

KIC 010790838

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})
010790838-01	OBS	No	0.916471	131.760585	156.9	4.088	9.0	11.4	0.40	3563	0.50	121.13
010790838-02	OBS	No	391.627580	292.194018	4010.7	45.141	10.5	8.5	0.40	3563	4.74	0.04
010790838-03	OBS	No	46.764984	145.107790	1059.0	3.073	7.4	7.5	0.40	3563	1.43	0.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010790838-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010790838-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
010790838-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT

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

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

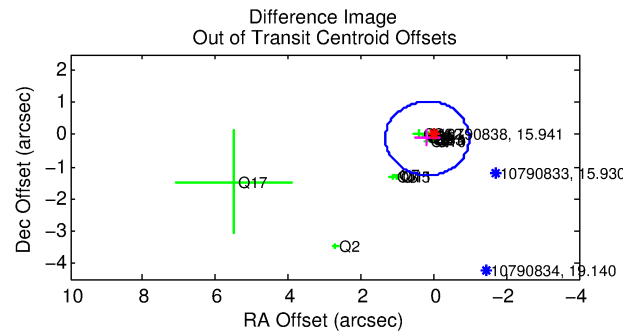
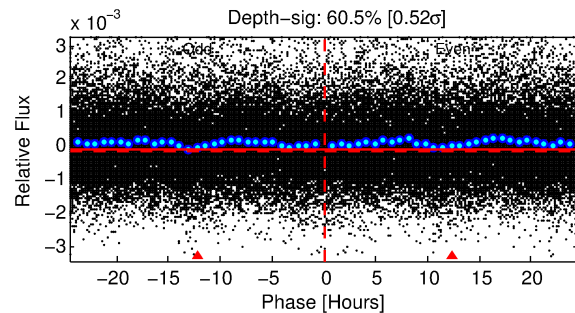
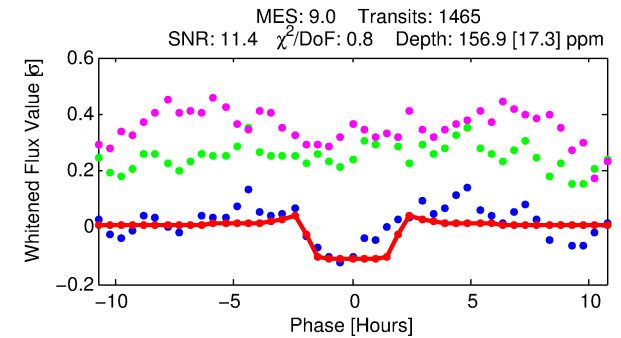
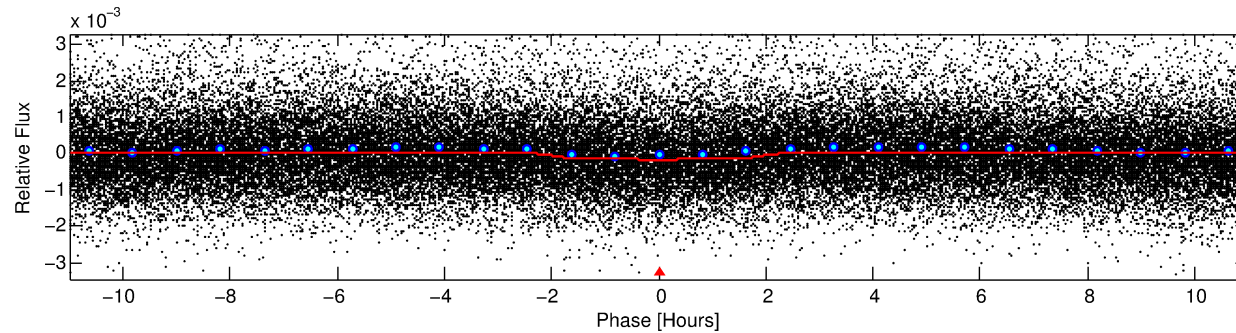
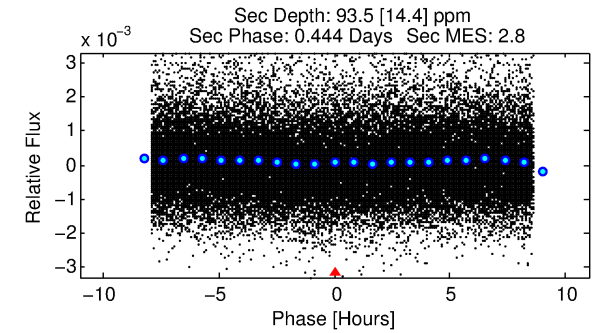
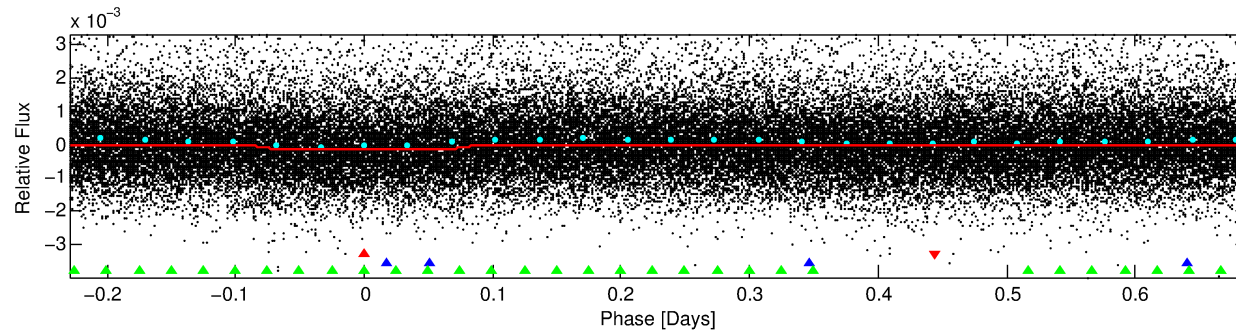
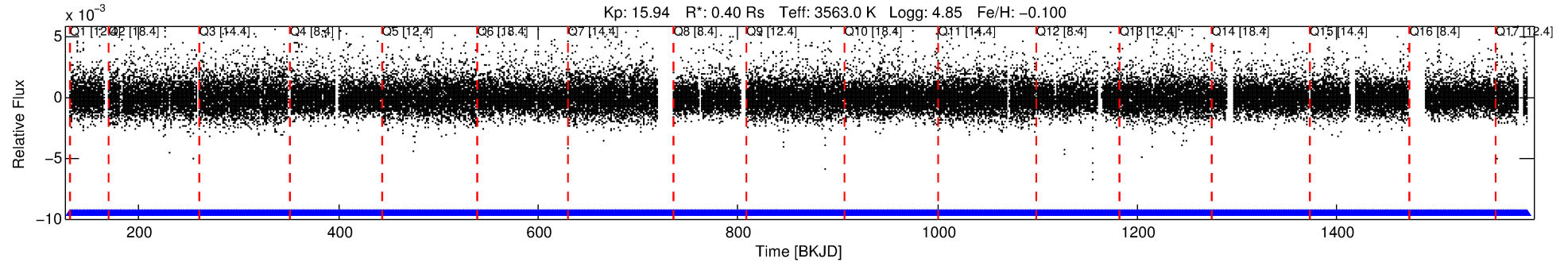
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010790838-01

No Significant Match Found

DV One-Page Summary

KIC: 10790838 Candidate: 1 of 3 Period: 0.916 d



DV Fit Results:

Period = 0.91647 [0.00001] d
Epoch = 131.7606 [0.0030] BKJD
Rp/R* = 0.0114 [0.0185]
a/R* = 1.79 [8.76]
b = 0.27 [24.86]
Seff = 121.13 [12.19]
Teq = 846 [21] K
Rp = 0.50 [0.80] Re
a = 0.0137 [0.0009] AU
Ag = 39.41 [127.68] [0.30σ]
Teffp = 3277 [2653] K [0.92σ]

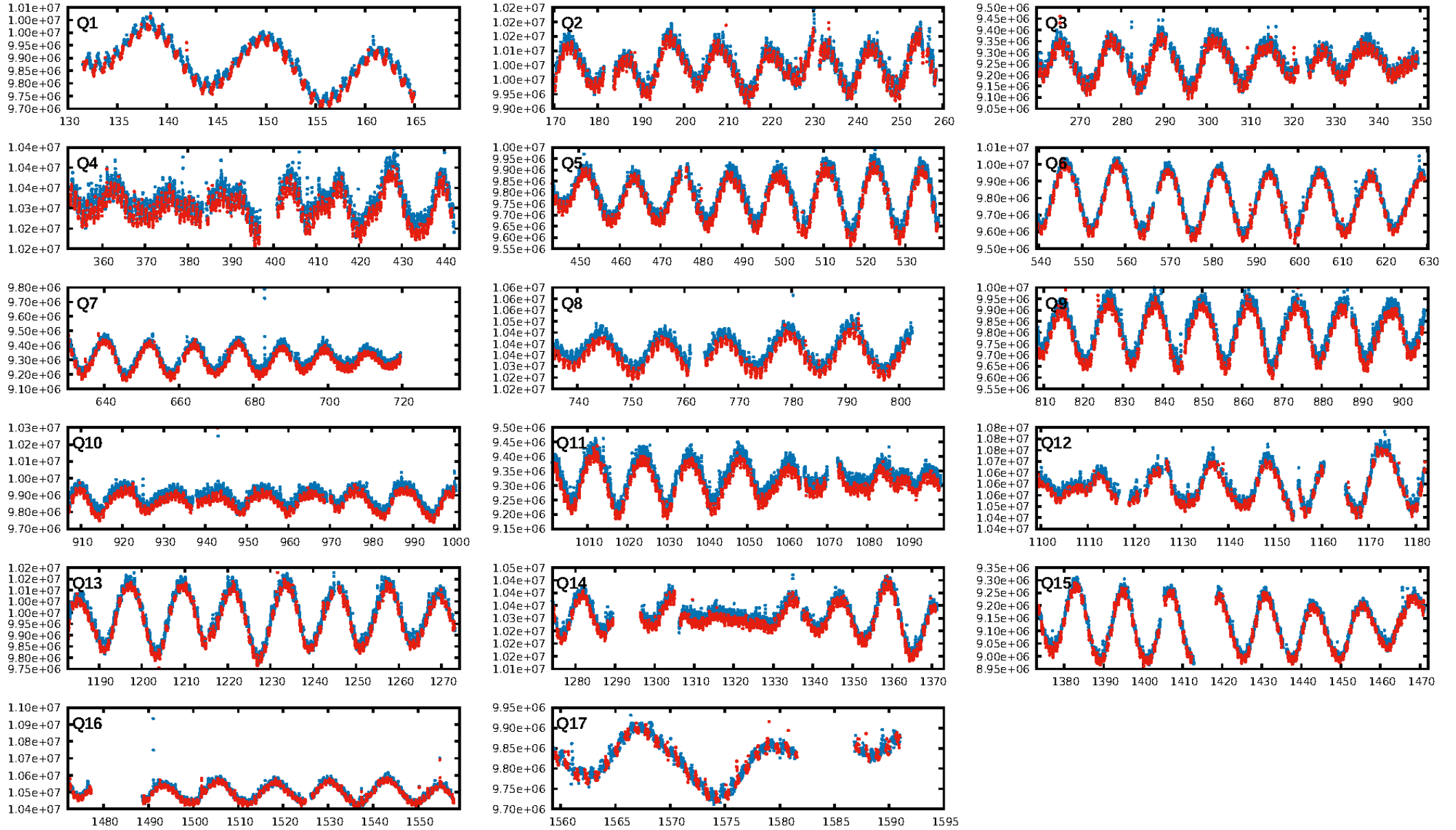
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [215.15σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.20e-18
RollingBand-fgt: 1.00 [1398/1398]
GhostDiagnostic-chr: 1.065
Centroid-sig: 0.0%
Centroid-so: 0.465 arcsec [0.74σ]
OotOffset-rm: 0.213 arcsec [0.56σ]
KicOffset-rm: 0.342 arcsec [2.18σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

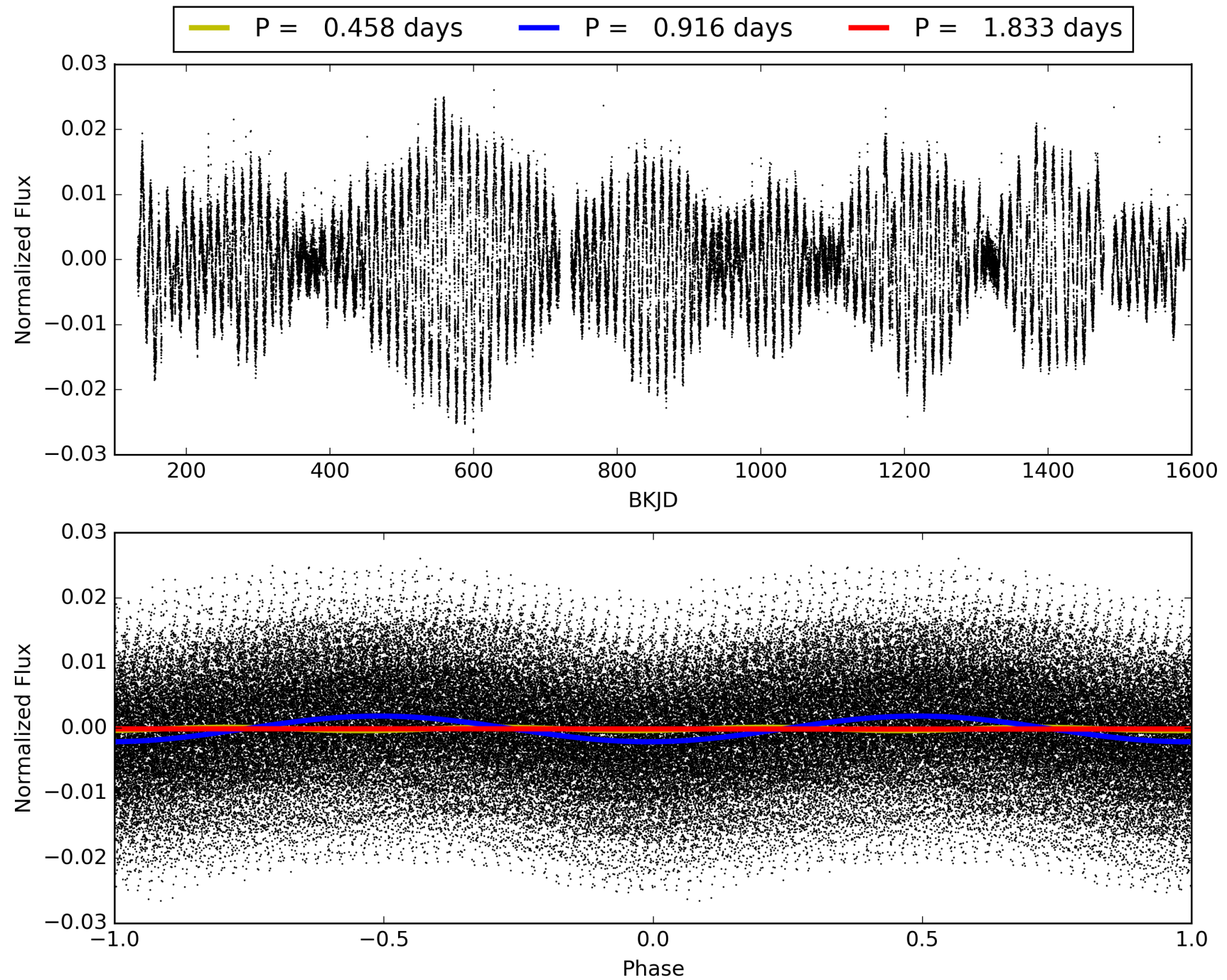
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:39:46 Z

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

TCE 010790838-01, PDC Light Curves

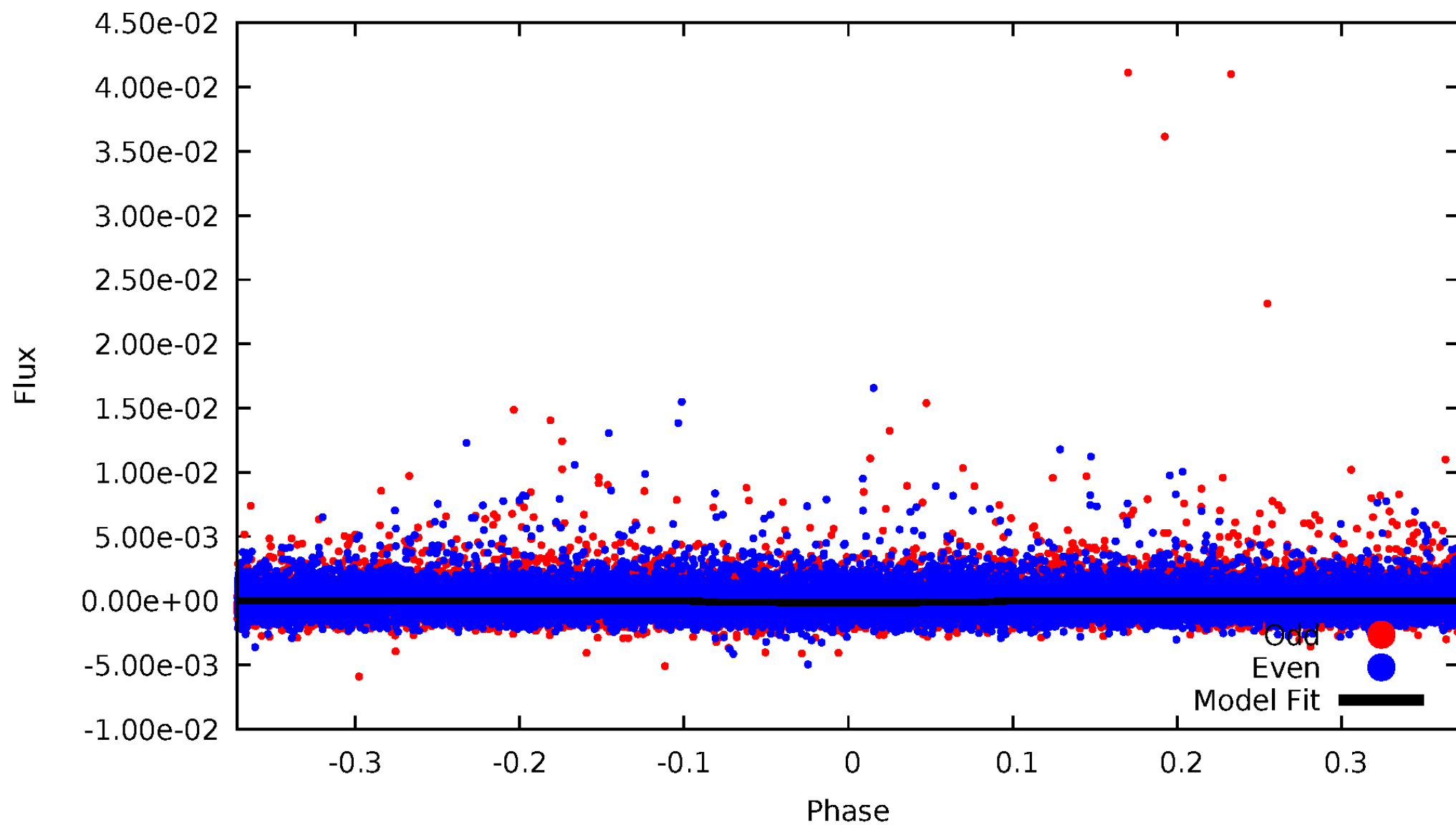


TCE 010790838-01



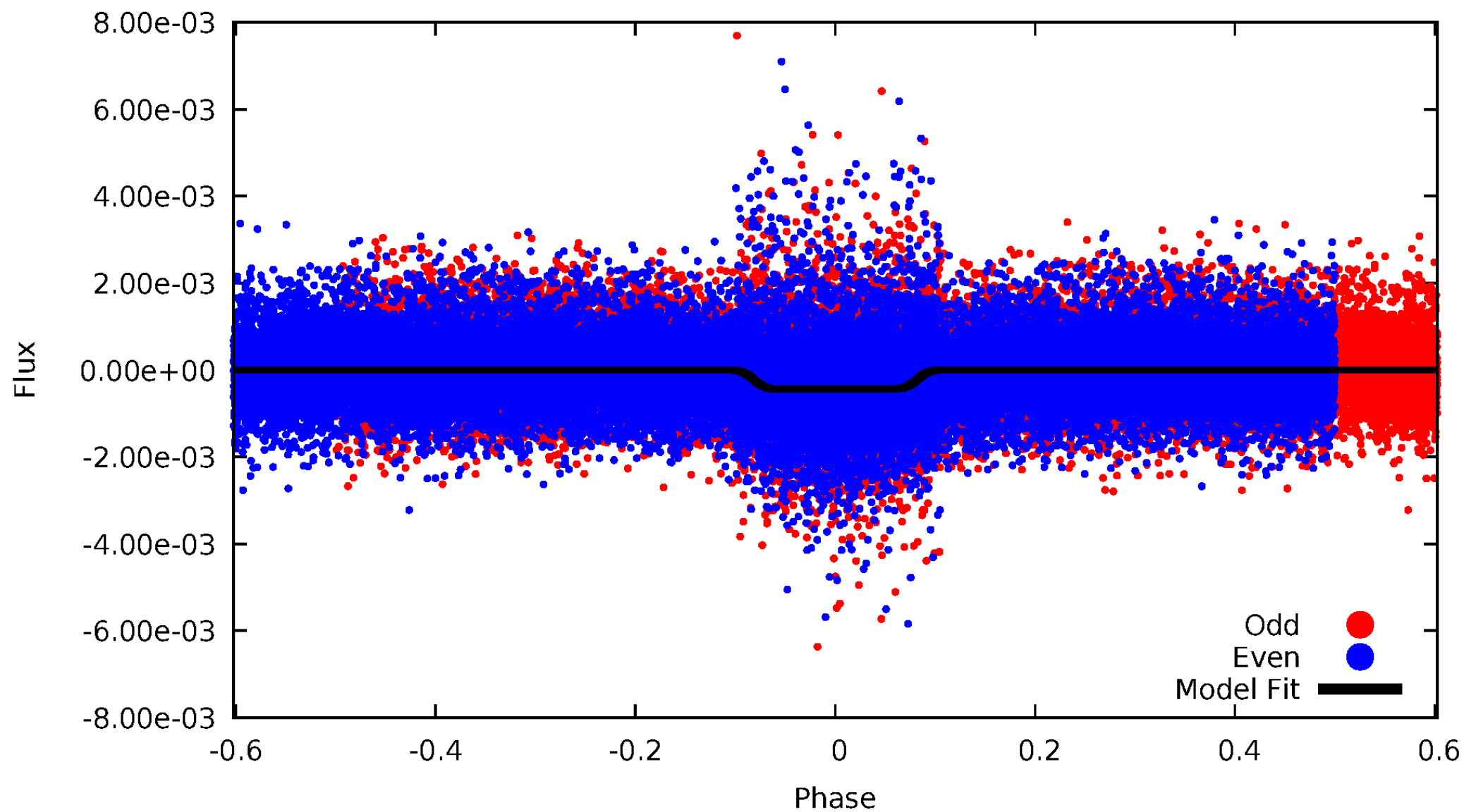
DV Odd/Even

TCE 010790838-01



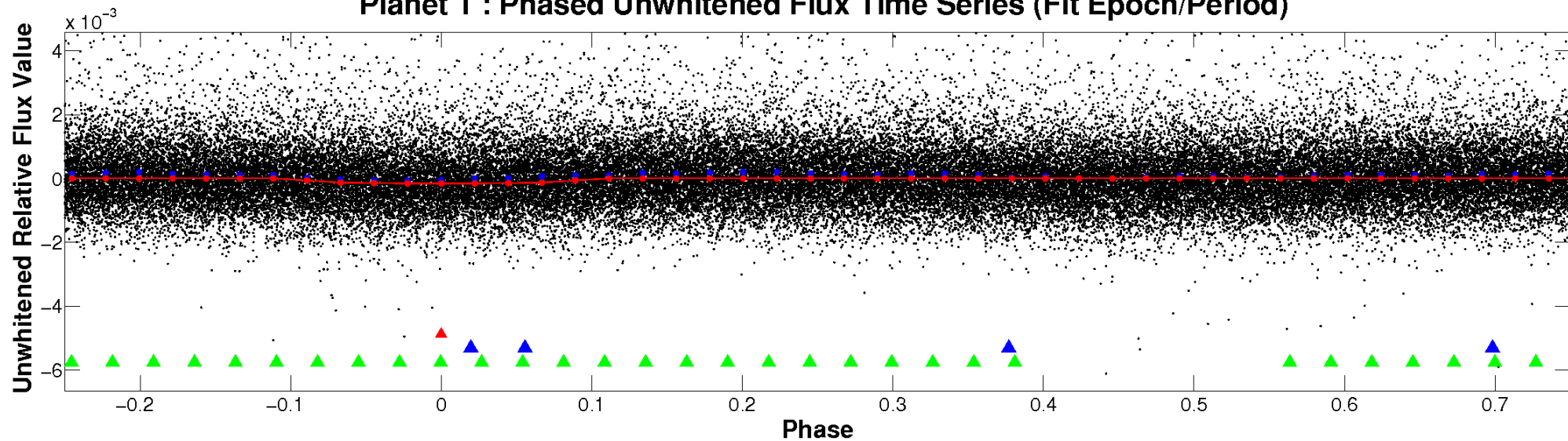
ALT Odd/Even

TCE 010790838-01

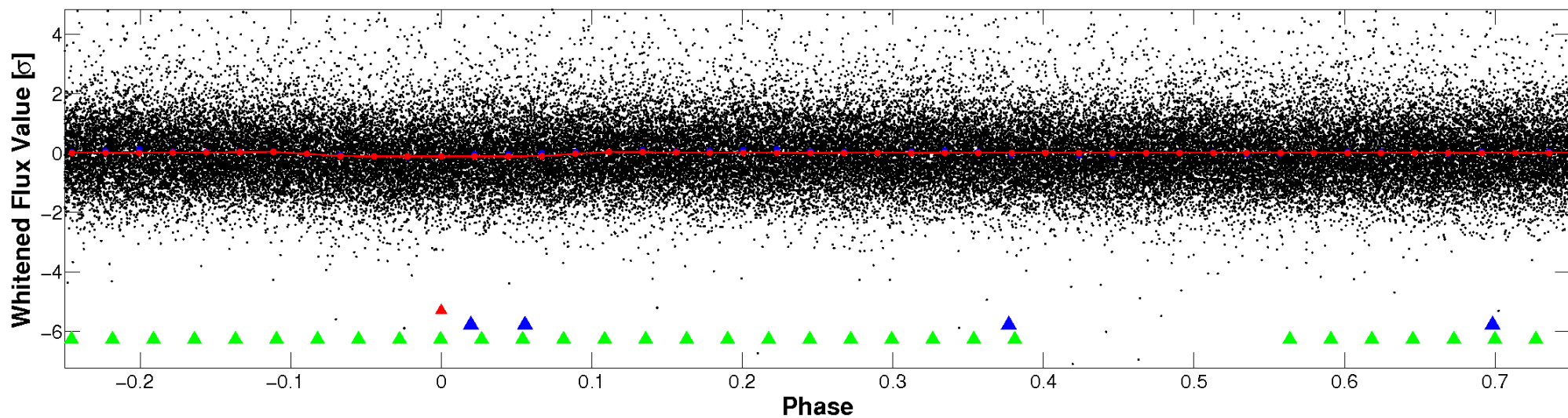


Non-Whitened Vs. Whitened Light Curve

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

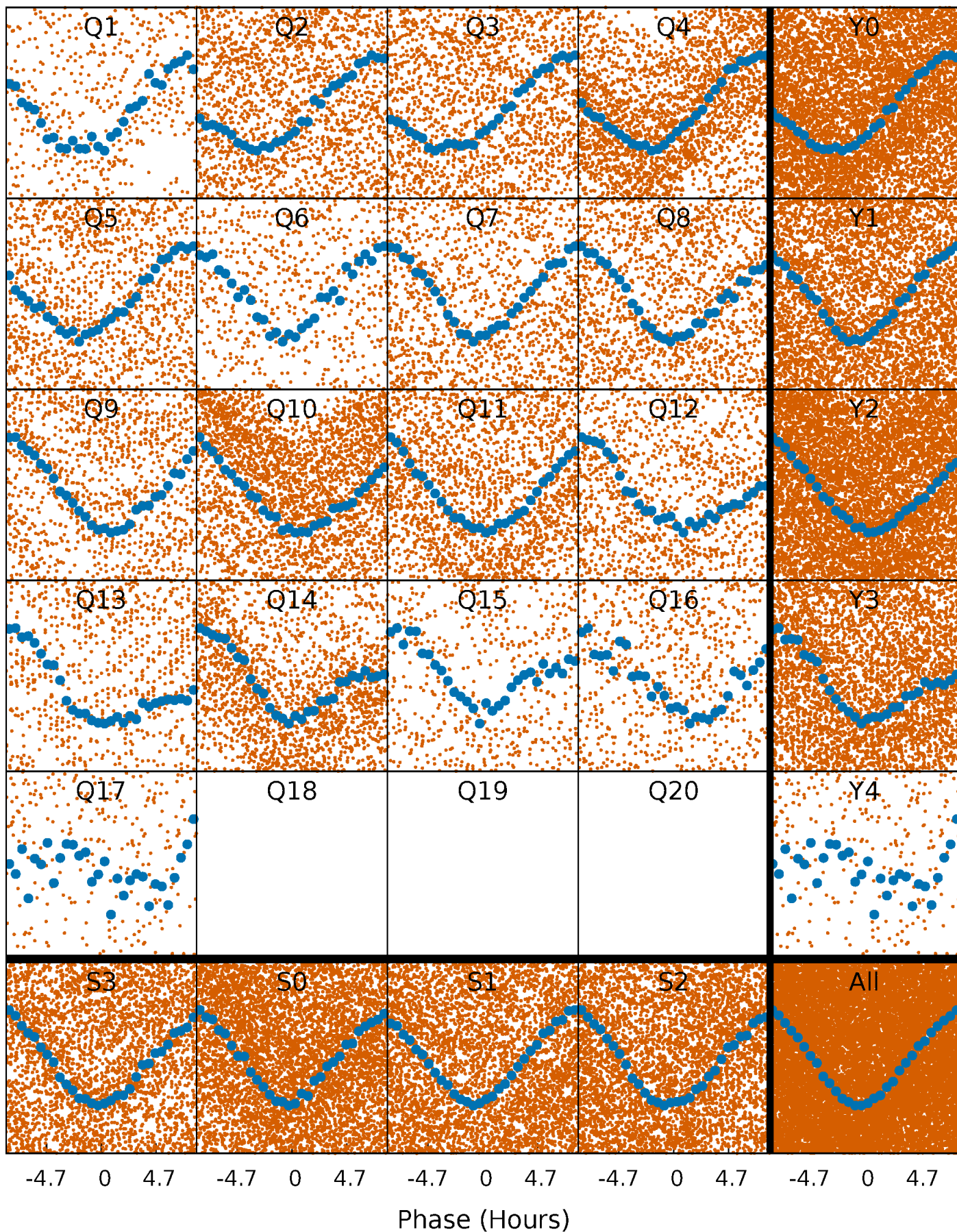


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



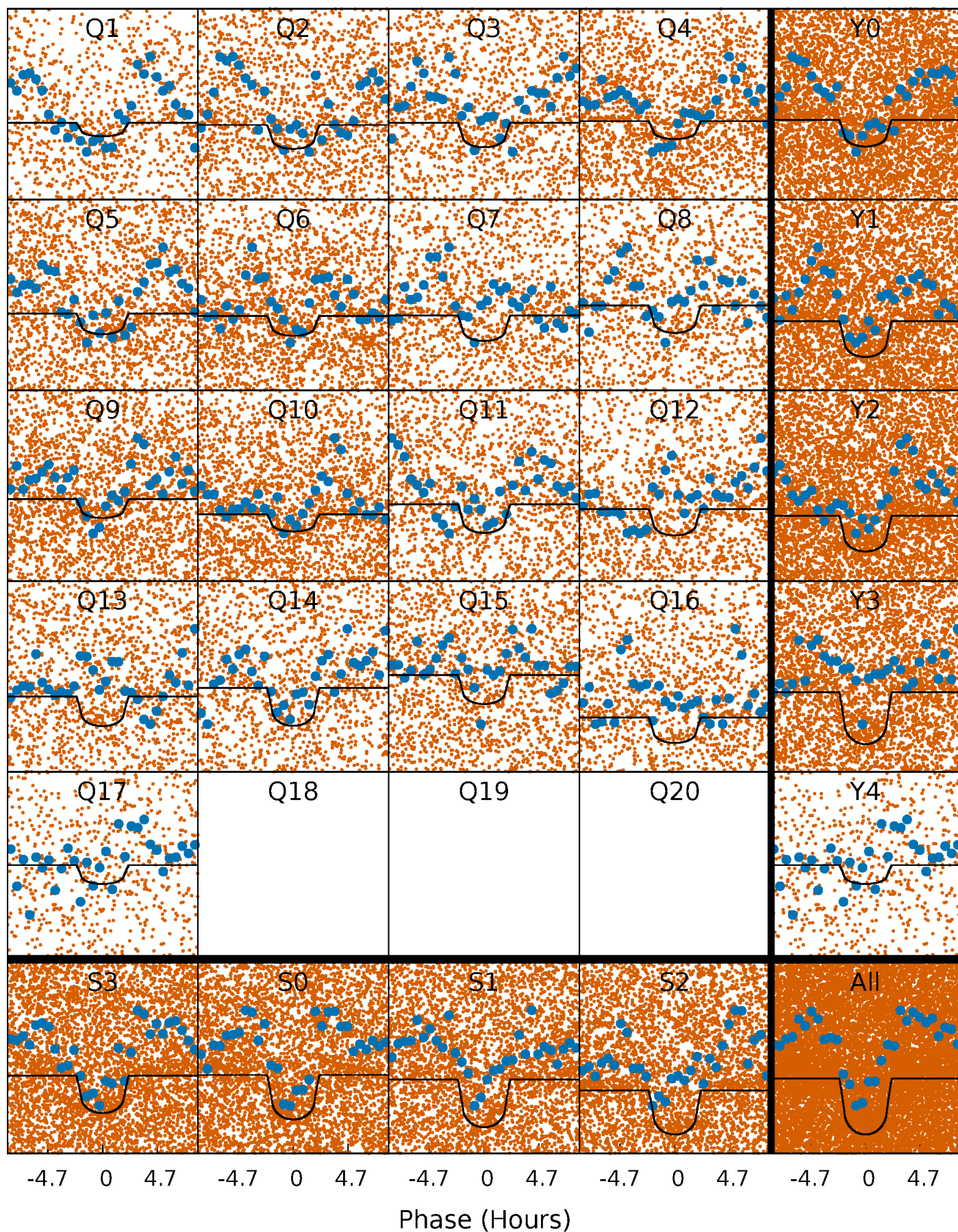
PDC Quarter-Phased Transit Curves

TCE 010790838-01 P= 0.916471 Days $T_0=131.760585$ (BKJD)



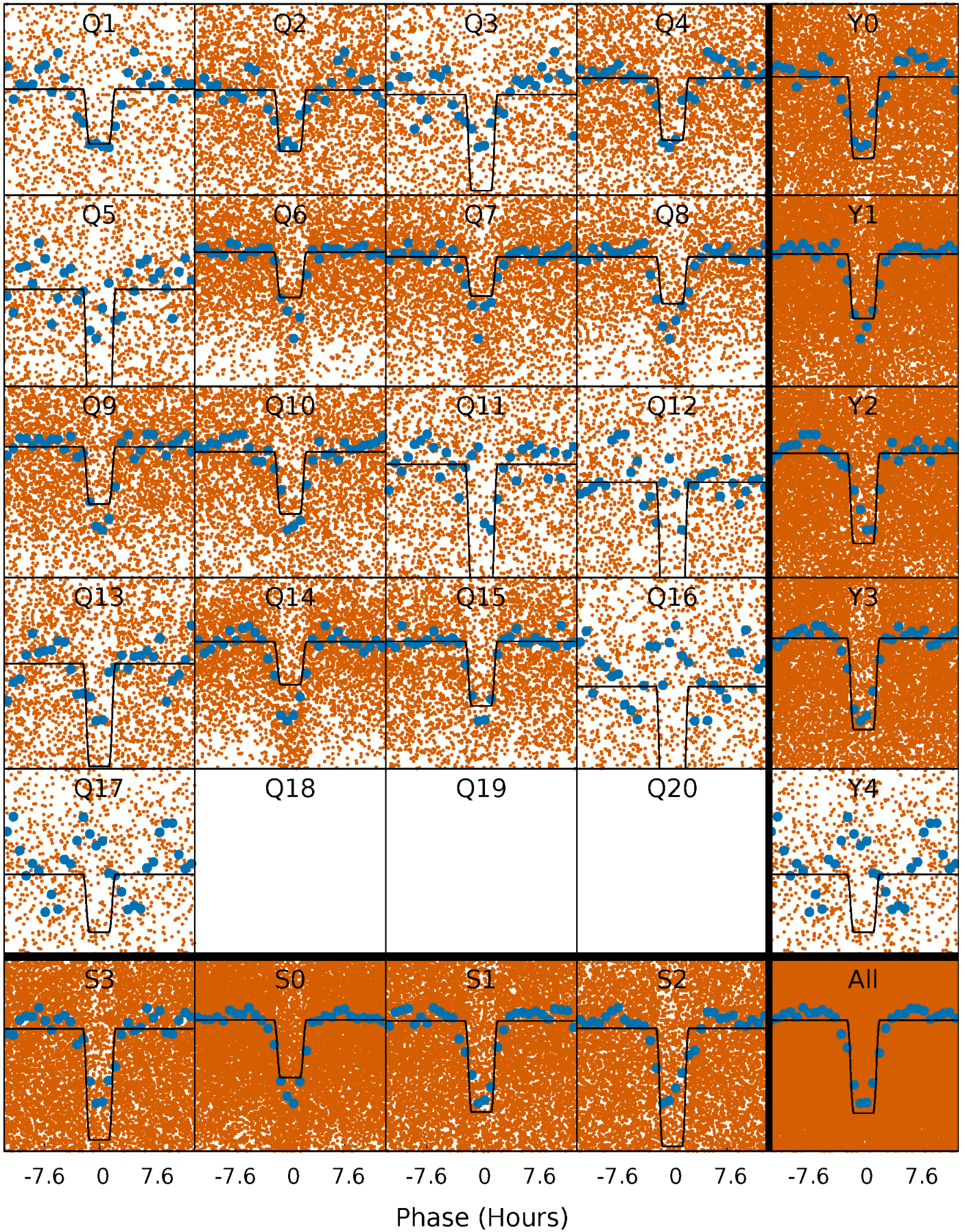
DV Quarter-Phased Transit Curves

TCE 010790838-01 P= 0.916471 Days $T_0=131.760585$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

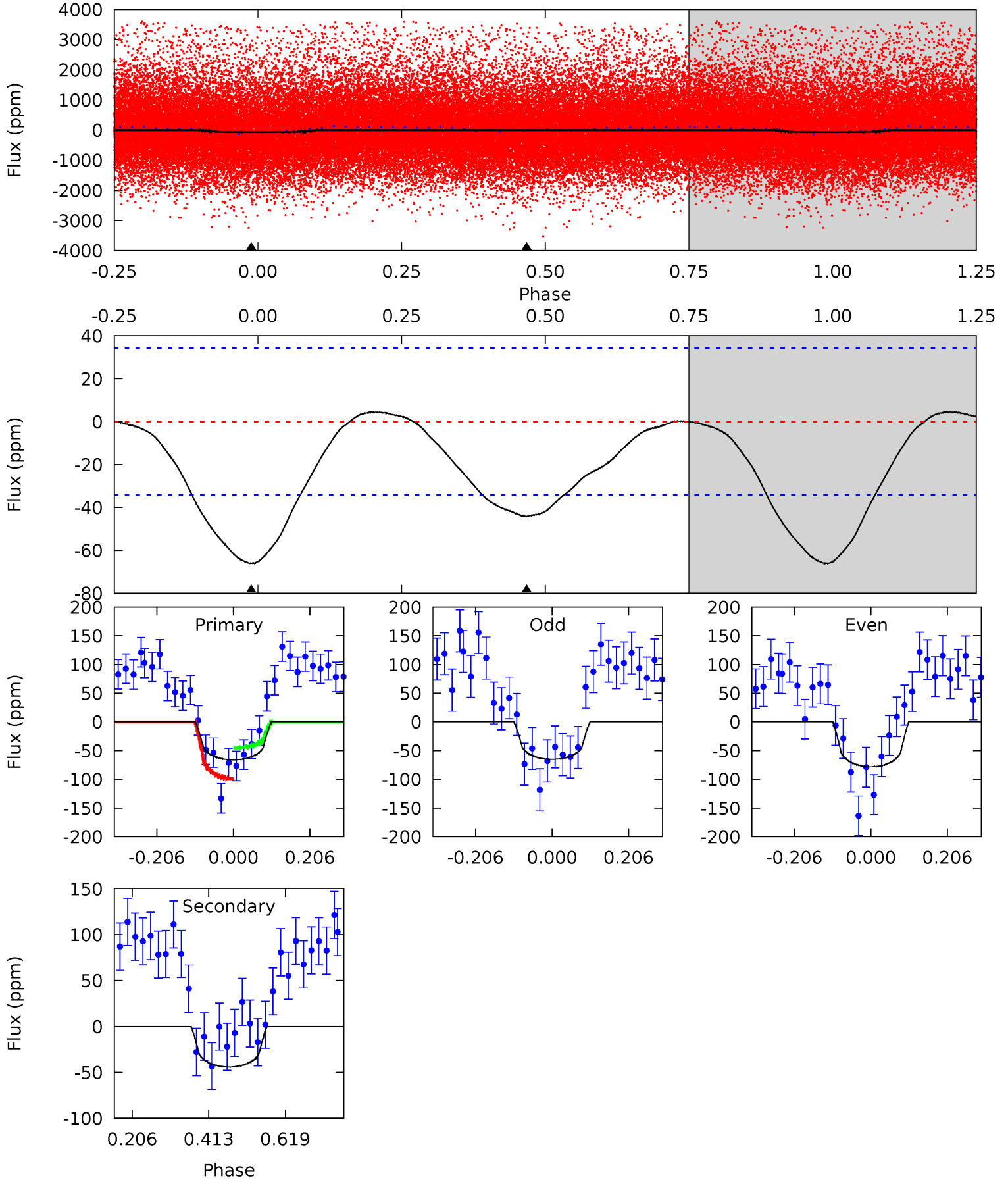
TCE 010790838-01 P= 0.916481 Days $T_0=131.734609$ (BKJD)



DV Model-Shift Uniqueness Test

010790838-01, P = 0.916471 Days, E = 130.844114 Days

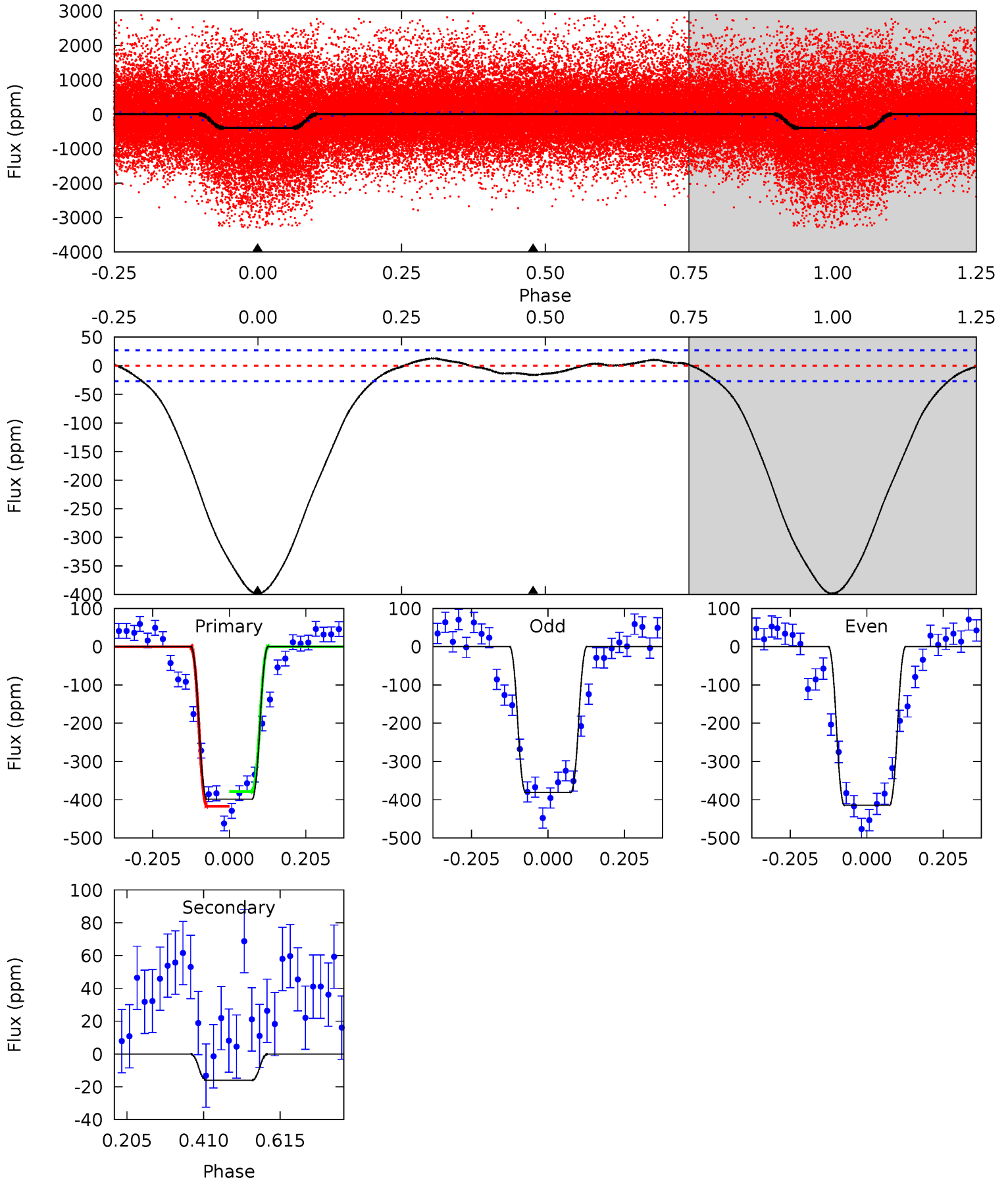
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.52	5.68	0	0	4.41	1.26	0.33	8.52	8.52	5.68	5.68	0.85	0.16	0.06	3.45



Alt Model-Shift Uniqueness Test

010790838-01, P = 0.916481 Days, E = 130.818128 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
65.0	2.62	0	0	4.41	1.27	1.56	65.0	65.0	2.62	2.62	2.71	1.02	0.03	3.10



Stellar Parameters For KIC 010790838

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3563^{+48}_{-48}	$4.853^{+0.039}_{-0.032}$	$-0.100^{+0.100}_{-0.100}$	$0.398^{+0.029}_{-0.036}$	$0.414^{+0.034}_{-0.038}$	$9.224^{+1.781}_{-1.240}$
	+1%/-1%	+1%/-1%	+100%/-100%	+7%/-9%	+8%/-9%	+19%/-13%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 010790838-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-44 ± 8	$0.78^{+0.67}_{-0.52}$	1180^{+26}_{-24}	2686^{+946}_{-426}	$7.836^{+54.153}_{-5.692}$
Alt.	-16 ± 6	$1.01^{+0.79}_{-0.60}$	1179^{+25}_{-23}	2170^{+613}_{-428}	$1.596^{+8.965}_{-1.154}$

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

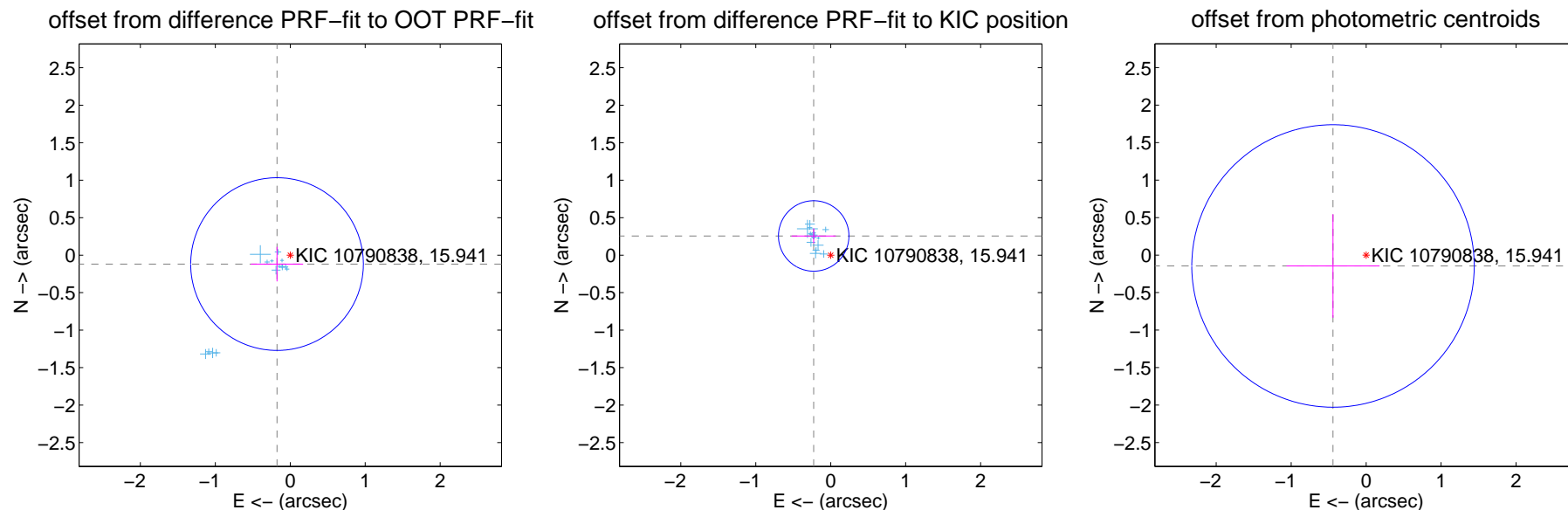
DV Centroid Data

Supplemental centroid analysis for 010790838-01. Kepler magnitude: 15.94. Transit SNR 11.35

There are 16 quarters with good PRF difference image offsets

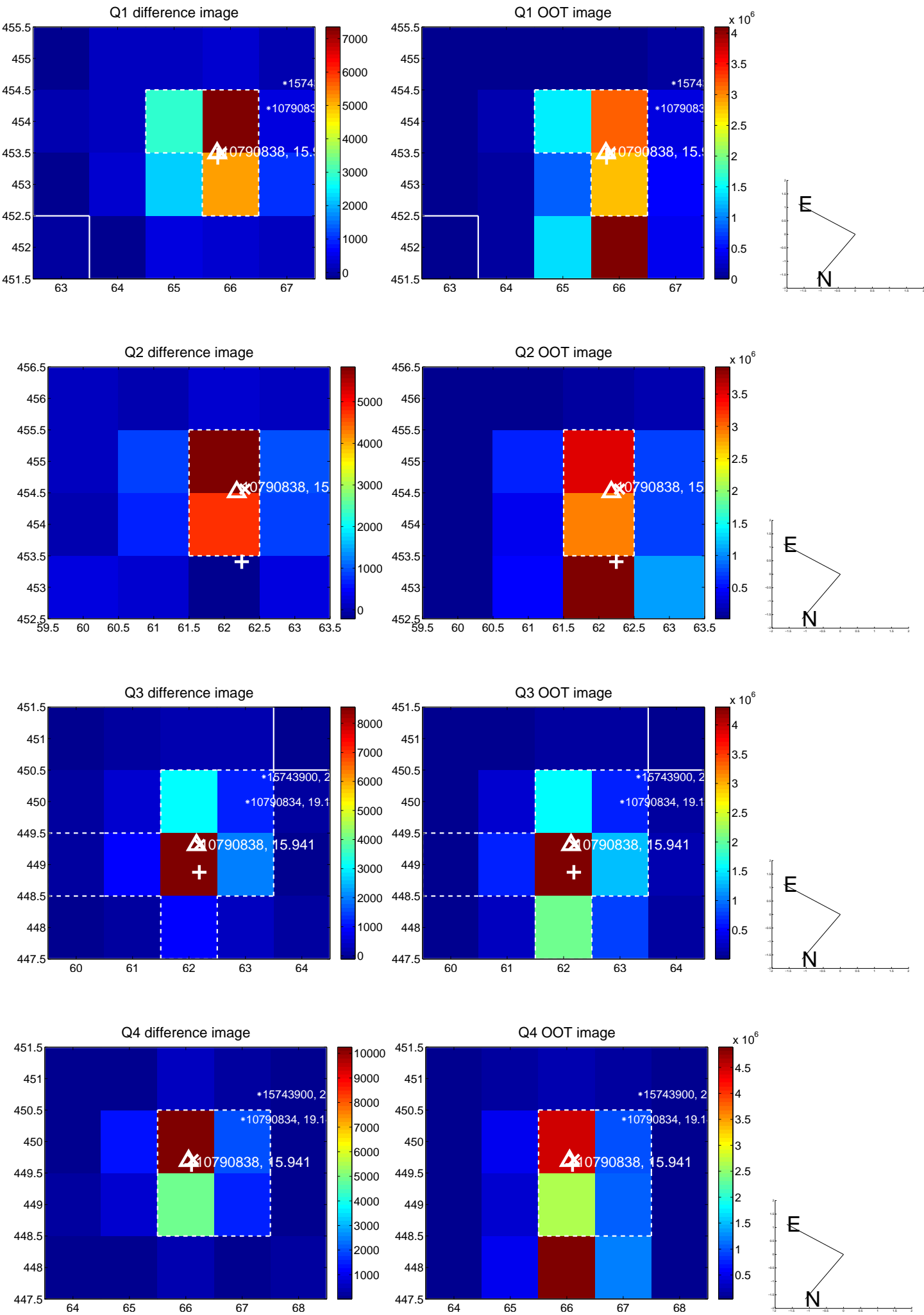
The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.213 ± 0.384	0.56	0.177 ± 0.348	-0.119 ± 0.231
PRF-fit source offset from KIC position	0.342 ± 0.157	2.18	0.227 ± 0.295	0.256 ± 0.099
photometric centroid source offset	0.46 ± 0.63	0.74	0.44 ± 0.62	-0.15 ± 0.69

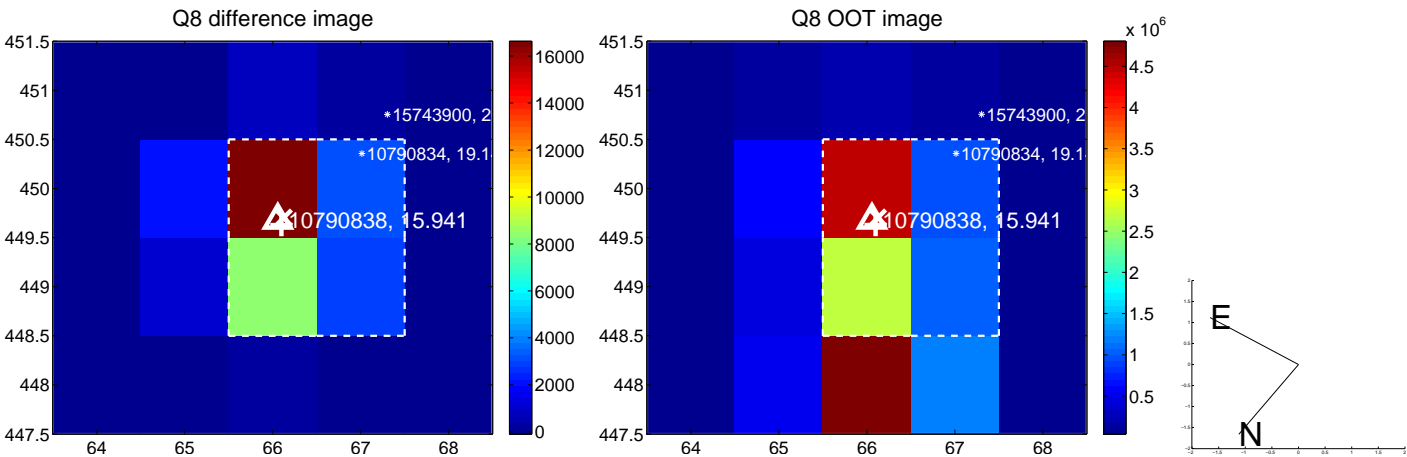
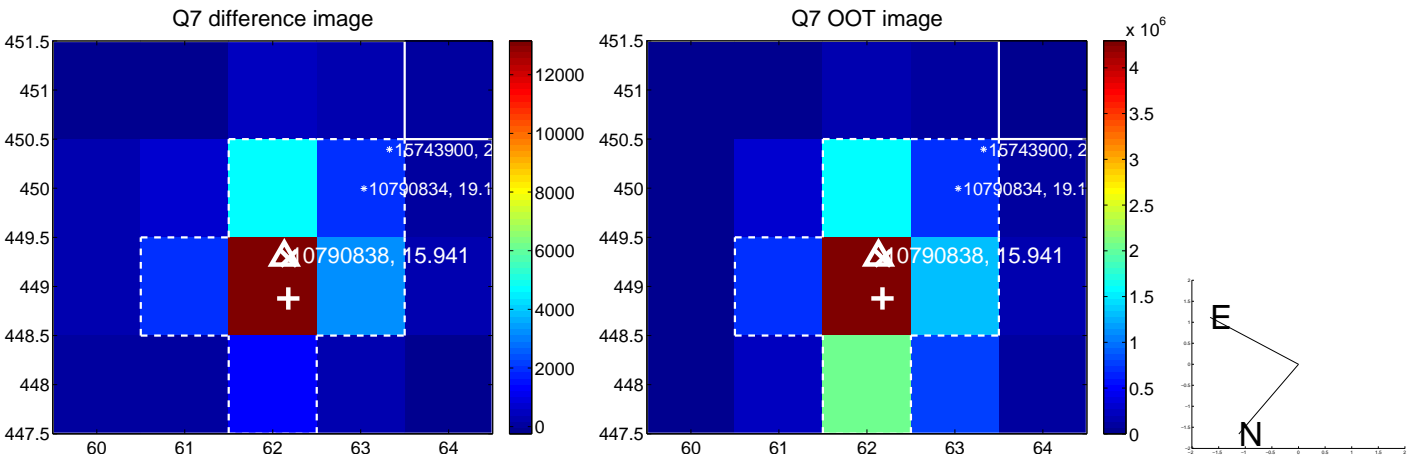
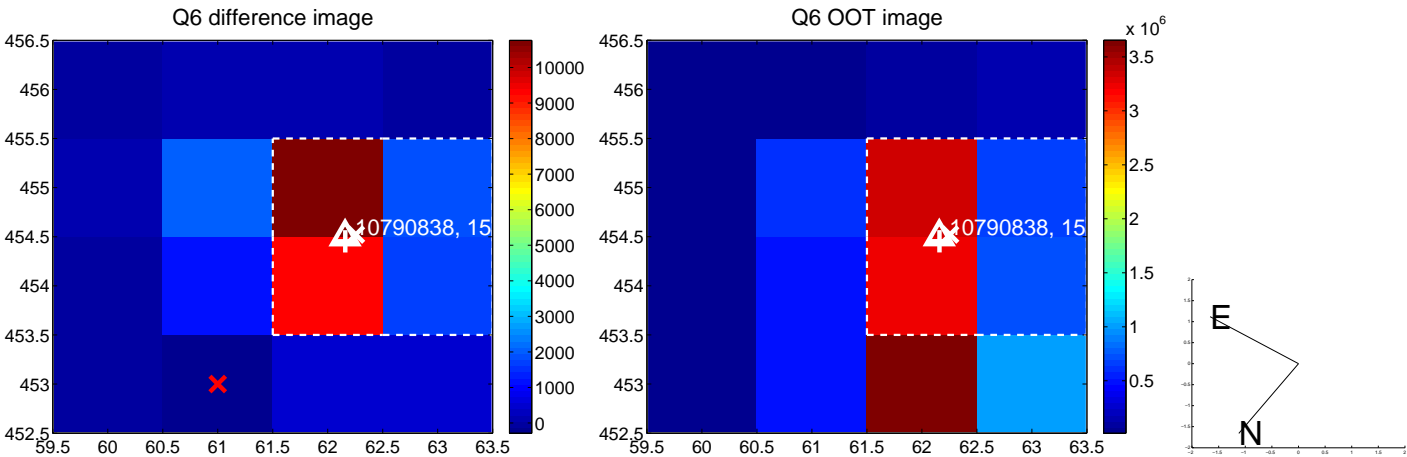
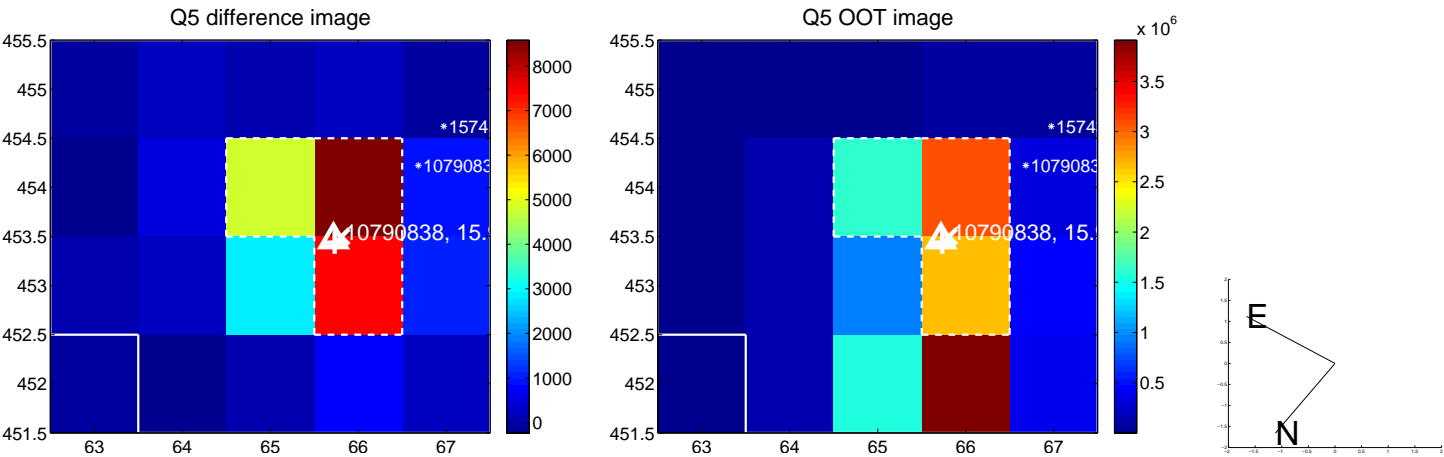


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

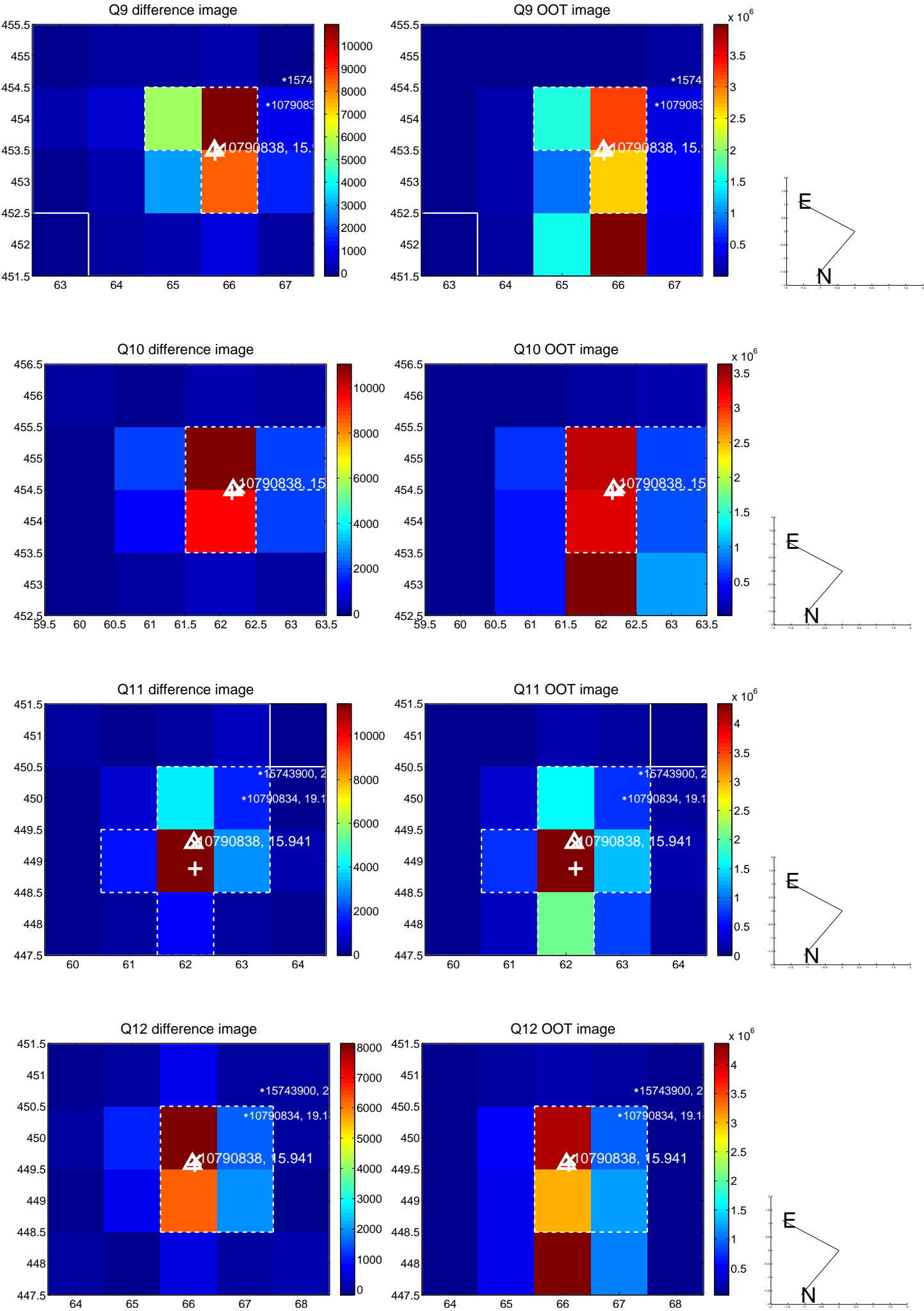
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



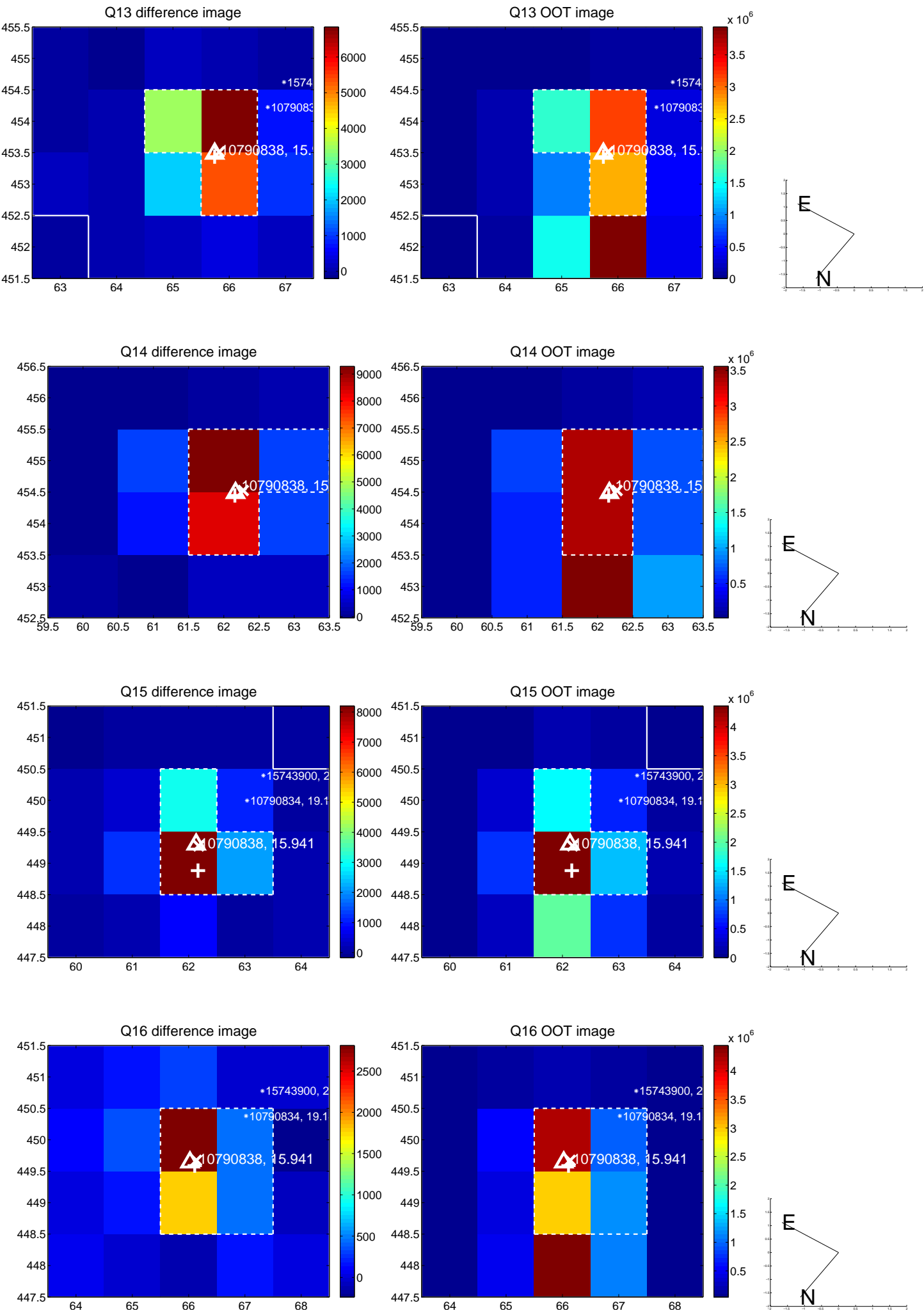
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



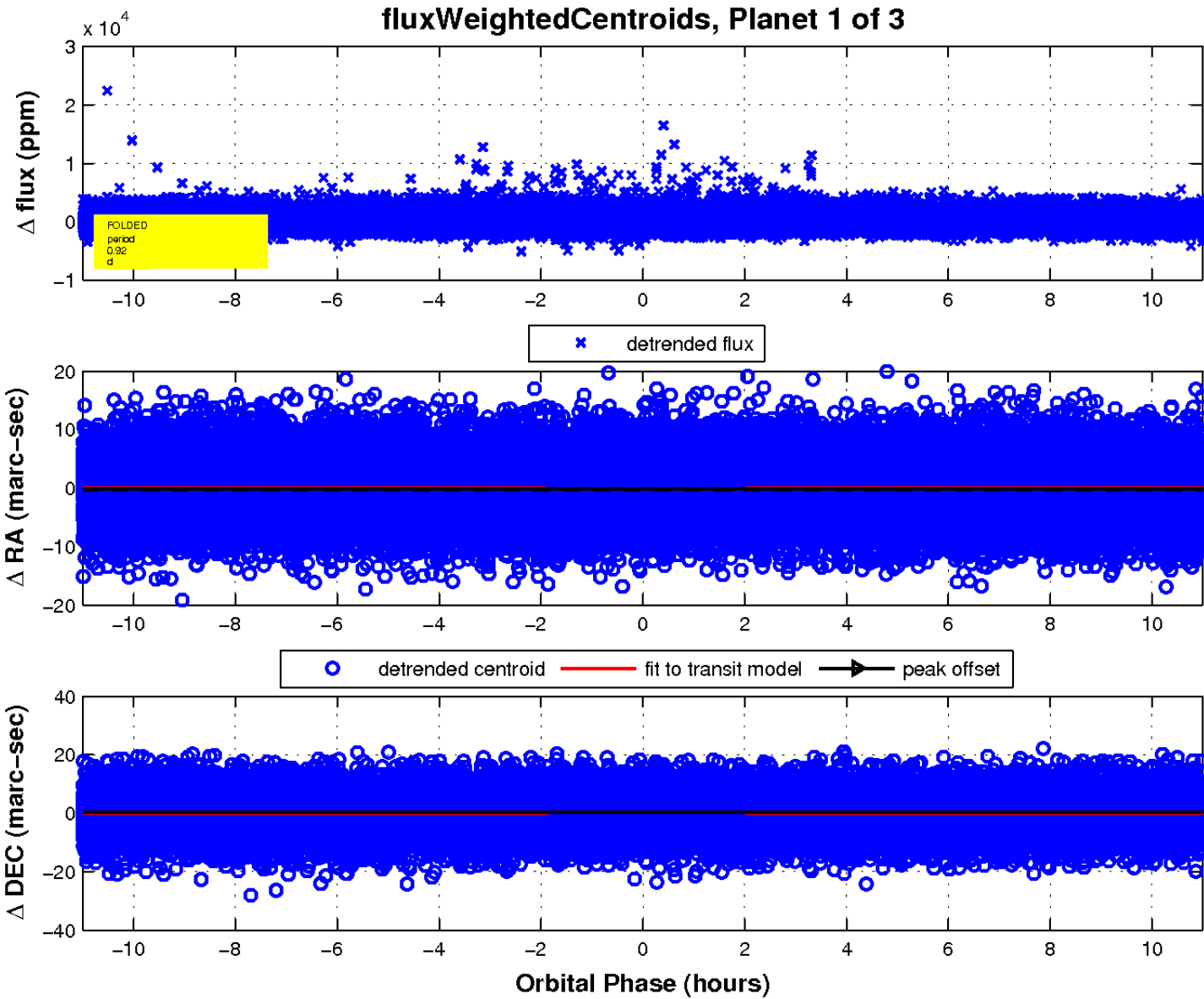
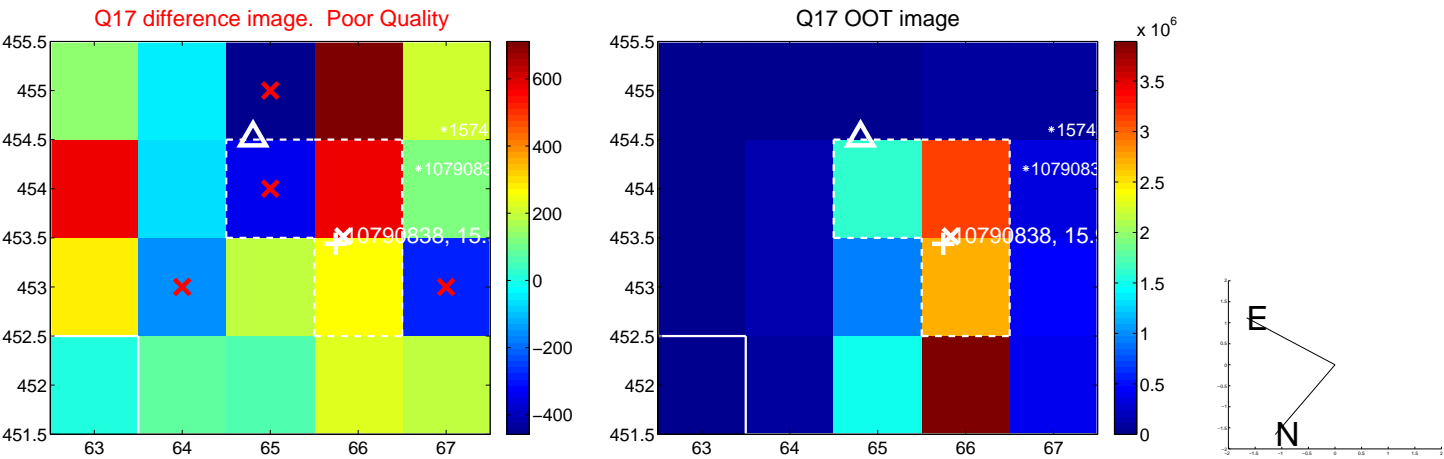
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

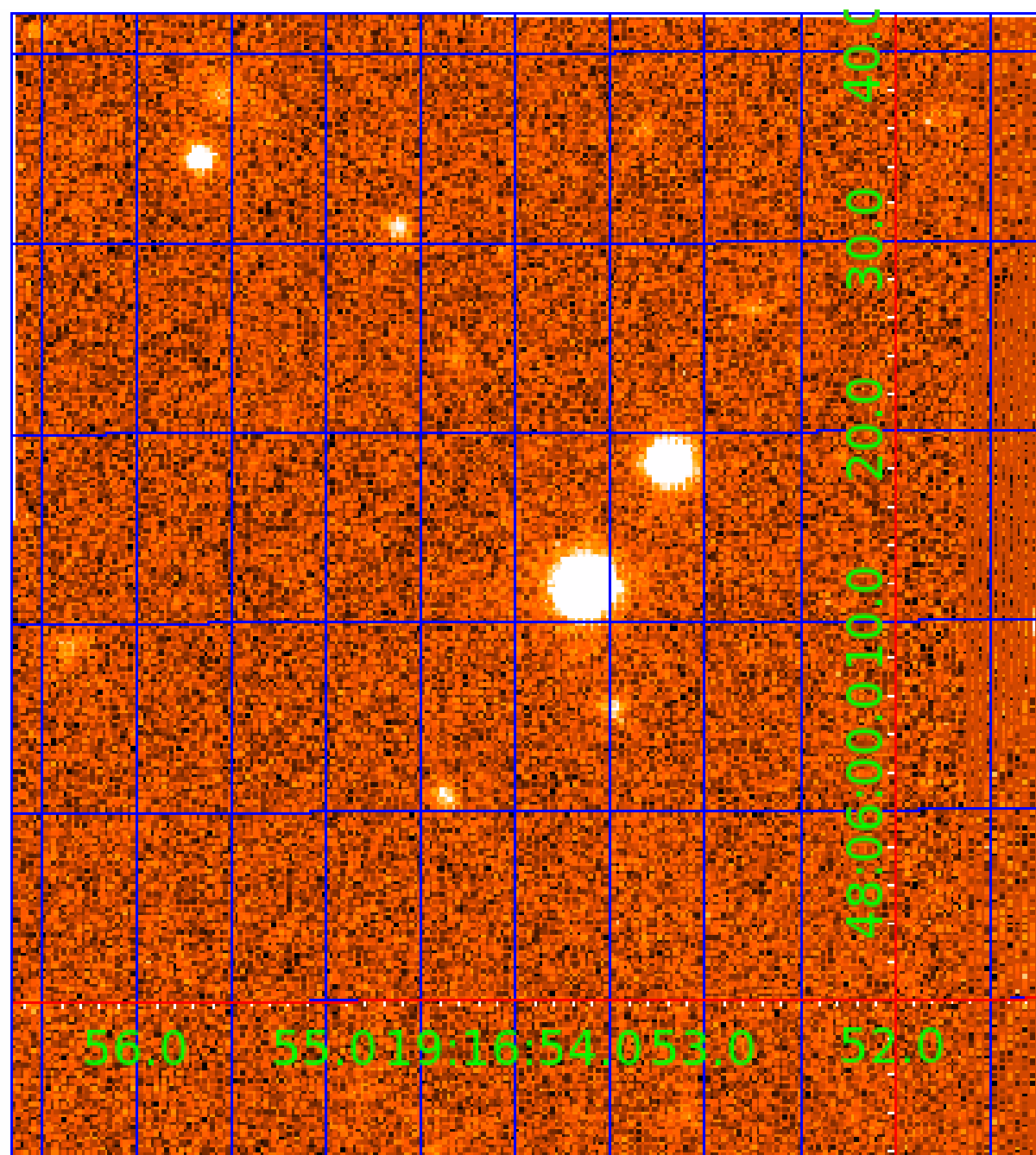


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010790838

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})
010790838-01	OBS	No	0.916471	131.760585	156.9	4.088	9.0	11.4	0.40	3563	0.50	121.13
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010790838-03	OBS	No	46.764984	145.107790	1059.0	3.073	7.4	7.5	0.40	3563	1.43	0.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010790838-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010790838-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
010790838-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT

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

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

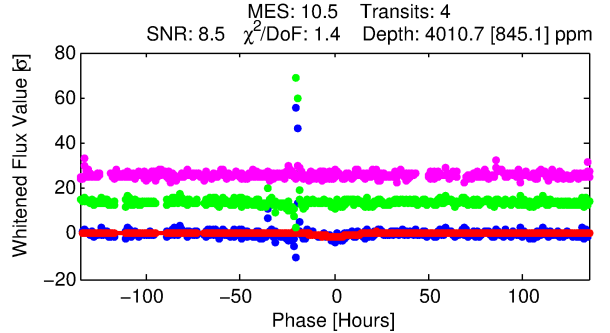
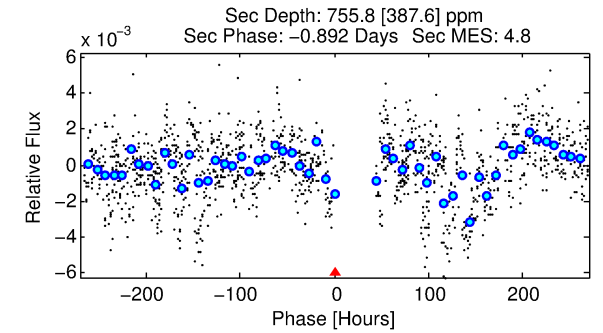
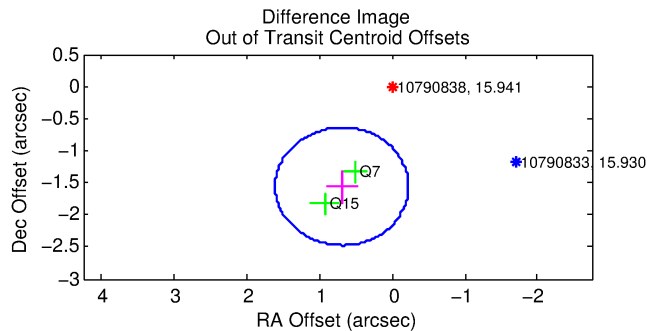
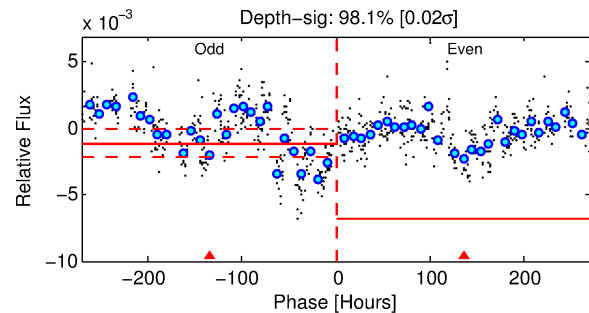
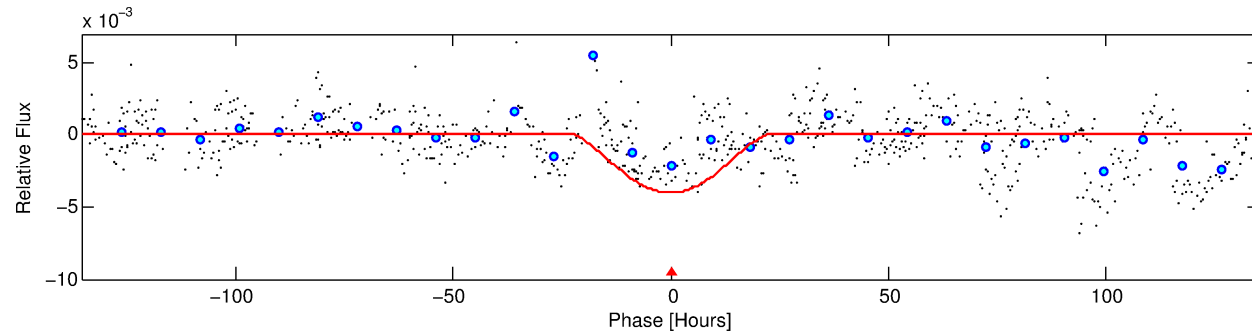
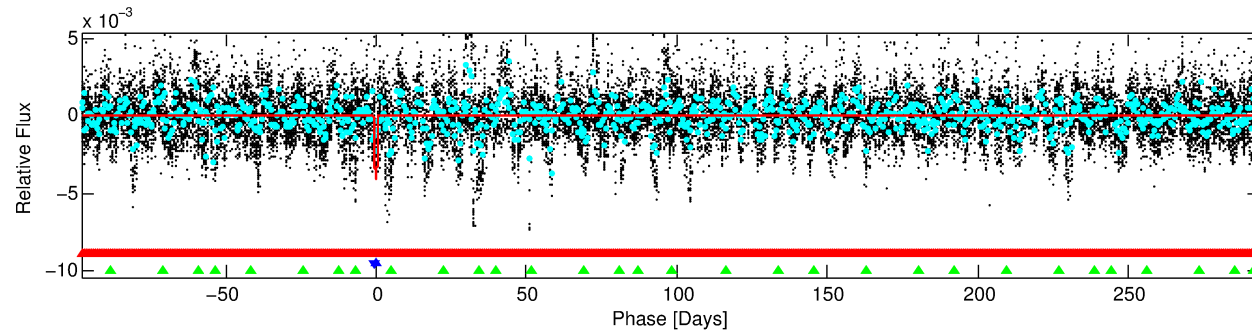
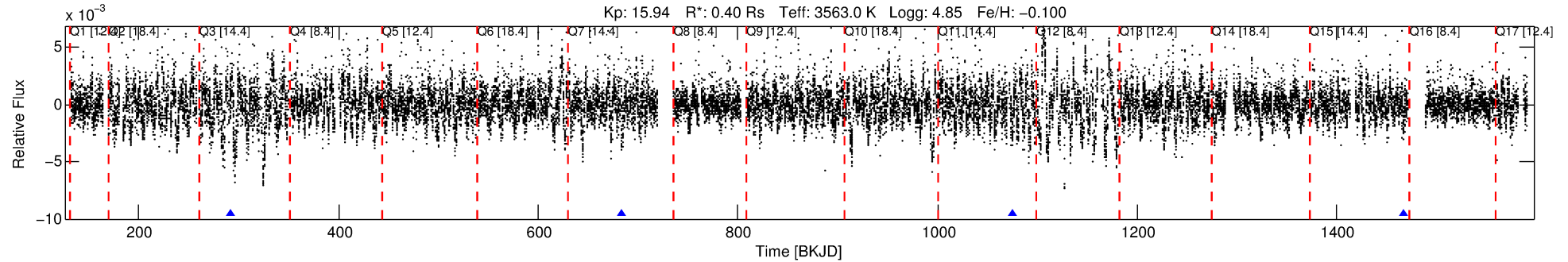
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010790838-02

No Significant Match Found

DV One-Page Summary

KIC: 10790838 Candidate: 2 of 3 Period: 391.628 d



DV Fit Results:

Period = 391.62758 [0.04123] d
Epoch = 292.1940 [0.0939] BKJD
Rp/R* = 0.1090 [0.3314]
a/R* = 31.87 [18.08]
b = 1.00 [0.46]
Seff = 0.04 [0.00]
Teq = 112 [3] K
Rp = 4.74 [14.40] Re
a = 0.7796 [0.0525] AU
Ag = 11269.15 [68744.82] [0.16 σ]
Teffp = 1789 [2728] K [0.61 σ]

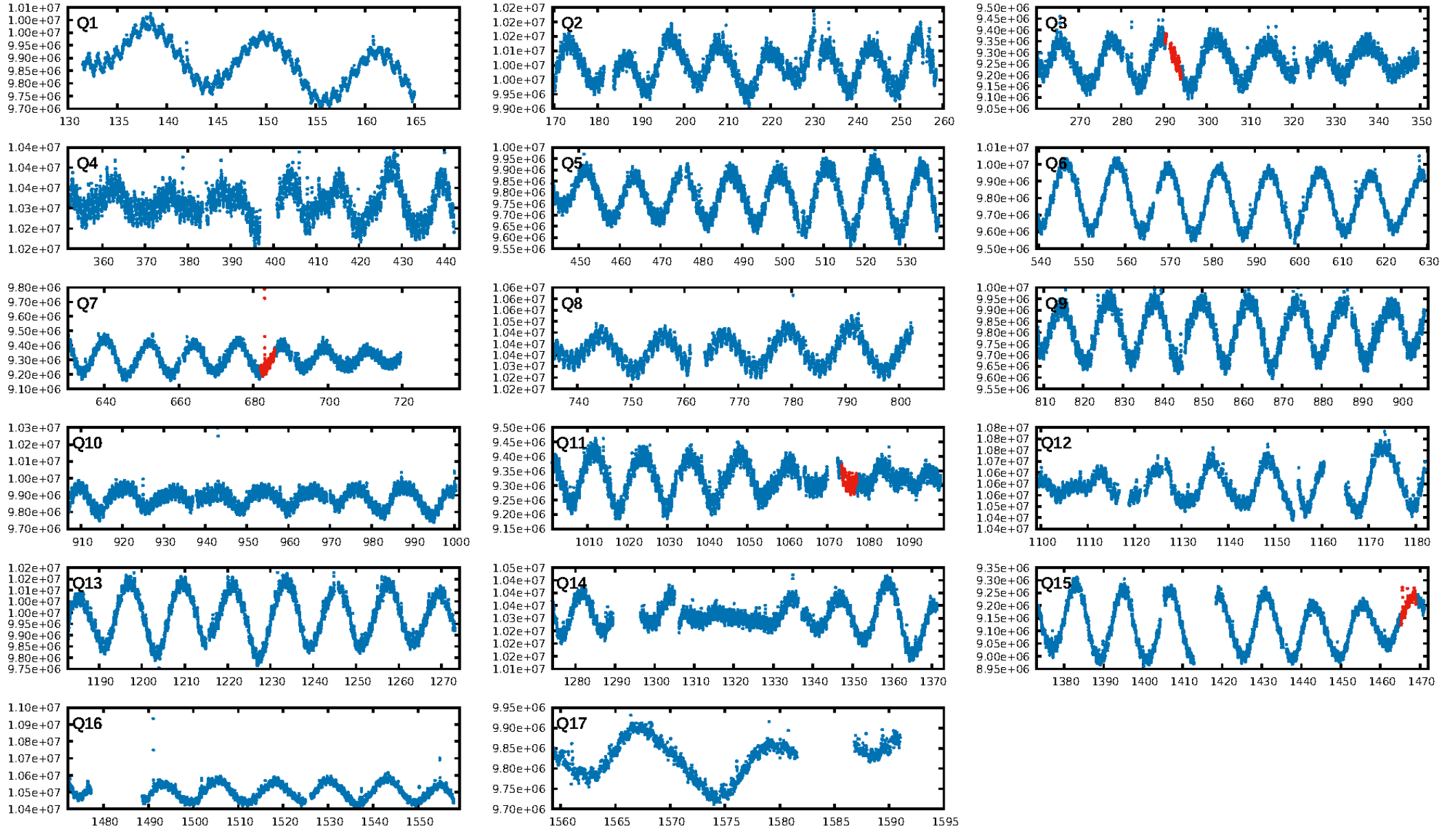
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [182.93 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.47e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.7031
Centroid-sig: 7.2%
Centroid-so: 1.451 arcsec [2.74 σ]
OotOffset-rm: 1.705 arcsec [5.58 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-rm: 0.227 arcsec [0.95 σ]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 0.00 [0/2]

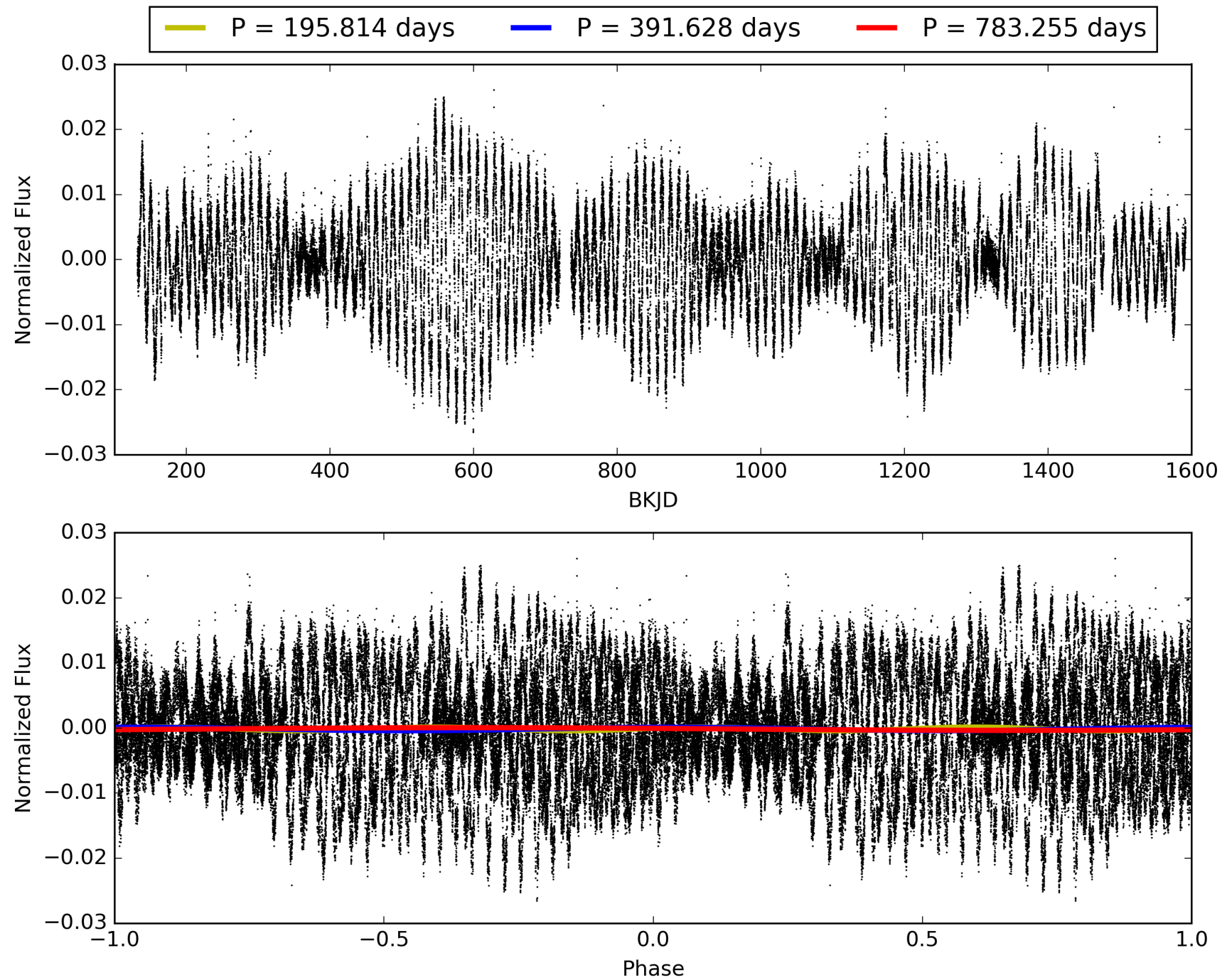
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:39:57 Z

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

TCE 010790838-02, PDC Light Curves

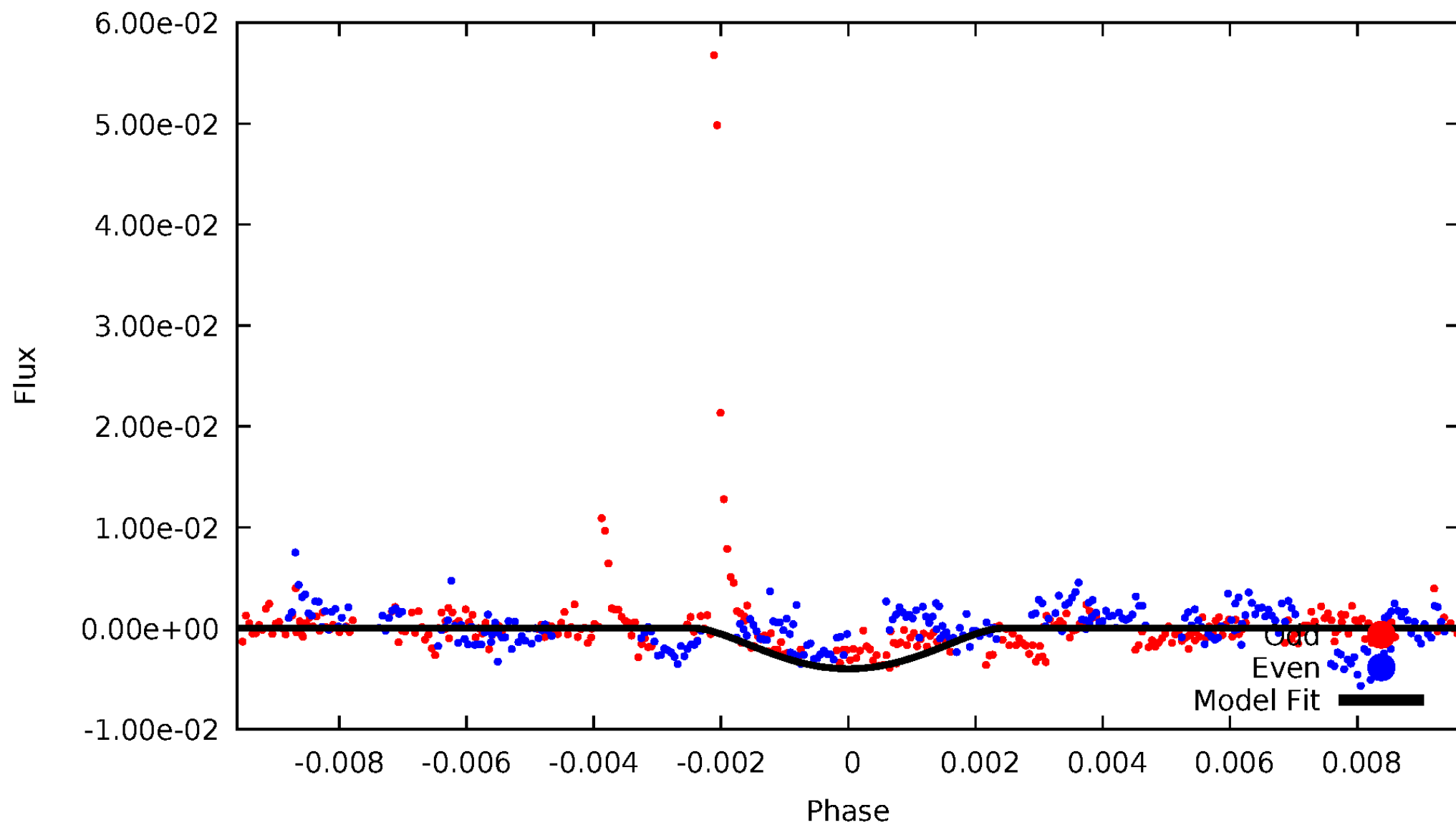


TCE 010790838-02



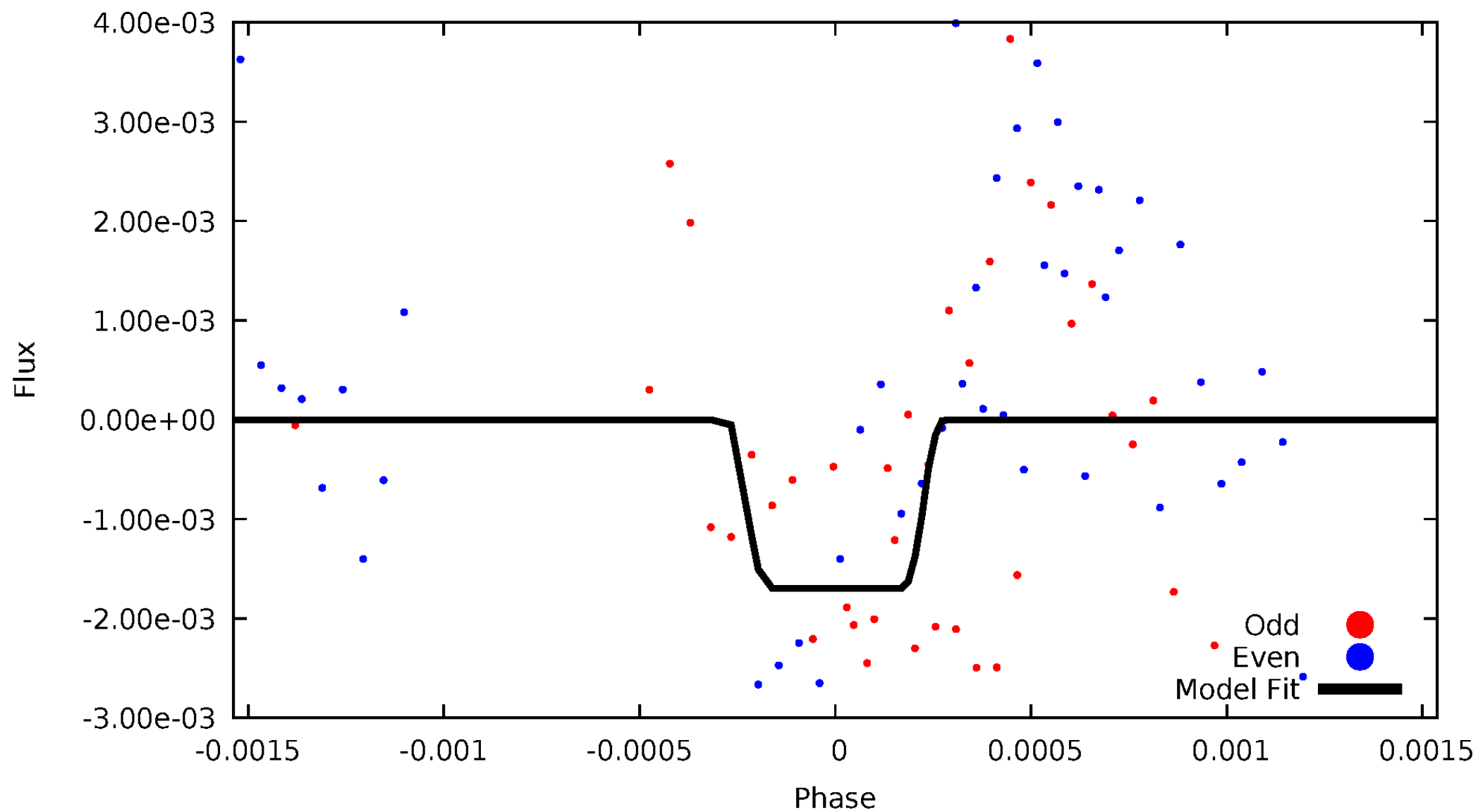
DV Odd/Even

TCE 010790838-02



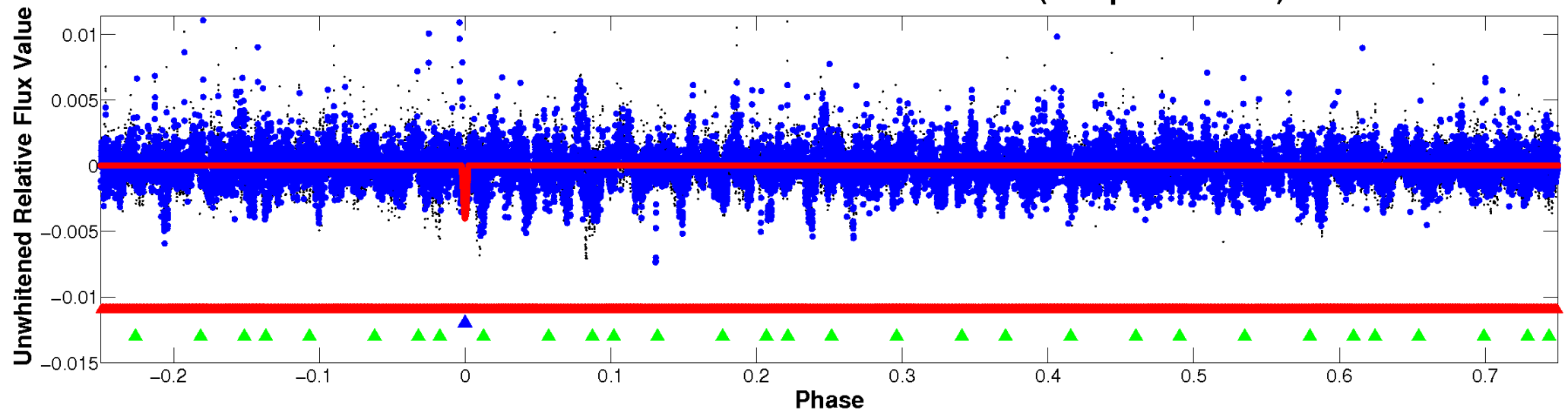
ALT Odd/Even

TCE 010790838-02

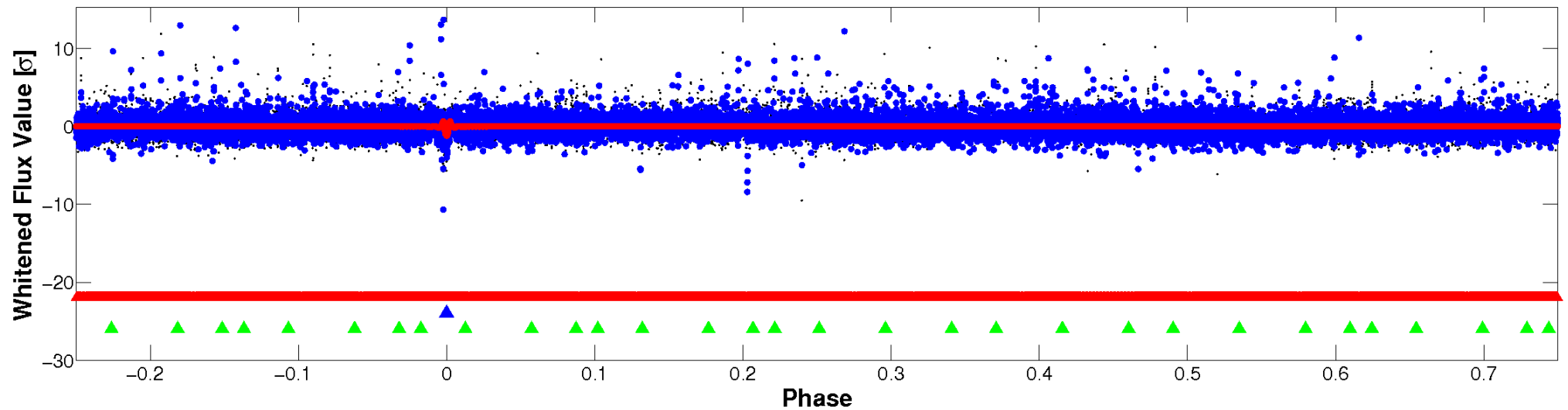


Non-Whitened Vs. Whitened Light Curve

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

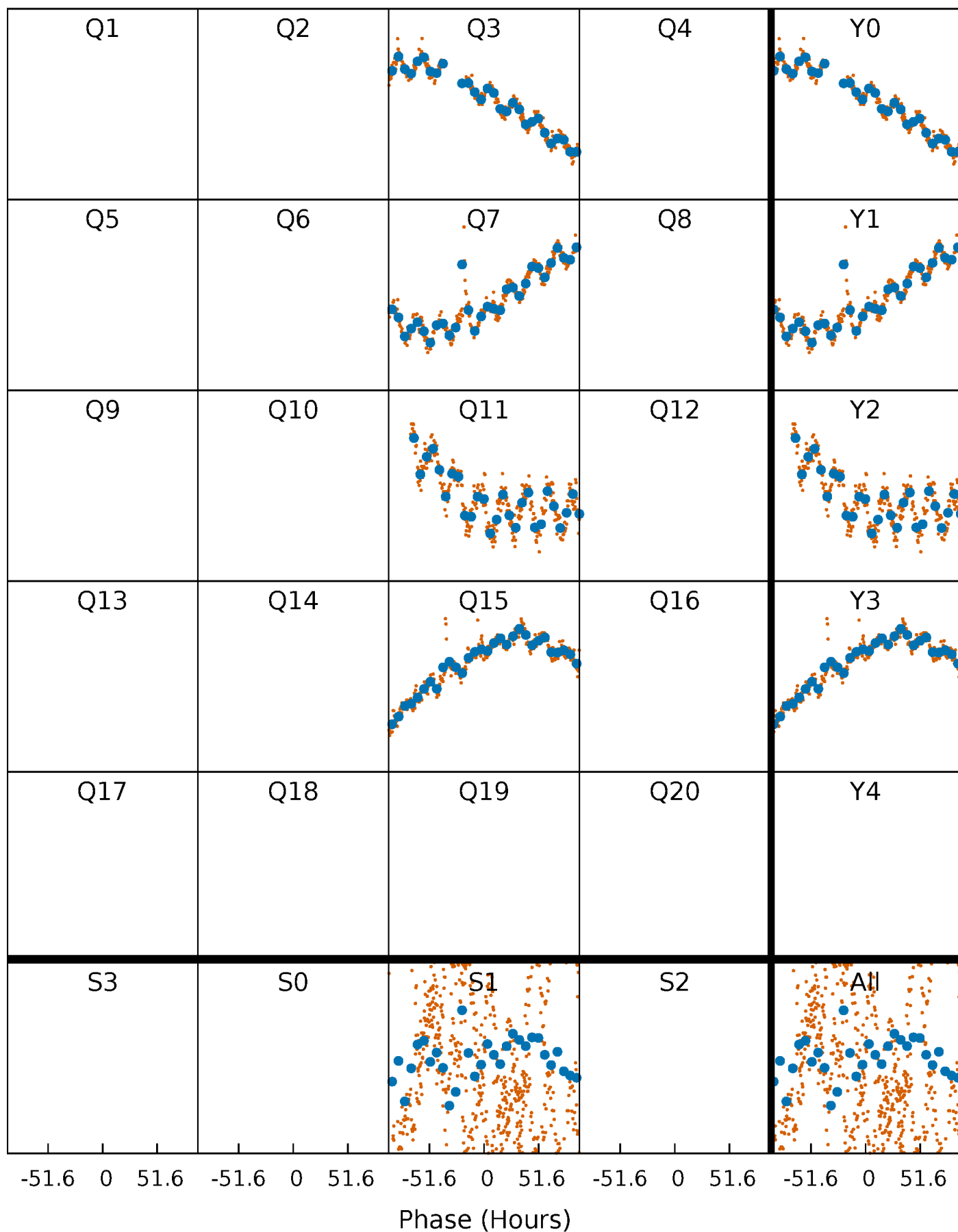


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



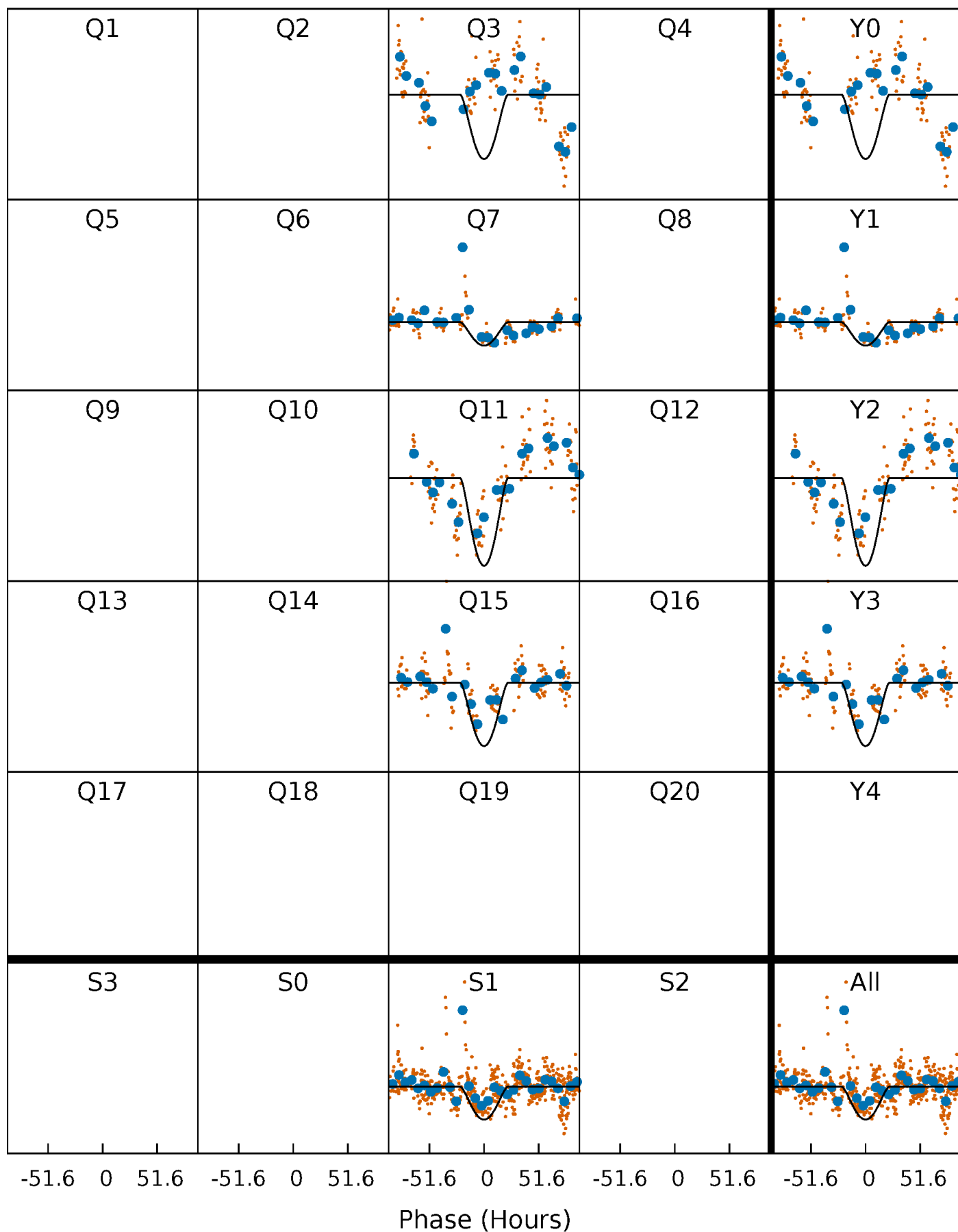
PDC Quarter-Phased Transit Curves

TCE 010790838-02 $P=391.627580$ Days $T_0=292.194018$ (BKJD)



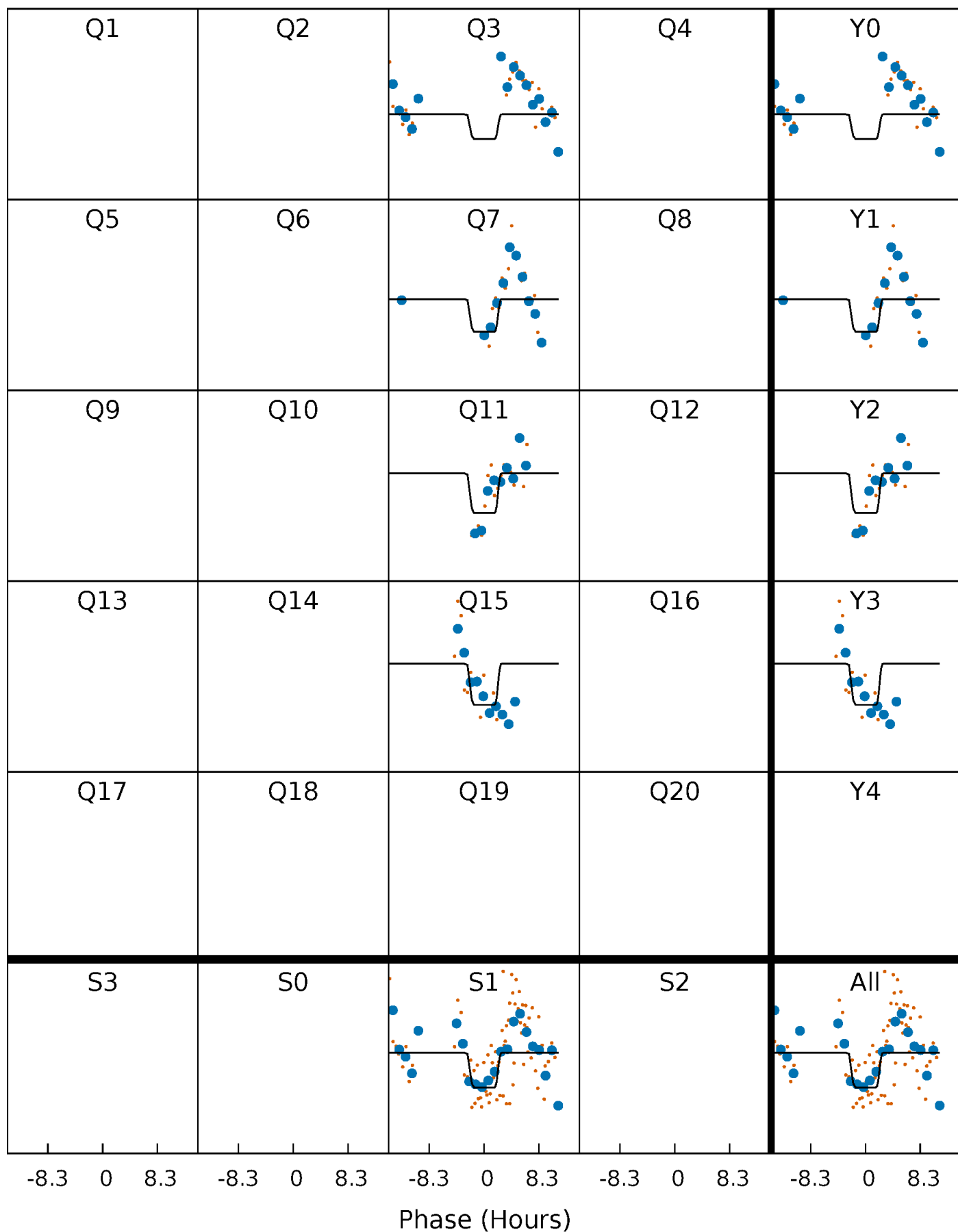
DV Quarter-Phased Transit Curves

TCE 010790838-02 $P=391.627580$ Days $T_0=292.194018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

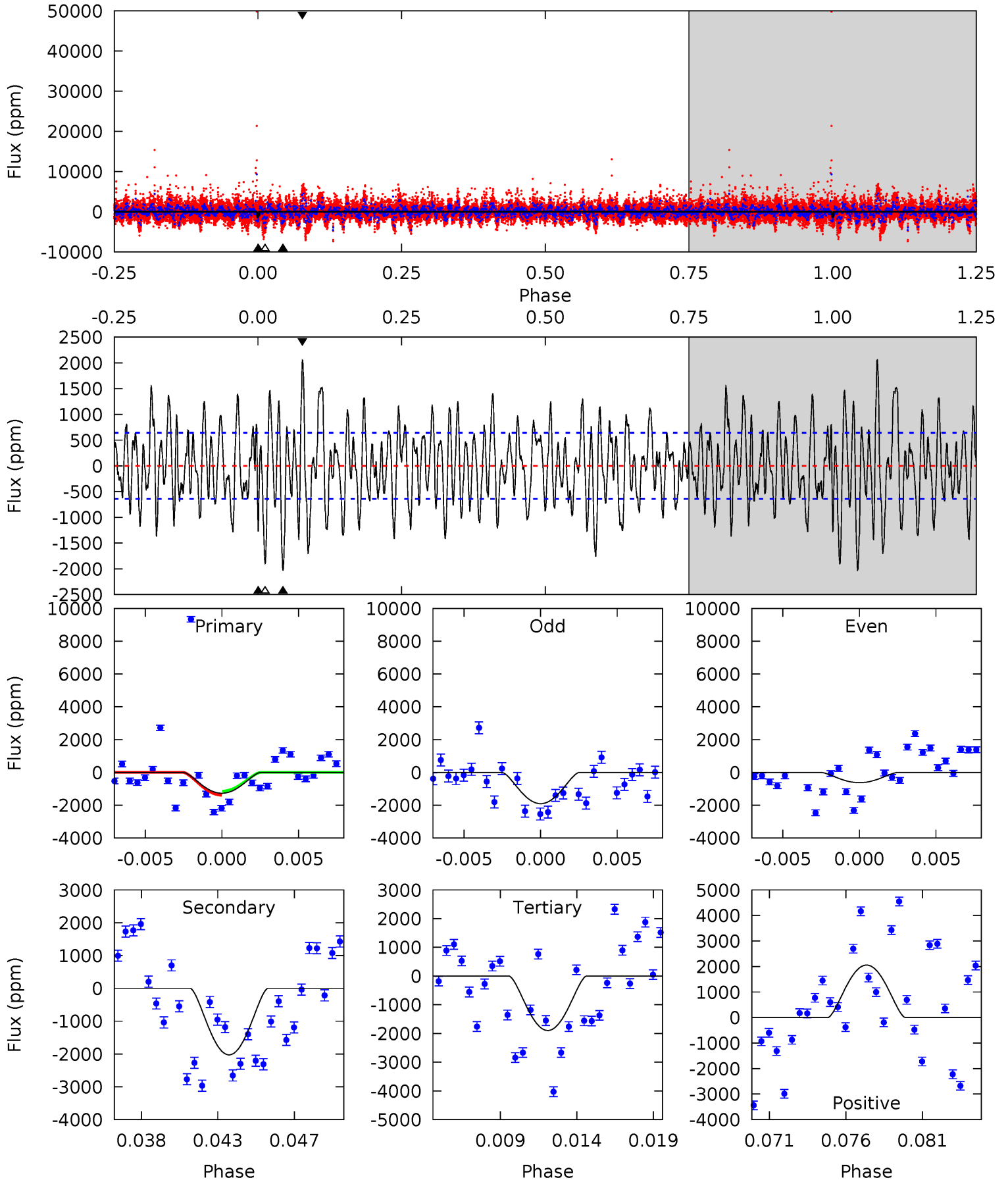
TCE 010790838-02 $P=391.432087$ Days $T_0=292.306456$ (BKJD)



DV Model-Shift Uniqueness Test

010790838-02, P = 391.627580 Days, E = 292.194018 Days

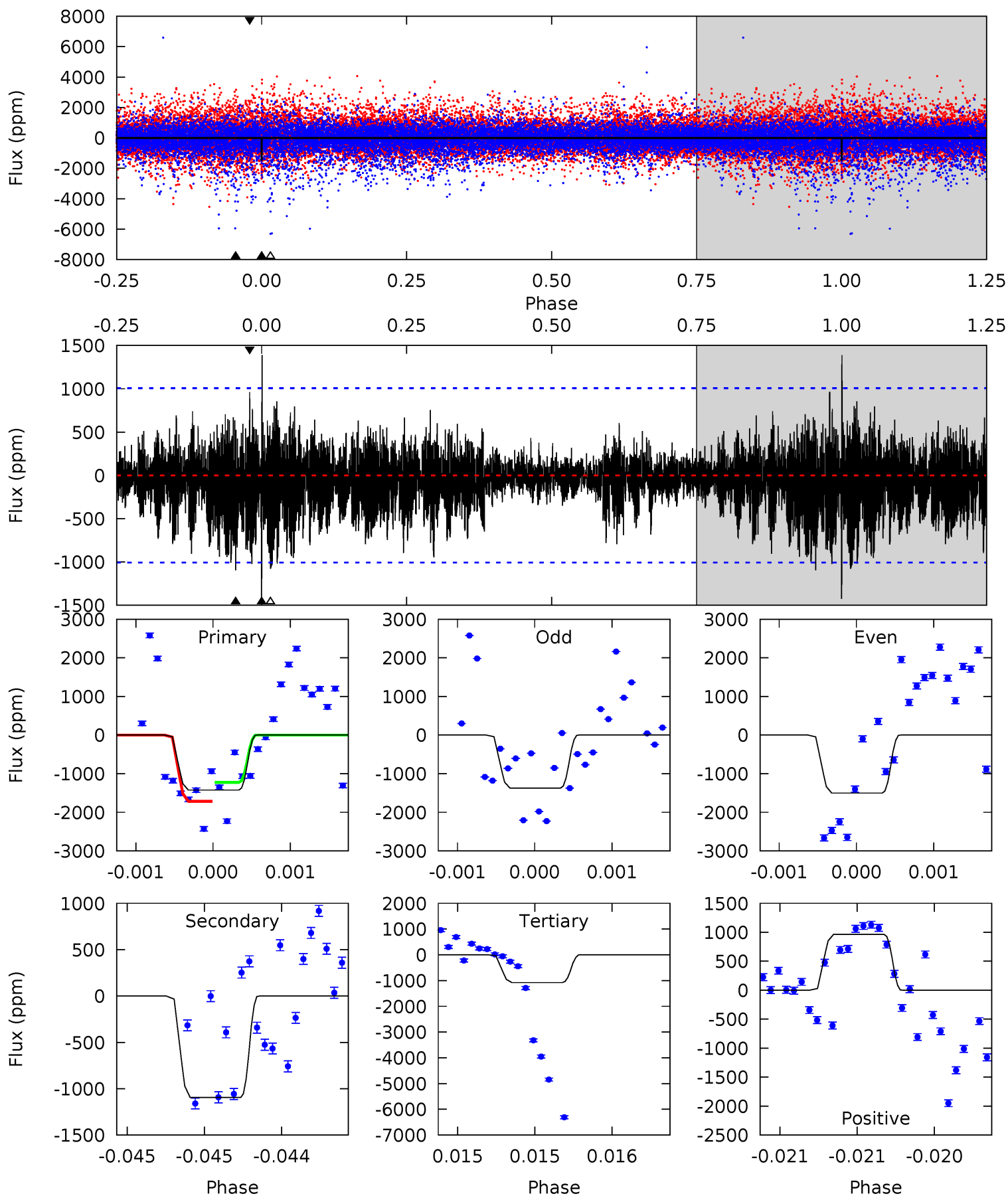
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	16.3	15.3	16.5	5.17	2.82	5.23	-5.04	-6.32	1.05	-0.23	5.16	0.66	0.50	0.98



Alt Model-Shift Uniqueness Test

010790838-02, P = 391.432087 Days, E = 292.306456 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.88	6.06	5.96	5.33	5.57	3.48	1.49	1.92	2.55	0.09	0.73	0.35	0.96	0.49	1.29



Stellar Parameters For KIC 010790838

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3563^{+48}_{-48}	$4.853^{+0.039}_{-0.032}$	$-0.100^{+0.100}_{-0.100}$	$0.398^{+0.029}_{-0.036}$	$0.414^{+0.034}_{-0.038}$	$9.224^{+1.781}_{-1.240}$
	+1%/-1%	+1%/-1%	+100%/-100%	+7%/-9%	+8%/-9%	+19%/-13%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 010790838-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2027 ± 124	$11.89^{+12.51}_{-7.93}$	157^{+3}_{-3}	2204^{+686}_{-298}	4819^{+39939}_{-3658}
Alt.	-1095 ± 181	$10.98^{+11.01}_{-7.79}$	157^{+3}_{-3}	2112^{+727}_{-292}	3215^{+34524}_{-2480}

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

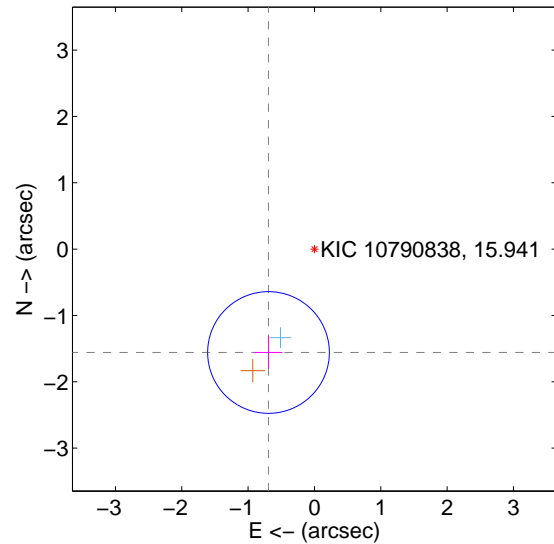
Supplemental centroid analysis for 010790838-02. Kepler magnitude: 15.94. Transit SNR 8.48

There are 1 quarters with good PRF difference image offsets

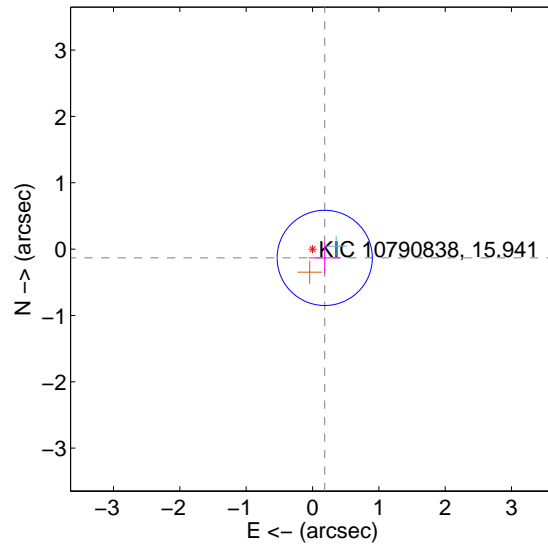
The direct PRF centroid is offset from the target star catalog position by about 1.73 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.705 ± 0.306	5.58	0.692 ± 0.210	-1.558 ± 0.247
PRF-fit source offset from KIC position	0.227 ± 0.239	0.95	-0.184 ± 0.240	-0.133 ± 0.238
photometric centroid source offset	1.45 ± 0.53	2.74	-0.94 ± 0.53	1.11 ± 0.53

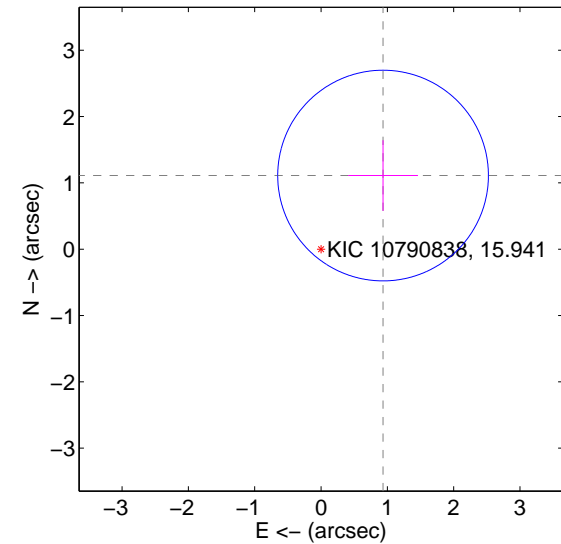
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

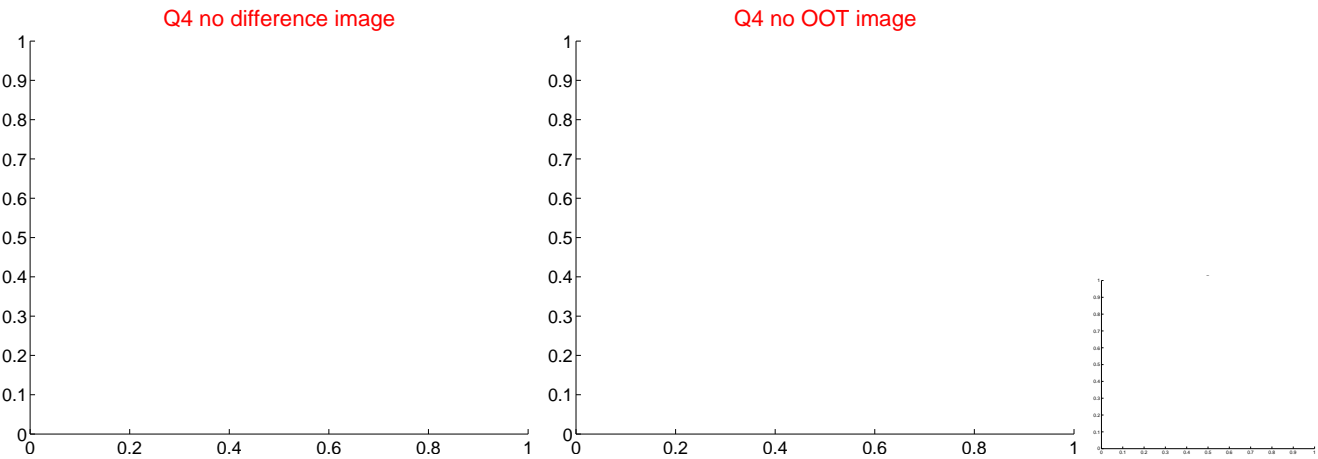
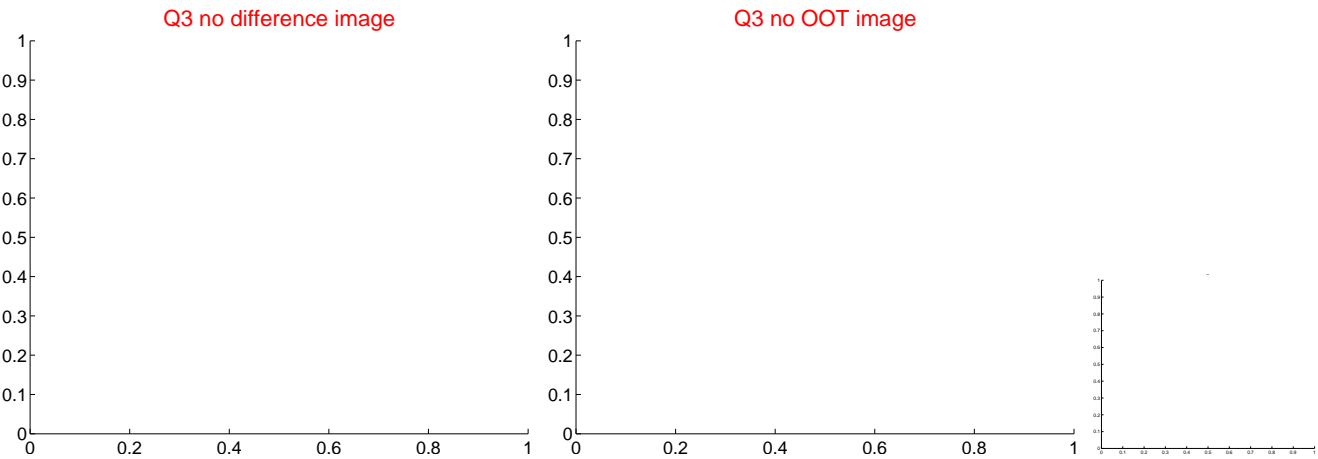
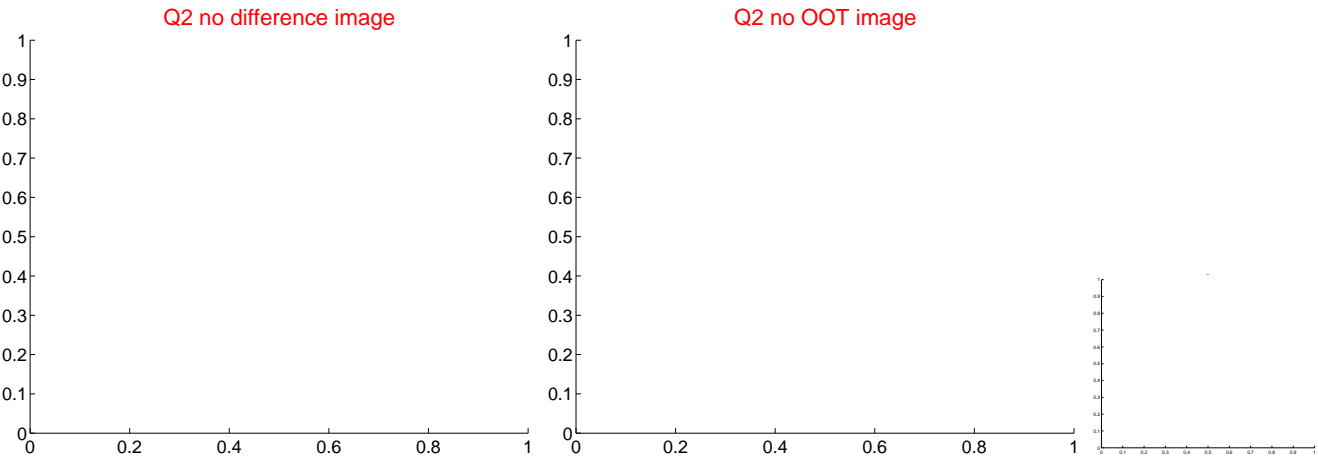
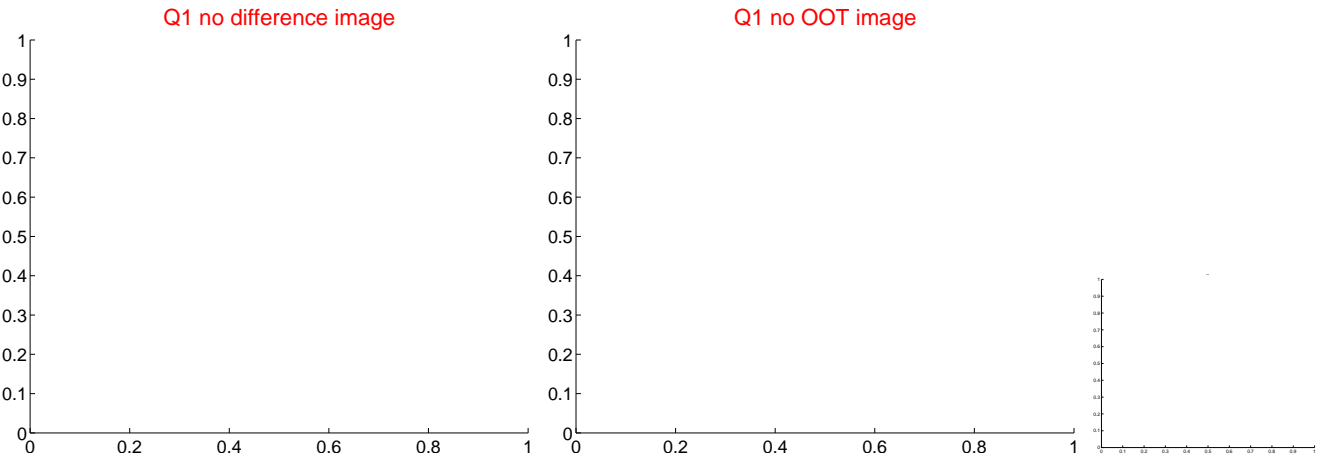


offset from photometric centroids

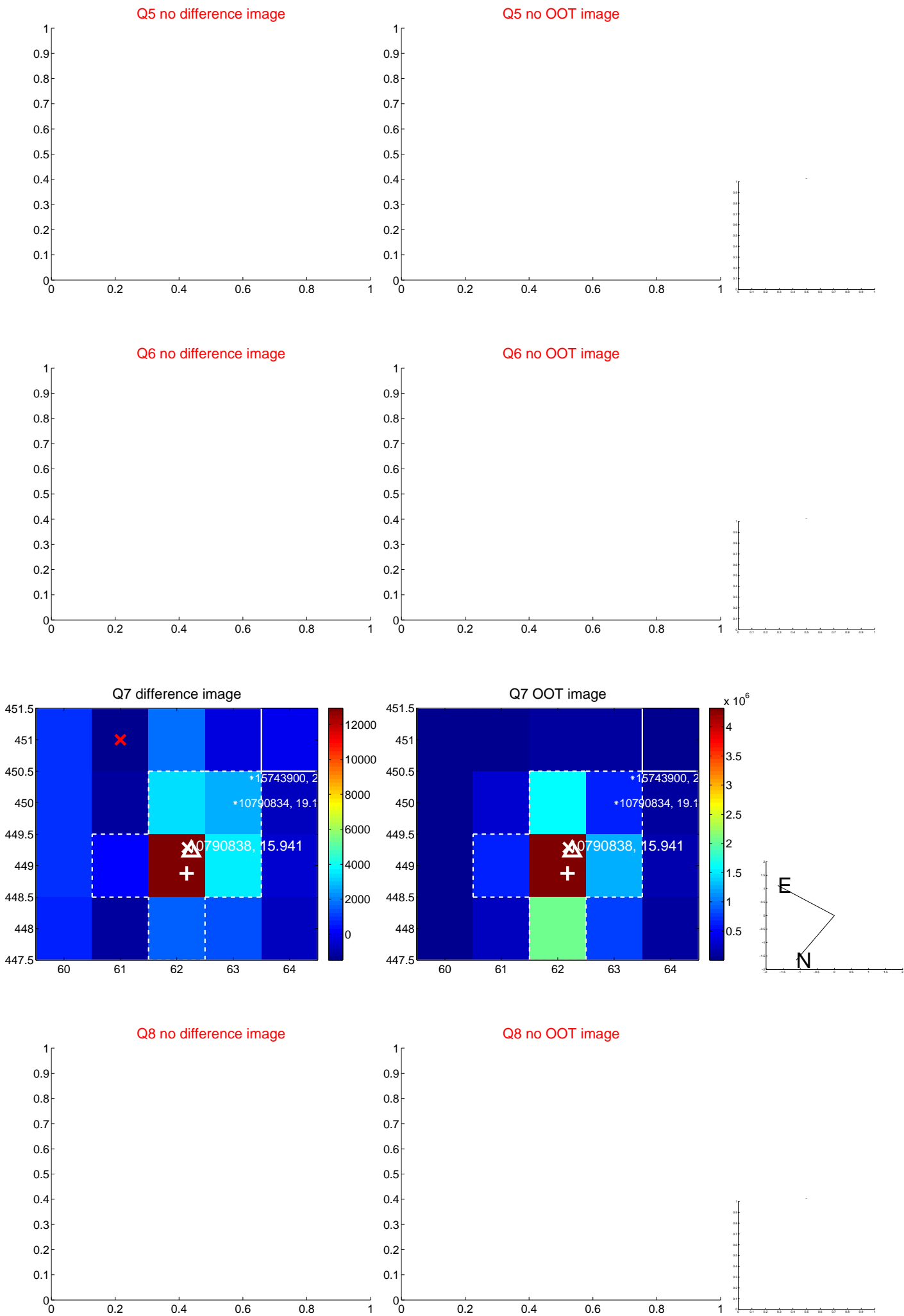


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

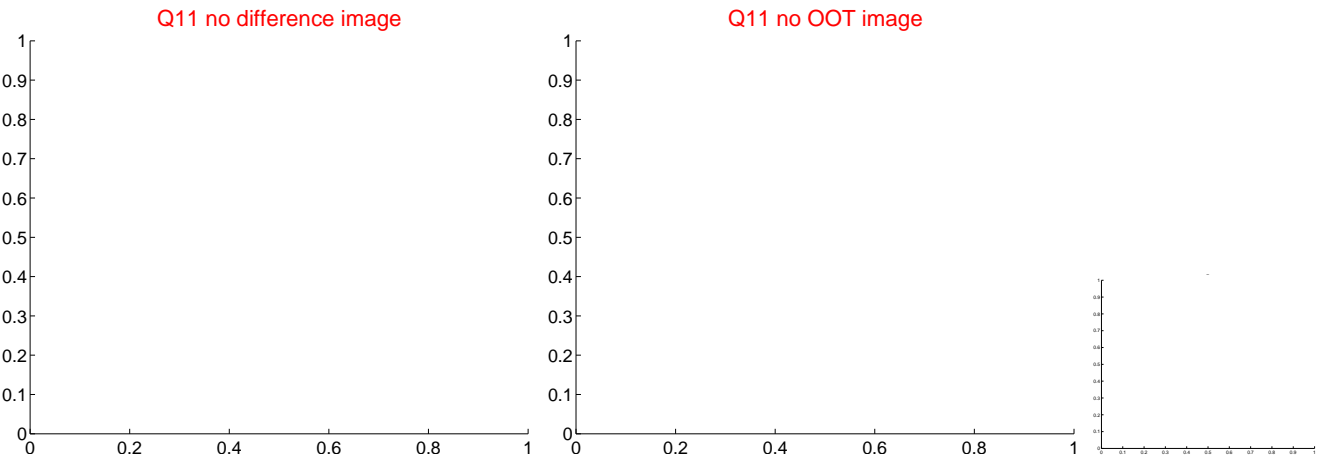
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



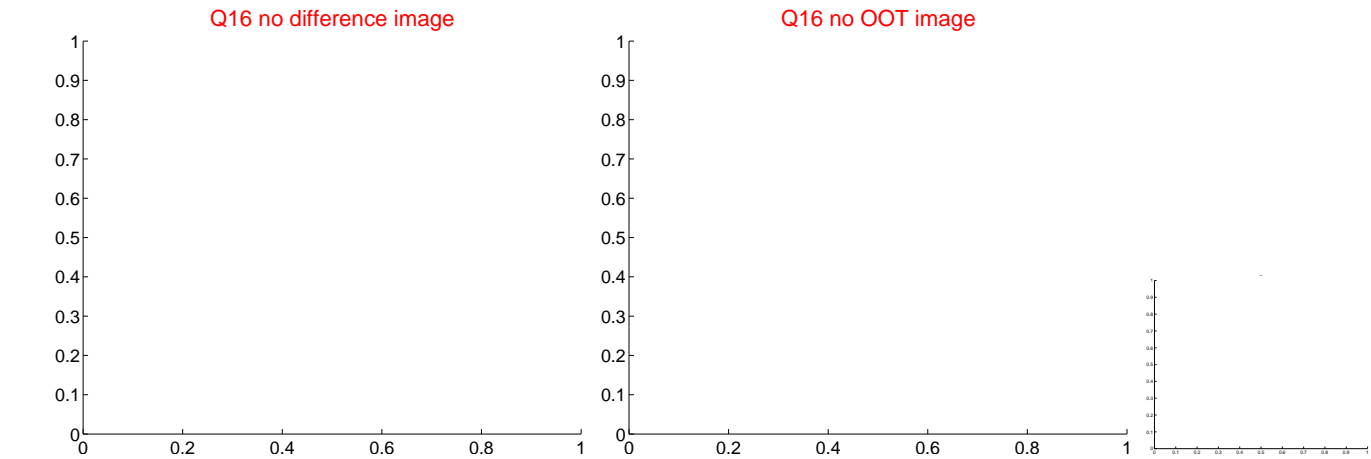
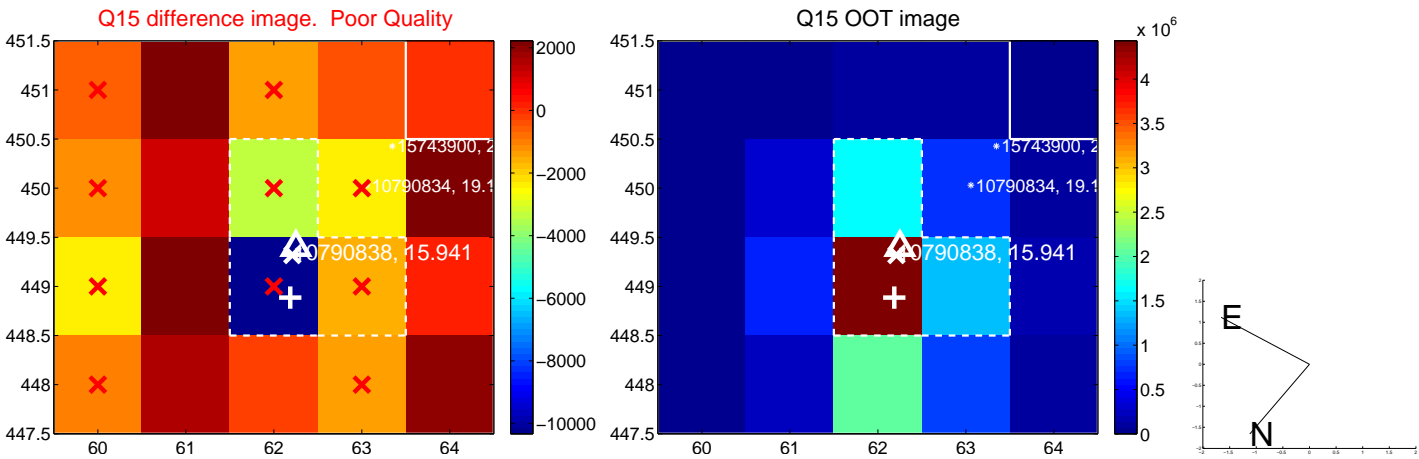
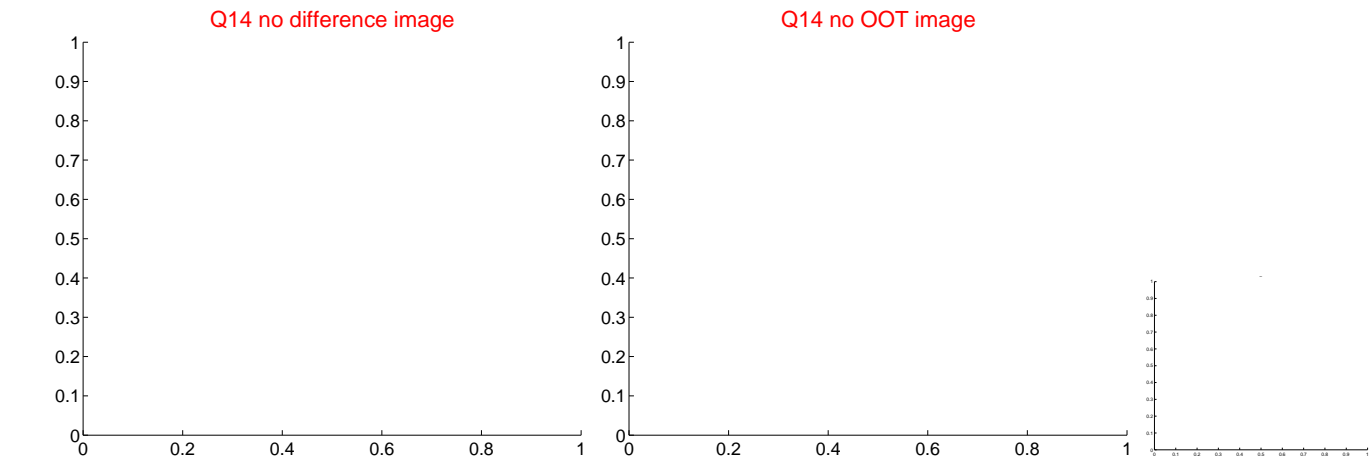
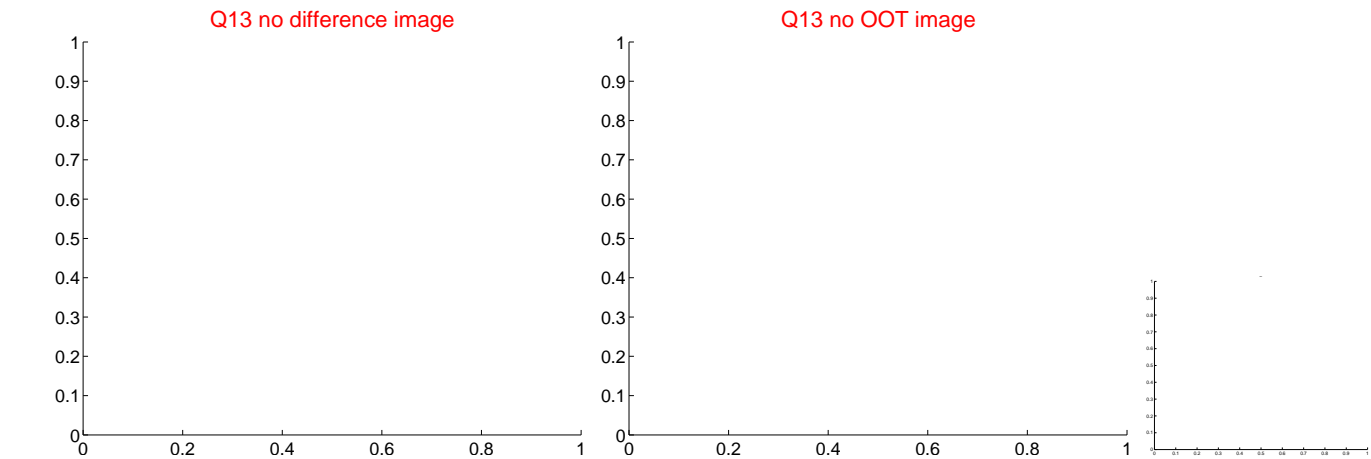
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



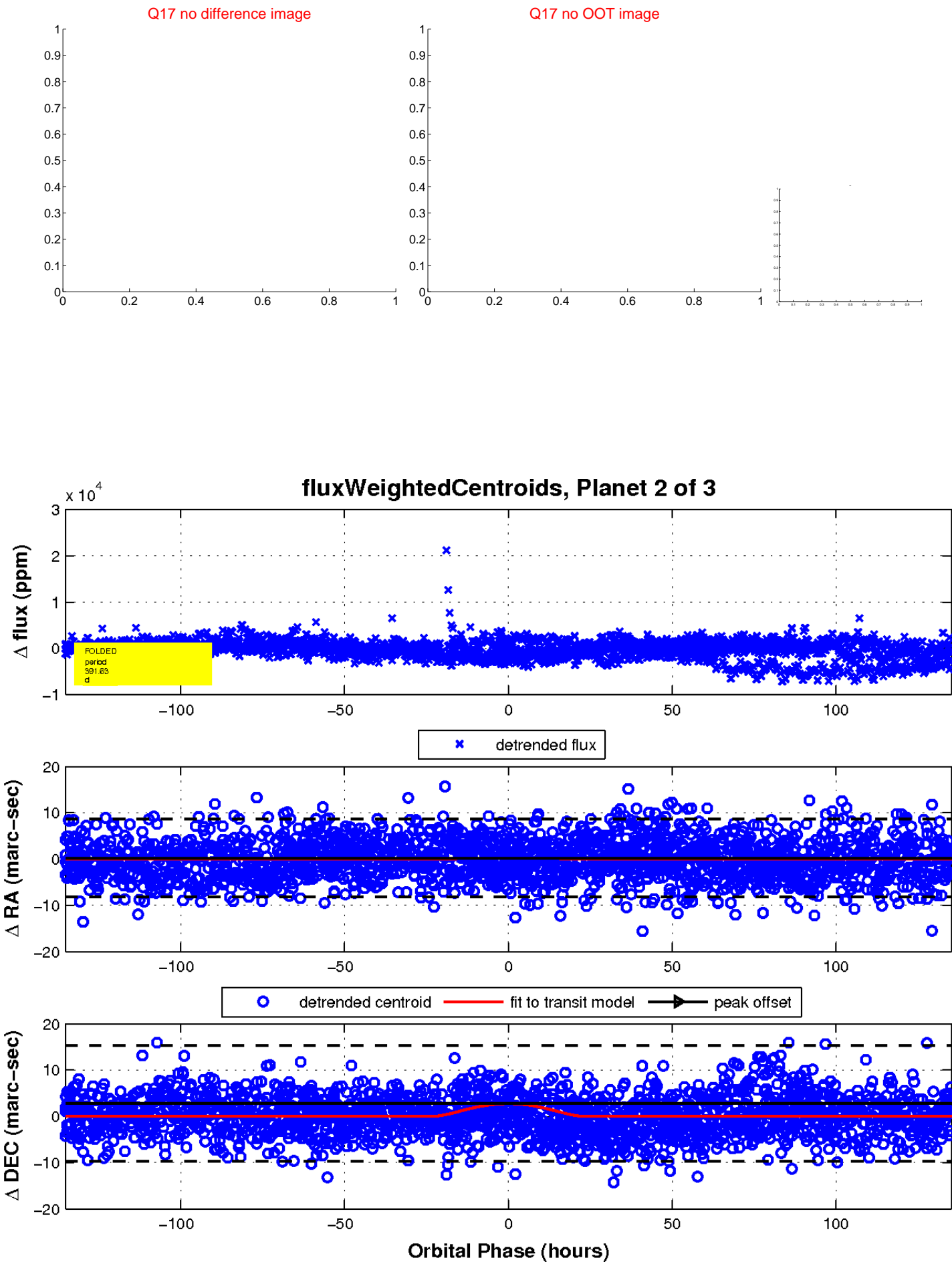
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

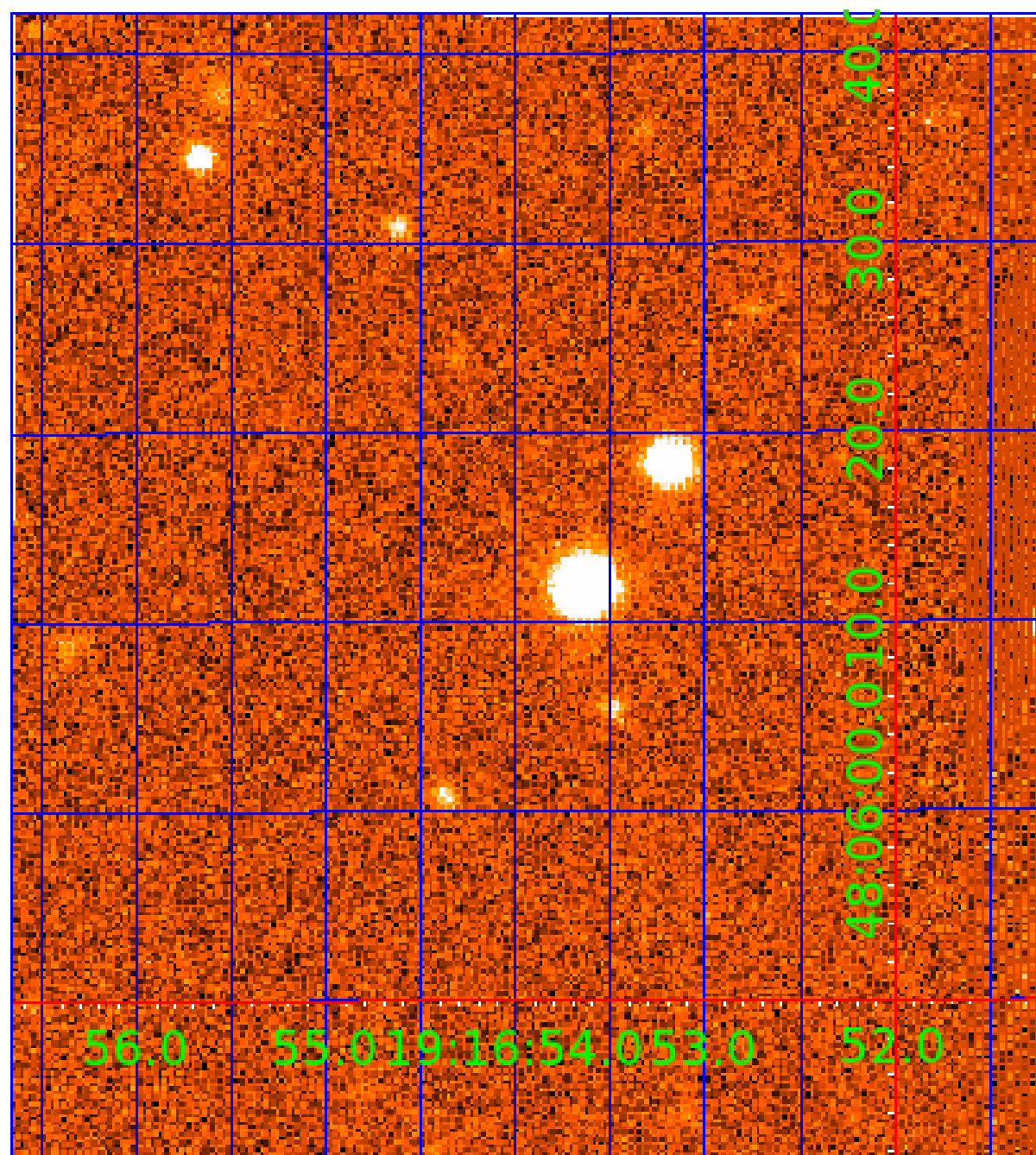


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010790838

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})
010790838-01	OBS	No	0.916471	131.760585	156.9	4.088	9.0	11.4	0.40	3563	0.50	121.13
010790838-02	OBS	No	391.627580	292.194018	4010.7	45.141	10.5	8.5	0.40	3563	4.74	0.04
010790838-03	OBS	No	46.764984	145.107790	1059.0	3.073	7.4	7.5	0.40	3563	1.43	0.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010790838-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010790838-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
010790838-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT

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

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

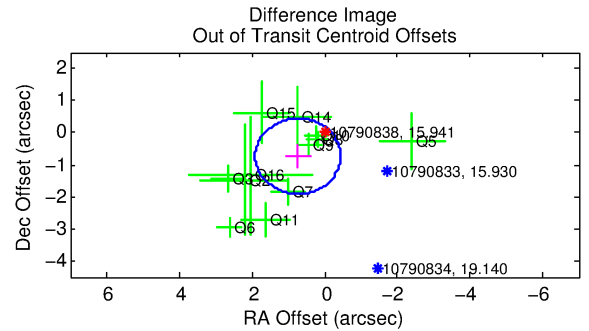
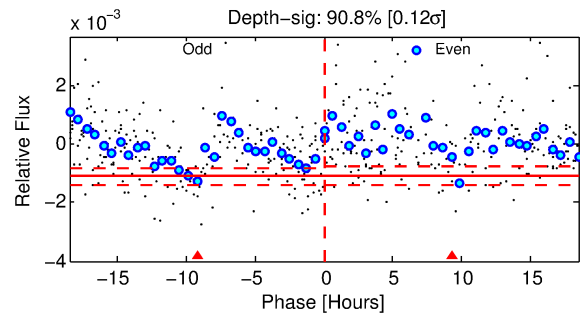
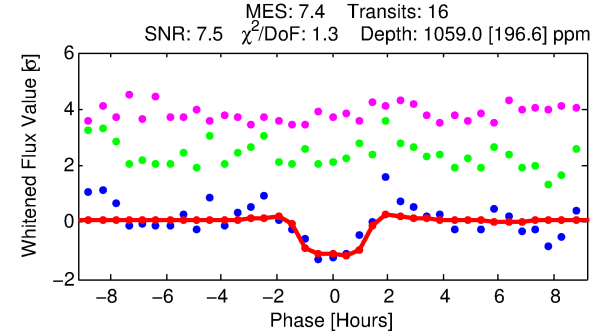
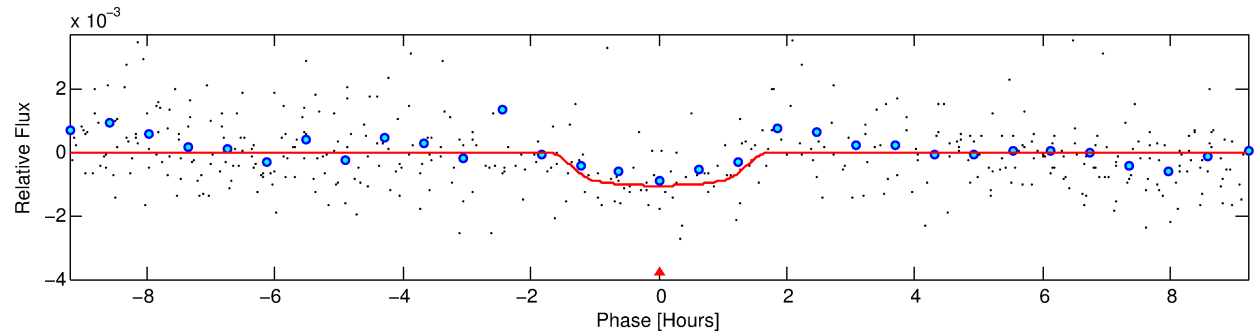
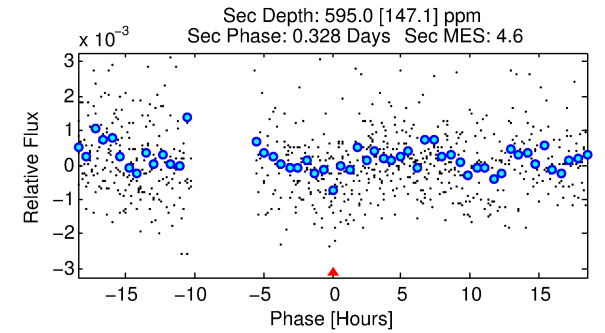
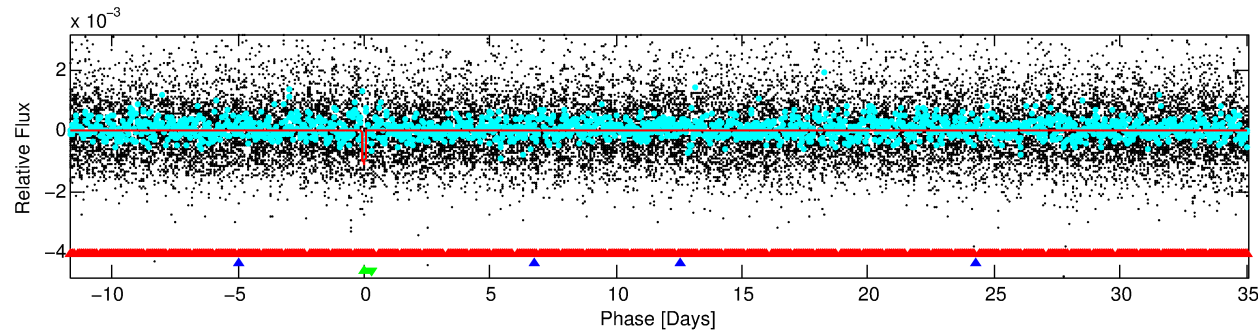
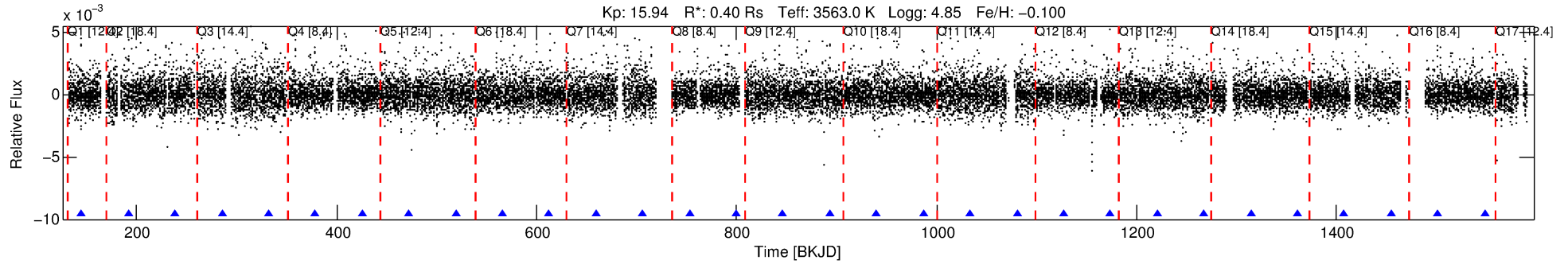
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010790838-03

No Significant Match Found

DV One-Page Summary

KIC: 10790838 Candidate: 3 of 3 Period: 46.765 d



DV Fit Results:

Period = 46.76498 [0.00042] d
Epoch = 145.1078 [0.0084] BKJD
Rp/R* = 0.0329 [0.0251]
a/R* = 77.45 [248.65]
b = 0.79 [1.55]
Seff = 0.64 [0.06]
Teq = 228 [6] K
Rp = 1.43 [1.10] Re
a = 0.1890 [0.0127] AU
Ag = 5727.31 [8860.40] [0.65σ]
Teffp = 3068 [1185] K [2.40σ]

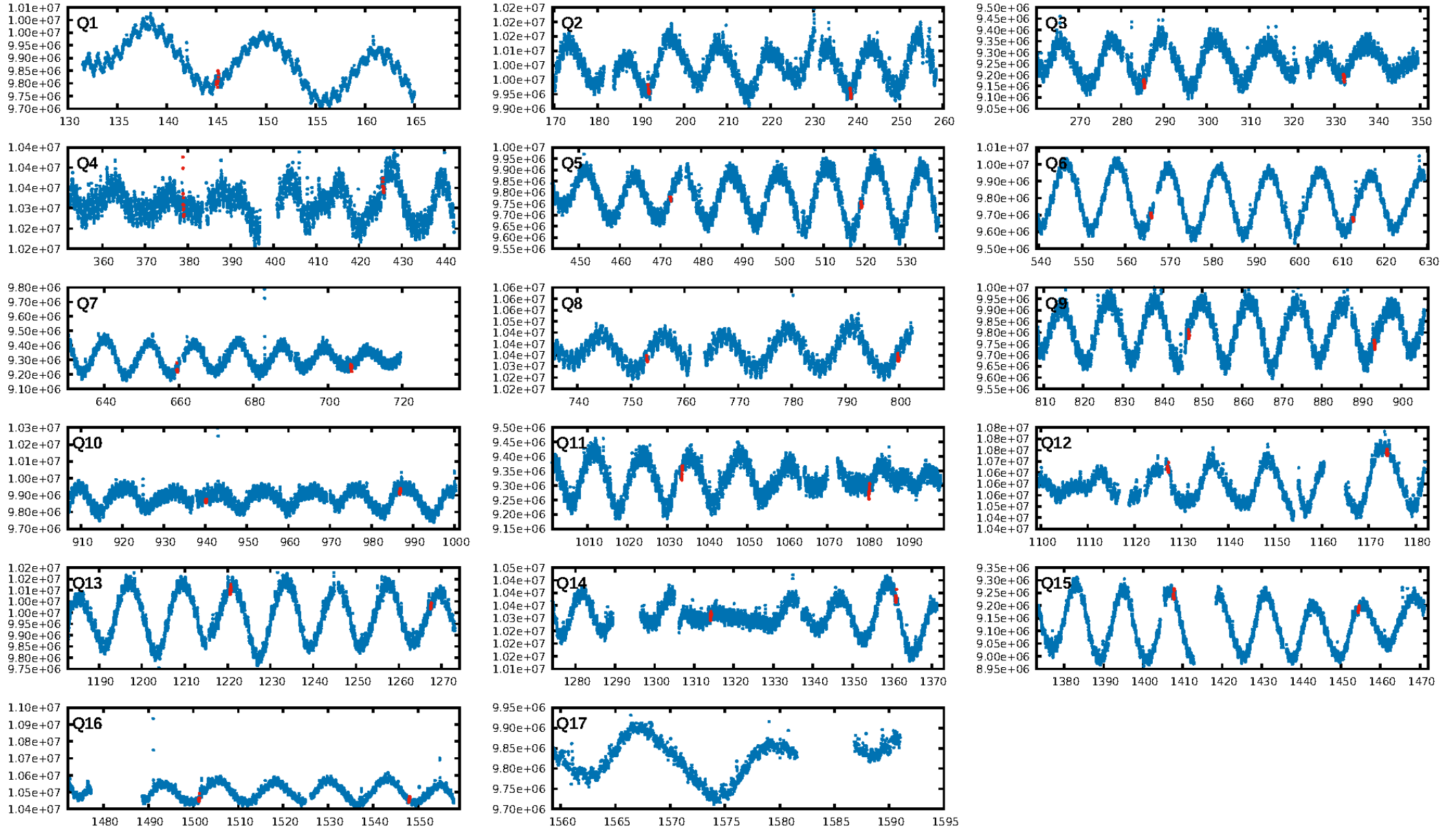
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [215.15σ]
LongPeriod-sig: 100.0% [182.93σ]
ModelChiSquare2-sig: 94.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.38e-09
RollingBand-fgt: 1.00 [15/15]
GhostDiagnostic-chr: -3.581
Centroid-sig: 45.5%
Centroid-so: 2.595 arcsec [3.24σ]
OotOffset-rm: 1.045 arcsec [2.67σ]
KicOffset-rm: 0.423 arcsec [1.63σ]
OotOffset-st: 4/4/2/2 [12]
KicOffset-st: 4/4/2/2 [12]
DiffImageQuality-fgm: 0.58 [7/12]
DiffImageOverlap-fno: 0.00 [0/15]

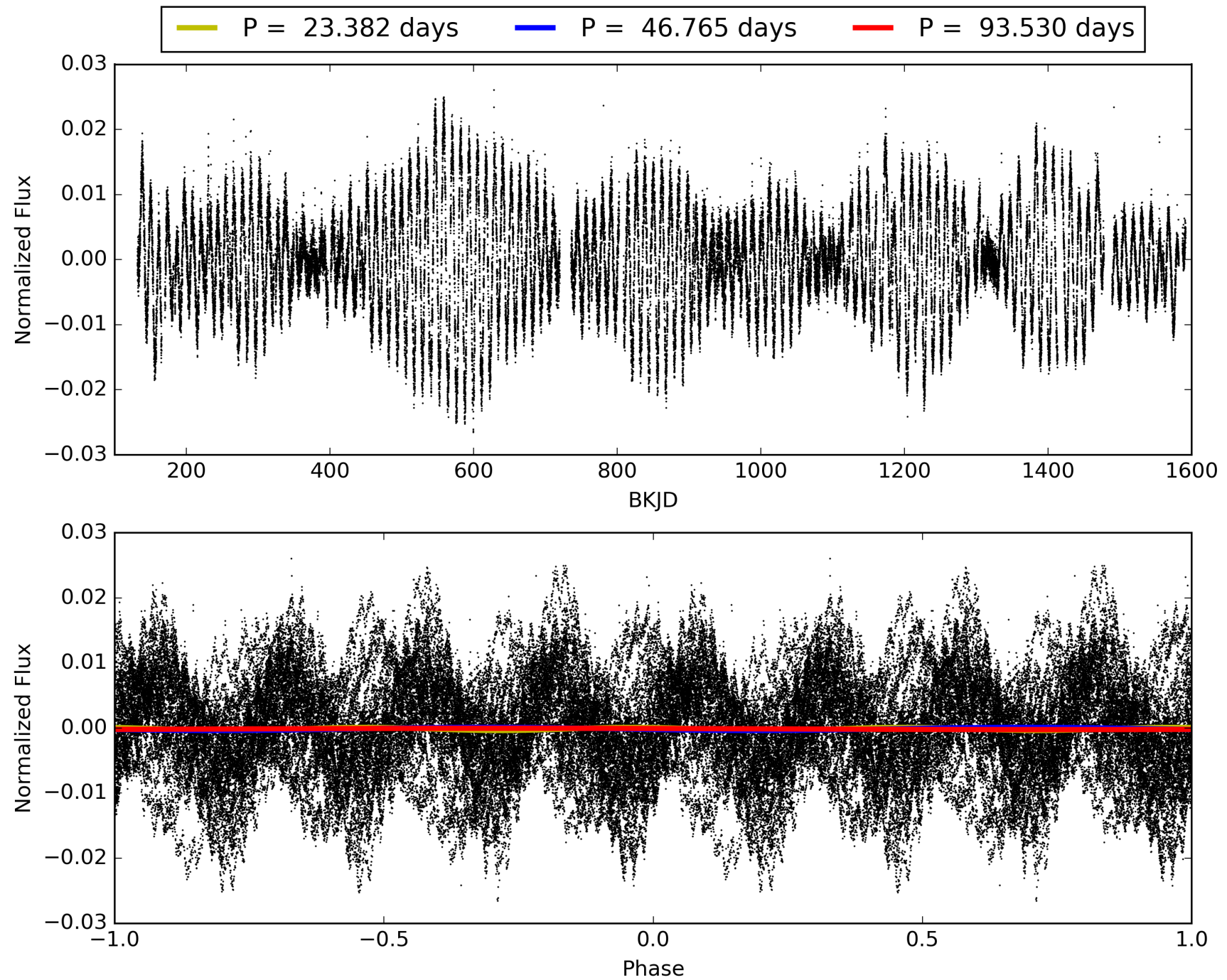
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:40:02 Z

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

TCE 010790838-03, PDC Light Curves

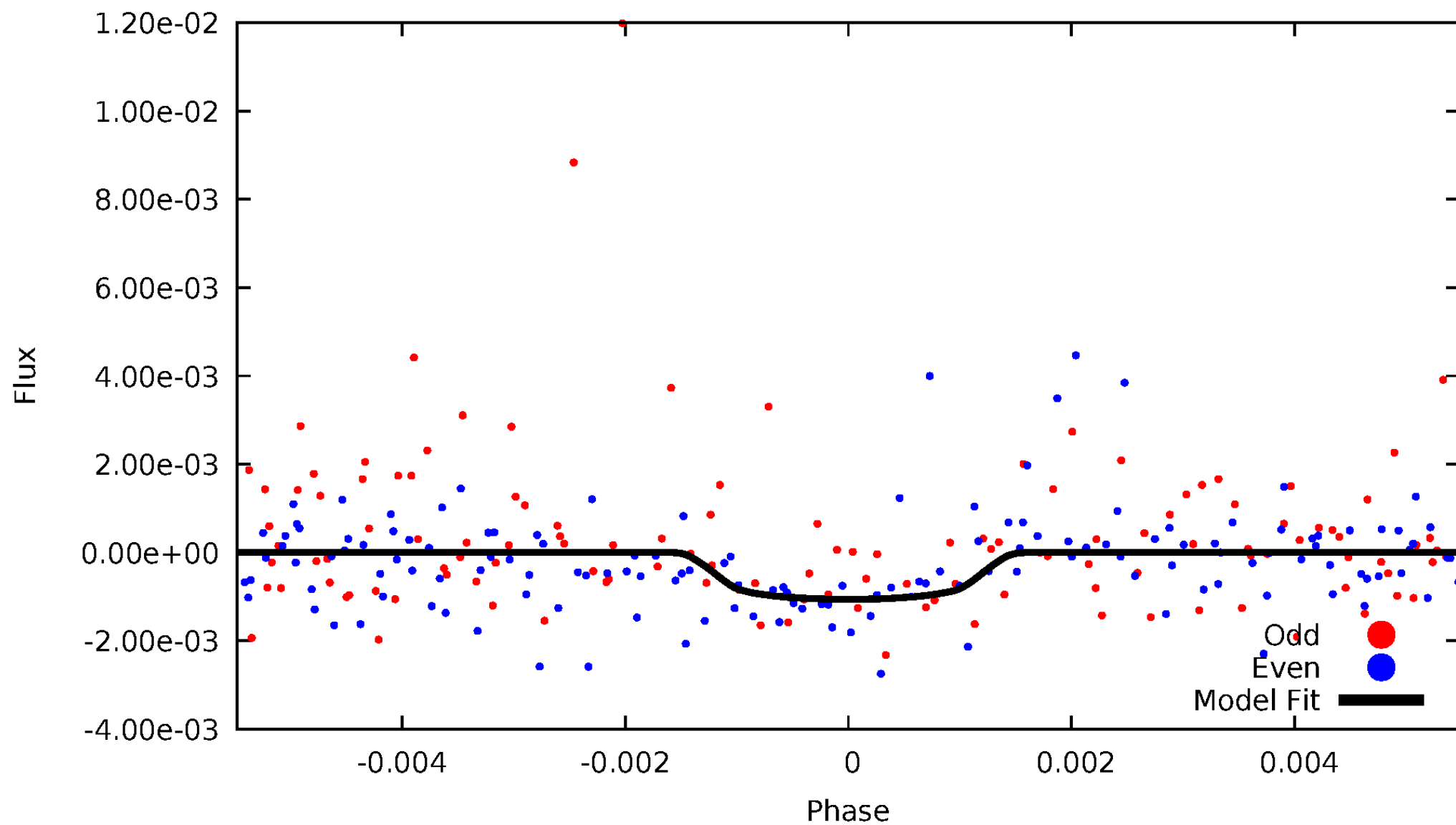


TCE 010790838-03



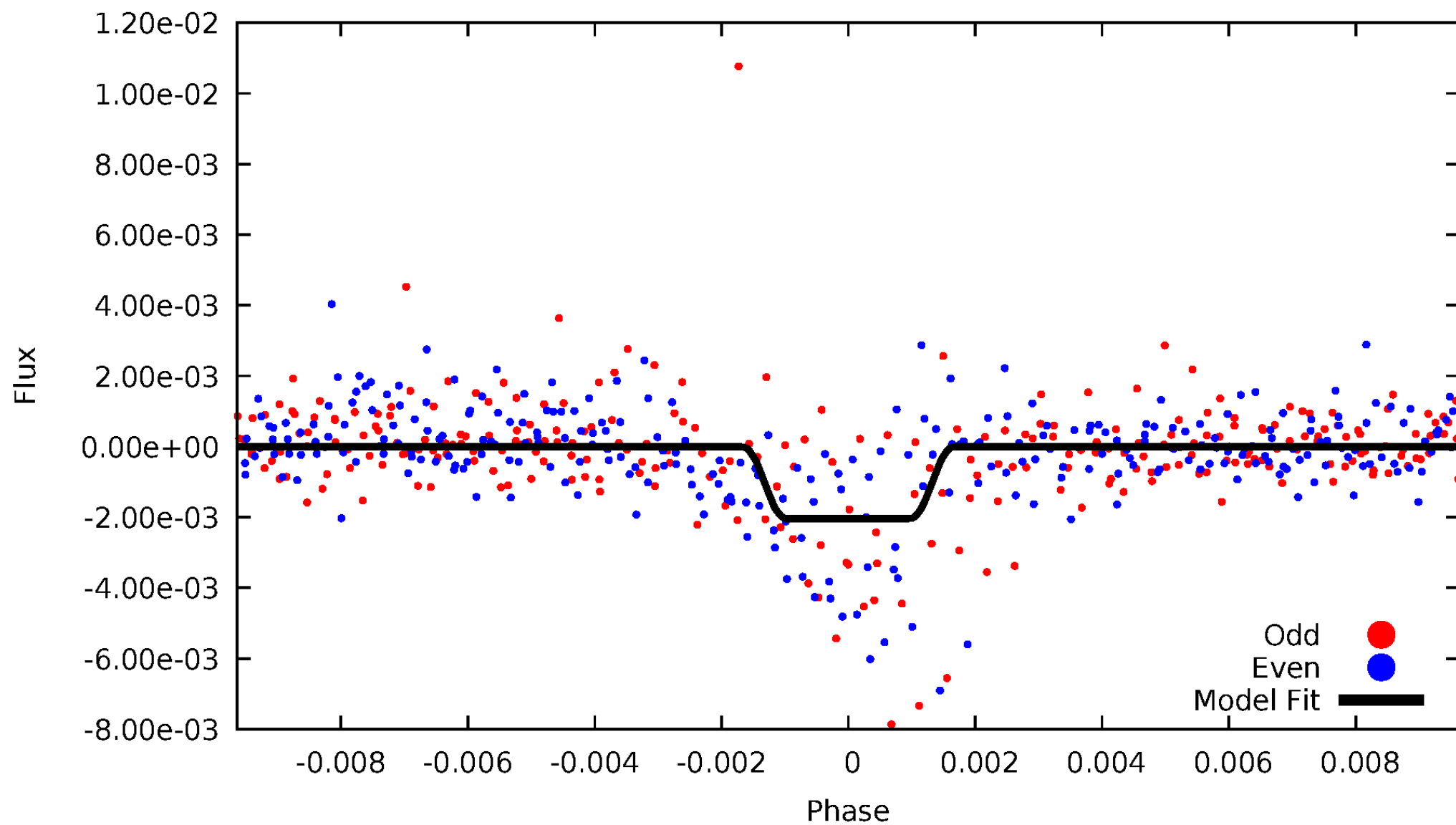
DV Odd/Even

TCE 010790838-03



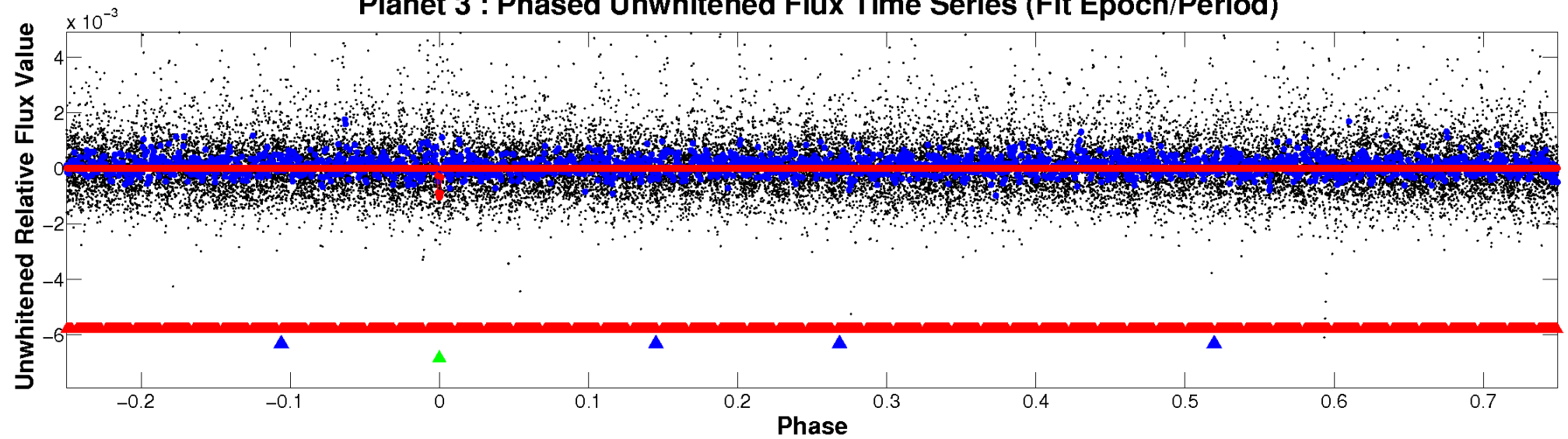
ALT Odd/Even

TCE 010790838-03

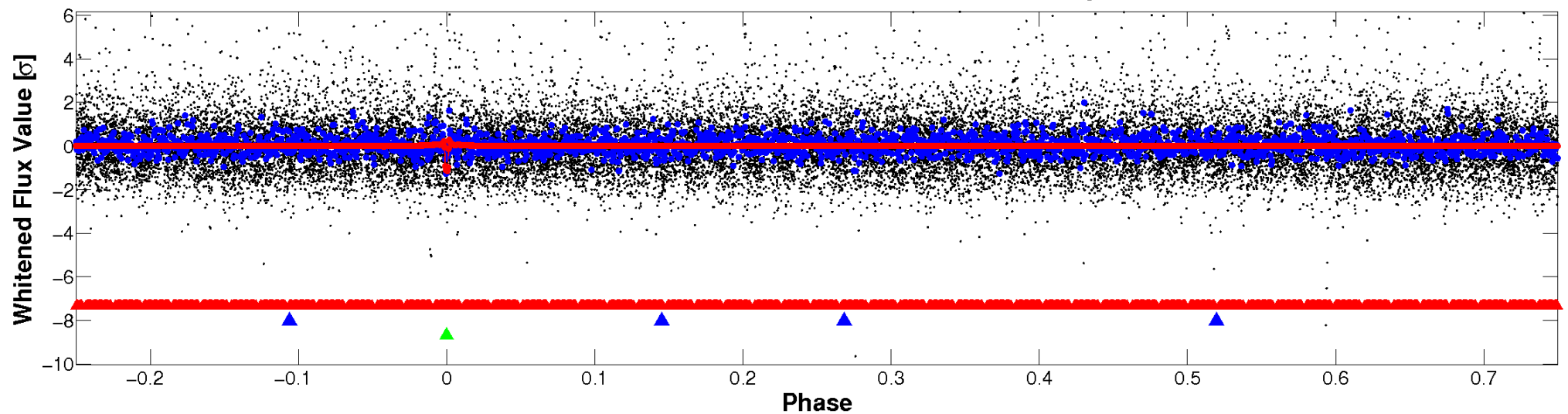


Non-Whitened Vs. Whitened Light Curve

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

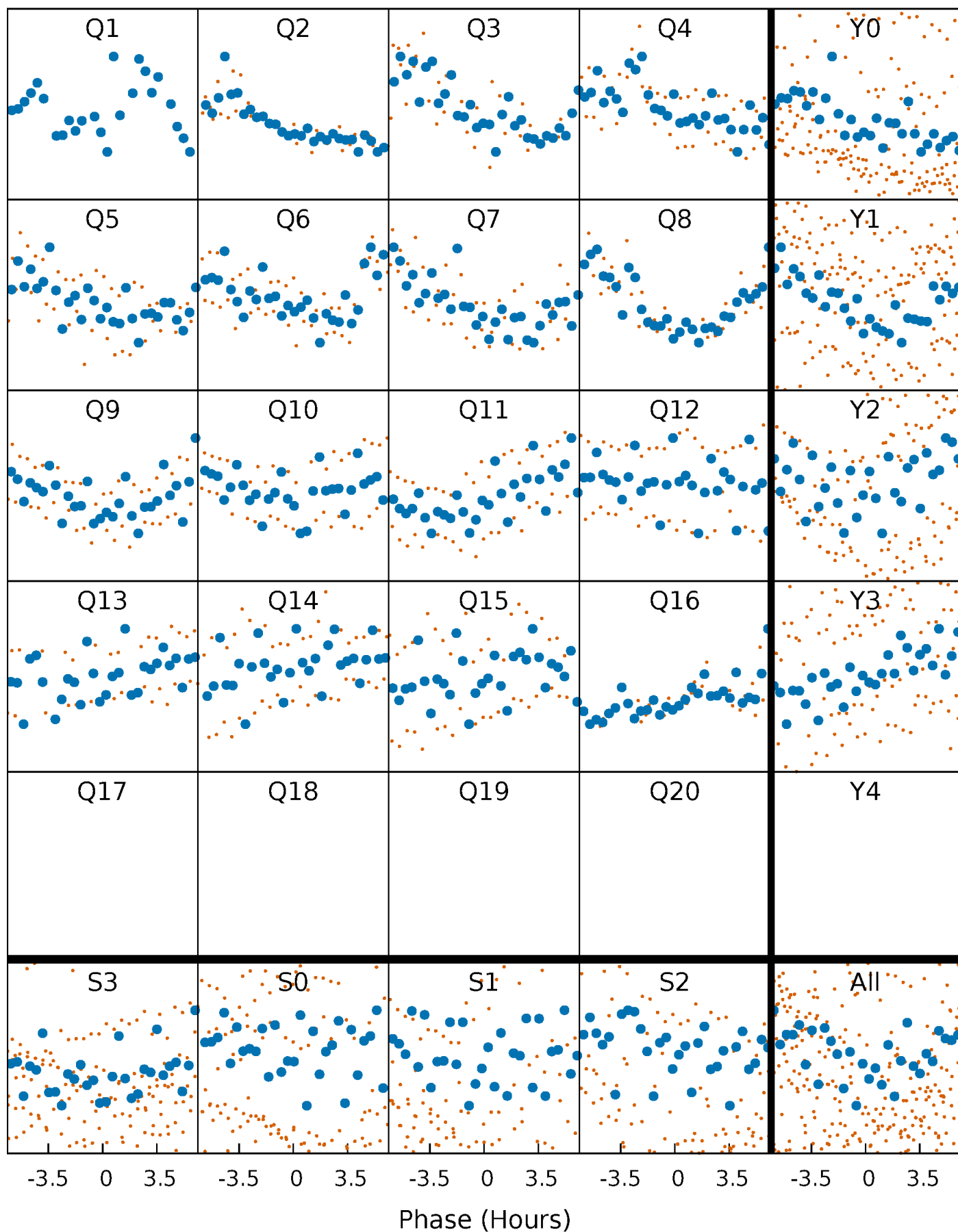


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



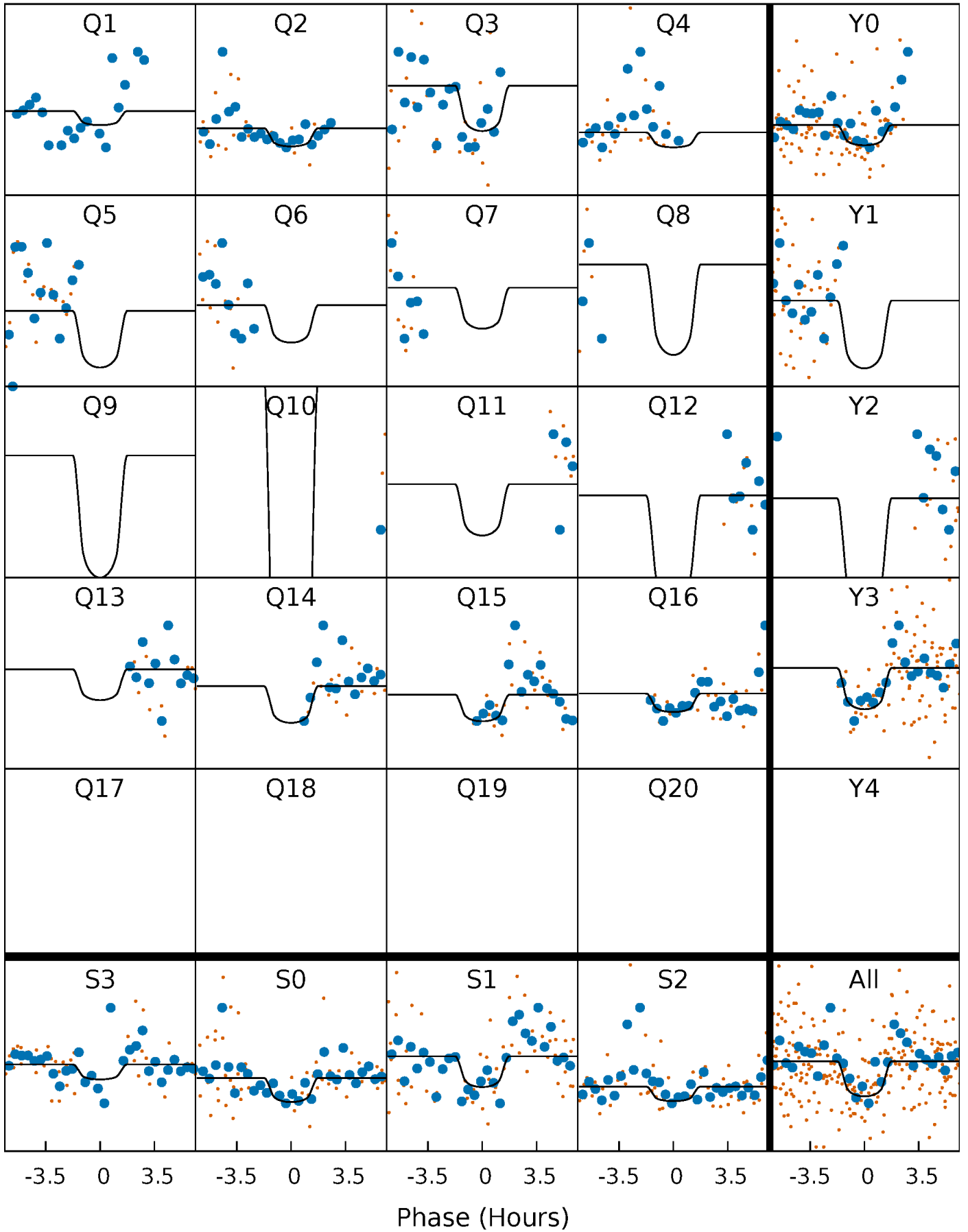
PDC Quarter-Phased Transit Curves

TCE 010790838-03 P= 46.764984 Days $T_0=145.107790$ (BKJD)



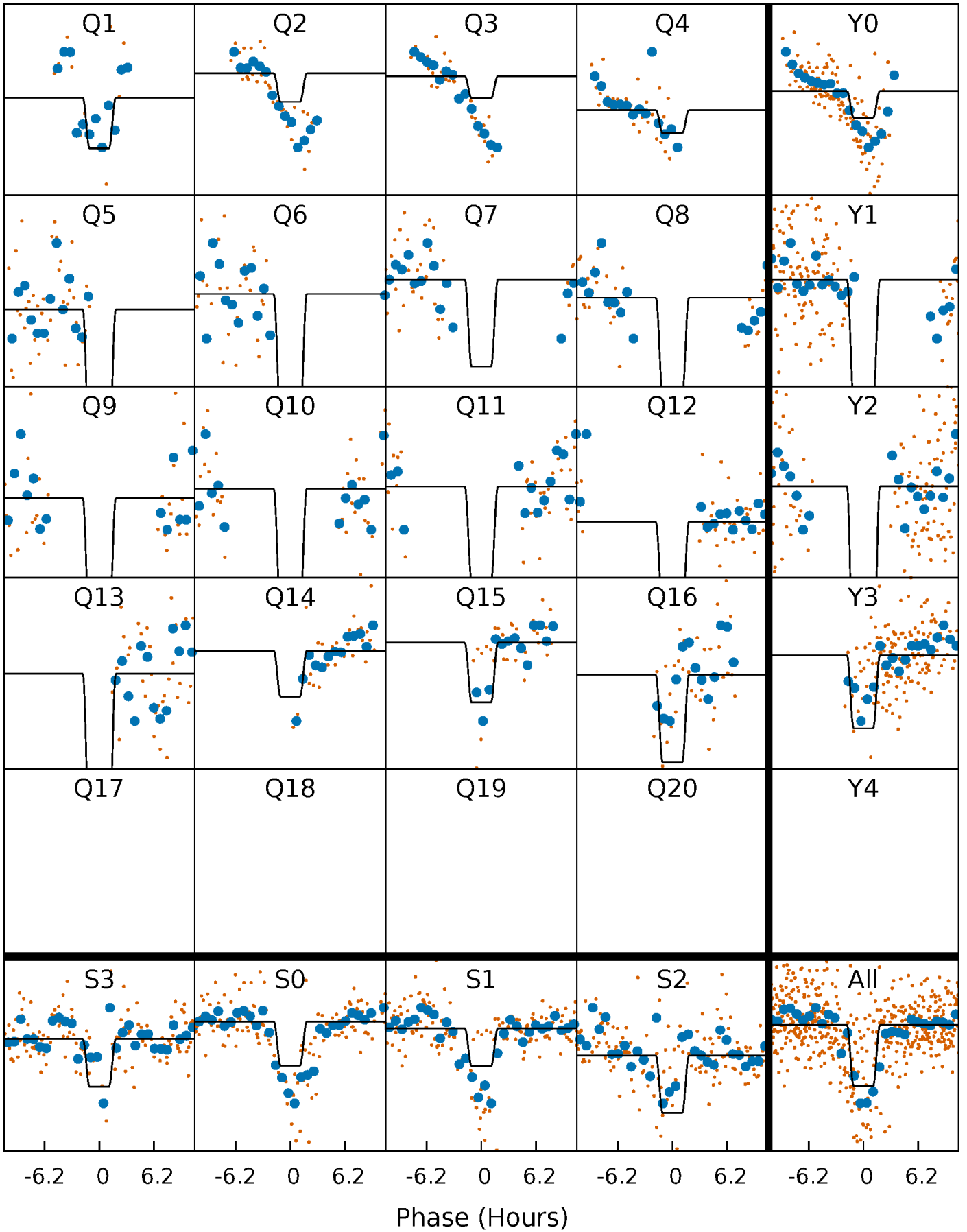
DV Quarter-Phased Transit Curves

TCE 010790838-03 P= 46.764984 Days $T_0=145.107790$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

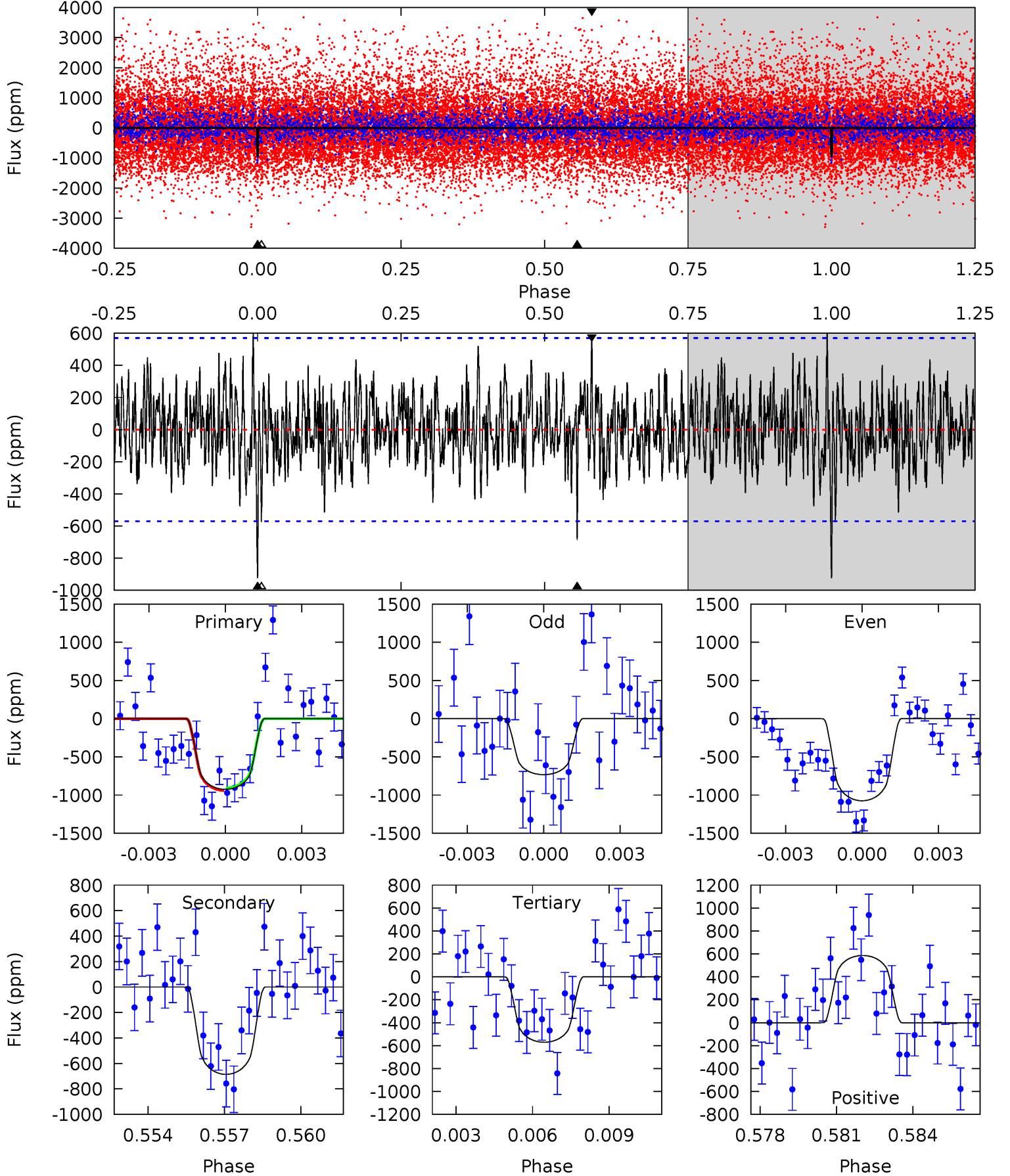
TCE 010790838-03 P= 46.766219 Days $T_0=145.087884$ (BKJD)



DV Model-Shift Uniqueness Test

010790838-03, P = 46.764984 Days, E = 98.342806 Days

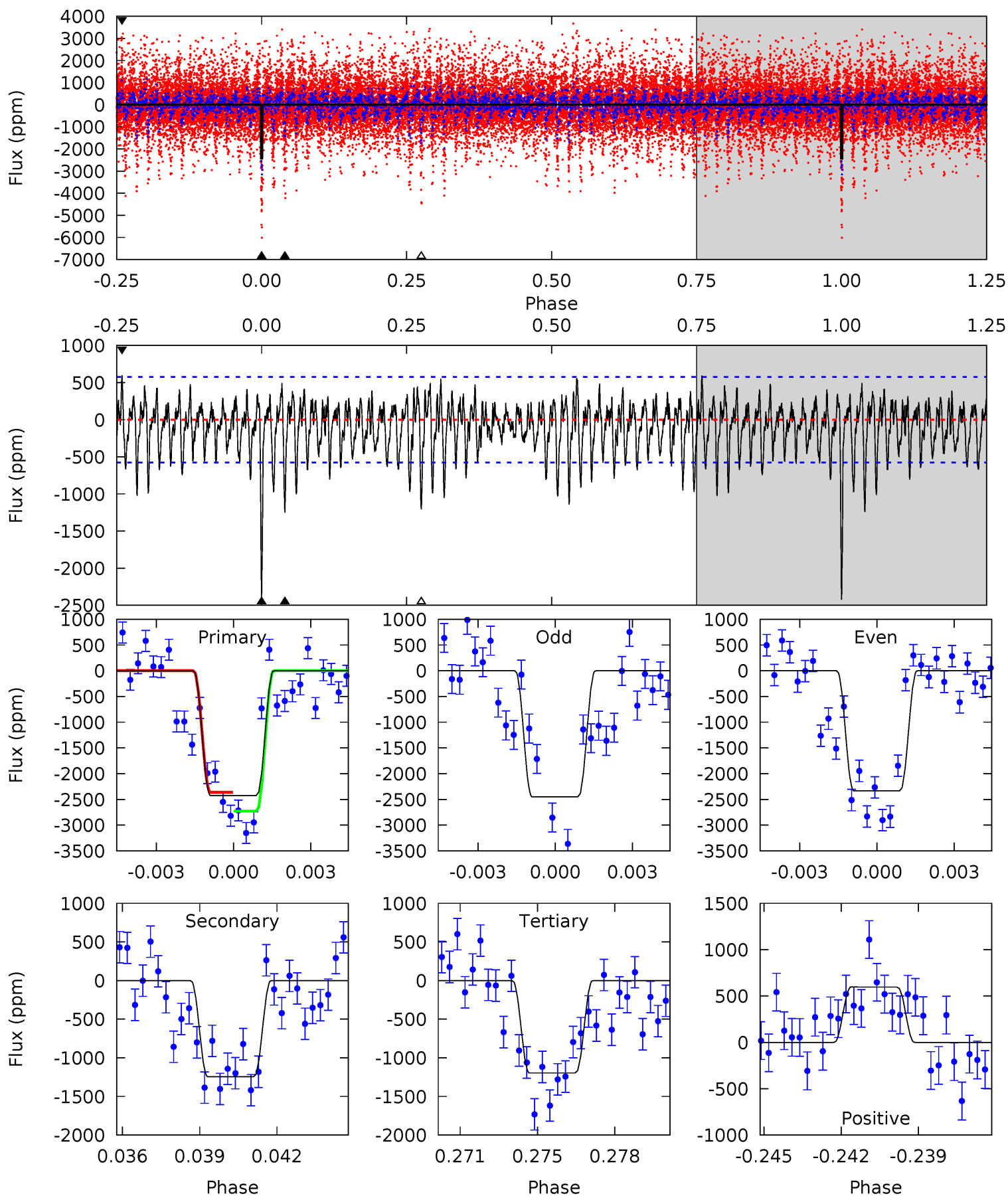
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.52	6.31	5.25	5.40	5.25	2.96	1.63	3.26	3.12	1.06	0.92	1.57	0.76	0.39	0.15



Alt Model-Shift Uniqueness Test

010790838-03, P = 46.766219 Days, E = 98.321665 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	11.3	10.9	5.41	5.24	2.94	2.57	11.1	16.6	0.43	5.88	0.52	1.09	0.20	1.63



Stellar Parameters For KIC 010790838

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3563^{+48}_{-48}	$4.853^{+0.039}_{-0.032}$	$-0.100^{+0.100}_{-0.100}$	$0.398^{+0.029}_{-0.036}$	$0.414^{+0.034}_{-0.038}$	$9.224^{+1.781}_{-1.240}$
	+1%/-1%	+1%/-1%	+100%/-100%	+7%/-9%	+8%/-9%	+19%/-13%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 010790838-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-686 ± 109	$1.51^{+1.03}_{-0.85}$	318^{+7}_{-6}	3252^{+1105}_{-445}	5729^{+27487}_{-3695}
Alt.	-1244 ± 110	$2.03^{+1.12}_{-1.02}$	318^{+6}_{-7}	3276^{+848}_{-410}	6018^{+18395}_{-3561}

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 $A_{obs} \gg 1.0$

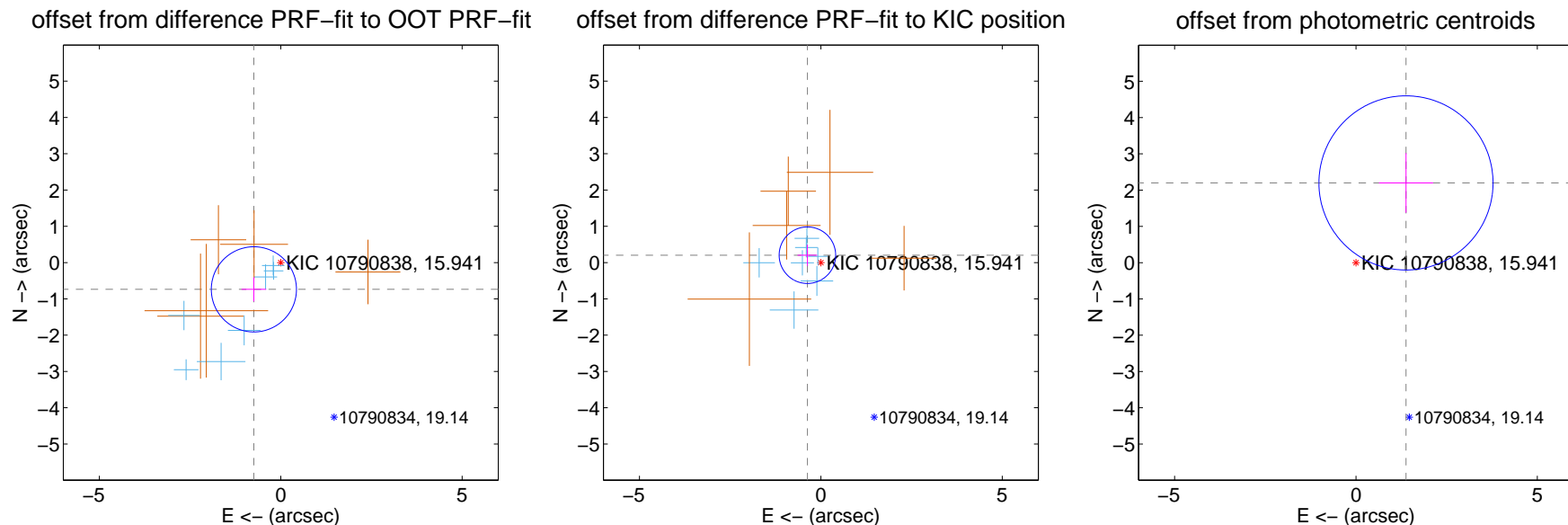
DV Centroid Data

Supplemental centroid analysis for 010790838-03. Kepler magnitude: 15.94. Transit SNR 7.47

There are 7 quarters with good PRF difference image offsets

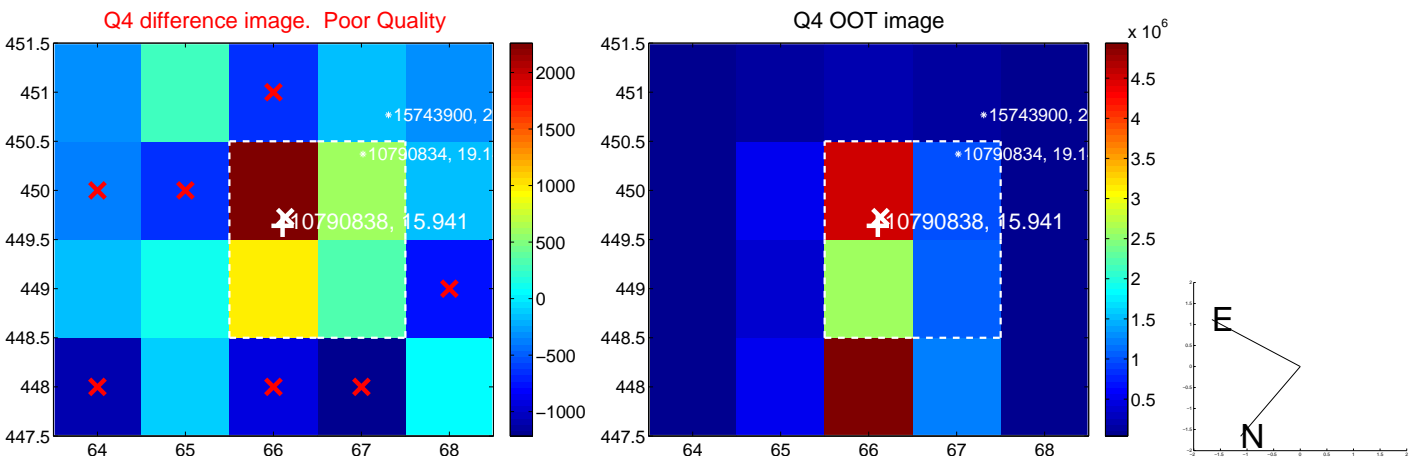
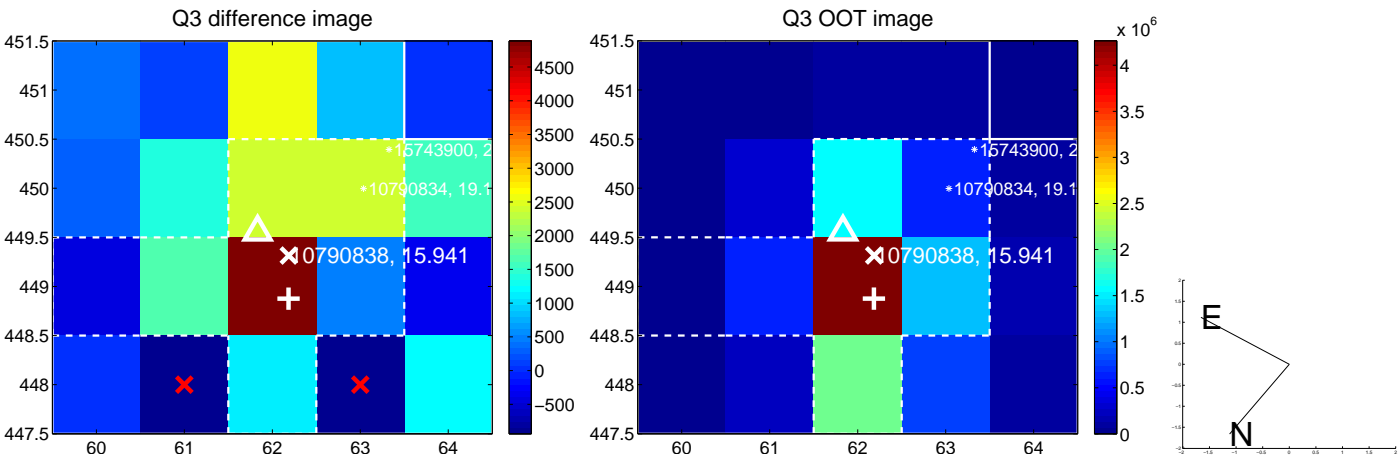
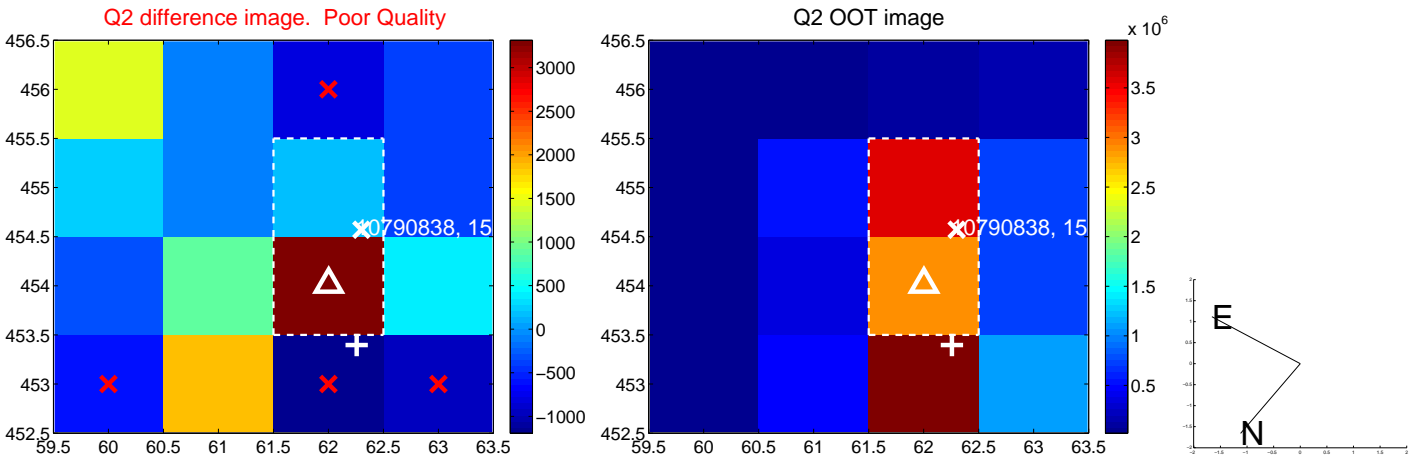
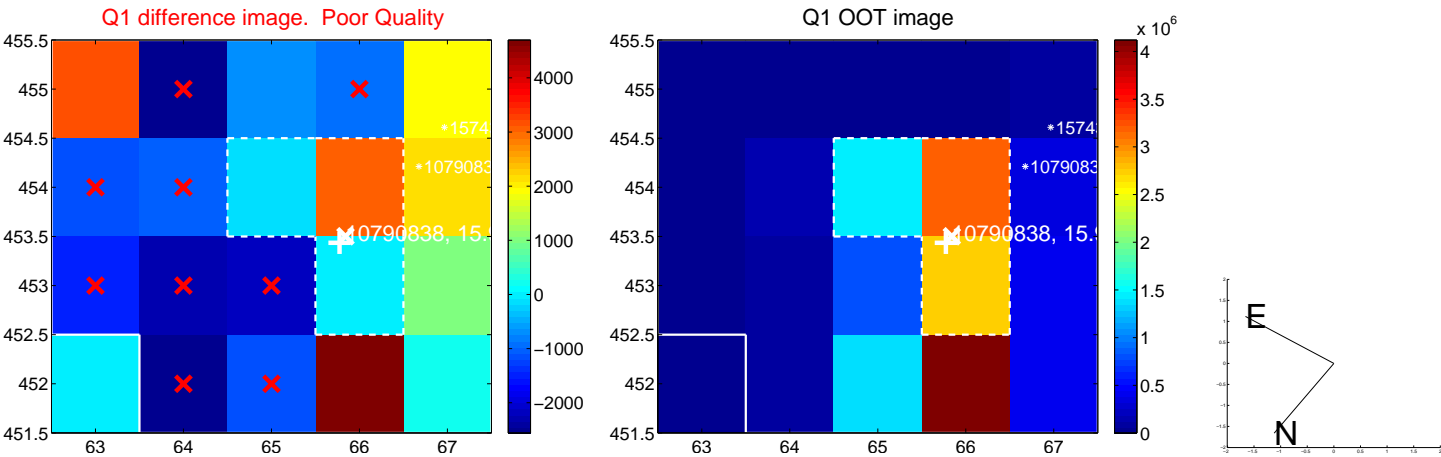
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.045 ± 0.391	2.67	0.741 ± 0.338	-0.737 ± 0.333
PRF-fit source offset from KIC position	0.423 ± 0.260	1.63	0.371 ± 0.271	0.204 ± 0.292
photometric centroid source offset	2.60 ± 0.80	3.24	-1.38 ± 0.75	2.20 ± 0.82

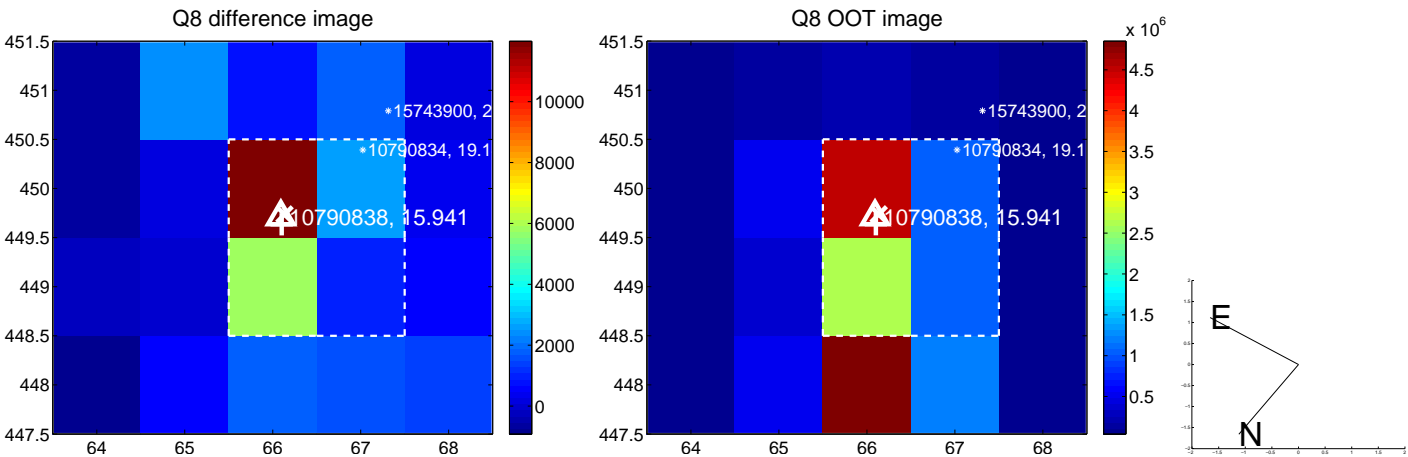
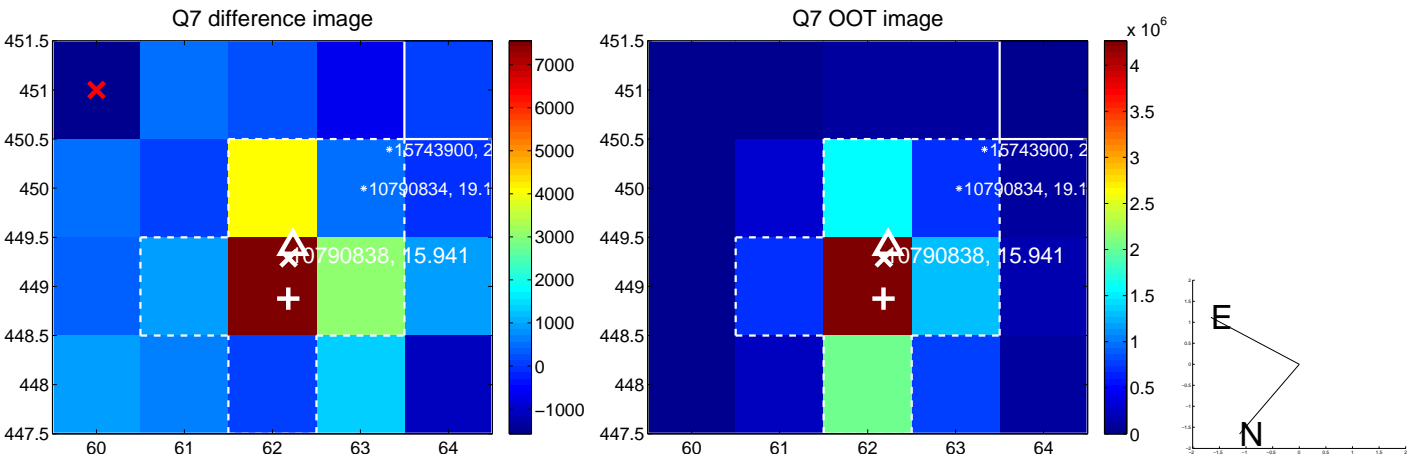
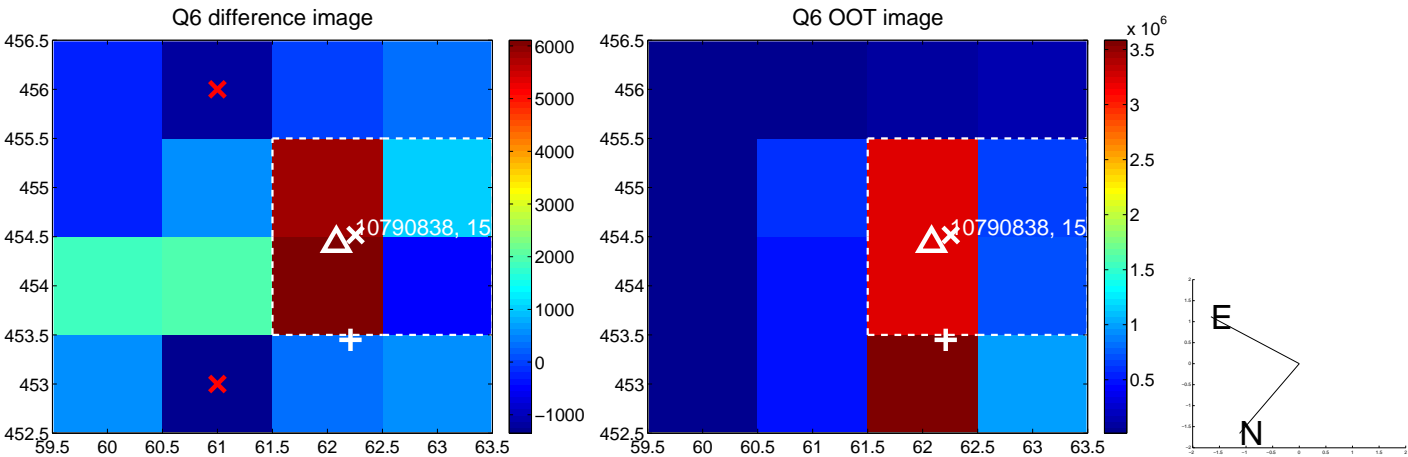
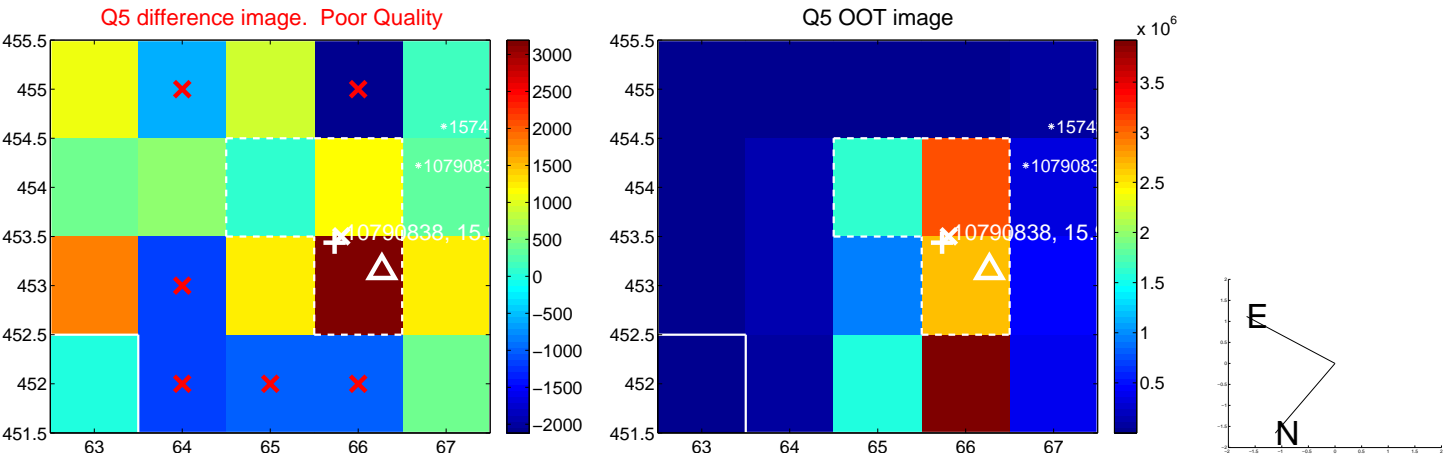


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

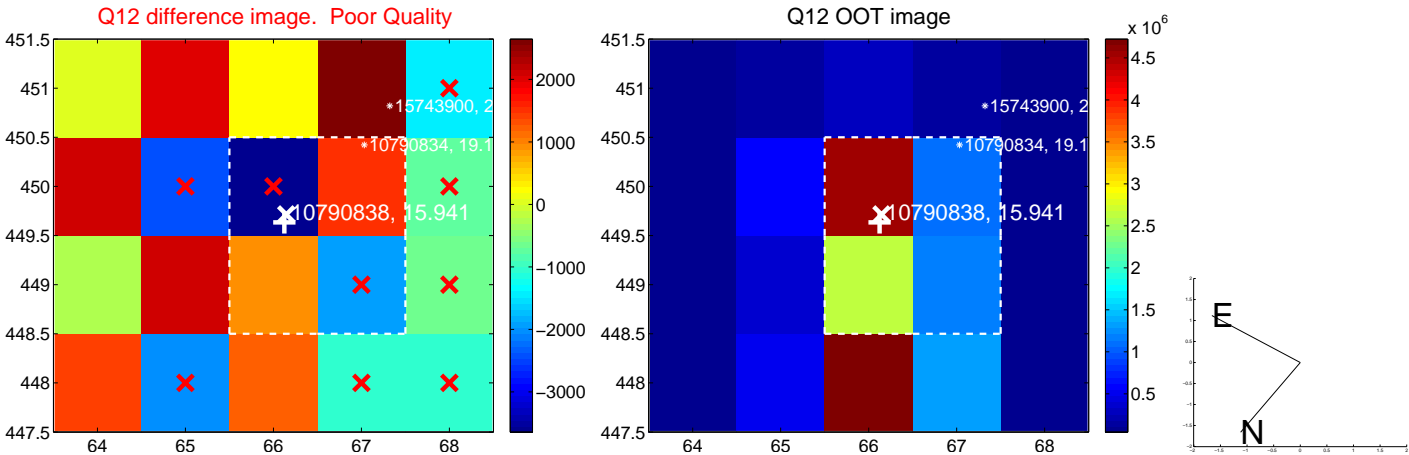
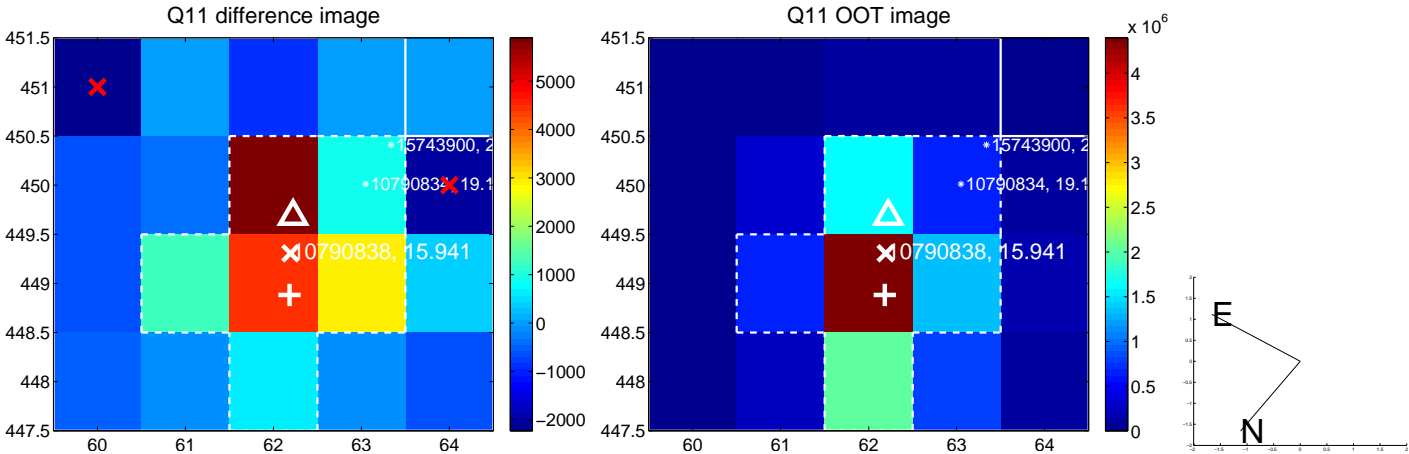
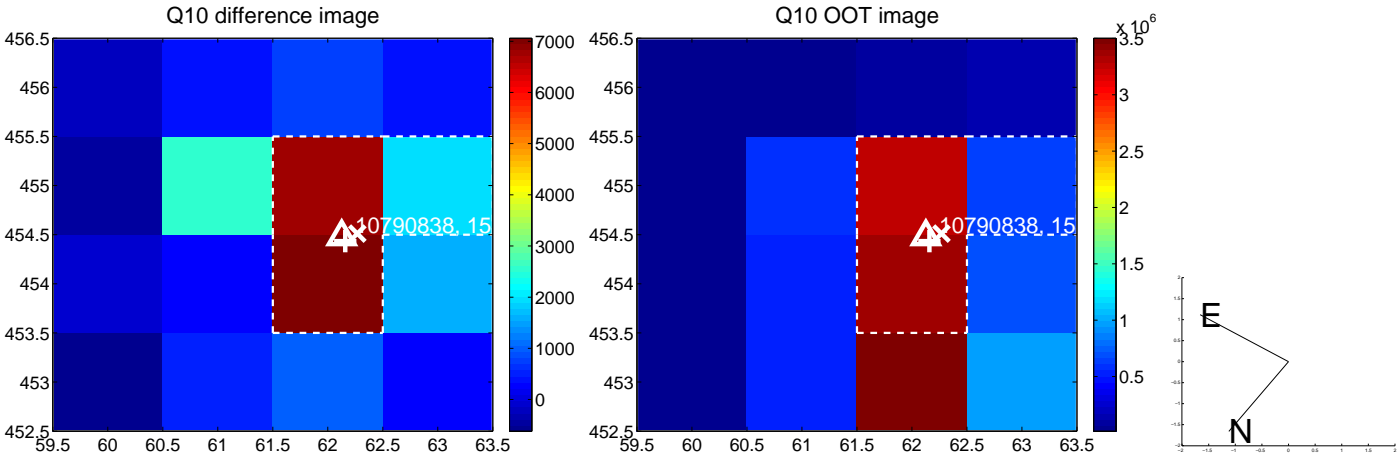
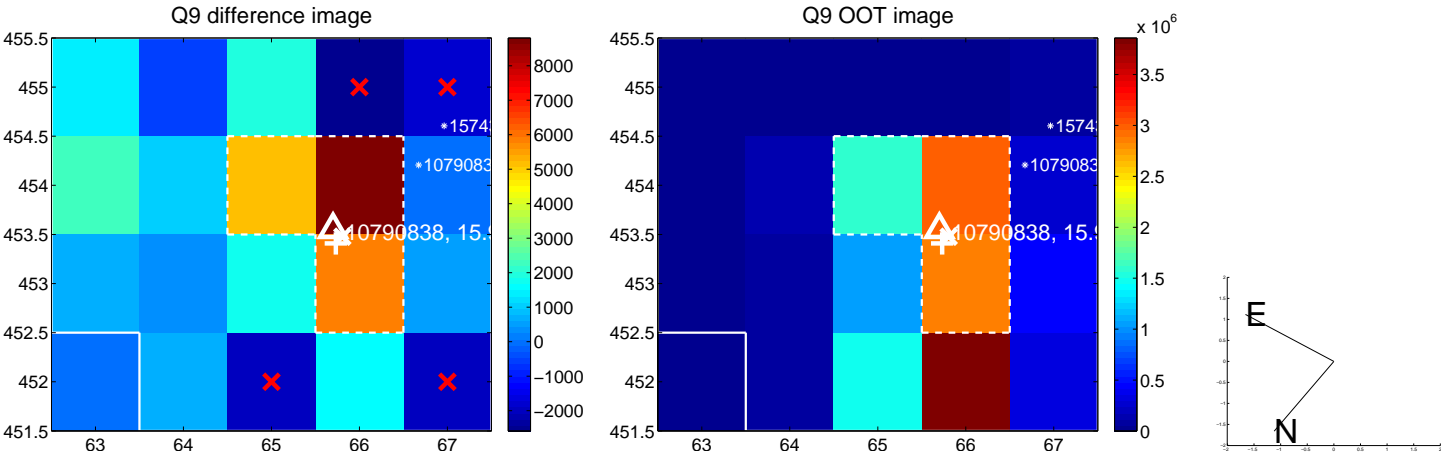
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



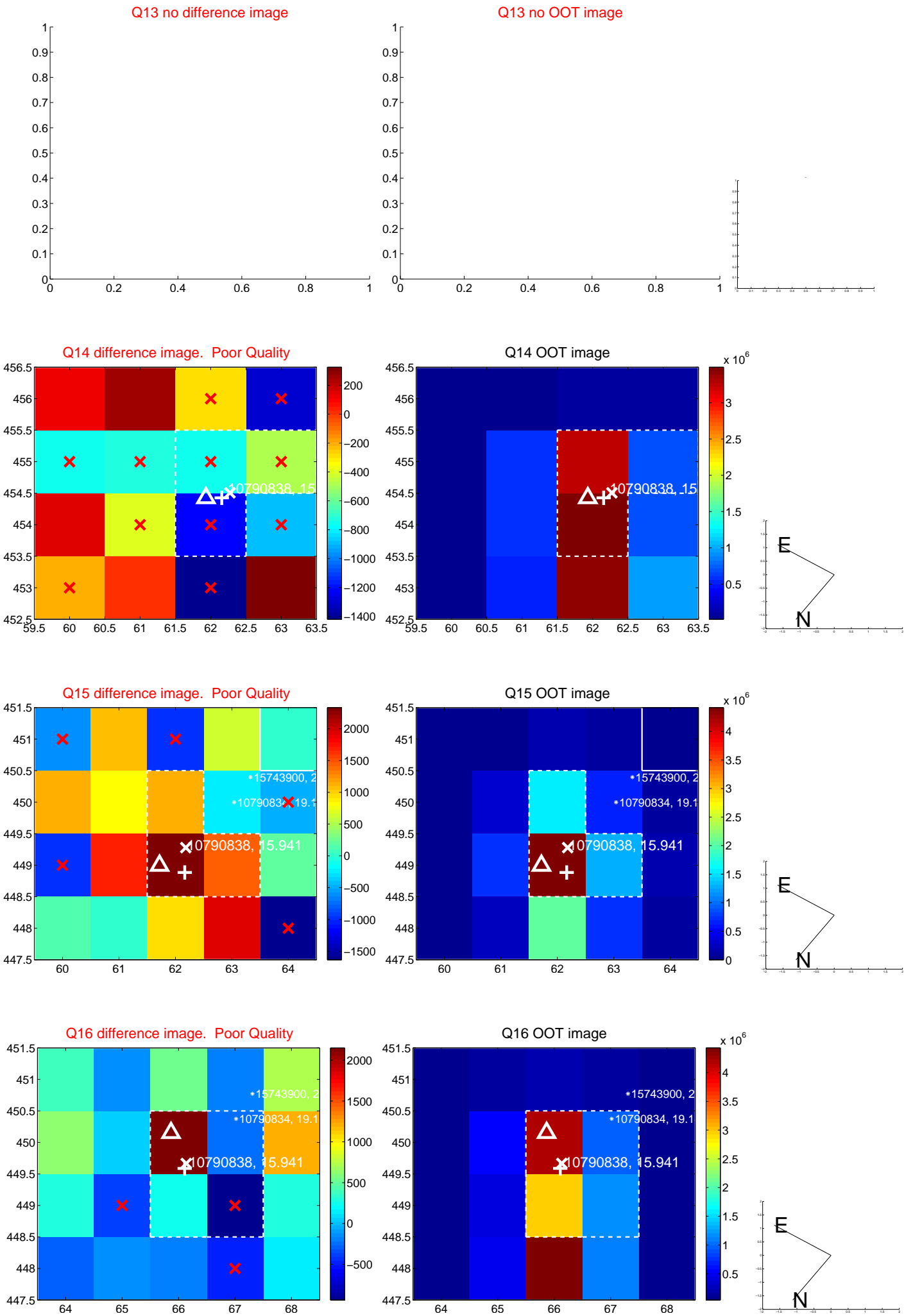
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



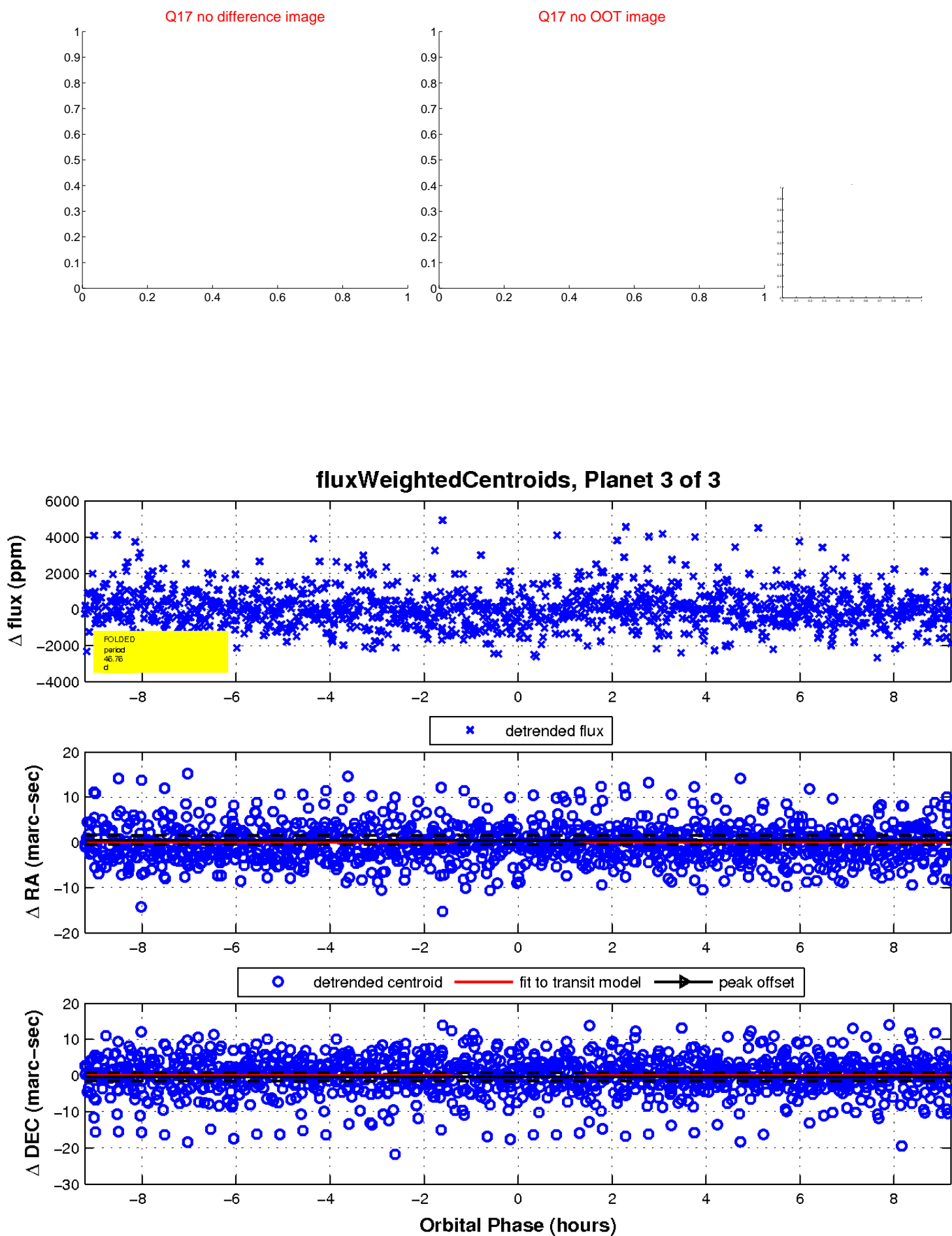
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

