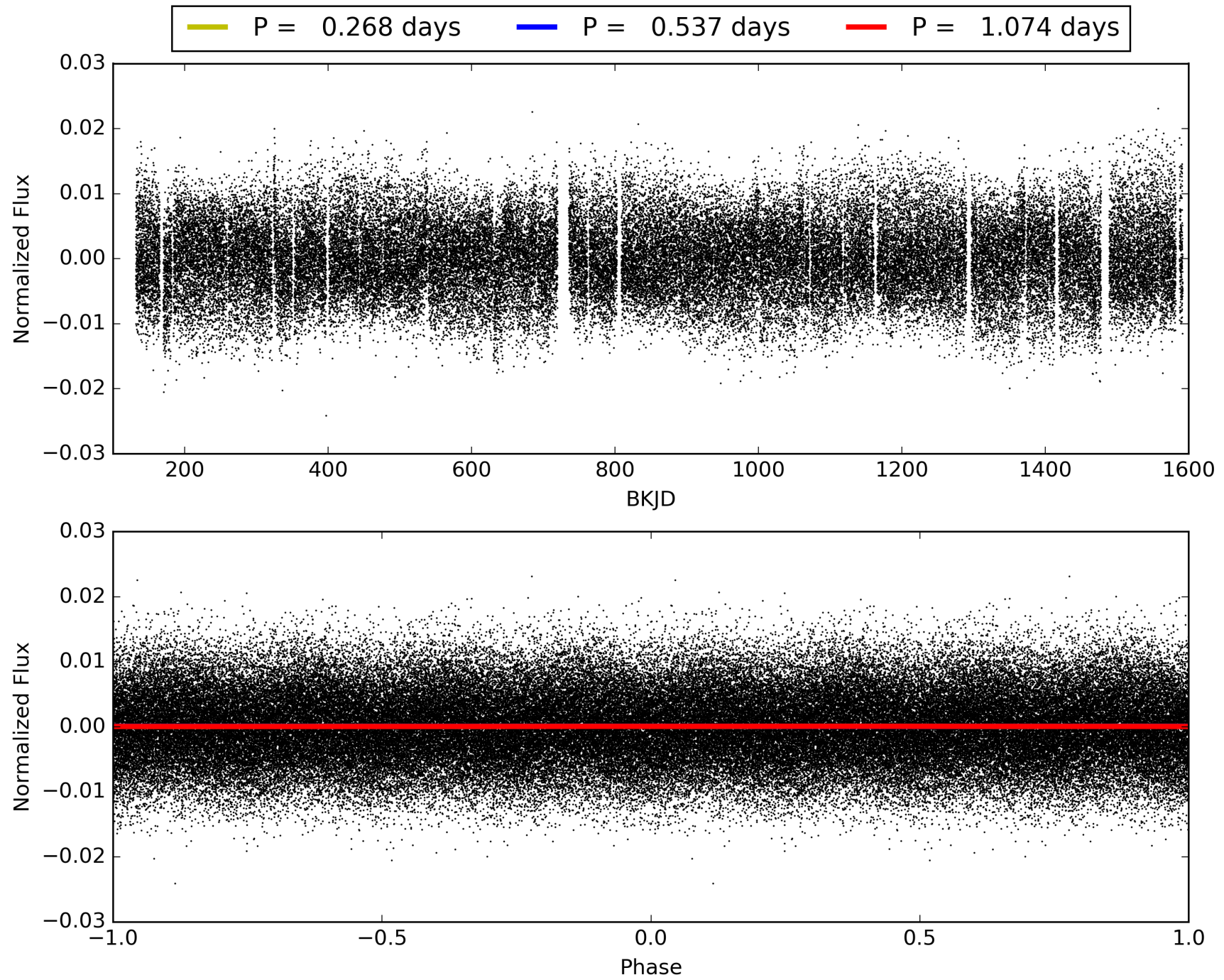
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007834612-01, PDC Light Curves

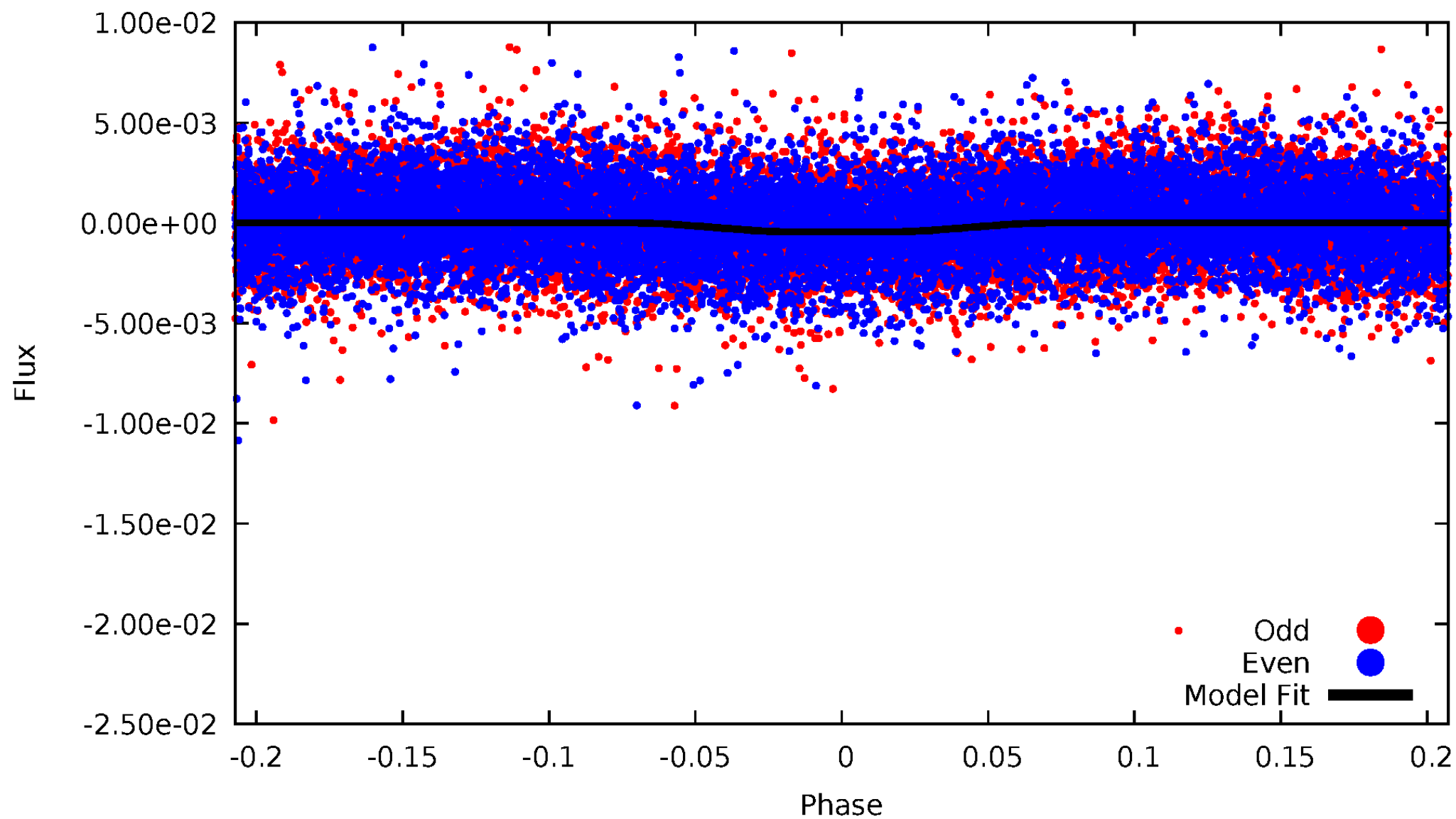


TCE 007834612-01



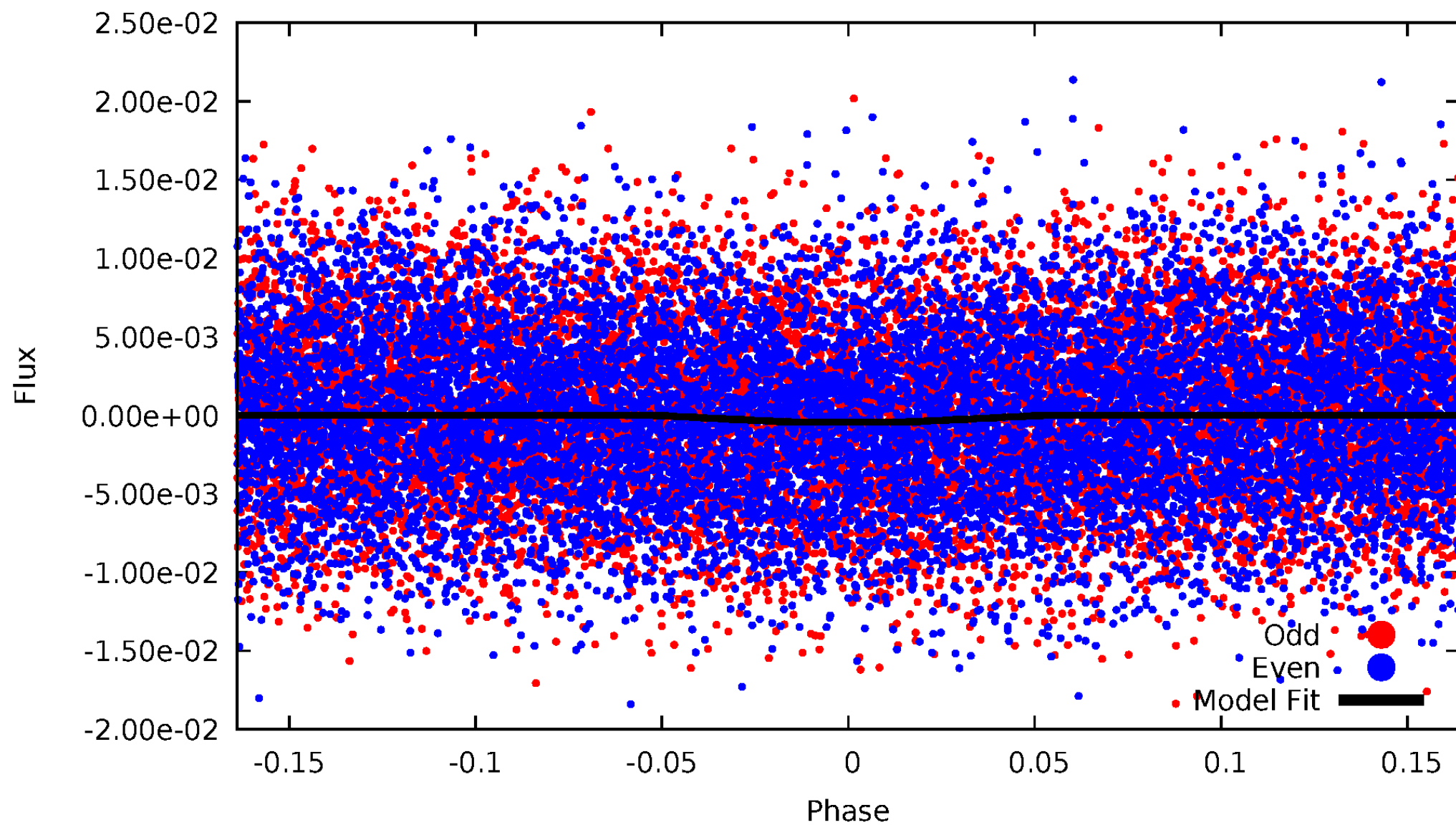
DV Odd/Even

TCE 007834612-01

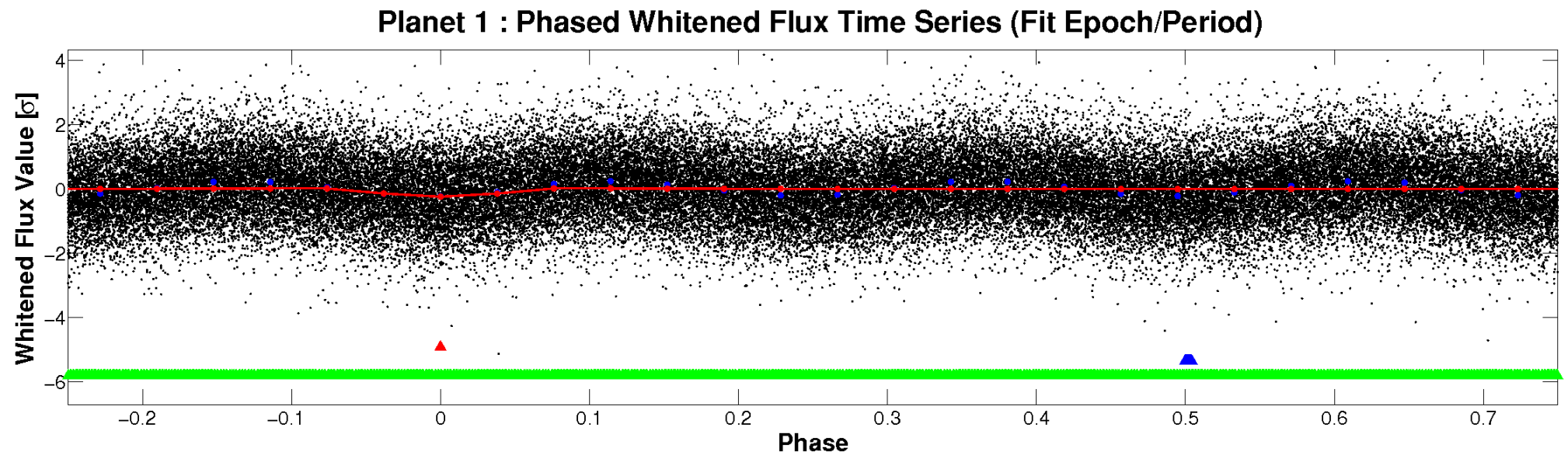
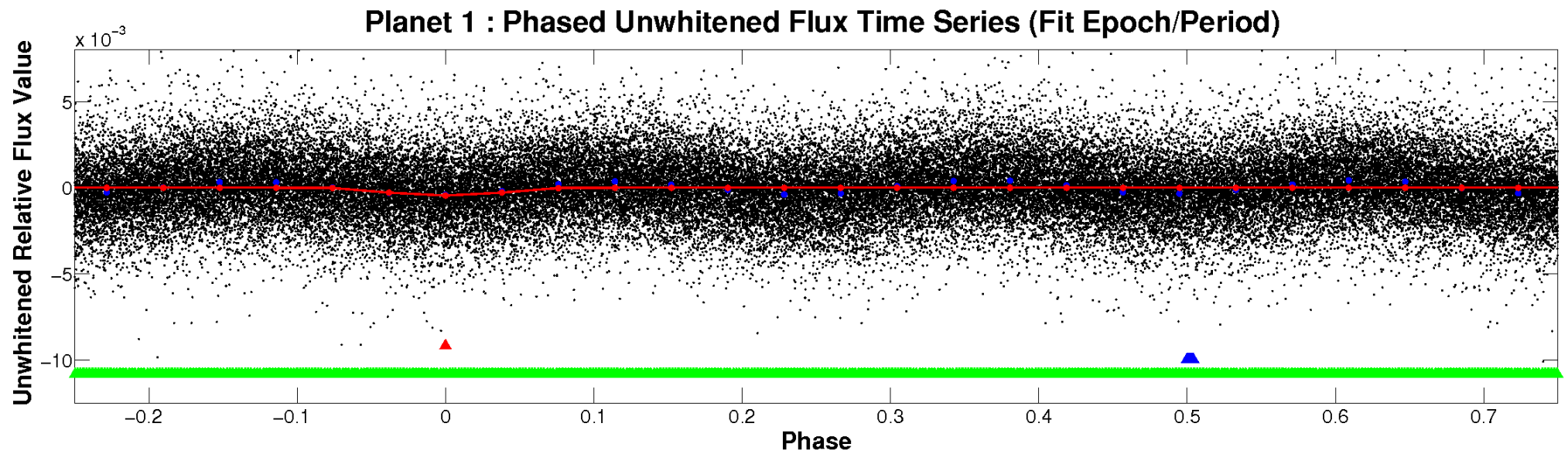


ALT Odd/Even

TCE 007834612-01

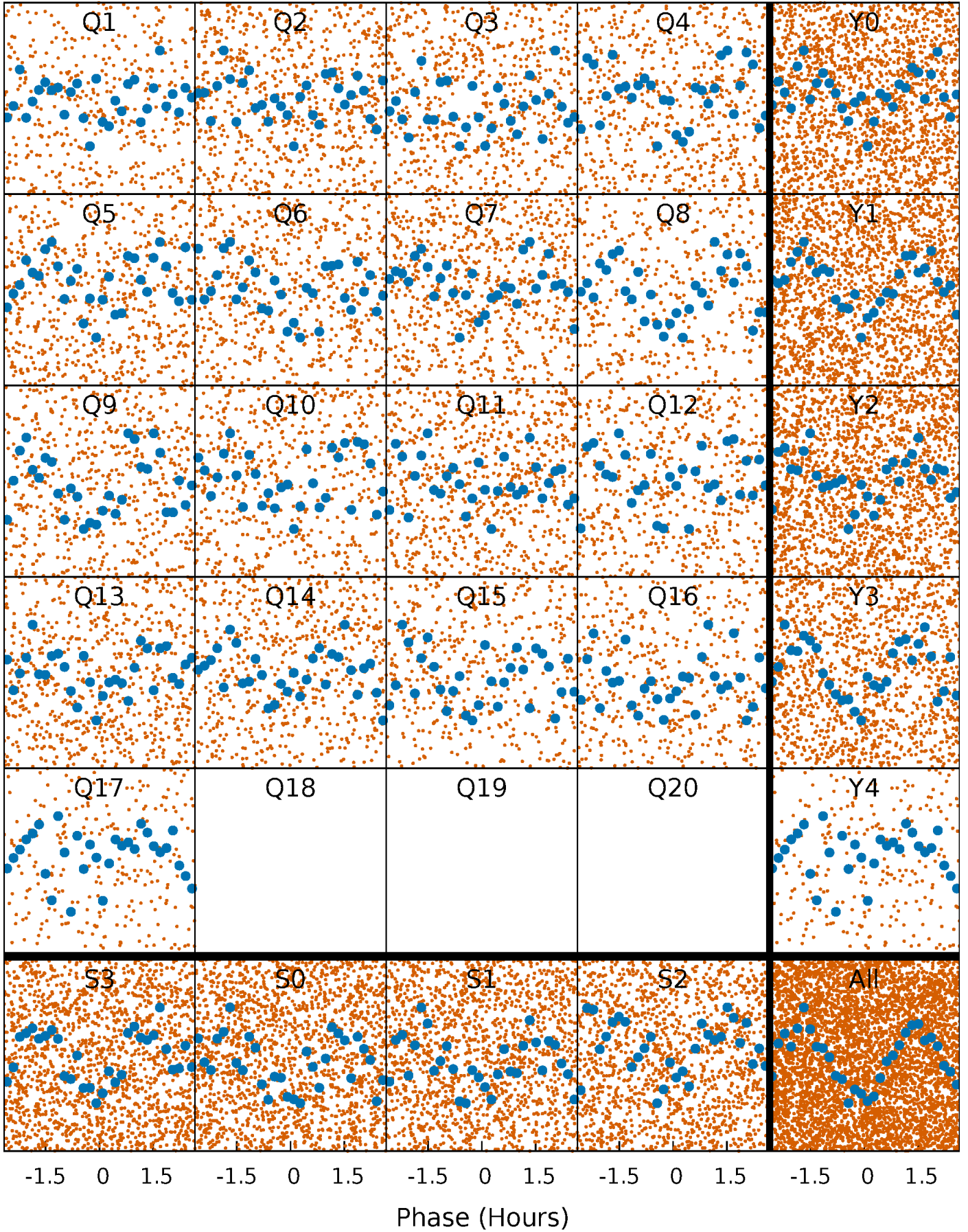


Non-Whitened Vs. Whitened Light Curve



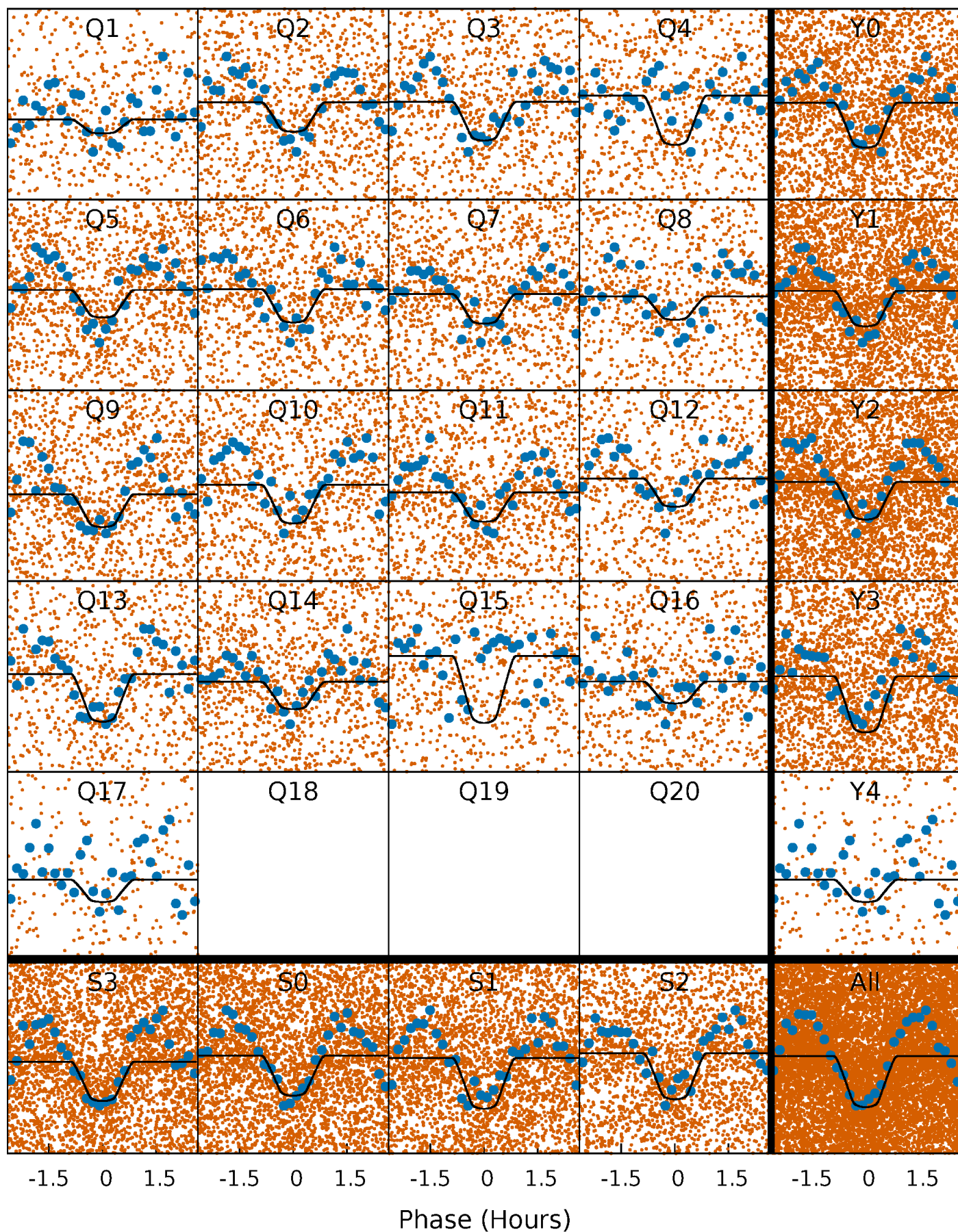
PDC Quarter-Phased Transit Curves

TCE 007834612-01 P= 0.536811 Days $T_0=132.109402$ (BKJD)



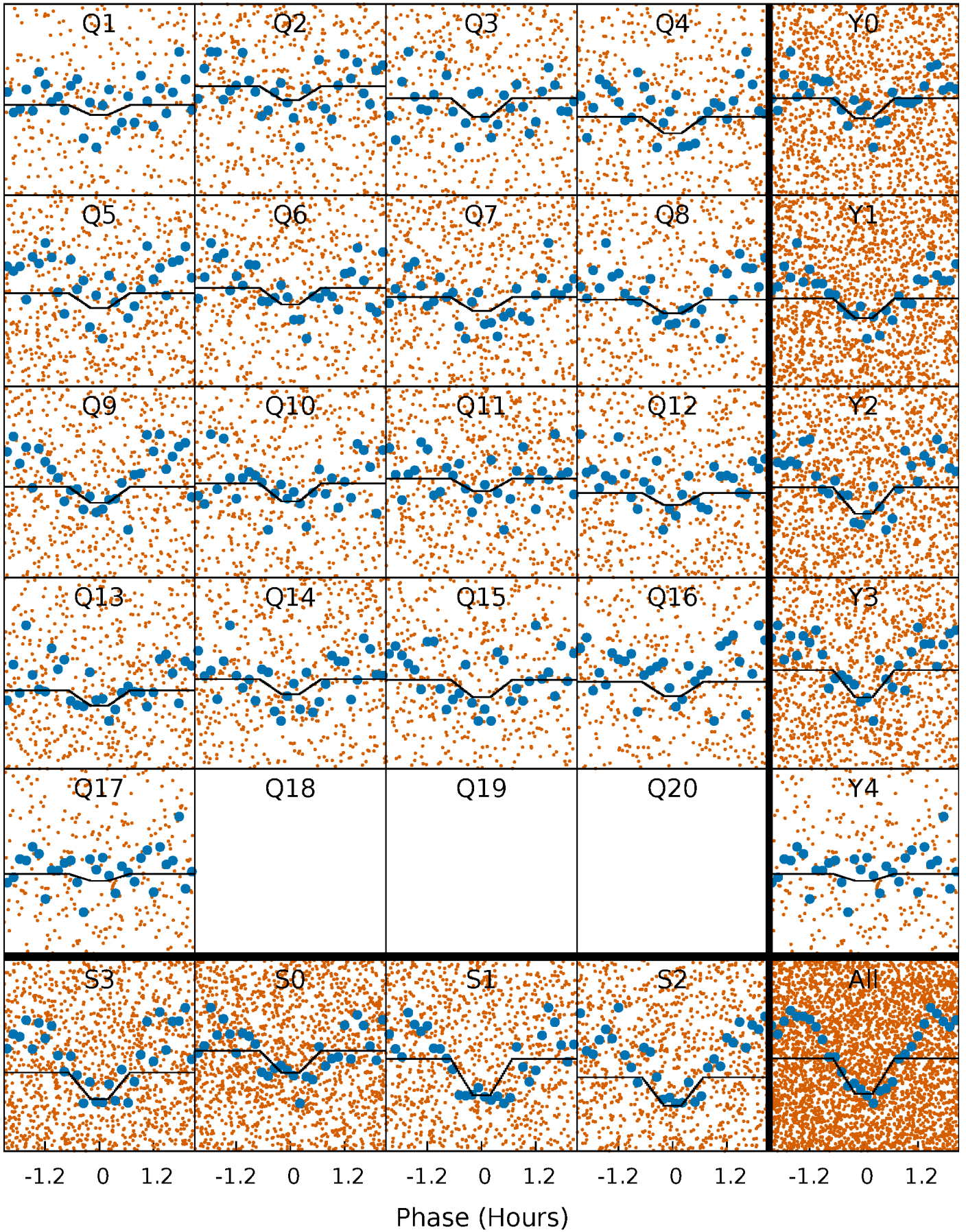
DV Quarter-Phased Transit Curves

TCE 007834612-01 P= 0.536811 Days $T_0=132.109402$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

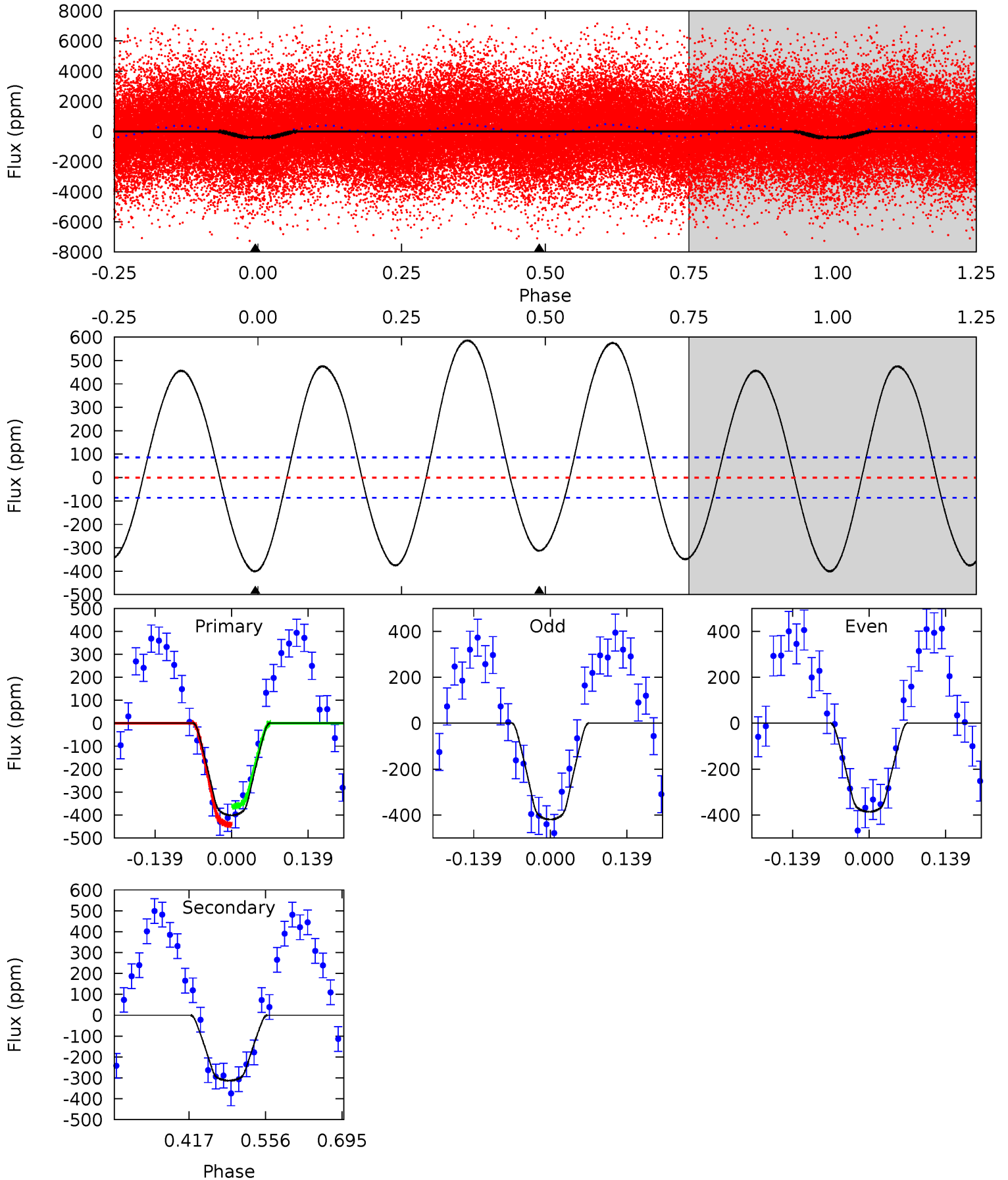
TCE 007834612-01 P= 0.536808 Days $T_0=132.104247$ (BKJD)



DV Model-Shift Uniqueness Test

007834612-01, P = 0.536811 Days, E = 131.035780 Days

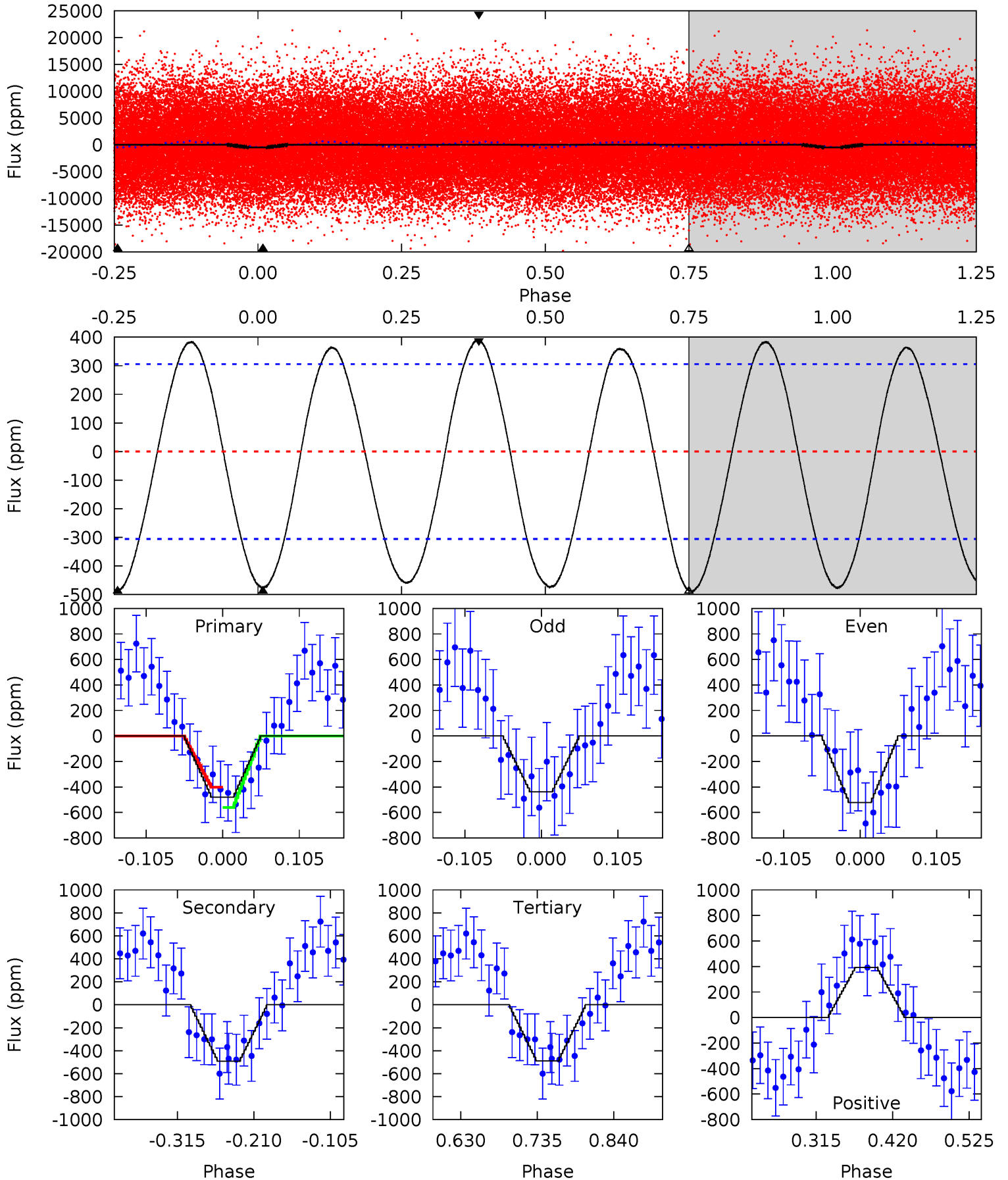
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.0	16.4	0	0	4.50	1.48	15.3	21.0	21.0	16.4	16.4	0.88	1.01	0.59	2.11



Alt Model-Shift Uniqueness Test

007834612-01, P = 0.536808 Days, E = 131.030631 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.15	7.32	7.28	5.83	4.55	1.62	4.56	-0.12	1.32	0.04	1.49	0.62	1.00	0.44	1.18



Stellar Parameters For KIC 007834612

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7673^{+213}_{-320}	$3.665^{+0.459}_{-0.081}$	$-0.060^{+0.200}_{-0.350}$	$3.494^{+0.558}_{-1.787}$	$2.059^{+0.279}_{-0.557}$	$0.068^{+0.305}_{-0.017}$
	+3%/-4%	+13%/-2%	+333%/-583%	+16%/-51%	+14%/-27%	+449%/-25%
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 007834612-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-313 ± 19	$7.65^{+3.04}_{-2.65}$	6645^{+468}_{-857}	5893^{+1681}_{-1438}	$0.807^{+1.043}_{-0.389}$
Alt.	-491 ± 67	$7.24^{+2.94}_{-2.86}$	6637^{+462}_{-812}	7168^{+2650}_{-1413}	$1.390^{+2.357}_{-0.700}$

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

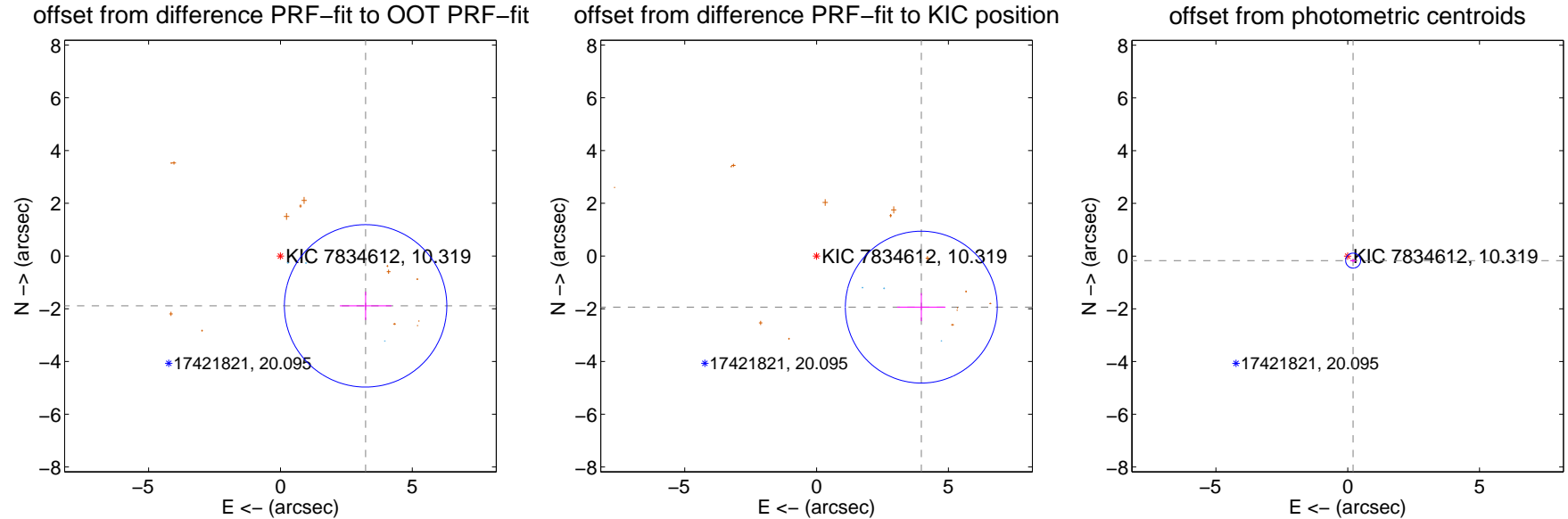
DV Centroid Data

Supplemental centroid analysis for 007834612-01. **Kepler magnitude: 10.32.** Transit SNR 15.94

There are 3 quarters with good PRF difference image offsets

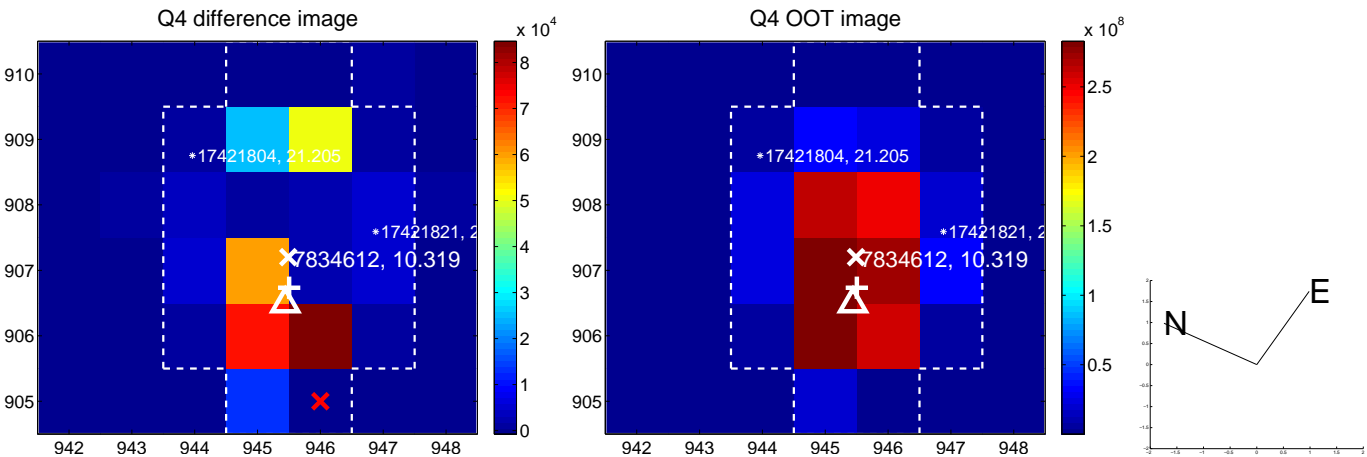
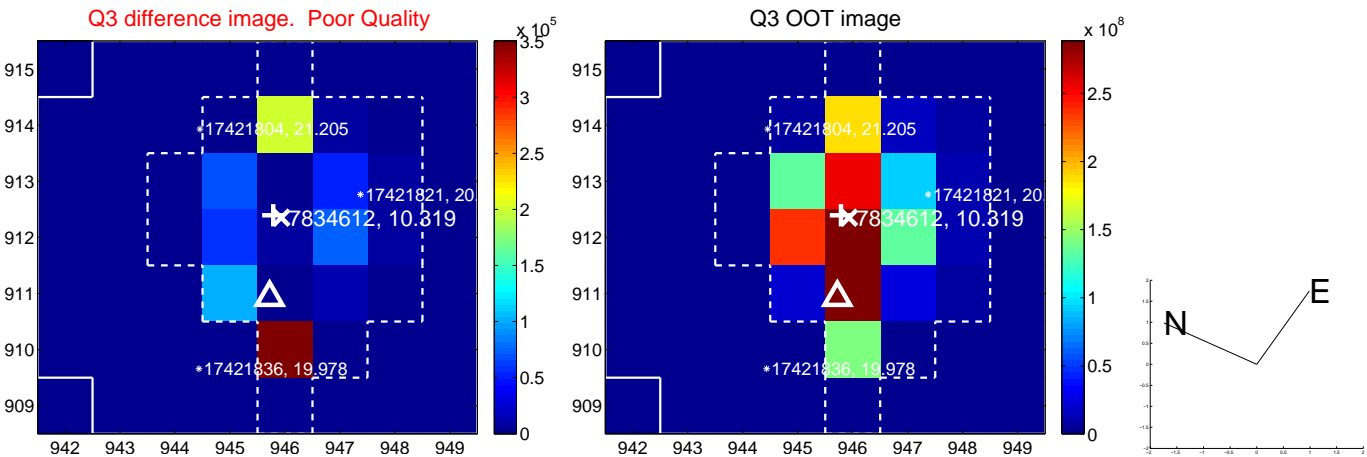
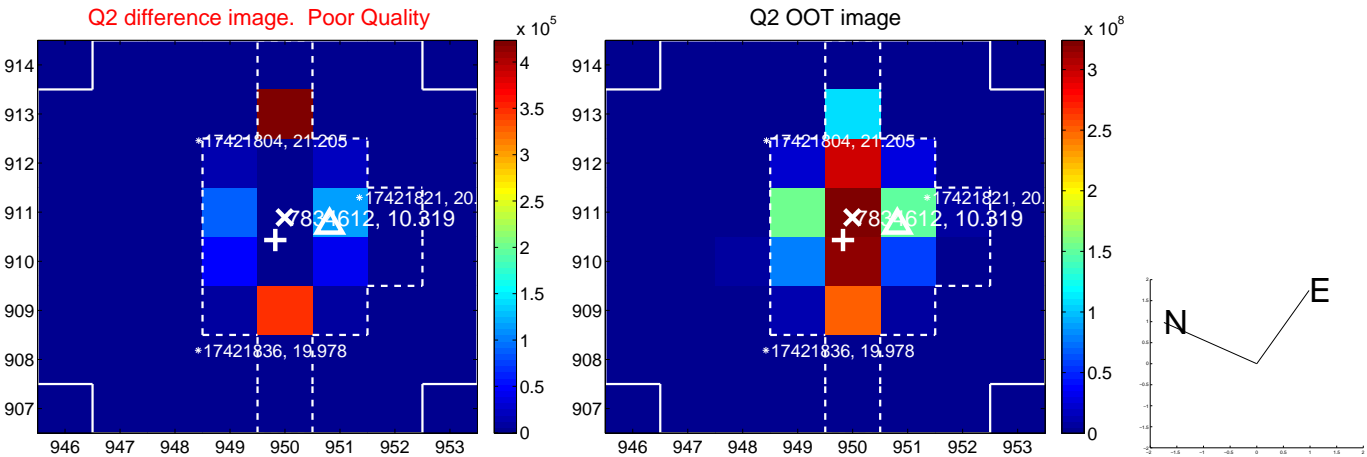
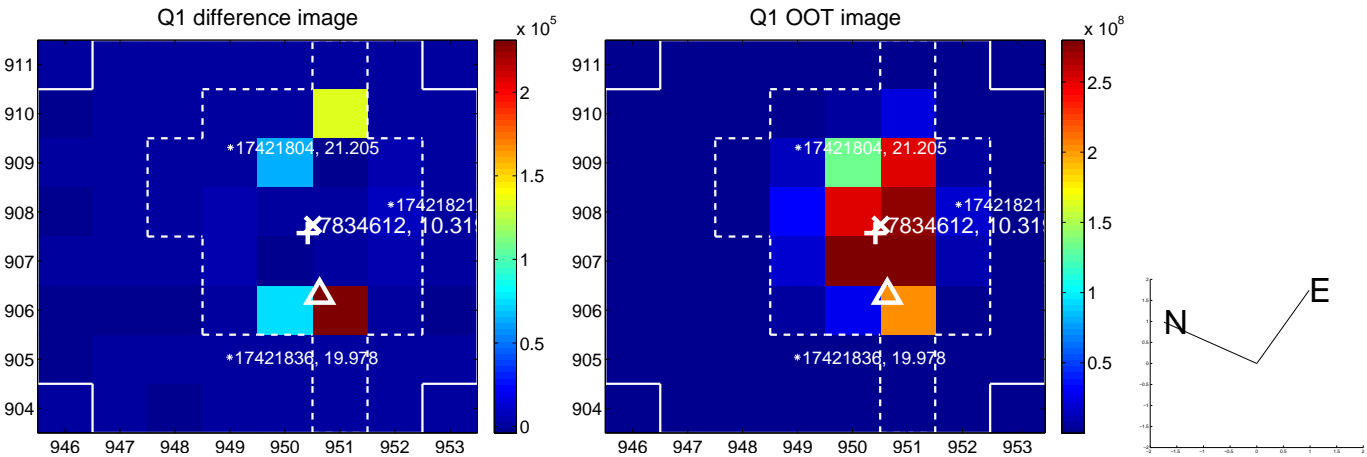
The direct PRF centroid is offset from the target star catalog position by about 0.83 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.741 ± 1.026	3.64	-3.229 ± 0.979	-1.890 ± 0.535
PRF-fit source offset from KIC position	4.419 ± 0.960	4.60	-3.971 ± 0.916	-1.938 ± 0.532
photometric centroid source offset	0.27 ± 0.09	2.83	-0.21 ± 0.11	-0.17 ± 0.06

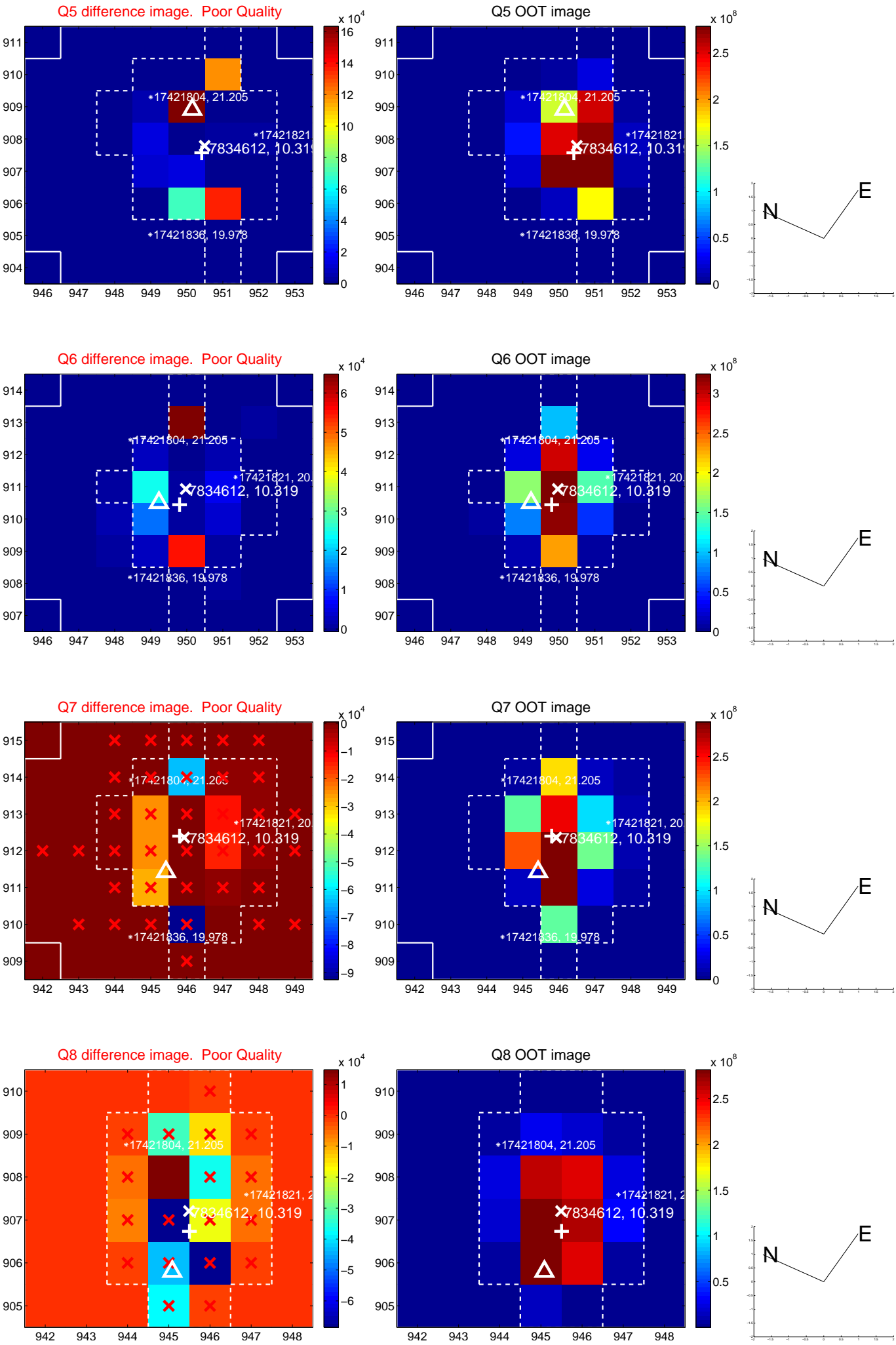


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

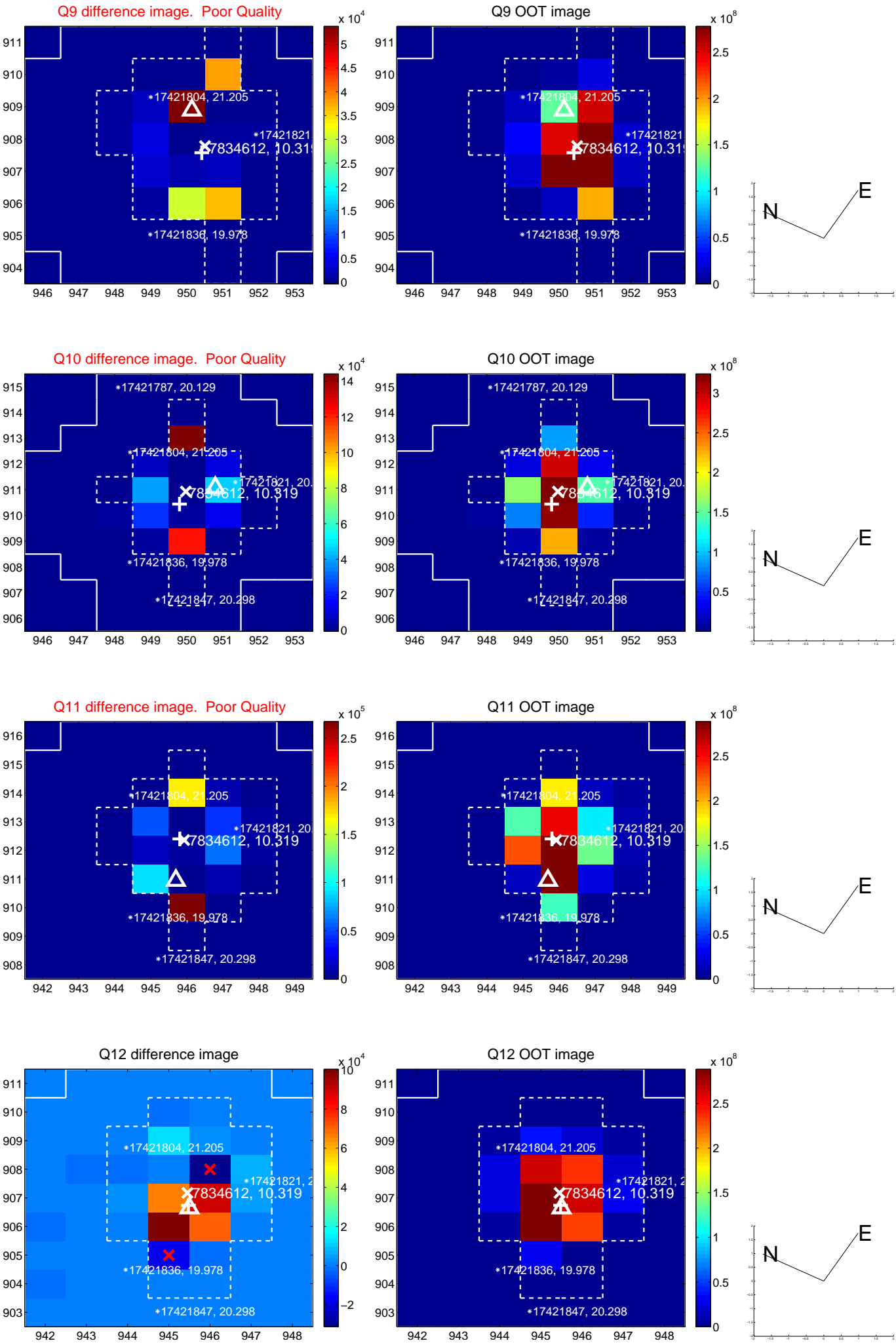
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



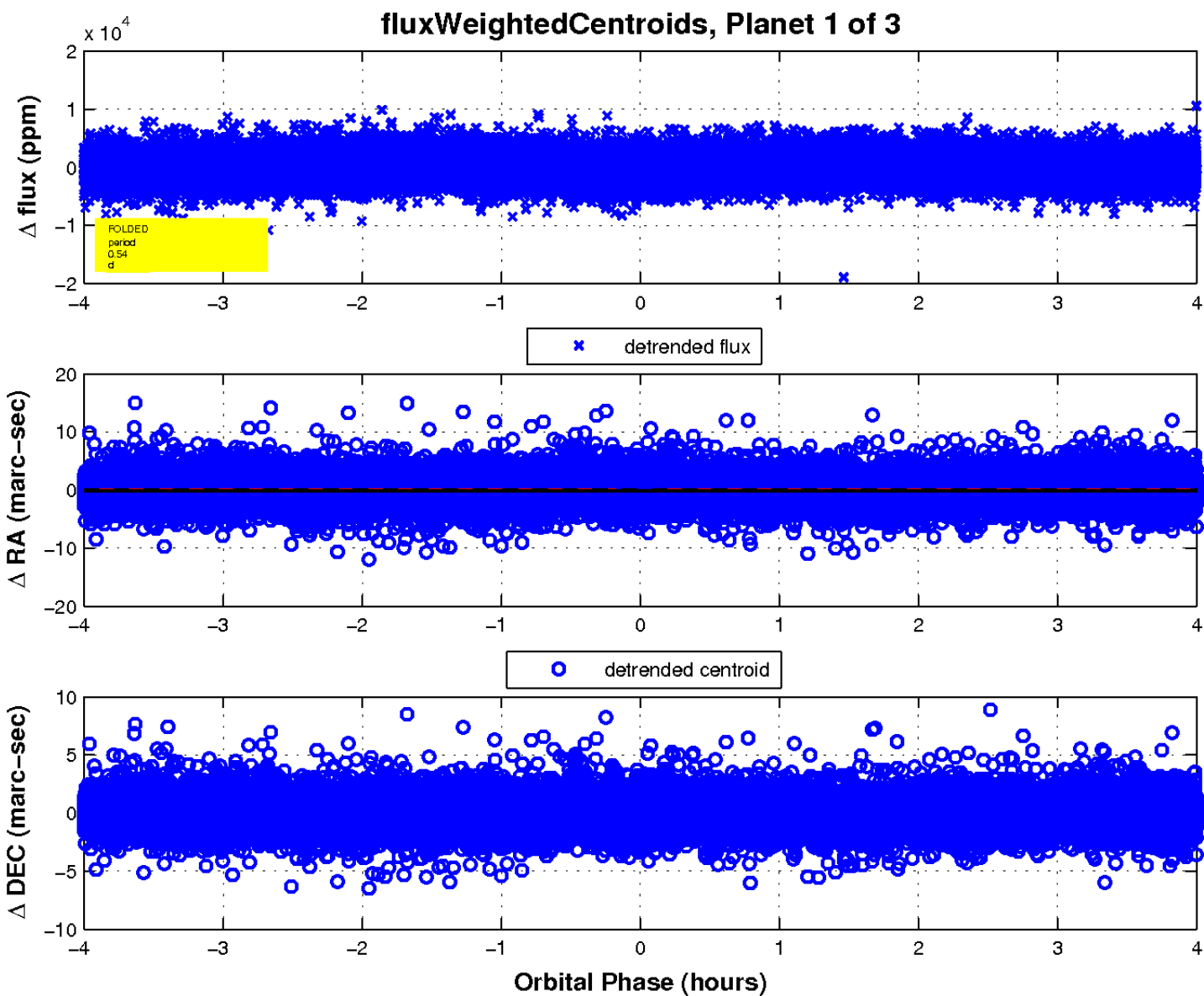
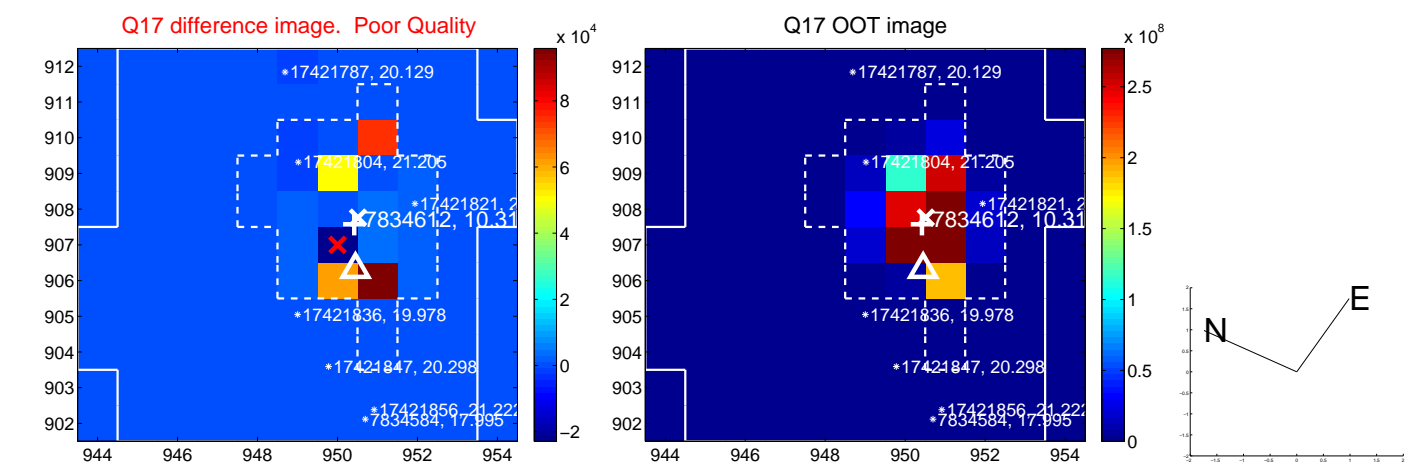
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

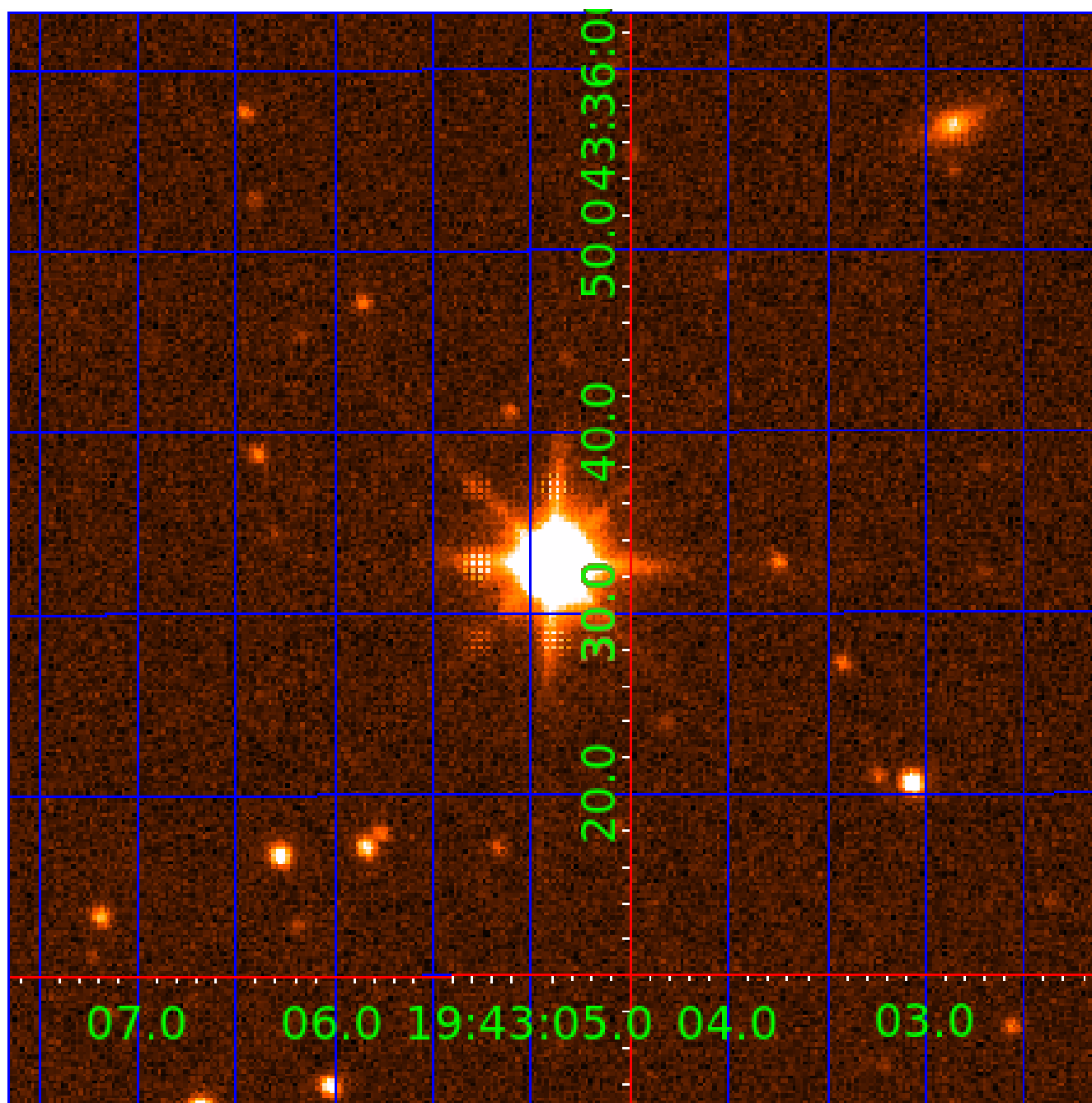


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007834612

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})
007834612-01	OBS	No	0.536811	132.109402	450.2	1.334	13.2	15.9	3.49	7673	8.66	0.00
007834612-02	OBS	No	0.536810	131.843333	423.0	1.416	13.8	16.2	3.49	7673	8.39	0.00
007834612-03	OBS	No	1.359701	132.351338	889.1	1.787	9.7	12.2	3.49	7673	11.16	40586.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834612-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_SATURATED
007834612-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007834612-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_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.

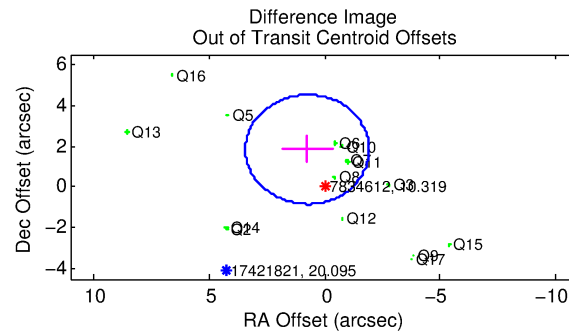
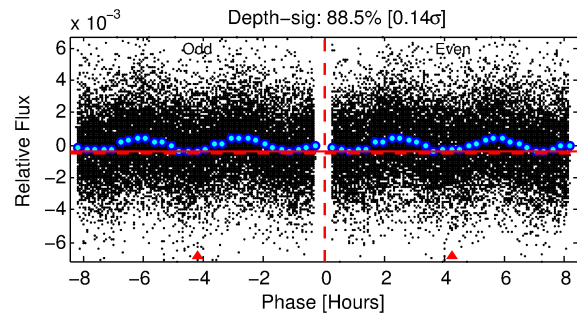
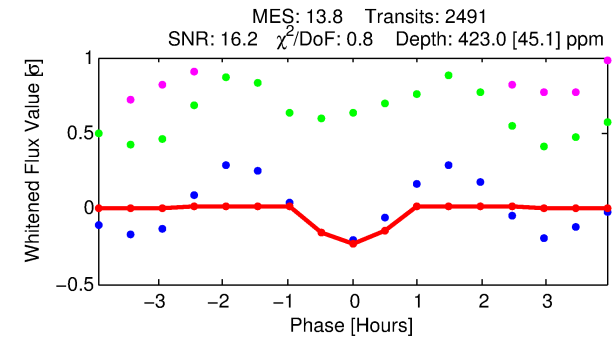
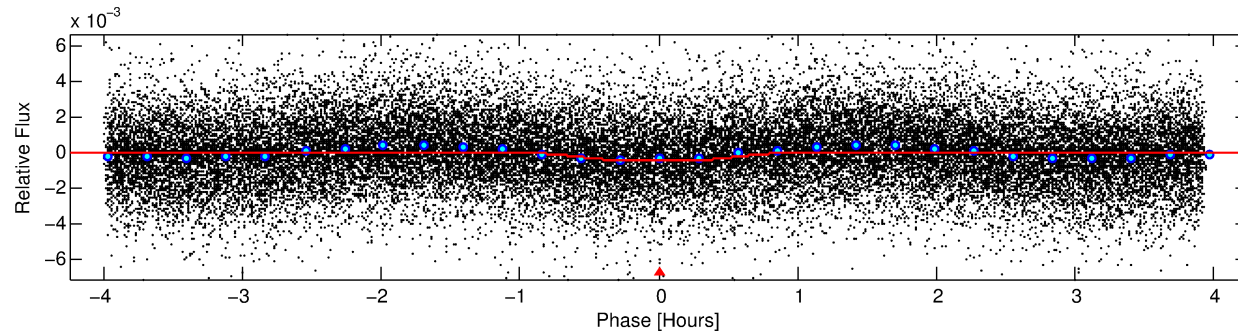
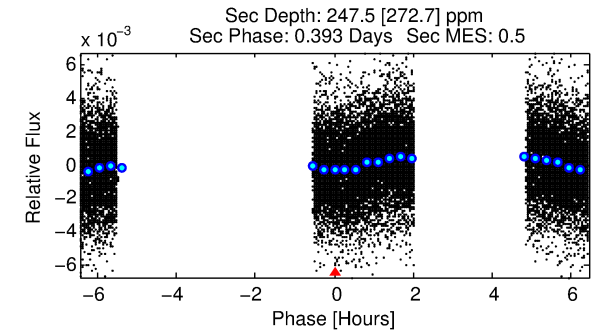
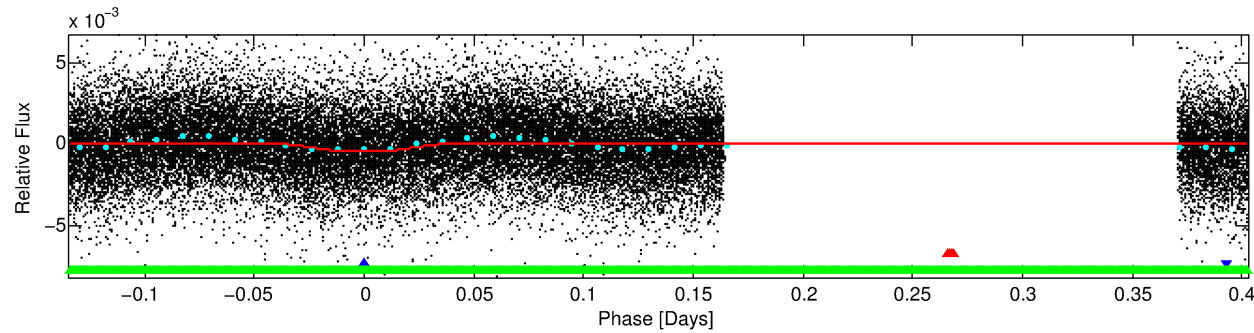
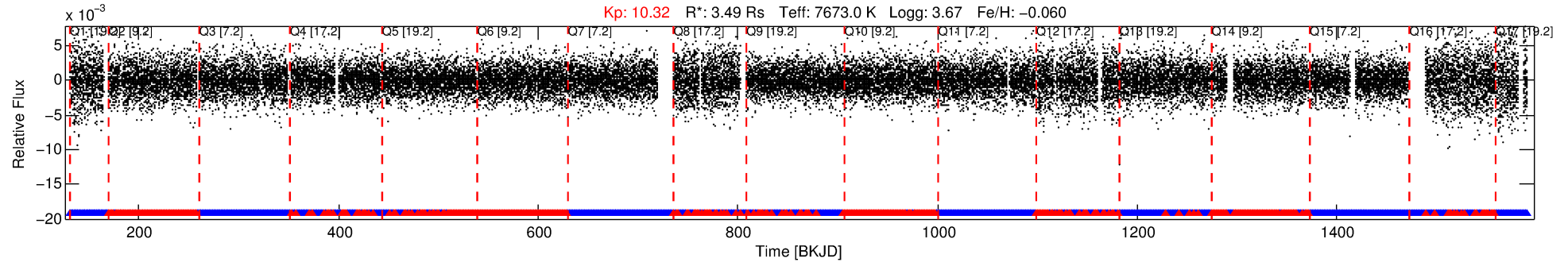
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834612-02

No Significant Match Found

DV One-Page Summary

KIC: 7834612 Candidate: 2 of 3 Period: 0.537 d



DV Fit Results:

Period = 0.53681 [0.00001] d
Epoch = 131.8433 [0.0013] BKJD
Rp/R* = 0.0220 [0.0068]
a/R* = 1.69 [2.01]
b = 0.90 [0.39]
Seff = N/A
Teq = N/A
Rp = 8.39 [5.01] Re
a = N/A
Ag = N/A
Teffp = N/A

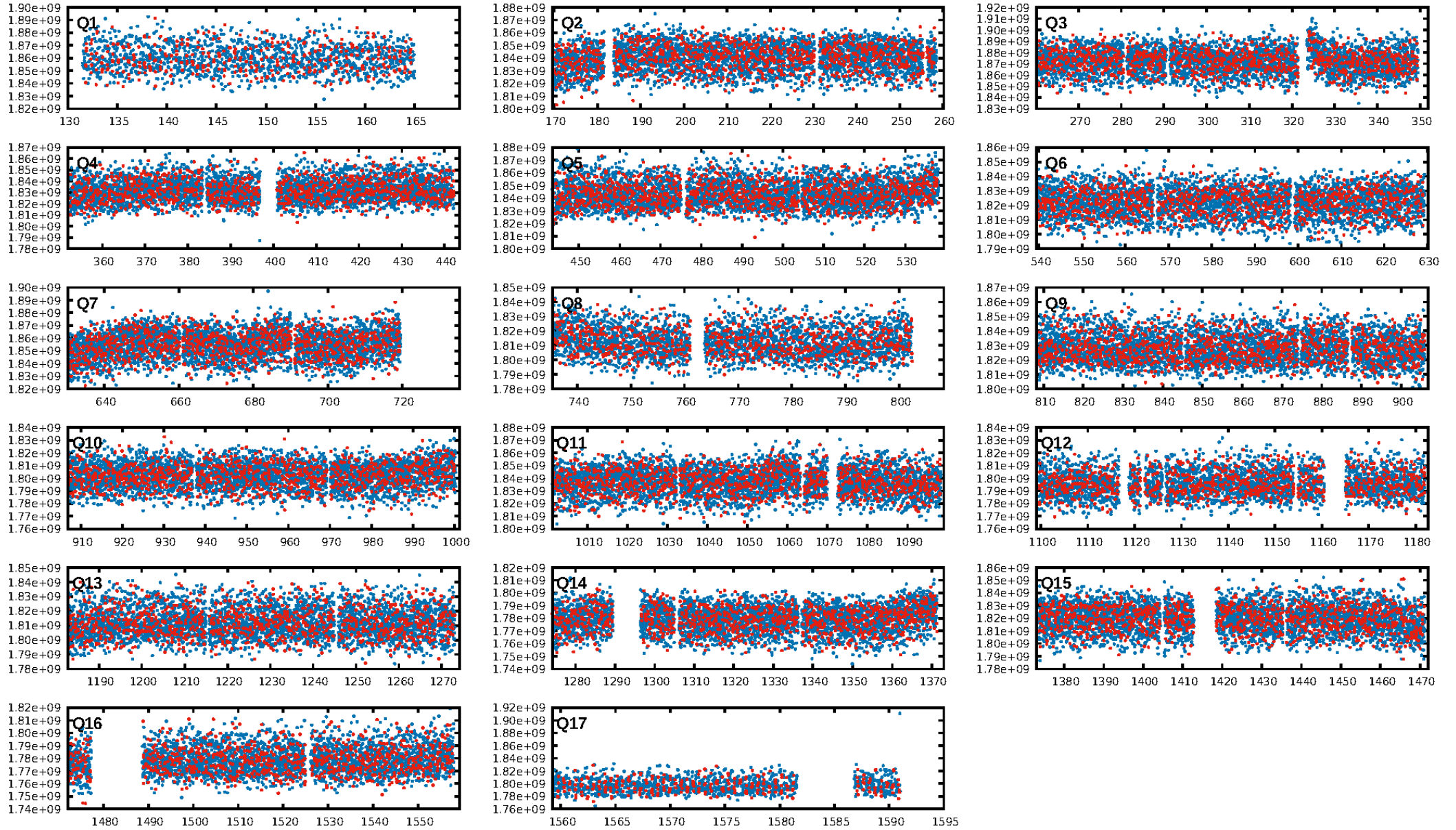
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.37e-14
RollingBand-fgt: 0.66 [1579/2379]
GhostDiagnostic-chr: 1.702
Centroid-sig: N/A
Centroid-so: 0.322 arcsec [3.35σ]
OotOffset-rm: 1.986 arcsec [2.23σ]
KicOffset-rm: 1.963 arcsec [2.77σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
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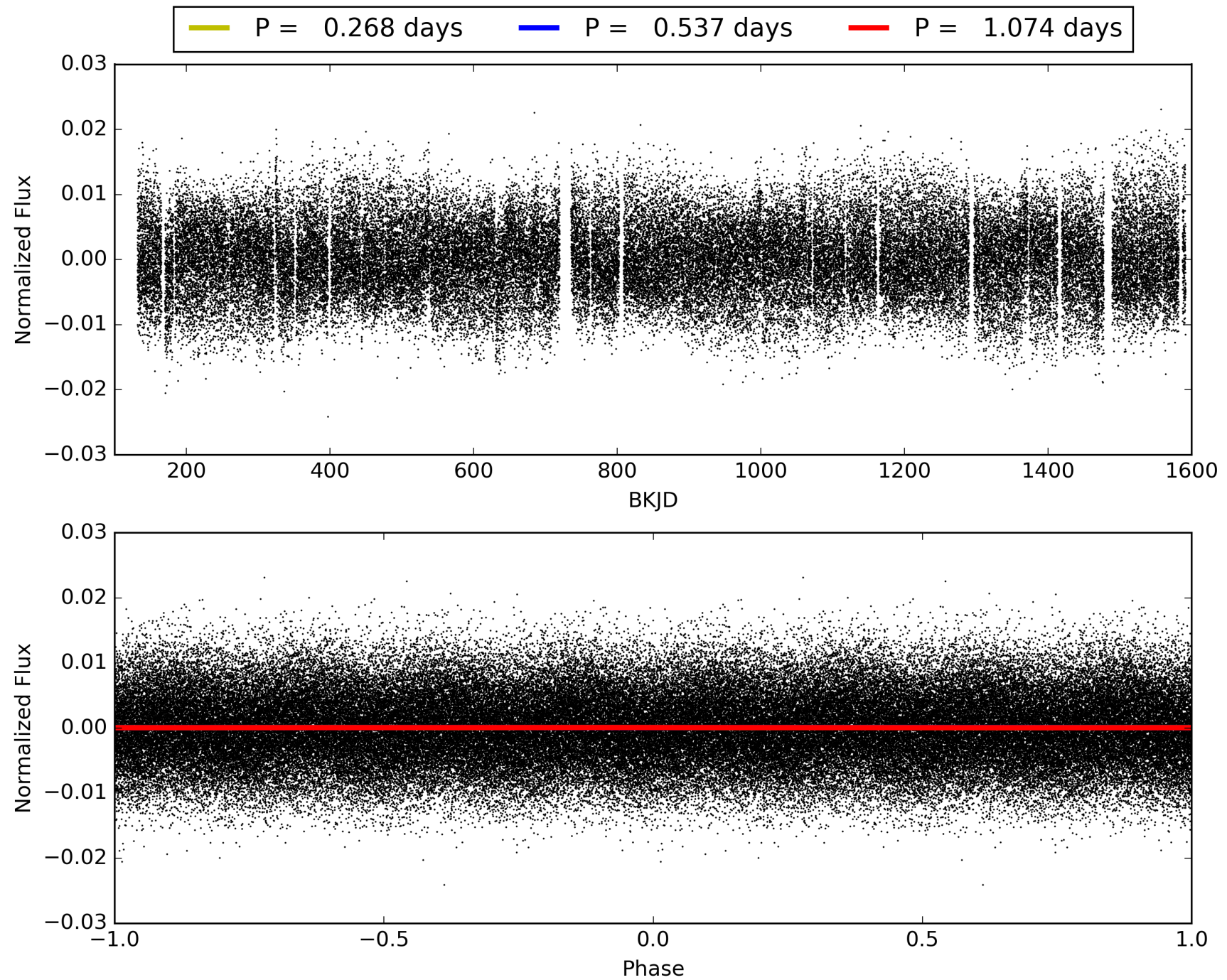
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007834612-02, PDC Light Curves

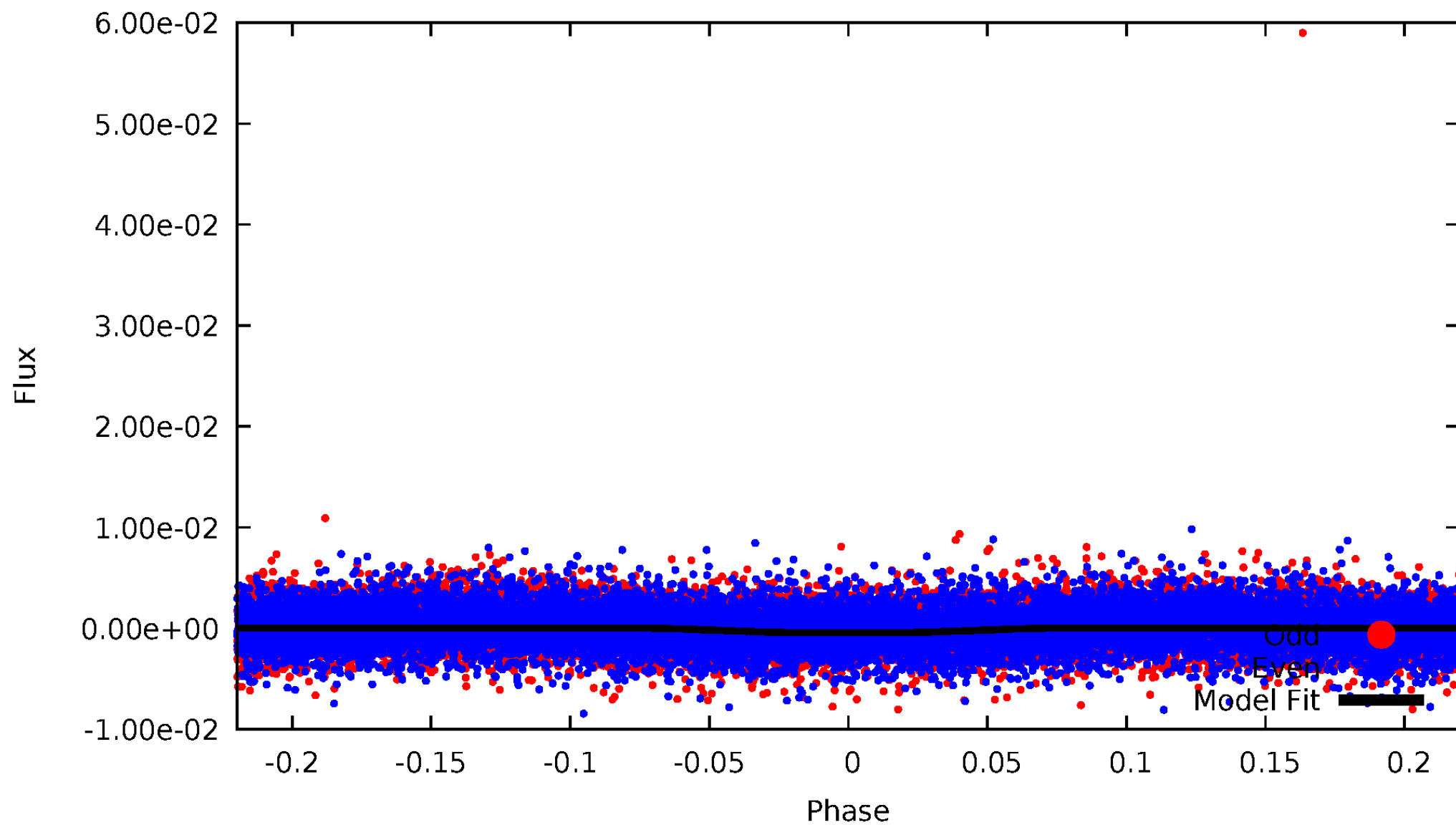


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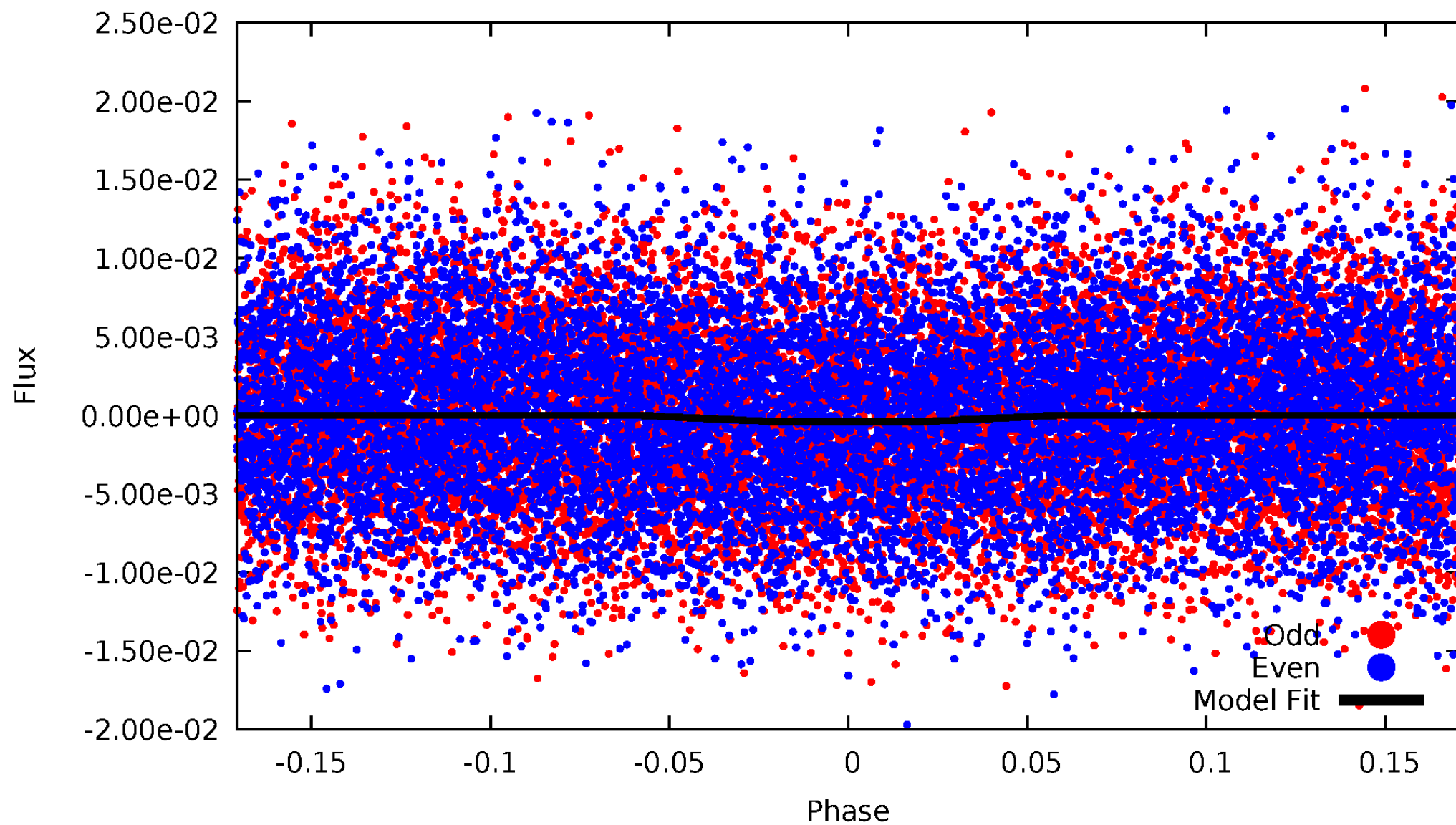
DV Odd/Even

TCE 007834612-02



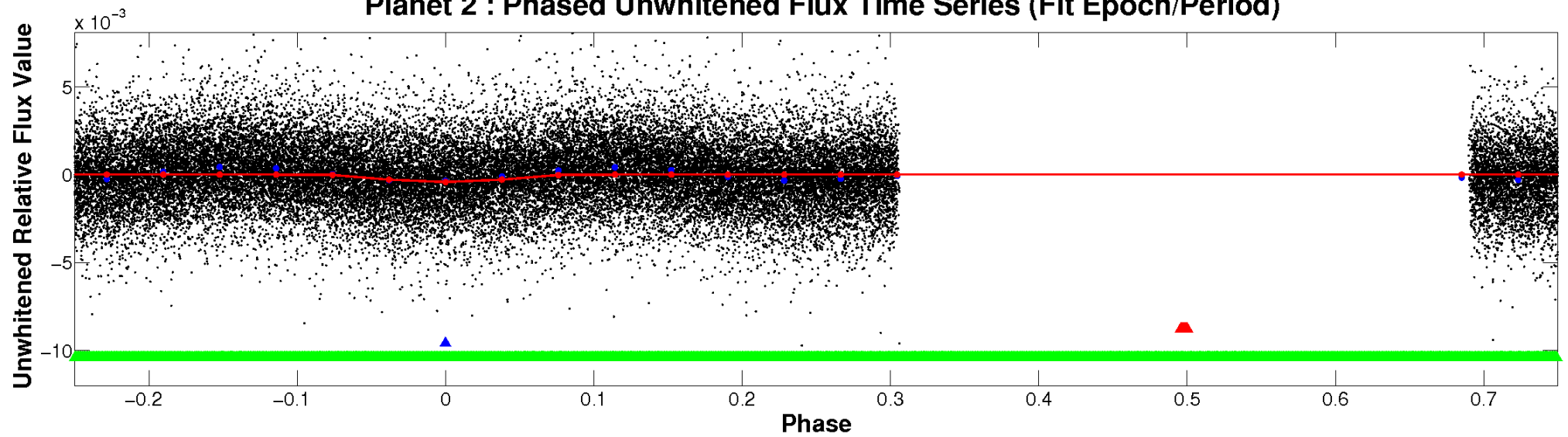
ALT Odd/Even

TCE 007834612-02

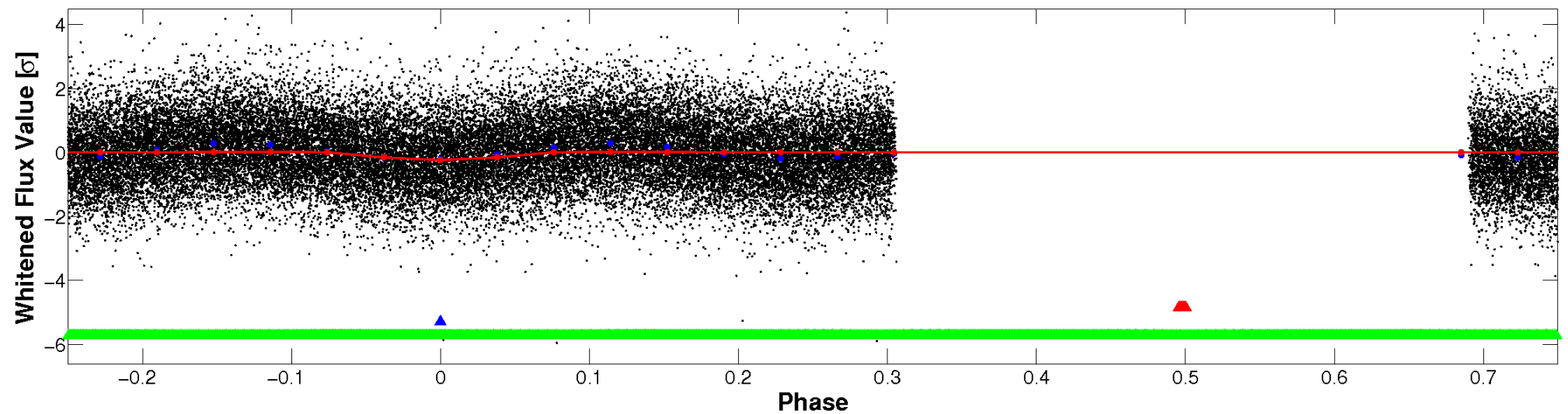


Non-Whitened Vs. Whitened Light Curve

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

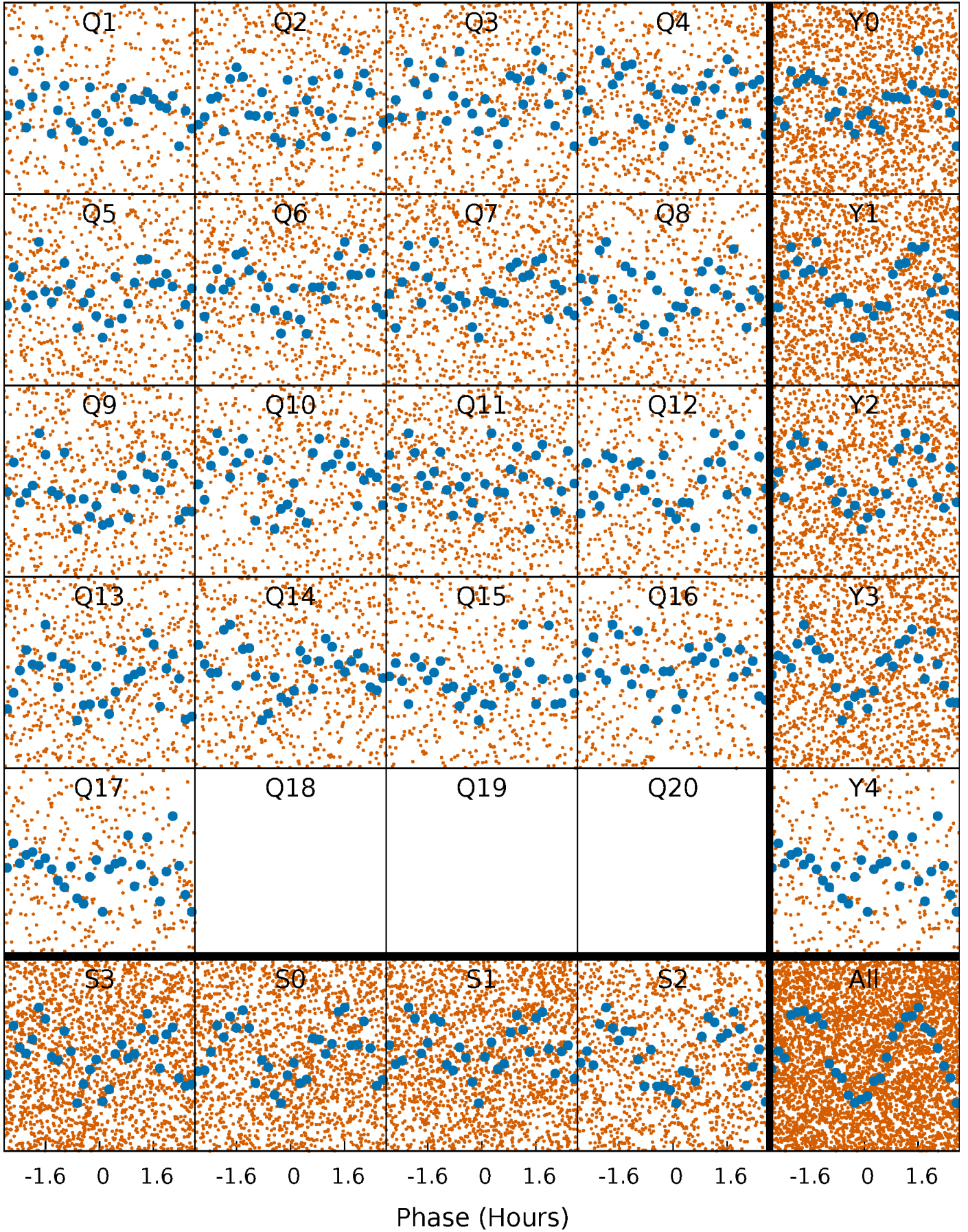


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



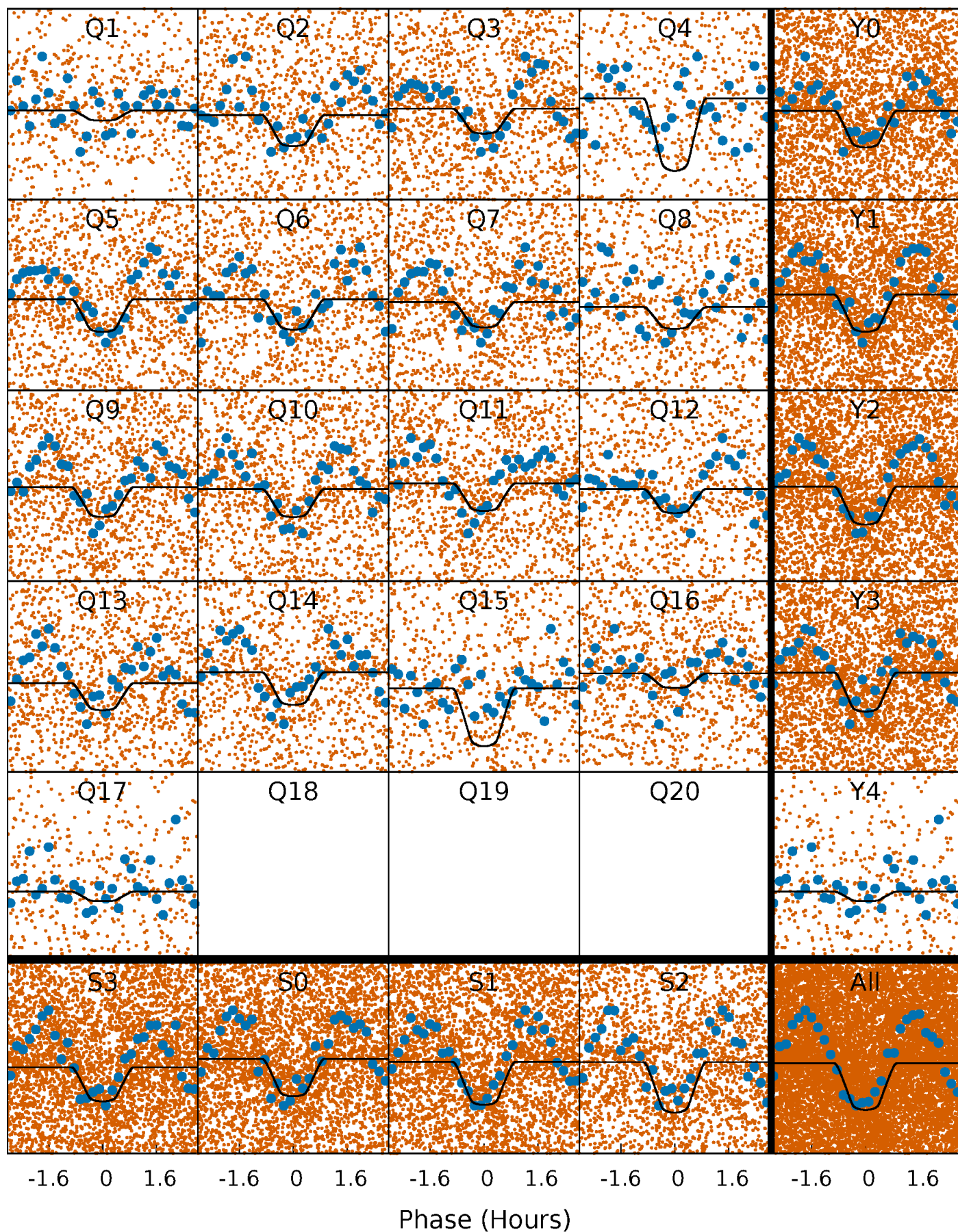
PDC Quarter-Phased Transit Curves

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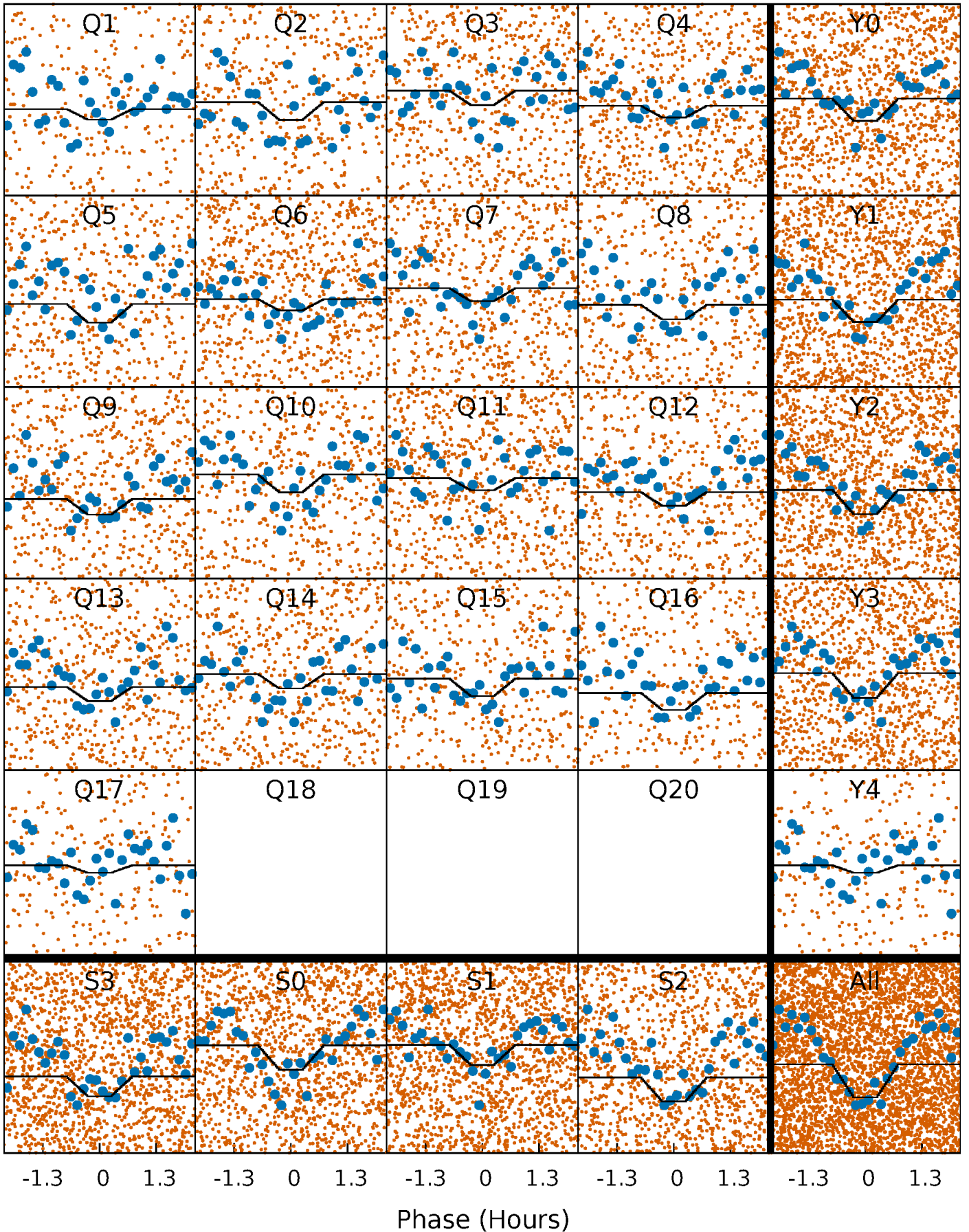
DV Quarter-Phased Transit Curves

TCE 007834612-02 P= 0.536810 Days $T_0=131.843333$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

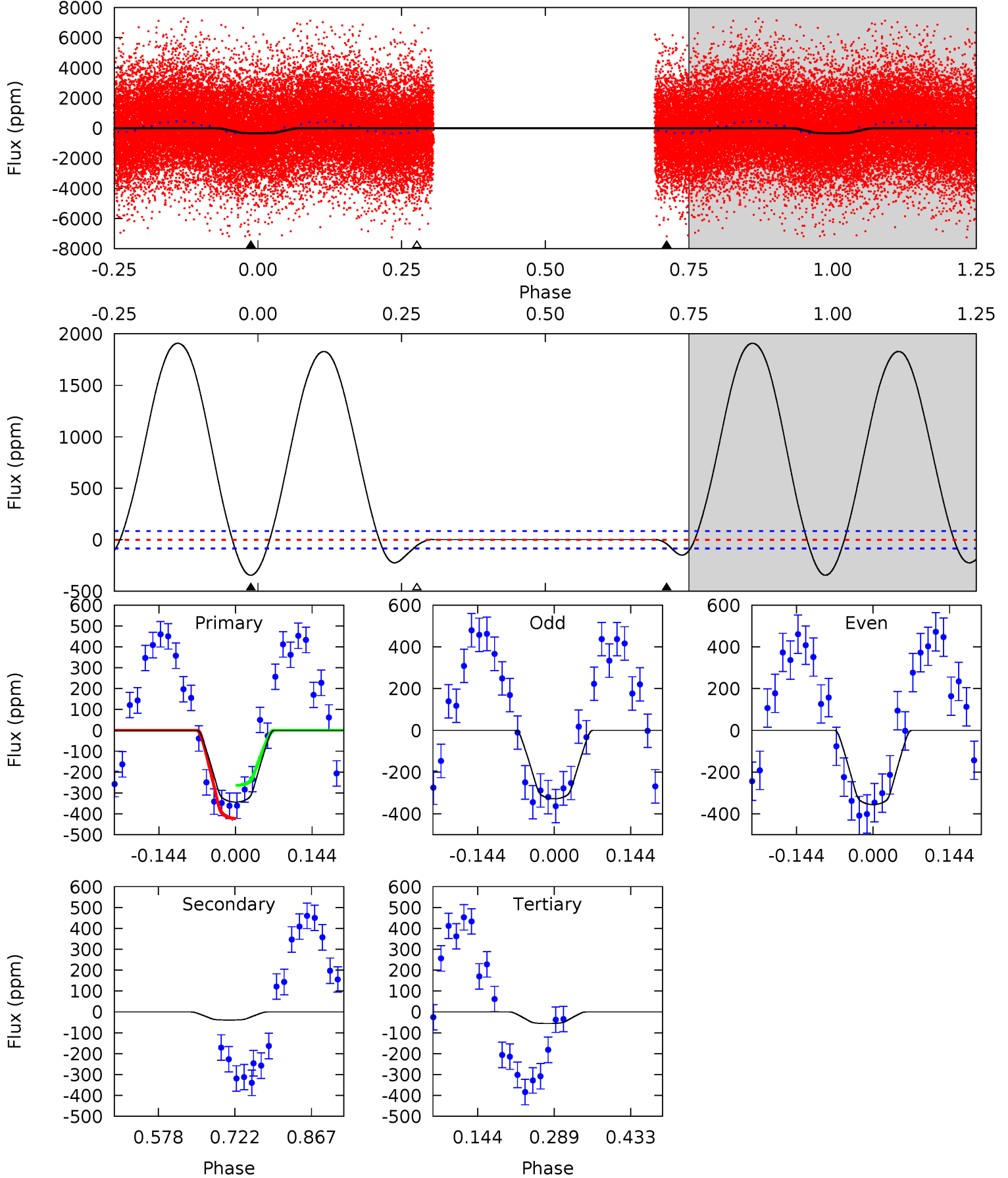
TCE 007834612-02 P= 0.536807 Days $T_0=131.843750$ (BKJD)



DV Model-Shift Uniqueness Test

007834612-02, P = 0.536810 Days, E = 131.306523 Days

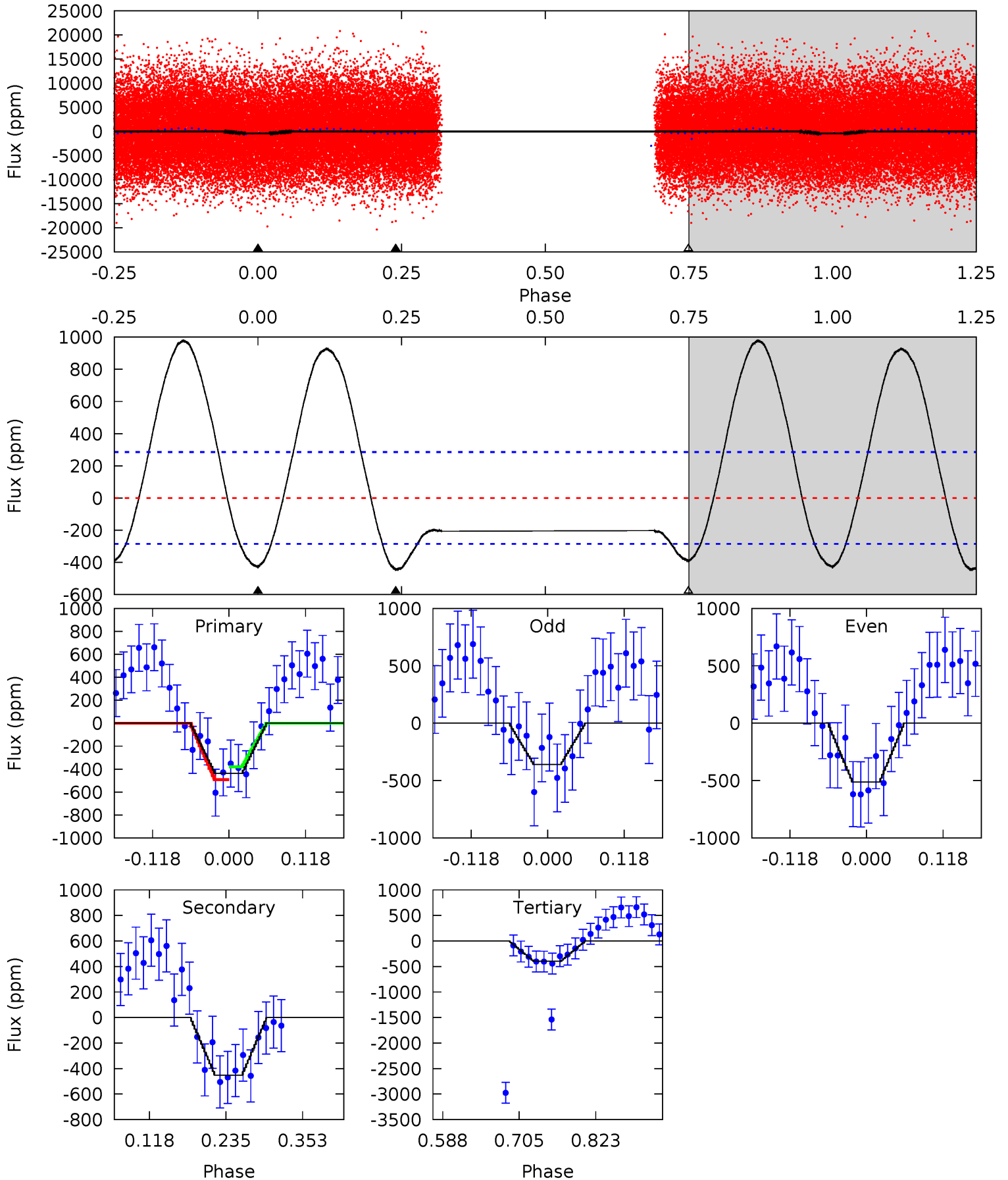
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	2.07	2.95	0	4.49	1.46	32.6	15.2	18.2	-0.88	2.07	0.74	0.92	0.85	4.15



Alt Model-Shift Uniqueness Test

007834612-02, P = 0.536807 Days, E = 131.306943 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.94	7.18	6.32	0	4.53	1.57	8.28	0.62	6.94	0.86	7.18	1.21	1.00	0.69	0.88



Stellar Parameters For KIC 007834612

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7673^{+213}_{-320}	$3.665^{+0.459}_{-0.081}$	$-0.060^{+0.200}_{-0.350}$	$3.494^{+0.558}_{-1.787}$	$2.059^{+0.279}_{-0.557}$	$0.068^{+0.305}_{-0.017}$
	+3%/-4%	+13%/-2%	+333%/-583%	+16%/-51%	+14%/-27%	+449%/-25%
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 007834612-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-39 ± 19	$7.65^{+3.01}_{-2.68}$	6641^{+470}_{-757}	-4884^{+1192}_{-544}	$0.093^{+0.145}_{-0.052}$
Alt.	-452 ± 63	$6.88^{+3.05}_{-2.59}$	6670^{+445}_{-822}	7299^{+2757}_{-1594}	$1.432^{+2.291}_{-0.746}$

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

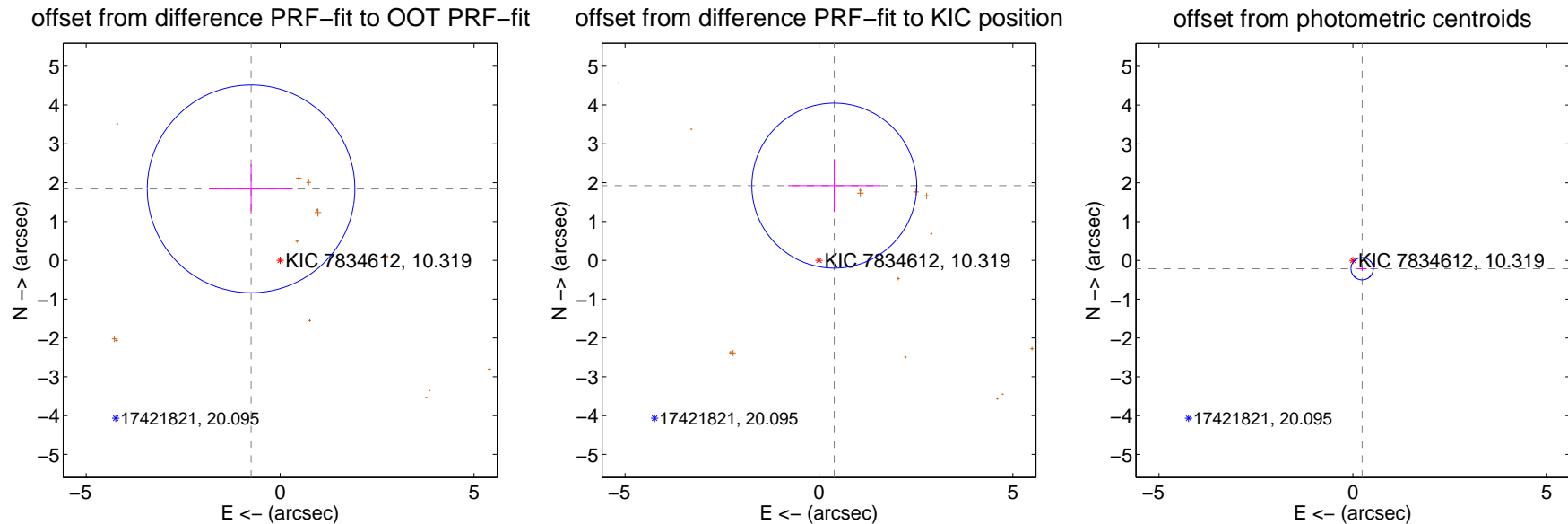
DV Centroid Data

Supplemental centroid analysis for 007834612-02. **Kepler magnitude: 10.32.** Transit SNR 16.23

There are 0 quarters with good PRF difference image offsets

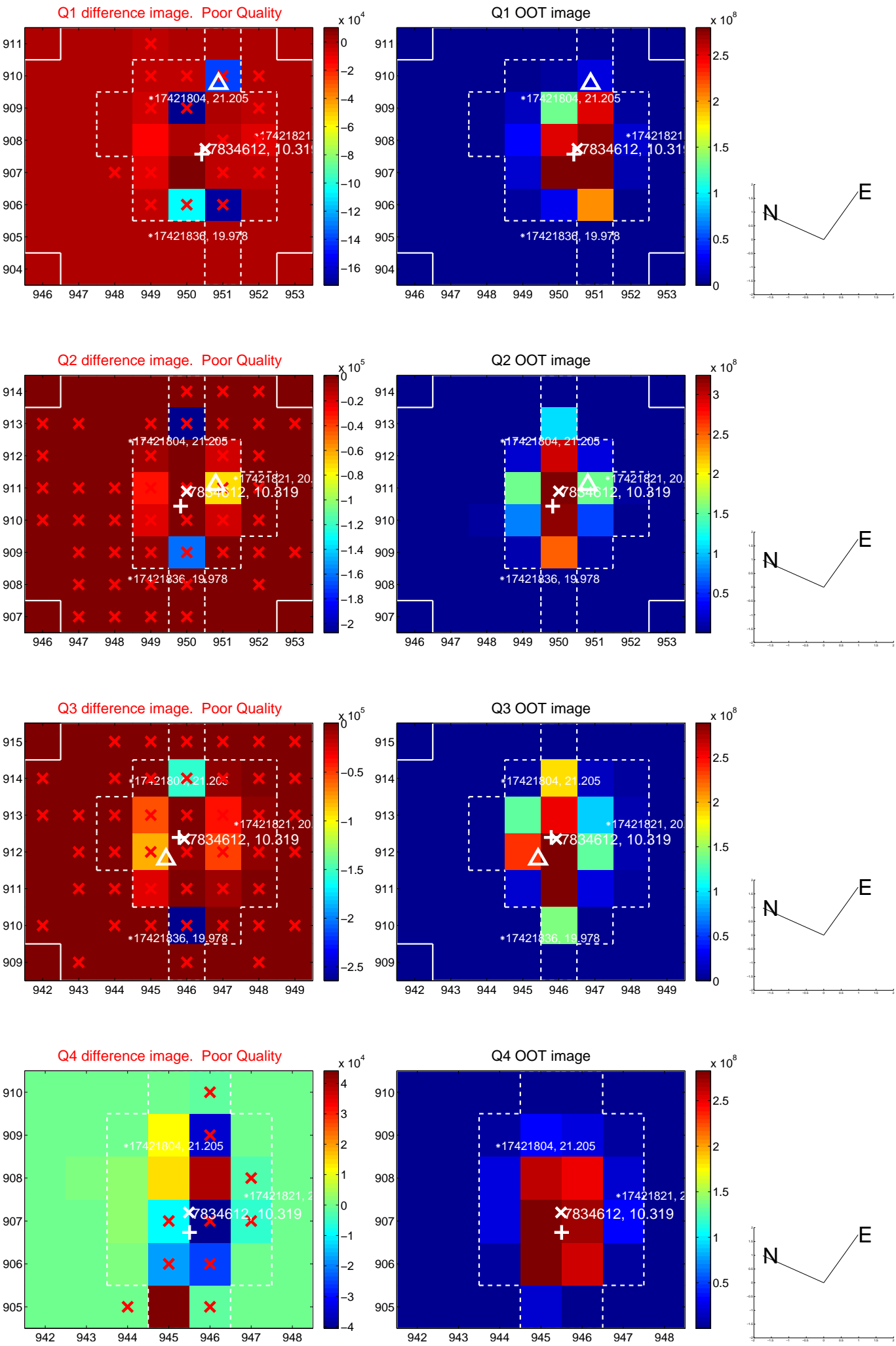
The direct PRF centroid is offset from the target star catalog position by about 0.83 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.986 ± 0.892	2.23	0.749 ± 1.077	1.839 ± 0.634
PRF-fit source offset from KIC position	1.963 ± 0.708	2.77	-0.394 ± 1.194	1.923 ± 0.680
photometric centroid source offset	0.32 ± 0.10	3.35	-0.24 ± 0.12	-0.21 ± 0.06

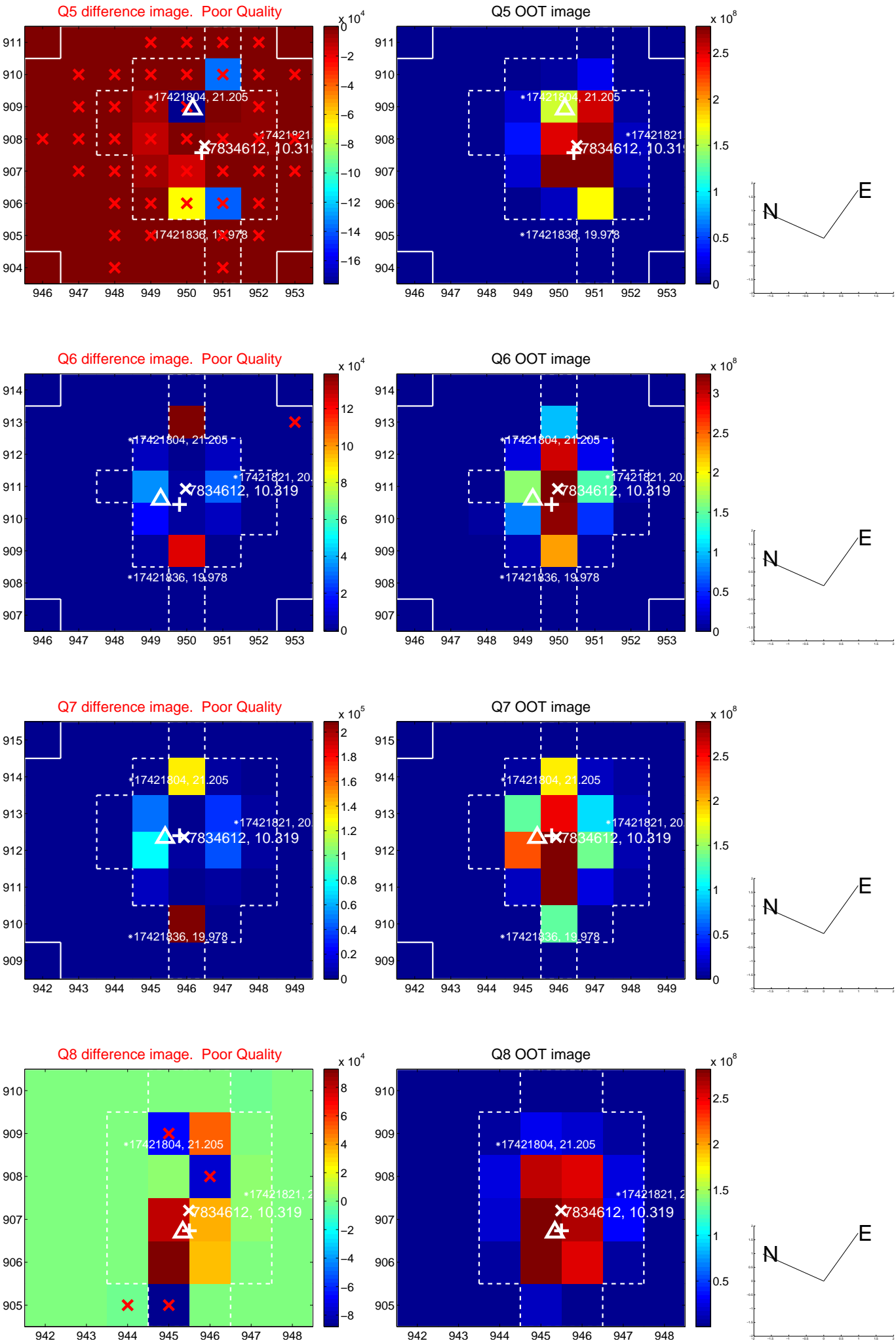


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

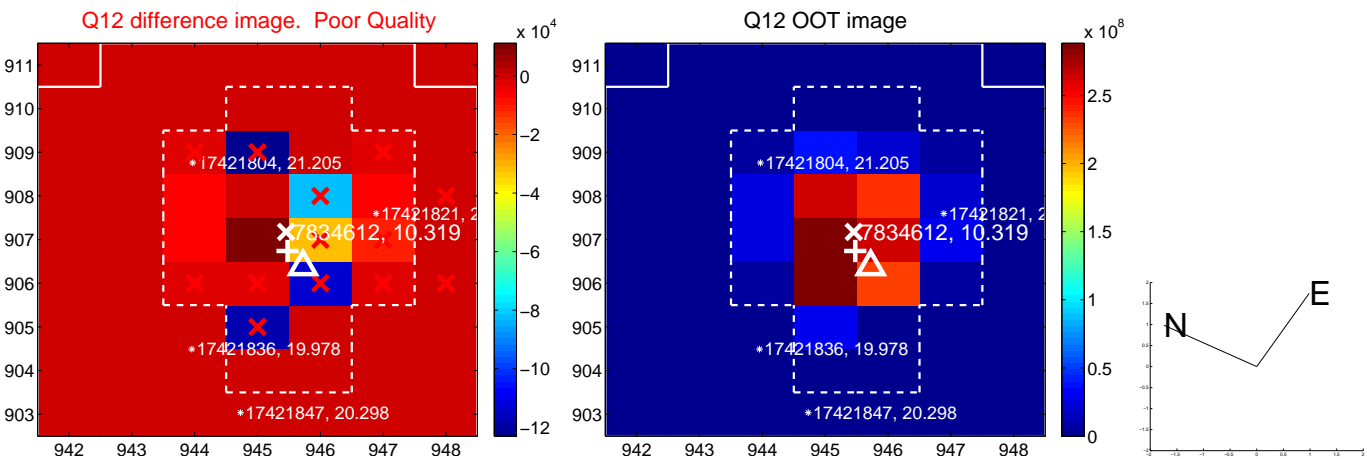
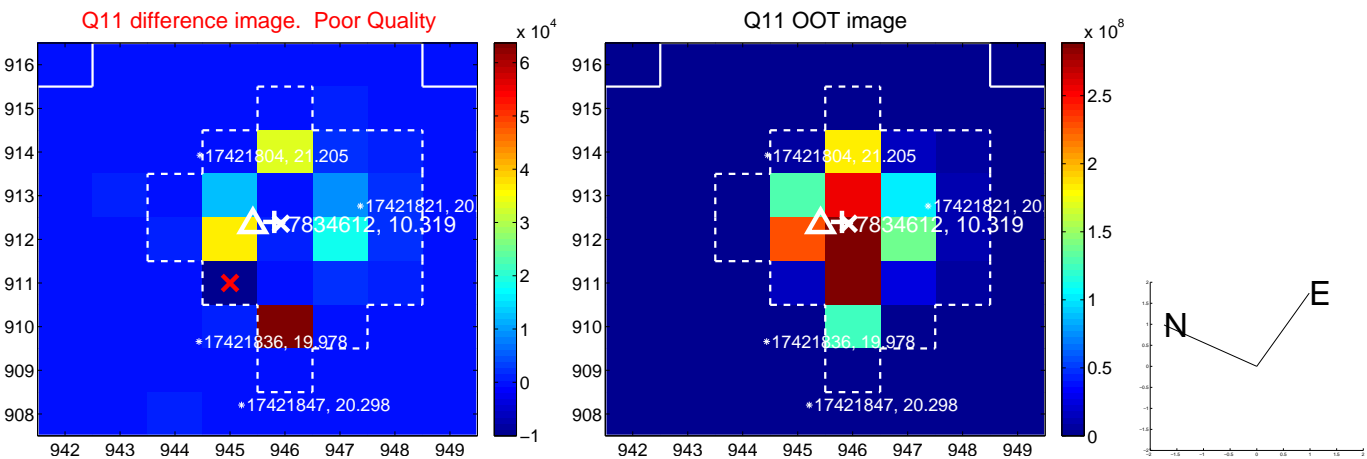
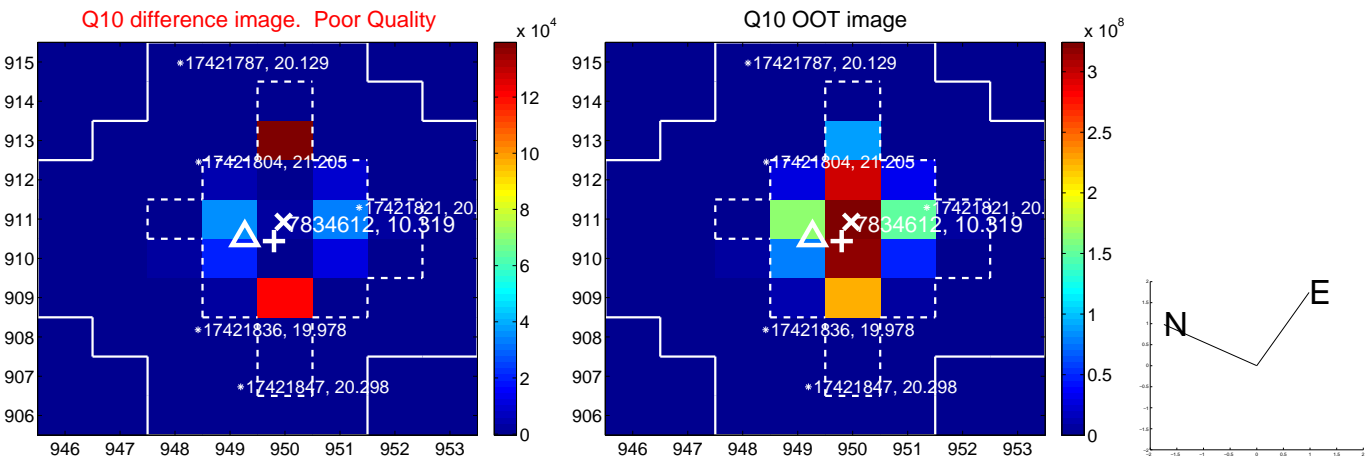
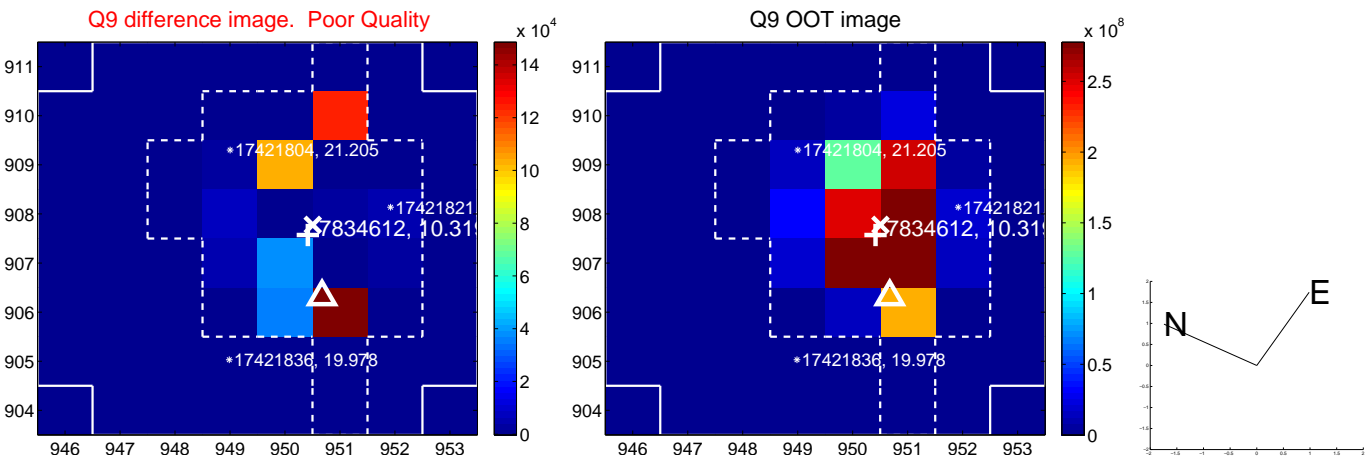
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



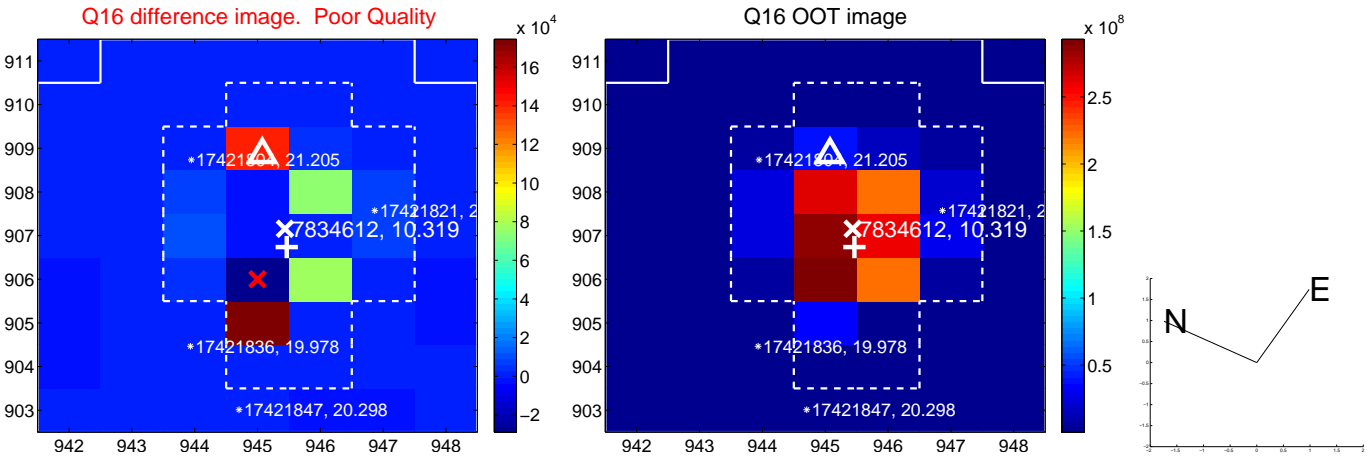
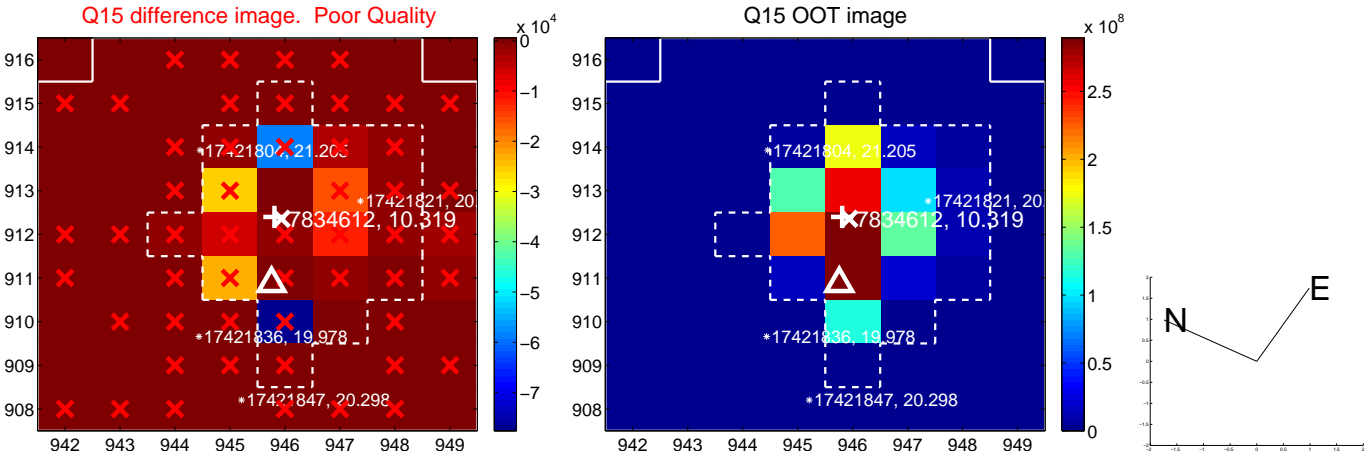
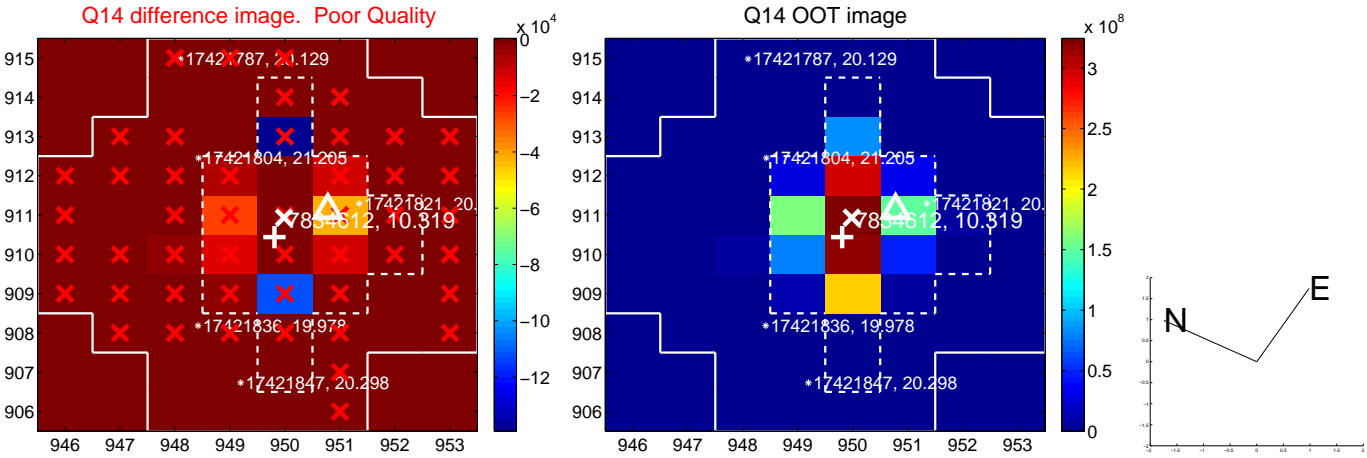
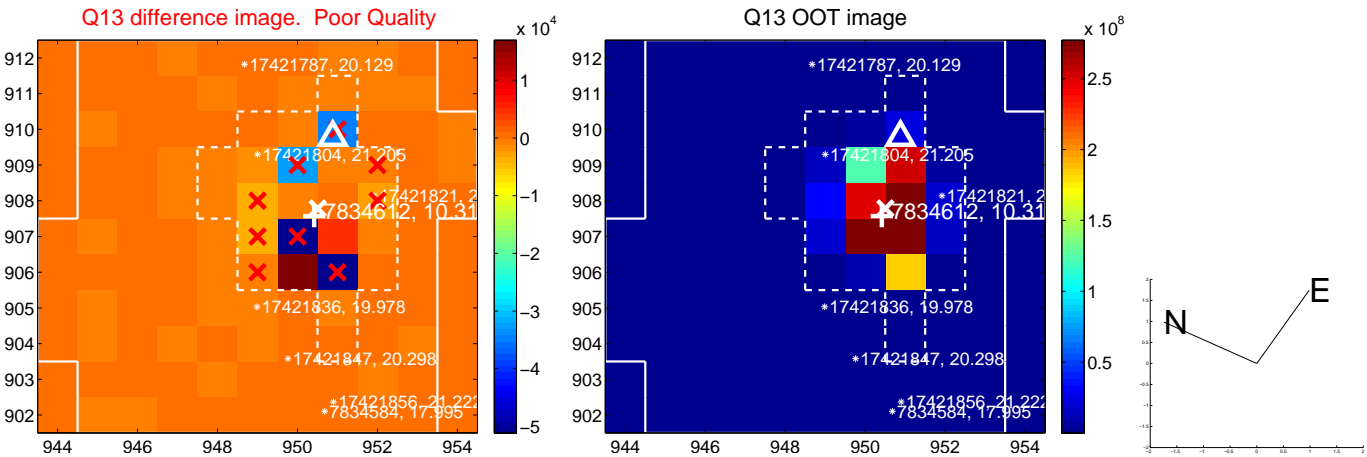
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



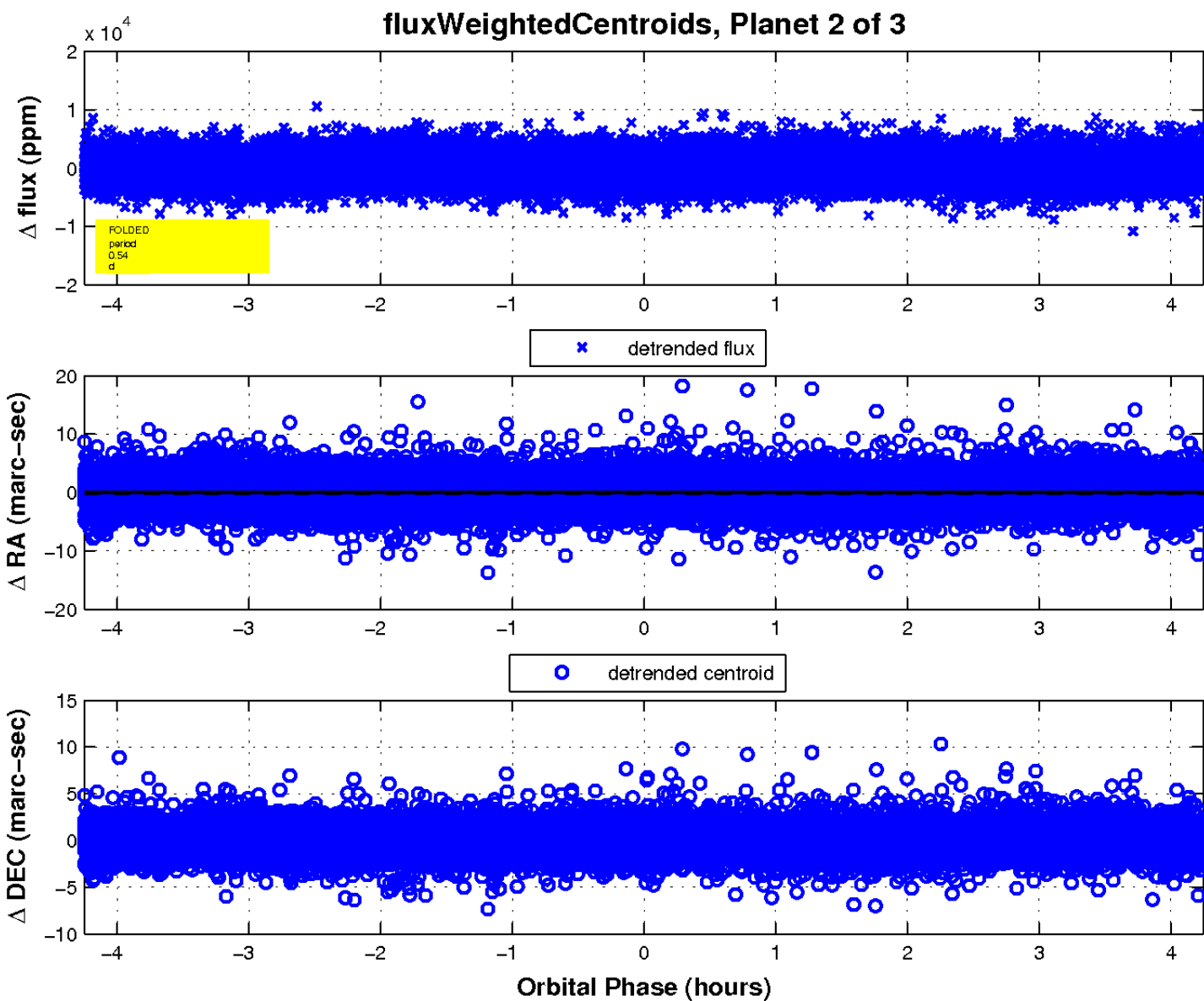
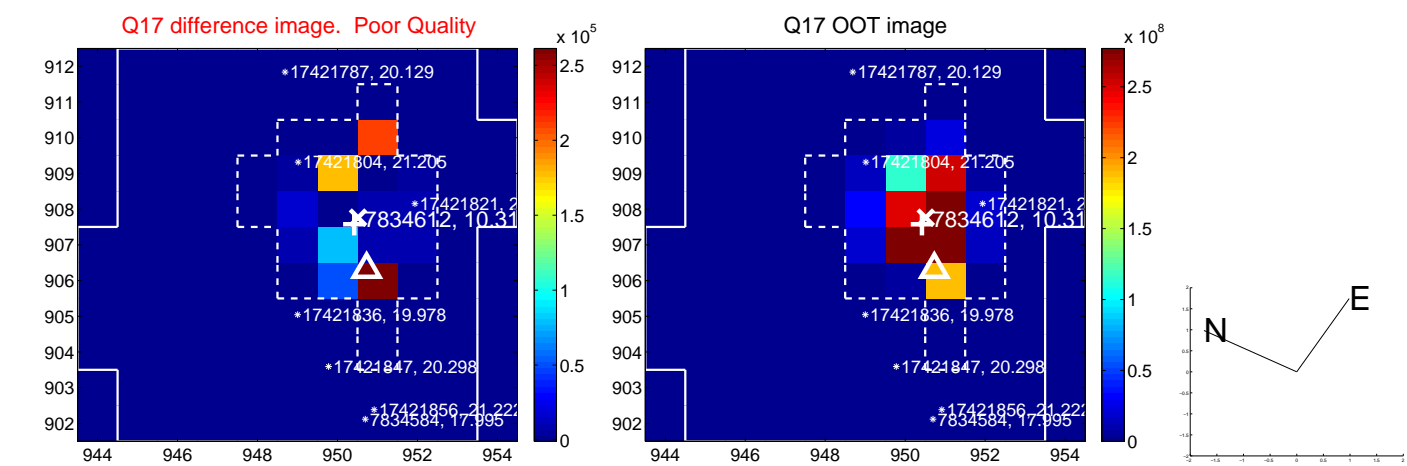
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

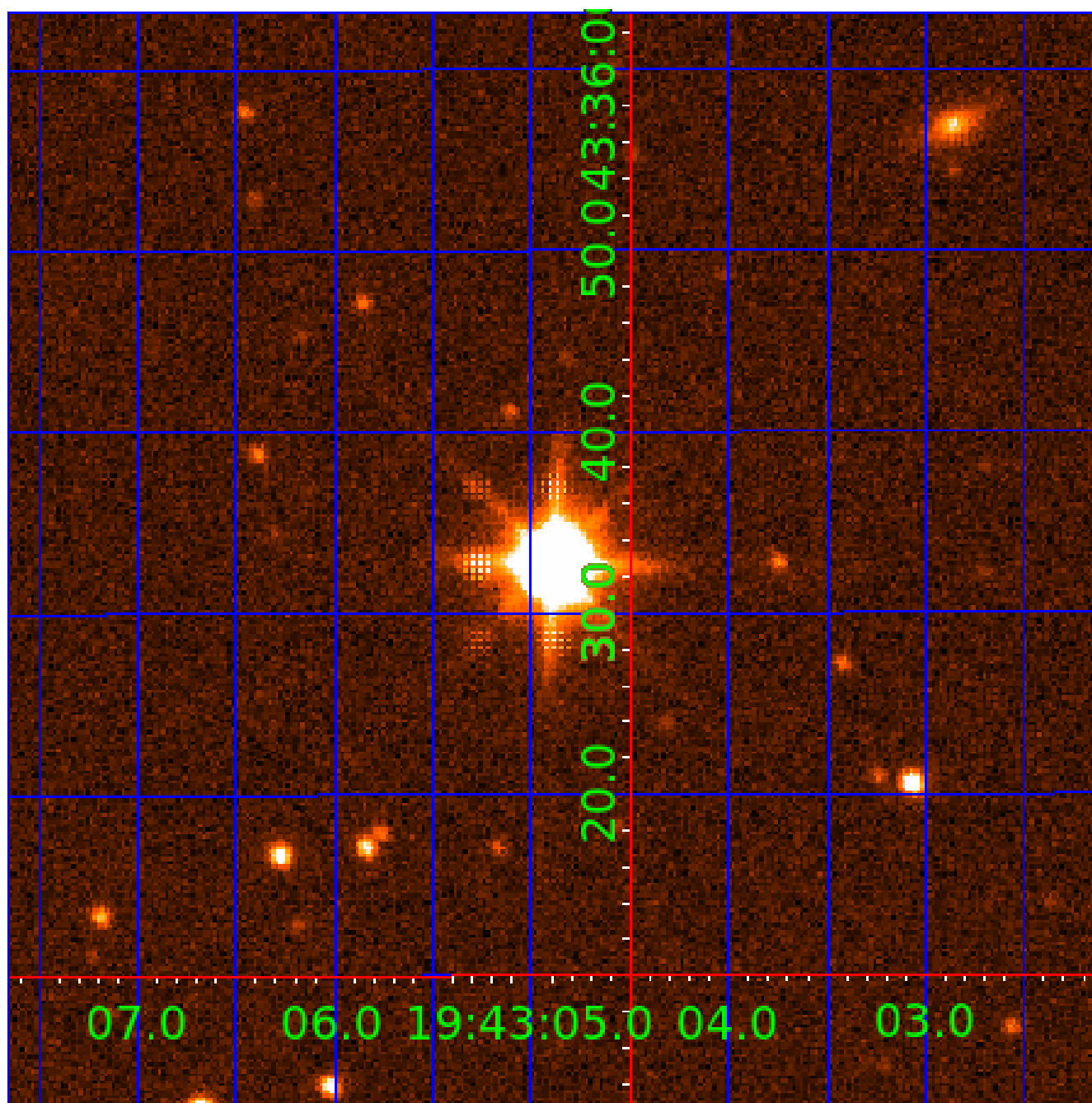


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007834612

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})
007834612-01	OBS	No	0.536811	132.109402	450.2	1.334	13.2	15.9	3.49	7673	8.66	0.00
007834612-02	OBS	No	0.536810	131.843333	423.0	1.416	13.8	16.2	3.49	7673	8.39	0.00
007834612-03	OBS	No	1.359701	132.351338	889.1	1.787	9.7	12.2	3.49	7673	11.16	40586.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834612-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_SATURATED
007834612-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007834612-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_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.

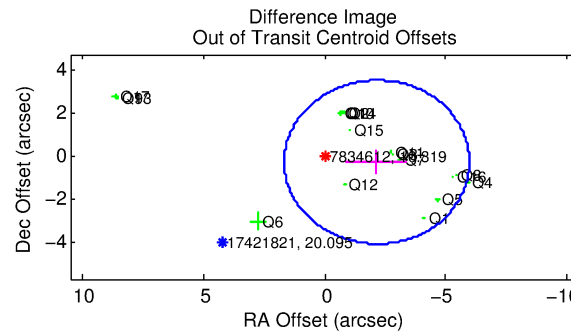
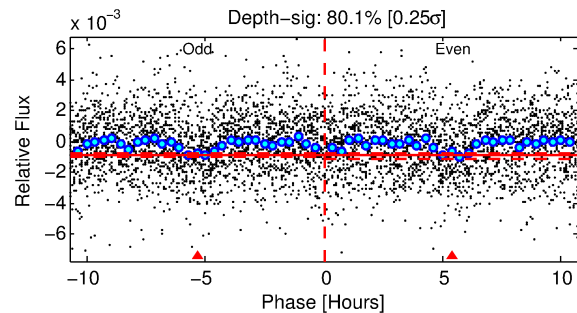
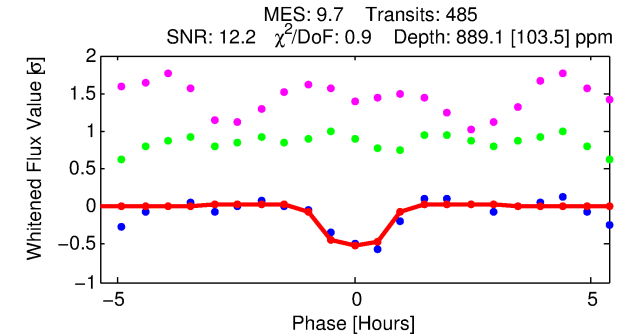
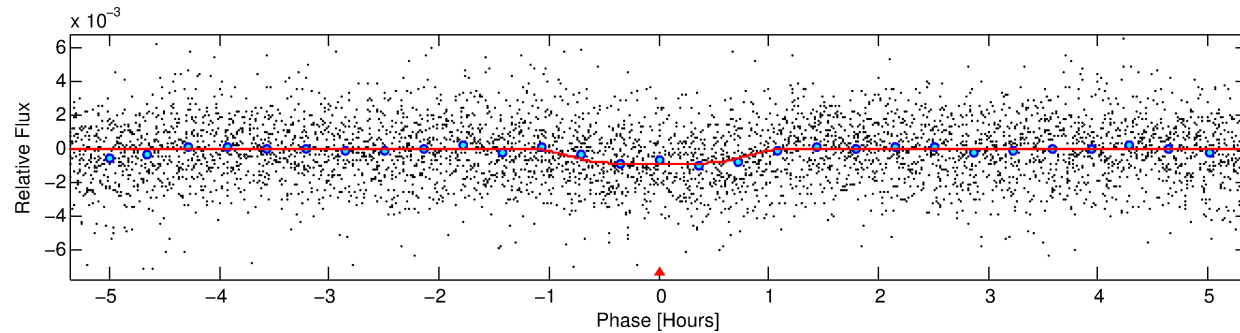
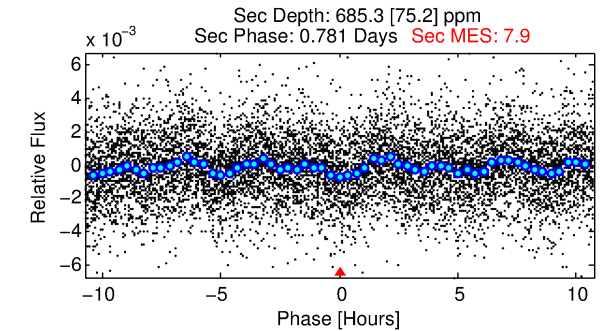
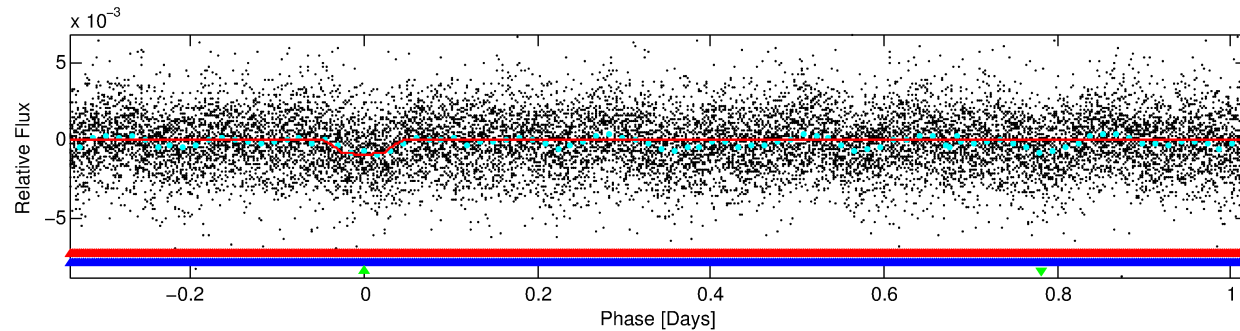
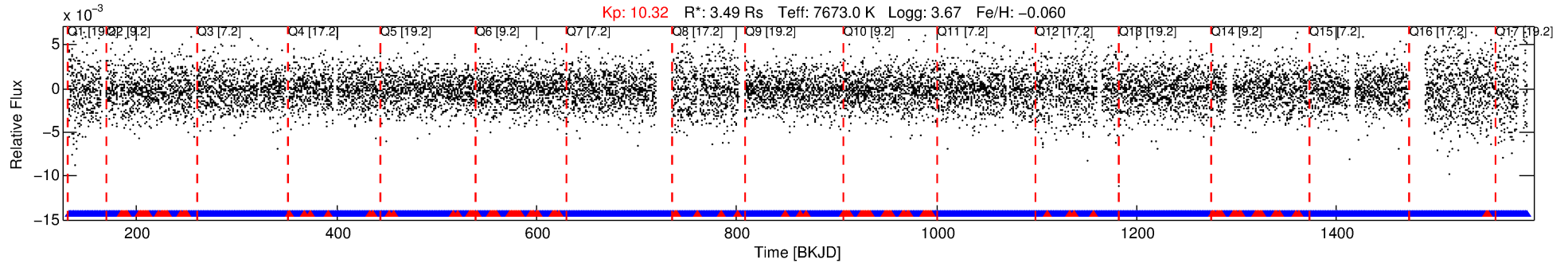
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834612-03

No Significant Match Found

DV One-Page Summary

KIC: 7834612 Candidate: 3 of 3 Period: 1.360 d



DV Fit Results:

Period = 1.35970 [0.00001] d
Epoch = 132.3513 [0.0023] BKJD
Rp/R* = 0.0293 [0.0214]
a/R* = 4.52 [18.15]
b = 0.69 [3.27]
Seff = 40586.29 [32482.59]
Teq = 3619 [724] K
Rp = 11.16 [9.96] Re
a = 0.0306 [0.0150] AU
Ag = 2.83 [4.71] [0.39σ]
Teffp = 7257 [2680] K [1.31σ]

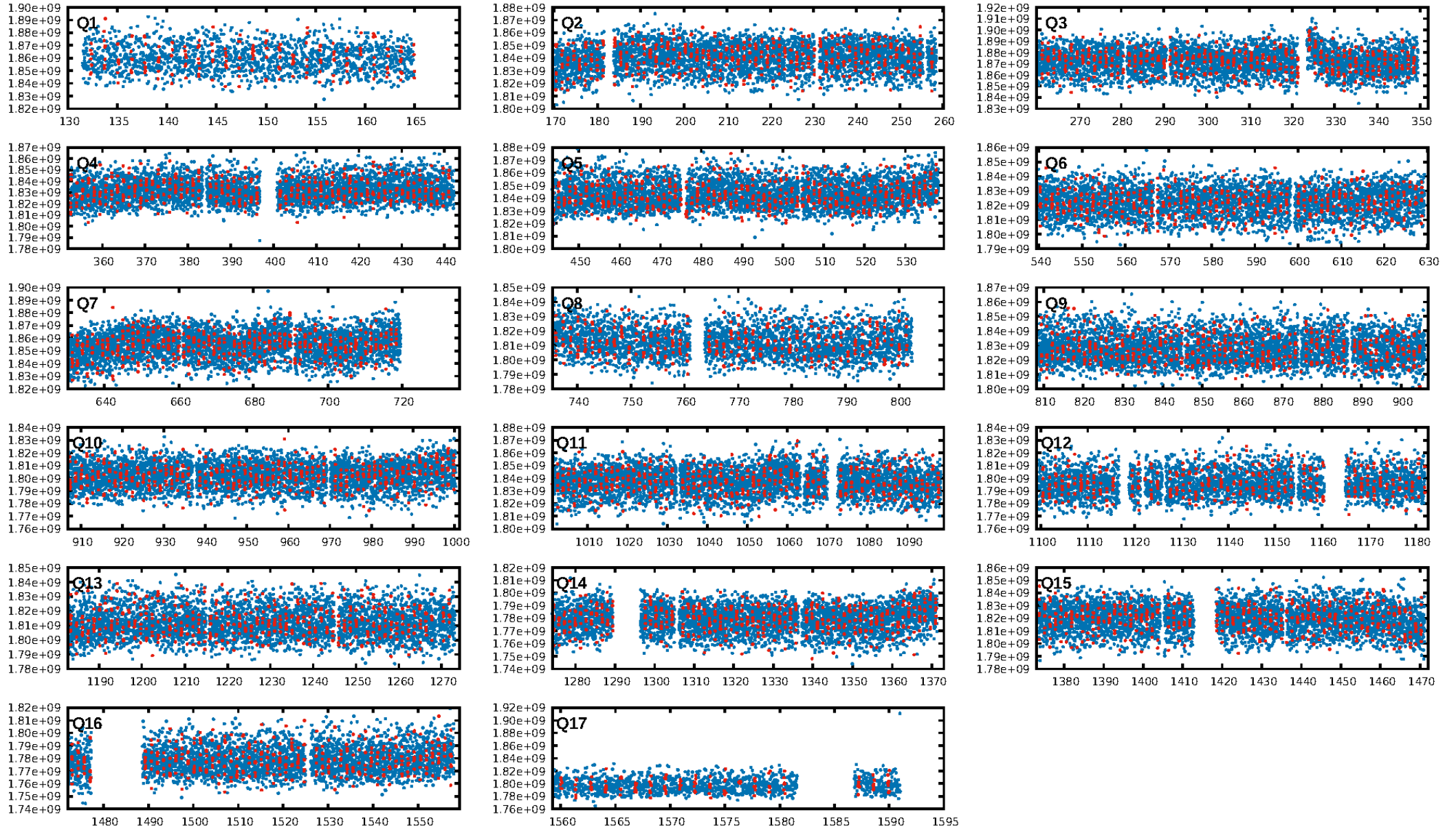
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.85σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.48e-10
RollingBand-fgt: 0.73 [336/462]
GhostDiagnostic-chr: -1.707
Centroid-sig: N/A
Centroid-so: 0.421 arcsec [7.39σ]
OotOffset-rm: 2.170 arcsec [1.70σ]
KicOffset-rm: 2.898 arcsec [2.78σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.06 [1/17]
DiffImageOverlap-fno: 0.00 [0/17]

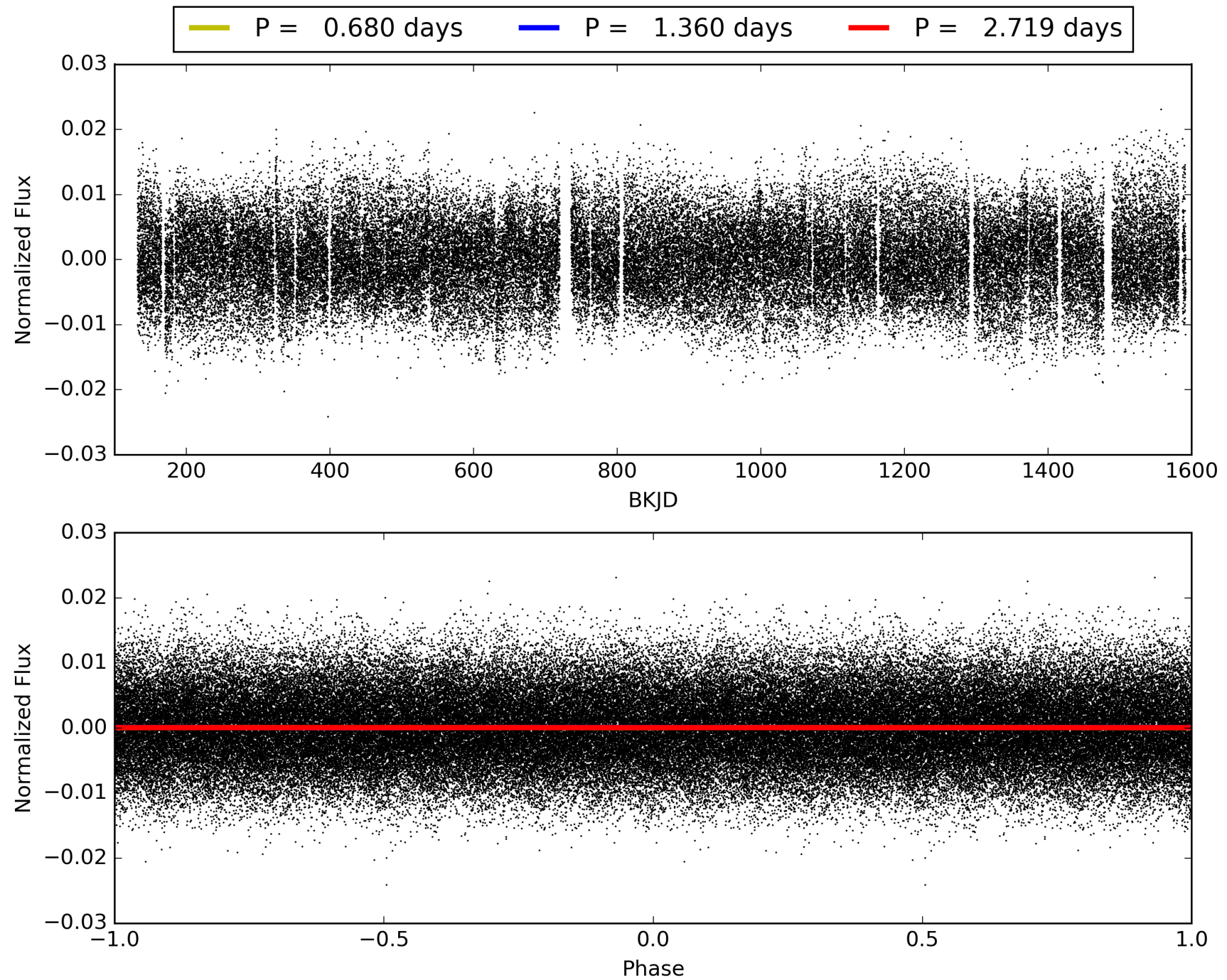
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:33:28 Z

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

TCE 007834612-03, PDC Light Curves

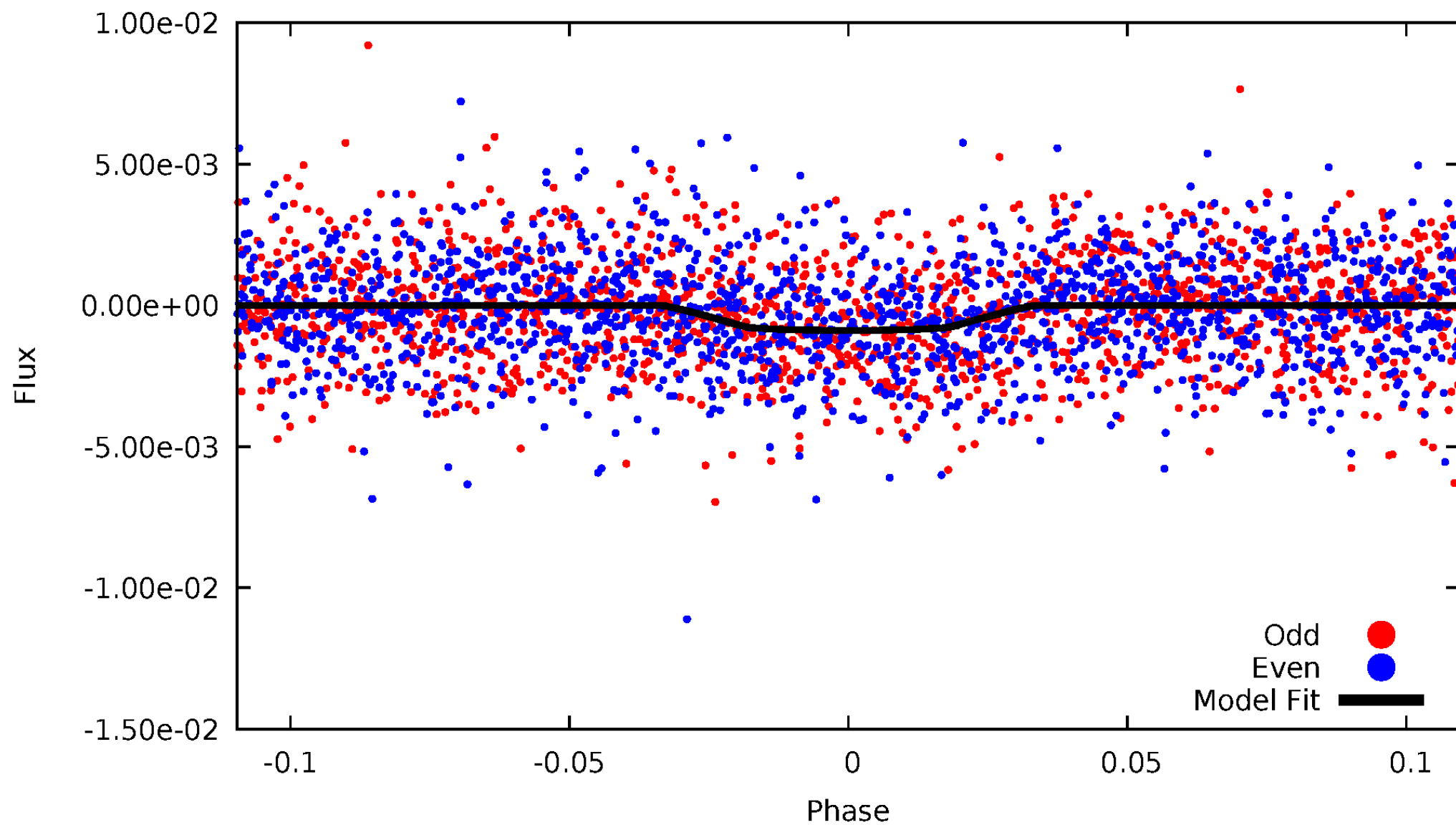


TCE 007834612-03



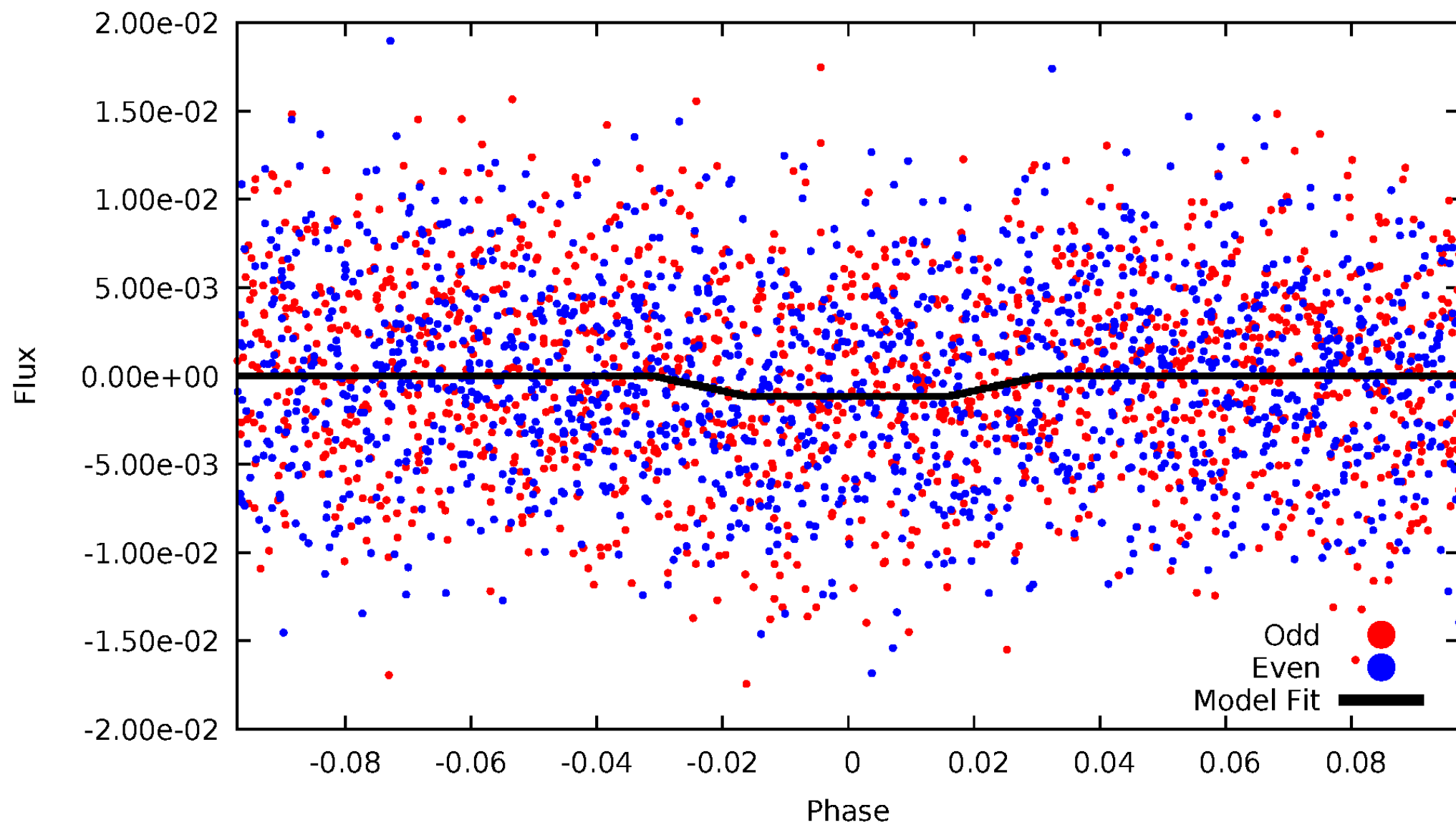
DV Odd/Even

TCE 007834612-03



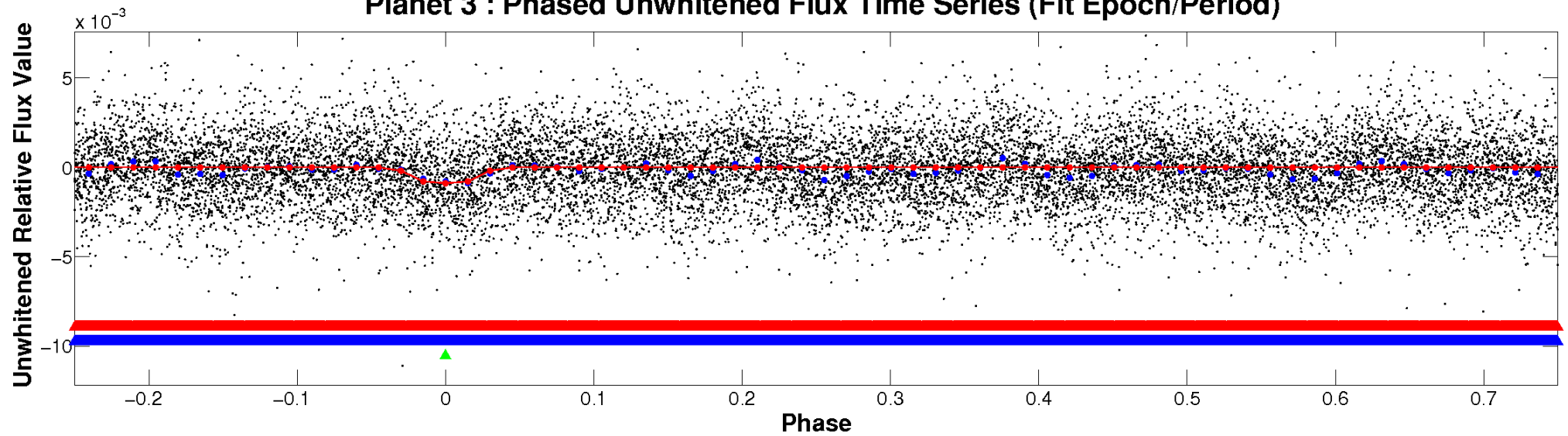
ALT Odd/Even

TCE 007834612-03

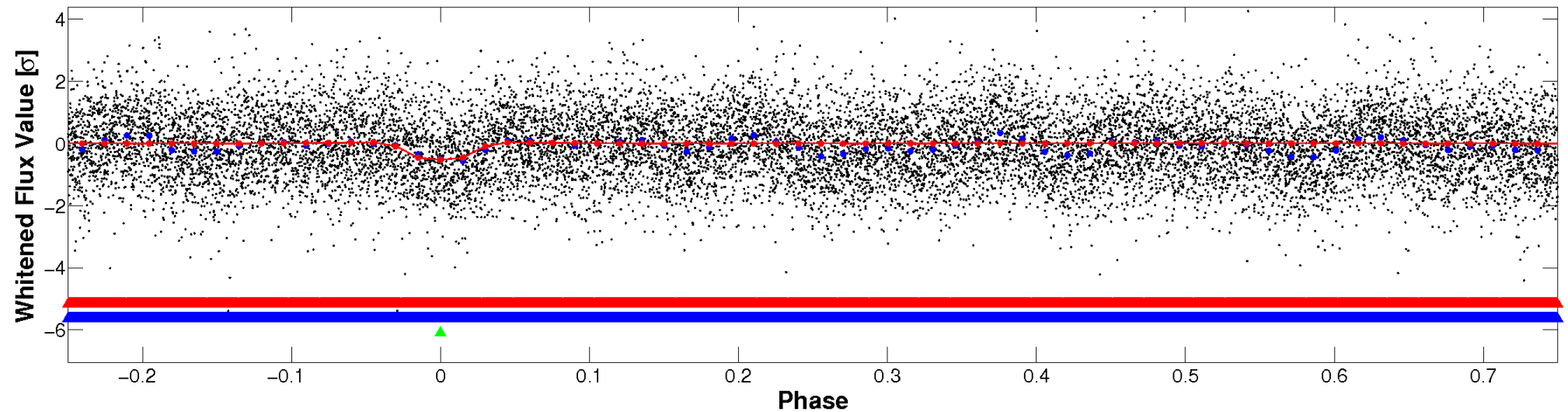


Non-Whitened Vs. Whitened Light Curve

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

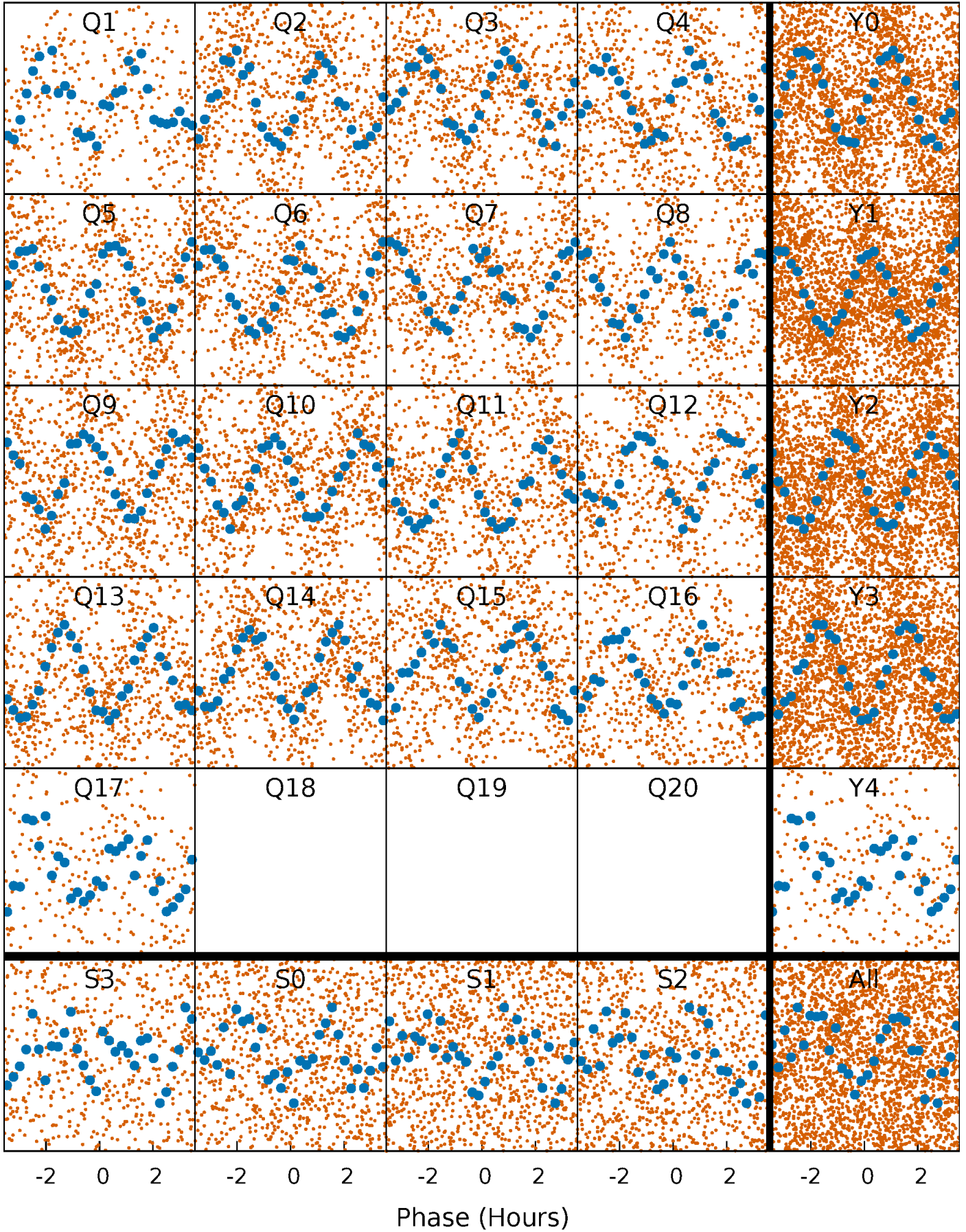


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



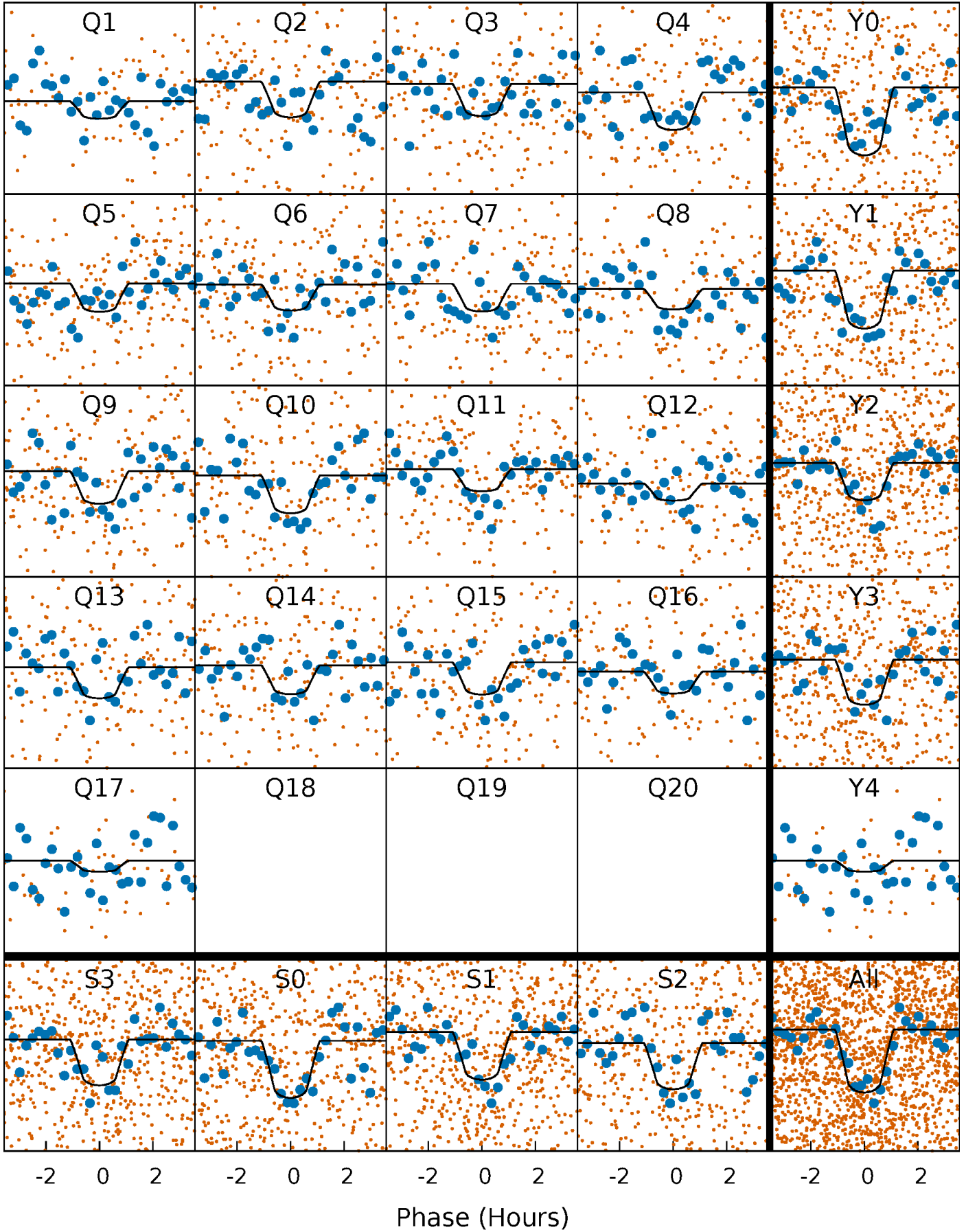
PDC Quarter-Phased Transit Curves

TCE 007834612-03 P= 1.359701 Days $T_0=132.351338$ (BKJD)



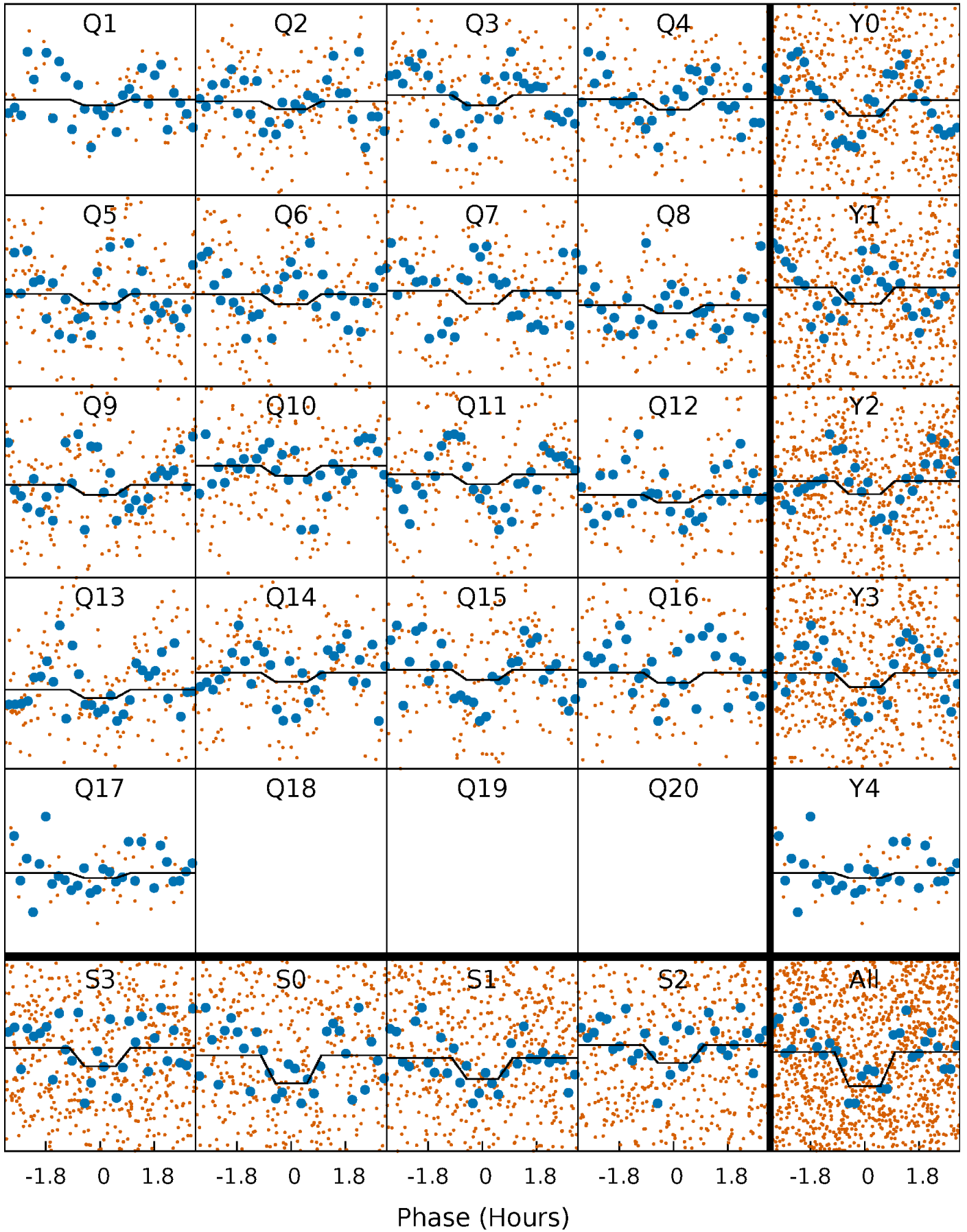
DV Quarter-Phased Transit Curves

TCE 007834612-03 P= 1.359701 Days $T_0=132.351338$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

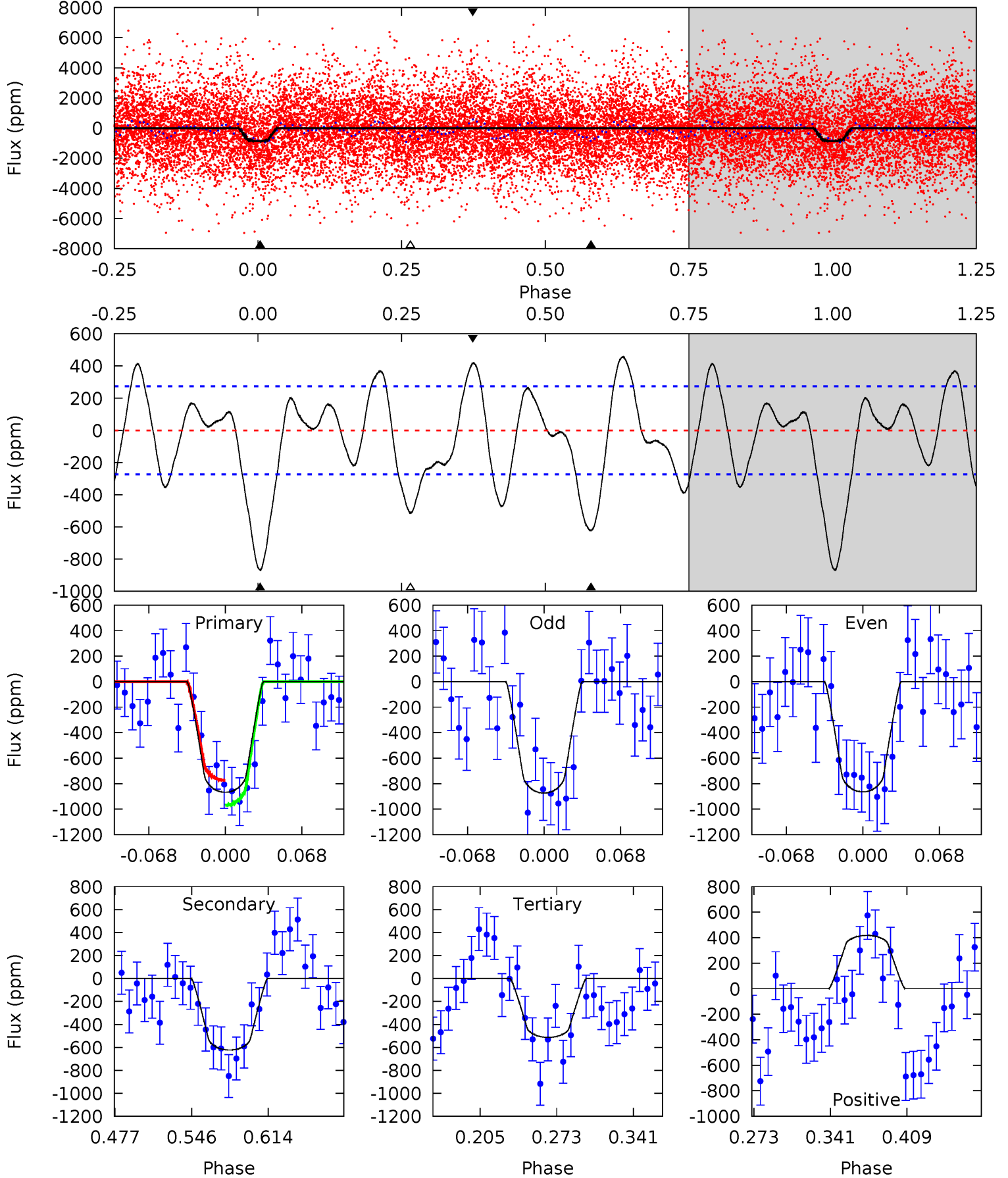
TCE 007834612-03 P= 1.359711 Days $T_0=132.345395$ (BKJD)



DV Model-Shift Uniqueness Test

007834612-03, P = 1.359701 Days, E = 130.991637 Days

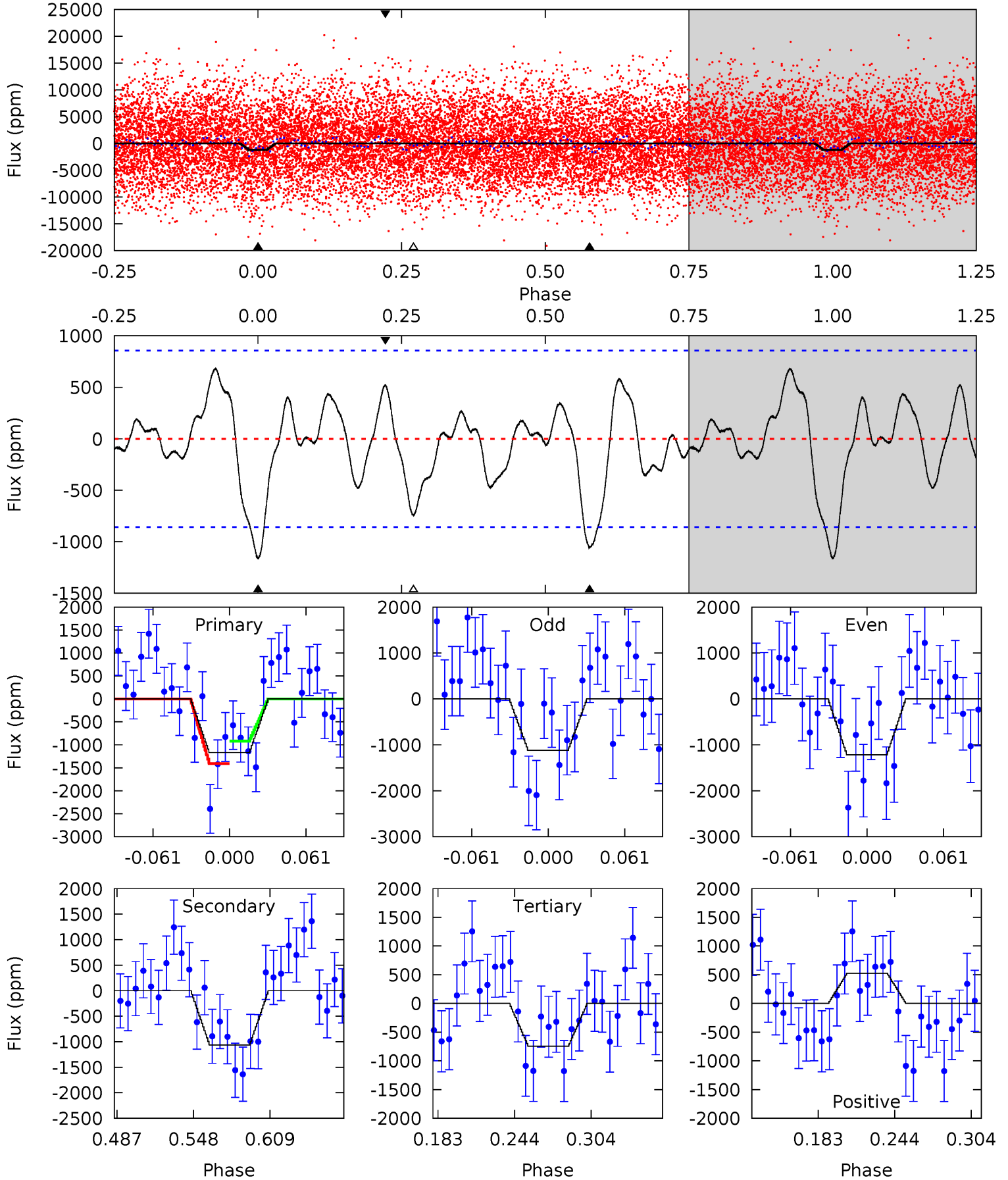
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	10.6	8.71	7.09	4.64	1.82	3.92	6.02	7.63	1.87	3.48	0.08	0.95	0.34	1.67



Alt Model-Shift Uniqueness Test

007834612-03, P = 1.359711 Days, E = 130.985684 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.37	5.80	4.07	2.87	4.67	1.87	1.49	2.30	3.49	1.73	2.92	0.26	1.16	0.37	1.33



Stellar Parameters For KIC 007834612

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7673^{+213}_{-320}	$3.665^{+0.459}_{-0.081}$	$-0.060^{+0.200}_{-0.350}$	$3.494^{+0.558}_{-1.787}$	$2.059^{+0.279}_{-0.557}$	$0.068^{+0.305}_{-0.017}$
	+3%/-4%	+13%/-2%	+333%/-583%	+16%/-51%	+14%/-27%	+449%/-25%
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 007834612-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-623 ± 59	$10.19^{+7.51}_{-5.69}$	4858^{+362}_{-593}	6632^{+4391}_{-1707}	$3.088^{+12.731}_{-2.087}$
Alt.	-1065 ± 184	$11.95^{+7.93}_{-6.51}$	4861^{+347}_{-640}	7007^{+5055}_{-1642}	$3.647^{+14.153}_{-2.222}$

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

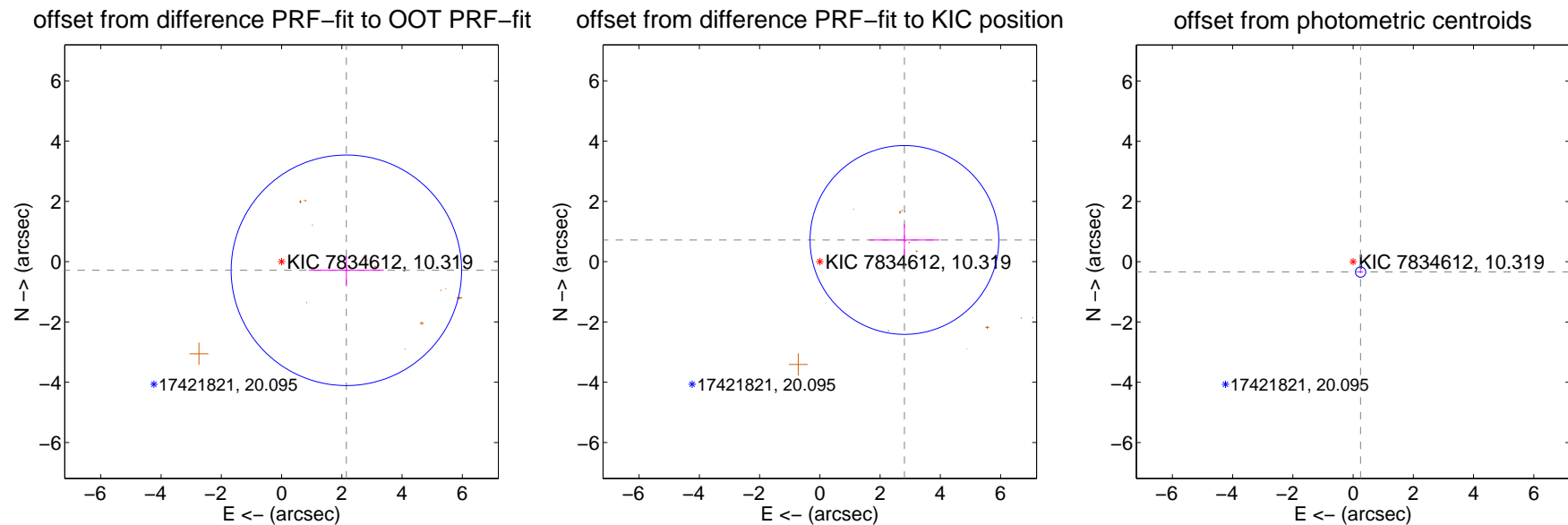
DV Centroid Data

Supplemental centroid analysis for 007834612-03. **Kepler magnitude: 10.32.** Transit SNR 12.20

There are 1 quarters with good PRF difference image offsets

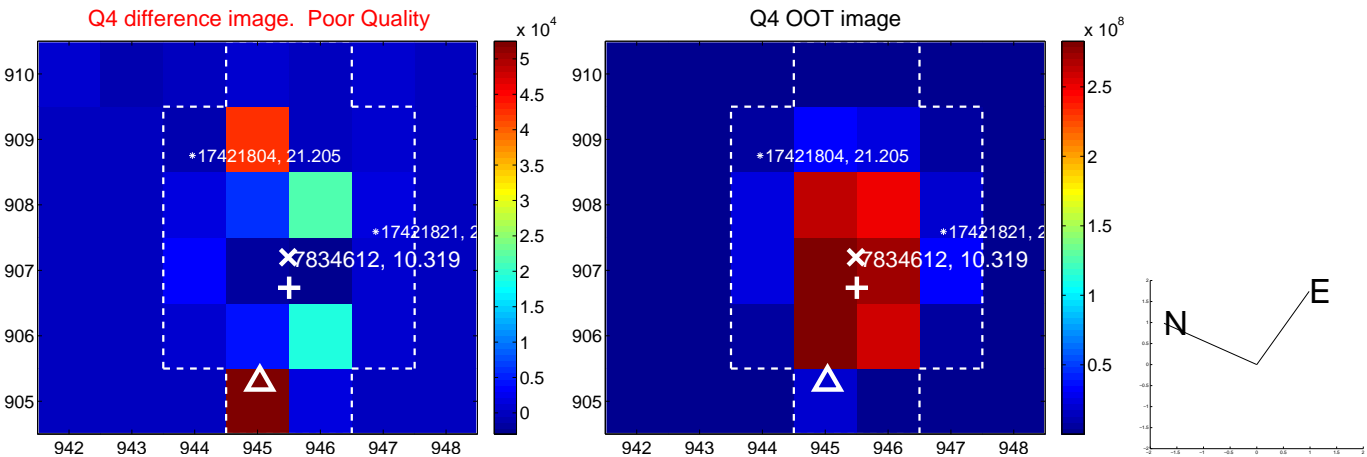
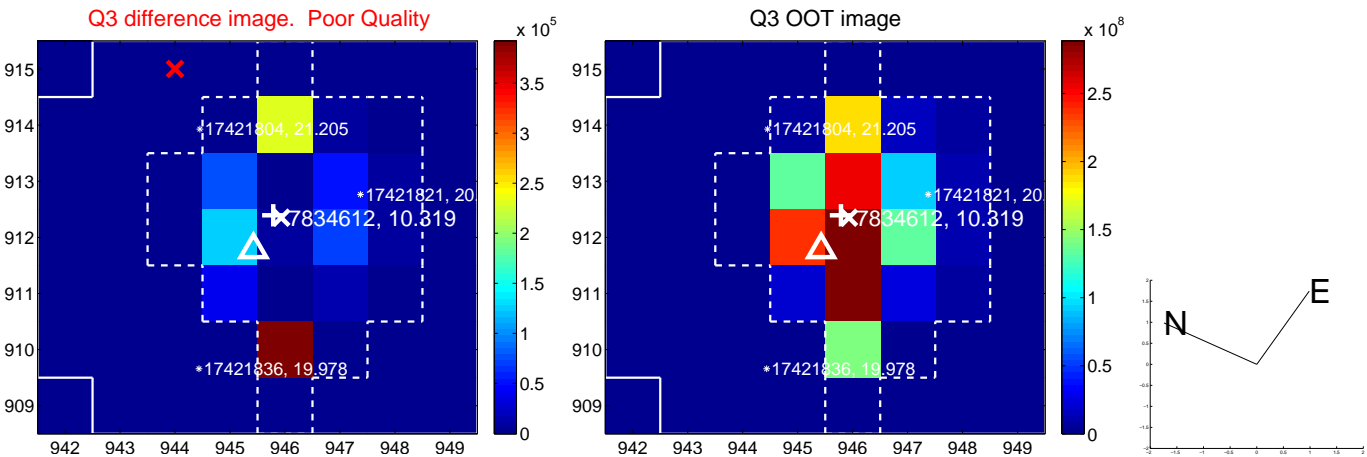
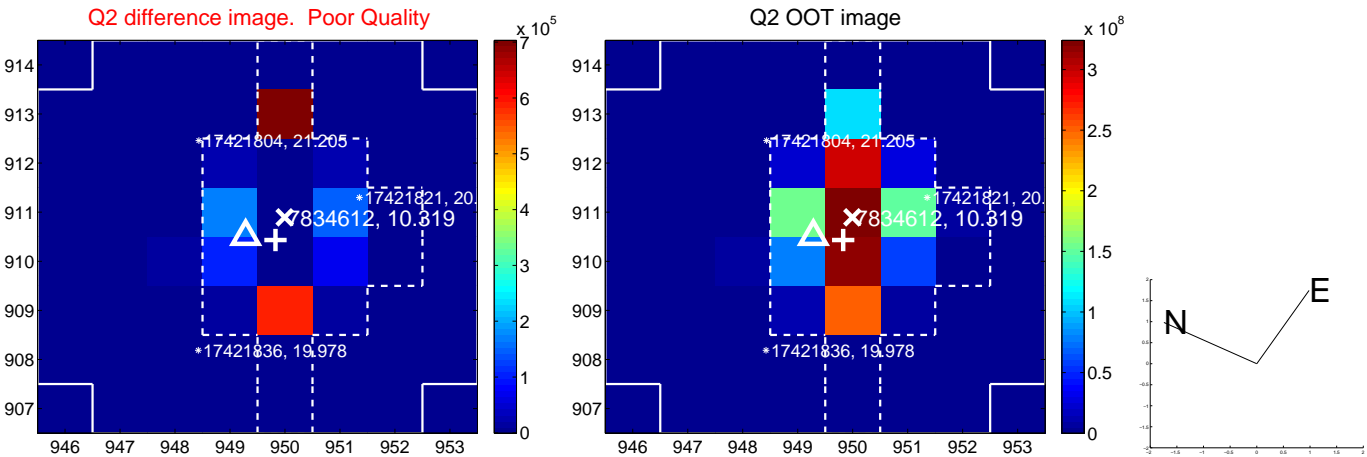
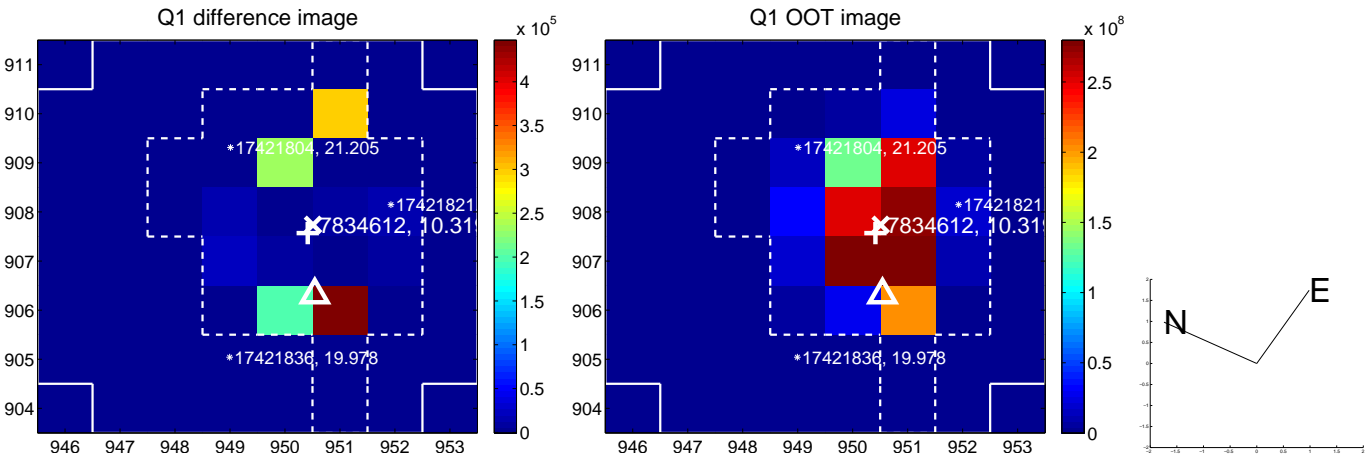
The direct PRF centroid is offset from the target star catalog position by about 0.83 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.170 ± 1.275	1.70	-2.151 ± 1.240	-0.286 ± 0.488
PRF-fit source offset from KIC position	2.898 ± 1.044	2.78	-2.807 ± 1.158	0.721 ± 0.522
photometric centroid source offset	0.42 ± 0.06	7.39	-0.25 ± 0.08	-0.34 ± 0.04

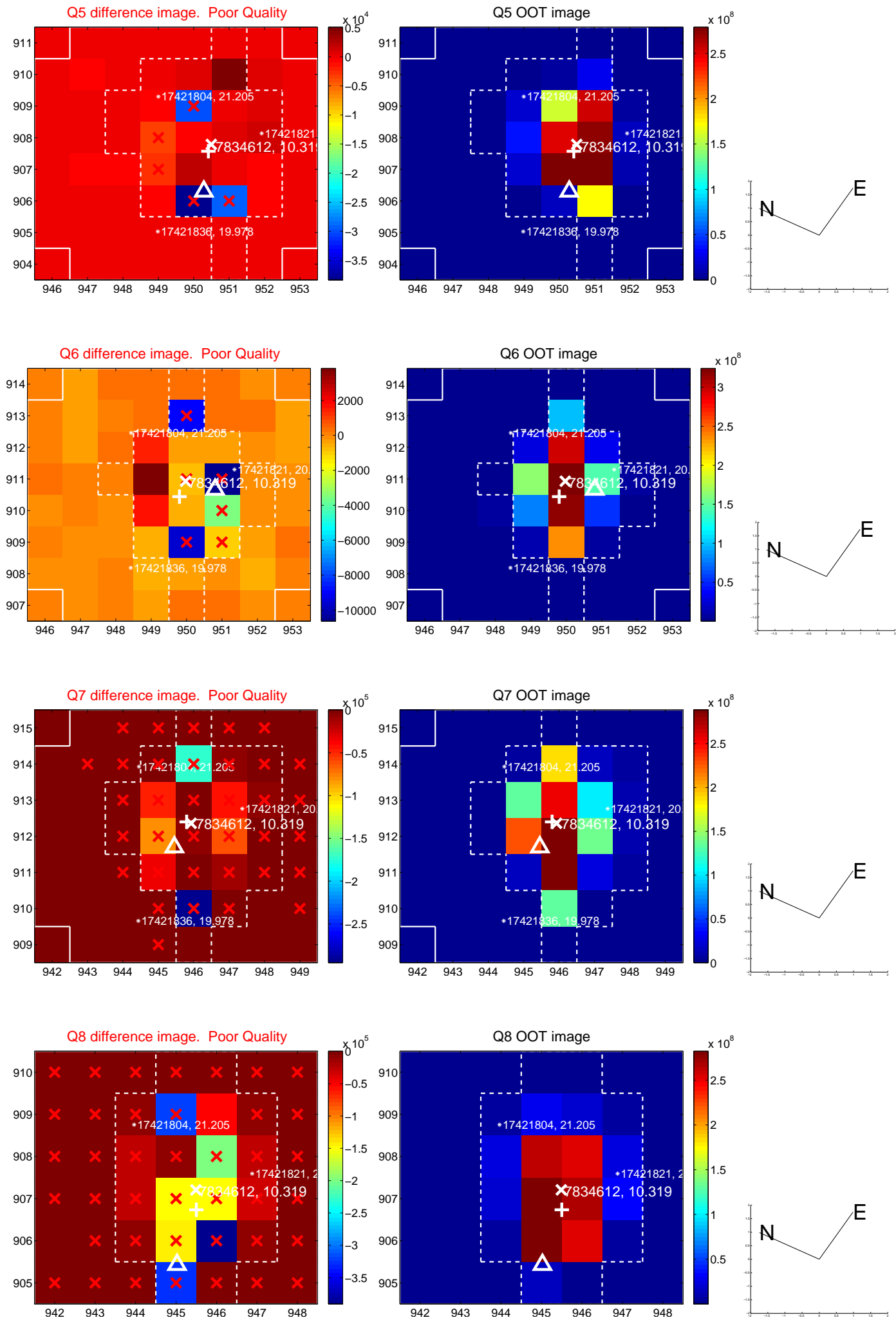


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

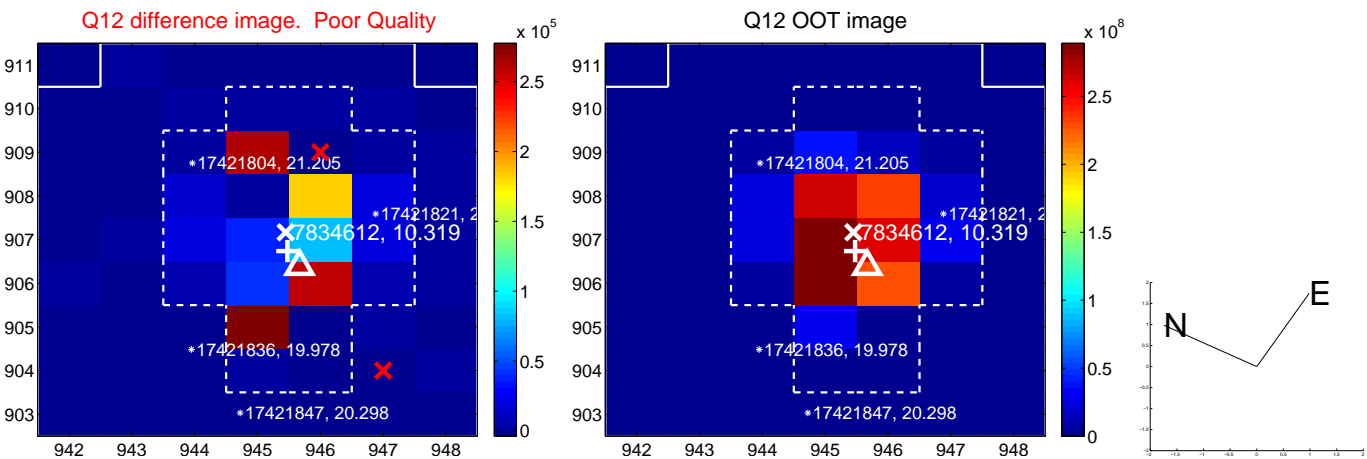
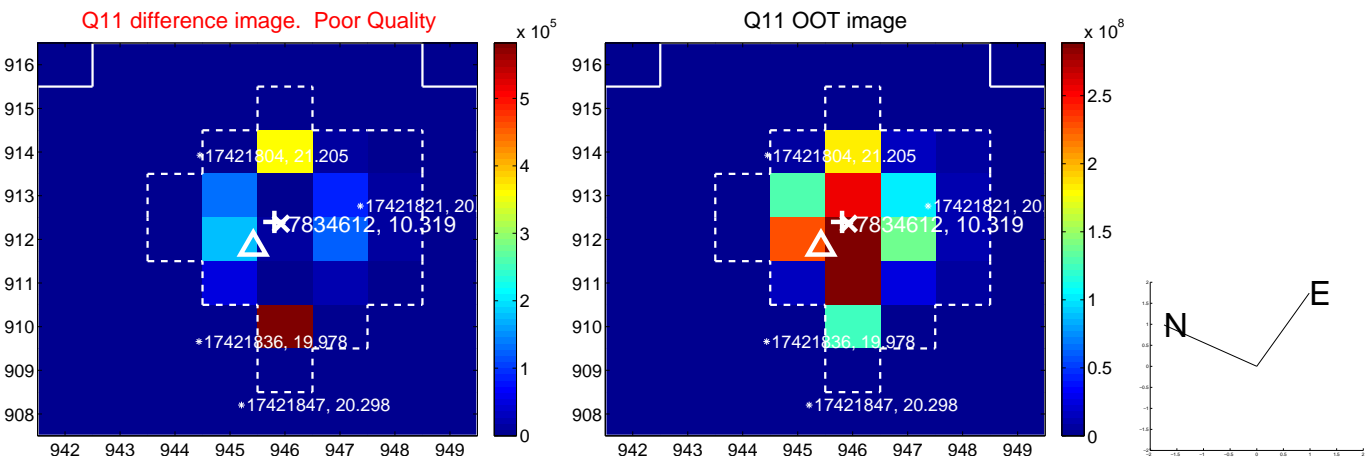
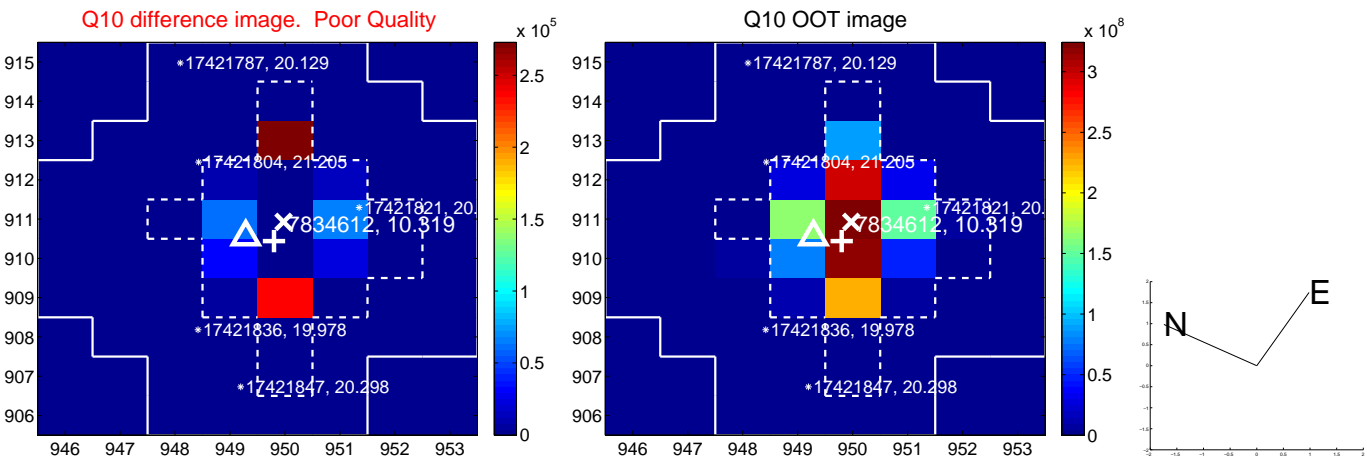
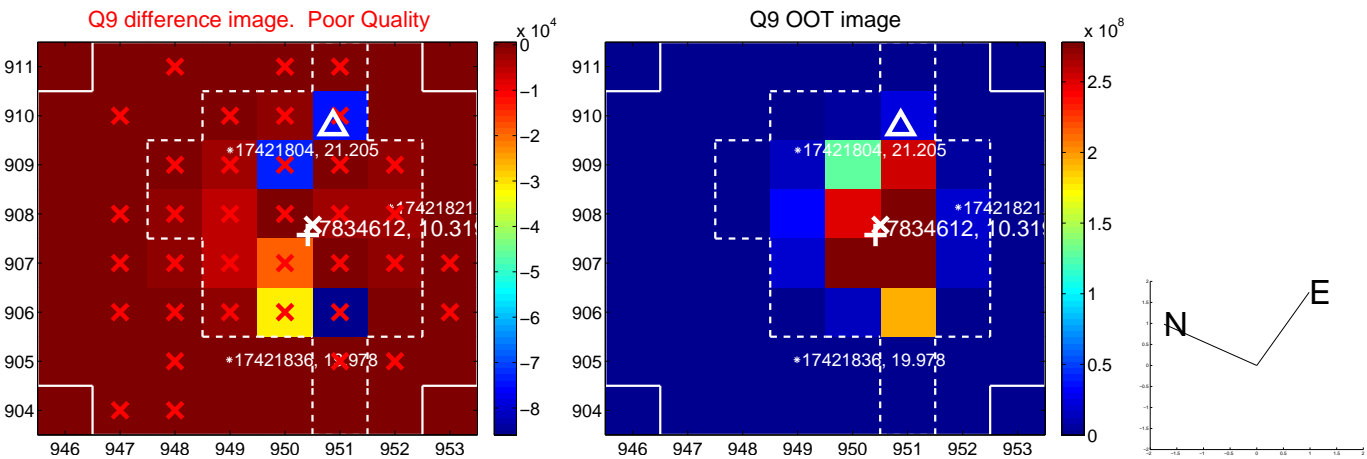
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



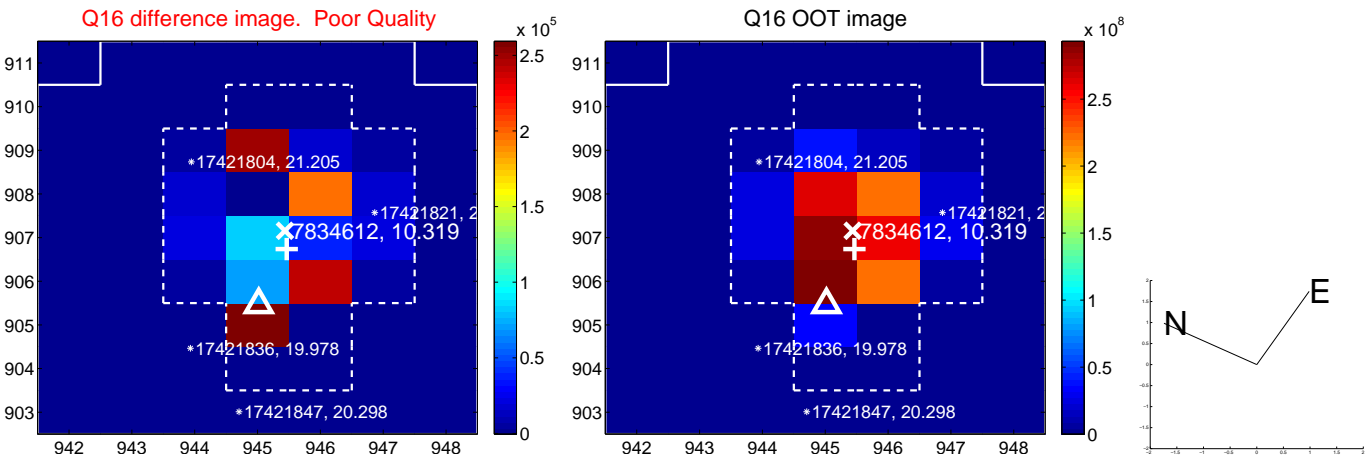
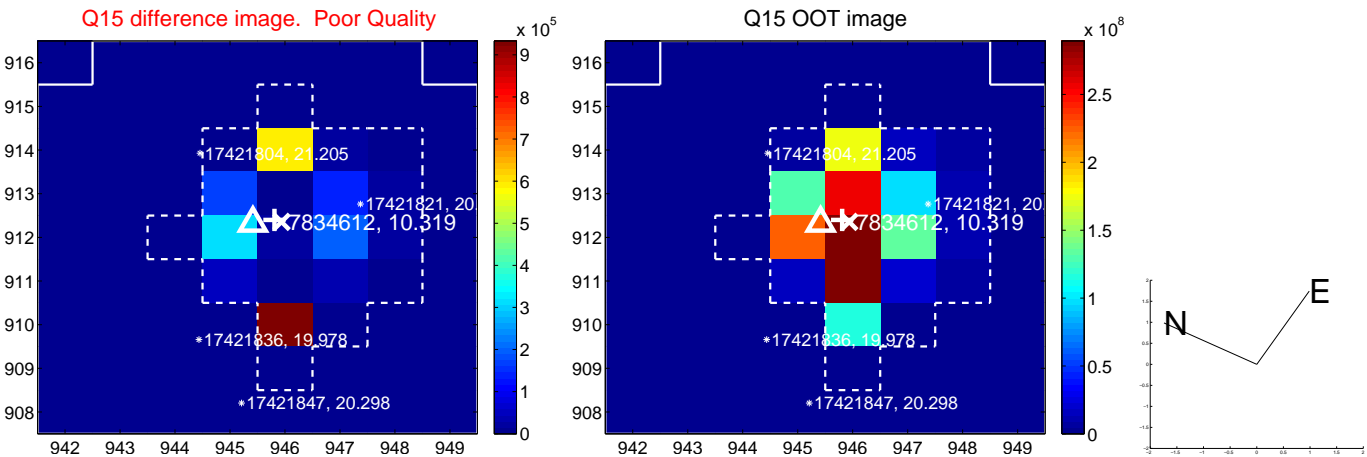
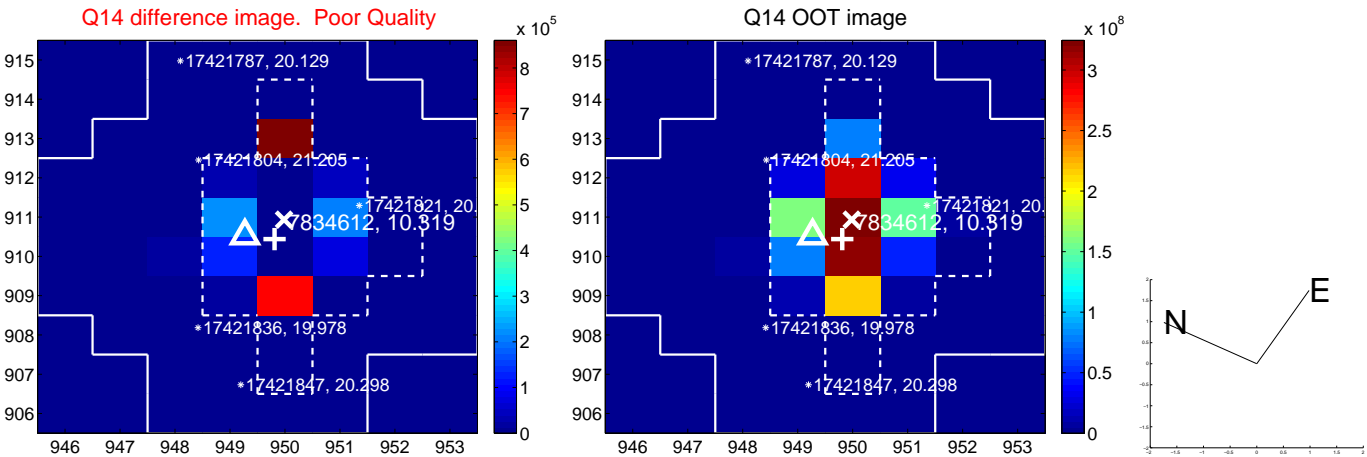
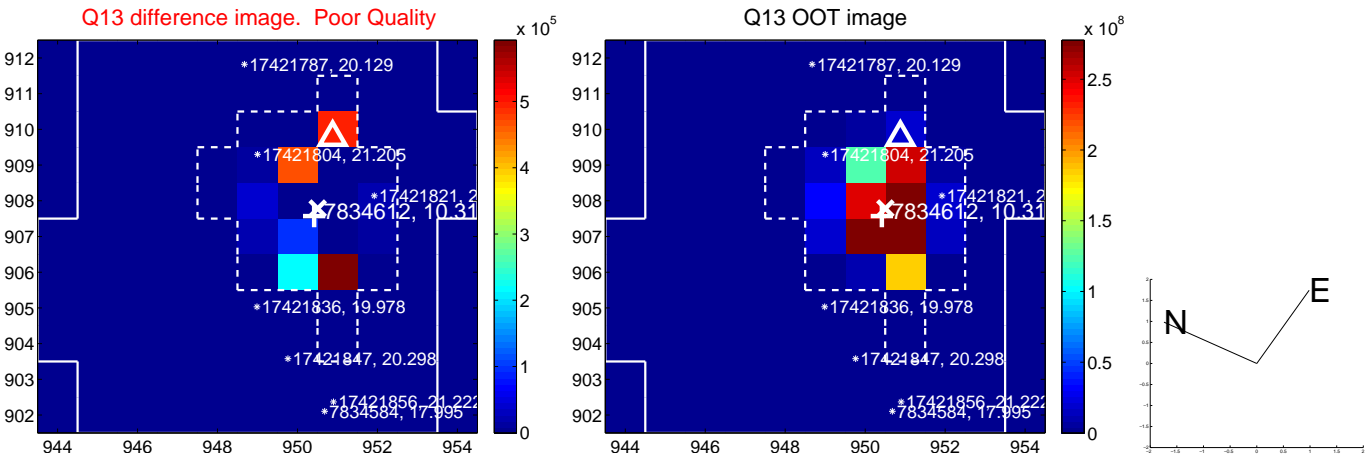
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



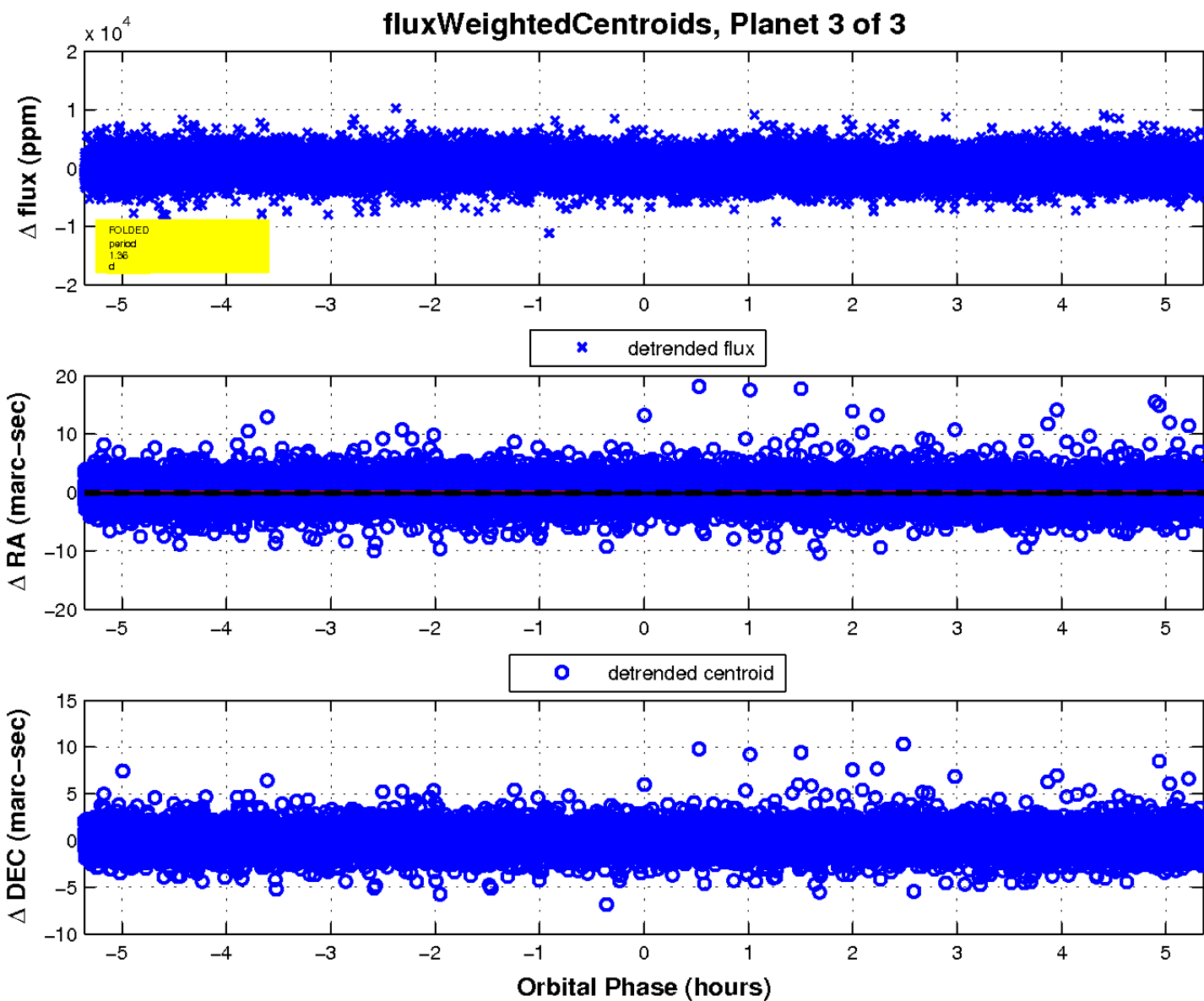
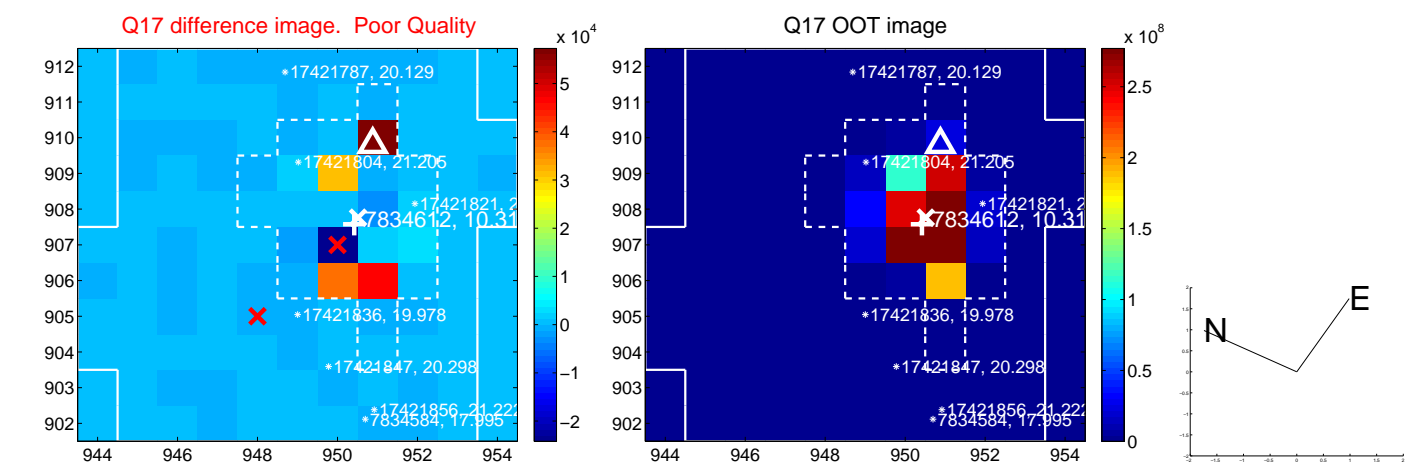
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

