

KIC 007838889

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})
007838889-01	OBS	No	1.016562	132.252873	118.3	3.310	12.0	10.8	3.06	8493	3.87	69963.16
007838889-02	OBS	No	1.016560	131.745888	124.3	2.990	12.1	11.7	3.06	8493	3.96	69963.29
007838889-03	OBS	No	0.916480	131.967662	276.2	4.704	11.8	14.9	3.06	8493	5.90	80331.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007838889-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007838889-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007838889-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

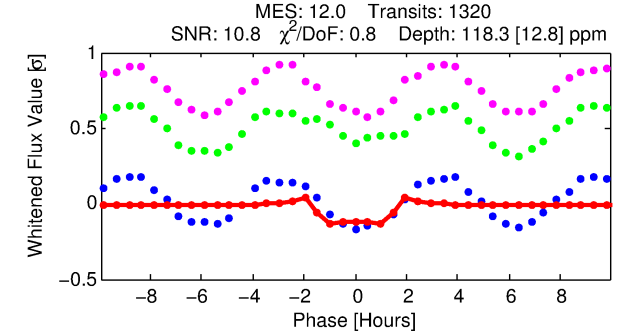
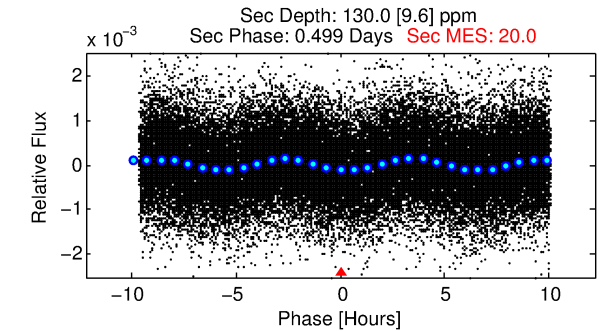
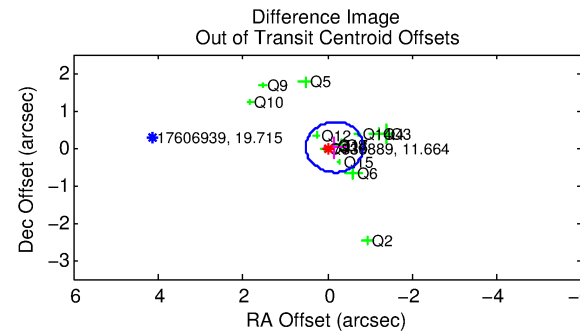
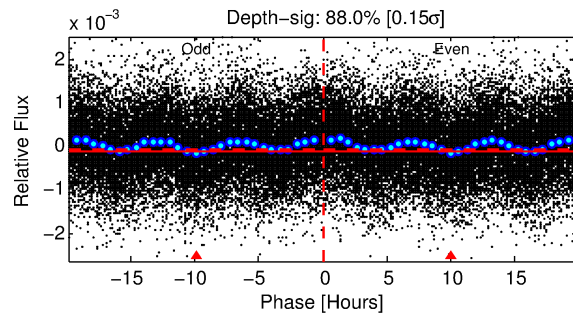
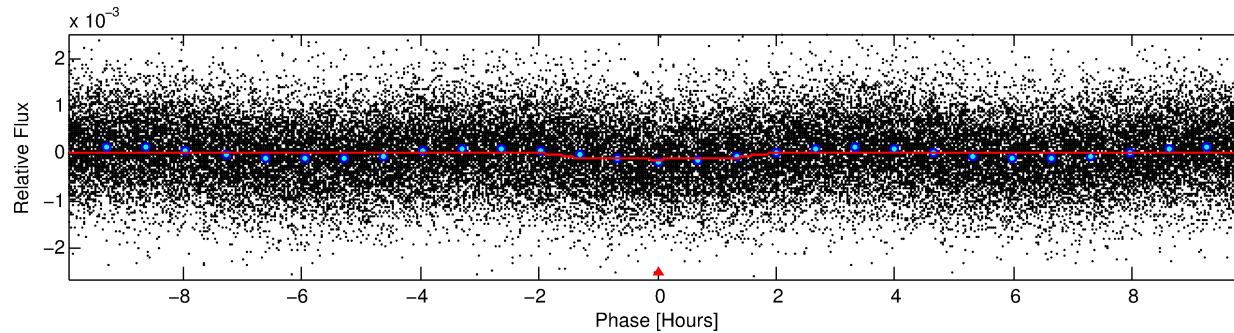
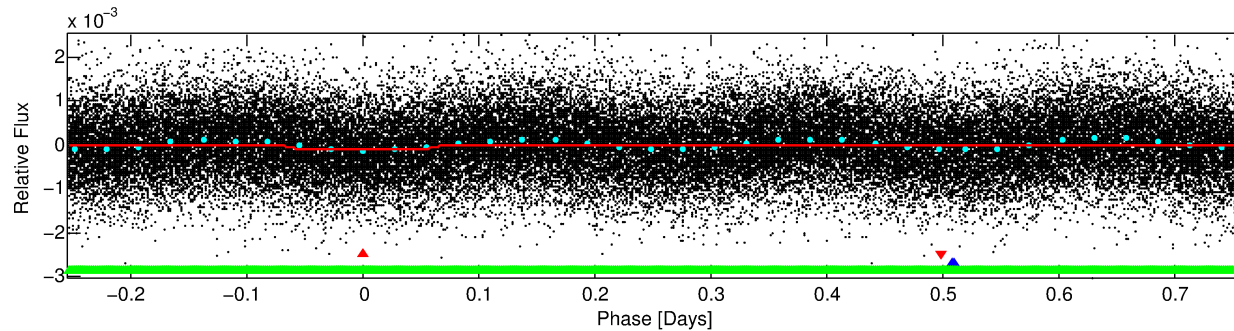
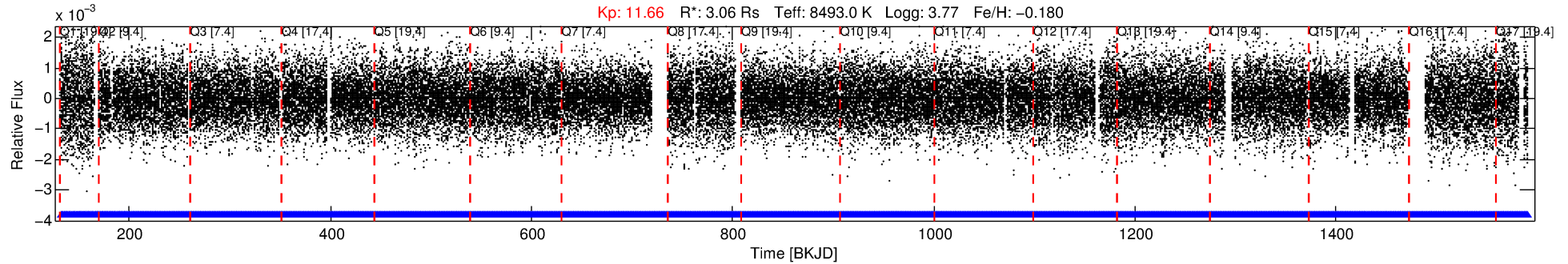
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007838889-01

No Significant Match Found

DV One-Page Summary

KIC: 7838889 Candidate: 1 of 3 Period: 1.017 d



DV Fit Results:

Period = 1.01656 [0.00001] d
Epoch = 132.2529 [0.0023] BKJD
Rp/R* = 0.0116 [0.0025]
a/R* = 1.43 [0.98]
b = 0.90 [0.28]
Seff = 69963.16 [50370.19]
Teq = 4147 [746] K
Rp = 3.87 [1.89] Re
a = 0.0250 [0.0108] AU
Ag = 2.98 [2.45] [0.81 σ]
Teffp = 8425 [986] K [3.46 σ]

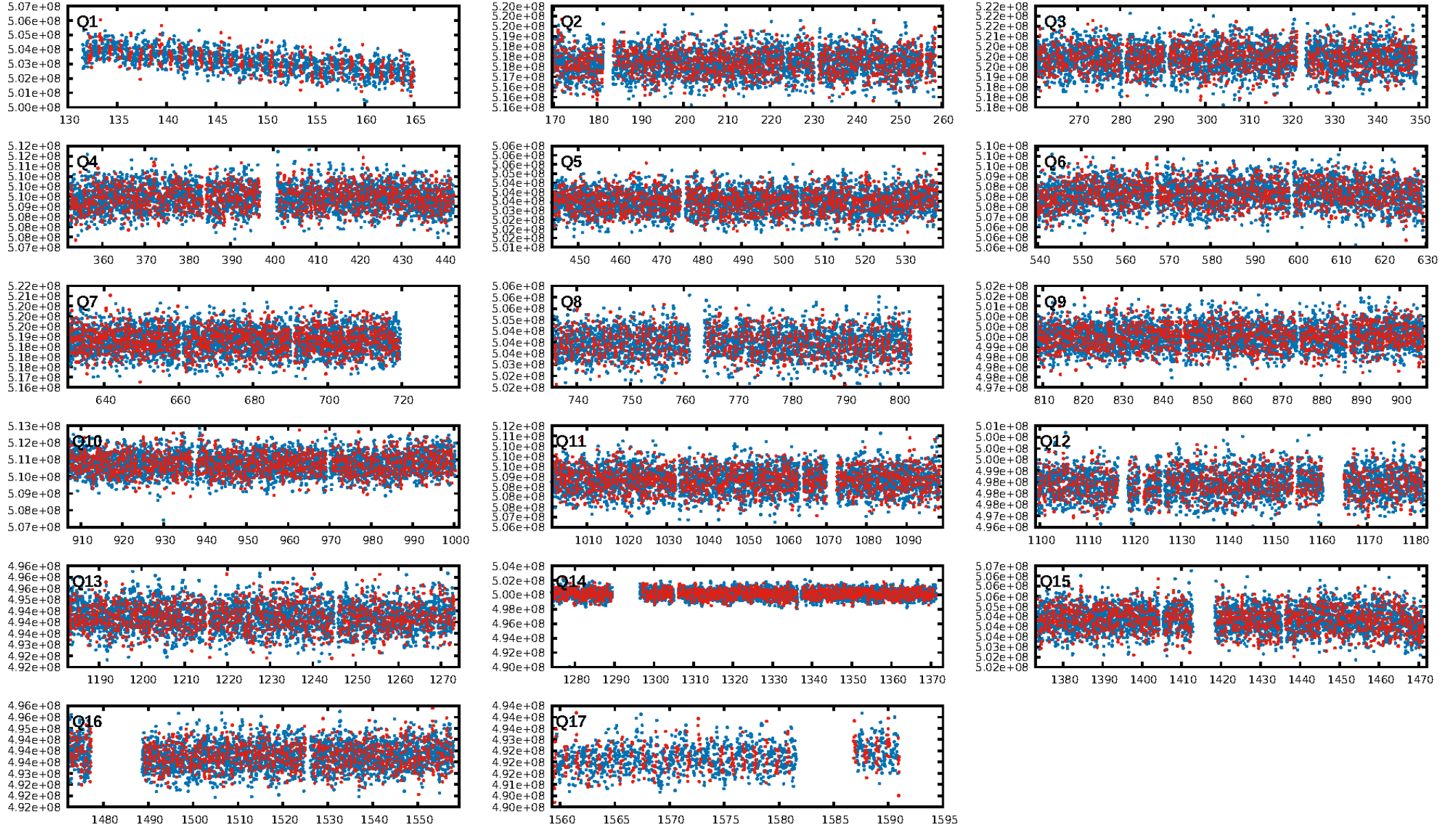
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1260/1260]
GhostDiagnostic-chr: 1.62
Centroid-sig: 17.3%
Centroid-so: 0.218 arcsec [3.08 σ]
OotOffset-rm: 0.169 arcsec [0.75 σ]
KicOffset-rm: 0.240 arcsec [1.32 σ]
OotOffset-st: 4/2/4/4 [14]
KicOffset-st: 4/2/4/4 [14]
DiffImageQuality-fgm: 0.29 [4/14]
DiffImageOverlap-fno: 1.00 [17/17]

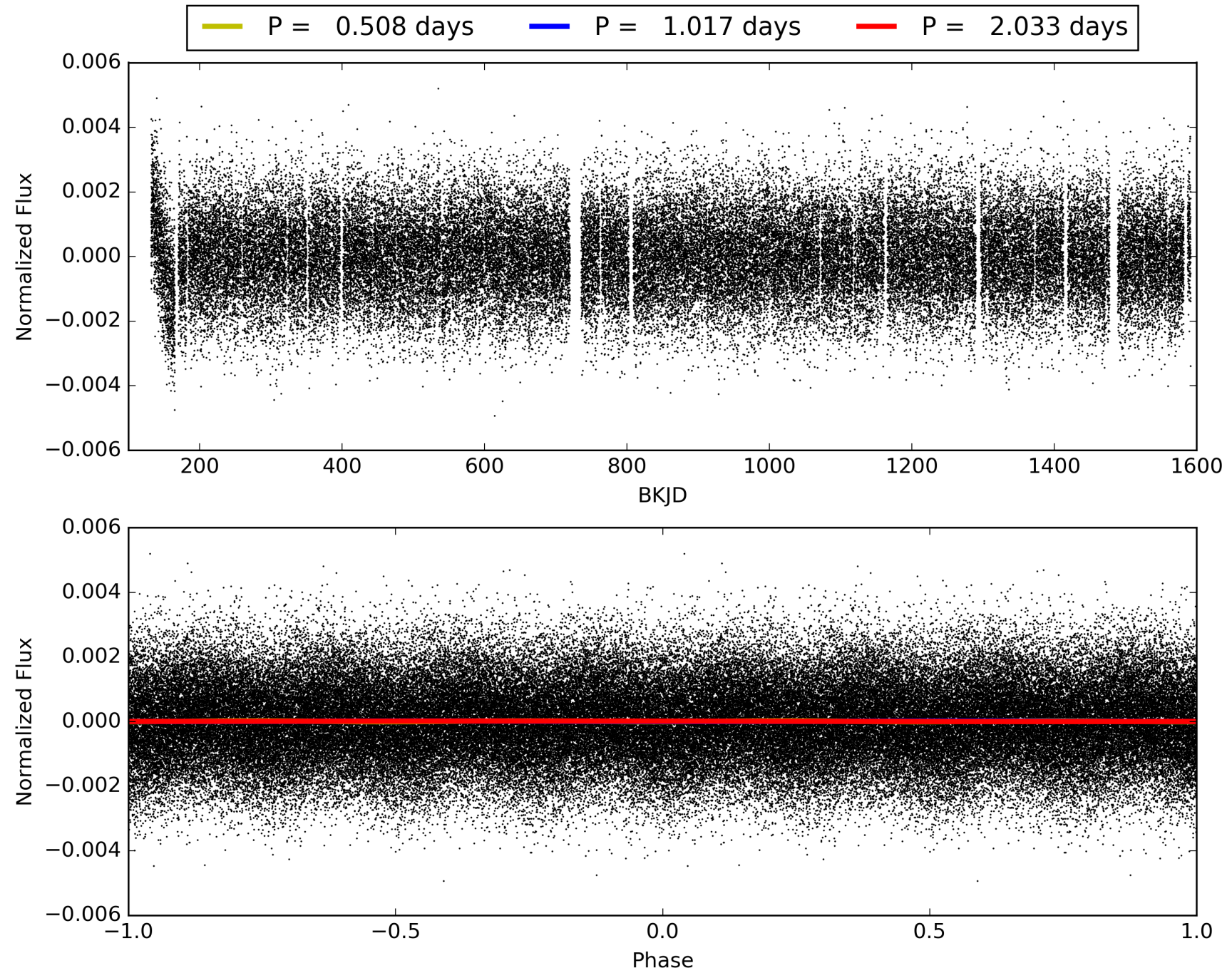
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:22:06 Z

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

TCE 007838889-01, PDC Light Curves

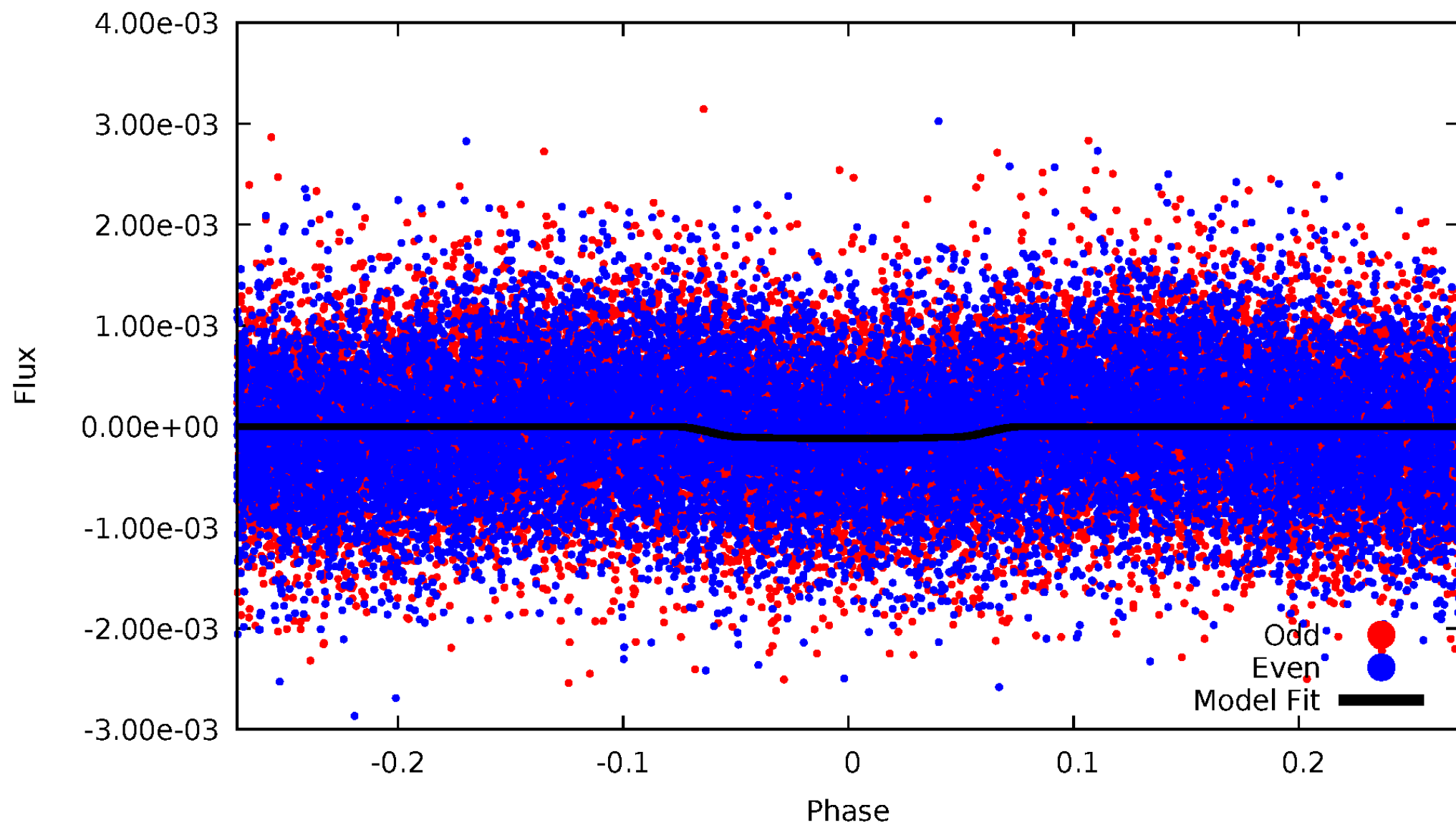


TCE 007838889-01



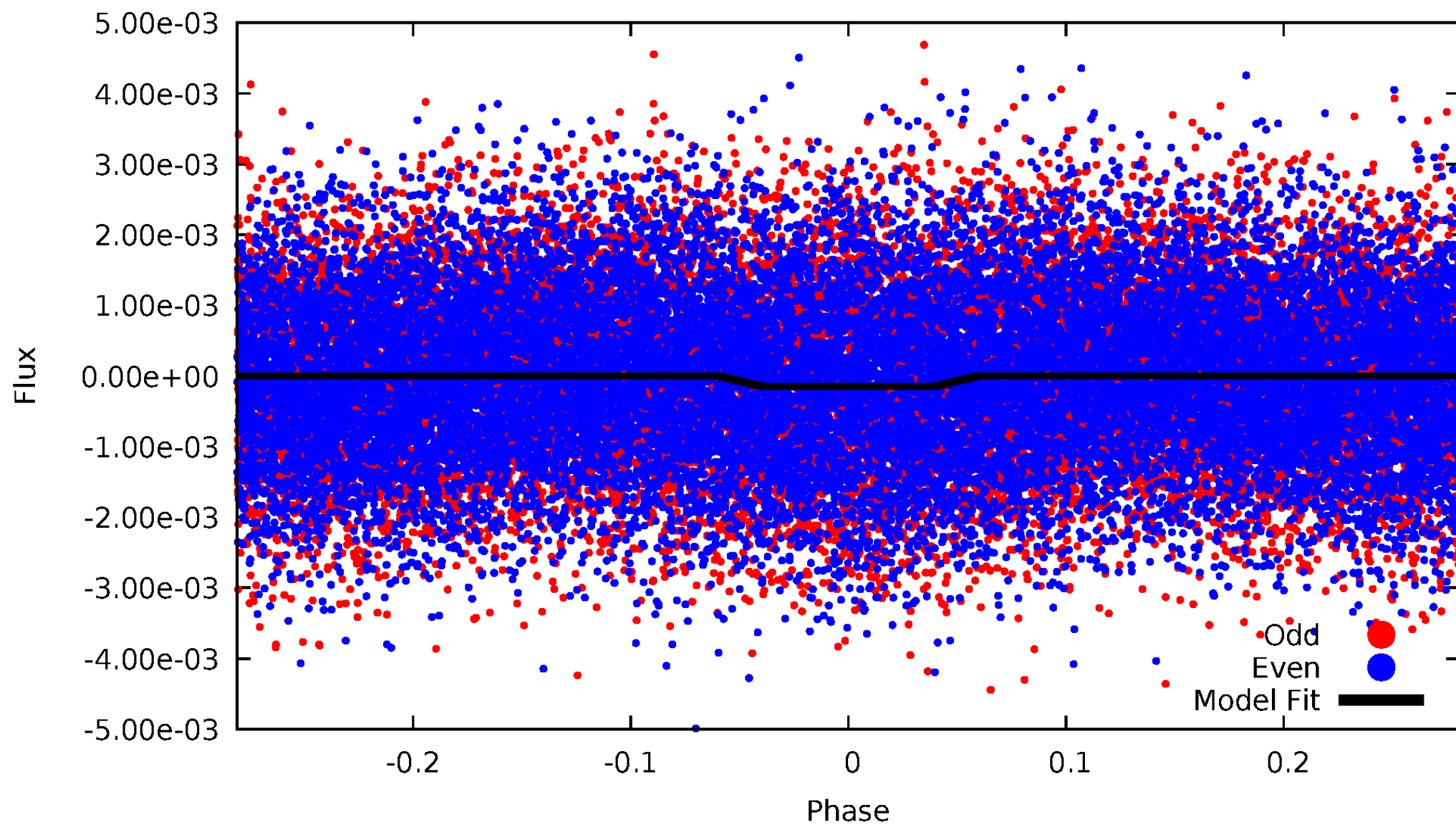
DV Odd/Even

TCE 007838889-01

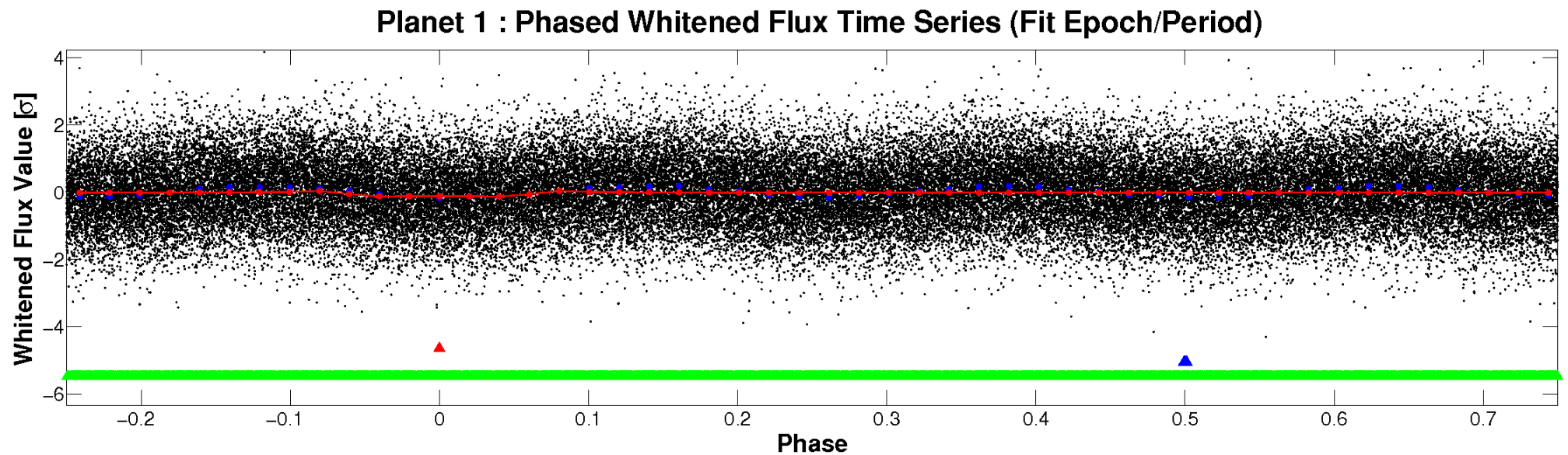
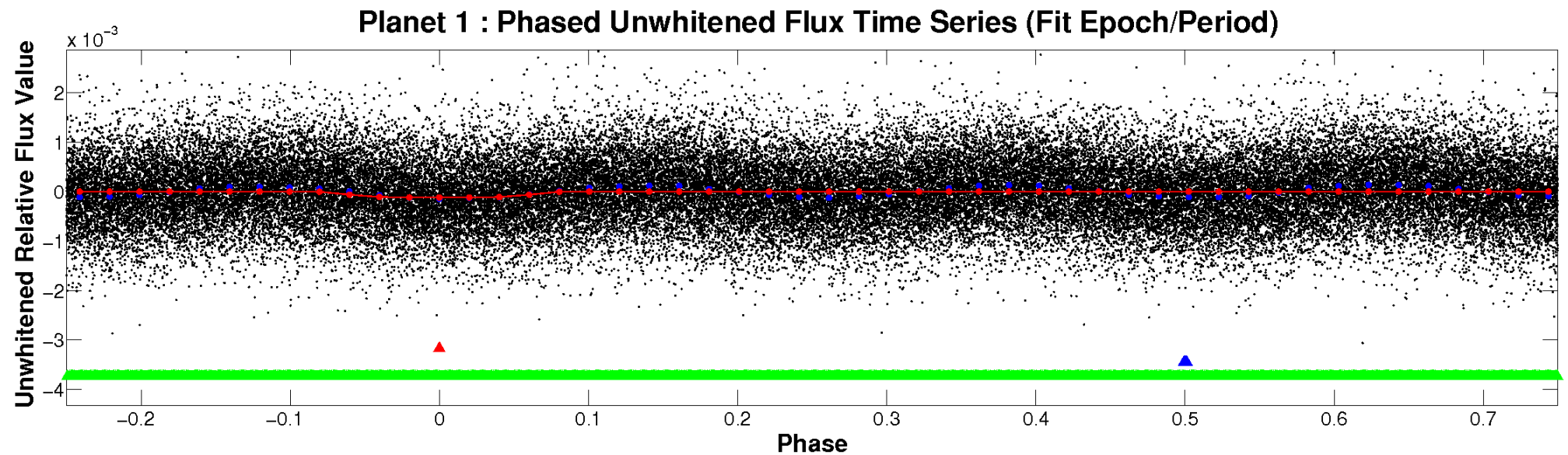


ALT Odd/Even

TCE 007838889-01

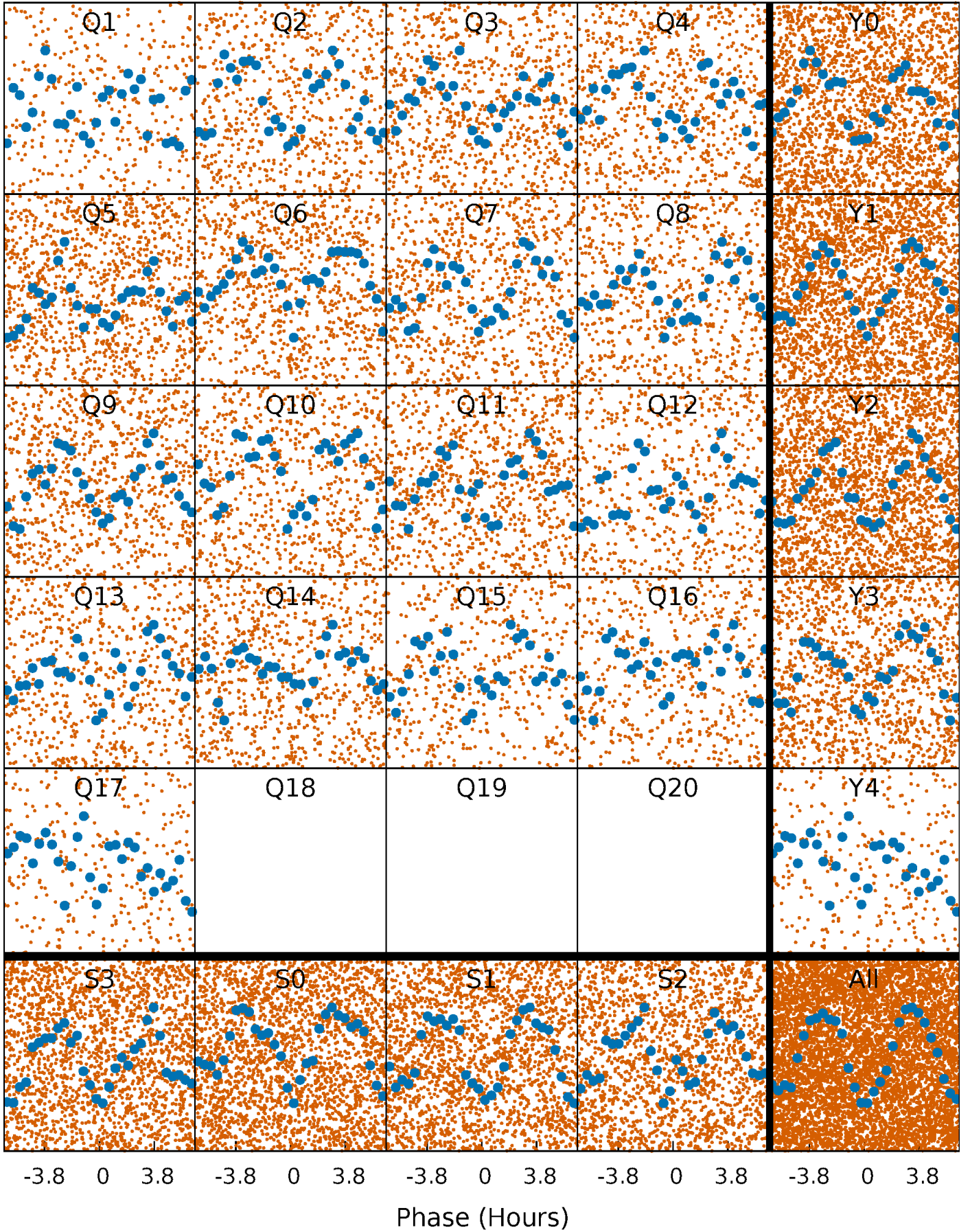


Non-Whitened Vs. Whitened Light Curve



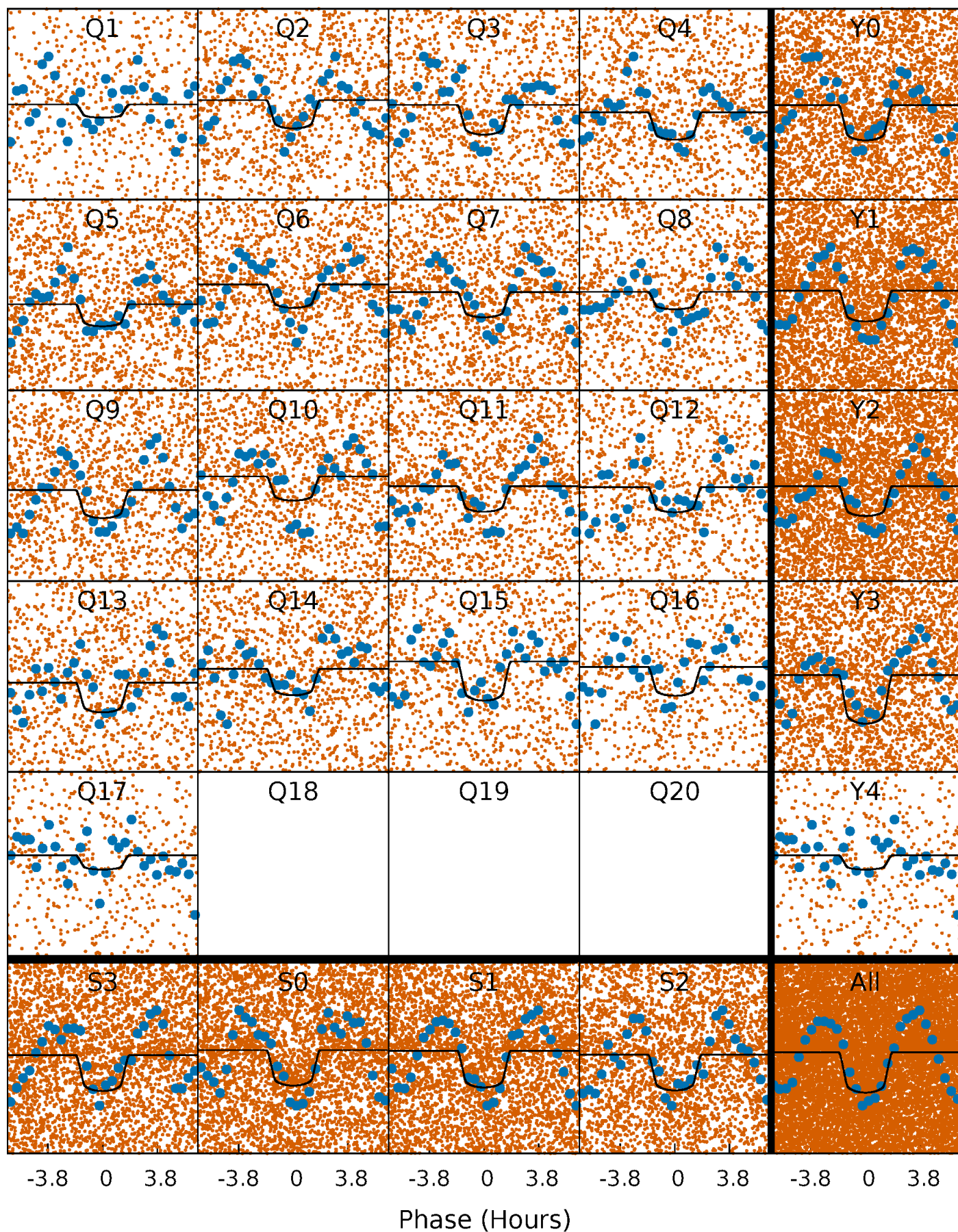
PDC Quarter-Phased Transit Curves

TCE 007838889-01 P= 1.016562 Days $T_0=132.252872$ (BKJD)



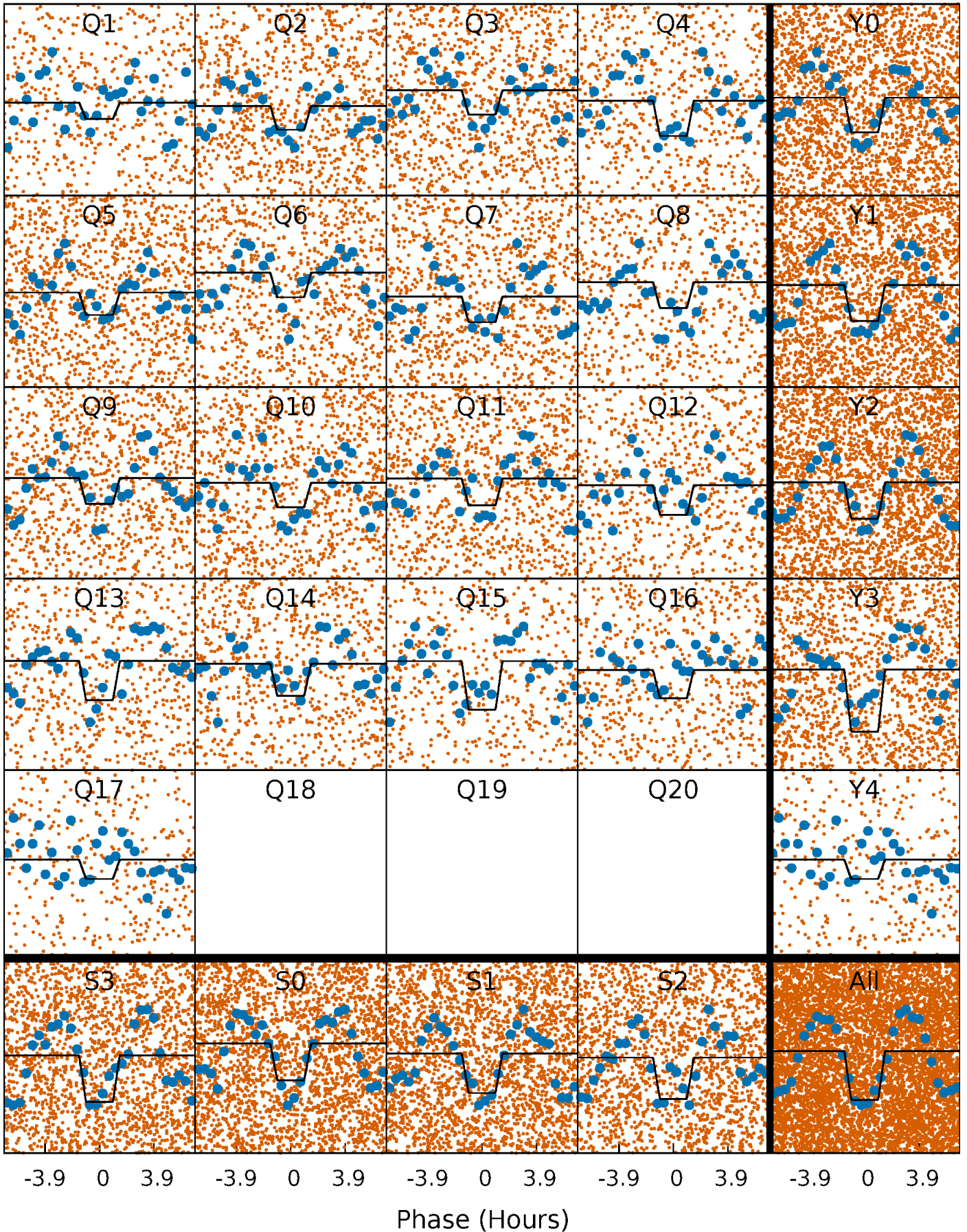
DV Quarter-Phased Transit Curves

TCE 007838889-01 P= 1.016562 Days $T_0=132.252872$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

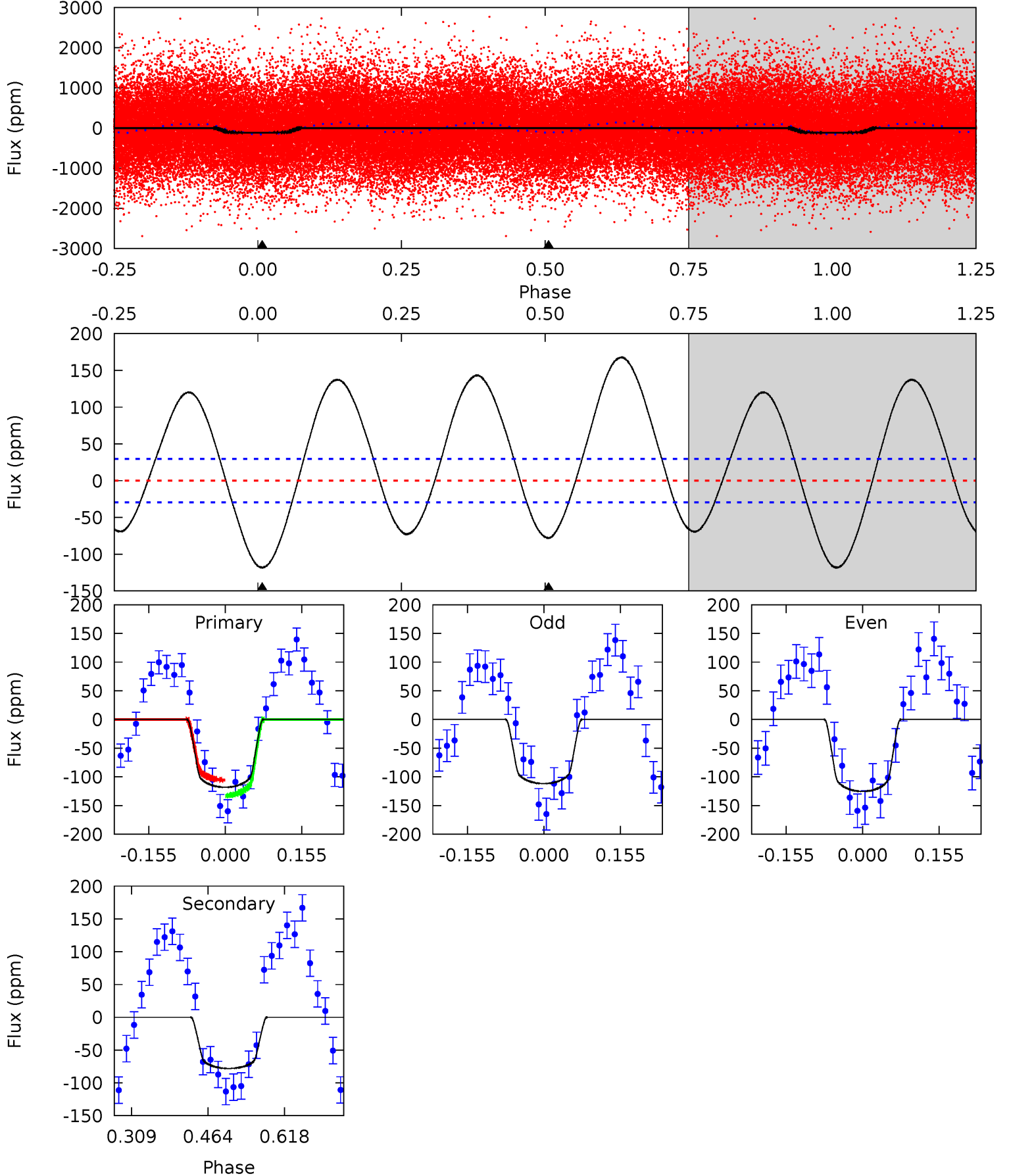
TCE 007838889-01 P= 1.016582 Days $T_0=132.250468$ (BKJD)



DV Model-Shift Uniqueness Test

007838889-01, P = 1.016562 Days, E = 131.236310 Days

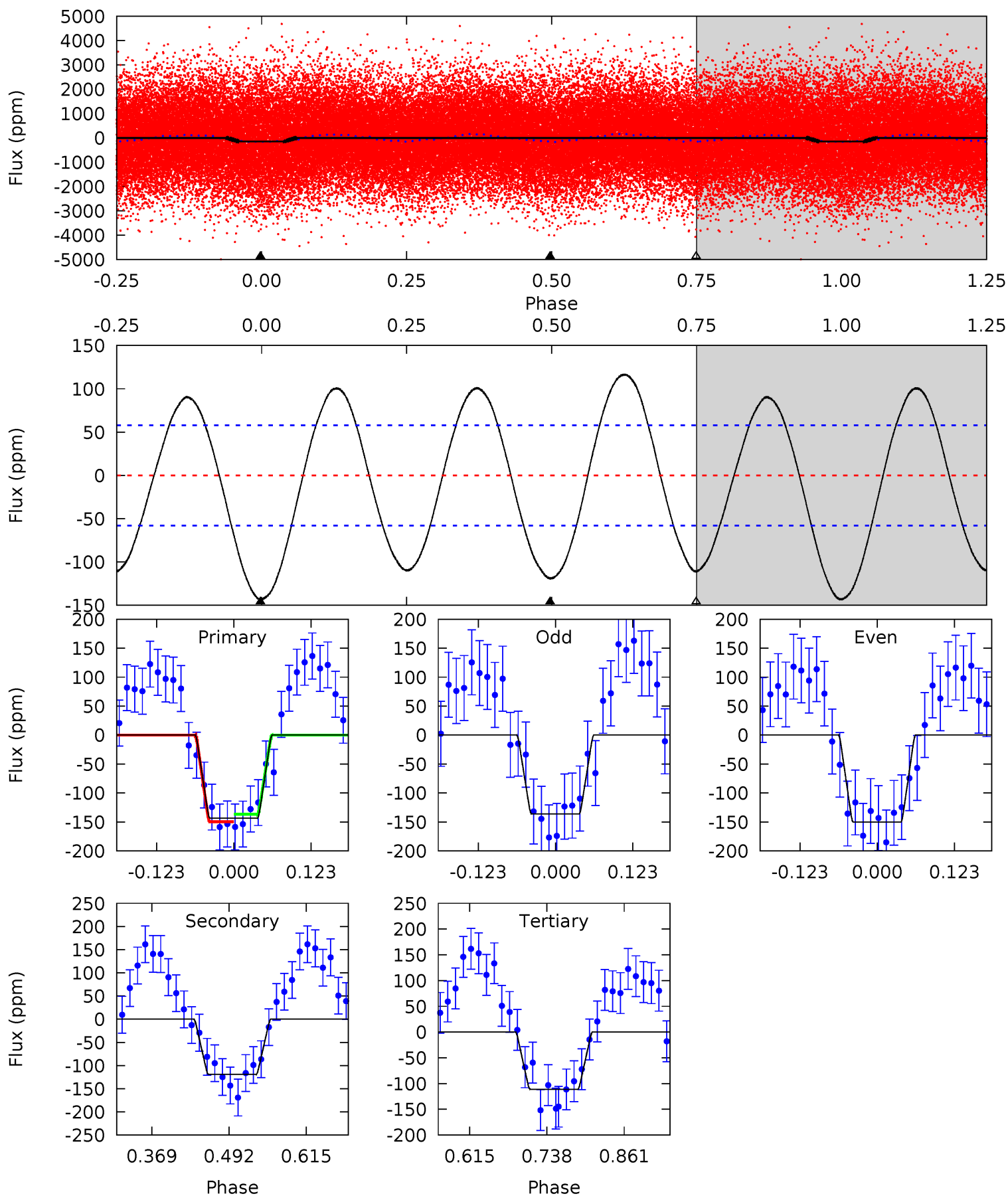
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	11.8	0	0	4.47	1.42	9.21	17.9	17.9	11.8	11.8	1.03	1.04	0.59	2.03



Alt Model-Shift Uniqueness Test

007838889-01, P = 1.016582 Days, E = 131.233886 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	9.30	8.68	0	4.52	1.54	5.94	2.51	11.2	0.63	9.30	0.55	0.92	0.45	0.51



Stellar Parameters For KIC 007838889

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8493^{+235}_{-383}	$3.770^{+0.412}_{-0.110}$	$-0.180^{+0.300}_{-0.350}$	$3.061^{+0.785}_{-1.345}$	$2.017^{+0.372}_{-0.455}$	$0.099^{+0.359}_{-0.038}$
	+3%/-5%	+11%/-3%	+167%/-194%	+26%/-44%	+18%/-23%	+363%/-39%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007838889-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-78 ± 7	$3.55^{+1.18}_{-1.06}$	5604^{+446}_{-641}	6828^{+1284}_{-843}	$2.146^{+2.093}_{-0.902}$
Alt.	-119 ± 13	$3.69^{+1.19}_{-0.97}$	5586^{+440}_{-637}	7588^{+1368}_{-961}	$2.999^{+2.653}_{-1.277}$

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

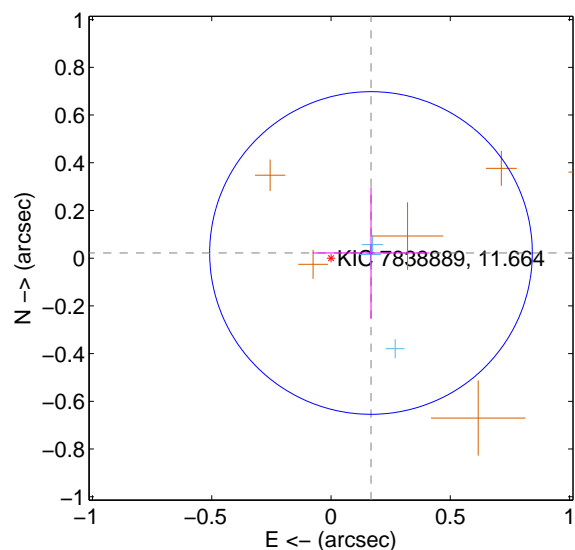
Supplemental centroid analysis for 007838889-01. **Kepler magnitude: 11.66.** Transit SNR 10.78

There are 4 quarters with good PRF difference image offsets

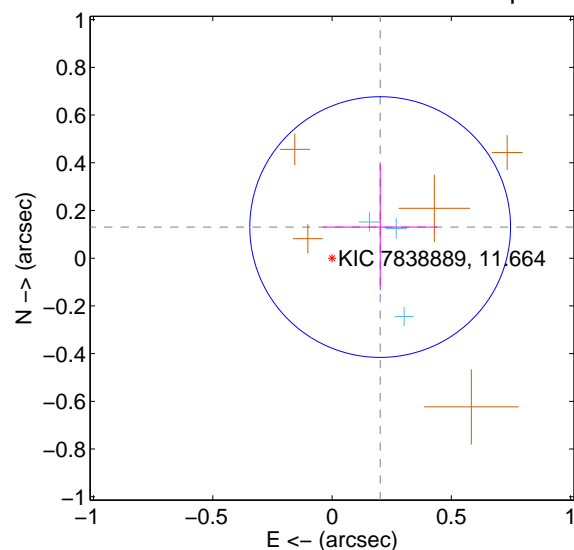
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.169 ± 0.225	0.75	-0.168 ± 0.244	0.022 ± 0.275
PRF-fit source offset from KIC position	0.240 ± 0.182	1.32	-0.202 ± 0.240	0.130 ± 0.264
photometric centroid source offset	0.22 ± 0.07	3.08	-0.22 ± 0.07	0.02 ± 0.08

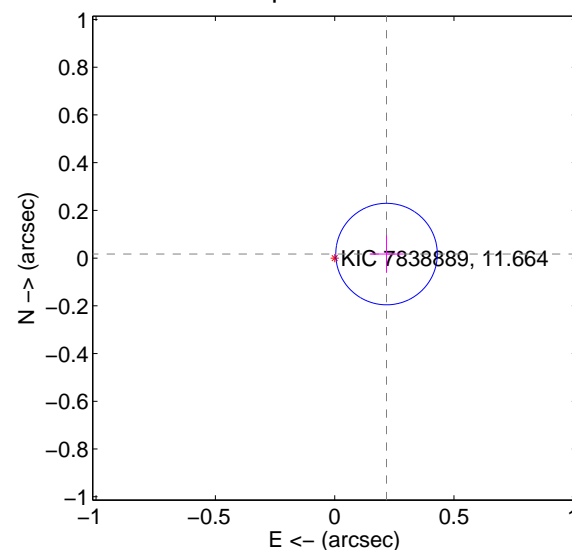
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

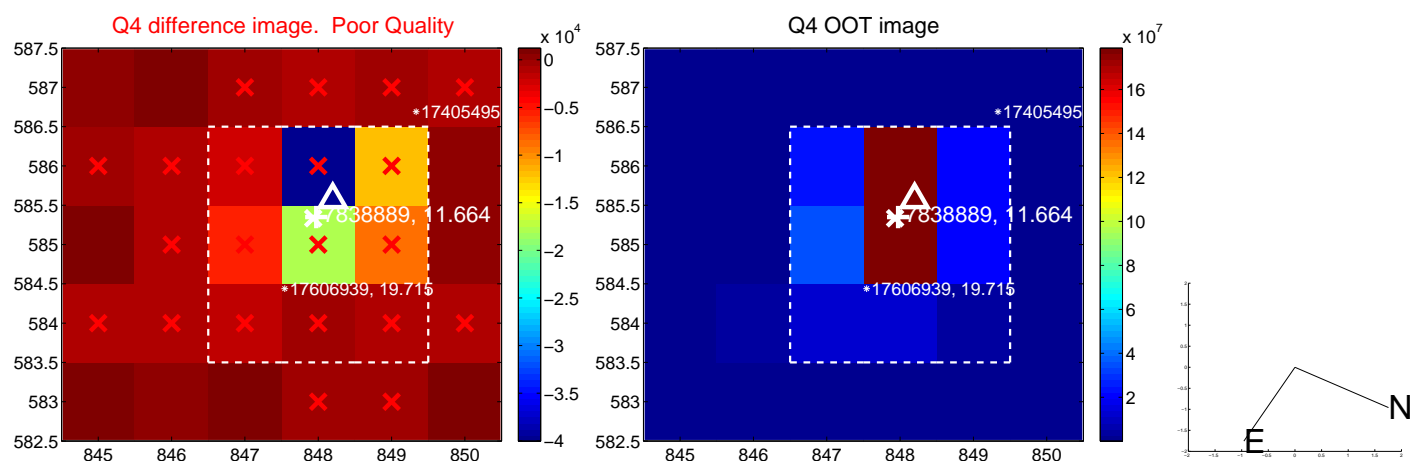
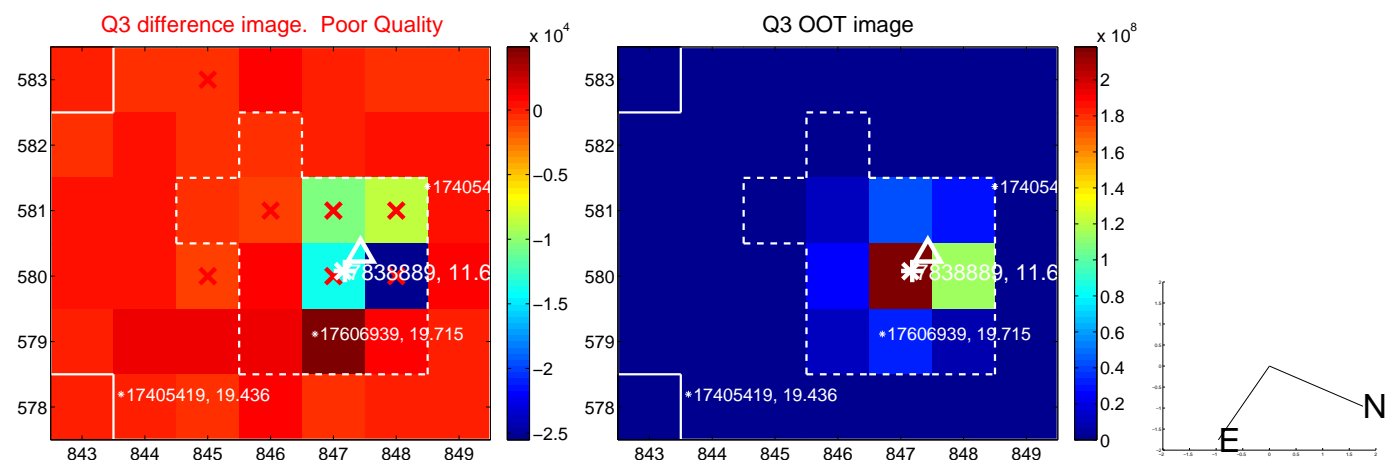
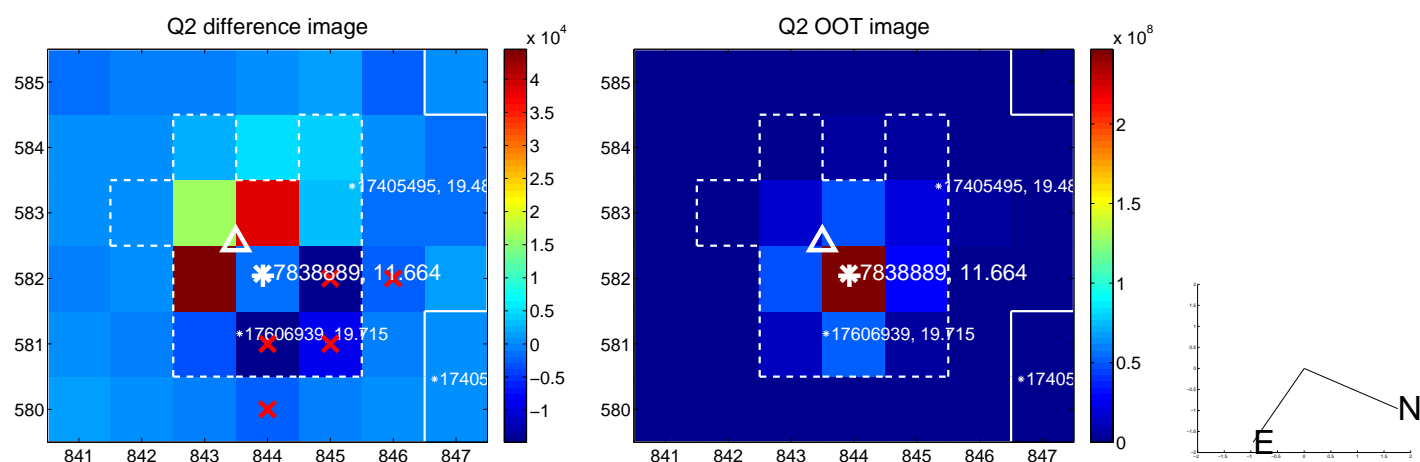
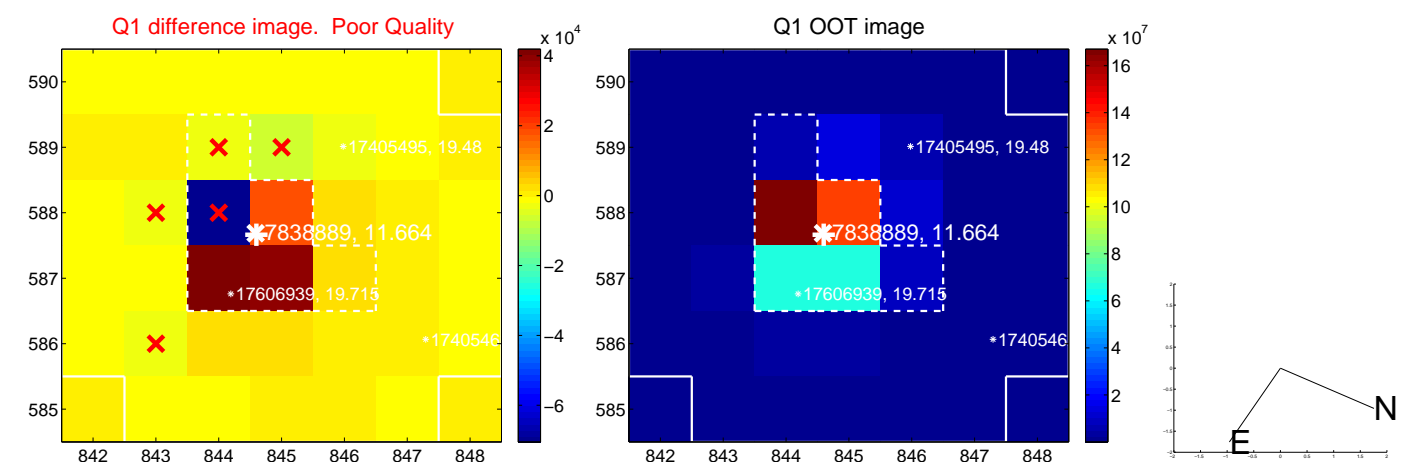


offset from photometric centroids

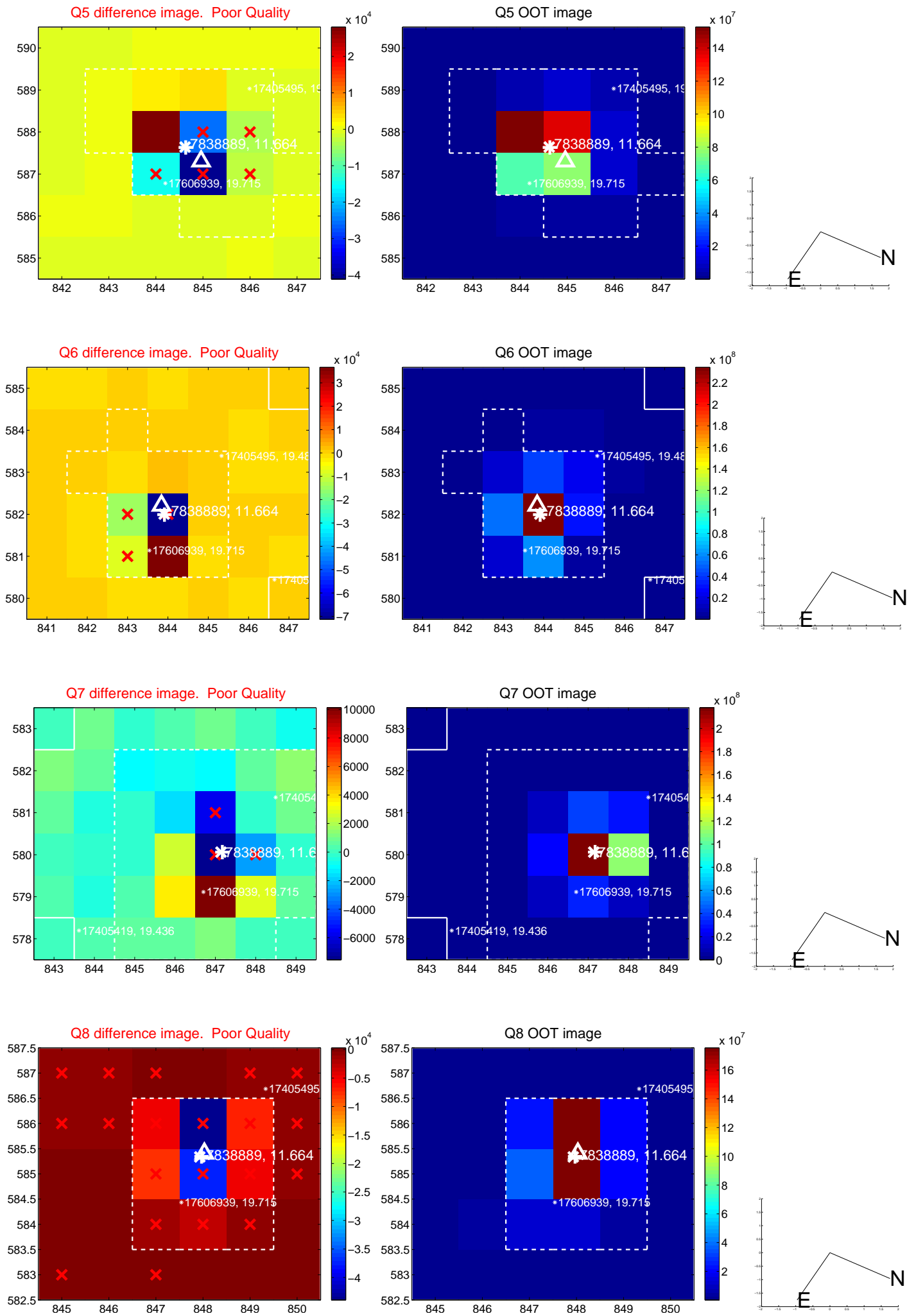


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

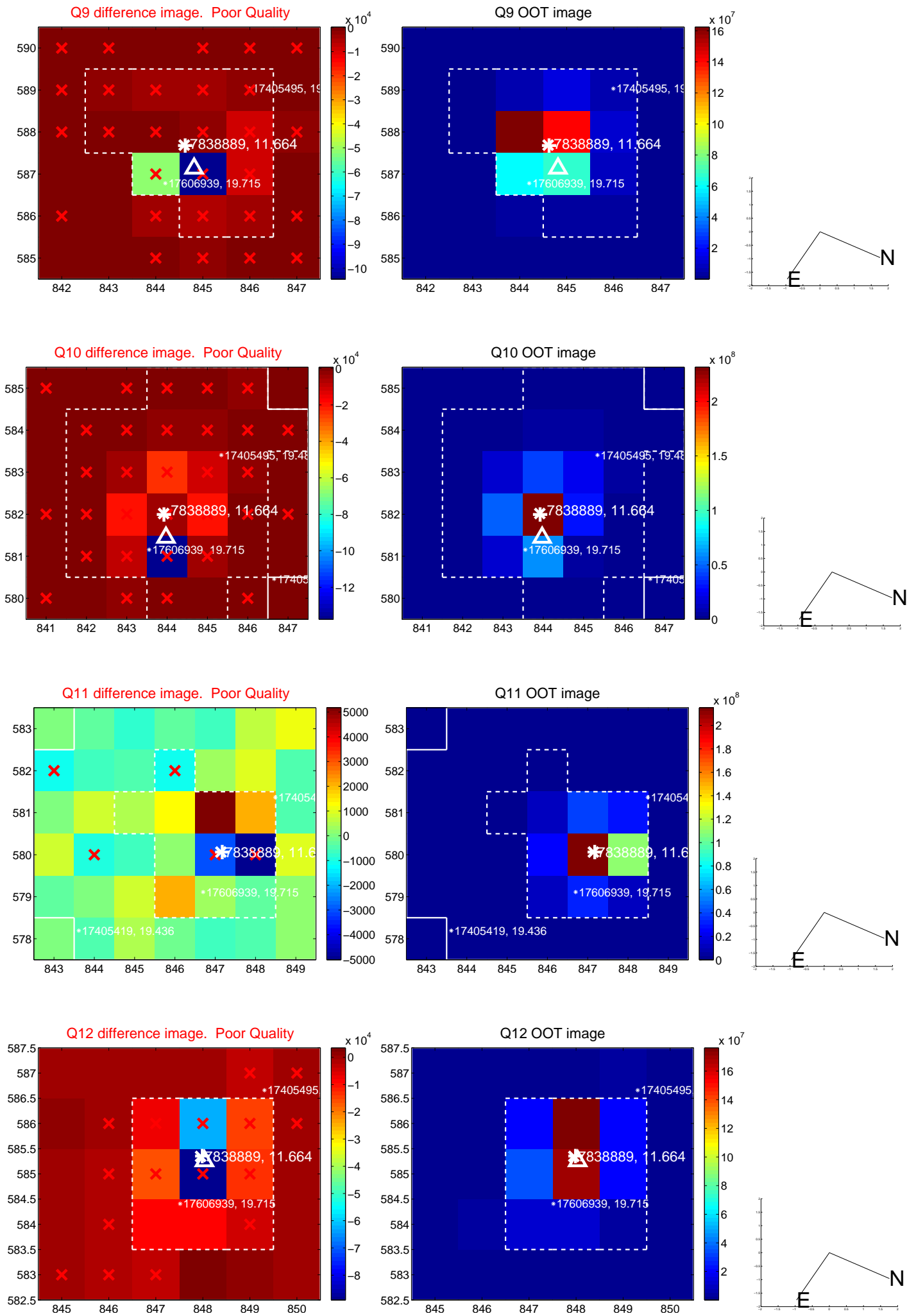
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



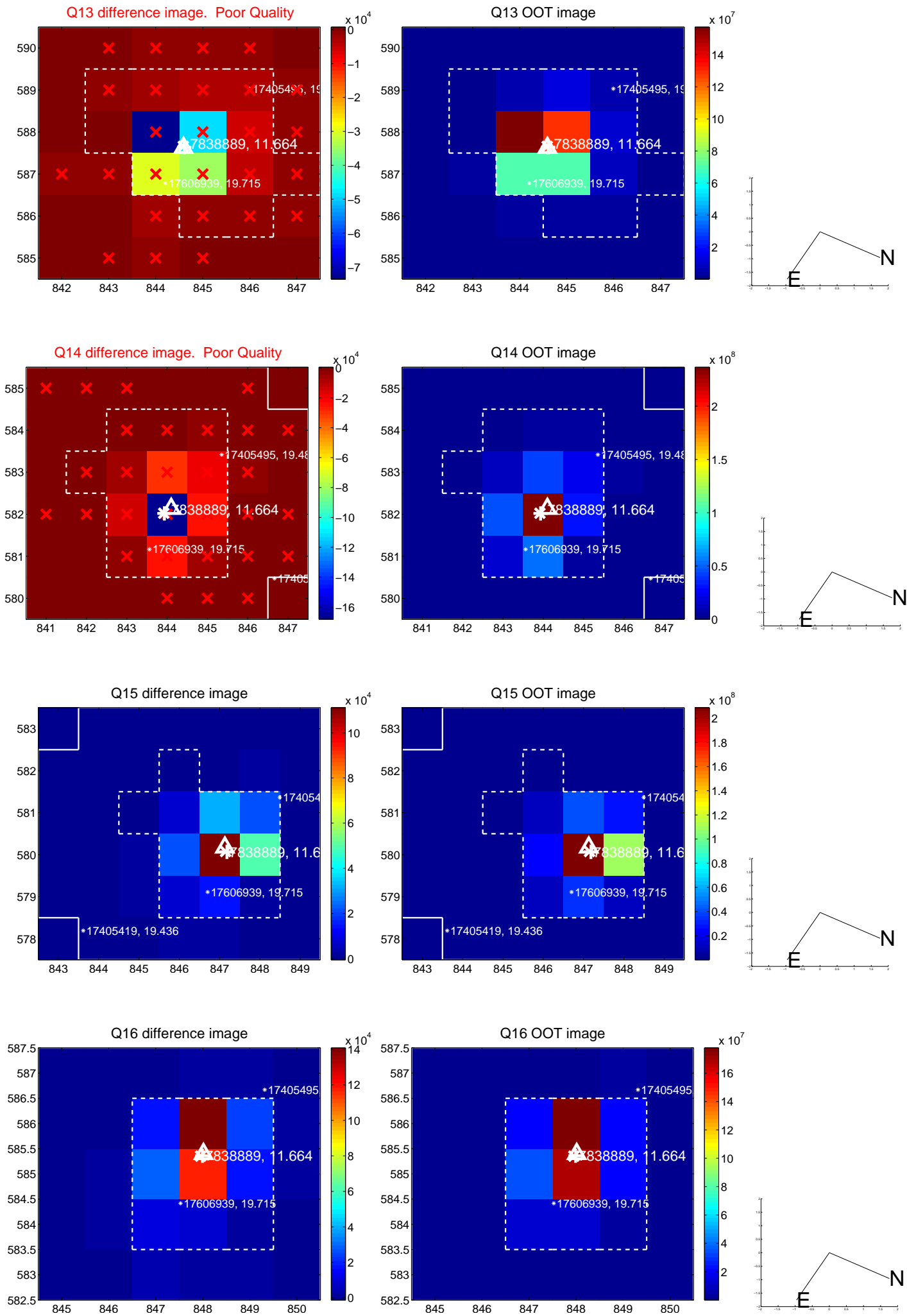
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



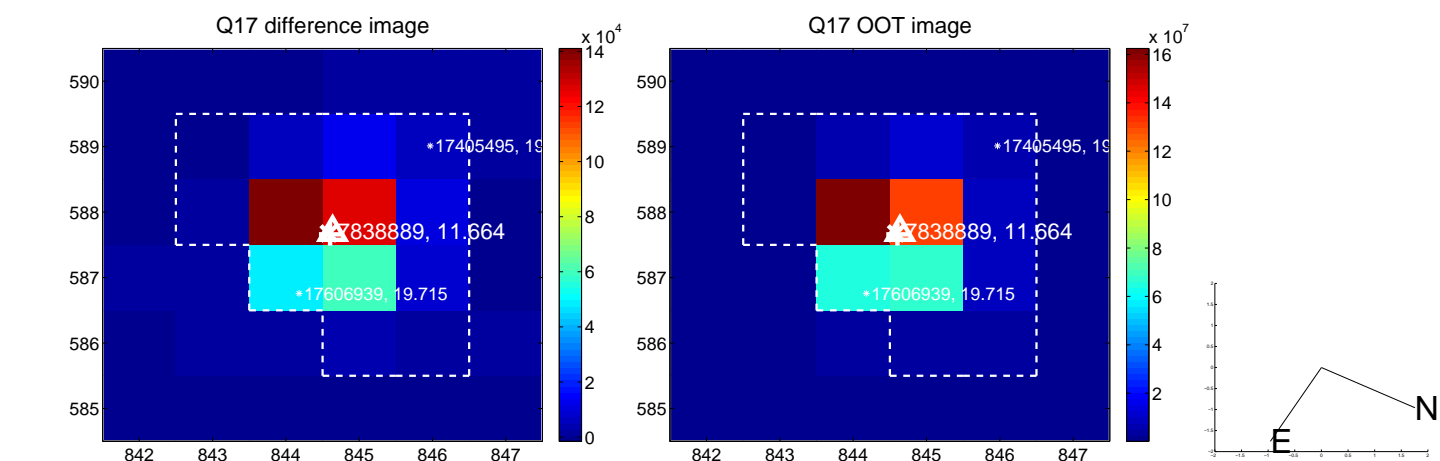
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



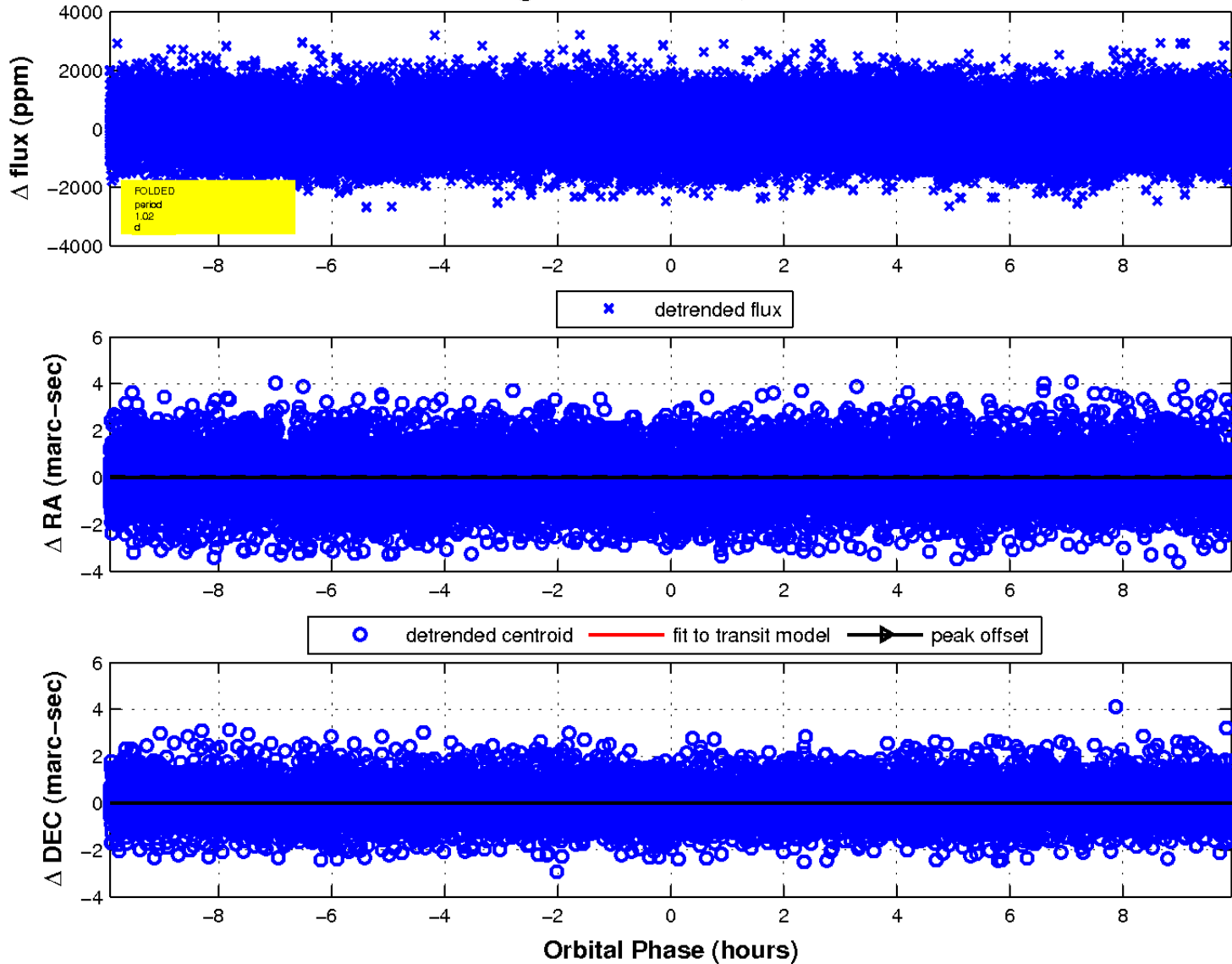
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

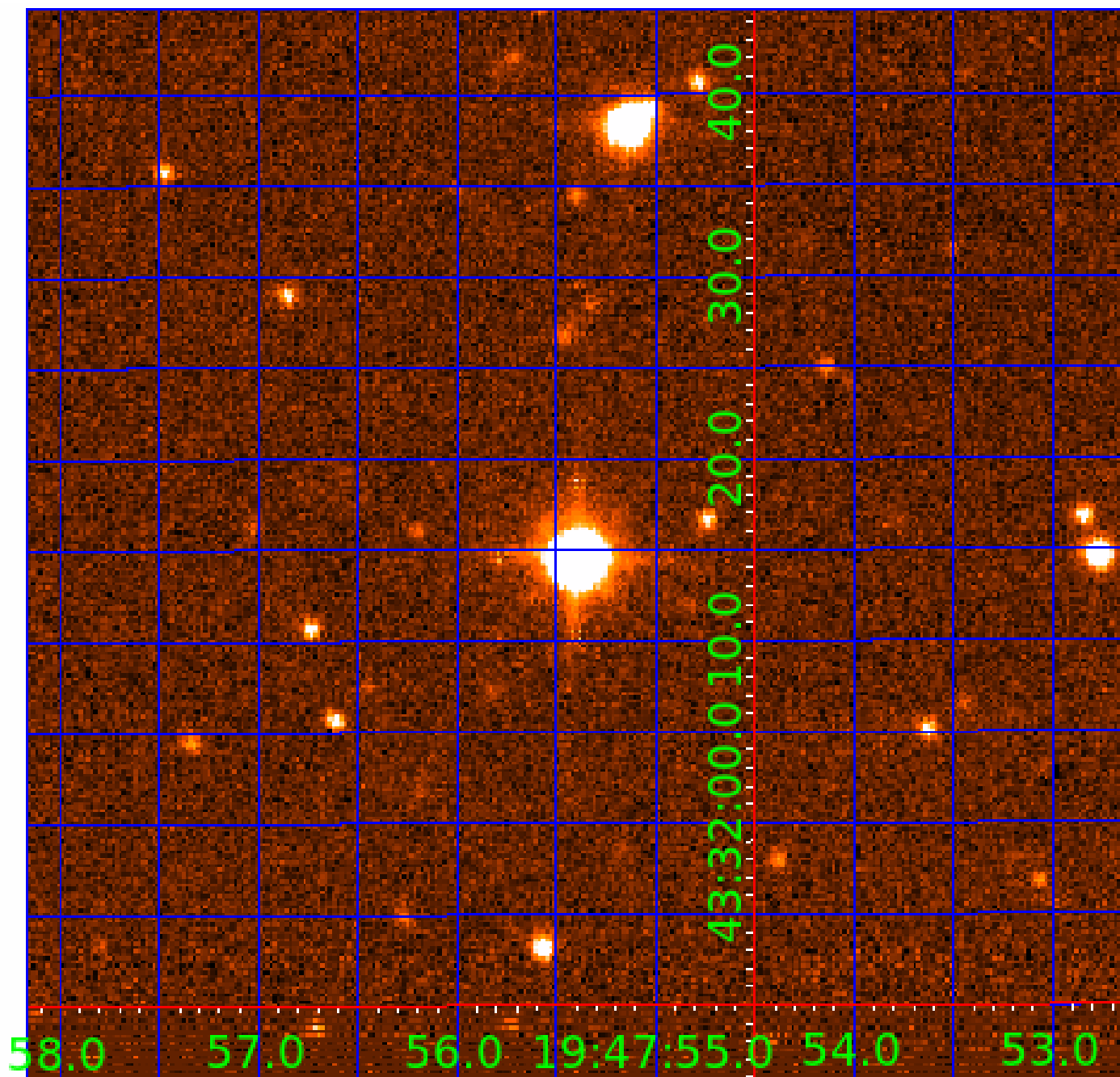


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 007838889

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})
007838889-01	OBS	No	1.016562	132.252873	118.3	3.310	12.0	10.8	3.06	8493	3.87	69963.16
007838889-02	OBS	No	1.016560	131.745888	124.3	2.990	12.1	11.7	3.06	8493	3.96	69963.29
007838889-03	OBS	No	0.916480	131.967662	276.2	4.704	11.8	14.9	3.06	8493	5.90	80331.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007838889-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007838889-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007838889-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

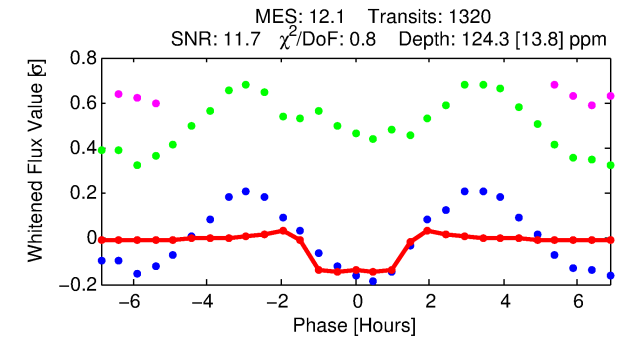
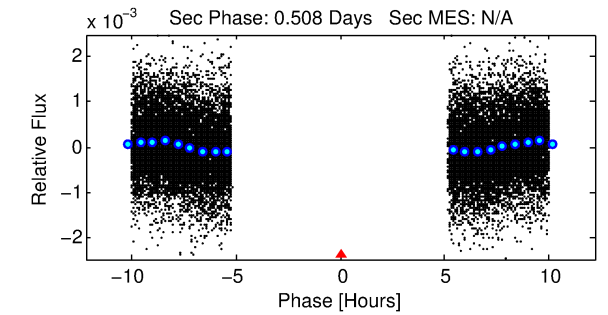
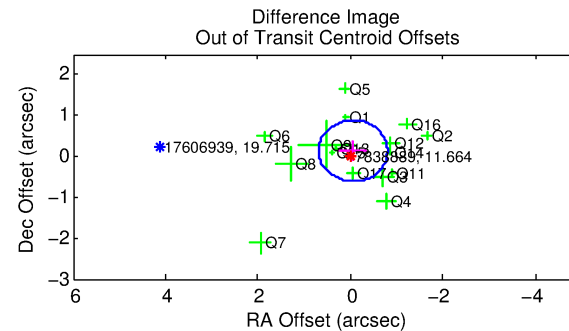
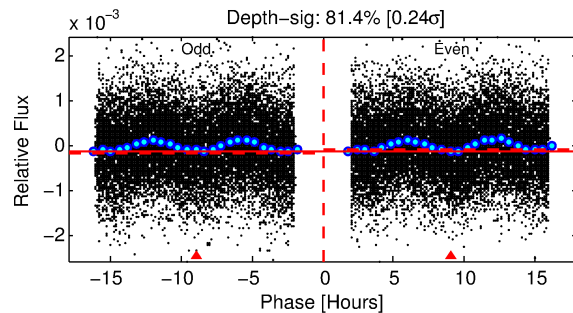
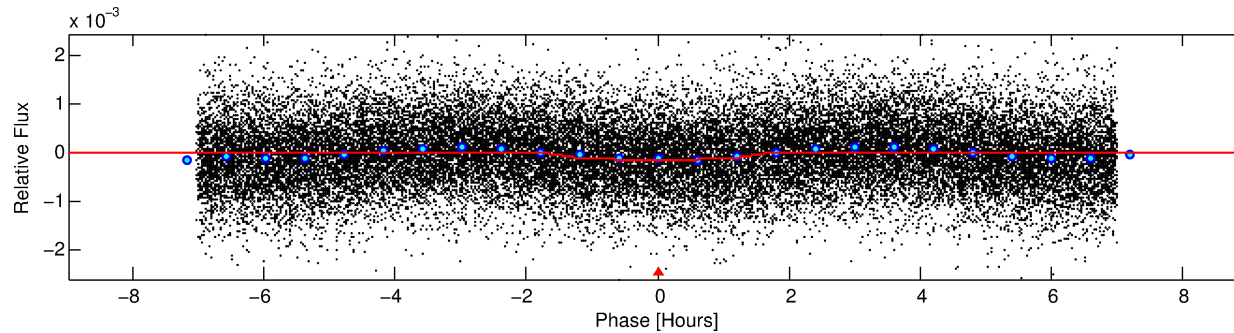
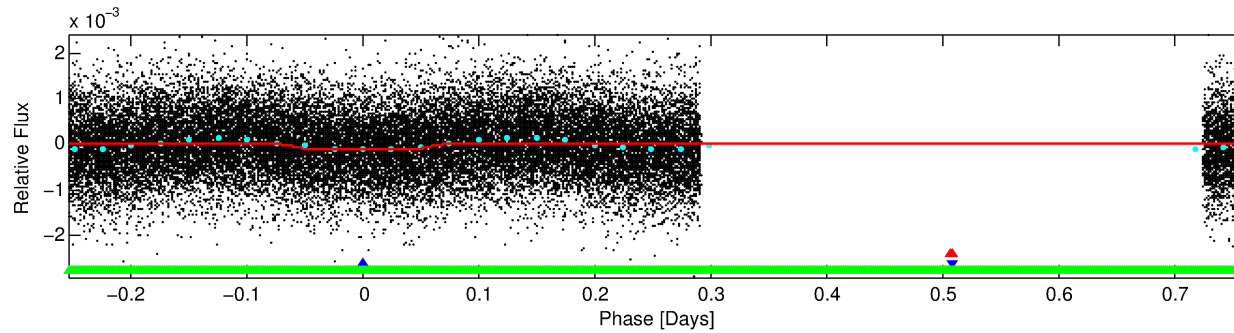
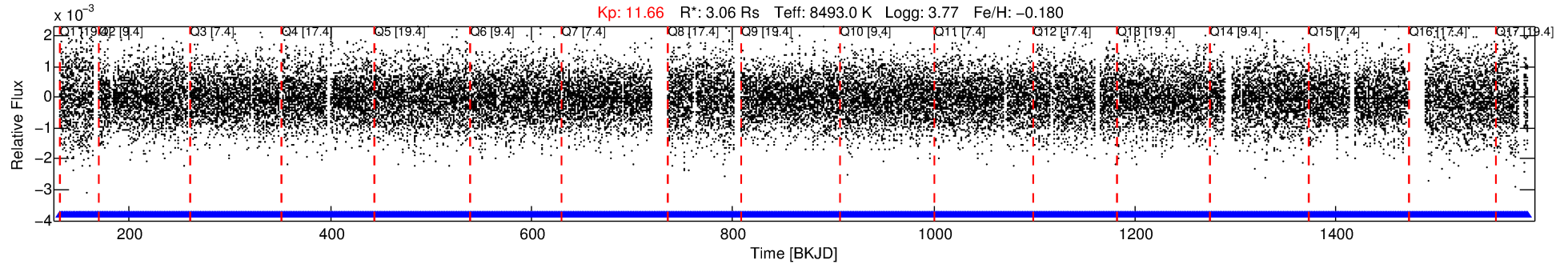
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007838889-02

No Significant Match Found

DV One-Page Summary

KIC: 7838889 Candidate: 2 of 3 Period: 1.017 d



DV Fit Results:

Period = 1.01656 [0.00001] d
Epoch = 131.7459 [0.0022] BKJD
Rp/R* = 0.0118 [0.0029]
a/R* = 1.53 [1.39]
b = 0.90 [0.34]
Seff = 69963.29 [50370.29]
Teq = 4147 [746] K
Rp = 3.96 [2.00] Re
a = 0.0250 [0.0108] AU

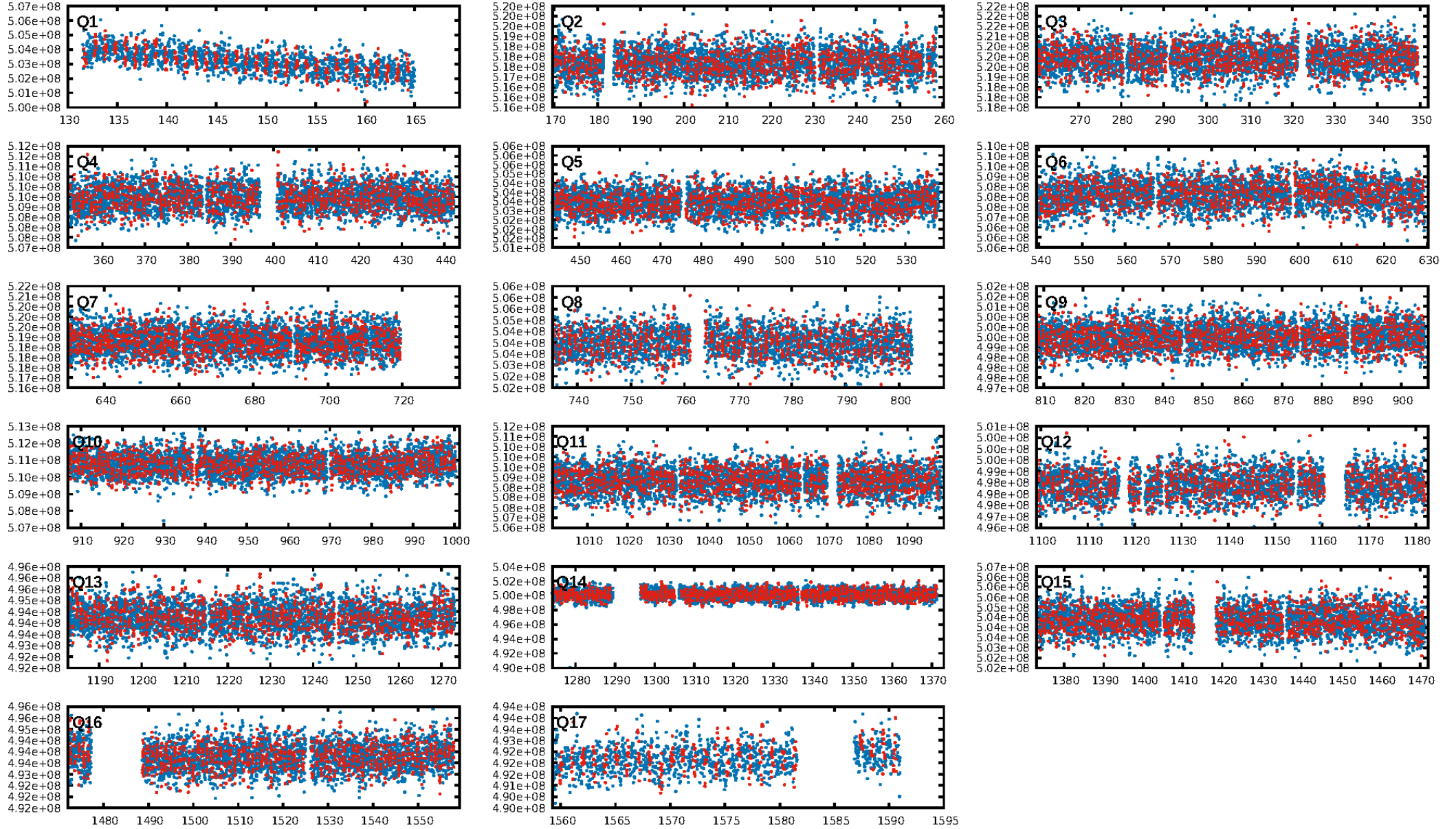
DV Diagnostic Results:

ShortPeriod-sig: 33.3% [0.43 σ]
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1261/1261]
GhostDiagnostic-chr: 3.053
Centroid-sig: 0.1%
Centroid-so: 0.156 arcsec [2.02 σ]
OotOffset-rm: 0.147 arcsec [0.59 σ]
KicOffset-rm: 0.250 arcsec [1.08 σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.50 [8/16]
DiffImageOverlap-fno: 1.00 [17/17]

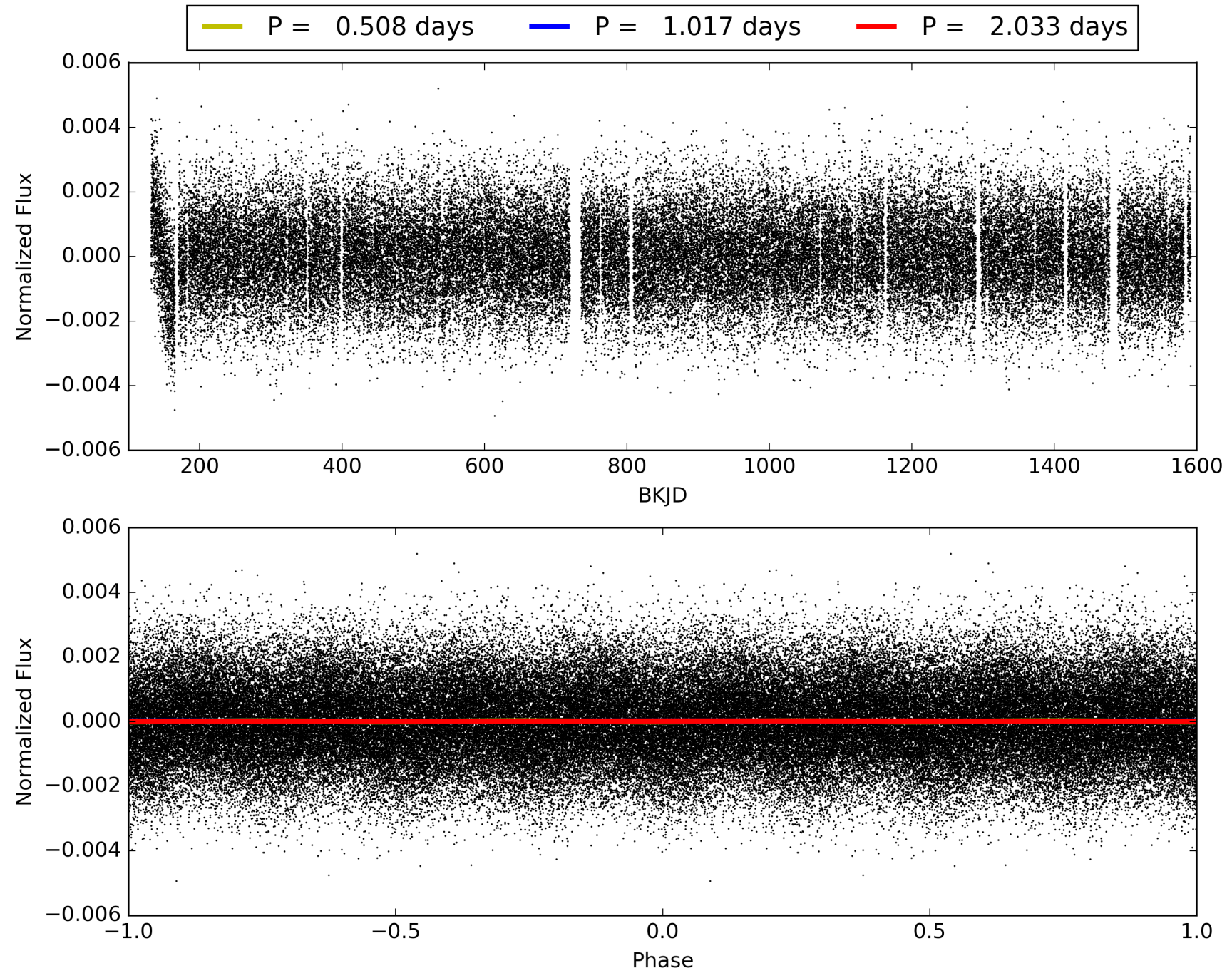
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:22:17 Z

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

TCE 007838889-02, PDC Light Curves

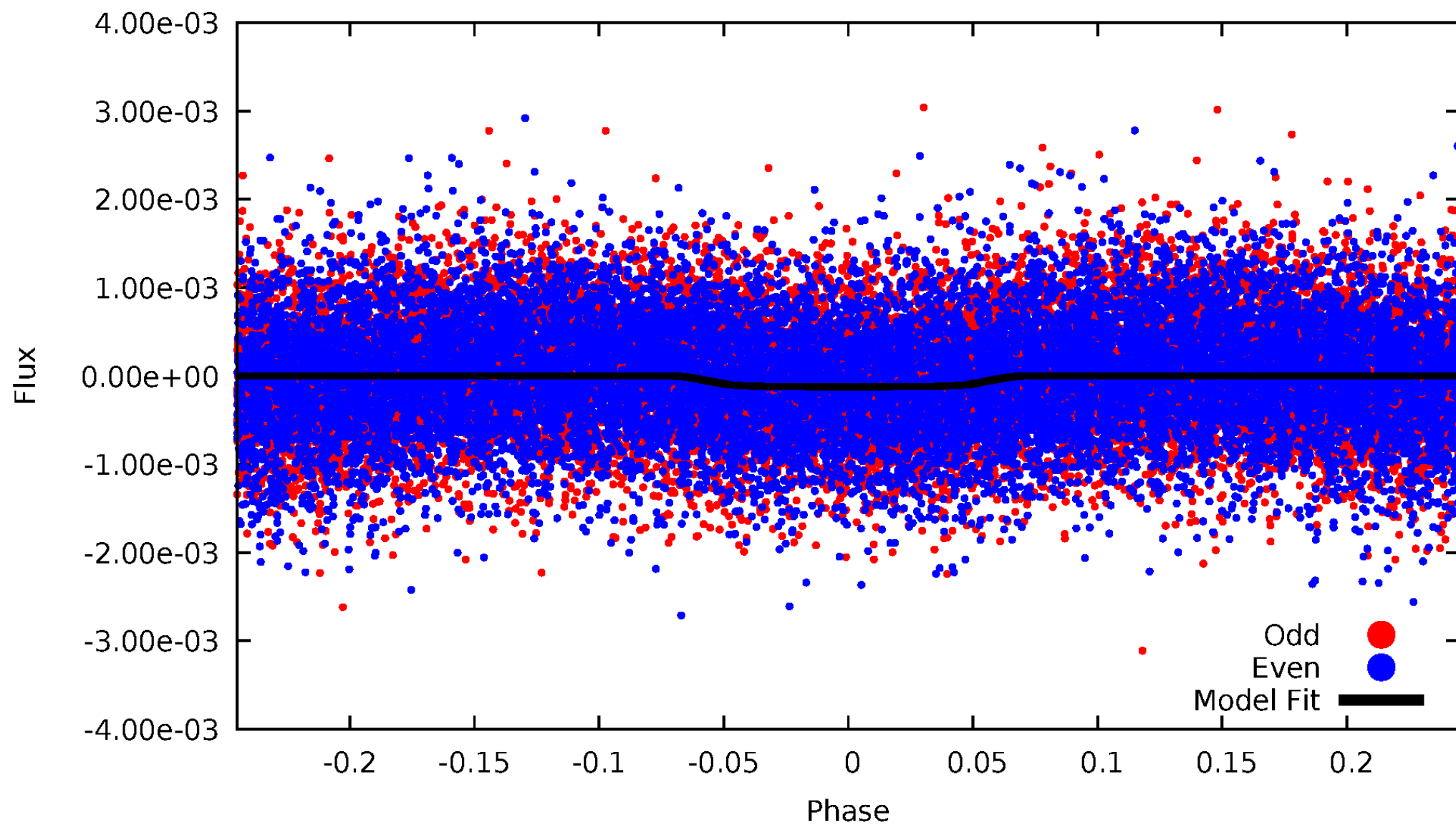


TCE 007838889-02



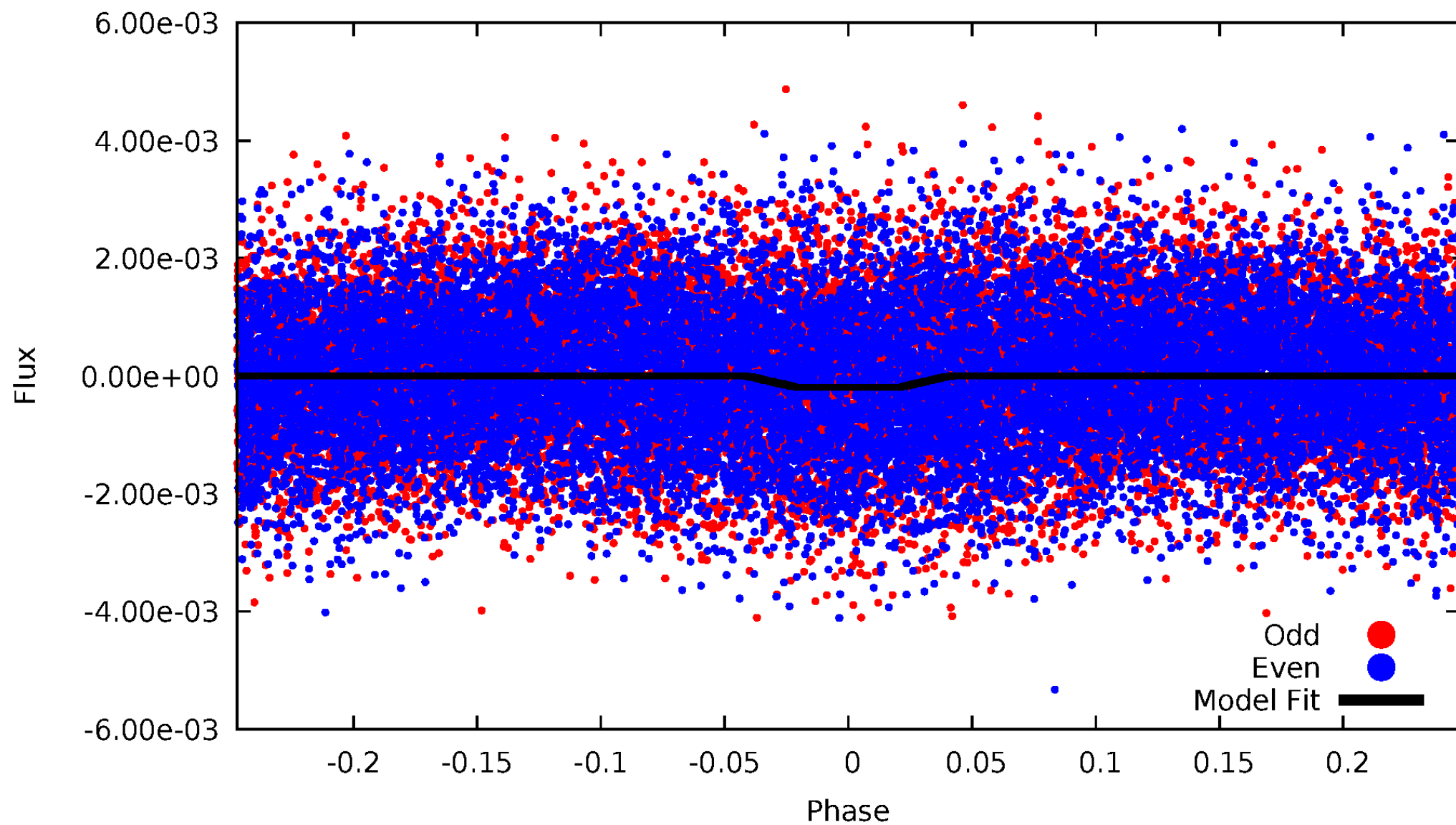
DV Odd/Even

TCE 007838889-02



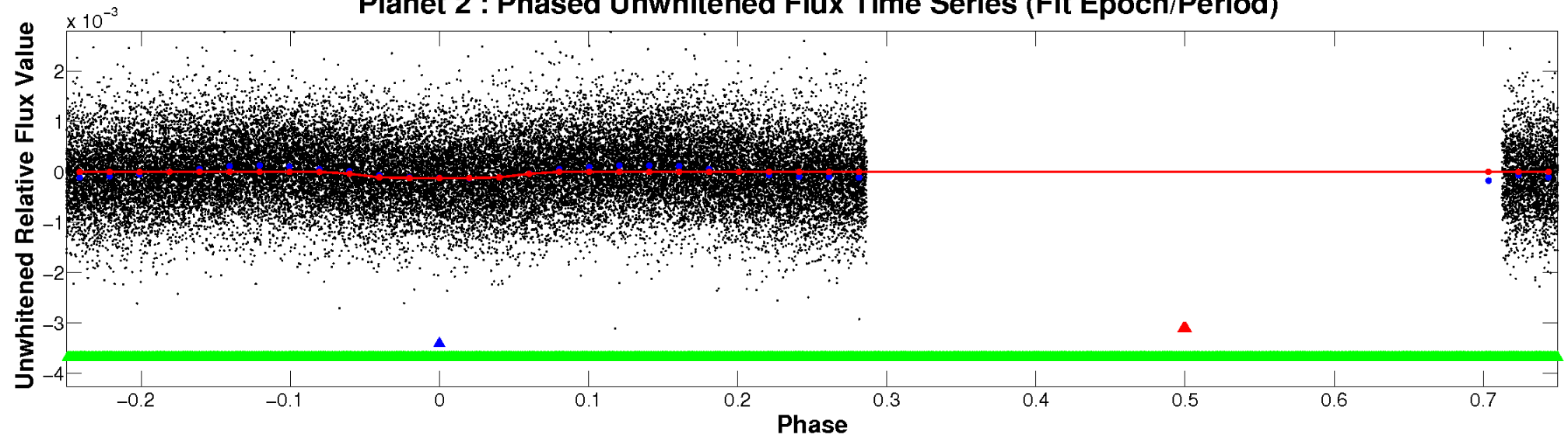
ALT Odd/Even

TCE 007838889-02

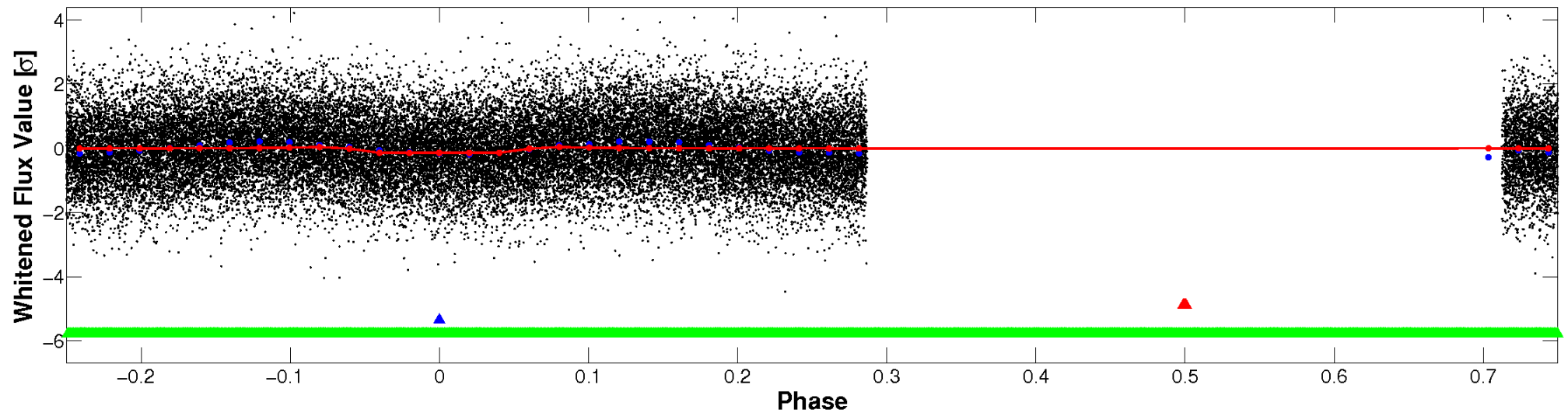


Non-Whitened Vs. Whitened Light Curve

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

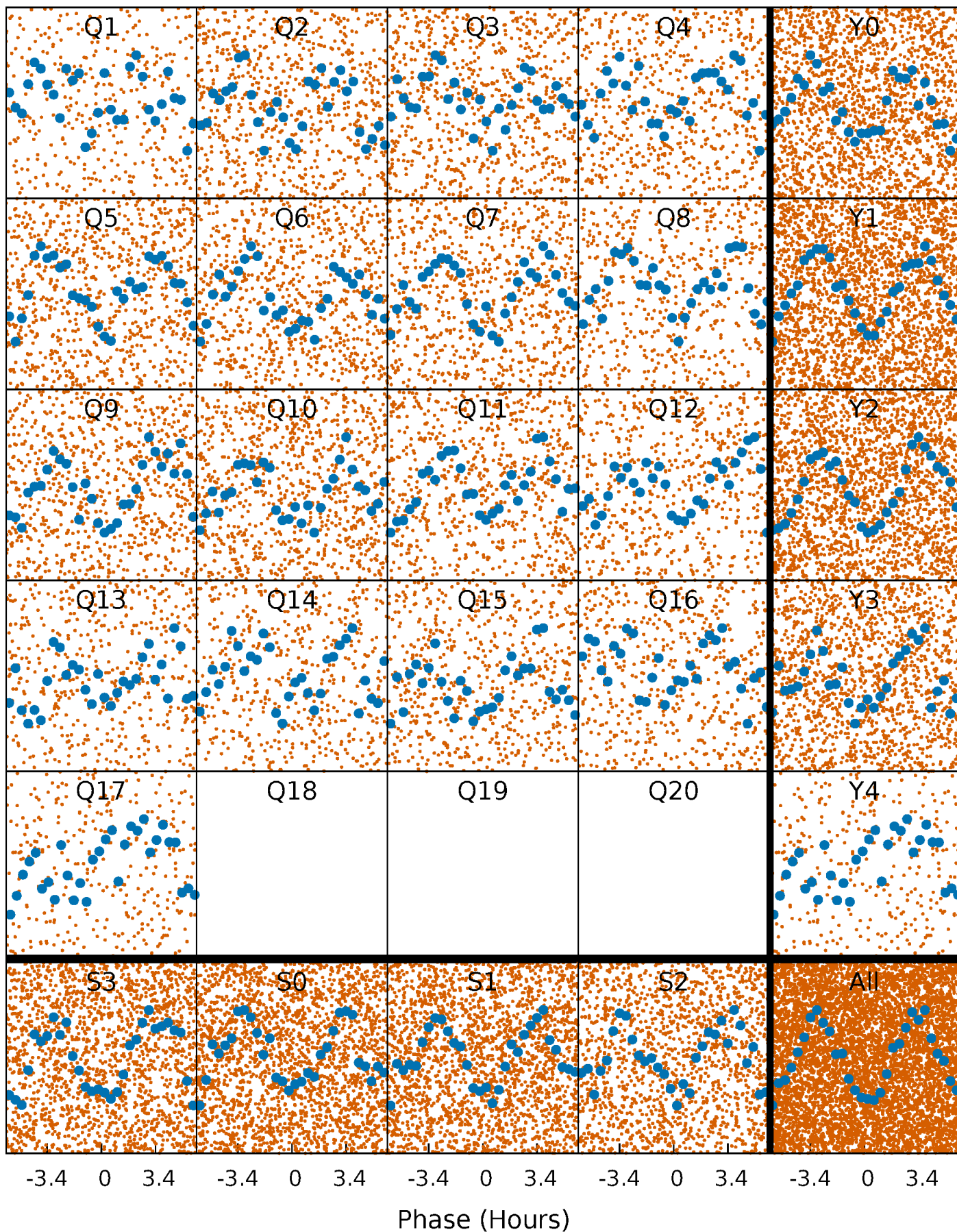


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



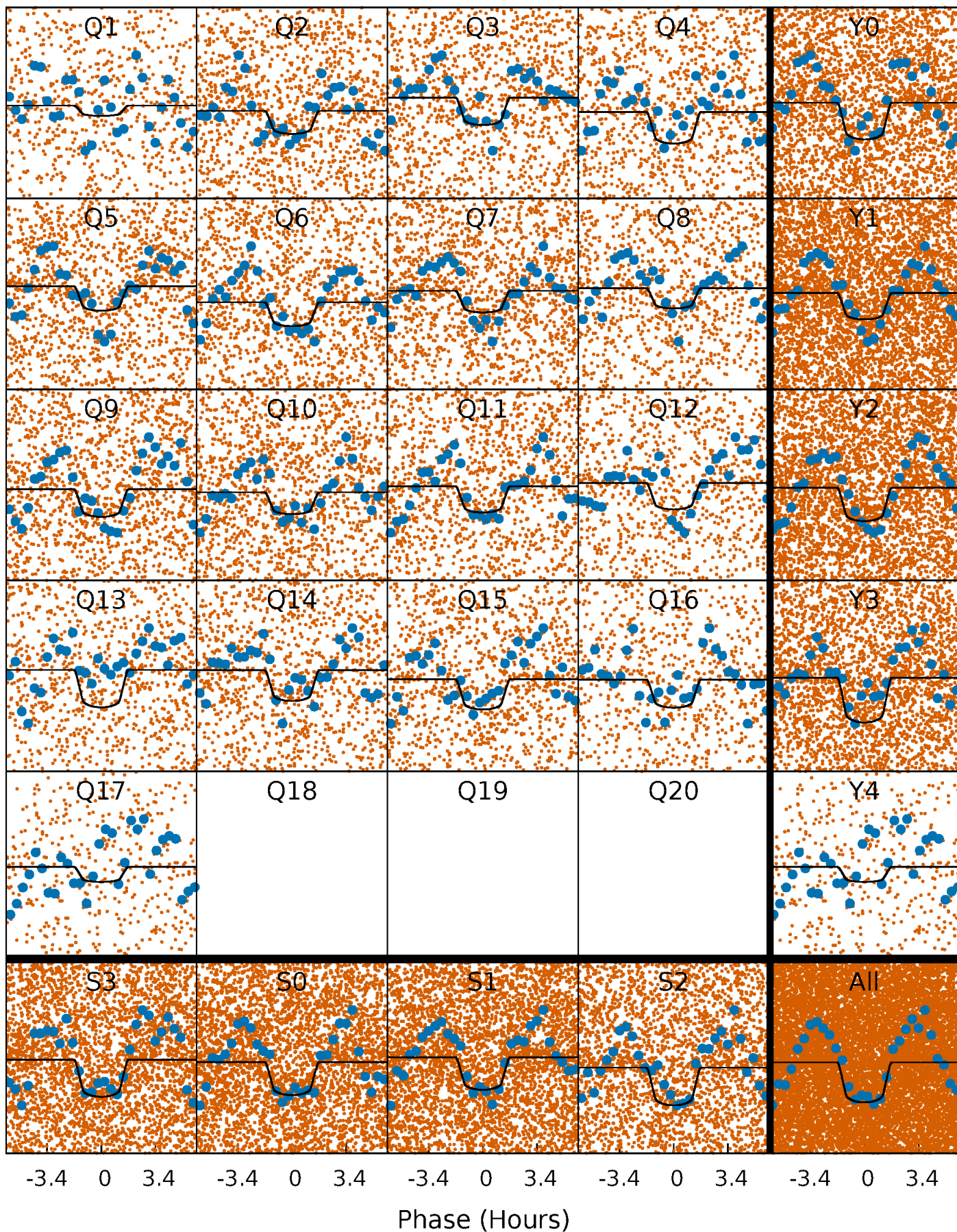
PDC Quarter-Phased Transit Curves

TCE 007838889-02 P= 1.016560 Days $T_0=131.745888$ (BKJD)



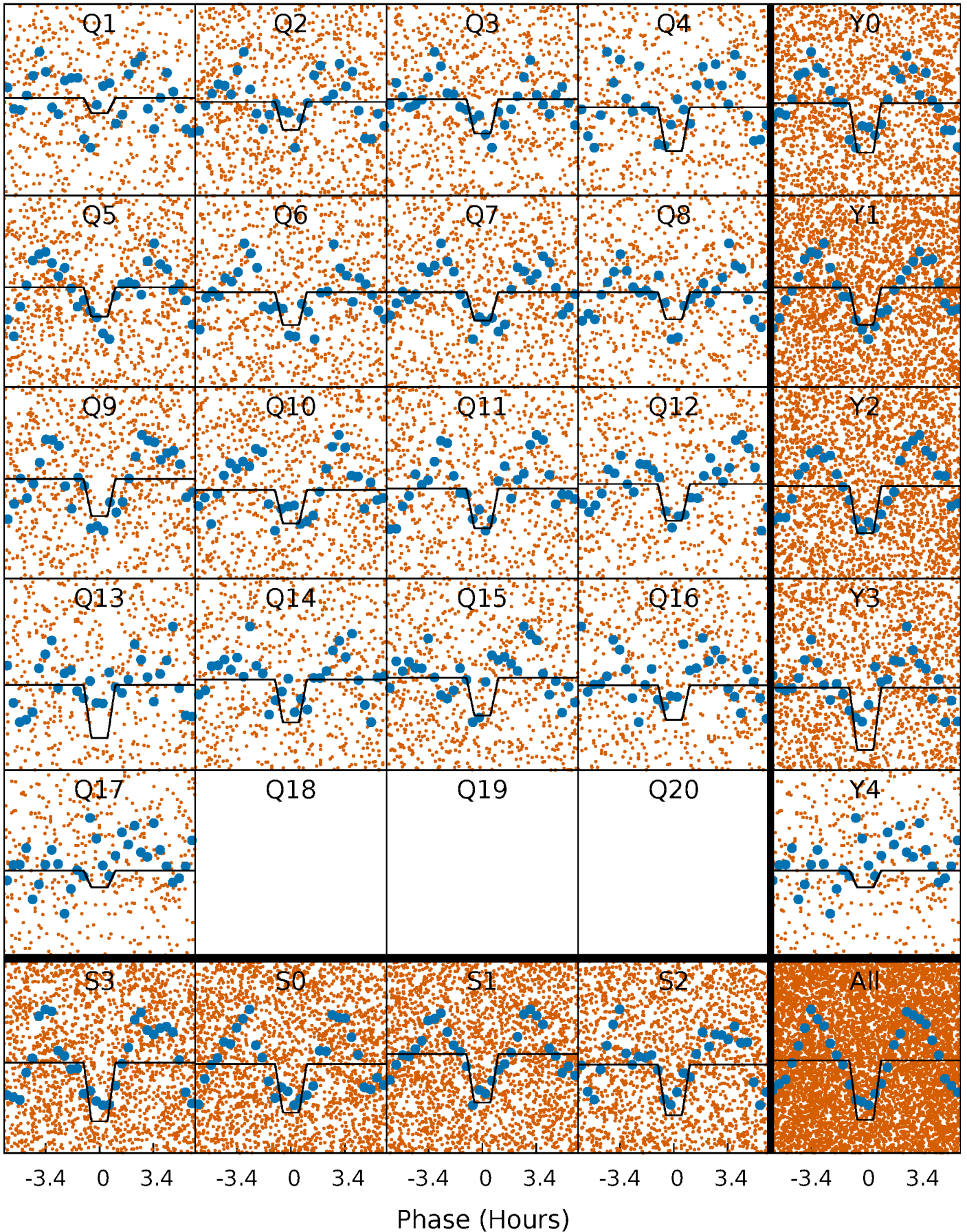
DV Quarter-Phased Transit Curves

TCE 007838889-02 P= 1.016560 Days $T_0=131.745888$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

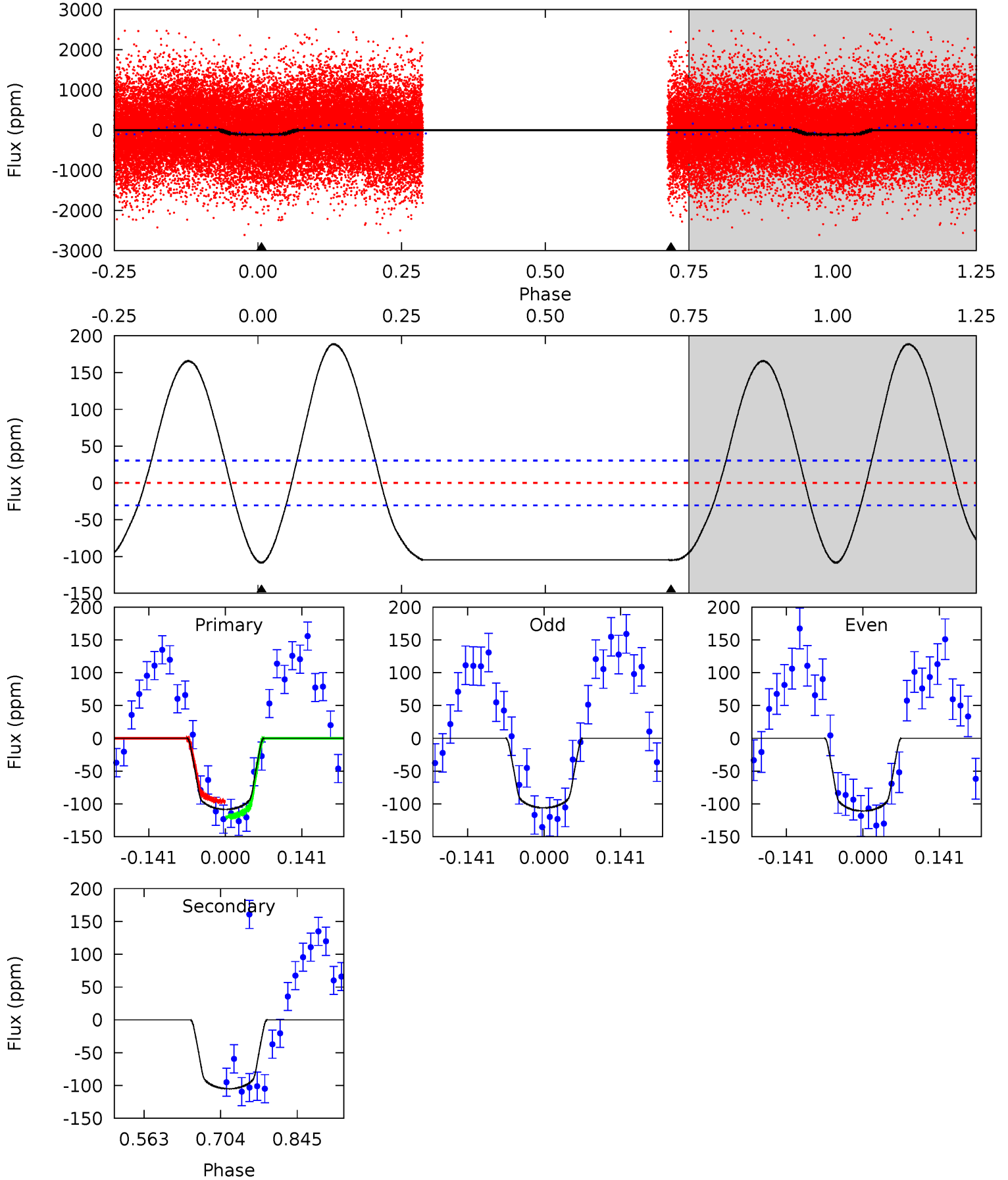
TCE 007838889-02 P= 1.016582 Days $T_0=131.741438$ (BKJD)



DV Model-Shift Uniqueness Test

007838889-02, P = 1.016560 Days, E = 130.729328 Days

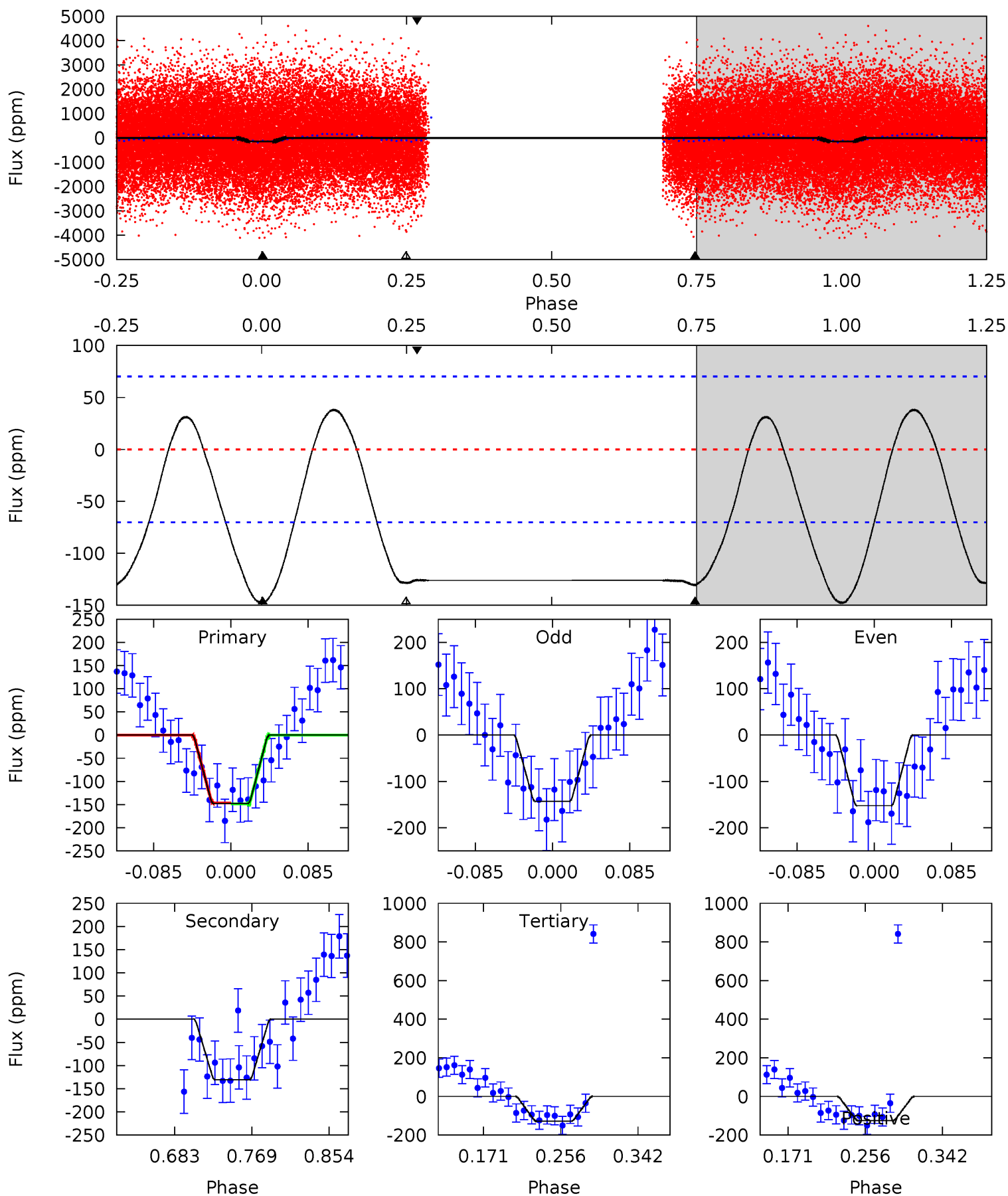
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	15.5	0	0	4.49	1.47	14.2	16.0	16.0	15.5	15.5	0.35	0.96	0.64	1.78



Alt Model-Shift Uniqueness Test

007838889-02, P = 1.016582 Days, E = 130.724856 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	8.56	8.43	-8.22	4.60	1.72	3.96	1.24	17.9	0.13	16.8	0.31	0.95	0.21	0.07



Stellar Parameters For KIC 007838889

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8493^{+235}_{-383}	$3.770^{+0.412}_{-0.110}$	$-0.180^{+0.300}_{-0.350}$	$3.061^{+0.785}_{-1.345}$	$2.017^{+0.372}_{-0.455}$	$0.099^{+0.359}_{-0.038}$
	+3%/-5%	+11%/-3%	+167%/-194%	+26%/-44%	+18%/-23%	+363%/-39%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007838889-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-105 ± 7	$3.57^{+1.36}_{-0.99}$	5574^{+473}_{-551}	7410^{+1637}_{-1016}	$2.776^{+2.503}_{-1.239}$
Alt.	-131 ± 15	$4.32^{+1.28}_{-1.18}$	5593^{+438}_{-620}	7143^{+1210}_{-851}	$2.435^{+2.020}_{-1.013}$

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 $A_{obs} \gg 1.0$

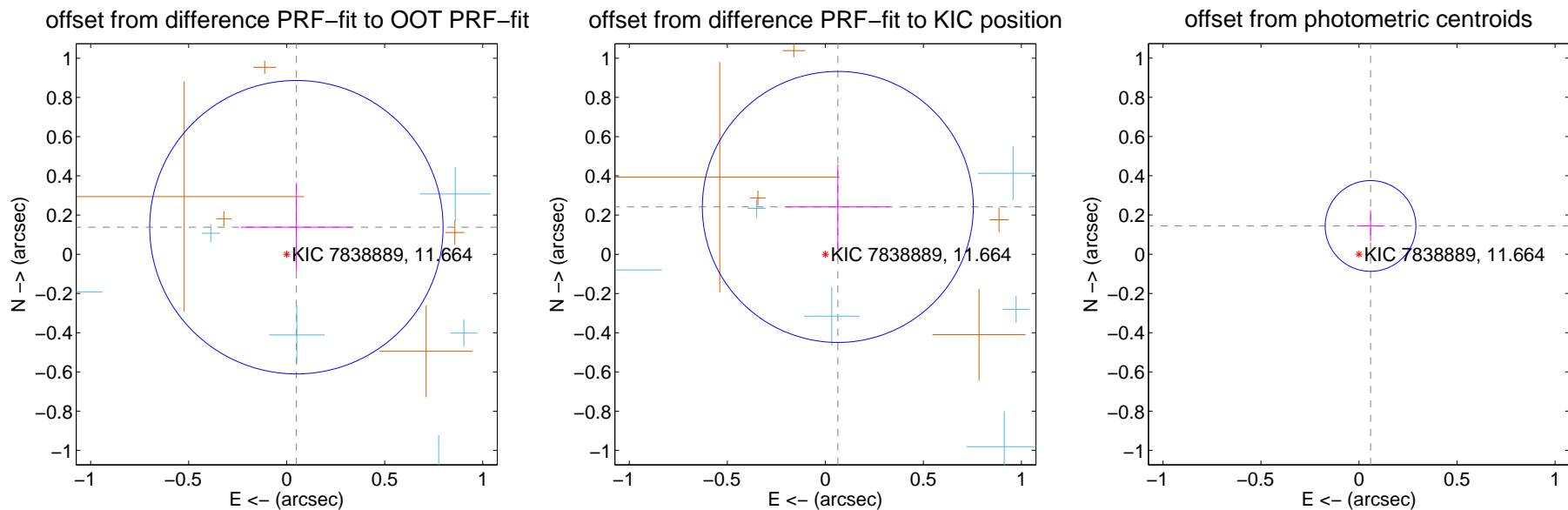
DV Centroid Data

Supplemental centroid analysis for 007838889-02. **Kepler magnitude: 11.66.** Transit SNR 11.67

There are 8 quarters with good PRF difference image offsets

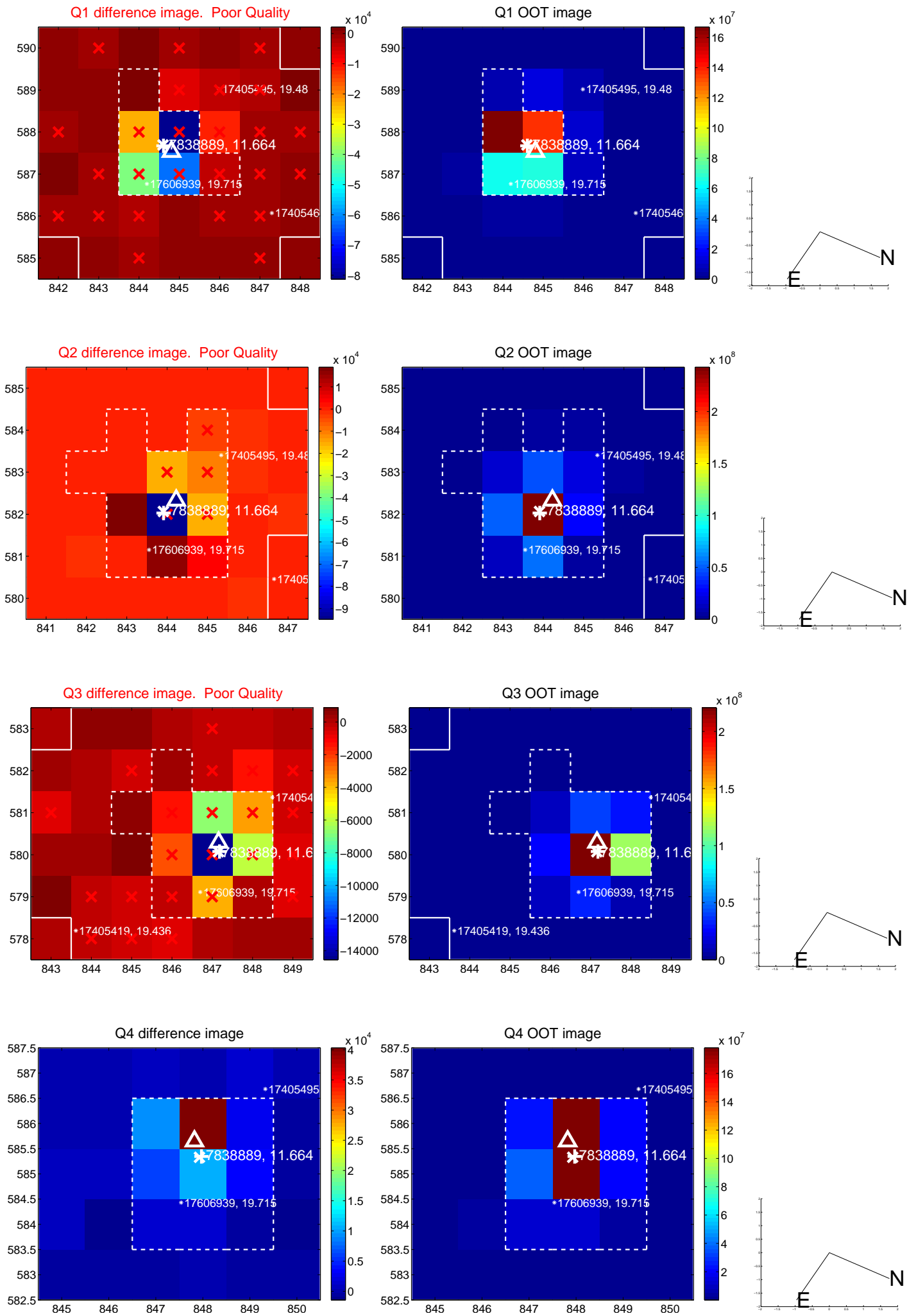
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.147 ± 0.249	0.59	-0.050 ± 0.284	0.138 ± 0.225
PRF-fit source offset from KIC position	0.250 ± 0.230	1.08	-0.064 ± 0.266	0.241 ± 0.217
photometric centroid source offset	0.16 ± 0.08	2.02	-0.06 ± 0.07	0.14 ± 0.08

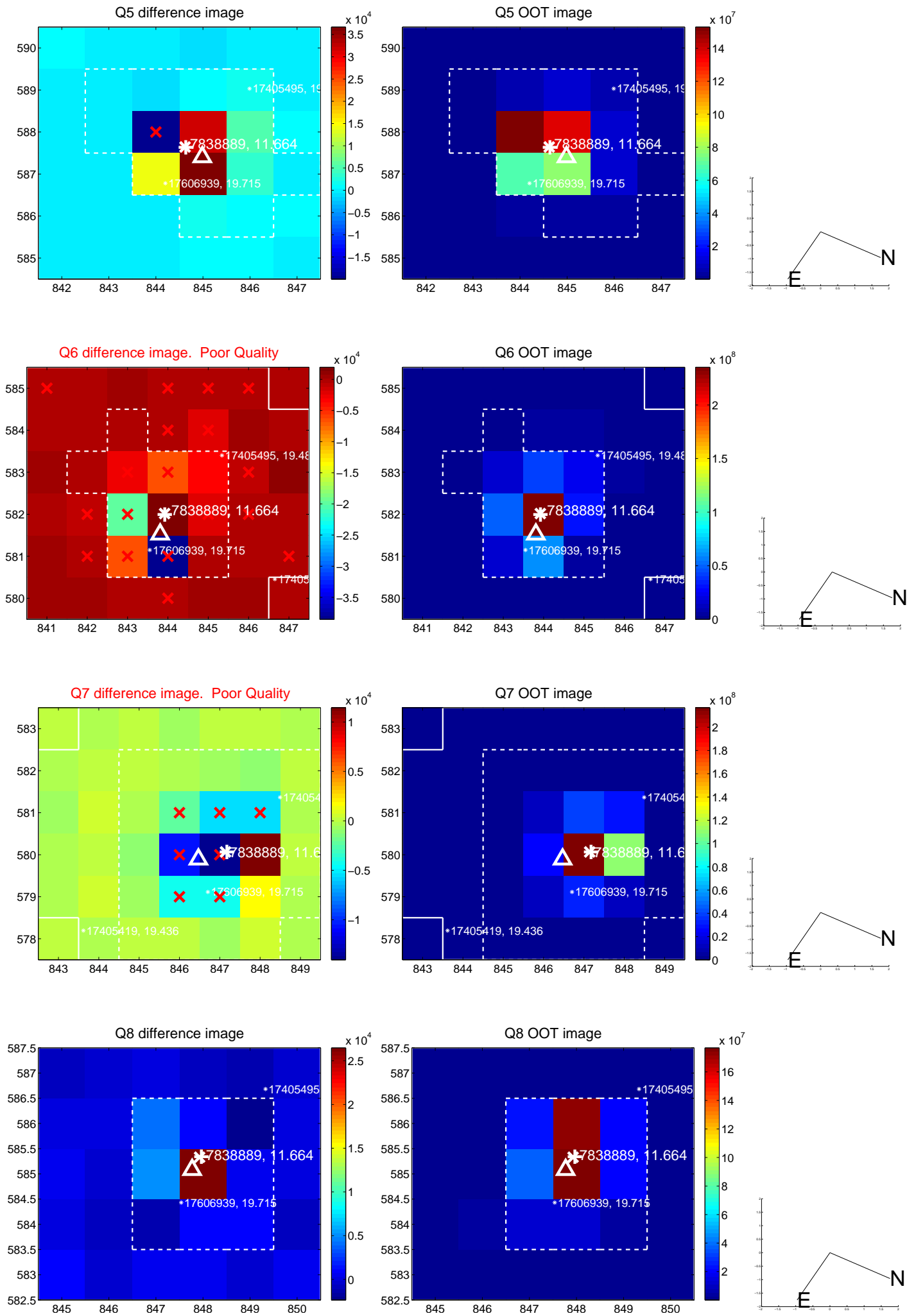


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

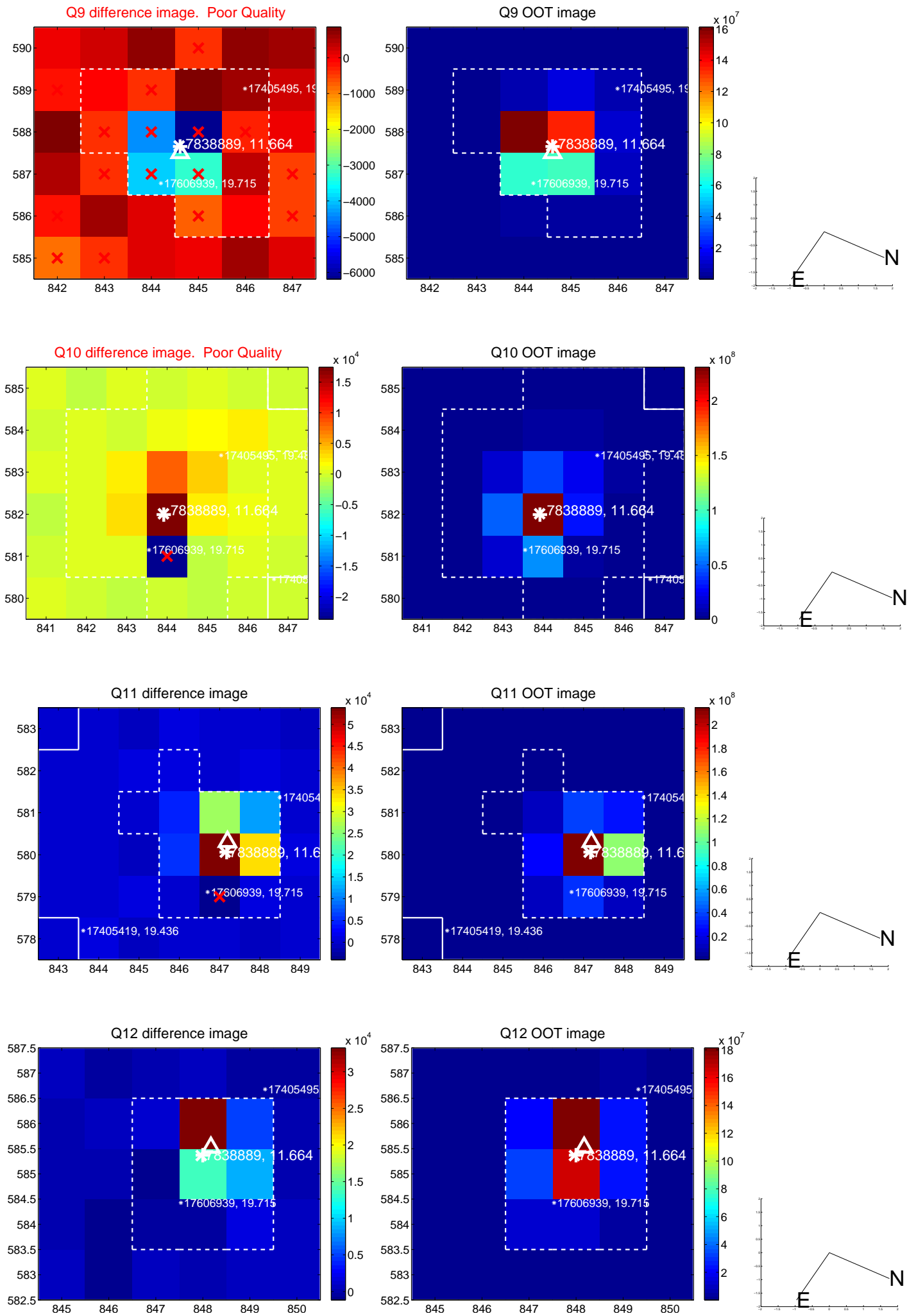
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



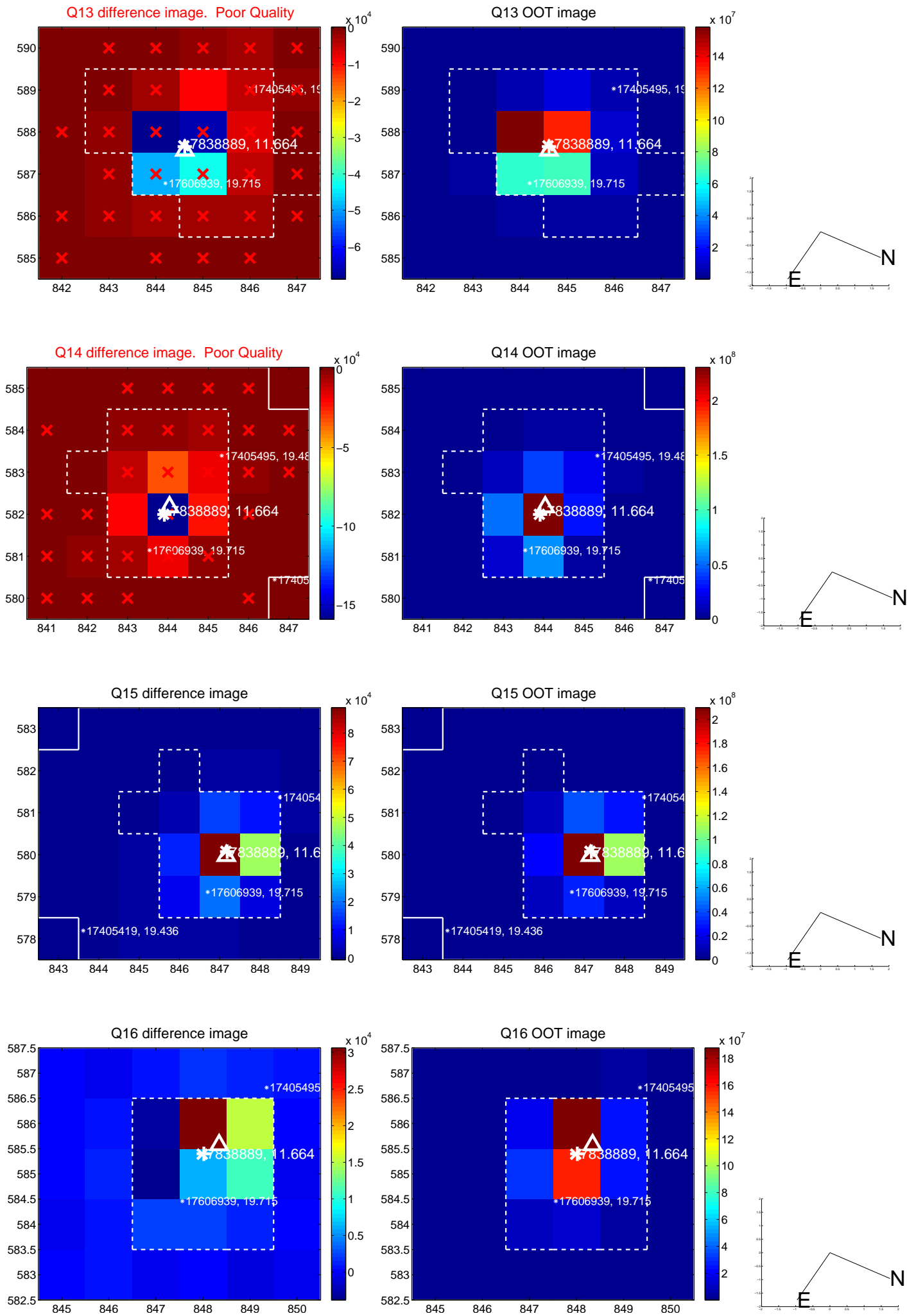
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



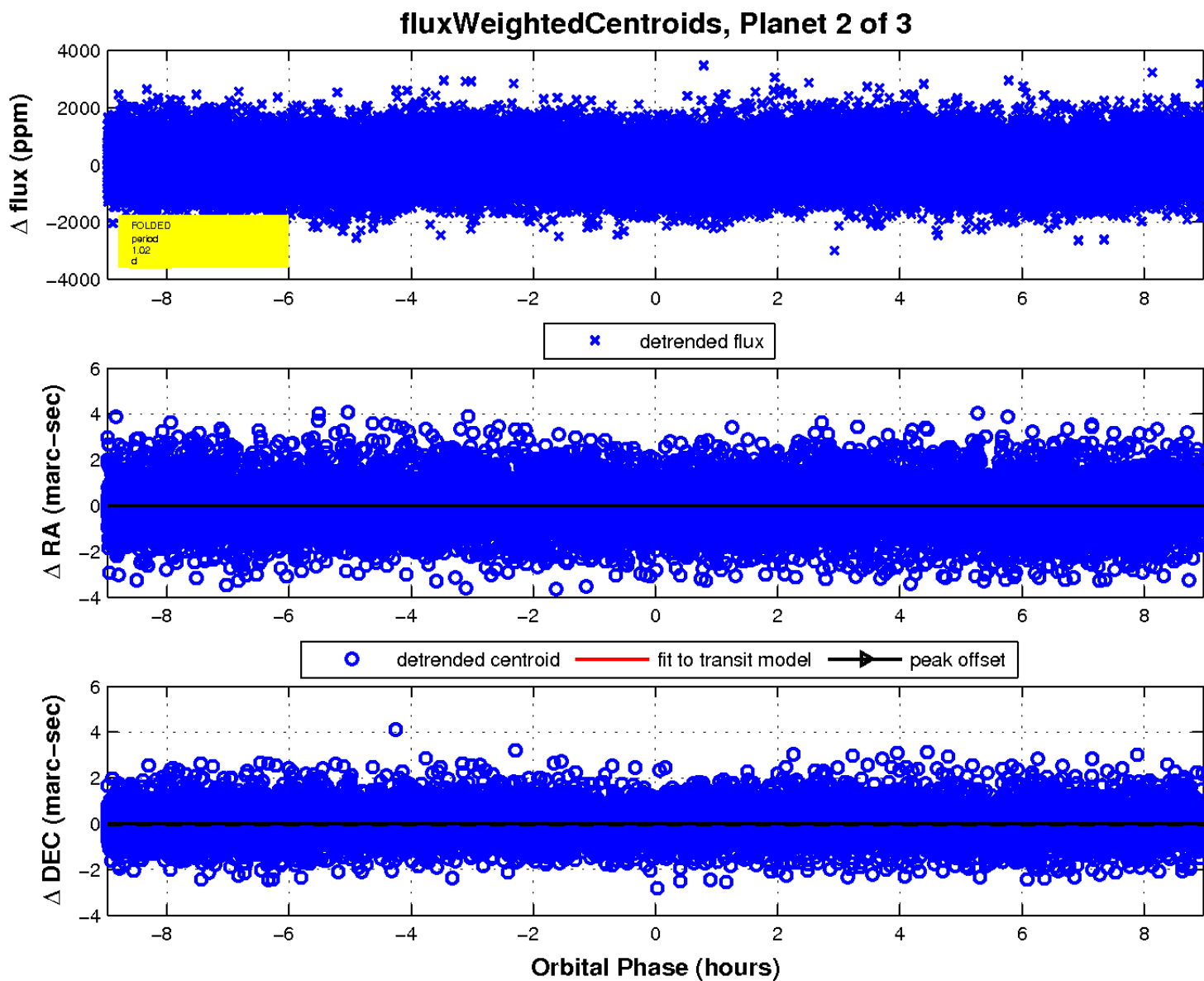
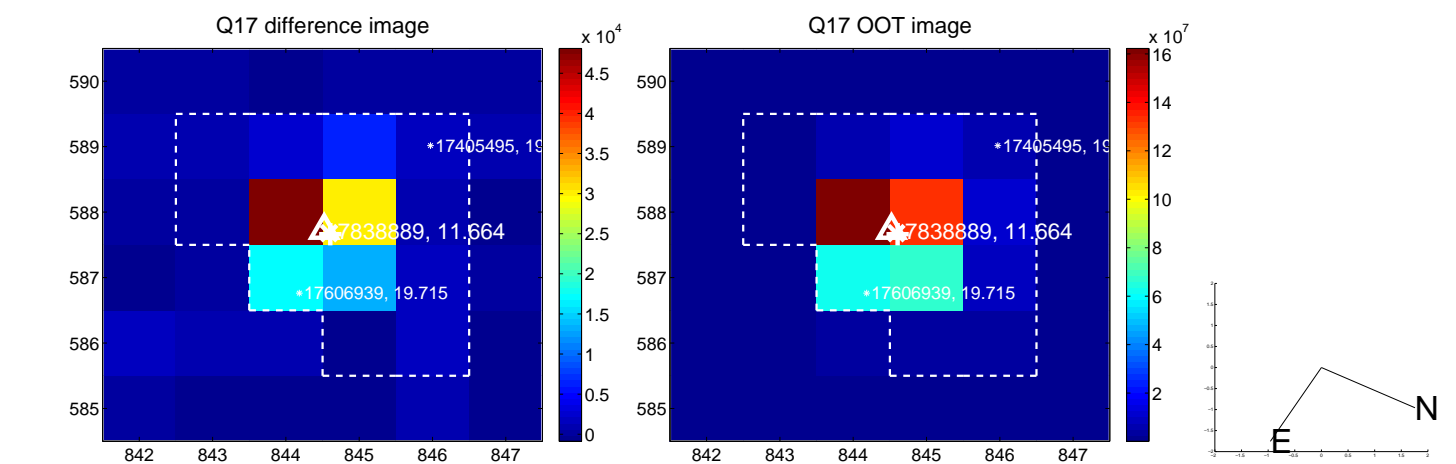
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

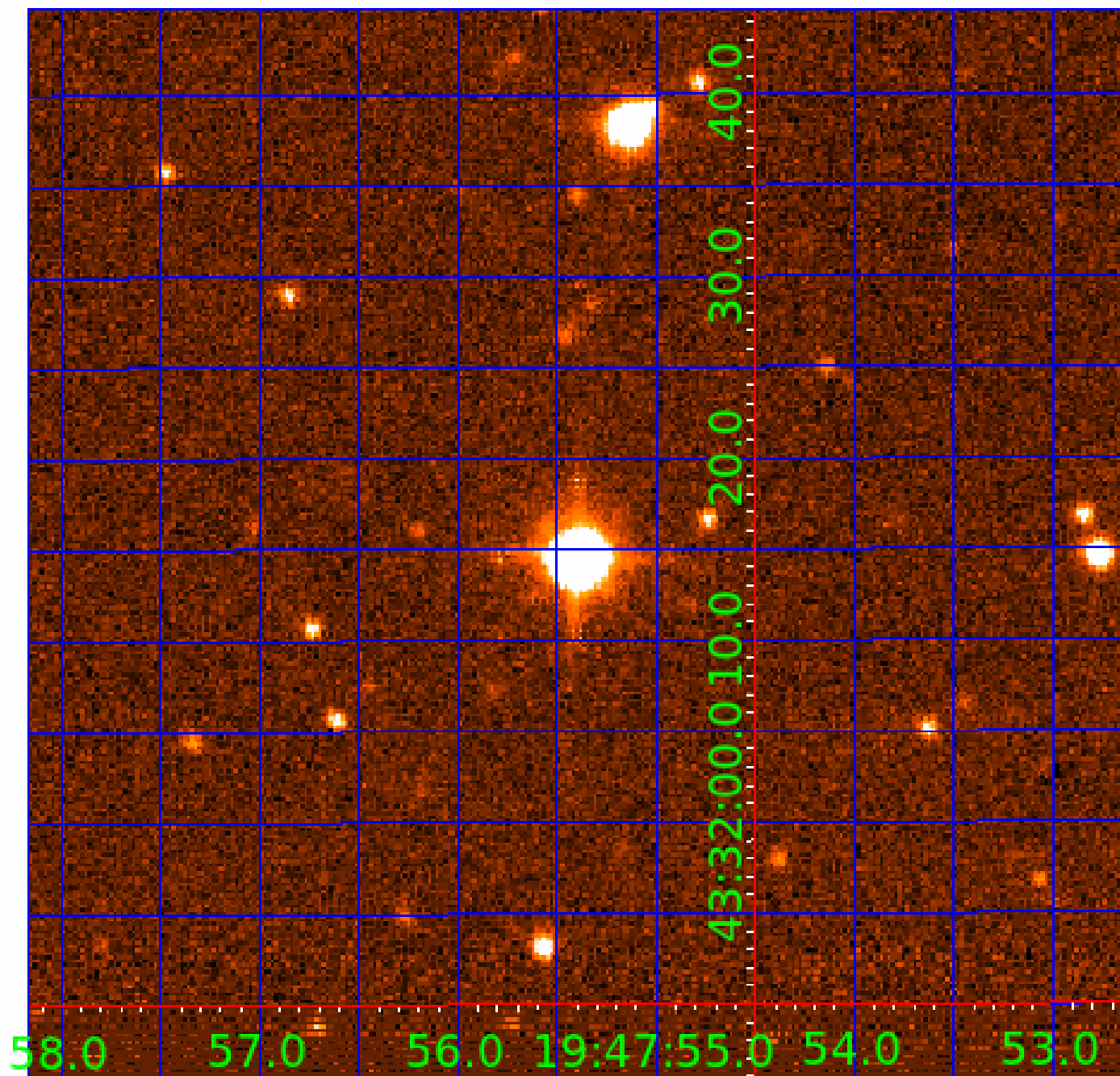


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007838889

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})
007838889-01	OBS	No	1.016562	132.252873	118.3	3.310	12.0	10.8	3.06	8493	3.87	69963.16
007838889-02	OBS	No	1.016560	131.745888	124.3	2.990	12.1	11.7	3.06	8493	3.96	69963.29
007838889-03	OBS	No	0.916480	131.967662	276.2	4.704	11.8	14.9	3.06	8493	5.90	80331.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007838889-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007838889-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007838889-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

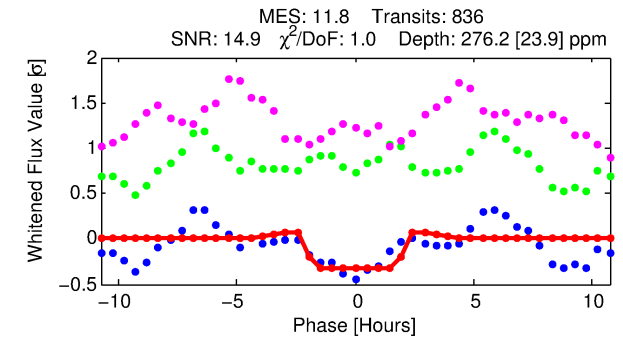
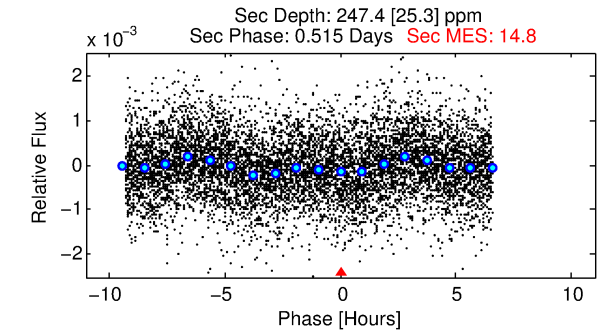
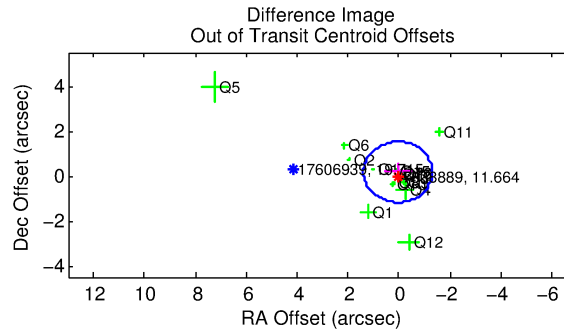
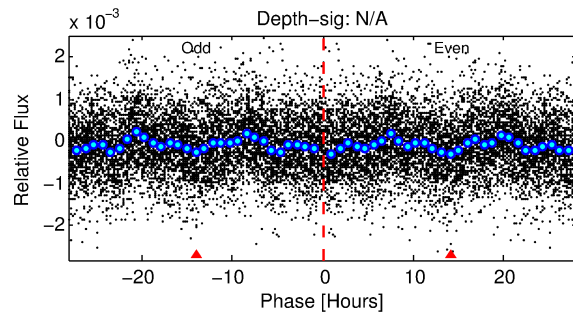
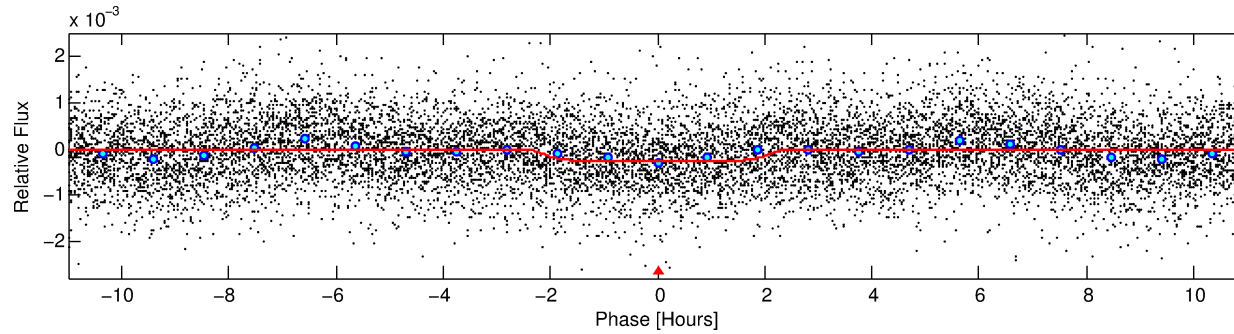
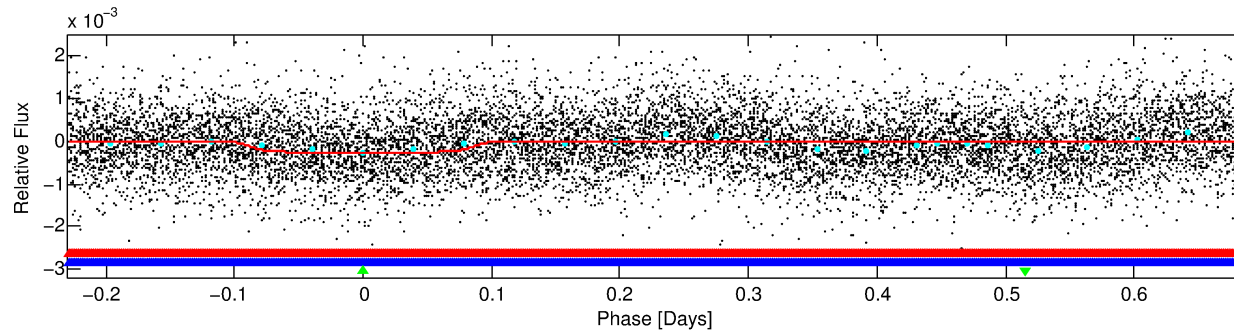
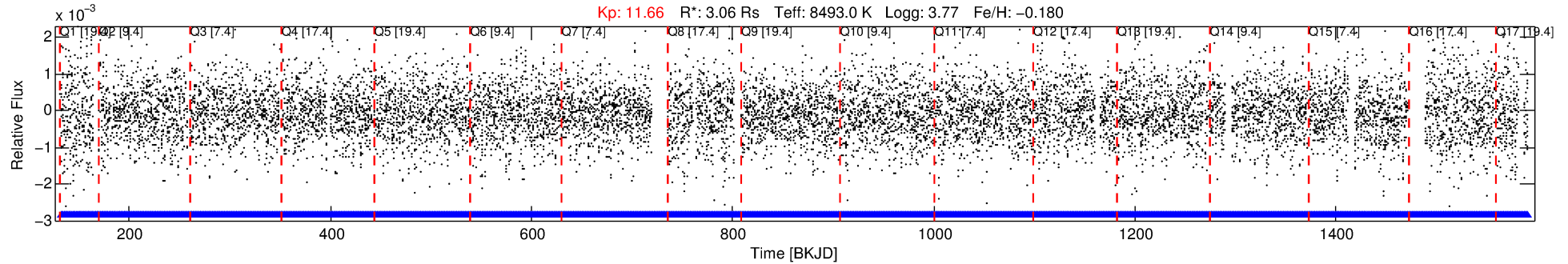
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007838889-03

No Significant Match Found

DV One-Page Summary

KIC: 7838889 Candidate: 3 of 3 Period: 0.916 d



DV Fit Results:

Period = 0.91648 [0.00001] d
Epoch = 131.9677 [0.0028] BKJD
 R_p/R^* = 0.0177 [0.0018]
 a/R^* = 1.18 [0.19]
 b = 0.90 [0.12]
 Seff = 80331.07 [57834.60]
 Teq = 4293 [773] K
 R_p = 5.90 [2.66] R_e
 a = 0.0233 [0.0101] AU
 Ag = 2.13 [1.56] [0.72σ]
 Teffp = 8014 [582] K [3.85σ]

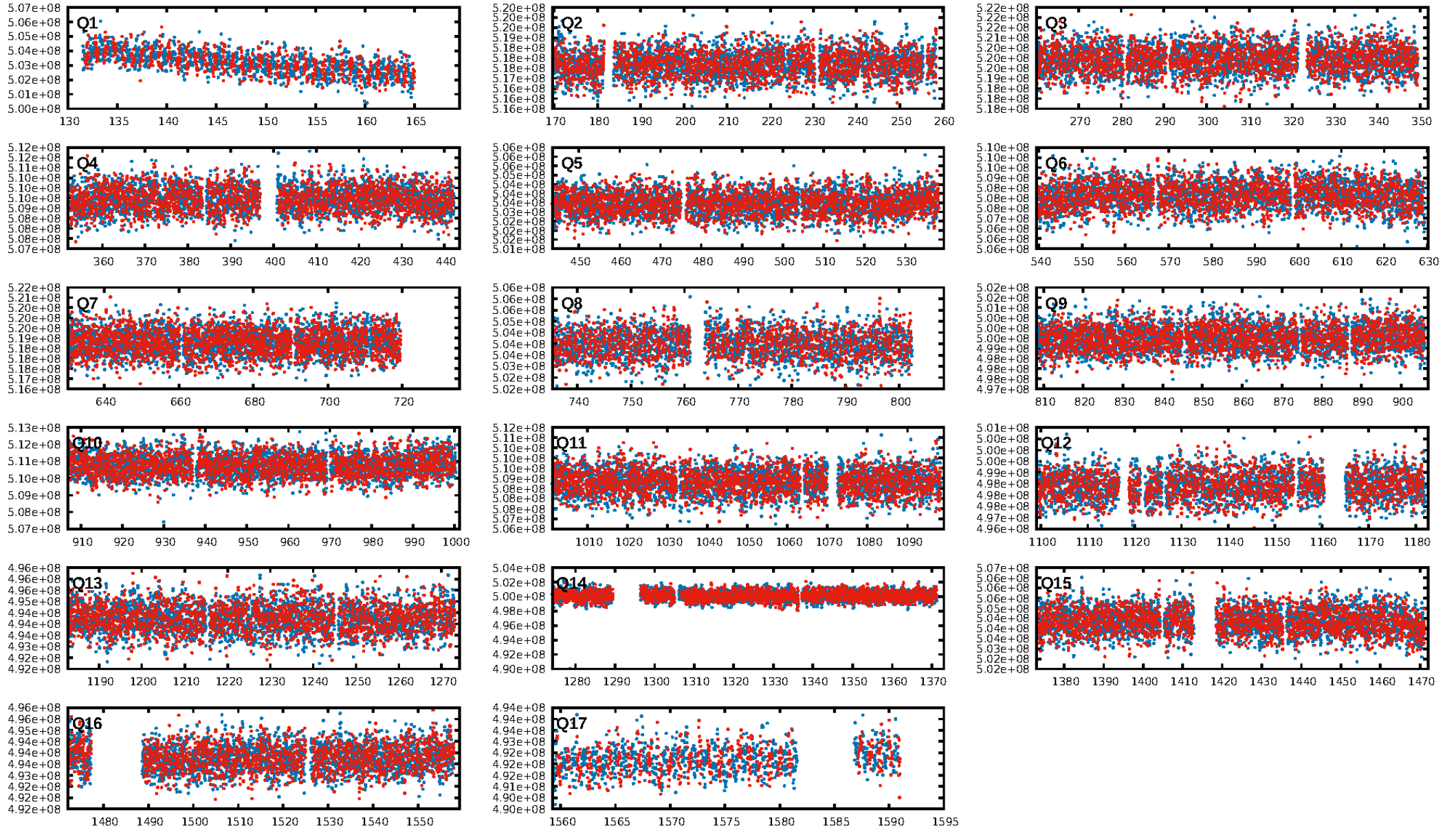
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 33.3% [0.43σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [796/796]
GhostDiagnostic-chr: 0.01476
Centroid-sig: 44.7%
Centroid-so: 0.139 arcsec [5.43σ]
OotOffset-rm: 0.178 arcsec [0.40σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-rm: 0.279 arcsec [0.77σ]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.50 [8/16]
DiffImageOverlap-fno: 0.00 [0/17]

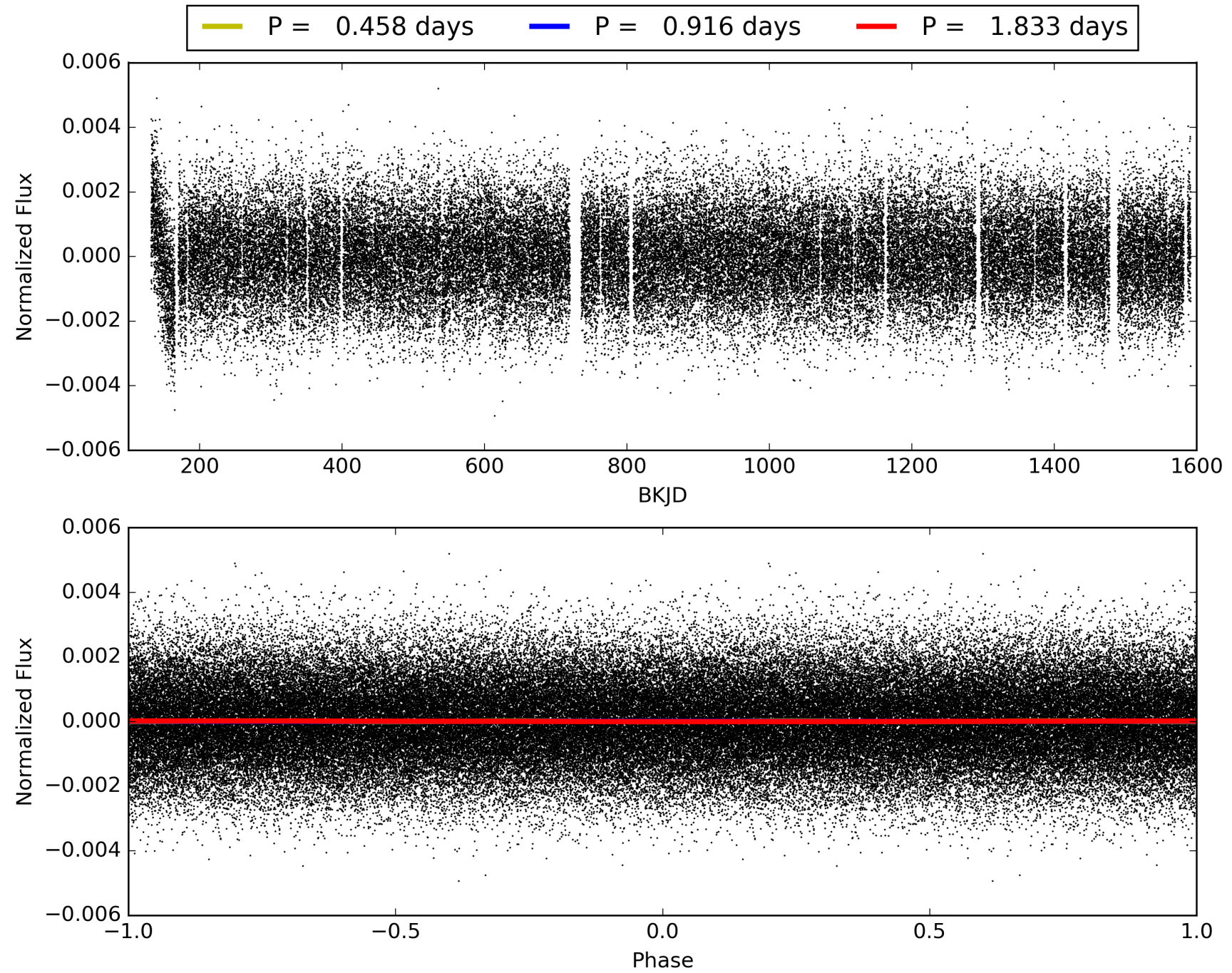
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:22:28 Z

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

TCE 007838889-03, PDC Light Curves

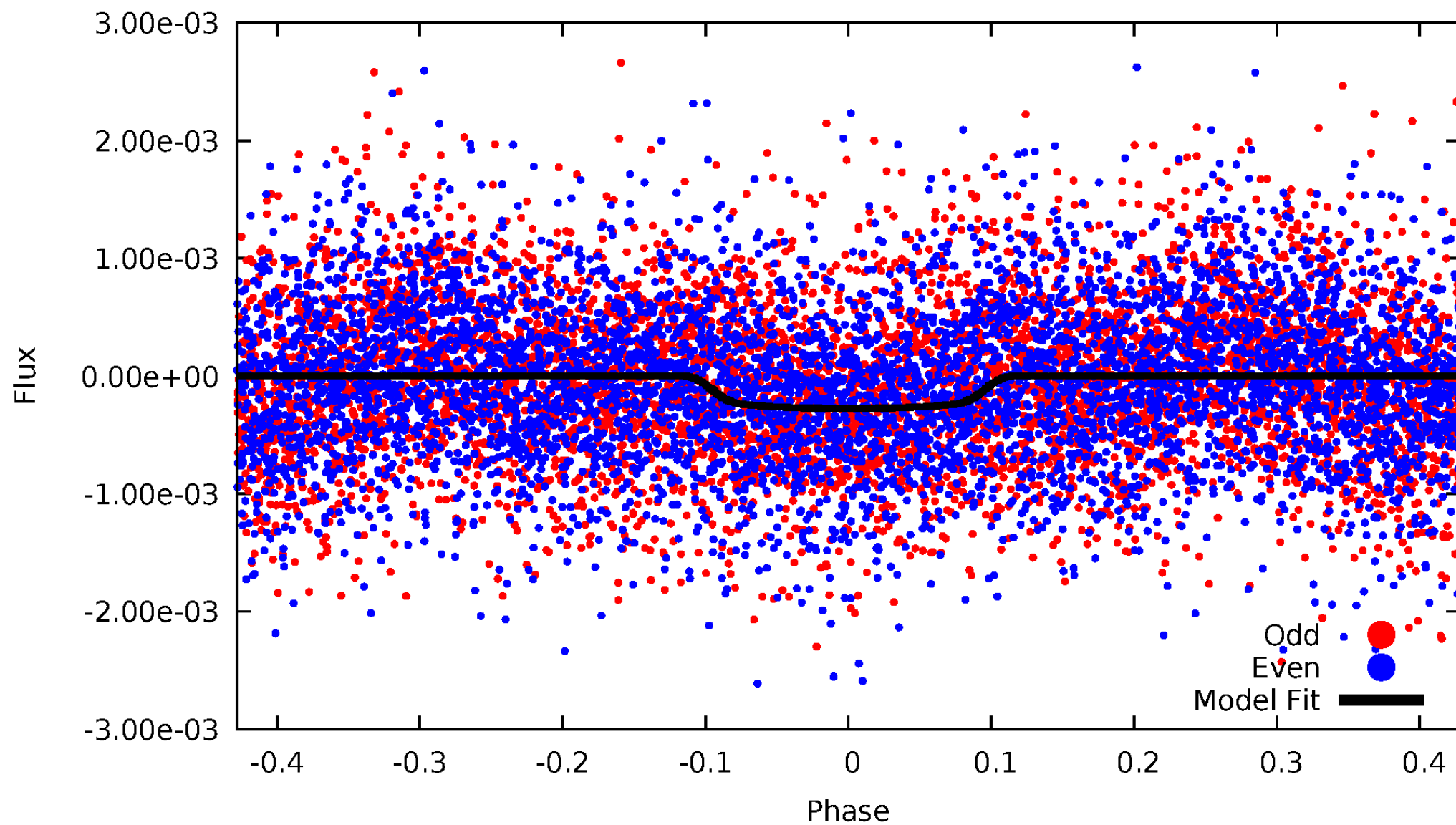


TCE 007838889-03



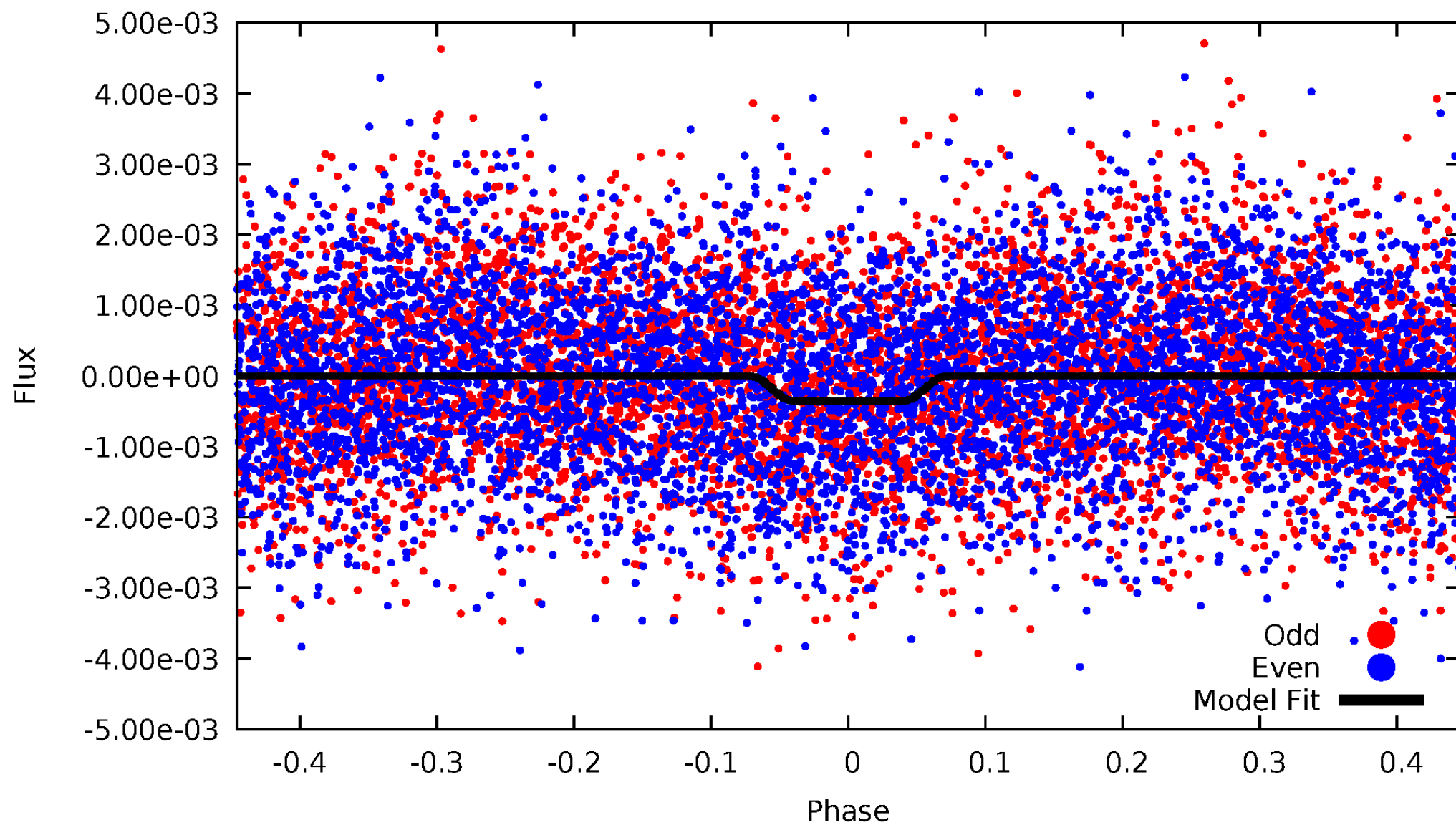
DV Odd/Even

TCE 007838889-03



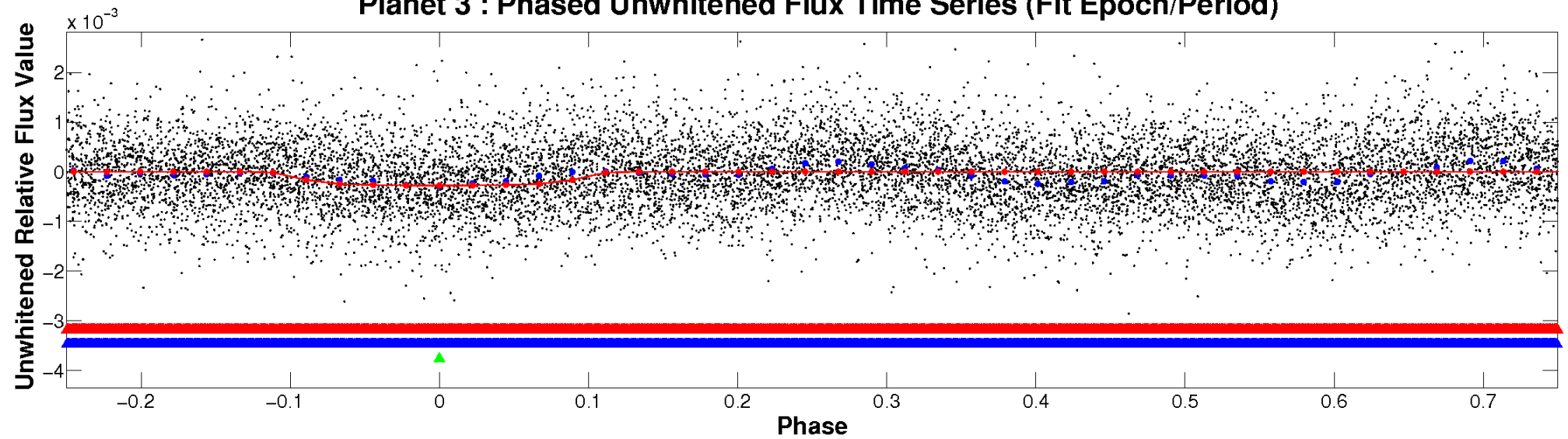
ALT Odd/Even

TCE 007838889-03

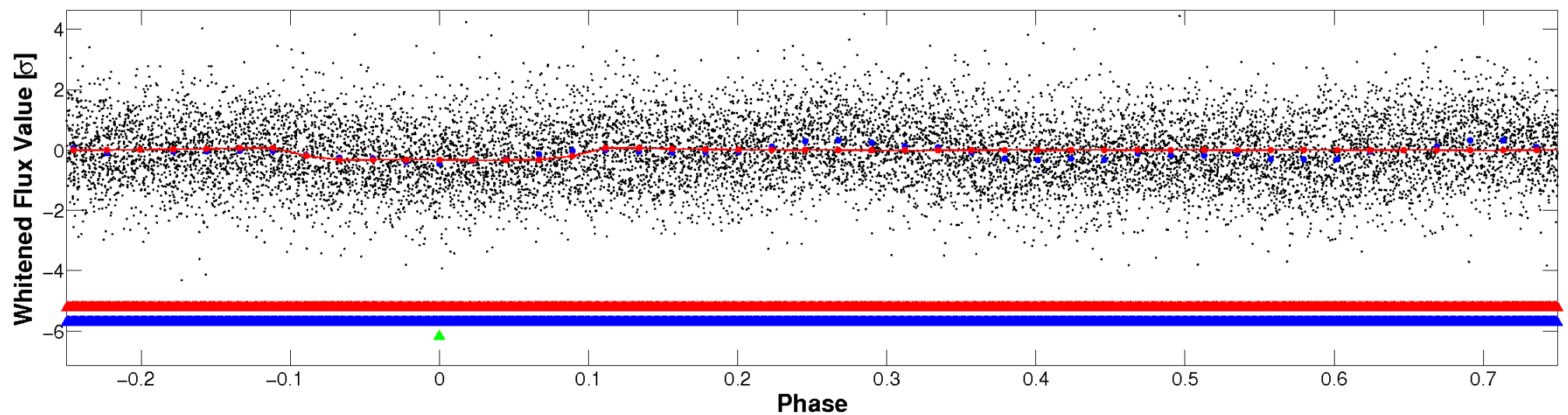


Non-Whitened Vs. Whitened Light Curve

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

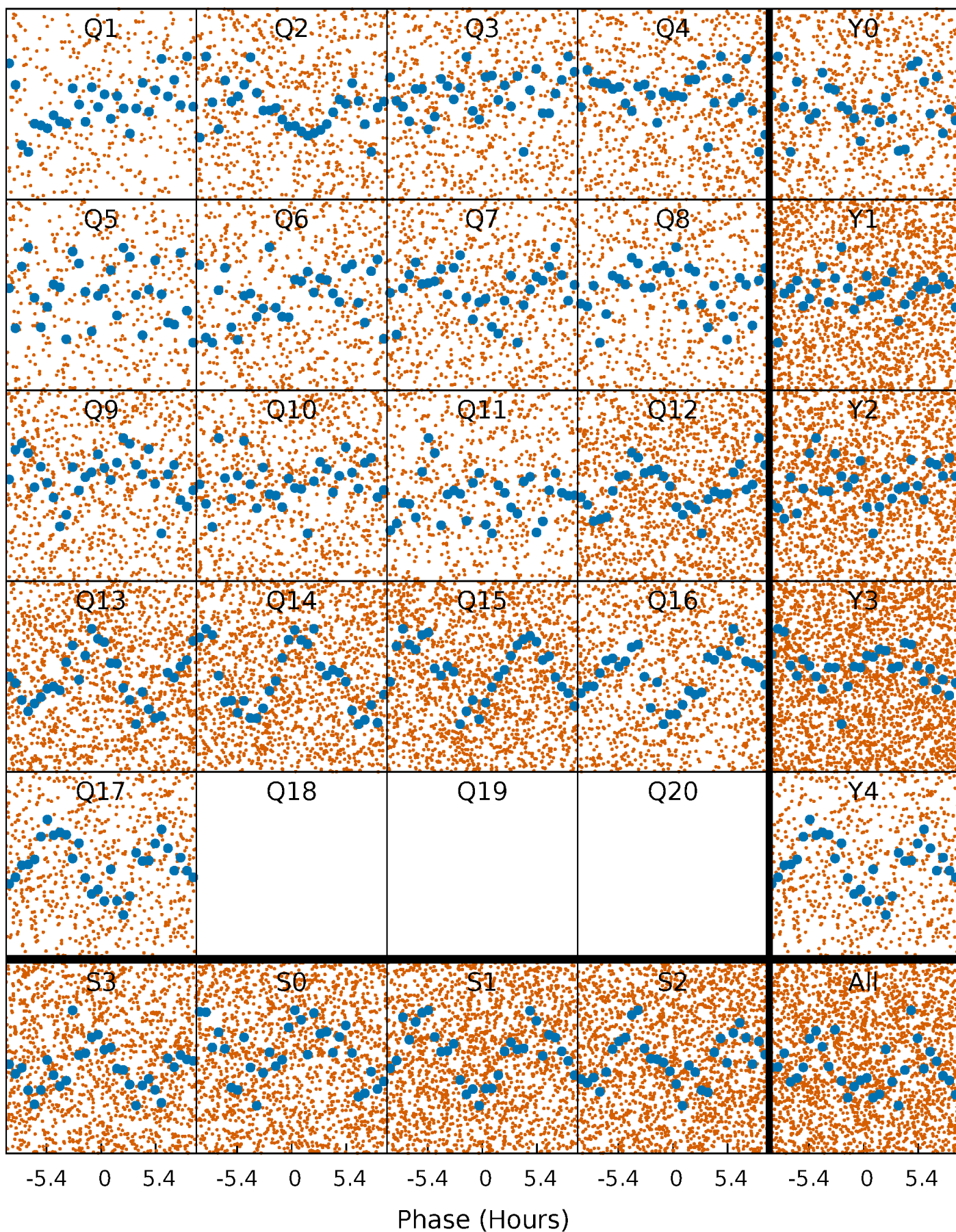


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



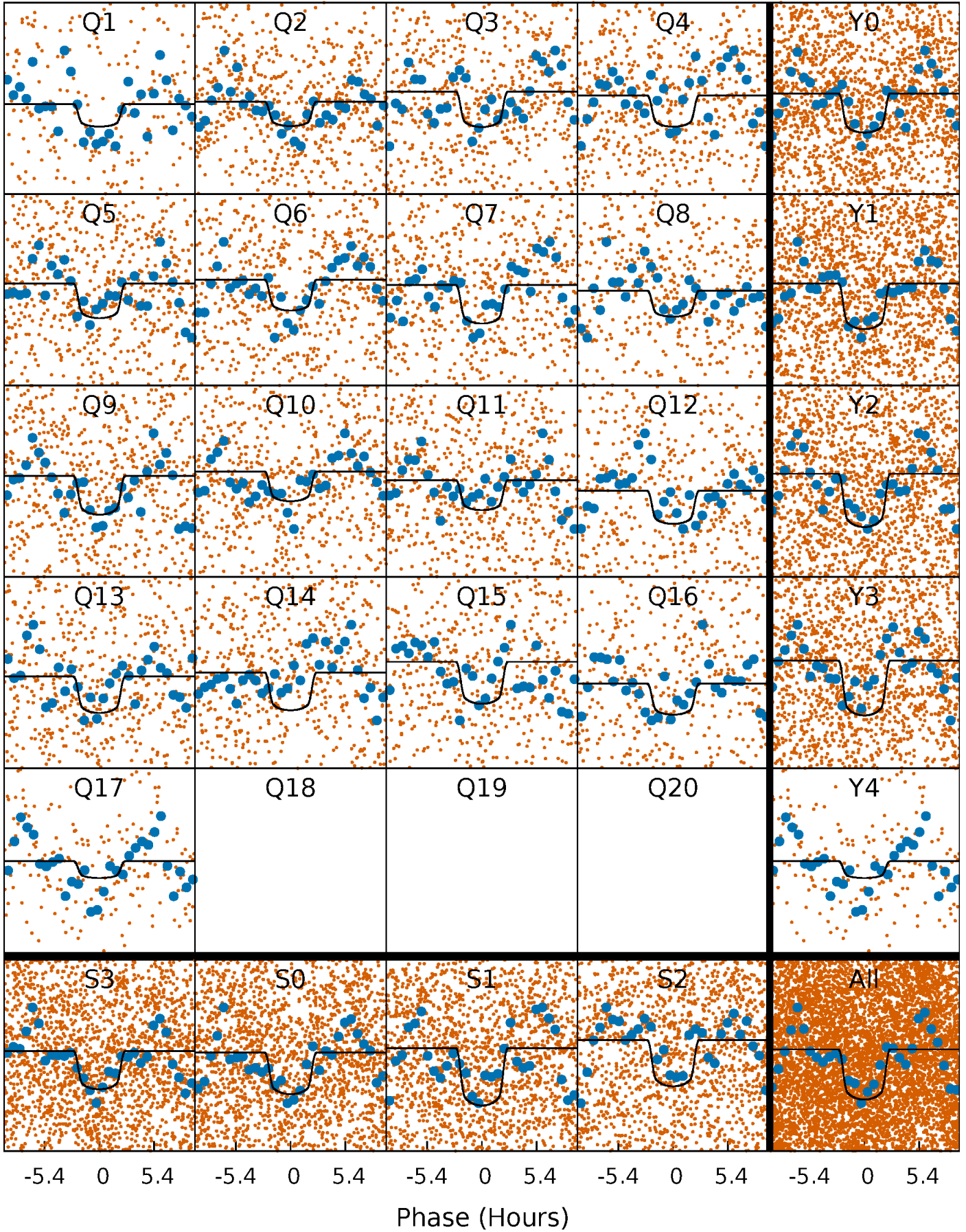
PDC Quarter-Phased Transit Curves

TCE 007838889-03 P= 0.916480 Days $T_0=131.967662$ (BKJD)



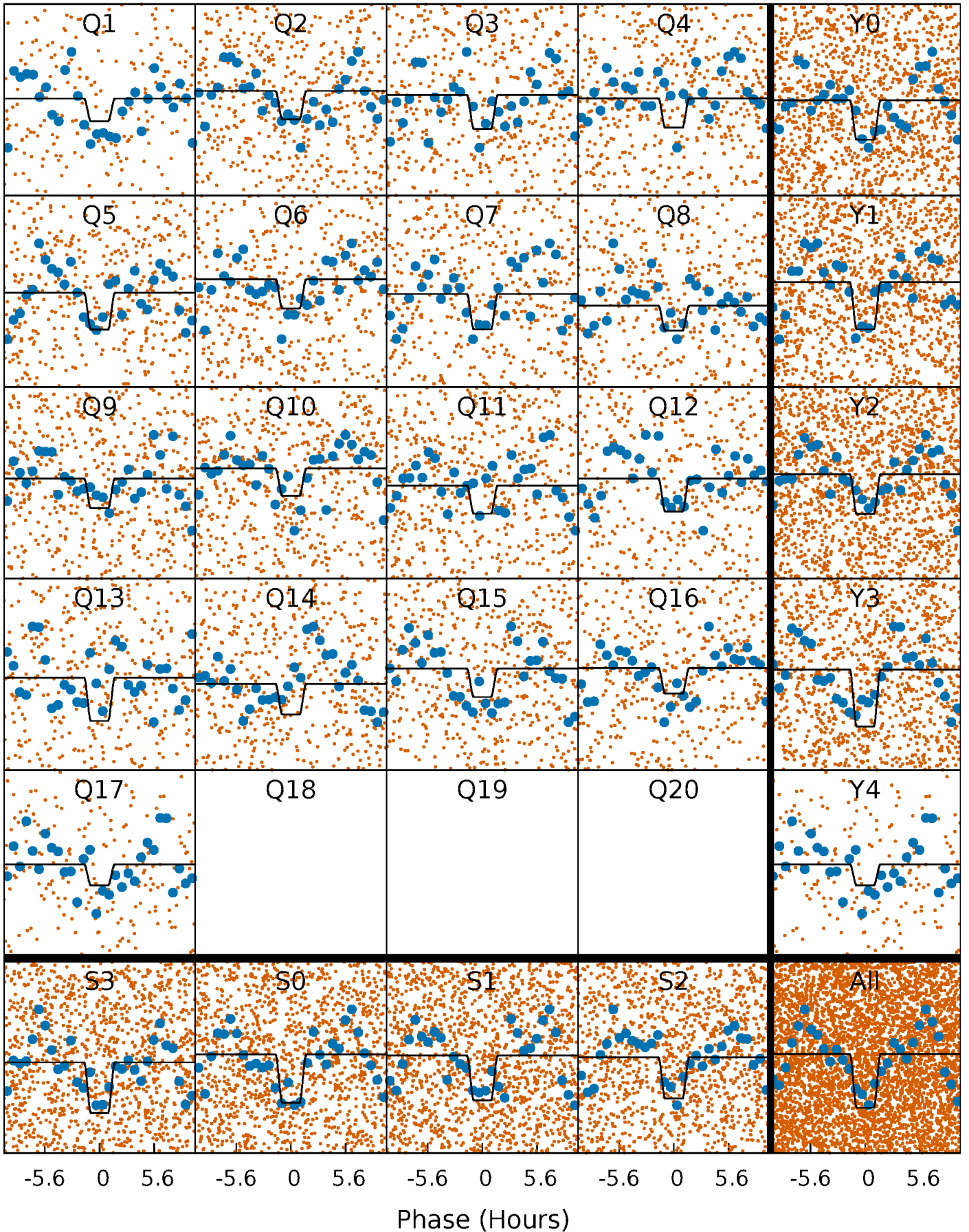
DV Quarter-Phased Transit Curves

TCE 007838889-03 P= 0.916480 Days $T_0=131.967662$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

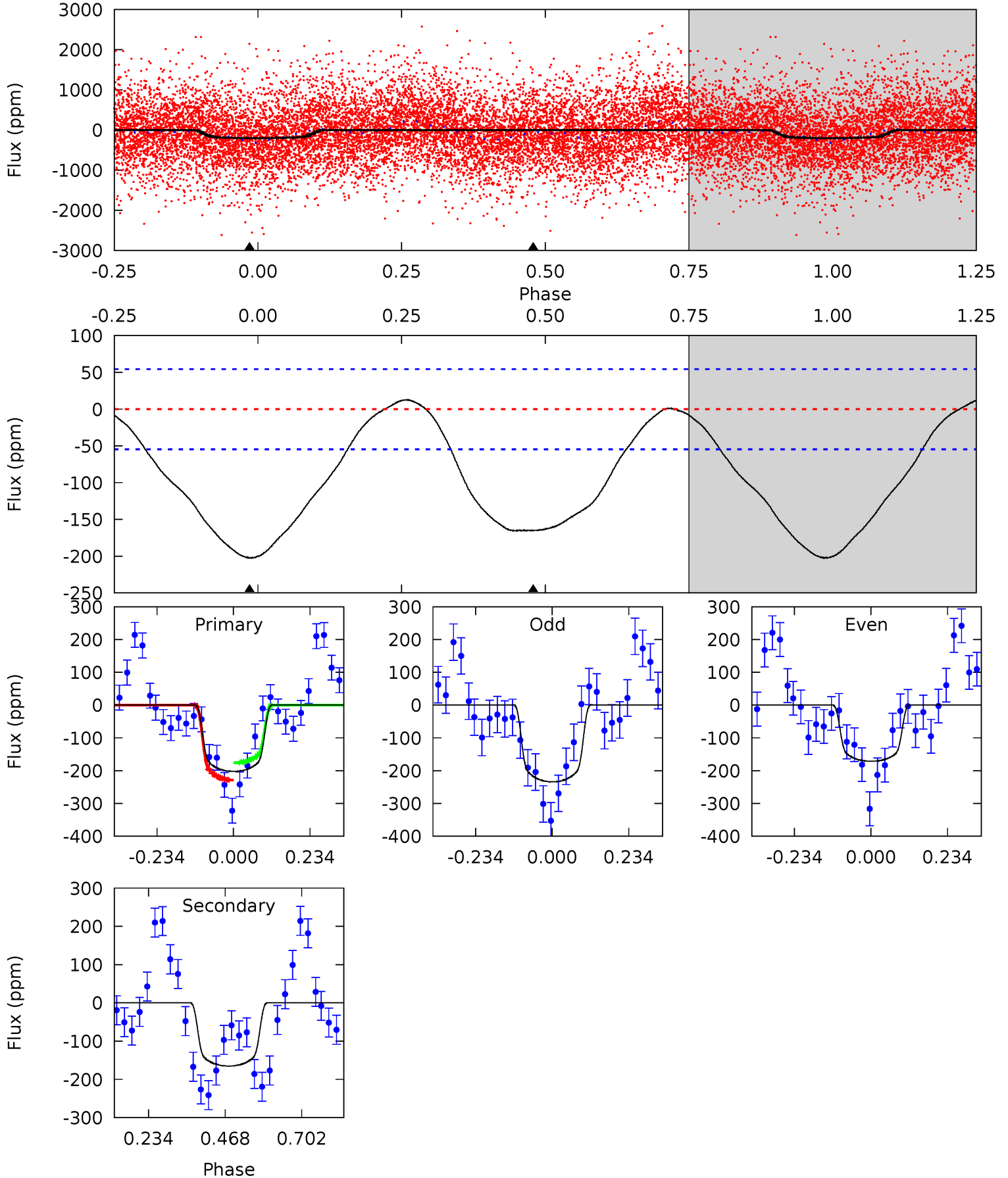
TCE 007838889-03 P= 0.916461 Days $T_0=131.966970$ (BKJD)



DV Model-Shift Uniqueness Test

007838889-03, P = 0.916480 Days, E = 131.051182 Days

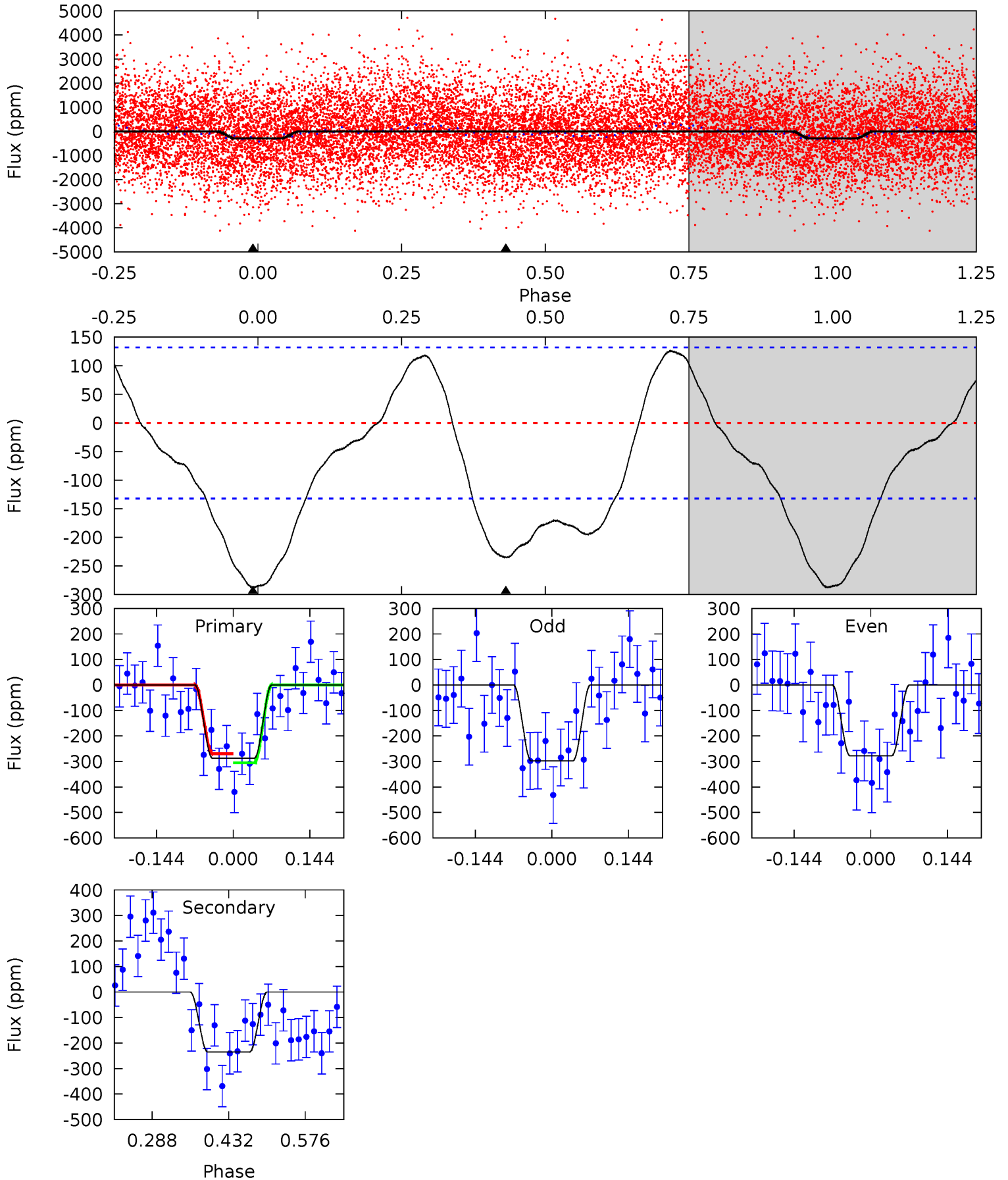
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	13.3	0	0	4.38	1.19	0.53	16.3	16.3	13.3	13.3	2.54	0.80	0.06	2.11



Alt Model-Shift Uniqueness Test

007838889-03, P = 0.916461 Days, E = 131.050509 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.78	8.00	0	0	4.49	1.46	3.01	9.78	9.78	8.00	8.00	0.33	1.09	0.30	0.61



Stellar Parameters For KIC 007838889

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8493^{+235}_{-383}	$3.770^{+0.412}_{-0.110}$	$-0.180^{+0.300}_{-0.350}$	$3.061^{+0.785}_{-1.345}$	$2.017^{+0.372}_{-0.455}$	$0.099^{+0.359}_{-0.038}$
	+3%/-5%	+11%/-3%	+167%/-194%	+26%/-44%	+18%/-23%	+363%/-39%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007838889-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-165 ± 12	$5.56^{+1.25}_{-1.31}$	5780^{+465}_{-686}	6533^{+570}_{-458}	$1.587^{+1.098}_{-0.463}$
Alt.	-235 ± 29	$5.92^{+1.25}_{-1.32}$	5781^{+434}_{-634}	7095^{+611}_{-576}	$2.004^{+1.407}_{-0.592}$

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

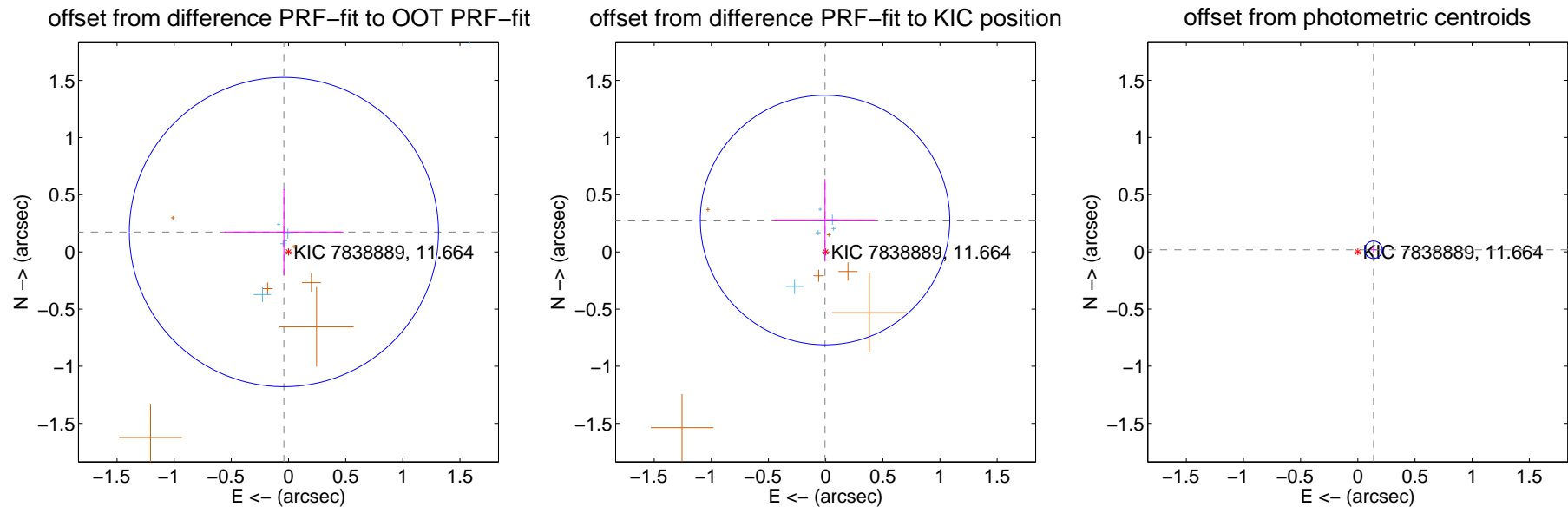
DV Centroid Data

Supplemental centroid analysis for 007838889-03. **Kepler magnitude: 11.66.** Transit SNR 14.91

There are 8 quarters with good PRF difference image offsets

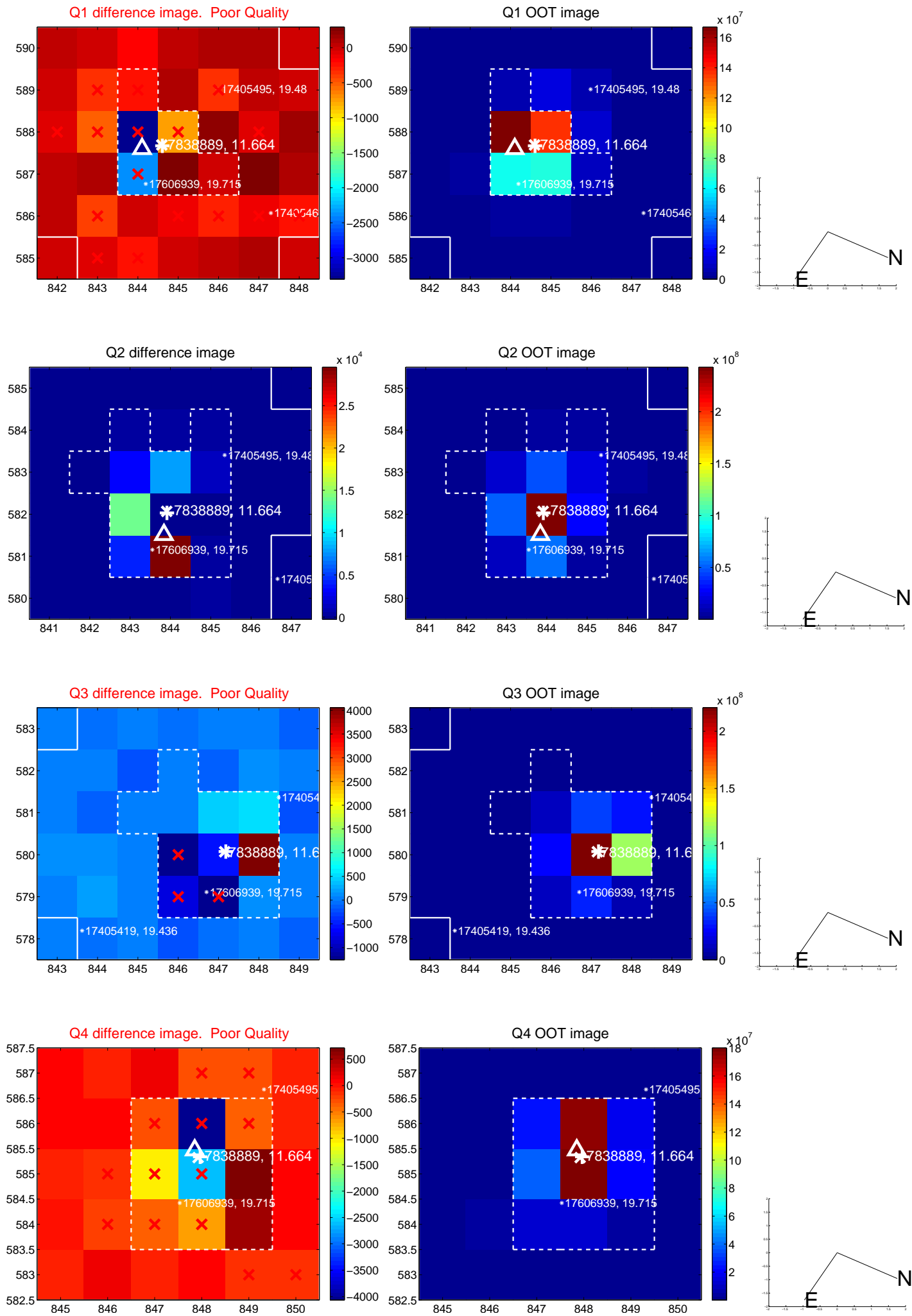
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.178 ± 0.451	0.40	0.040 ± 0.521	0.174 ± 0.375
PRF-fit source offset from KIC position	0.279 ± 0.364	0.77	0.006 ± 0.449	0.279 ± 0.358
photometric centroid source offset	0.14 ± 0.03	5.43	-0.14 ± 0.03	0.02 ± 0.03

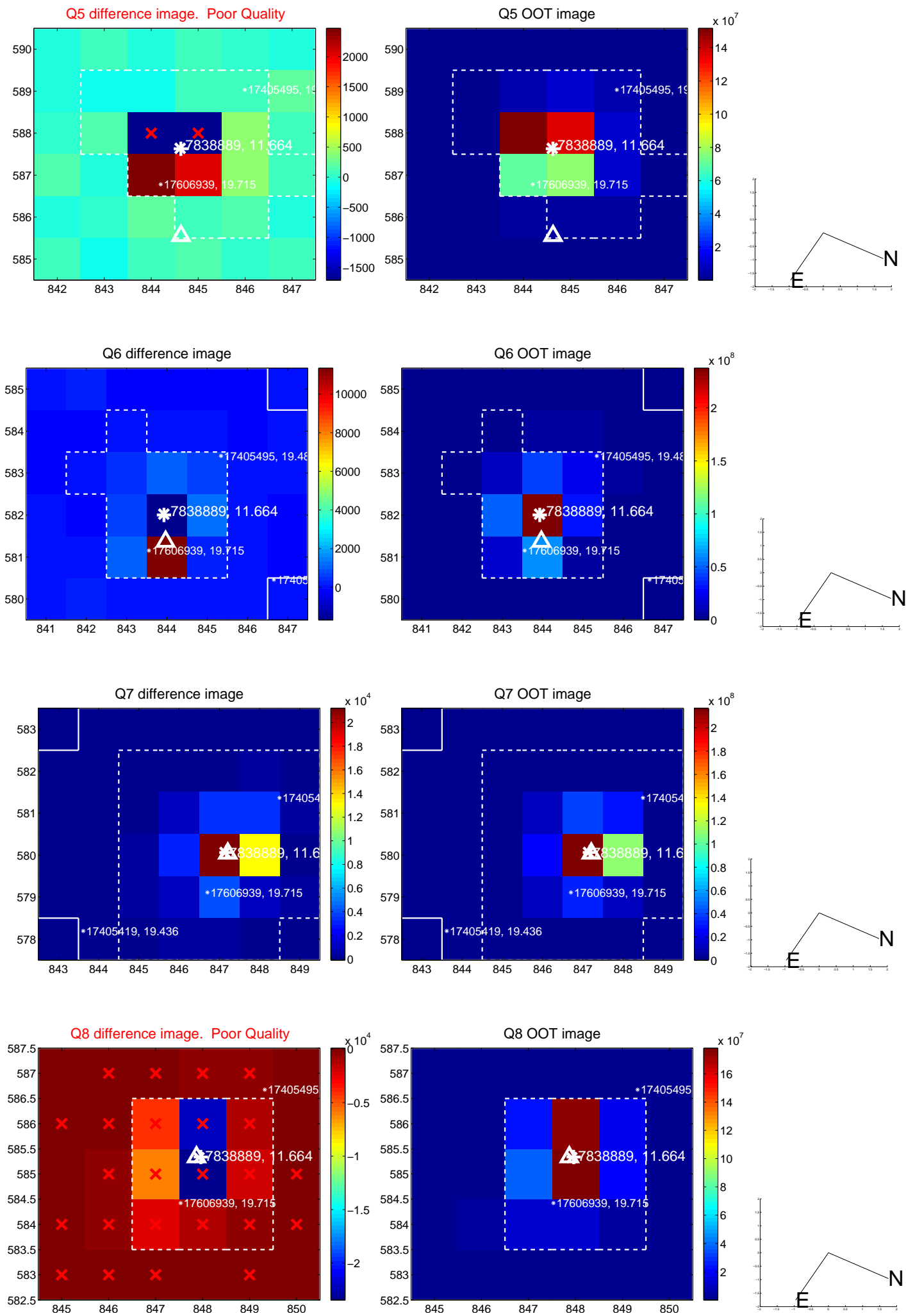


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

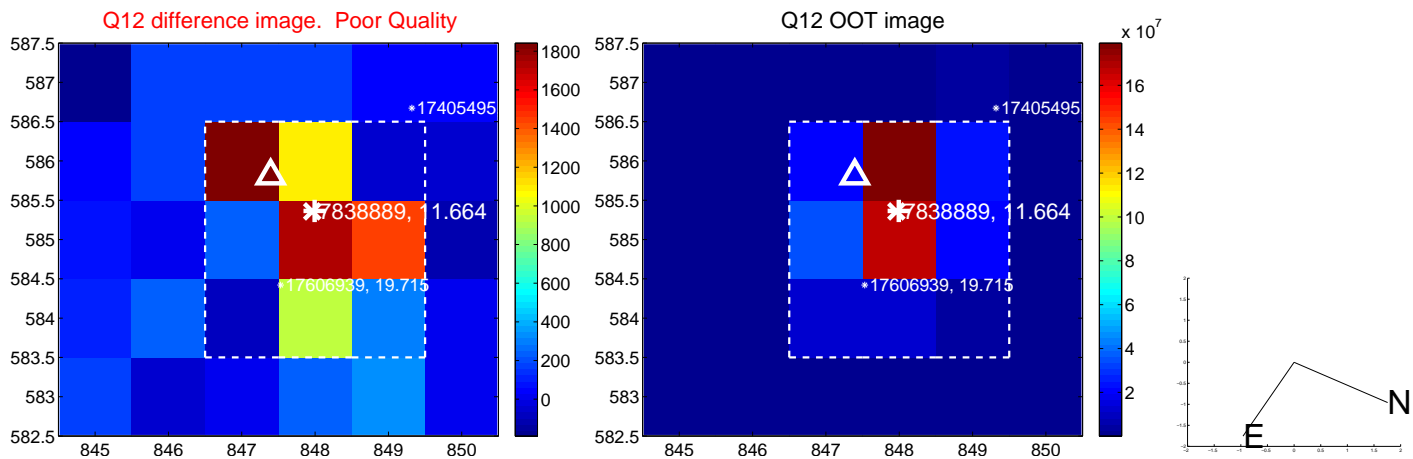
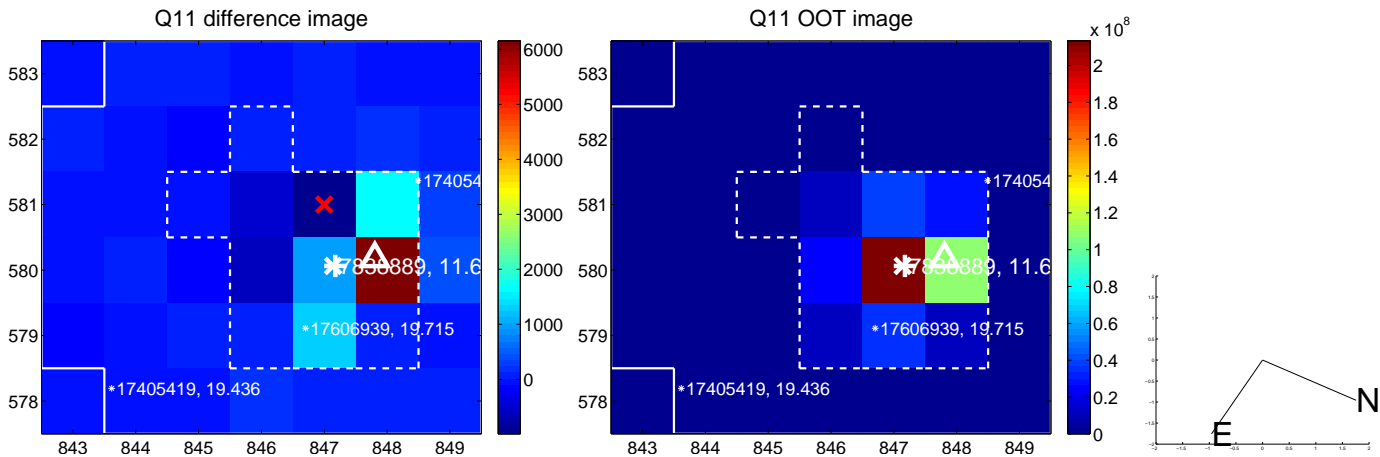
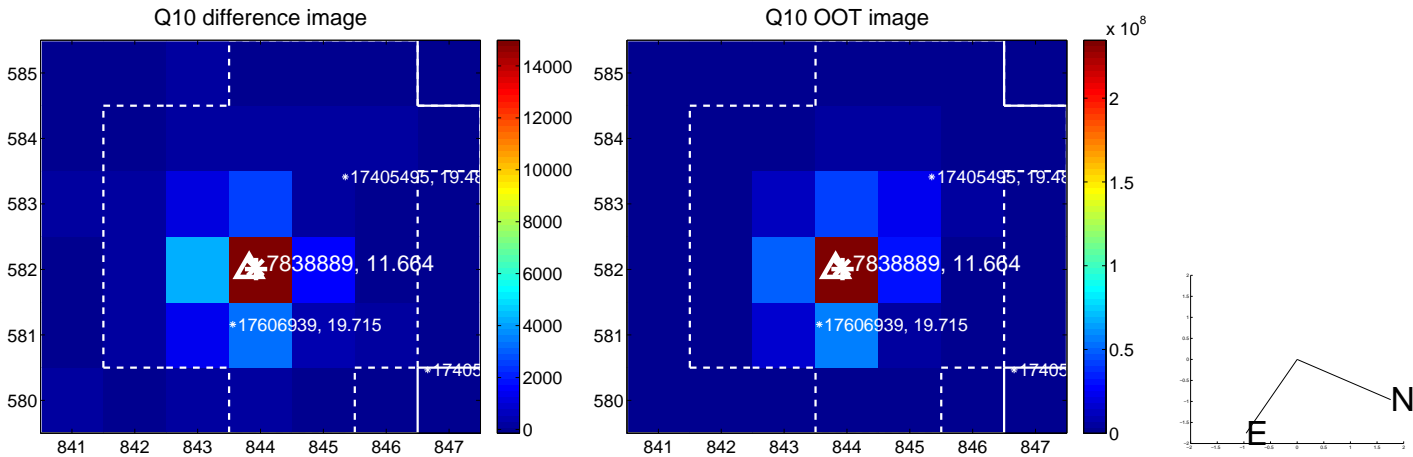
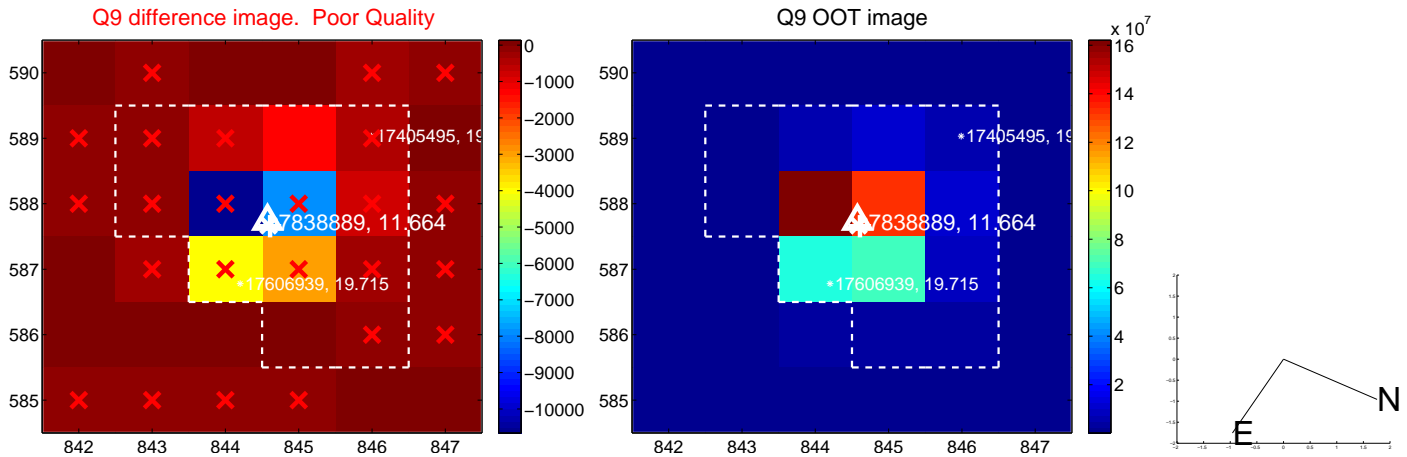
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



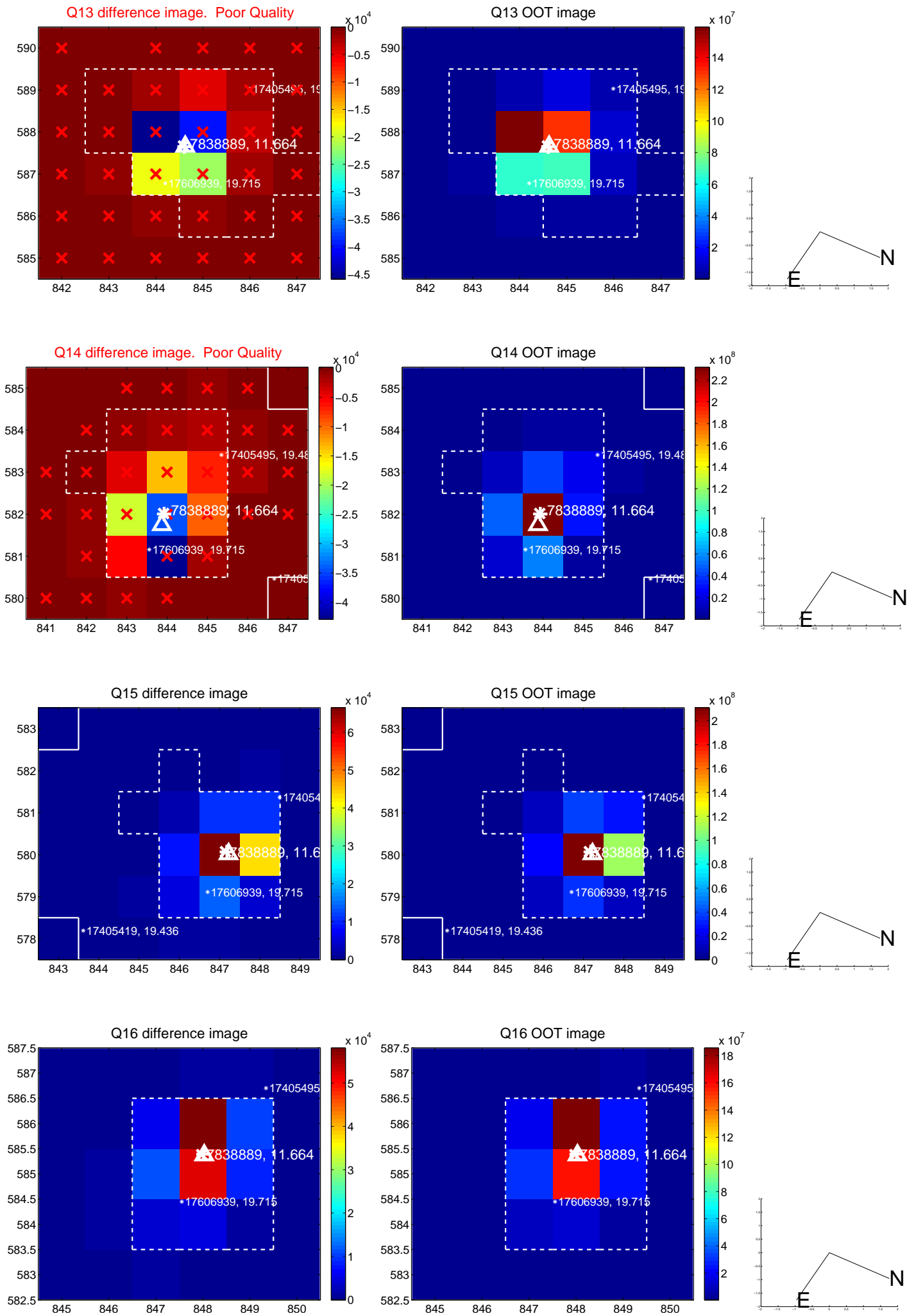
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



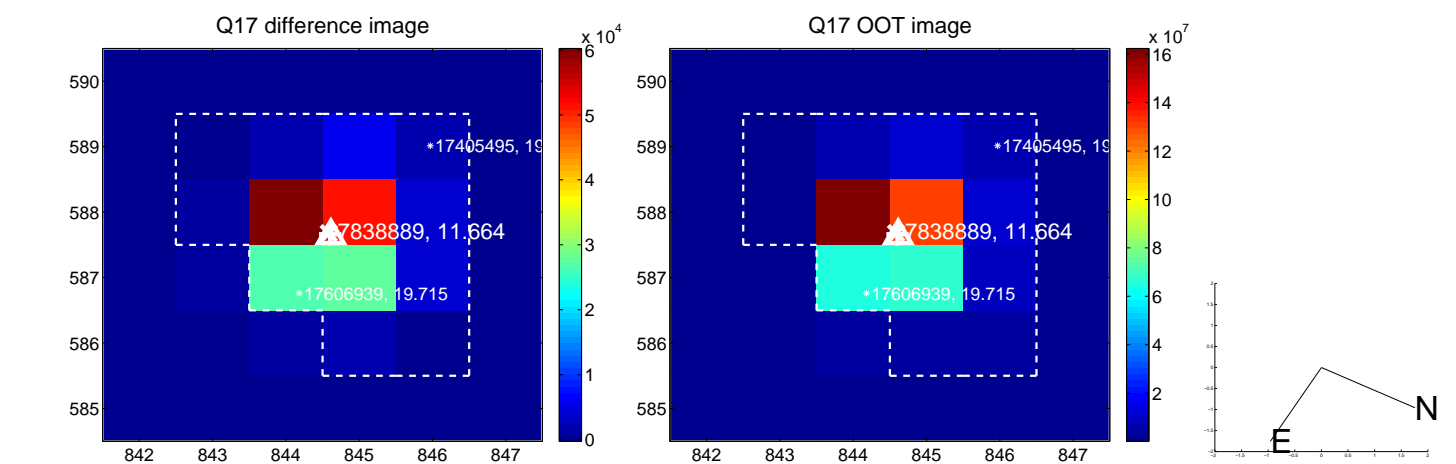
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



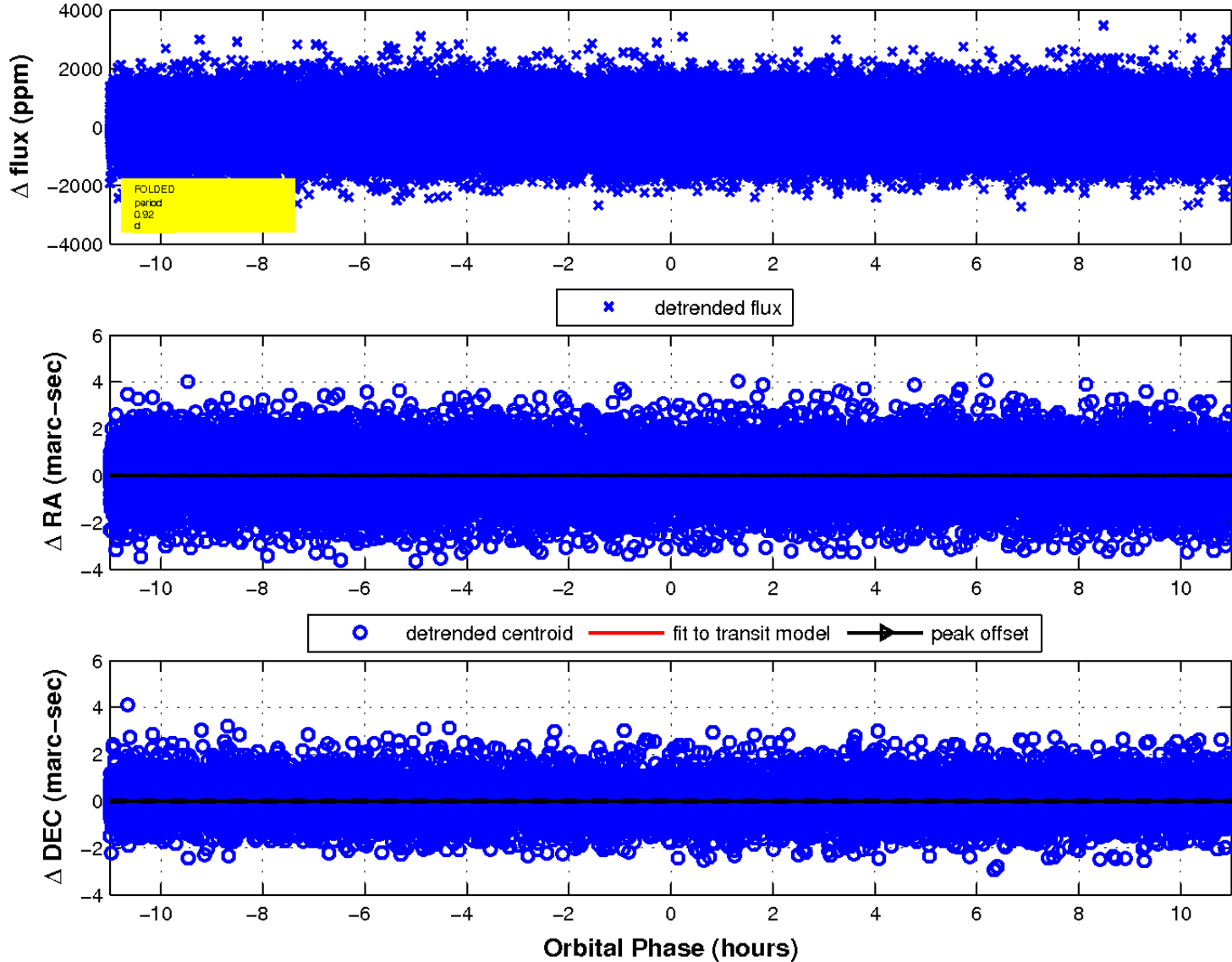
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

