

KIC 008426007

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})
008426007-01	OBS	No	0.728353	132.039594	5.0	4.273	9.2	2.7	2.82	7348	0.70	52474.48
008426007-02	OBS	No	96.764333	175.568158	200.1	4.406	8.8	10.0	2.82	7348	4.28	77.41
008426007-03	OBS	No	47.114215	162.329821	109.7	4.012	7.8	8.0	2.82	7348	3.41	202.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008426007-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
008426007-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008426007-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS

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

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

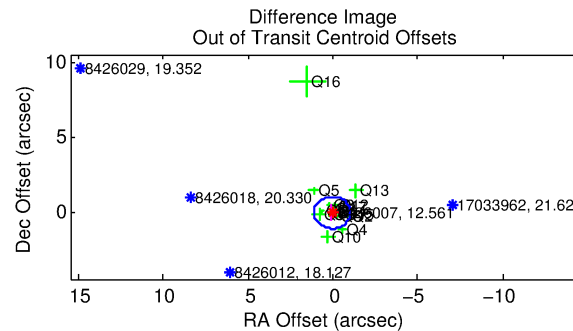
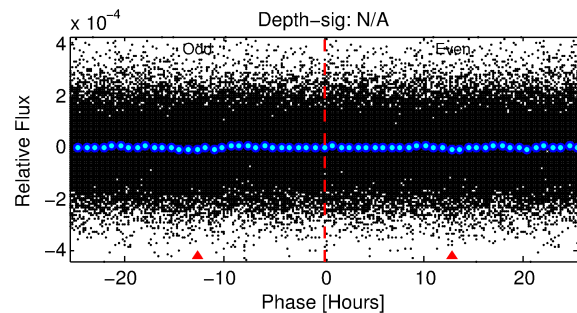
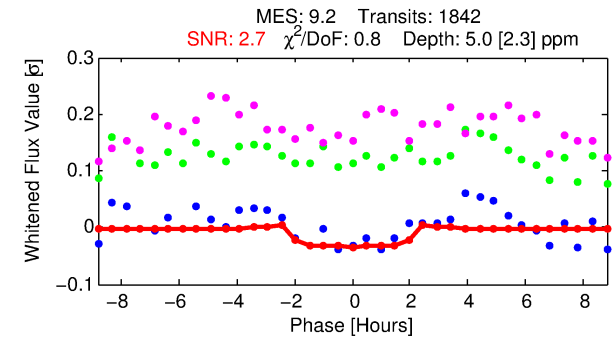
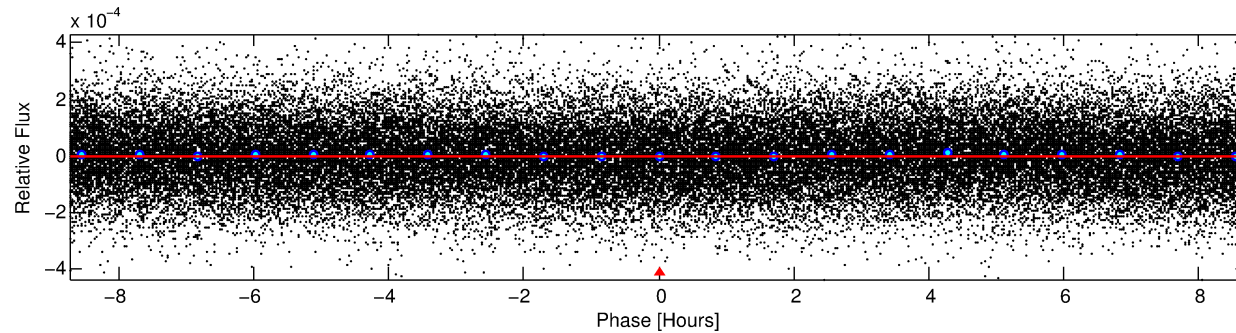
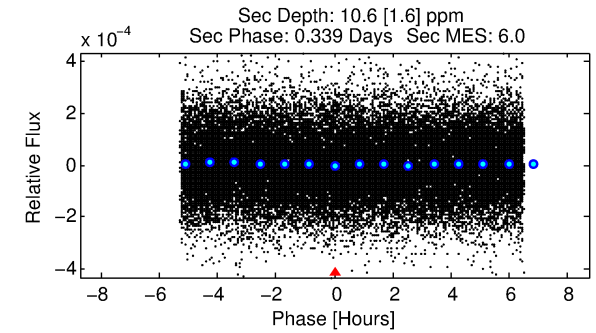
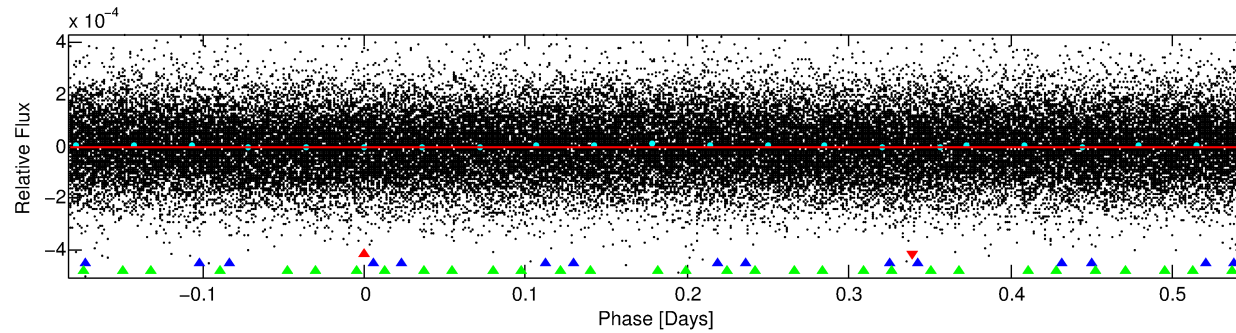
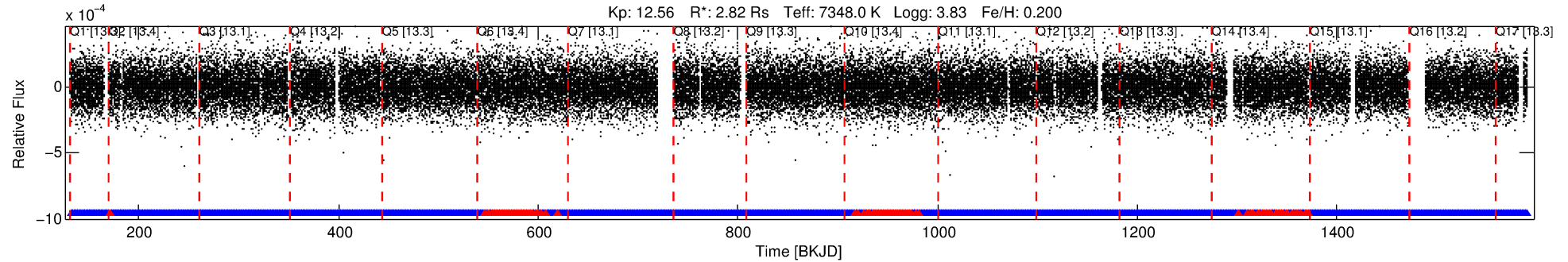
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008426007-01

No Significant Match Found

DV One-Page Summary

KIC: 8426007 Candidate: 1 of 3 Period: 0.728 d



DV Fit Results:

Period = 0.72835 [0.00004] d
Epoch = 132.0396 [0.0142] BKJD
Rp/R* = 0.0023 [0.0013]
a/R* = 1.16 [0.98]
b = 0.84 [1.24]
Seff = 52474.48 [28743.47]
Teq = 3859 [528] K
Rp = 0.70 [0.47] Re
a = 0.0199 [0.0066] AU
Ag = 4.66 [5.88] [0.62σ]
Teffp = 8766 [2550] K [1.88σ]

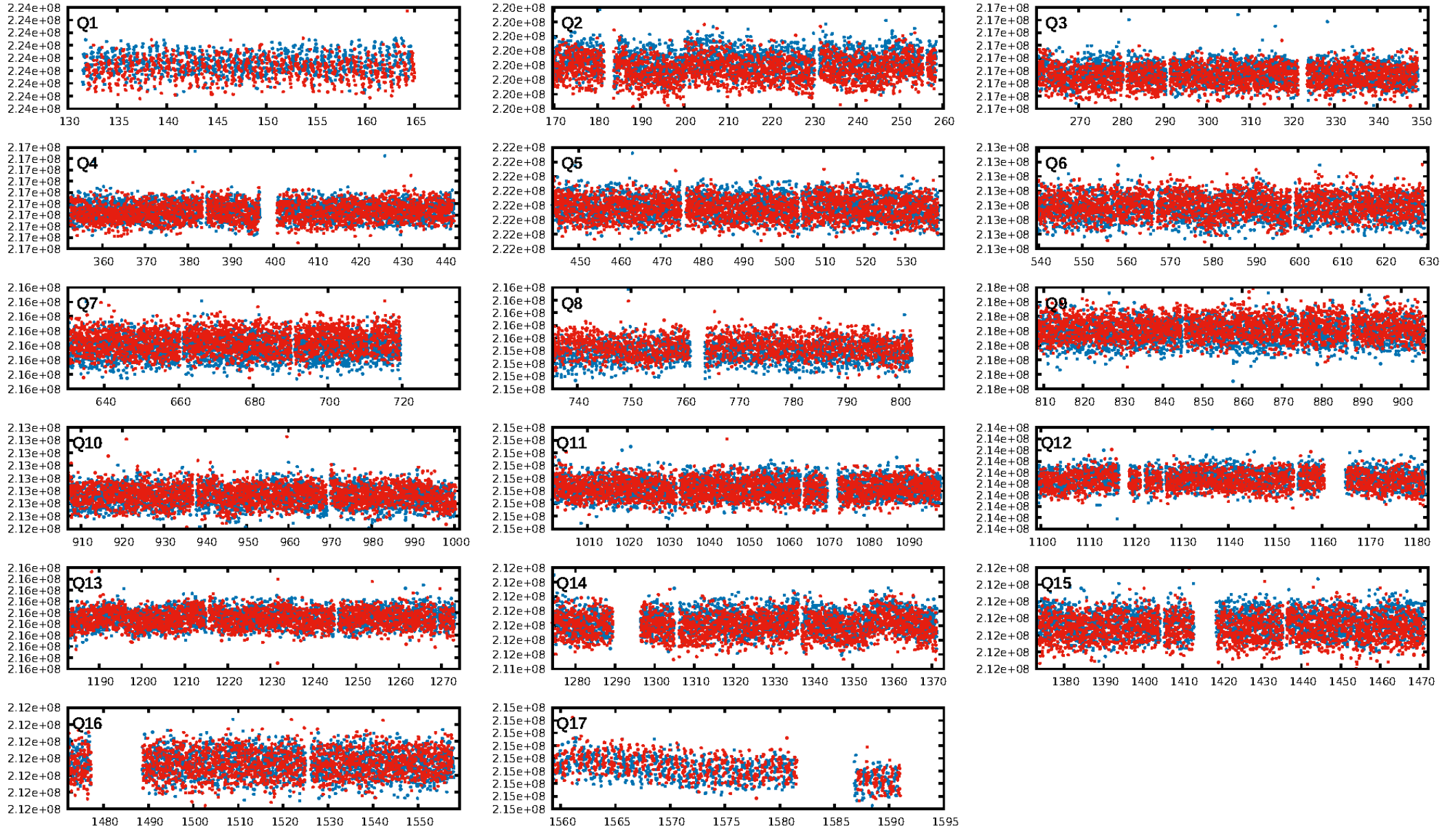
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [189.94σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.75e-13
RollingBand-fgt: 0.90 [1582/1759]
GhostDiagnostic-chr: 1.65
Centroid-sig: 0.0%
AUOffset-so: 7.213 arcsec [2.66σ]
OotOffset-rm: 0.098 arcsec [0.27σ]
KicOffset-rm: 0.124 arcsec [0.27σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.59 [10/17]
DiffImageOverlap-fno: 1.00 [17/17]

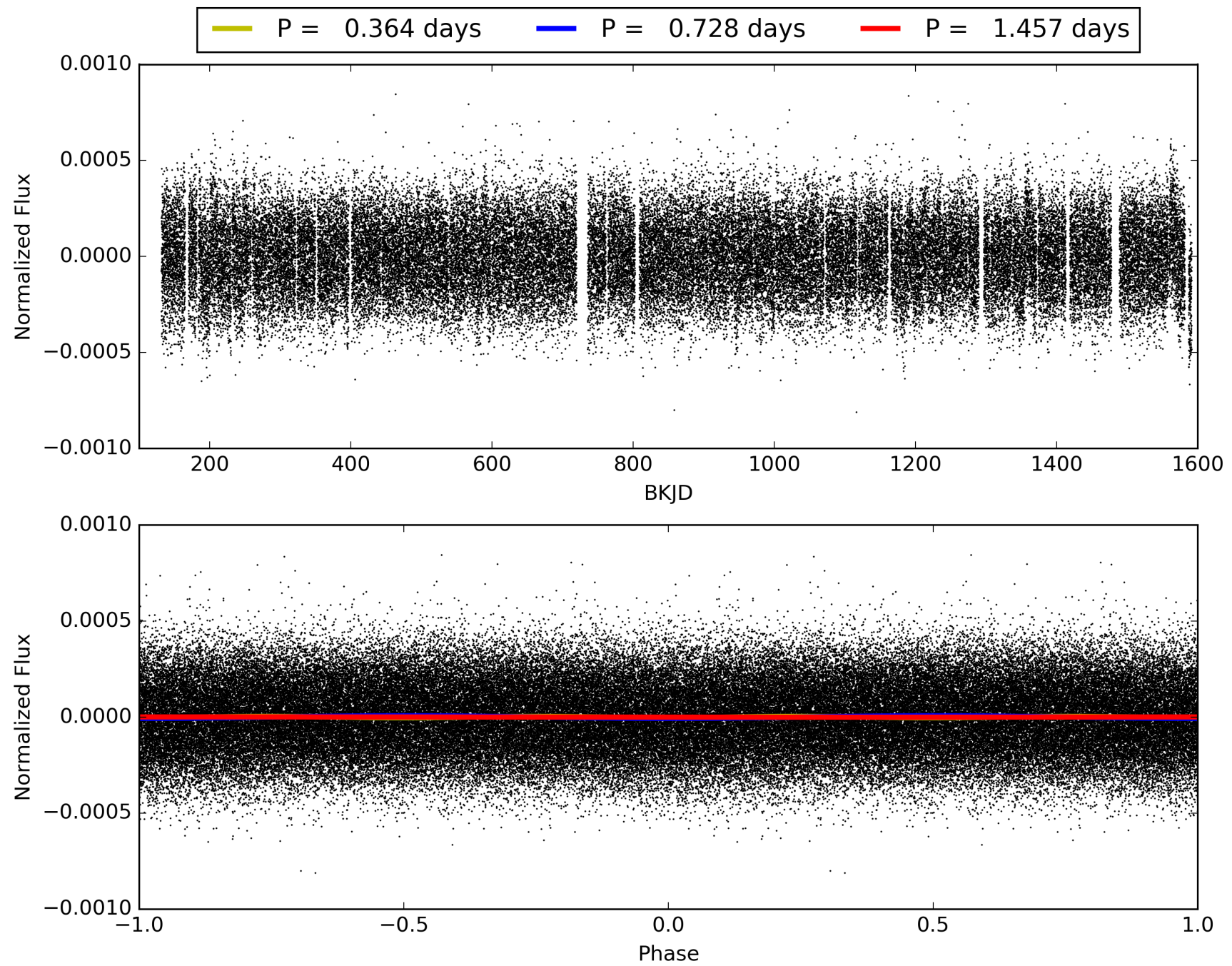
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:08:21 Z

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

TCE 008426007-01, PDC Light Curves

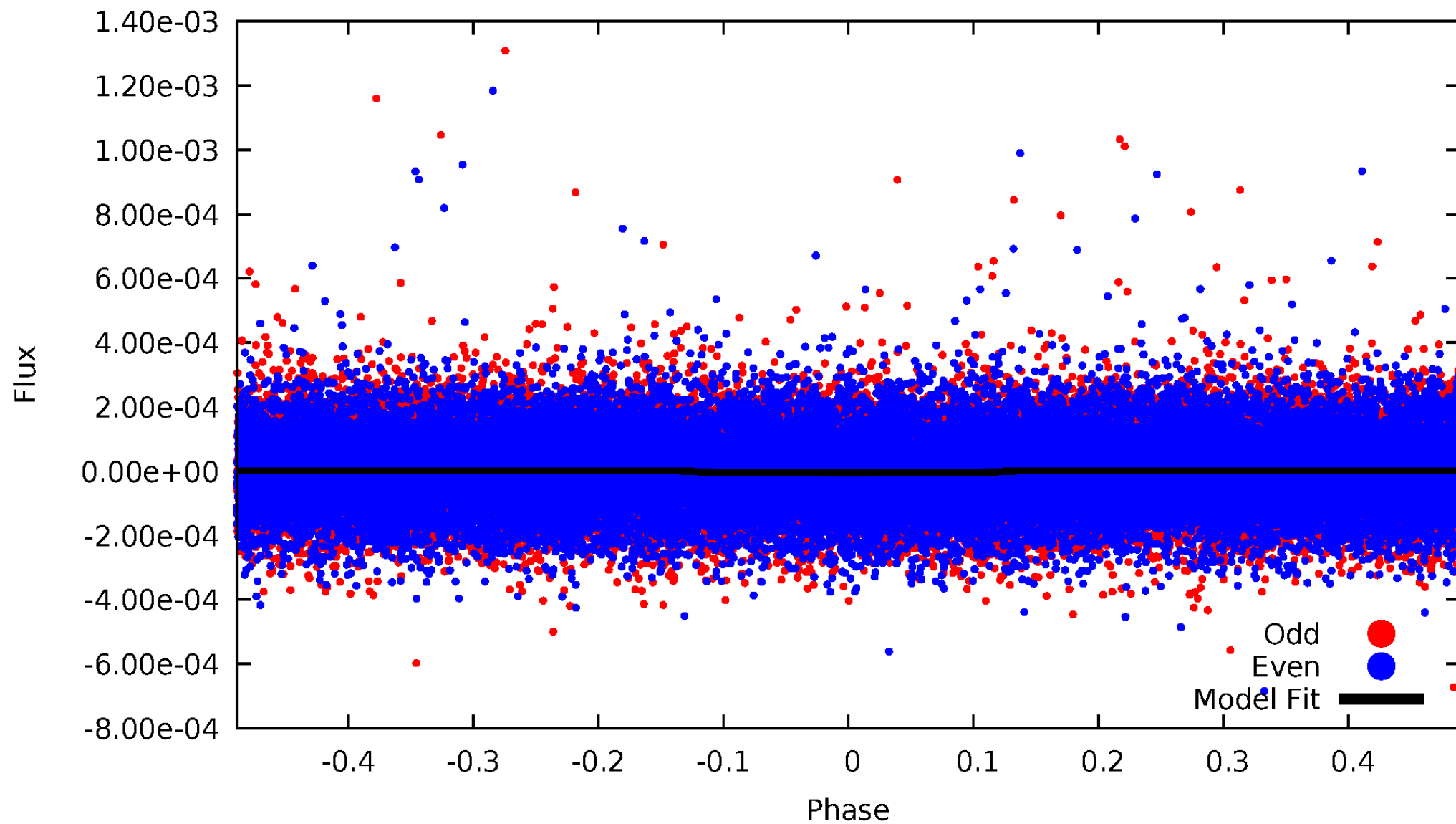


TCE 008426007-01



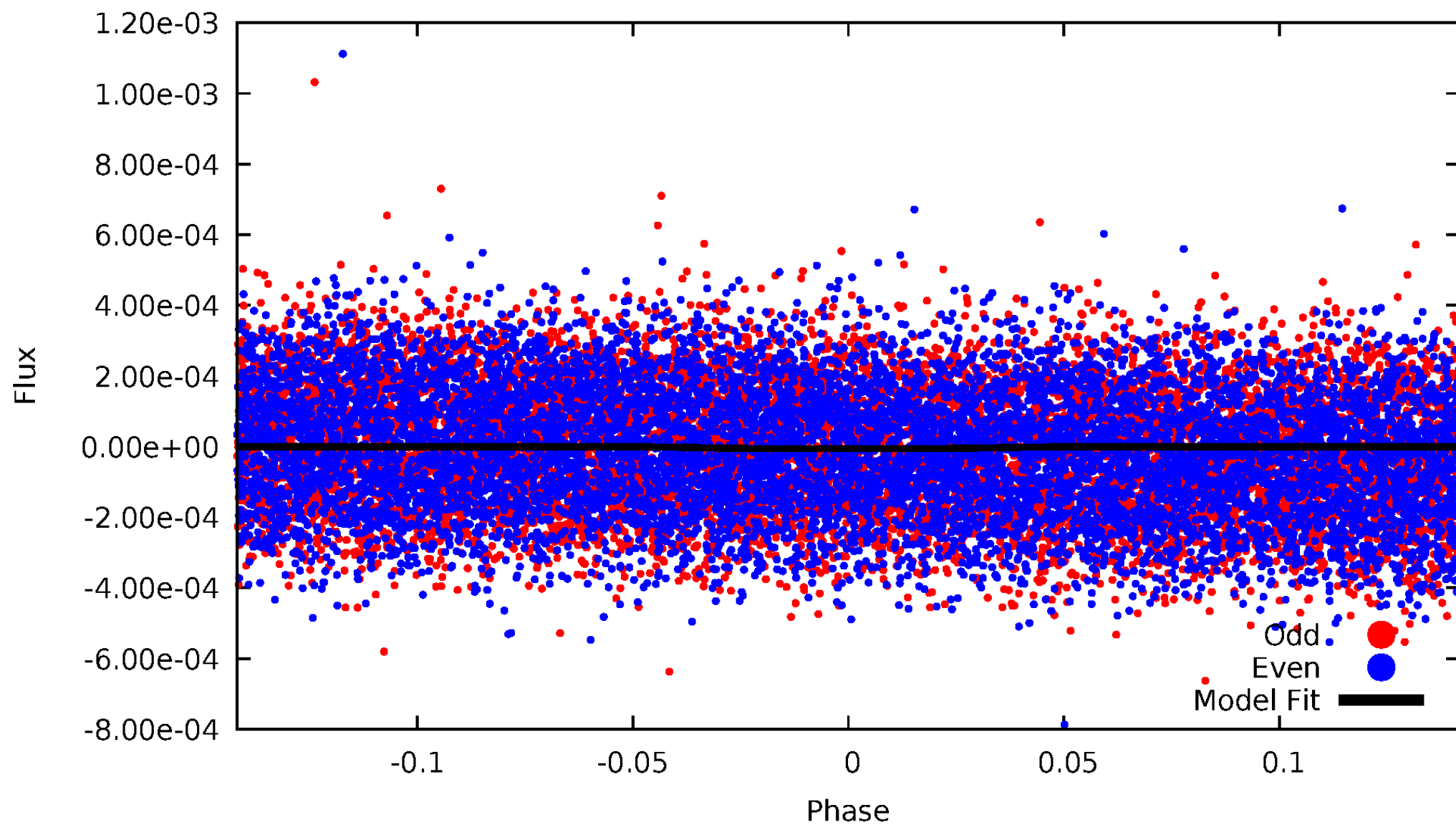
DV Odd/Even

TCE 008426007-01



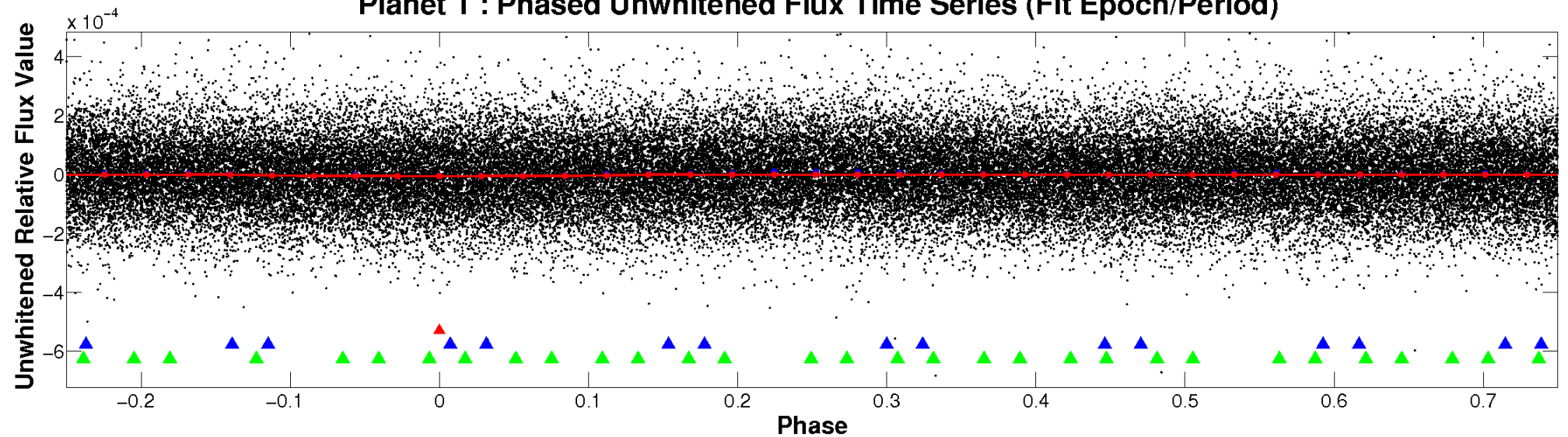
ALT Odd/Even

TCE 008426007-01

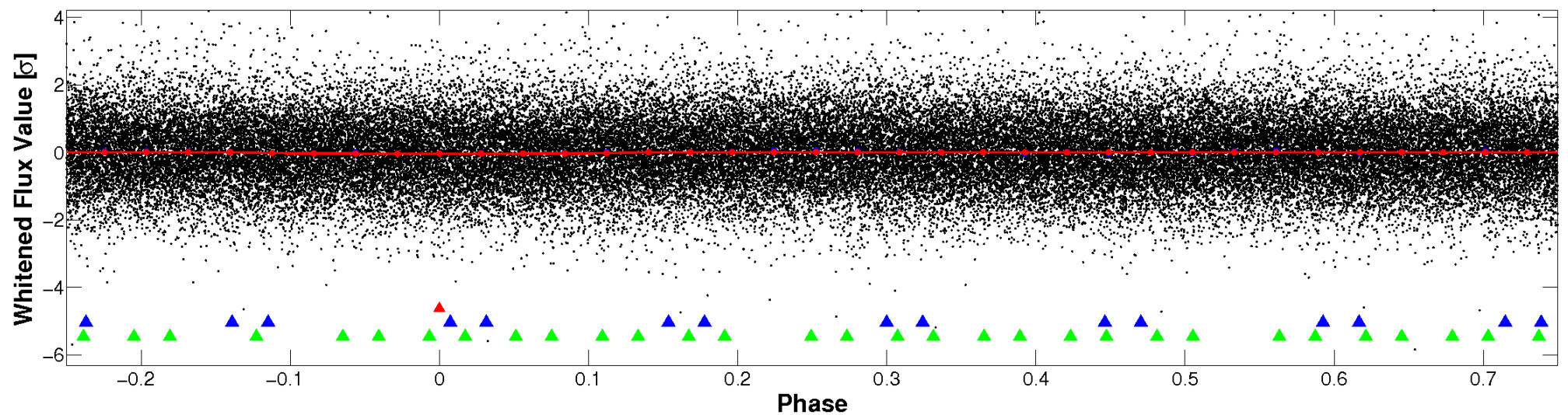


Non-Whitened Vs. Whitened Light Curve

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

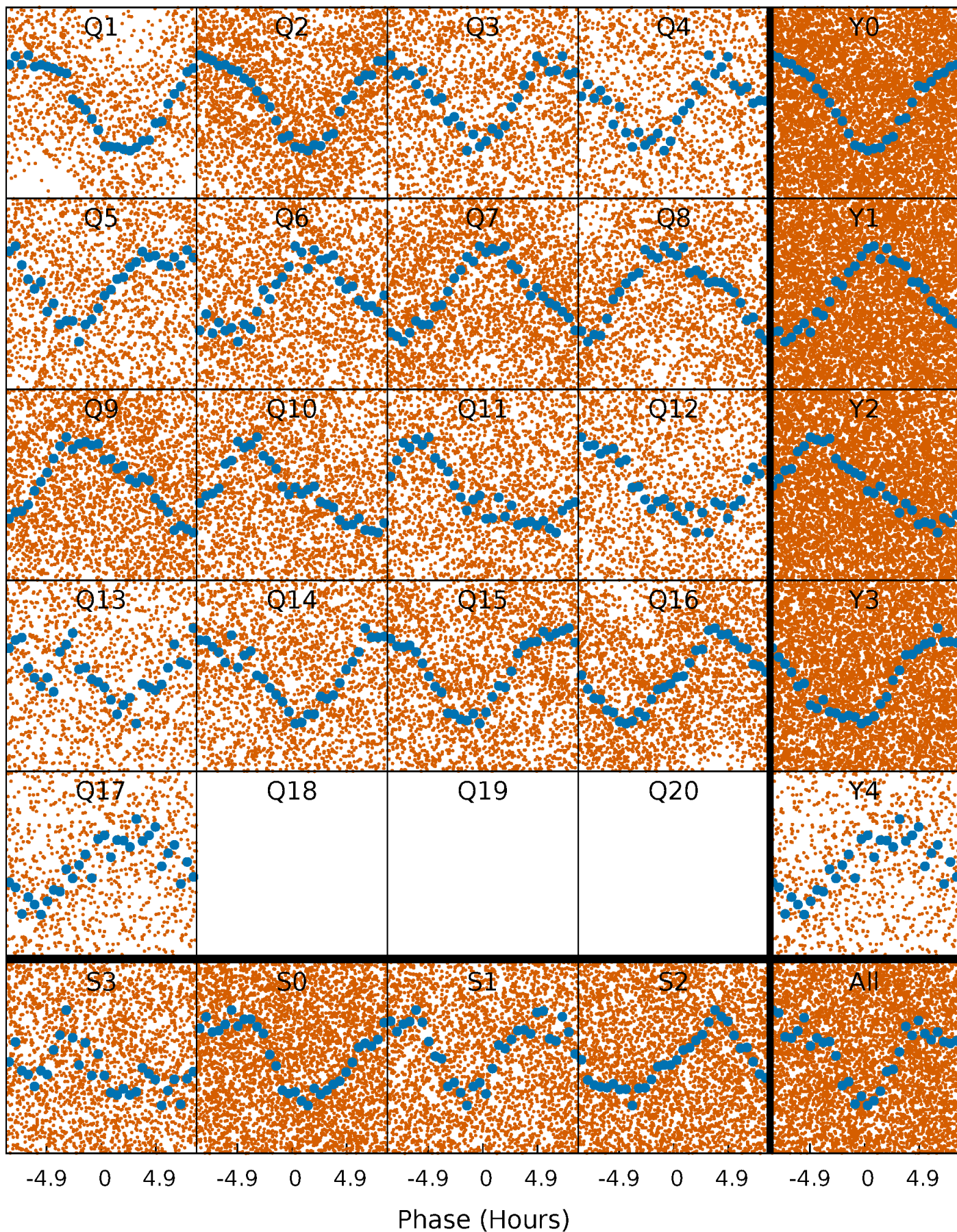


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



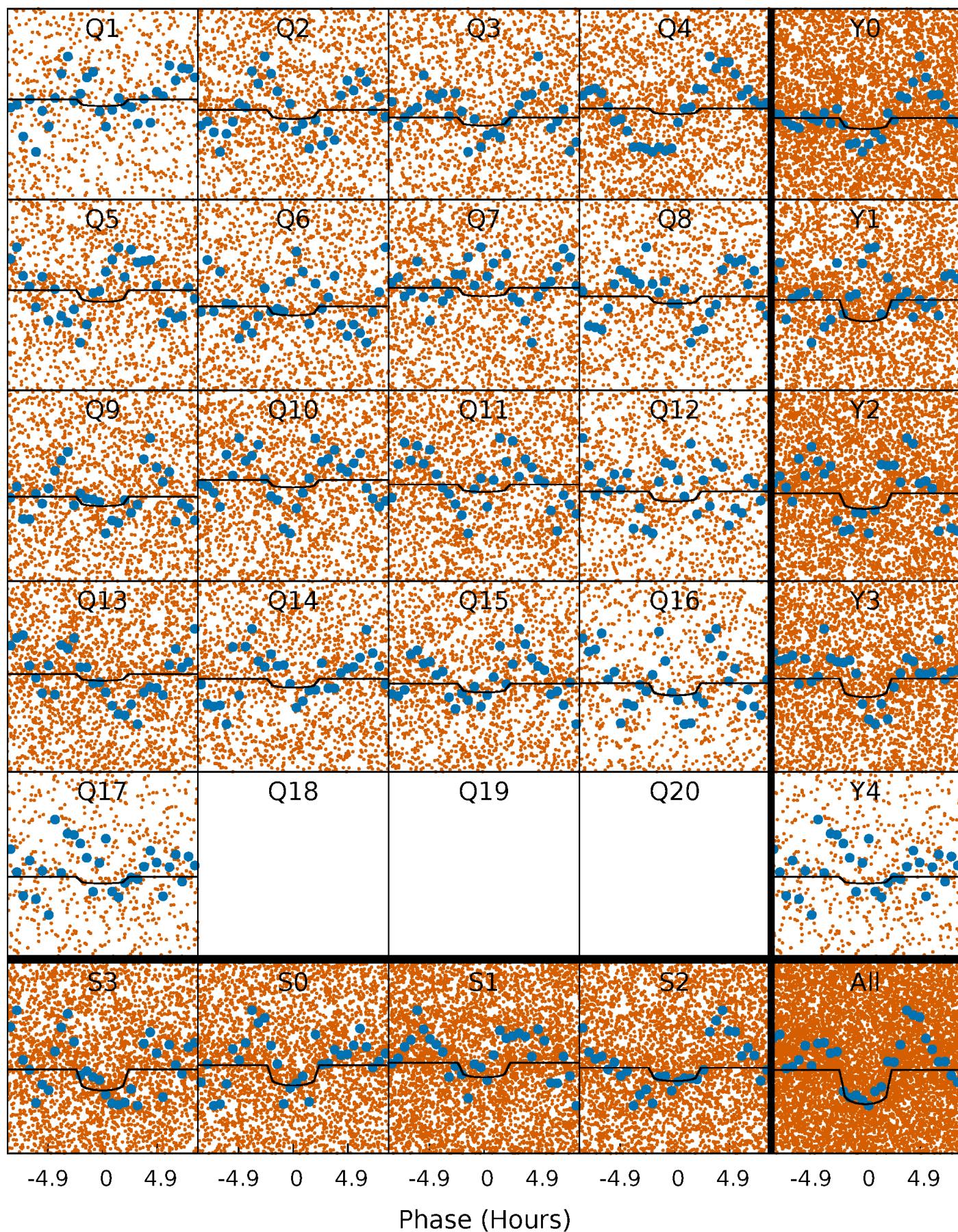
PDC Quarter-Phased Transit Curves

TCE 008426007-01 P= 0.728353 Days $T_0=132.039594$ (BKJD)



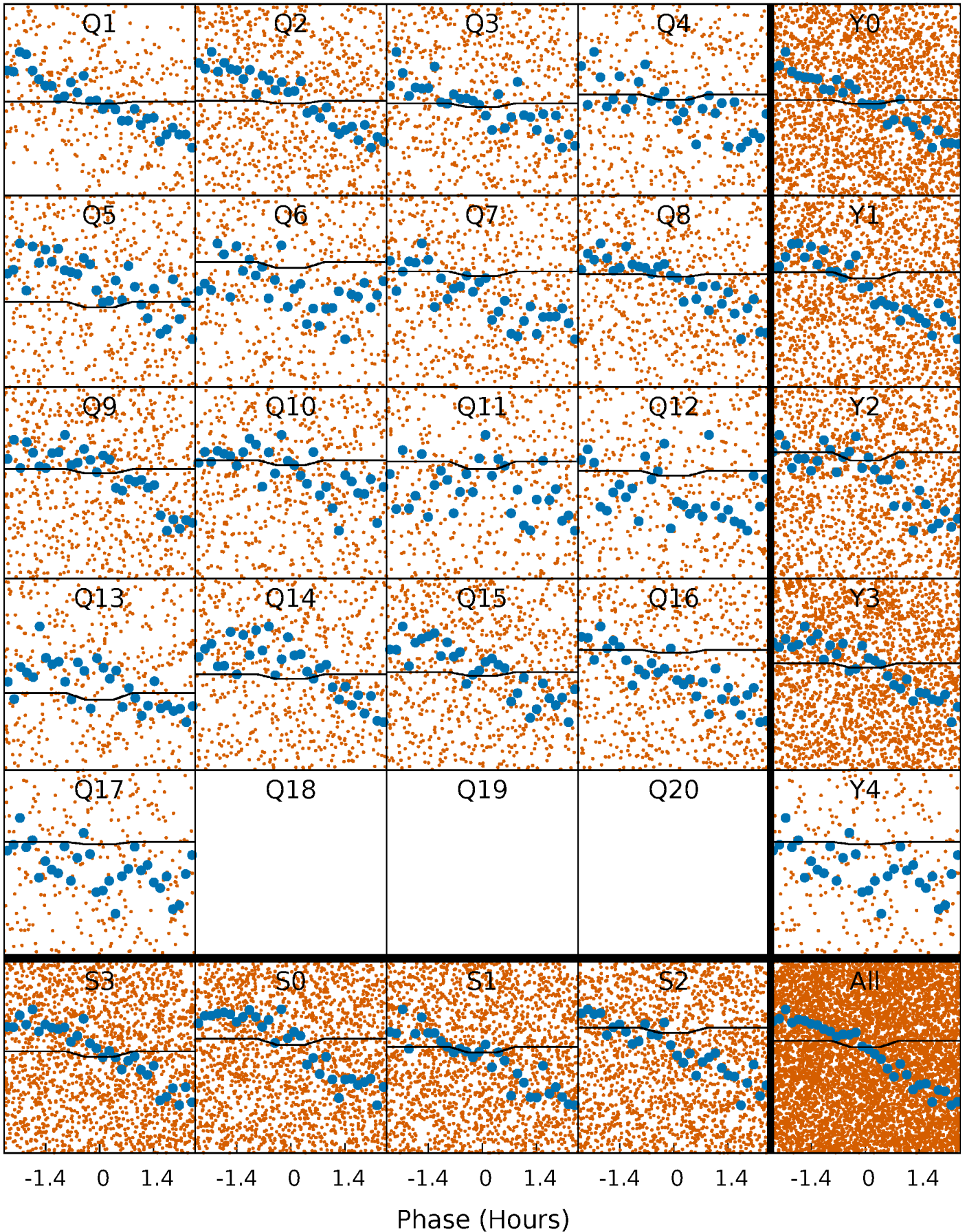
DV Quarter-Phased Transit Curves

TCE 008426007-01 P= 0.728353 Days $T_0=132.039594$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

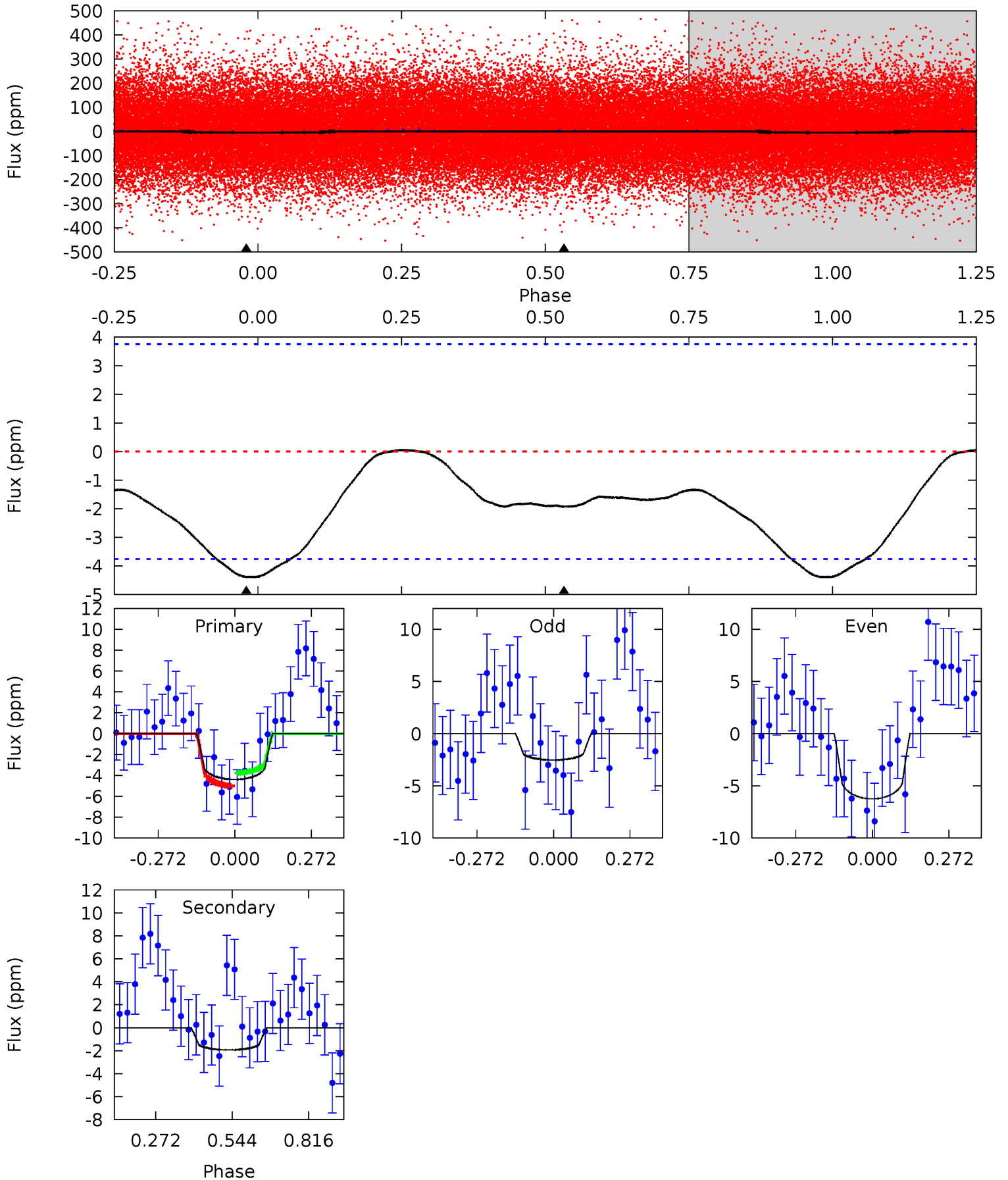
TCE 008426007-01 P= 0.727853 Days $T_0=131.995085$ (BKJD)



DV Model-Shift Uniqueness Test

008426007-01, P = 0.728353 Days, E = 131.311241 Days

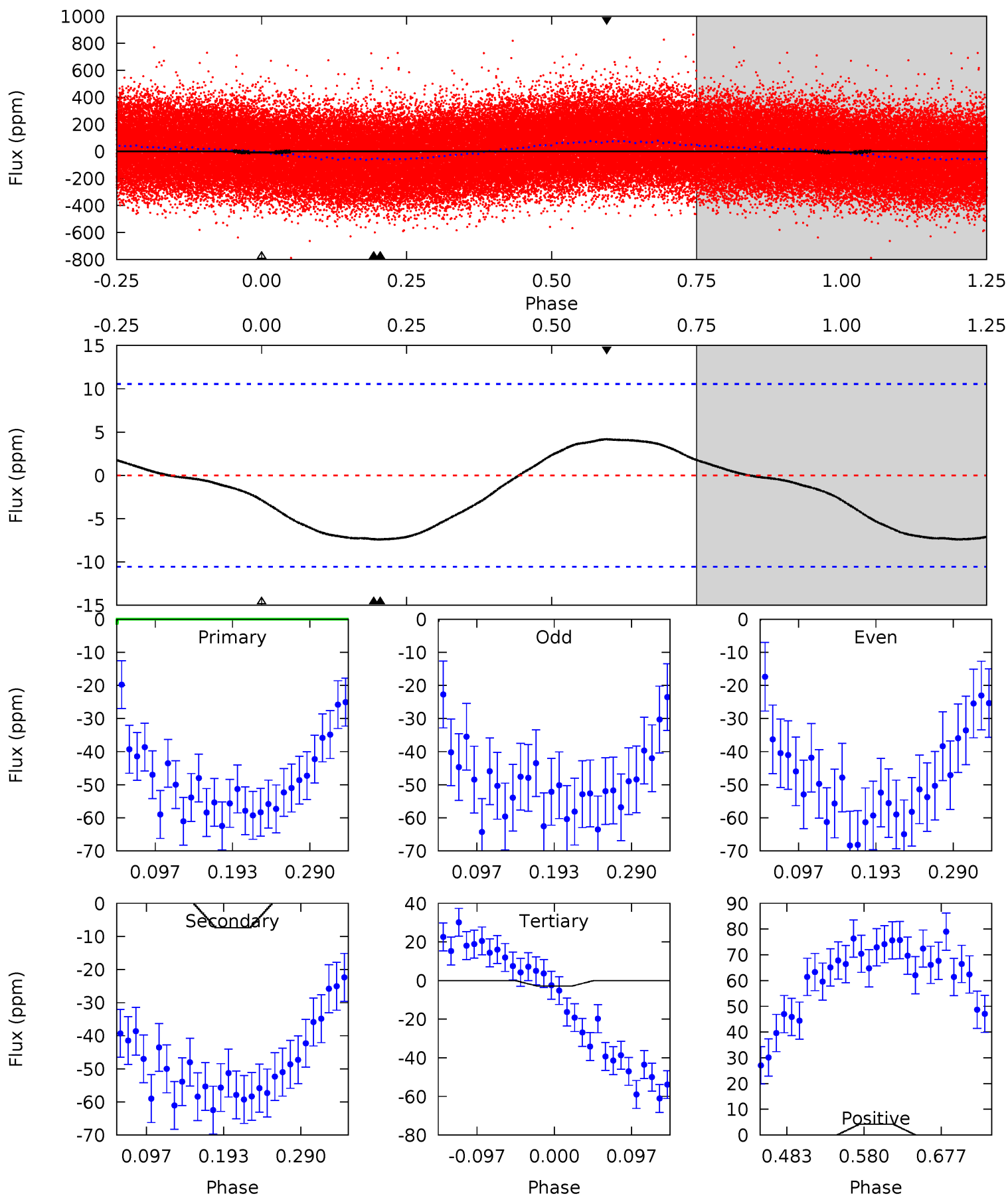
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.09	2.24	0	0	4.35	1.10	0.07	5.09	5.09	2.24	2.24	2.16	0.61	0.01	0.73



Alt Model-Shift Uniqueness Test

008426007-01, P = 0.727853 Days, E = 131.267232 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.19	3.21	1.24	1.81	4.57	1.66	1.34	1.95	1.38	1.97	1.40	0.85	0.99	0.36	3.16



Stellar Parameters For KIC 008426007

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7348^{+206}_{-324}	$3.834^{+0.301}_{-0.129}$	$0.200^{+0.150}_{-0.350}$	$2.820^{+0.536}_{-0.996}$	$1.981^{+0.112}_{-0.448}$	$0.124^{+0.261}_{-0.048}$
	+3%/-4%	+8%/-3%	+75%/-175%	+19%/-35%	+6%/-23%	+210%/-39%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008426007-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 1	$0.66^{+0.39}_{-0.35}$	5286^{+389}_{-487}	5040^{+3306}_{-2445}	$0.881^{+3.392}_{-0.573}$
Alt.	-7 ± 2	$0.70^{+0.39}_{-0.35}$	5261^{+420}_{-479}	7521^{+5016}_{-1933}	$3.175^{+9.300}_{-1.997}$

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

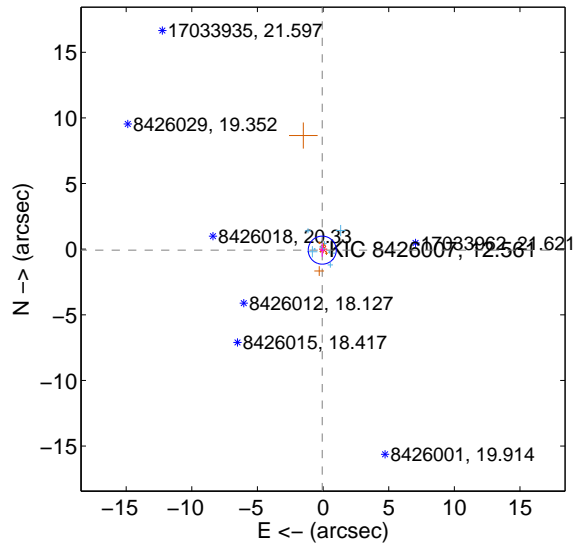
Supplemental centroid analysis for 008426007-01. Kepler magnitude: 12.56. Transit SNR 2.72

There are 10 quarters with good PRF difference image offsets

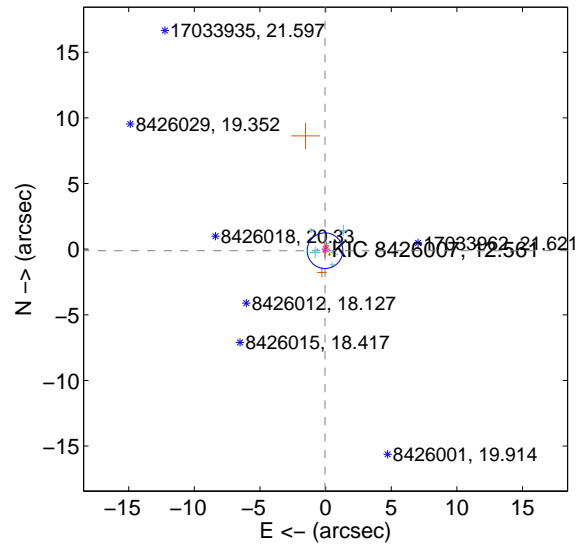
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.098 ± 0.356	0.27	0.063 ± 0.169	-0.074 ± 0.509
PRF-fit source offset from KIC position	0.124 ± 0.452	0.27	0.047 ± 0.180	-0.115 ± 0.520
photometric centroid source offset	7.21 ± 2.72	2.66	0.72 ± 2.85	7.18 ± 2.71

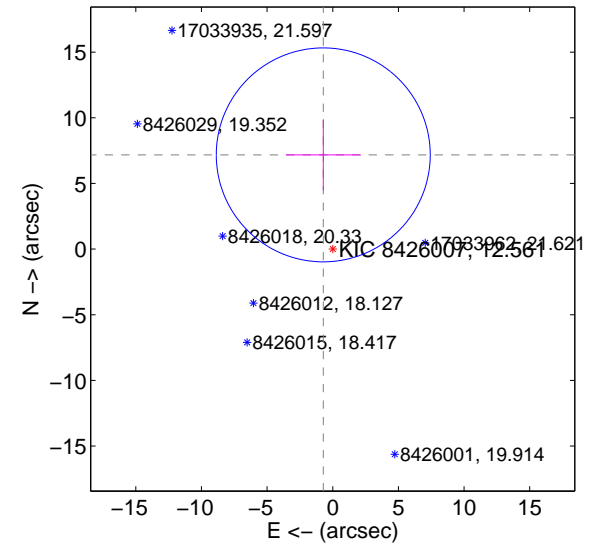
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

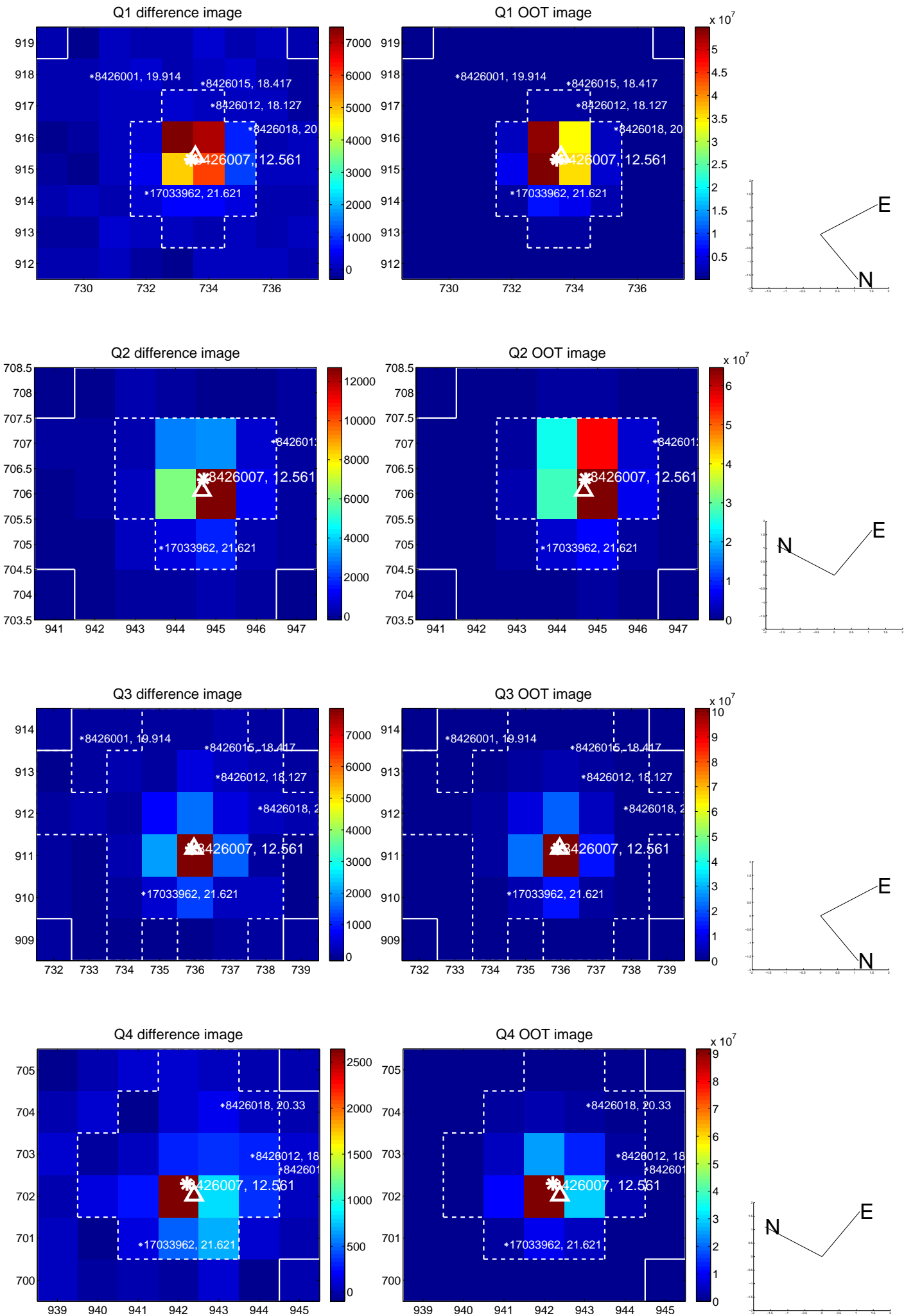


offset from photometric centroids

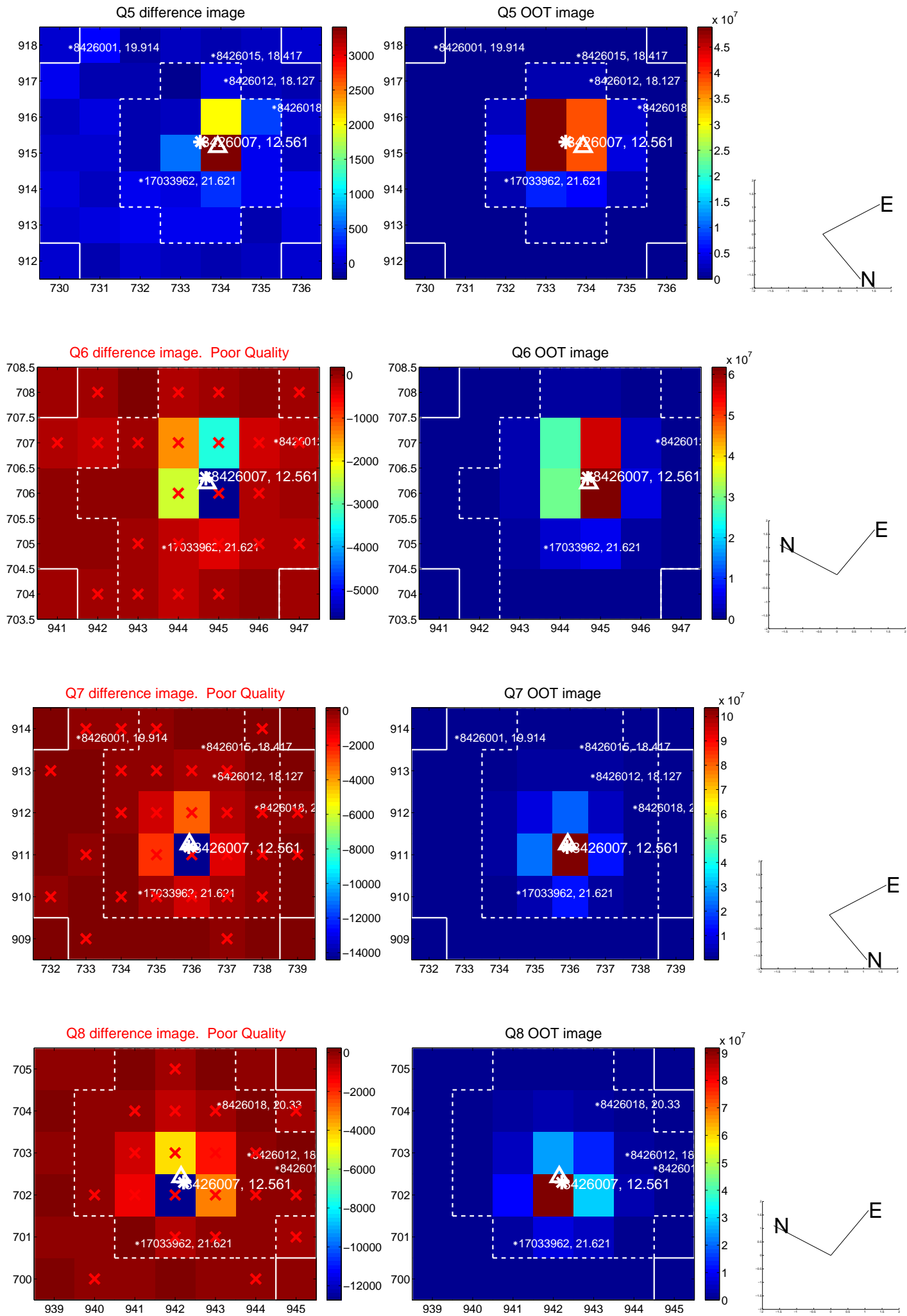


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

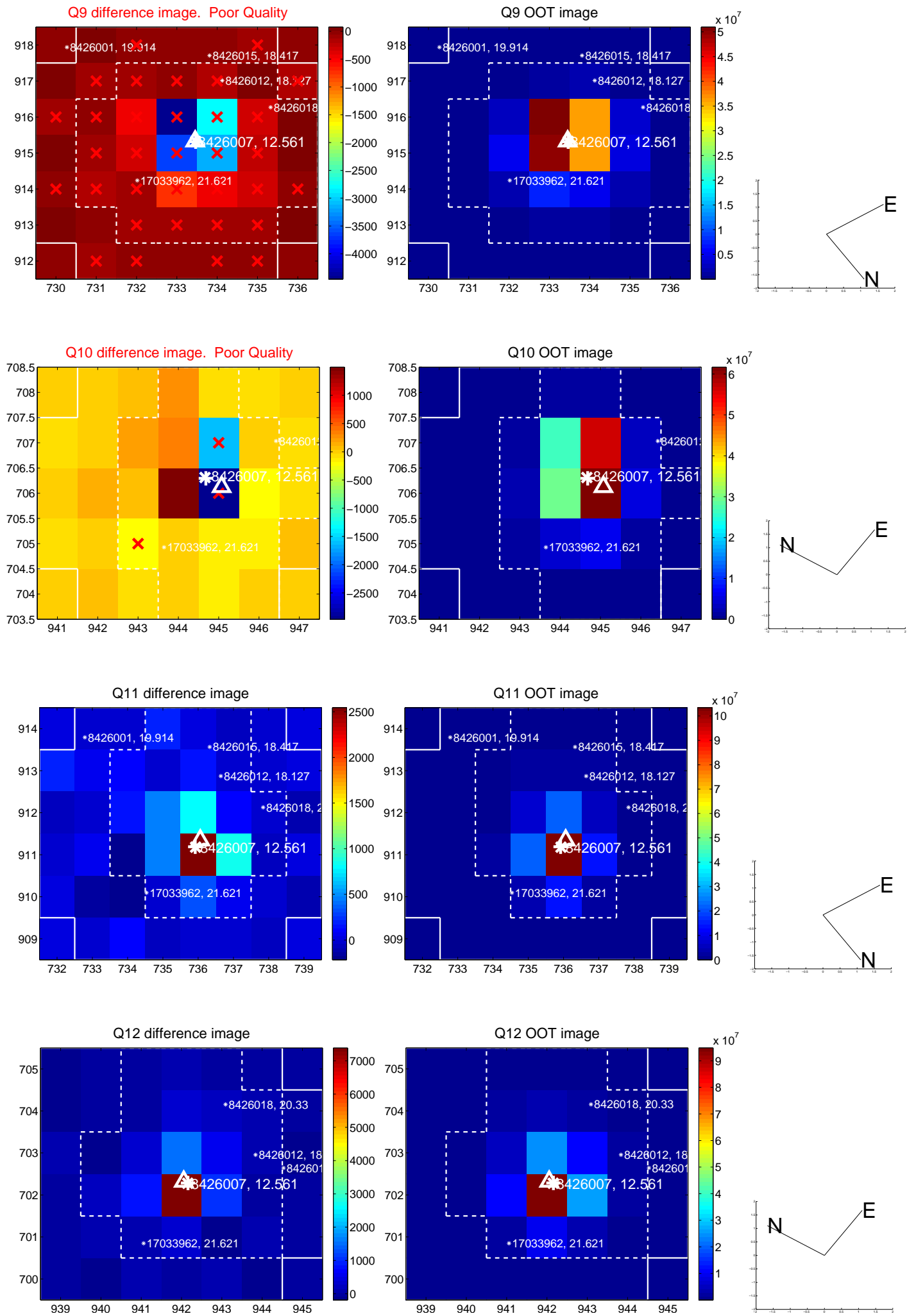
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



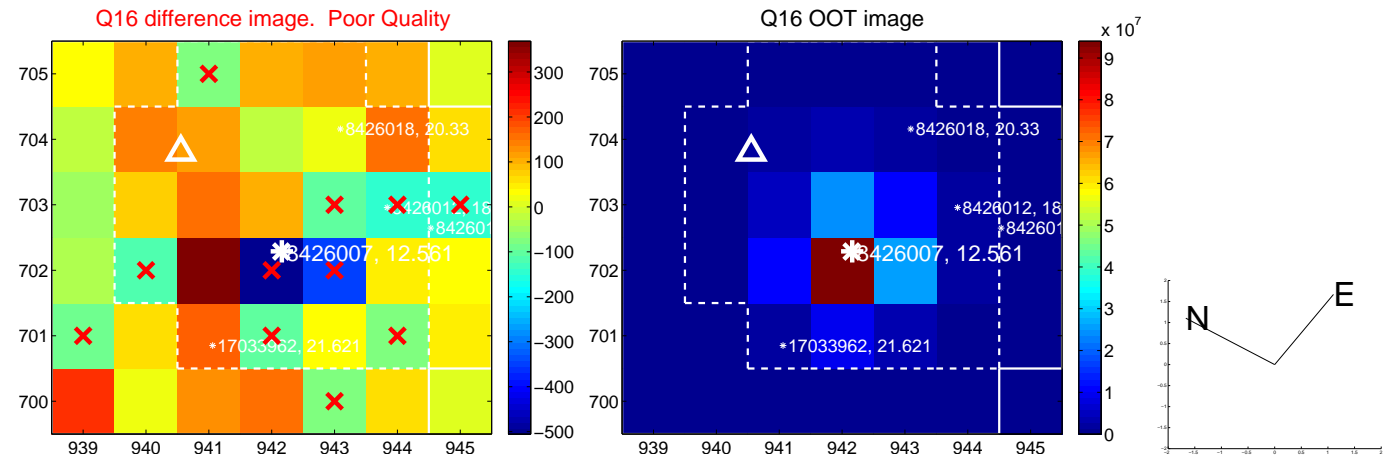
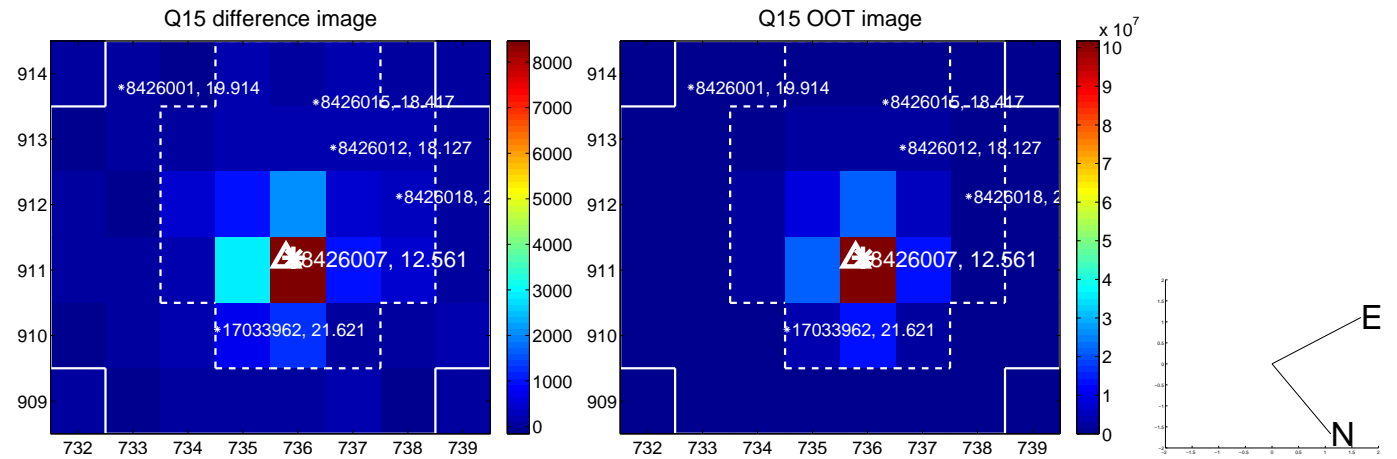
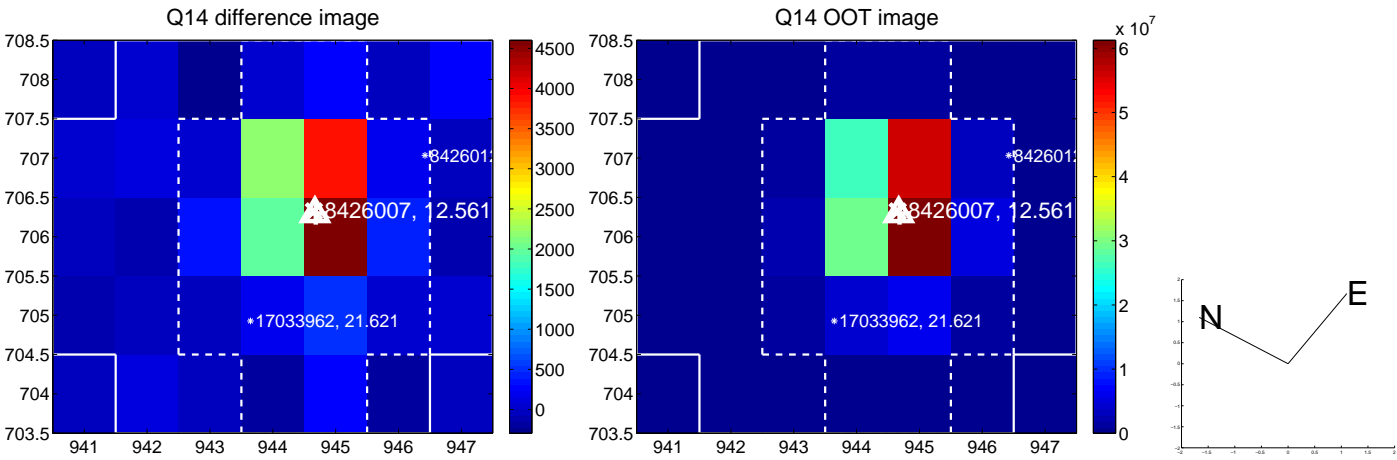
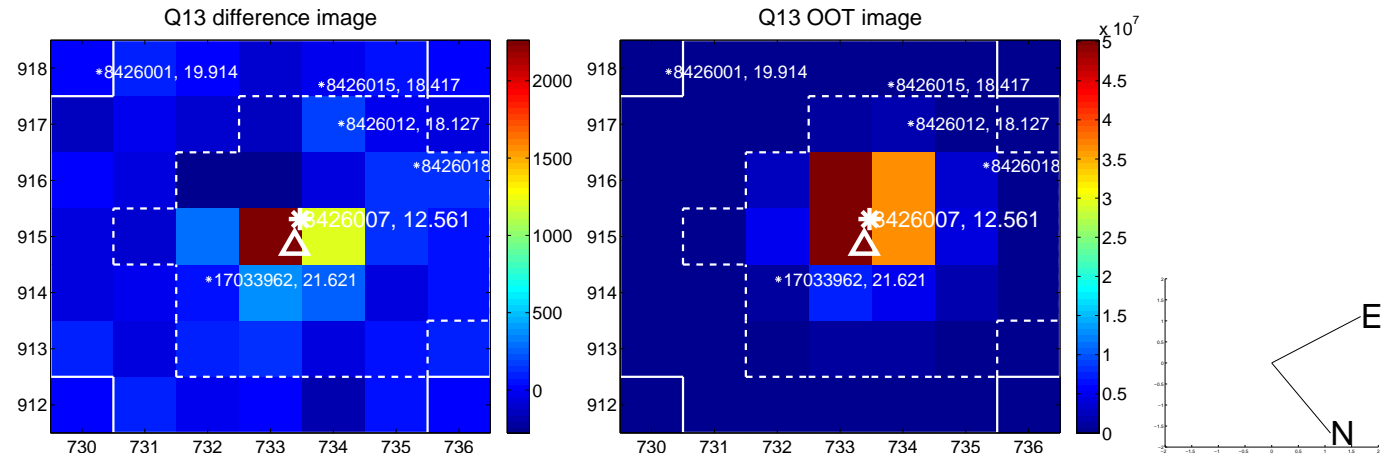
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



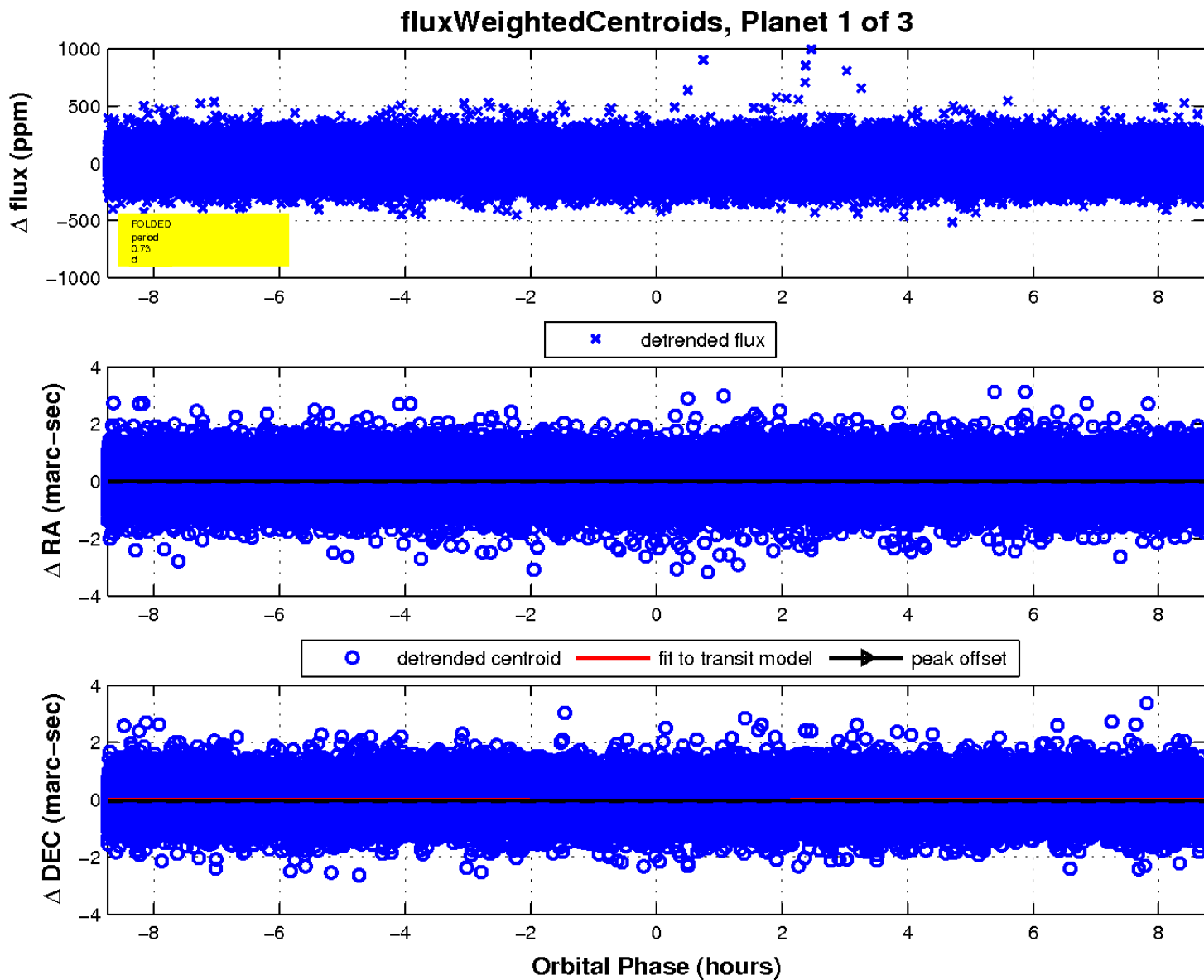
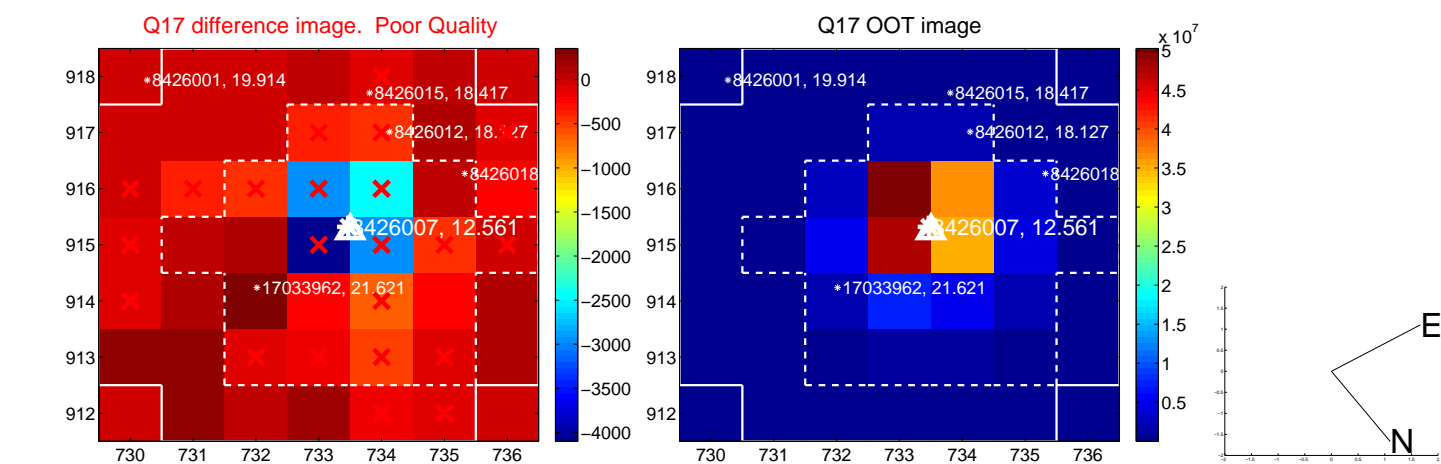
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

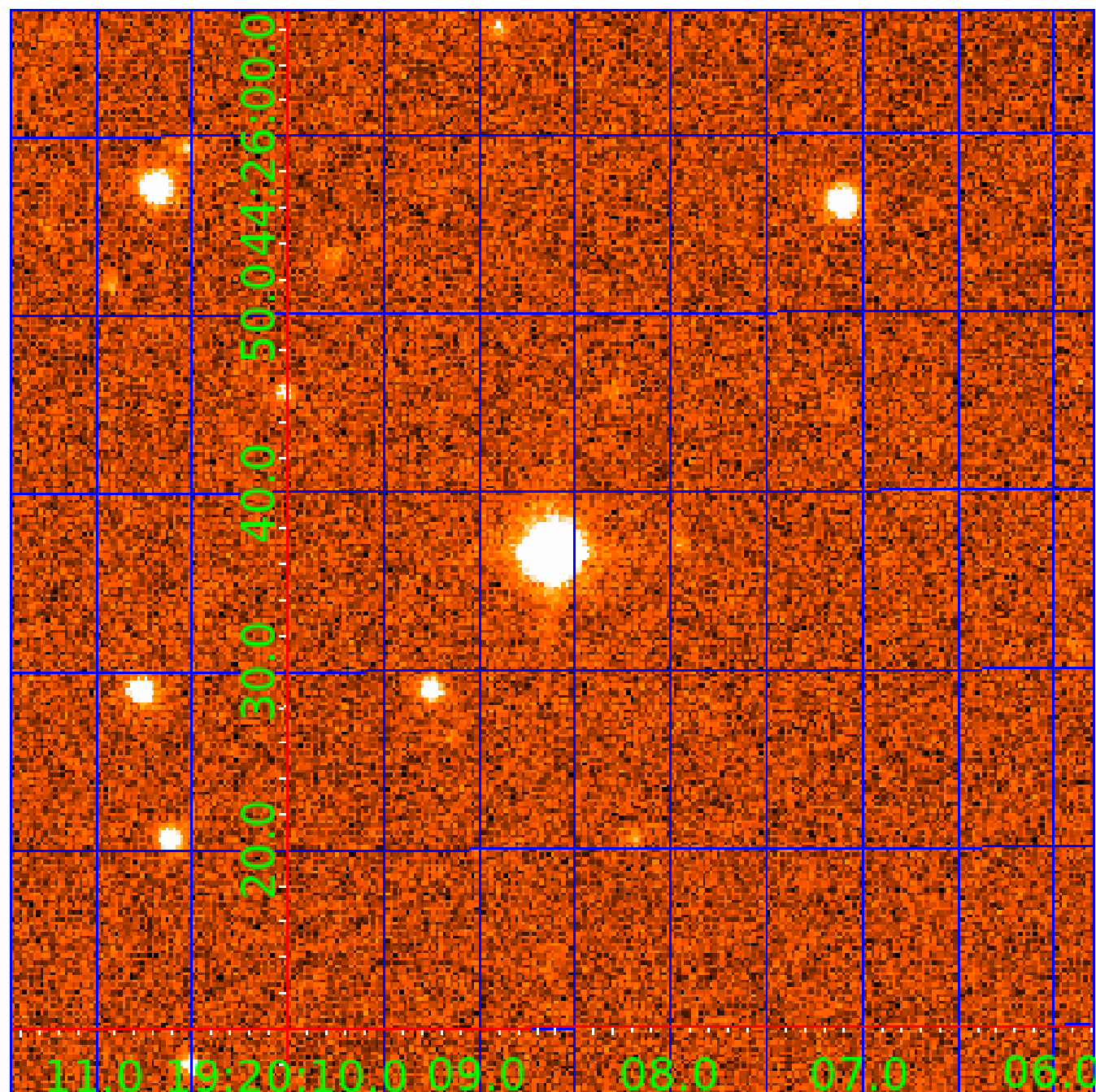


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008426007

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})
008426007-01	OBS	No	0.728353	132.039594	5.0	4.273	9.2	2.7	2.82	7348	0.70	52474.48
008426007-02	OBS	No	96.764333	175.568158	200.1	4.406	8.8	10.0	2.82	7348	4.28	77.41
008426007-03	OBS	No	47.114215	162.329821	109.7	4.012	7.8	8.0	2.82	7348	3.41	202.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008426007-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
008426007-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008426007-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS

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

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

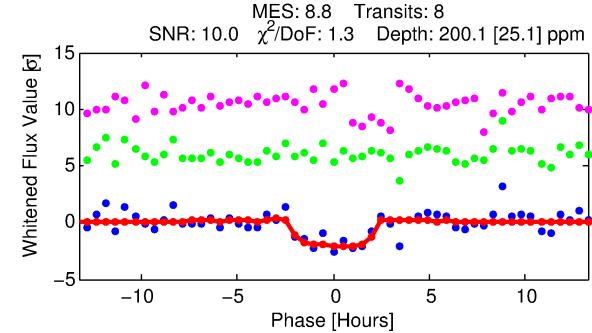
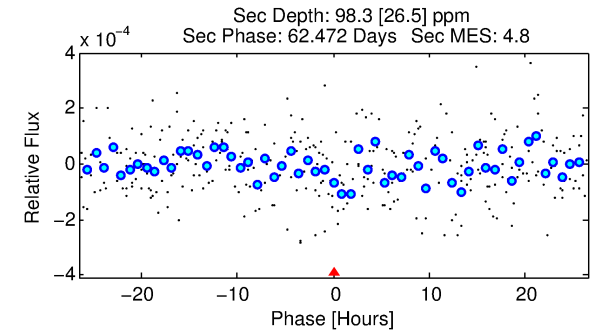
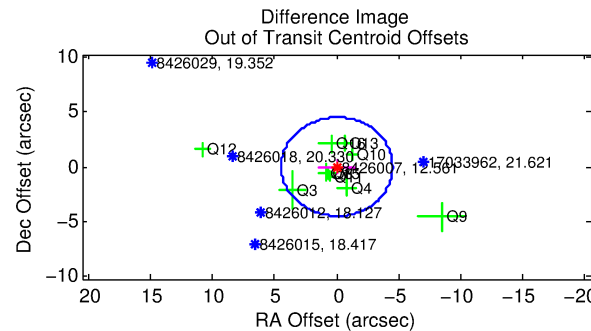
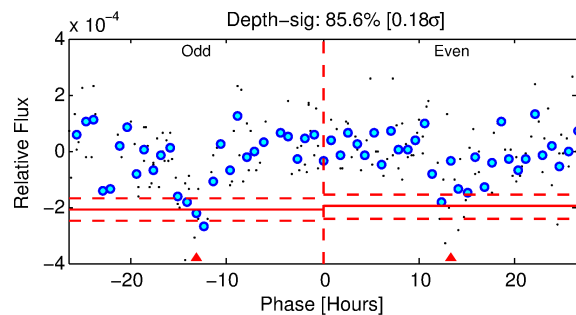
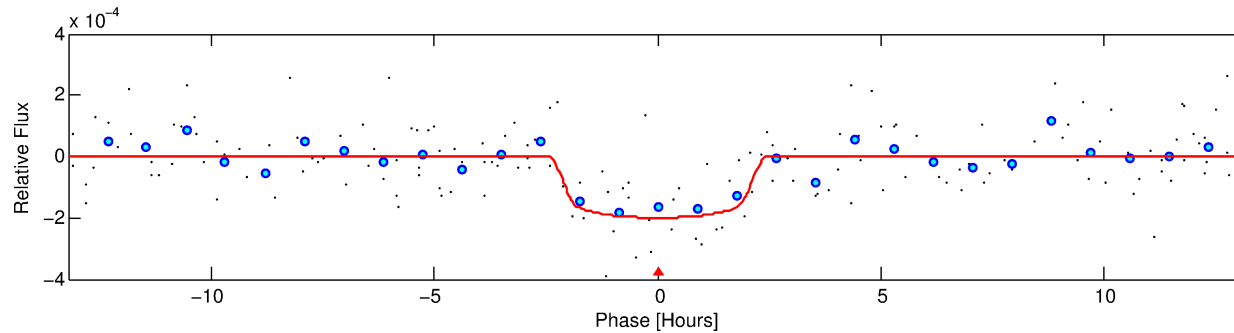
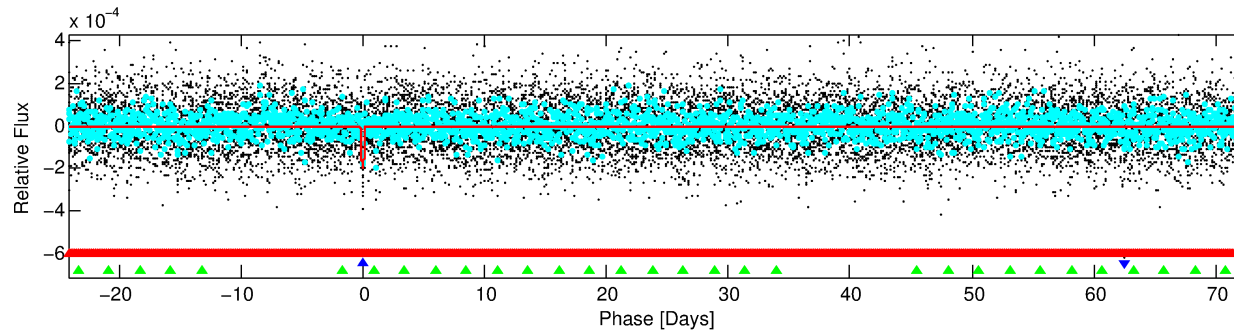
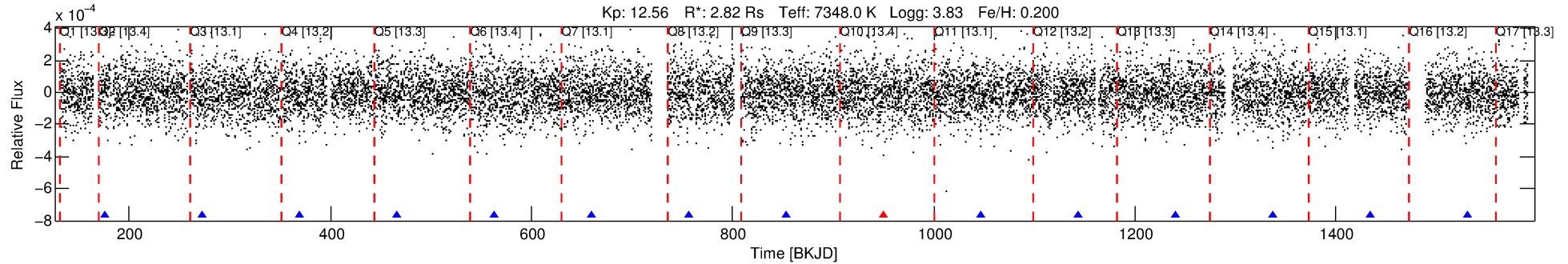
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008426007-02

No Significant Match Found

DV One-Page Summary

KIC: 8426007 Candidate: 2 of 3 Period: 96.764 d



DV Fit Results:

Period = 96.76433 [0.00120] d
Epoch = 175.5682 [0.0091] BKJD
Rp/R* = 0.0139 [0.0101]
a/R* = 122.67 [552.44]
b = 0.70 [3.26]
Seff = 77.41 [42.40]
Teq = 756 [104] K
Rp = 4.28 [3.46] Re
a = 0.5180 [0.1709] AU
Ag = 792.76 [1244.50] [0.64 σ]
Teffp = 6205 [2315] K [2.35 σ]

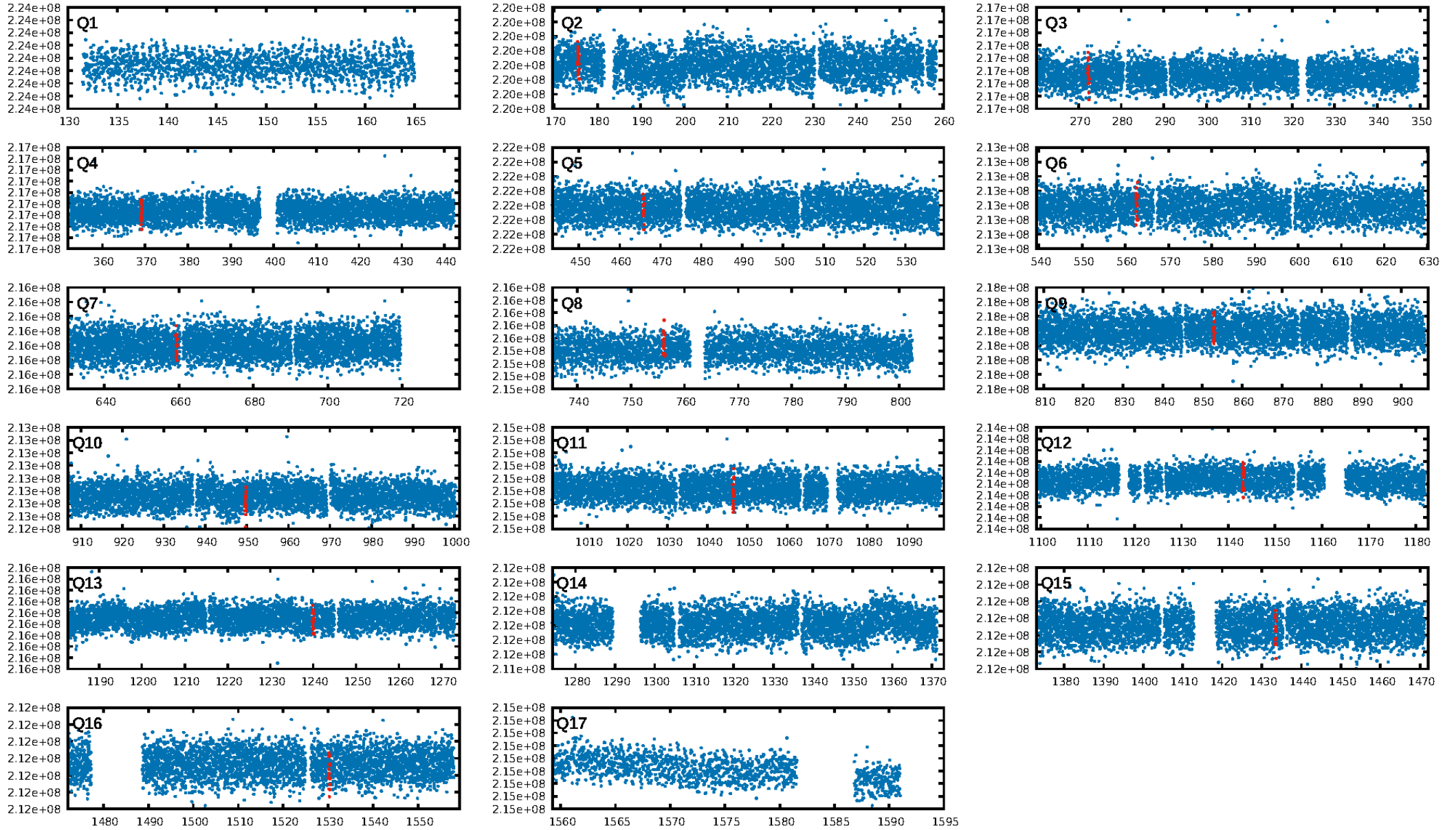
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [199.97 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 10.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.39e-10
RollingBand-fgt: 0.88 [7/8]
GhostDiagnostic-chr: 0.5119
Centroid-sig: 69.5%
Centroid-so: 0.305 arcsec [0.37 σ]
OotOffset-rm: 0.035 arcsec [0.02 σ]
KicOffset-rm: 0.053 arcsec [0.05 σ]
OotOffset-st: 1/3/4/2 [10]
KicOffset-st: 1/3/4/2 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 0.00 [0/14]

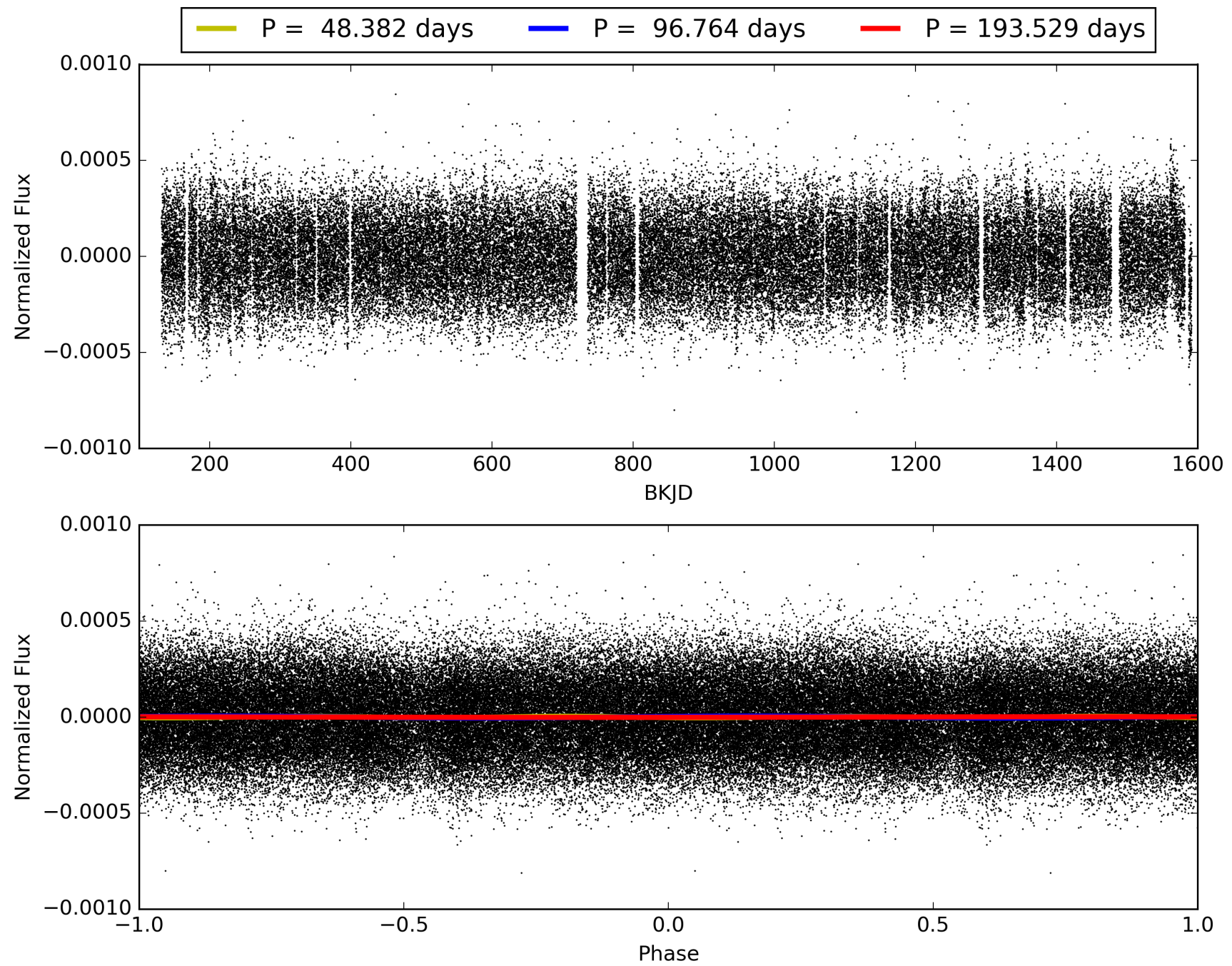
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:08:32 Z

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

TCE 008426007-02, PDC Light Curves

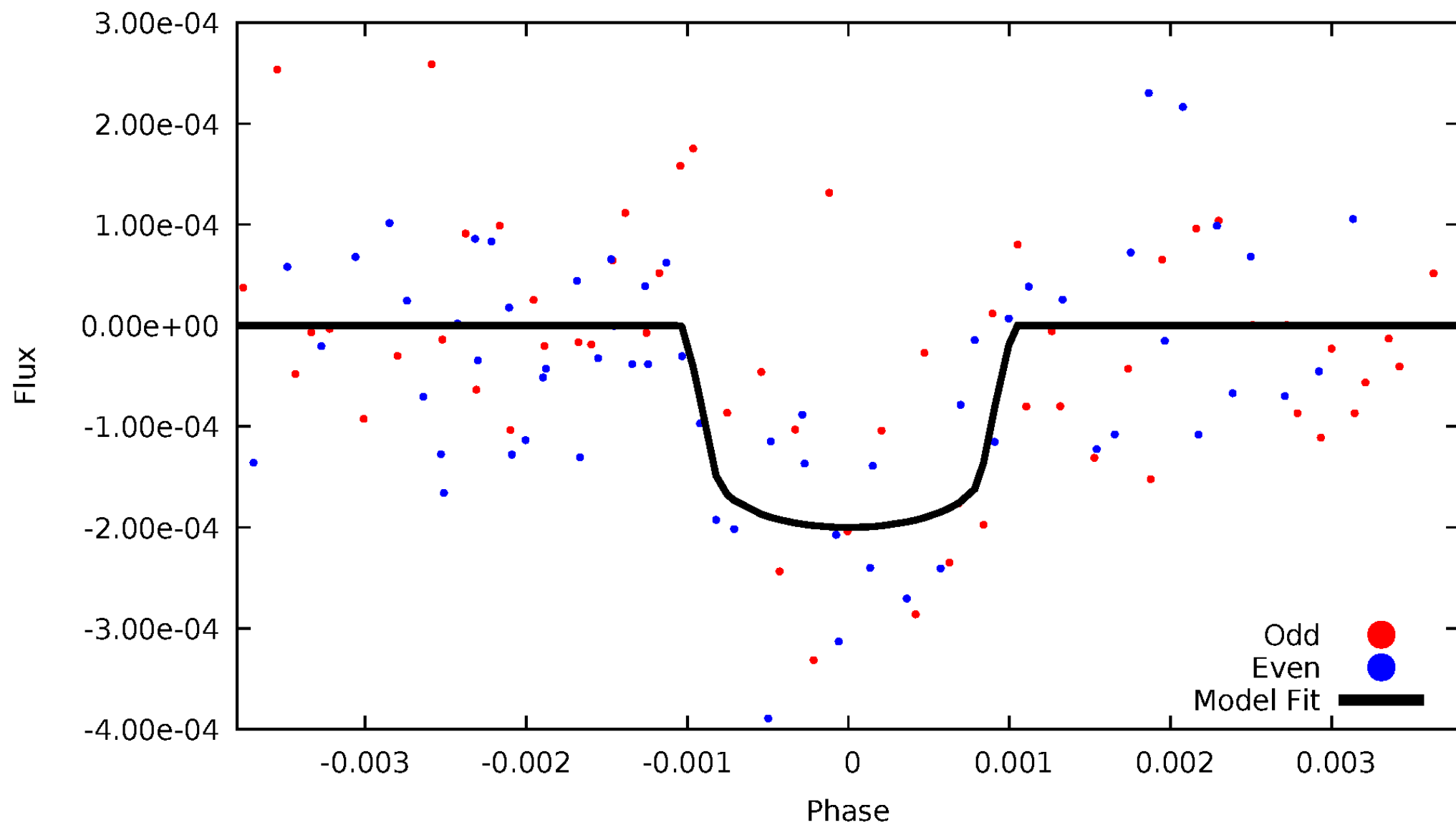


TCE 008426007-02



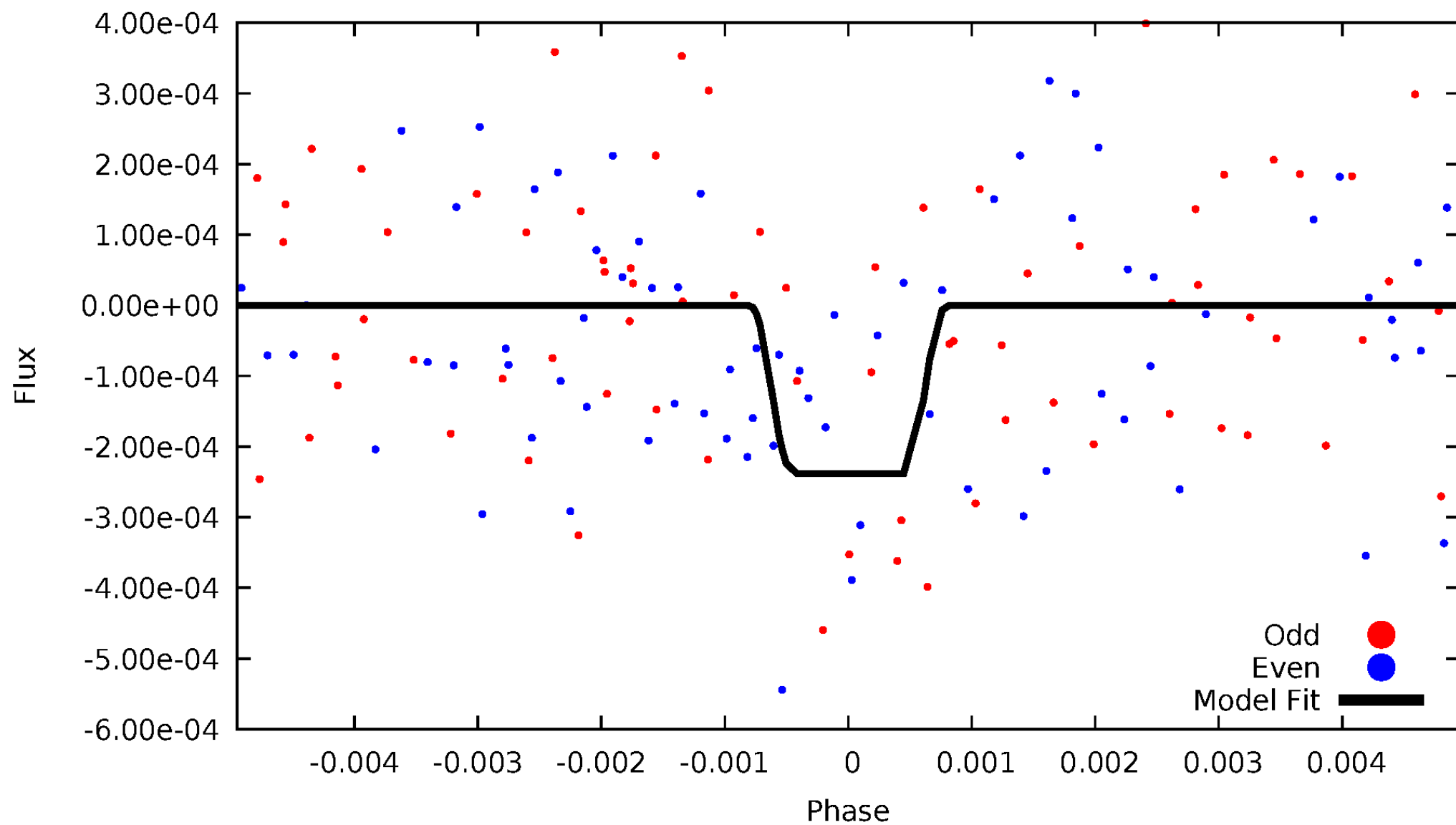
DV Odd/Even

TCE 008426007-02



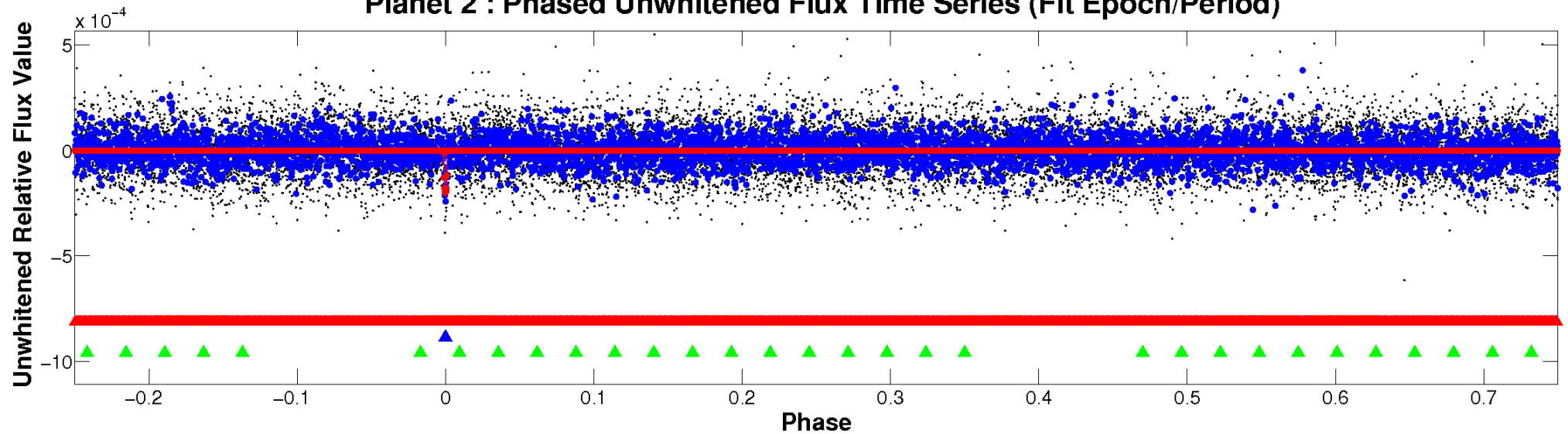
ALT Odd/Even

TCE 008426007-02

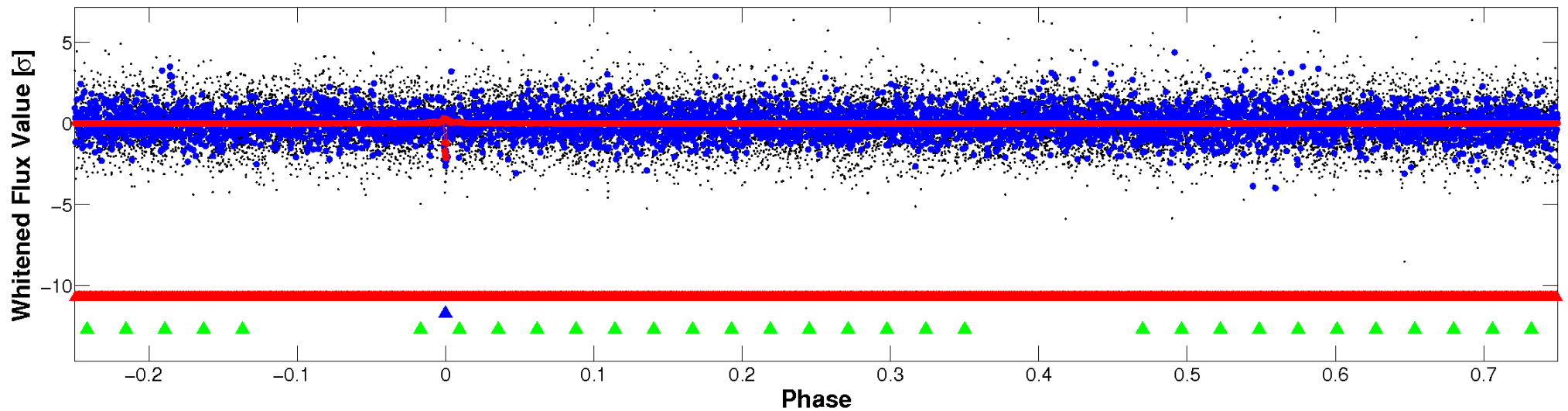


Non-Whitened Vs. Whitened Light Curve

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

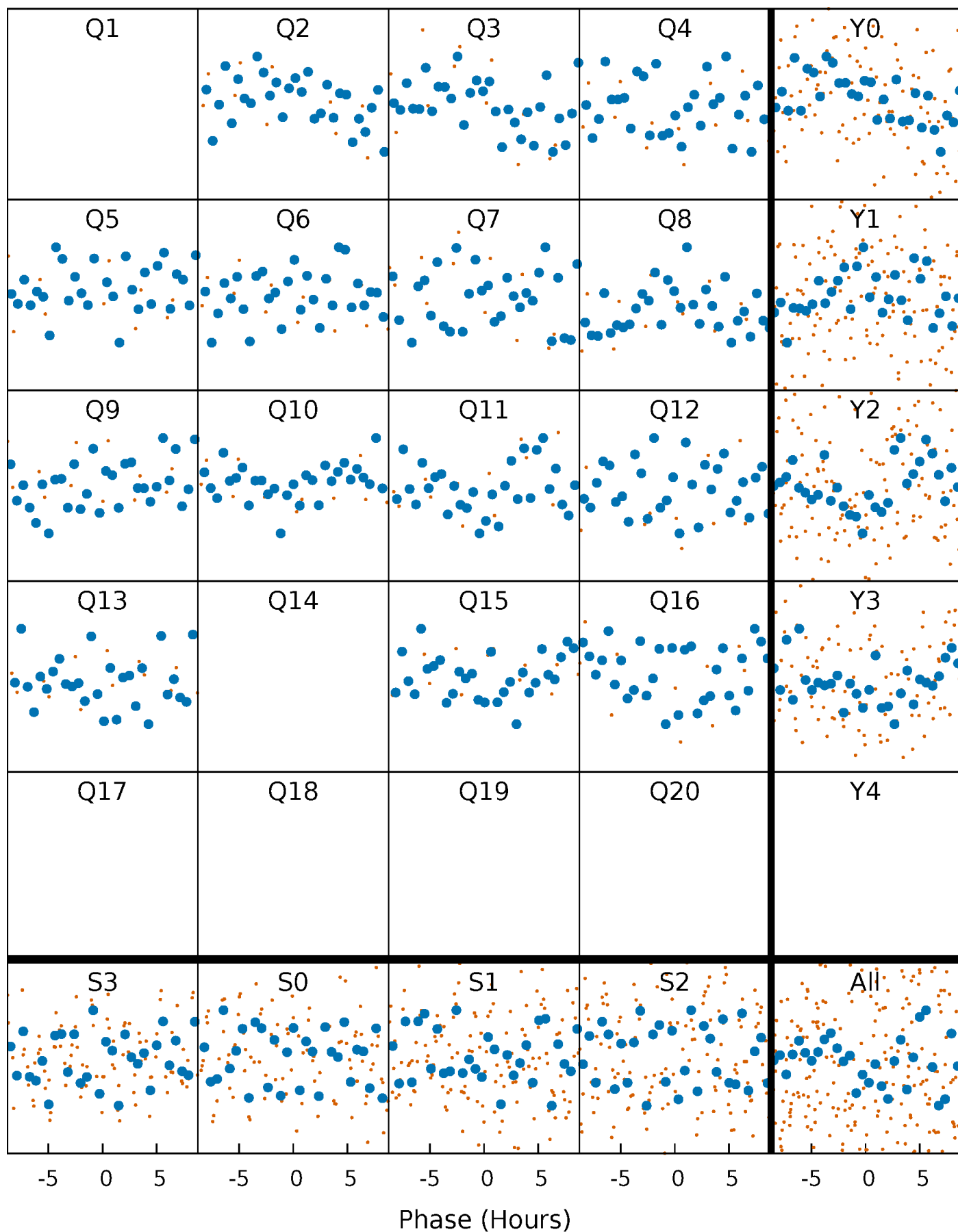


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



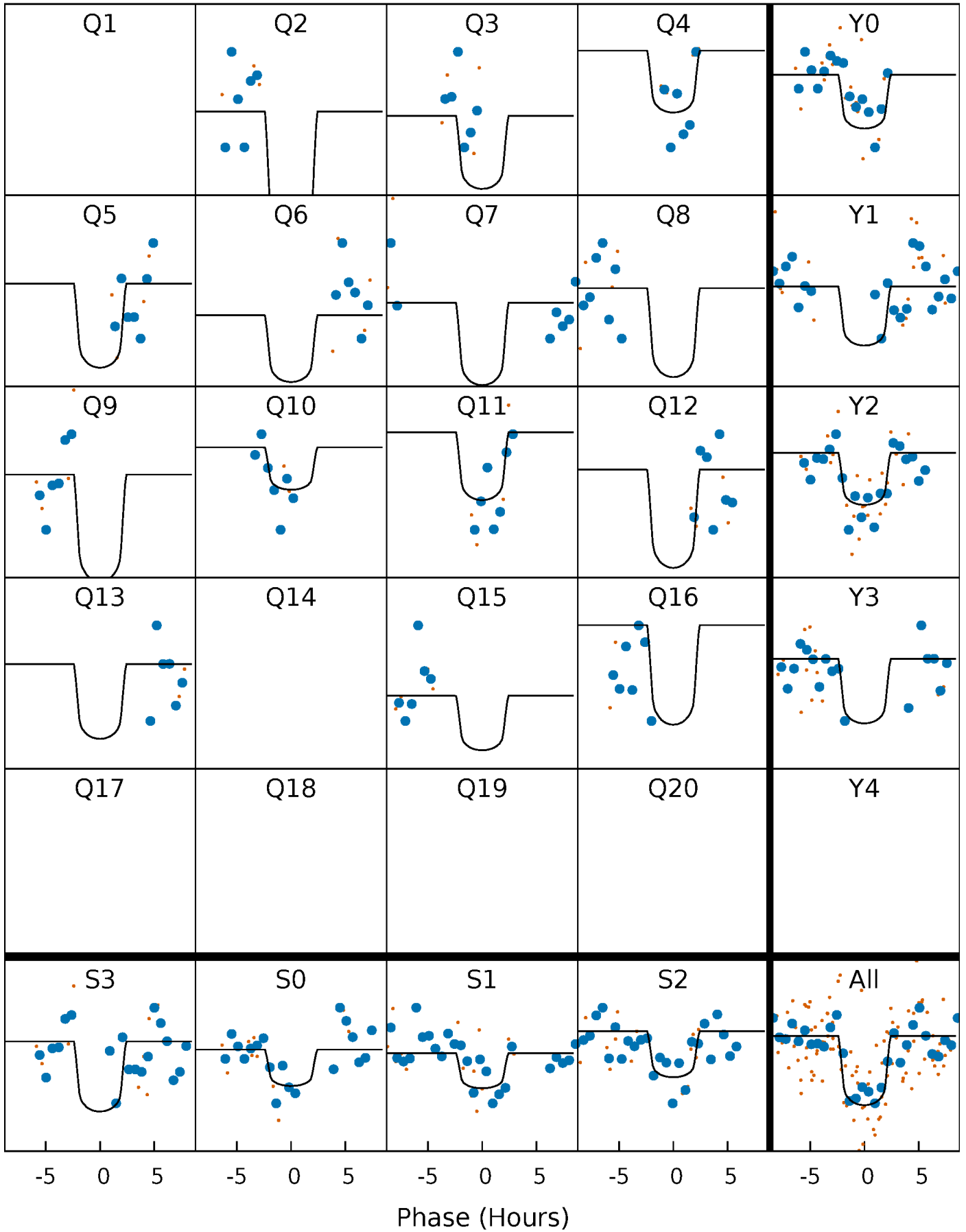
PDC Quarter-Phased Transit Curves

TCE 008426007-02 P= 96.764333 Days $T_0=175.568158$ (BKJD)



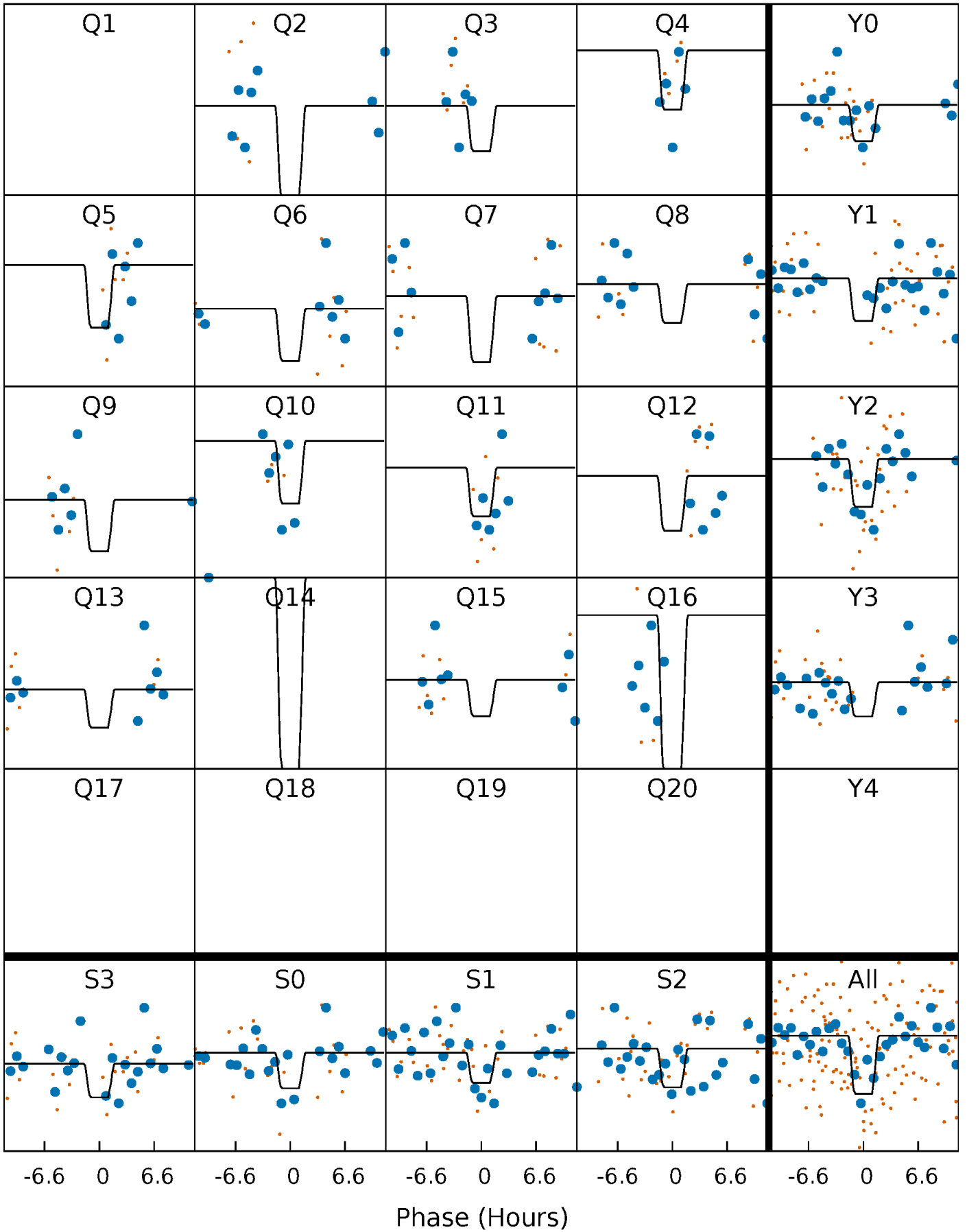
DV Quarter-Phased Transit Curves

TCE 008426007-02 $P = 96.764333$ Days $T_0 = 175.568158$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

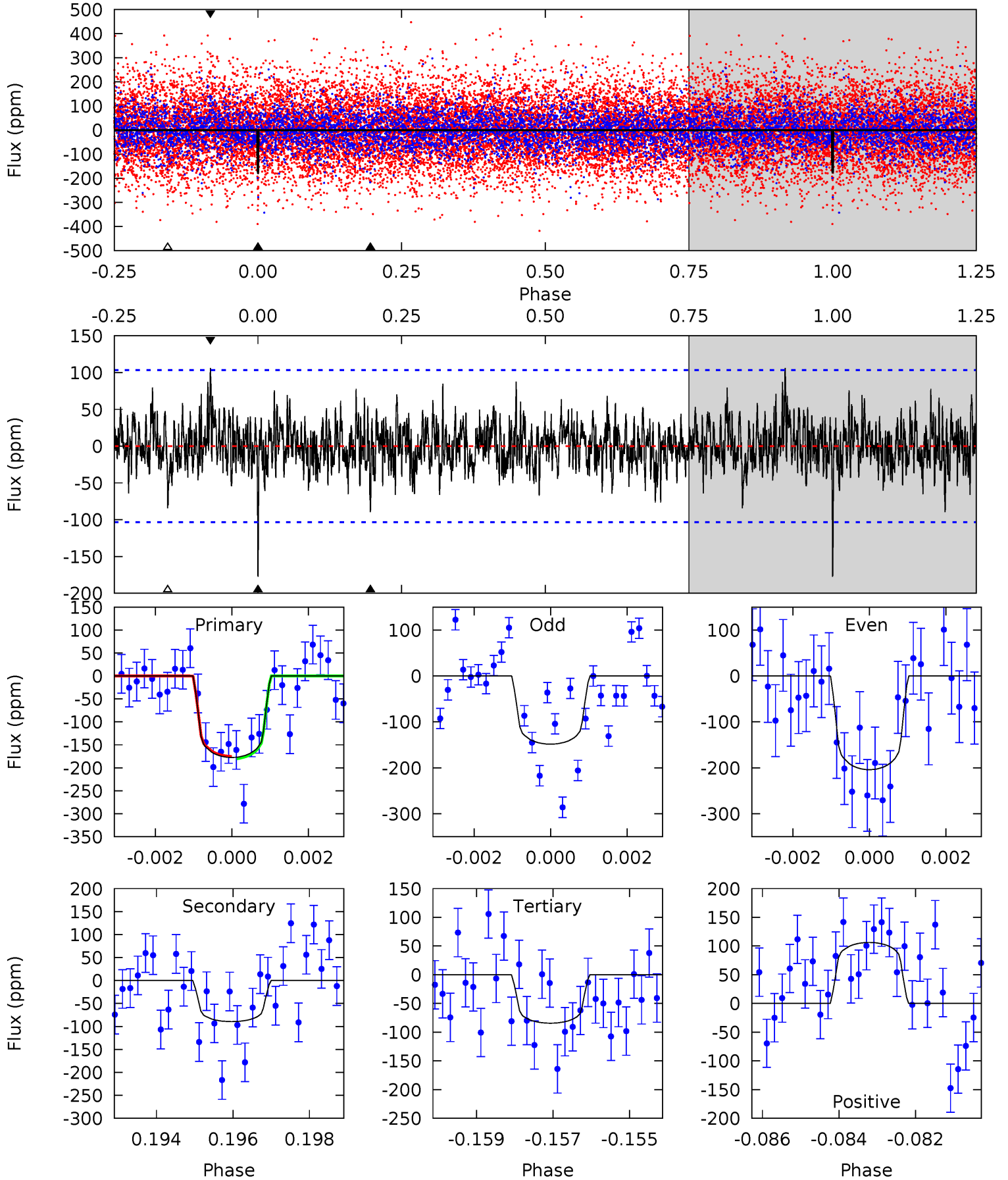
TCE 008426007-02 P= 96.759527 Days $T_0=175.610275$ (BKJD)



DV Model-Shift Uniqueness Test

008426007-02, P = 96.764333 Days, E = 78.803825 Days

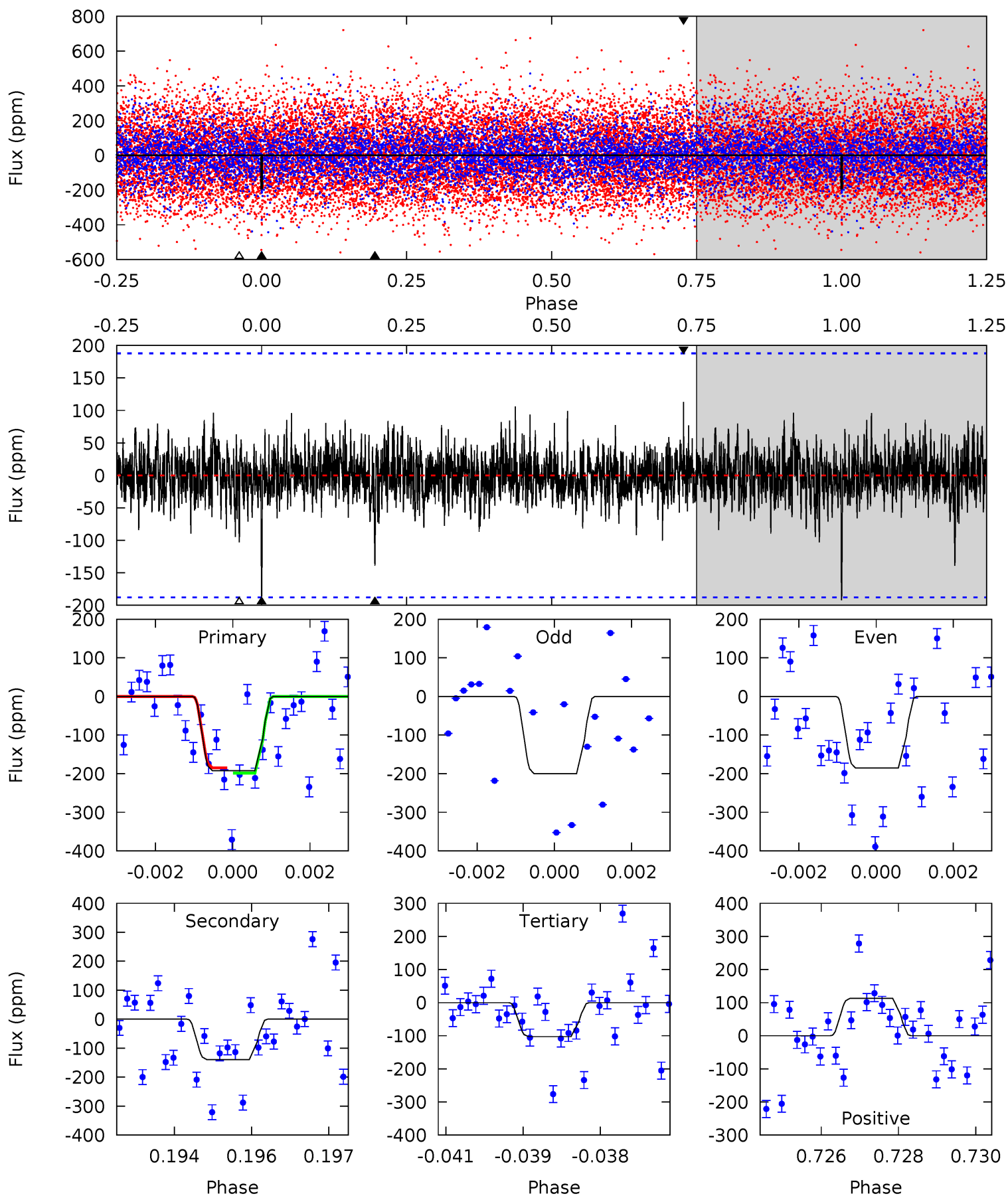
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.14	4.61	4.34	5.47	5.32	3.08	1.33	4.80	3.67	0.27	-0.86	1.43	0.88	0.37	0.13



Alt Model-Shift Uniqueness Test

008426007-02, P = 96.759527 Days, E = 78.850748 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.49	3.98	2.94	3.23	5.37	3.16	0.82	2.56	2.26	1.05	0.75	0.21	0.93	0.37	0.19



Stellar Parameters For KIC 008426007

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7348^{+206}_{-324}	$3.834^{+0.301}_{-0.129}$	$0.200^{+0.150}_{-0.350}$	$2.820^{+0.536}_{-0.996}$	$1.981^{+0.112}_{-0.448}$	$0.124^{+0.261}_{-0.048}$
	+3%/-4%	+8%/-3%	+75%/-175%	+19%/-35%	+6%/-23%	+210%/-39%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008426007-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-90 ± 19	$4.42^{+2.99}_{-2.66}$	1035^{+77}_{-95}	5680^{+3421}_{-1117}	668^{+3379}_{-440}
Alt.	-139 ± 35	$4.57^{+2.87}_{-2.59}$	1037^{+74}_{-101}	6221^{+4164}_{-1299}	926^{+4220}_{-591}

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 $A_{obs} \gg 1.0$

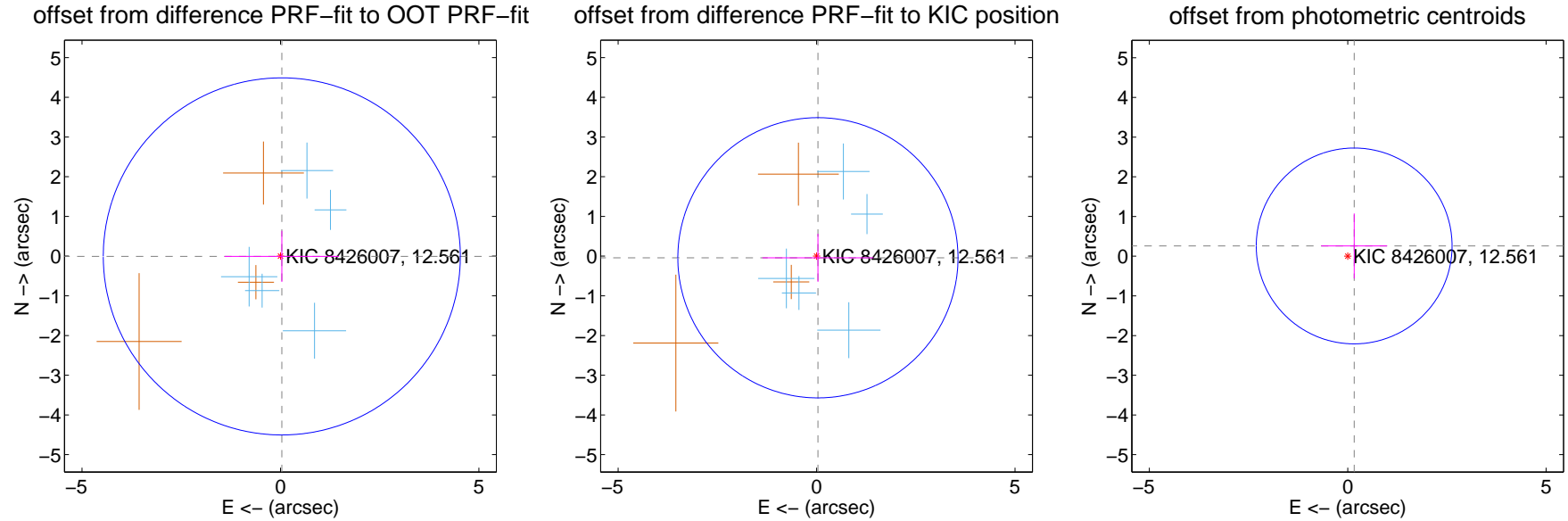
DV Centroid Data

Supplemental centroid analysis for 008426007-02. Kepler magnitude: 12.56. Transit SNR 9.96

There are 5 quarters with good PRF difference image offsets

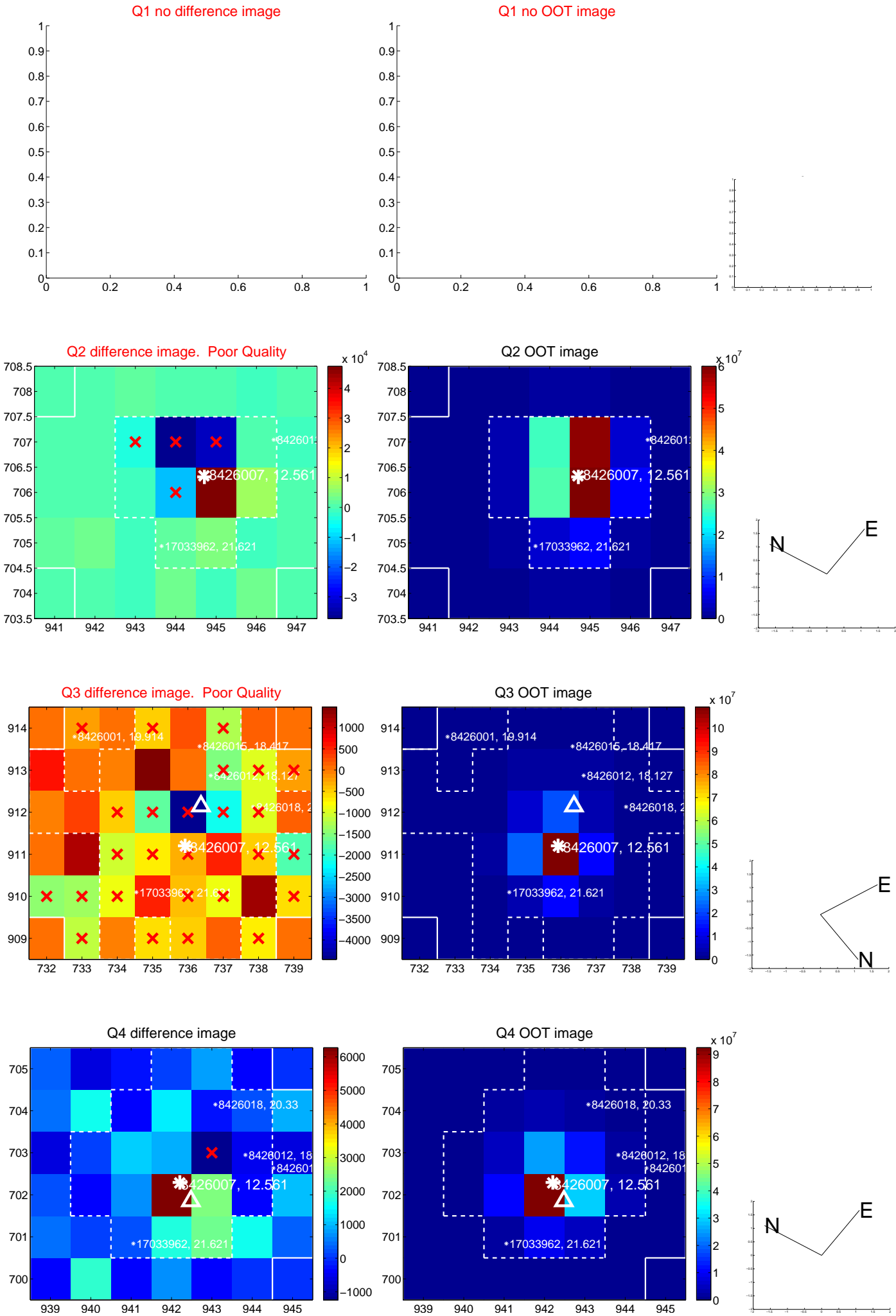
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.035 ± 1.499	0.02	-0.034 ± 1.443	-0.007 ± 0.644
PRF-fit source offset from KIC position	0.053 ± 1.176	0.05	-0.034 ± 1.400	-0.041 ± 0.605
photometric centroid source offset	0.31 ± 0.82	0.37	-0.16 ± 0.83	0.26 ± 0.82

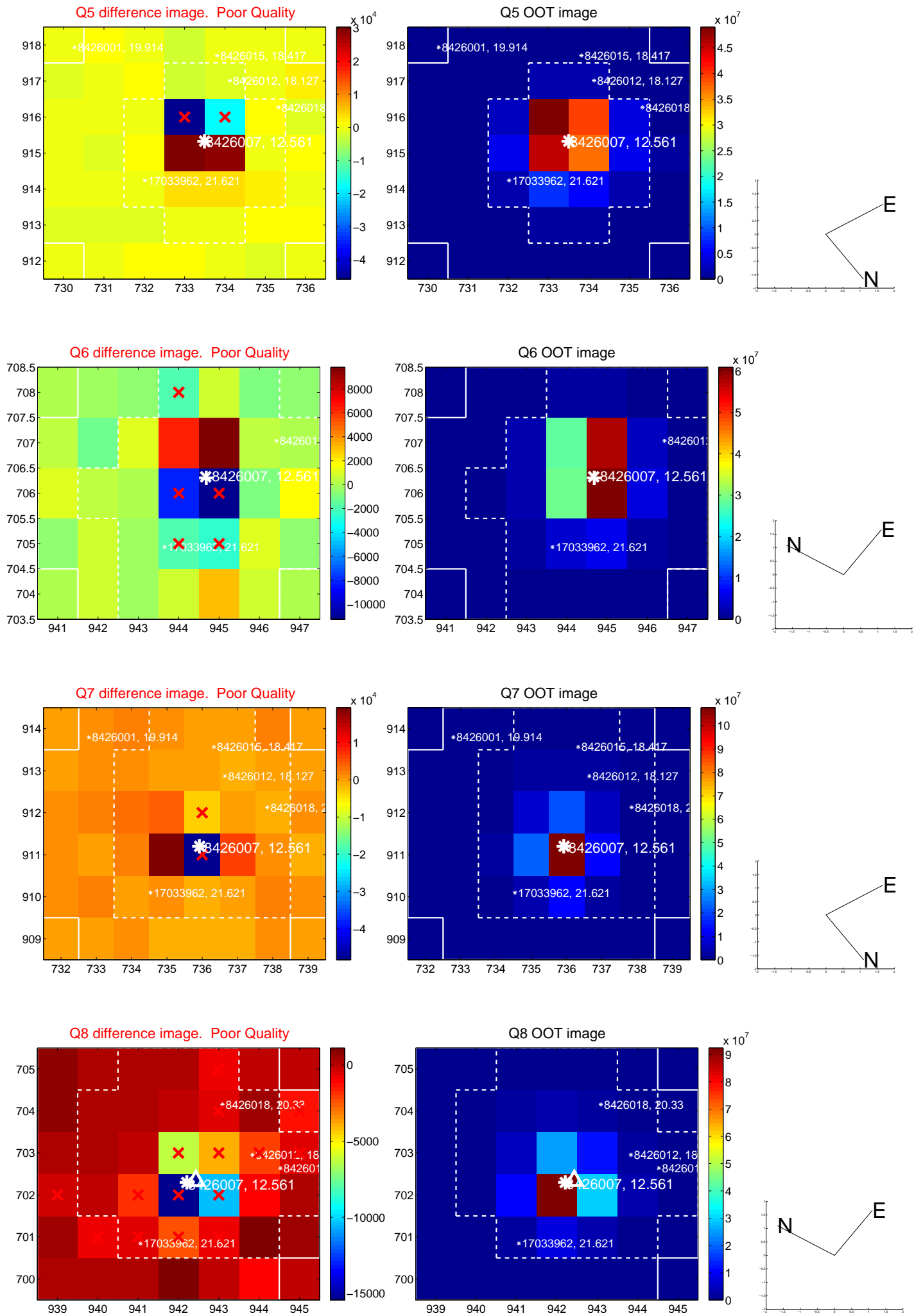


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

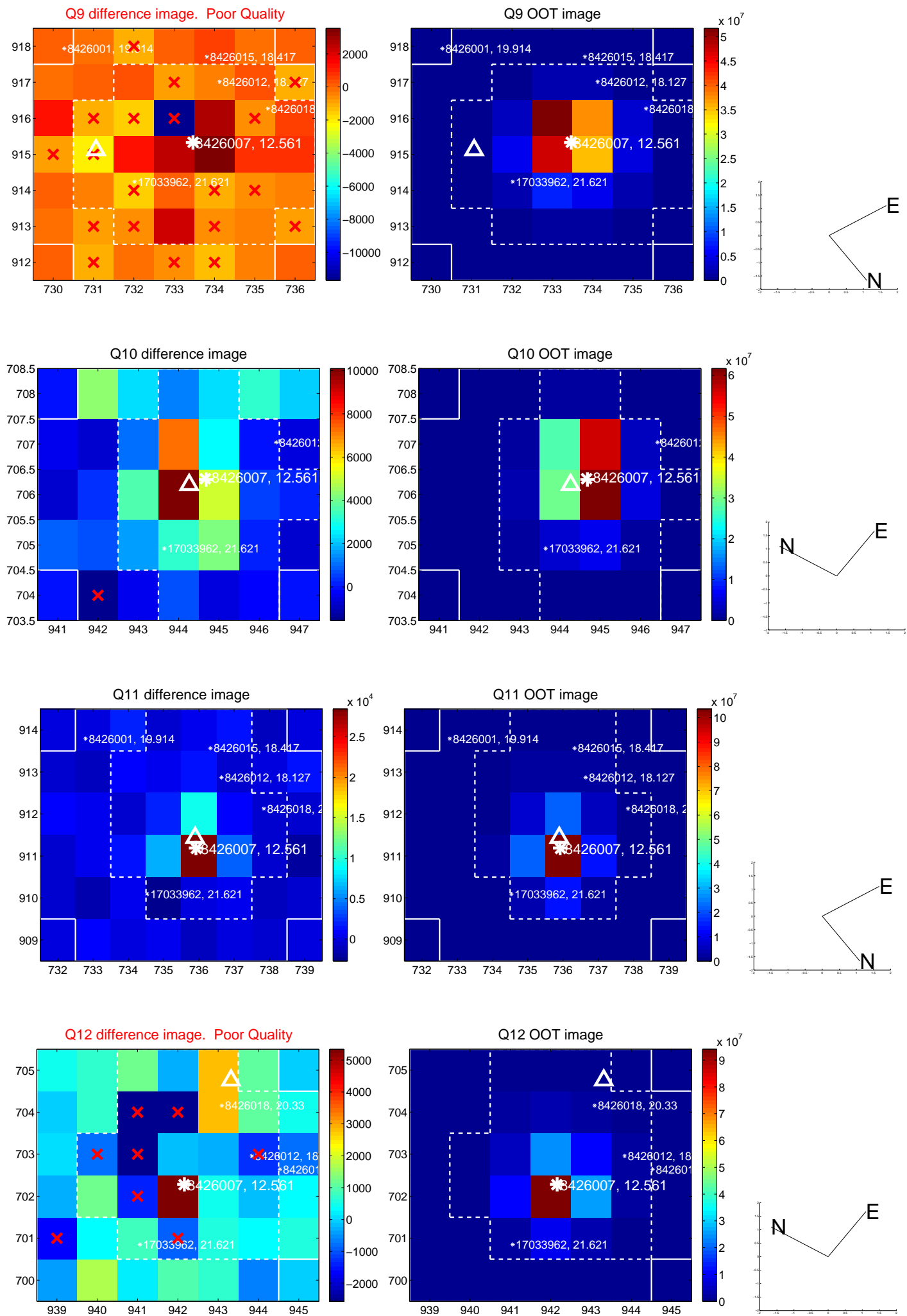
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



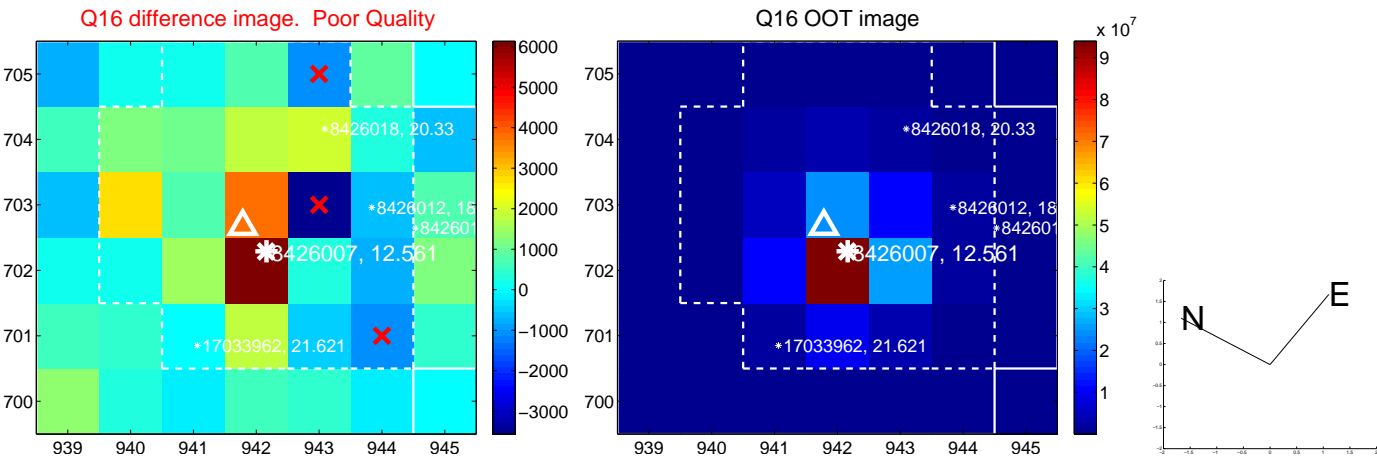
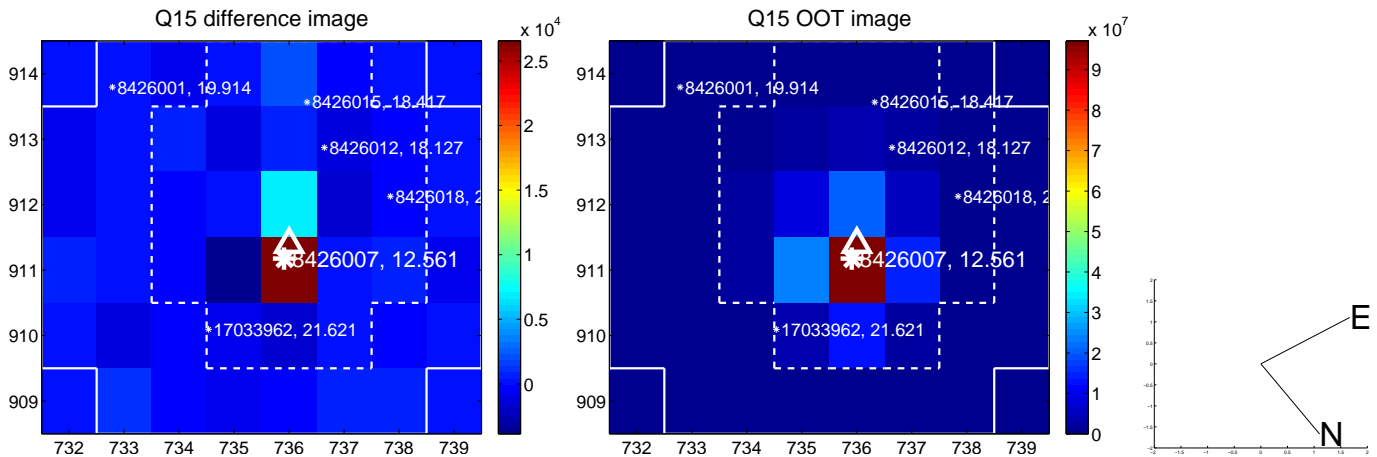
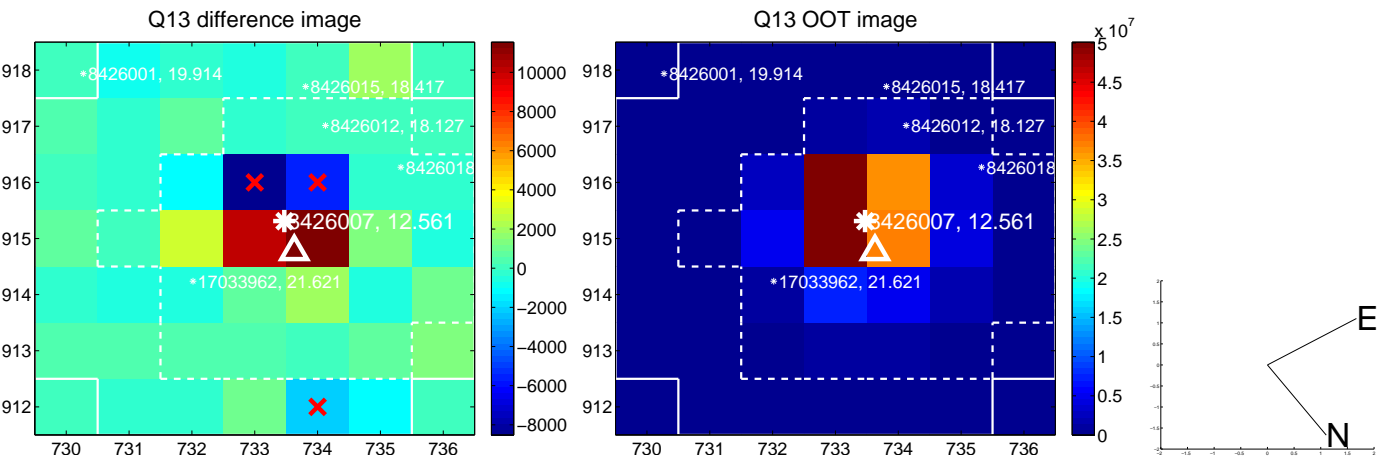
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



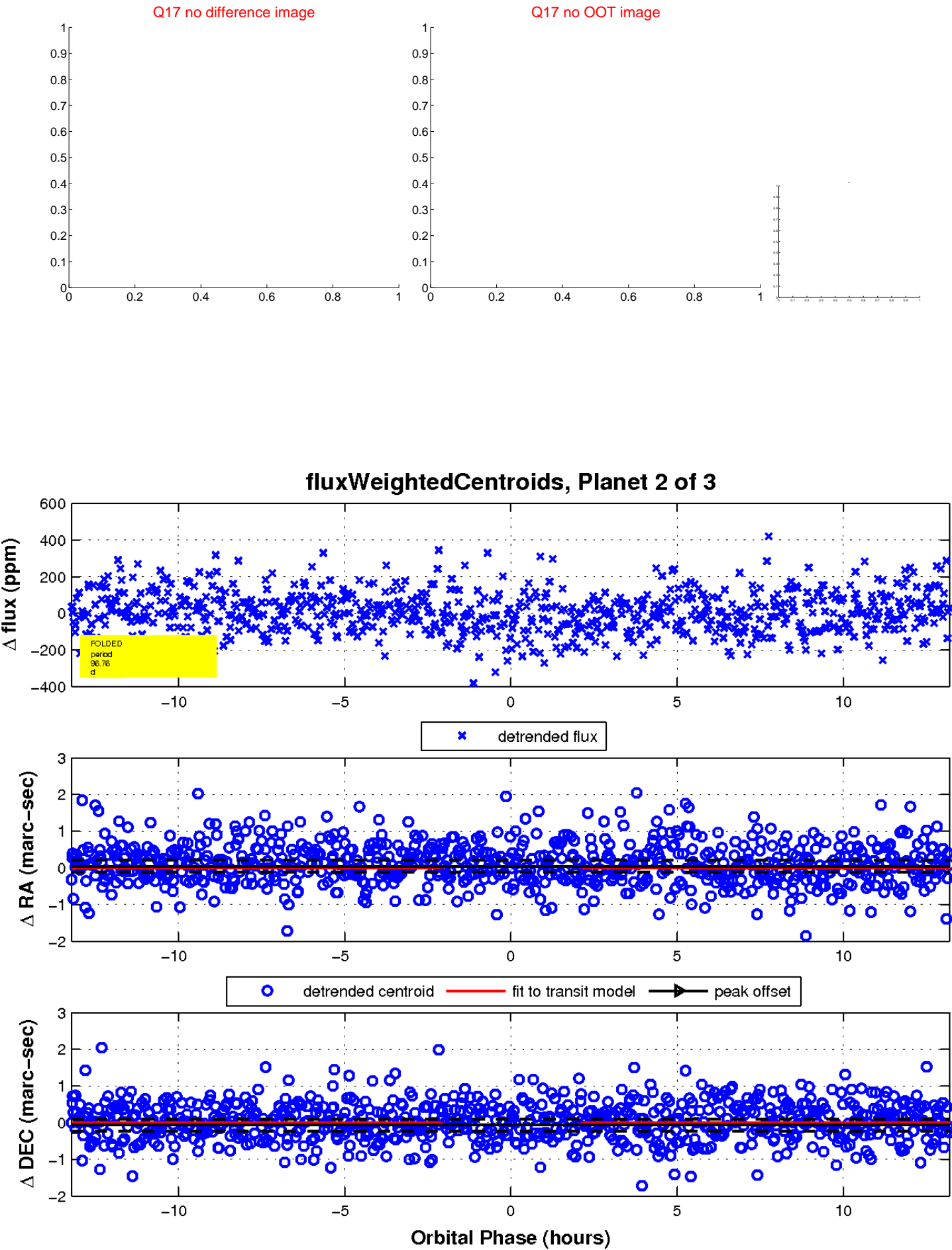
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

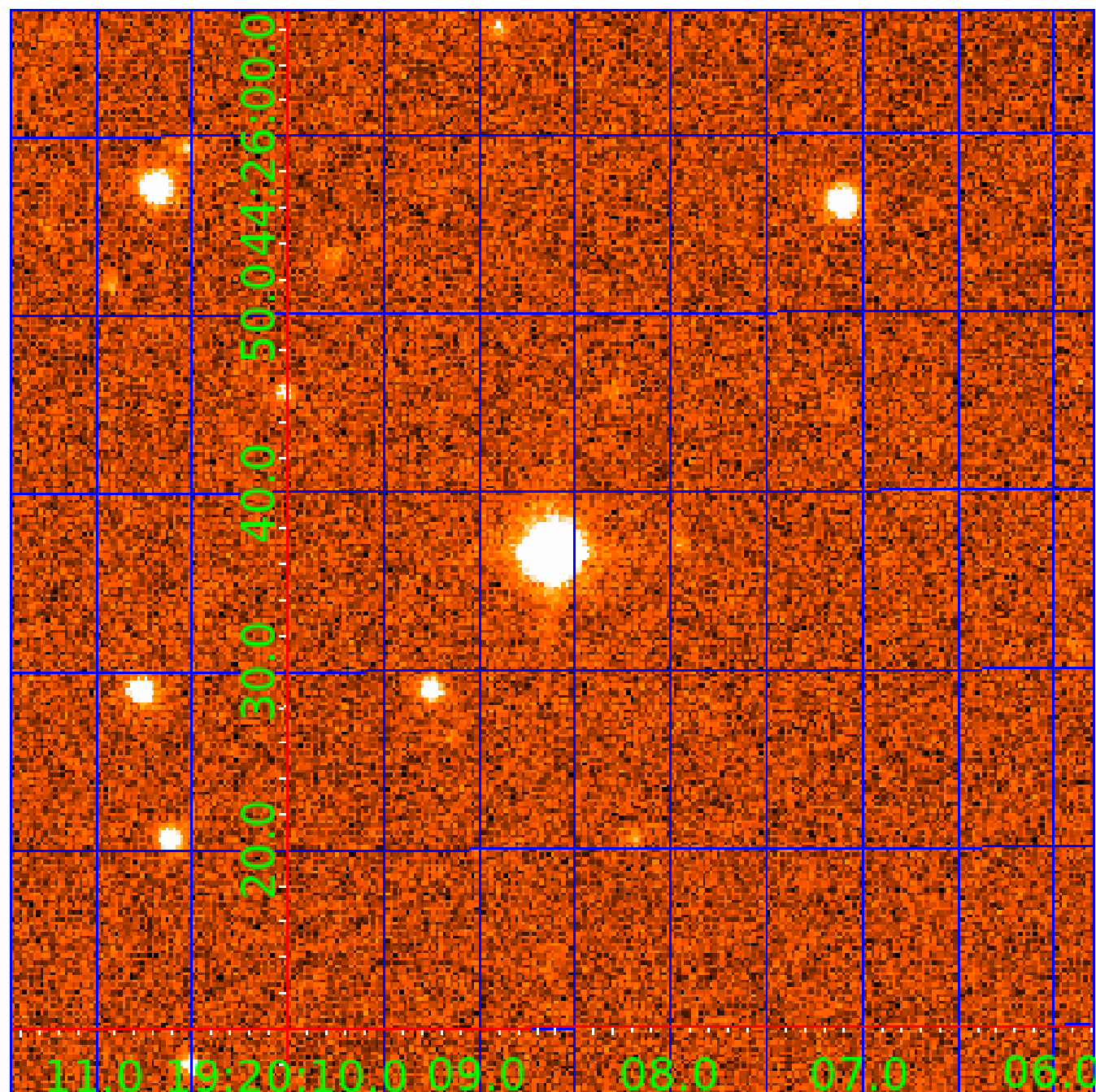


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008426007

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})
008426007-01	OBS	No	0.728353	132.039594	5.0	4.273	9.2	2.7	2.82	7348	0.70	52474.48
008426007-02	OBS	No	96.764333	175.568158	200.1	4.406	8.8	10.0	2.82	7348	4.28	77.41
008426007-03	OBS	No	47.114215	162.329821	109.7	4.012	7.8	8.0	2.82	7348	3.41	202.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008426007-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
008426007-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT
008426007-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS

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

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

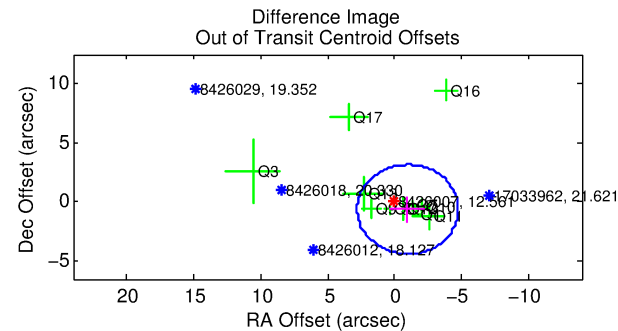
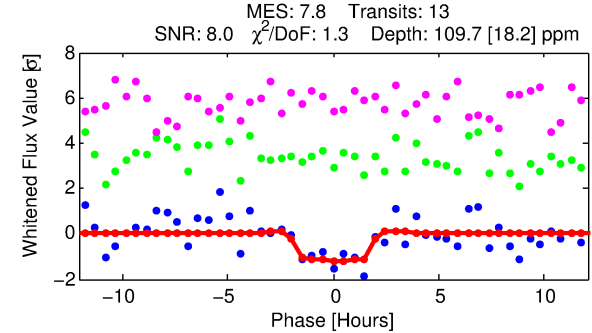
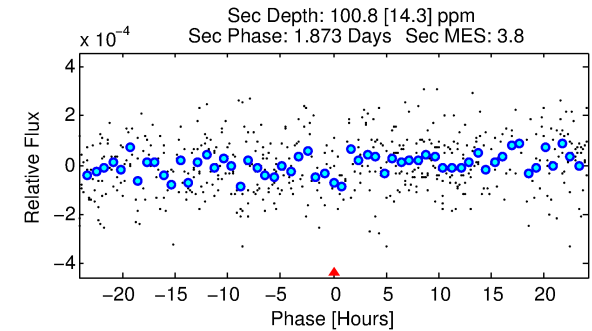
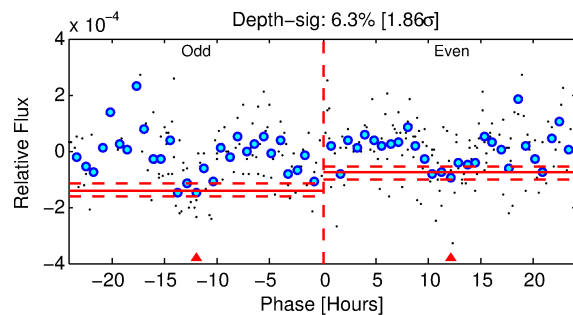
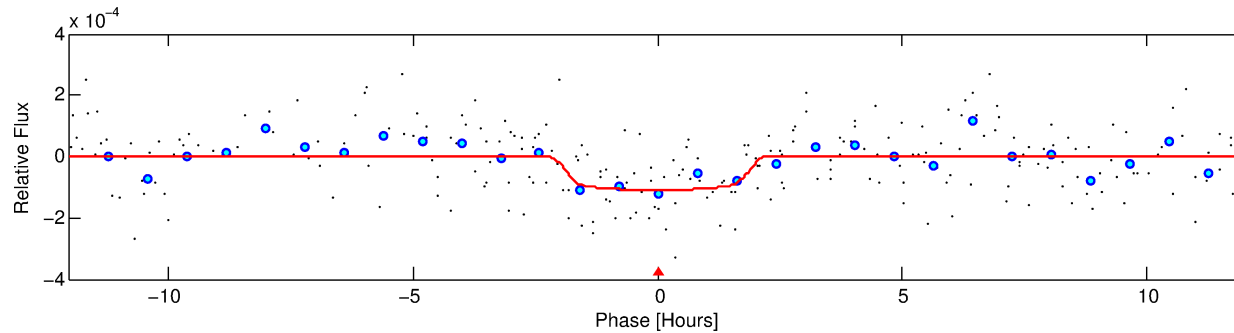
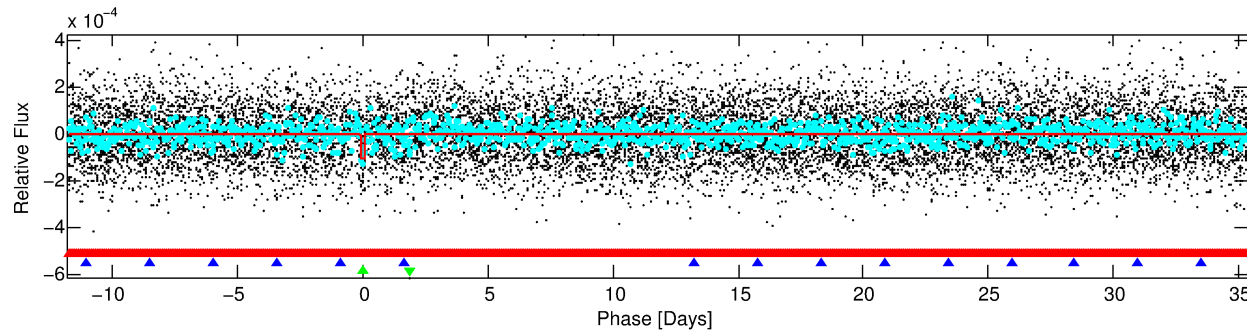
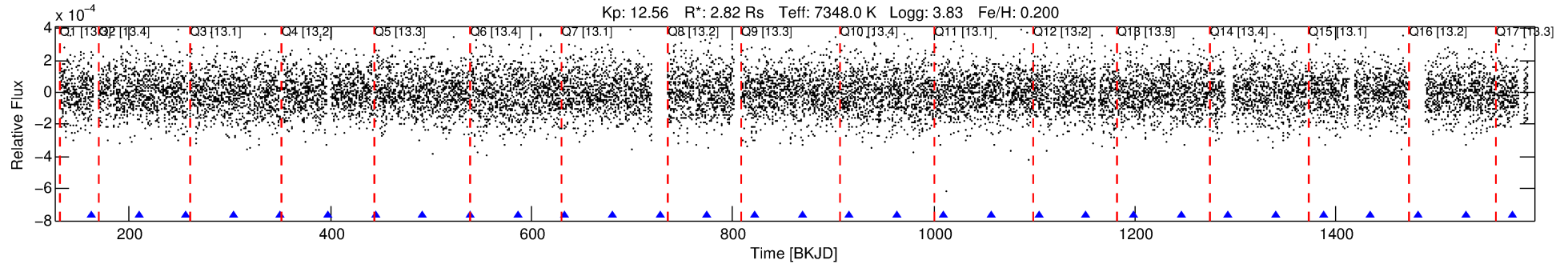
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008426007-03

No Significant Match Found

DV One-Page Summary

KIC: 8426007 Candidate: 3 of 3 Period: 47.114 d



DV Fit Results:

Period = 47.11422 [0.00065] d
Epoch = 162.3298 [0.0121] BKJD
Rp/R* = 0.0111 [0.0086]
a/R* = 42.24 [210.82]
b = 0.89 [1.12]
Seff = 202.09 [110.69]
Teq = 961 [132] K
Rp = 3.41 [2.91] Re
a = 0.3206 [0.1058] AU
Ag = 490.81 [807.38] [0.61 σ]
Teffp = 6996 [2748] K [2.19 σ]

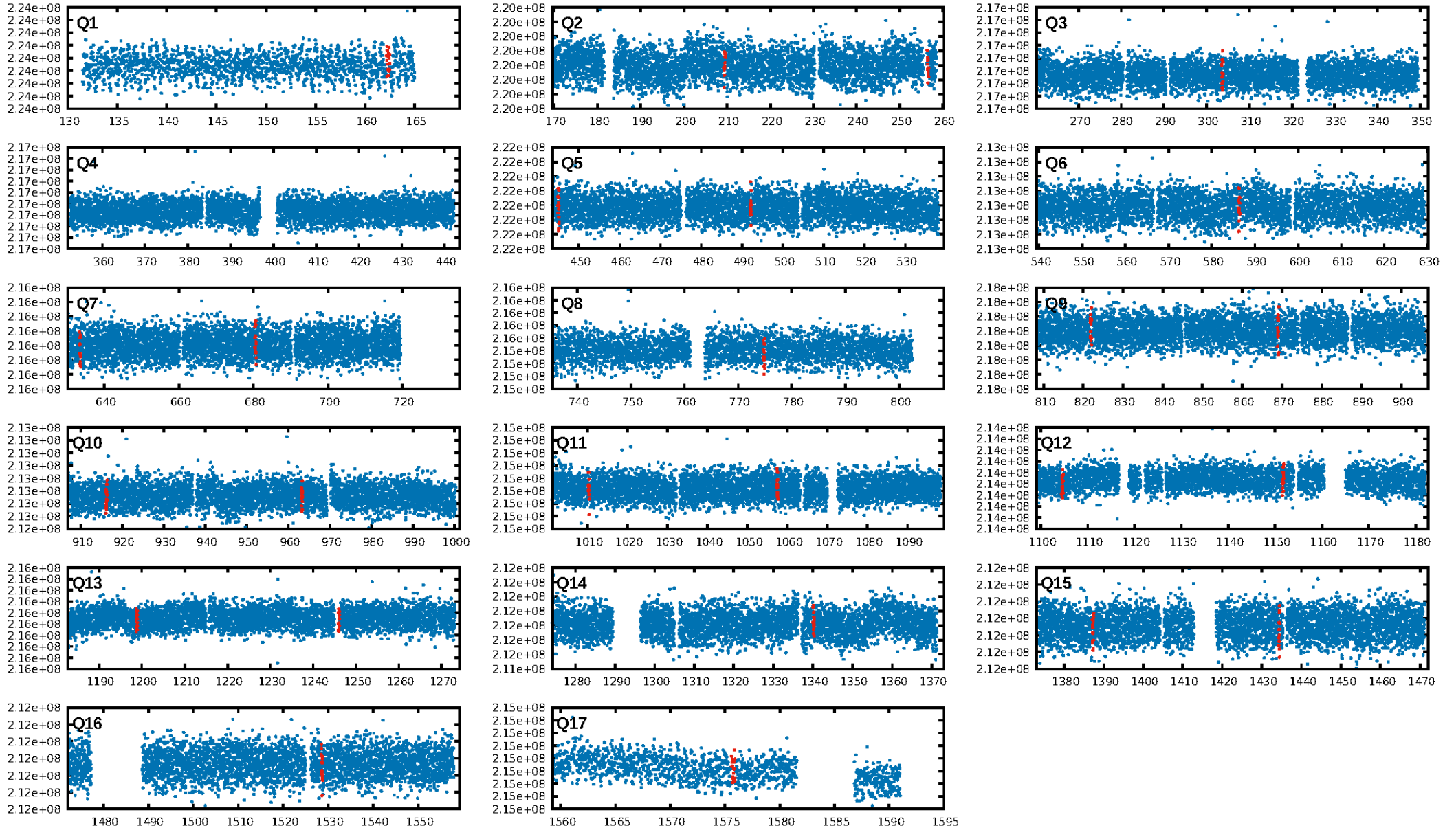
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [189.94 σ]
LongPeriod-sig: 100.0% [199.97 σ]
ModelChiSquare2-sig: 49.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.11e-09
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: -14.92
Centroid-sig: 0.6%
Centroid-so: 2.357 arcsec [1.98 σ]
OotOffset-rm: 1.165 arcsec [0.92 σ]
KicOffset-rm: 1.187 arcsec [1.00 σ]
OotOffset-st: 1/3/3/4 [11]
KicOffset-st: 1/3/3/4 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 0.00 [0/16]

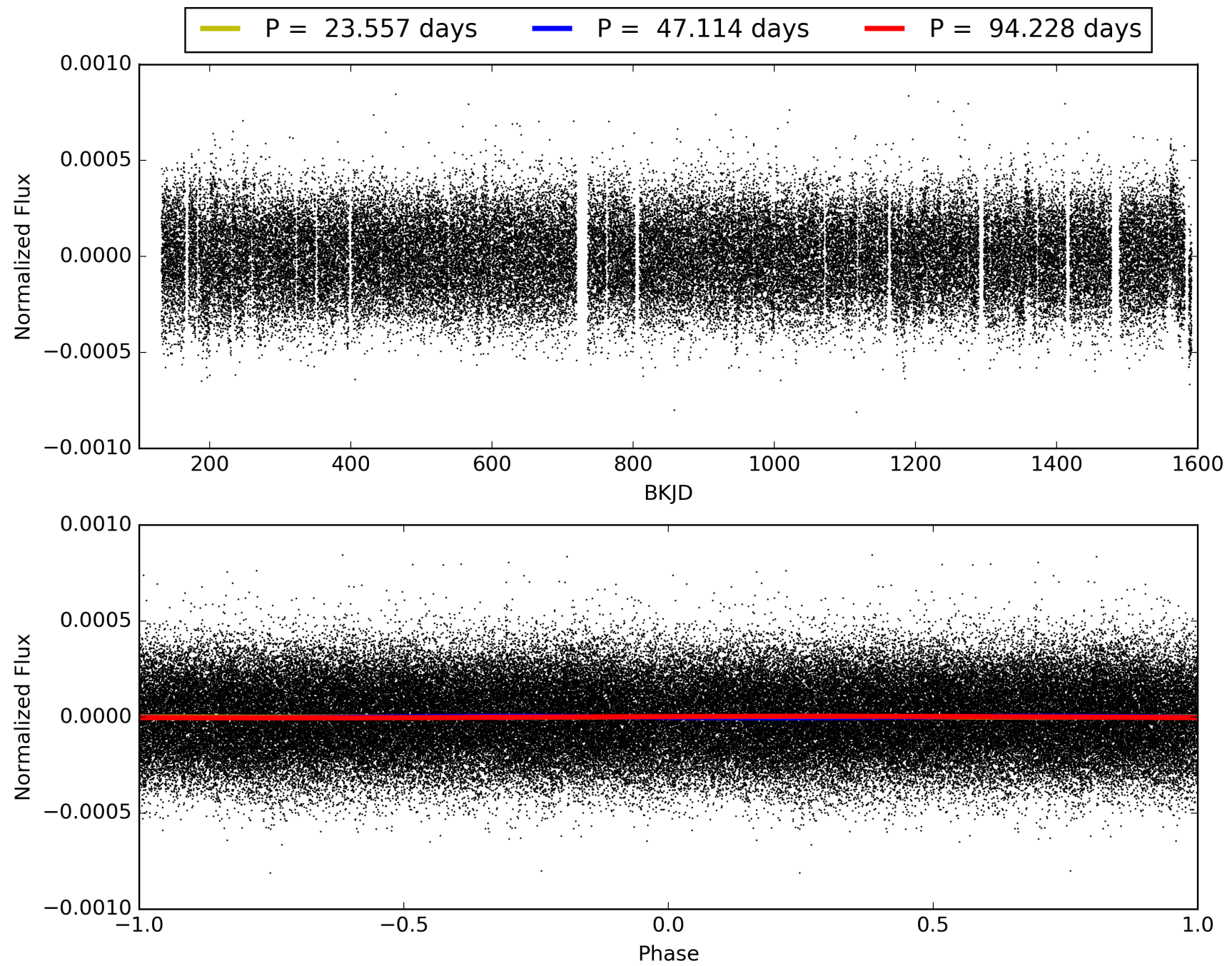
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:08:36 Z

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

TCE 008426007-03, PDC Light Curves

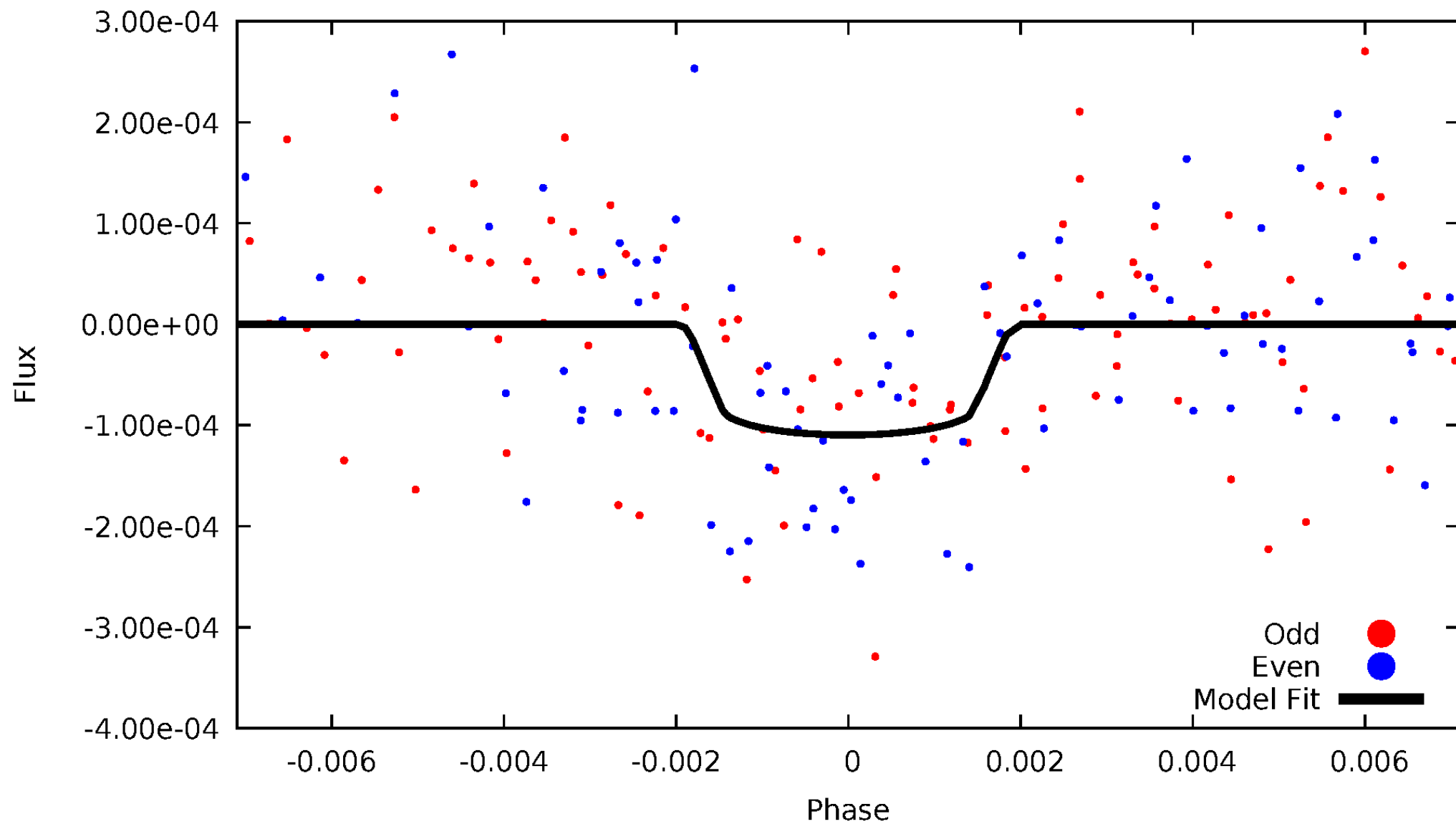


TCE 008426007-03



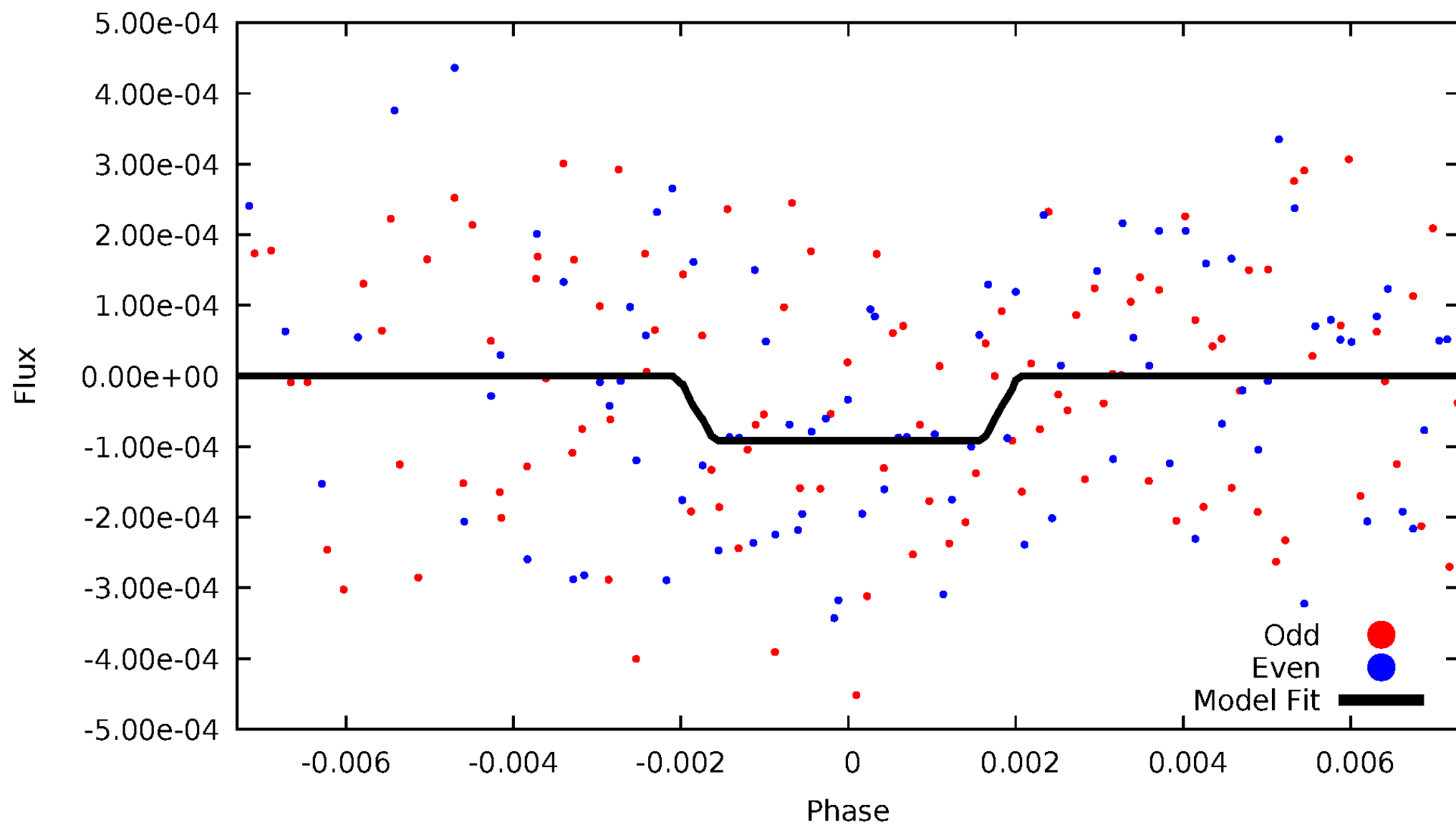
DV Odd/Even

TCE 008426007-03



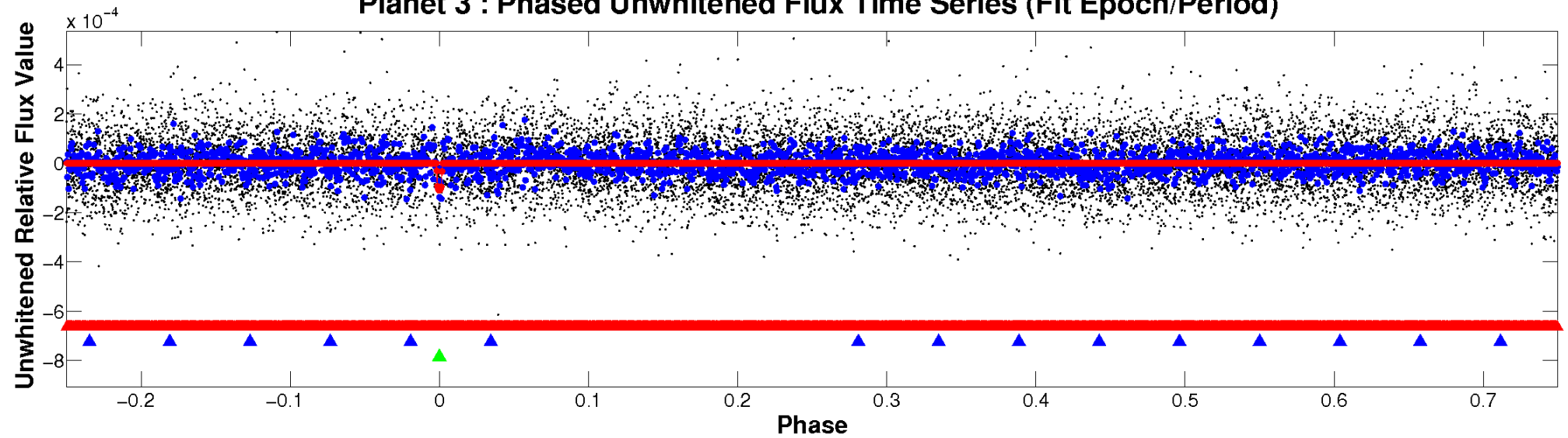
ALT Odd/Even

TCE 008426007-03

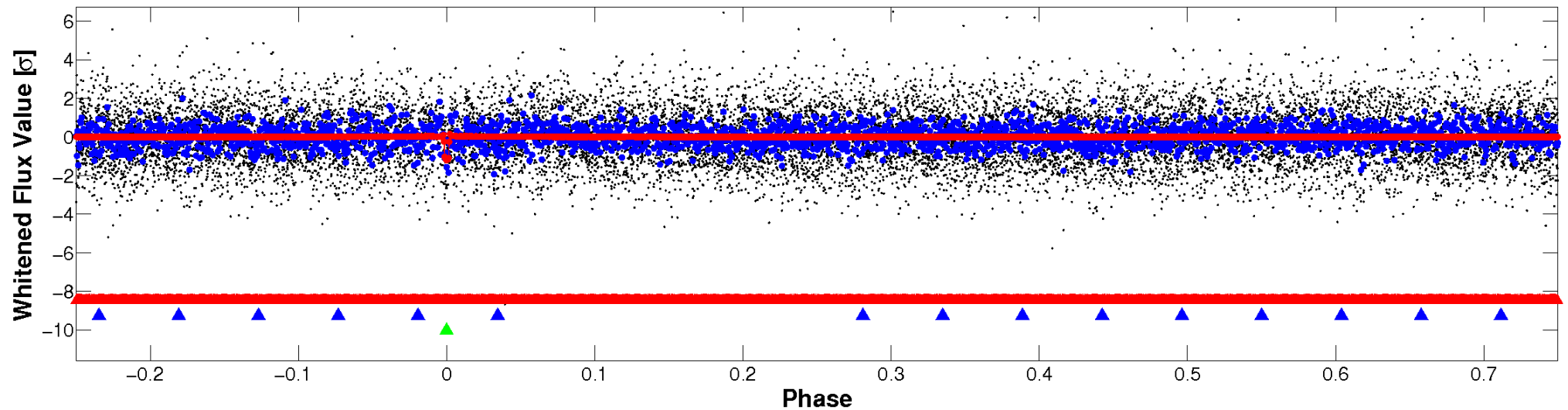


Non-Whitened Vs. Whitened Light Curve

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

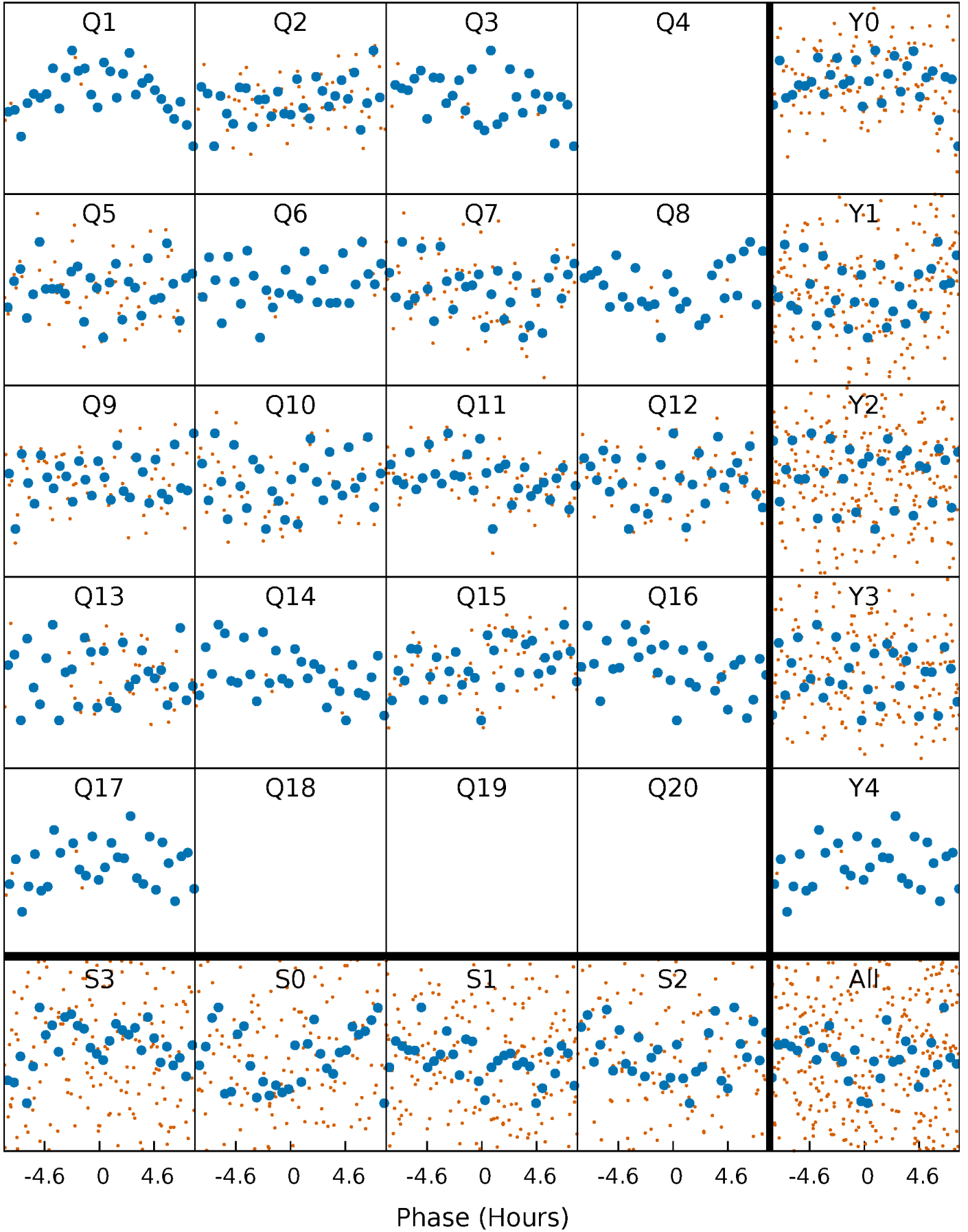


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



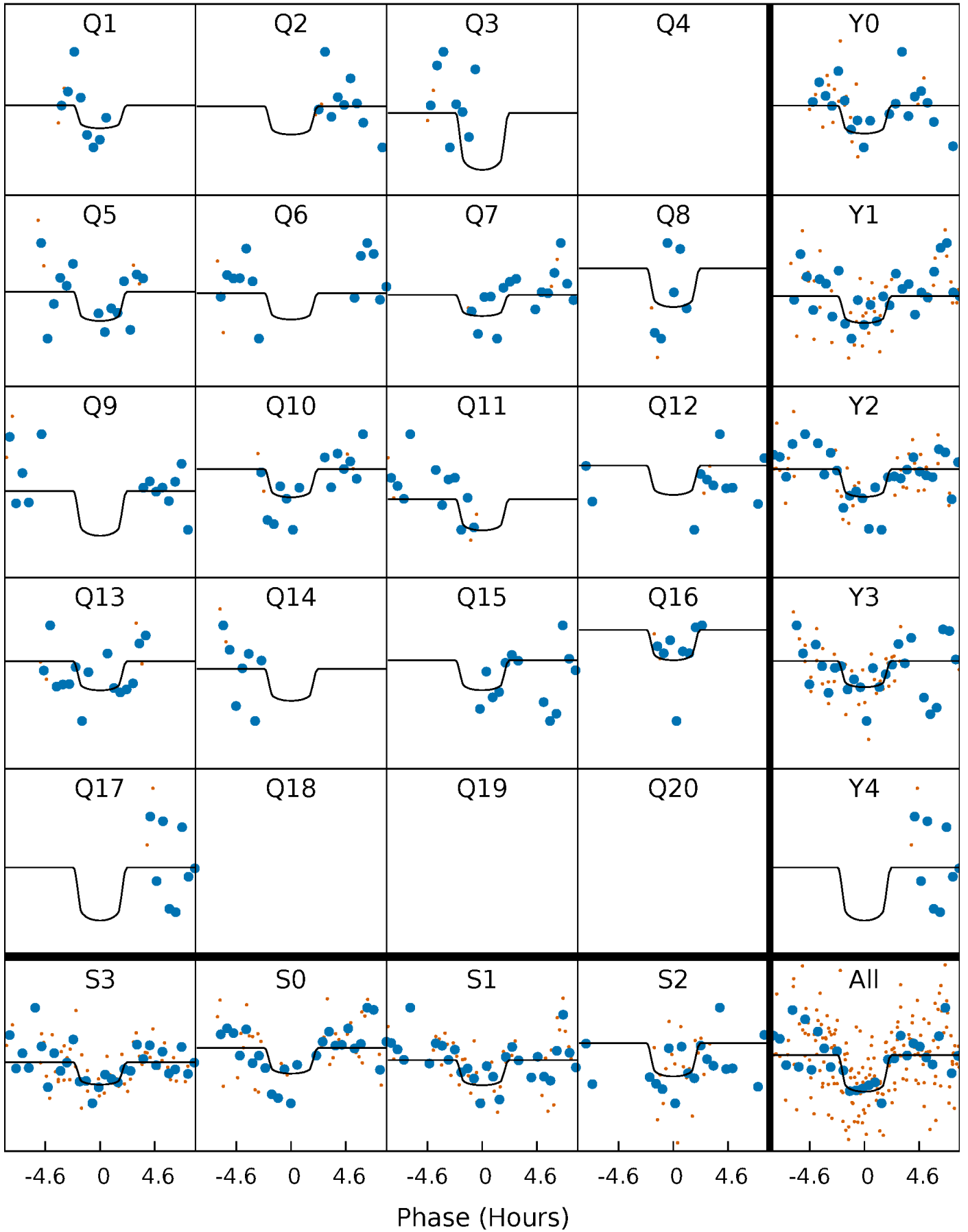
PDC Quarter-Phased Transit Curves

TCE 008426007-03 P= 47.114215 Days $T_0=162.329821$ (BKJD)



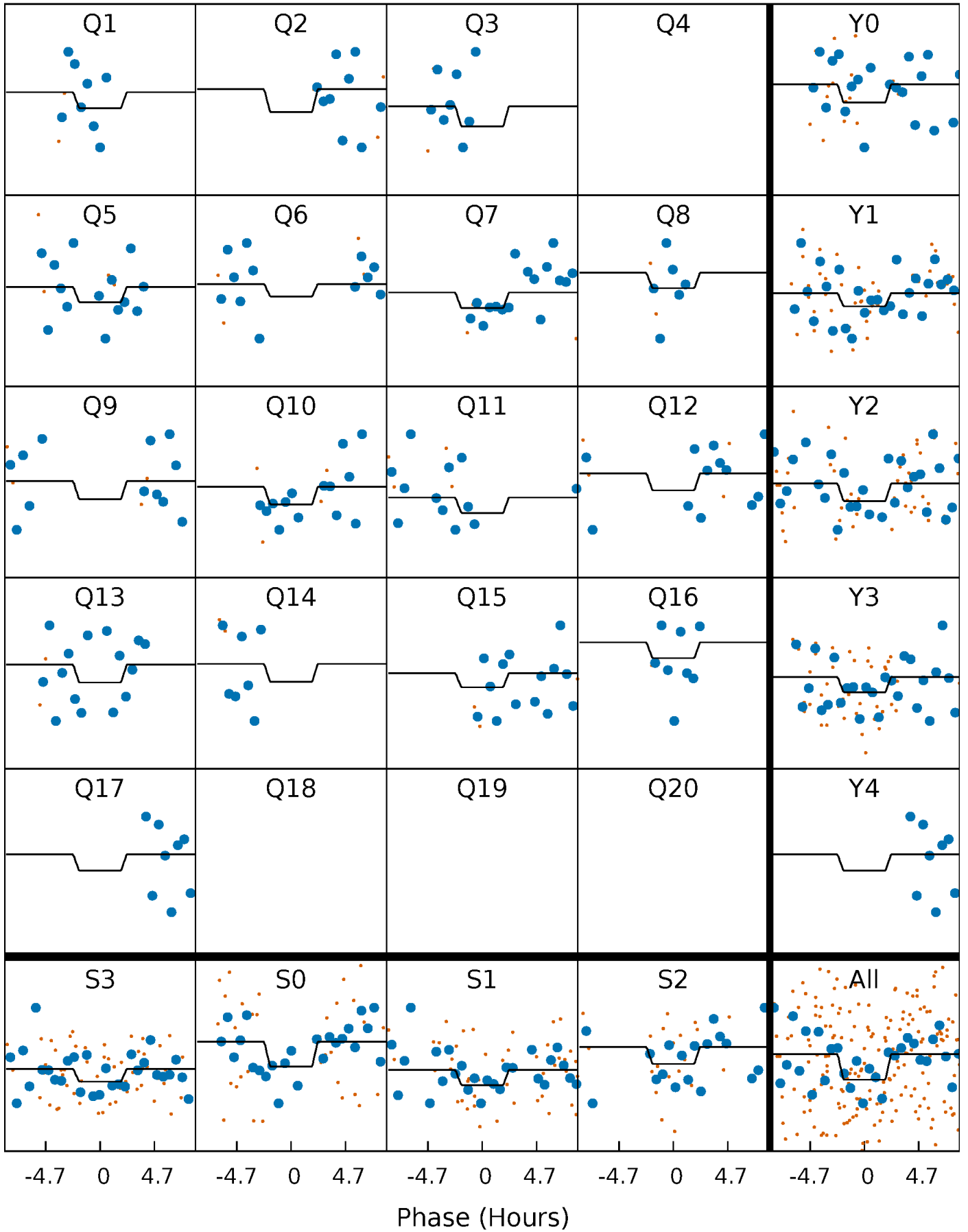
DV Quarter-Phased Transit Curves

TCE 008426007-03 P= 47.114215 Days $T_0=162.329821$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

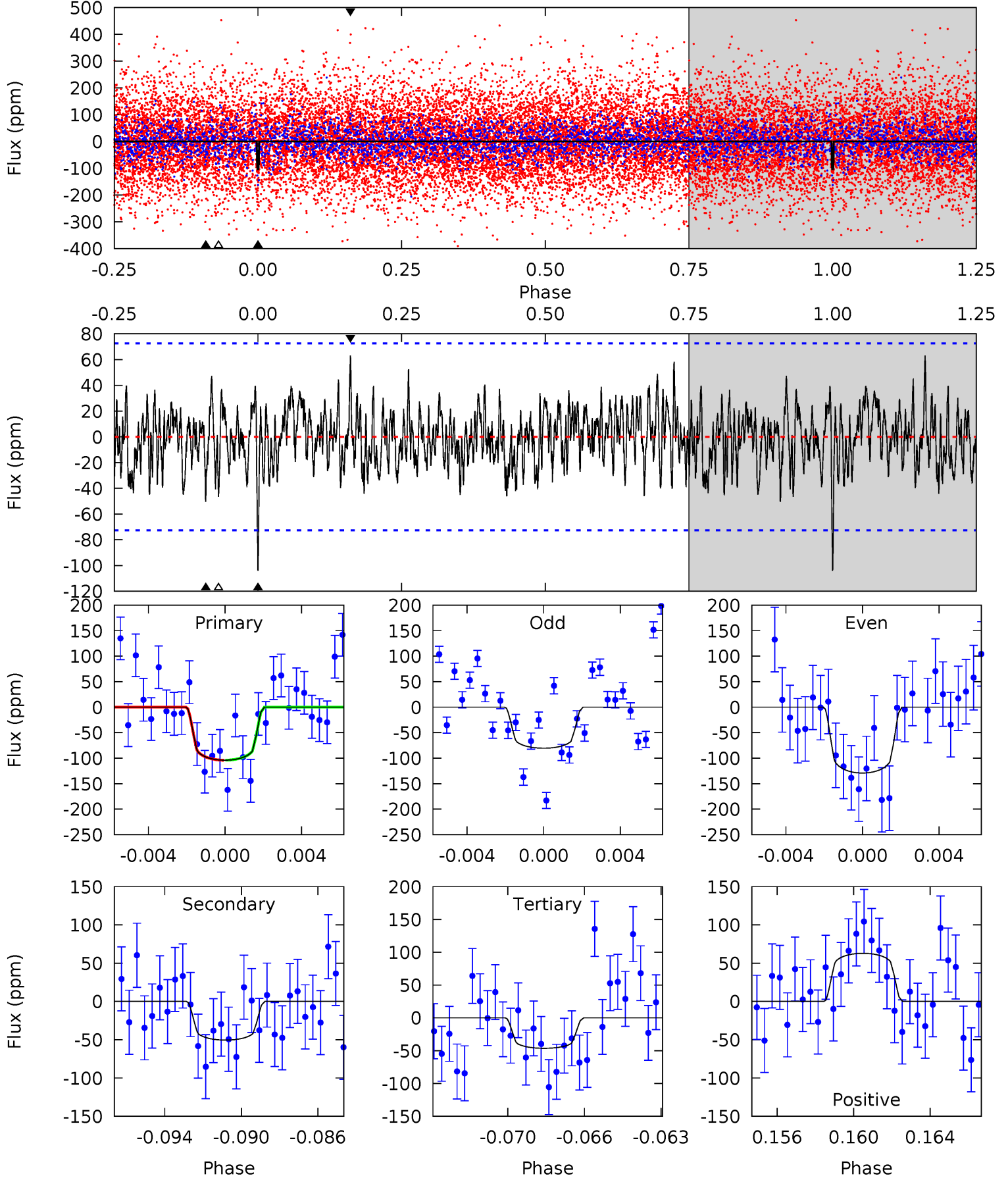
TCE 008426007-03 P= 47.114457 Days $T_0=162.332865$ (BKJD)



DV Model-Shift Uniqueness Test

008426007-03, P = 47.114215 Days, E = 115.215606 Days

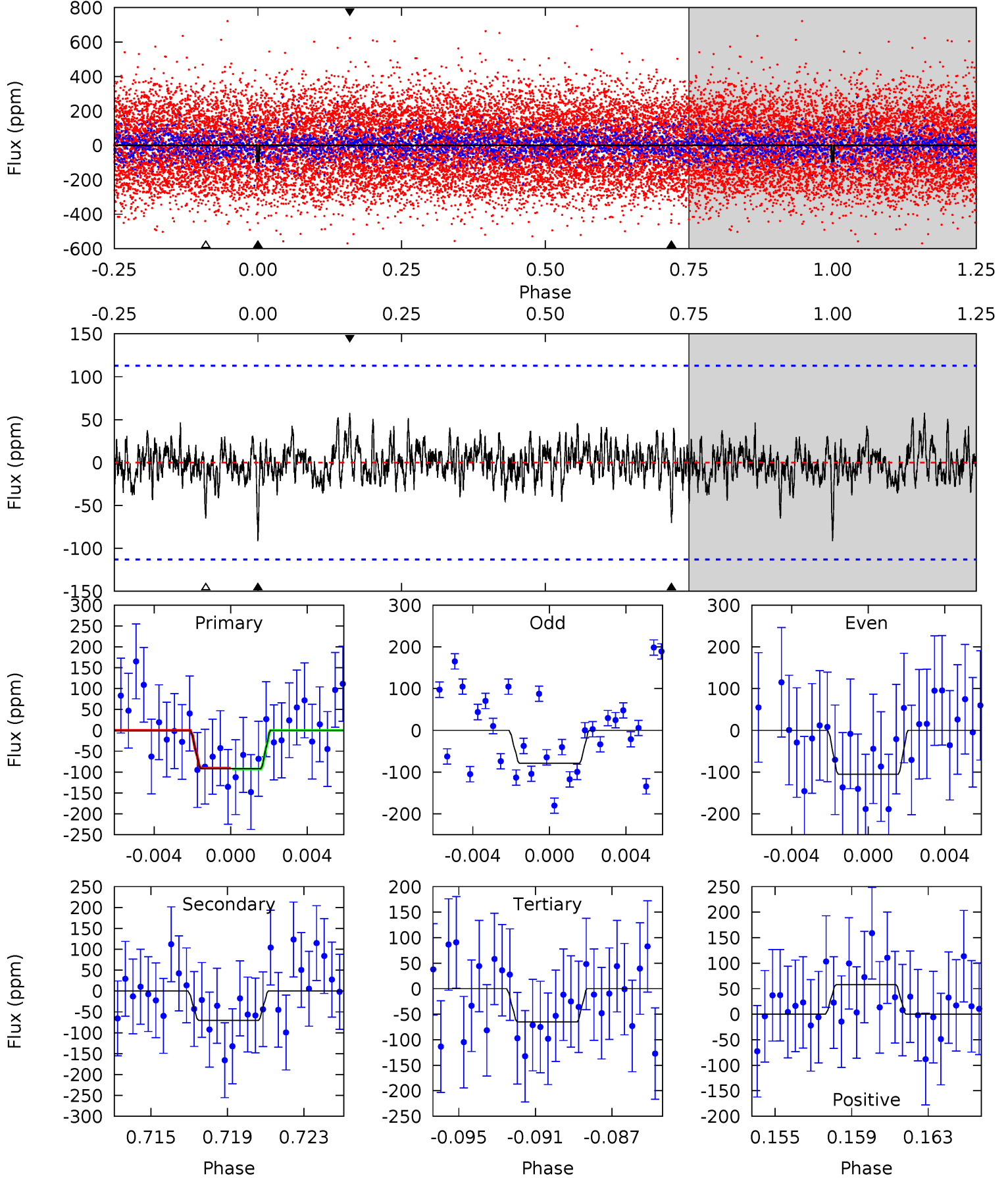
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.46	3.62	3.33	4.51	5.20	2.89	1.34	4.13	2.95	0.29	-0.89	1.76	1.11	0.38	0.01



Alt Model-Shift Uniqueness Test

008426007-03, P = 47.114457 Days, E = 115.218408 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.22	3.23	2.99	2.66	5.20	2.88	0.78	1.23	1.56	0.24	0.57	0.60	0.97	0.39	0.06



Stellar Parameters For KIC 008426007

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7348^{+206}_{-324}	$3.834^{+0.301}_{-0.129}$	$0.200^{+0.150}_{-0.350}$	$2.820^{+0.536}_{-0.996}$	$1.981^{+0.112}_{-0.448}$	$0.124^{+0.261}_{-0.048}$
	+3%/-4%	+8%/-3%	+75%/-175%	+19%/-35%	+6%/-23%	+210%/-39%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008426007-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-50 ± 14	$3.44^{+2.30}_{-2.15}$	1320^{+96}_{-131}	5588^{+3961}_{-1178}	228^{+1380}_{-153}
Alt.	-70 ± 22	$3.13^{+2.52}_{-1.85}$	1320^{+97}_{-123}	6260^{+4798}_{-1470}	372^{+1960}_{-260}

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 $A_{obs} \gg 1.0$

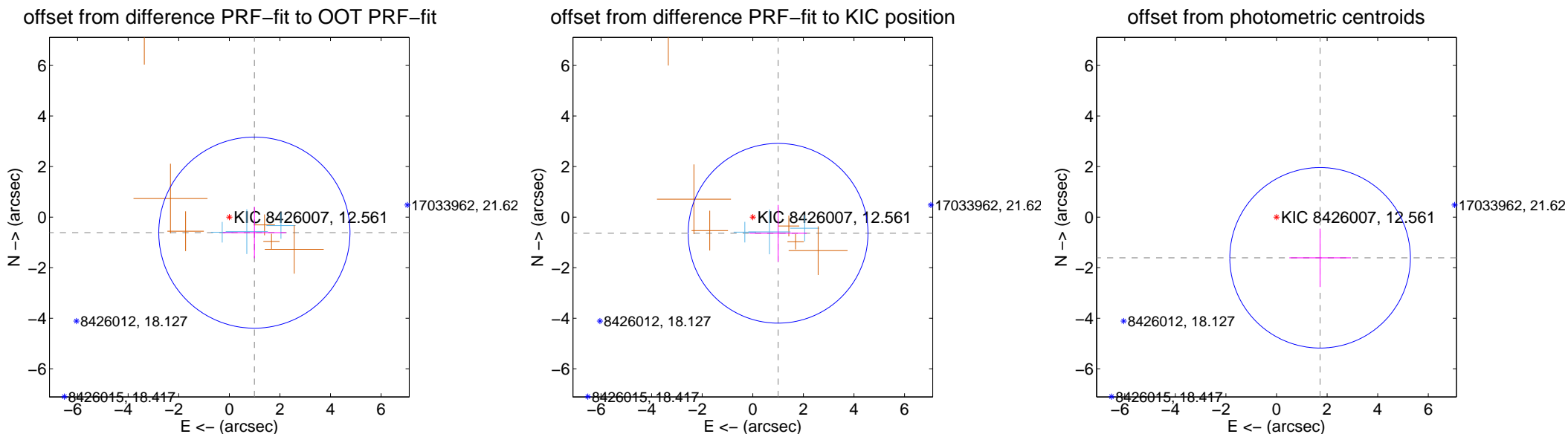
DV Centroid Data

Supplemental centroid analysis for 008426007-03. Kepler magnitude: 12.56. Transit SNR 7.99

There are 3 quarters with good PRF difference image offsets

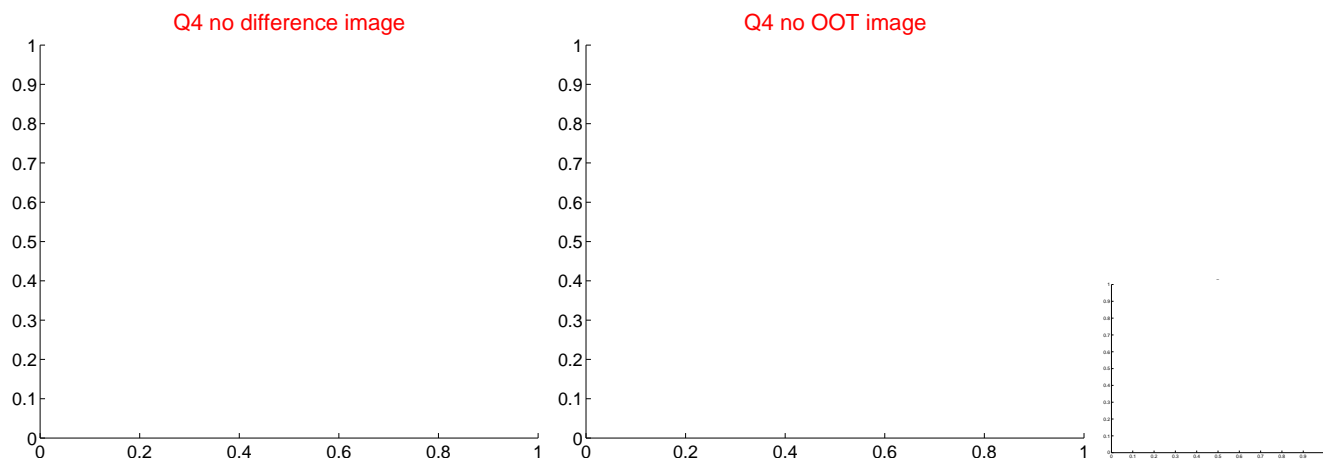
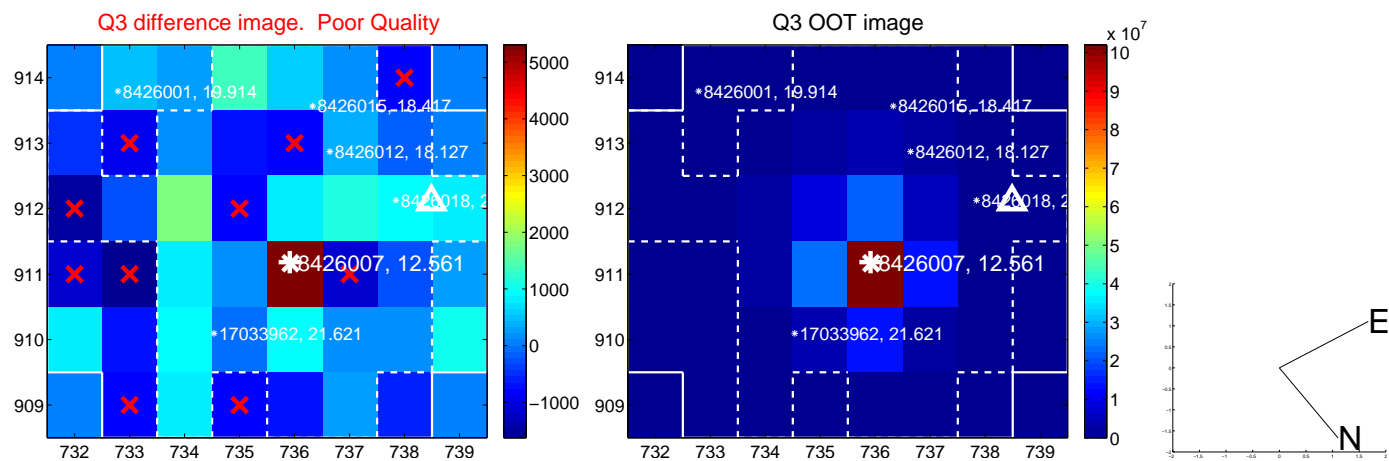
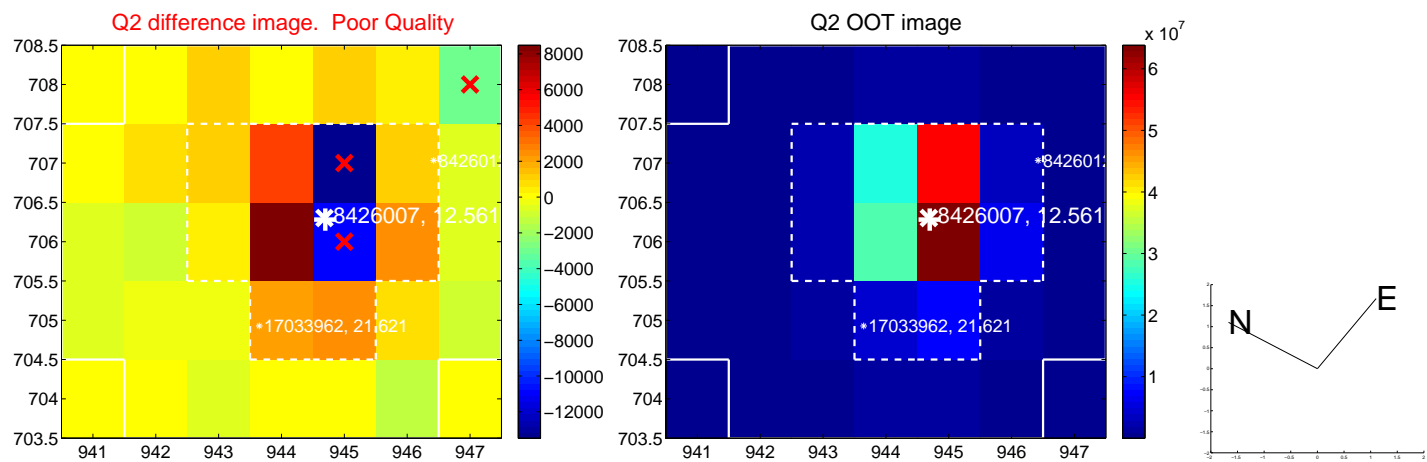
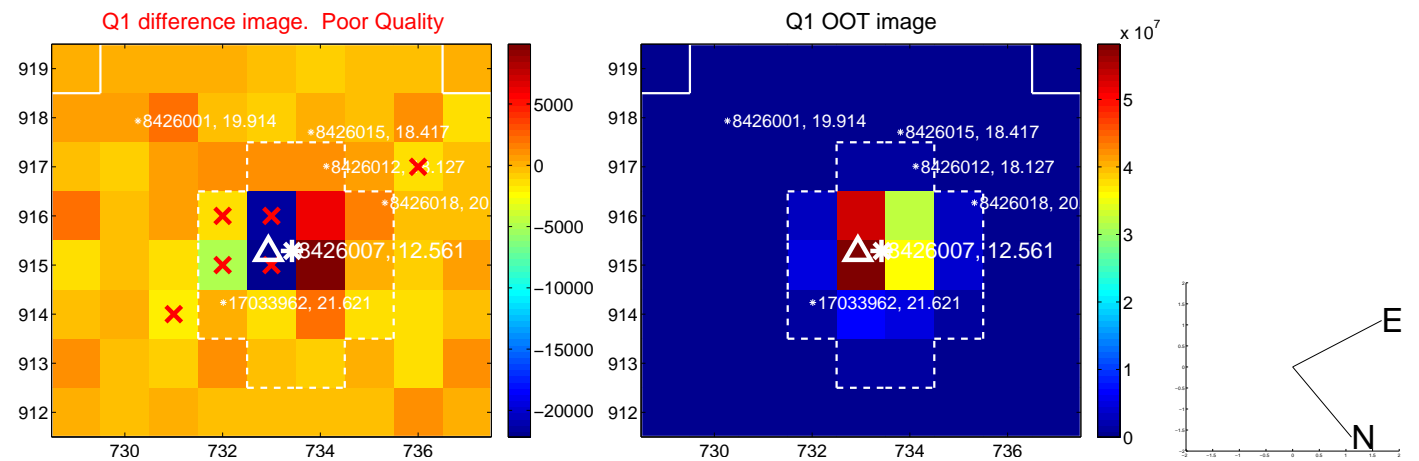
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.165 ± 1.260	0.92	-0.991 ± 1.256	-0.614 ± 1.015
PRF-fit source offset from KIC position	1.187 ± 1.185	1.00	-1.000 ± 1.135	-0.639 ± 1.122
photometric centroid source offset	2.36 ± 1.19	1.98	-1.72 ± 1.22	-1.61 ± 1.16

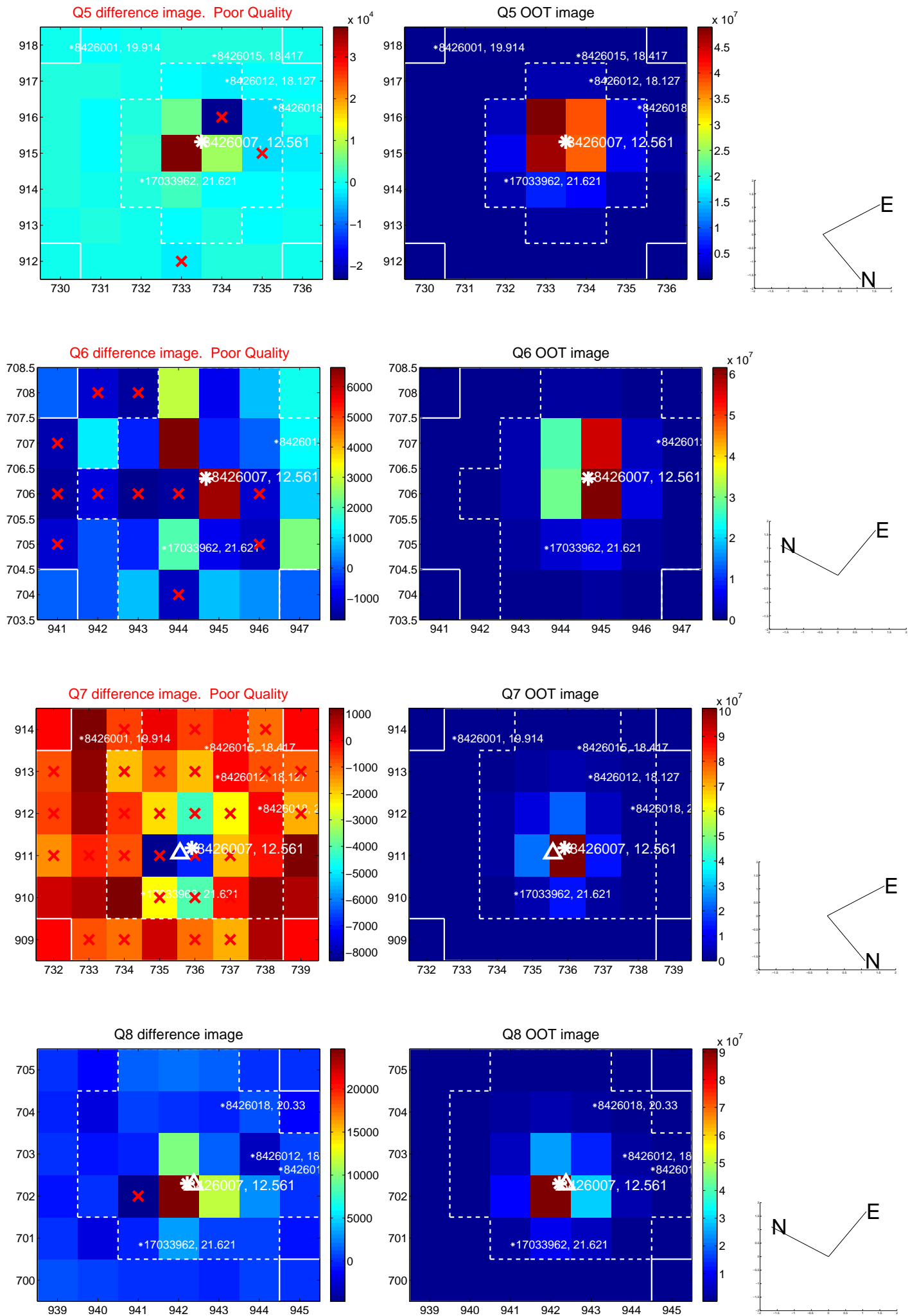


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

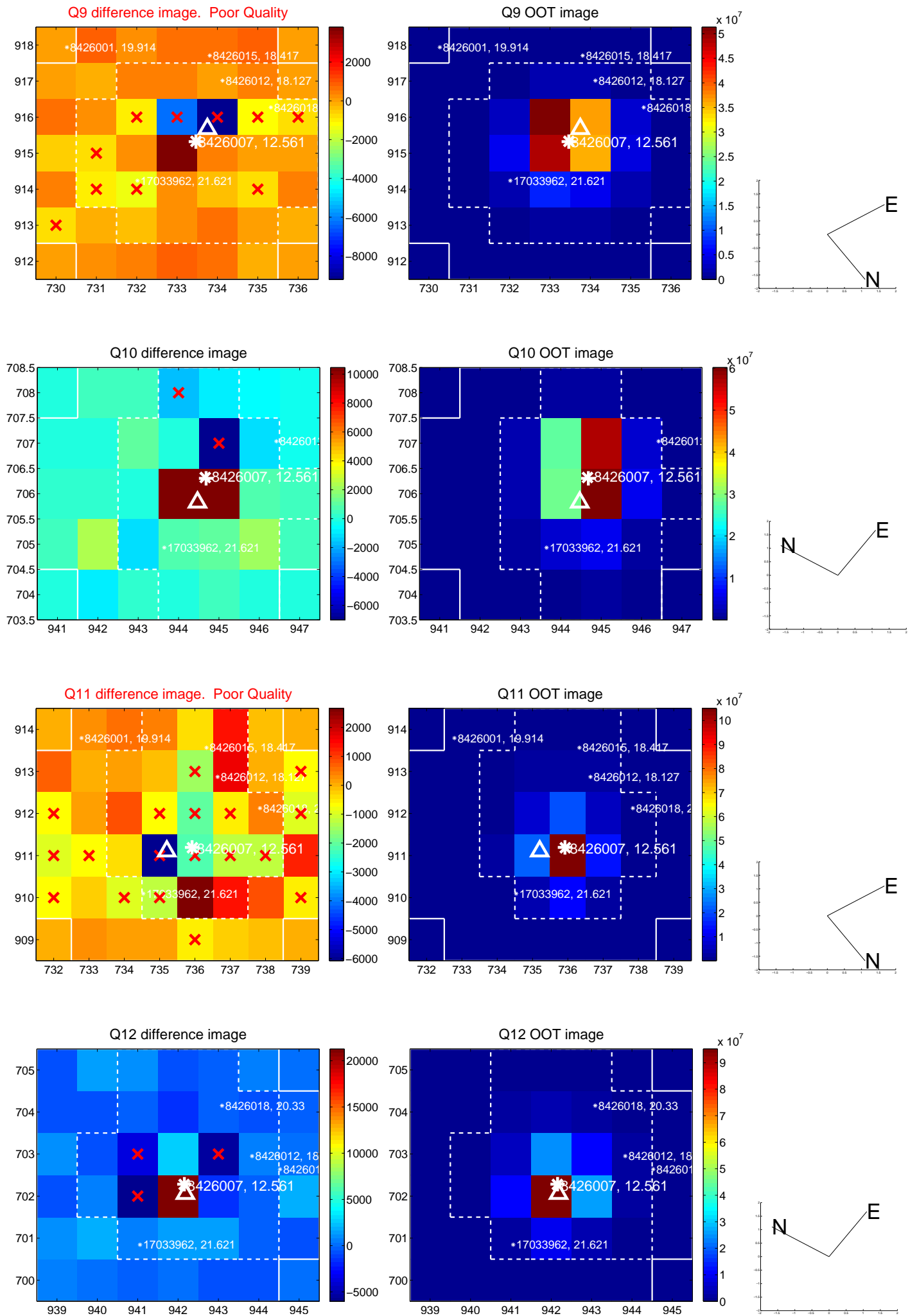
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



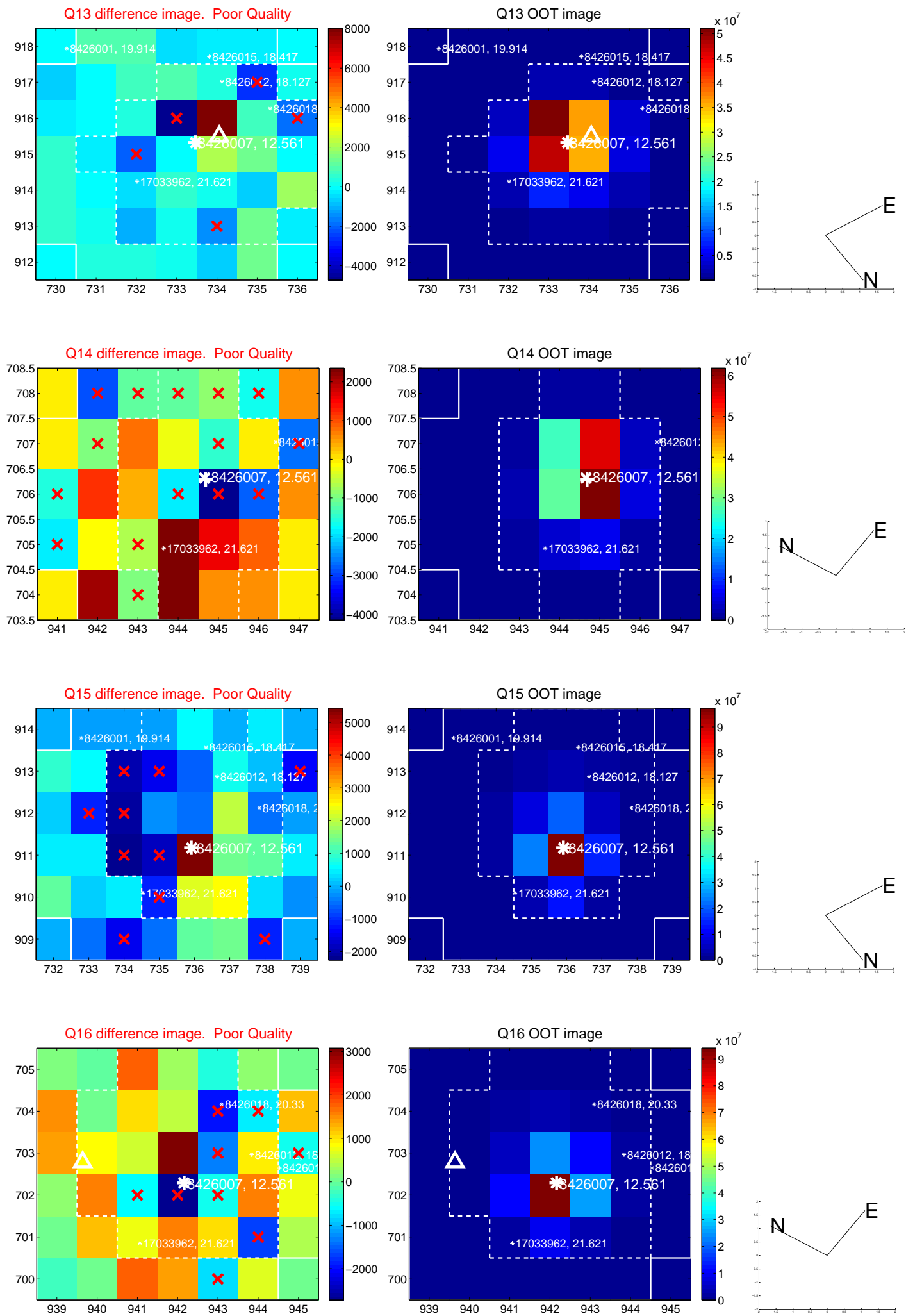
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



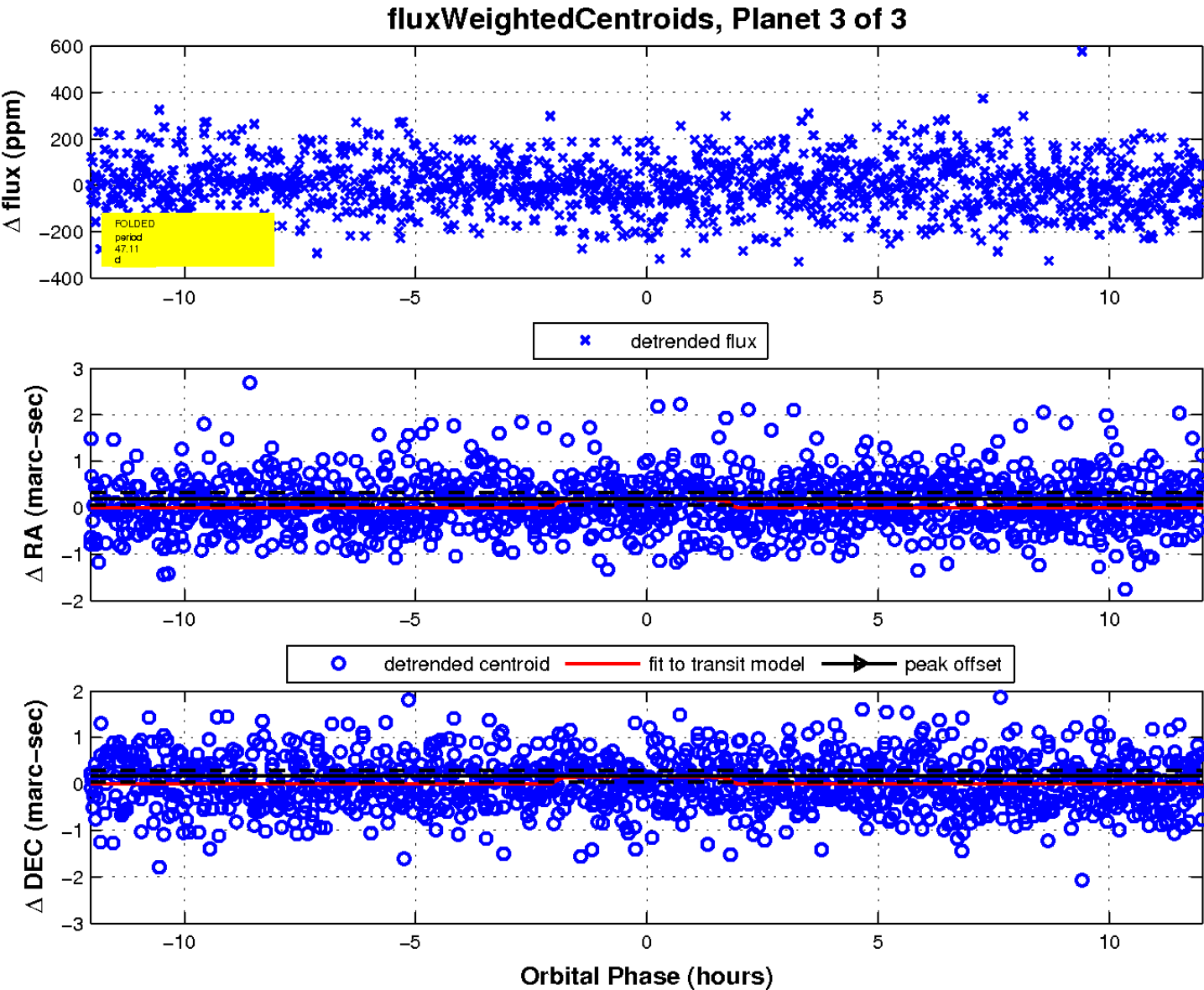
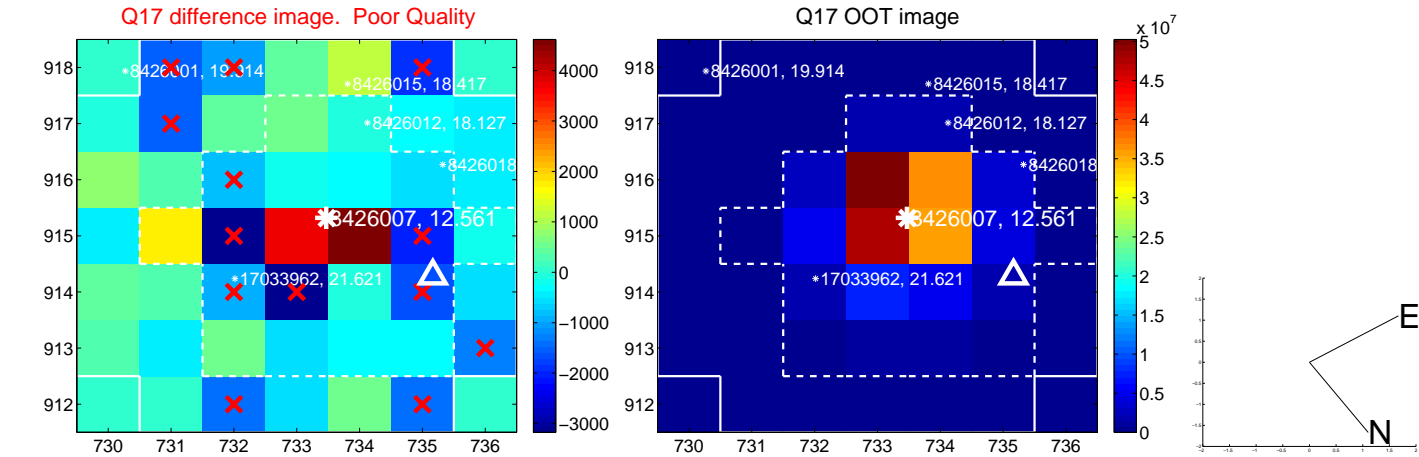
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

