

KIC 008583770

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})
008583770-01	OBS	No	0.690411	131.684372	7.1	5.248	11.1	9.9	8.23	8675	2.27	0.00
008583770-03	OBS	No	5.412970	134.079744	193.3	1.500	18.3	-1.0	8.23	8675	11.67	43165.03
008583770-04	OBS	No	5.548257	136.831697	97.1	1.581	13.3	14.1	8.23	8675	8.27	41767.40
008583770-05	OBS	No	5.086643	134.889509	155.9	1.162	10.3	19.8	8.23	8675	10.54	46896.23
008583770-07	OBS	No	4.051705	135.150205	100.4	1.673	10.3	14.9	8.23	8675	9.61	63512.97
008583770-08	OBS	No	5.311337	134.863897	196.7	0.645	12.2	15.7	8.23	8675	12.01	44269.82
008583770-09	OBS	No	4.270565	131.884110	79.0	2.000	10.4	-1.0	8.23	8675	7.45	59210.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008583770-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
008583770-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED
008583770-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

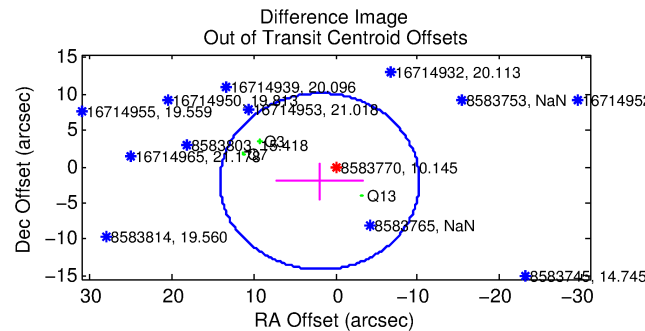
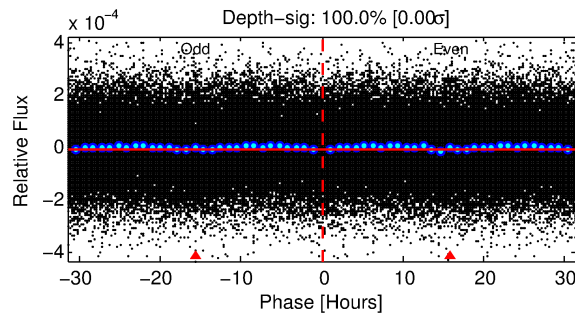
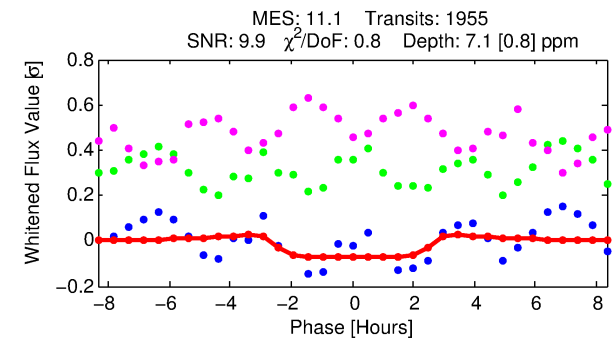
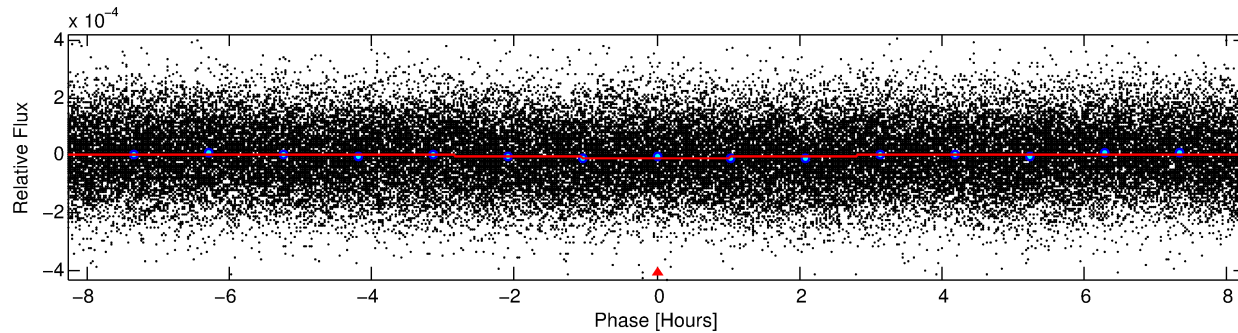
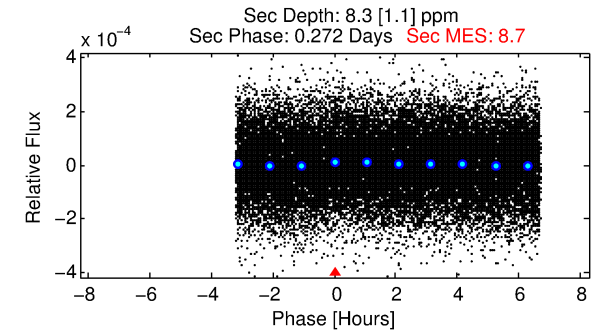
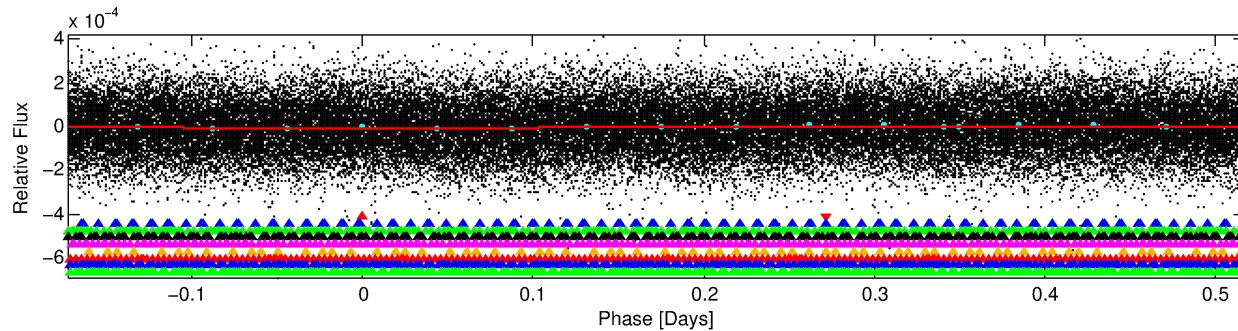
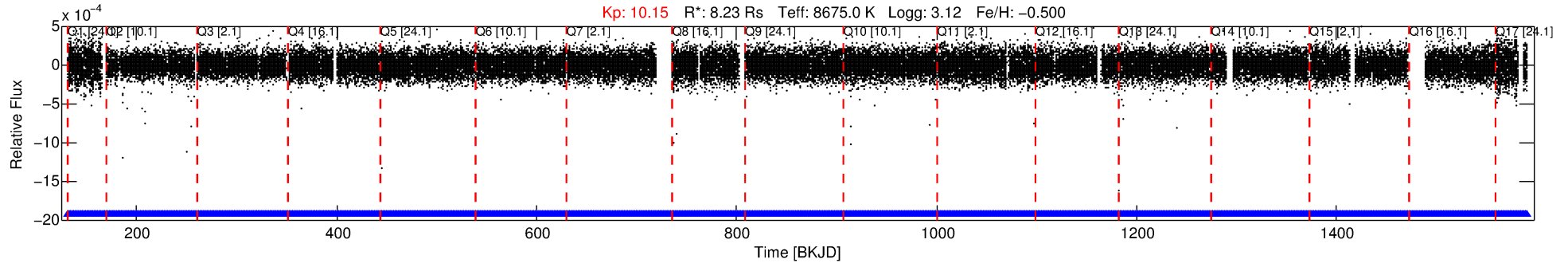
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008583770-01

No Significant Match Found

DV One-Page Summary

KIC: 8583770 Candidate: 1 of 9 Period: 0.690 d



DV Fit Results:

Period = 0.69041 [0.00001] d
Epoch = 131.6844 [0.0050] BKJD
Rp/R* = 0.0025 [0.0012]
a/R* = 1.15 [0.85]
b = 0.50 [4.60]
Seff = N/A
Teq = N/A
Rp = 2.27 [1.24] Re
a = N/A
Ag = N/A
Teffp = N/A

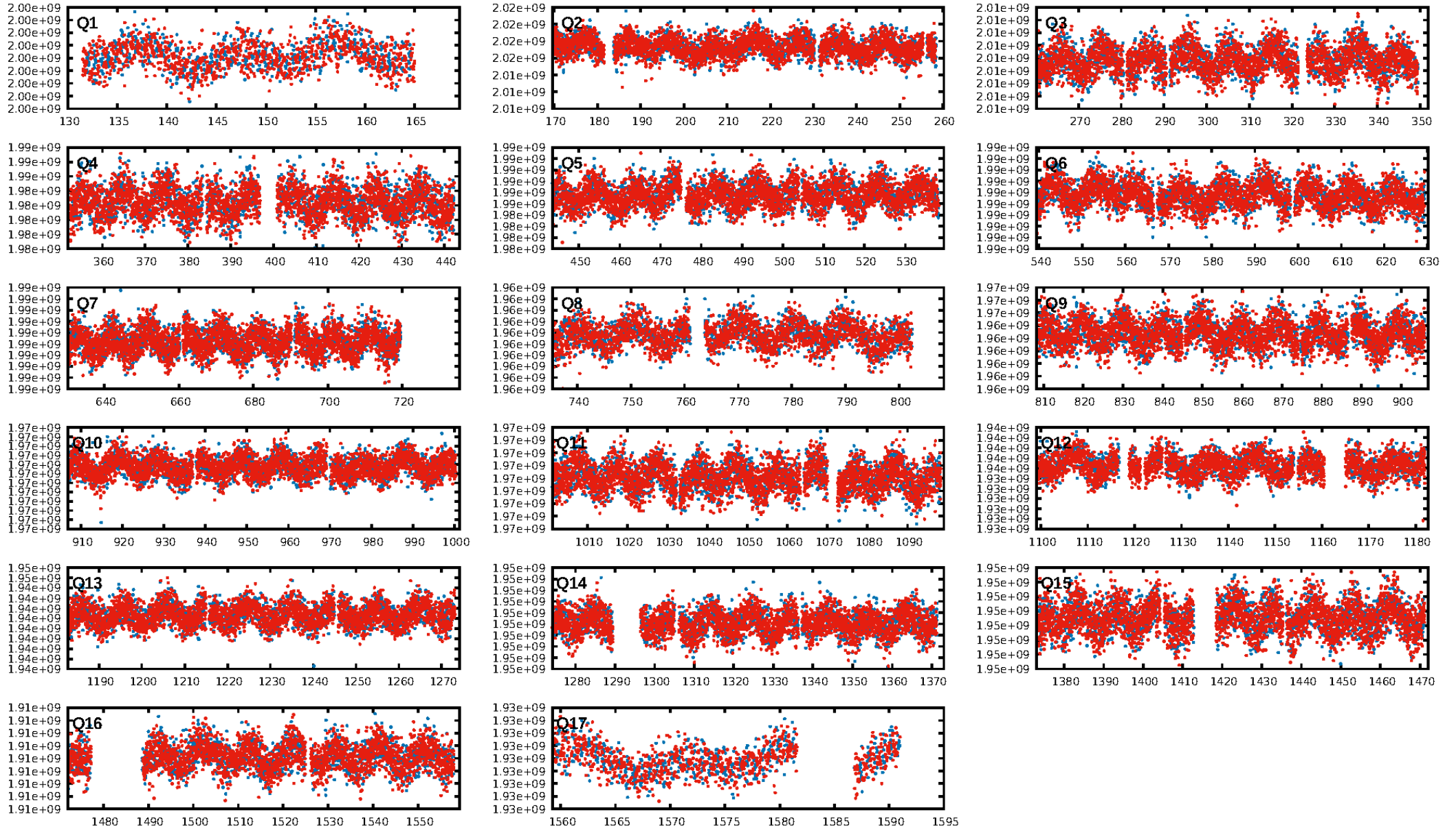
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [14.64σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1867/1867]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.112 arcsec [0.91σ]
OotOffset-rm: 2.805 arcsec [0.69σ]
KicOffset-rm: 2.829 arcsec [0.70σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [17/17]

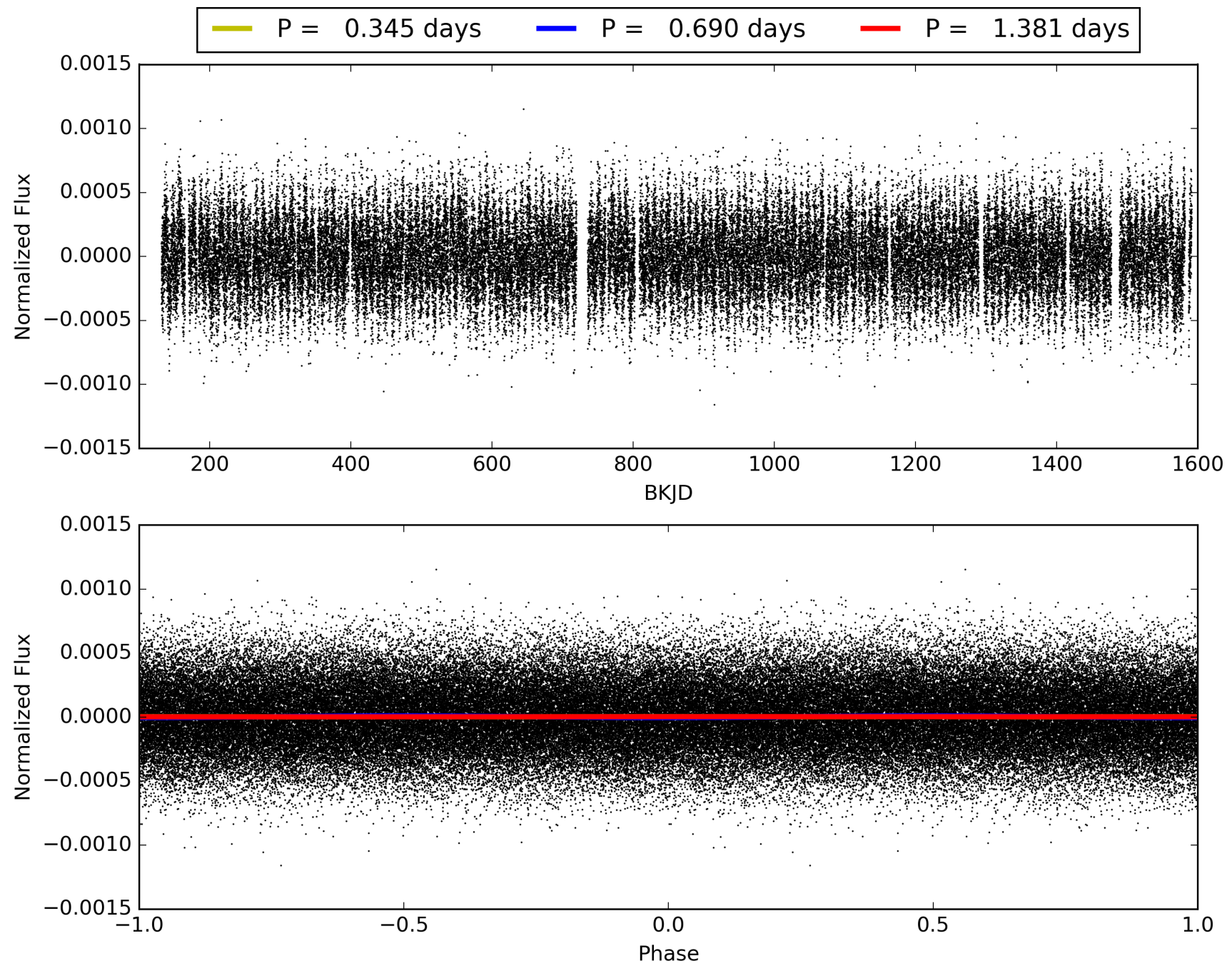
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:33:46 Z

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

TCE 00583770-01, PDC Light Curves

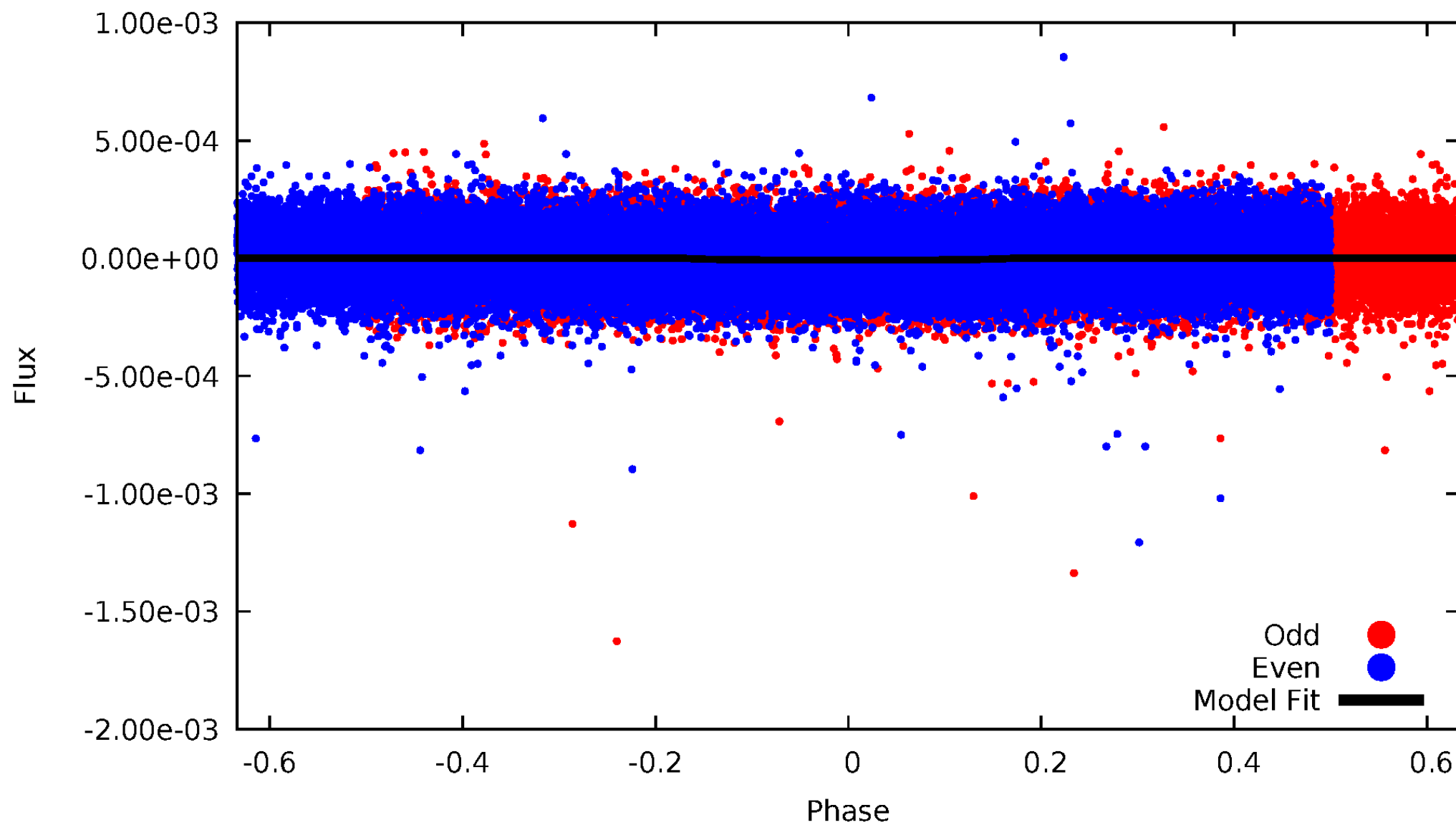


TCE 008583770-01



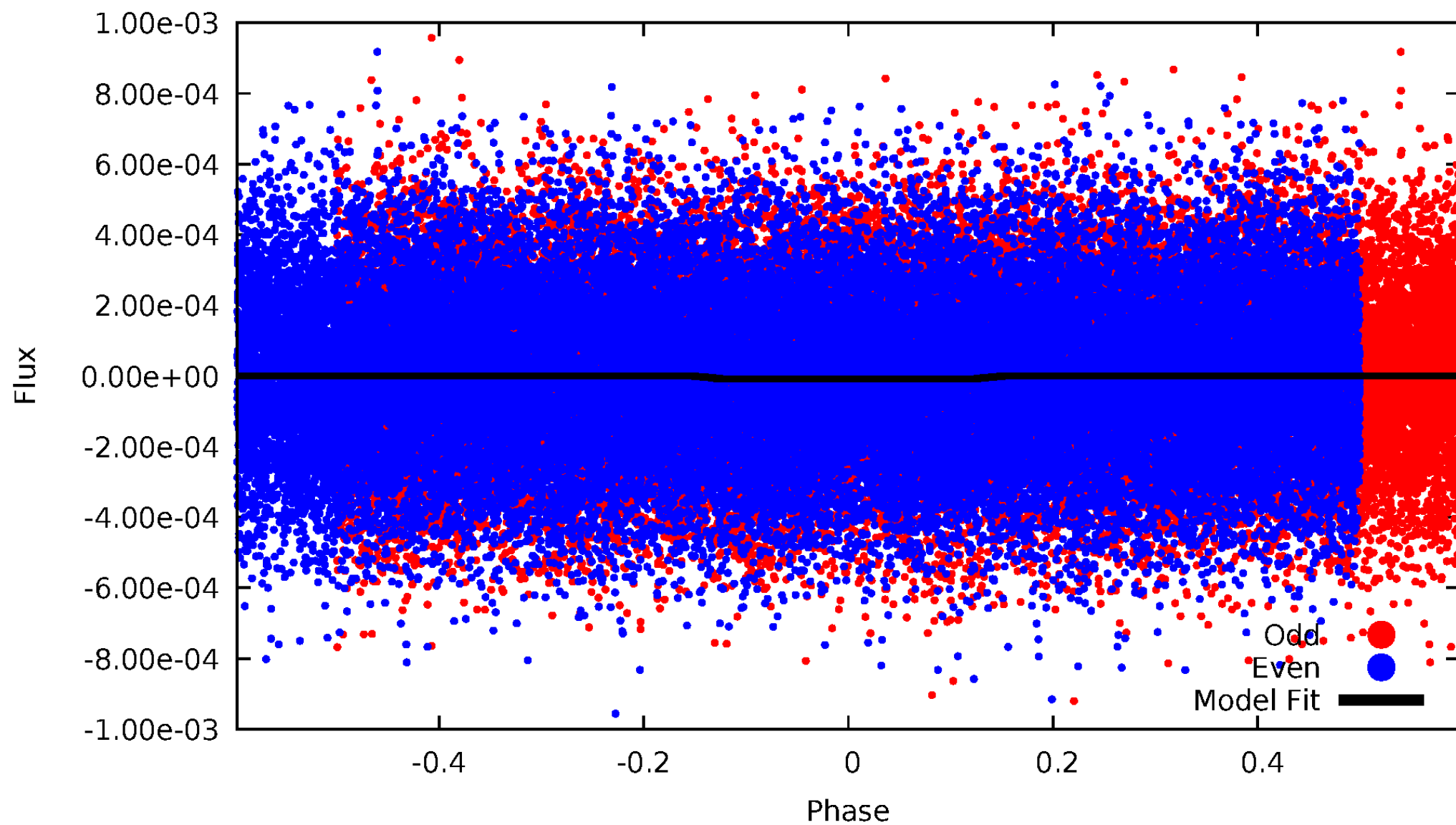
DV Odd/Even

TCE 008583770-01

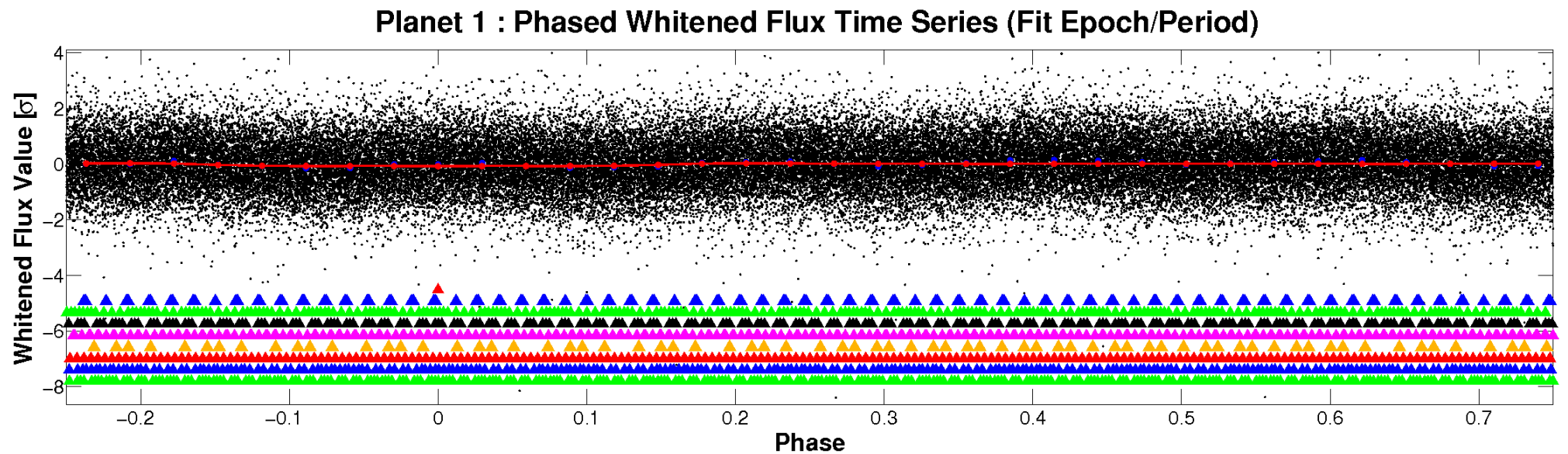
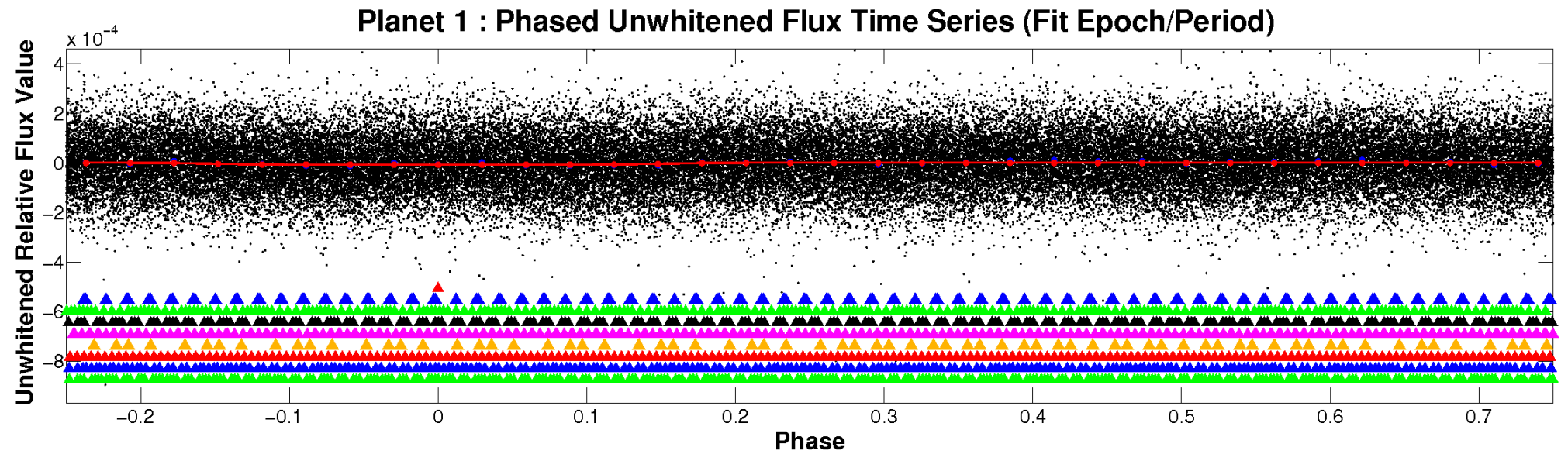


ALT Odd/Even

TCE 008583770-01

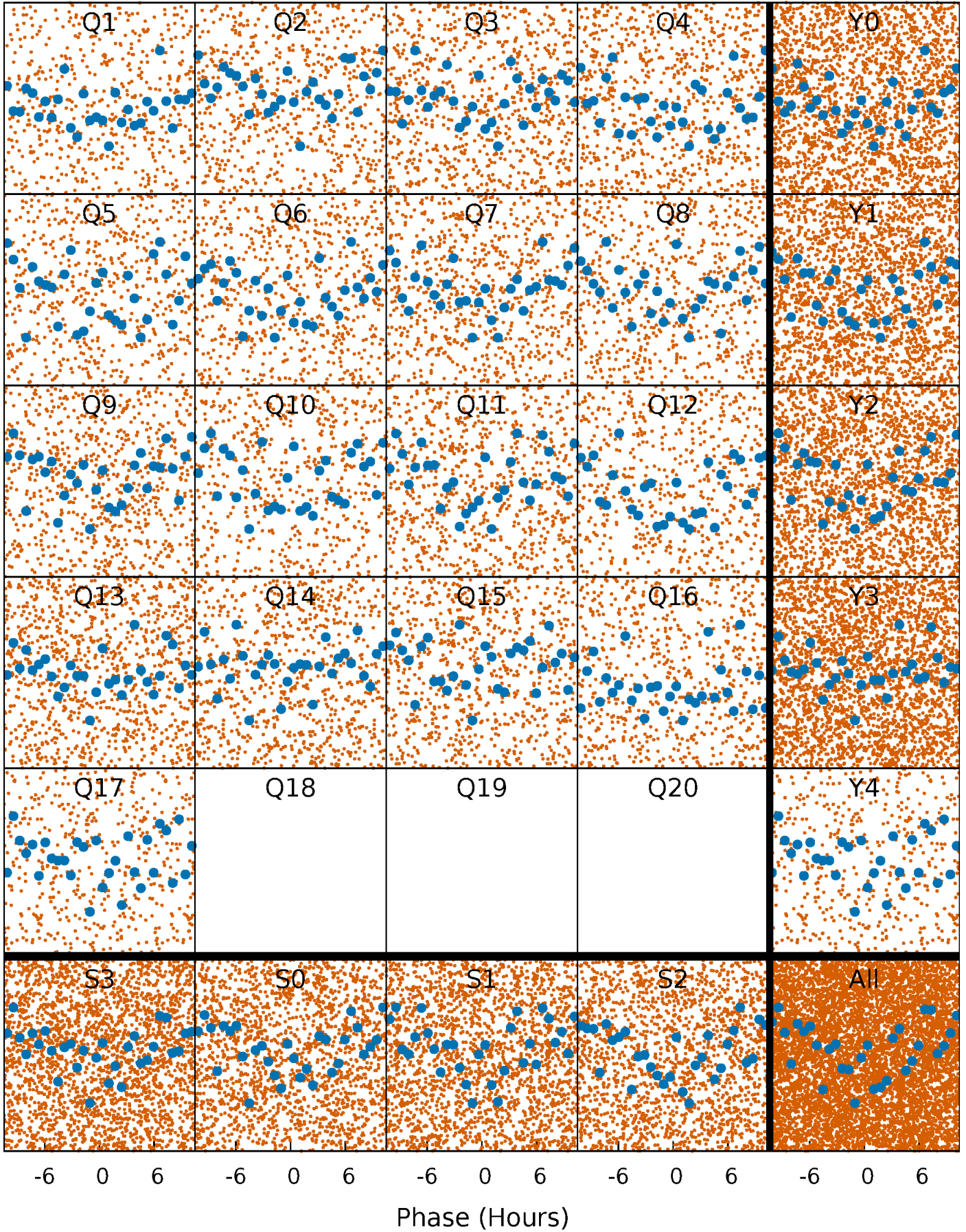


Non-Whitened Vs. Whitened Light Curve



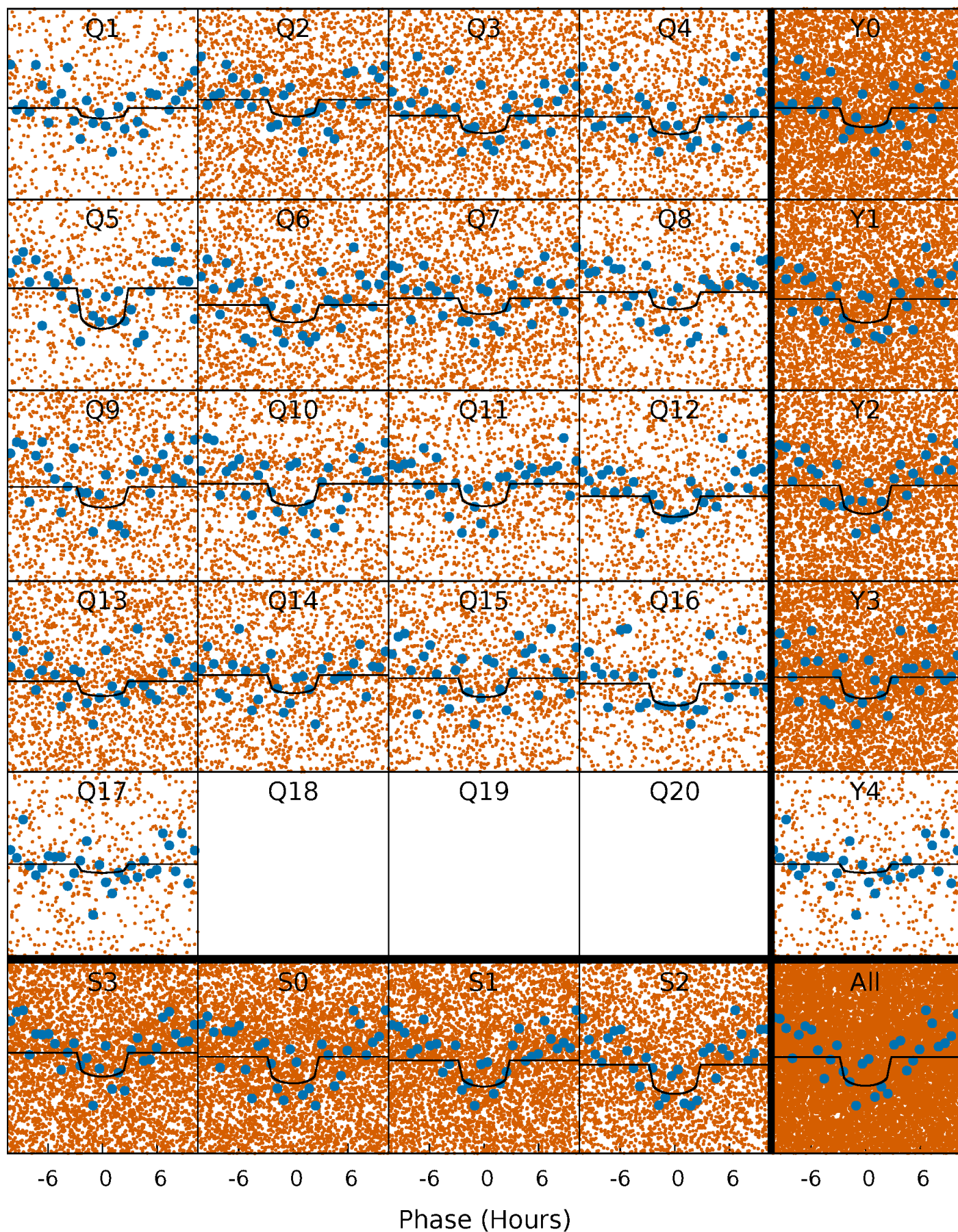
PDC Quarter-Phased Transit Curves

TCE 008583770-01 P= 0.690410 Days $T_0=131.684372$ (BKJD)



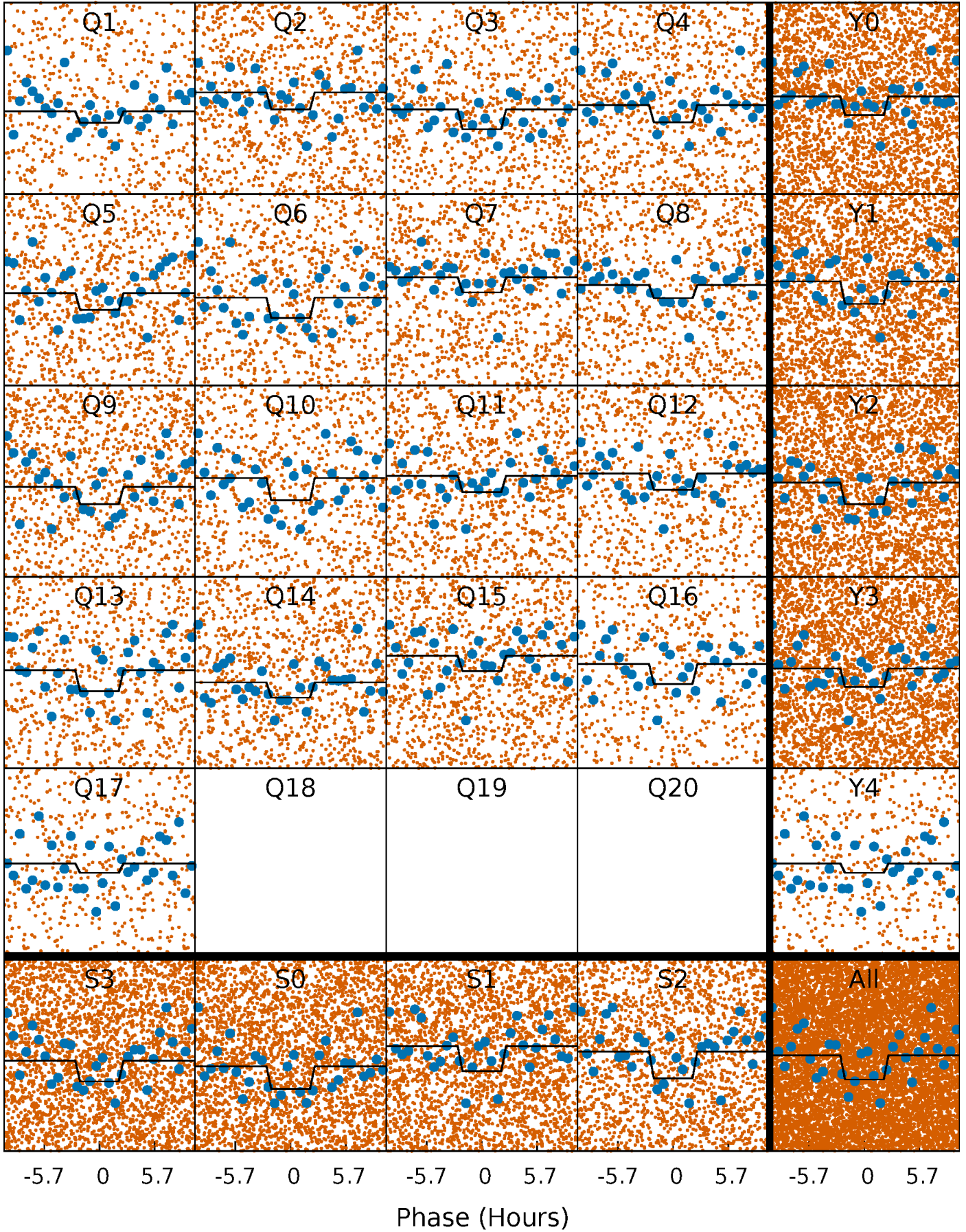
DV Quarter-Phased Transit Curves

TCE 008583770-01 P= 0.690410 Days $T_0=131.684372$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

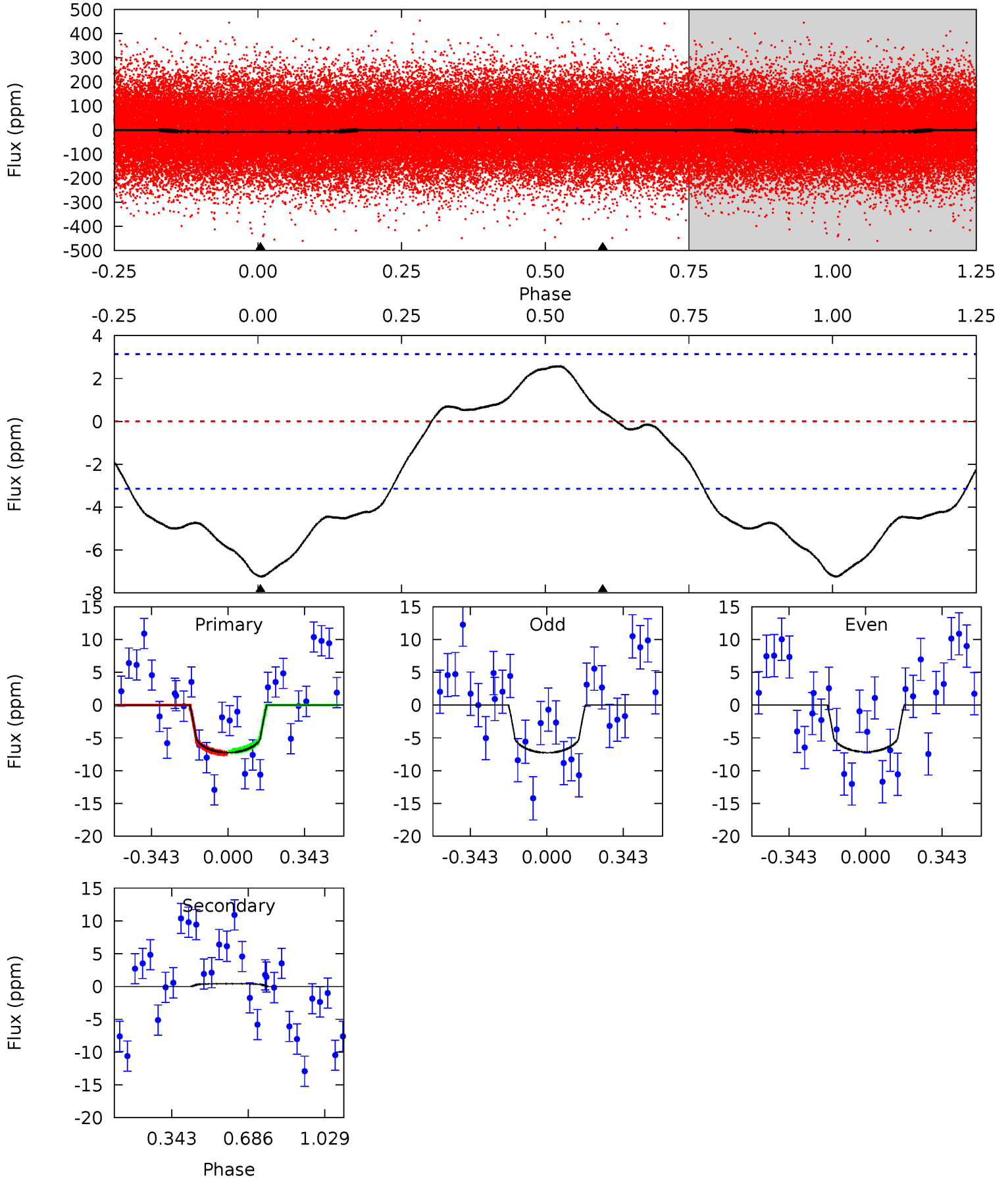
TCE 008583770-01 P= 0.690435 Days $T_0=131.665367$ (BKJD)



DV Model-Shift Uniqueness Test

008583770-01, P = 0.690410 Days, E = 130.993962 Days

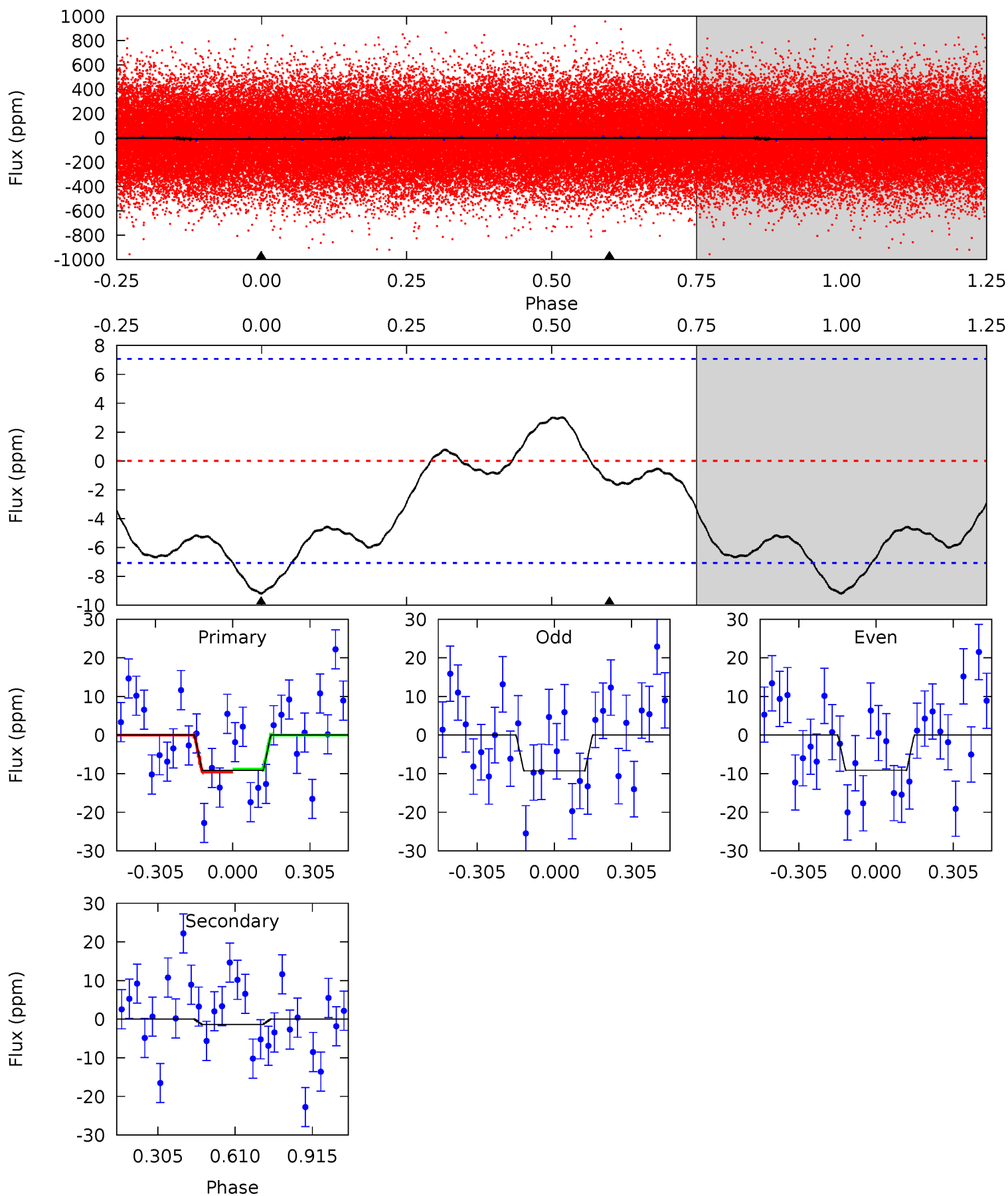
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.90	-0.59	0	0	4.30	0.95	1.27	9.90	9.90	-0.59	-0.59	0.09	1.08	0.26	0.21



Alt Model-Shift Uniqueness Test

008583770-01, P = 0.690435 Days, E = 130.974932 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.62	0.82	0	0	4.33	1.03	0.67	5.62	5.62	0.82	0.82	0.04	0.99	0.25	0.22



Stellar Parameters For KIC 008583770

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8675^{+514}_{-707}	$3.117^{+0.182}_{-0.065}$	$-0.500^{+0.600}_{-0.050}$	$8.234^{+0.798}_{-1.995}$	$3.237^{+0.211}_{-0.421}$	$0.008^{+0.008}_{-0.002}$
	+6%/-8%	+6%/-2%	+120%/-10%	+10%/-24%	+7%/-13%	+94%/-21%
Source	SPE4	SPE4	SPE4	DSEP		

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

Secondary Eclipse Parameters for KIC 008583770-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1	$2.21^{+1.12}_{-1.06}$	10040^{+734}_{-925}	-8345^{+905}_{-1118}	$-0.021^{+0.034}_{-0.095}$
Alt.	-1 ± 2	$2.63^{+1.11}_{-1.10}$	9946^{+782}_{-876}	-7500^{+1584}_{-999}	$0.049^{+0.139}_{-0.064}$

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 $A_{obs} \gg 1.0$

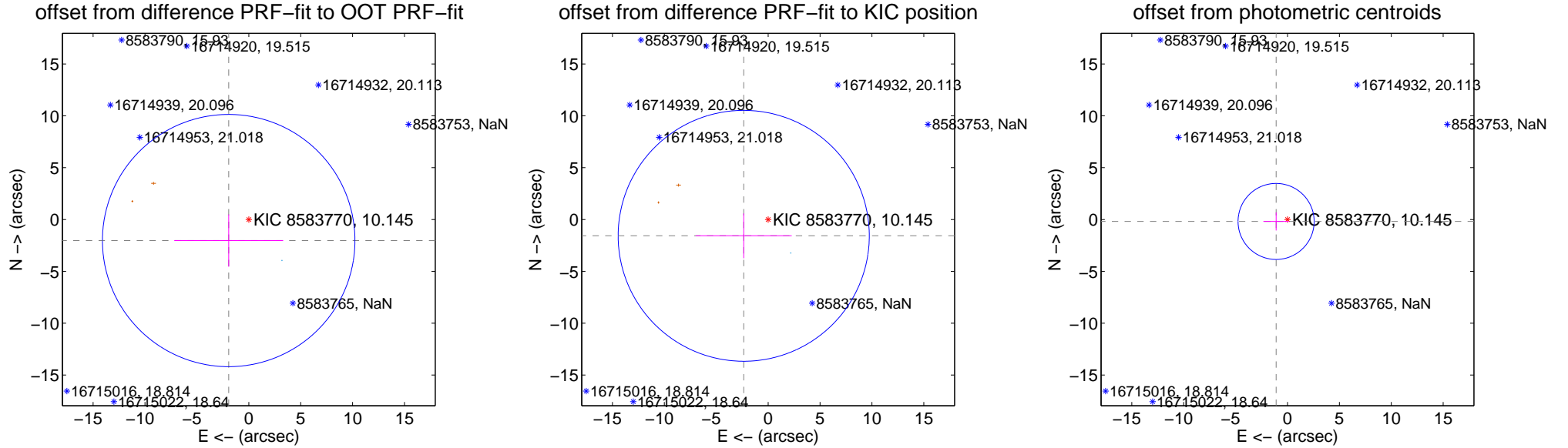
DV Centroid Data

Supplemental centroid analysis for 008583770-01. **Kepler magnitude: 10.14.** Transit SNR 9.94

There are 1 quarters with good PRF difference image offsets

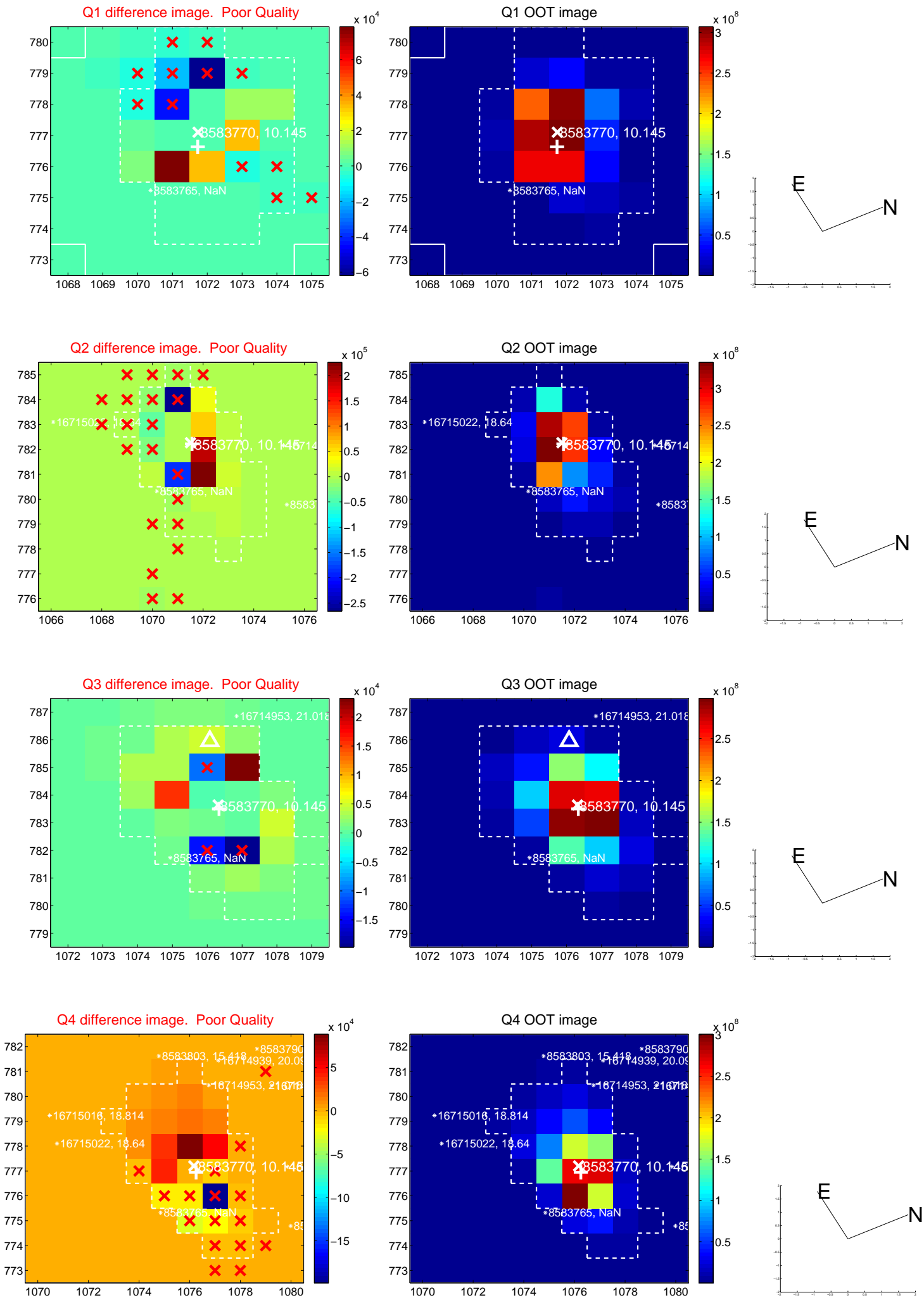
The direct PRF centroid is offset from the target star catalog position by about 1.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.805 ± 4.054	0.69	1.936 ± 5.244	-2.029 ± 2.520
PRF-fit source offset from KIC position	2.829 ± 4.032	0.70	2.352 ± 4.630	-1.572 ± 2.163
photometric centroid source offset	1.11 ± 1.22	0.91	1.10 ± 1.23	-0.19 ± 0.87

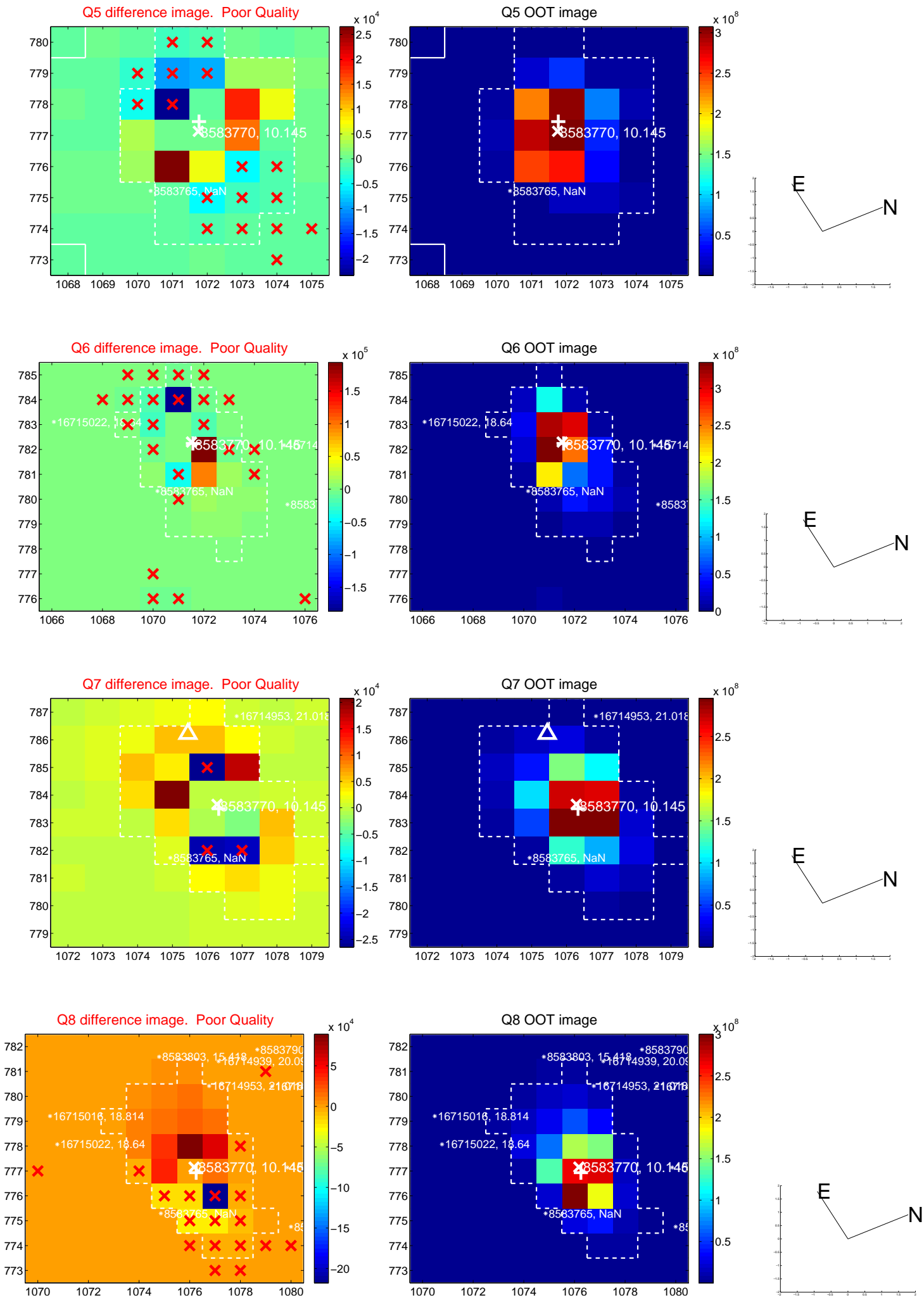


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

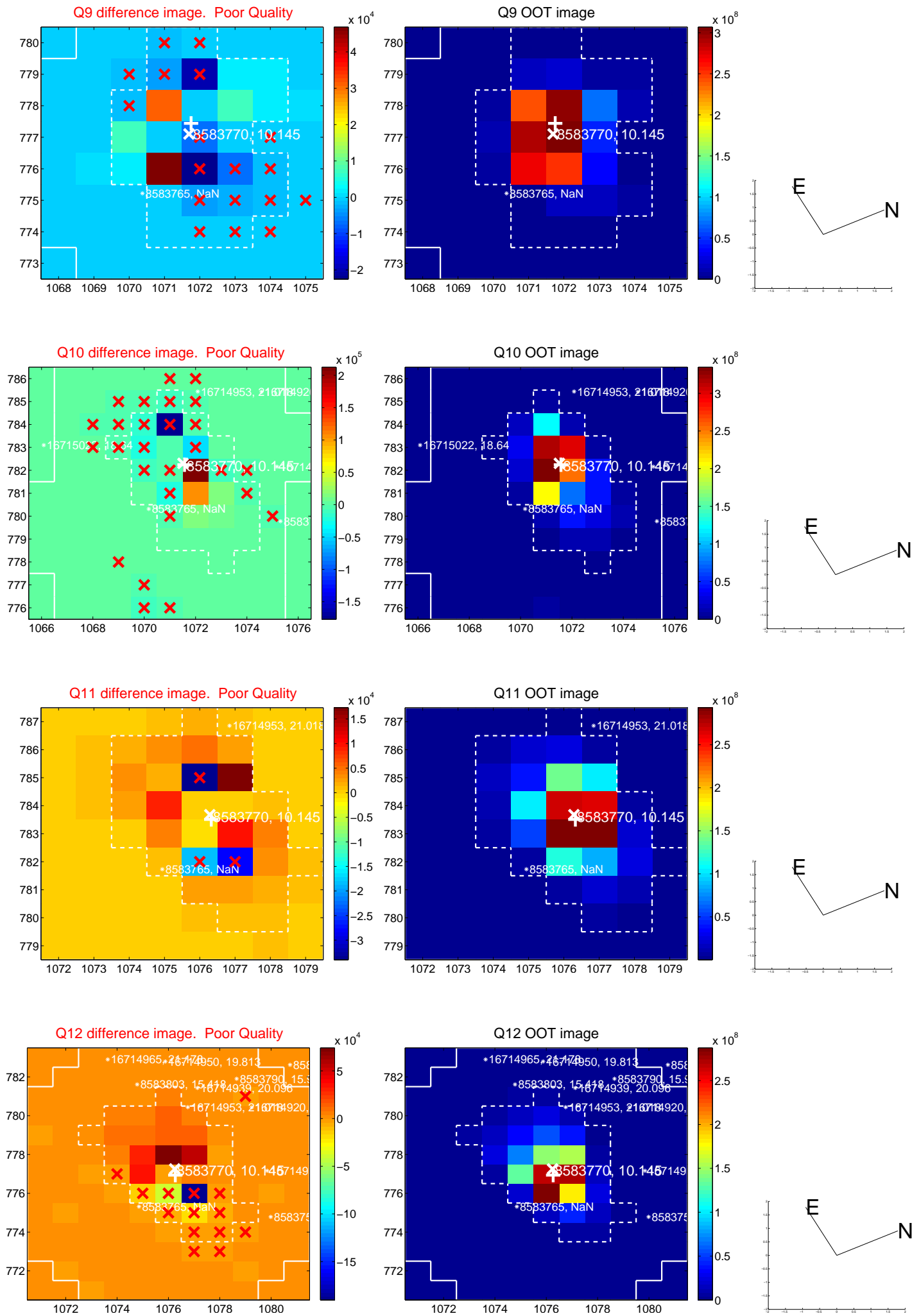
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



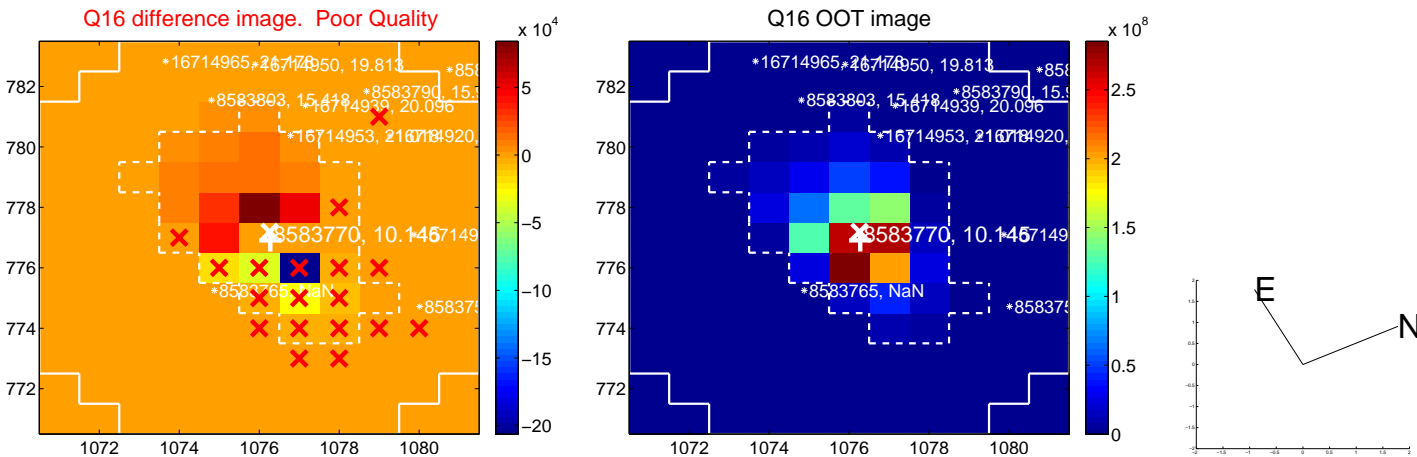
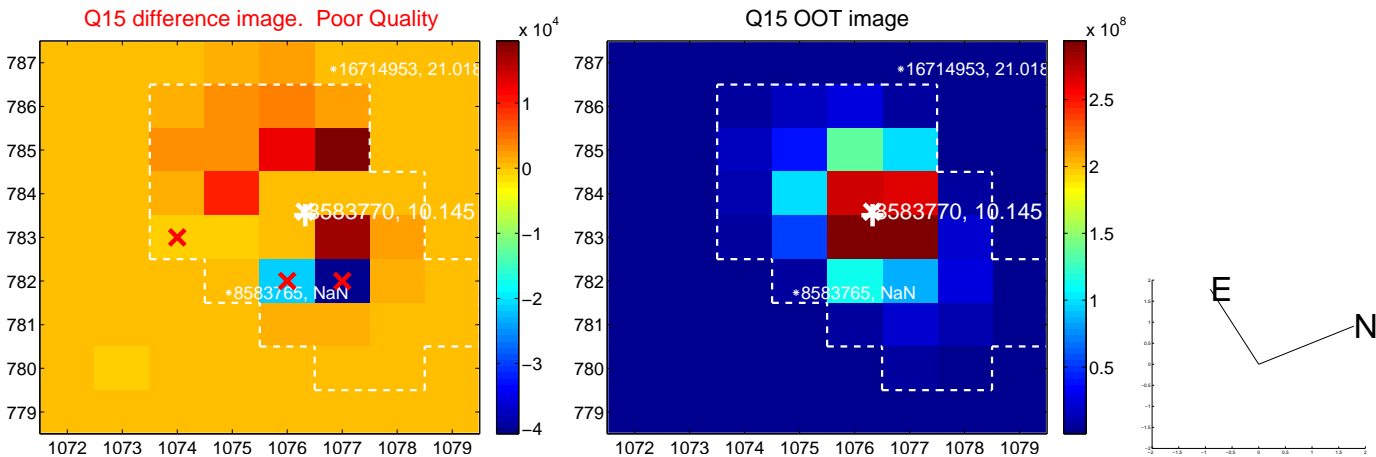
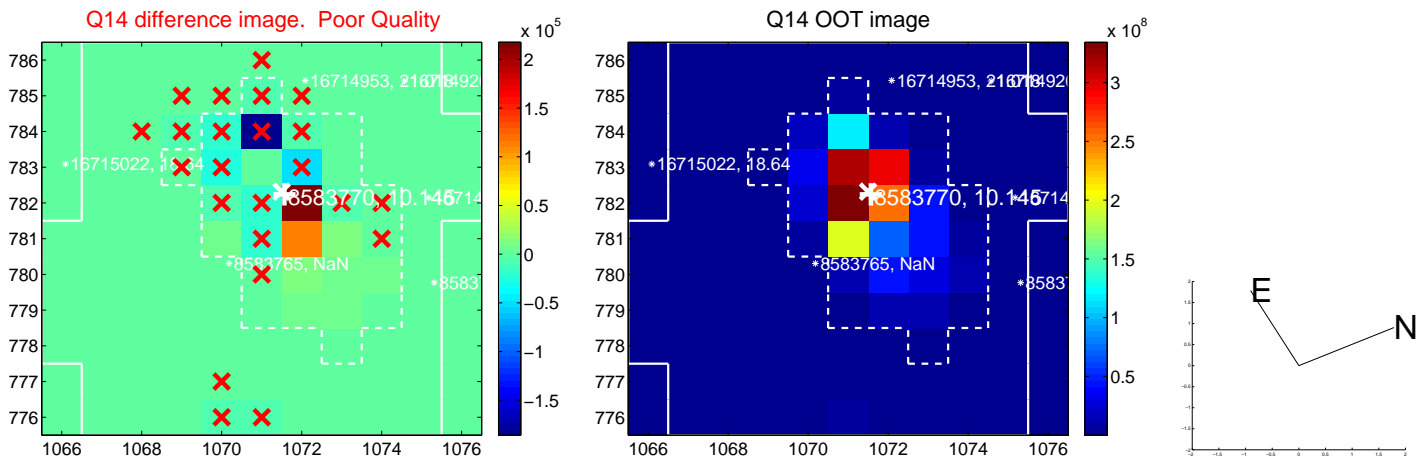
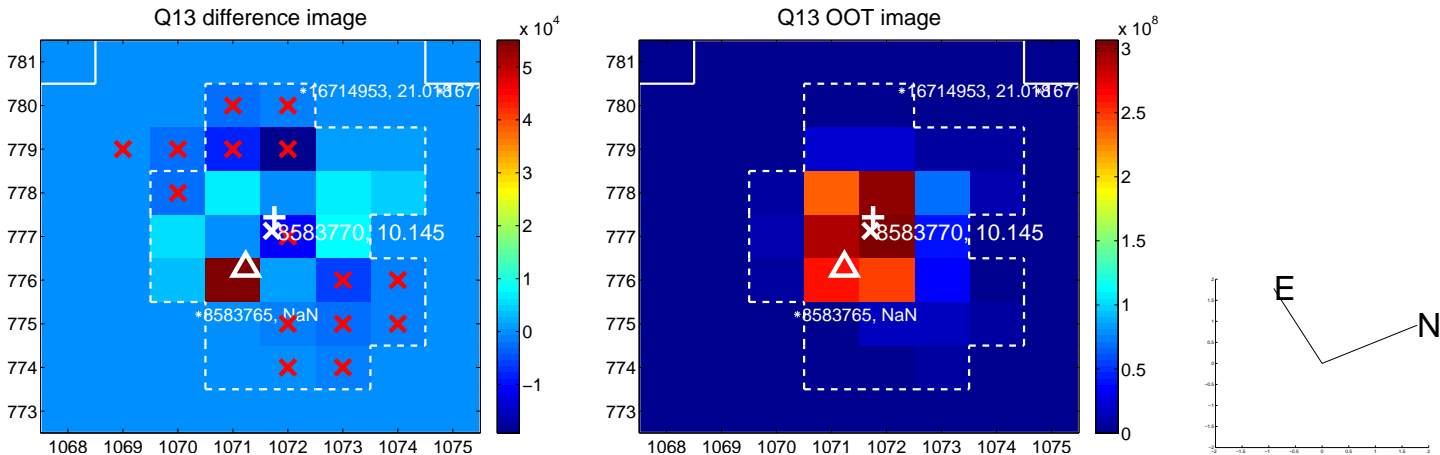
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



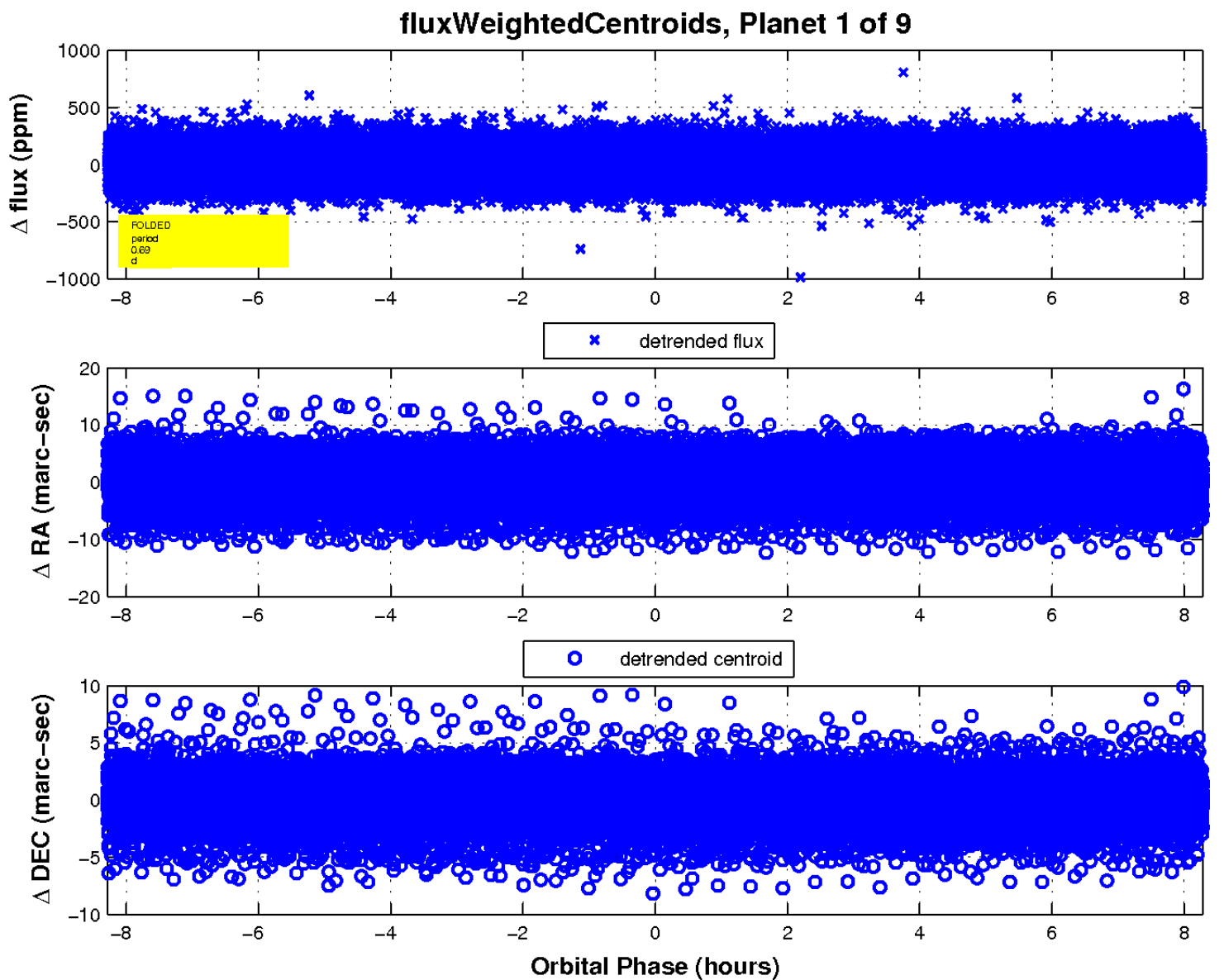
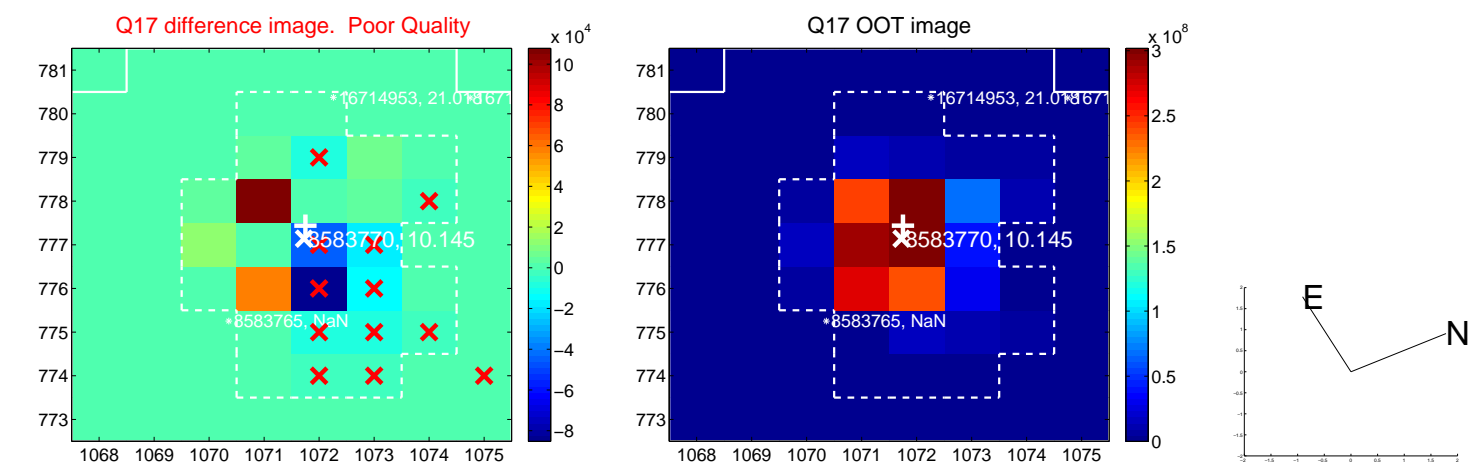
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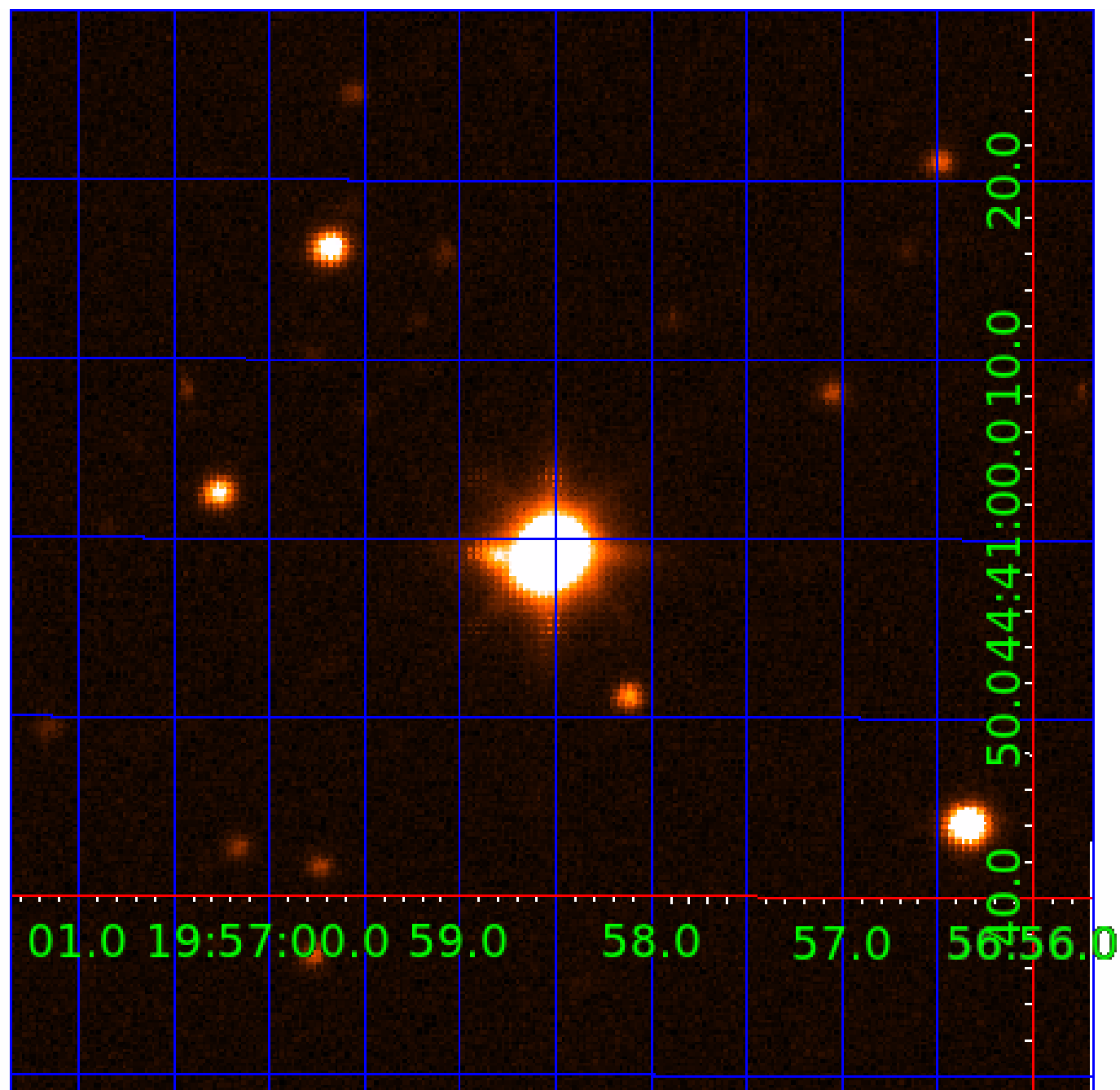


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008583770

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

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008583770-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED
008583770-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

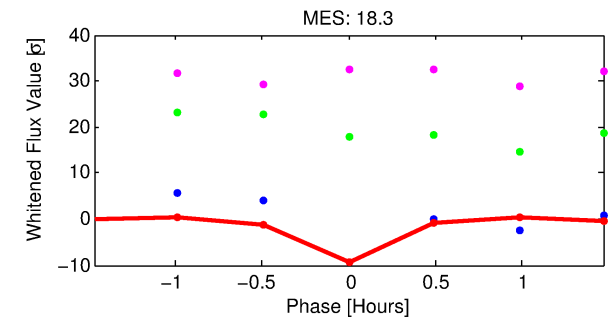
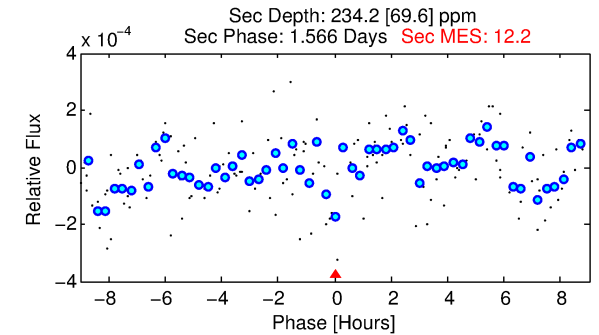
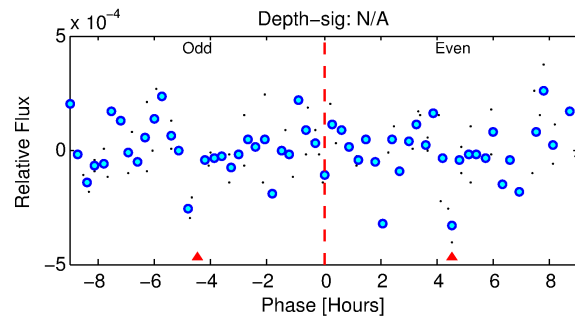
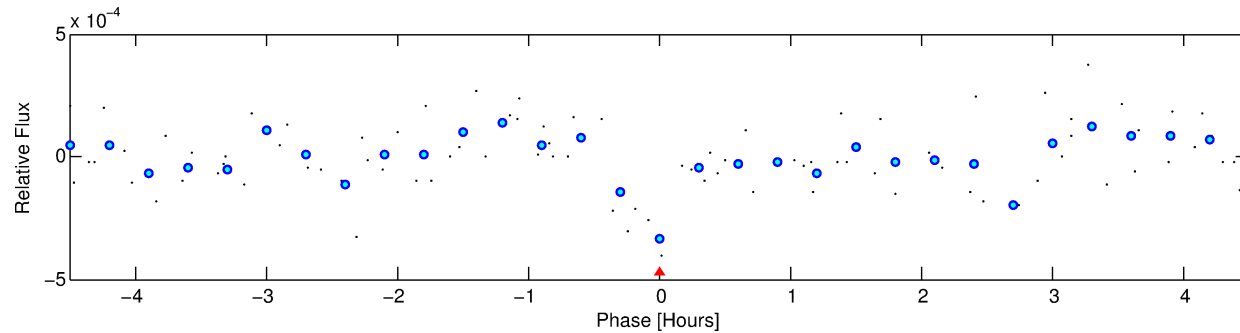
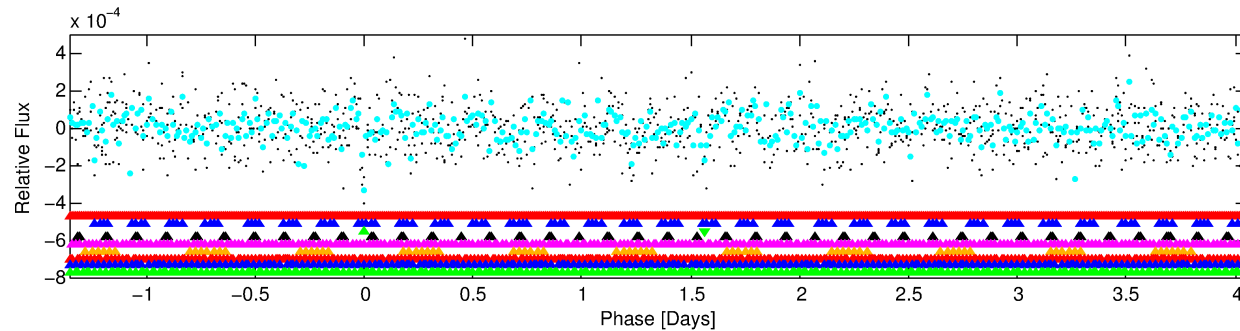
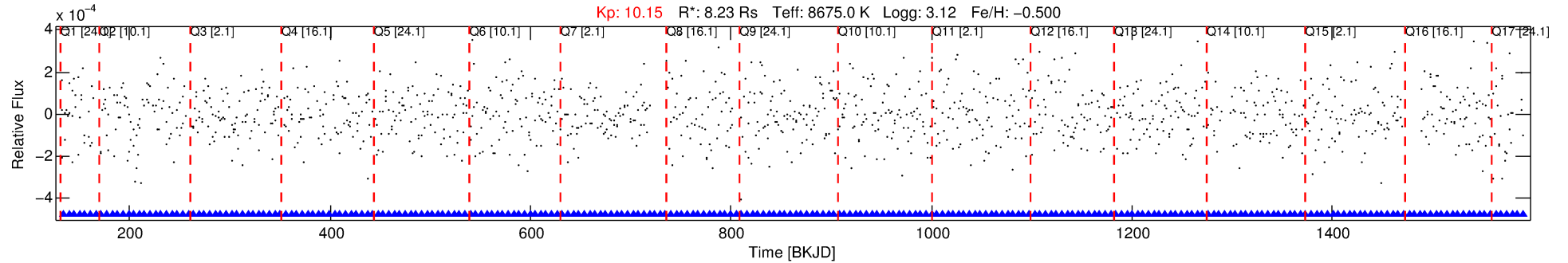
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008583770-03

No Significant Match Found

DV One-Page Summary

KIC: 8583770 Candidate: 3 of 9 Period: 5.413 d



TPS TCE Results:

Period = 5.41297 d
Epoch = 134.0797 BKJD

DV fit results are unavailable

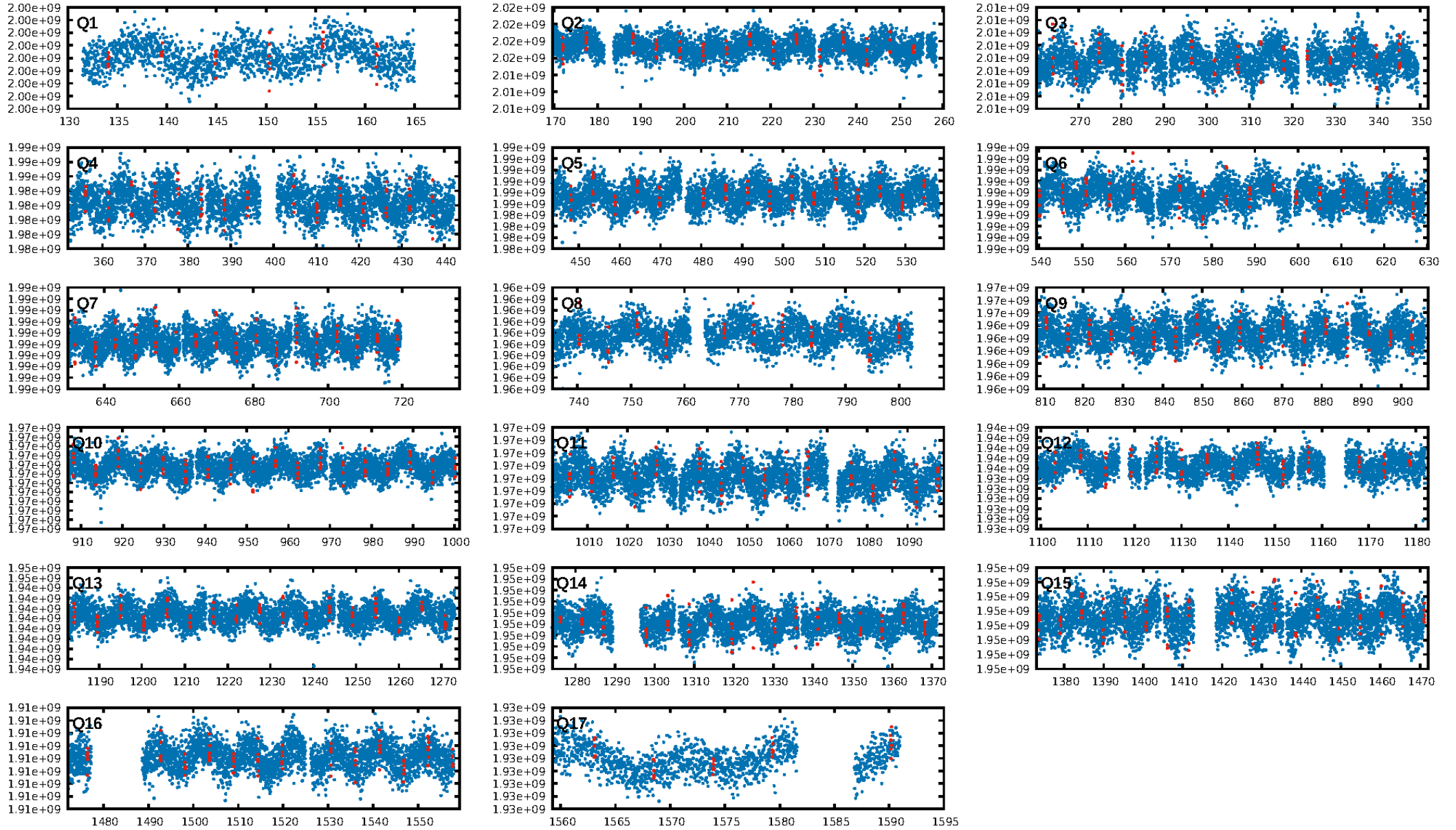
DV Diagnostic Results:

ShortPeriod-sig: 86.5% [1.49σ]
LongPeriod-sig: 86.4% [1.49σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

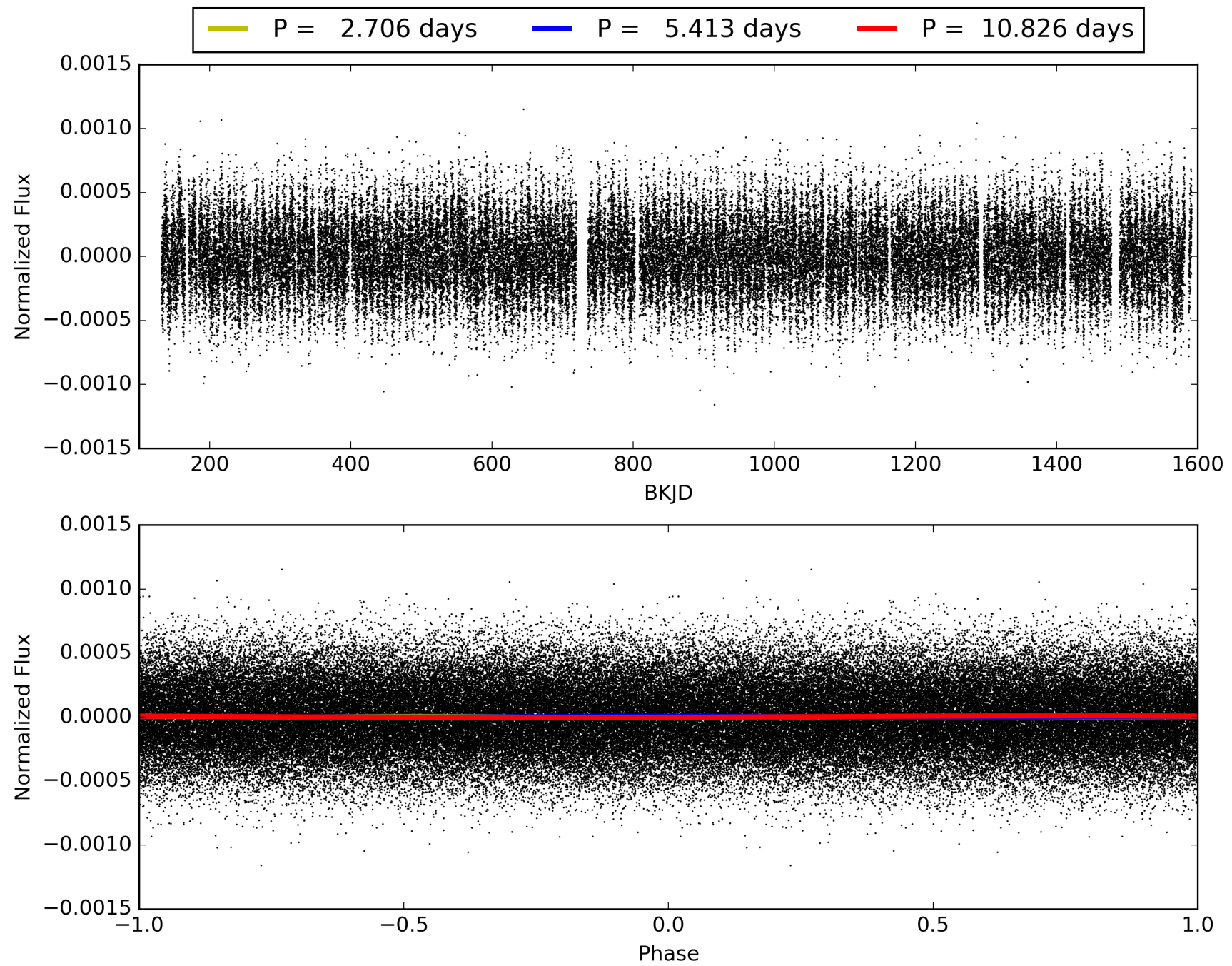
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:33:59 Z

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

TCE 00583770-03, PDC Light Curves

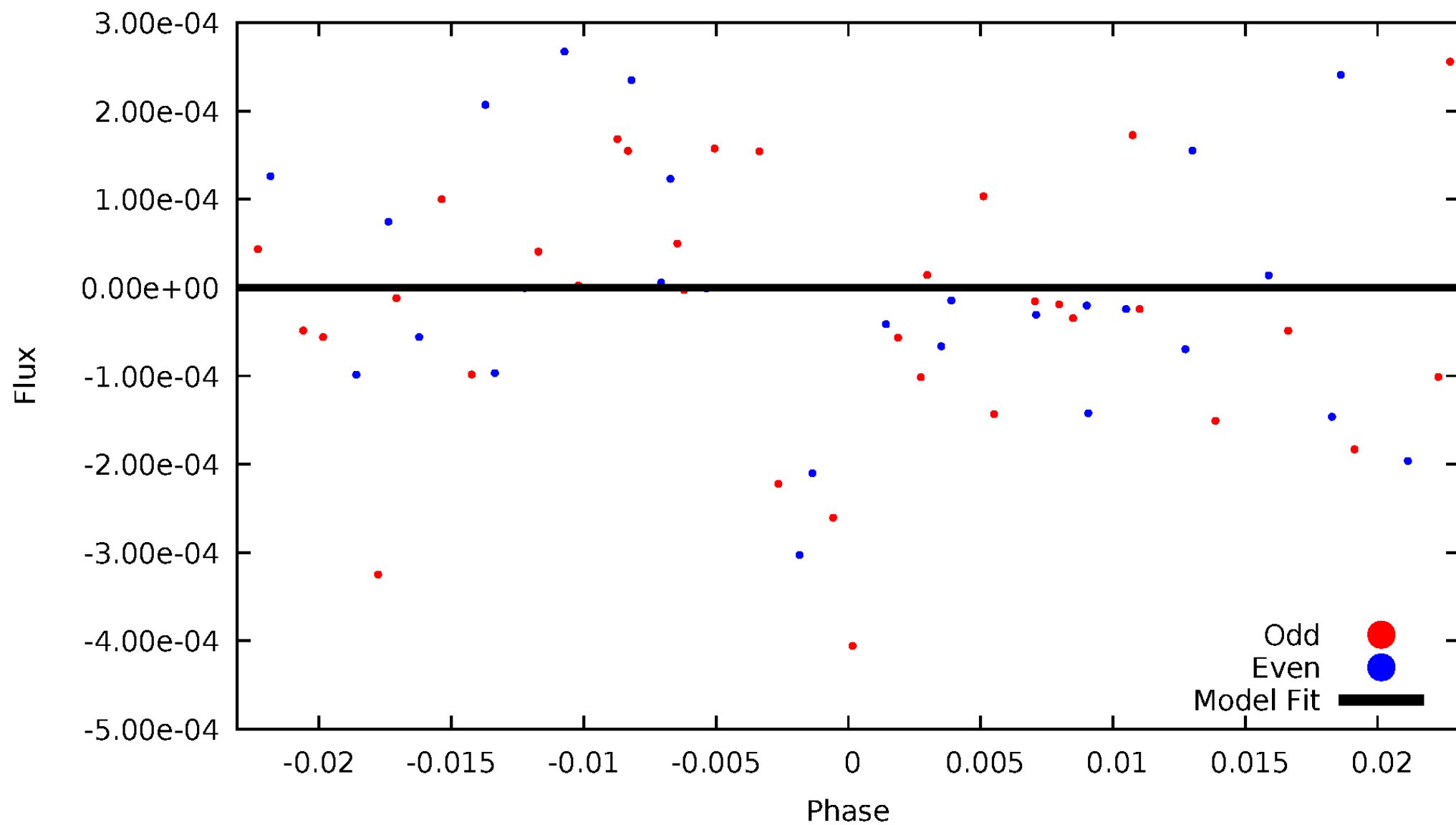


TCE 008583770-03



DV Odd/Even

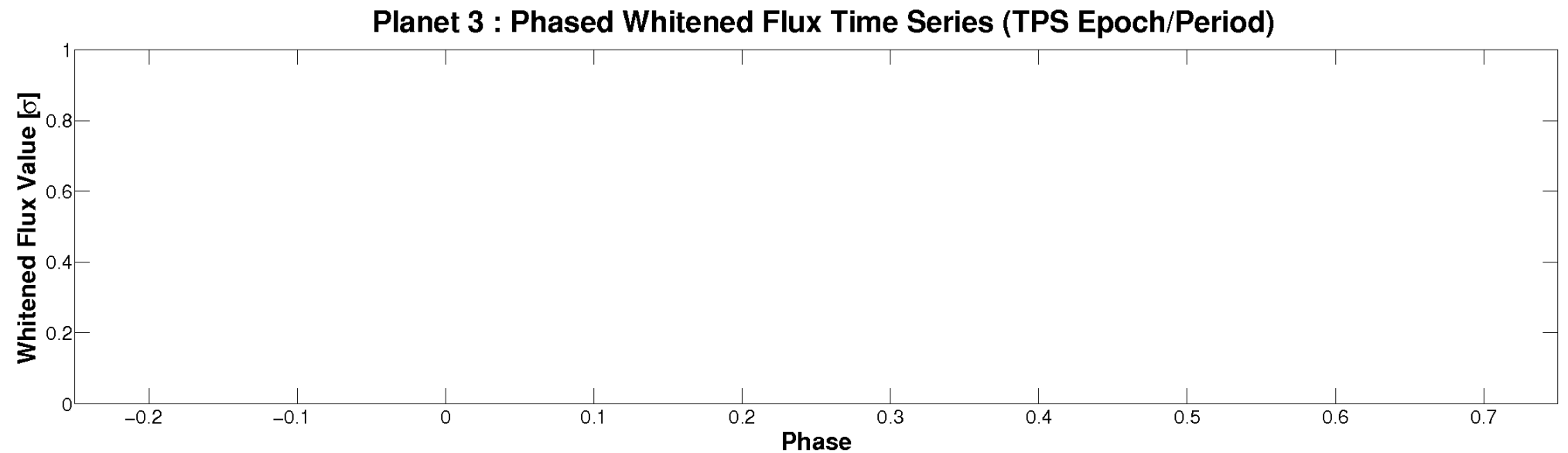
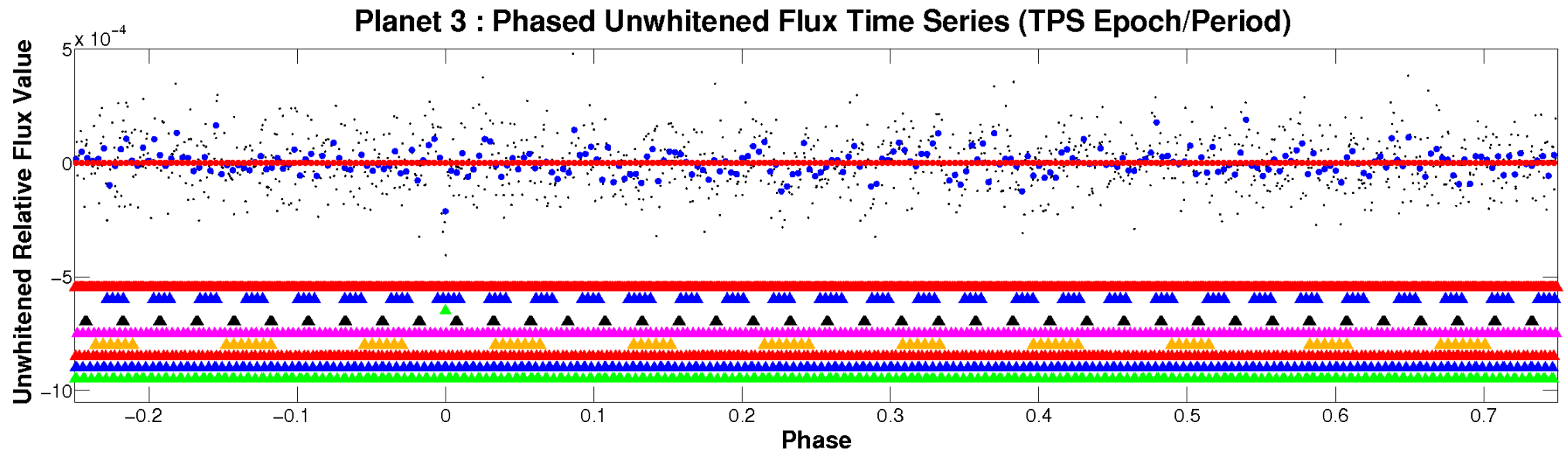
TCE 008583770-03



ALT Odd/Even

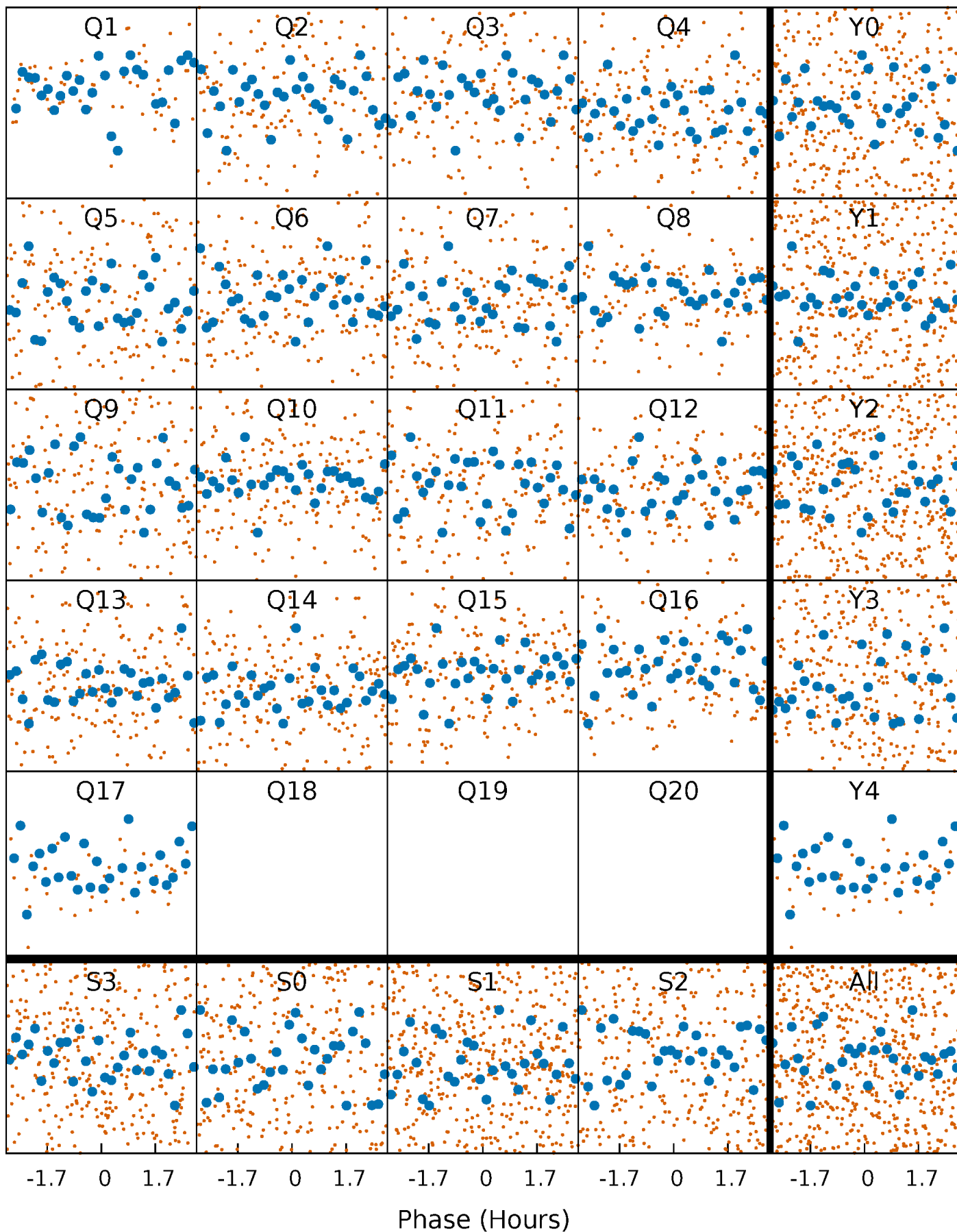
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve



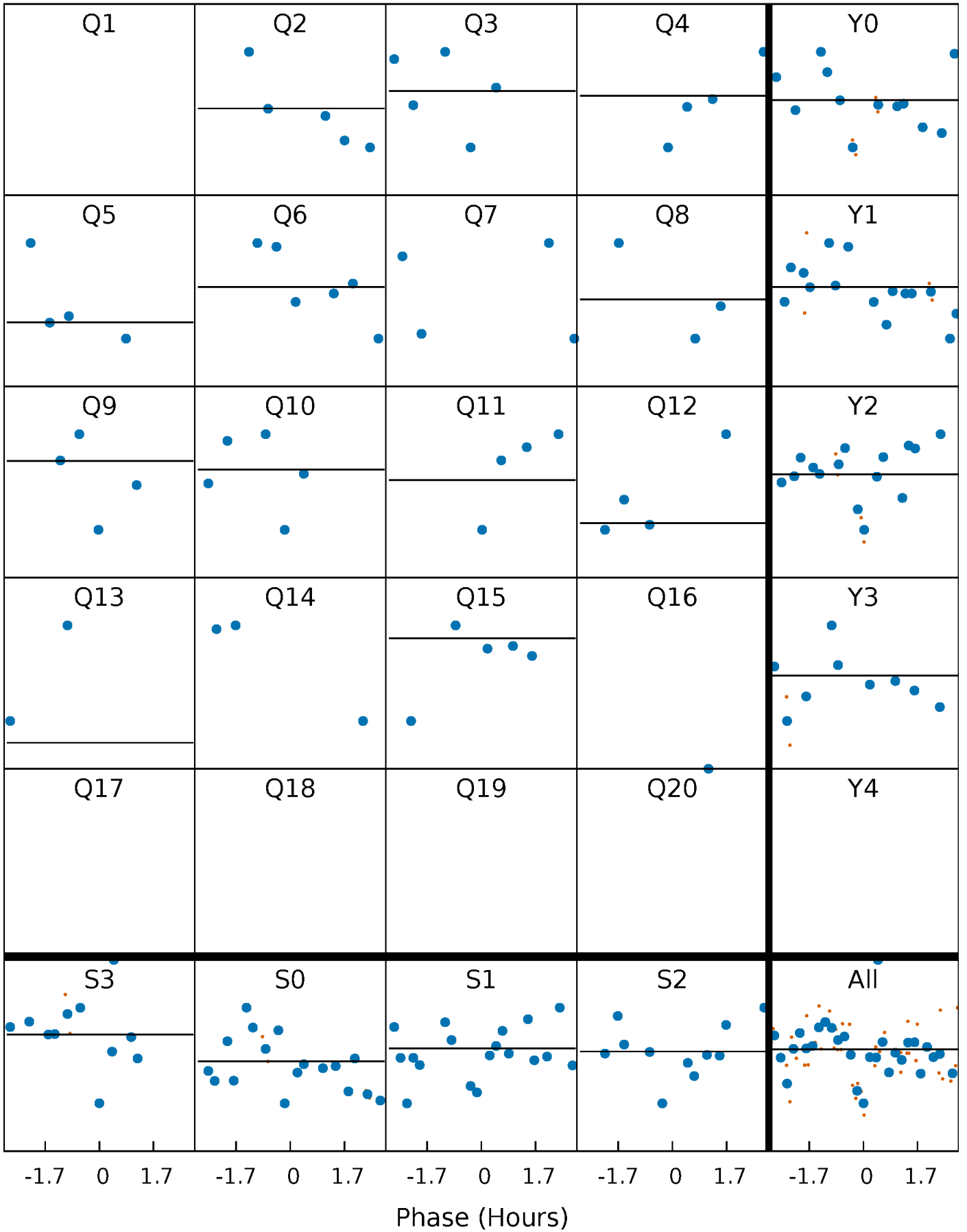
PDC Quarter-Phased Transit Curves

TCE 008583770-03 P= 5.412970 Days $T_0=134.079744$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008583770-03 $P = 5.412970$ Days $T_0 = 134.079744$ (BKJD)

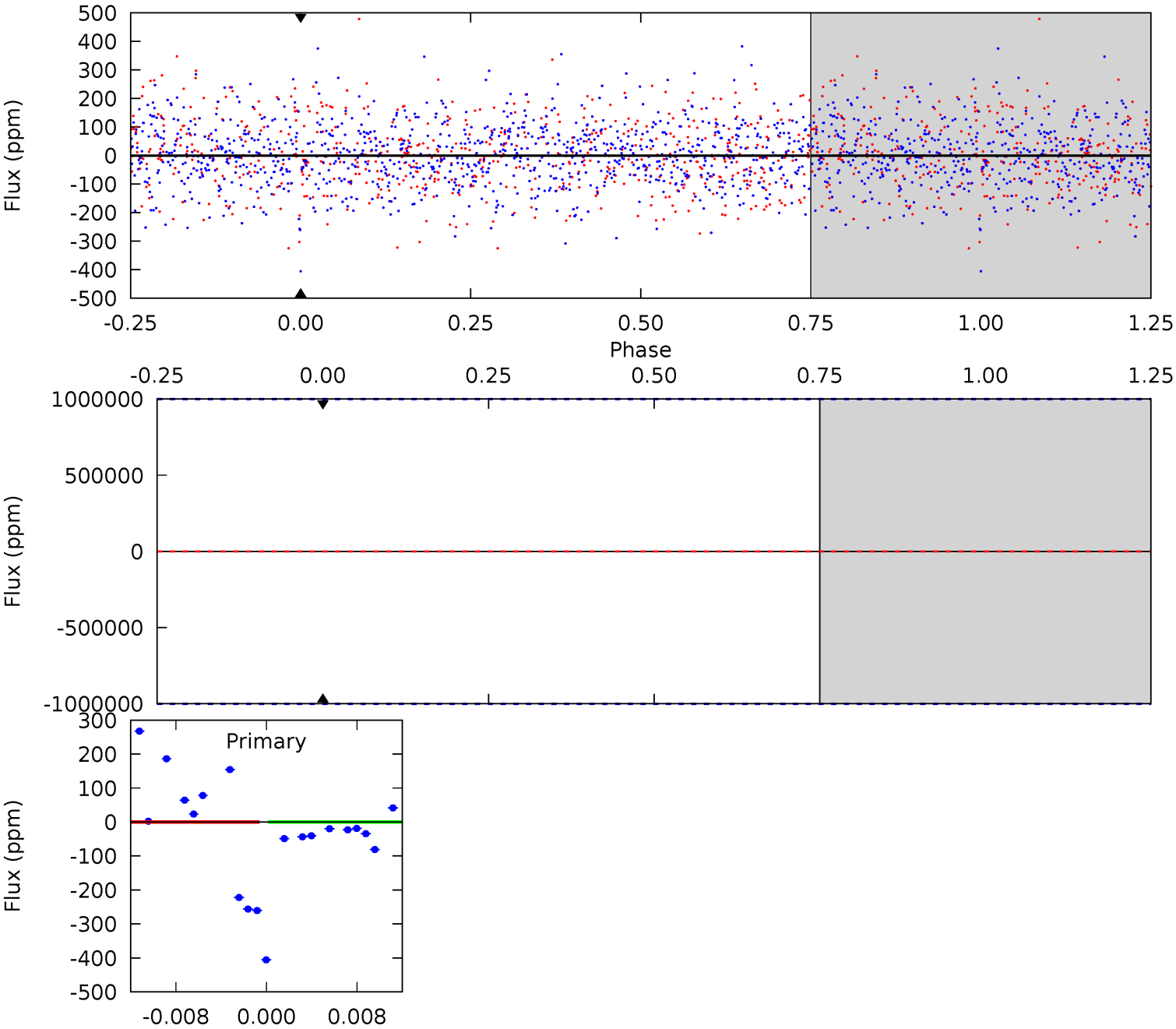


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008583770-03, P = 5.412970 Days, E = 128.666774 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008583770

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8675^{+514}_{-707}	$3.117^{+0.182}_{-0.065}$	$-0.500^{+0.600}_{-0.050}$	$8.234^{+0.798}_{-1.995}$	$3.237^{+0.211}_{-0.421}$	$0.008^{+0.008}_{-0.002}$
	+6%/-8%	+6%/-2%	+120%/-10%	+10%/-24%	+7%/-13%	+94%/-21%
Source	SPE4	SPE4	SPE4	DSEP		

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

Secondary Eclipse Parameters for KIC 008583770-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$61.38^{+68.49}_{-40.27}$	5042^{+379}_{-458}	-4633^{+59976}_{-49952}	$-0.034^{+190.615}_{-163.767}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

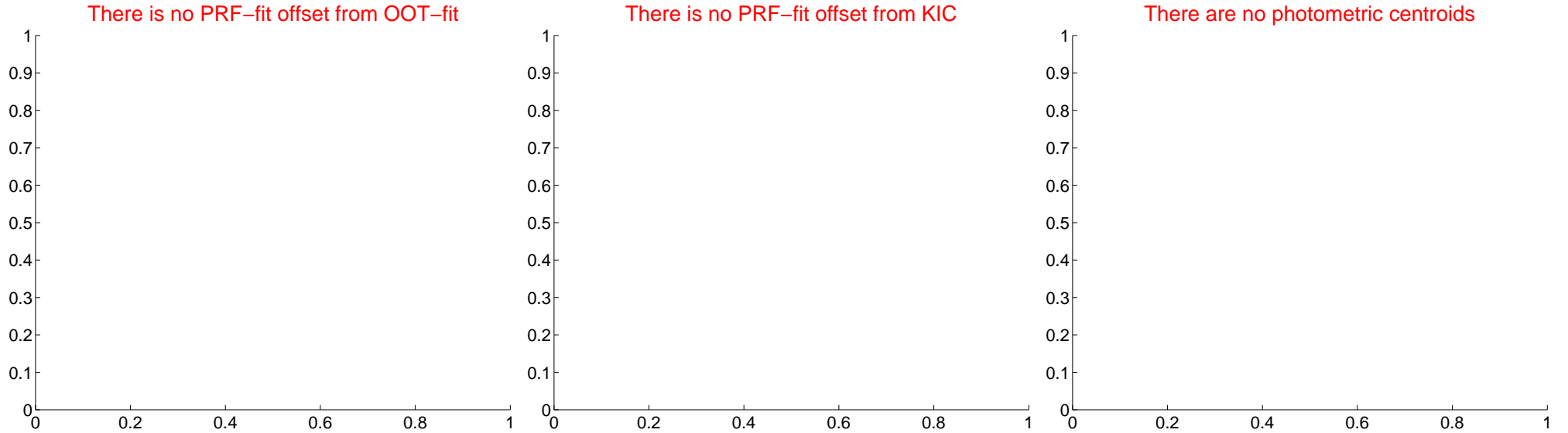
DV Centroid Data

Supplemental centroid analysis for 008583770-03. **Kepler magnitude: 10.14.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—



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.

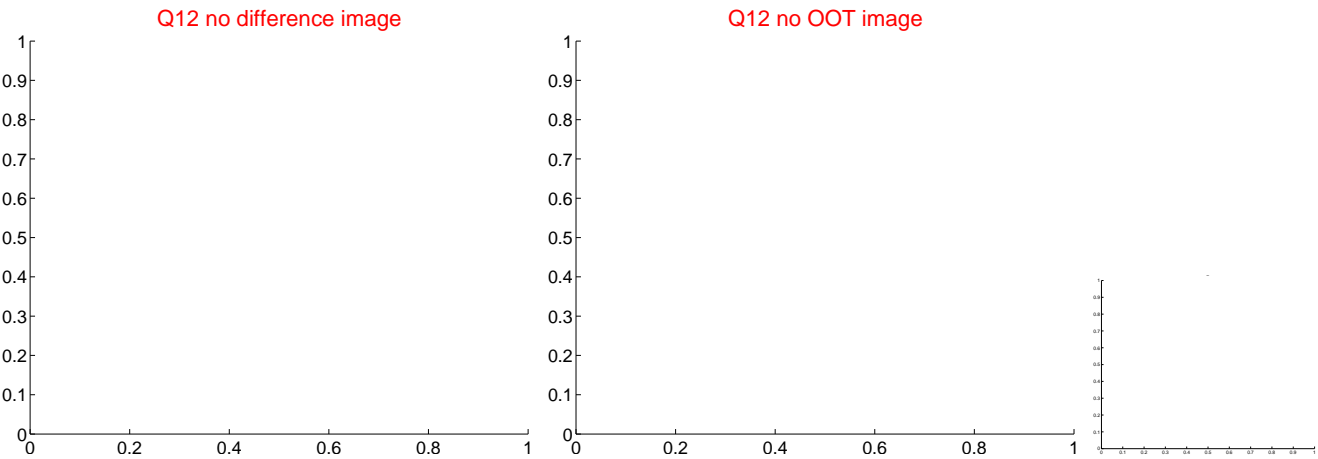
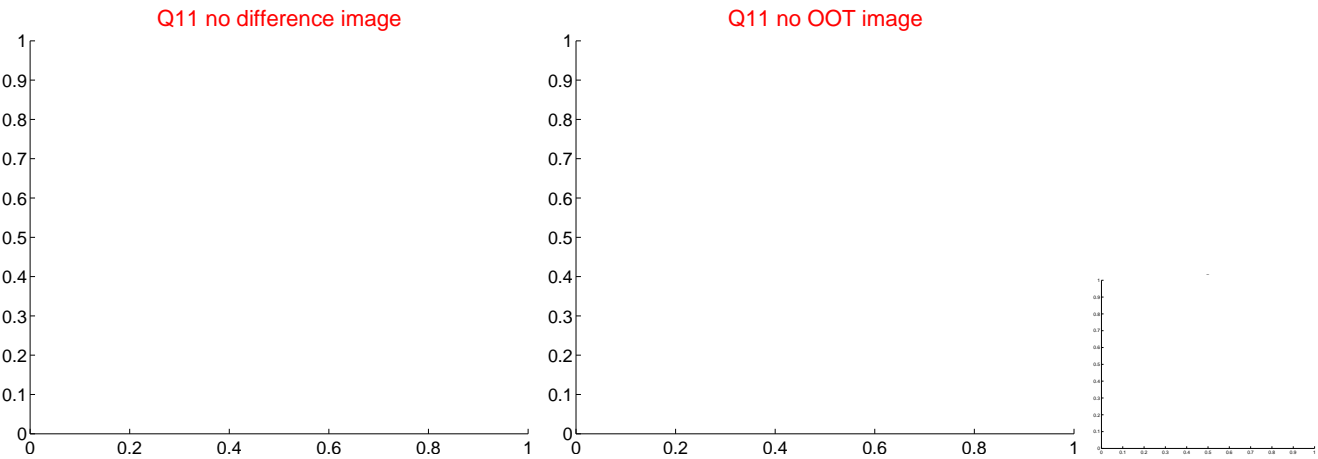
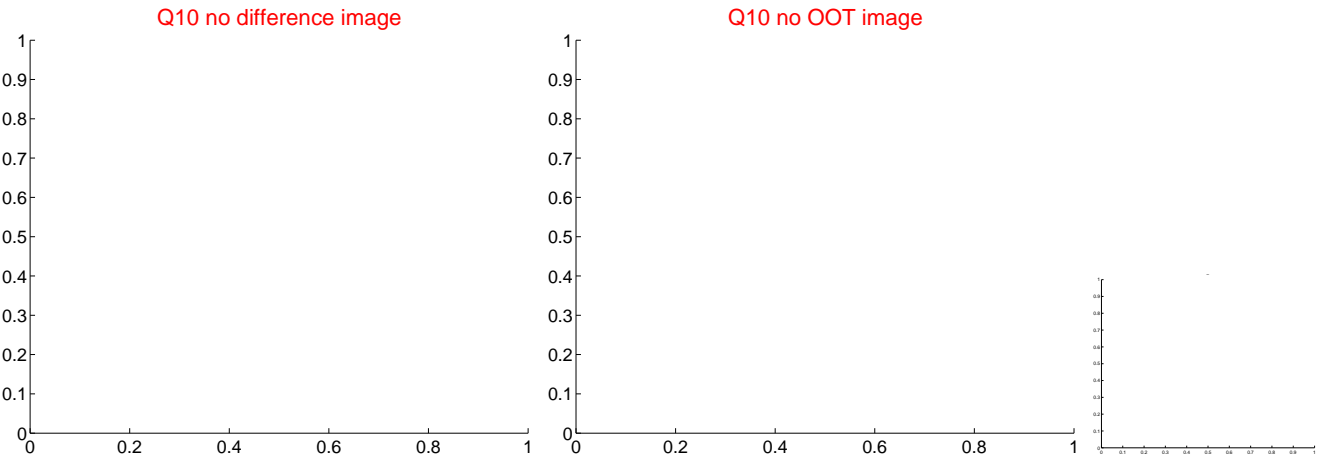
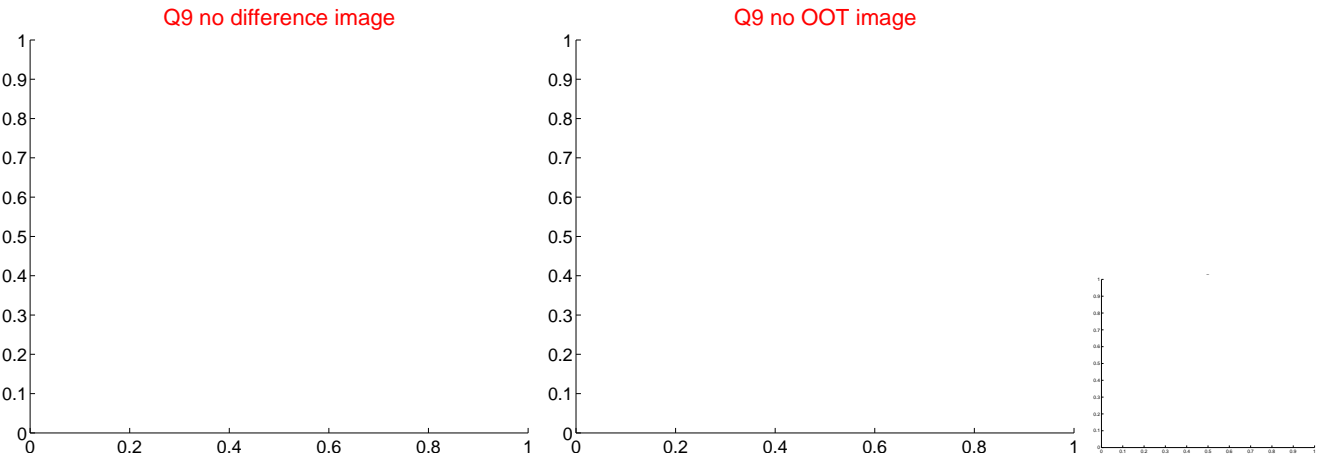
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



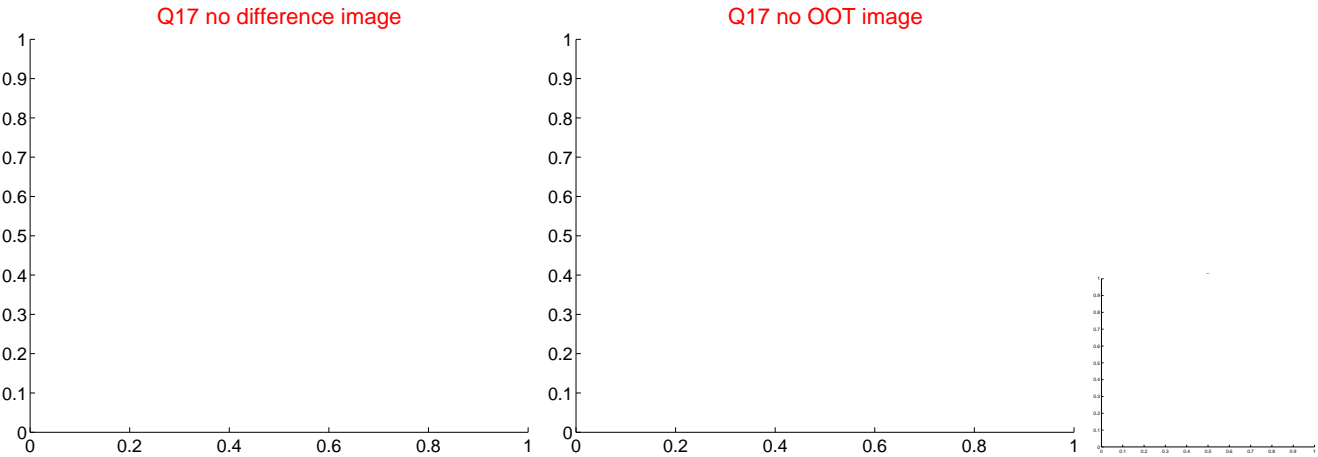
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



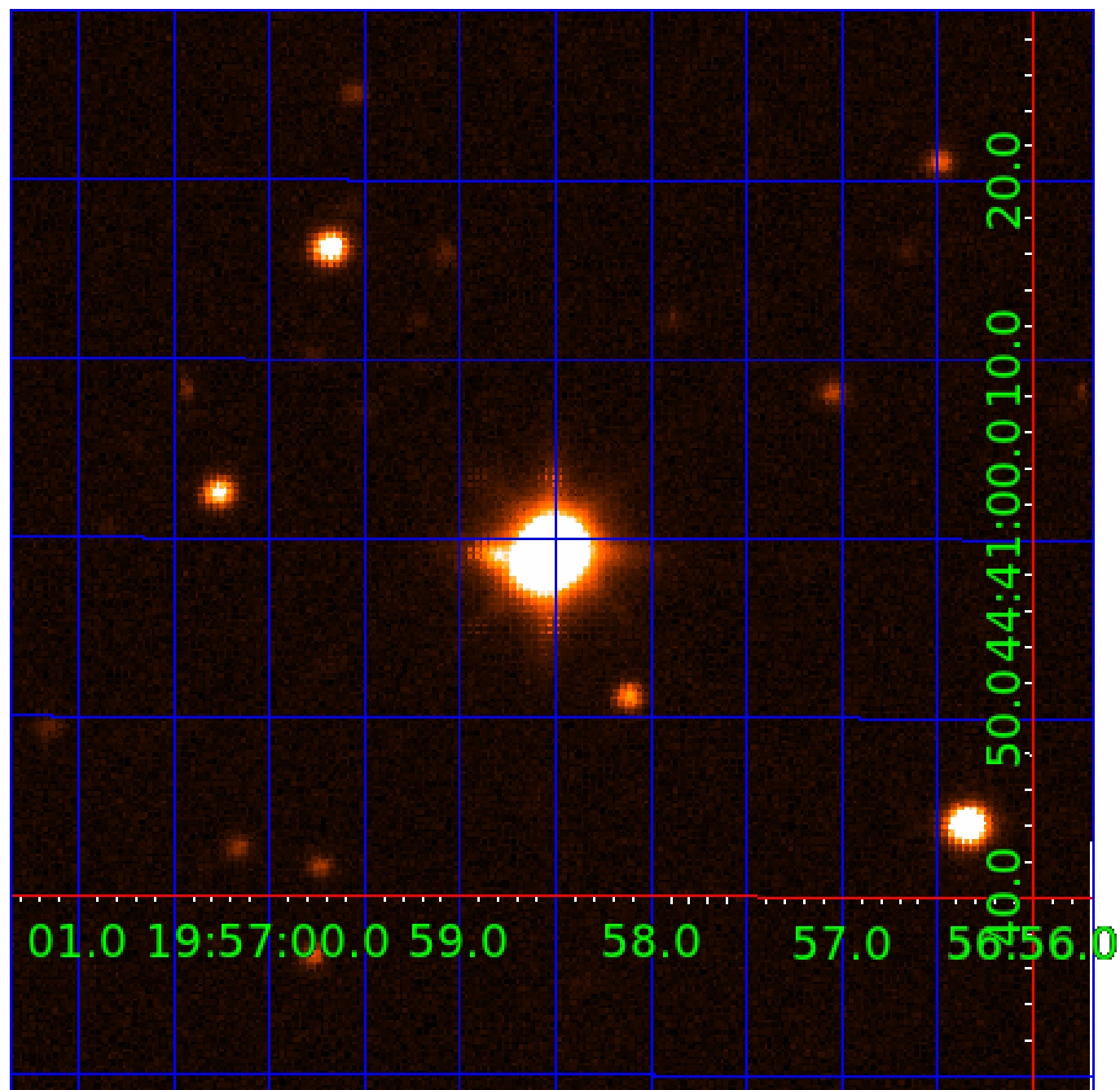
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 008583770

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})
008583770-01	OBS	No	0.690411	131.684372	7.1	5.248	11.1	9.9	8.23	8675	2.27	0.00
008583770-03	OBS	No	5.412970	134.079744	193.3	1.500	18.3	-1.0	8.23	8675	11.67	43165.03
008583770-04	OBS	No	5.548257	136.831697	97.1	1.581	13.3	14.1	8.23	8675	8.27	41767.40
008583770-05	OBS	No	5.086643	134.889509	155.9	1.162	10.3	19.8	8.23	8675	10.54	46896.23
008583770-07	OBS	No	4.051705	135.150205	100.4	1.673	10.3	14.9	8.23	8675	9.61	63512.97
008583770-08	OBS	No	5.311337	134.863897	196.7	0.645	12.2	15.7	8.23	8675	12.01	44269.82
008583770-09	OBS	No	4.270565	131.884110	79.0	2.000	10.4	-1.0	8.23	8675	7.45	59210.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008583770-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
008583770-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED
008583770-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

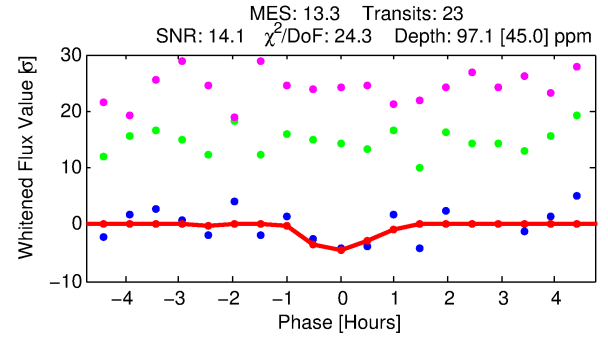
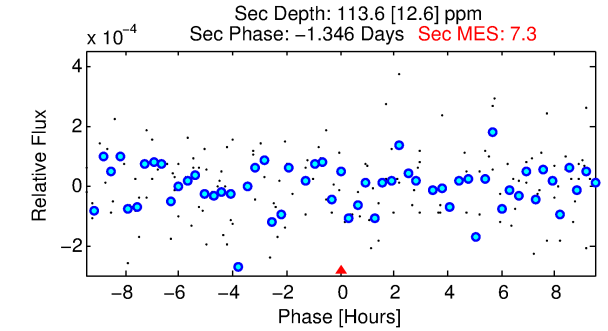
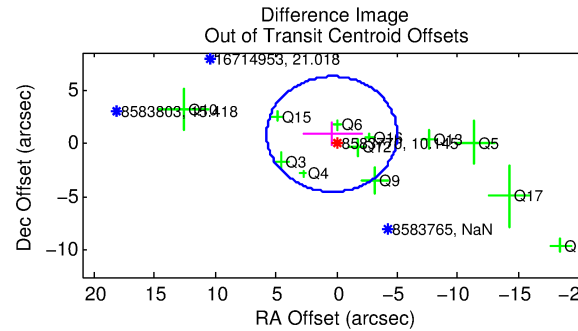
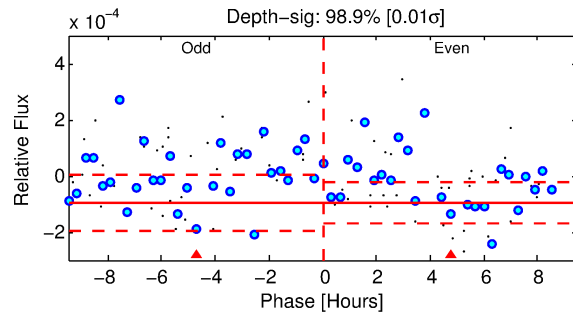
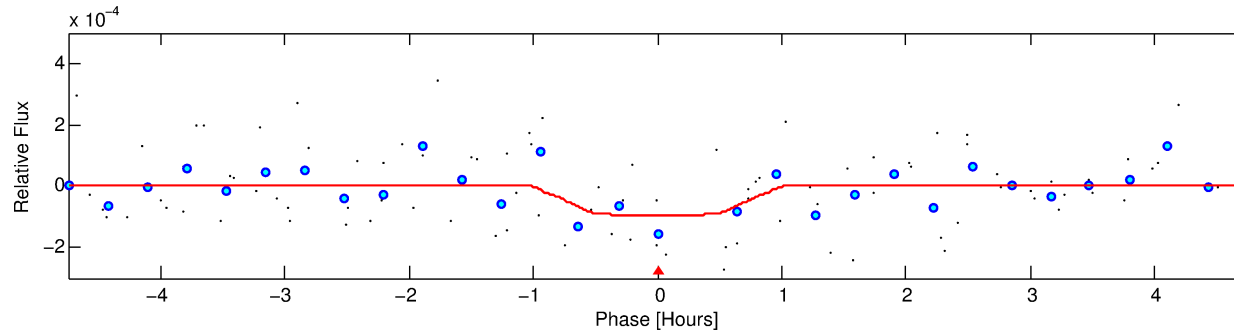
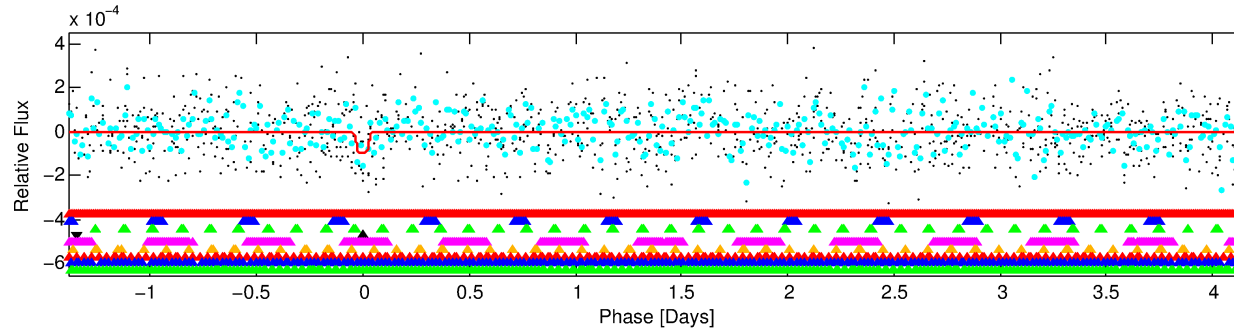
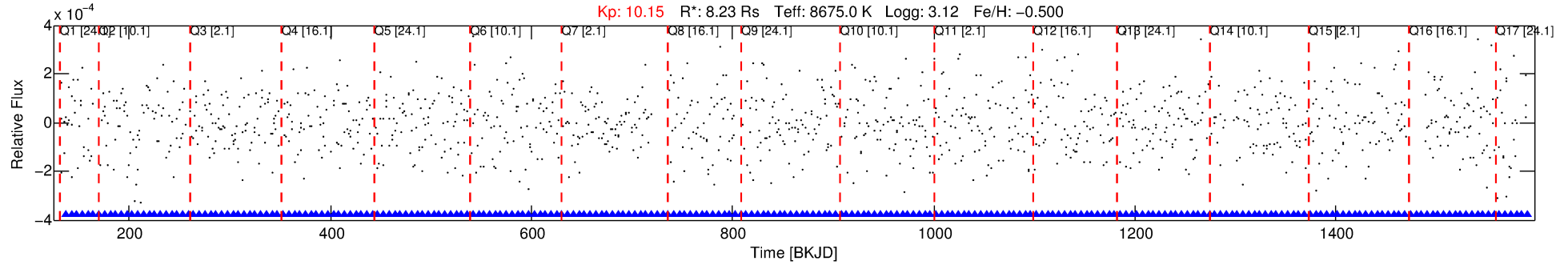
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008583770-04

No Significant Match Found

DV One-Page Summary

KIC: 8583770 Candidate: 4 of 9 Period: 5.548 d



DV Fit Results:

Period = 5.54826 [0.00014] d
Epoch = 136.8317 [0.0154] BKJD
Rp/R* = 0.0092 [0.0503]
a/R* = 26.96 [907.33]
b = 0.09 [368.09]
Seff = 41767.40 [19159.18]
Teq = 3645 [418] K
Rp = 8.27 [45.22] Re
a = 0.0908 [0.0194] AU
Ag = 7.53 [82.37] [0.08 σ]
Teffp = 9337 [25527] K [0.22 σ]

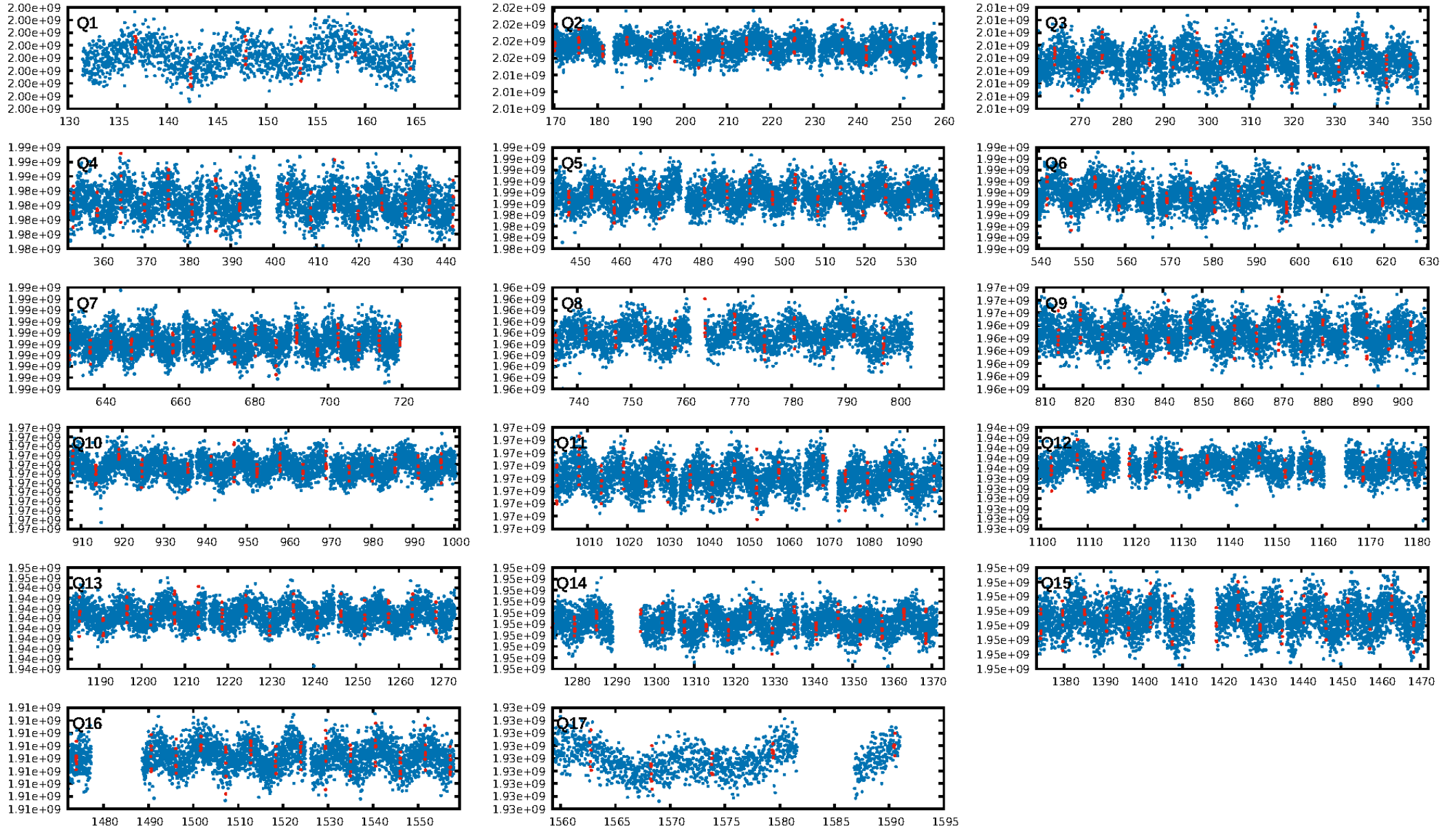
DV Diagnostic Results:

ShortPeriod-sig: 86.4% [1.49 σ]
LongPeriod-sig: 100.0% [61.97 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [20/20]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 0.127 arcsec [0.41 σ]
OotOffset-rm: 0.935 arcsec [0.52 σ]
KicOffset-rm: 0.802 arcsec [1.26 σ]
OotOffset-st: 3/2/3/4 [12]
KicOffset-st: 3/2/3/4 [12]
DiffImageQuality-fgm: 0.08 [1/12]
DiffImageOverlap-fno: 0.06 [1/17]

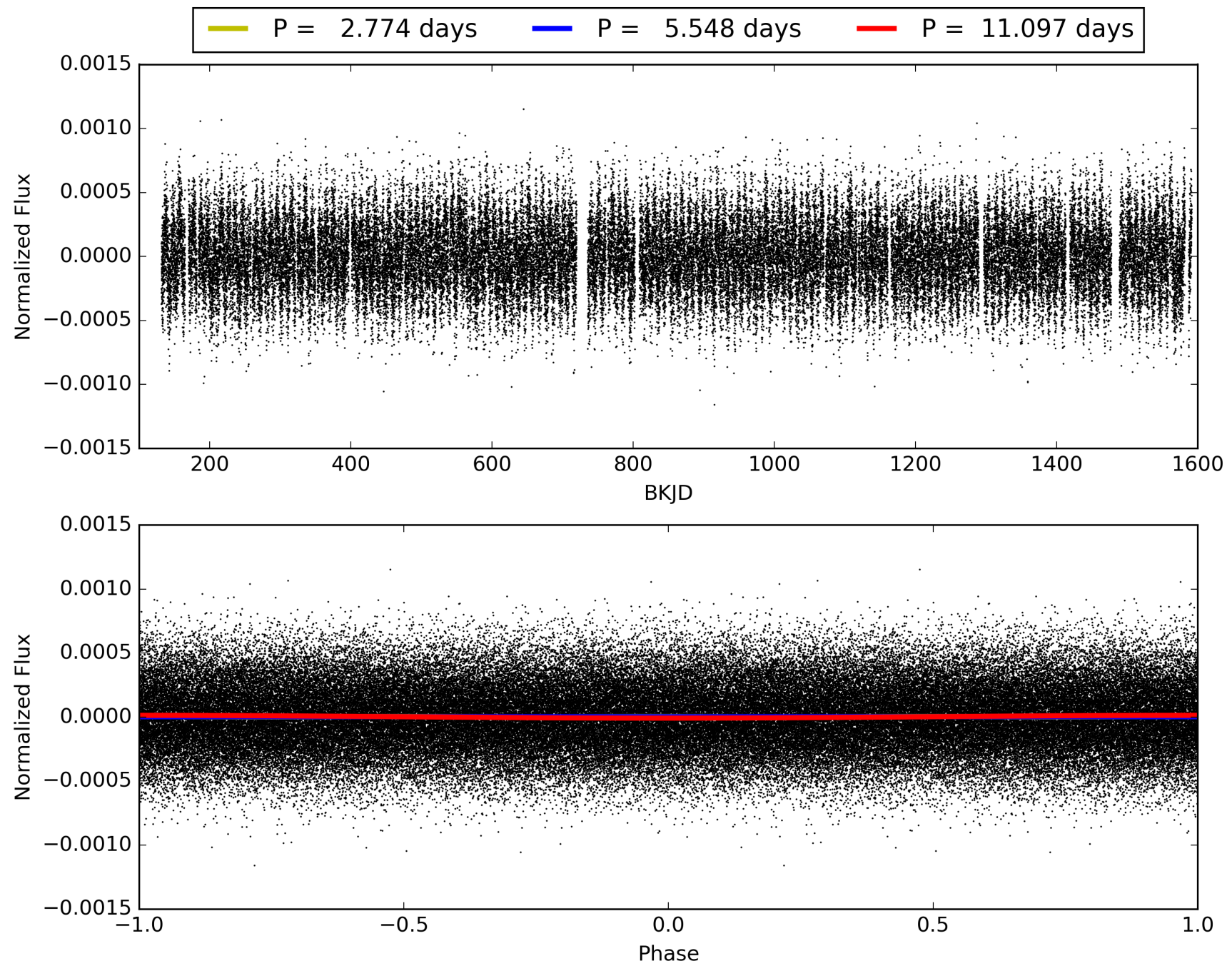
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:34:02 Z

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

TCE 00583770-04, PDC Light Curves

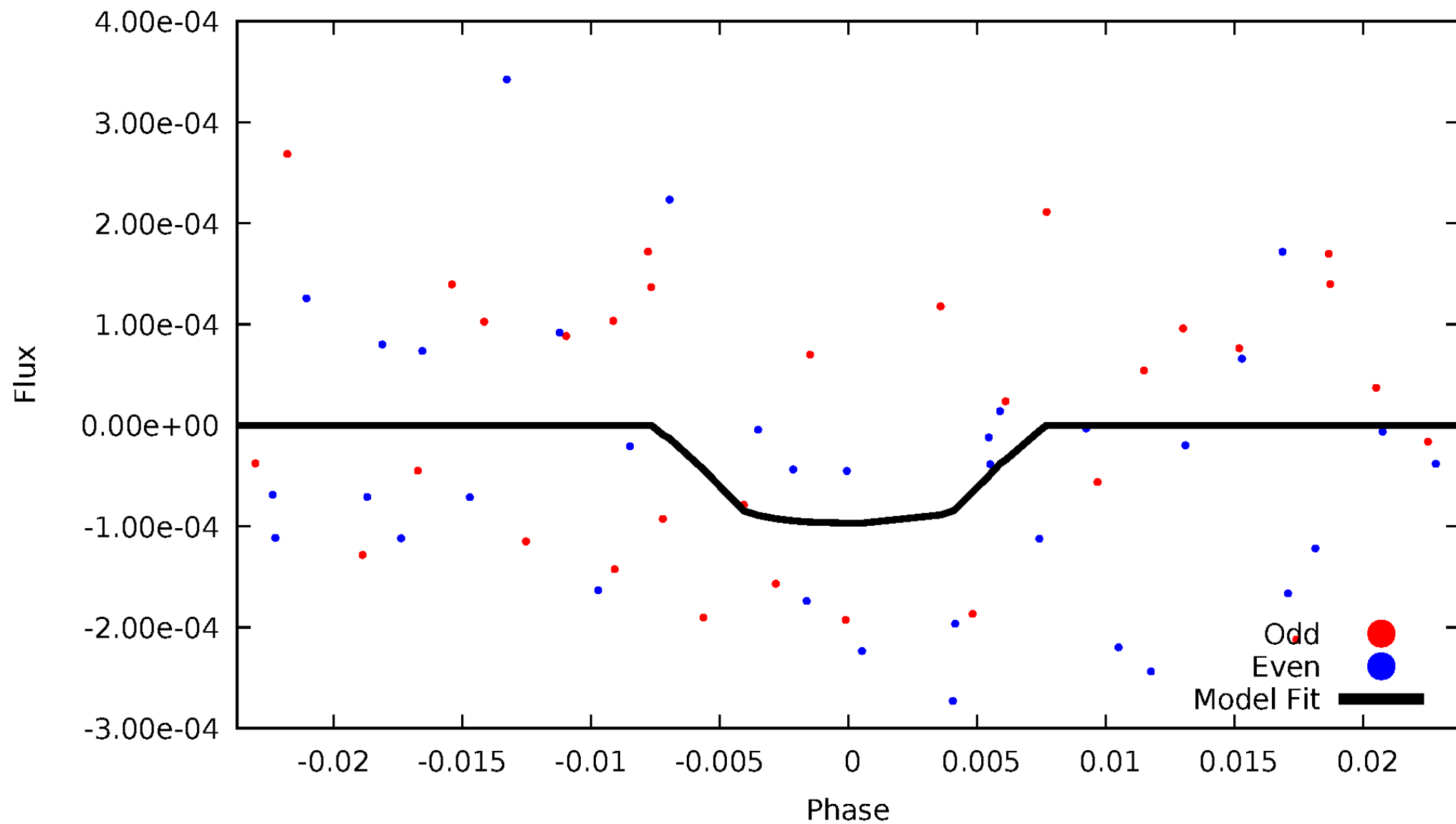


TCE 008583770-04



DV Odd/Even

TCE 008583770-04

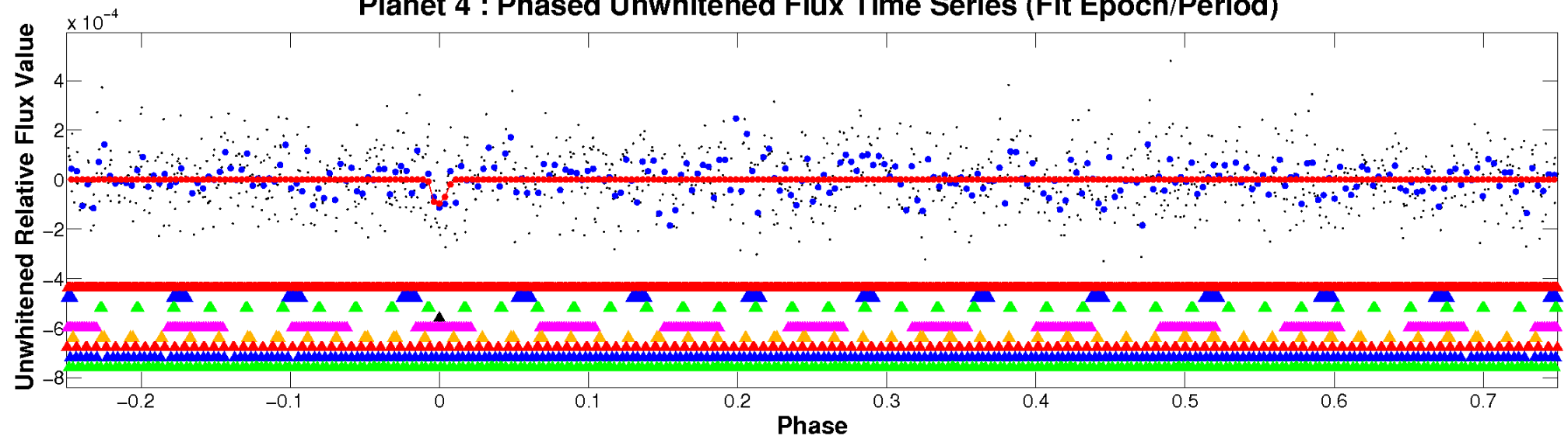


ALT Odd/Even

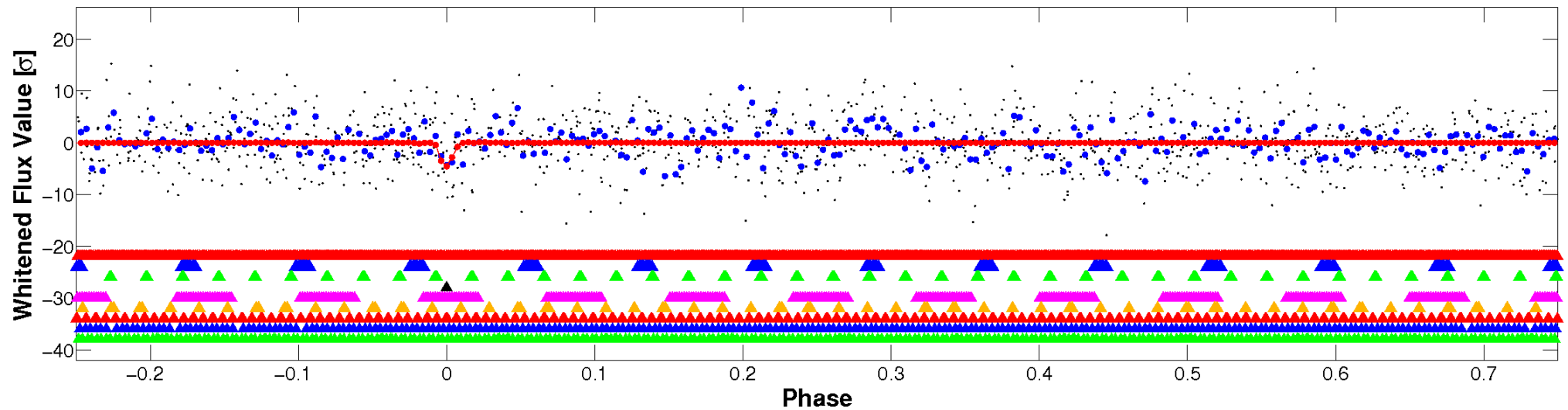
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

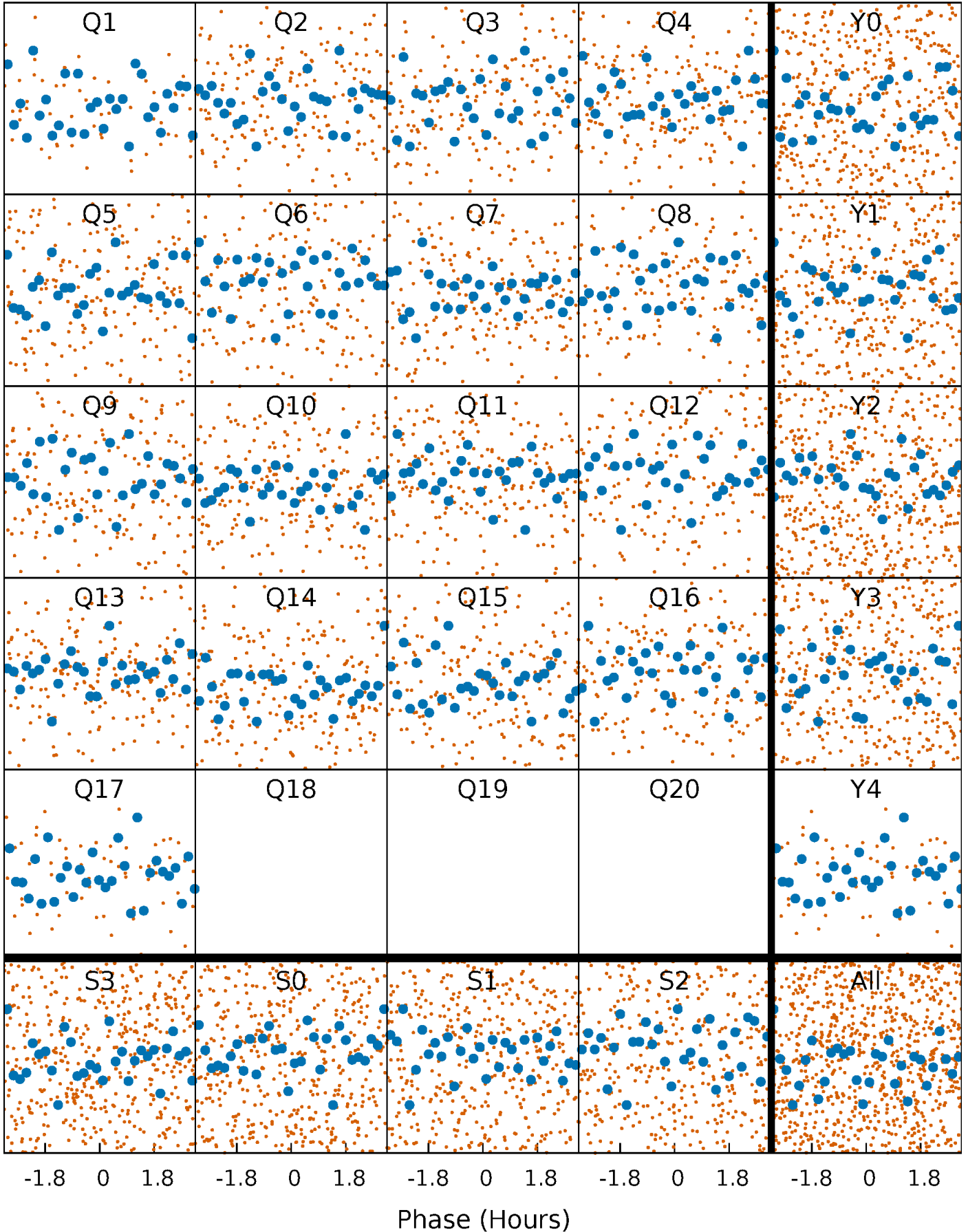


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



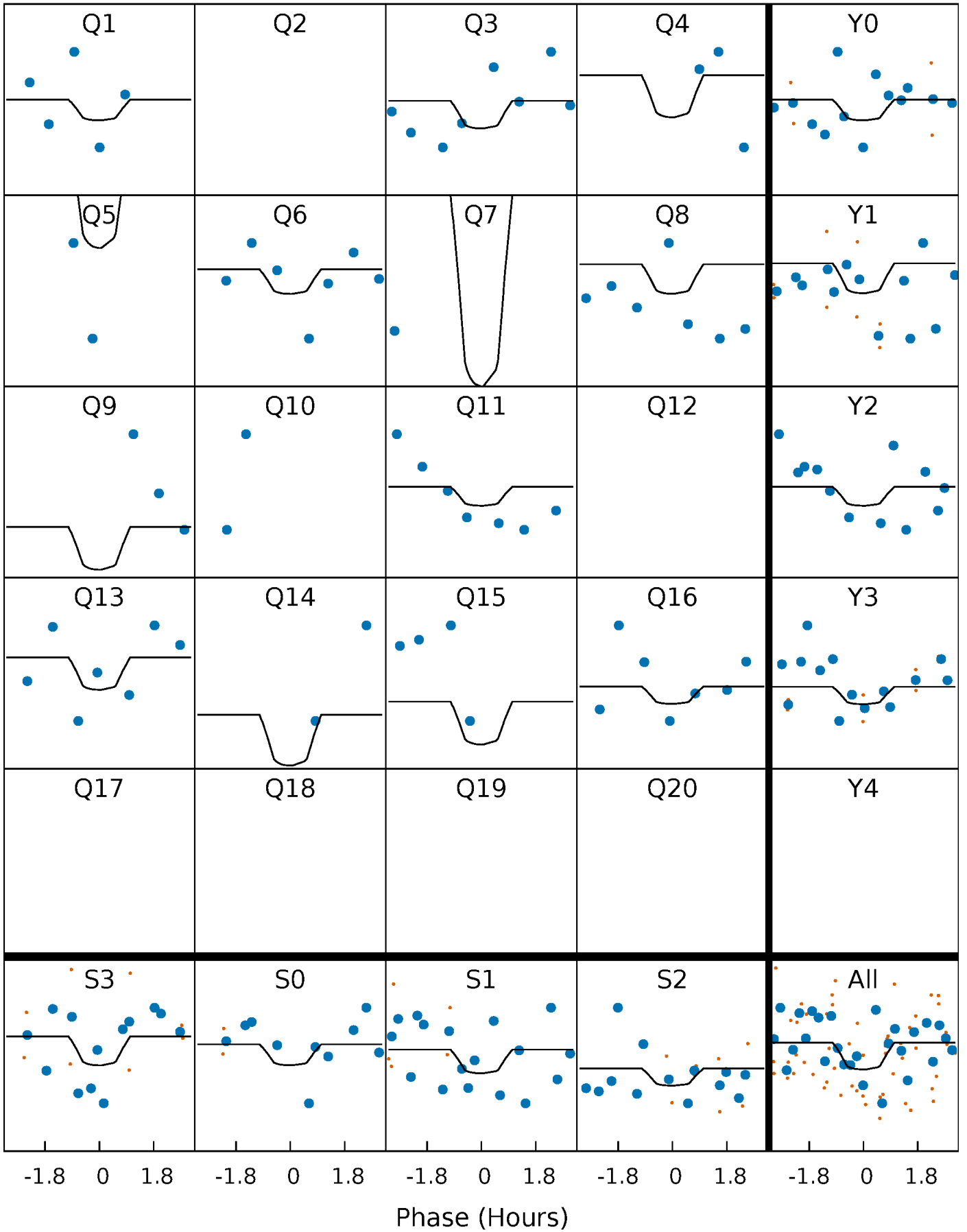
PDC Quarter-Phased Transit Curves

TCE 008583770-04 $P = 5.548257$ Days $T_0 = 136.831697$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008583770-04 P= 5.548257 Days $T_0=136.831697$ (BKJD)

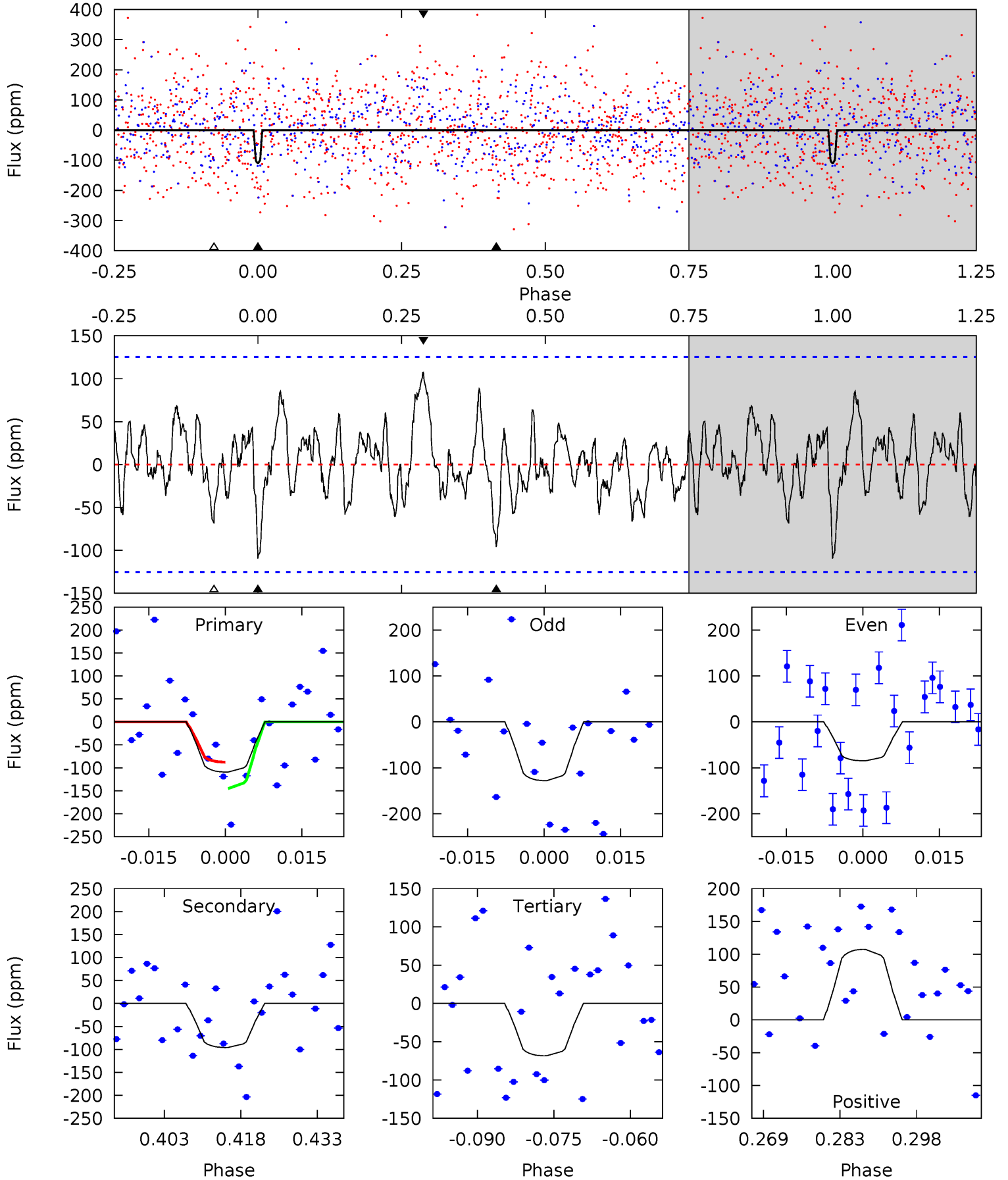


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008583770-04, P = 5.548257 Days, E = 131.283440 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.32	3.79	2.70	4.24	4.95	2.43	1.27	1.62	0.07	1.09	-0.45	0.84	0	0.50	1.13



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008583770

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8675^{+514}_{-707}	$3.117^{+0.182}_{-0.065}$	$-0.500^{+0.600}_{-0.050}$	$8.234^{+0.798}_{-1.995}$	$3.237^{+0.211}_{-0.421}$	$0.008^{+0.008}_{-0.002}$
	+6%/-8%	+6%/-2%	+120%/-10%	+10%/-24%	+7%/-13%	+94%/-21%
Source	SPE4	SPE4	SPE4	DSEP		

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

Secondary Eclipse Parameters for KIC 008583770-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-96 ± 25	$36.04^{+33.74}_{-24.73}$	4981^{+406}_{-464}	2921^{+4125}_{-6857}	$0.334^{+2.953}_{-0.250}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

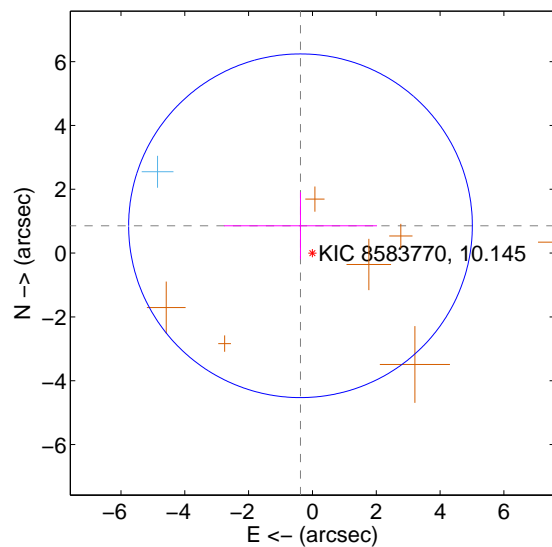
Supplemental centroid analysis for 008583770-04. **Kepler magnitude: 10.14.** Transit SNR 14.15

There are 1 quarters with good PRF difference image offsets

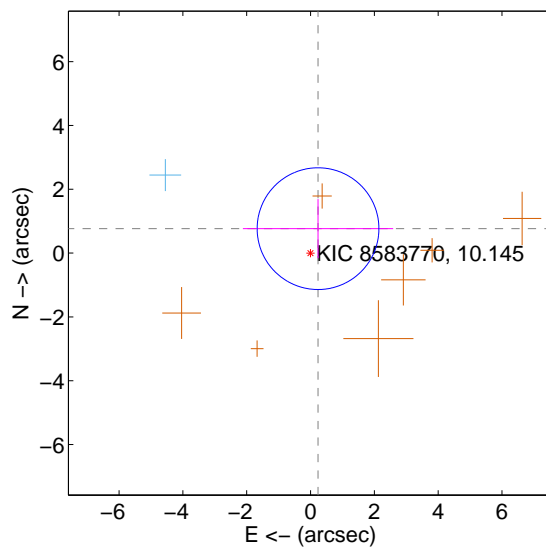
The direct PRF centroid is offset from the target star catalog position by about 1.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.935 ± 1.796	0.52	0.375 ± 2.398	0.857 ± 1.052
PRF-fit source offset from KIC position	0.802 ± 0.636	1.26	-0.235 ± 2.355	0.766 ± 0.926
photometric centroid source offset	0.13 ± 0.31	0.41	-0.09 ± 0.35	-0.09 ± 0.27

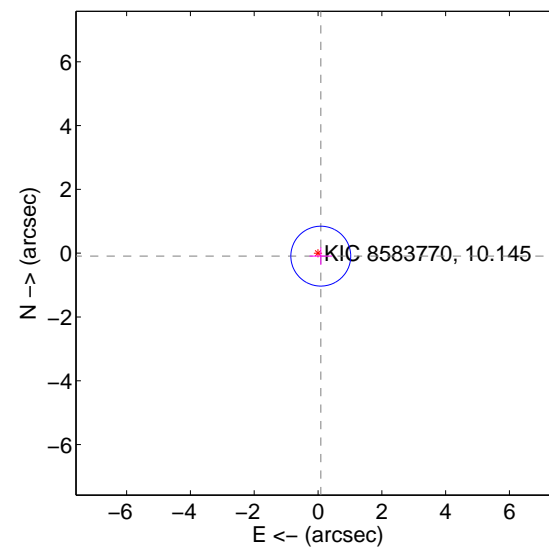
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

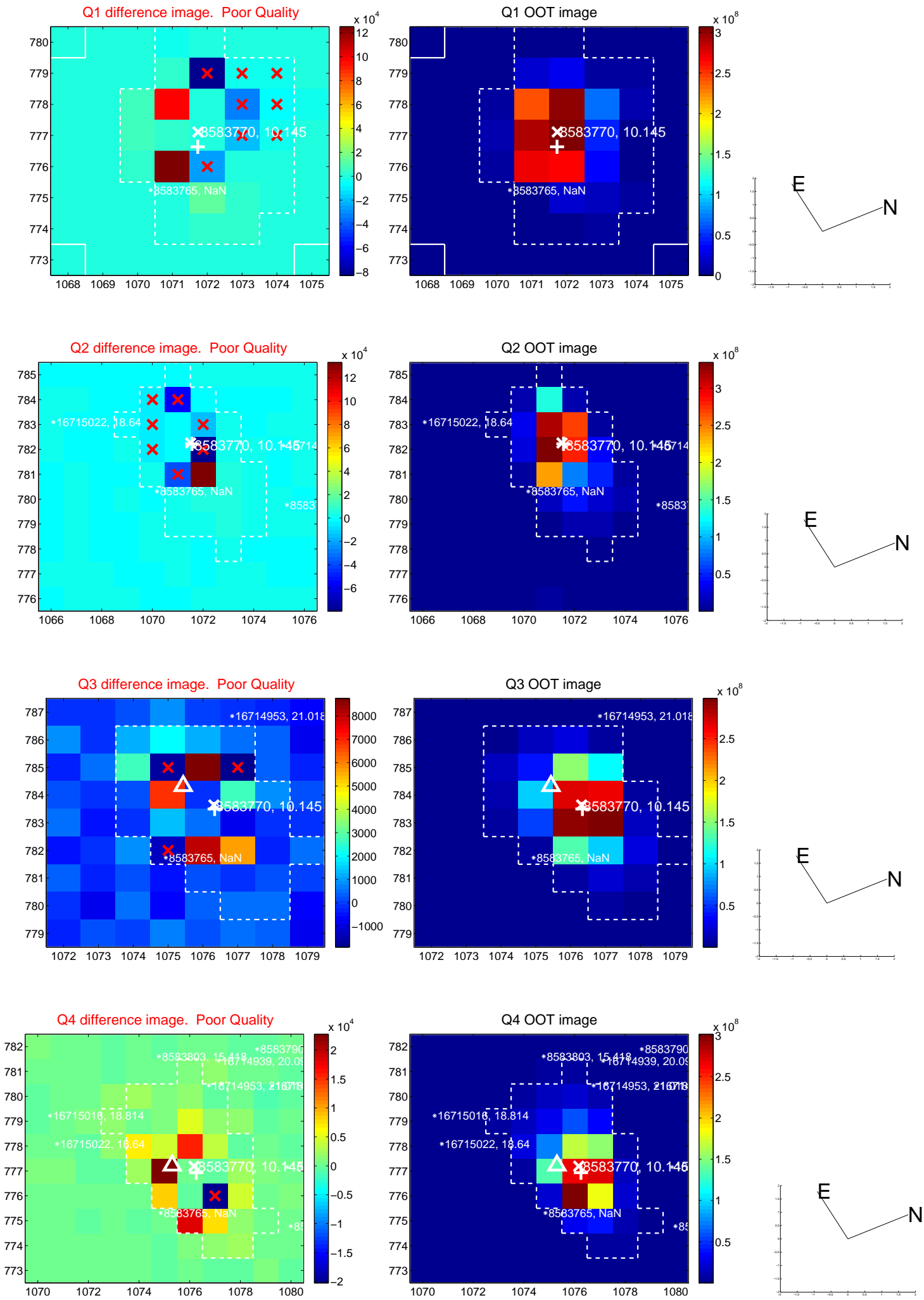


offset from photometric centroids

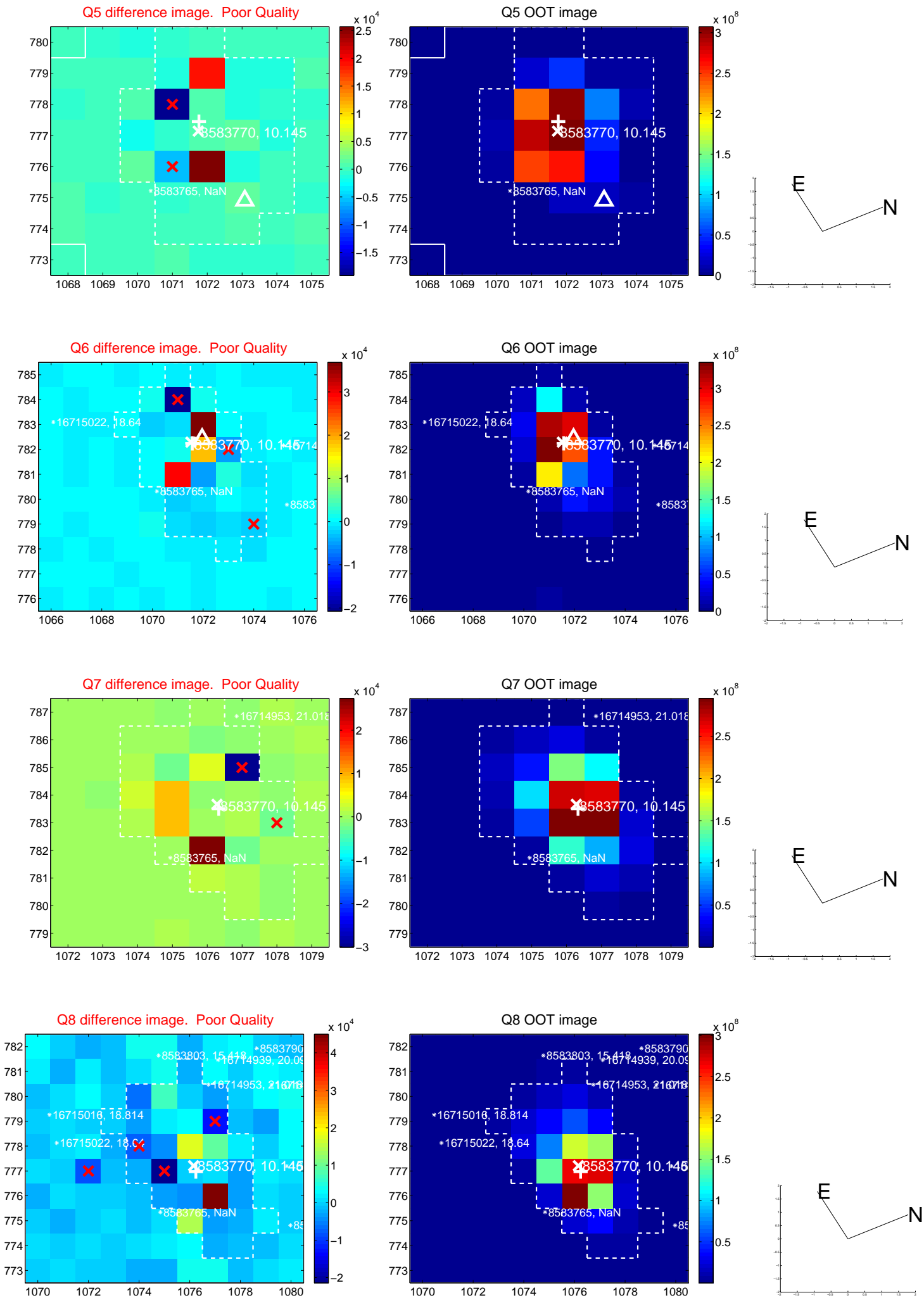


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

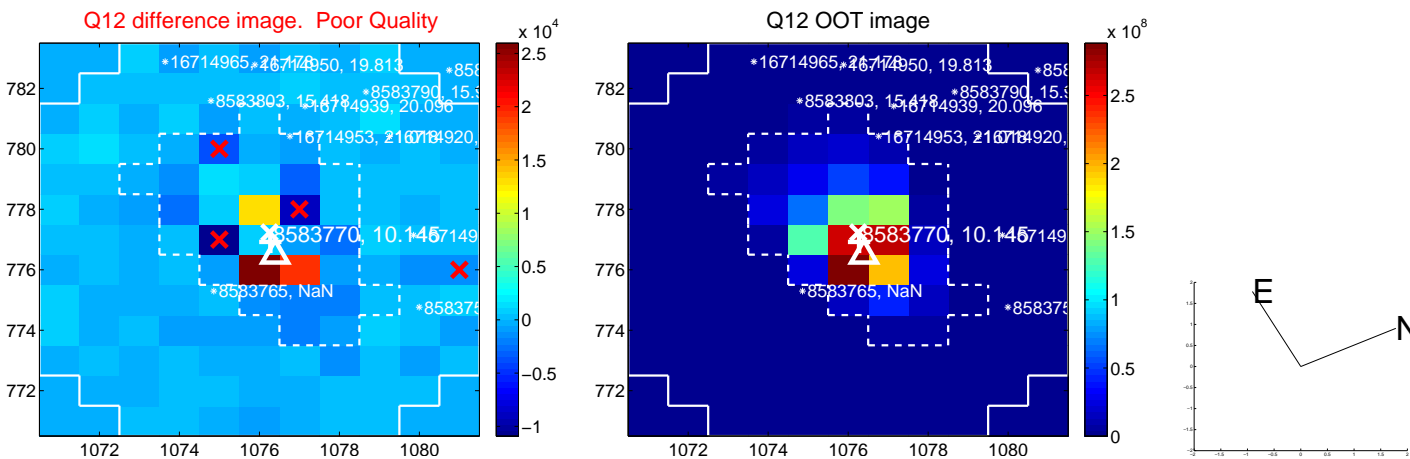
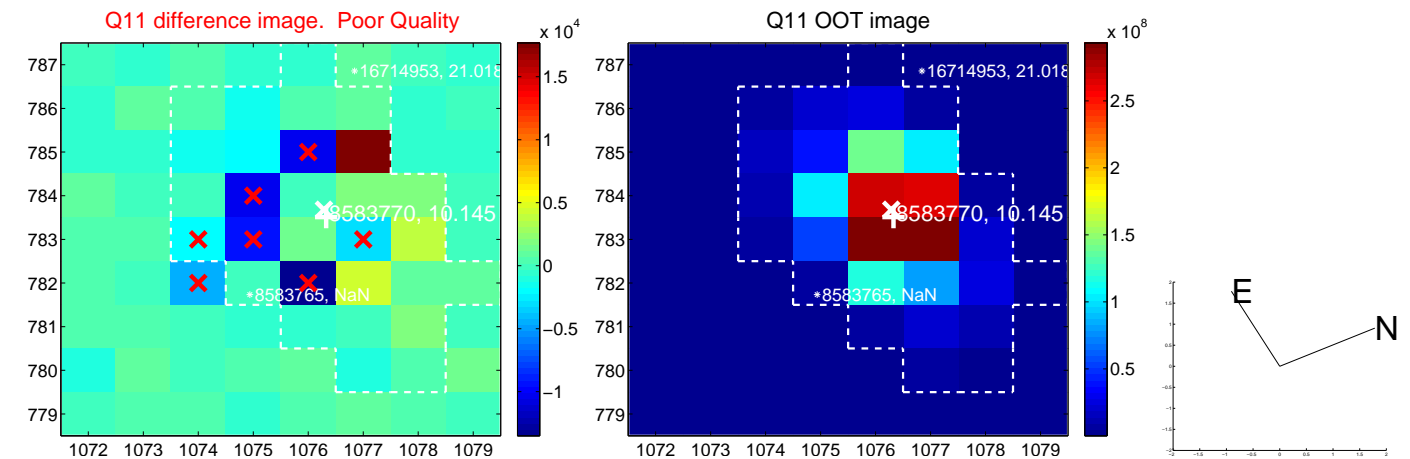
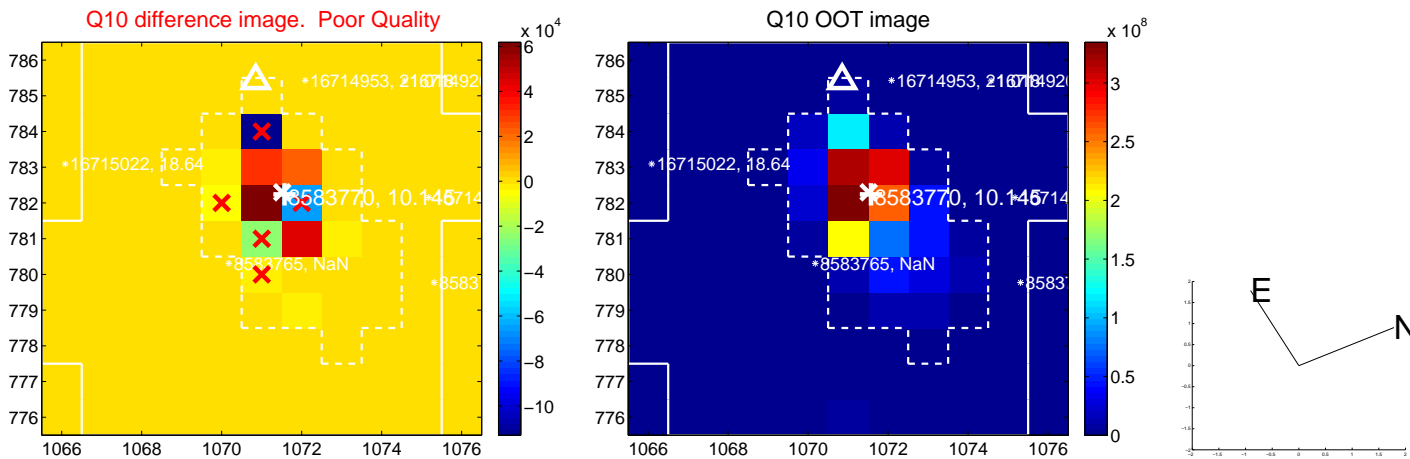
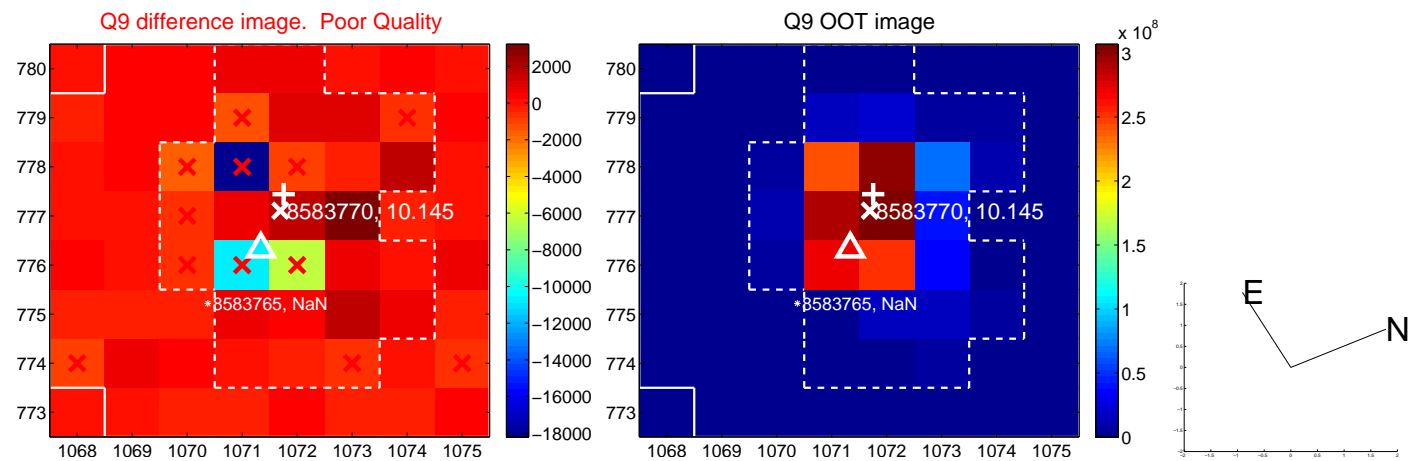
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



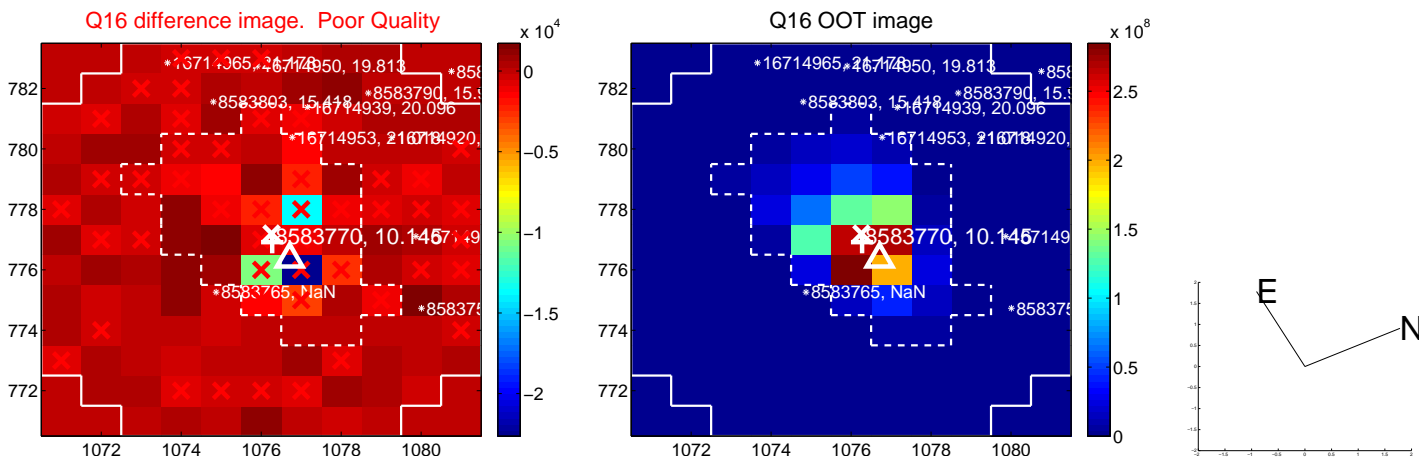
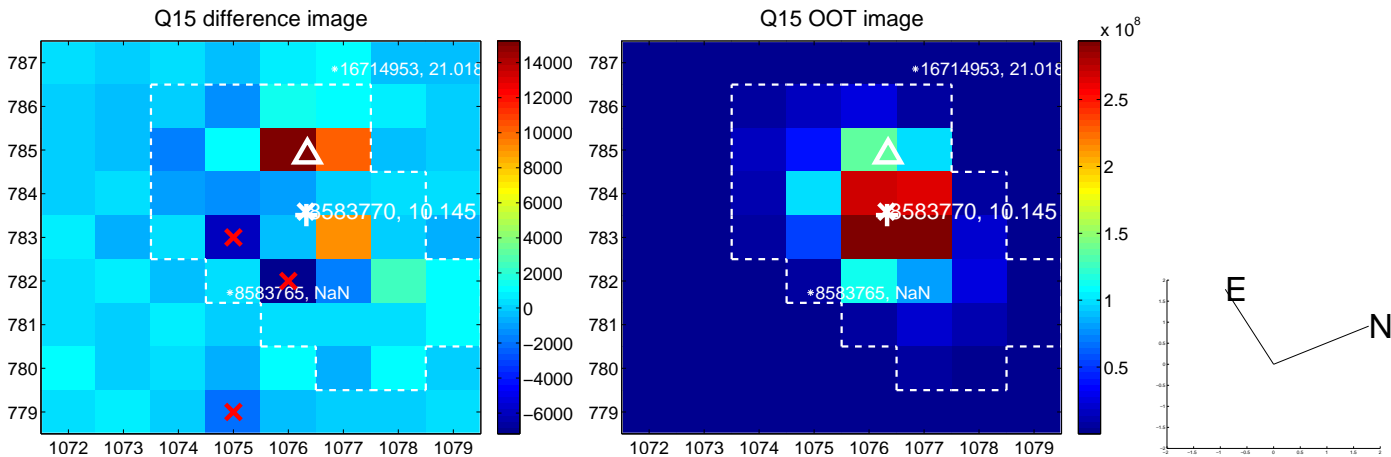
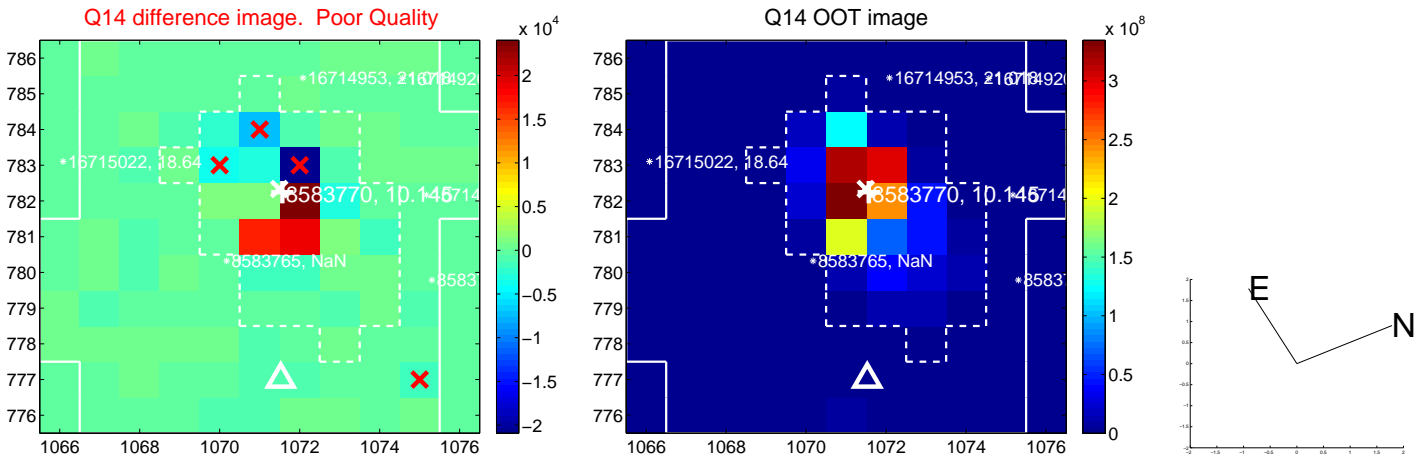
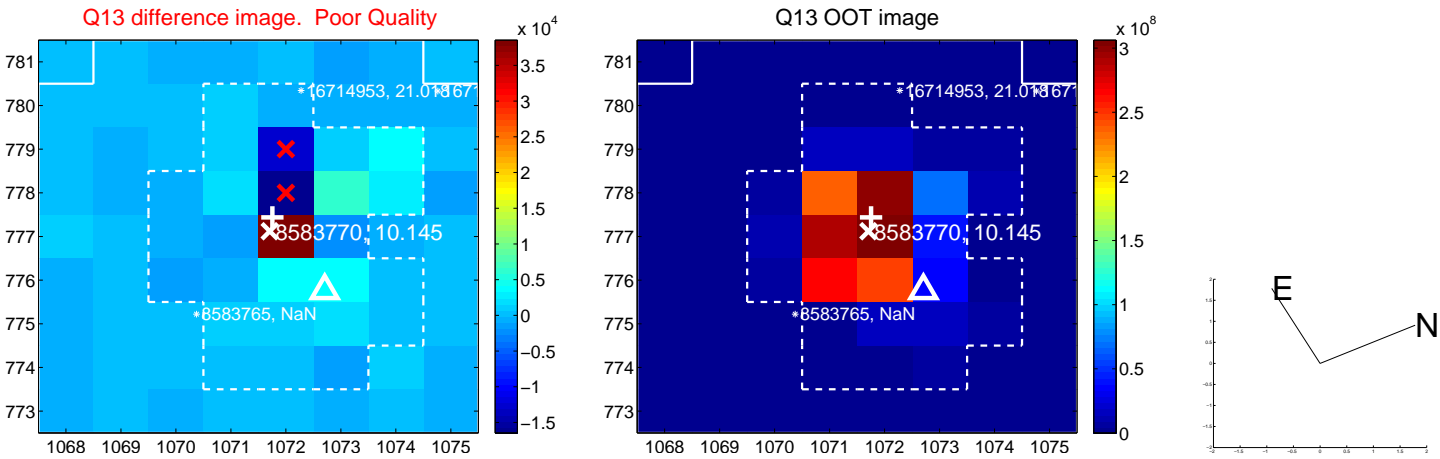
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



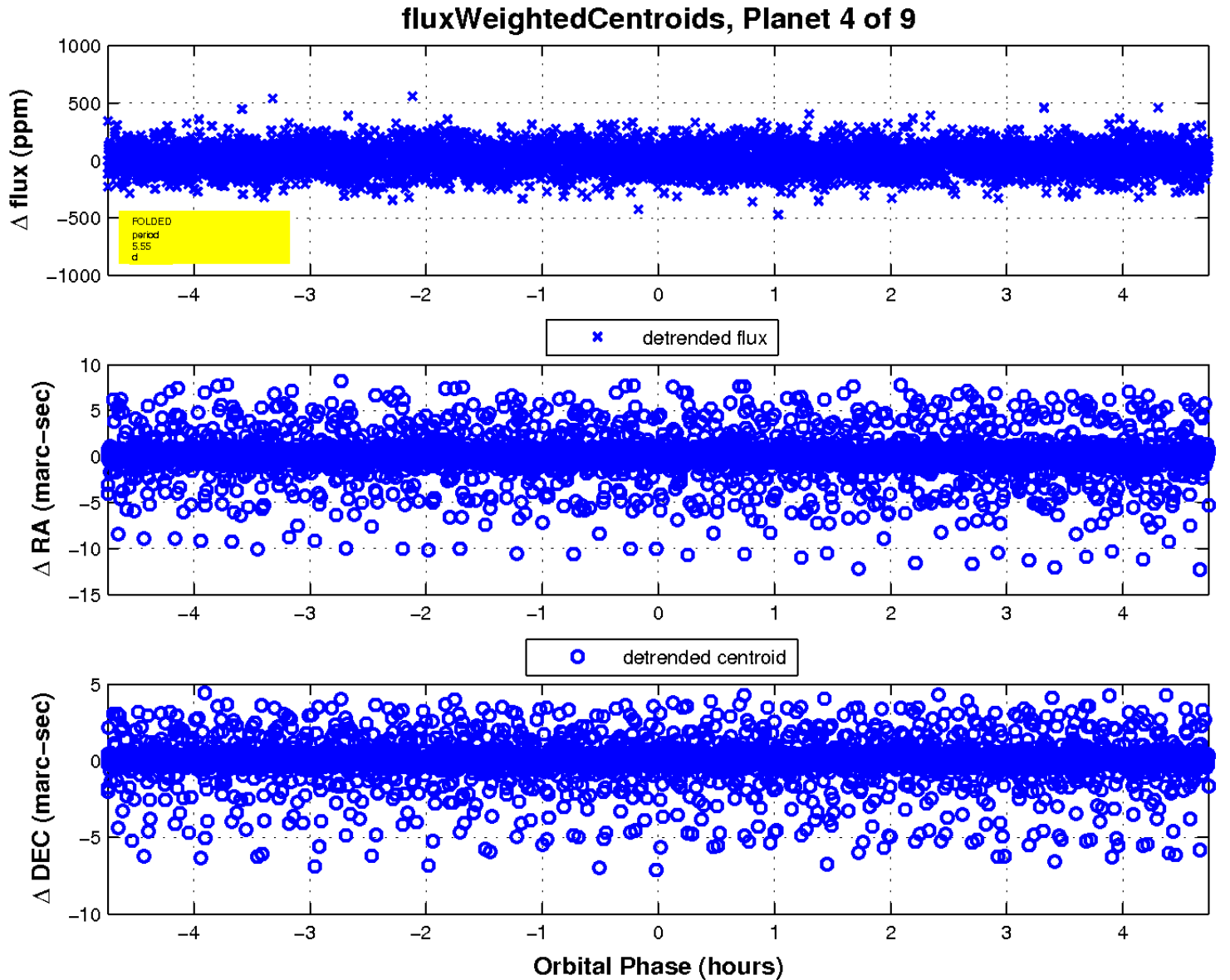
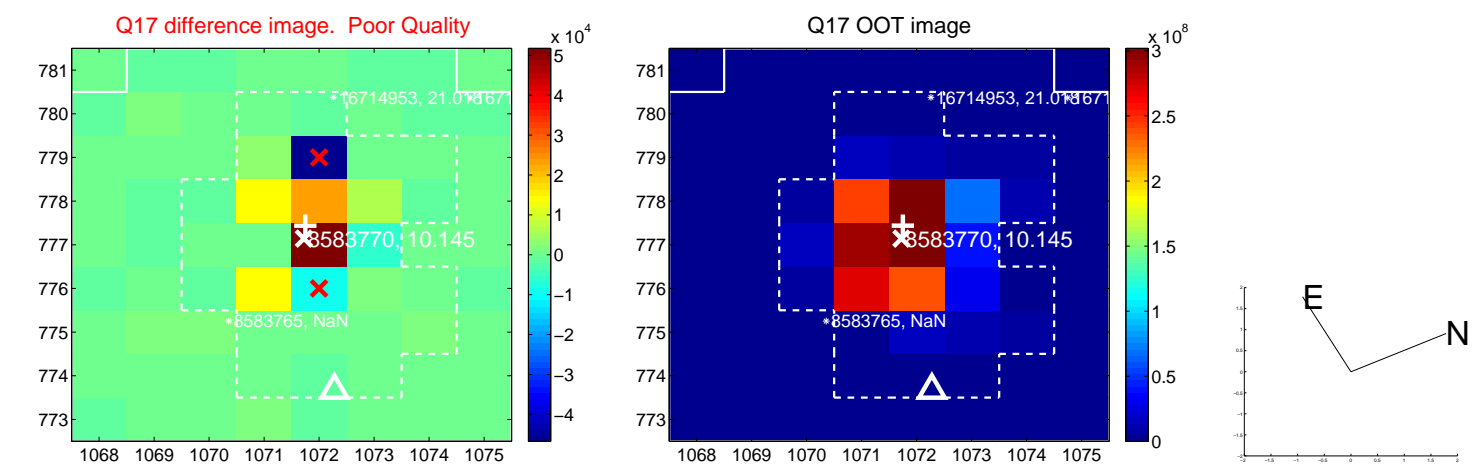
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

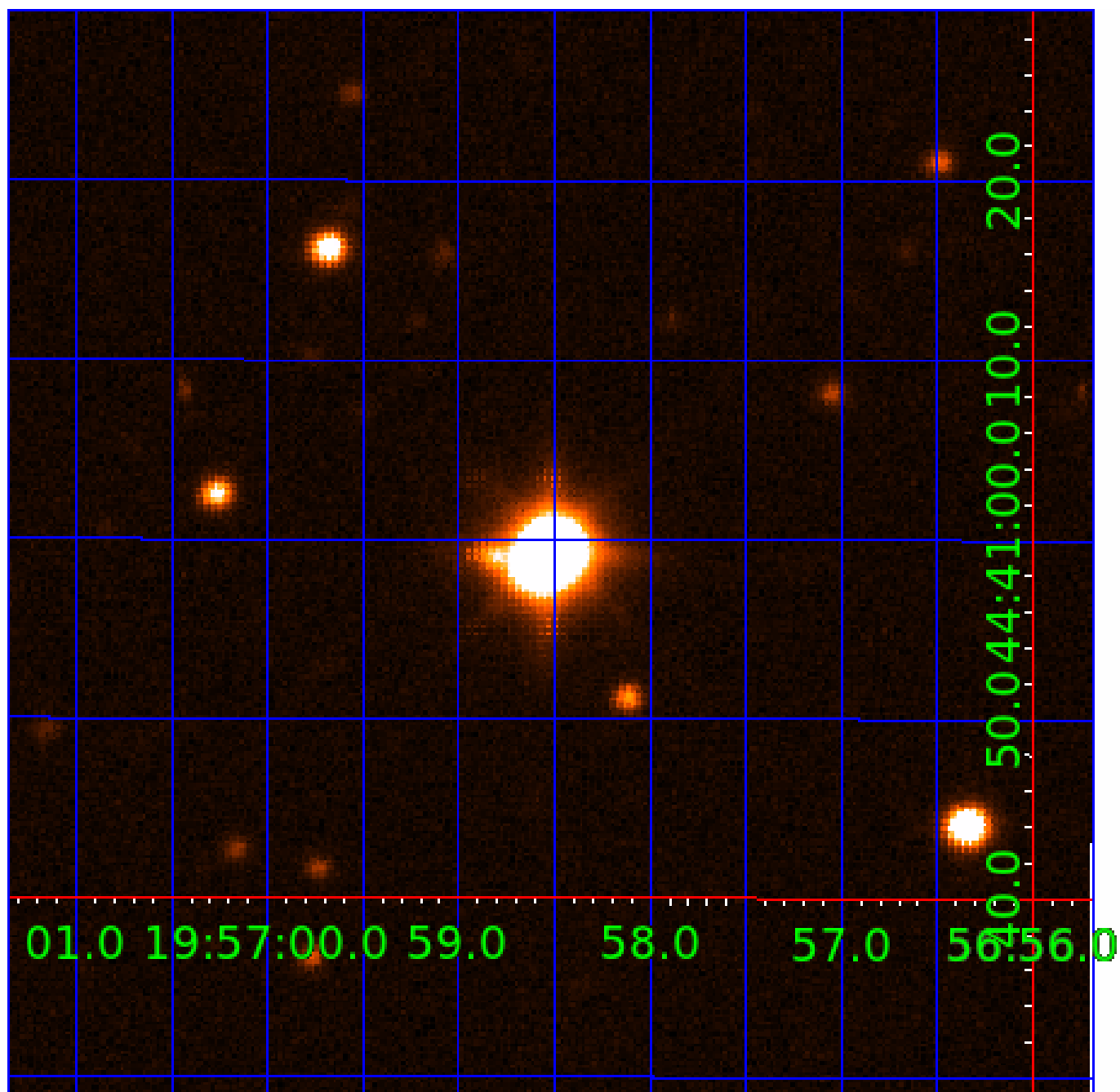


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008583770

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})
008583770-01	OBS	No	0.690411	131.684372	7.1	5.248	11.1	9.9	8.23	8675	2.27	0.00
008583770-03	OBS	No	5.412970	134.079744	193.3	1.500	18.3	-1.0	8.23	8675	11.67	43165.03
008583770-04	OBS	No	5.548257	136.831697	97.1	1.581	13.3	14.1	8.23	8675	8.27	41767.40
008583770-05	OBS	No	5.086643	134.889509	155.9	1.162	10.3	19.8	8.23	8675	10.54	46896.23
008583770-07	OBS	No	4.051705	135.150205	100.4	1.673	10.3	14.9	8.23	8675	9.61	63512.97
008583770-08	OBS	No	5.311337	134.863897	196.7	0.645	12.2	15.7	8.23	8675	12.01	44269.82
008583770-09	OBS	No	4.270565	131.884110	79.0	2.000	10.4	-1.0	8.23	8675	7.45	59210.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008583770-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
008583770-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED
008583770-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

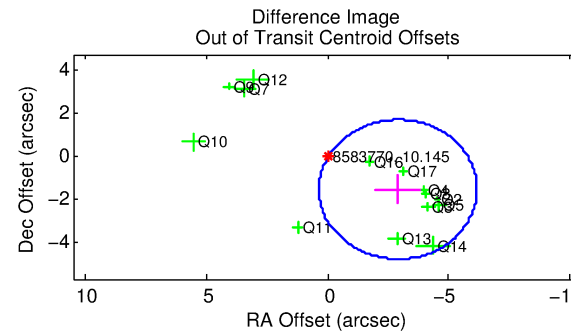
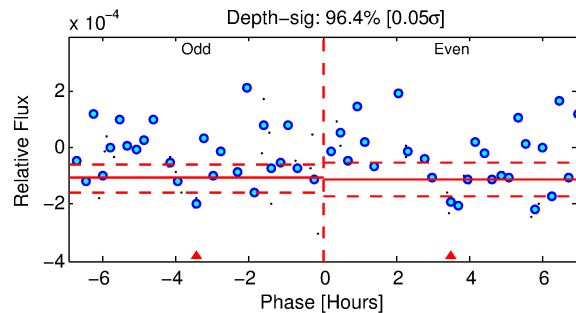
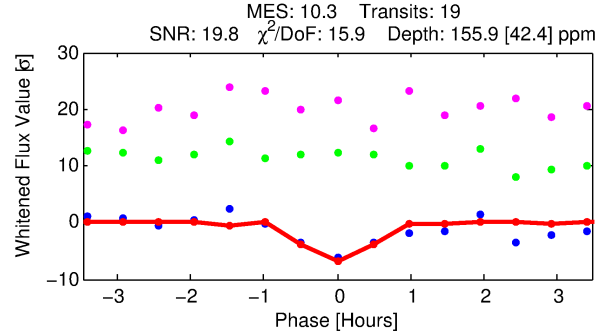
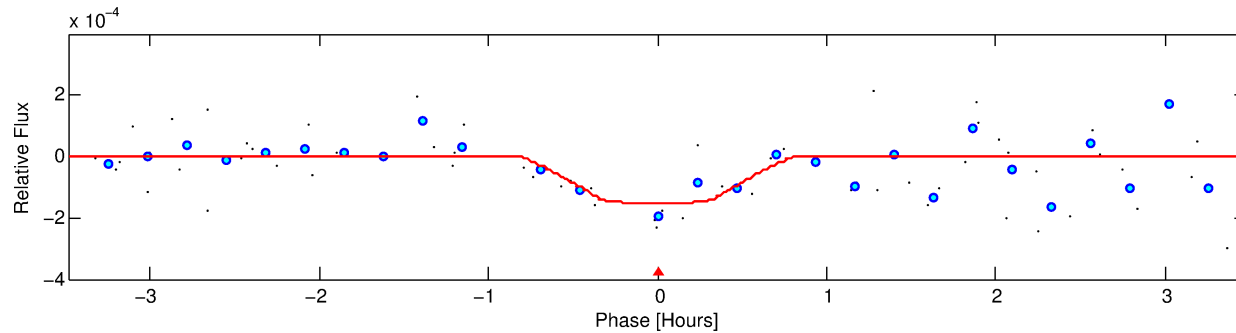
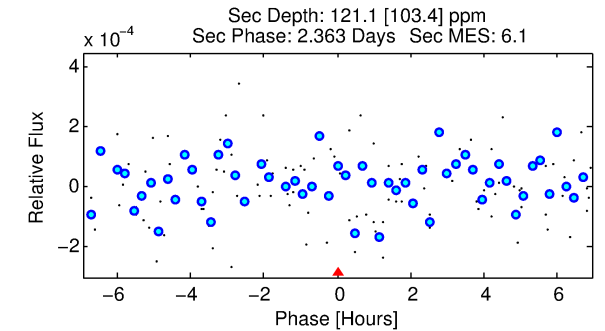
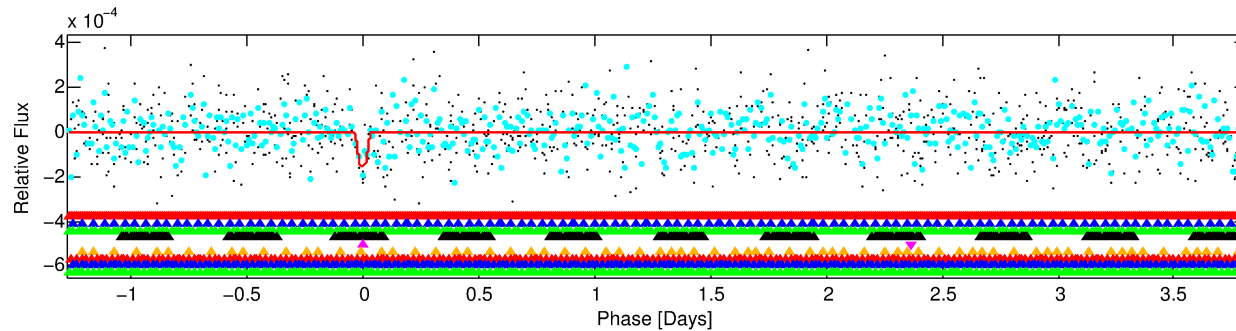
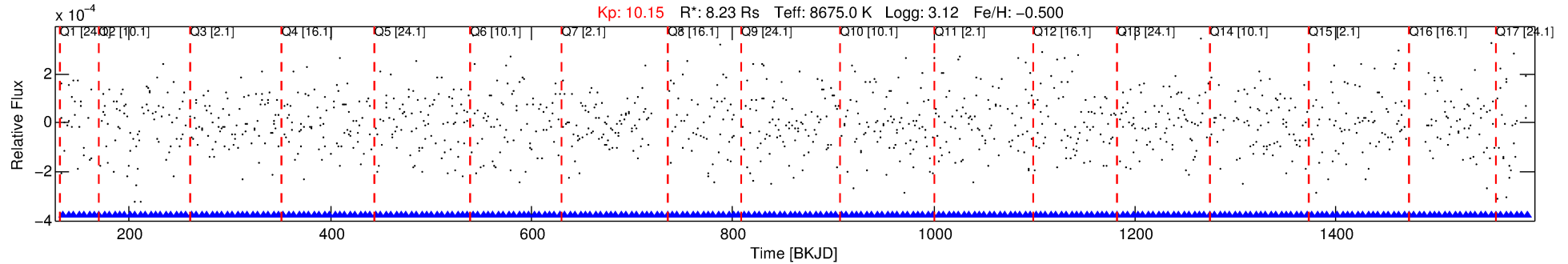
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008583770-05

No Significant Match Found

DV One-Page Summary

KIC: 8583770 Candidate: 5 of 9 Period: 5.087 d



DV Fit Results:

Period = 5.08664 [0.00007] d
Epoch = 134.8895 [0.0085] BKJD
Rp/R* = 0.0117 [0.0258]
a/R* = 32.88 [444.04]
b = 0.24 [53.21]
Seff = 46896.23 [21511.83]
Teff = 3752 [430] K
Rp = 10.54 [23.36] Re
a = 0.0856 [0.0183] AU
Ag = 4.40 [19.77] [0.17σ]
Teffp = 8400 [9446] K [0.49σ]

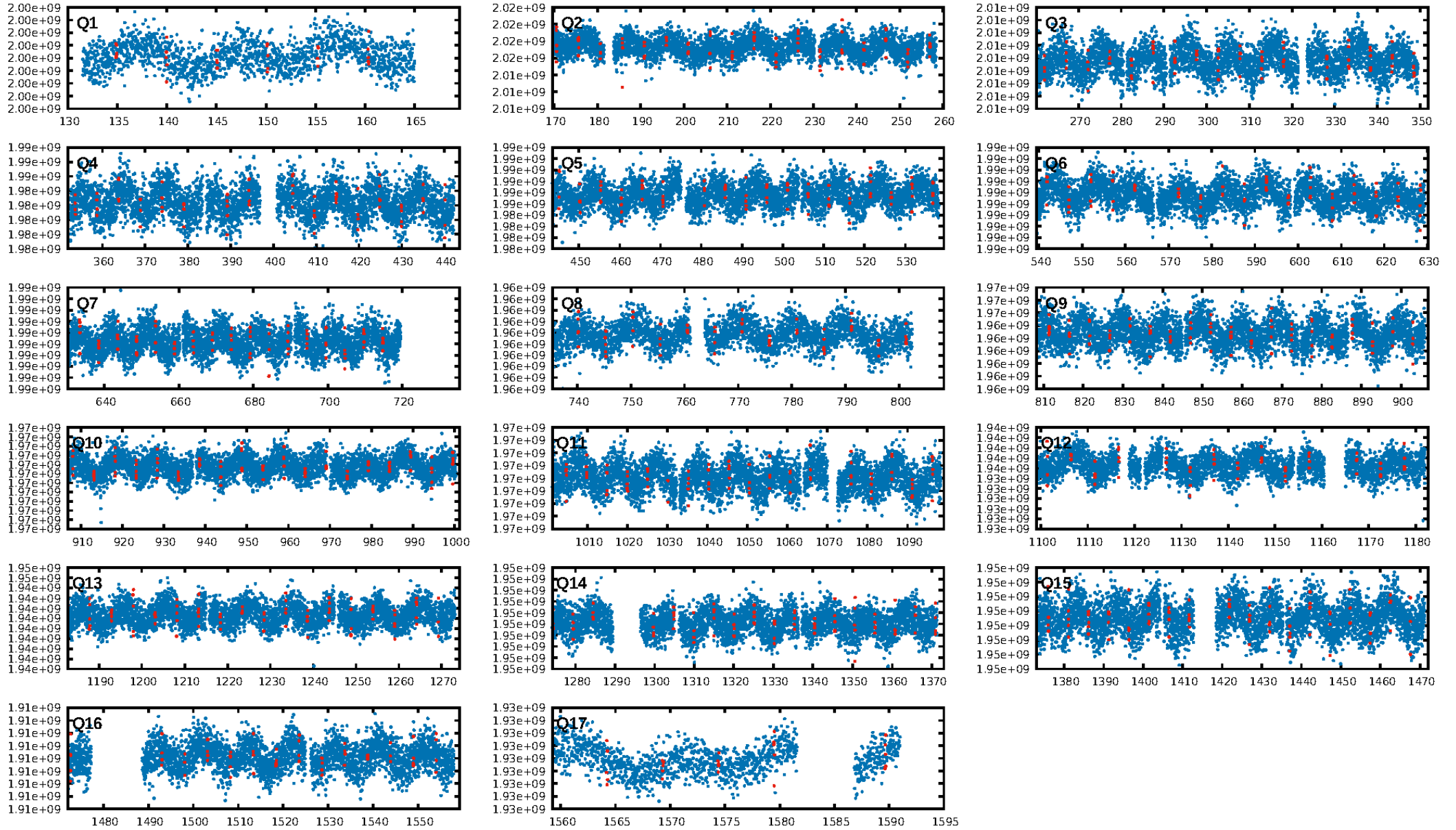
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.47σ]
LongPeriod-sig: 100.0% [4.06σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 46.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [19/19]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 0.714 arcsec [3.03σ]
OotOffset-rm: 3.300 arcsec [3.04σ]
KicOffset-rm: 3.496 arcsec [3.30σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.43 [6/14]
DiffImageOverlap-fno: 0.24 [4/17]

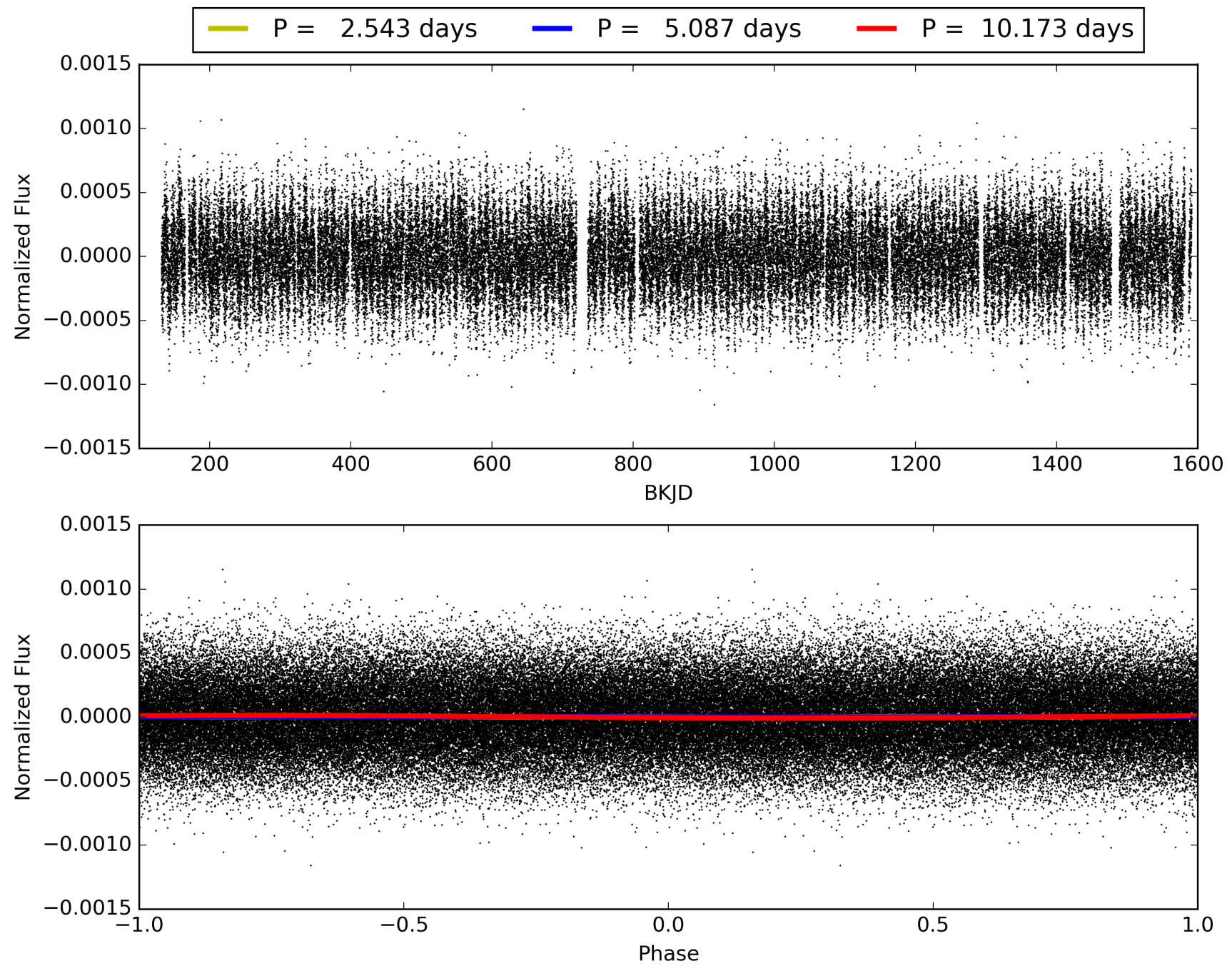
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:34:05 Z

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

TCE 00583770-05, PDC Light Curves

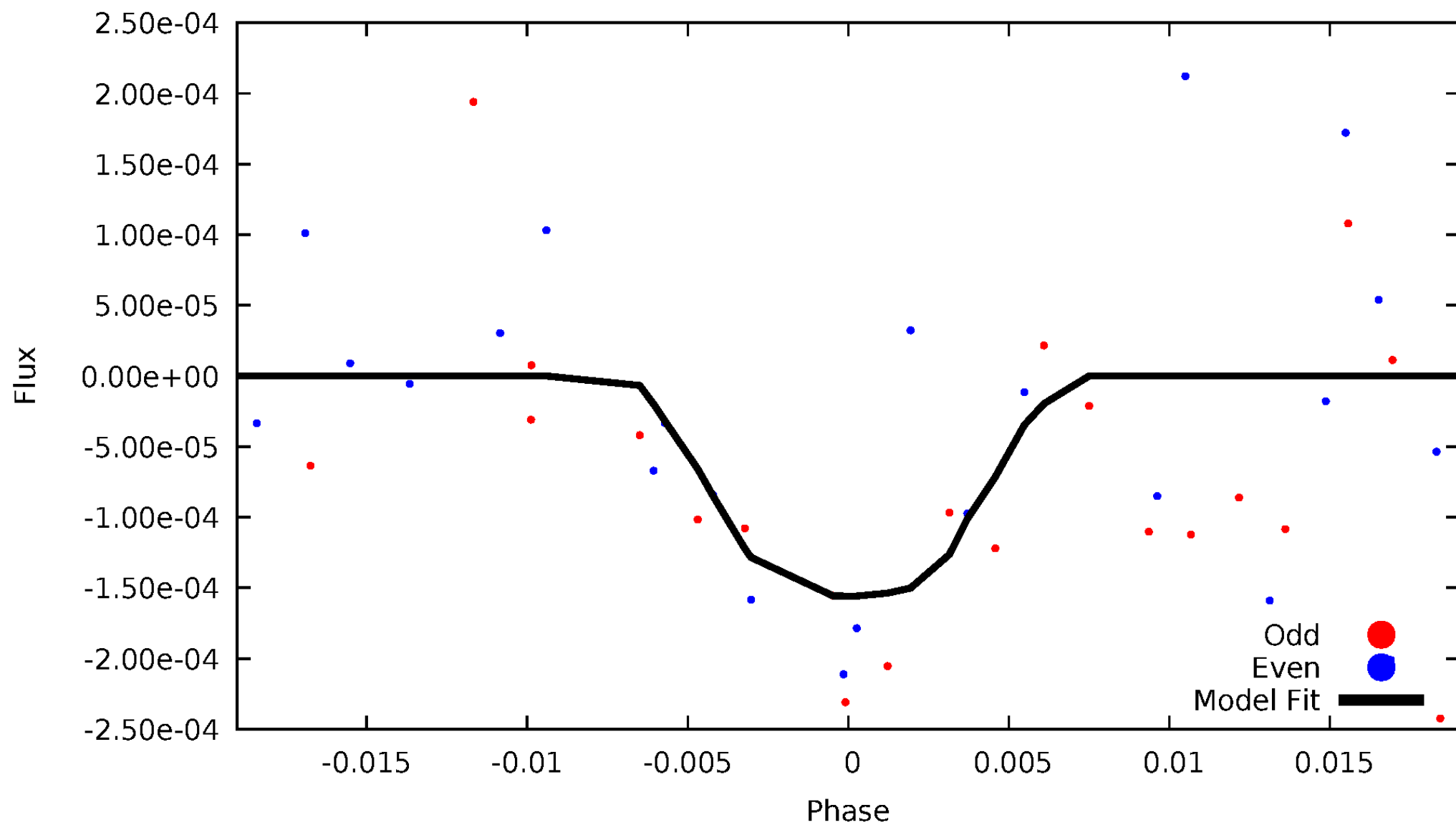


TCE 008583770-05



DV Odd/Even

TCE 008583770-05

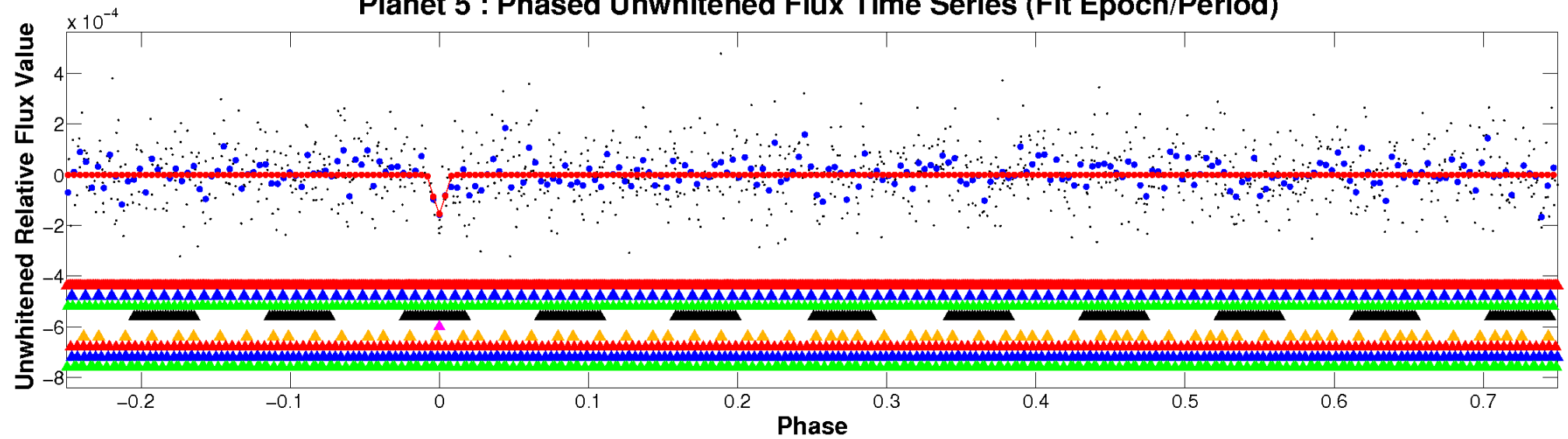


ALT Odd/Even

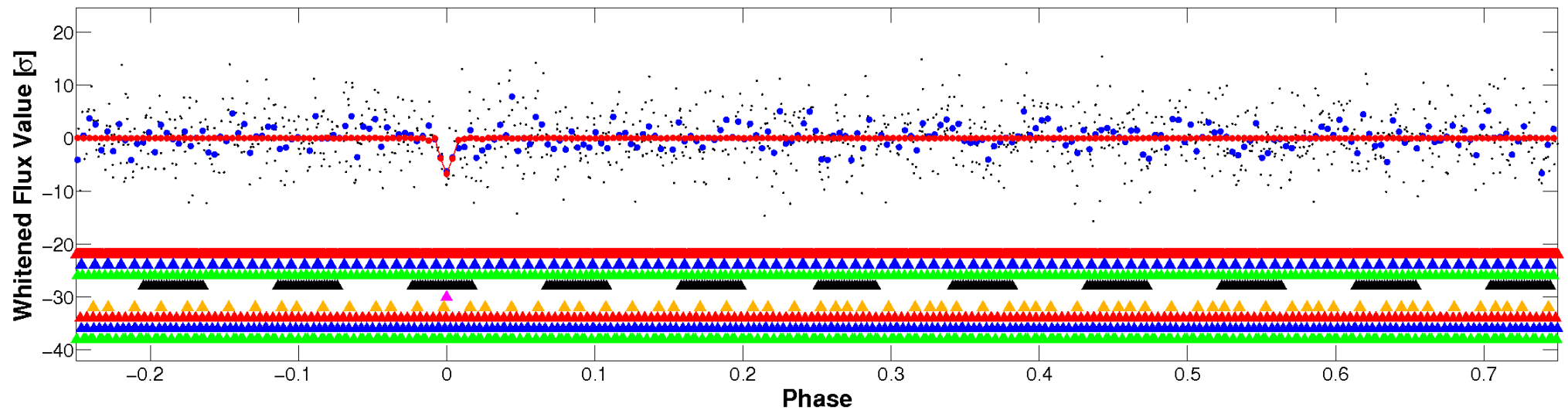
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

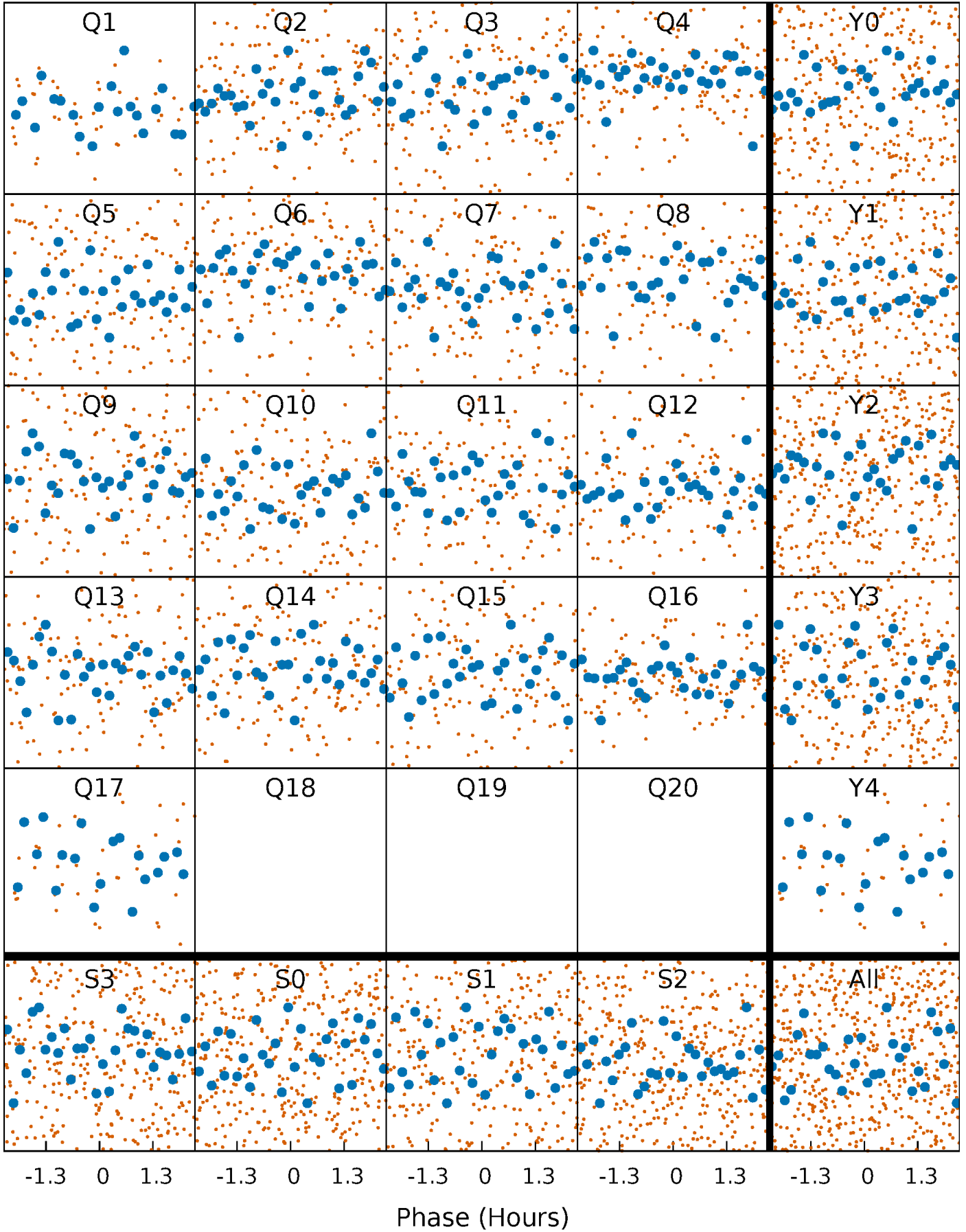


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



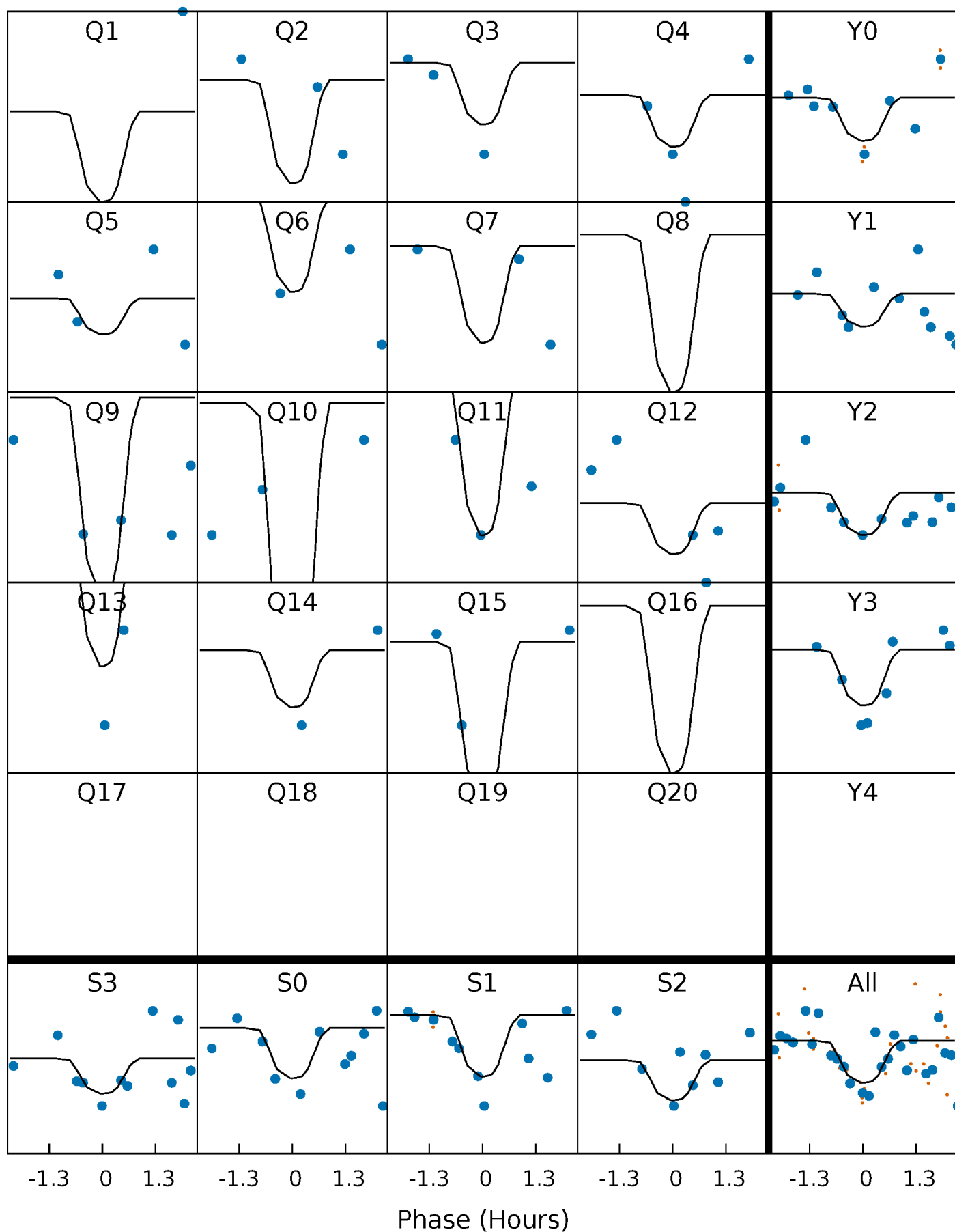
PDC Quarter-Phased Transit Curves

TCE 008583770-05 $P = 5.086643$ Days $T_0 = 134.889509$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008583770-05 $P = 5.086643$ Days $T_0 = 134.889509$ (BKJD)

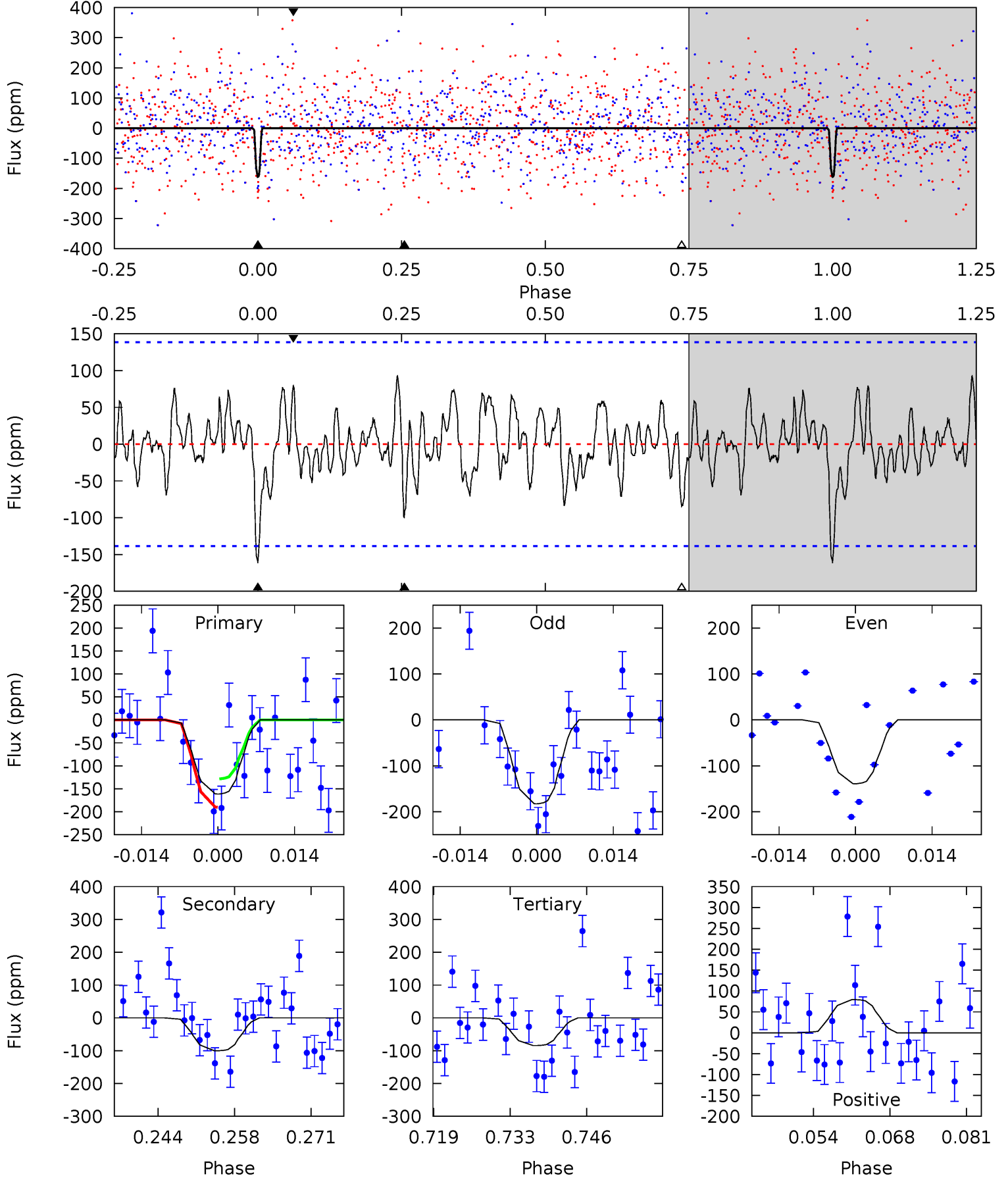


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008583770-05, P = 5.086643 Days, E = 129.802866 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.78	3.59	3.02	2.85	4.97	2.47	1.23	2.76	2.94	0.57	0.75	0.79	0	0.36	1.11



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008583770

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8675^{+514}_{-707}	$3.117^{+0.182}_{-0.065}$	$-0.500^{+0.600}_{-0.050}$	$8.234^{+0.798}_{-1.995}$	$3.237^{+0.211}_{-0.421}$	$0.008^{+0.008}_{-0.002}$
	+6%/-8%	+6%/-2%	+120%/-10%	+10%/-24%	+7%/-13%	+94%/-21%
Source	SPE4	SPE4	SPE4	DSEP		

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

Secondary Eclipse Parameters for KIC 008583770-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-100 ± 28	$18.76^{+18.52}_{-12.60}$	5150^{+408}_{-478}	5168^{+5565}_{-8185}	$1.129^{+9.085}_{-0.862}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

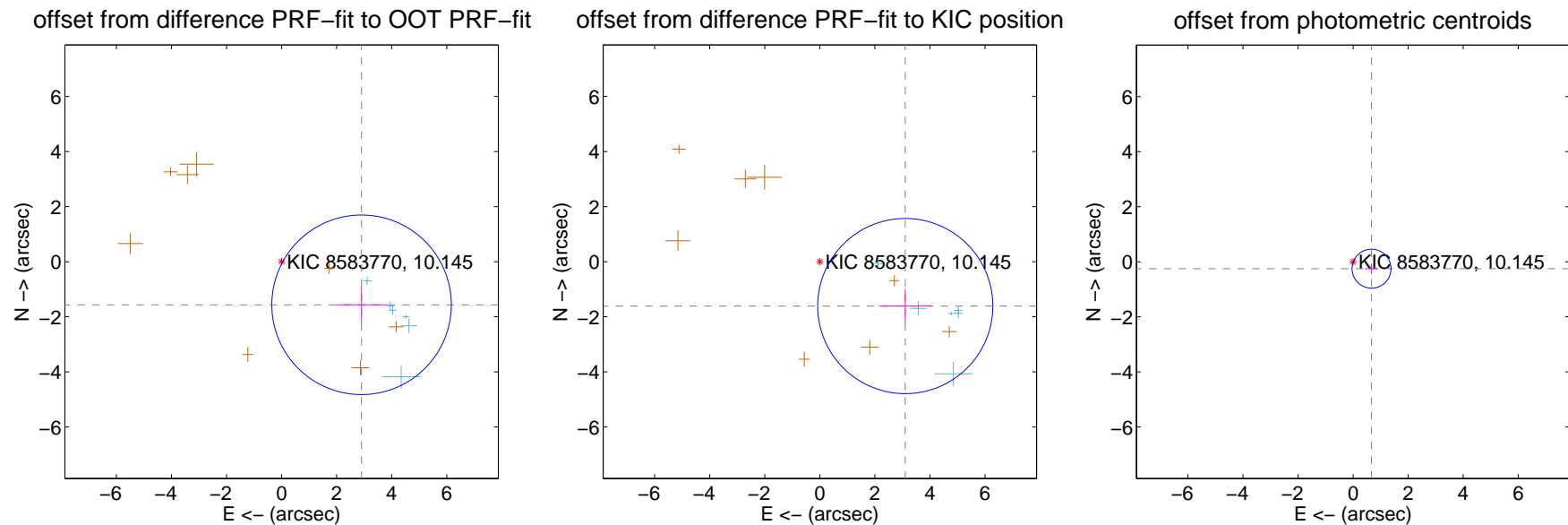
DV Centroid Data

Supplemental centroid analysis for 008583770-05. **Kepler magnitude: 10.14.** Transit SNR 19.84

There are 6 quarters with good PRF difference image offsets

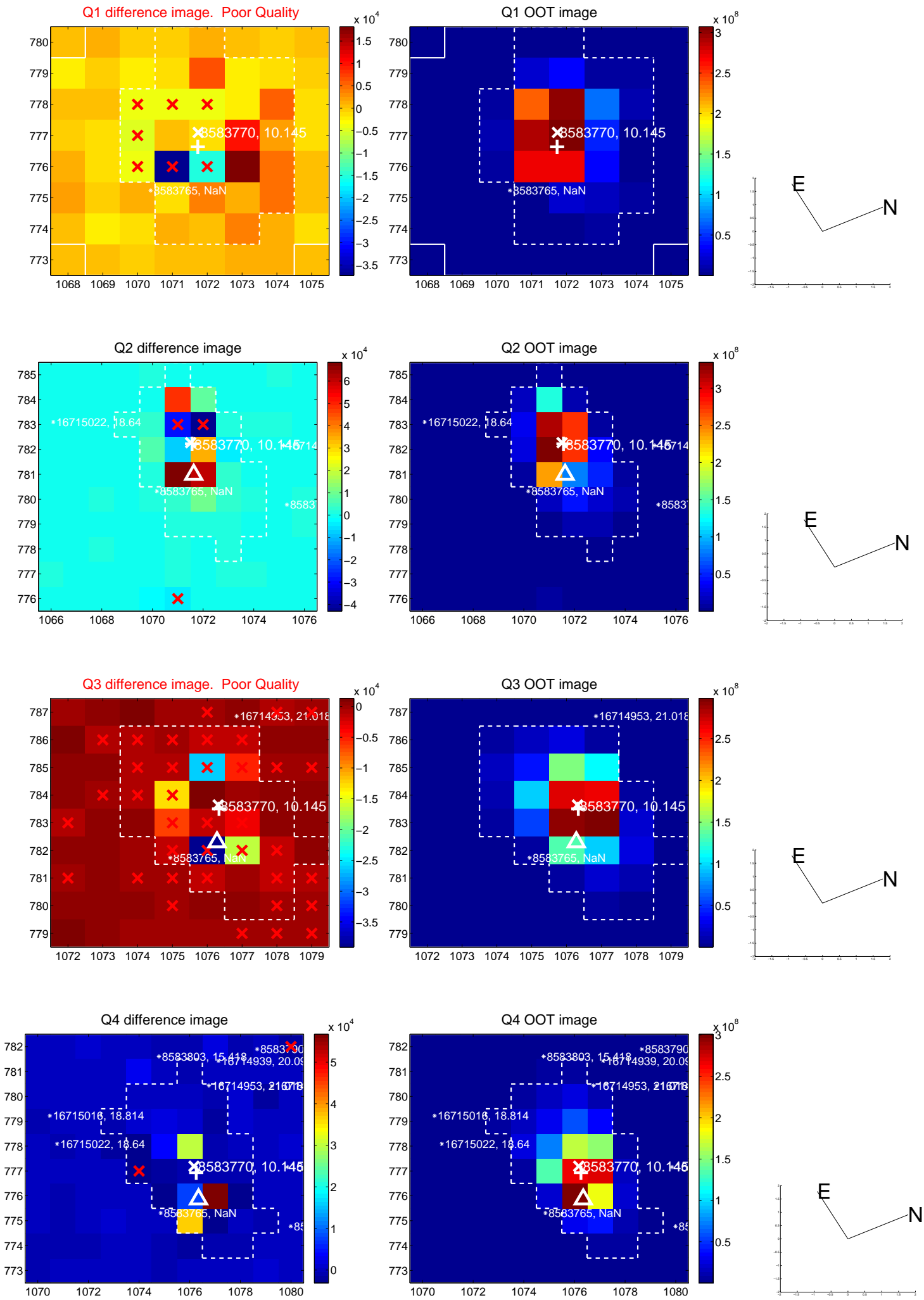
The direct PRF centroid is offset from the target star catalog position by about 1.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.300 ± 1.087	3.04	-2.905 ± 0.936	-1.565 ± 0.673
PRF-fit source offset from KIC position	3.496 ± 1.060	3.30	-3.102 ± 0.948	-1.611 ± 0.621
photometric centroid source offset	0.71 ± 0.24	3.03	-0.67 ± 0.24	-0.25 ± 0.19

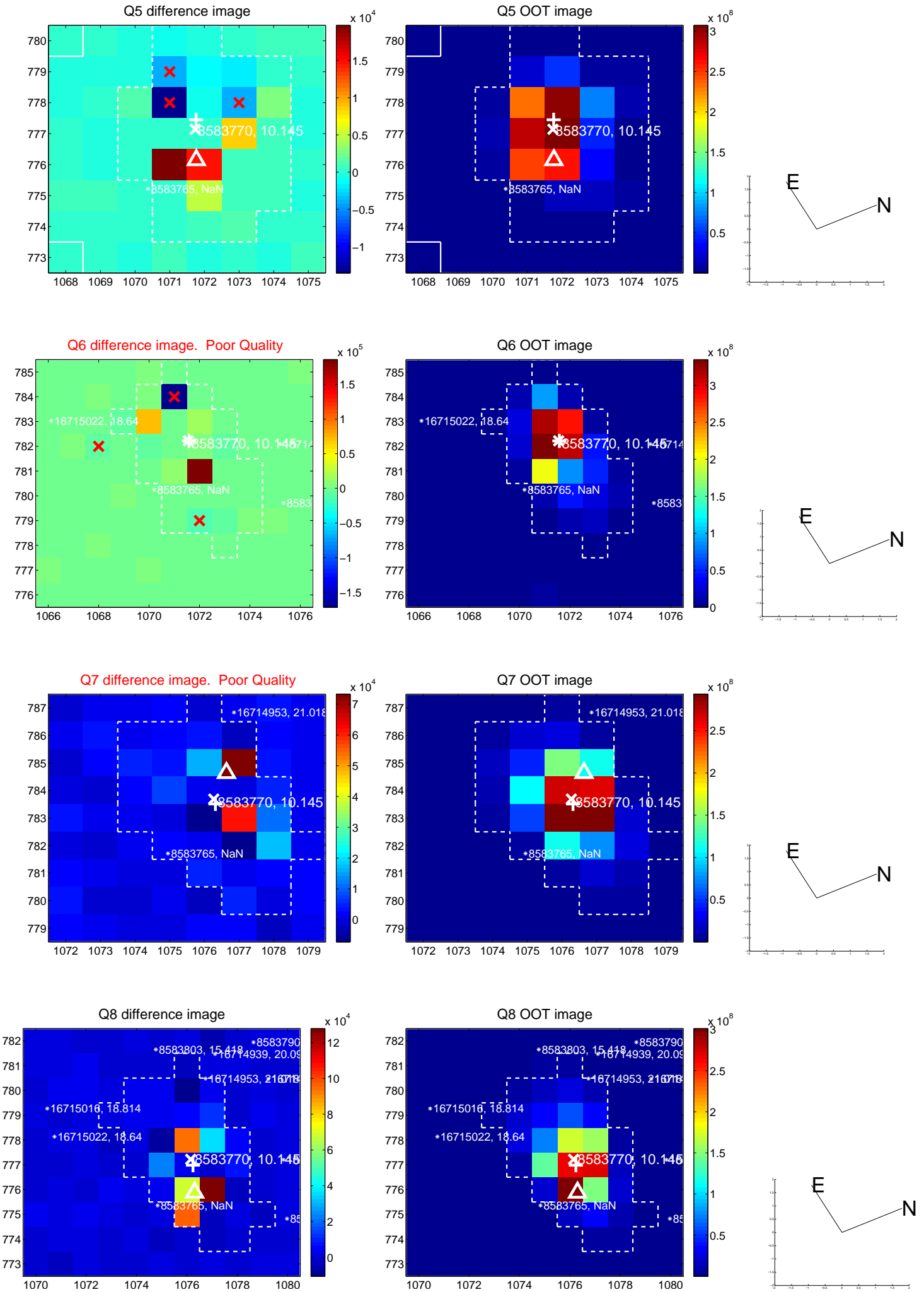


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

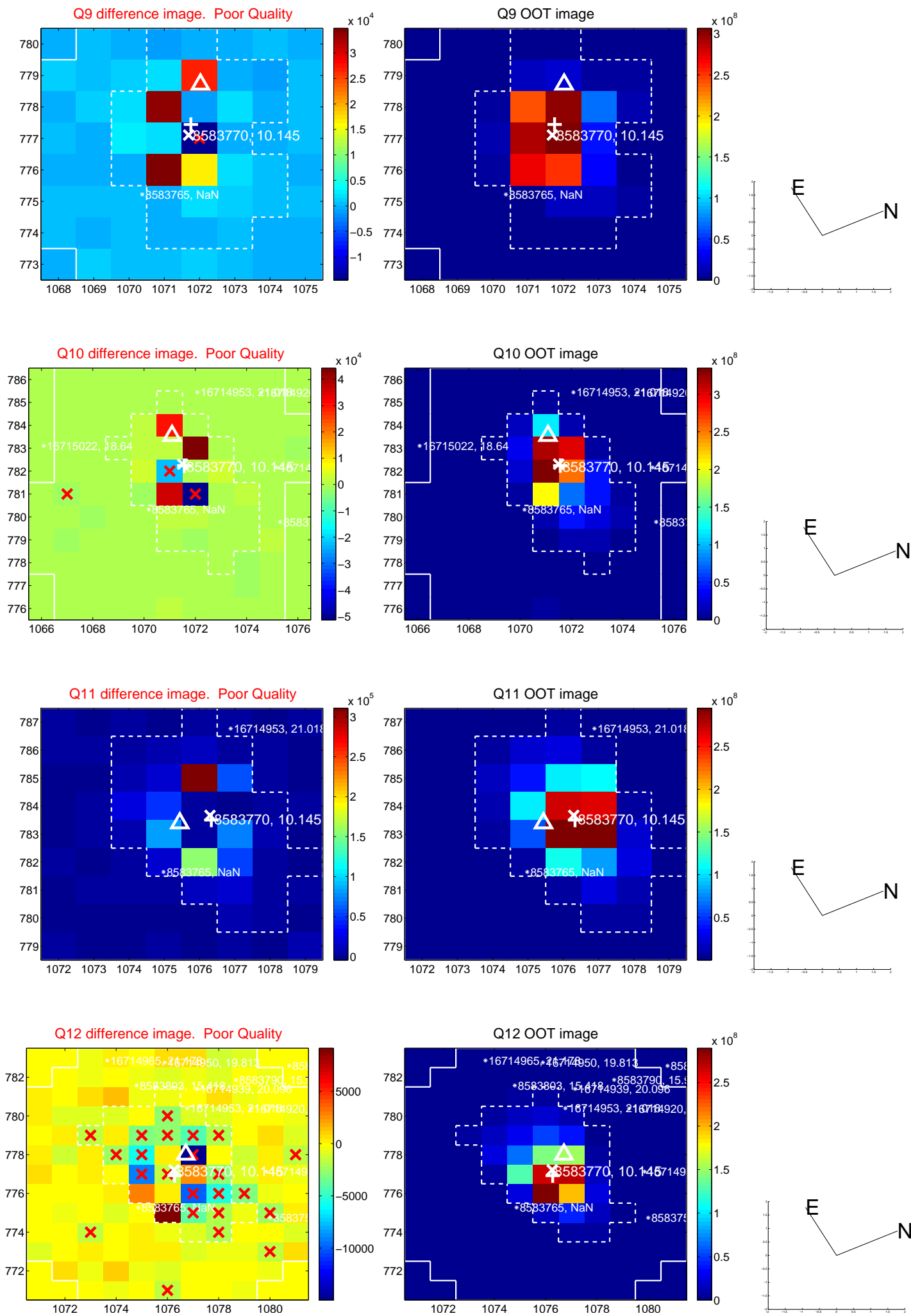
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



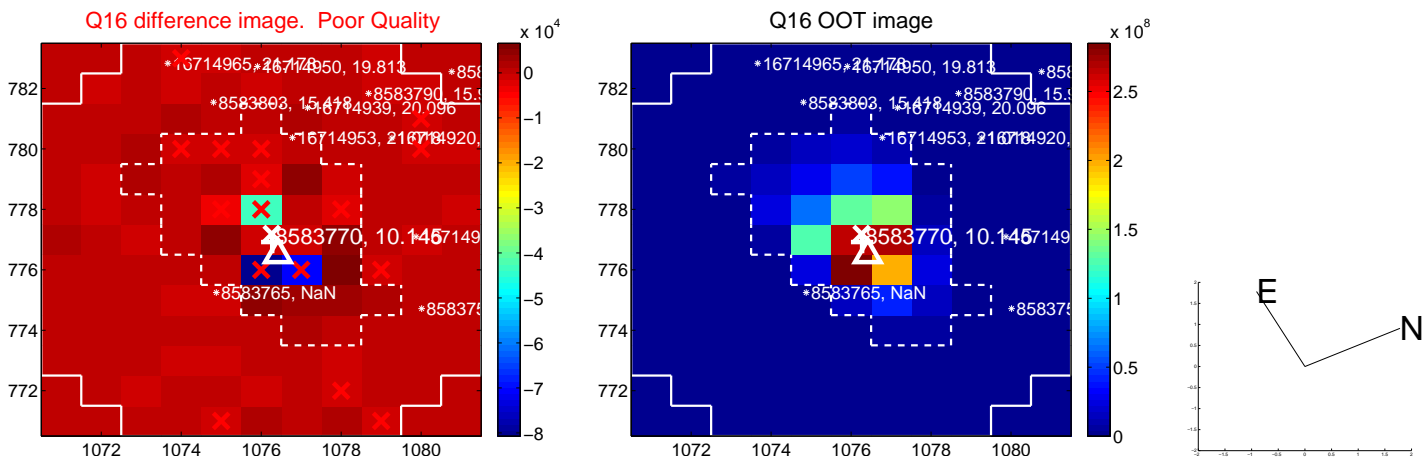
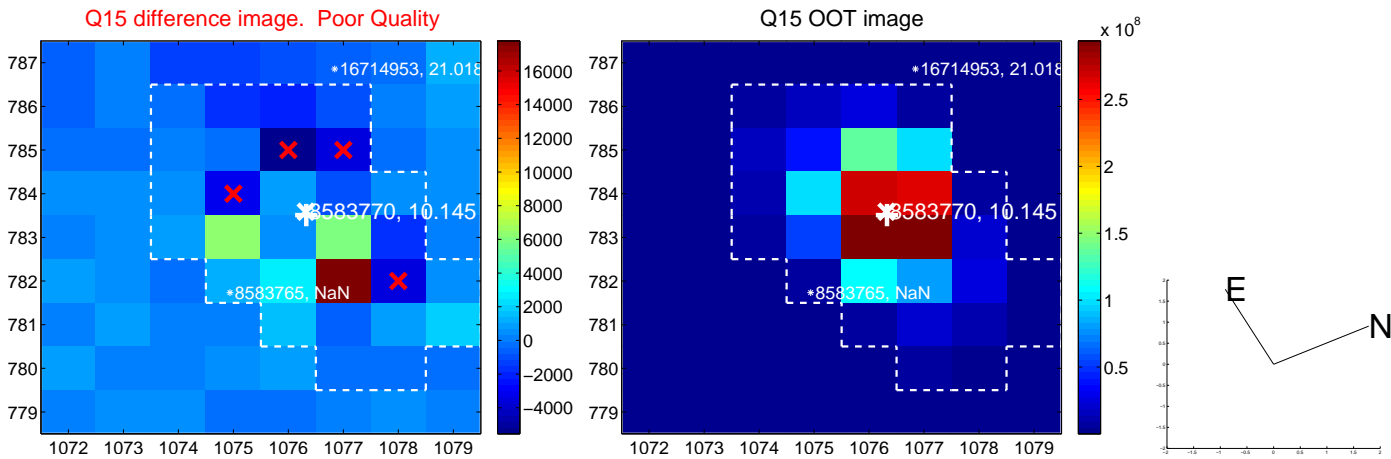
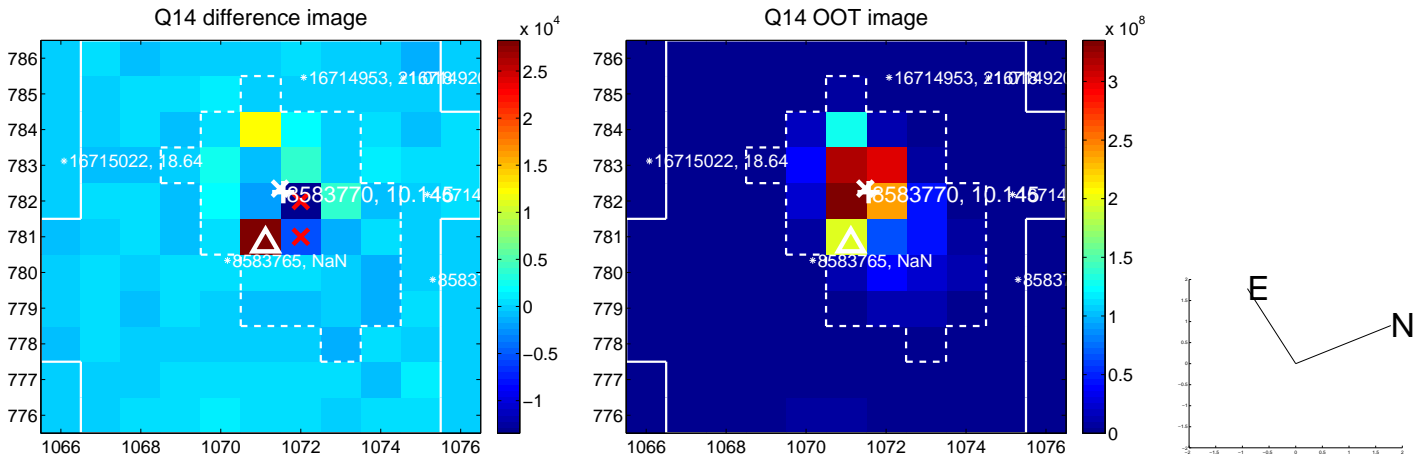
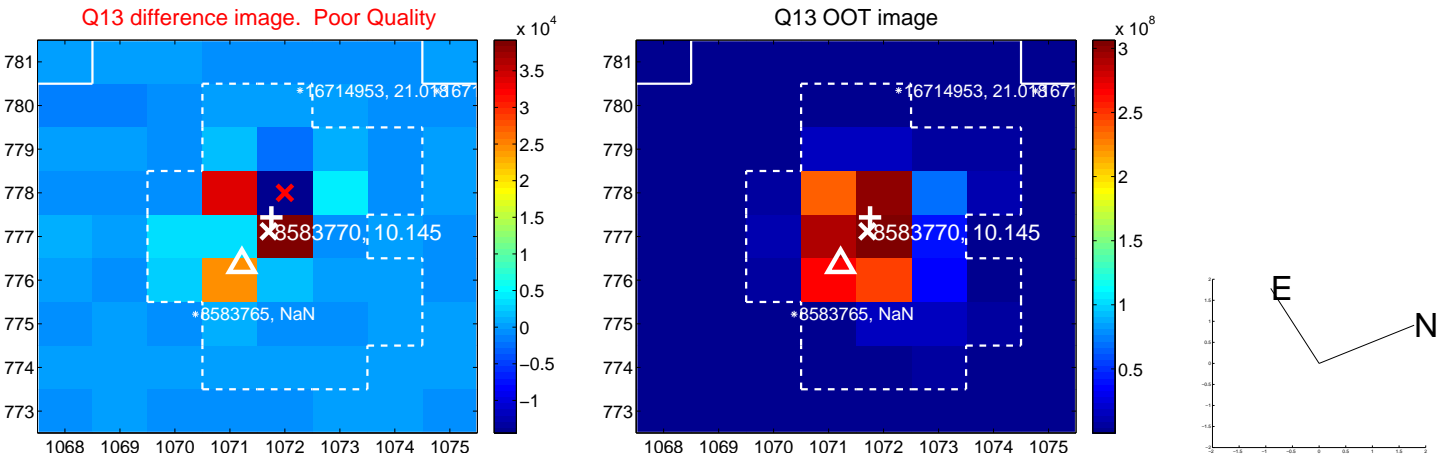
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



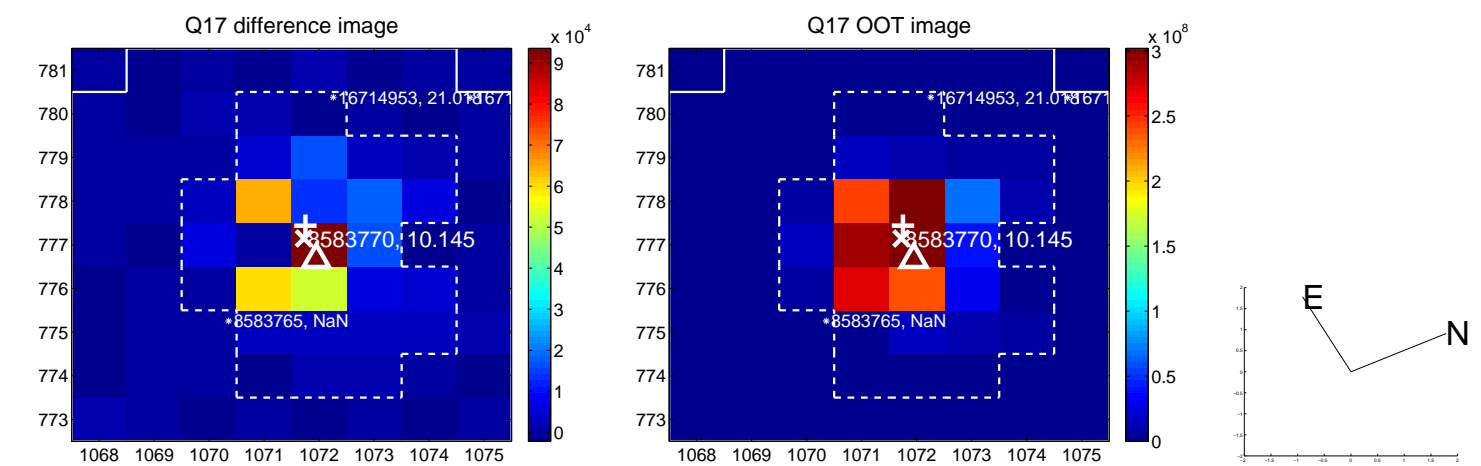
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



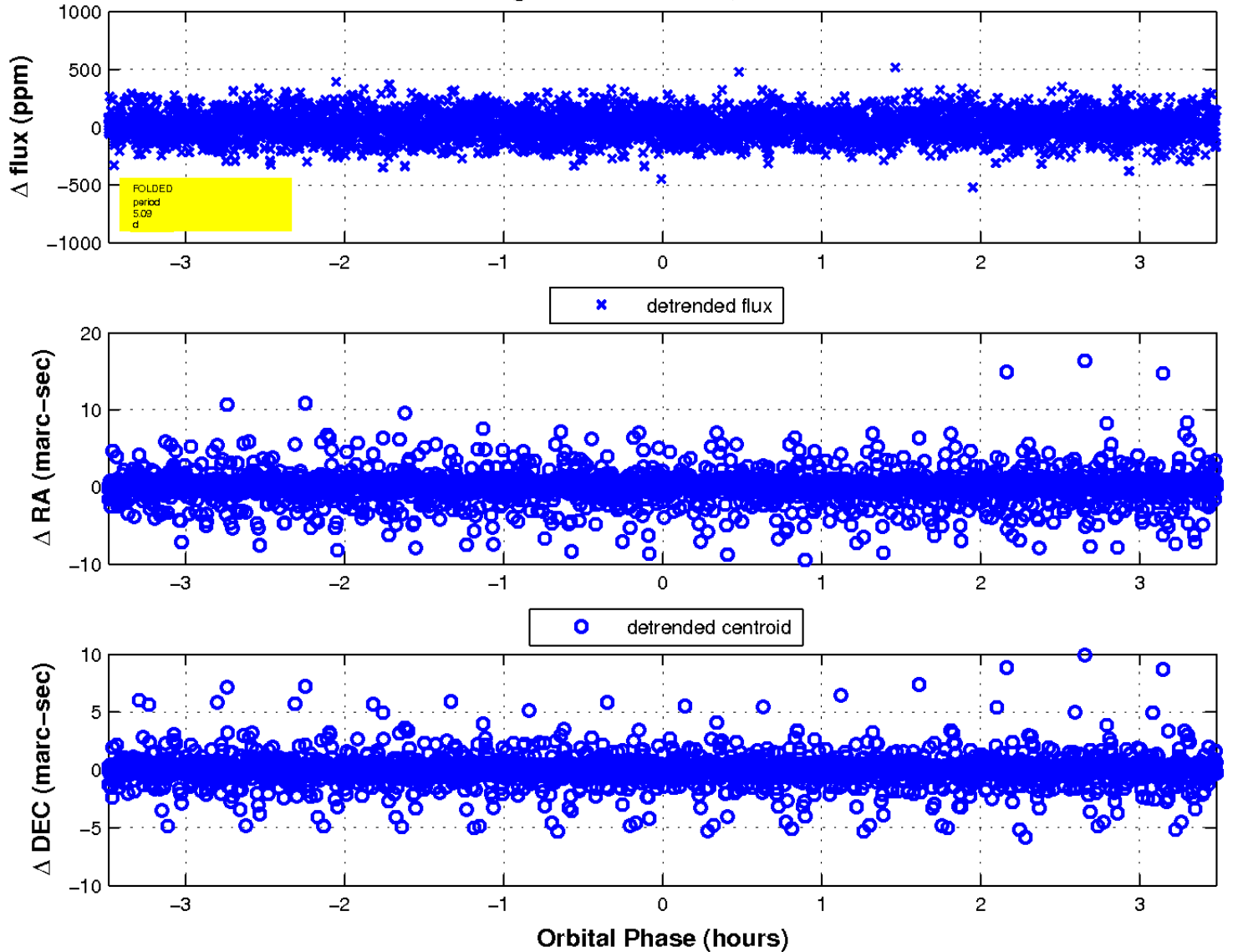
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

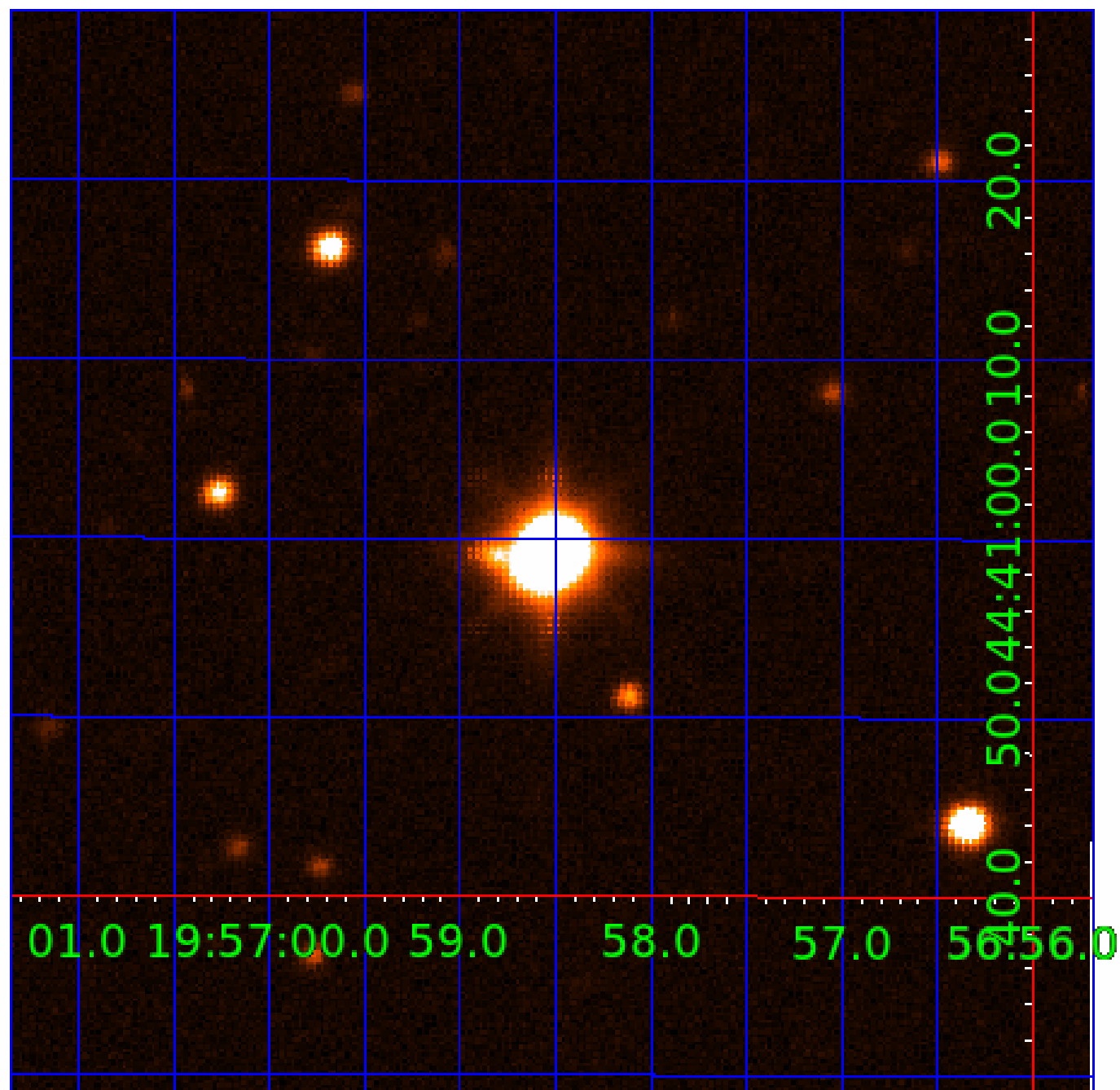


fluxWeightedCentroids, Planet 5 of 9



UKIRT Image

Declination



KIC 008583770

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})
008583770-01	OBS	No	0.690411	131.684372	7.1	5.248	11.1	9.9	8.23	8675	2.27	0.00
008583770-03	OBS	No	5.412970	134.079744	193.3	1.500	18.3	-1.0	8.23	8675	11.67	43165.03
008583770-04	OBS	No	5.548257	136.831697	97.1	1.581	13.3	14.1	8.23	8675	8.27	41767.40
008583770-05	OBS	No	5.086643	134.889509	155.9	1.162	10.3	19.8	8.23	8675	10.54	46896.23
008583770-07	OBS	No	4.051705	135.150205	100.4	1.673	10.3	14.9	8.23	8675	9.61	63512.97
008583770-08	OBS	No	5.311337	134.863897	196.7	0.645	12.2	15.7	8.23	8675	12.01	44269.82
008583770-09	OBS	No	4.270565	131.884110	79.0	2.000	10.4	-1.0	8.23	8675	7.45	59210.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008583770-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
008583770-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED
008583770-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

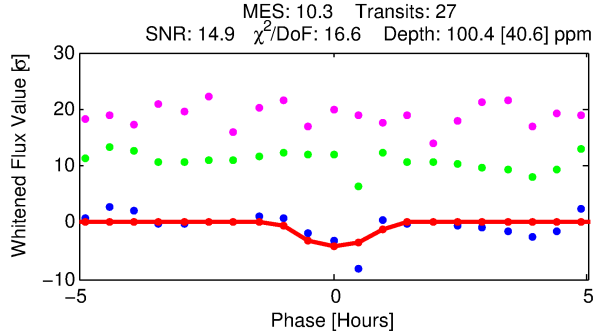
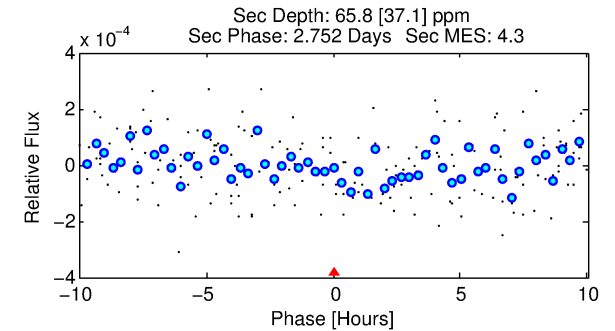
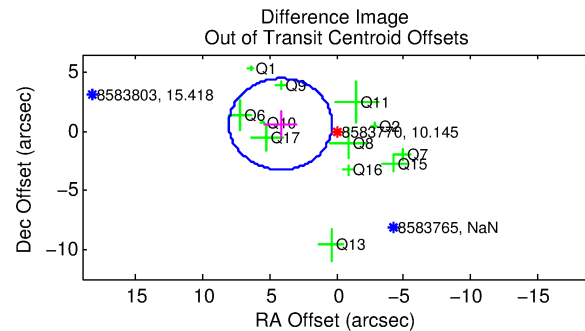
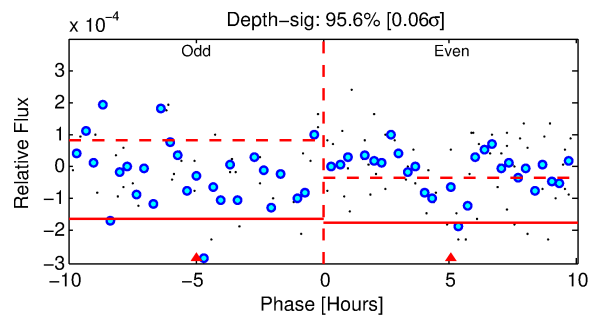
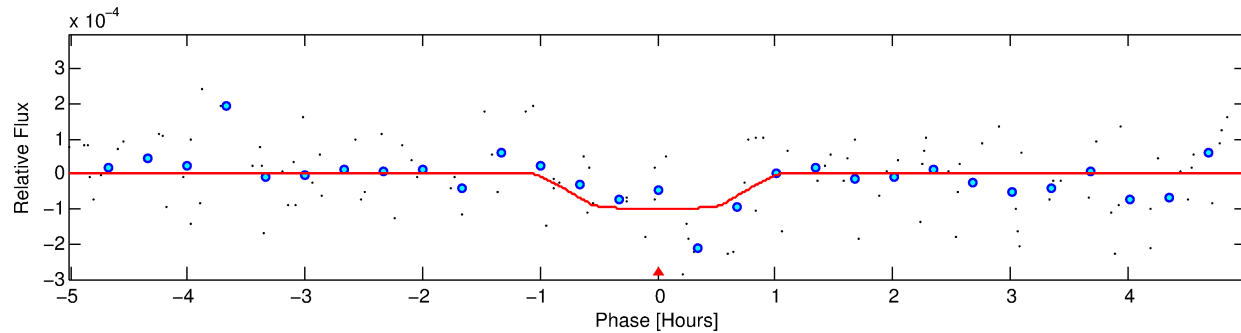
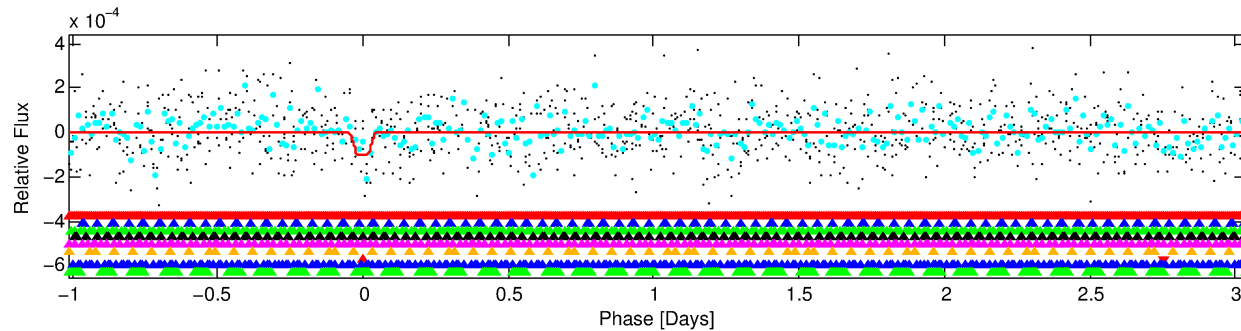
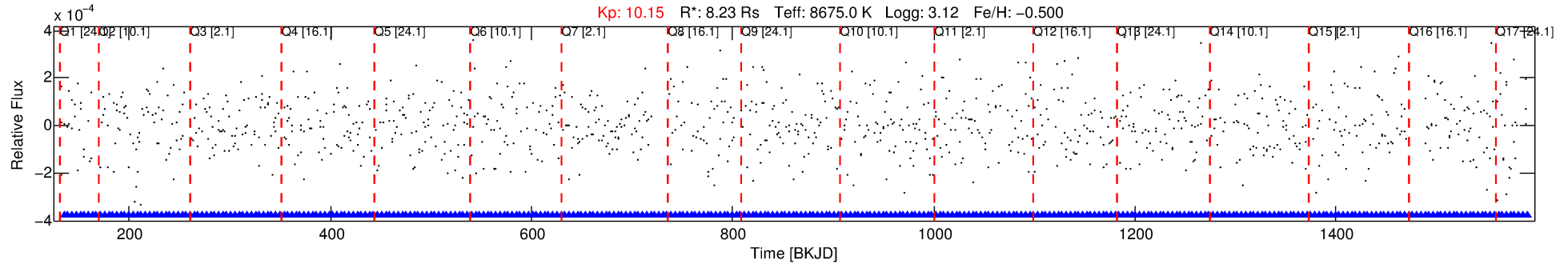
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008583770-07

No Significant Match Found

DV One-Page Summary

KIC: 8583770 Candidate: 7 of 9 Period: 4.052 d



DV Fit Results:

Period = 4.05171 [0.00009] d
Epoch = 135.1502 [0.0117] BKJD
Rp/R* = 0.0107 [0.0159]
a/R* = 8.33 [83.26]
b = 0.91 [2.02]
Seff = 63512.97 [29134.12]
Teq = 4048 [464] K
Rp = 9.61 [14.44] Re
a = 0.0736 [0.0157] AU
Ag = 2.13 [6.46] [0.17 σ]
Teffp = 7557 [5741] K [0.61 σ]

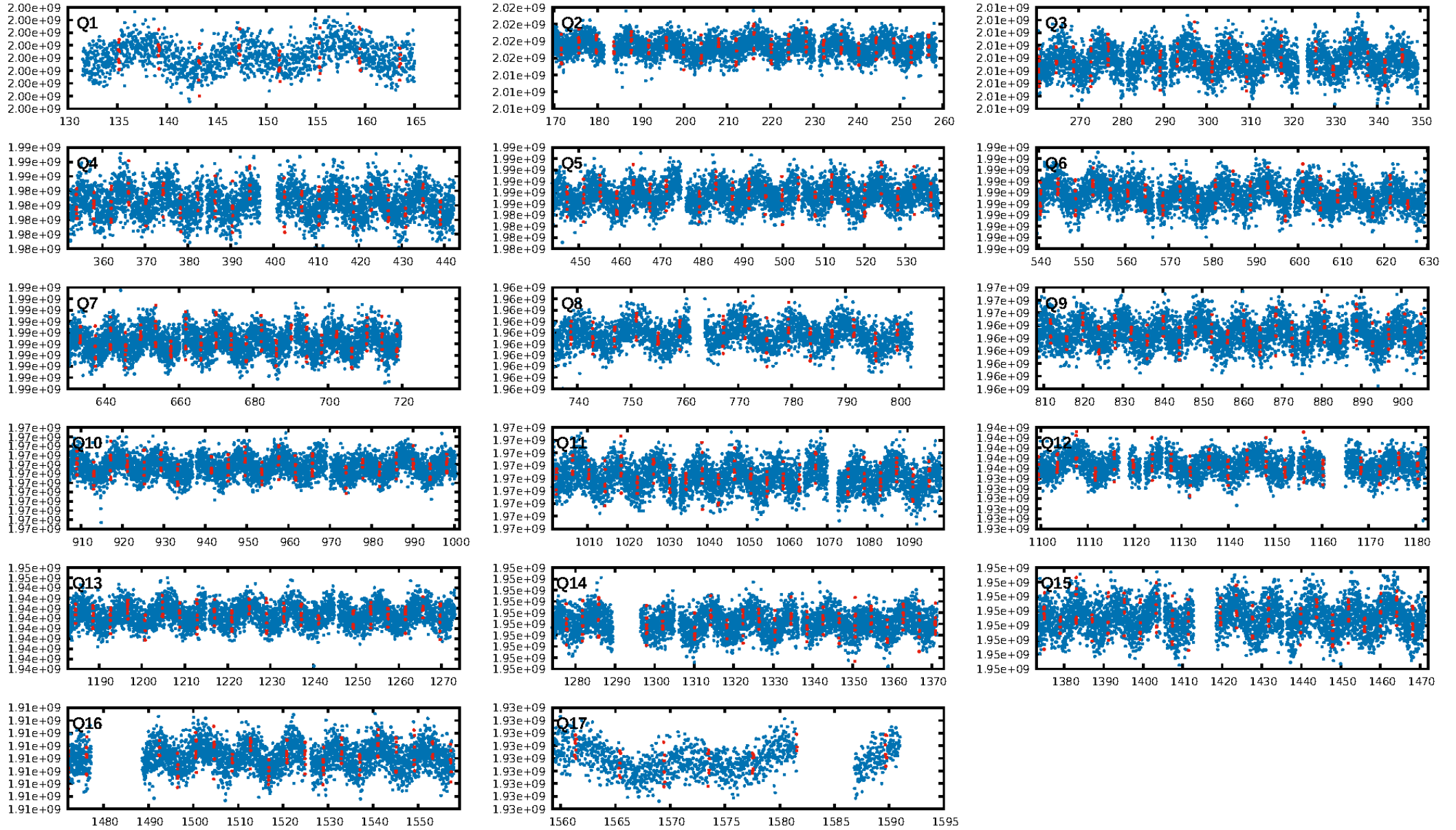
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [14.64 σ]
LongPeriod-sig: 95.6% [2.01 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [26/26]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 0.468 arcsec [1.72 σ]
OotOffset-rm: 4.223 arcsec [3.29 σ]
KicOffset-rm: 4.556 arcsec [3.59 σ]
OotOffset-st: 3/3/2/4 [12]
KicOffset-st: 3/3/2/4 [12]
DiffImageQuality-fgm: 0.00 [0/12]
DiffImageOverlap-fno: 0.00 [0/17]

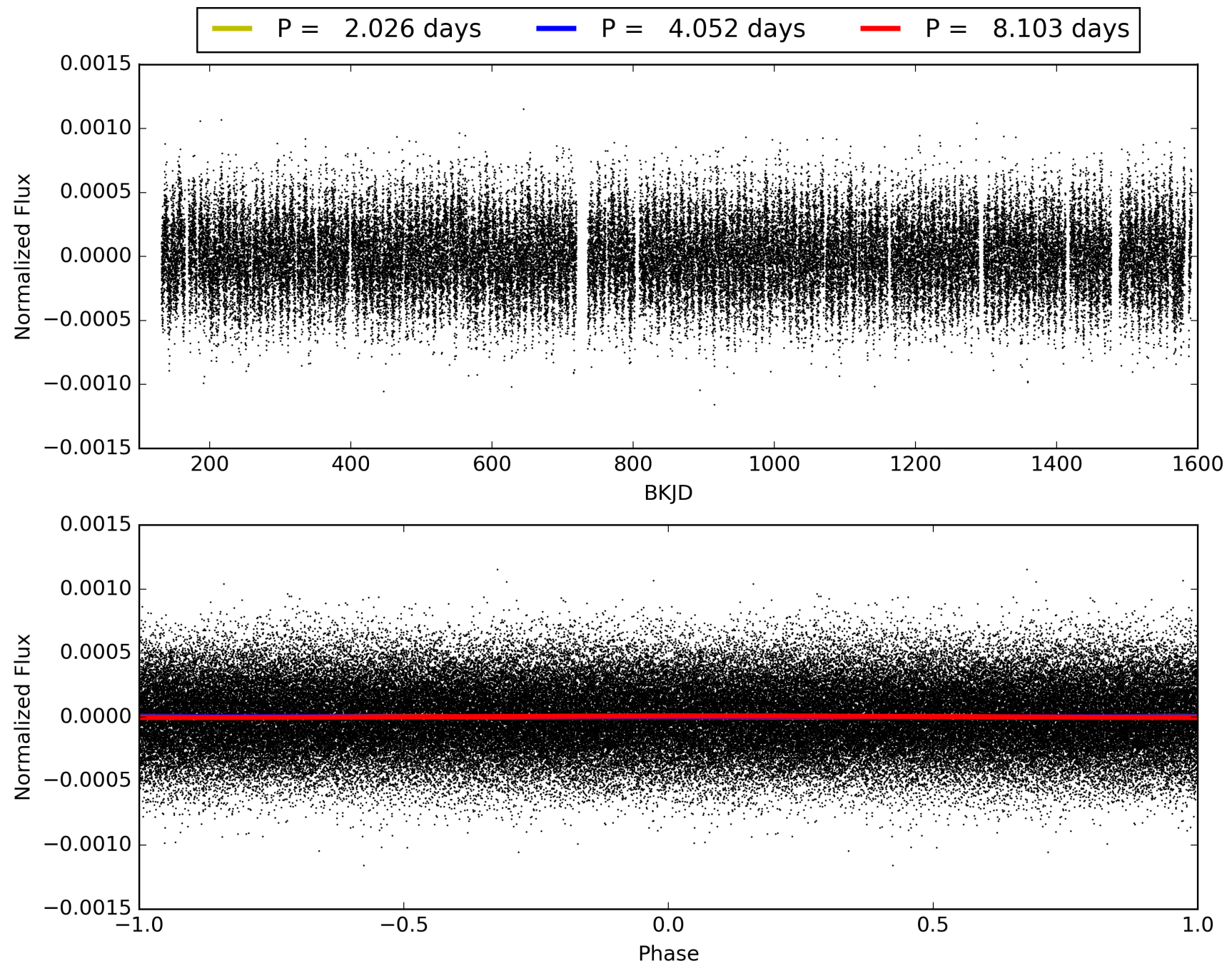
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:34:10 Z

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

TCE 00583770-07, PDC Light Curves

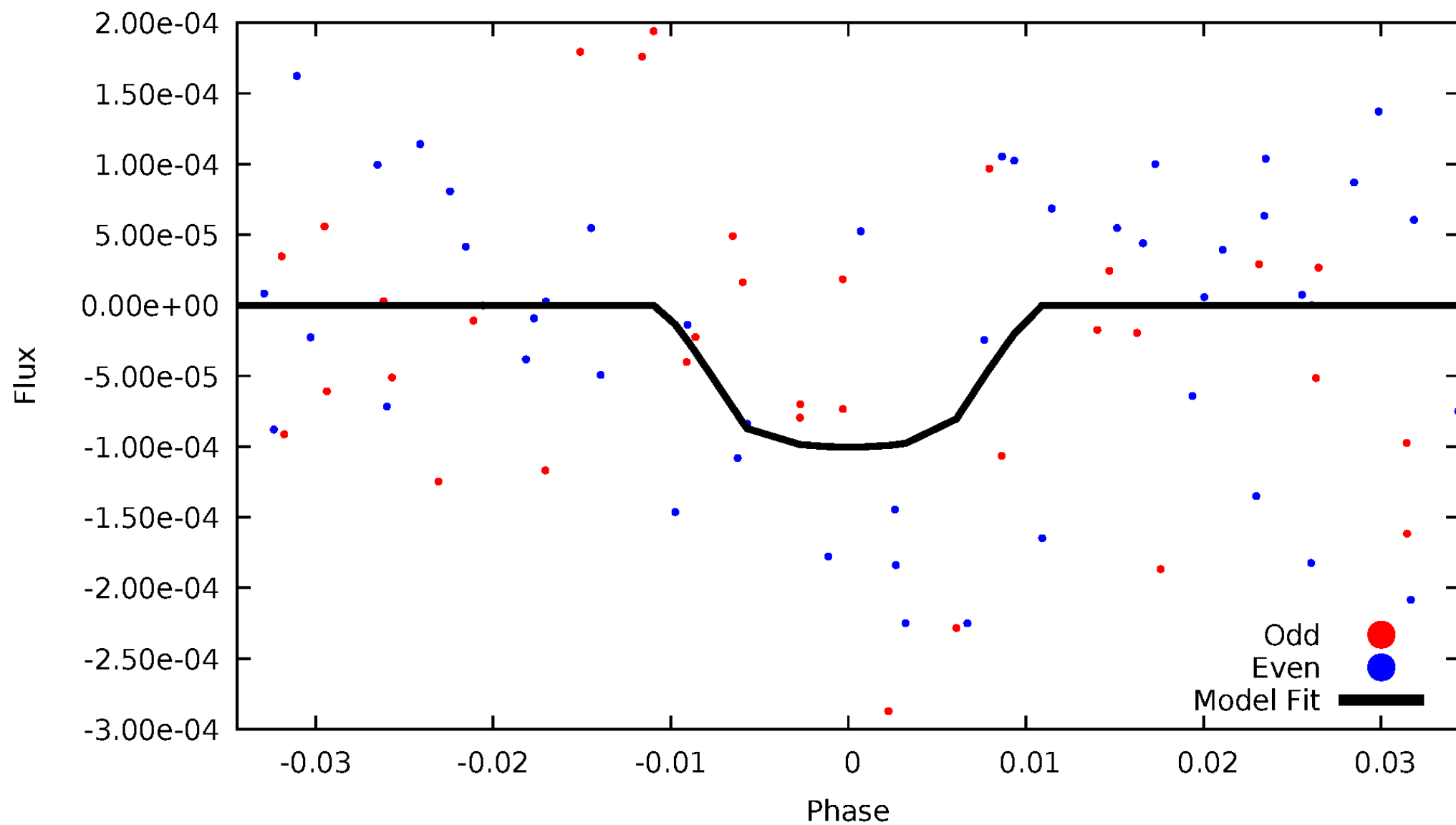


TCE 008583770-07



DV Odd/Even

TCE 008583770-07

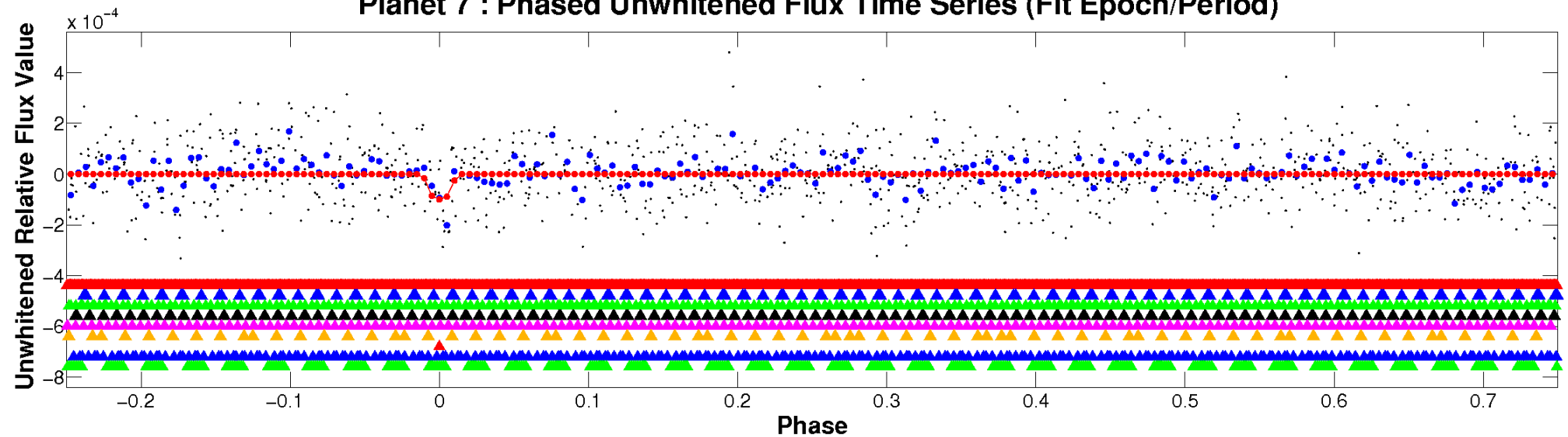


ALT Odd/Even

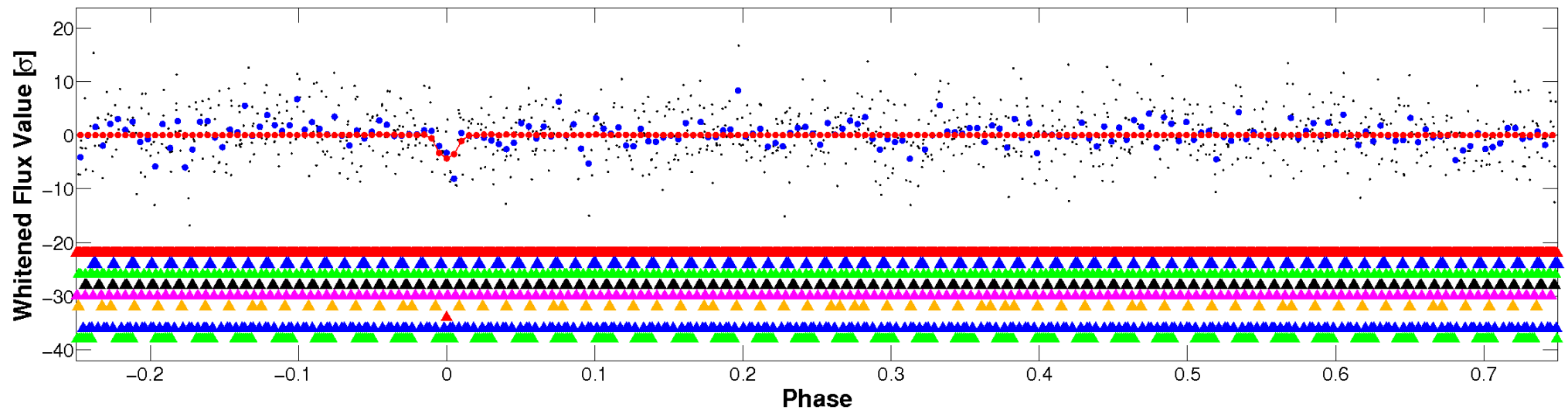
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

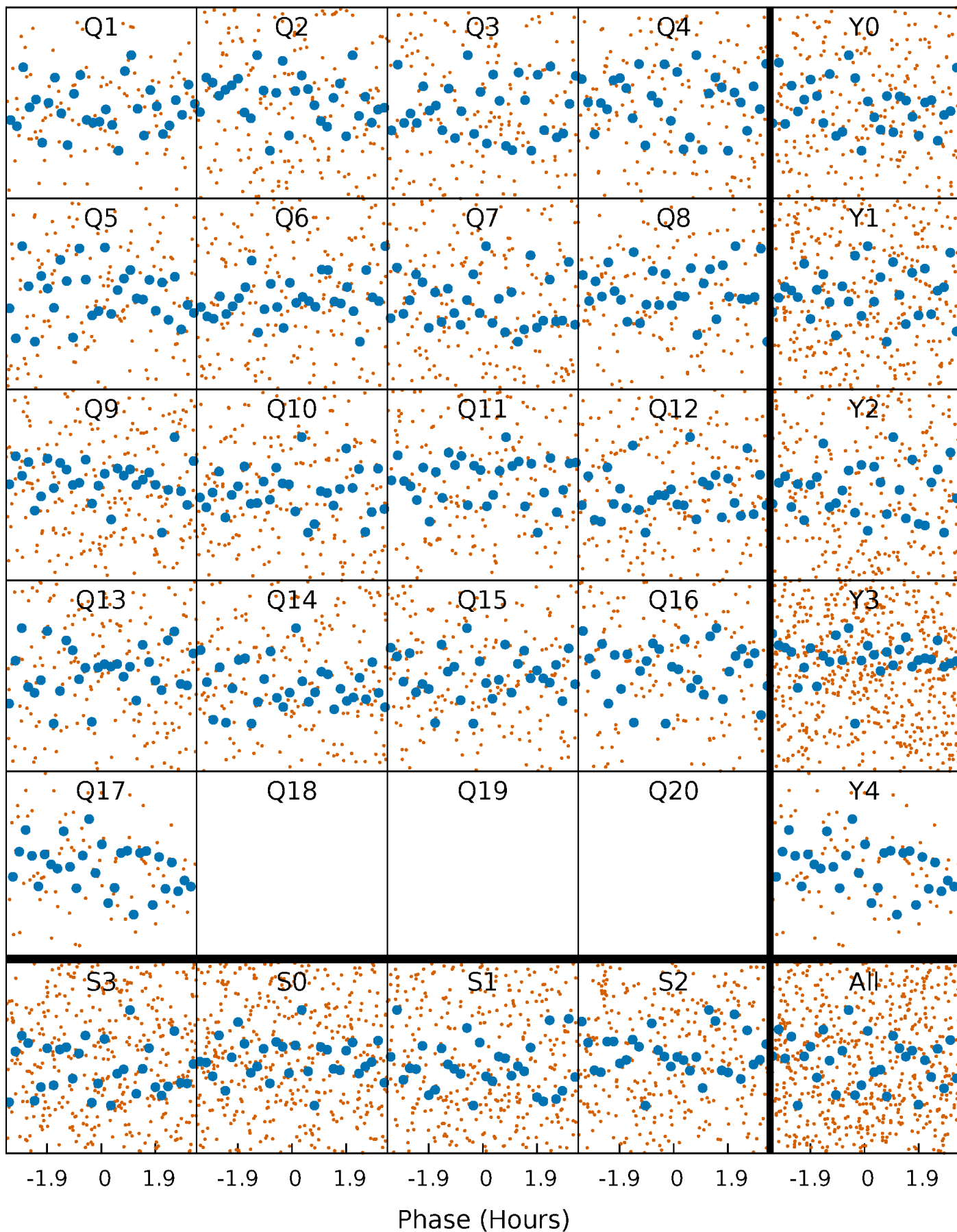


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



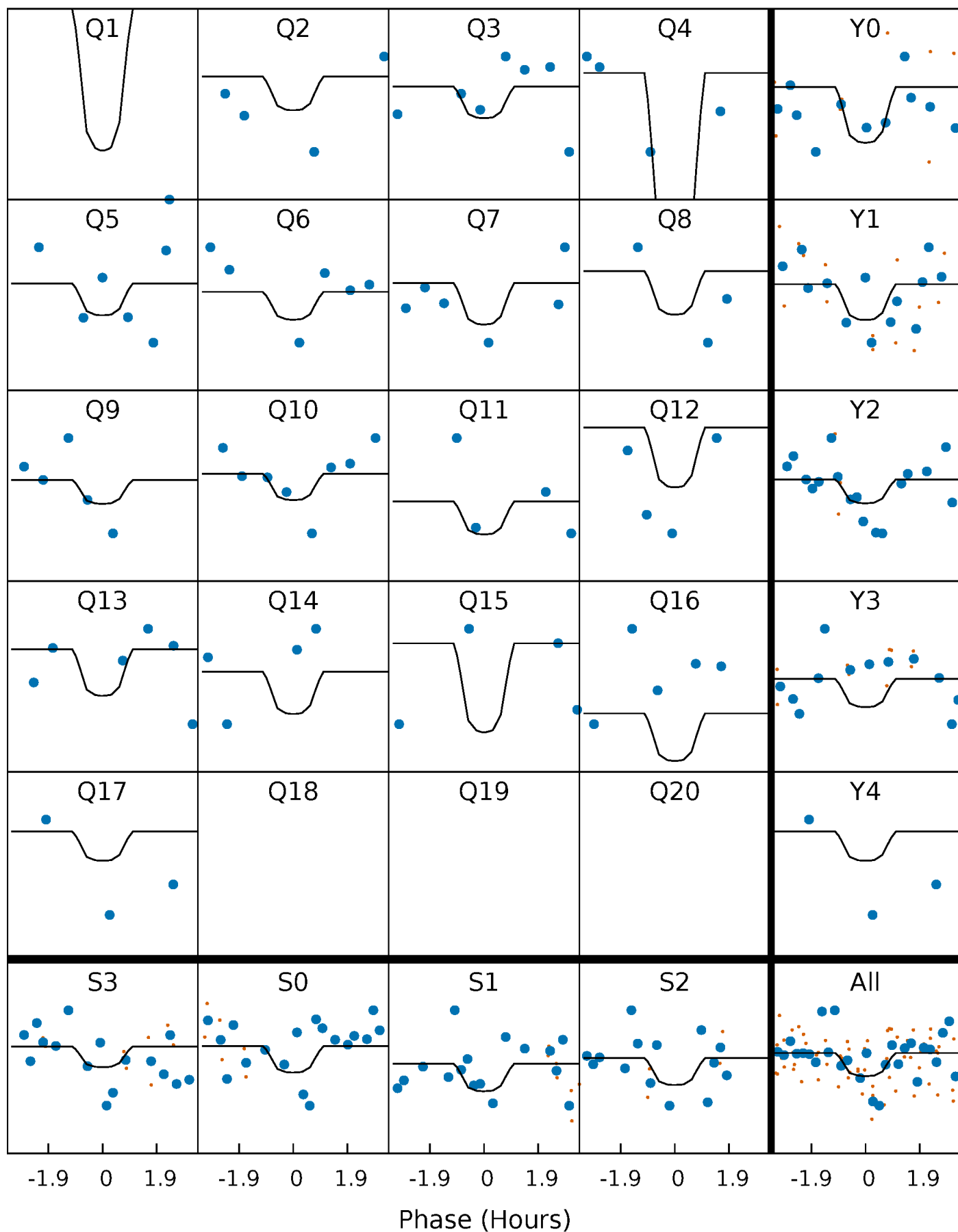
PDC Quarter-Phased Transit Curves

TCE 008583770-07 $P = 4.051705$ Days $T_0 = 135.150205$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008583770-07 P= 4.051705 Days $T_0=135.150205$ (BKJD)

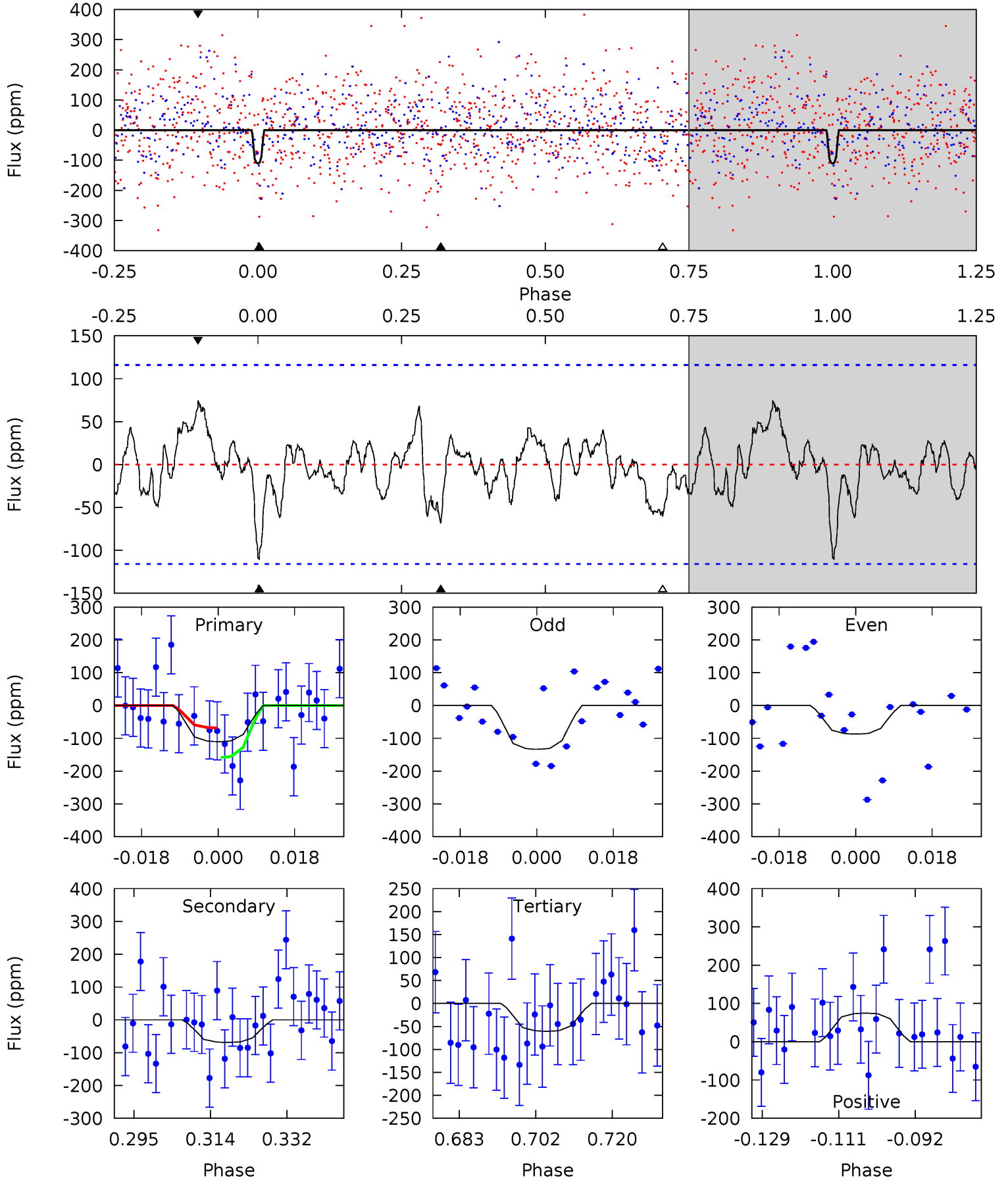


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008583770-07, P = 4.051705 Days, E = 131.098500 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.67	2.90	2.56	3.16	4.91	2.36	1.14	2.11	1.51	0.34	-0.26	1.00	0	0.40	1.94



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008583770

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	8675^{+514}_{-707}	$3.117^{+0.182}_{-0.065}$	$-0.500^{+0.600}_{-0.050}$	$8.234^{+0.798}_{-1.995}$	$3.237^{+0.211}_{-0.421}$	$0.008^{+0.008}_{-0.002}$
	+6%/-8%	+6%/-2%	+120%/-10%	+10%/-24%	+7%/-13%	+94%/-21%
Source	SPE4	SPE4	SPE4	DSEP		

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

Secondary Eclipse Parameters for KIC 008583770-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-69 ± 24	$13.56^{+13.02}_{-8.56}$	5549^{+456}_{-496}	5389^{+5949}_{-8514}	$1.021^{+7.561}_{-0.754}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

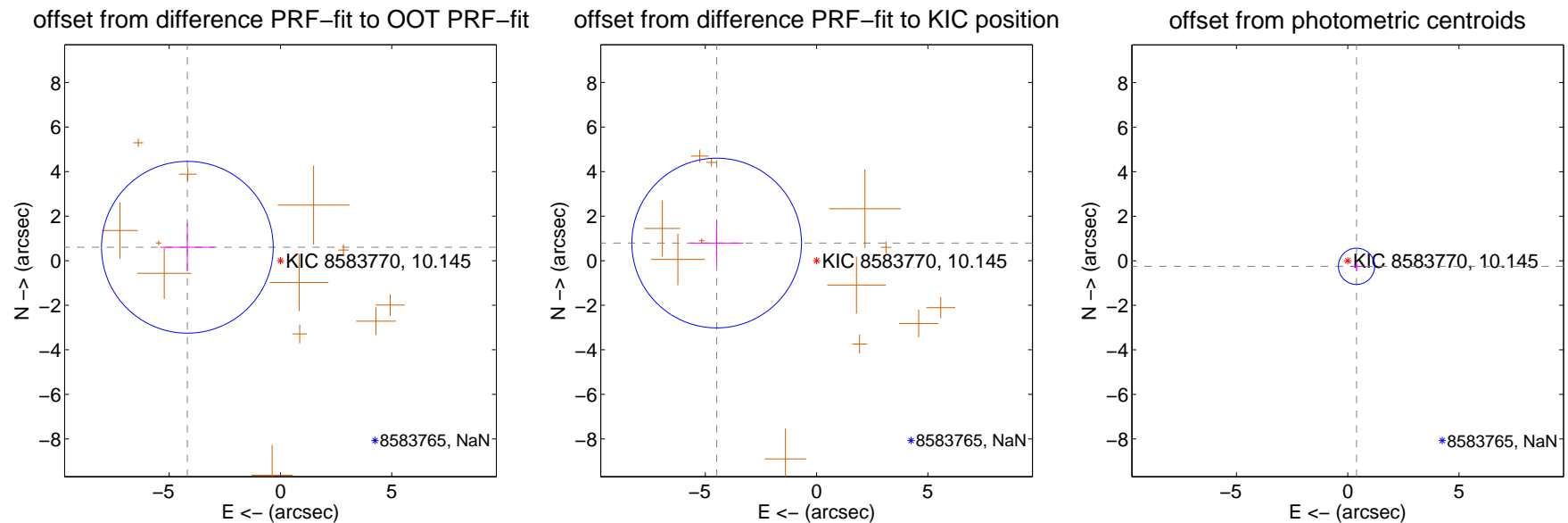
DV Centroid Data

Supplemental centroid analysis for 008583770-07. **Kepler magnitude: 10.14.** Transit SNR 14.89

There are 0 quarters with good PRF difference image offsets

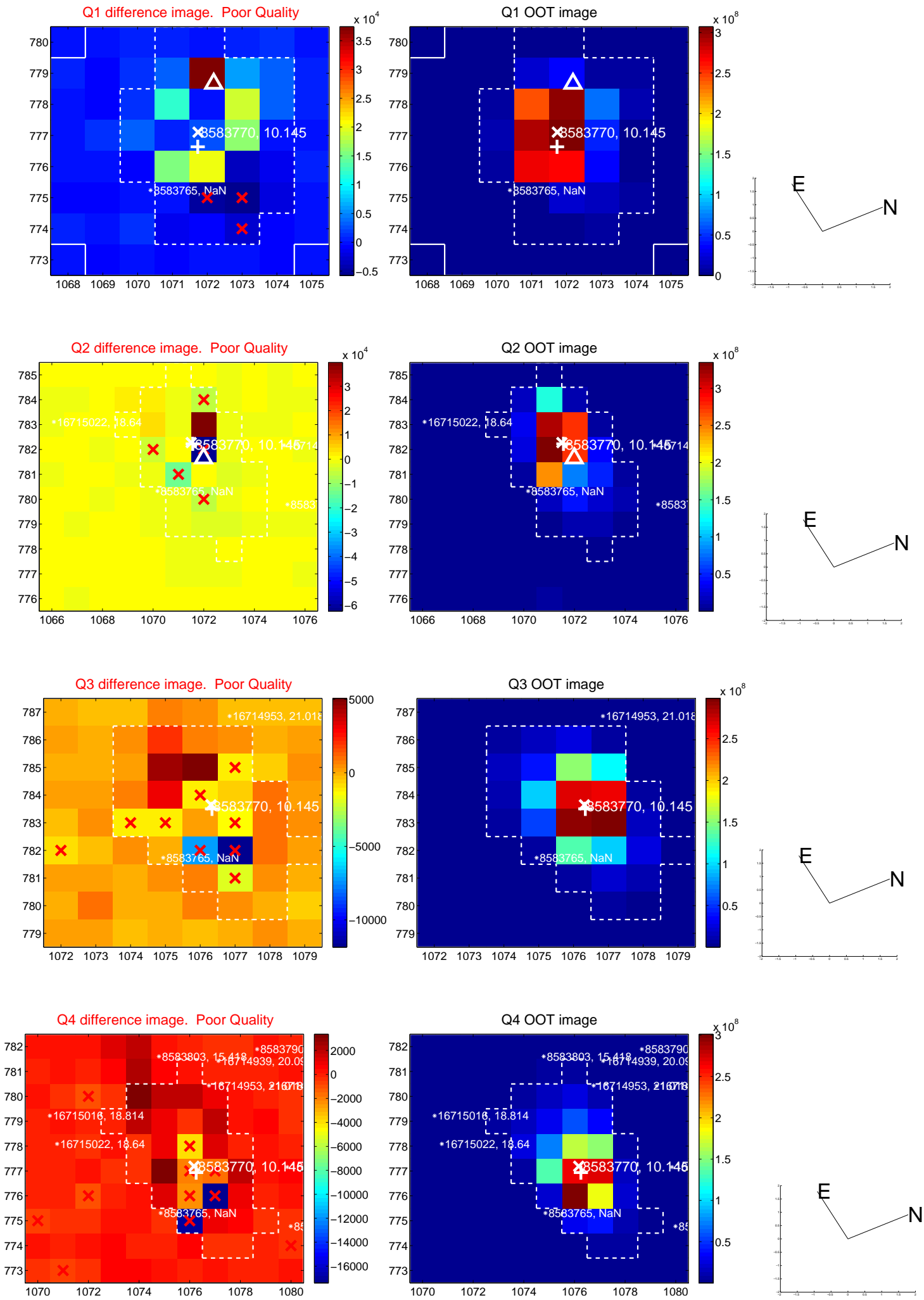
The direct PRF centroid is offset from the target star catalog position by about 1.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.223 ± 1.285	3.29	4.180 ± 1.221	0.602 ± 1.075
PRF-fit source offset from KIC position	4.556 ± 1.270	3.59	4.487 ± 1.203	0.792 ± 1.002
photometric centroid source offset	0.47 ± 0.27	1.72	-0.40 ± 0.29	-0.25 ± 0.22

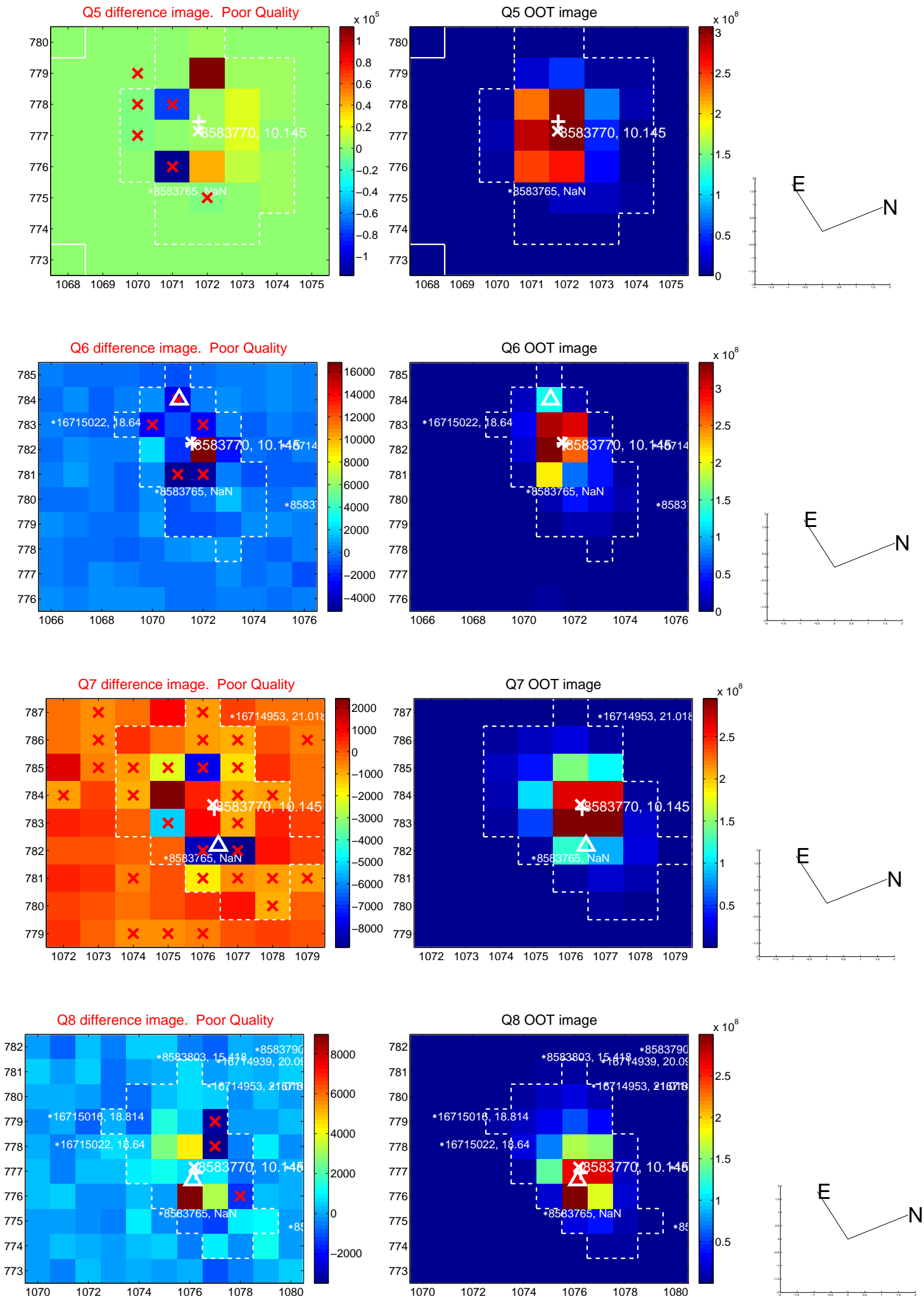


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

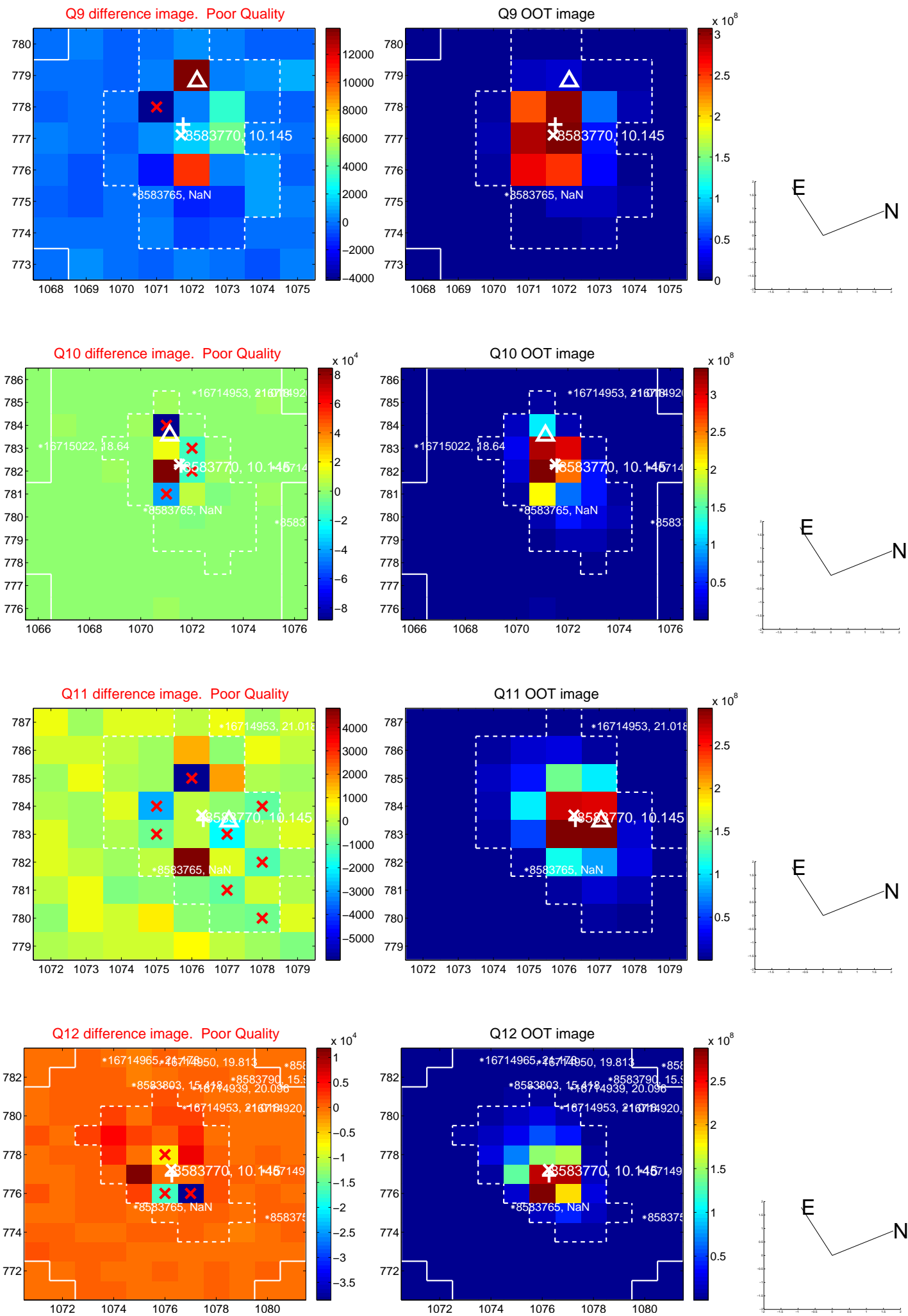
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



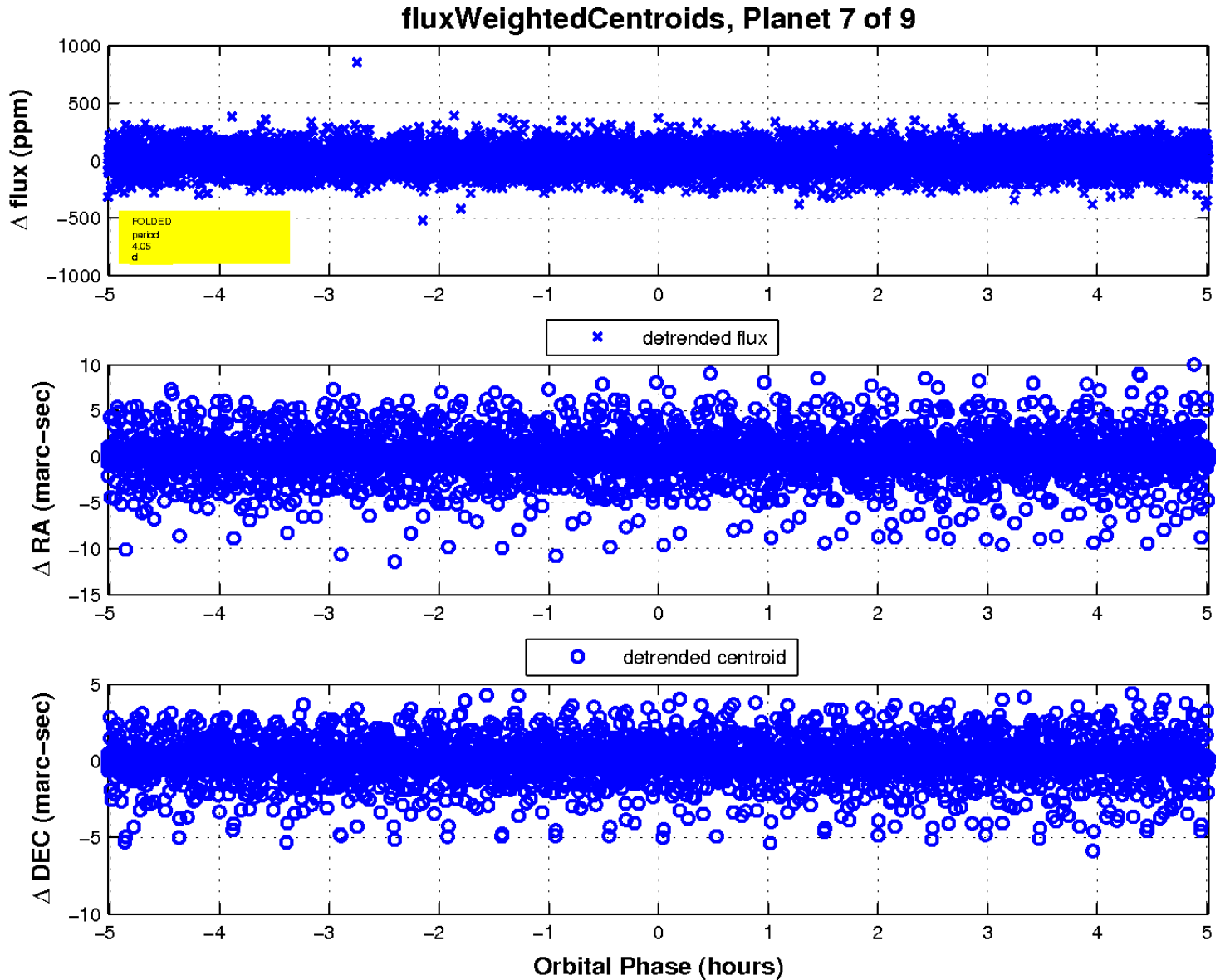
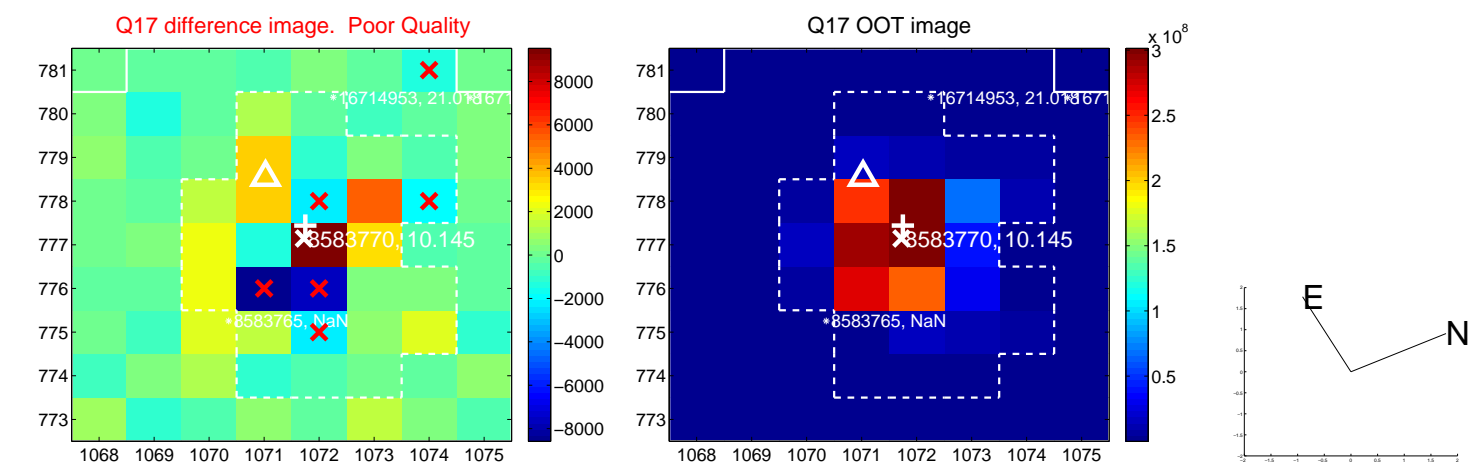
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

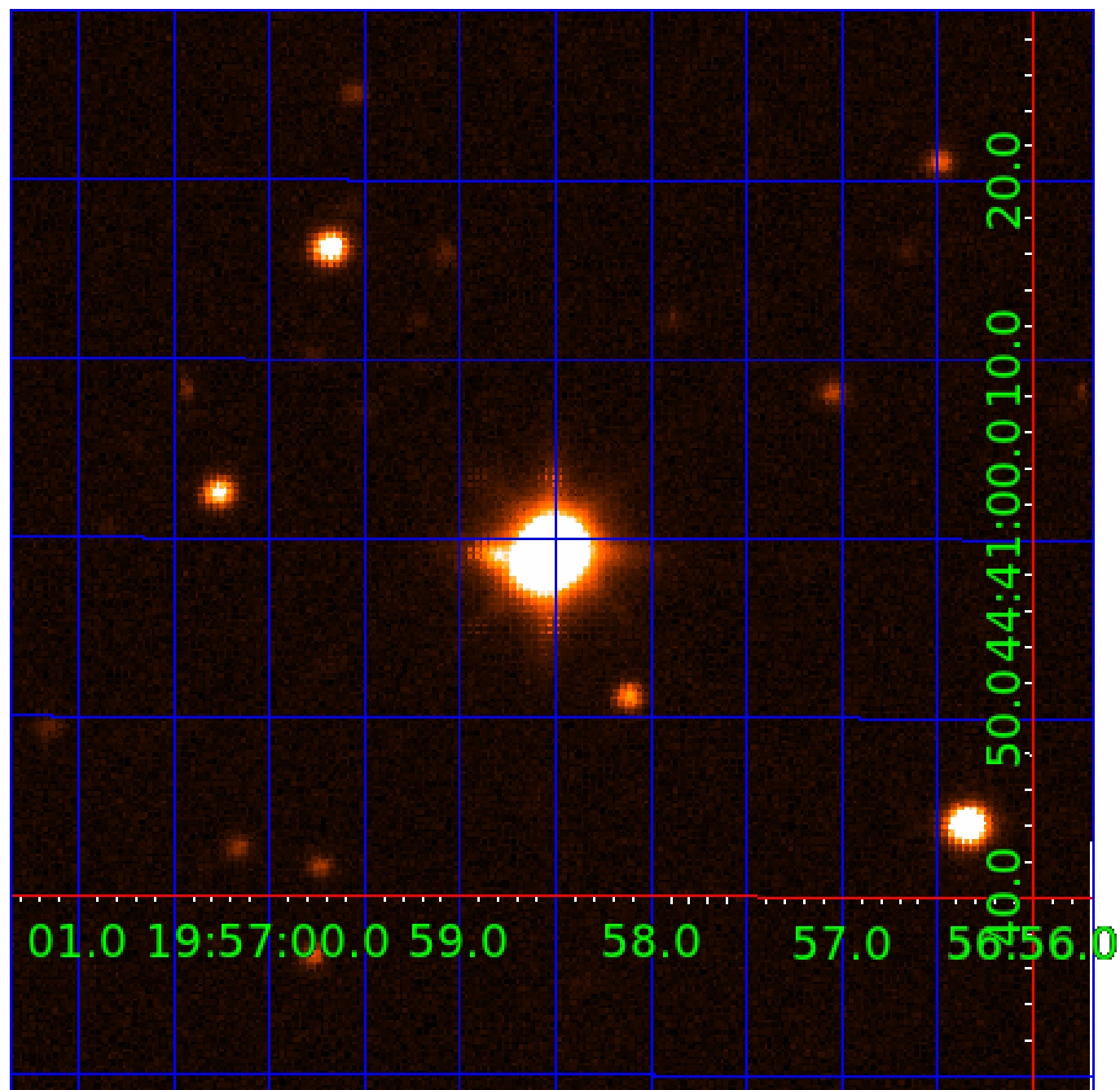


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008583770

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})
008583770-01	OBS	No	0.690411	131.684372	7.1	5.248	11.1	9.9	8.23	8675	2.27	0.00
008583770-03	OBS	No	5.412970	134.079744	193.3	1.500	18.3	-1.0	8.23	8675	11.67	43165.03
008583770-04	OBS	No	5.548257	136.831697	97.1	1.581	13.3	14.1	8.23	8675	8.27	41767.40
008583770-05	OBS	No	5.086643	134.889509	155.9	1.162	10.3	19.8	8.23	8675	10.54	46896.23
008583770-07	OBS	No	4.051705	135.150205	100.4	1.673	10.3	14.9	8.23	8675	9.61	63512.97
008583770-08	OBS	No	5.311337	134.863897	196.7	0.645	12.2	15.7	8.23	8675	12.01	44269.82
008583770-09	OBS	No	4.270565	131.884110	79.0	2.000	10.4	-1.0	8.23	8675	7.45	59210.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008583770-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
008583770-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED
008583770-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

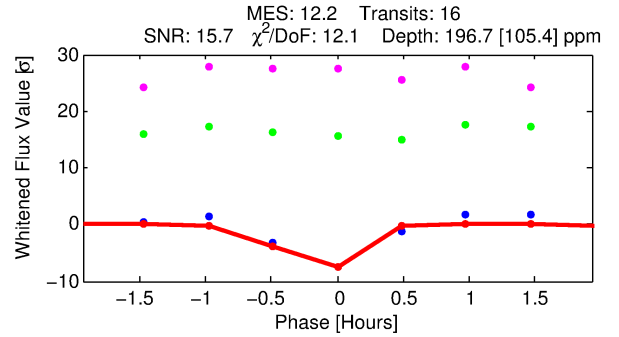
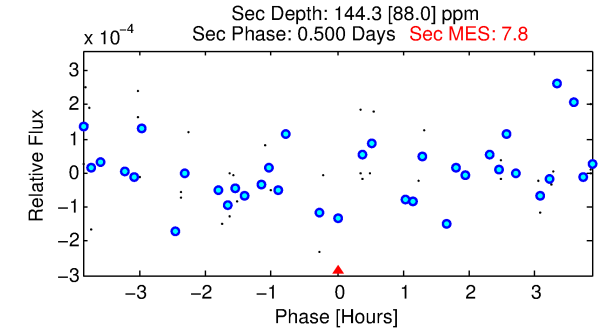
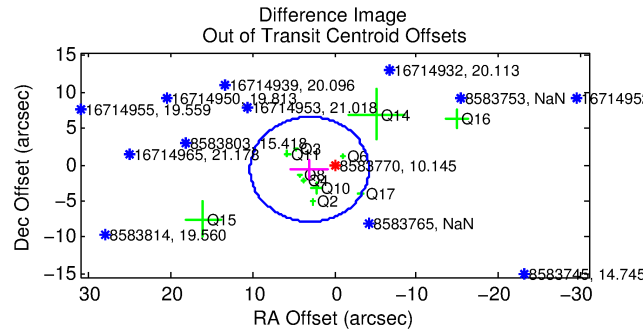
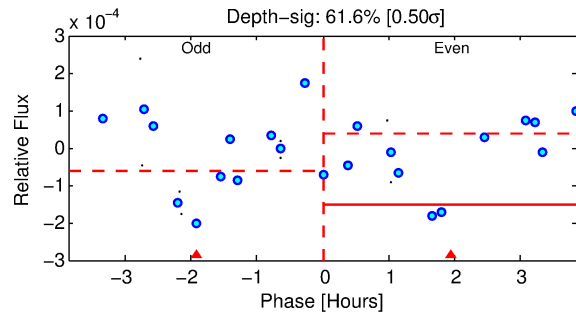
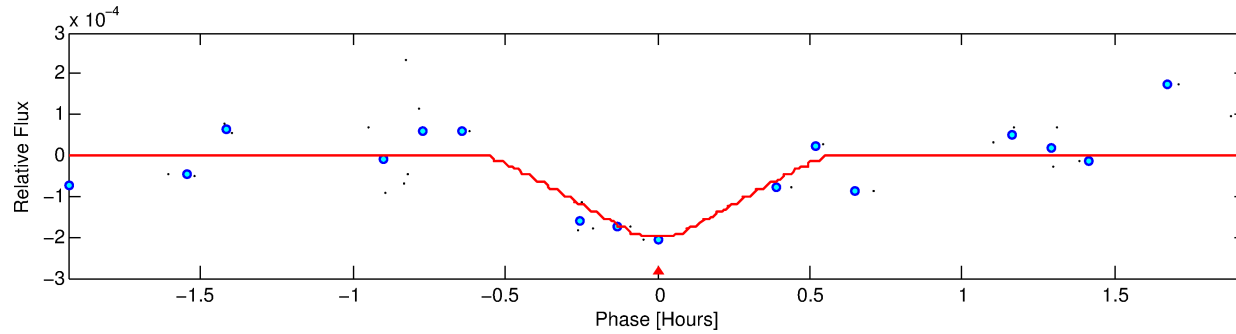
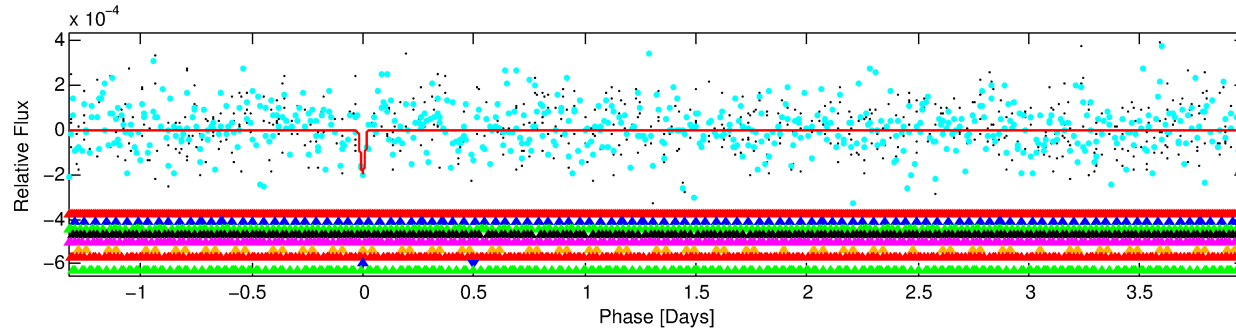
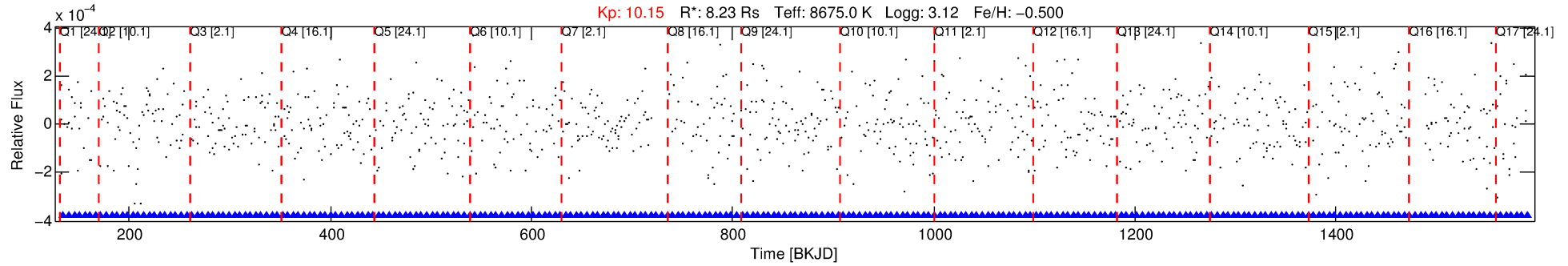
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008583770-08

No Significant Match Found

DV One-Page Summary

KIC: 8583770 Candidate: 8 of 9 Period: 5.311 d



DV Fit Results:

Period = 5.31134 [0.00015] d
Epoch = 134.8639 [0.0243] BKJD
Rp/R* = 0.0134 [0.0324]
a/R* = 62.32 [967.68]
b = 0.22 [68.23]
Seff = 44269.82 [20307.07]
Teq = 3699 [424] K
Rp = 12.00 [29.25] Re
a = 0.0882 [0.0188] AU
Ag = 4.28 [20.97] [0.16 σ]
Teffp = 8226 [10074] K [0.45 σ]

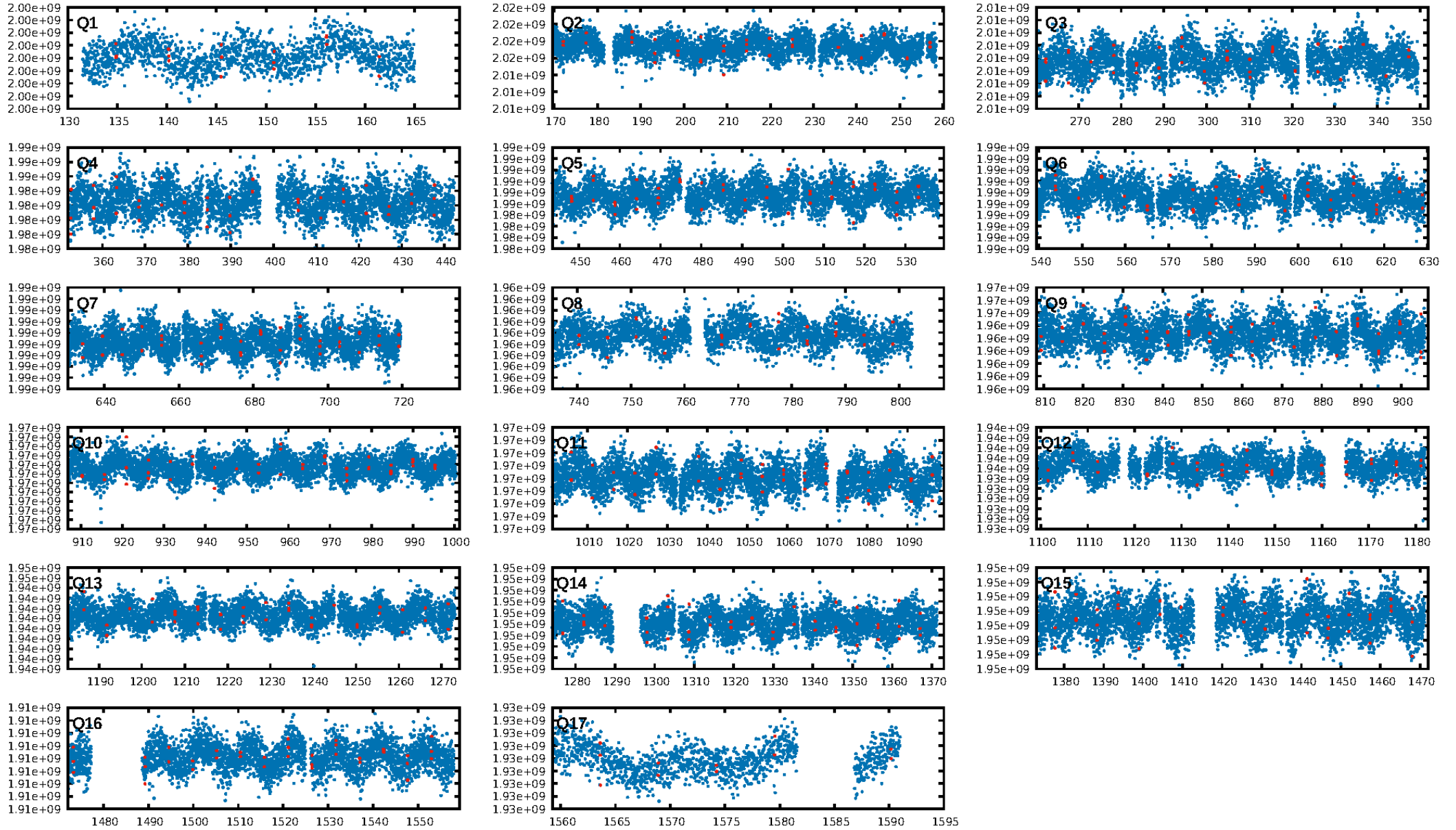
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.06 σ]
LongPeriod-sig: 86.5% [1.49 σ]
ModelChiSquare2-sig: 37.6%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 0.528 arcsec [2.07 σ]
OotOffset-rm: 3.120 arcsec [1.29 σ]
KicOffset-rm: 2.690 arcsec [1.05 σ]
OotOffset-st: 4/3/3/1 [11]
KicOffset-st: 4/3/3/1 [11]
DiffImageQuality-fgm: 0.18 [2/11]
DiffImageOverlap-fno: 0.20 [3/15]

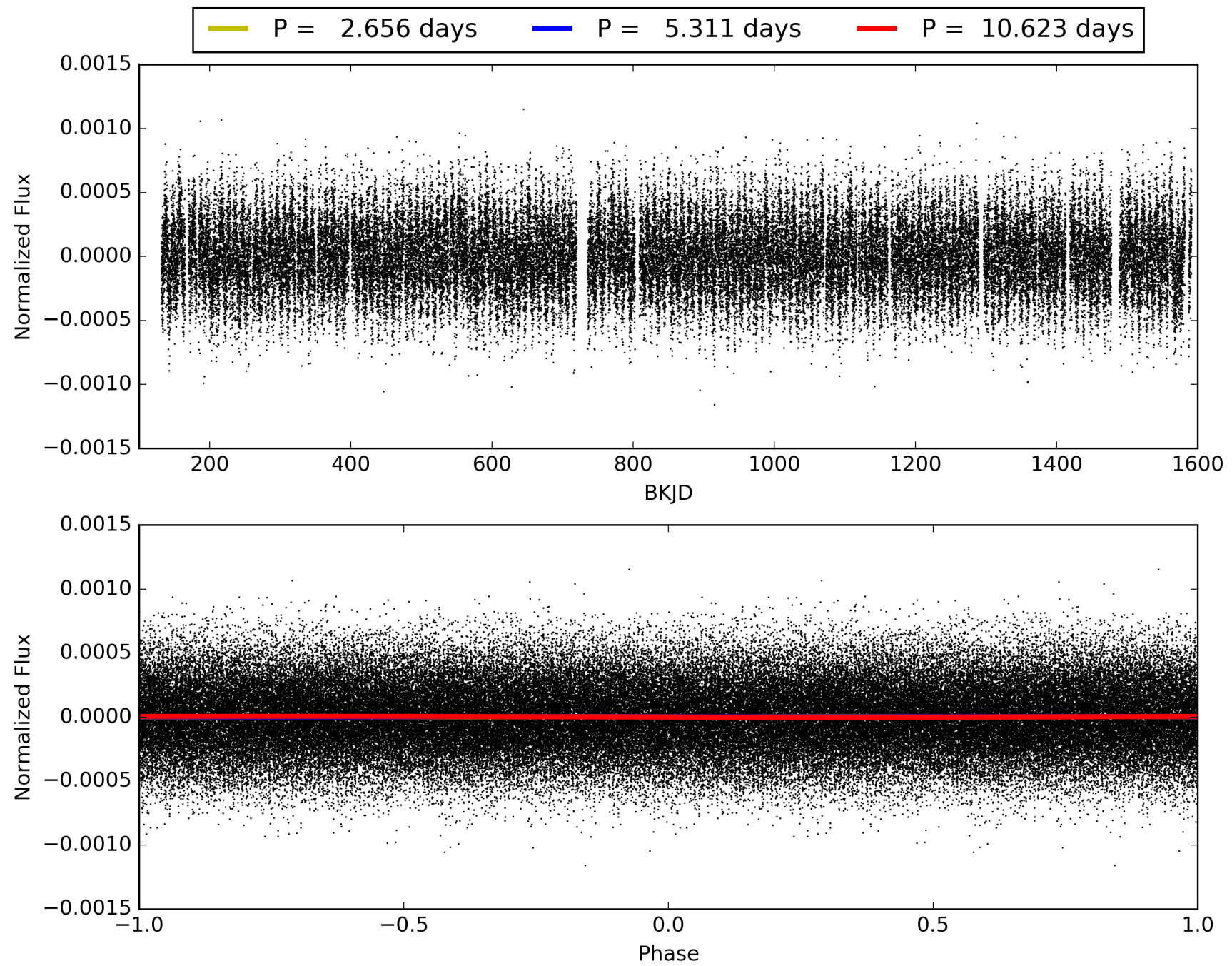
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:34:14 Z

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

TCE 00583770-08, PDC Light Curves

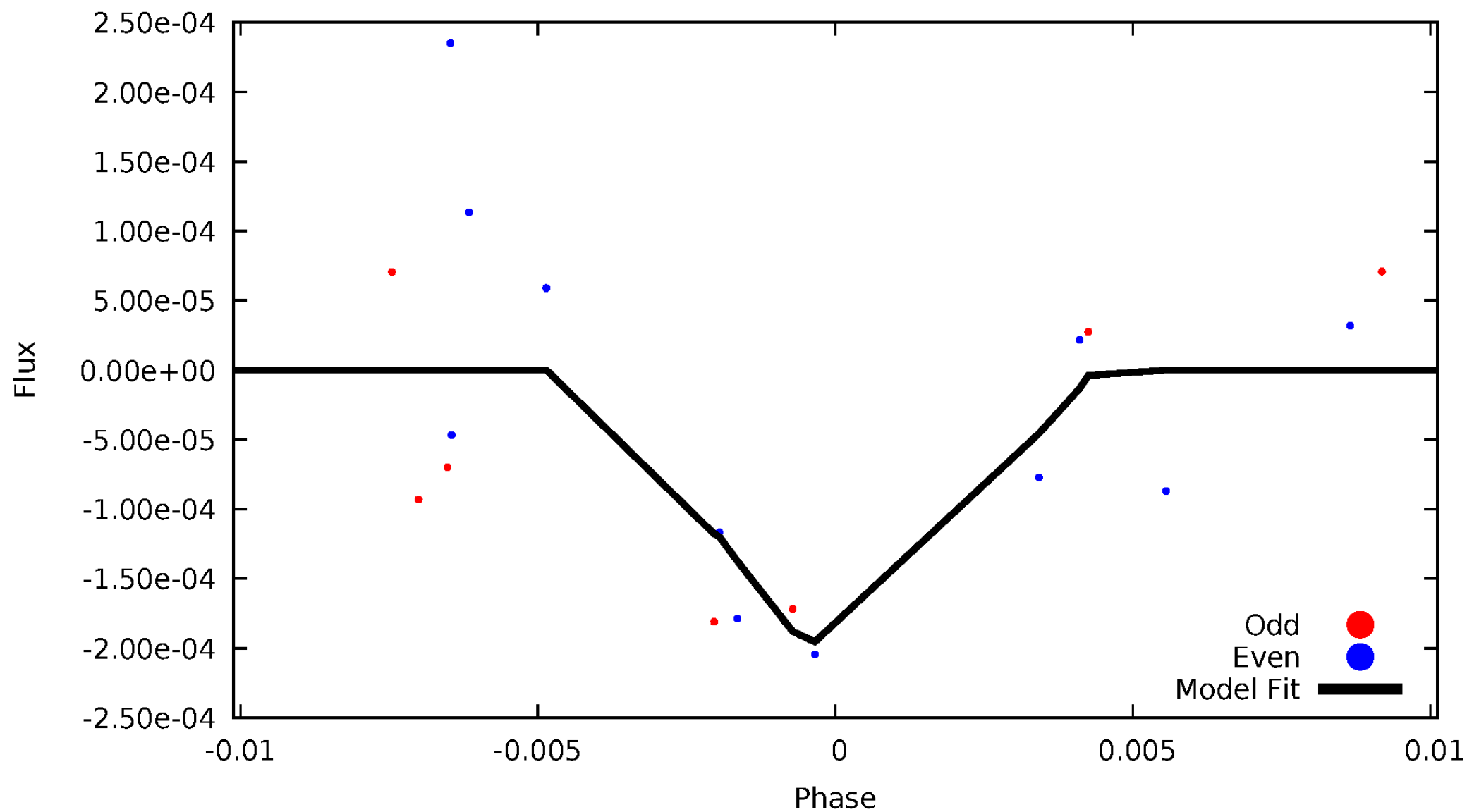


TCE 008583770-08



DV Odd/Even

TCE 008583770-08

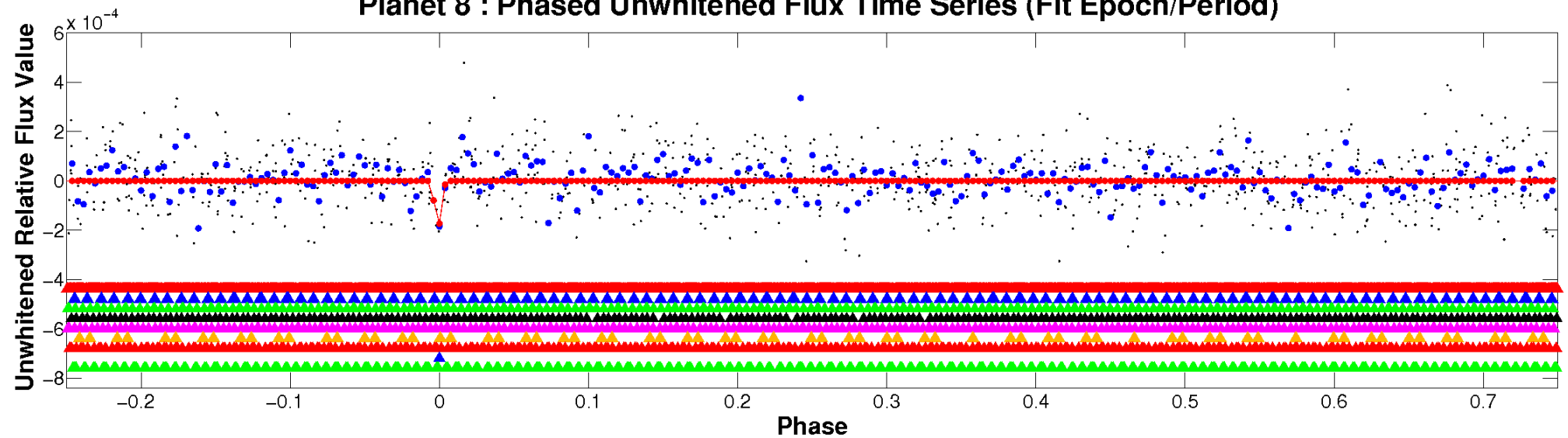


ALT Odd/Even

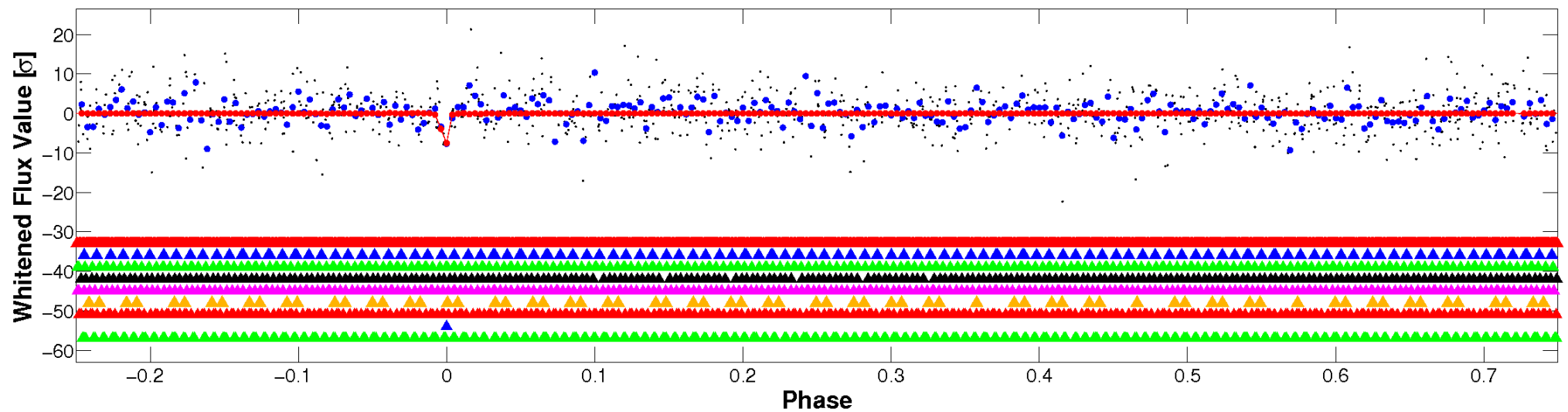
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

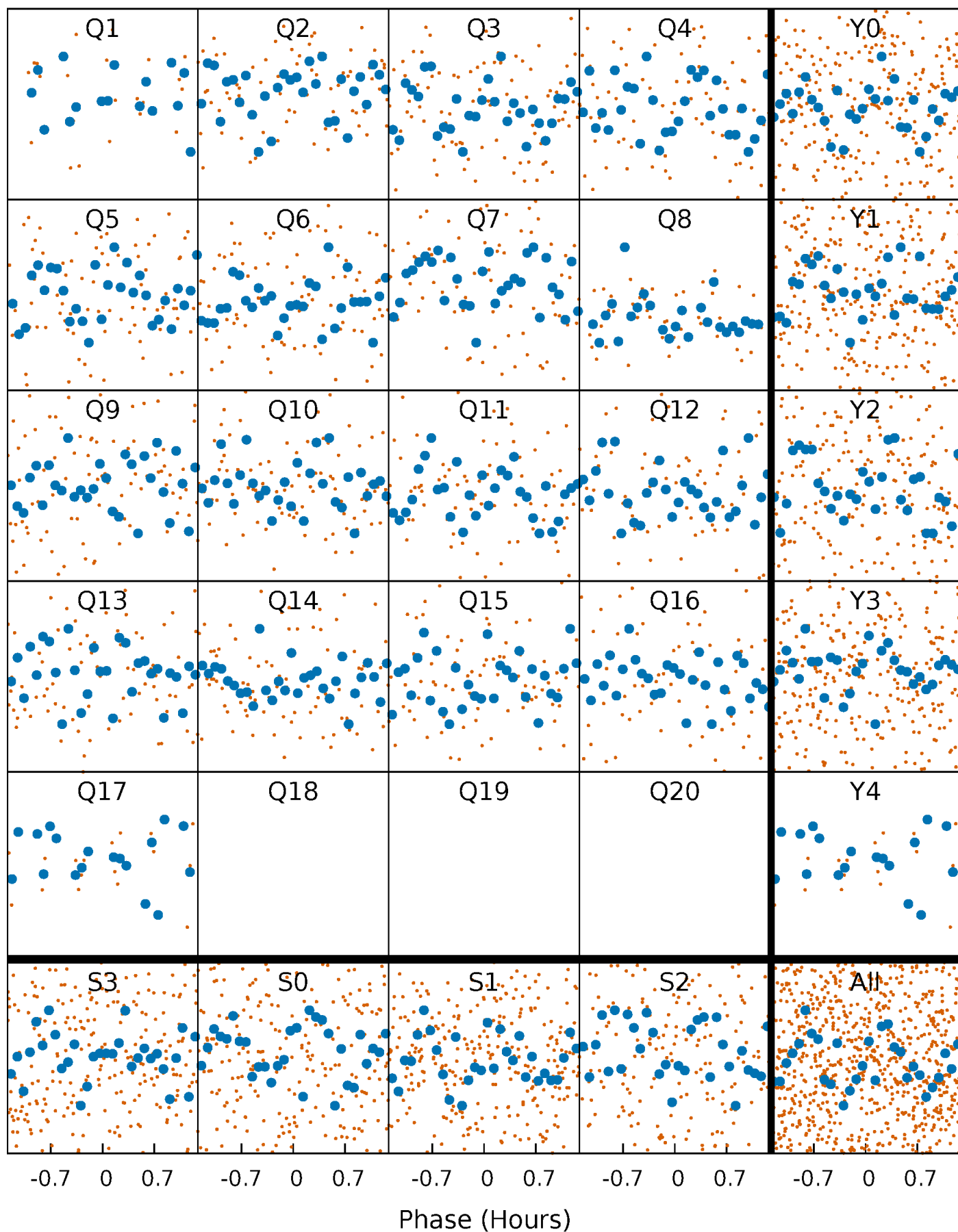


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



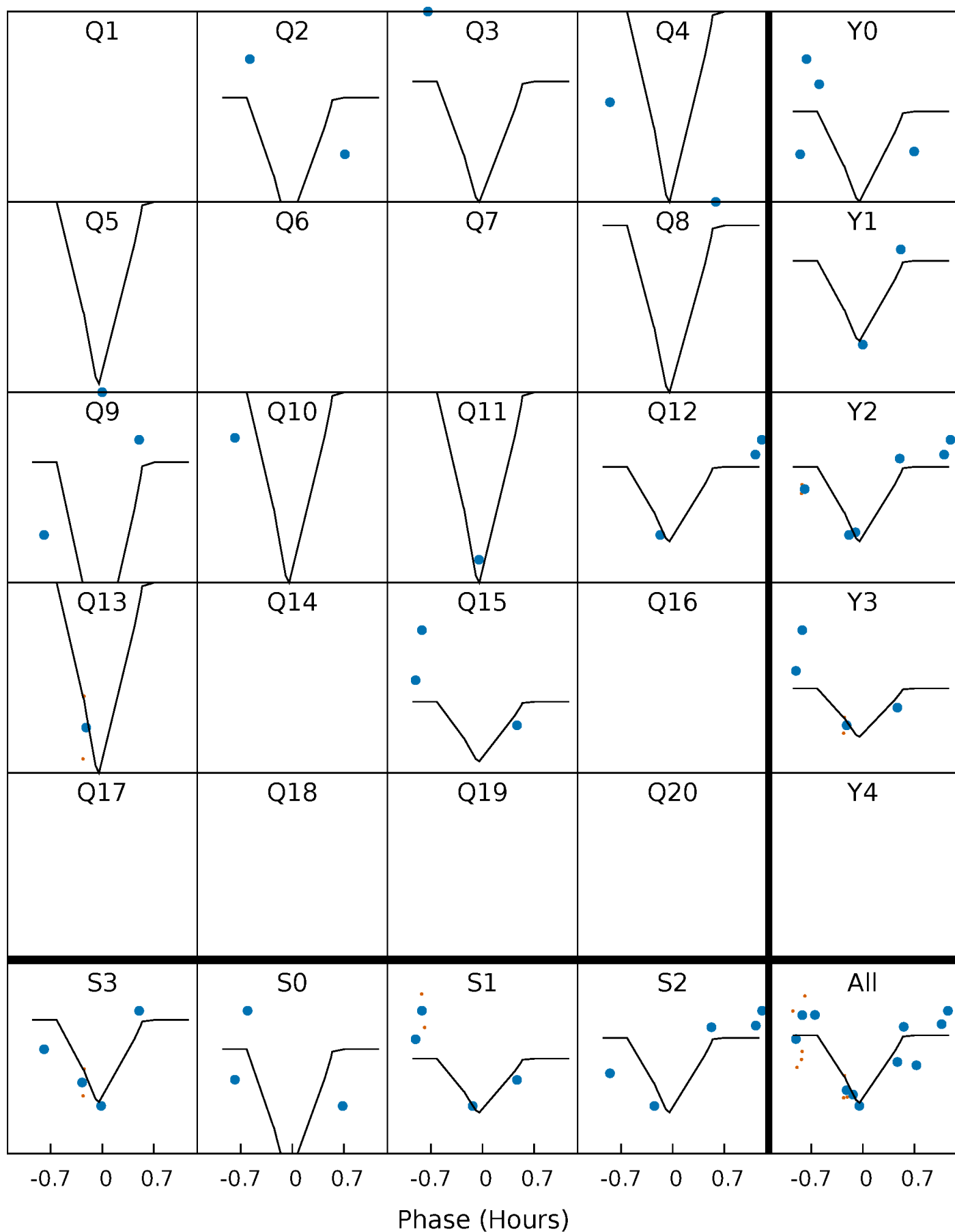
PDC Quarter-Phased Transit Curves

TCE 008583770-08 P= 5.311337 Days $T_0=134.863897$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008583770-08 P= 5.311337 Days $T_0=134.863897$ (BKJD)

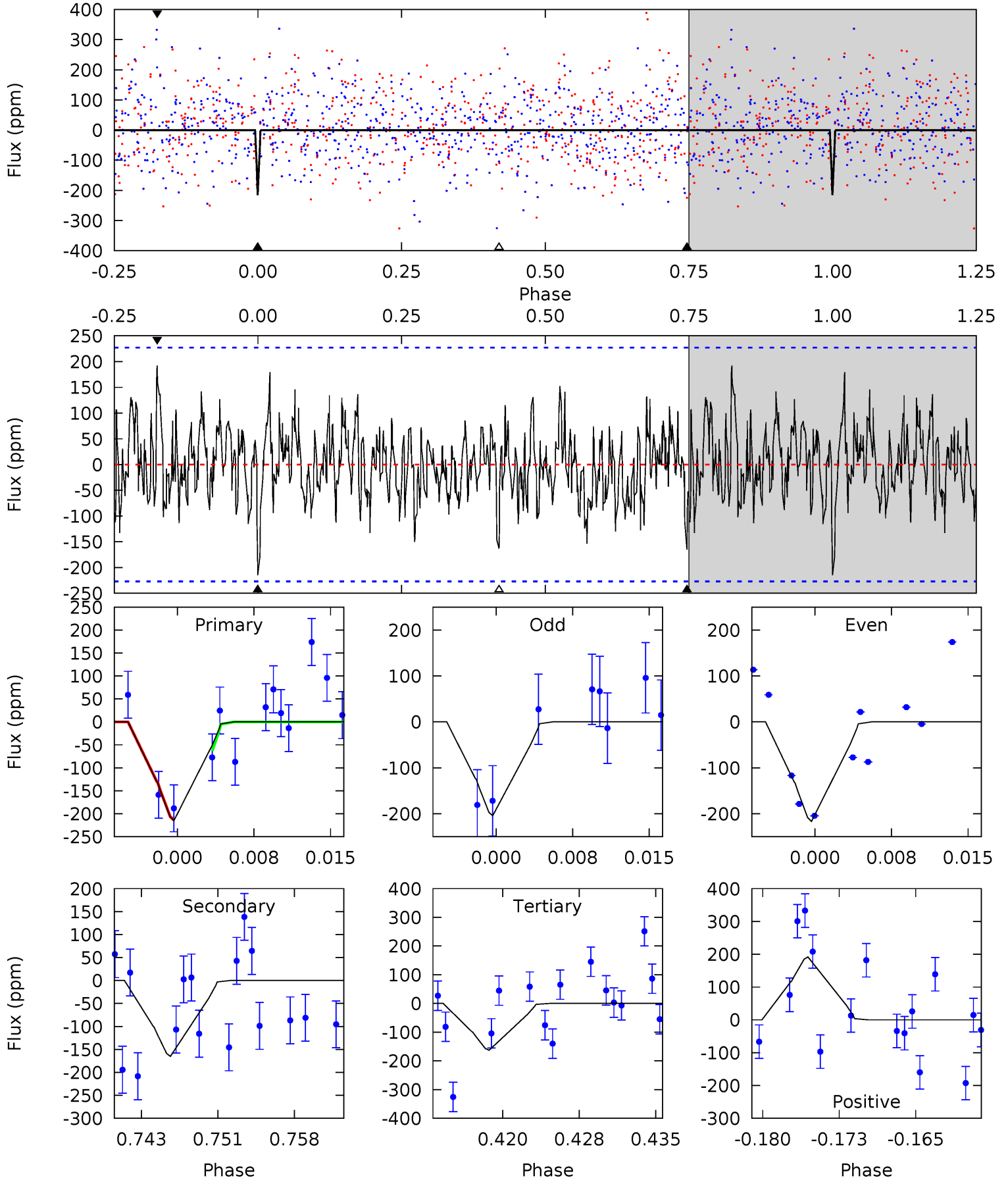


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008583770-08, P = 5.311337 Days, E = 129.552560 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.81	3.70	3.65	4.30	5.08	2.67	1.34	1.16	0.52	0.05	-0.60	0.14	0	0.47	1.72



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008583770

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8675^{+514}_{-707}	$3.117^{+0.182}_{-0.065}$	$-0.500^{+0.600}_{-0.050}$	$8.234^{+0.798}_{-1.995}$	$3.237^{+0.211}_{-0.421}$	$0.008^{+0.008}_{-0.002}$
	+6%/-8%	+6%/-2%	+120%/-10%	+10%/-24%	+7%/-13%	+94%/-21%
Source	SPE4	SPE4	SPE4	DSEP		

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

Secondary Eclipse Parameters for KIC 008583770-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-165 ± 45	$24.58^{+21.60}_{-17.15}$	5067^{+383}_{-473}	5217^{+6431}_{-7881}	$1.169^{+12.699}_{-0.883}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

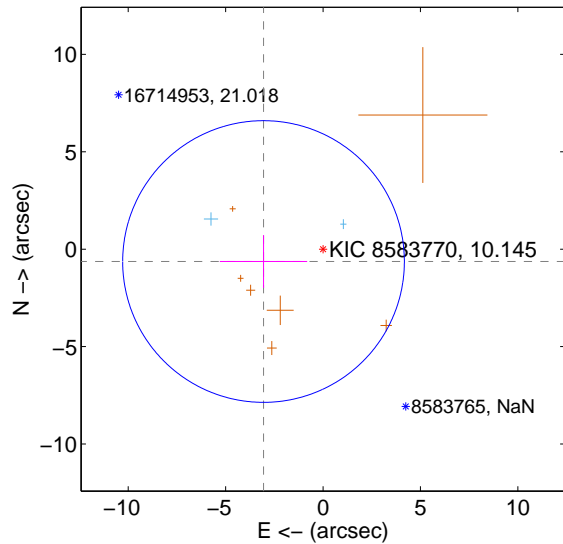
Supplemental centroid analysis for 008583770-08. **Kepler magnitude: 10.14.** Transit SNR 15.67

There are 2 quarters with good PRF difference image offsets

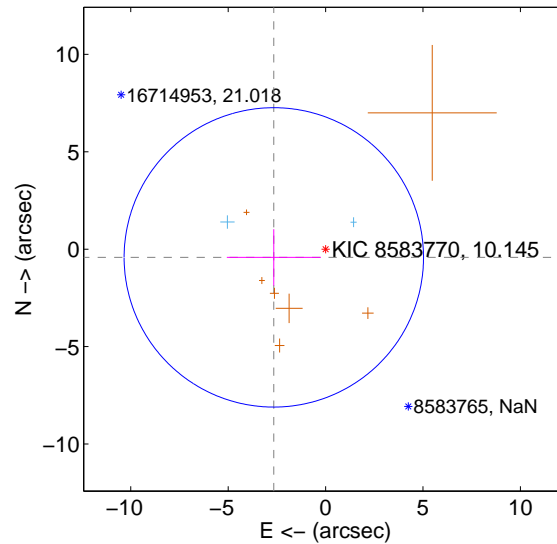
The direct PRF centroid is offset from the target star catalog position by about 1.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.120 ± 2.409	1.29	3.055 ± 2.243	-0.634 ± 1.353
PRF-fit source offset from KIC position	2.690 ± 2.561	1.05	2.657 ± 2.411	-0.421 ± 1.449
photometric centroid source offset	0.53 ± 0.25	2.07	-0.45 ± 0.27	-0.27 ± 0.21

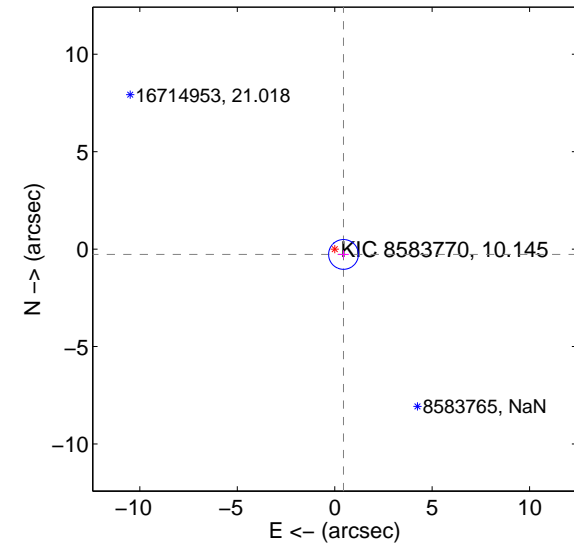
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

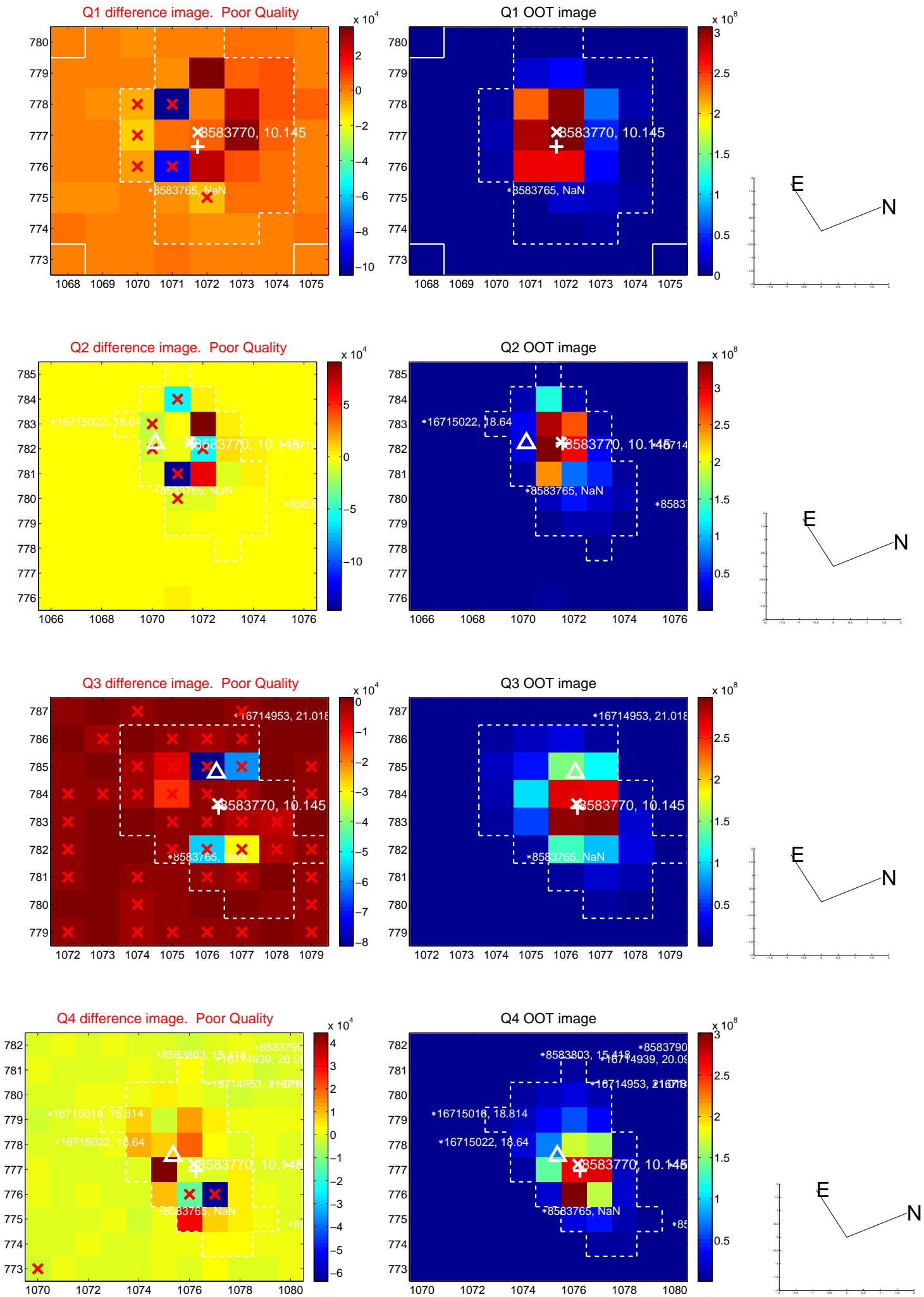


offset from photometric centroids

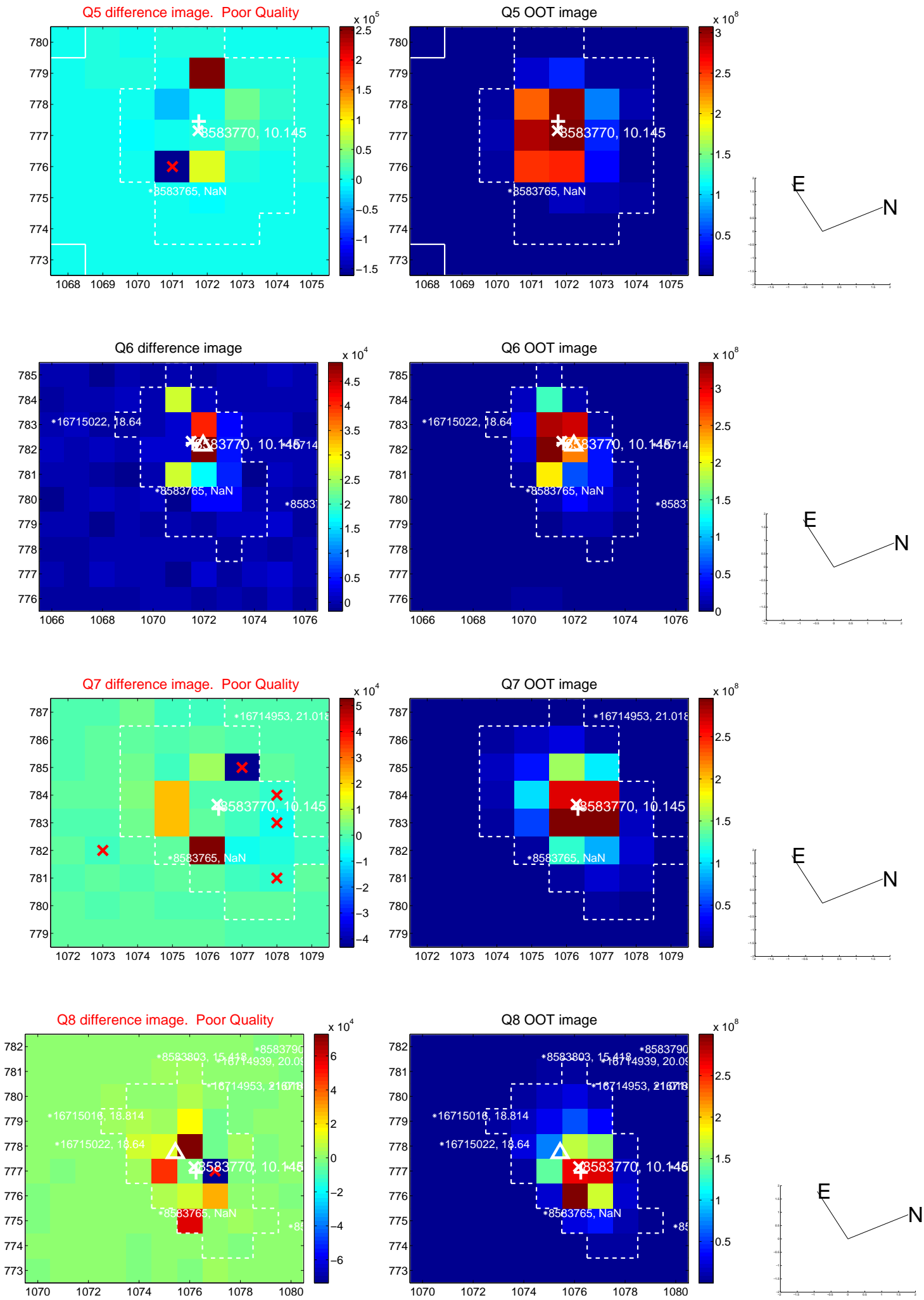


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

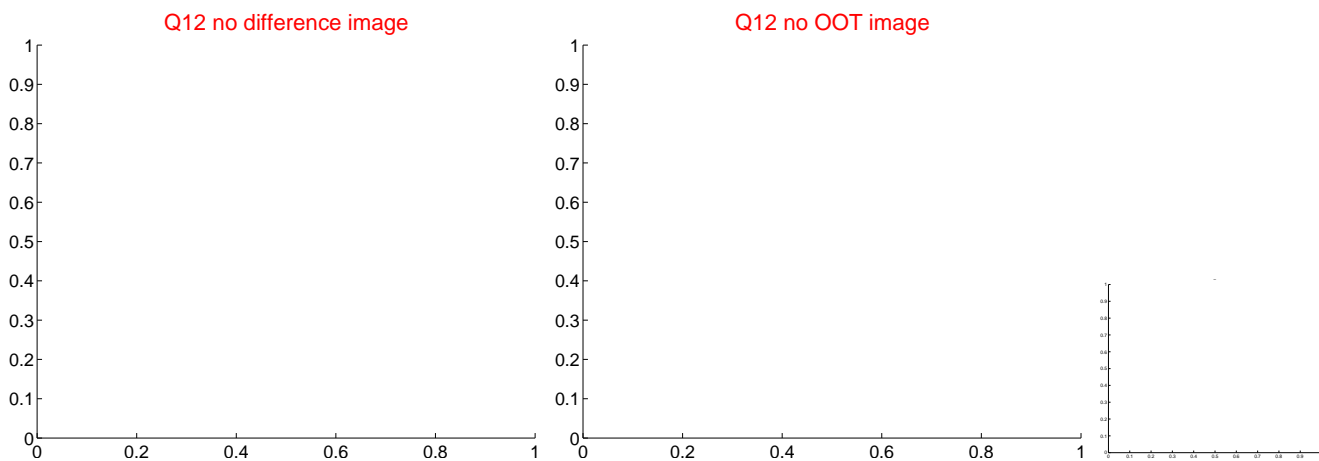
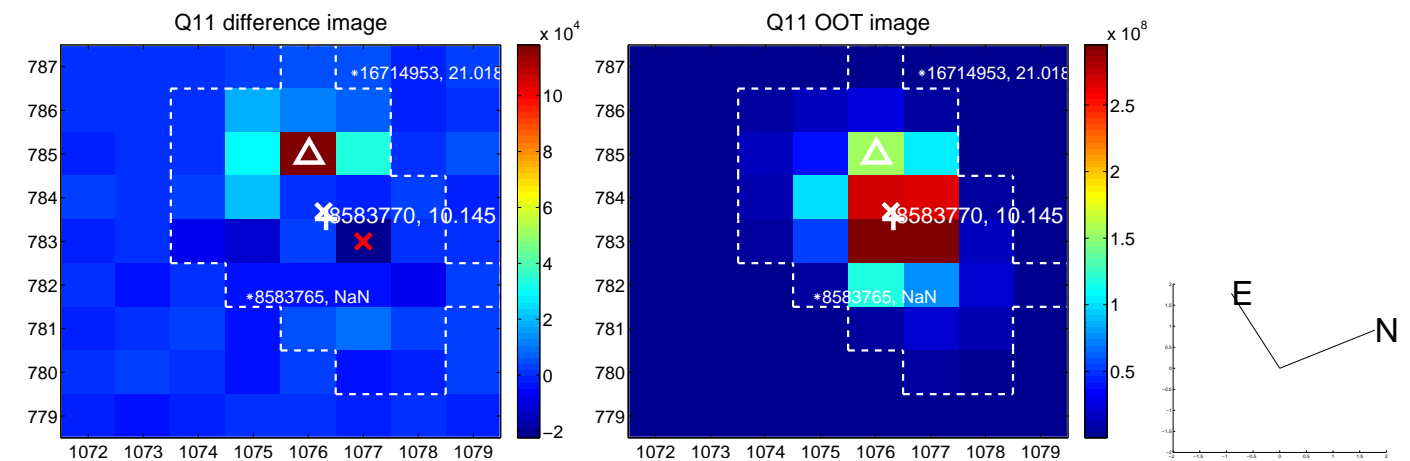
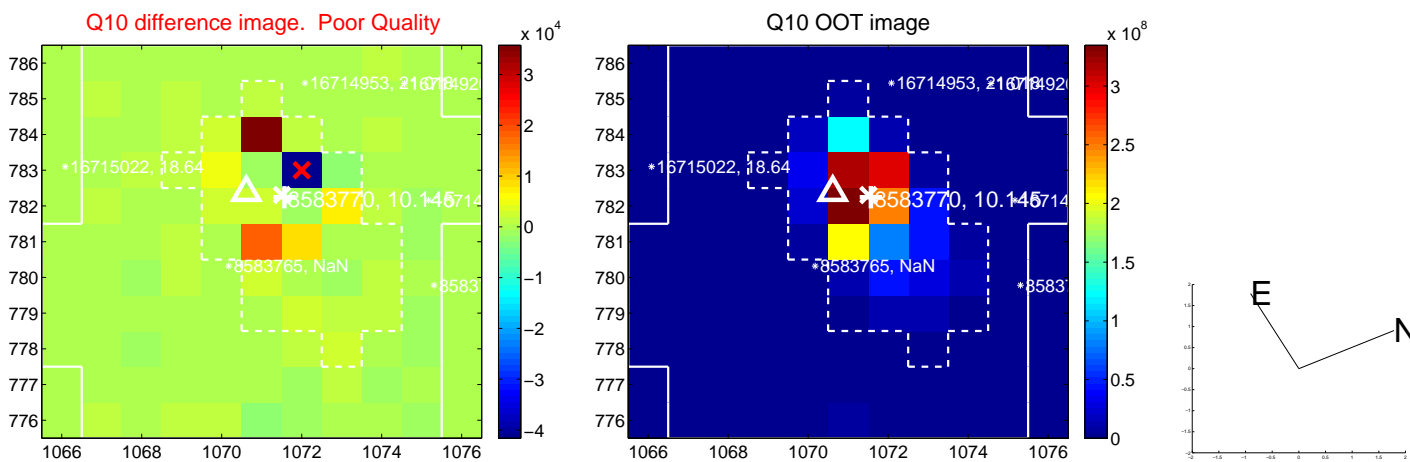
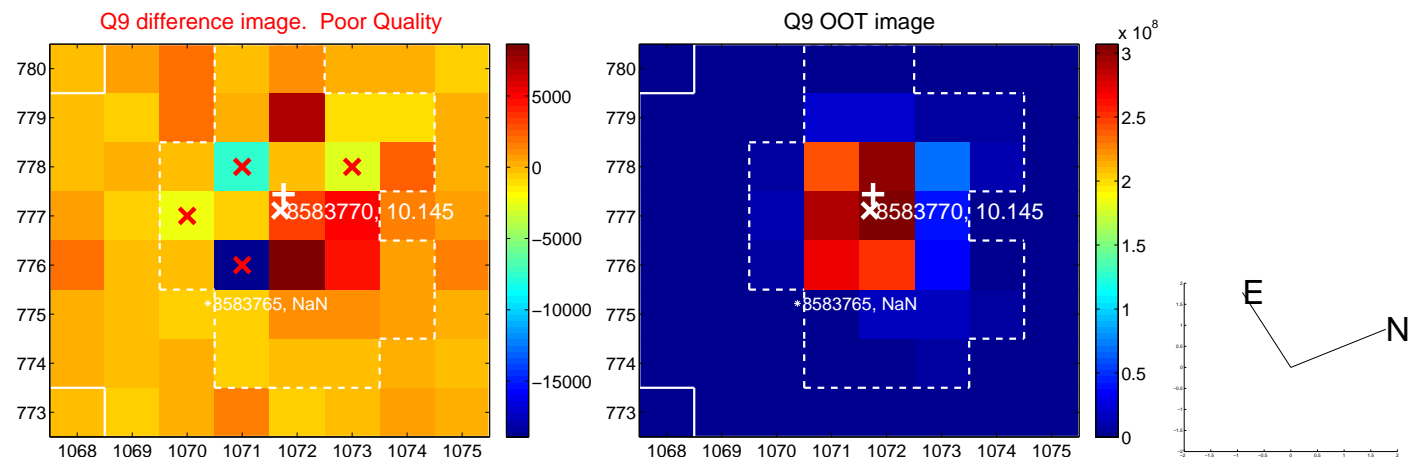
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



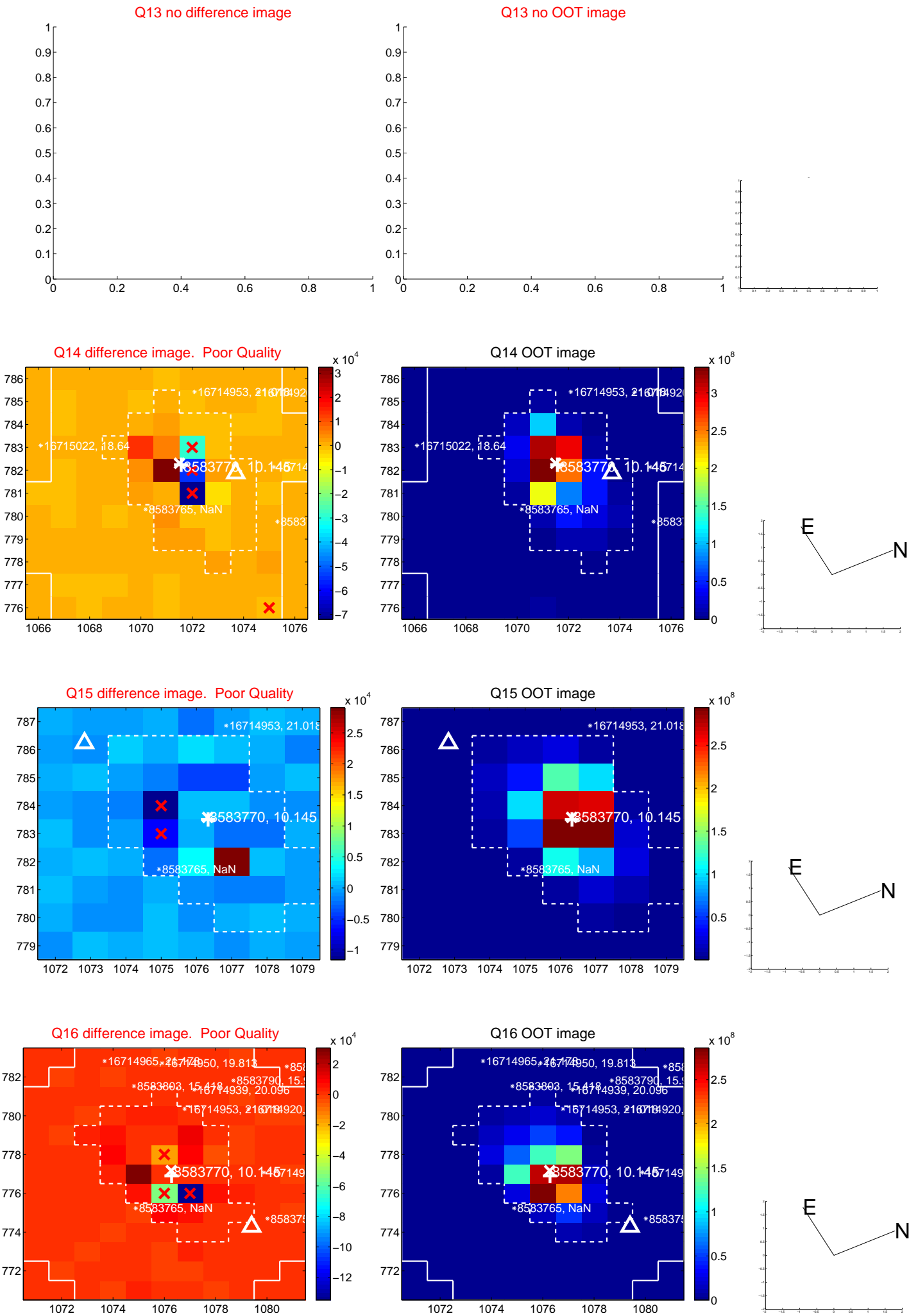
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



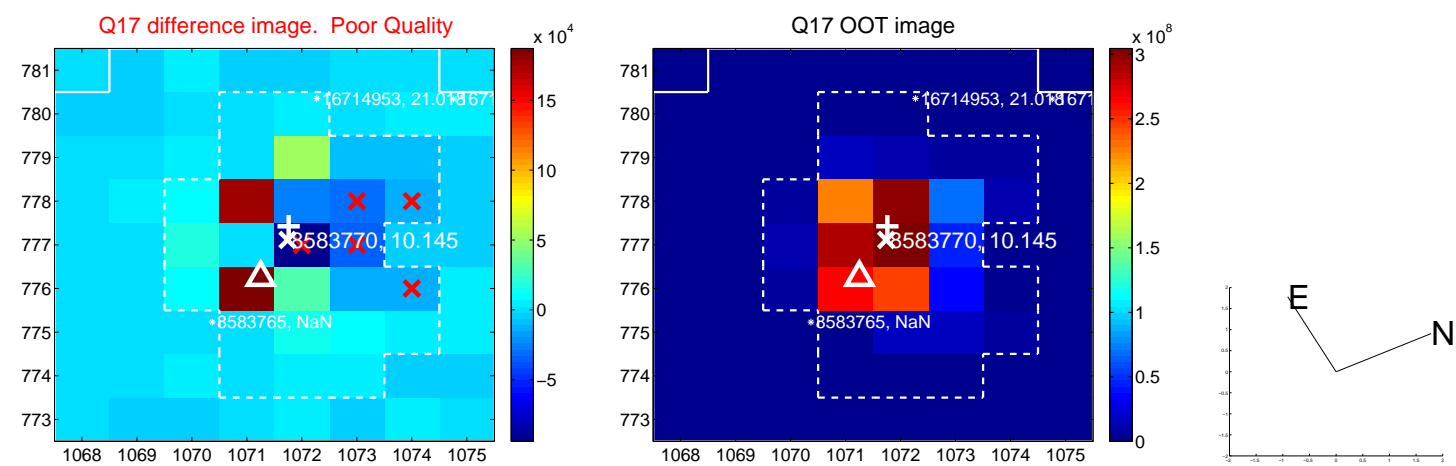
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



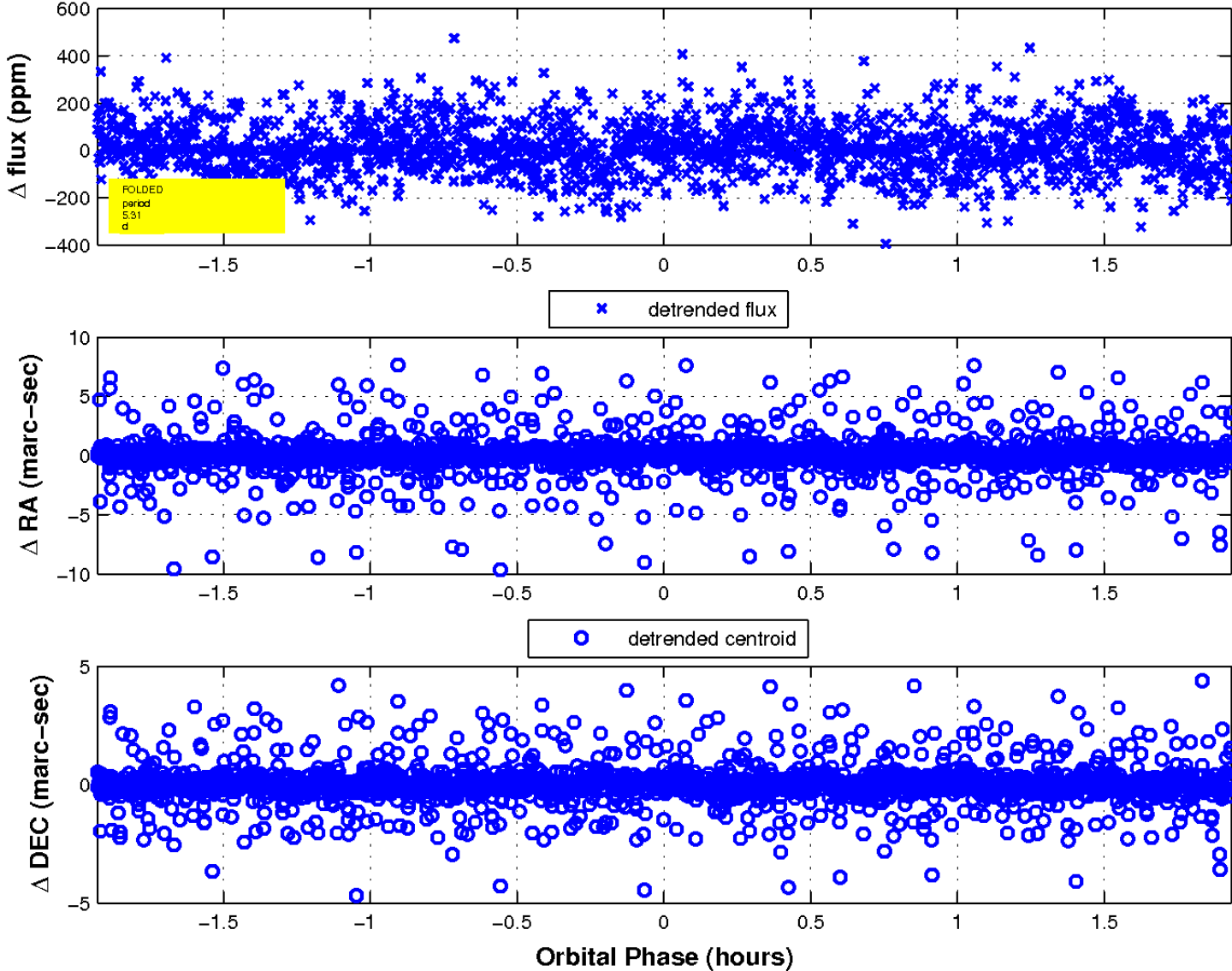
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

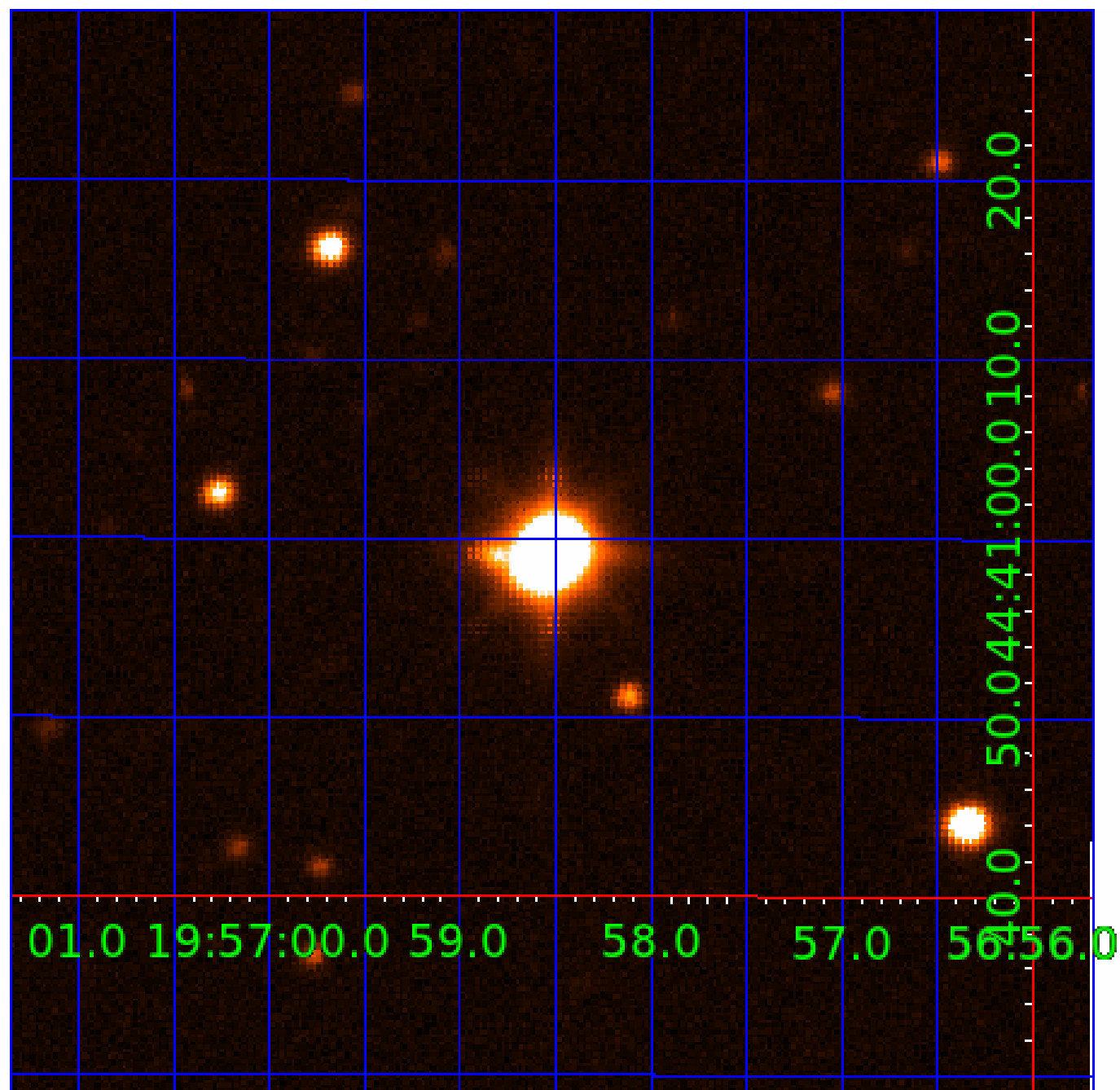


fluxWeightedCentroids, Planet 8 of 9



UKIRT Image

Declination



KIC 008583770

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})
008583770-01	OBS	No	0.690411	131.684372	7.1	5.248	11.1	9.9	8.23	8675	2.27	0.00
008583770-03	OBS	No	5.412970	134.079744	193.3	1.500	18.3	-1.0	8.23	8675	11.67	43165.03
008583770-04	OBS	No	5.548257	136.831697	97.1	1.581	13.3	14.1	8.23	8675	8.27	41767.40
008583770-05	OBS	No	5.086643	134.889509	155.9	1.162	10.3	19.8	8.23	8675	10.54	46896.23
008583770-07	OBS	No	4.051705	135.150205	100.4	1.673	10.3	14.9	8.23	8675	9.61	63512.97
008583770-08	OBS	No	5.311337	134.863897	196.7	0.645	12.2	15.7	8.23	8675	12.01	44269.82
008583770-09	OBS	No	4.270565	131.884110	79.0	2.000	10.4	-1.0	8.23	8675	7.45	59210.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008583770-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED
008583770-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED
008583770-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
008583770-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

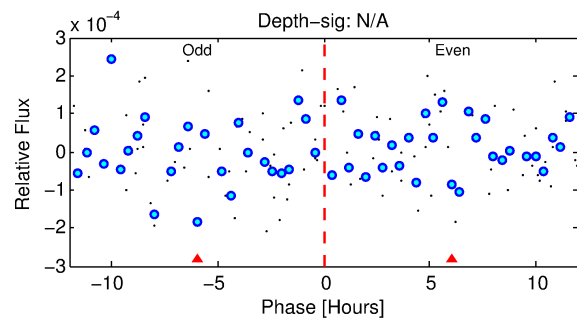
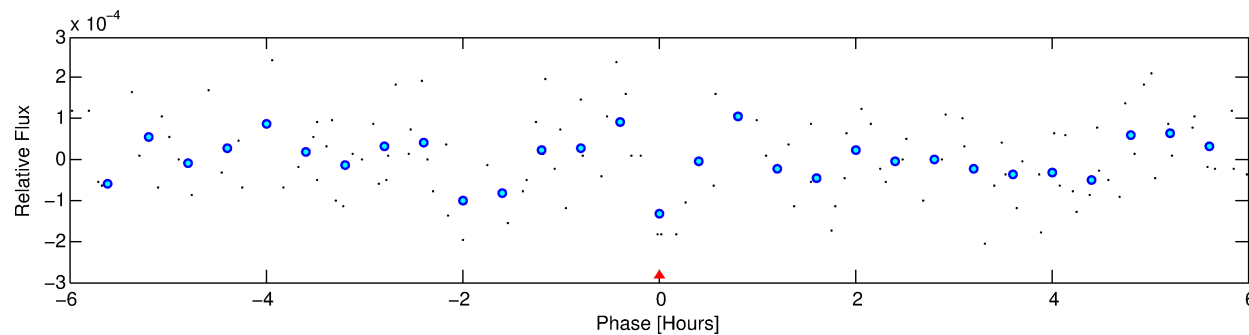
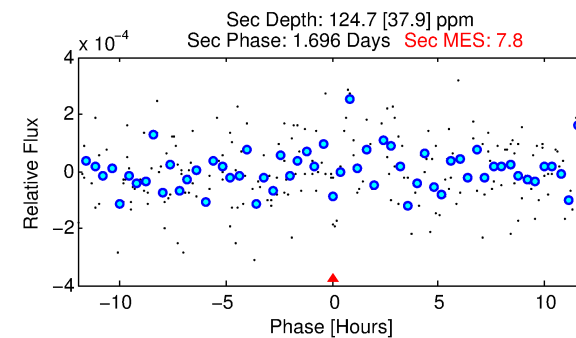
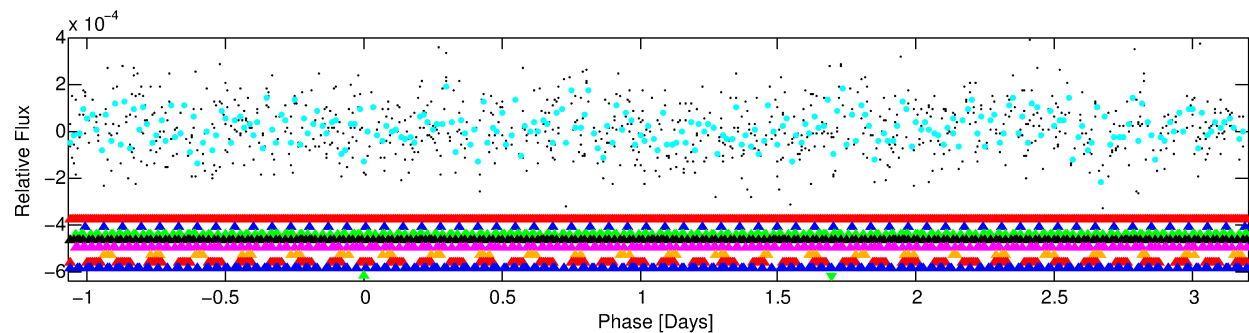
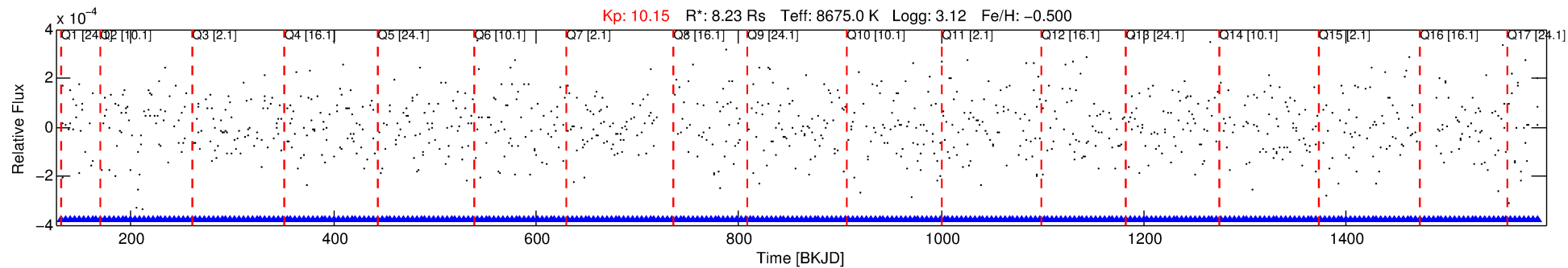
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008583770-09

No Significant Match Found

DV One-Page Summary

KIC: 8583770 Candidate: 9 of 9 Period: 4.271 d



TPS TCE Results:

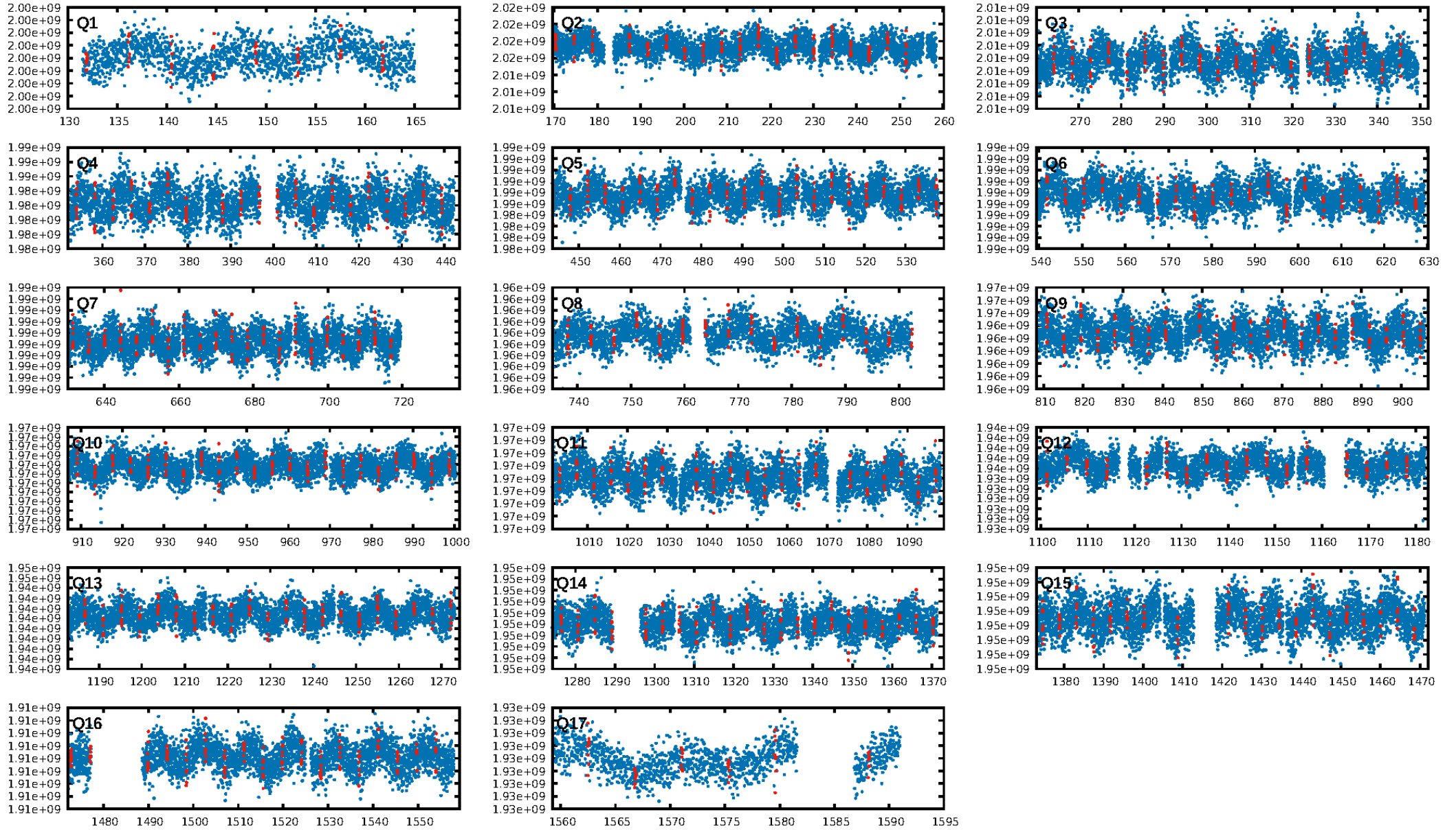
Period = 4.27056 d
Epoch = 131.8841 BKJD

DV fit results are unavailable

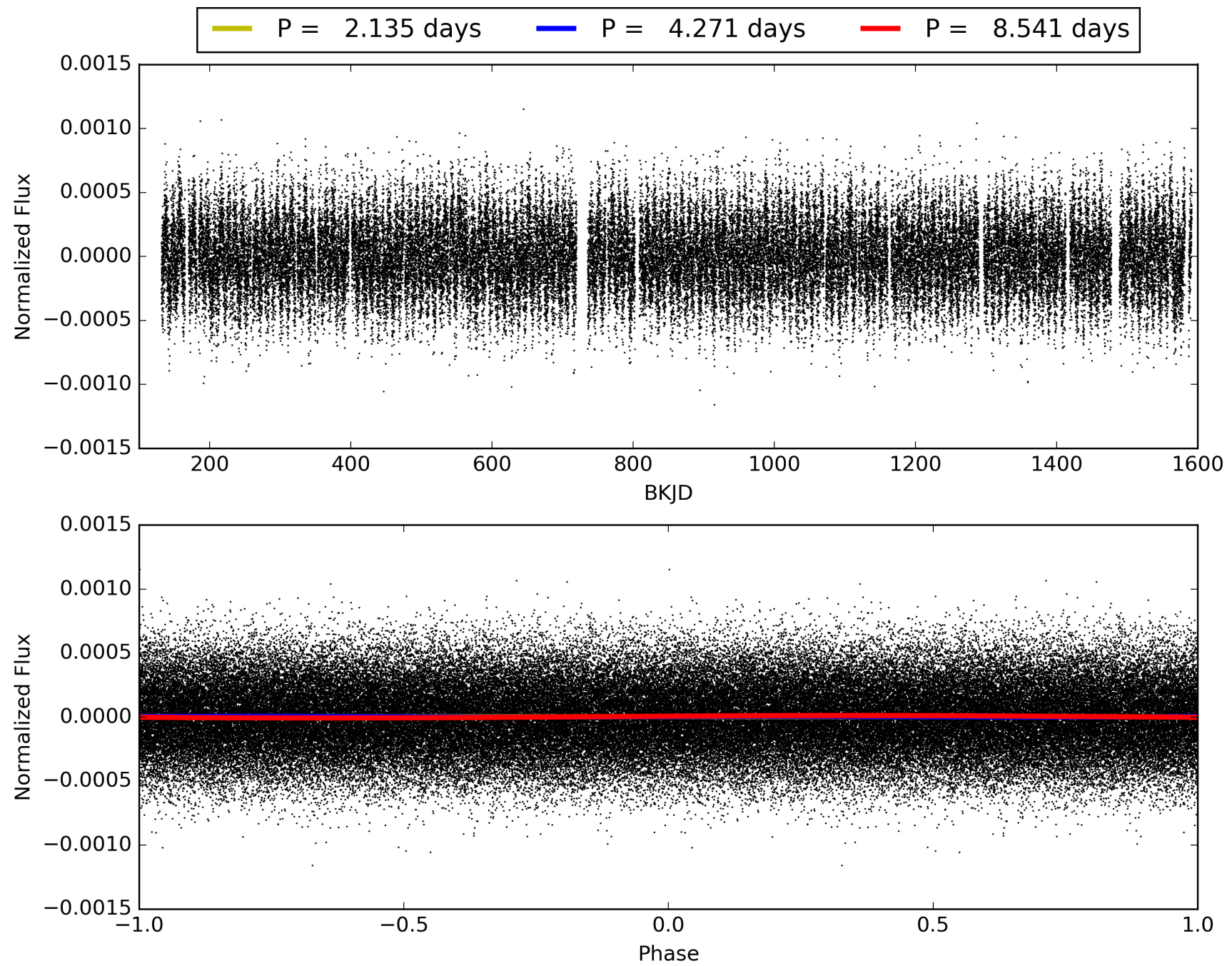
DV Diagnostic Results:

ShortPeriod-sig: 95.6% [2.01σ]
LongPeriod-sig: 100.0% [8.47σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

TCE 008583770-09, PDC Light Curves

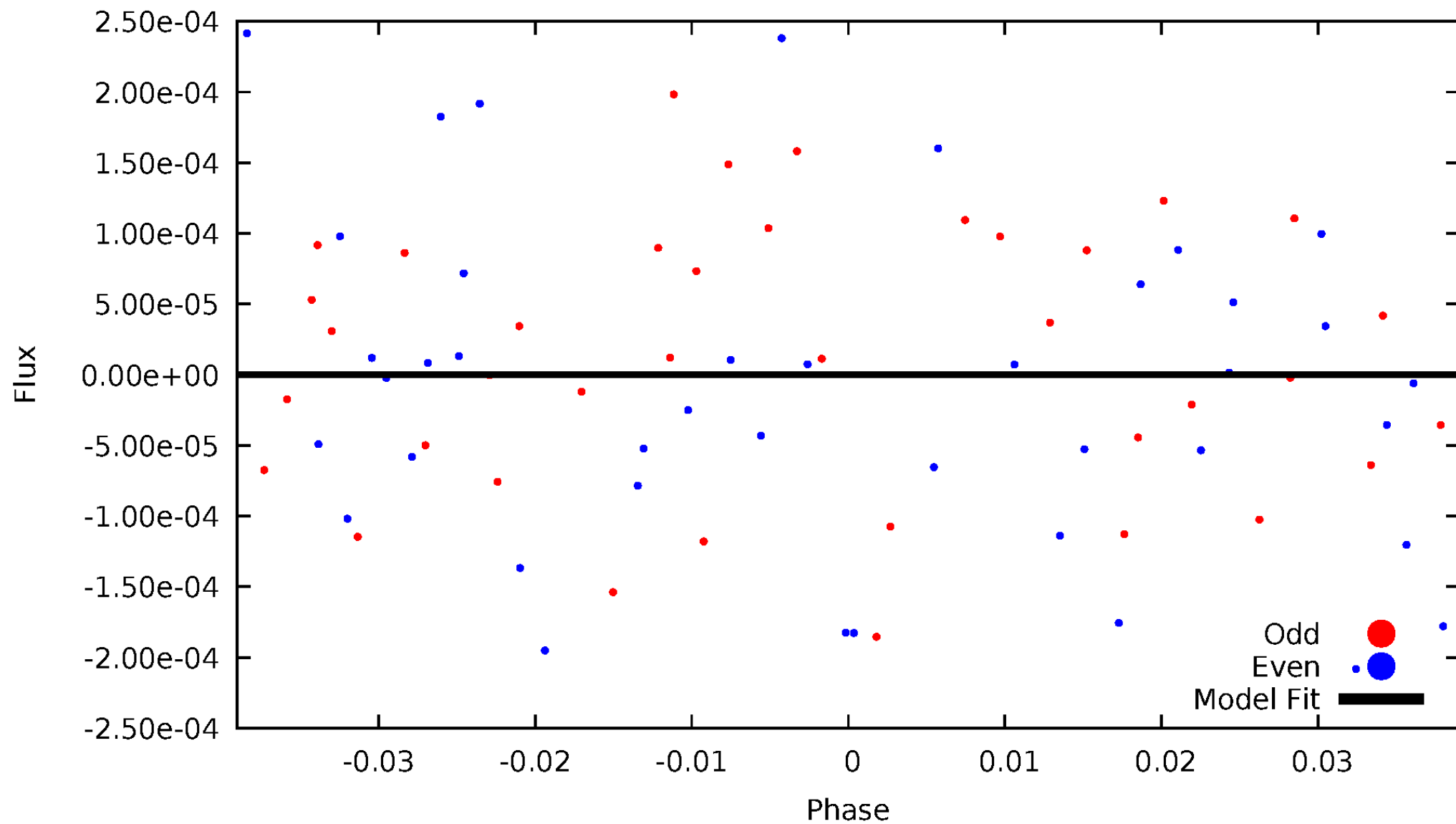


TCE 008583770-09



DV Odd/Even

TCE 008583770-09

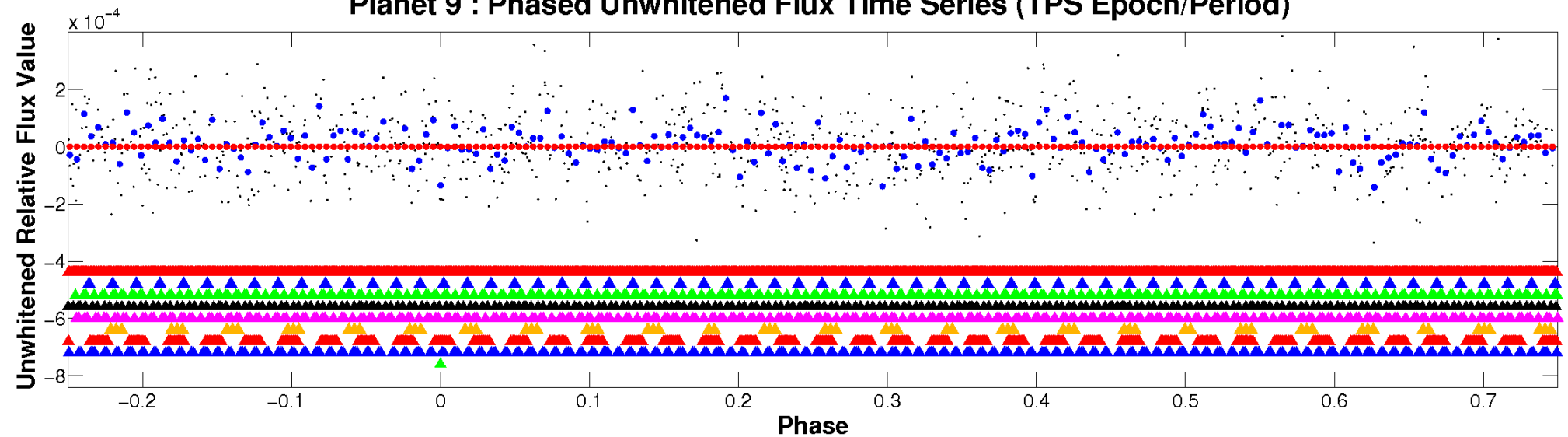


ALT Odd/Even

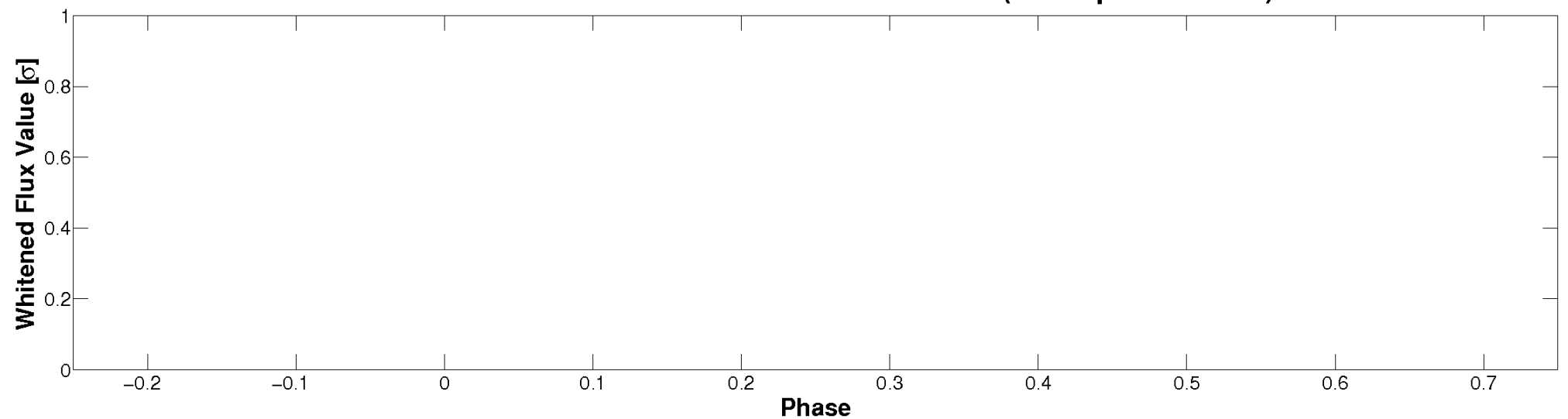
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 9 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

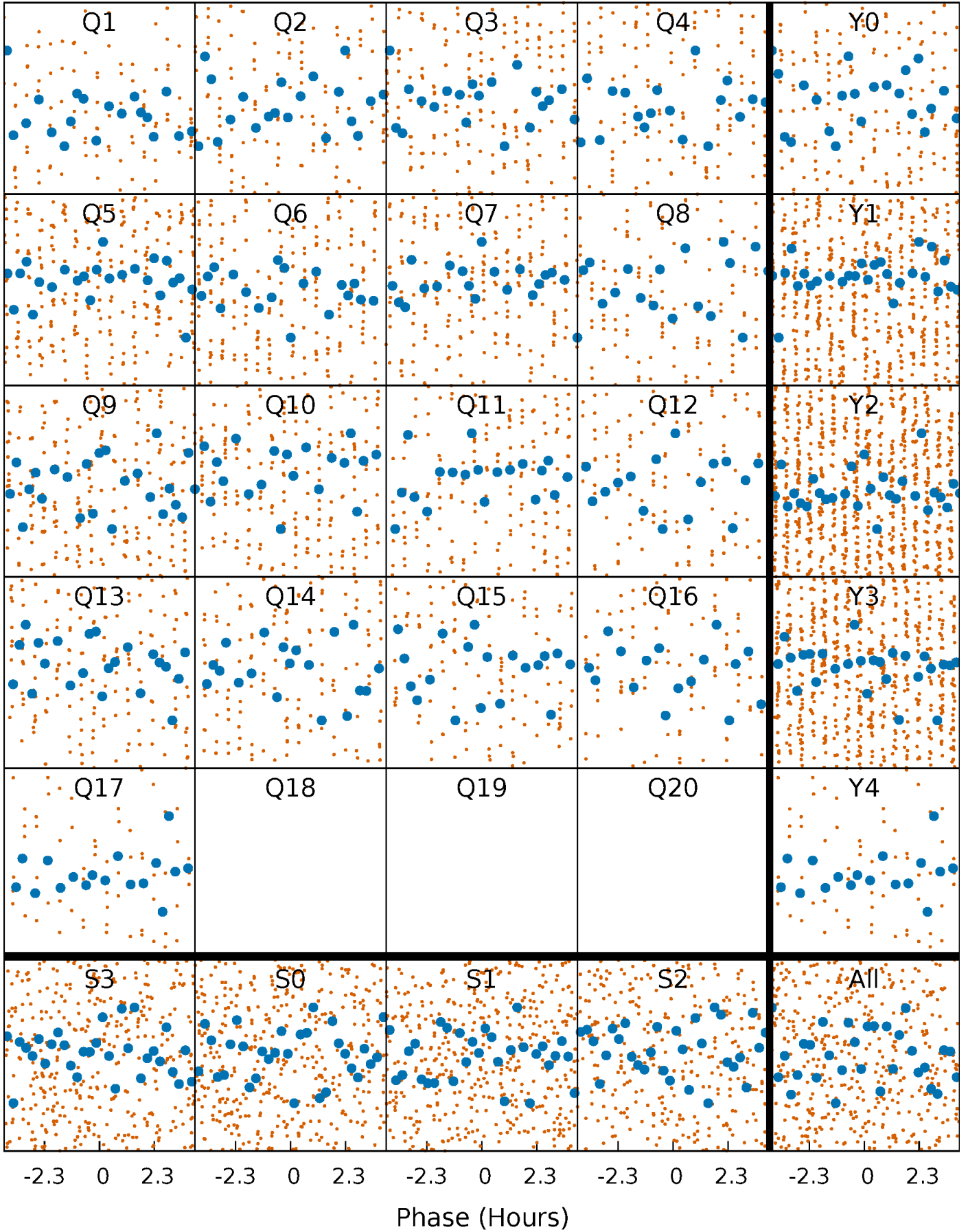


Planet 9 : Phased Whitened Flux Time Series (TPS Epoch/Period)



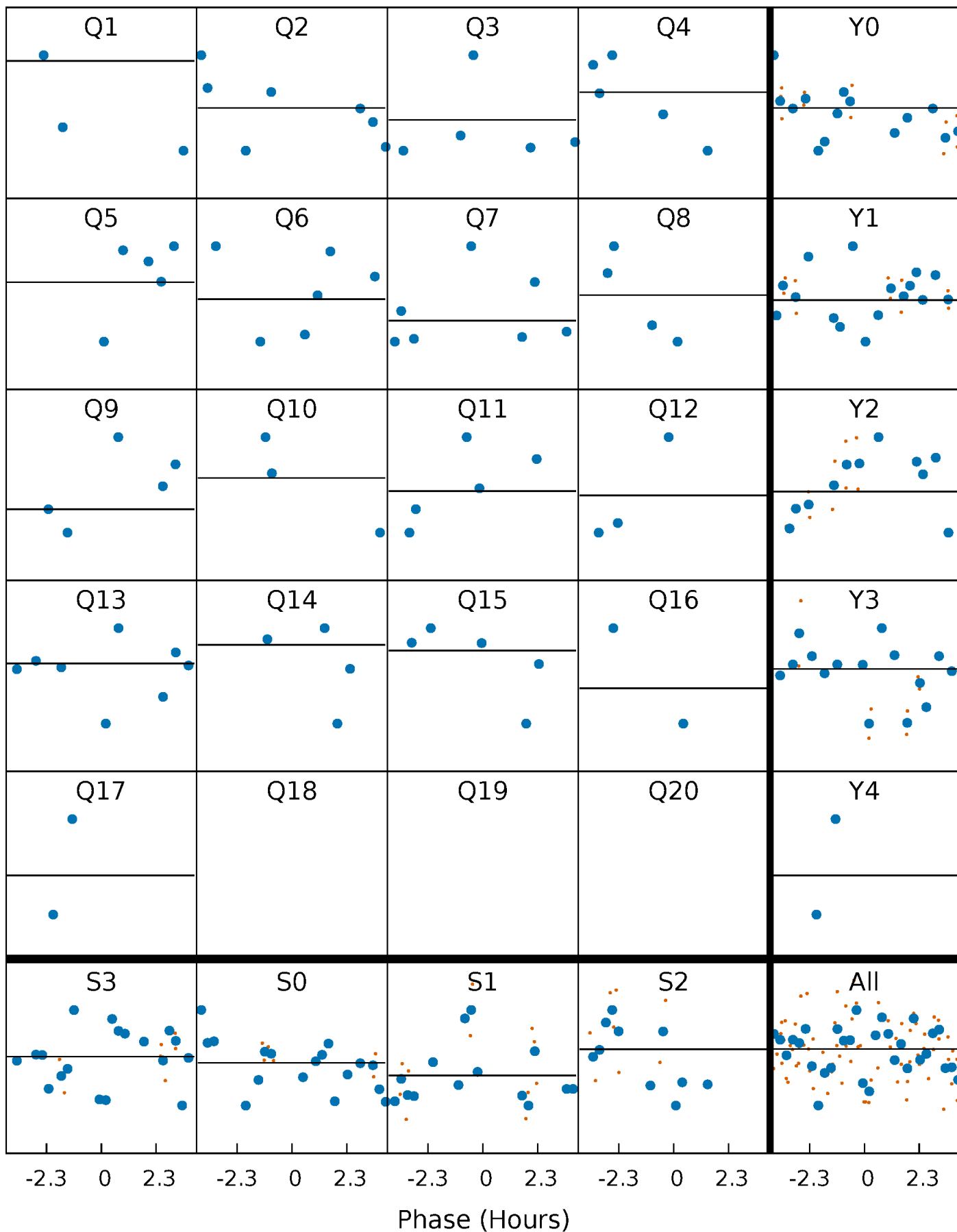
PDC Quarter-Phased Transit Curves

TCE 008583770-09 $P = 4.270565$ Days $T_0 = 131.884110$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008583770-09 P= 4.270565 Days $T_0=131.884110$ (BKJD)

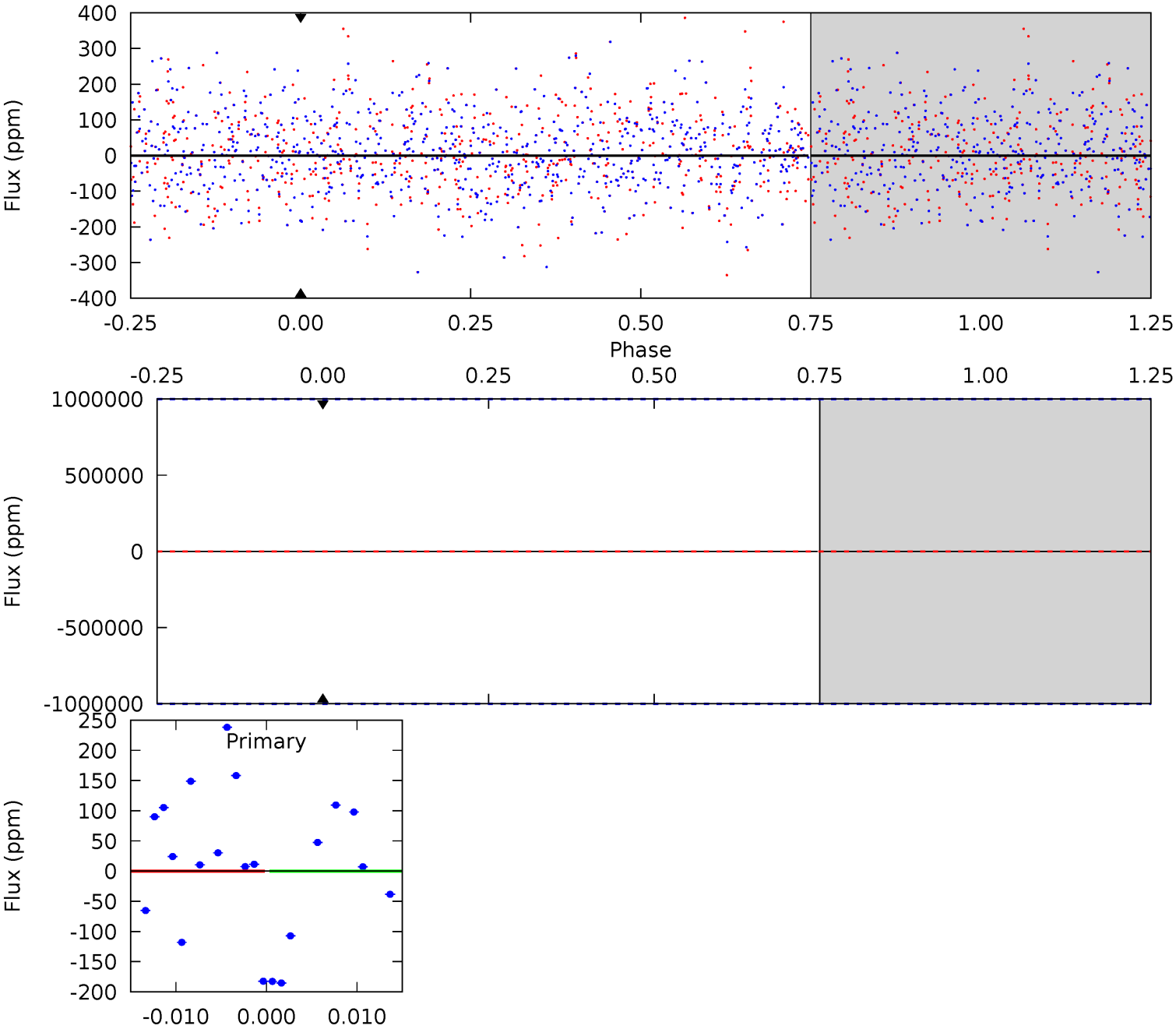


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008583770-09, P = 4.270565 Days, E = 131.884110 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008583770

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8675^{+514}_{-707}	$3.117^{+0.182}_{-0.065}$	$-0.500^{+0.600}_{-0.050}$	$8.234^{+0.798}_{-1.995}$	$3.237^{+0.211}_{-0.421}$	$0.008^{+0.008}_{-0.002}$
	+6%/-8%	+6%/-2%	+120%/-10%	+10%/-24%	+7%/-13%	+94%/-21%
Source	SPE4	SPE4	SPE4	DSEP		

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

Secondary Eclipse Parameters for KIC 008583770-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$59.68^{+65.80}_{-40.98}$	5474^{+418}_{-528}	6228^{+59288}_{-67118}	$1.791^{+166.059}_{-156.611}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

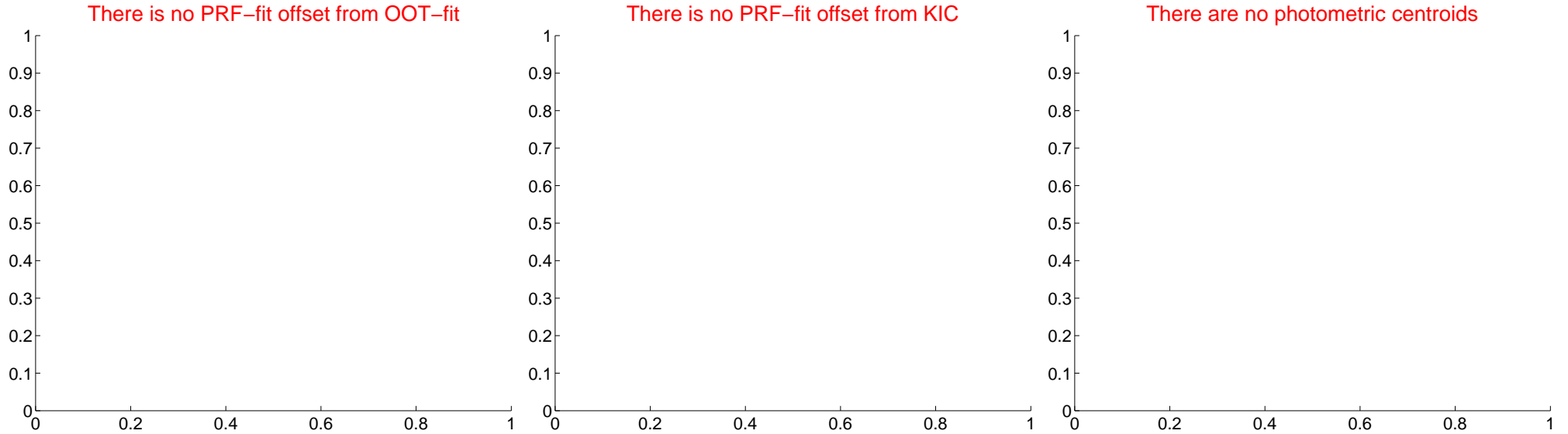
DV Centroid Data

Supplemental centroid analysis for 008583770-09. **Kepler magnitude: 10.14.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

