

KIC 007697795

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})
007697795-01	OBS	No	0.788625	131.570855	56.3	2.468	10.2	8.4	3.57	7710	3.03	88883.25
007697795-02	OBS	No	0.505735	131.664435	74.3	5.362	8.2	12.7	3.57	7710	3.26	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007697795-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_SATURATED
007697795-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_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.

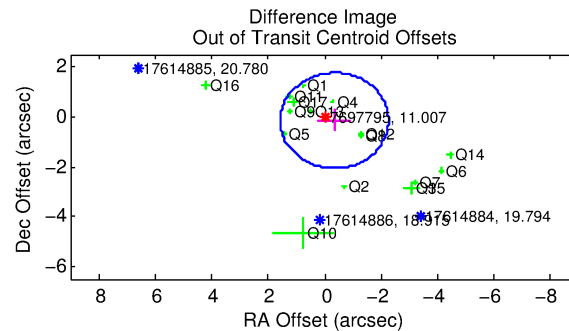
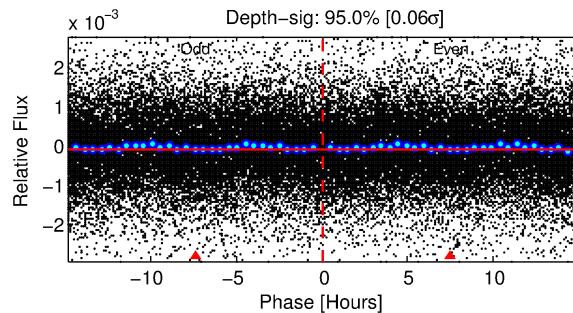
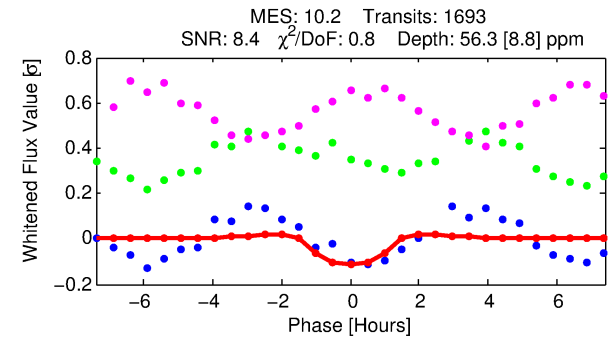
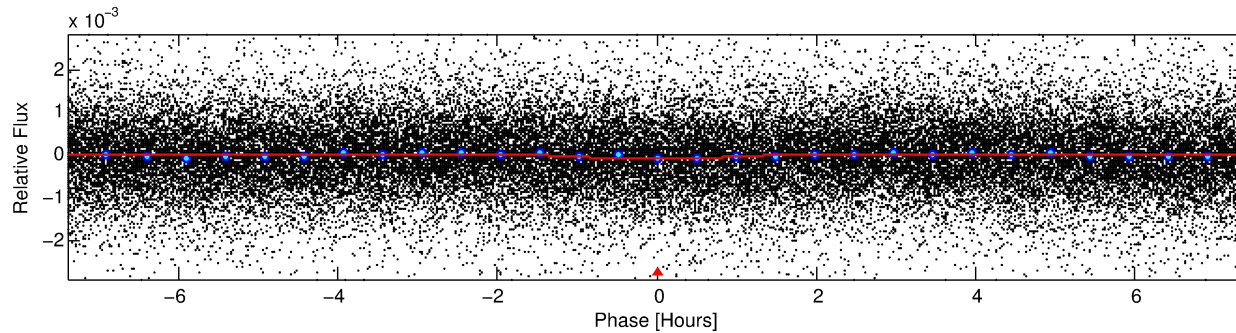
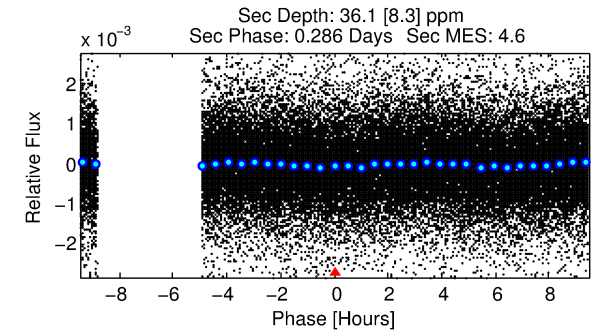
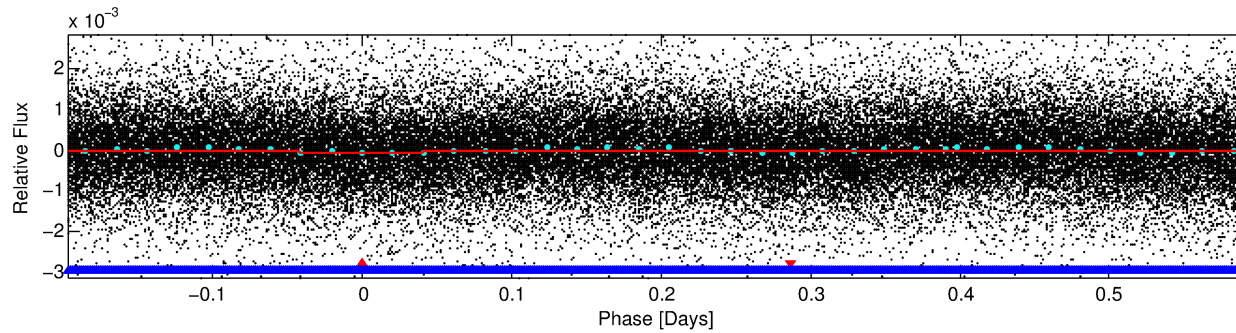
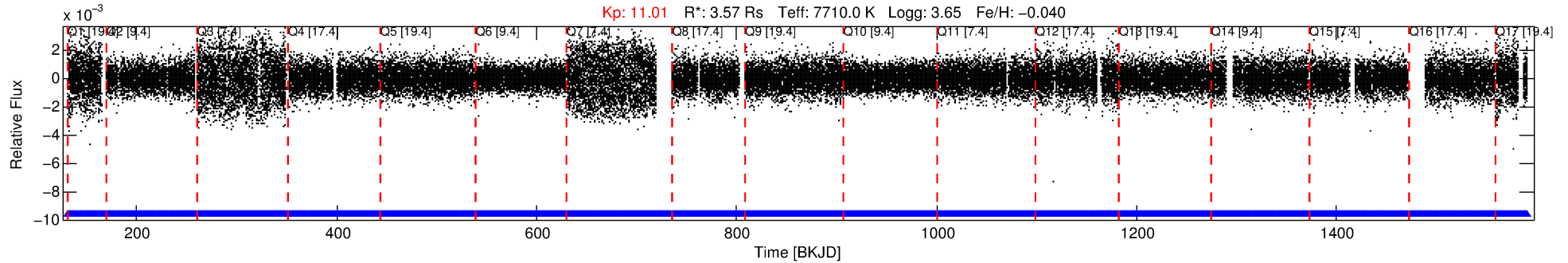
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007697795-01

No Significant Match Found

DV One-Page Summary

KIC: 7697795 Candidate: 1 of 2 Period: 0.789 d



DV Fit Results:

Period = 0.78862 [0.00001] d
Epoch = 131.5709 [0.0041] BKJD
 $R_p/R^* = 0.0078$ [0.0055]
 $a/R^* = 1.58$ [4.03]
 $b = 0.86$ [1.33]
 $S_{\text{eff}} = 88883.25$ [70789.98]
 $T_{\text{eq}} = 4403$ [877] K
 $R_p = 3.03$ [2.62] R_e
 $a = 0.0213$ [0.0103] AU
 $A_g = 0.98$ [1.59] $[-0.01\sigma]$
 $T_{\text{eff}} = 6768$ [2430] K $[0.92\sigma]$

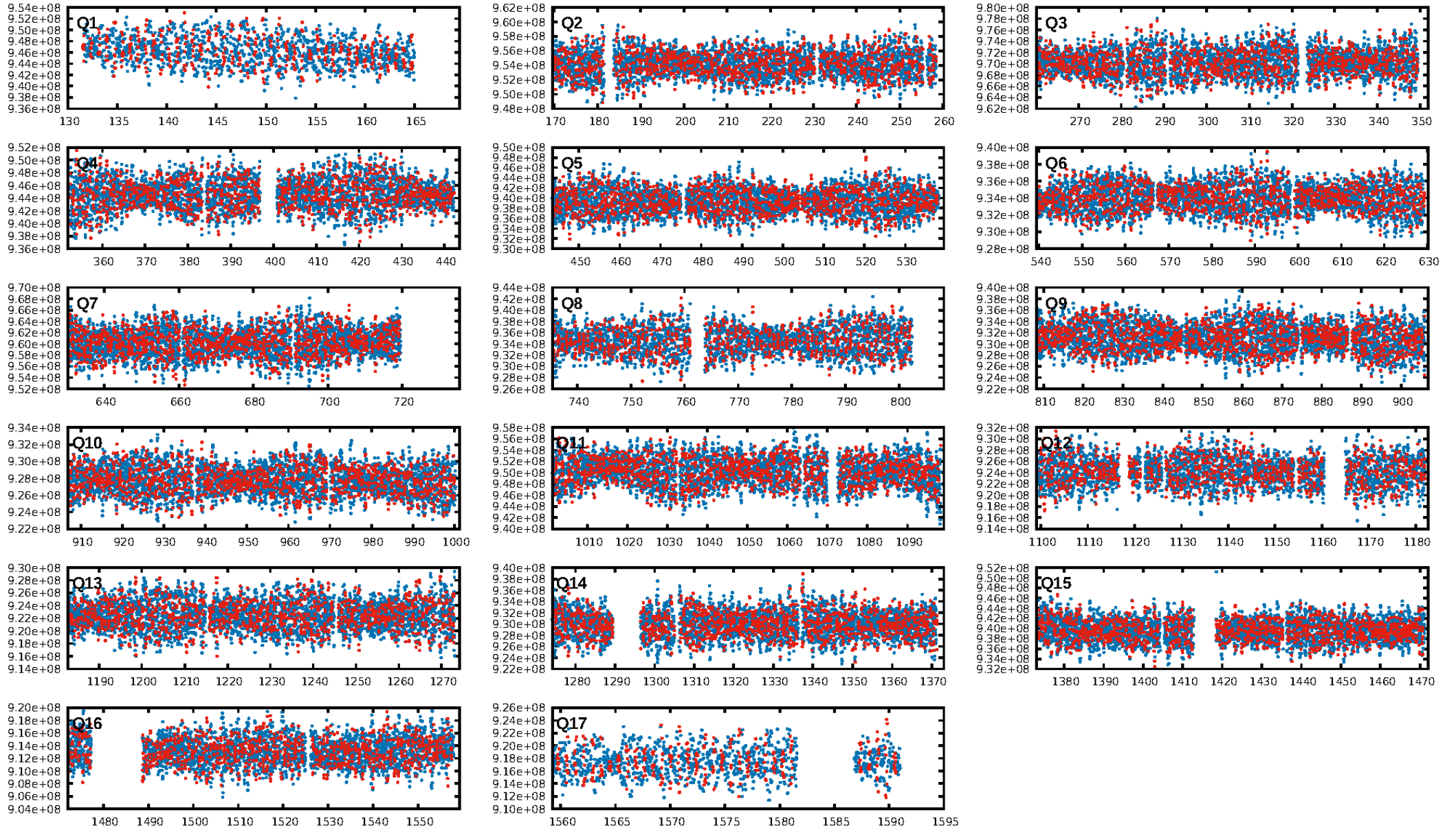
DV Diagnostic Results:

ShortPeriod-sig: 75.0% [1.15σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1617/1617]
GhostDiagnostic-chr: 1.102
Centroid-sig: 9.4%
Centroid-so: 0.362 arcsec [2.00σ]
OotOffset-rm: 0.374 arcsec [0.59σ]
KicOffset-rm: 0.282 arcsec [0.52σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 0.00 [0/17]

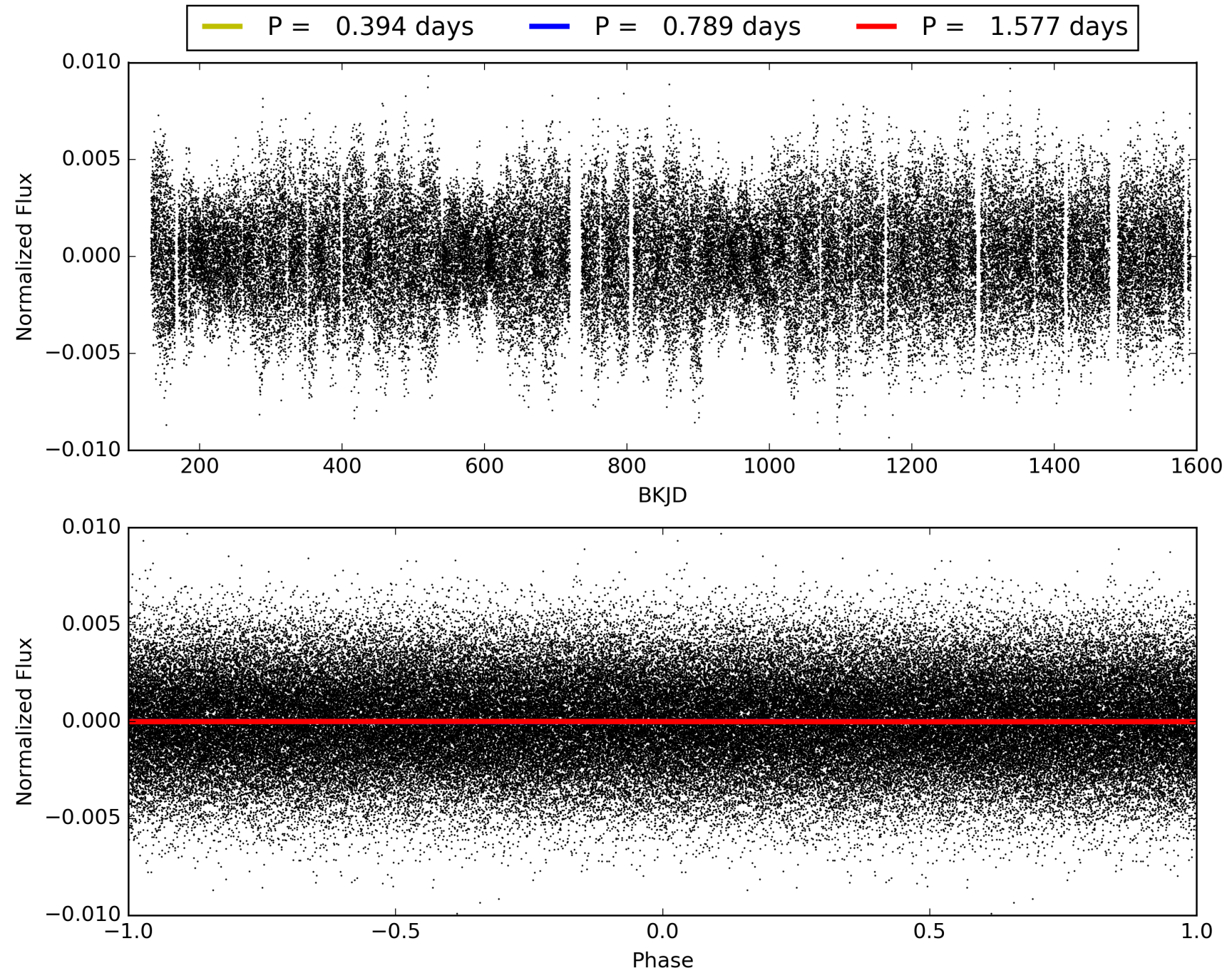
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:26:24 Z

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

TCE 007697795-01, PDC Light Curves

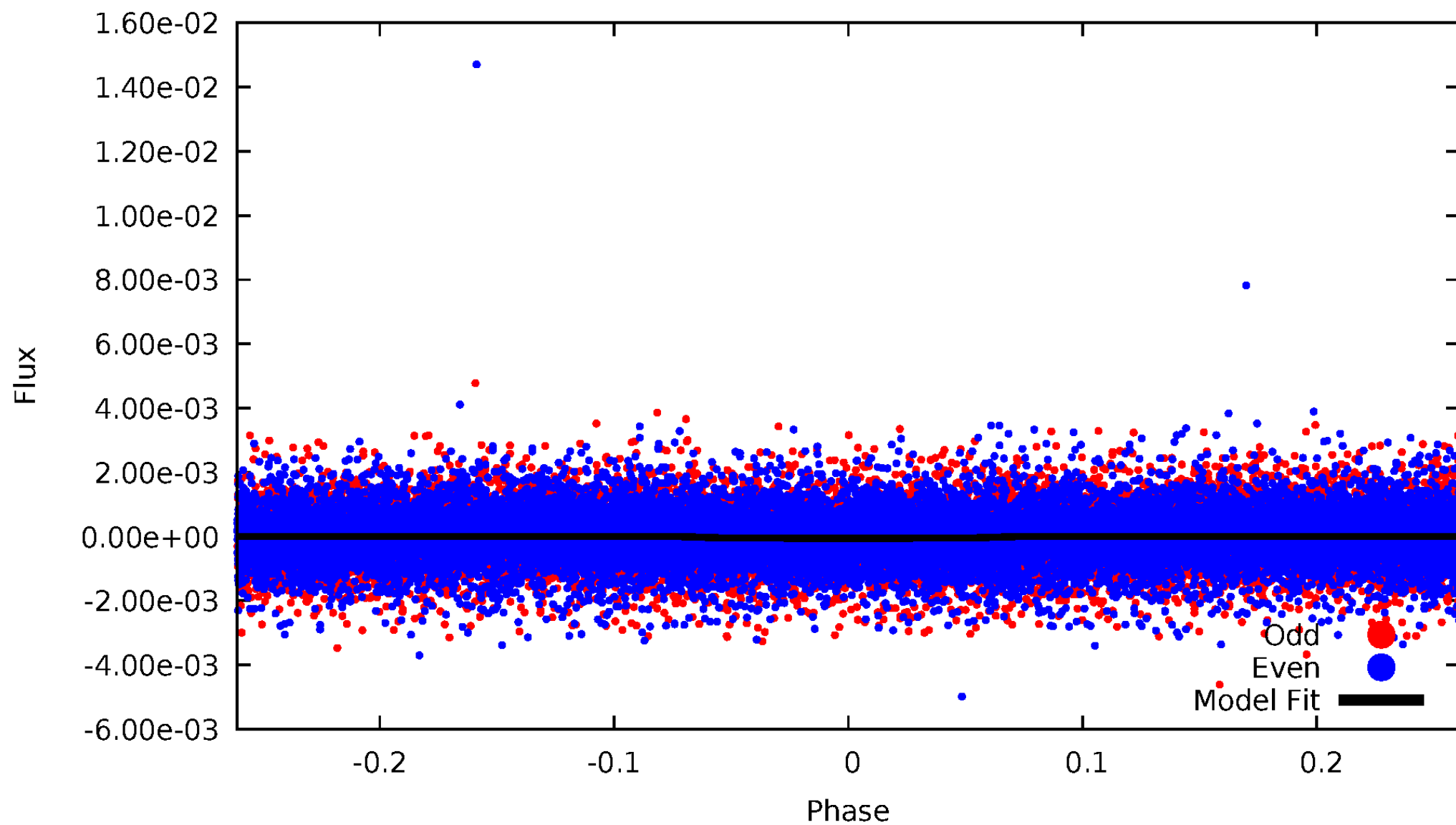


TCE 007697795-01



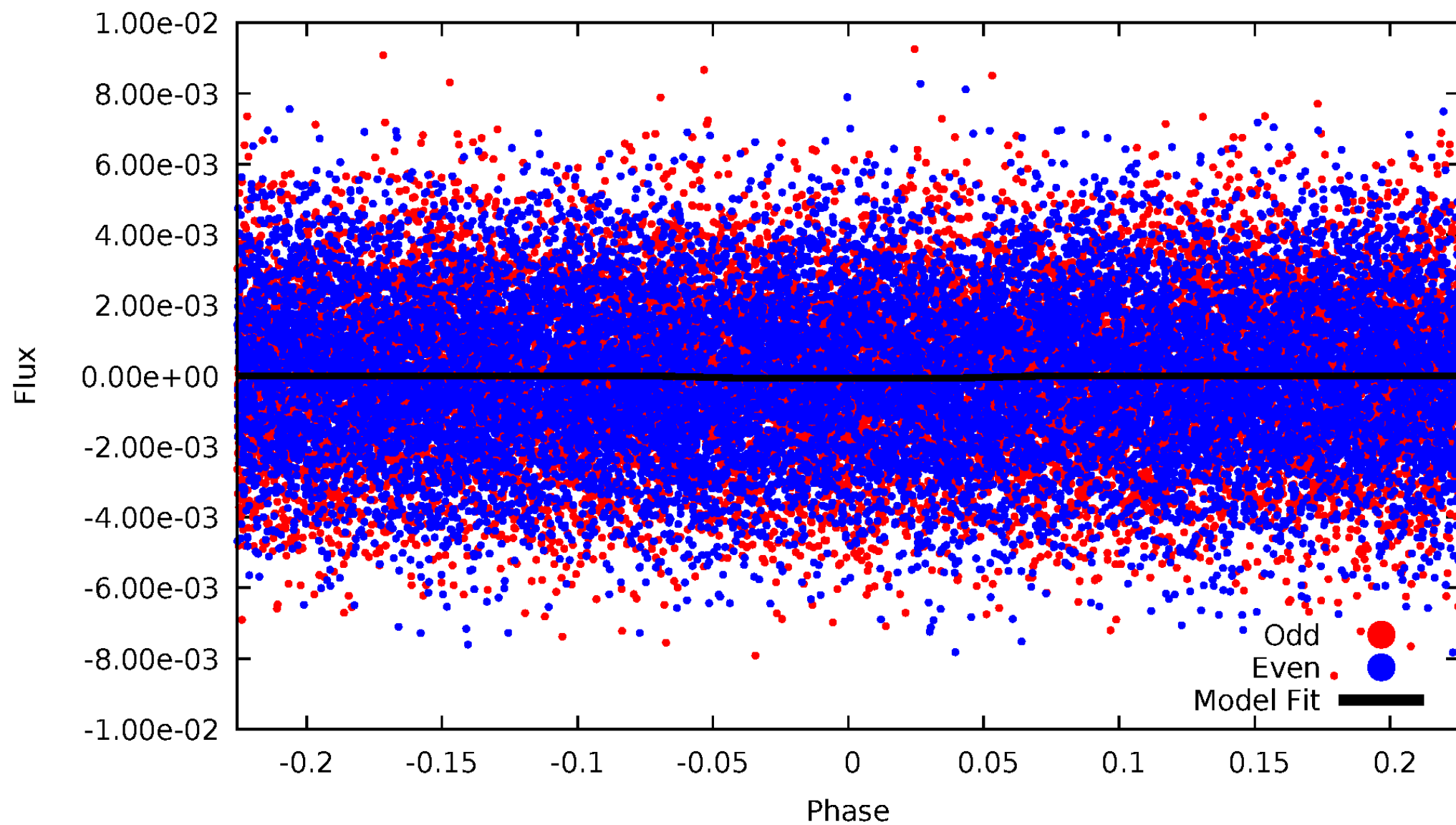
DV Odd/Even

TCE 007697795-01



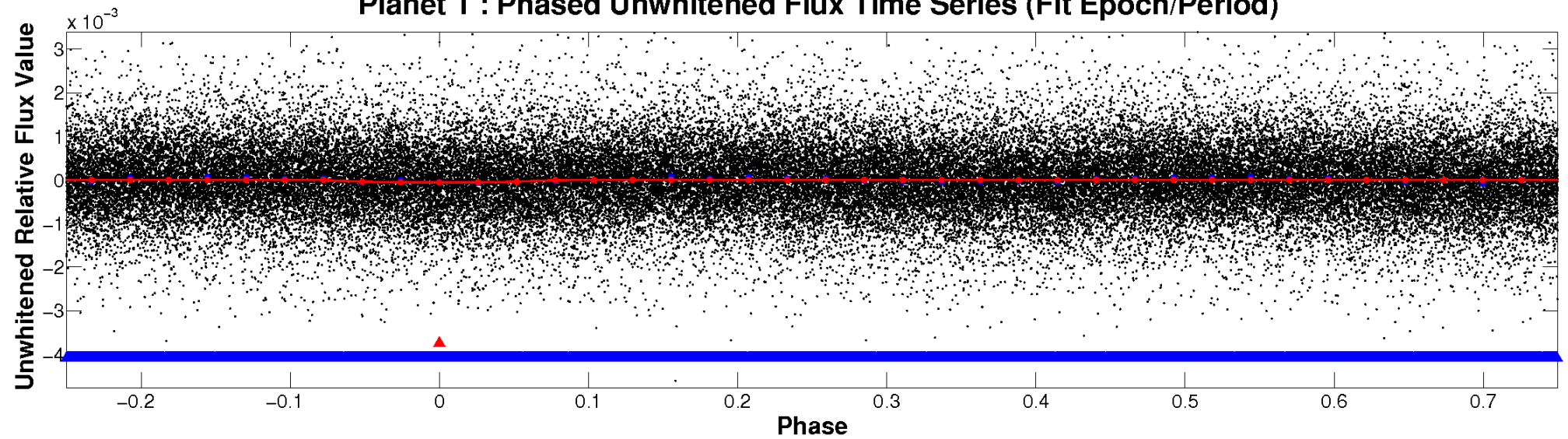
ALT Odd/Even

TCE 007697795-01

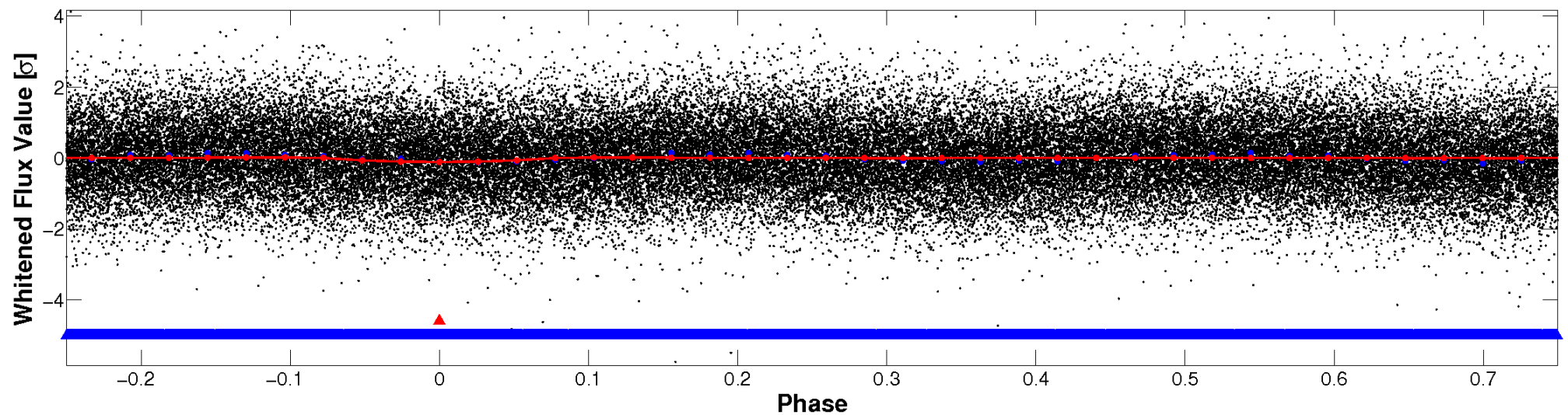


Non-Whitened Vs. Whitened Light Curve

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

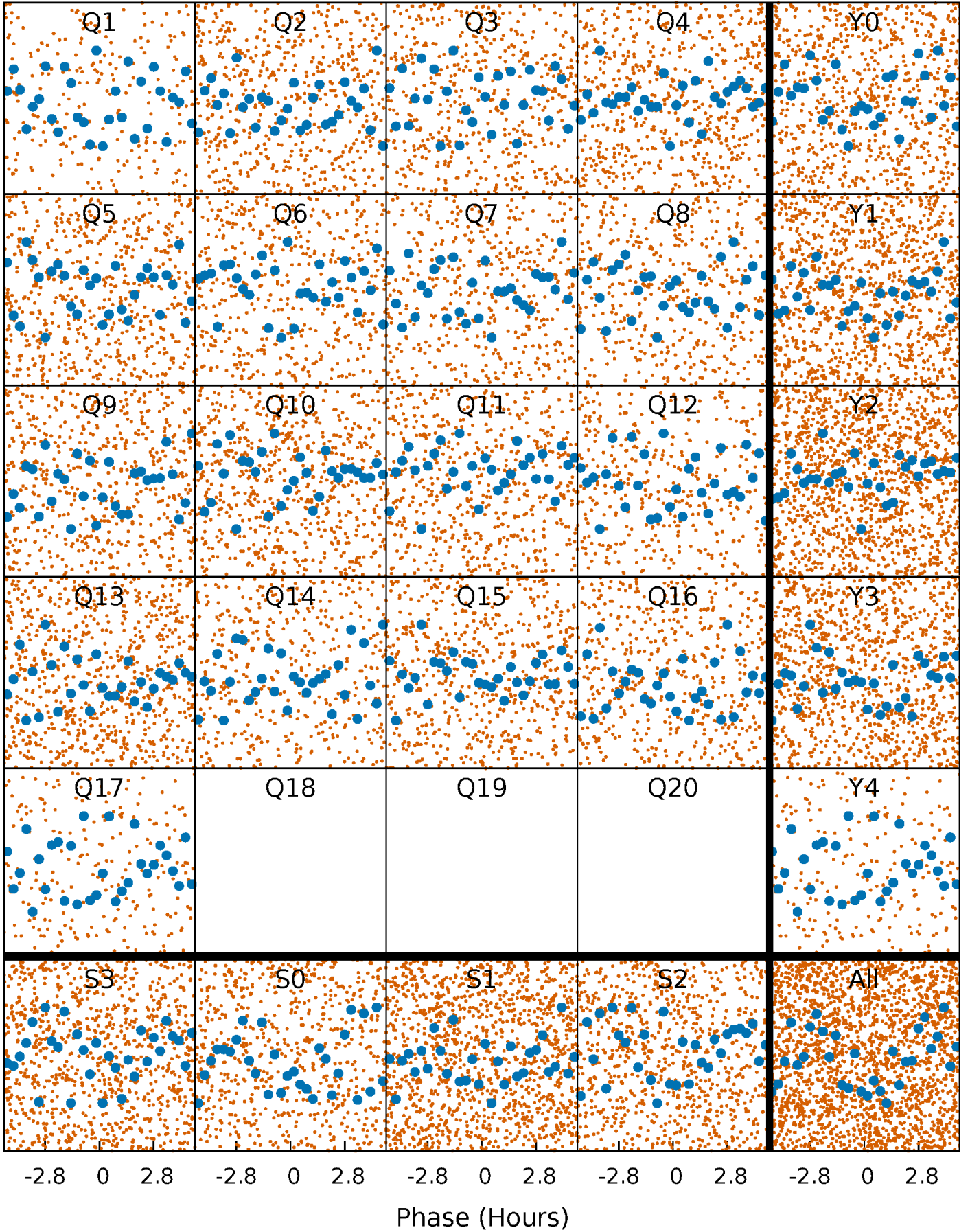


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



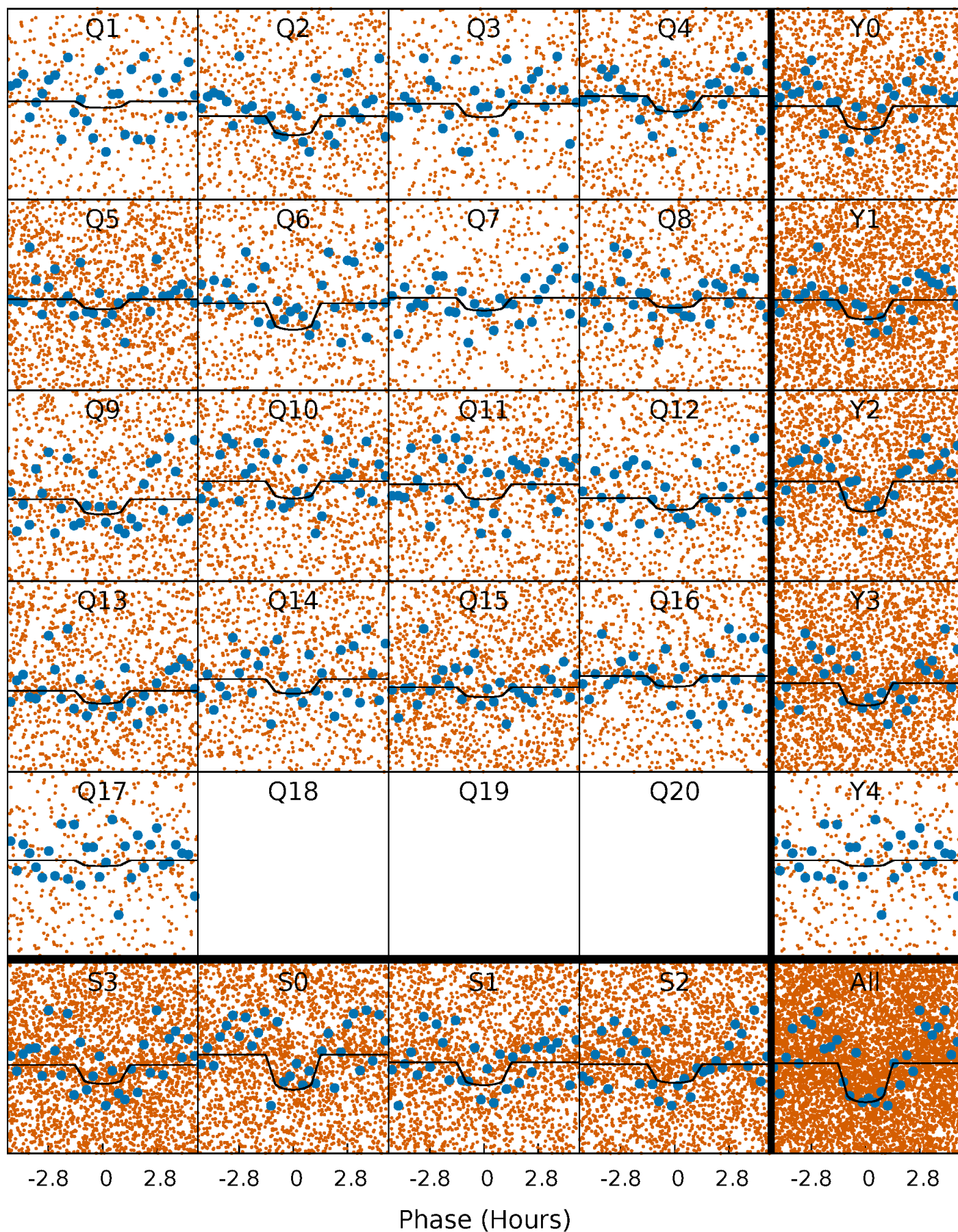
PDC Quarter-Phased Transit Curves

TCE 007697795-01 P= 0.788625 Days $T_0=131.570855$ (BKJD)



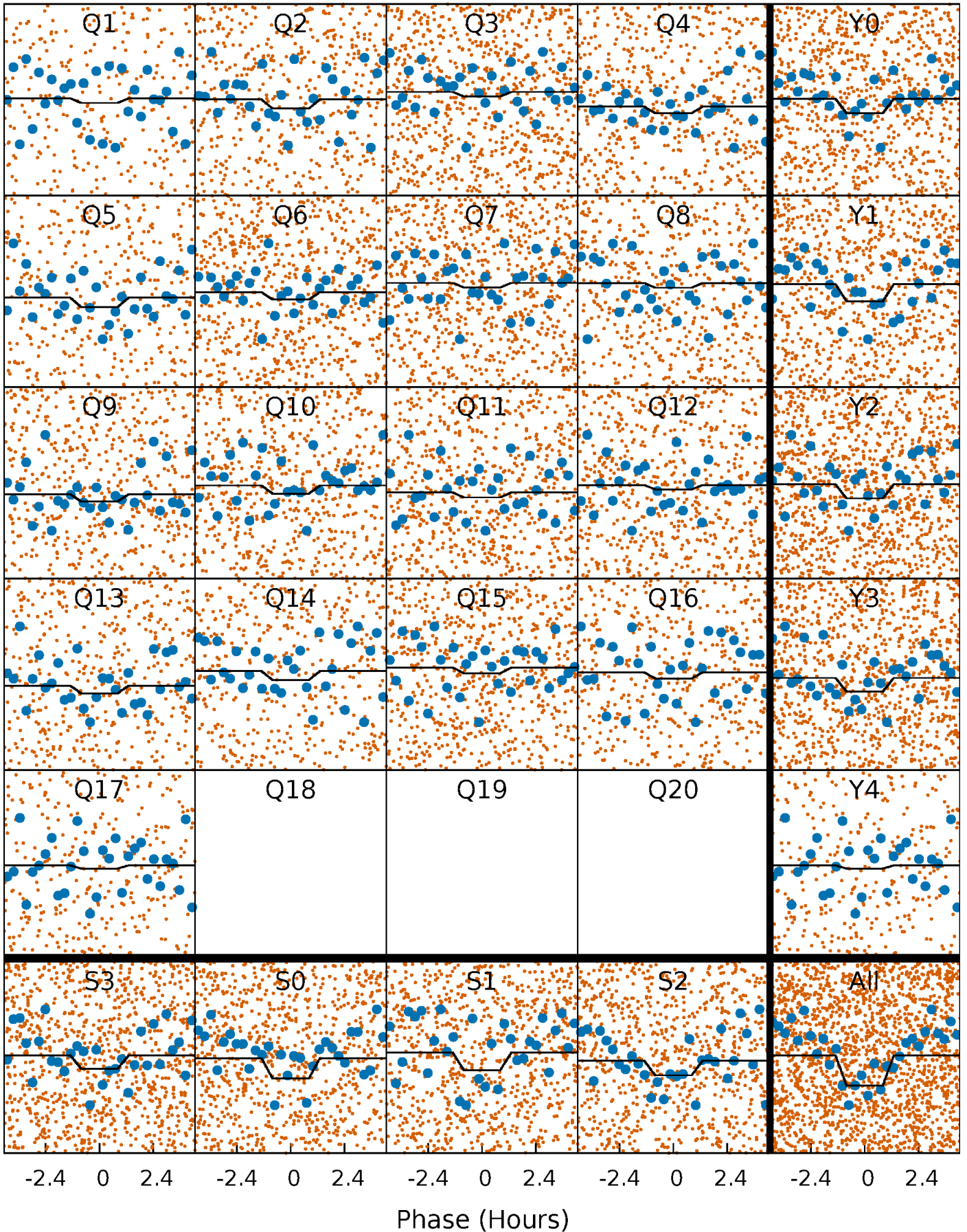
DV Quarter-Phased Transit Curves

TCE 007697795-01 P= 0.788625 Days $T_0=131.570855$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

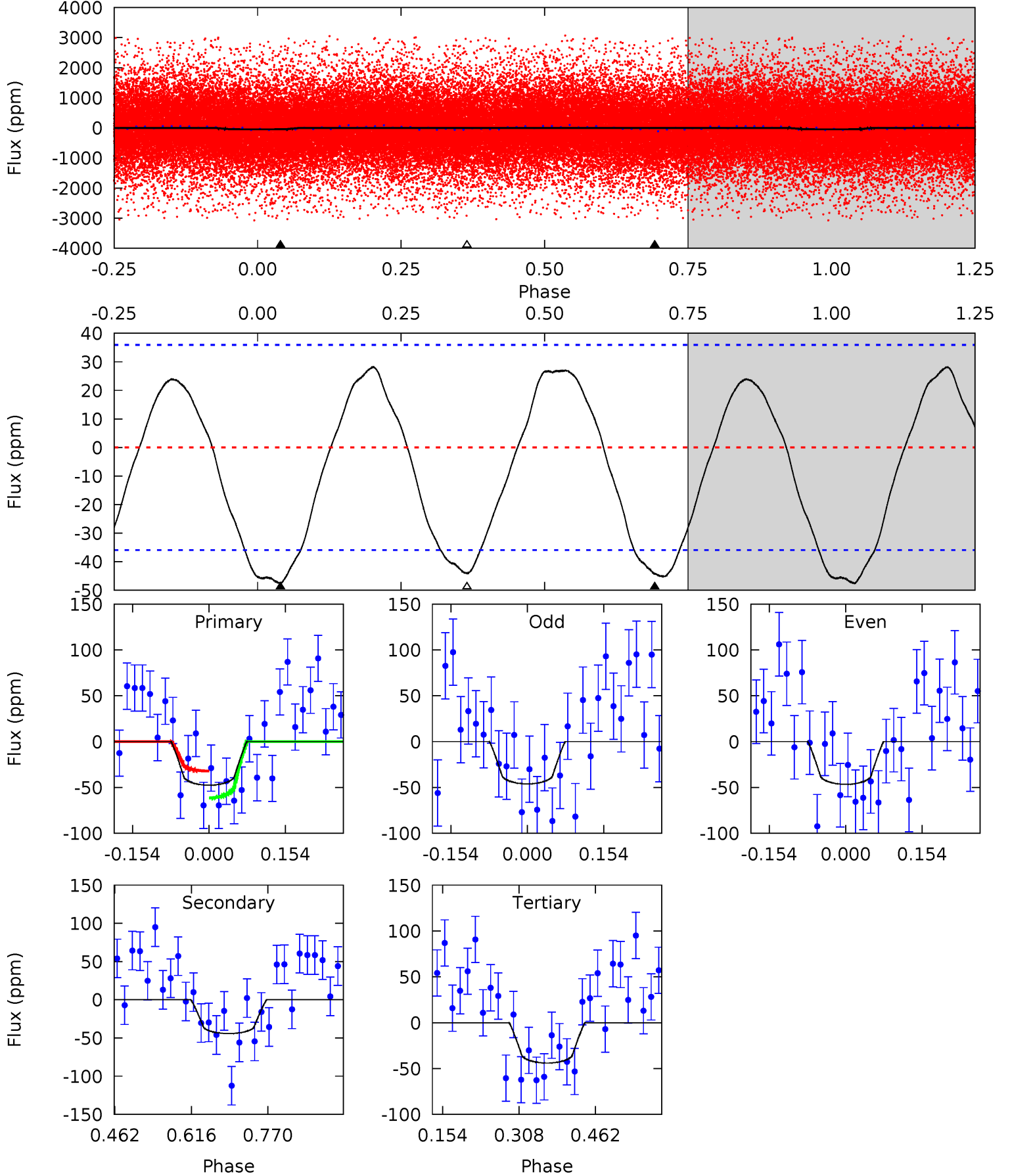
TCE 007697795-01 P= 0.788665 Days $T_0=131.553237$ (BKJD)



DV Model-Shift Uniqueness Test

007697795-01, P = 0.788625 Days, E = 130.782230 Days

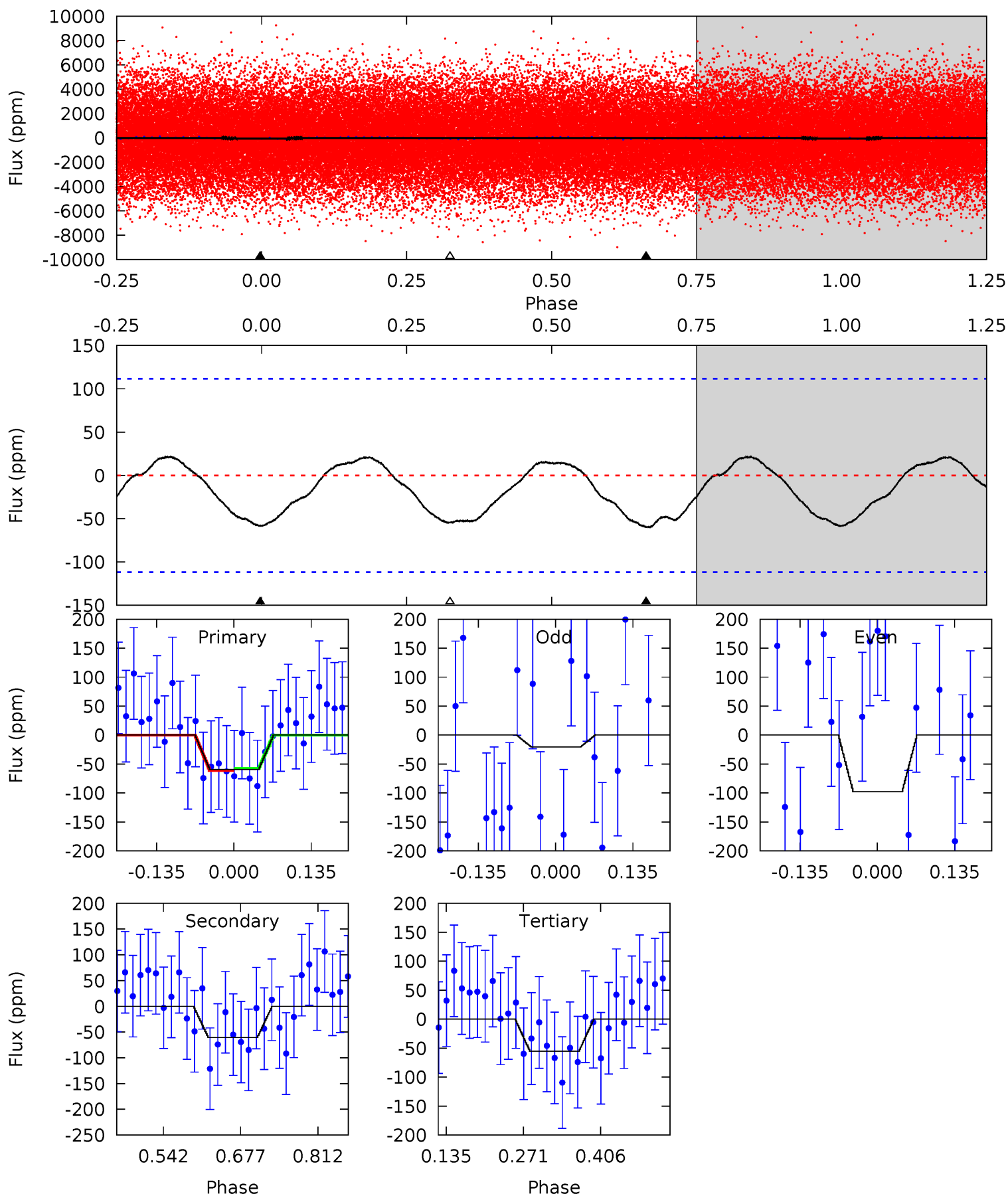
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.92	5.51	5.48	0	4.47	1.43	3.19	0.44	5.92	0.03	5.51	0.03	1.05	0.37	1.82



Alt Model-Shift Uniqueness Test

007697795-01, P = 0.788665 Days, E = 130.764572 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.39	2.44	2.23	0	4.50	1.49	1.09	0.16	2.39	0.21	2.44	1.56	0.91	0.27	0.07



Stellar Parameters For KIC 007697795

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7710^{+213}_{-320}	$3.649^{+0.459}_{-0.081}$	$-0.040^{+0.200}_{-0.350}$	$3.567^{+0.711}_{-1.777}$	$2.068^{+0.332}_{-0.499}$	$0.064^{+0.312}_{-0.022}$
	+3%/-4%	+13%/-2%	+500%/-875%	+20%/-50%	+16%/-24%	+487%/-34%
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 007697795-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-44 ± 8	$2.94^{+2.17}_{-1.75}$	5926^{+422}_{-722}	6179^{+5445}_{-1949}	$1.346^{+6.249}_{-0.911}$
Alt.	-61 ± 25	$2.87^{+2.01}_{-1.73}$	5915^{+436}_{-739}	6835^{+6989}_{-2166}	$1.749^{+9.235}_{-1.176}$

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 $A_{obs} \gg 1.0$

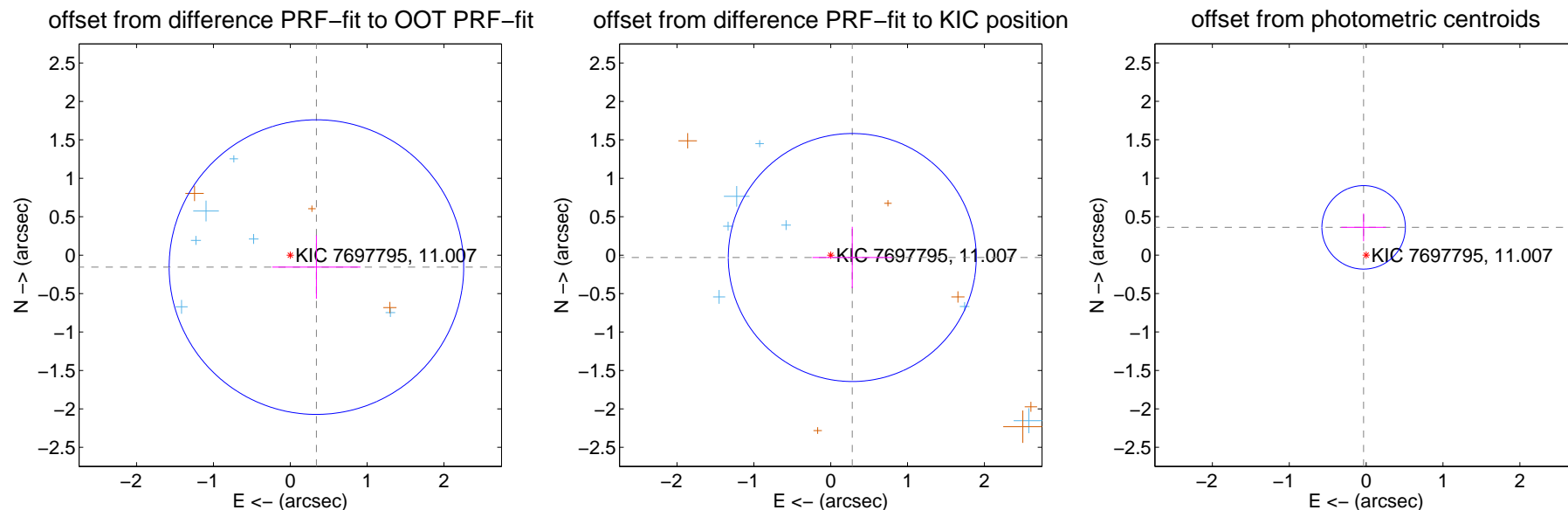
DV Centroid Data

Supplemental centroid analysis for 007697795-01. **Kepler magnitude: 11.01.** Transit SNR 8.45

There are 9 quarters with good PRF difference image offsets

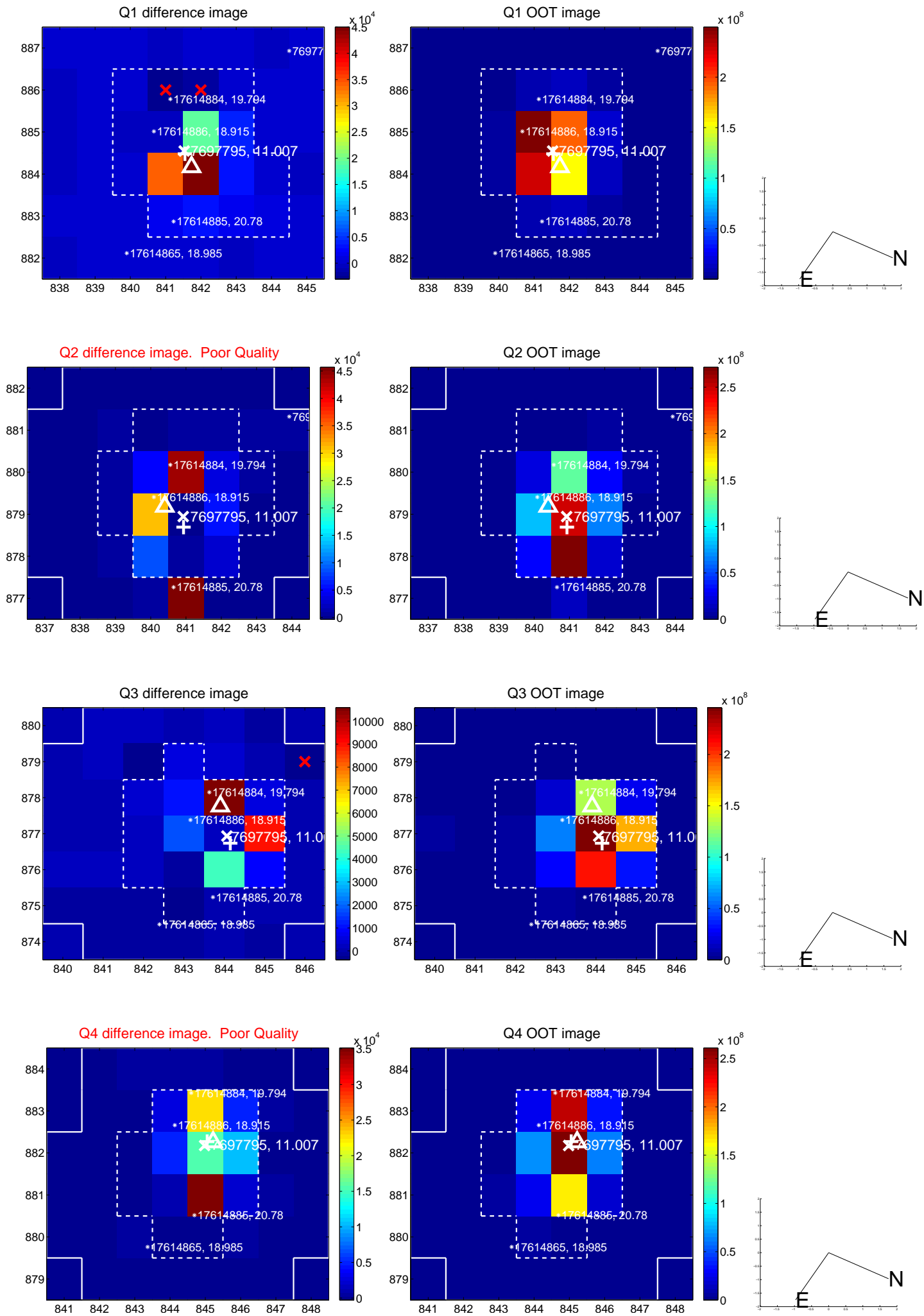
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.374 ± 0.639	0.59	-0.340 ± 0.574	-0.155 ± 0.413
PRF-fit source offset from KIC position	0.282 ± 0.538	0.52	-0.281 ± 0.518	-0.031 ± 0.400
photometric centroid source offset	0.36 ± 0.18	2.00	0.03 ± 0.29	0.36 ± 0.18

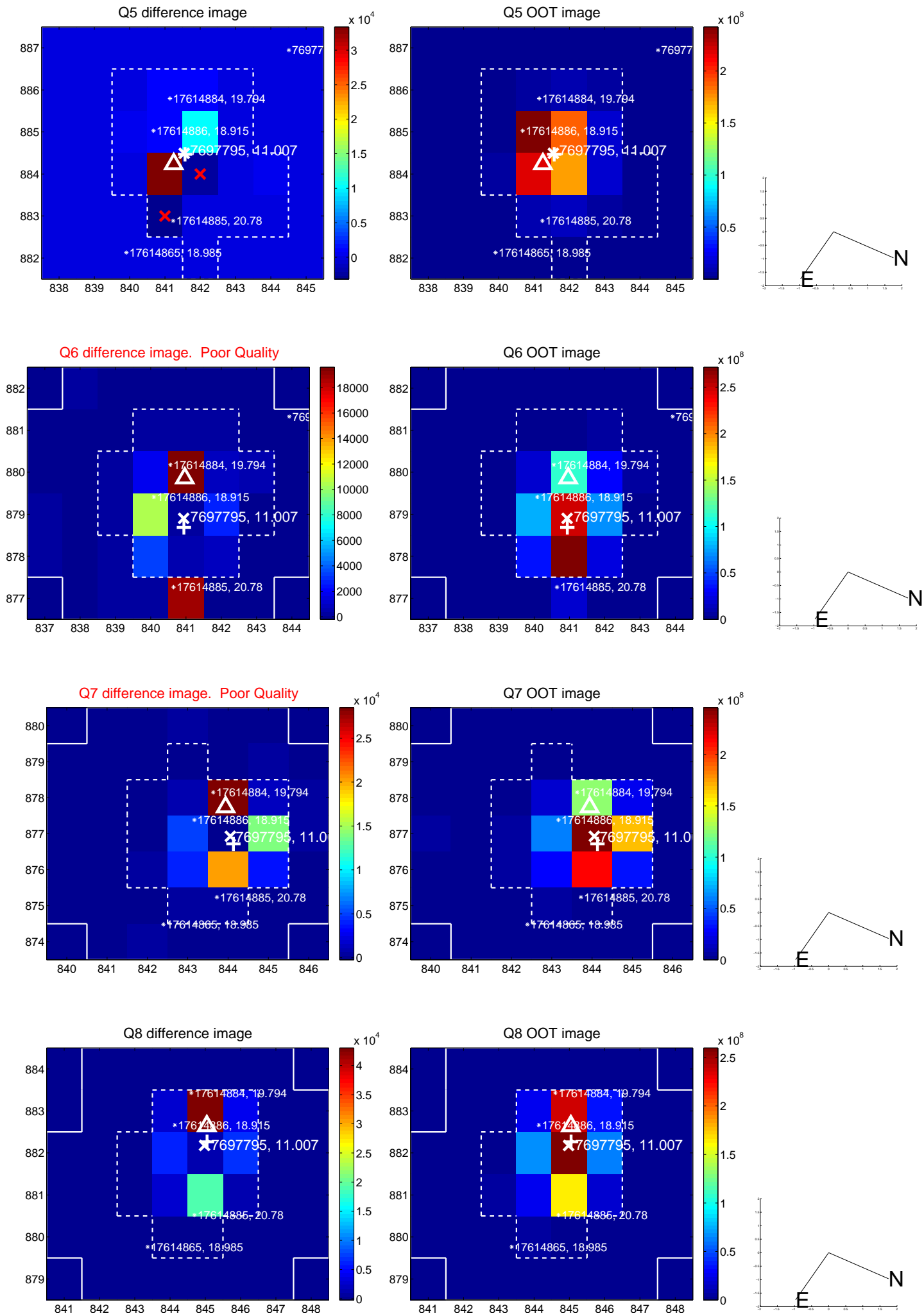


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

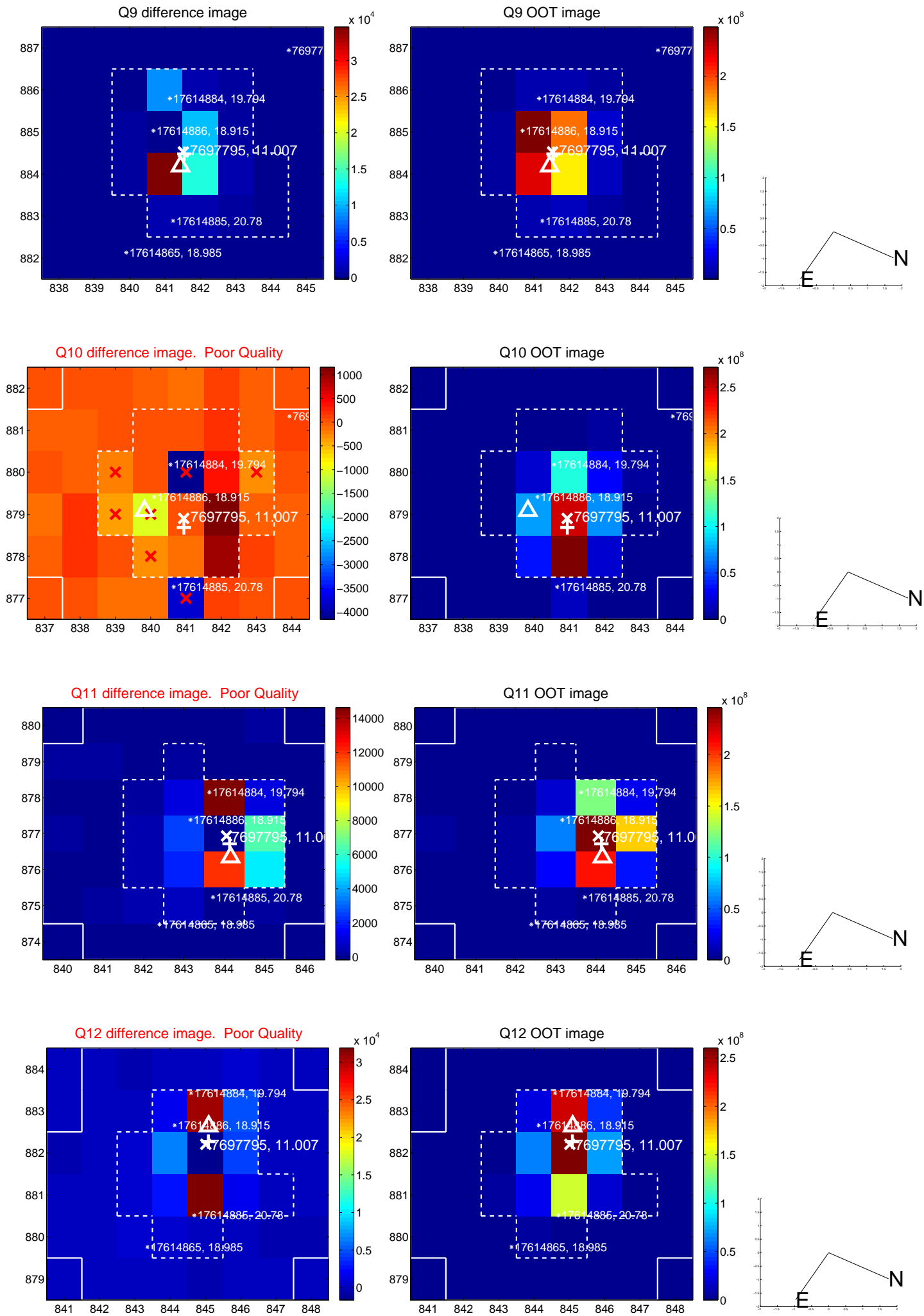
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



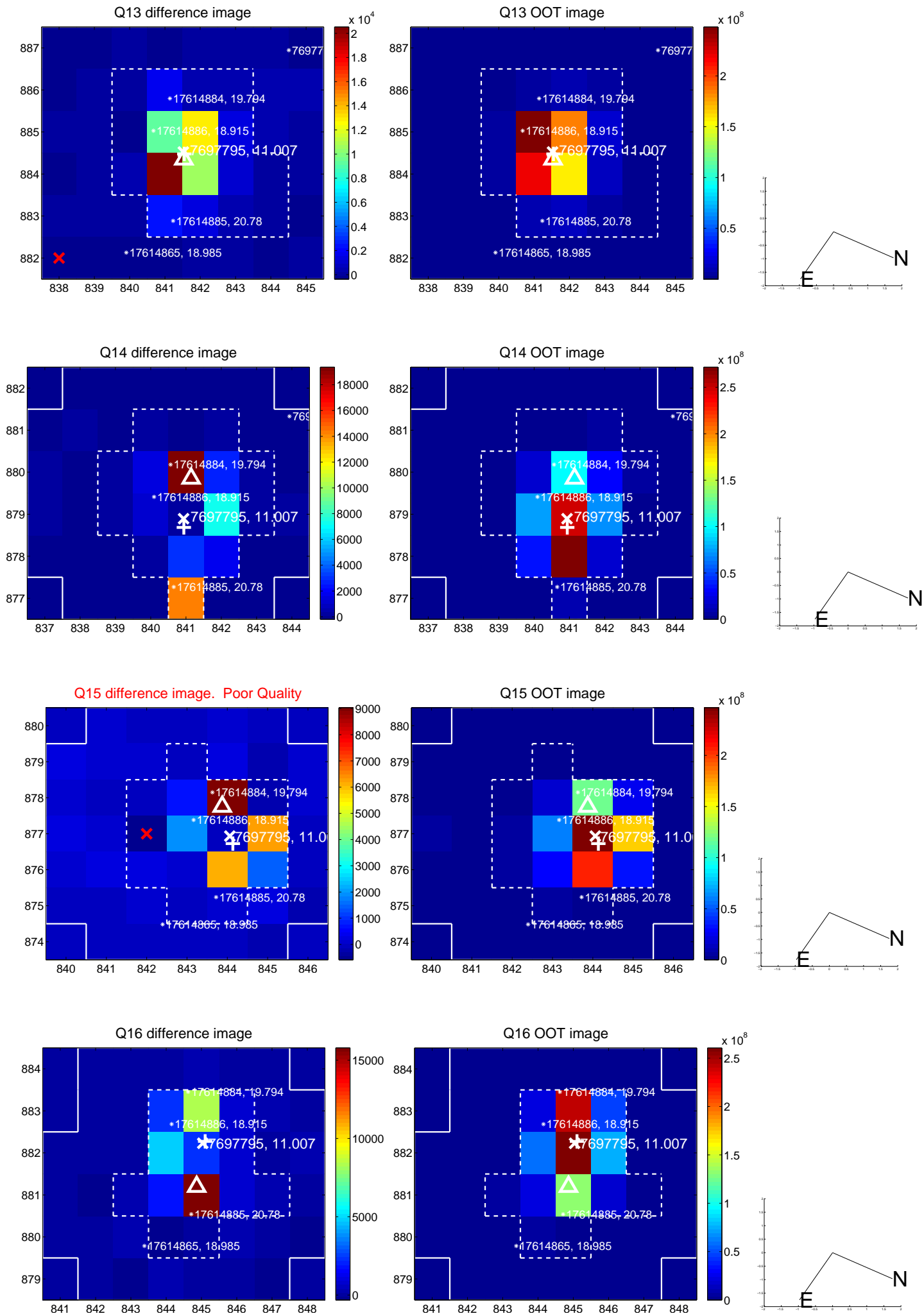
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



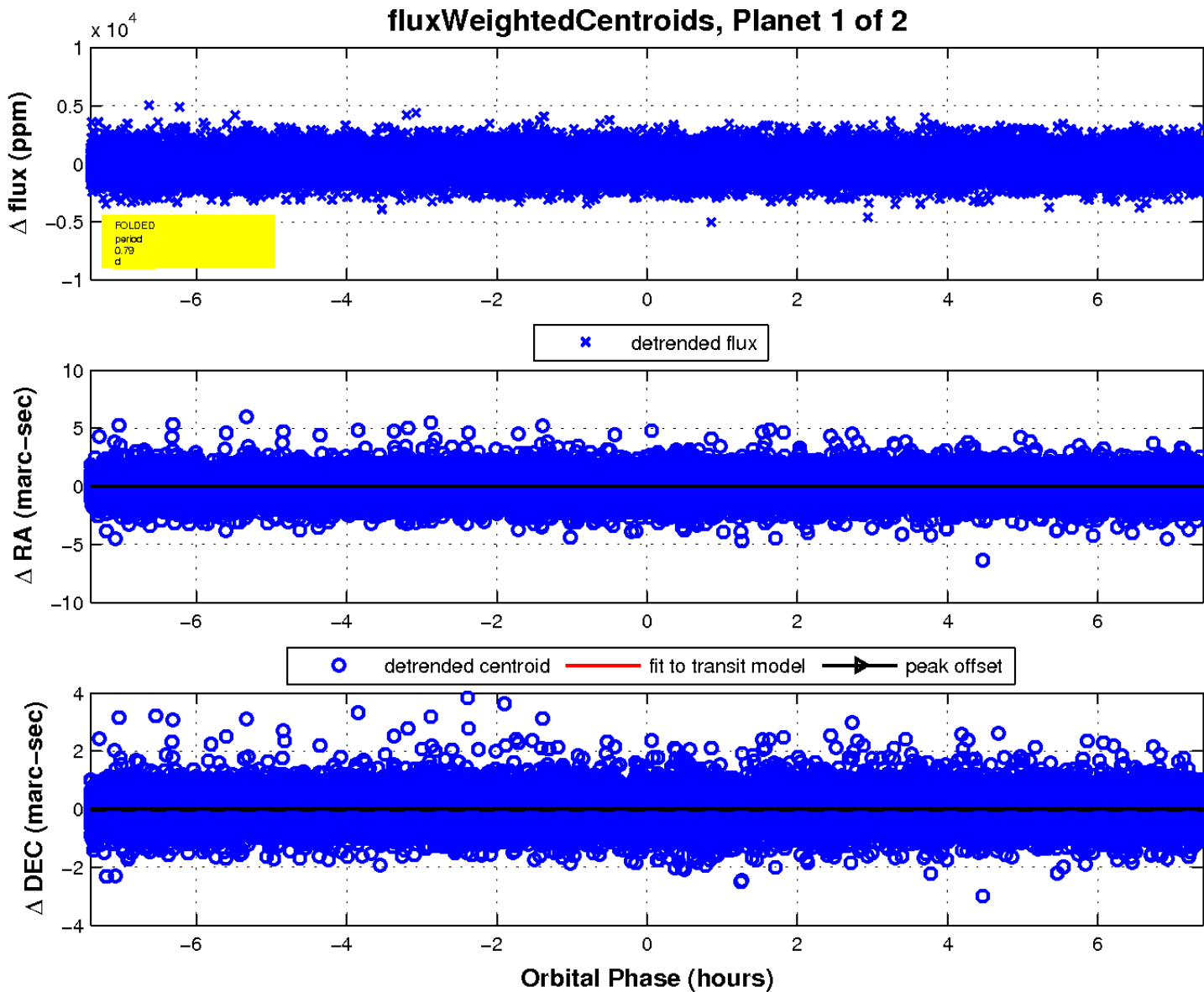
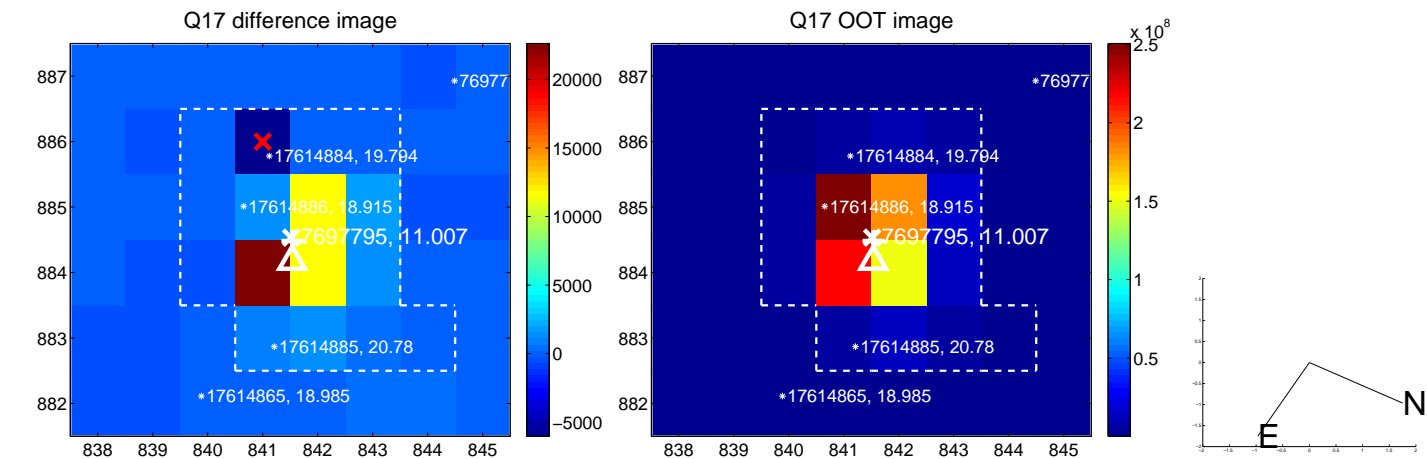
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

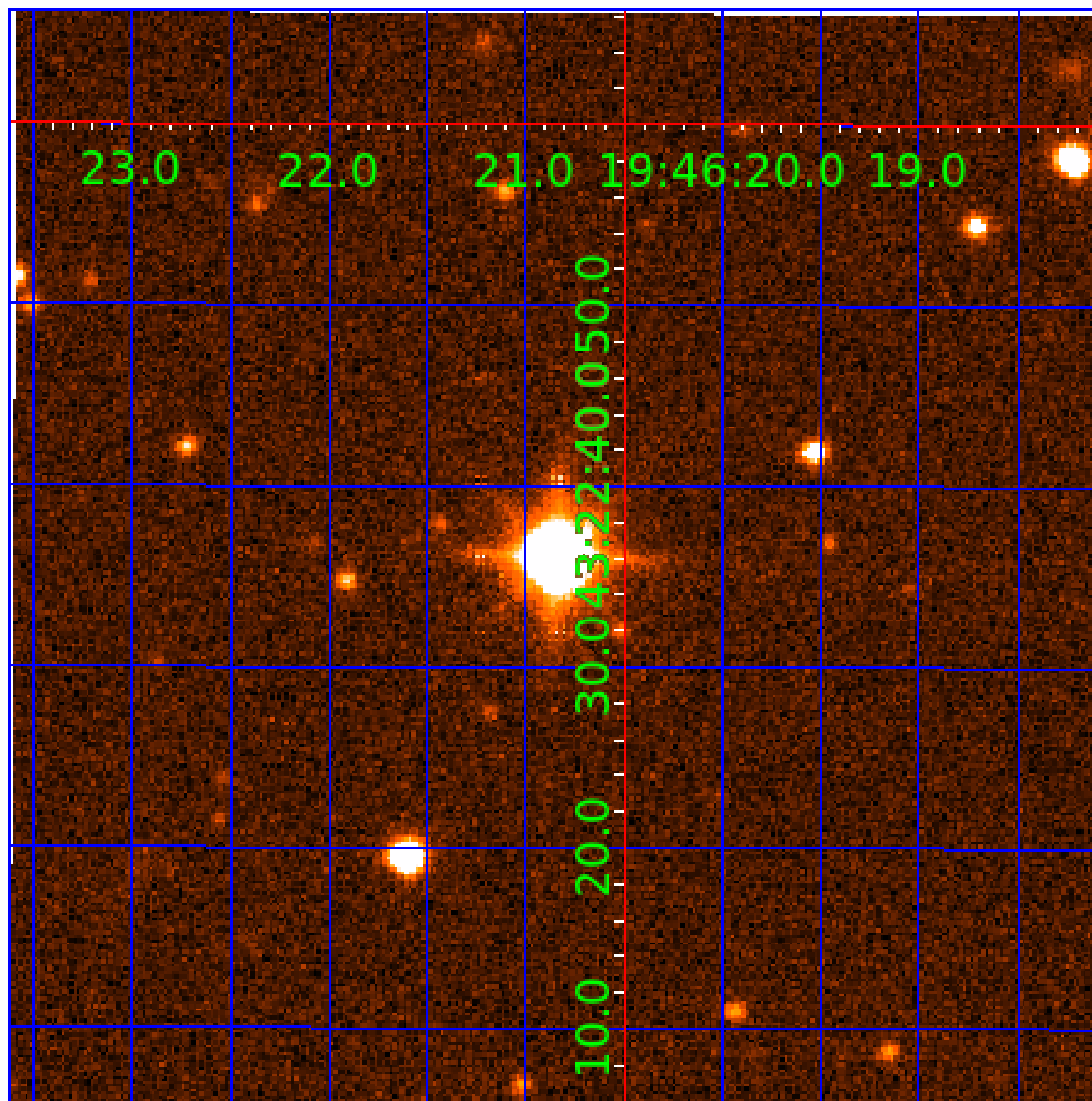


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007697795

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})
007697795-01	OBS	No	0.788625	131.570855	56.3	2.468	10.2	8.4	3.57	7710	3.03	88883.25
007697795-02	OBS	No	0.505735	131.664435	74.3	5.362	8.2	12.7	3.57	7710	3.26	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007697795-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_SATURATED
007697795-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_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.

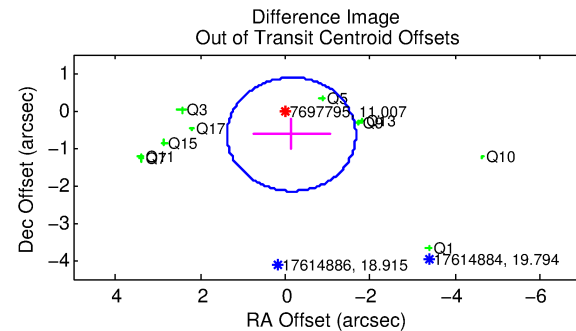
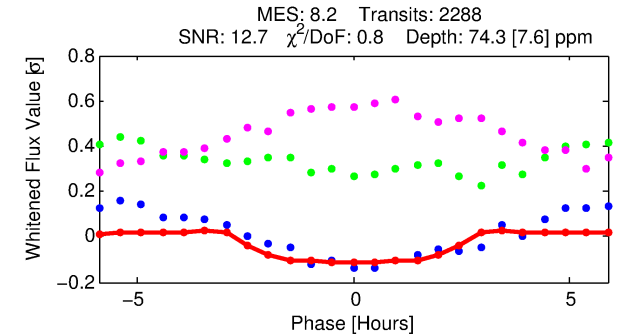
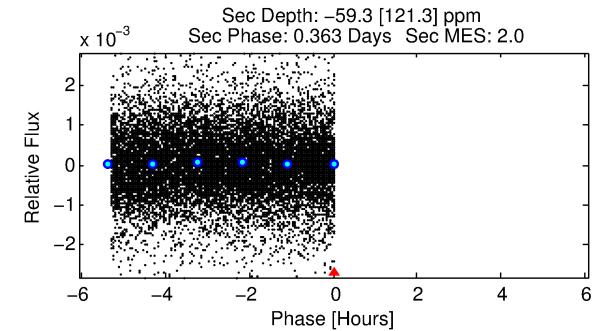
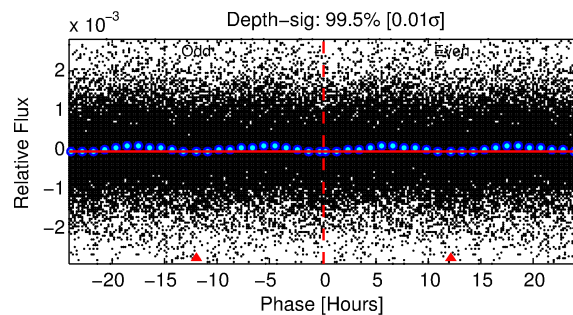
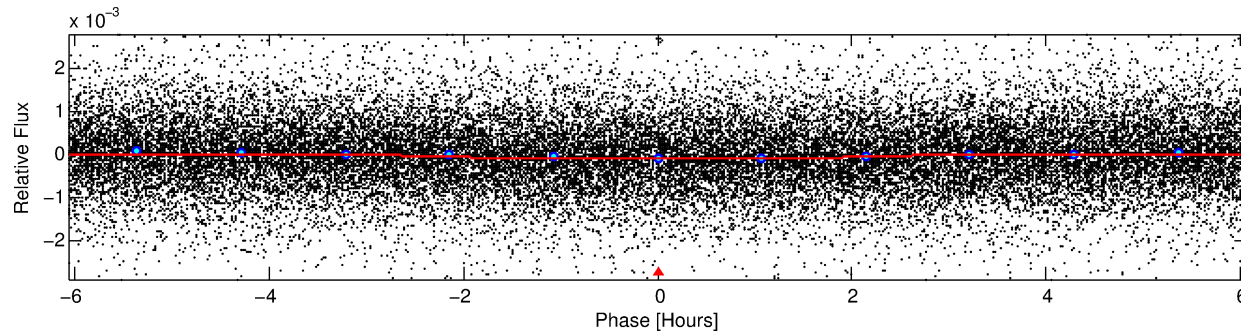
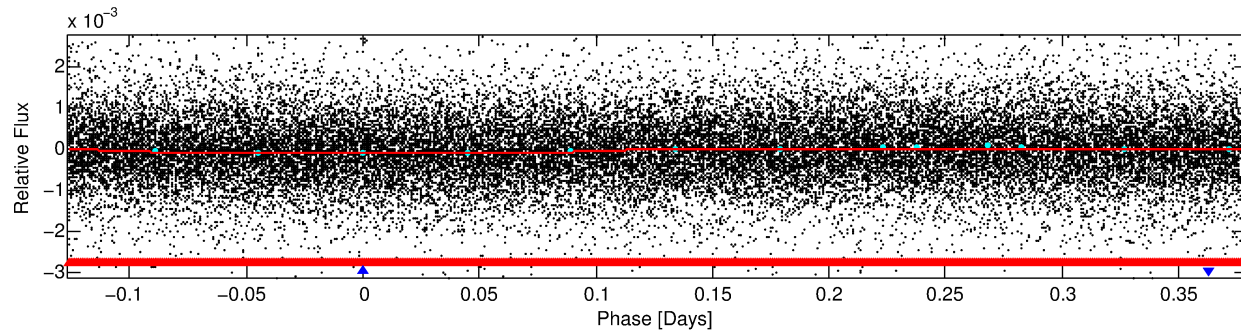
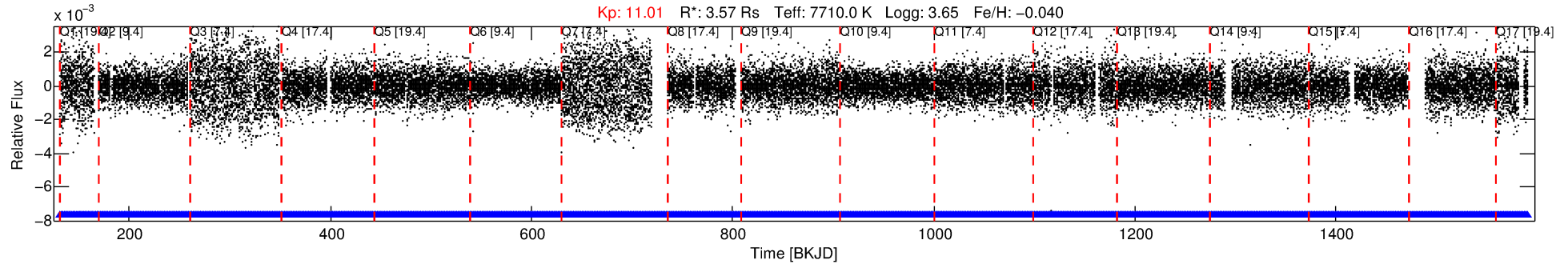
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007697795-02

No Significant Match Found

DV One-Page Summary

KIC: 7697795 Candidate: 2 of 2 Period: 0.506 d



DV Fit Results:

Period = 0.50573 [0.00001] d
Epoch = 131.6644 [0.0043] BKJD
Rp/R* = 0.0084 [0.0058]
a/R* = 1.02 [0.13]
b = 0.65 [3.63]
Seff = N/A
Teq = N/A
Rp = 3.26 [2.79] Re
a = N/A
Ag = N/A
Teffp = N/A

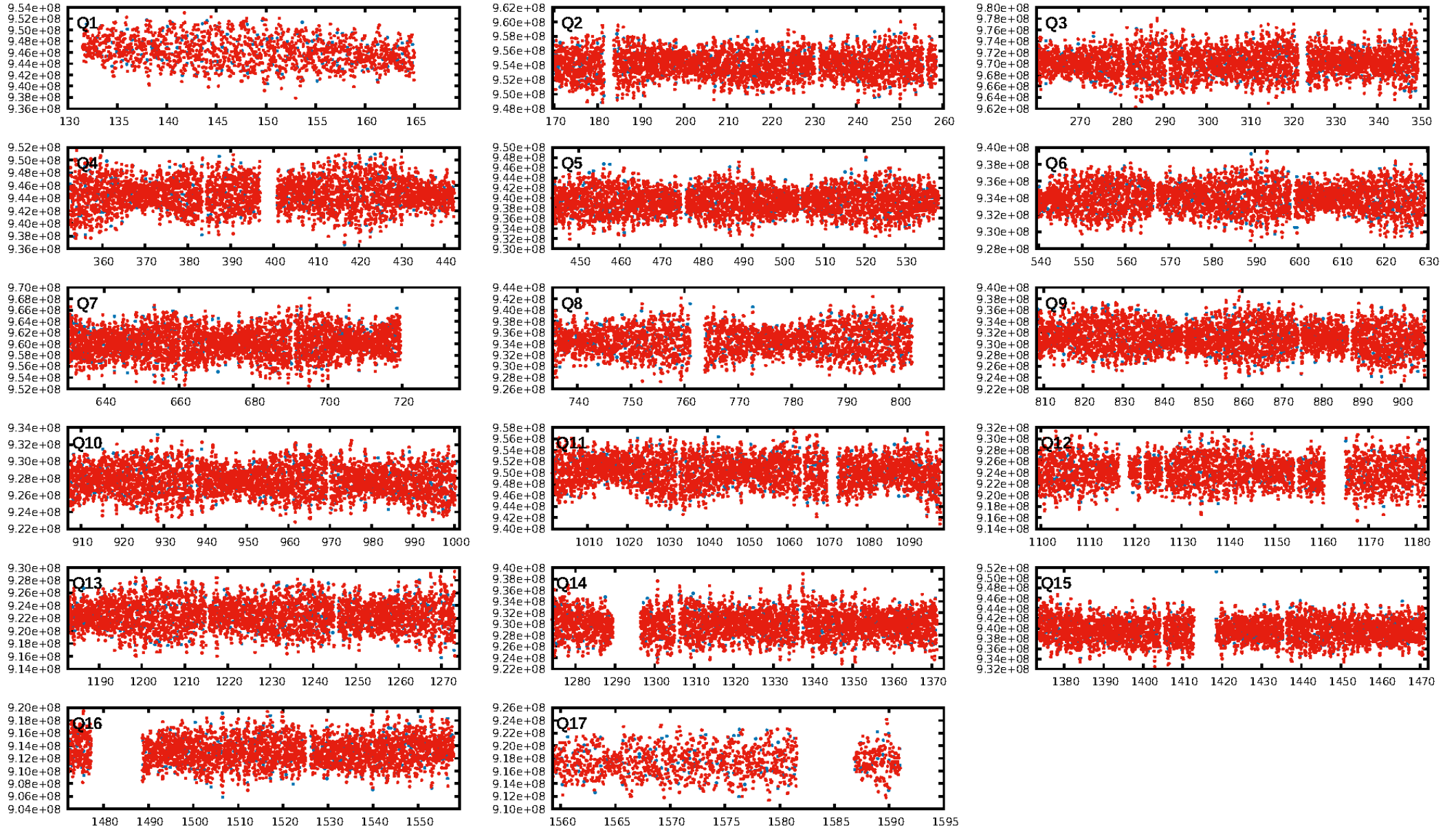
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 75.0% [1.15 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2186/2186]
GhostDiagnostic-chr: 1.117
Centroid-sig: 5.0%
Centroid-so: 0.408 arcsec [3.30 σ]
OotOffset-rm: 0.657 arcsec [1.30 σ]
KicOffset-rm: 0.334 arcsec [0.41 σ]
OotOffset-st: 1/4/0/5 [10]
KicOffset-st: 1/4/0/5 [10]
DiffImageQuality-fgm: 0.90 [9/10]
DiffImageOverlap-fno: 1.00 [17/17]

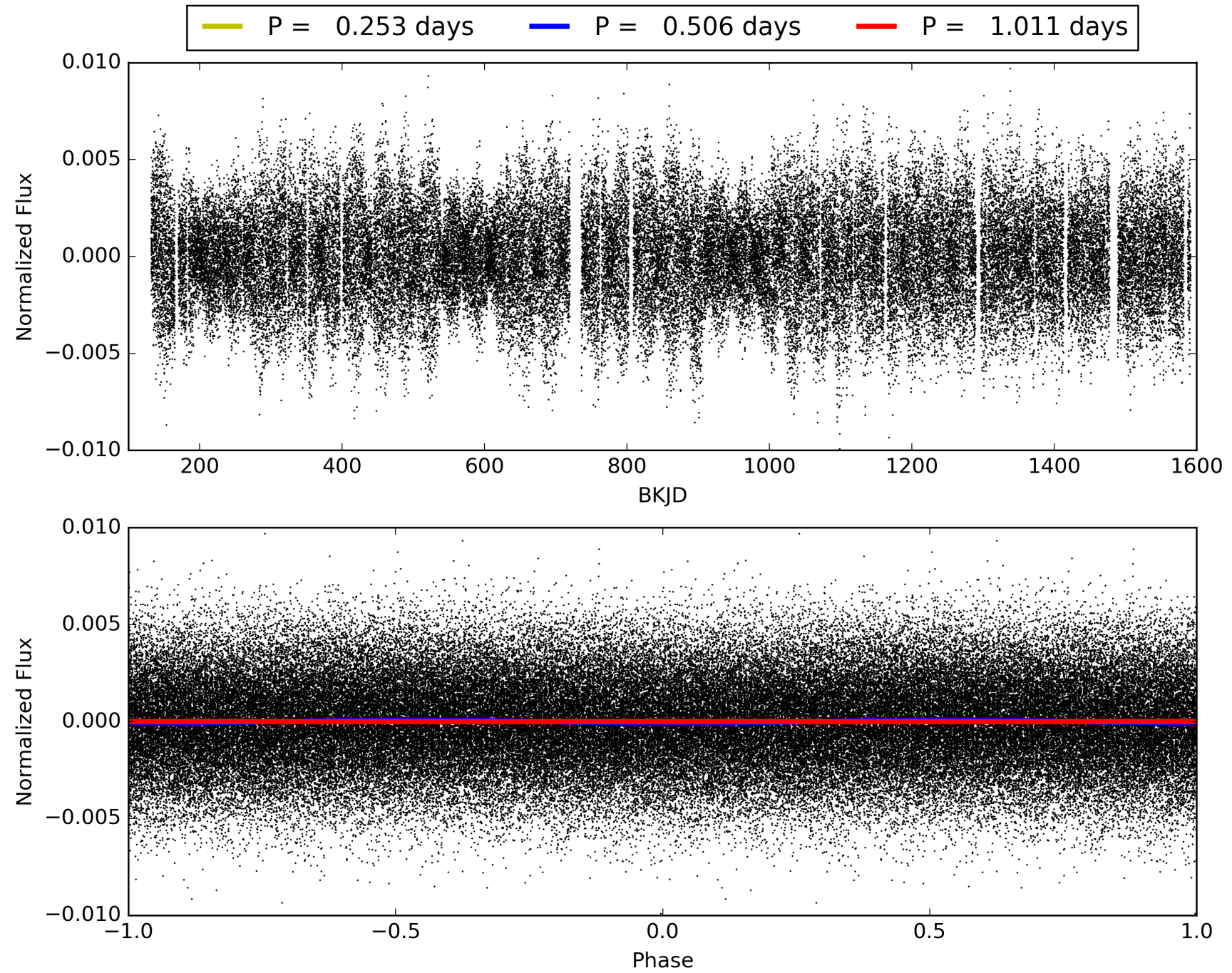
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:26:40 Z

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

TCE 007697795-02, PDC Light Curves

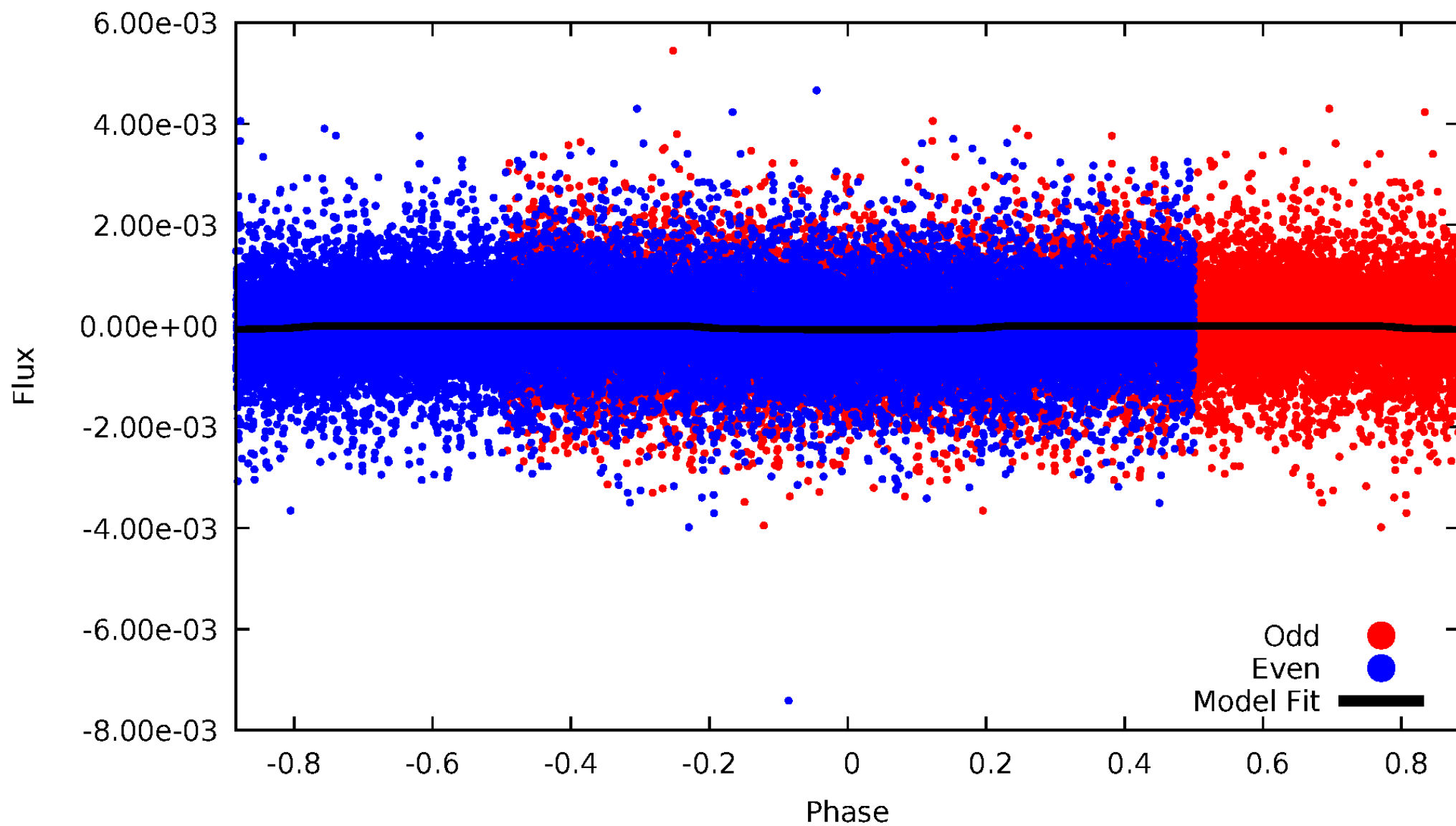


TCE 007697795-02



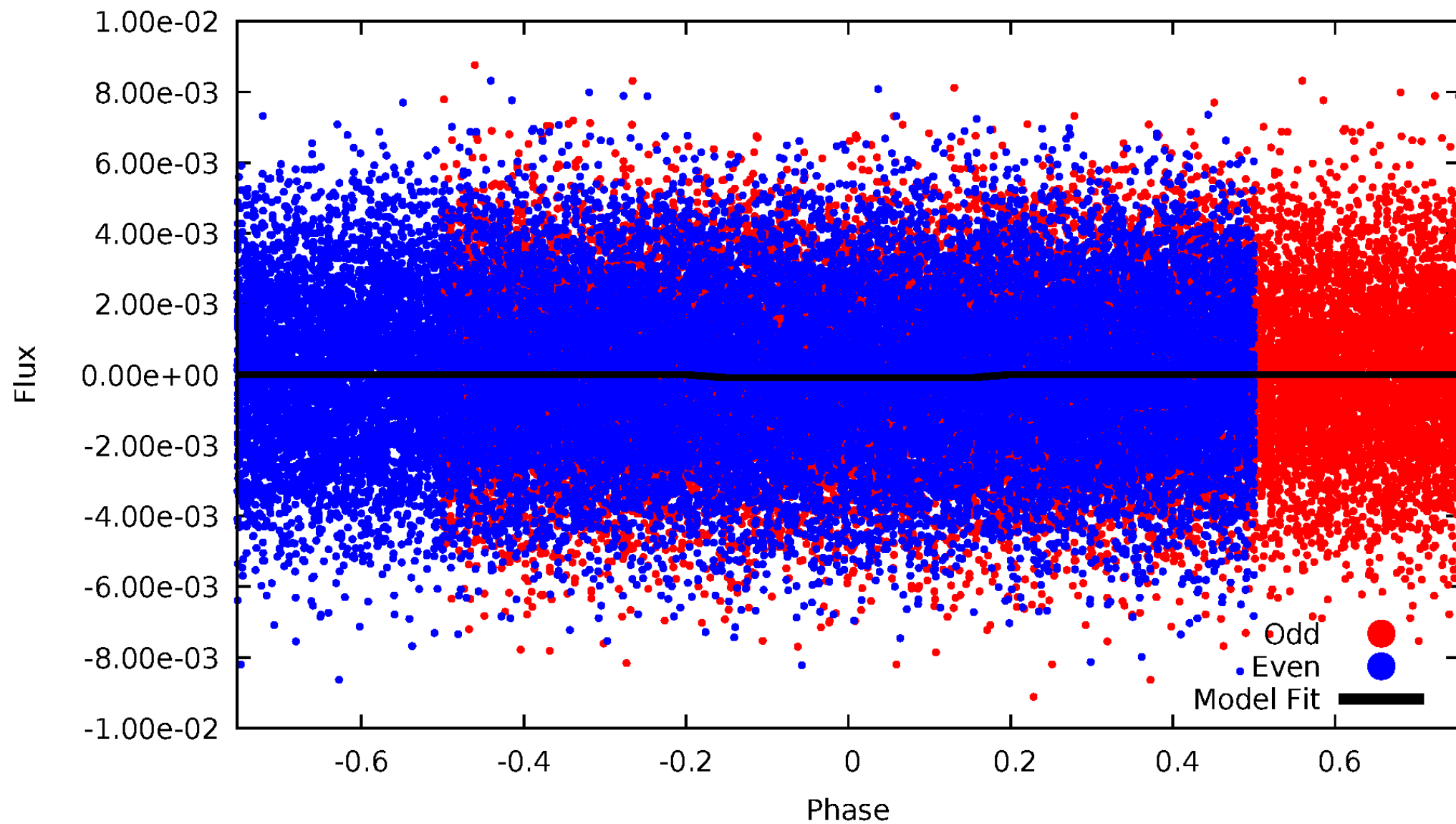
DV Odd/Even

TCE 007697795-02



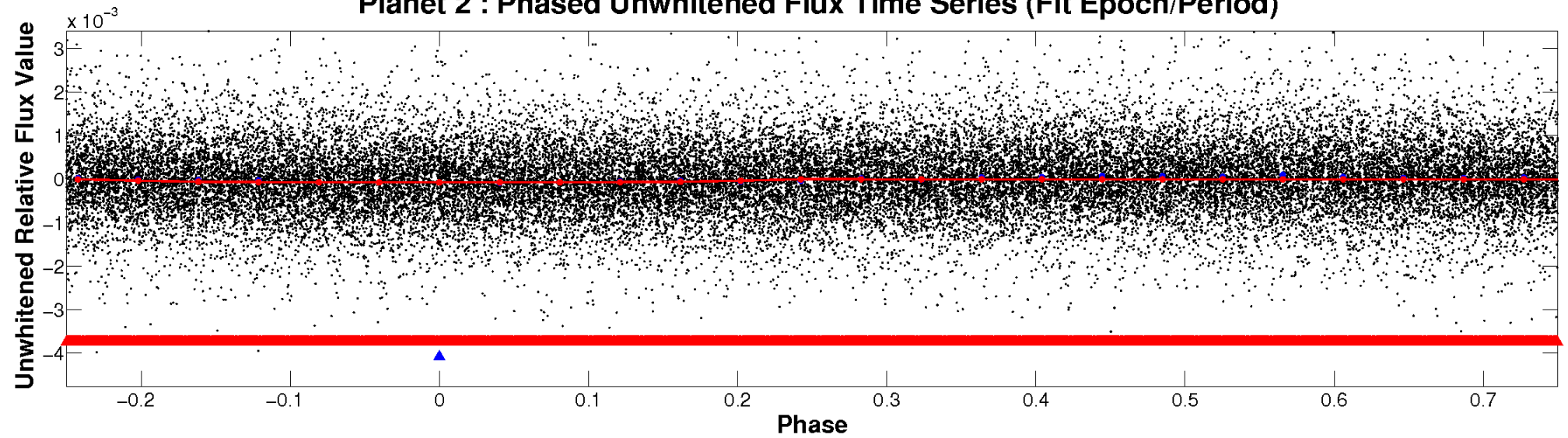
ALT Odd/Even

TCE 007697795-02

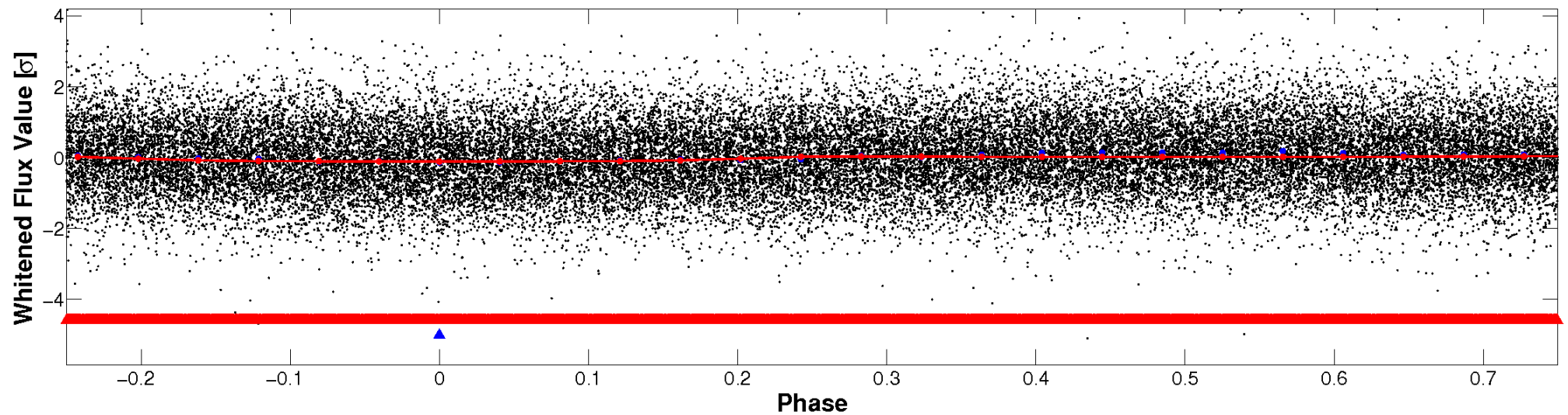


Non-Whitened Vs. Whitened Light Curve

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

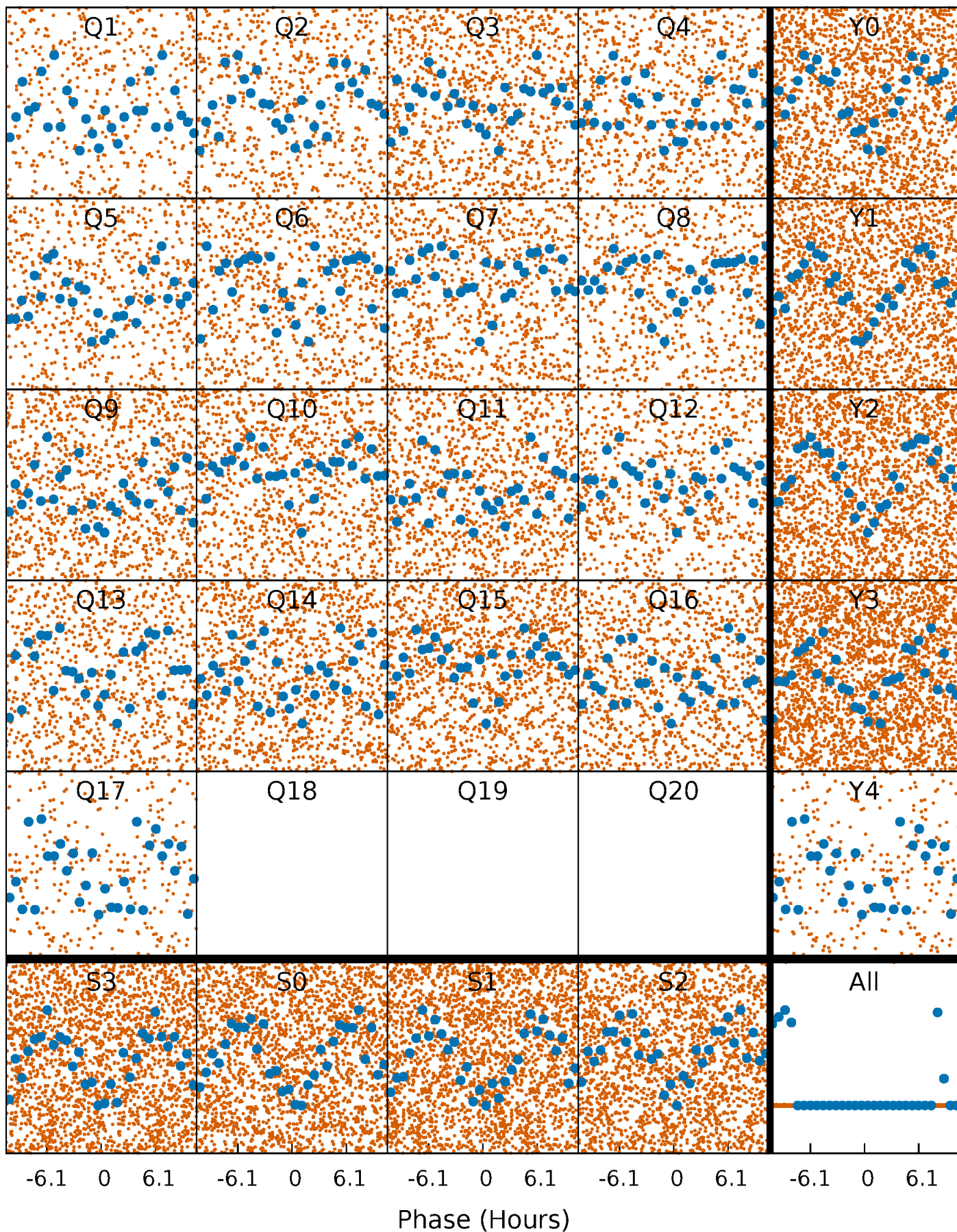


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



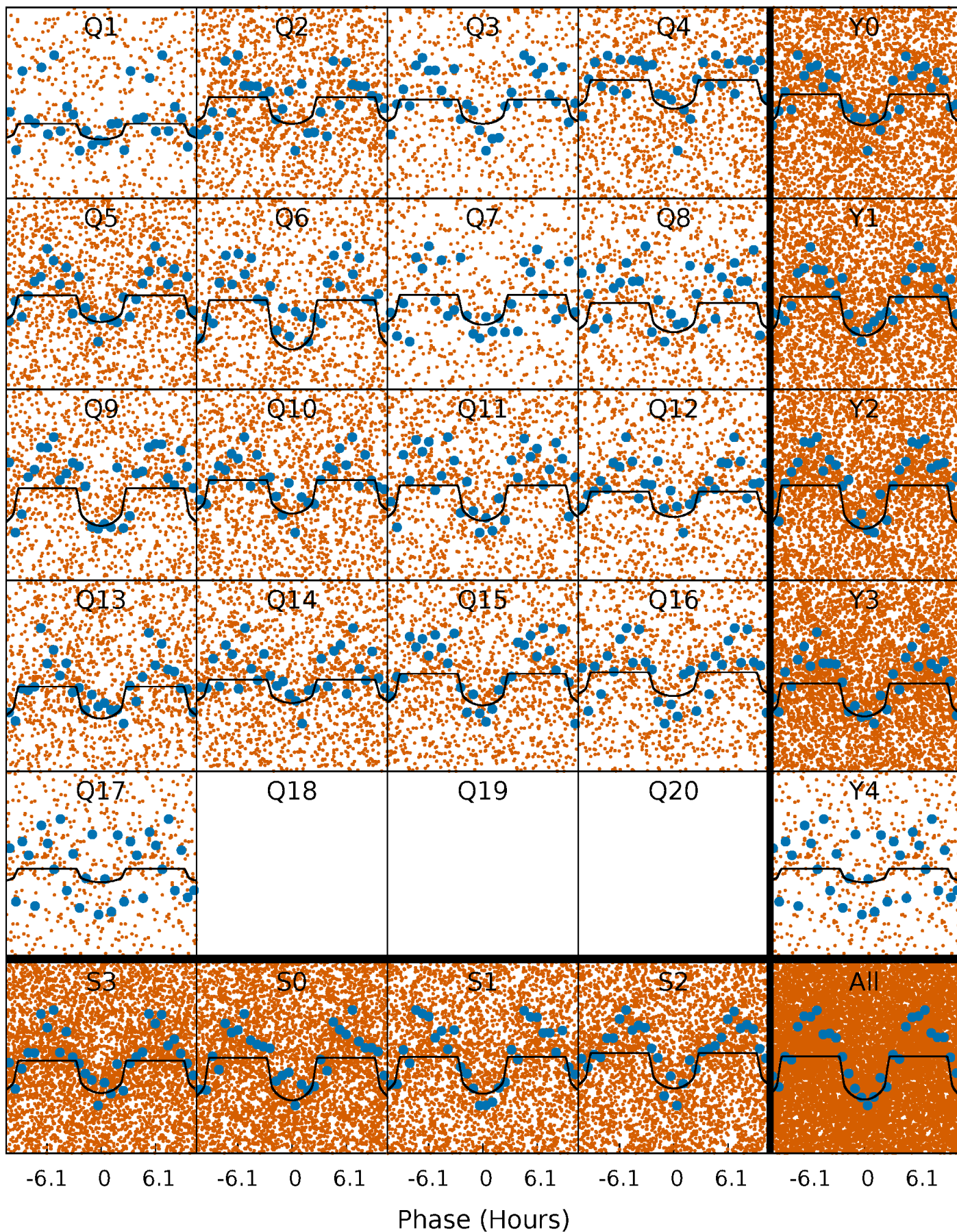
PDC Quarter-Phased Transit Curves

TCE 007697795-02 P= 0.505735 Days $T_0=131.664435$ (BKJD)



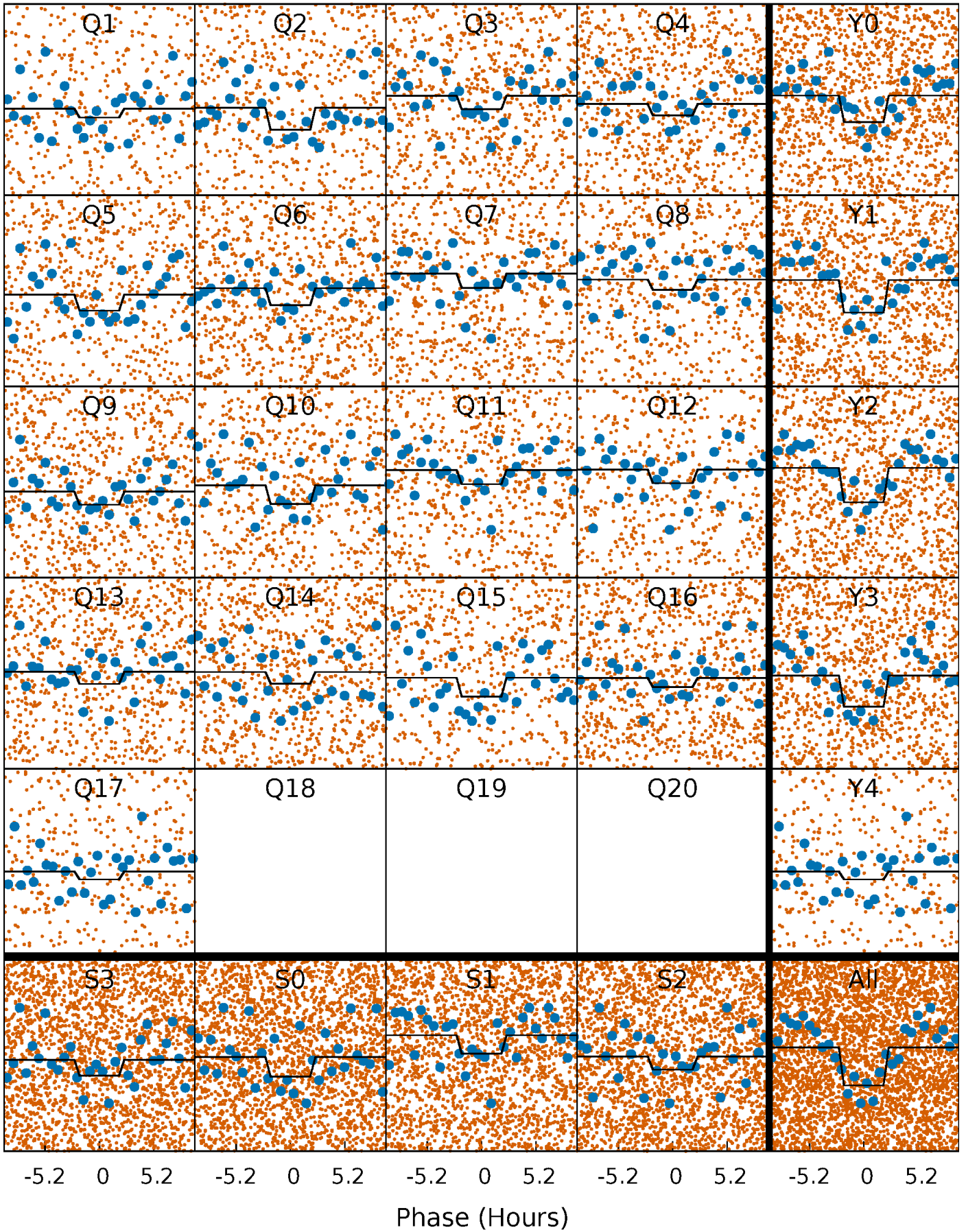
DV Quarter-Phased Transit Curves

TCE 007697795-02 P= 0.505735 Days $T_0=131.664435$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

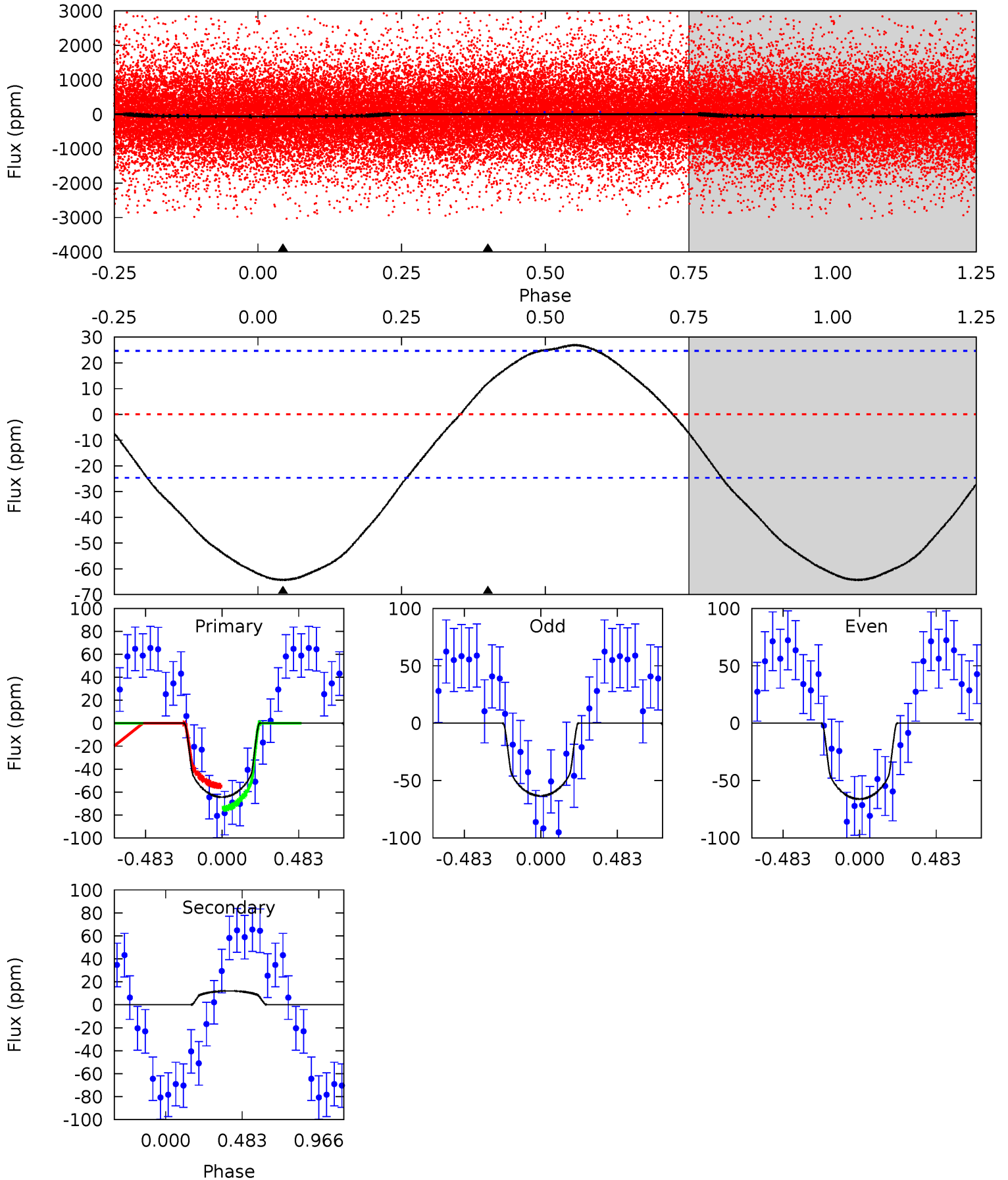
TCE 007697795-02 $P = 0.505753$ Days $T_0 = 131.656475$ (BKJD)



DV Model-Shift Uniqueness Test

007697795-02, P = 0.505735 Days, E = 131.664435 Days

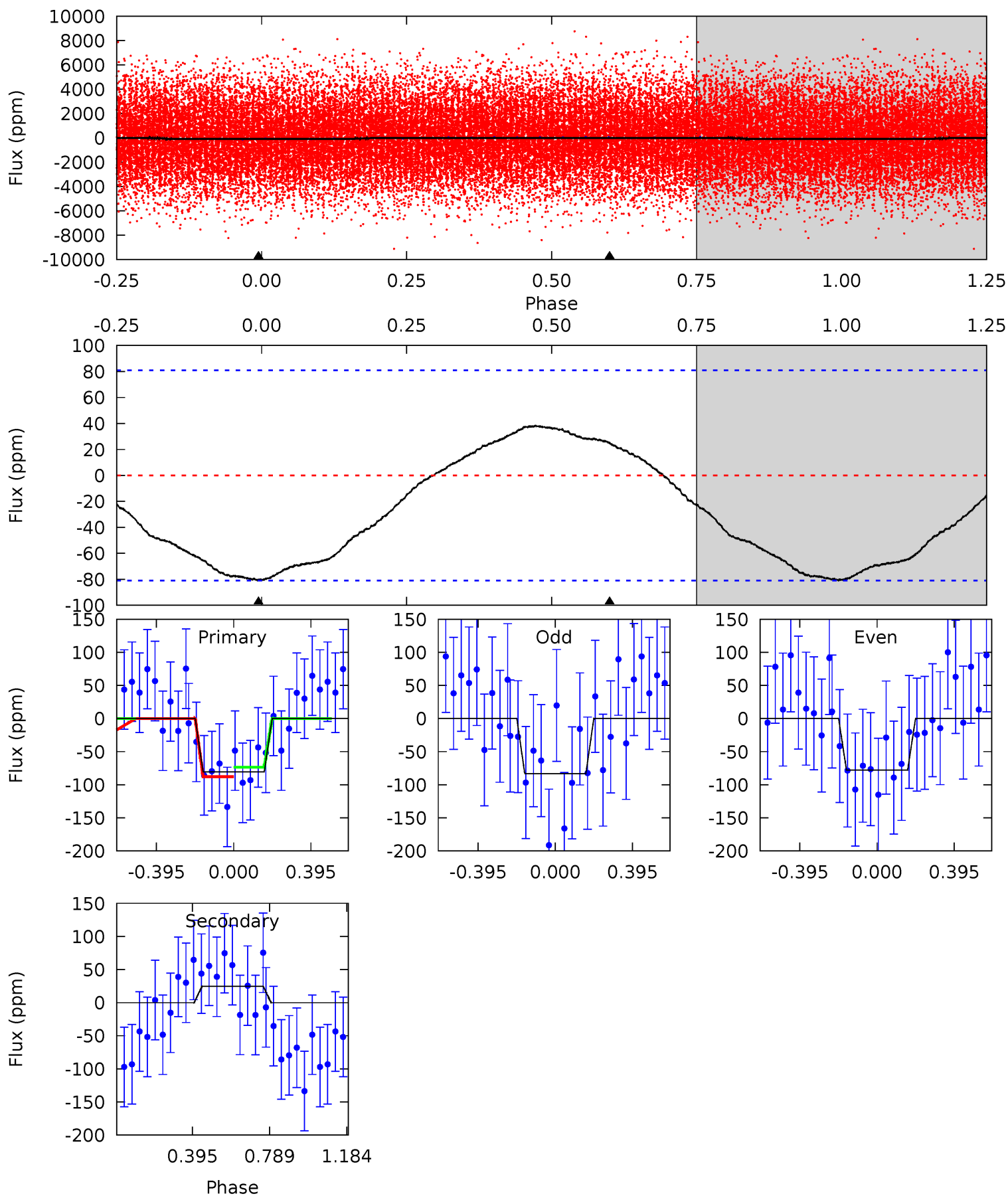
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	-2.08	0	0	4.22	0.70	1.27	11.0	11.0	-2.08	-2.08	0.24	1.00	0.30	1.69



Alt Model-Shift Uniqueness Test

007697795-02, P = 0.505753 Days, E = 131.656475 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.26	-1.31	0	0	4.27	0.85	0.44	4.26	4.26	-1.31	-1.31	0.14	0.89	0.32	0.37



Stellar Parameters For KIC 007697795

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7710^{+213}_{-320}	$3.649^{+0.459}_{-0.081}$	$-0.040^{+0.200}_{-0.350}$	$3.567^{+0.711}_{-1.777}$	$2.068^{+0.332}_{-0.499}$	$0.064^{+0.312}_{-0.022}$
	+3%/-4%	+13%/-2%	+500%/-875%	+20%/-50%	+16%/-24%	+487%/-34%
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 007697795-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	12 ± 6	$3.09^{+2.44}_{-1.82}$	6869^{+490}_{-808}	-6149^{+630}_{-1611}	$-0.153^{+0.114}_{-0.774}$
Alt.	25 ± 19	$3.17^{+2.13}_{-1.77}$	6831^{+549}_{-814}	-6414^{+873}_{-2373}	$-0.276^{+0.230}_{-1.376}$

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

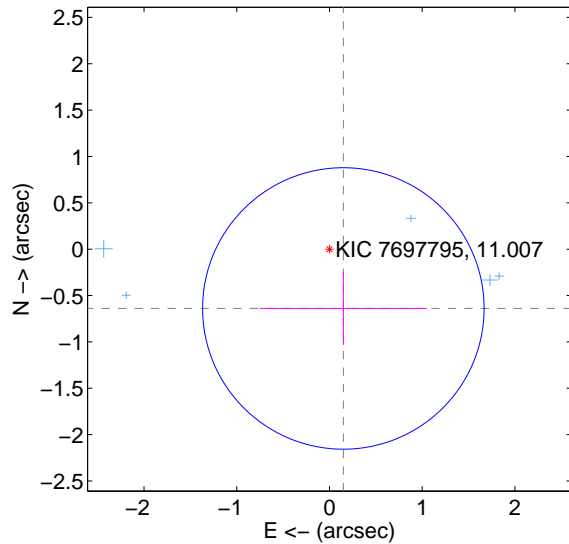
Supplemental centroid analysis for 007697795-02. **Kepler magnitude: 11.01.** Transit SNR 12.69

There are 9 quarters with good PRF difference image offsets

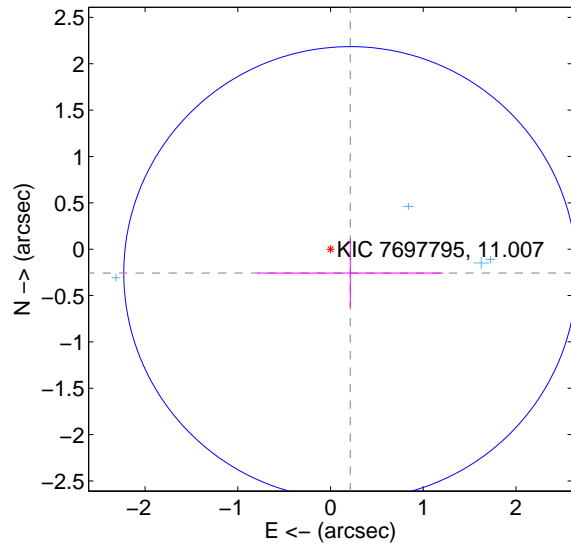
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.657 ± 0.506	1.30	-0.150 ± 0.899	-0.639 ± 0.392
PRF-fit source offset from KIC position	0.334 ± 0.814	0.41	-0.213 ± 1.002	-0.258 ± 0.368
photometric centroid source offset	0.41 ± 0.12	3.30	0.32 ± 0.14	0.25 ± 0.08

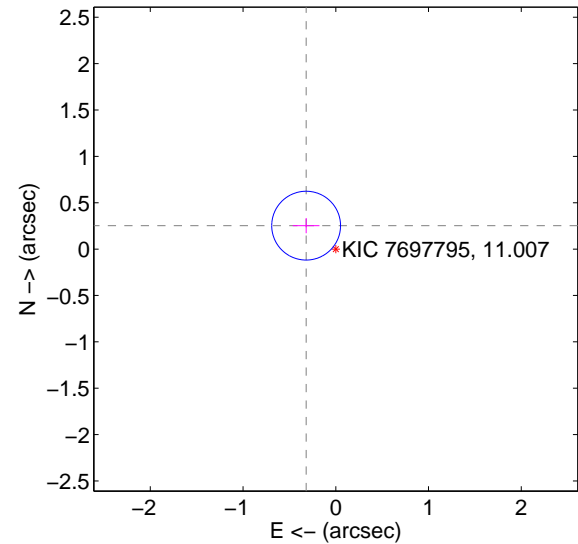
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

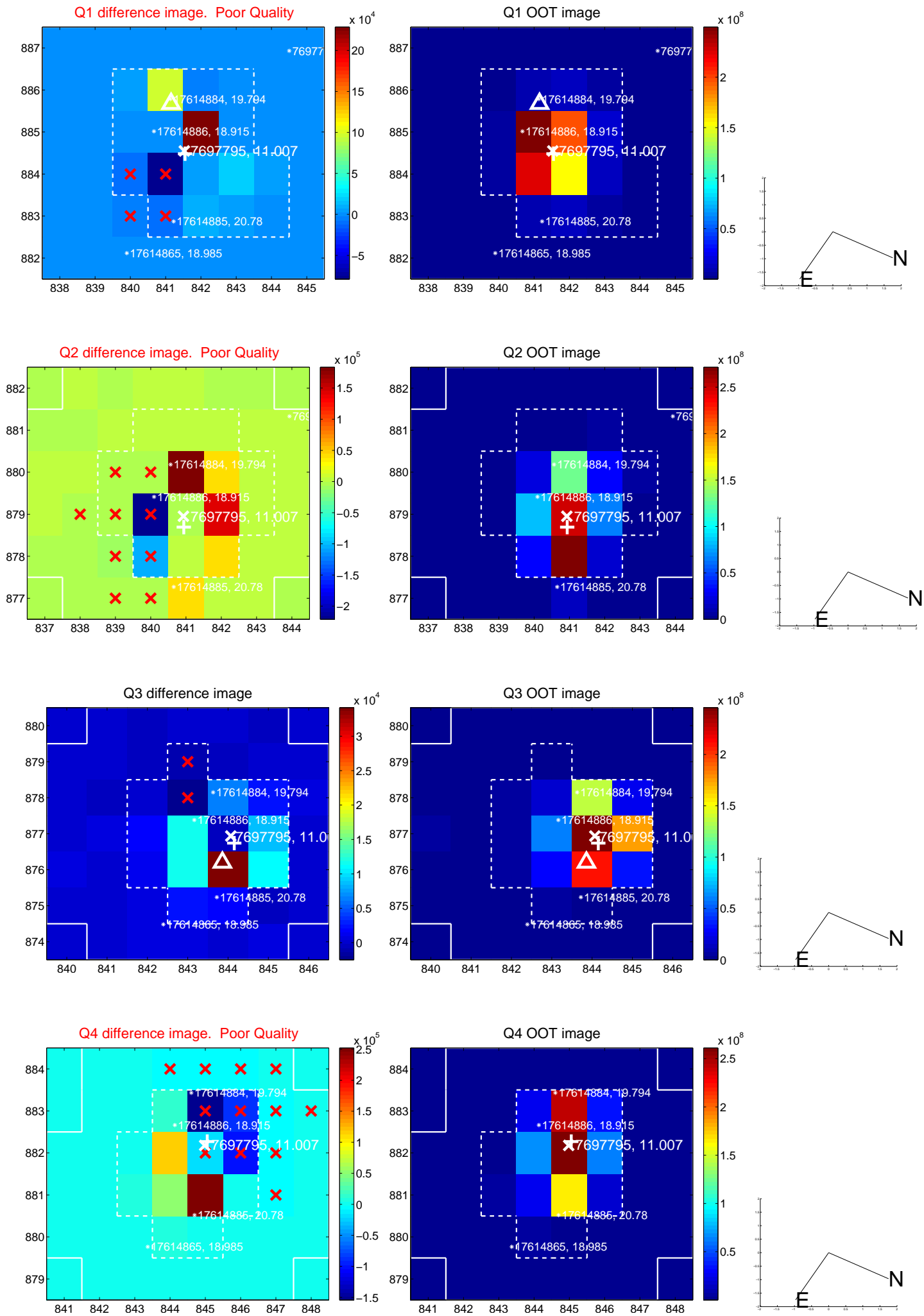


offset from photometric centroids

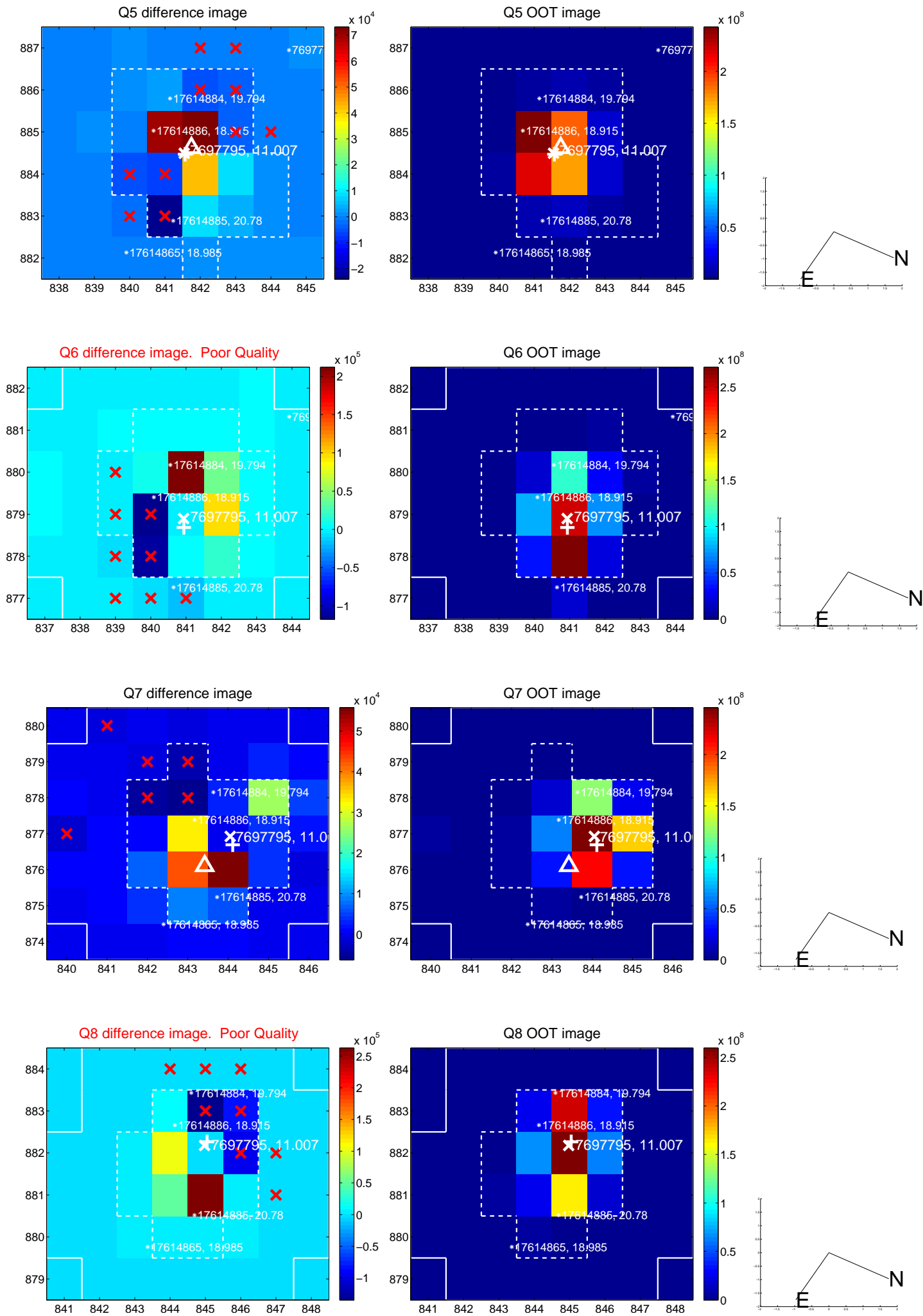


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

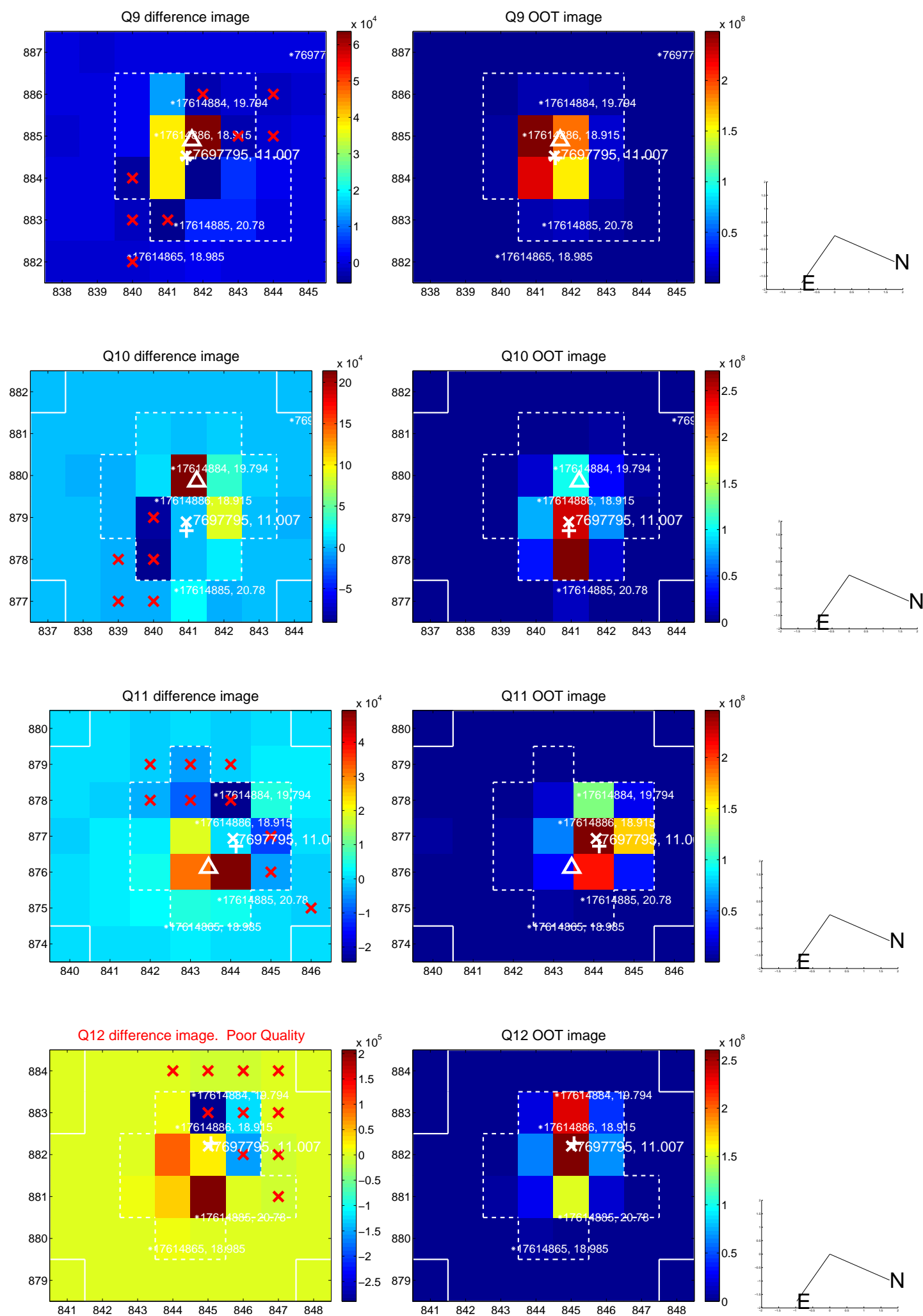
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



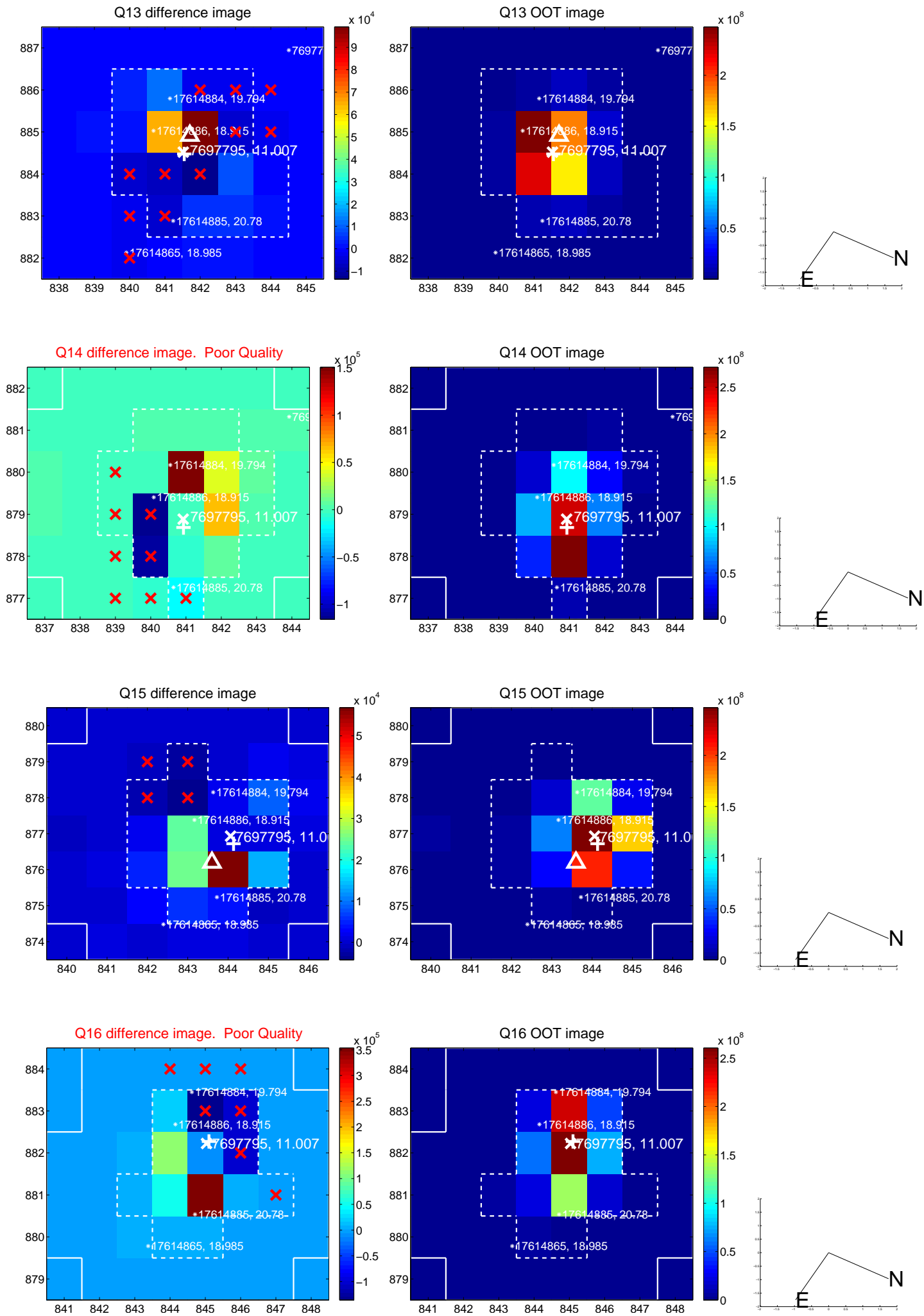
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



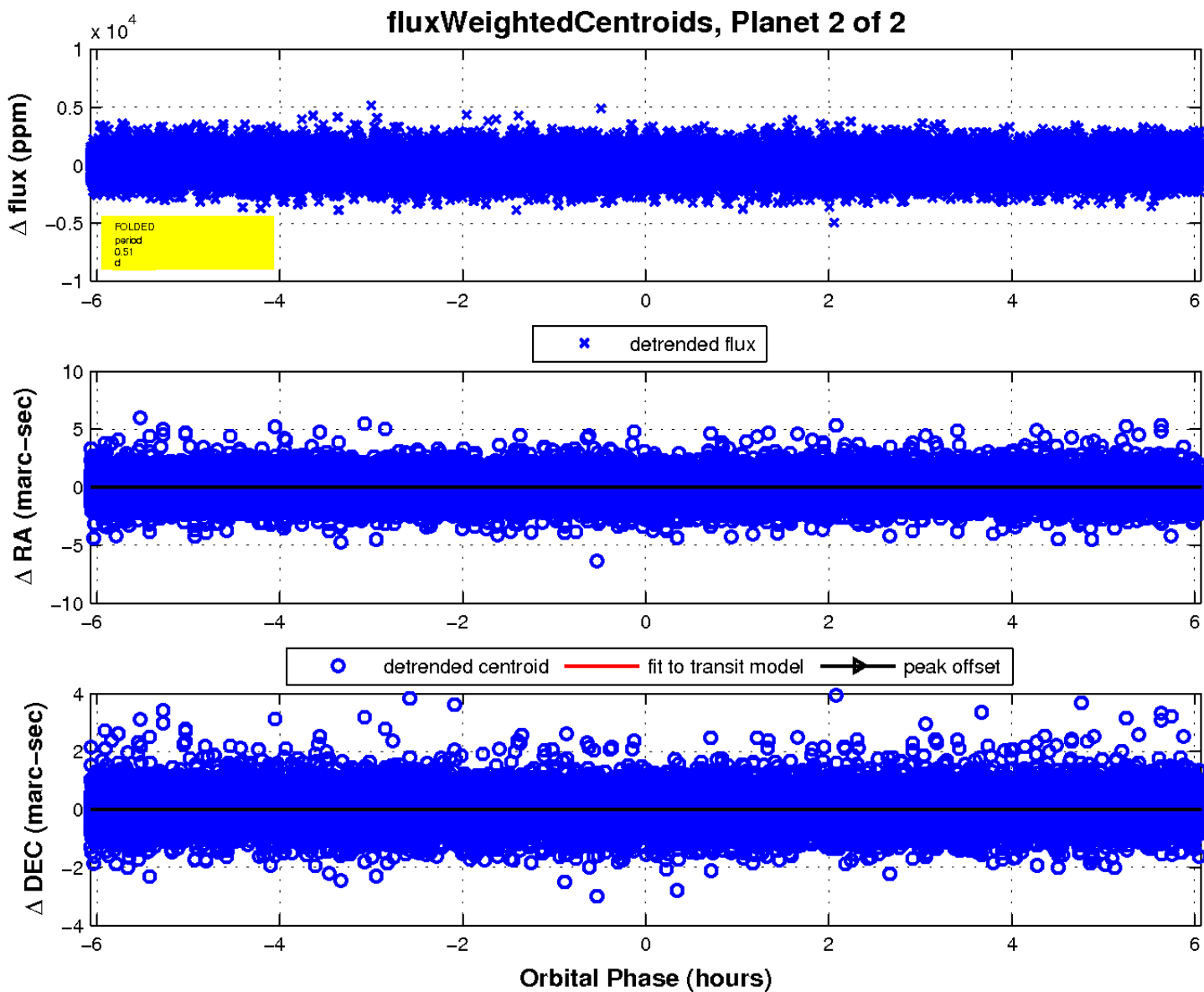
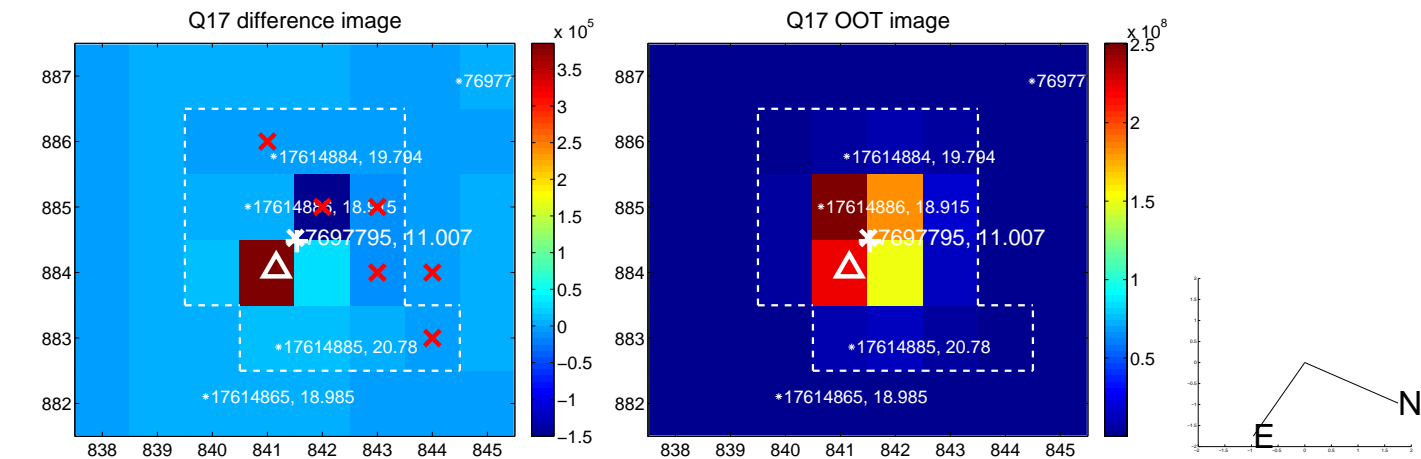
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

