

KIC 003338608

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})
003338608-01	OBS	No	2.547781	132.179067	44.6	7.740	9.8	9.6	1.25	6211	0.97	1598.34
003338608-02	OBS	No	1.273926	131.538880	26.3	8.874	9.2	8.6	1.25	6211	0.75	4027.42
003338608-04	OBS	No	4.736033	134.196871	110.0	2.697	11.4	7.6	1.25	6211	1.53	699.30
003338608-05	OBS	No	9.252387	132.169485	90.4	6.696	12.6	5.5	1.25	6211	1.38	286.34
003338608-06	OBS	No	23.603716	155.055311	266.3	4.158	10.0	10.2	1.25	6211	2.30	82.14
003338608-07	OBS	No	9.139326	134.791711	272.5	2.083	9.1	12.6	1.25	6211	2.47	291.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003338608-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD—CENT_KIC_POS
003338608-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003338608-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003338608-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

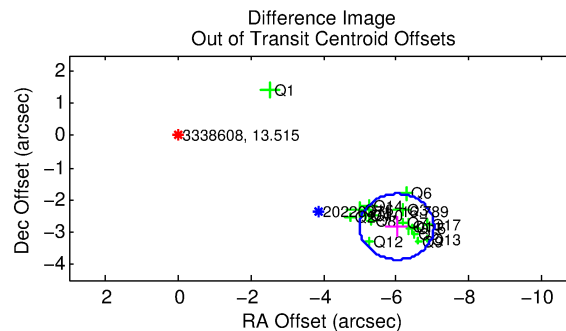
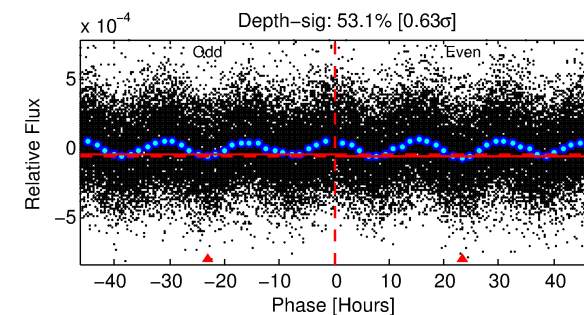
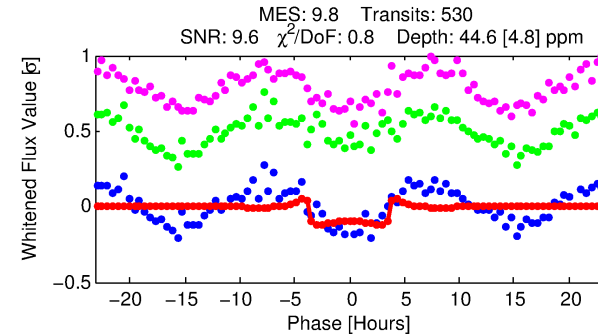
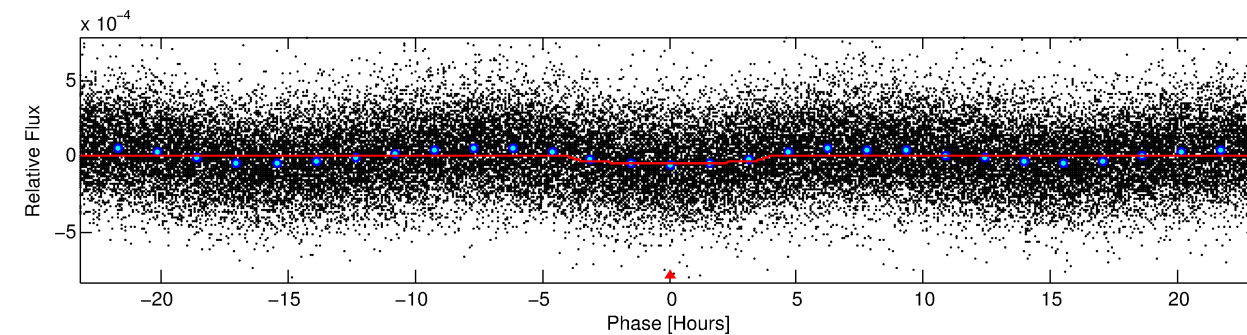
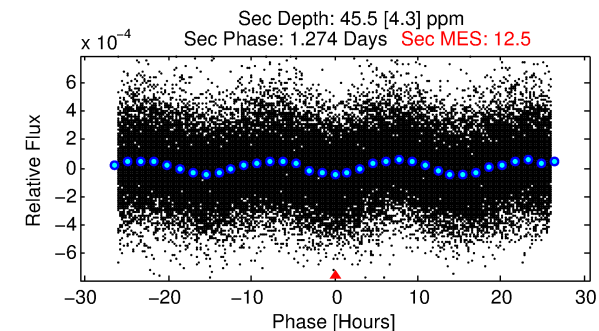
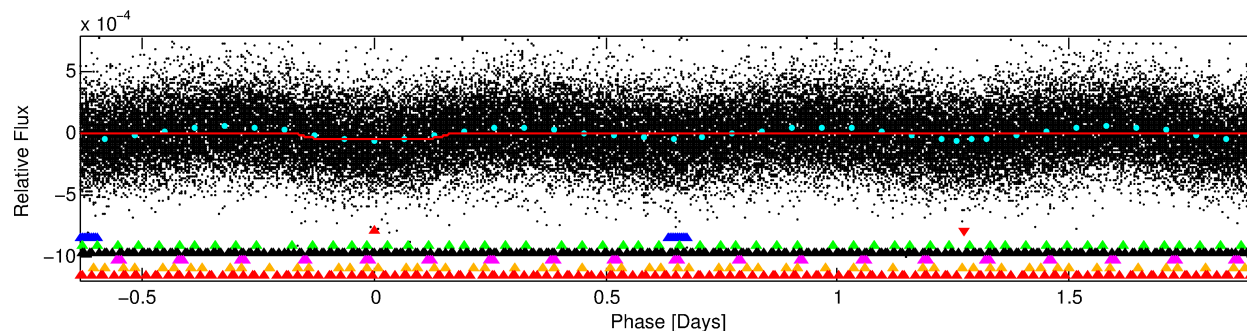
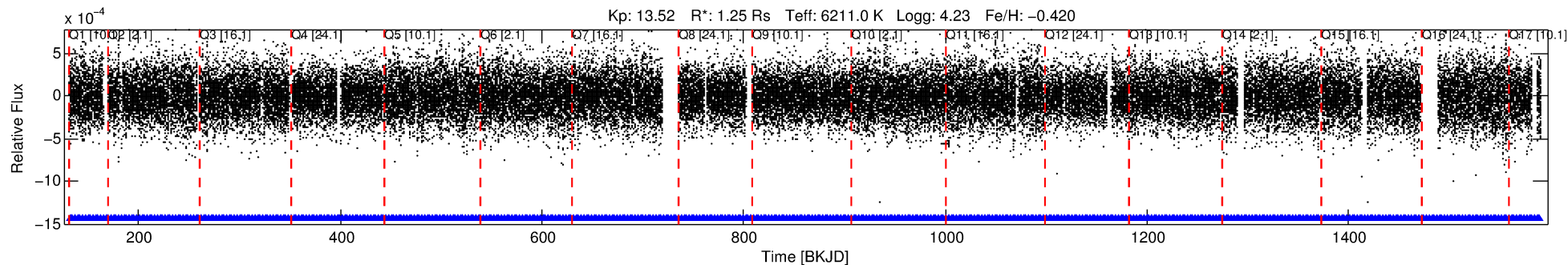
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003338608-01

No Significant Match Found

DV One-Page Summary

KIC: 3338608 Candidate: 1 of 7 Period: 2.548 d



DV Fit Results:

Period = 2.54778 [0.00002] d
Epoch = 132.1791 [0.0045] BKJD
Rp/R* = 0.0072 [0.0013]
a/R* = 1.47 [0.76]
b = 0.90 [0.20]
Seff = 1598.34 [653.41]
Teq = 1612 [165] K
Rp = 0.98 [0.33] Re
a = 0.0360 [0.0091] AU
Ag = 34.07 [18.29] [1.81σ]
Teffp = 6023 [595] K [7.14σ]

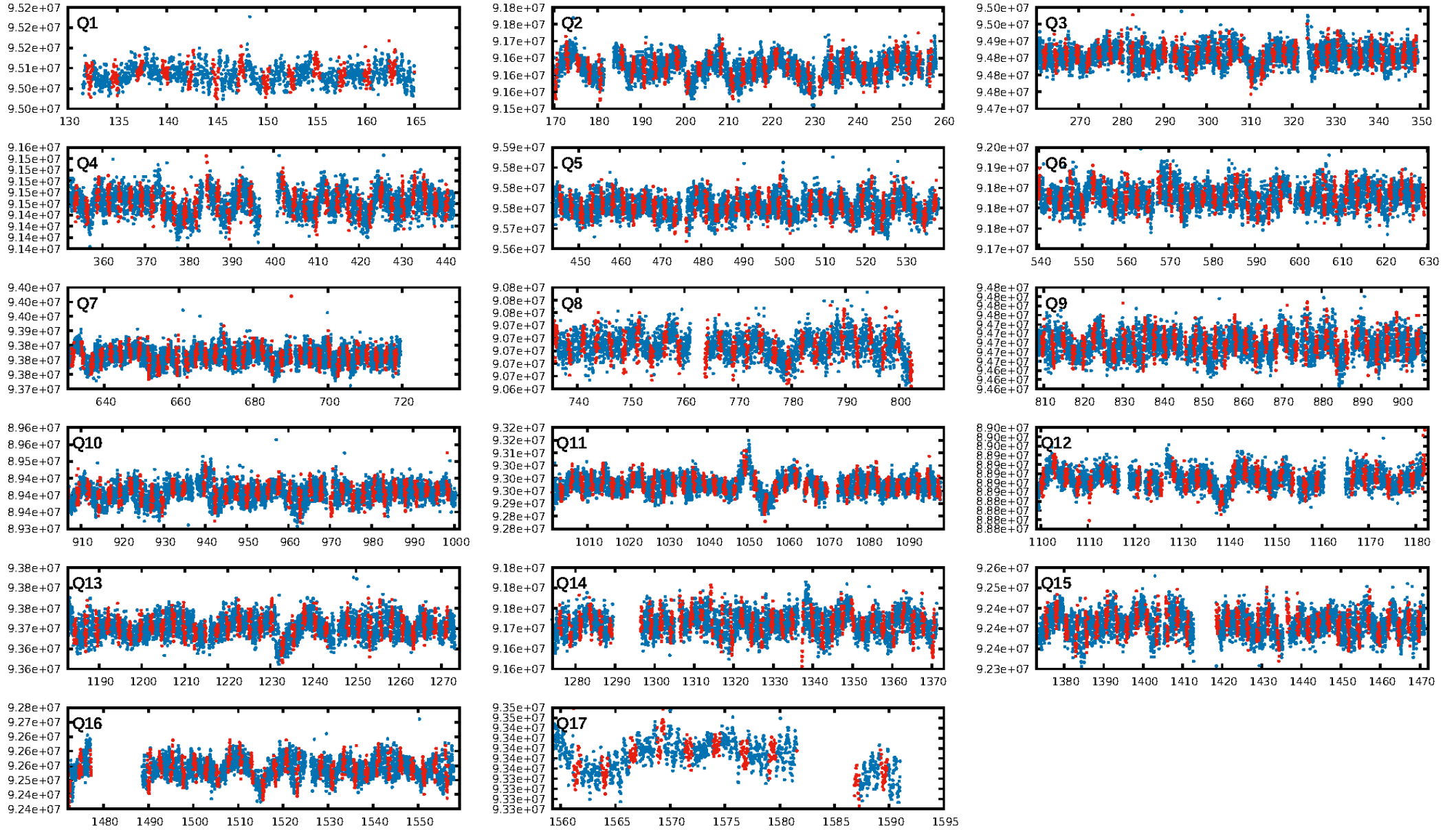
DV Diagnostic Results:

ShortPeriod-sig: 99.1% [2.60σ]
LongPeriod-sig: 100.0% [6.41σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.73e-49
RollingBand-fgt: 1.00 [507/507]
GhostDiagnostic-chr: 1.773
Centroid-sig: 0.0%
Centroid-so: 6.347 arcsec [6.12σ]
OotOffset-rm: 6.652 arcsec [19.46σ]
KicOffset-rm: 4.524 arcsec [11.88σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

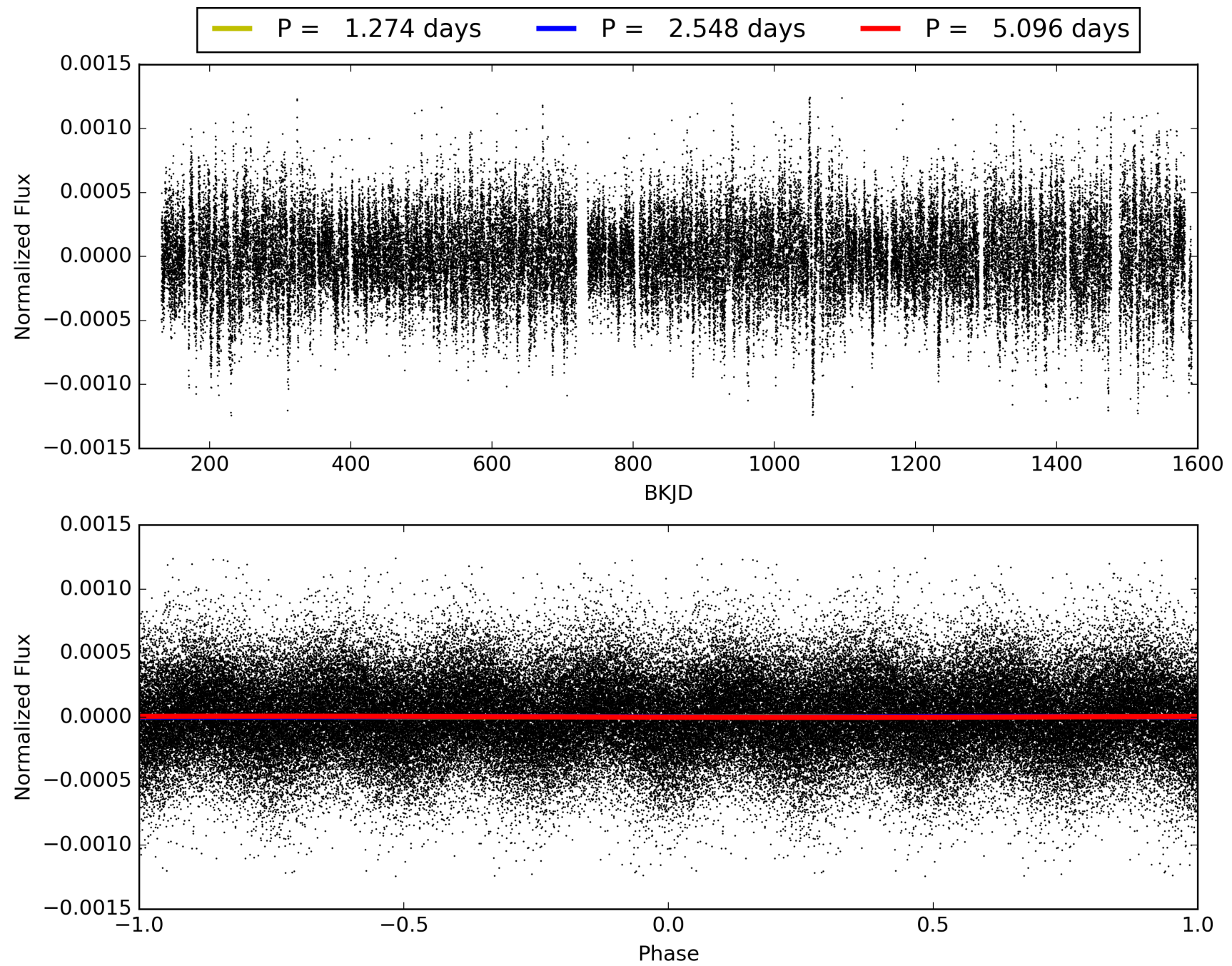
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:14:24 Z

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

TCE 003338608-01, PDC Light Curves

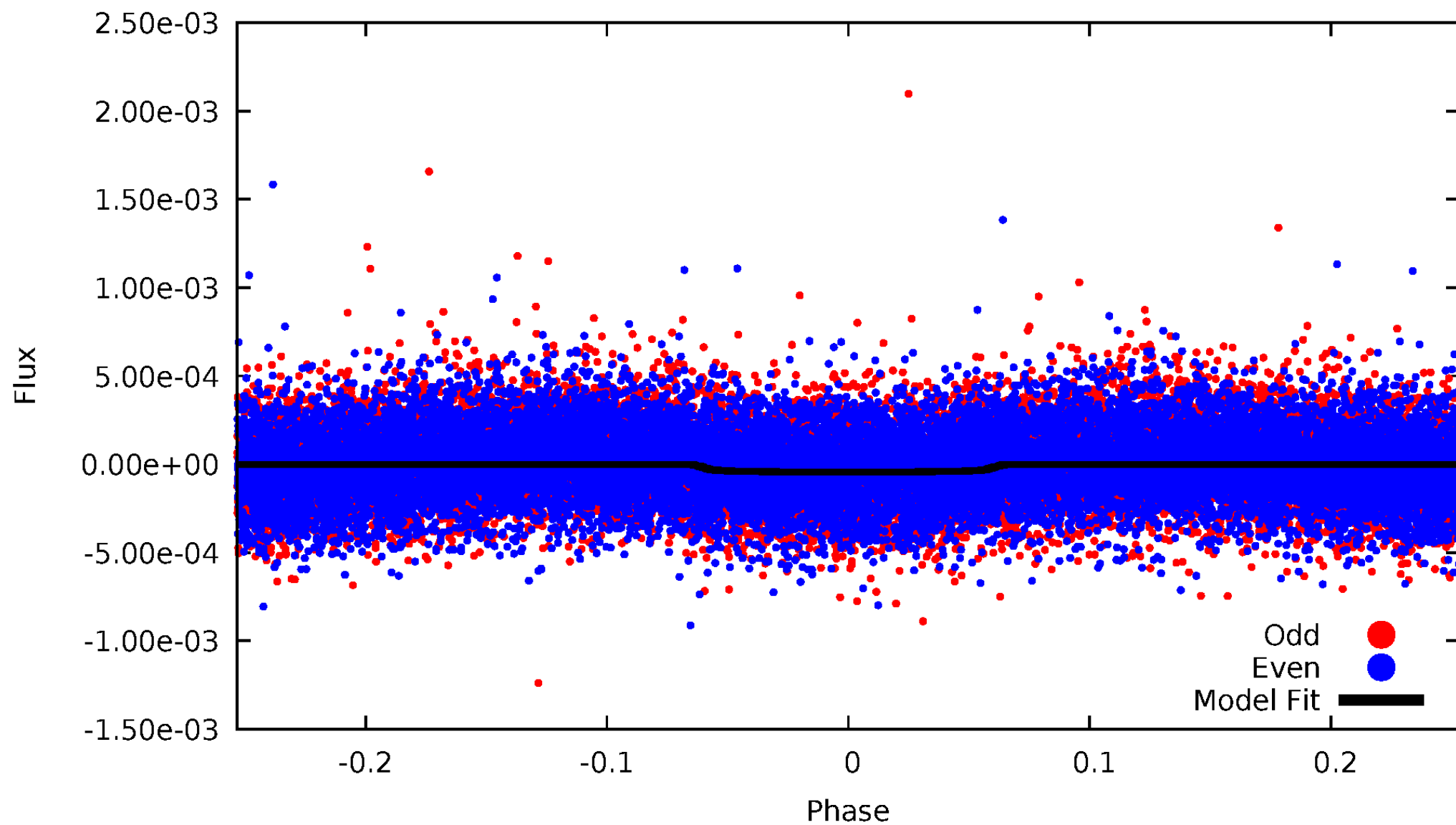


TCE 003338608-01



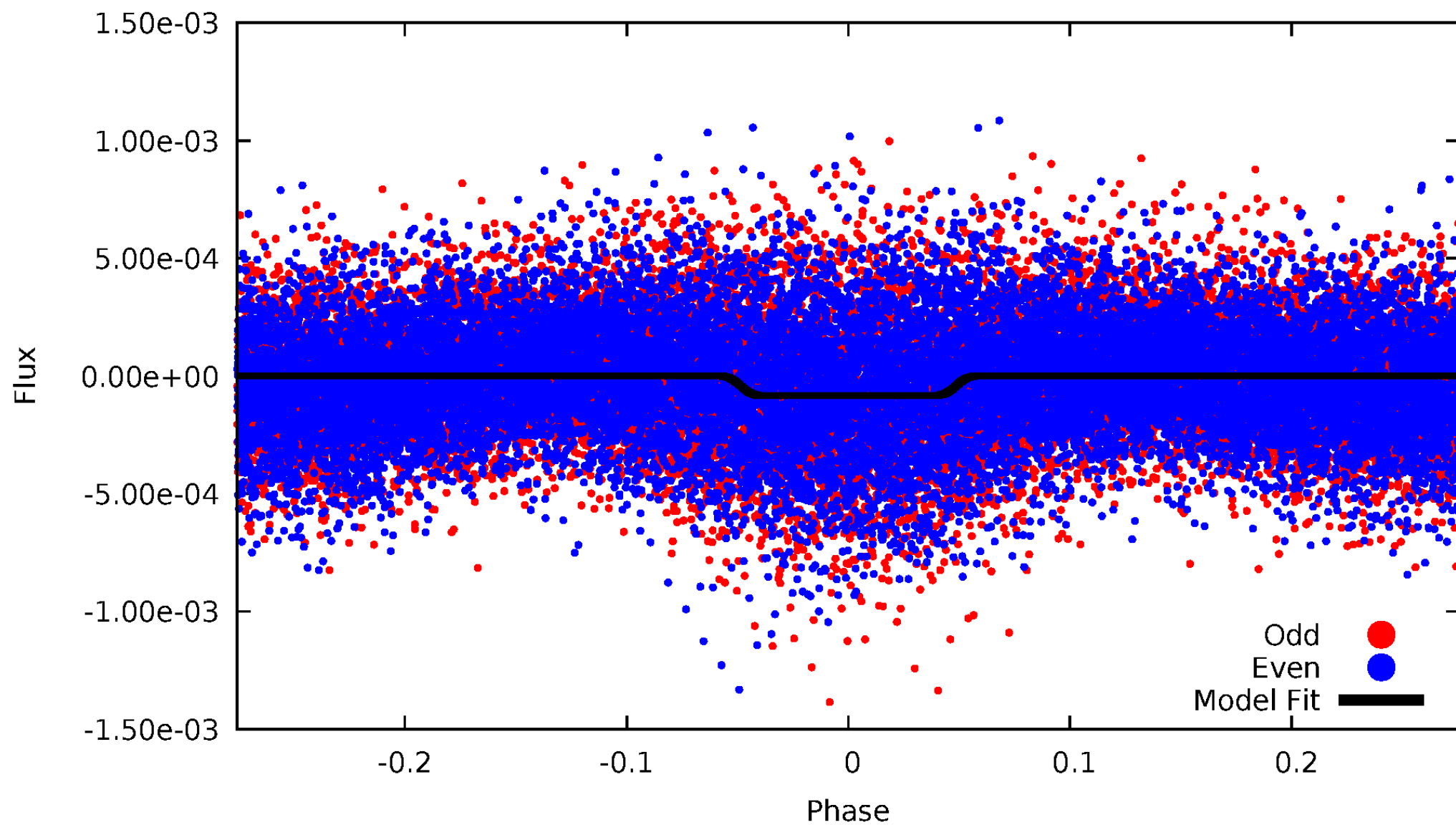
DV Odd/Even

TCE 003338608-01

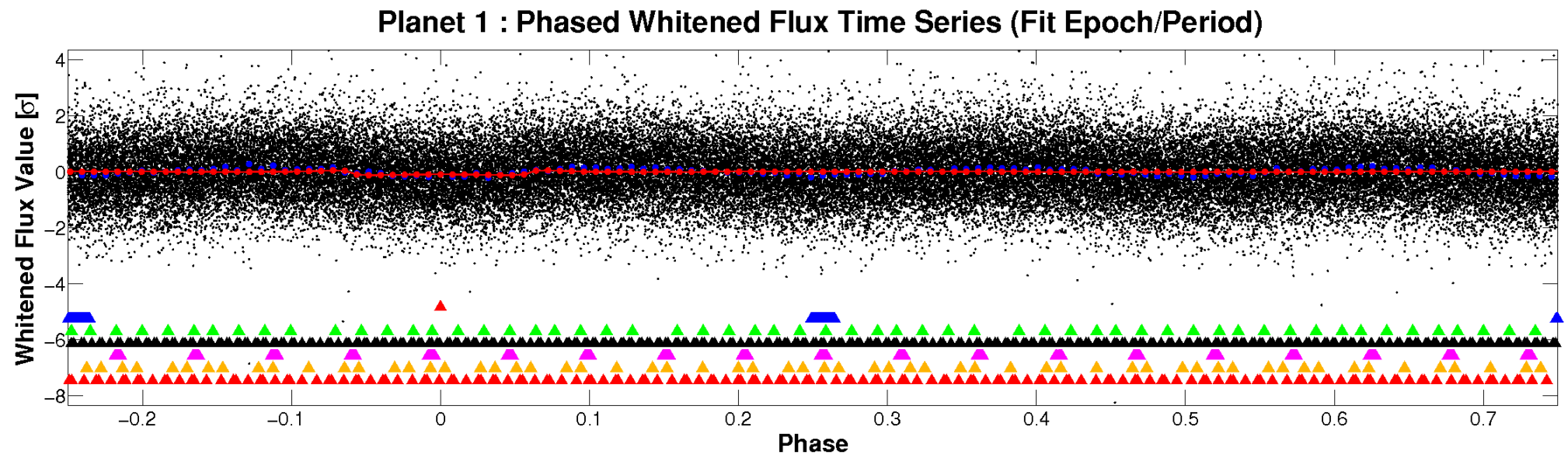
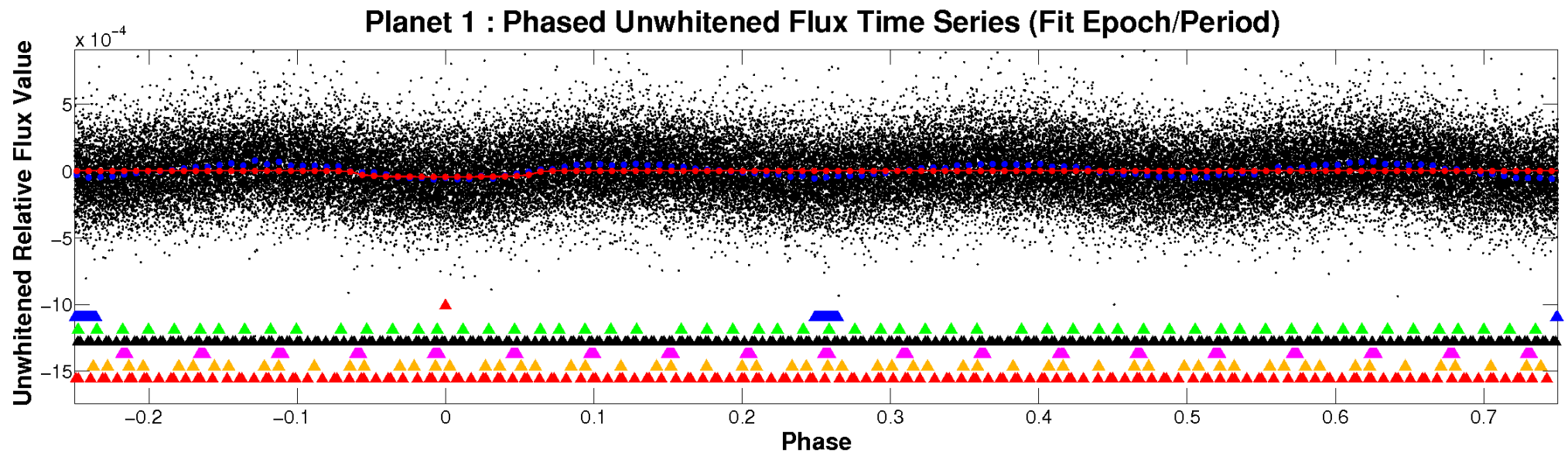


ALT Odd/Even

TCE 003338608-01

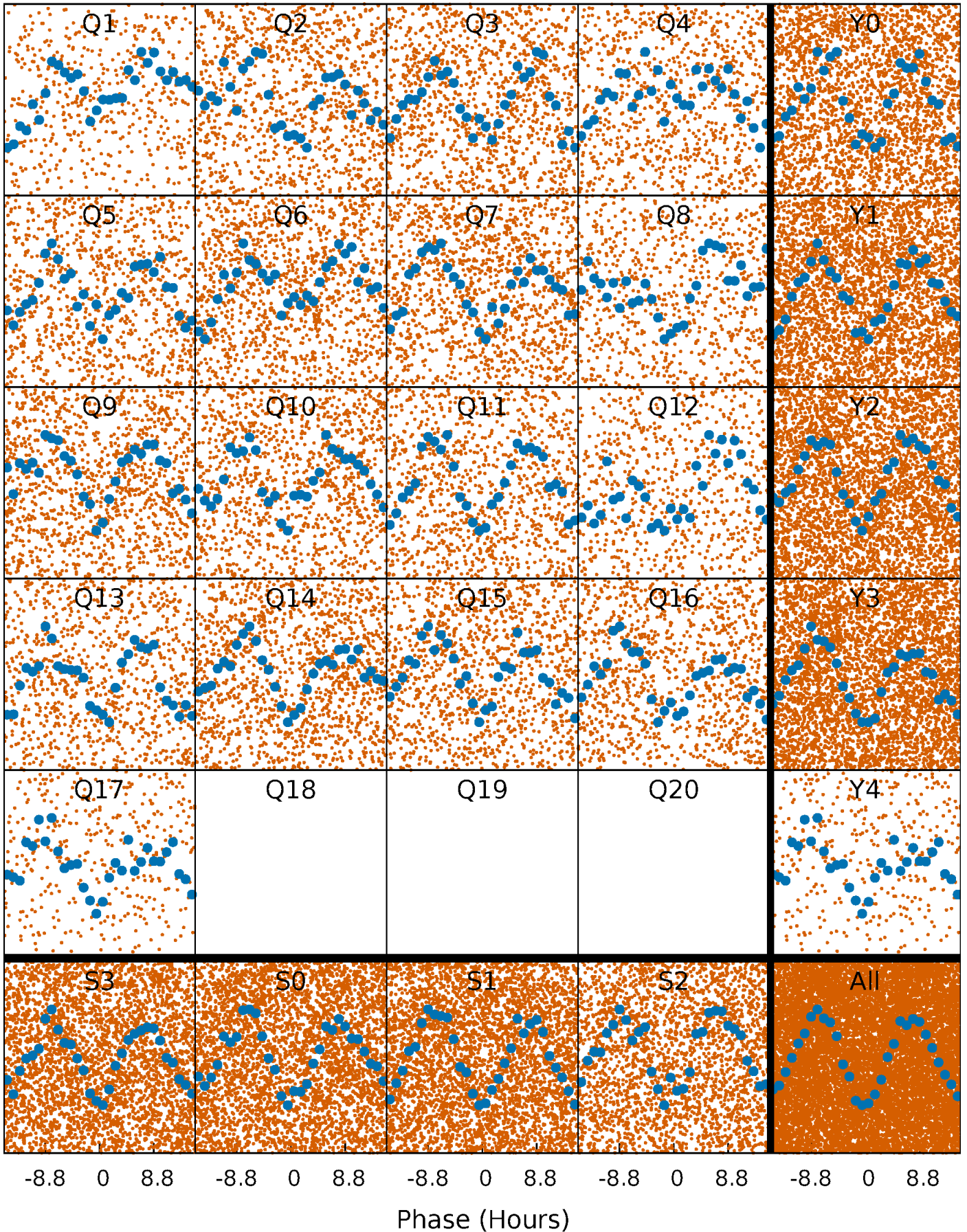


Non-Whitened Vs. Whitened Light Curve



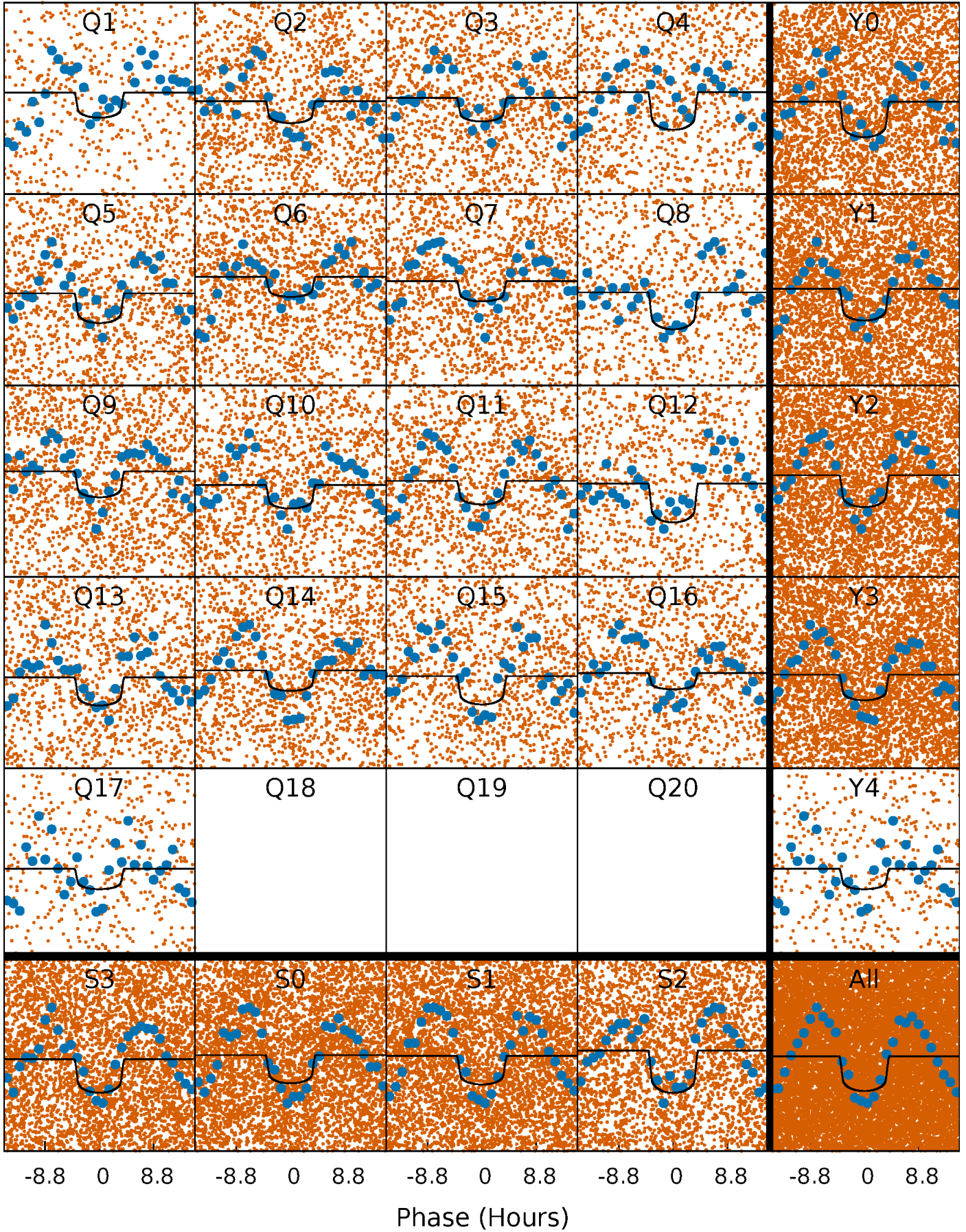
PDC Quarter-Phased Transit Curves

TCE 003338608-01 P= 2.547781 Days $T_0=132.179067$ (BKJD)



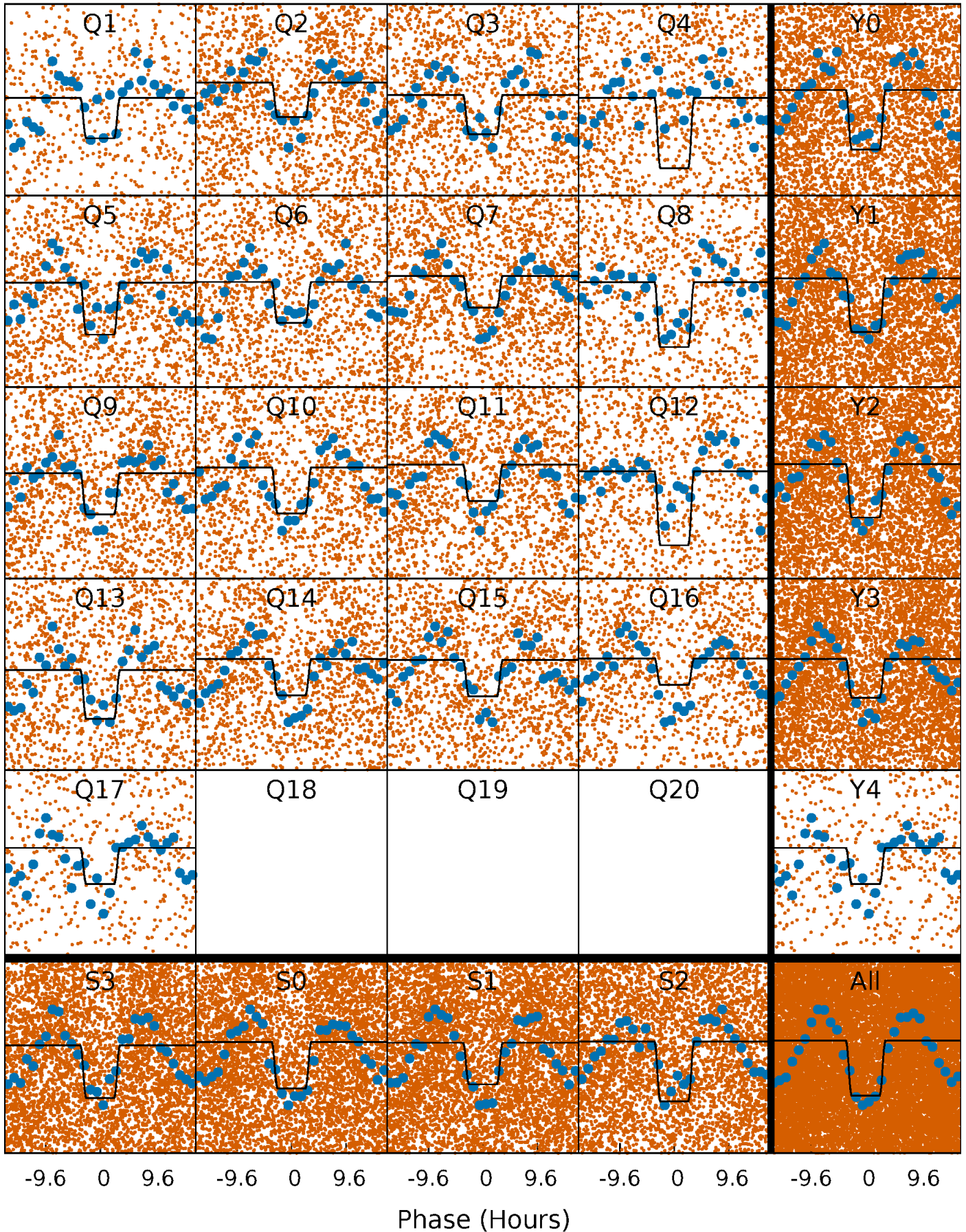
DV Quarter-Phased Transit Curves

TCE 003338608-01 P= 2.547781 Days $T_0=132.179067$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

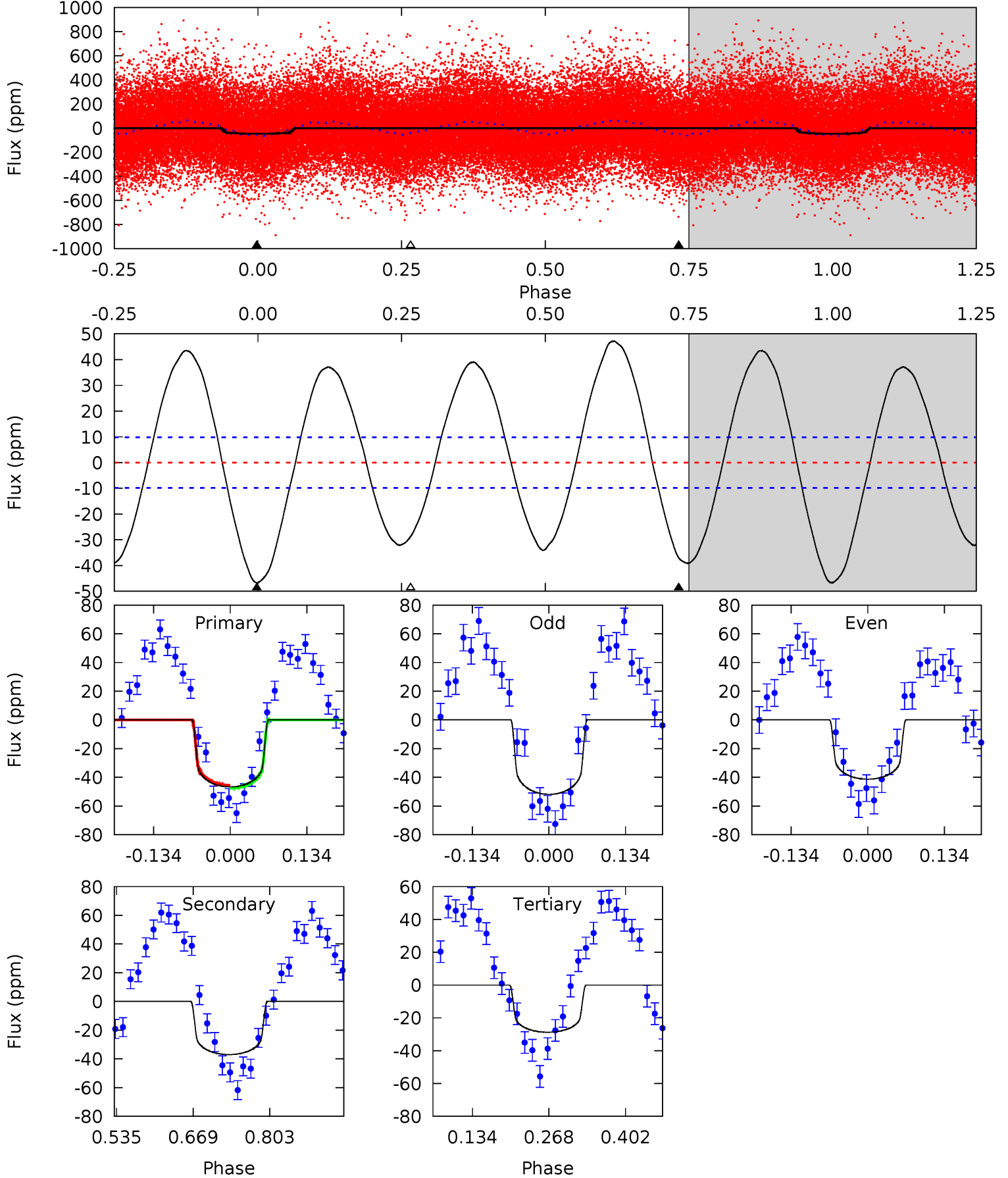
TCE 003338608-01 P= 2.547704 Days $T_0=132.197429$ (BKJD)



DV Model-Shift Uniqueness Test

003338608-01, P = 2.547781 Days, E = 129.631286 Days

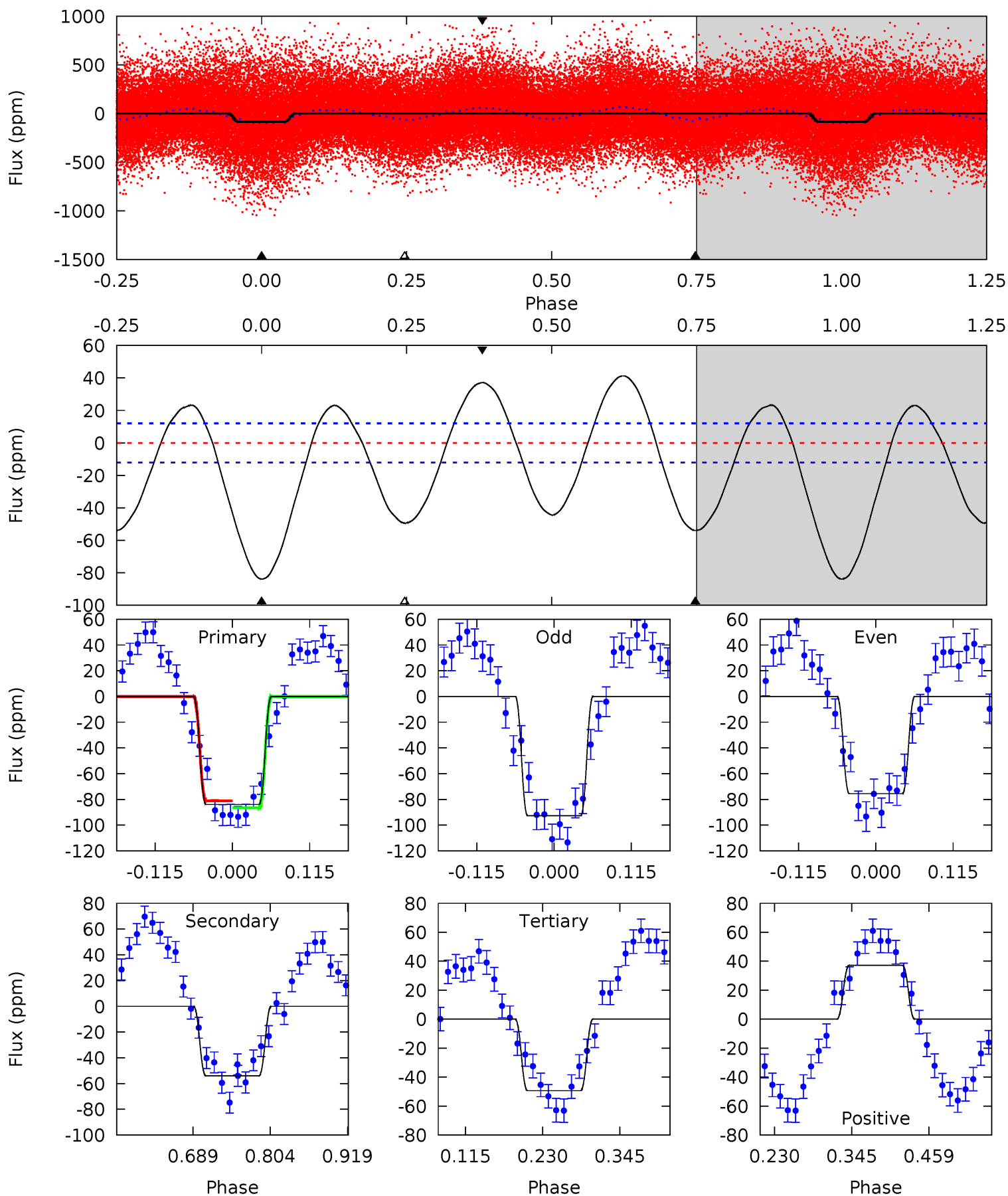
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.4	16.9	13.2	0	4.50	1.50	11.3	8.21	21.4	3.78	16.9	2.43	0.91	0.50	0.44



Alt Model-Shift Uniqueness Test

003338608-01, P = 2.547704 Days, E = 129.649725 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.6	20.3	18.6	14.0	4.54	1.58	11.1	13.0	17.6	1.73	6.34	3.21	1.14	0.33	1.02



Stellar Parameters For KIC 003338608

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6211^{+169}_{-206}	$4.228^{+0.220}_{-0.180}$	$-0.420^{+0.300}_{-0.300}$	$1.246^{+0.352}_{-0.320}$	$0.957^{+0.148}_{-0.099}$	$0.698^{+0.808}_{-0.321}$
	+3%/-3%	+5%/-4%	+71%/-71%	+28%/-26%	+15%/-10%	+116%/-46%
Source	PHO1	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 003338608-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-37 ± 2	$0.99^{+0.21}_{-0.22}$	2240^{+176}_{-156}	5698^{+618}_{-465}	28^{+17}_{-9}
Alt.	-54 ± 3	$1.23^{+0.28}_{-0.25}$	2242^{+182}_{-170}	5577^{+460}_{-372}	26^{+15}_{-9}

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

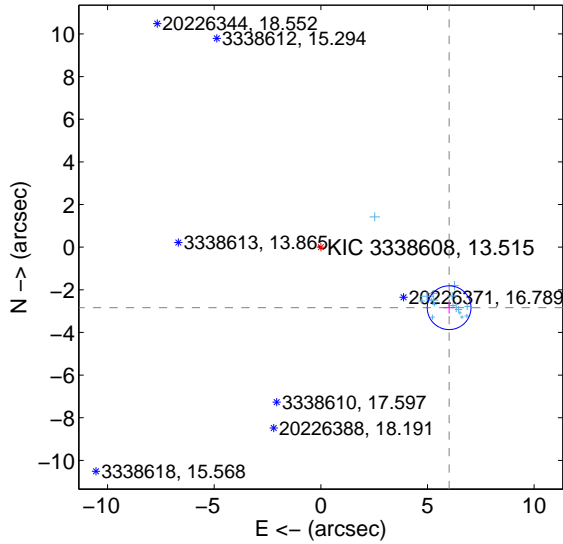
Supplemental centroid analysis for 003338608-01. Kepler magnitude: 13.52. Transit SNR 9.62

There are 17 quarters with good PRF difference image offsets

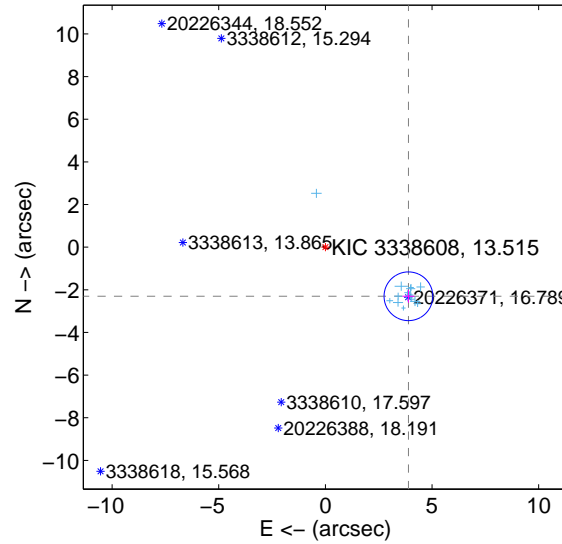
The OOT PRF centroid is offset from the target star catalog position by about 2.99 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.652 ± 0.342	19.46	-6.016 ± 0.269	-2.839 ± 0.272
PRF-fit source offset from KIC position	4.524 ± 0.381	11.88	-3.895 ± 0.279	-2.303 ± 0.304
photometric centroid source offset	6.35 ± 1.04	6.12	-5.96 ± 1.07	-2.17 ± 0.73

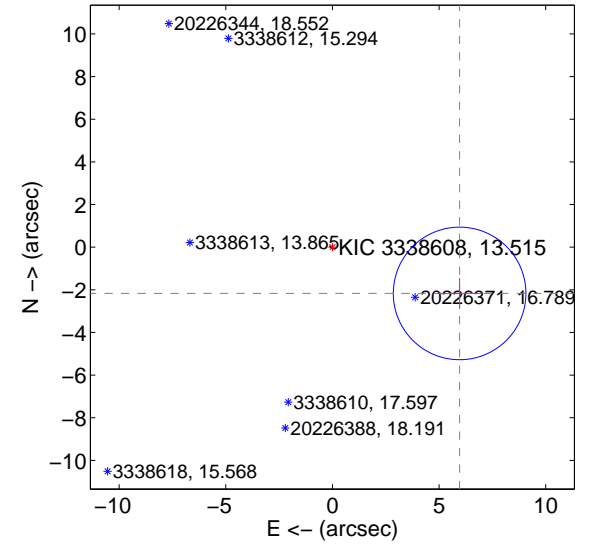
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

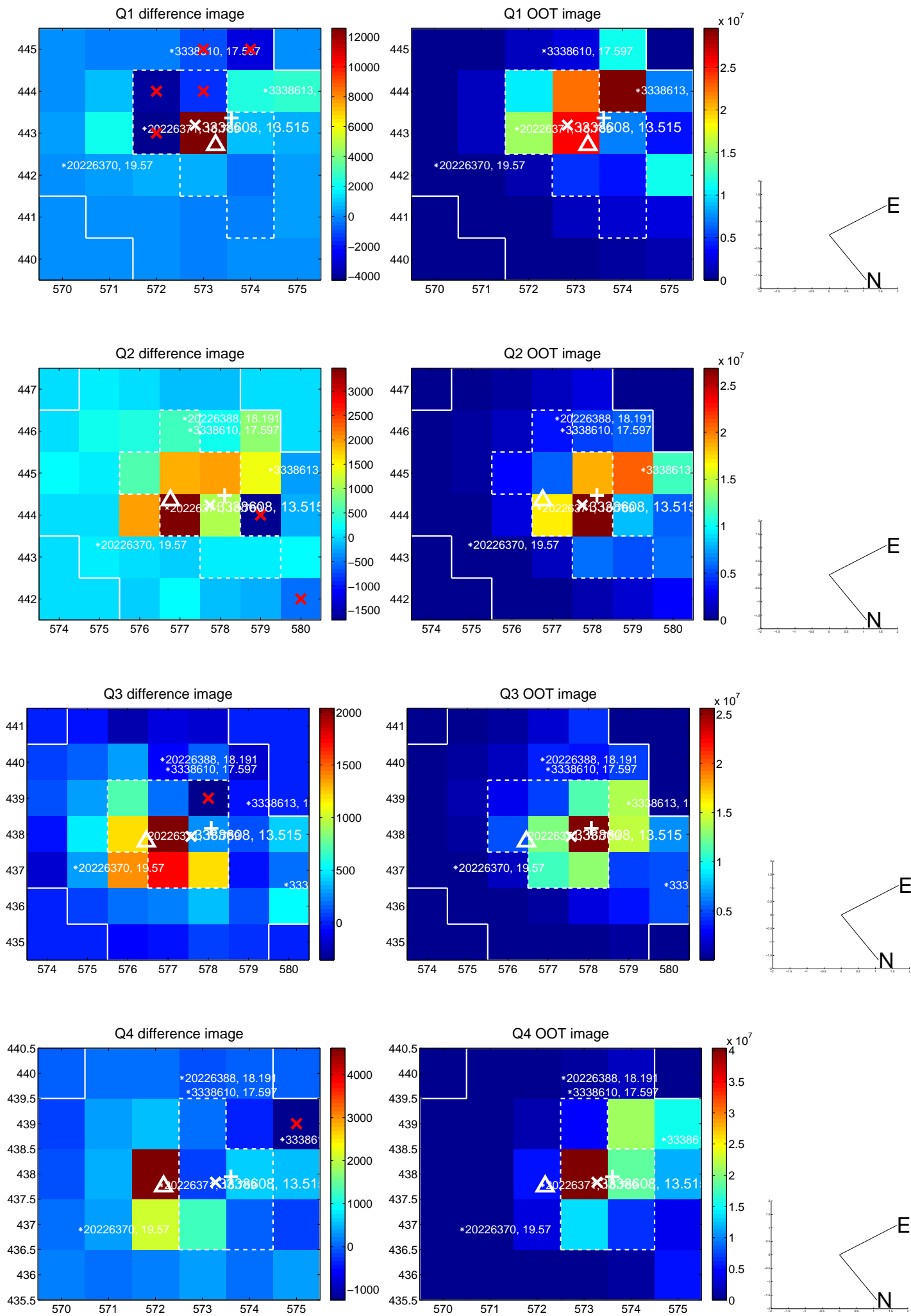


offset from photometric centroids

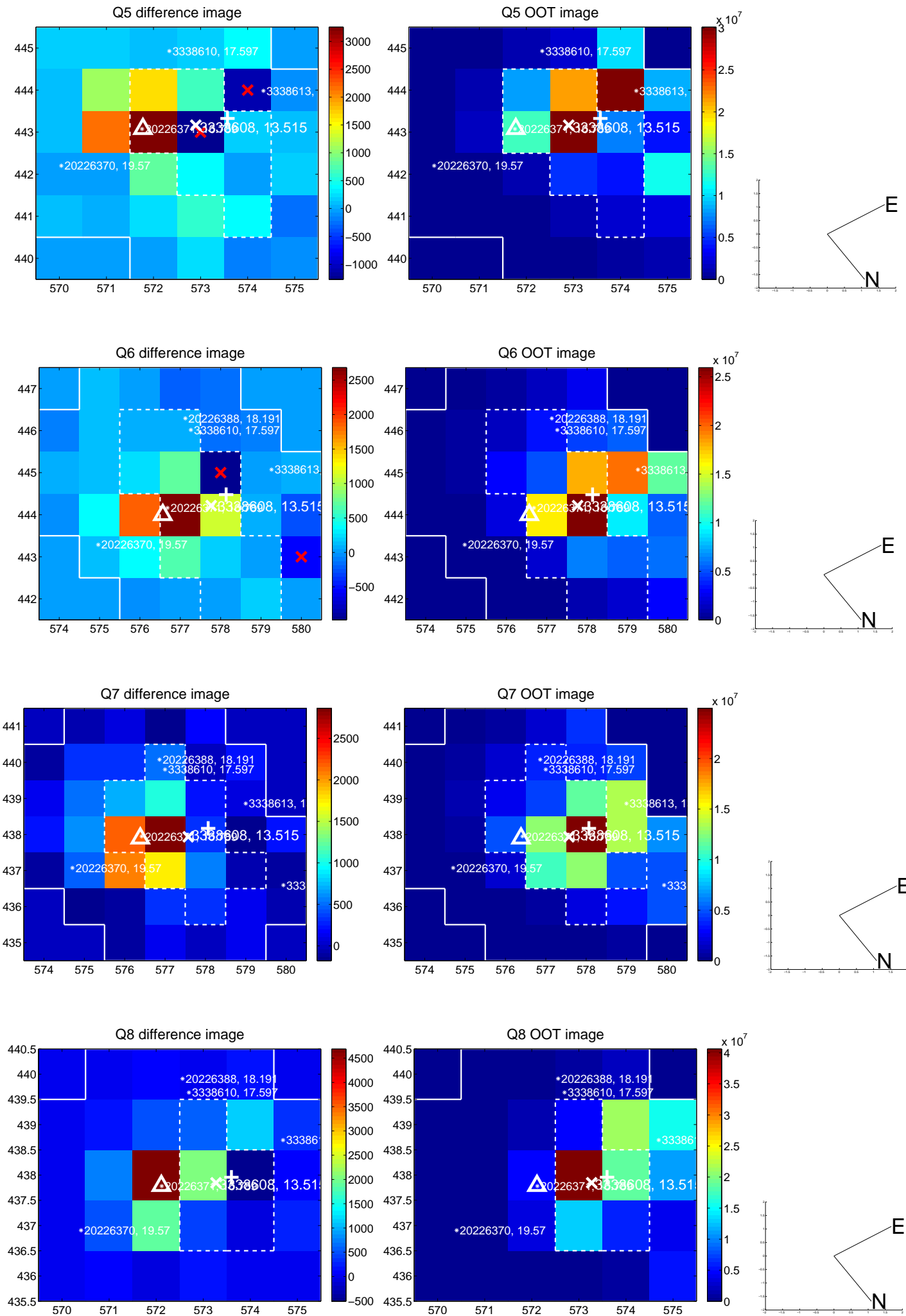


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

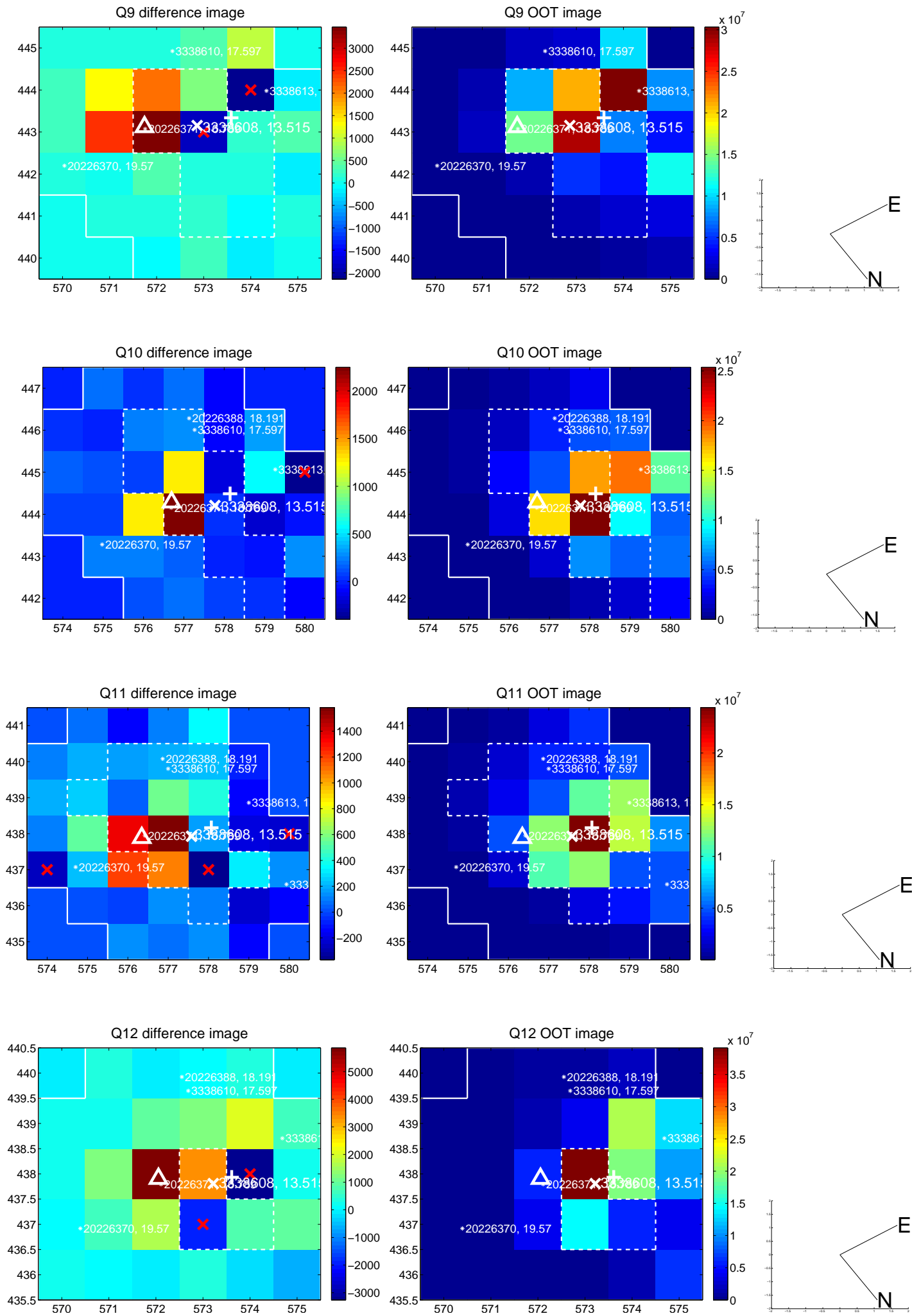
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



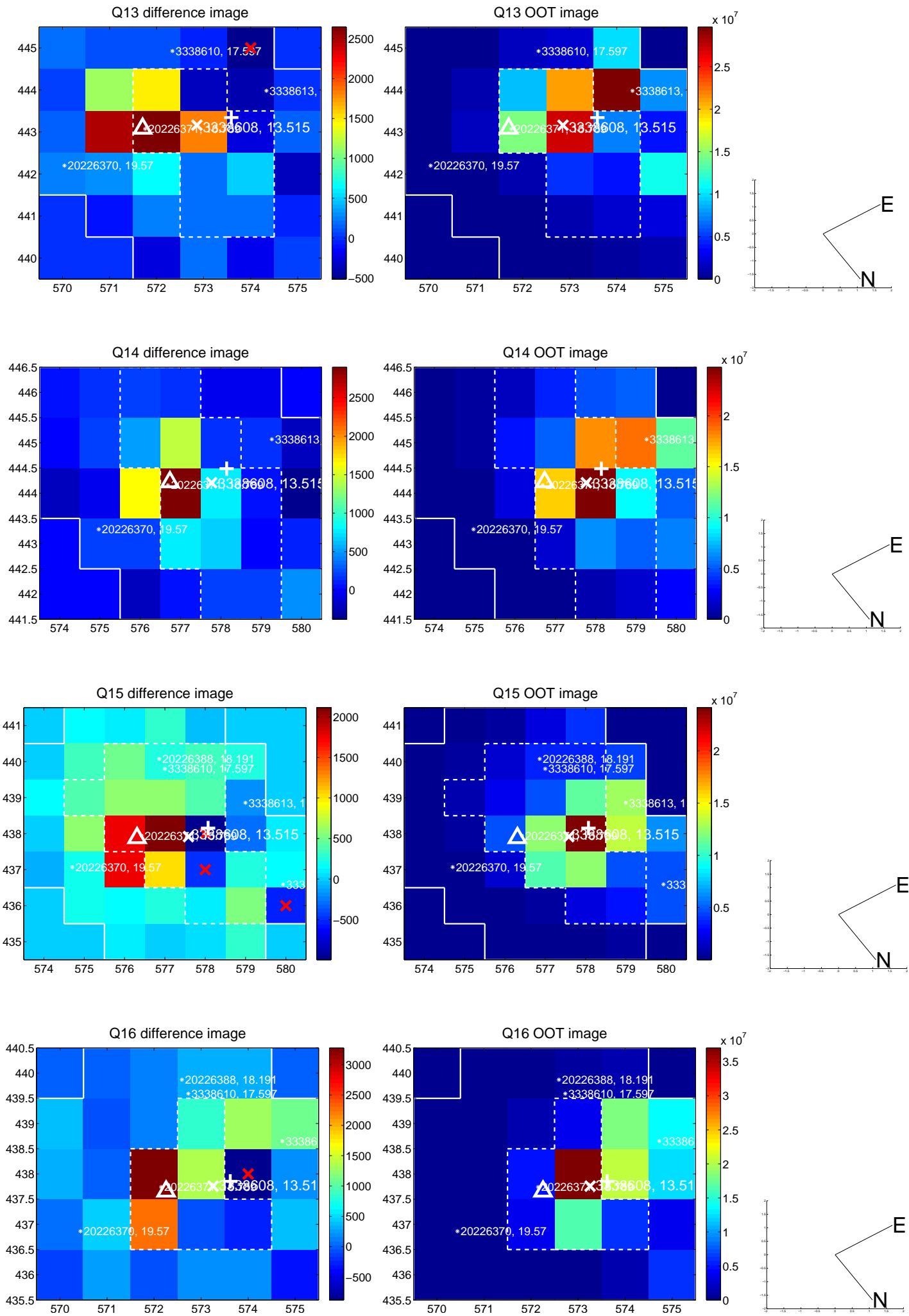
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



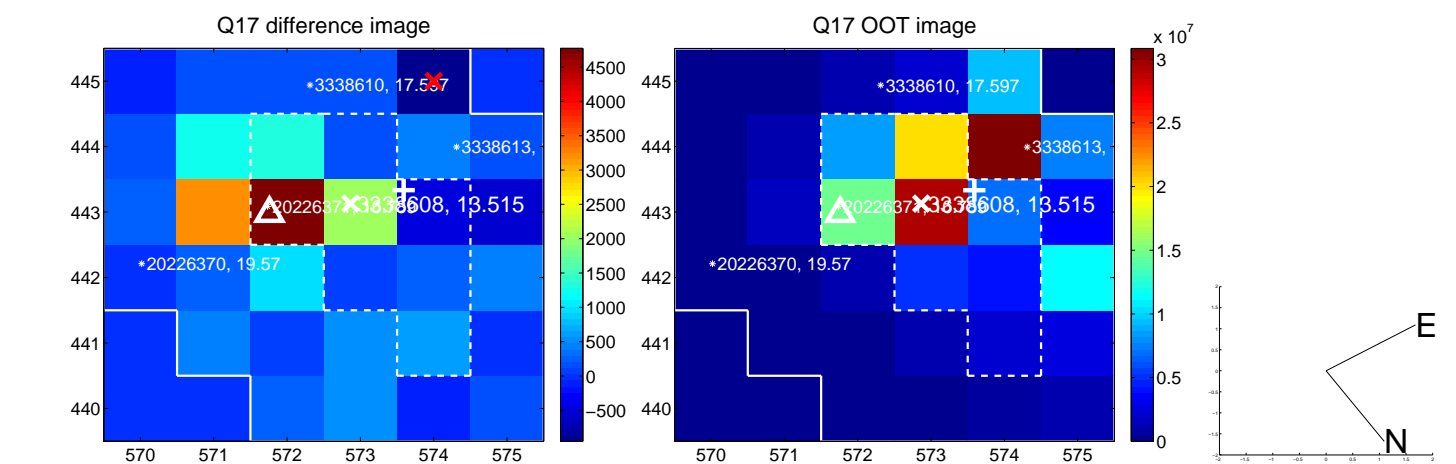
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



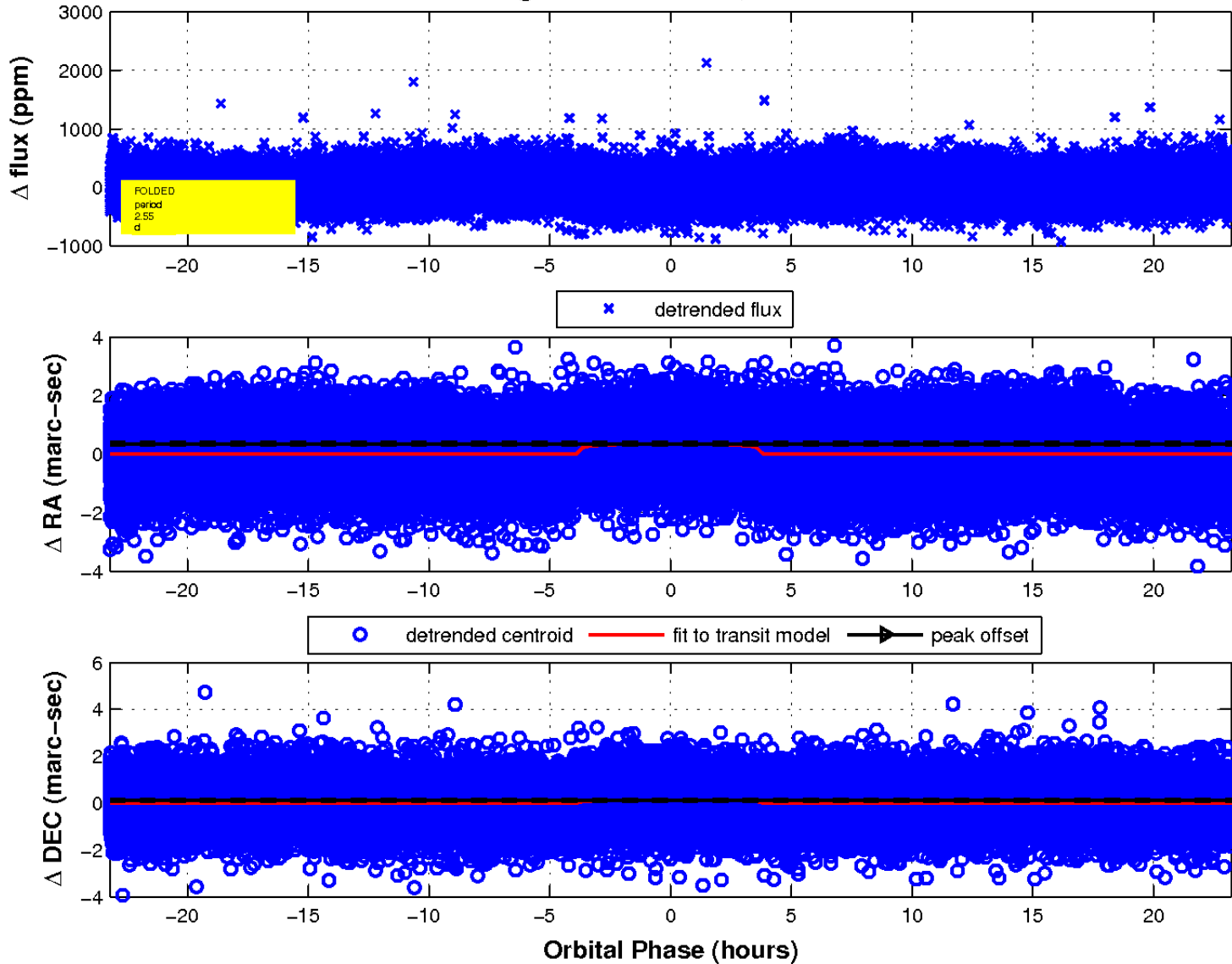
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

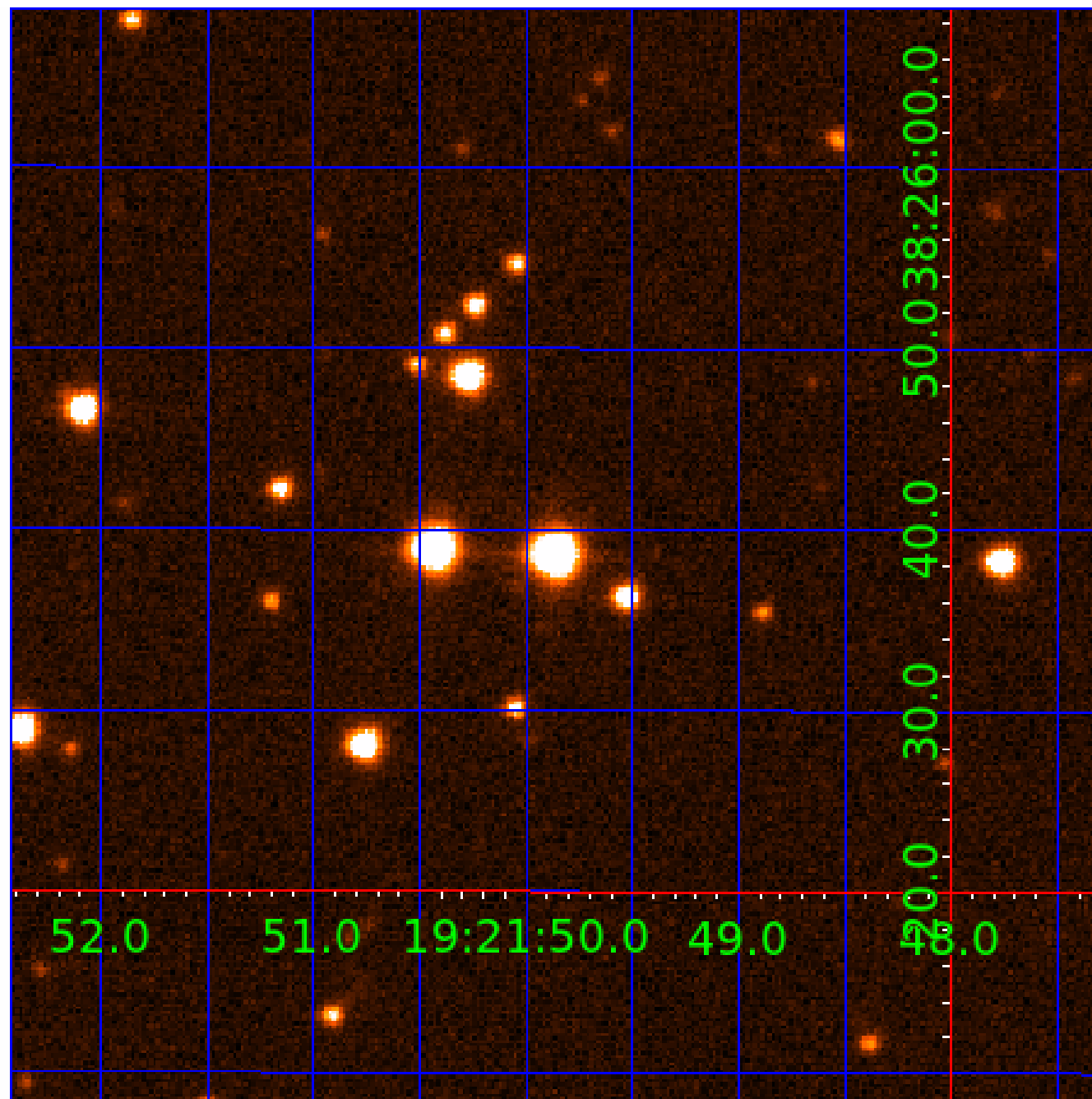


fluxWeightedCentroids, Planet 1 of 7



UKIRT Image

Declination



KIC 003338608

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})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003338608-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD—CENT_KIC_POS
003338608-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003338608-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003338608-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

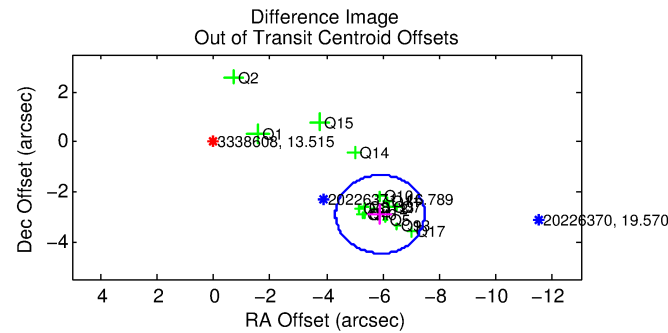
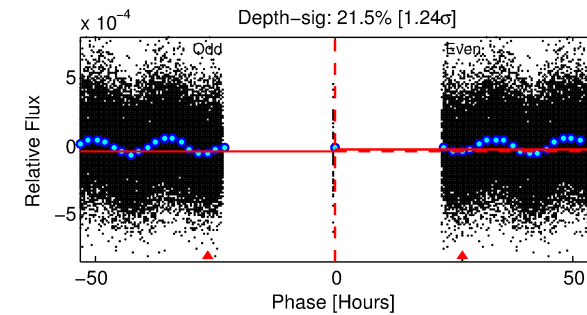
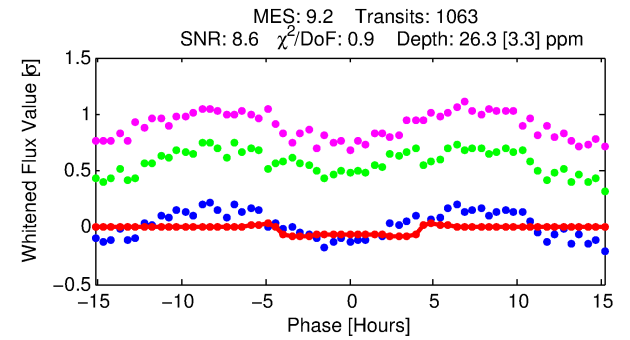
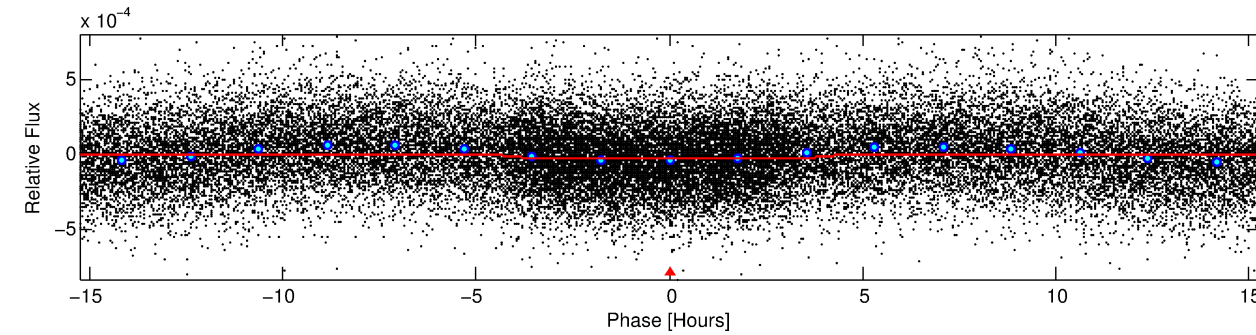
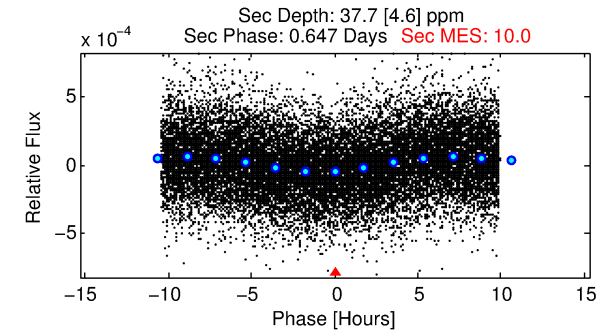
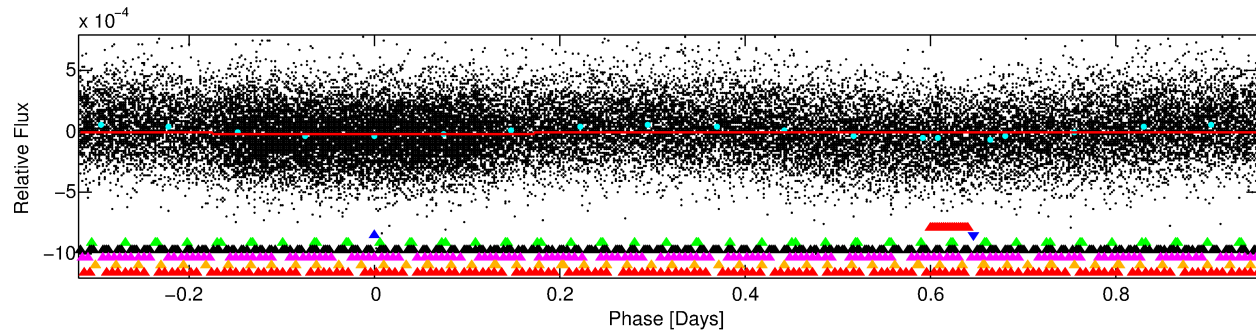
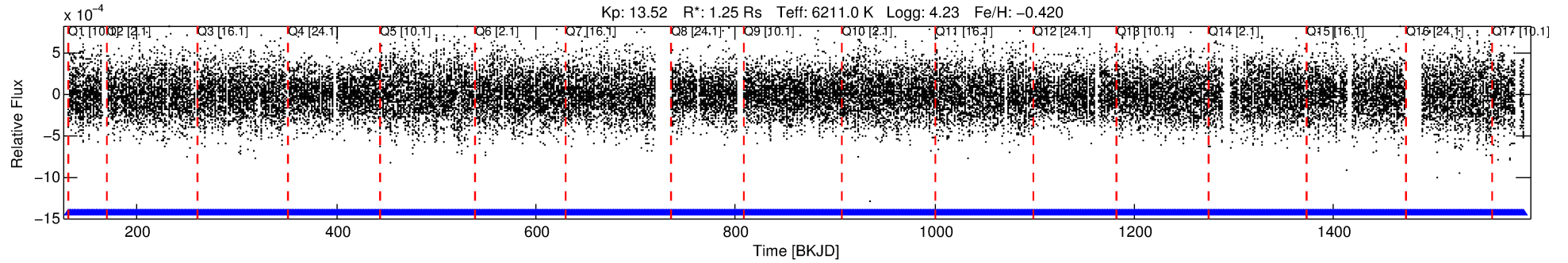
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003338608-02

No Significant Match Found

DV One-Page Summary

KIC: 3338608 Candidate: 2 of 7 Period: 1.274 d



DV Fit Results:

Period = 1.27393 [0.00002] d
Epoch = 131.5389 [0.0071] BKJD
Rp/R* = 0.0055 [0.0020]
a/R* = 1.07 [0.26]
b = 0.90 [0.45]
Seff = 4027.42 [1646.43]
Teq = 2031 [208] K
Rp = 0.75 [0.34] Re
a = 0.0227 [0.0057] AU
Ag = 19.10 [15.92] [1.14σ]
Teffp = 6566 [1231] K [3.63σ]

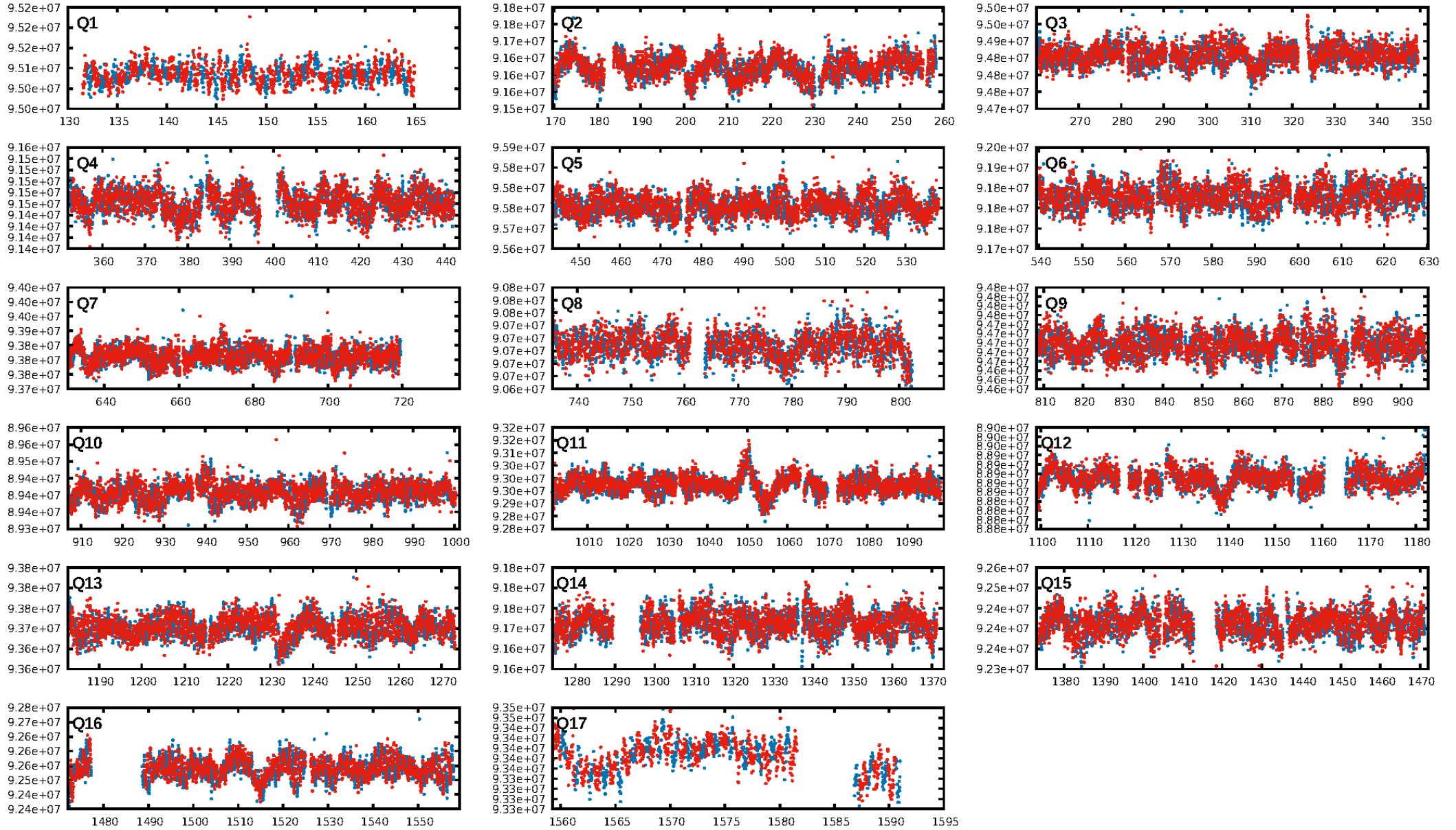
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 99.1% [2.60σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.93e-15
RollingBand-fgt: 1.00 [1015/1015]
GhostDiagnostic-chr: 0.7775
Centroid-sig: 0.0%
Centroid-so: 9.692 arcsec [9.65σ]
OotOffset-rm: 6.575 arcsec [12.57σ]
KicOffset-rm: 4.447 arcsec [8.21σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.76 [13/17]
DiffImageOverlap-fno: 0.00 [0/17]

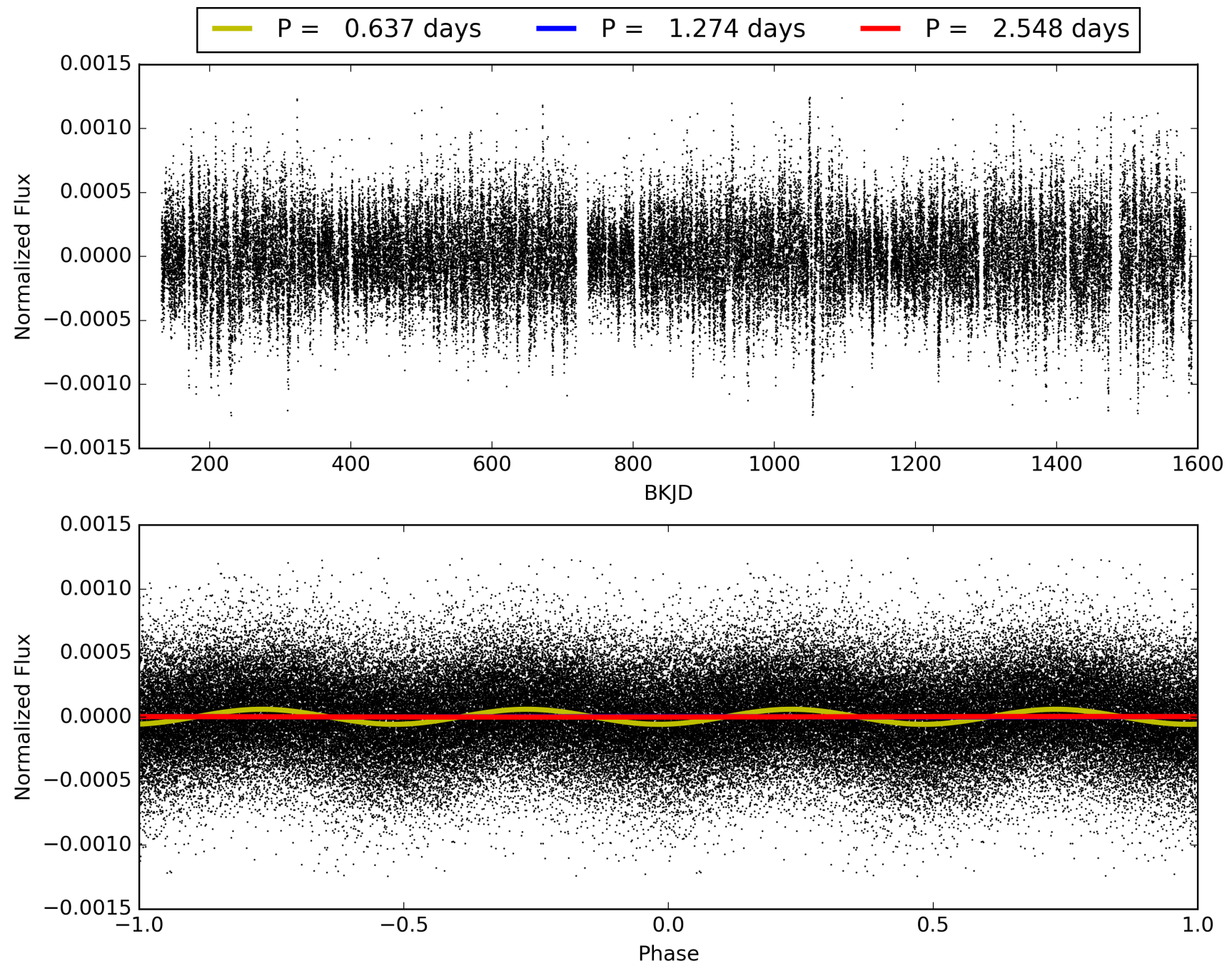
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:14:38 Z

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TCE 003338608-02, PDC Light Curves

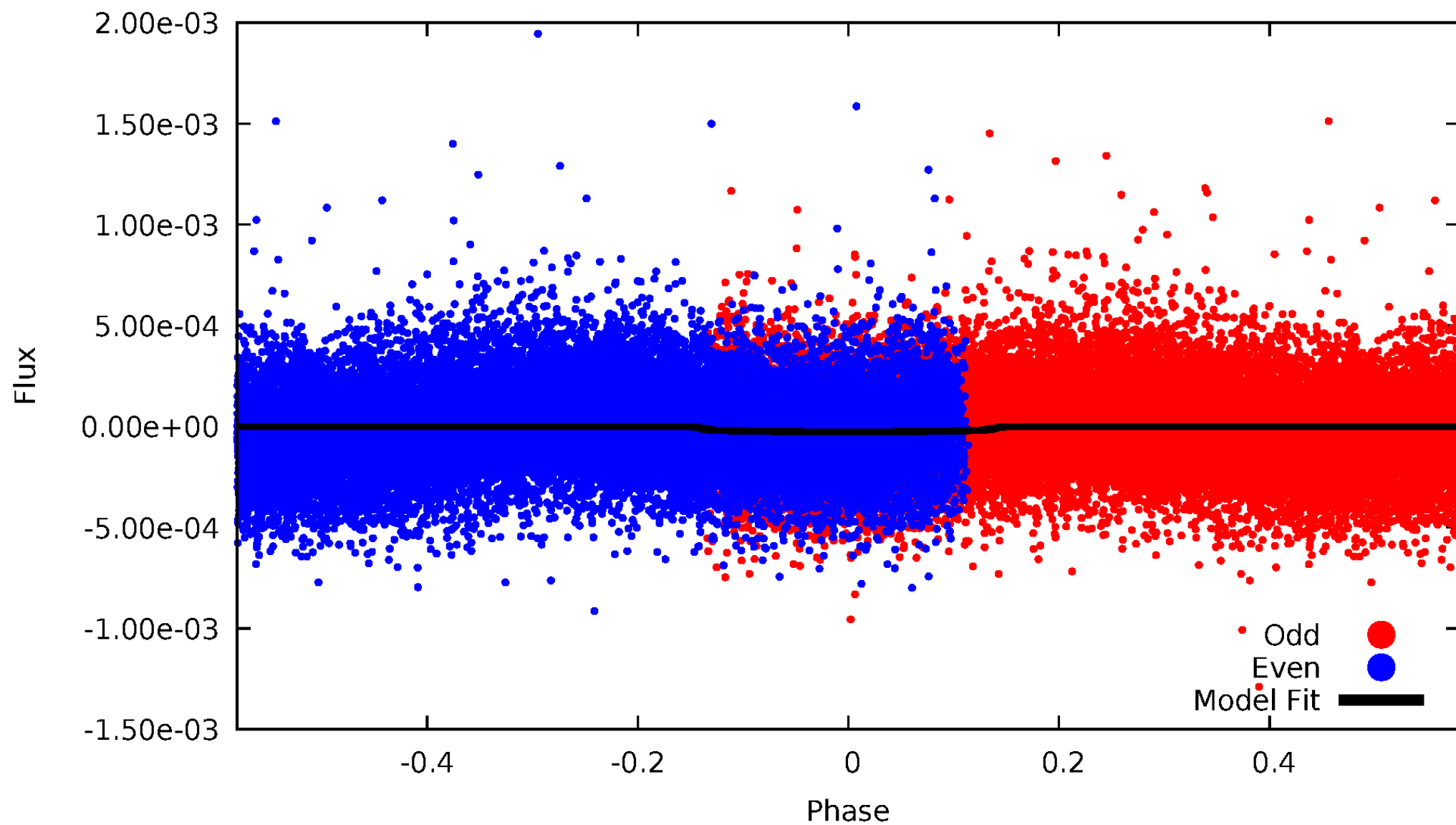


TCE 003338608-02



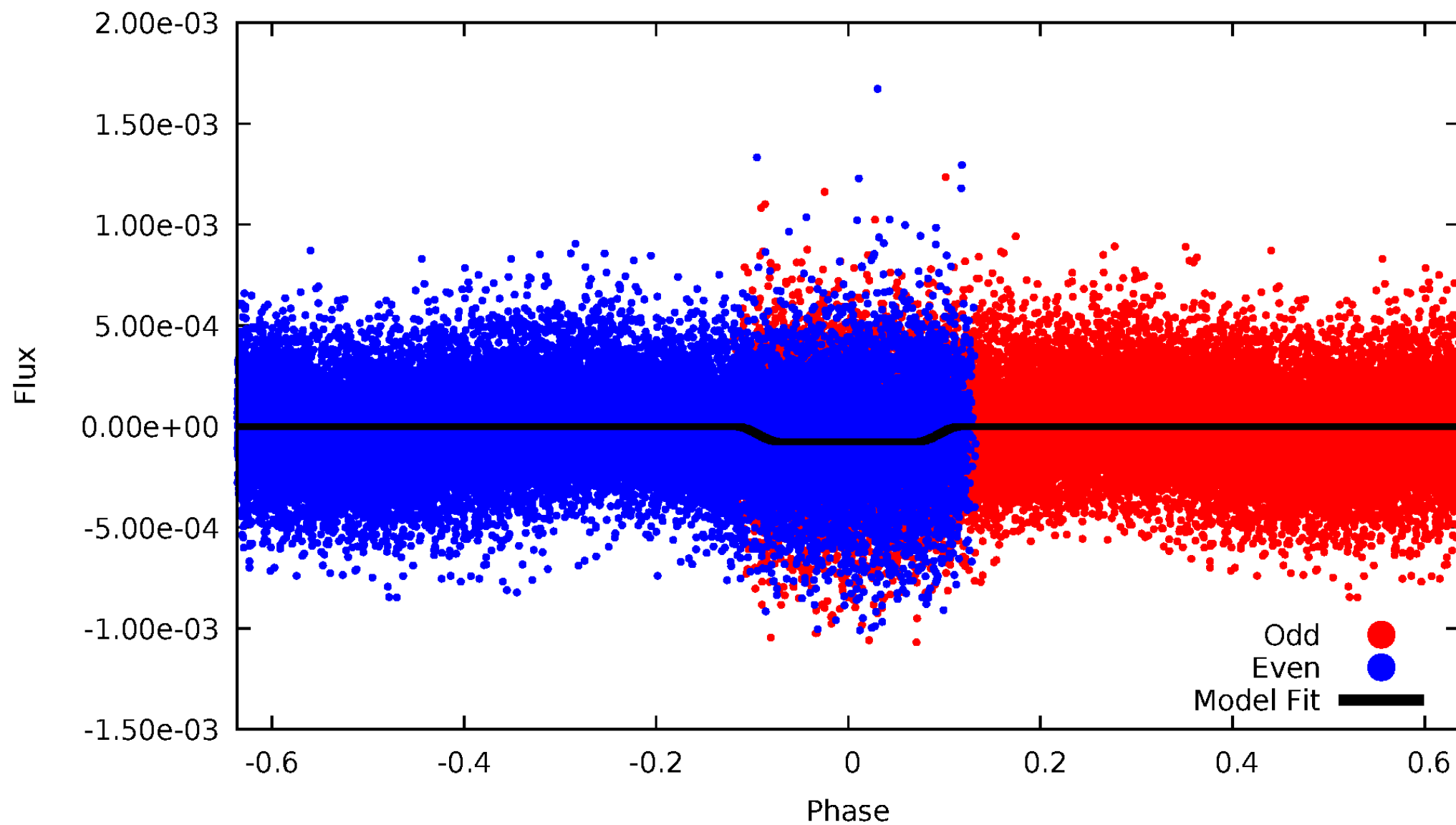
DV Odd/Even

TCE 003338608-02



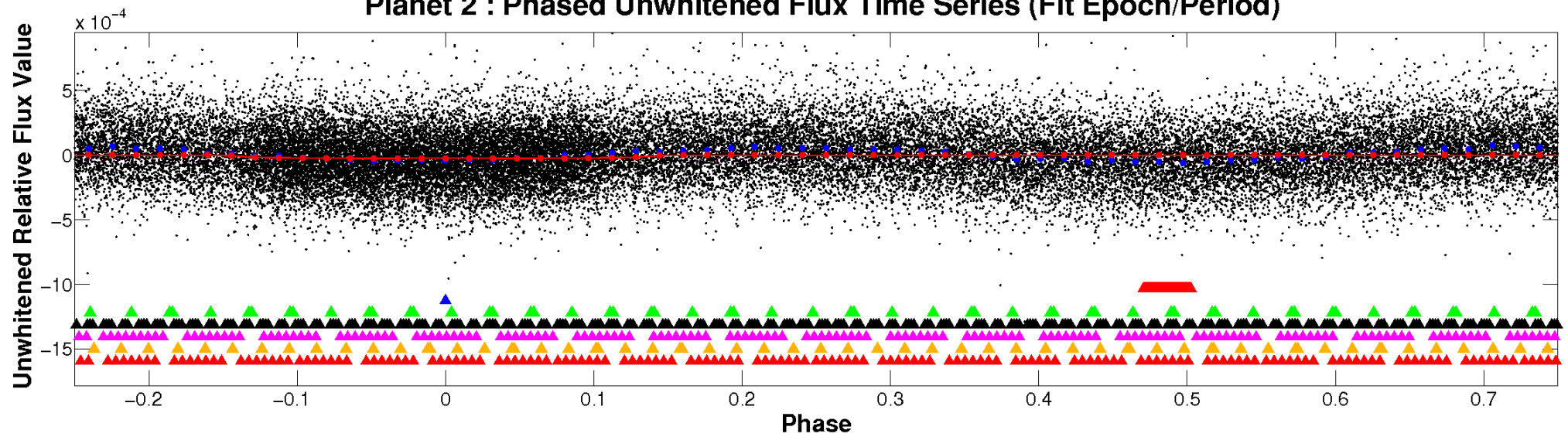
ALT Odd/Even

TCE 003338608-02

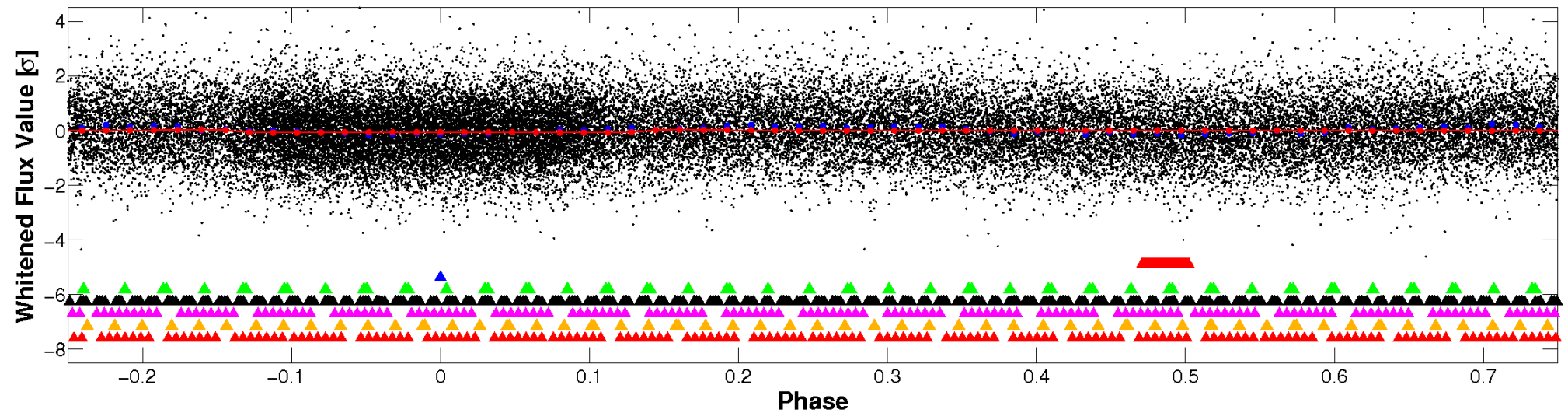


Non-Whitened Vs. Whitened Light Curve

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

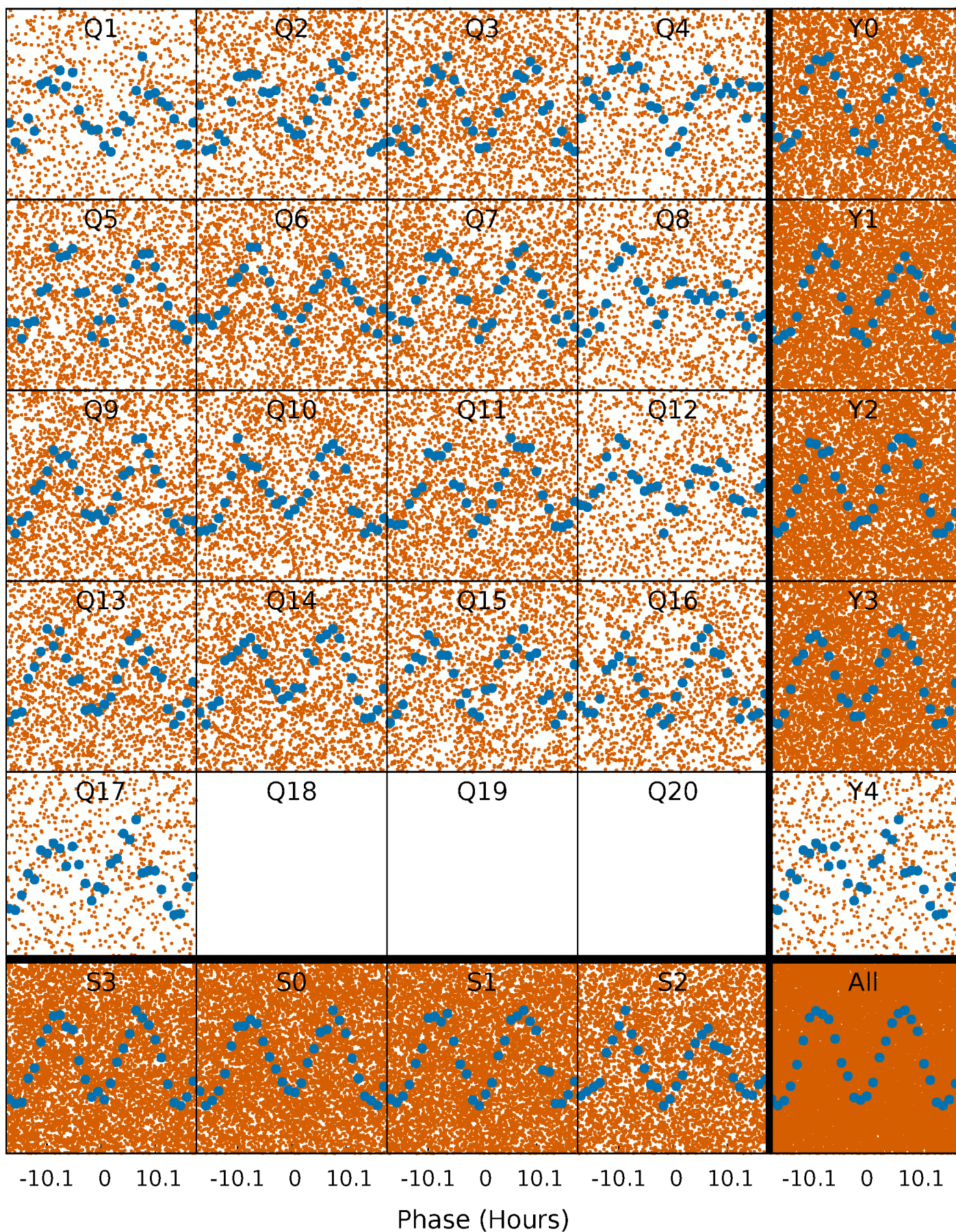


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



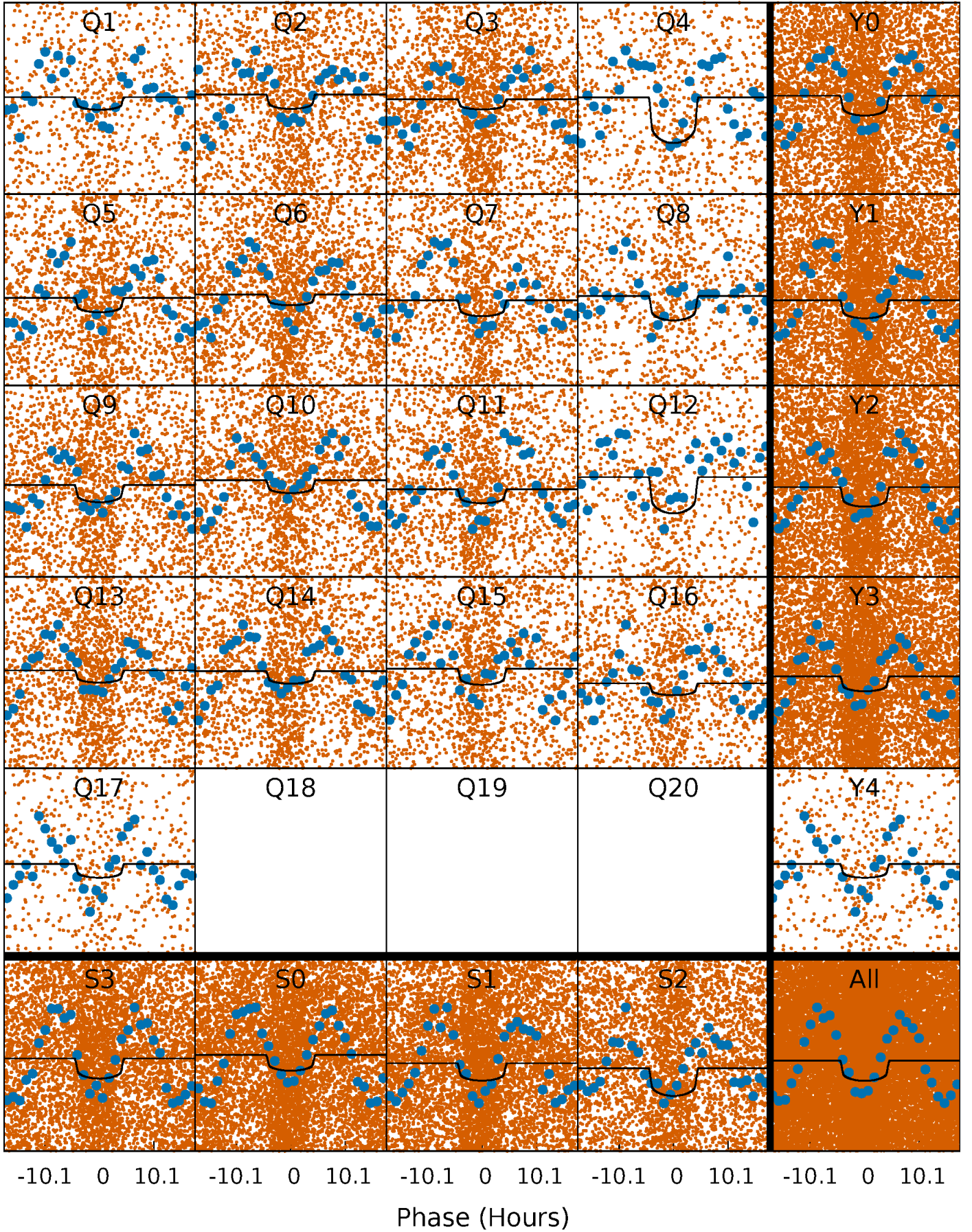
PDC Quarter-Phased Transit Curves

TCE 003338608-02 P= 1.273926 Days $T_0=131.538880$ (BKJD)



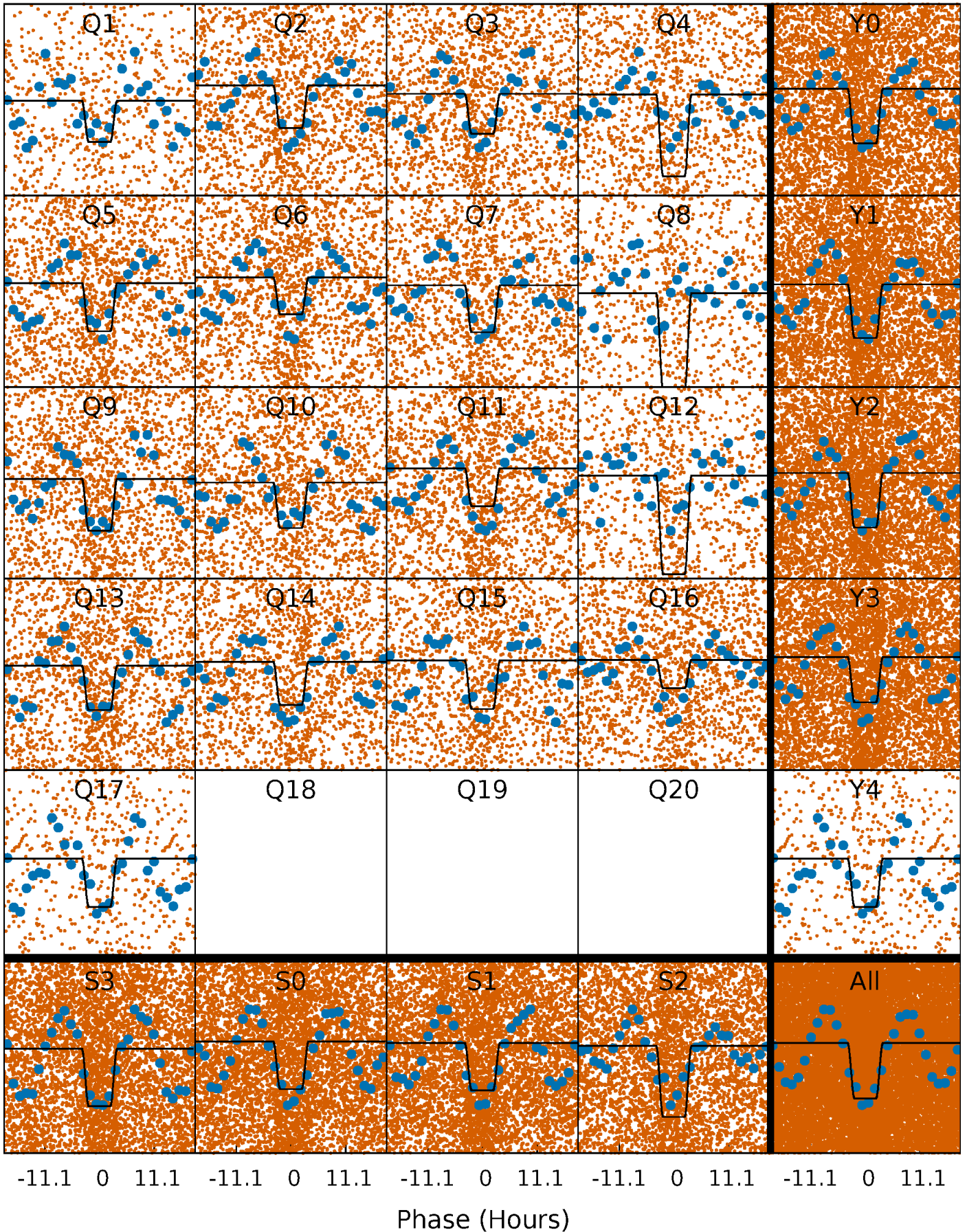
DV Quarter-Phased Transit Curves

TCE 003338608-02 P= 1.273926 Days $T_0=131.538880$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

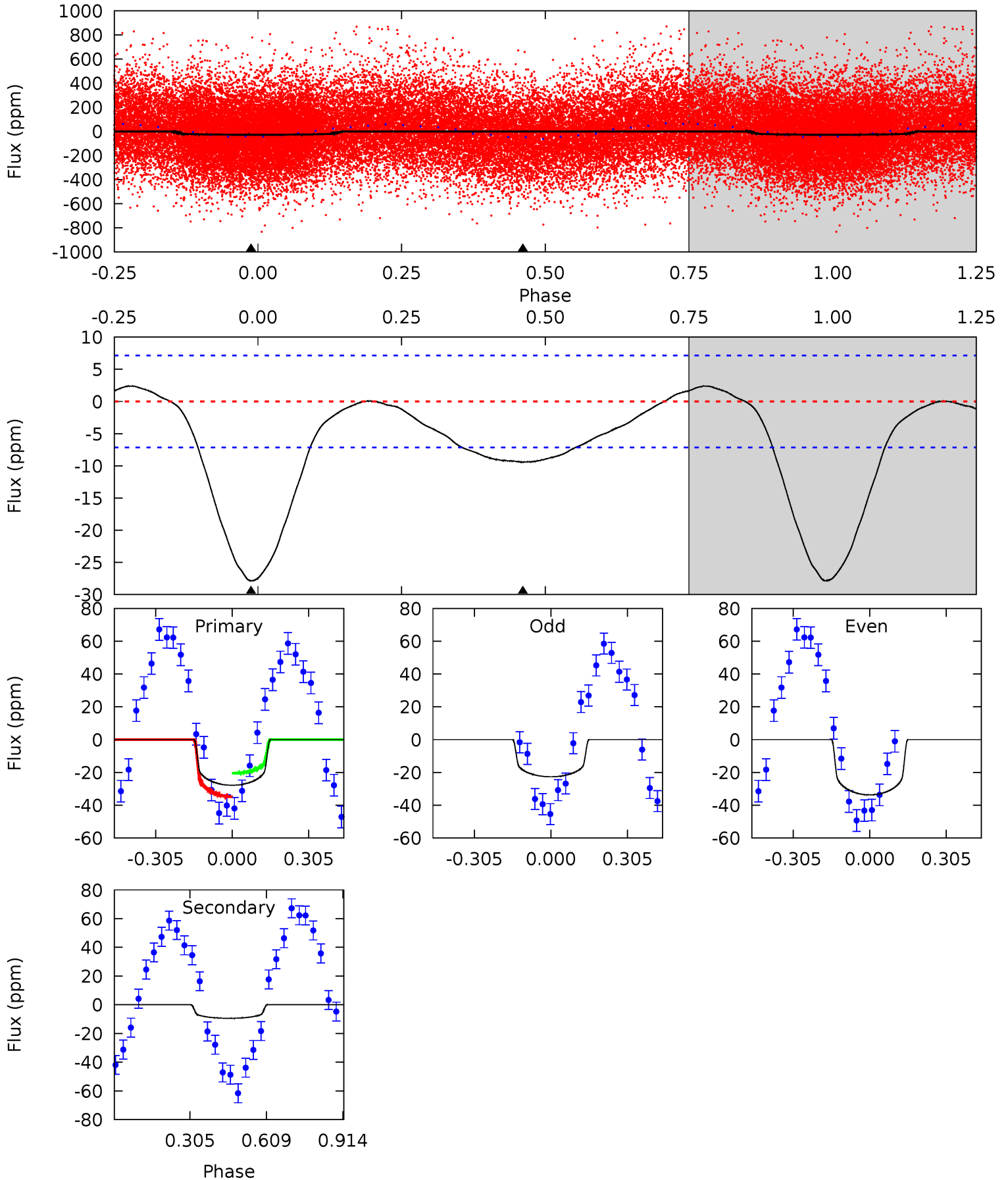
TCE 003338608-02 P= 1.273855 Days $T_0=131.555817$ (BKJD)



DV Model-Shift Uniqueness Test

003338608-02, P = 1.273926 Days, E = 130.264954 Days

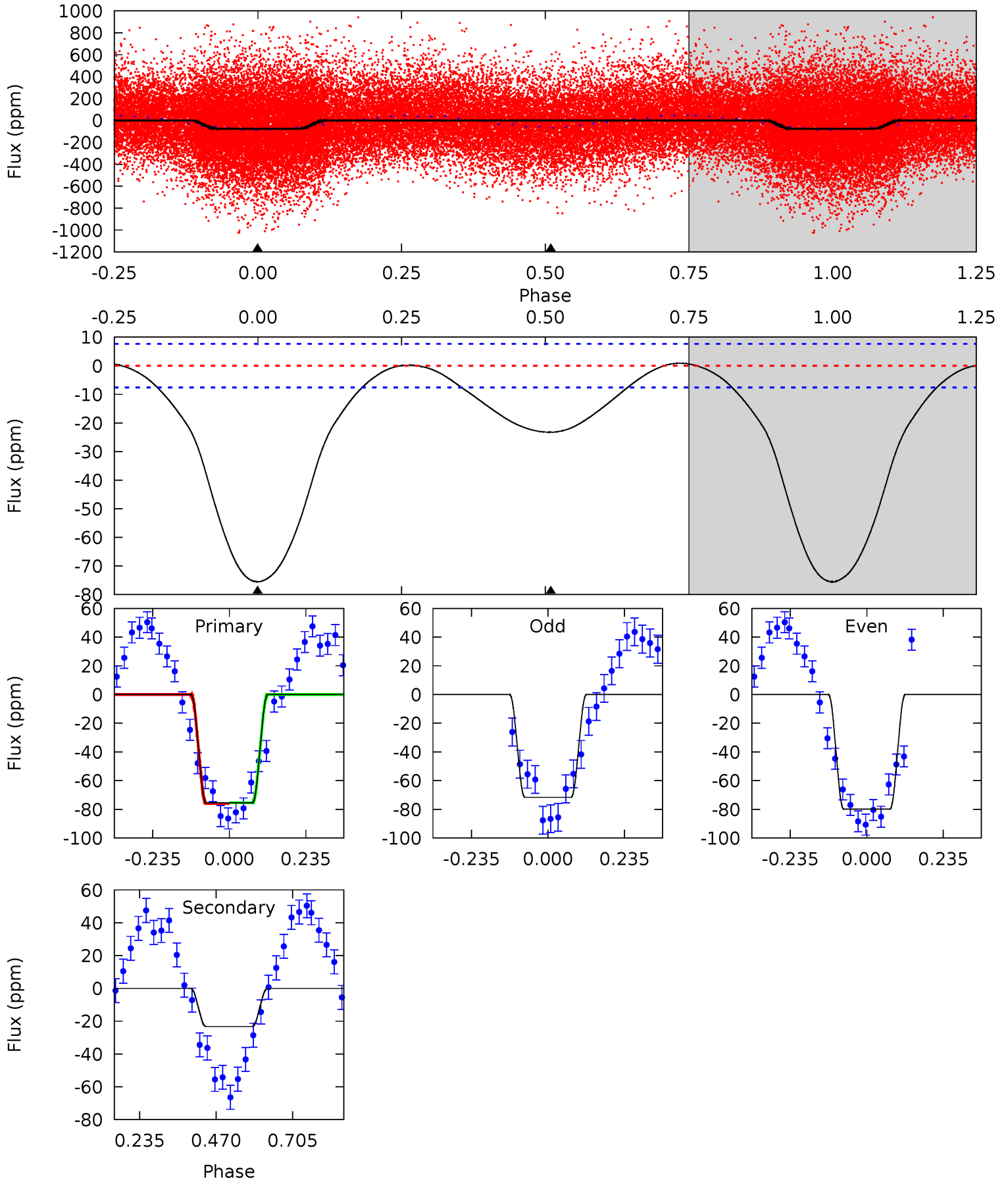
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	5.70	0	0	4.33	1.03	0.63	16.8	16.8	5.70	5.70	3.34	1.10	0.08	4.58



Alt Model-Shift Uniqueness Test

003338608-02, P = 1.273855 Days, E = 130.281962 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.4	13.3	0	0	4.38	1.19	0.39	43.4	43.4	13.3	13.3	2.37	1.01	0.01	0.17



Stellar Parameters For KIC 003338608

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6211^{+169}_{-206}	$4.228^{+0.220}_{-0.180}$	$-0.420^{+0.300}_{-0.300}$	$1.246^{+0.352}_{-0.320}$	$0.957^{+0.148}_{-0.099}$	$0.698^{+0.808}_{-0.321}$
	+3%/-3%	+5%/-4%	+71%/-71%	+28%/-26%	+15%/-10%	+116%/-46%
Source	PHO1	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 003338608-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 2	$0.76^{+0.32}_{-0.30}$	2835^{+207}_{-215}	4657^{+1066}_{-617}	$4.620^{+7.924}_{-2.249}$
Alt.	-23 ± 2	$1.17^{+0.36}_{-0.32}$	2825^{+223}_{-226}	4683^{+580}_{-419}	$4.798^{+4.287}_{-2.035}$

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 $A_{obs} \gg 1.0$

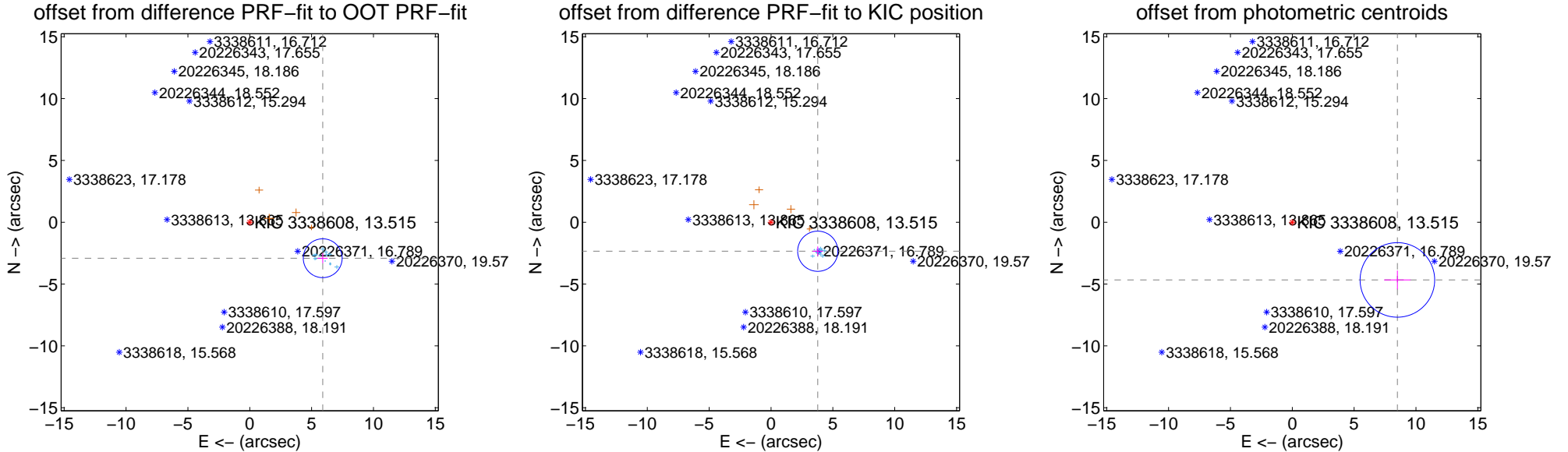
DV Centroid Data

Supplemental centroid analysis for 003338608-02. Kepler magnitude: 13.52. Transit SNR 8.64

There are 13 quarters with good PRF difference image offsets

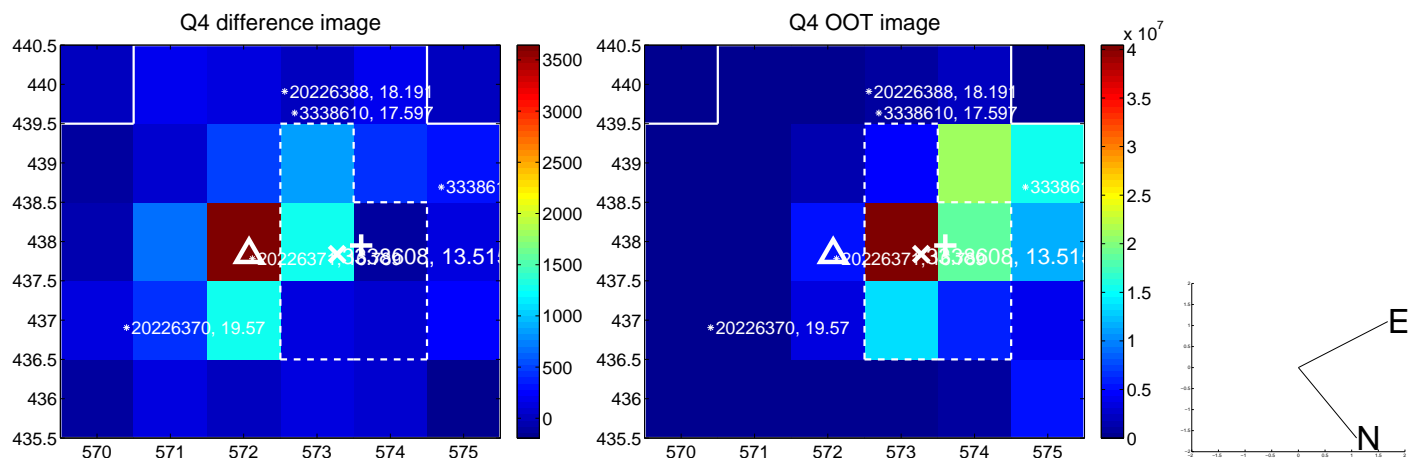
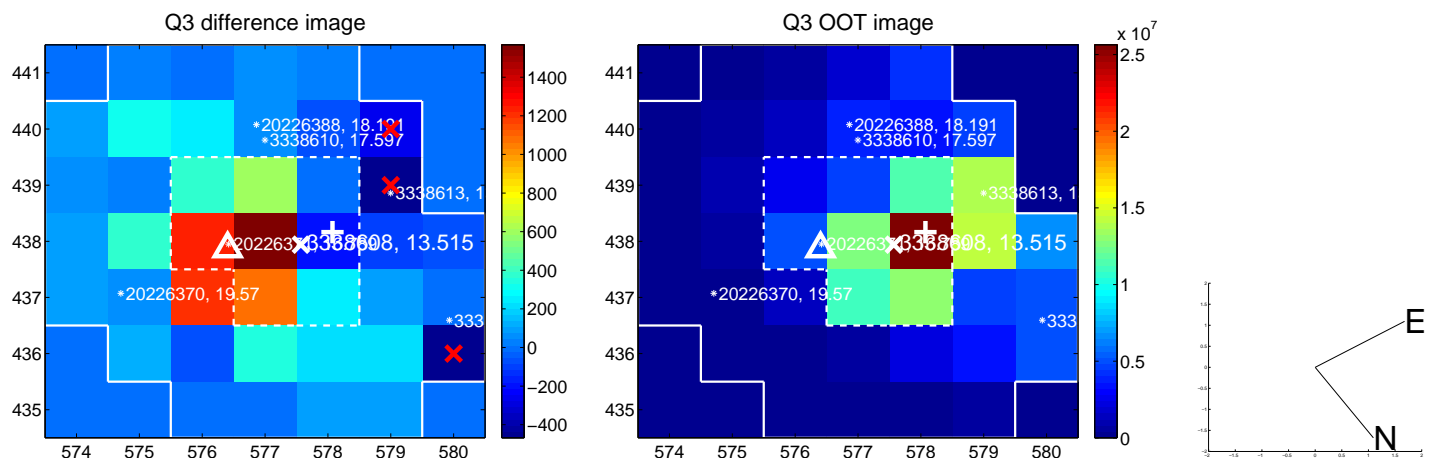
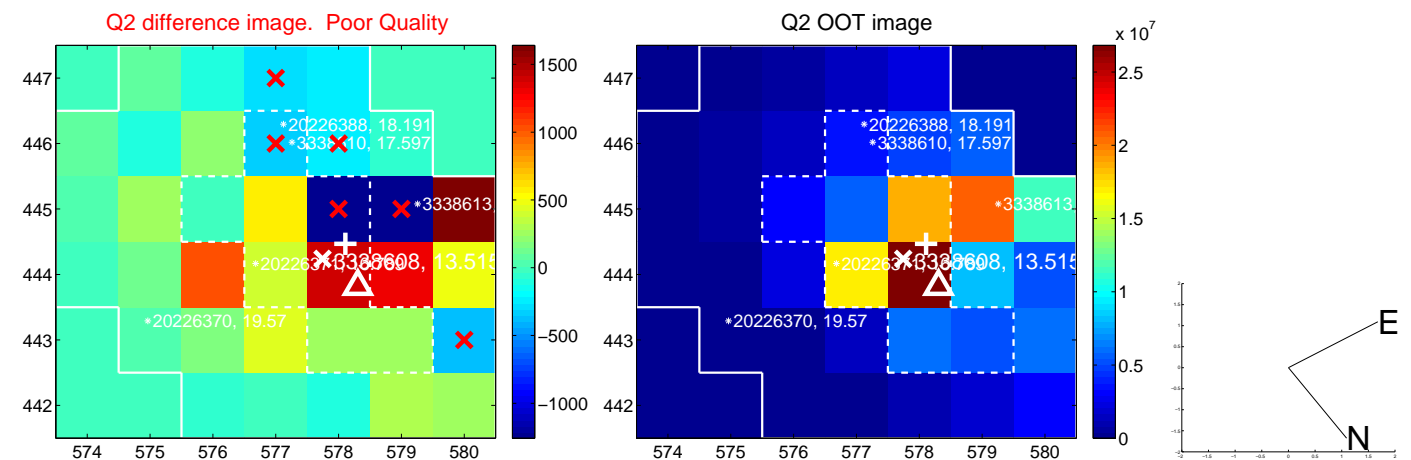
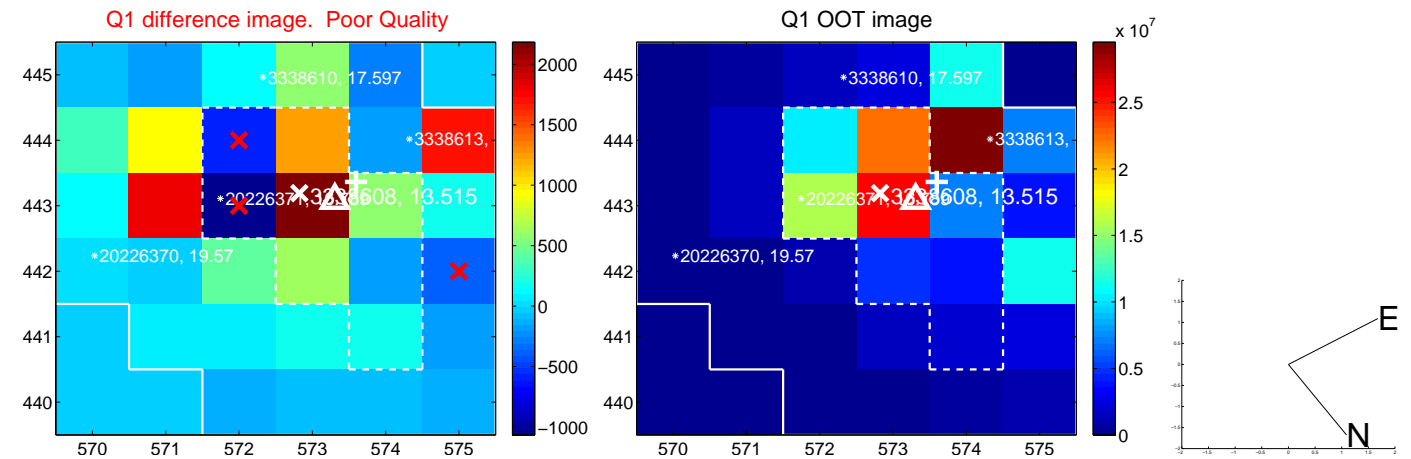
The OOT PRF centroid is offset from the target star catalog position by about 2.99 arcsec so the offset from difference PRF-fit to OOT-PRF-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.575 ± 0.523	12.57	-5.896 ± 0.403	-2.910 ± 0.400
PRF-fit source offset from KIC position	4.447 ± 0.542	8.21	-3.779 ± 0.413	-2.345 ± 0.386
photometric centroid source offset	9.69 ± 1.00	9.65	-8.50 ± 1.07	-4.67 ± 0.76

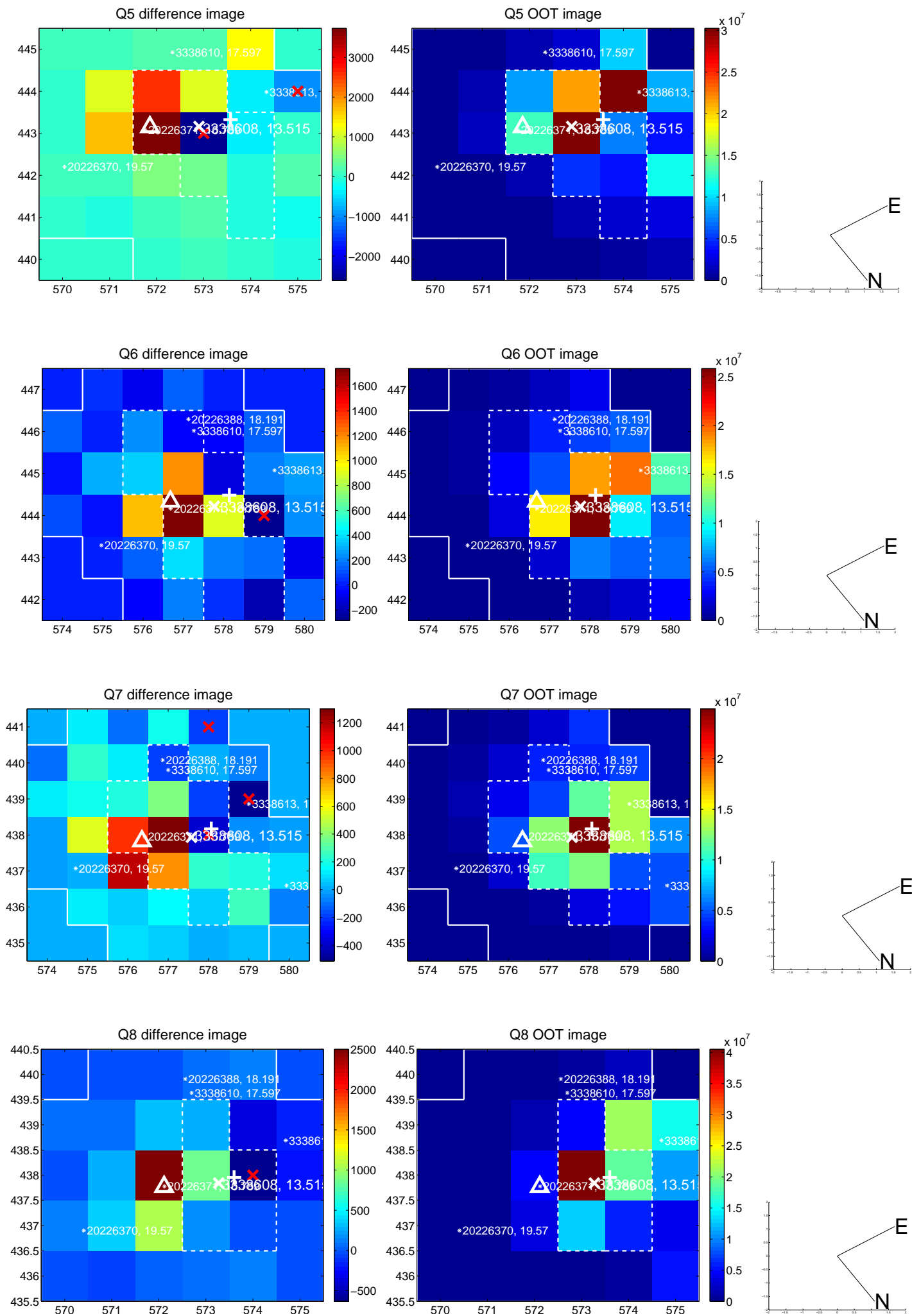


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

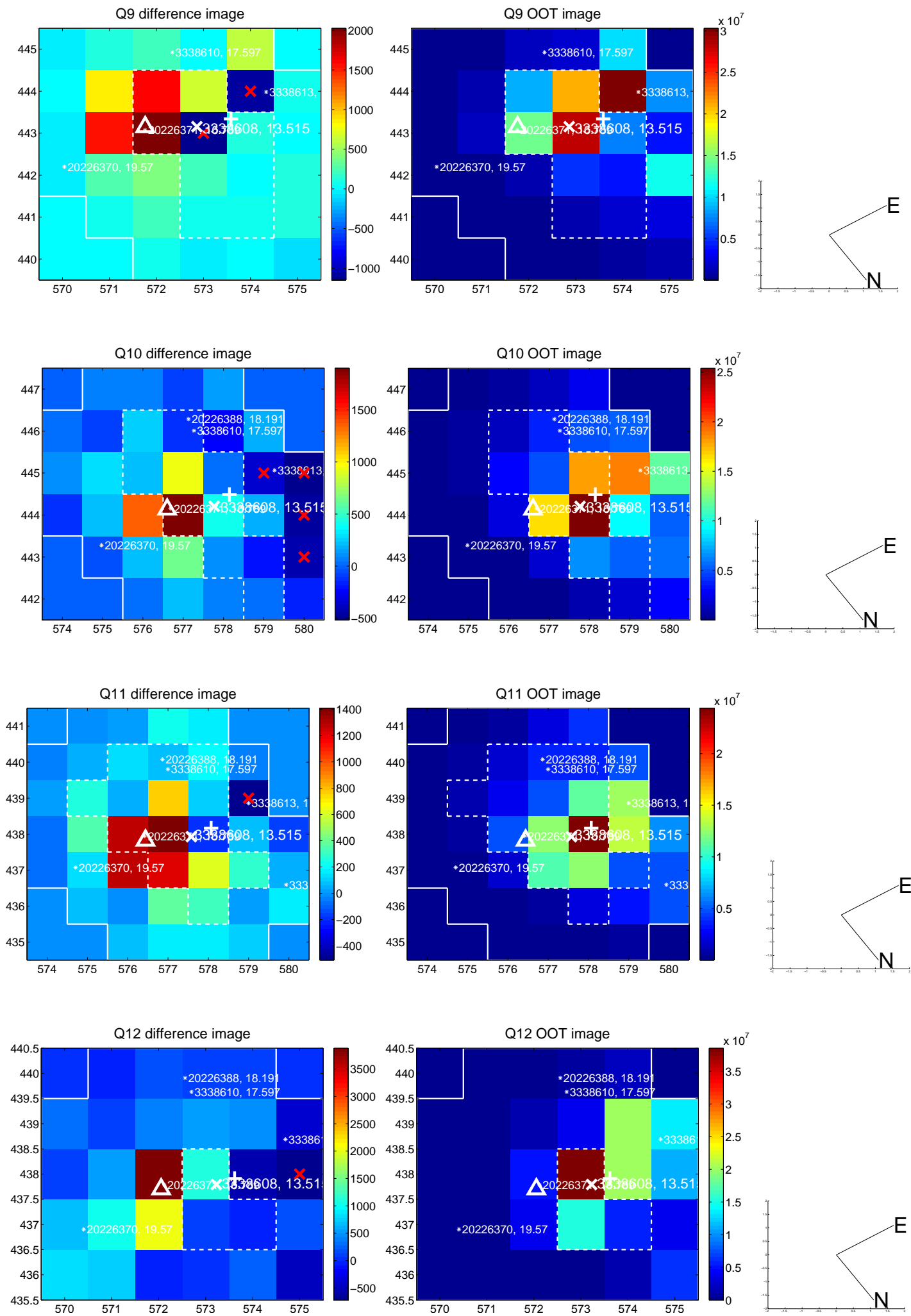
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



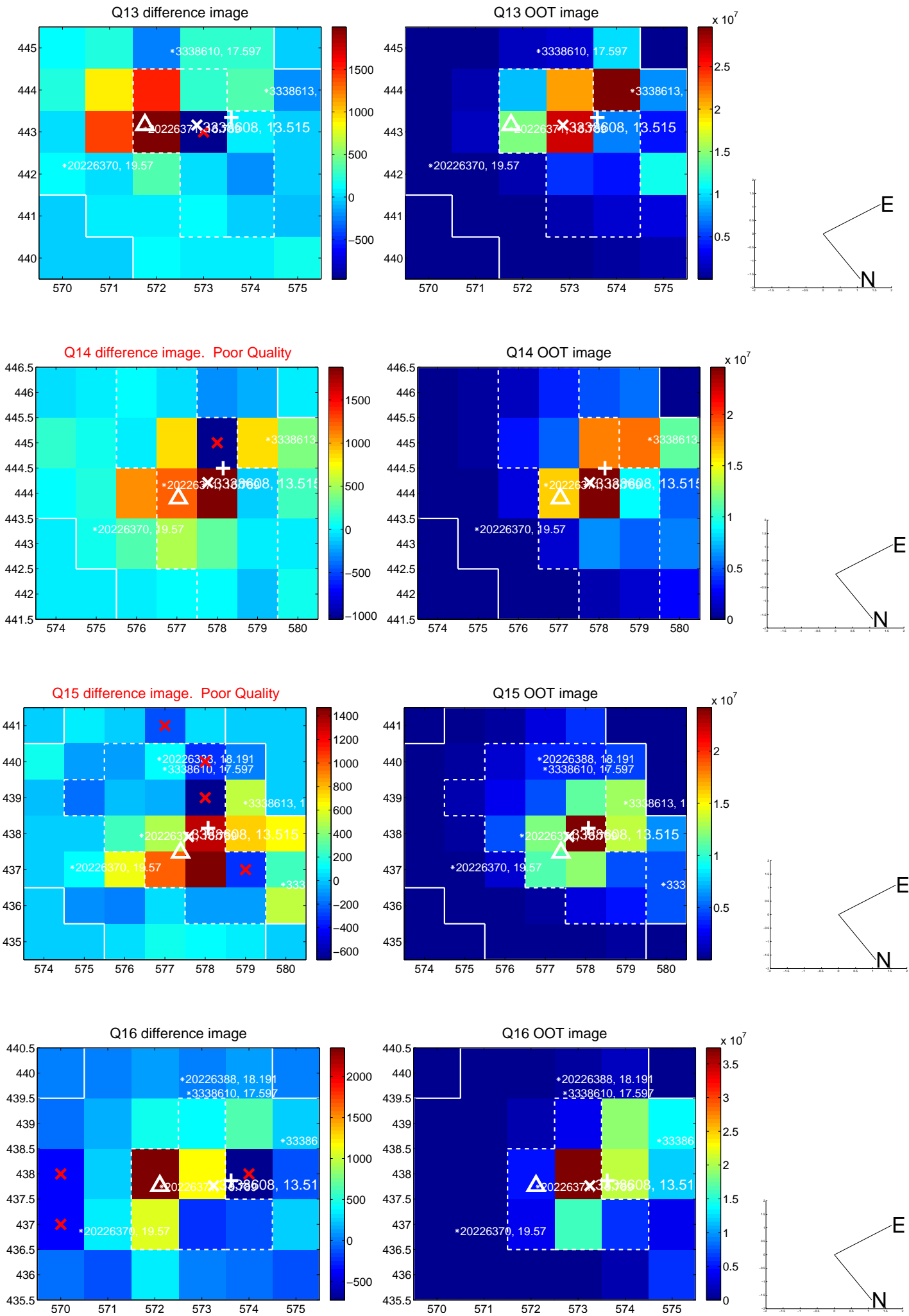
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



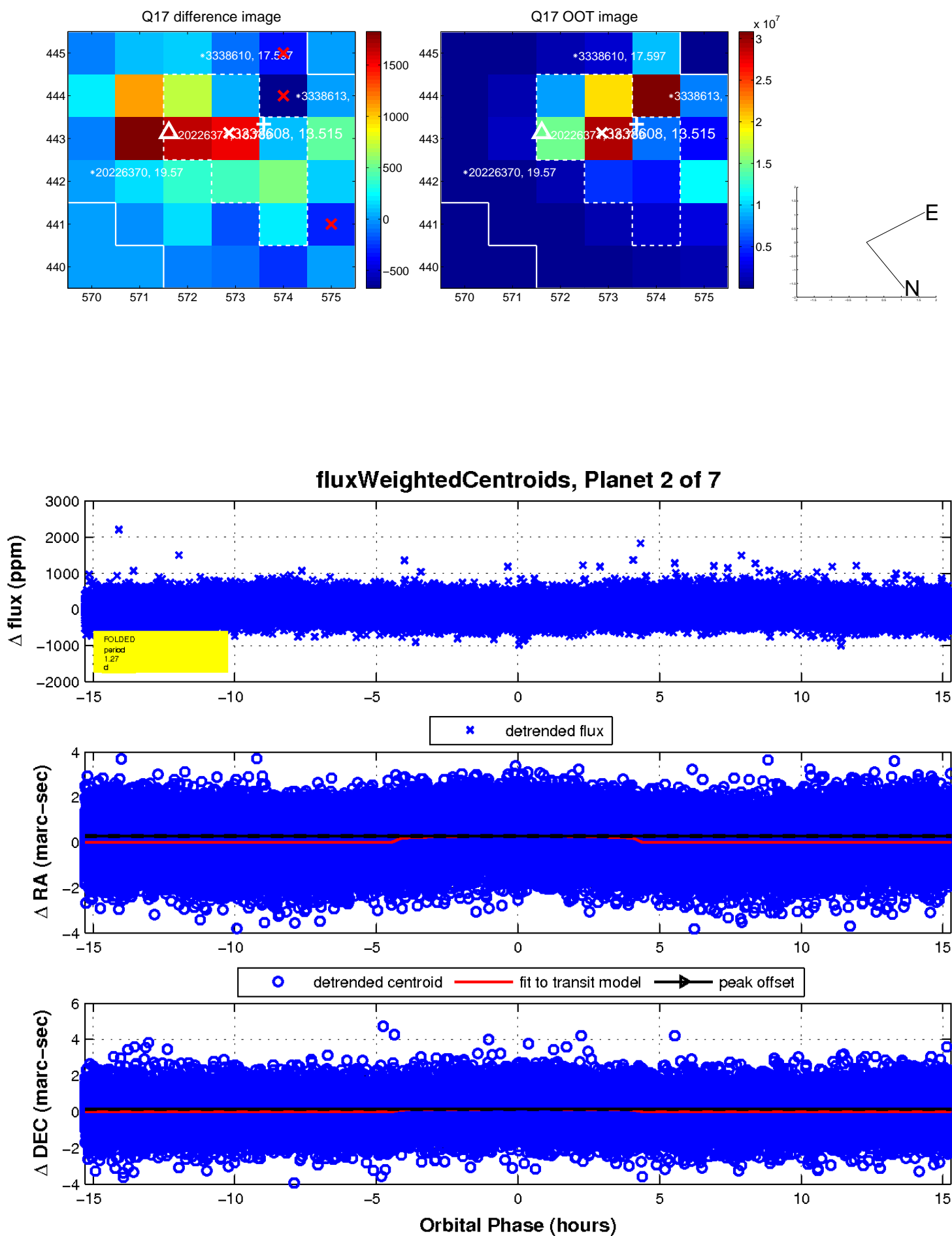
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

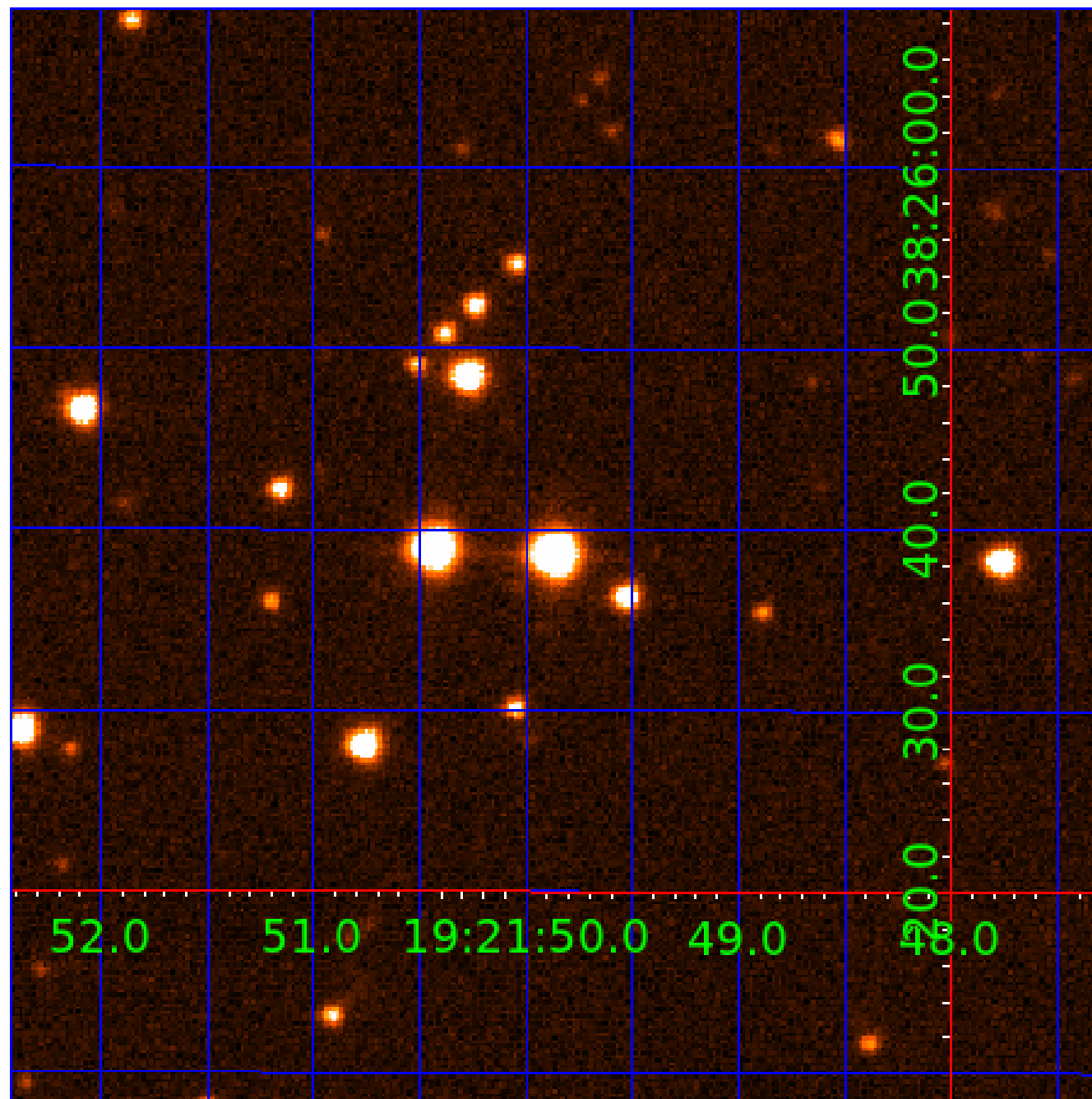


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003338608

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})
003338608-01	OBS	No	2.547781	132.179067	44.6	7.740	9.8	9.6	1.25	6211	0.97	1598.34
003338608-02	OBS	No	1.273926	131.538880	26.3	8.874	9.2	8.6	1.25	6211	0.75	4027.42
003338608-04	OBS	No	4.736033	134.196871	110.0	2.697	11.4	7.6	1.25	6211	1.53	699.30
003338608-05	OBS	No	9.252387	132.169485	90.4	6.696	12.6	5.5	1.25	6211	1.38	286.34
003338608-06	OBS	No	23.603716	155.055311	266.3	4.158	10.0	10.2	1.25	6211	2.30	82.14
003338608-07	OBS	No	9.139326	134.791711	272.5	2.083	9.1	12.6	1.25	6211	2.47	291.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003338608-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD—CENT_KIC_POS
003338608-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003338608-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003338608-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

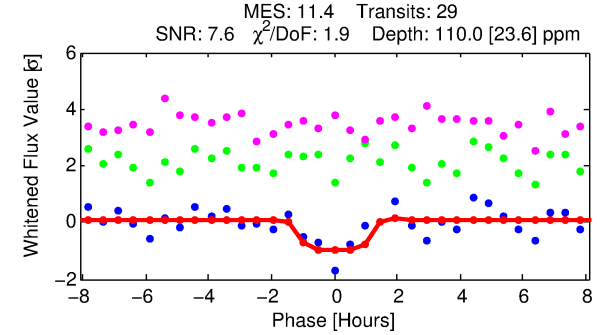
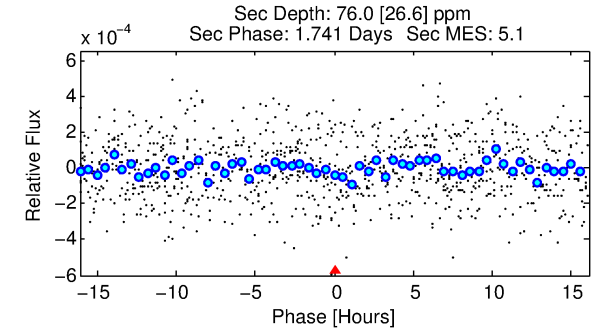
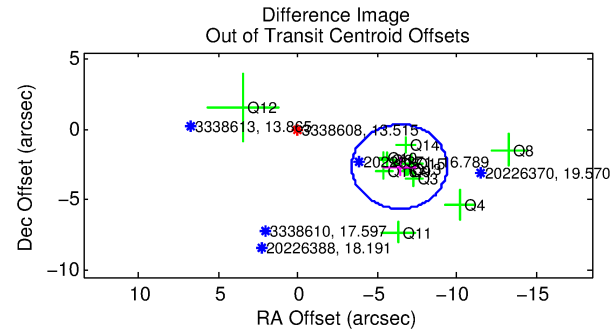
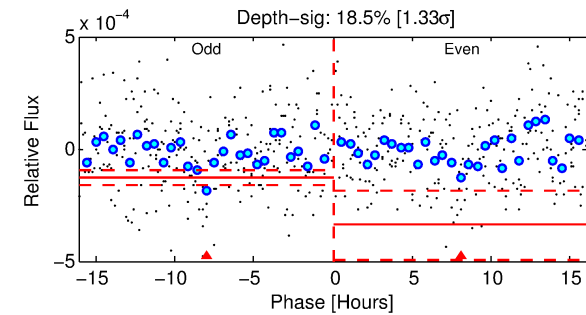
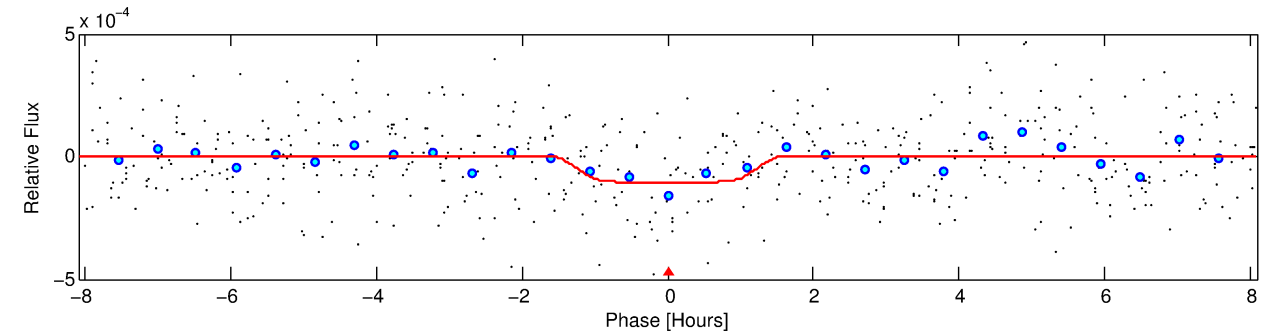
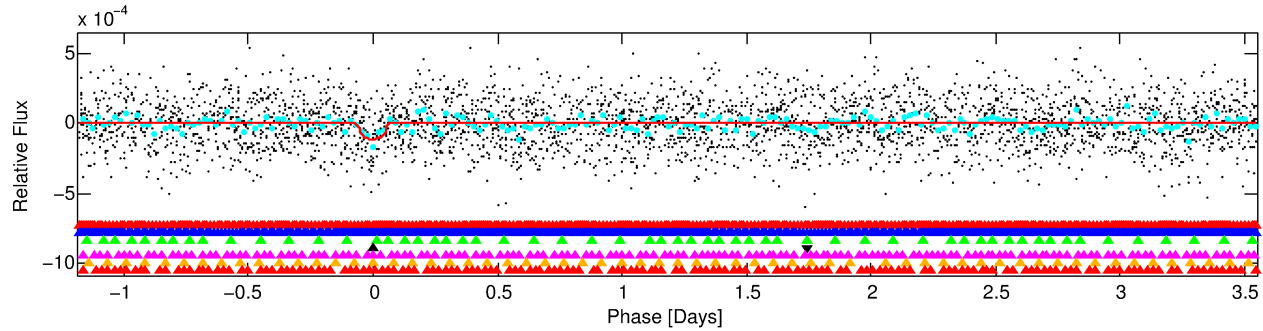
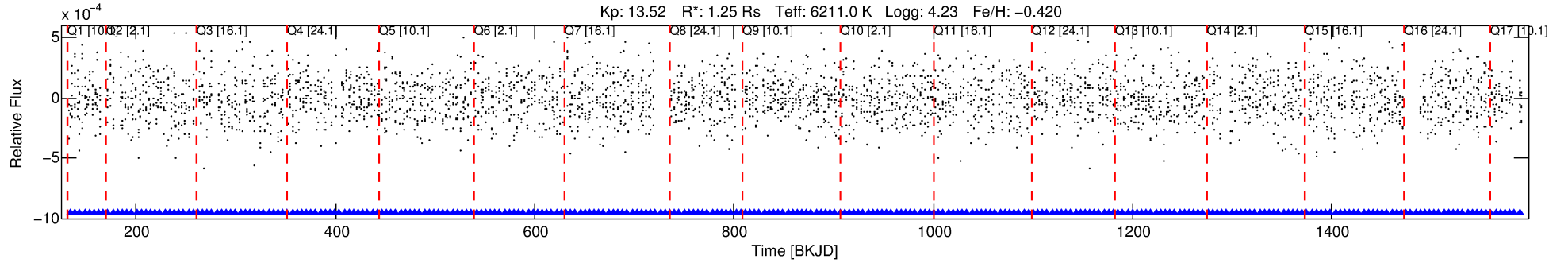
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003338608-04

No Significant Match Found

DV One-Page Summary

KIC: 3338608 Candidate: 4 of 7 Period: 4.736 d



DV Fit Results:

Period = 4.73603 [0.00006] d
Epoch = 134.1969 [0.0084] BKJD
Rp/R* = 0.0113 [0.0144]
a/R* = 6.21 [43.49]
b = 0.90 [1.51]
Seff = 699.30 [285.88]
Teq = 1311 [134] K
Rp = 1.53 [2.01] Re
a = 0.0544 [0.0138] AU
Ag = 52.58 [137.14] [0.38 σ]
Teffp = 5459 [3525] K [1.18 σ]

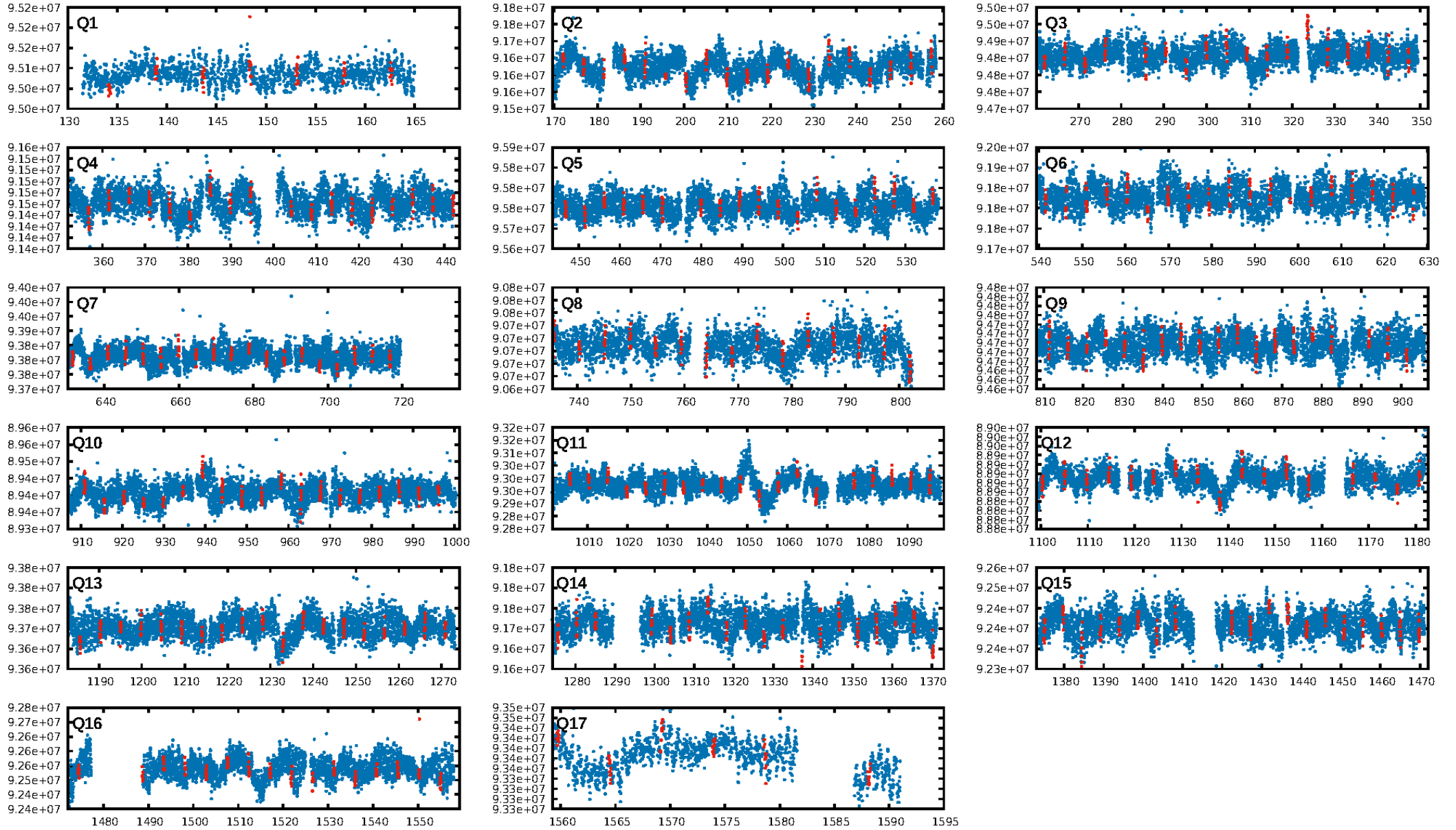
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.41 σ]
LongPeriod-sig: 100.0% [31.01 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 99.6%
Bootstrap-pfa: 1.32e-13
RollingBand-fgt: 1.00 [27/27]
GhostDiagnostic-chr: 0.4187
Centroid-sig: 1.1%
Centroid-so: 1.835 arcsec [2.93 σ]
OotOffset-rm: 6.913 arcsec [6.92 σ]
KicOffset-rm: 4.401 arcsec [4.72 σ]
OotOffset-st: 3/3/4/3 [13]
KicOffset-st: 3/3/4/3 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 0.82 [14/17]

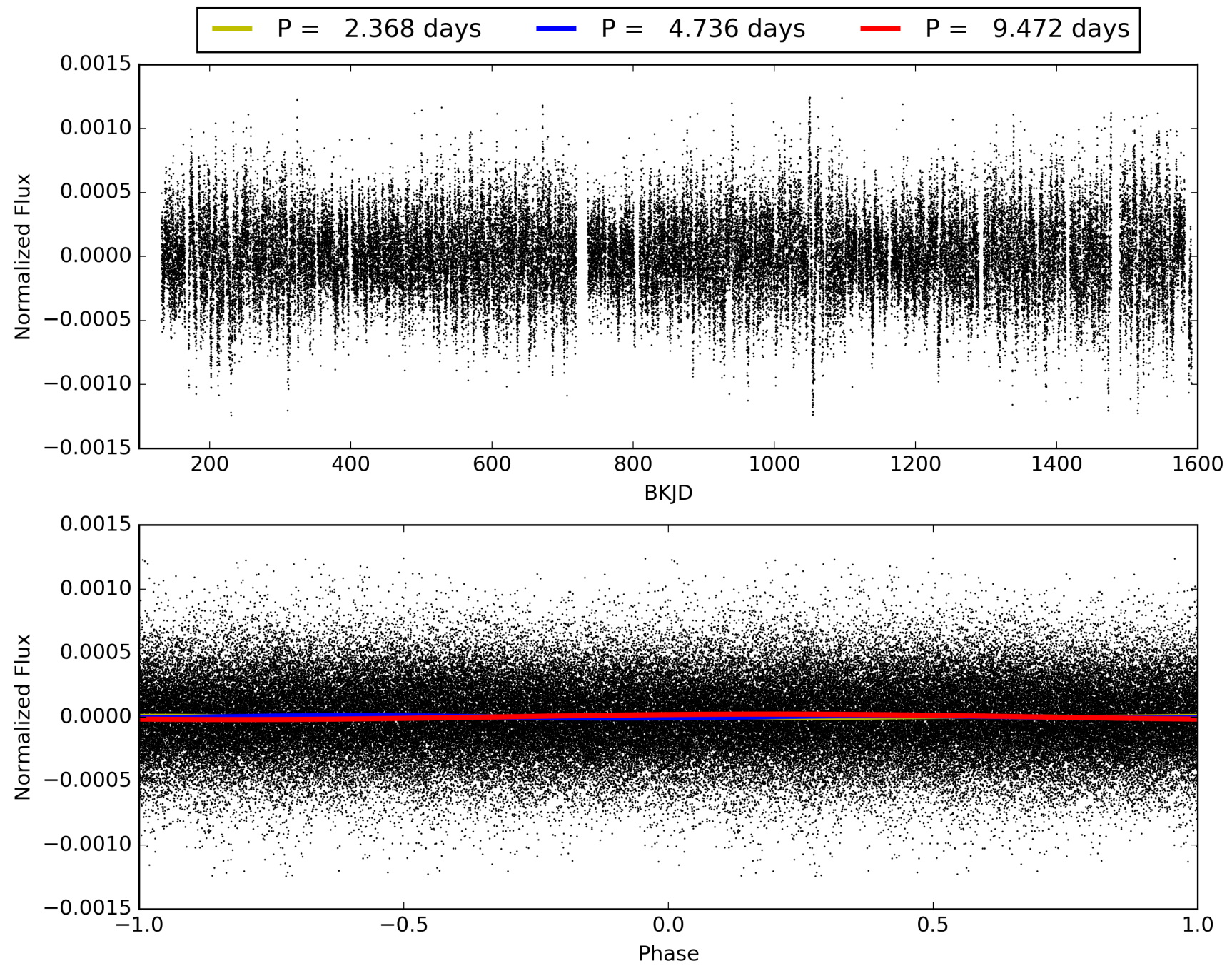
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:14:50 Z

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

TCE 003338608-04, PDC Light Curves

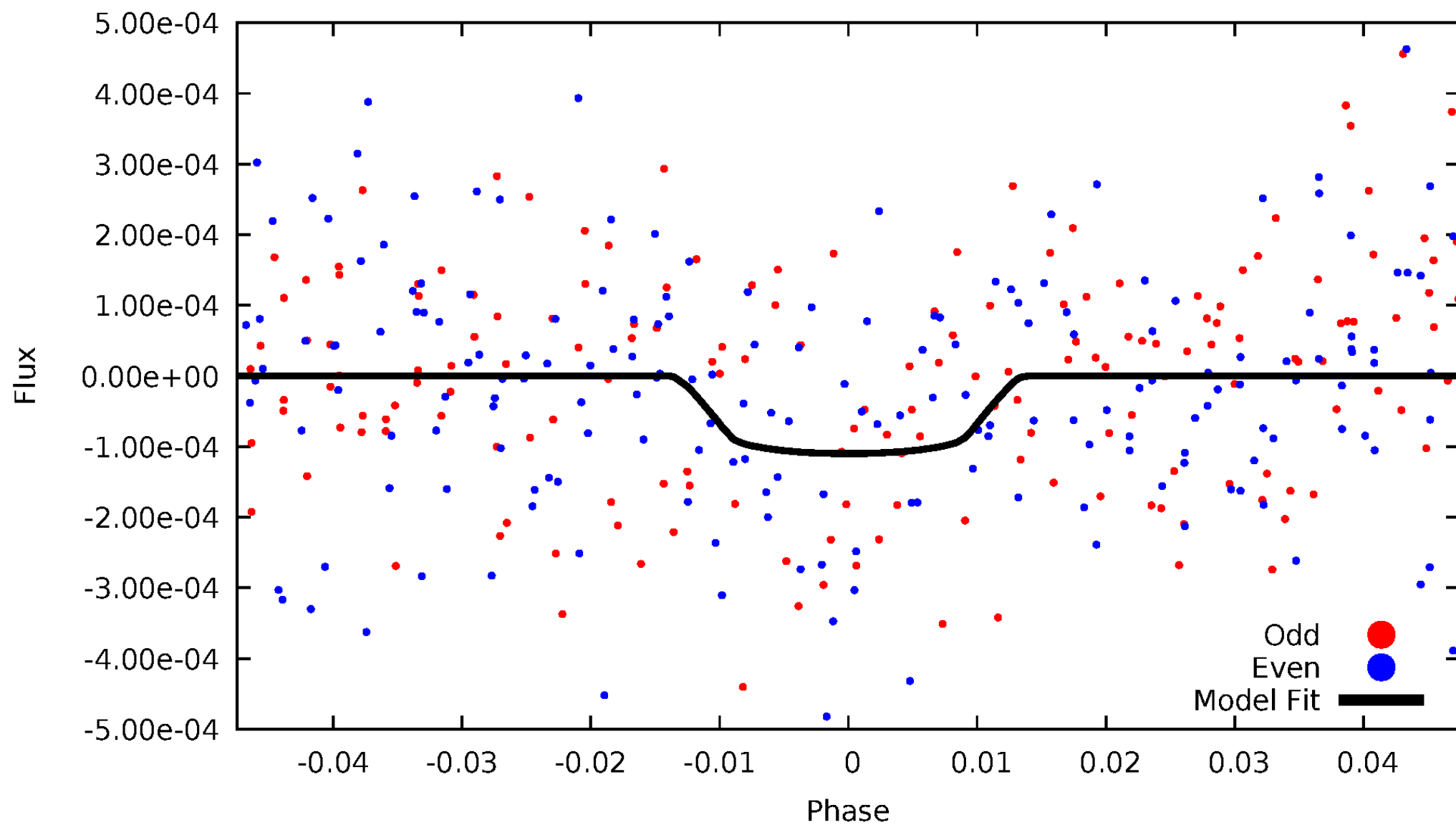


TCE 003338608-04



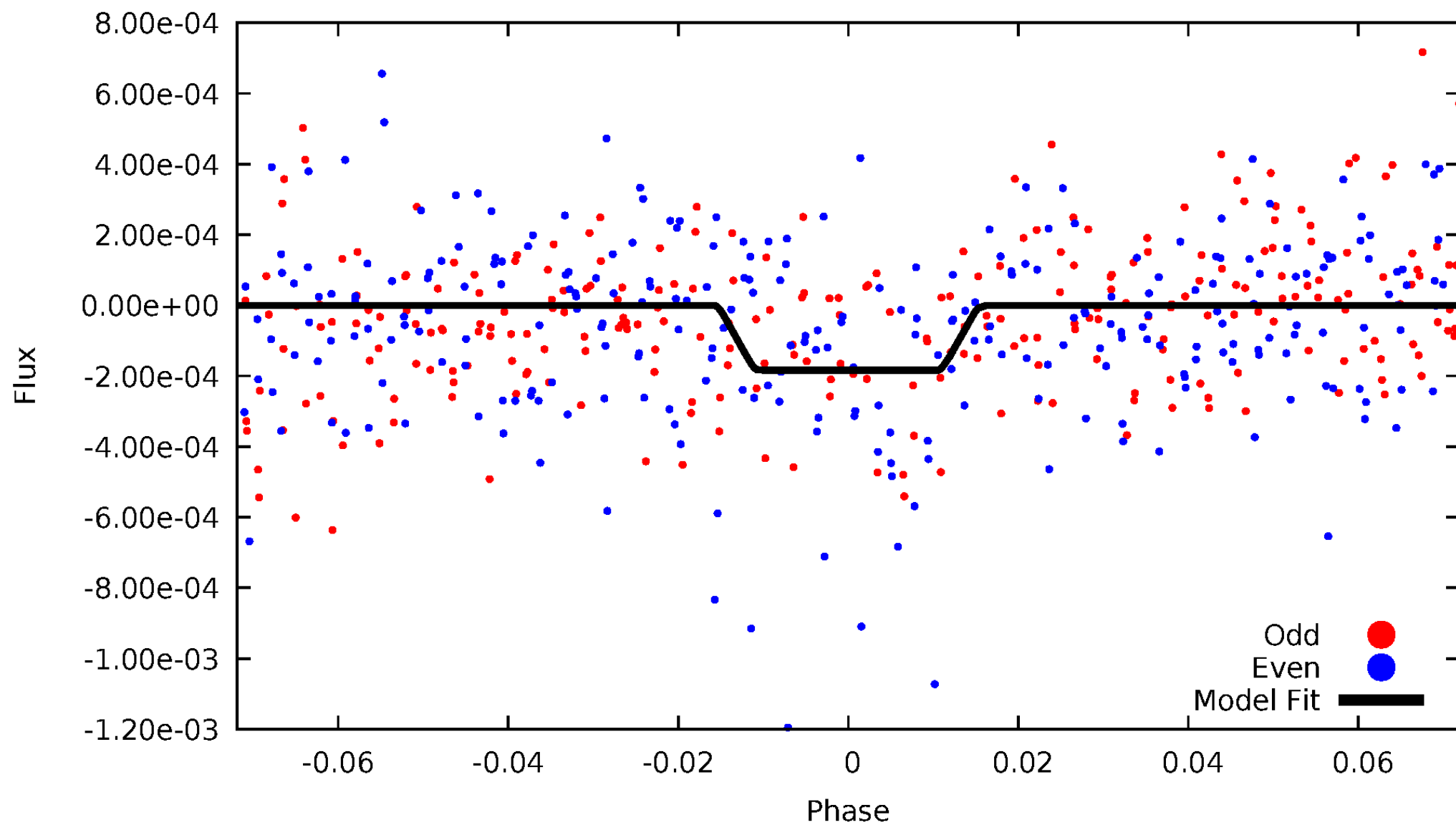
DV Odd/Even

TCE 003338608-04



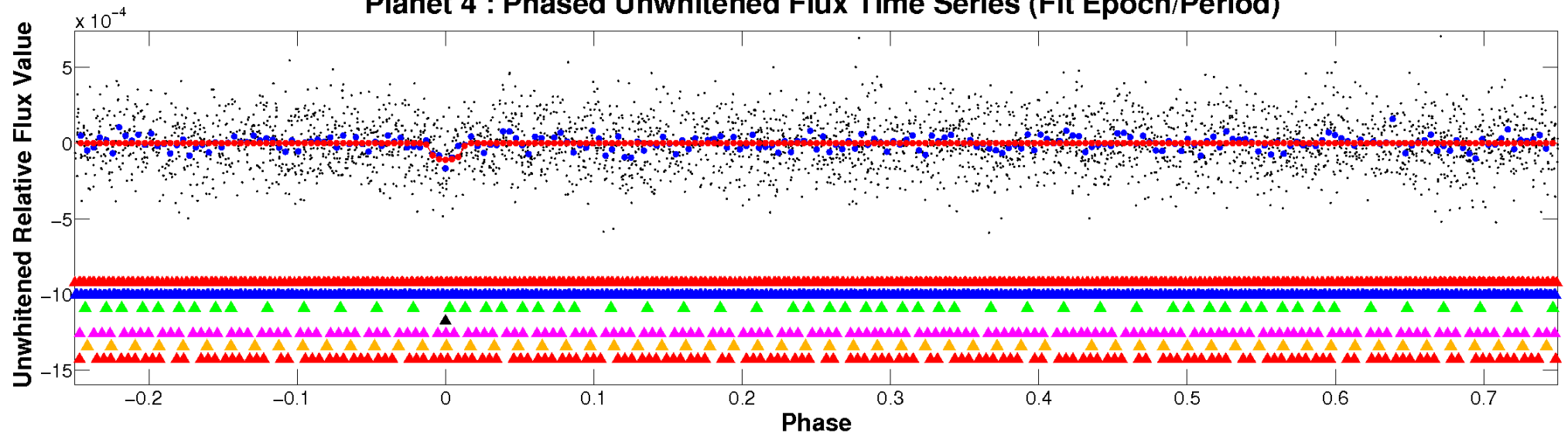
ALT Odd/Even

TCE 003338608-04

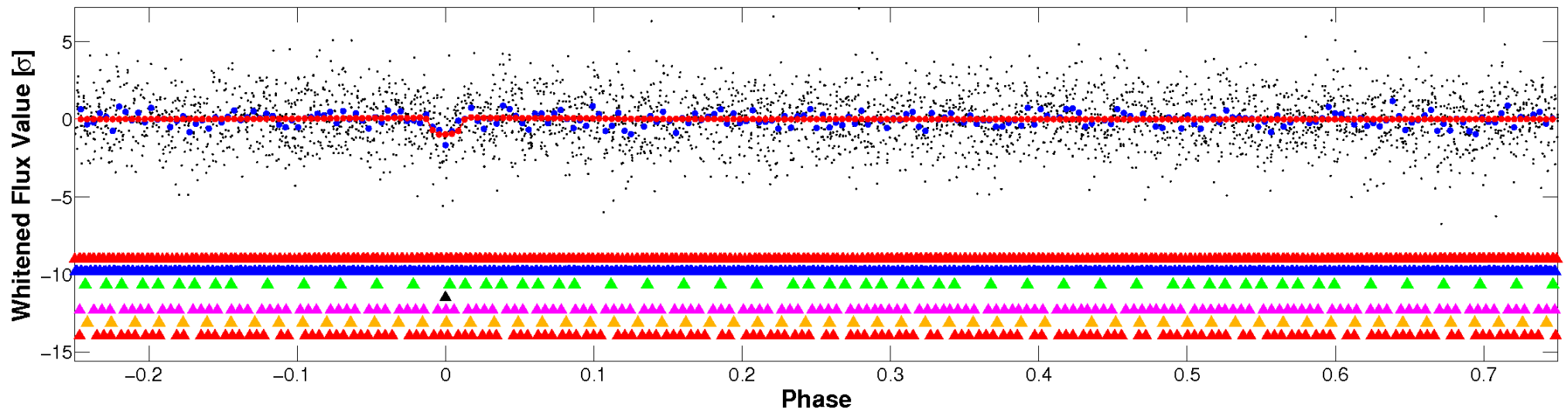


Non-Whitened Vs. Whitened Light Curve

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

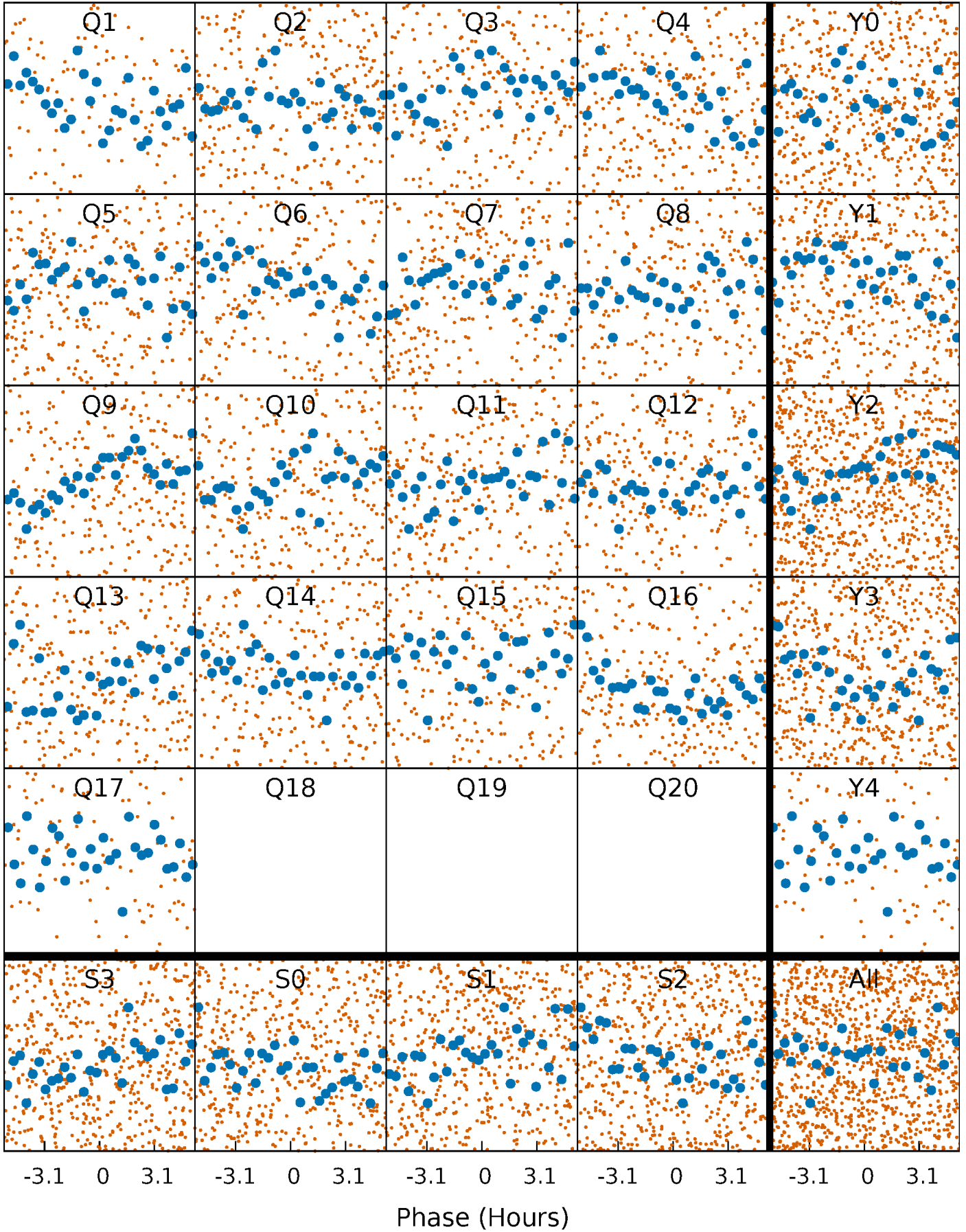


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



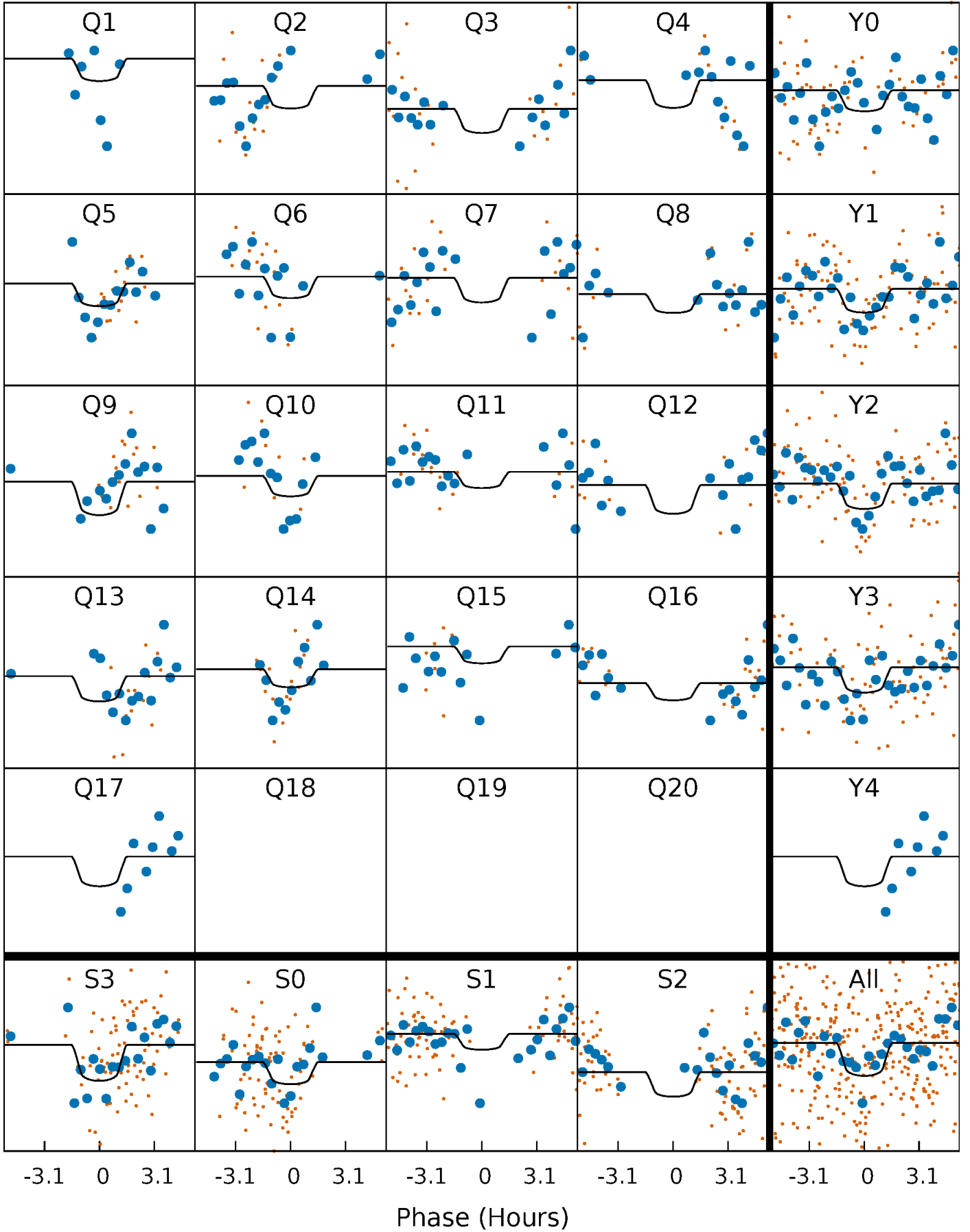
PDC Quarter-Phased Transit Curves

TCE 003338608-04 P= 4.736033 Days $T_0=134.196871$ (BKJD)



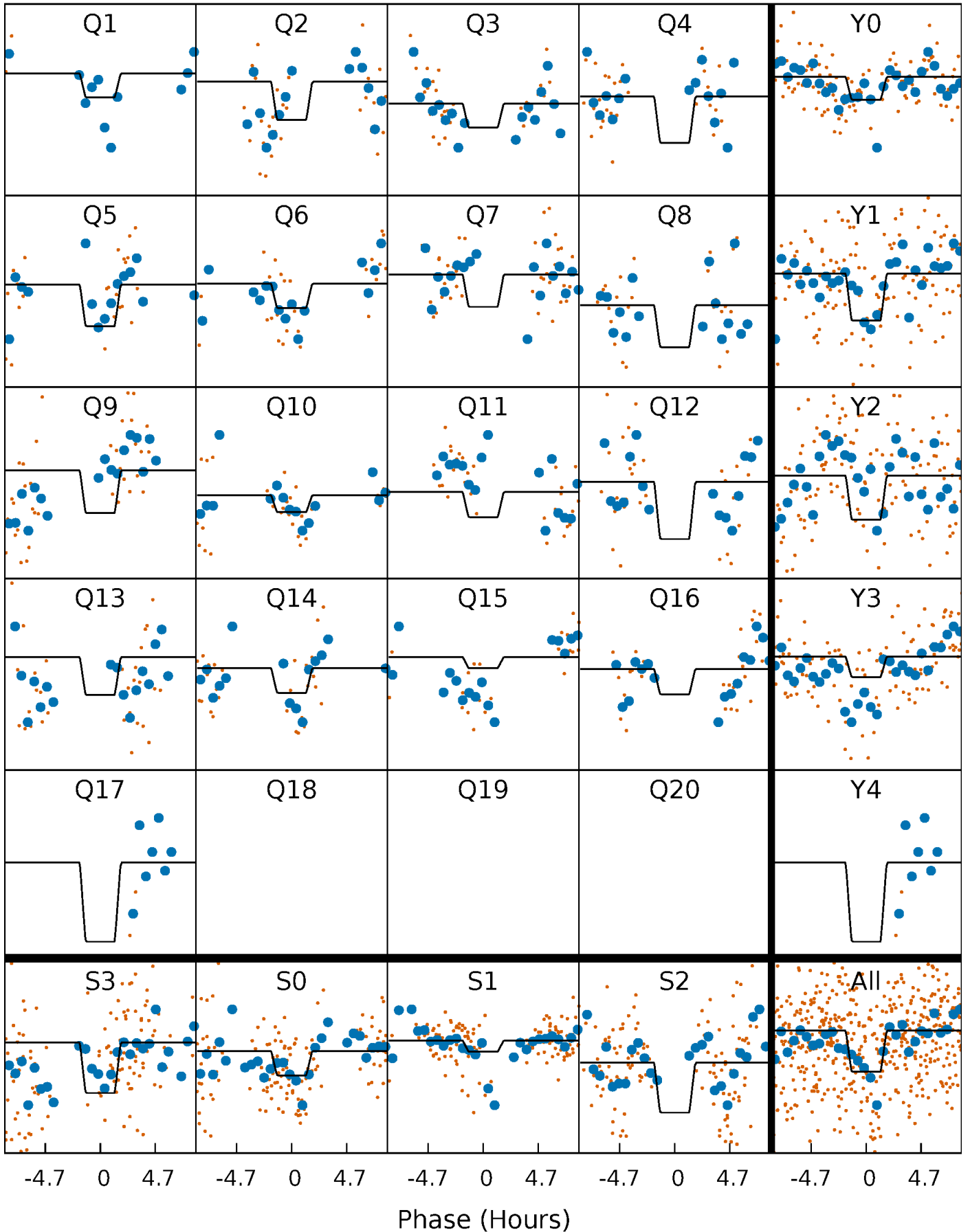
DV Quarter-Phased Transit Curves

TCE 003338608-04 P= 4.736033 Days $T_0=134.196871$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

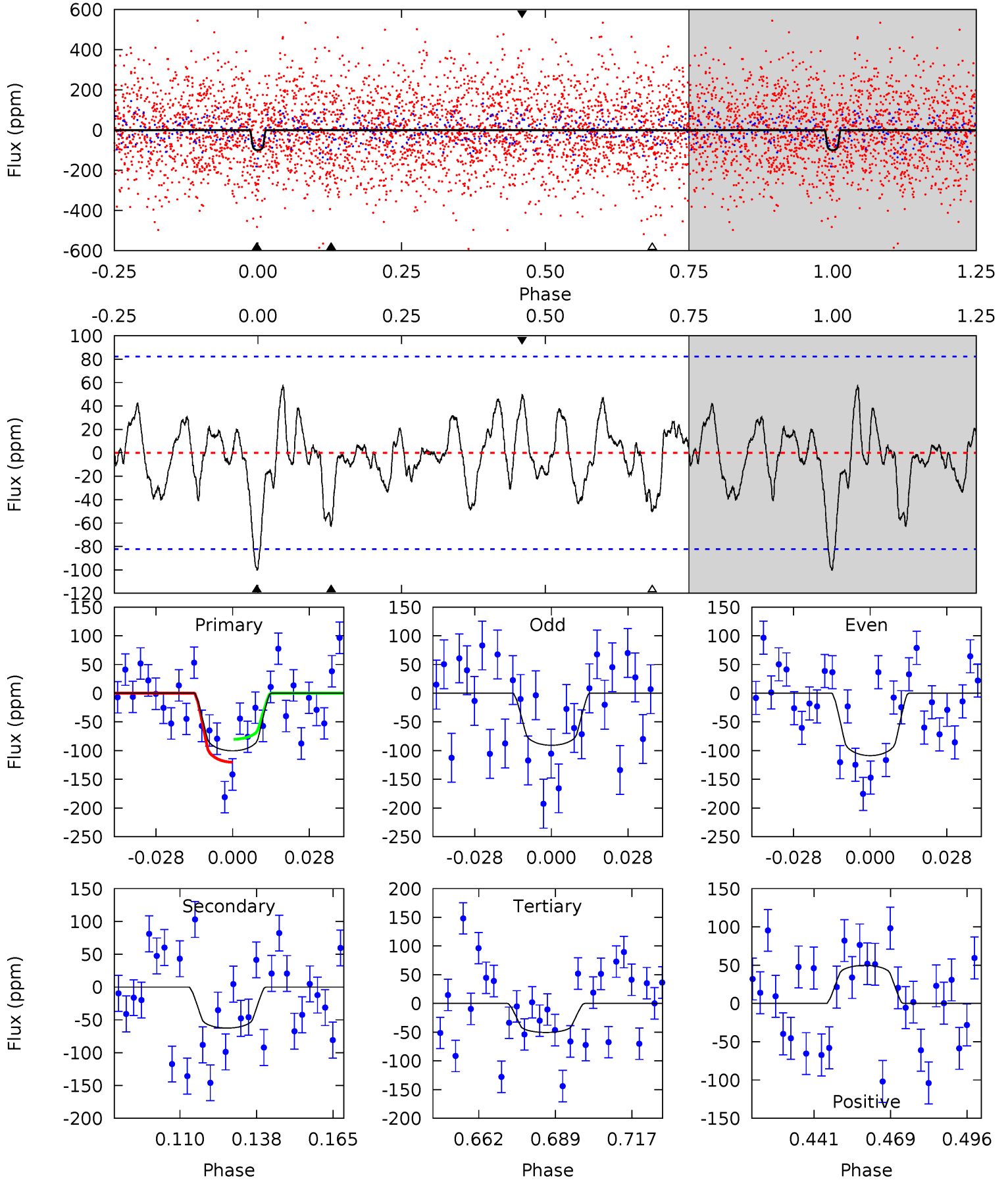
TCE 003338608-04 $P = 4.735874$ Days $T_0 = 134.182943$ (BKJD)



DV Model-Shift Uniqueness Test

003338608-04, P = 4.736033 Days, E = 129.460838 Days

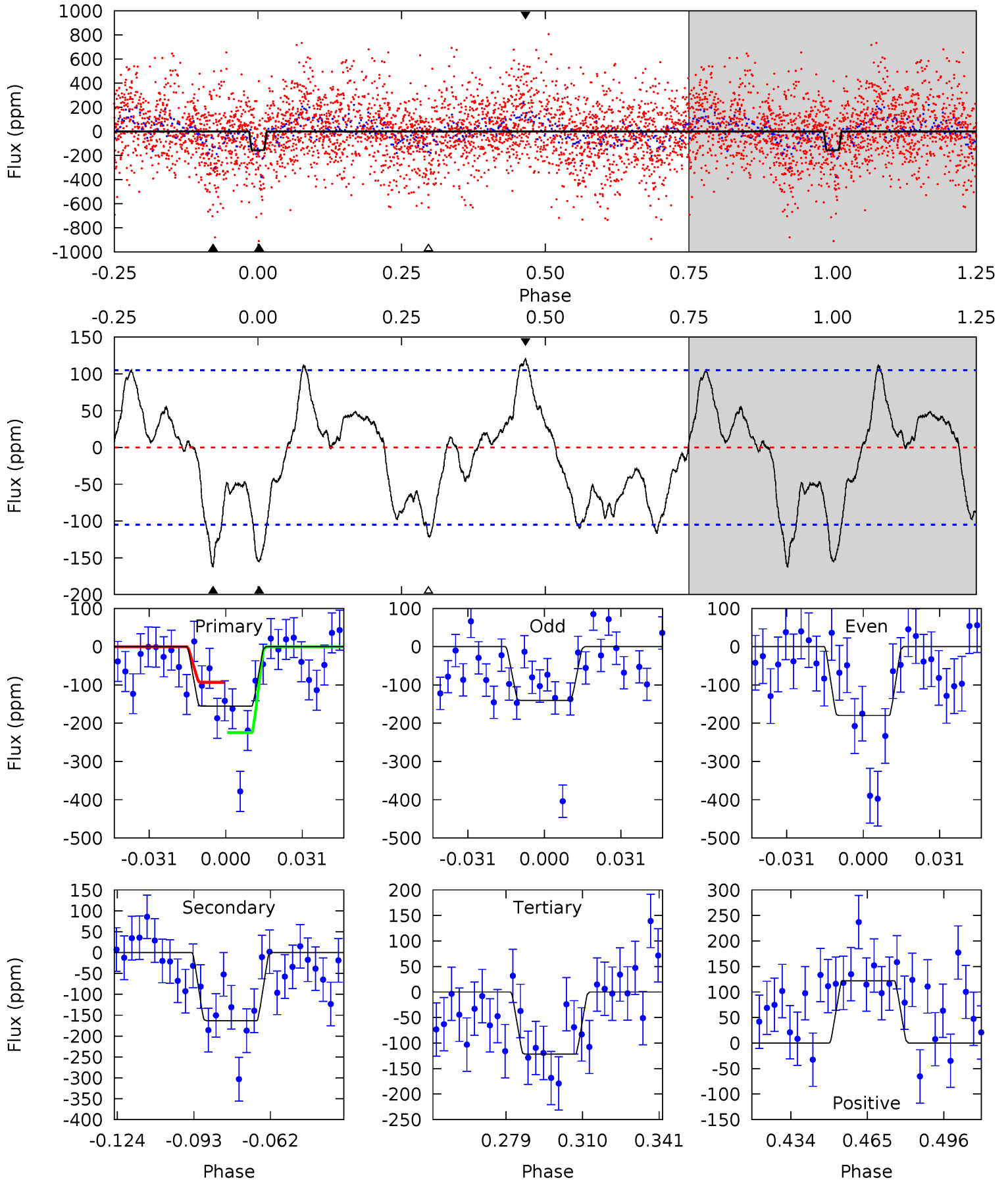
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.89	3.67	2.96	2.92	4.83	2.20	1.31	2.93	2.97	0.70	0.75	0.53	1.05	0.36	1.18



Alt Model-Shift Uniqueness Test

003338608-04, P = 4.735874 Days, E = 129.447069 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.10	7.46	5.56	5.57	4.80	2.16	2.65	1.54	1.54	1.89	1.89	0.90	1.09	0.43	3.01



Stellar Parameters For KIC 003338608

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6211^{+169}_{-206}	$4.228^{+0.220}_{-0.180}$	$-0.420^{+0.300}_{-0.300}$	$1.246^{+0.352}_{-0.320}$	$0.957^{+0.148}_{-0.099}$	$0.698^{+0.808}_{-0.321}$
	+3%/-3%	+5%/-4%	+71%/-71%	+28%/-26%	+15%/-10%	+116%/-46%
Source	PHO1	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 003338608-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-63 ± 17	$2.10^{+1.68}_{-1.32}$	1822^{+143}_{-135}	4571^{+2680}_{-937}	23^{+147}_{-16}
Alt.	-163 ± 22	$2.24^{+2.00}_{-1.50}$	1826^{+157}_{-148}	5467^{+4935}_{-1210}	55^{+413}_{-39}

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

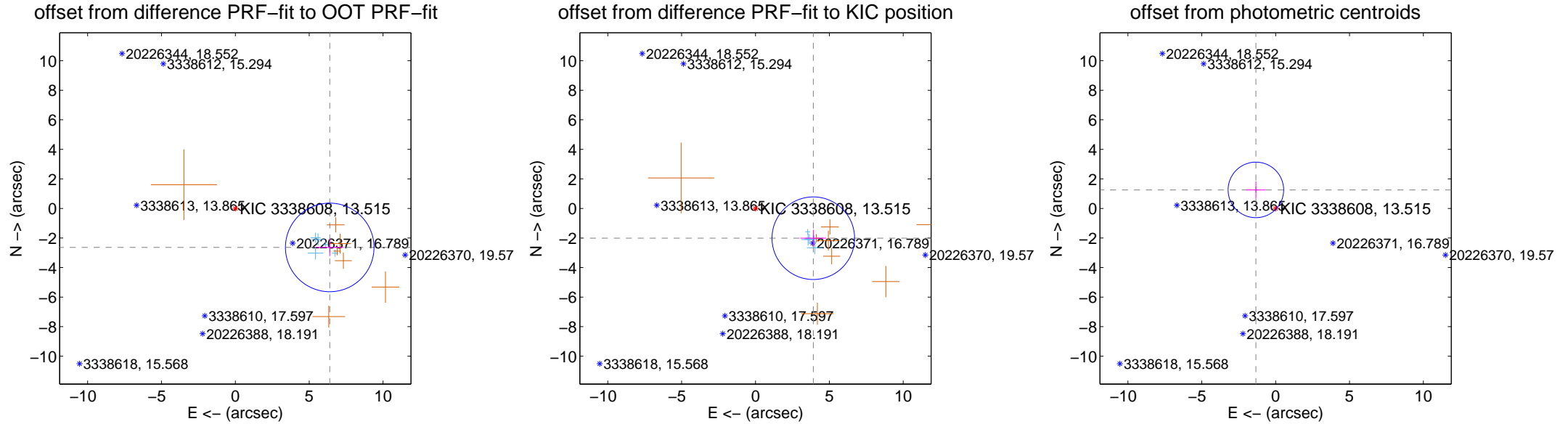
DV Centroid Data

Supplemental centroid analysis for 003338608-04. Kepler magnitude: 13.52. Transit SNR 7.57

There are 5 quarters with good PRF difference image offsets

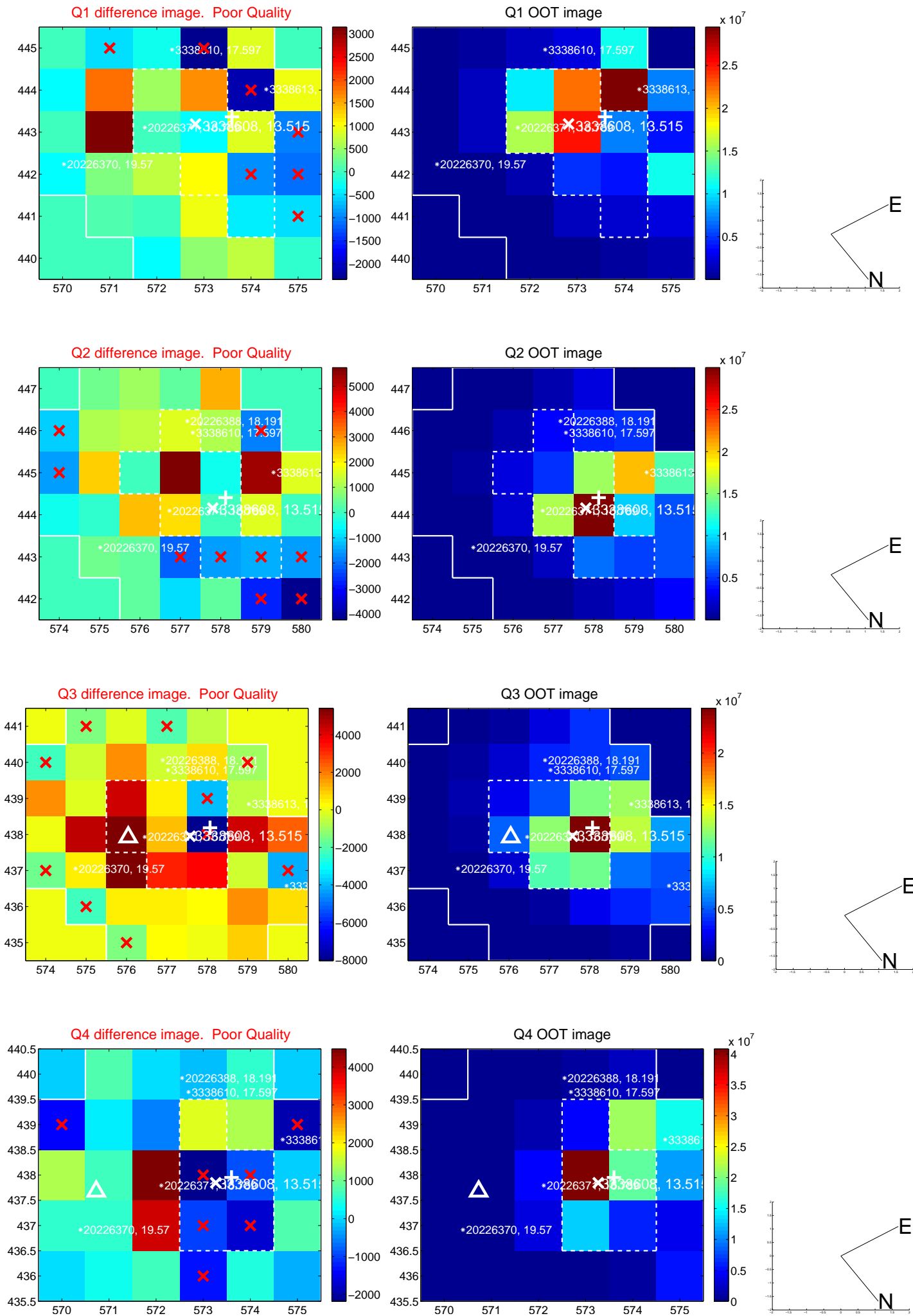
The direct PRF centroid is offset from the target star catalog position by about 1.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.913 ± 0.999	6.92	-6.389 ± 0.952	-2.639 ± 0.585
PRF-fit source offset from KIC position	4.401 ± 0.932	4.72	-3.913 ± 0.877	-2.014 ± 0.566
photometric centroid source offset	1.83 ± 0.63	2.93	1.34 ± 0.67	1.26 ± 0.58

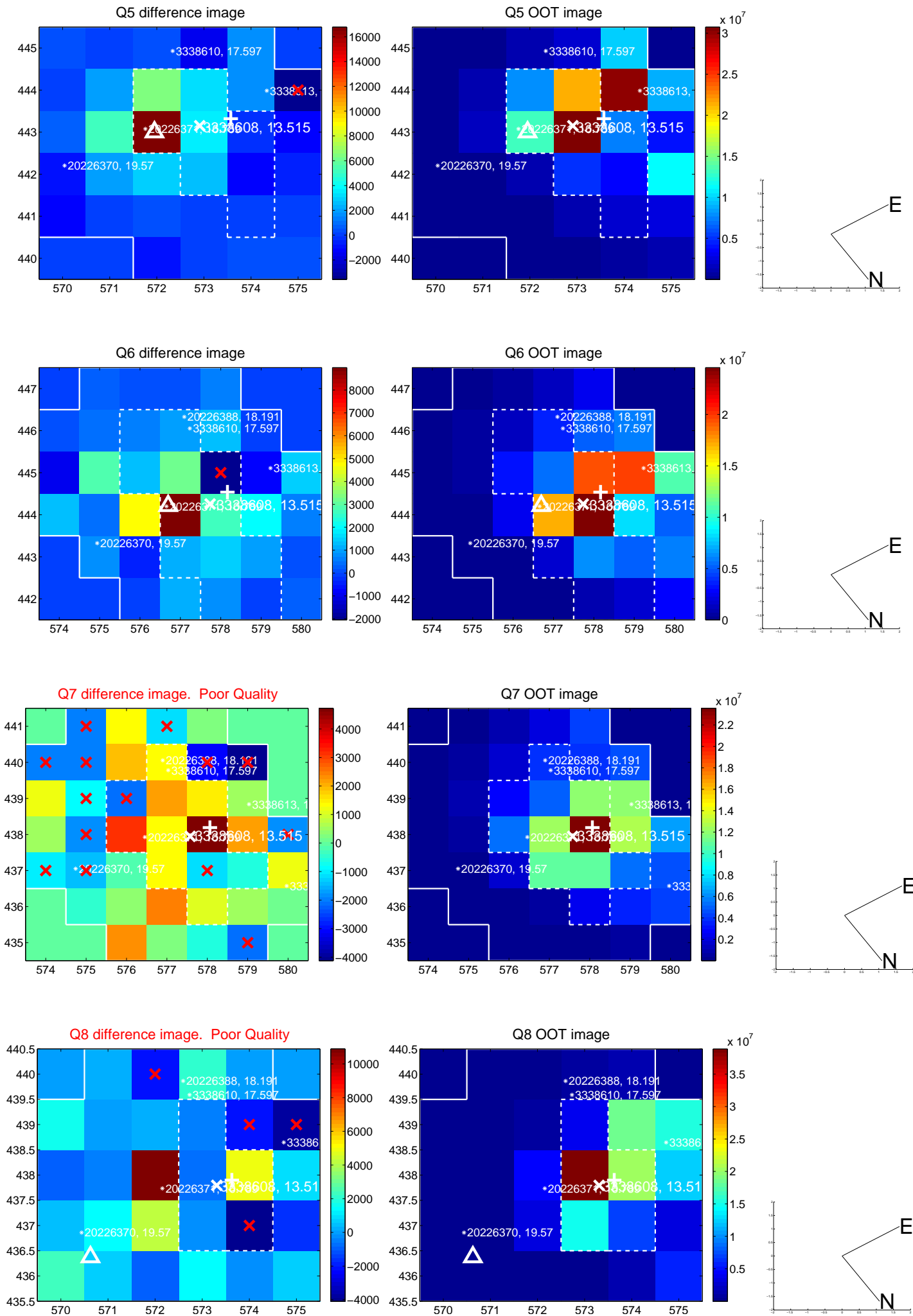


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

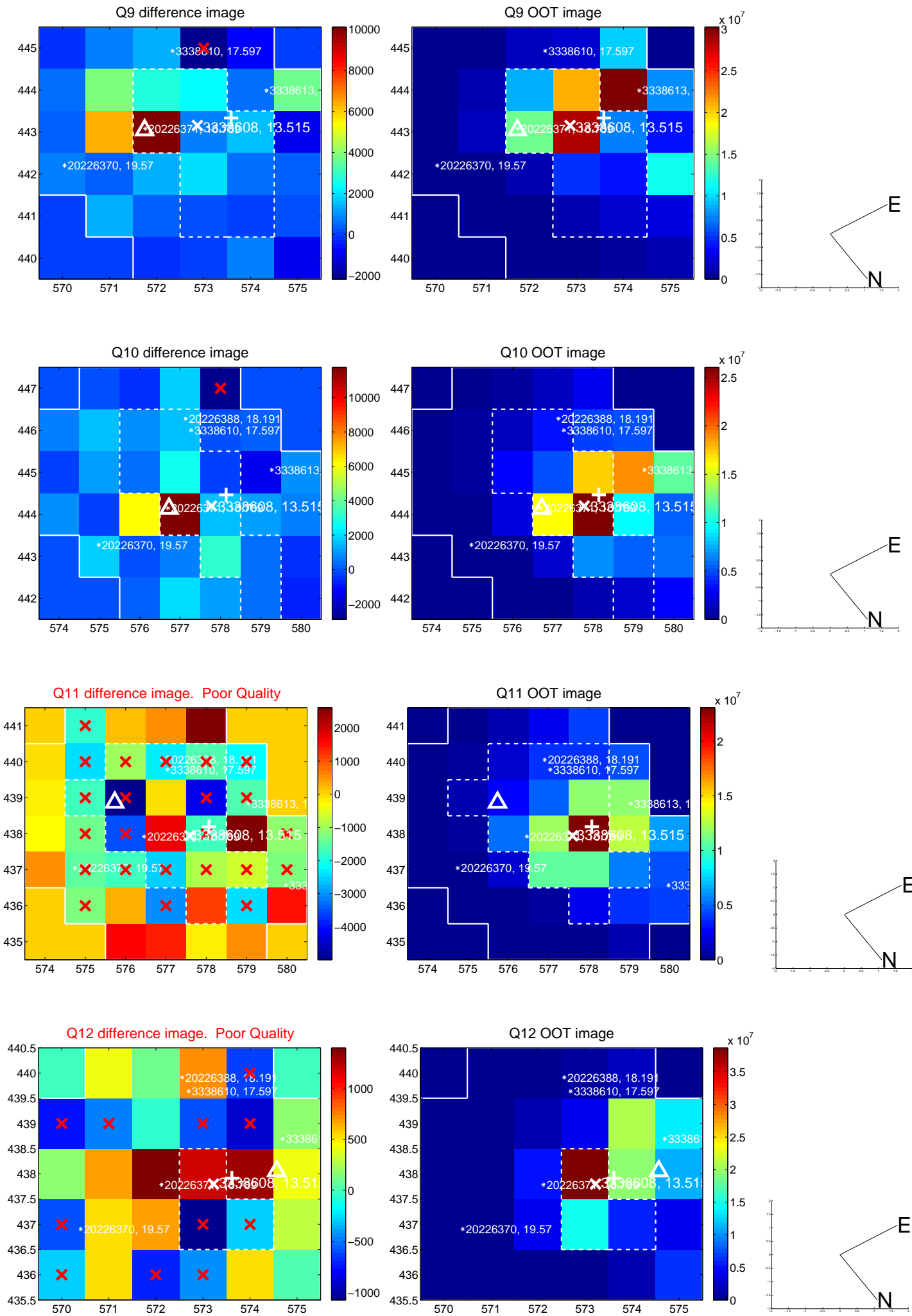
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



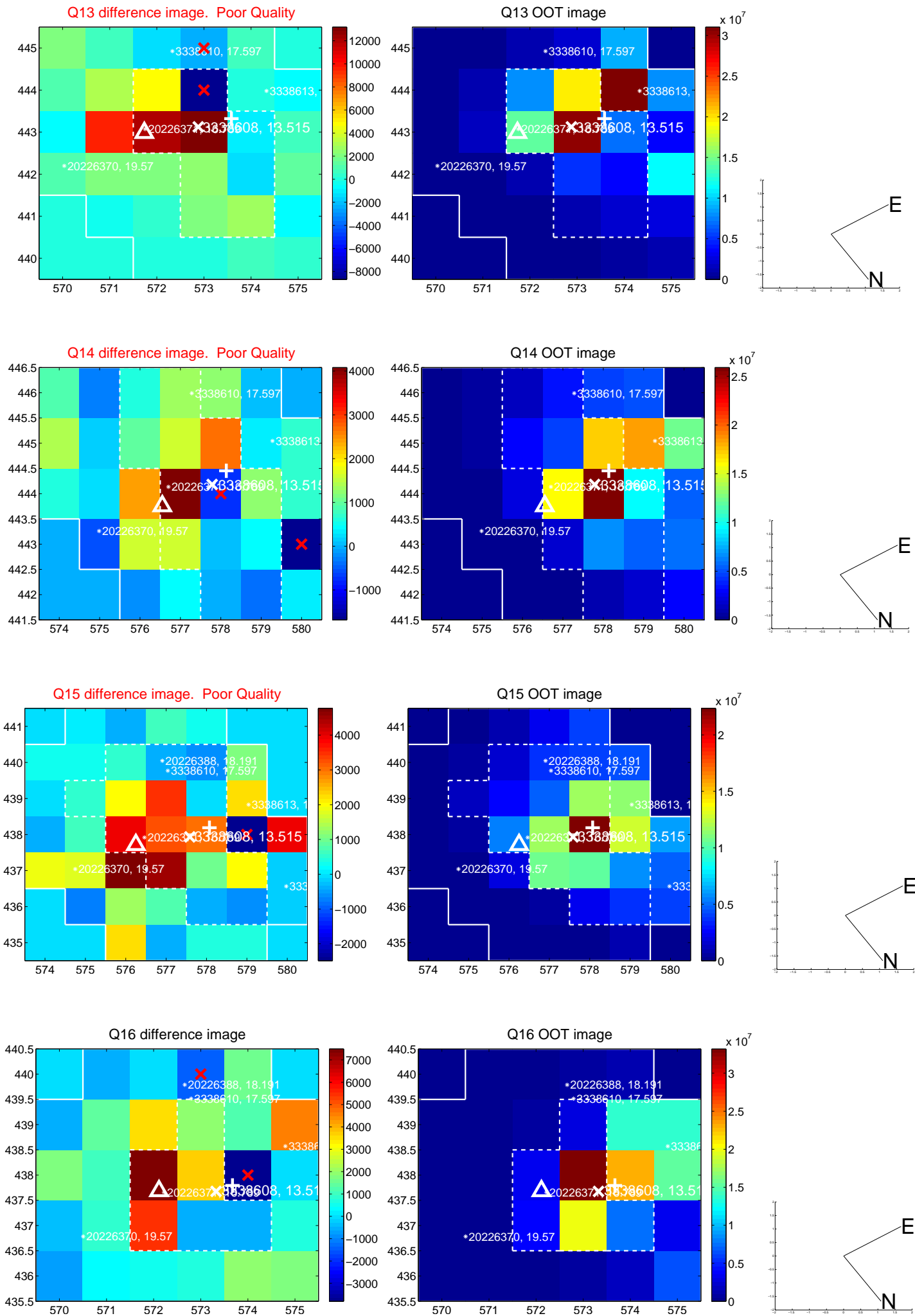
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



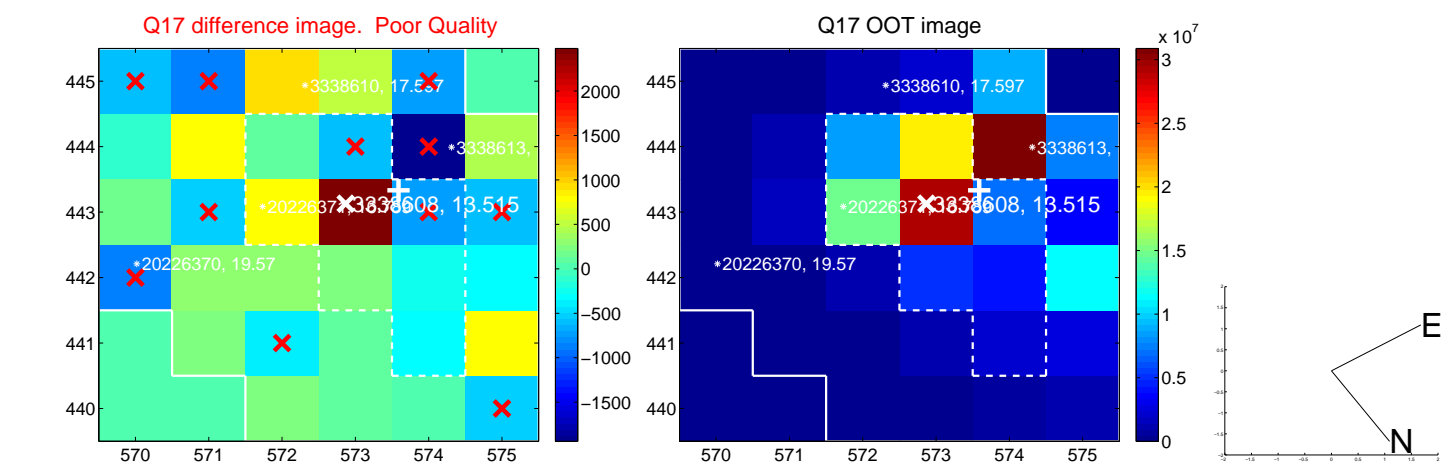
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



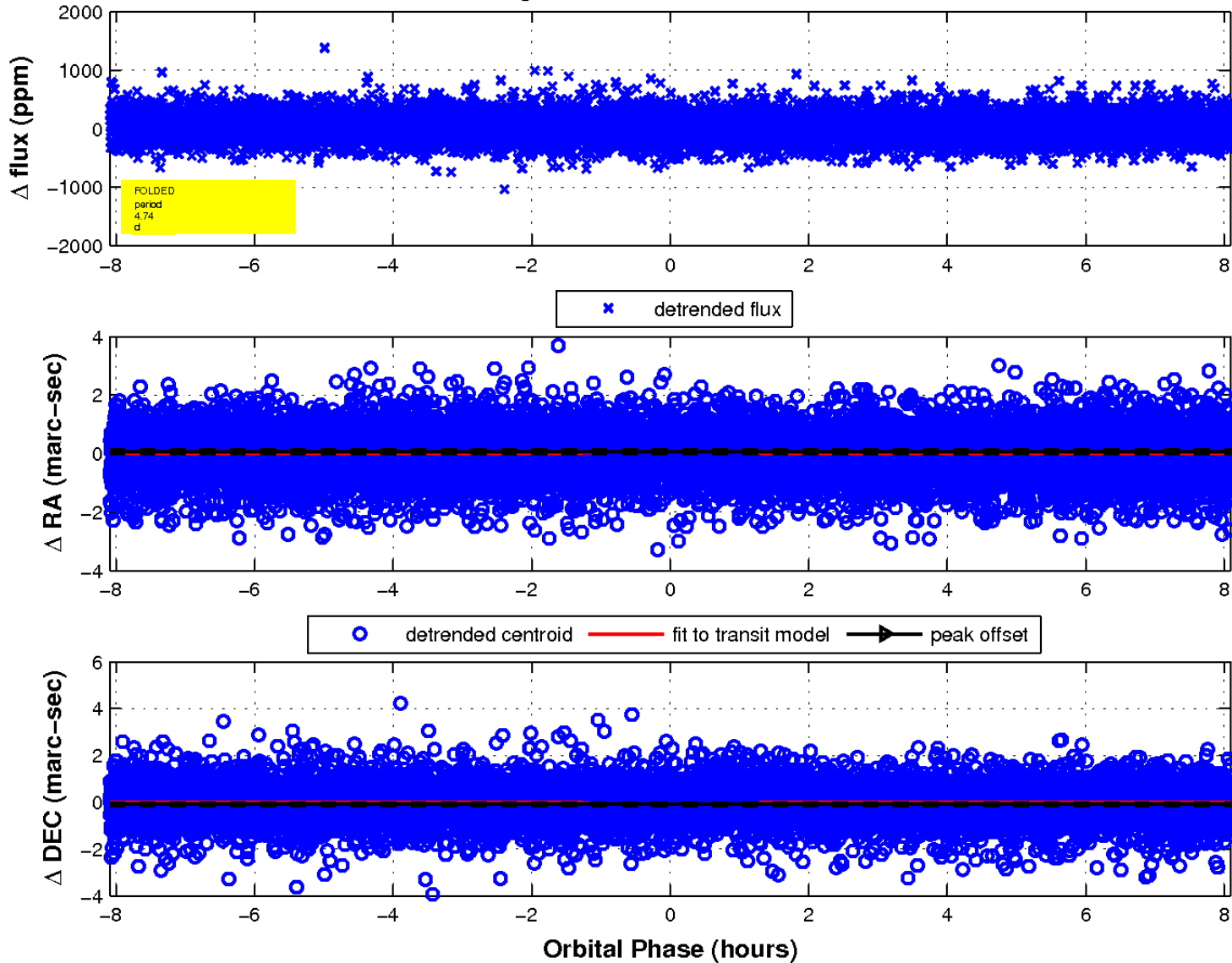
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

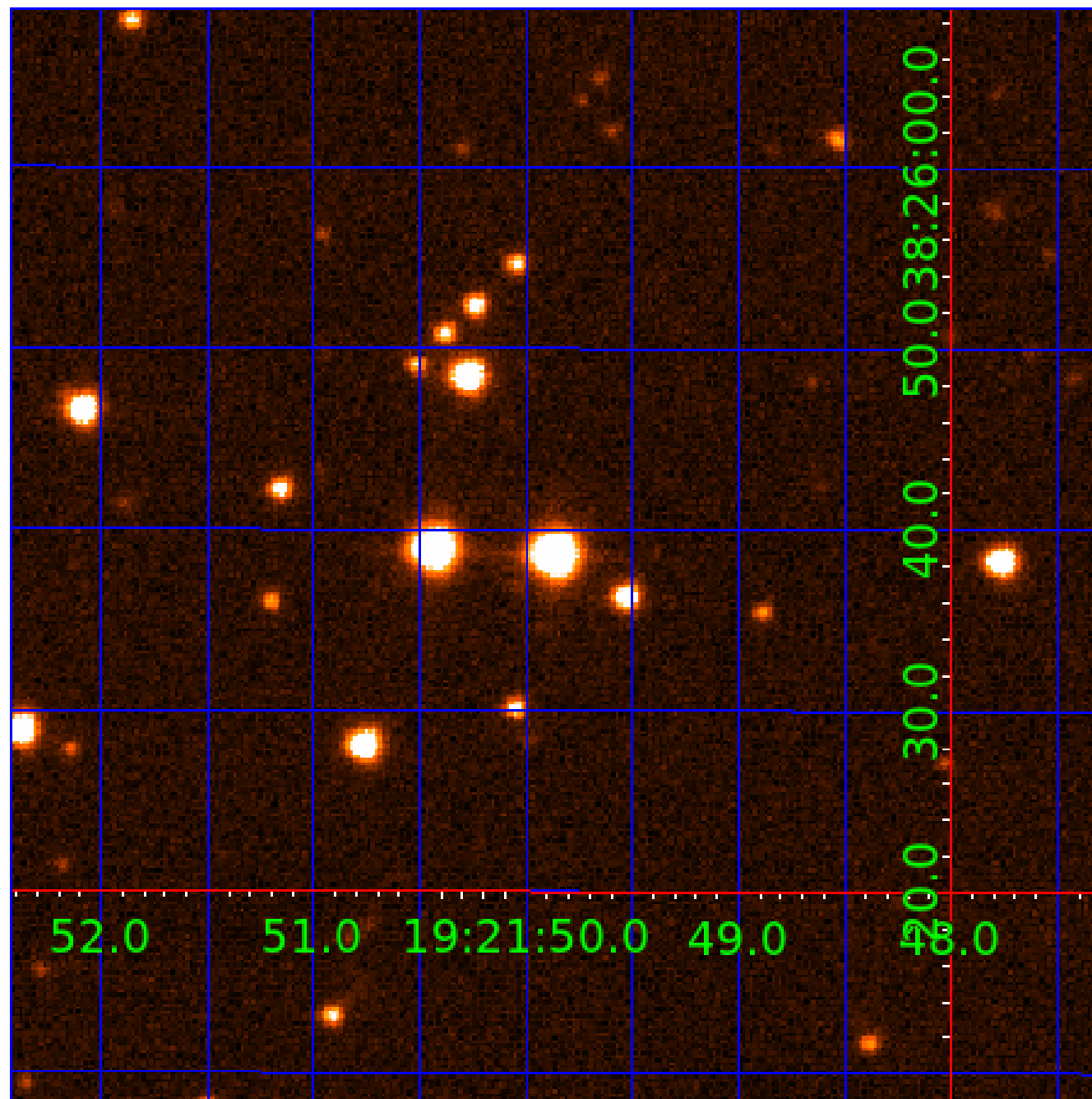


fluxWeightedCentroids, Planet 4 of 7



UKIRT Image

Declination



KIC 003338608

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})
003338608-01	OBS	No	2.547781	132.179067	44.6	7.740	9.8	9.6	1.25	6211	0.97	1598.34
003338608-02	OBS	No	1.273926	131.538880	26.3	8.874	9.2	8.6	1.25	6211	0.75	4027.42
003338608-04	OBS	No	4.736033	134.196871	110.0	2.697	11.4	7.6	1.25	6211	1.53	699.30
003338608-05	OBS	No	9.252387	132.169485	90.4	6.696	12.6	5.5	1.25	6211	1.38	286.34
003338608-06	OBS	No	23.603716	155.055311	266.3	4.158	10.0	10.2	1.25	6211	2.30	82.14
003338608-07	OBS	No	9.139326	134.791711	272.5	2.083	9.1	12.6	1.25	6211	2.47	291.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003338608-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD—CENT_KIC_POS
003338608-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003338608-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003338608-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

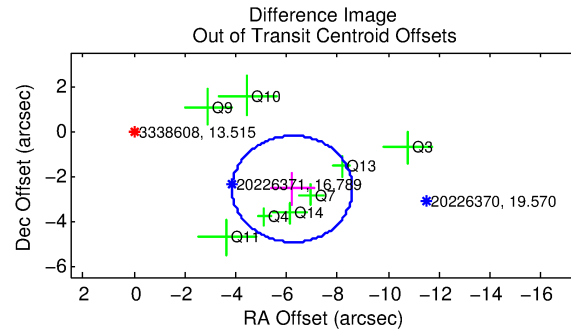
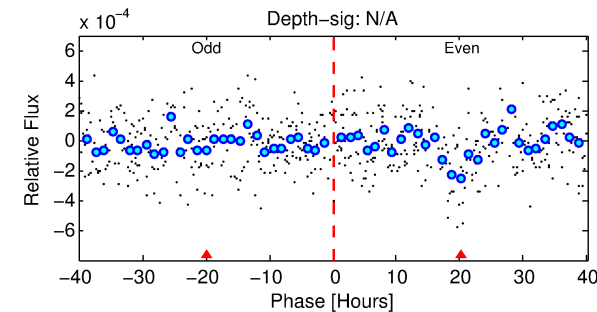
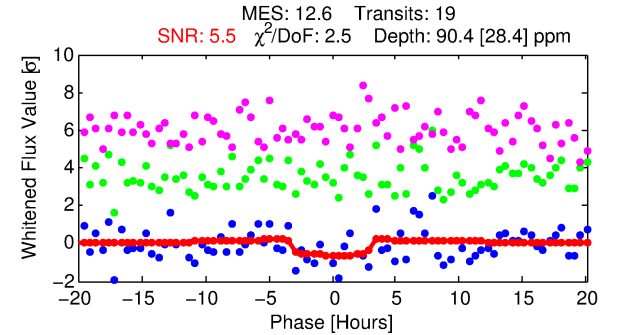
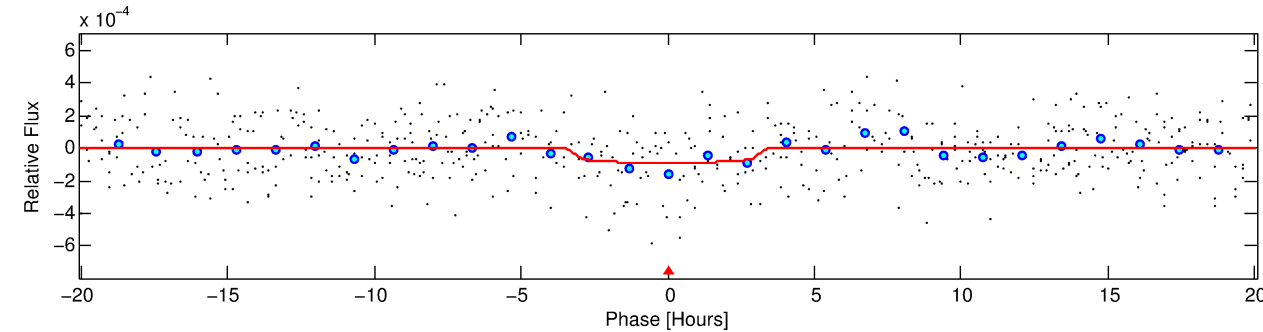
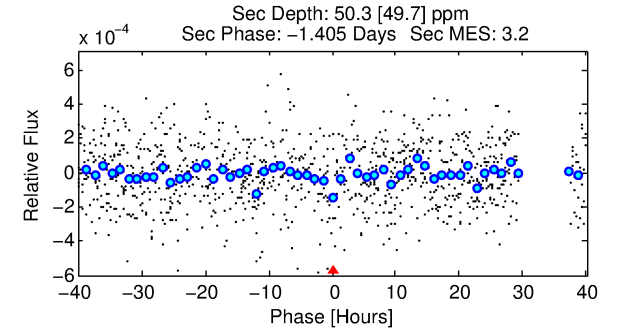
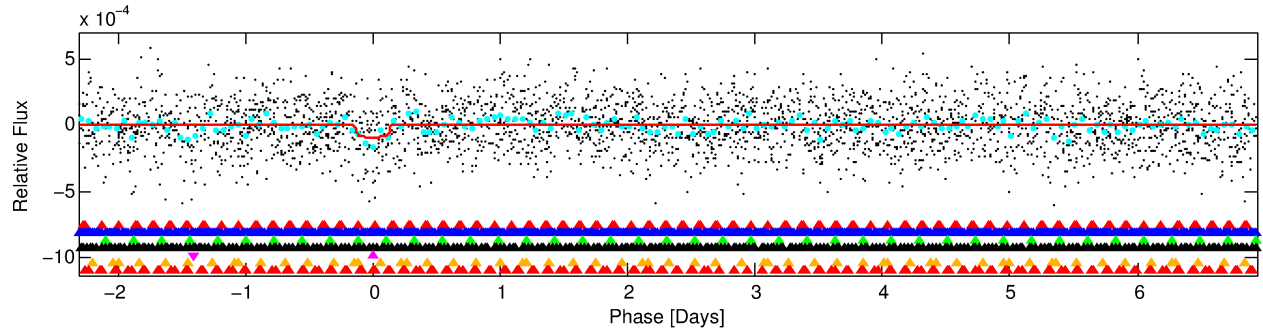
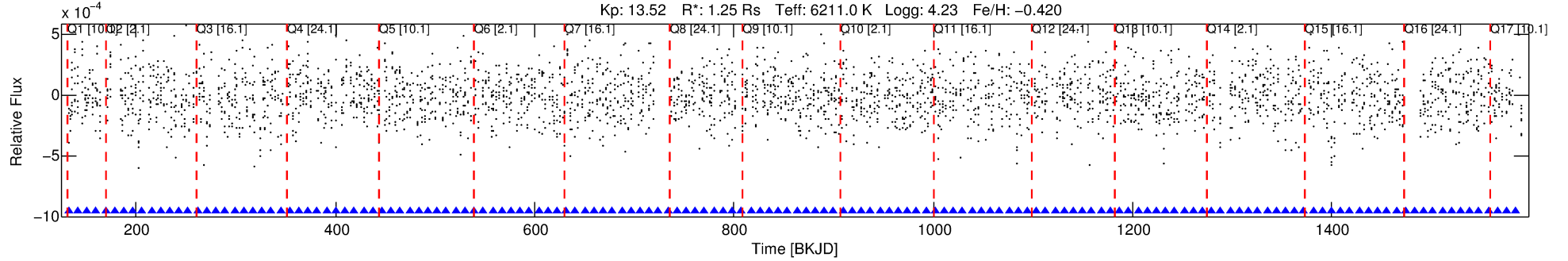
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003338608-05

No Significant Match Found

DV One-Page Summary

KIC: 3338608 Candidate: 5 of 7 Period: 9.252 d



DV Fit Results:

Period = 9.25239 [0.00041] d
Epoch = 132.1695 [0.0333] BKJD
Rp/R* = 0.0102 [0.0080]
a/R* = 5.04 [20.61]
b = 0.89 [0.96]
Seff = 286.34 [117.06]
Teq = 1049 [107] K
Rp = 1.38 [1.16] Re
a = 0.0850 [0.0215] AU
Ag = 104.73 [199.27] [0.52σ]
Teffp = 5188 [2422] K [1.71σ]

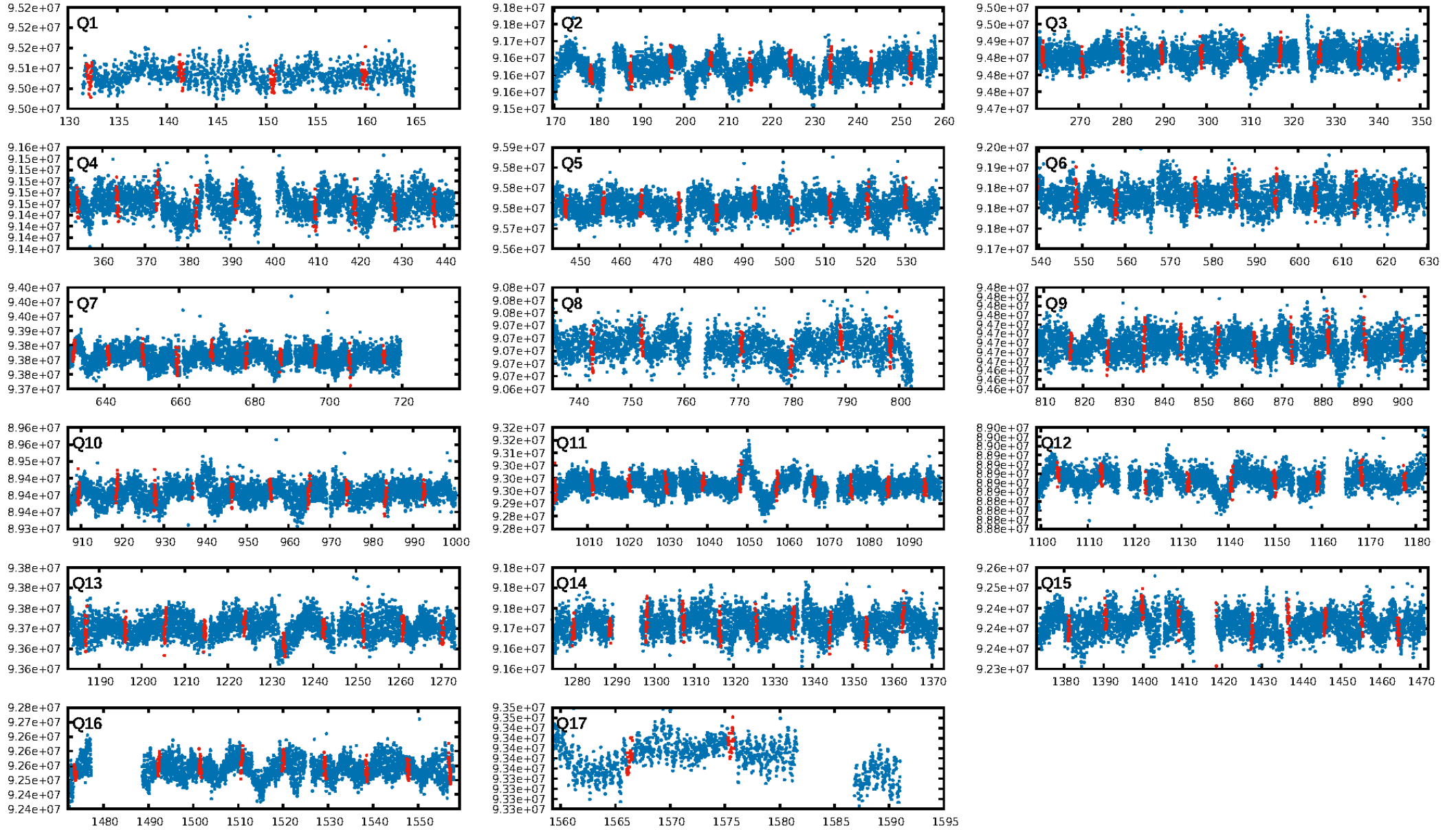
DV Diagnostic Results:

ShortPeriod-sig: 30.1% [0.39σ]
LongPeriod-sig: 100.0% [43.70σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.34e-73
RollingBand-fgt: 1.00 [18/18]
GhostDiagnostic-chr: -0.6337
Centroid-sig: 6.0%
Centroid-so: 1.950 arcsec [1.99σ]
OotOffset-rm: 6.744 arcsec [8.54σ]
KicOffset-rm: 4.827 arcsec [5.39σ]
OotOffset-st: 2/3/1/2 [8]
KicOffset-st: 2/3/1/2 [8]
DiffImageQuality-fgm: 0.12 [1/8]
DiffImageOverlap-fno: 0.00 [0/17]

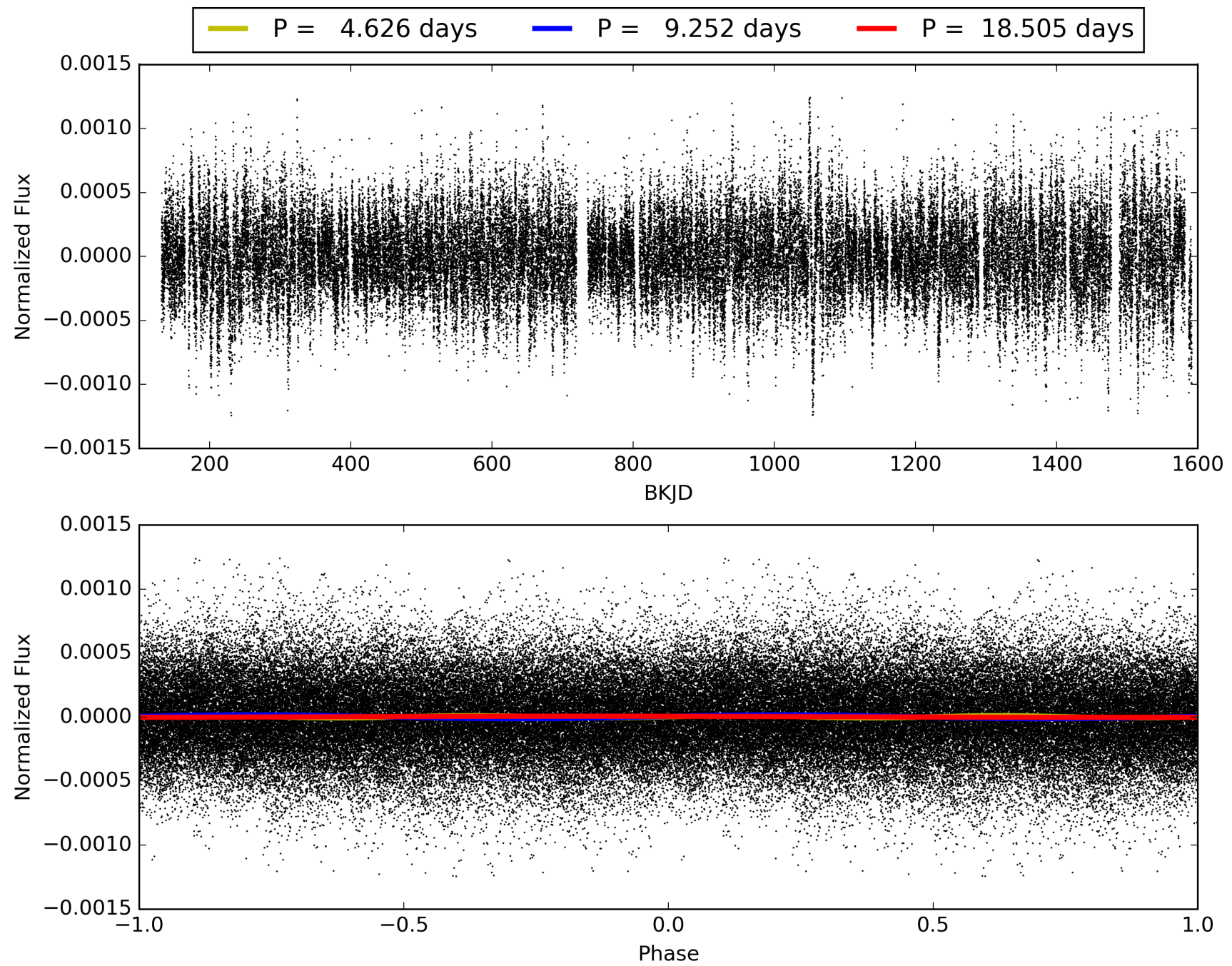
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:14:53 Z

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

TCE 003338608-05, PDC Light Curves

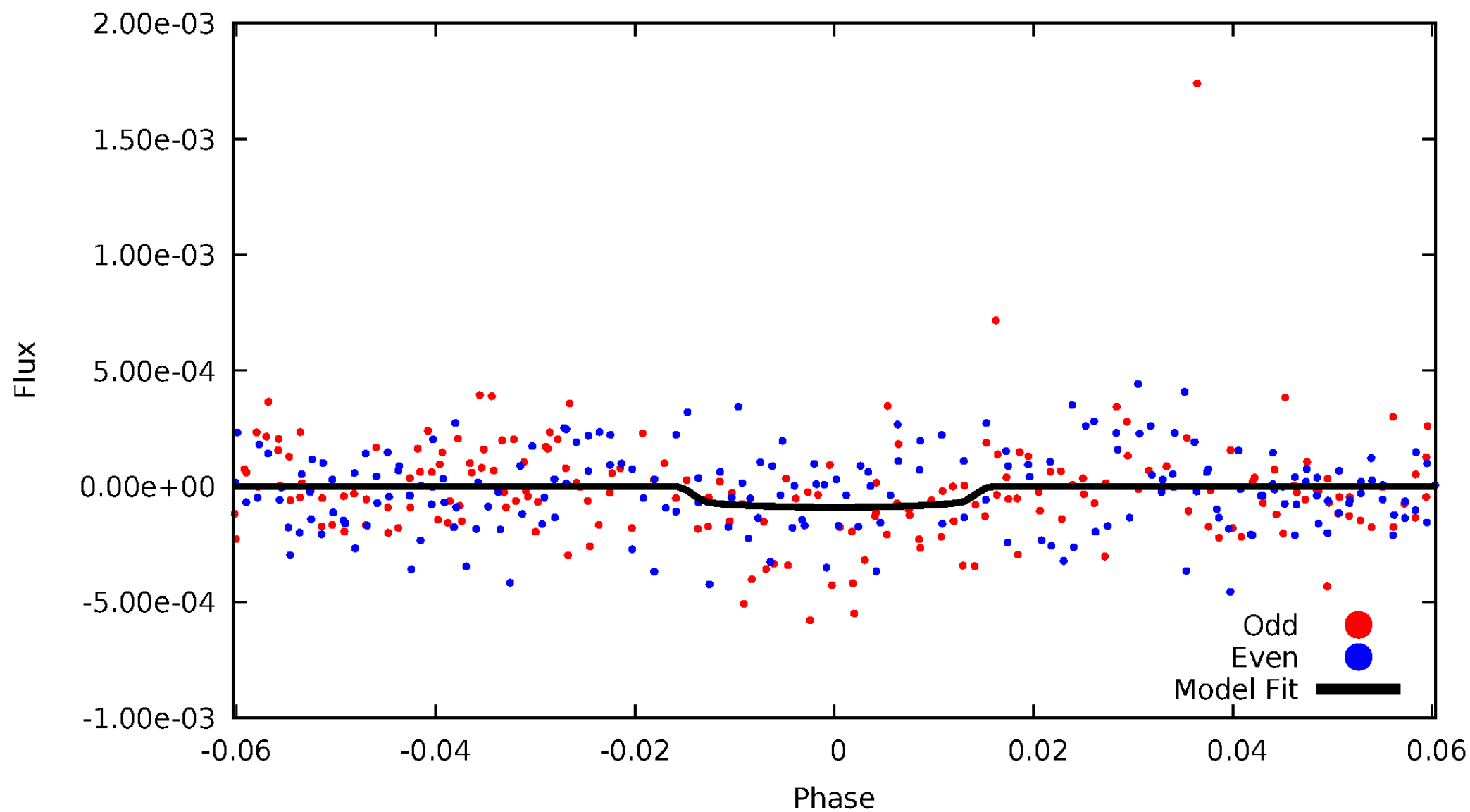


TCE 003338608-05



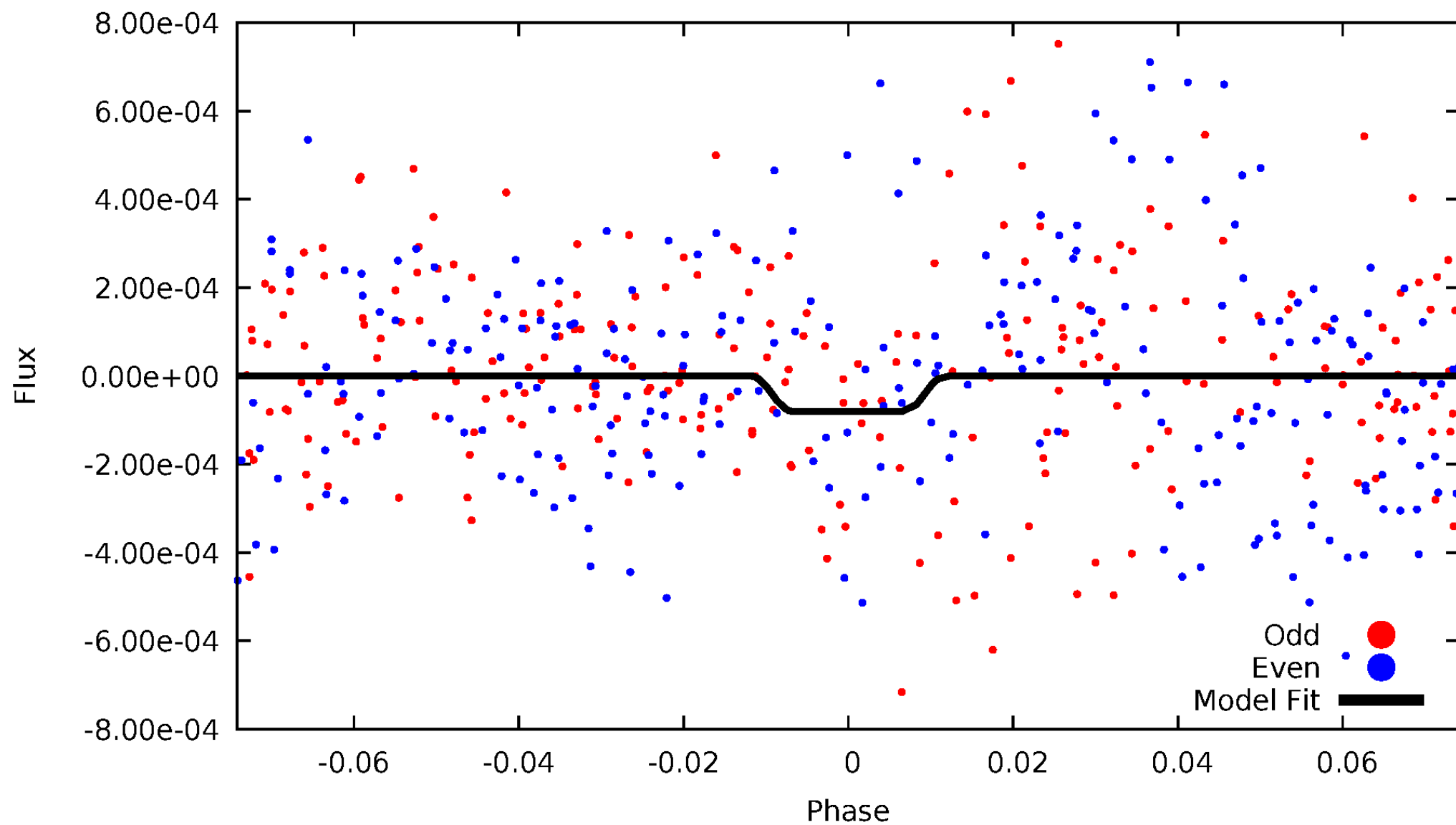
DV Odd/Even

TCE 003338608-05



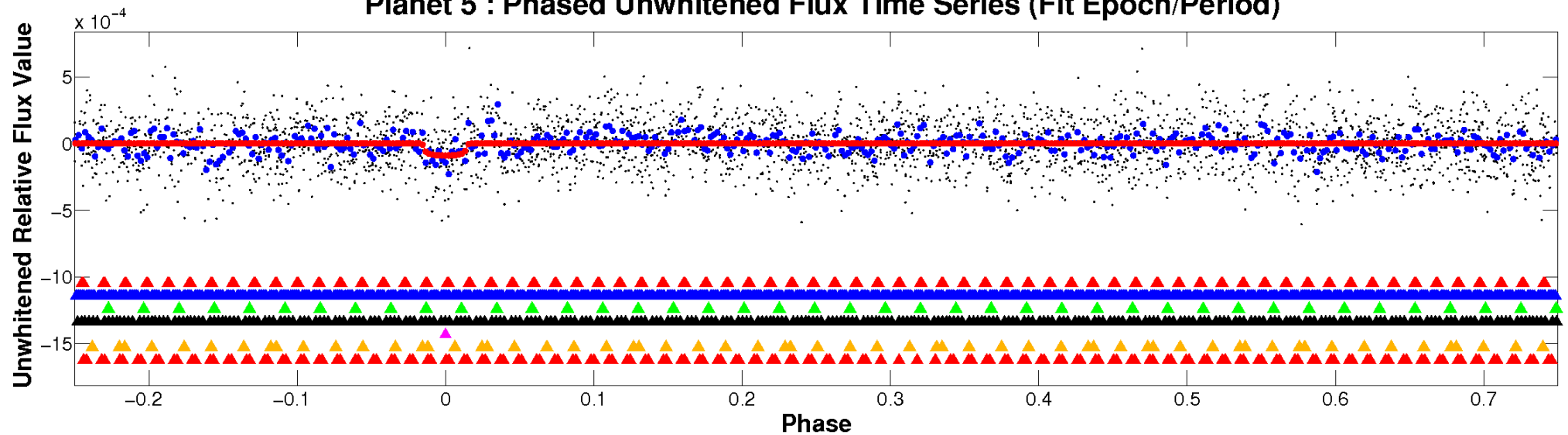
ALT Odd/Even

TCE 003338608-05

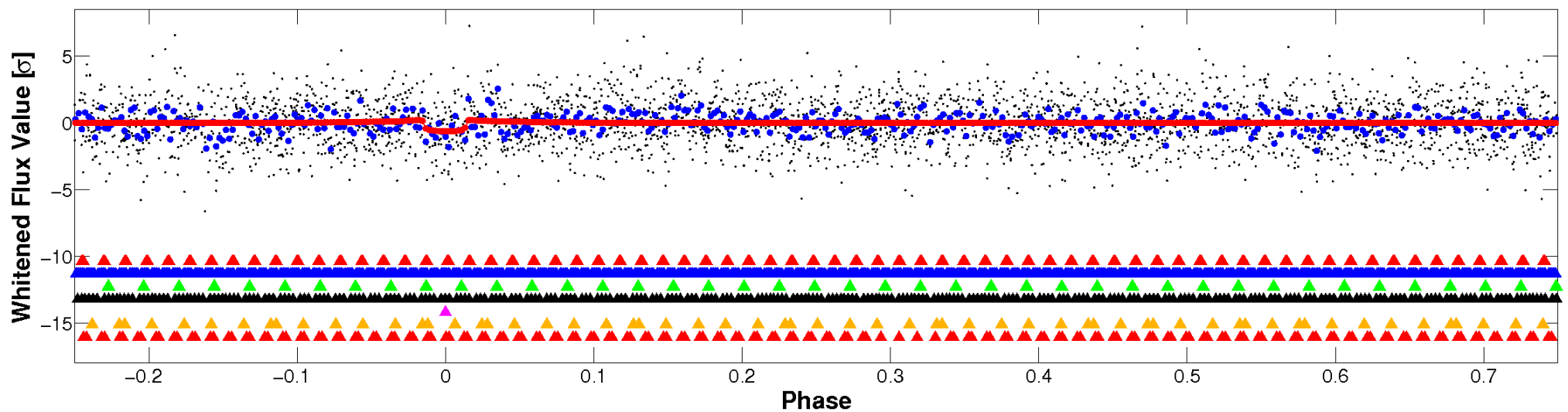


Non-Whitened Vs. Whitened Light Curve

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

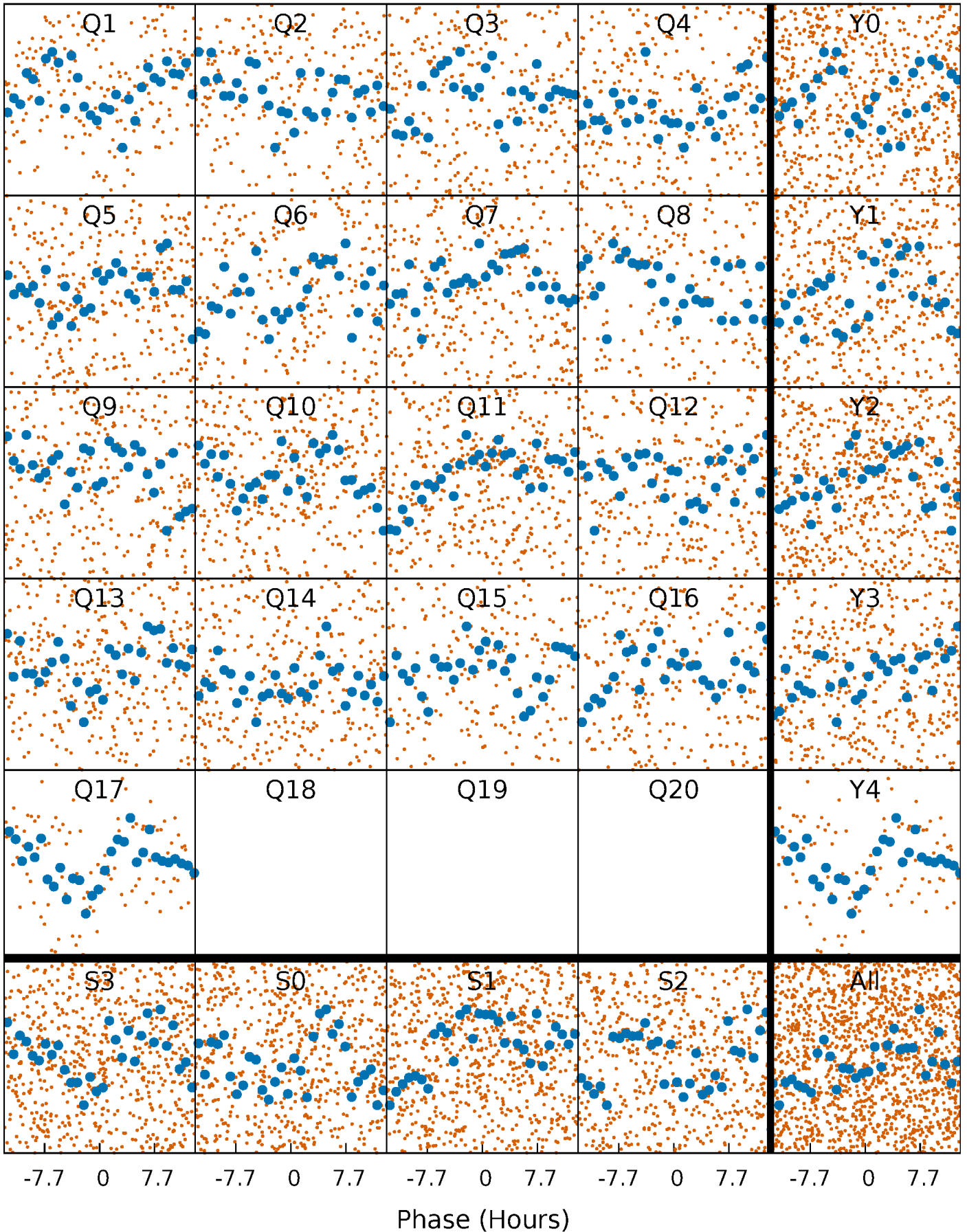


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



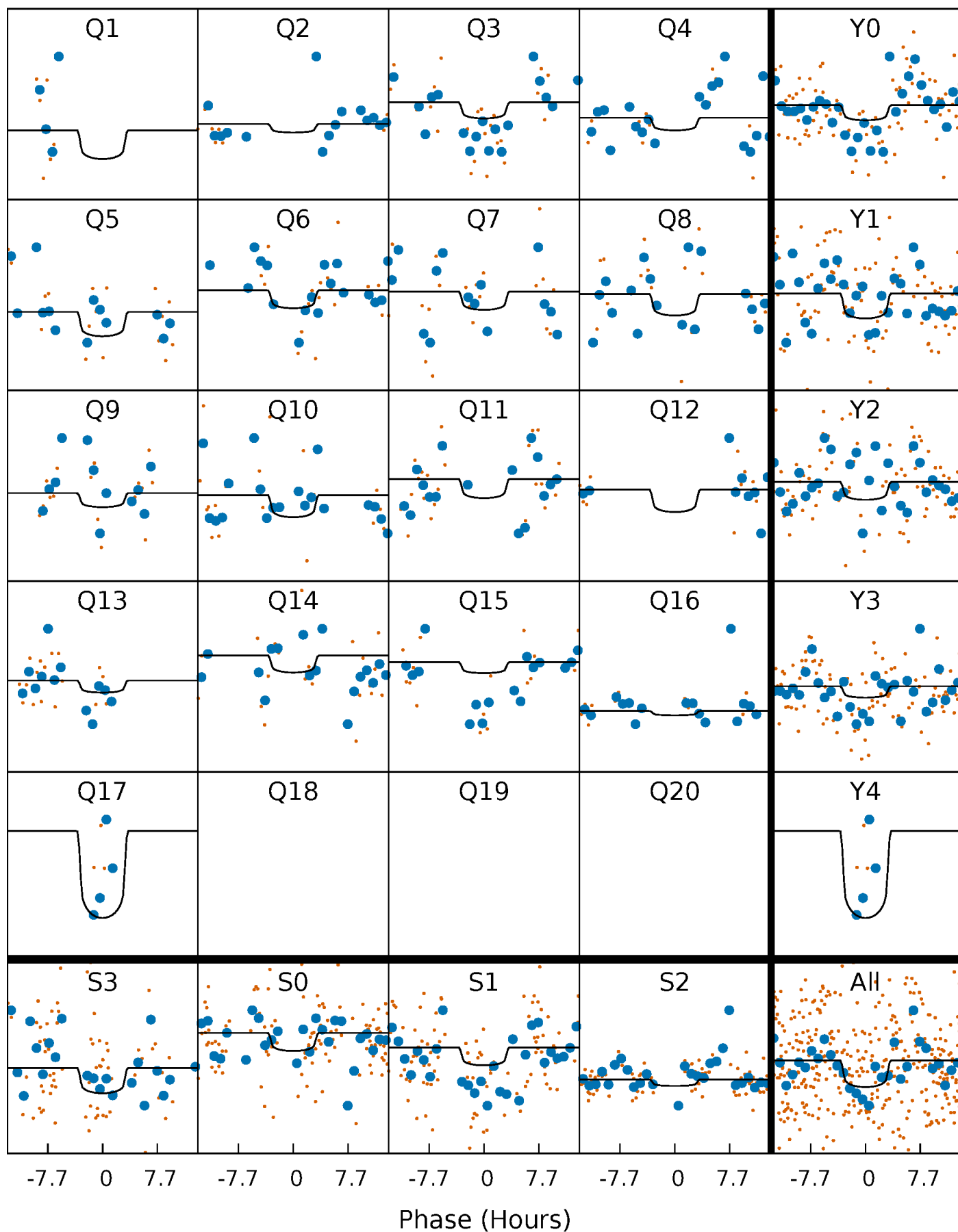
PDC Quarter-Phased Transit Curves

TCE 003338608-05 $P = 9.252387$ Days $T_0 = 132.169485$ (BKJD)



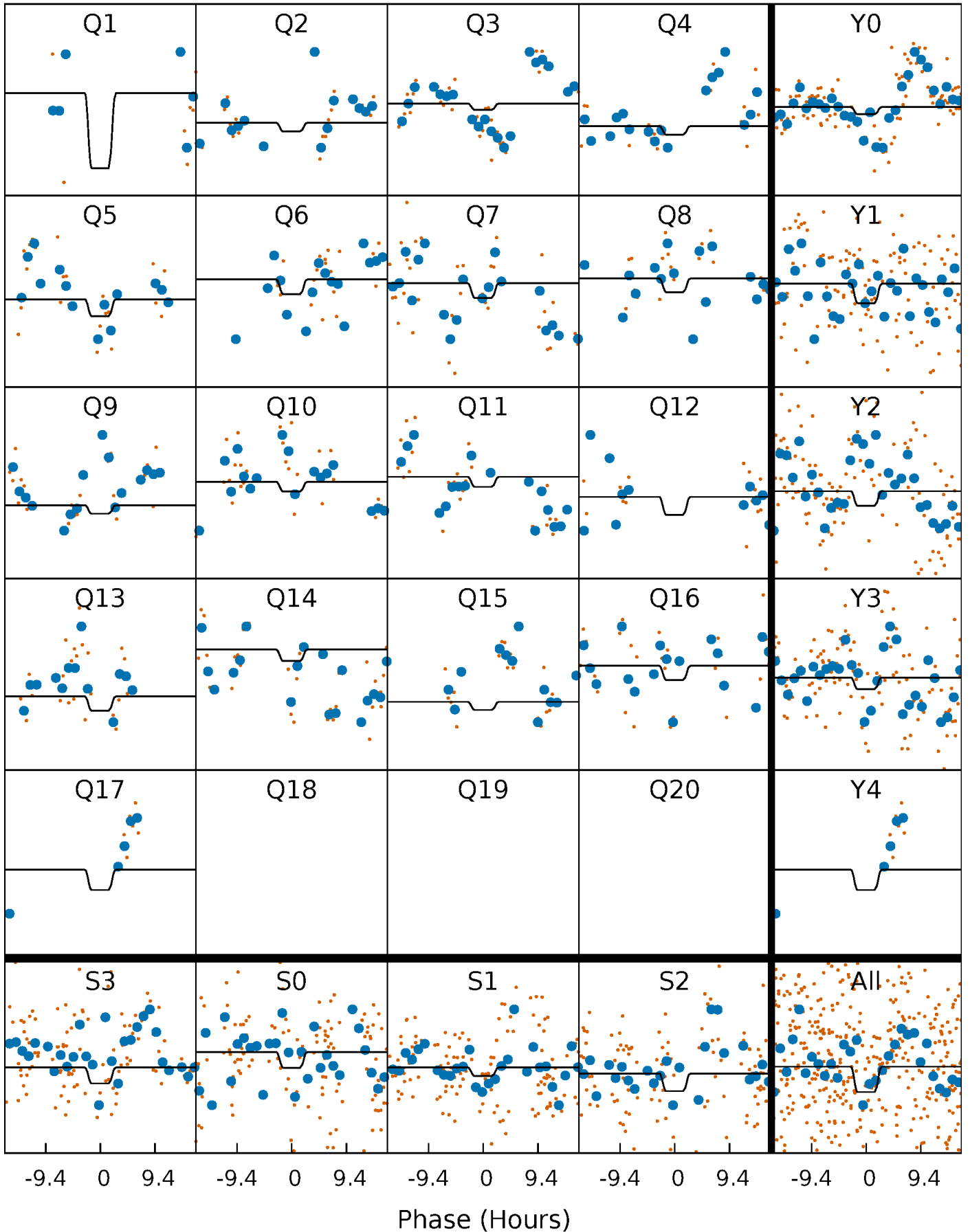
DV Quarter-Phased Transit Curves

TCE 003338608-05 $P = 9.252387$ Days $T_0 = 132.169485$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

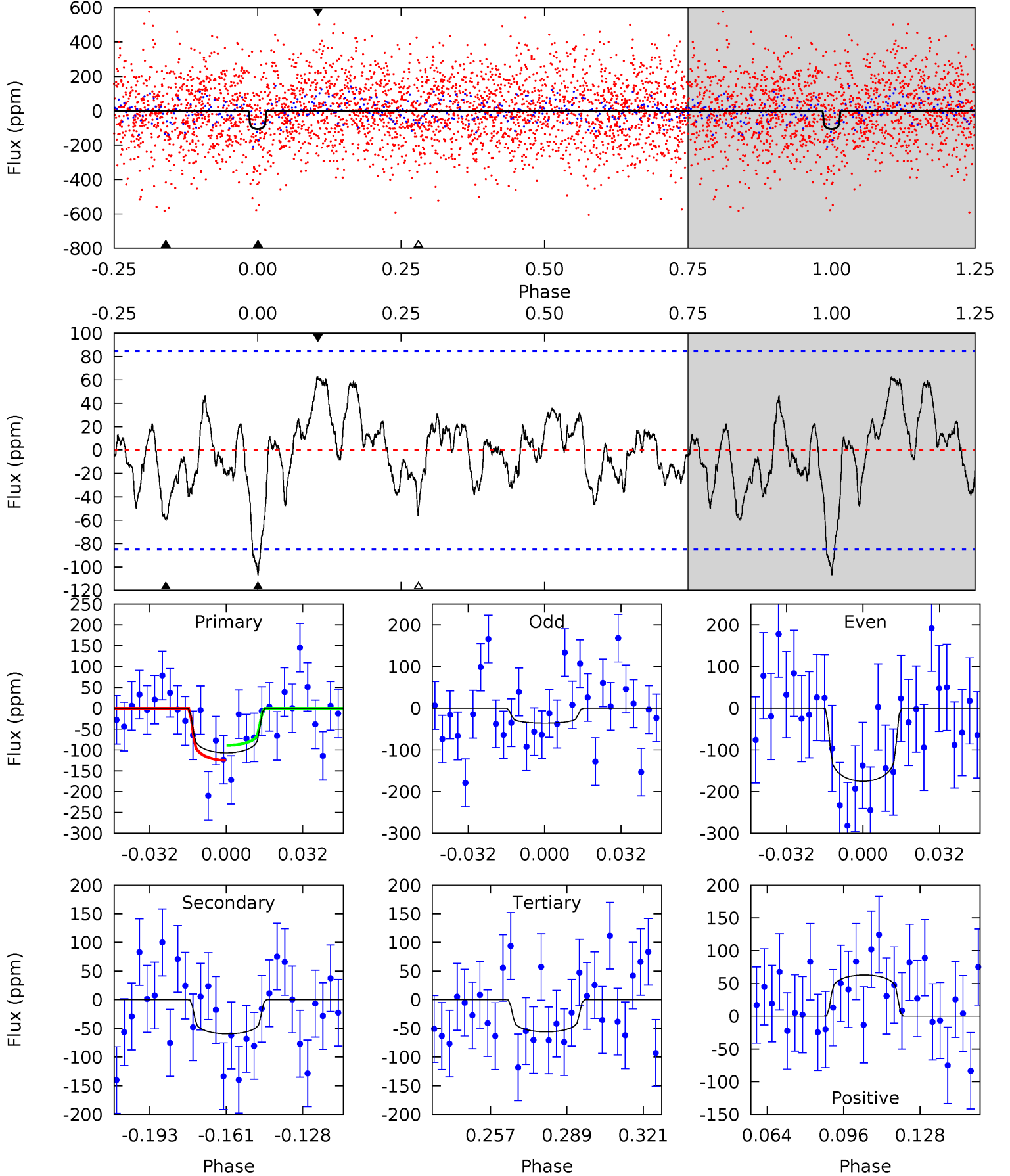
TCE 003338608-05 P= 9.251121 Days $T_0=132.145894$ (BKJD)



DV Model-Shift Uniqueness Test

003338608-05, P = 9.252387 Days, E = 132.169485 Days

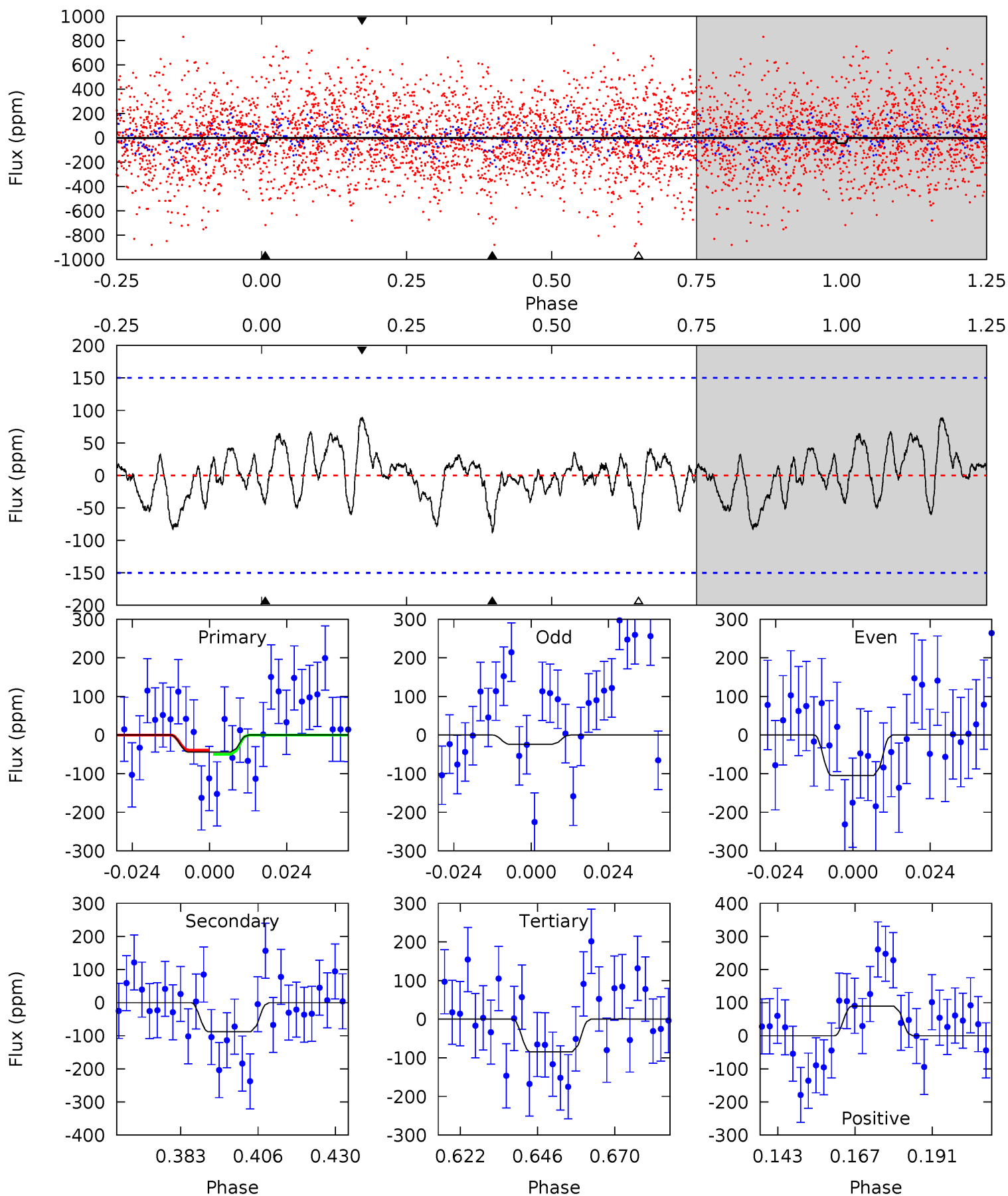
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.07	3.37	3.17	3.57	4.80	2.14	1.34	2.89	2.50	0.20	-0.19	3.92	1.67	0.37	1.01



Alt Model-Shift Uniqueness Test

003338608-05, P = 9.251121 Days, E = 132.145894 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.42	2.84	2.72	2.88	4.86	2.26	1.01	-1.31	-1.46	0.12	-0.04	1.32	0.64	0.50	0.18



Stellar Parameters For KIC 003338608

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6211^{+169}_{-206}	$4.228^{+0.220}_{-0.180}$	$-0.420^{+0.300}_{-0.300}$	$1.246^{+0.352}_{-0.320}$	$0.957^{+0.148}_{-0.099}$	$0.698^{+0.808}_{-0.321}$
	+3%/-3%	+5%/-4%	+71%/-71%	+28%/-26%	+15%/-10%	+116%/-46%
Source	PHO1	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 003338608-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-59 ± 18	$1.44^{+1.13}_{-0.84}$	1457^{+119}_{-114}	5289^{+3226}_{-1150}	113^{+528}_{-79}
Alt.	-88 ± 31	$1.35^{+1.12}_{-0.79}$	1453^{+119}_{-115}	5952^{+4325}_{-1399}	195^{+891}_{-143}

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 $A_{obs} \gg 1.0$

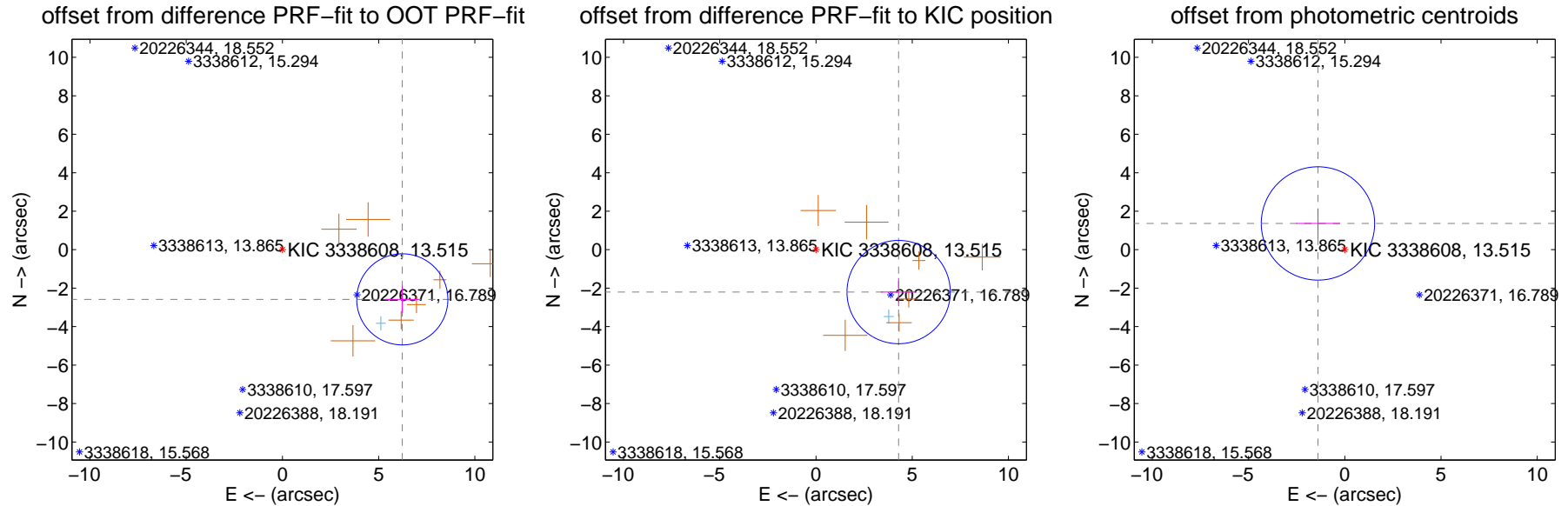
DV Centroid Data

Supplemental centroid analysis for 003338608-05. Kepler magnitude: 13.52. Transit SNR 5.51

There are 1 quarters with good PRF difference image offsets

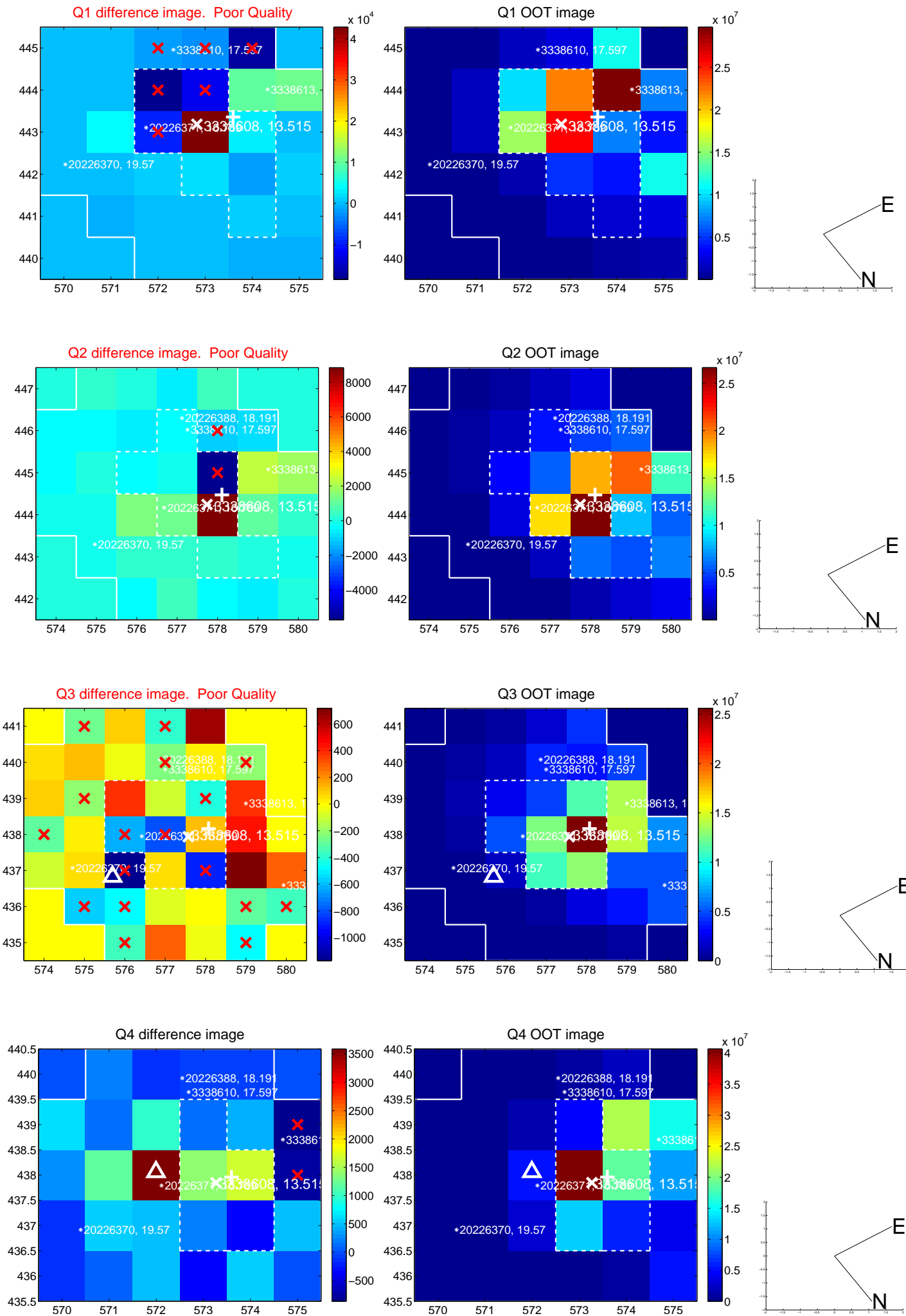
The direct PRF centroid is offset from the target star catalog position by about 1.86 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.744 ± 0.790	8.54	-6.230 ± 0.859	-2.583 ± 0.704
PRF-fit source offset from KIC position	4.827 ± 0.895	5.39	-4.295 ± 0.914	-2.204 ± 0.734
photometric centroid source offset	1.95 ± 0.98	1.99	1.39 ± 1.14	1.36 ± 0.78

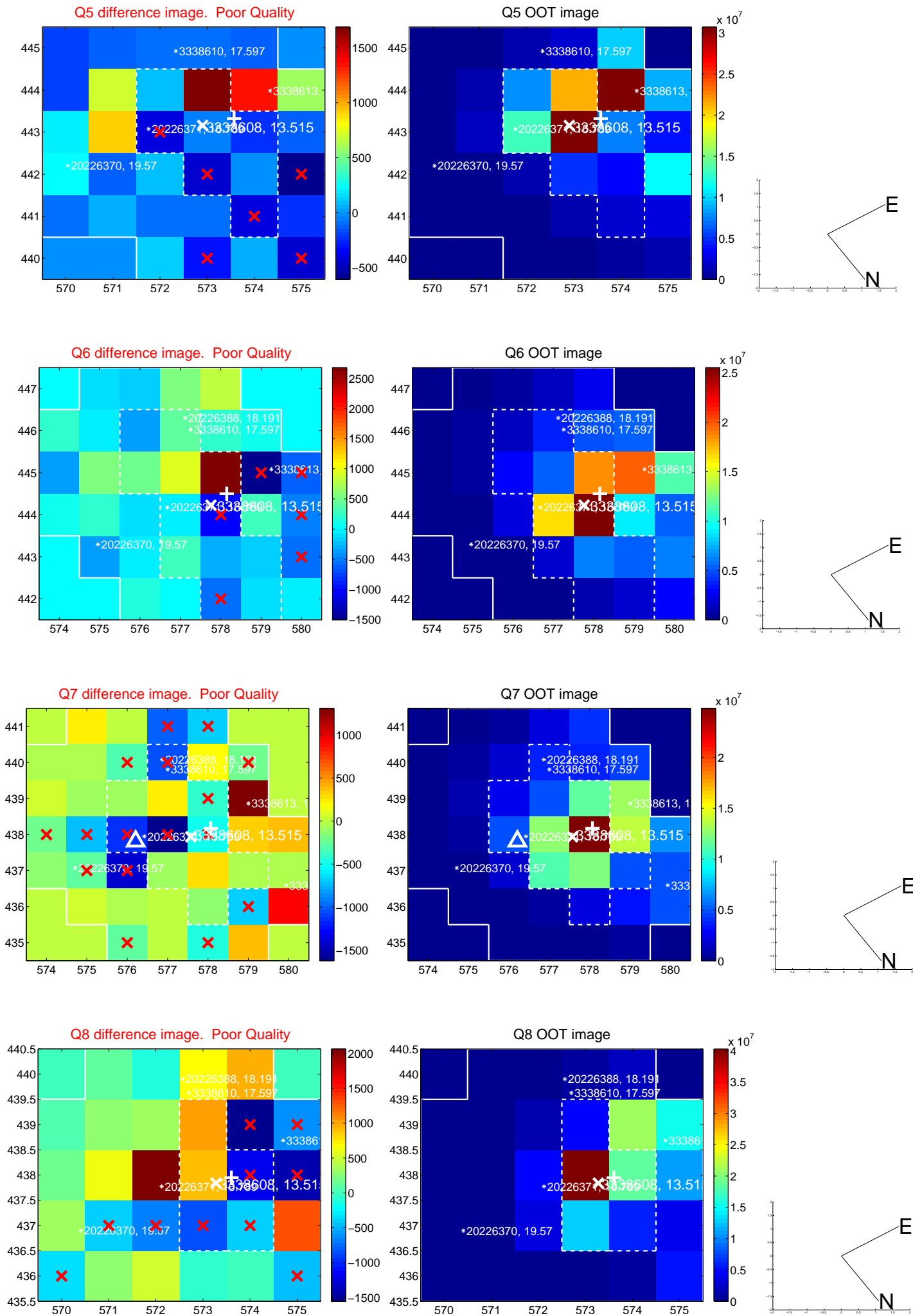


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

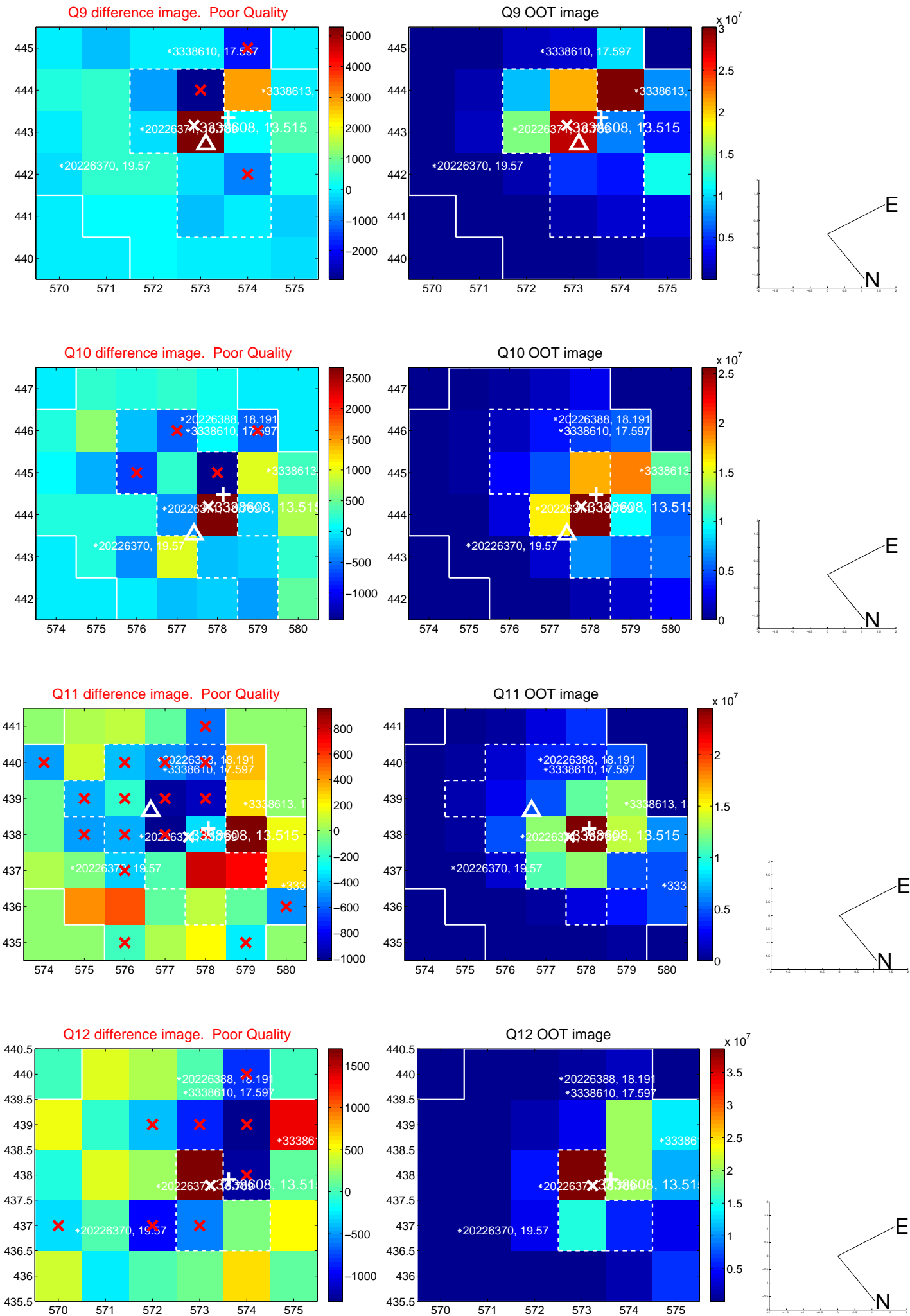
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



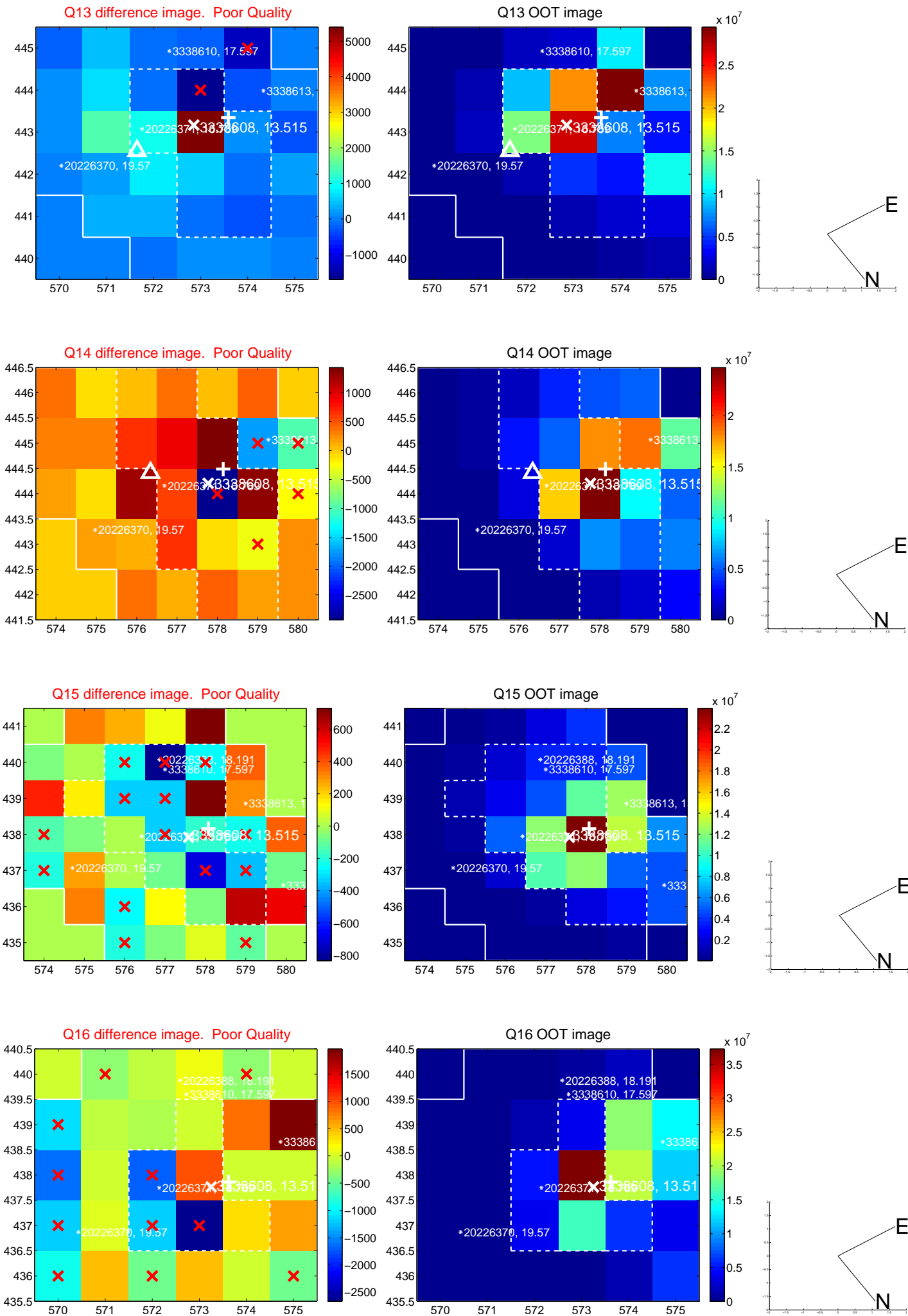
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



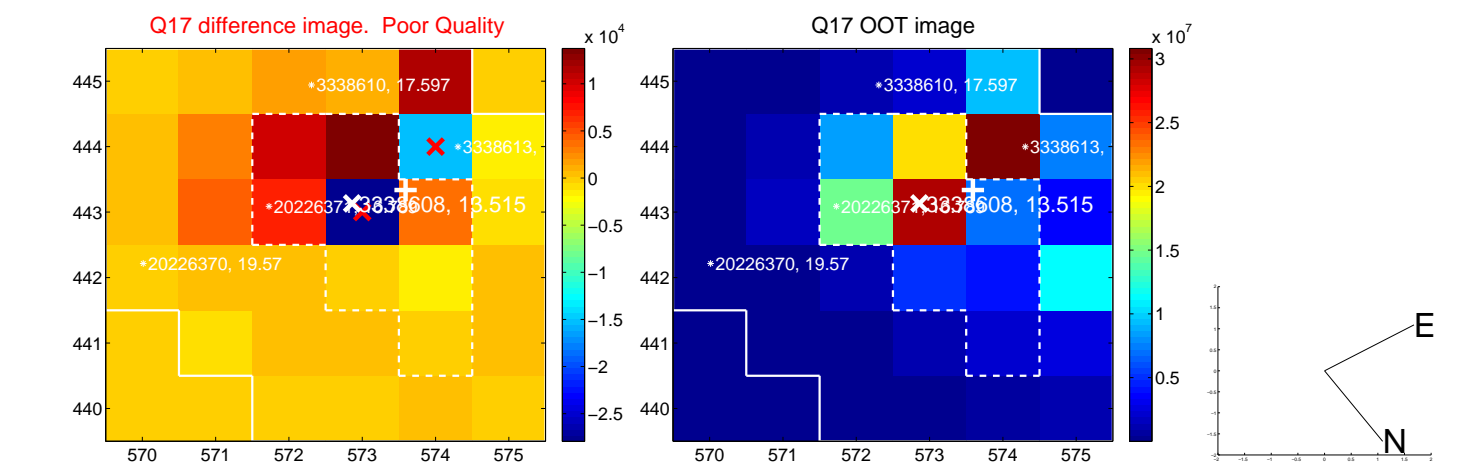
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



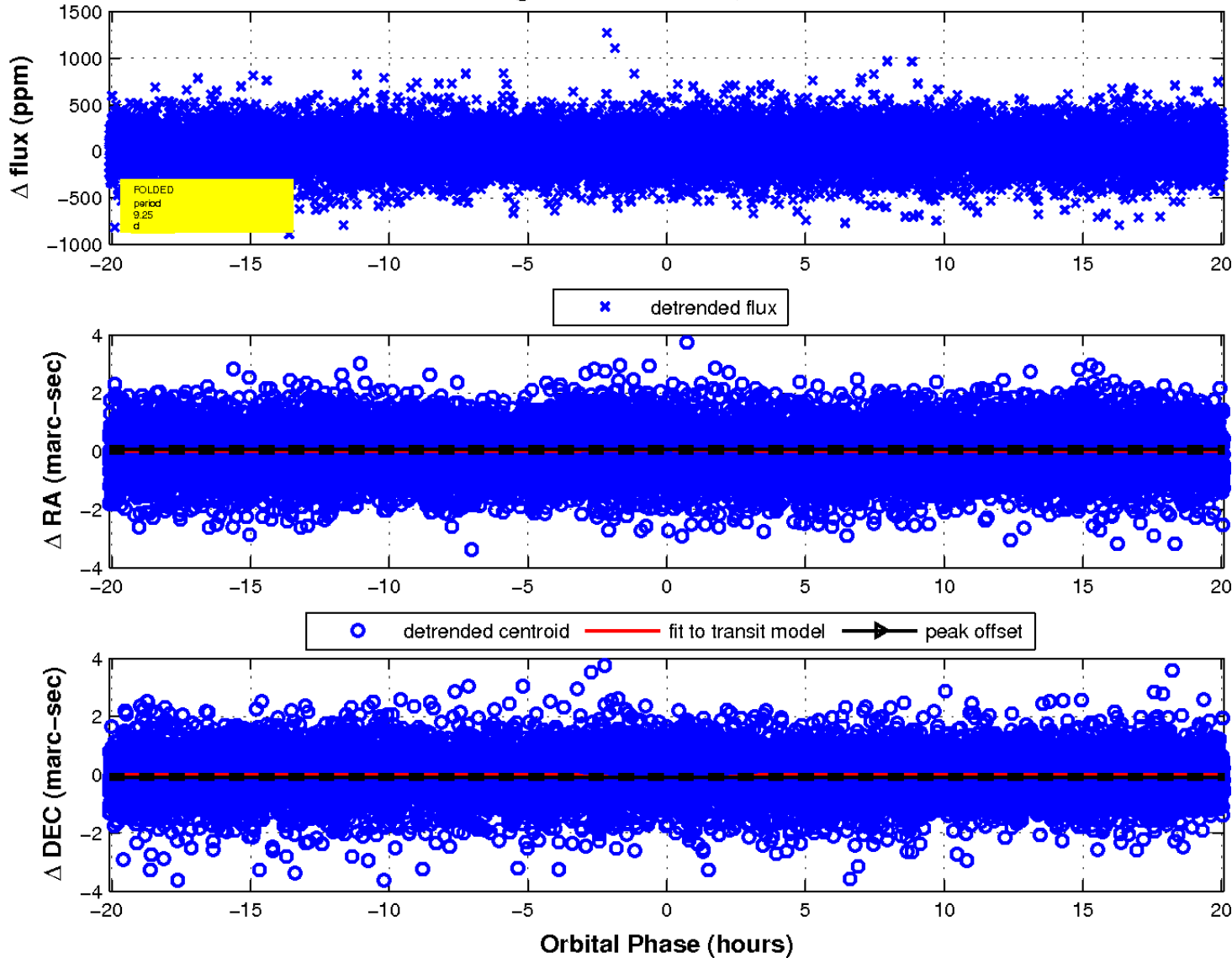
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

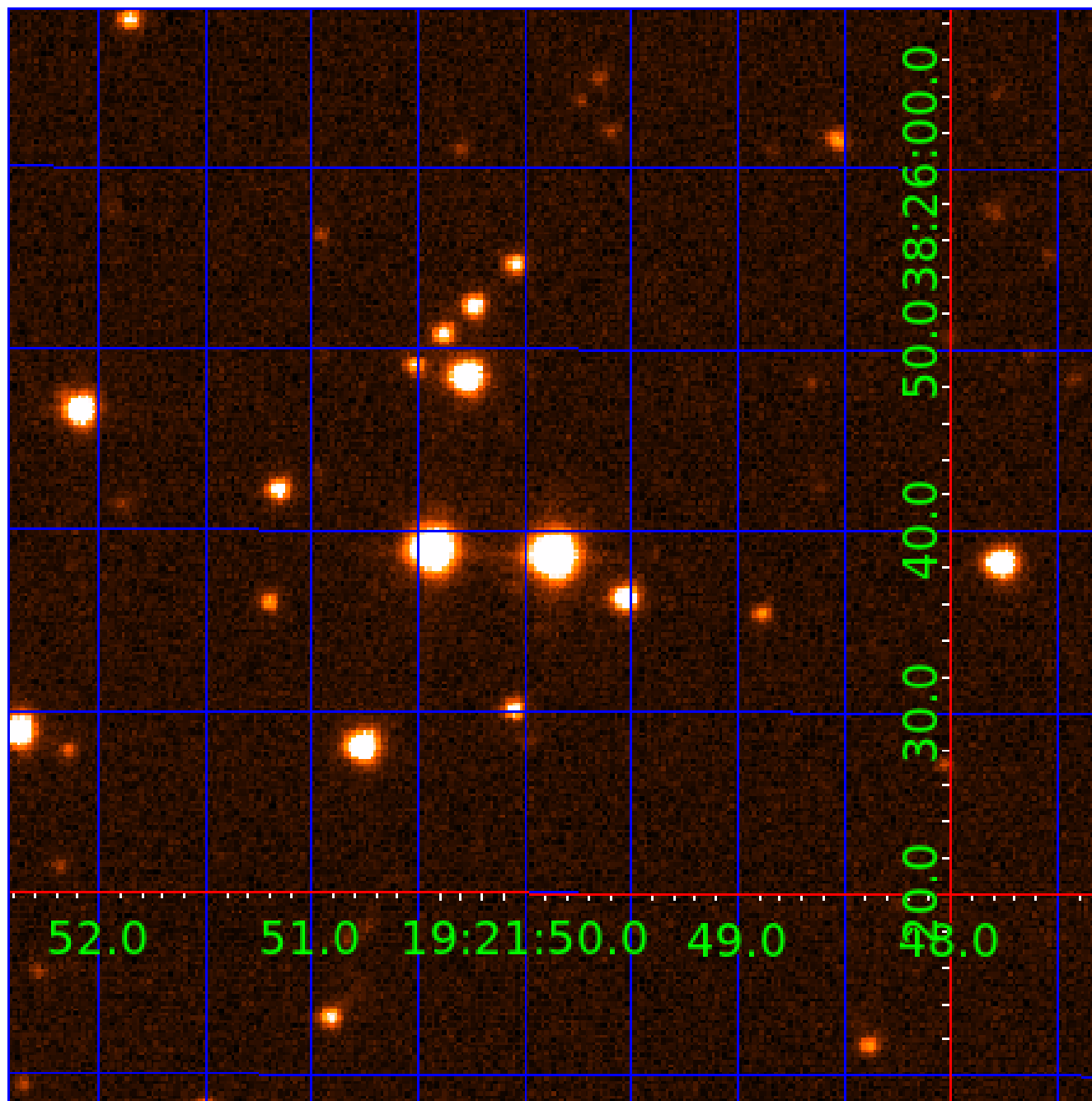


fluxWeightedCentroids, Planet 5 of 7



UKIRT Image

Declination



KIC 003338608

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})
003338608-01	OBS	No	2.547781	132.179067	44.6	7.740	9.8	9.6	1.25	6211	0.97	1598.34
003338608-02	OBS	No	1.273926	131.538880	26.3	8.874	9.2	8.6	1.25	6211	0.75	4027.42
003338608-04	OBS	No	4.736033	134.196871	110.0	2.697	11.4	7.6	1.25	6211	1.53	699.30
003338608-05	OBS	No	9.252387	132.169485	90.4	6.696	12.6	5.5	1.25	6211	1.38	286.34
003338608-06	OBS	No	23.603716	155.055311	266.3	4.158	10.0	10.2	1.25	6211	2.30	82.14
003338608-07	OBS	No	9.139326	134.791711	272.5	2.083	9.1	12.6	1.25	6211	2.47	291.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003338608-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD—CENT_KIC_POS
003338608-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003338608-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003338608-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

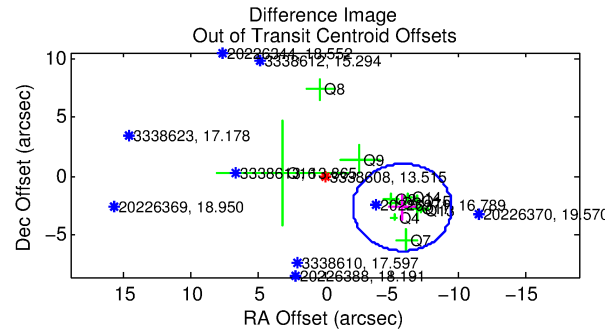
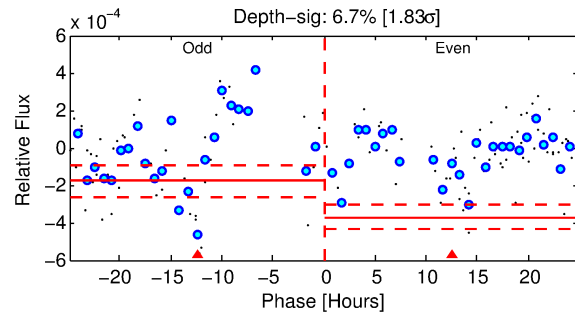
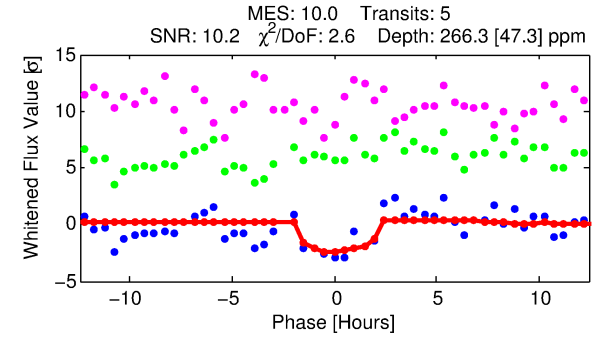
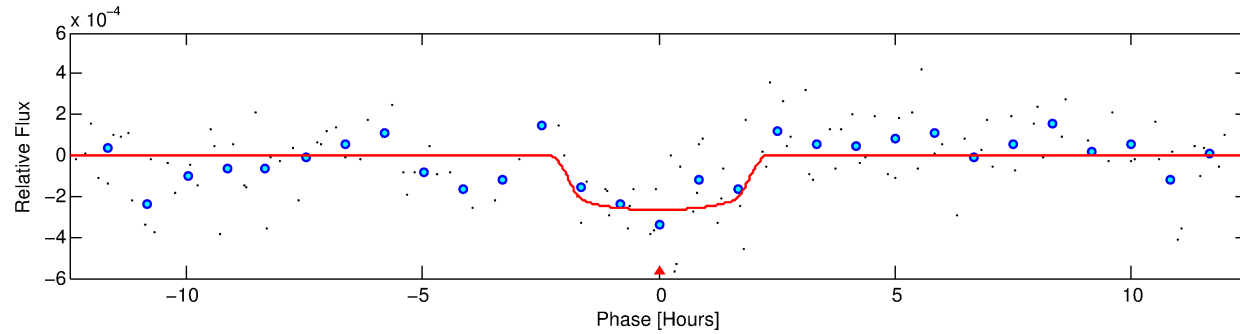
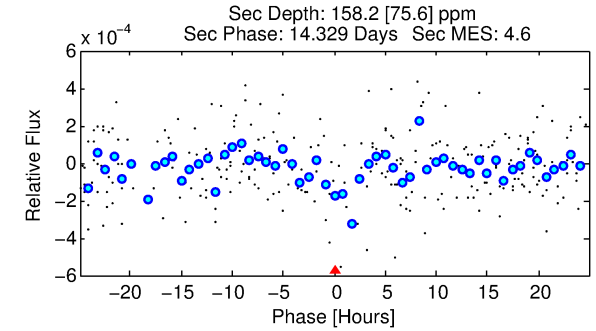
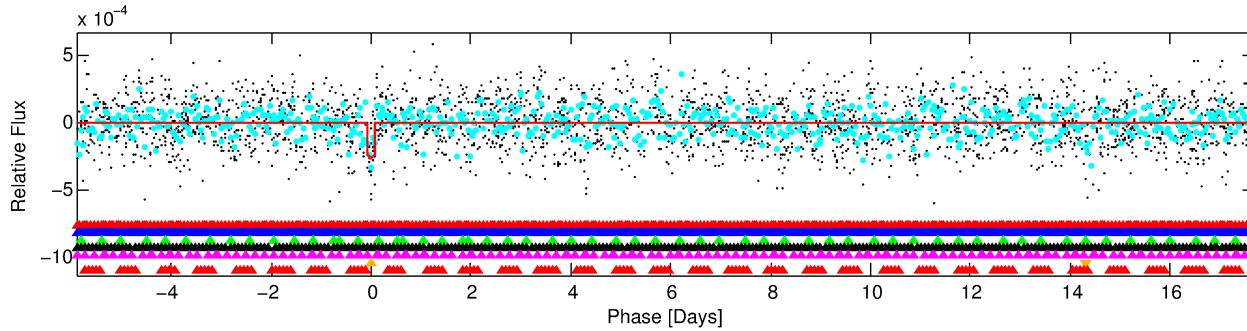
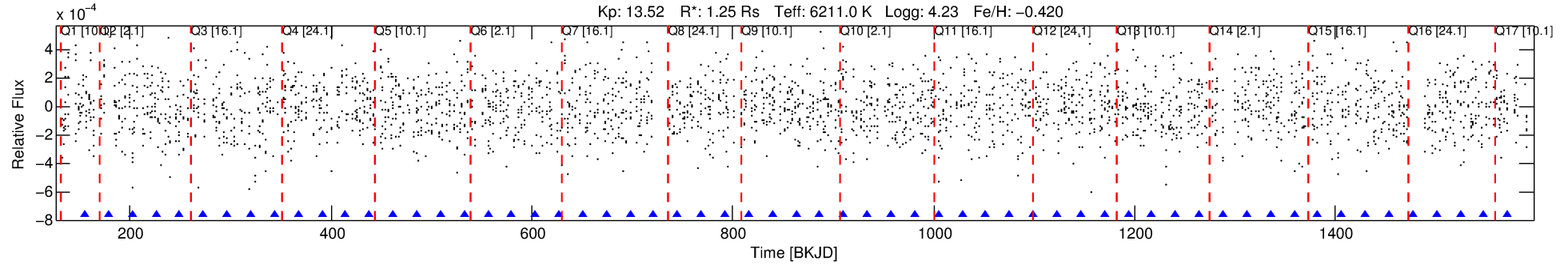
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003338608-06

No Significant Match Found

DV One-Page Summary

KIC: 3338608 Candidate: 6 of 7 Period: 23.604 d



DV Fit Results:

Period = 23.60372 [0.00048] d
Epoch = 155.0553 [0.0184] BKJD
Rp/R* = 0.0169 [0.0188]
a/R* = 24.33 [145.75]
b = 0.85 [2.00]
Seff = 82.14 [33.58]
Teff = 768 [78] K
Rp = 2.30 [2.64] Re
a = 0.1587 [0.0402] AU
Ag = 414.66 [955.71] [0.43σ]
Teffp = 5356 [3048] K [1.51σ]

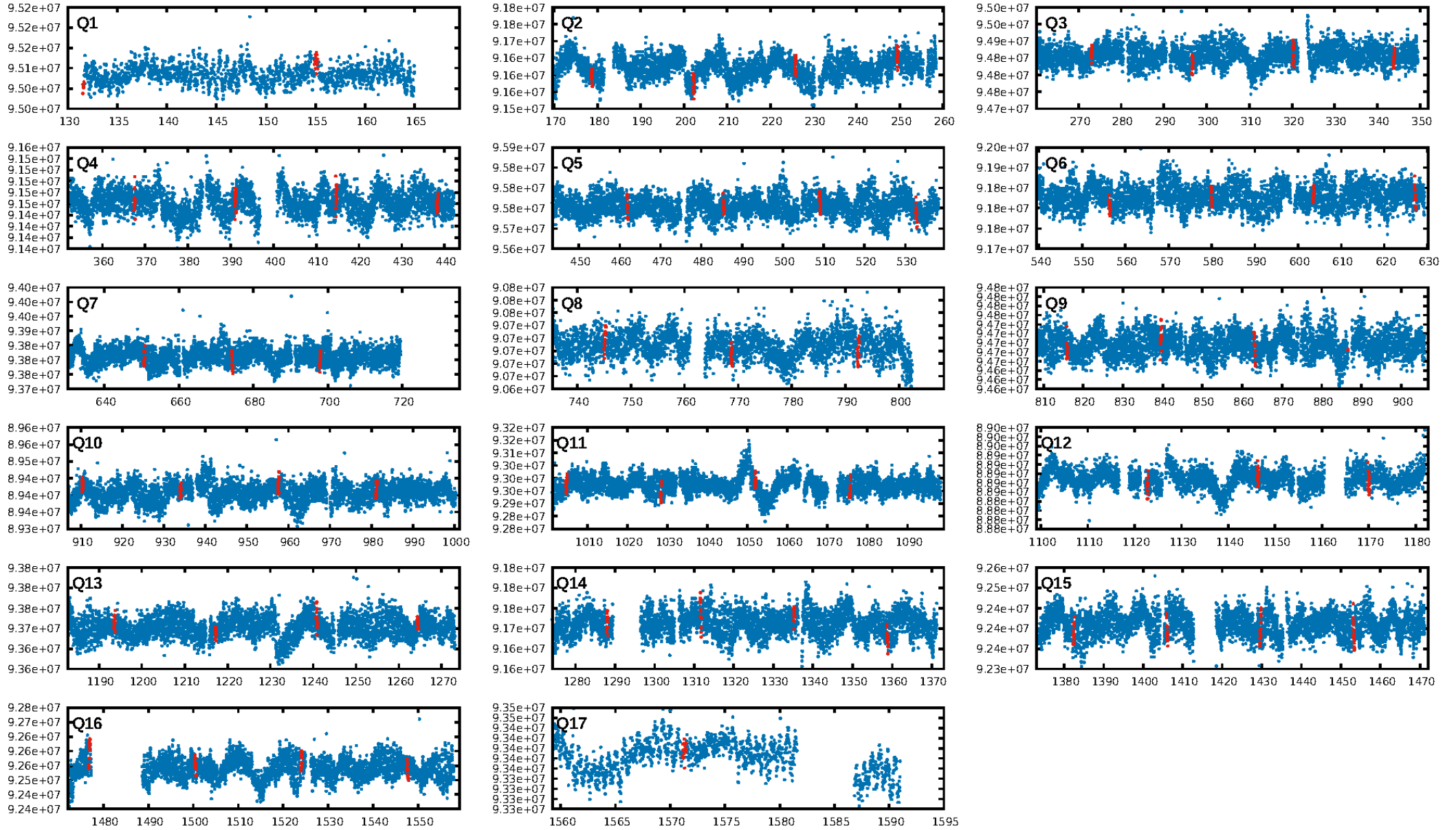
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [43.70σ]
LongPeriod-sig: 100.0% [3.69σ]
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 37.2%
Bootstrap-pfa: 4.91e-10
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 2.745
Centroid-sig: 0.1%
Centroid-so: 1.484 arcsec [2.50σ]
OotOffset-rm: 6.365 arcsec [5.17σ]
KicOffset-rm: 4.498 arcsec [3.79σ]
OotOffset-st: 2/3/3/3 [11]
KicOffset-st: 2/3/3/3 [11]
DiffImageQuality-fgm: 0.18 [2/11]
DiffImageOverlap-fno: 0.18 [3/17]

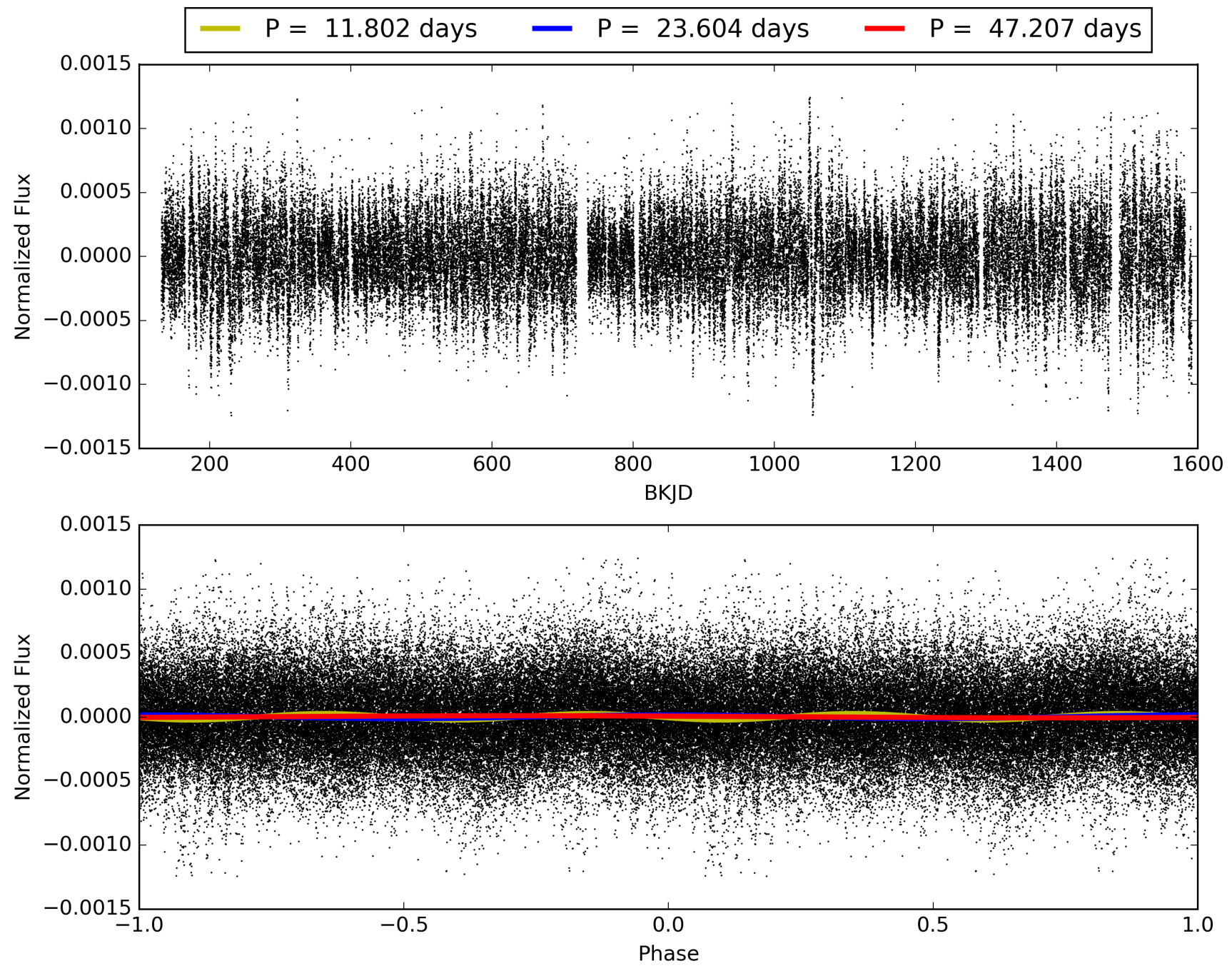
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:14:56 Z

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

TCE 003338608-06, PDC Light Curves

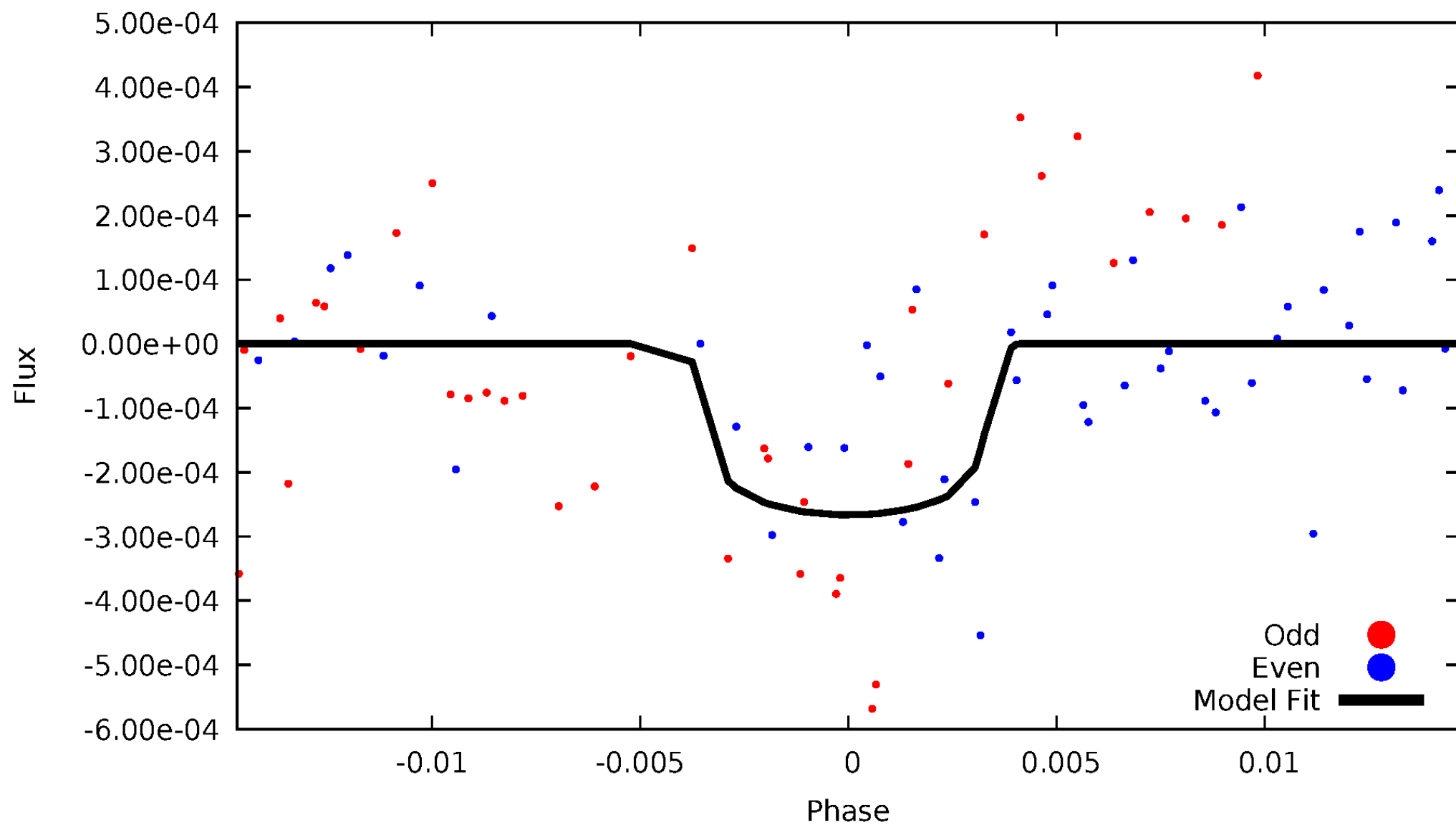


TCE 003338608-06



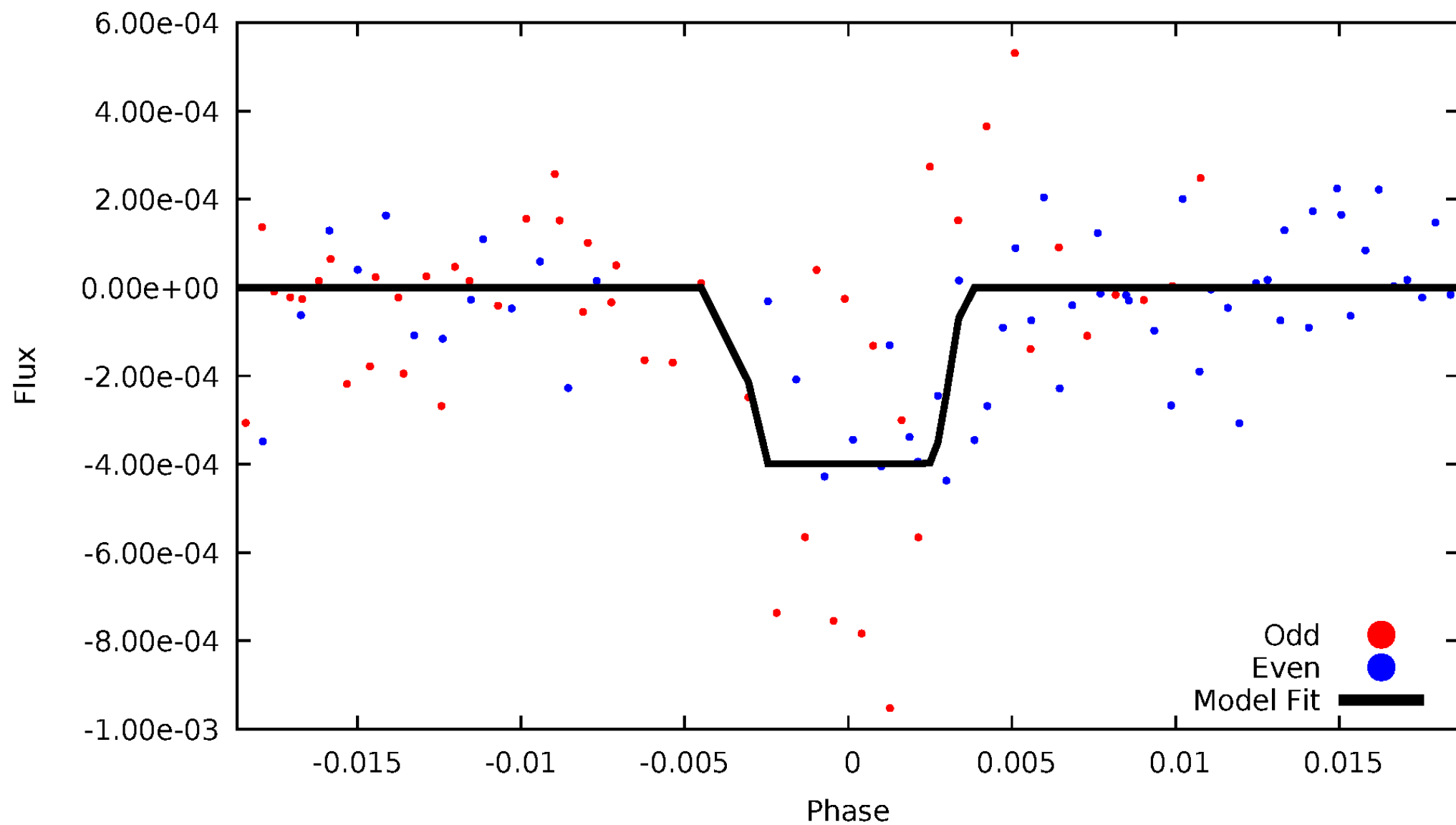
DV Odd/Even

TCE 003338608-06



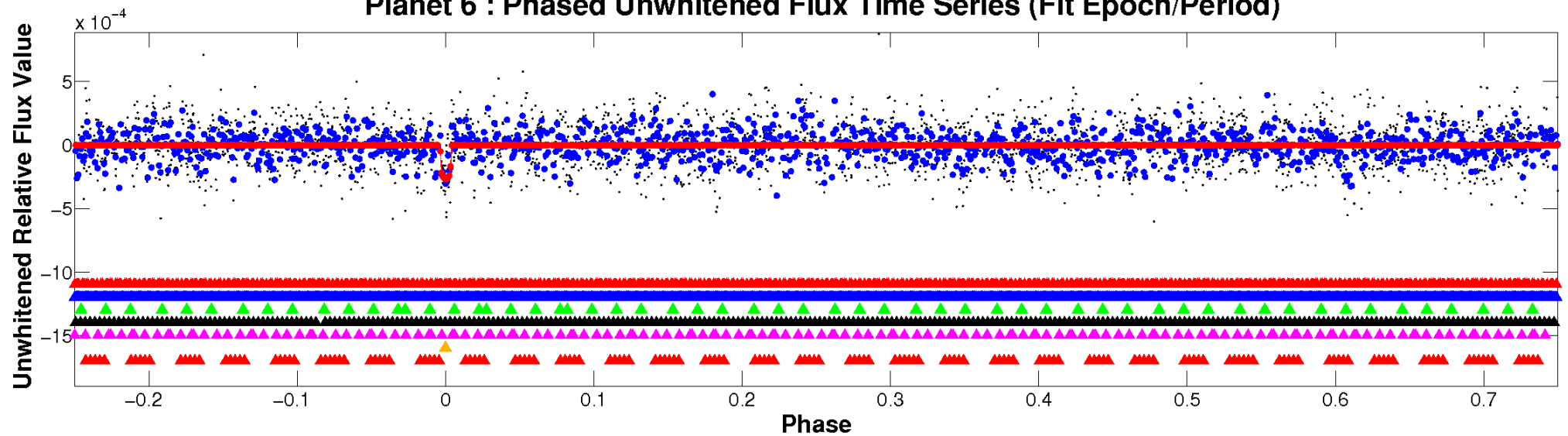
ALT Odd/Even

TCE 003338608-06

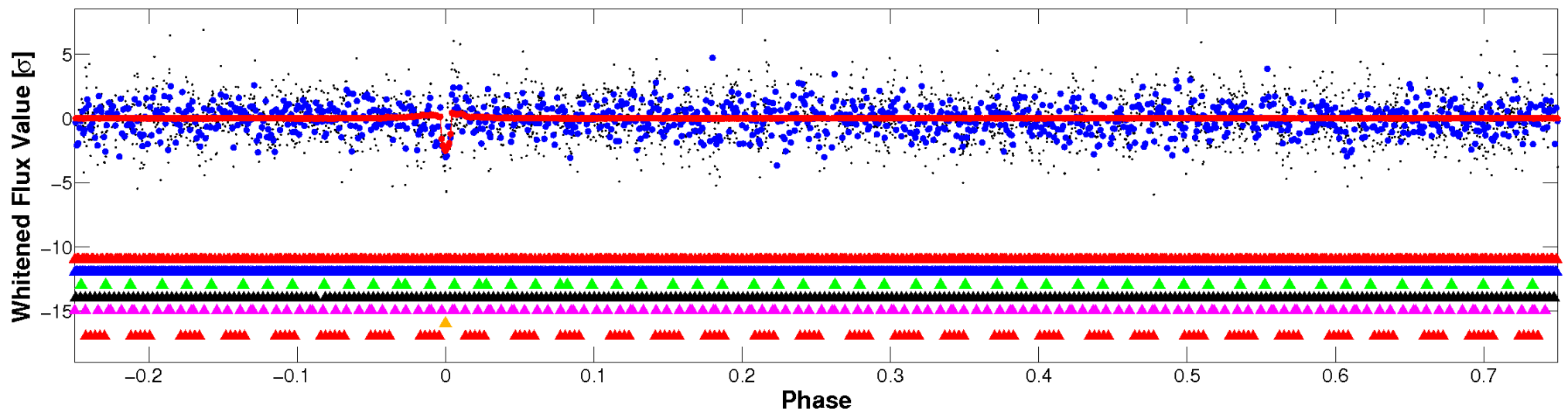


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

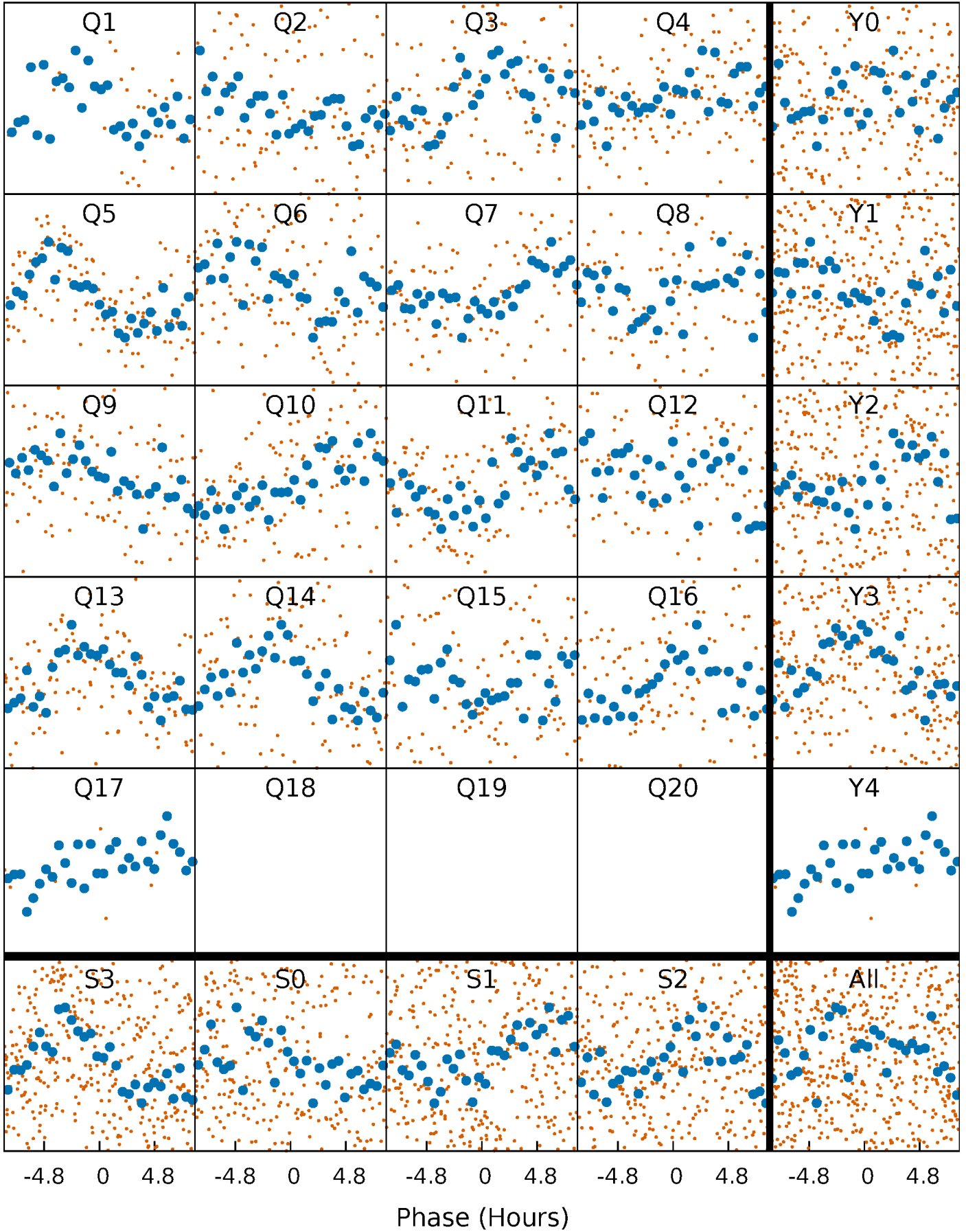


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



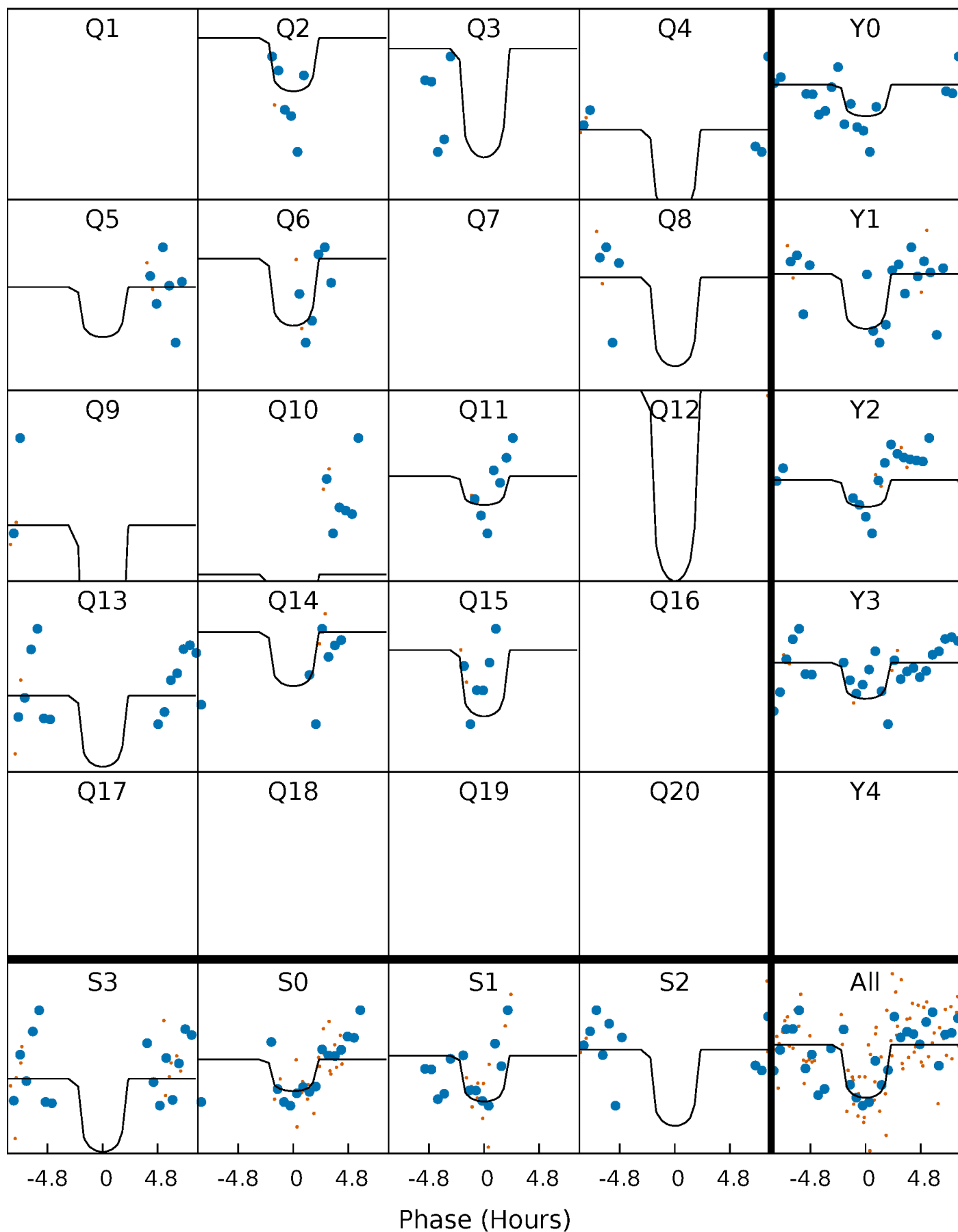
PDC Quarter-Phased Transit Curves

TCE 003338608-06 P= 23.603716 Days $T_0=155.055311$ (BKJD)



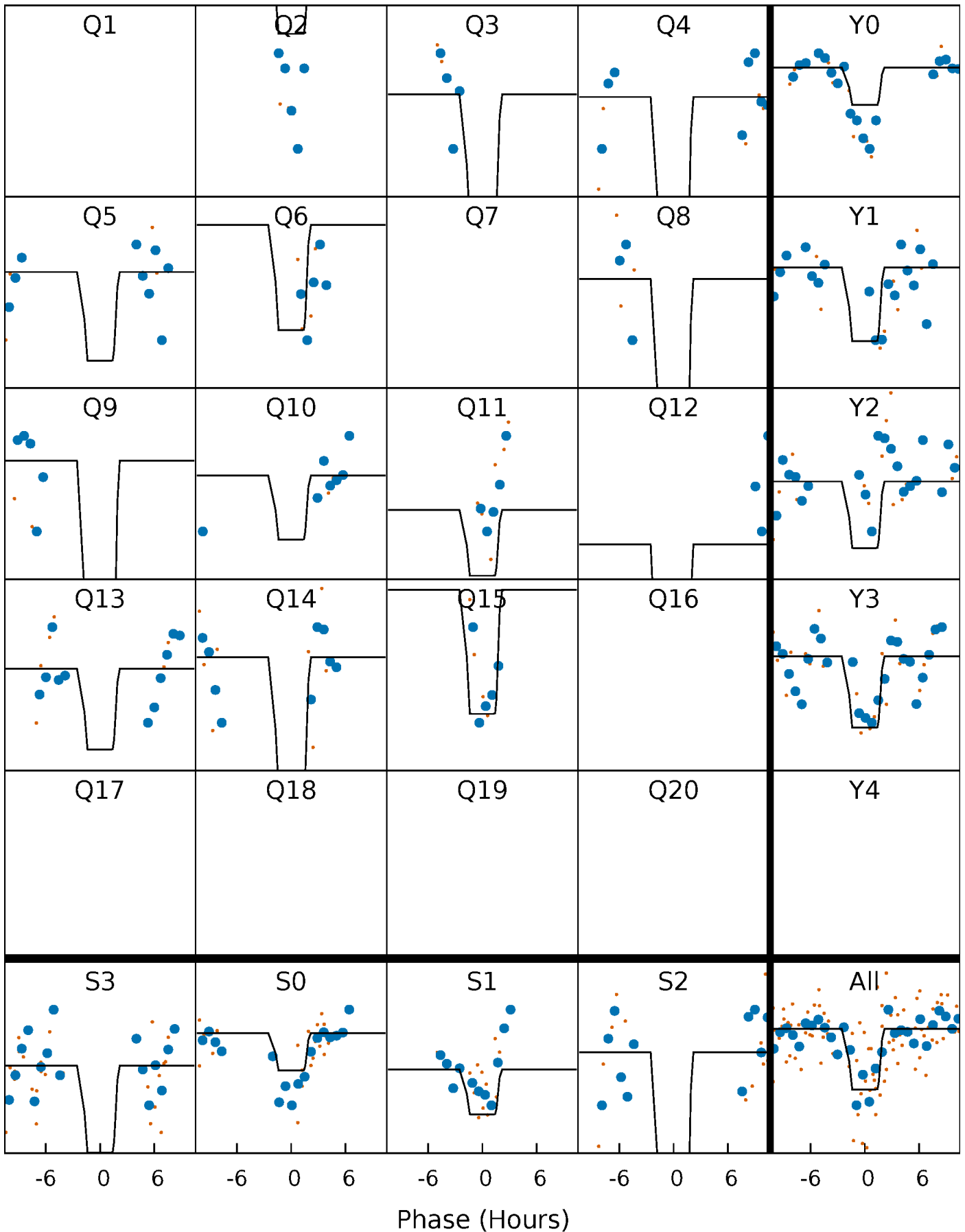
DV Quarter-Phased Transit Curves

TCE 003338608-06 P= 23.603716 Days $T_0=155.055311$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

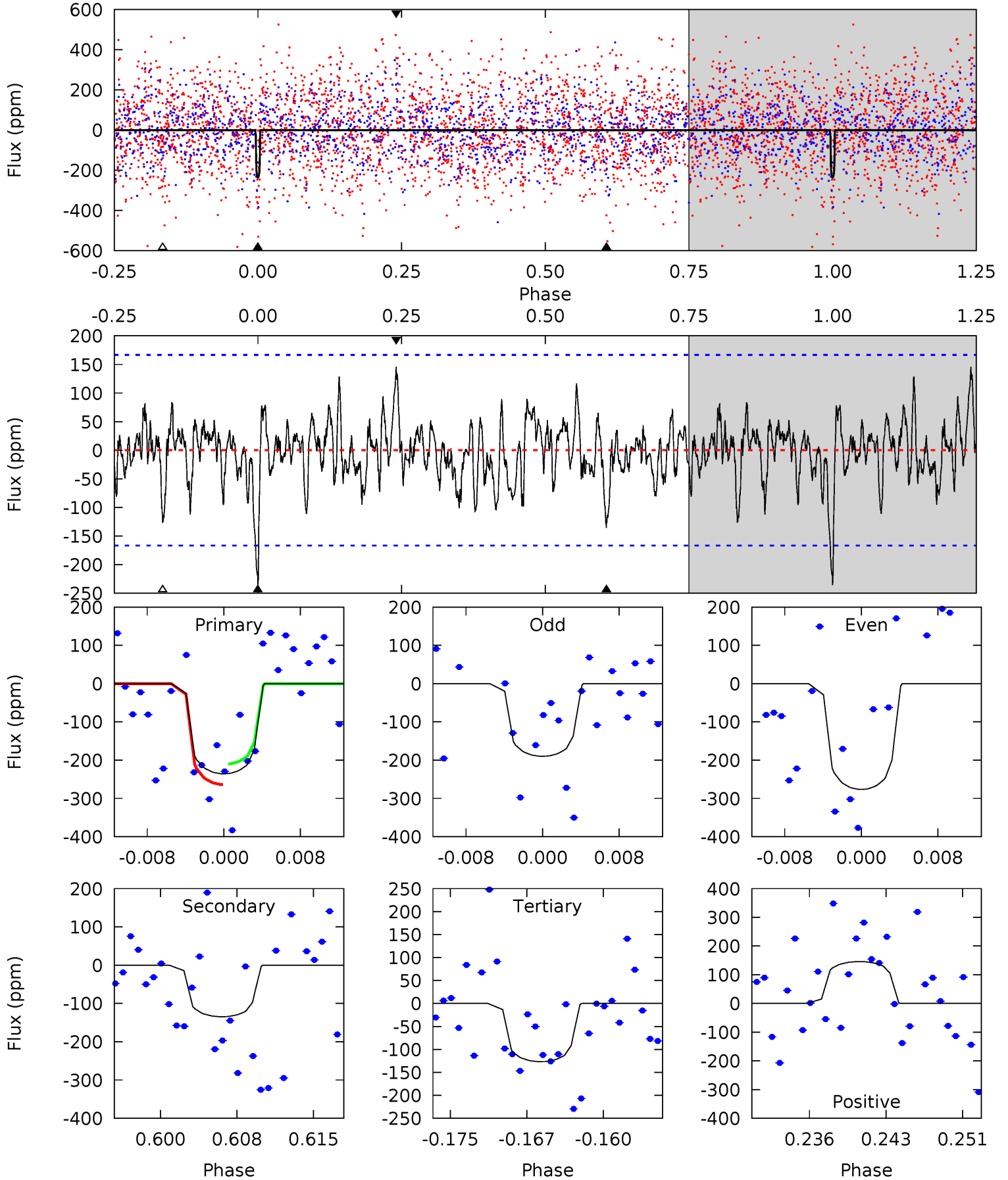
TCE 003338608-06 P= 23.603536 Days $T_0=155.039185$ (BKJD)



DV Model-Shift Uniqueness Test

003338608-06, P = 23.603716 Days, E = 131.451595 Days

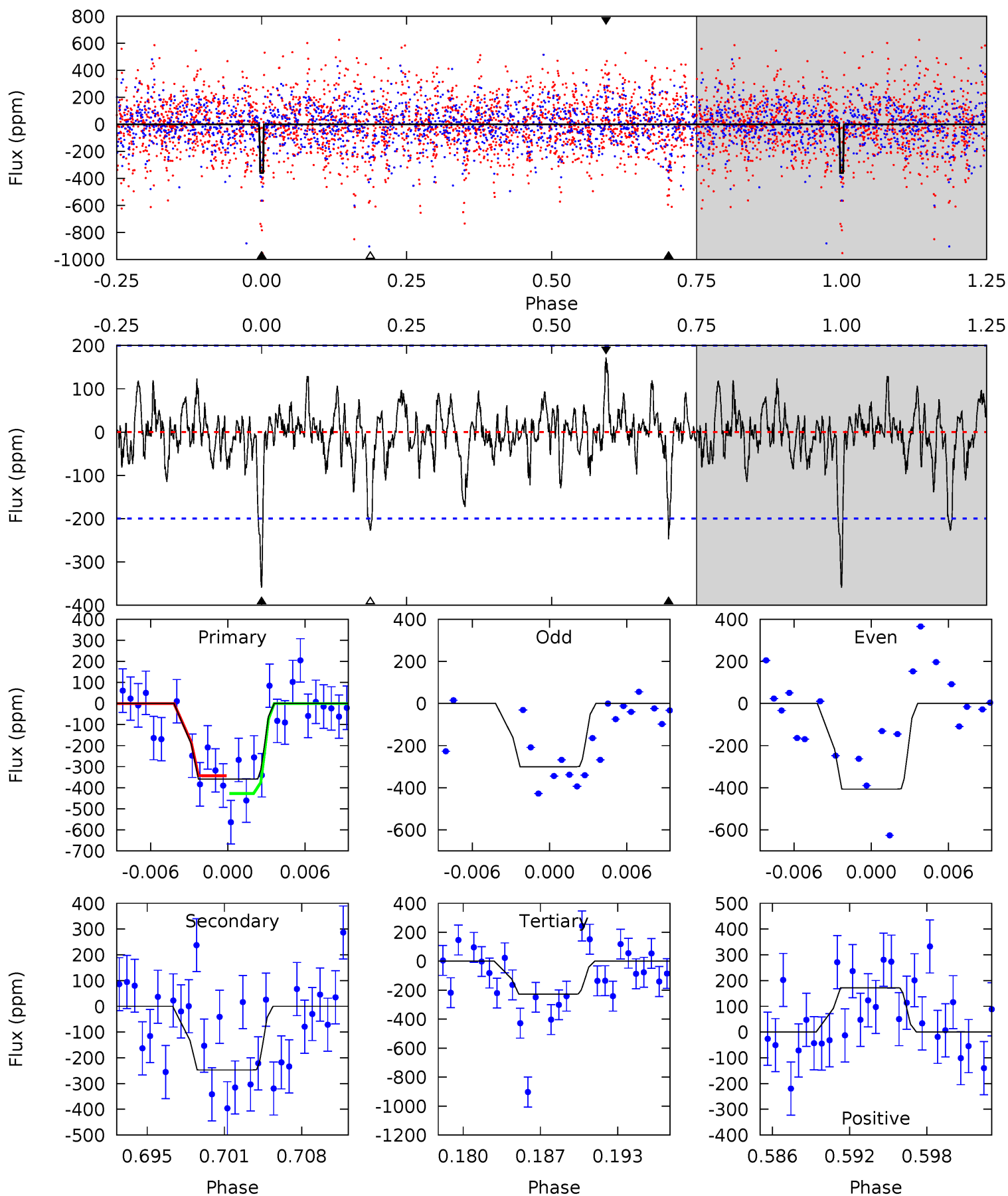
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.19	4.11	3.86	4.45	5.08	2.67	1.29	3.32	2.74	0.24	-0.34	1.33	1.14	0.38	0.81



Alt Model-Shift Uniqueness Test

003338608-06, P = 23.603536 Days, E = 131.435649 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.19	6.32	5.82	4.40	5.11	2.72	1.35	3.38	4.79	0.51	1.92	1.35	1.09	0.32	1.03



Stellar Parameters For KIC 003338608

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6211^{+169}_{-206}	$4.228^{+0.220}_{-0.180}$	$-0.420^{+0.300}_{-0.300}$	$1.246^{+0.352}_{-0.320}$	$0.957^{+0.148}_{-0.099}$	$0.698^{+0.808}_{-0.321}$
	+3%/-3%	+5%/-4%	+71%/-71%	+28%/-26%	+15%/-10%	+116%/-46%
Source	PHO1	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 003338608-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-135 ± 33	$2.70^{+2.55}_{-1.74}$	1068^{+81}_{-83}	4761^{+3171}_{-1014}	250^{+1695}_{-186}
Alt.	-247 ± 39	$3.14^{+2.52}_{-1.96}$	1068^{+81}_{-81}	5184^{+3302}_{-1071}	359^{+1999}_{-253}

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 $A_{obs} \gg 1.0$

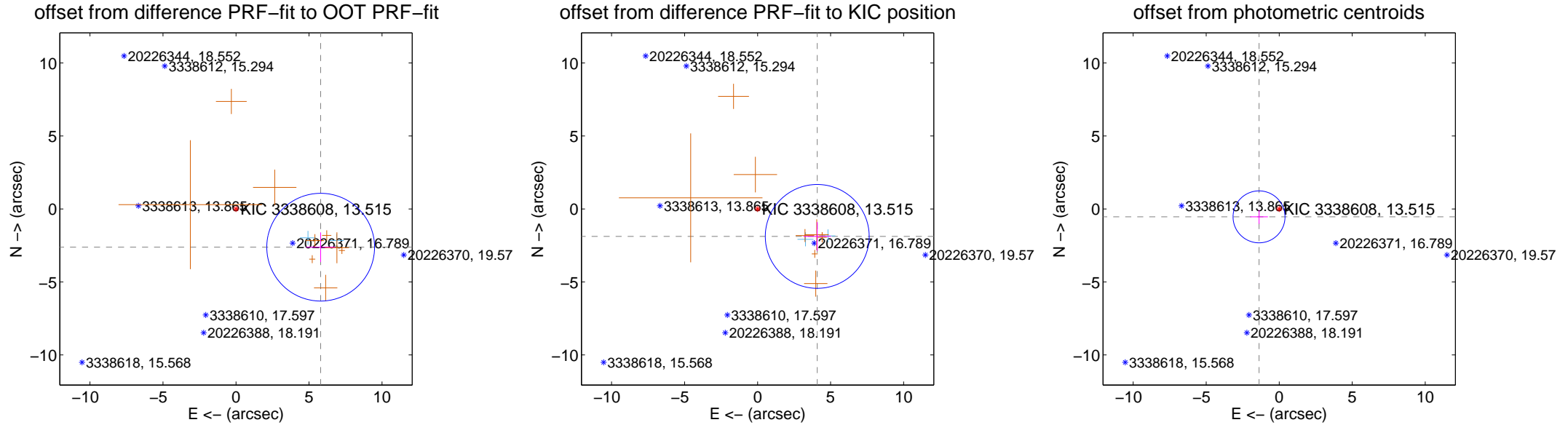
DV Centroid Data

Supplemental centroid analysis for 003338608-06. Kepler magnitude: 13.52. Transit SNR 10.17

There are 2 quarters with good PRF difference image offsets

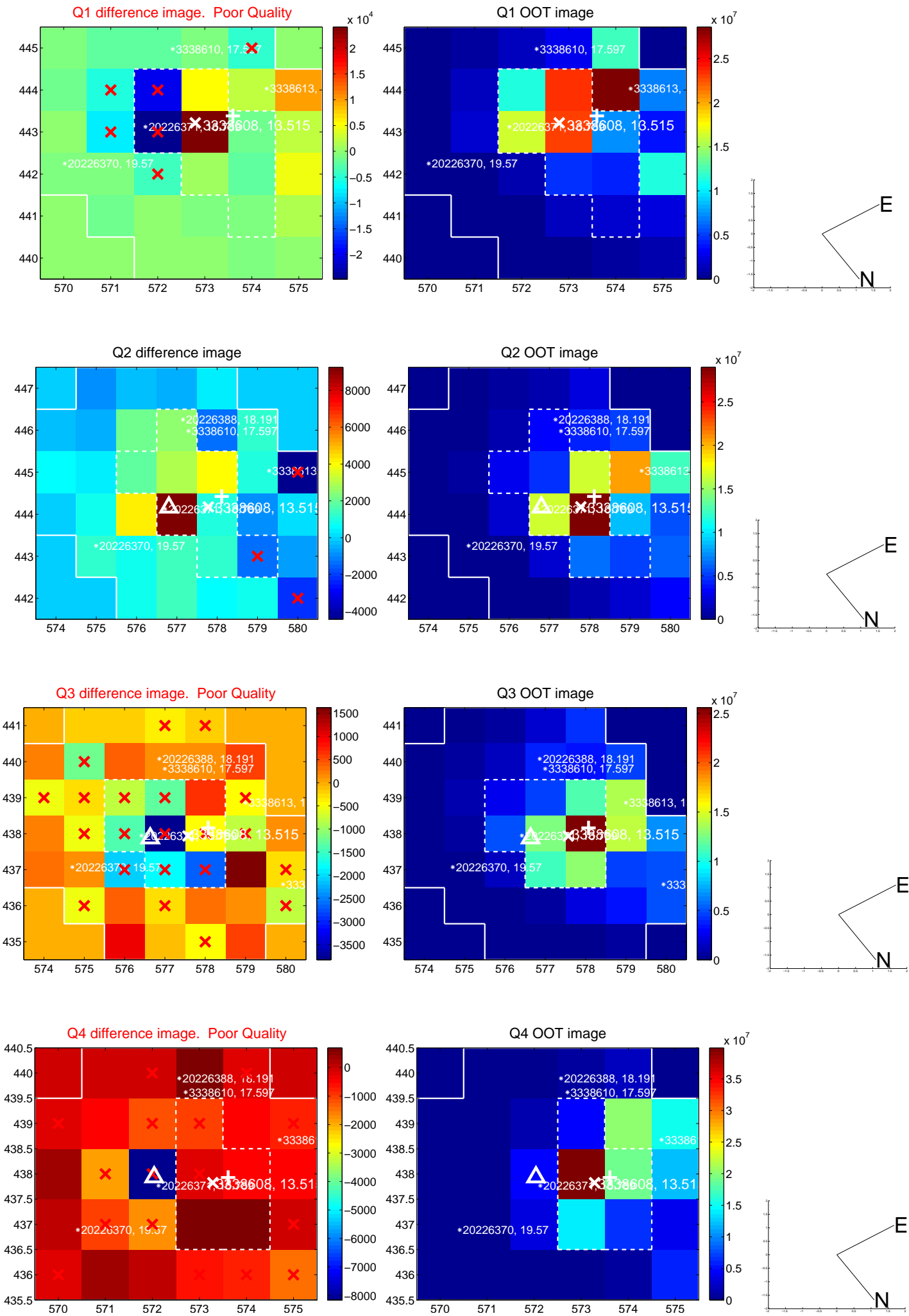
The OOT PRF centroid is offset from the target star catalog position by about 3.00 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.365 ± 1.230	5.17	-5.800 ± 1.000	-2.621 ± 1.012
PRF-fit source offset from KIC position	4.498 ± 1.186	3.79	-4.085 ± 0.939	-1.882 ± 0.989
photometric centroid source offset	1.48 ± 0.59	2.50	1.38 ± 0.61	-0.54 ± 0.48

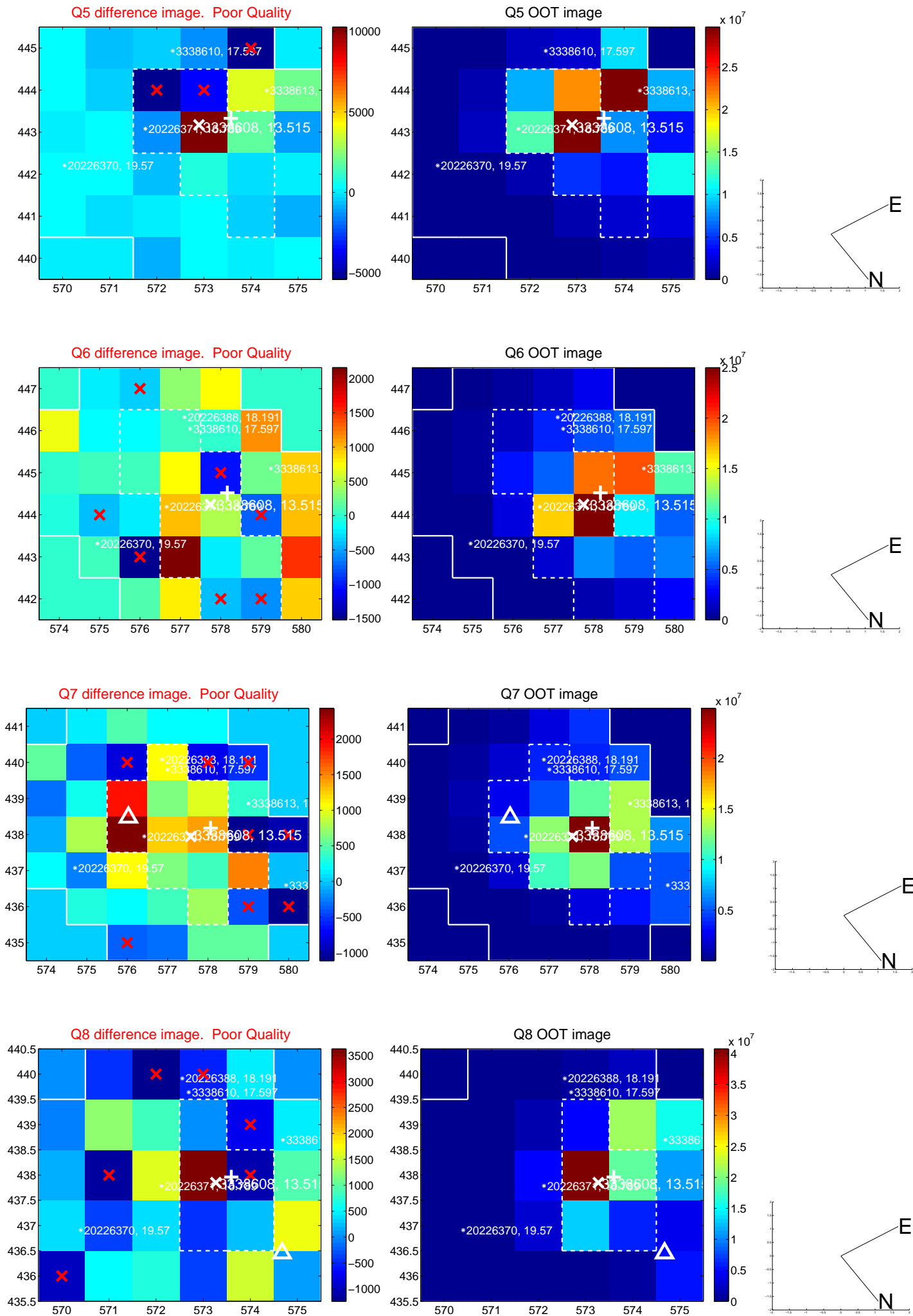


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

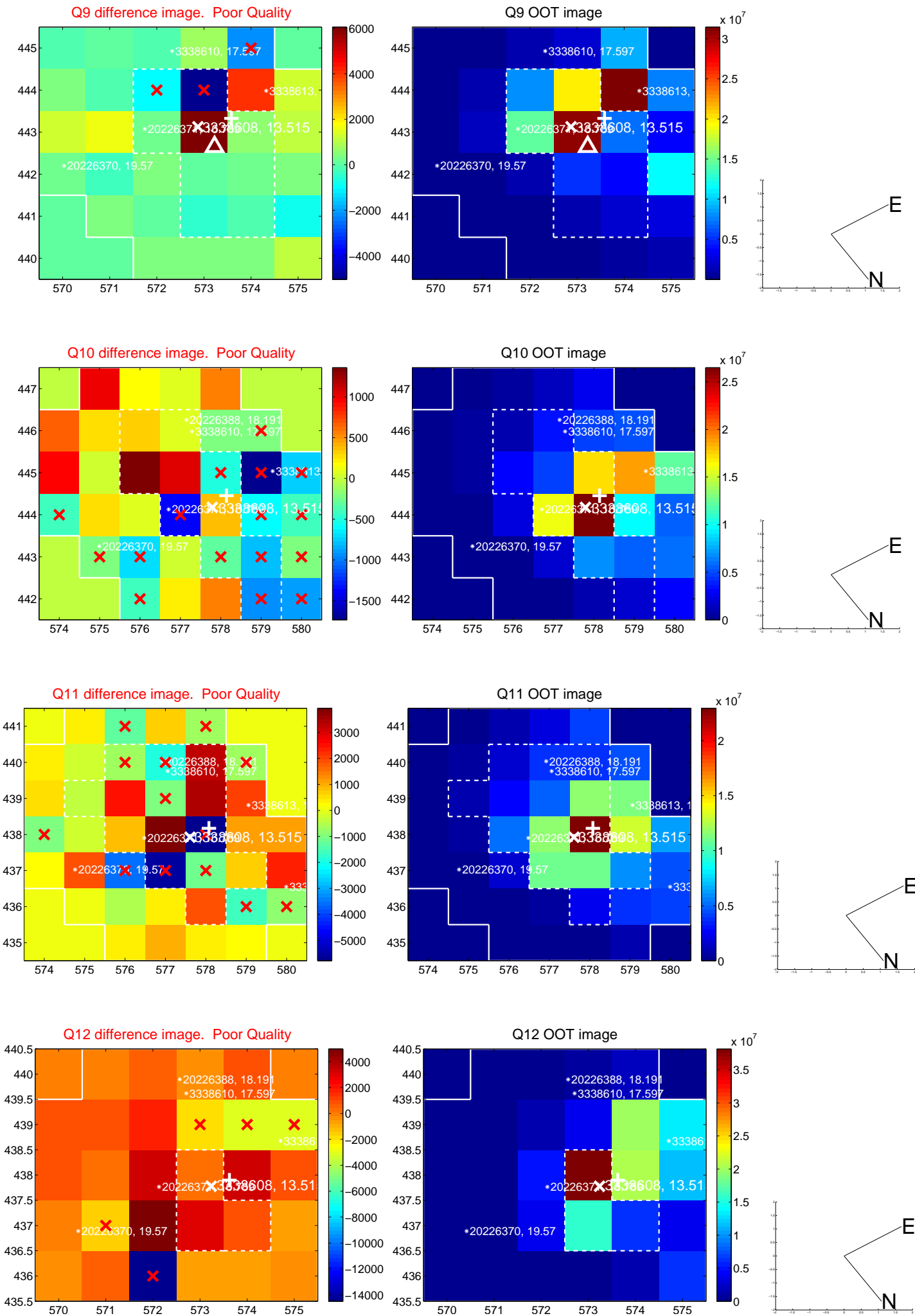
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



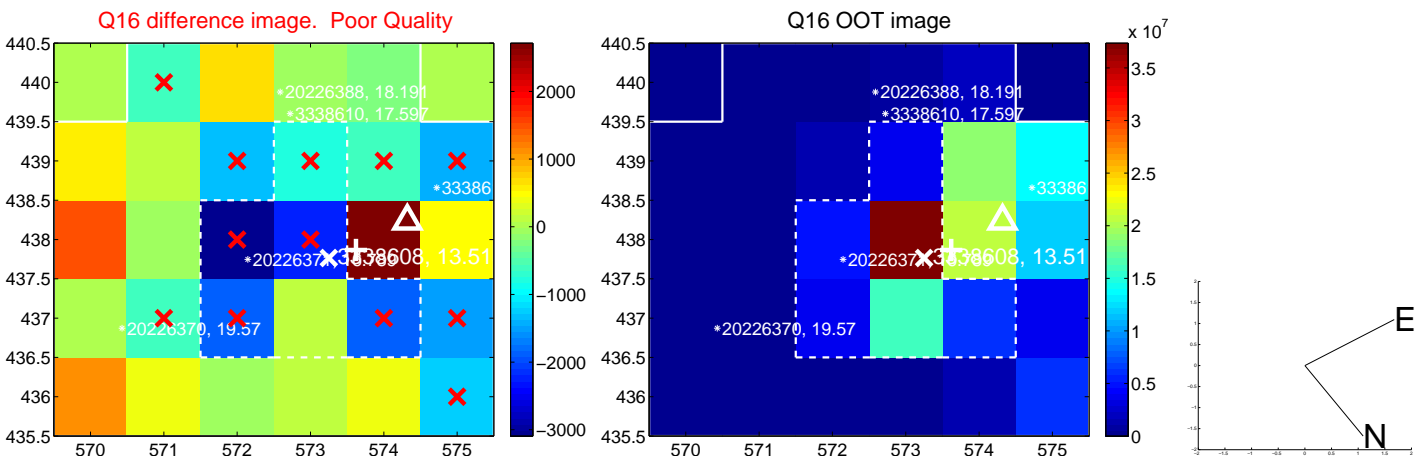
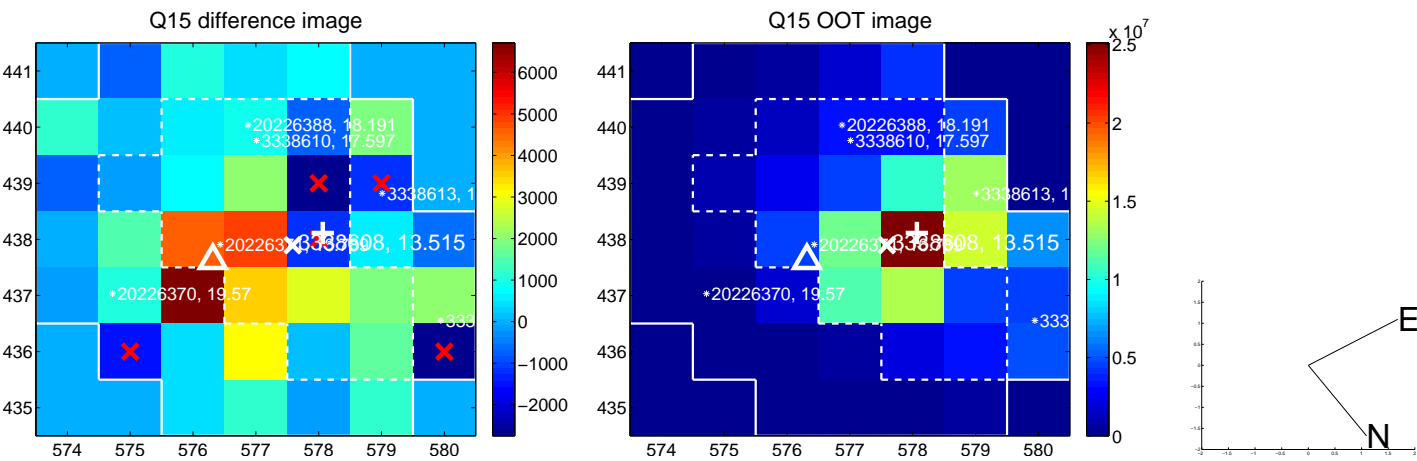
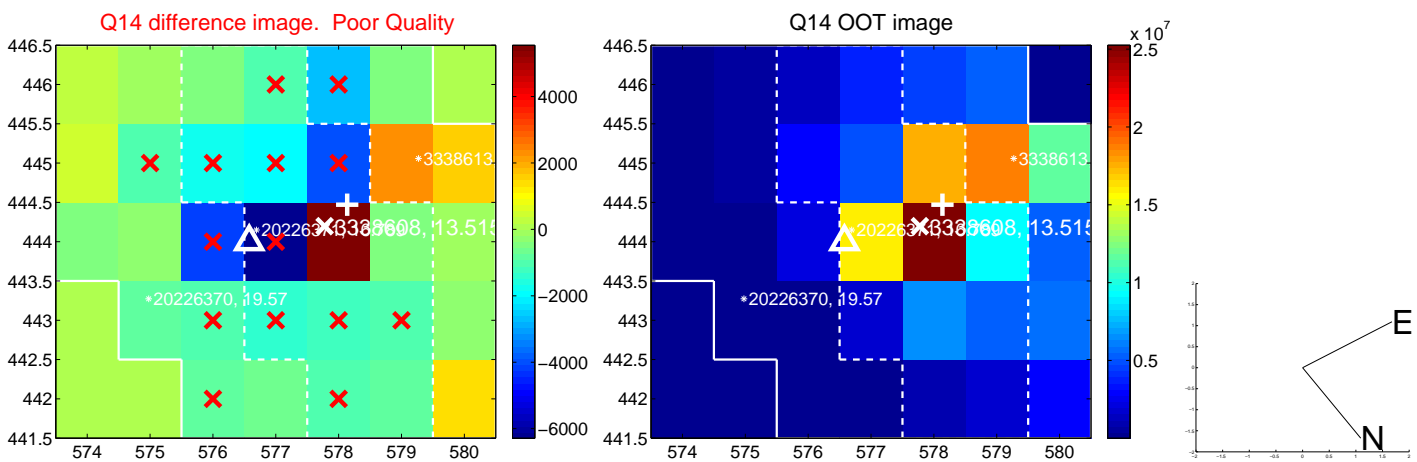
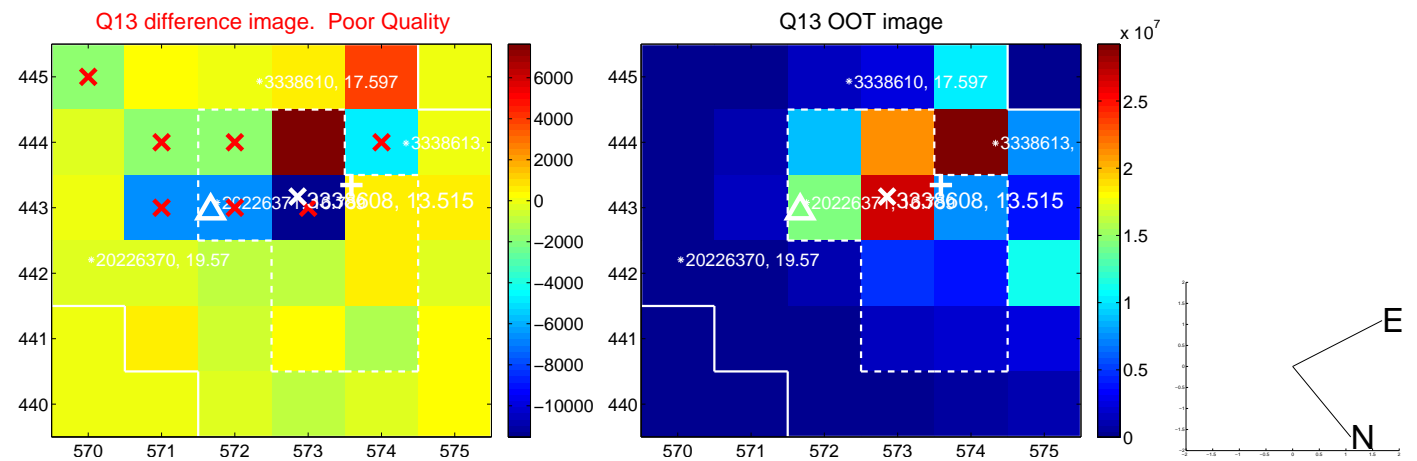
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



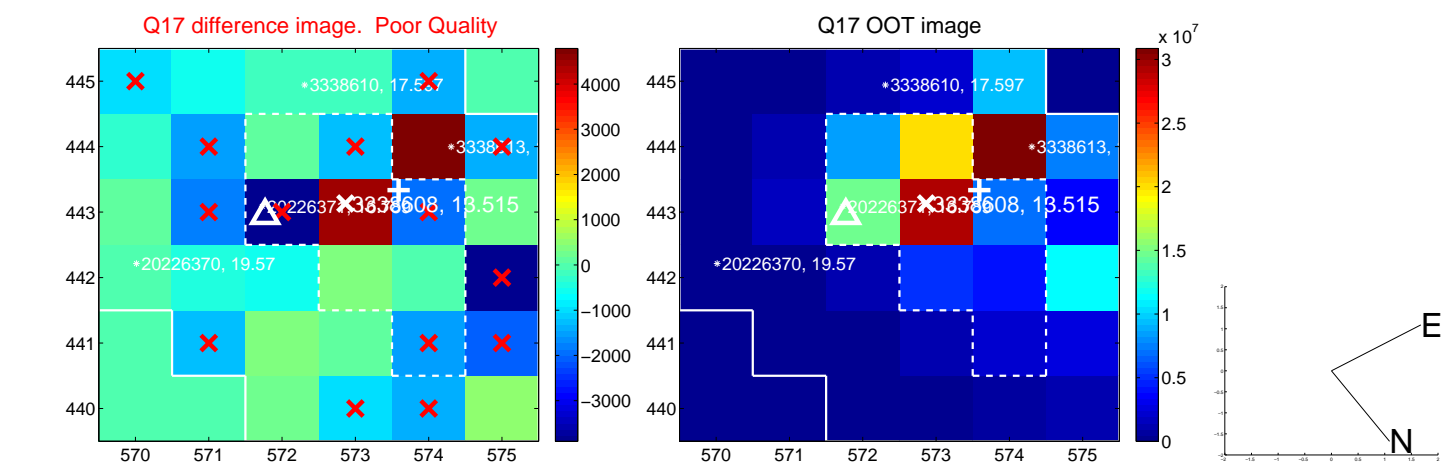
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



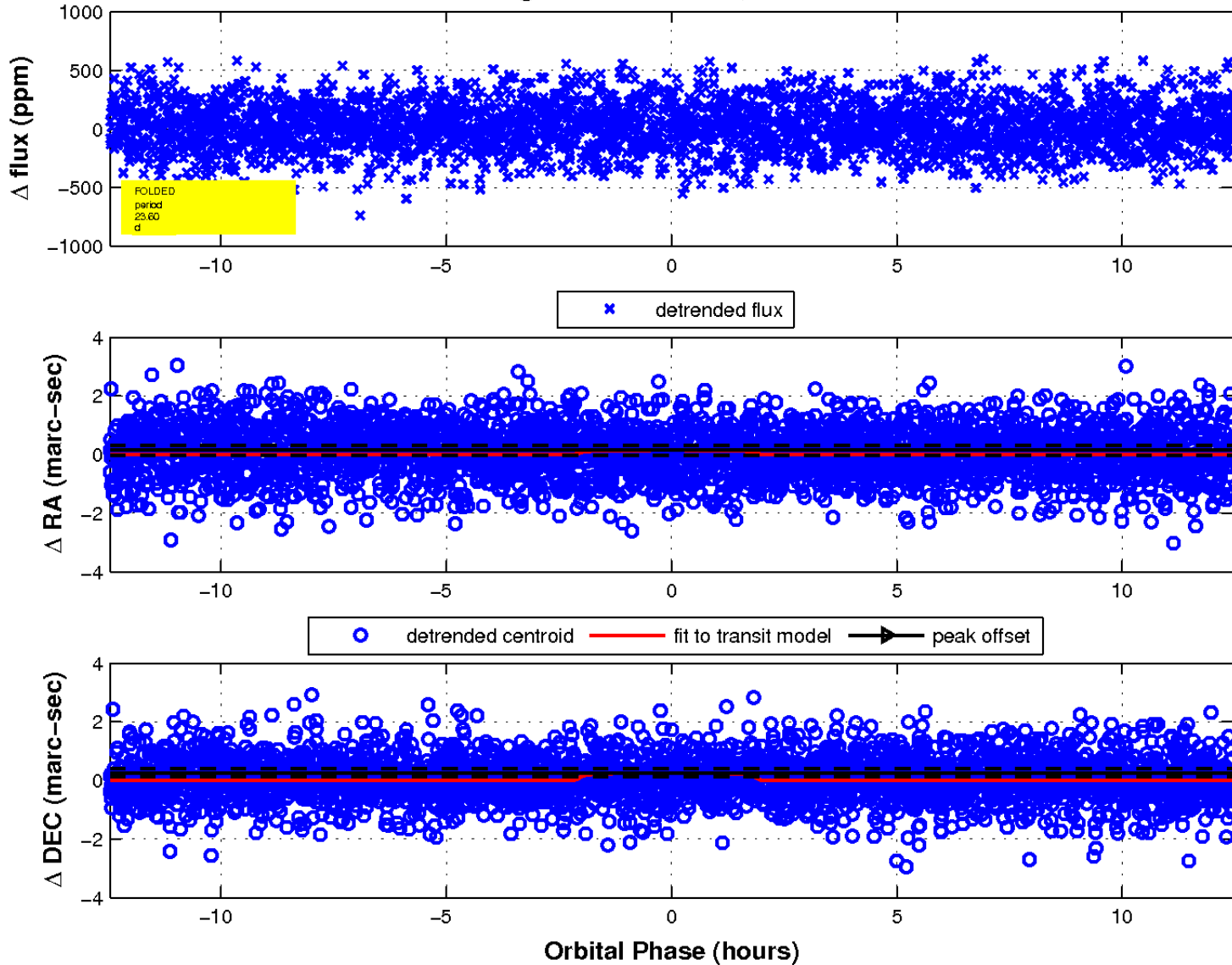
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

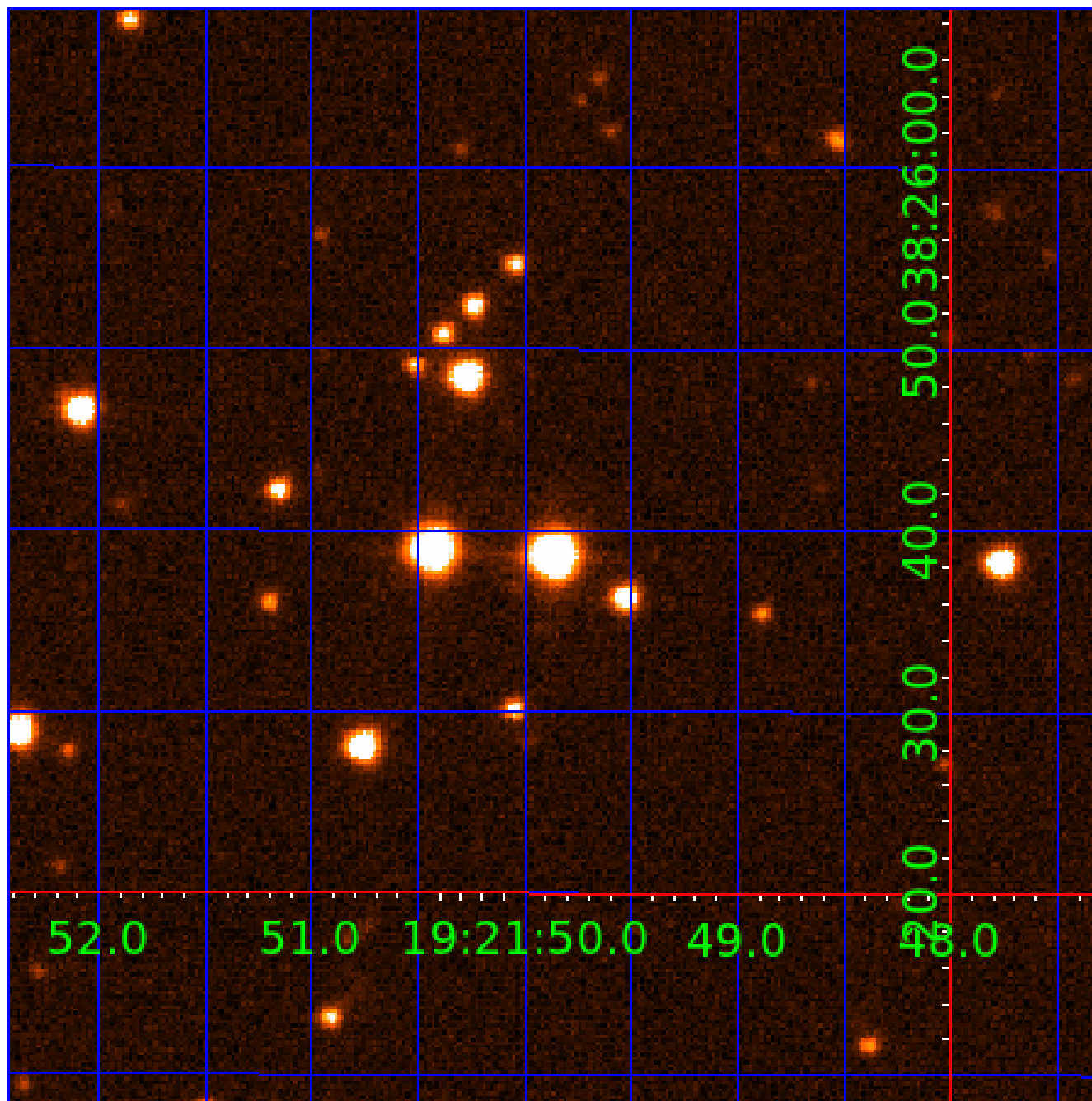


fluxWeightedCentroids, Planet 6 of 7



UKIRT Image

Declination



KIC 003338608

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})
003338608-01	OBS	No	2.547781	132.179067	44.6	7.740	9.8	9.6	1.25	6211	0.97	1598.34
003338608-02	OBS	No	1.273926	131.538880	26.3	8.874	9.2	8.6	1.25	6211	0.75	4027.42
003338608-04	OBS	No	4.736033	134.196871	110.0	2.697	11.4	7.6	1.25	6211	1.53	699.30
003338608-05	OBS	No	9.252387	132.169485	90.4	6.696	12.6	5.5	1.25	6211	1.38	286.34
003338608-06	OBS	No	23.603716	155.055311	266.3	4.158	10.0	10.2	1.25	6211	2.30	82.14
003338608-07	OBS	No	9.139326	134.791711	272.5	2.083	9.1	12.6	1.25	6211	2.47	291.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003338608-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—SAME_NTL_PERIOD—CENT_KIC_POS
003338608-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
003338608-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003338608-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
003338608-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

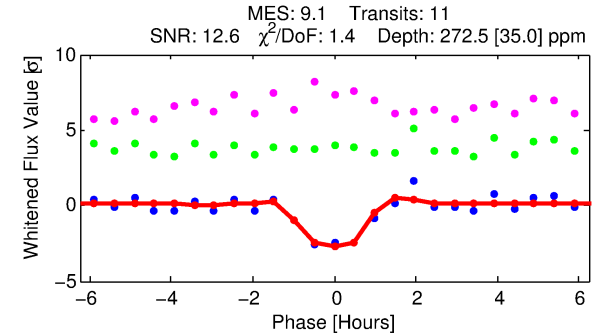
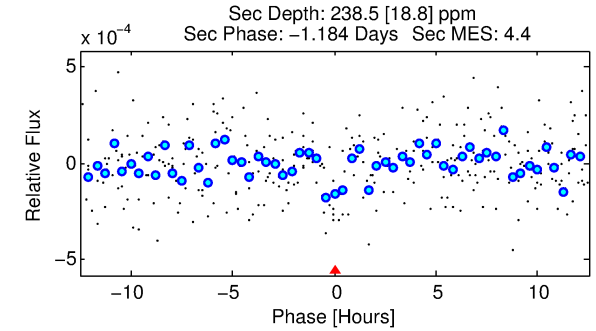
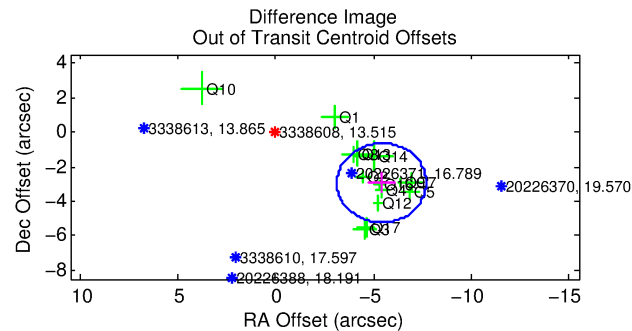
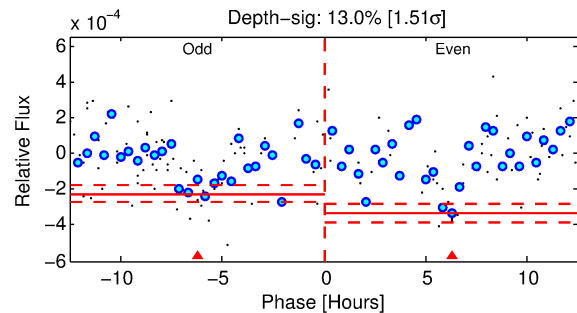
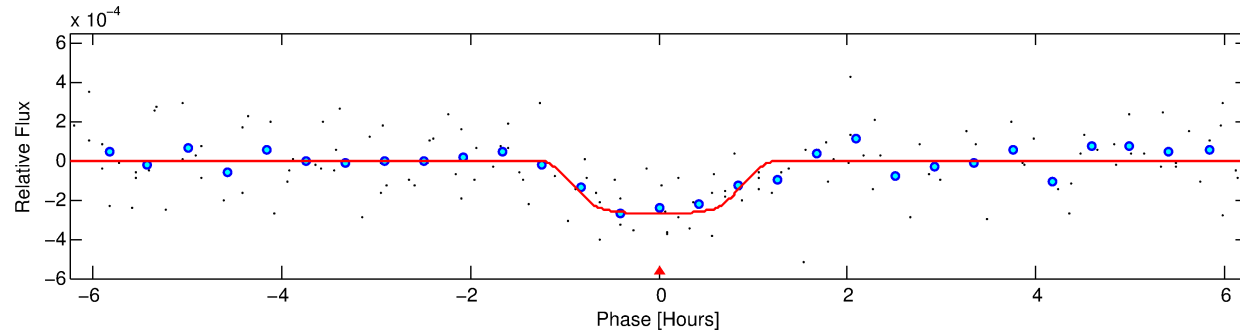
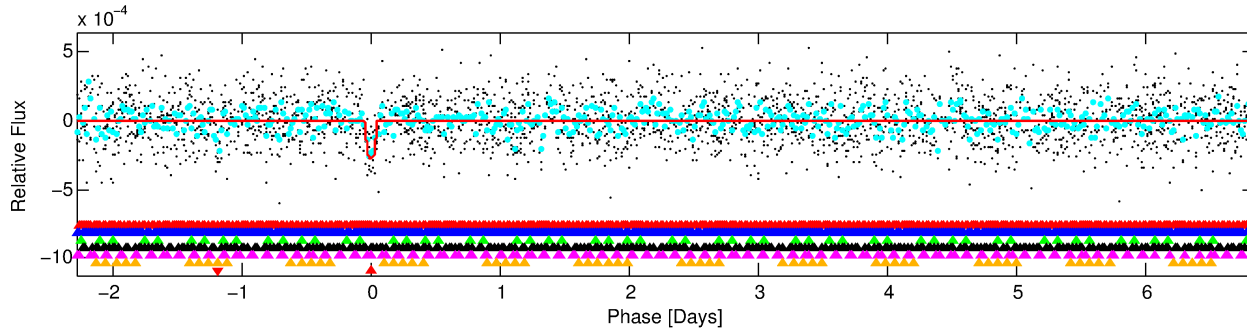
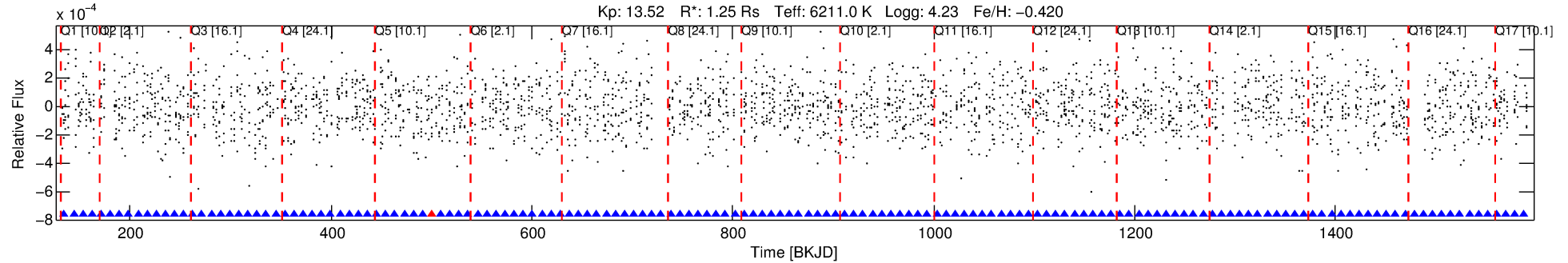
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003338608-07

No Significant Match Found

DV One-Page Summary

KIC: 3338608 Candidate: 7 of 7 Period: 9.139 d



DV Fit Results:

Period = 9.13933 [0.00006] d
Epoch = 134.7917 [0.0050] BKJD
Rp/R* = 0.0181 [0.0089]
a/R* = 14.42 [38.66]
b = 0.92 [0.44]
Seff = 291.07 [118.99]
Teq = 1053 [108] K
Rp = 2.47 [1.39] Re
a = 0.0843 [0.0213] AU
Ag = 153.32 [161.40] [0.94 σ]
Teffp = 5730 [1415] K [3.29 σ]

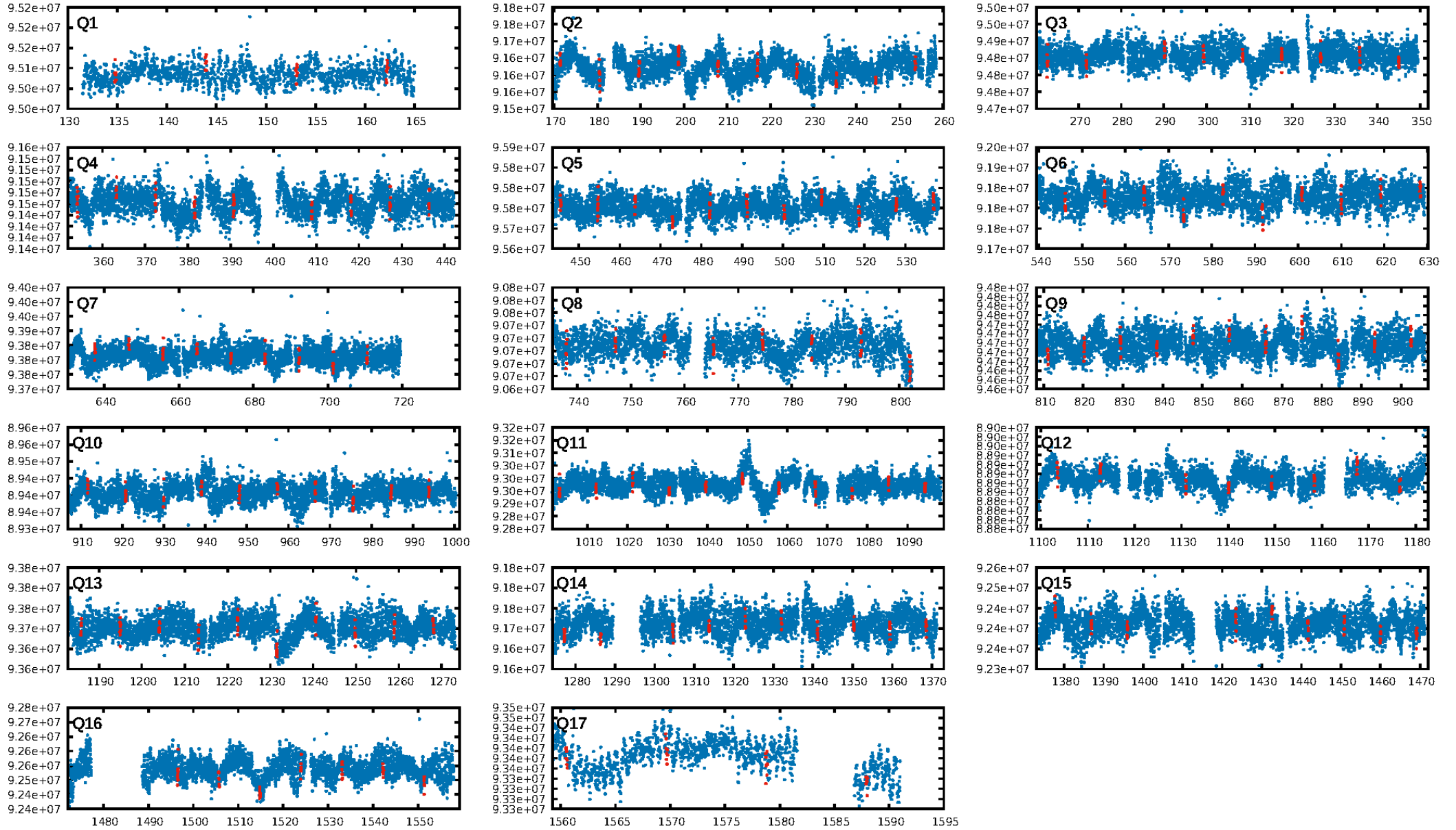
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [31.01 σ]
LongPeriod-sig: 30.1% [0.39 σ]
ModelChiSquare2-sig: 27.6%
ModelChiSquareGof-sig: 99.2%
Bootstrap-pfa: 2.36e-09
RollingBand-fgt: 0.91 [10/11]
GhostDiagnostic-chr: -0.4336
Centroid-sig: 43.6%
Centroid-so: 1.996 arcsec [5.22 σ]
OotOffset-rm: 6.155 arcsec [8.08 σ]
KicOffset-rm: 4.107 arcsec [5.73 σ]
OotOffset-st: 3/2/4/5 [14]
KicOffset-st: 3/2/4/5 [14]
DiffImageQuality-fgm: 0.36 [5/14]
DiffImageOverlap-fno: 0.71 [12/17]

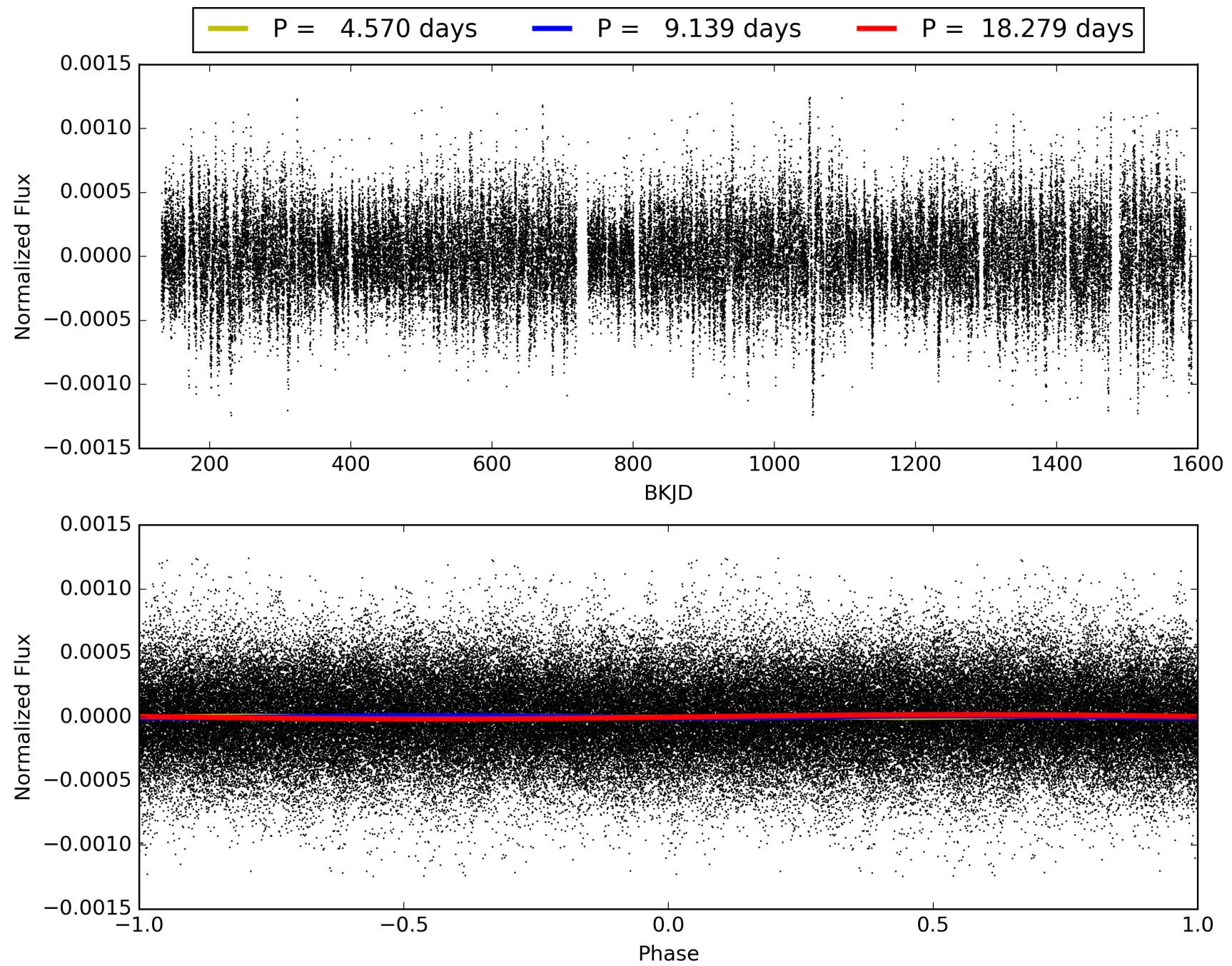
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:14:59 Z

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

TCE 003338608-07, PDC Light Curves

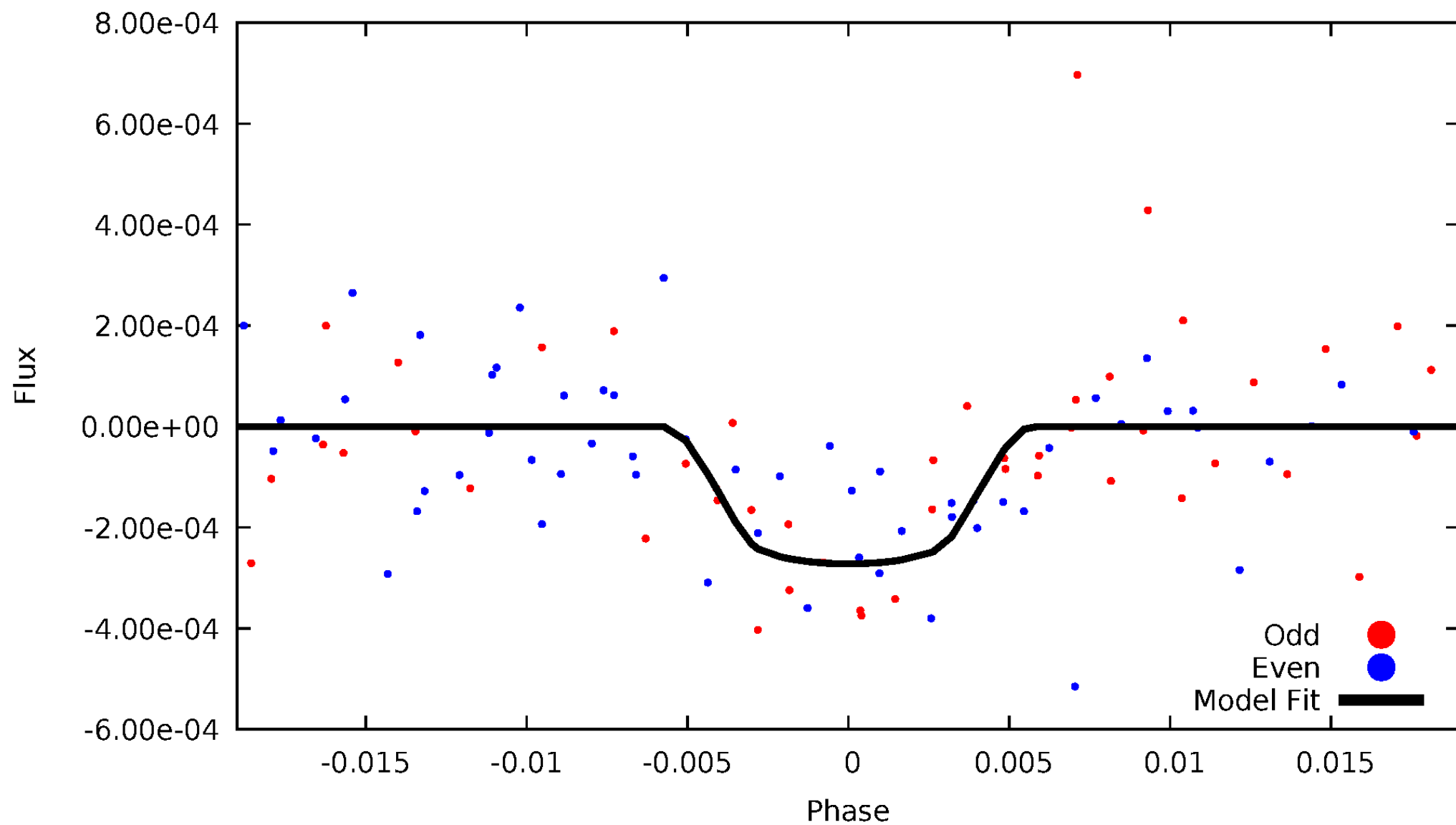


TCE 003338608-07



DV Odd/Even

TCE 003338608-07

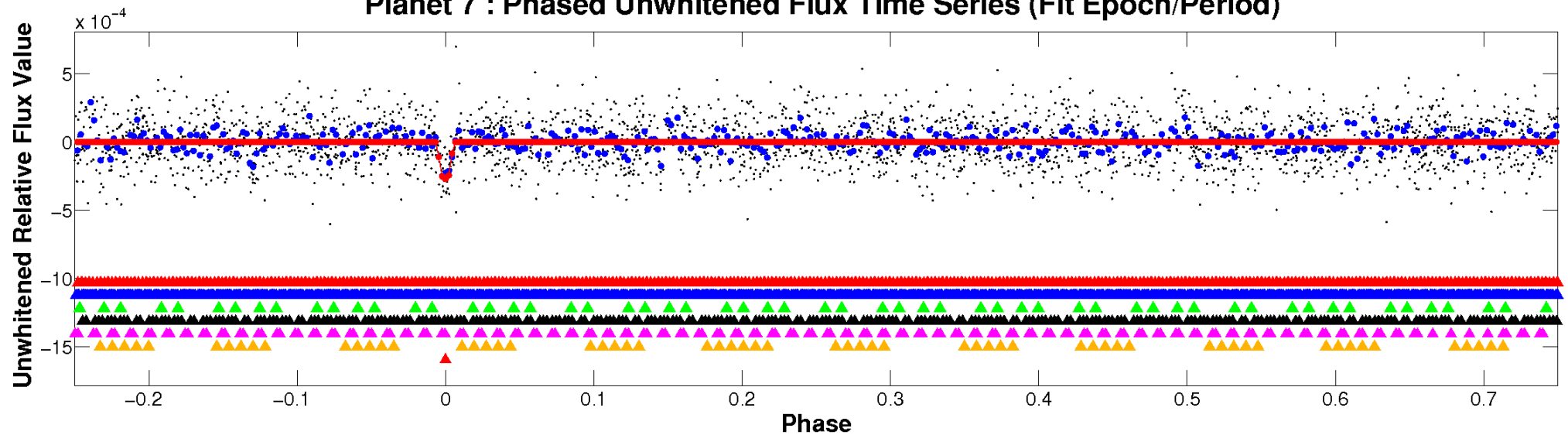


ALT Odd/Even

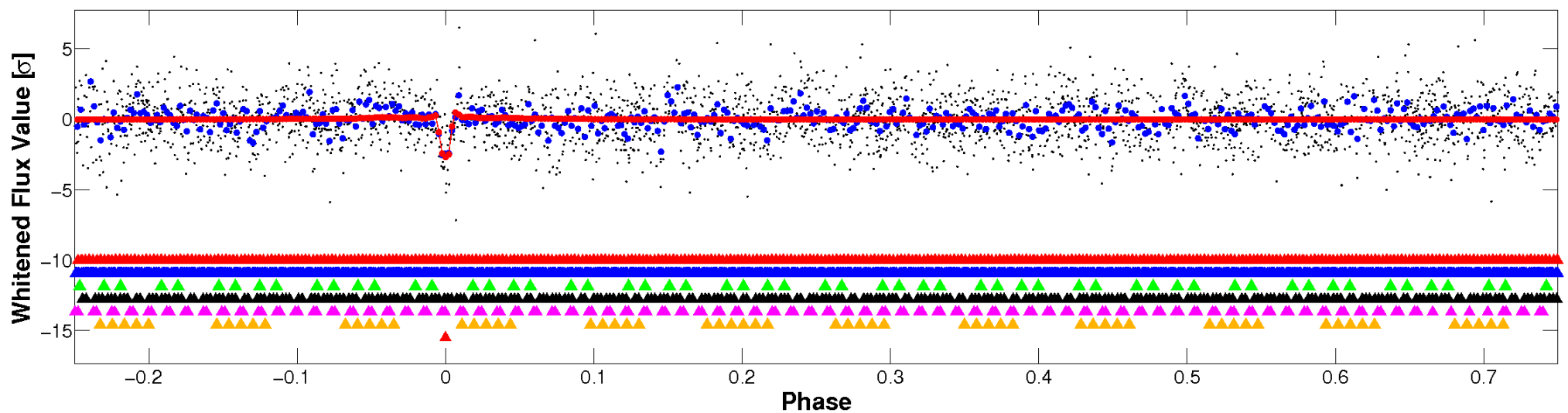
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

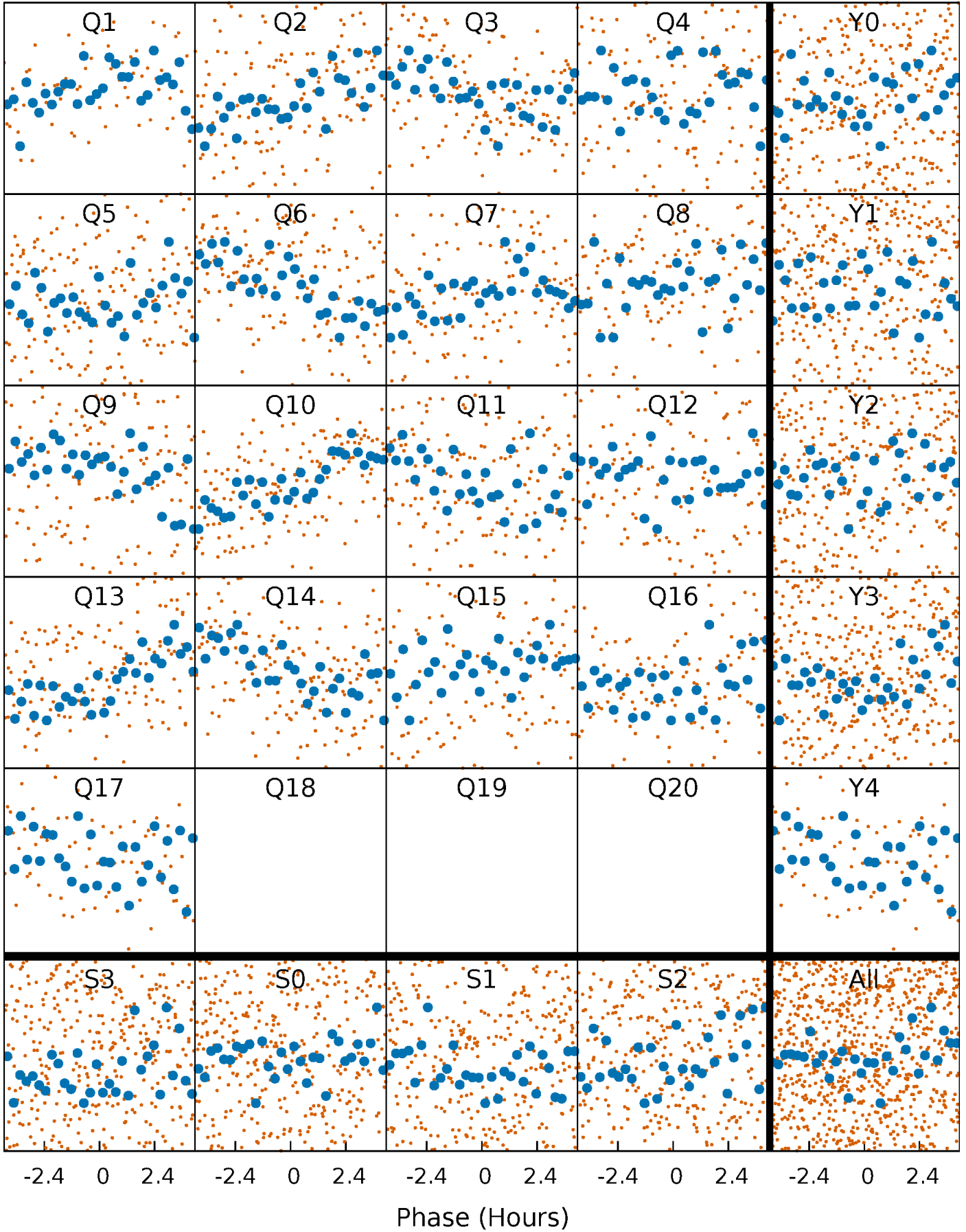


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



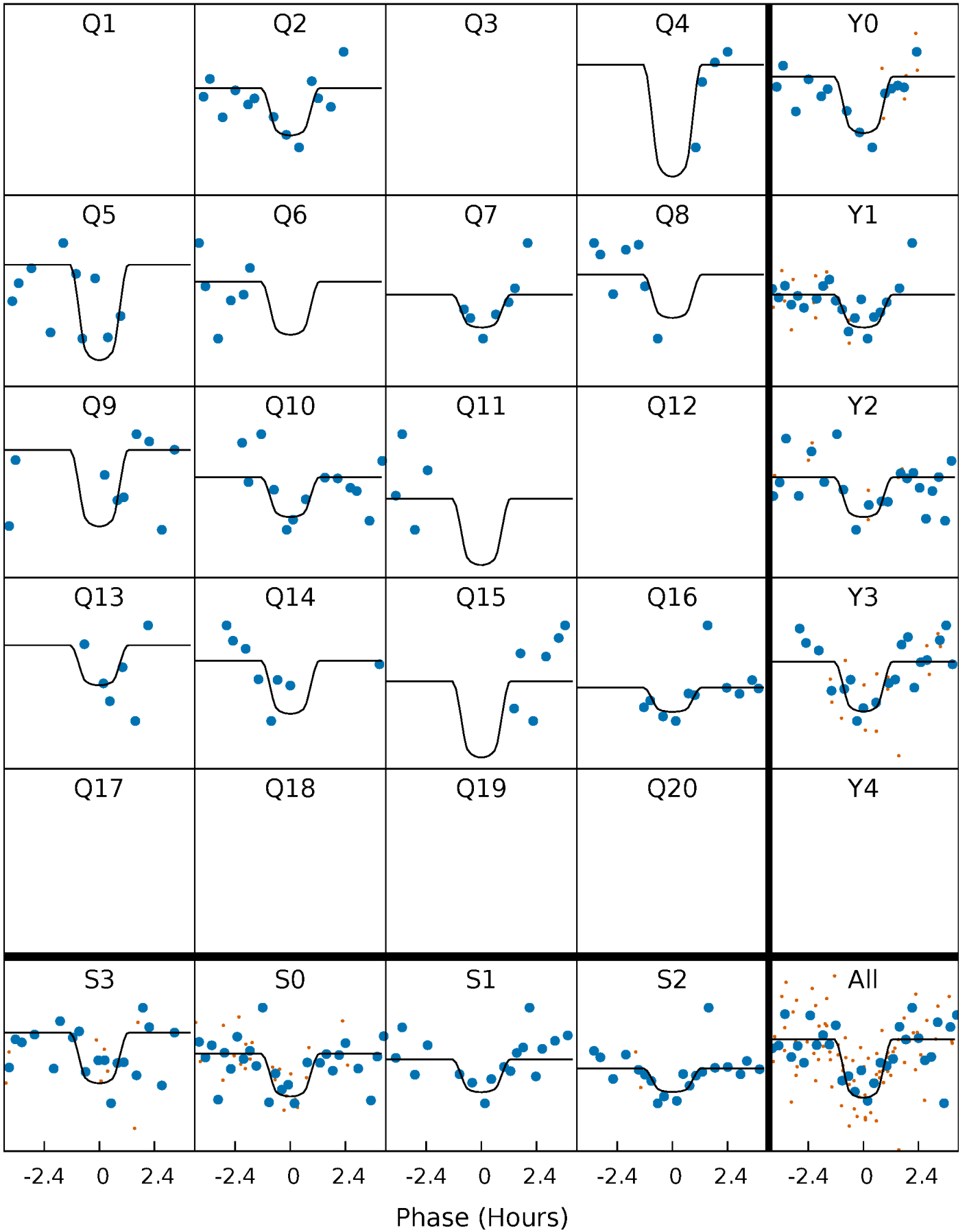
PDC Quarter-Phased Transit Curves

TCE 003338608-07 P= 9.139326 Days $T_0=134.791711$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003338608-07 P= 9.139326 Days $T_0=134.791711$ (BKJD)

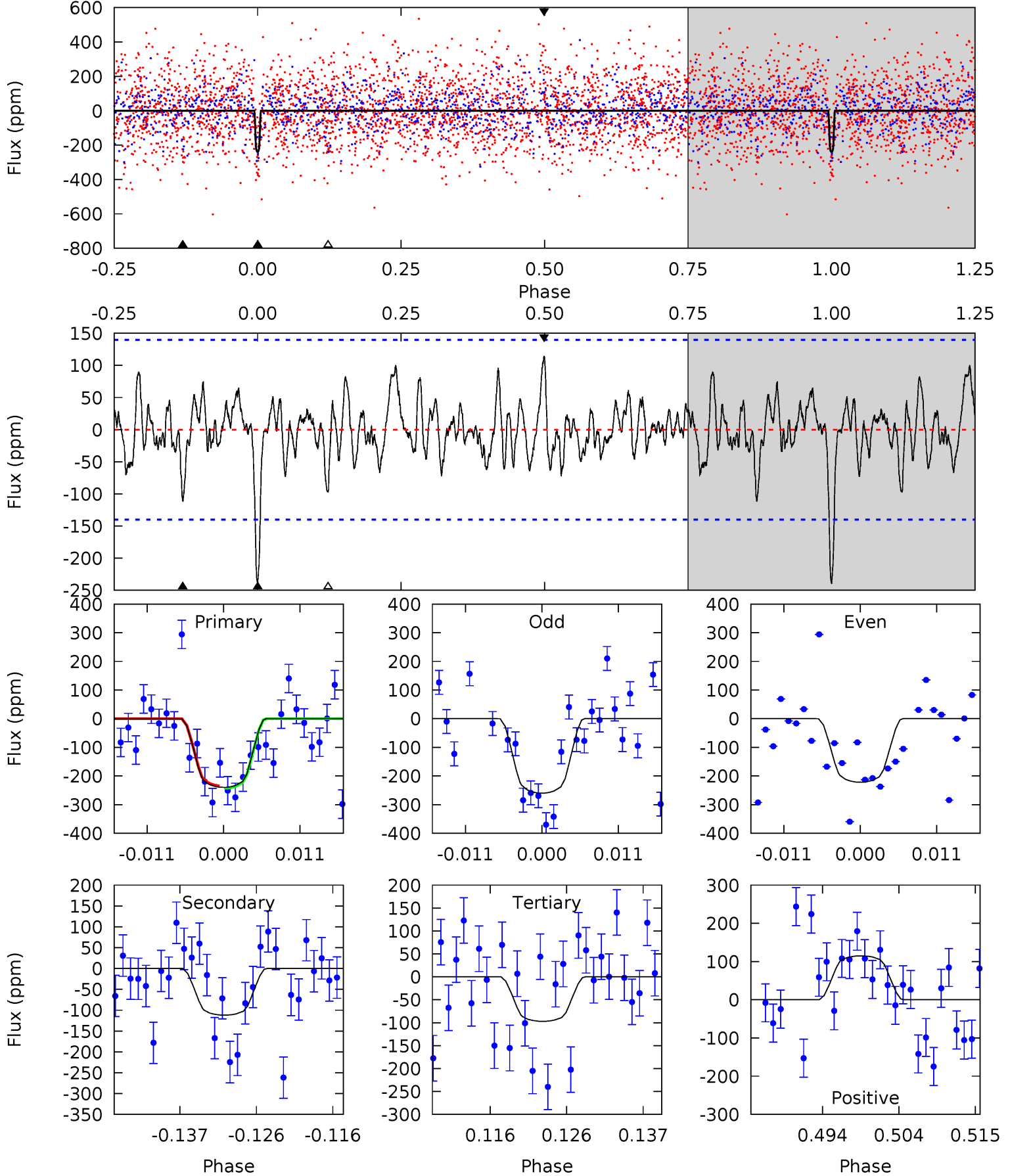


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003338608-07, P = 9.139326 Days, E = 125.652385 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.60	4.01	3.48	4.12	5.02	2.56	1.27	5.12	4.48	0.53	-0.11	0.69	1.00	0.32	0.15



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003338608

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6211^{+169}_{-206}	$4.228^{+0.220}_{-0.180}$	$-0.420^{+0.300}_{-0.300}$	$1.246^{+0.352}_{-0.320}$	$0.957^{+0.148}_{-0.099}$	$0.698^{+0.808}_{-0.321}$
	+3%/-3%	+5%/-4%	+71%/-71%	+28%/-26%	+15%/-10%	+116%/-46%
Source	PHO1	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 003338608-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-112±28	$2.43^{+1.27}_{-1.07}$	1466^{+109}_{-115}	4812^{+1595}_{-703}	70^{+175}_{-39}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

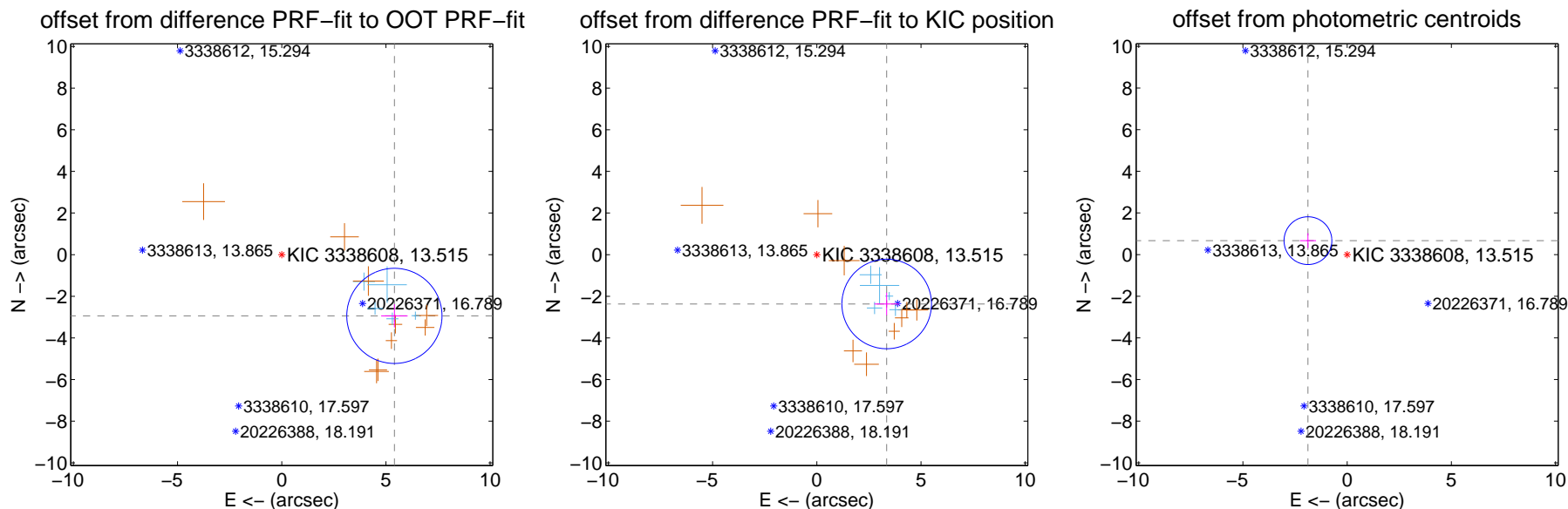
DV Centroid Data

Supplemental centroid analysis for 003338608-07. Kepler magnitude: 13.52. Transit SNR 12.55

There are 5 quarters with good PRF difference image offsets

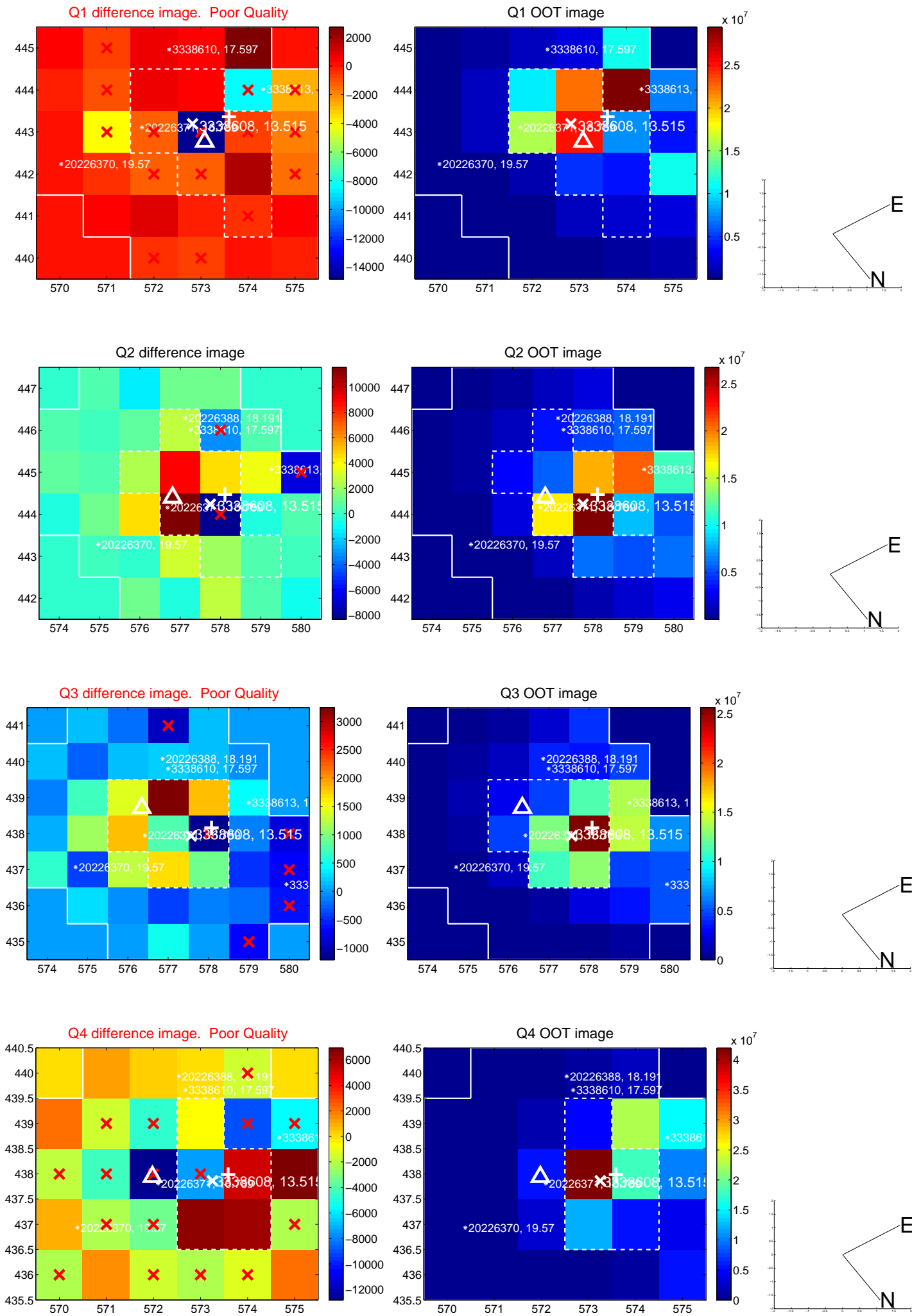
The OOT PRF centroid is offset from the target star catalog position by about 3.02 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.155 ± 0.762	8.08	-5.408 ± 0.634	-2.941 ± 0.556
PRF-fit source offset from KIC position	4.107 ± 0.717	5.73	-3.355 ± 0.591	-2.369 ± 0.541
photometric centroid source offset	2.00 ± 0.38	5.22	1.88 ± 0.39	0.67 ± 0.36

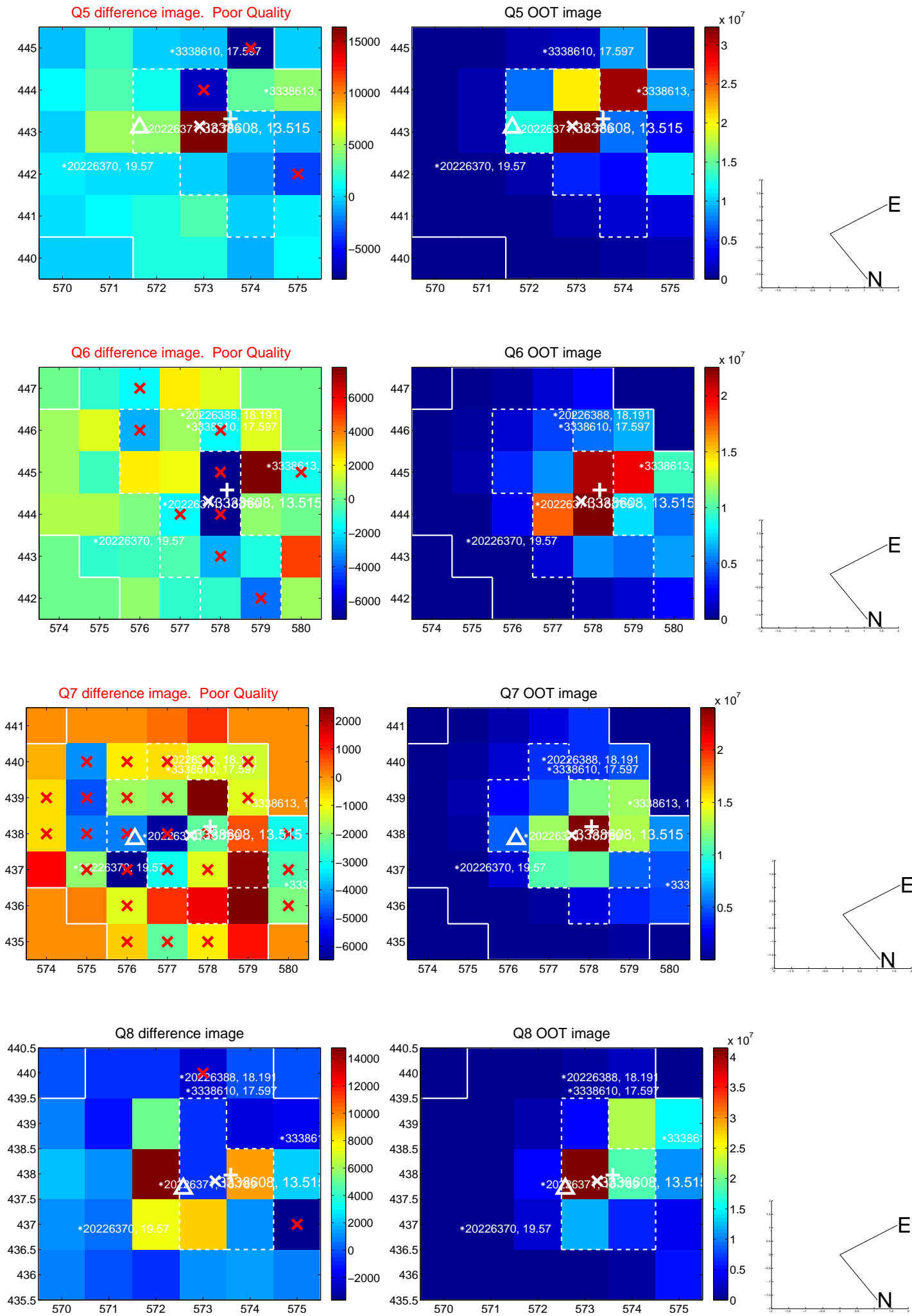


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

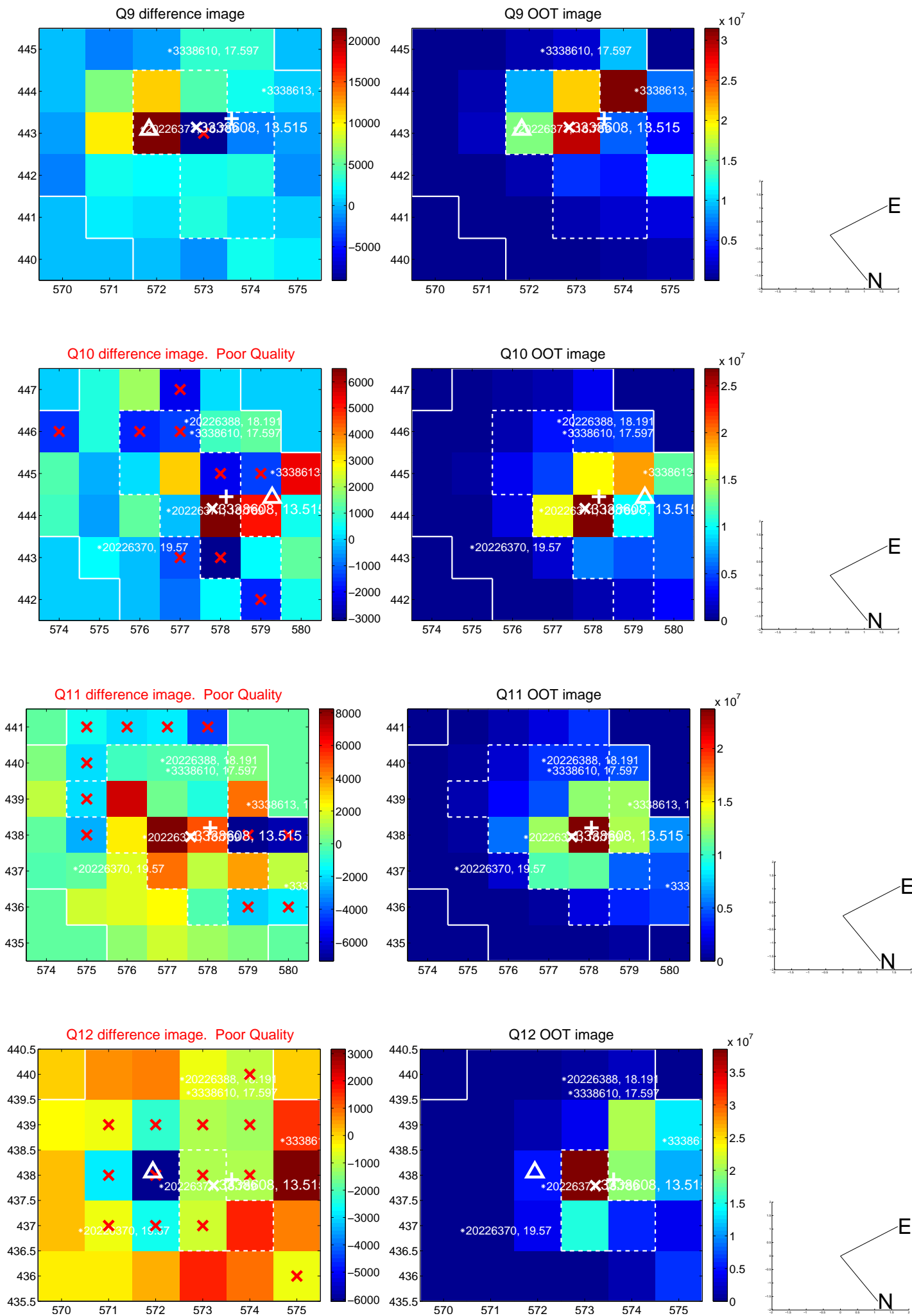
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



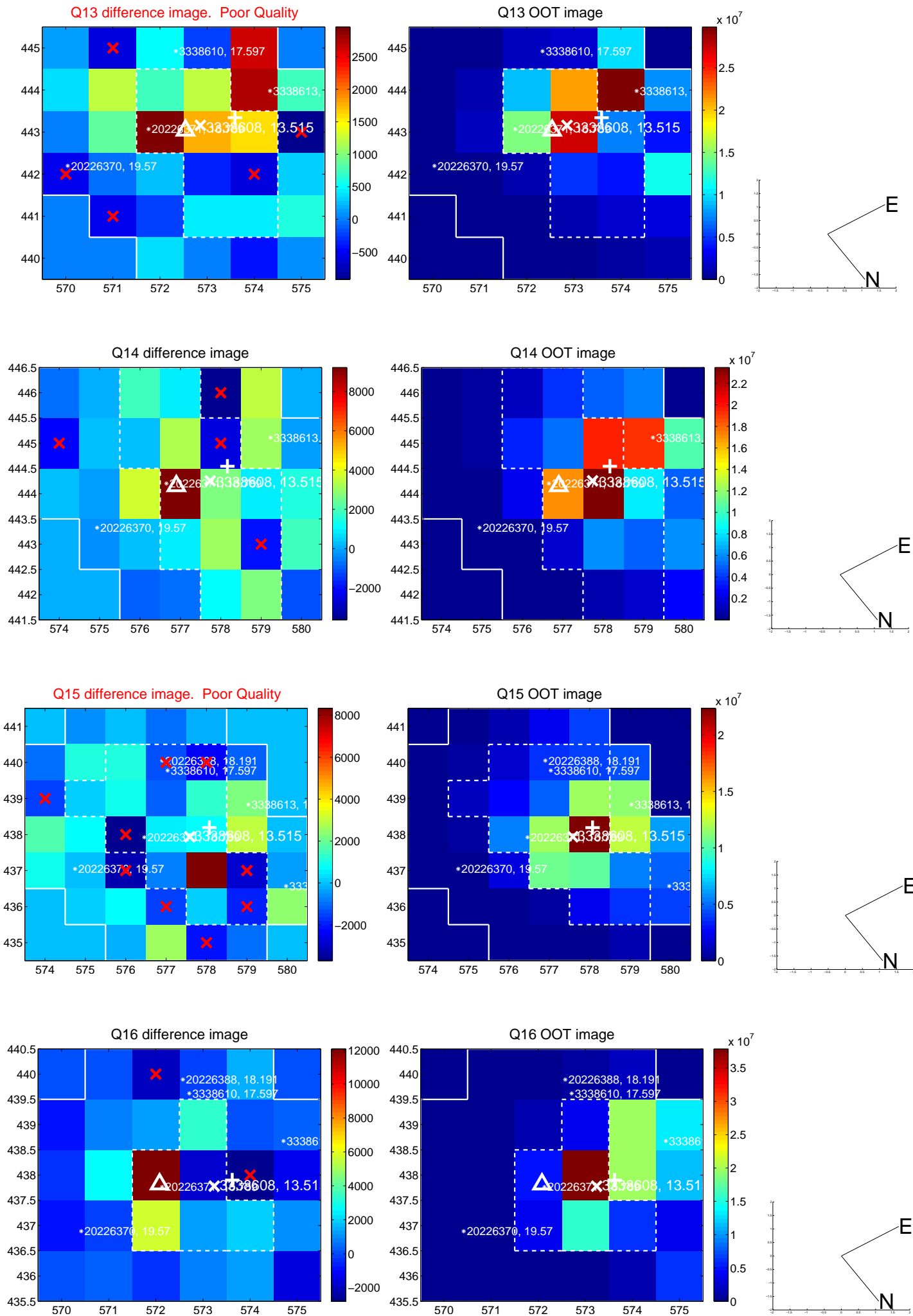
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



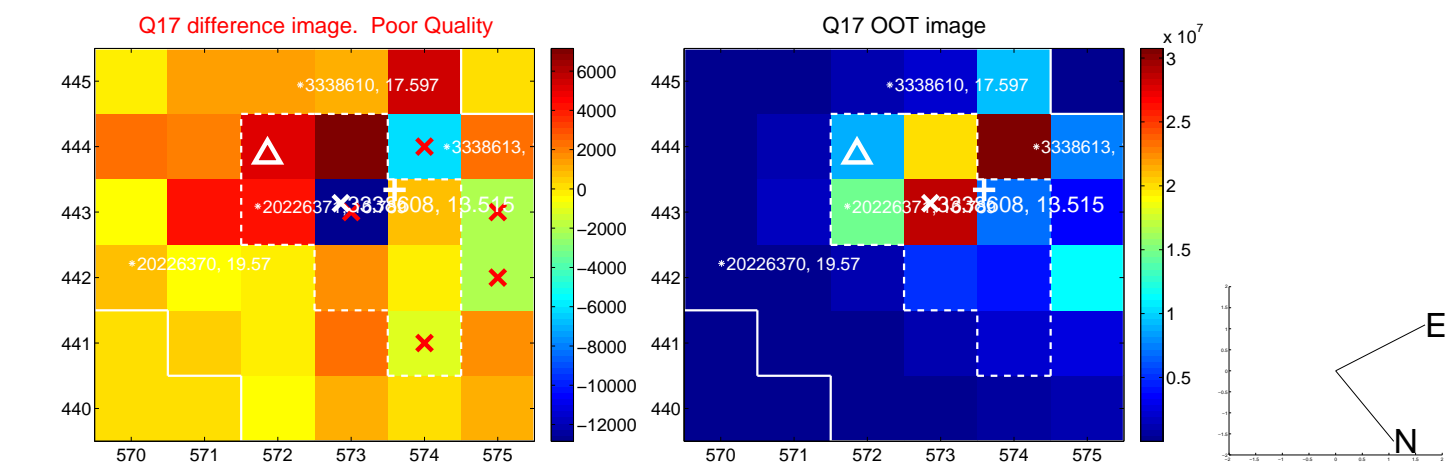
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



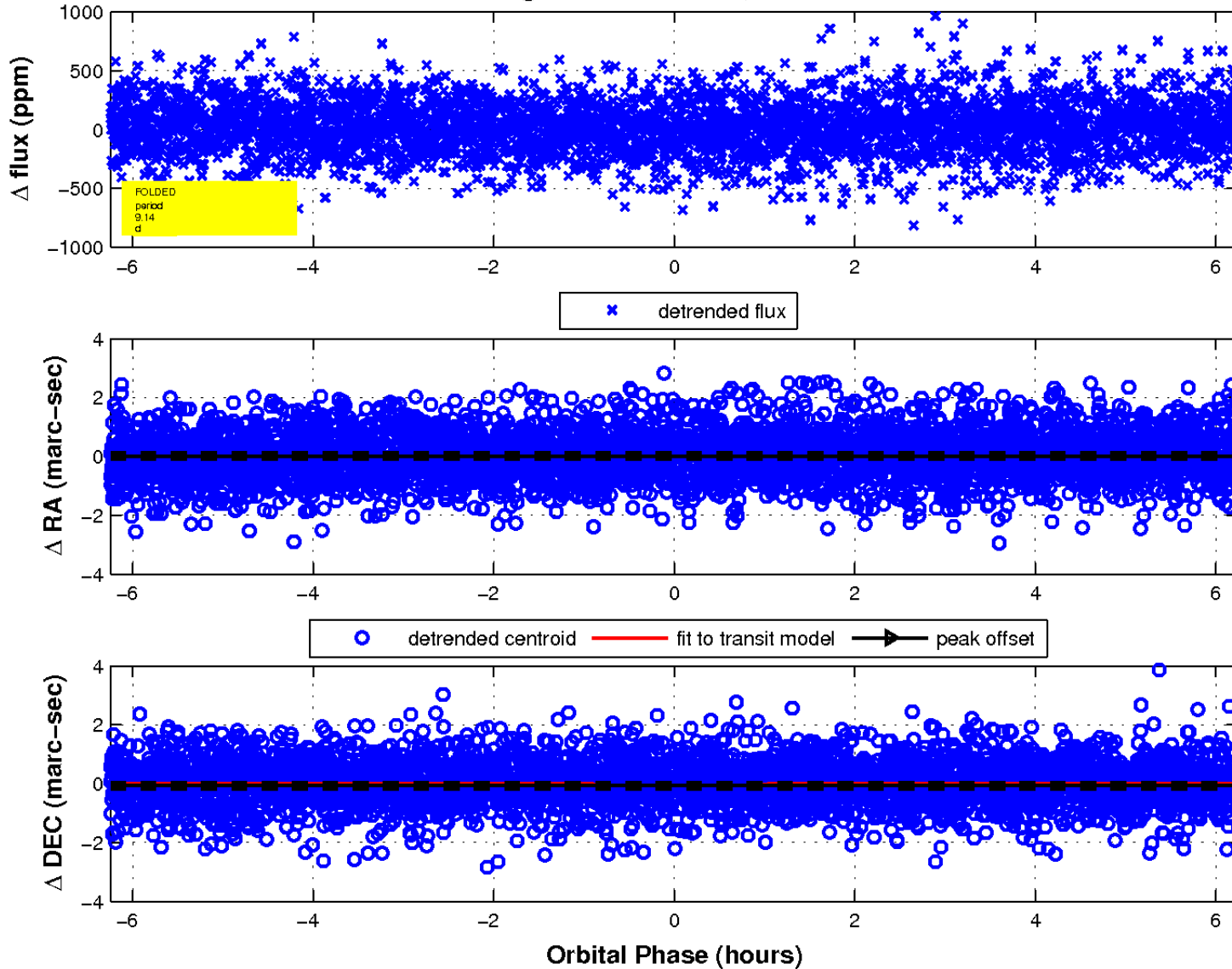
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 7 of 7



UKIRT Image

Declination

