

KIC 011771931

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})
011771931-01	OBS	No	0.981439	132.298006	12.4	1.778	9.7	3.7	2.19	7413	0.81	26198.69
011771931-02	OBS	No	0.981331	132.111763	30.7	2.866	10.6	10.5	2.19	7413	1.23	26202.53
011771931-03	OBS	No	0.981314	131.716419	24.8	5.795	9.7	10.3	2.19	7413	1.16	26203.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011771931-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011771931-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS
011771931-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

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

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

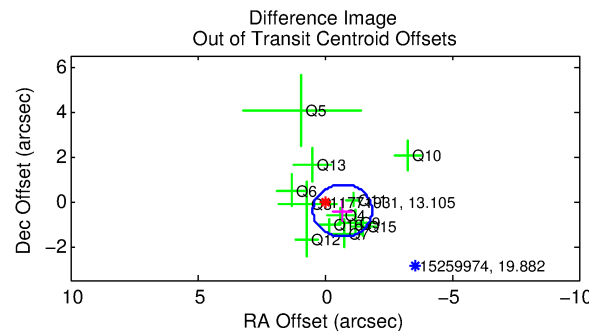
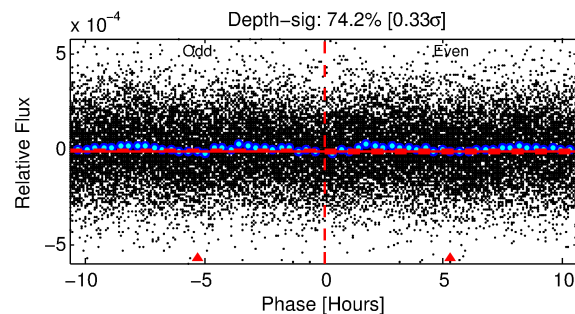
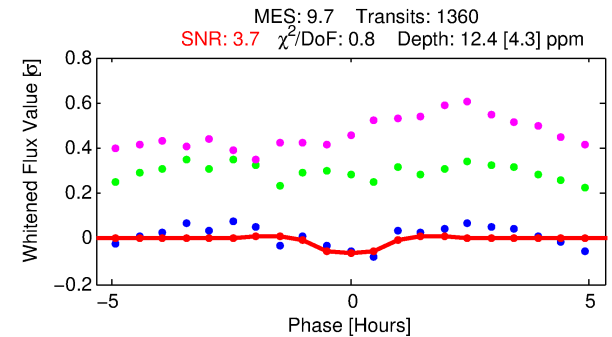
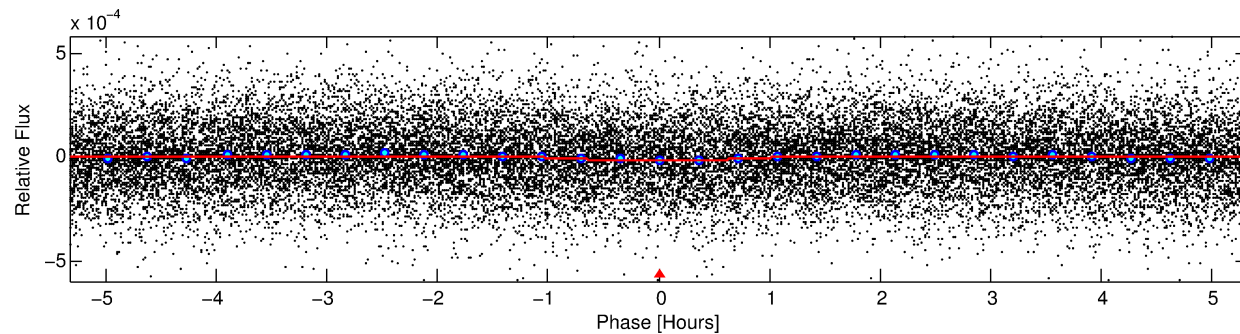
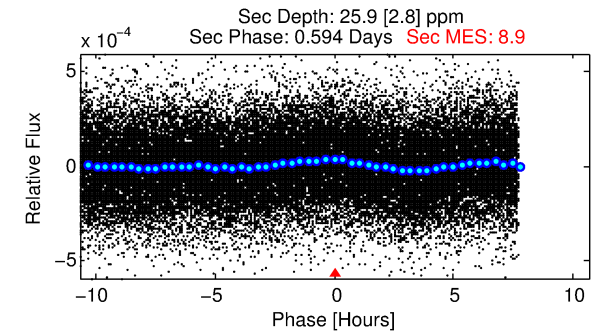
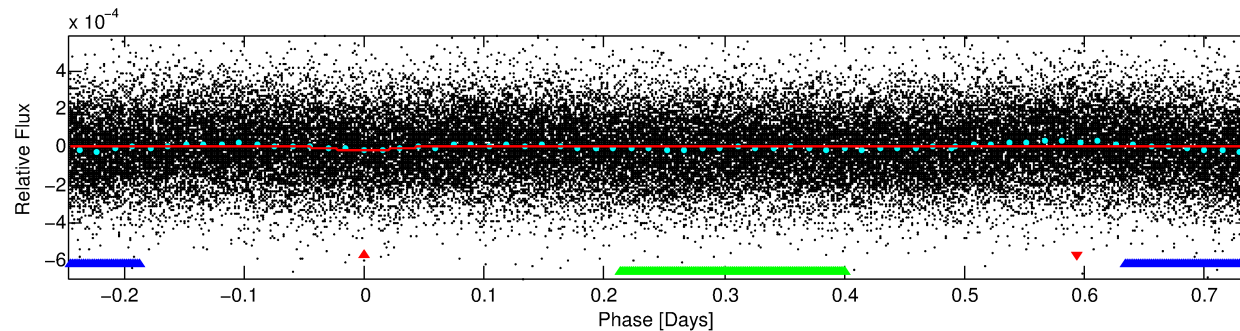
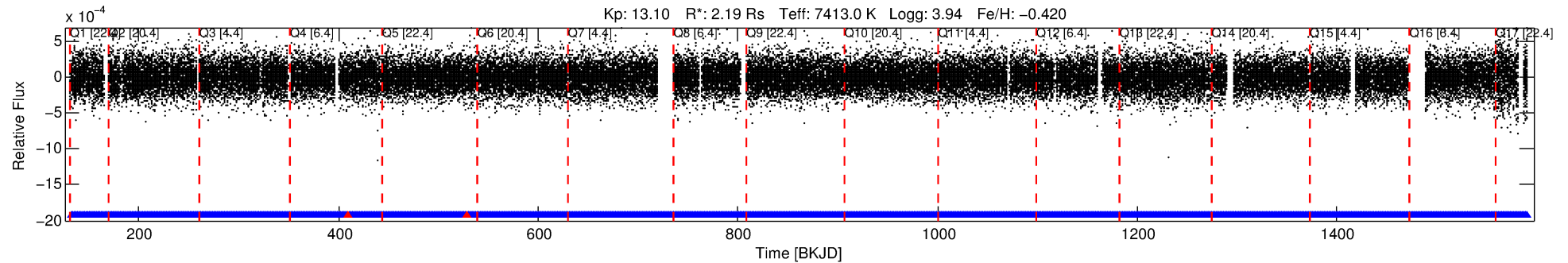
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011771931-01

No Significant Match Found

DV One-Page Summary

KIC: 11771931 Candidate: 1 of 3 Period: 0.981 d



DV Fit Results:

Period = 0.98144 [0.00003] d
Epoch = 132.2980 [0.0055] BKJD
Rp/R* = 0.0034 [0.0011]
a/R* = 3.58 [5.51]
b = 0.56 [2.03]
Seff = 26198.69 [15848.30]
Teq = 3244 [491] K
Rp = 0.81 [0.41] Re
a = 0.0223 [0.0082] AU
Ag = 10.83 [9.59] [1.03σ]
Teffp = 9099 [1566] K [3.57σ]

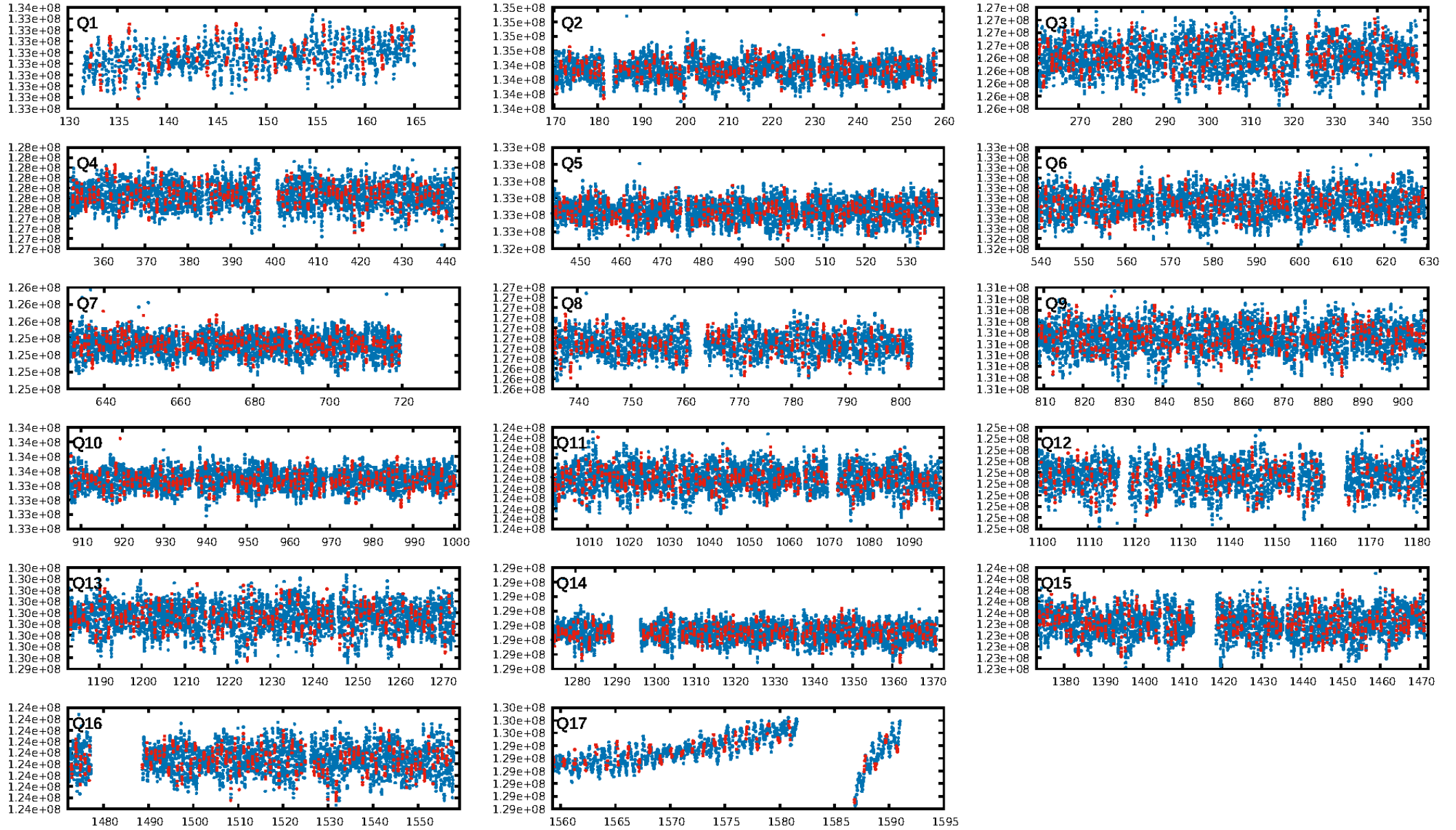
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.80e-23
RollingBand-fgt: 1.00 [1296/1298]
GhostDiagnostic-chr: 1.887
Centroid-sig: 31.7%
Centroid-so: 2.025 arcsec [0.82σ]
OotOffset-rm: 0.815 arcsec [2.10σ]
OotOffset-st: 2/4/3/3 [12]
KicOffset-rm: 0.995 arcsec [2.27σ]
KicOffset-st: 2/4/3/3 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 0.00 [0/17]

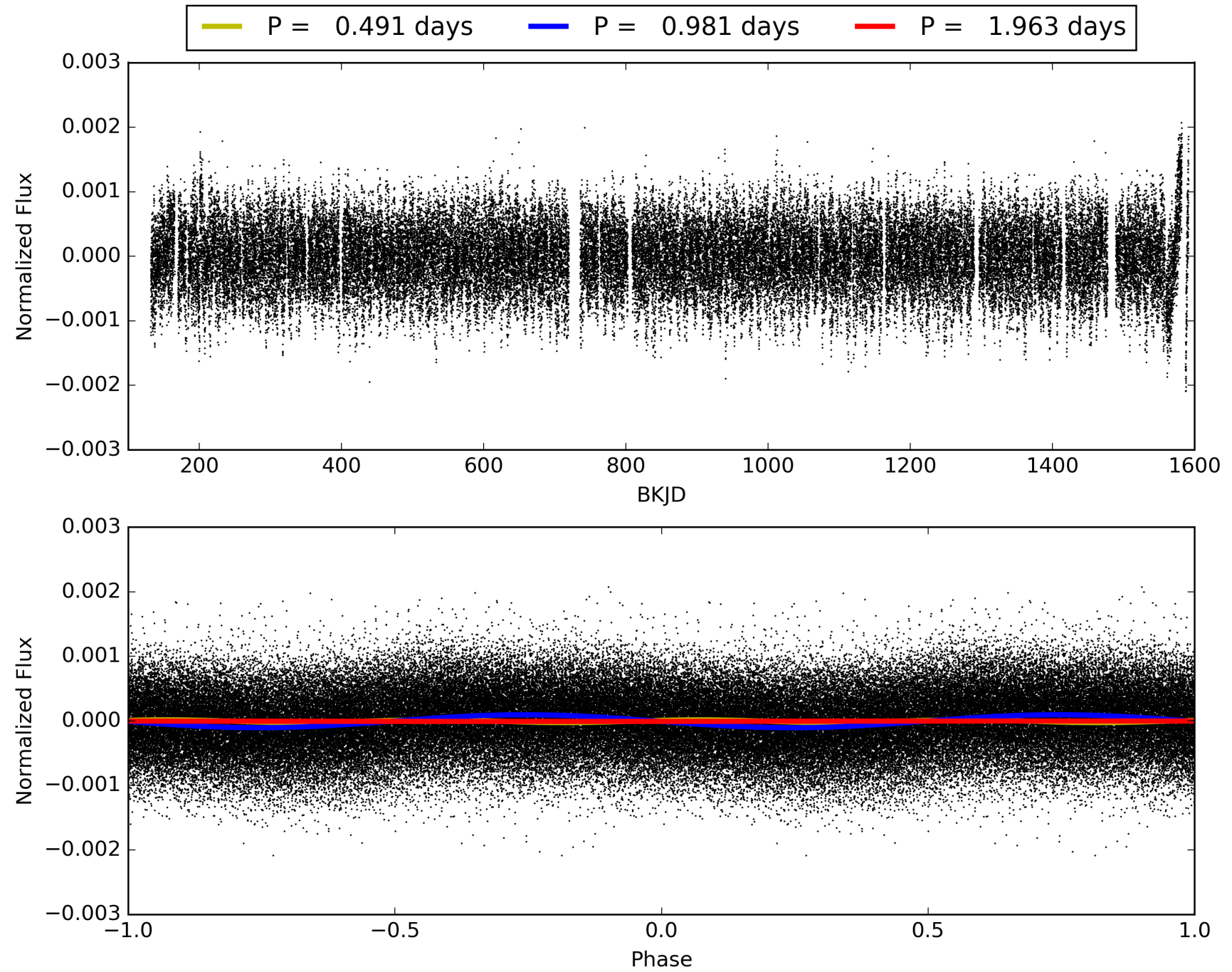
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:41:20 Z

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

TCE 011771931-01, PDC Light Curves

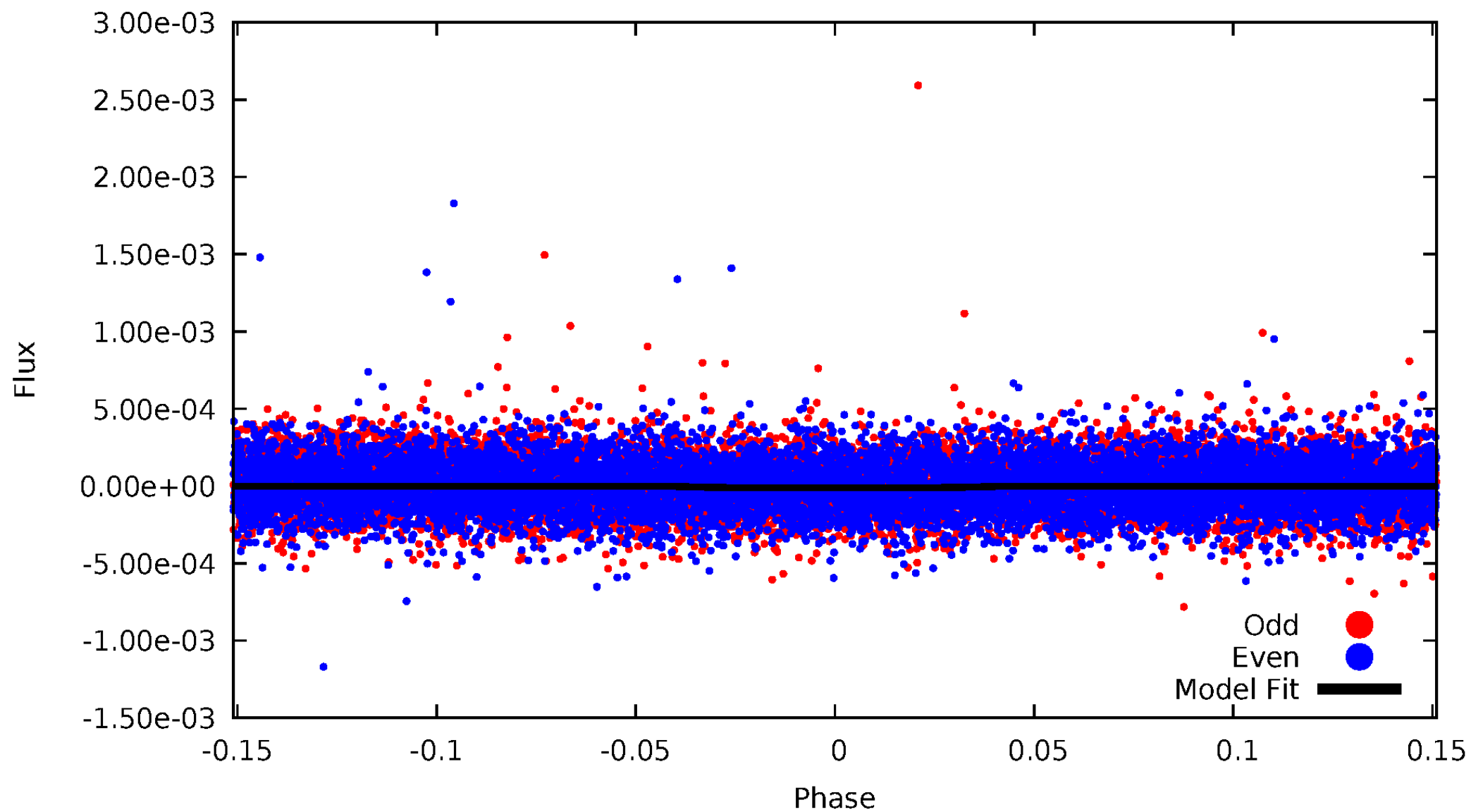


TCE 011771931-01



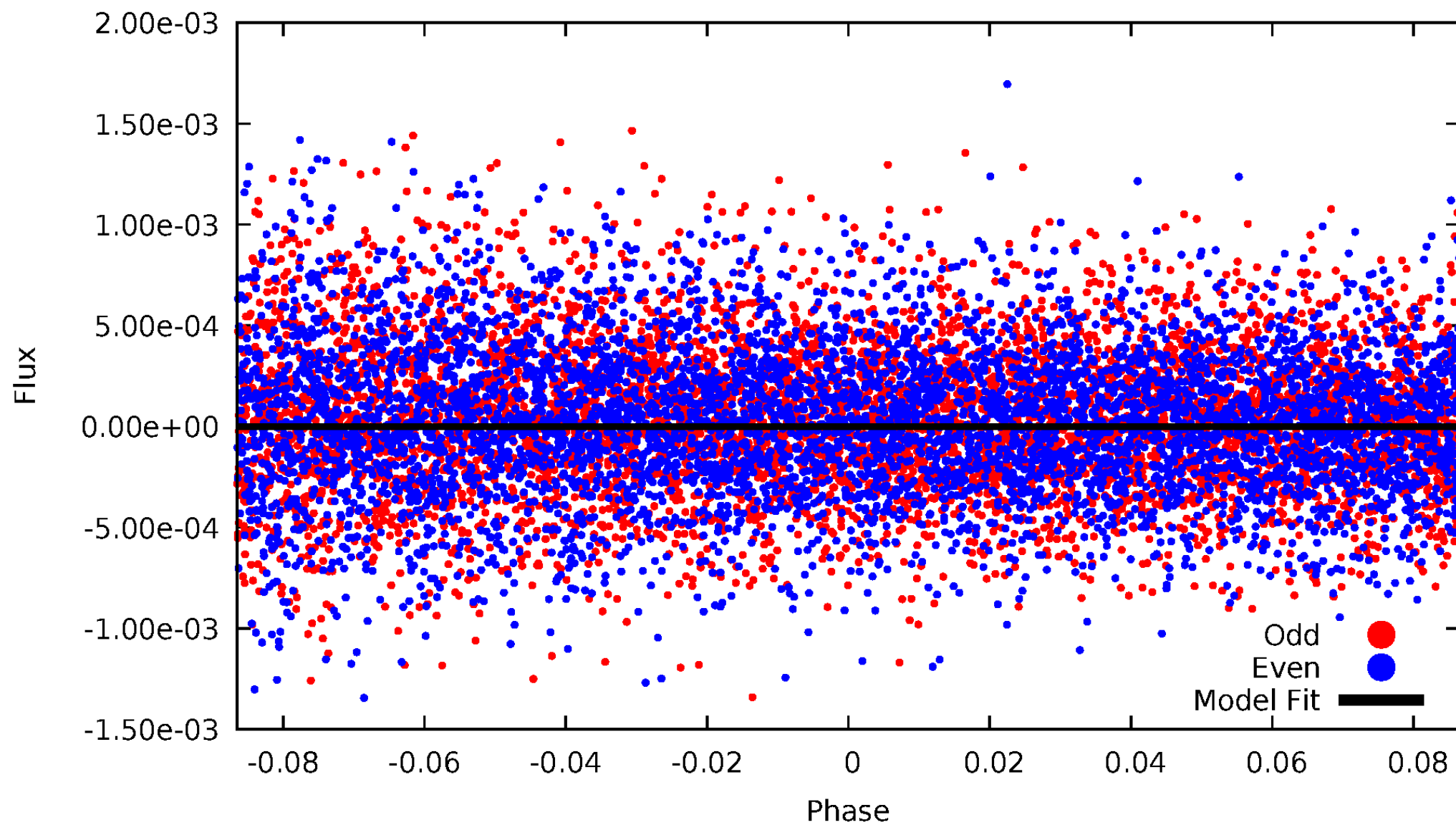
DV Odd/Even

TCE 011771931-01



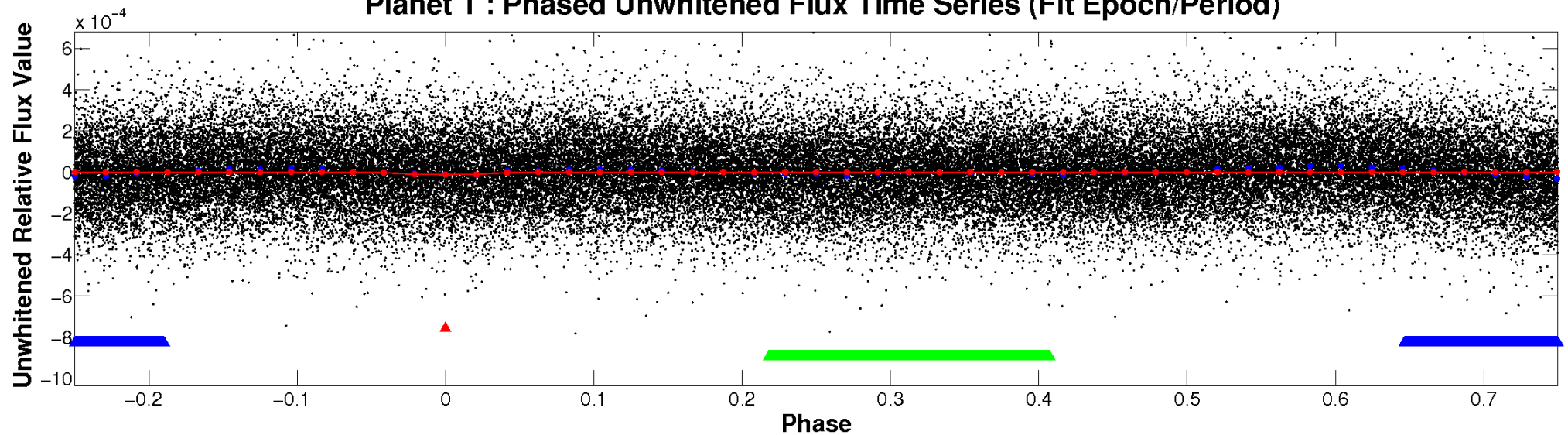
ALT Odd/Even

TCE 011771931-01

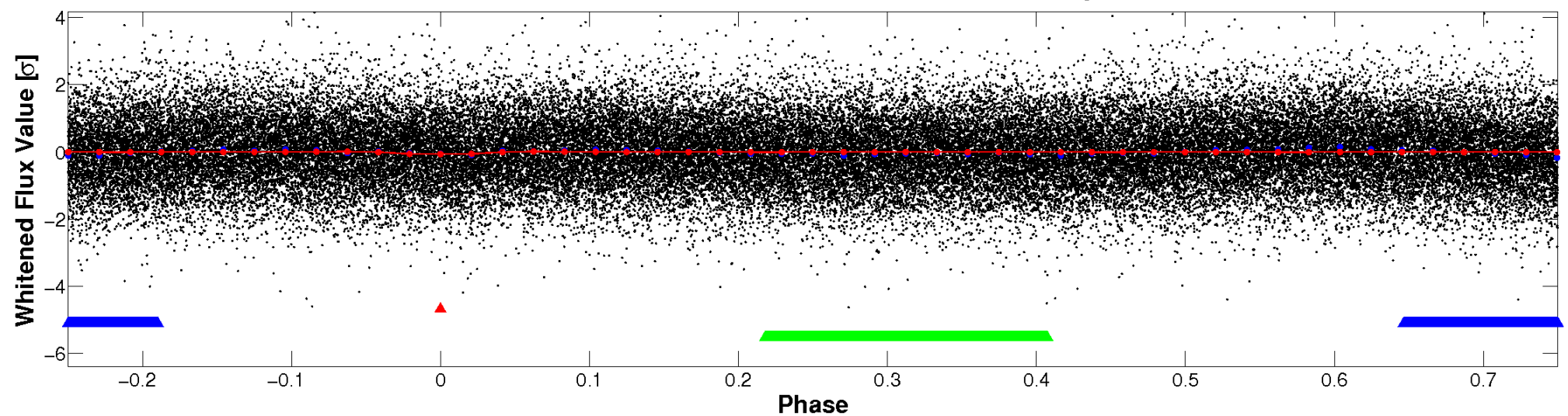


Non-Whitened Vs. Whitened Light Curve

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

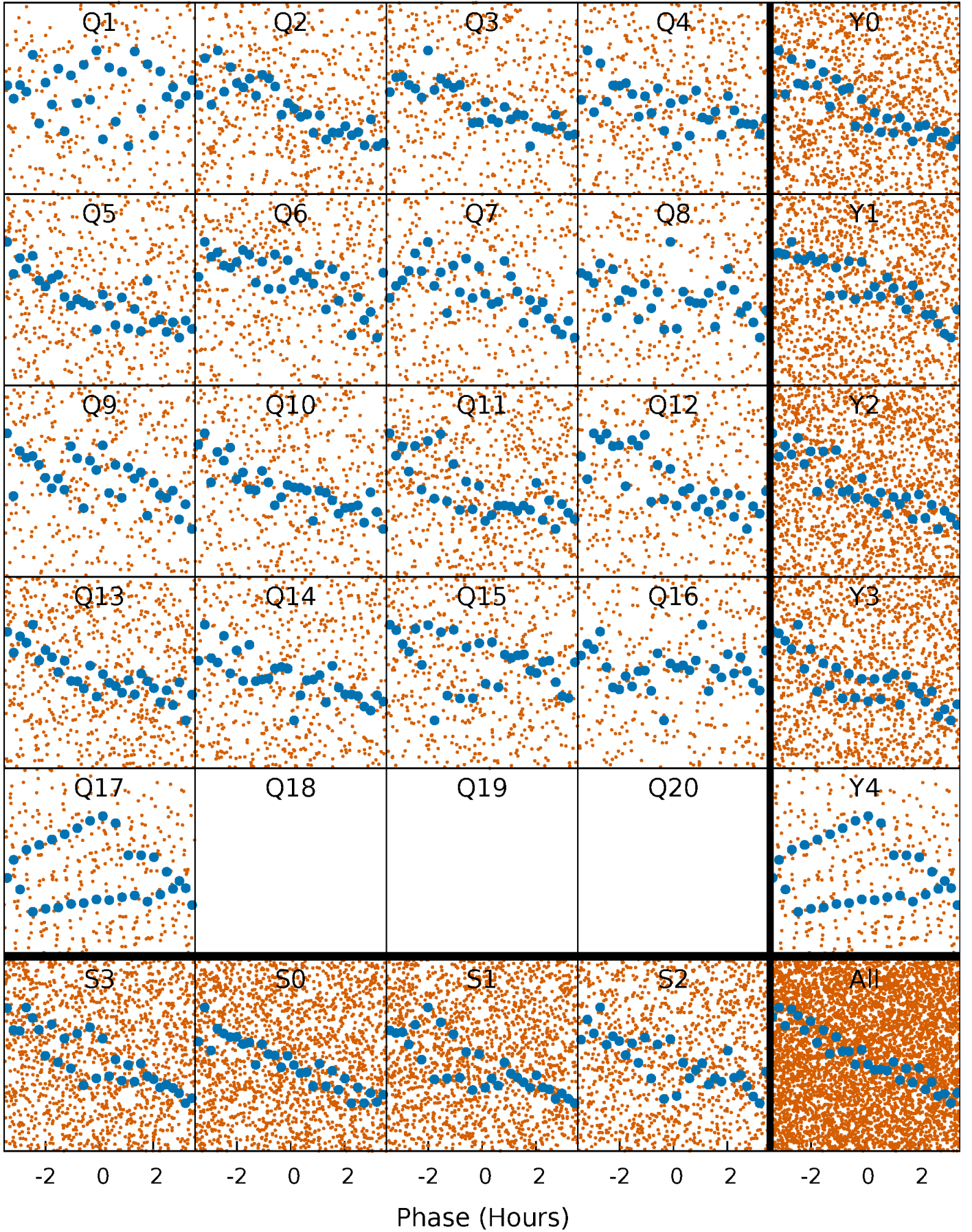


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



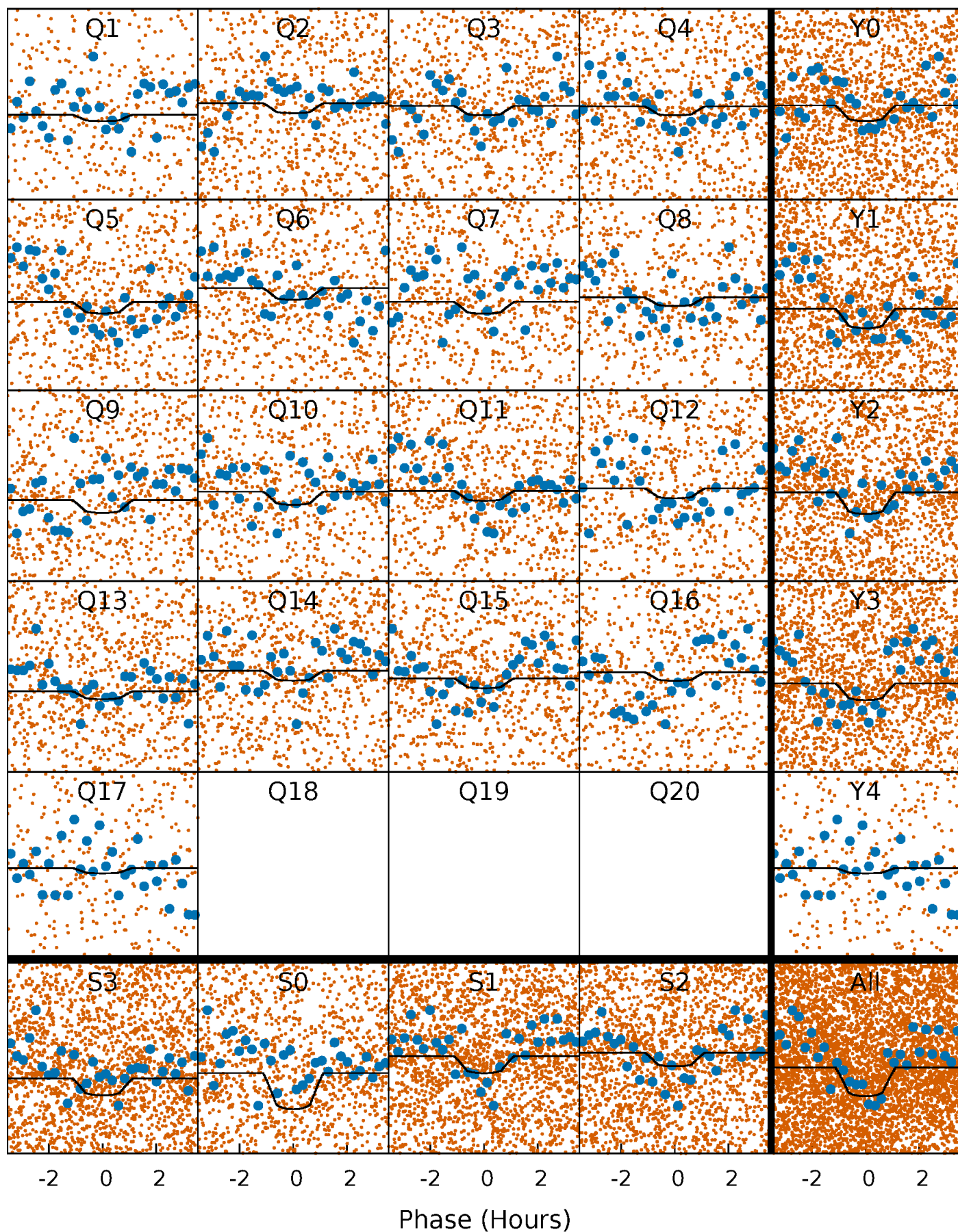
PDC Quarter-Phased Transit Curves

TCE 011771931-01 P= 0.981439 Days $T_0=132.298006$ (BKJD)



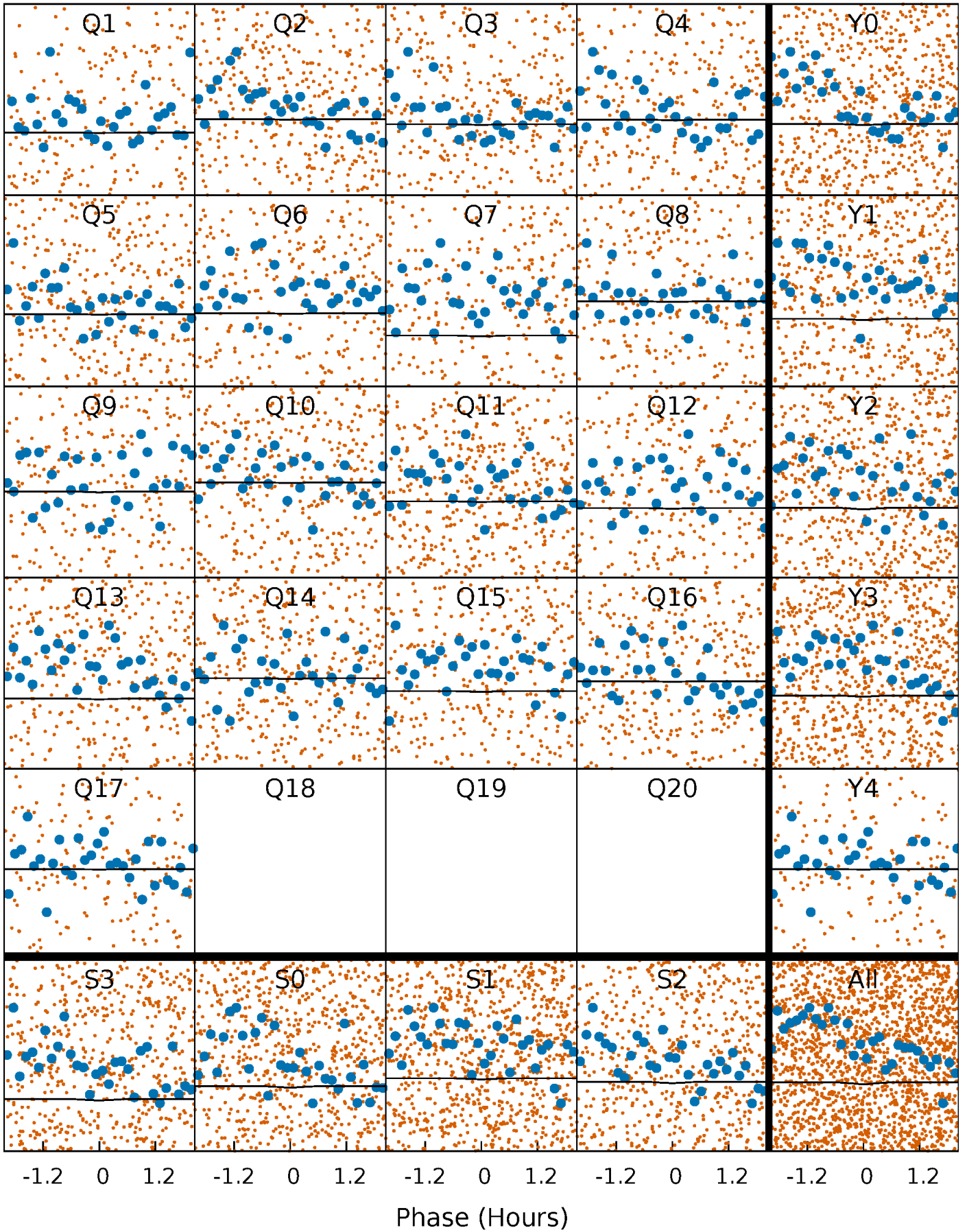
DV Quarter-Phased Transit Curves

TCE 011771931-01 P= 0.981439 Days $T_0=132.298006$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

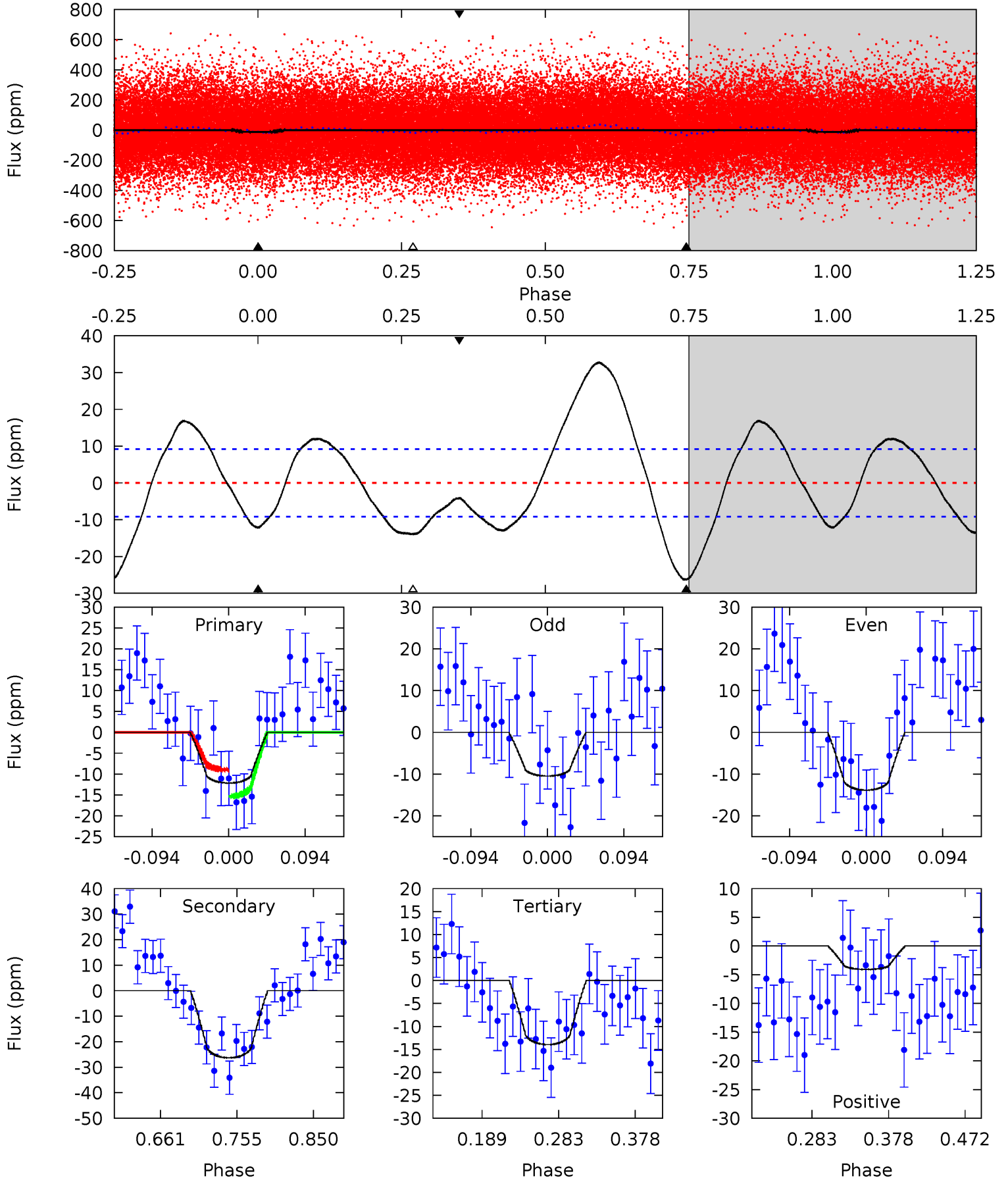
TCE 011771931-01 P= 0.981320 Days $T_0=132.312264$ (BKJD)



DV Model-Shift Uniqueness Test

011771931-01, P = 0.981439 Days, E = 131.316567 Days

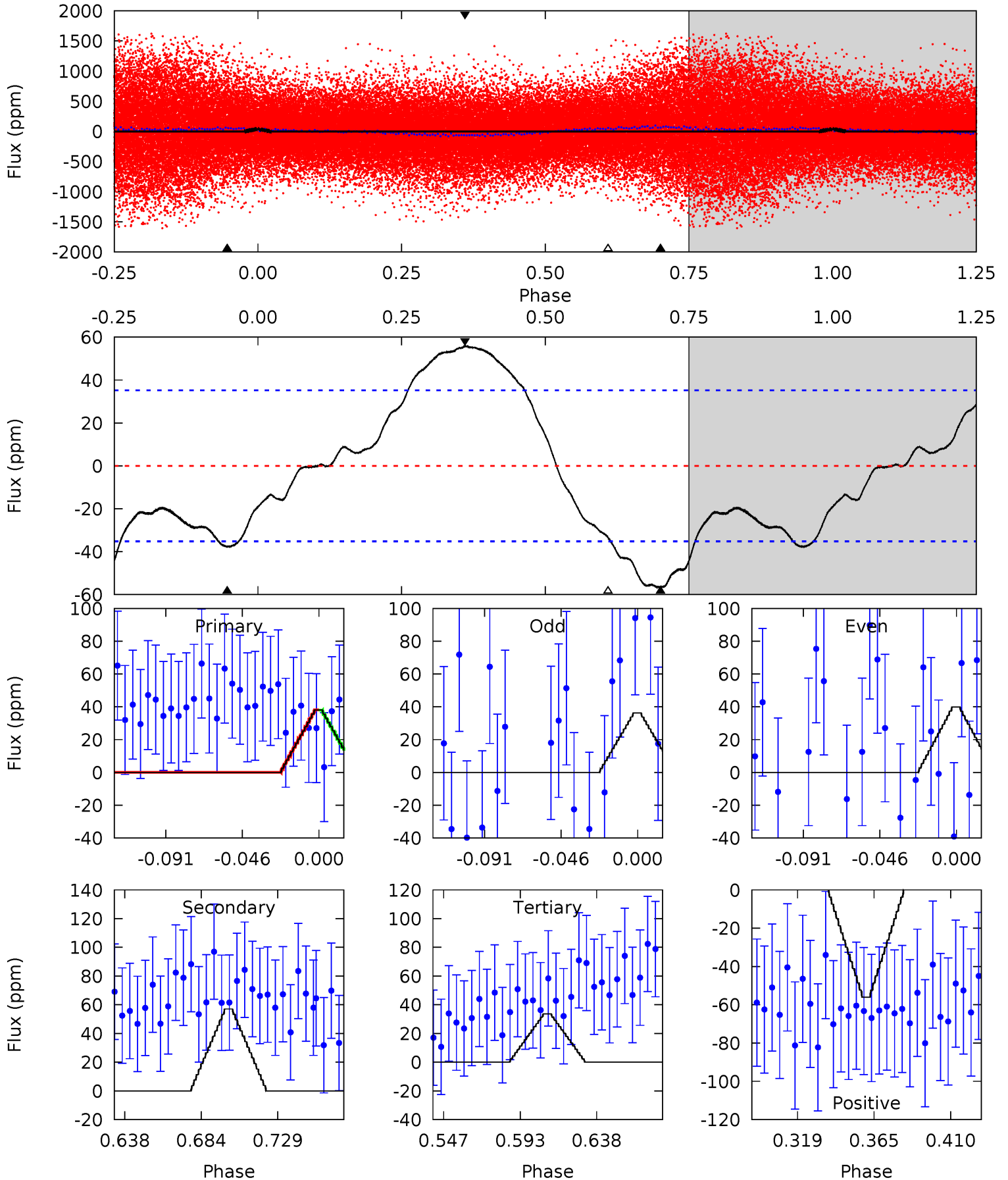
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.06	13.1	6.95	-2.03	4.58	1.67	7.16	-0.89	8.09	6.15	15.1	0.84	0.74	0.55	1.58



Alt Model-Shift Uniqueness Test

011771931-01, P = 0.981320 Days, E = 131.330944 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.11	7.66	4.52	7.54	4.73	2.00	4.16	0.59	-2.42	3.14	0.13	0.25	1.53	0.50	0.02



Stellar Parameters For KIC 011771931

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7413^{+233}_{-311}	$3.941^{+0.338}_{-0.135}$	$-0.420^{+0.250}_{-0.300}$	$2.192^{+0.464}_{-0.861}$	$1.529^{+0.209}_{-0.313}$	$0.204^{+0.478}_{-0.081}$
	+3%/-4%	+9%/-3%	+60%/-71%	+21%/-39%	+14%/-20%	+234%/-40%
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 011771931-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-26 ± 2	$0.76^{+0.30}_{-0.28}$	4458^{+313}_{-424}	9525^{+3822}_{-1652}	12^{+20}_{-6}
Alt.	-57 ± 7	$0.32^{+0.23}_{-0.20}$	4444^{+360}_{-454}	$34496^{+130624}_{-16682}$	148^{+885}_{-98}

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 $A_{obs} \gg 1.0$

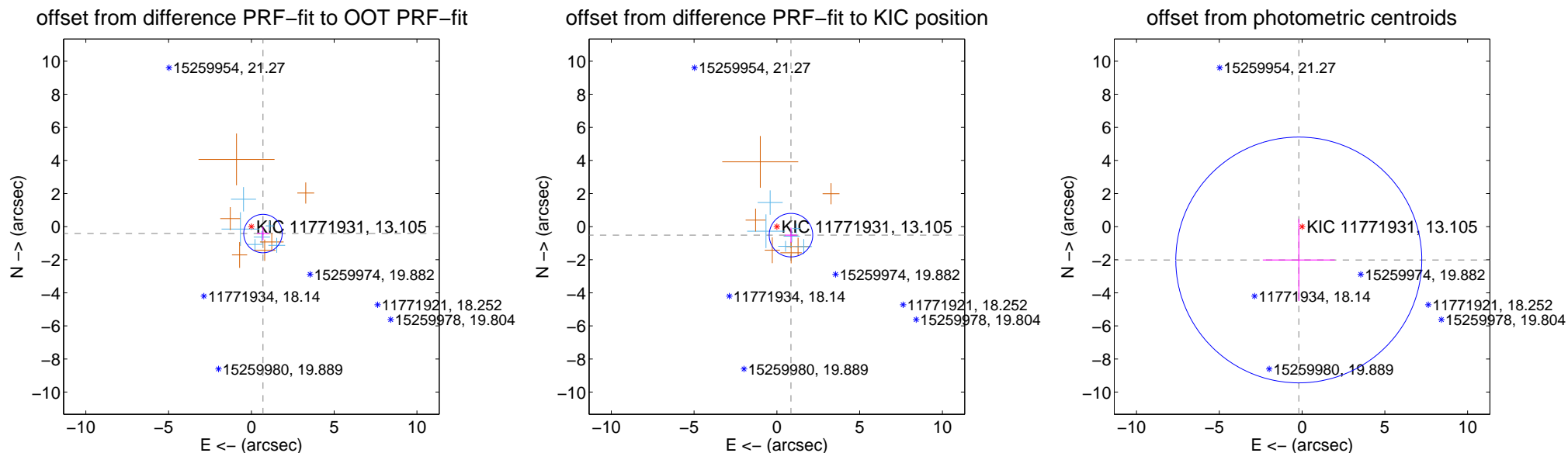
DV Centroid Data

Supplemental centroid analysis for 011771931-01. Kepler magnitude: 13.11. Transit SNR 3.74

There are 6 quarters with good PRF difference image offsets

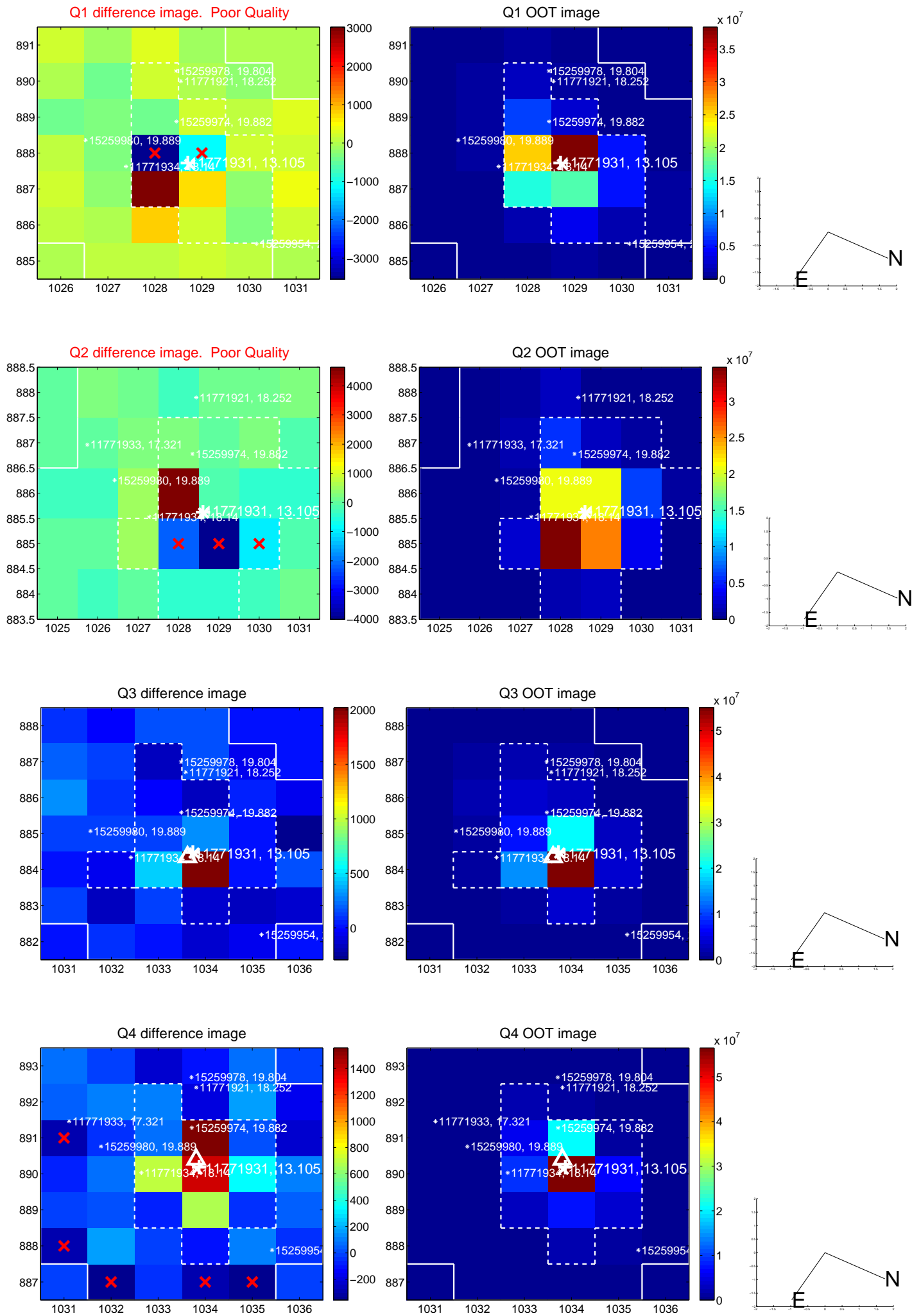
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.815 ± 0.387	2.10	-0.699 ± 0.362	-0.418 ± 0.421
PRF-fit source offset from KIC position	0.995 ± 0.438	2.27	-0.852 ± 0.363	-0.515 ± 0.460
photometric centroid source offset	2.03 ± 2.48	0.82	0.20 ± 2.17	-2.02 ± 2.48

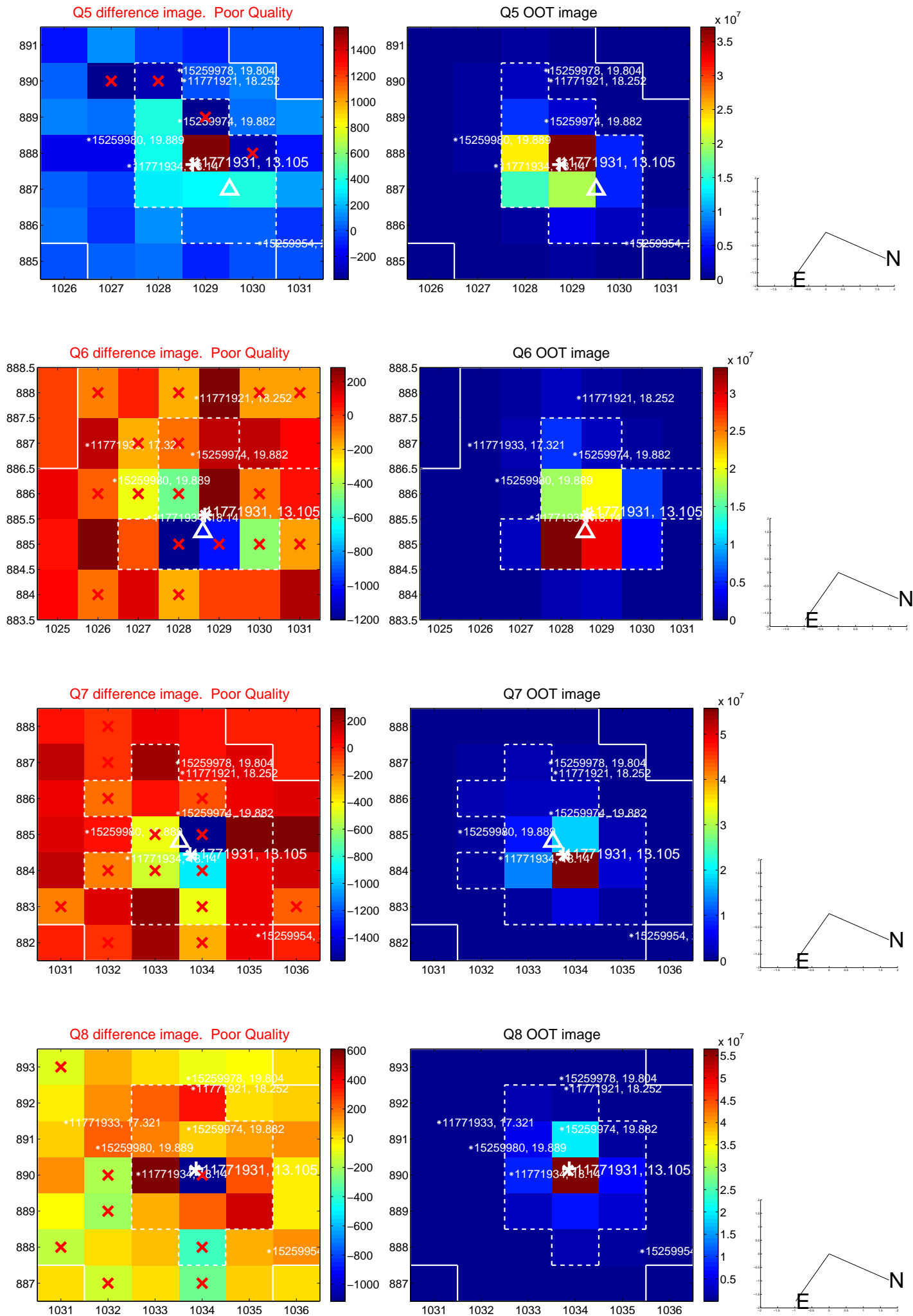


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

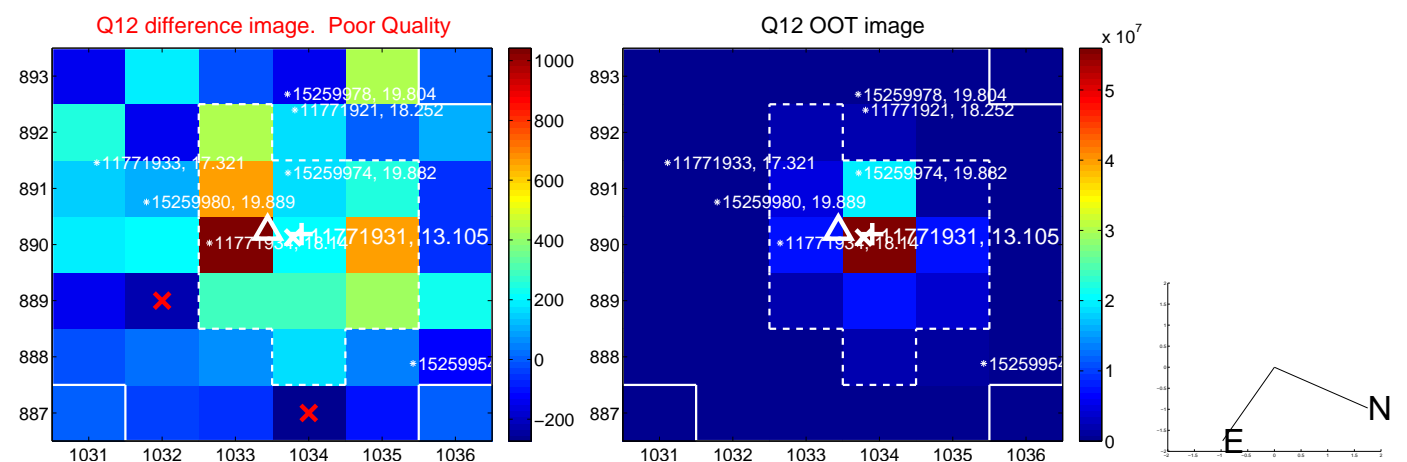
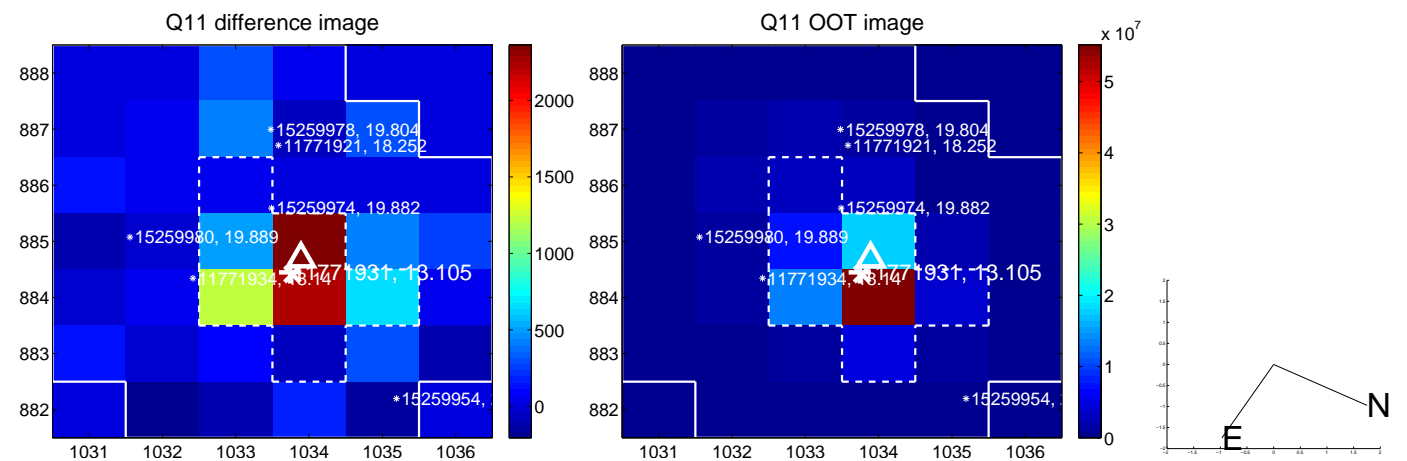
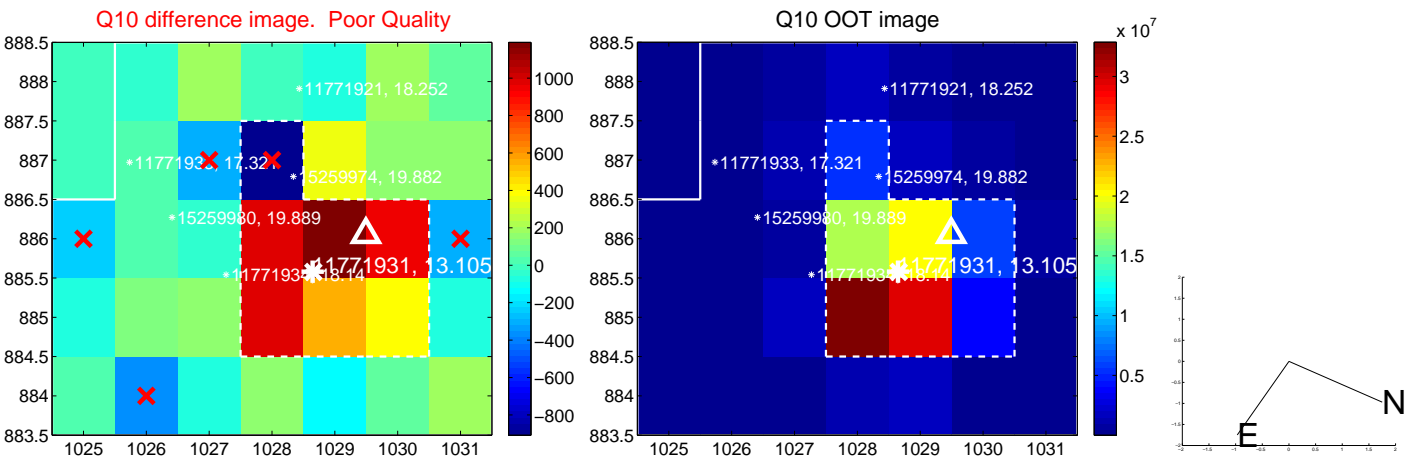
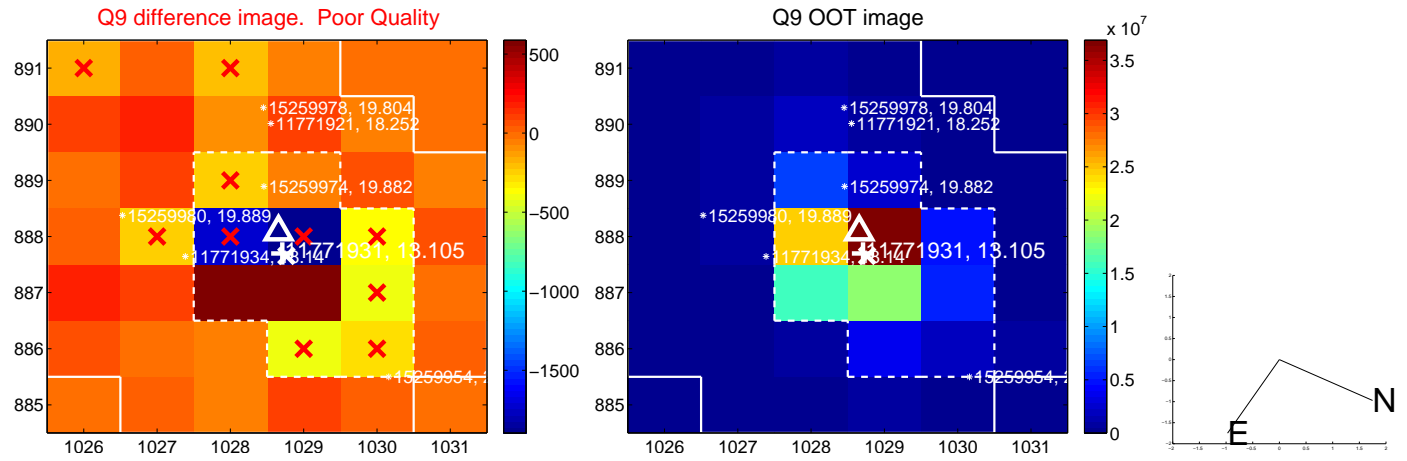
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



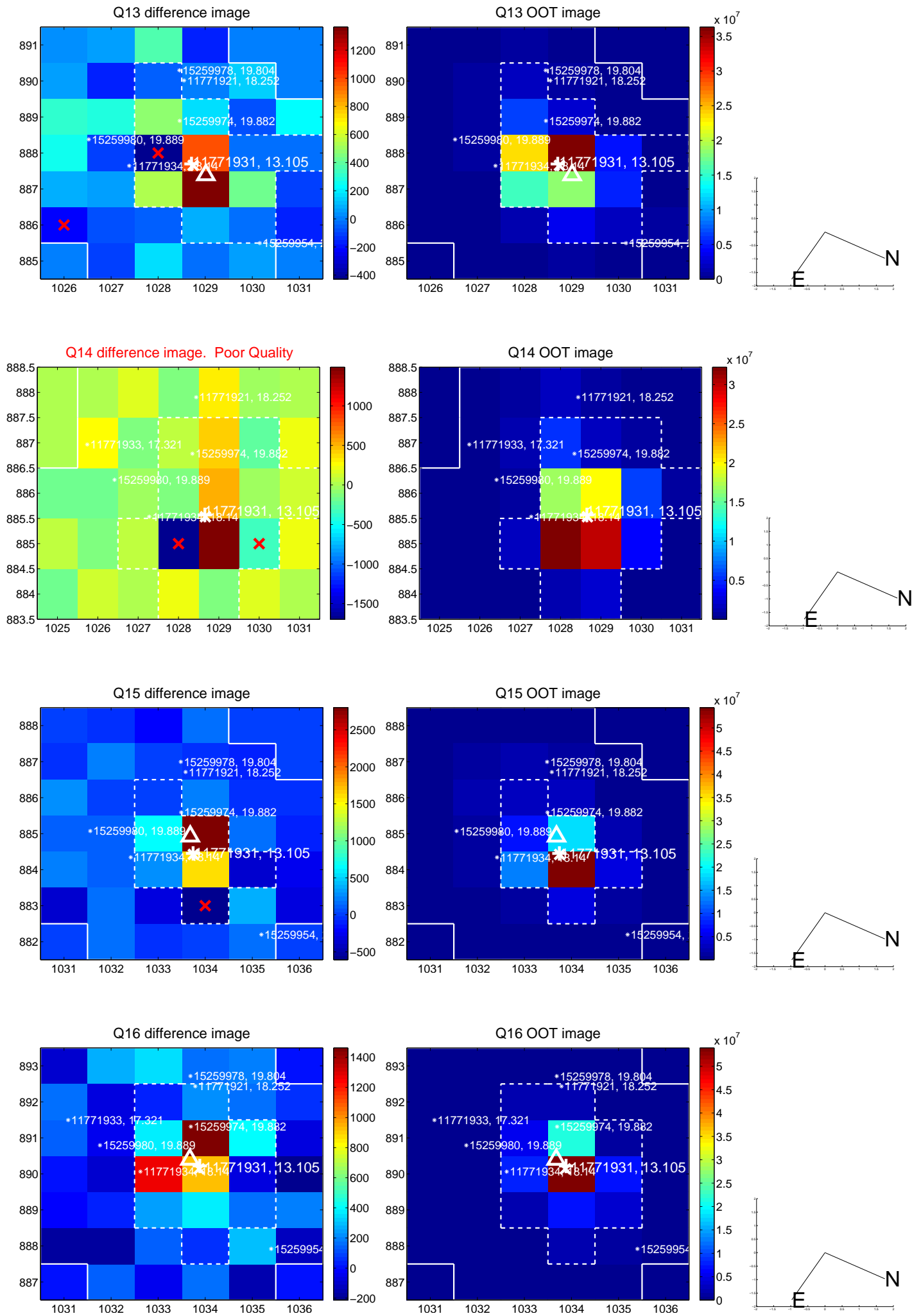
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



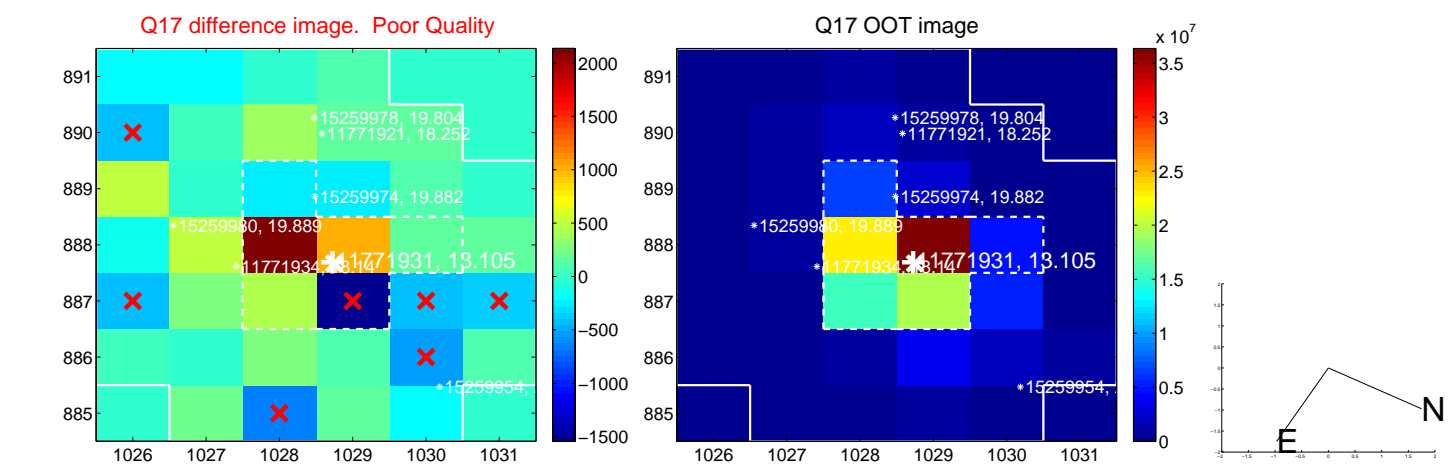
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



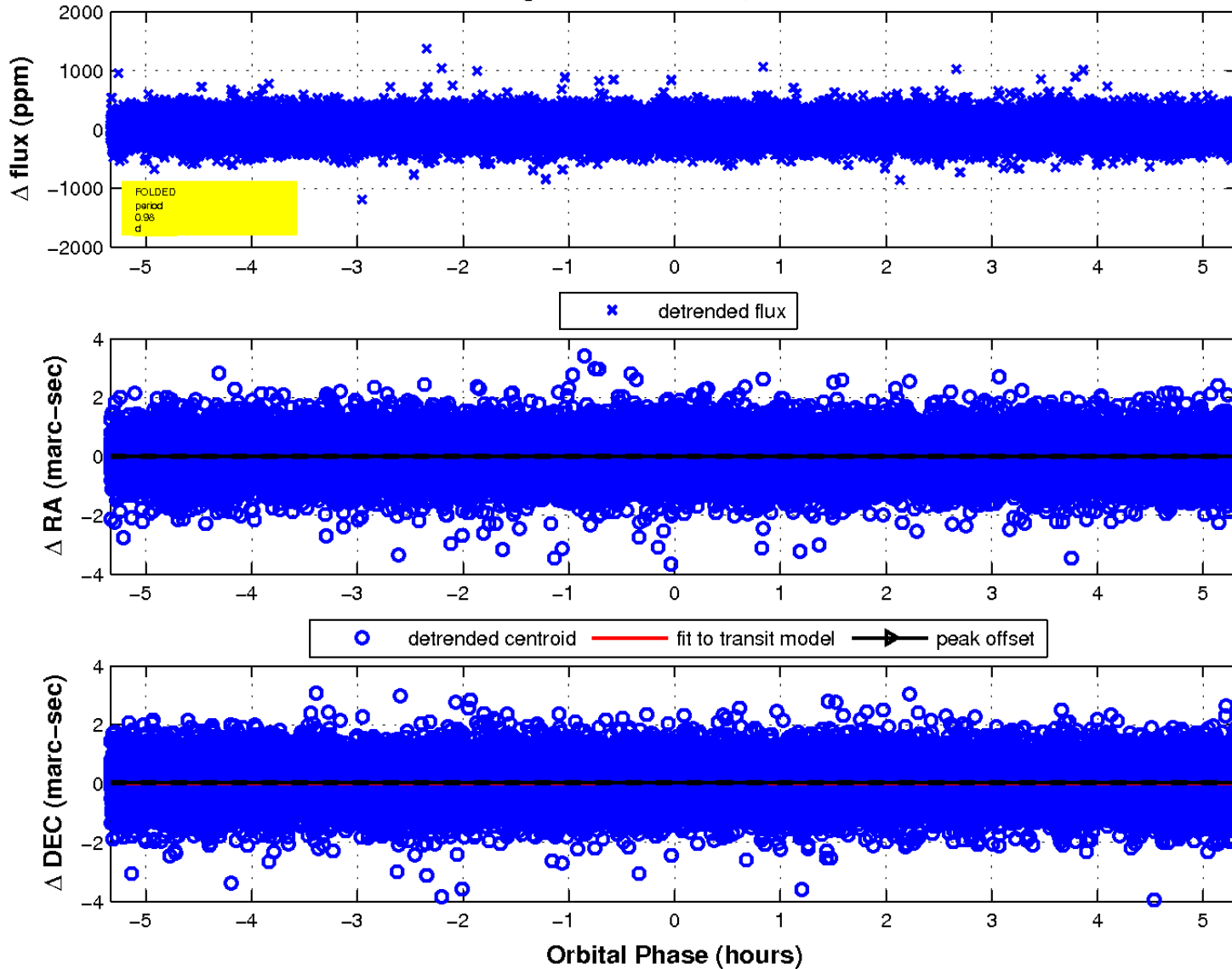
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

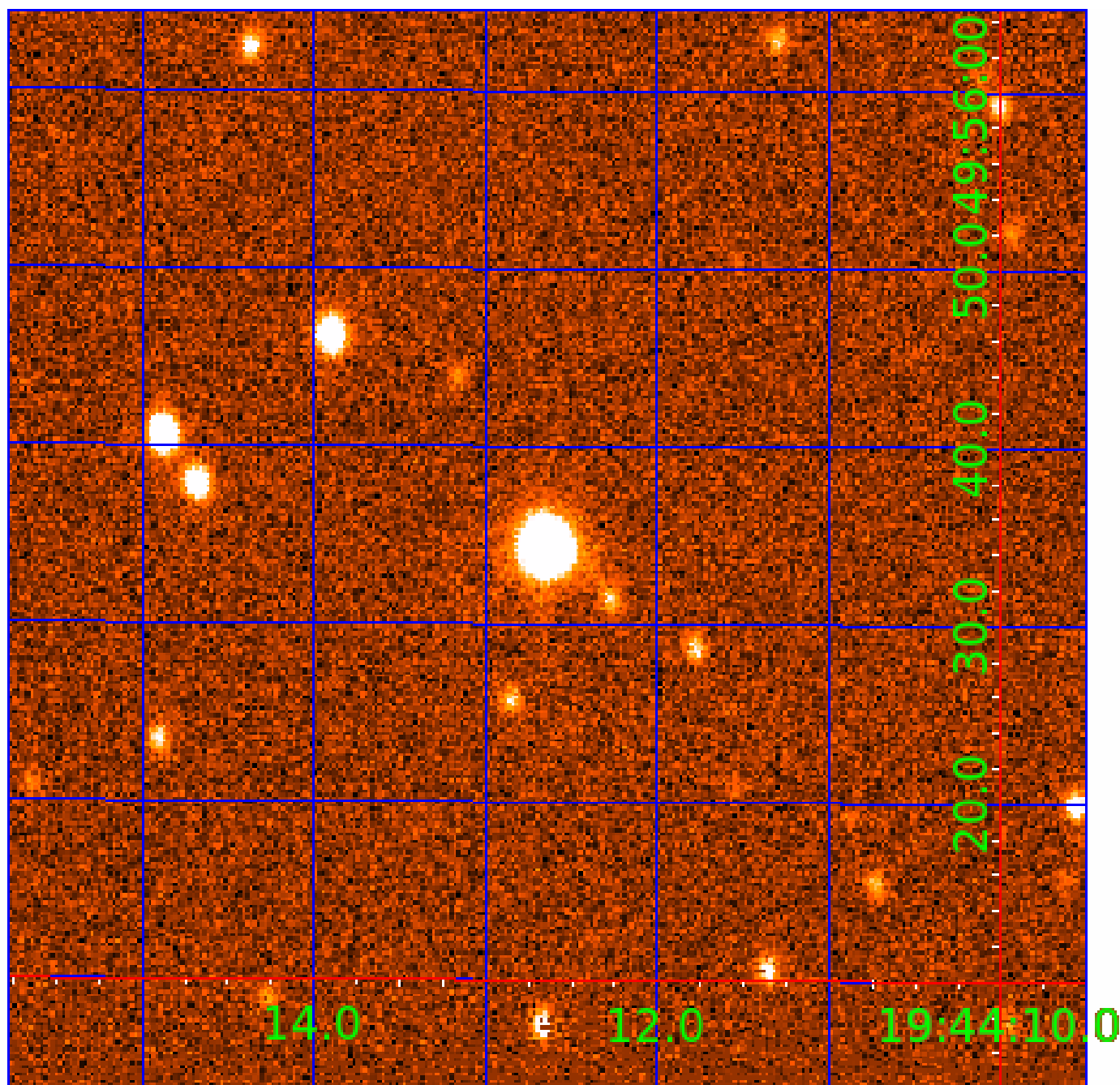


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 011771931

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})
011771931-01	OBS	No	0.981439	132.298006	12.4	1.778	9.7	3.7	2.19	7413	0.81	26198.69
011771931-02	OBS	No	0.981331	132.111763	30.7	2.866	10.6	10.5	2.19	7413	1.23	26202.53
011771931-03	OBS	No	0.981314	131.716419	24.8	5.795	9.7	10.3	2.19	7413	1.16	26203.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011771931-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011771931-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS
011771931-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

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

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

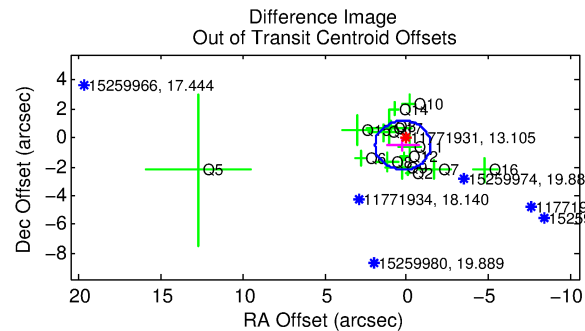
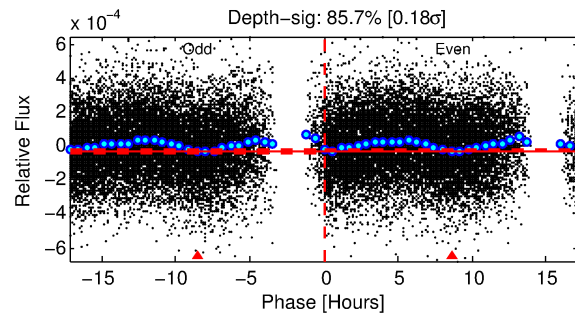
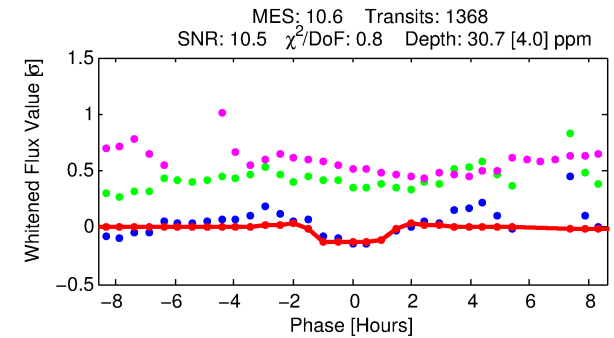
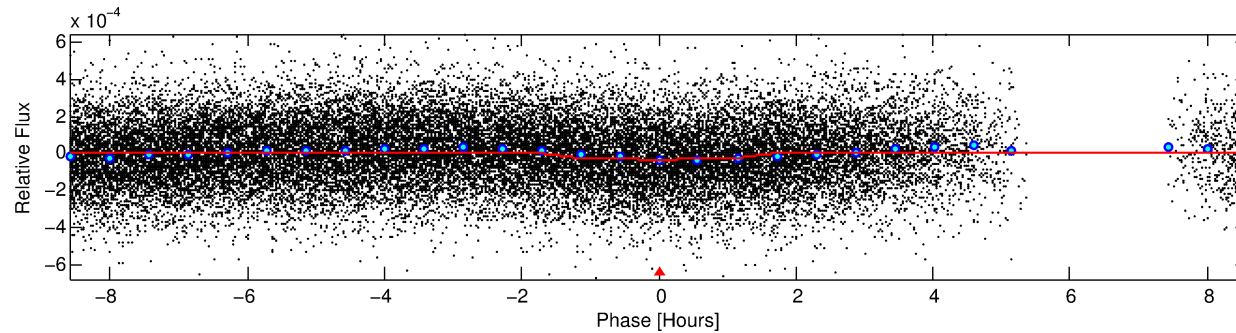
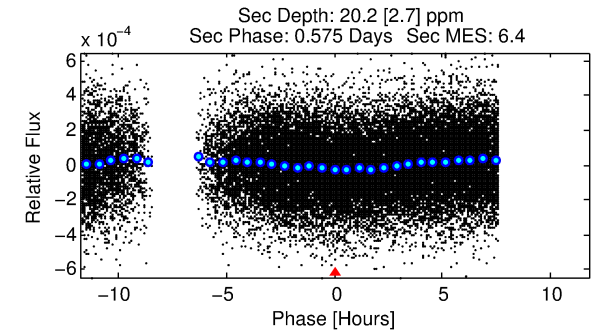
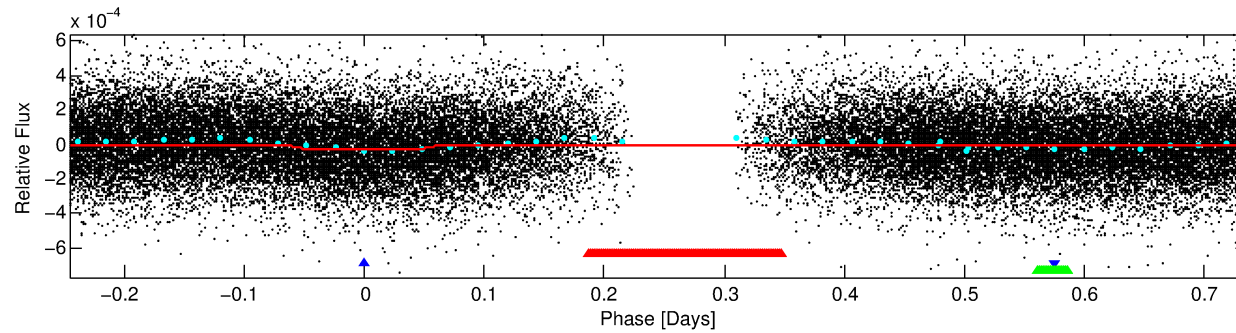
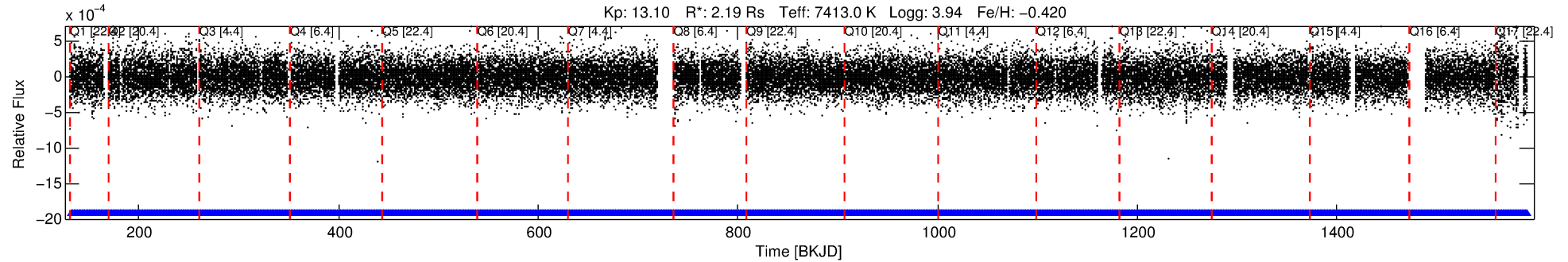
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011771931-02

No Significant Match Found

DV One-Page Summary

KIC: 11771931 Candidate: 2 of 3 Period: 0.981 d



DV Fit Results:

Period = 0.98133 [0.00001] d
Epoch = 132.1118 [0.0025] BKJD
Rp/R* = 0.0052 [0.0047]
a/R* = 2.68 [12.57]
b = 0.10 [54.98]
Seff = 26202.53 [15850.63]
Teq = 3244 [491] K
Rp = 1.23 [1.23] Re
a = 0.0223 [0.0082] AU
Ag = 3.63 [7.03] [0.37σ]
Teffp = 6923 [3211] K [1.13σ]

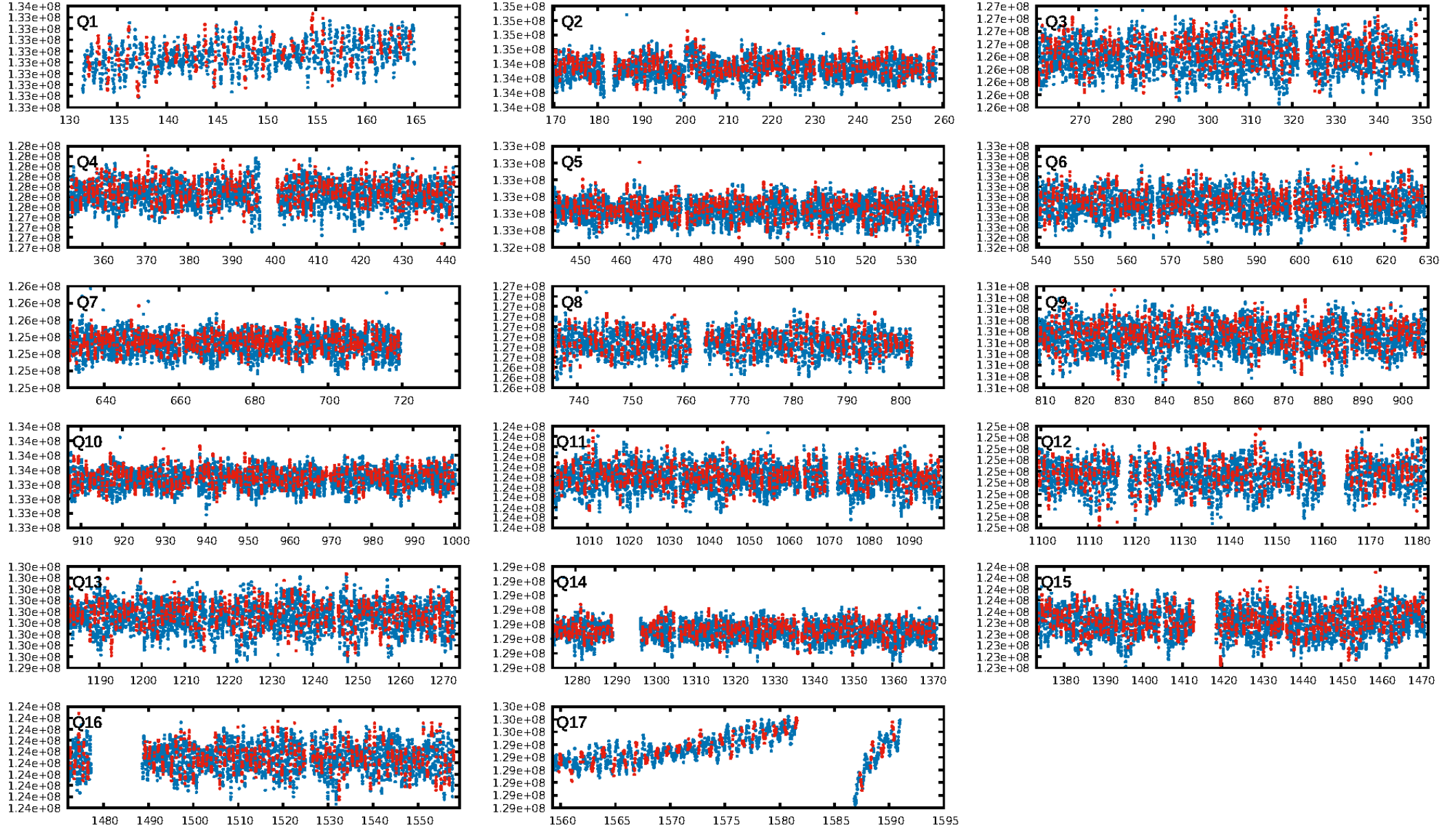
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.43e-25
RollingBand-fgt: 1.00 [1307/1307]
GhostDiagnostic-chr: 2.615
Centroid-sig: 68.0%
Centroid-so: 0.297 arcsec [0.38σ]
OotOffset-rm: 0.578 arcsec [1.03σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-rm: 0.478 arcsec [0.99σ]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 0.00 [0/17]

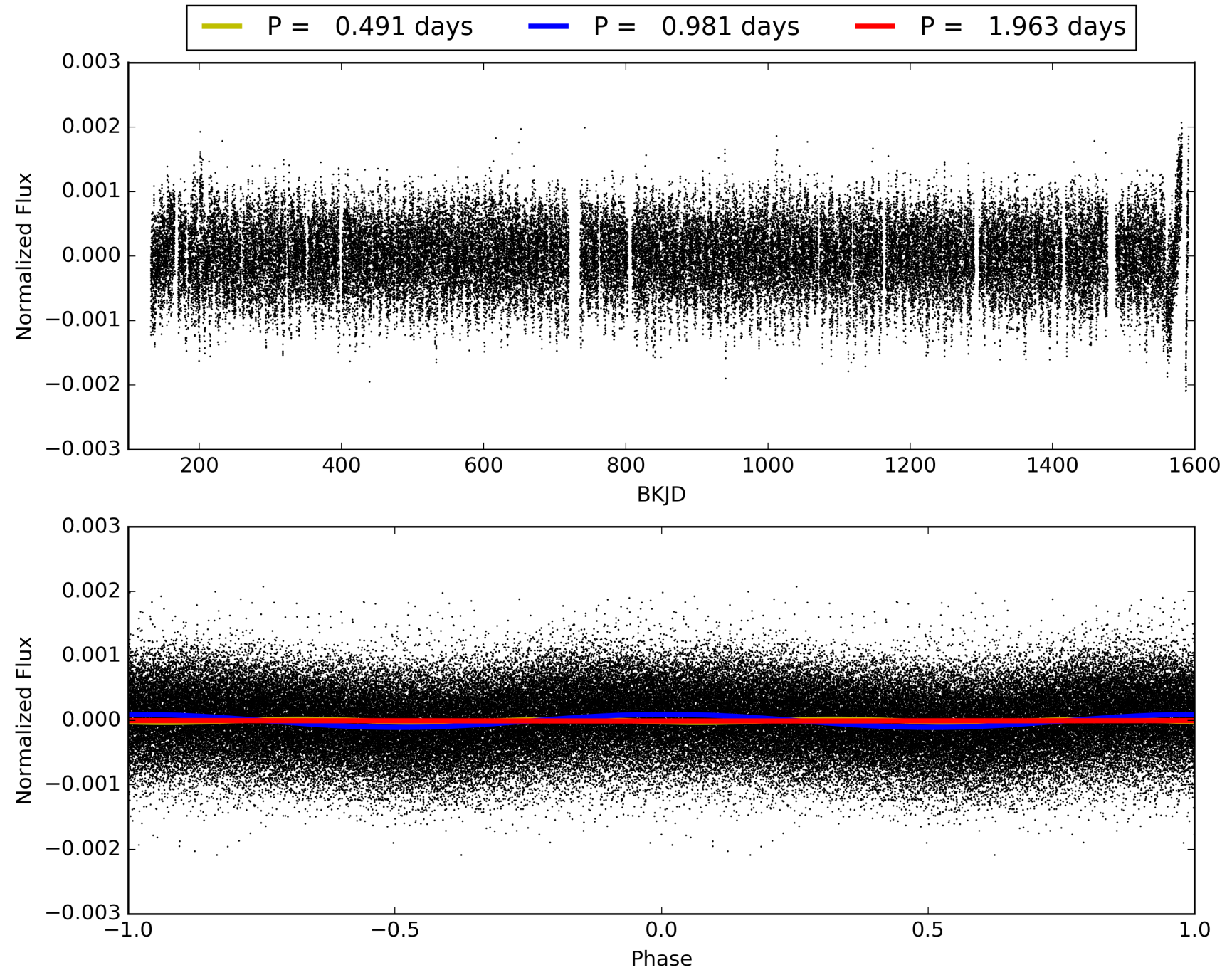
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:41:30 Z

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

TCE 011771931-02, PDC Light Curves

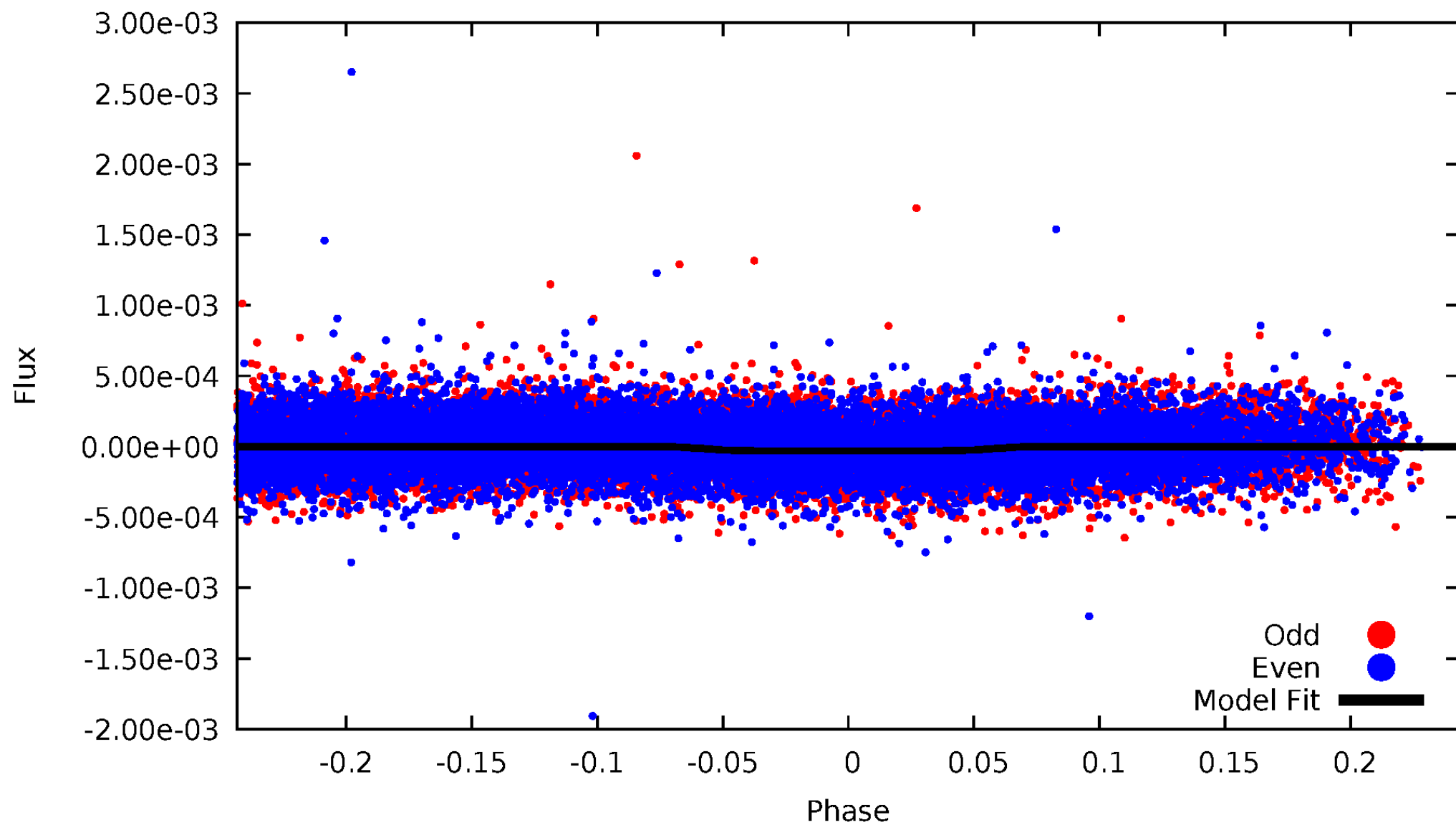


TCE 011771931-02



DV Odd/Even

TCE 011771931-02

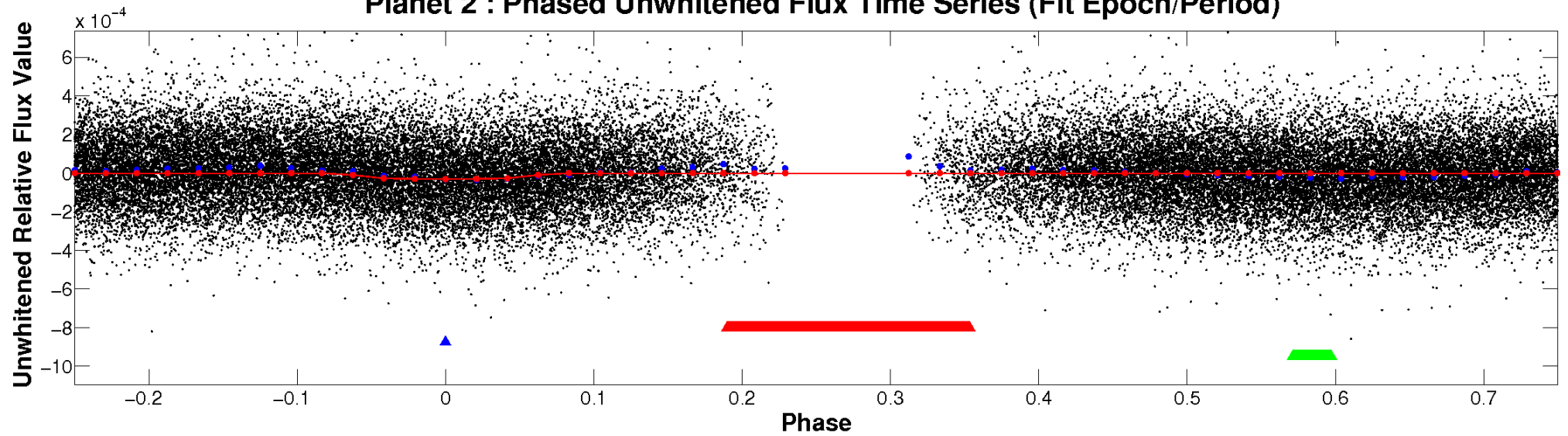


ALT Odd/Even

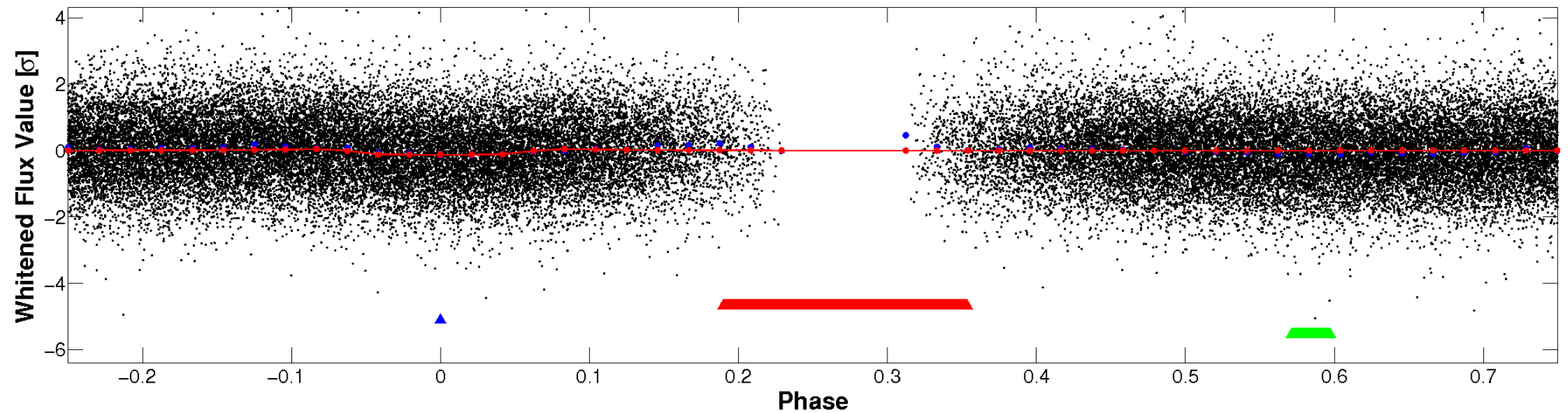
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

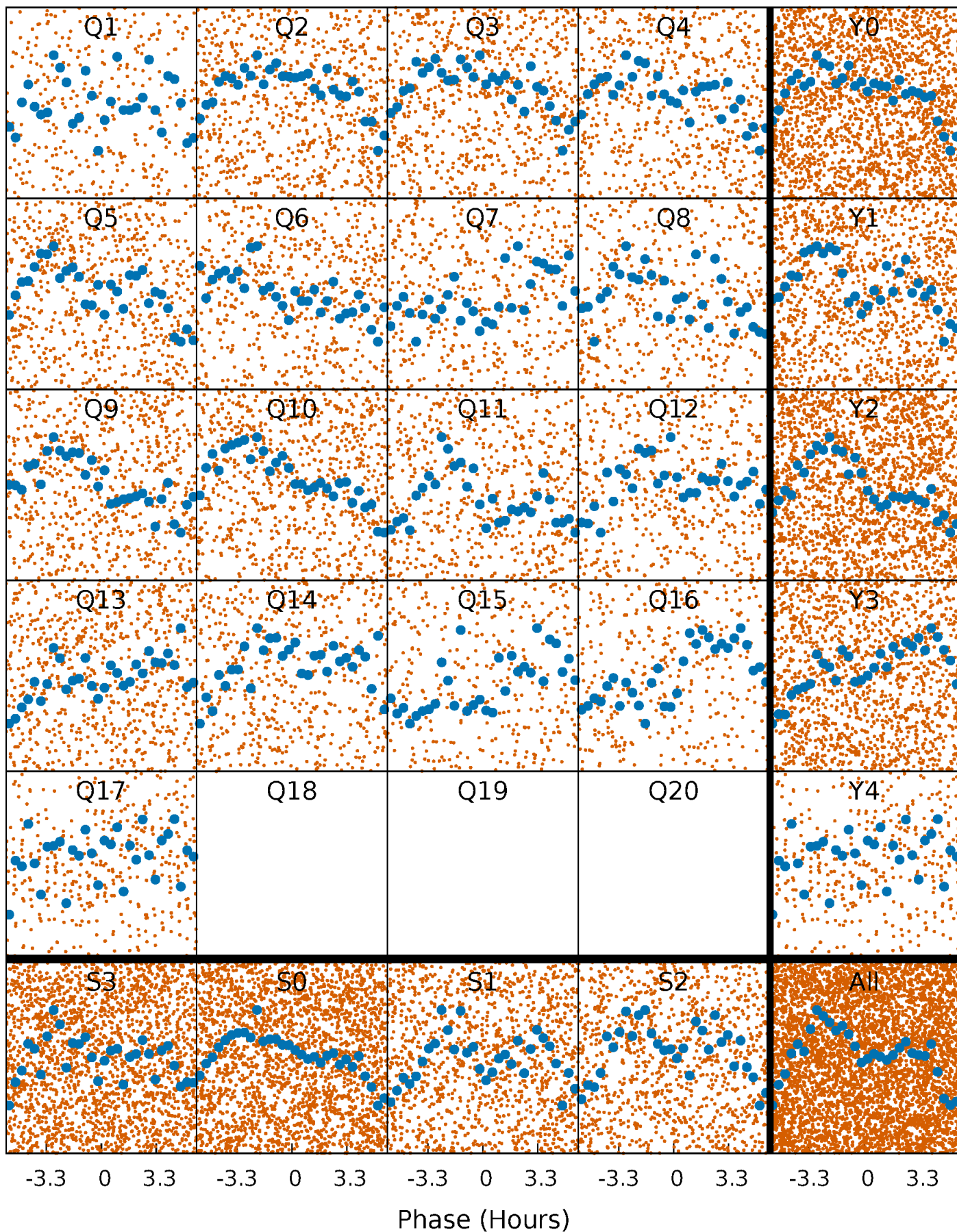


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



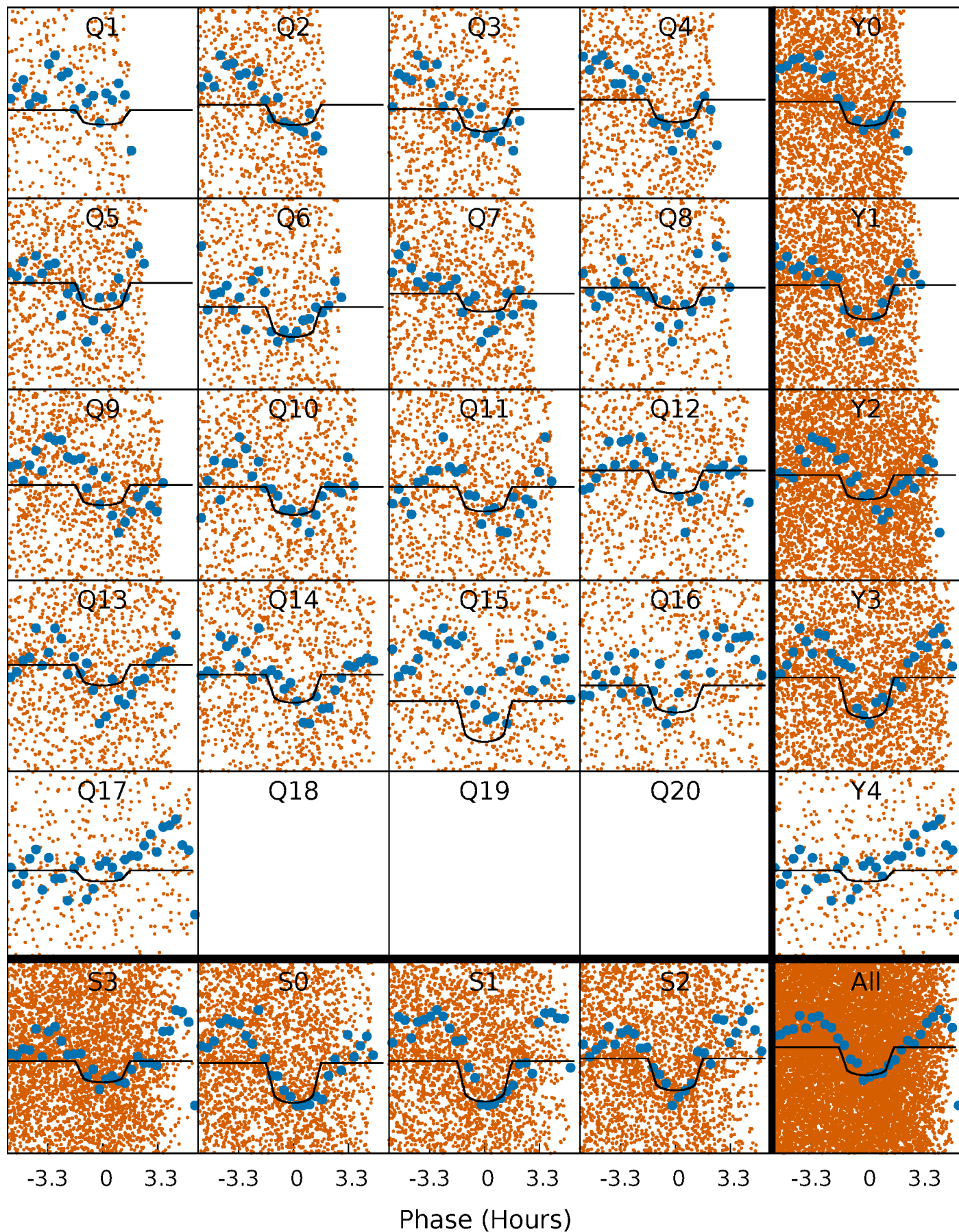
PDC Quarter-Phased Transit Curves

TCE 011771931-02 P= 0.981331 Days $T_0=132.111763$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011771931-02 P= 0.981331 Days $T_0=132.111763$ (BKJD)

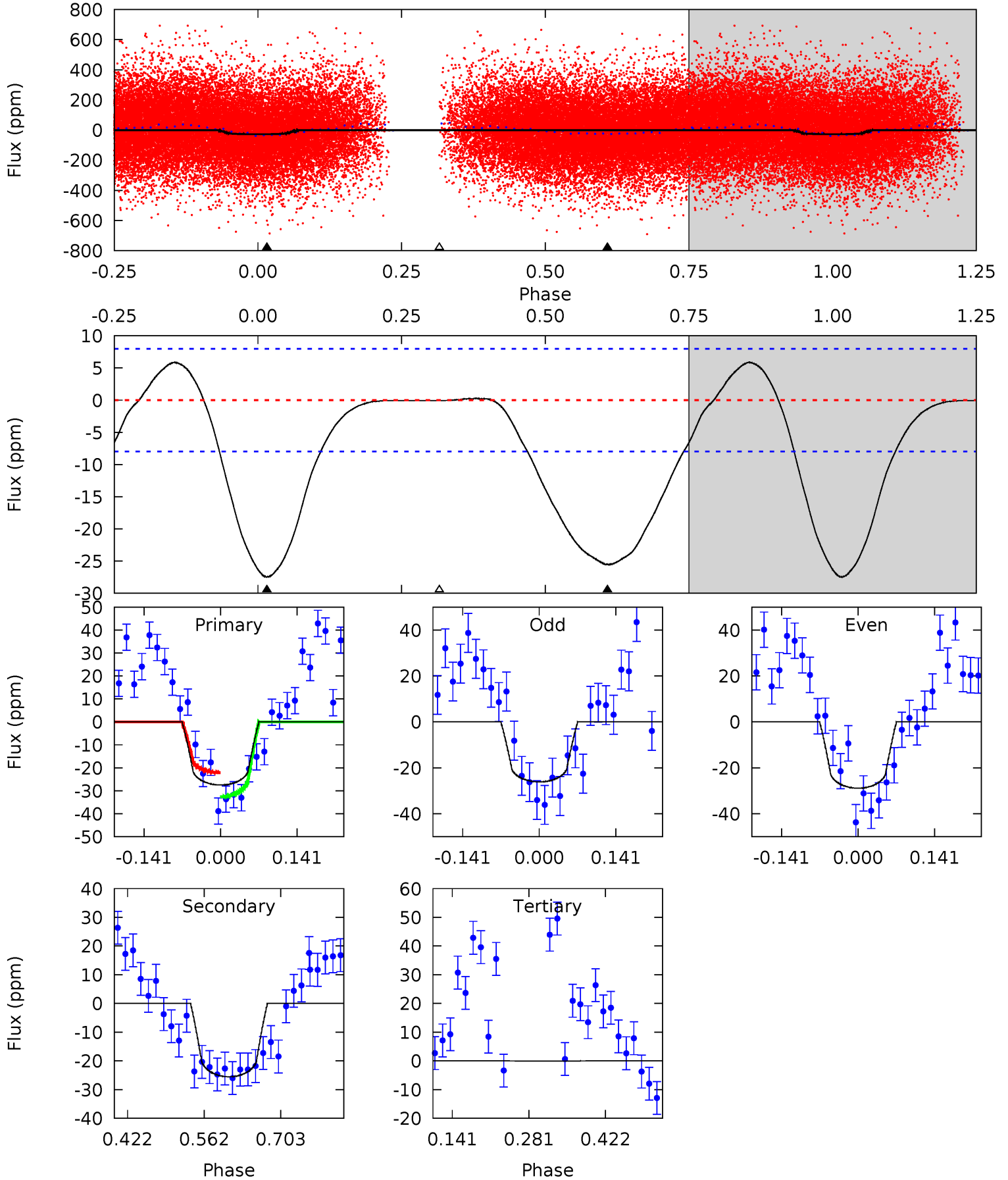


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

011771931-02, P = 0.981331 Days, E = 131.130432 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	14.4	0.04	0	4.49	1.47	2.09	15.4	15.5	14.3	14.4	0.78	1.02	0.18	2.88



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 011771931

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7413^{+233}_{-311}	$3.941^{+0.338}_{-0.135}$	$-0.420^{+0.250}_{-0.300}$	$2.192^{+0.464}_{-0.861}$	$1.529^{+0.209}_{-0.313}$	$0.204^{+0.478}_{-0.081}$
	+3%/-4%	+9%/-3%	+60%/-71%	+21%/-39%	+14%/-20%	+234%/-40%
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 011771931-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-26 ± 2	$1.28^{+1.11}_{-0.79}$	4454^{+335}_{-441}	6678^{+6768}_{-1871}	$4.375^{+24.831}_{-3.140}$
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 $A_{\text{obs}} \gg 1.0$

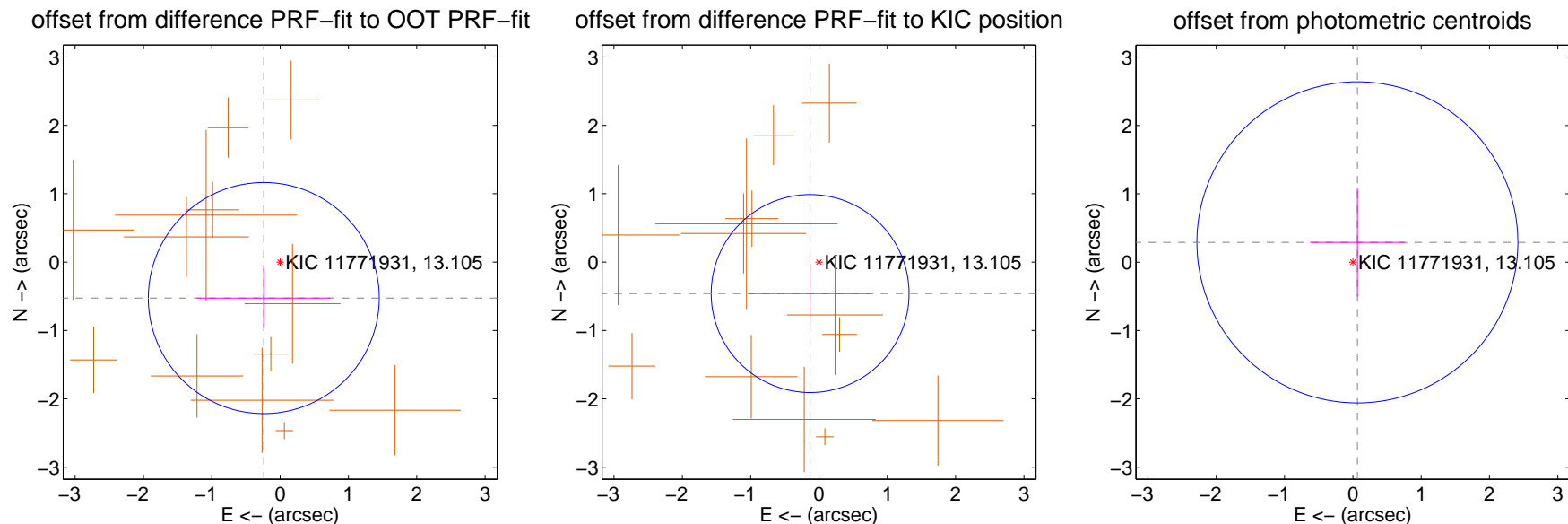
DV Centroid Data

Supplemental centroid analysis for 011771931-02. Kepler magnitude: 13.11. Transit SNR 10.51

There are 0 quarters with good PRF difference image offsets

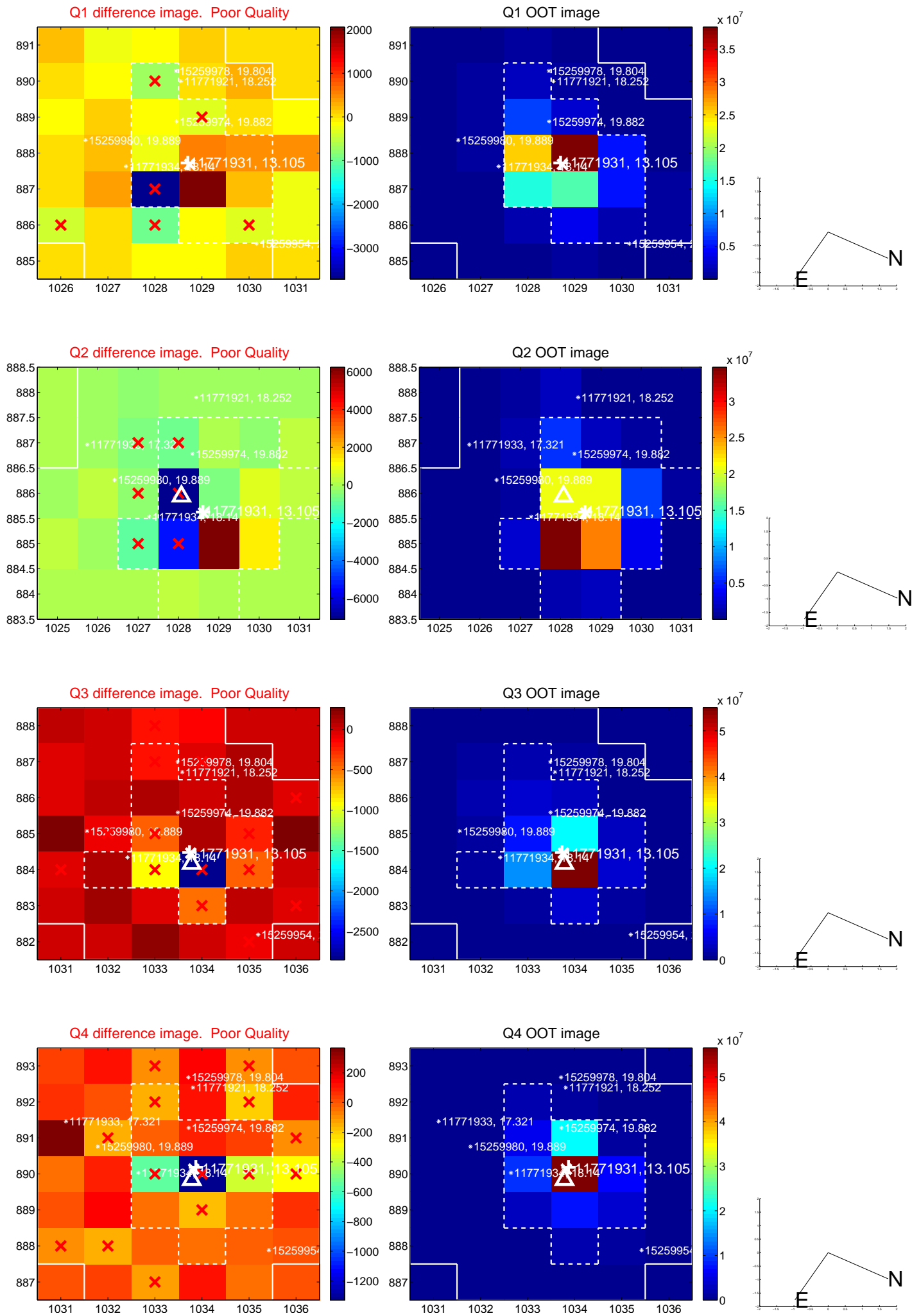
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.578 ± 0.563	1.03	0.239 ± 0.976	-0.526 ± 0.433
PRF-fit source offset from KIC position	0.478 ± 0.482	0.99	0.130 ± 0.885	-0.460 ± 0.436
photometric centroid source offset	0.30 ± 0.78	0.38	-0.07 ± 0.69	0.29 ± 0.79

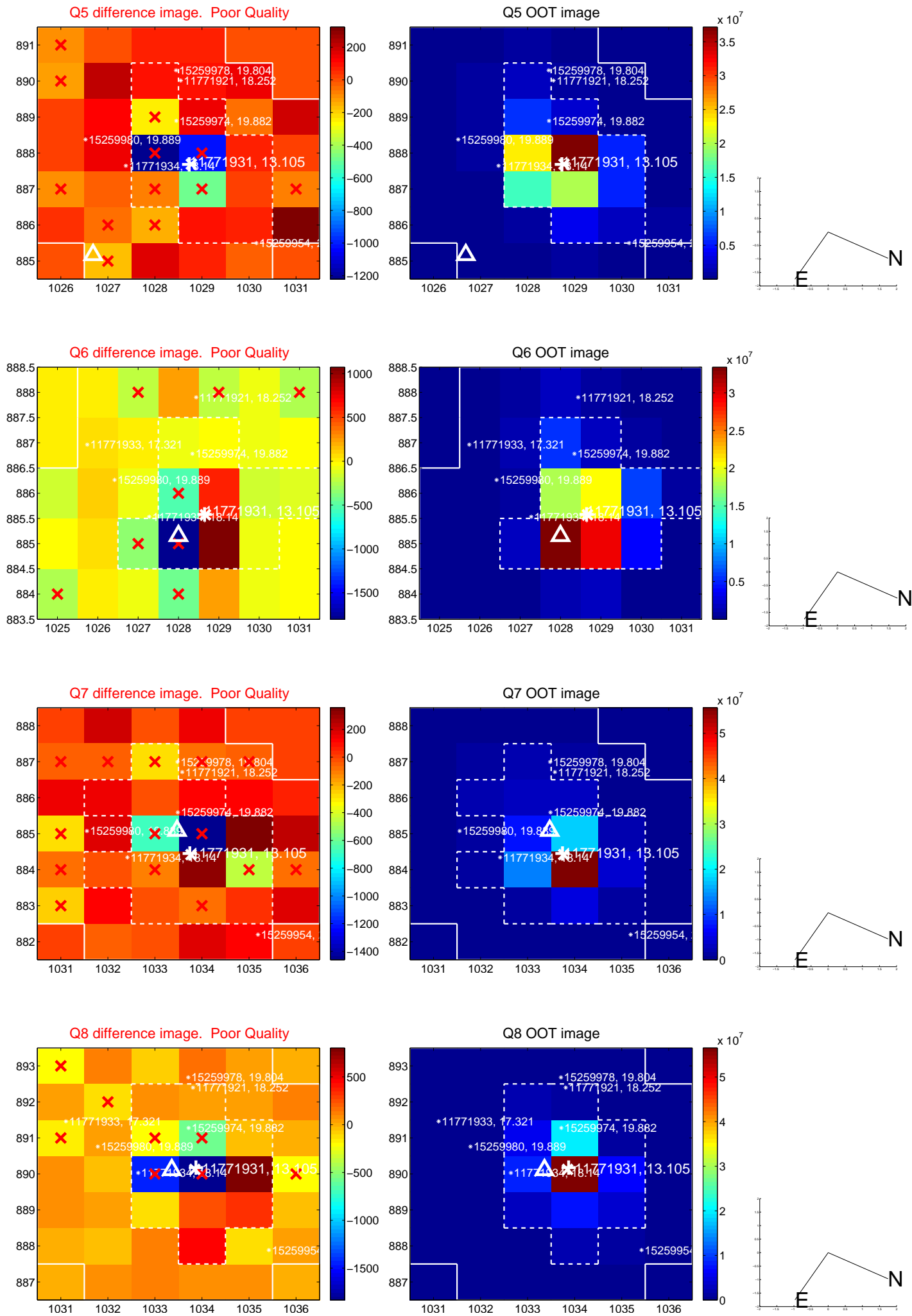


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

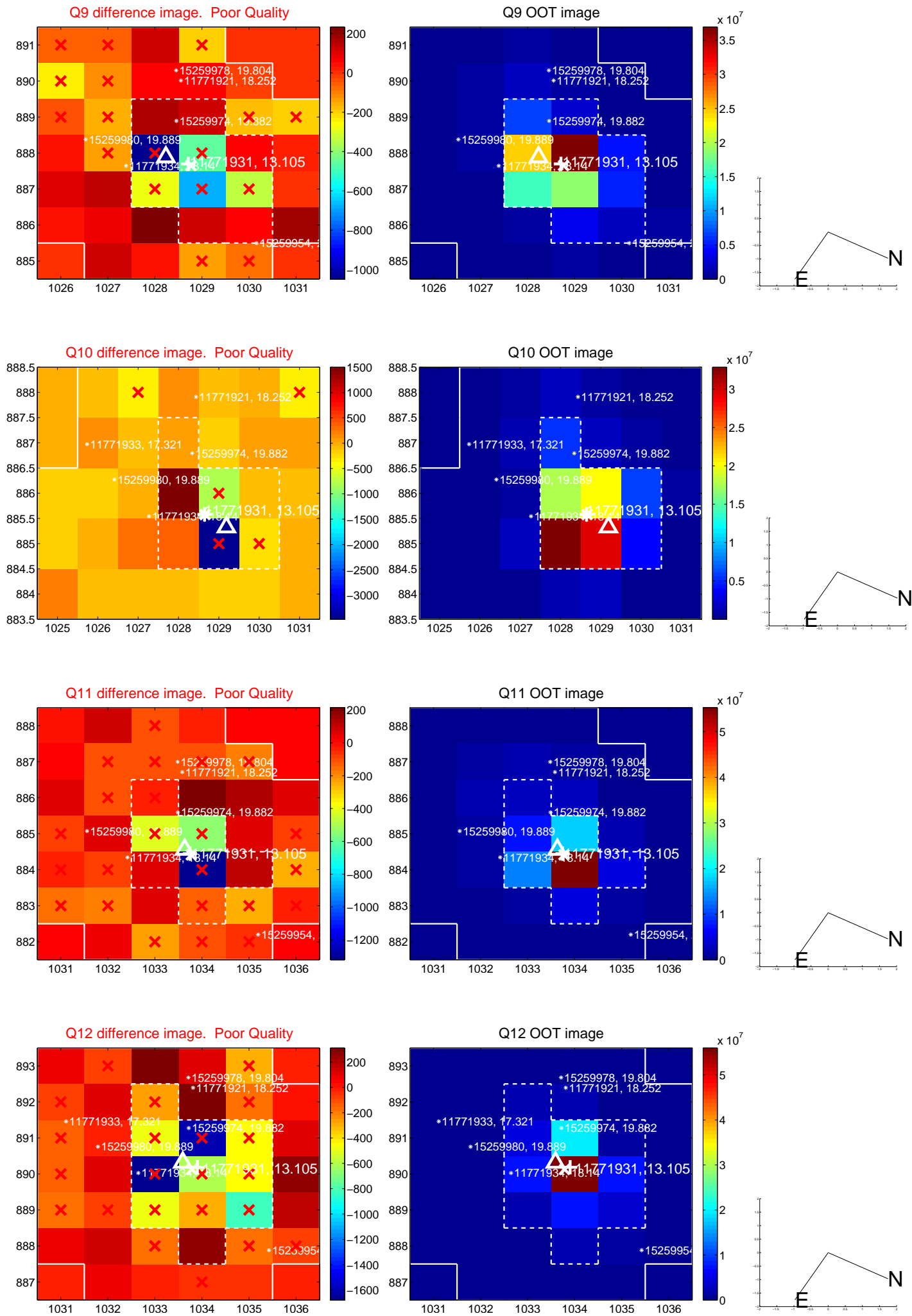
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



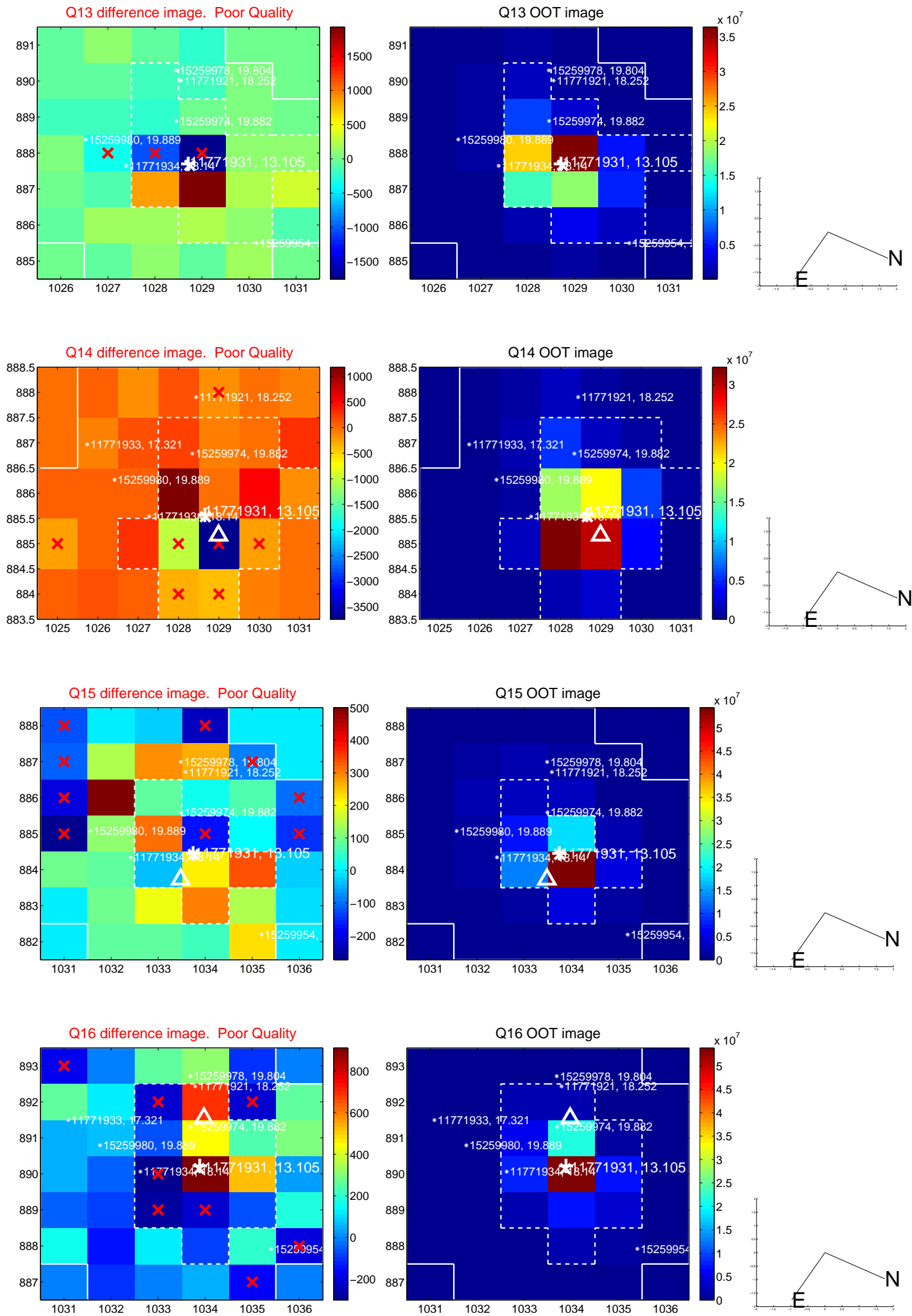
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



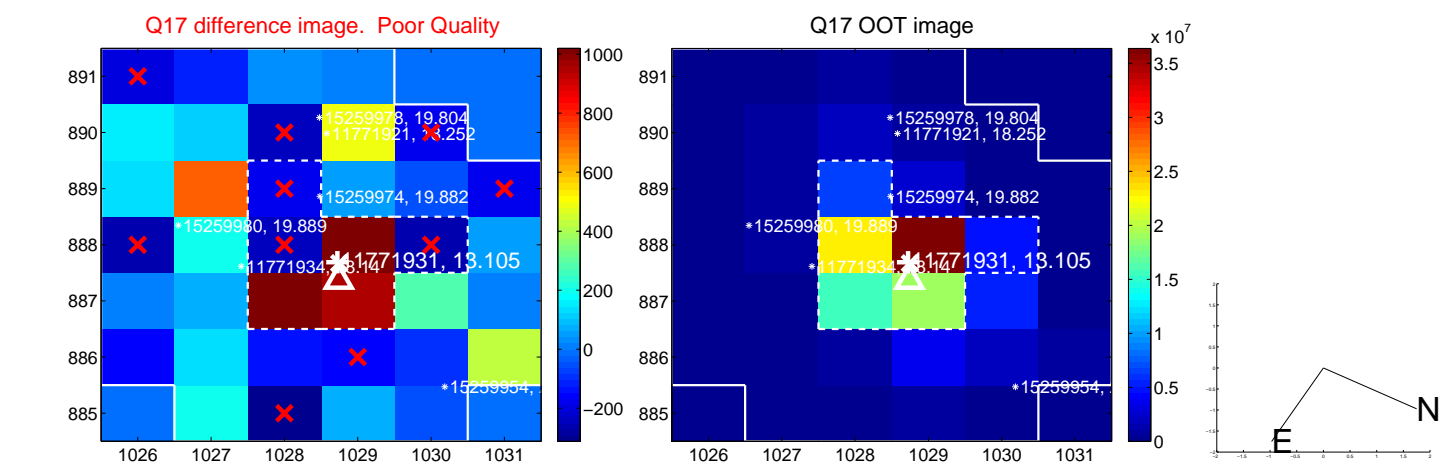
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



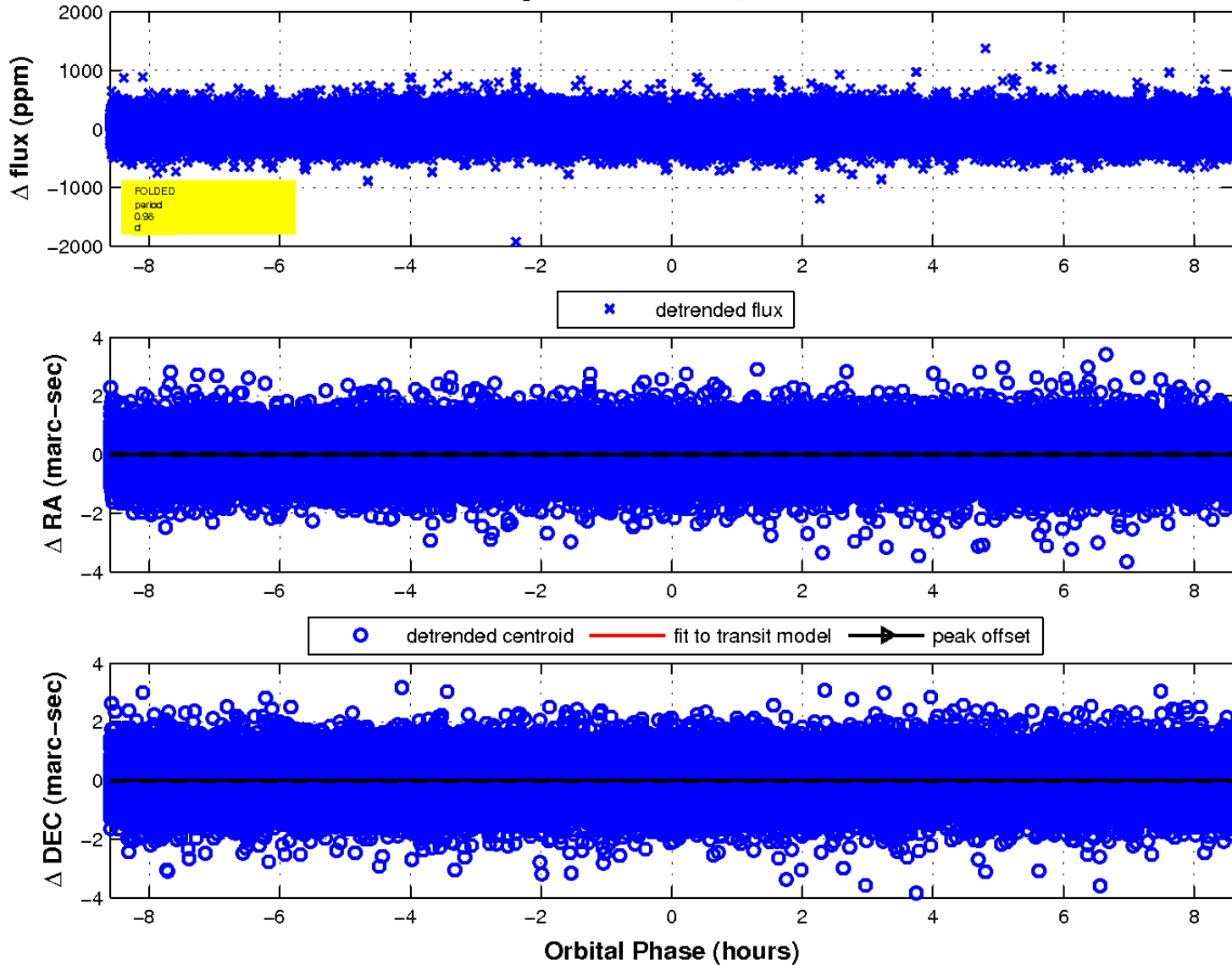
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

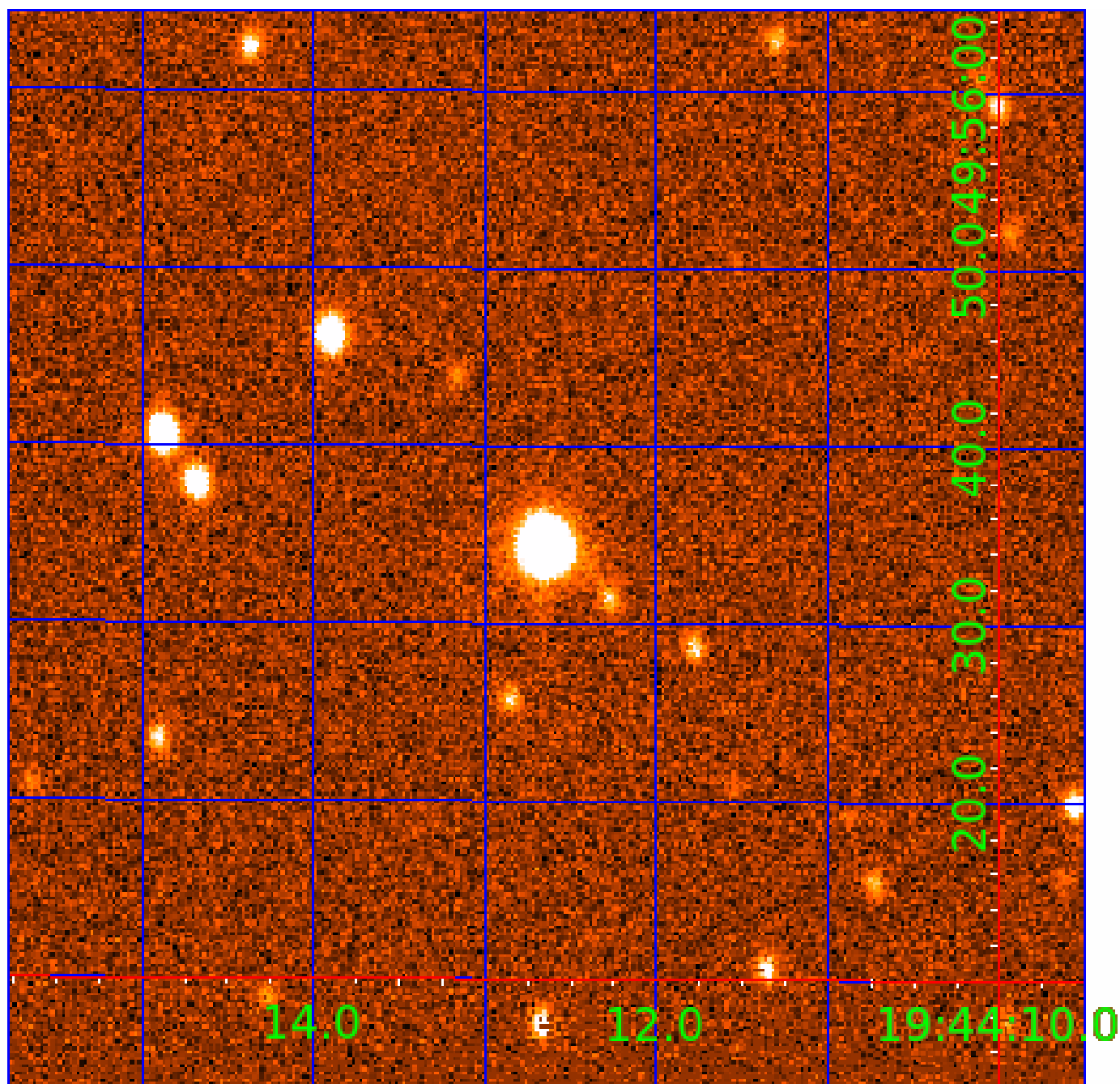


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 011771931

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})
011771931-01	OBS	No	0.981439	132.298006	12.4	1.778	9.7	3.7	2.19	7413	0.81	26198.69
011771931-02	OBS	No	0.981331	132.111763	30.7	2.866	10.6	10.5	2.19	7413	1.23	26202.53
011771931-03	OBS	No	0.981314	131.716419	24.8	5.795	9.7	10.3	2.19	7413	1.16	26203.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011771931-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011771931-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS
011771931-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

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

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

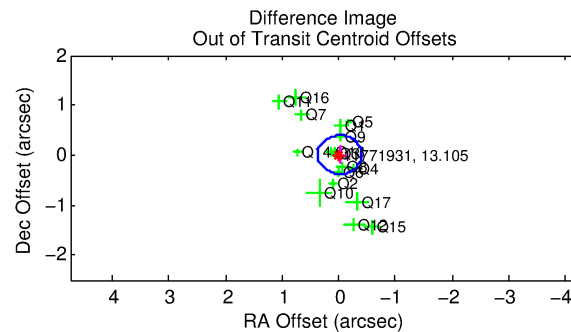
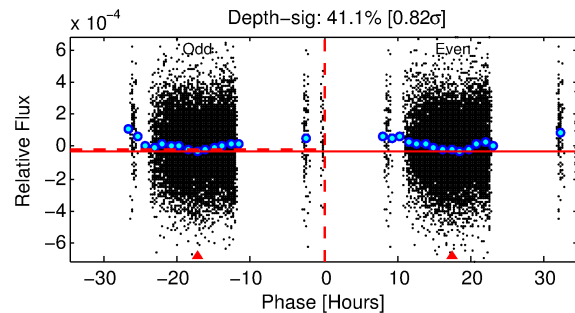
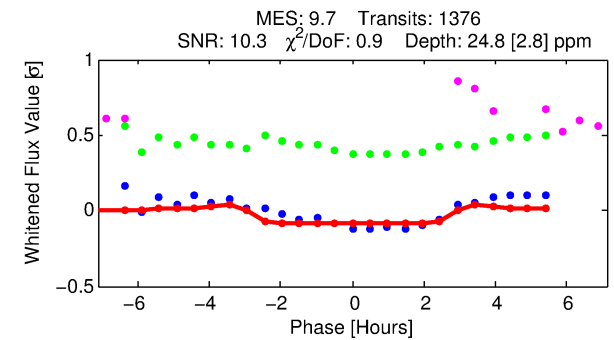
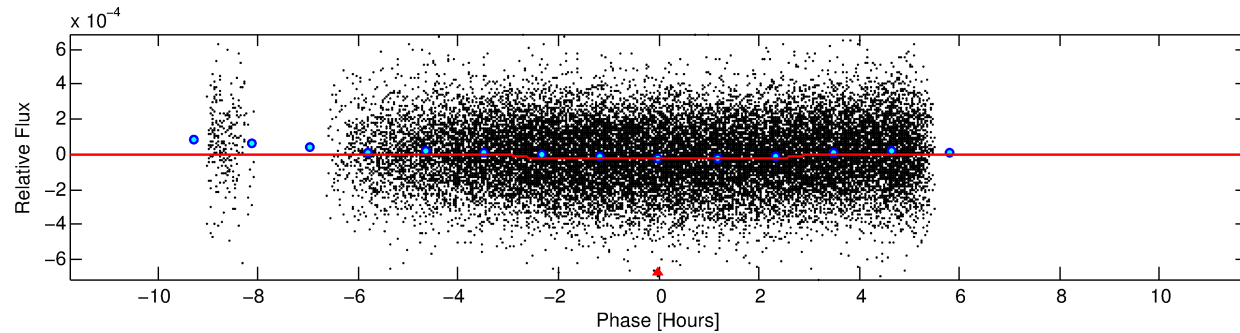
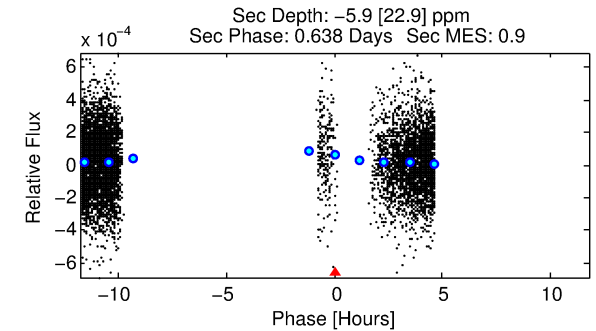
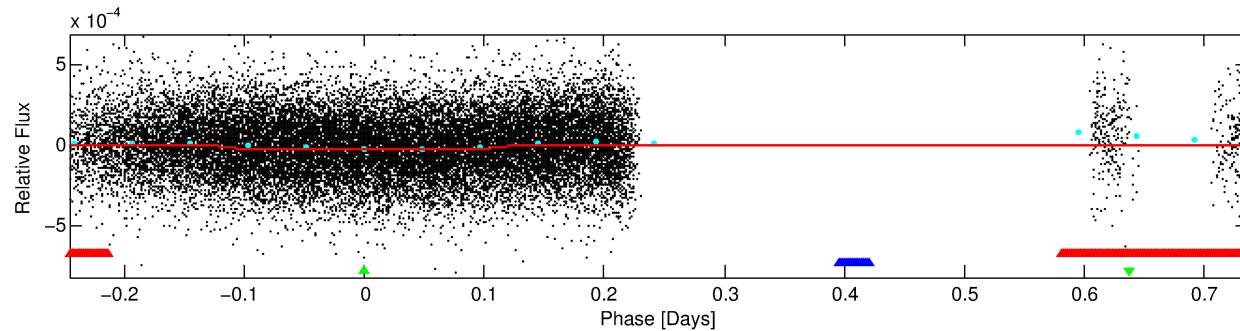
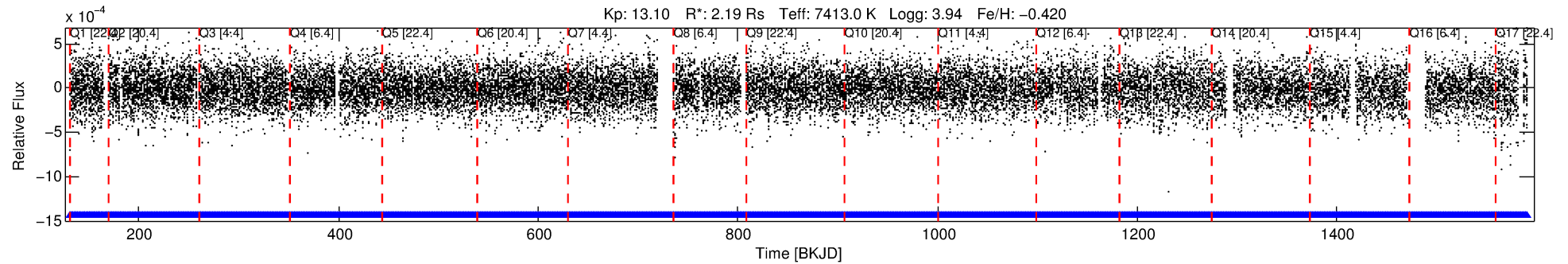
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011771931-03

No Significant Match Found

DV One-Page Summary

KIC: 11771931 Candidate: 3 of 3 Period: 0.981 d



DV Fit Results:

Period = 0.98131 [0.00001] d
Epoch = 131.7164 [0.0038] BKJD
Rp/R* = 0.0049 [0.0021]
a/R* = 1.26 [1.24]
b = 0.67 [2.15]
Seff = 26203.14 [15851.00]
Teq = 3244 [491] K
Rp = 1.16 [0.68] Re
a = 0.0223 [0.0082] AU
Ag = N/A
Teffp = N/A

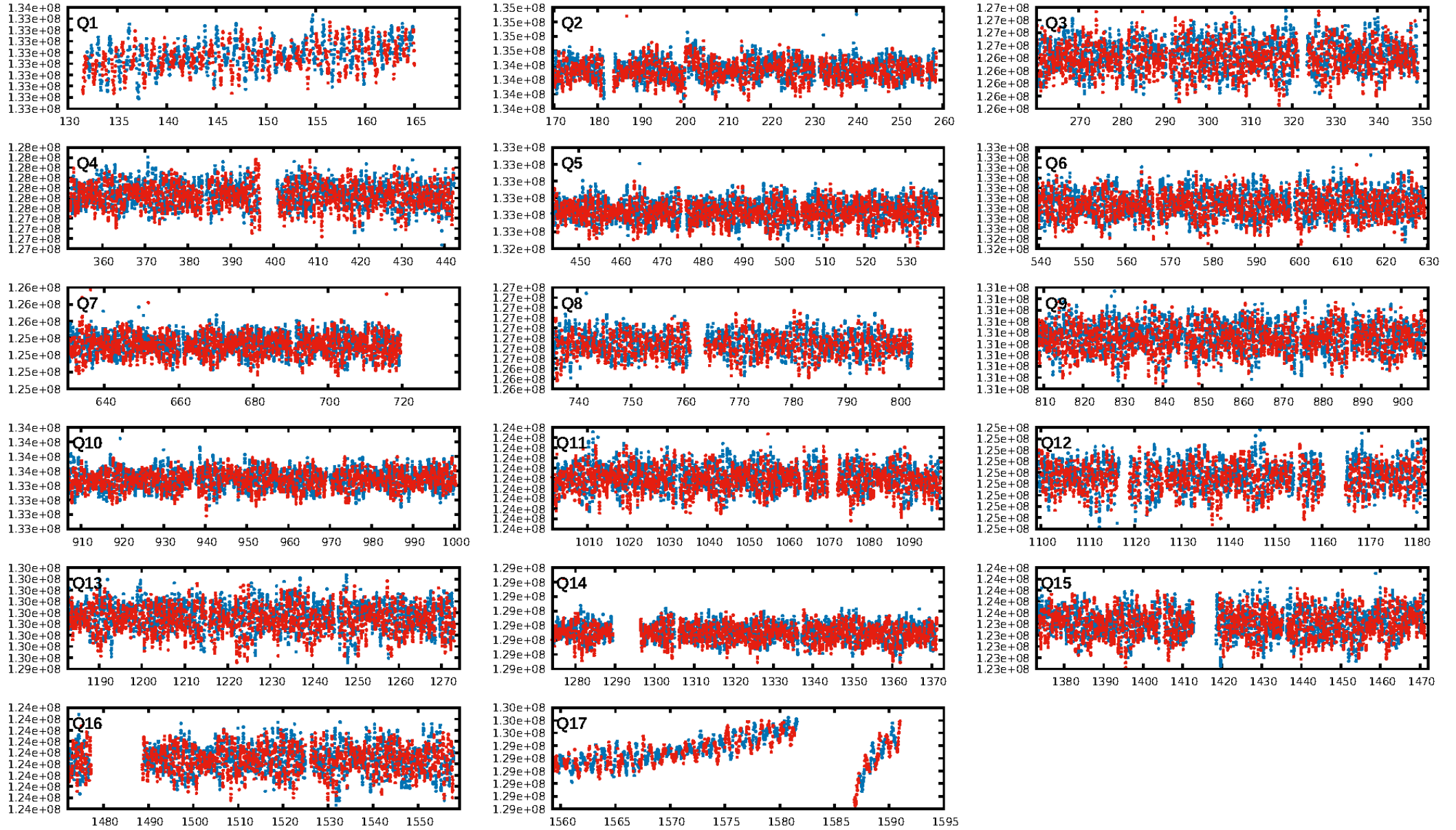
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.22e-24
RollingBand-fgt: 1.00 [1313/1313]
GhostDiagnostic-chr: 2.127
Centroid-sig: 96.9%
Centroid-so: 0.134 arcsec [0.22σ]
OotOffset-rm: 0.020 arcsec [0.15σ]
KicOffset-rm: 0.094 arcsec [0.49σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

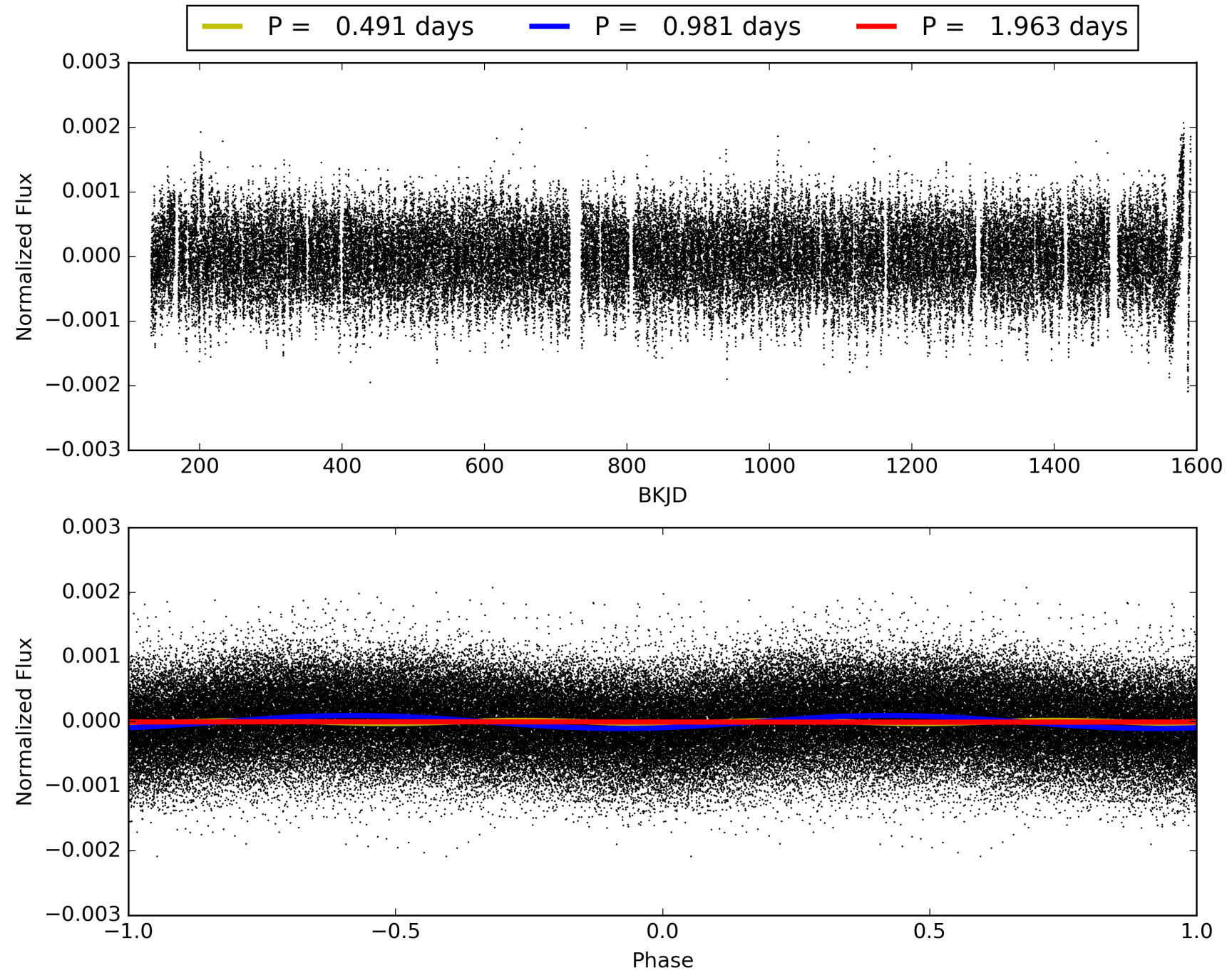
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:41:41 Z

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

TCE 011771931-03, PDC Light Curves

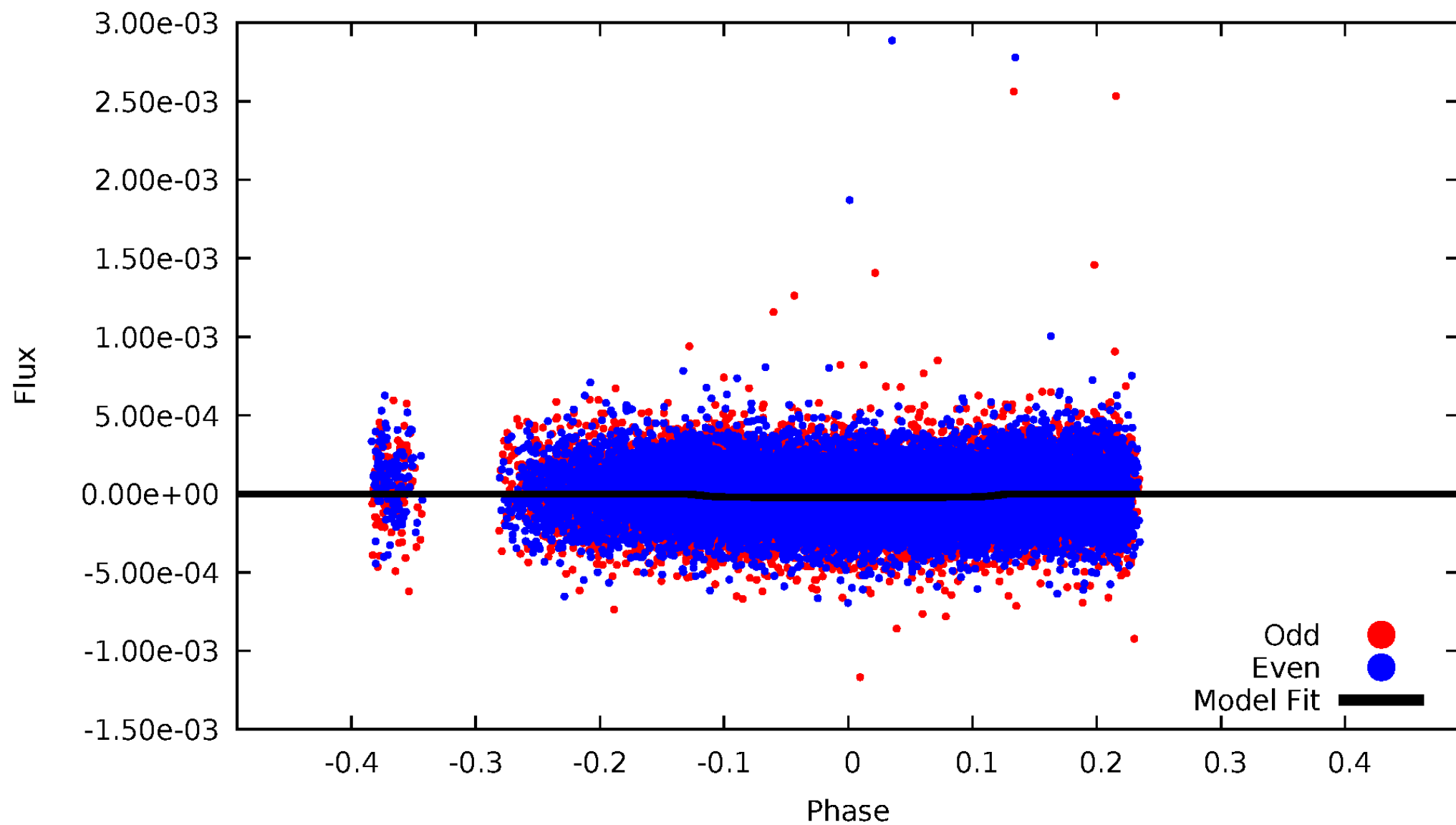


TCE 011771931-03



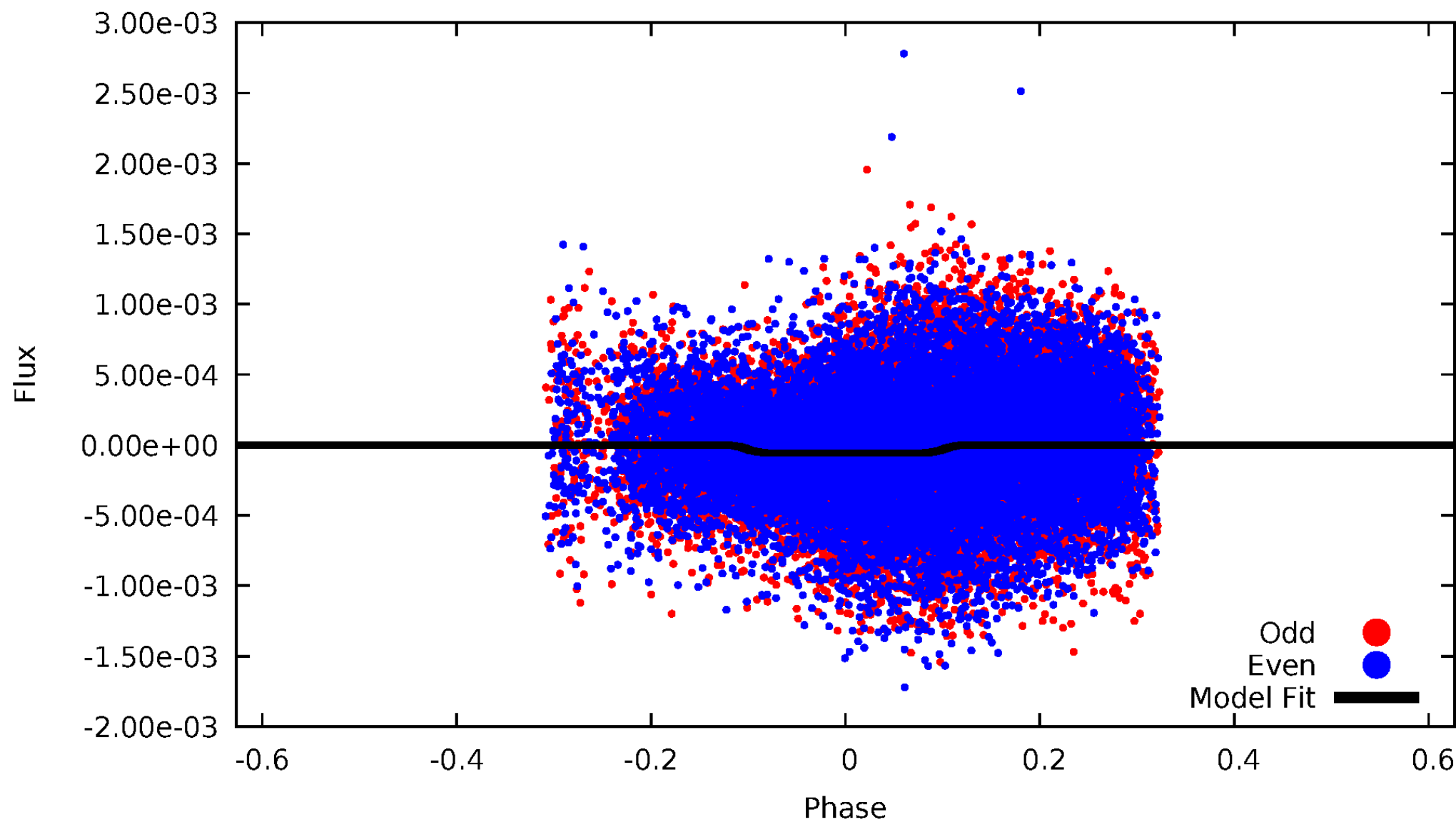
DV Odd/Even

TCE 011771931-03



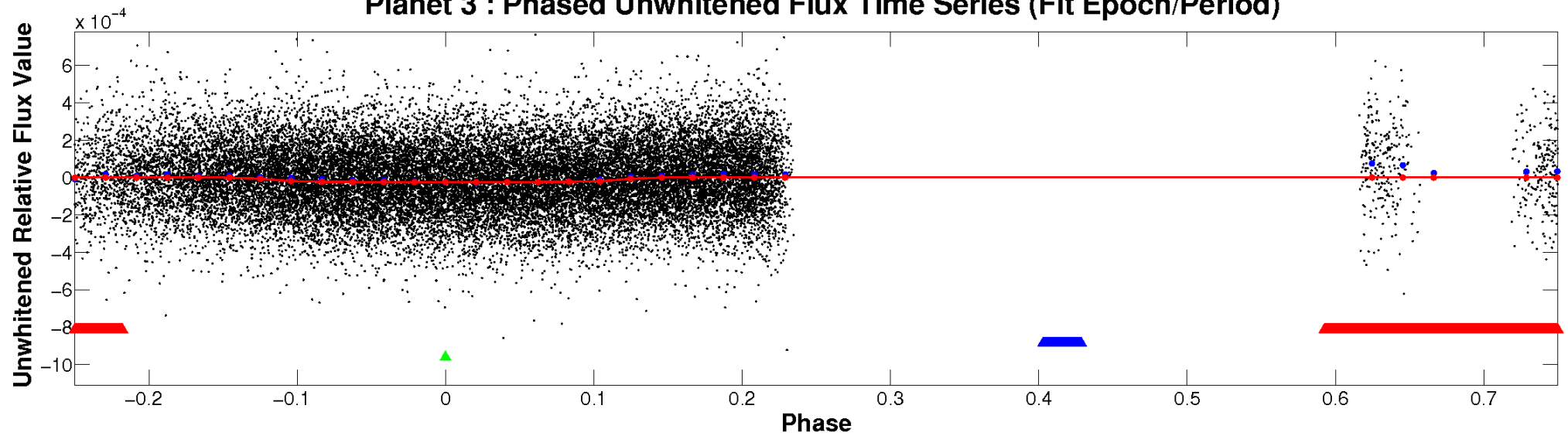
ALT Odd/Even

TCE 011771931-03

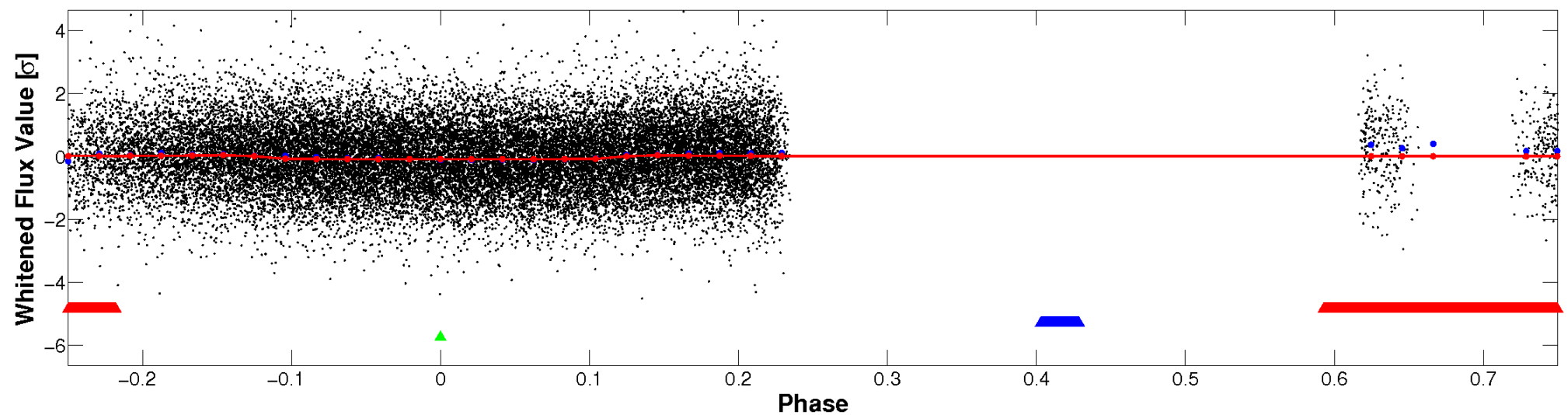


Non-Whitened Vs. Whitened Light Curve

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

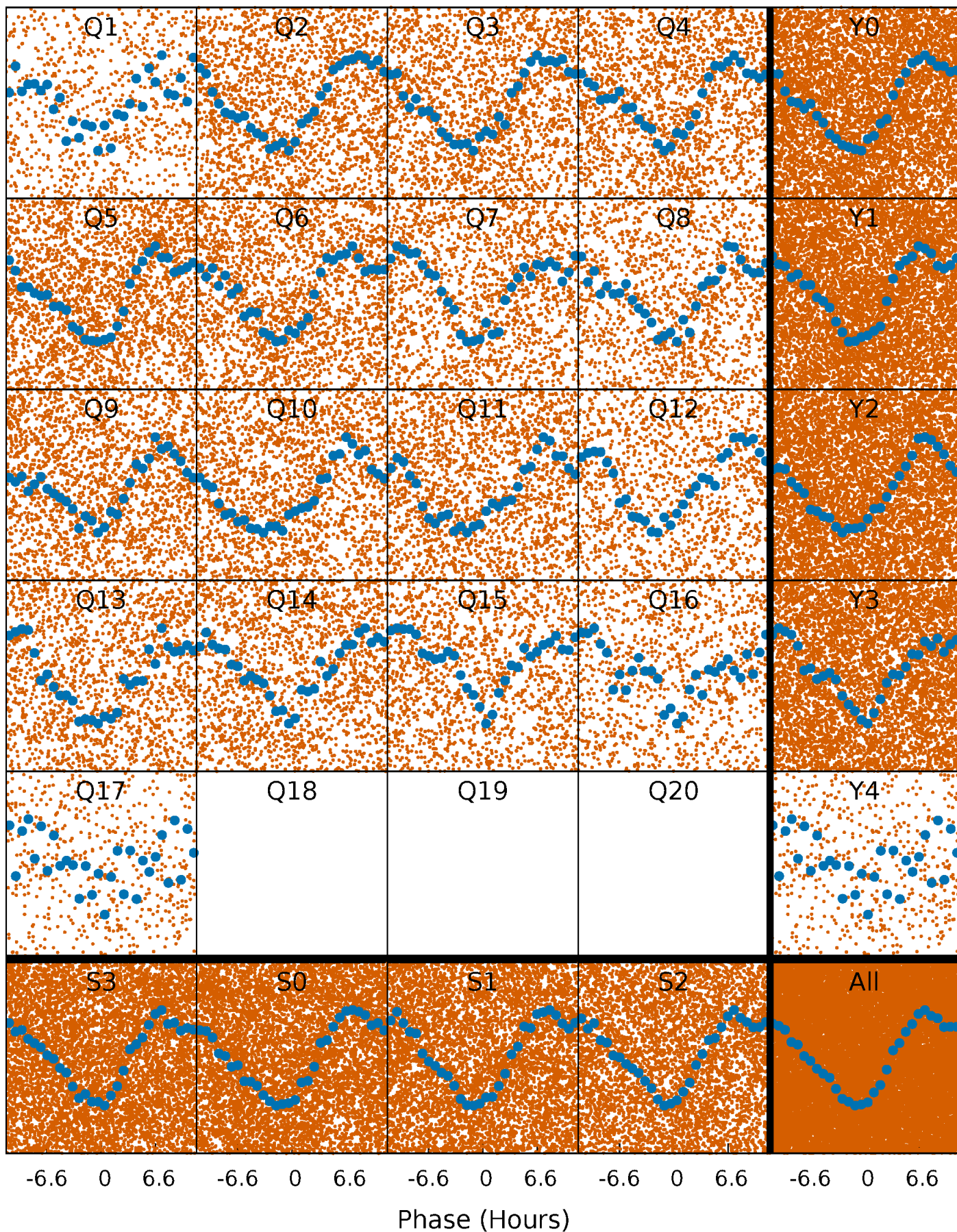


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



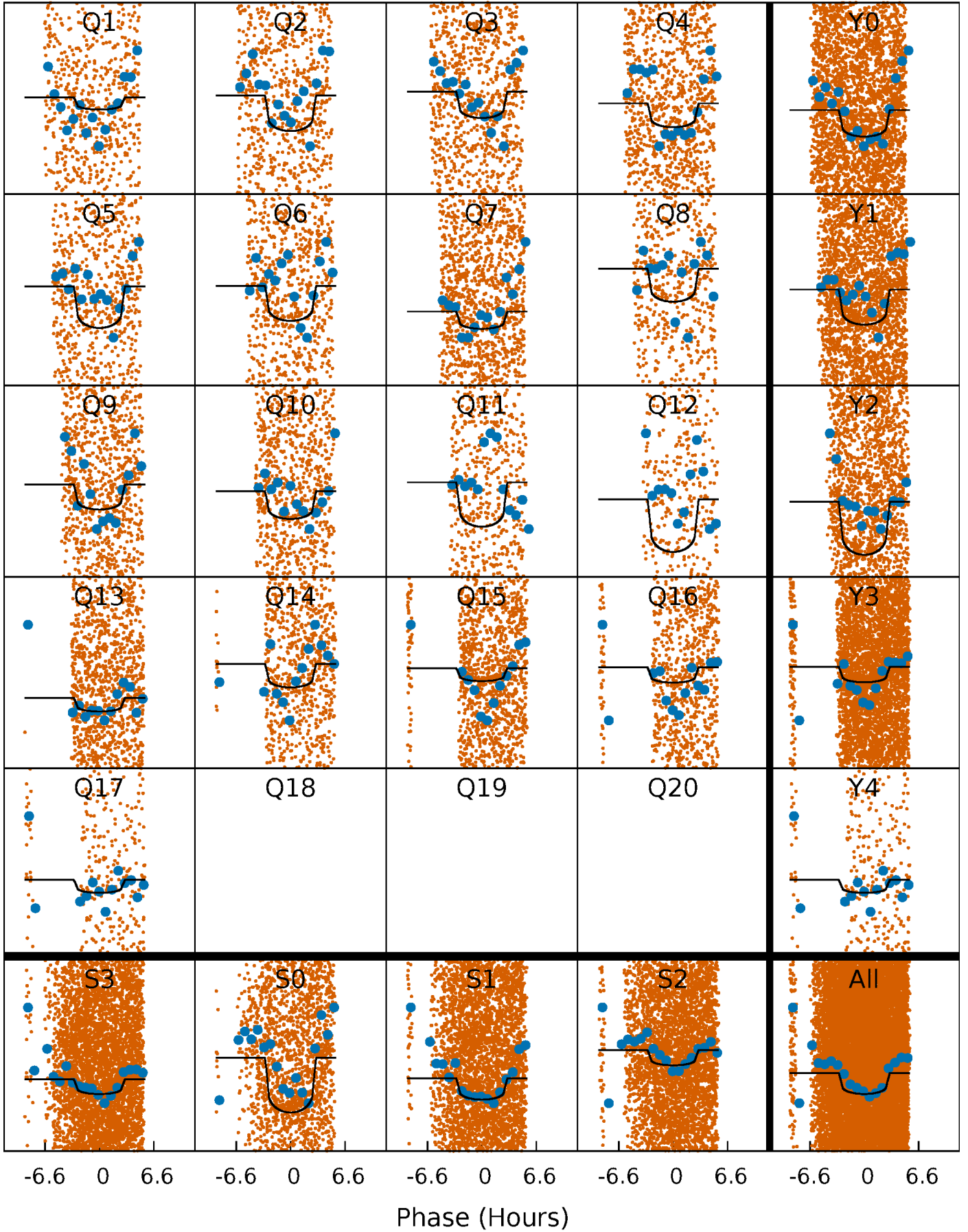
PDC Quarter-Phased Transit Curves

TCE 011771931-03 P= 0.981314 Days $T_0=131.716419$ (BKJD)



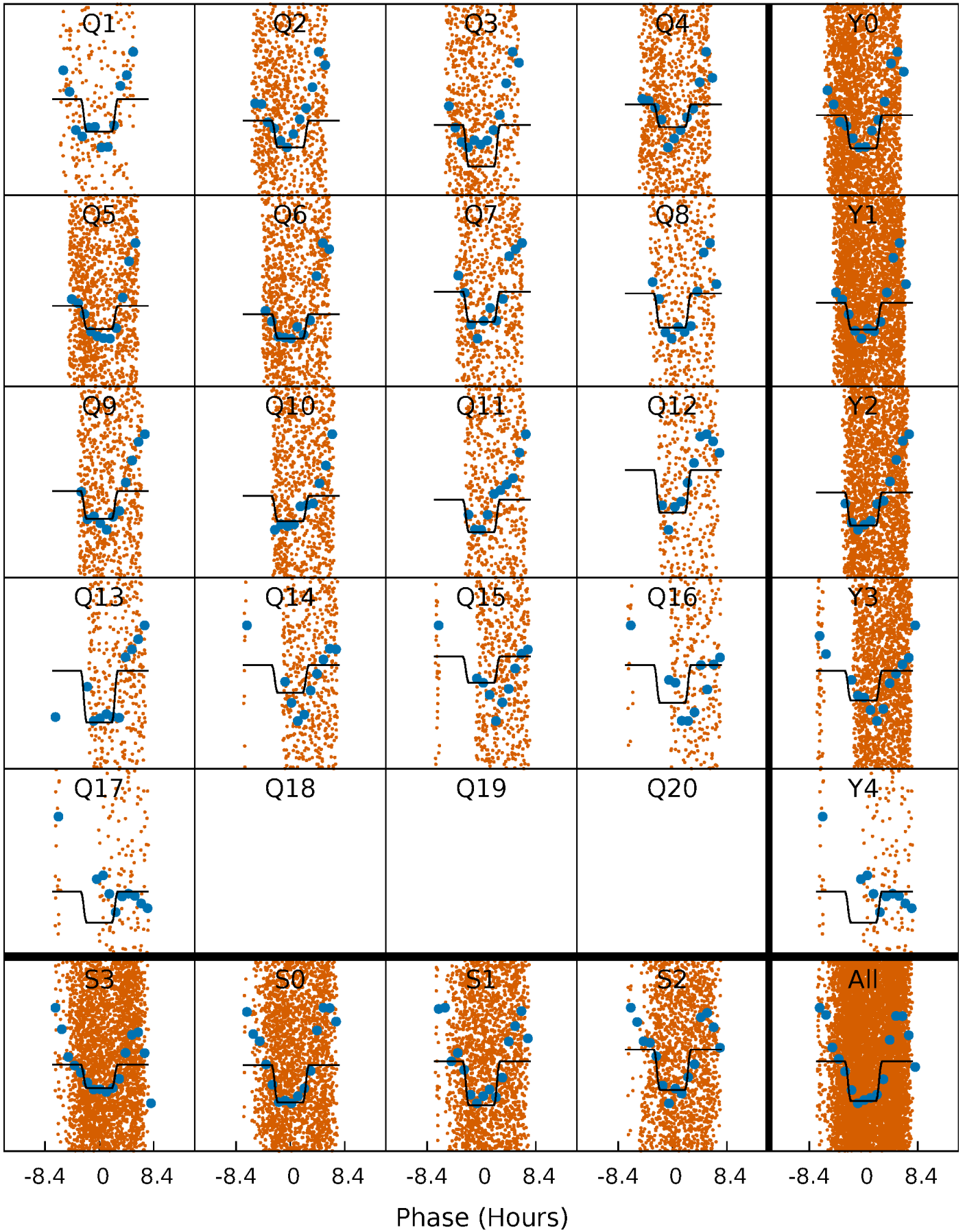
DV Quarter-Phased Transit Curves

TCE 011771931-03 P= 0.981314 Days $T_0=131.716419$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

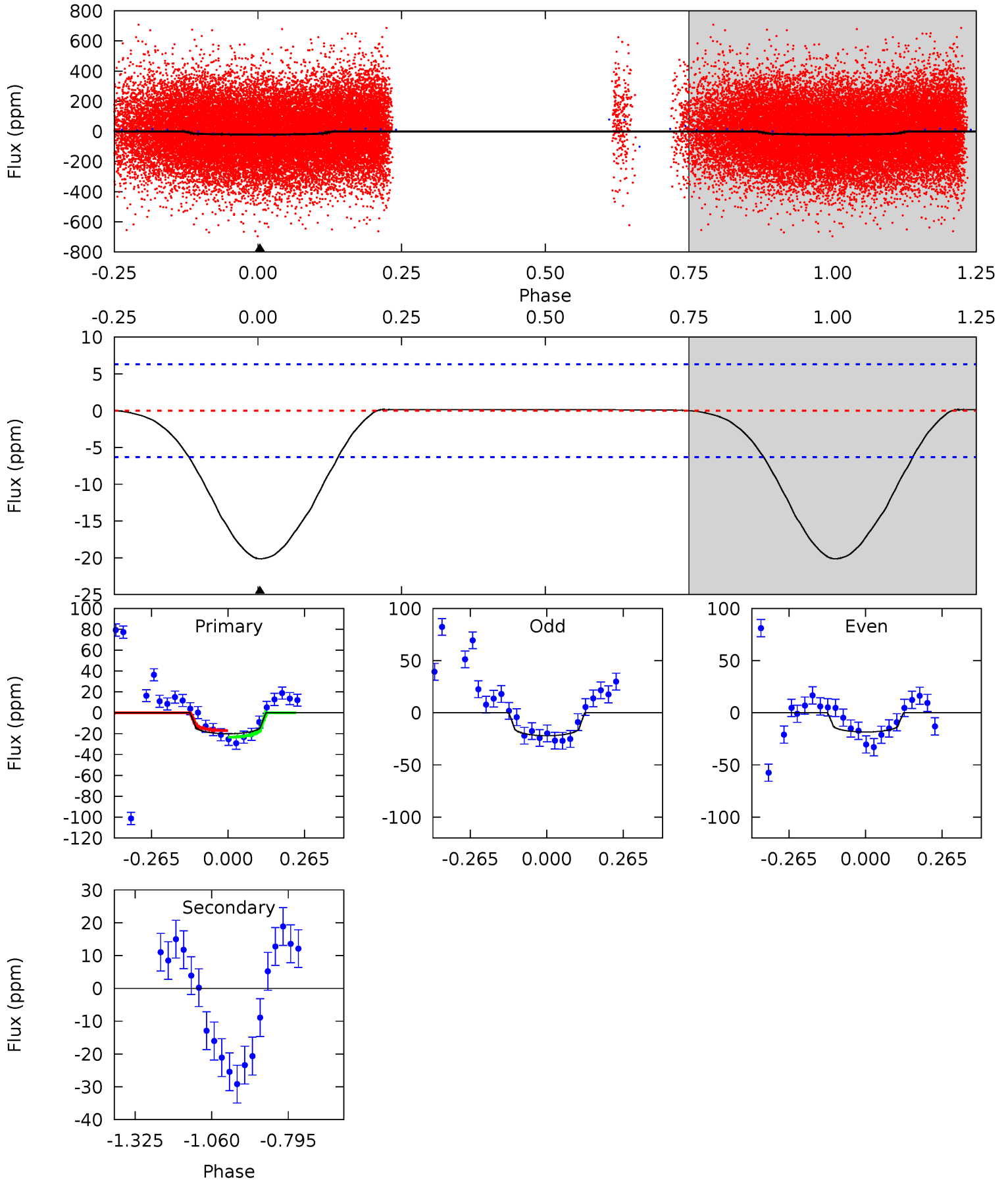
TCE 011771931-03 P= 0.981269 Days $T_0=131.694437$ (BKJD)



DV Model-Shift Uniqueness Test

011771931-03, P = 0.981314 Days, E = 130.735105 Days

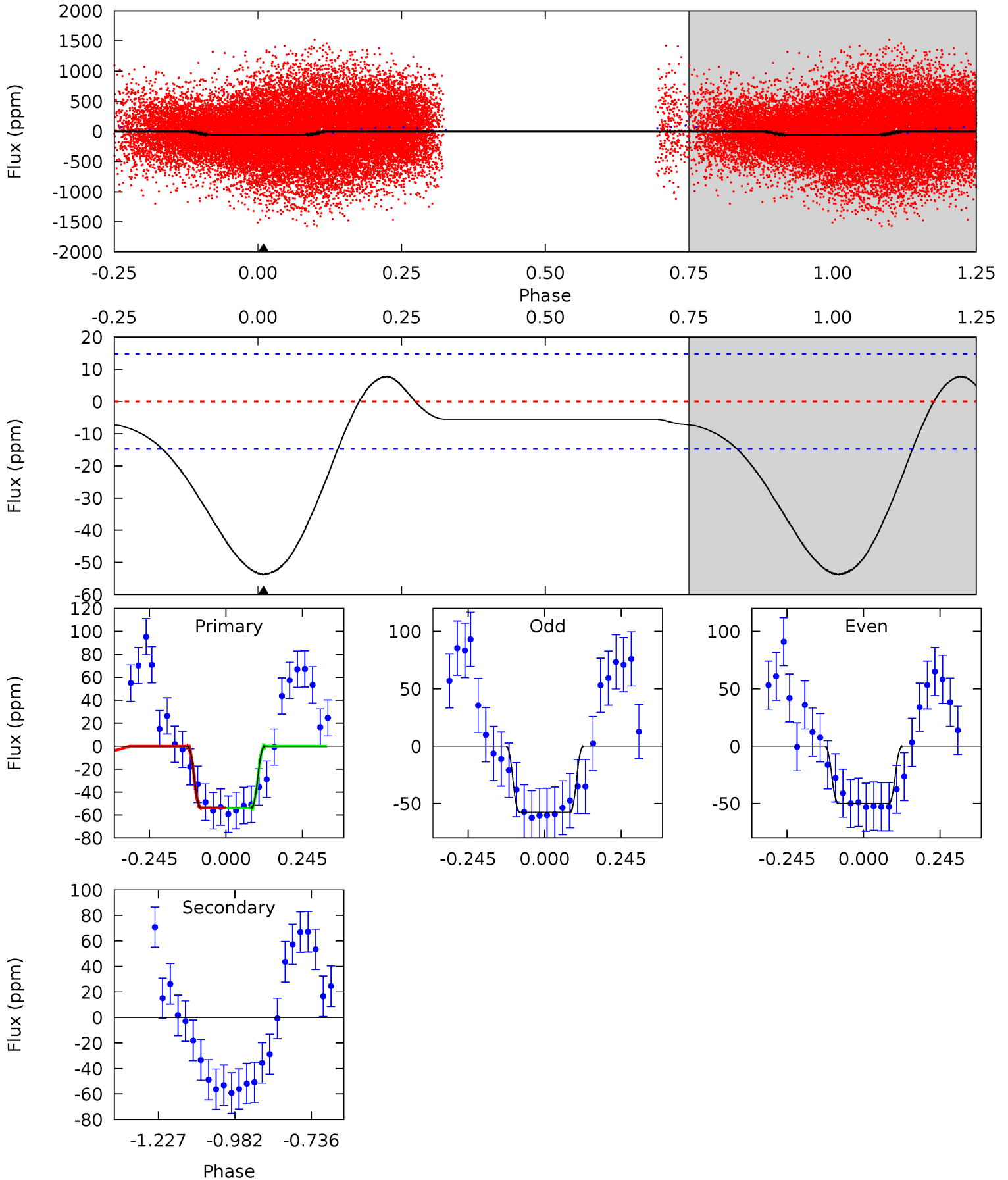
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	0	0	0	4.36	1.11	0.19	13.9	13.9	0	0	1.25	1.20	0.01	2.28



Alt Model-Shift Uniqueness Test

011771931-03, P = 0.981269 Days, E = 130.713168 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	0	0	0	4.37	1.16	1.24	15.9	15.9	0	0	1.11	0.88	0.12	0.03



Stellar Parameters For KIC 011771931

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7413^{+233}_{-311}	$3.941^{+0.338}_{-0.135}$	$-0.420^{+0.250}_{-0.300}$	$2.192^{+0.464}_{-0.861}$	$1.529^{+0.209}_{-0.313}$	$0.204^{+0.478}_{-0.081}$
	+3%/-4%	+9%/-3%	+60%/-71%	+21%/-39%	+14%/-20%	+234%/-40%
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 011771931-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1	$1.08^{+0.57}_{-0.51}$	4455^{+348}_{-492}	-3926^{+7472}_{-653}	$0.003^{+0.453}_{-0.372}$
Alt.	0 ± 3	$1.64^{+0.66}_{-0.55}$	4458^{+332}_{-457}	-3893^{+7331}_{-642}	$0.009^{+0.429}_{-0.344}$

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

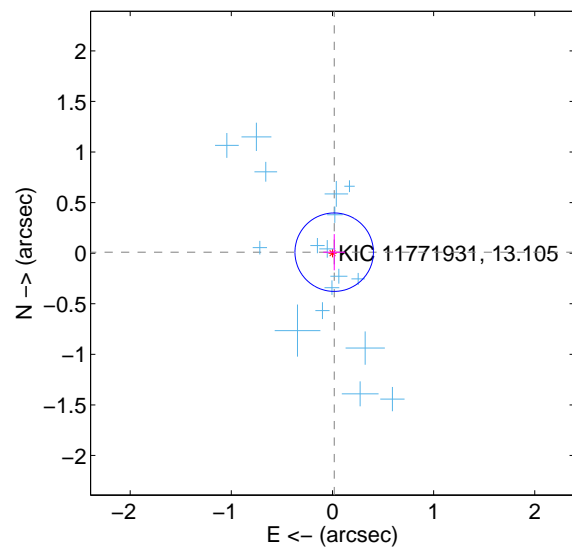
Supplemental centroid analysis for 011771931-03. Kepler magnitude: 13.11. Transit SNR 10.32

There are 17 quarters with good PRF difference image offsets

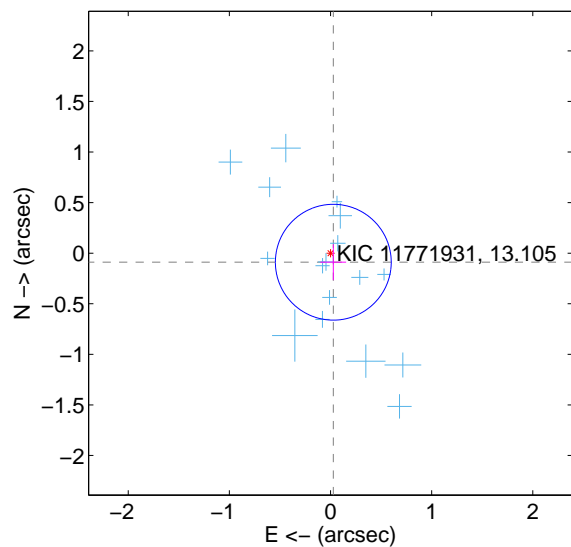
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.129	0.15	-0.017 ± 0.108	0.010 ± 0.178
PRF-fit source offset from KIC position	0.094 ± 0.191	0.49	-0.028 ± 0.127	-0.089 ± 0.177
photometric centroid source offset	0.13 ± 0.62	0.22	0.13 ± 0.62	0.00 ± 0.70

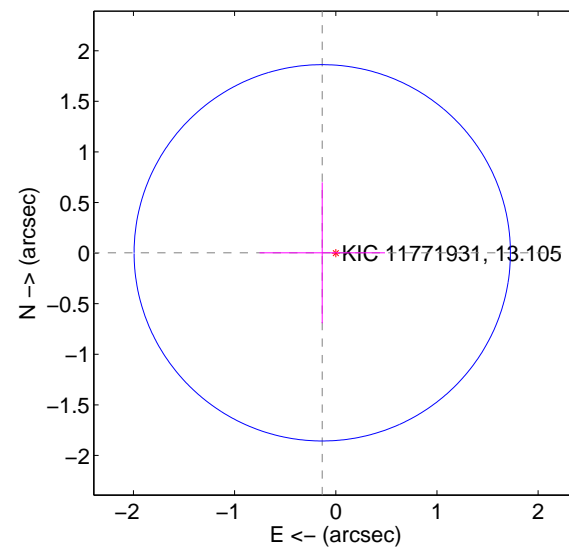
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

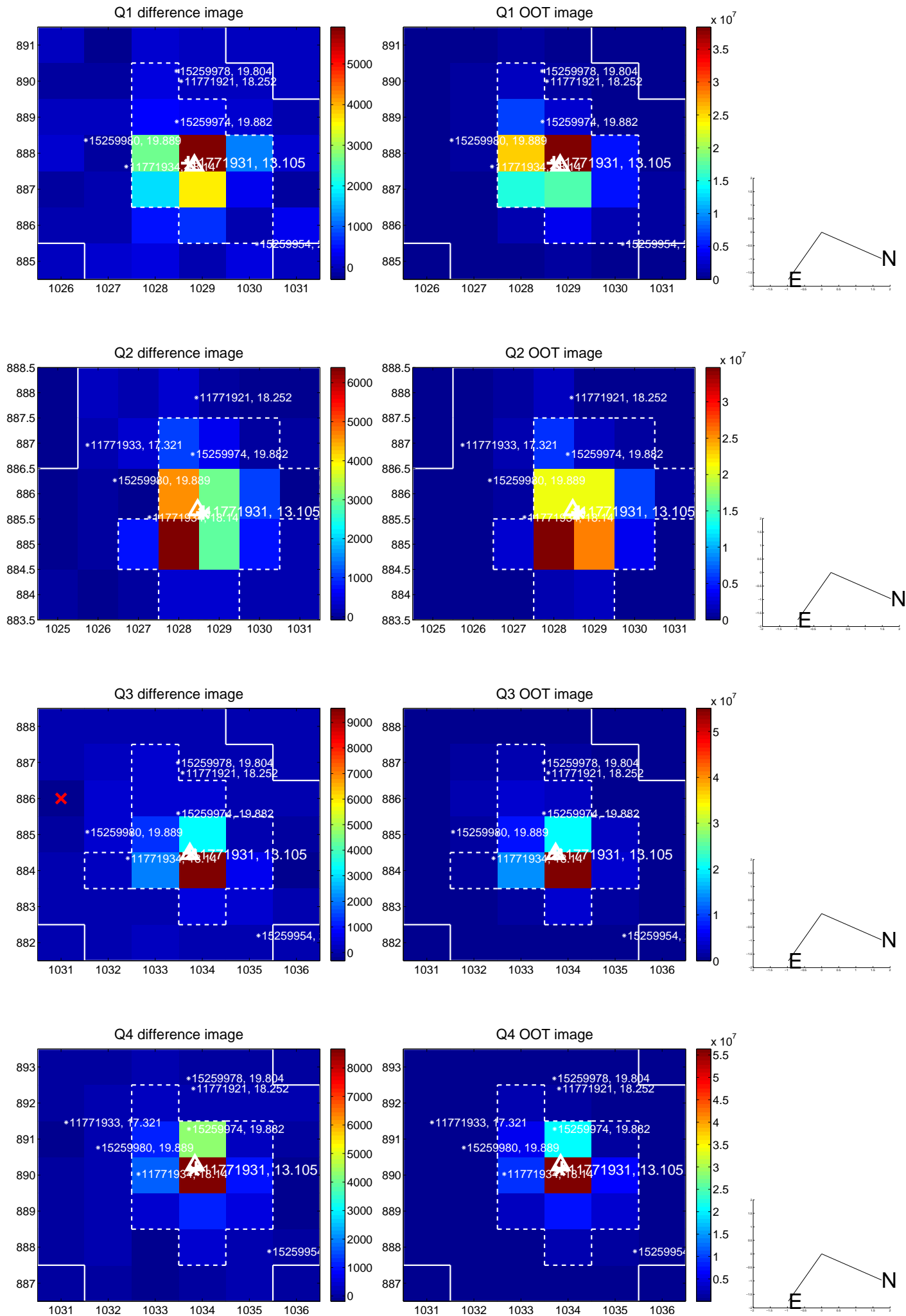


offset from photometric centroids

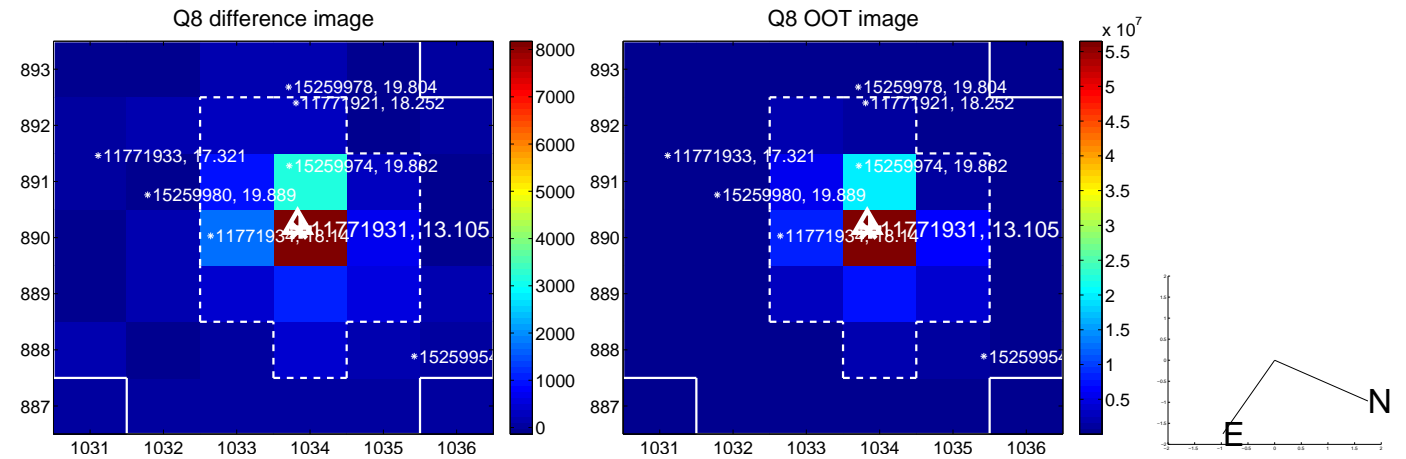
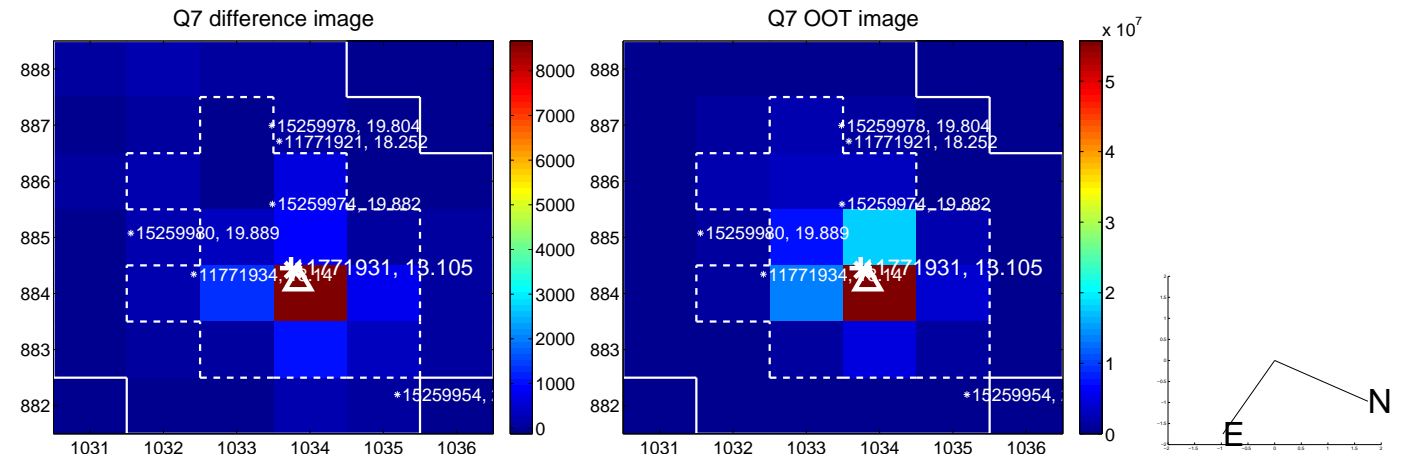
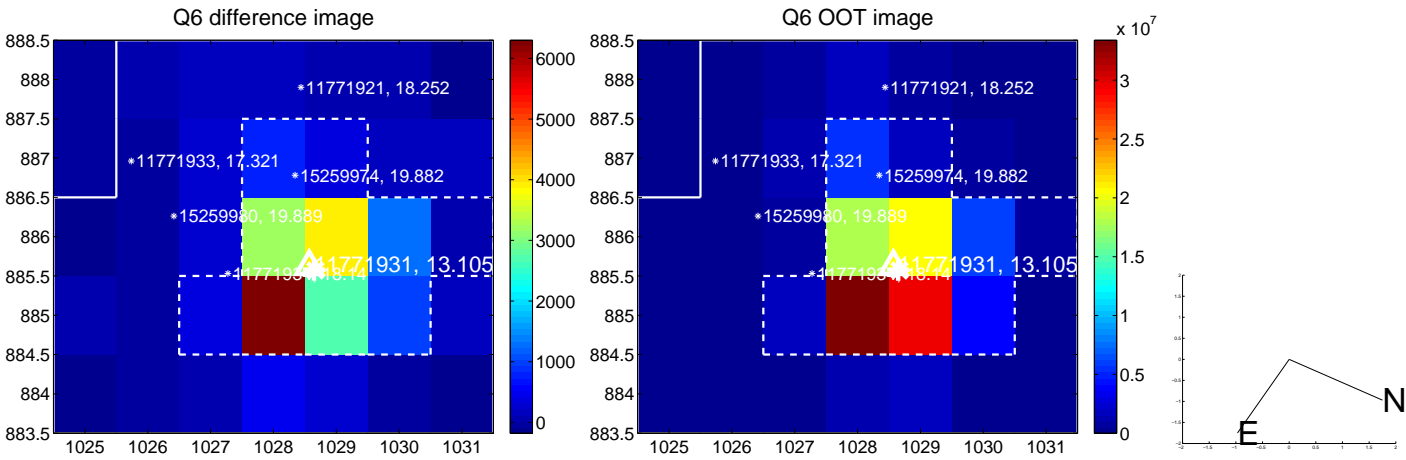
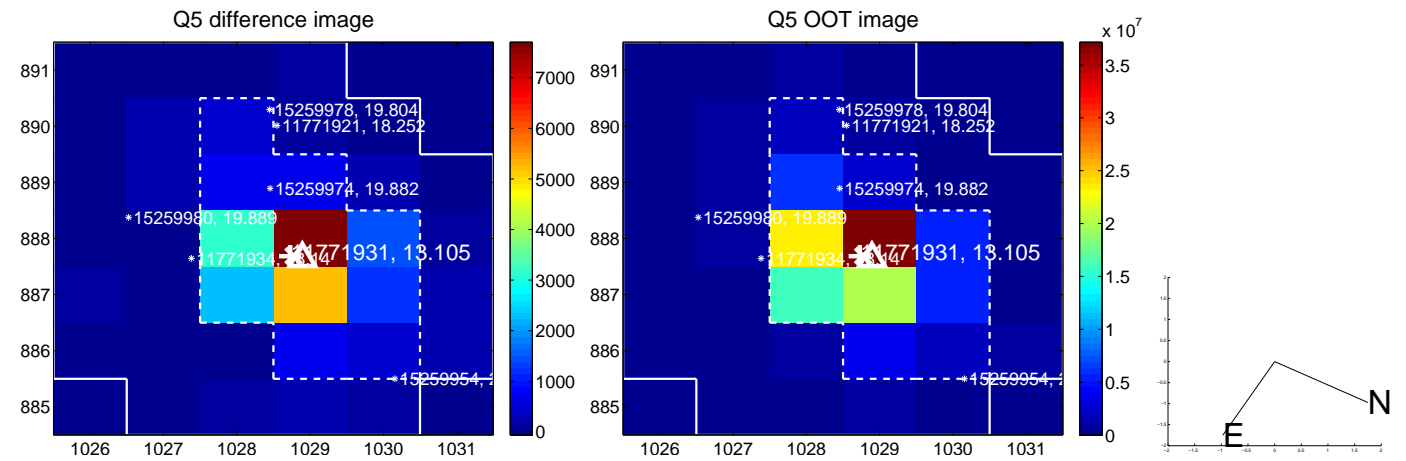


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

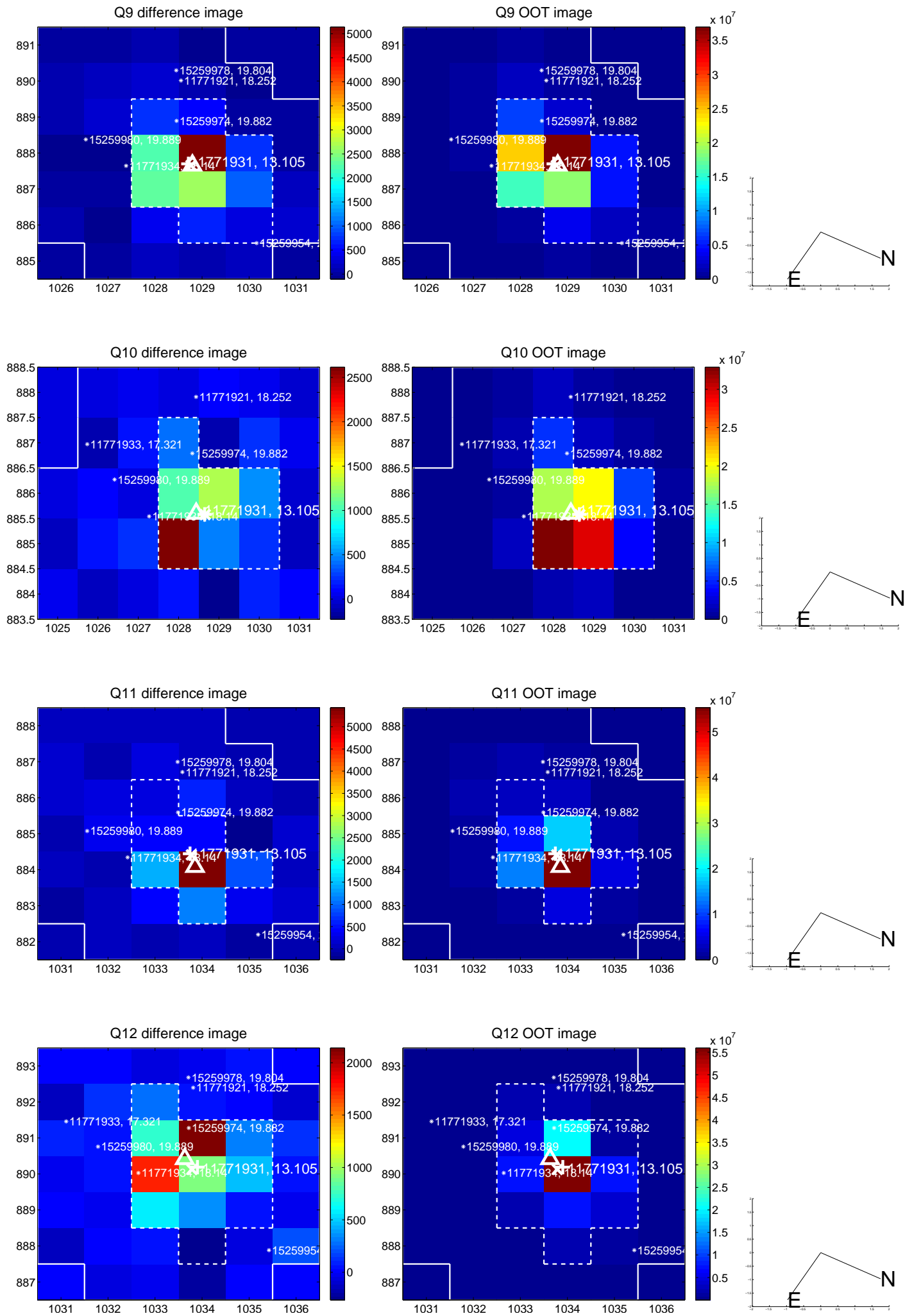
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



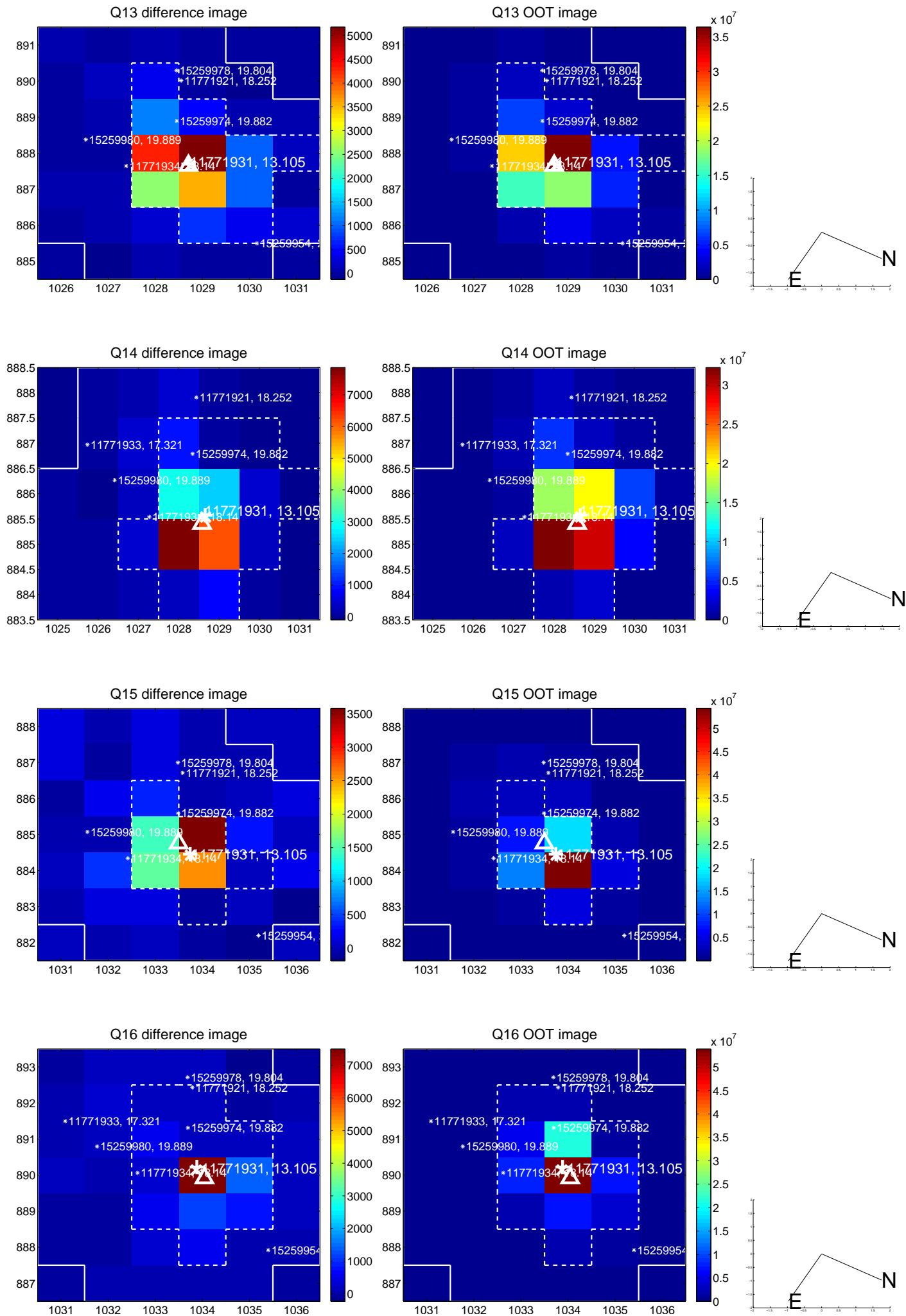
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



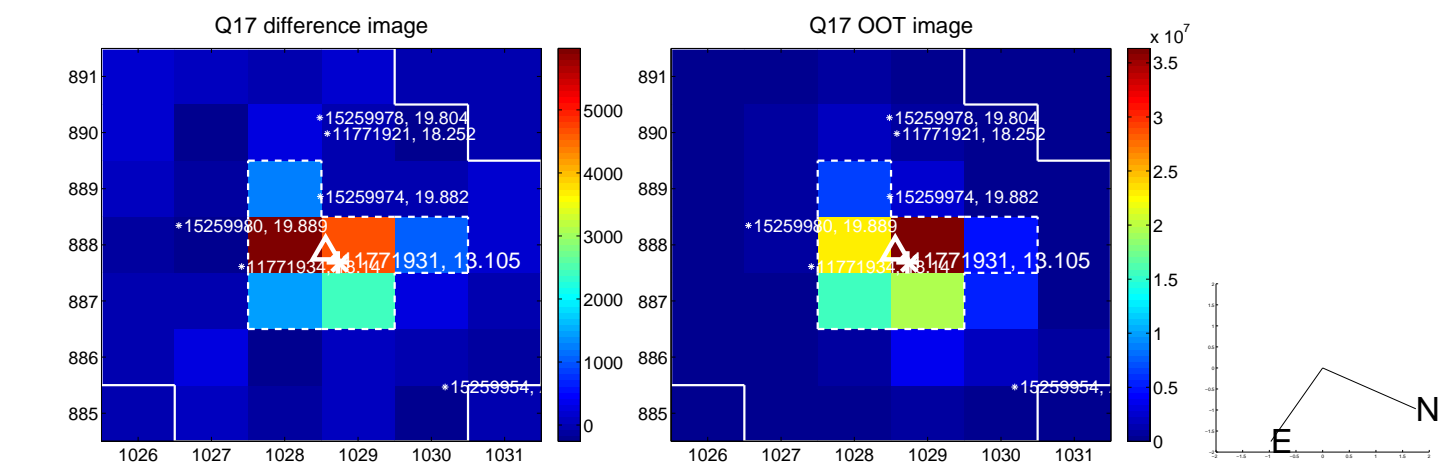
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



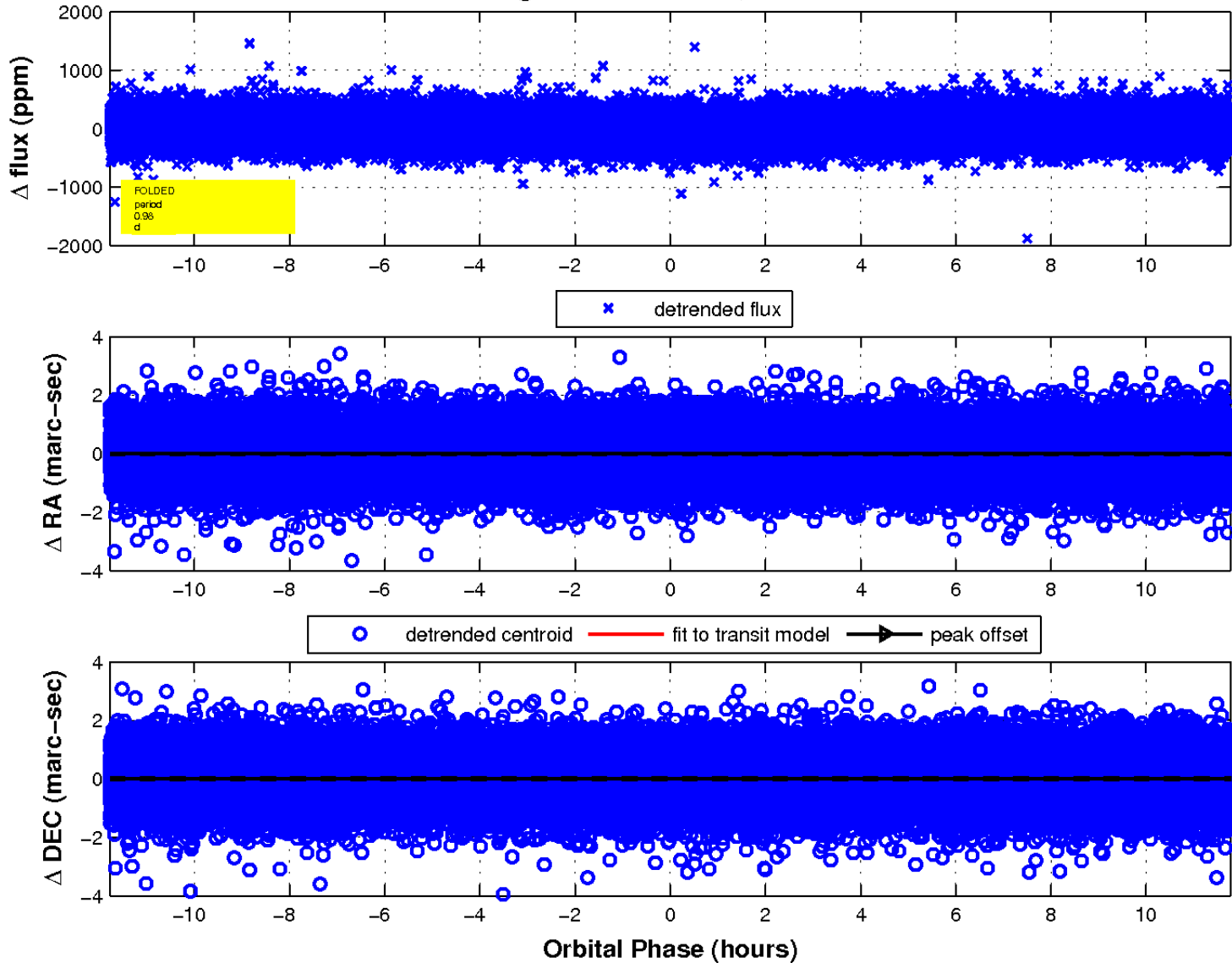
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

