

KIC 003119307

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})
003119307-01	OBS	No	0.879370	131.894654	103.9	1.362	8.2	8.0	1.05	6395	1.26	4807.04
003119307-02	OBS	No	0.879360	132.340678	87.5	1.807	8.2	8.0	1.05	6395	1.15	4807.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003119307-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
003119307-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET—HALO_GHOST

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

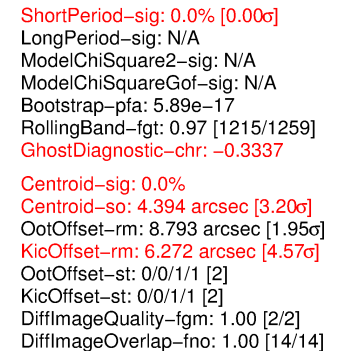
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

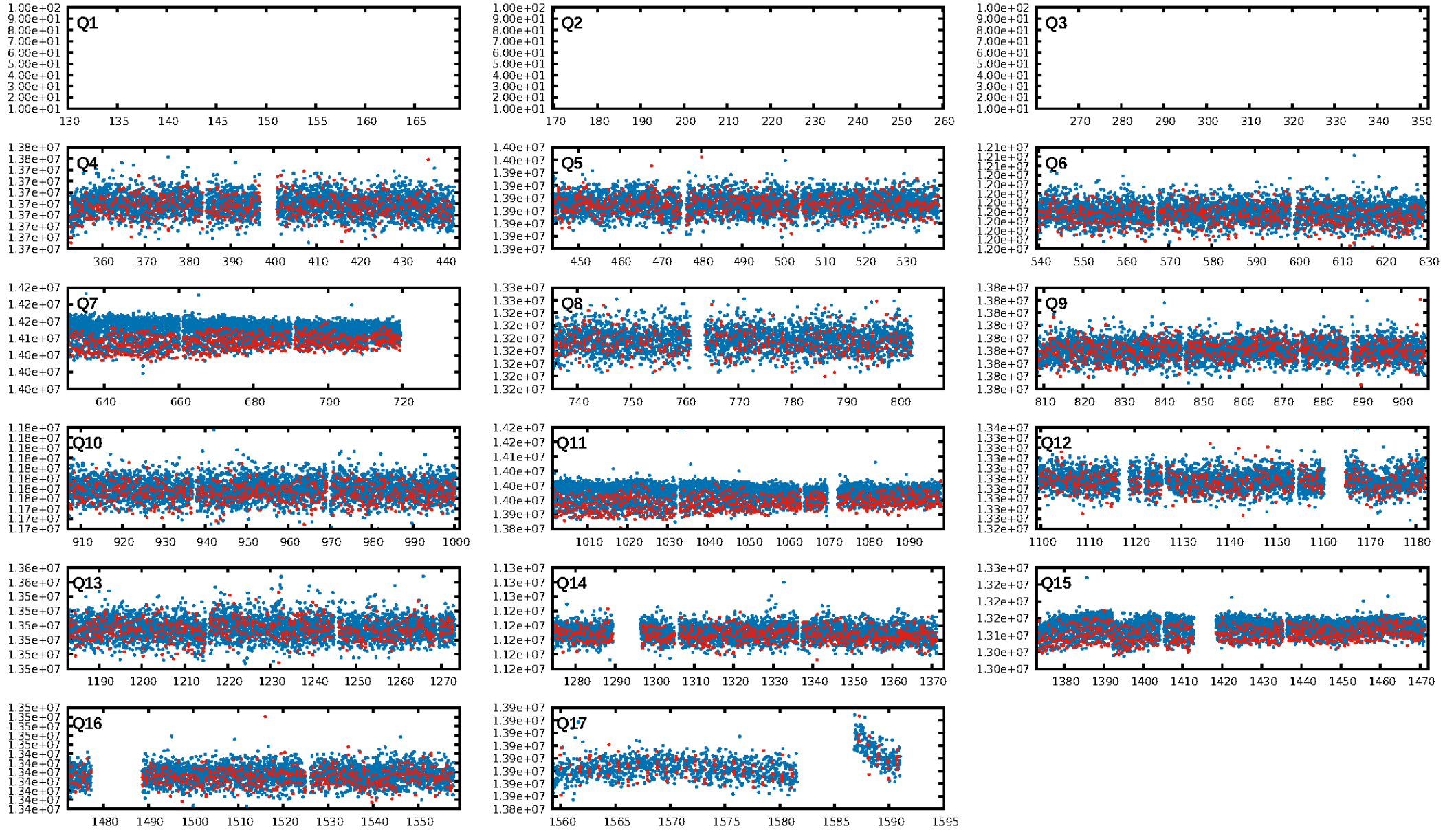
Ephemeris Match Information For 003119307-01

No Significant Match Found

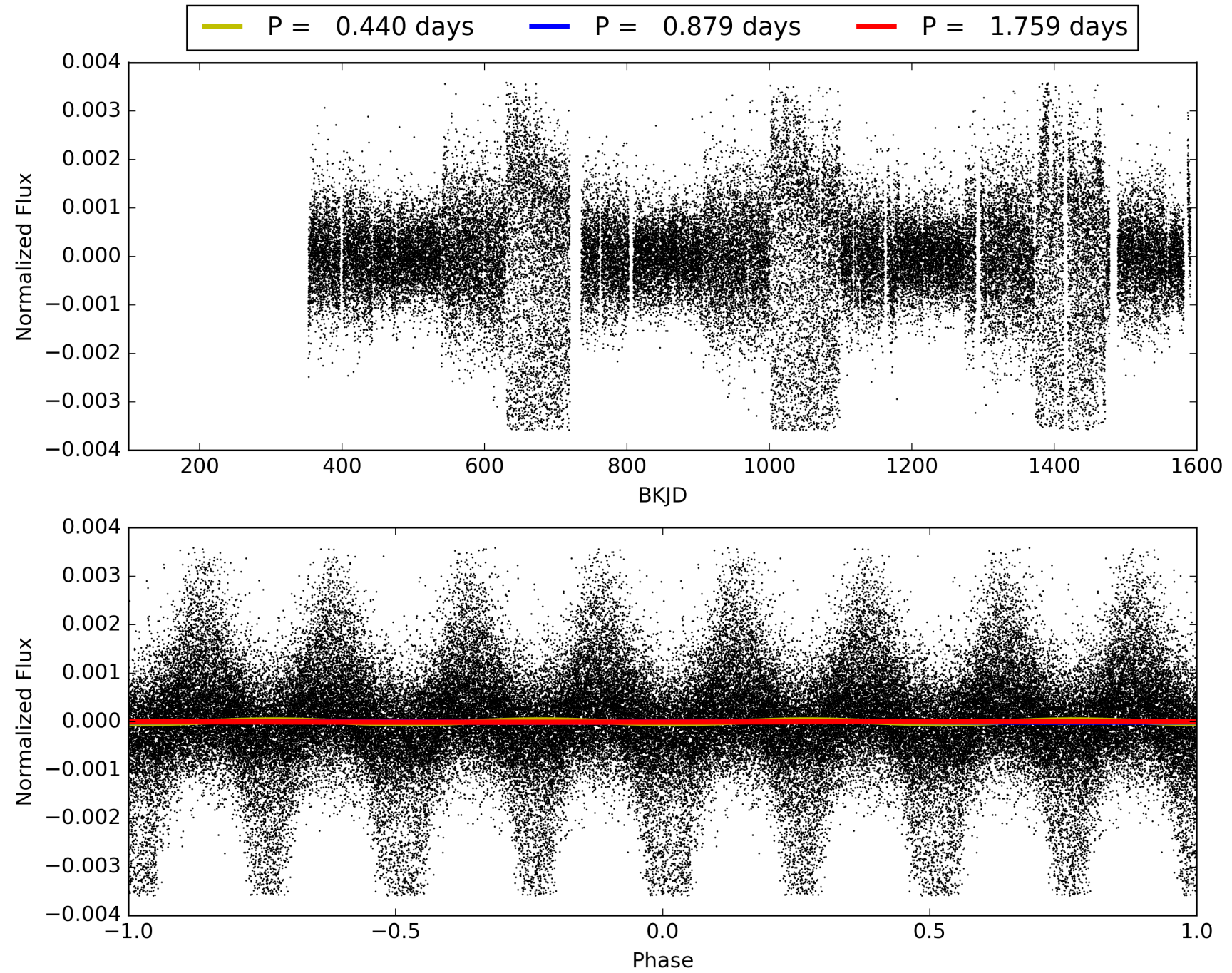
KIC: 3119307 Candidate: 1 of 2 Period: 0.879 d



TCE 003119307-01, PDC Light Curves

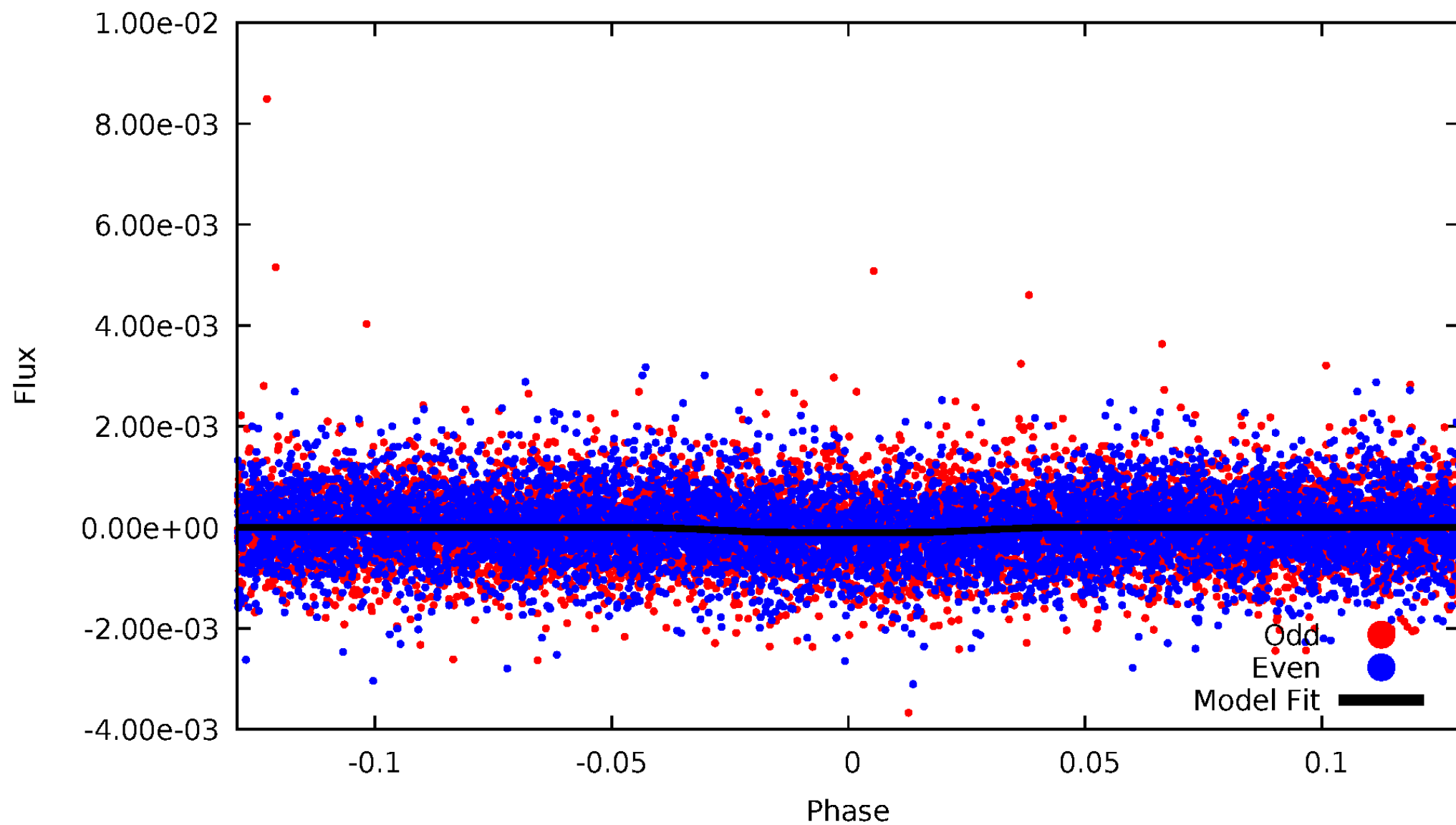


TCE 003119307-01



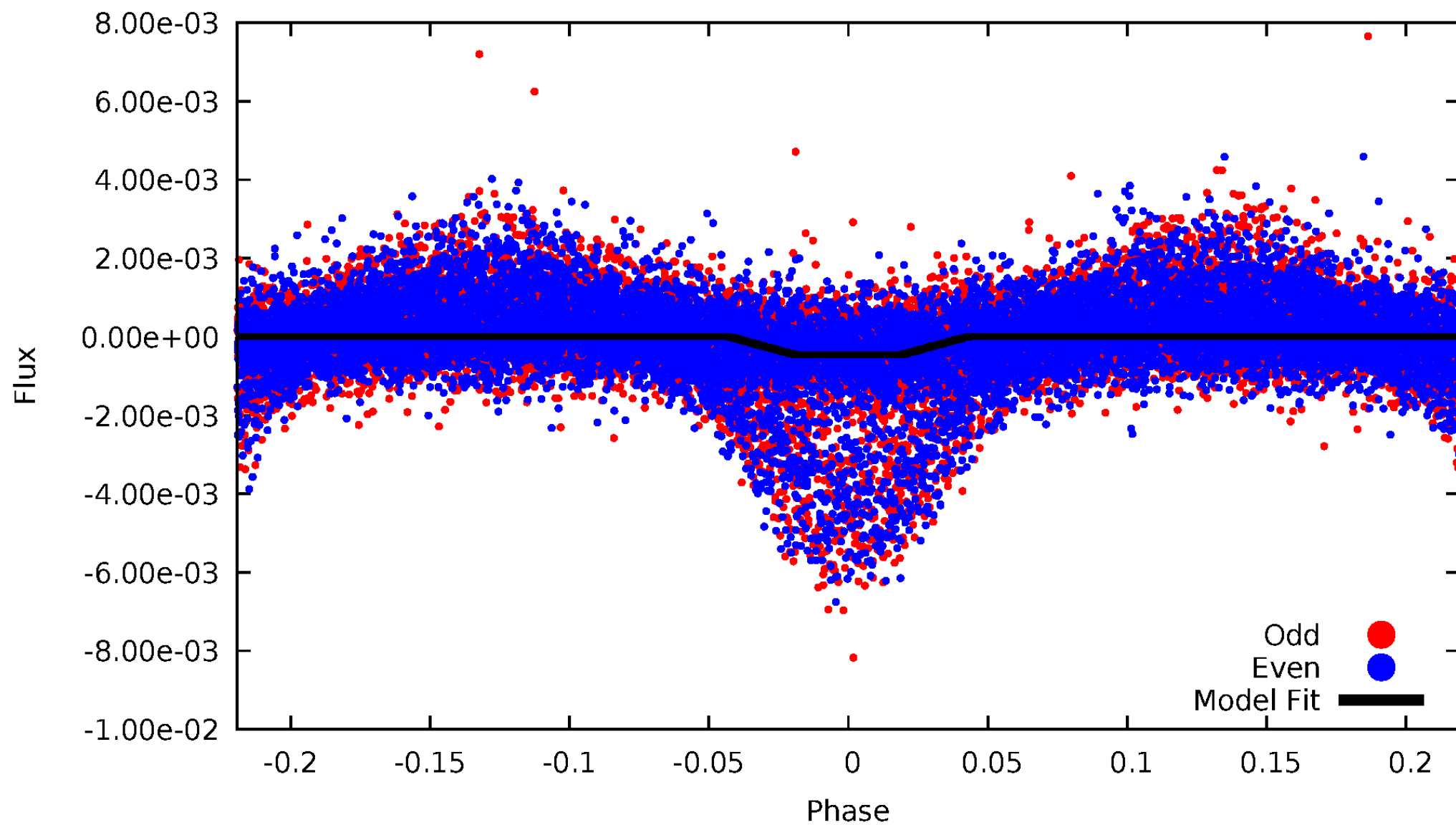
DV Odd/Even

TCE 003119307-01

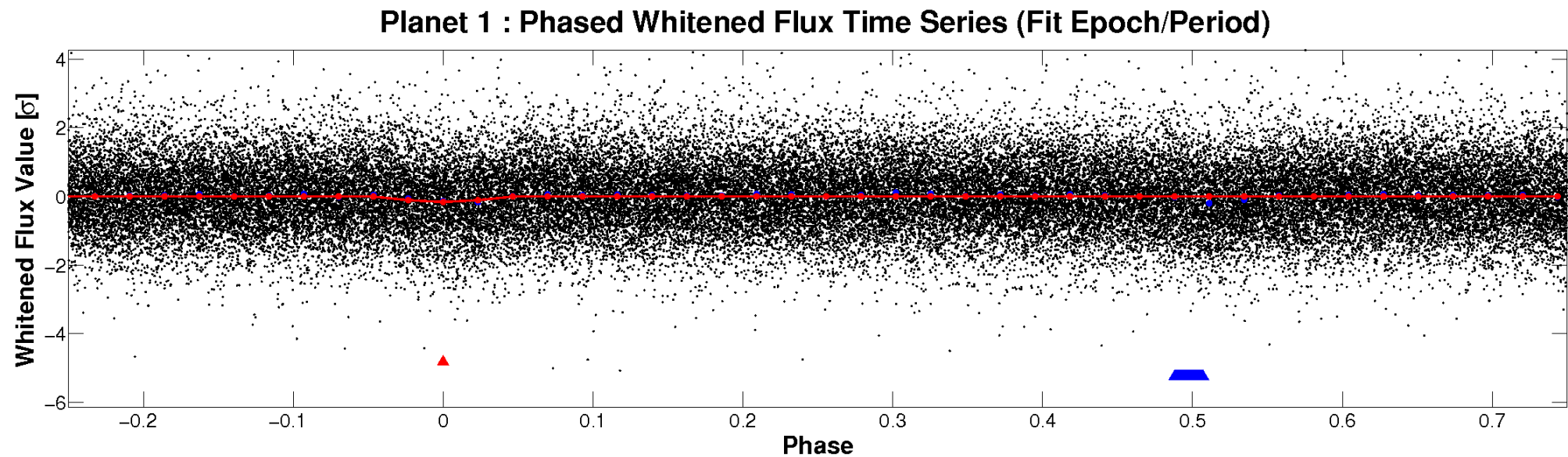
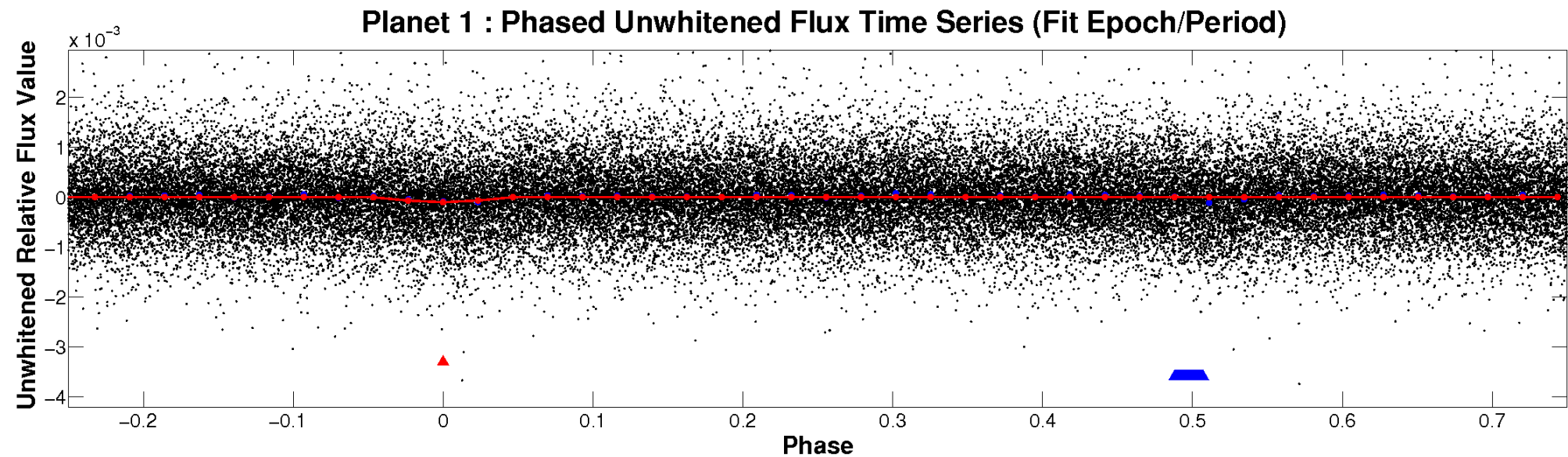


ALT Odd/Even

TCE 003119307-01

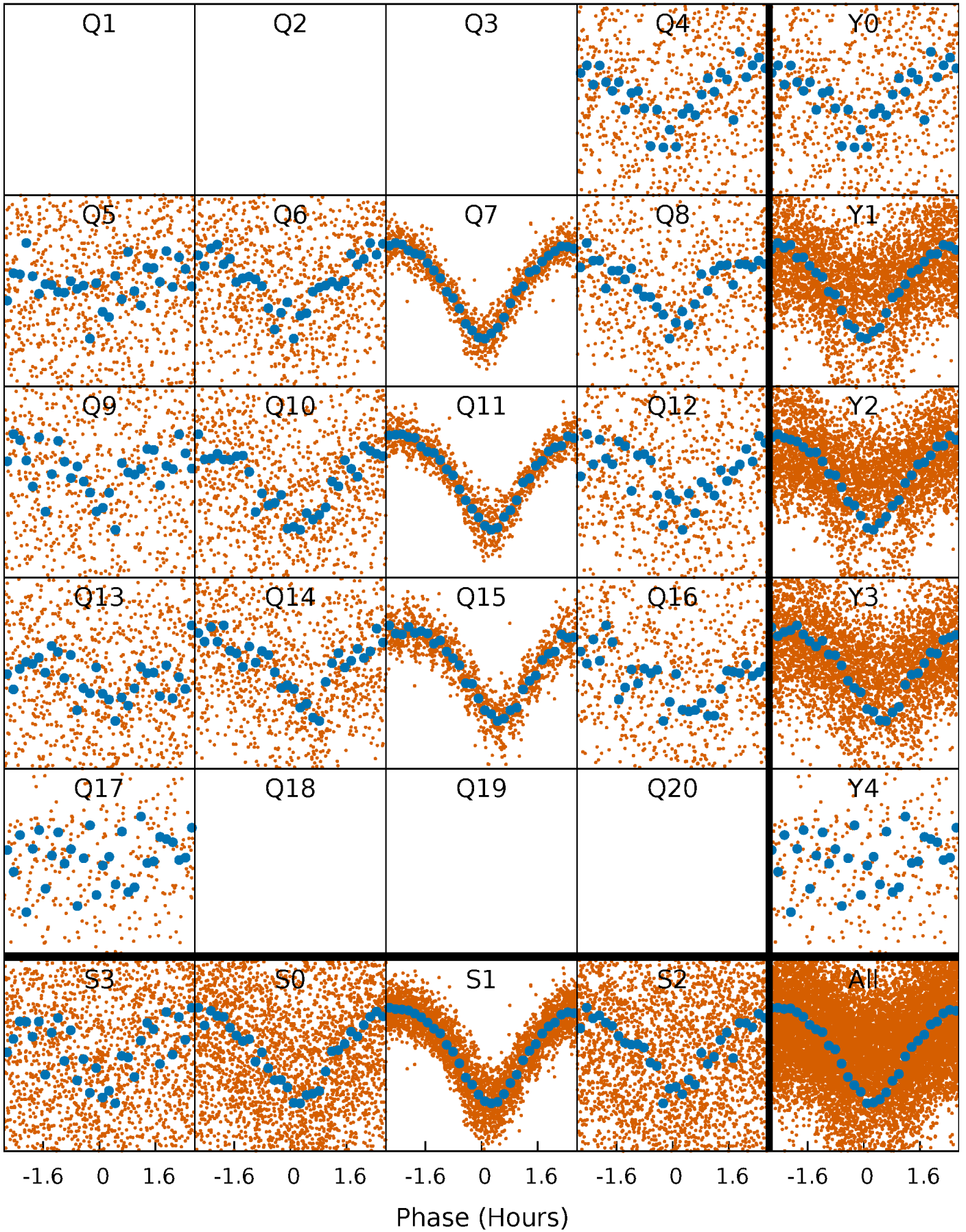


Non-Whitened Vs. Whitened Light Curve



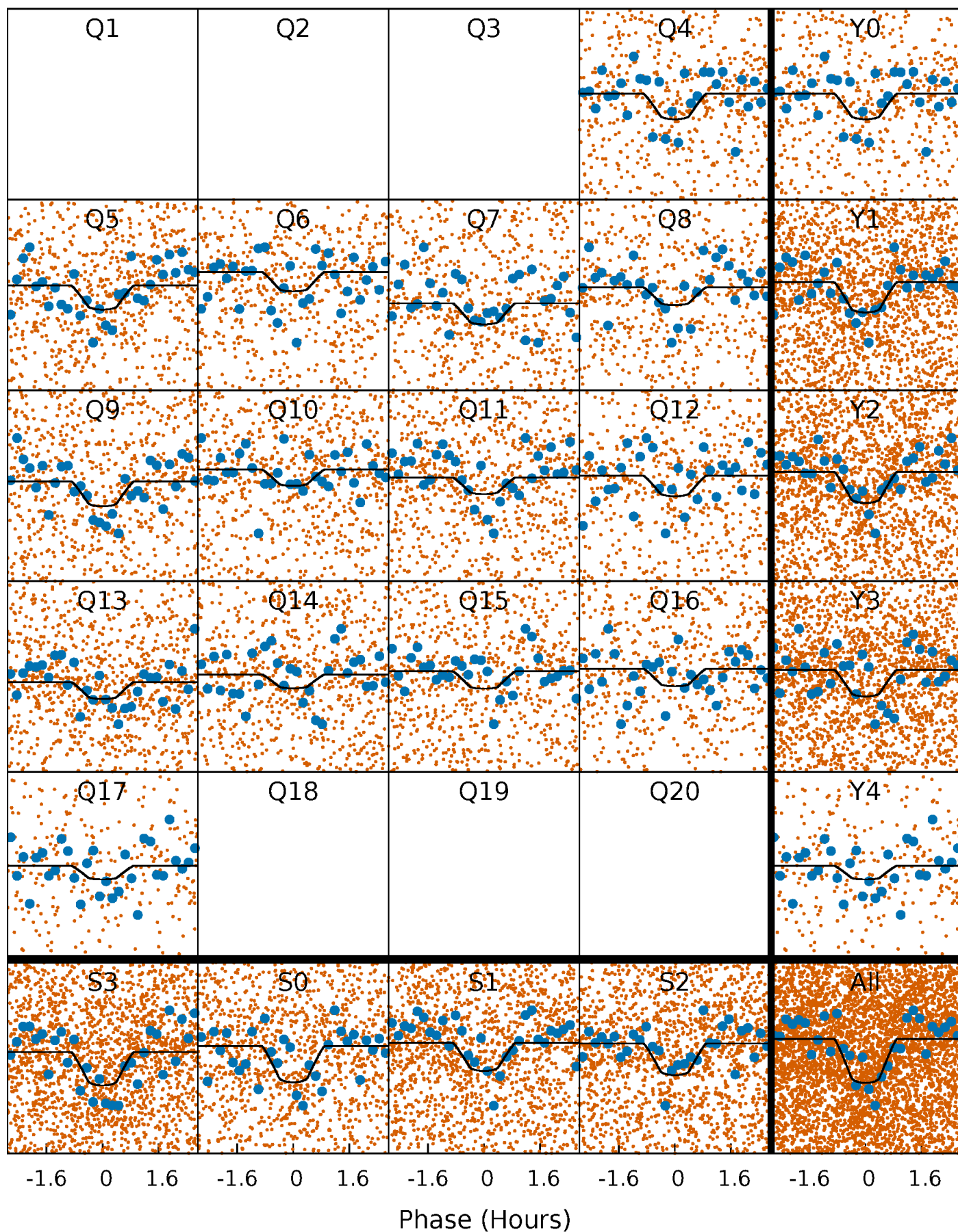
PDC Quarter-Phased Transit Curves

TCE 003119307-01 P= 0.879370 Days $T_0=131.894654$ (BKJD)



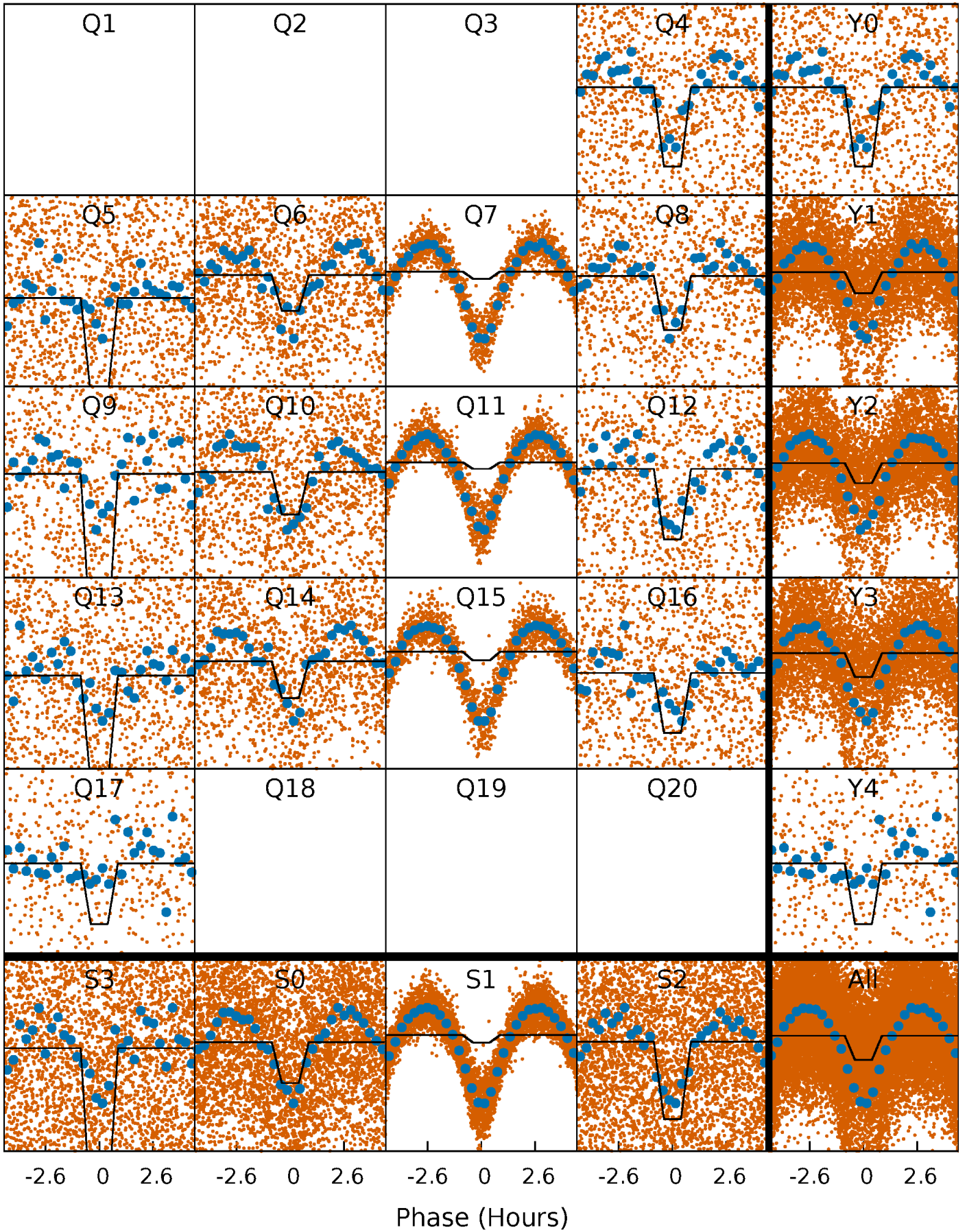
DV Quarter-Phased Transit Curves

TCE 003119307-01 P= 0.879370 Days $T_0=131.894654$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

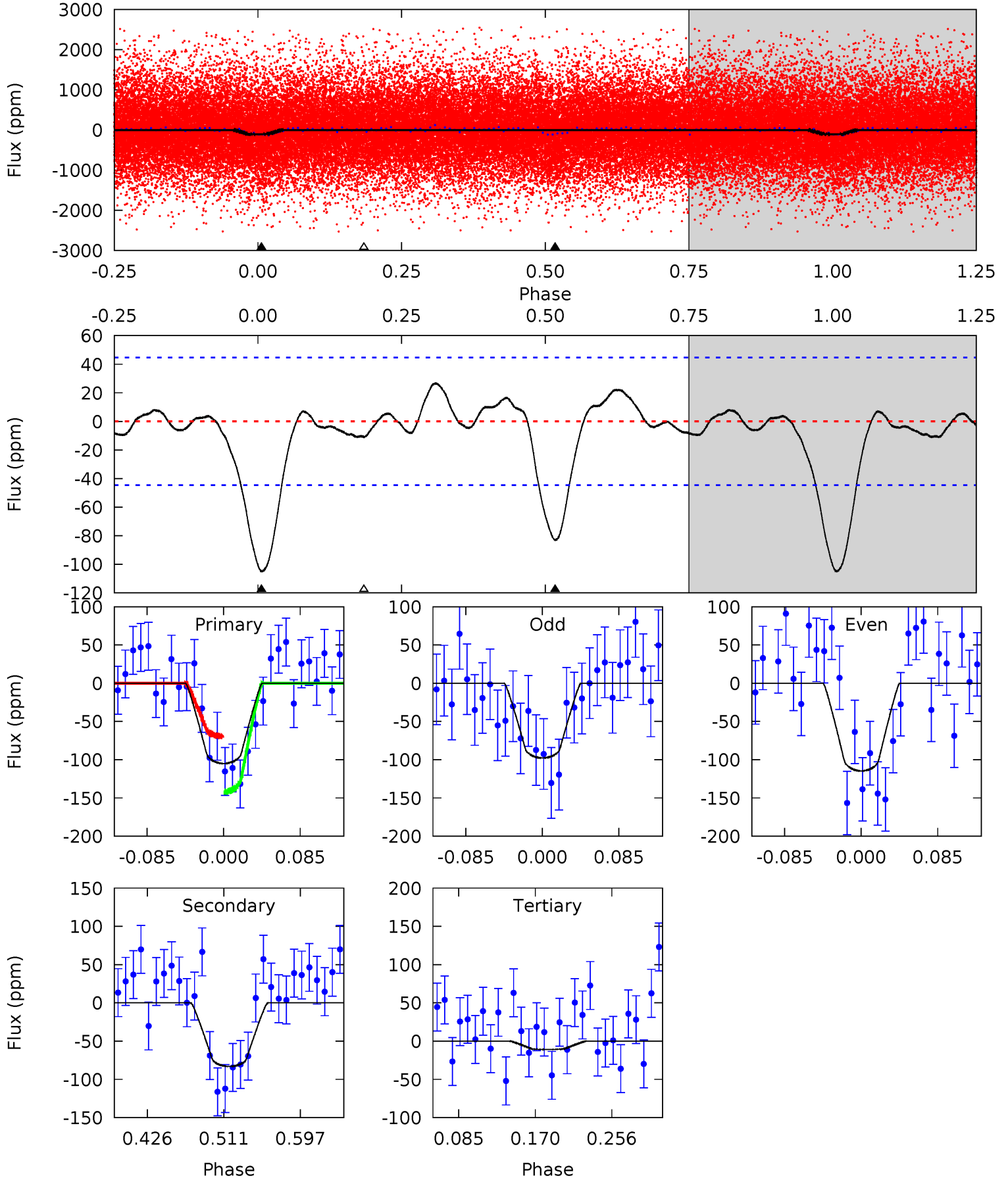
TCE 003119307-01 P= 0.879391 Days $T_0=131.883311$ (BKJD)



DV Model-Shift Uniqueness Test

003119307-01, P = 0.879370 Days, E = 131.894654 Days

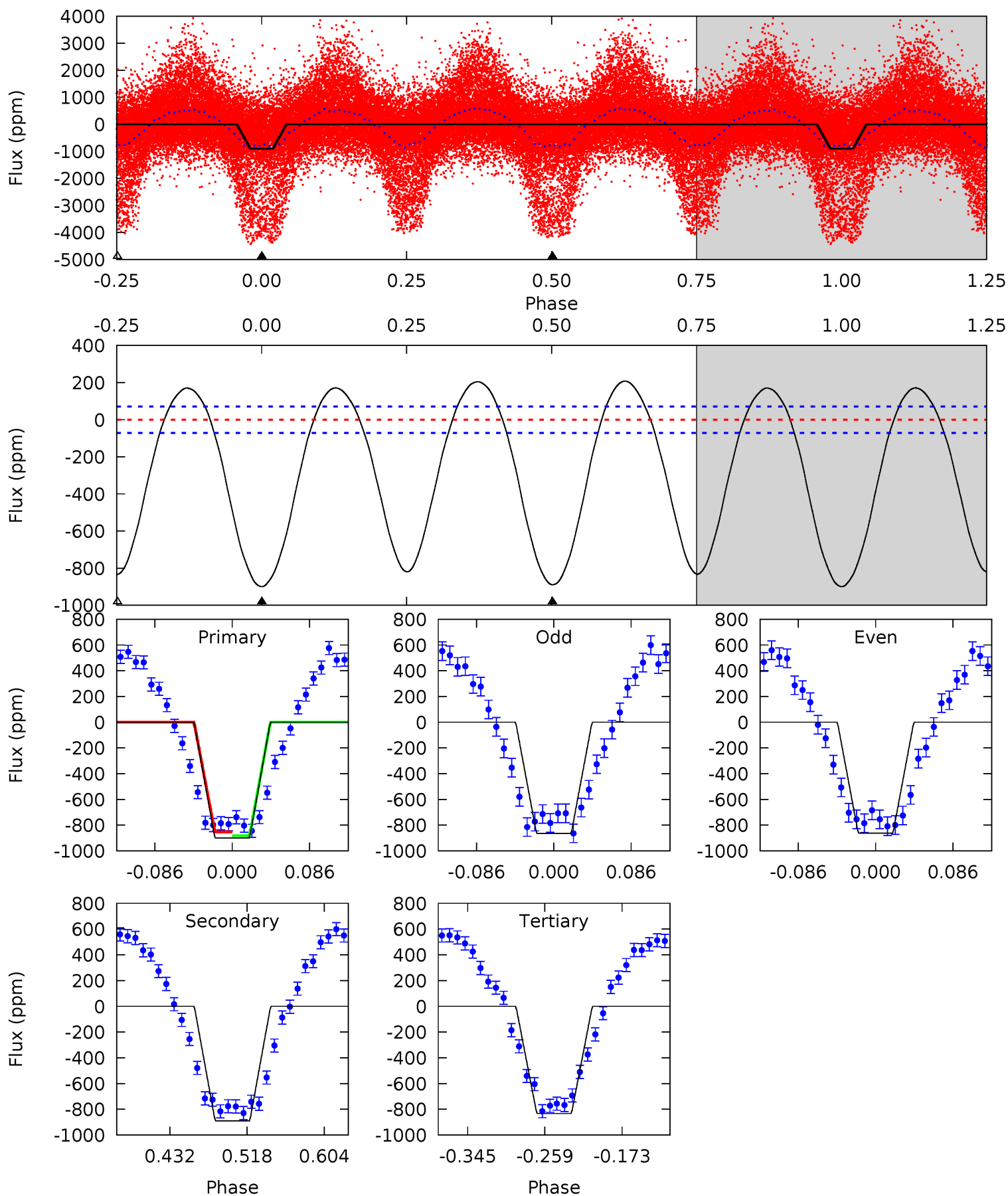
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	8.56	1.14	0	4.60	1.72	0.97	9.68	10.8	7.42	8.56	0.87	0.96	0.20	3.75



Alt Model-Shift Uniqueness Test

003119307-01, P = 0.879391 Days, E = 131.883311 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.3	57.6	53.9	0	4.60	1.72	22.7	4.34	58.3	3.67	57.6	0.07	2.47	0.19	0.92



Stellar Parameters For KIC 003119307

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6395^{+176}_{-242}	$4.436^{+0.065}_{-0.195}$	$-0.260^{+0.250}_{-0.300}$	$1.049^{+0.311}_{-0.133}$	$1.094^{+0.143}_{-0.157}$	$1.335^{+0.442}_{-0.645}$
	+3%/-4%	+1%/-4%	+96%/-115%	+30%/-13%	+13%/-14%	+33%/-48%
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 003119307-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-83 ± 10	$1.42^{+0.96}_{-0.78}$	3019^{+218}_{-166}	5551^{+3060}_{-1146}	$7.657^{+29.054}_{-4.914}$
Alt.	-889 ± 15	$2.58^{+1.01}_{-1.08}$	3022^{+208}_{-166}	7632^{+3174}_{-1244}	25^{+47}_{-12}

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

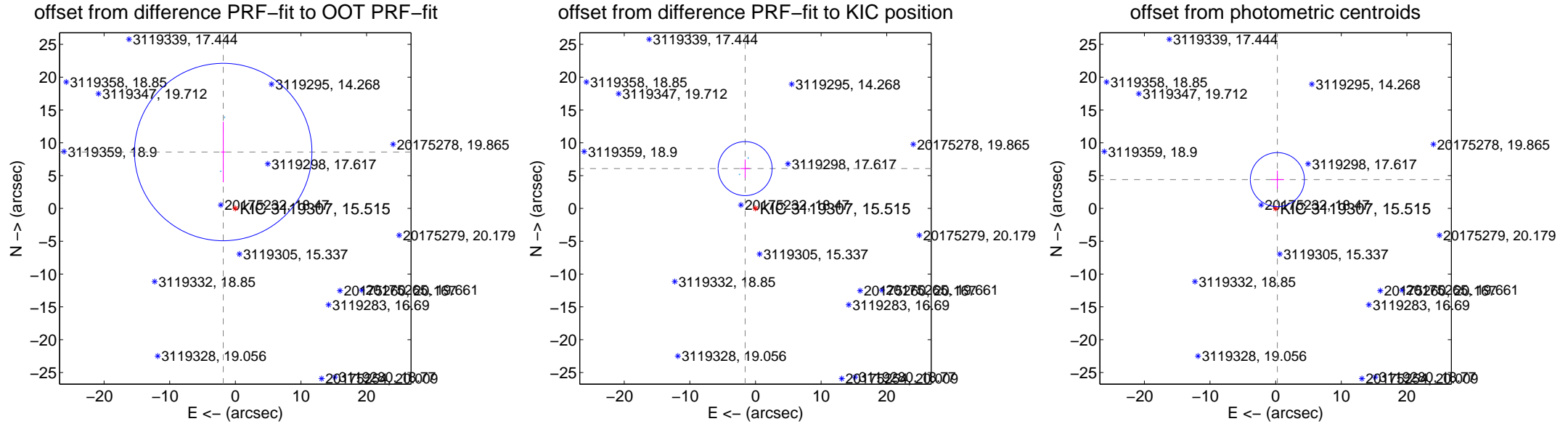
DV Centroid Data

Supplemental centroid analysis for 003119307-01. Kepler magnitude: 15.52. Transit SNR 8.02

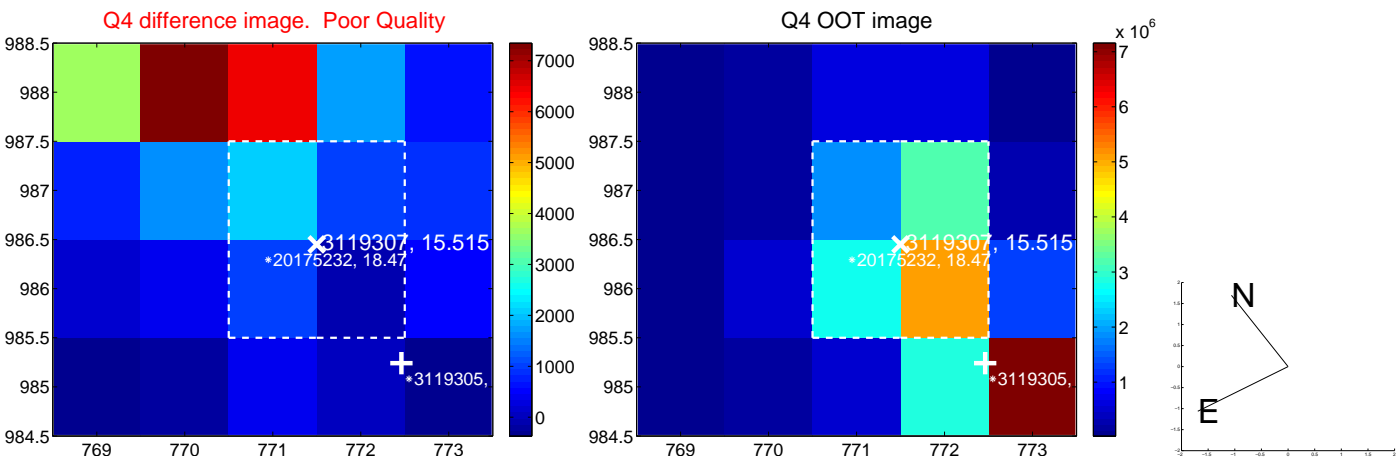
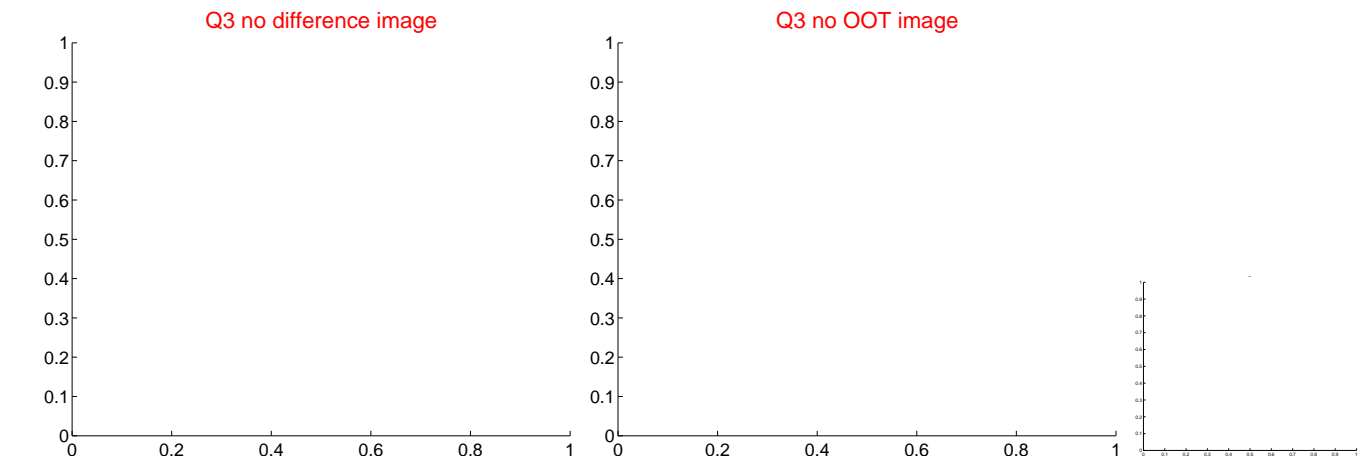
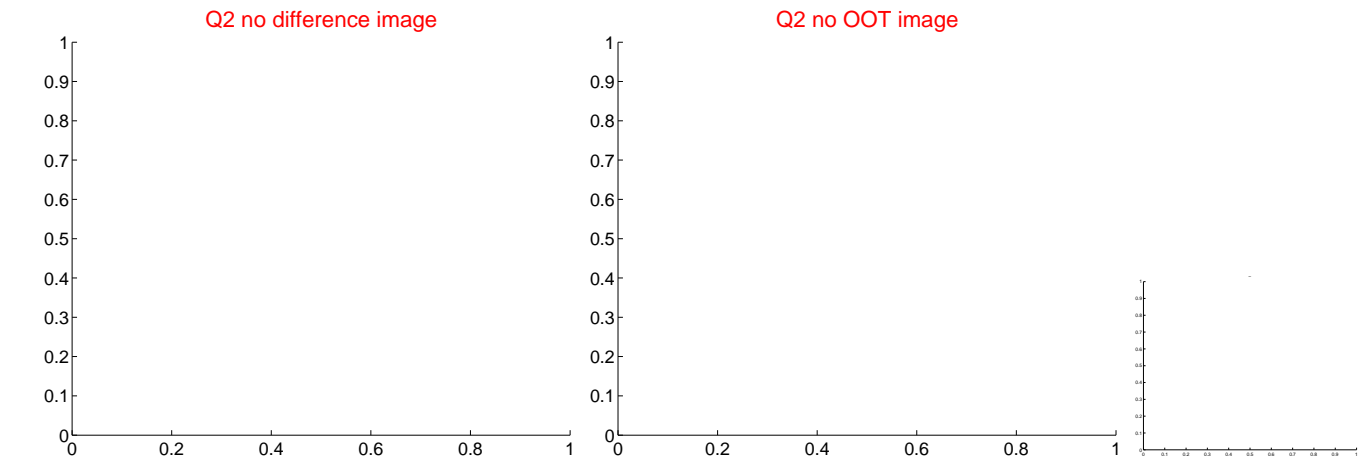
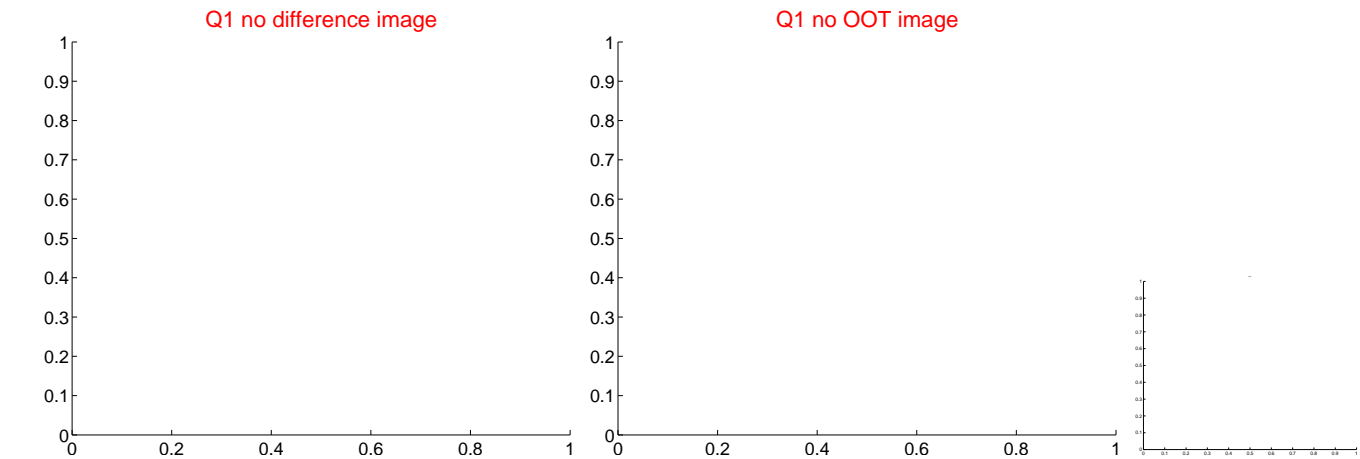
There are 2 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 6.23 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

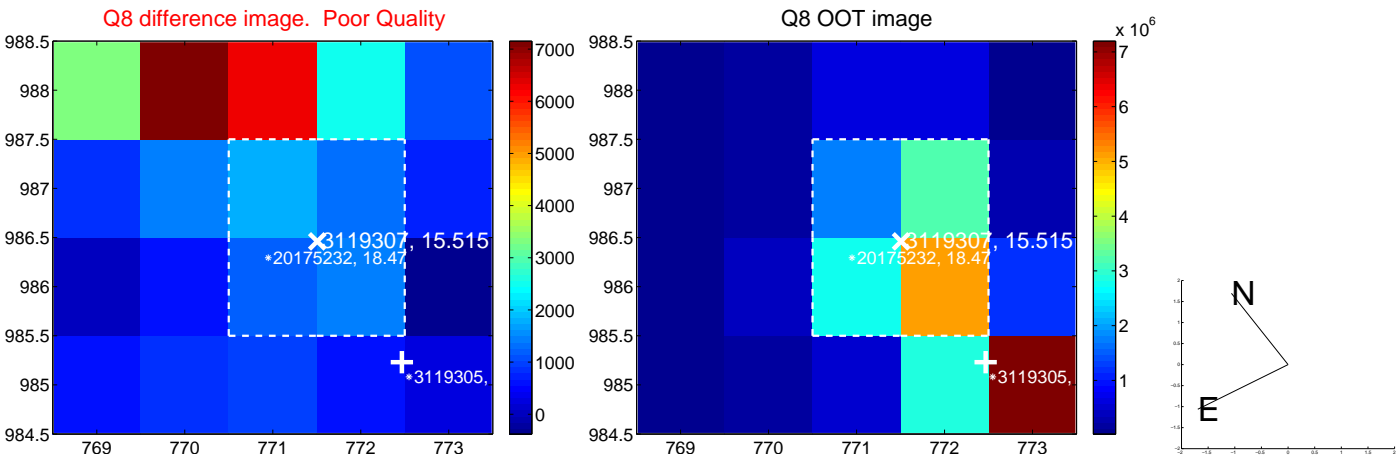
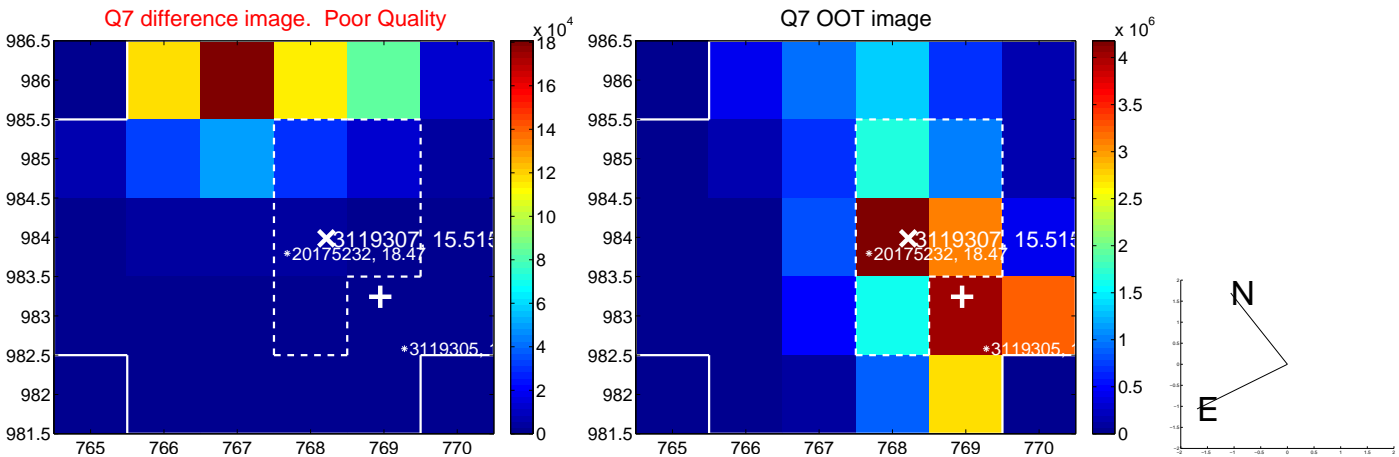
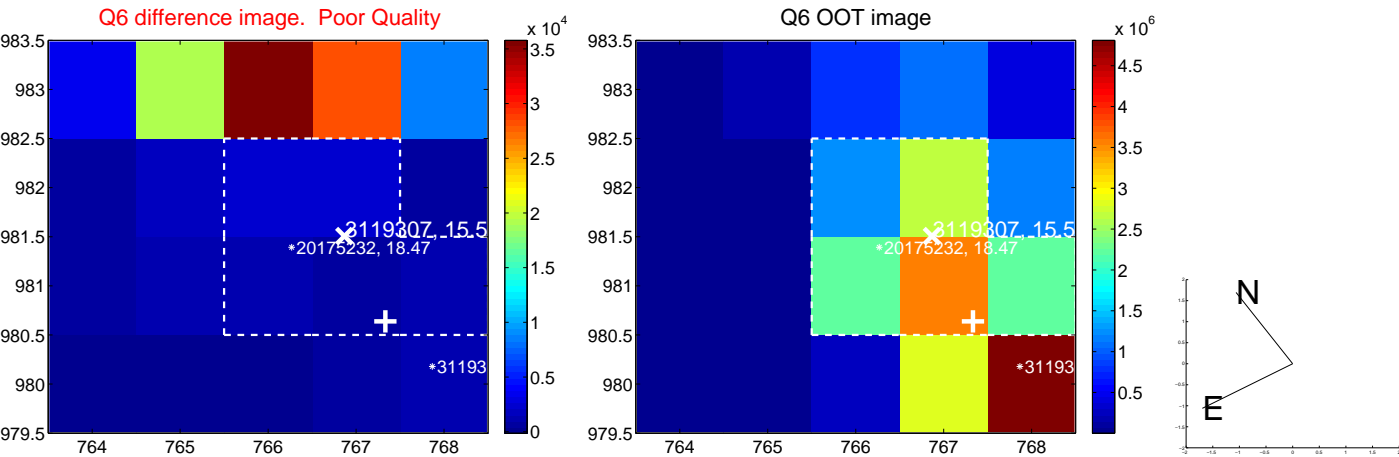
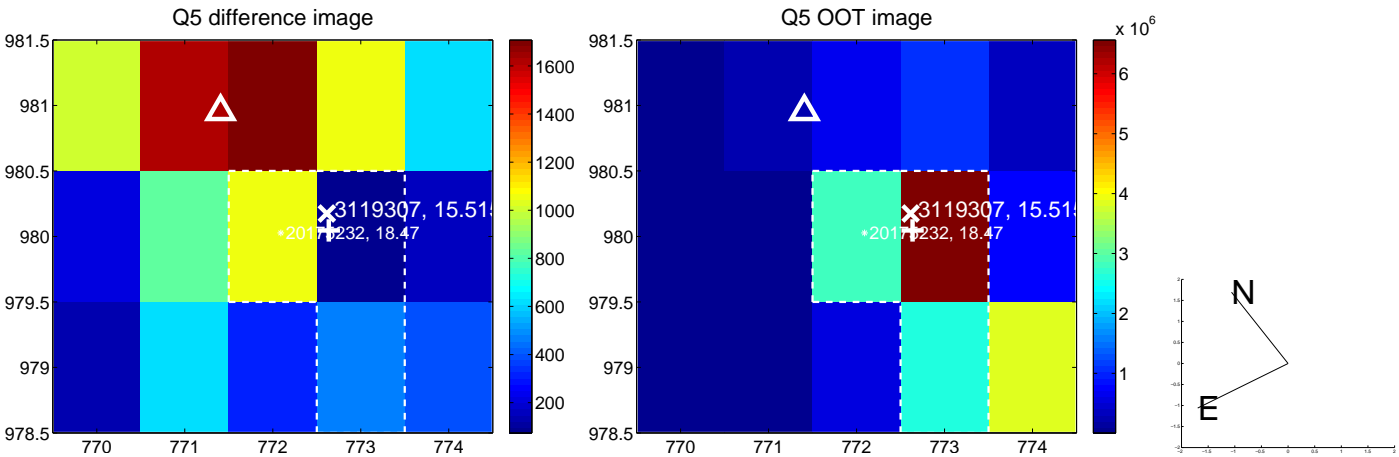
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.793 ± 4.506	1.95	1.848 ± 0.339	8.597 ± 4.608
PRF-fit source offset from KIC position	6.272 ± 1.371	4.57	1.581 ± 0.739	6.069 ± 1.404
photometric centroid source offset	4.39 ± 1.37	3.20	-0.26 ± 0.98	4.39 ± 1.38



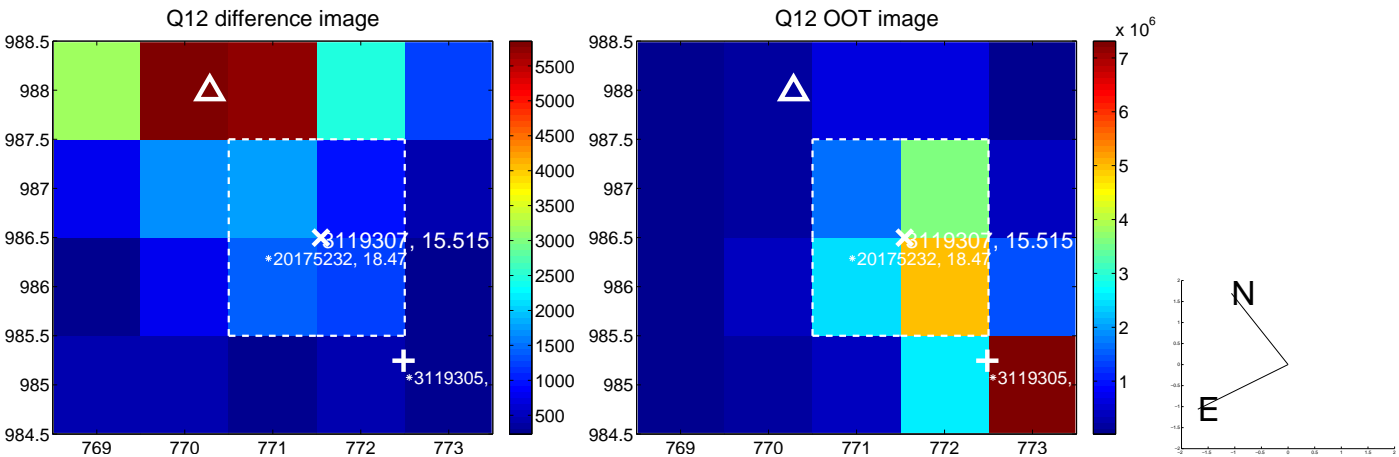
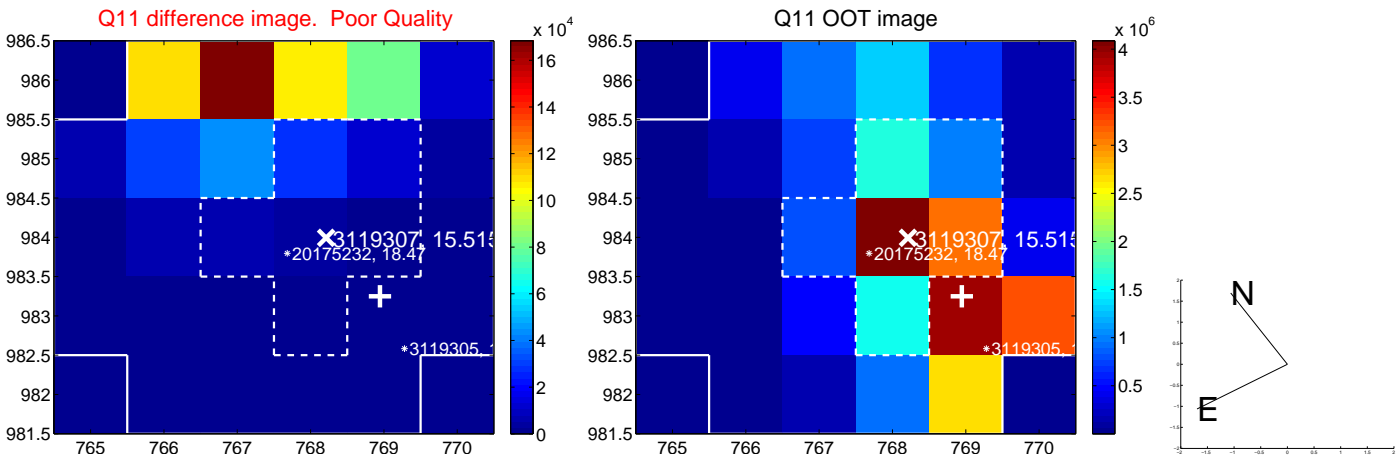
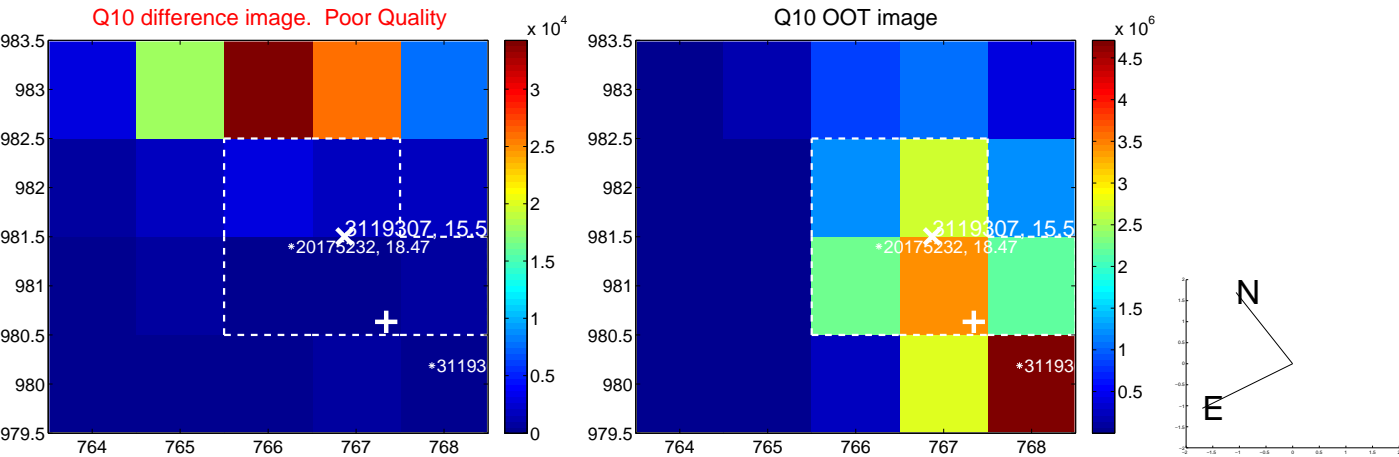
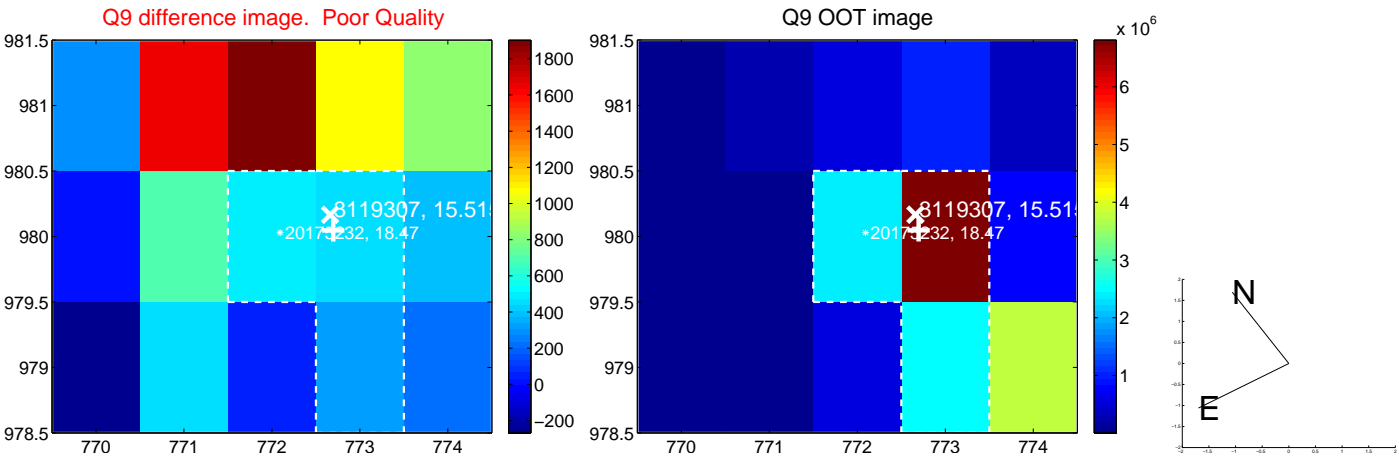
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



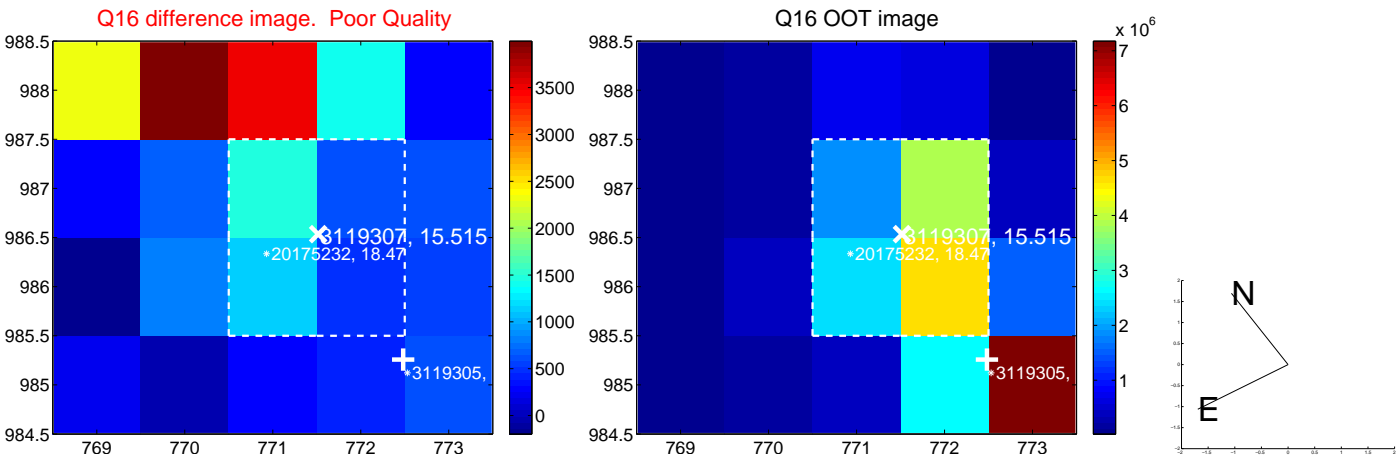
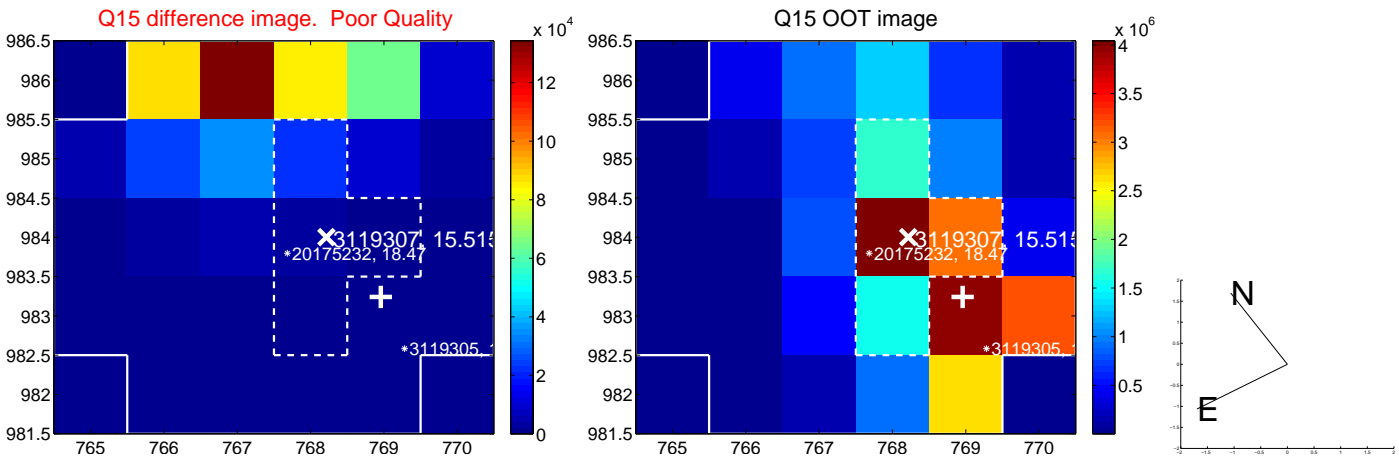
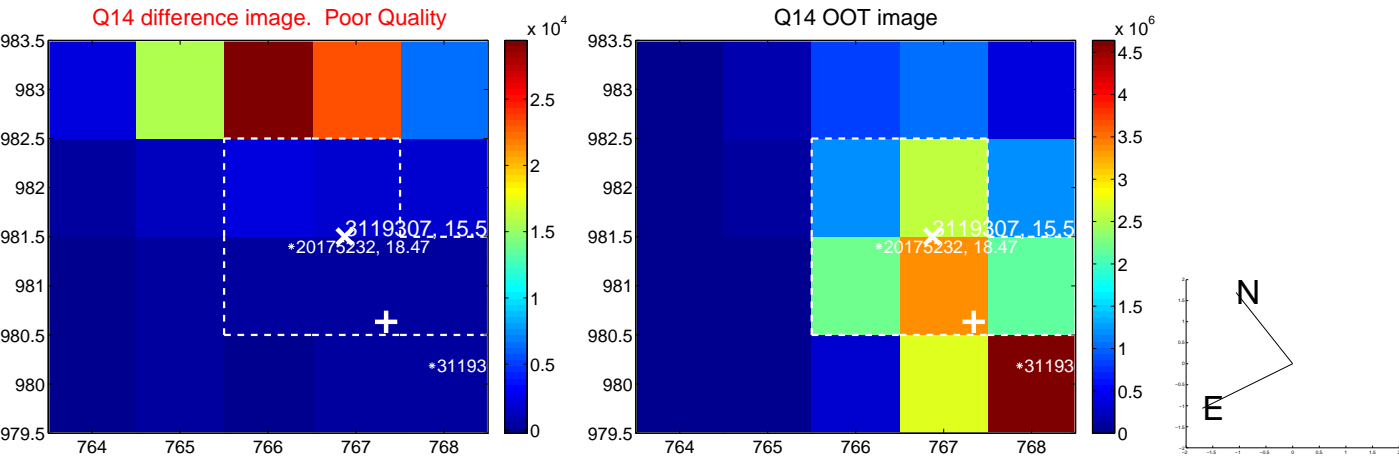
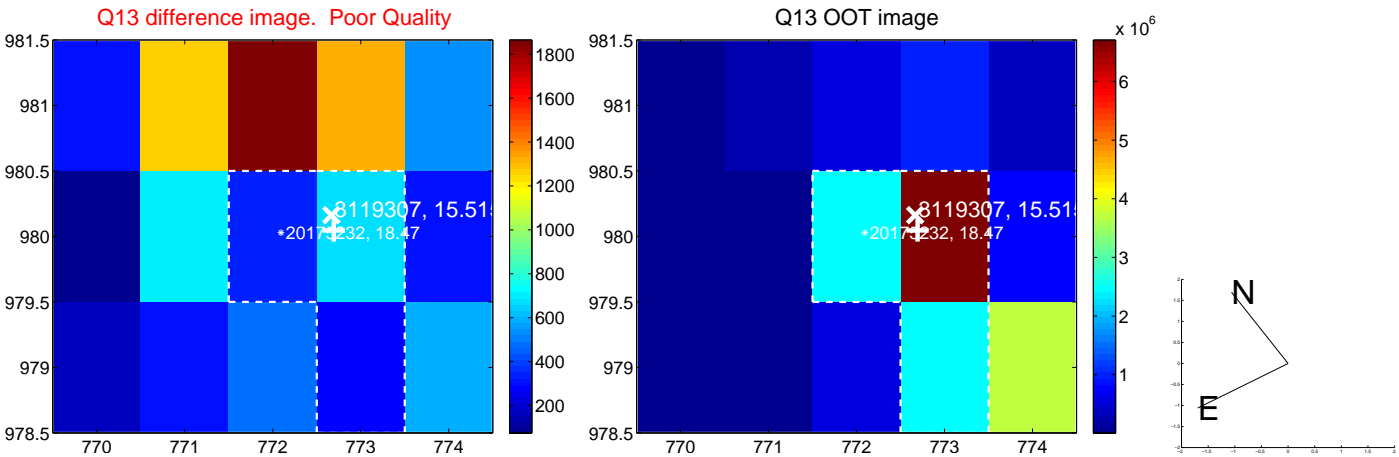
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



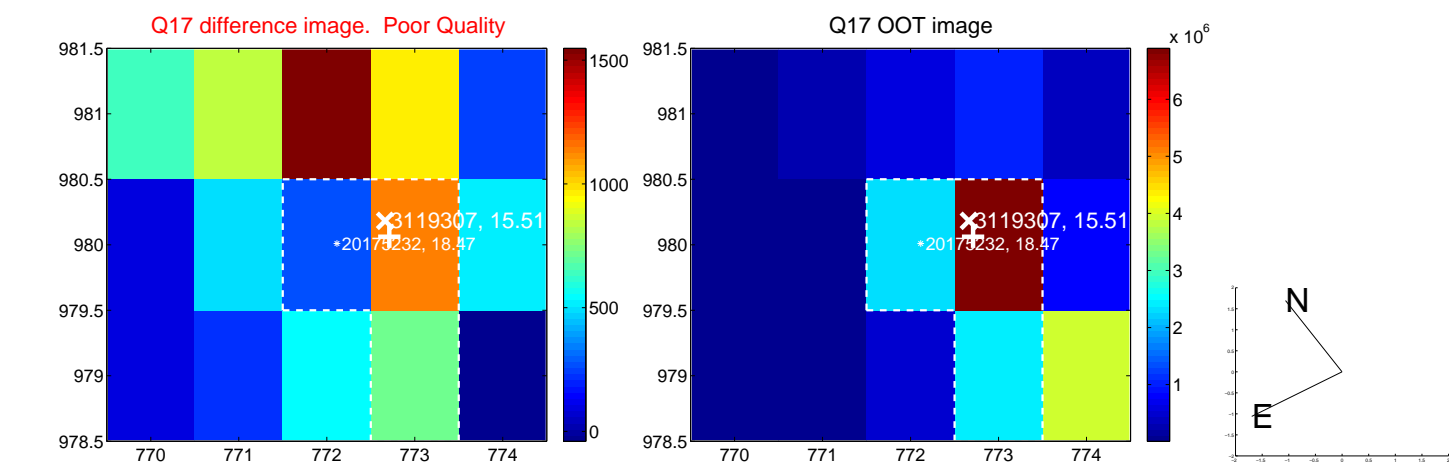
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



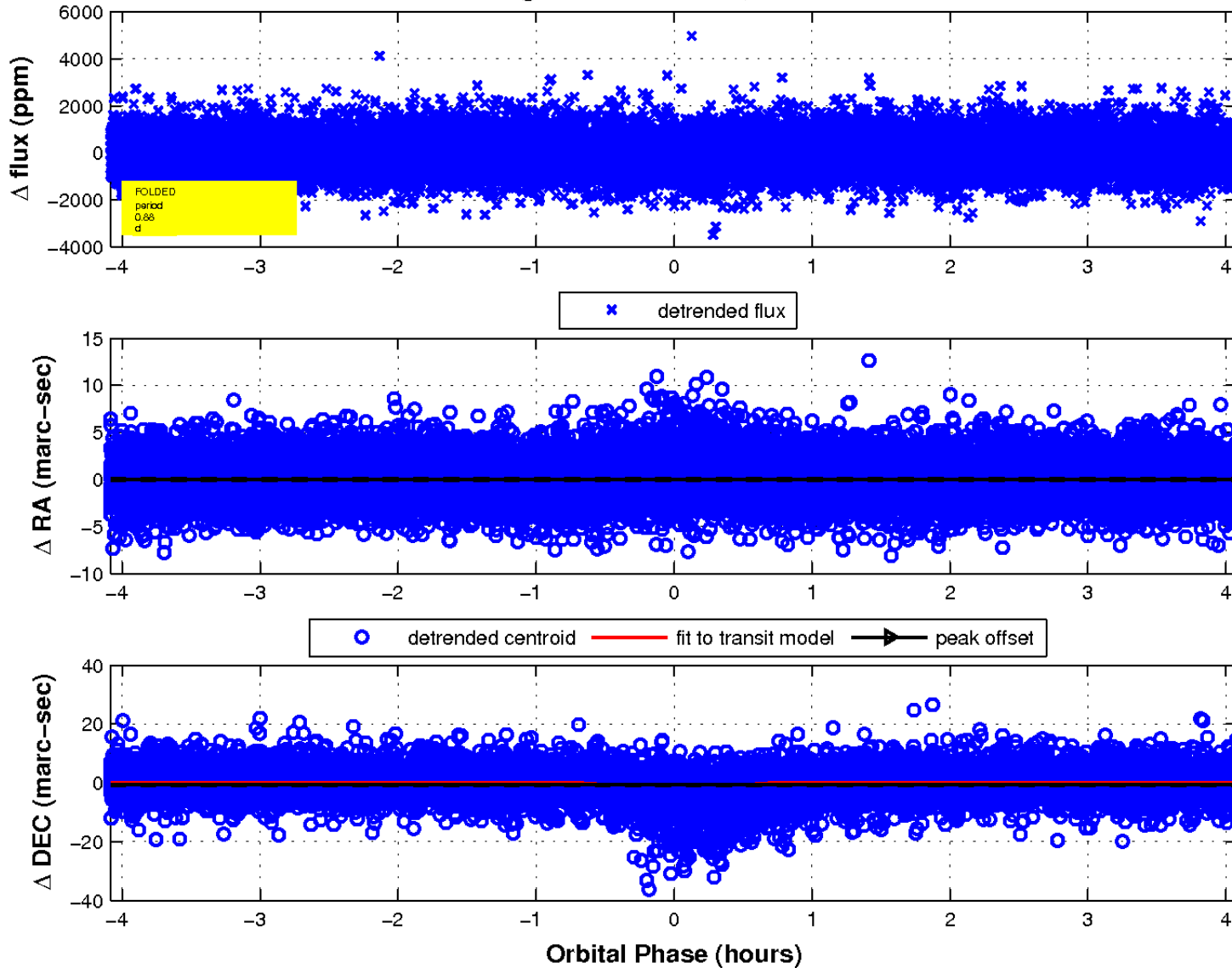
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

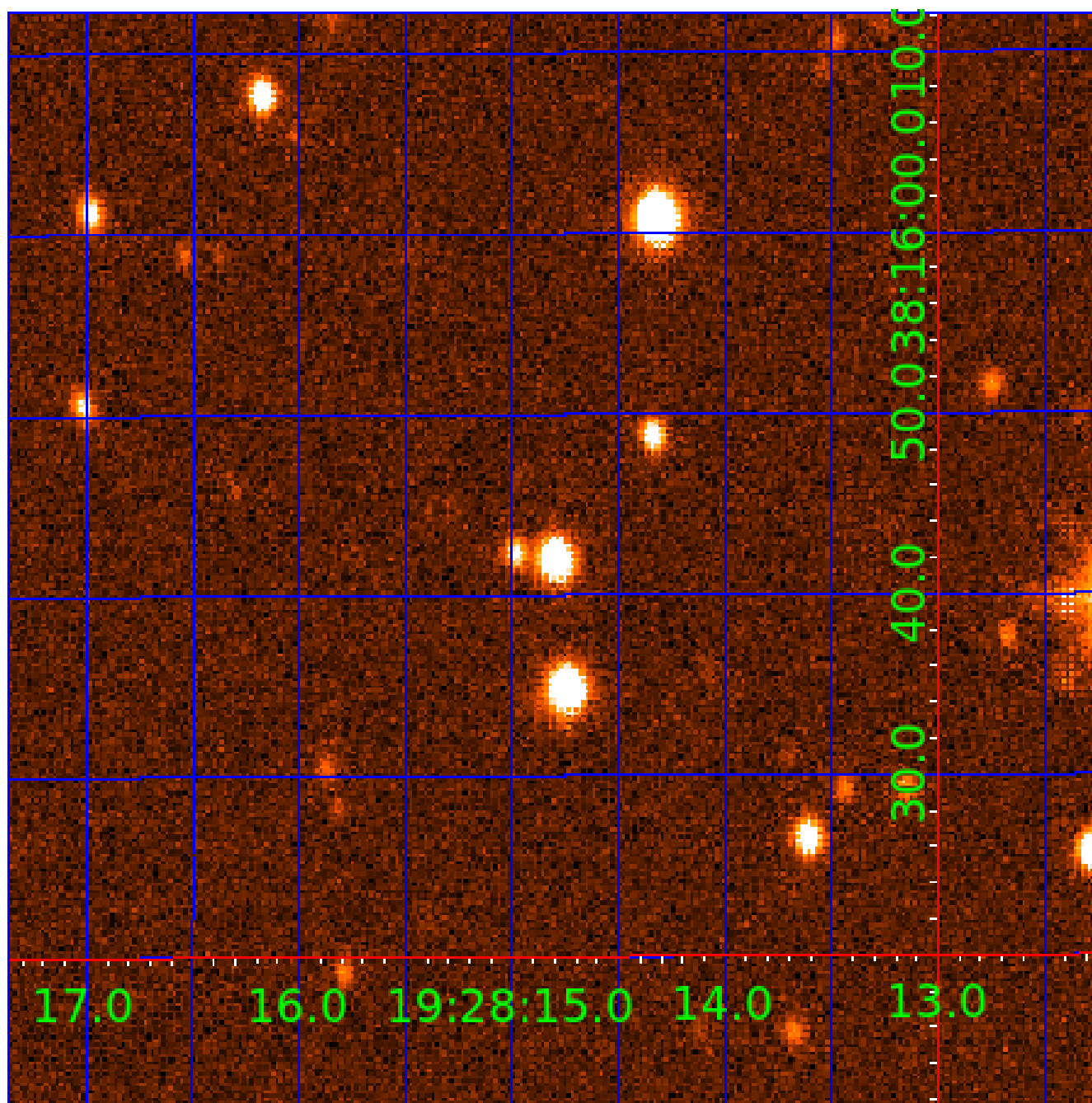


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 003119307

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})
003119307-01	OBS	No	0.879370	131.894654	103.9	1.362	8.2	8.0	1.05	6395	1.26	4807.04
003119307-02	OBS	No	0.879360	132.340678	87.5	1.807	8.2	8.0	1.05	6395	1.15	4807.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003119307-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
003119307-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

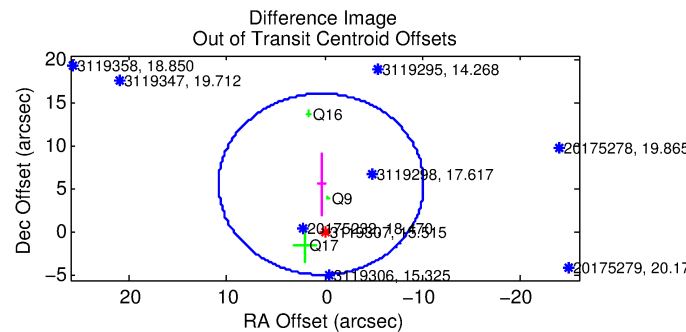
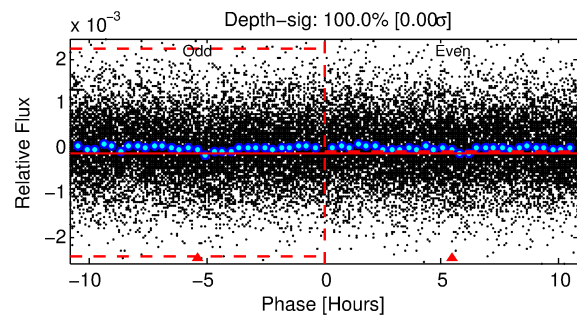
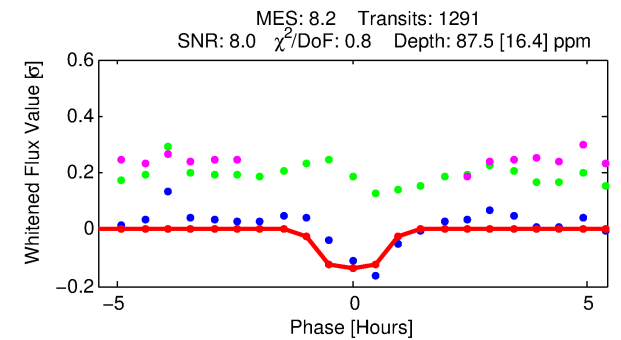
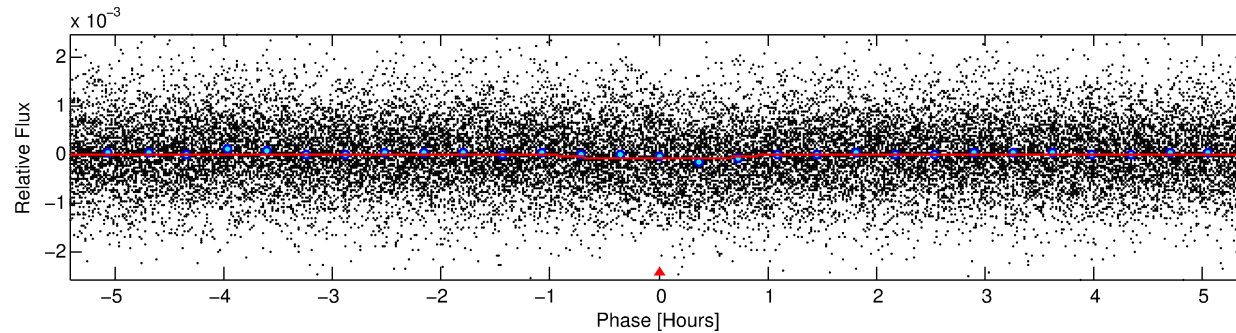
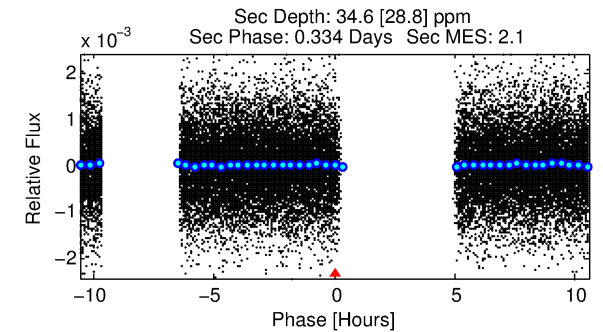
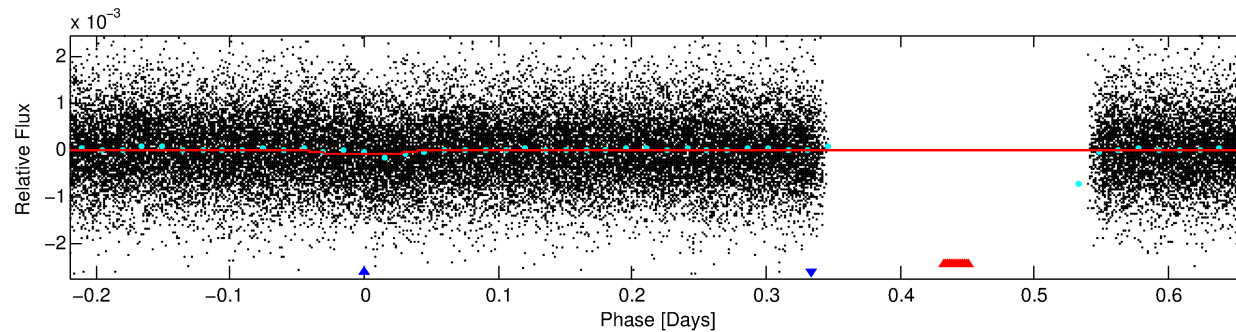
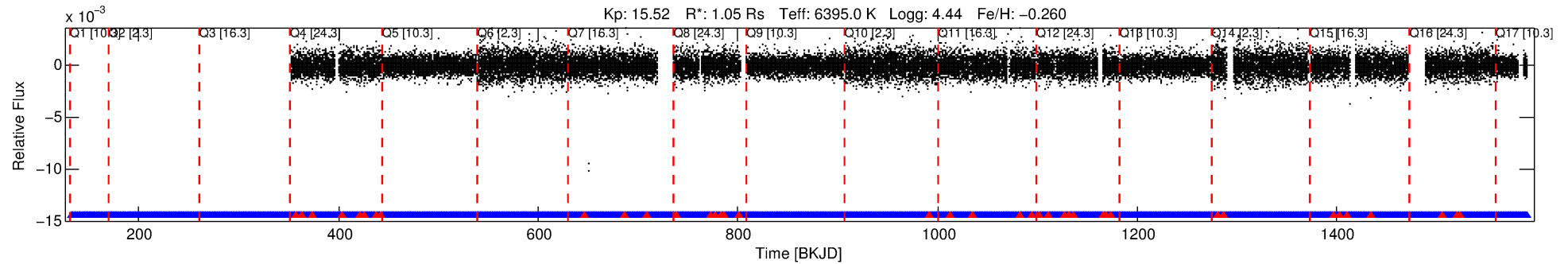
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003119307-02

No Significant Match Found

DV One-Page Summary

KIC: 3119307 Candidate: 2 of 2 Period: 0.879 d



DV Fit Results:

Period = 0.87936 [0.00001] d
Epoch = 132.3407 [0.0034] BKJD
Rp/R* = 0.0100 [0.0076]
a/R* = 1.95 [6.21]
b = 0.90 [0.93]
Seff = 4807.12 [1871.56]
Teq = 2123 [207] K
Rp = 1.15 [0.94] Re
a = 0.0185 [0.0046] AU
Ag = 4.94 [8.75] [0.45σ]
Teffp = 4894 [2130] K [1.29σ]

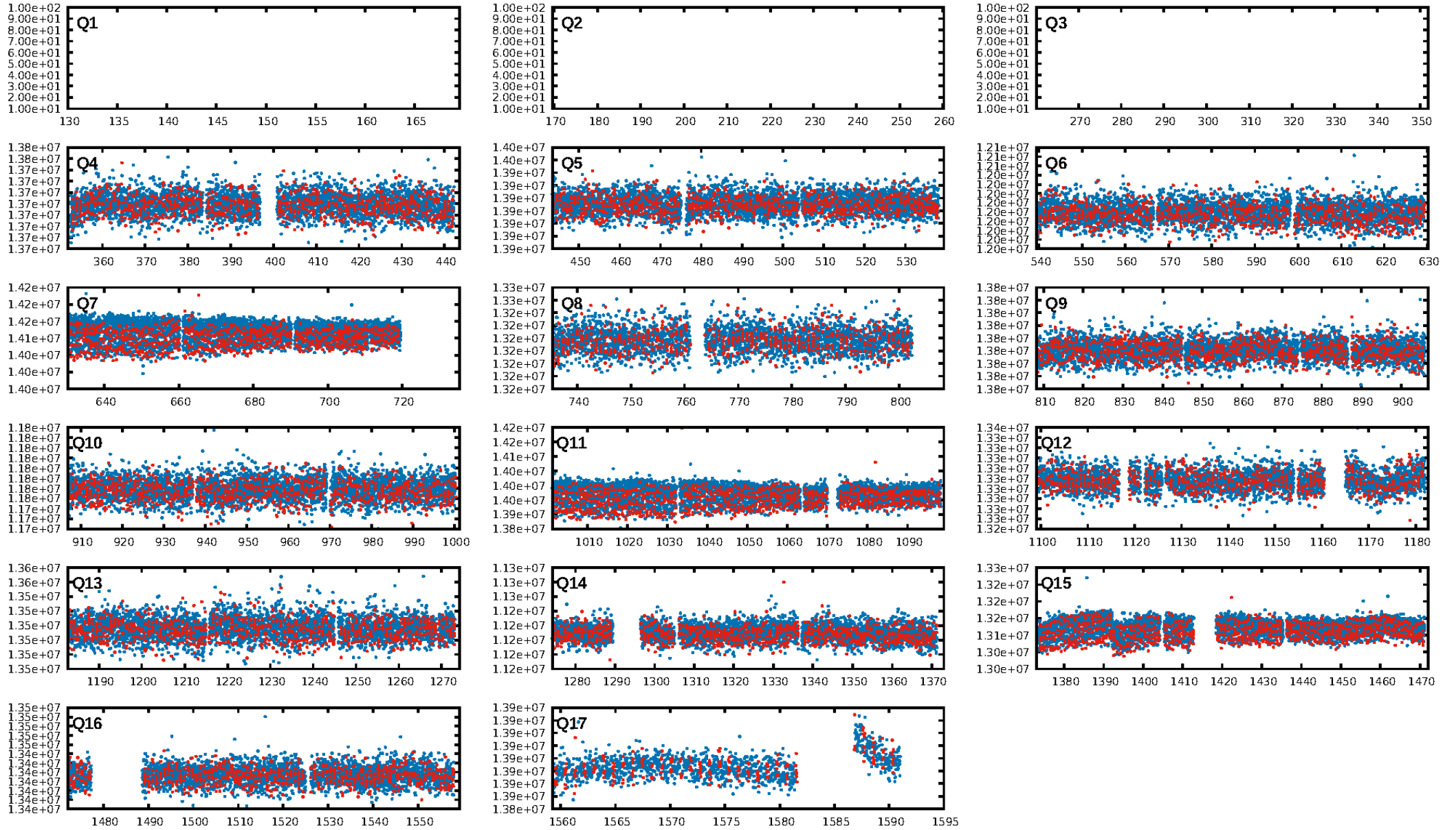
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.26e-17
RollingBand-fgt: 0.97 [1219/1260]
GhostDiagnostic-chr: -0.2338
Centroid-sig: 0.0%
Centroid-so: 6.231 arcsec [4.44σ]
OotOffset-rm: 5.595 arcsec [1.60σ]
KicOffset-rm: 4.153 arcsec [1.33σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [14/14]

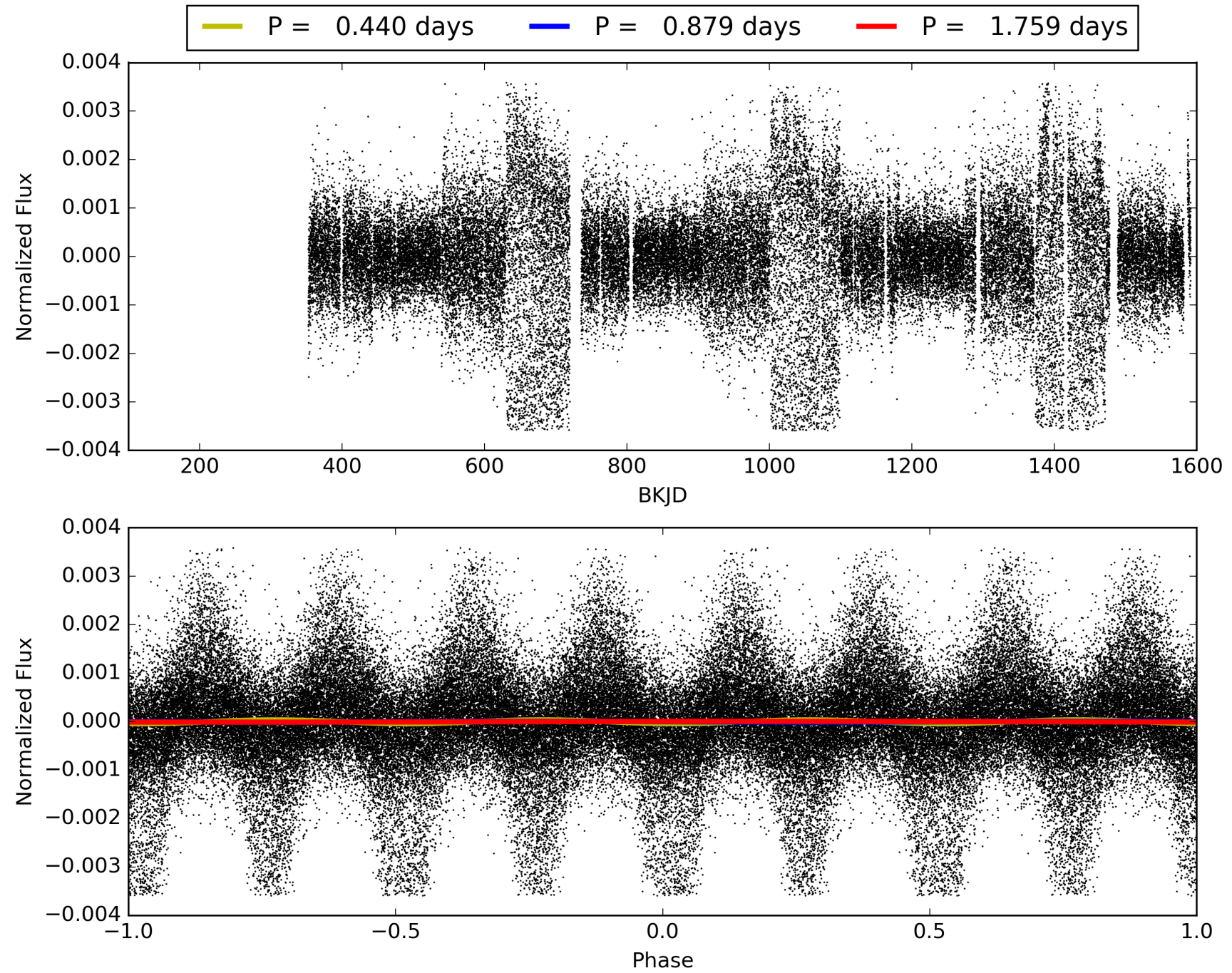
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:52:46 Z

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

TCE 003119307-02, PDC Light Curves

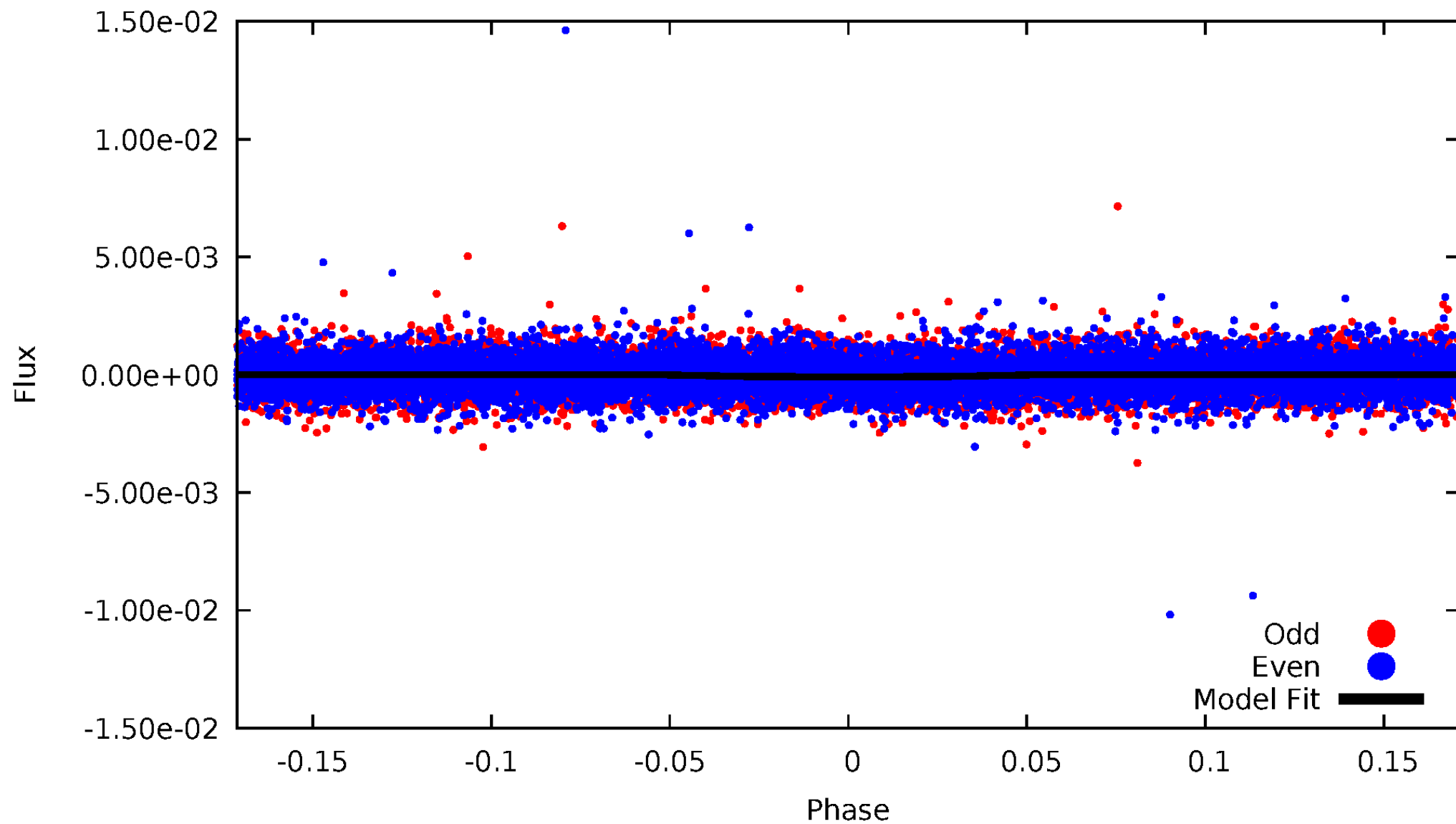


TCE 003119307-02



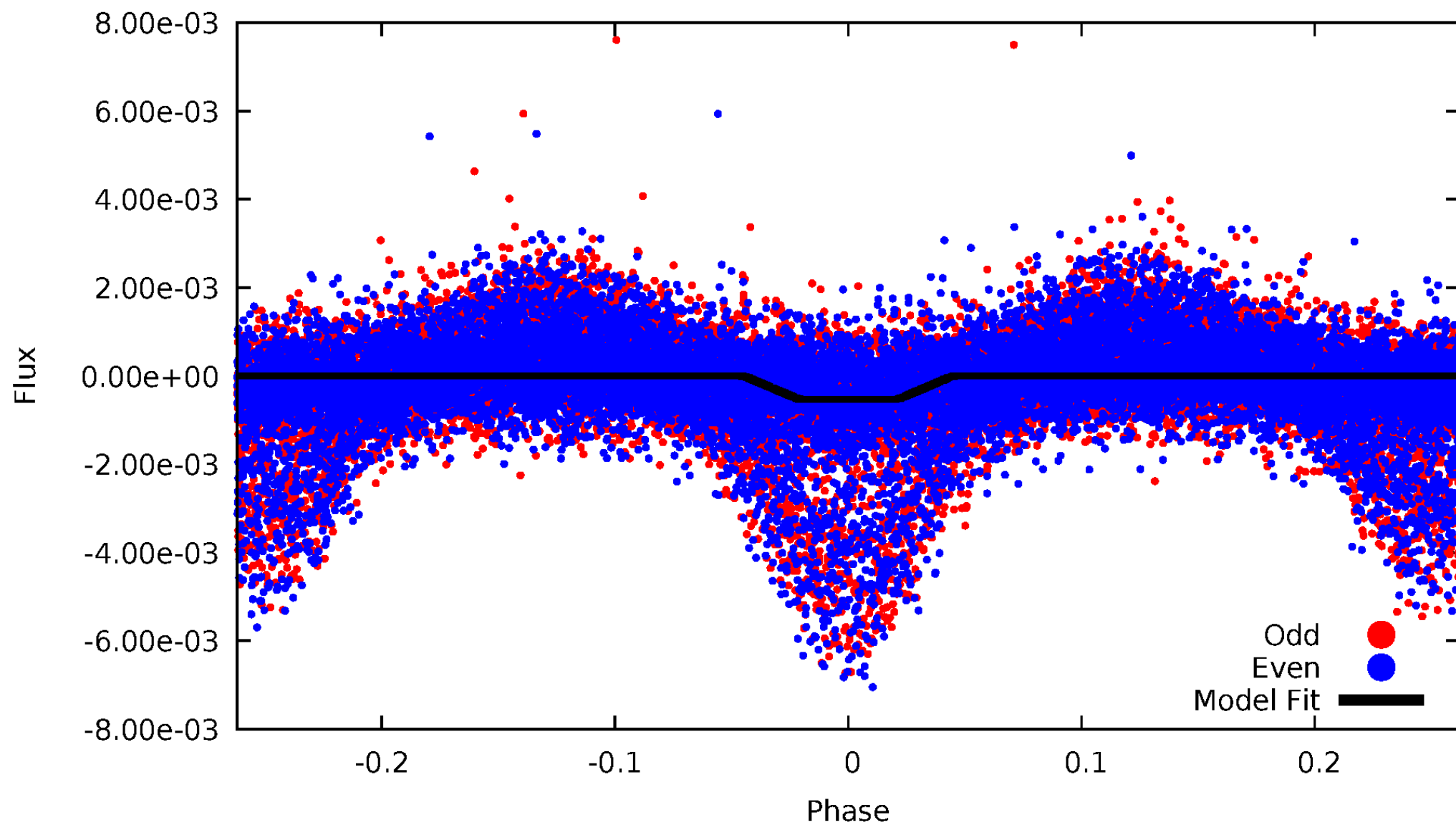
DV Odd/Even

TCE 003119307-02



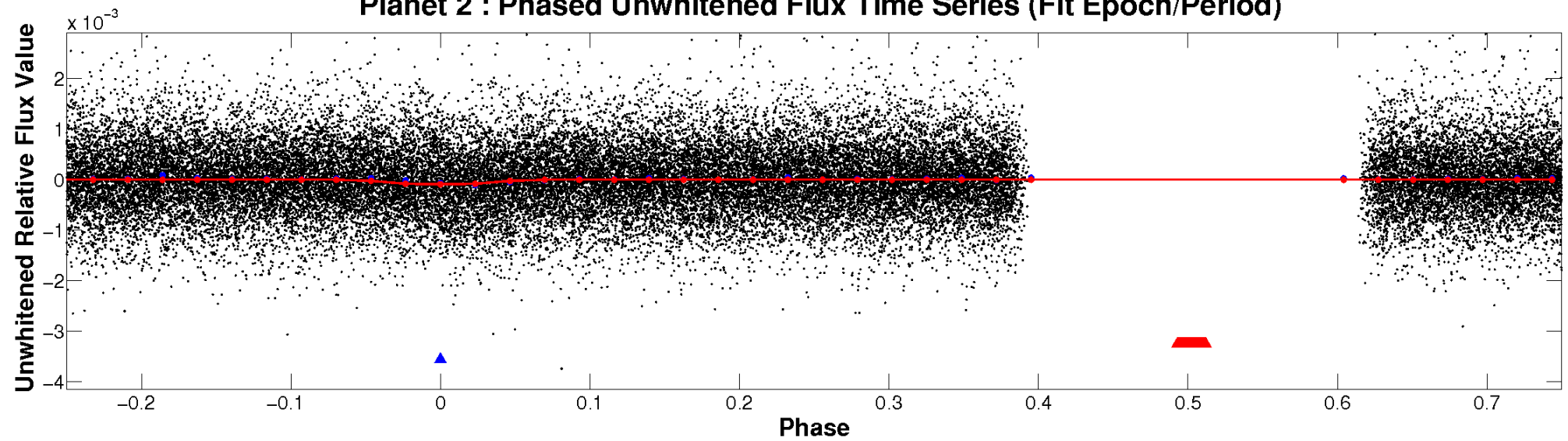
ALT Odd/Even

TCE 003119307-02

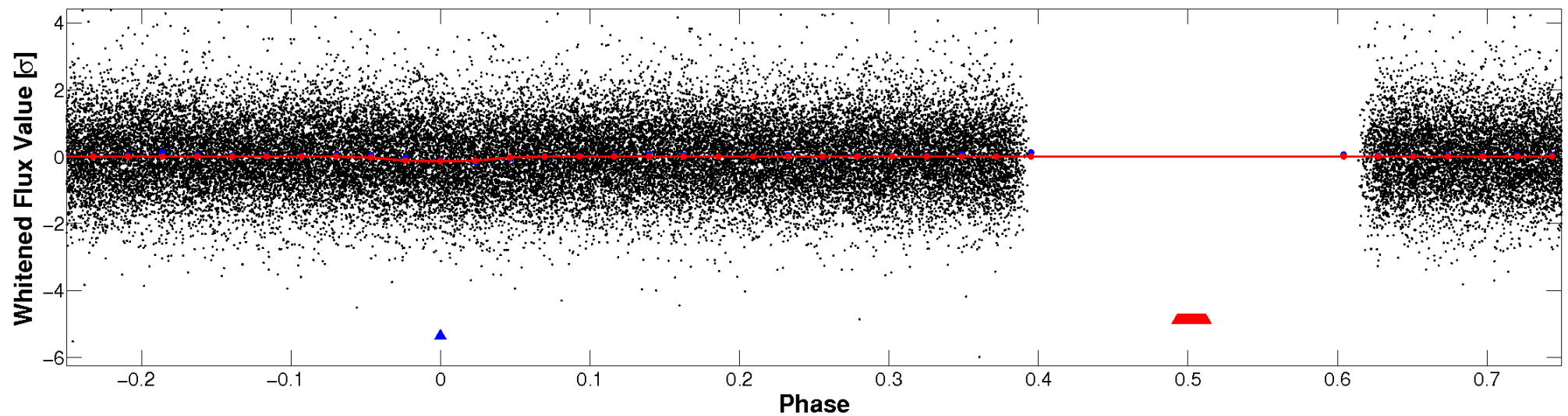


Non-Whitened Vs. Whitened Light Curve

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

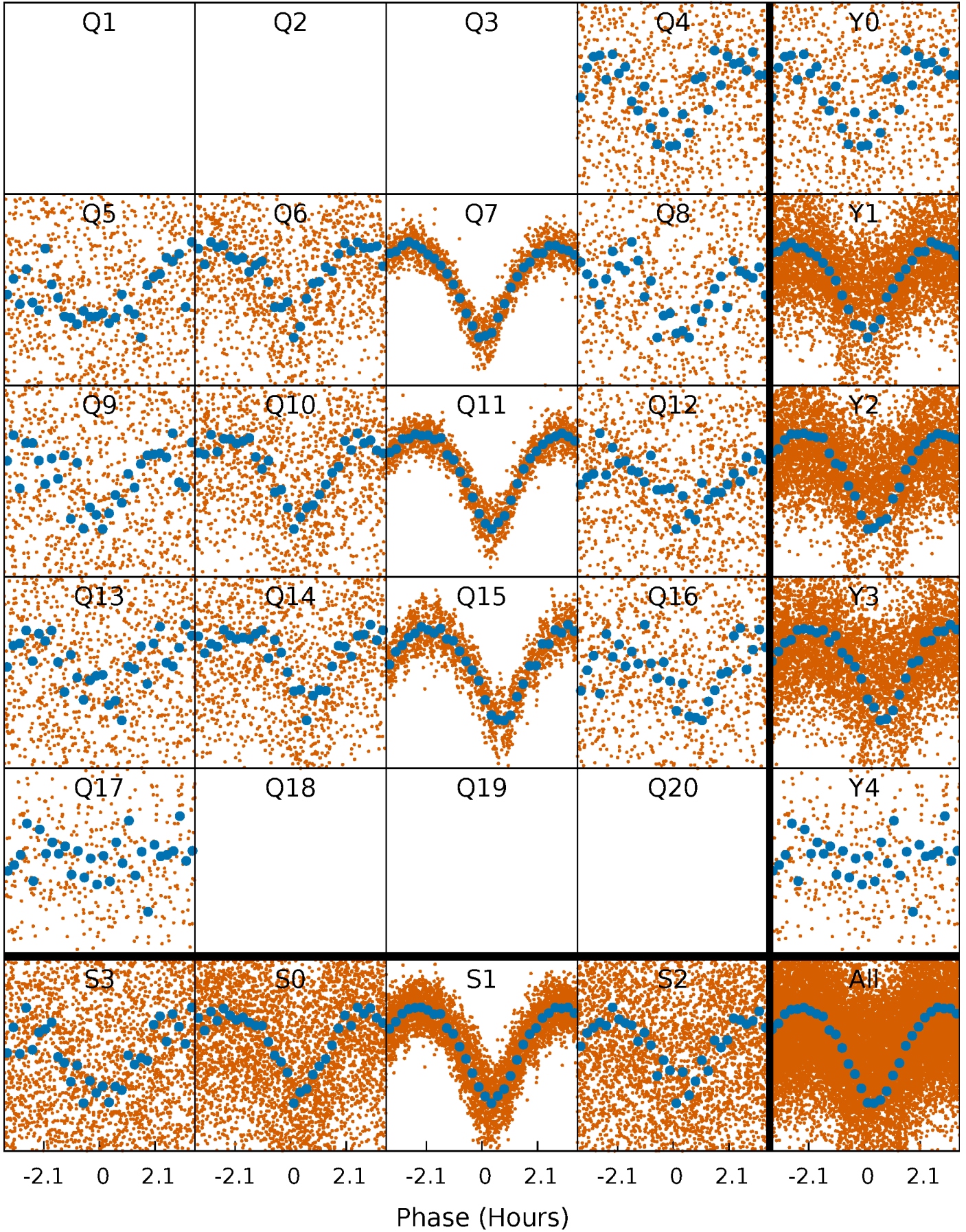


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



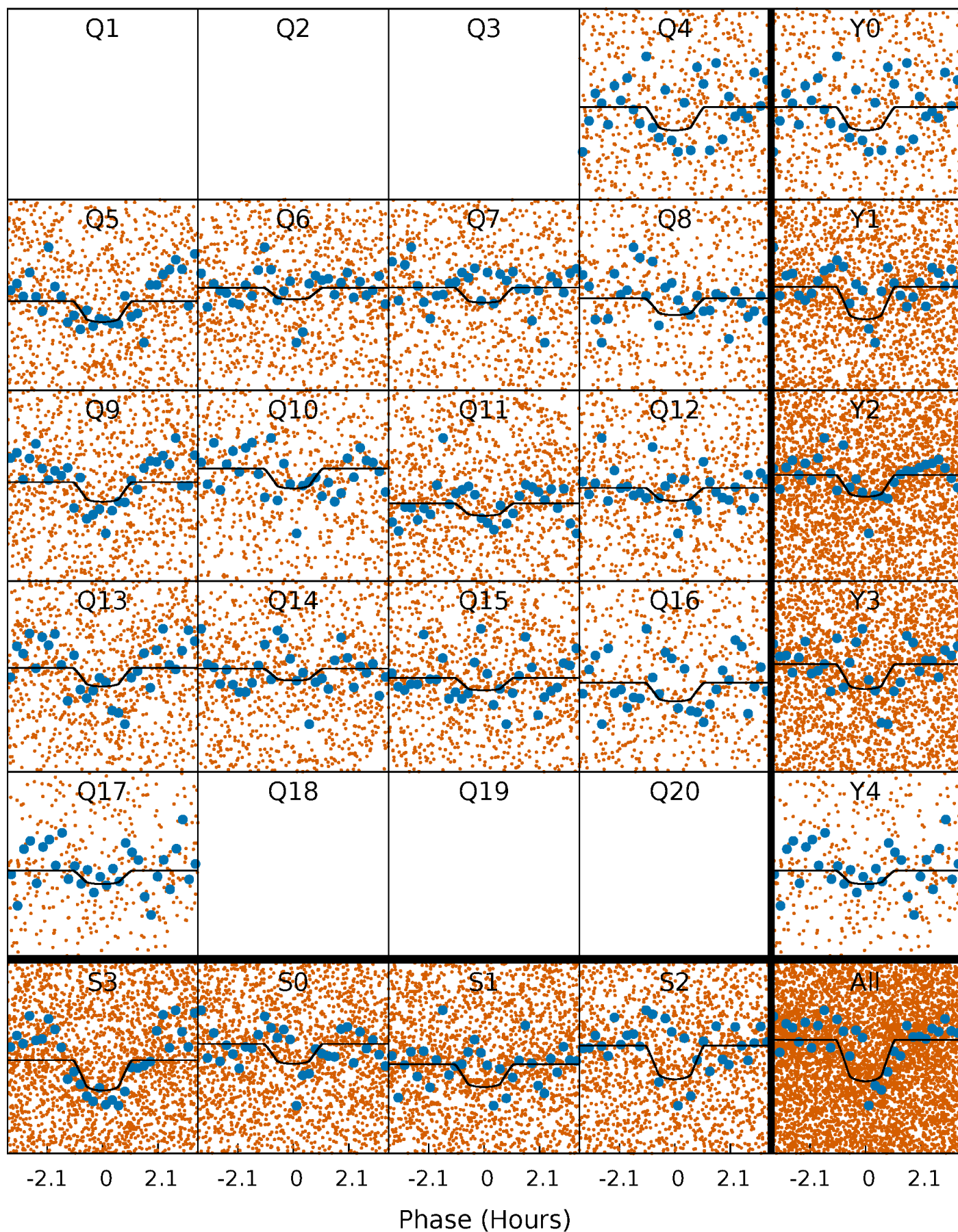
PDC Quarter-Phased Transit Curves

TCE 003119307-02 P= 0.879360 Days $T_0=132.340678$ (BKJD)



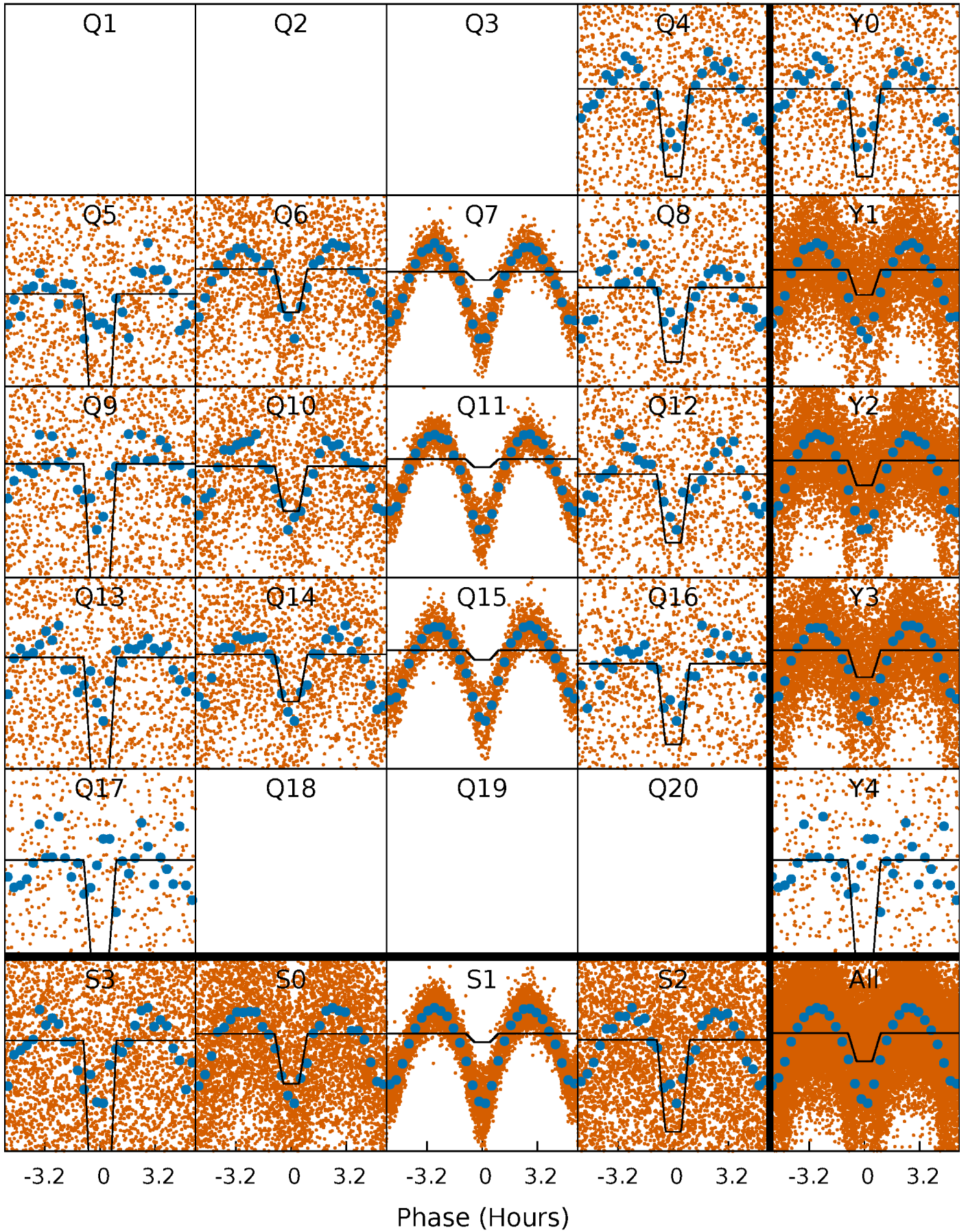
DV Quarter-Phased Transit Curves

TCE 003119307-02 P= 0.879360 Days $T_0=132.340678$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

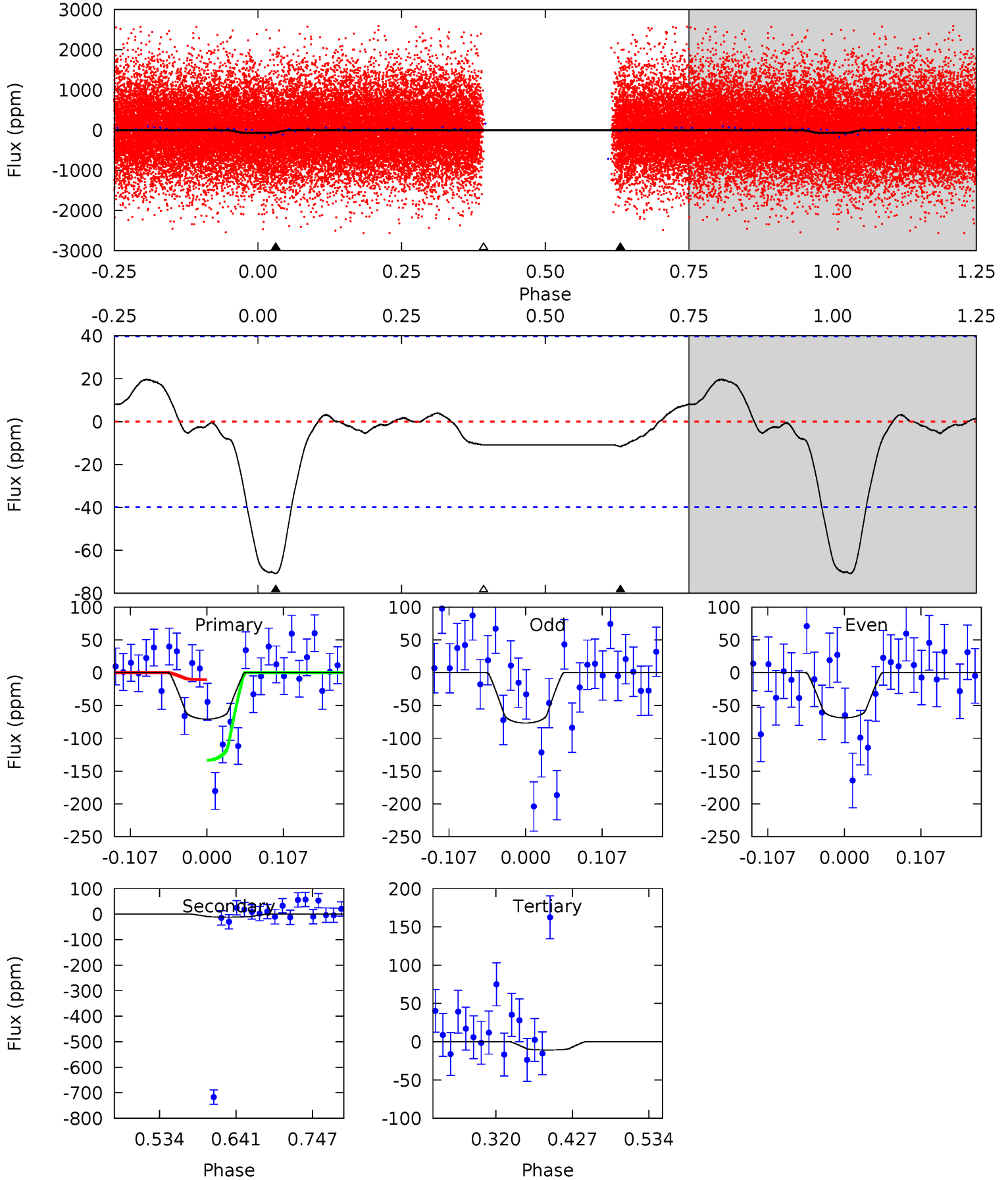
TCE 003119307-02 P= 0.879387 Days $T_0=132.328199$ (BKJD)



DV Model-Shift Uniqueness Test

003119307-02, P = 0.879360 Days, E = 132.340678 Days

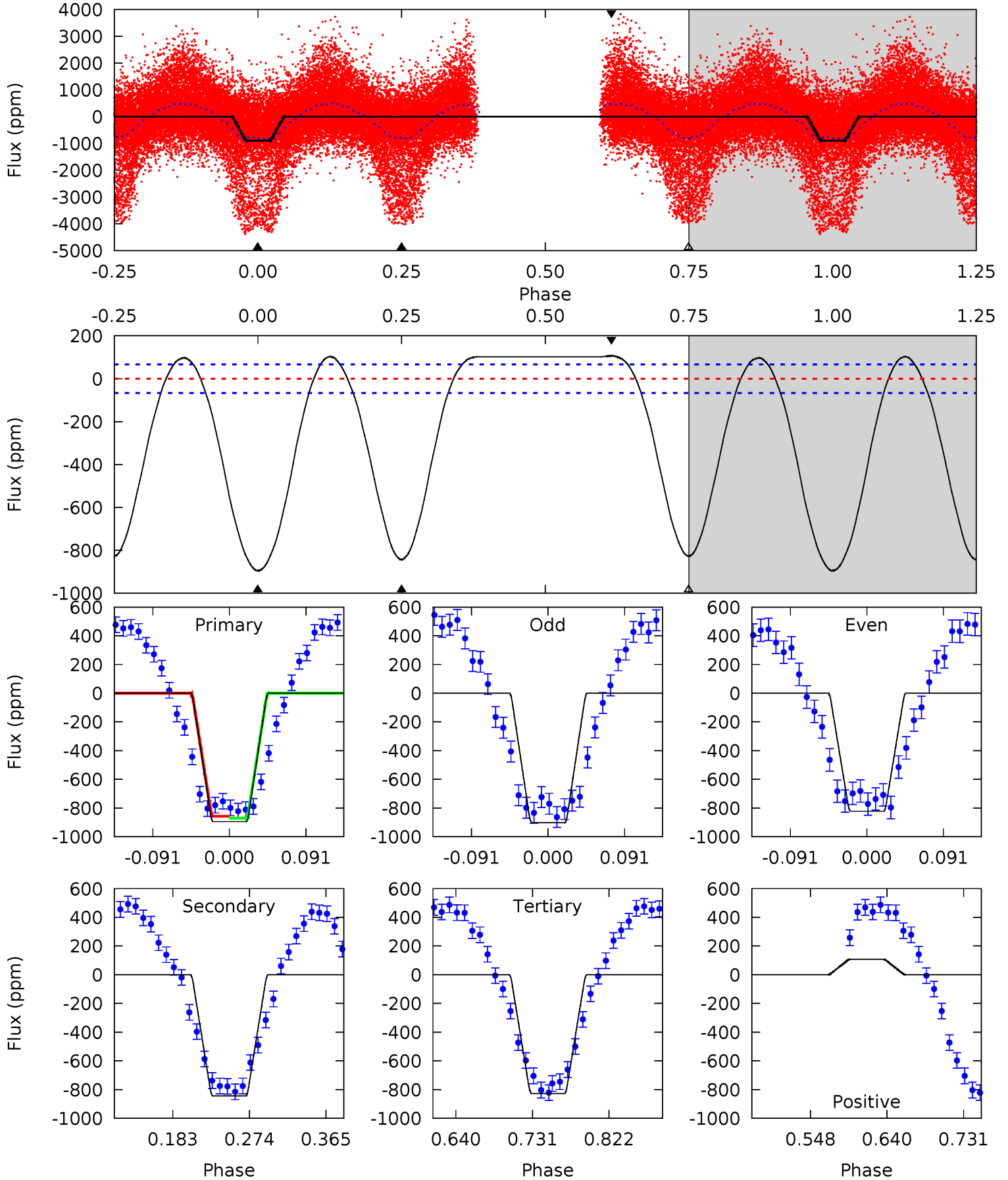
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.09	1.33	1.24	0	4.55	1.61	0.89	6.85	8.09	0.09	1.33	0.46	0.79	0.22	7.06



Alt Model-Shift Uniqueness Test

003119307-02, P = 0.879387 Days, E = 132.328199 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
61.6	58.1	56.9	7.37	4.58	1.69	21.7	4.72	54.2	1.18	50.7	2.73	2.42	0.11	0.44



Stellar Parameters For KIC 003119307

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6395^{+176}_{-242}	$4.436^{+0.065}_{-0.195}$	$-0.260^{+0.250}_{-0.300}$	$1.049^{+0.311}_{-0.133}$	$1.094^{+0.143}_{-0.157}$	$1.335^{+0.442}_{-0.645}$
	+3%/-4%	+1%/-4%	+96%/-115%	+30%/-13%	+13%/-14%	+33%/-48%
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 003119307-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12 ± 9	$1.27^{+0.95}_{-0.74}$	3017^{+207}_{-162}	3656^{+1758}_{-6504}	$1.169^{+6.063}_{-1.021}$
Alt.	-844 ± 15	$2.72^{+0.98}_{-0.98}$	3014^{+214}_{-168}	7194^{+2343}_{-1007}	21^{+30}_{-10}

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

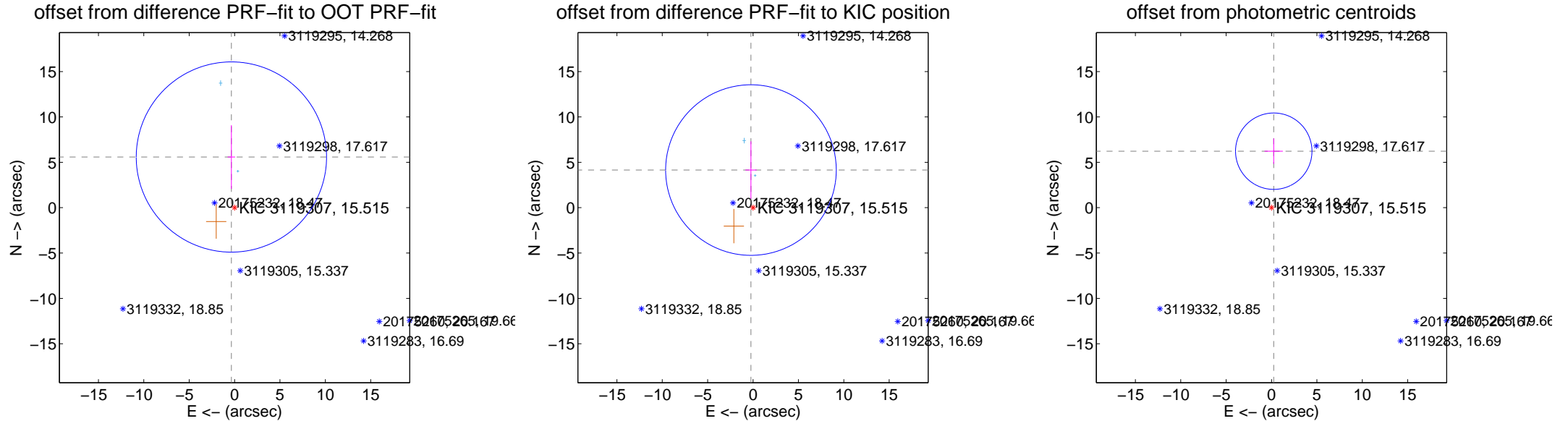
DV Centroid Data

Supplemental centroid analysis for 003119307-02. Kepler magnitude: 15.52. Transit SNR 7.95

There are 2 quarters with good PRF difference image offsets

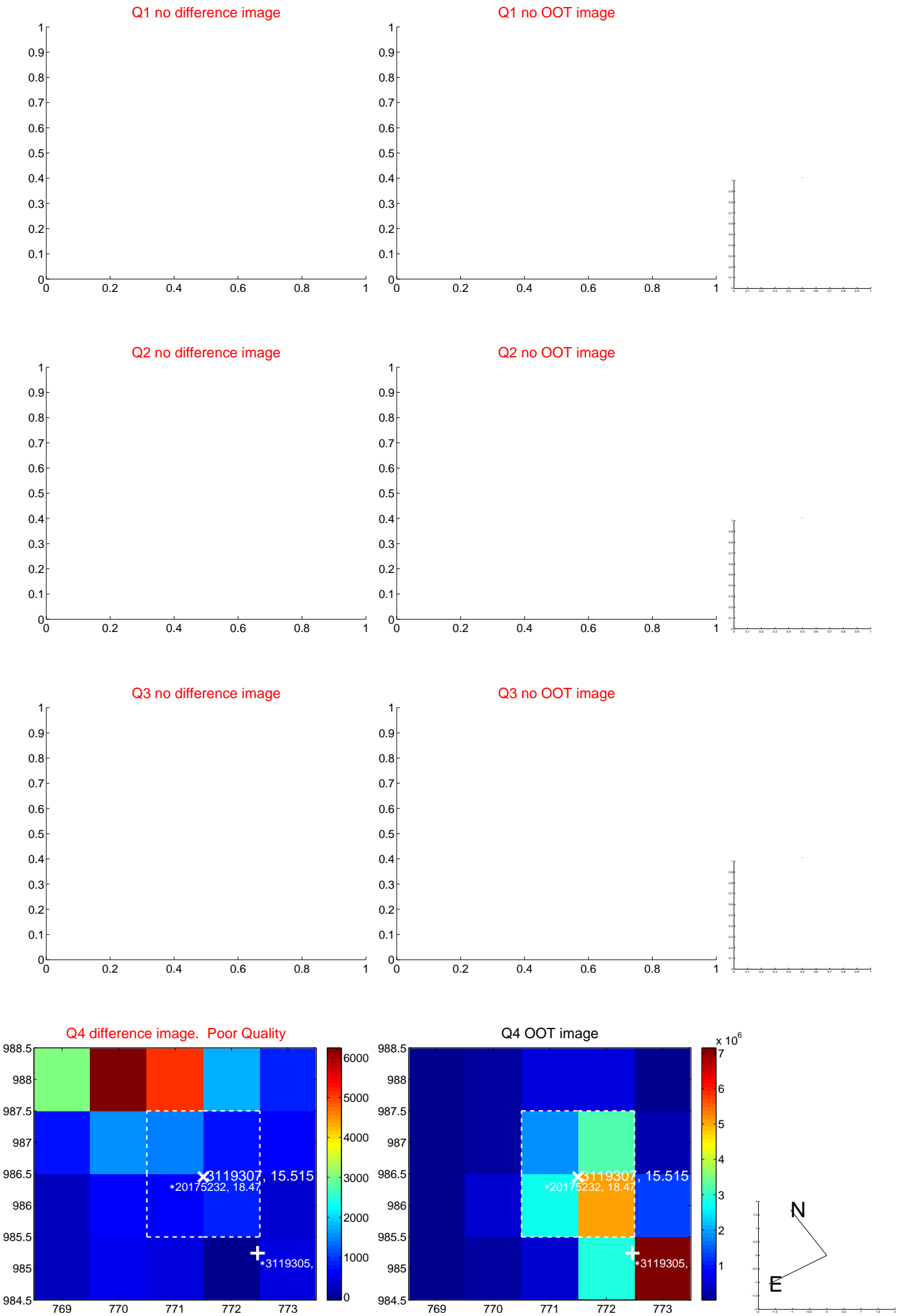
The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.595 ± 3.494	1.60	0.350 ± 0.414	5.584 ± 3.509
PRF-fit source offset from KIC position	4.153 ± 3.133	1.33	0.231 ± 0.617	4.146 ± 3.162
photometric centroid source offset	6.23 ± 1.40	4.44	-0.25 ± 1.00	6.23 ± 1.40

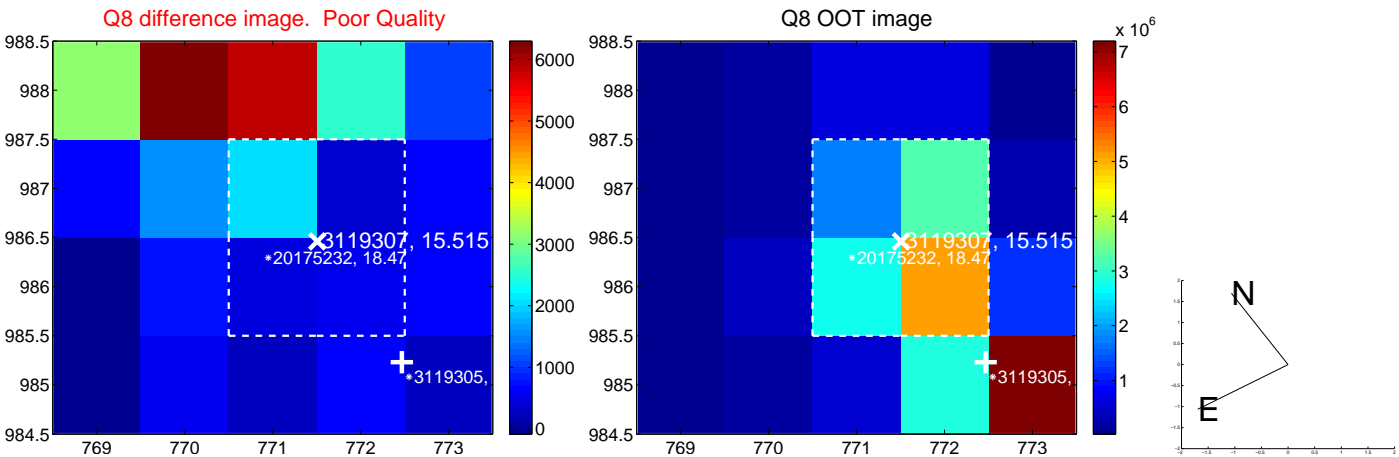
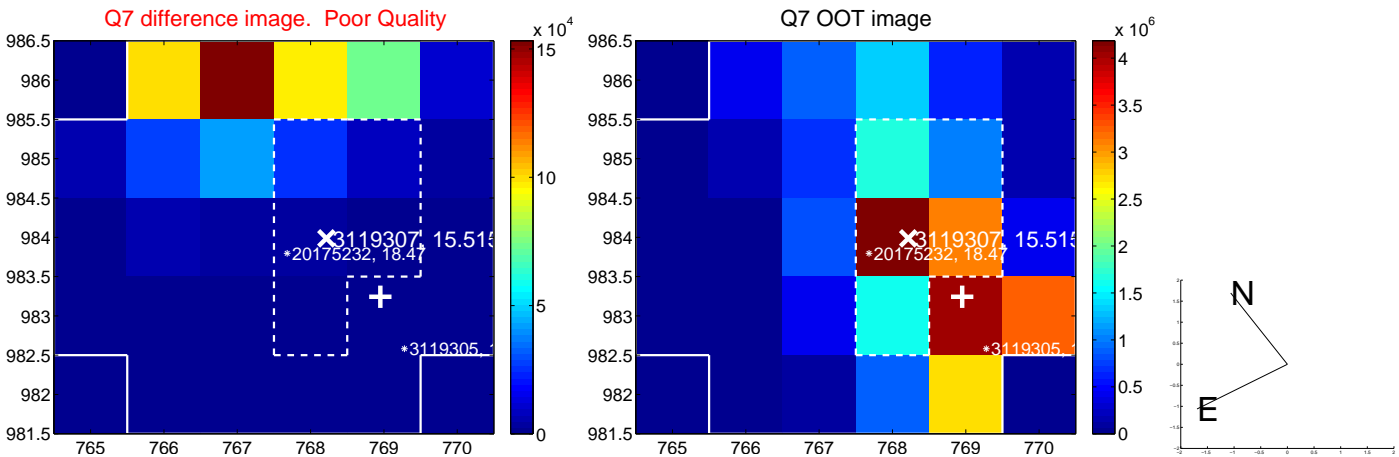
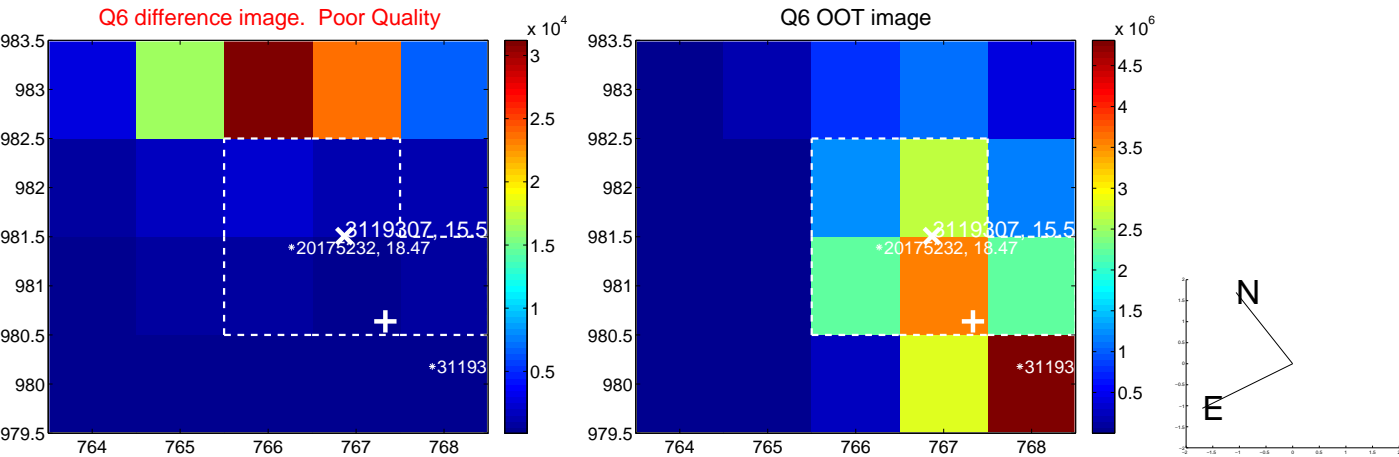
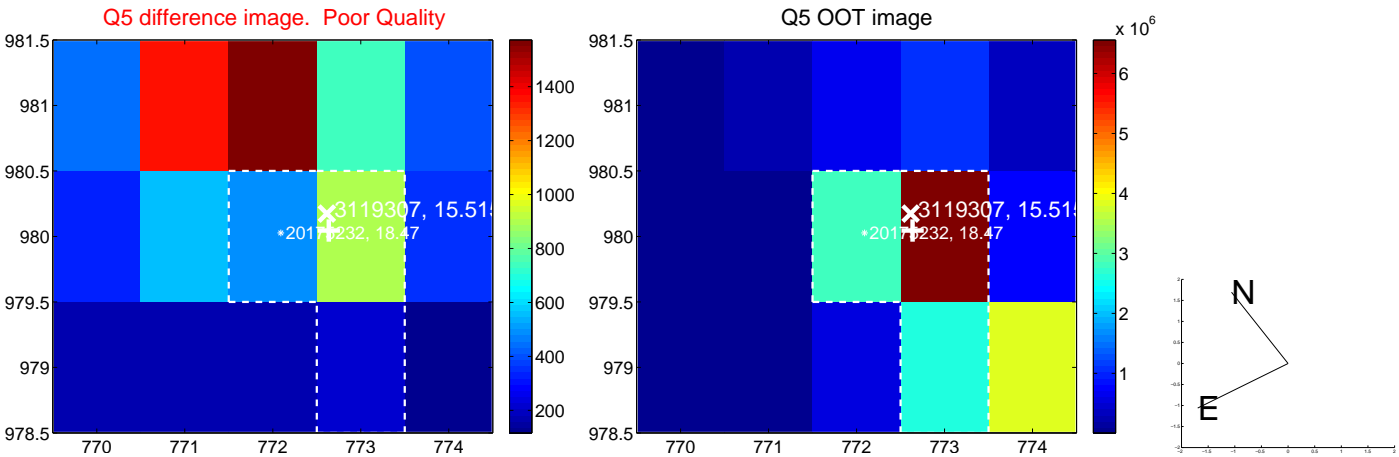


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

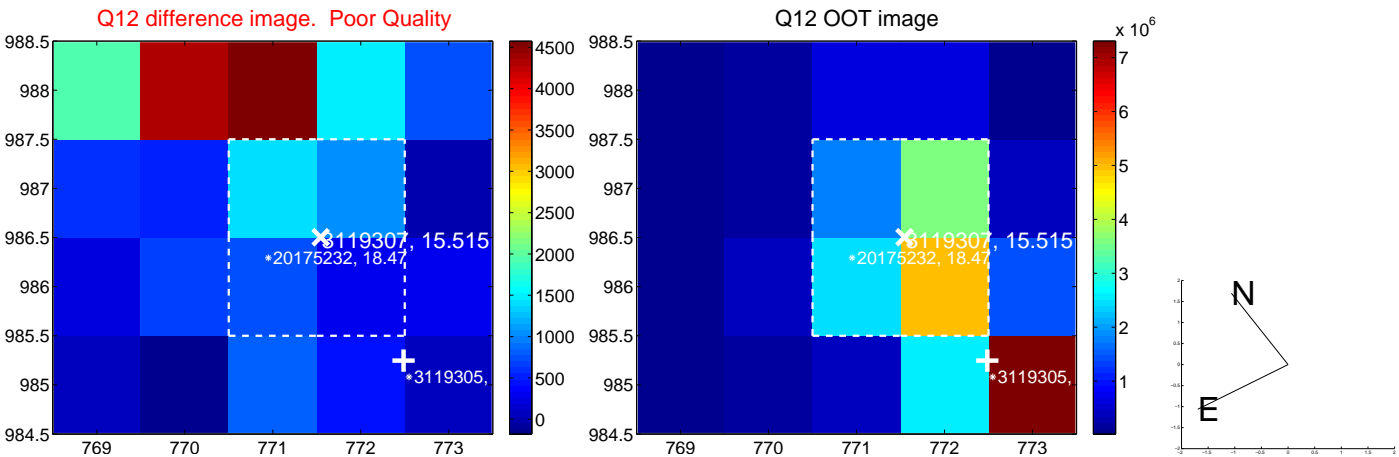
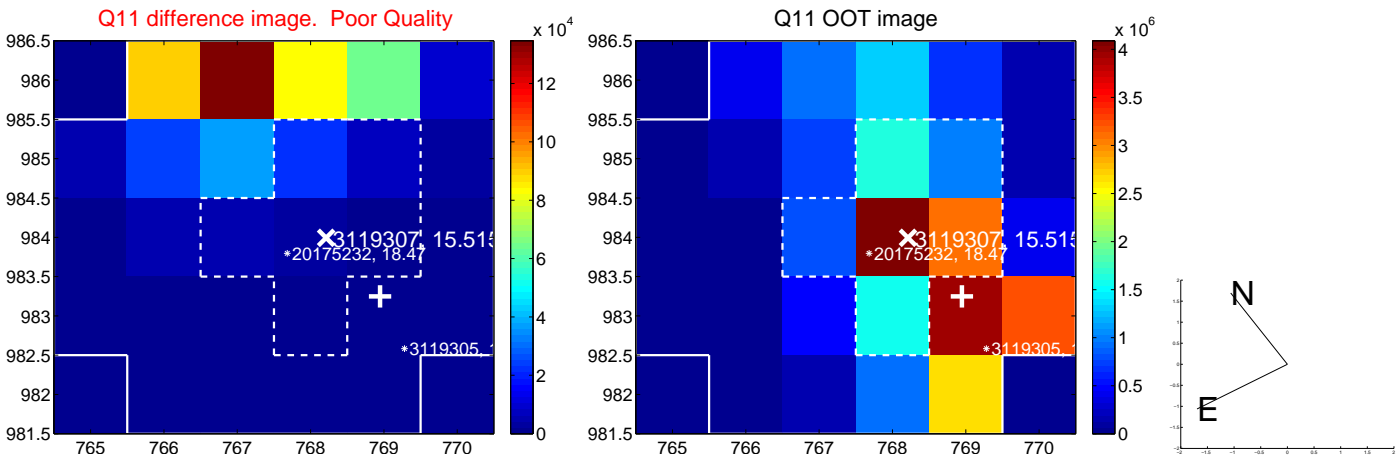
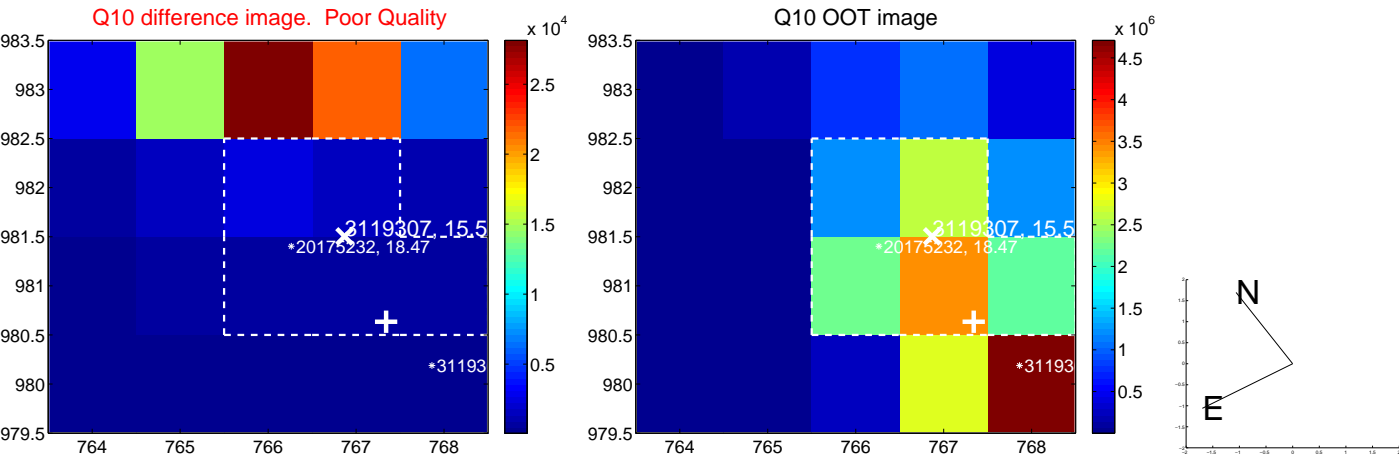
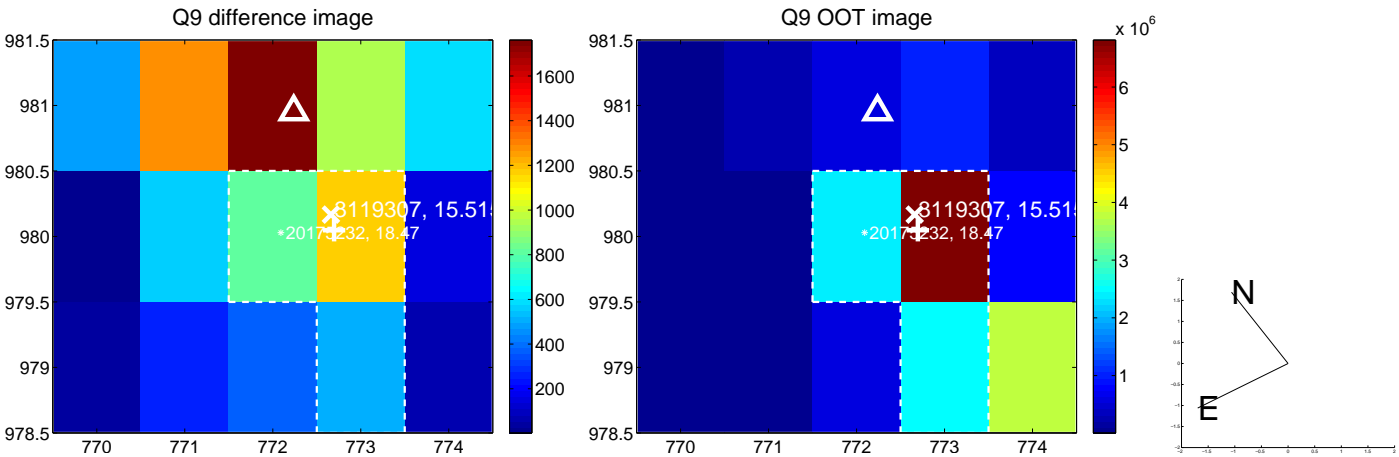
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



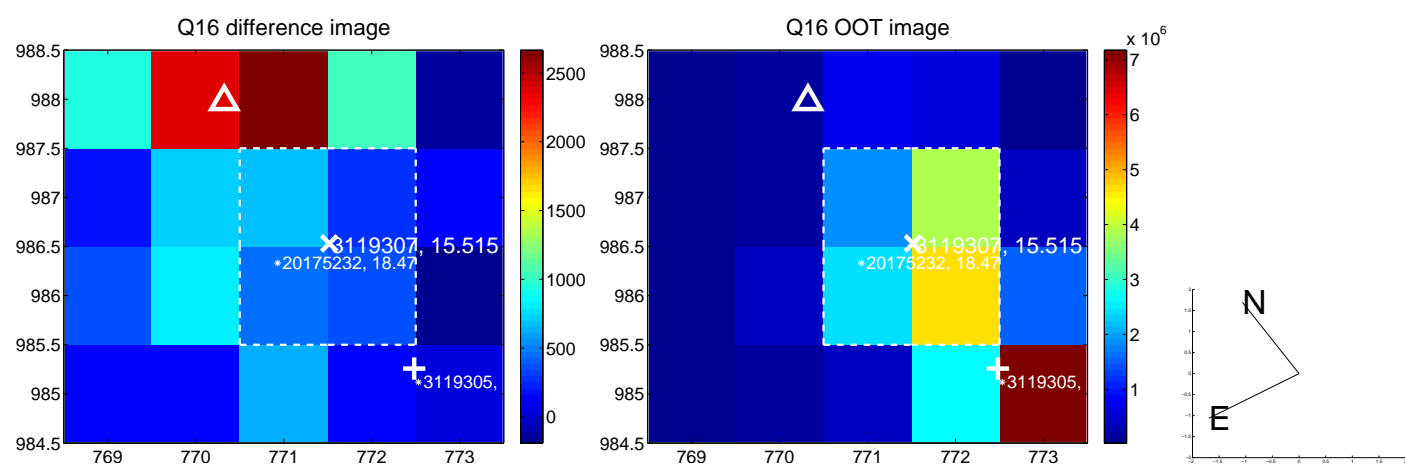
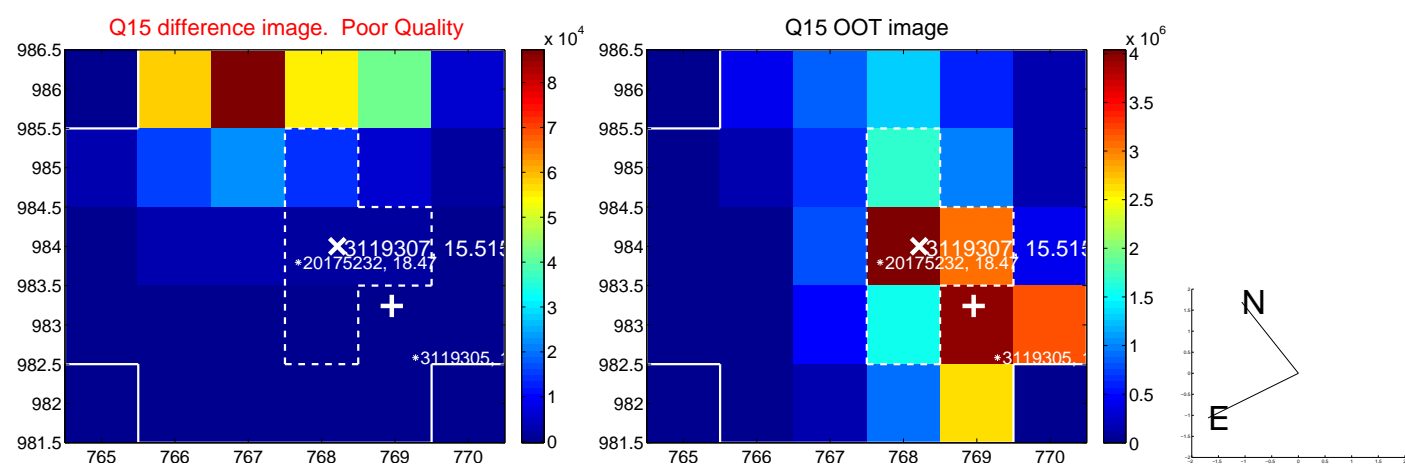
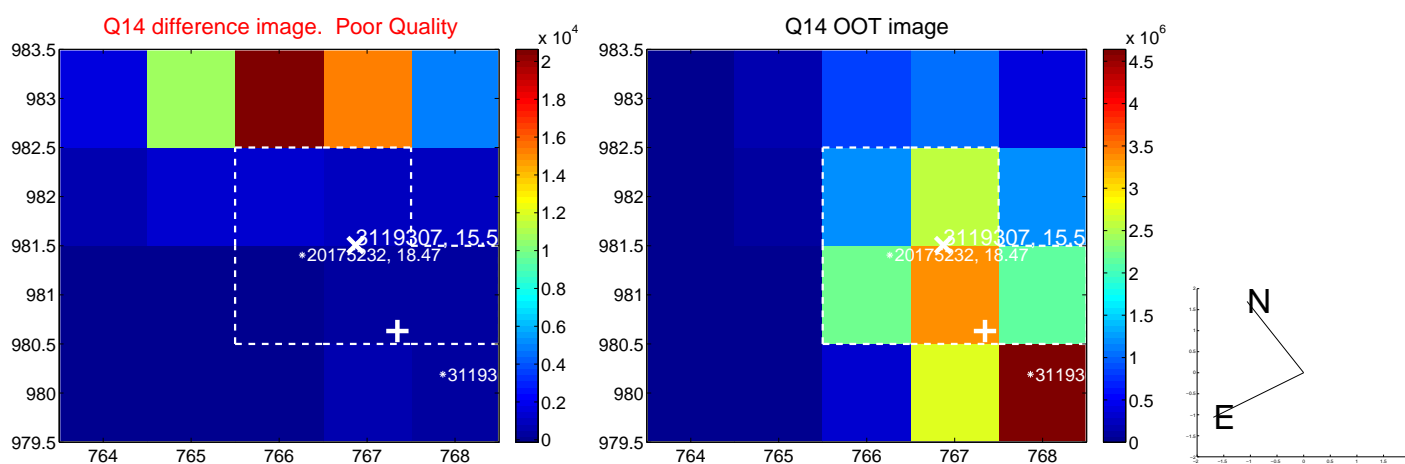
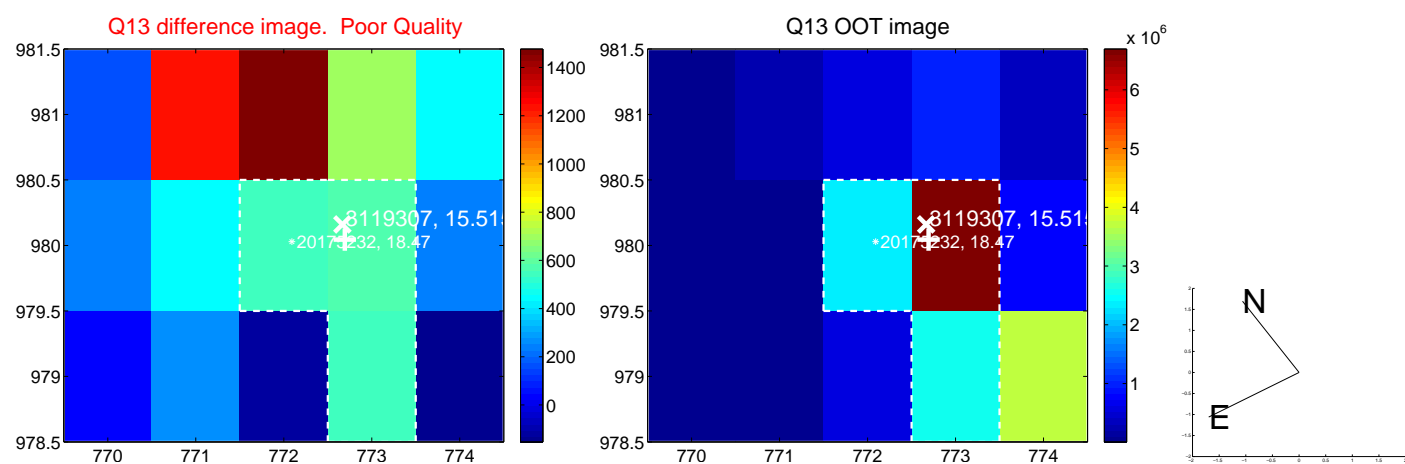
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



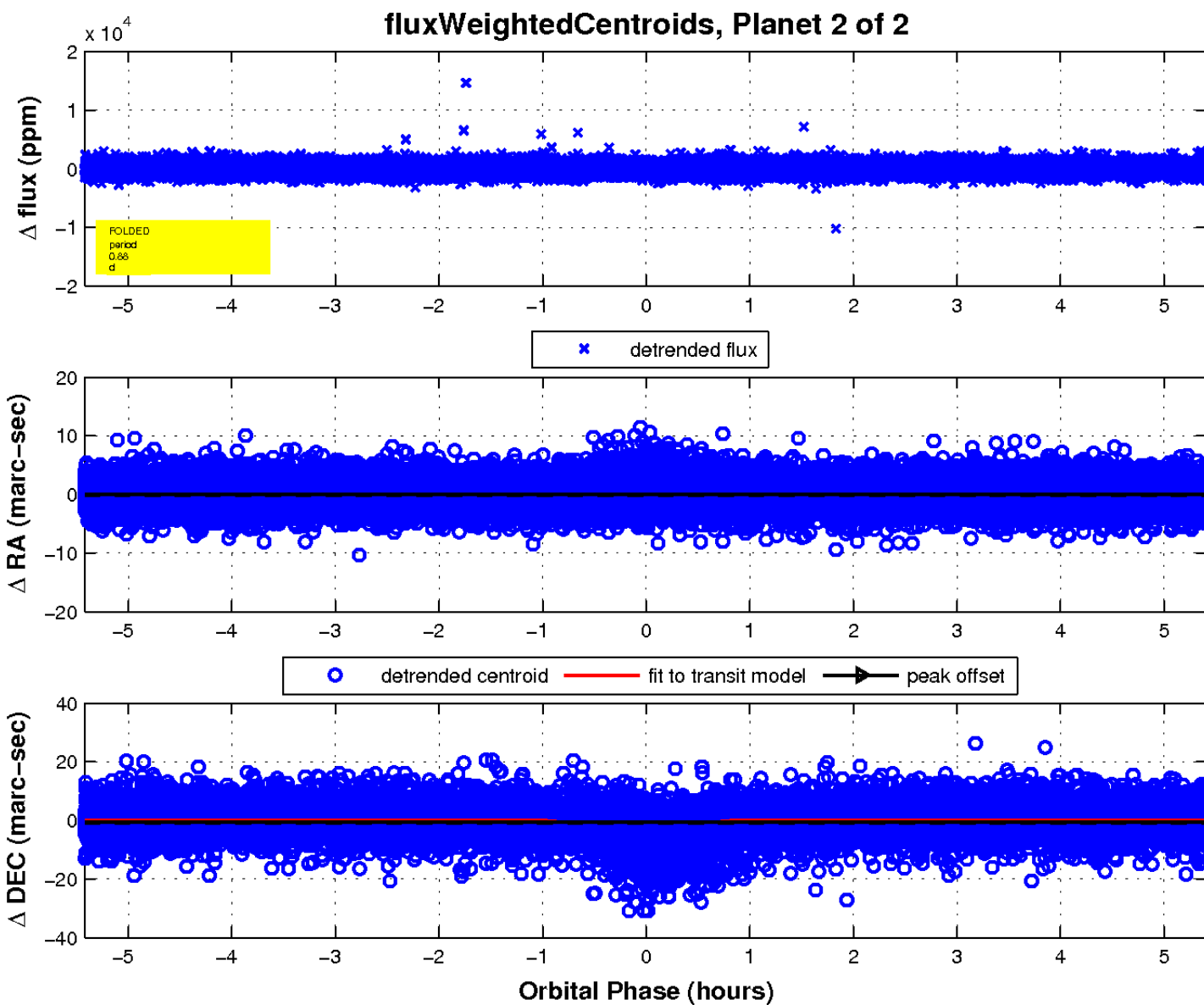
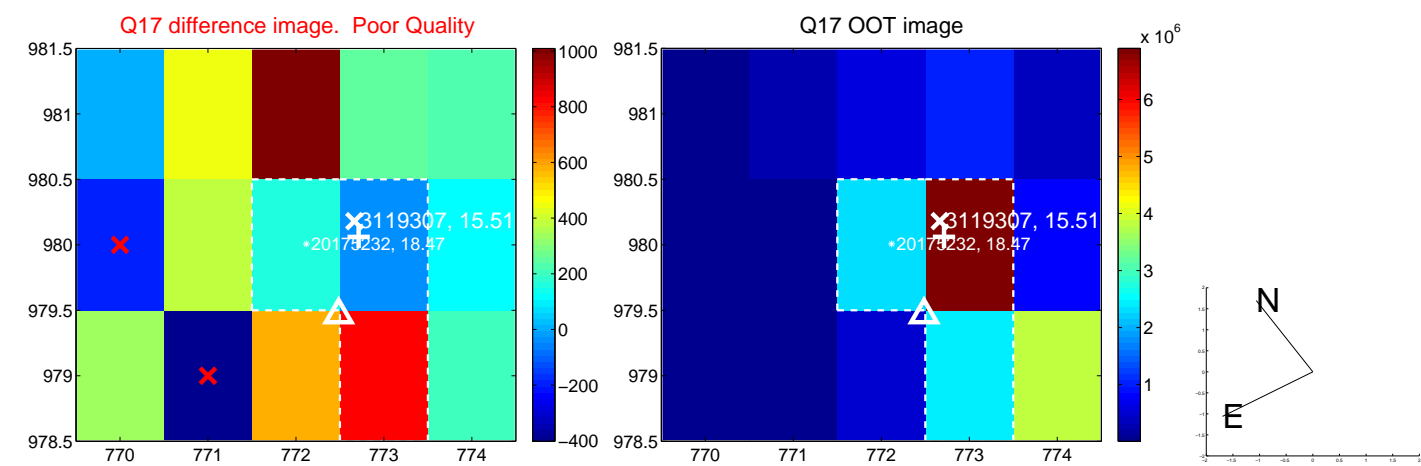
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

