

KIC 010471914

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})
010471914-01	OBS	No	0.536466	131.641436	169.7	1.416	15.5	15.1	2.03	7511	2.75	53686.25
010471914-02	OBS	No	0.536455	131.828255	96.0	2.353	11.9	9.5	2.03	7511	2.04	53687.75
010471914-03	OBS	No	2.263726	132.649467	309.0	5.102	9.8	9.0	2.03	7511	4.14	7873.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010471914-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
010471914-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010471914-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_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.

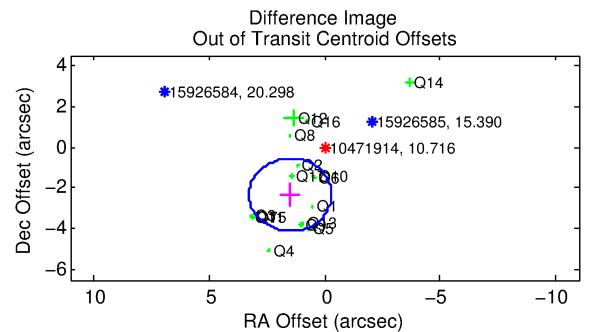
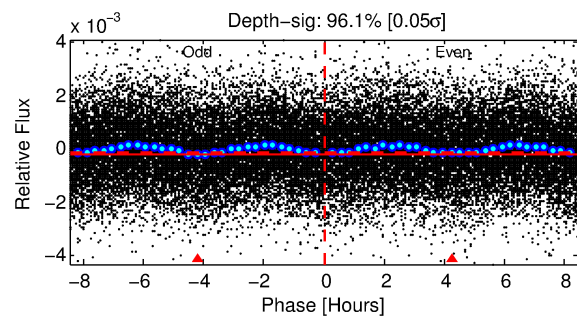
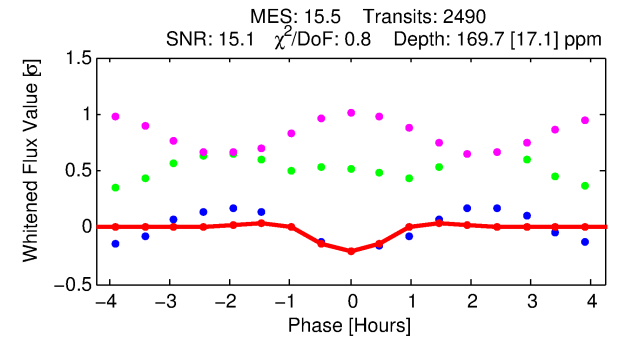
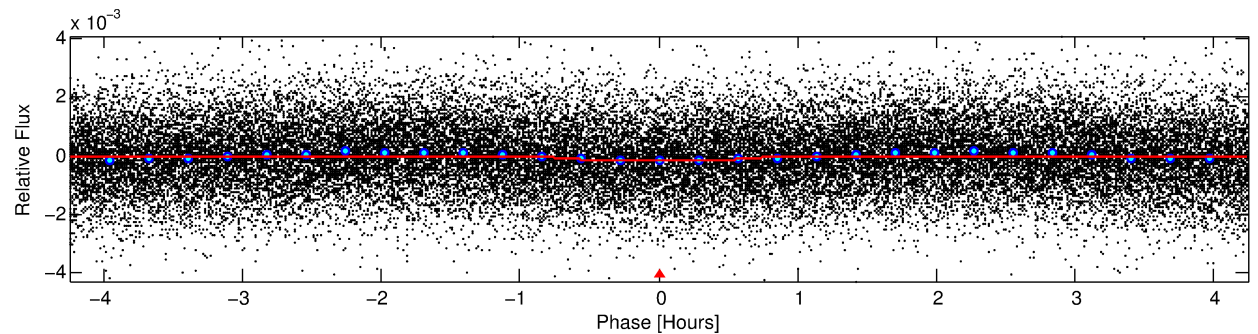
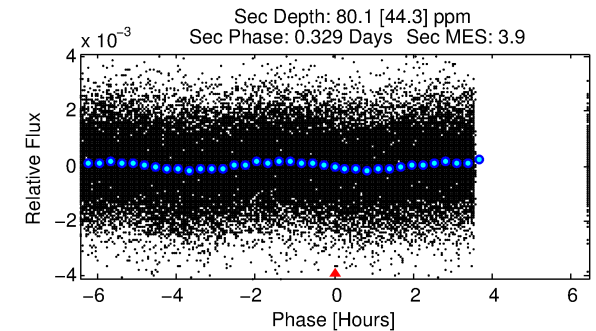
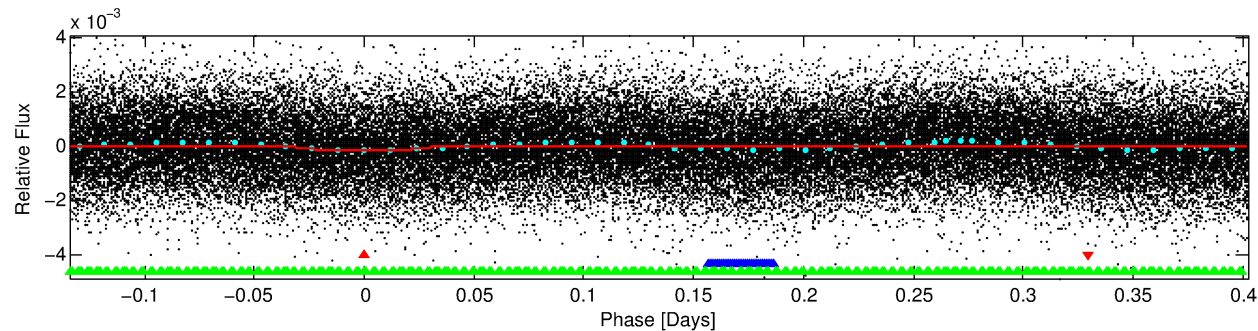
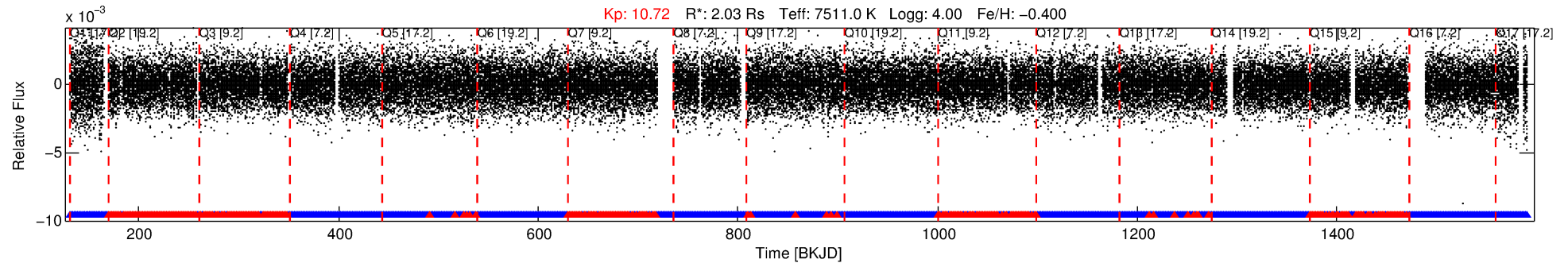
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010471914-01

No Significant Match Found

DV One-Page Summary

KIC: 10471914 Candidate: 1 of 3 Period: 0.536 d



DV Fit Results:

Period = 0.53647 [0.00001] d
Epoch = 131.6414 [0.0015] BKJD
Rp/R* = 0.0124 [0.0060]
a/R* = 2.72 [6.95]
b = 0.45 [5.29]
Seff = 53686.25 [27091.26]
Teq = 3881 [490] K
Rp = 2.75 [1.63] Re
a = 0.0148 [0.0046] AU
Ag = 1.28 [1.56] [0.18σ]
Teffp = 6386 [1807] K [1.34σ]

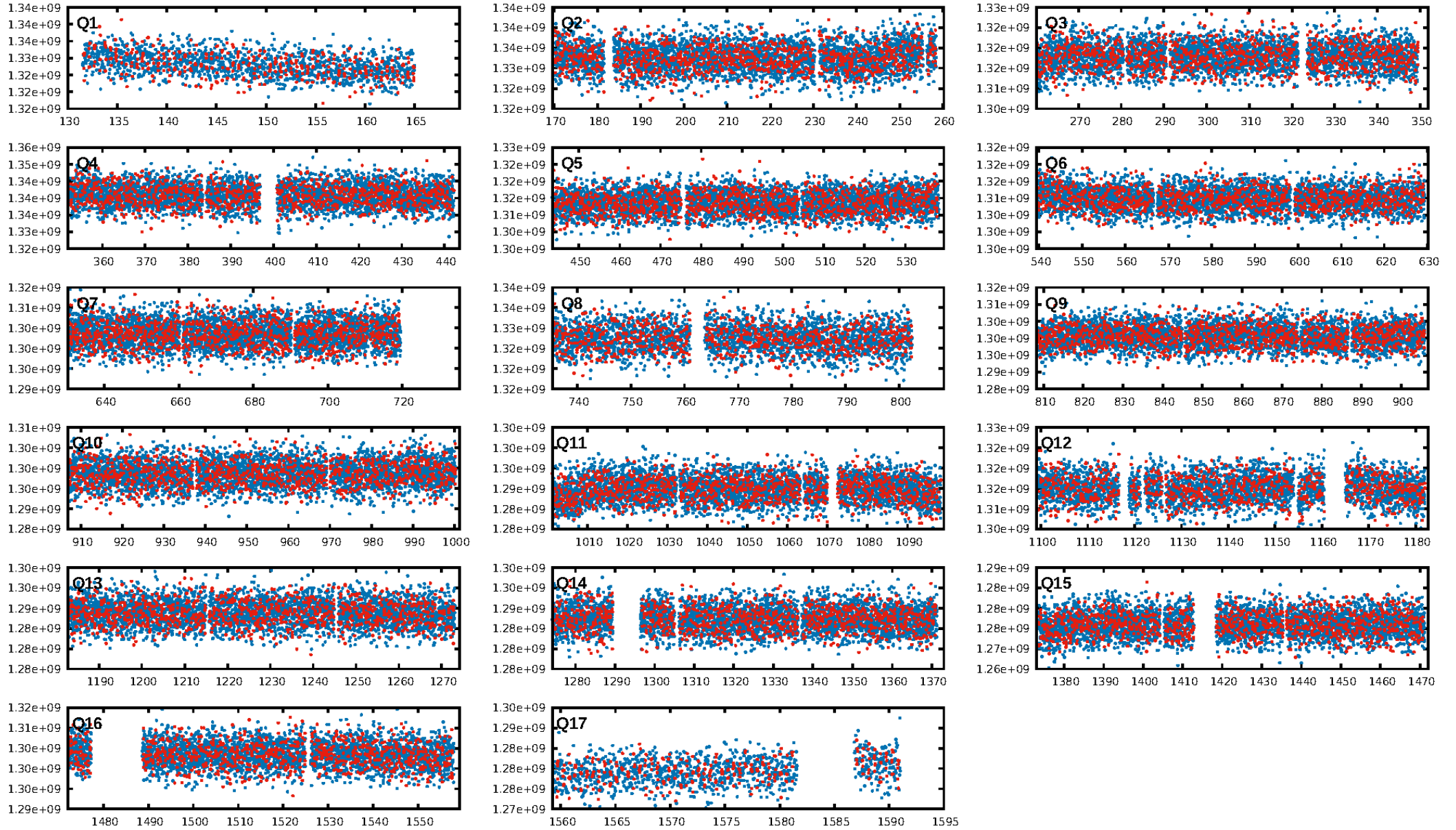
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [7.83σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.87e-38
RollingBand-fgt: 0.78 [1862/2378]
GhostDiagnostic-chr: 0.9322
Centroid-sig: 13.9%
Centroid-so: 0.413 arcsec [5.42σ]
OotOffset-rm: 2.762 arcsec [4.66σ]
KicOffset-rm: 3.029 arcsec [5.63σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 0.00 [0/17]

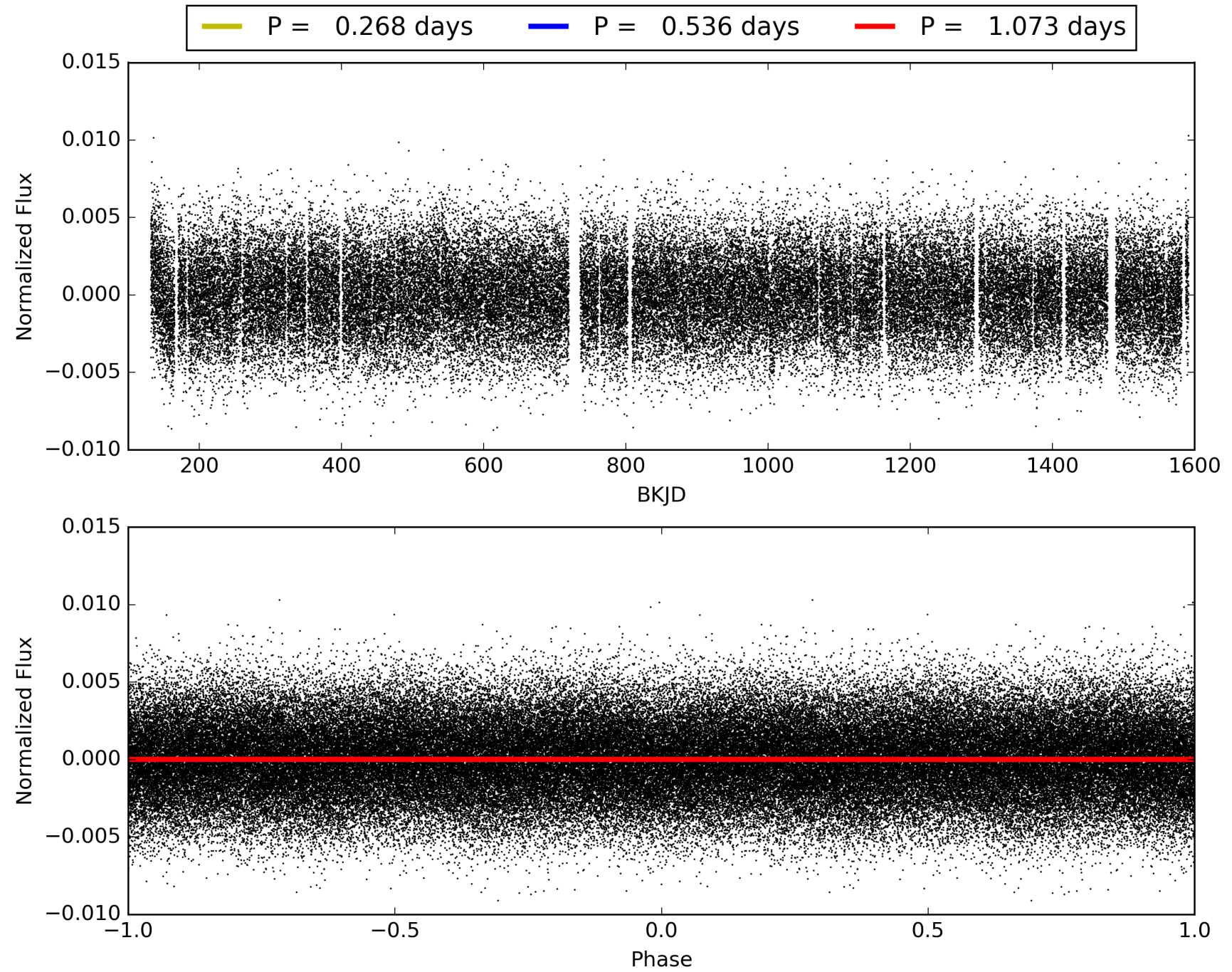
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:36:15 Z

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

TCE 010471914-01, PDC Light Curves

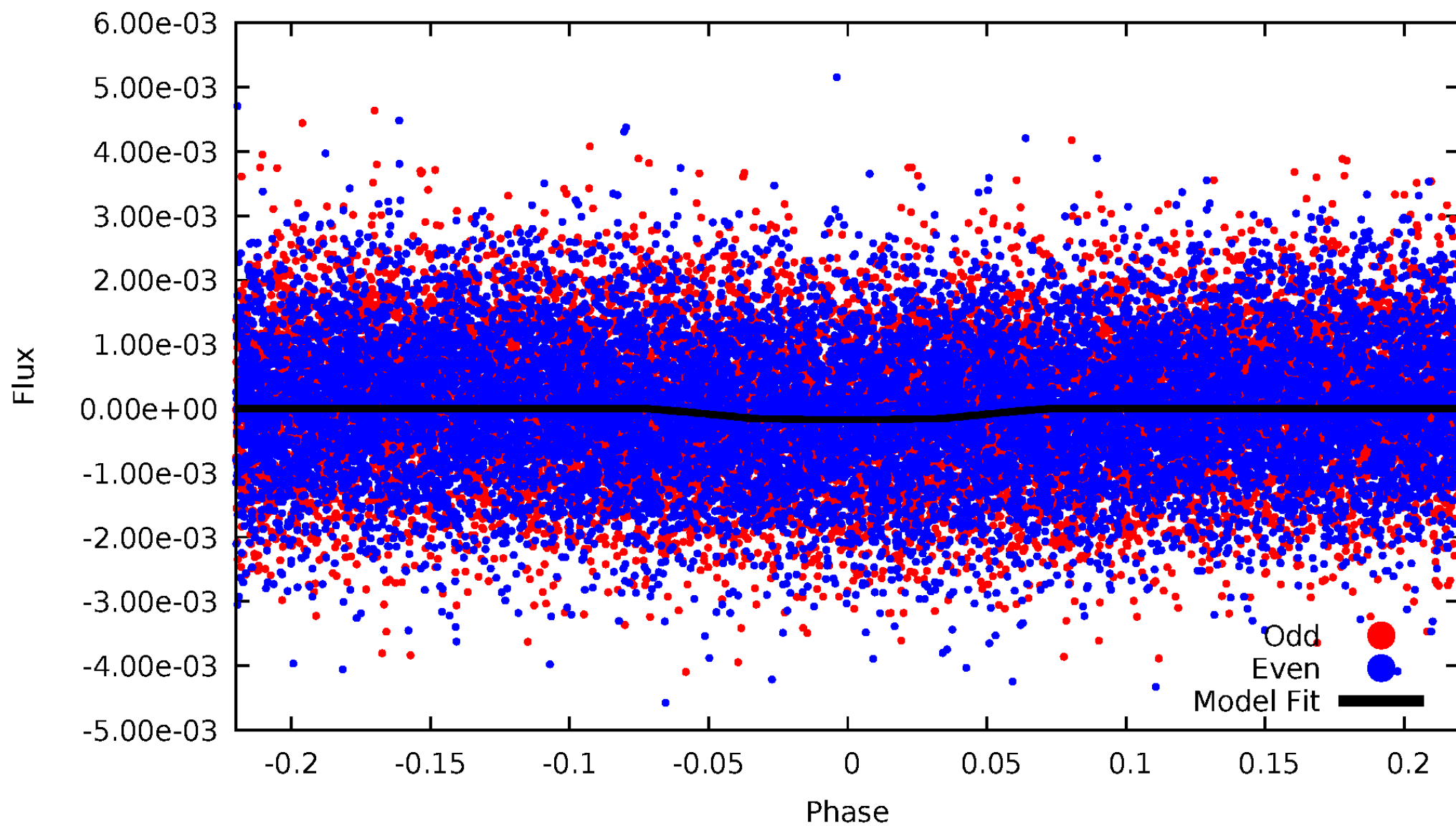


TCE 010471914-01



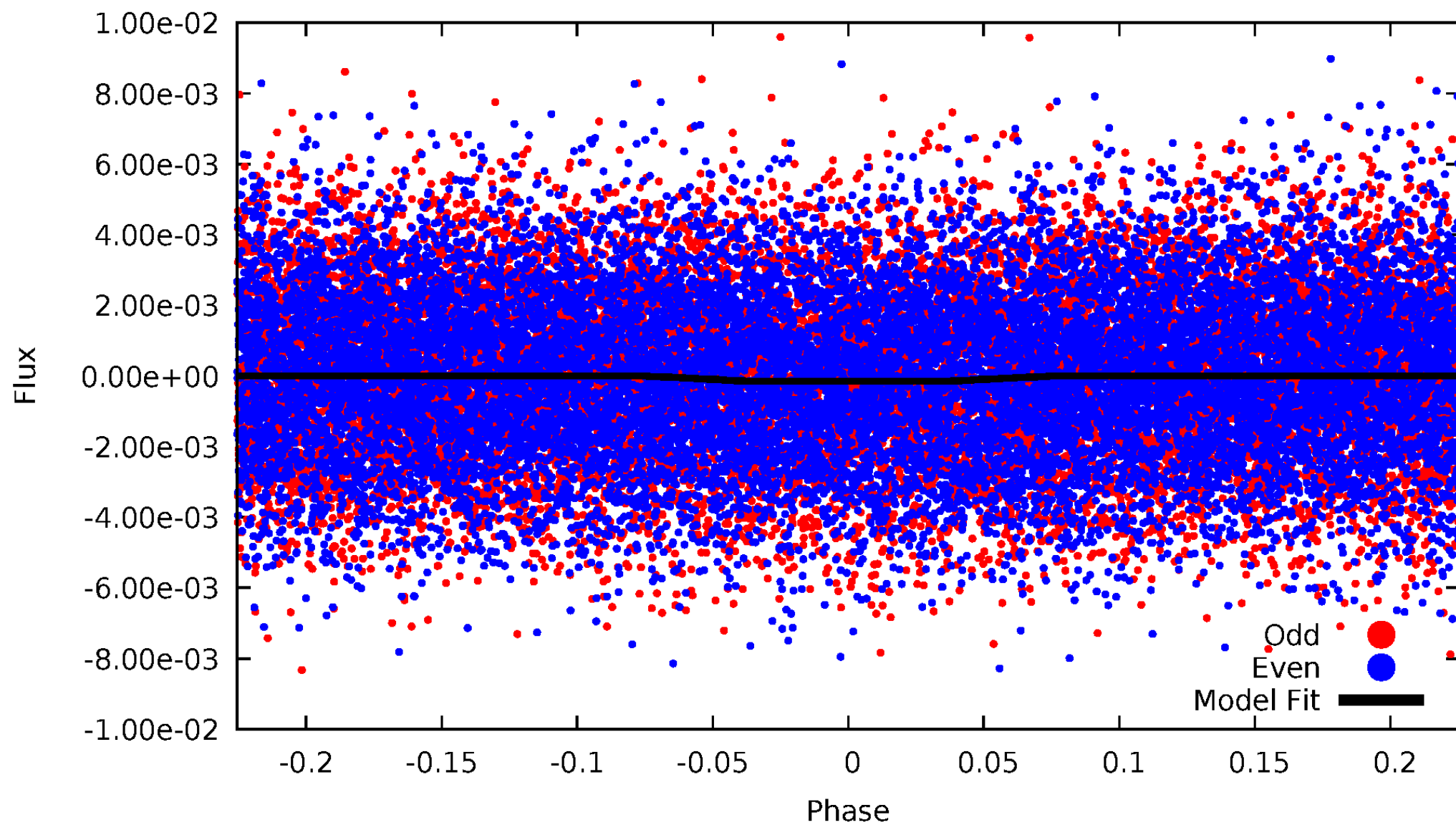
DV Odd/Even

TCE 010471914-01

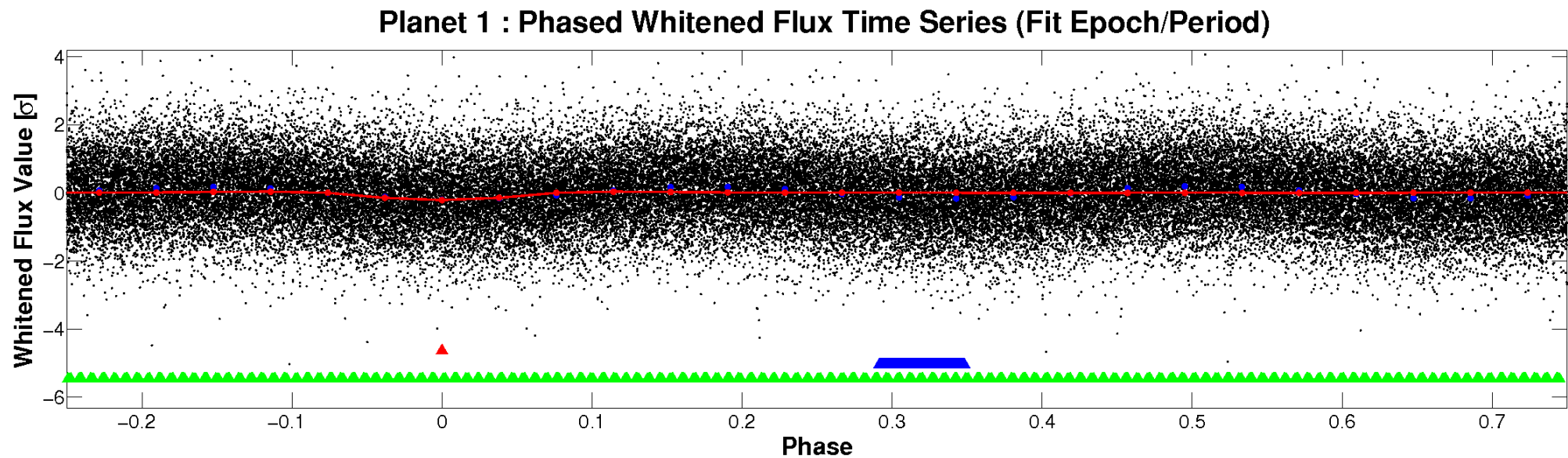
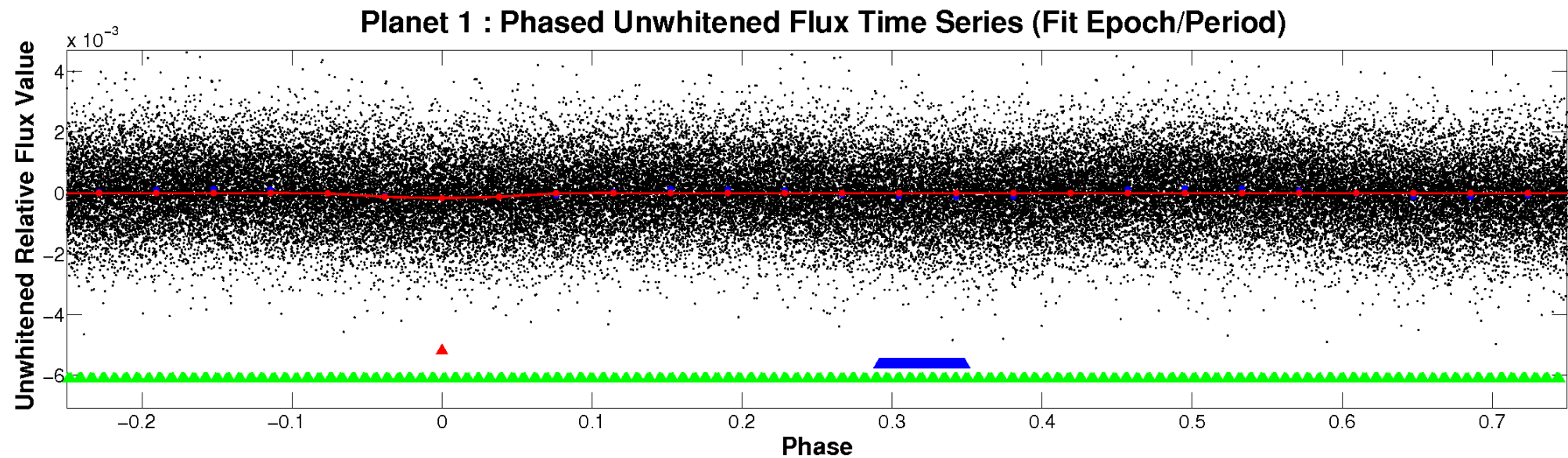


ALT Odd/Even

TCE 010471914-01

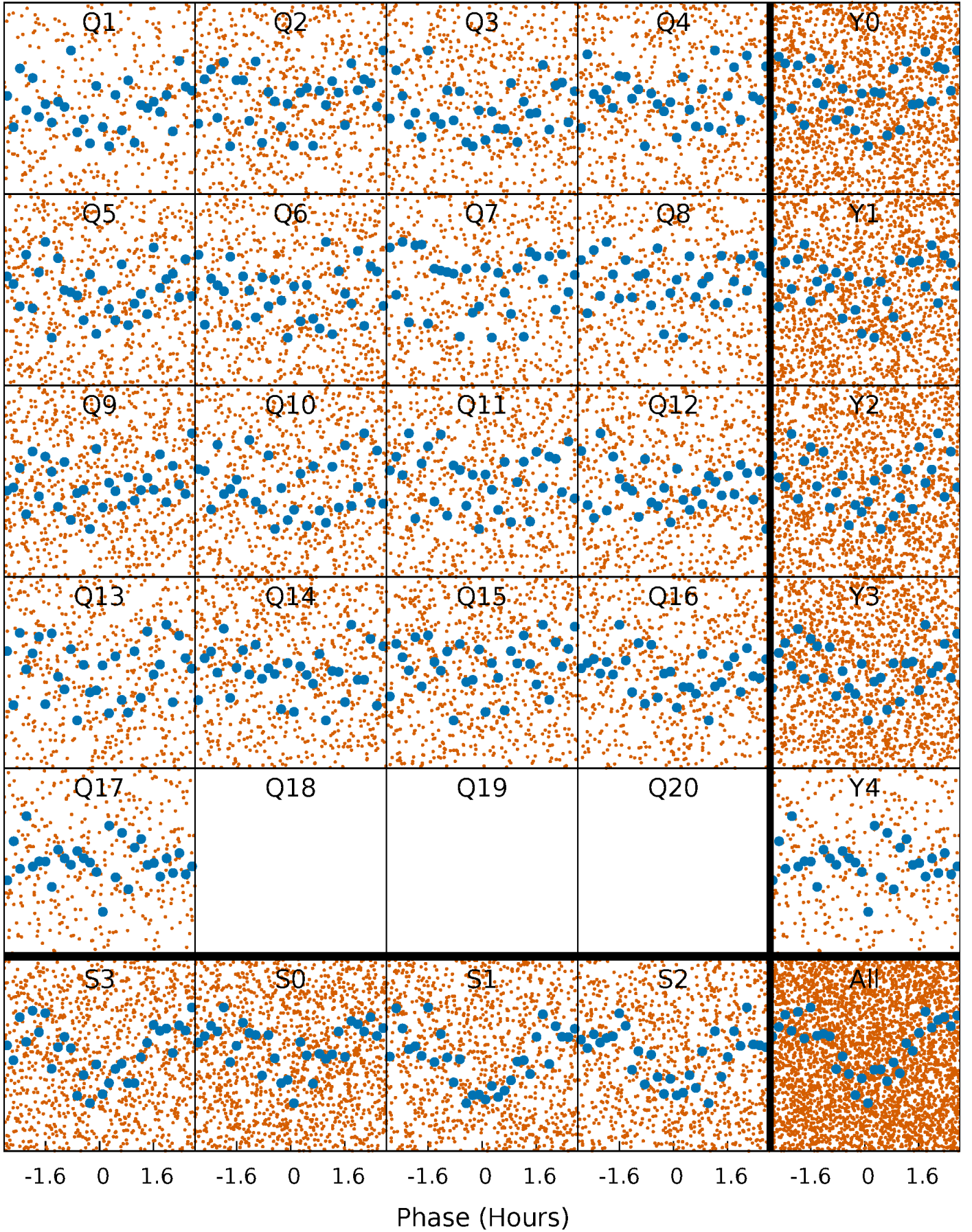


Non-Whitened Vs. Whitened Light Curve



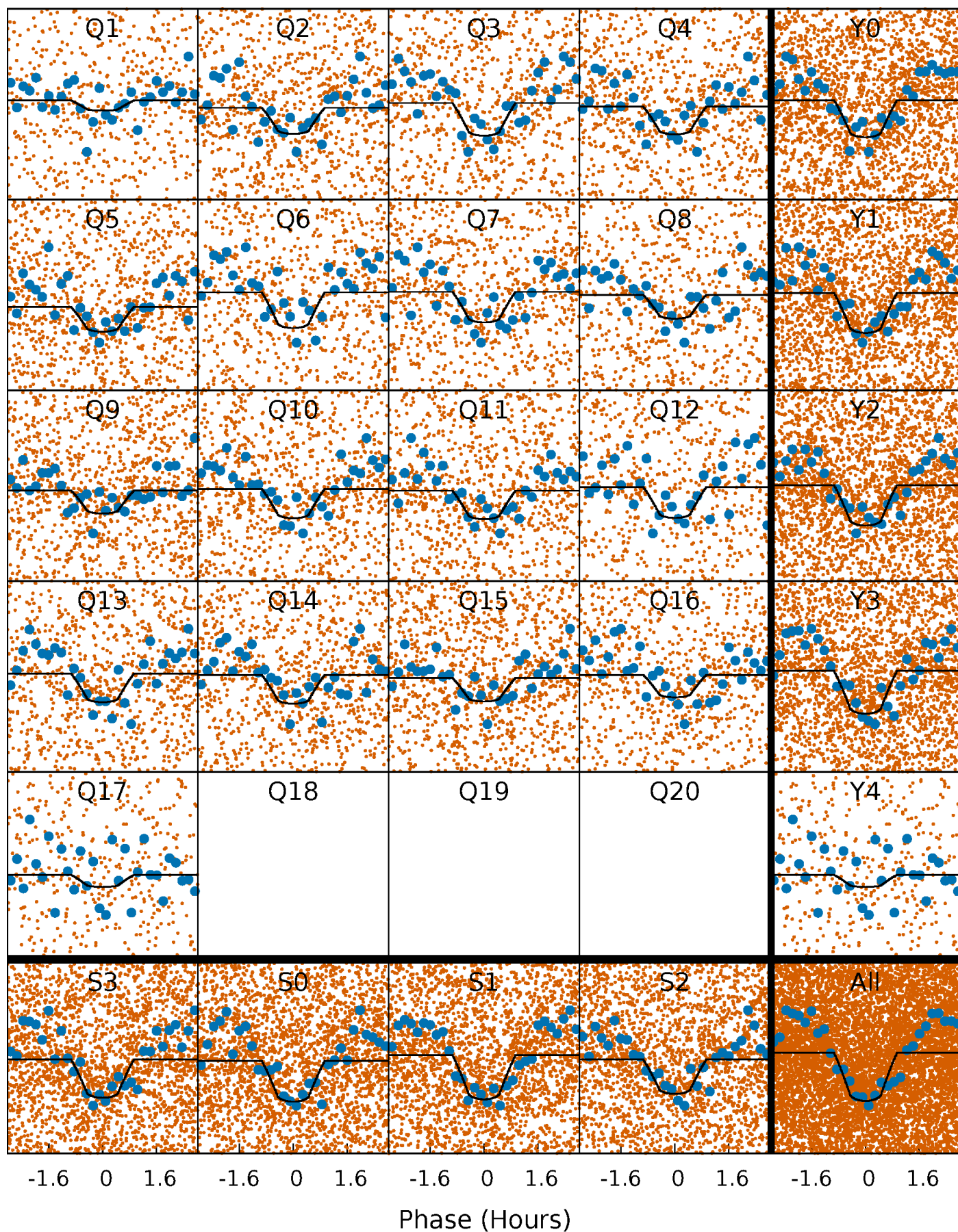
PDC Quarter-Phased Transit Curves

TCE 010471914-01 P= 0.536466 Days $T_0=131.641436$ (BKJD)



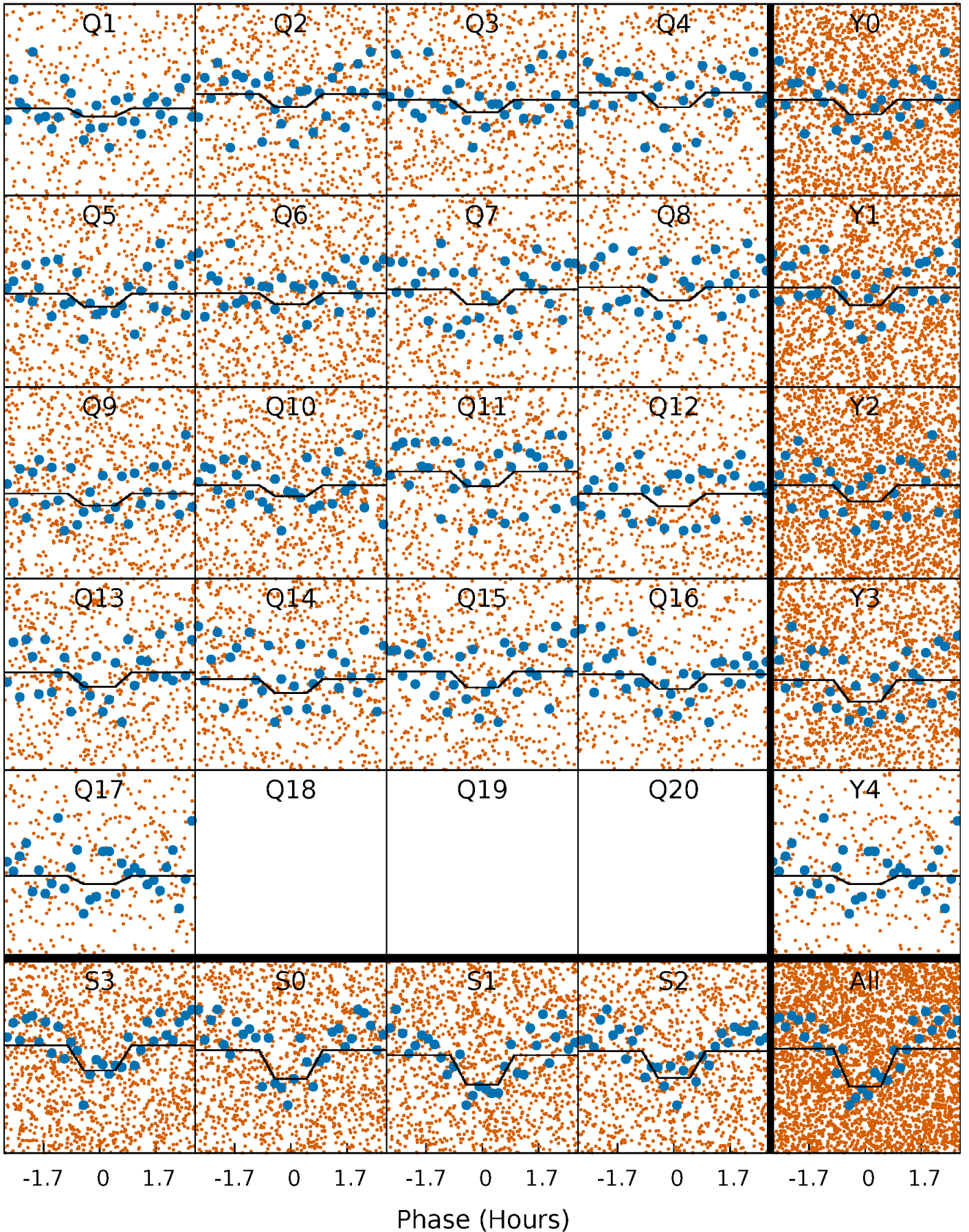
DV Quarter-Phased Transit Curves

TCE 010471914-01 P= 0.536466 Days $T_0=131.641436$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

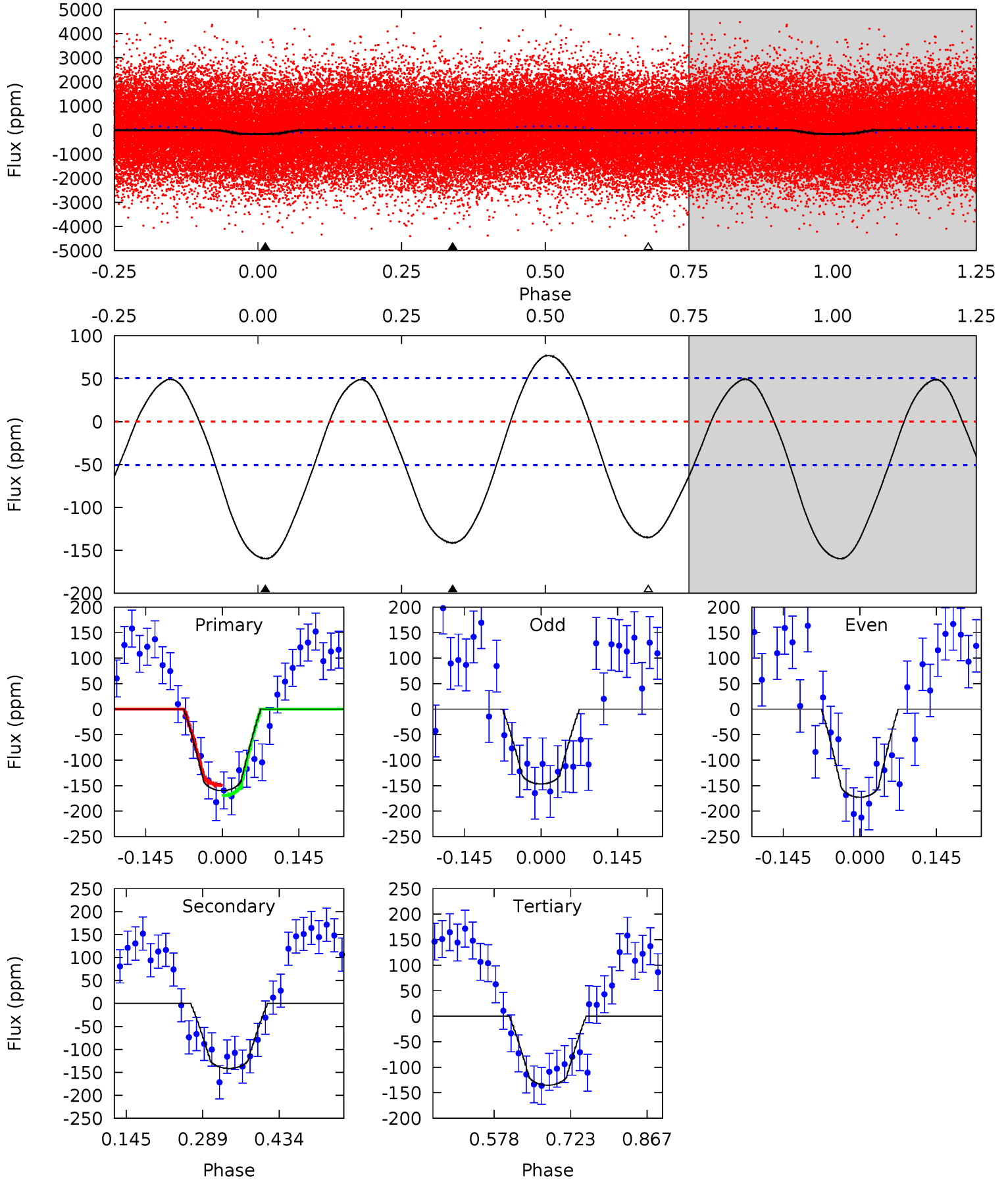
TCE 010471914-01 P= 0.536471 Days $T_0=131.640625$ (BKJD)



DV Model-Shift Uniqueness Test

010471914-01, P = 0.536466 Days, E = 131.104970 Days

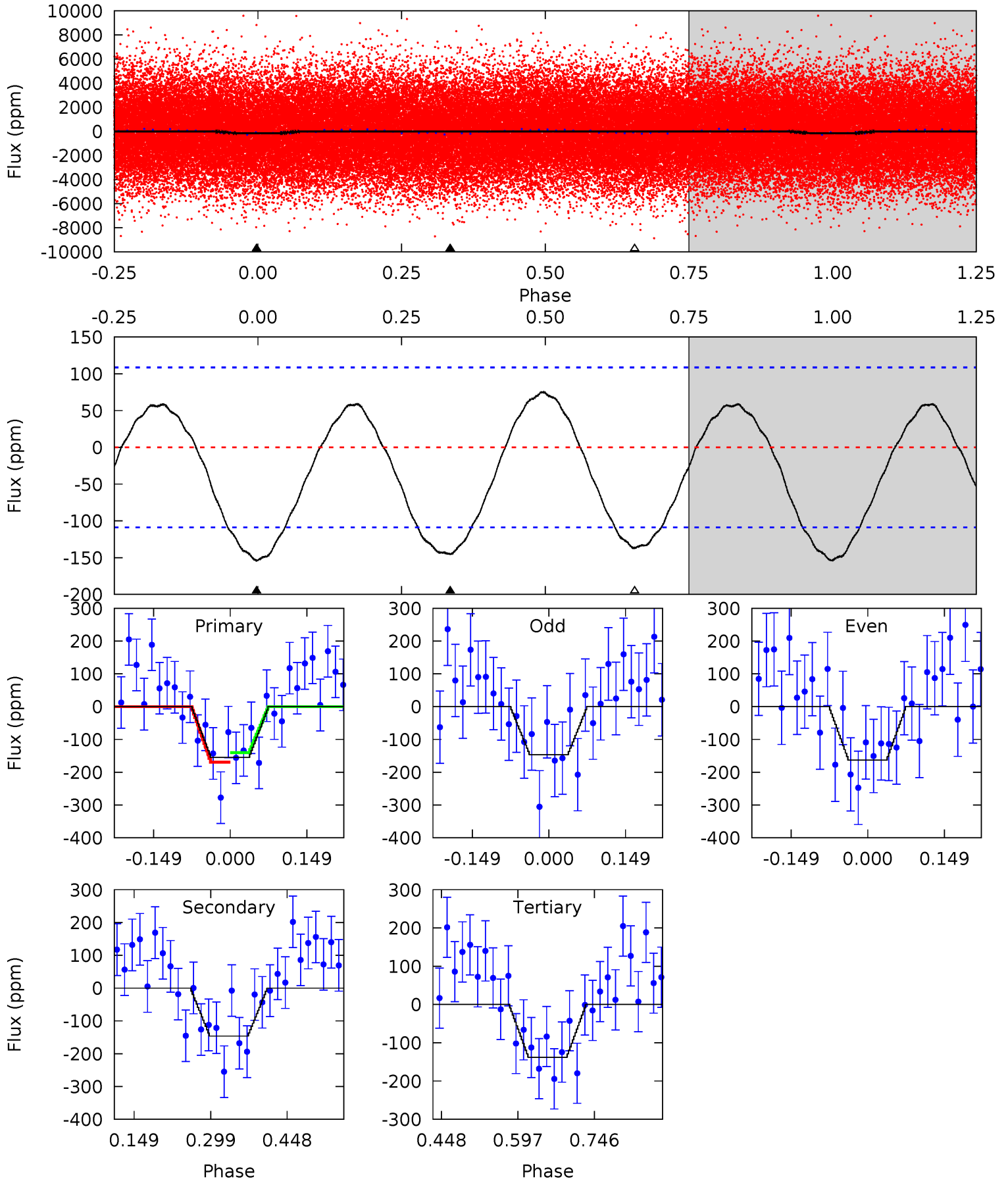
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	12.5	11.9	0	4.49	1.46	6.45	2.18	14.1	0.56	12.5	1.15	1.02	0.33	0.88



Alt Model-Shift Uniqueness Test

010471914-01, P = 0.536471 Days, E = 131.104154 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.38	6.02	5.69	0	4.48	1.44	3.05	0.69	6.38	0.33	6.02	0.35	0.93	0.33	0.60



Stellar Parameters For KIC 010471914

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7511^{+233}_{-311}	$4.000^{+0.273}_{-0.147}$	$-0.400^{+0.250}_{-0.350}$	$2.034^{+0.520}_{-0.693}$	$1.509^{+0.222}_{-0.272}$	$0.252^{+0.438}_{-0.105}$
	+3%/-4%	+7%/-4%	+62%/-87%	+26%/-34%	+15%/-18%	+174%/-41%
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 010471914-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-141 ± 11	$2.61^{+1.51}_{-1.07}$	5334^{+419}_{-476}	7010^{+3099}_{-1578}	$2.486^{+4.436}_{-1.460}$
Alt.	-146 ± 24	$2.59^{+1.59}_{-1.31}$	5325^{+430}_{-448}	7183^{+4508}_{-1724}	$2.697^{+8.295}_{-1.656}$

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 $A_{obs} \gg 1.0$

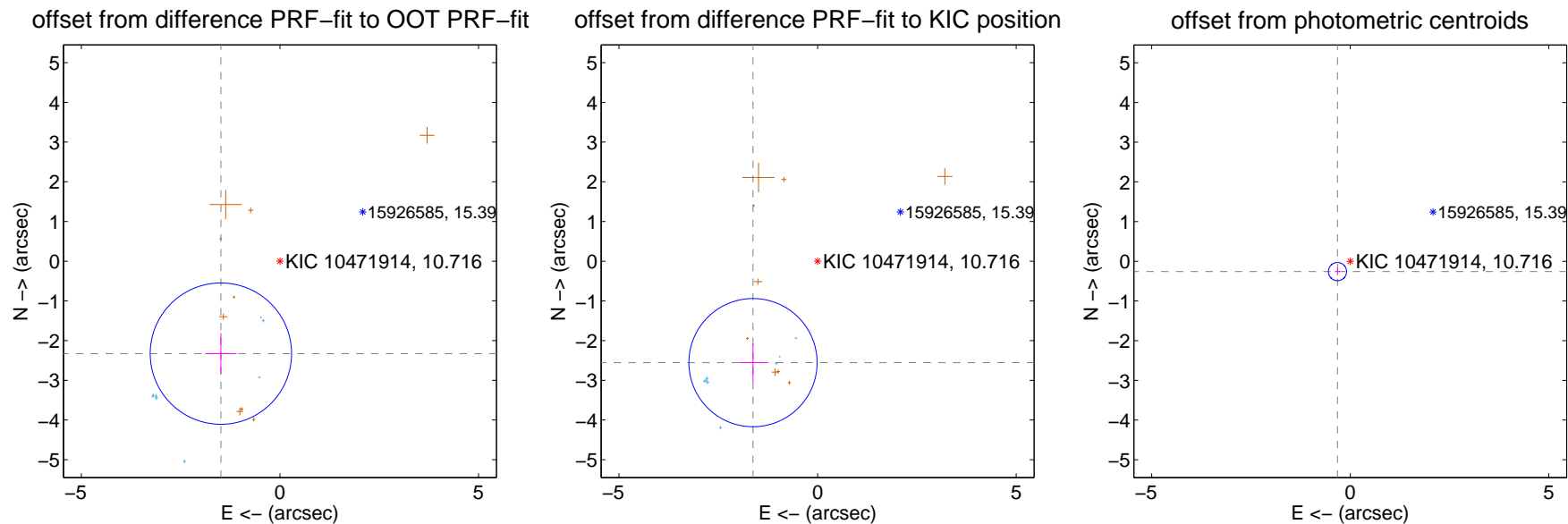
DV Centroid Data

Supplemental centroid analysis for 010471914-01. **Kepler magnitude: 10.72.** Transit SNR 15.12

There are 8 quarters with good PRF difference image offsets

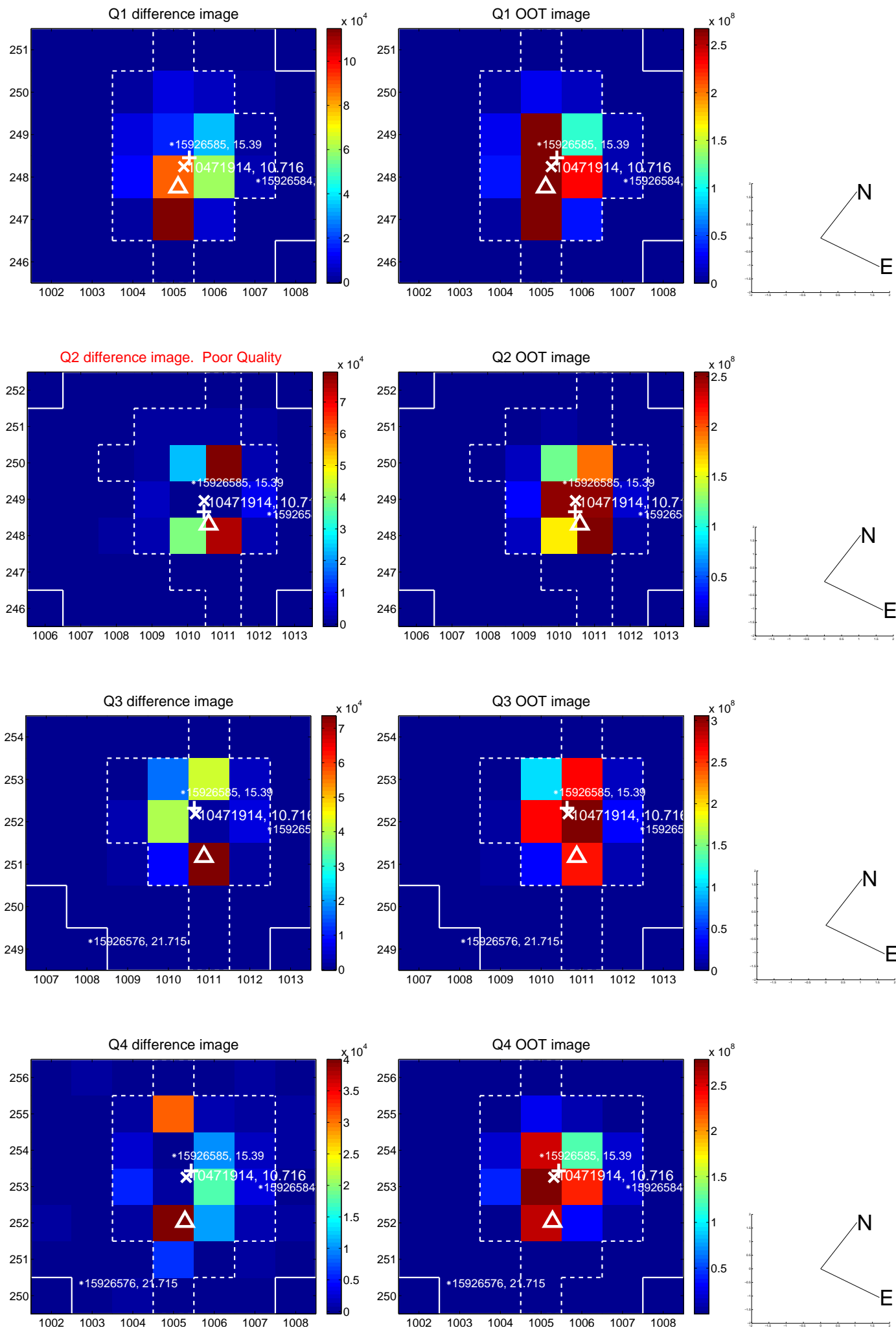
The direct PRF centroid is offset from the target star catalog position by about 0.89 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.762 ± 0.593	4.66	1.487 ± 0.394	-2.328 ± 0.516
PRF-fit source offset from KIC position	3.029 ± 0.538	5.63	1.626 ± 0.343	-2.555 ± 0.486
photometric centroid source offset	0.41 ± 0.08	5.42	0.32 ± 0.06	-0.26 ± 0.09

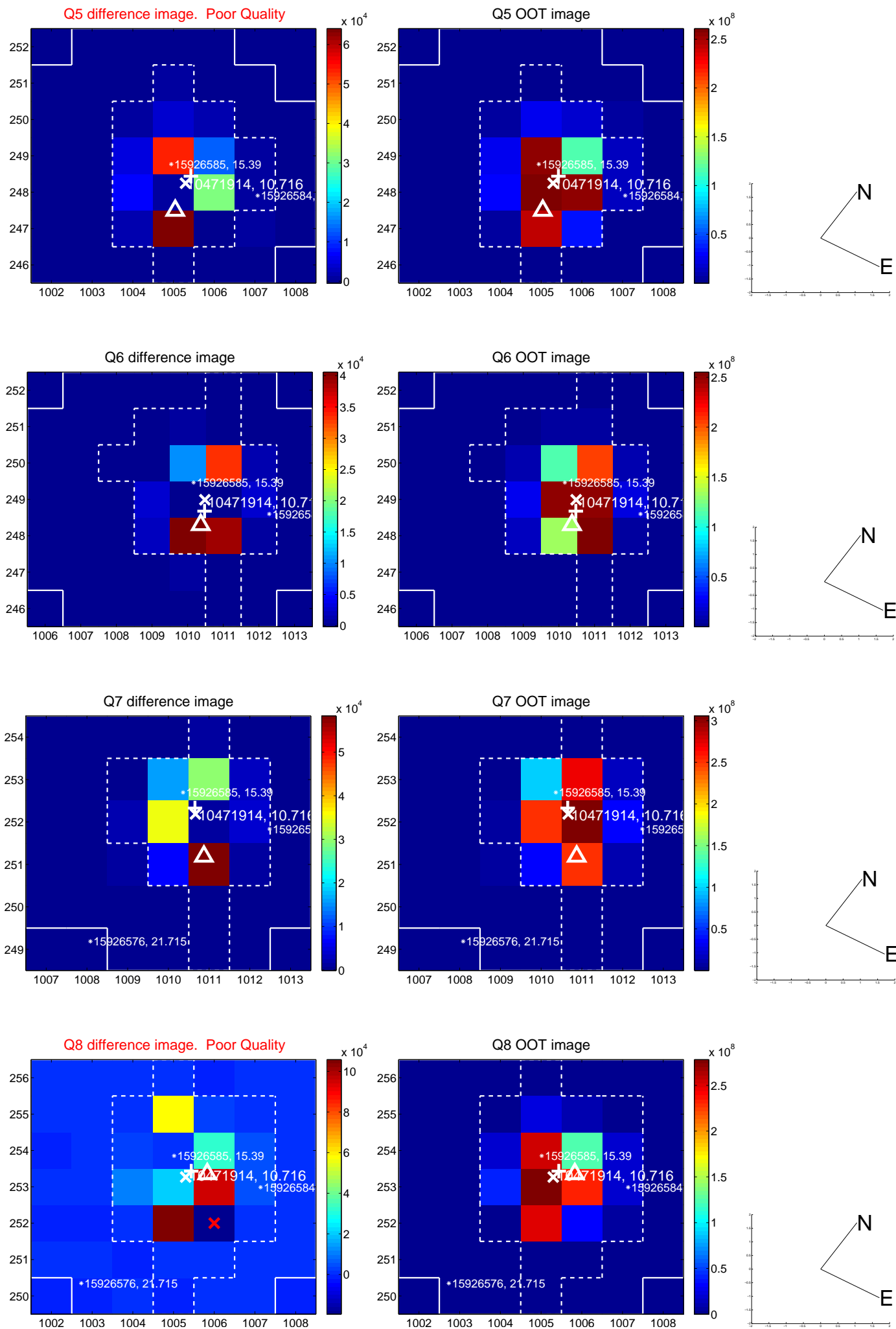


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

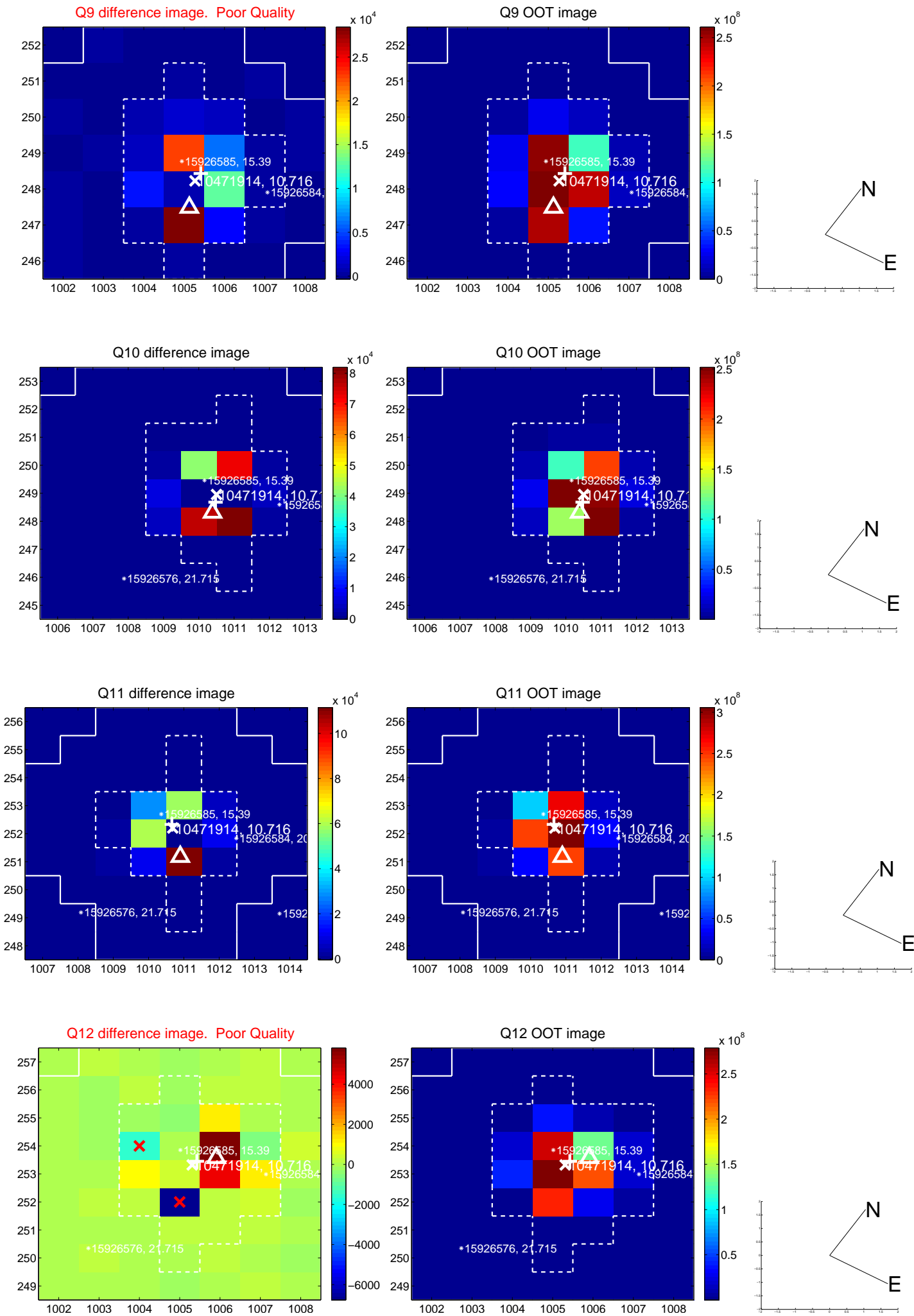
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



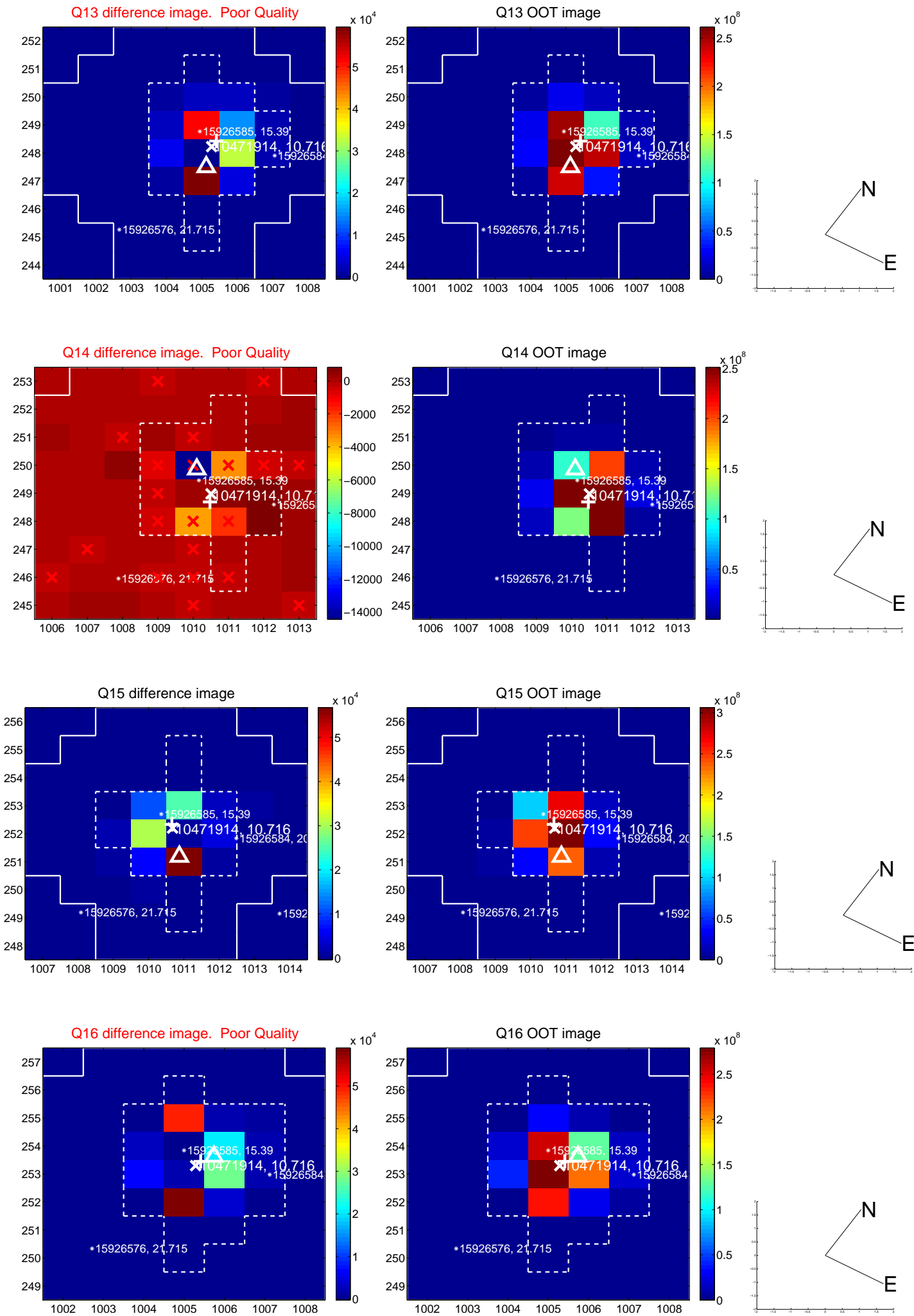
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



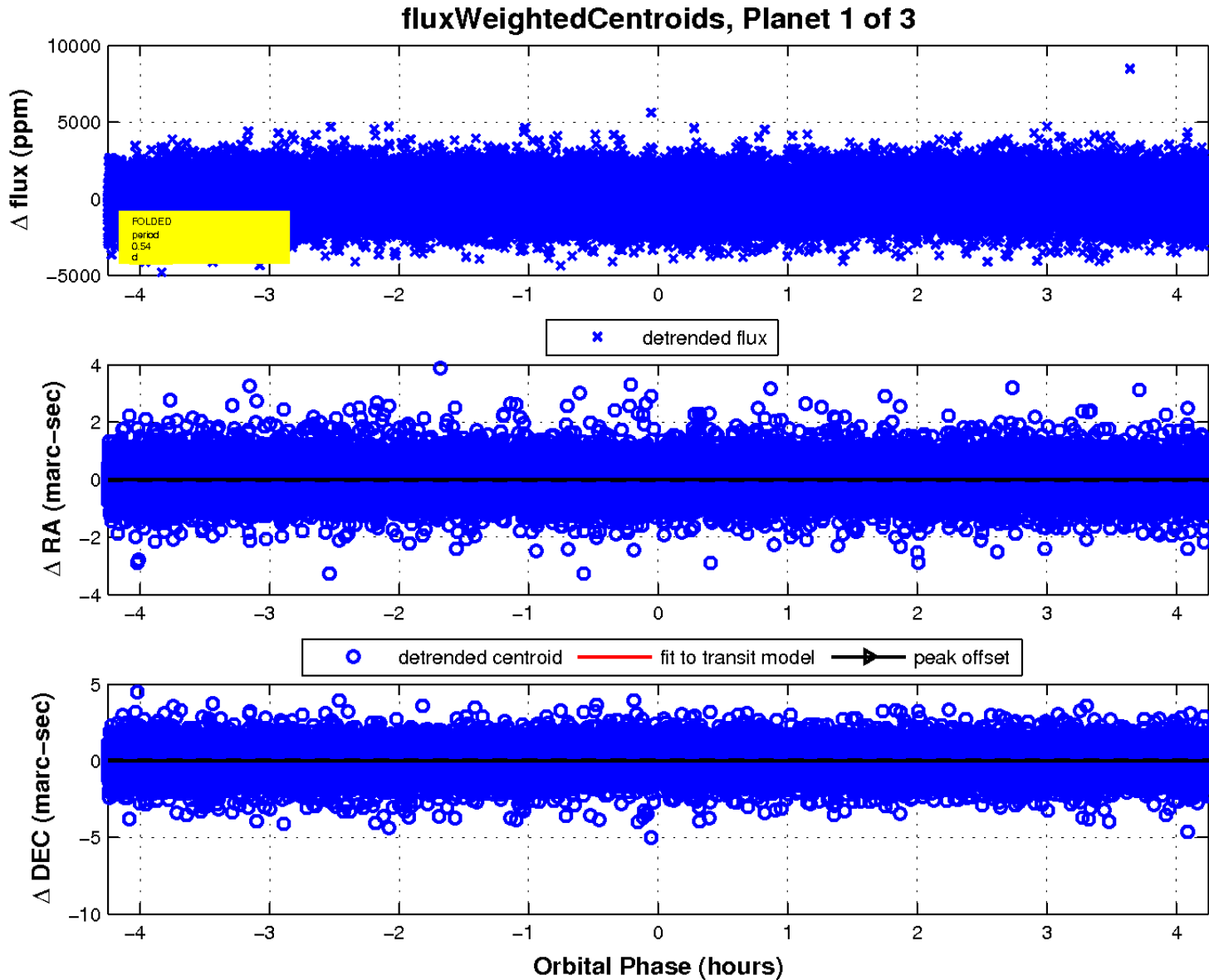
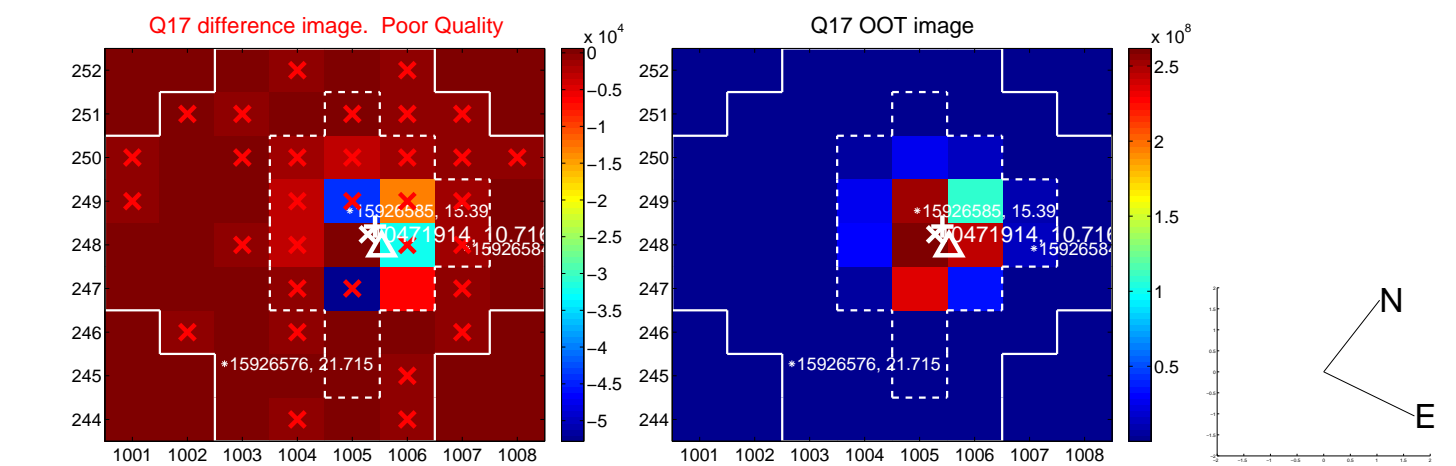
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



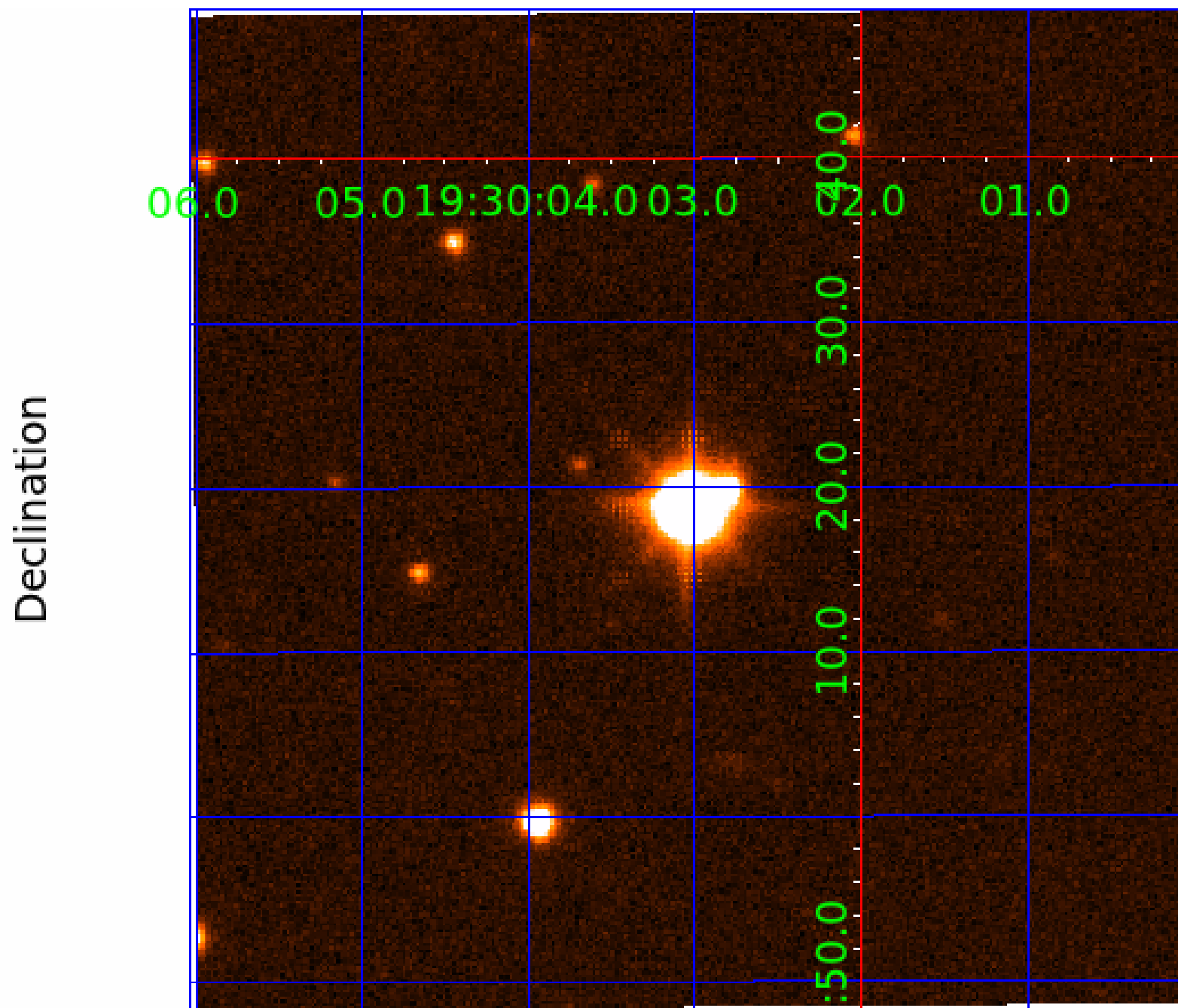
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 010471914

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})
010471914-01	OBS	No	0.536466	131.641436	169.7	1.416	15.5	15.1	2.03	7511	2.75	53686.25
010471914-02	OBS	No	0.536455	131.828255	96.0	2.353	11.9	9.5	2.03	7511	2.04	53687.75
010471914-03	OBS	No	2.263726	132.649467	309.0	5.102	9.8	9.0	2.03	7511	4.14	7873.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010471914-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
010471914-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010471914-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_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.

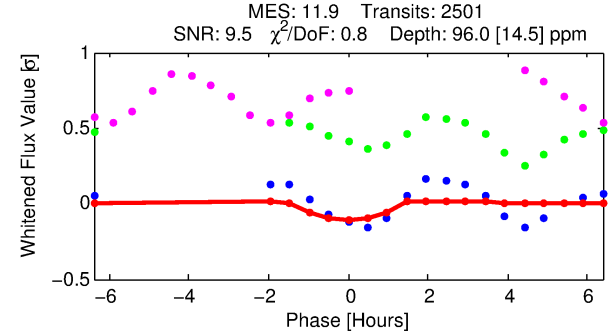
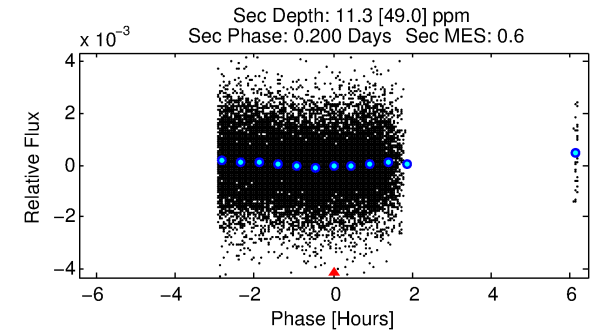
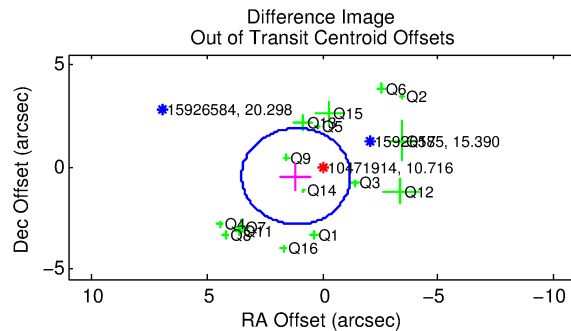
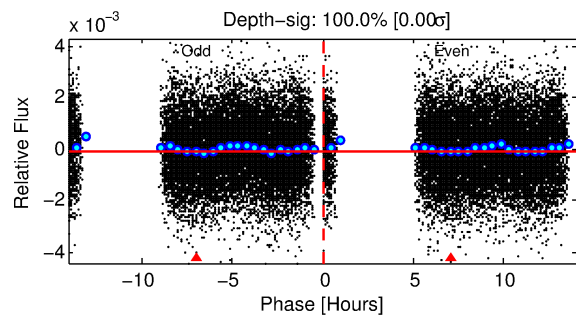
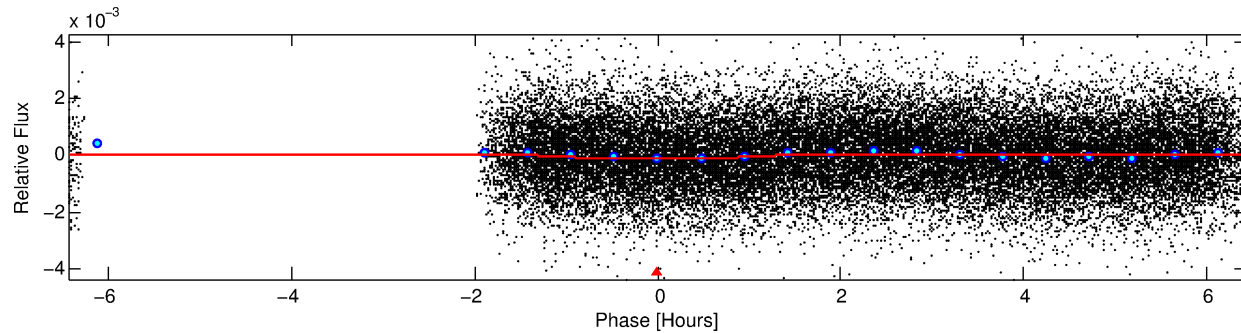
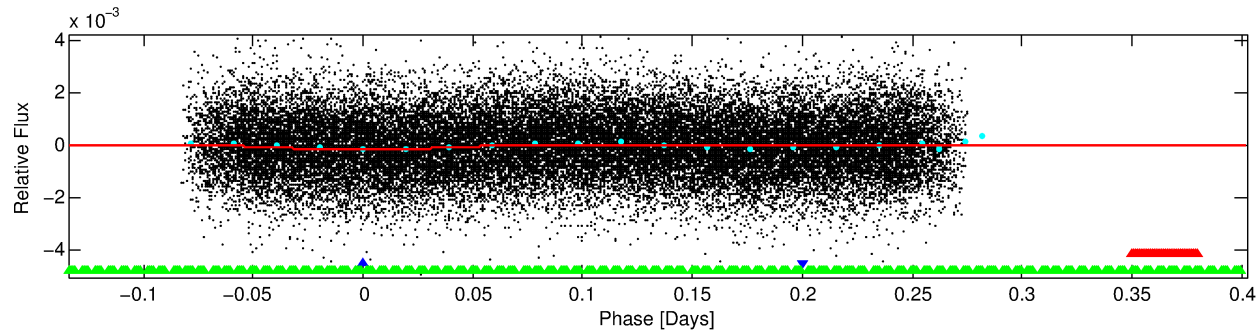
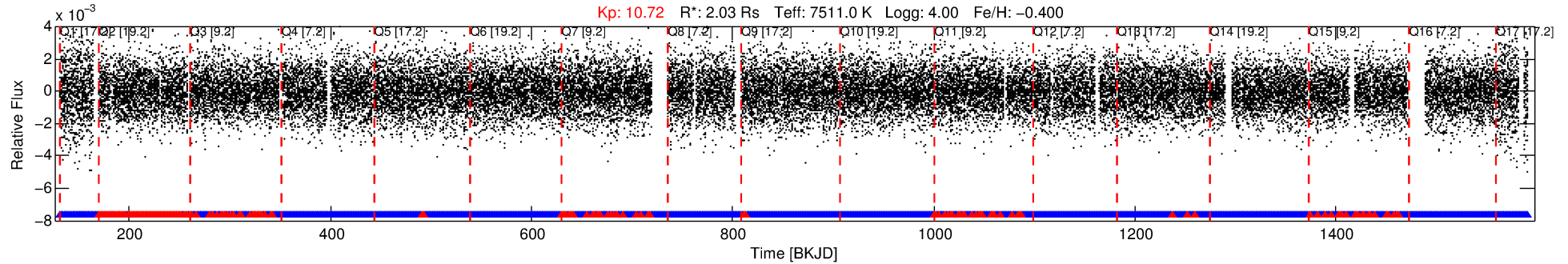
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010471914-02

No Significant Match Found

DV One-Page Summary

KIC: 10471914 Candidate: 2 of 3 Period: 0.536 d



DV Fit Results:

Period = 0.53645 [0.00001] d
Epoch = 131.8283 [0.0033] BKJD
Rp/R* = 0.0092 [0.0090]
a/R* = 1.80 [7.36]
b = 0.30 [18.08]
Seff = 53687.75 [27092.01]
Teq = 3881 [490] K
Rp = 2.04 [2.12] Re
a = 0.0148 [0.0046] AU
Ag = 0.33 [1.57] [-0.43 σ]
Teff = 4540 [5411] K [0.12 σ]

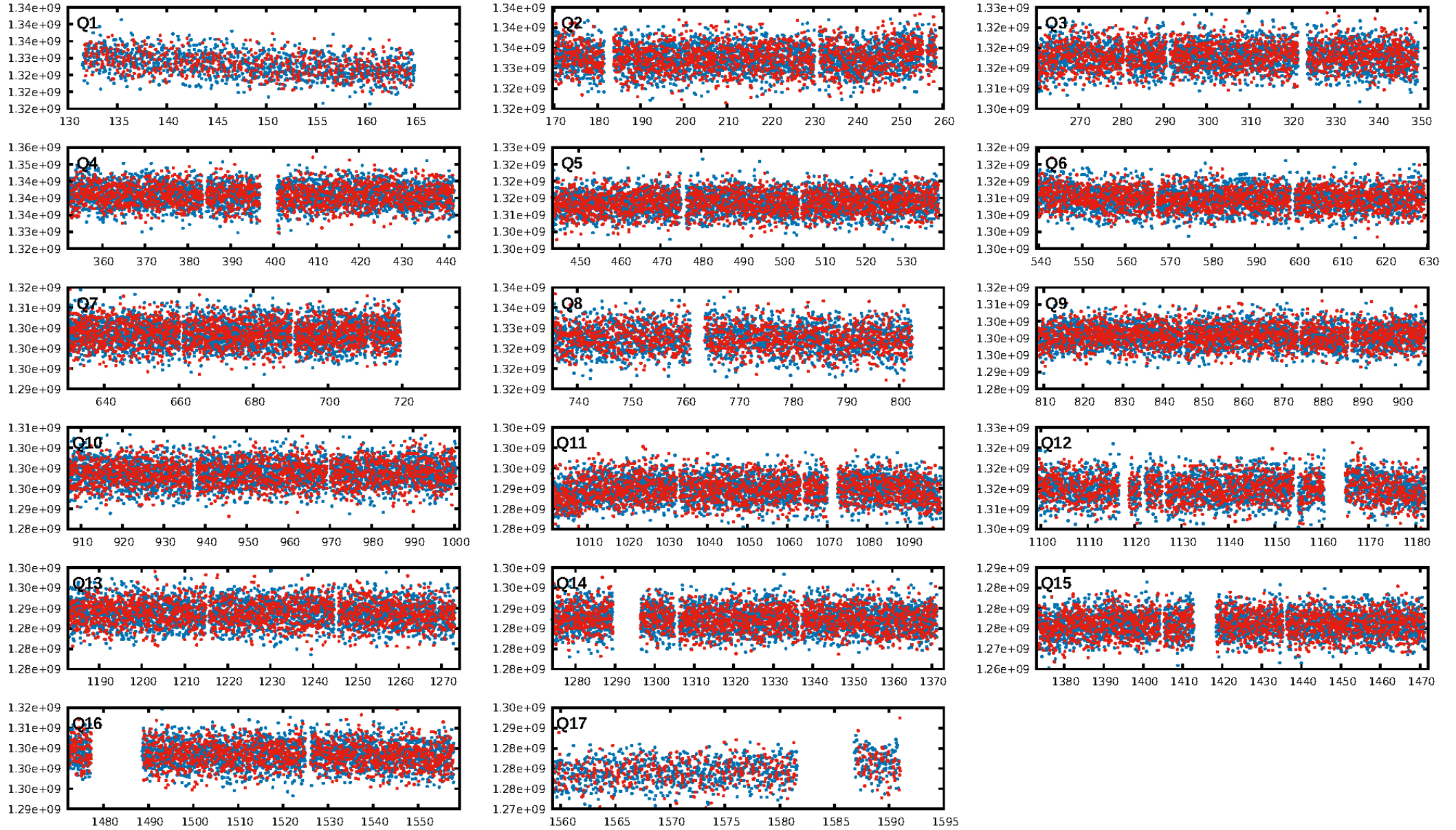
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.51e-21
RollingBand-fgt: 0.90 [2155/2389]
GhostDiagnostic-chr: 3.037
Centroid-sig: 0.5%
Centroid-so: 0.408 arcsec [3.23 σ]
OotOffset-rm: 1.239 arcsec [1.58 σ]
KicOffset-rm: 1.463 arcsec [2.02 σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.44 [7/16]
DiffImageOverlap-fno: 0.00 [0/17]

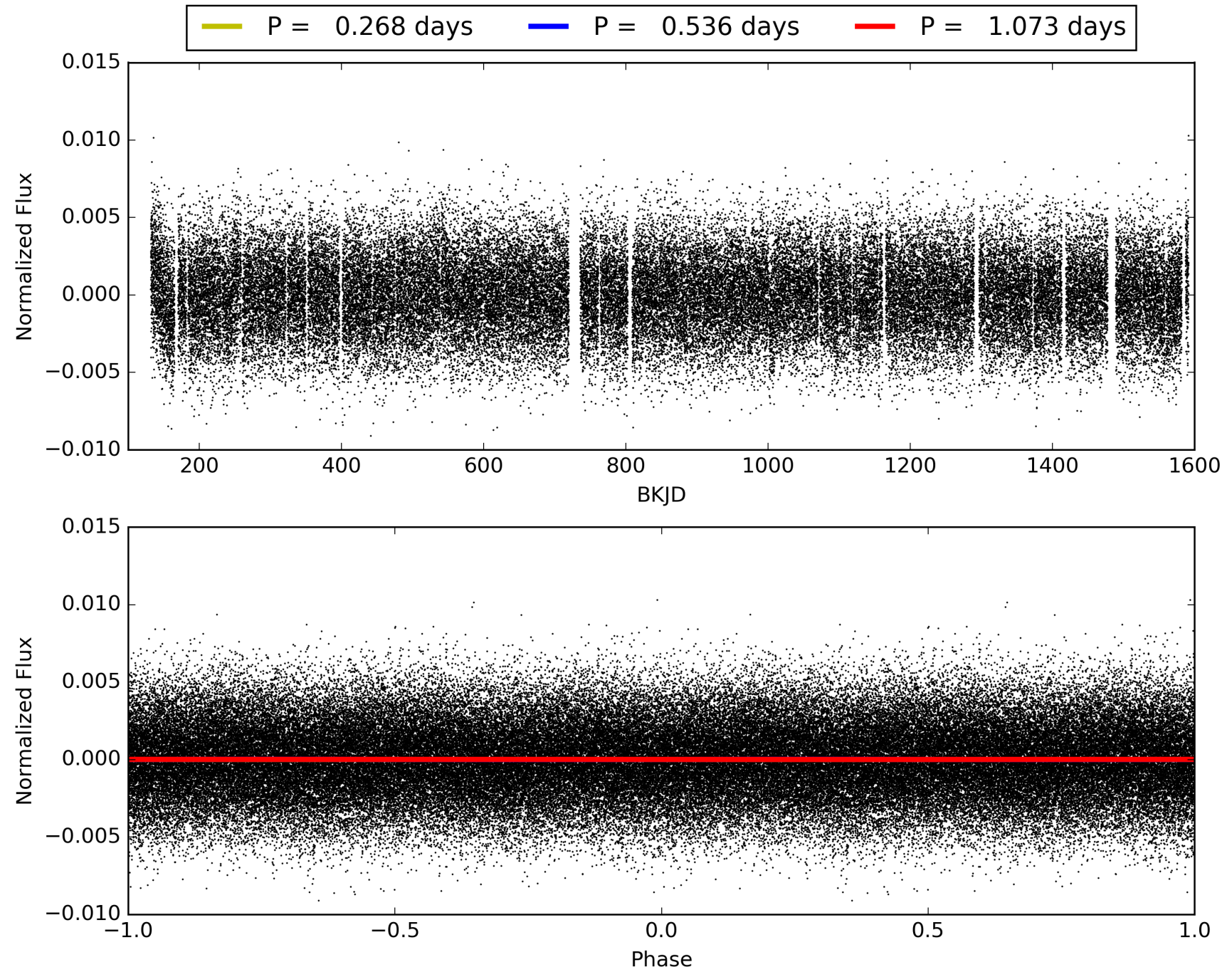
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:36:28 Z

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

TCE 010471914-02, PDC Light Curves

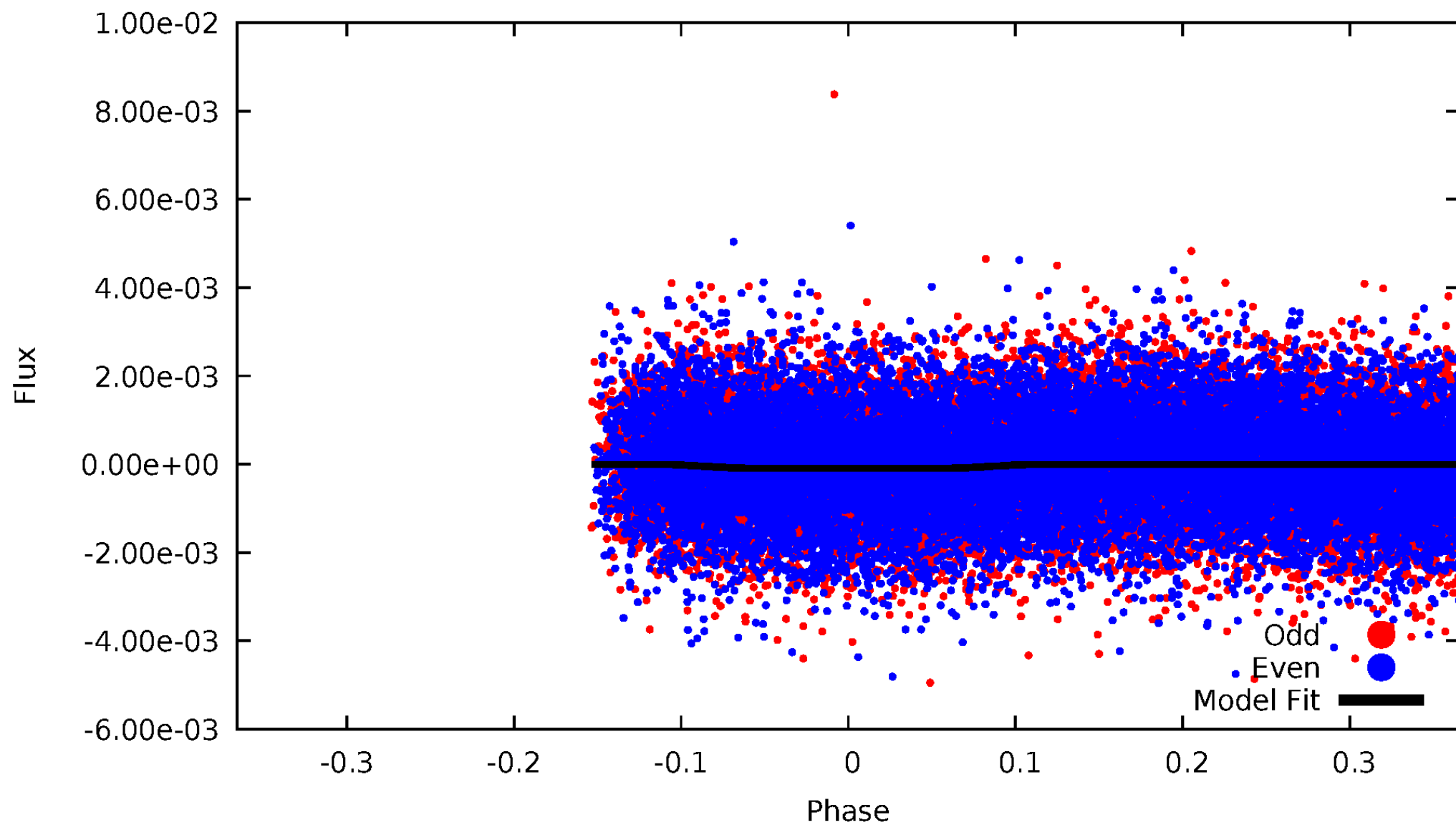


TCE 010471914-02



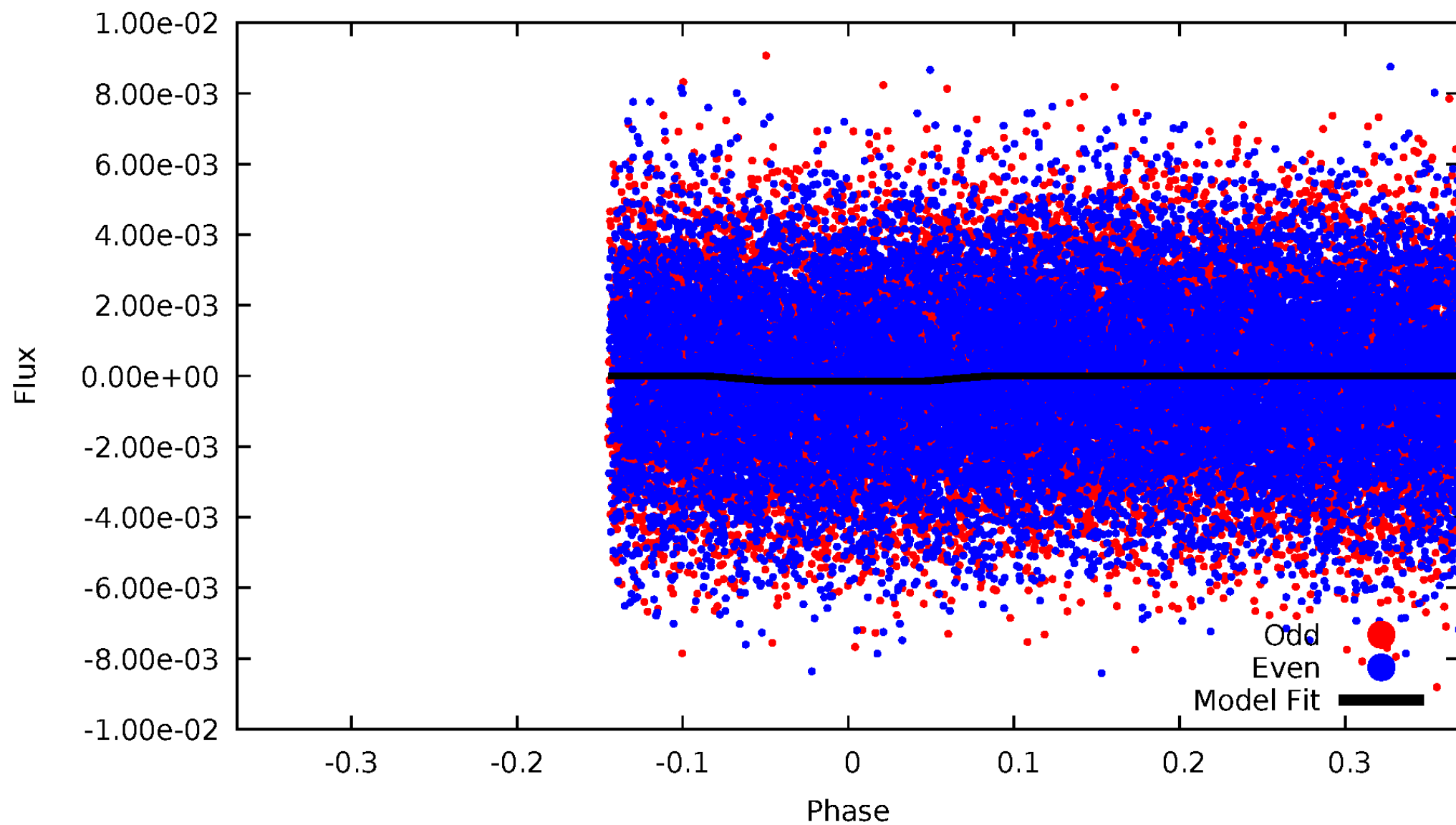
DV Odd/Even

TCE 010471914-02



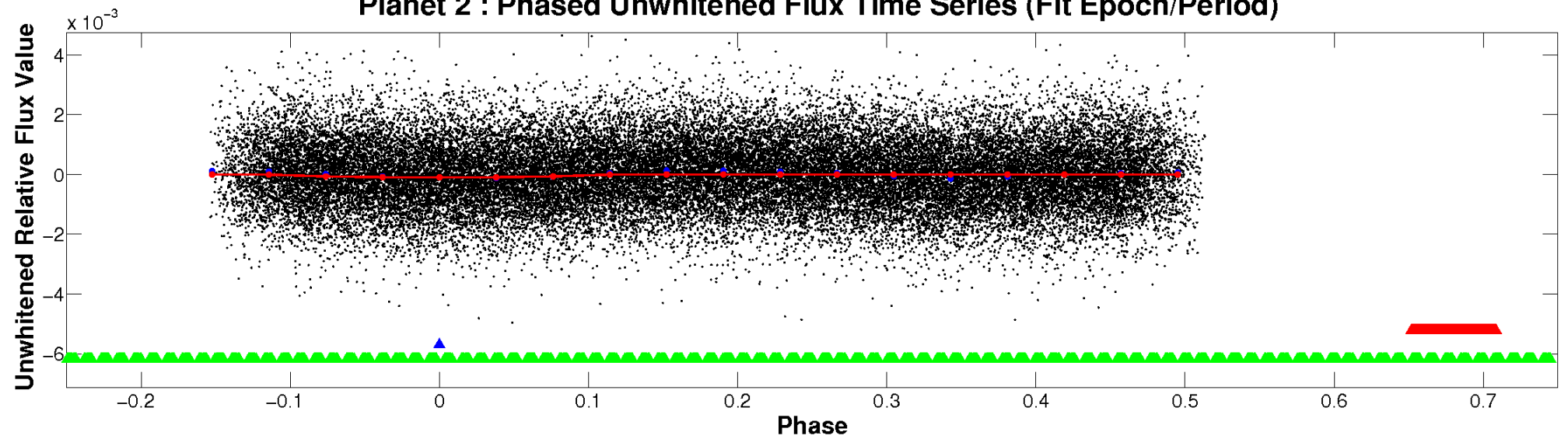
ALT Odd/Even

TCE 010471914-02

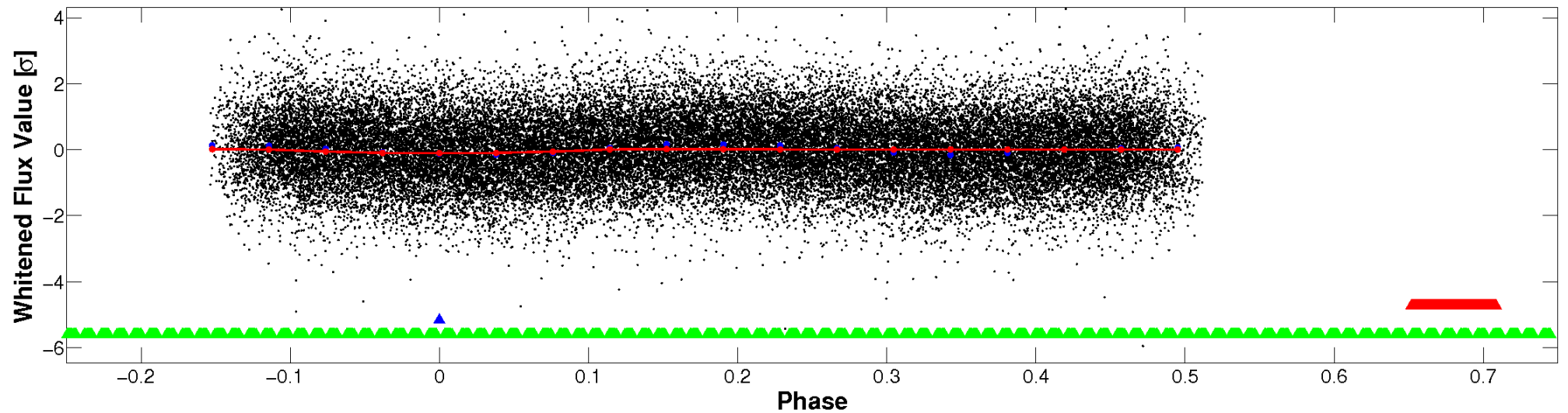


Non-Whitened Vs. Whitened Light Curve

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

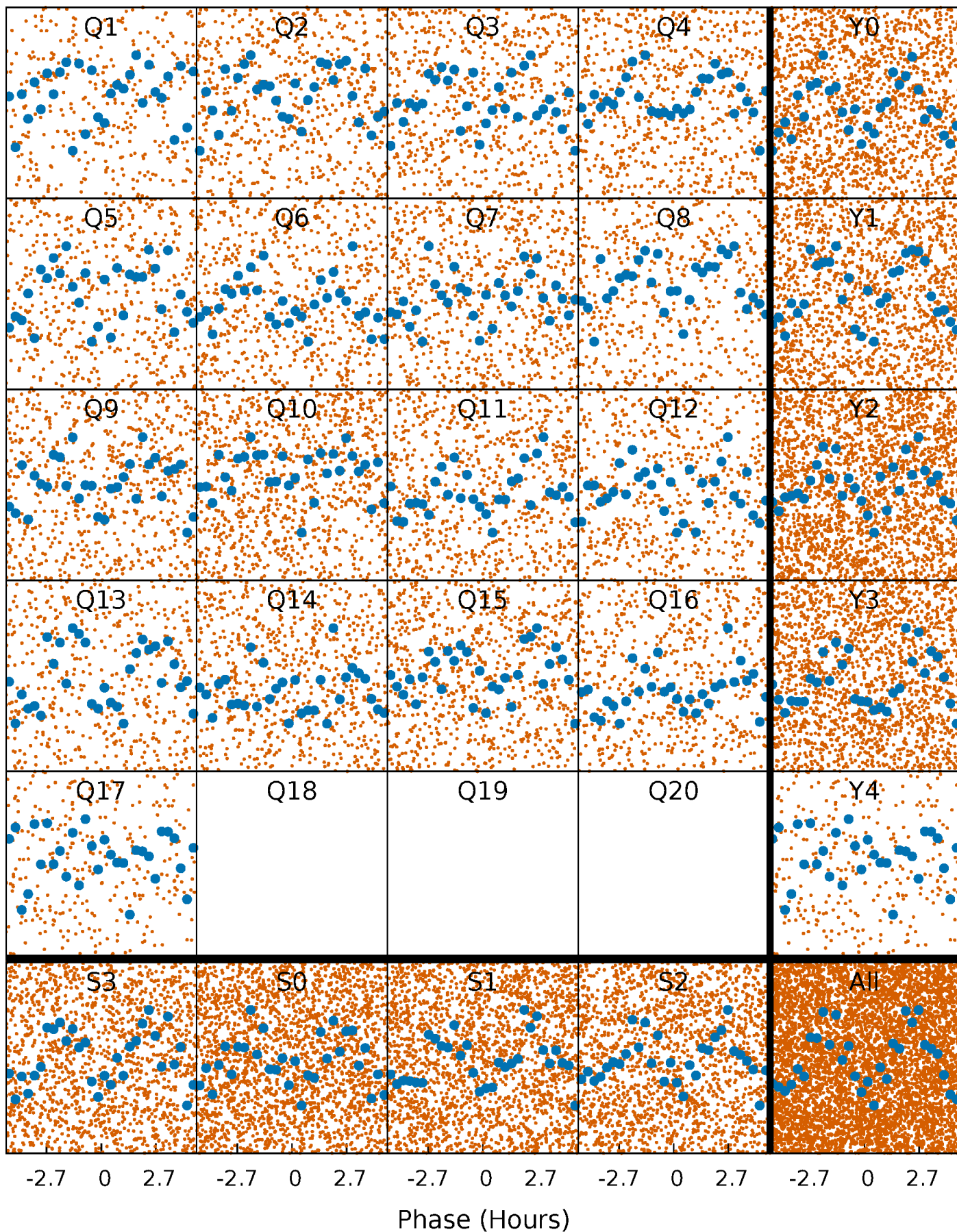


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



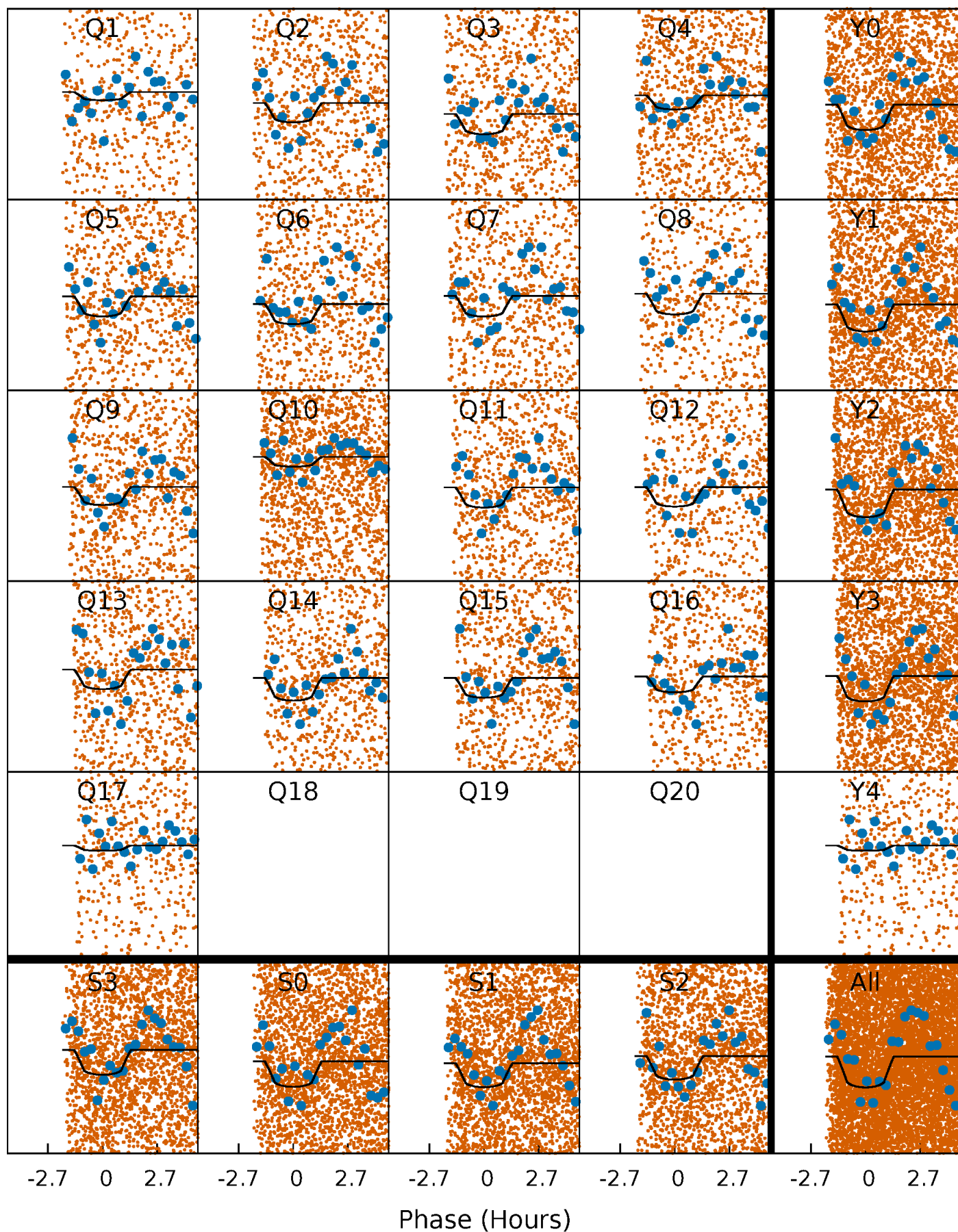
PDC Quarter-Phased Transit Curves

TCE 010471914-02 P= 0.536455 Days $T_0=131.828255$ (BKJD)



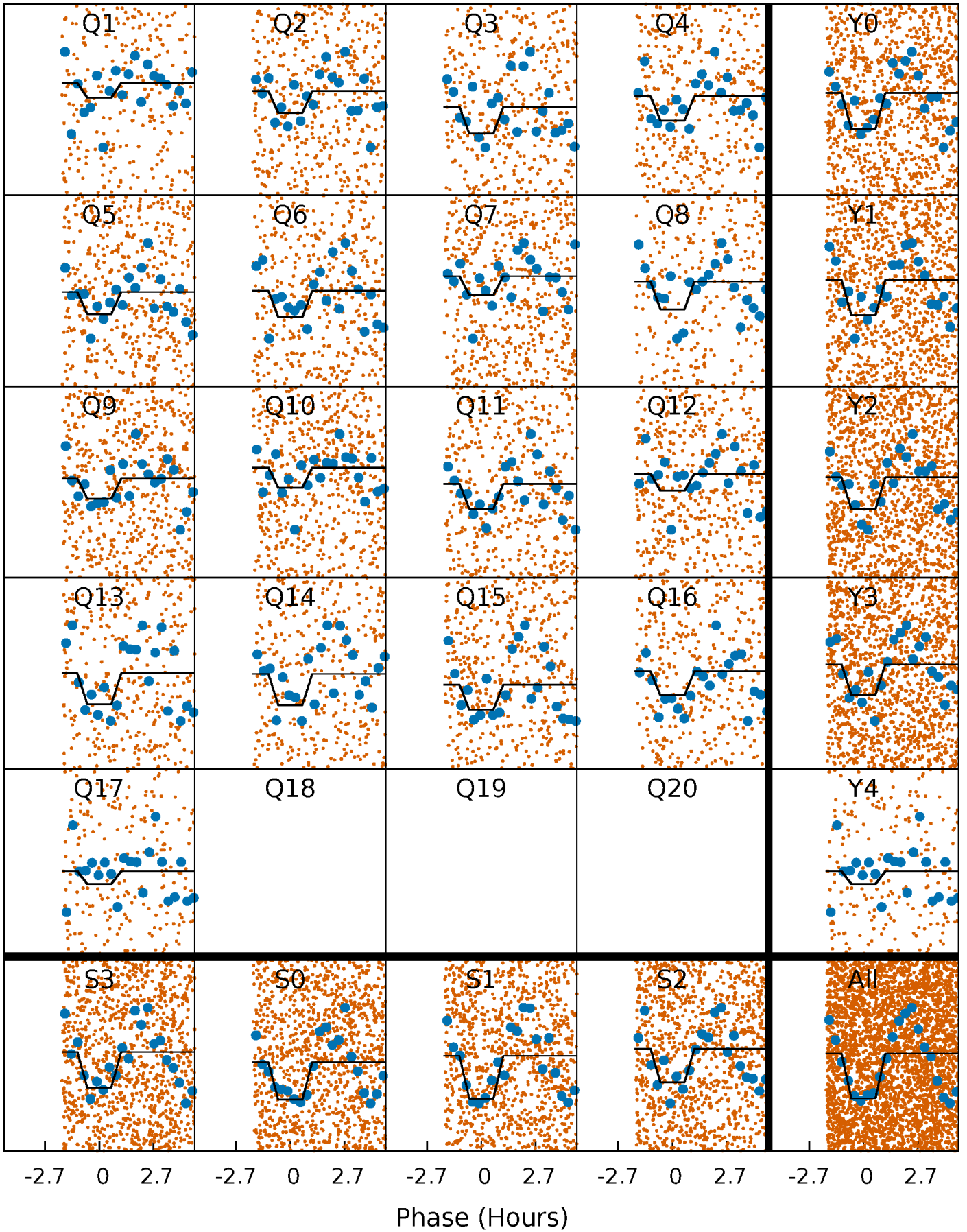
DV Quarter-Phased Transit Curves

TCE 010471914-02 $P = 0.536455$ Days $T_0 = 131.828255$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

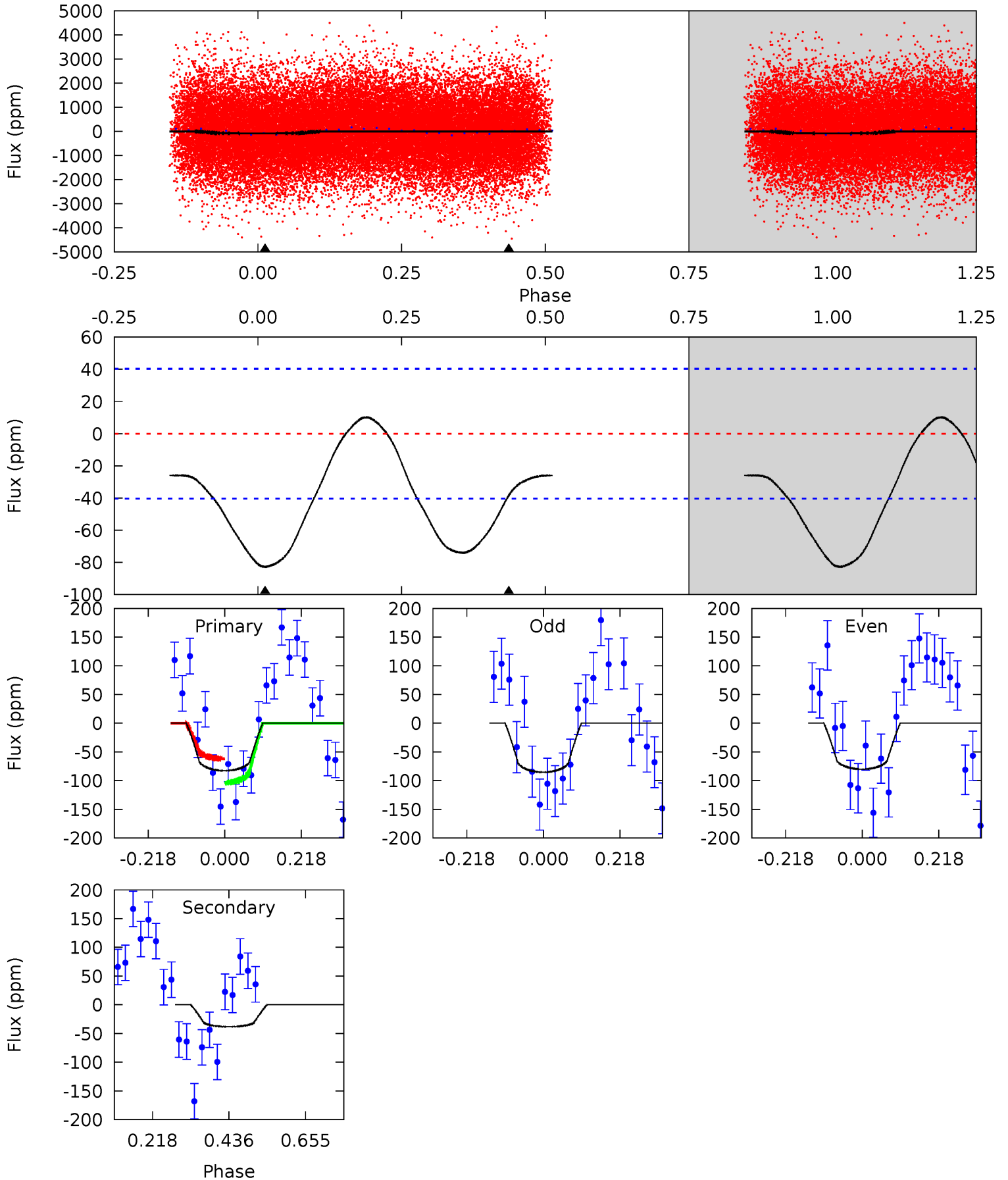
TCE 010471914-02 $P = 0.536465$ Days $T_0 = 131.823436$ (BKJD)



DV Model-Shift Uniqueness Test

010471914-02, P = 0.536455 Days, E = 131.291800 Days

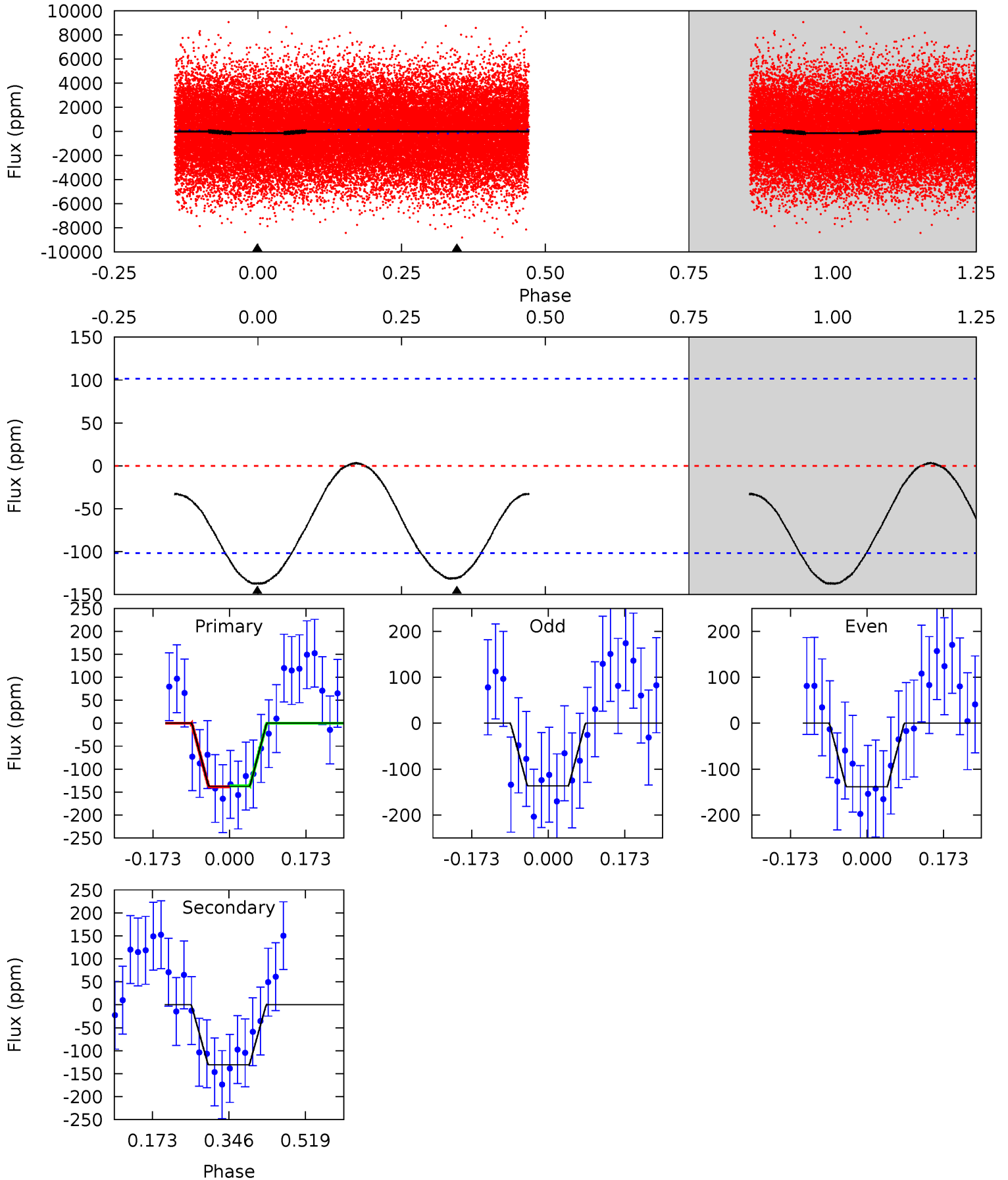
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.02	4.18	0	0	4.40	1.23	1.05	9.02	9.02	4.18	4.18	0.29	0.93	0.11	2.26



Alt Model-Shift Uniqueness Test

010471914-02, P = 0.536465 Days, E = 131.286971 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.01	5.73	0	0	4.45	1.36	0.16	6.01	6.01	5.73	5.73	0.04	1.03	0.03	0.05



Stellar Parameters For KIC 010471914

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	7511^{+233}_{-311}	$4.000^{+0.273}_{-0.147}$	$-0.400^{+0.250}_{-0.350}$	$2.034^{+0.520}_{-0.693}$	$1.509^{+0.222}_{-0.272}$	$0.252^{+0.438}_{-0.105}$
	+3%/-4%	+7%/-4%	+62%/-87%	+26%/-34%	+15%/-18%	+174%/-41%
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 010471914-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-38 ± 9	$2.27^{+1.85}_{-1.39}$	5368^{+408}_{-477}	5002^{+4550}_{-8307}	$0.849^{+5.156}_{-0.598}$
Alt.	-131 ± 23	$2.84^{+1.88}_{-1.63}$	5337^{+440}_{-476}	6580^{+5146}_{-1822}	$2.003^{+8.615}_{-1.327}$

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

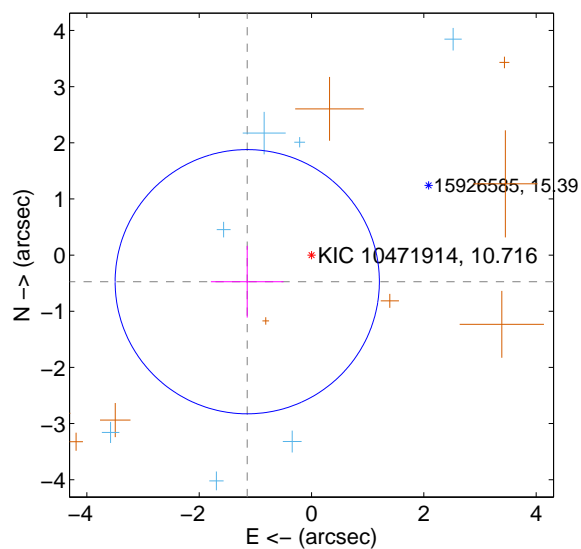
Supplemental centroid analysis for 010471914-02. **Kepler magnitude: 10.72.** Transit SNR 9.49

There are 7 quarters with good PRF difference image offsets

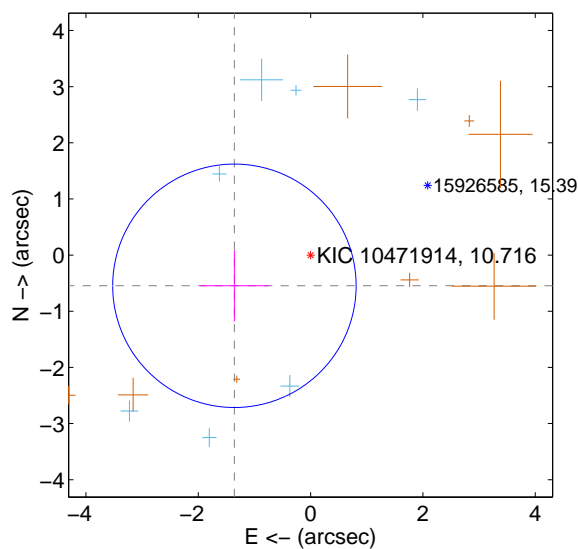
The direct PRF centroid is offset from the target star catalog position by about 0.88 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.239 ± 0.784	1.58	1.144 ± 0.647	-0.474 ± 0.639
PRF-fit source offset from KIC position	1.463 ± 0.722	2.02	1.357 ± 0.611	-0.547 ± 0.633
photometric centroid source offset	0.41 ± 0.13	3.23	0.18 ± 0.09	-0.37 ± 0.13

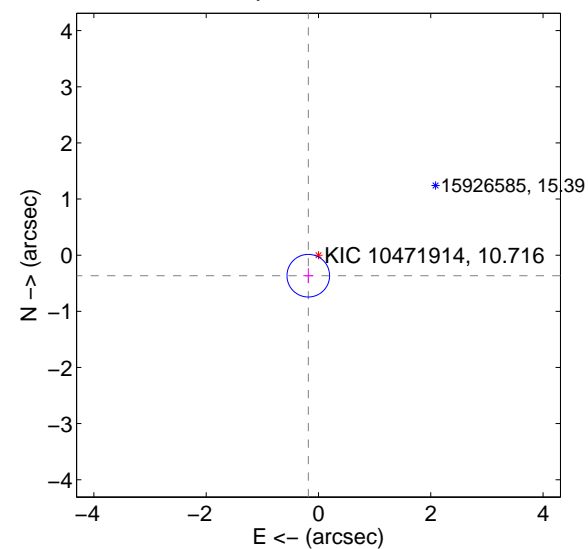
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

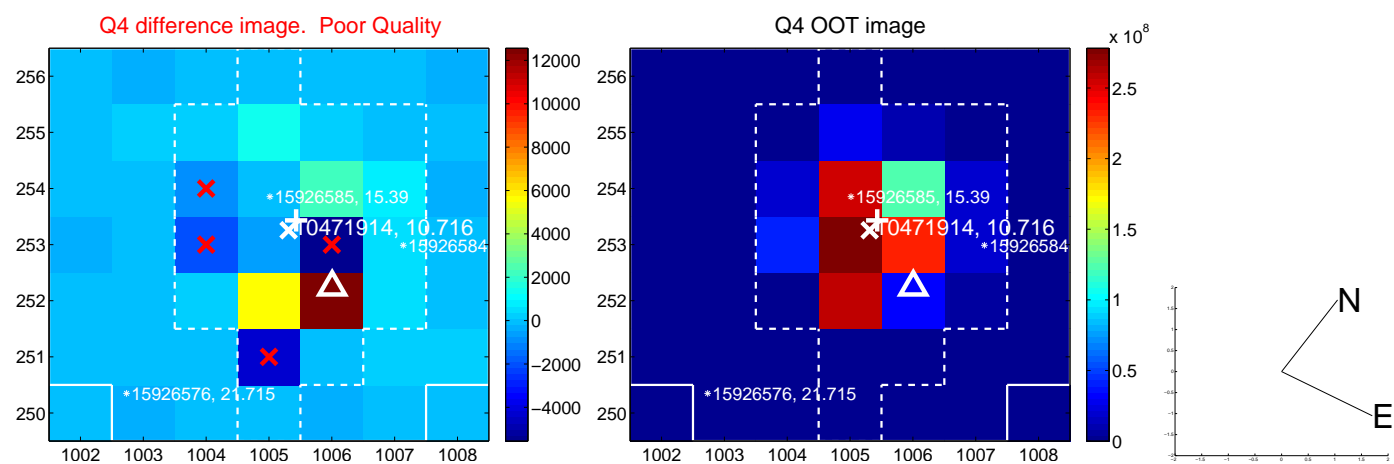
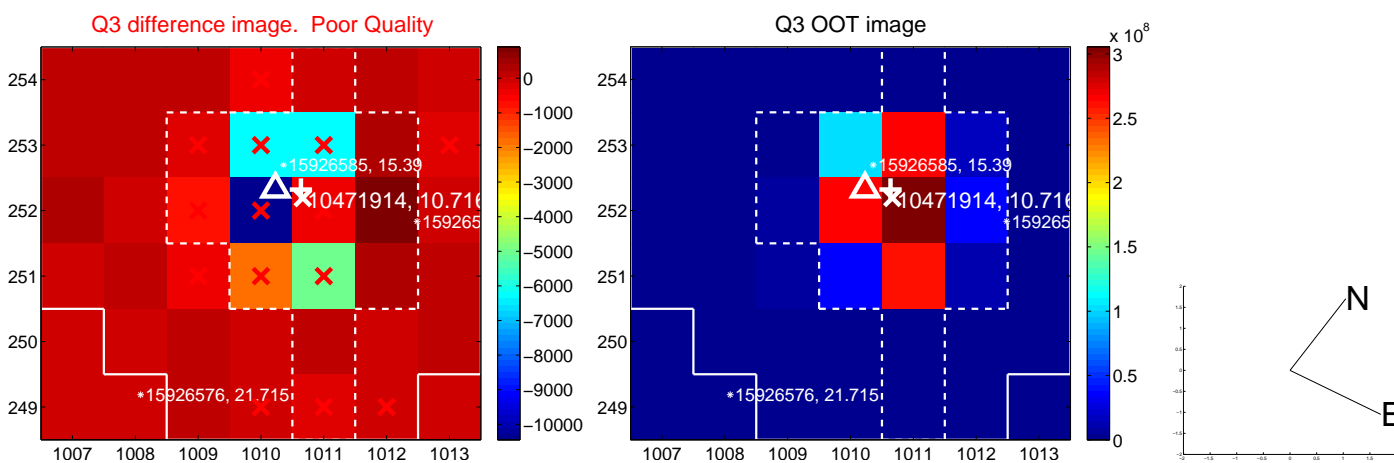
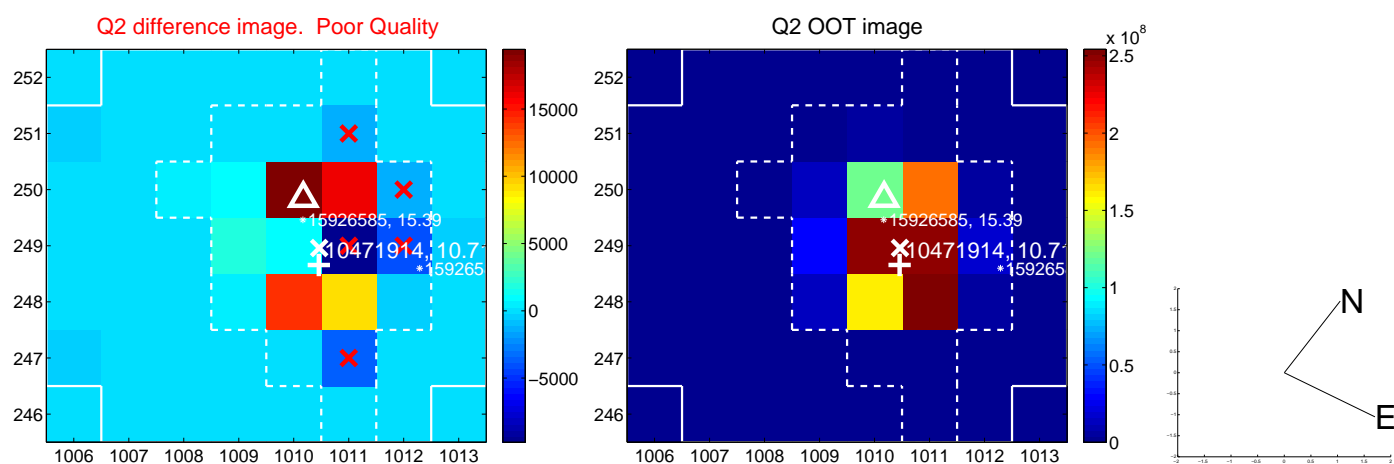
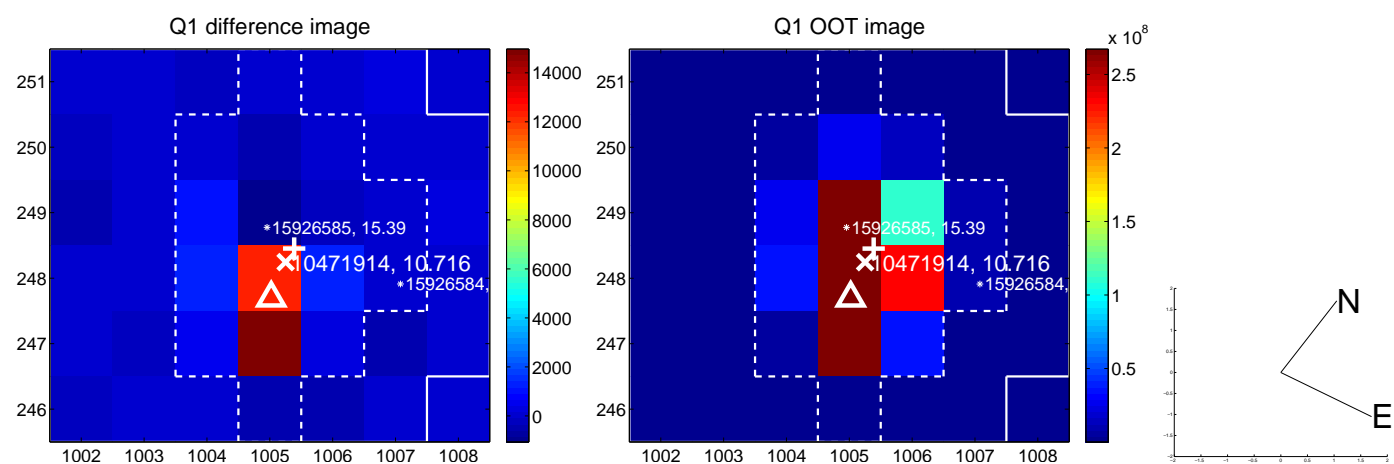


offset from photometric centroids

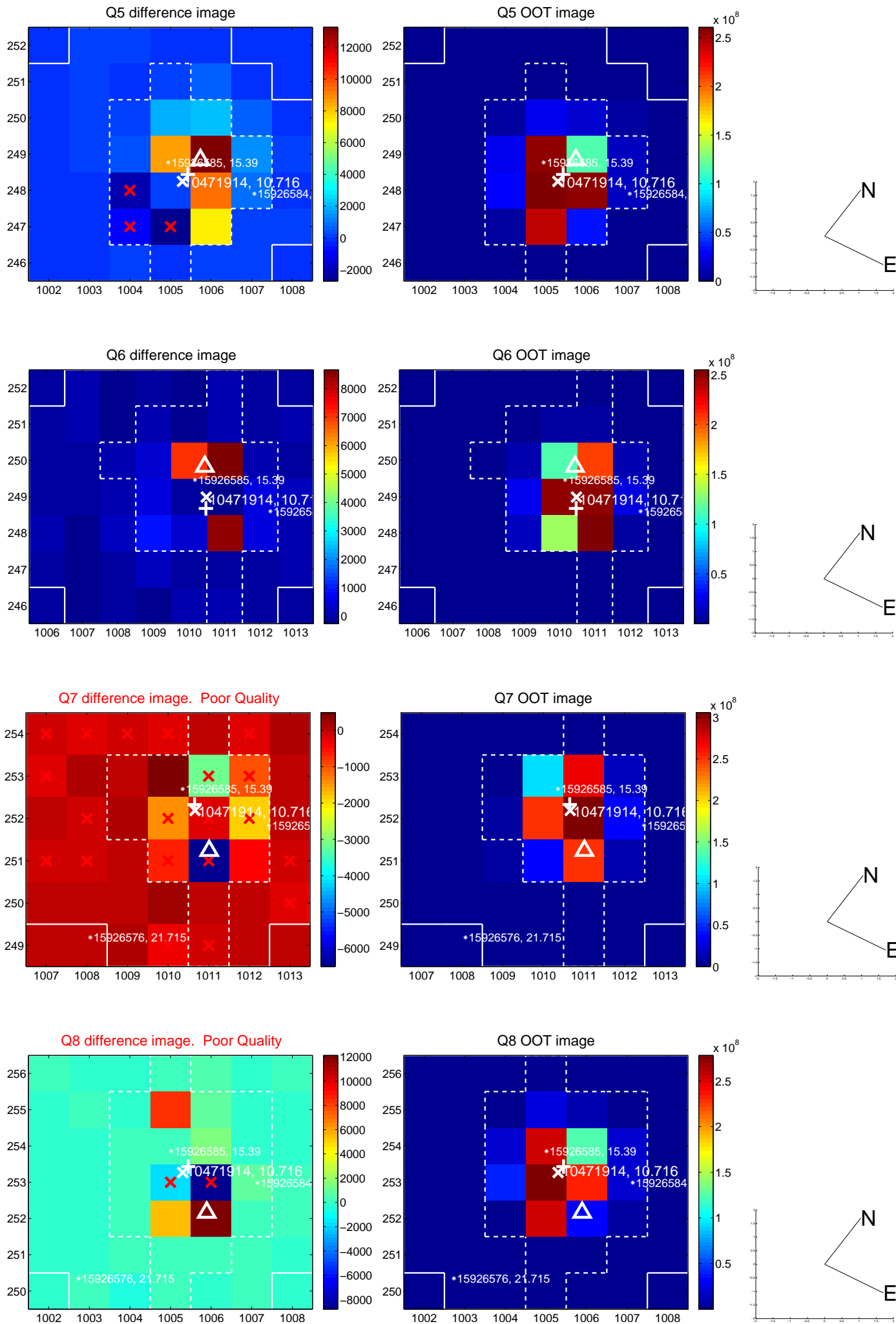


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

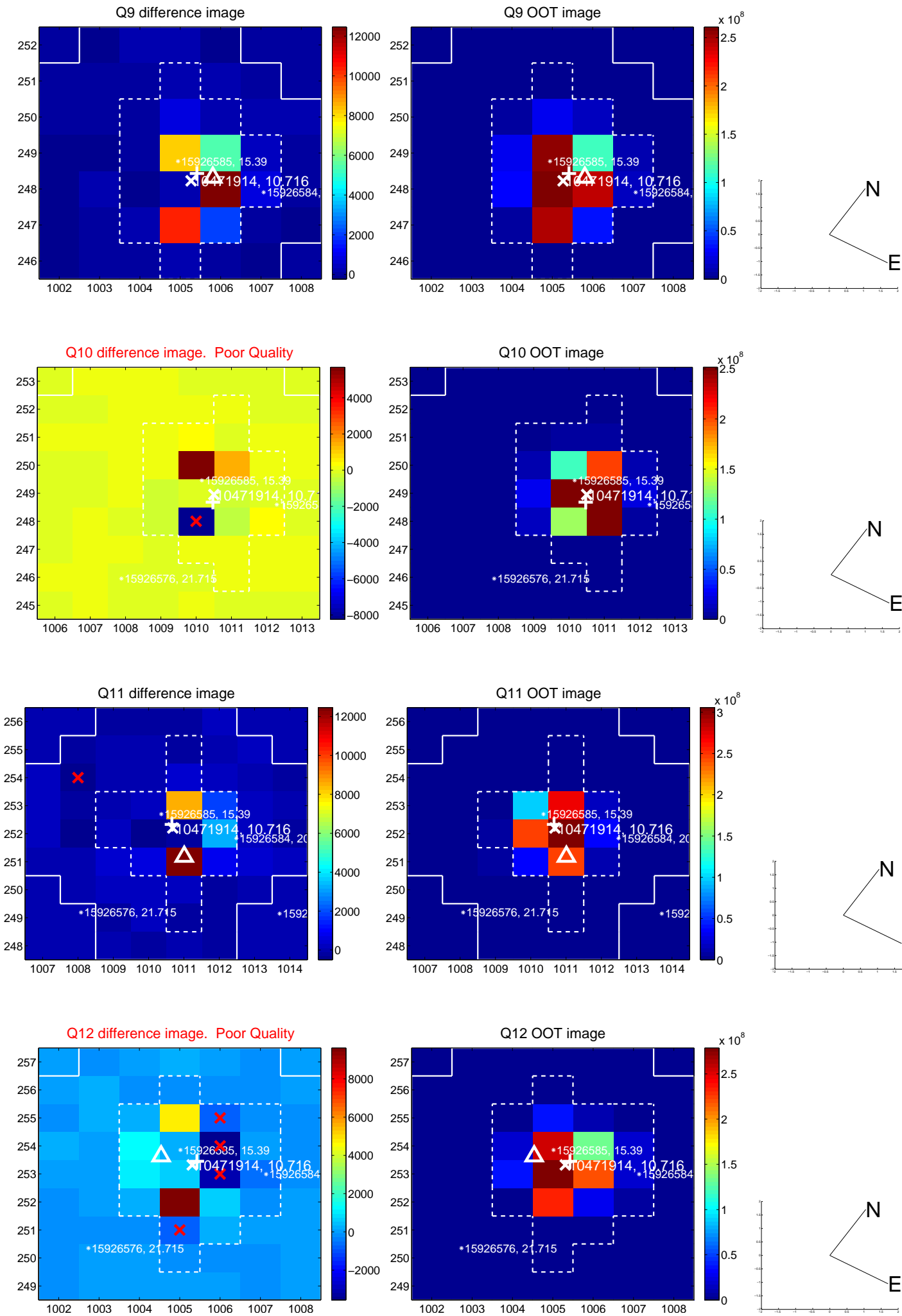
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



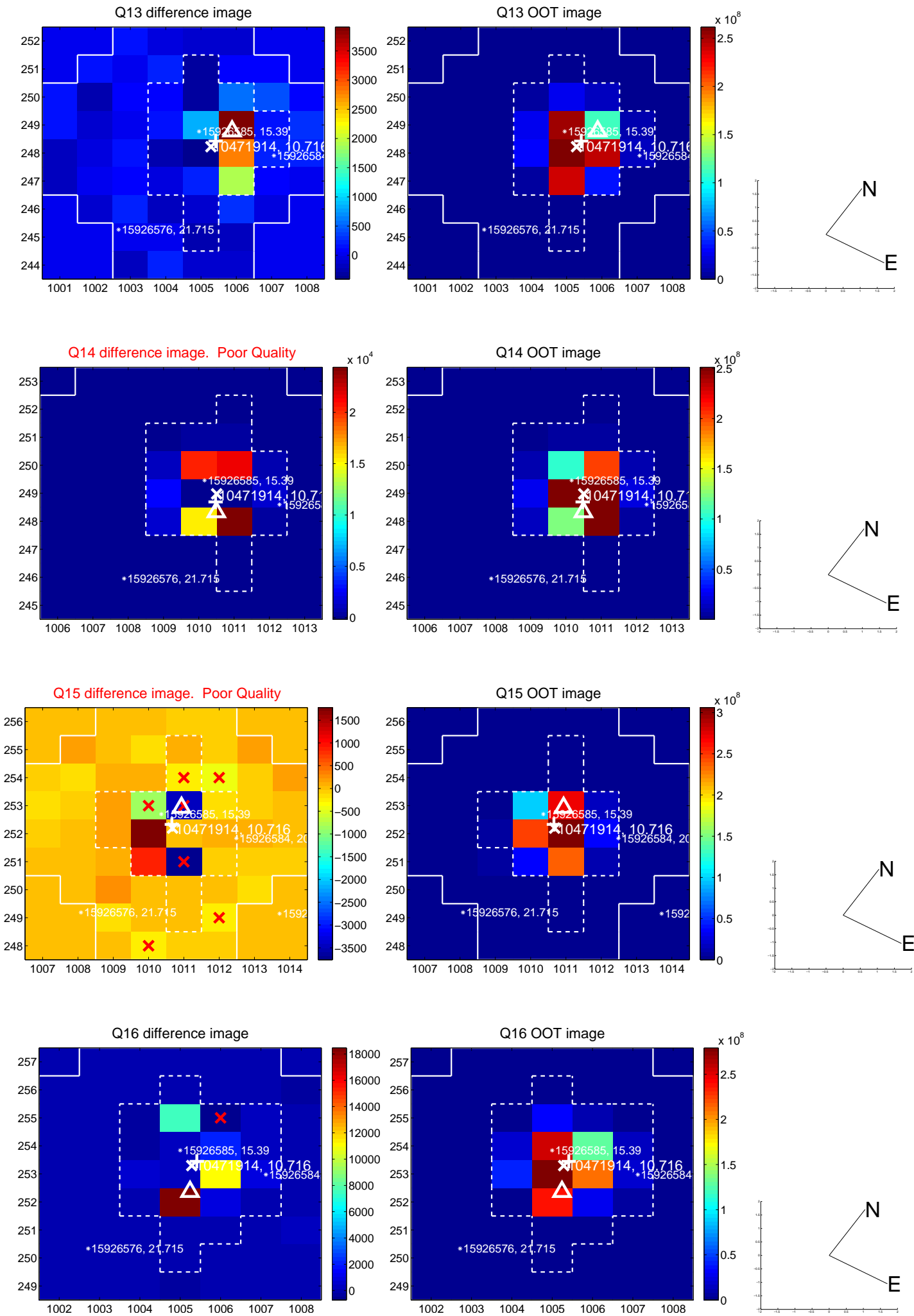
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



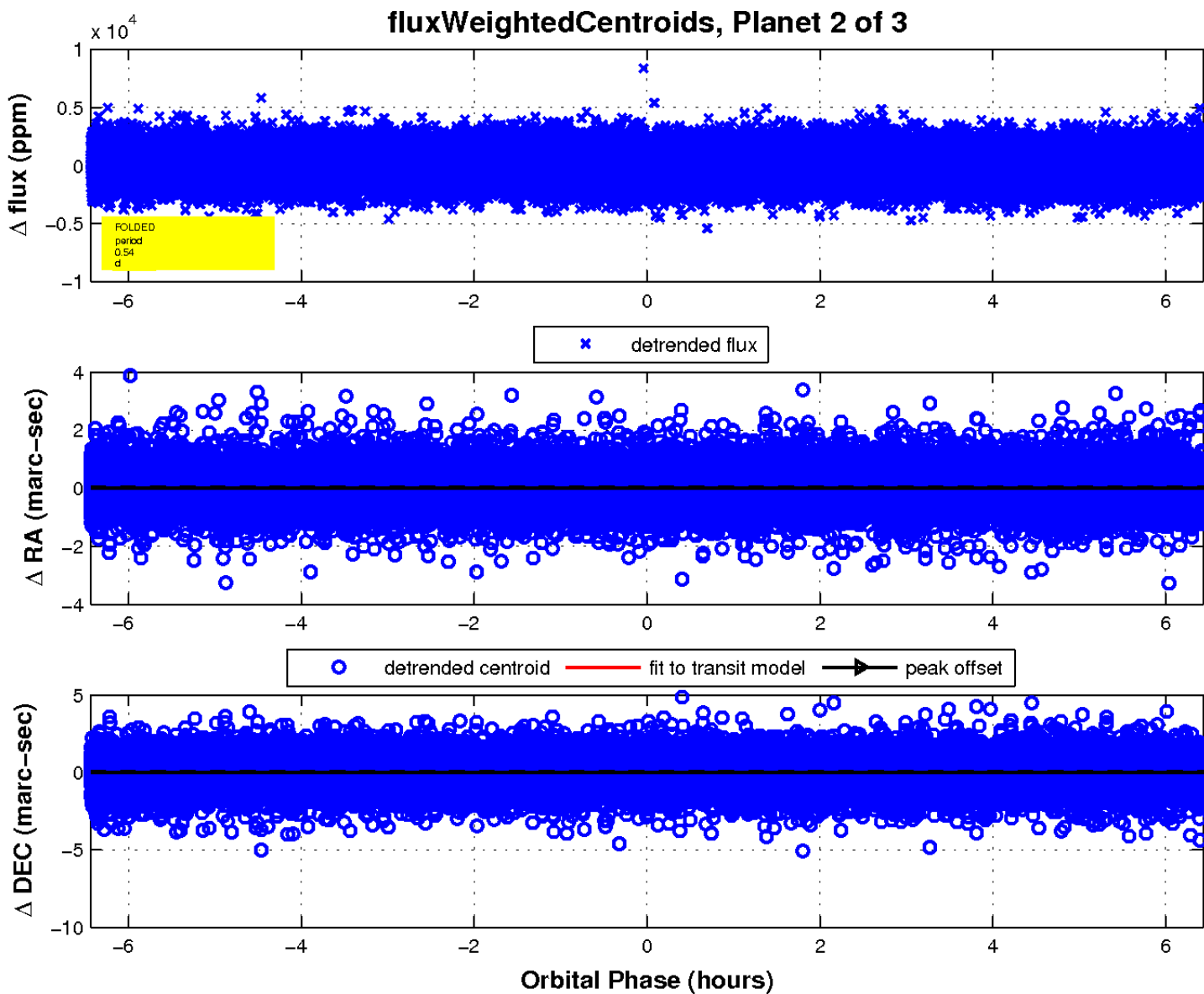
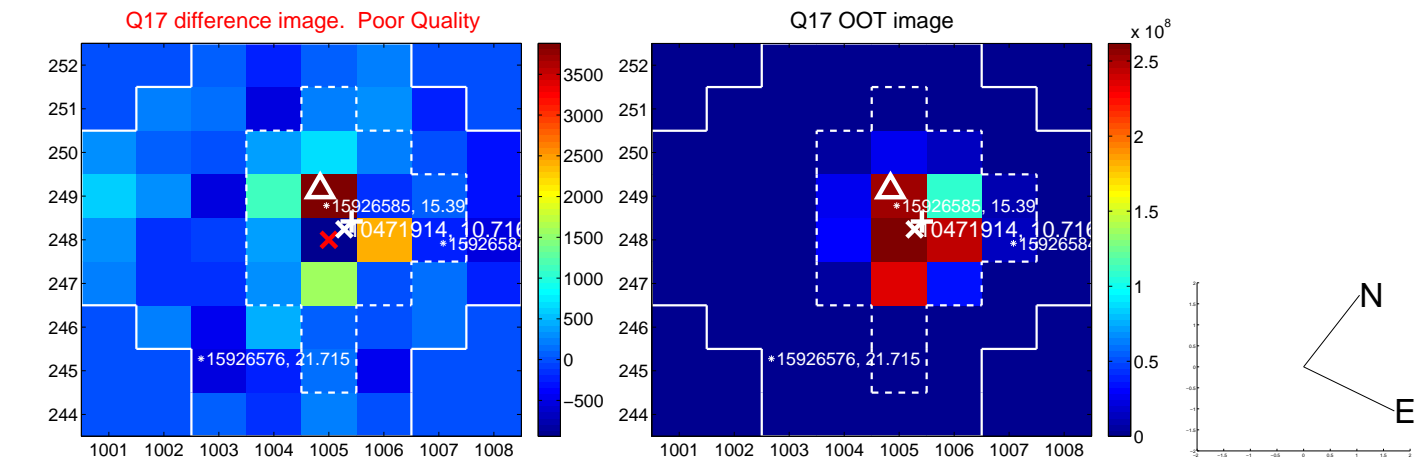
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



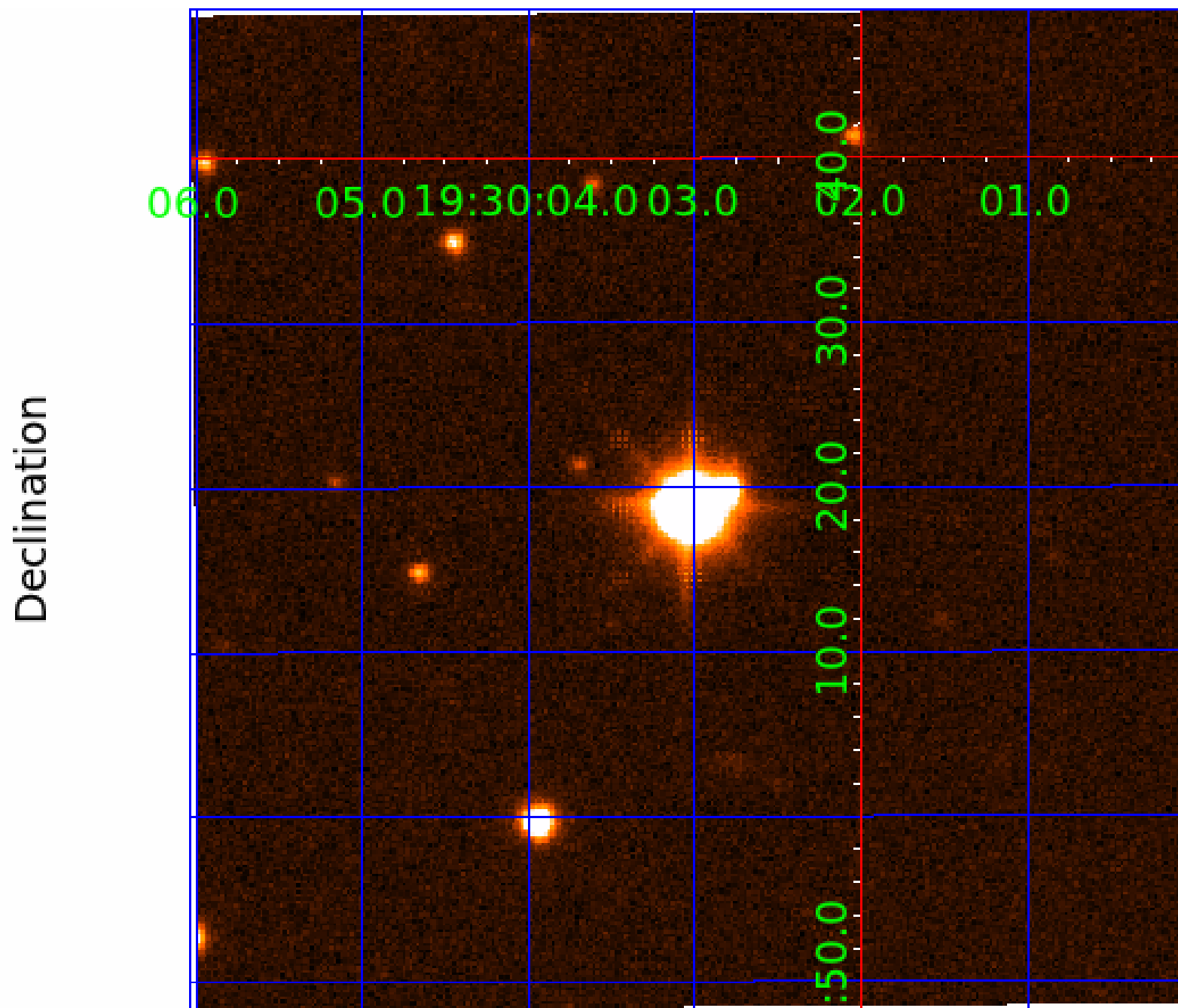
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 010471914

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})
010471914-01	OBS	No	0.536466	131.641436	169.7	1.416	15.5	15.1	2.03	7511	2.75	53686.25
010471914-02	OBS	No	0.536455	131.828255	96.0	2.353	11.9	9.5	2.03	7511	2.04	53687.75
010471914-03	OBS	No	2.263726	132.649467	309.0	5.102	9.8	9.0	2.03	7511	4.14	7873.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010471914-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
010471914-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_SATURATED
010471914-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_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.

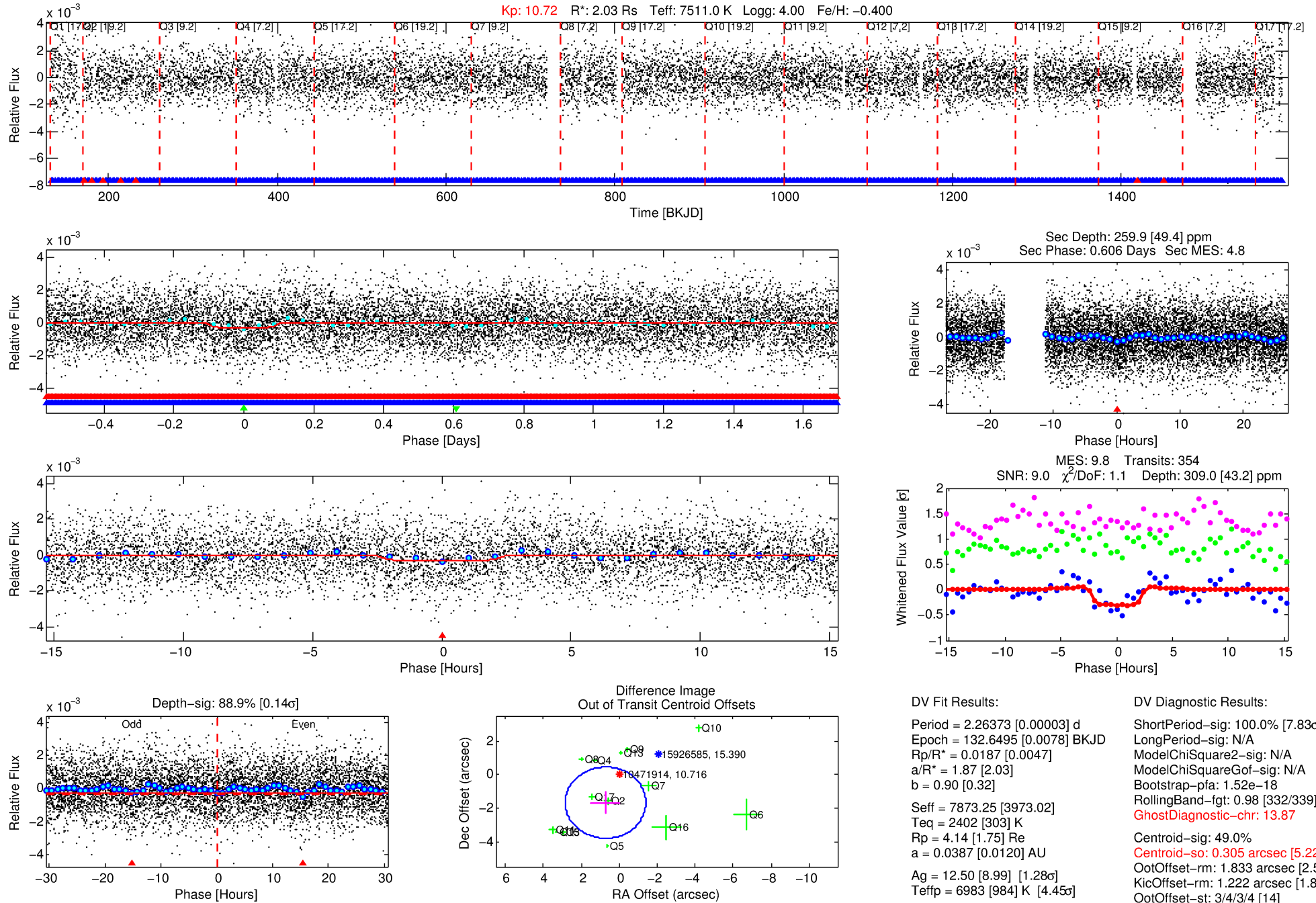
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010471914-03

No Significant Match Found

DV One-Page Summary

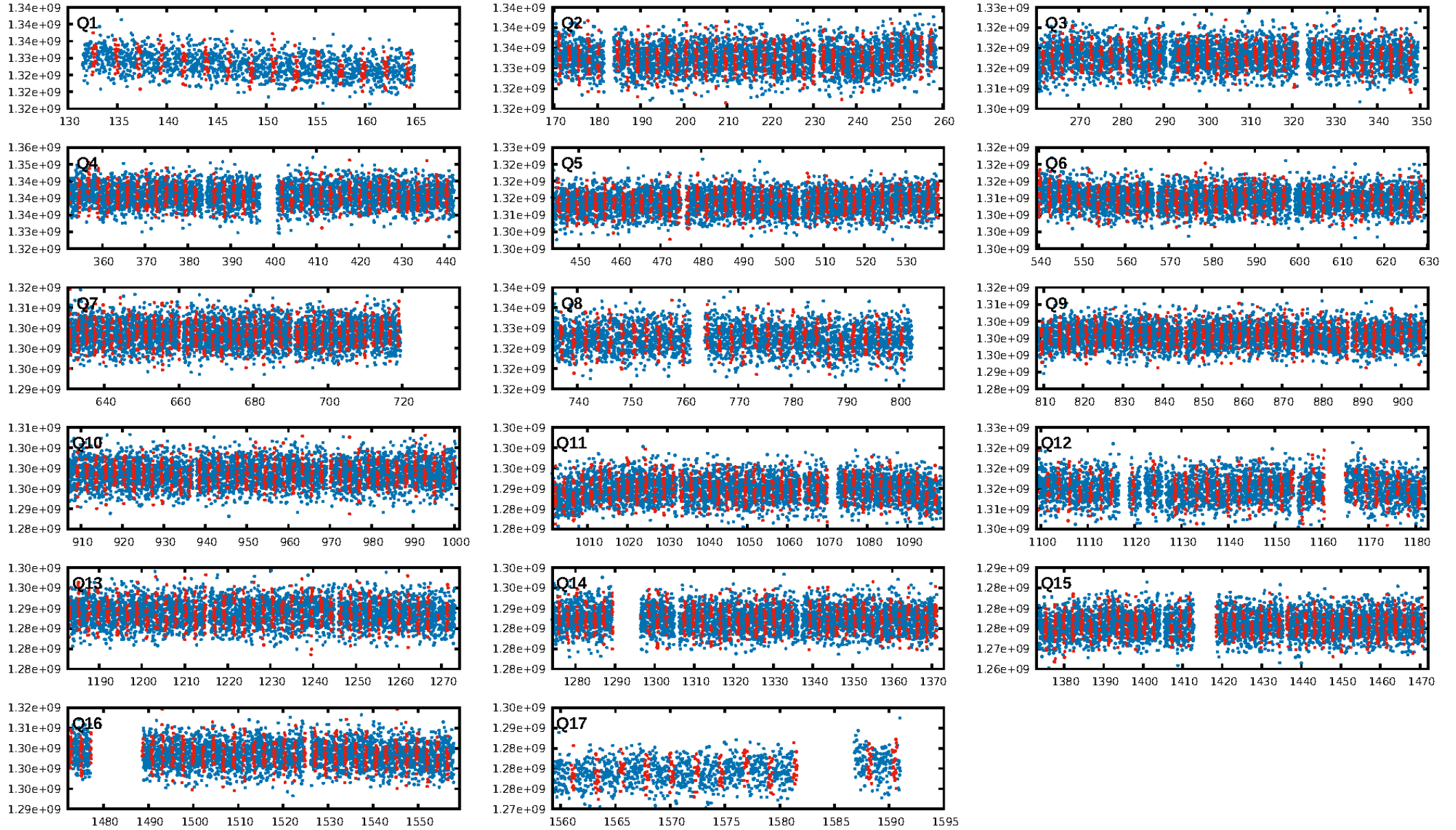
KIC: 10471914 Candidate: 3 of 3 Period: 2.264 d



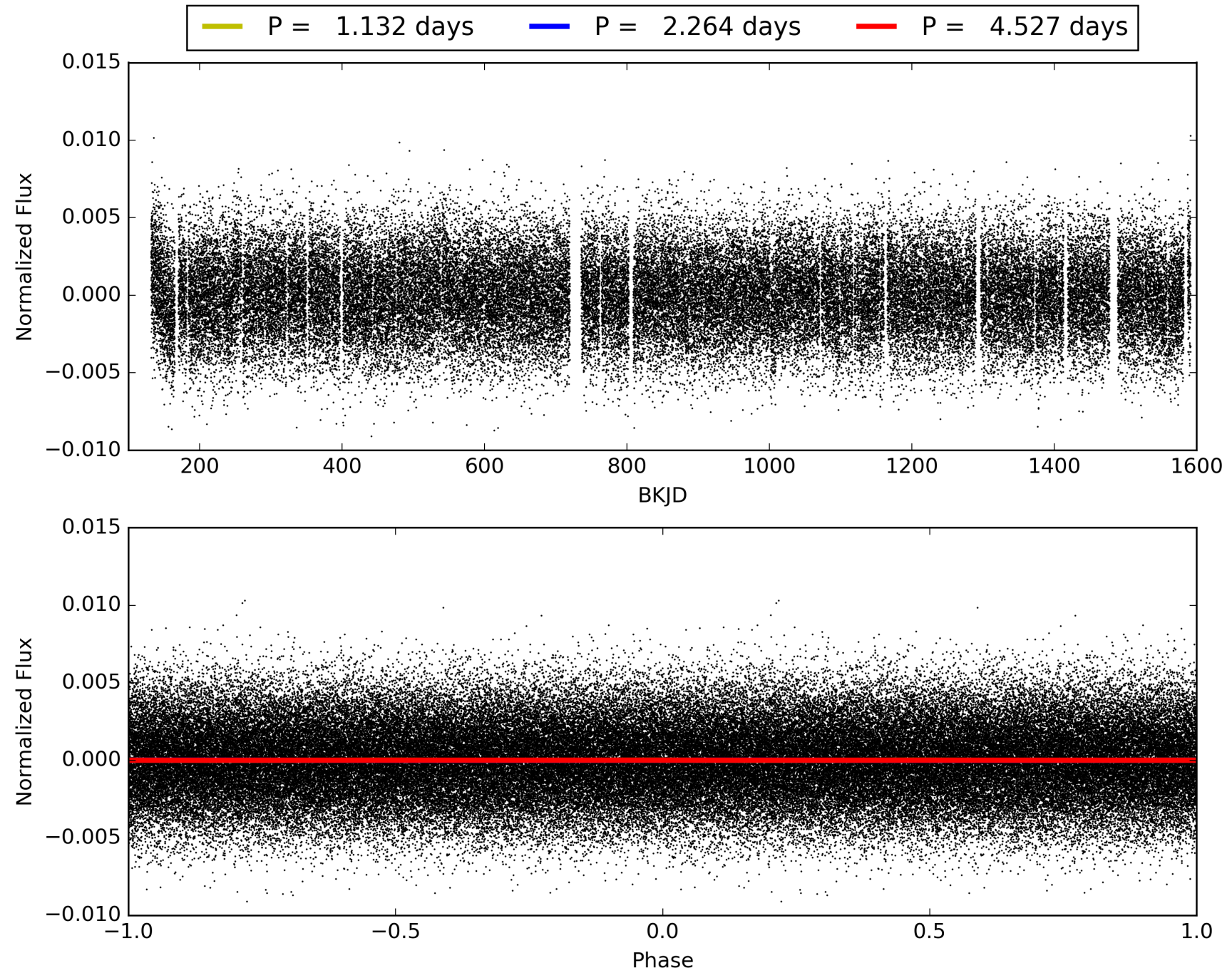
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:36:37 Z

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

TCE 010471914-03, PDC Light Curves

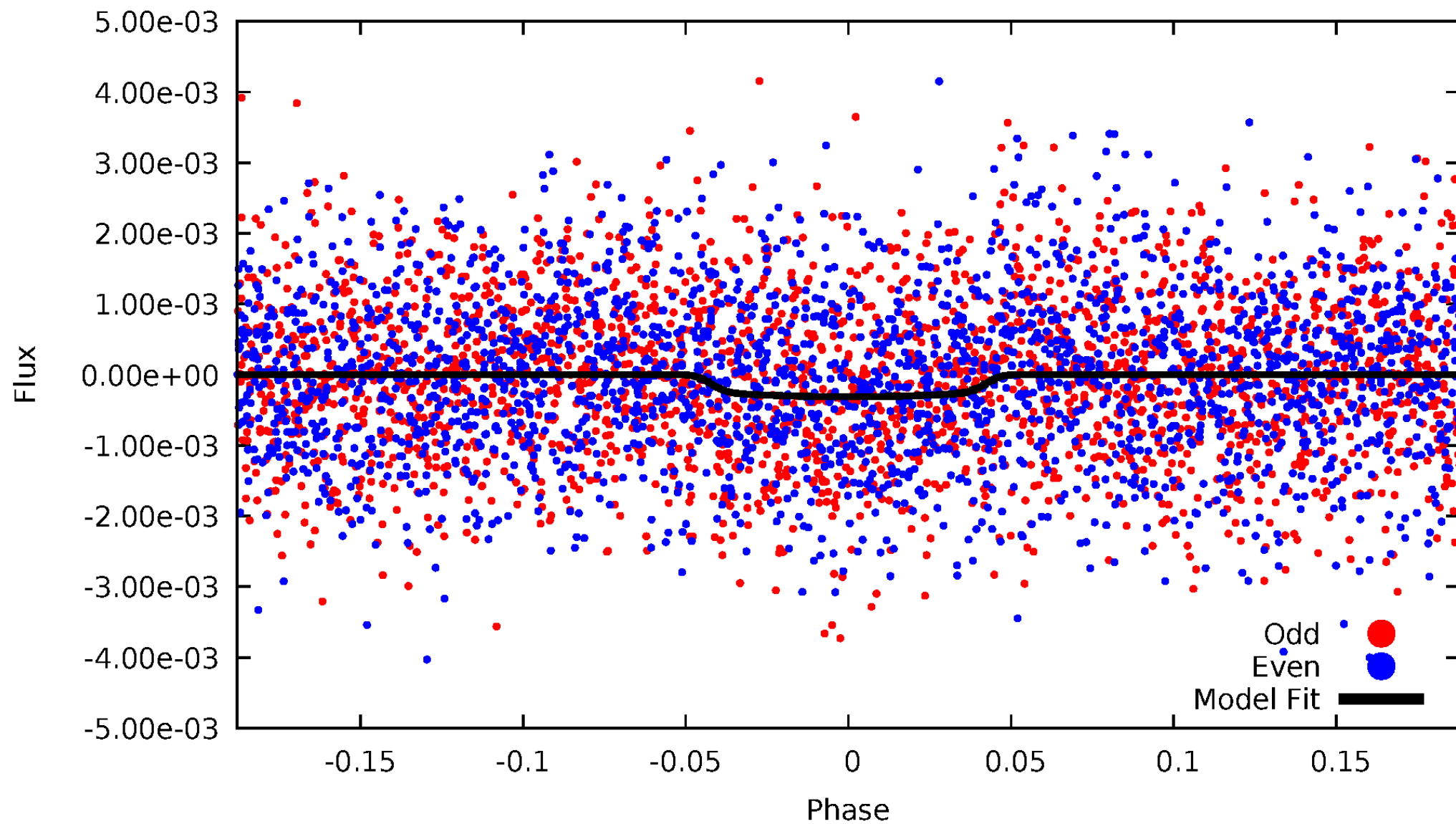


TCE 010471914-03



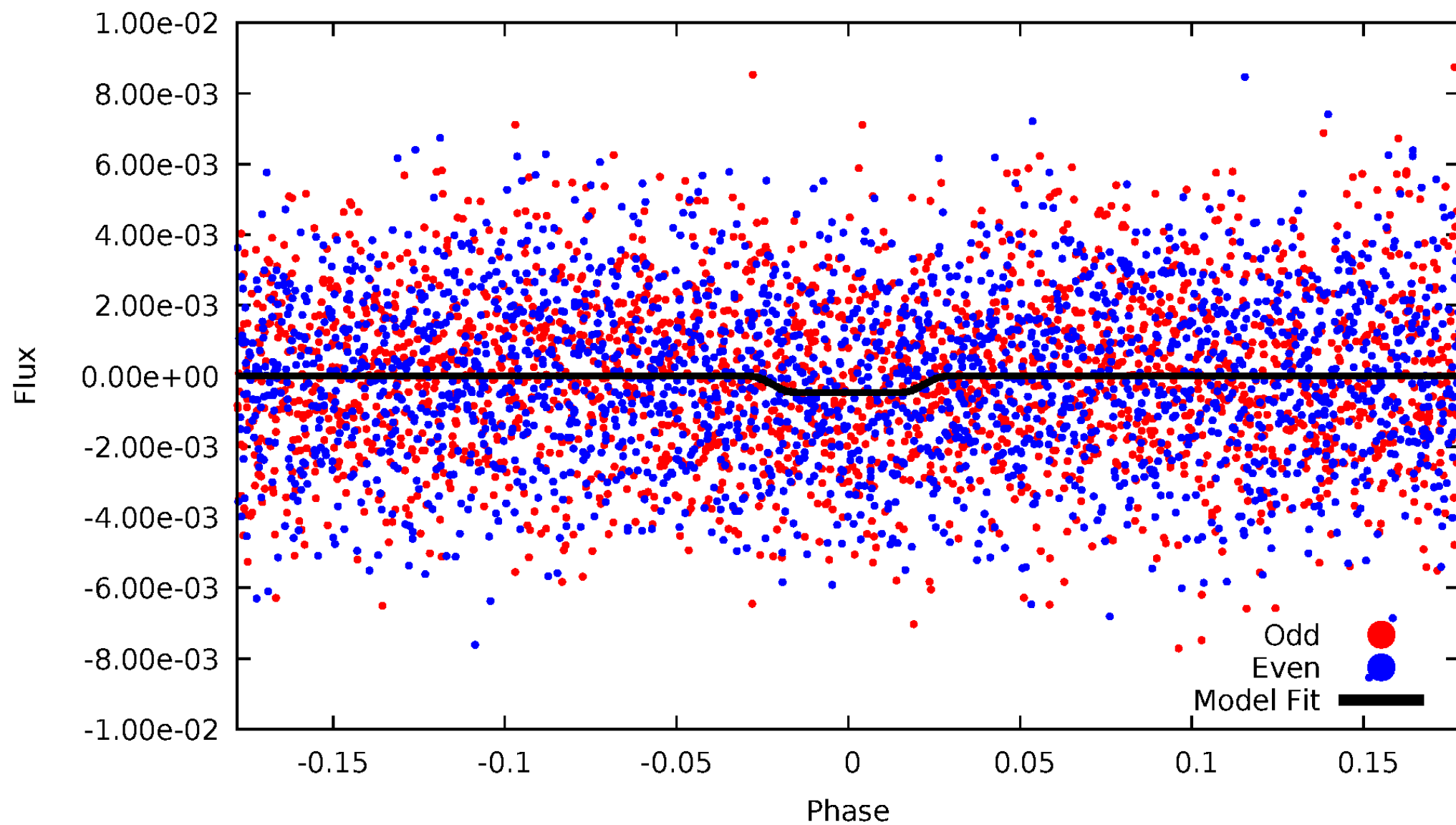
DV Odd/Even

TCE 010471914-03



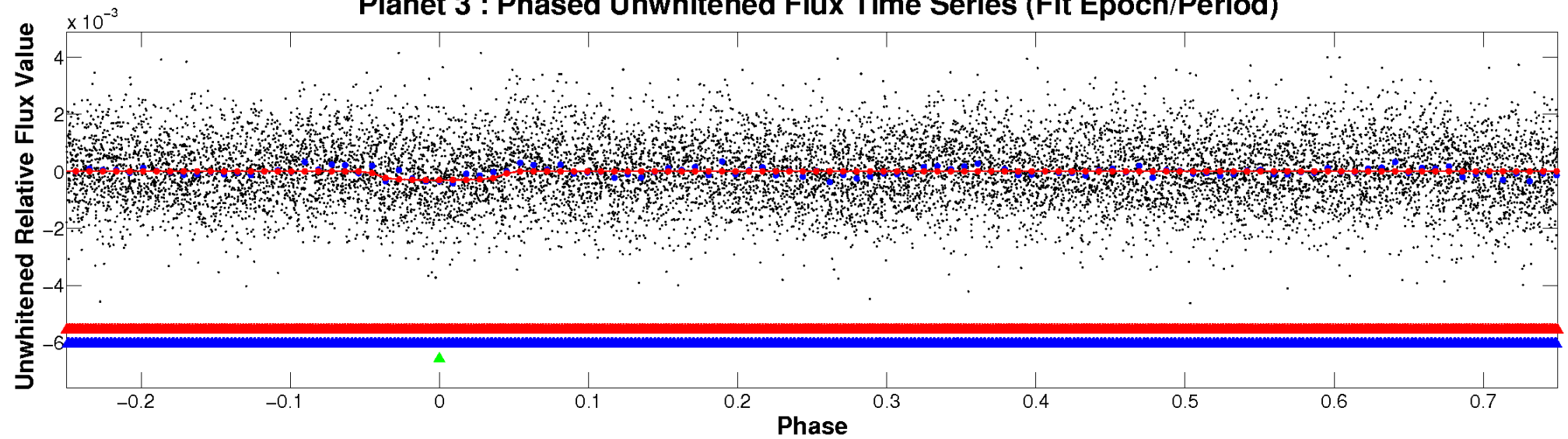
ALT Odd/Even

TCE 010471914-03

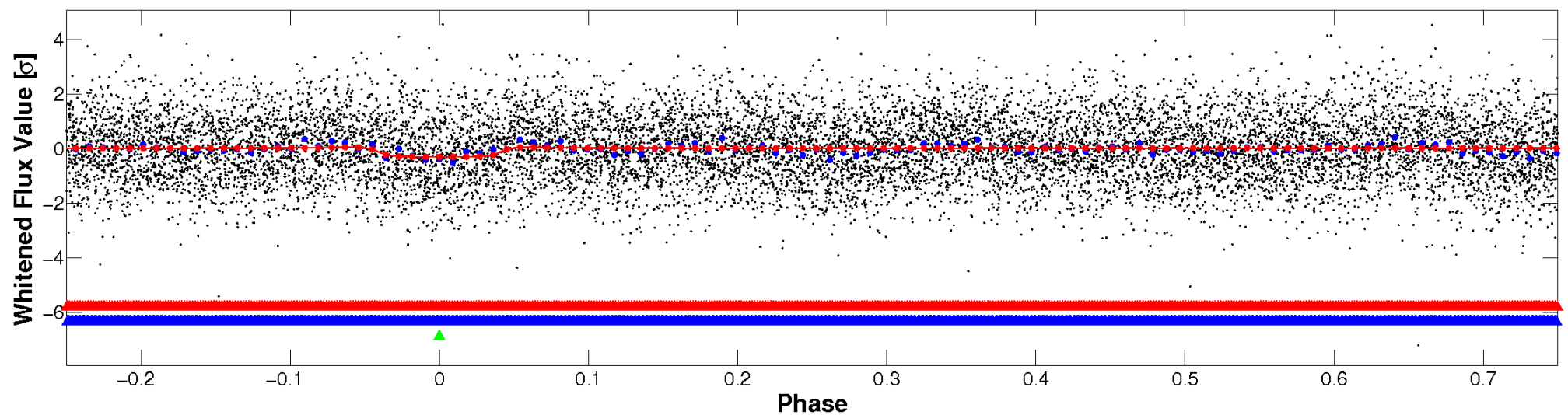


Non-Whitened Vs. Whitened Light Curve

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

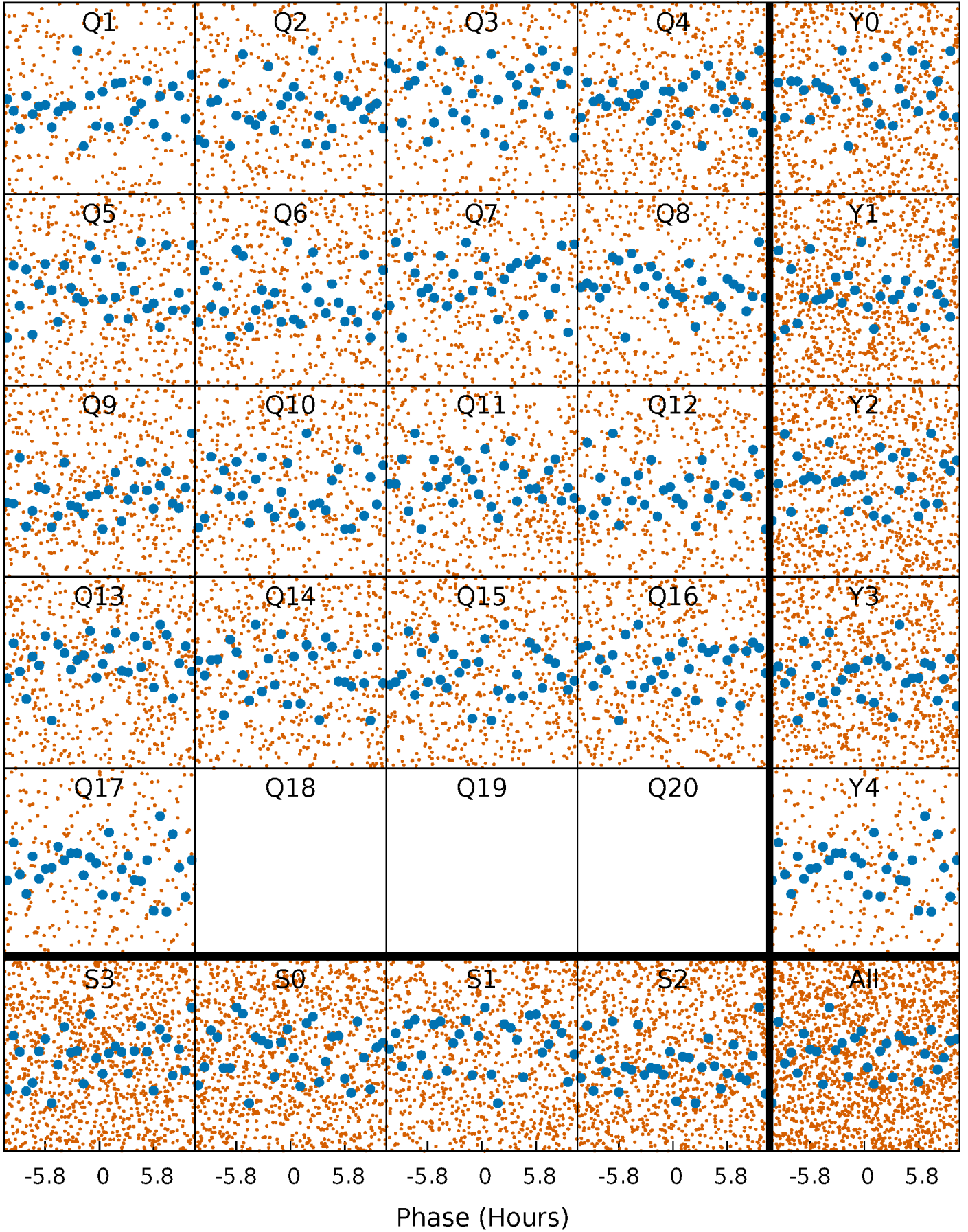


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



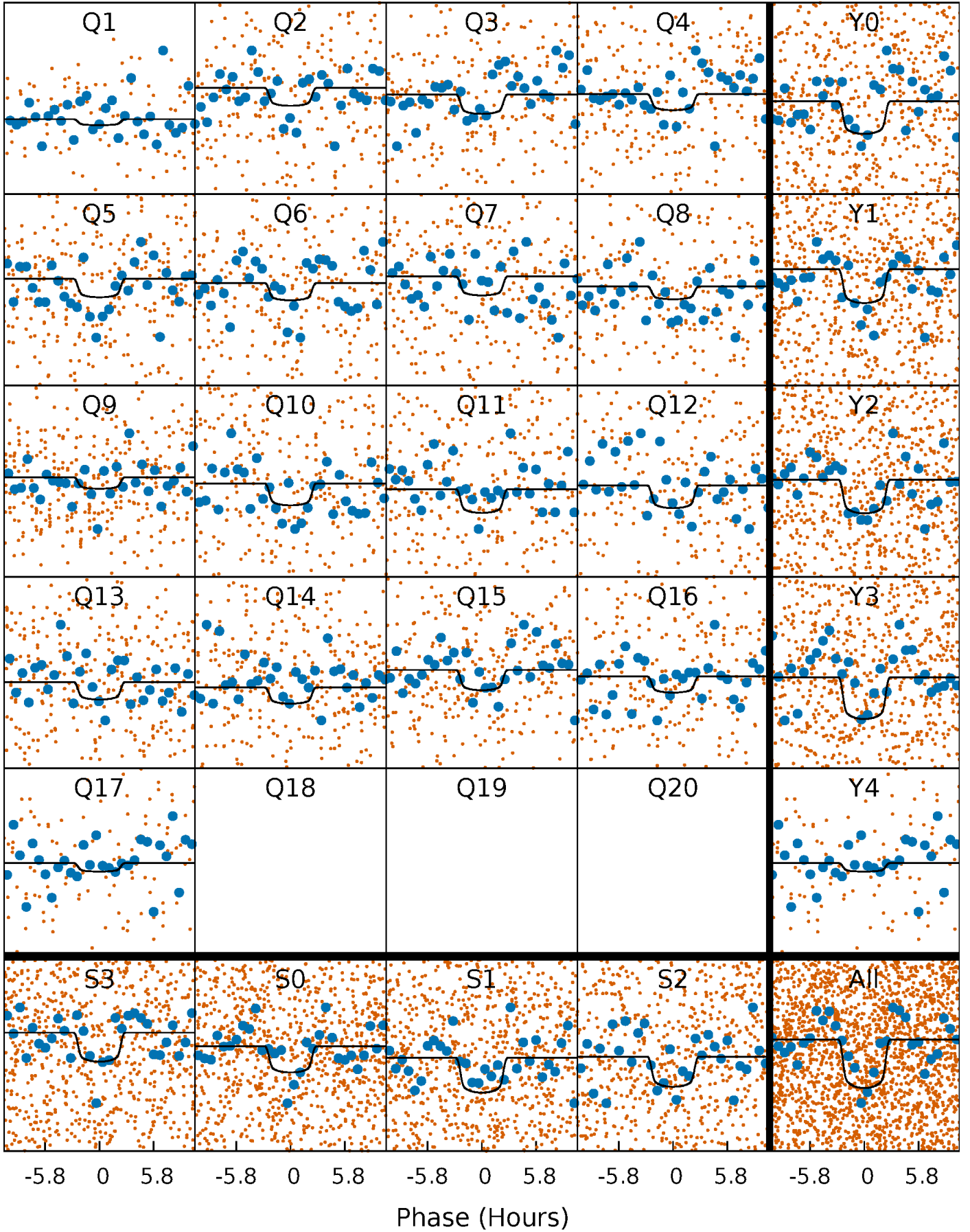
PDC Quarter-Phased Transit Curves

TCE 010471914-03 P= 2.263726 Days $T_0=132.649467$ (BKJD)



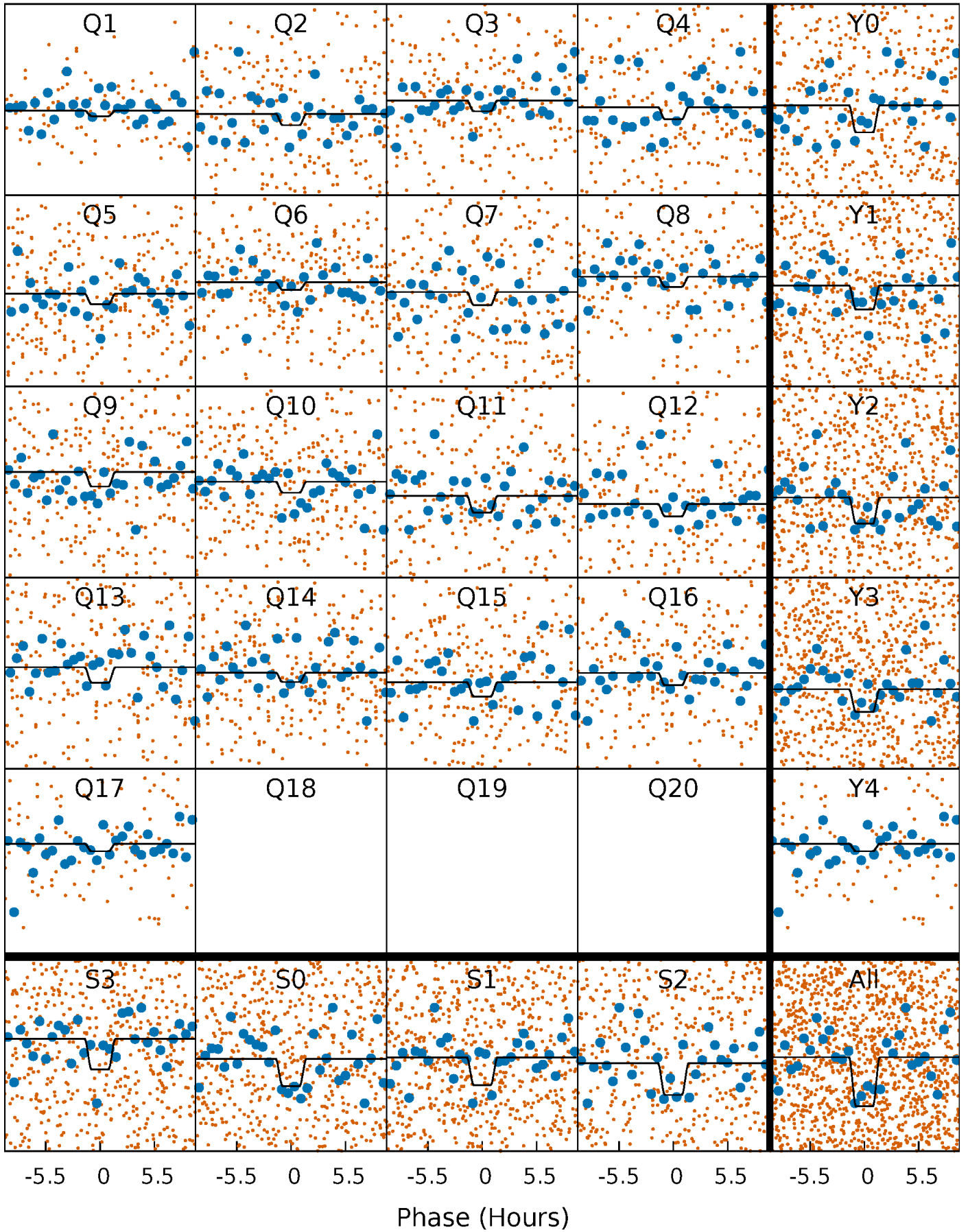
DV Quarter-Phased Transit Curves

TCE 010471914-03 P= 2.263726 Days $T_0=132.649467$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

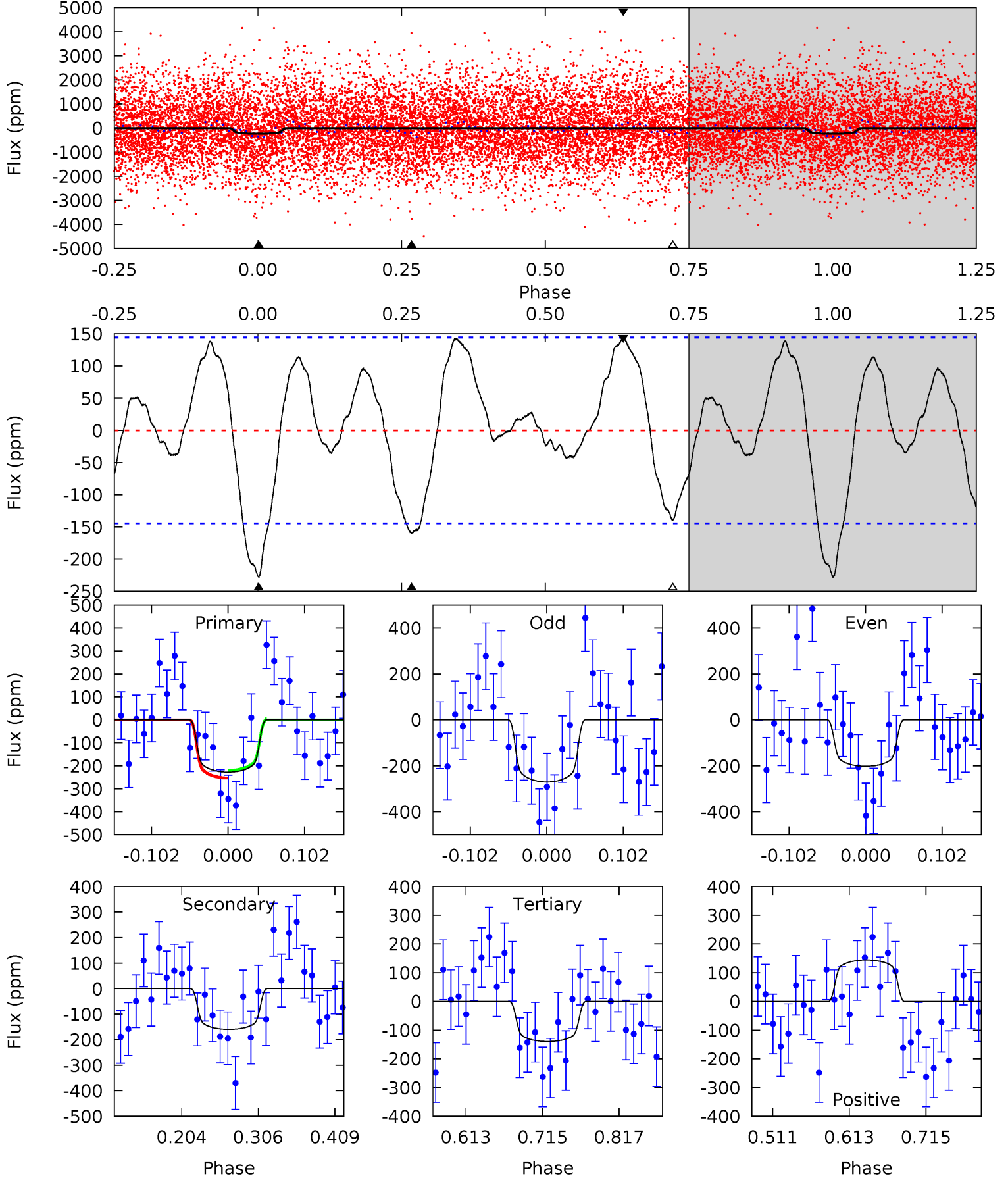
TCE 010471914-03 P= 2.263714 Days $T_0=132.653201$ (BKJD)



DV Model-Shift Uniqueness Test

010471914-03, P = 2.263726 Days, E = 130.385741 Days

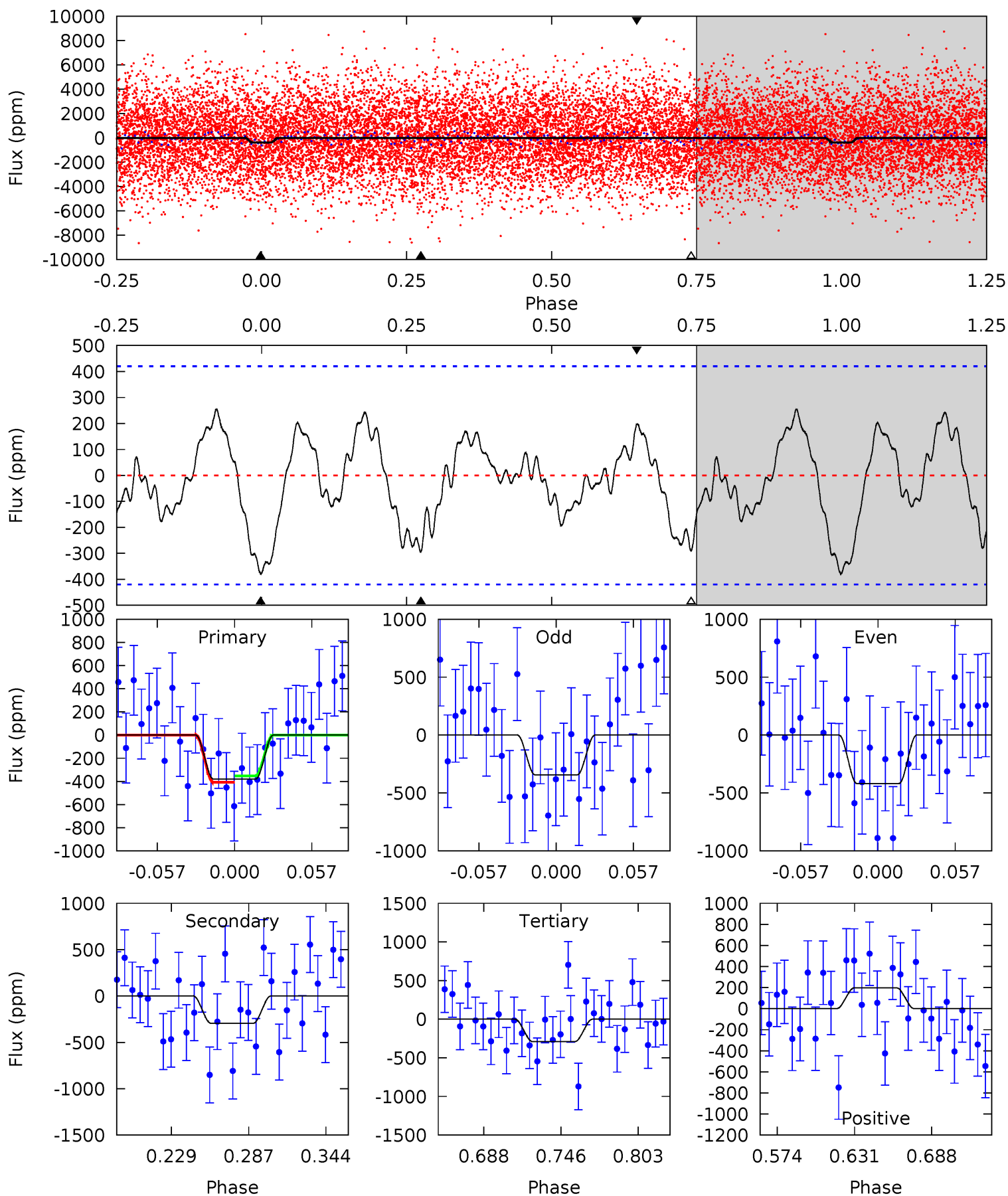
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.18	5.03	4.40	4.56	4.56	1.63	1.88	2.79	2.63	0.64	0.48	1.09	0.80	0.39	0.52



Alt Model-Shift Uniqueness Test

010471914-03, P = 2.263714 Days, E = 130.389487 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.24	3.29	3.24	2.20	4.68	1.90	1.37	1.00	2.04	0.04	1.08	0.42	0.84	0.40	0.31



Stellar Parameters For KIC 010471914

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7511^{+233}_{-311}	$4.000^{+0.273}_{-0.147}$	$-0.400^{+0.250}_{-0.350}$	$2.034^{+0.520}_{-0.693}$	$1.509^{+0.222}_{-0.272}$	$0.252^{+0.438}_{-0.105}$
	+3%/-4%	+7%/-4%	+62%/-87%	+26%/-34%	+15%/-18%	+174%/-41%
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 010471914-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-159 ± 32	$4.03^{+1.25}_{-1.16}$	3320^{+246}_{-293}	5968^{+1058}_{-670}	$8.080^{+7.831}_{-3.634}$
Alt.	-295 ± 90	$4.66^{+1.29}_{-1.21}$	3308^{+261}_{-296}	6457^{+1181}_{-824}	11^{+10}_{-5}

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 $A_{obs} \gg 1.0$

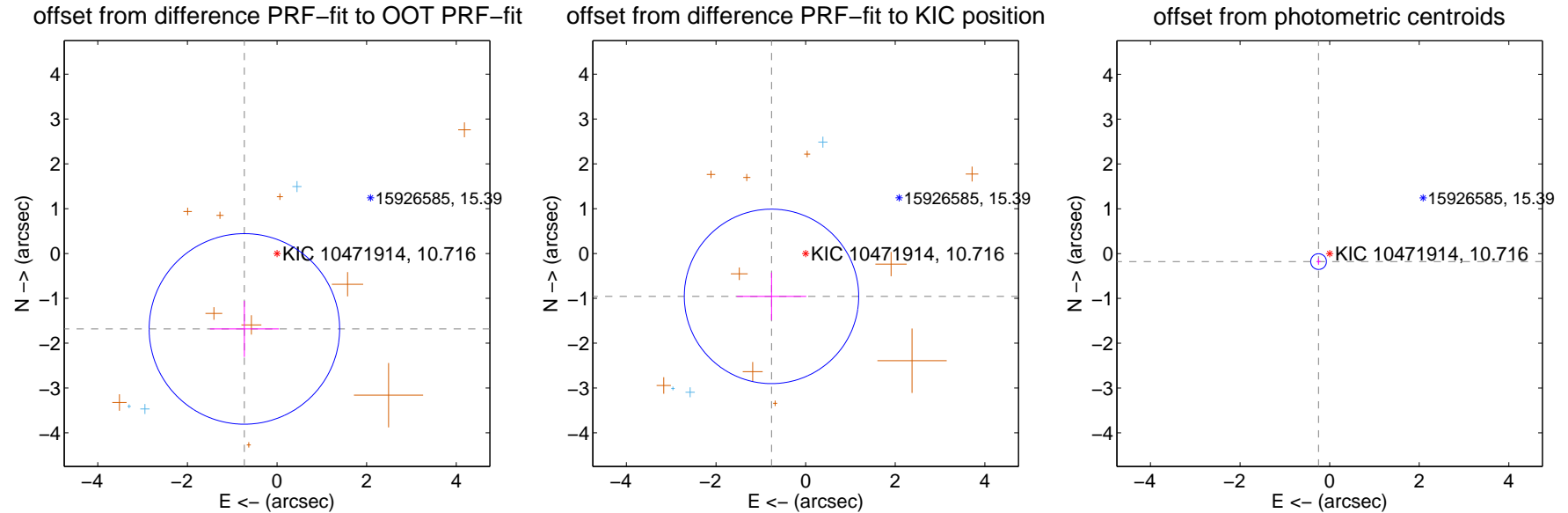
DV Centroid Data

Supplemental centroid analysis for 010471914-03. **Kepler magnitude: 10.72.** Transit SNR 9.03

There are 3 quarters with good PRF difference image offsets

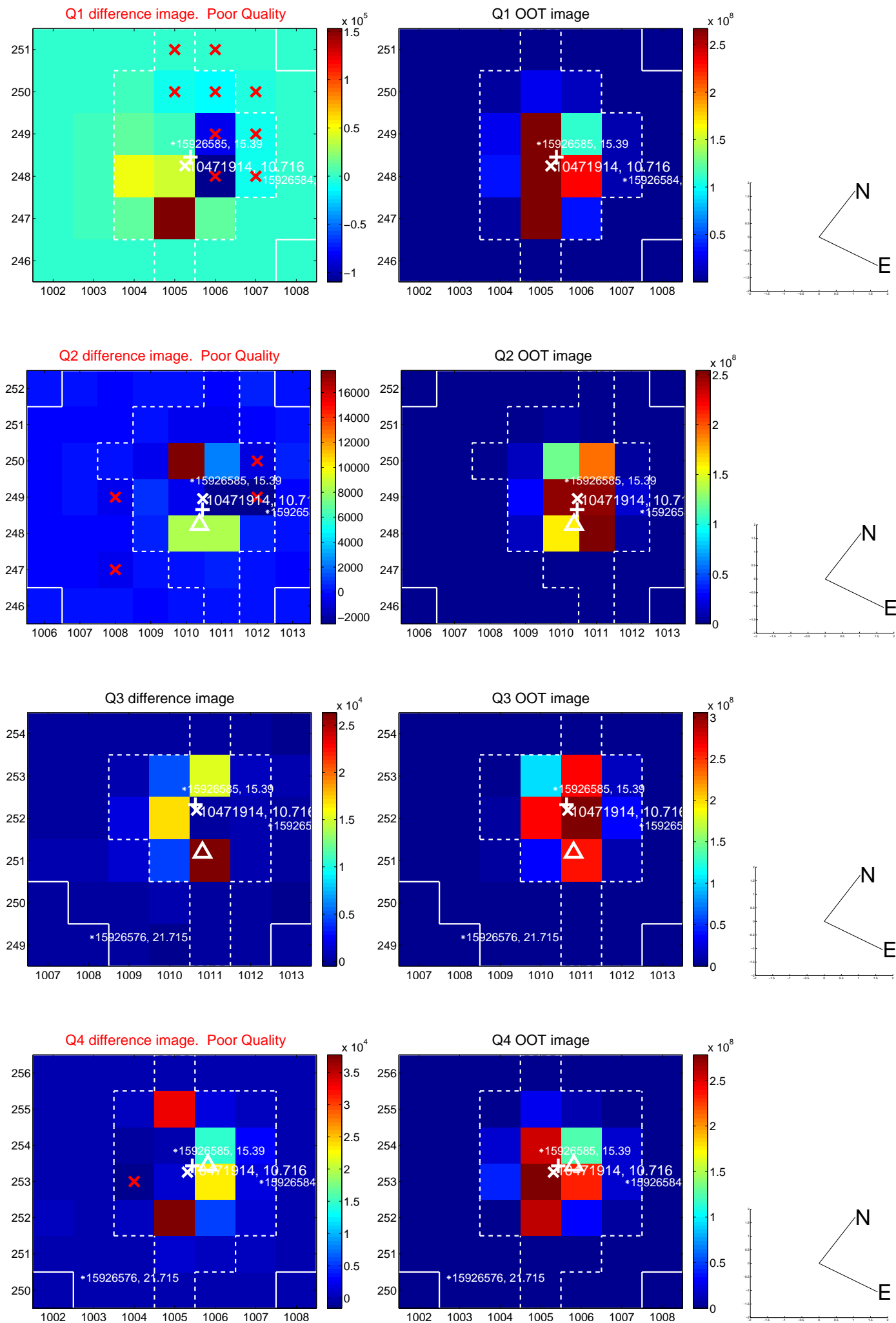
The direct PRF centroid is offset from the target star catalog position by about 0.89 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.833 ± 0.708	2.59	0.728 ± 0.768	-1.682 ± 0.625
PRF-fit source offset from KIC position	1.222 ± 0.648	1.88	0.761 ± 0.776	-0.956 ± 0.530
photometric centroid source offset	0.31 ± 0.06	5.22	0.25 ± 0.05	-0.18 ± 0.07

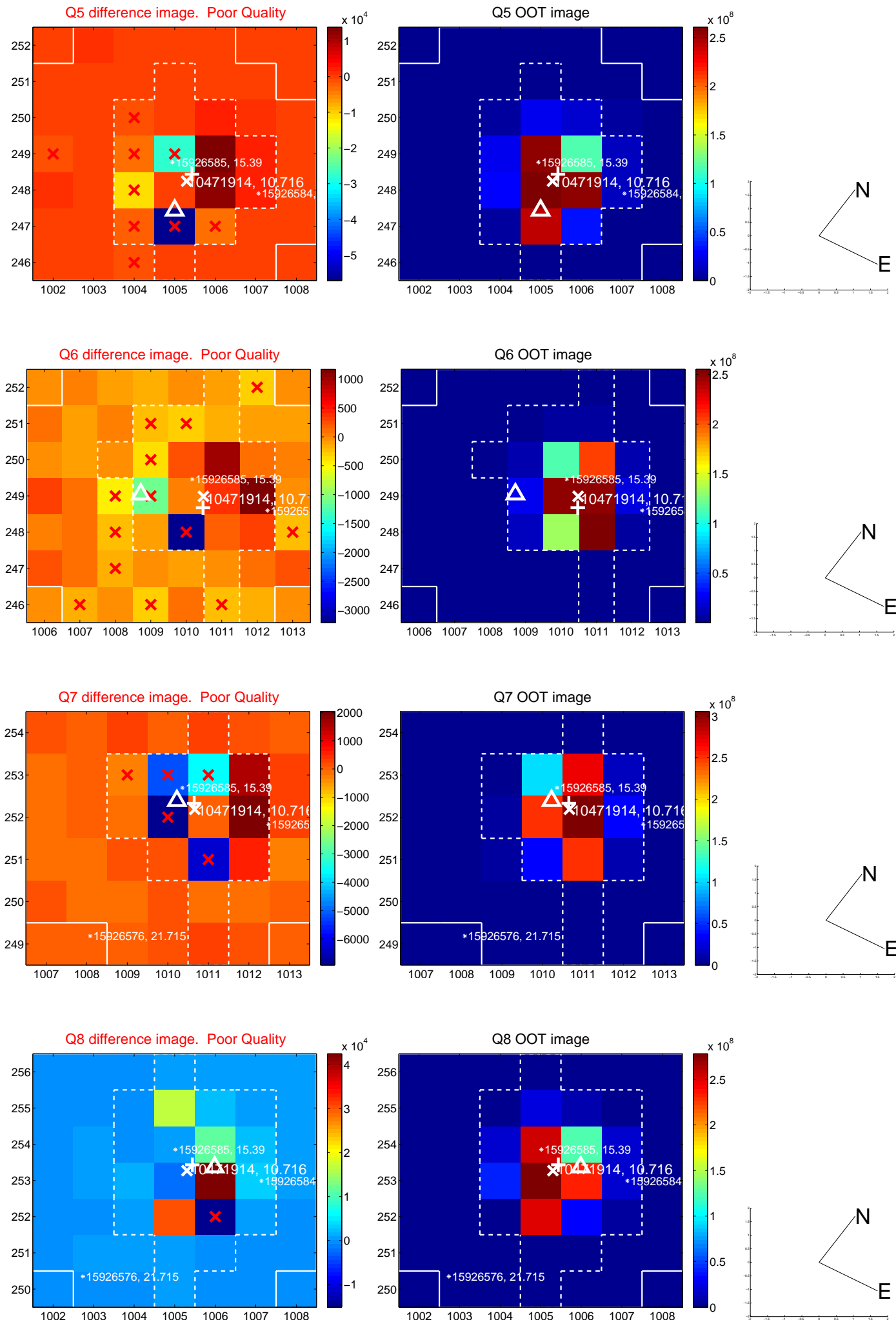


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

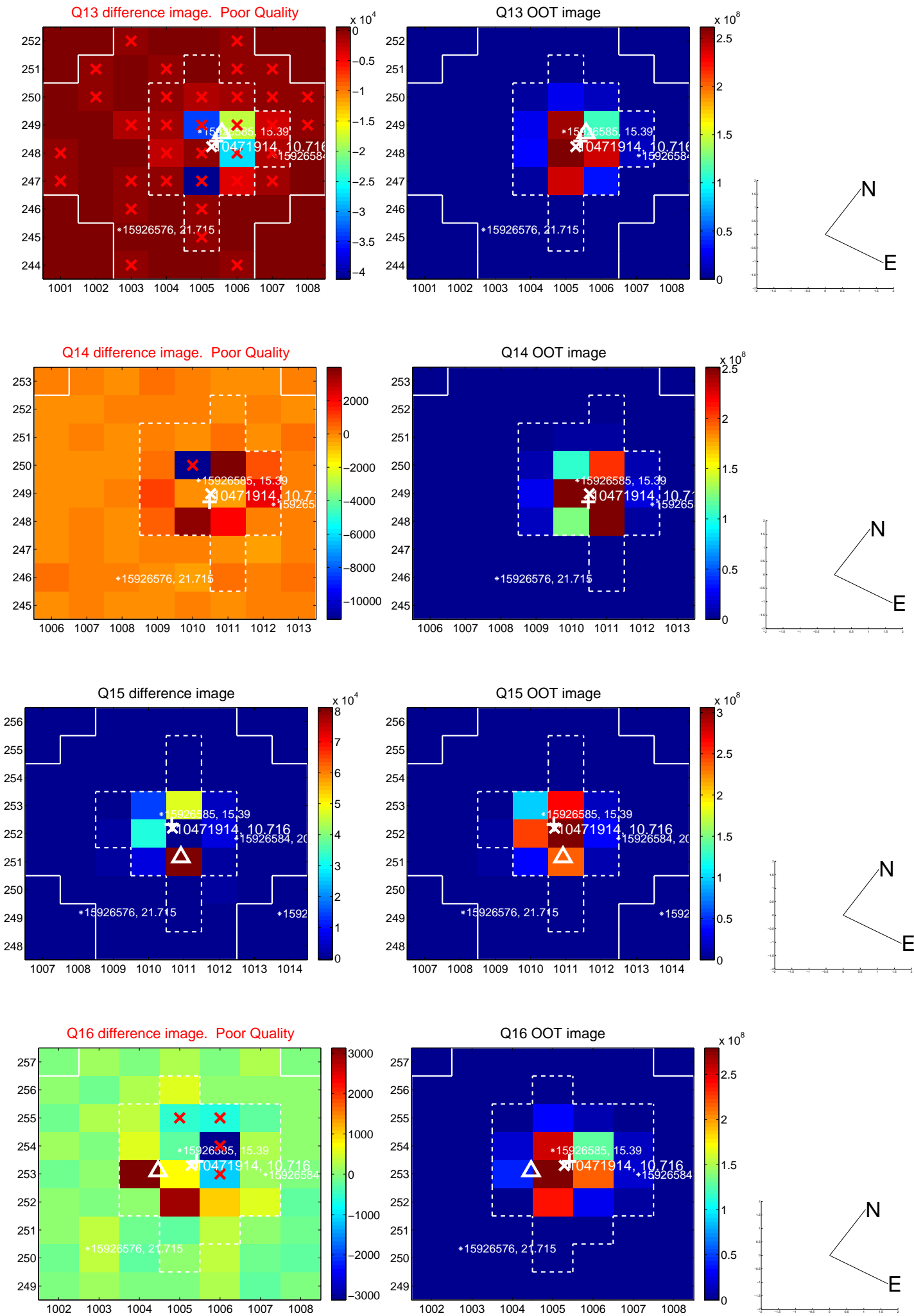
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



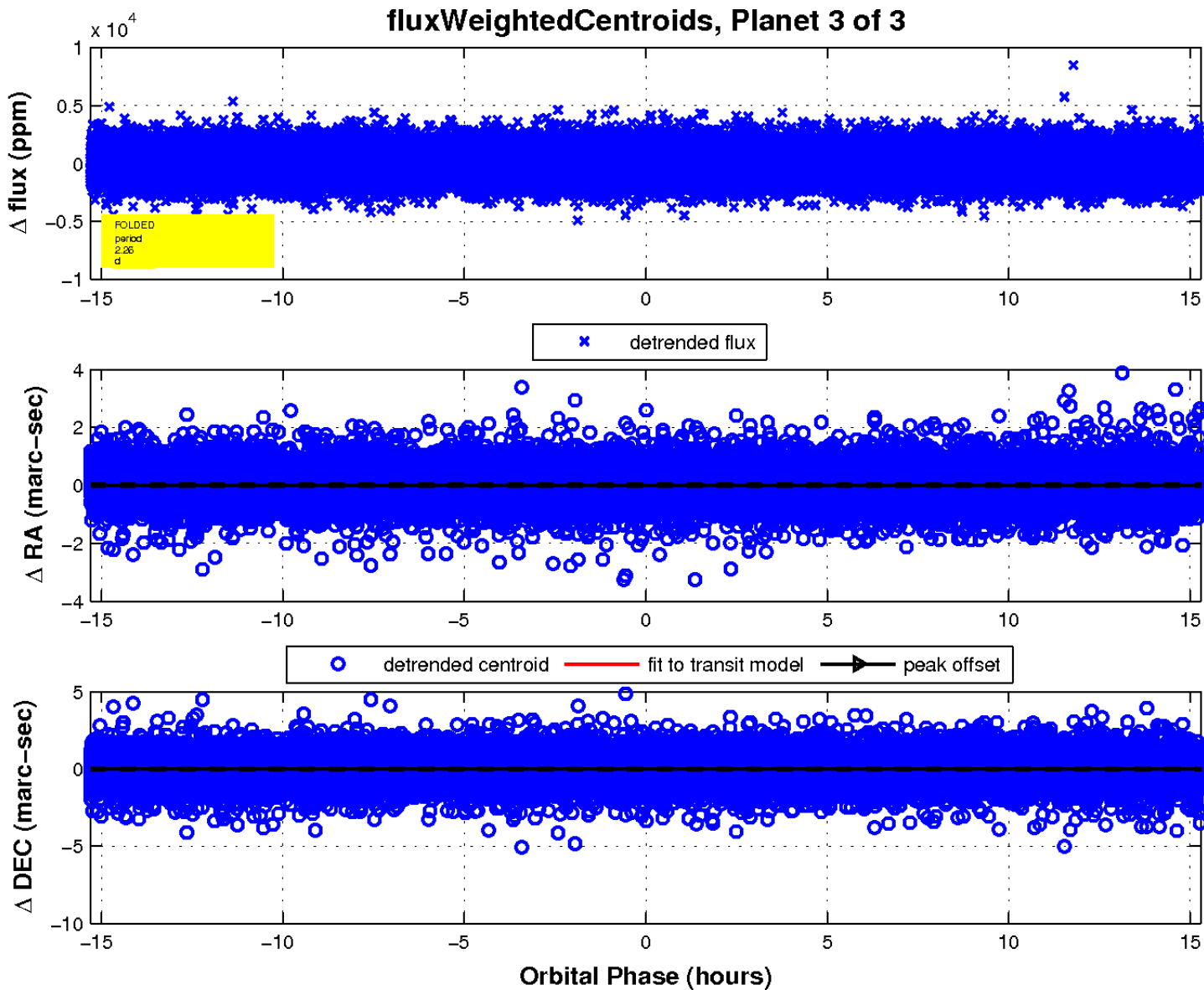
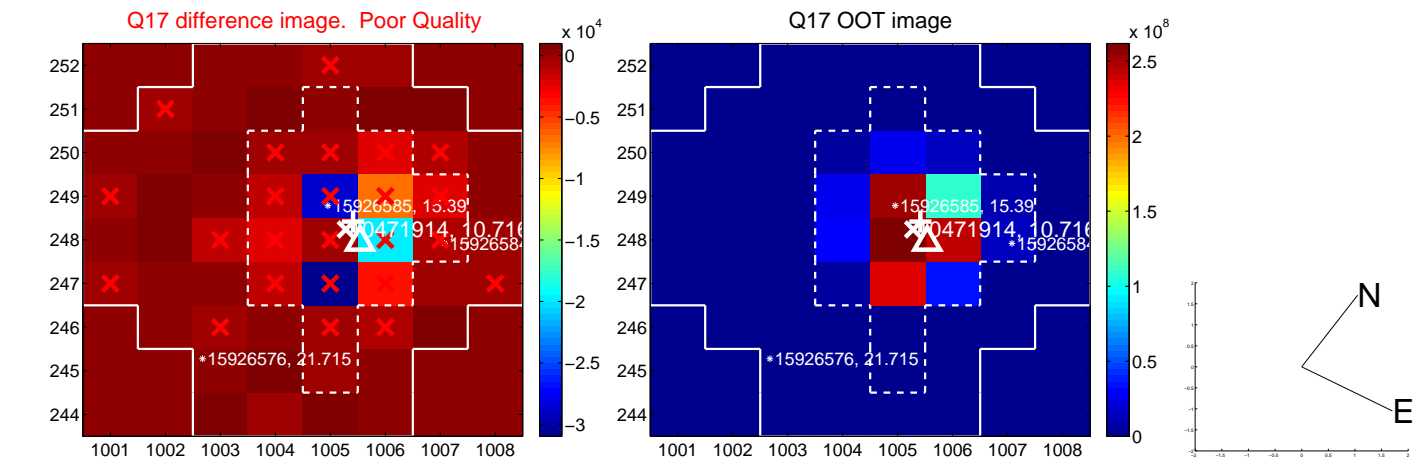
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

