

KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
011294394-03	OBS	No	54.376855	175.912986	286.7	2.809	12.7	13.2	4.16	6626	10.00	242.26
011294394-04	OBS	No	41.700369	152.100063	258.2	3.415	11.4	11.6	4.16	6626	7.83	345.13
011294394-05	OBS	No	39.899524	166.832283	212.3	3.665	11.2	11.9	4.16	6626	6.87	366.06
011294394-06	OBS	No	21.340024	132.950168	93.1	7.492	11.1	8.9	4.16	6626	4.54	843.16
011294394-07	OBS	No	122.548908	235.373023	206.9	7.059	10.8	8.3	4.16	6626	6.83	81.99
011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

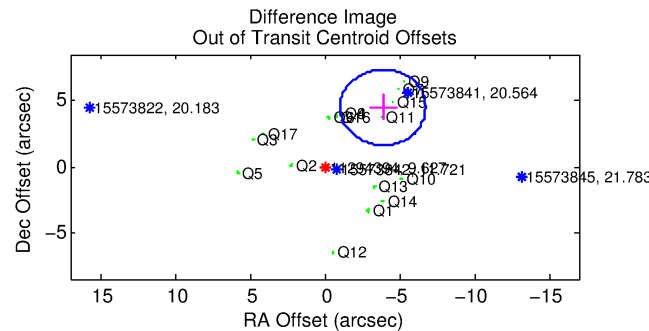
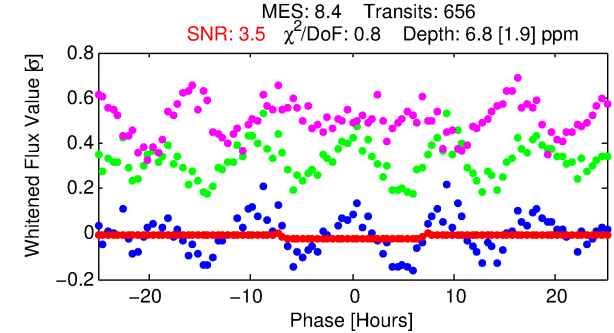
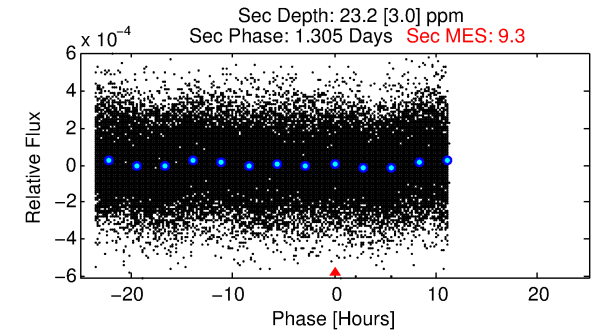
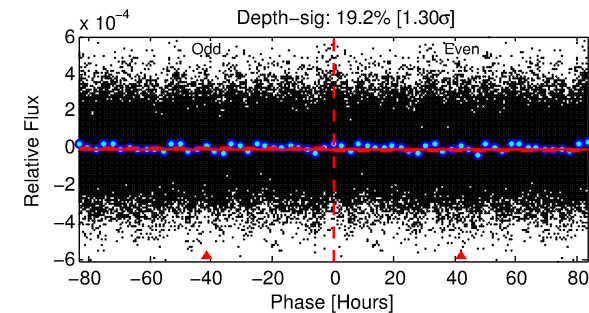
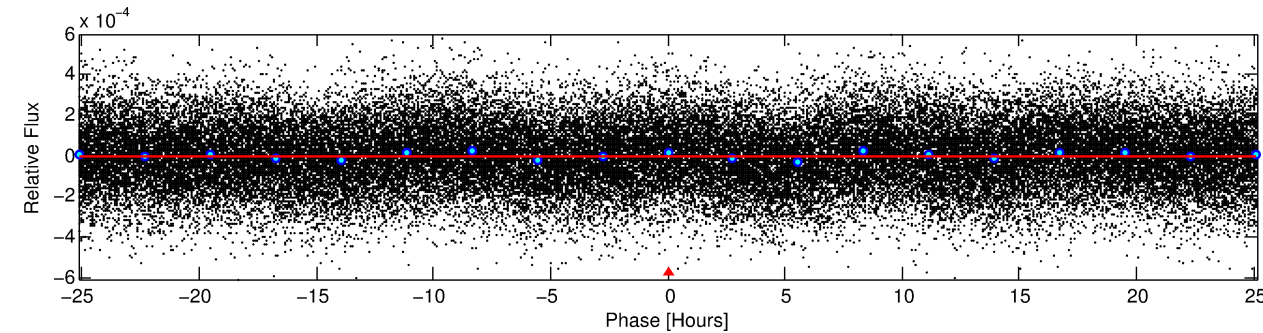
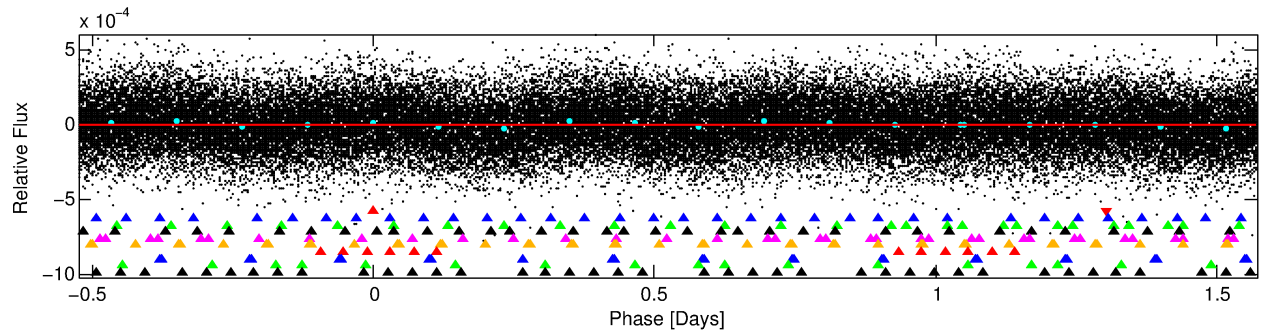
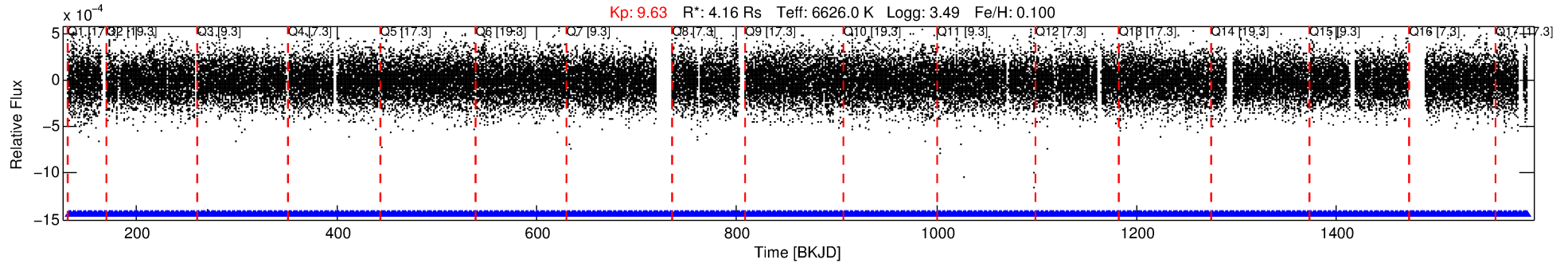
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-01

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 1 of 10 Period: 2.095 d



DV Fit Results:

Period = 2.09521 [0.00009] d
Epoch = 132.5941 [0.0189] BKJD
Rp/R* = 0.0025 [0.0023]
a/R* = 1.22 [2.09]
b = 0.56 [6.36]
Seff = 18615.23 [11113.58]
Teq = 2978 [445] K
Rp = 1.13 [1.13] Re
a = 0.0401 [0.0146] AU
Ag = 16.02 [31.28] [0.48 σ]
Teffp = 9213 [4300] K [1.44 σ]

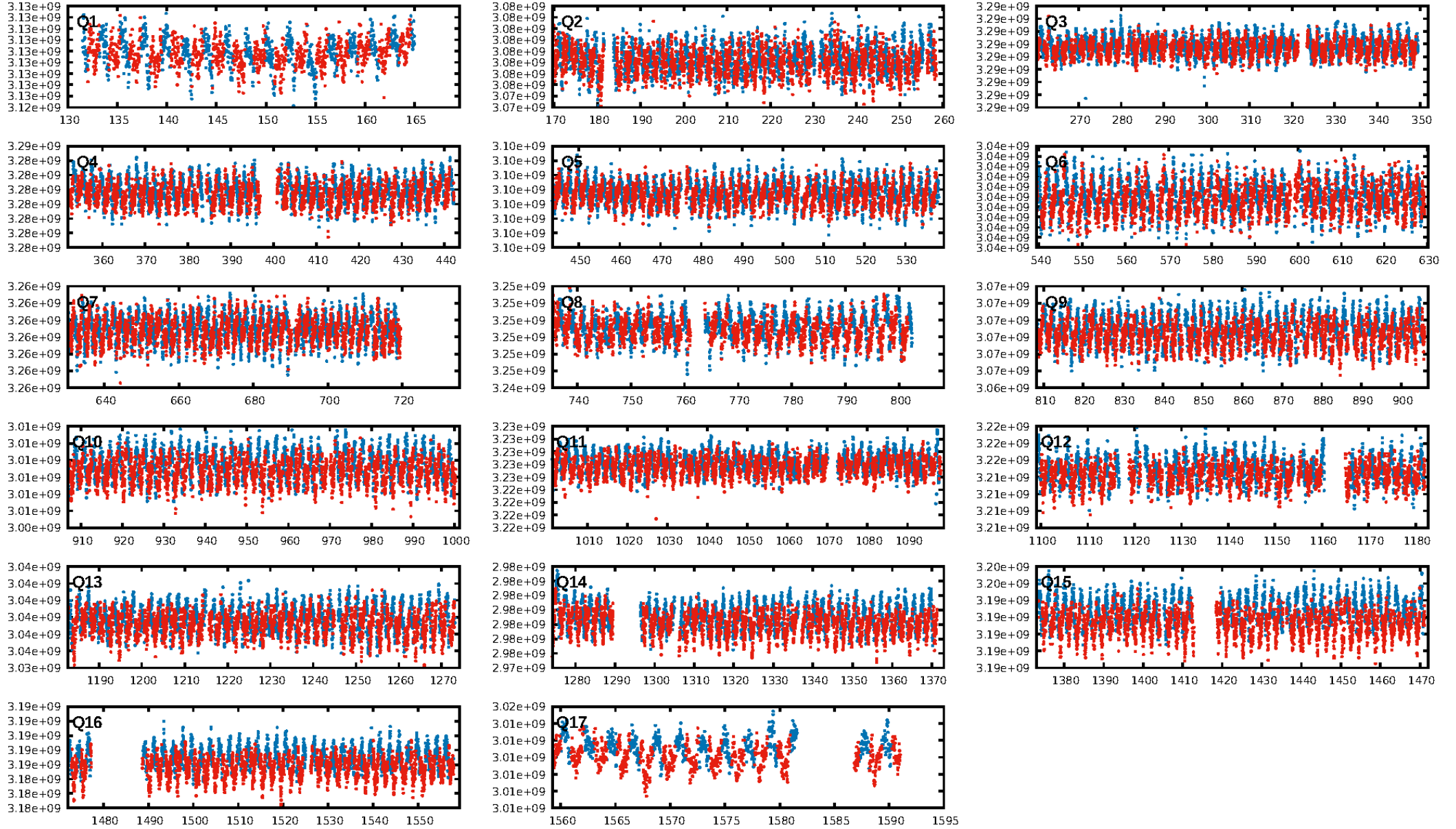
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [29.20 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [626/626]
GhostDiagnostic-chr: N/A
Centroid-sig: 1.2%
Centroid-so: 4.248 arcsec [2.34 σ]
OotOffset-rm: 5.939 arcsec [6.22 σ]
KicOffset-rm: 4.736 arcsec [5.25 σ]
OotOffset-st: 4/4/4/5 [17]
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DiffImageOverlap-fno: 1.00 [17/17]

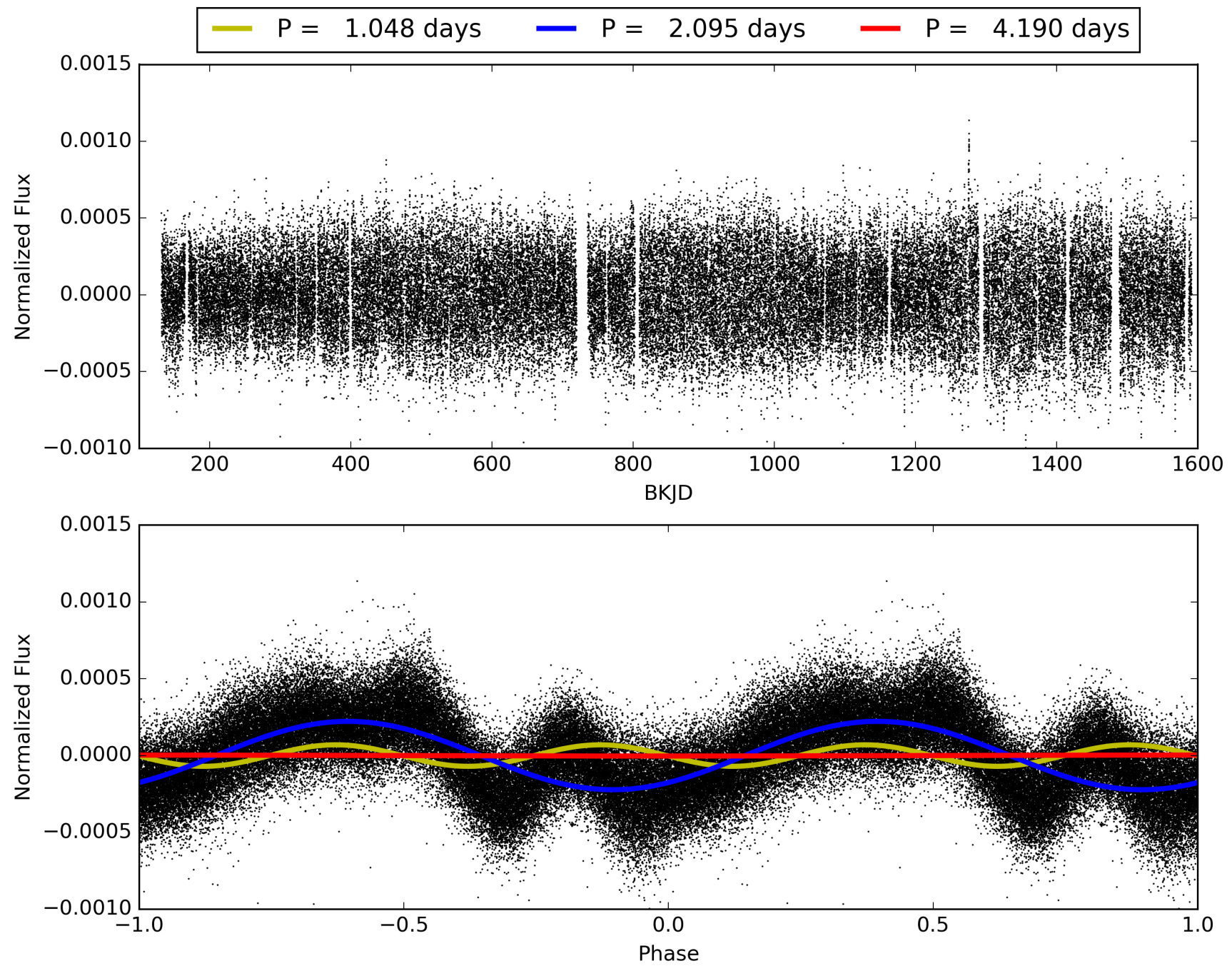
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011294394-01, PDC Light Curves

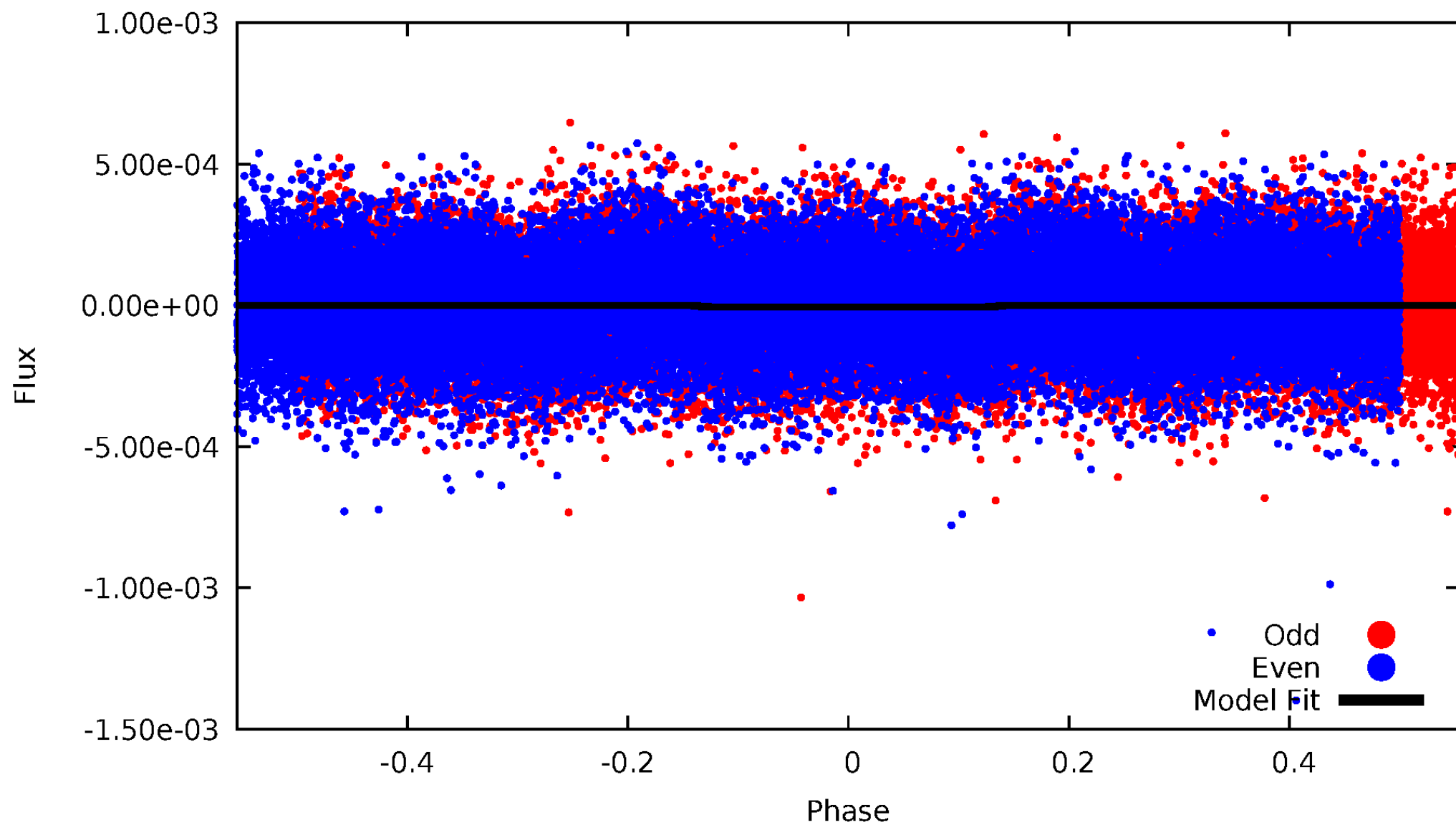


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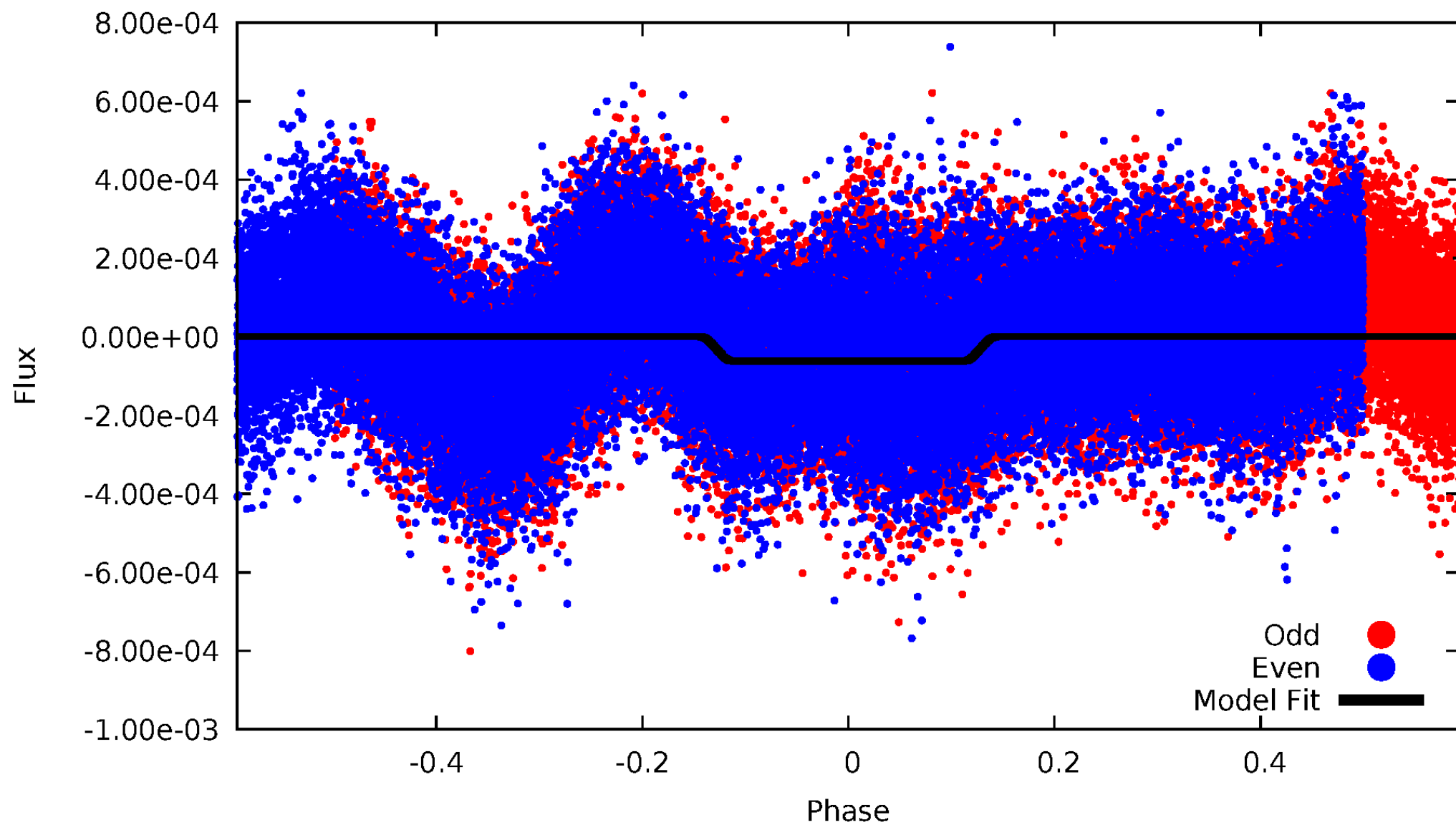
DV Odd/Even

TCE 011294394-01

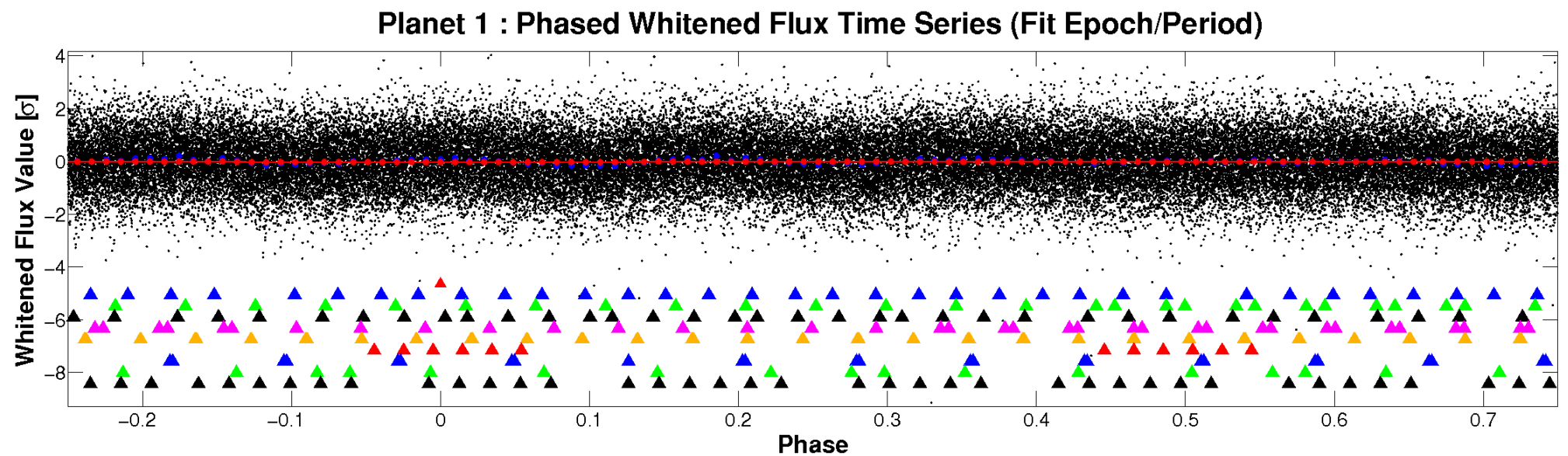
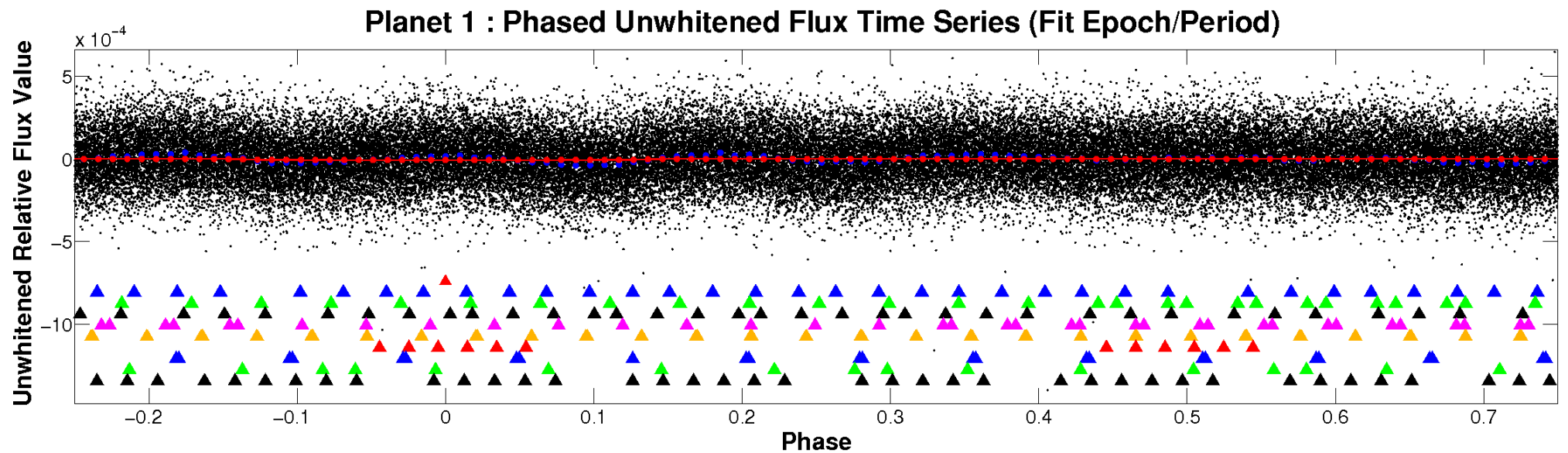


ALT Odd/Even

TCE 011294394-01

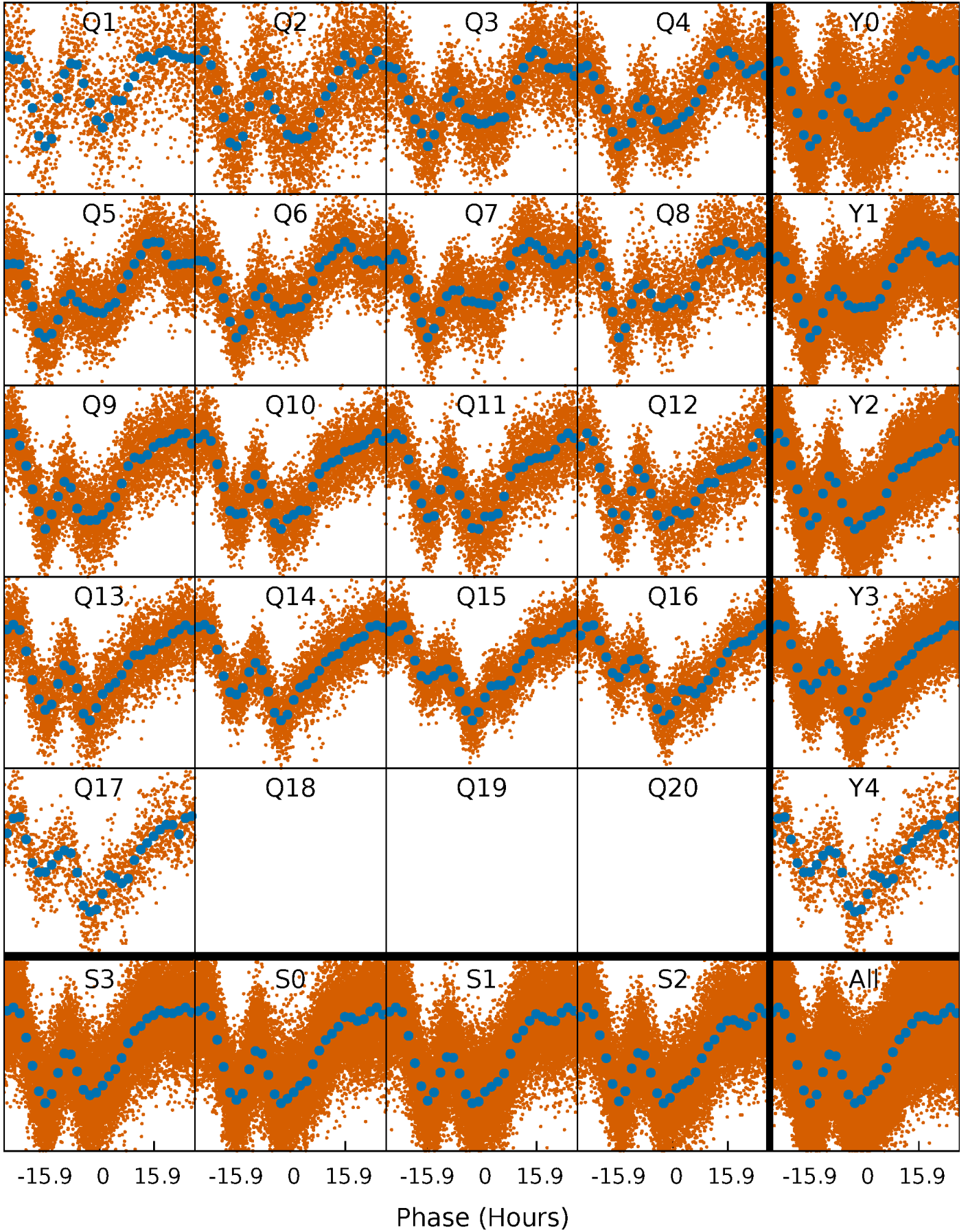


Non-Whitened Vs. Whitened Light Curve



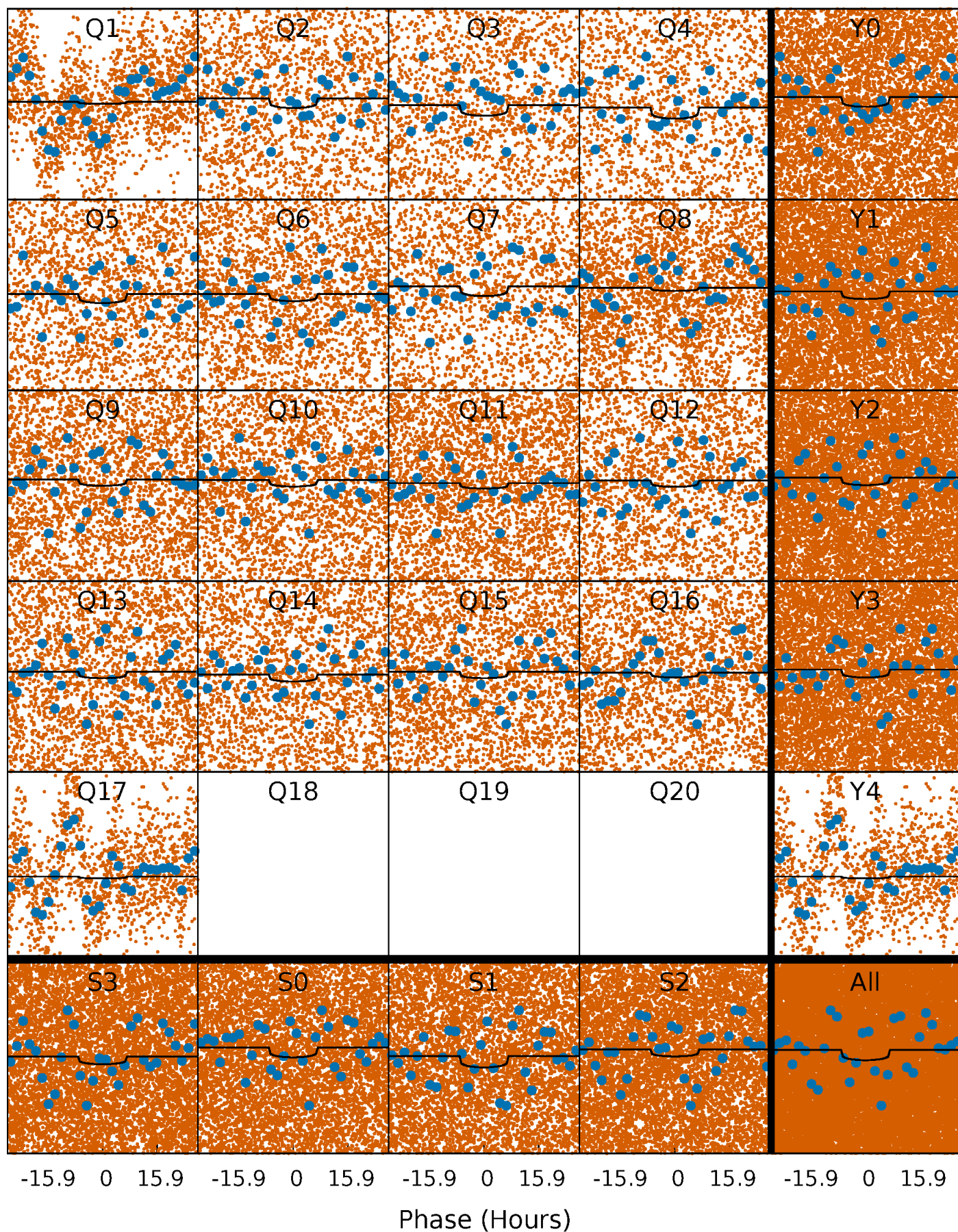
PDC Quarter-Phased Transit Curves

TCE 011294394-01 P= 2.095207 Days $T_0=132.594101$ (BKJD)



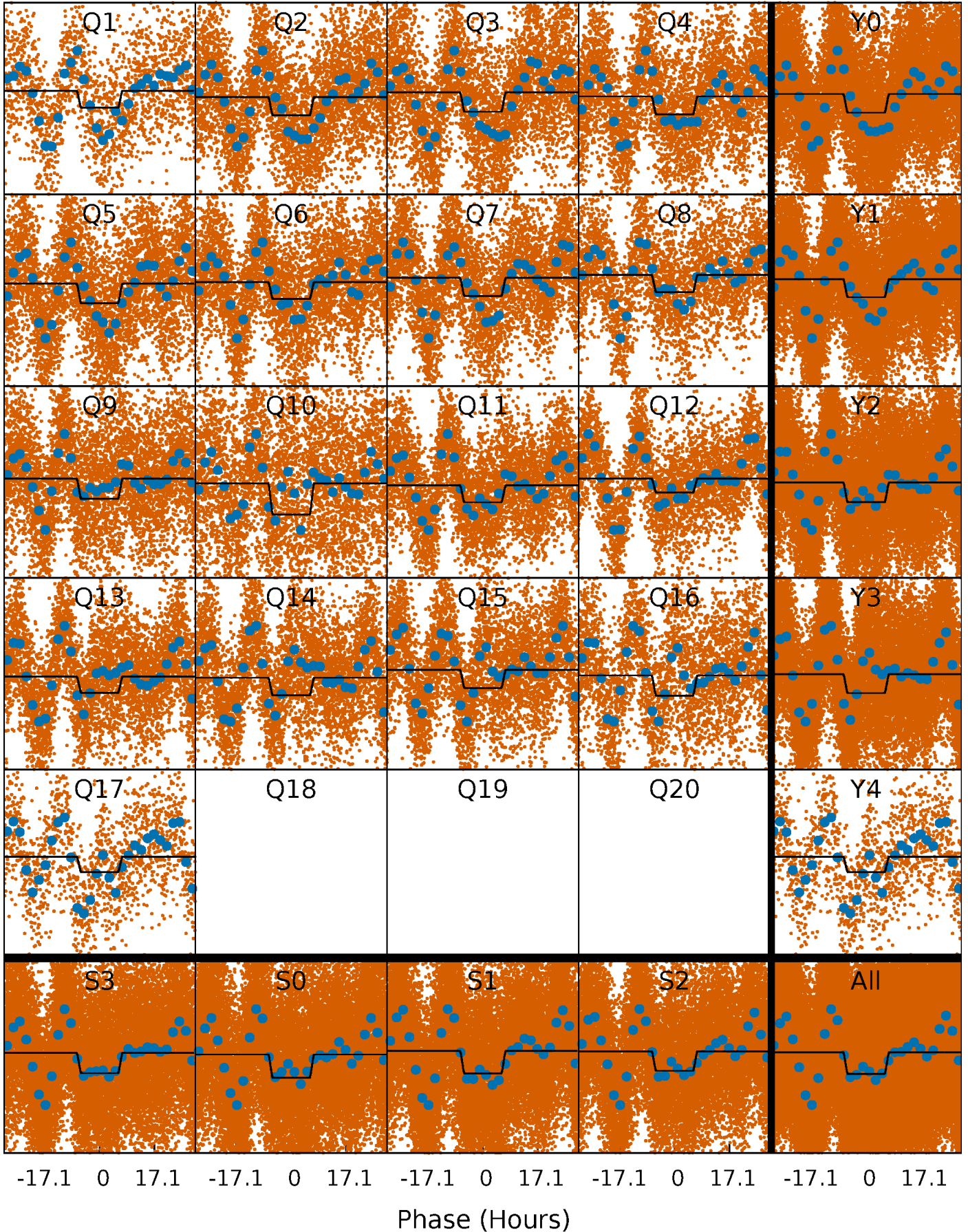
DV Quarter-Phased Transit Curves

TCE 011294394-01 P= 2.095207 Days $T_0=132.594101$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

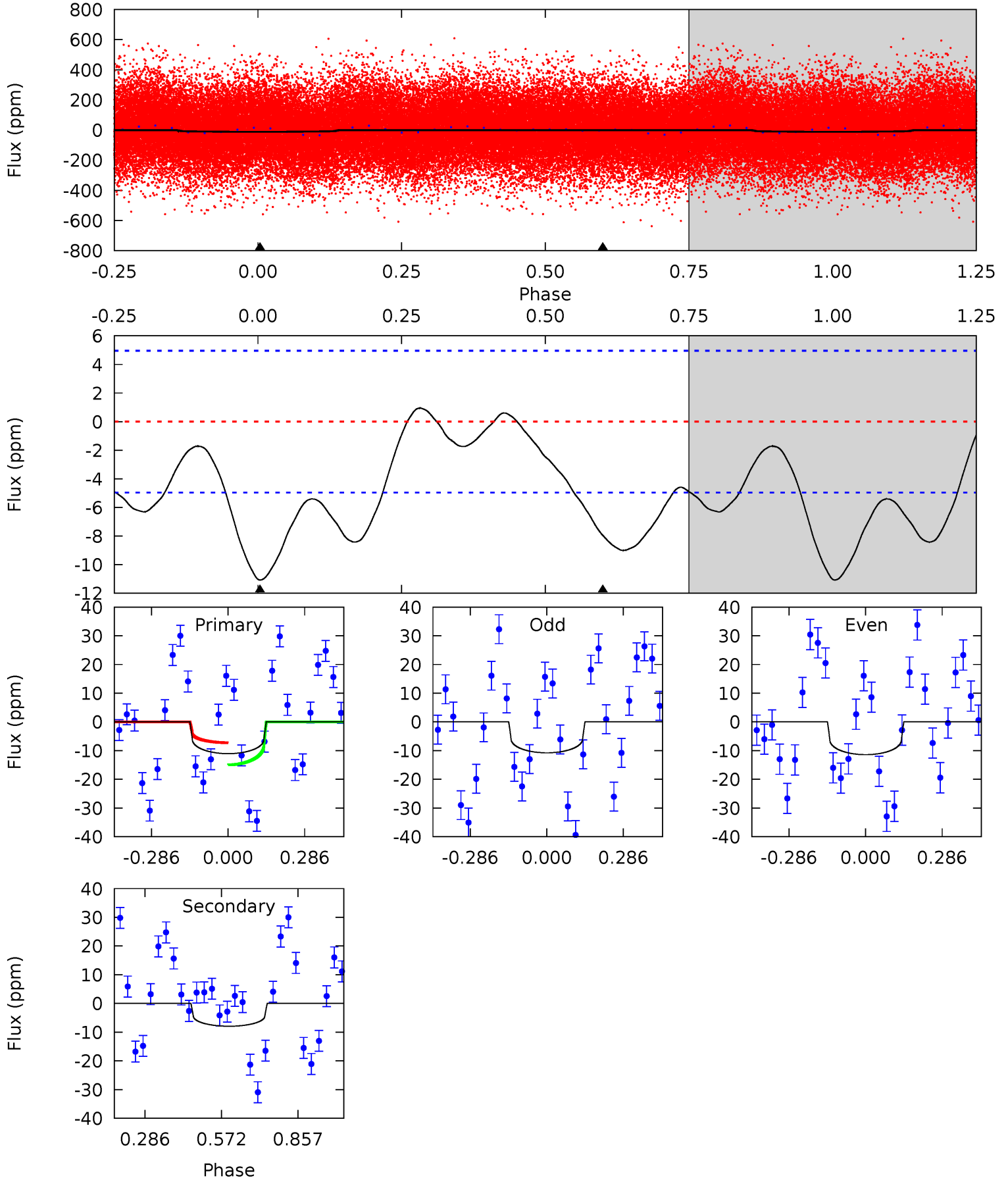
TCE 011294394-01 P= 2.095374 Days $T_0=132.590756$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-01, P = 2.095207 Days, E = 130.498894 Days

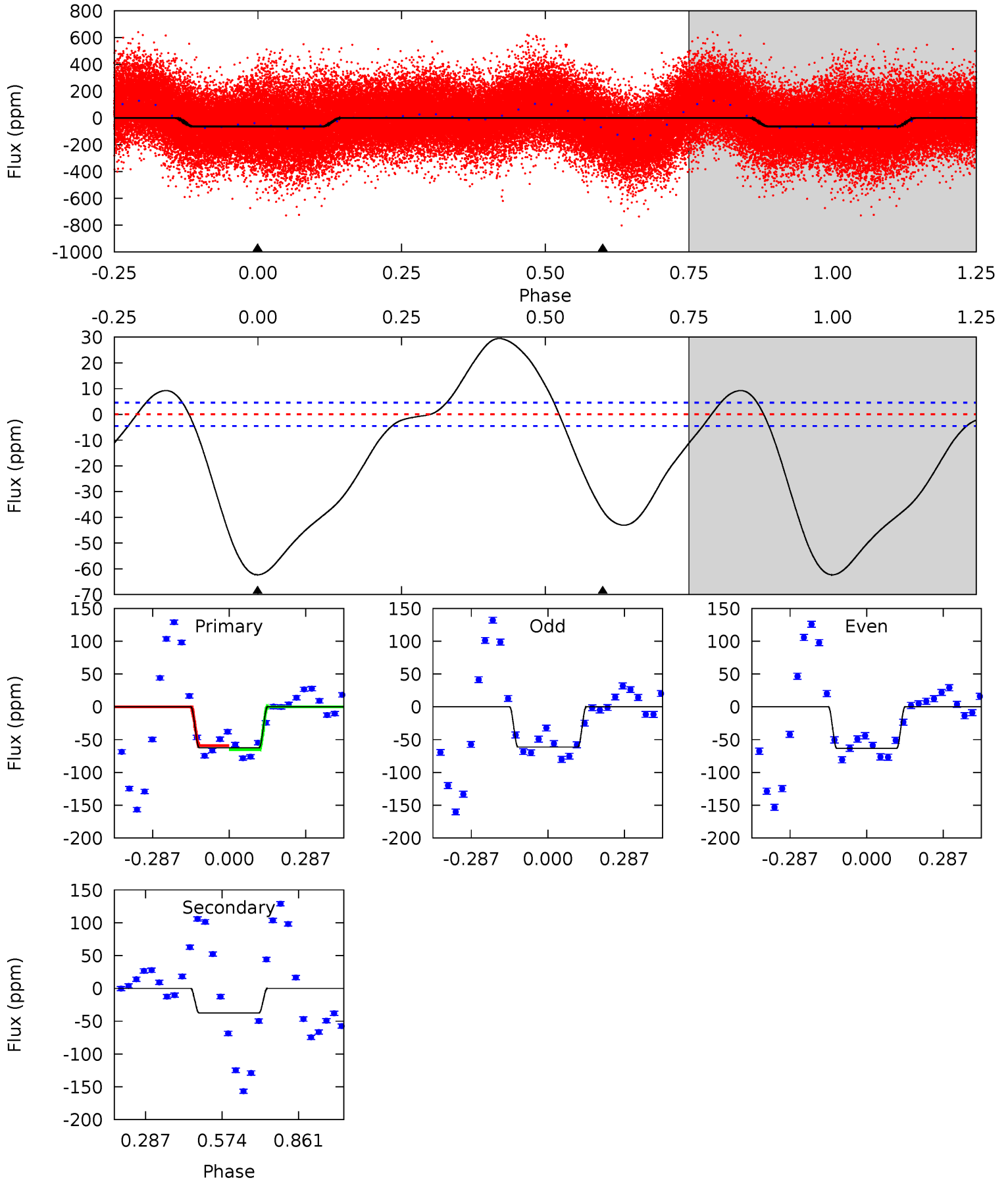
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.68	6.95	0	0	4.34	1.07	0.77	9.68	9.68	6.95	6.95	0.28	1.23	0.08	3.35



Alt Model-Shift Uniqueness Test

011294394-01, P = 2.095374 Days, E = 130.495382 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
59.8	35.8	0	0	4.34	1.06	3.52	59.8	59.8	35.8	35.8	0.91	1.09	0.32	2.94



Stellar Parameters For KIC 011294394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 1	$1.29^{+1.00}_{-0.82}$	4106^{+184}_{-387}	6243^{+5722}_{-1551}	$4.303^{+27.320}_{-2.948}$
Alt.	-37 ± 1	$3.31^{+1.21}_{-1.09}$	4107^{+197}_{-374}	5704^{+1205}_{-771}	$3.059^{+3.524}_{-1.457}$

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

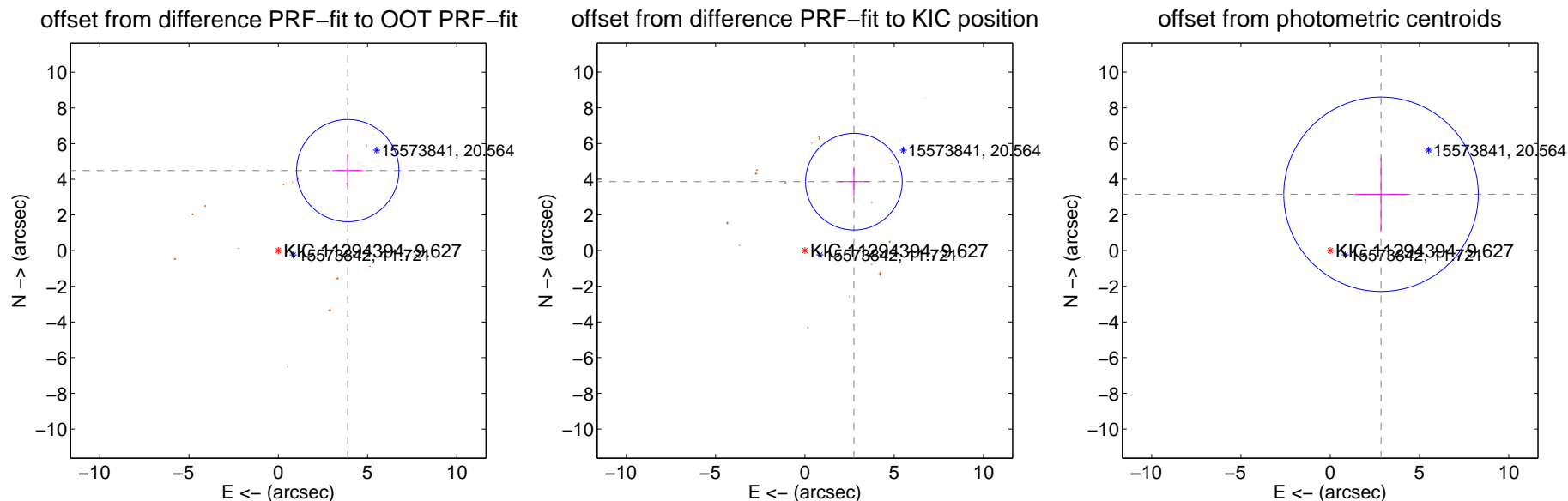
DV Centroid Data

Supplemental centroid analysis for 011294394-01. **Kepler magnitude: 9.63.** Transit SNR 3.54

There are 0 quarters with good PRF difference image offsets

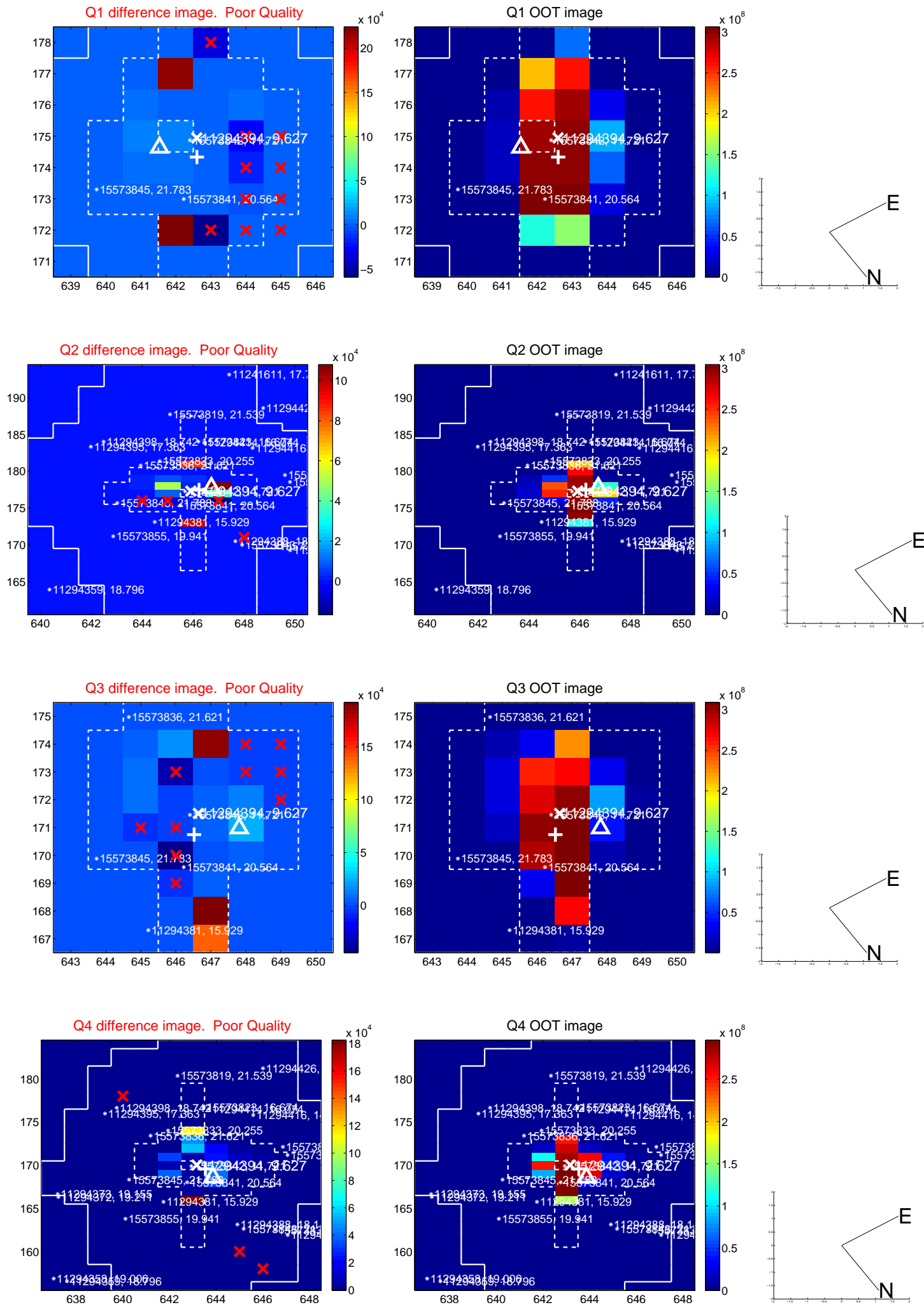
The OOT PRF centroid is offset from the target star catalog position by about 2.45 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.939 ± 0.955	6.22	-3.891 ± 0.862	4.487 ± 0.902
PRF-fit source offset from KIC position	4.736 ± 0.903	5.25	-2.743 ± 0.858	3.861 ± 0.799
photometric centroid source offset	4.25 ± 1.82	2.34	-2.84 ± 1.47	3.15 ± 2.05

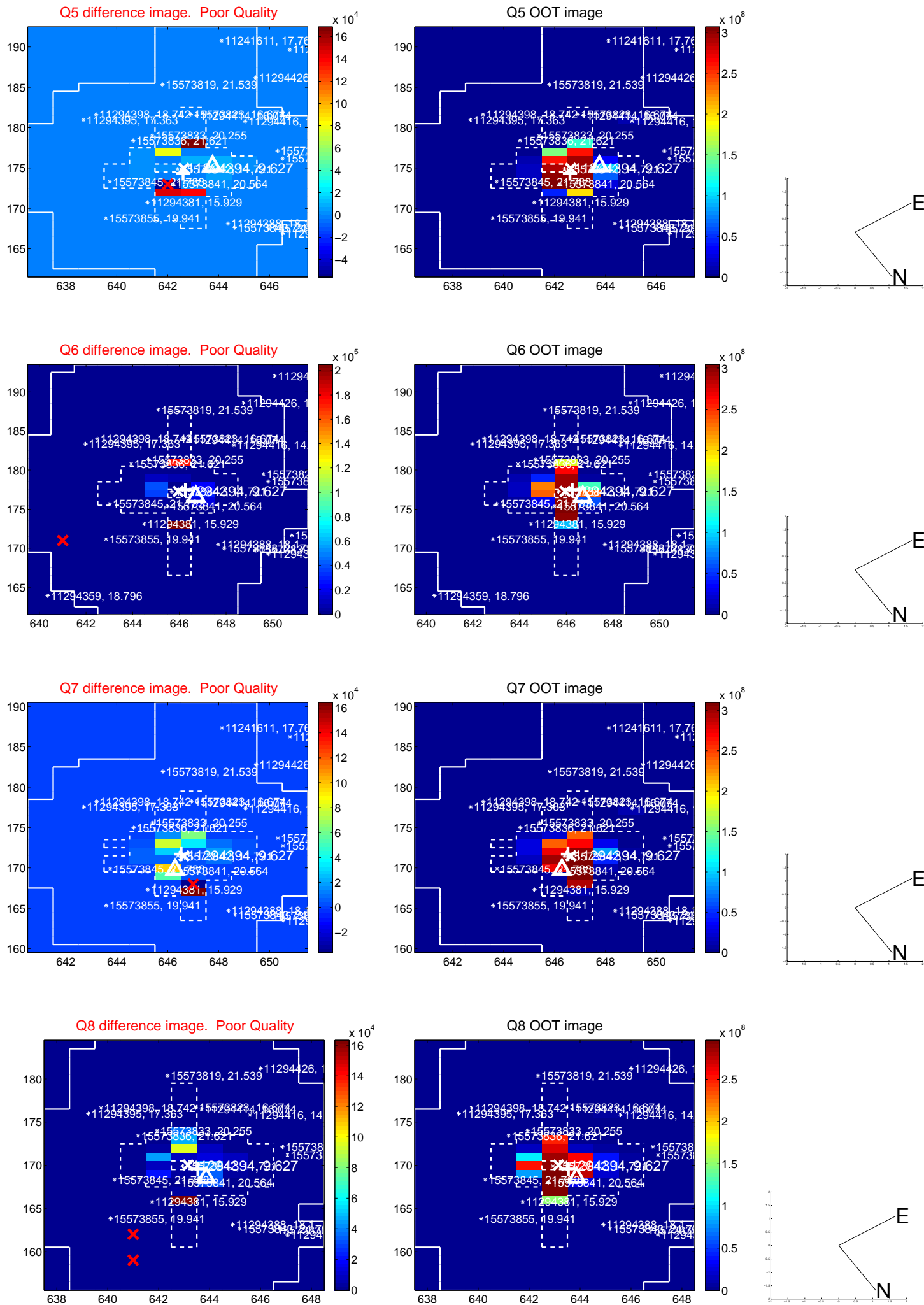


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

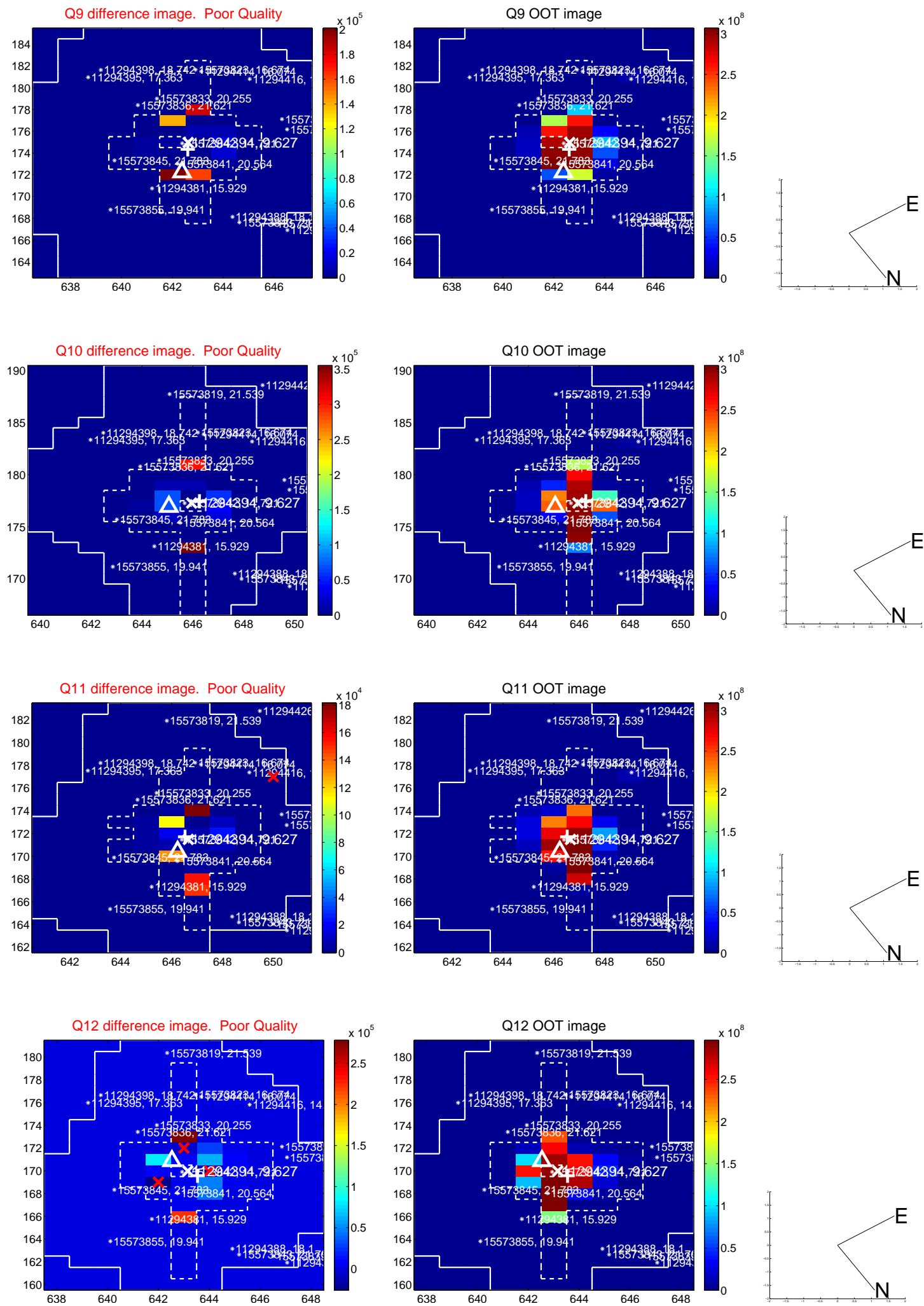
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



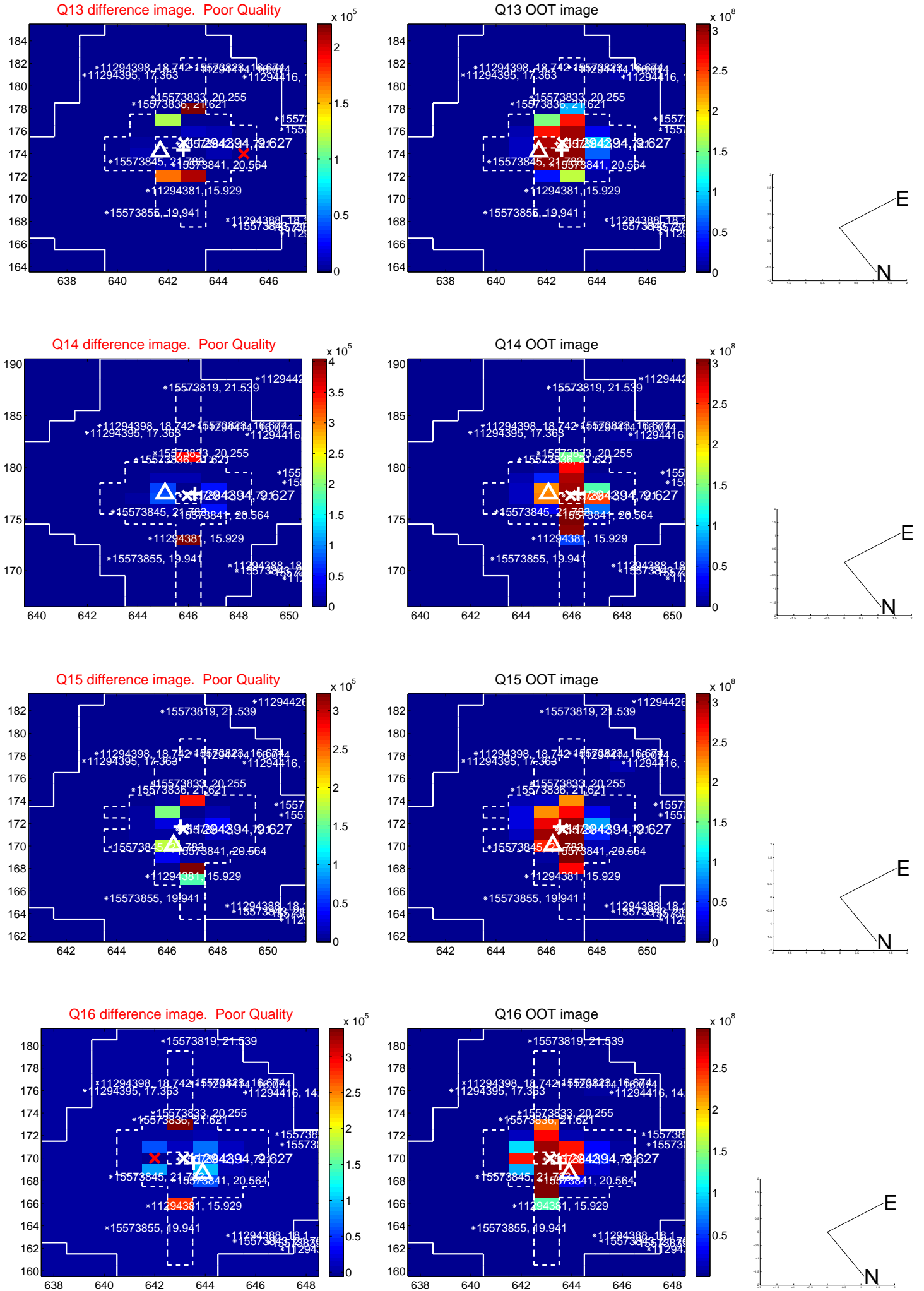
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



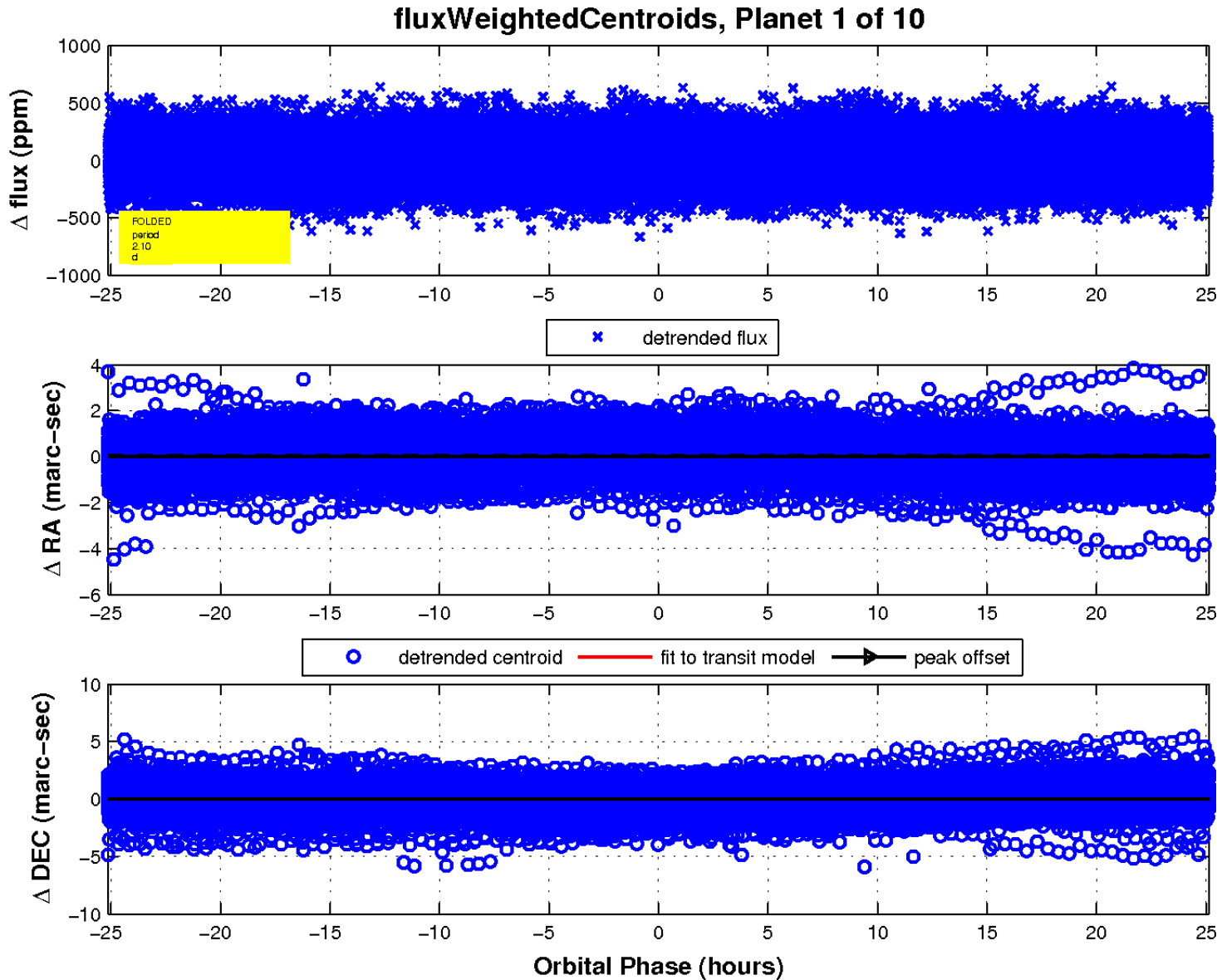
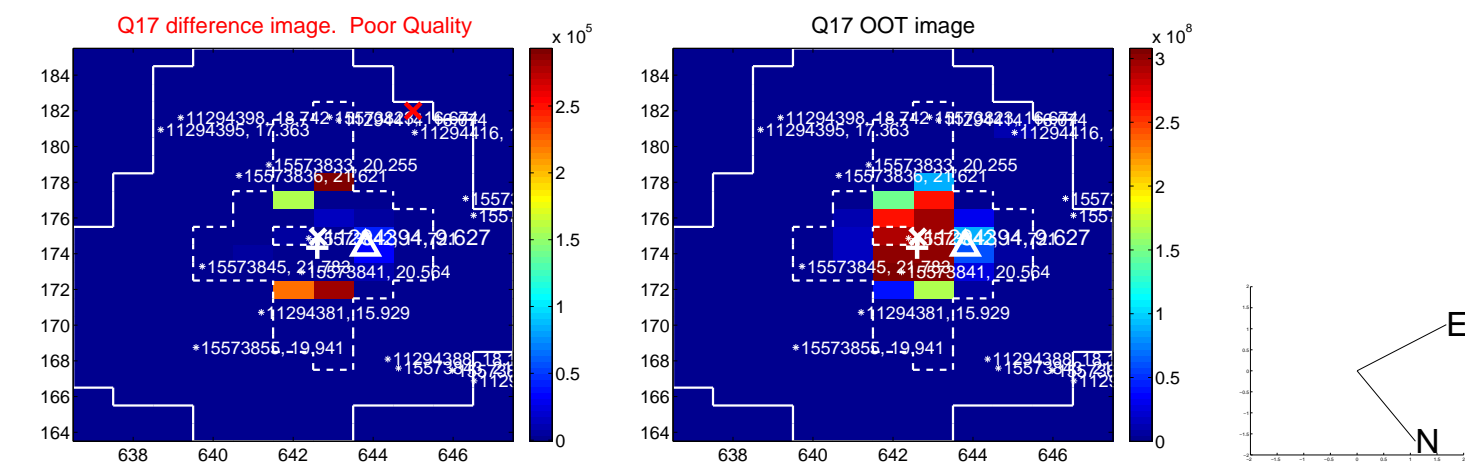
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



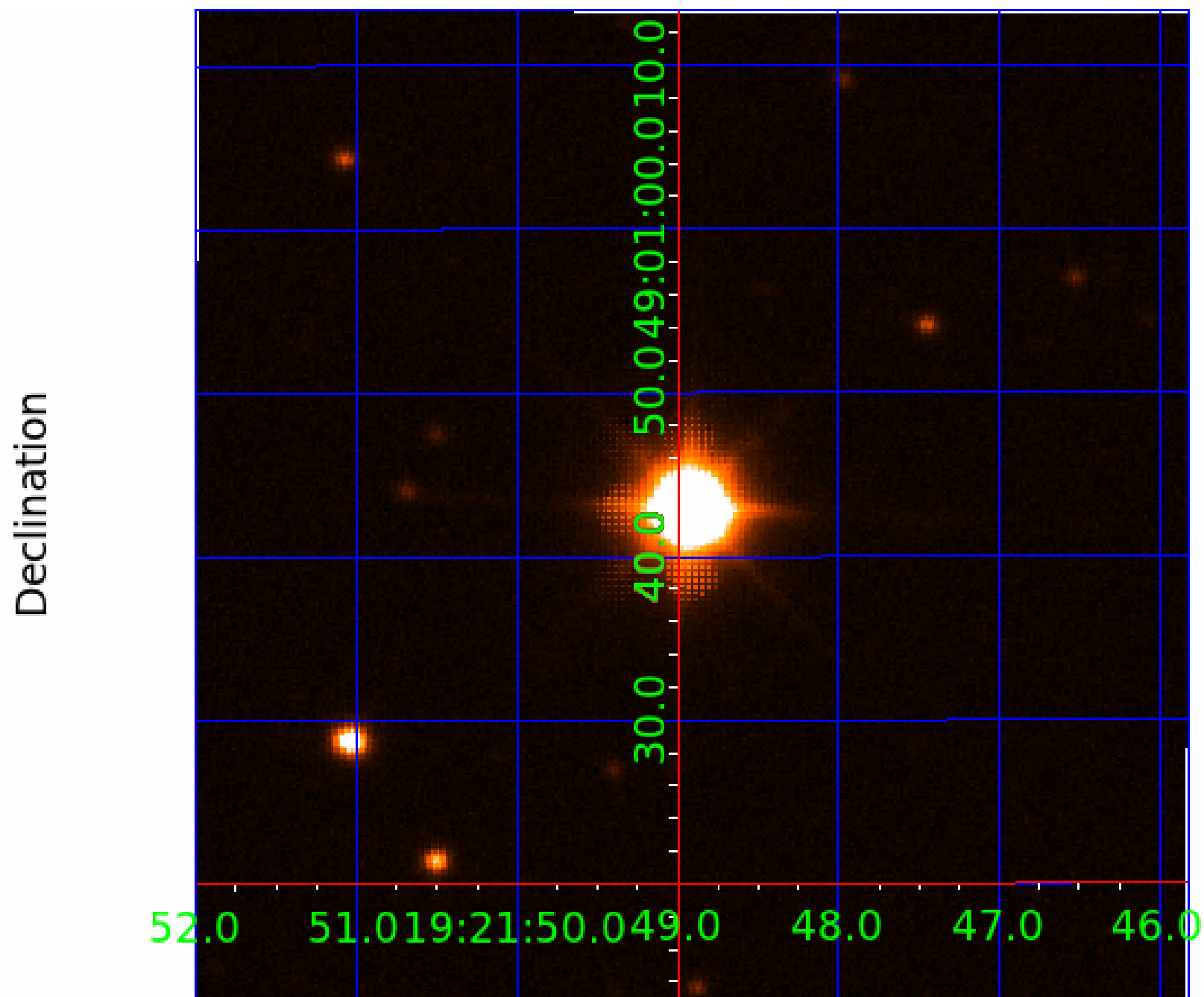
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image



KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
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011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

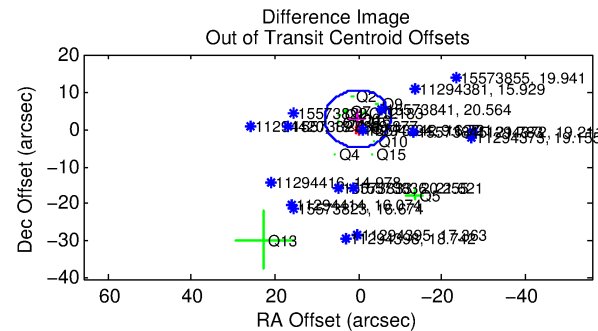
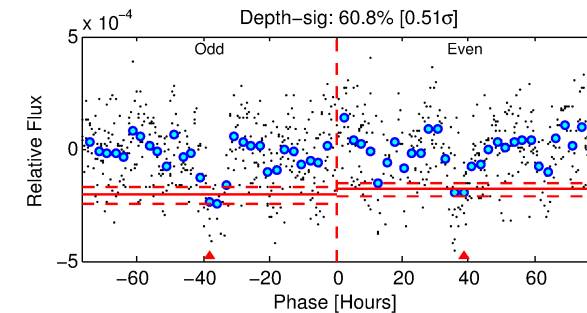
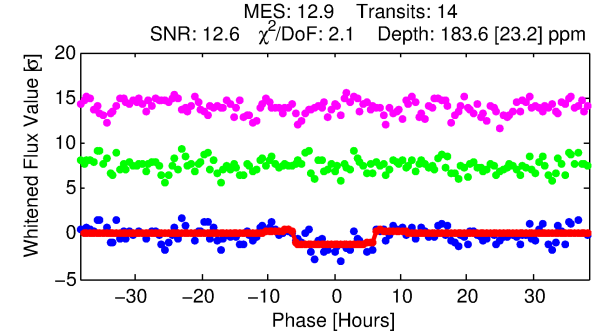
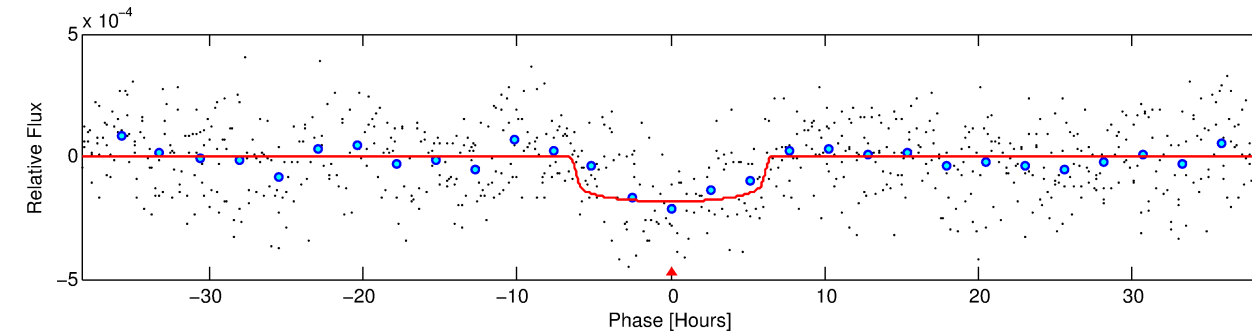
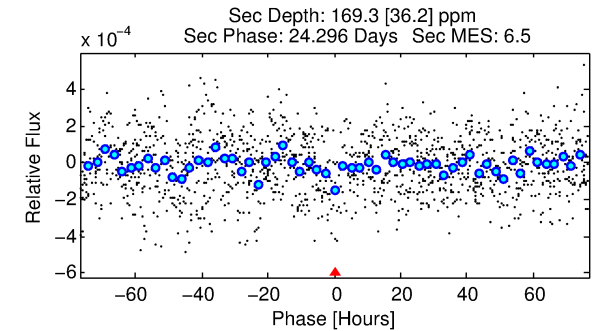
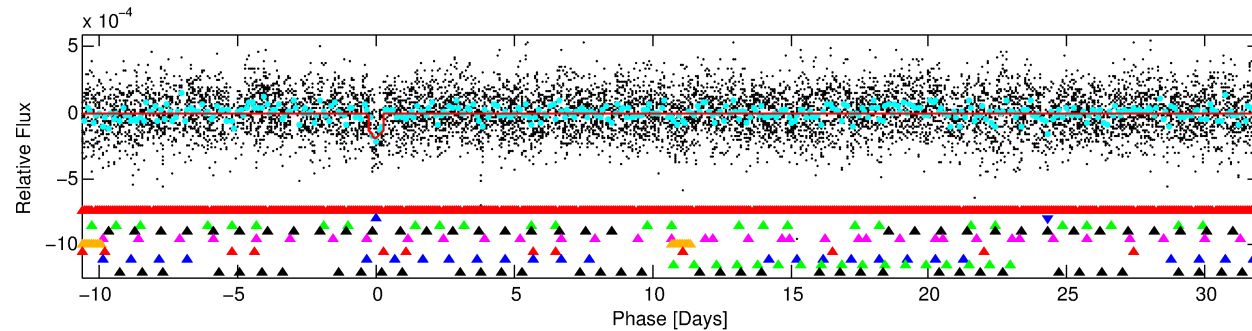
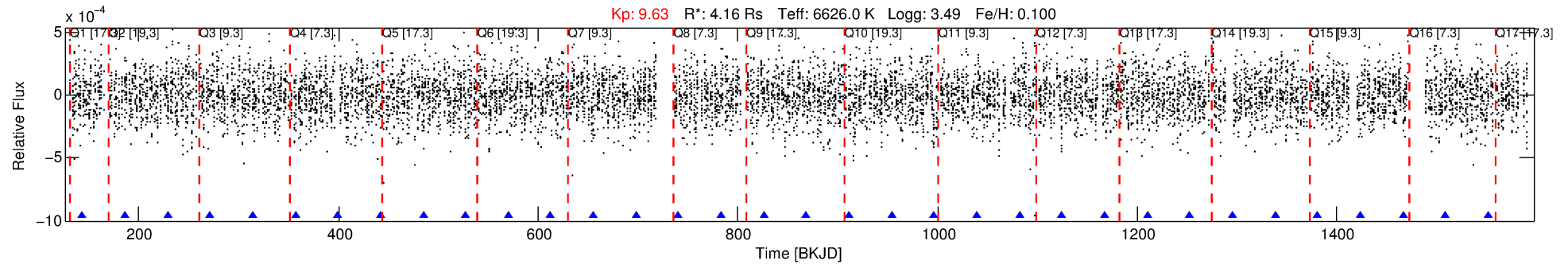
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-02

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 2 of 10 Period: 42.661 d



DV Fit Results:

Period = 42.66050 [0.00083] d
Epoch = 143.5692 [0.0147] BKJD
Rp/R* = 0.0135 [0.0034]
a/R* = 17.31 [23.23]
b = 0.75 [0.78]
Seff = 334.81 [199.89]
Teq = 1091 [163] K
Rp = 6.13 [2.78] Re
a = 0.2990 [0.1090] AU
Ag = 221.89 [177.87] [1.24 σ]
Teffp = 6509 [913] K [5.84 σ]

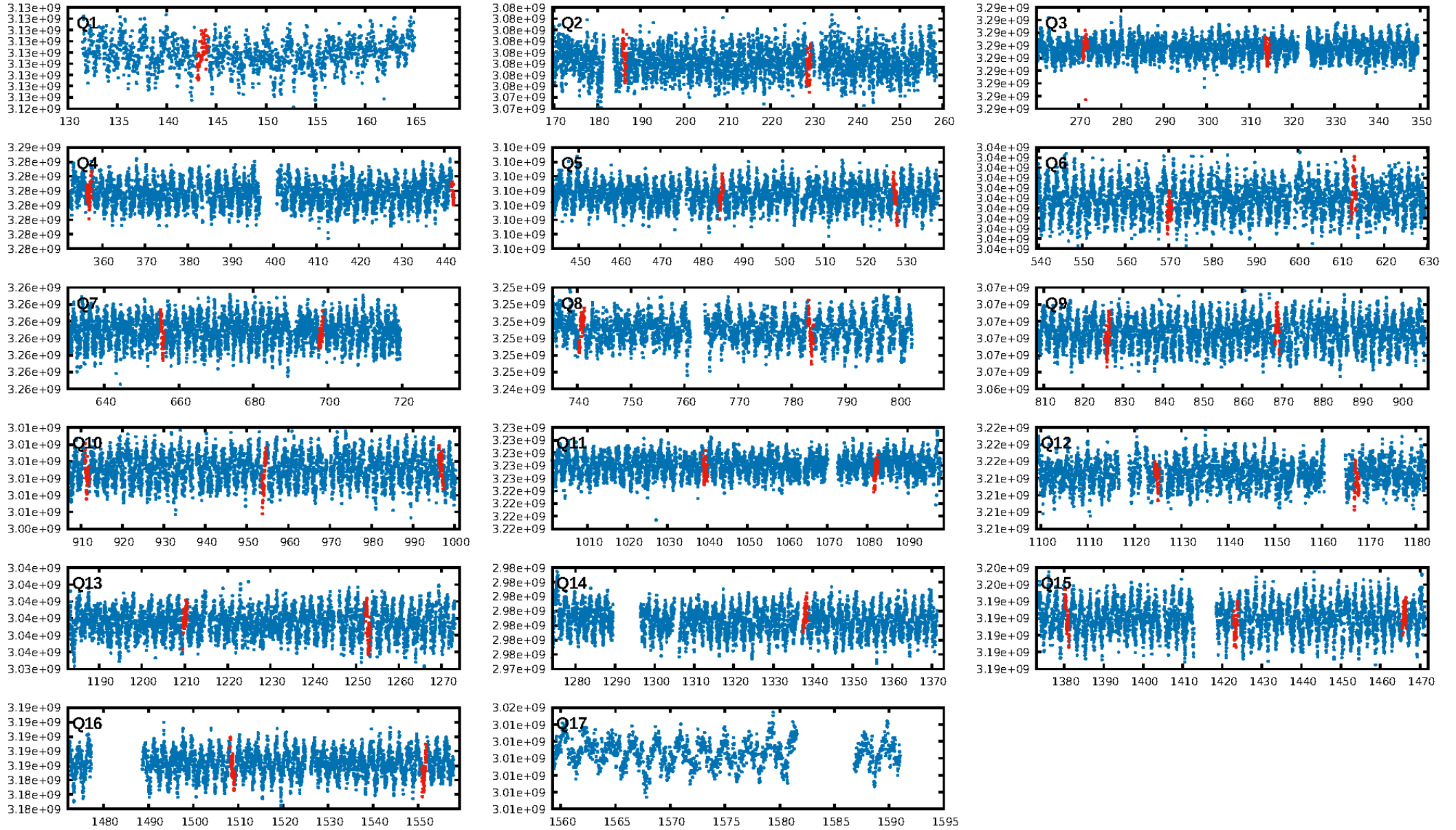
DV Diagnostic Results:

ShortPeriod-sig: 91.8% [1.74 σ]
LongPeriod-sig: 100.0% [21.46 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: N/A
Centroid-sig: 2.6%
Centroid-so: 1.141 arcsec [2.87 σ]
OotOffset-rm: 2.968 arcsec [1.13 σ]
OotOffset-st: 3/4/3/4 [14]
KicOffset-rm: 4.752 arcsec [1.85 σ]
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DiffImageOverlap-fno: 0.00 [0/15]

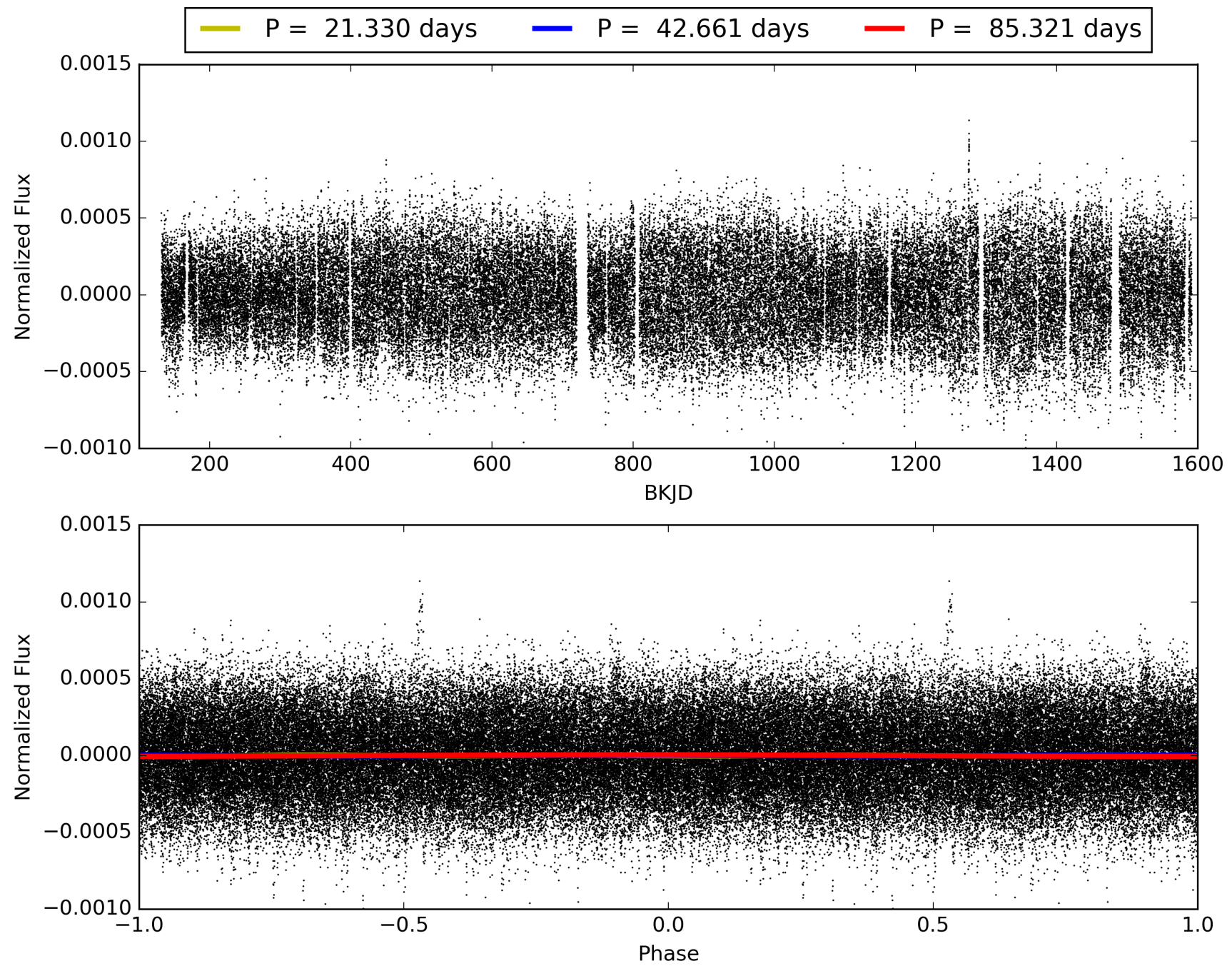
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011294394-02, PDC Light Curves

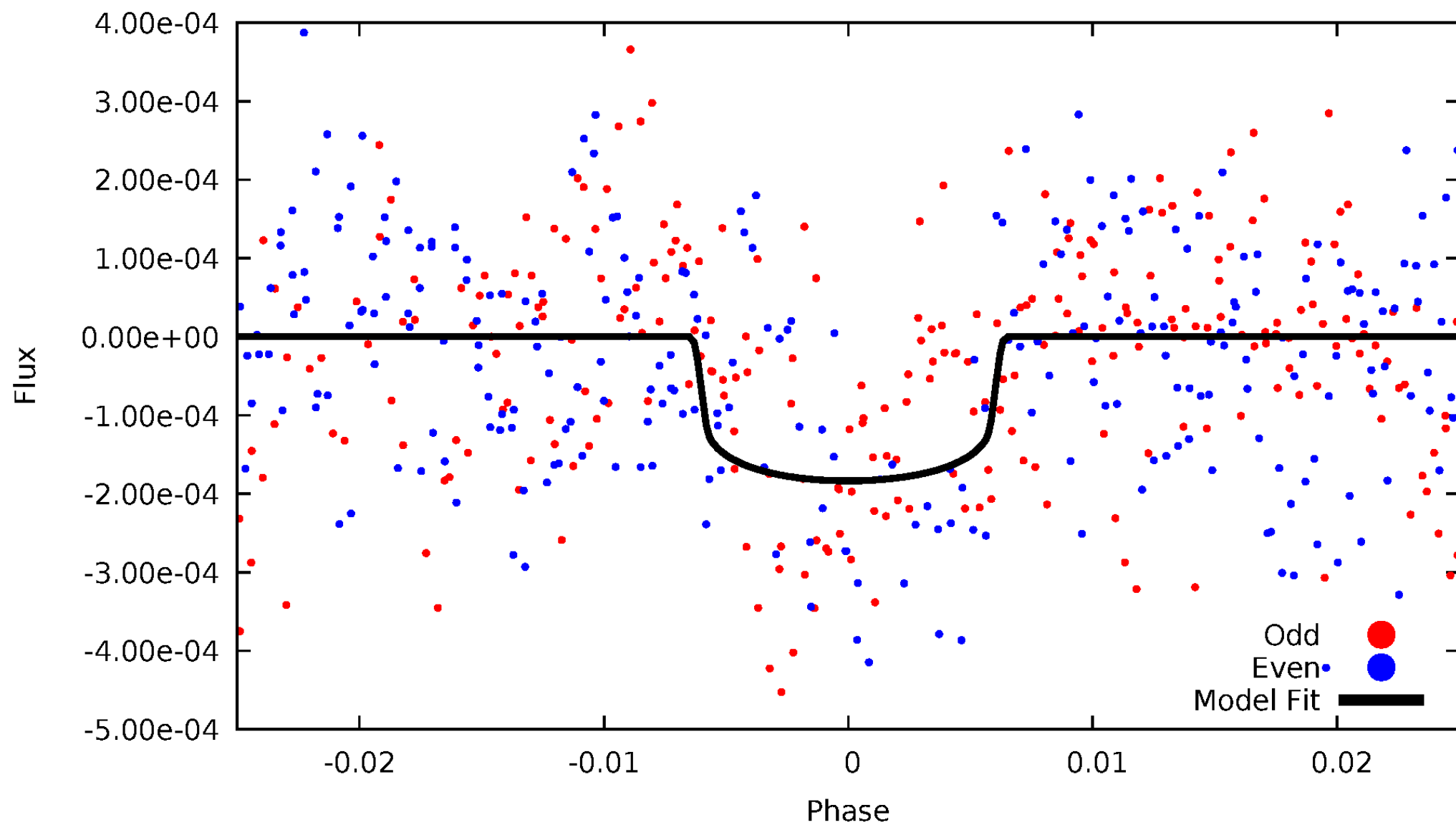


TCE 011294394-02



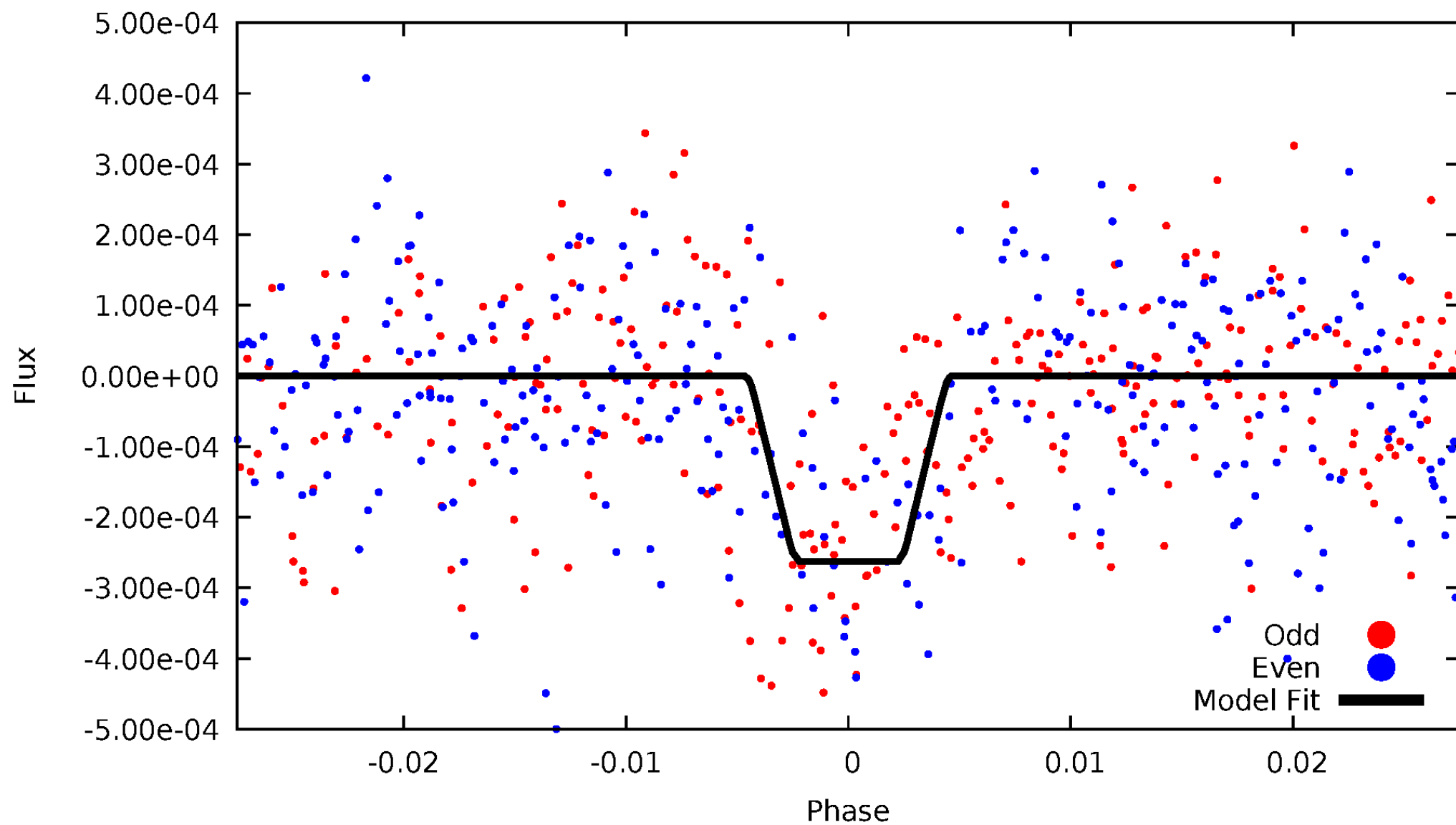
DV Odd/Even

TCE 011294394-02



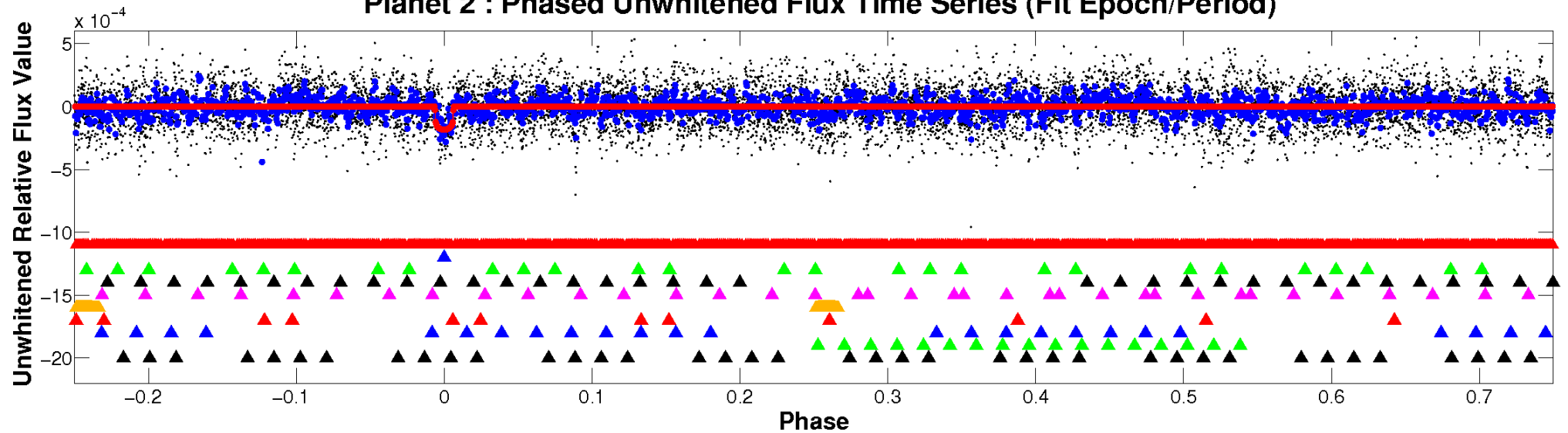
ALT Odd/Even

TCE 011294394-02

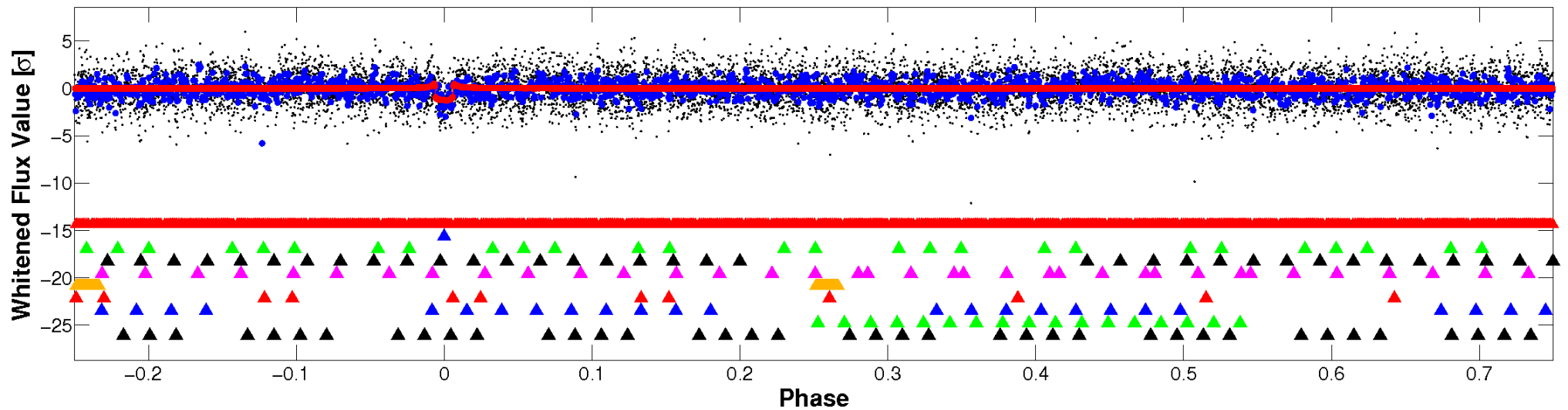


Non-Whitened Vs. Whitened Light Curve

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

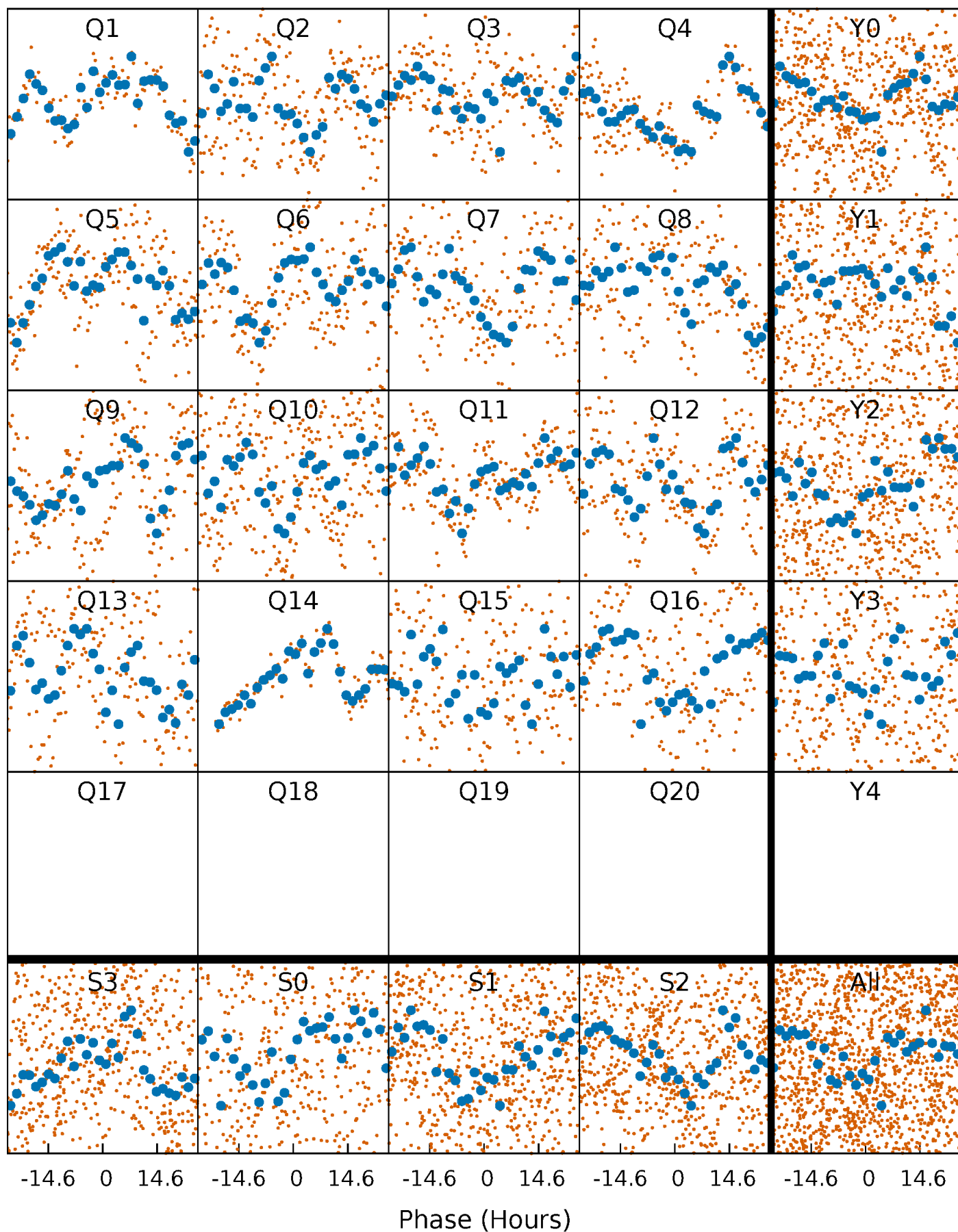


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



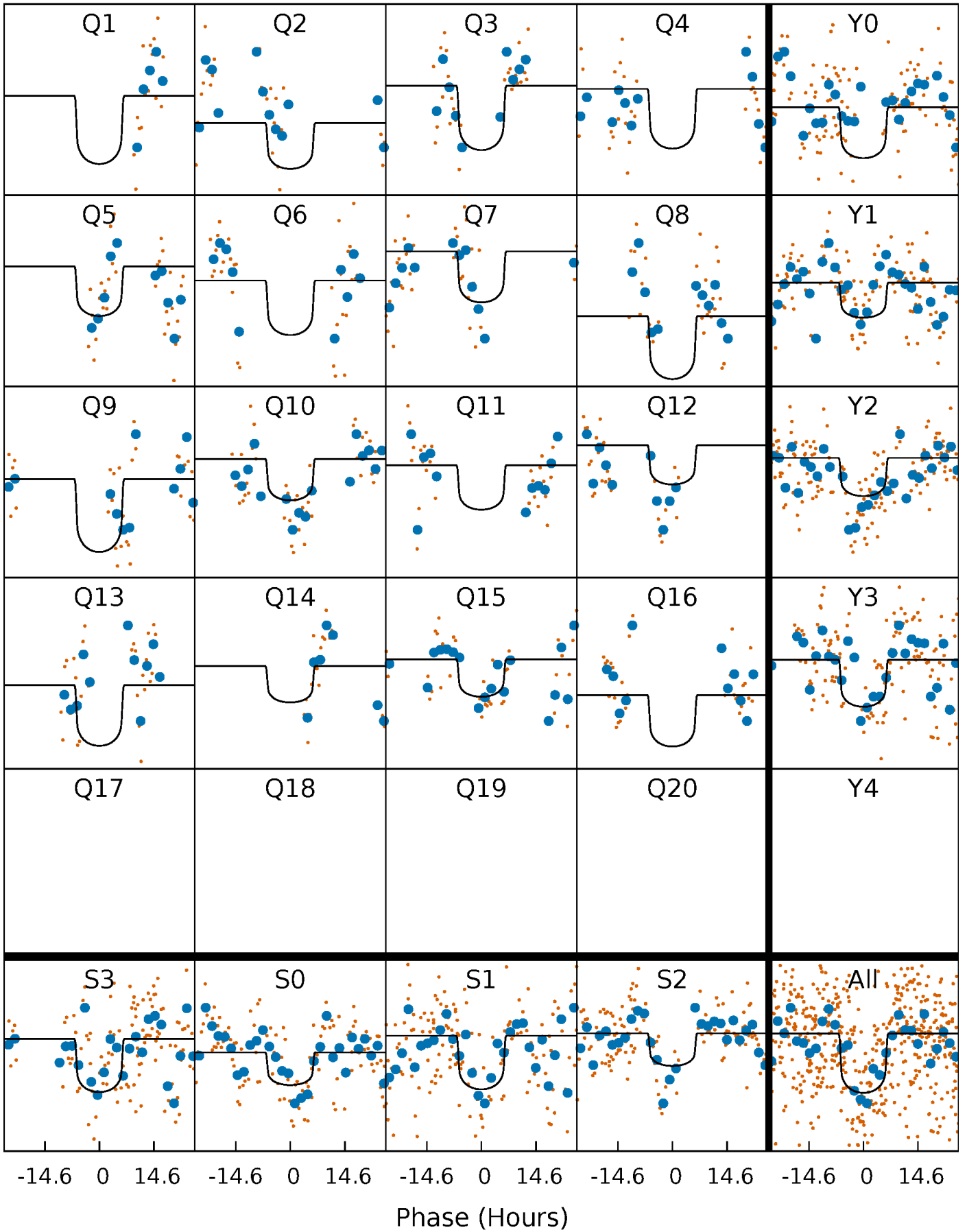
PDC Quarter-Phased Transit Curves

TCE 011294394-02 $P = 42.660504$ Days $T_0 = 143.569158$ (BKJD)



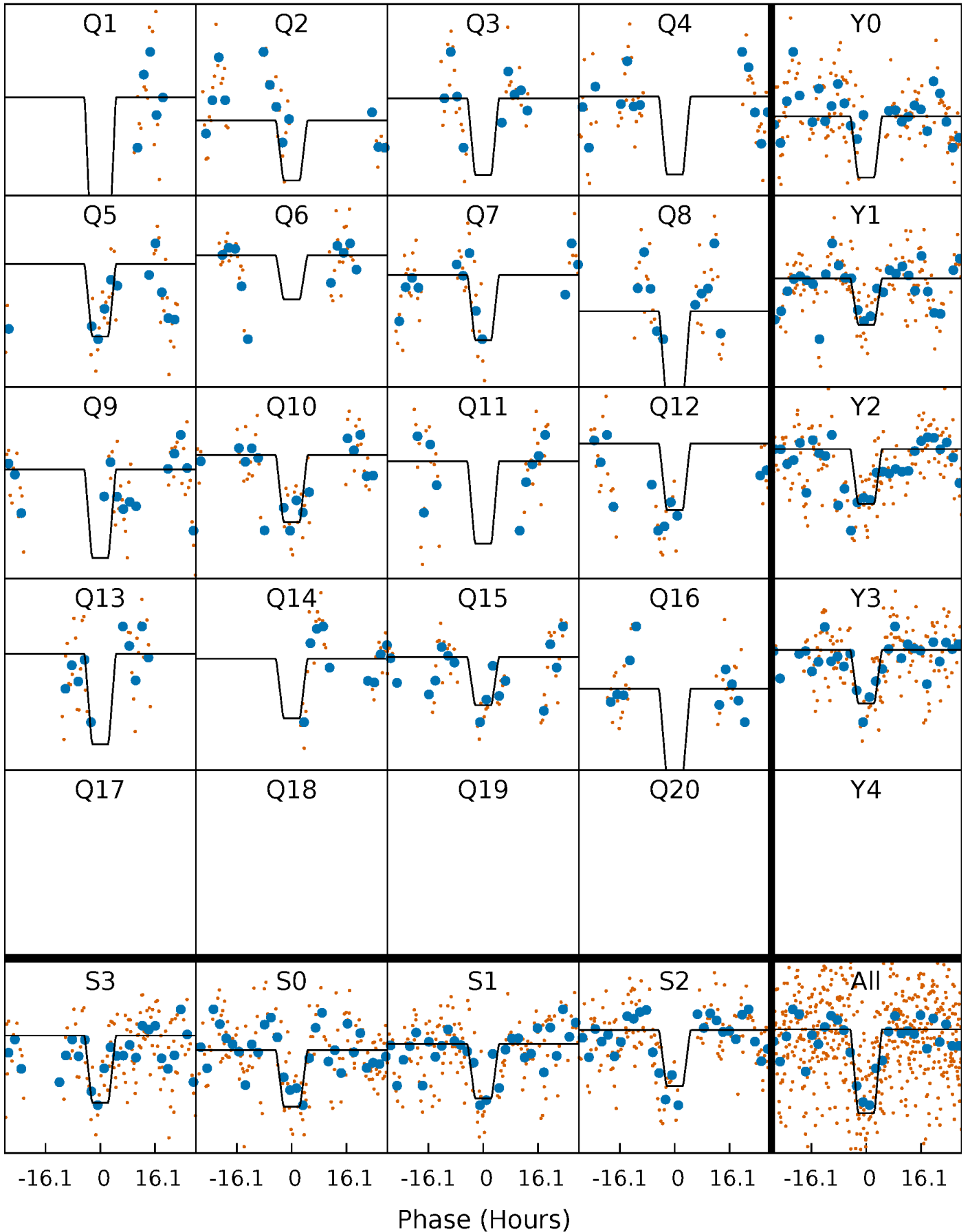
DV Quarter-Phased Transit Curves

TCE 011294394-02 P= 42.660504 Days $T_0=143.569158$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

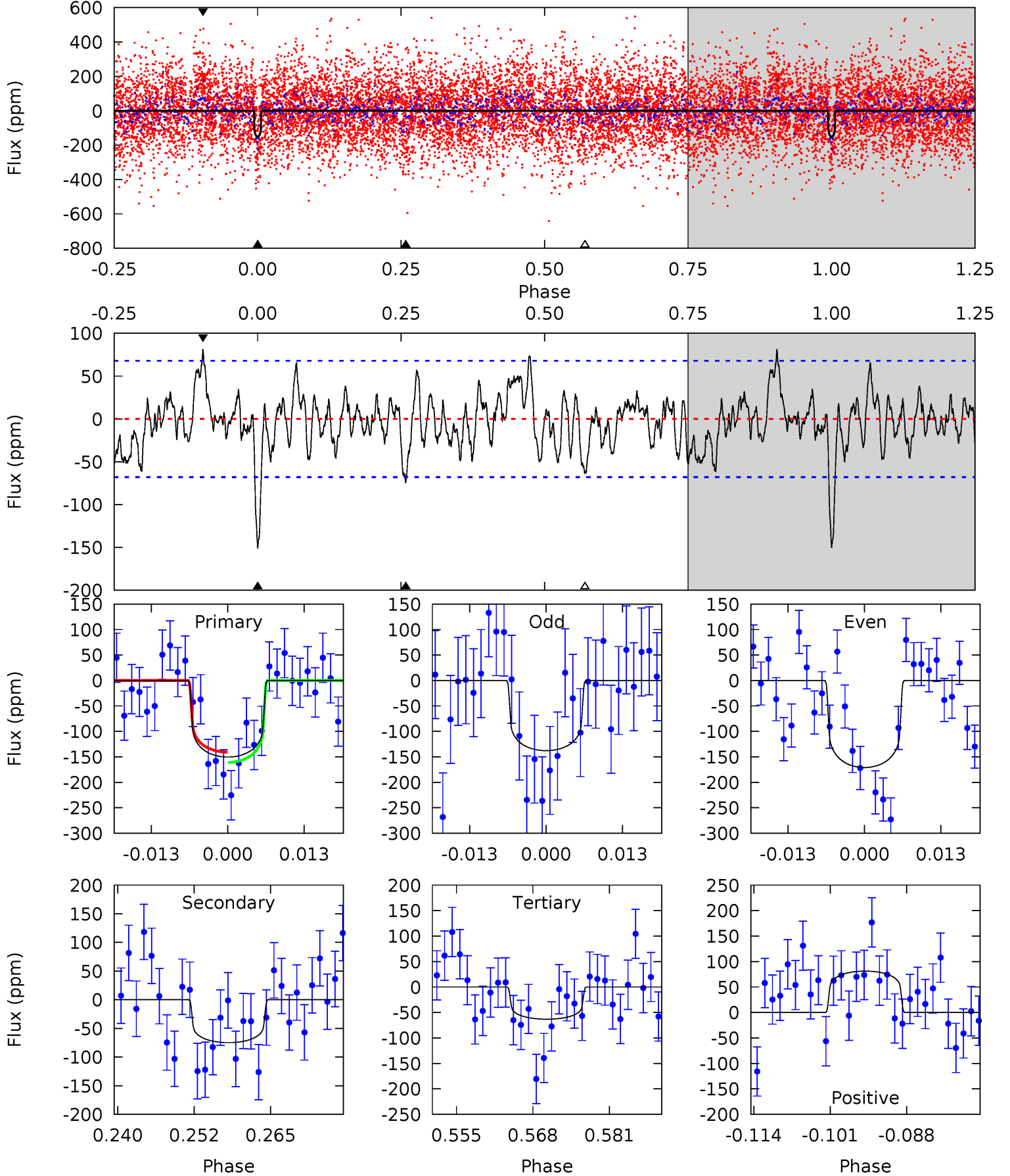
TCE 011294394-02 $P = 42.663154$ Days $T_0 = 143.539137$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-02, P = 42.660504 Days, E = 100.908654 Days

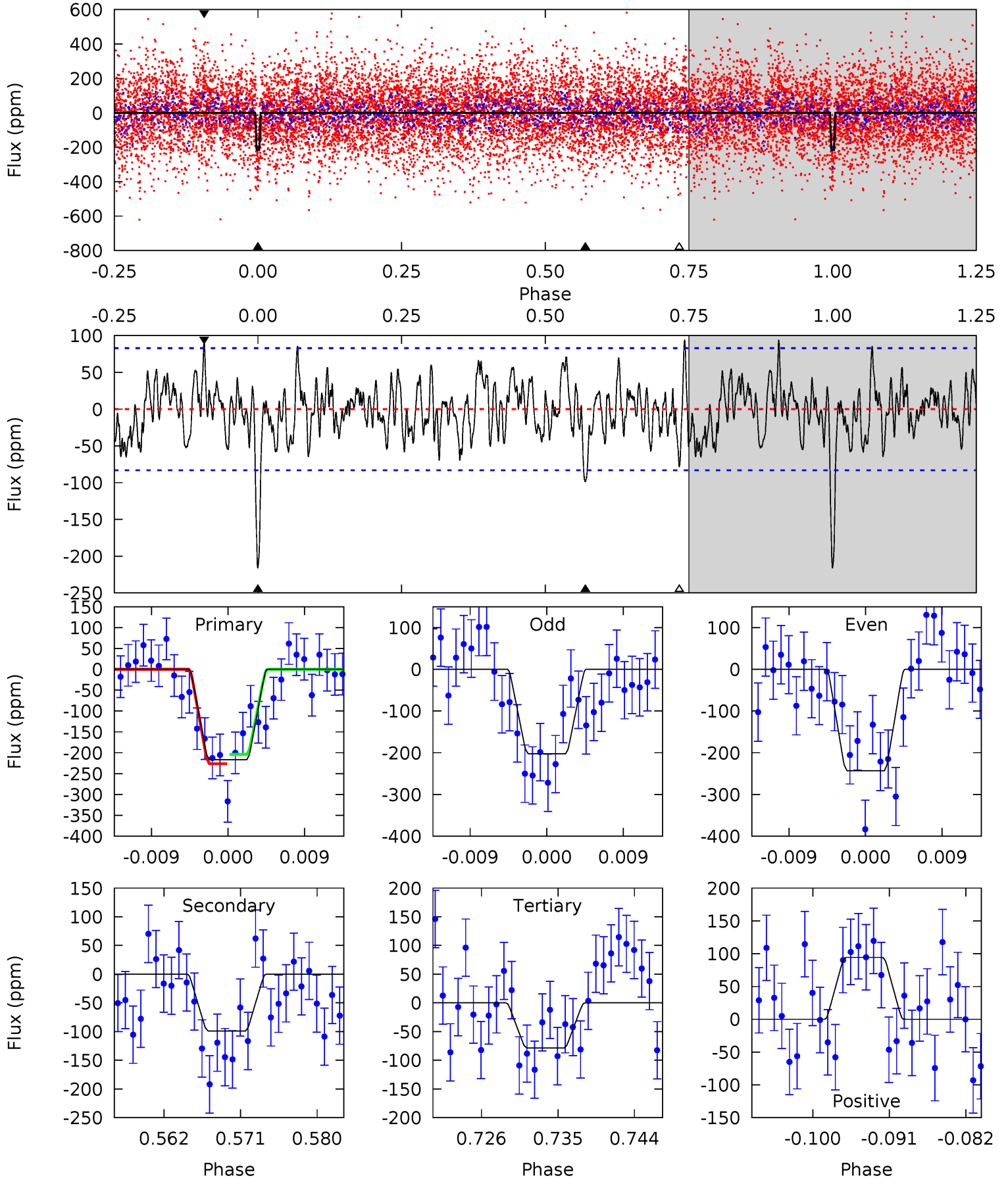
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	5.49	4.64	5.96	4.98	2.49	1.90	6.40	5.07	0.85	-0.47	1.18	1.15	0.35	0.74



Alt Model-Shift Uniqueness Test

011294394-02, P = 42.663154 Days, E = 100.875983 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	6.01	4.78	5.72	5.05	2.61	1.85	8.38	7.43	1.23	0.28	1.18	0.99	0.30	0.68



Stellar Parameters For KIC 011294394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-75 ± 14	$5.79^{+1.64}_{-1.76}$	1502^{+72}_{-122}	5336^{+817}_{-510}	110^{+106}_{-45}
Alt.	-99 ± 16	$6.84^{+1.78}_{-1.51}$	1503^{+71}_{-125}	5232^{+596}_{-464}	103^{+66}_{-40}

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 $A_{obs} \gg 1.0$

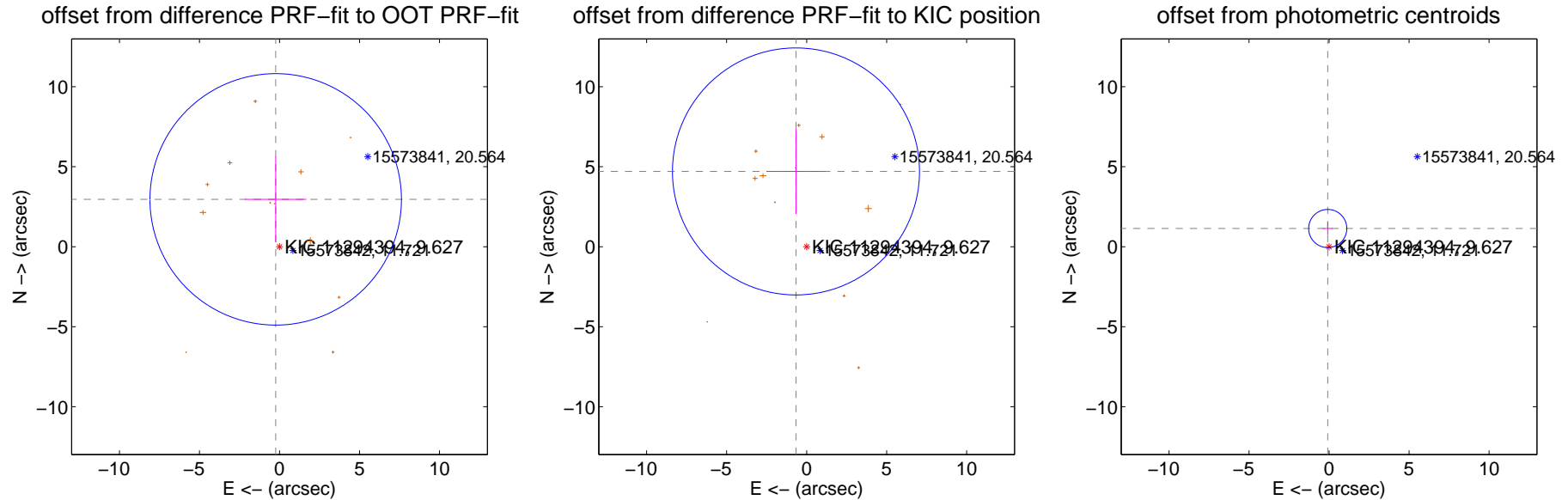
DV Centroid Data

Supplemental centroid analysis for 011294394-02. **Kepler magnitude: 9.63.** Transit SNR 12.64

There are 0 quarters with good PRF difference image offsets

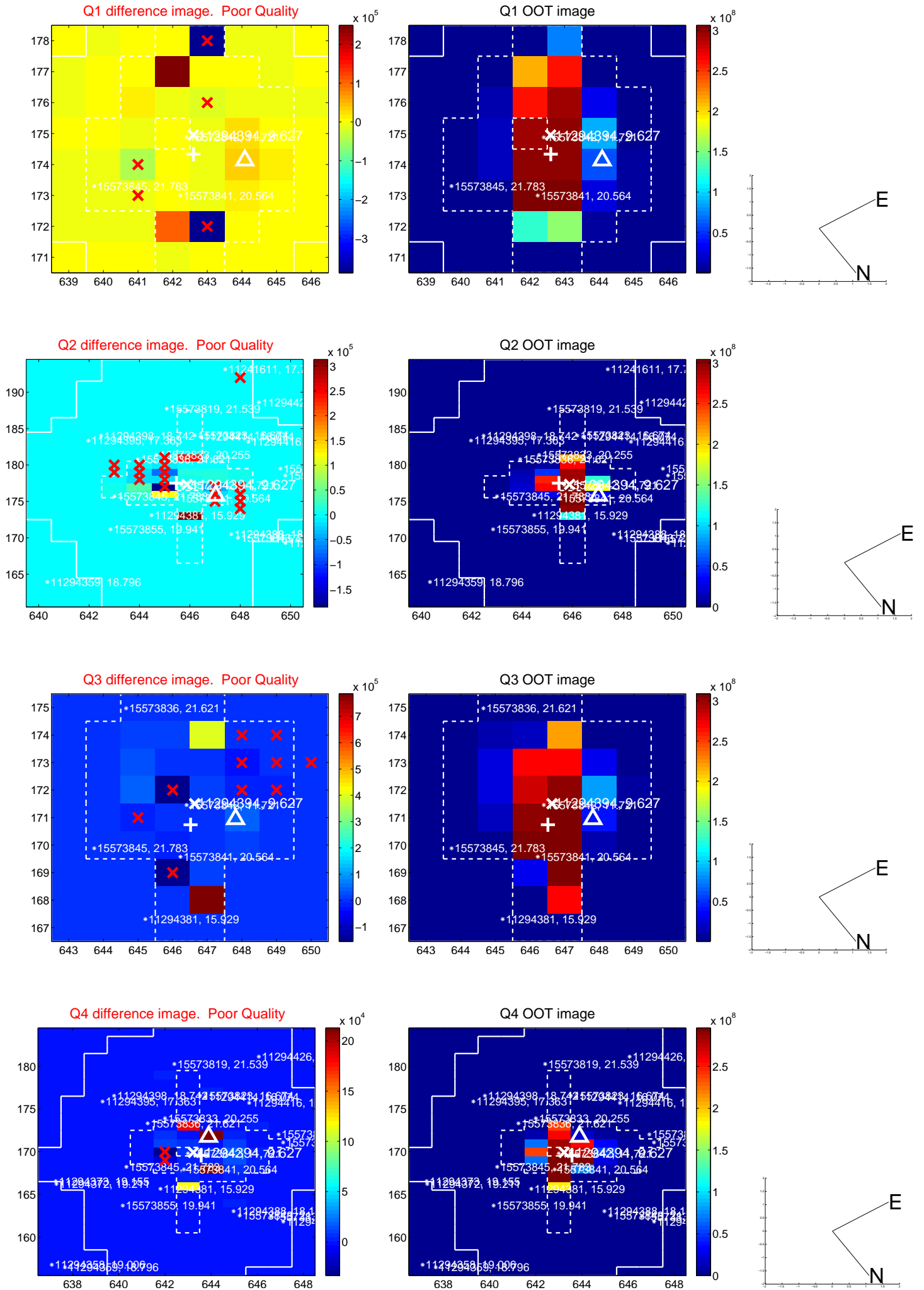
The OOT PRF centroid is offset from the target star catalog position by about 2.27 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.968 ± 2.619	1.13	0.238 ± 1.911	2.958 ± 2.678
PRF-fit source offset from KIC position	4.752 ± 2.573	1.85	0.667 ± 1.848	4.704 ± 2.657
photometric centroid source offset	1.14 ± 0.40	2.87	0.08 ± 0.30	1.14 ± 0.40

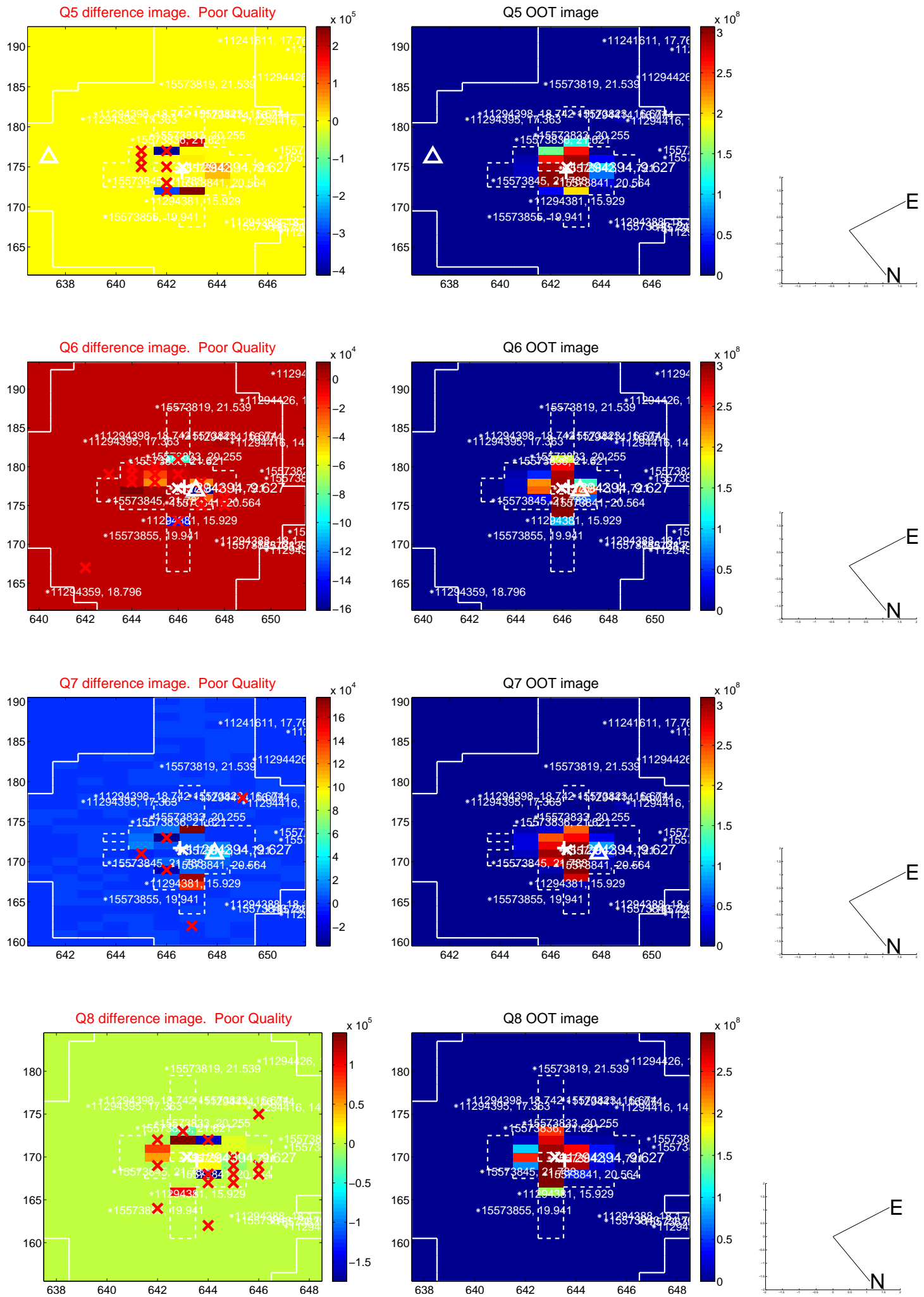


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

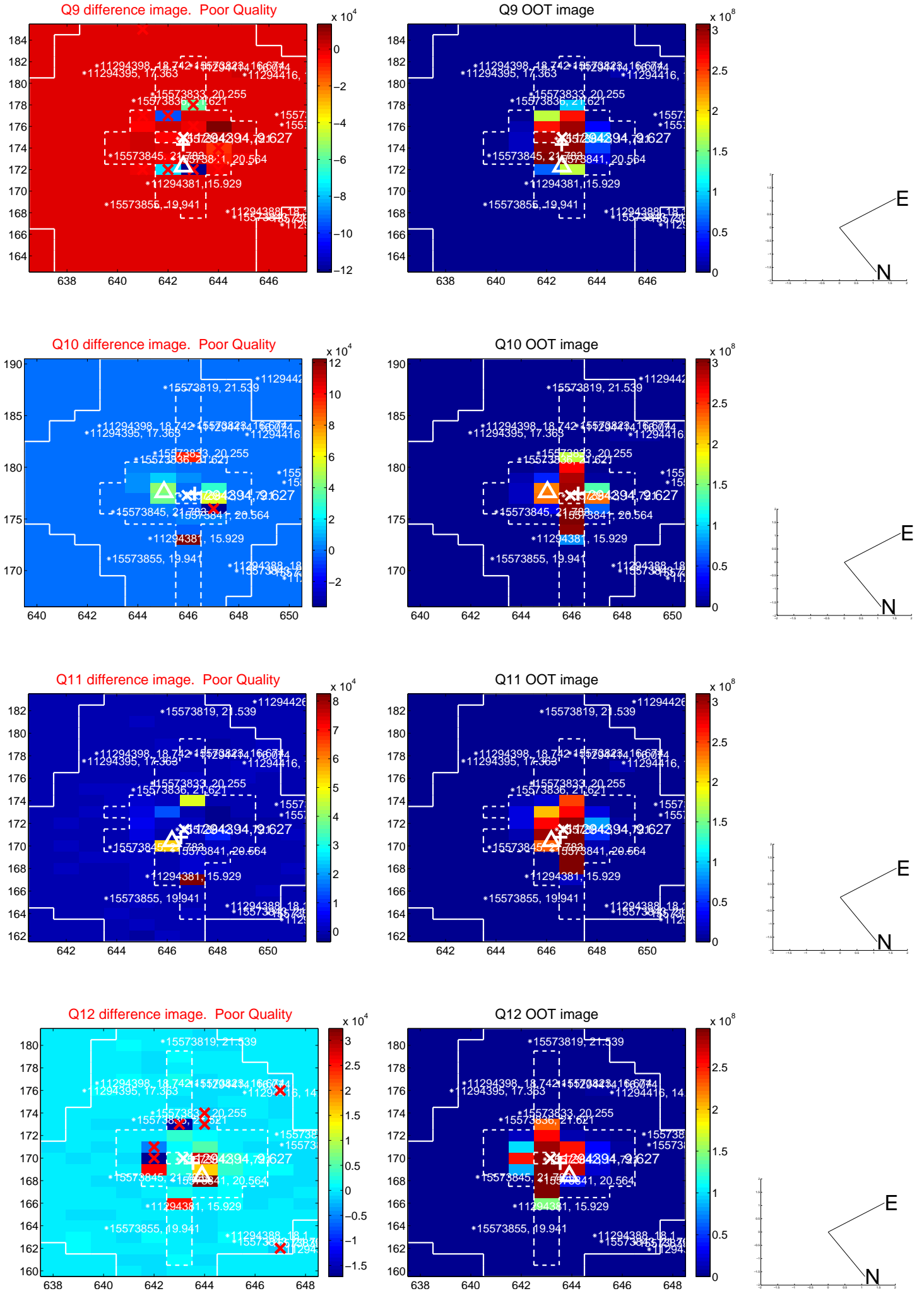
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



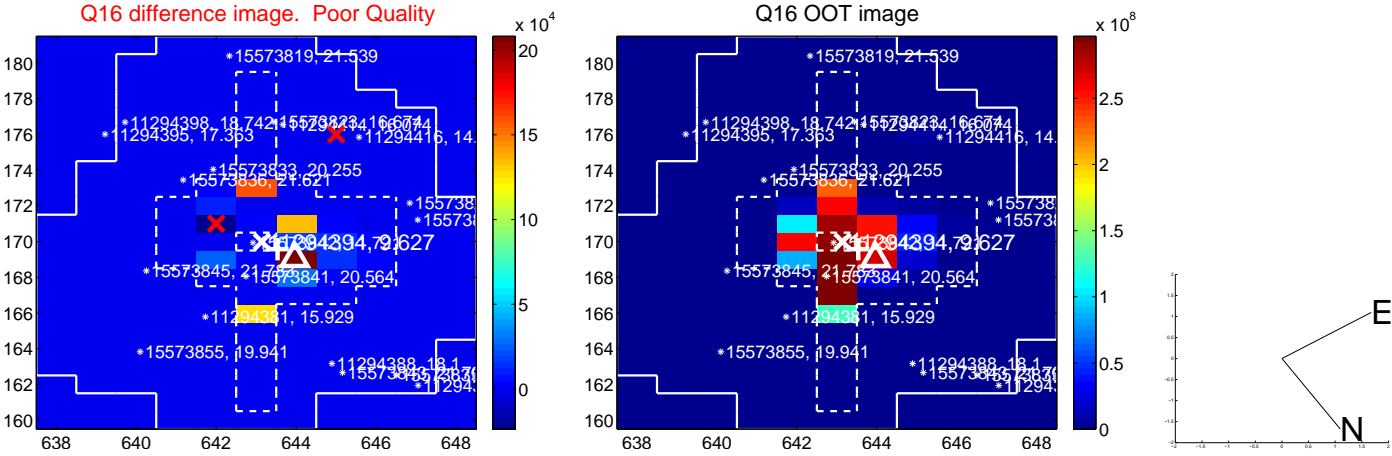
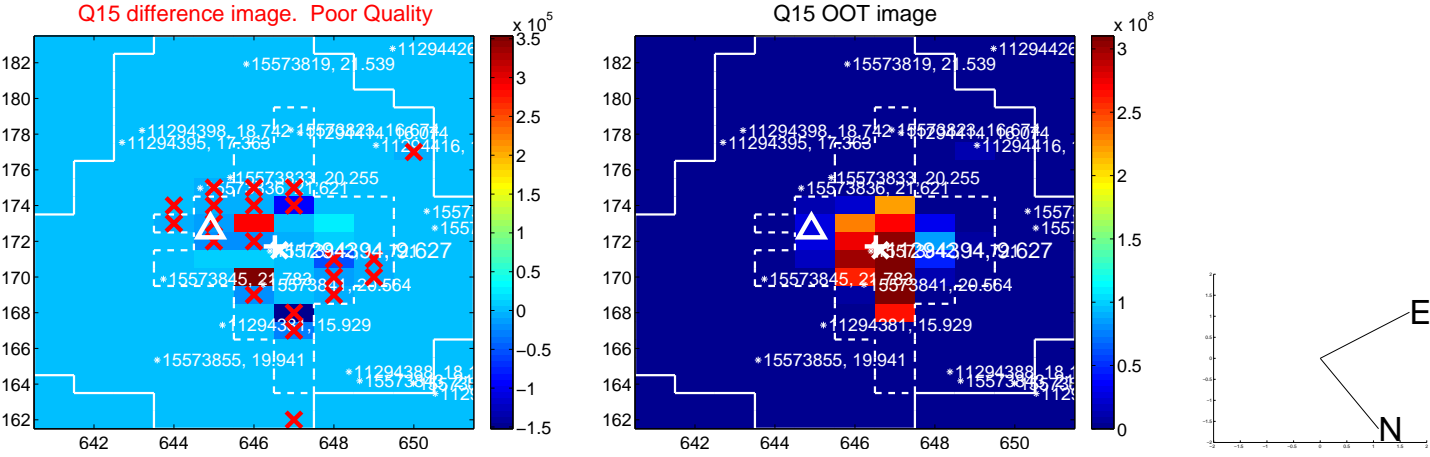
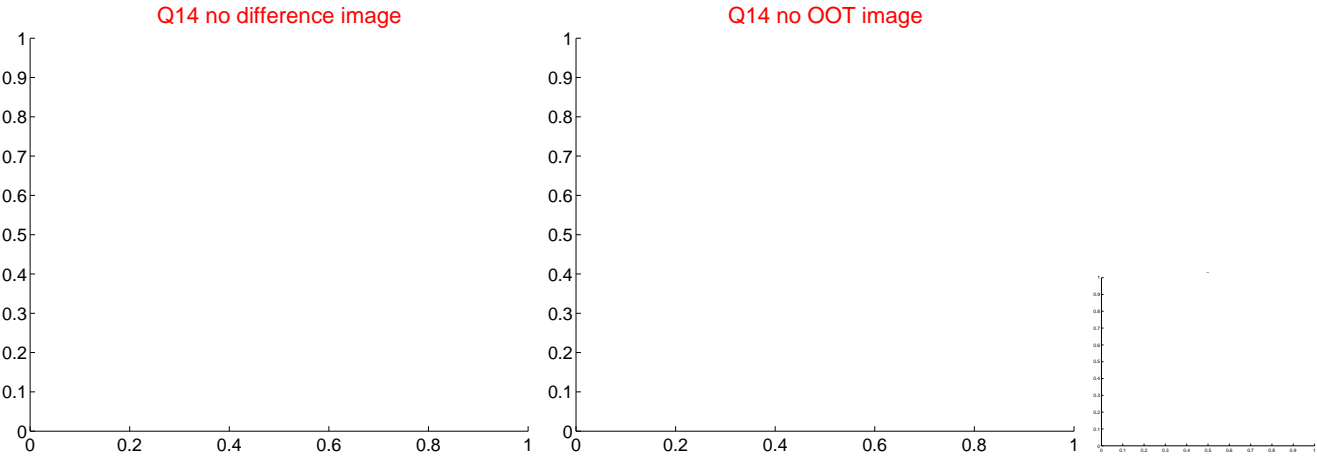
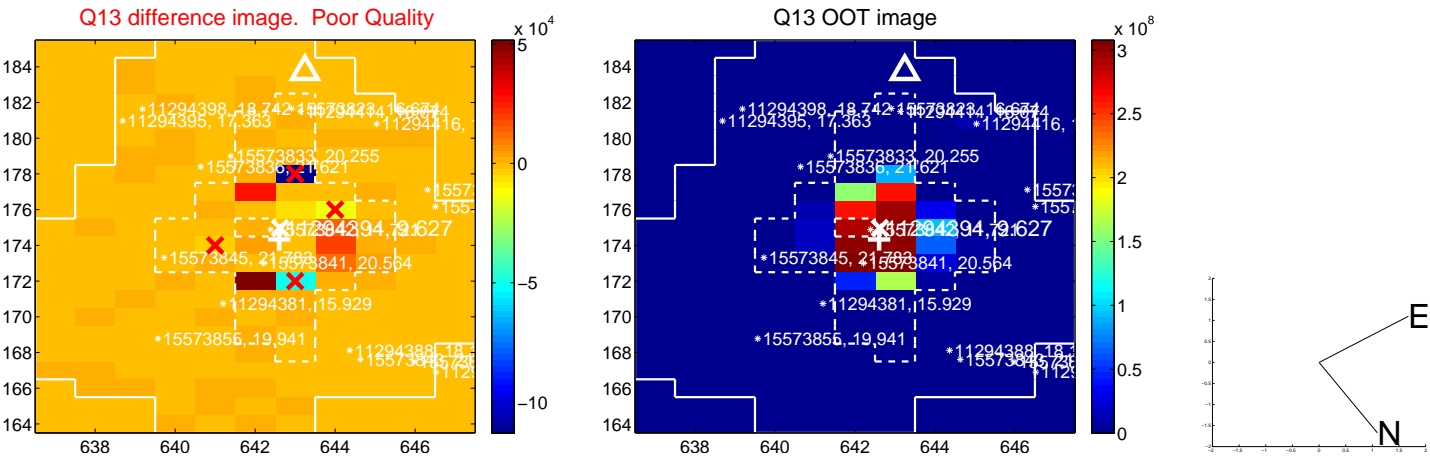
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



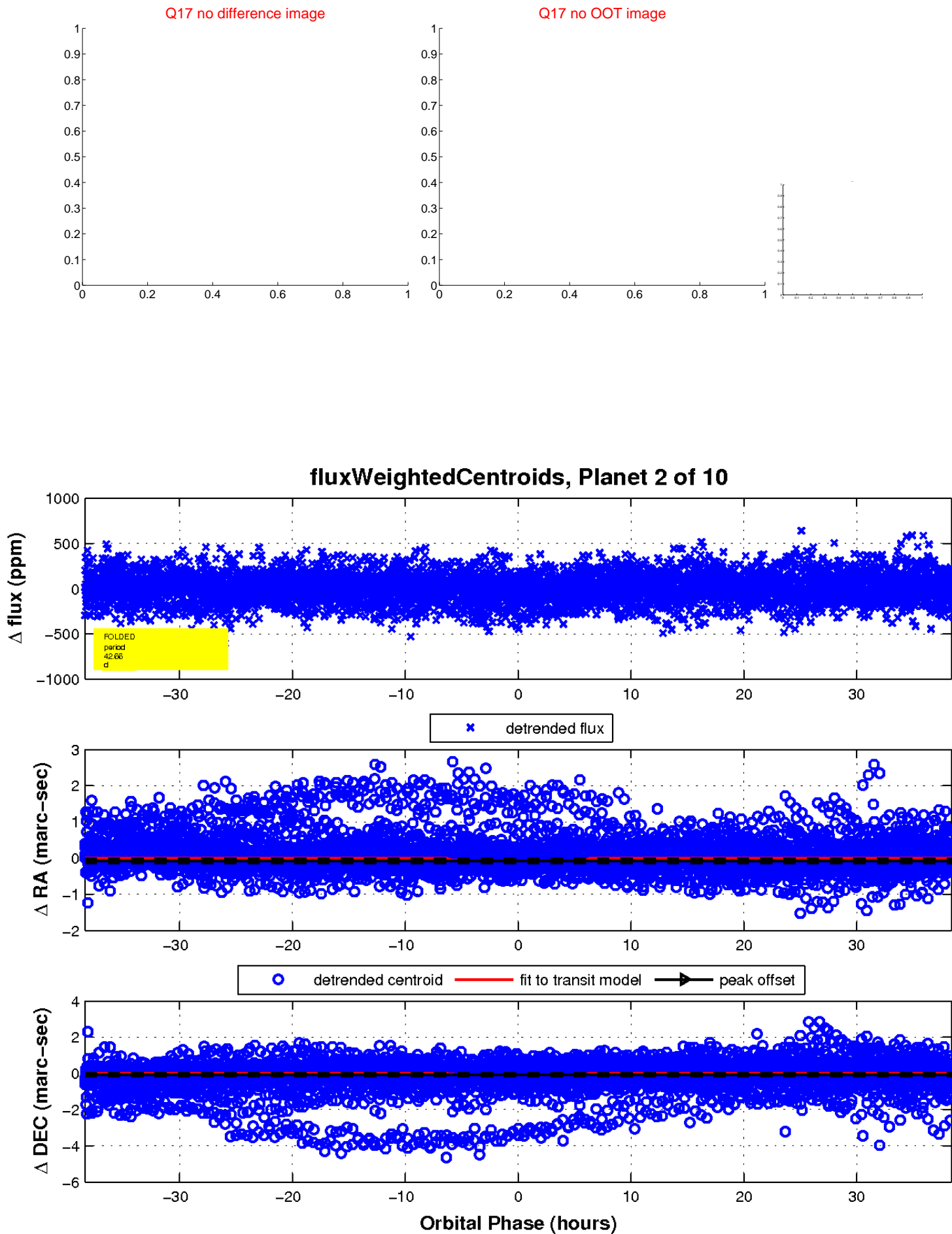
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



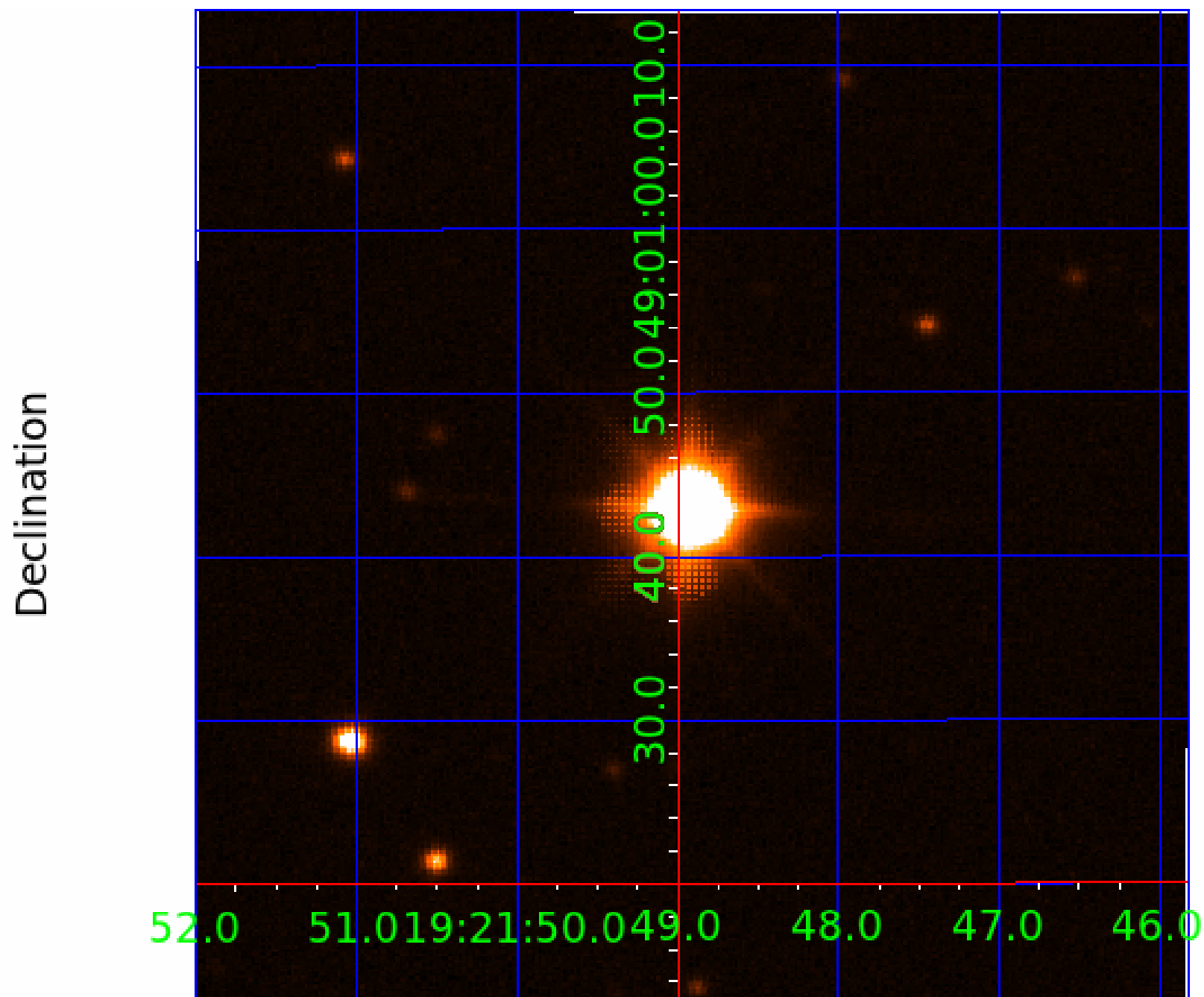
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
011294394-03	OBS	No	54.376855	175.912986	286.7	2.809	12.7	13.2	4.16	6626	10.00	242.26
011294394-04	OBS	No	41.700369	152.100063	258.2	3.415	11.4	11.6	4.16	6626	7.83	345.13
011294394-05	OBS	No	39.899524	166.832283	212.3	3.665	11.2	11.9	4.16	6626	6.87	366.06
011294394-06	OBS	No	21.340024	132.950168	93.1	7.492	11.1	8.9	4.16	6626	4.54	843.16
011294394-07	OBS	No	122.548908	235.373023	206.9	7.059	10.8	8.3	4.16	6626	6.83	81.99
011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

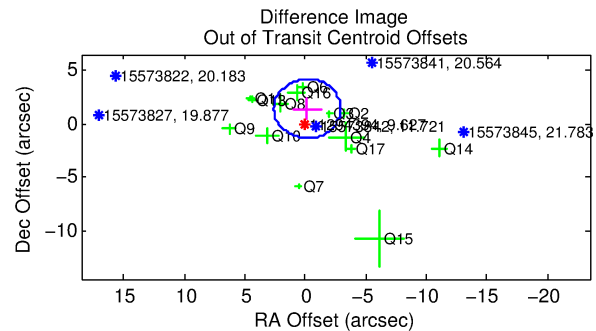
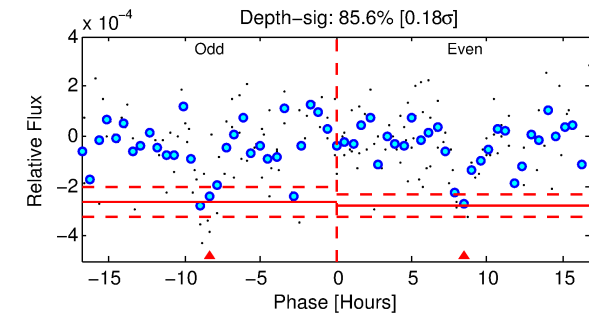
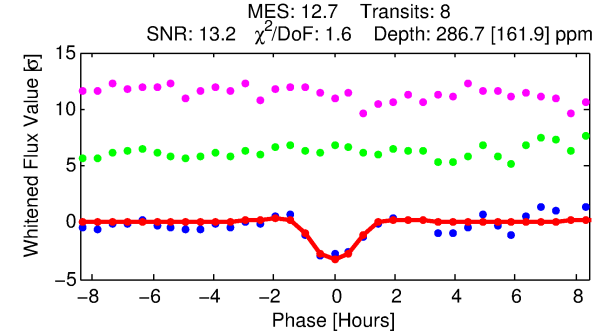
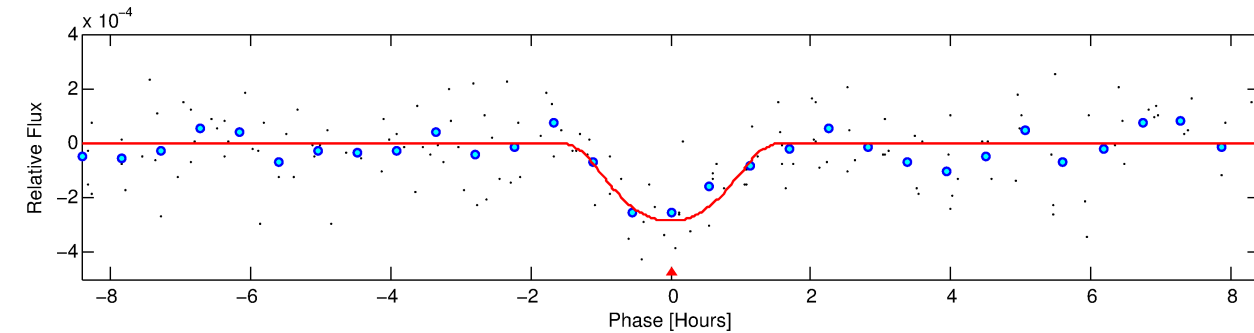
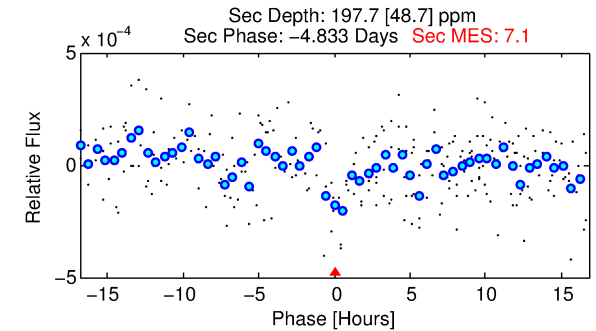
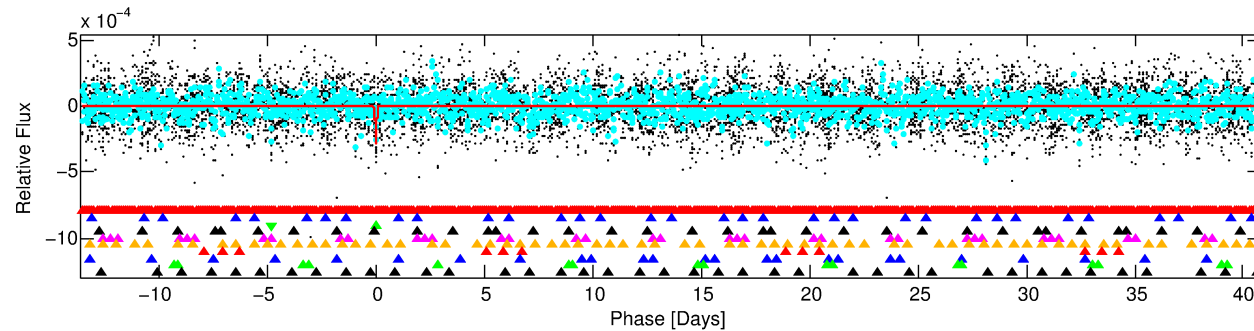
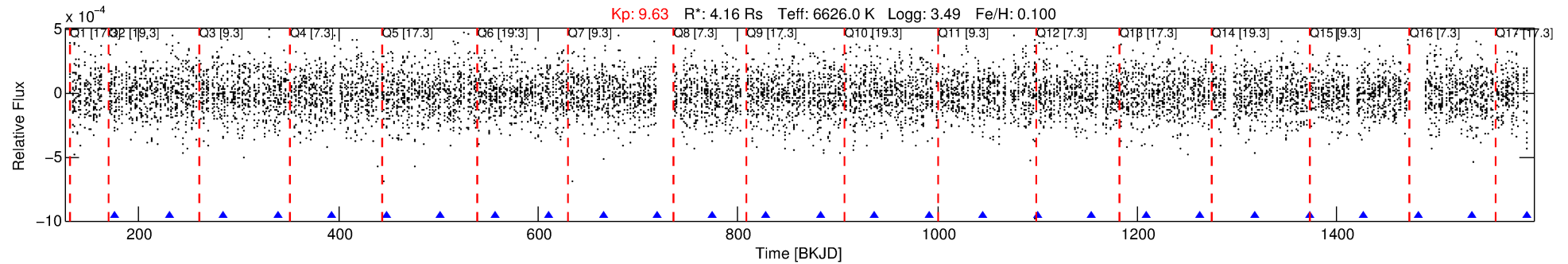
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-03

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 3 of 10 Period: 54.377 d



DV Fit Results:

Period = 54.37685 [0.00036] d
Epoch = 175.9130 [0.0054] BKJD
Rp/R* = 0.0220 [0.0181]
a/R* = 40.70 [21.08]
b = 0.98 [0.05]
Seff = 242.26 [144.63]
Teq = 1006 [150] K
Rp = 10.00 [9.06] Re
a = 0.3515 [0.1282] AU
Ag = 134.37 [237.07] [0.56σ]
Teffp = 5296 [2209] K [1.94σ]

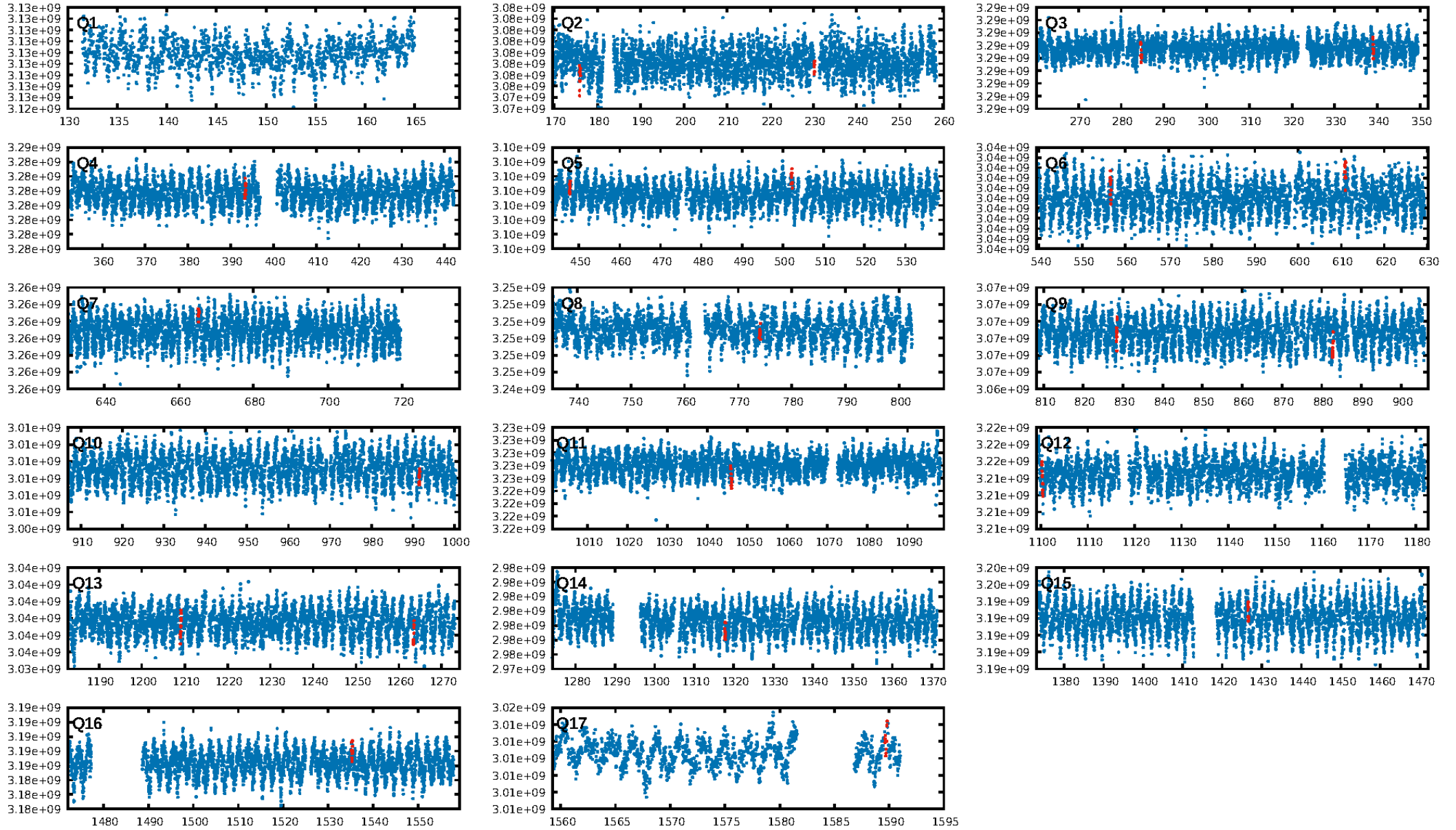
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [21.46σ]
LongPeriod-sig: 100.0% [4.02σ]
ModelChiSquare2-sig: 28.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: N/A
Centroid-sig: 56.5%
Centroid-so: 1.013 arcsec [2.76σ]
OotOffset-rm: 1.430 arcsec [1.55σ]
KicOffset-rm: 2.291 arcsec [2.24σ]
OotOffset-st: 4/4/3/3 [14]
KicOffset-st: 4/4/3/3 [14]
DiffImageQuality-fgm: 0.00 [0/14]
DiffImageOverlap-fno: 0.53 [8/15]

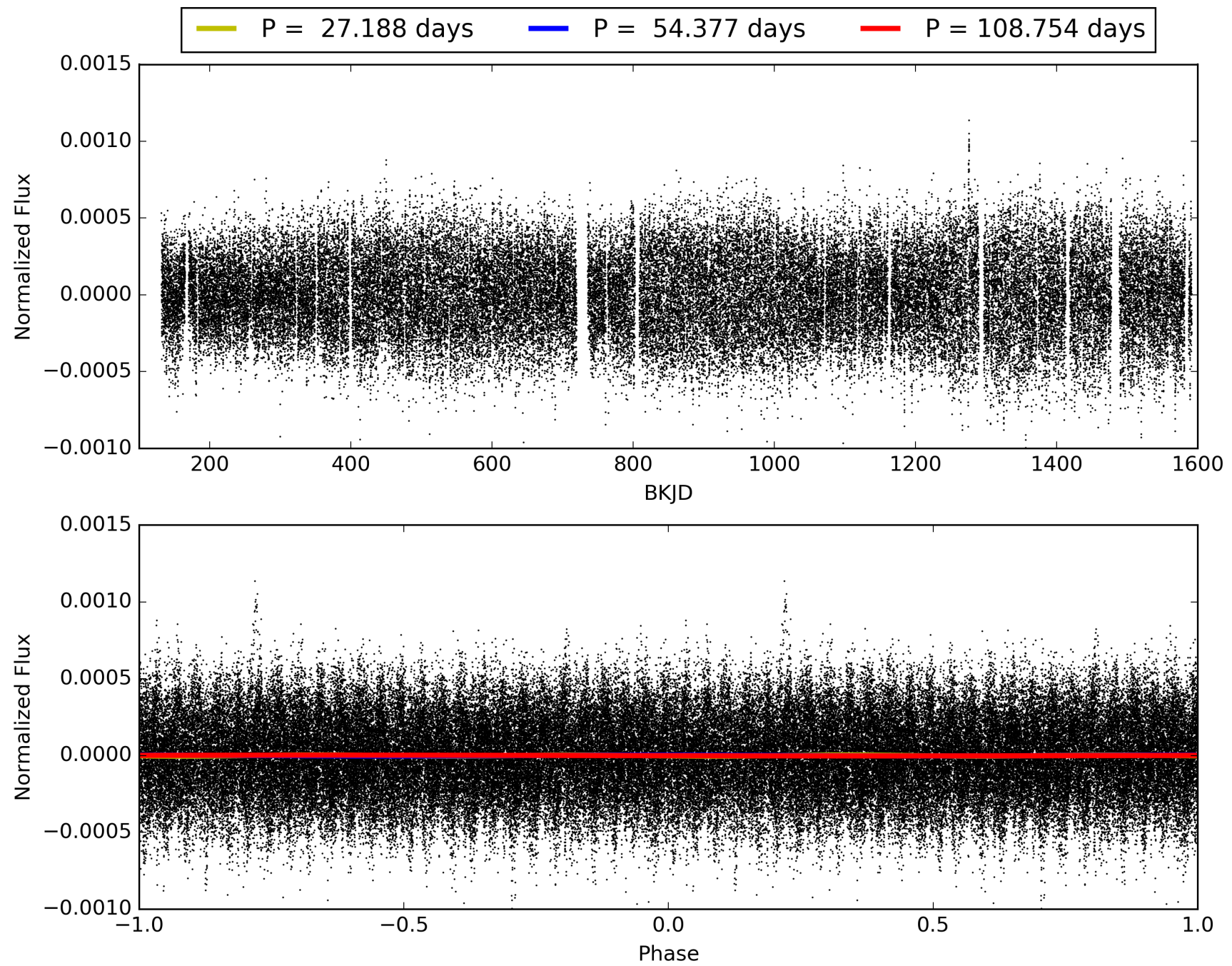
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:17:03 Z

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

TCE 011294394-03, PDC Light Curves

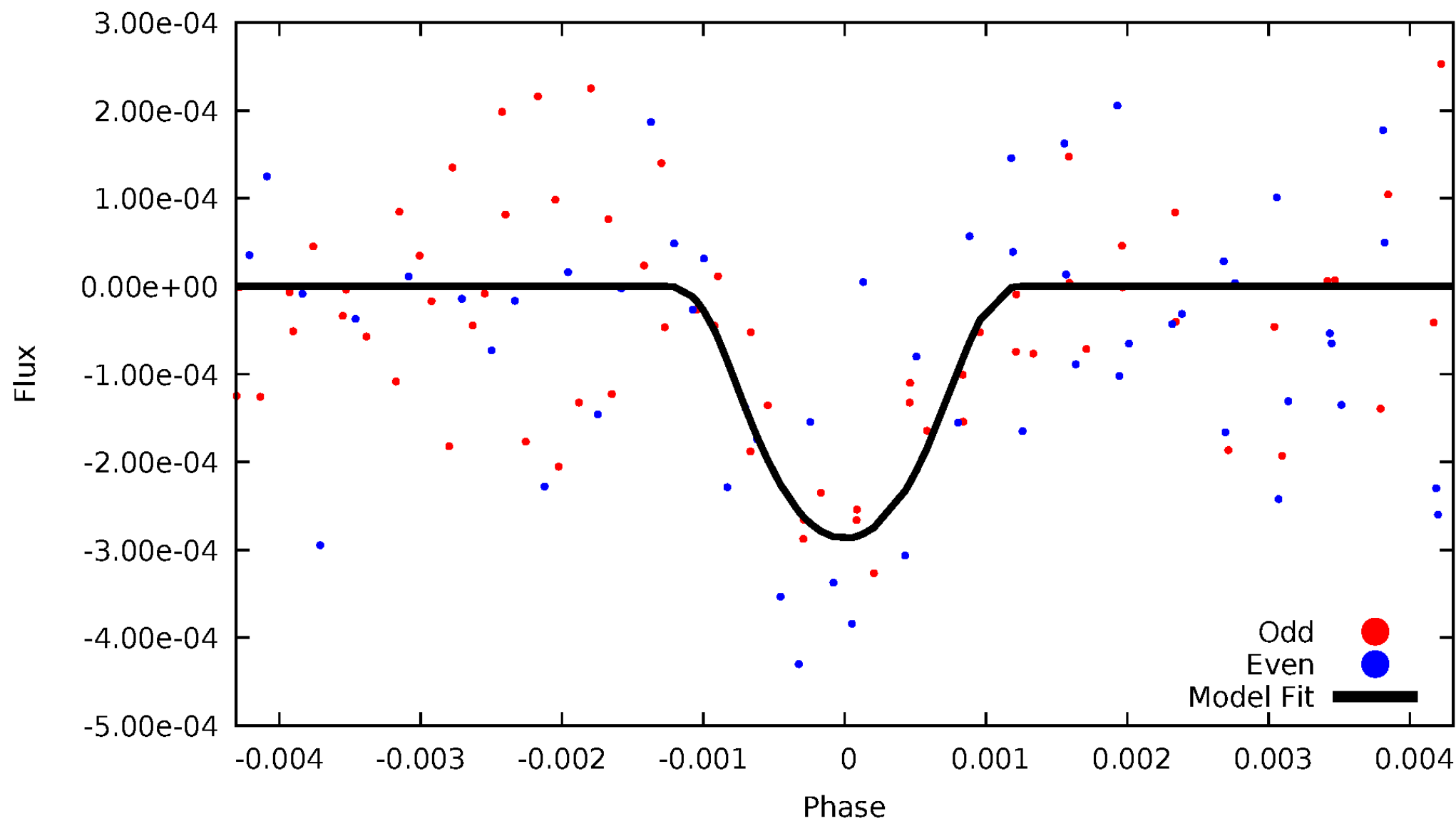


TCE 011294394-03



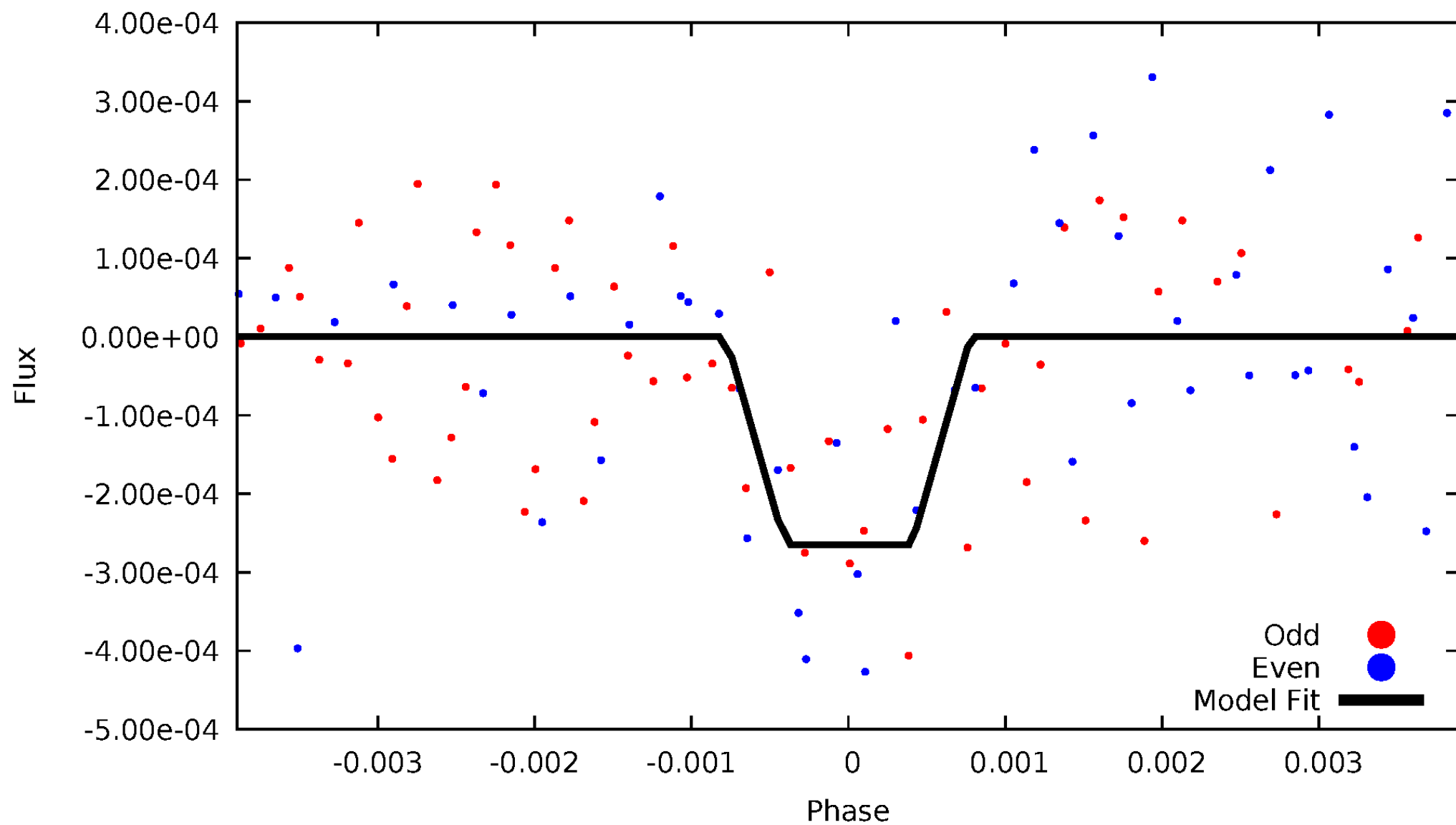
DV Odd/Even

TCE 011294394-03

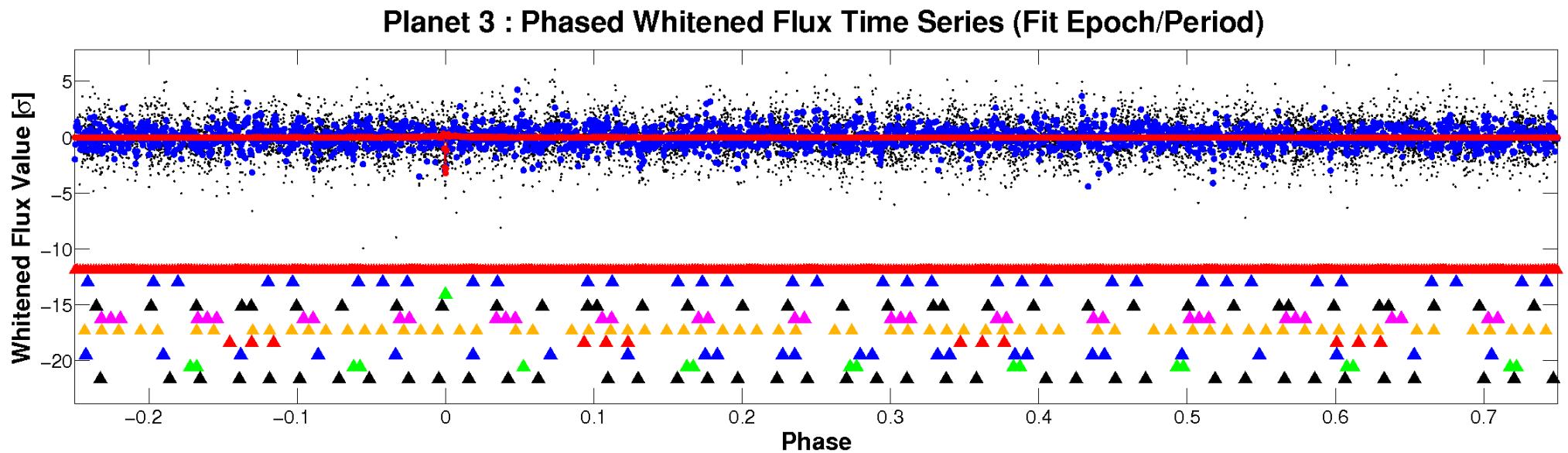
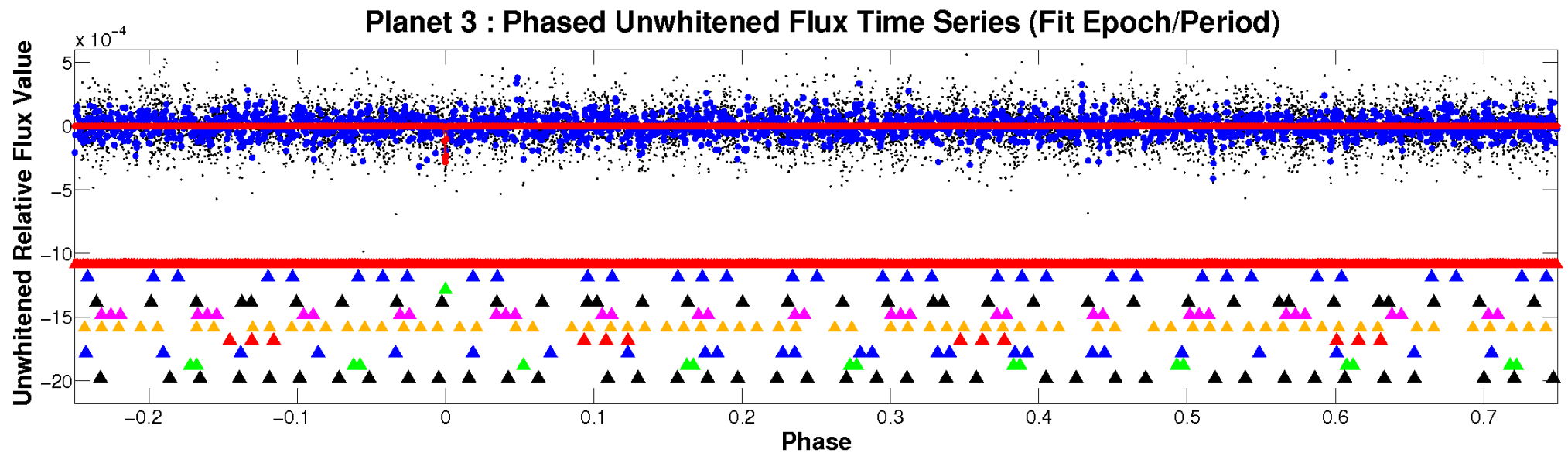


ALT Odd/Even

TCE 011294394-03

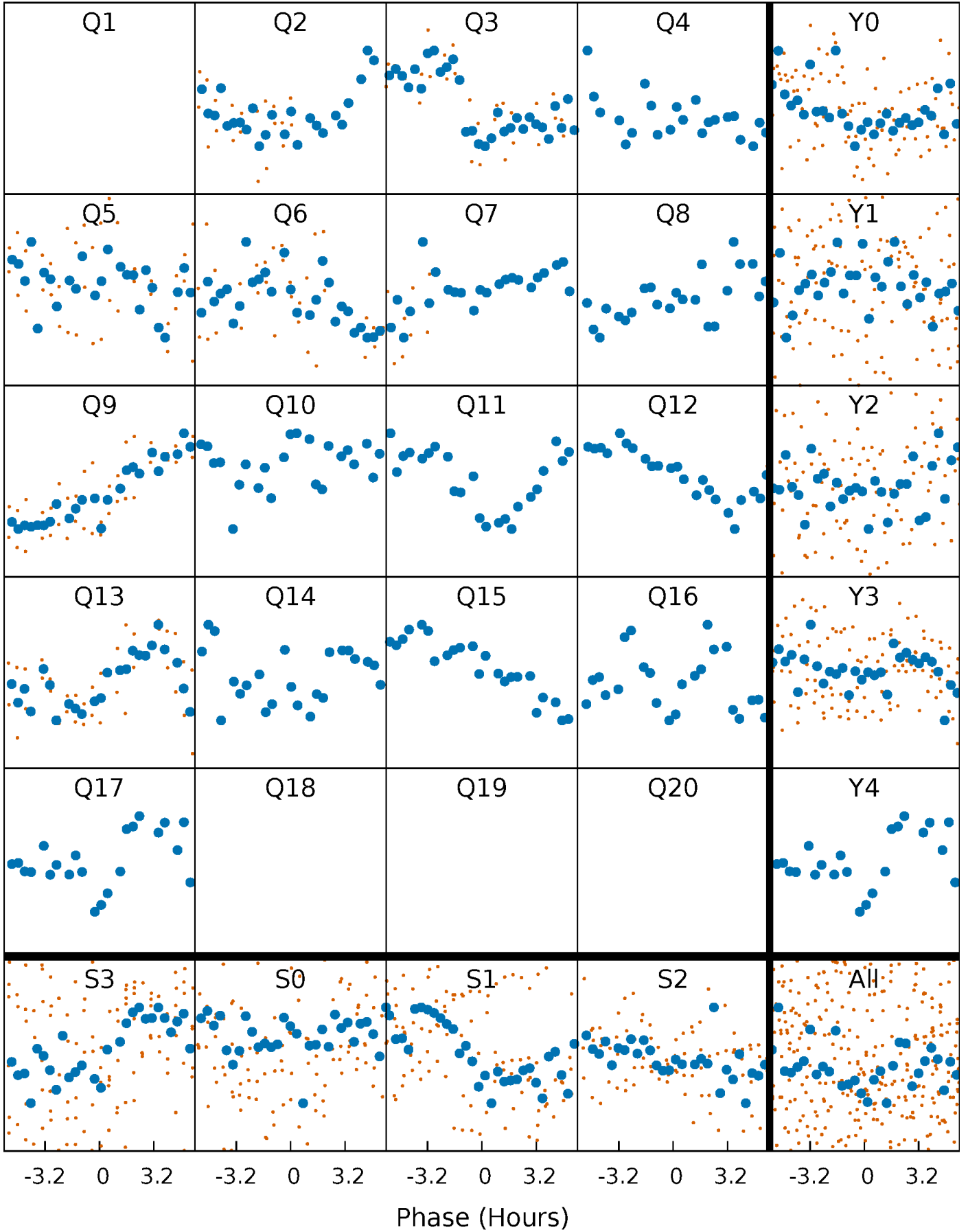


Non-Whitened Vs. Whitened Light Curve



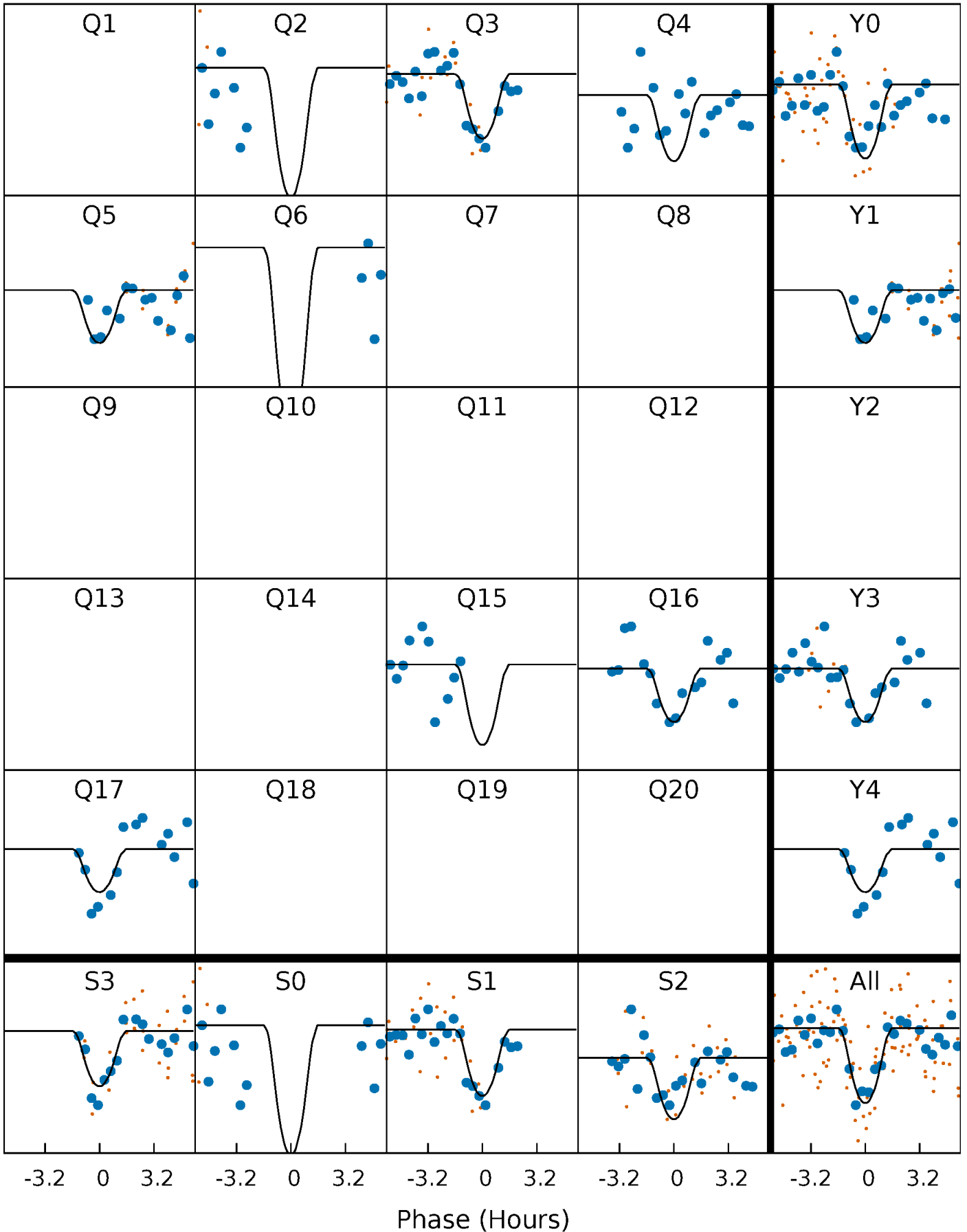
PDC Quarter-Phased Transit Curves

TCE 011294394-03 P= 54.376855 Days $T_0=175.912986$ (BKJD)



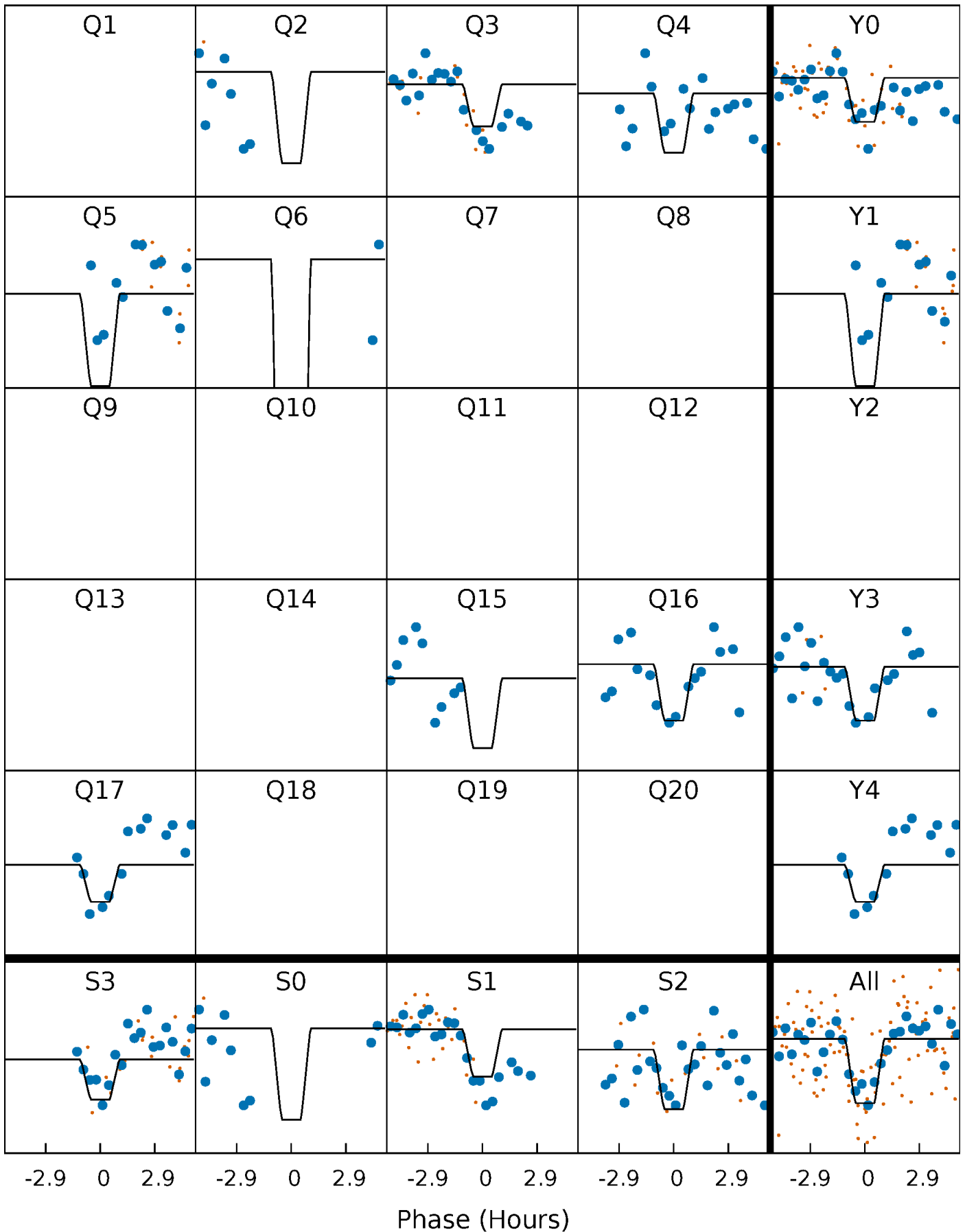
DV Quarter-Phased Transit Curves

TCE 011294394-03 $P = 54.376855$ Days $T_0 = 175.912986$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

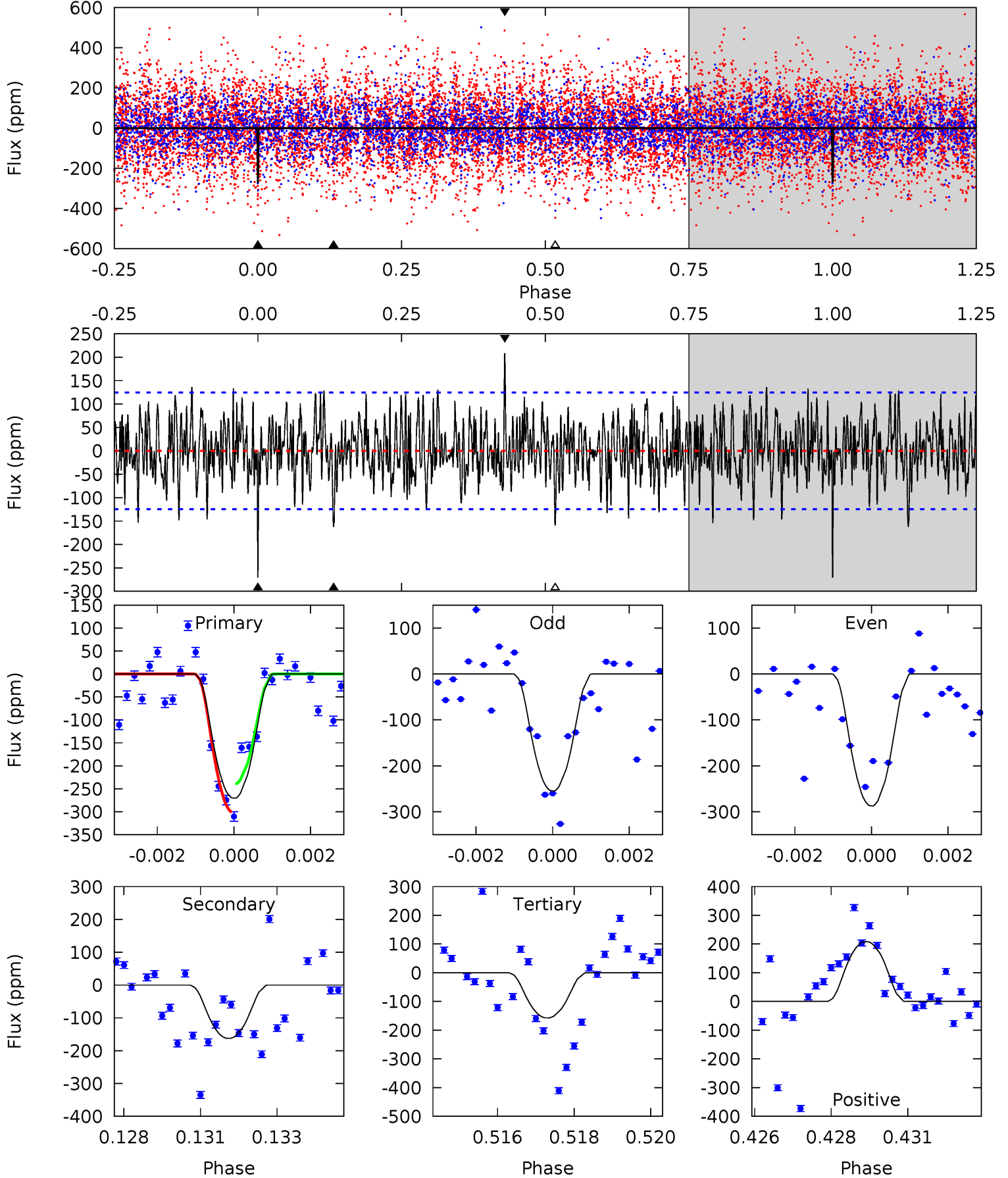
TCE 011294394-03 $P = 54.377258$ Days $T_0 = 175.902130$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-03, P = 54.376855 Days, E = 121.536131 Days

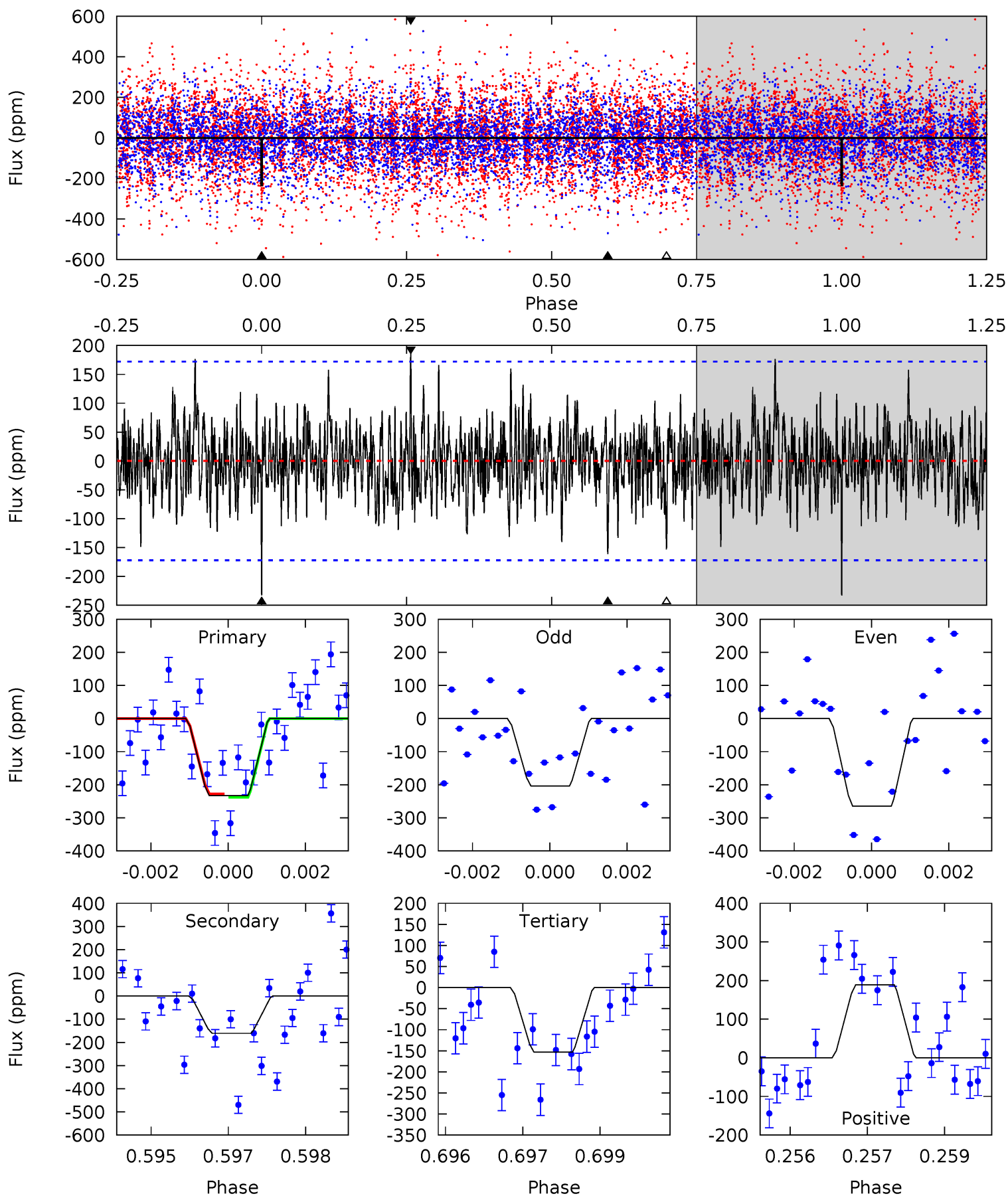
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	6.90	6.68	8.84	5.29	3.03	2.15	4.80	2.64	0.22	-1.94	0.69	1.04	0.43	1.31



Alt Model-Shift Uniqueness Test

011294394-03, P = 54.377258 Days, E = 121.524872 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.29	5.04	4.79	5.91	5.38	3.17	1.52	2.51	1.38	0.26	-0.86	0.96	0.89	0.45	0.15



Stellar Parameters For KIC 011294394

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-163 ± 24	$10.46^{+7.99}_{-6.17}$	1382^{+67}_{-125}	4841^{+2710}_{-942}	102^{+523}_{-70}
Alt.	-161 ± 32	$8.56^{+7.00}_{-5.58}$	1379^{+71}_{-131}	5244^{+4178}_{-1107}	150^{+1084}_{-105}

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

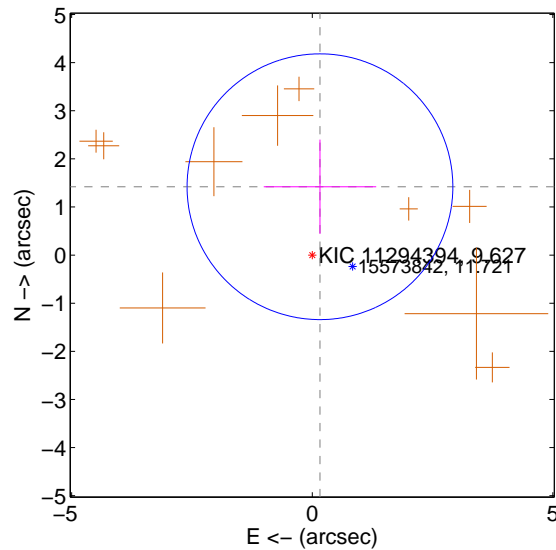
Supplemental centroid analysis for 011294394-03. **Kepler magnitude: 9.63.** Transit SNR 13.21

There are 0 quarters with good PRF difference image offsets

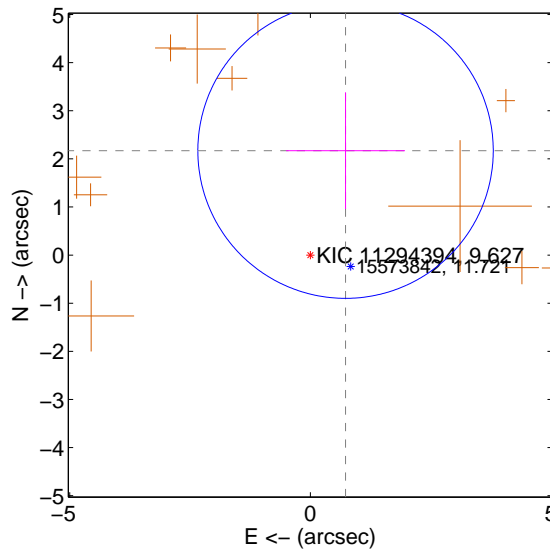
The OOT PRF centroid is offset from the target star catalog position by about 2.51 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.430 ± 0.921	1.55	-0.161 ± 1.170	1.421 ± 0.979
PRF-fit source offset from KIC position	2.291 ± 1.023	2.24	-0.732 ± 1.236	2.171 ± 1.213
photometric centroid source offset	1.01 ± 0.37	2.76	-0.31 ± 0.28	0.96 ± 0.38

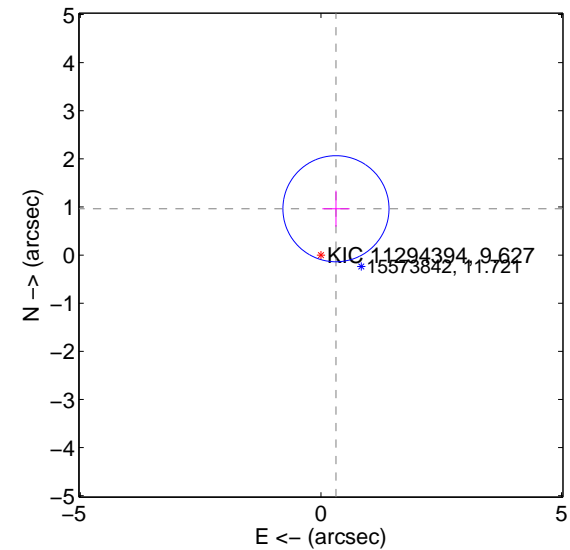
offset from difference PRF-fit to OOT PRF-fit



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.

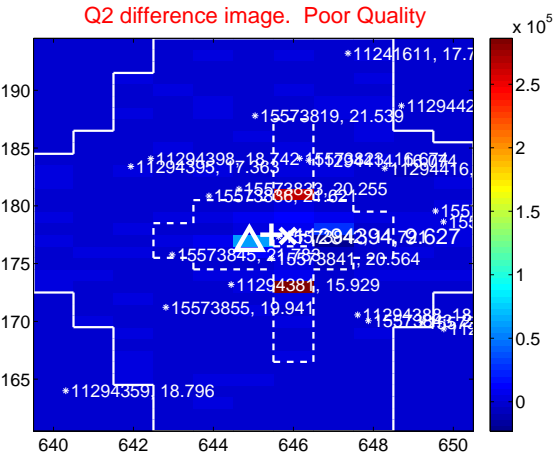
Q1 no difference image



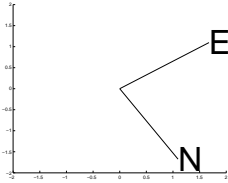
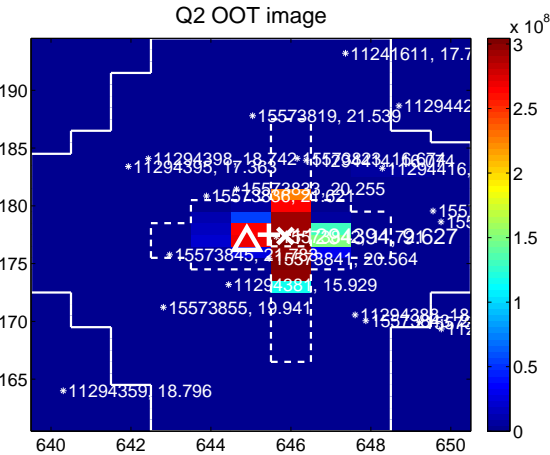
Q1 no OOT image



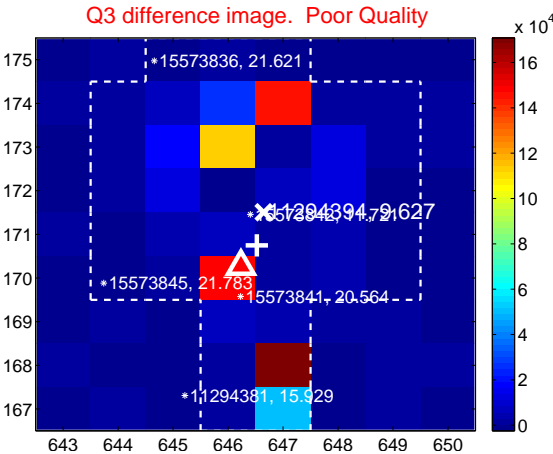
Q2 difference image. Poor Quality



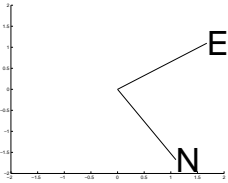
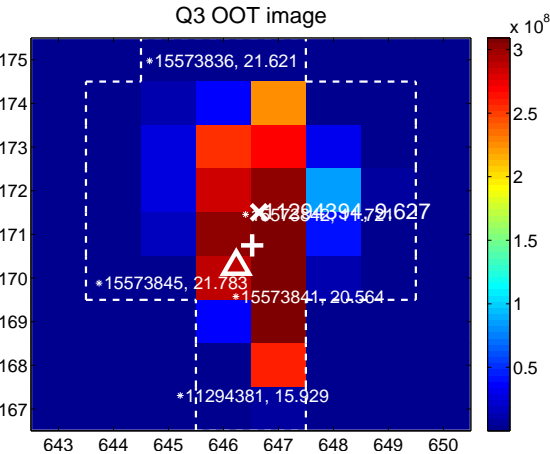
Q2 OOT image



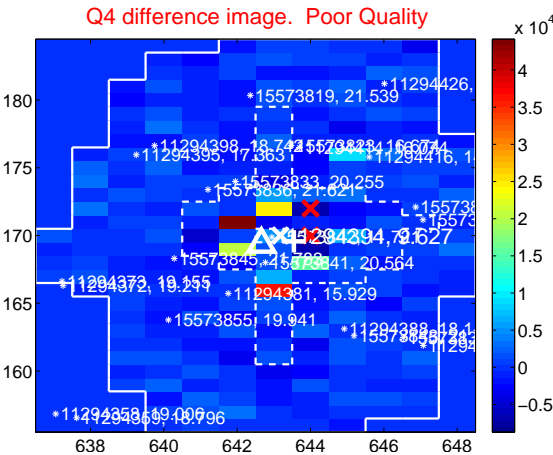
Q3 difference image. Poor Quality



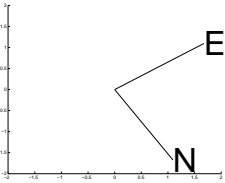
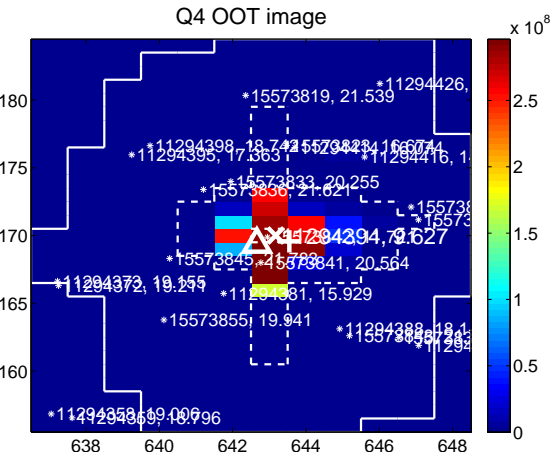
Q3 OOT image



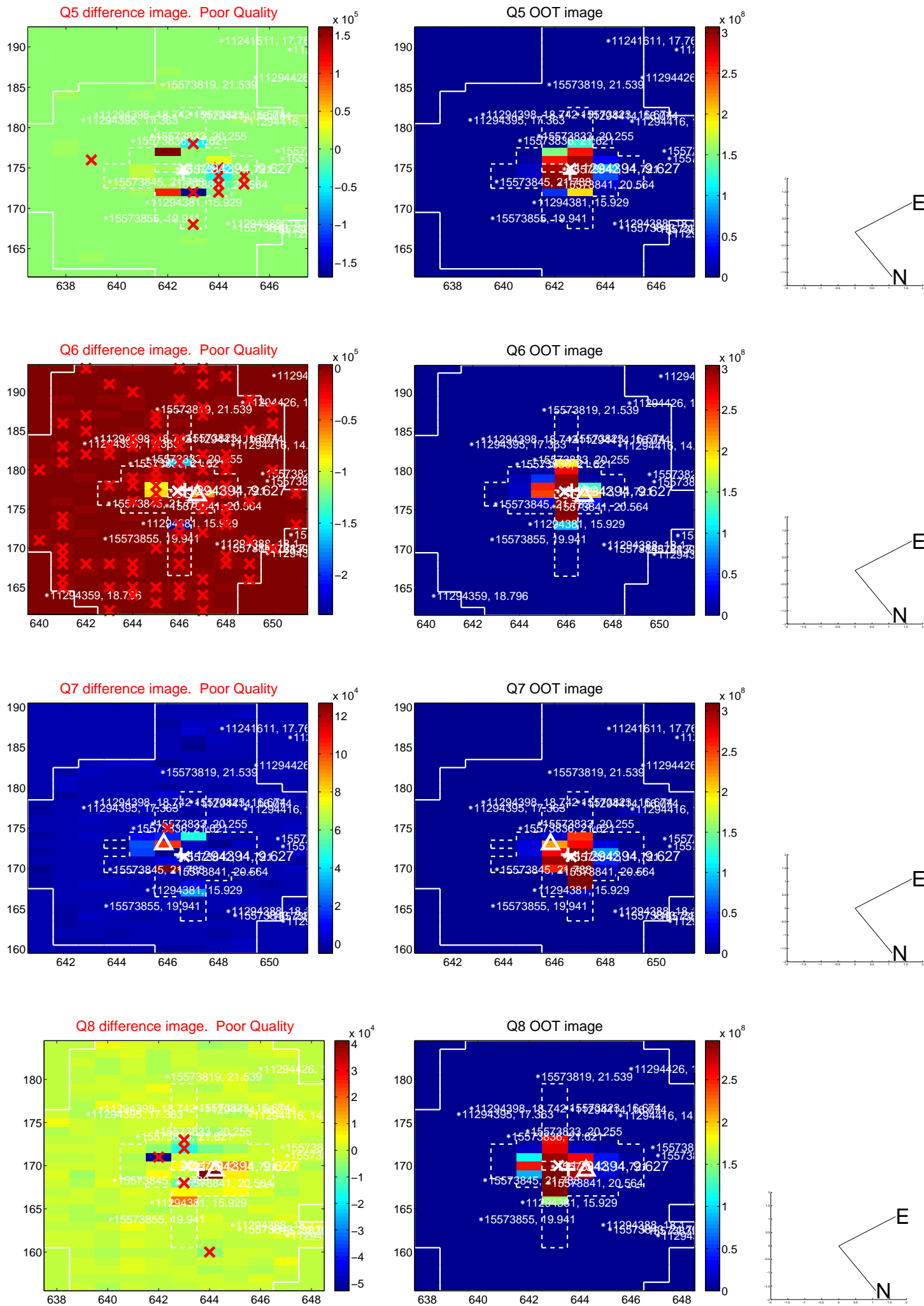
Q4 difference image. Poor Quality



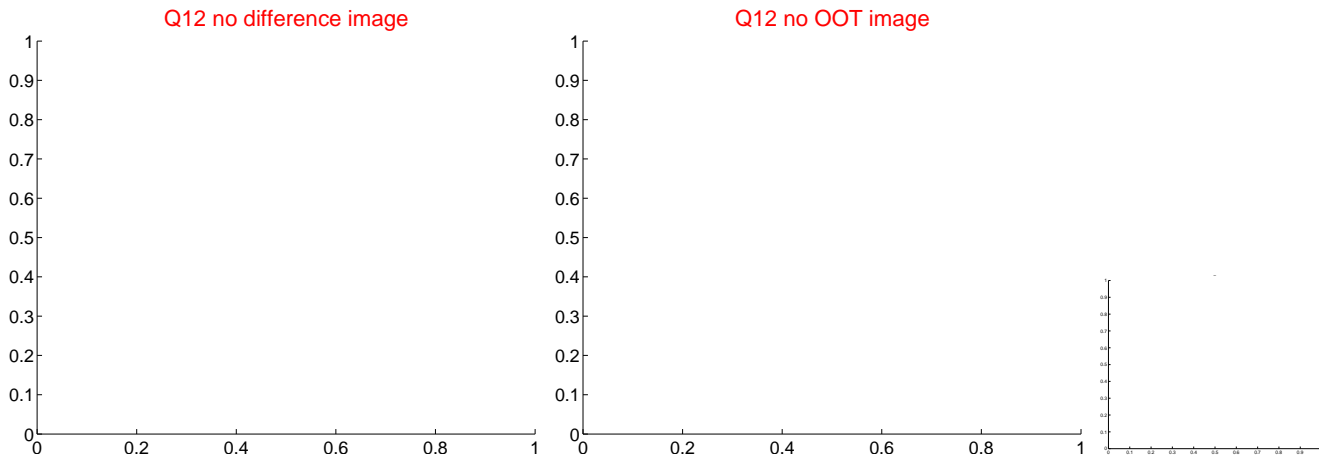
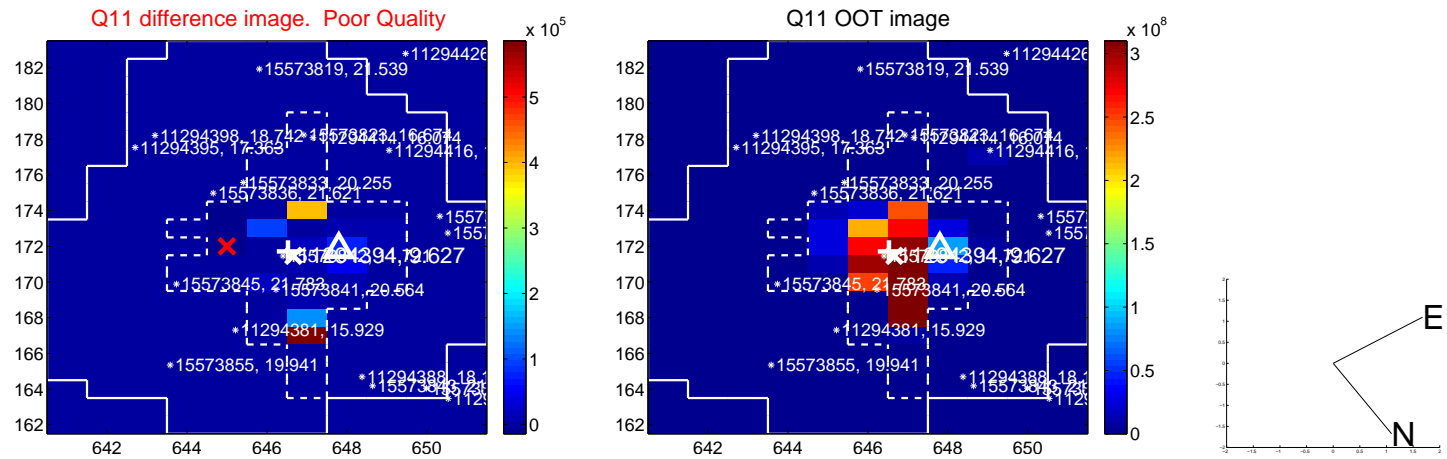
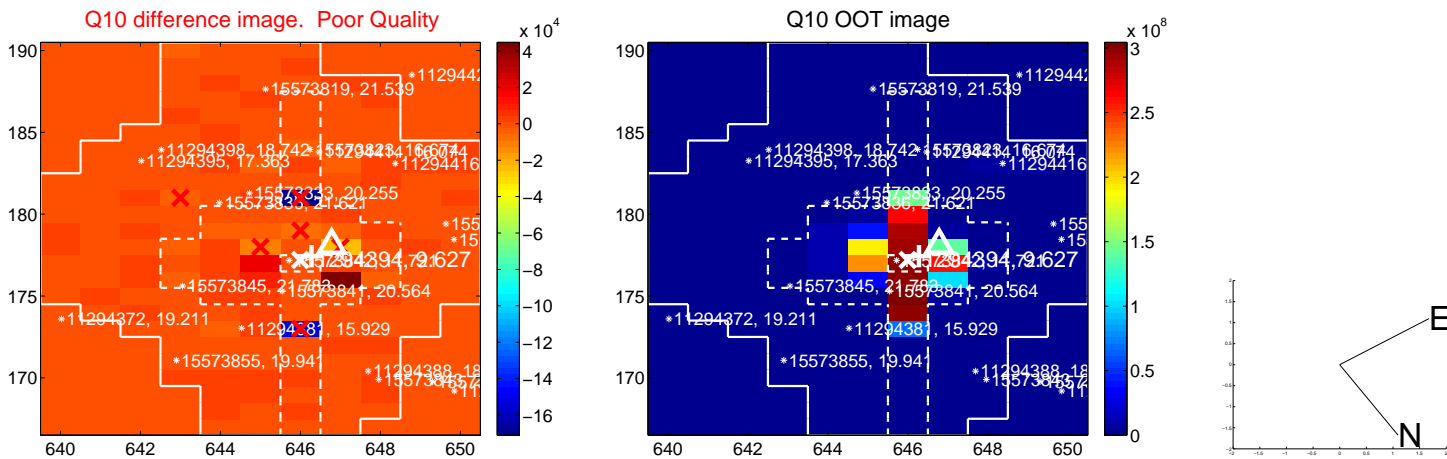
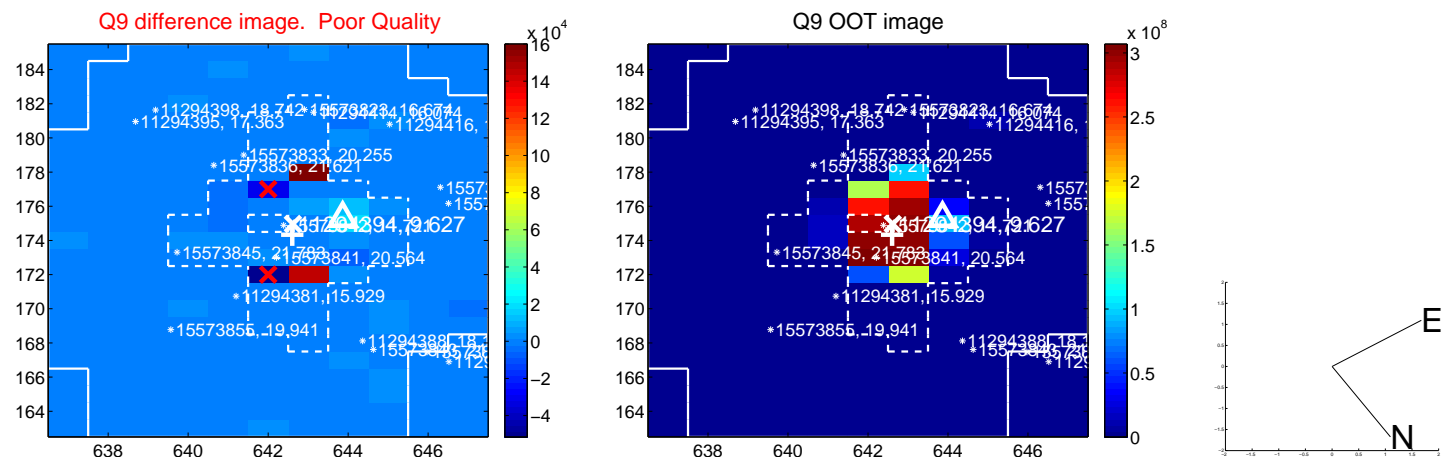
Q4 OOT image



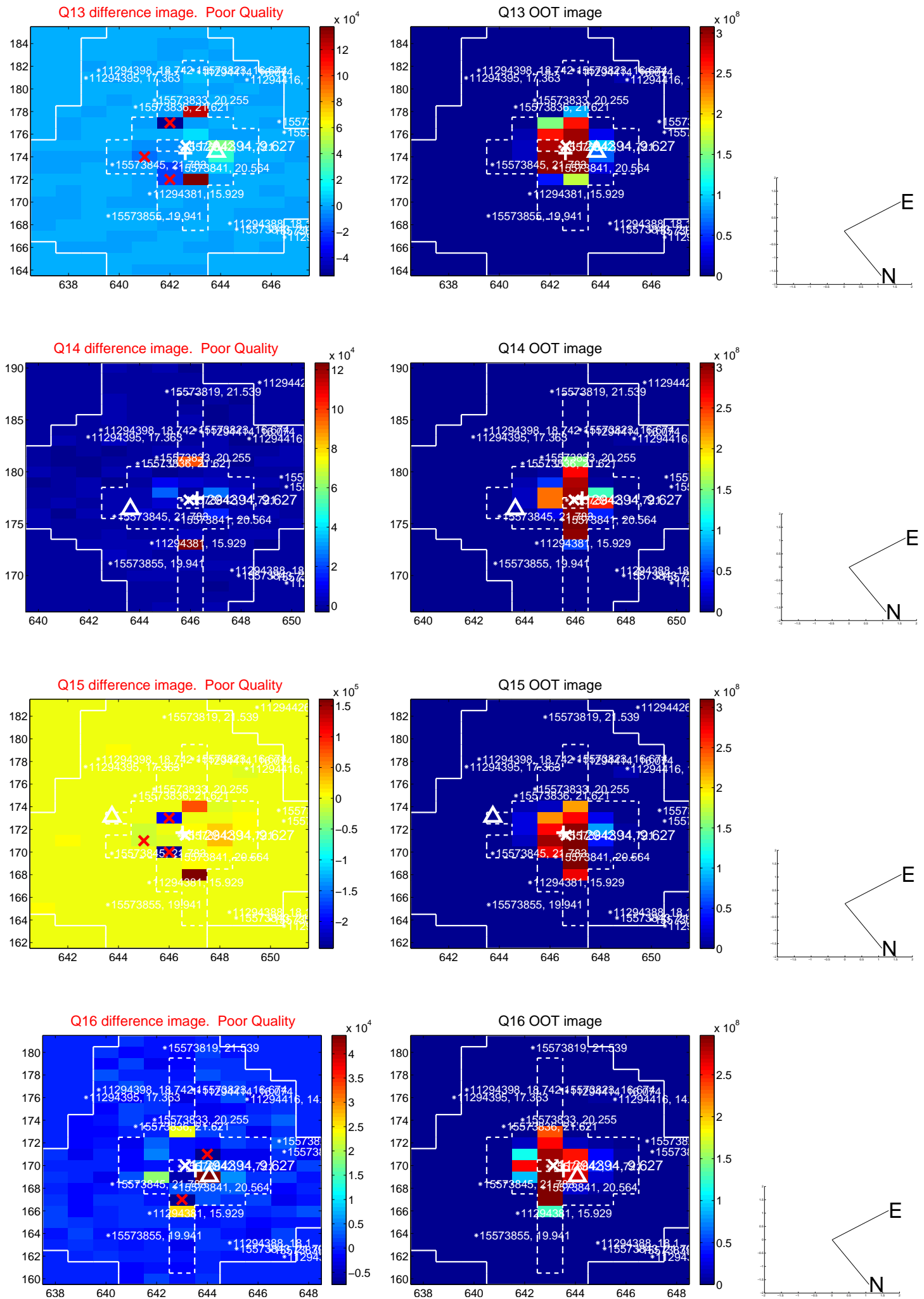
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



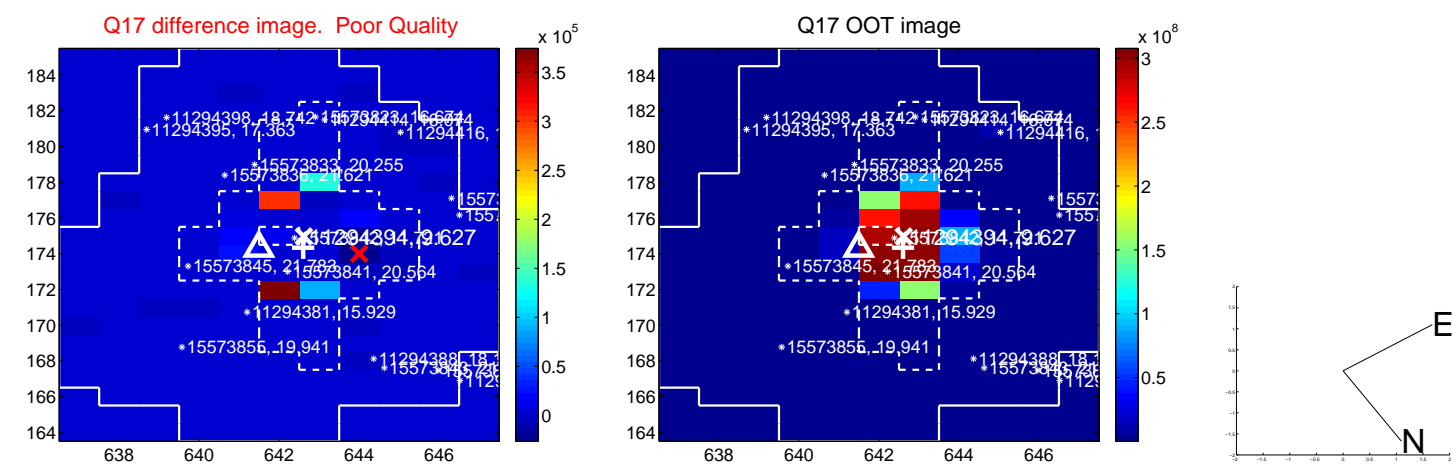
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



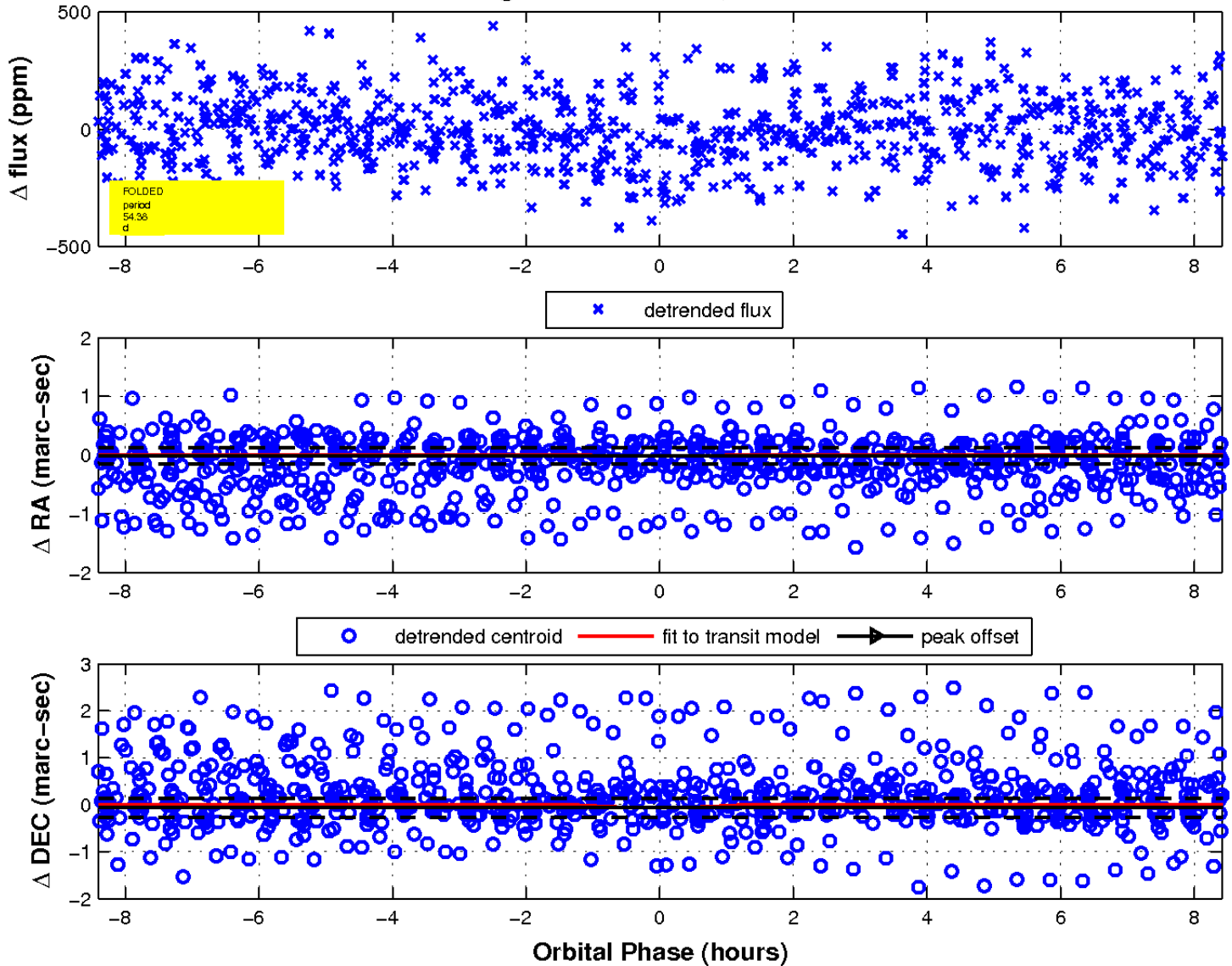
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



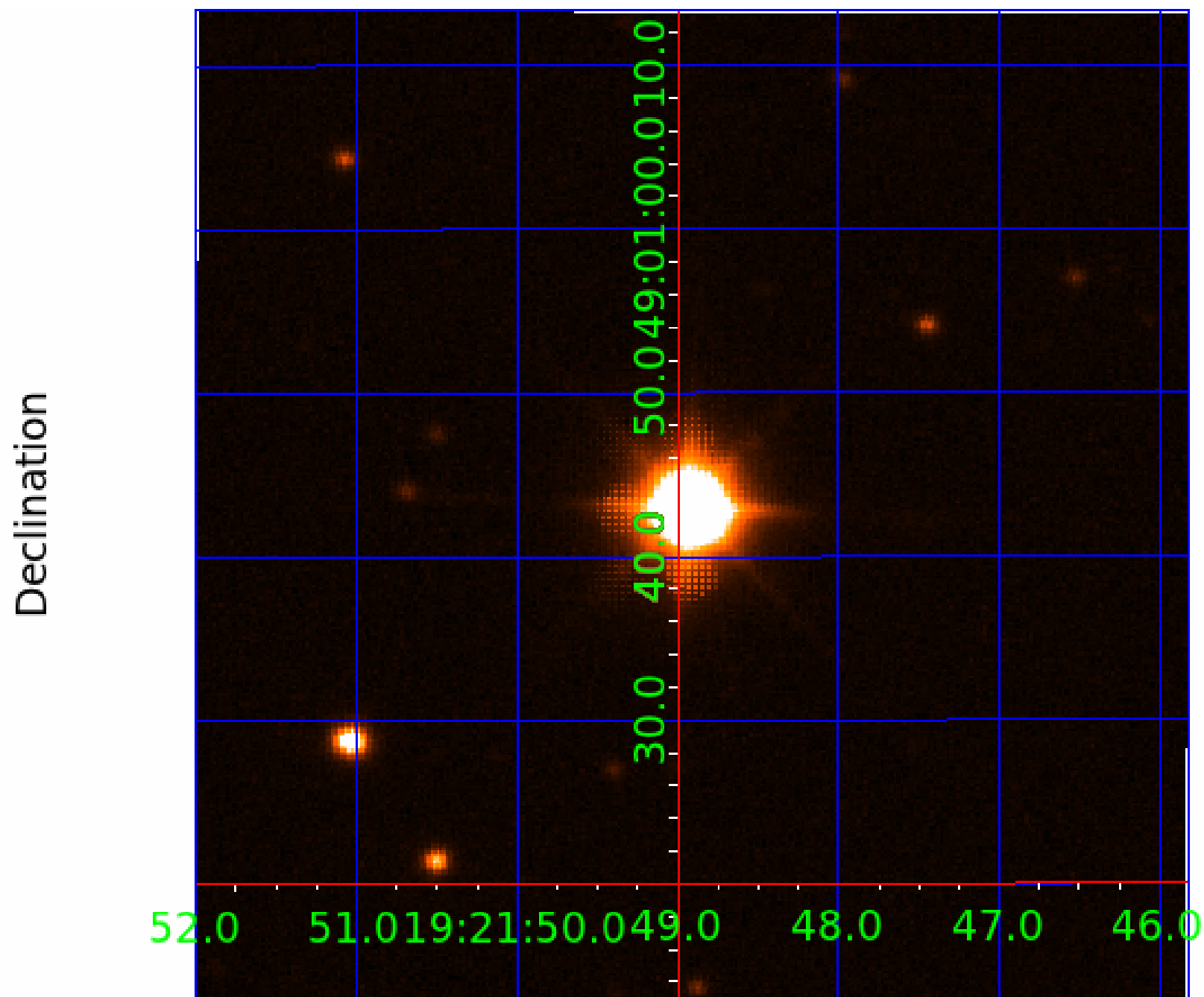
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 3 of 10



UKIRT Image



KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
011294394-03	OBS	No	54.376855	175.912986	286.7	2.809	12.7	13.2	4.16	6626	10.00	242.26
011294394-04	OBS	No	41.700369	152.100063	258.2	3.415	11.4	11.6	4.16	6626	7.83	345.13
011294394-05	OBS	No	39.899524	166.832283	212.3	3.665	11.2	11.9	4.16	6626	6.87	366.06
011294394-06	OBS	No	21.340024	132.950168	93.1	7.492	11.1	8.9	4.16	6626	4.54	843.16
011294394-07	OBS	No	122.548908	235.373023	206.9	7.059	10.8	8.3	4.16	6626	6.83	81.99
011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

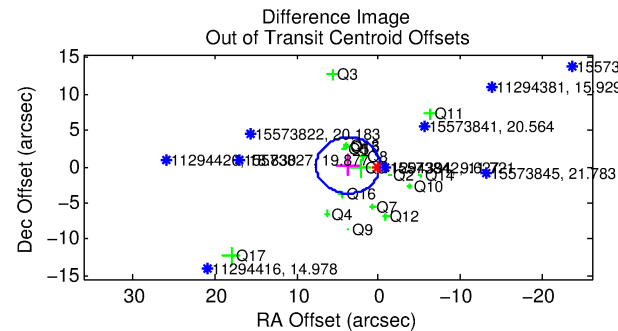
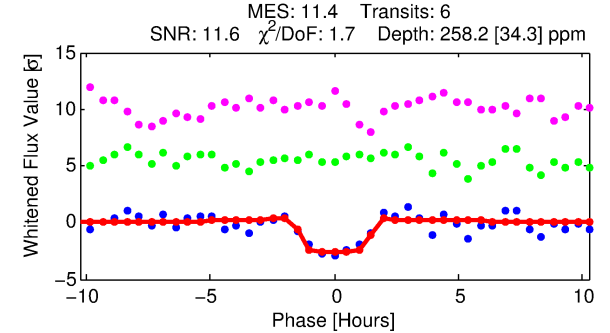
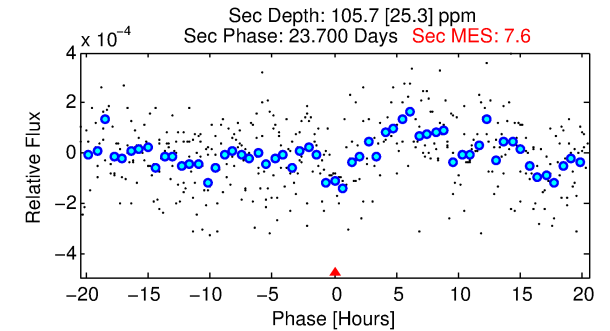
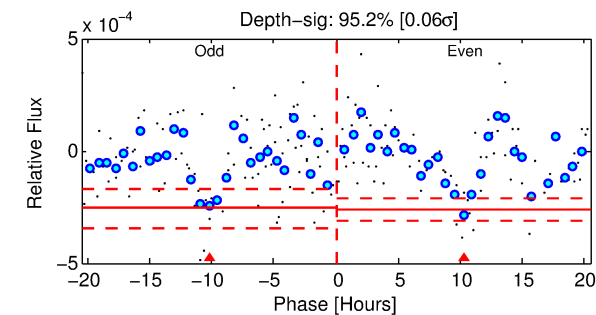
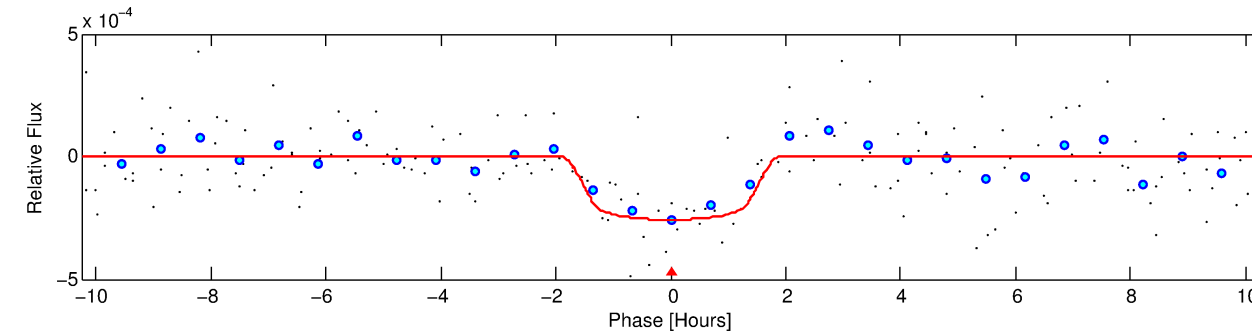
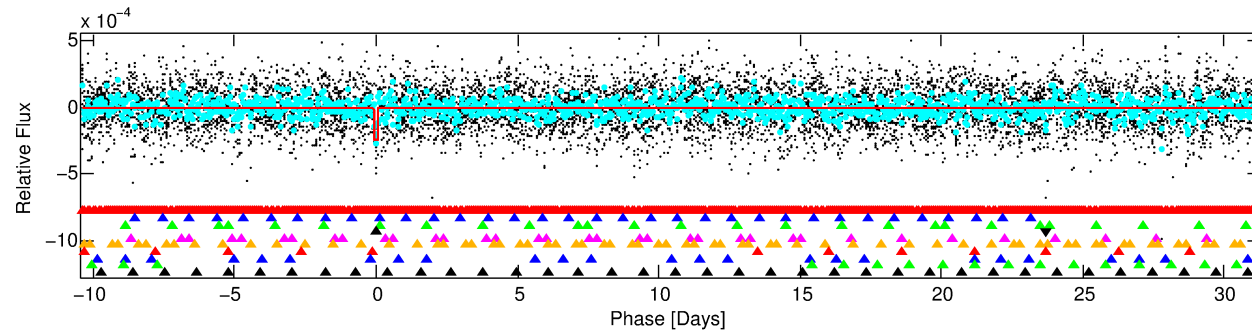
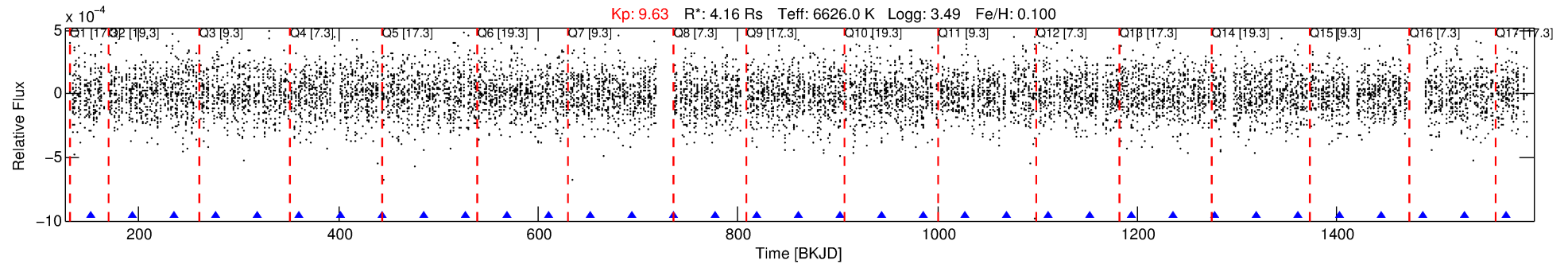
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-04

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 4 of 10 Period: 41.700 d



DV Fit Results:

Period = 41.70037 [0.00057] d
Epoch = 152.1001 [0.0137] BKJD
Rp/R* = 0.0172 [0.0100]
a/R* = 43.75 [146.67]
b = 0.90 [0.70]
Seff = 345.13 [206.05]
Teq = 1099 [164] K
Rp = 7.82 [5.42] Re
a = 0.2945 [0.1074] AU
Ag = 82.36 [109.02] [0.75 σ]
Teffp = 5119 [1527] K [2.62 σ]

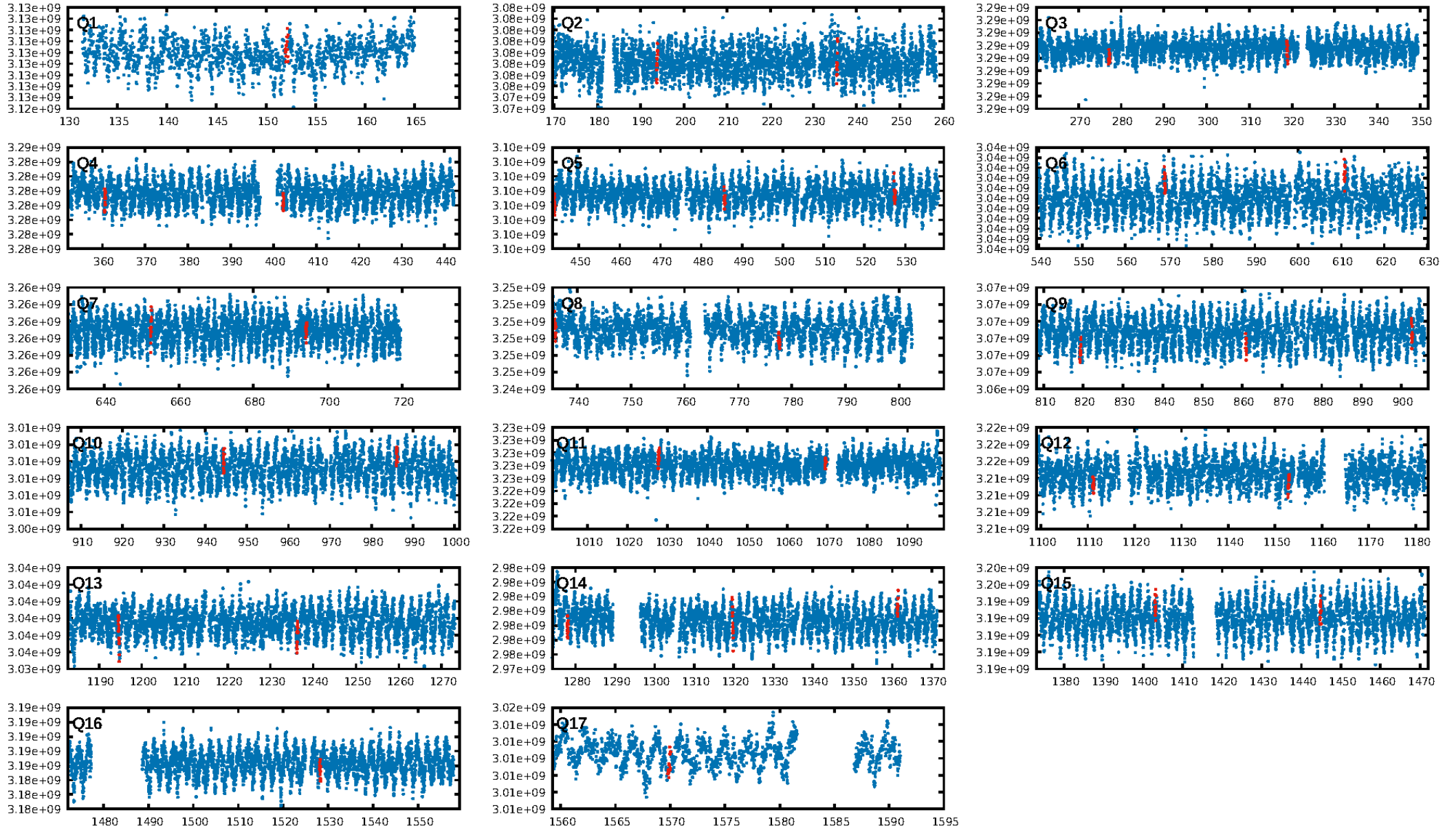
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.63 σ]
LongPeriod-sig: 91.8% [1.74 σ]
ModelChiSquare2-sig: 53.2%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: N/A
Centroid-sig: 53.2%
Centroid-so: 0.761 arcsec [2.68 σ]
OotOffset-rm: 3.753 arcsec [2.90 σ]
KicOffset-rm: 2.551 arcsec [2.41 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.06 [1/17]
DiffImageOverlap-fno: 0.35 [6/17]

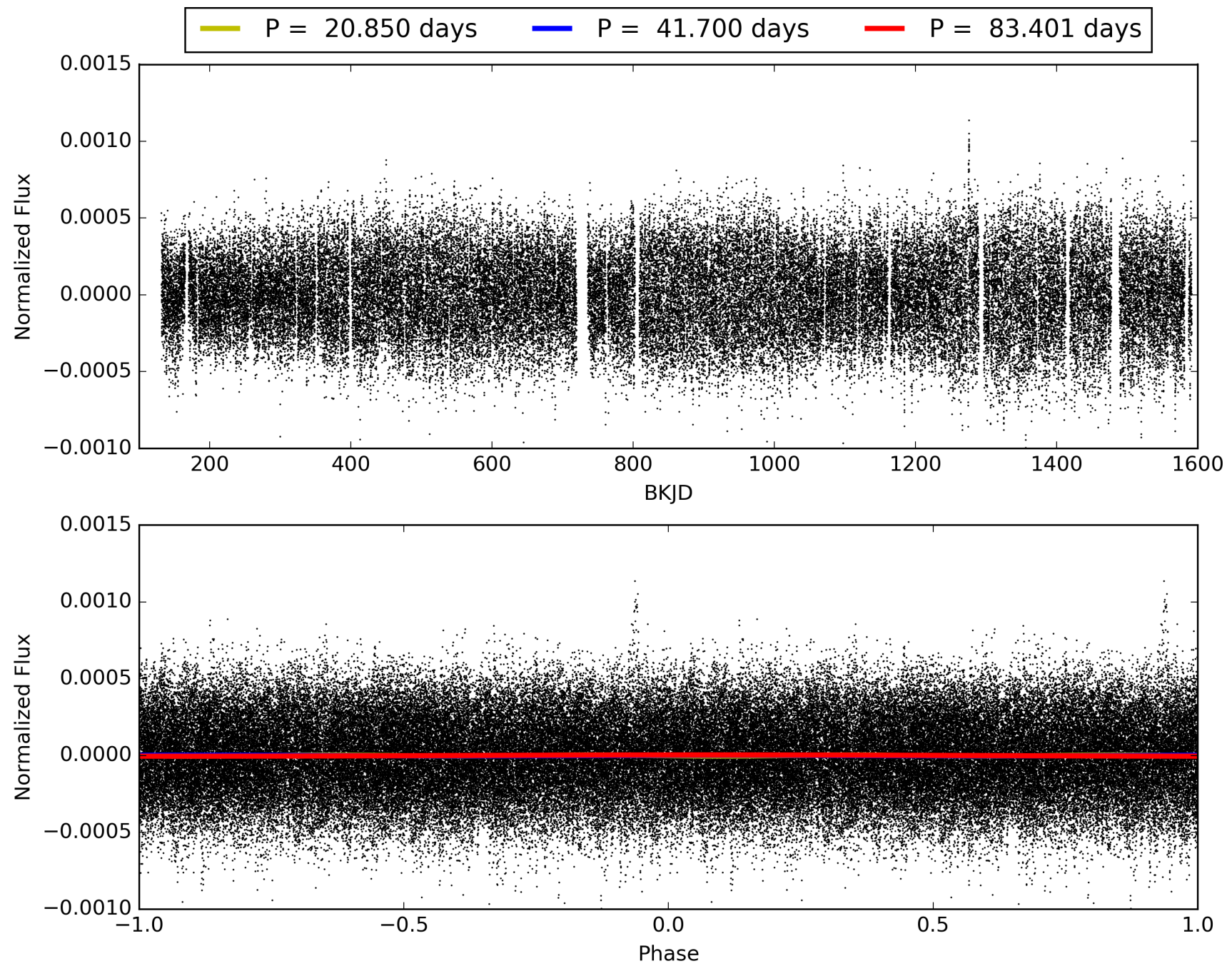
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:17:07 Z

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

TCE 011294394-04, PDC Light Curves

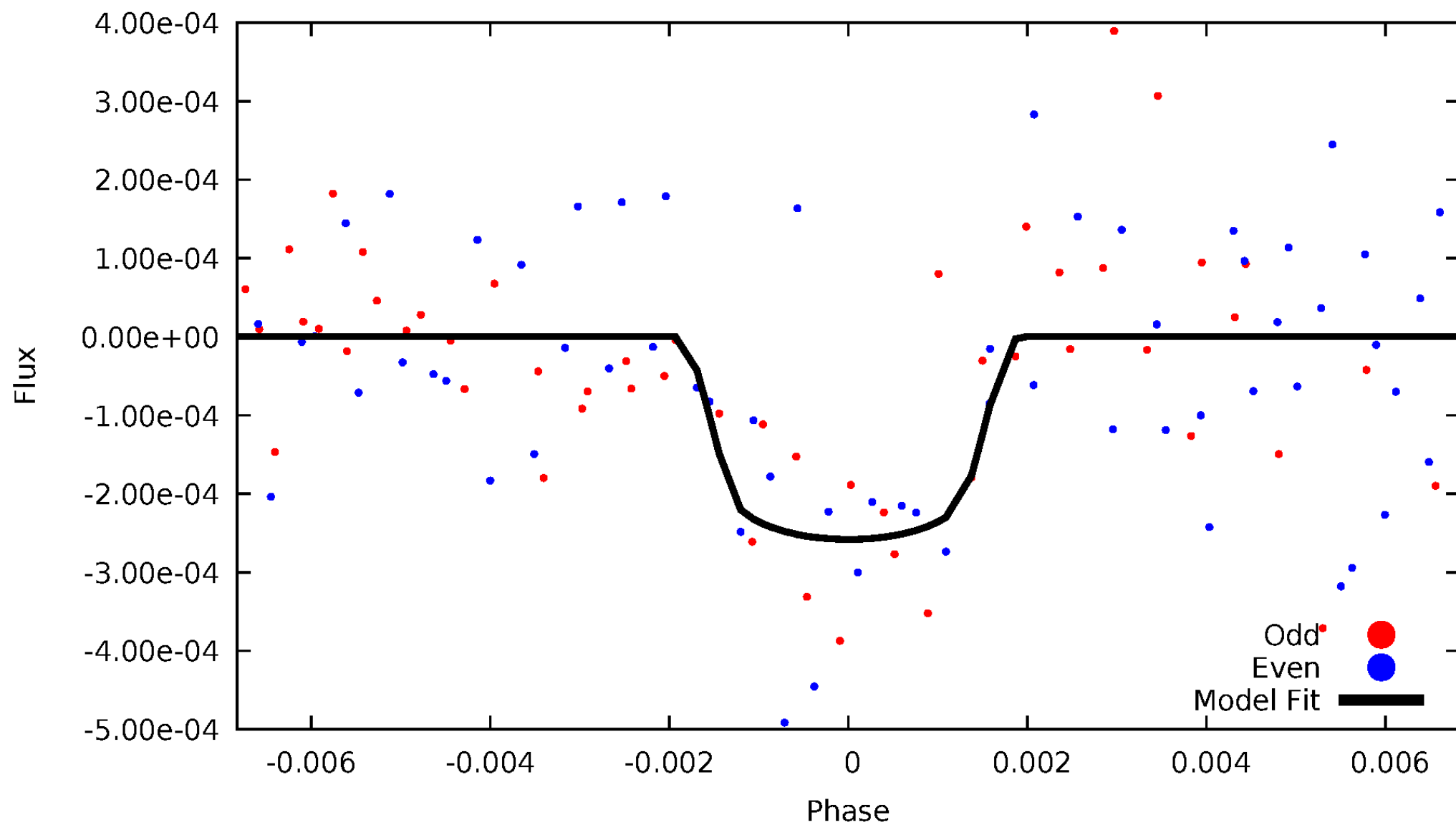


TCE 011294394-04



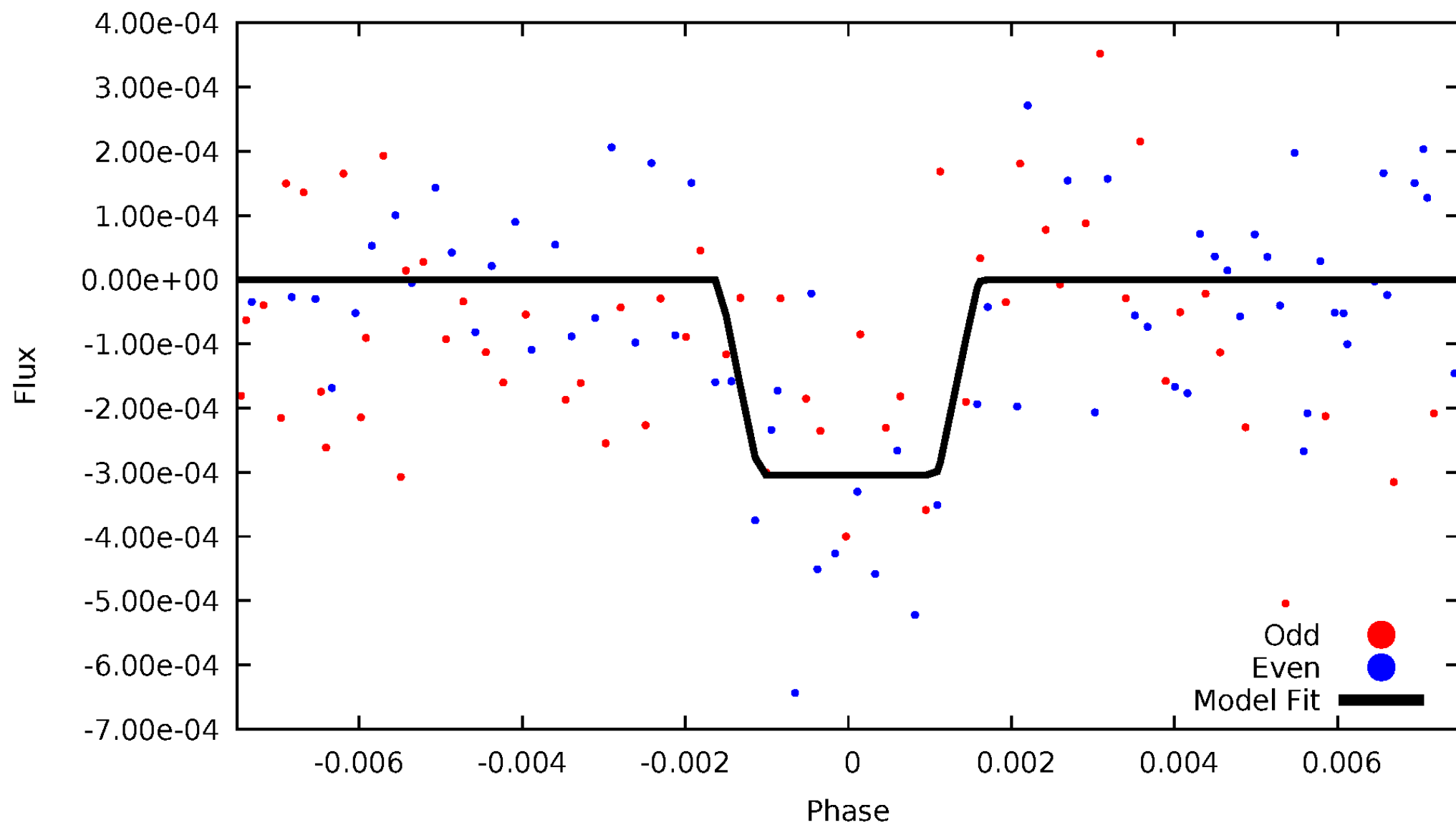
DV Odd/Even

TCE 011294394-04



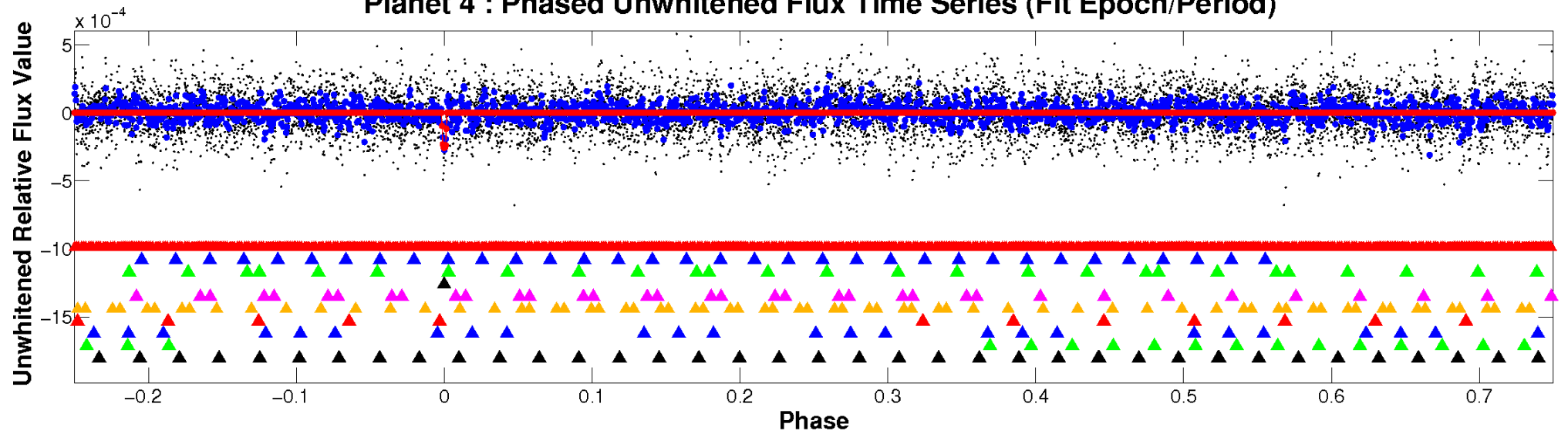
ALT Odd/Even

TCE 011294394-04

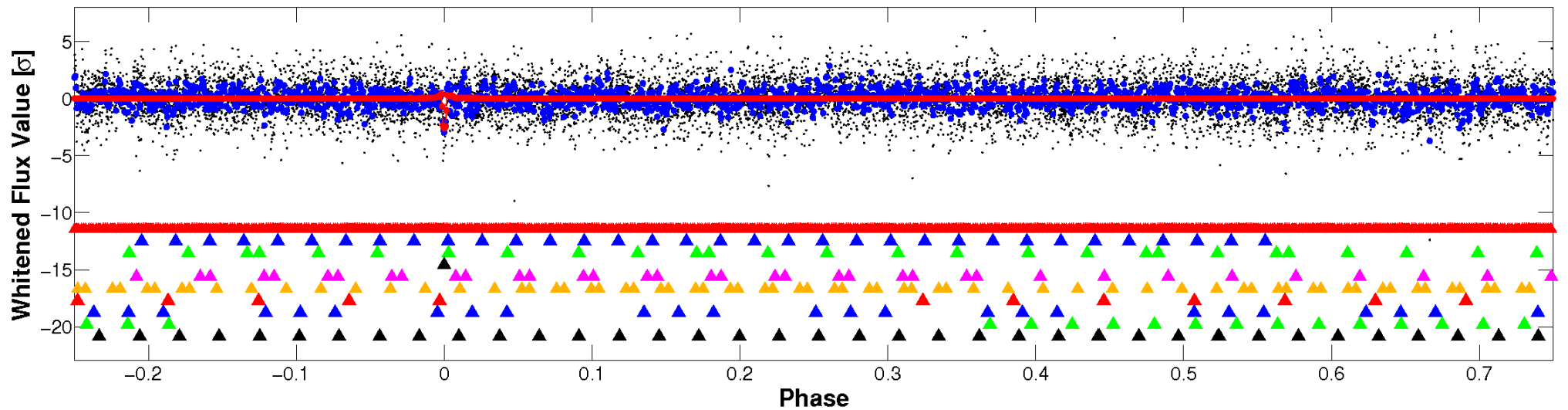


Non-Whitened Vs. Whitened Light Curve

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

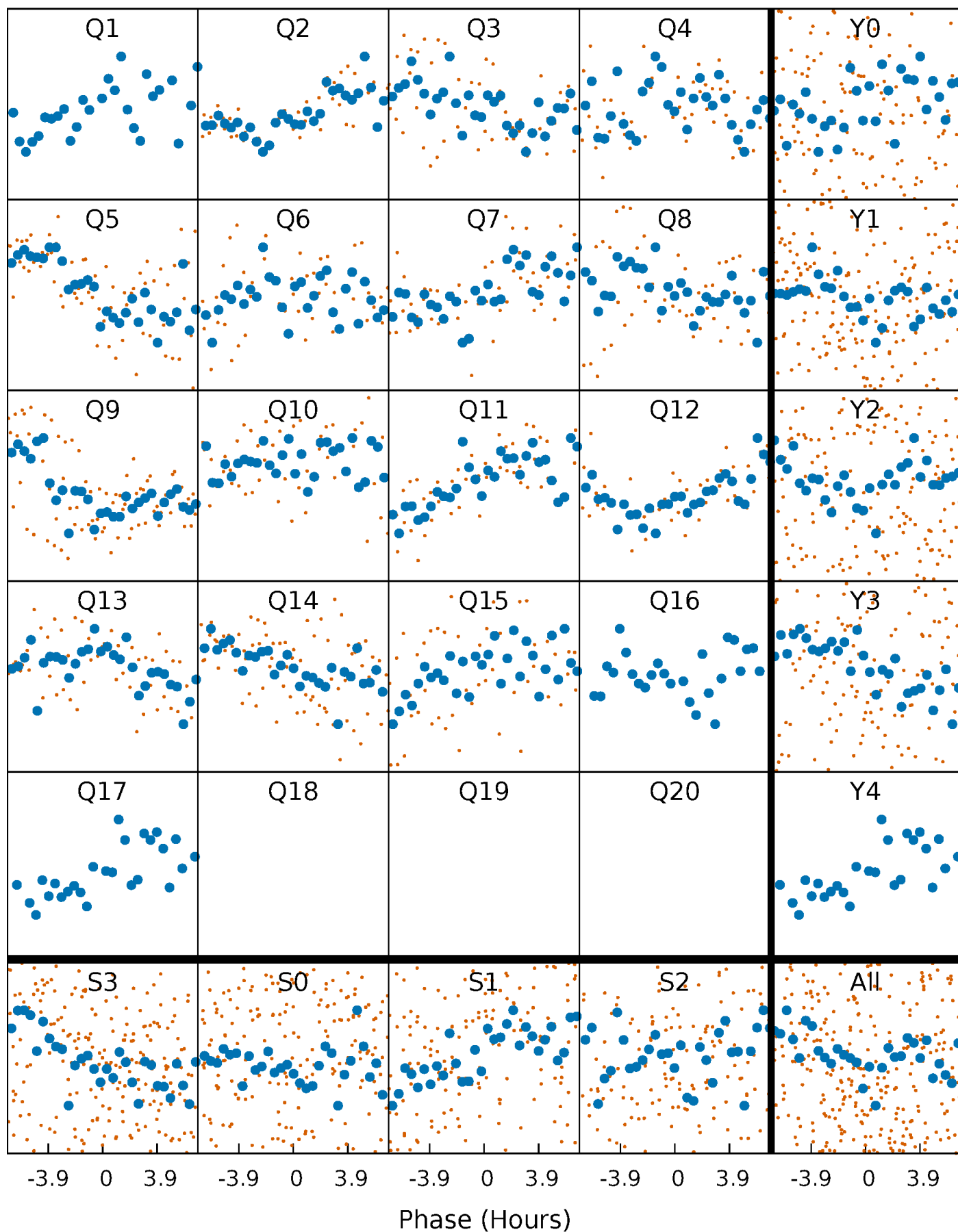


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



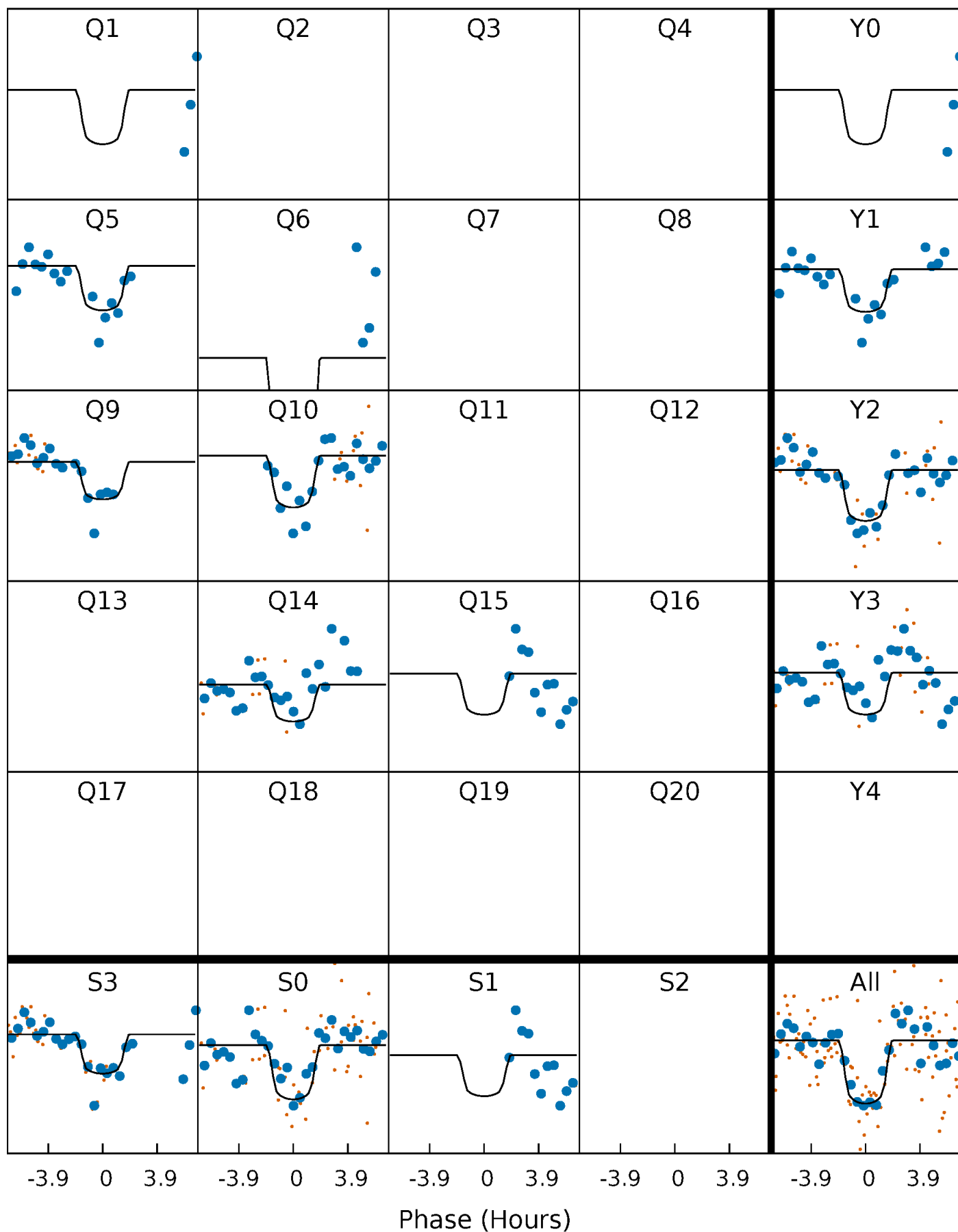
PDC Quarter-Phased Transit Curves

TCE 011294394-04 P= 41.700369 Days $T_0=152.100063$ (BKJD)



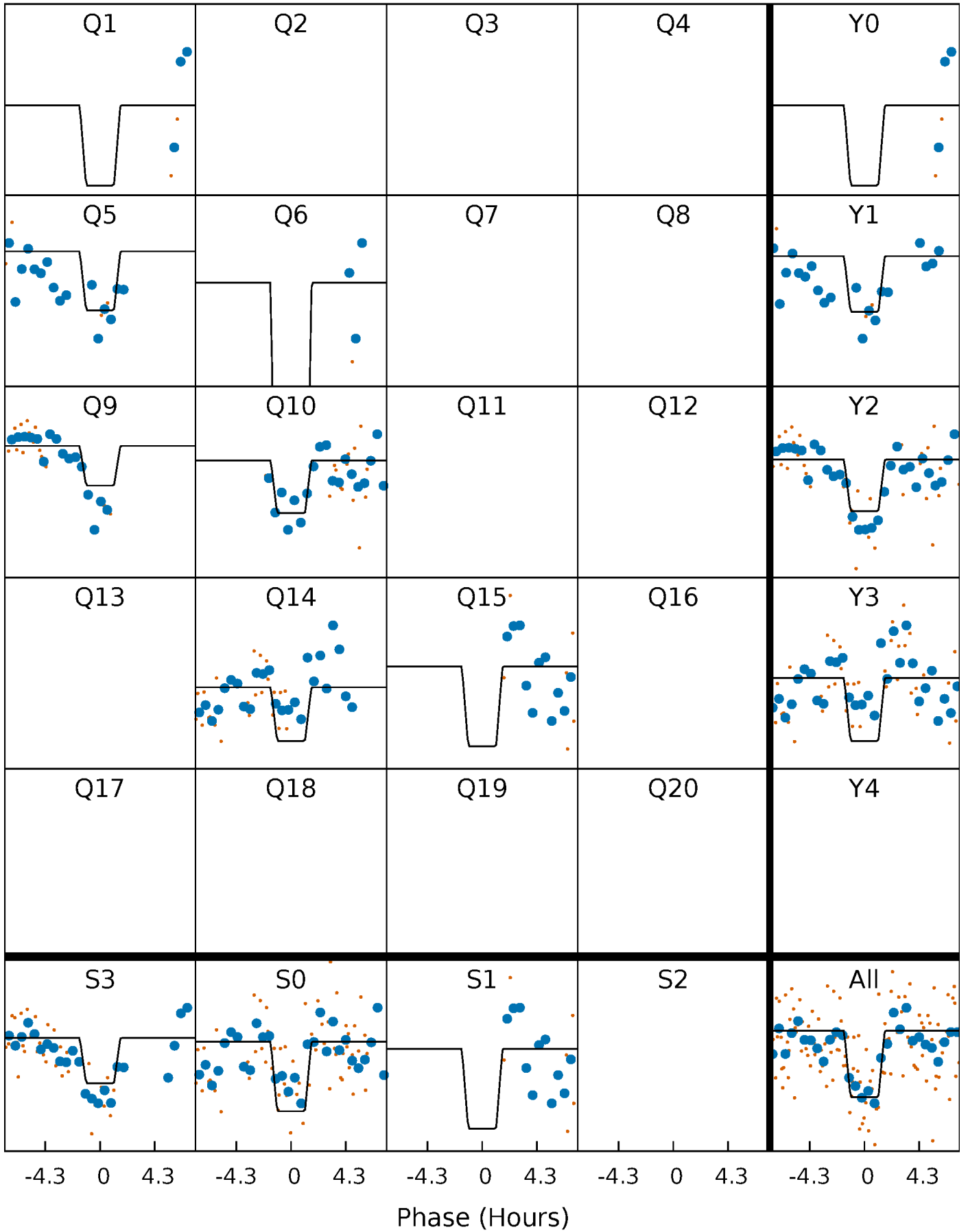
DV Quarter-Phased Transit Curves

TCE 011294394-04 $P = 41.700369$ Days $T_0 = 152.100063$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

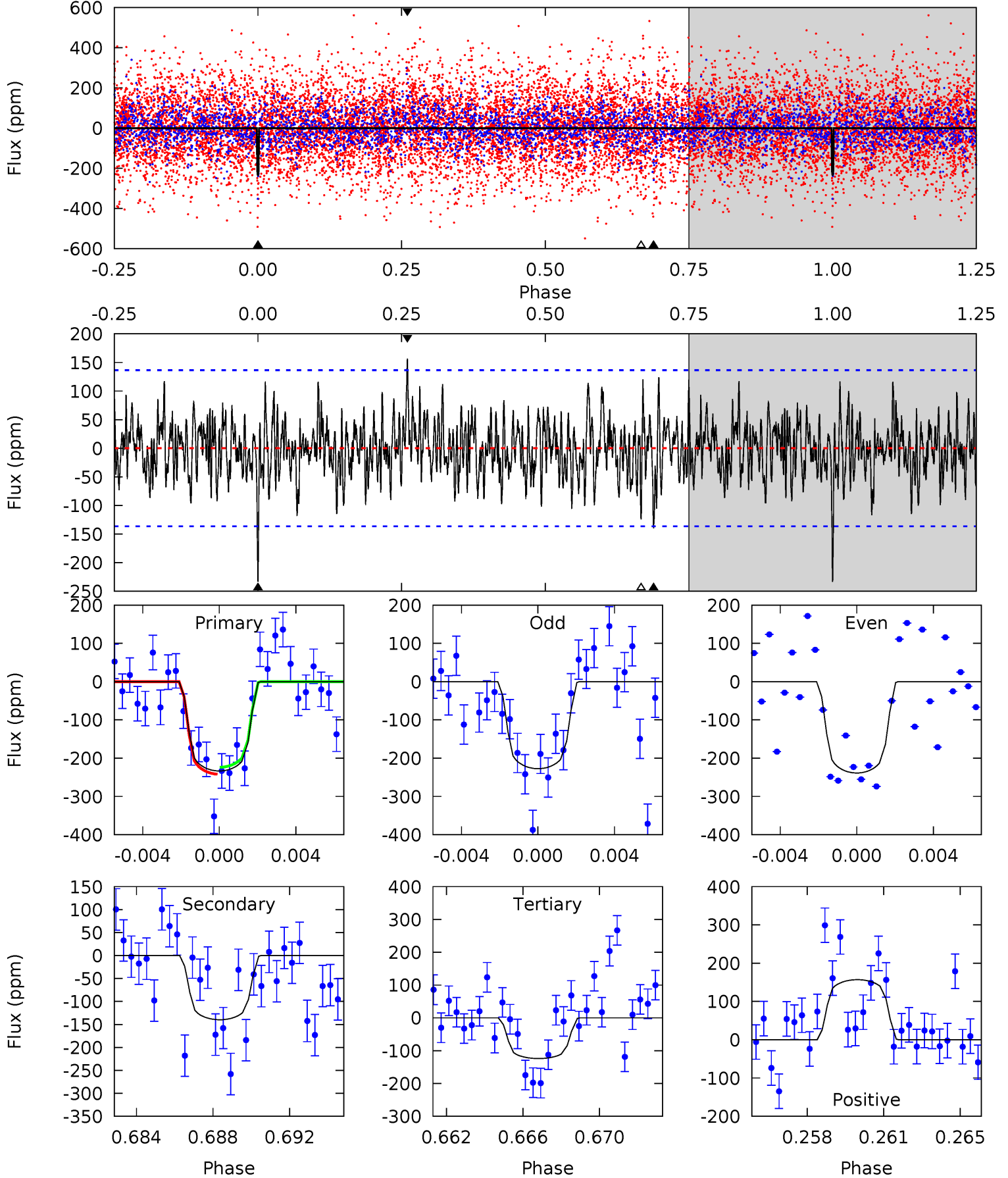
TCE 011294394-04 P= 41.700134 Days $T_0=152.101853$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-04, P = 41.700369 Days, E = 110.399694 Days

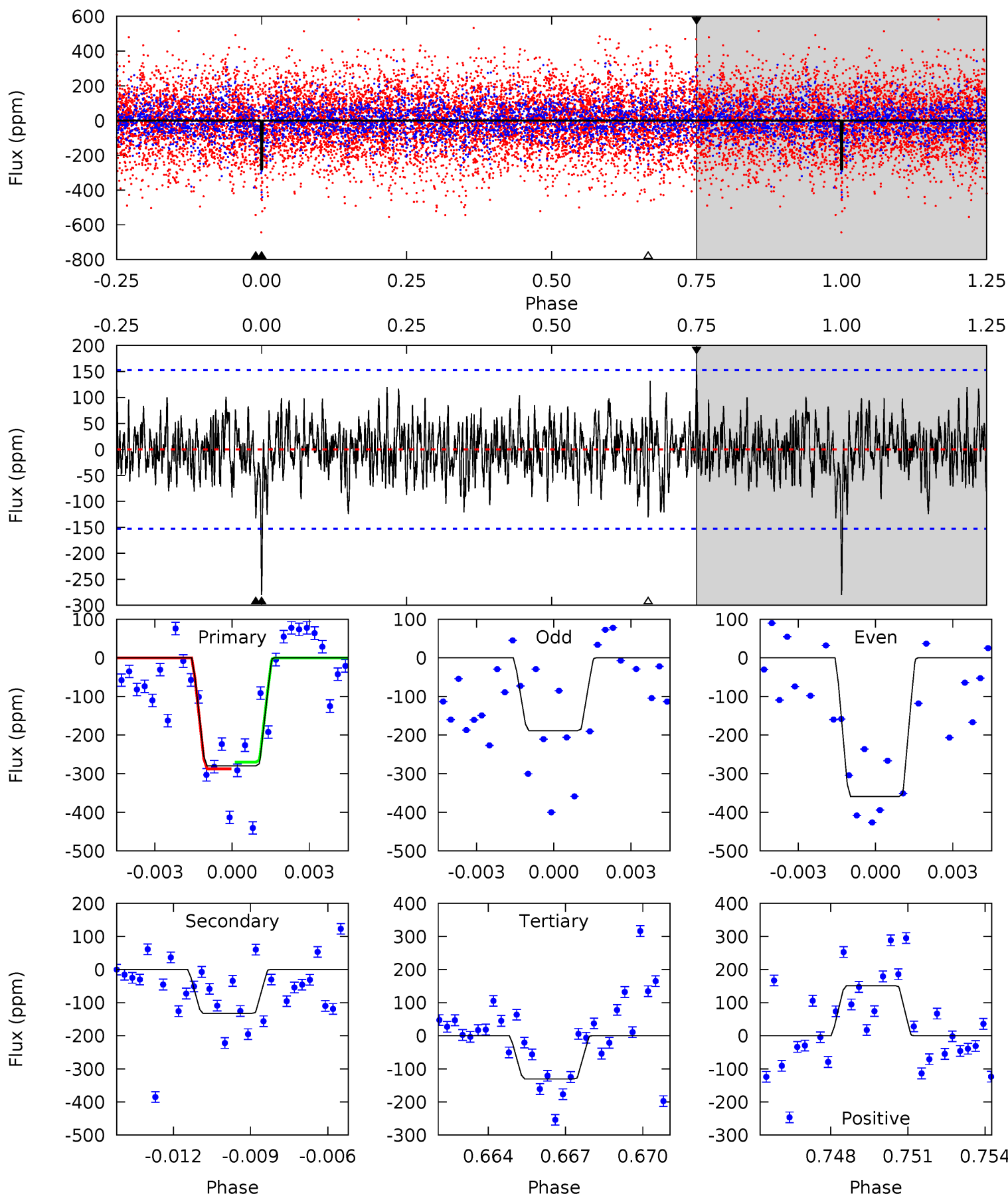
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.93	5.34	4.74	6.00	5.21	2.90	1.62	4.18	2.93	0.60	-0.65	0.22	0.72	0.40	0.35



Alt Model-Shift Uniqueness Test

011294394-04, P = 41.700134 Days, E = 110.401719 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.62	4.56	4.49	5.20	5.25	2.96	1.40	5.13	4.42	0.07	-0.64	2.92	0.88	0.35	0.30



Stellar Parameters For KIC 011294394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-140 ± 26	$7.31^{+4.49}_{-3.66}$	1514^{+68}_{-133}	5479^{+2428}_{-1030}	122^{+393}_{-76}
Alt.	-133 ± 29	$7.28^{+4.49}_{-3.65}$	1508^{+75}_{-135}	5330^{+2403}_{-865}	116^{+355}_{-71}

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 $A_{obs} \gg 1.0$

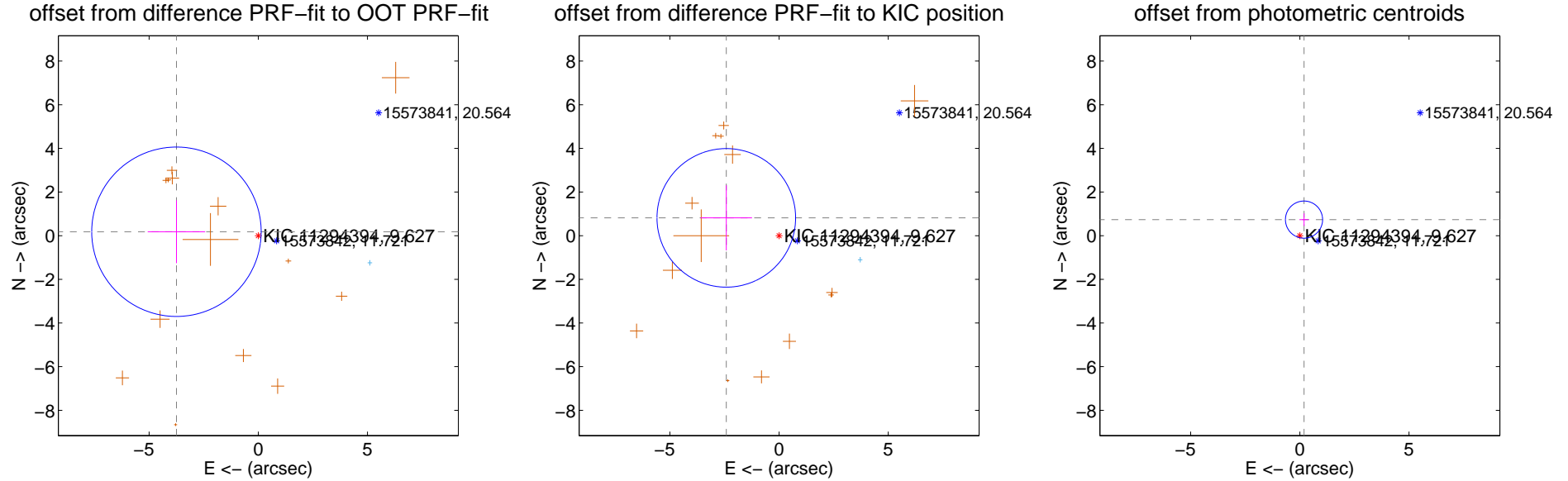
DV Centroid Data

Supplemental centroid analysis for 011294394-04. **Kepler magnitude: 9.63.** Transit SNR 11.64

There are 1 quarters with good PRF difference image offsets

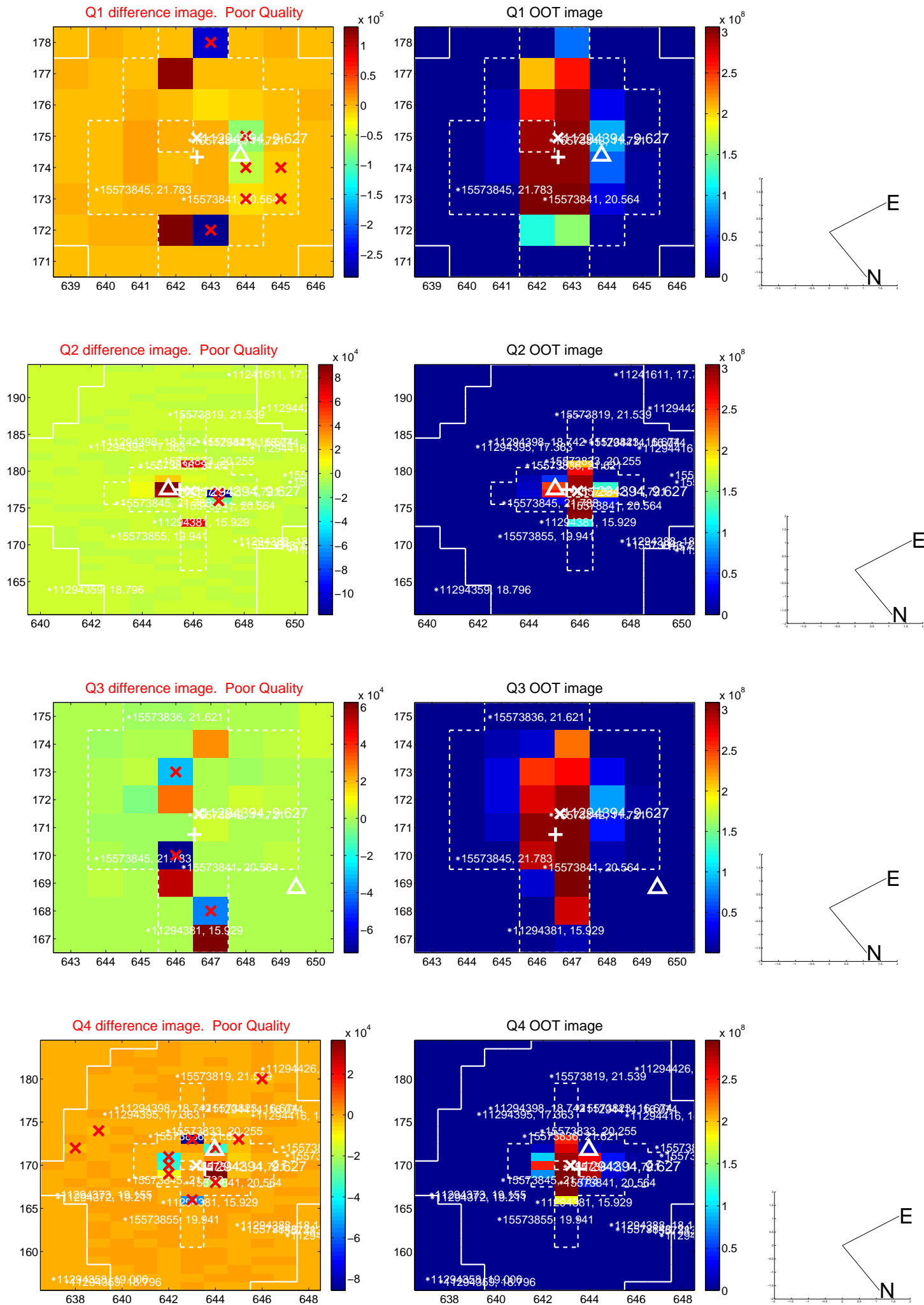
The OOT PRF centroid is offset from the target star catalog position by about 2.43 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.753 ± 1.294	2.90	3.749 ± 1.315	0.180 ± 1.441
PRF-fit source offset from KIC position	2.551 ± 1.058	2.41	2.417 ± 1.180	0.816 ± 1.491
photometric centroid source offset	0.76 ± 0.28	2.68	-0.19 ± 0.21	0.74 ± 0.29

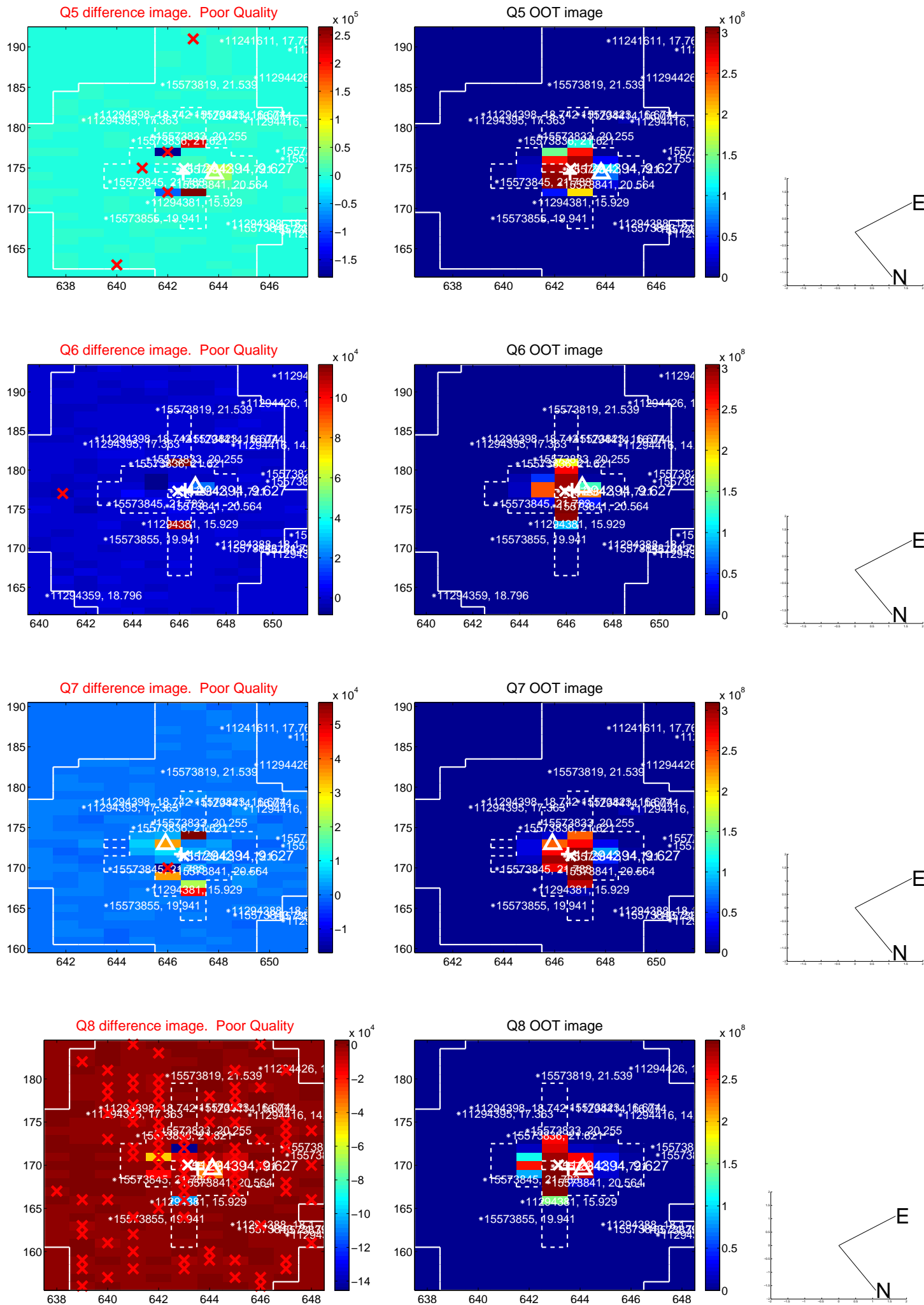


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

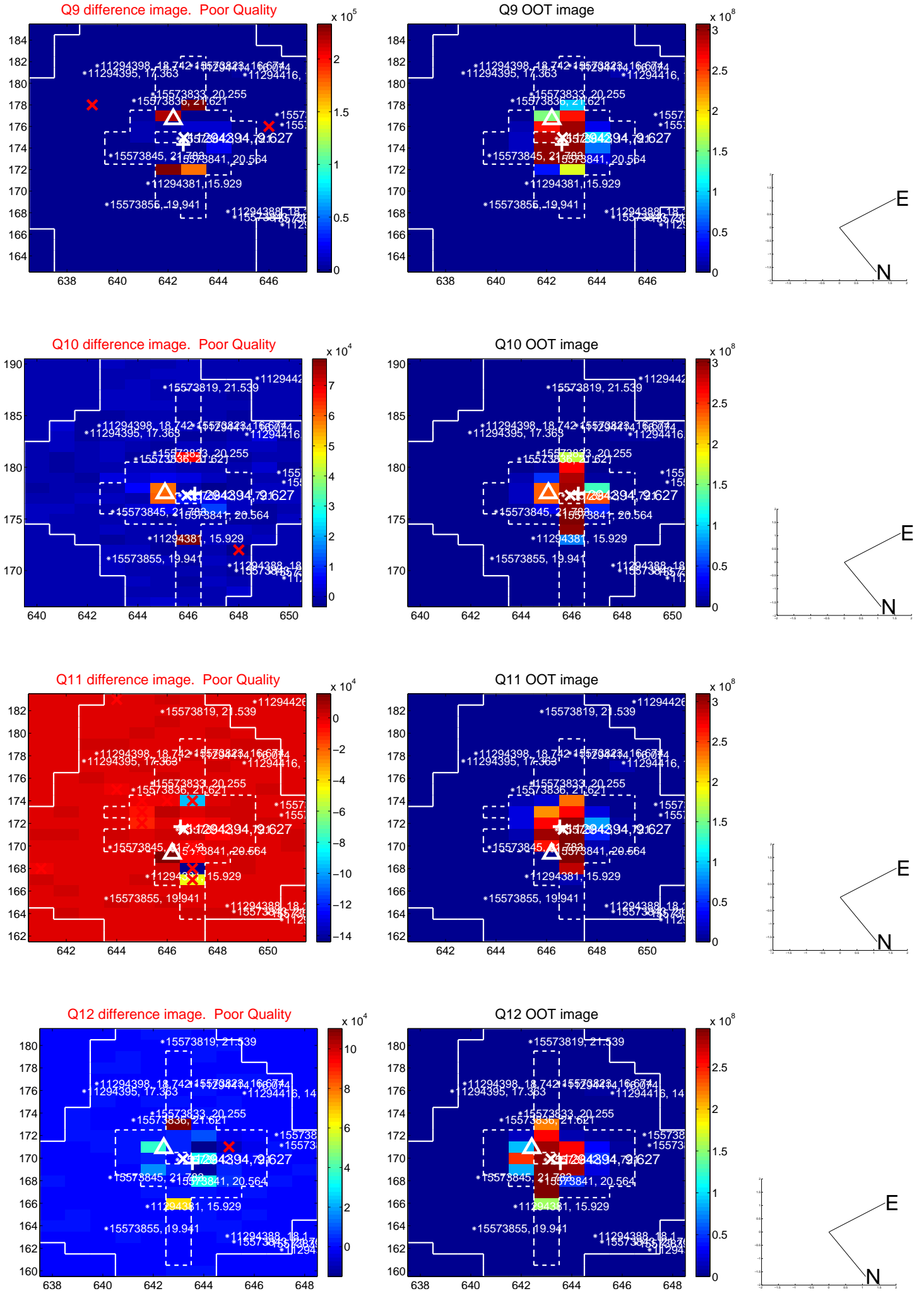
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



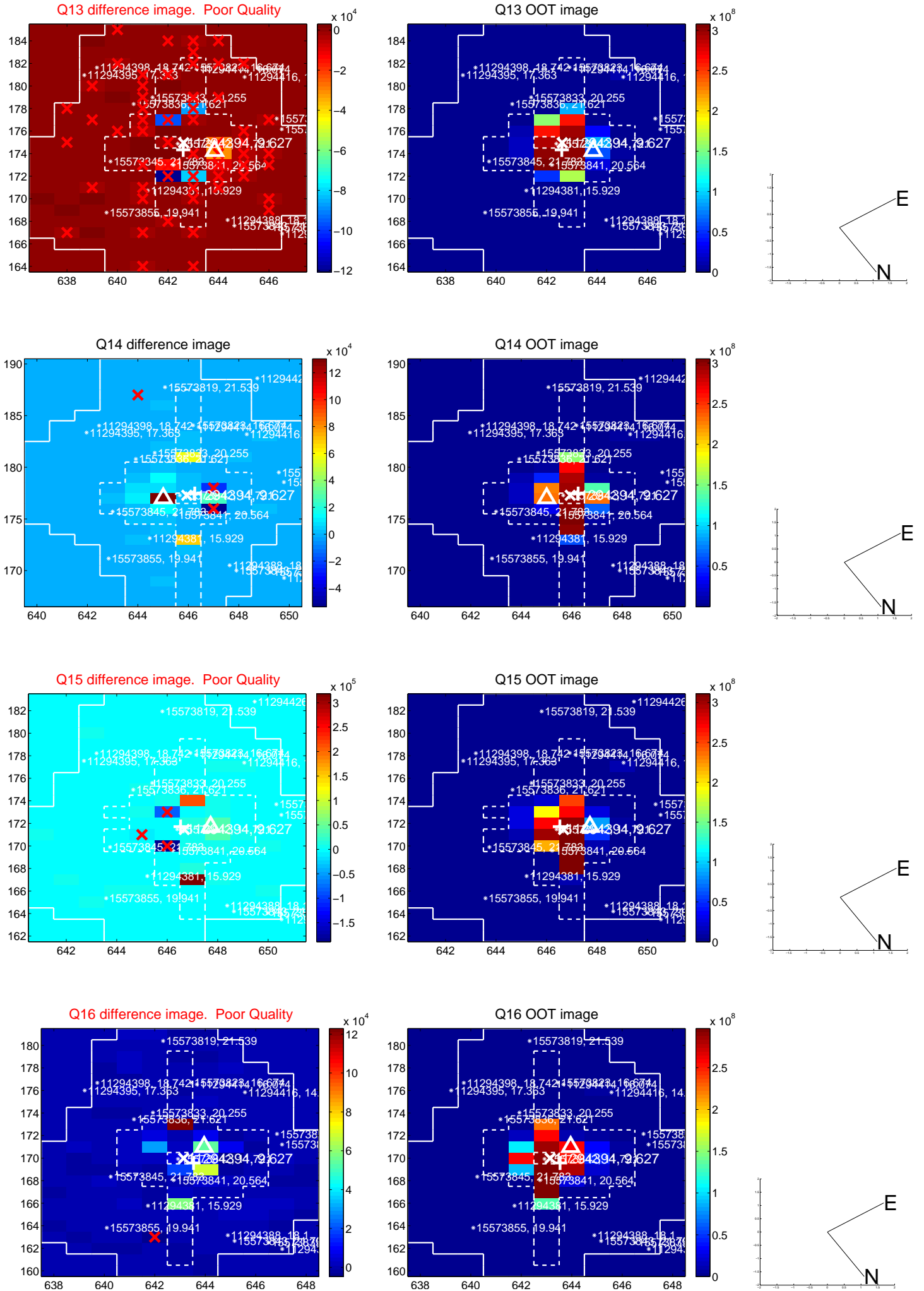
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



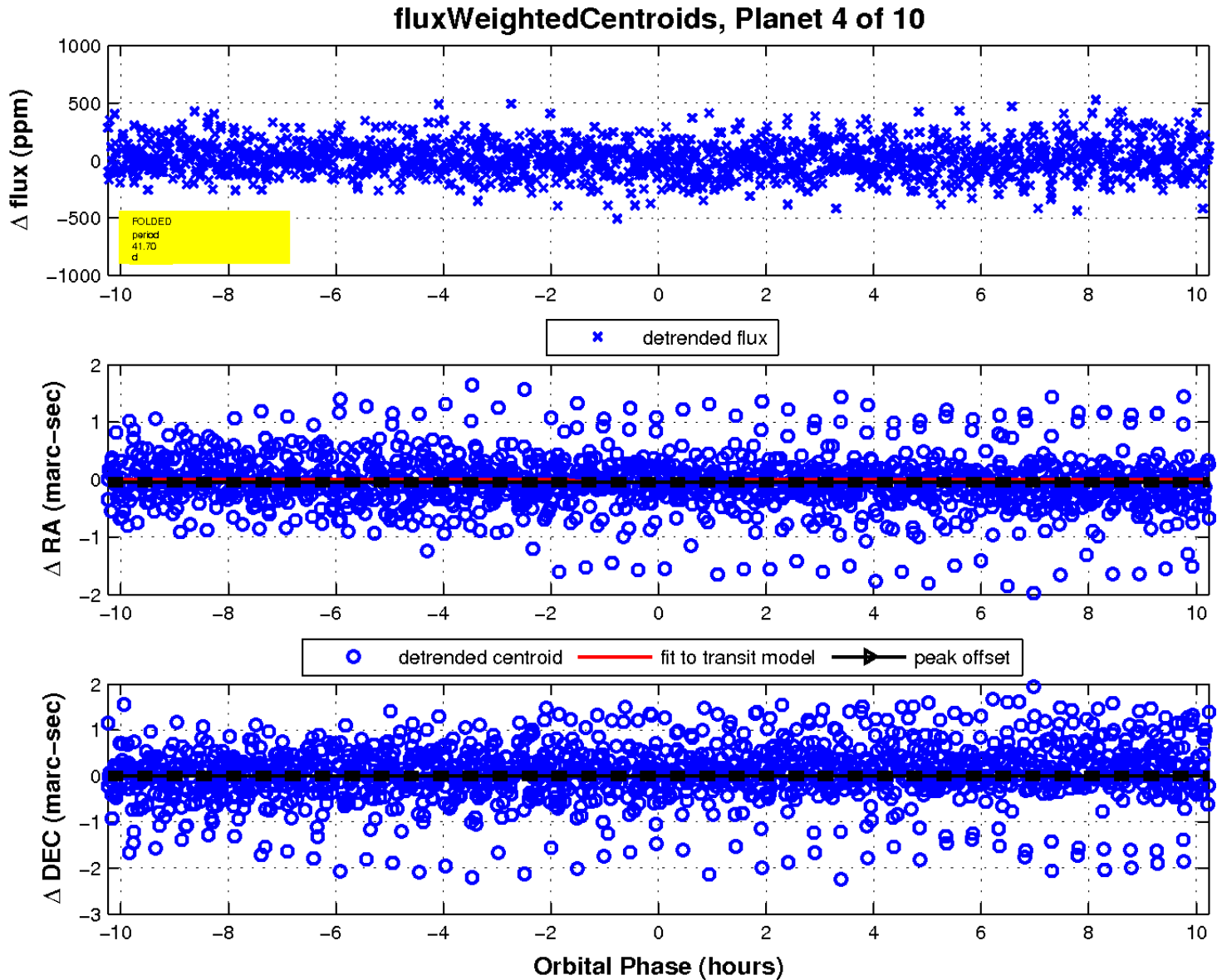
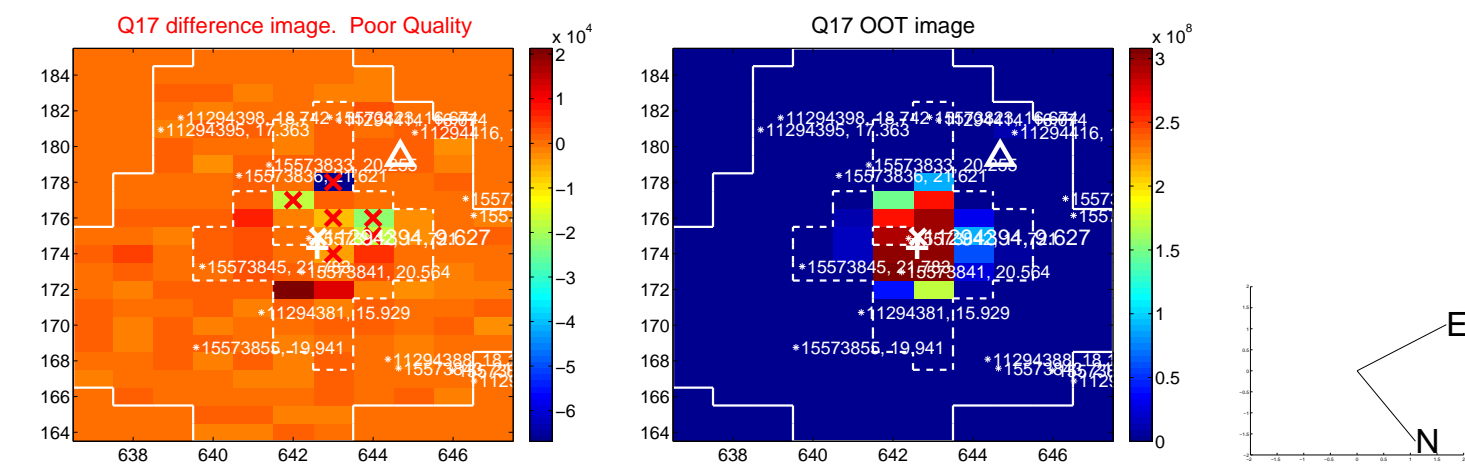
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



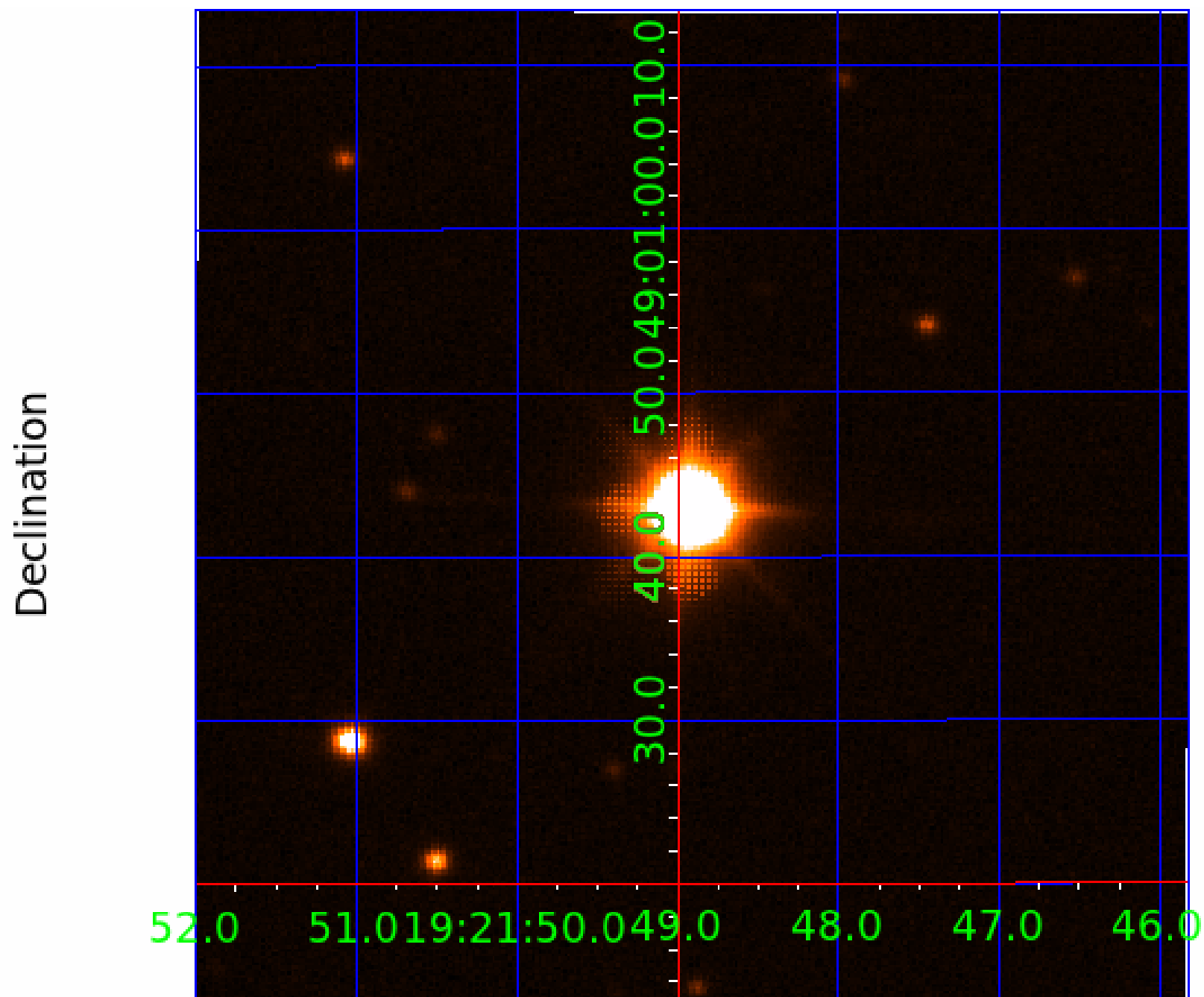
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
011294394-03	OBS	No	54.376855	175.912986	286.7	2.809	12.7	13.2	4.16	6626	10.00	242.26
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011294394-05	OBS	No	39.899524	166.832283	212.3	3.665	11.2	11.9	4.16	6626	6.87	366.06
011294394-06	OBS	No	21.340024	132.950168	93.1	7.492	11.1	8.9	4.16	6626	4.54	843.16
011294394-07	OBS	No	122.548908	235.373023	206.9	7.059	10.8	8.3	4.16	6626	6.83	81.99
011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

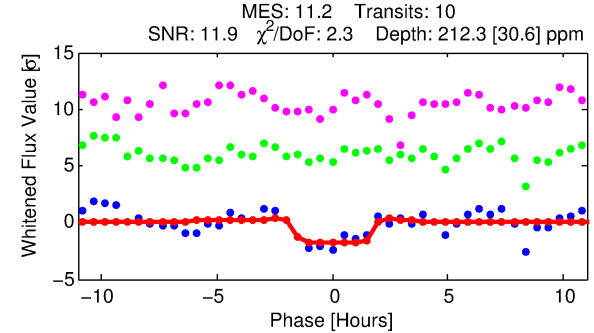
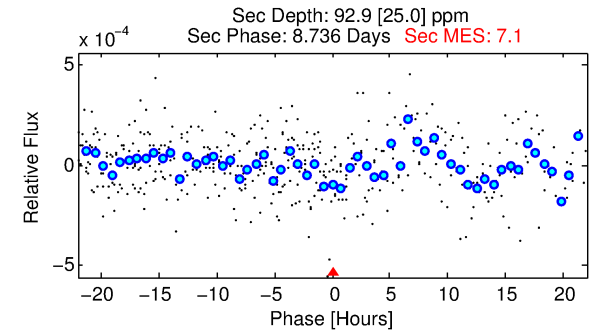
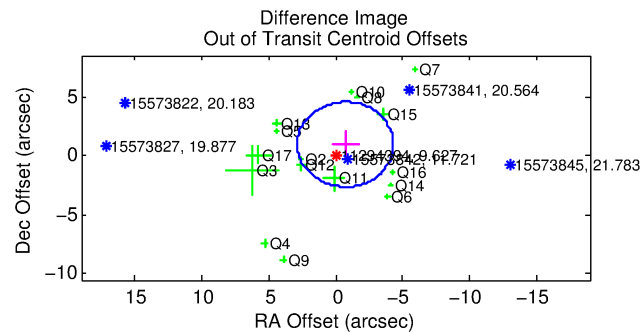
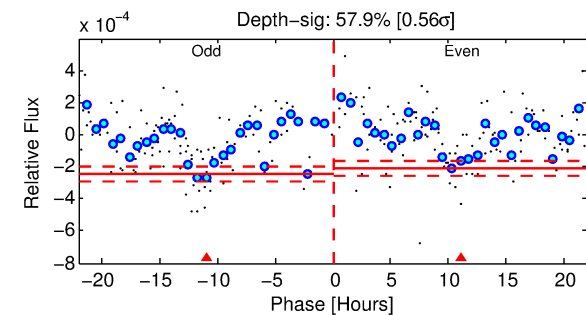
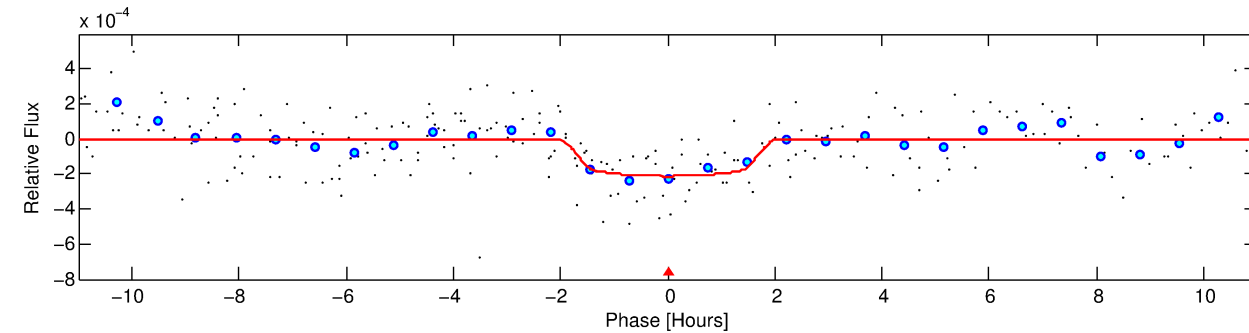
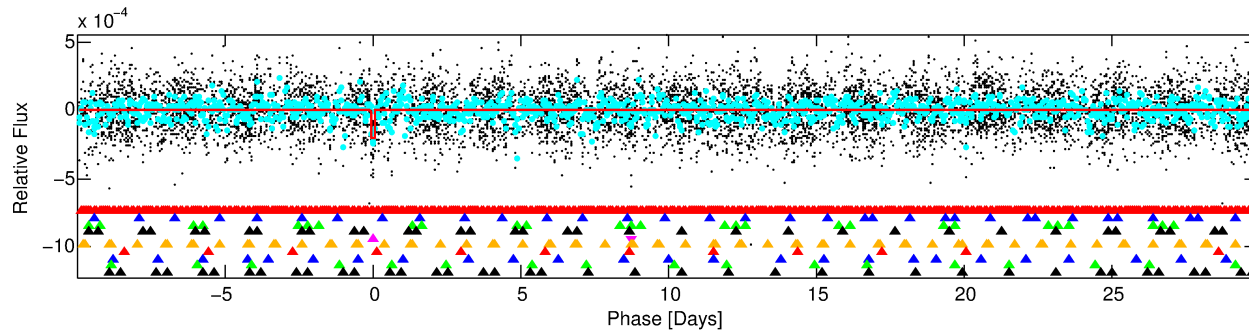
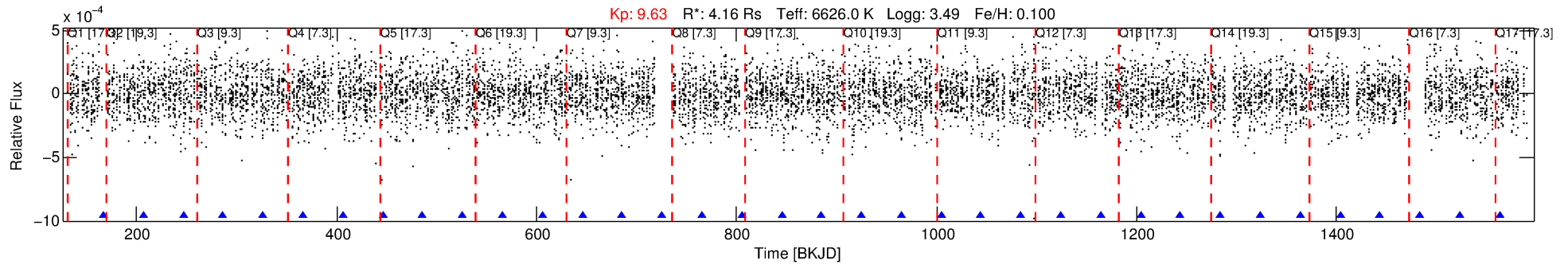
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-05

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 5 of 10 Period: 39.900 d



DV Fit Results:

Period = 39.89952 [0.00041] d
Epoch = 166.8323 [0.0068] BKJD
Rp/R* = 0.0151 [0.0090]
a/R* = 45.48 [152.93]
b = 0.86 [1.06]
Seff = 366.06 [218.54]
Teq = 1115 [166] K
Rp = 6.87 [4.84] Re
a = 0.2859 [0.1043] AU
Ag = 88.50 [119.54] [0.73 σ]
Teff = 5289 [1618] K [2.57 σ]

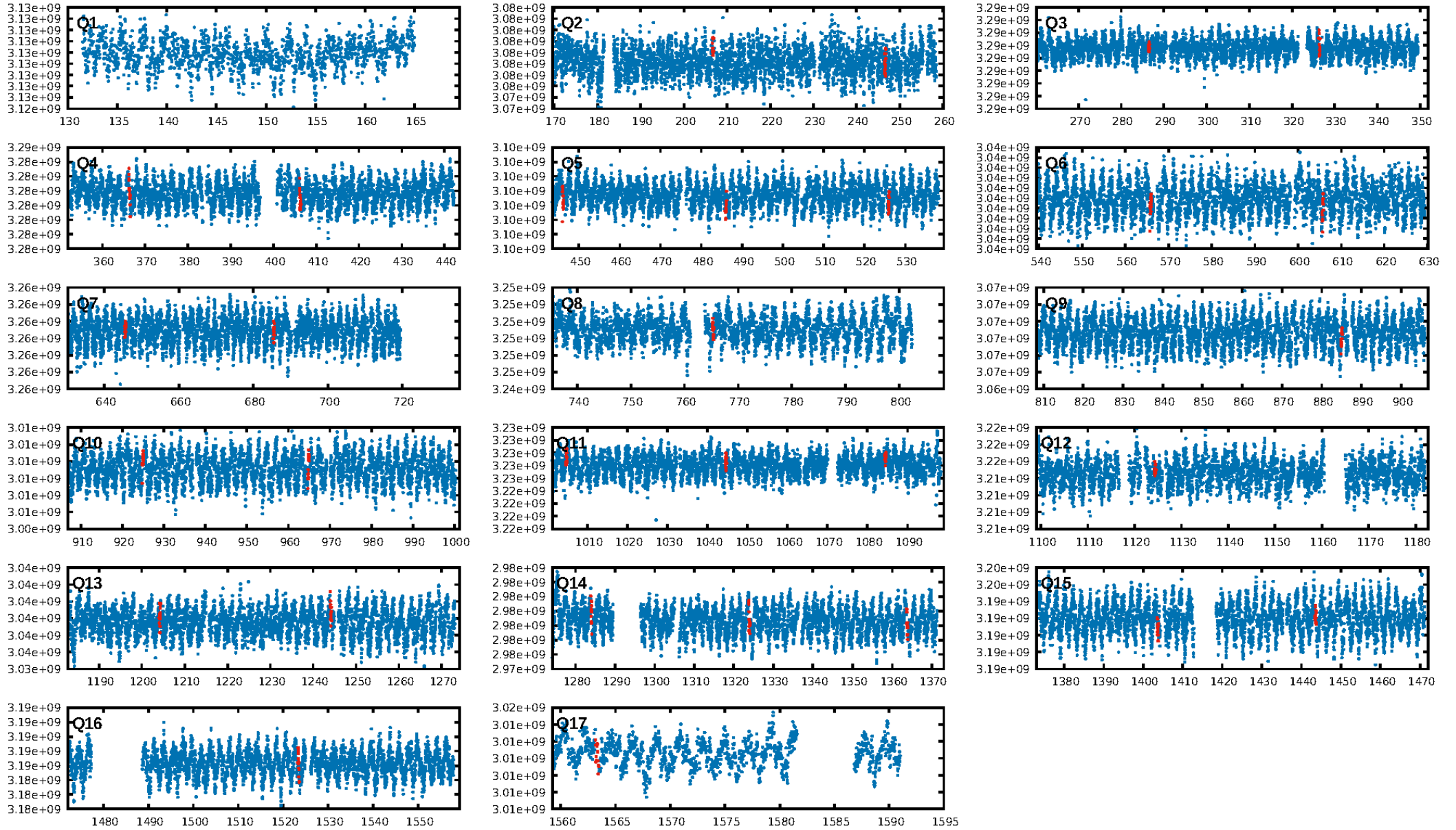
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.29 σ]
LongPeriod-sig: 100.0% [8.63 σ]
ModelChiSquare2-sig: 3.2%
ModelChiSquareGof-sig: 72.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: N/A
Centroid-sig: 85.2%
Centroid-so: 0.747 arcsec [2.04 σ]
OotOffset-rm: 1.202 arcsec [1.00 σ]
KicOffset-rm: 1.854 arcsec [1.52 σ]
OotOffset-st: 4/4/4 [16]
KicOffset-st: 4/4/4 [16]
DiffImageQuality-fgm: 0.00 [0/16]
DiffImageOverlap-fno: 0.50 [8/16]

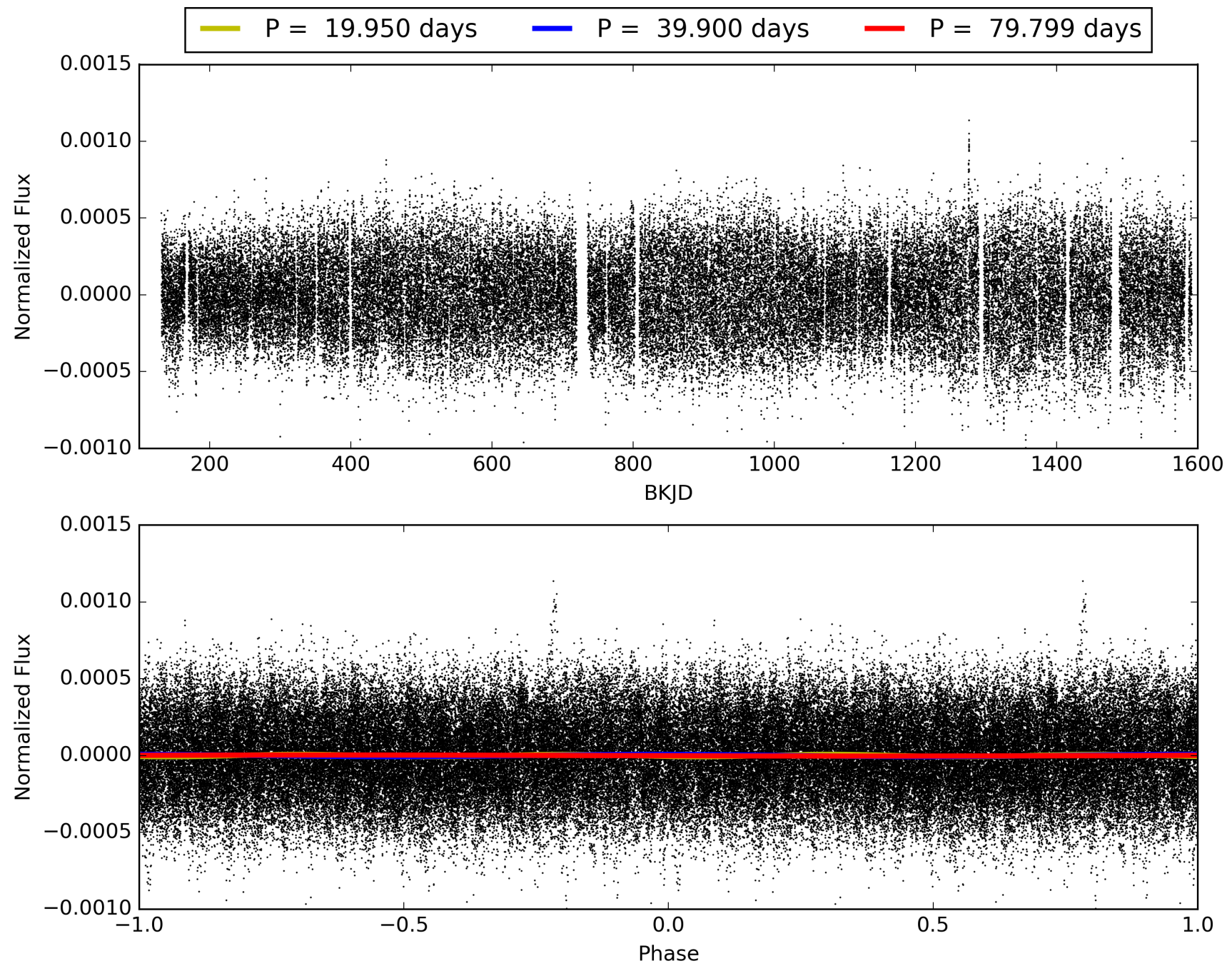
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:17:10 Z

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

TCE 011294394-05, PDC Light Curves

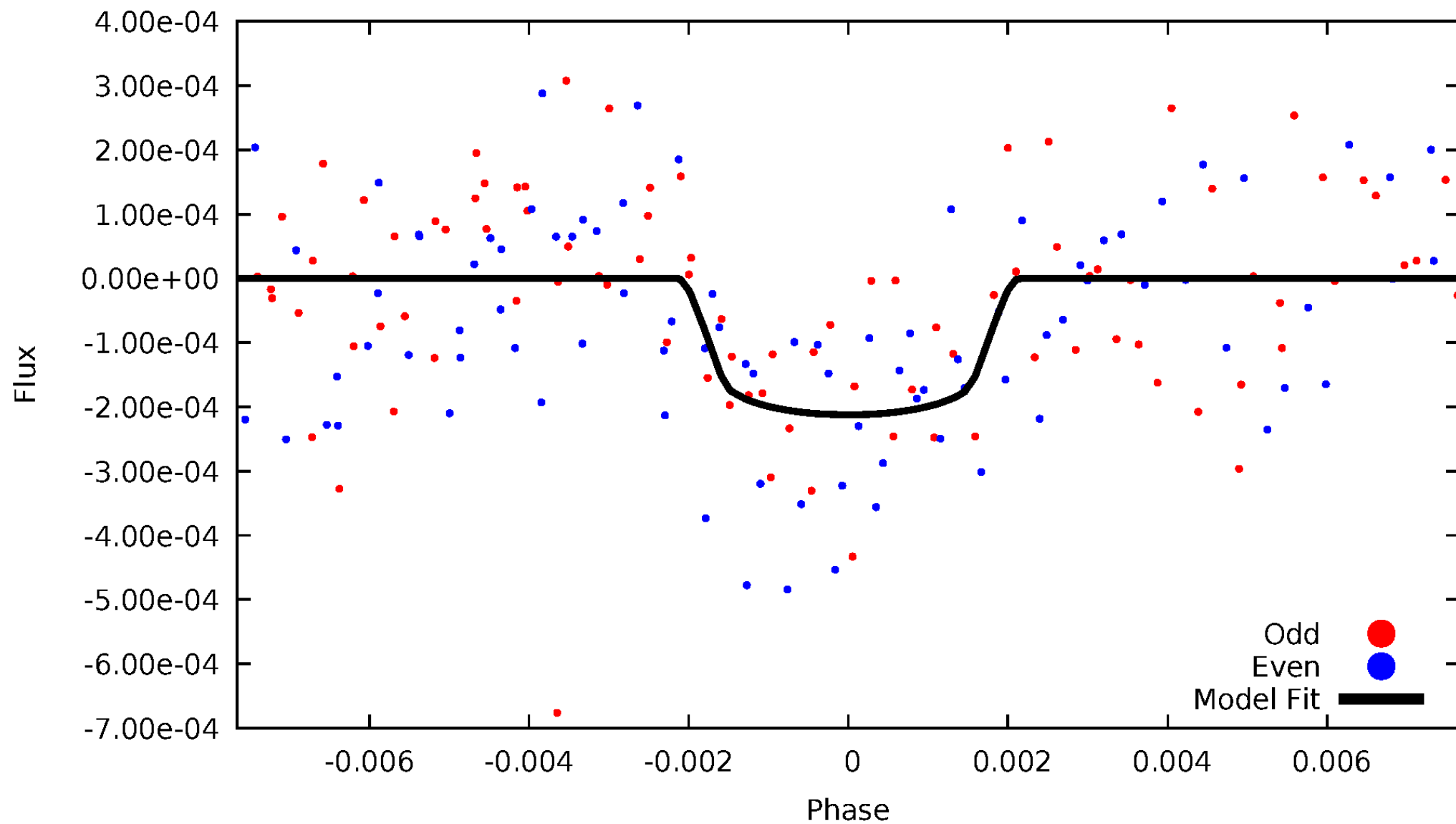


TCE 011294394-05



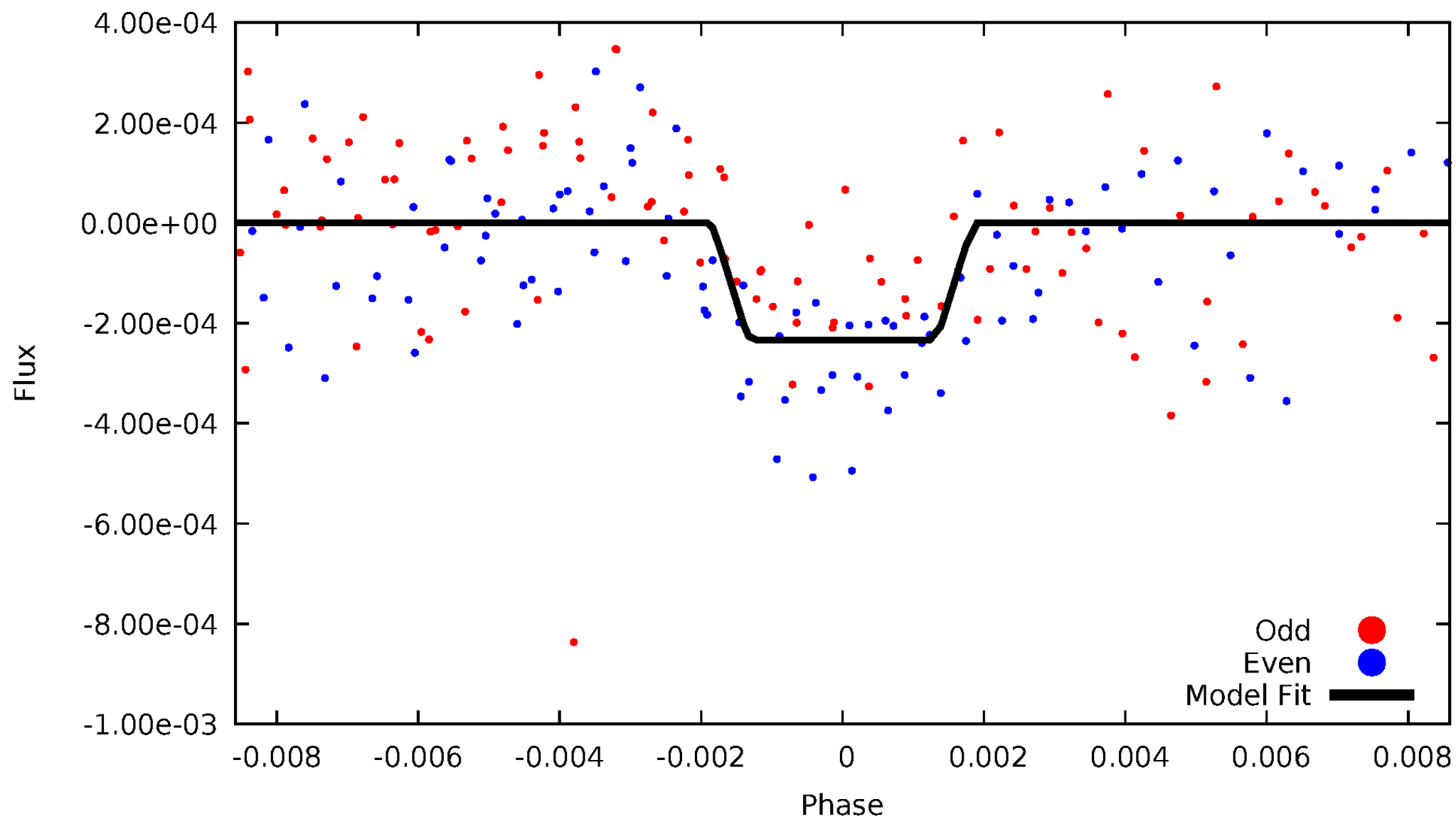
DV Odd/Even

TCE 011294394-05



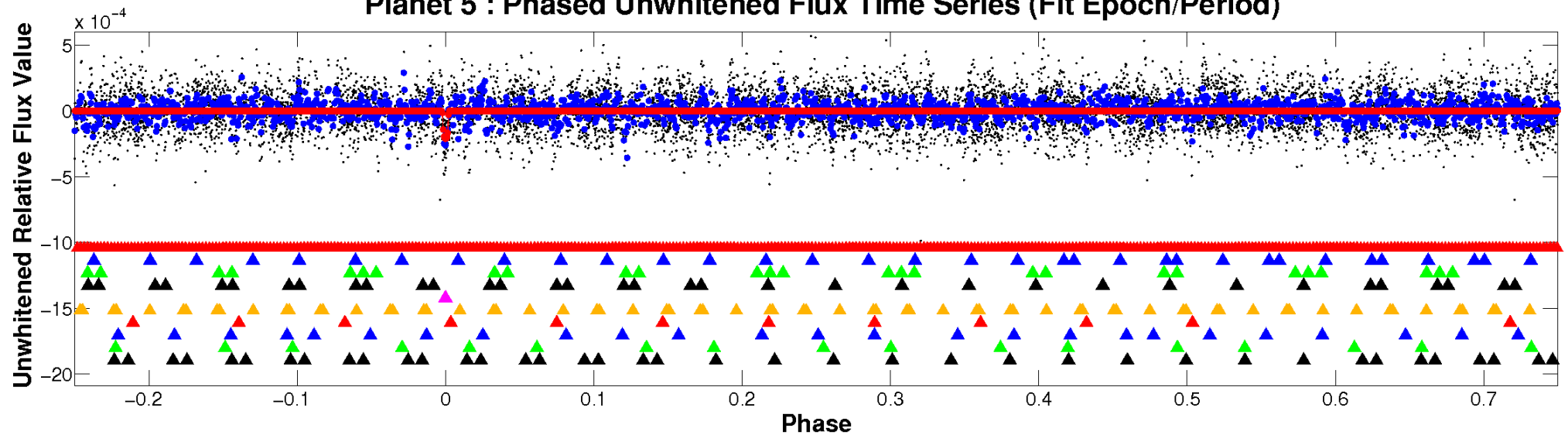
ALT Odd/Even

TCE 011294394-05

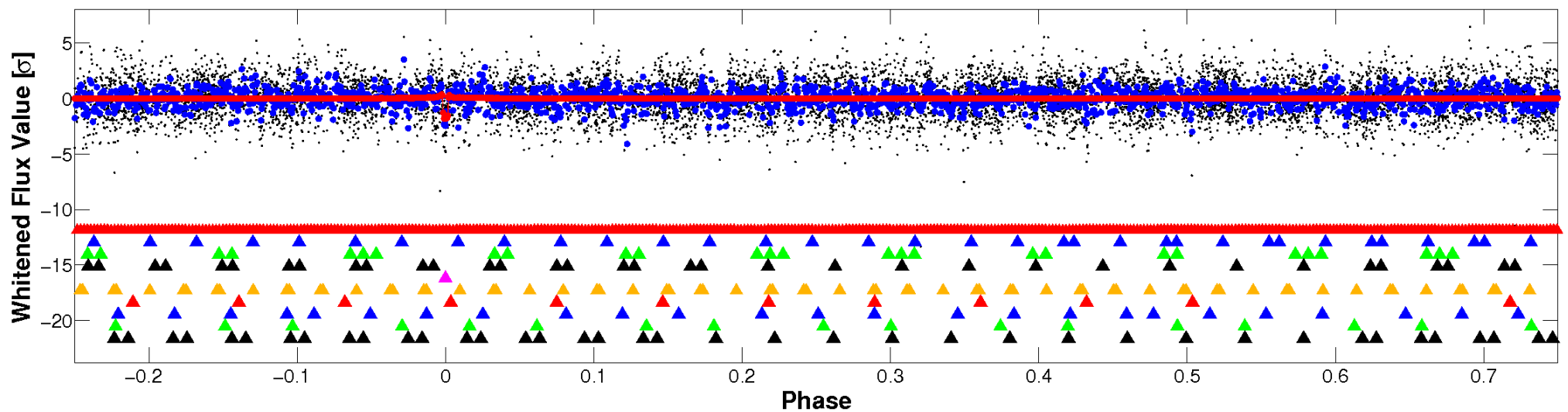


Non-Whitened Vs. Whitened Light Curve

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



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



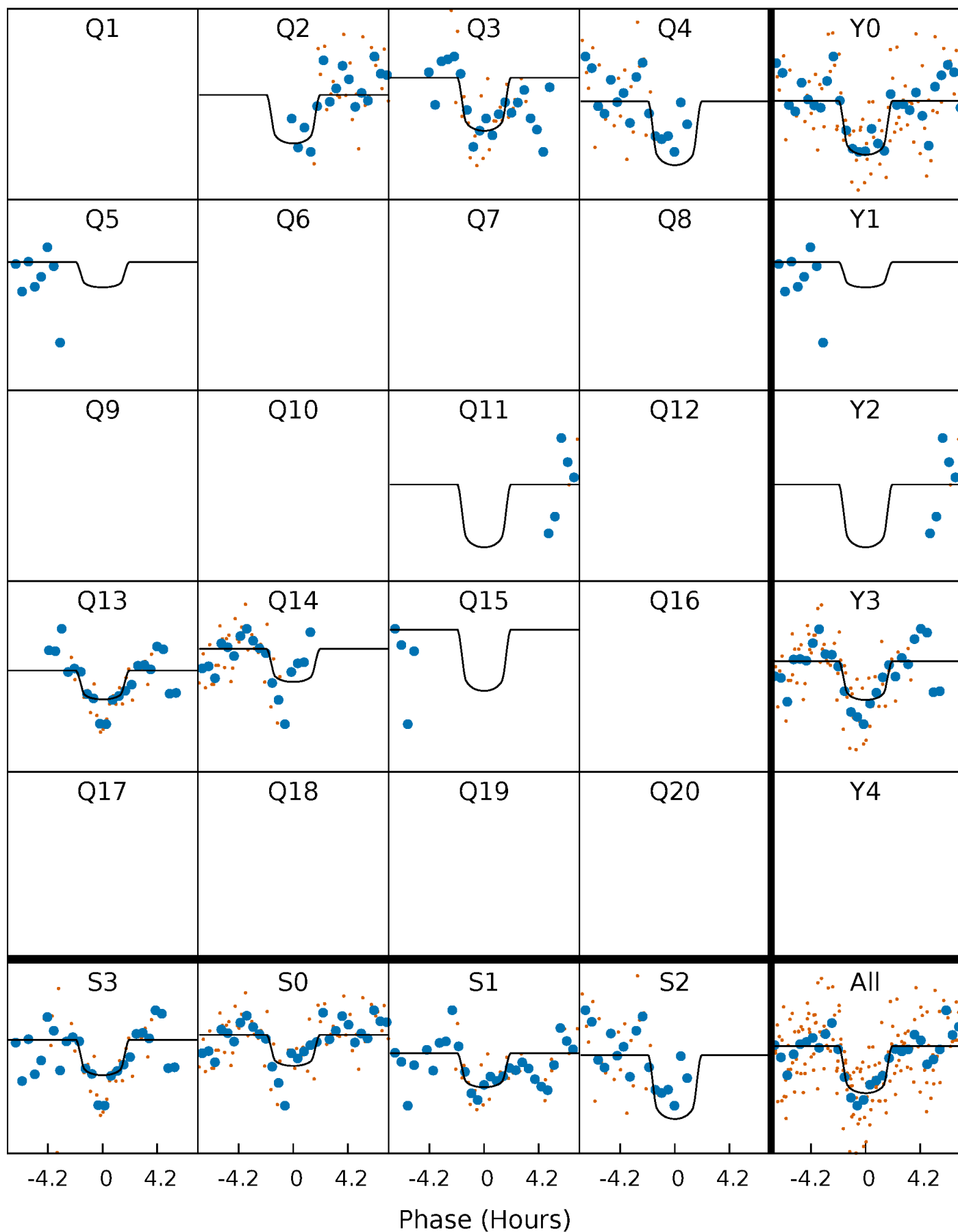
PDC Quarter-Phased Transit Curves

TCE 011294394-05 $P = 39.899524$ Days $T_0 = 166.832283$ (BKJD)



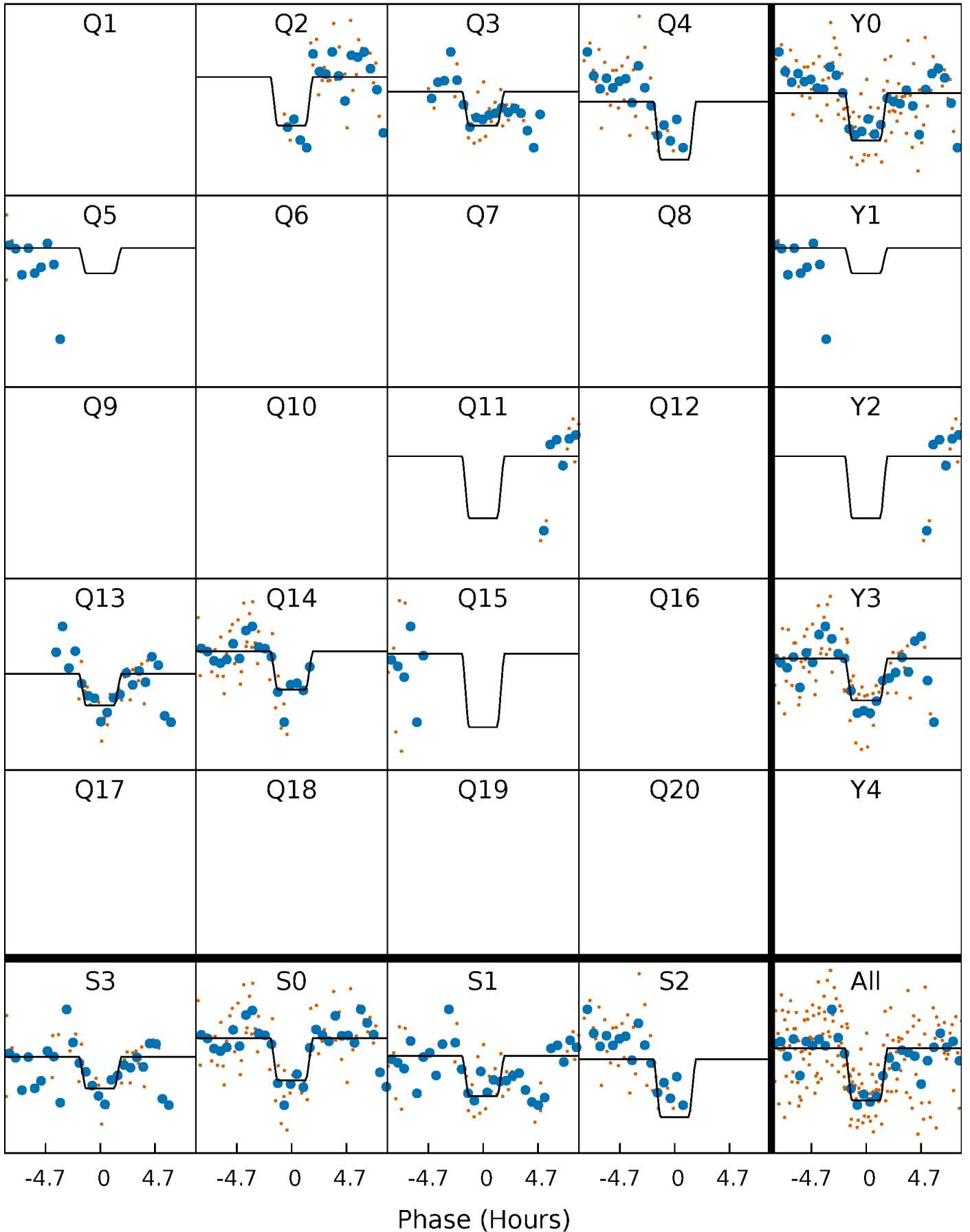
DV Quarter-Phased Transit Curves

TCE 011294394-05 $P = 39.899524$ Days $T_0 = 166.832283$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

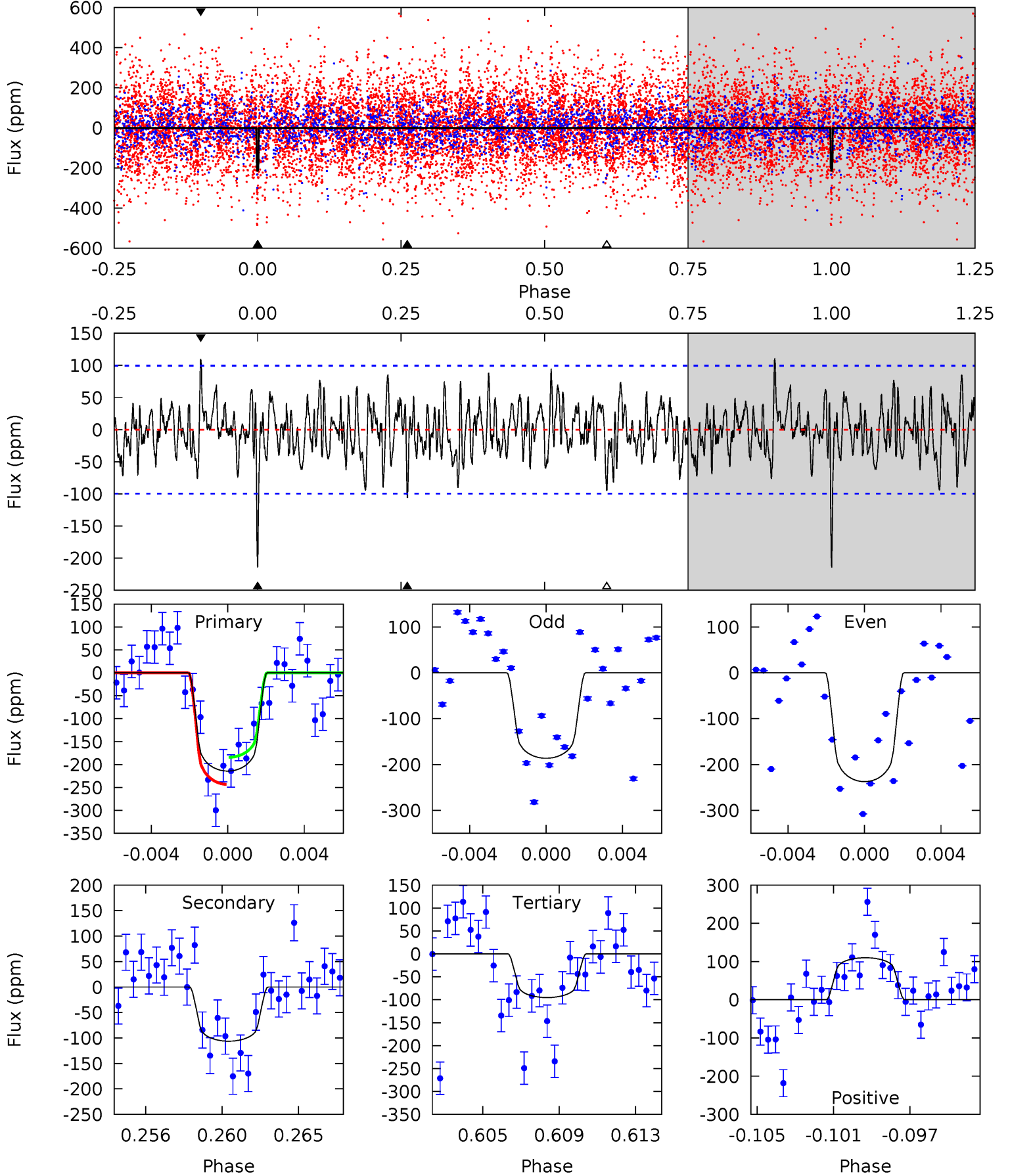
TCE 011294394-05 $P = 39.898576$ Days $T_0 = 166.845046$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-05, P = 39.899524 Days, E = 126.932759 Days

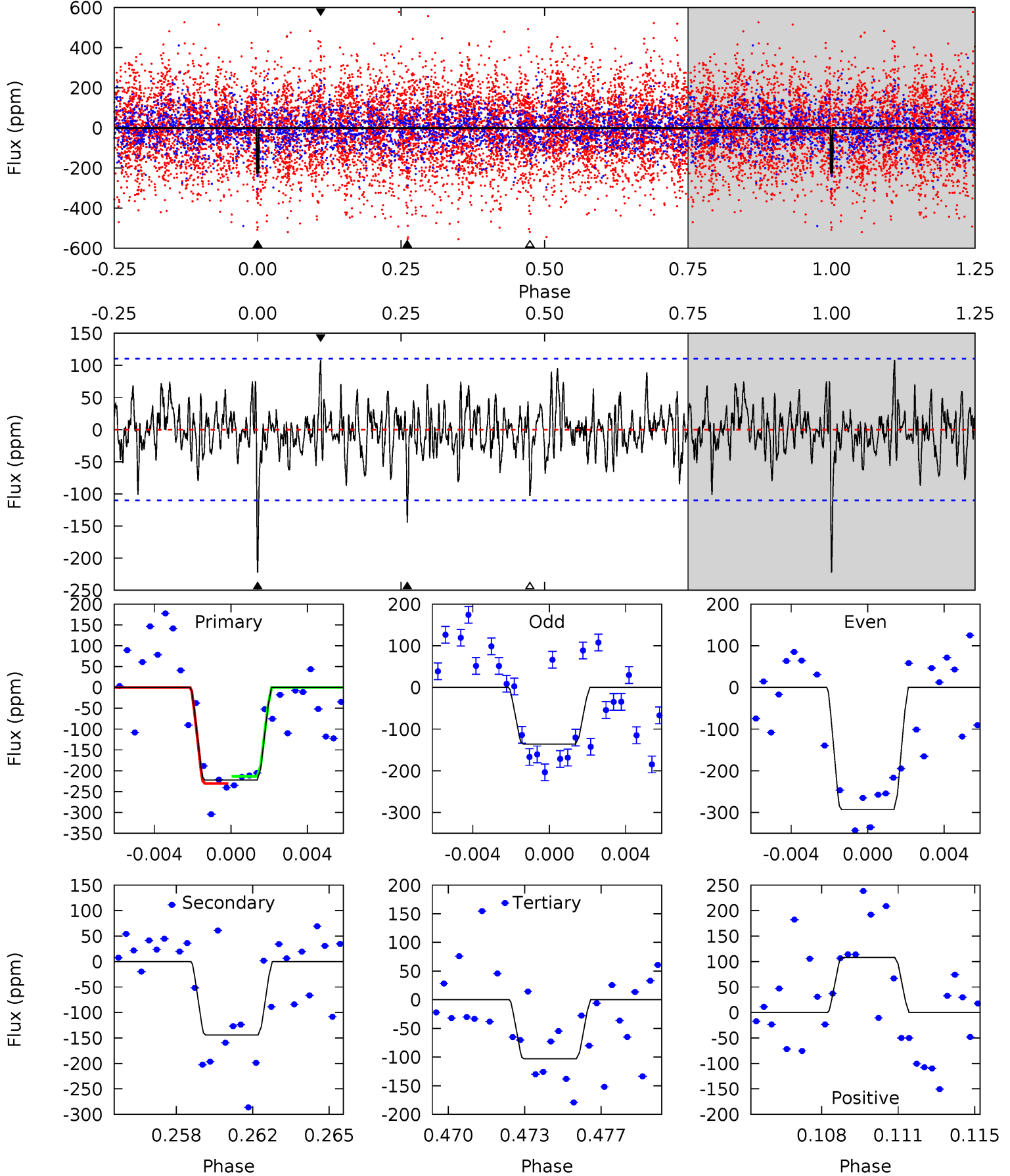
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	5.54	4.96	5.73	5.19	2.86	1.73	6.20	5.44	0.58	-0.19	1.32	0.96	0.34	1.53



Alt Model-Shift Uniqueness Test

011294394-05, P = 39.898576 Days, E = 126.946470 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	6.83	4.88	5.12	5.22	2.91	1.50	5.63	5.40	1.95	1.72	3.72	0.91	0.33	0.41



Stellar Parameters For KIC 011294394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-106 ± 19	$6.73^{+3.79}_{-3.45}$	1532^{+74}_{-142}	5316^{+2386}_{-879}	105^{+341}_{-63}
Alt.	-144 ± 21	$6.89^{+3.98}_{-3.51}$	1541^{+67}_{-140}	5643^{+2591}_{-941}	134^{+401}_{-81}

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 $A_{obs} \gg 1.0$

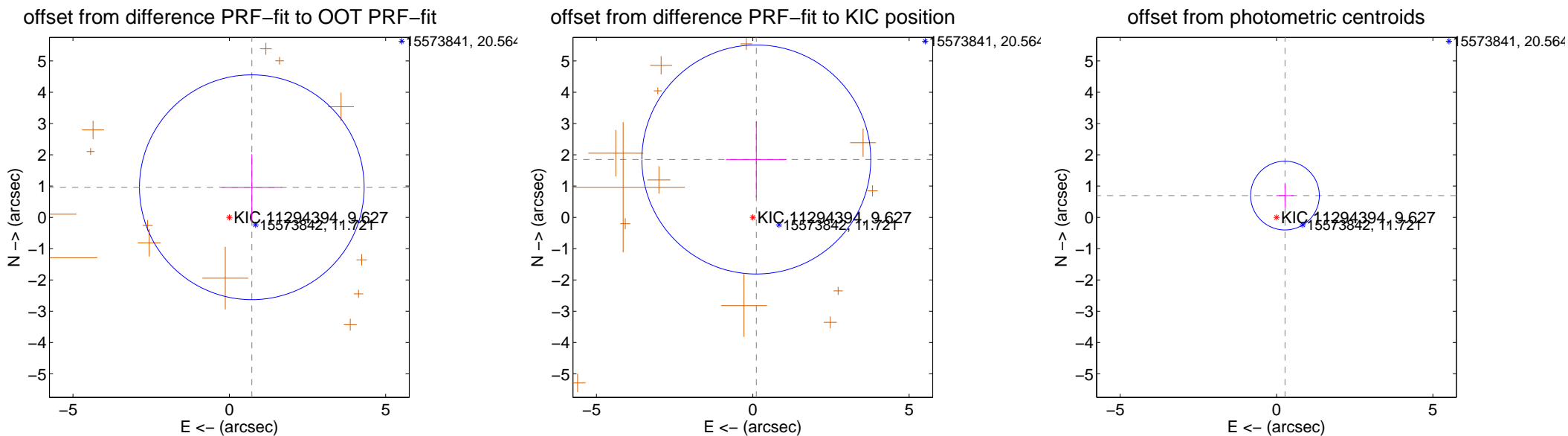
DV Centroid Data

Supplemental centroid analysis for 011294394-05. **Kepler magnitude: 9.63.** Transit SNR 11.91

There are 0 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.39 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	1.202 ± 1.198	1.00	-0.719 ± 0.972	0.963 ± 1.060
PRF-fit source offset from KIC position	1.854 ± 1.220	1.52	-0.113 ± 0.970	1.851 ± 1.221
photometric centroid source offset	0.75 ± 0.37	2.04	-0.27 ± 0.28	0.70 ± 0.38



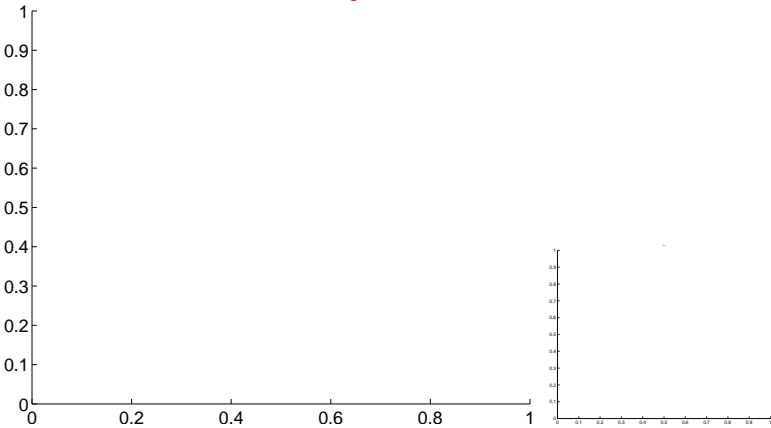
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

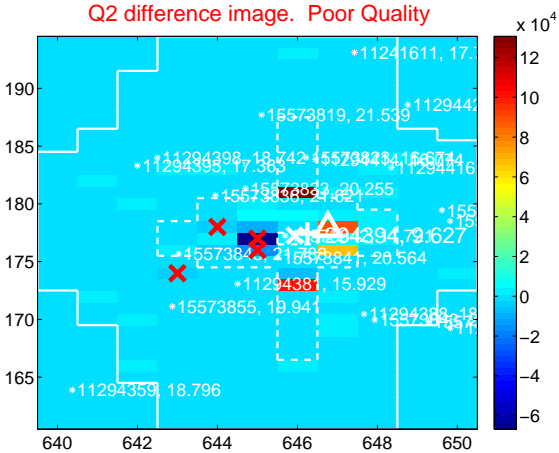
Q1 no difference image



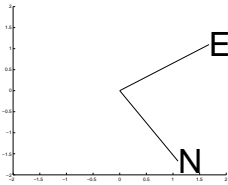
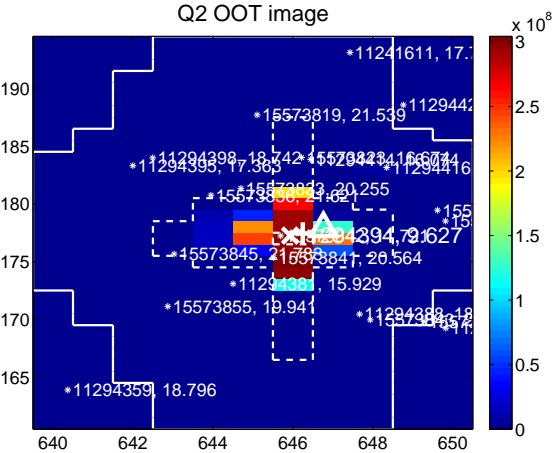
Q1 no OOT image



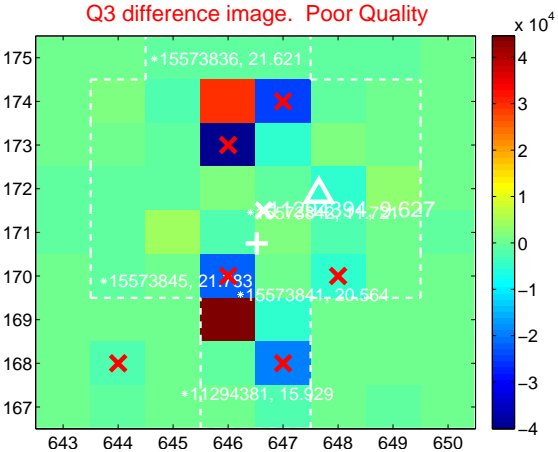
Q2 difference image. Poor Quality



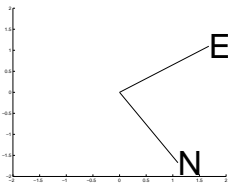
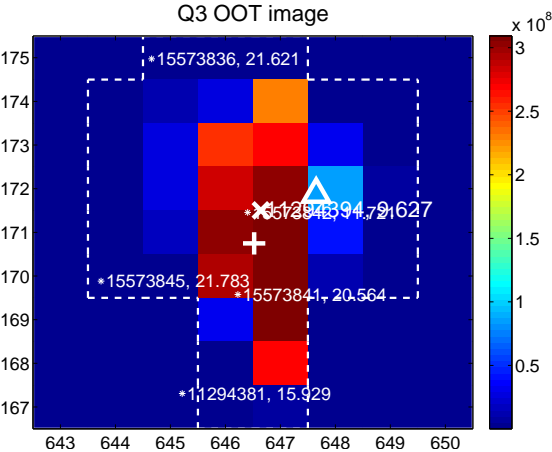
Q2 OOT image



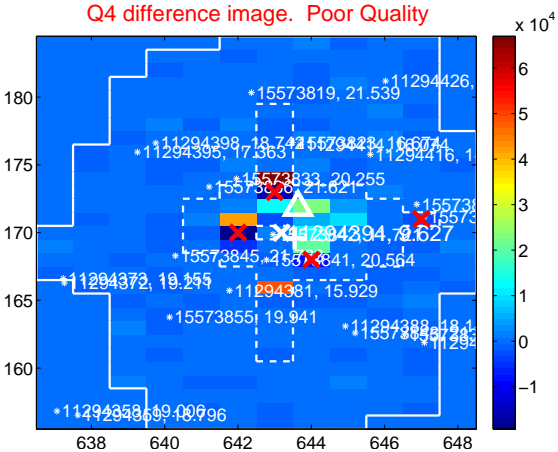
Q3 difference image. Poor Quality



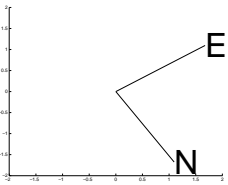
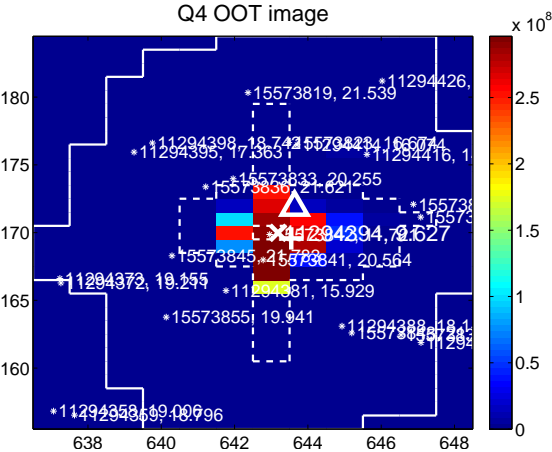
Q3 OOT image



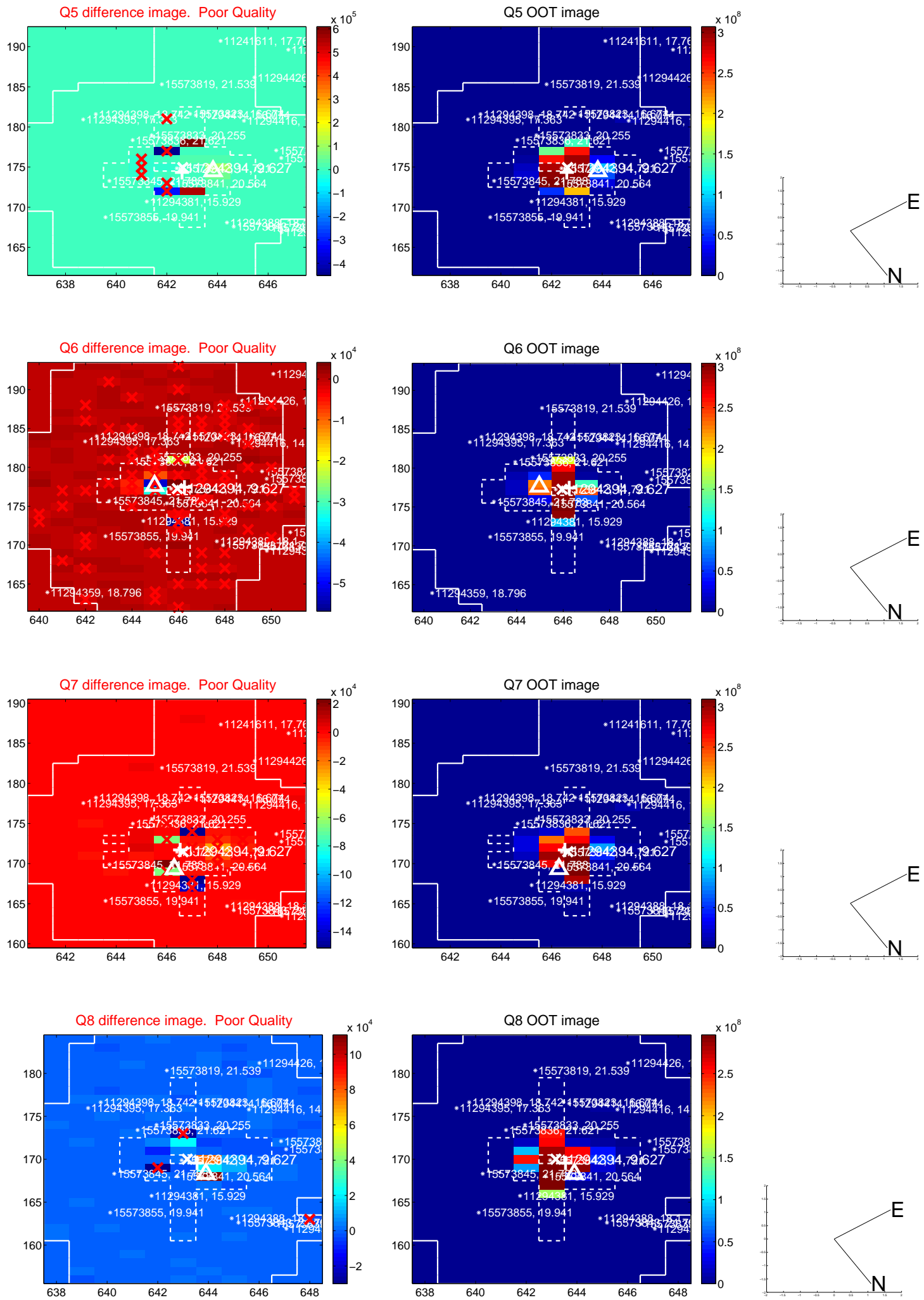
Q4 difference image. Poor Quality



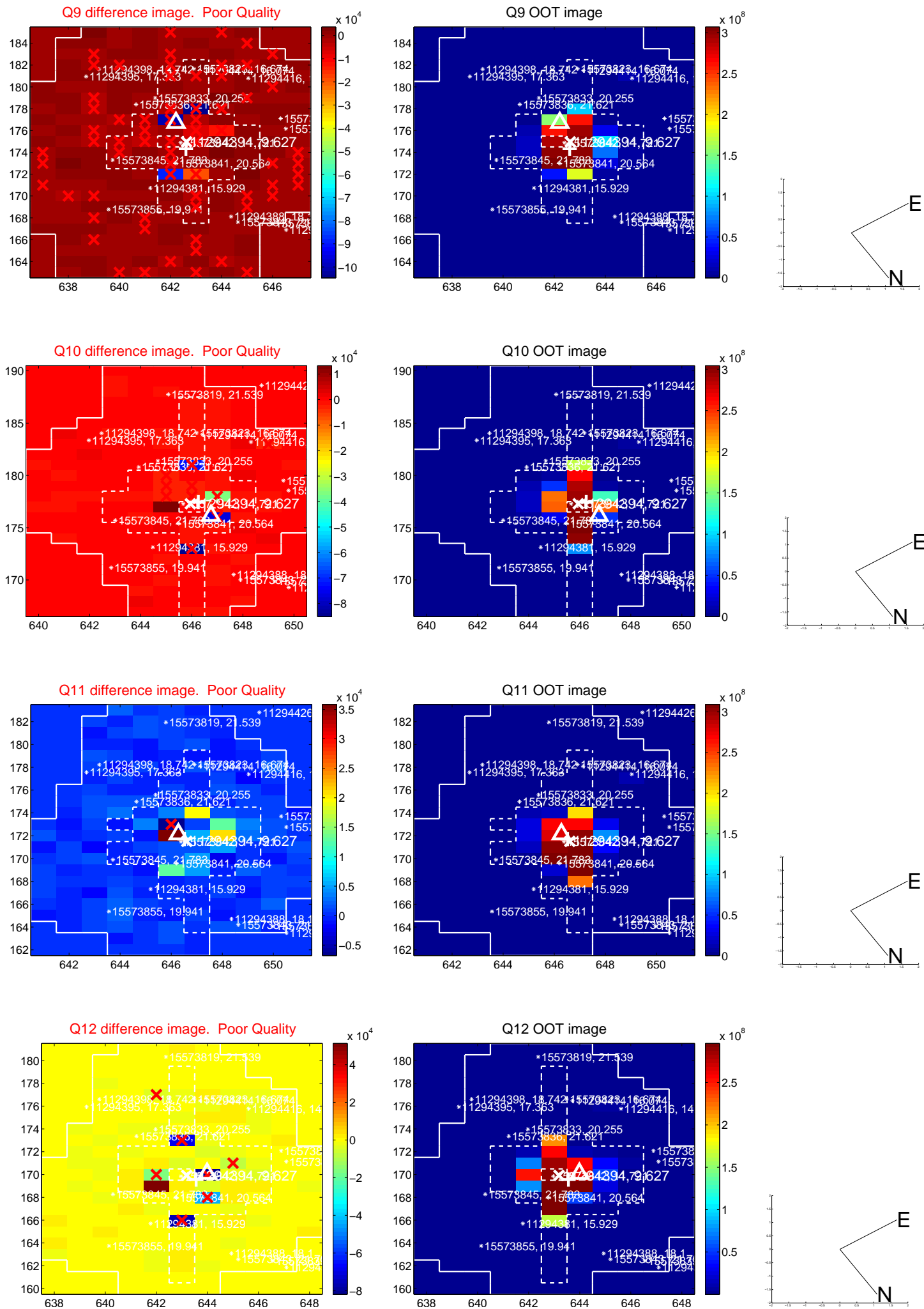
Q4 OOT image



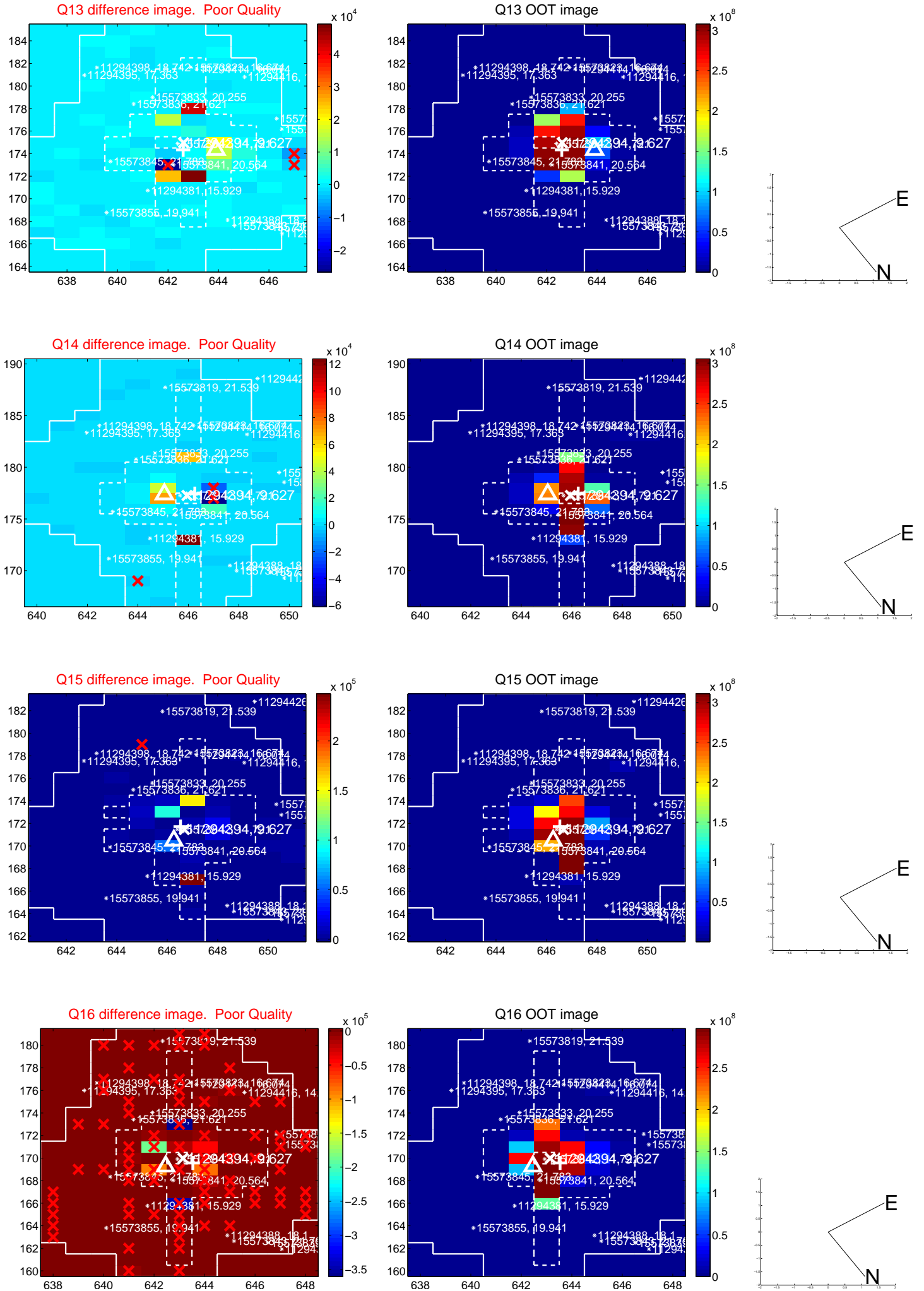
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



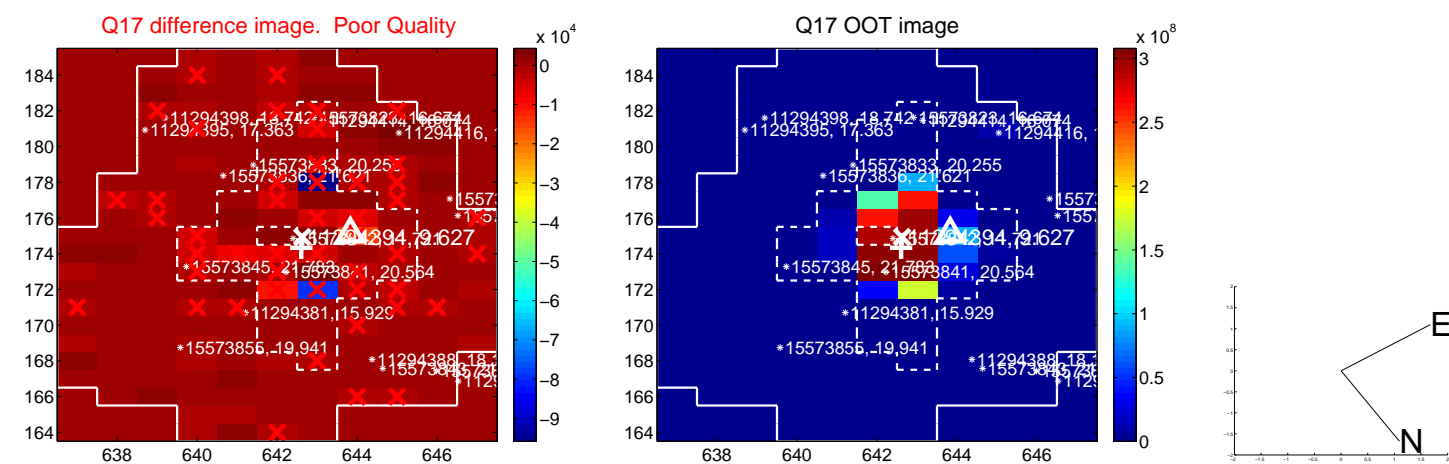
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



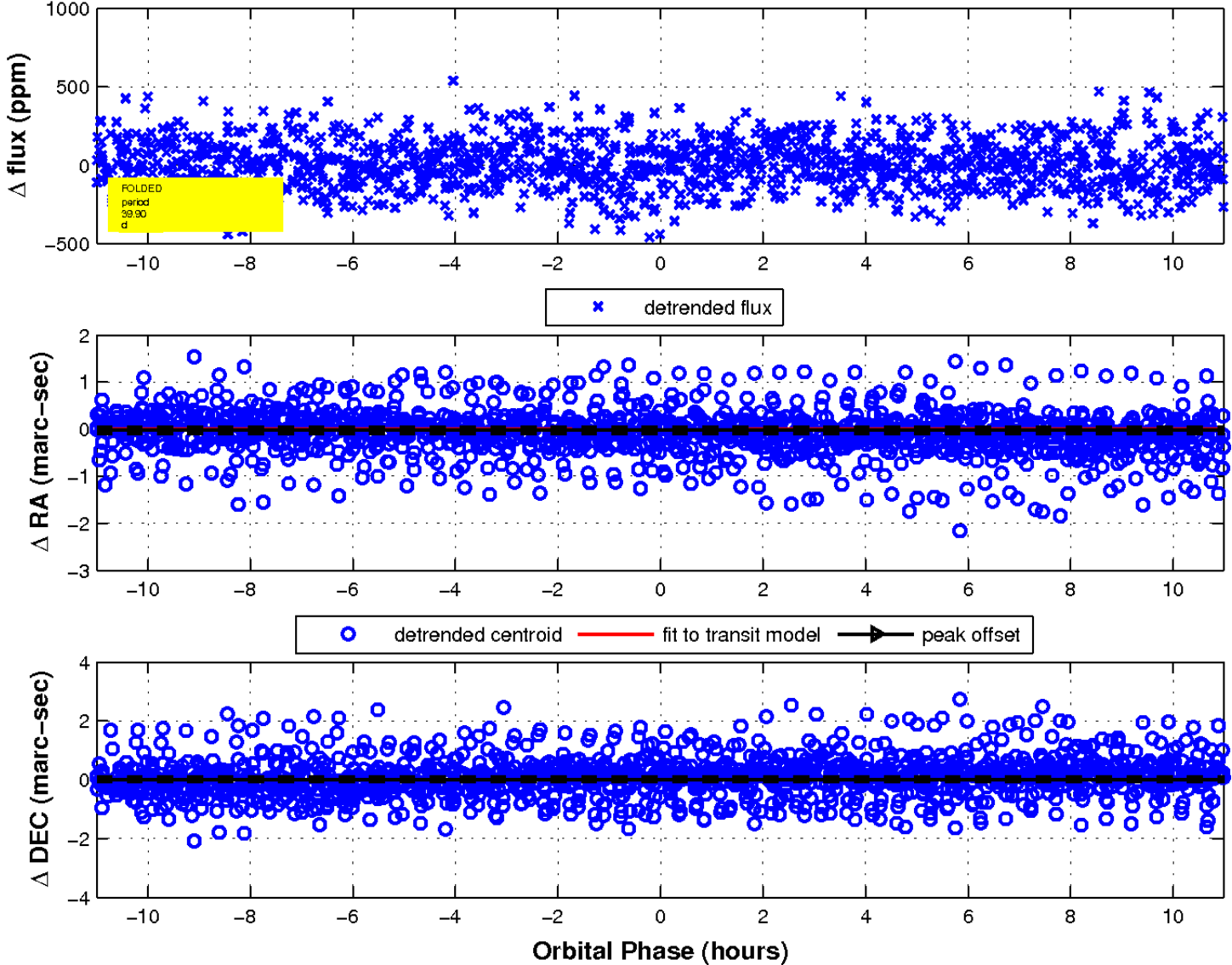
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



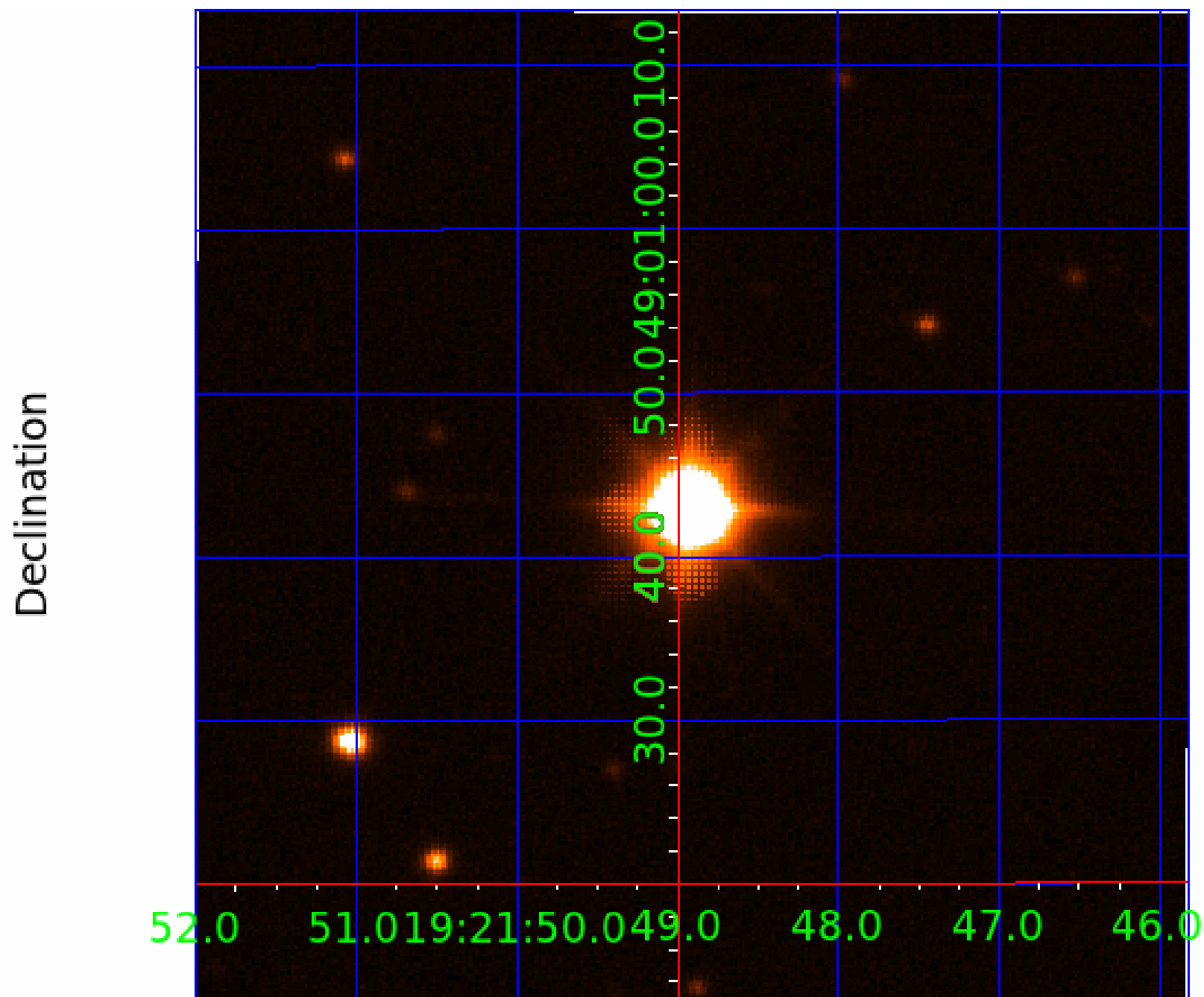
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 5 of 10



UKIRT Image



KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
011294394-03	OBS	No	54.376855	175.912986	286.7	2.809	12.7	13.2	4.16	6626	10.00	242.26
011294394-04	OBS	No	41.700369	152.100063	258.2	3.415	11.4	11.6	4.16	6626	7.83	345.13
011294394-05	OBS	No	39.899524	166.832283	212.3	3.665	11.2	11.9	4.16	6626	6.87	366.06
011294394-06	OBS	No	21.340024	132.950168	93.1	7.492	11.1	8.9	4.16	6626	4.54	843.16
011294394-07	OBS	No	122.548908	235.373023	206.9	7.059	10.8	8.3	4.16	6626	6.83	81.99
011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

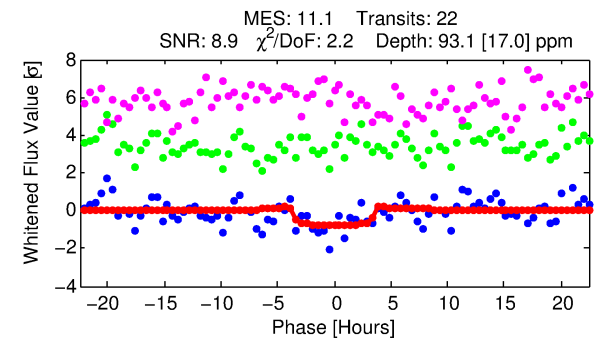
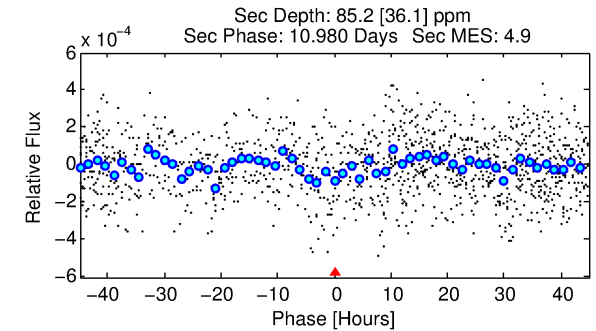
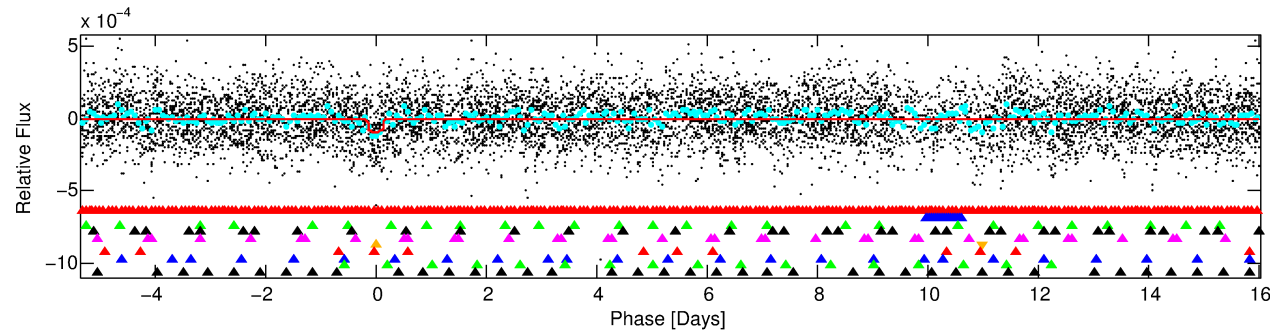
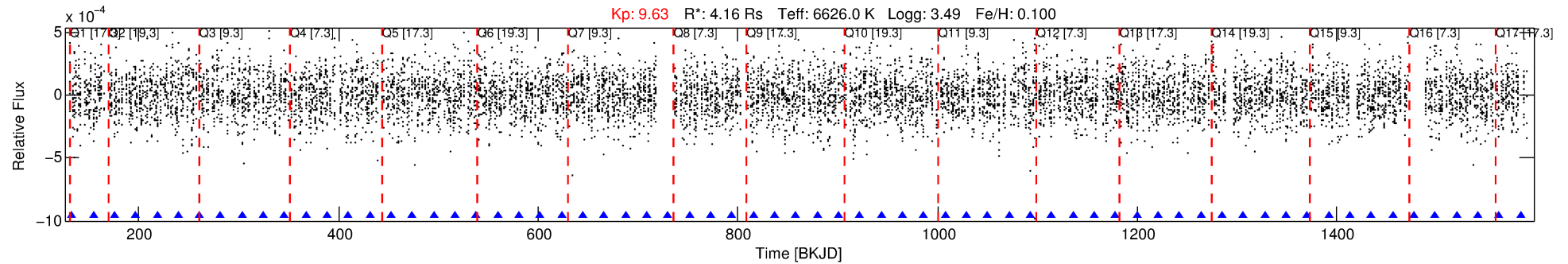
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-06

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 6 of 10 Period: 21.340 d

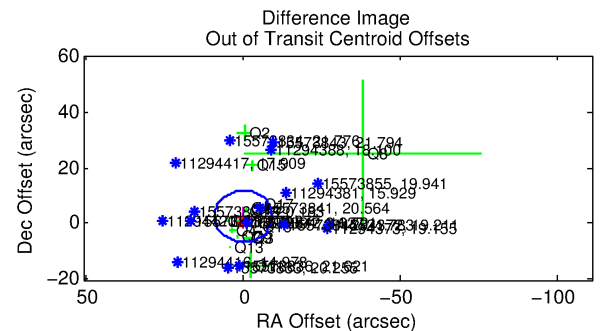
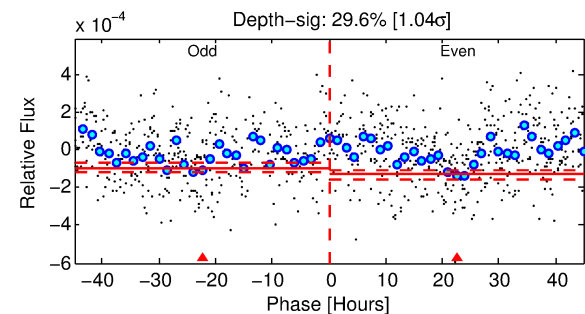
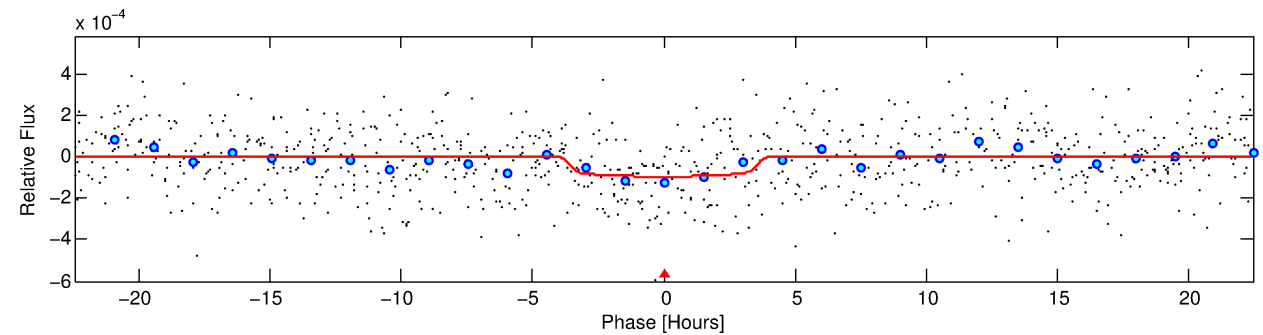


DV Fit Results:

Period = 21.34002 [0.00047] d
Epoch = 132.9502 [0.0178] BKJD
 $R_p/R^* = 0.0100$ [0.0046]
 $a/R^* = 11.79$ [29.88]
 $b = 0.85$ [0.82]
 $S_{\text{eff}} = 843.16$ [503.38]
 $T_{\text{eq}} = 1374$ [205] K
 $R_p = 4.54$ [2.70] R_{e}
 $a = 0.1884$ [0.0687] AU
 $A_g = 80.55$ [93.95] [0.85σ]
 $T_{\text{effp}} = 6365$ [1617] K [3.06σ]

DV Diagnostic Results:

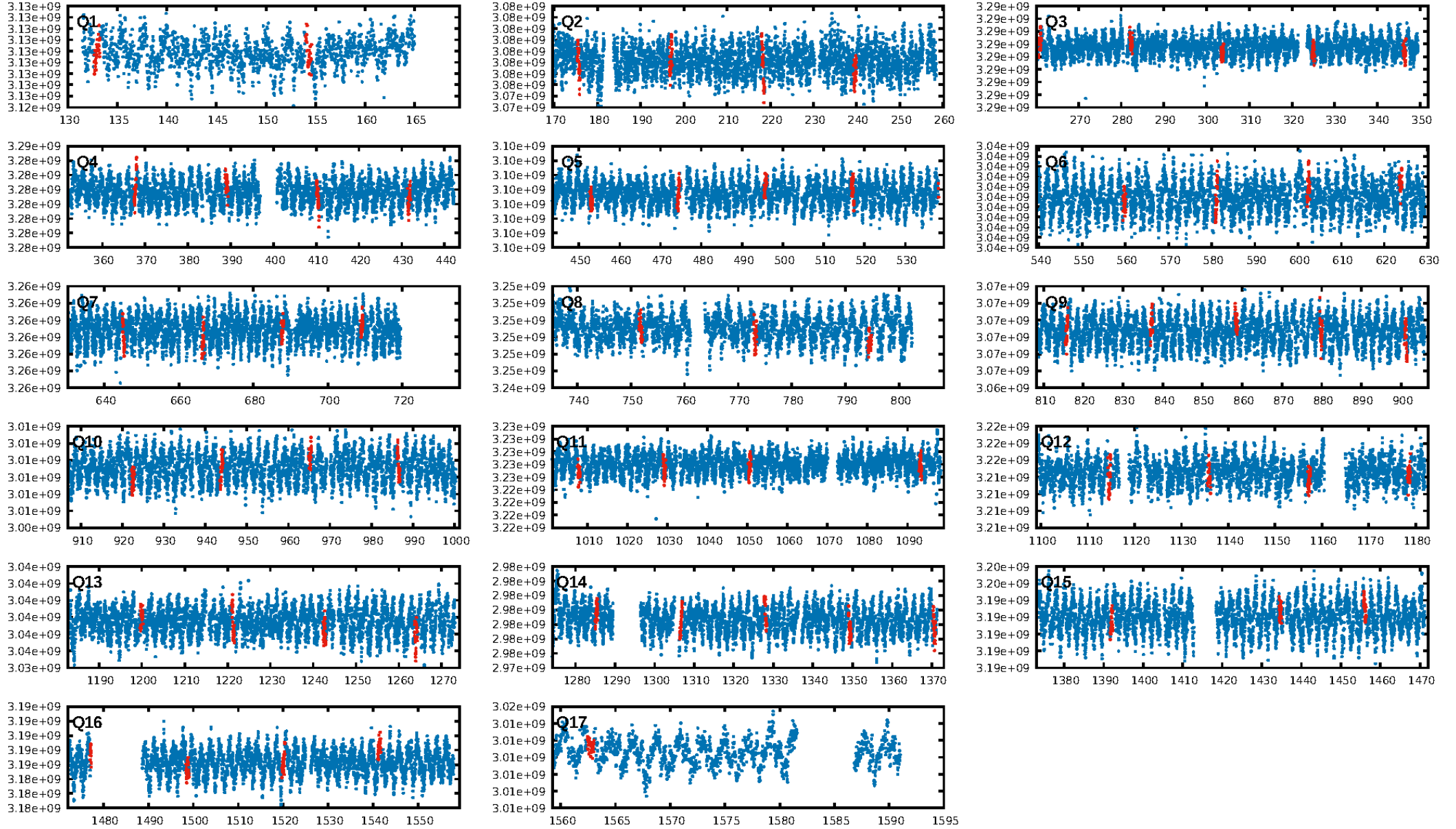
ShortPeriod-sig: 100.0% [29.20σ]
LongPeriod-sig: 100.0% [52.88σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [20/20]
GhostDiagnostic-chr: N/A
Centroid-sig: 2.9%
Centroid-so: 1.651 arcsec [3.20σ]
OotOffset-rm: 2.439 arcsec [0.79σ]
KicOffset-rm: 2.438 arcsec [1.22σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.00 [0/16]
DiffImageOverlap-fno: 0.35 [6/17]



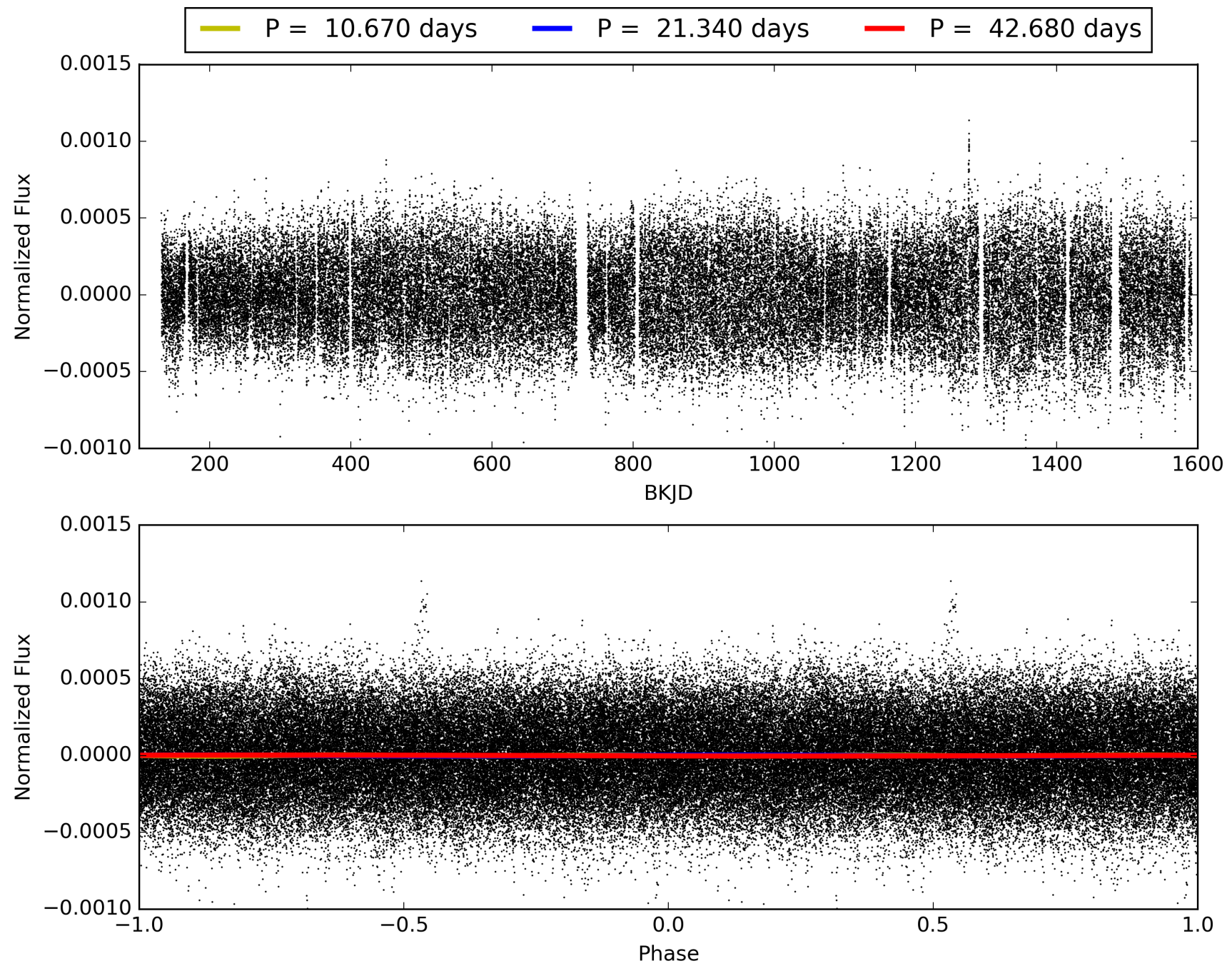
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:17:14 Z

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

TCE 011294394-06, PDC Light Curves

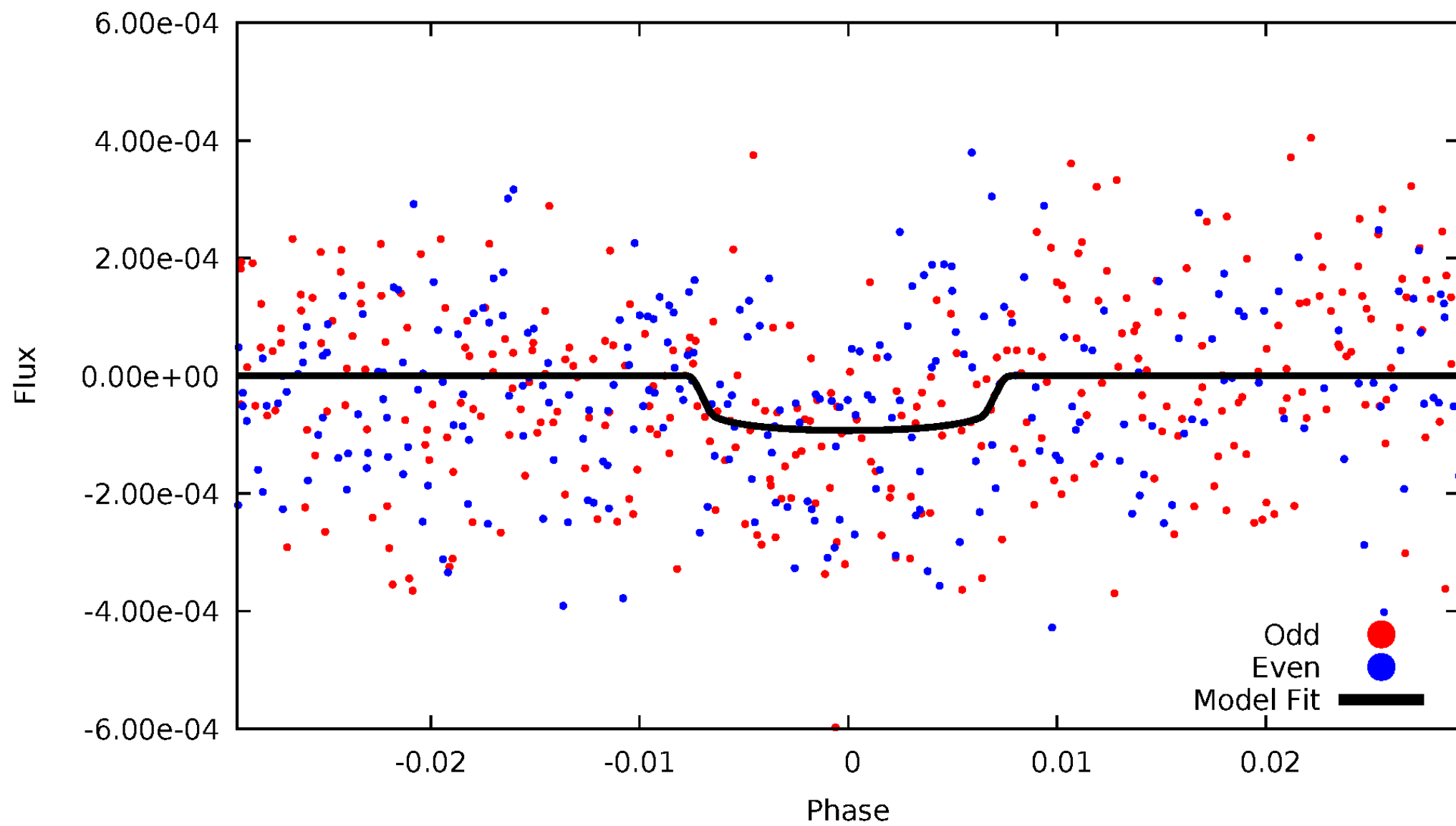


TCE 011294394-06



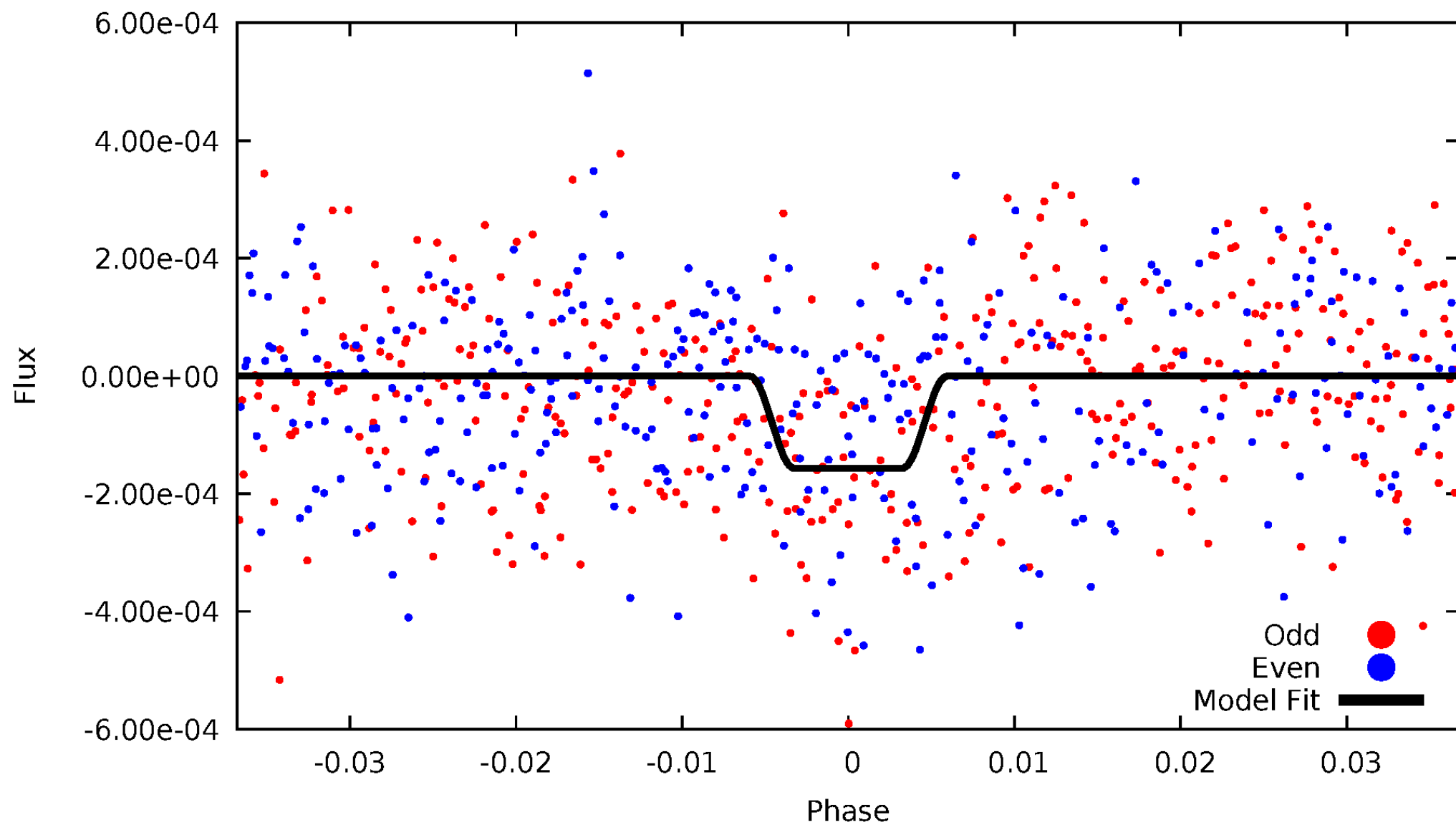
DV Odd/Even

TCE 011294394-06



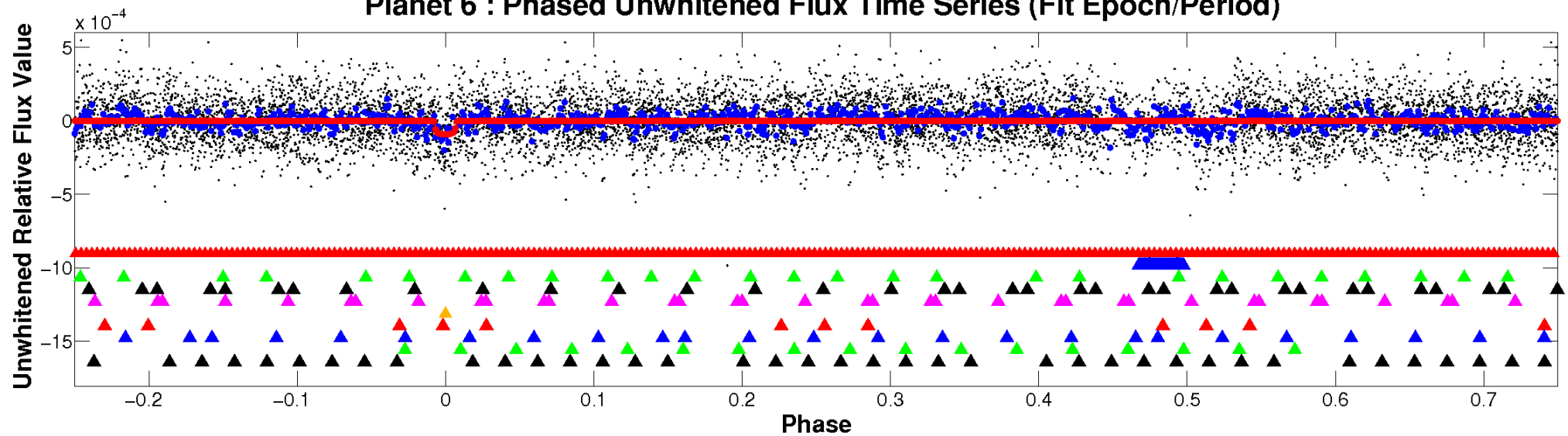
ALT Odd/Even

TCE 011294394-06

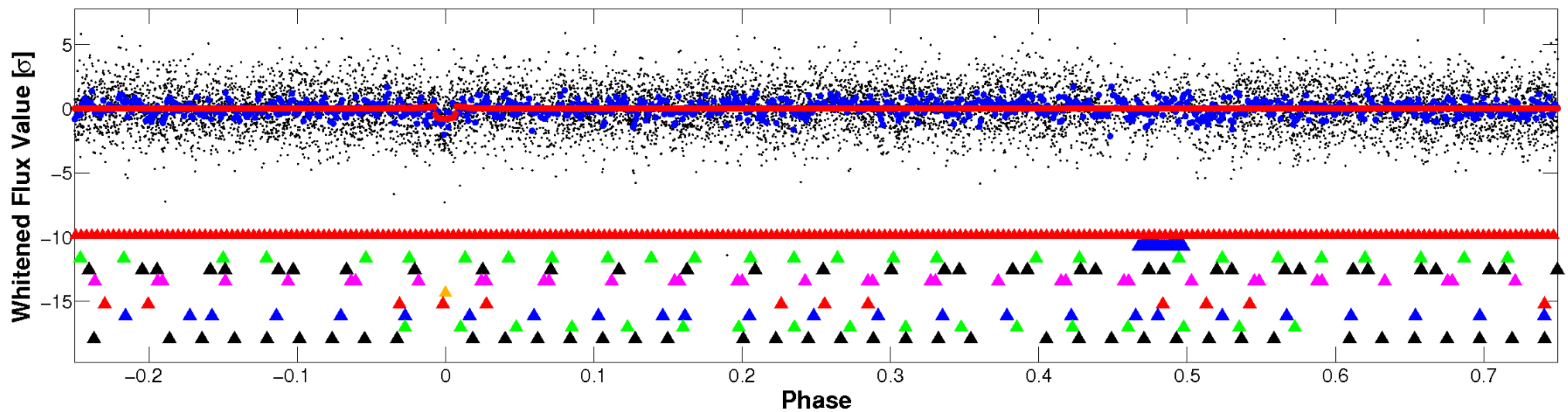


Non-Whitened Vs. Whitened Light Curve

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

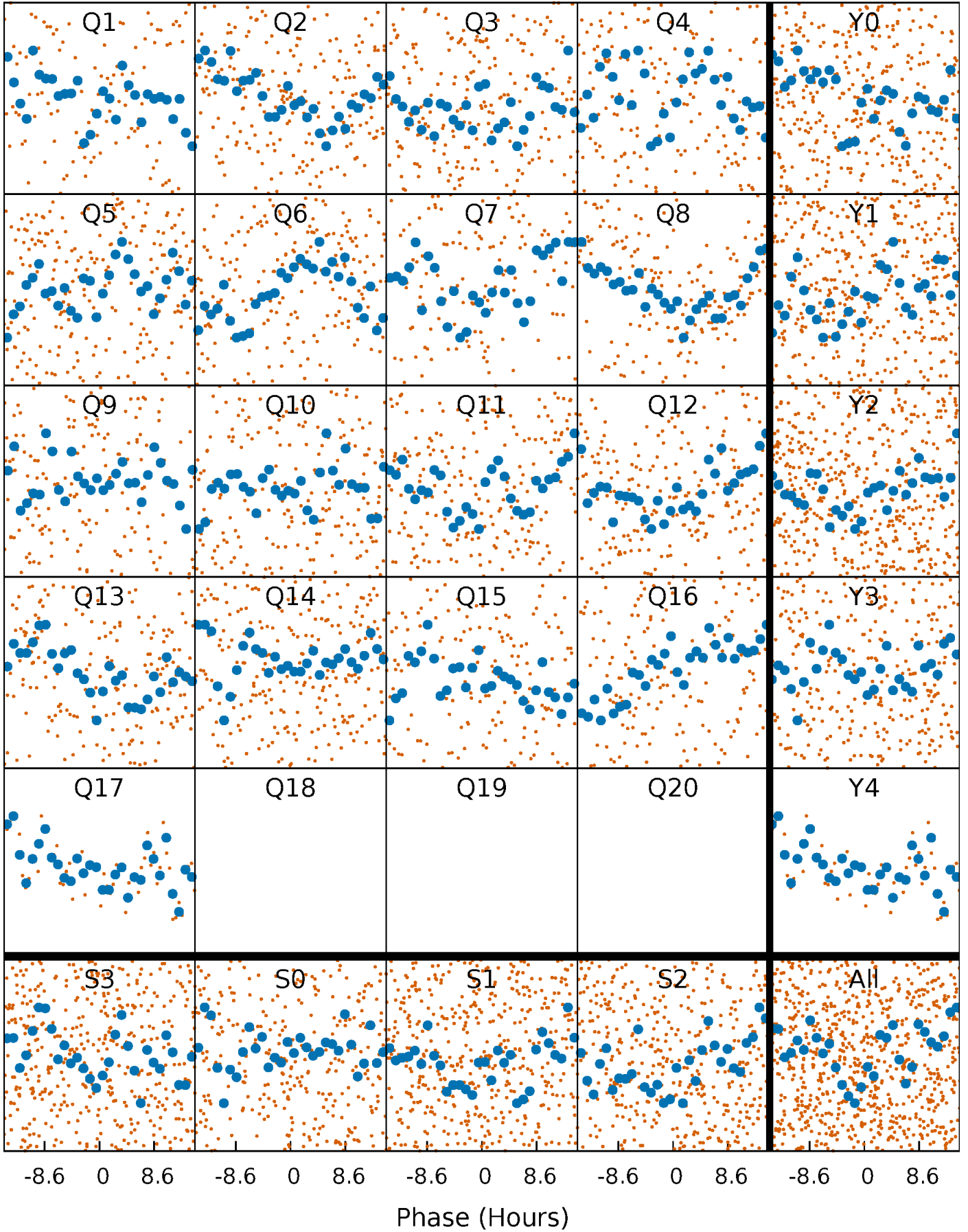


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



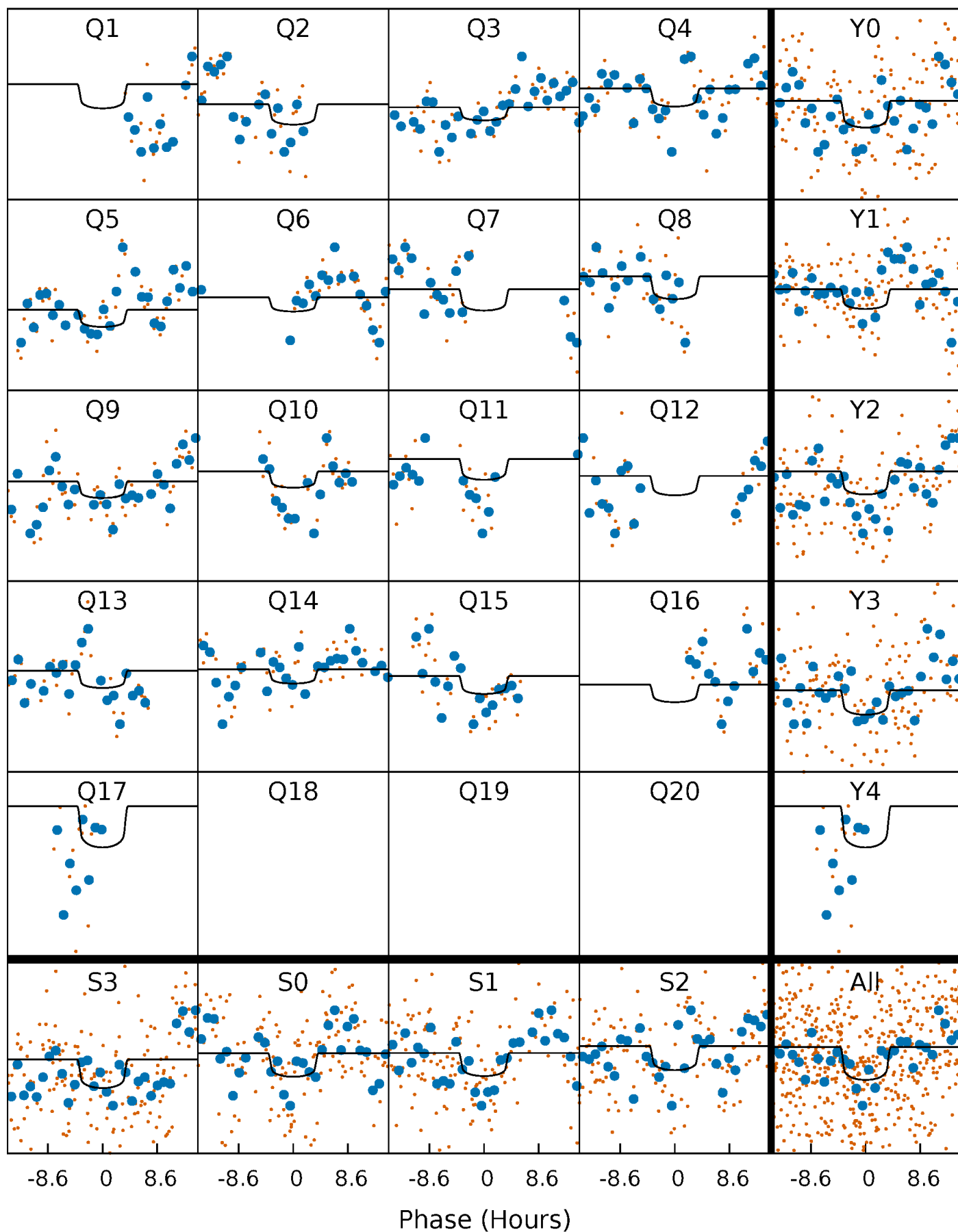
PDC Quarter-Phased Transit Curves

TCE 011294394-06 P= 21.340024 Days $T_0=132.950168$ (BKJD)



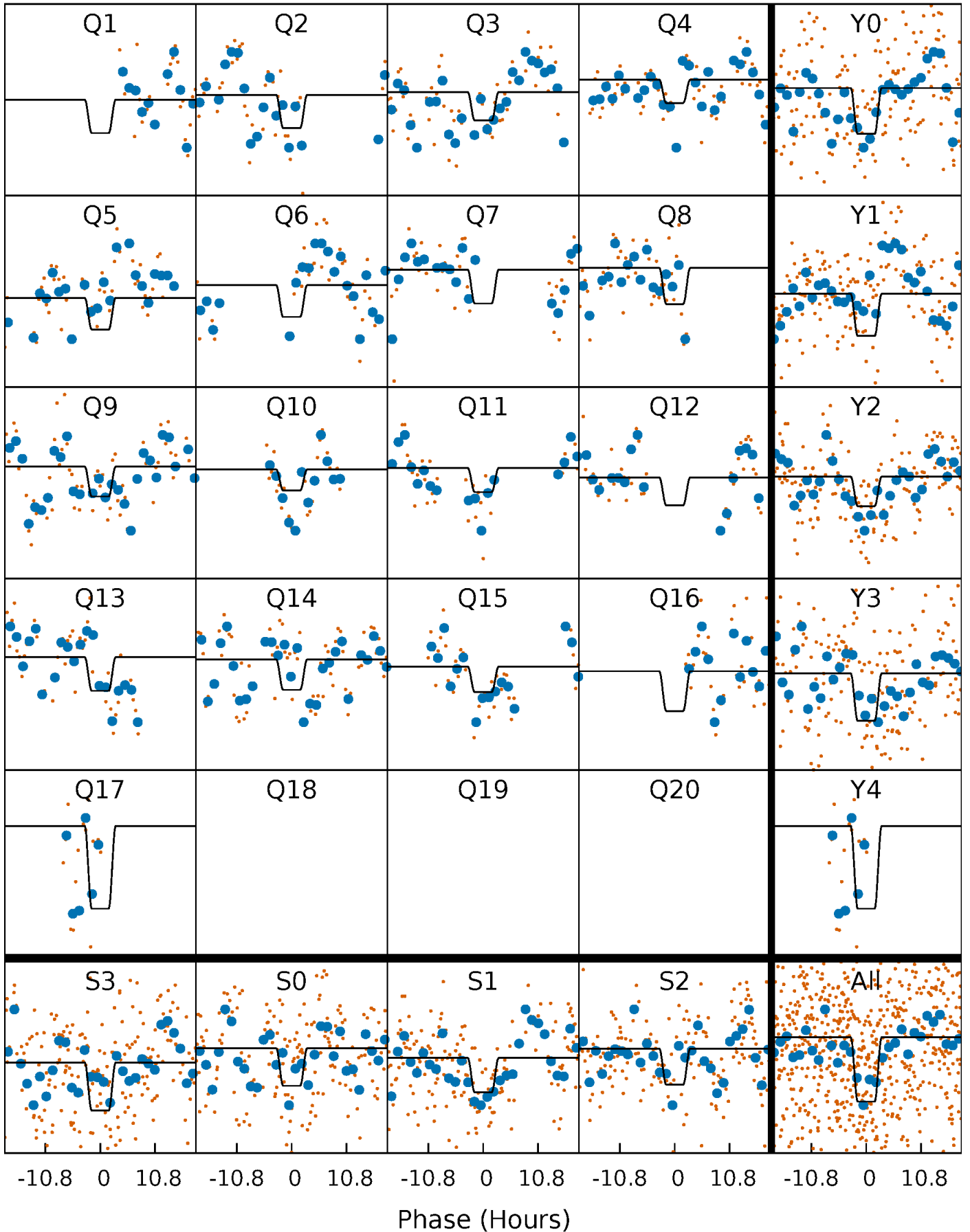
DV Quarter-Phased Transit Curves

TCE 011294394-06 P= 21.340024 Days $T_0=132.950168$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

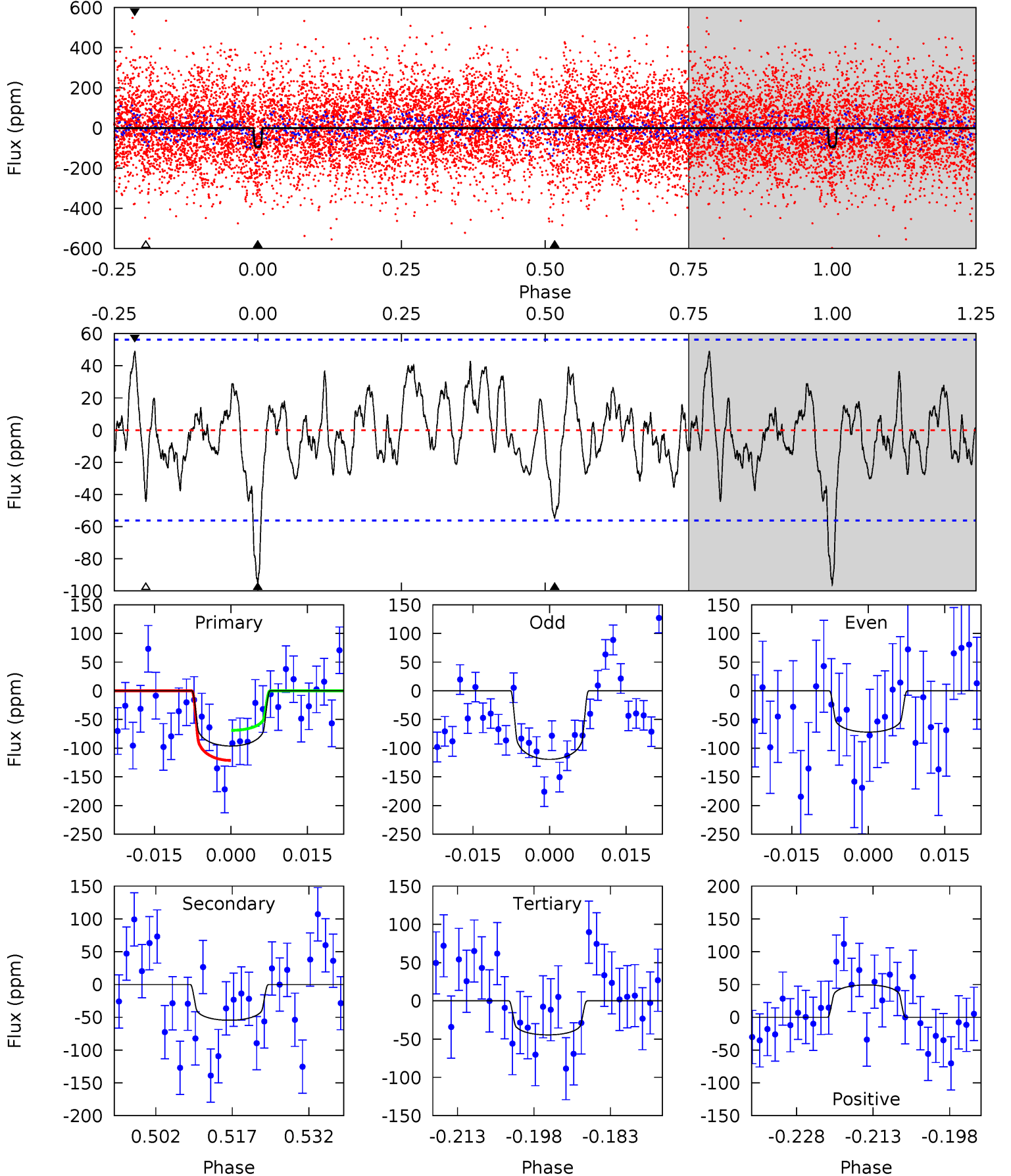
TCE 011294394-06 P= 21.339962 Days $T_0=132.939493$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-06, P = 21.340024 Days, E = 111.610144 Days

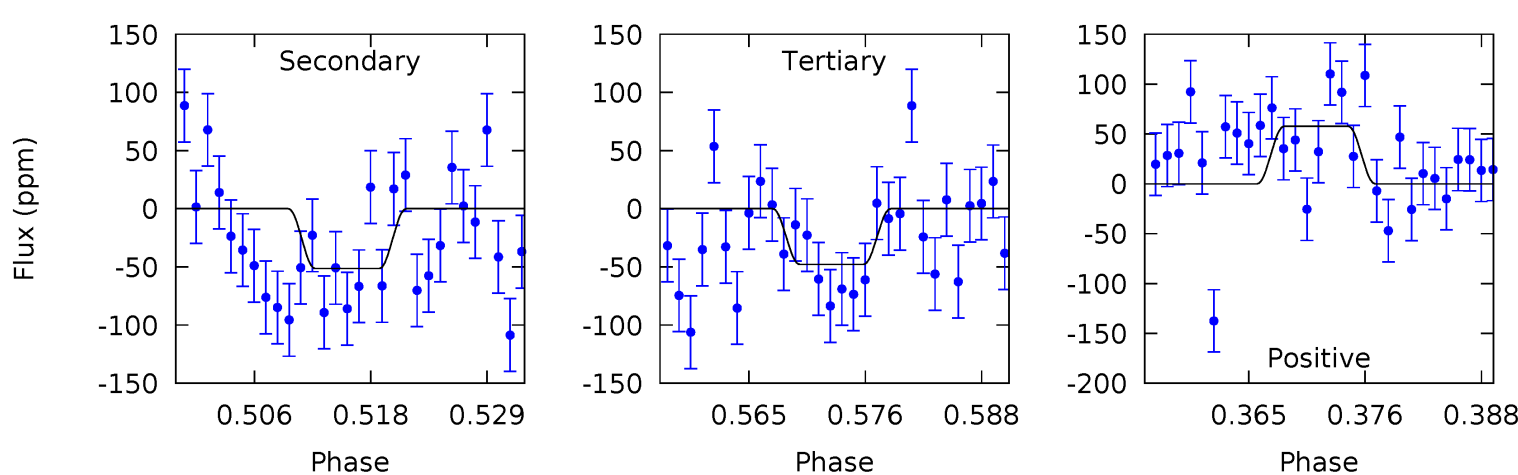
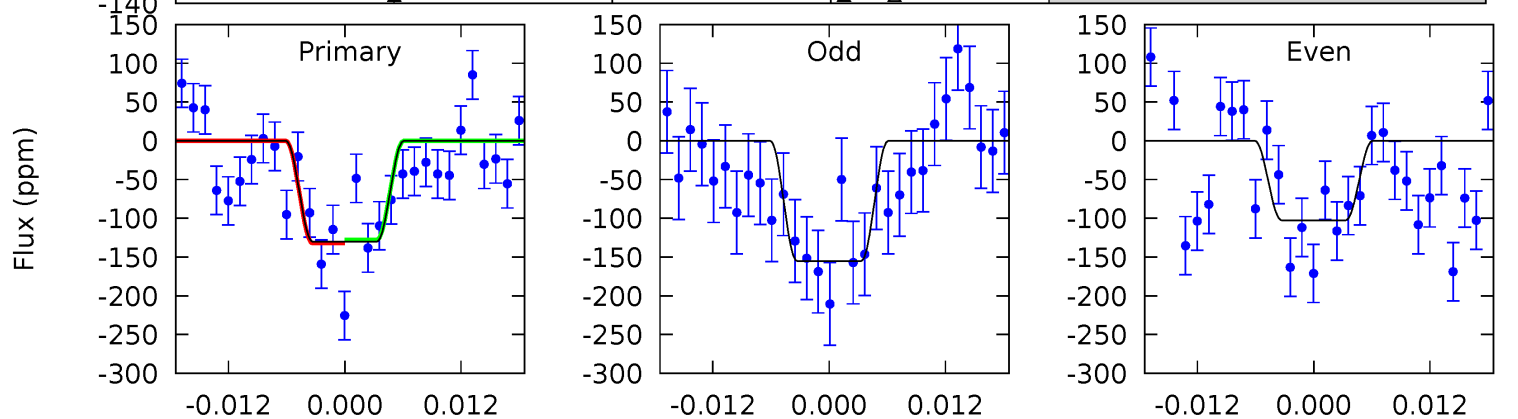
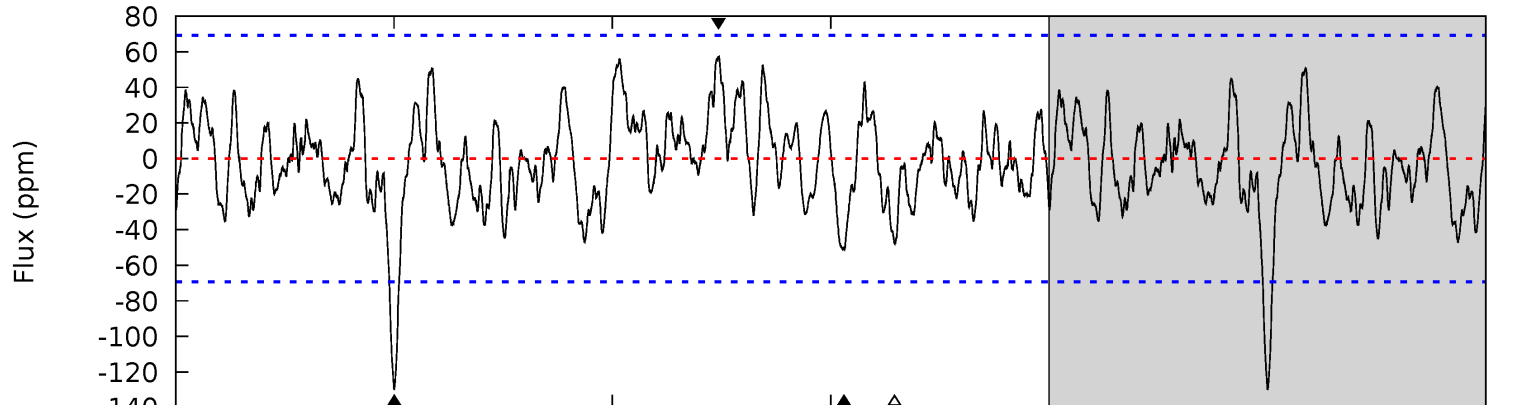
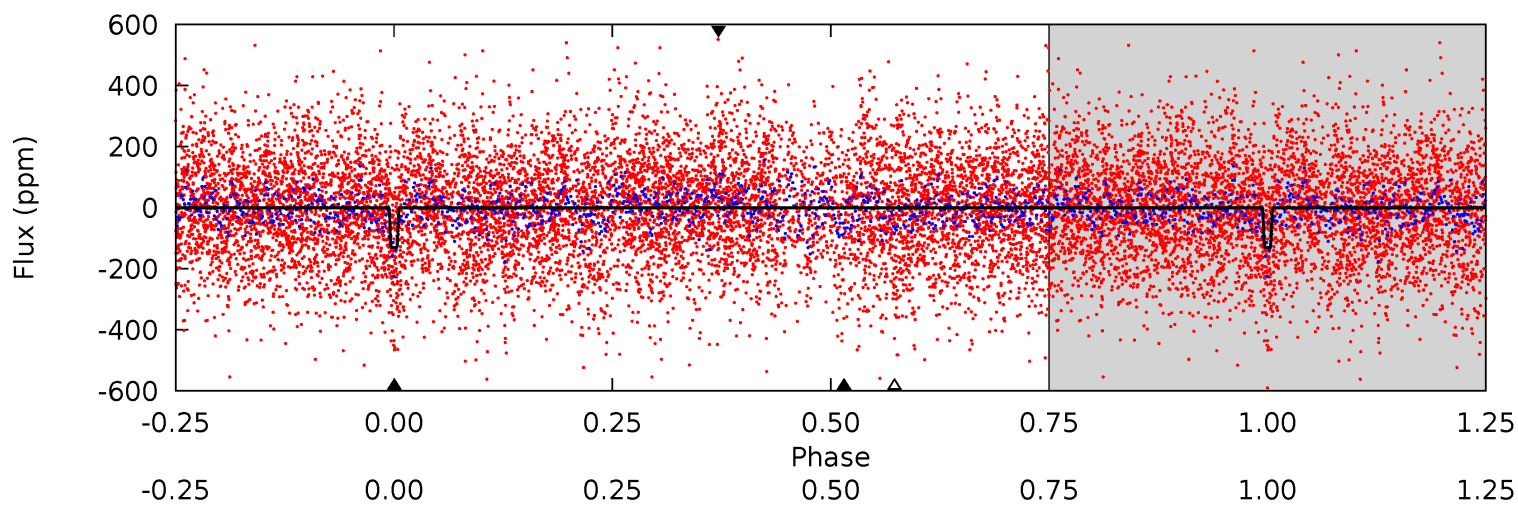
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.47	4.80	3.91	4.33	4.95	2.43	1.58	4.56	4.13	0.89	0.46	2.08	0.70	0.34	2.31



Alt Model-Shift Uniqueness Test

011294394-06, P = 21.339962 Days, E = 111.599531 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.38	3.71	3.45	4.15	5.00	2.52	1.55	5.94	5.23	0.26	-0.44	1.90	1.25	0.31	0.16



Stellar Parameters For KIC 011294394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-55 ± 11	$4.27^{+2.33}_{-1.96}$	1897^{+89}_{-161}	5658^{+2038}_{-942}	57^{+140}_{-33}
Alt.	-51 ± 14	$5.36^{+2.34}_{-2.08}$	1894^{+92}_{-161}	5030^{+1285}_{-668}	34^{+59}_{-18}

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

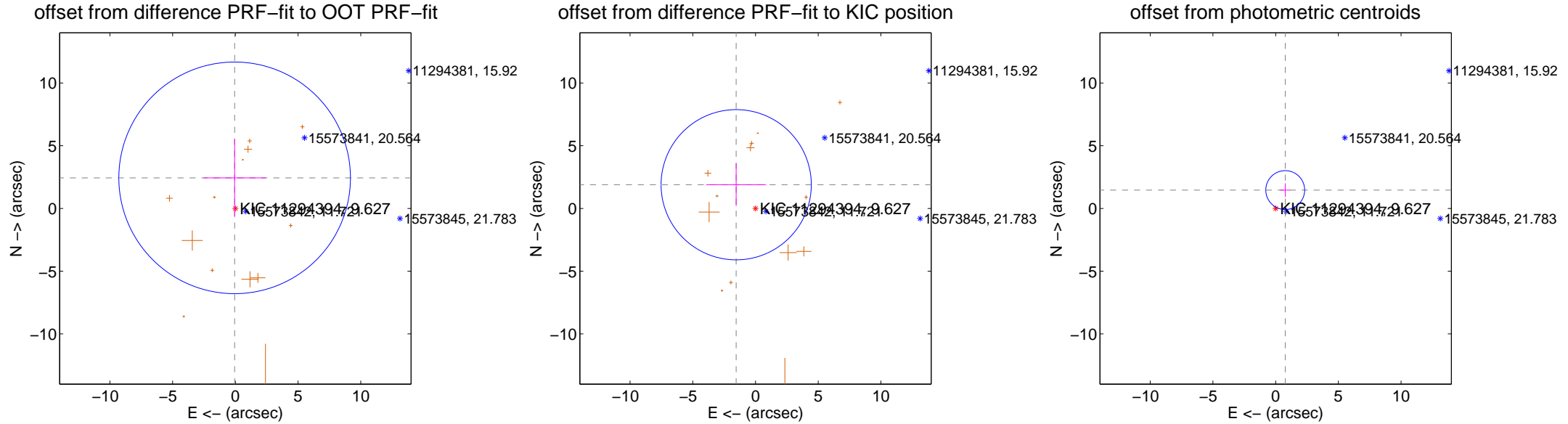
DV Centroid Data

Supplemental centroid analysis for 011294394-06. **Kepler magnitude: 9.63.** Transit SNR 8.91

There are 0 quarters with good PRF difference image offsets

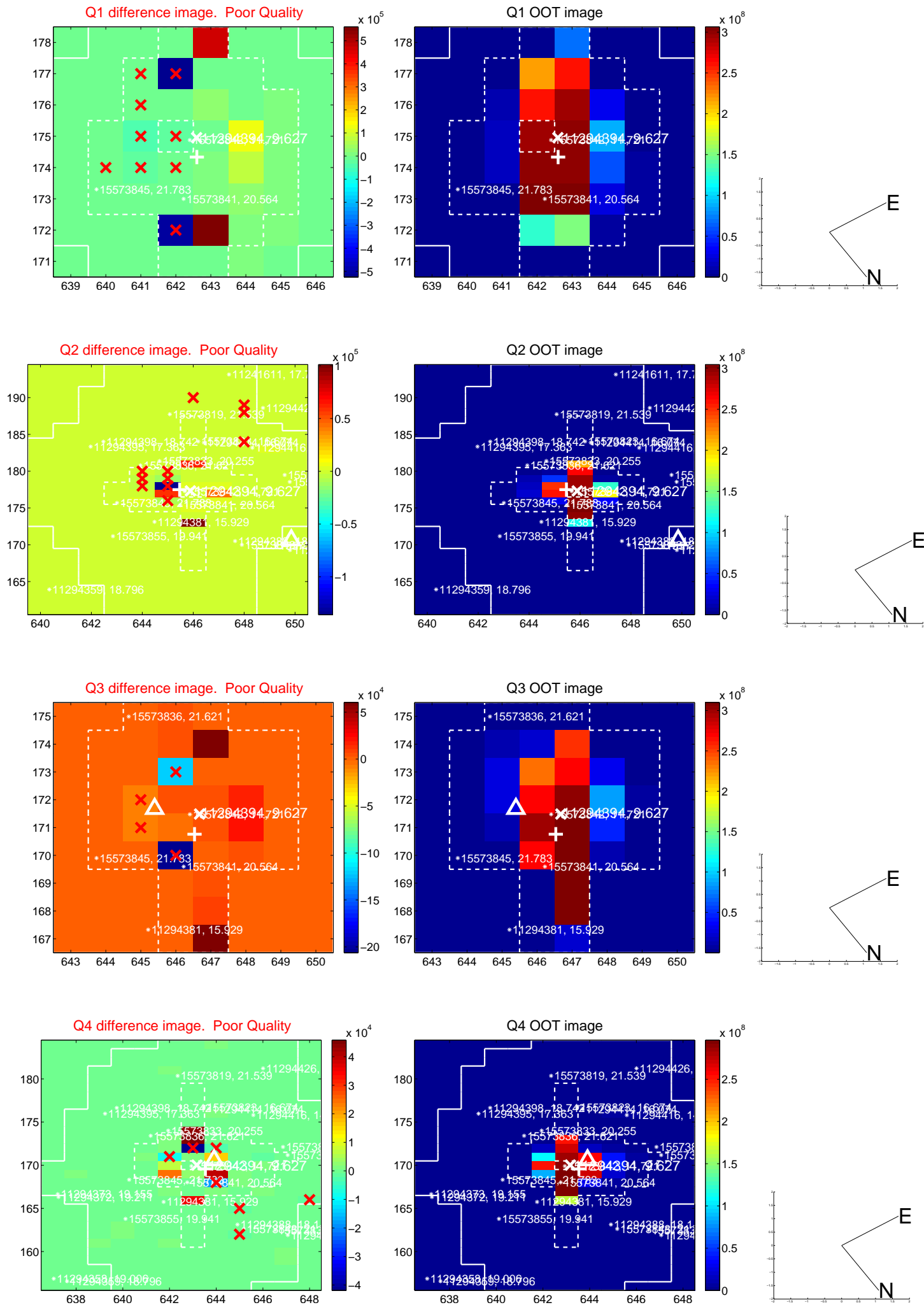
The OOT PRF centroid is offset from the target star catalog position by about 2.39 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.439 ± 3.077	0.79	0.056 ± 2.470	2.439 ± 3.104
PRF-fit source offset from KIC position	2.438 ± 1.996	1.22	1.540 ± 2.386	1.890 ± 1.688
photometric centroid source offset	1.65 ± 0.52	3.20	-0.76 ± 0.40	1.46 ± 0.54

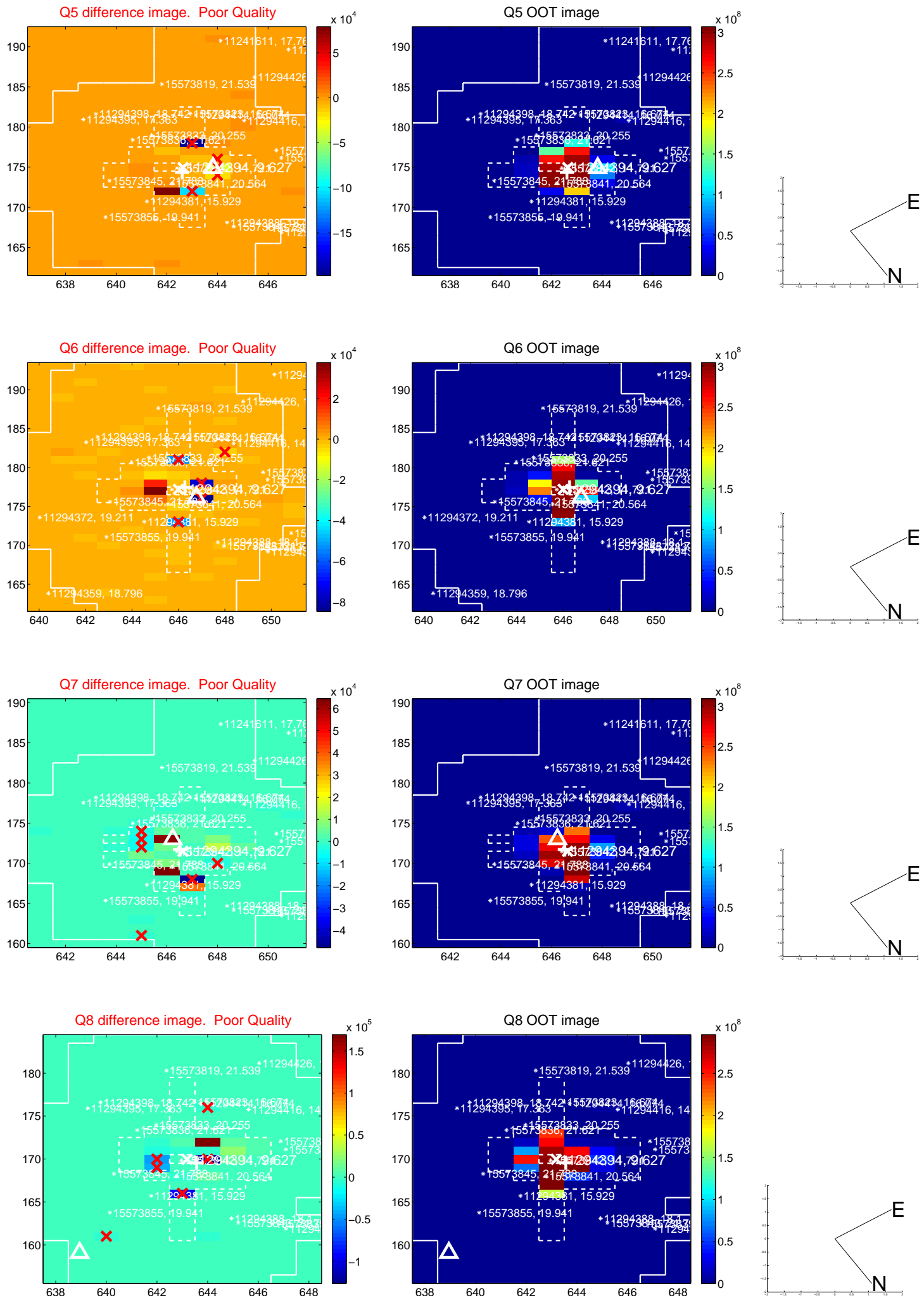


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

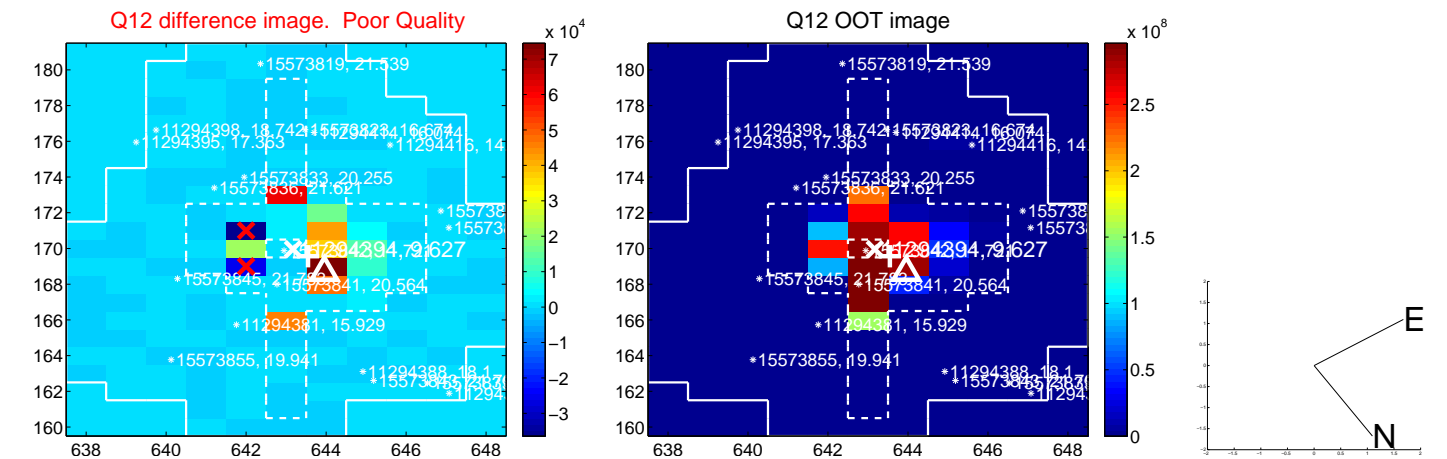
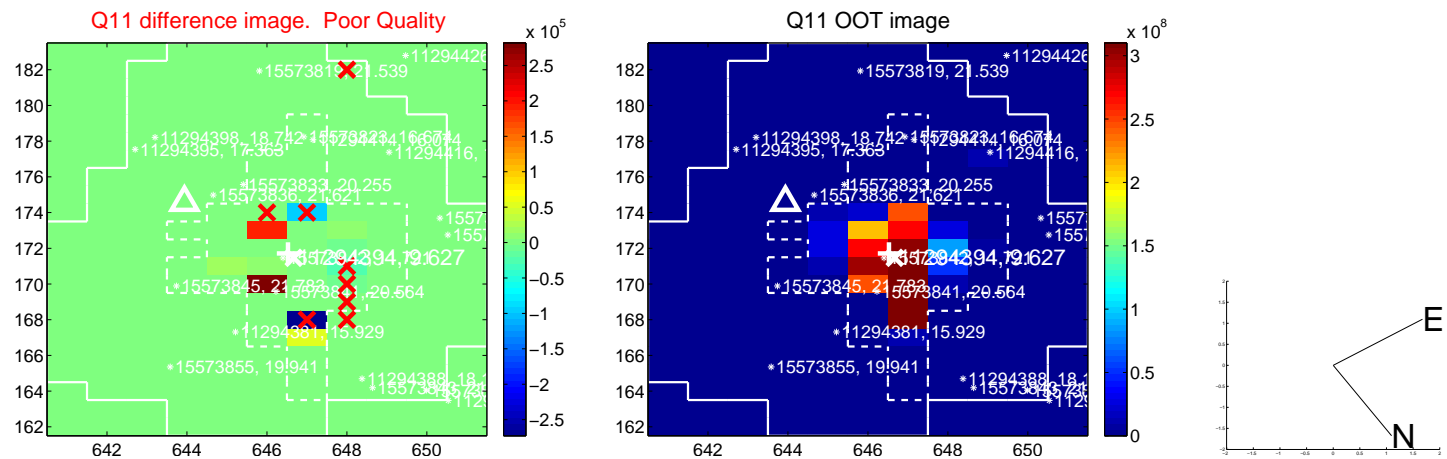
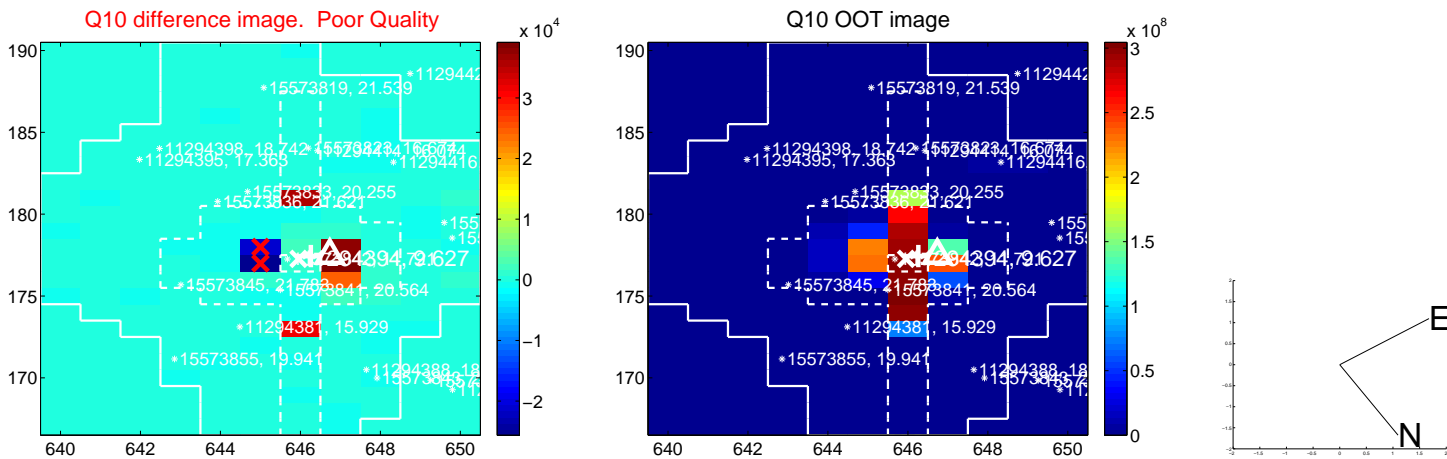
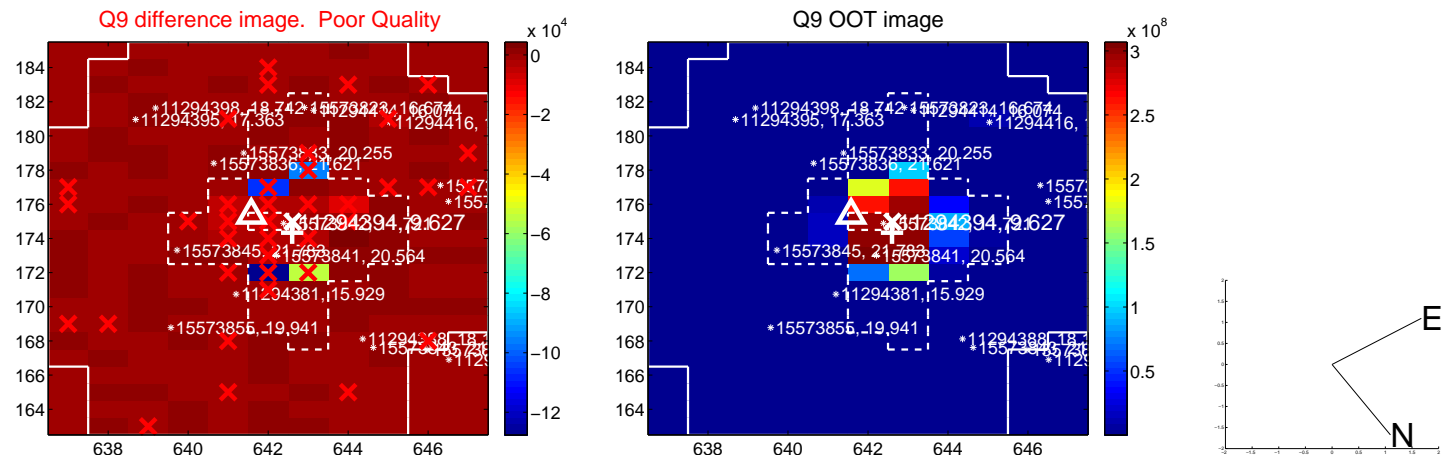
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



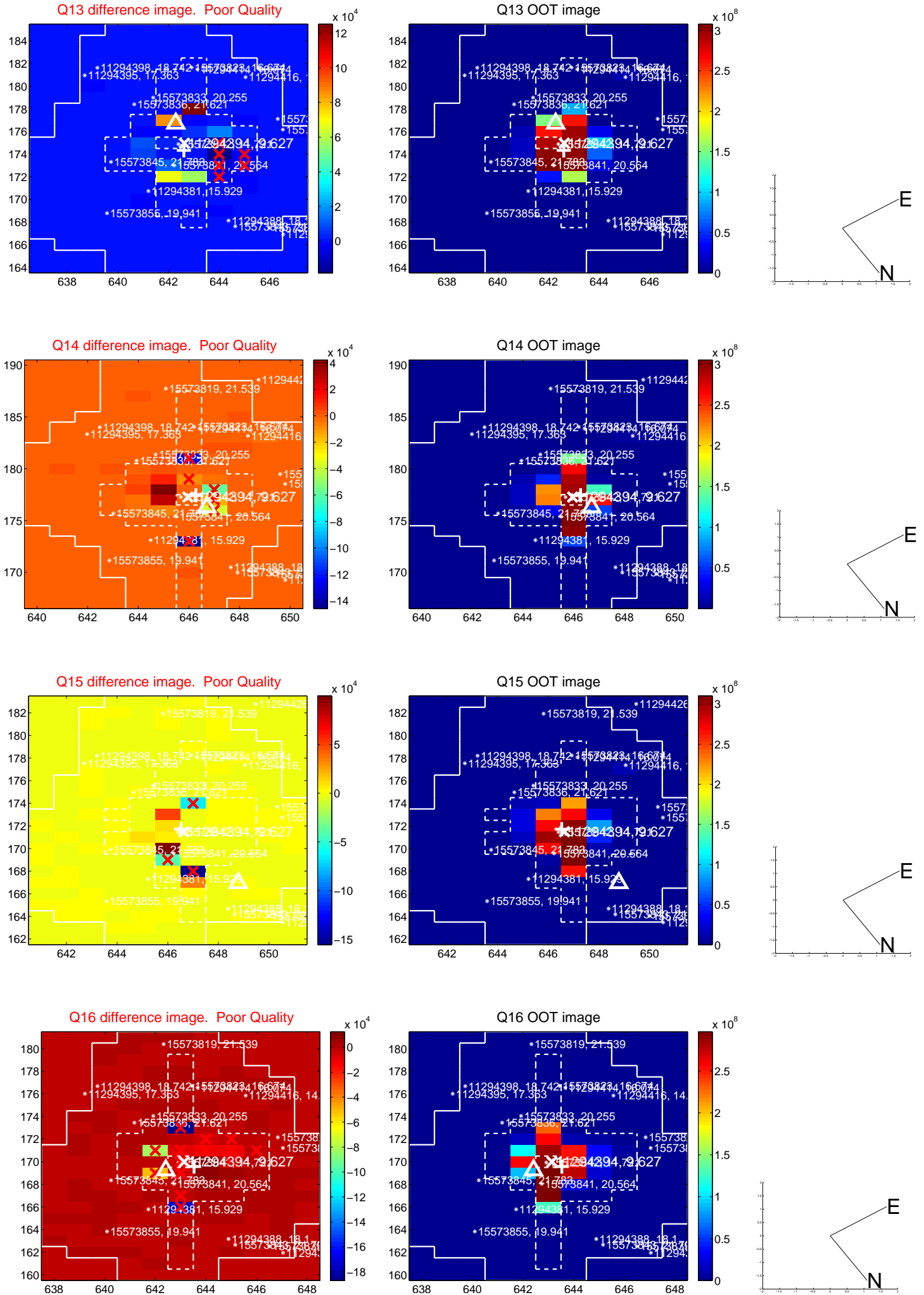
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



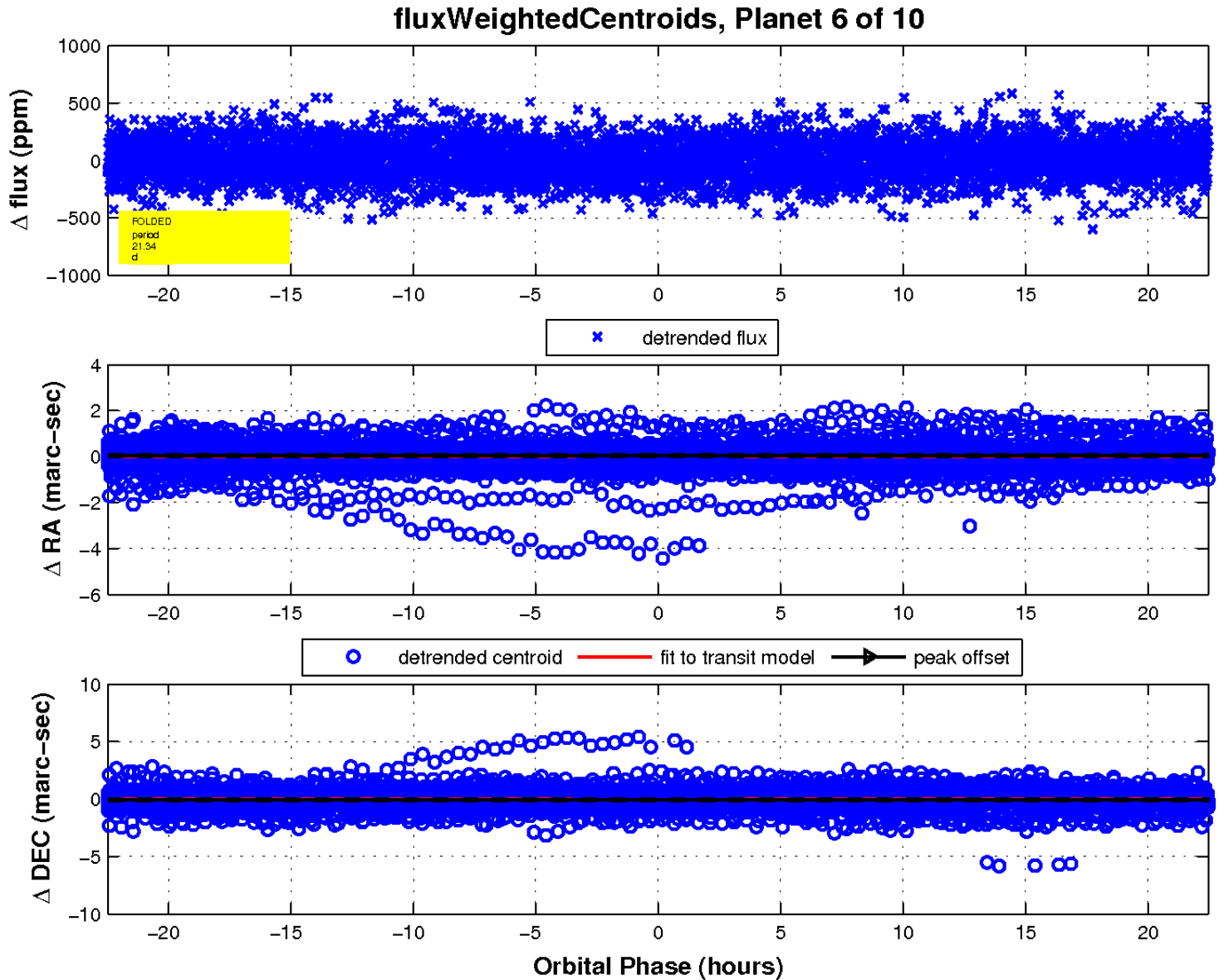
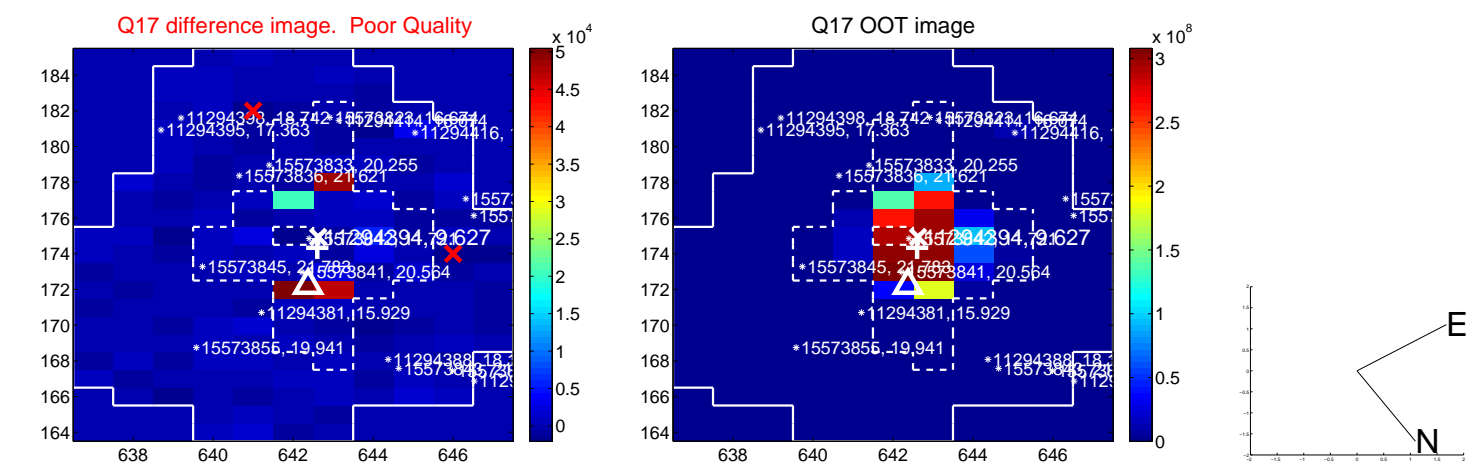
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



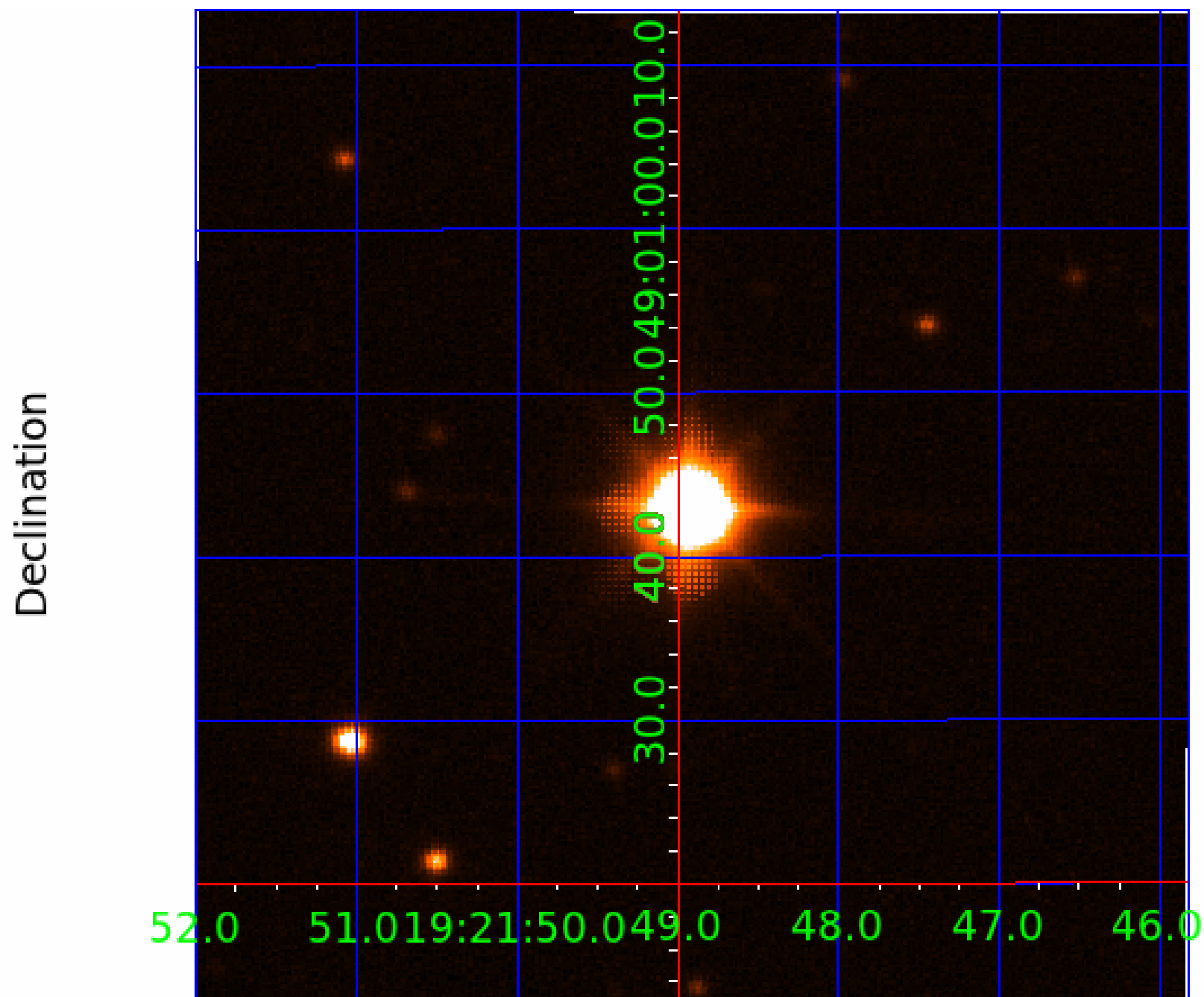
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
011294394-03	OBS	No	54.376855	175.912986	286.7	2.809	12.7	13.2	4.16	6626	10.00	242.26
011294394-04	OBS	No	41.700369	152.100063	258.2	3.415	11.4	11.6	4.16	6626	7.83	345.13
011294394-05	OBS	No	39.899524	166.832283	212.3	3.665	11.2	11.9	4.16	6626	6.87	366.06
011294394-06	OBS	No	21.340024	132.950168	93.1	7.492	11.1	8.9	4.16	6626	4.54	843.16
011294394-07	OBS	No	122.548908	235.373023	206.9	7.059	10.8	8.3	4.16	6626	6.83	81.99
011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

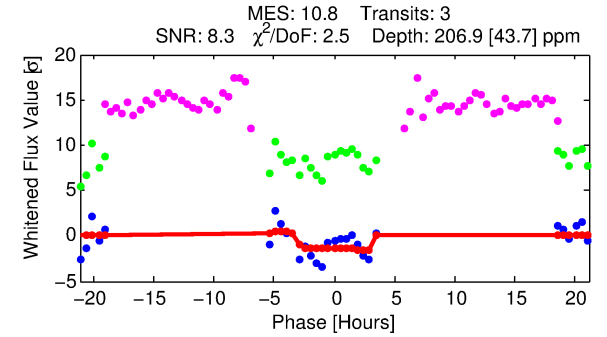
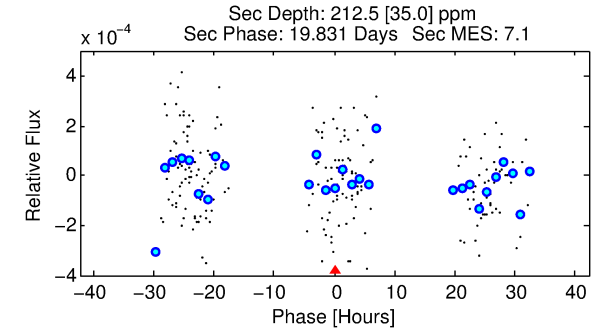
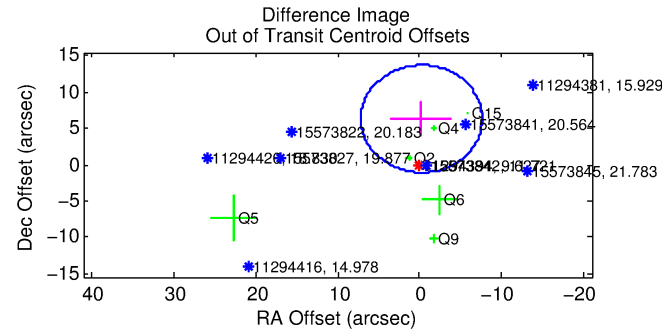
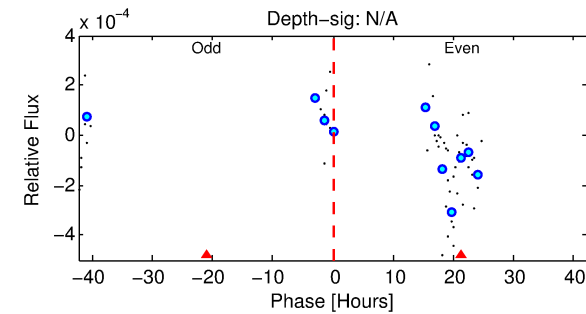
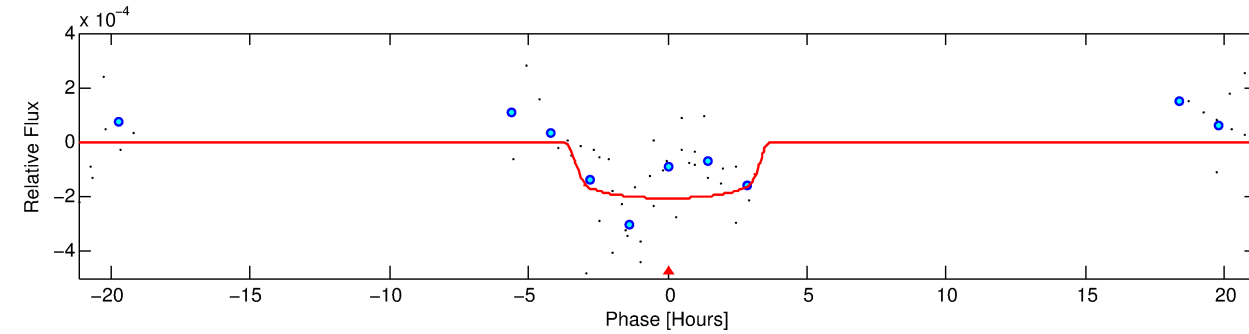
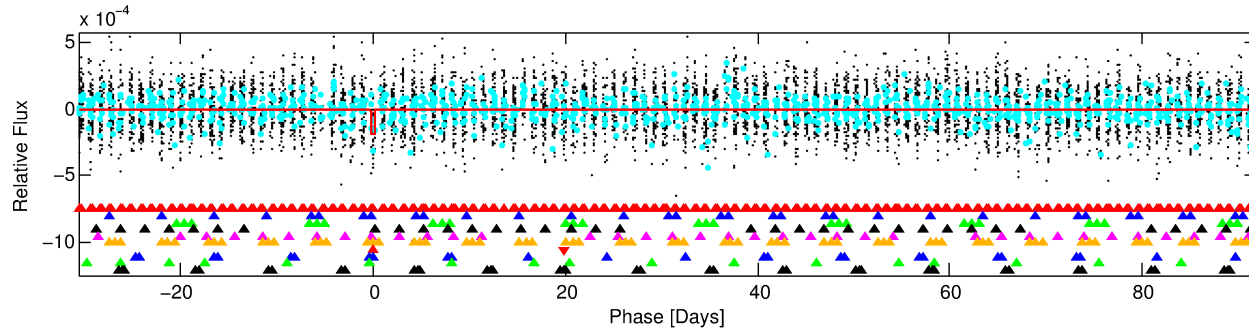
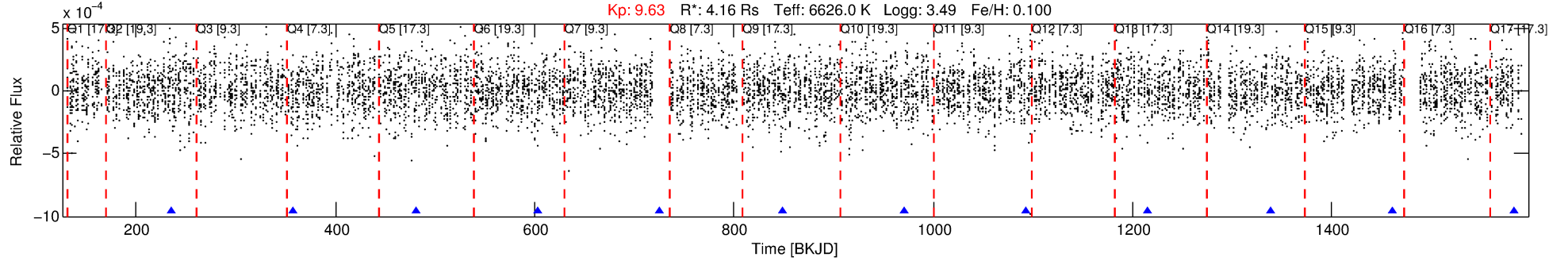
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-07

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 7 of 10 Period: 122.549 d



DV Fit Results:

Period = 122.54891 [0.00999] d
Epoch = 235.3730 [0.0460] BKJD
Rp/R* = 0.0150 [0.0079]
a/R* = 69.64 [203.25]
b = 0.87 [0.85]
Seff = 81.99 [48.95]
Teff = 767 [115] K
Rp = 6.83 [4.43] Re
a = 0.6042 [0.2203] AU
Ag = 913.39 [1111.63] [0.82σ]
Teffp = 6522 [1751] K [3.28σ]

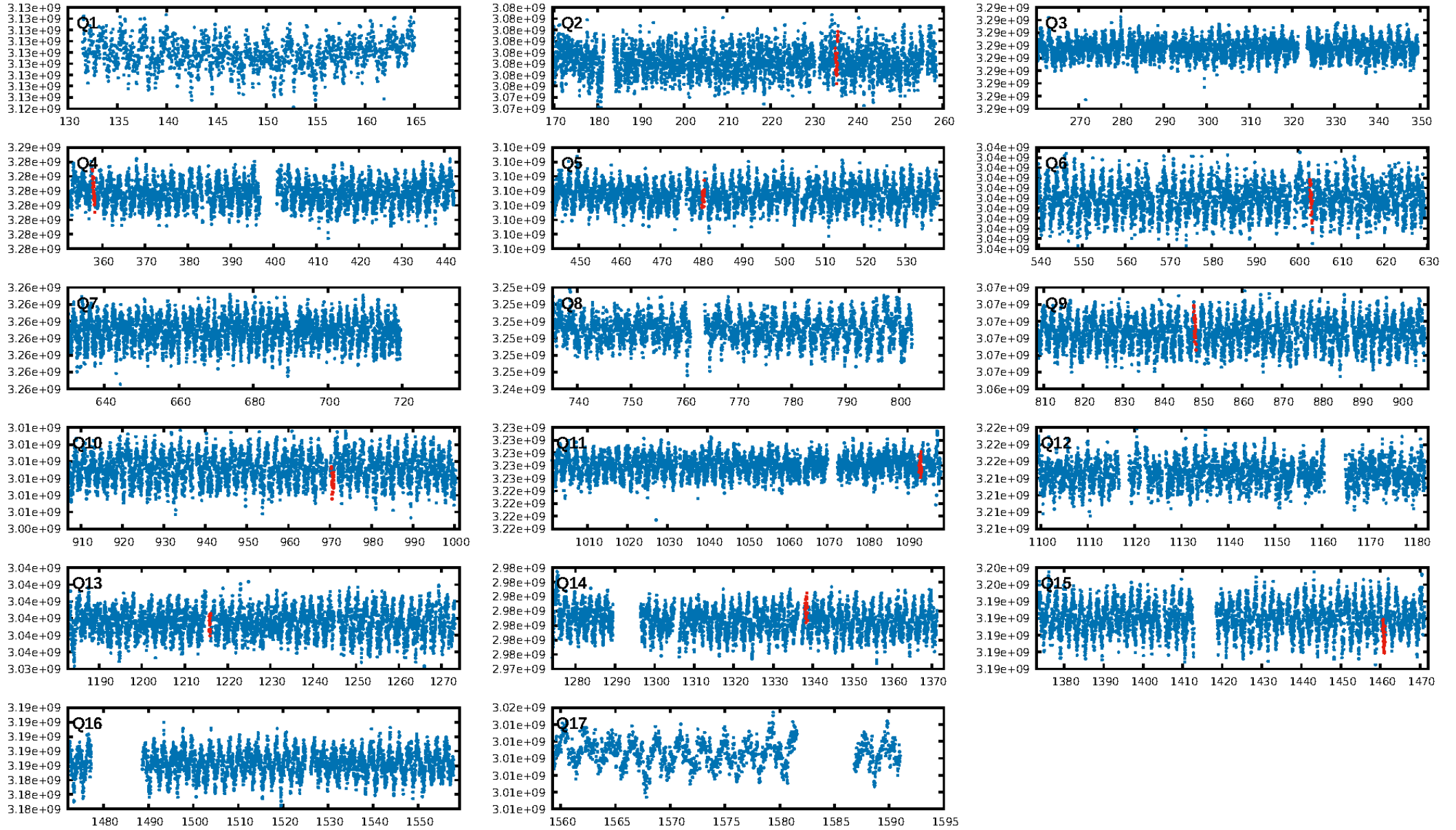
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [125.83σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 35.3%
ModelChiSquareGof-sig: 2.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 50.5%
Centroid-so: 0.403 arcsec [0.68σ]
OotOffset-rm: 6.327 arcsec [2.56σ]
OotOffset-st: 2/1/1/2 [6]
KicOffset-rm: 5.847 arcsec [2.81σ]
KicOffset-st: 2/1/1/2 [6]
DiffImageQuality-fgm: 0.00 [0/6]
DiffImageOverlap-fno: 0.17 [1/6]

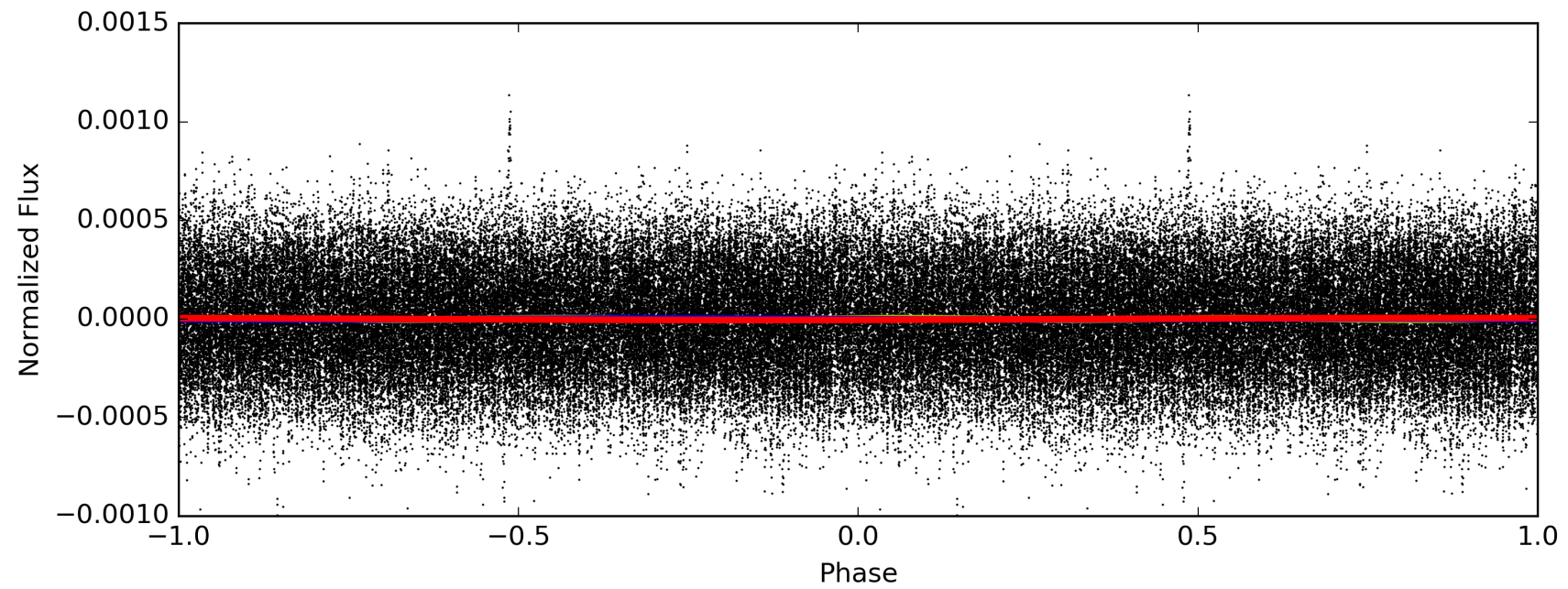
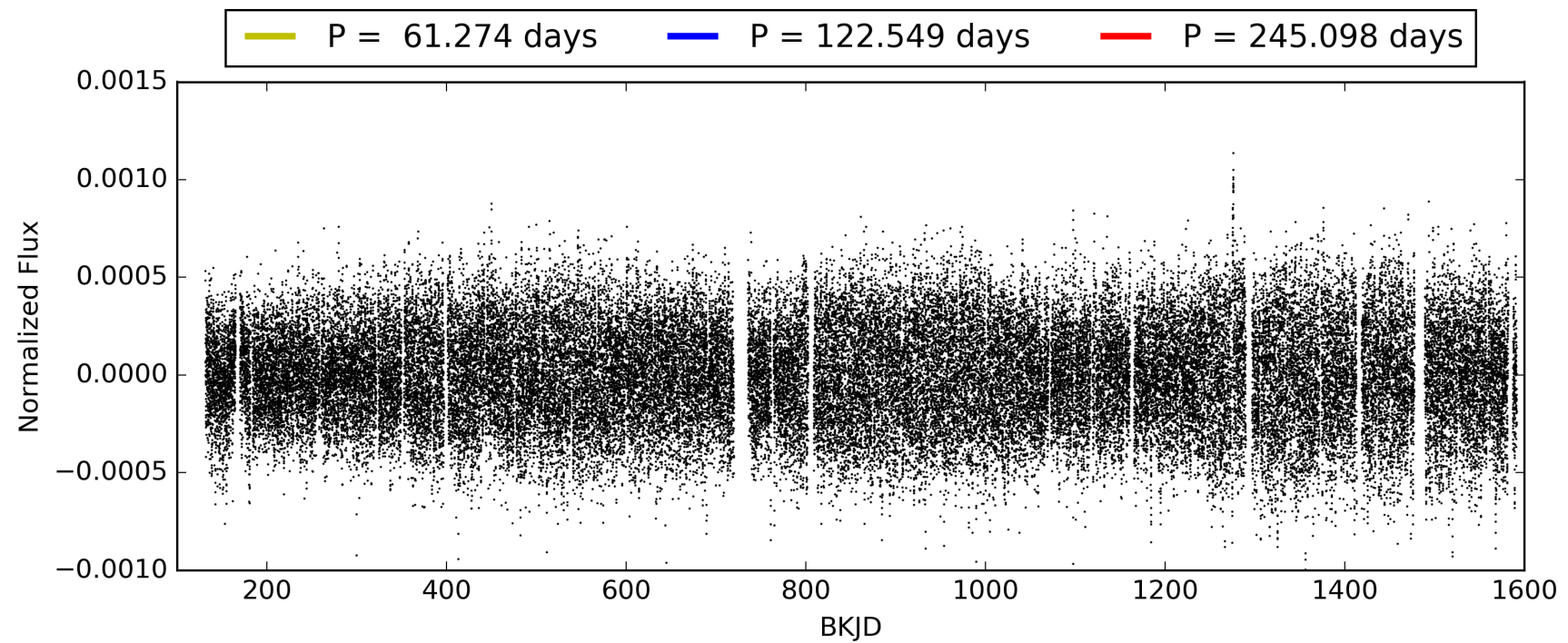
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:17:17 Z

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

TCE 011294394-07, PDC Light Curves

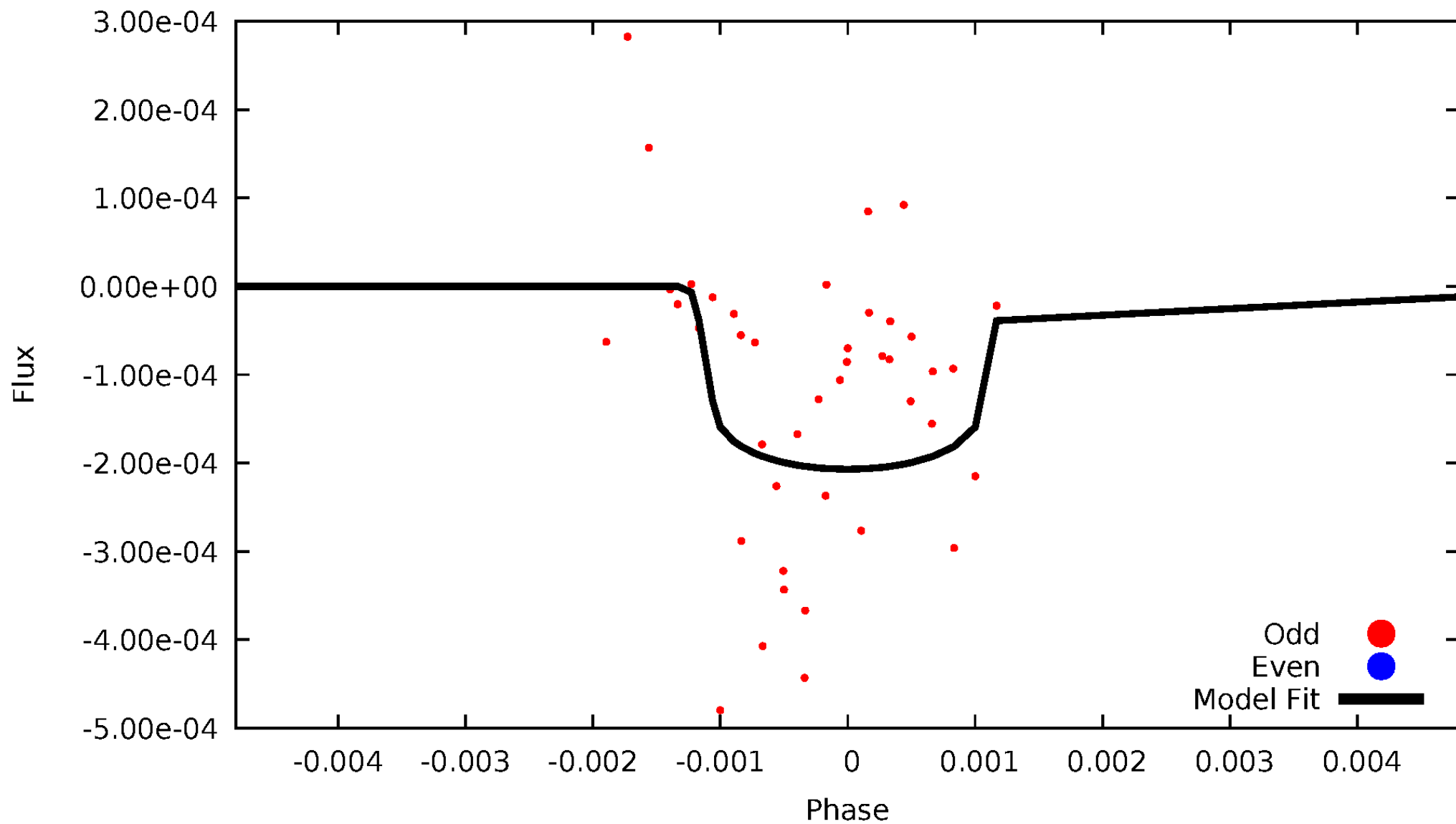


TCE 011294394-07



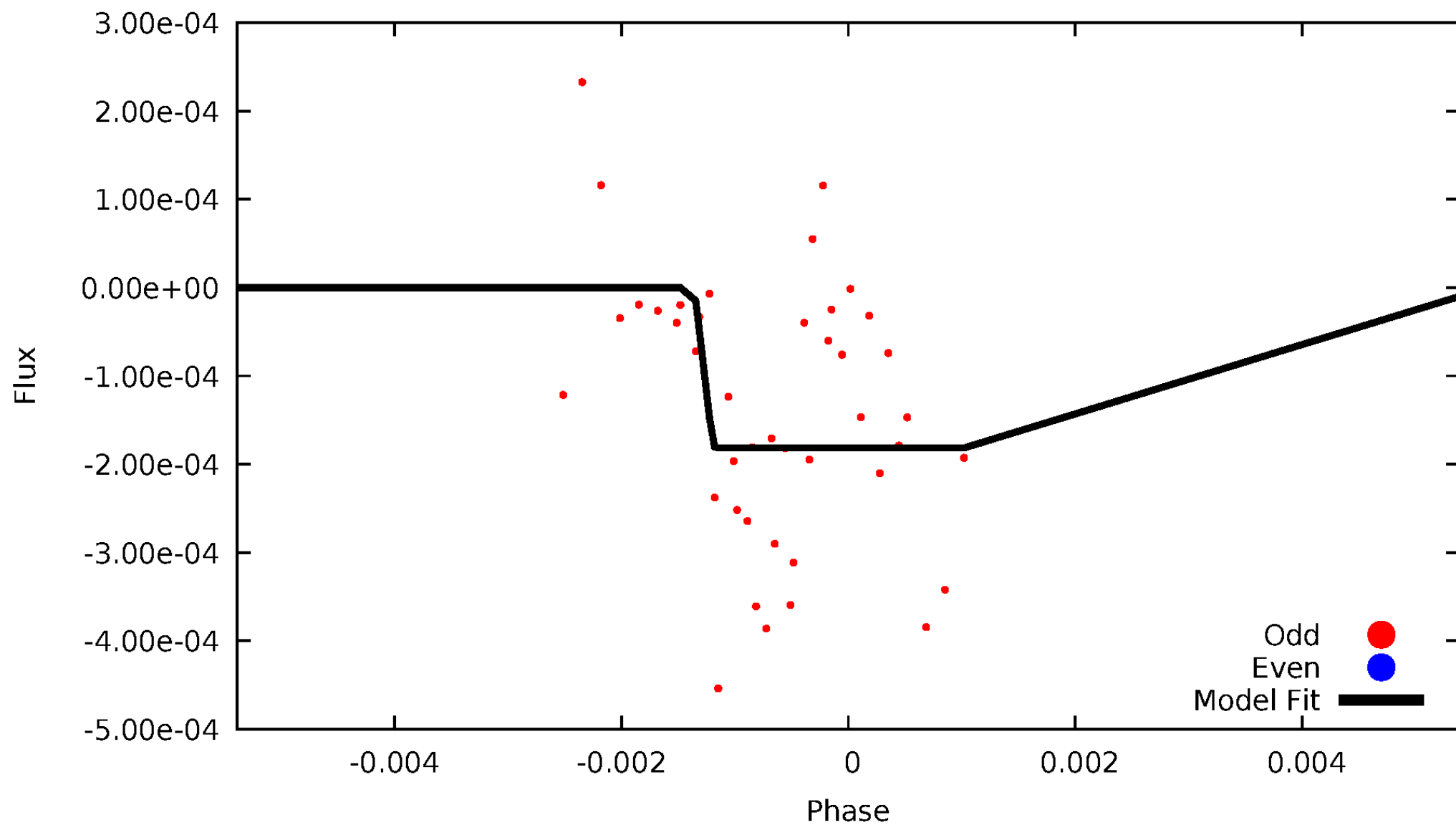
DV Odd/Even

TCE 011294394-07



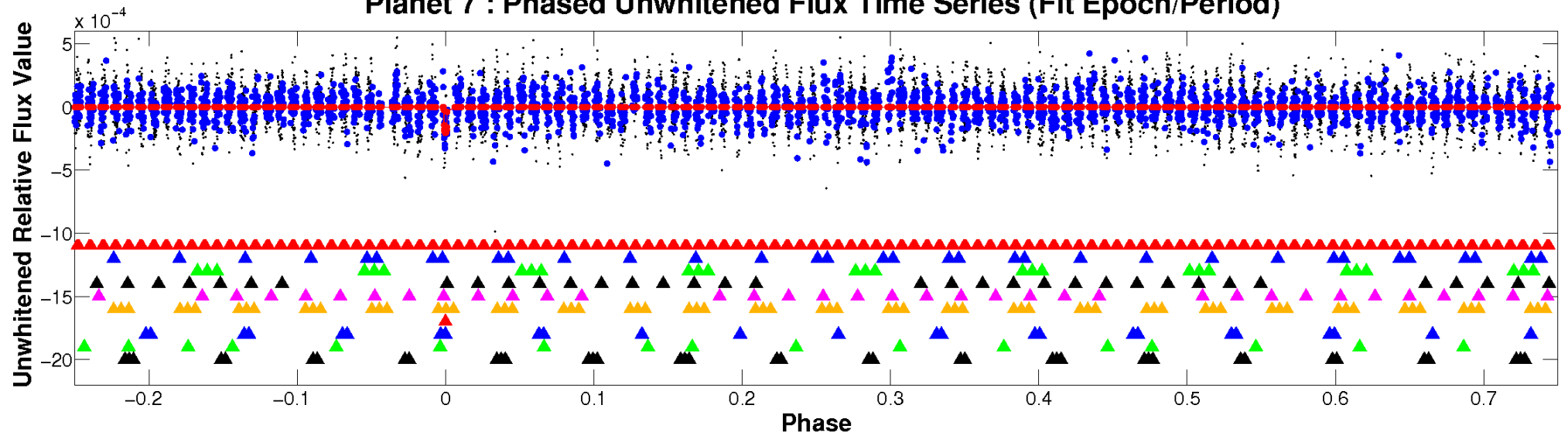
ALT Odd/Even

TCE 011294394-07

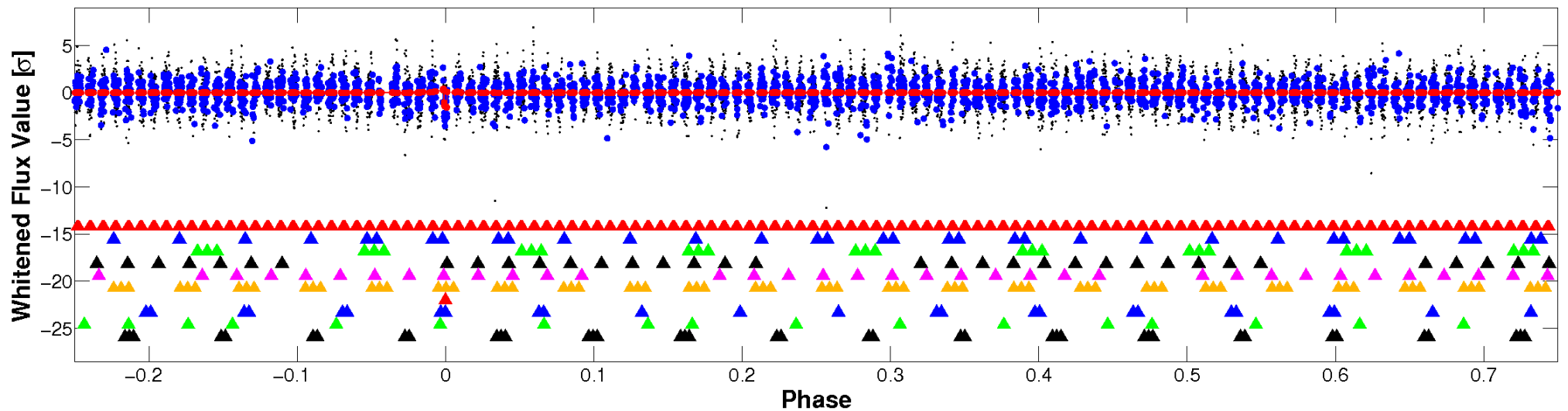


Non-Whitened Vs. Whitened Light Curve

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

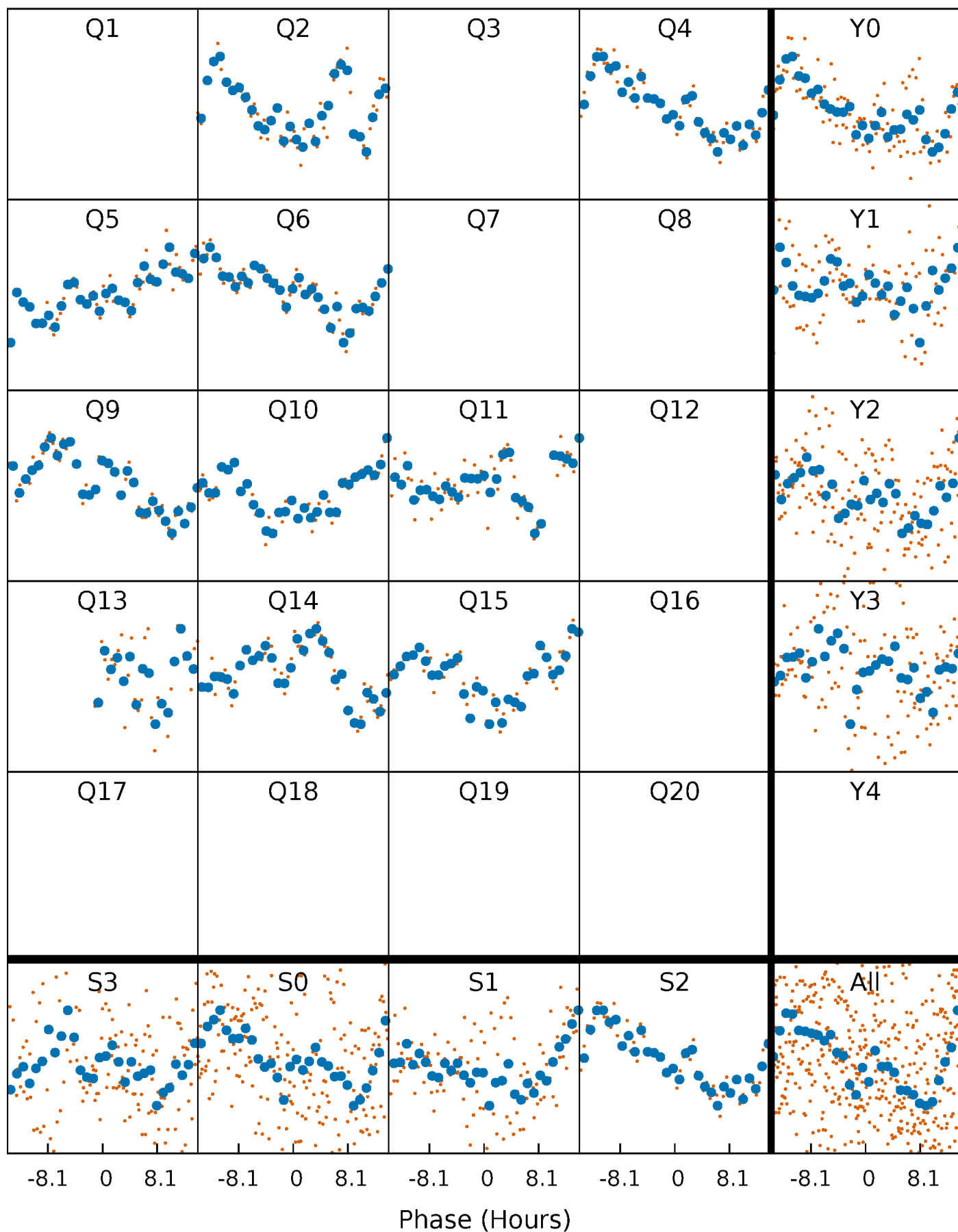


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



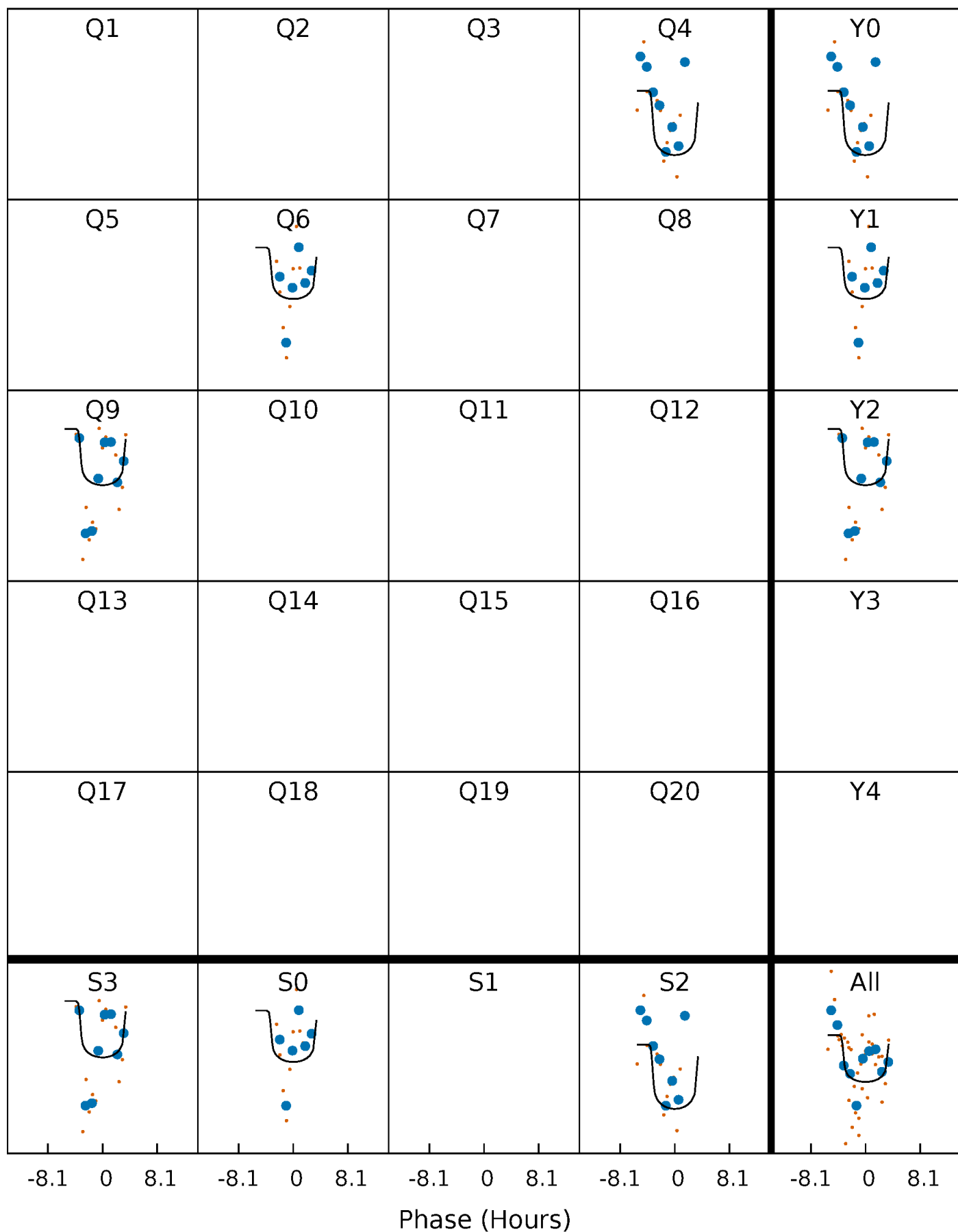
PDC Quarter-Phased Transit Curves

TCE 011294394-07 $P=122.548908$ Days $T_0=235.373023$ (BKJD)



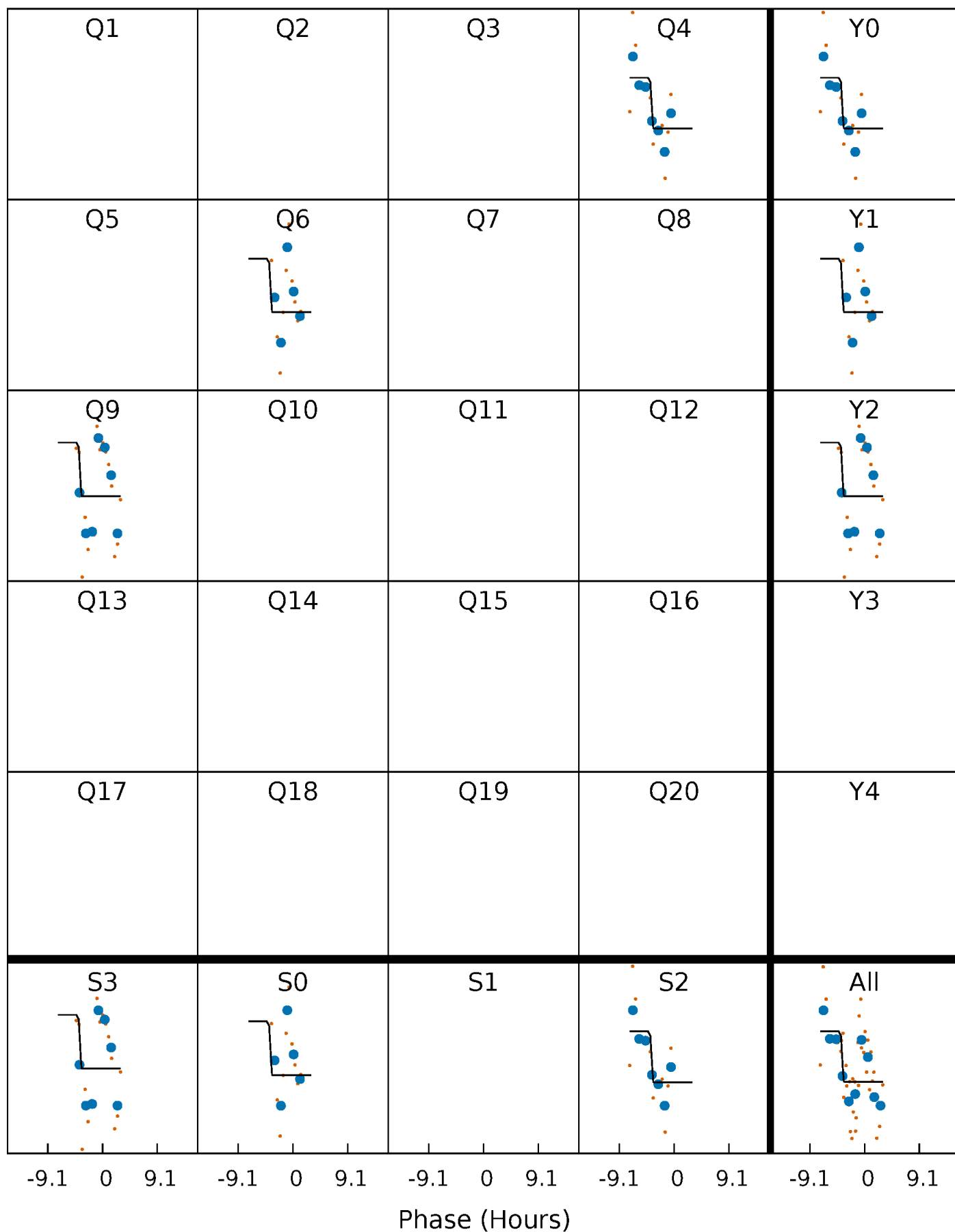
DV Quarter-Phased Transit Curves

TCE 011294394-07 $P=122.548908$ Days $T_0=235.373023$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

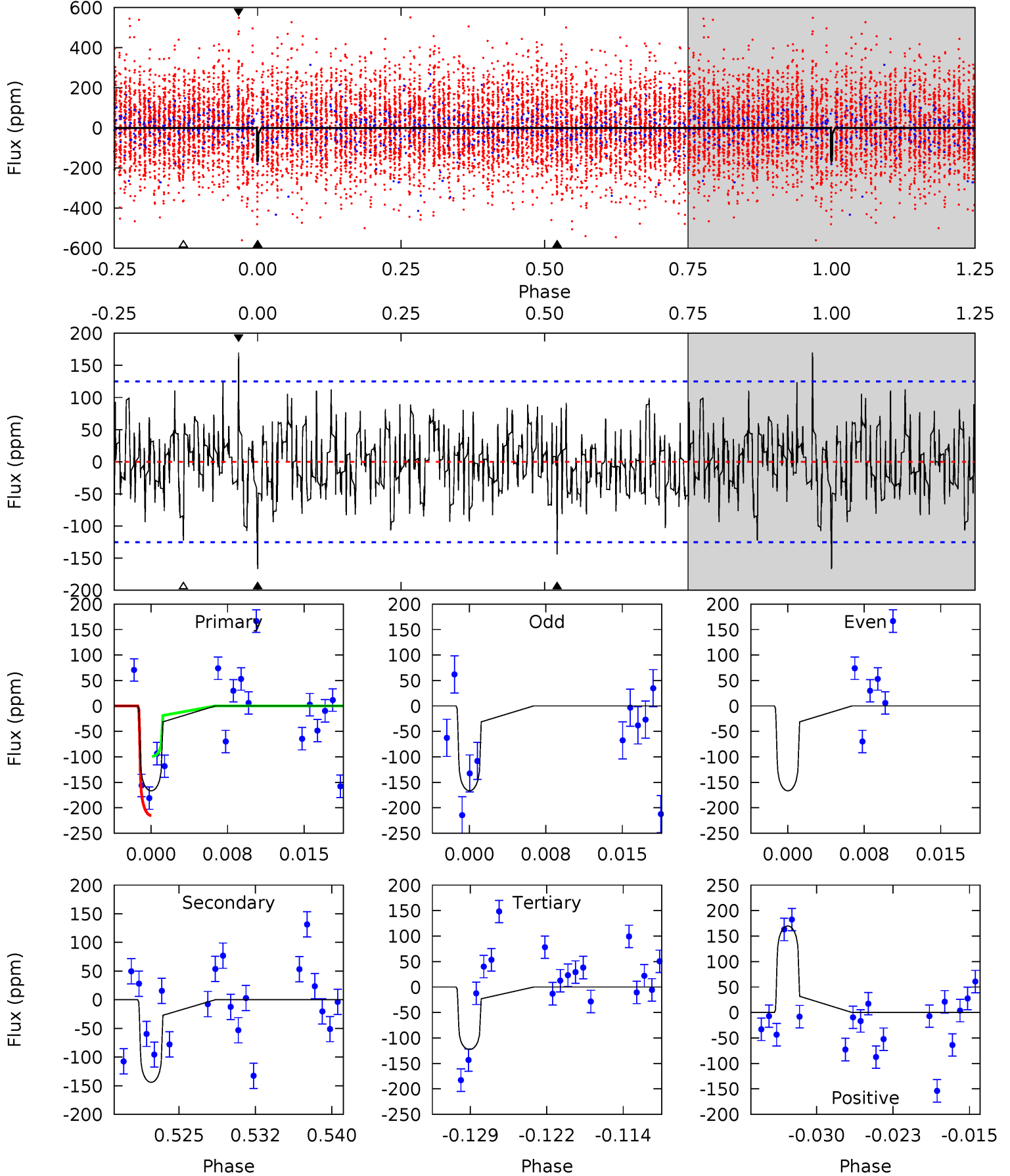
TCE 011294394-07 P=122.534476 Days $T_0=235.463239$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-07, P = 122.548908 Days, E = 112.824115 Days

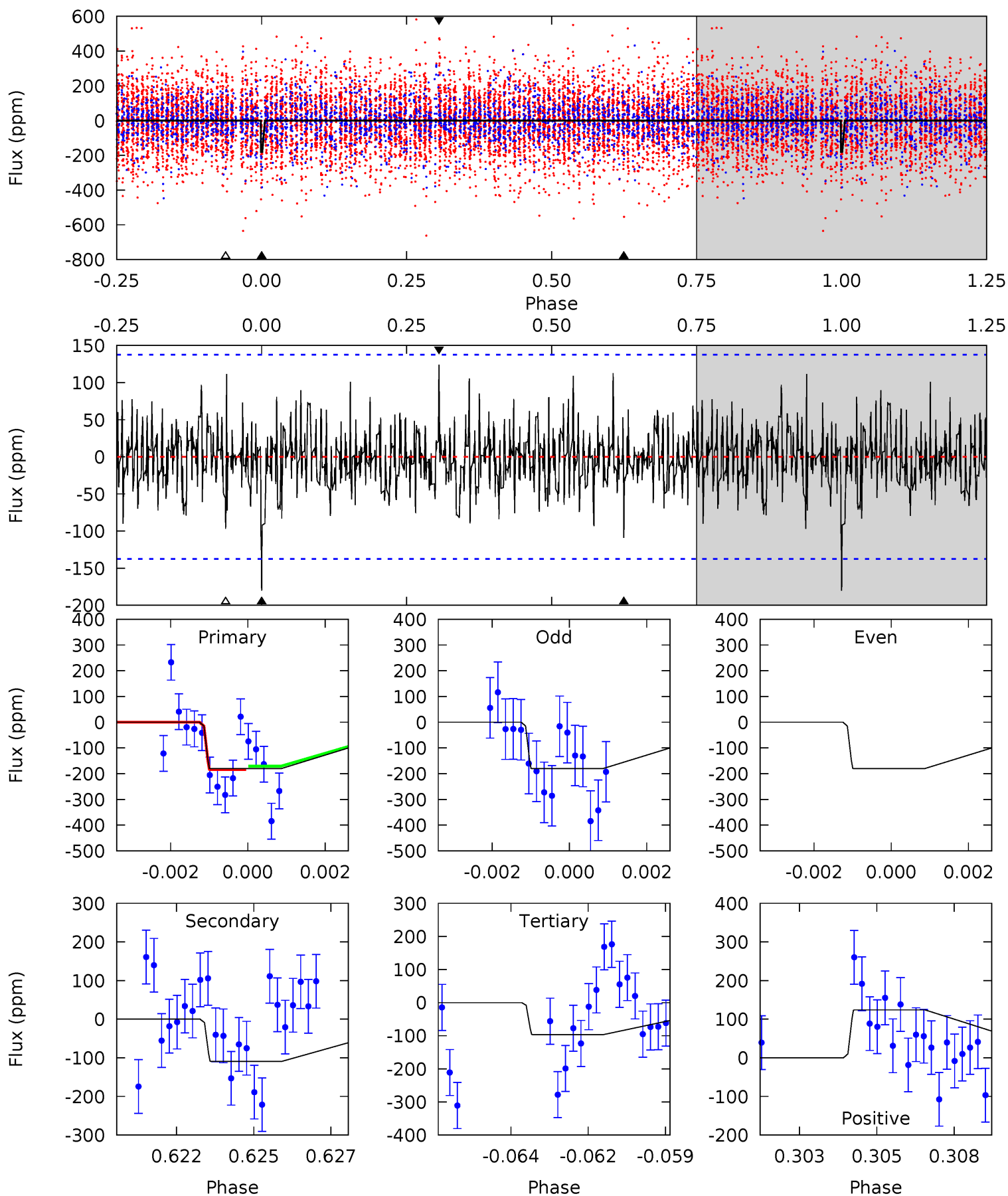
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.76	5.85	4.98	6.89	5.08	2.67	1.65	1.79	-0.13	0.87	-1.04	0	1.00	0.50	2.30



Alt Model-Shift Uniqueness Test

011294394-07, P = 122.534476 Days, E = 112.928763 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.94	4.21	3.72	4.77	5.30	3.04	1.25	3.22	2.17	0.48	-0.57	0	0.90	0.41	0.24



Stellar Parameters For KIC 011294394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-144 ± 25	$6.57^{+3.68}_{-3.37}$	1055^{+50}_{-94}	5798^{+2589}_{-944}	664^{+1959}_{-389}
Alt.	-109 ± 26	$5.67^{+4.02}_{-2.99}$	1061^{+46}_{-95}	5818^{+3102}_{-1146}	647^{+2335}_{-420}

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 $A_{obs} \gg 1.0$

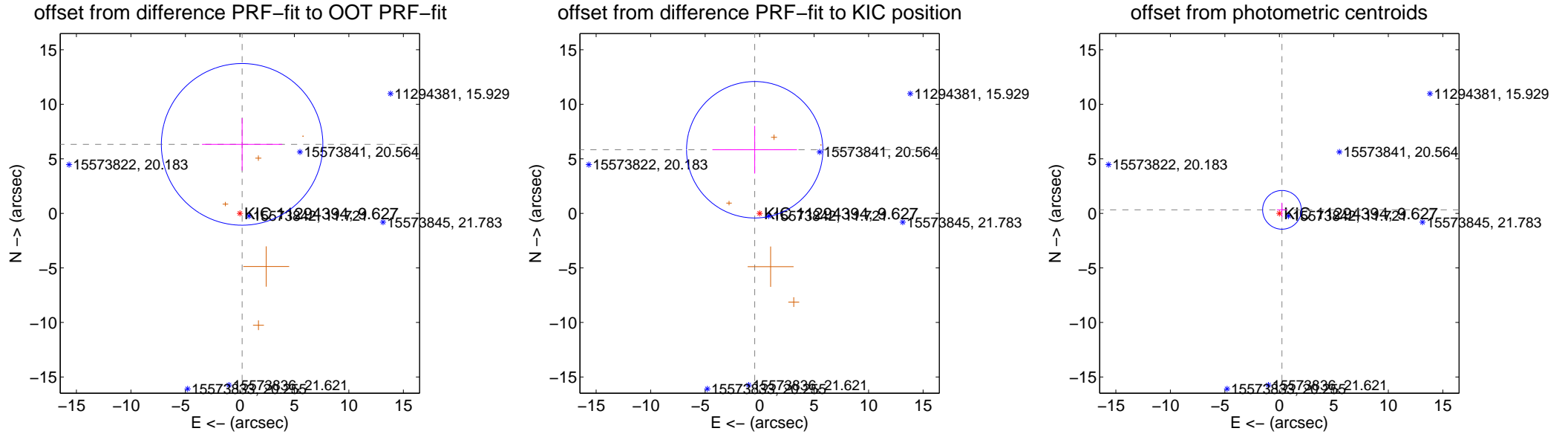
DV Centroid Data

Supplemental centroid analysis for 011294394-07. **Kepler magnitude: 9.63.** Transit SNR 8.28

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.82 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.327 ± 2.470	2.56	-0.204 ± 3.678	6.324 ± 2.404
PRF-fit source offset from KIC position	5.847 ± 2.084	2.81	0.449 ± 3.881	5.830 ± 2.184
photometric centroid source offset	0.40 ± 0.59	0.68	-0.24 ± 0.47	0.32 ± 0.65



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.

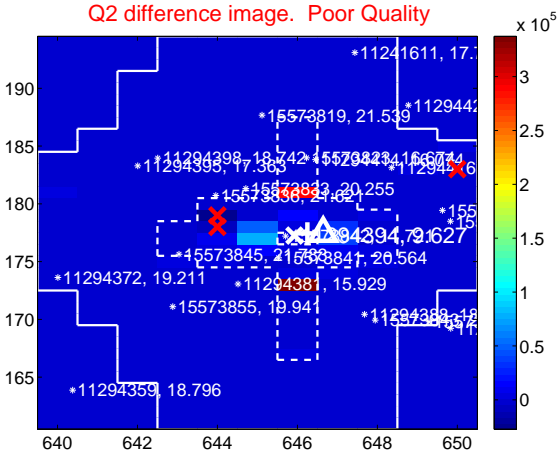
Q1 no difference image



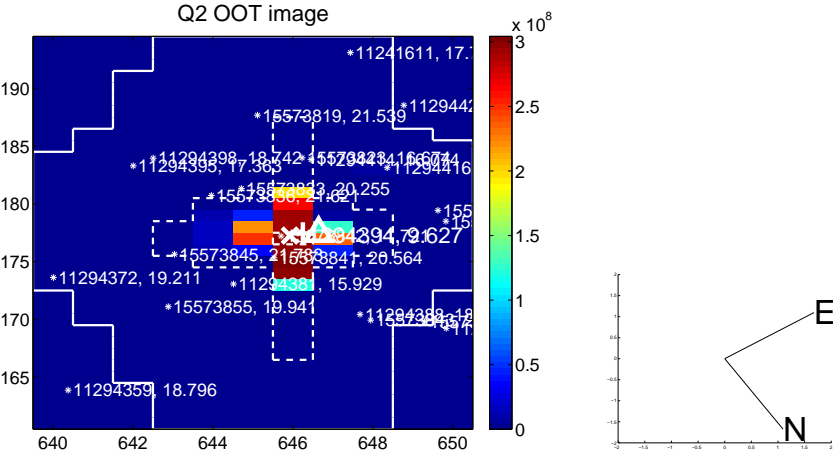
Q1 no OOT image



Q2 difference image. Poor Quality



Q2 OOT image



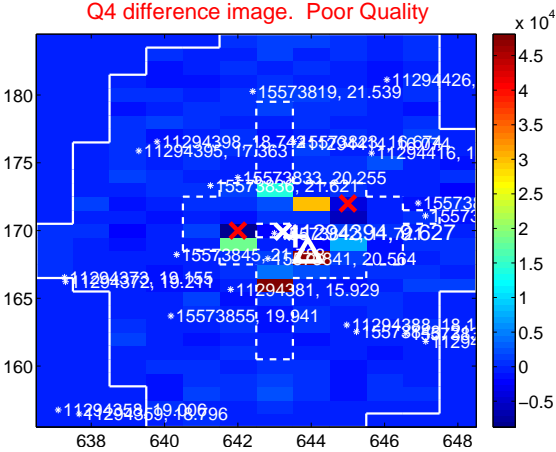
Q3 no difference image



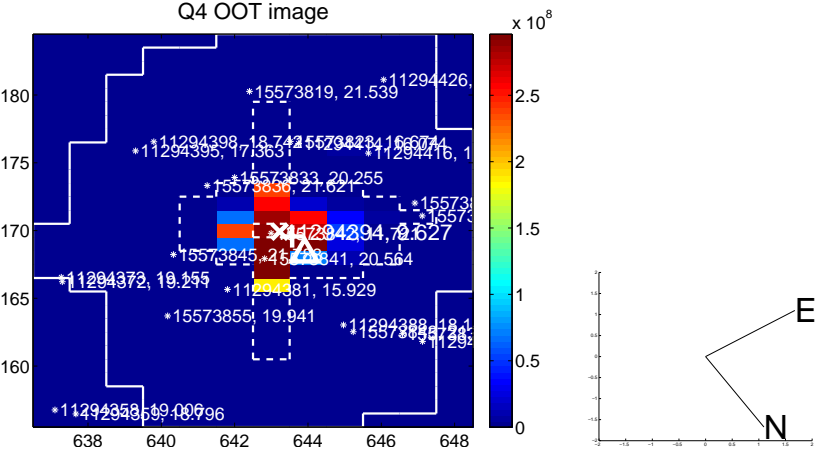
Q3 no OOT image



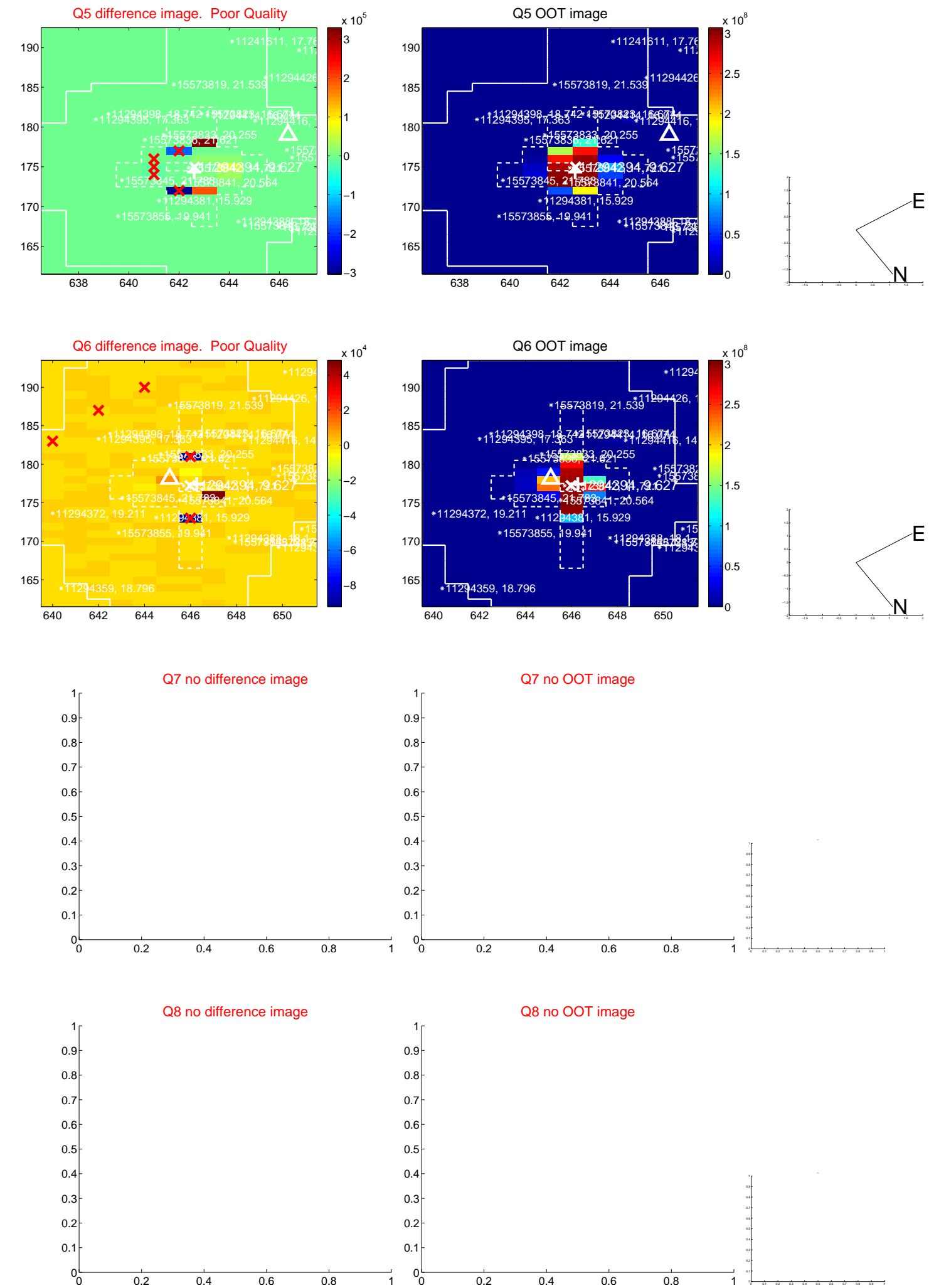
Q4 difference image. Poor Quality



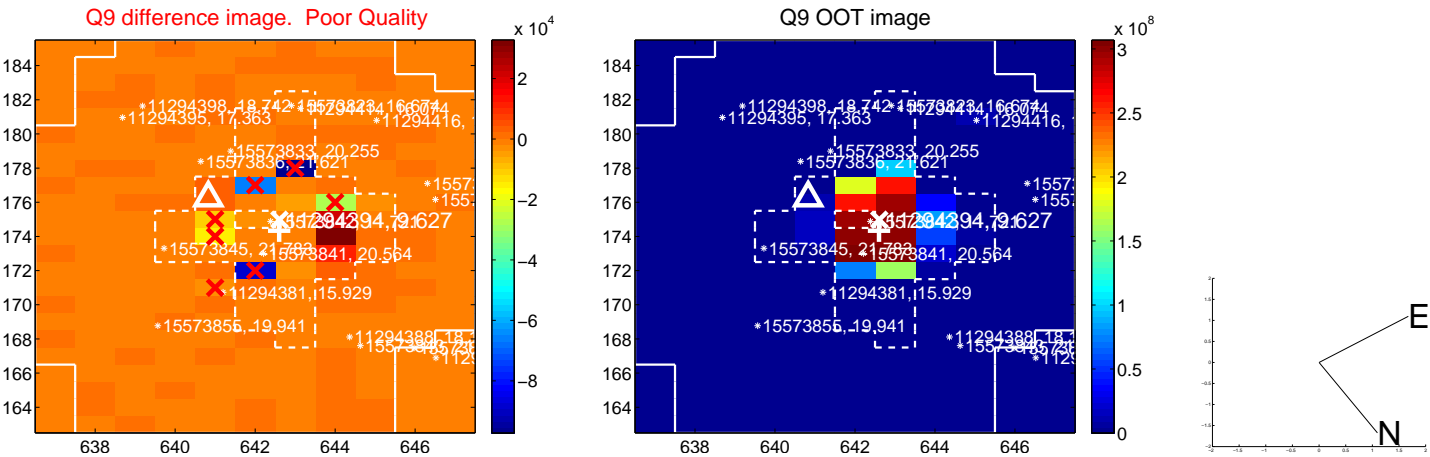
Q4 OOT image



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

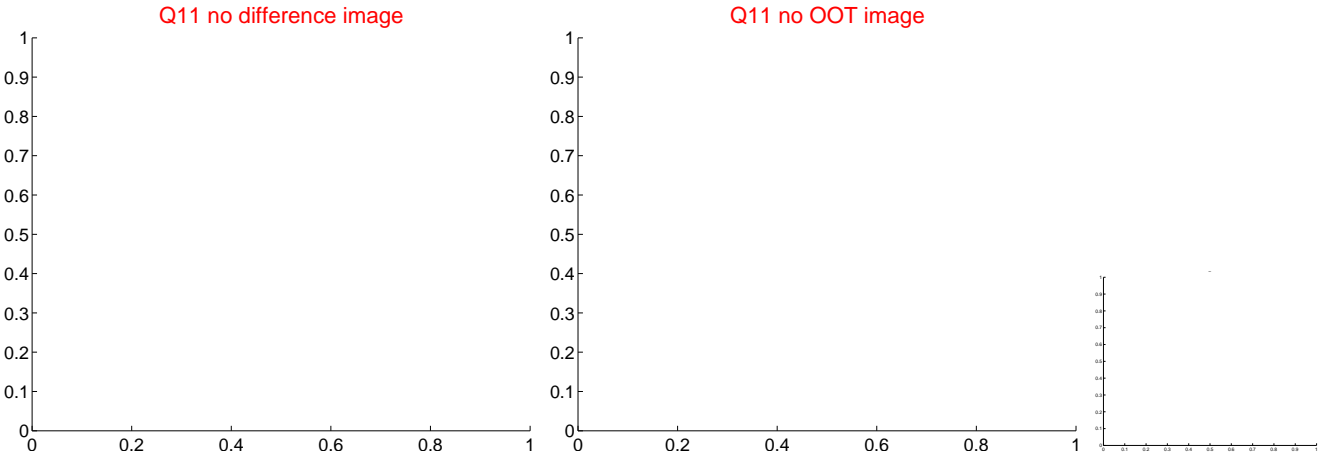


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



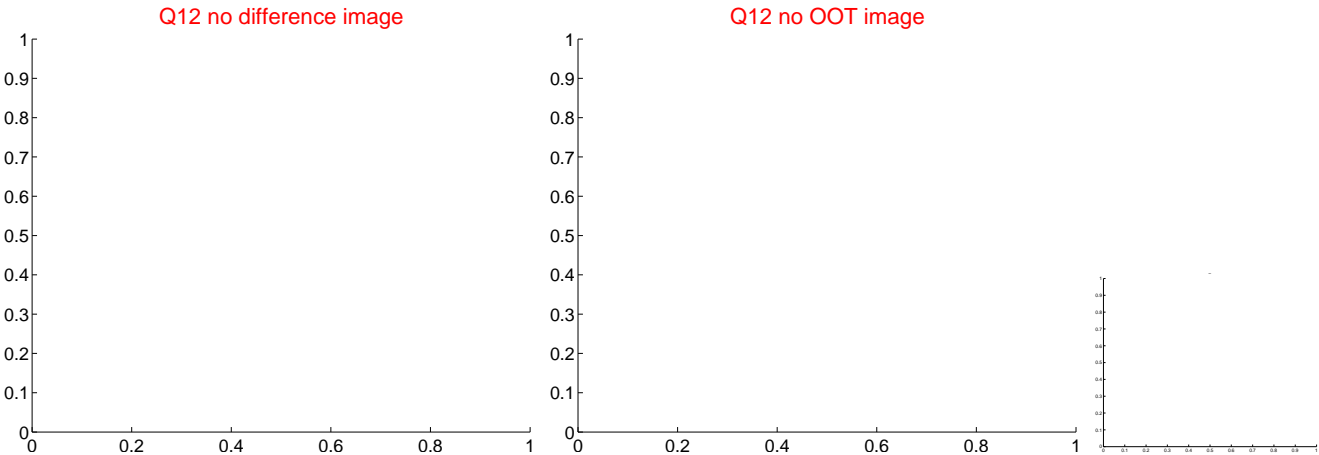
Q10 no OOT image

1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0



Q11 no OOT image

1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0



Q12 no OOT image

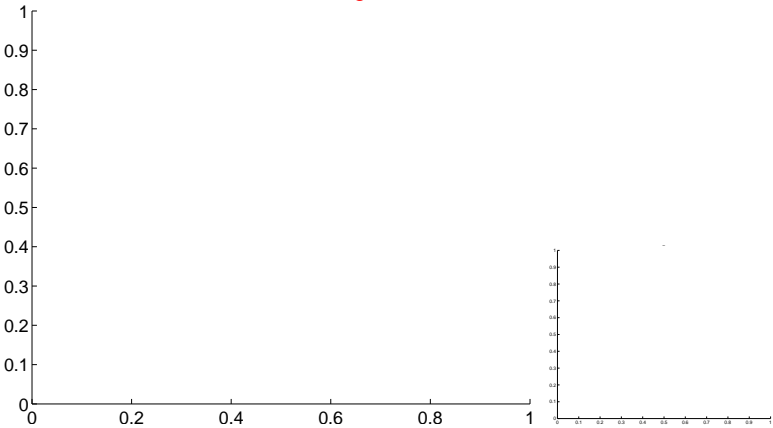
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0

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

Q13 no difference image



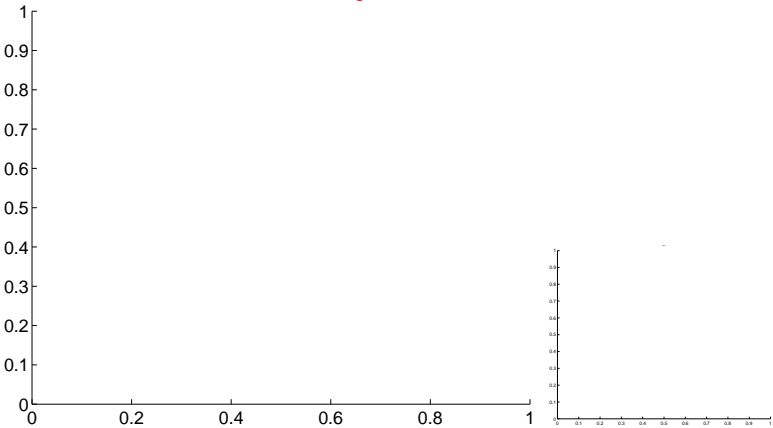
Q13 no OOT image



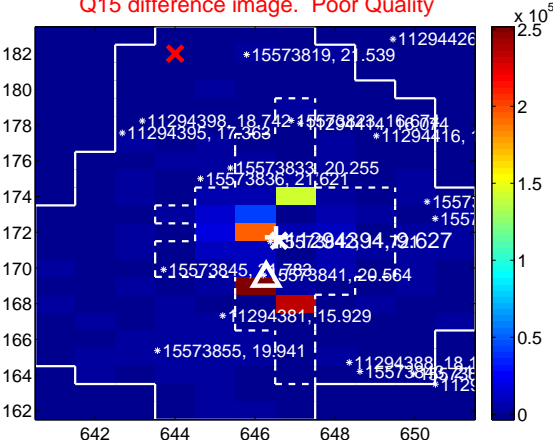
Q14 no difference image



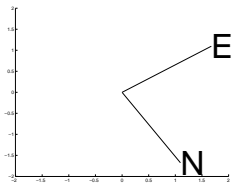
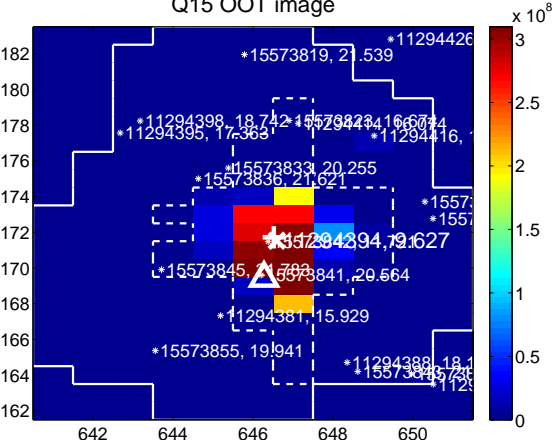
Q14 no OOT image



Q15 difference image. Poor Quality



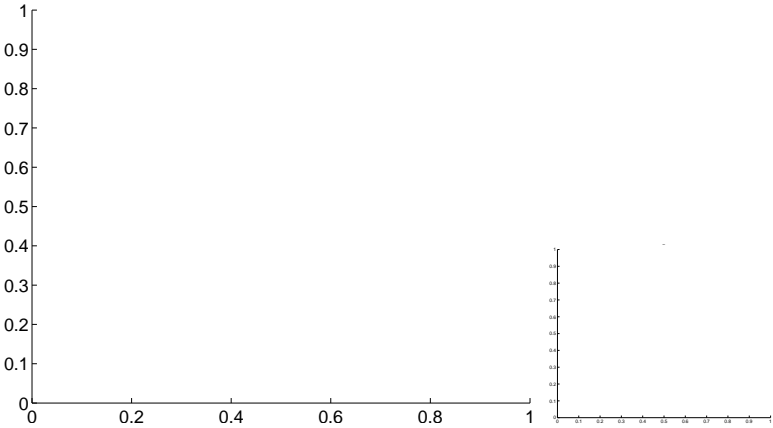
Q15 OOT image



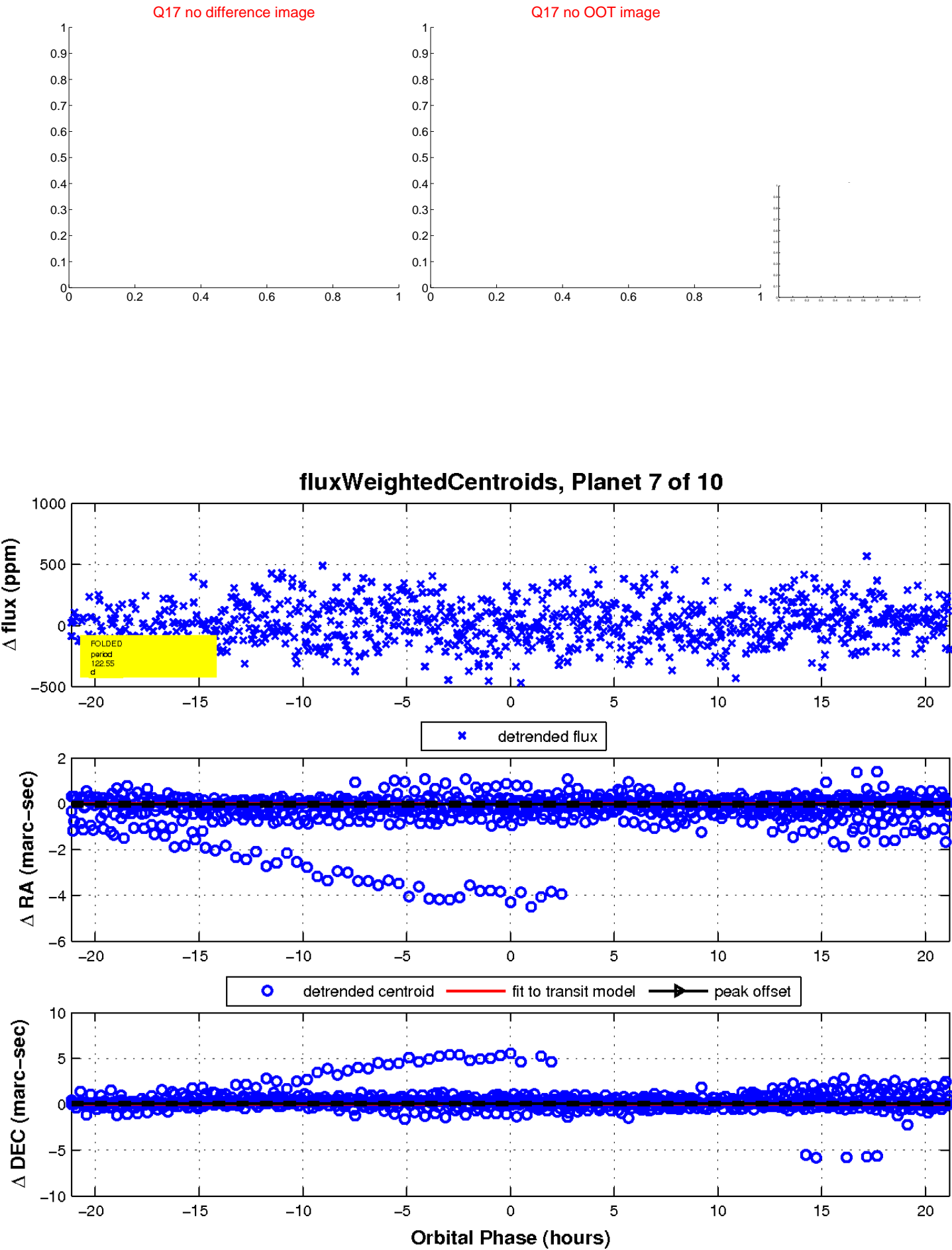
Q16 no difference image



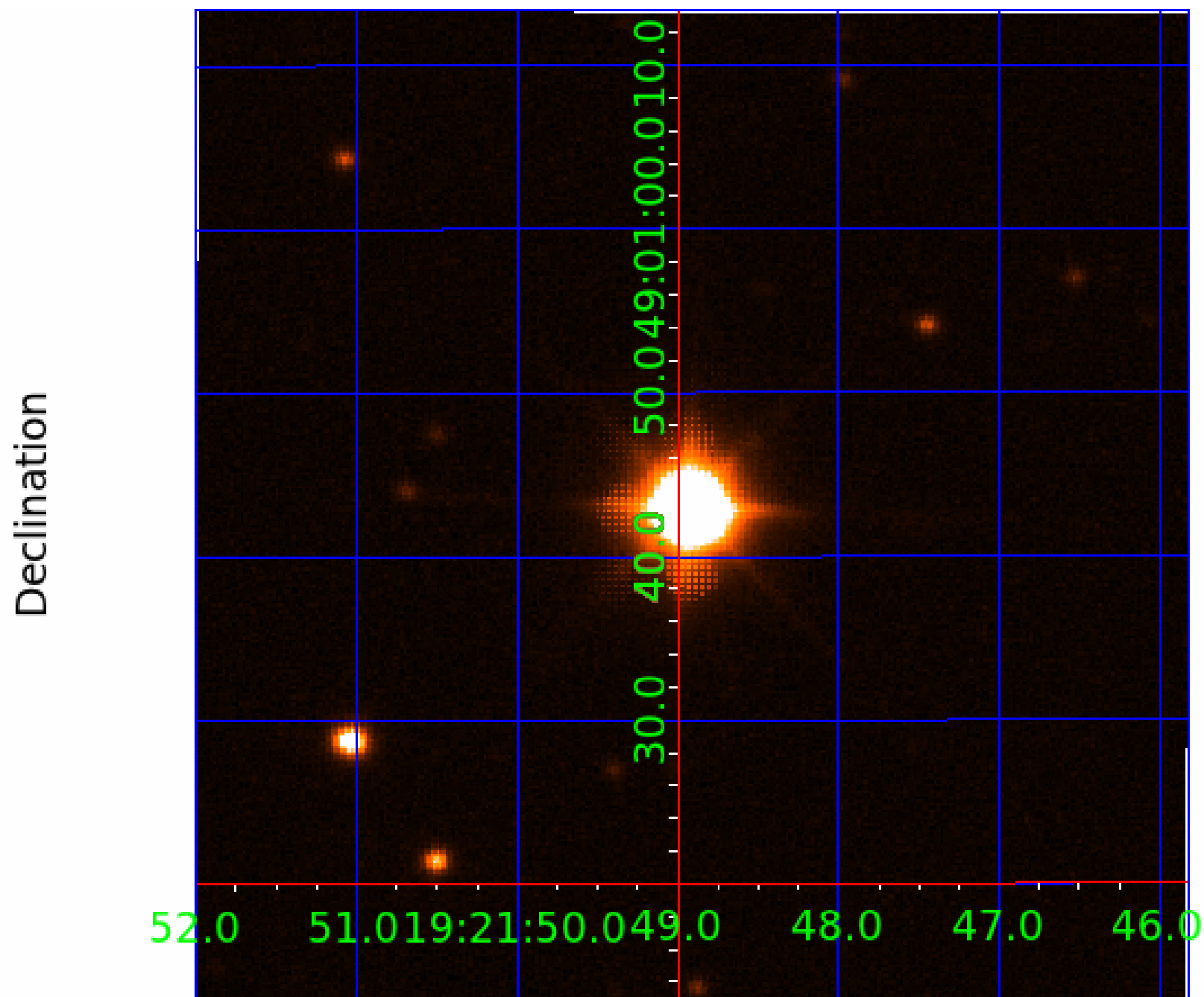
Q16 no OOT image



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



UKIRT Image



KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
011294394-03	OBS	No	54.376855	175.912986	286.7	2.809	12.7	13.2	4.16	6626	10.00	242.26
011294394-04	OBS	No	41.700369	152.100063	258.2	3.415	11.4	11.6	4.16	6626	7.83	345.13
011294394-05	OBS	No	39.899524	166.832283	212.3	3.665	11.2	11.9	4.16	6626	6.87	366.06
011294394-06	OBS	No	21.340024	132.950168	93.1	7.492	11.1	8.9	4.16	6626	4.54	843.16
011294394-07	OBS	No	122.548908	235.373023	206.9	7.059	10.8	8.3	4.16	6626	6.83	81.99
011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

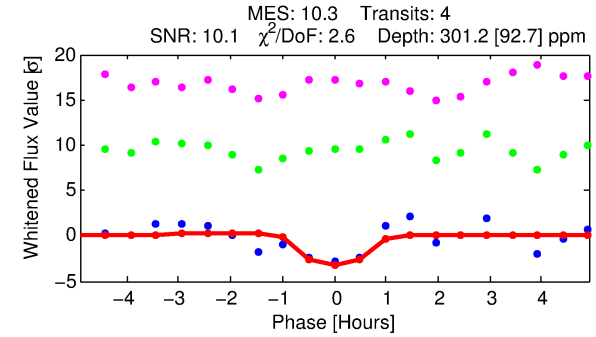
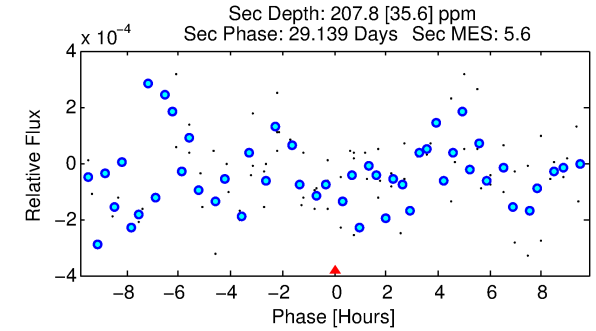
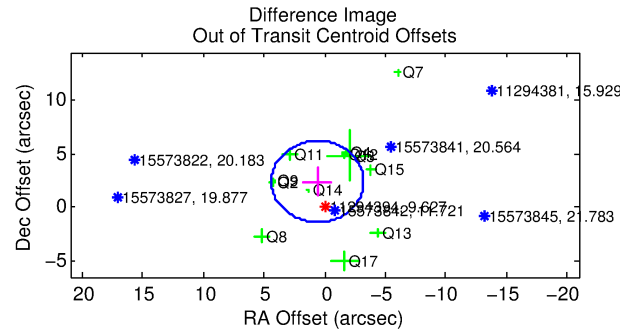
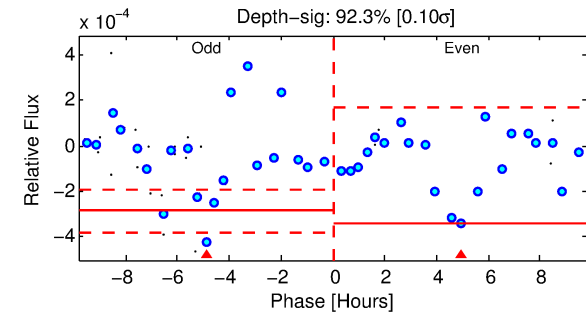
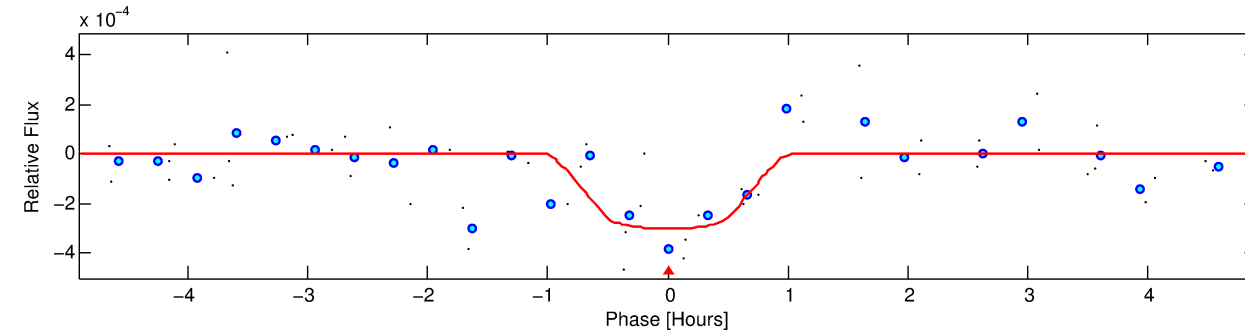
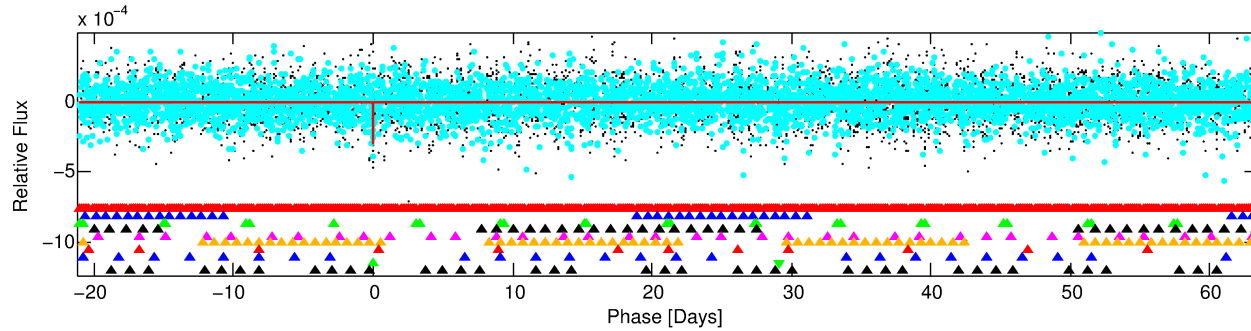
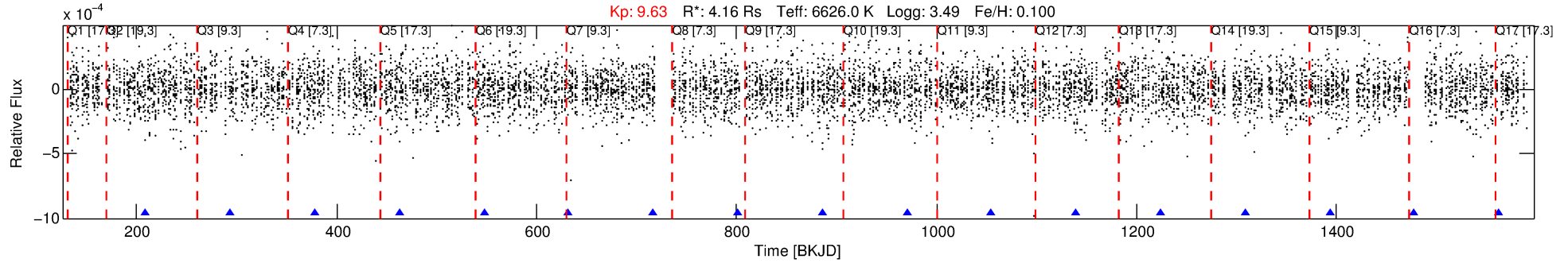
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-09

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 9 of 10 Period: 84.560 d



DV Fit Results:

Period = 84.55987 [0.00093] d
Epoch = 209.1916 [0.0085] BKJD
Rp/R* = 0.0187 [0.0666]
a/R* = 182.77 [3834.02]
b = 0.91 [4.12]
Seff = 134.47 [80.28]
Teq = 868 [130] K
Rp = 8.51 [30.41] Re
a = 0.4718 [0.1721] AU
Ag = 351.48 [2507.87] [0.14 σ]
Teffp = 5813 [10336] K [0.48 σ]

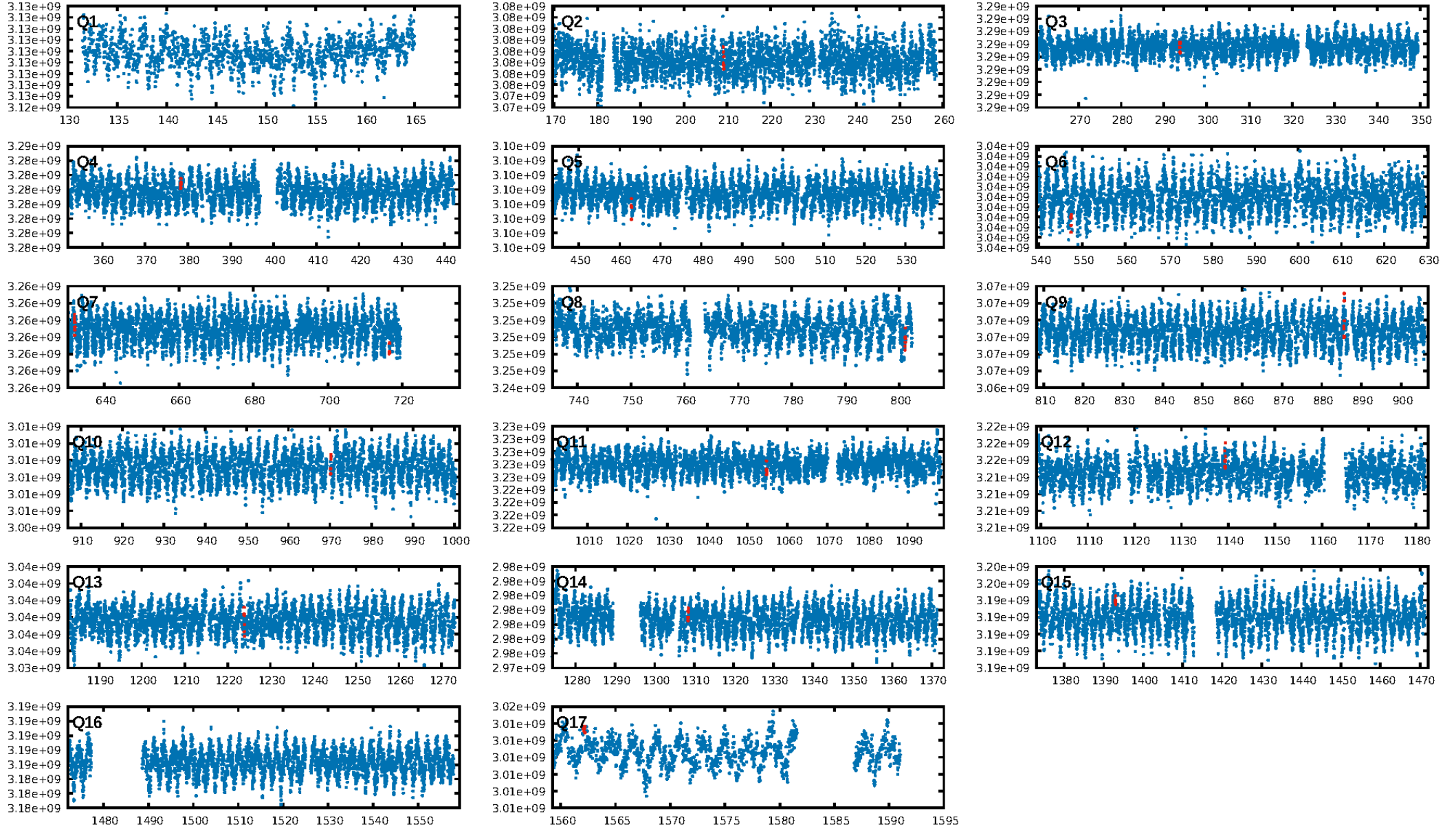
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [39.10 σ]
LongPeriod-sig: 100.0% [125.83 σ]
ModelChiSquare2-sig: 1.0%
ModelChiSquareGo-sig: 60.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 1.7%
Centroid-so: 0.386 arcsec [0.99 σ]
OotOffset-rm: 2.488 arcsec [1.96 σ]
OotOffset-st: 2/4/3/3 [12]
KicOffset-rm: 5.266 arcsec [5.13 σ]
KicOffset-st: 2/4/3/3 [12]
DiffImageQuality-fgm: 0.08 [1/12]
DiffImageOverlap-fno: 0.57 [8/14]

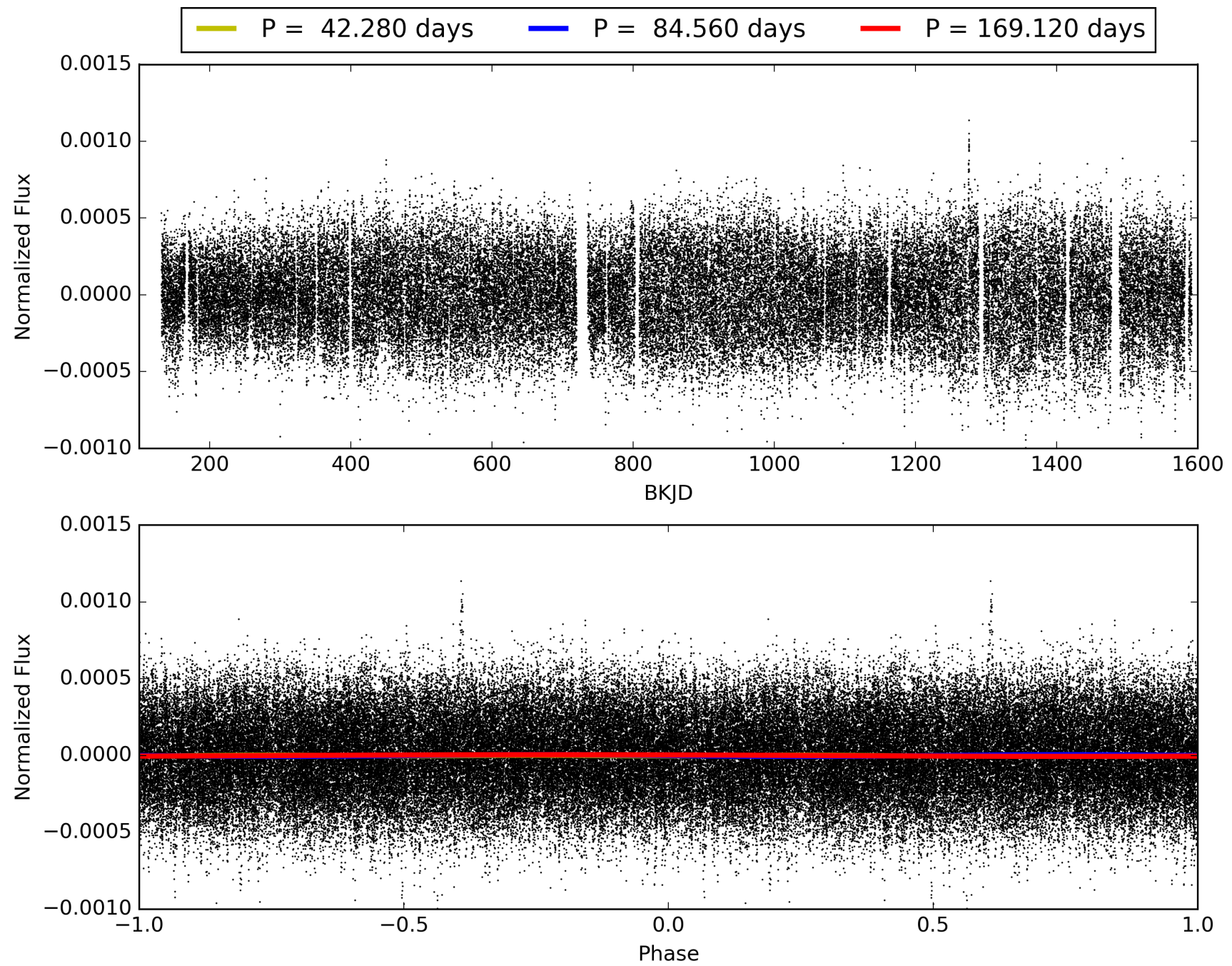
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:17:25 Z

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

TCE 011294394-09, PDC Light Curves

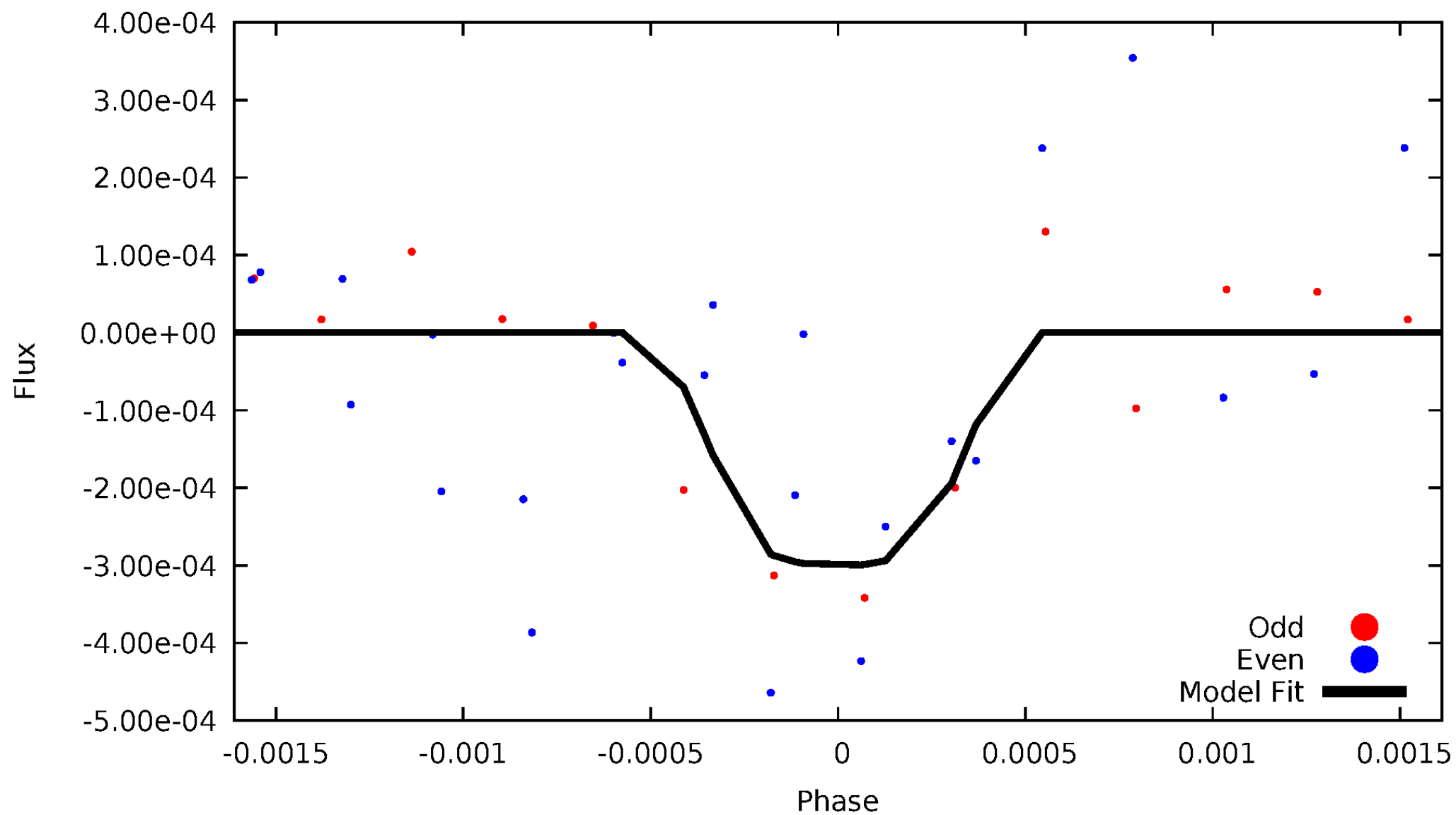


TCE 011294394-09



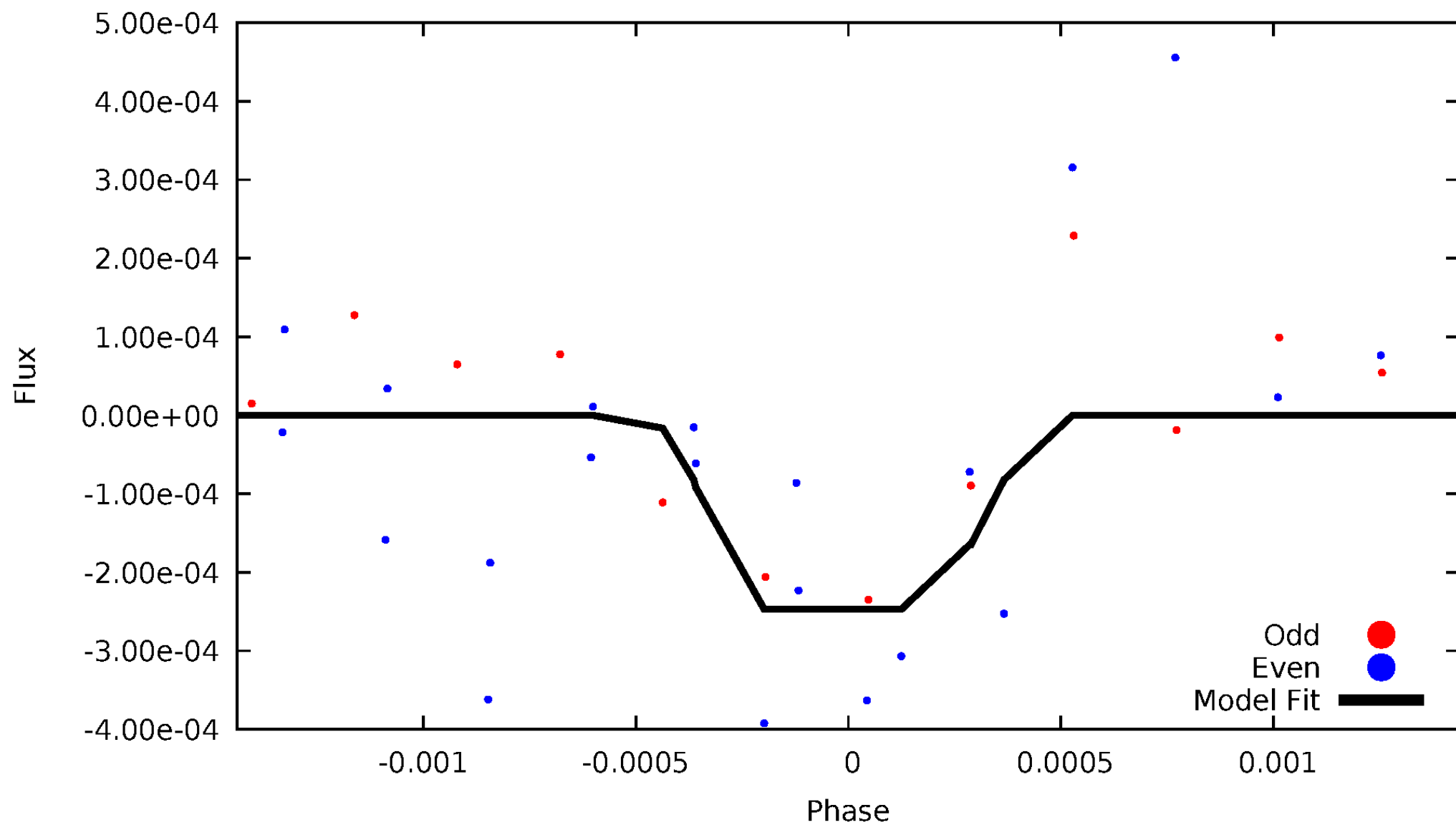
DV Odd/Even

TCE 011294394-09

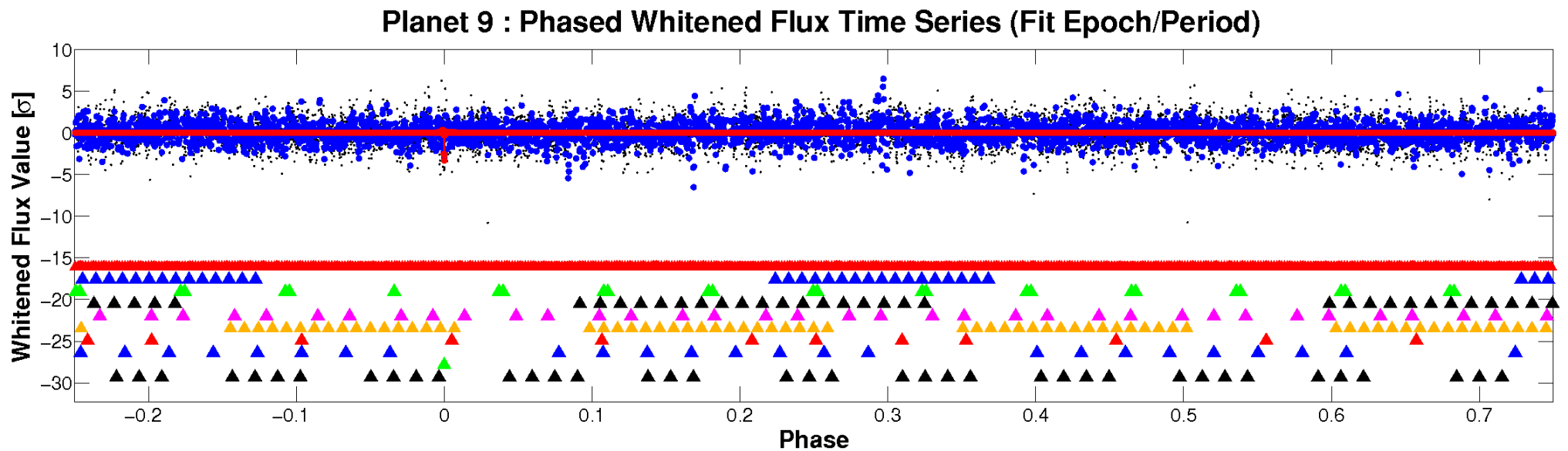
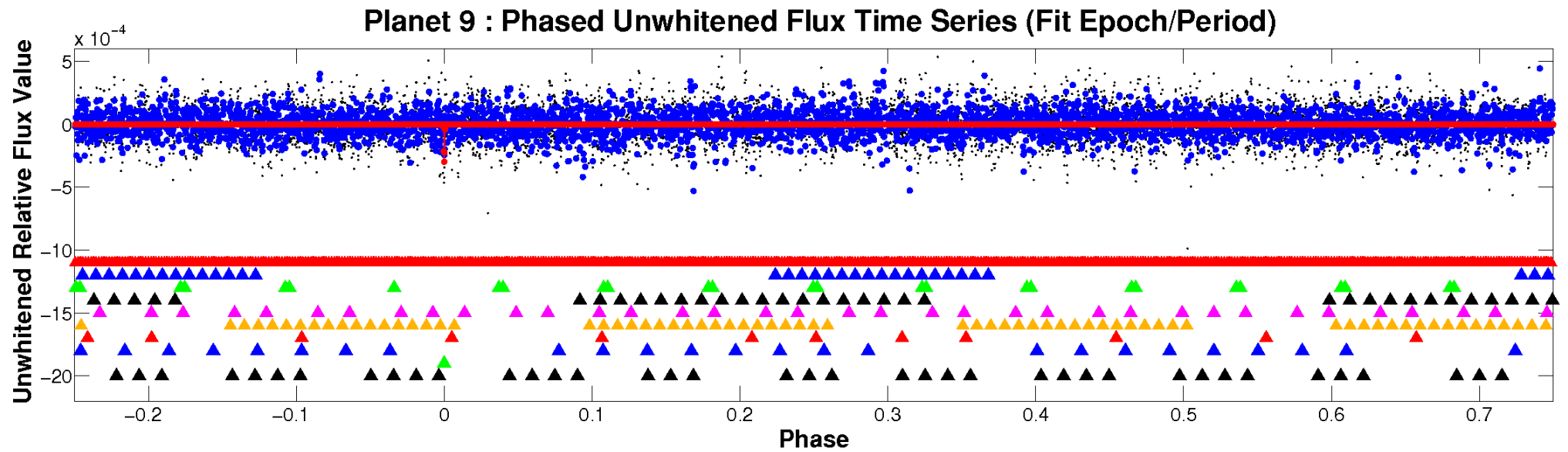


ALT Odd/Even

TCE 011294394-09

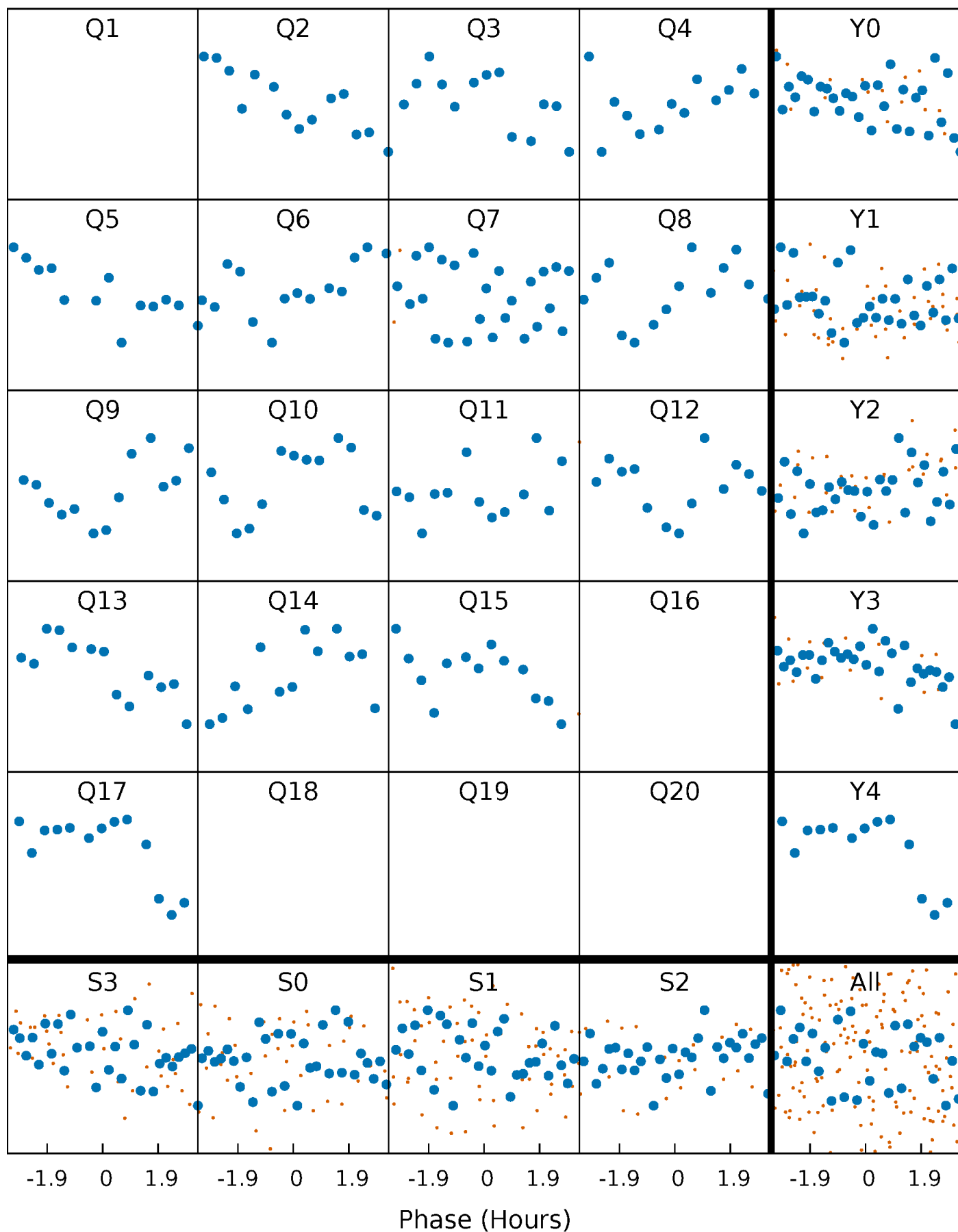


Non-Whitened Vs. Whitened Light Curve



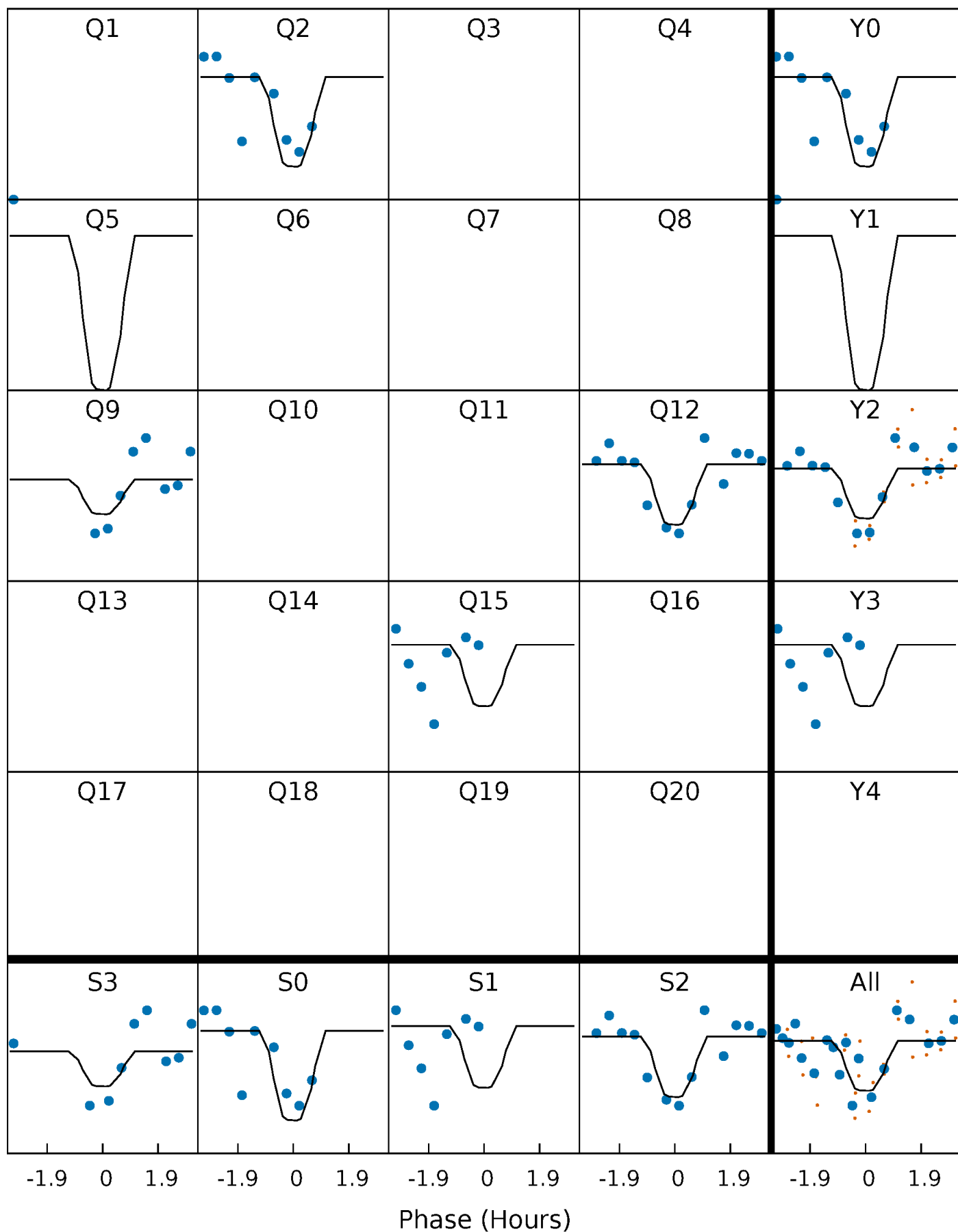
PDC Quarter-Phased Transit Curves

TCE 011294394-09 P= 84.559866 Days $T_0=209.191613$ (BKJD)



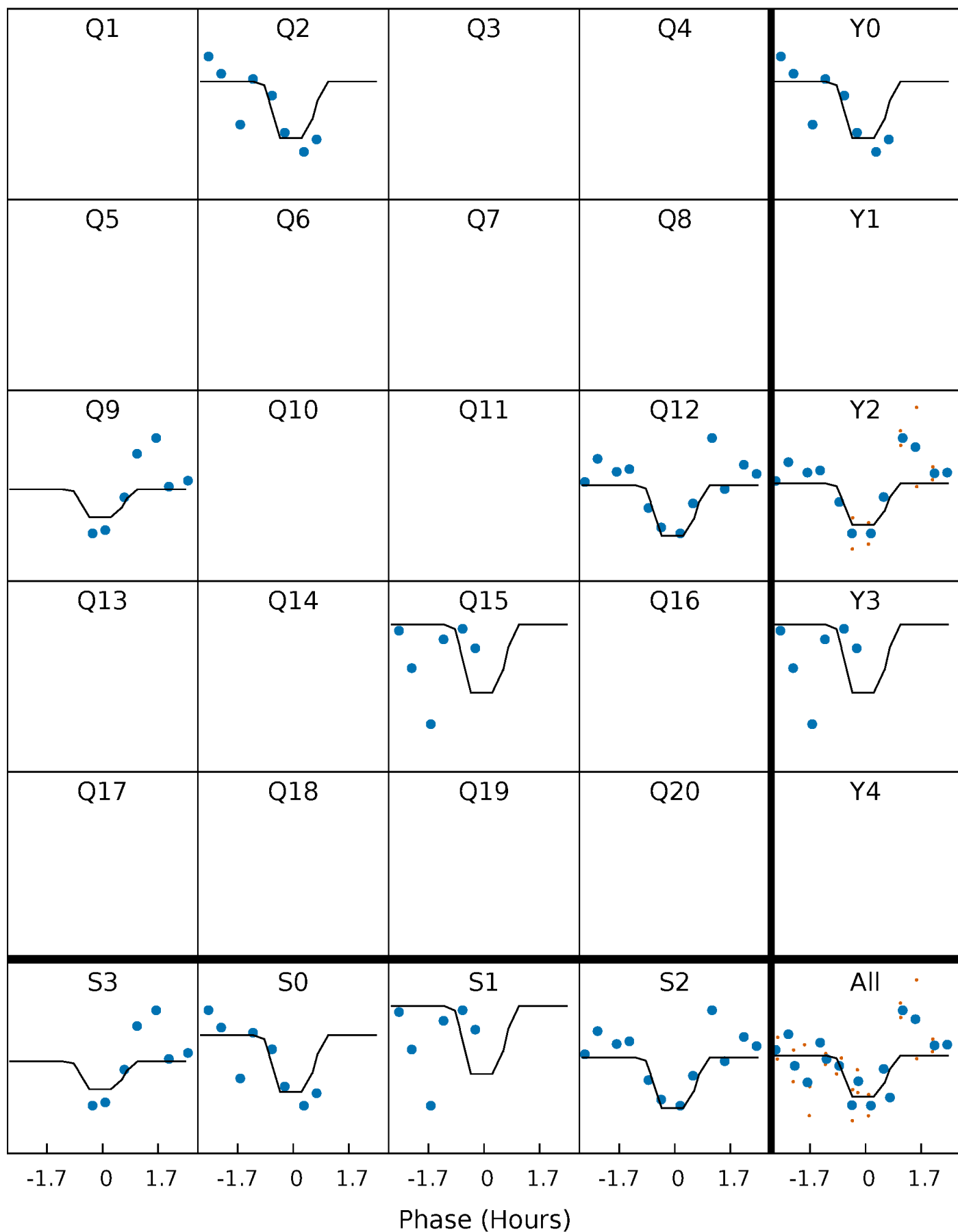
DV Quarter-Phased Transit Curves

TCE 011294394-09 P= 84.559866 Days $T_0=209.191613$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

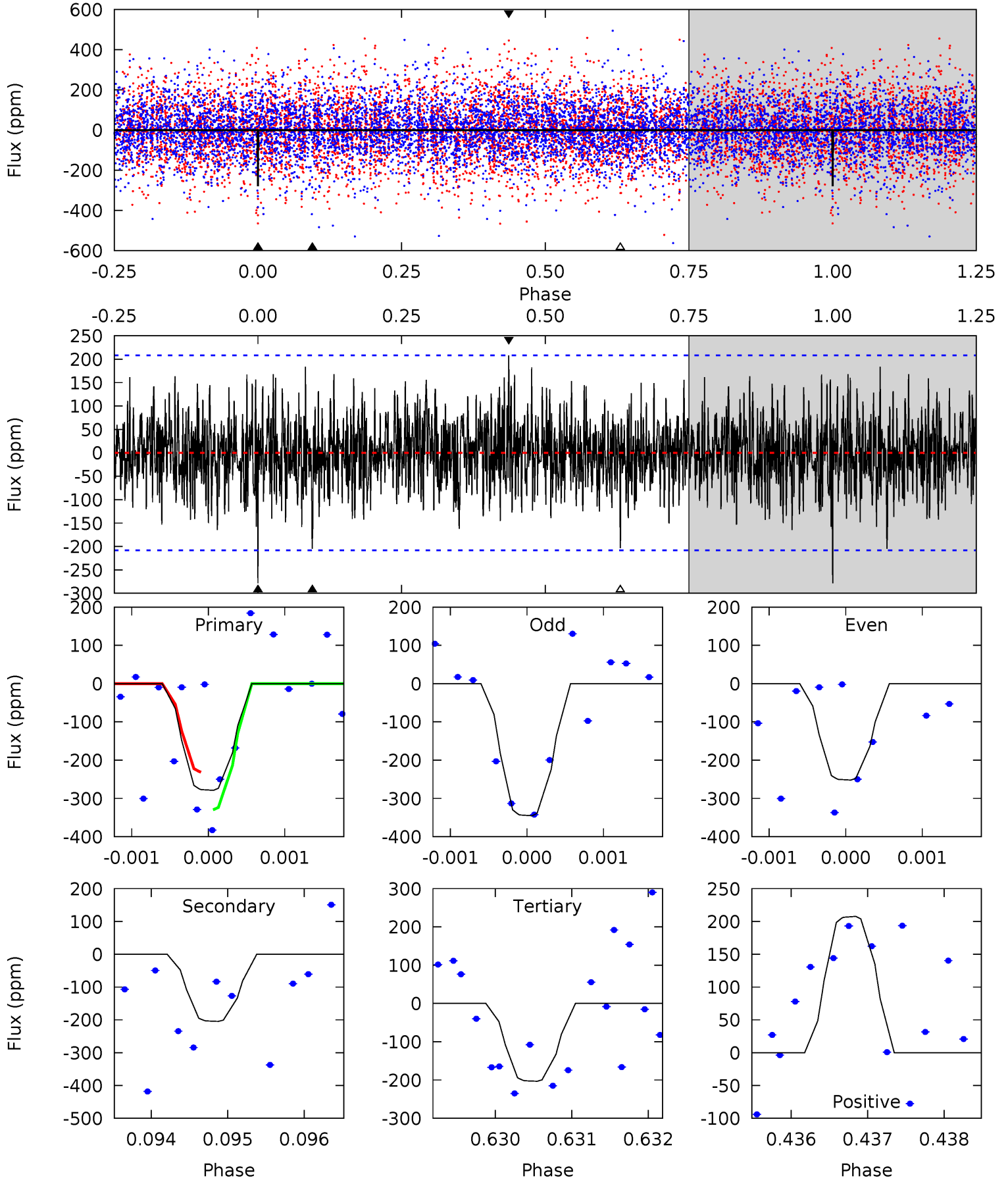
TCE 011294394-09 P= 84.560032 Days $T_0=209.191811$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-09, P = 84.559866 Days, E = 124.631747 Days

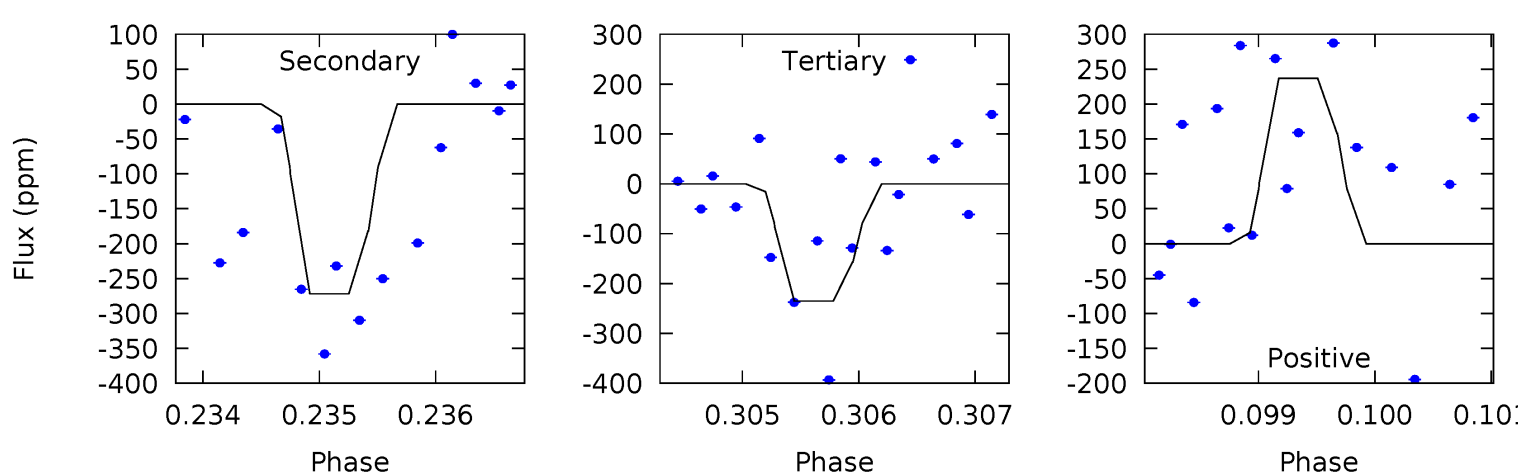
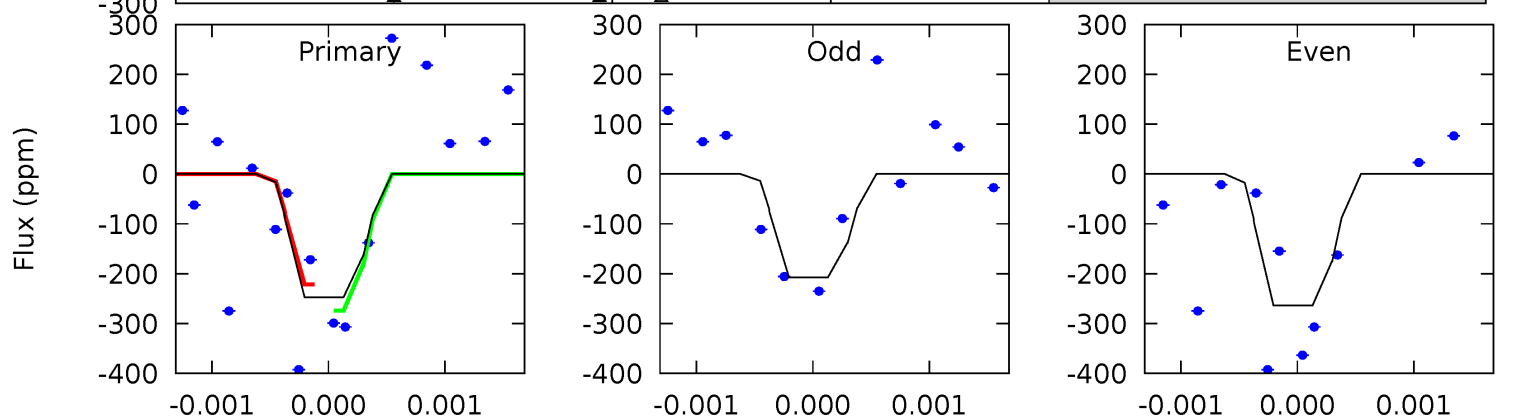
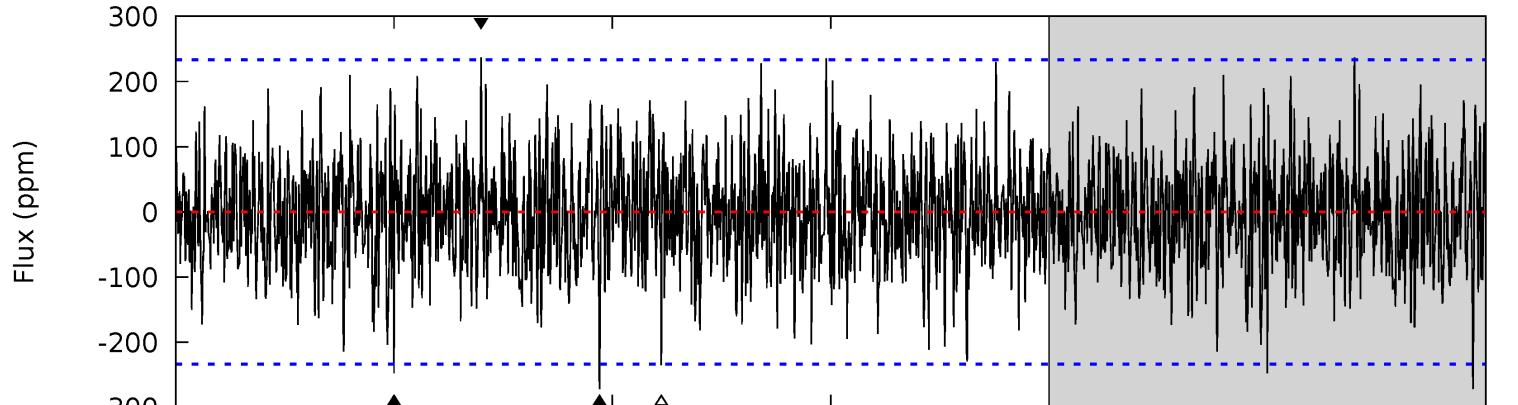
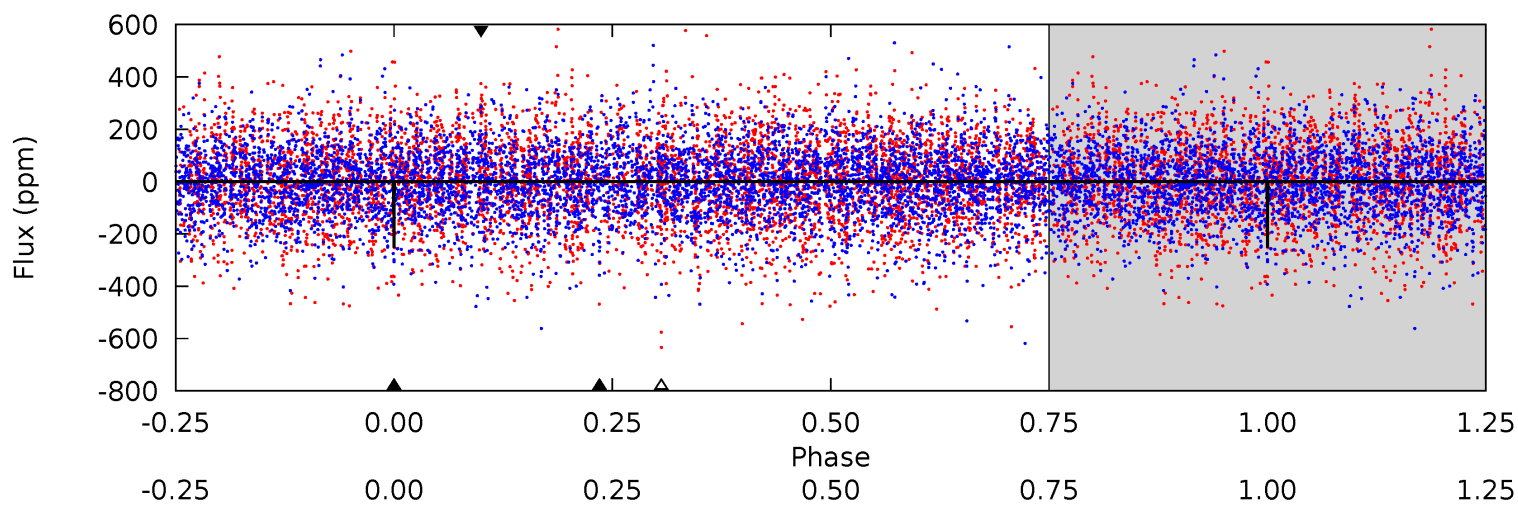
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.30	5.36	5.32	5.44	5.46	3.30	1.53	1.98	1.86	0.03	-0.08	1.08	0.84	0.43	1.29



Alt Model-Shift Uniqueness Test

011294394-09, P = 84.560032 Days, E = 124.631779 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.78	6.36	5.50	5.53	5.46	3.30	1.62	0.28	0.25	0.86	0.83	0.57	0.92	0.47	0.62



Stellar Parameters For KIC 011294394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-09 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-205 ± 38	$21.74^{+23.39}_{-15.37}$	1198^{+51}_{-94}	3923^{+2437}_{-867}	54^{+534}_{-42}
Alt.	-272 ± 43	$20.87^{+24.35}_{-14.78}$	1195^{+51}_{-105}	4068^{+3027}_{-880}	77^{+770}_{-61}

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

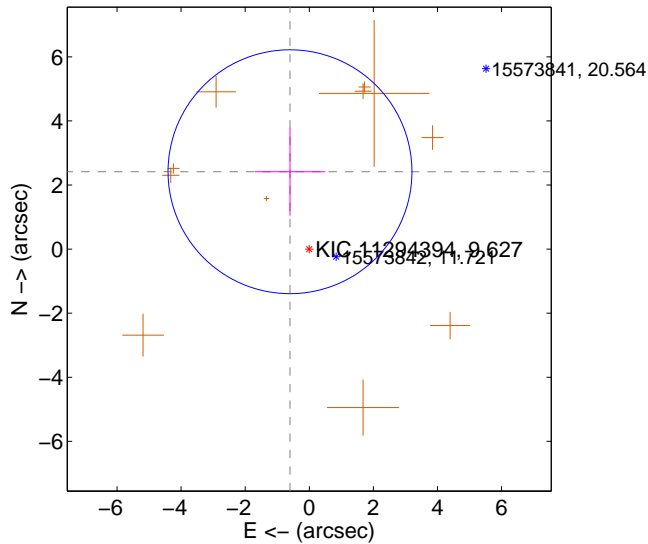
Supplemental centroid analysis for 011294394-09. **Kepler magnitude: 9.63.** Transit SNR 10.14

There are 1 quarters with good PRF difference image offsets

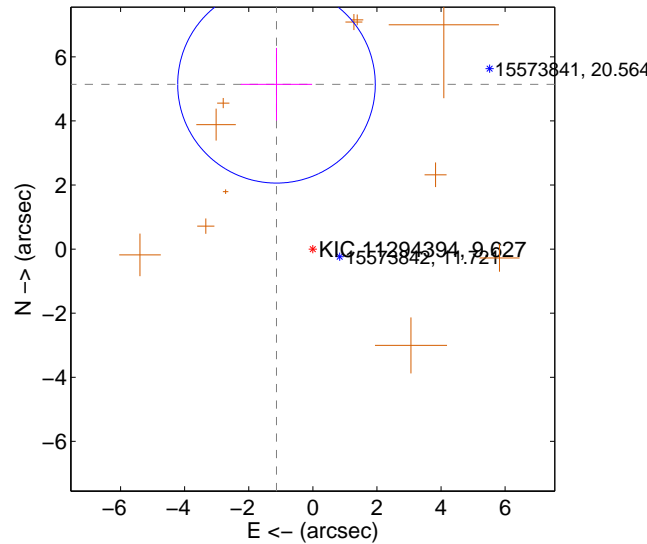
The OOT PRF centroid is offset from the target star catalog position by about 2.38 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.488 ± 1.268	1.96	0.602 ± 1.097	2.414 ± 1.371
PRF-fit source offset from KIC position	5.266 ± 1.027	5.13	1.134 ± 1.110	5.142 ± 1.133
photometric centroid source offset	0.39 ± 0.39	0.99	0.23 ± 0.32	0.31 ± 0.42

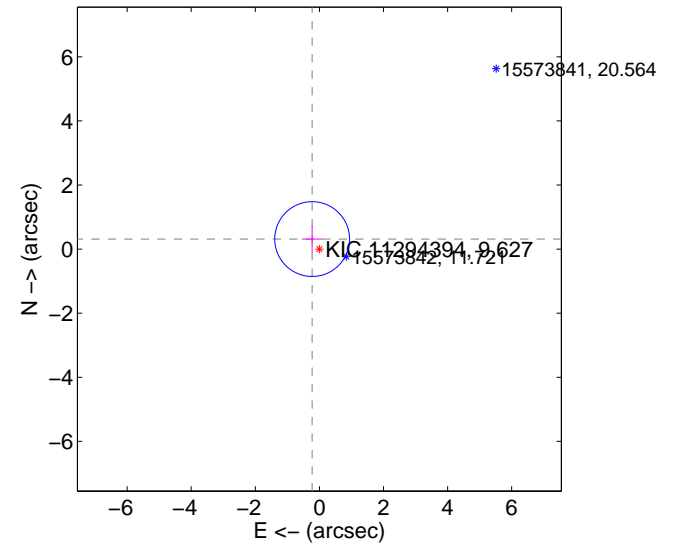
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

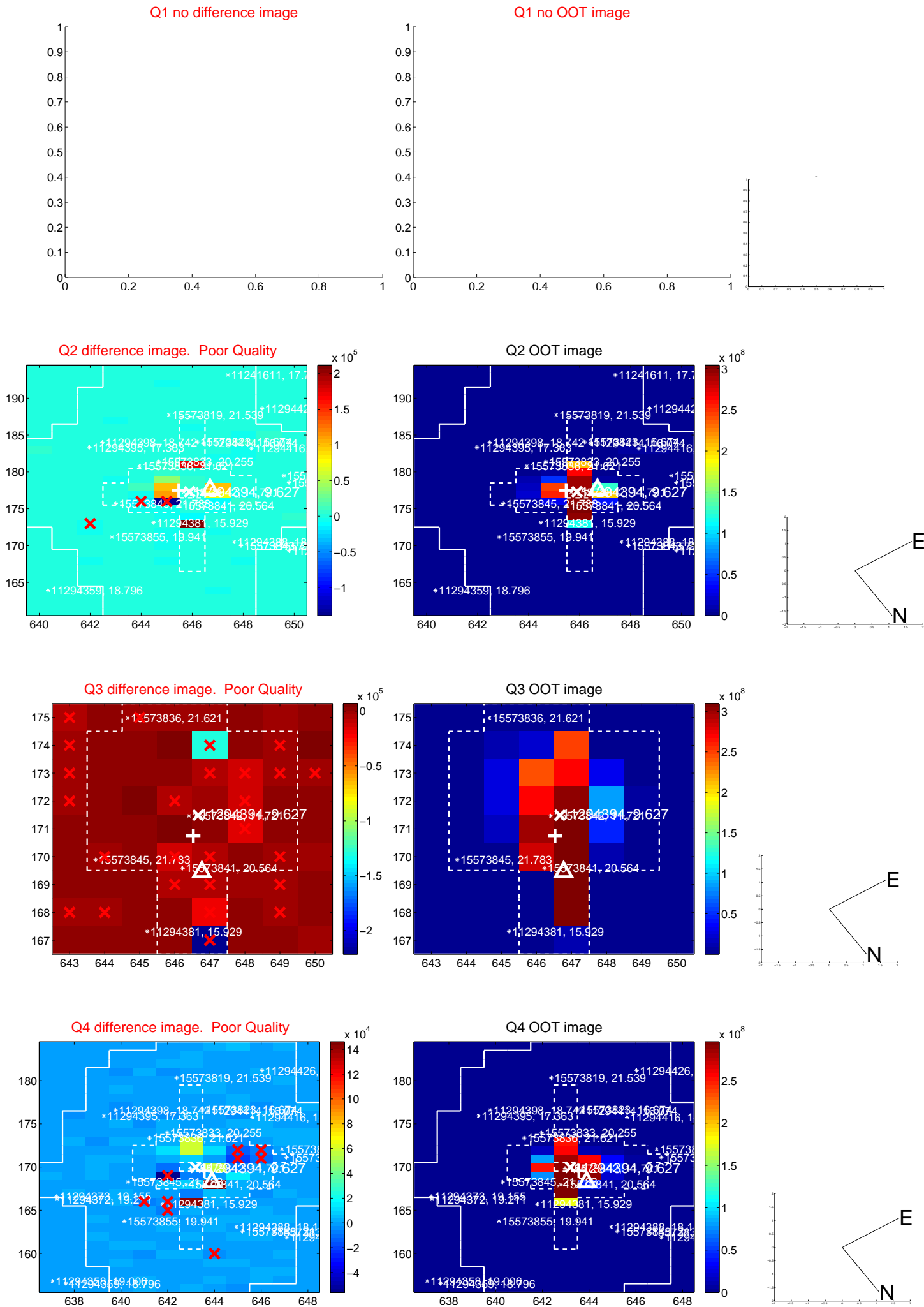


offset from photometric centroids

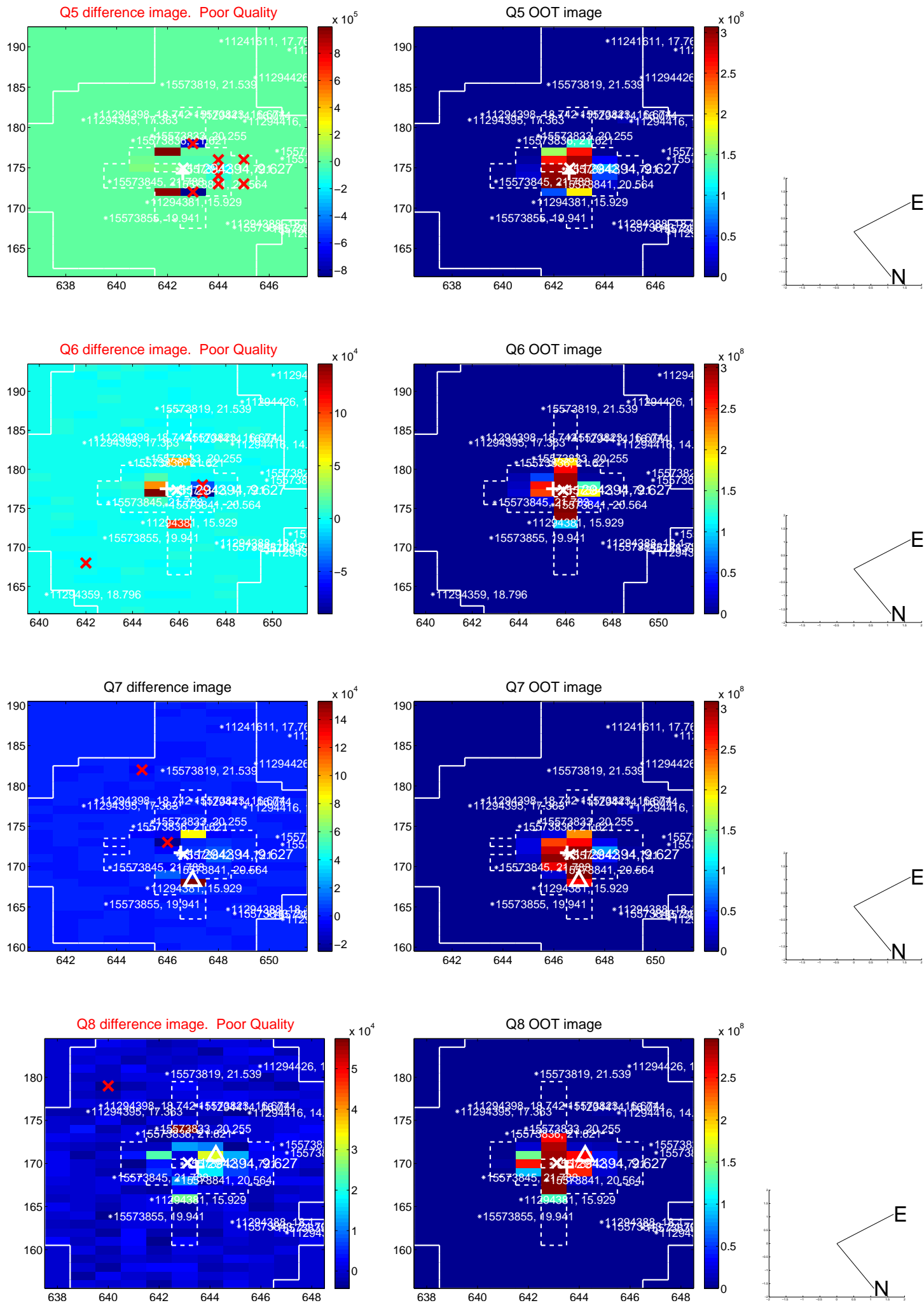


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

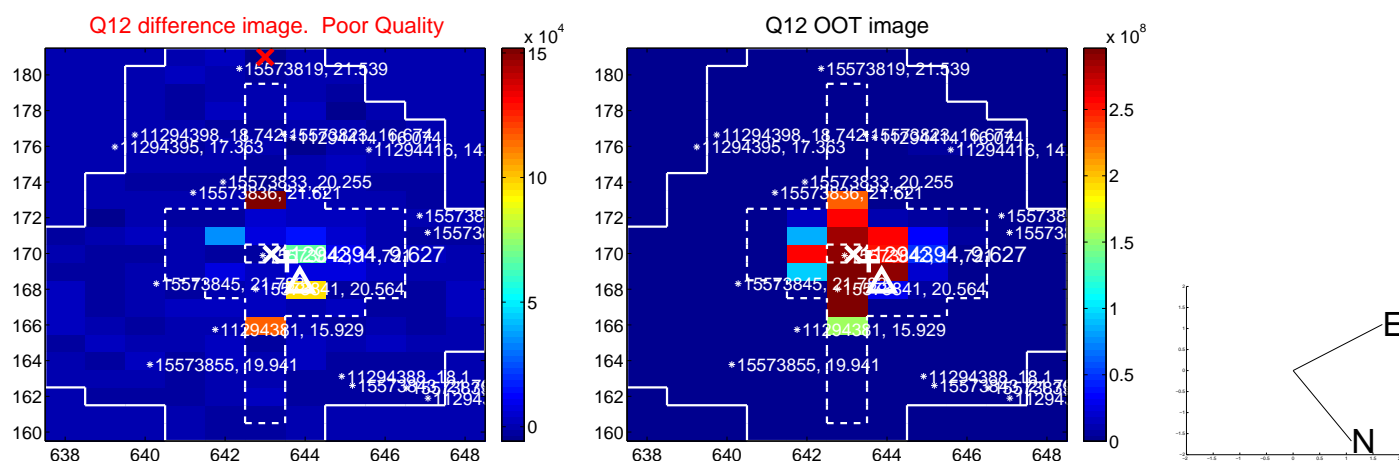
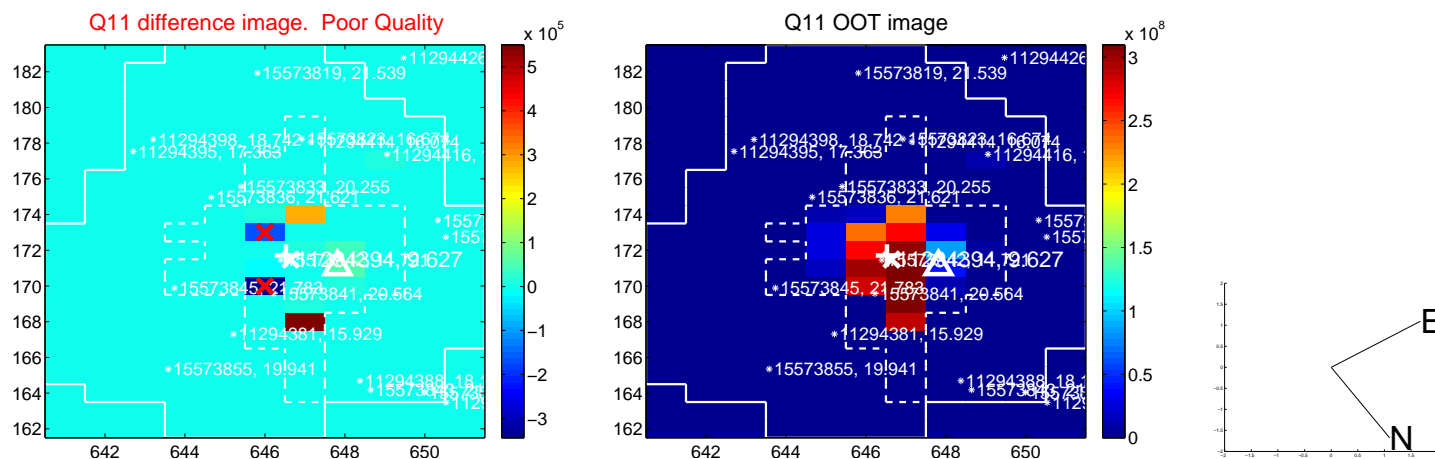
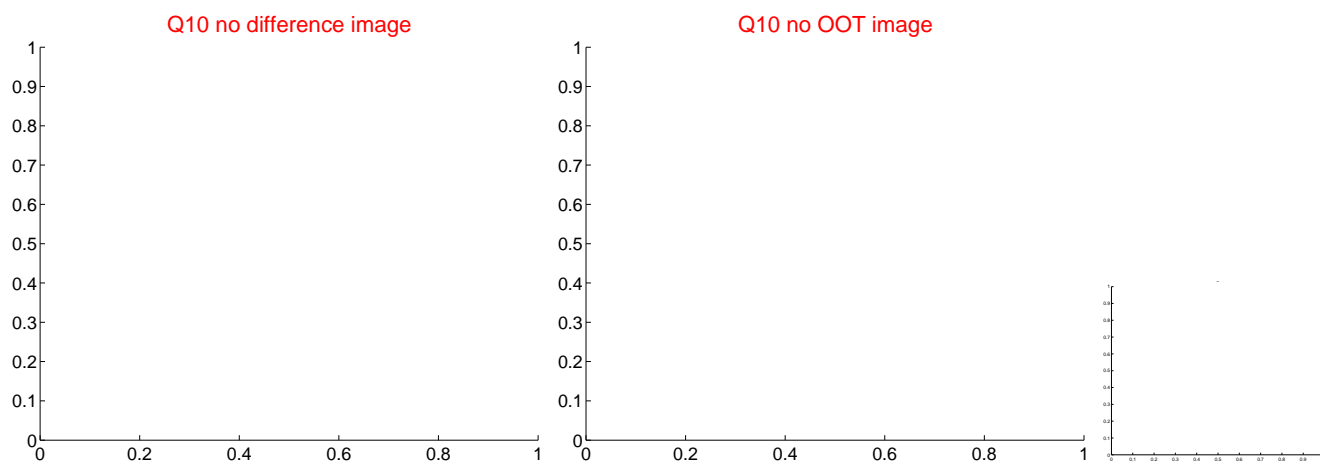
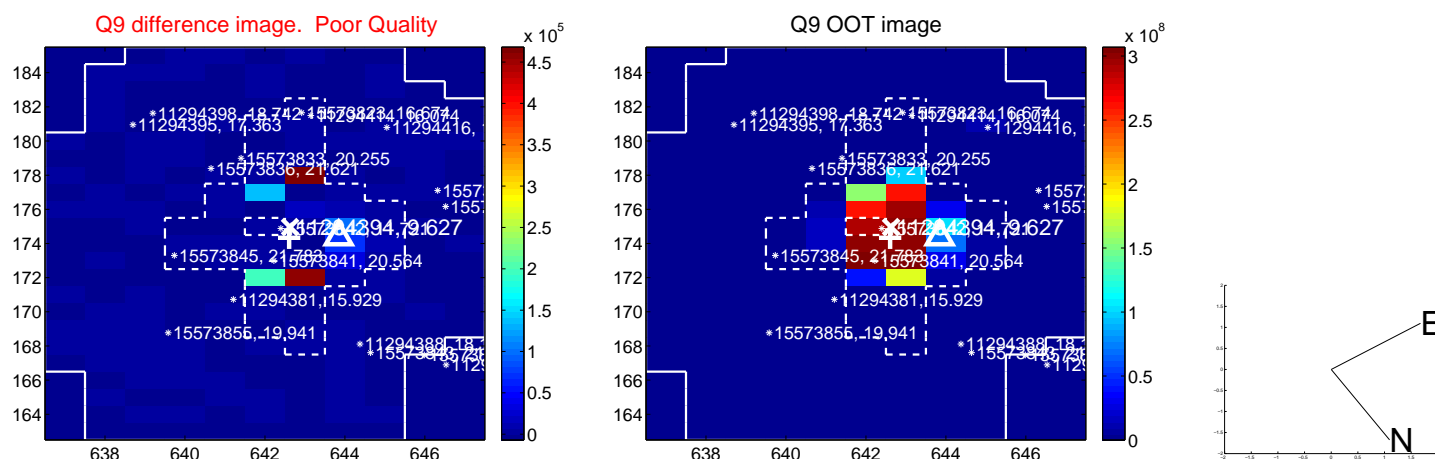
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



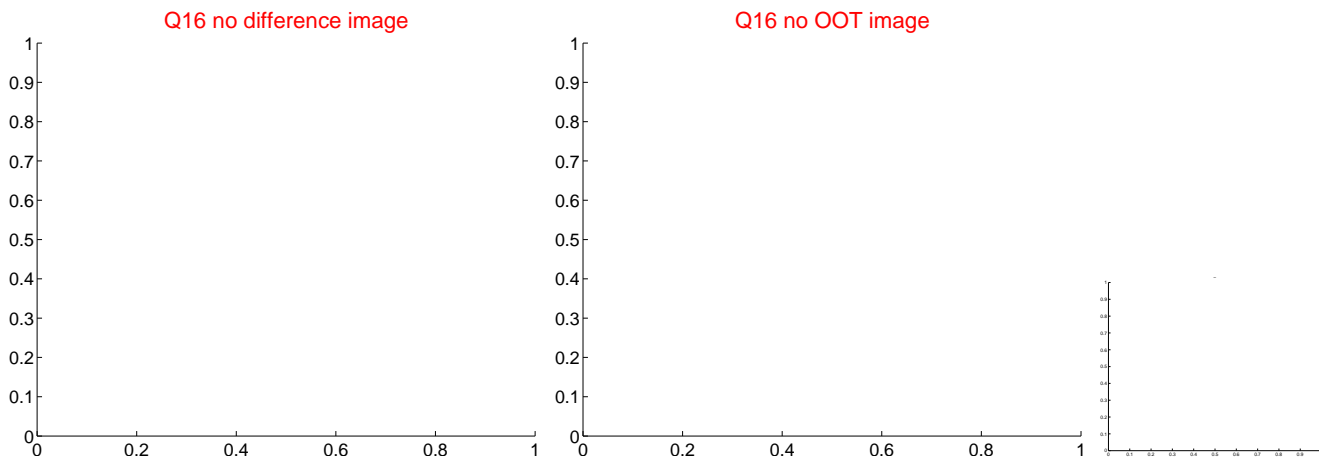
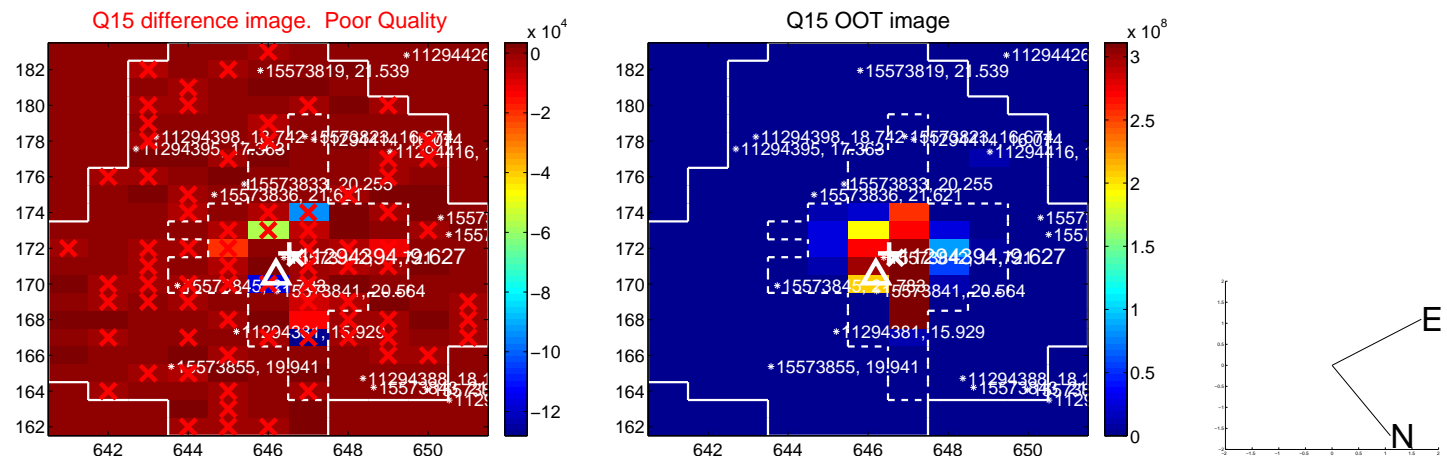
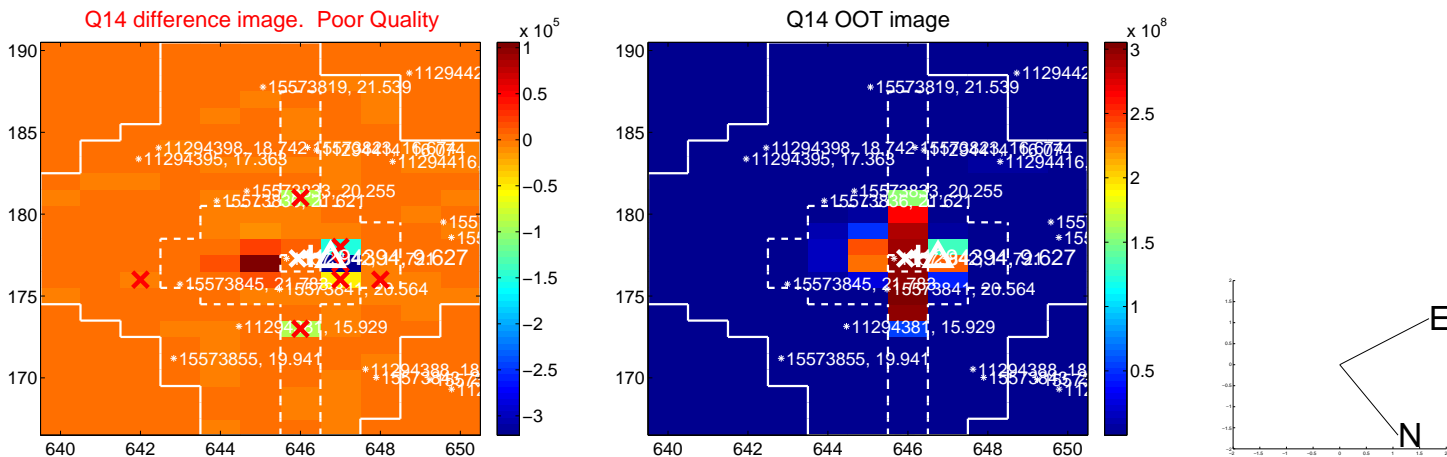
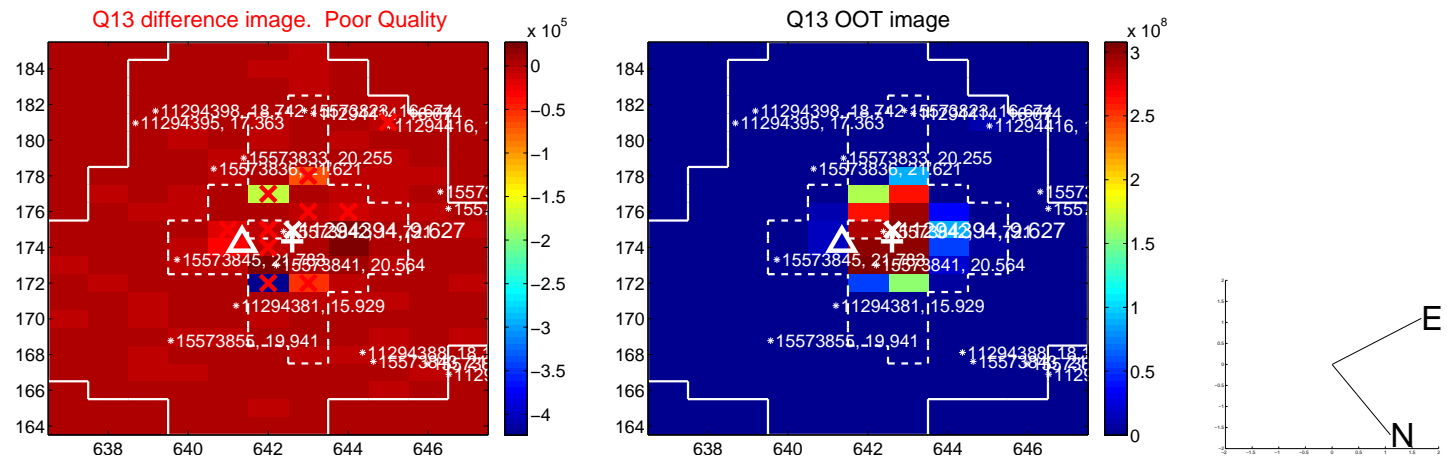
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



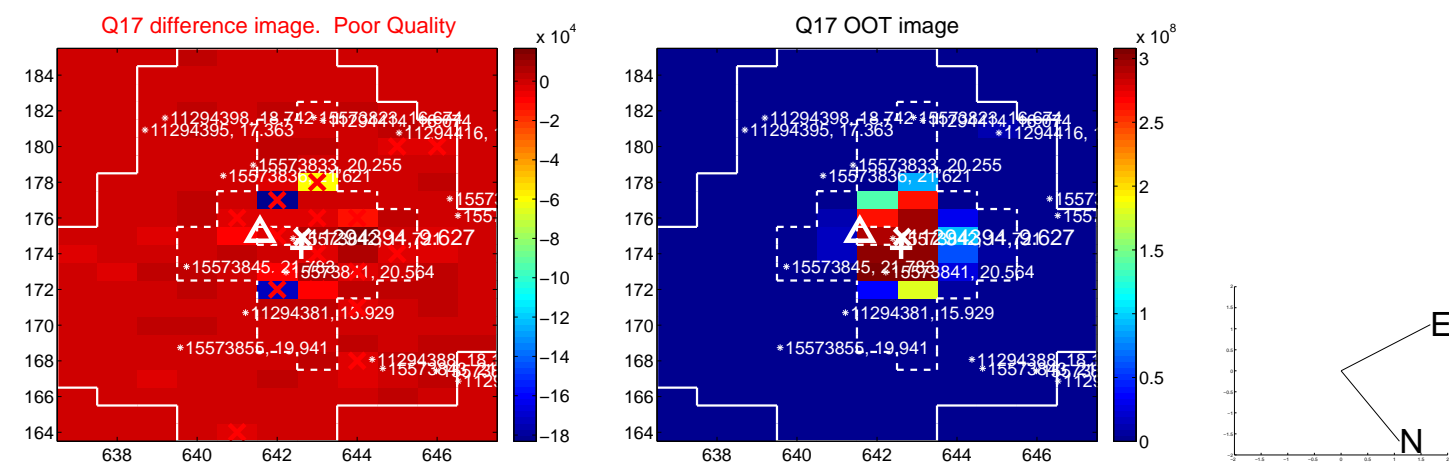
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



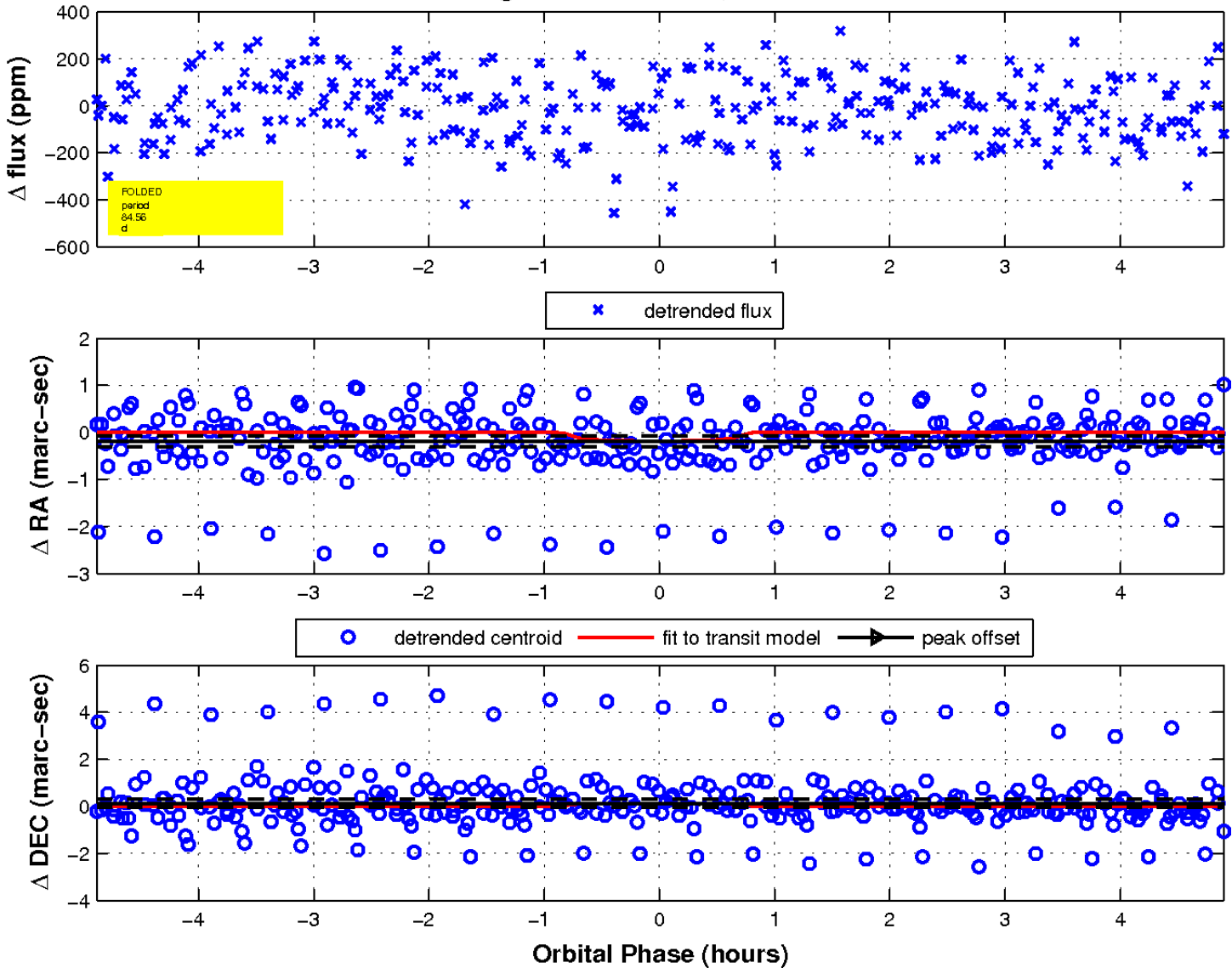
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



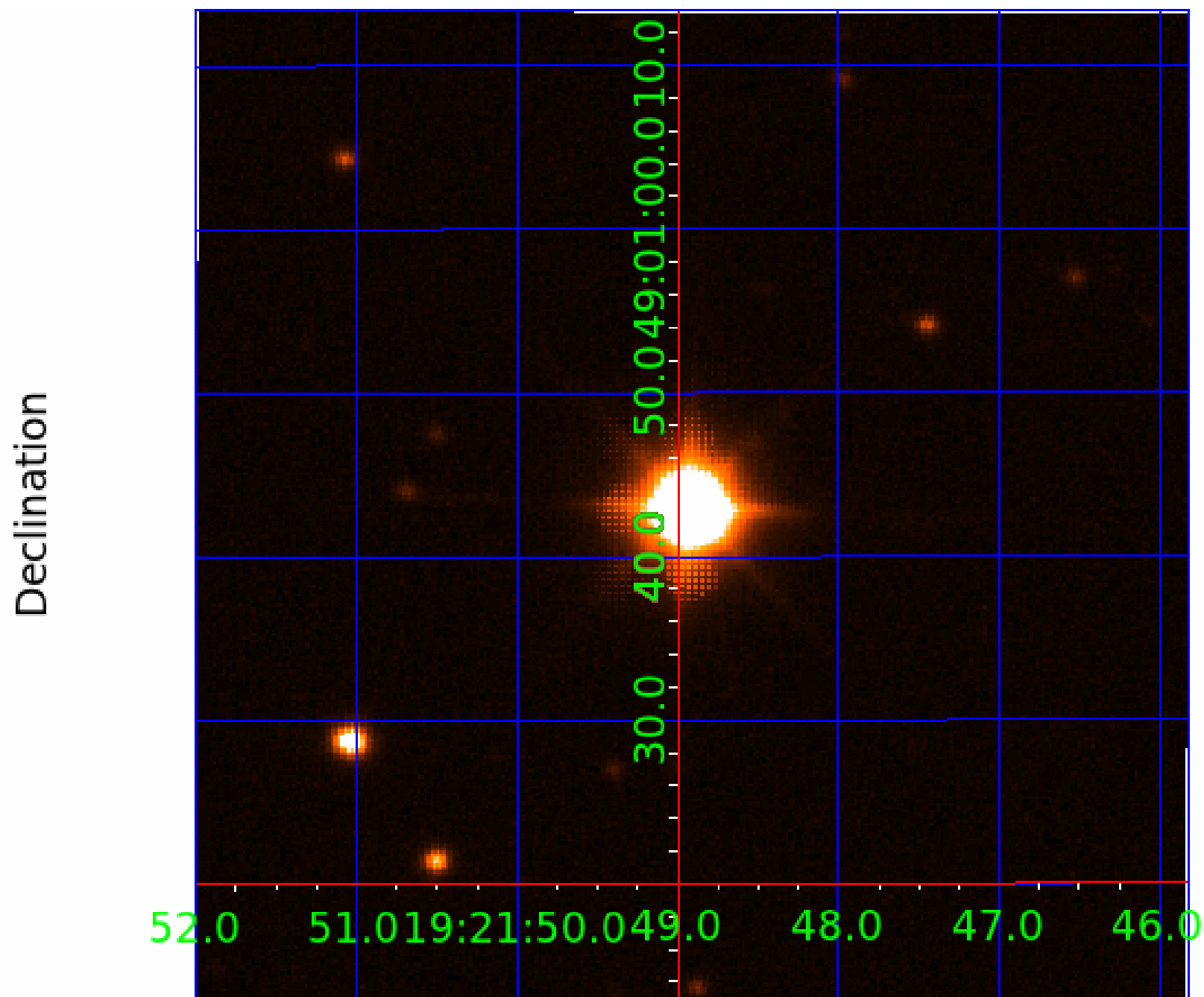
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 9 of 10



UKIRT Image



KIC 011294394

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})
011294394-01	OBS	No	2.095207	132.594101	6.8	13.928	8.4	3.5	4.16	6626	1.13	18615.23
011294394-02	OBS	No	42.660504	143.569158	183.6	12.799	12.9	12.6	4.16	6626	6.12	334.81
011294394-03	OBS	No	54.376855	175.912986	286.7	2.809	12.7	13.2	4.16	6626	10.00	242.26
011294394-04	OBS	No	41.700369	152.100063	258.2	3.415	11.4	11.6	4.16	6626	7.83	345.13
011294394-05	OBS	No	39.899524	166.832283	212.3	3.665	11.2	11.9	4.16	6626	6.87	366.06
011294394-06	OBS	No	21.340024	132.950168	93.1	7.492	11.1	8.9	4.16	6626	4.54	843.16
011294394-07	OBS	No	122.548908	235.373023	206.9	7.059	10.8	8.3	4.16	6626	6.83	81.99
011294394-09	OBS	No	84.559866	209.191613	301.2	1.635	10.3	10.1	4.16	6626	8.51	134.47
011294394-10	OBS	No	38.318490	132.253805	221.1	1.801	10.1	10.0	4.16	6626	7.16	386.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294394-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED
011294394-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
011294394-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011294394-09	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_SATURATED
011294394-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

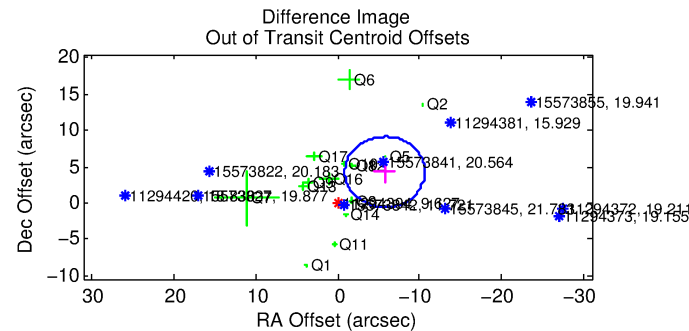
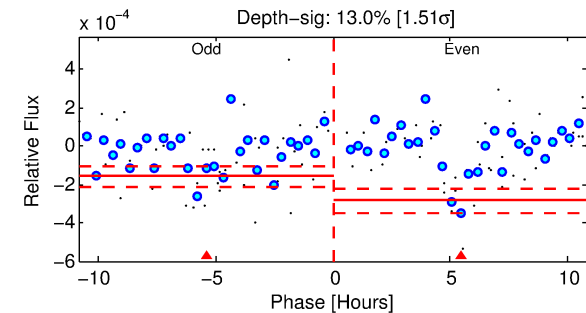
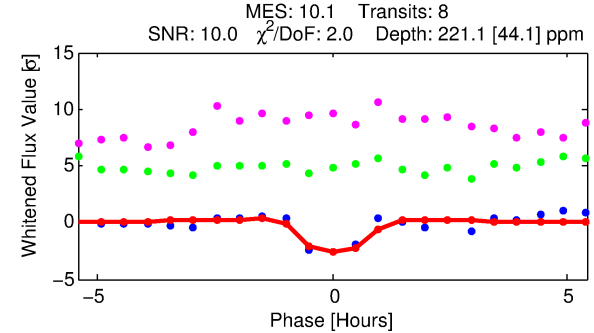
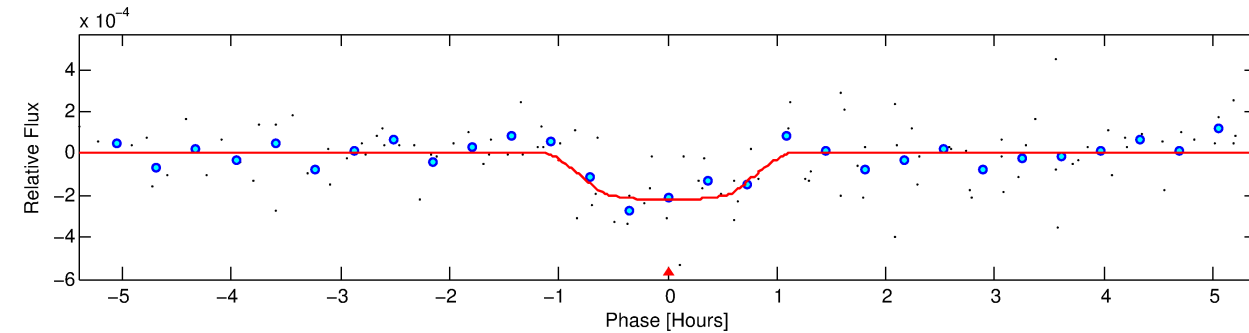
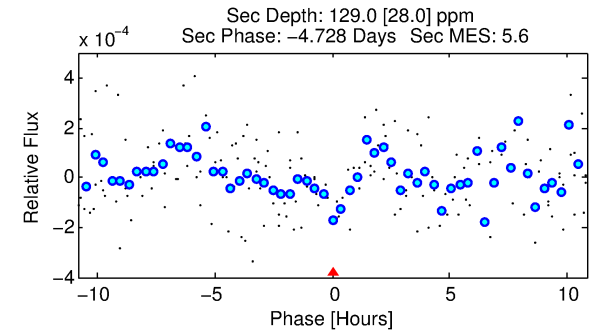
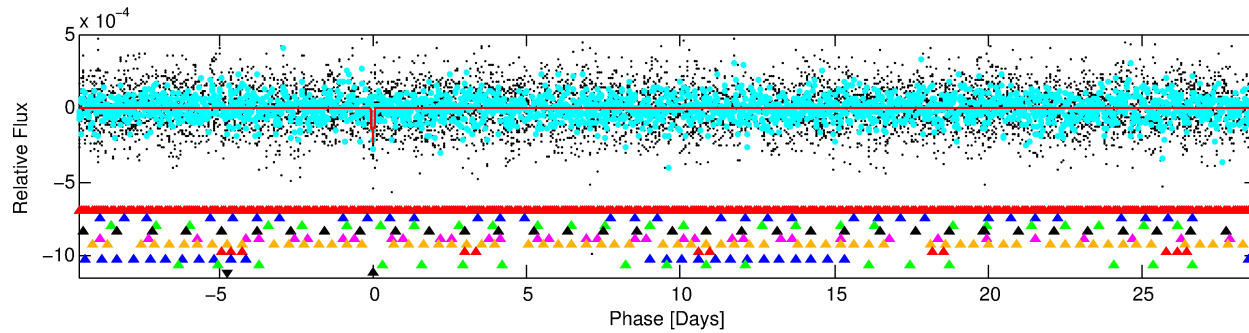
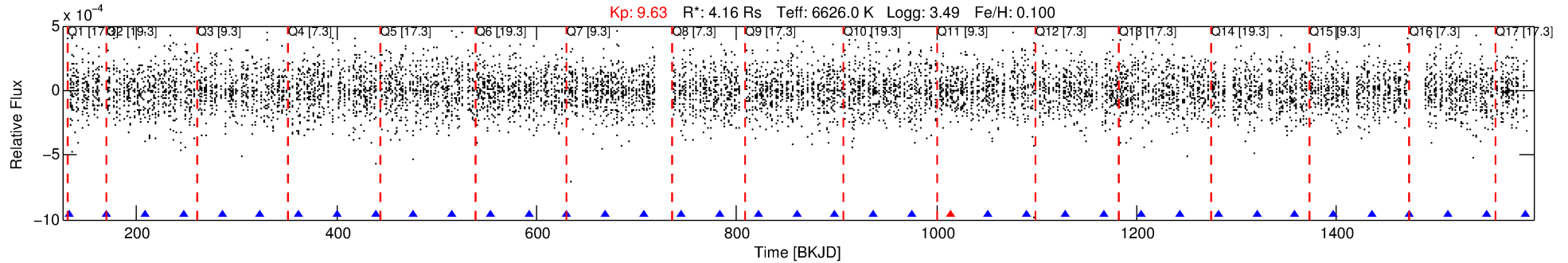
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294394-10

No Significant Match Found

DV One-Page Summary

KIC: 11294394 Candidate: 10 of 10 Period: 38.318 d



DV Fit Results:

Period = 38.31849 [0.00041] d
Epoch = 132.2538 [0.0110] BKJD
Rp/R* = 0.0158 [0.0199]
a/R* = 80.83 [591.88]
b = 0.89 [1.79]
Seff = 386.33 [230.65]
Teq = 1130 [169] K
Rp = 7.16 [9.45] Re
a = 0.2783 [0.1015] AU
Ag = 107.22 [279.37] [0.38σ]
Teffp = 5624 [3574] K [1.26σ]

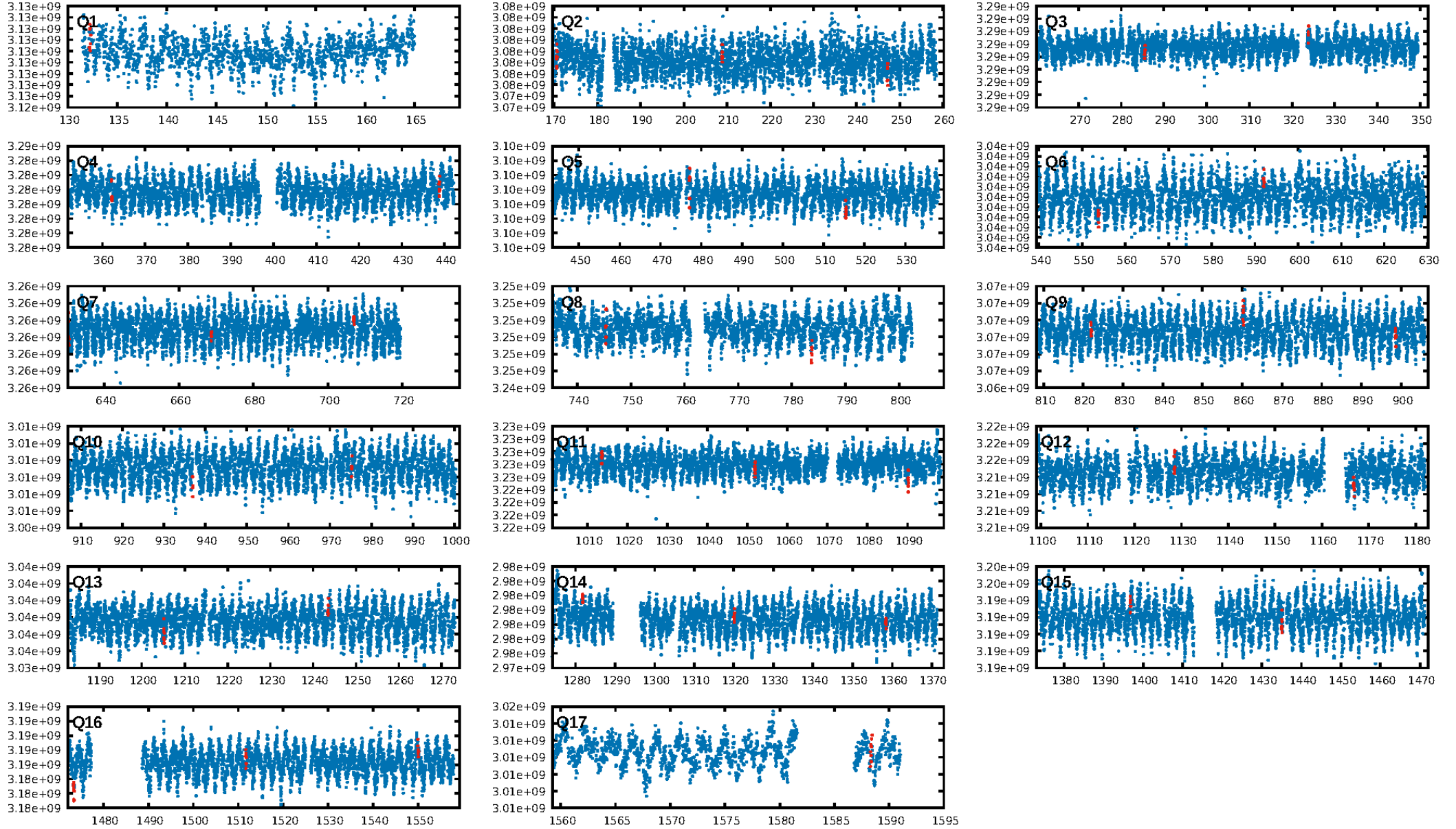
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [52.88σ]
LongPeriod-sig: 100.0% [9.29σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 51.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.88 [7/8]
GhostDiagnostic-chr: N/A
Centroid-sig: 1.2%
Centroid-so: 1.418 arcsec [3.92σ]
OotOffset-rm: 7.163 arcsec [4.41σ]
KicOffset-rm: 9.203 arcsec [5.30σ]
OotOffset-st: 4/3/3/5 [15]
KicOffset-st: 4/3/3/5 [15]
DiffImageQuality-fgm: 0.07 [1/15]
DiffImageOverlap-fno: 0.65 [11/17]

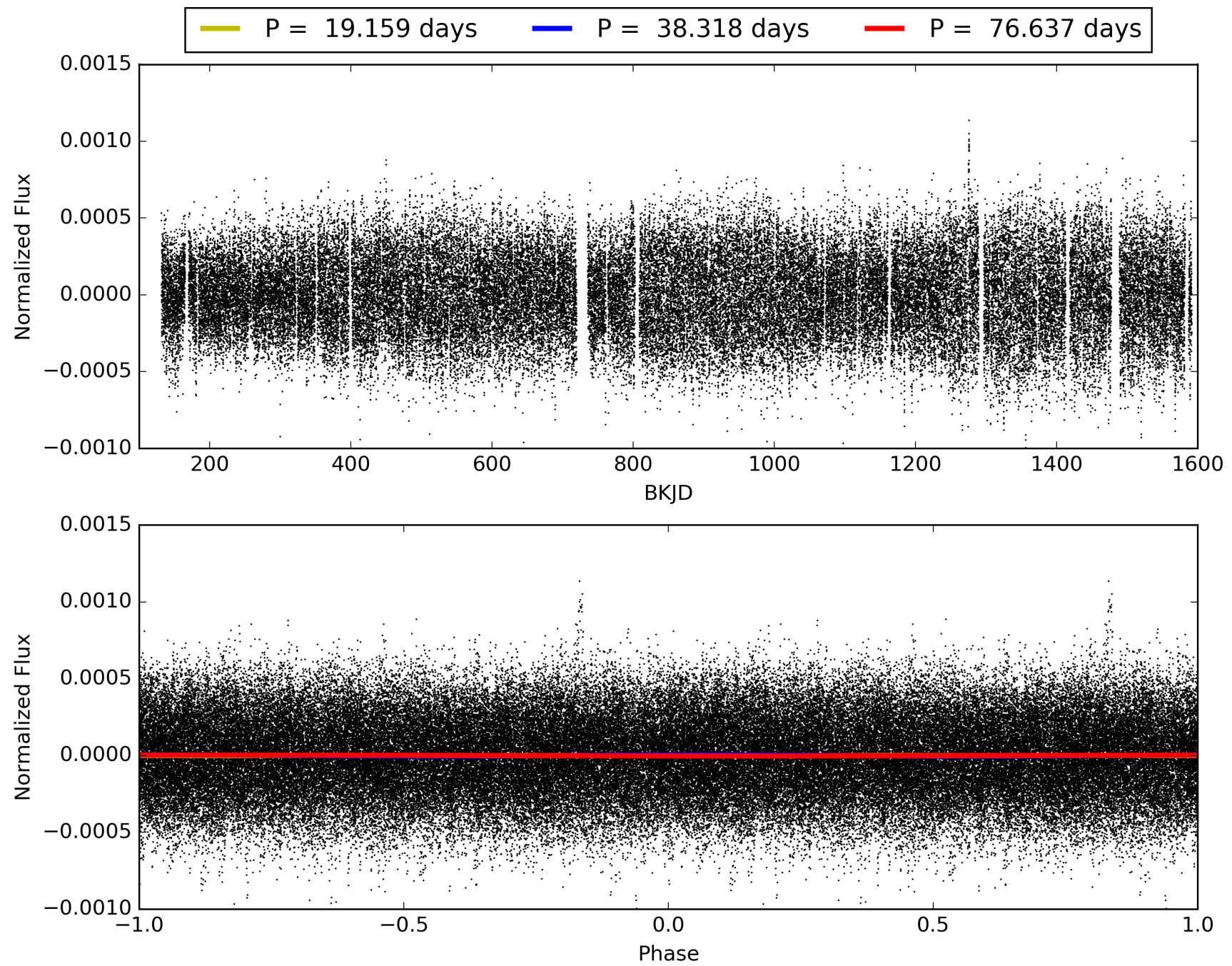
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:17:29 Z

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

TCE 011294394-10, PDC Light Curves

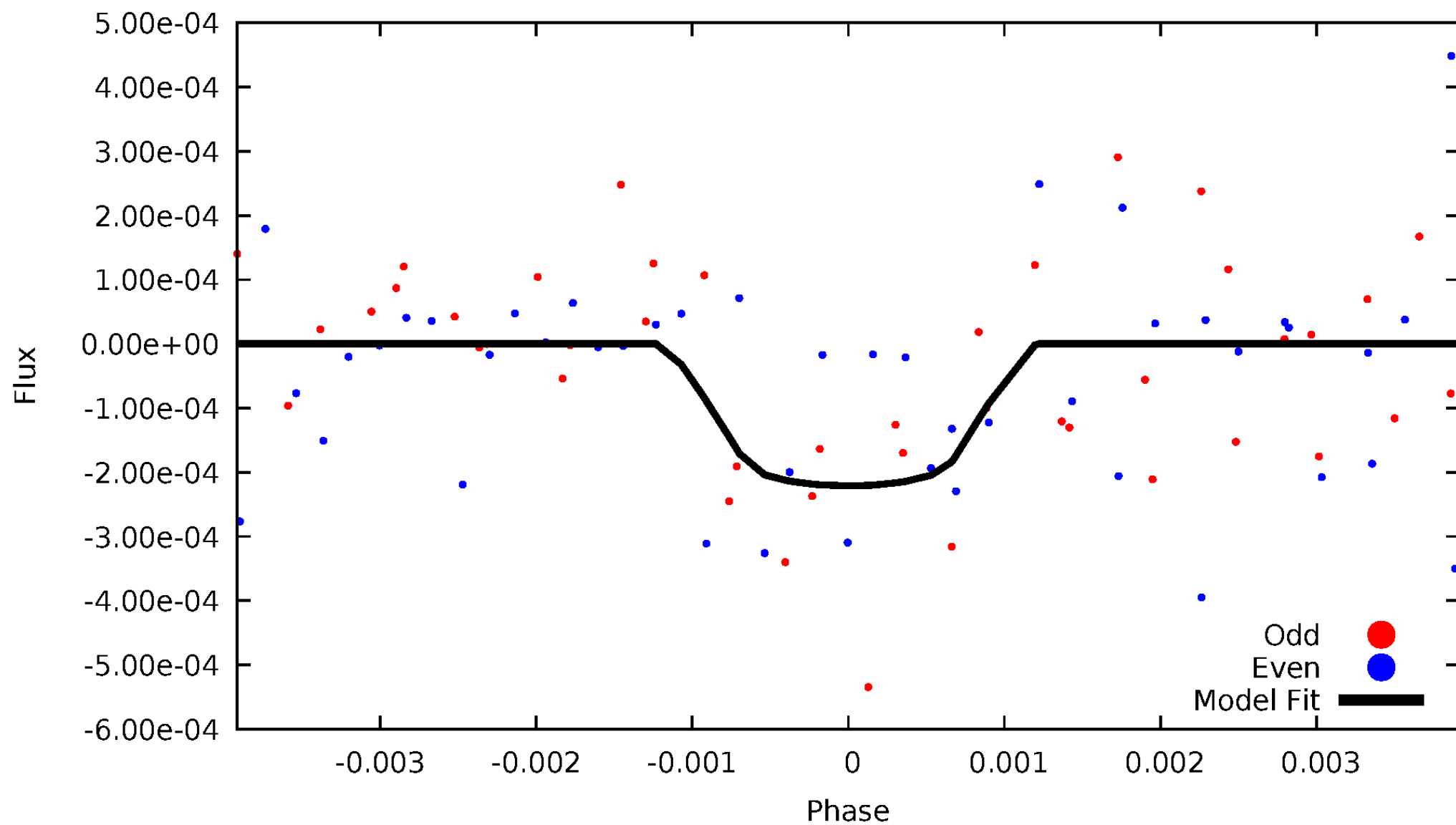


TCE 011294394-10



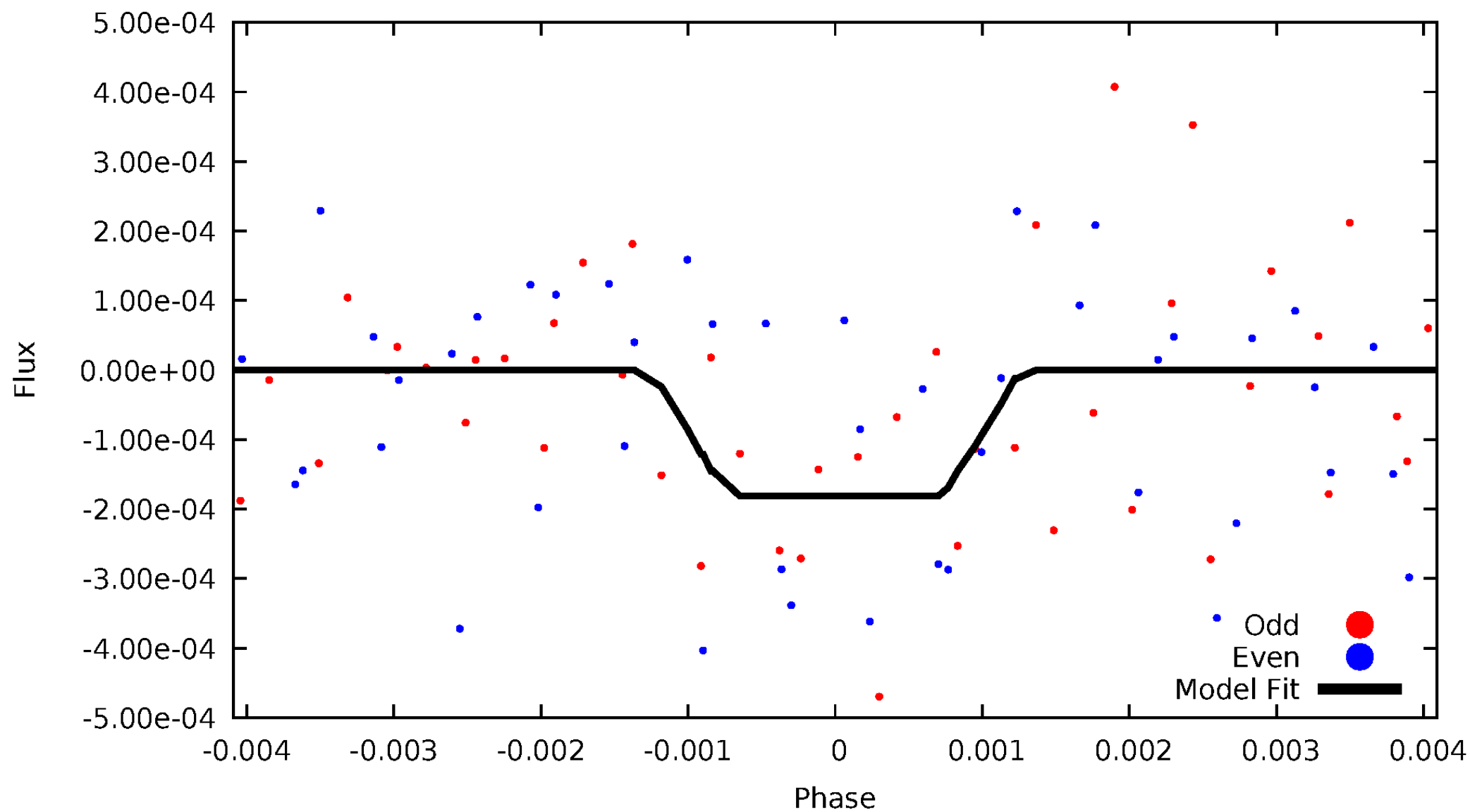
DV Odd/Even

TCE 011294394-10



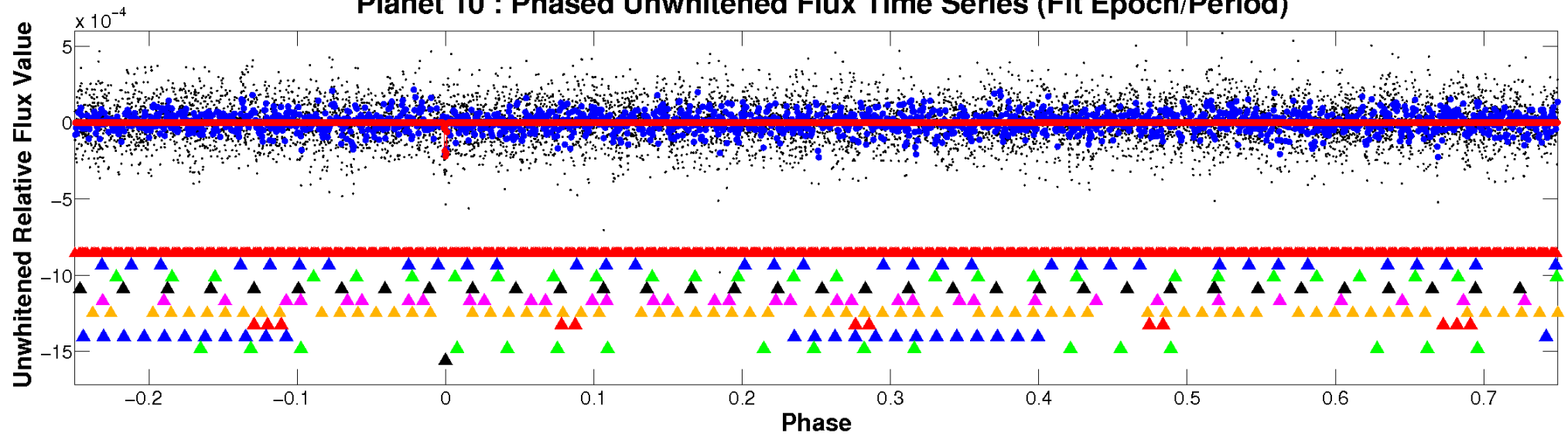
ALT Odd/Even

TCE 011294394-10

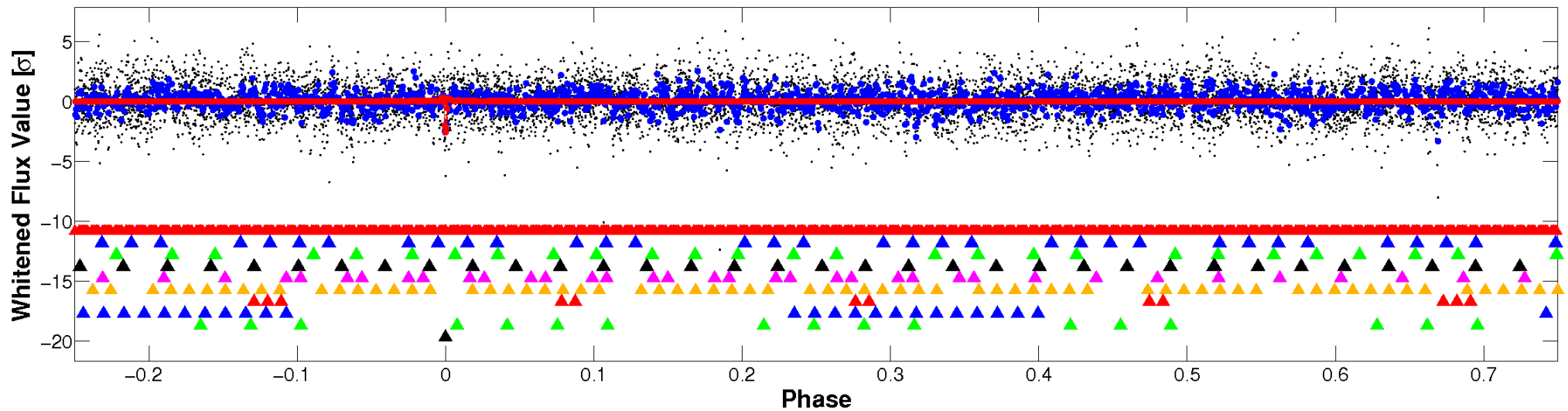


Non-Whitened Vs. Whitened Light Curve

Planet 10 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

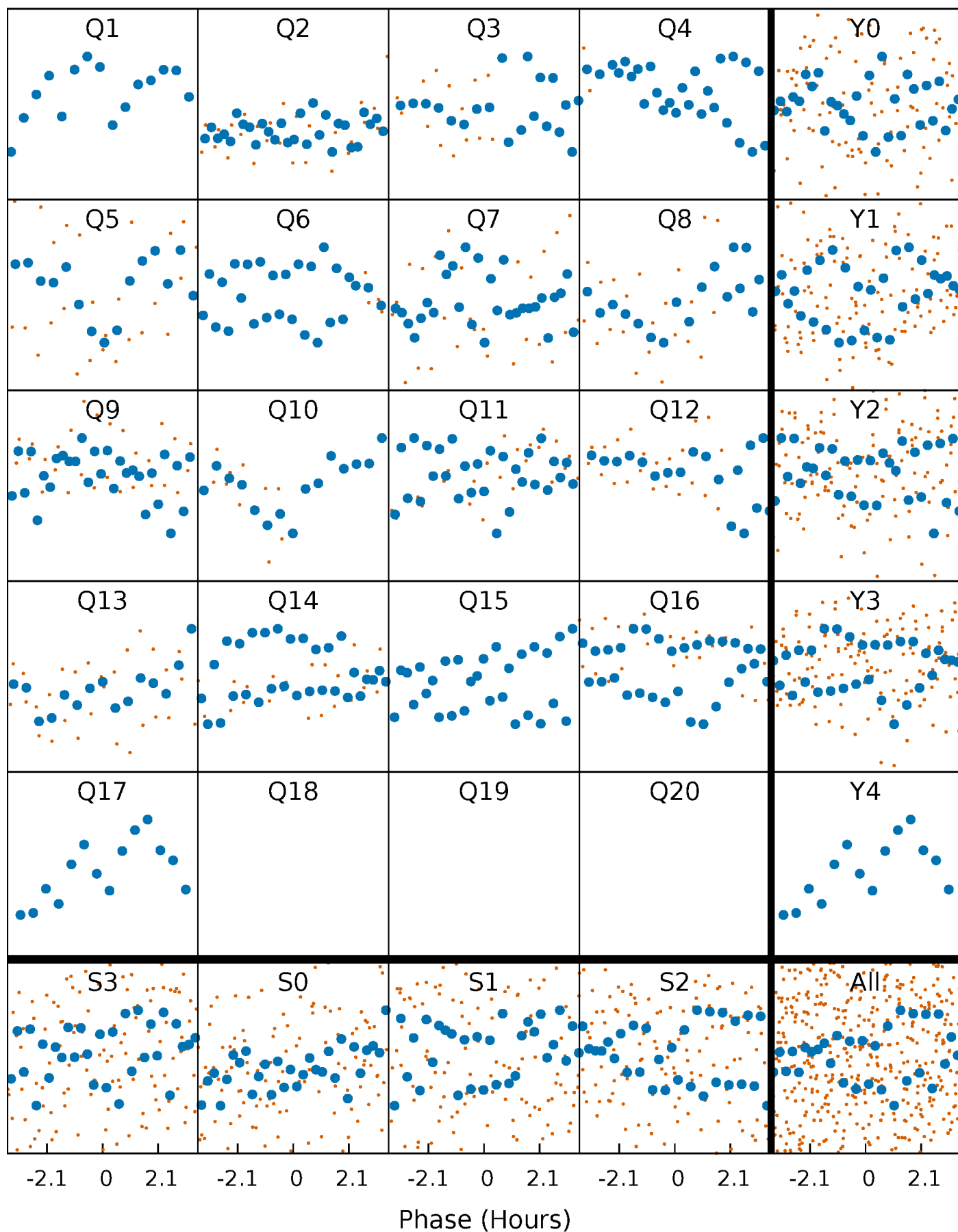


Planet 10 : Phased Whitened Flux Time Series (Fit Epoch/Period)



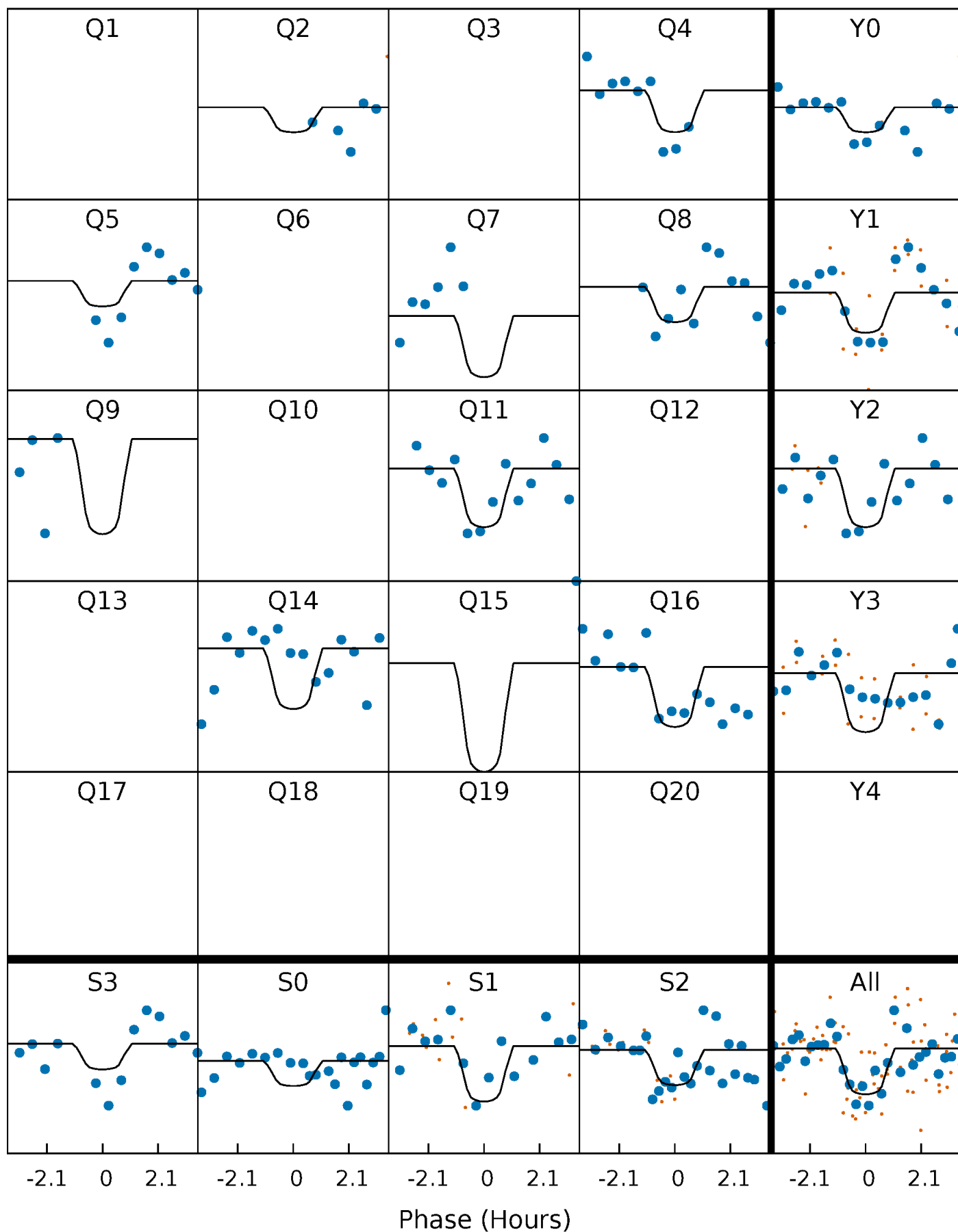
PDC Quarter-Phased Transit Curves

TCE 011294394-10 P= 38.318490 Days $T_0=132.253805$ (BKJD)



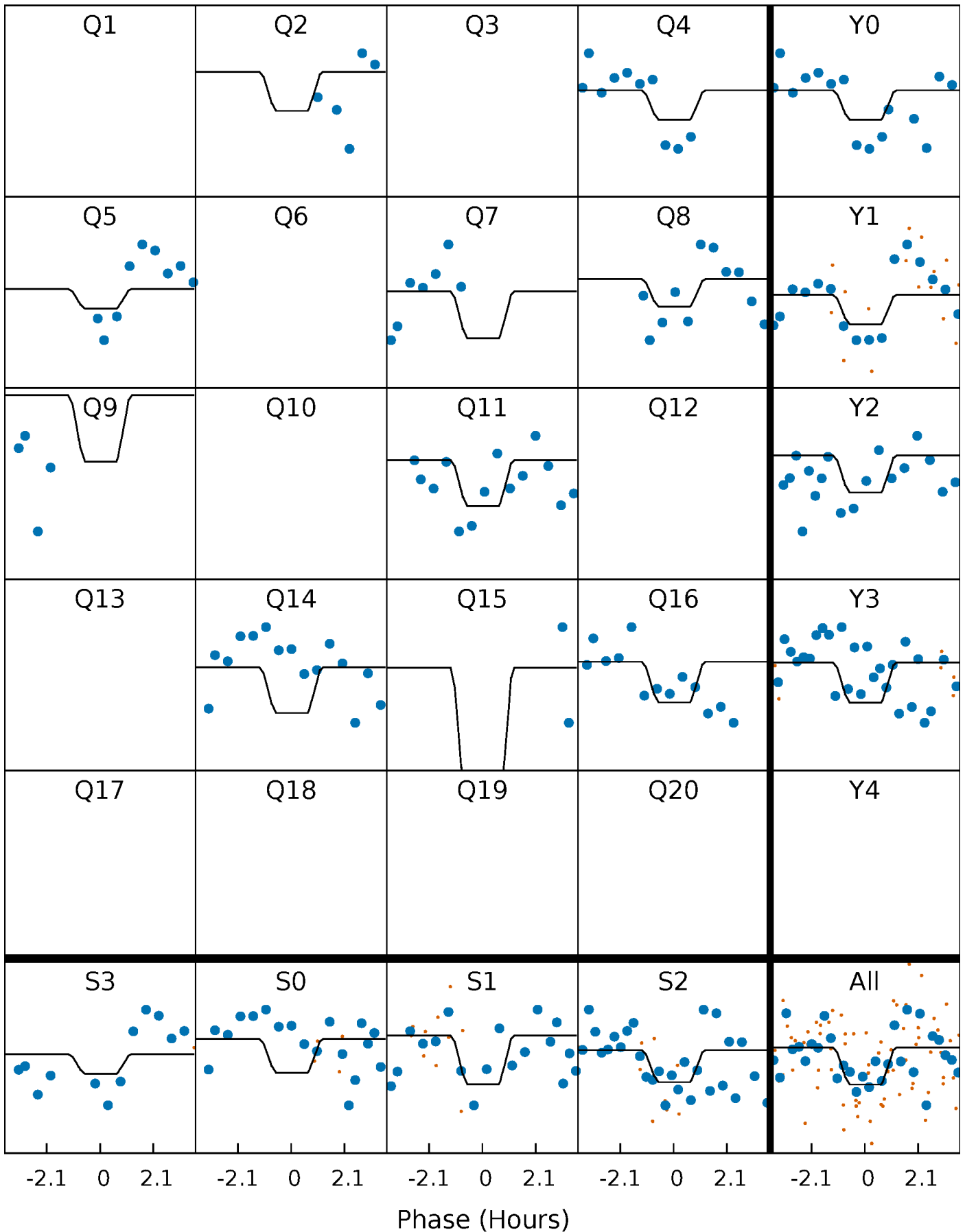
DV Quarter-Phased Transit Curves

TCE 011294394-10 P= 38.318490 Days $T_0=132.253805$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

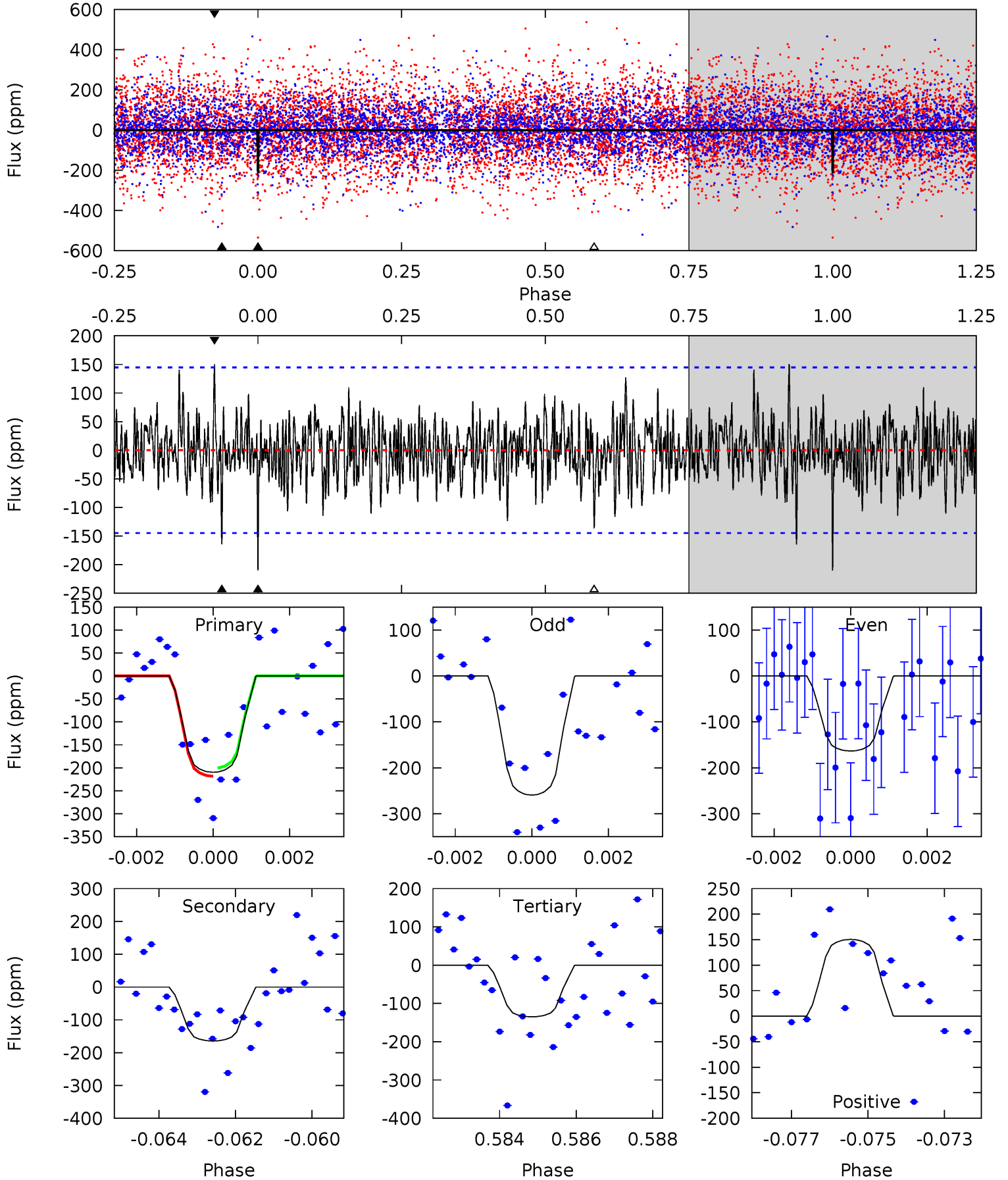
TCE 011294394-10 P= 38.319360 Days $T_0=132.239438$ (BKJD)



DV Model-Shift Uniqueness Test

011294394-10, P = 38.318490 Days, E = 93.935315 Days

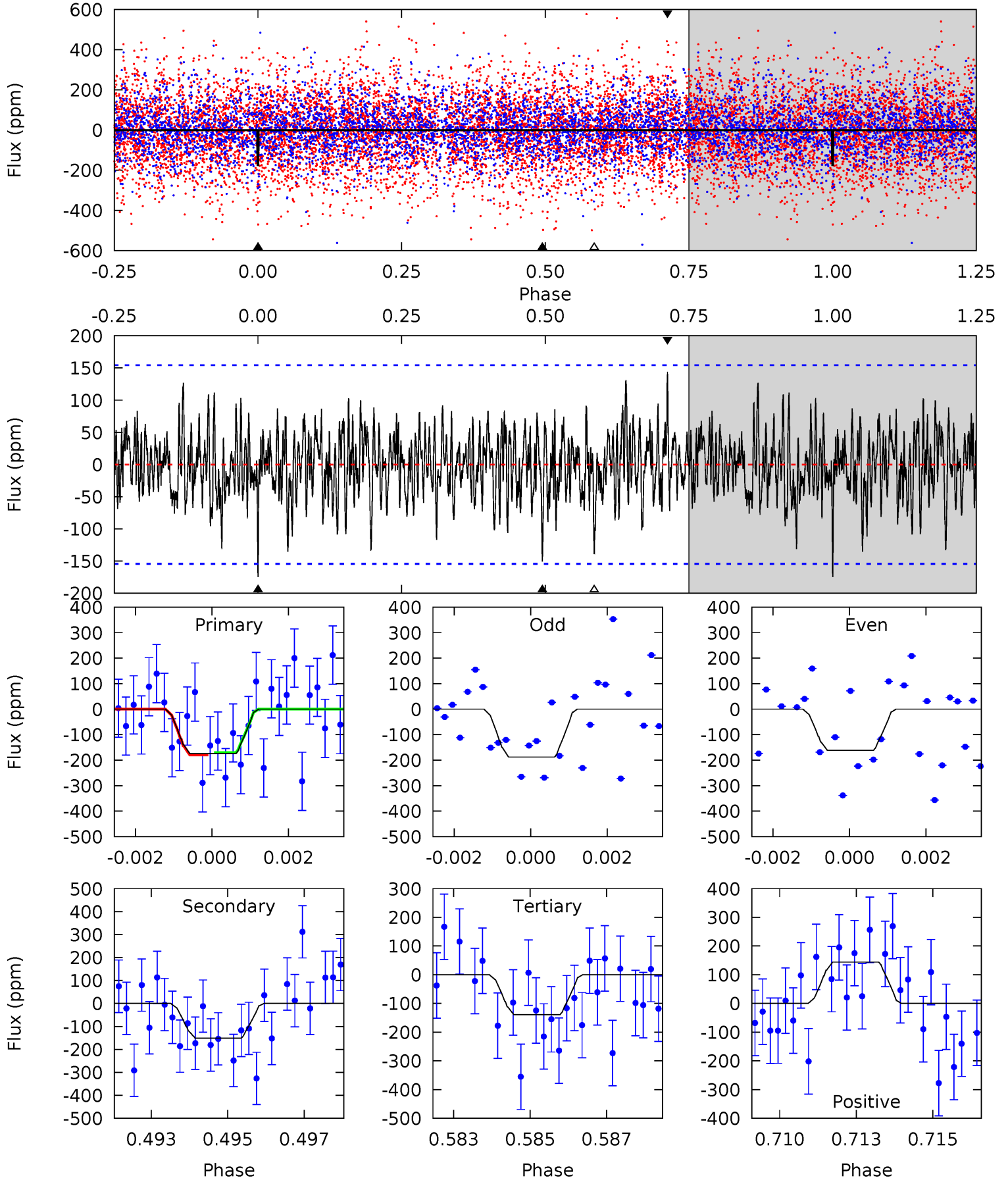
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.70	6.03	4.95	5.52	5.31	3.07	1.48	2.75	2.18	1.08	0.51	1.80	1.13	0.42	0.33



Alt Model-Shift Uniqueness Test

011294394-10, P = 38.319360 Days, E = 93.920078 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.00	5.18	4.79	4.95	5.31	3.06	1.48	1.21	1.05	0.39	0.23	0.47	0.88	0.45	0.15



Stellar Parameters For KIC 011294394

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6626^{+148}_{-198}	$3.491^{+0.344}_{-0.086}$	$0.100^{+0.250}_{-0.250}$	$4.163^{+0.295}_{-1.571}$	$1.958^{+0.175}_{-0.351}$	$0.038^{+0.100}_{-0.010}$
	+2%/-3%	+10%/-2%	+250%/-250%	+7%/-38%	+9%/-18%	+261%/-27%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011294394-10 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-164 ± 27	$9.09^{+7.66}_{-5.83}$	1554^{+81}_{-144}	5166^{+3817}_{-1119}	87^{+562}_{-62}
Alt.	-151 ± 29	$8.82^{+7.77}_{-6.15}$	1559^{+75}_{-127}	5154^{+4564}_{-1149}	81^{+701}_{-59}

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

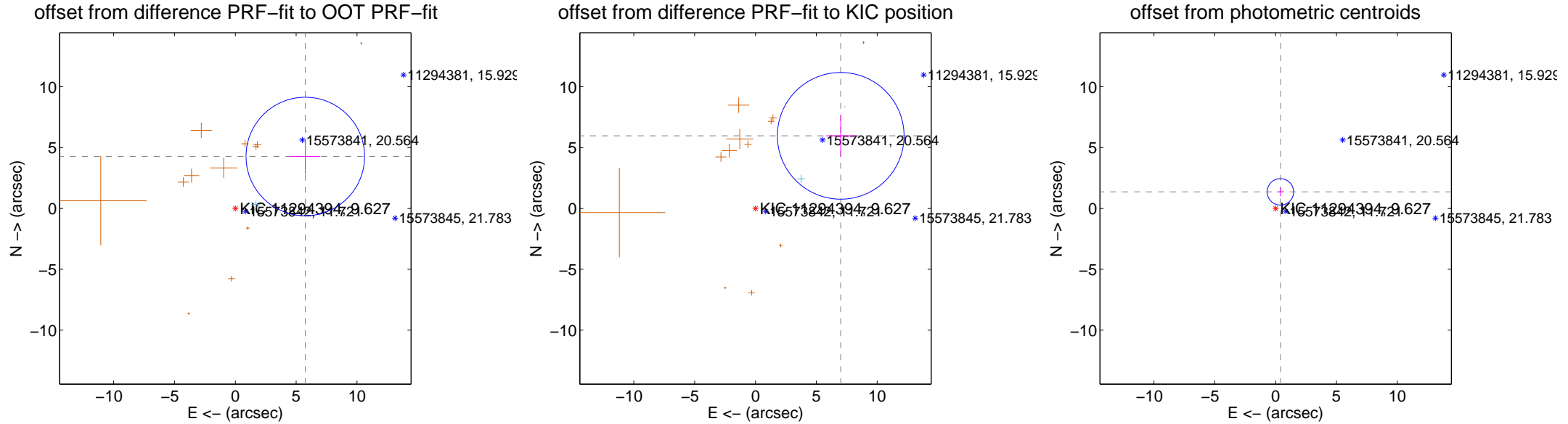
DV Centroid Data

Supplemental centroid analysis for 011294394-10. **Kepler magnitude: 9.63.** Transit SNR 9.98

There are 1 quarters with good PRF difference image offsets

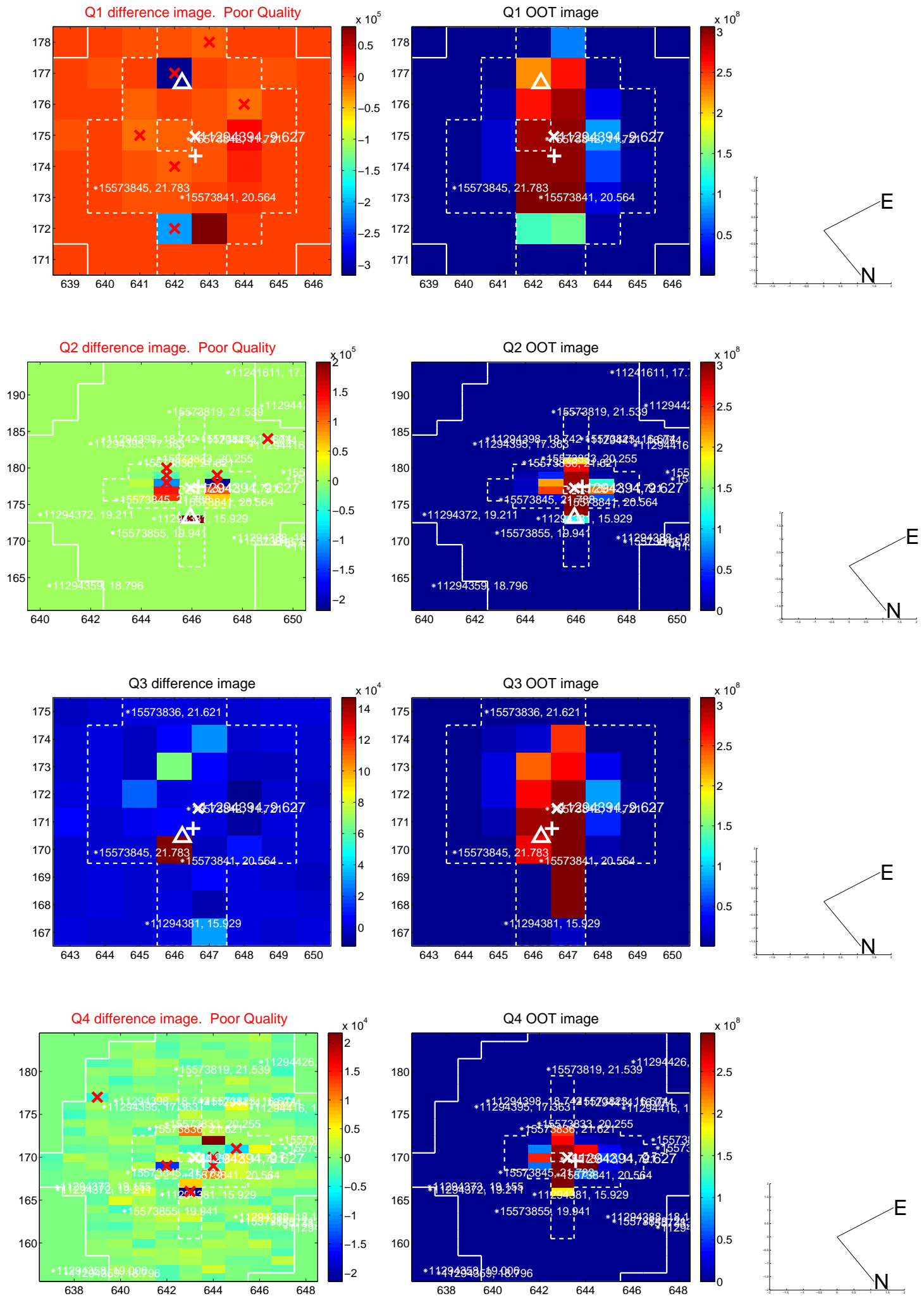
The OOT PRF centroid is offset from the target star catalog position by about 2.51 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.163 ± 1.624	4.41	-5.751 ± 1.233	4.269 ± 1.450
PRF-fit source offset from KIC position	9.203 ± 1.735	5.30	-7.005 ± 1.216	5.969 ± 1.728
photometric centroid source offset	1.42 ± 0.36	3.92	-0.39 ± 0.29	1.36 ± 0.37

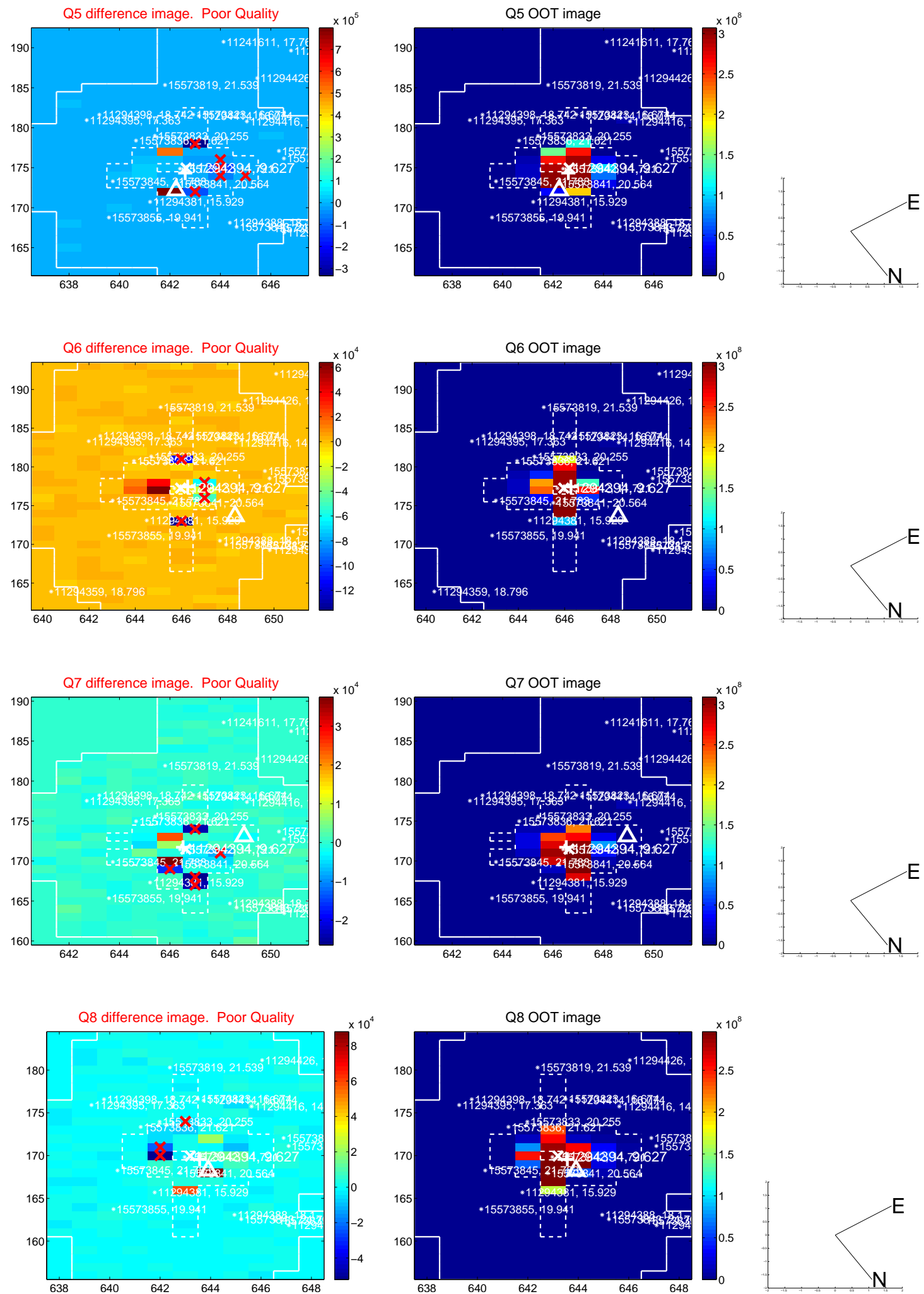


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

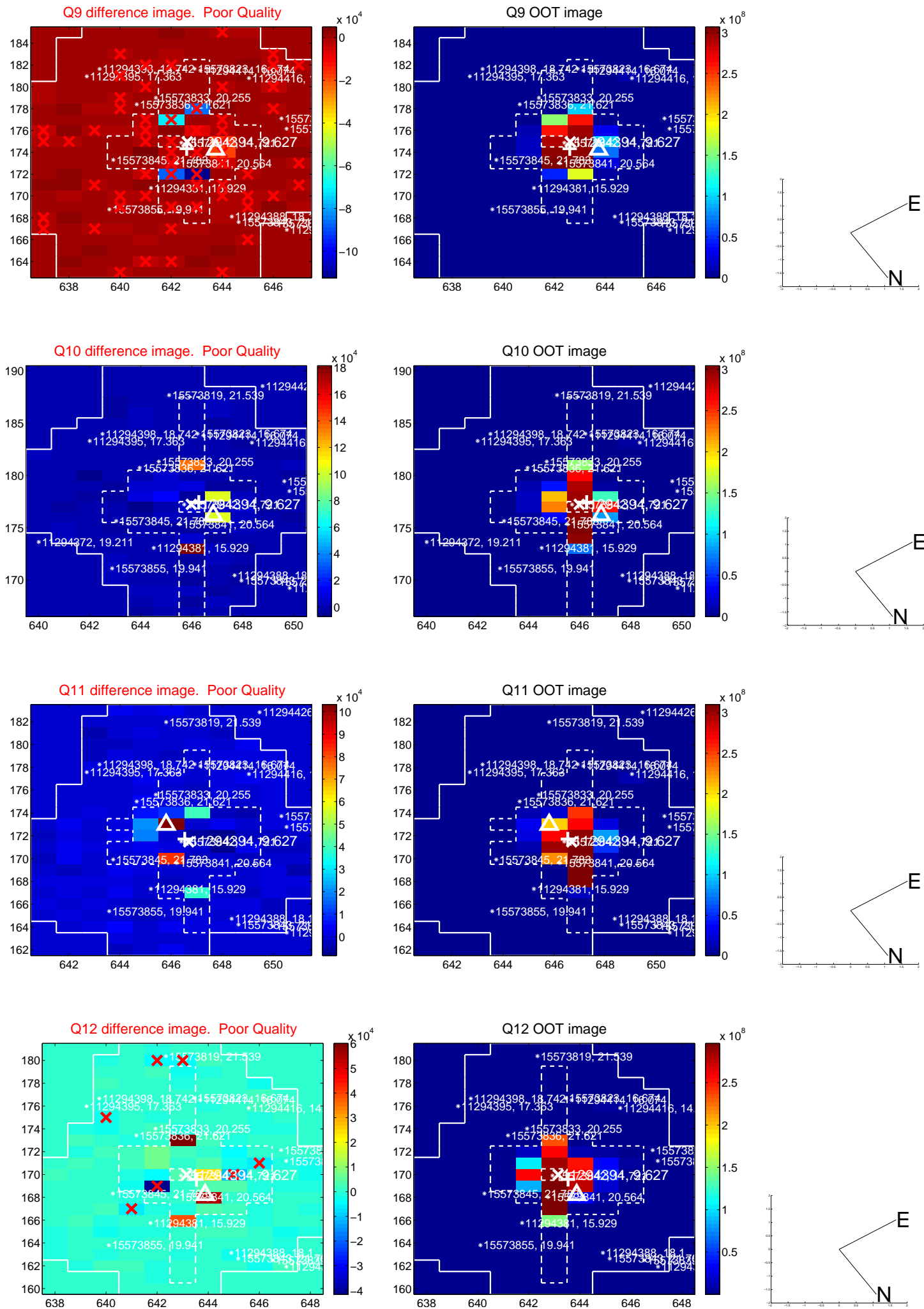
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



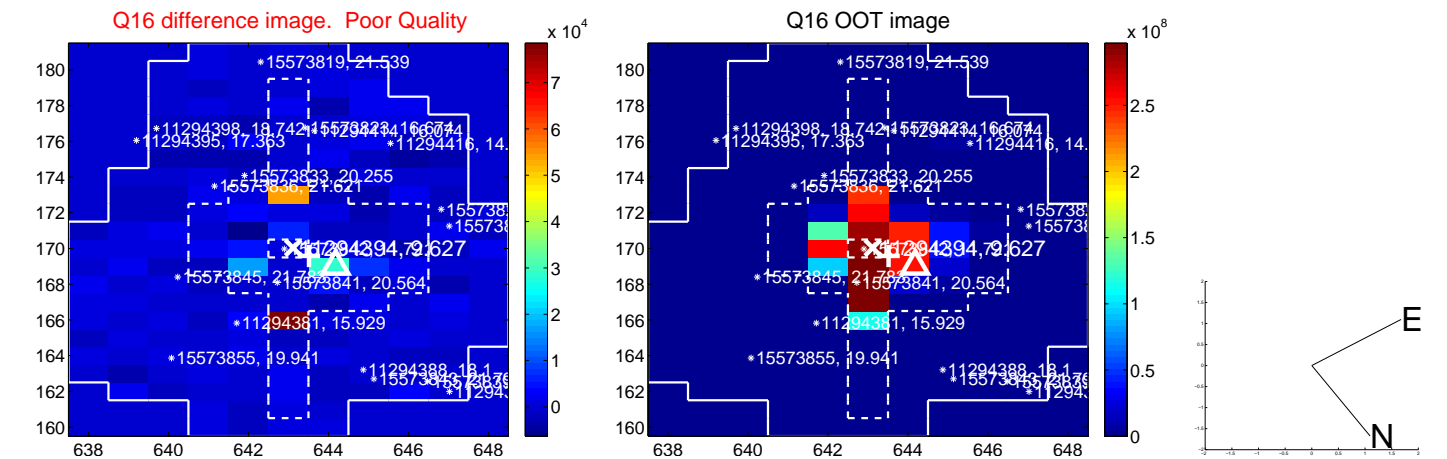
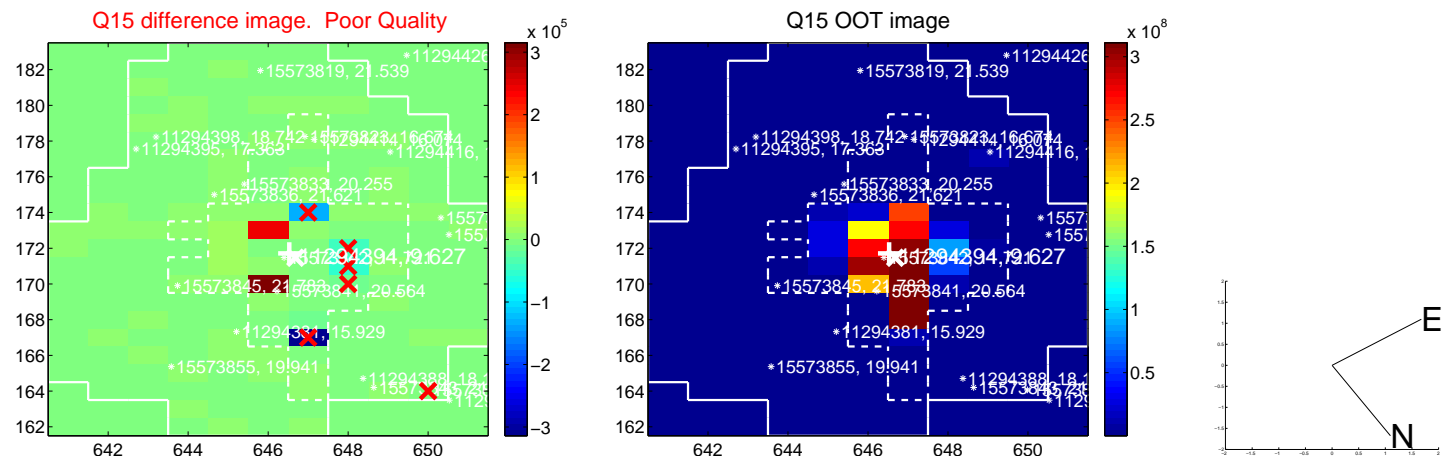
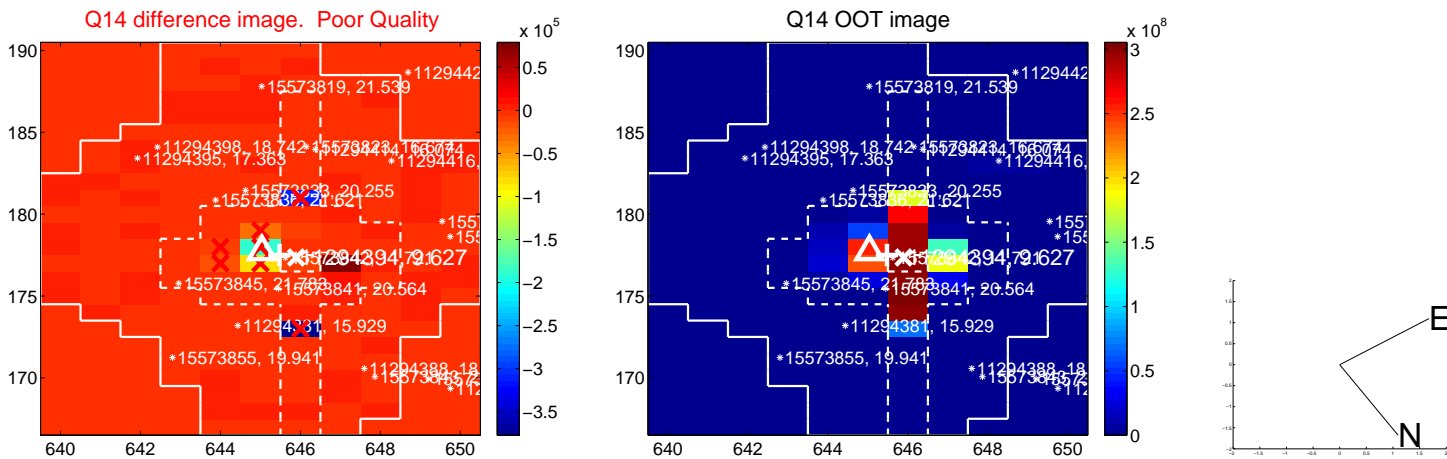
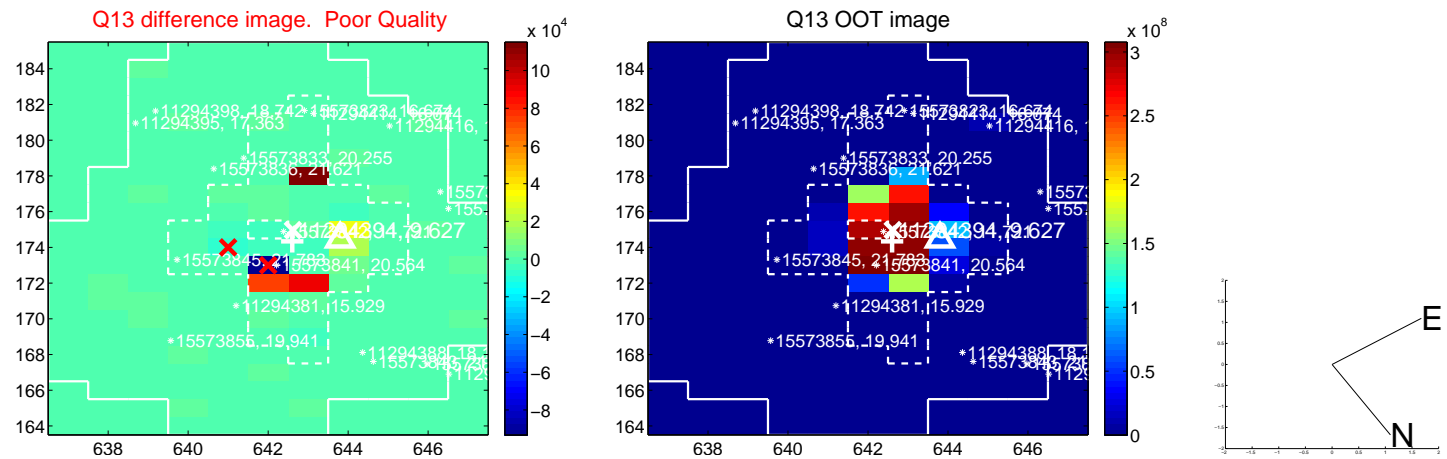
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



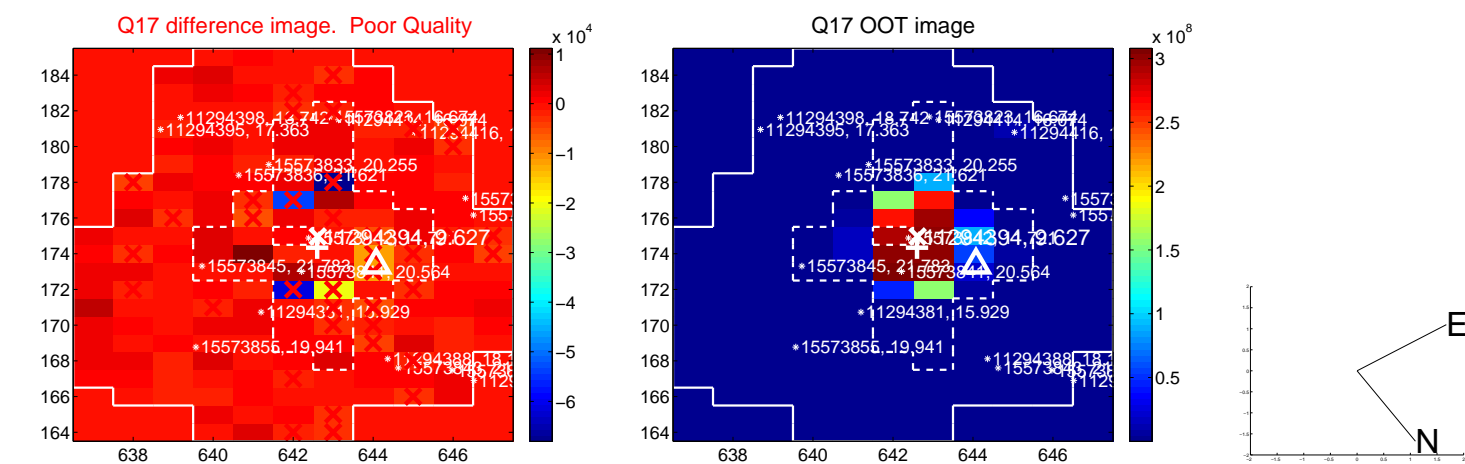
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



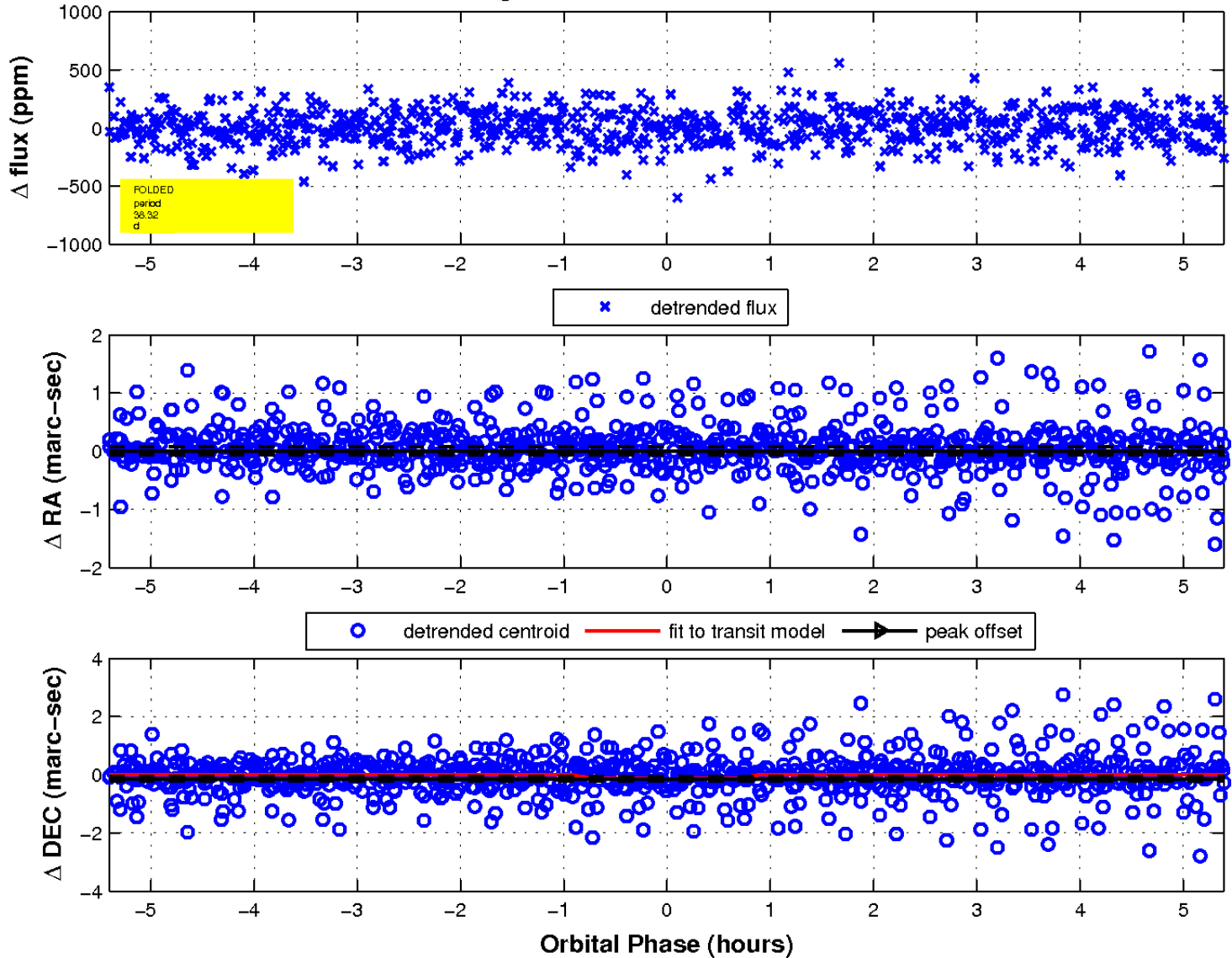
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 10 of 10



UKIRT Image

