

KIC 009119568

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})
009119568-01	OBS	3087.01	5.548603	133.942592	64.1	4.672	12.1	12.8	0.83	5258	0.81	143.57
009119568-02	OBS	No	594.914962	203.604580	218.9	1.450	16.0	2.1	0.83	5258	1.49	0.28
009119568-03	OBS	No	595.202594	202.958220	231.5	3.708	16.2	2.0	0.83	5258	1.56	0.28
009119568-04	OBS	3087.02	1.221848	131.916069	23.8	7.385	7.5	10.5	0.83	5258	0.40	1079.64
009119568-05	OBS	No	94.236684	152.728762	168.6	1.213	21.8	3.0	0.83	5258	1.06	3.29
009119568-07	OBS	No	95.648610	204.188265	304.7	3.255	16.4	6.6	0.83	5258	1.58	3.22
009119568-08	OBS	No	62.099321	174.458969	58.4	1.823	15.5	1.6	0.83	5258	0.64	5.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009119568-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
009119568-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-04	OBS	FP	0.00	1	0	0	0	LPP_DV
009119568-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
009119568-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
009119568-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

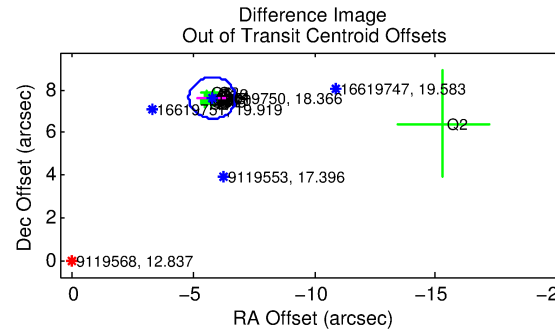
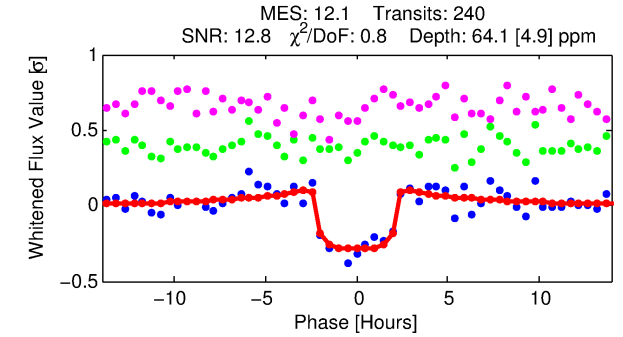
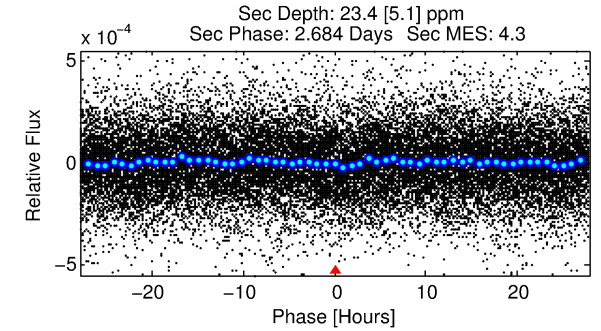
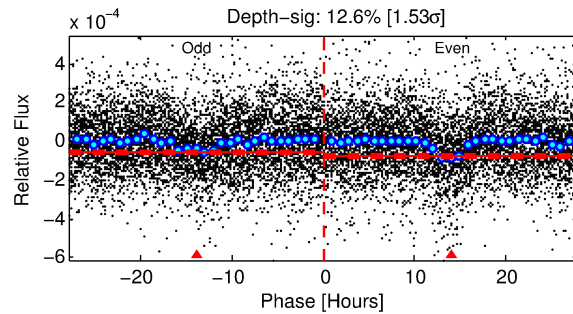
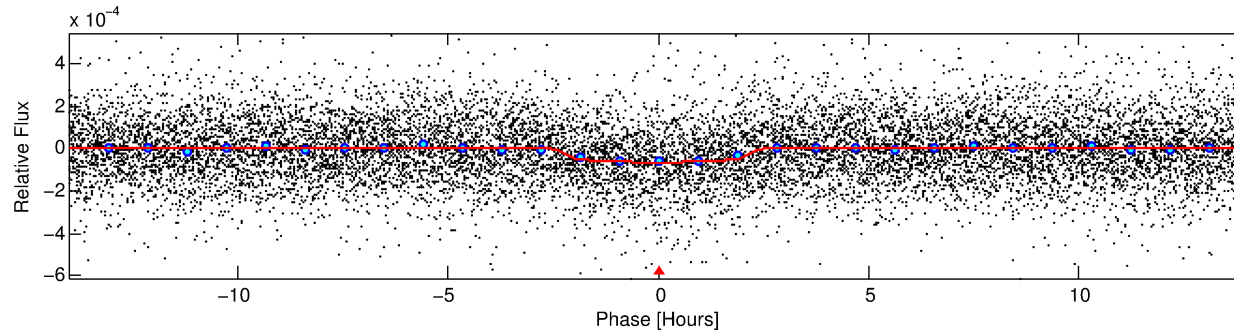
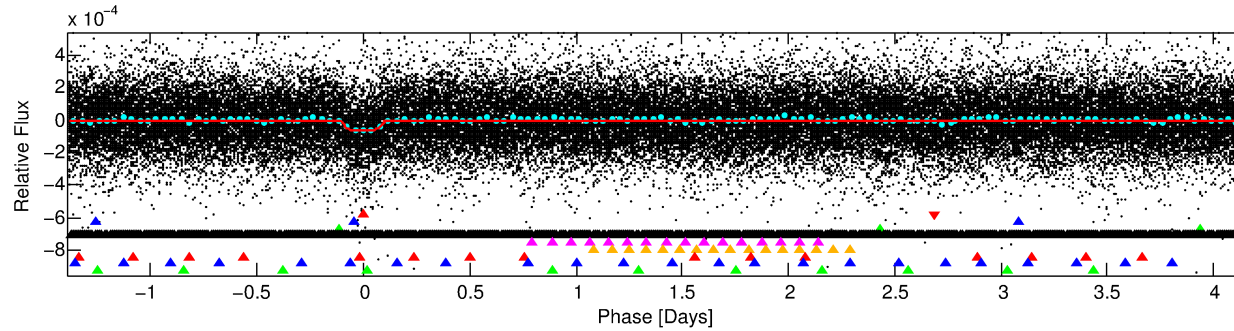
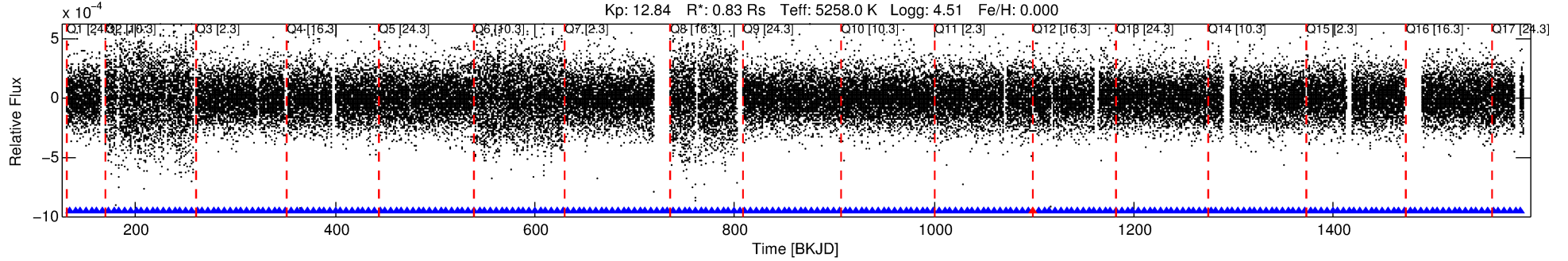
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009119568-01

No Significant Match Found

DV One-Page Summary

KIC: 9119568 Candidate: 1 of 9 Period: 5.549 d
KOI: K03087.01 Corr: 0.962



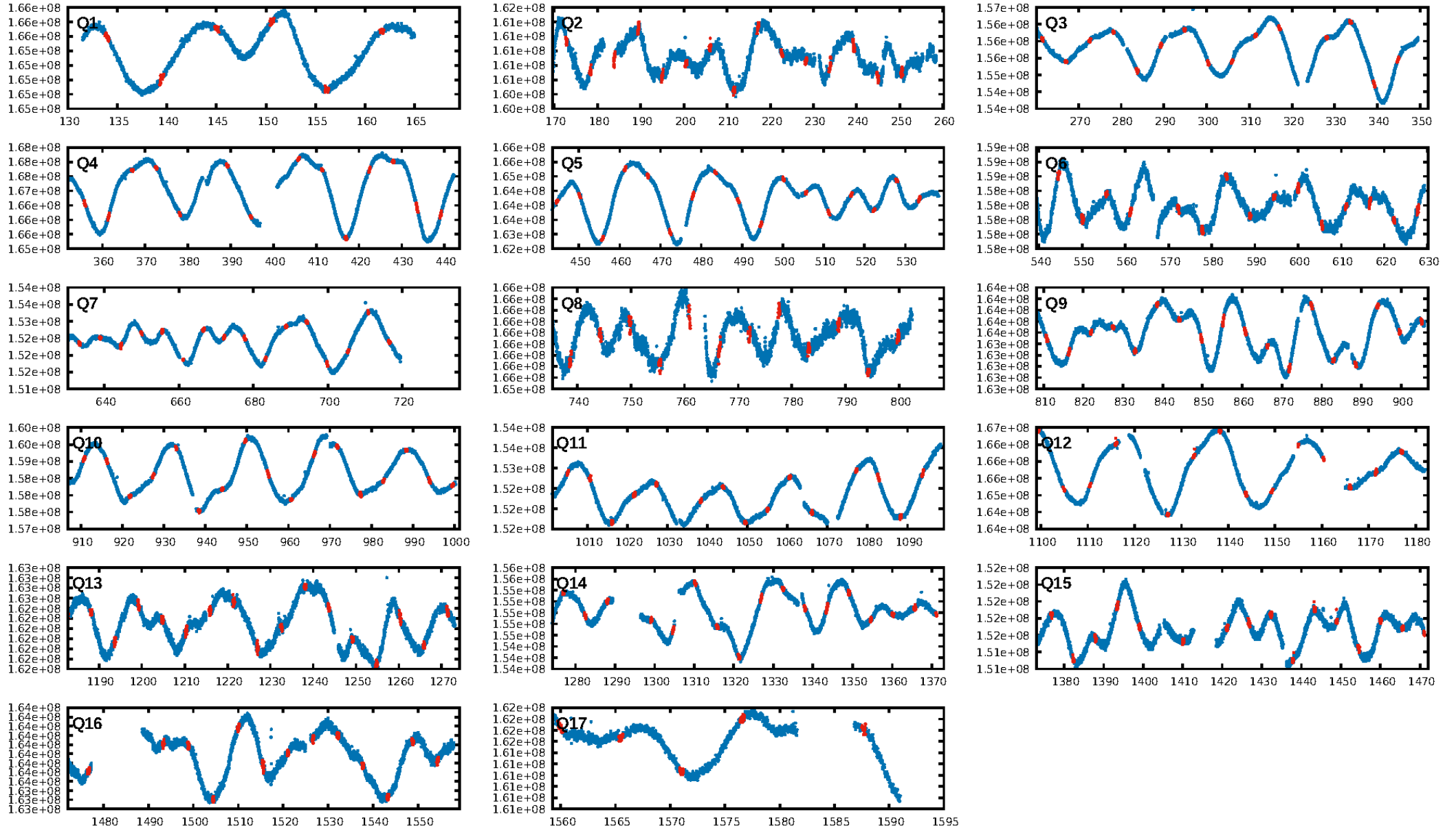
DV Fit Results:

Period = 5.54860 [0.00003] d
Epoch = 133.9426 [0.0044] BKJD
Rp/R* = 0.0089 [0.0027]
a/R* = 4.24 [5.19]
b = 0.90 [0.28]
Seff = 143.57 [18.18]
Teq = 883 [28] K
Rp = 0.81 [0.25] Re
a = 0.0577 [0.0038] AU
Ag = 65.58 [42.77] [1.51 σ]
Teff = 3884 [631] K [4.75 σ]

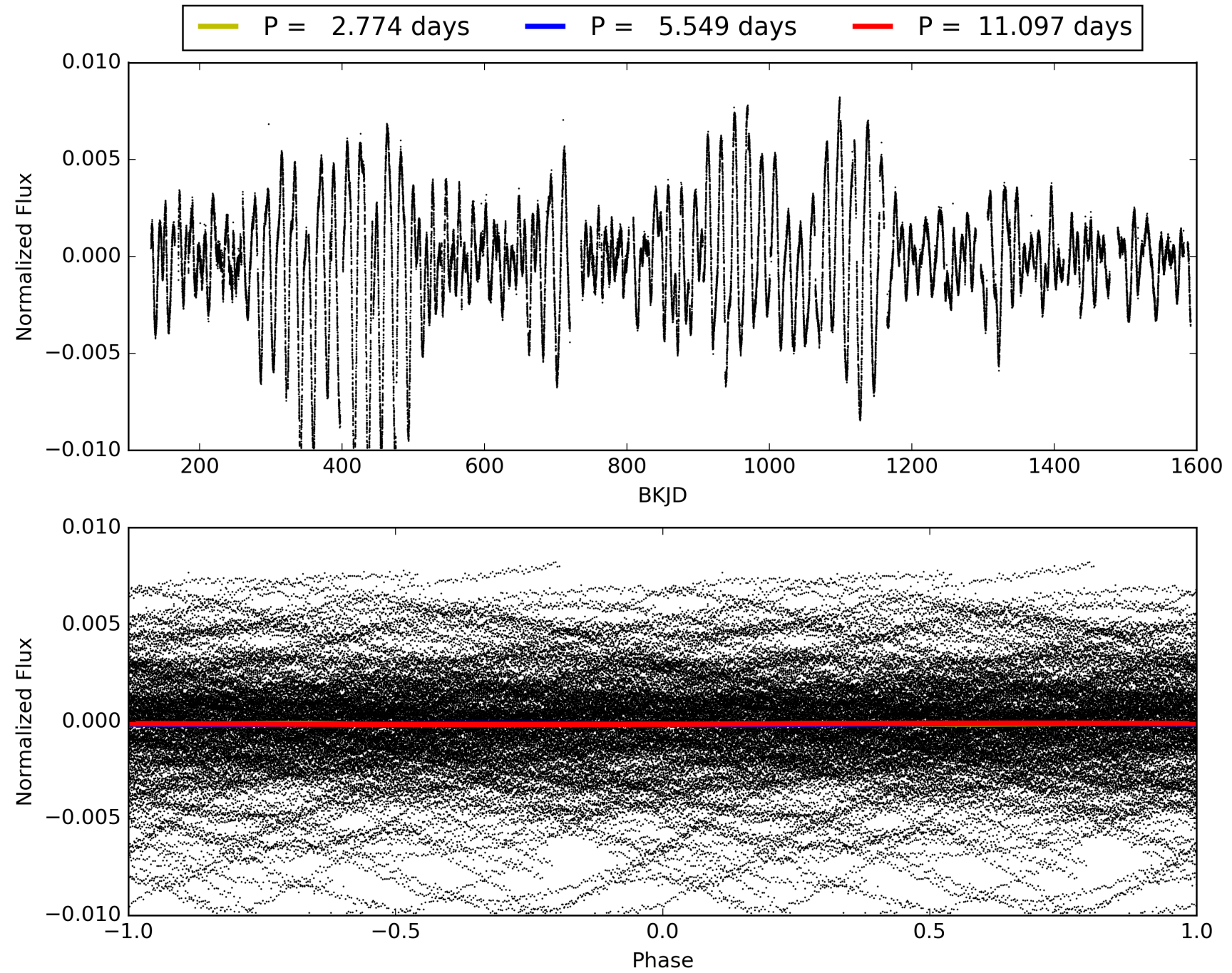
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [11.88 σ]
LongPeriod-sig: 100.0% [270.62 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [228/229]
GhostDiagnostic-chr: -0.2484
Centroid-sig: 0.0%
Centroid-so: 30.795 arcsec [35.13 σ]
OotOffset-rm: 9.571 arcsec [29.76 σ]
KicOffset-rm: 9.546 arcsec [34.26 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 0.59 [10/17]

TCE 009119568-01, PDC Light Curves

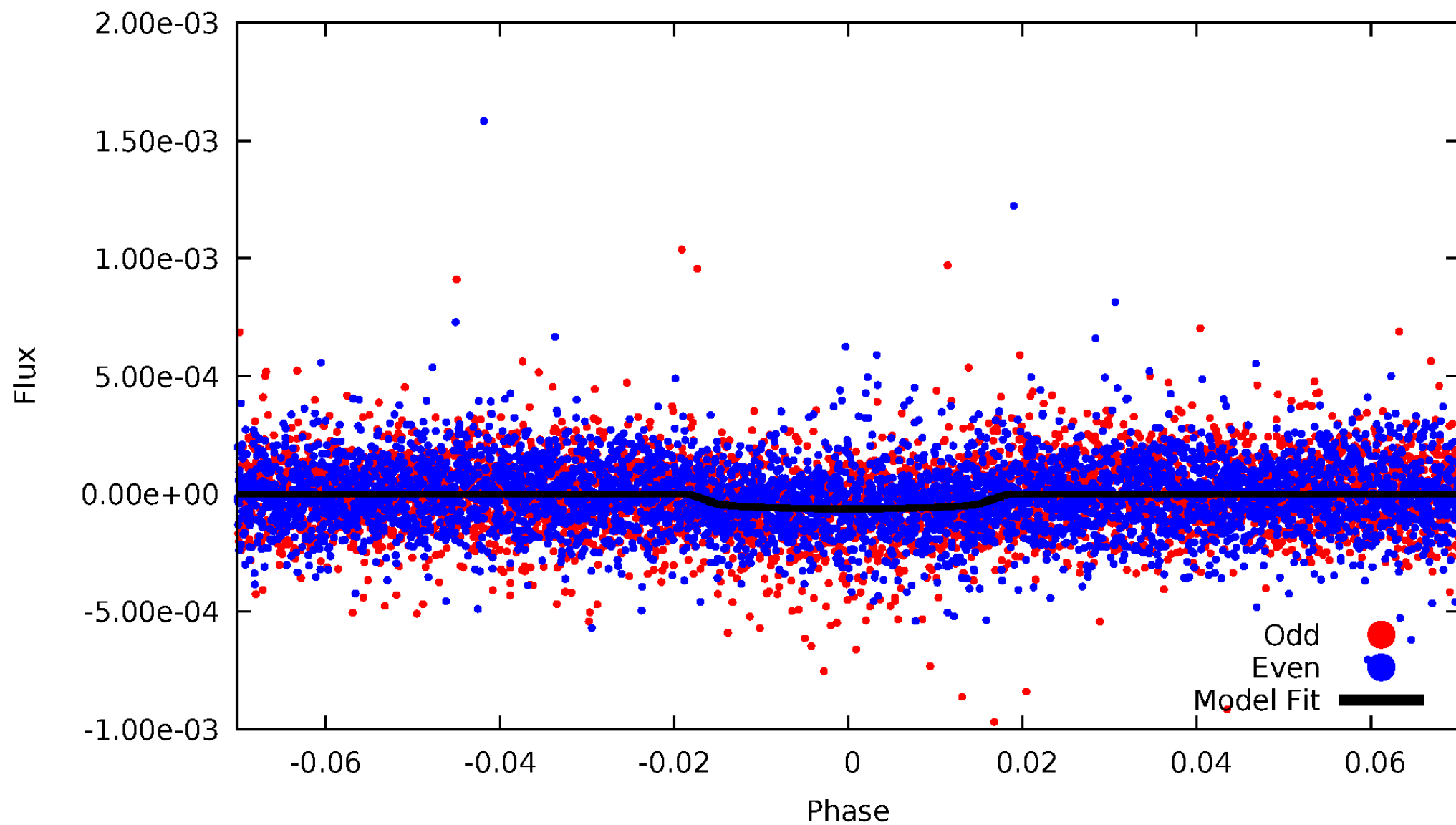


TCE 009119568-01



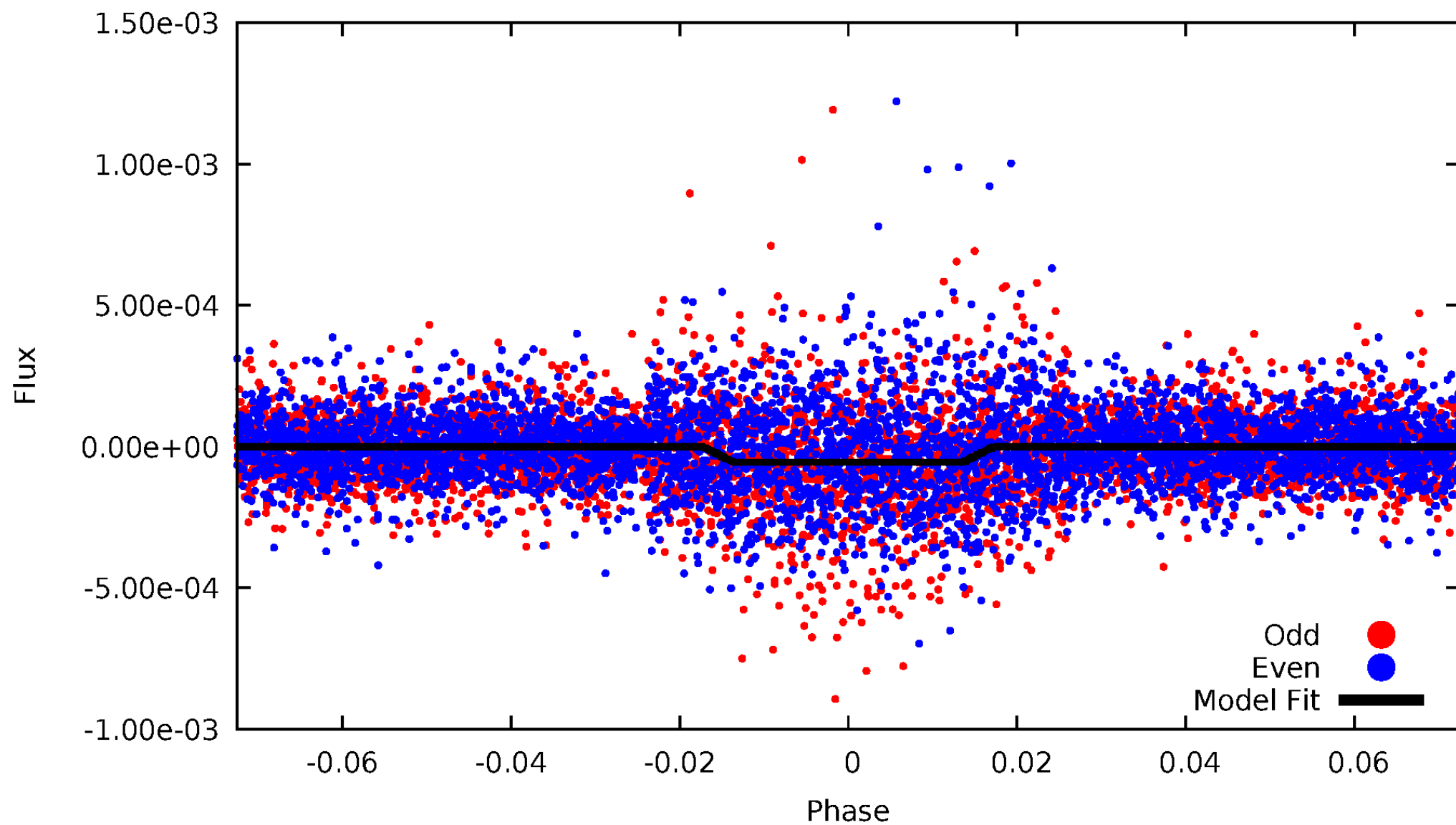
DV Odd/Even

TCE 009119568-01



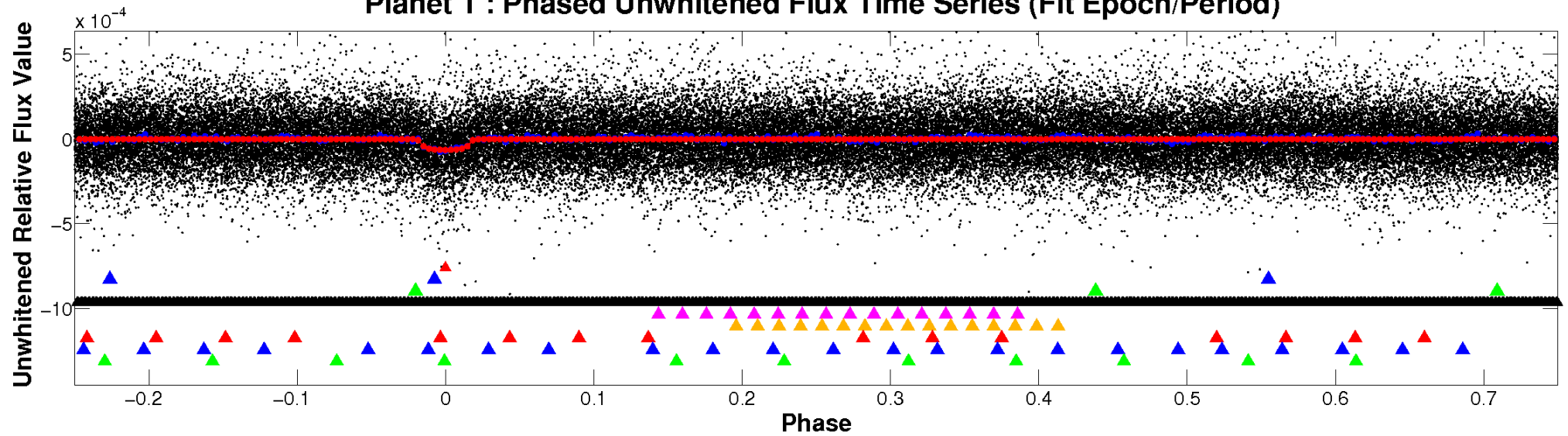
ALT Odd/Even

TCE 009119568-01

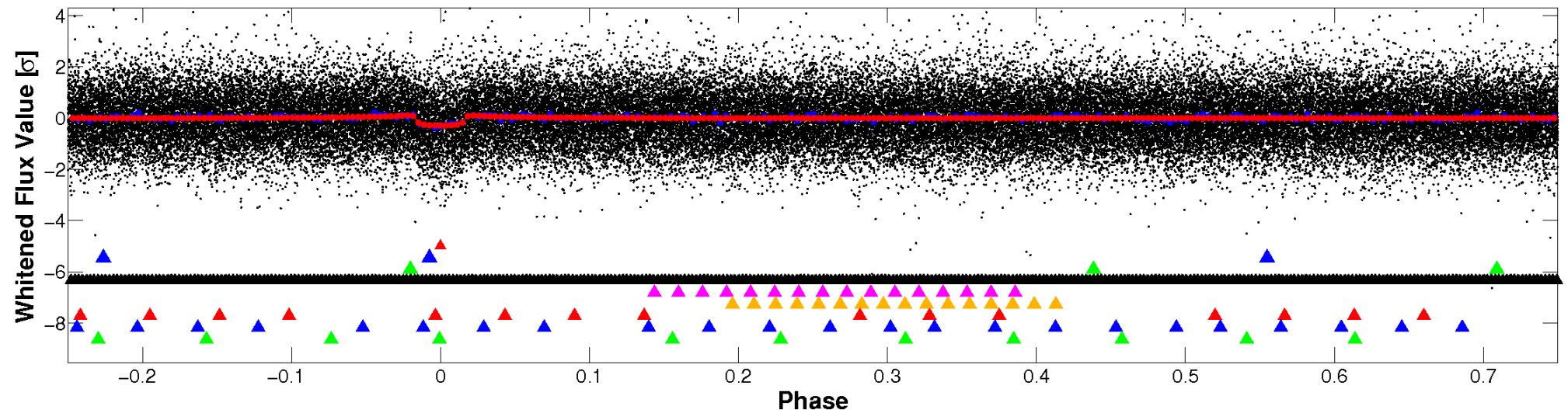


Non-Whitened Vs. Whitened Light Curve

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

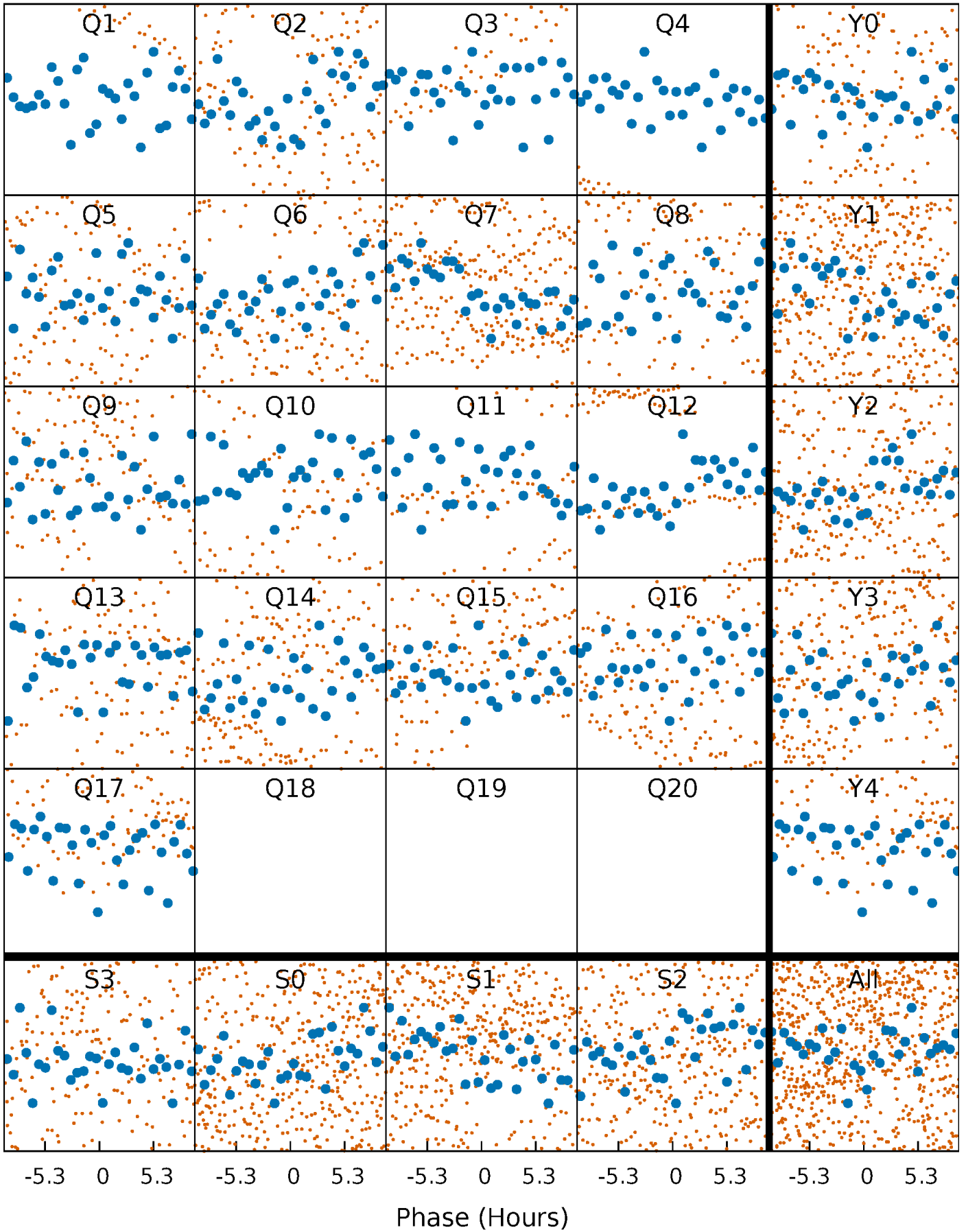


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



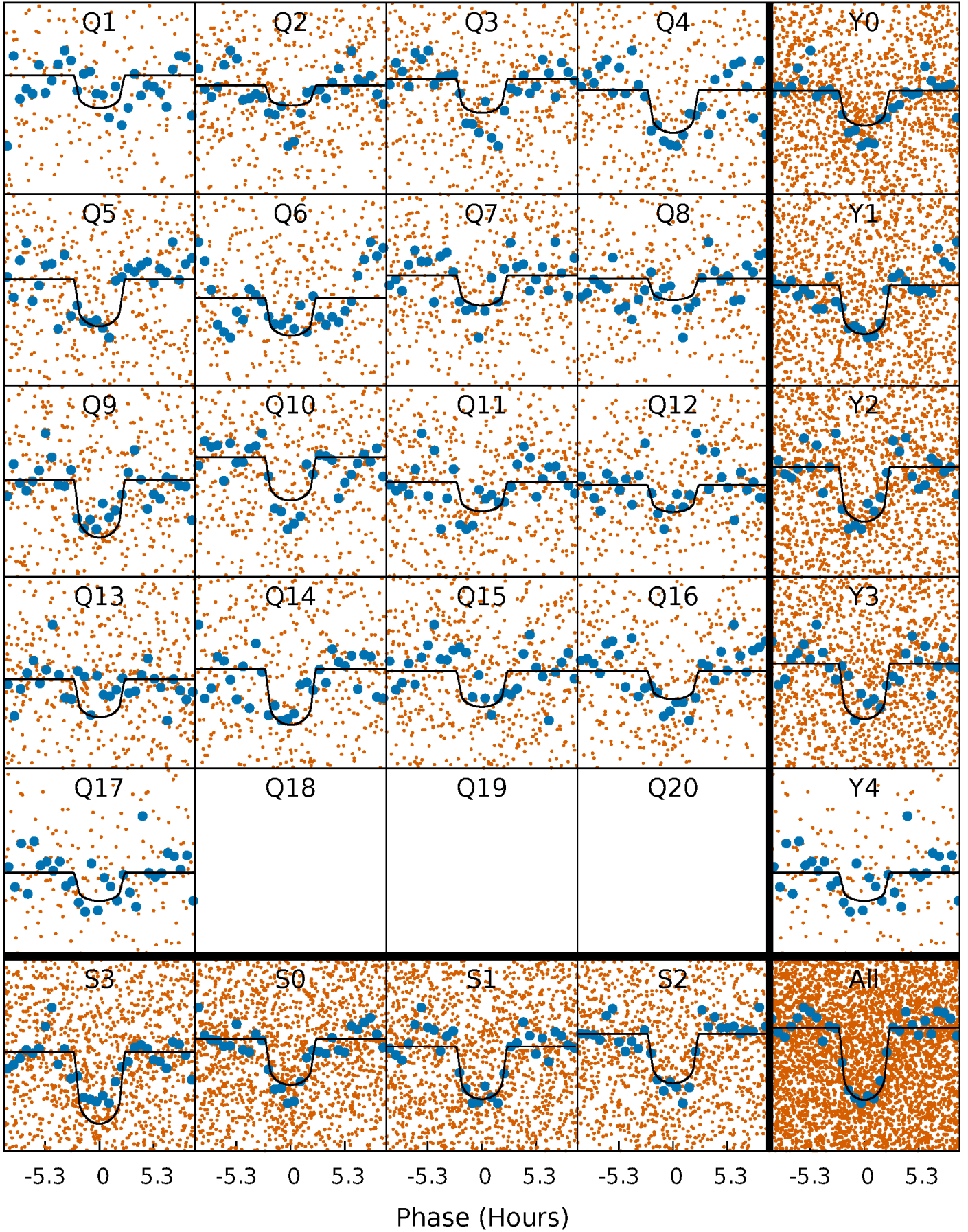
PDC Quarter-Phased Transit Curves

TCE 009119568-01 P= 5.548603 Days $T_0=133.942592$ (BKJD)



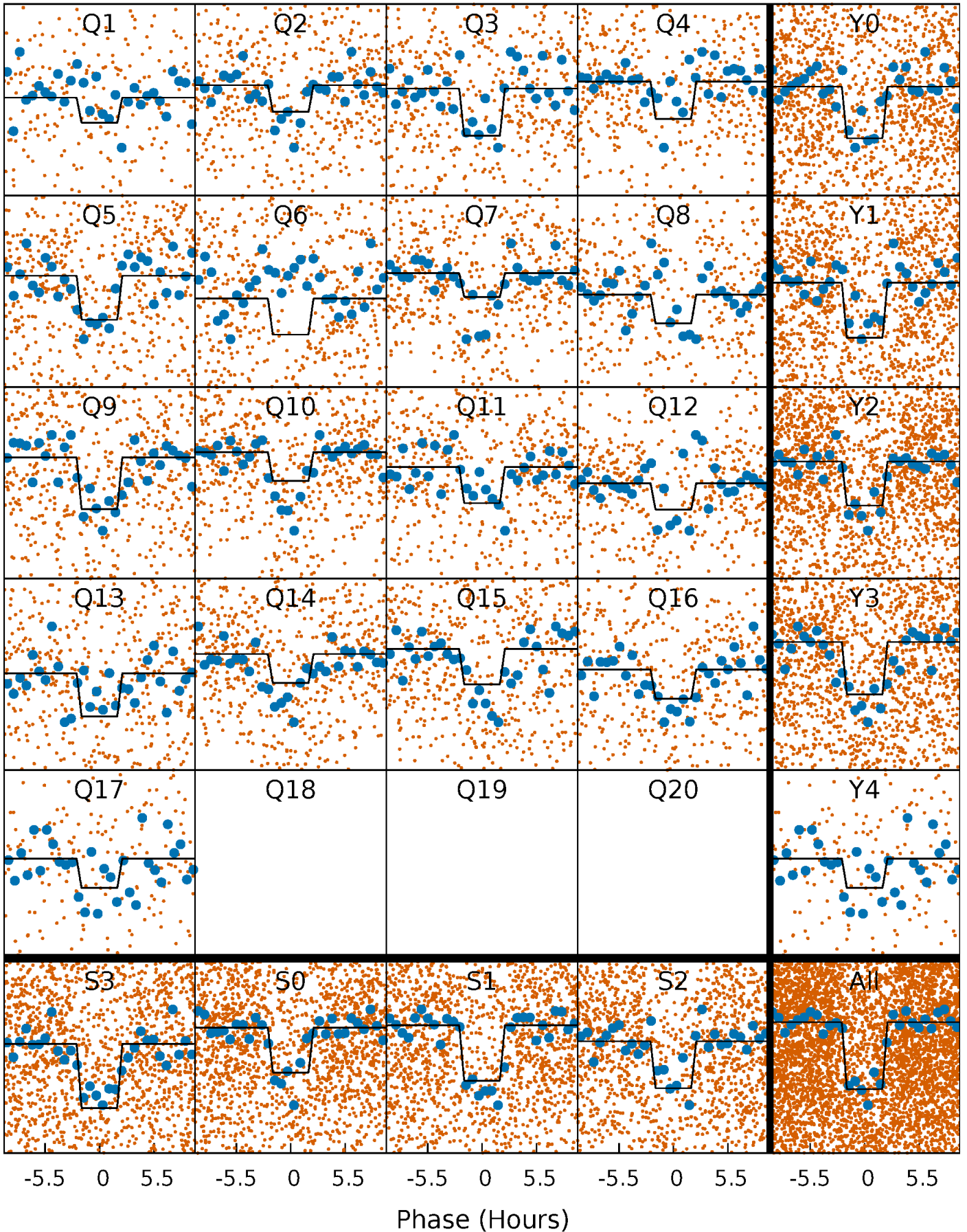
DV Quarter-Phased Transit Curves

TCE 009119568-01 P= 5.548603 Days $T_0=133.942592$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

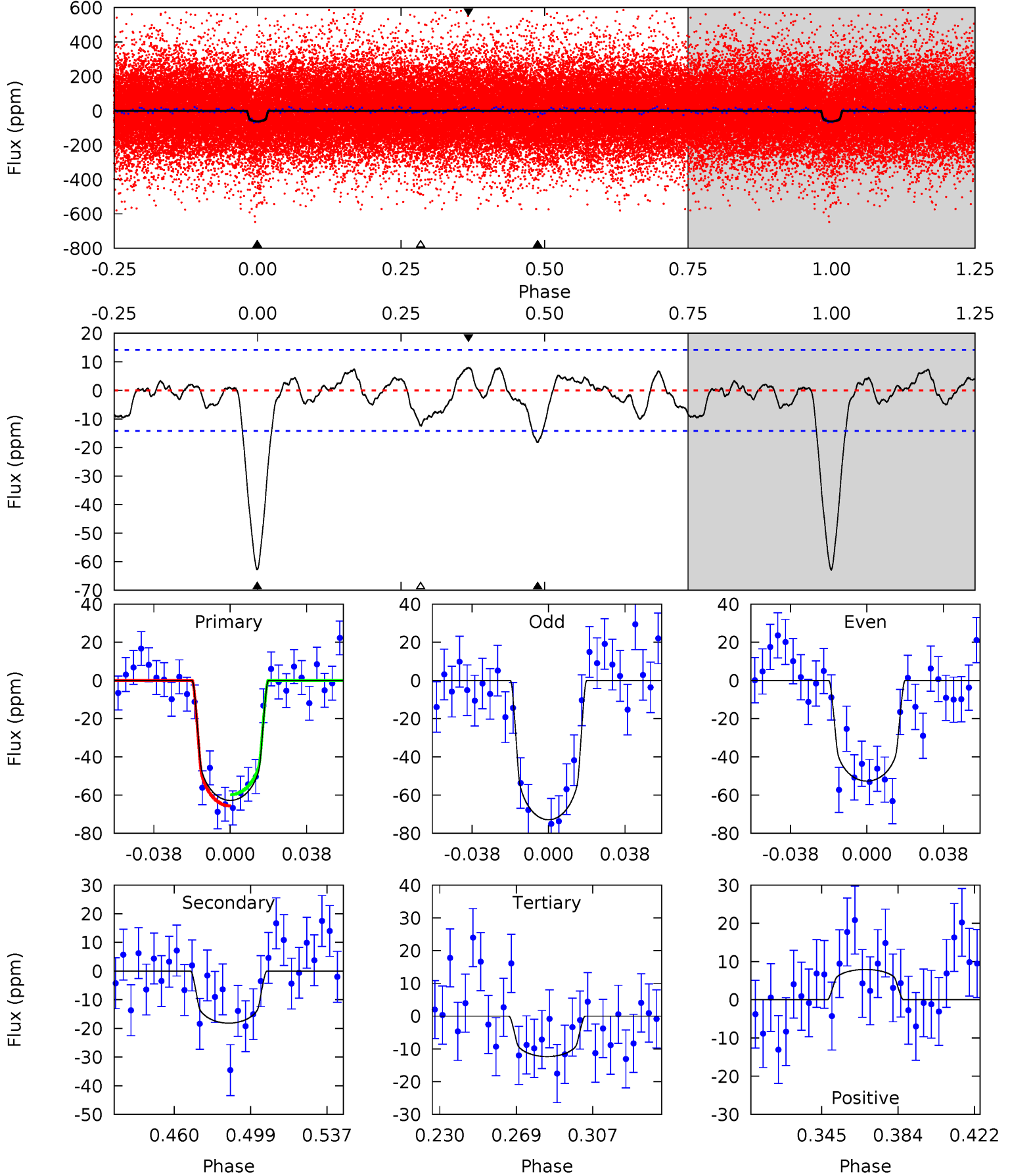
TCE 009119568-01 P= 5.548634 Days $T_0=133.935383$ (BKJD)



DV Model-Shift Uniqueness Test

009119568-01, P = 5.548603 Days, E = 128.393989 Days

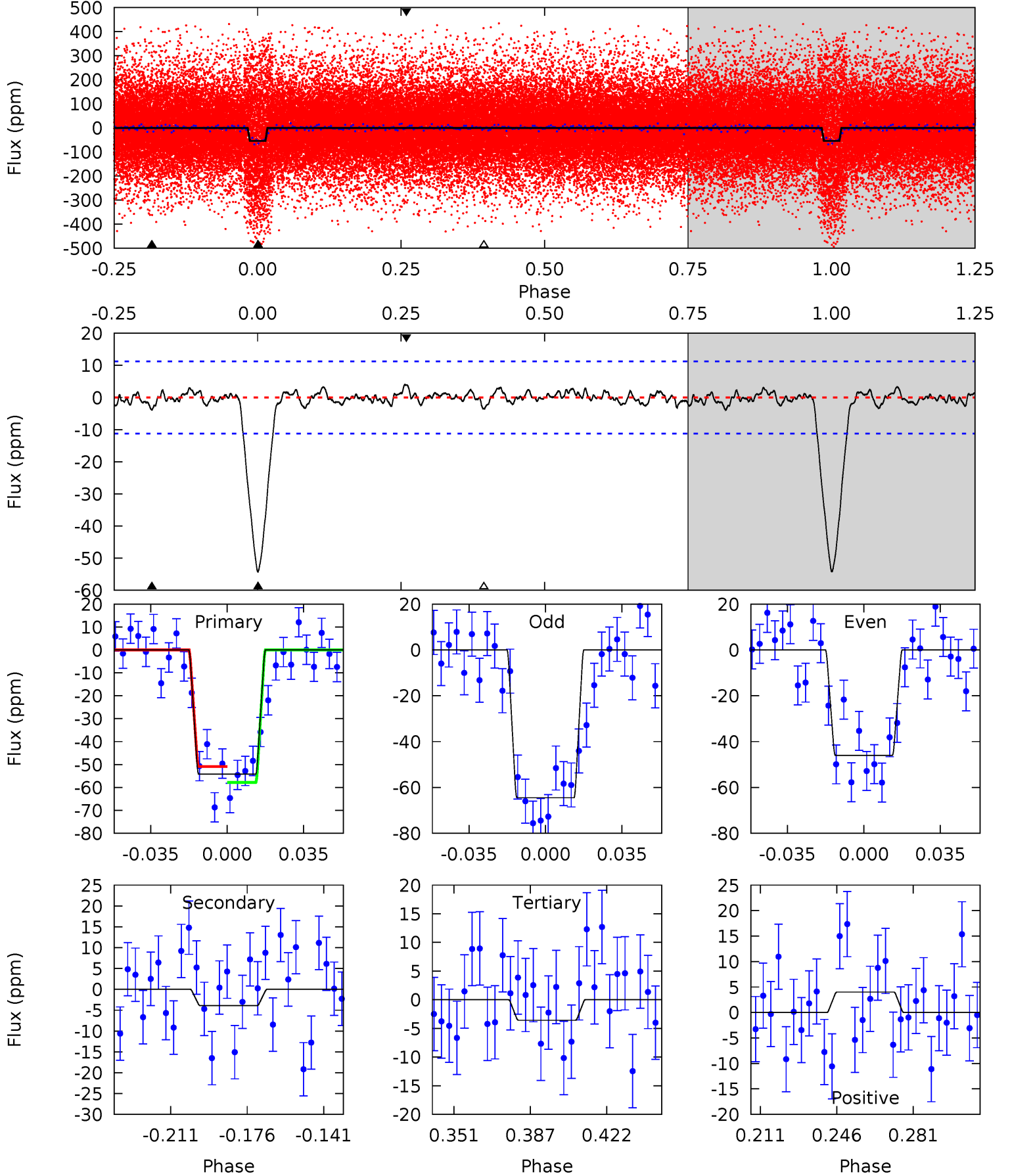
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.1	6.10	4.15	2.66	4.76	2.07	1.52	16.9	18.4	1.95	3.43	3.41	1.07	0.11	0.99



Alt Model-Shift Uniqueness Test

009119568-01, P = 5.548634 Days, E = 128.386749 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.1	1.66	1.53	1.70	4.78	2.11	0.60	21.5	21.4	0.13	-0.04	3.95	0.83	0.07	1.47



Stellar Parameters For KIC 009119568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5258^{+105}_{-105}	$4.514^{+0.055}_{-0.055}$	$0.000^{+0.150}_{-0.150}$	$0.835^{+0.063}_{-0.057}$	$0.831^{+0.053}_{-0.042}$	$2.010^{+0.449}_{-0.336}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+8%/-7%	+6%/-5%	+22%/-17%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 009119568-01 / KOI 3087.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18 ± 3	$0.80^{+0.25}_{-0.24}$	1233^{+36}_{-35}	3945^{+600}_{-347}	51^{+58}_{-22}
Alt.	-4 ± 2	$0.67^{+0.26}_{-0.23}$	1231^{+35}_{-33}	3250^{+513}_{-502}	16^{+24}_{-11}

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 $A_{obs} \gg 1.0$

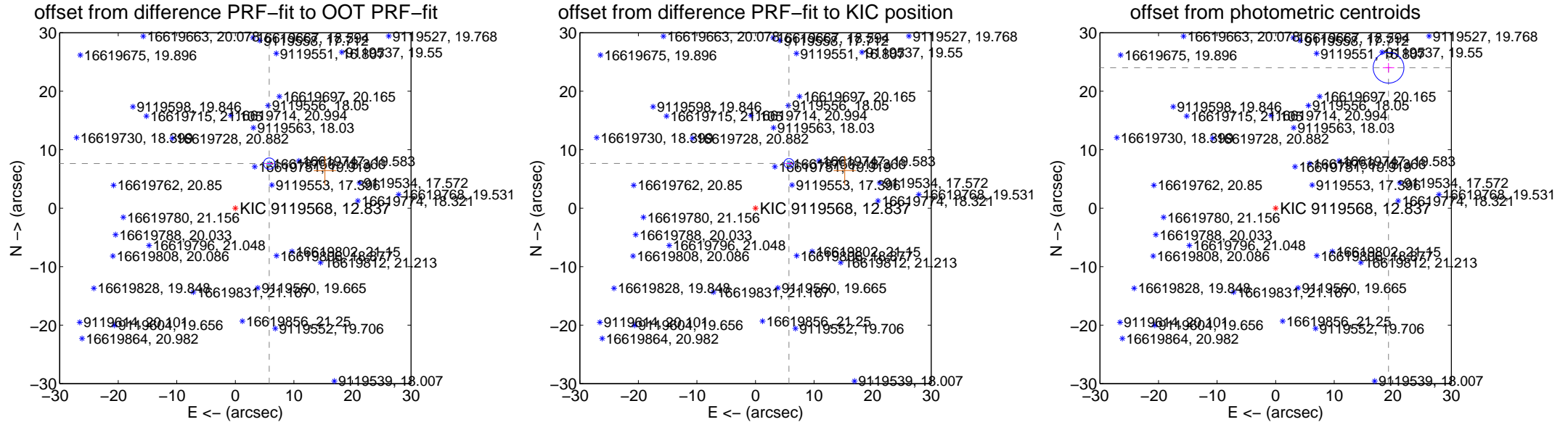
DV Centroid Data

Supplemental centroid analysis for 009119568-01. Kepler magnitude: 12.84. Transit SNR 12.80

There are 15 quarters with good PRF difference image offsets

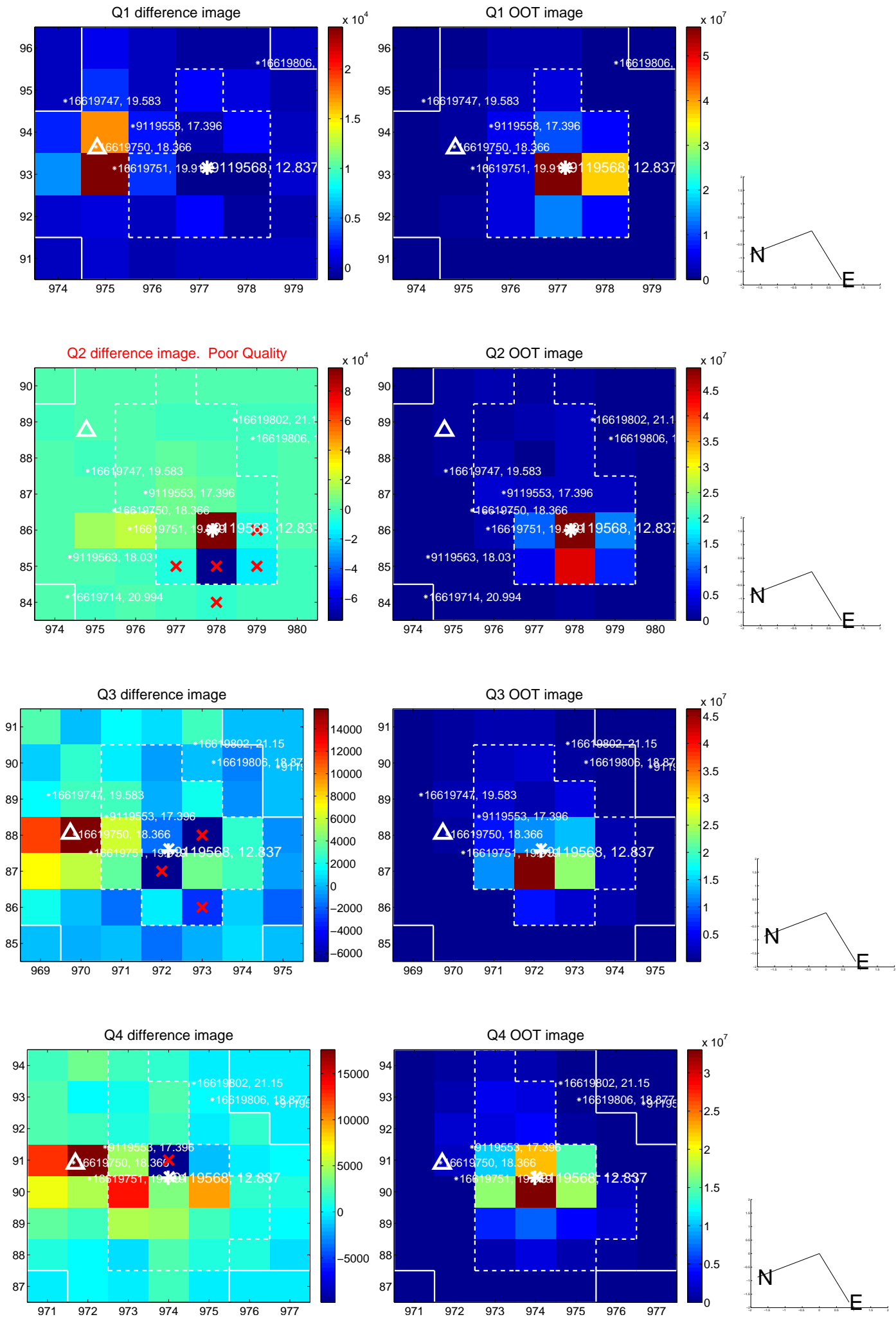
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.571 \pm 0.322	29.76	-5.786 \pm 0.615	7.625 \pm 0.106
PRF-fit source offset from KIC position	9.546 \pm 0.279	34.26	-5.711 \pm 0.537	7.650 \pm 0.104
photometric centroid source offset	30.79 \pm 0.88	35.14	-19.28 \pm 0.98	24.01 \pm 0.80

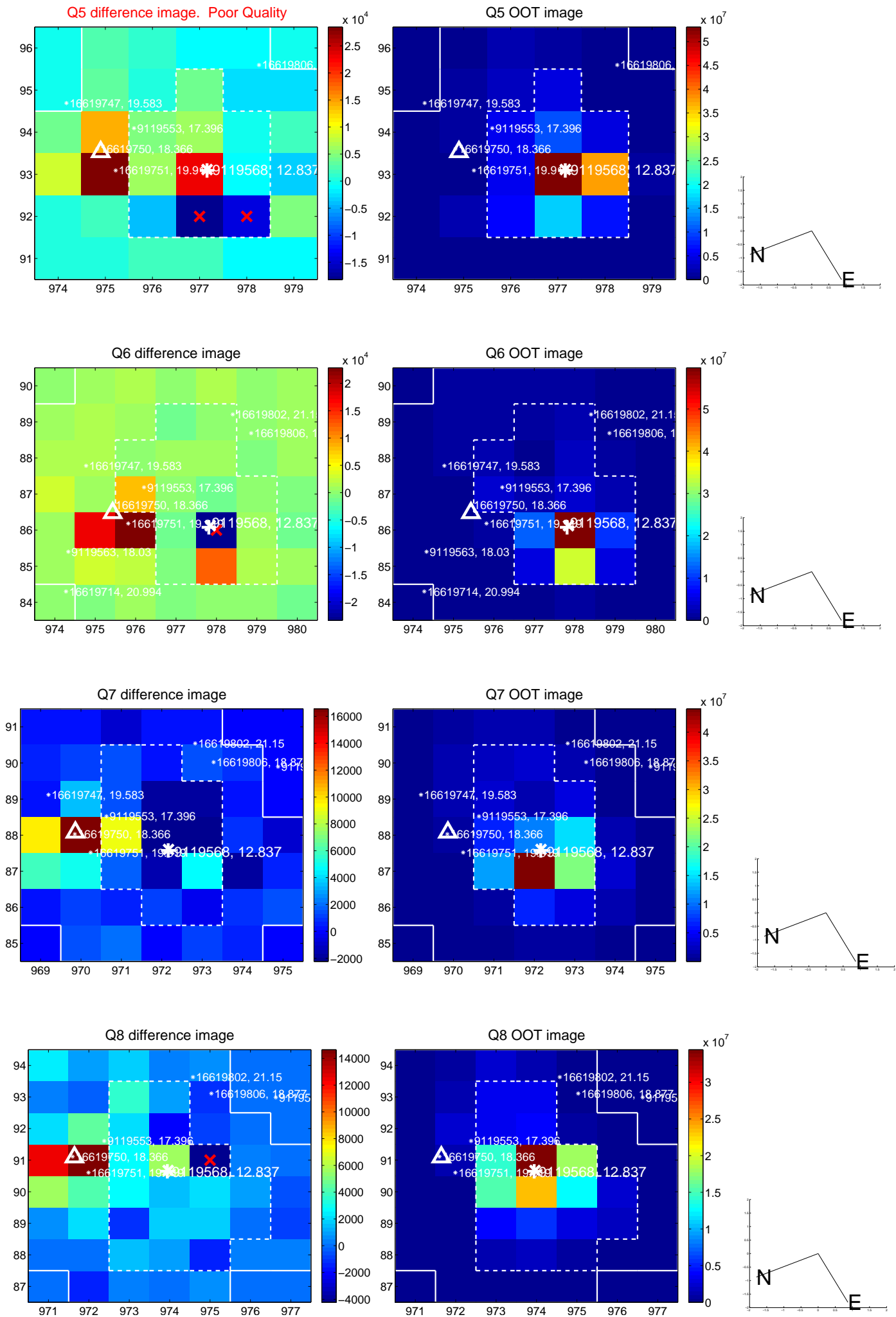


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

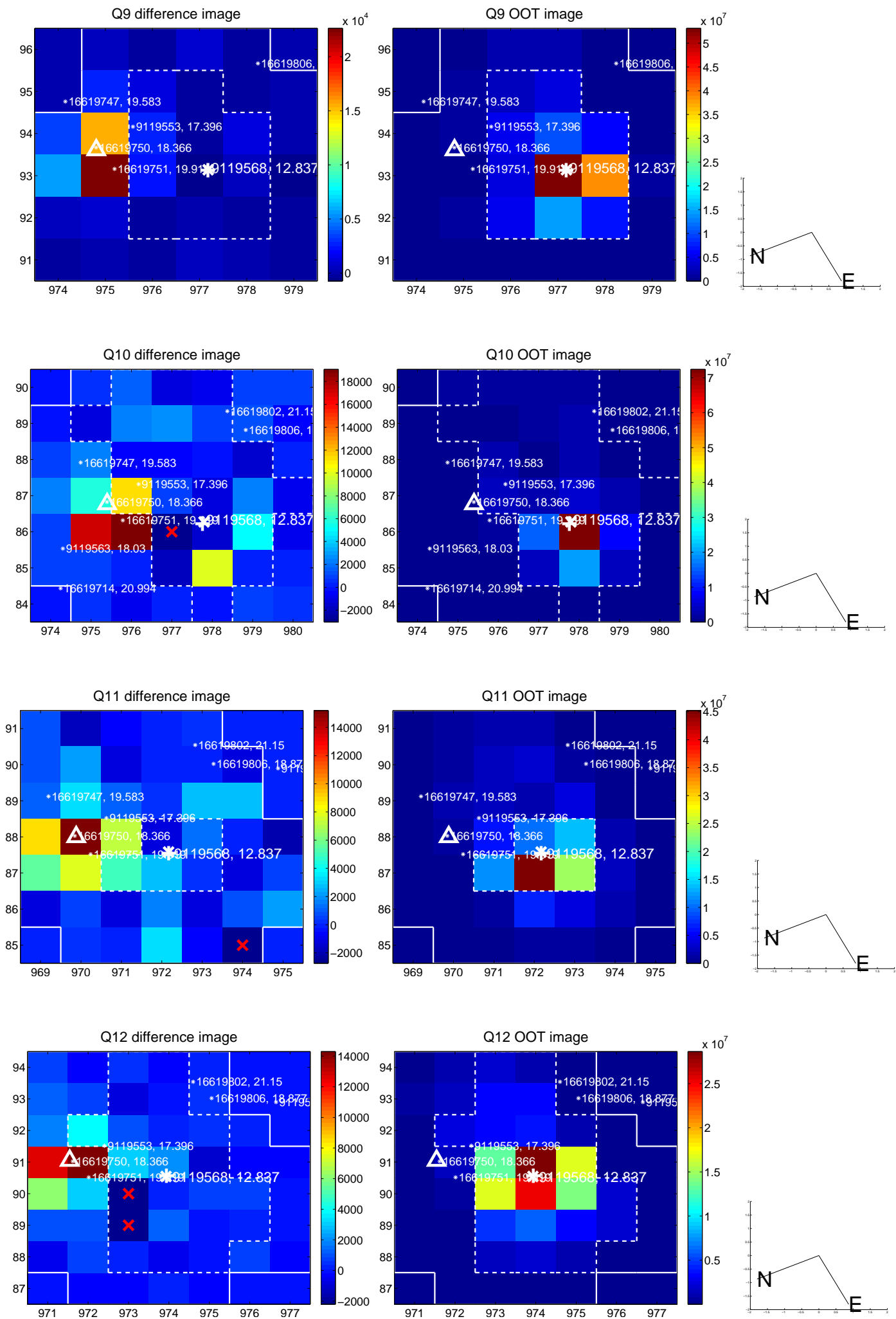
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



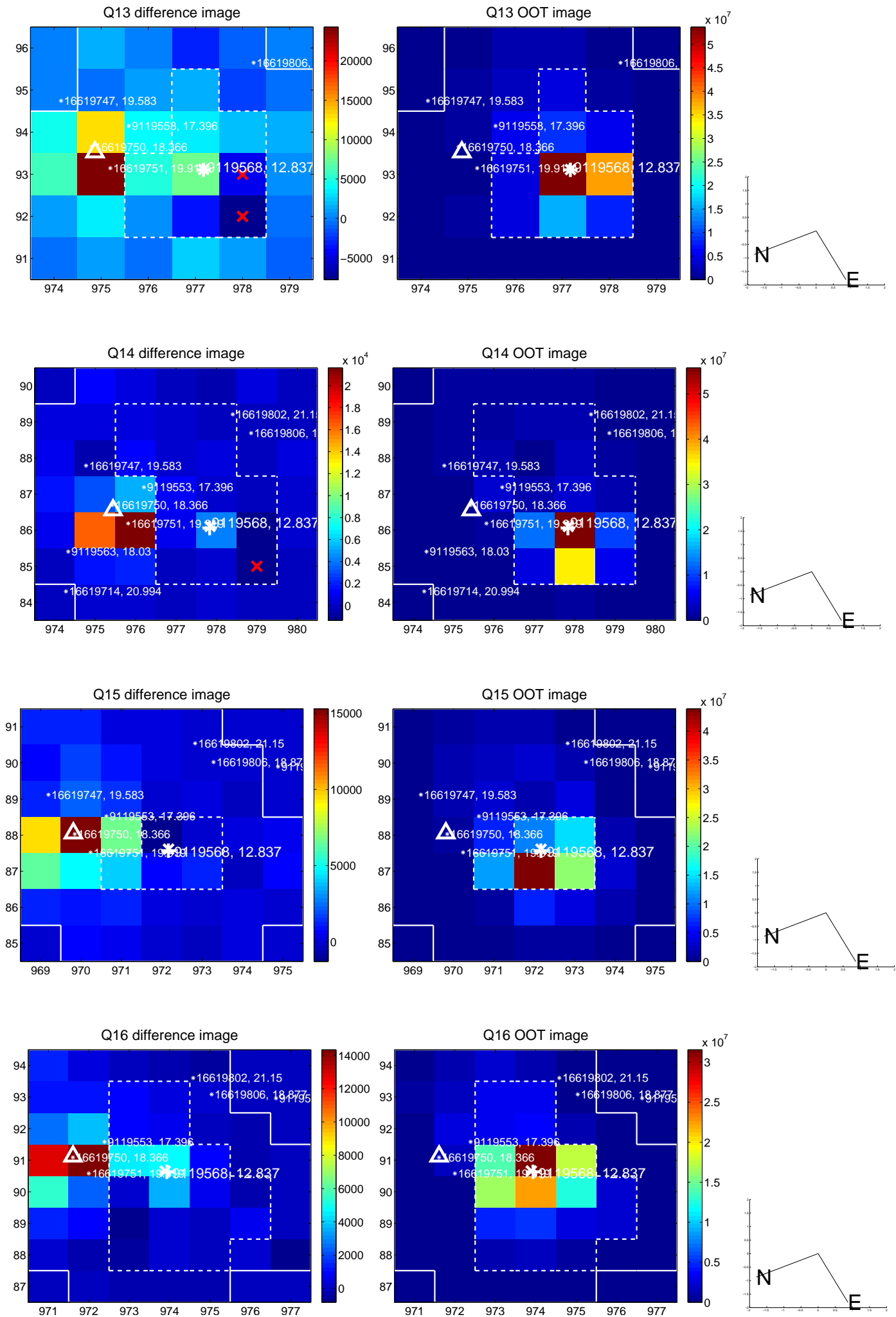
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



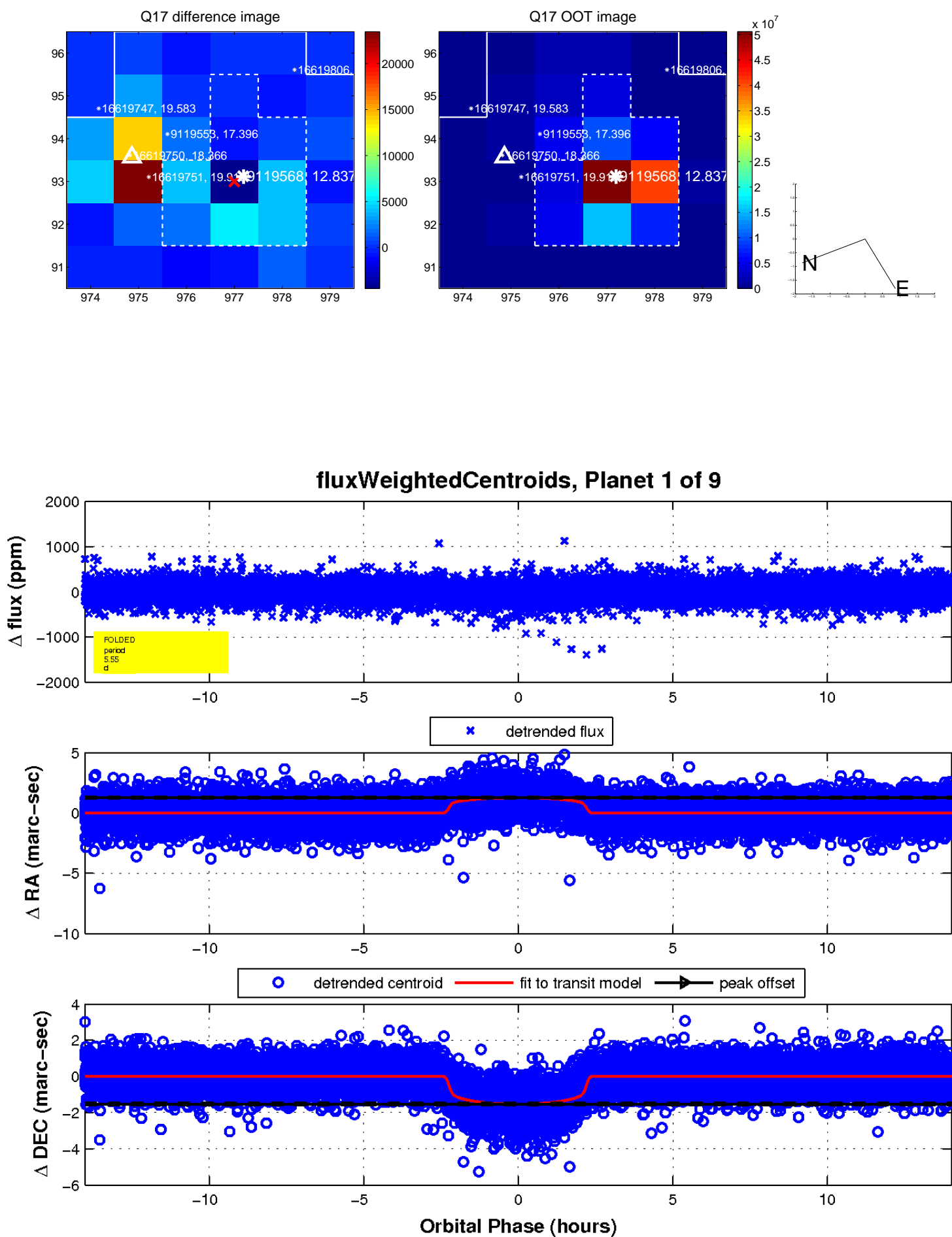
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

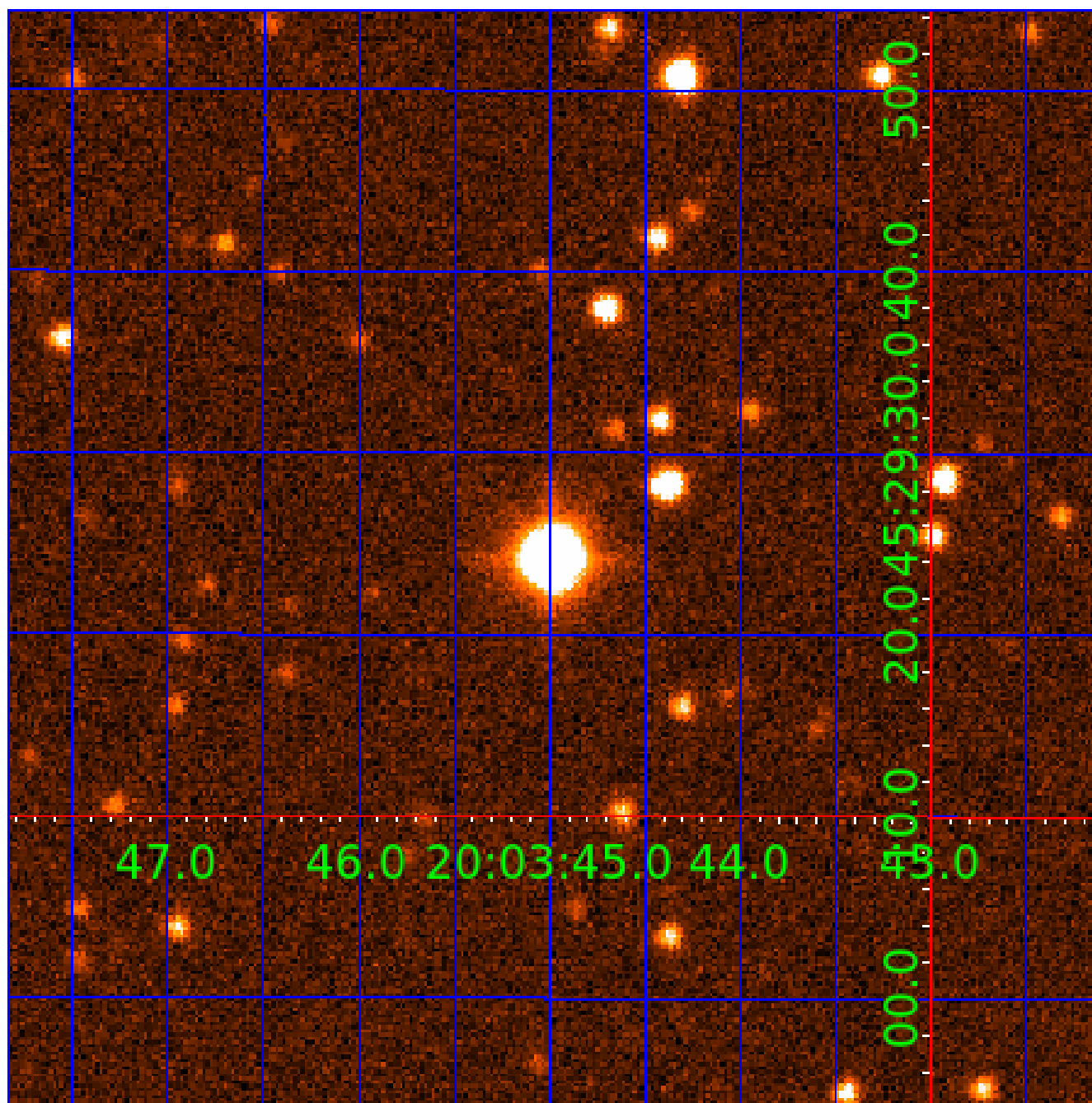


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009119568

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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009119568-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-04	OBS	FP	0.00	1	0	0	0	LPP_DV
009119568-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
009119568-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
009119568-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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.

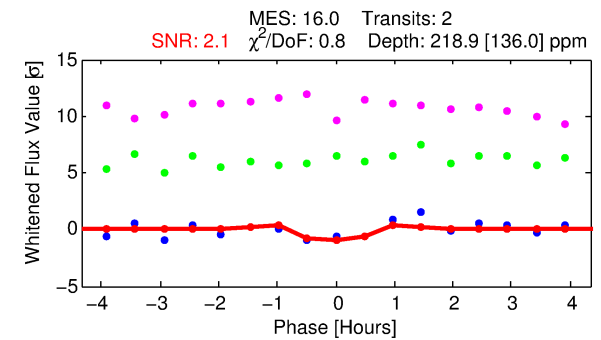
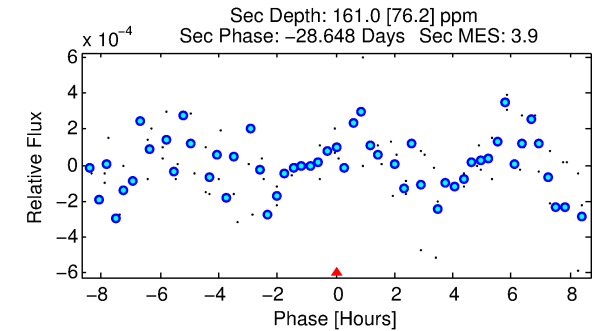
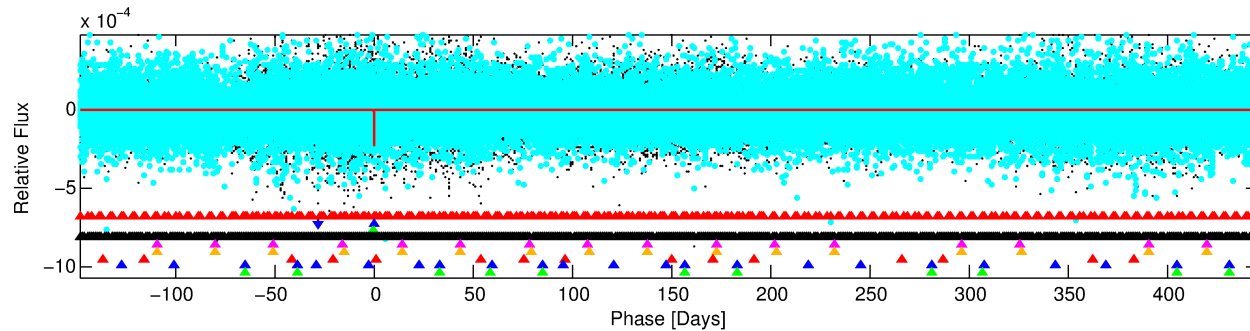
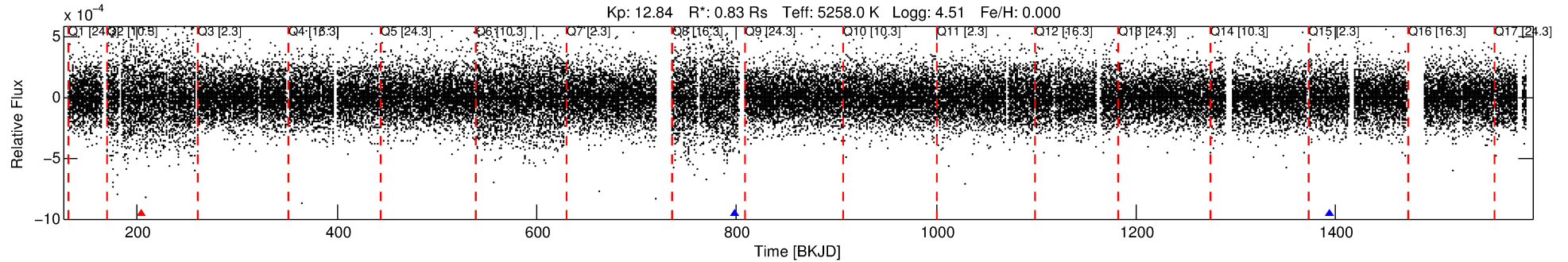
Ephemeris Match Information For 009119568-02

No Significant Match Found

DV One-Page Summary

KIC: 9119568 Candidate: 2 of 9 Period: 594.915 d

KOI: K03087 Corr: No Ephemeris Match

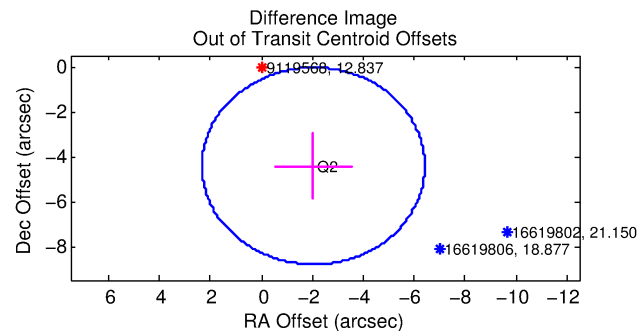
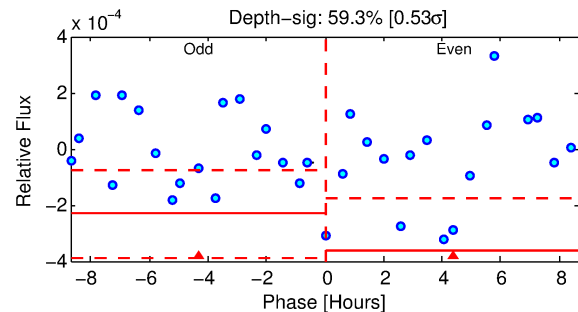
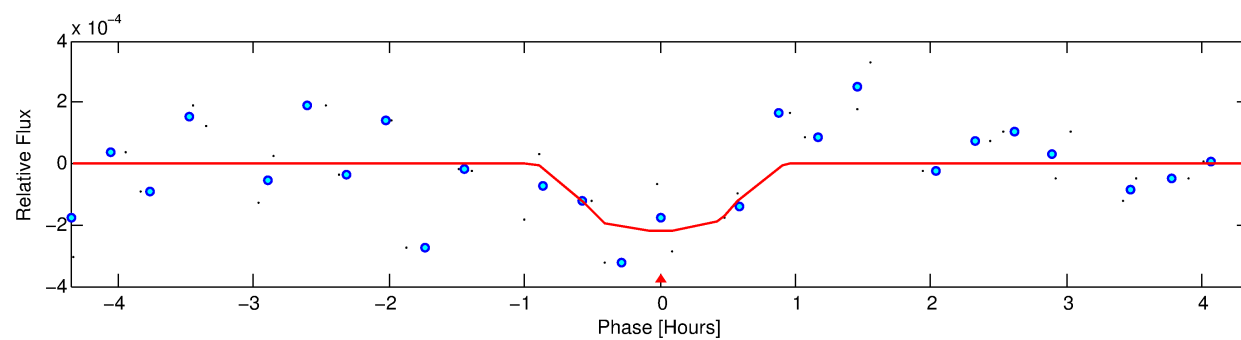


DV Fit Results:

Period = 594.91496 [0.01774] d
Epoch = 203.6046 [0.0131] BKJD
Rp/R* = 0.0163 [0.0745]
a/R* = 1530.73 [27854.69]
b = 0.89 [4.38]
Seff = 0.28 [0.04]
Teq = 186 [6] K
Rp = 1.49 [6.79] Re
a = 1.3015 [0.0855] AU
Ag = 68028.40 [622407.92] [0.11σ]
Teffp = 4639 [10611] K [0.42σ]

DV Diagnostic Results:

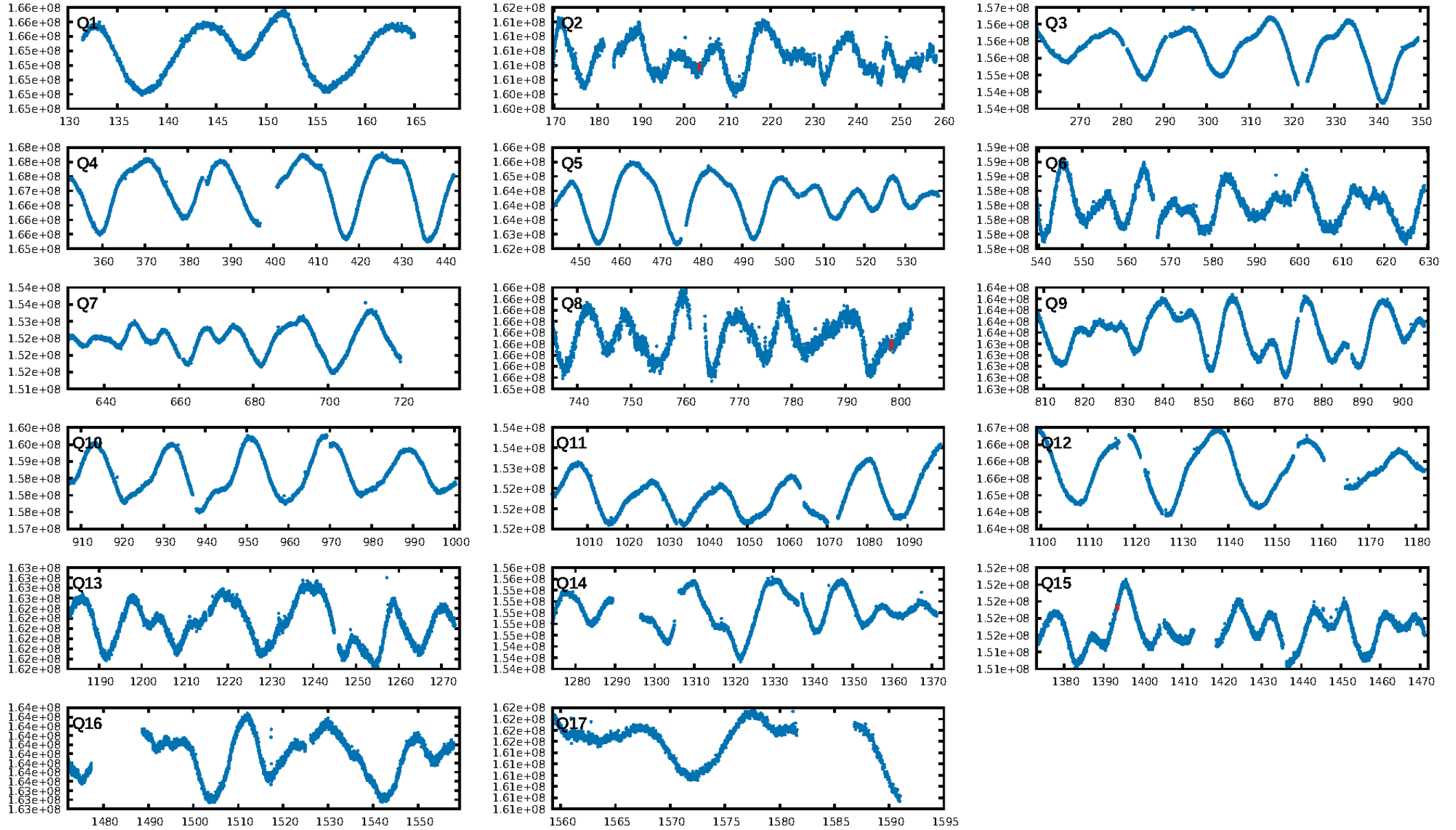
ShortPeriod-sig: 100.0% [2981.80σ]
LongPeriod-sig: 91.7% [1.73σ]
ModelChiSquare2-sig: 21.1%
ModelChiSquareGof-sig: 91.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.50 [1/2]
GhostDiagnostic-chr: -2.504
Centroid-sig: 66.5%
Centroid-so: 2.431 arcsec [0.59σ]
OotOffset-rm: 4.874 arcsec [3.34σ]
KicOffset-rm: 4.727 arcsec [3.24σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
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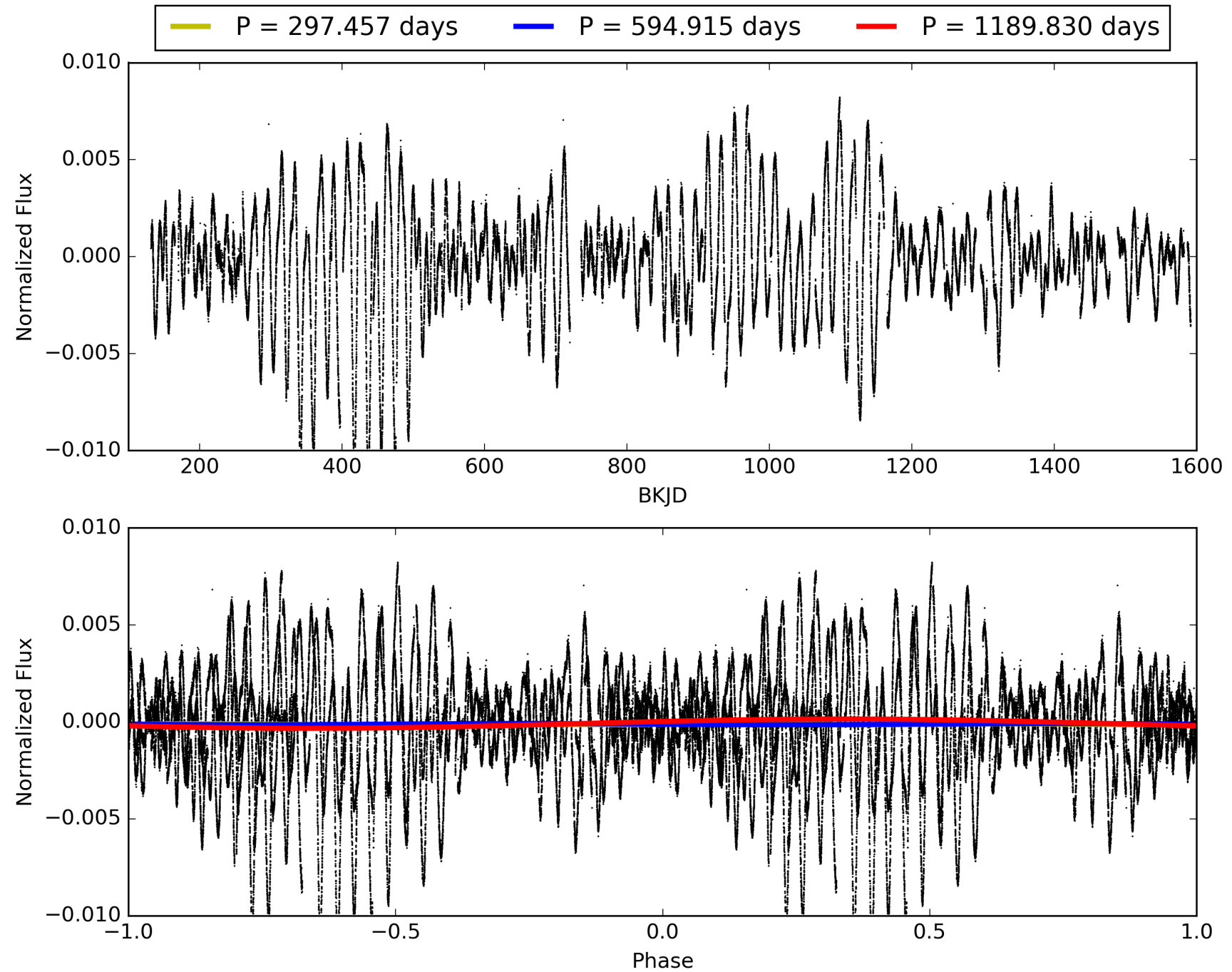
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 14:26:16 Z

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

TCE 009119568-02, PDC Light Curves

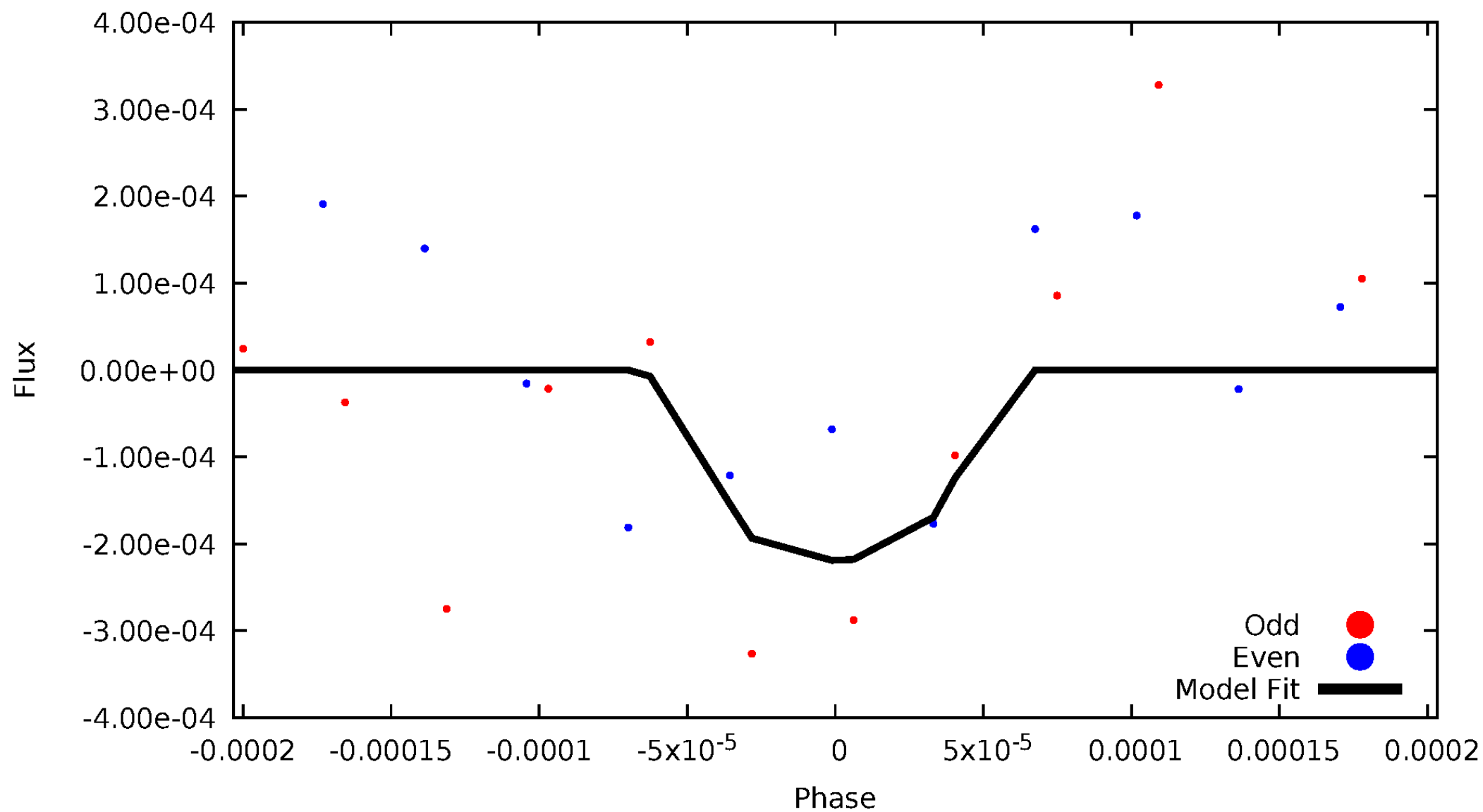


TCE 009119568-02



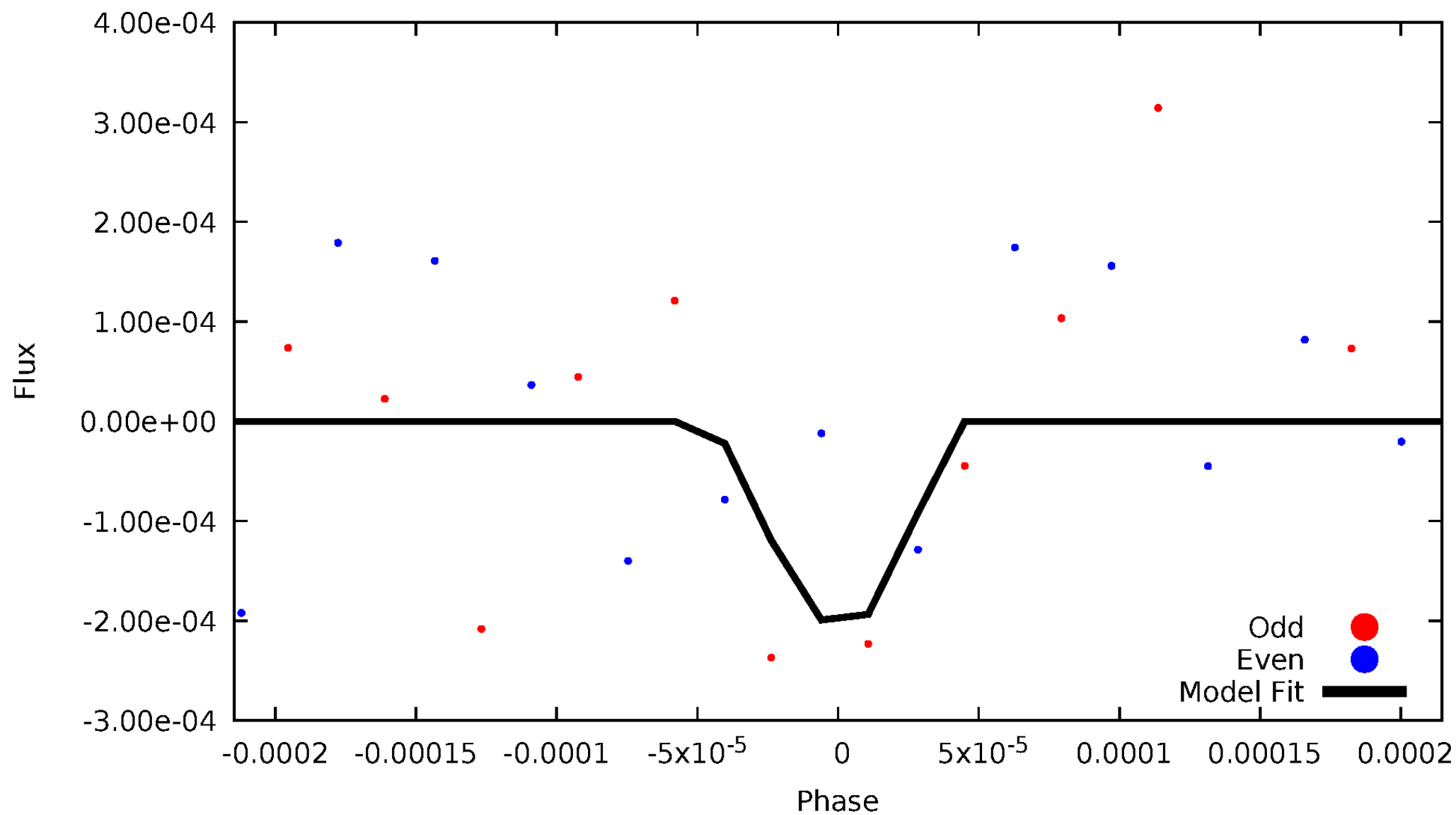
DV Odd/Even

TCE 009119568-02



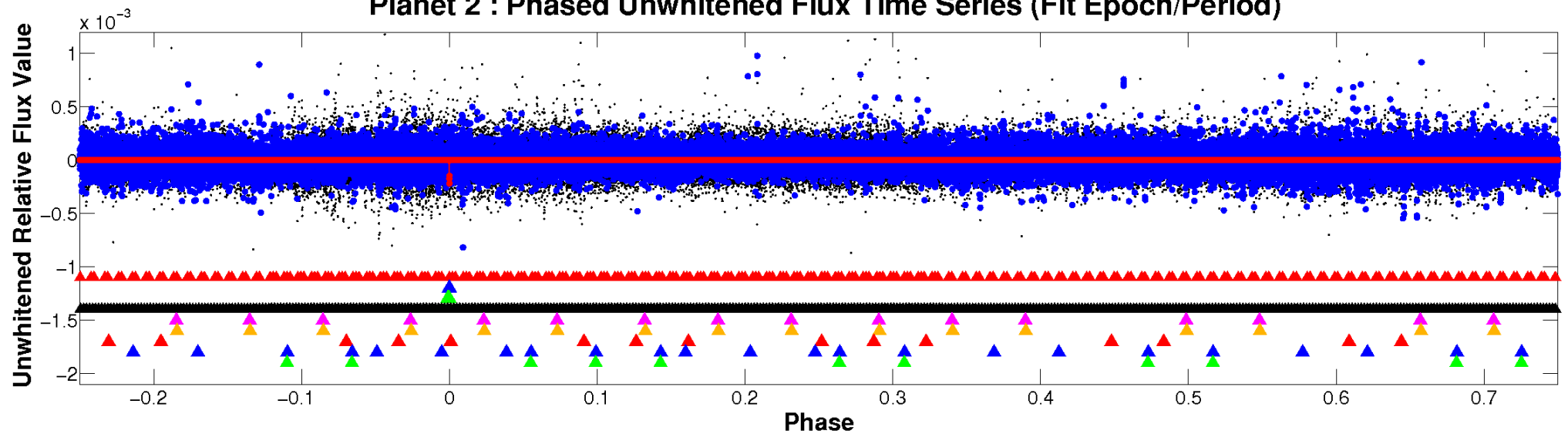
ALT Odd/Even

TCE 009119568-02

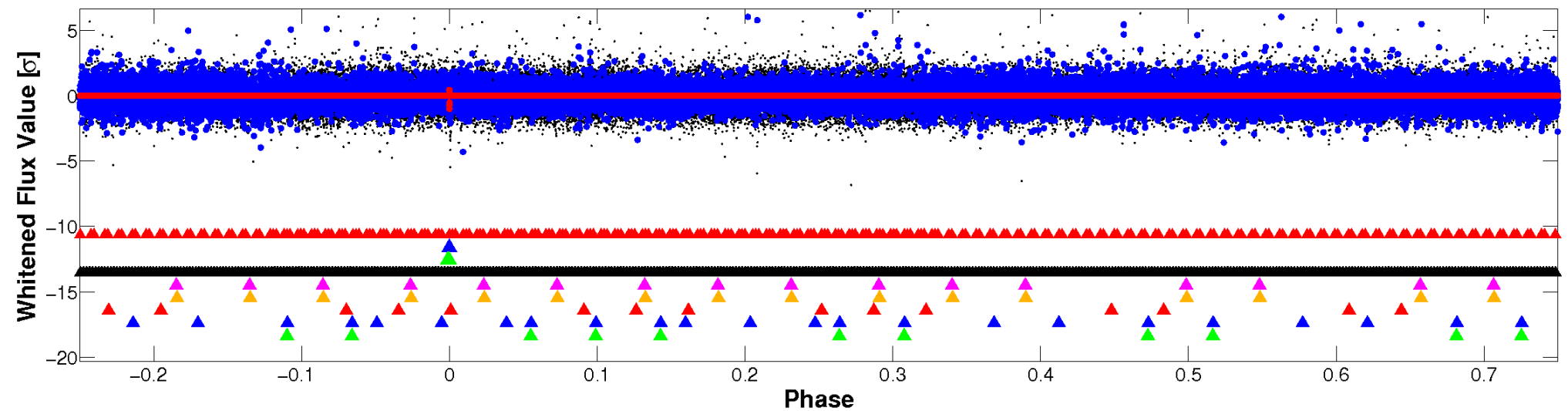


Non-Whitened Vs. Whitened Light Curve

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

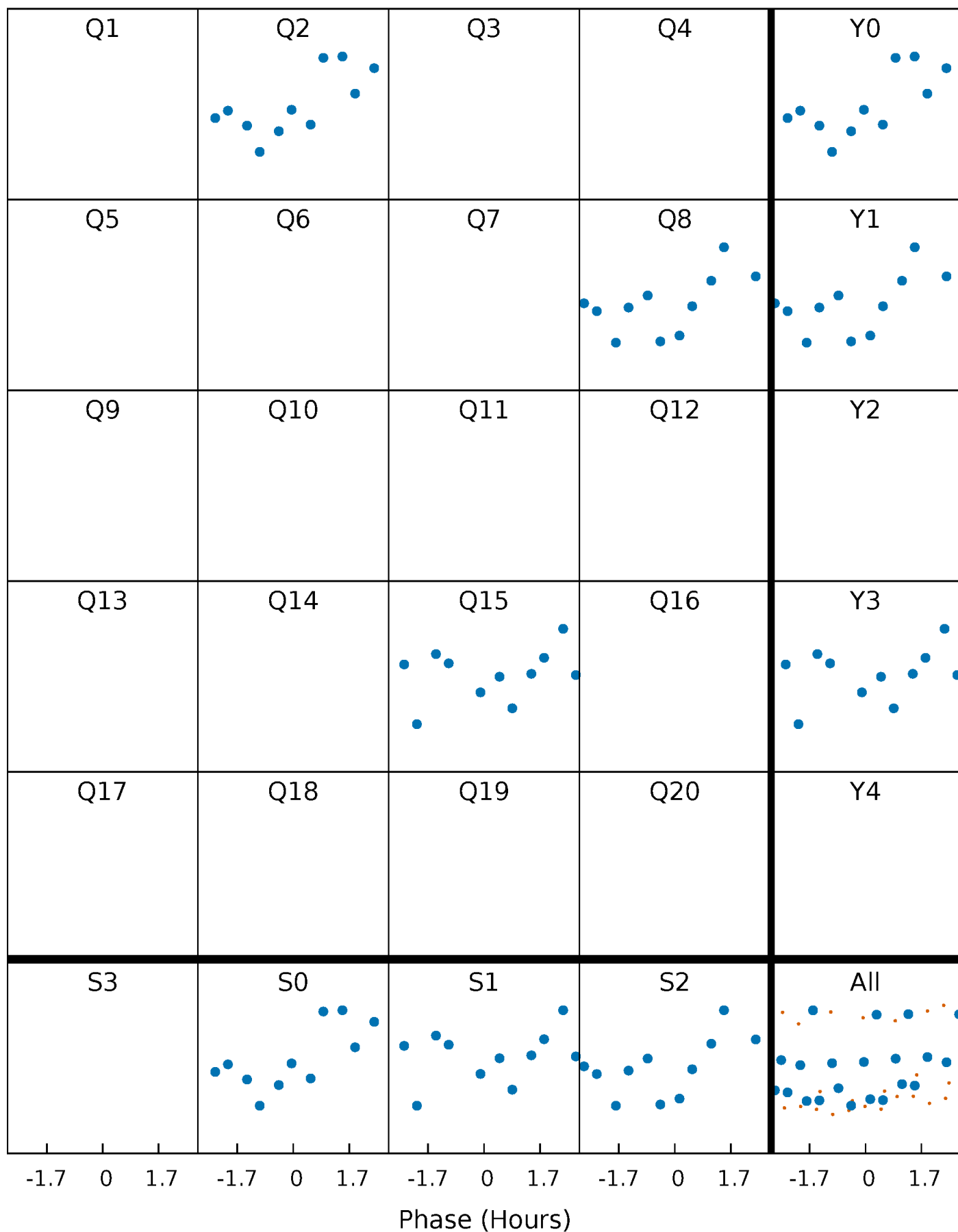


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



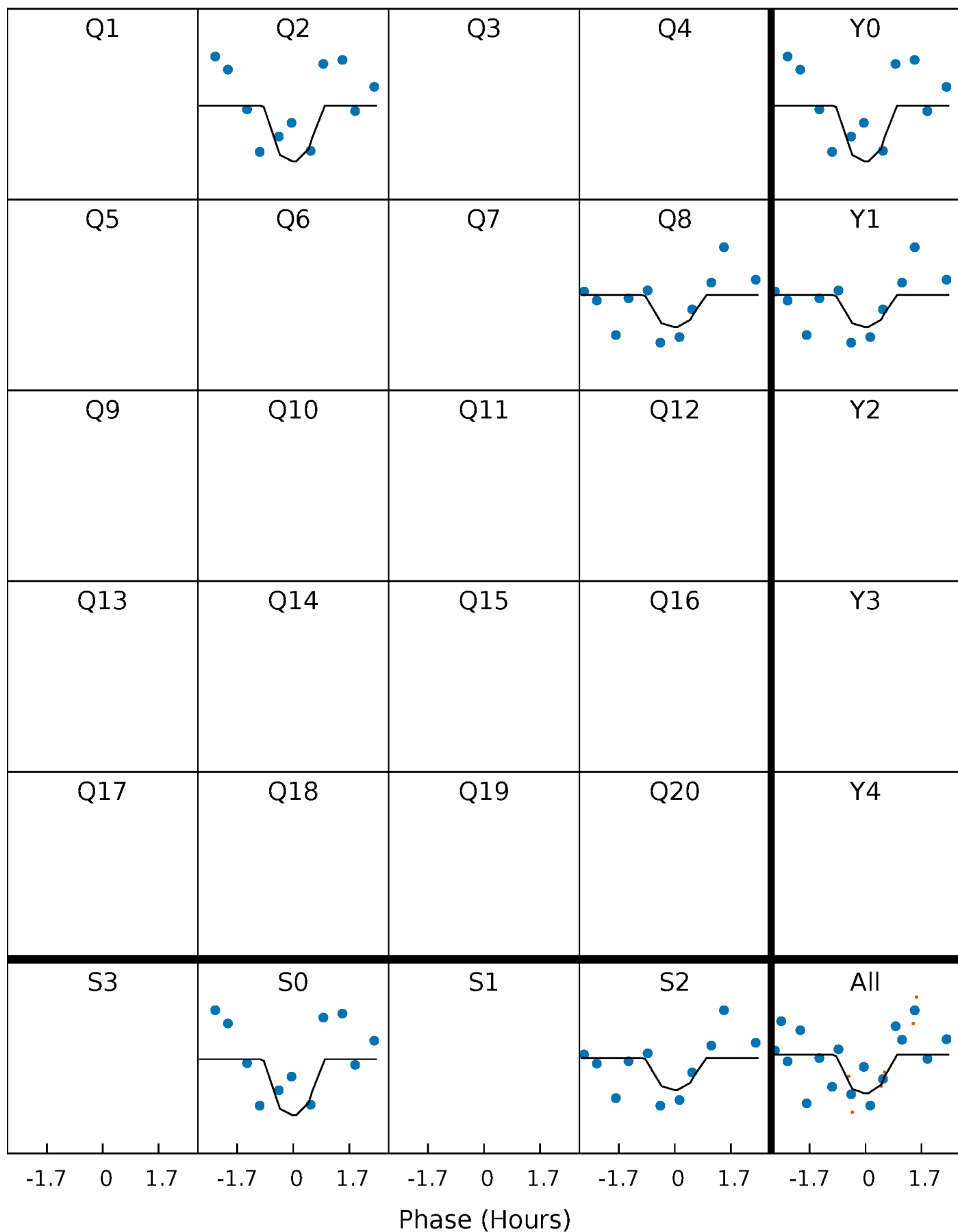
PDC Quarter-Phased Transit Curves

TCE 009119568-02 P=594.914962 Days $T_0=203.604580$ (BKJD)



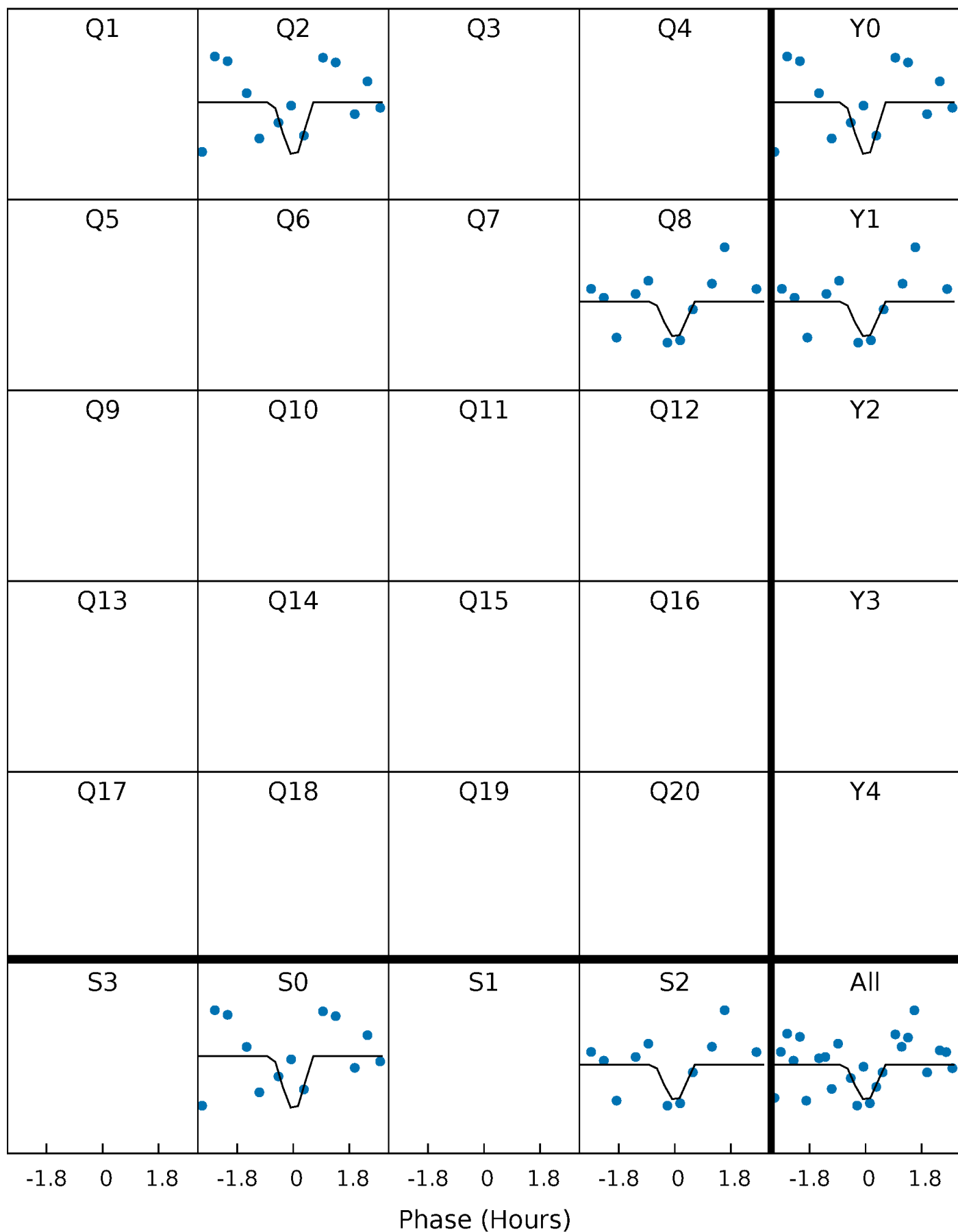
DV Quarter-Phased Transit Curves

TCE 009119568-02 P=594.914962 Days $T_0=203.604580$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

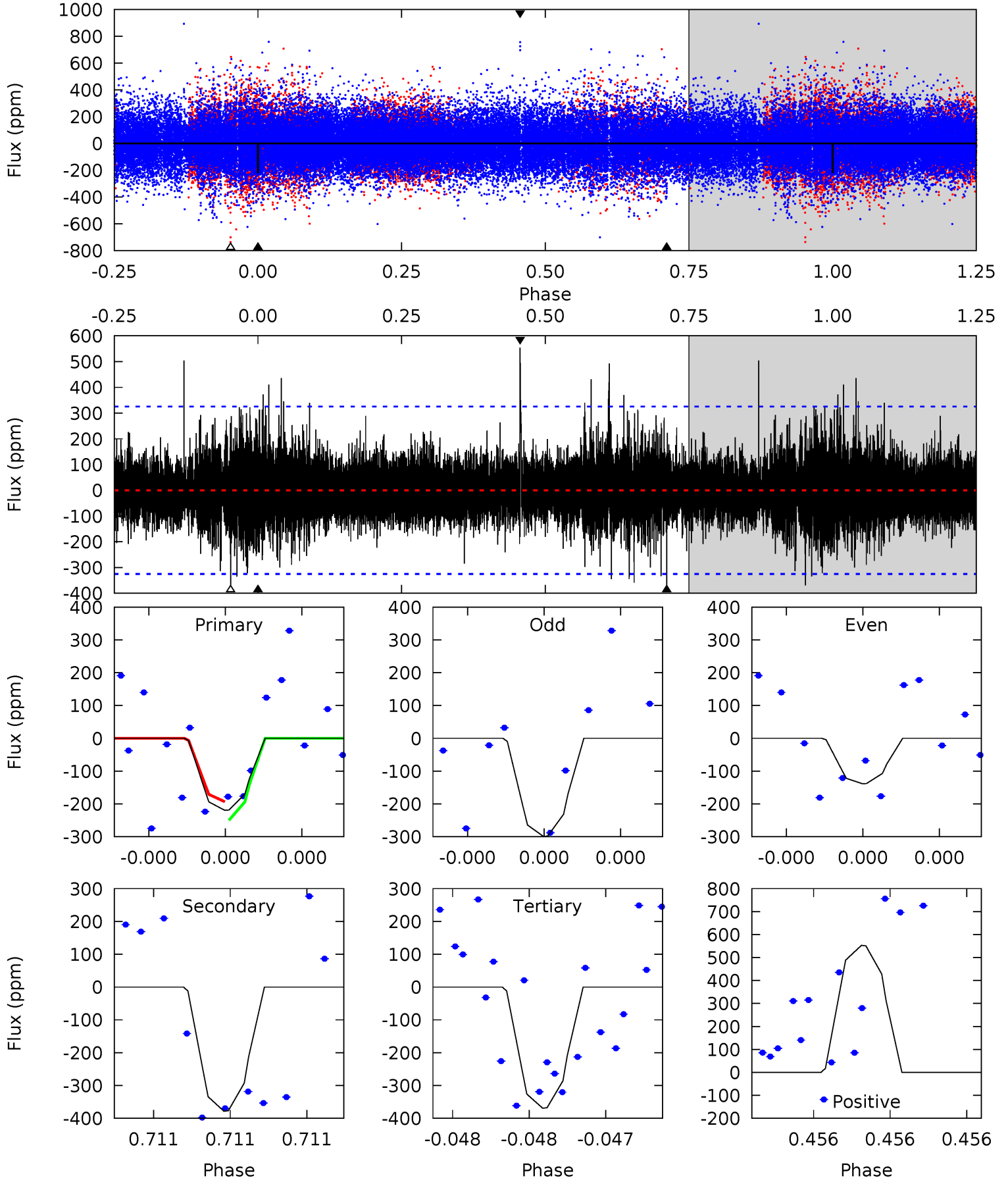
TCE 009119568-02 P=594.909477 Days $T_0=203.607371$ (BKJD)



DV Model-Shift Uniqueness Test

009119568-02, P = 594.914962 Days, E = 203.604580 Days

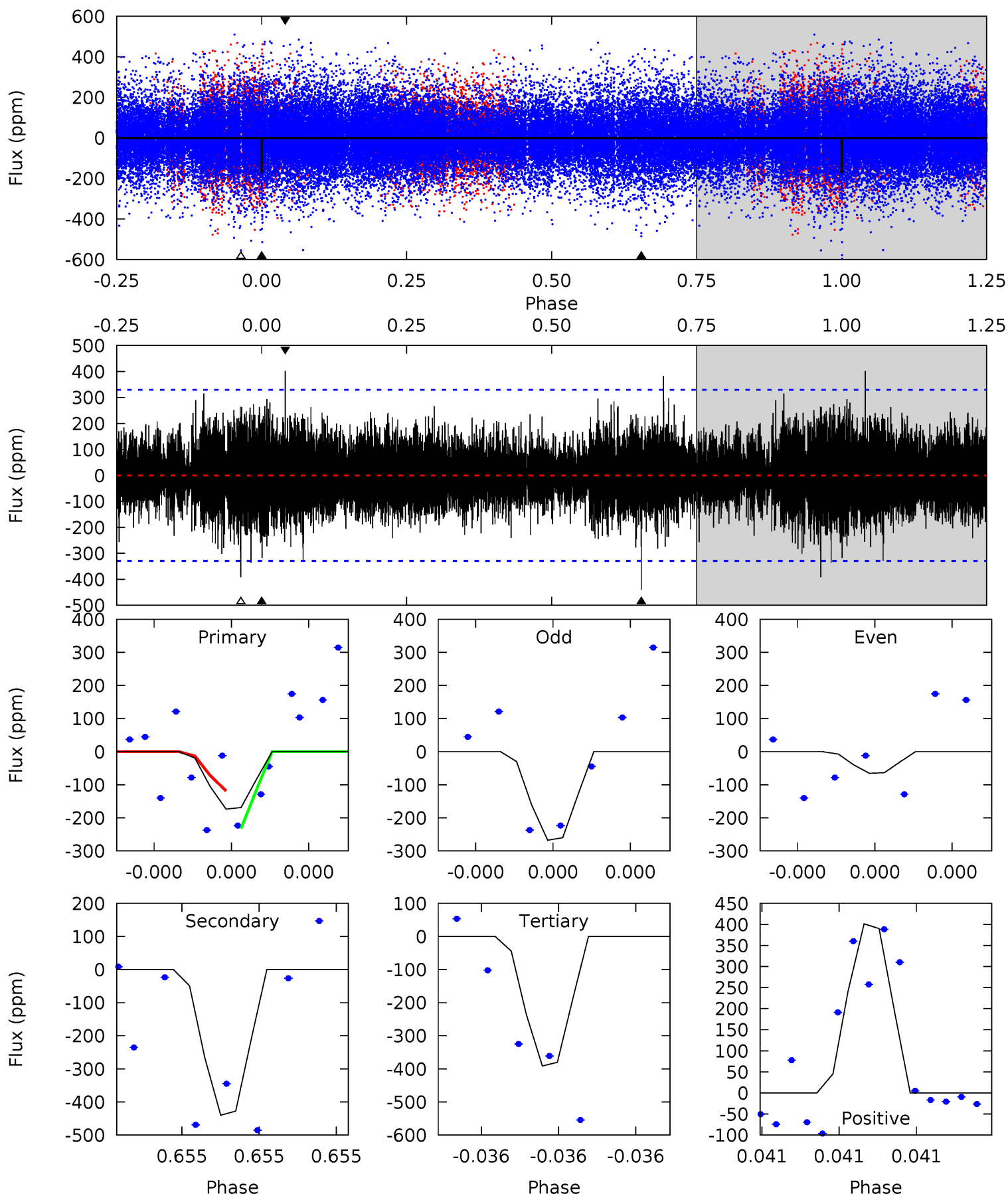
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.92	6.76	6.59	9.87	5.80	3.83	1.30	-2.67	-5.95	0.17	-3.12	1.42	1.00	0.59	0.50



Alt Model-Shift Uniqueness Test

009119568-02, P = 594.909477 Days, E = 203.607371 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.10	7.85	6.98	7.16	5.87	3.93	1.19	-3.88	-4.06	0.87	0.69	1.79	1.00	0.48	1.01



Stellar Parameters For KIC 009119568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5258^{+105}_{-105}	$4.514^{+0.055}_{-0.055}$	$0.000^{+0.150}_{-0.150}$	$0.835^{+0.063}_{-0.057}$	$0.831^{+0.053}_{-0.042}$	$2.010^{+0.449}_{-0.336}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+8%/-7%	+6%/-5%	+22%/-17%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 009119568-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-378 ± 56	$5.24^{+5.07}_{-3.71}$	260^{+7}_{-7}	3529^{+2095}_{-653}	$13203^{+141078}_{-9941}$
Alt.	-440 ± 56	$4.98^{+5.30}_{-3.43}$	260^{+7}_{-7}	3625^{+2240}_{-696}	$15693^{+164876}_{-11798}$

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

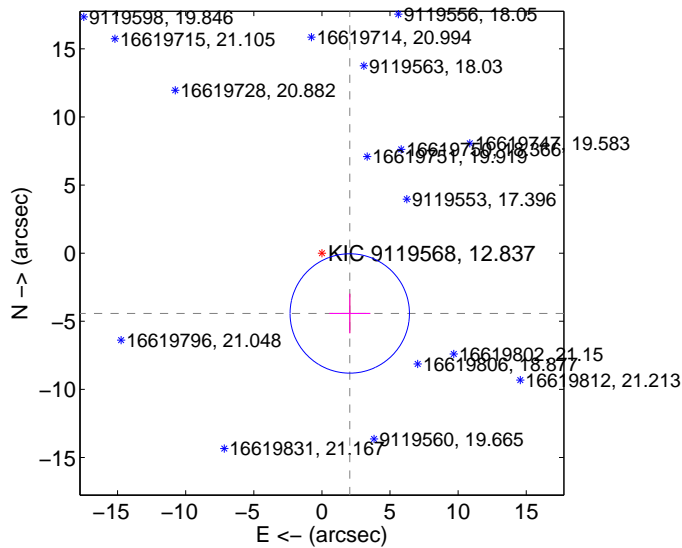
Supplemental centroid analysis for 009119568-02. Kepler magnitude: 12.84. Transit SNR 2.06

There are 0 quarters with good PRF difference image offsets

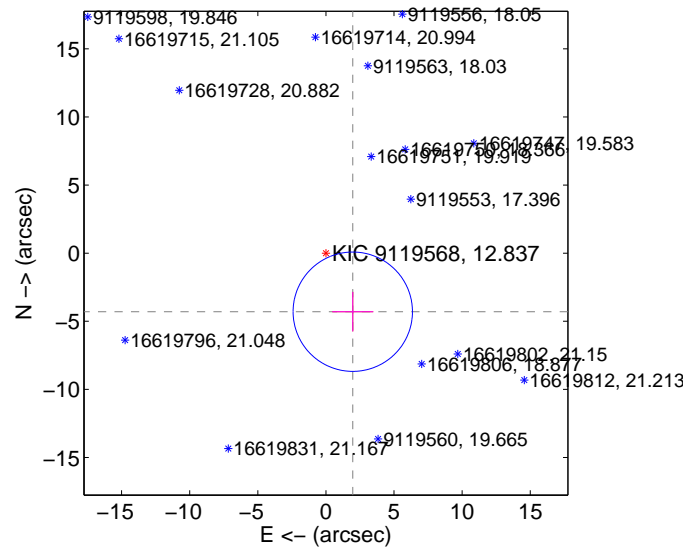
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.874 ± 1.460	3.34	-2.043 ± 1.505	-4.425 ± 1.450
PRF-fit source offset from KIC position	4.727 ± 1.460	3.24	-1.971 ± 1.505	-4.297 ± 1.450
photometric centroid source offset	2.43 ± 4.12	0.59	2.42 ± 4.13	-0.18 ± 3.28

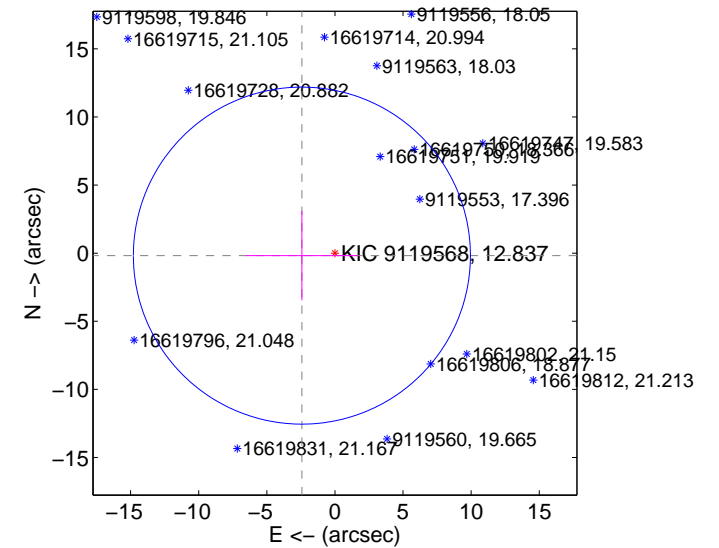
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

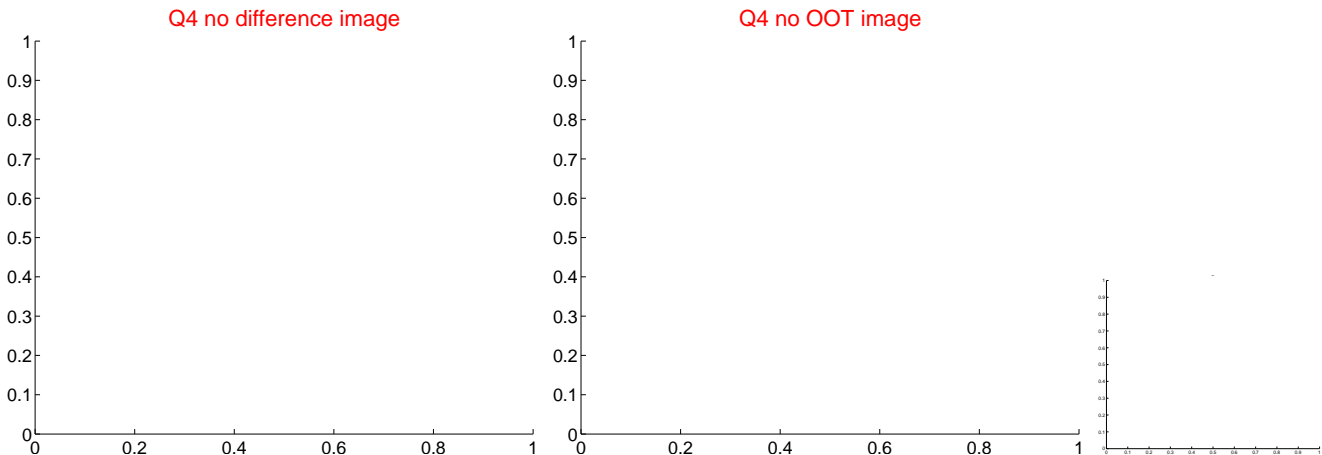
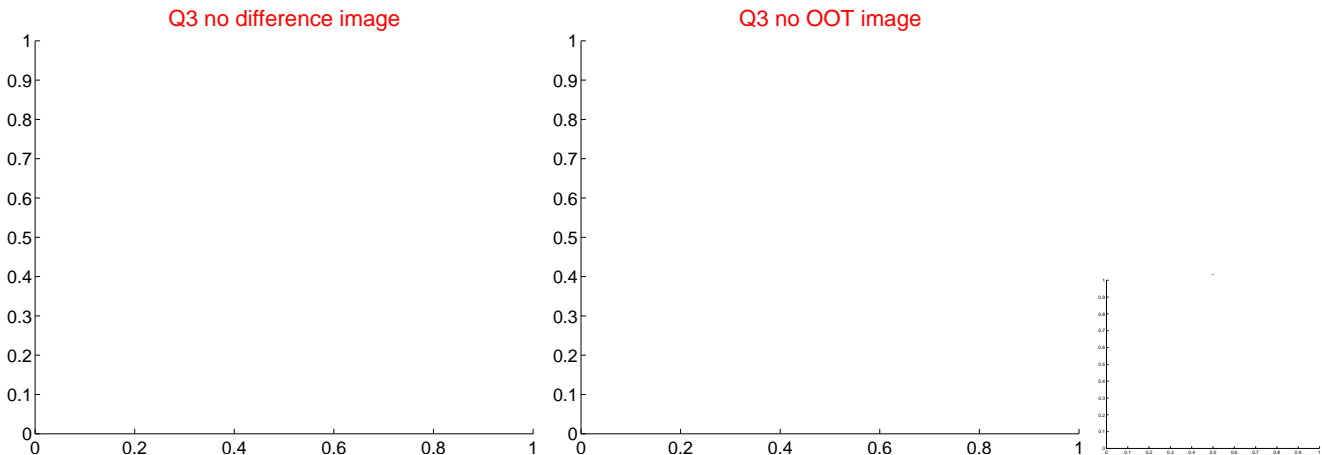
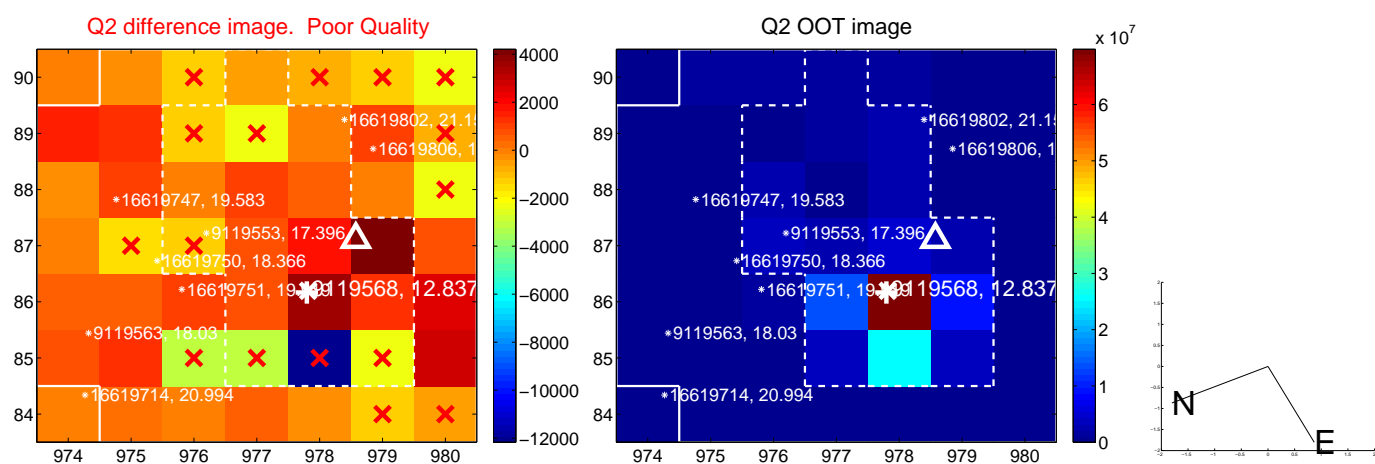
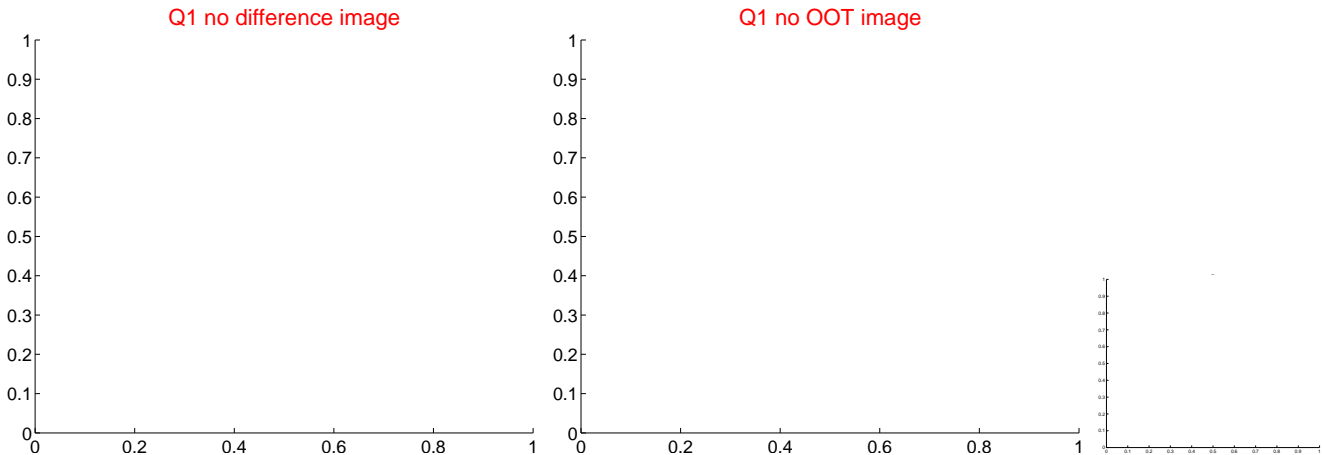


offset from photometric centroids

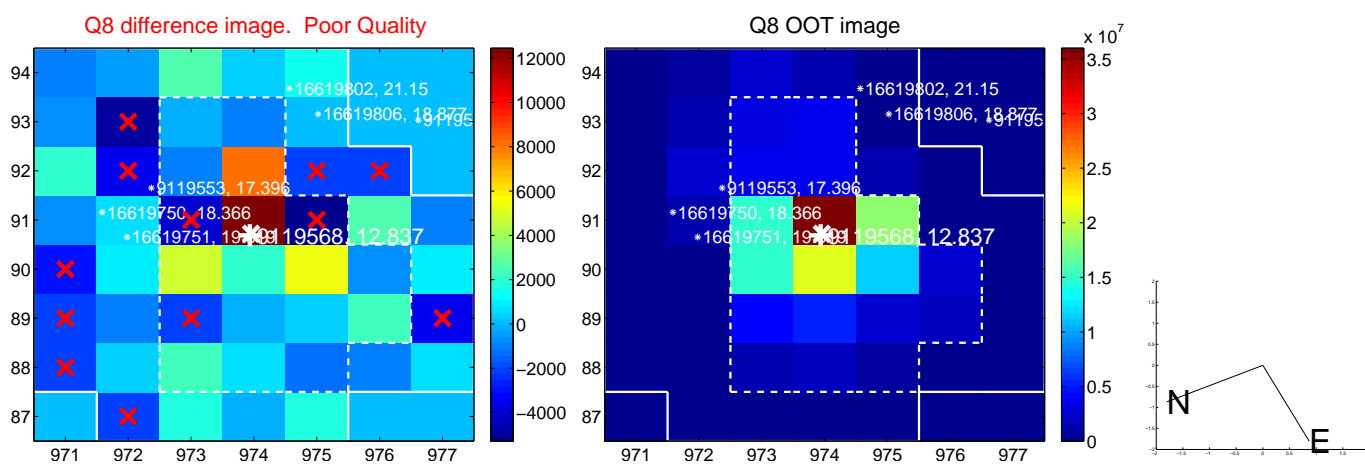
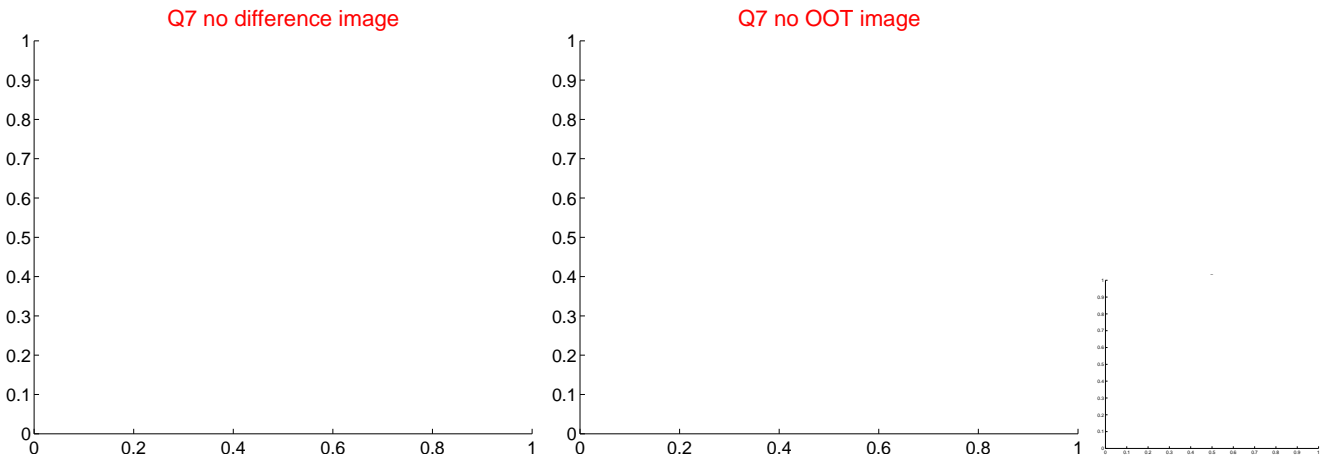
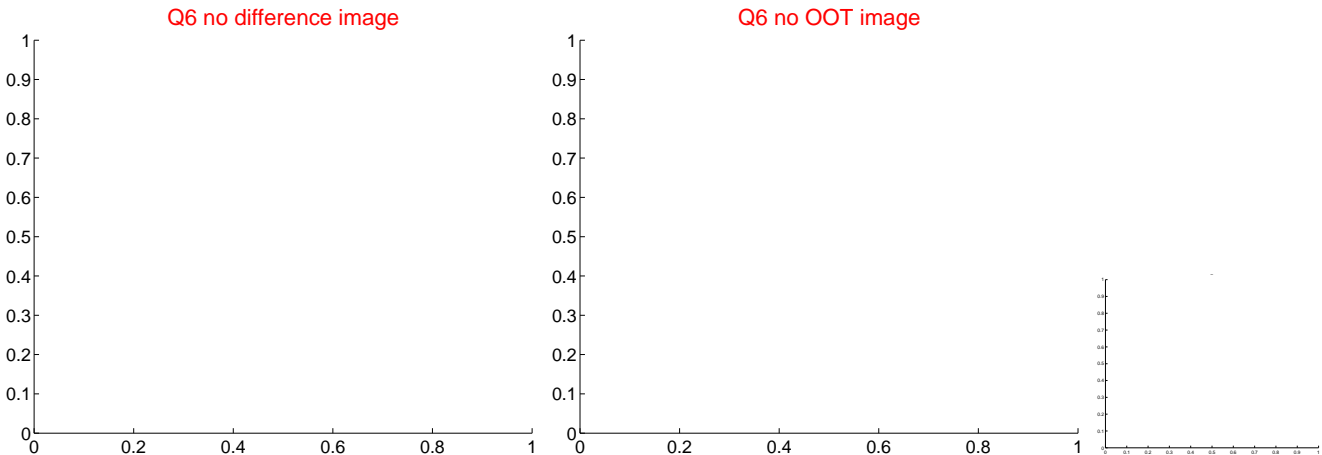
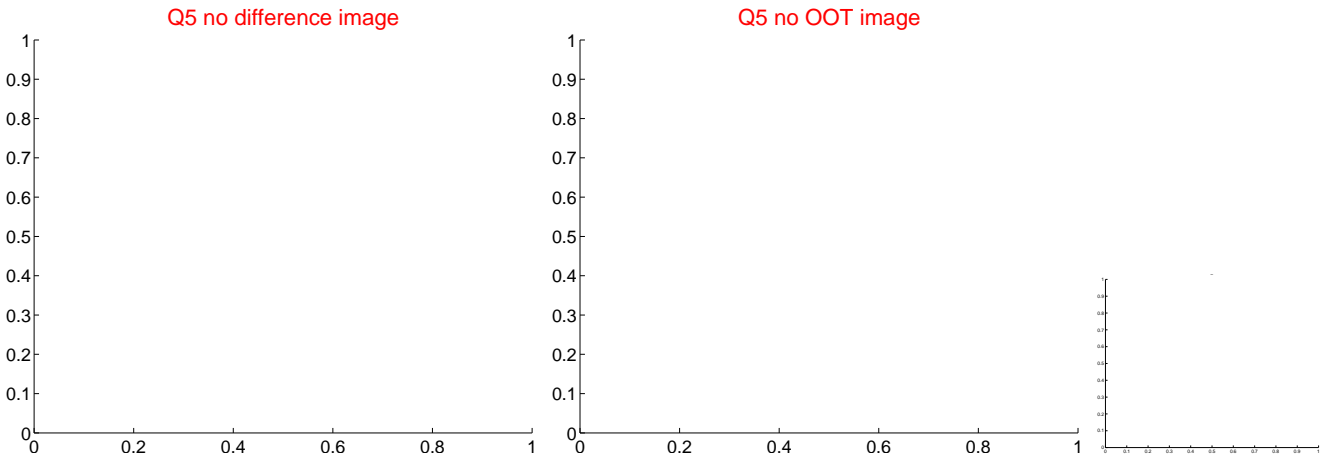


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



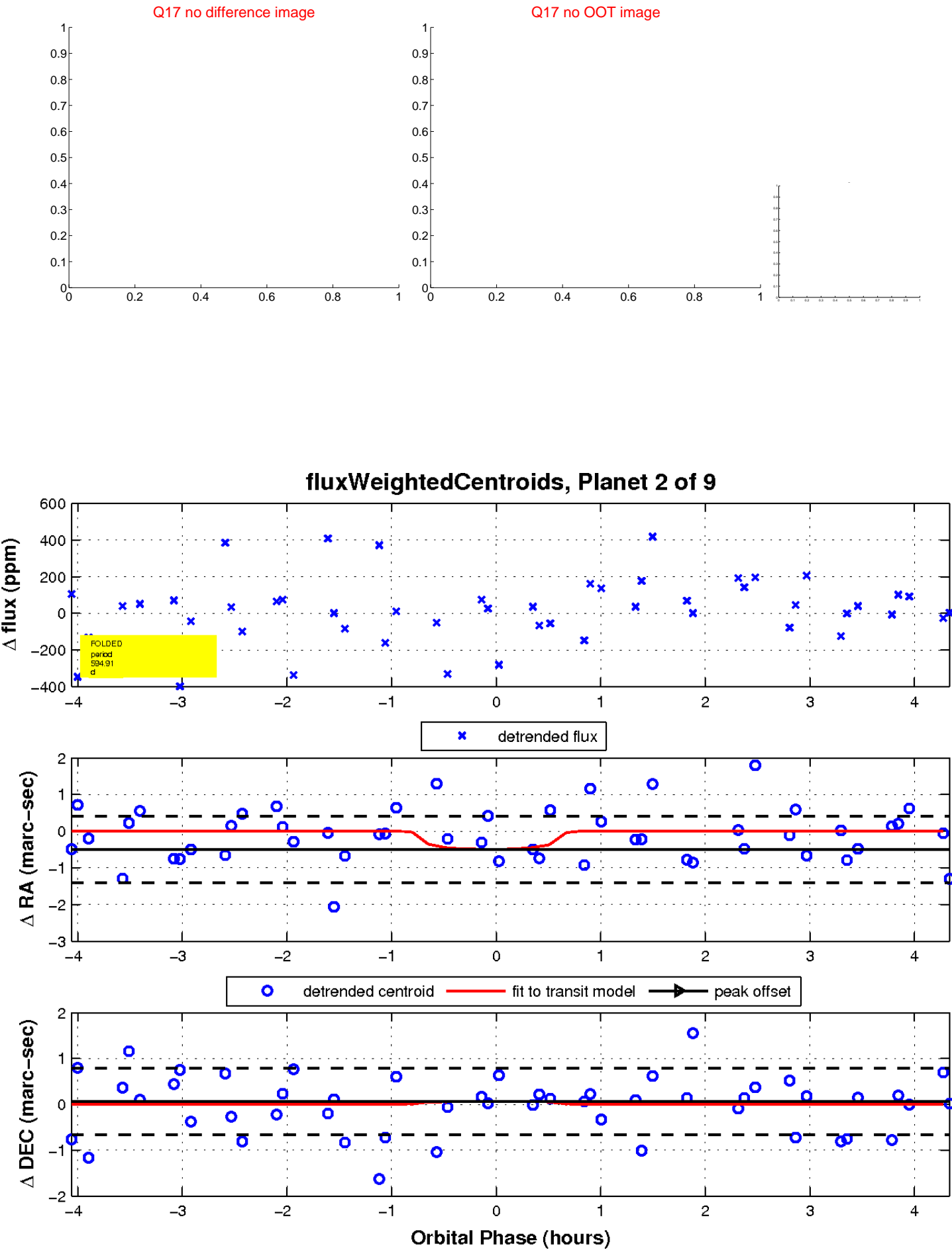
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

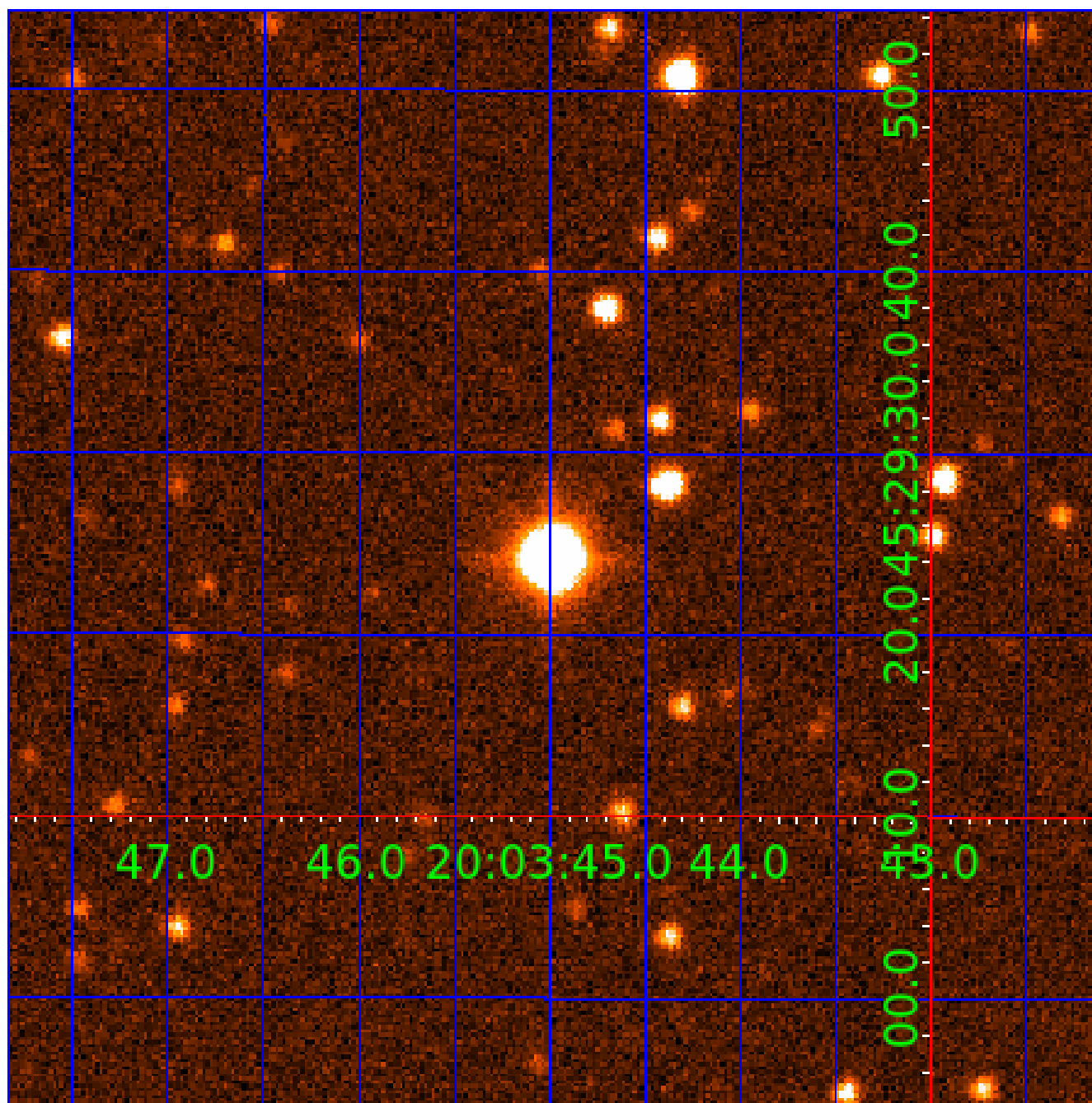


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009119568

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})
009119568-01	OBS	3087.01	5.548603	133.942592	64.1	4.672	12.1	12.8	0.83	5258	0.81	143.57
009119568-02	OBS	No	594.914962	203.604580	218.9	1.450	16.0	2.1	0.83	5258	1.49	0.28
009119568-03	OBS	No	595.202594	202.958220	231.5	3.708	16.2	2.0	0.83	5258	1.56	0.28
009119568-04	OBS	3087.02	1.221848	131.916069	23.8	7.385	7.5	10.5	0.83	5258	0.40	1079.64
009119568-05	OBS	No	94.236684	152.728762	168.6	1.213	21.8	3.0	0.83	5258	1.06	3.29
009119568-07	OBS	No	95.648610	204.188265	304.7	3.255	16.4	6.6	0.83	5258	1.58	3.22
009119568-08	OBS	No	62.099321	174.458969	58.4	1.823	15.5	1.6	0.83	5258	0.64	5.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009119568-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
009119568-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-04	OBS	FP	0.00	1	0	0	0	LPP_DV
009119568-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
009119568-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
009119568-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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 009119568-03

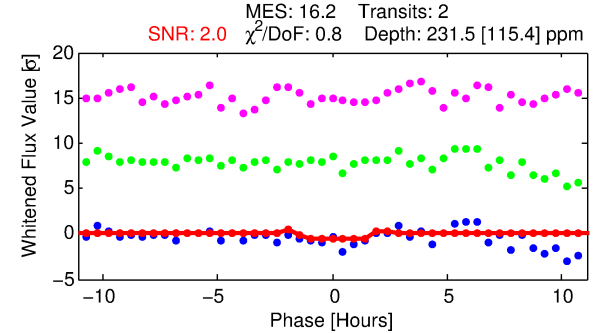
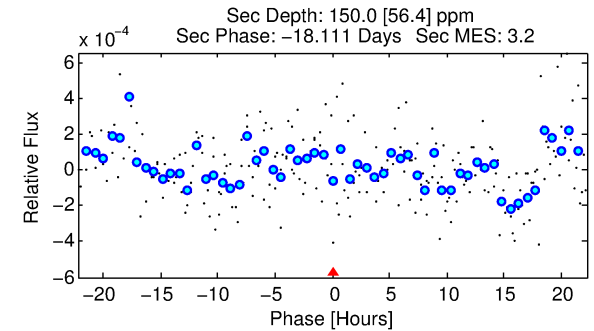
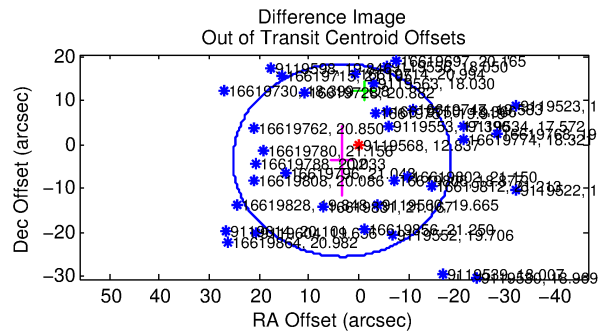
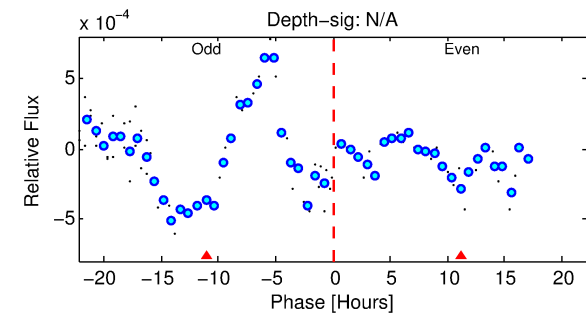
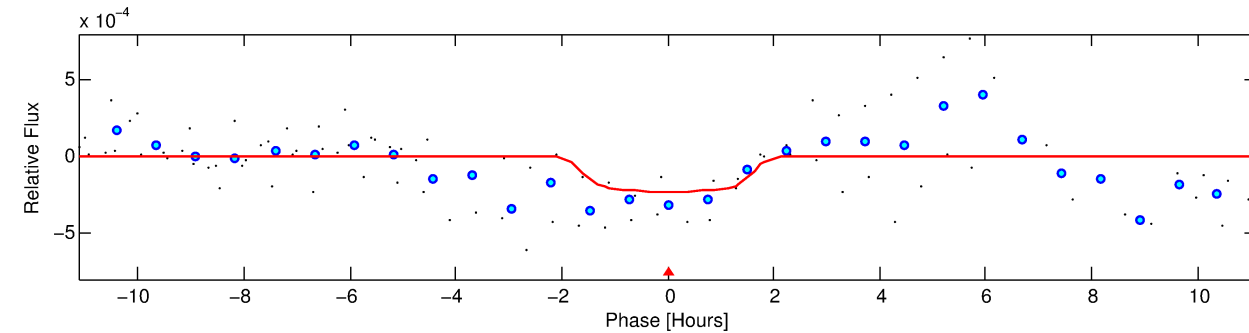
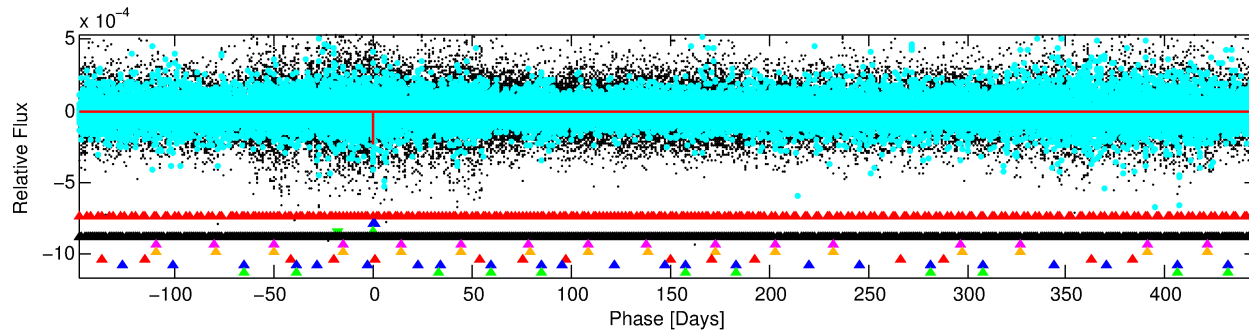
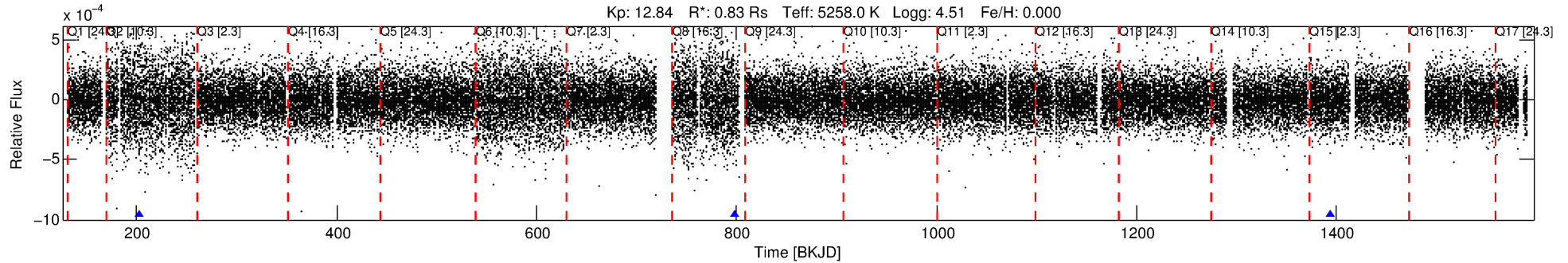
No Significant Match Found

DV One-Page Summary

KIC: 9119568 Candidate: 3 of 9 Period: 595.203 d

KOI: K03087 Corr: No Ephemeris Match

Kp: 12.84 R*: 0.83 Rs Teff: 5258.0 K Logg: 4.51 Fe/H: 0.000



DV Fit Results:

Period = 595.20259 [0.02100] d
Epoch = 202.9582 [0.0142] BKJD
Rp/R* = 0.0171 [0.0263]
a/R* = 554.34 [3604.95]
b = 0.91 [1.25]
Seff = 0.28 [0.04]
Teq = 186 [6] K
Rp = 1.56 [2.40] Re
a = 1.3020 [0.0855] AU
Ag = 57756.68 [179594.61] [0.32σ]
Teffp = 4453 [3461] K [1.23σ]

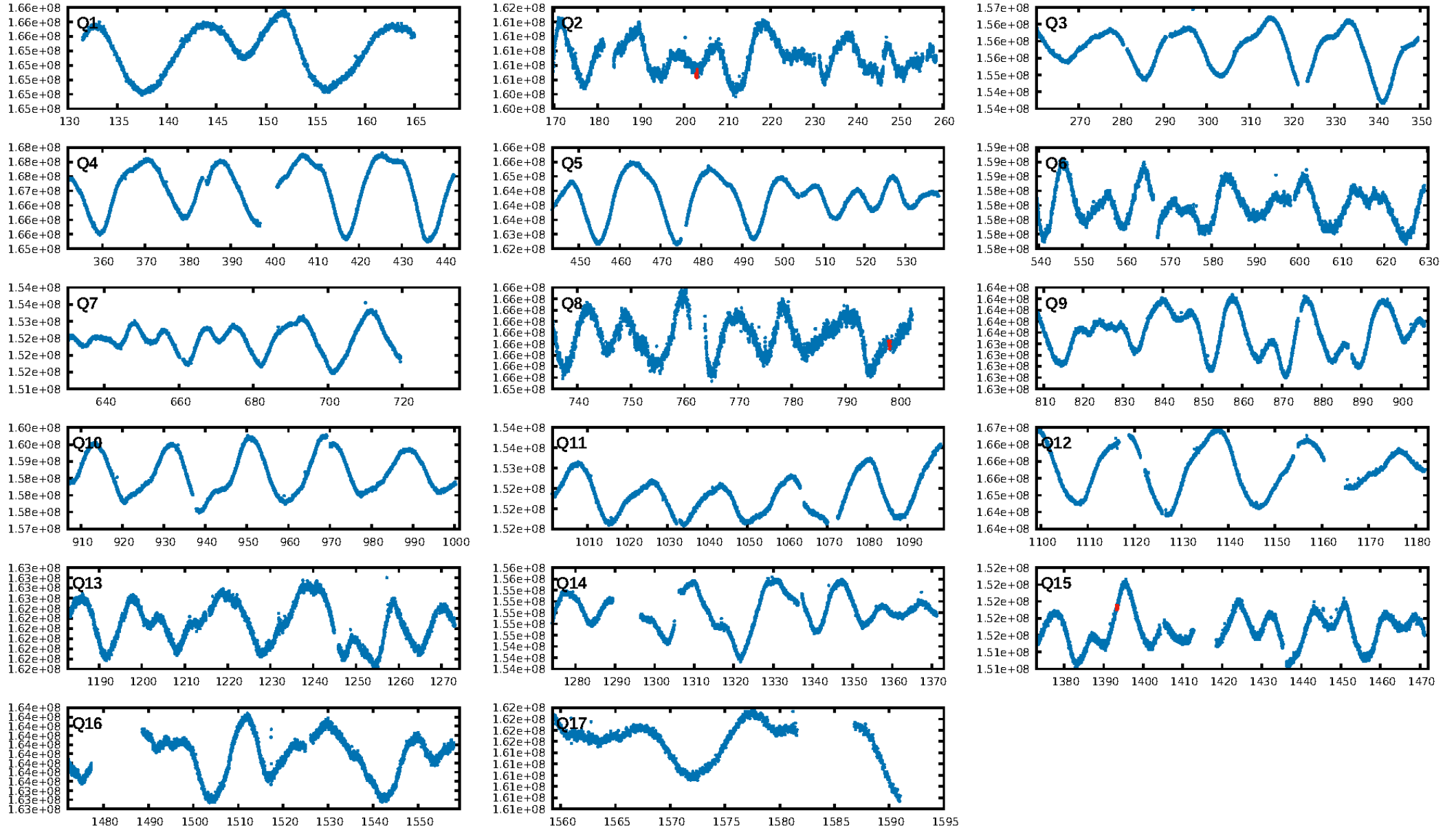
DV Diagnostic Results:

ShortPeriod-sig: 91.7% [1.73σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 12.8%
ModelChiSquareGof-sig: 97.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.8608
Centroid-sig: 88.1%
Centroid-so: 0.757 arcsec [0.29σ]
OotOffset-rm: 4.832 arcsec [0.66σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-rm: 4.788 arcsec [1.28σ]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.00 [0/2]

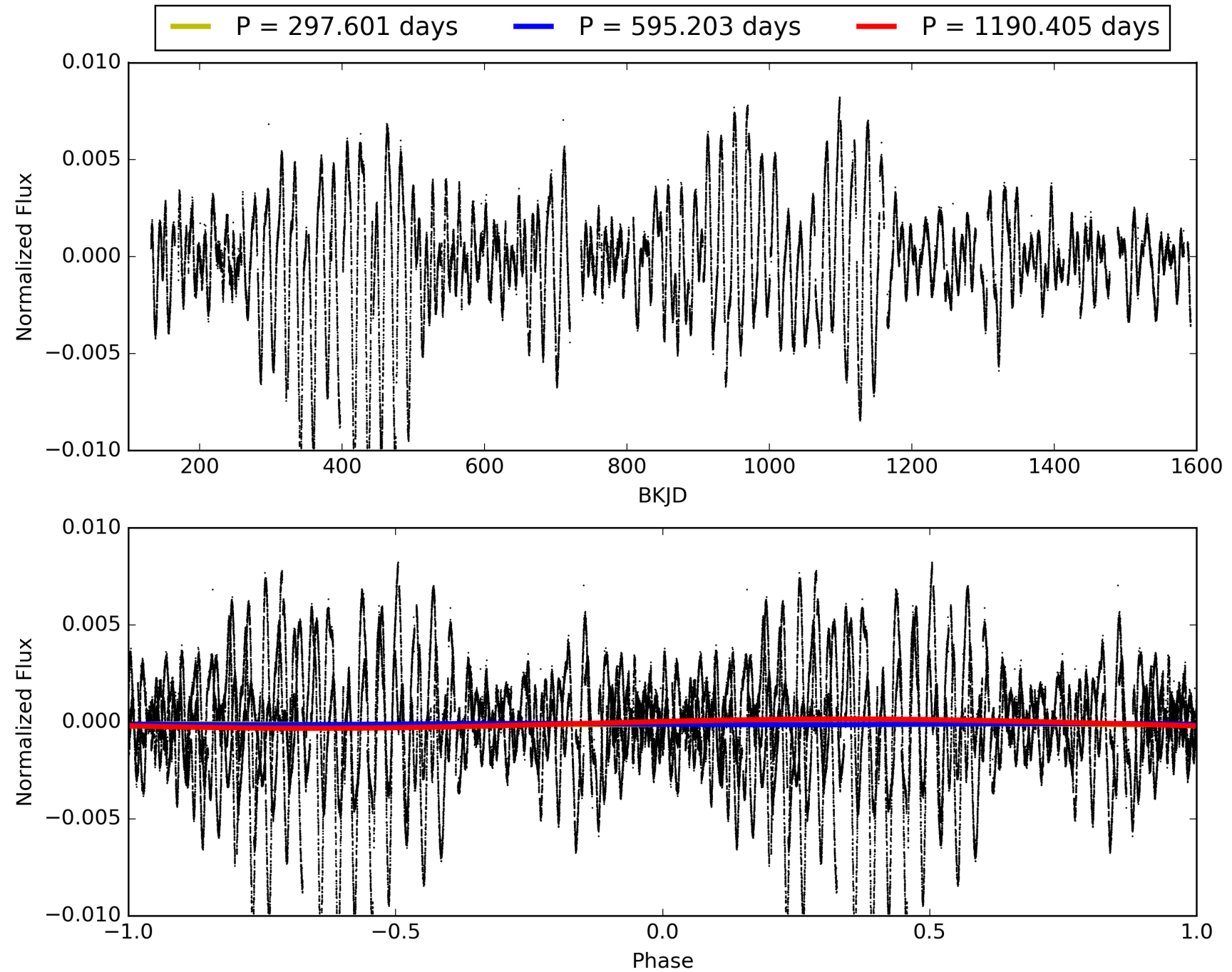
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 14:26:38 Z

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

TCE 009119568-03, PDC Light Curves

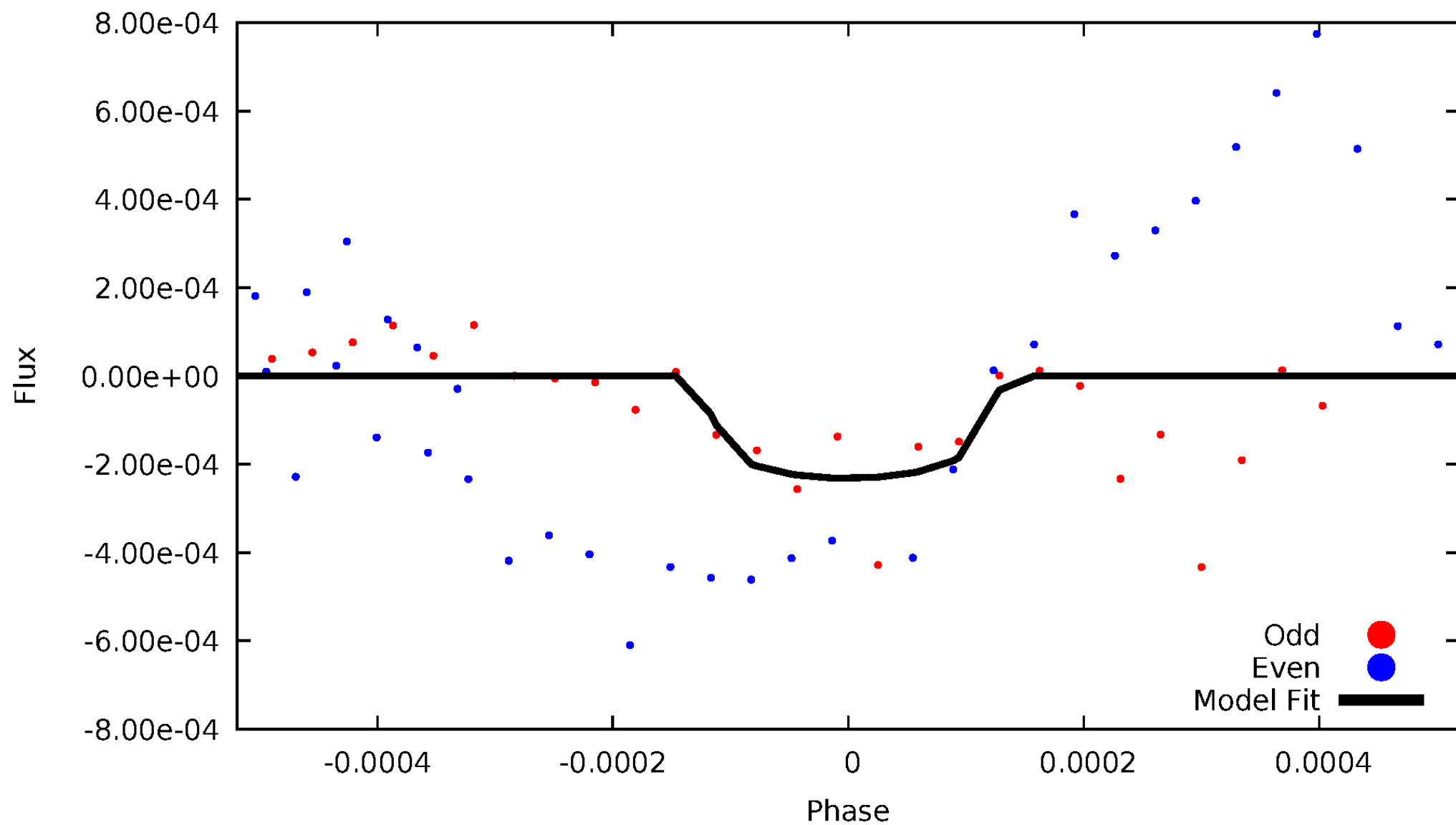


TCE 009119568-03



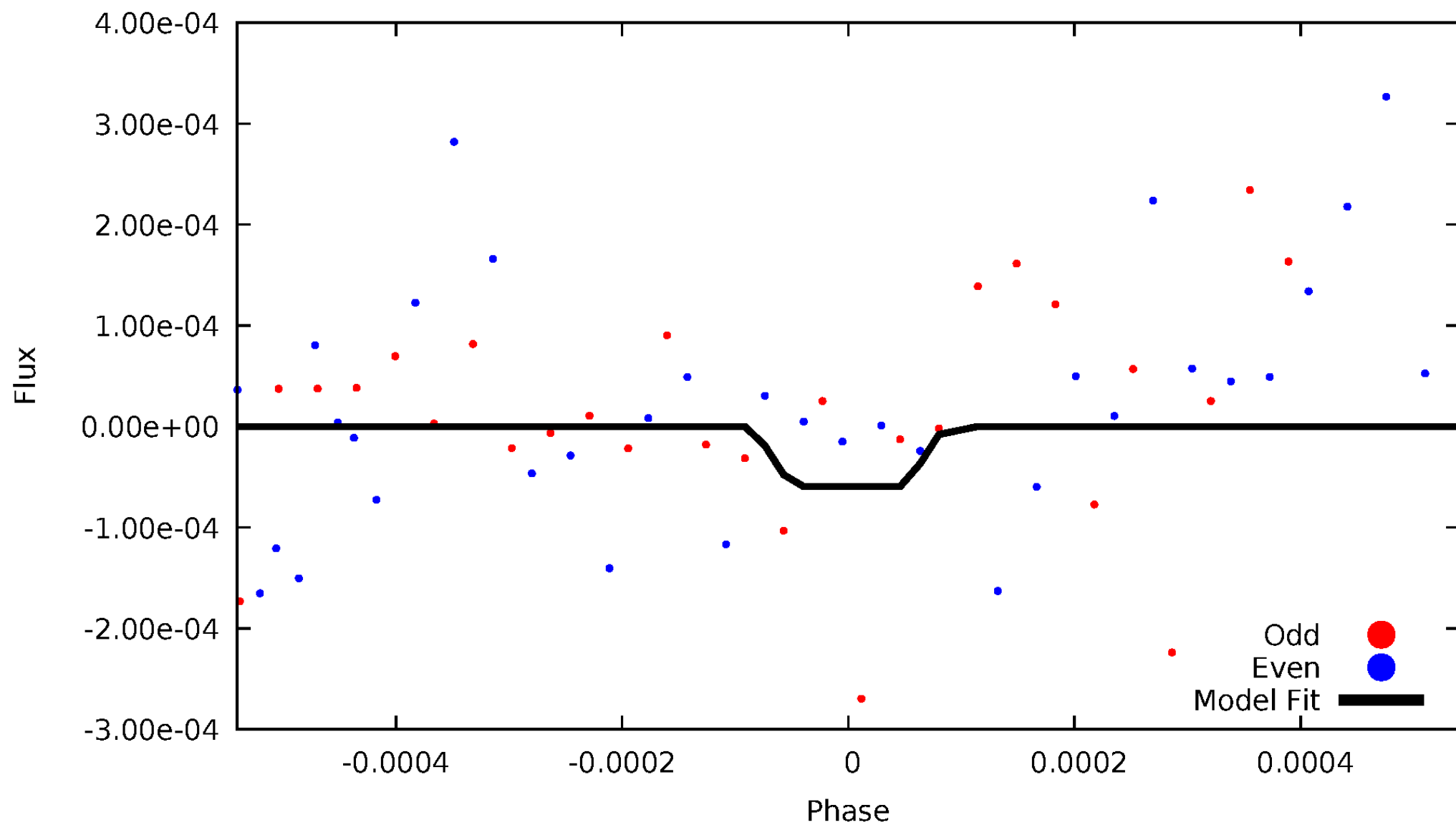
DV Odd/Even

TCE 009119568-03



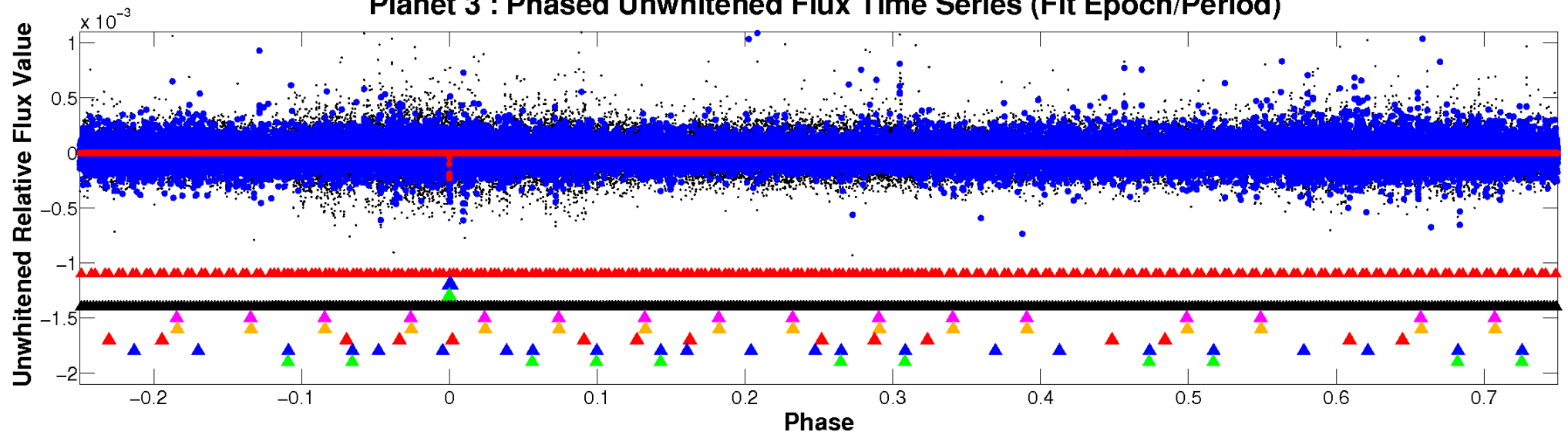
ALT Odd/Even

TCE 009119568-03

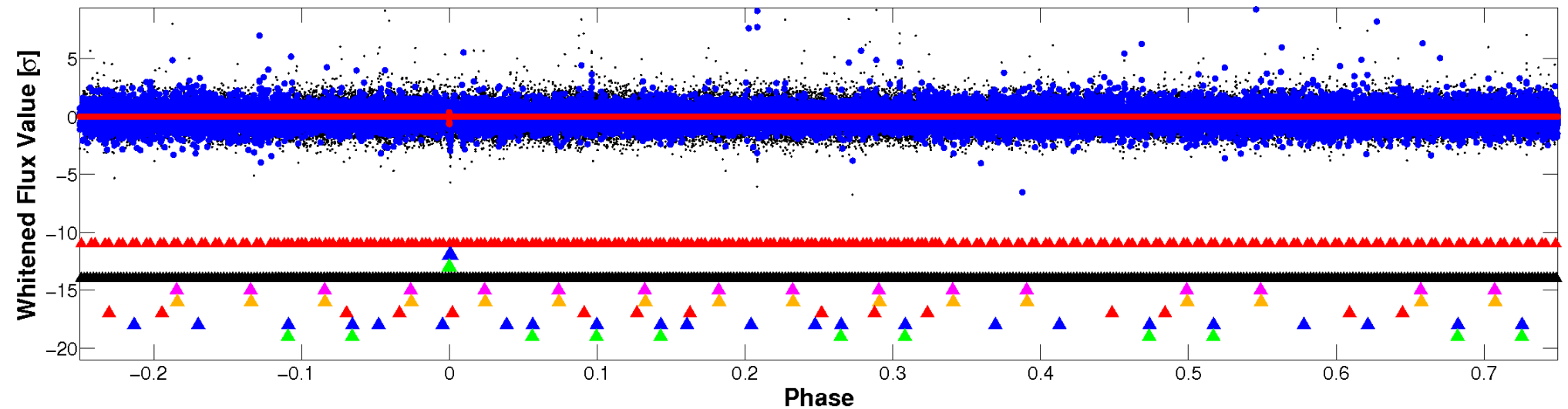


Non-Whitened Vs. Whitened Light Curve

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

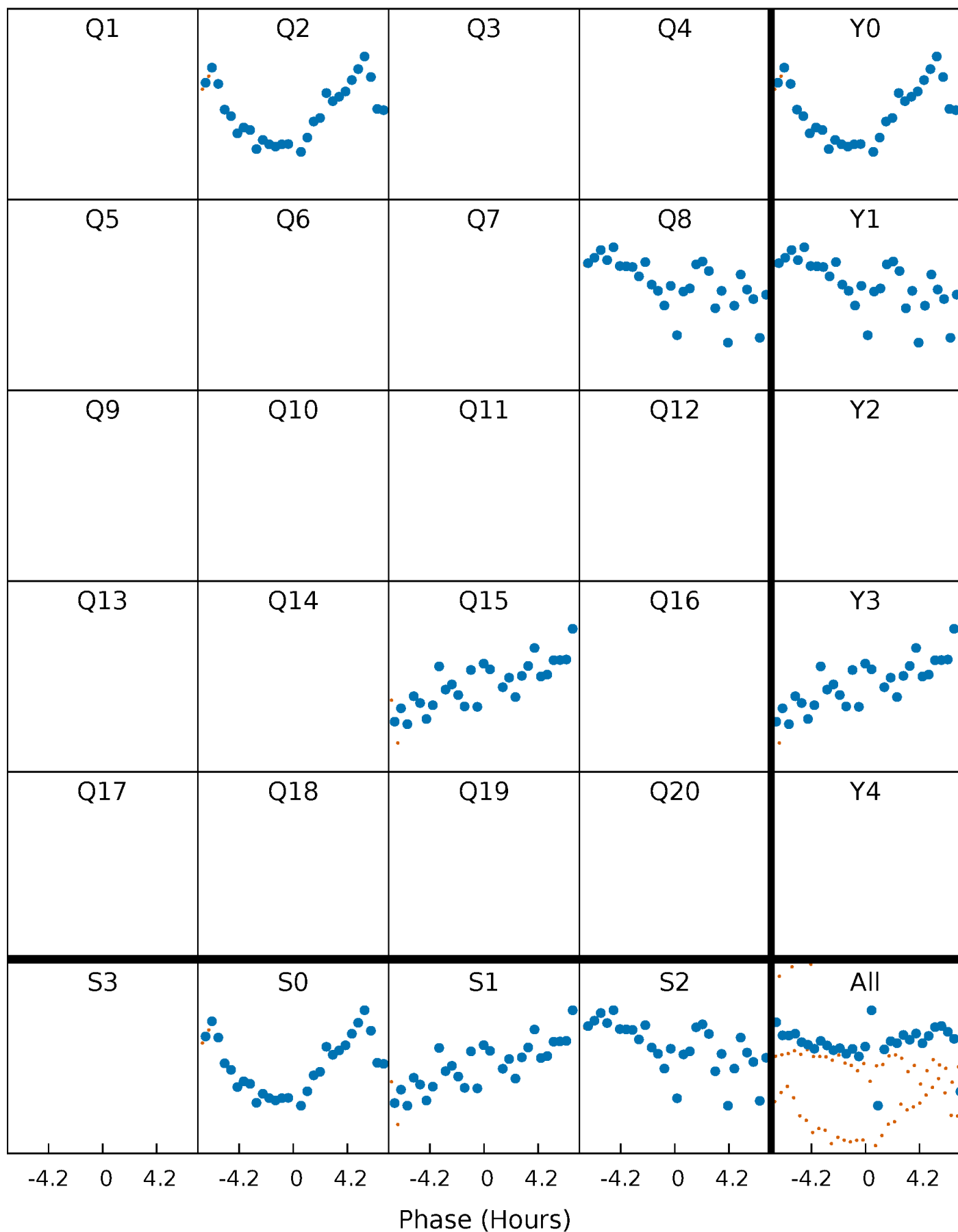


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



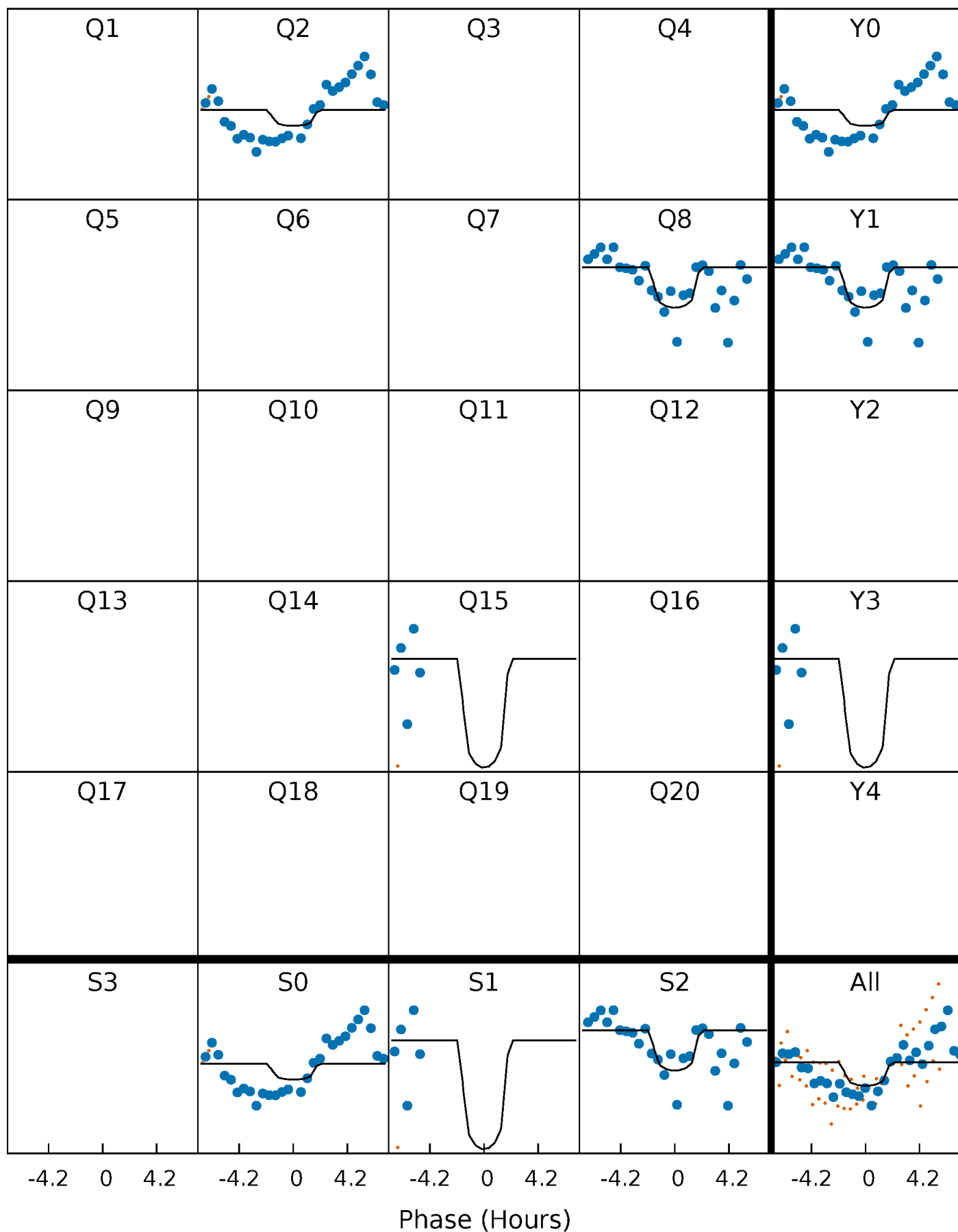
PDC Quarter-Phased Transit Curves

TCE 009119568-03 P=595.202594 Days $T_0=202.958220$ (BKJD)



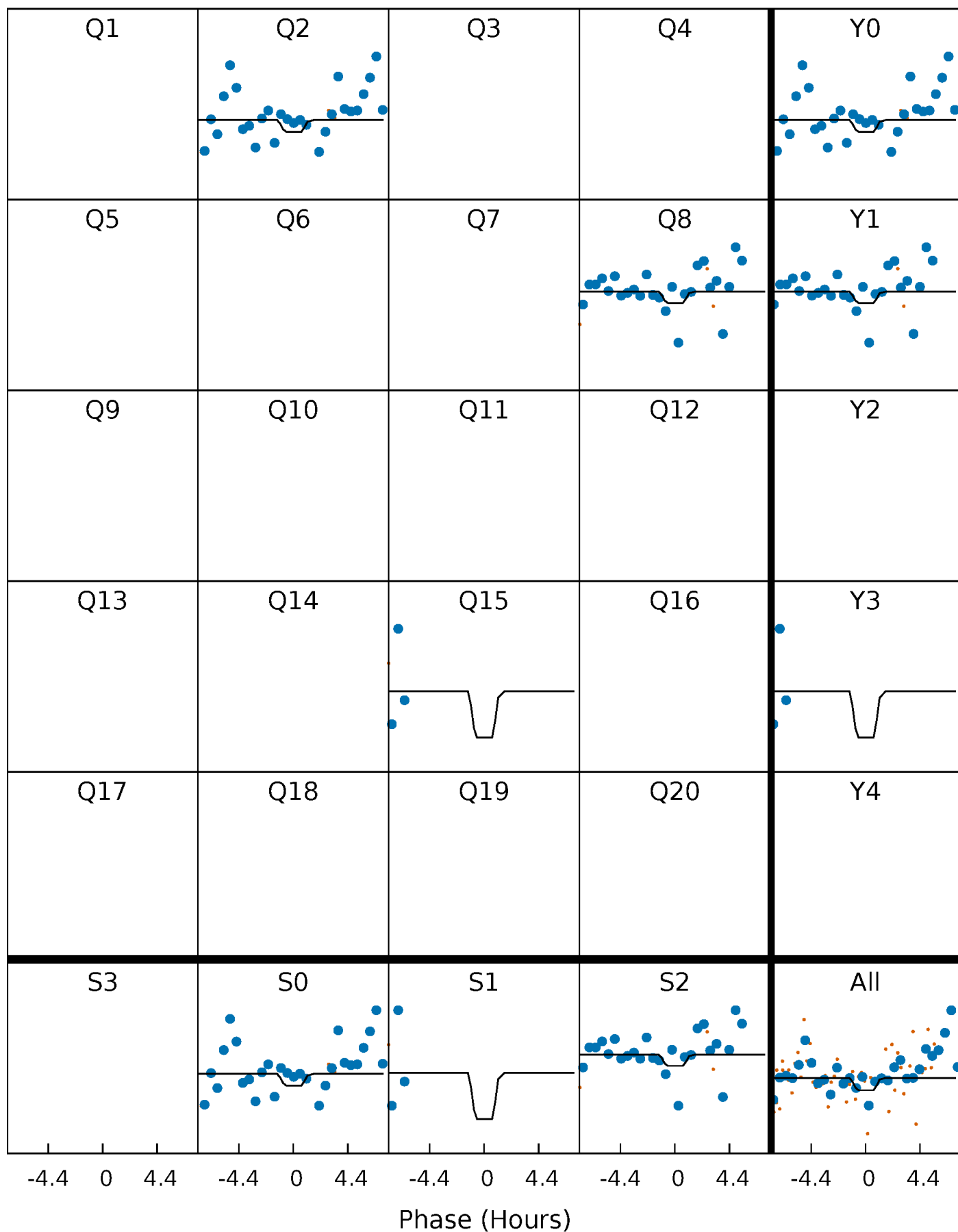
DV Quarter-Phased Transit Curves

TCE 009119568-03 P=595.202594 Days $T_0=202.958220$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

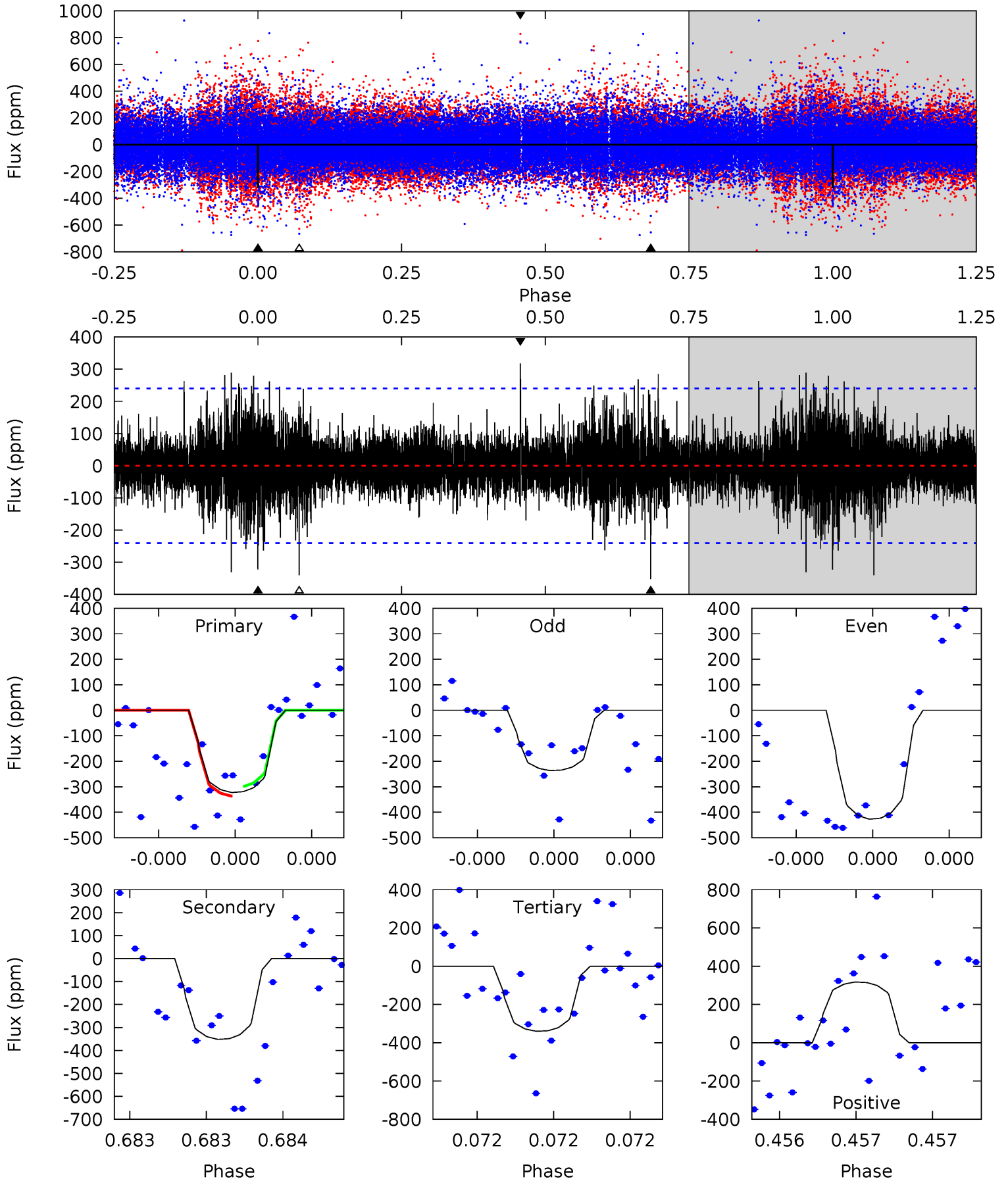
TCE 009119568-03 P=595.256848 Days $T_0=202.912162$ (BKJD)



DV Model-Shift Uniqueness Test

009119568-03, P = 595.202594 Days, E = 202.958220 Days

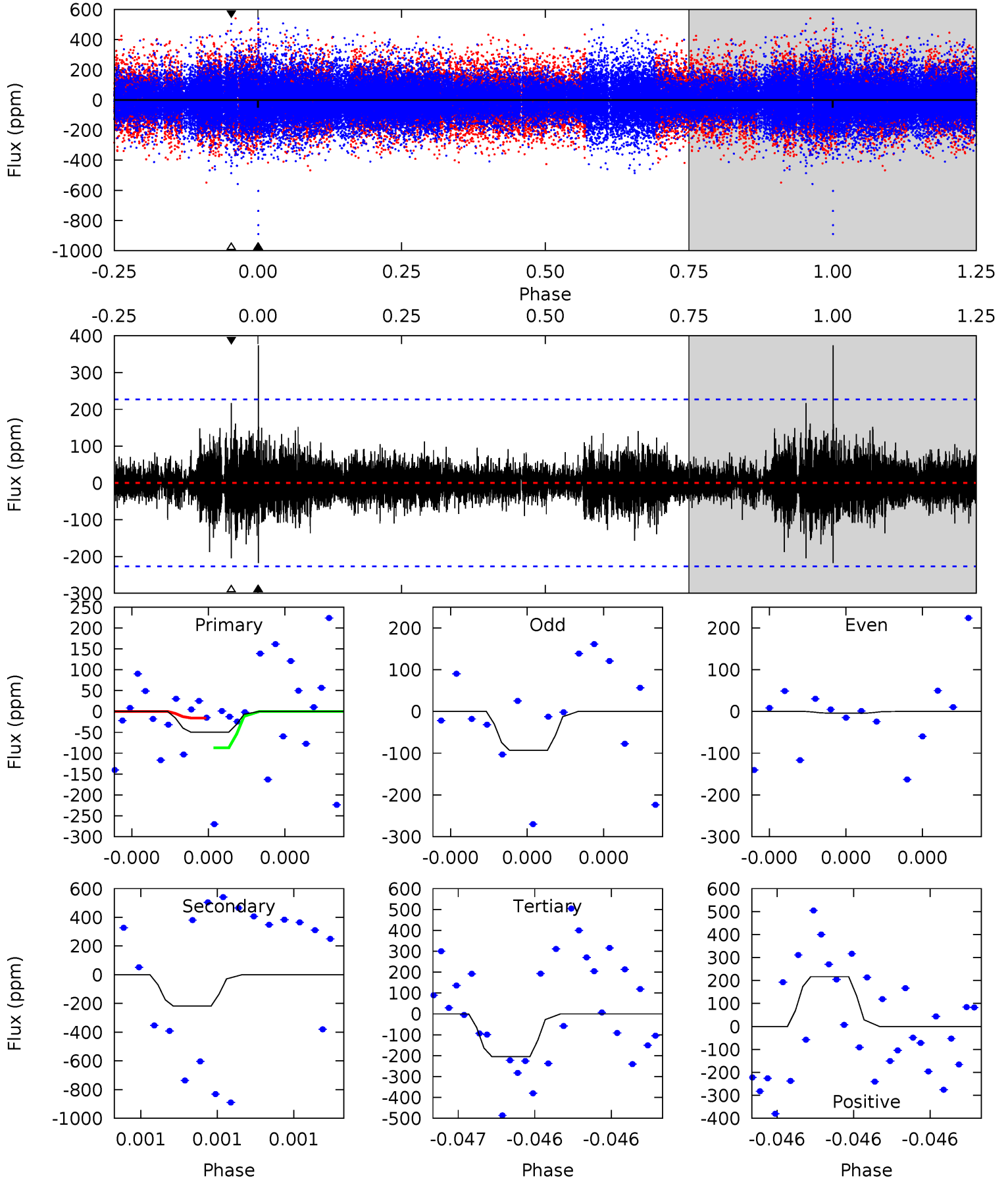
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.64	8.34	8.06	7.53	5.70	3.67	1.38	-0.42	0.11	0.28	0.81	2.23	1.00	0.47	0.44



Alt Model-Shift Uniqueness Test

009119568-03, P = 595.256848 Days, E = 202.912162 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.26	5.53	5.19	5.50	5.76	3.76	0.79	-3.93	-4.24	0.34	0.03	1.12	1.00	0.63	0.88



Stellar Parameters For KIC 009119568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5258^{+105}_{-105}	$4.514^{+0.055}_{-0.055}$	$0.000^{+0.150}_{-0.150}$	$0.835^{+0.063}_{-0.057}$	$0.831^{+0.053}_{-0.042}$	$2.010^{+0.449}_{-0.336}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+8%/-7%	+6%/-5%	+22%/-17%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 009119568-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-352 ± 42	$2.35^{+1.99}_{-1.58}$	260^{+7}_{-6}	4611^{+3306}_{-939}	$60687^{+493775}_{-43599}$
Alt.	-218 ± 39	$1.96^{+1.89}_{-1.33}$	260^{+7}_{-8}	4484^{+3499}_{-981}	$54108^{+482428}_{-41077}$

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

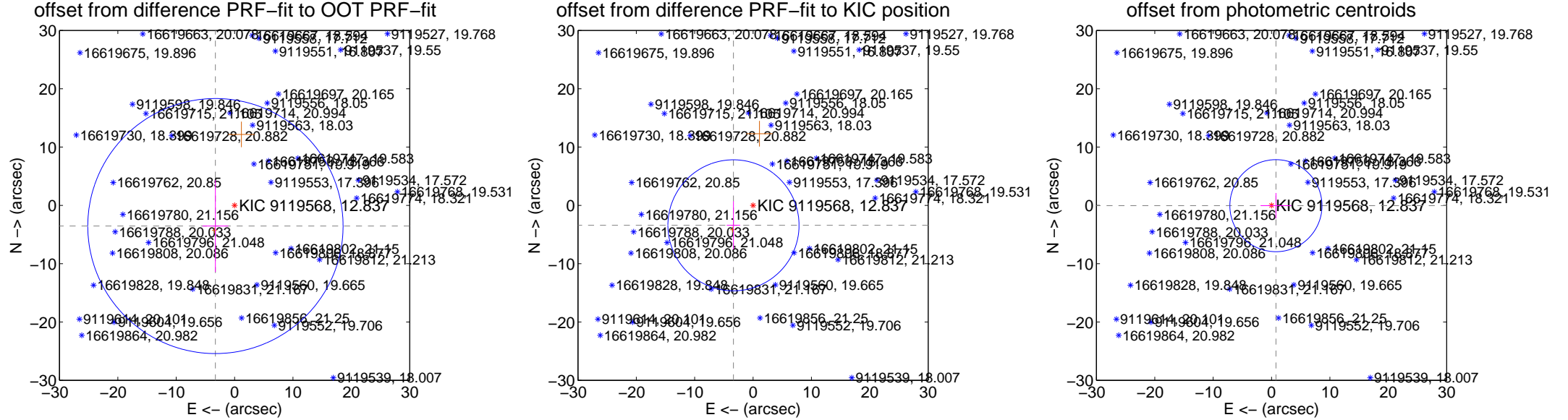
DV Centroid Data

Supplemental centroid analysis for 009119568-03. Kepler magnitude: 12.84. Transit SNR 2.03

There are 0 quarters with good PRF difference image offsets

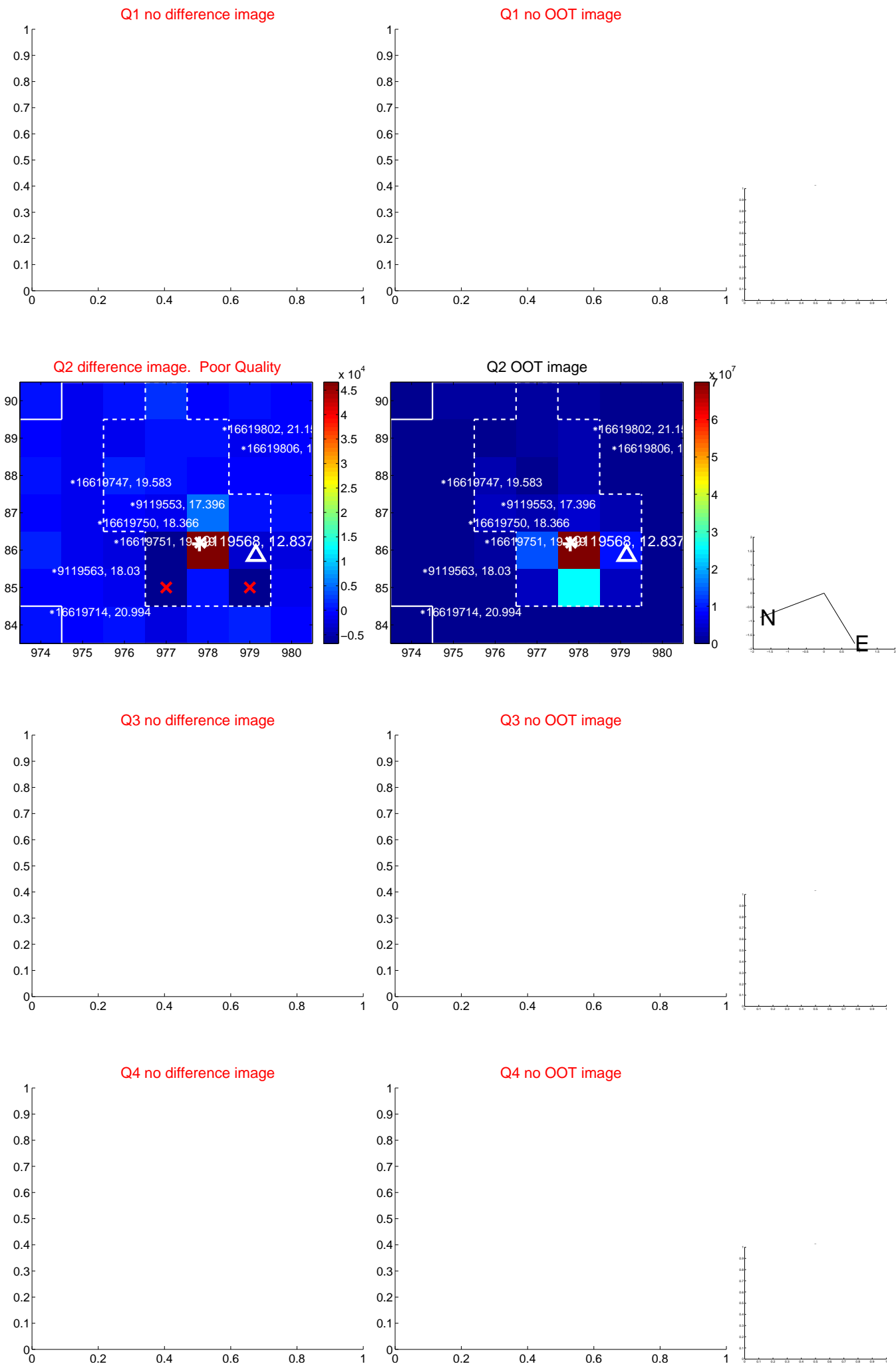
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.832 ± 7.289	0.66	3.280 ± 2.213	-3.547 ± 7.882
PRF-fit source offset from KIC position	4.788 ± 3.744	1.28	3.354 ± 1.155	-3.418 ± 4.114
photometric centroid source offset	0.76 ± 2.63	0.29	-0.76 ± 2.63	-0.05 ± 2.18

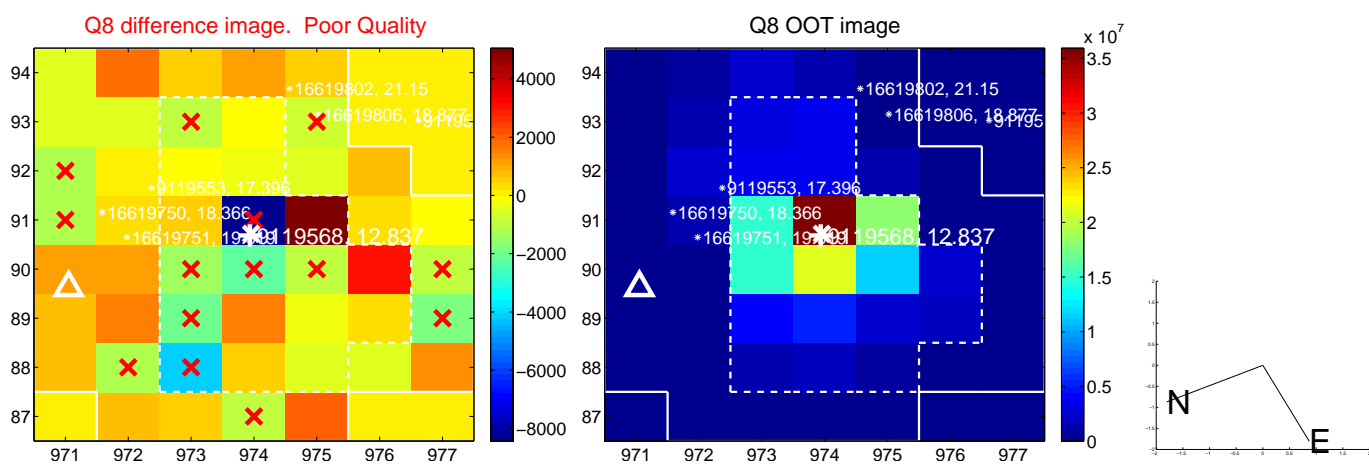
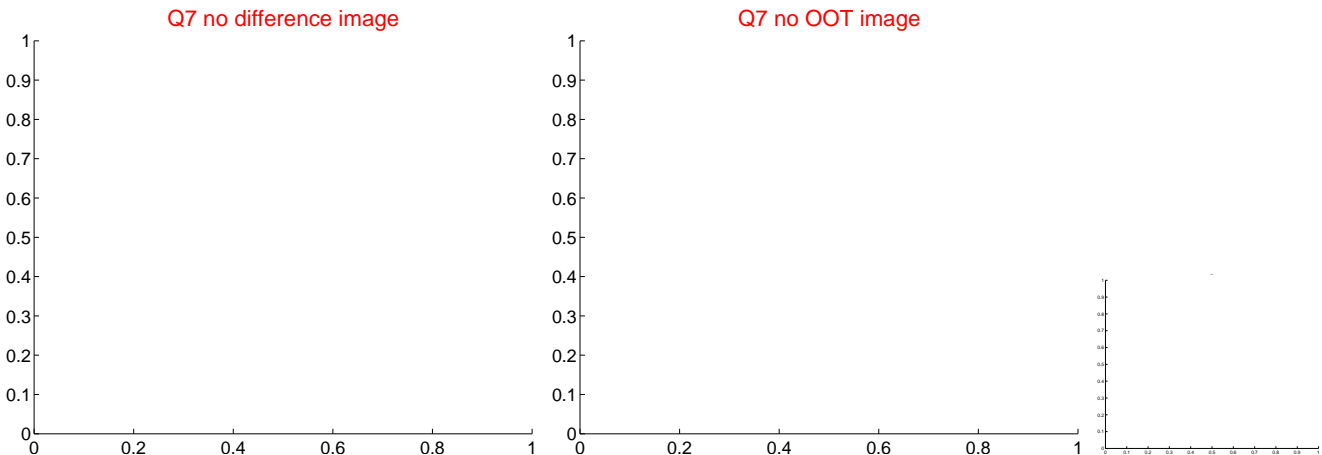
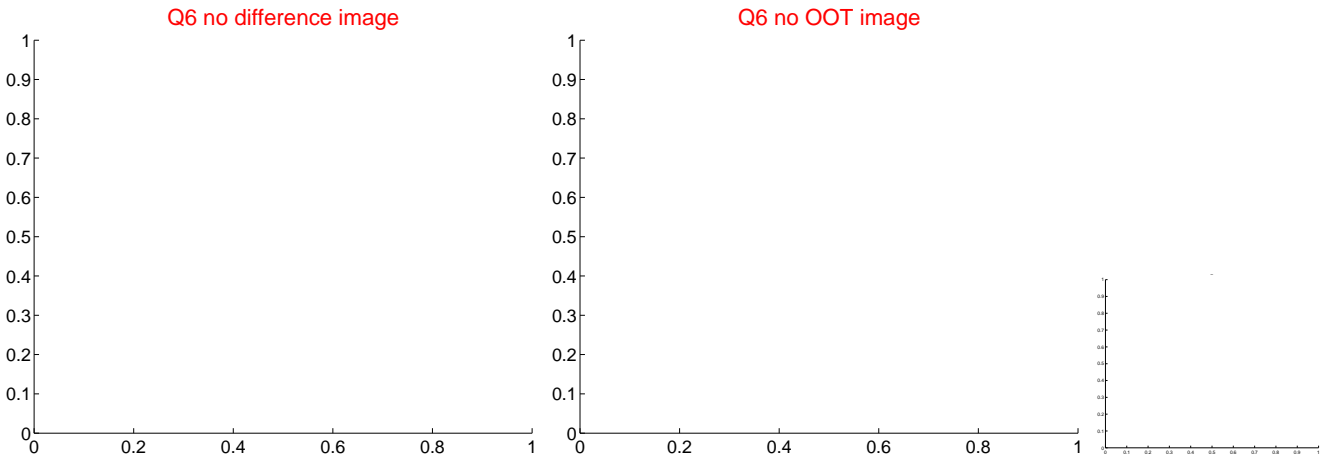
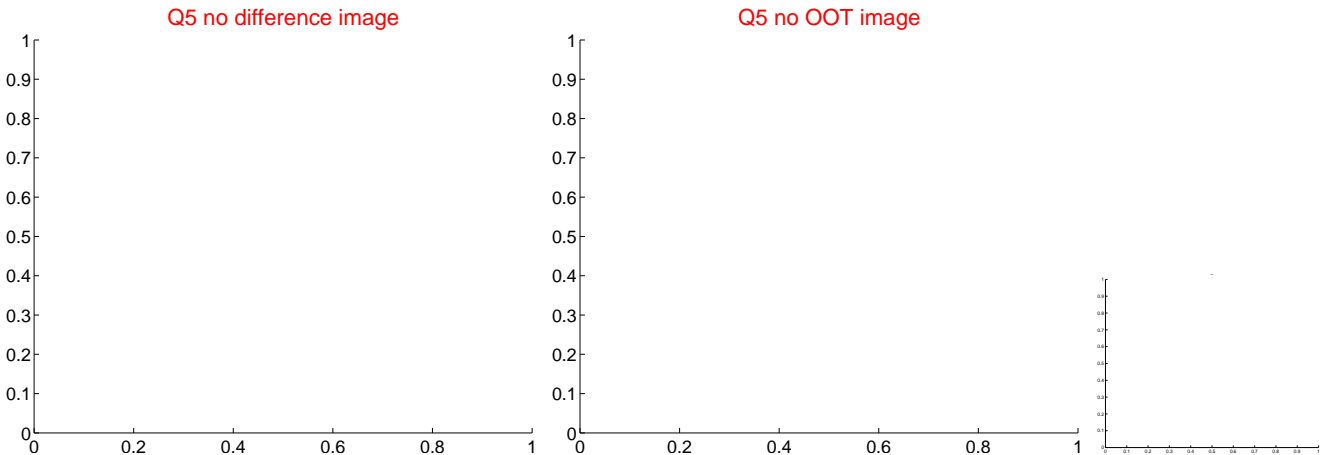


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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



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



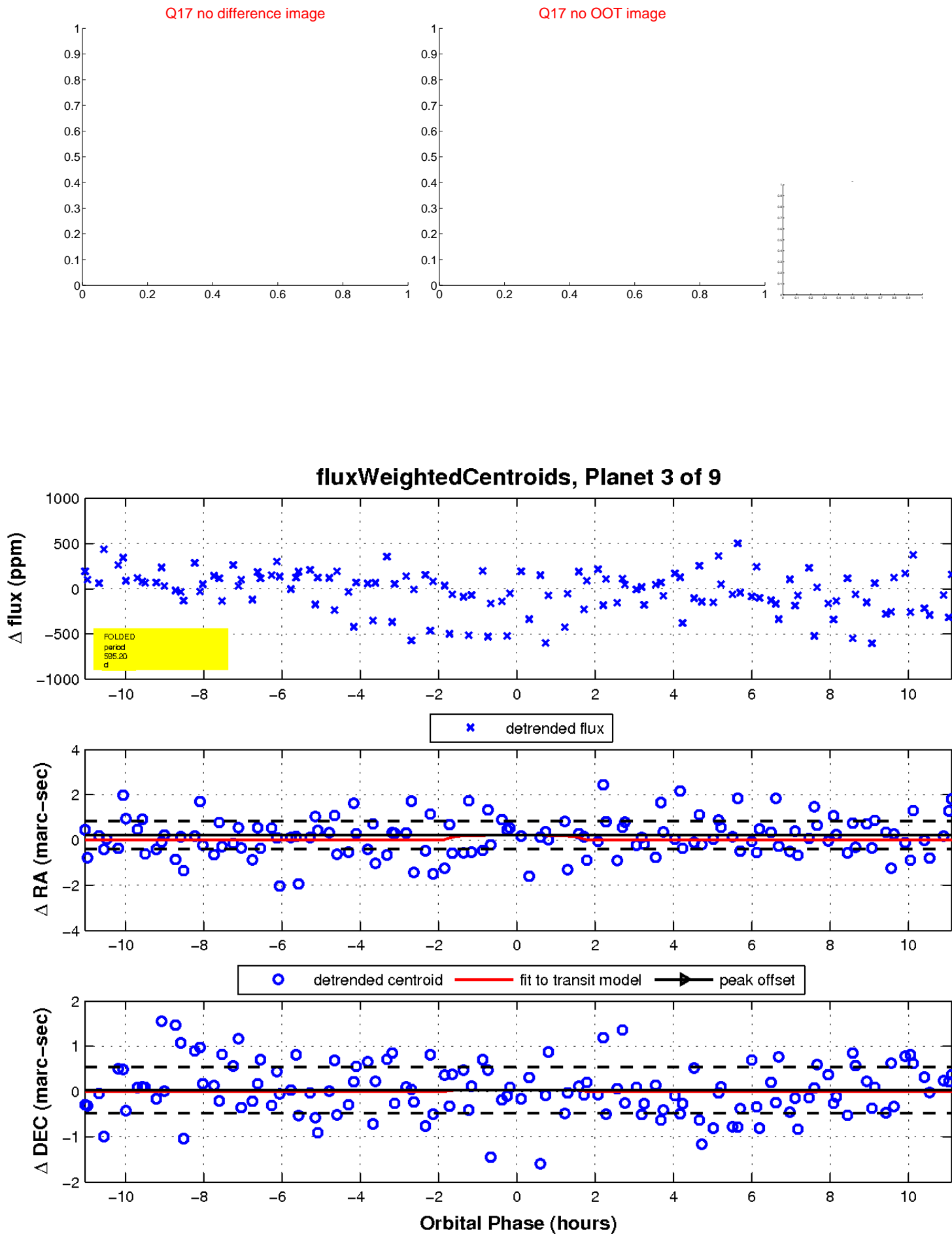
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

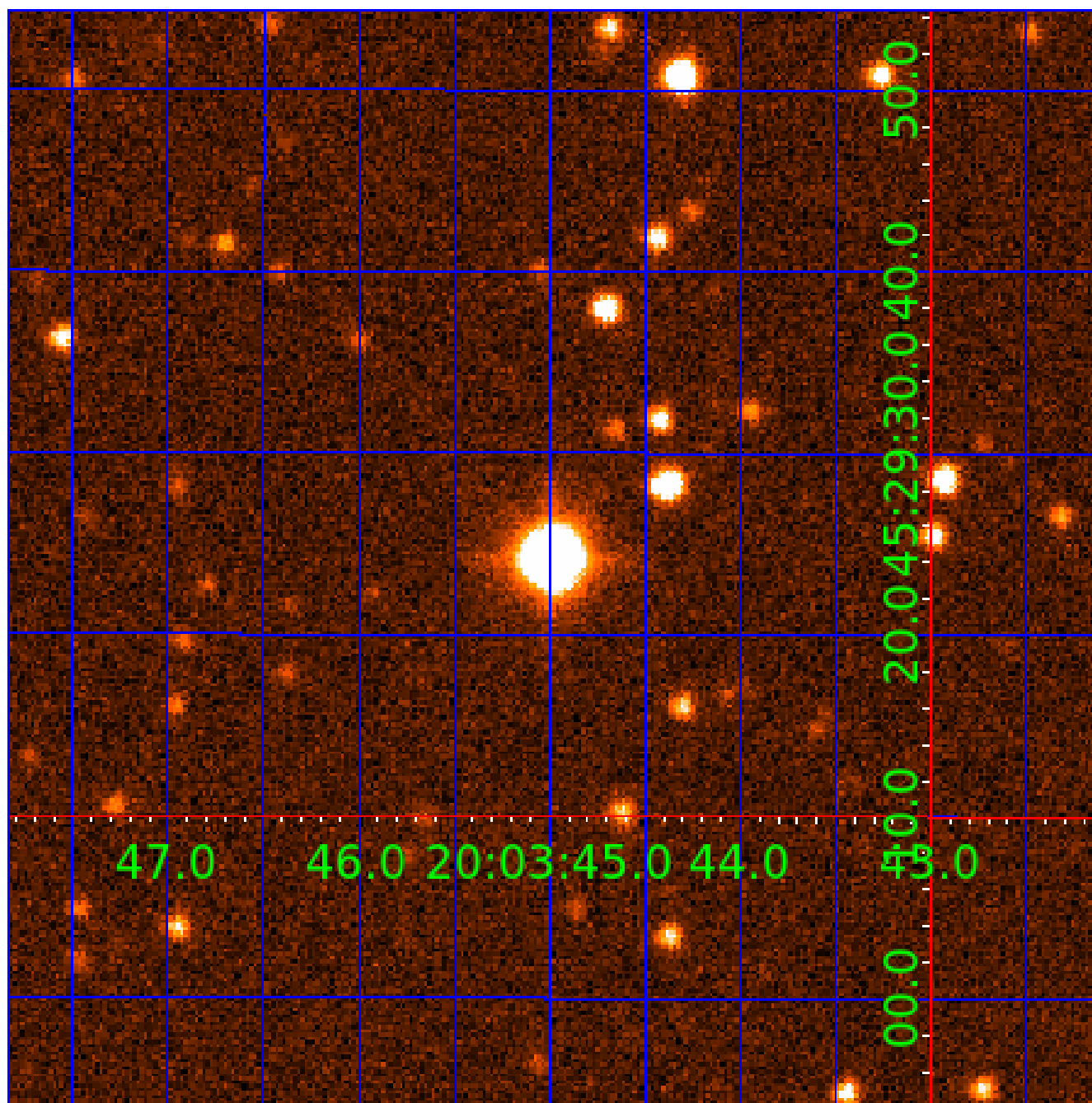


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009119568

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})
009119568-01	OBS	3087.01	5.548603	133.942592	64.1	4.672	12.1	12.8	0.83	5258	0.81	143.57
009119568-02	OBS	No	594.914962	203.604580	218.9	1.450	16.0	2.1	0.83	5258	1.49	0.28
009119568-03	OBS	No	595.202594	202.958220	231.5	3.708	16.2	2.0	0.83	5258	1.56	0.28
009119568-04	OBS	3087.02	1.221848	131.916069	23.8	7.385	7.5	10.5	0.83	5258	0.40	1079.64
009119568-05	OBS	No	94.236684	152.728762	168.6	1.213	21.8	3.0	0.83	5258	1.06	3.29
009119568-07	OBS	No	95.648610	204.188265	304.7	3.255	16.4	6.6	0.83	5258	1.58	3.22
009119568-08	OBS	No	62.099321	174.458969	58.4	1.823	15.5	1.6	0.83	5258	0.64	5.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009119568-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
009119568-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-04	OBS	FP	0.00	1	0	0	0	LPP_DV
009119568-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
009119568-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
009119568-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

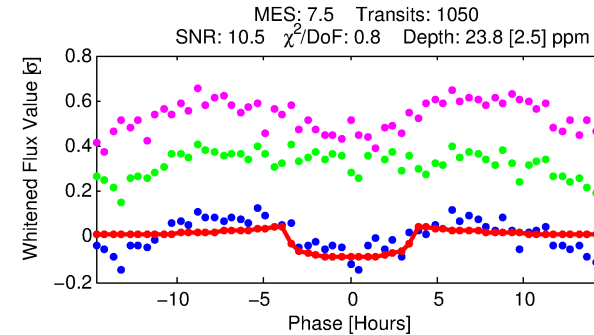
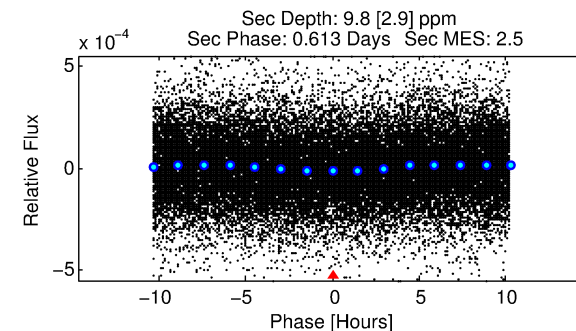
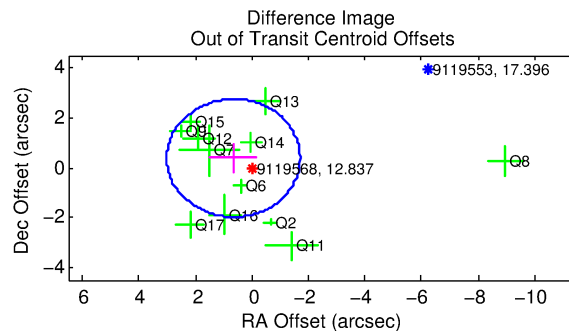
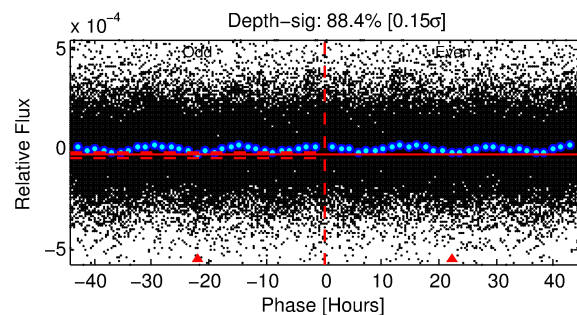
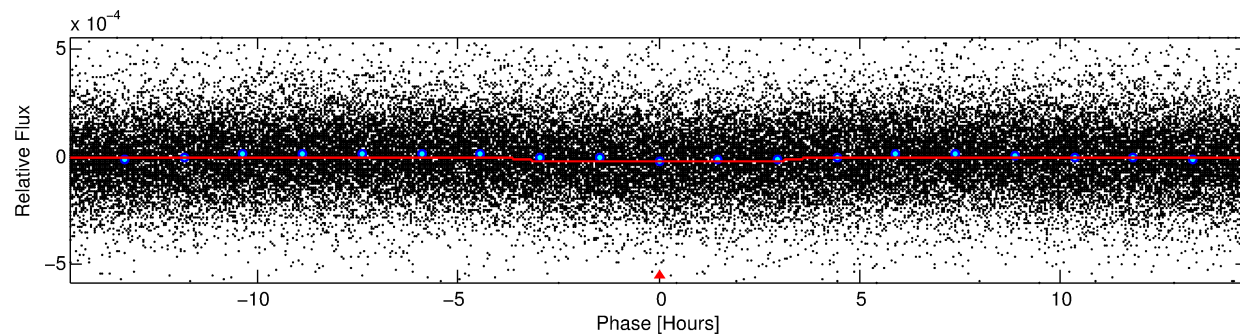
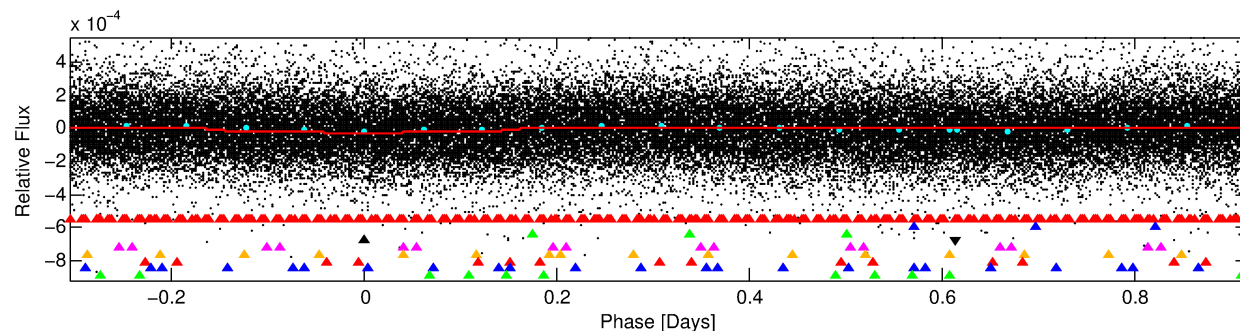
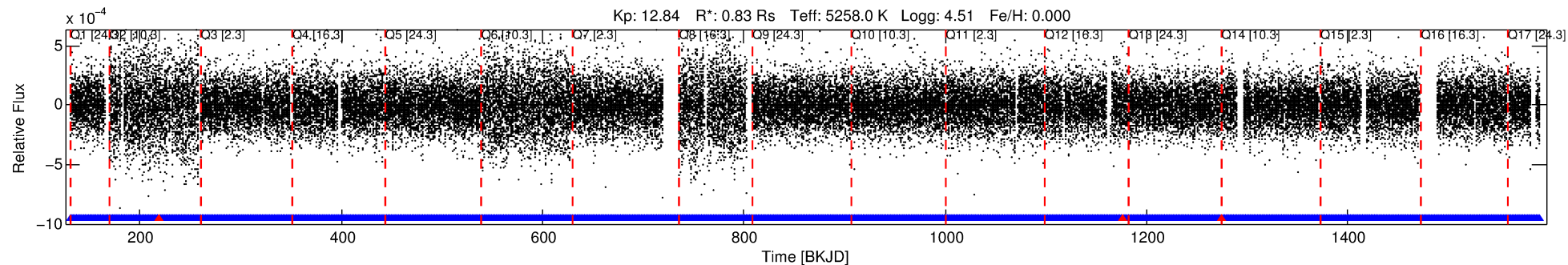
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009119568-04

No Significant Match Found

DV One-Page Summary

KIC: 9119568 Candidate: 4 of 9 Period: 1.222 d
KOI: K03087.02 Corr: 0.980



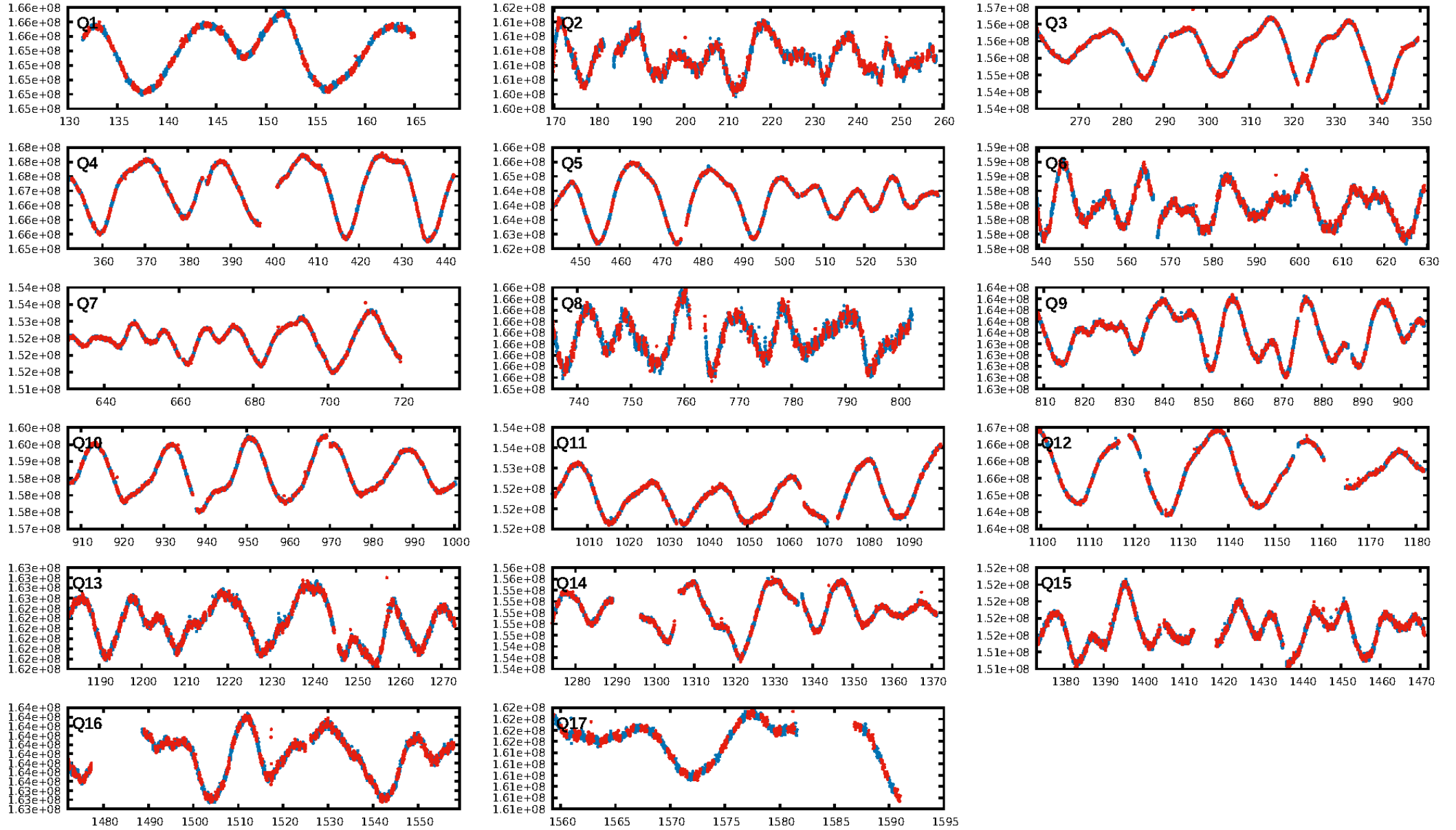
DV Fit Results:

Period = 1.22185 [0.00001] d
Epoch = 131.9161 [0.0052] BKJD
Rp/R* = 0.0044 [0.0036]
a/R* = 1.41 [2.15]
b = 0.01 [595.46]
Seff = 1079.64 [136.73]
Teq = 1462 [46] K
Rp = 0.40 [0.33] Re
a = 0.0210 [0.0014] AU
Ag = 15.17 [25.50] [0.56 σ]
Teffp = 4460 [1873] K [1.60 σ]

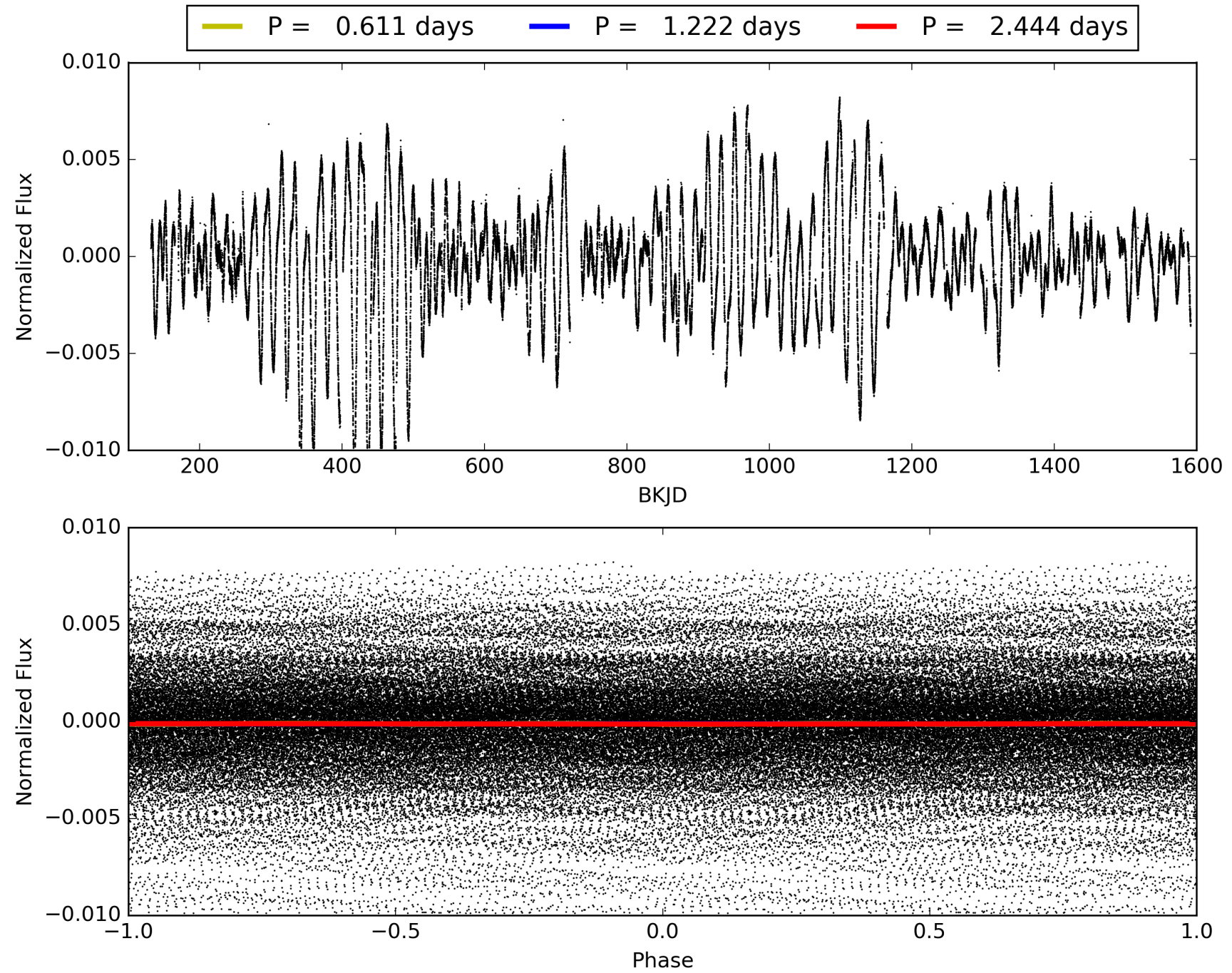
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [11.88 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [997/1000]
GhostDiagnostic-chr: 1.081
Centroid-sig: 20.4%
Centroid-so: 0.904 arcsec [1.12 σ]
OotOffset-rm: 0.759 arcsec [0.96 σ]
KicOffset-rm: 1.026 arcsec [1.51 σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 009119568-04, PDC Light Curves

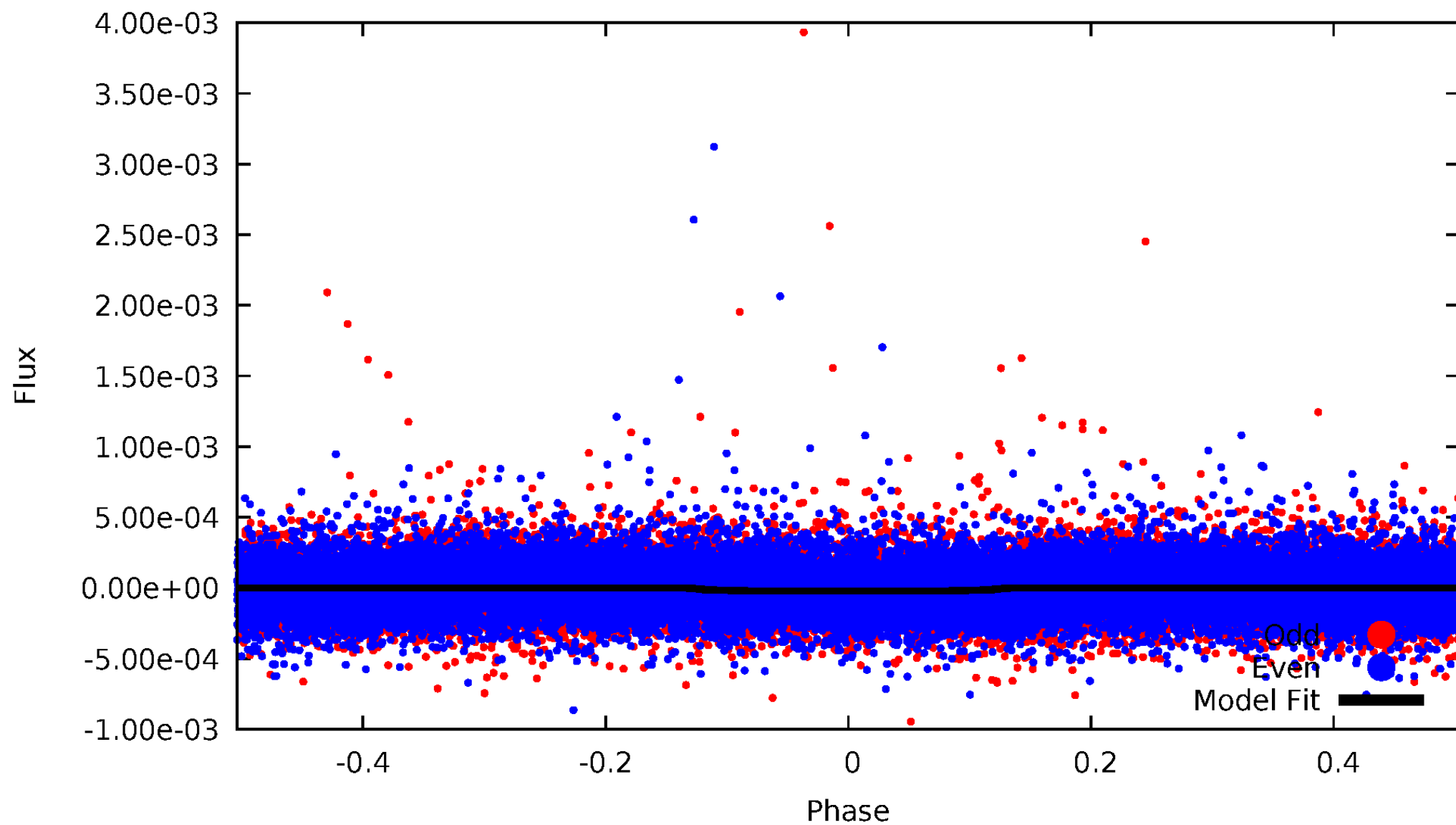


TCE 009119568-04



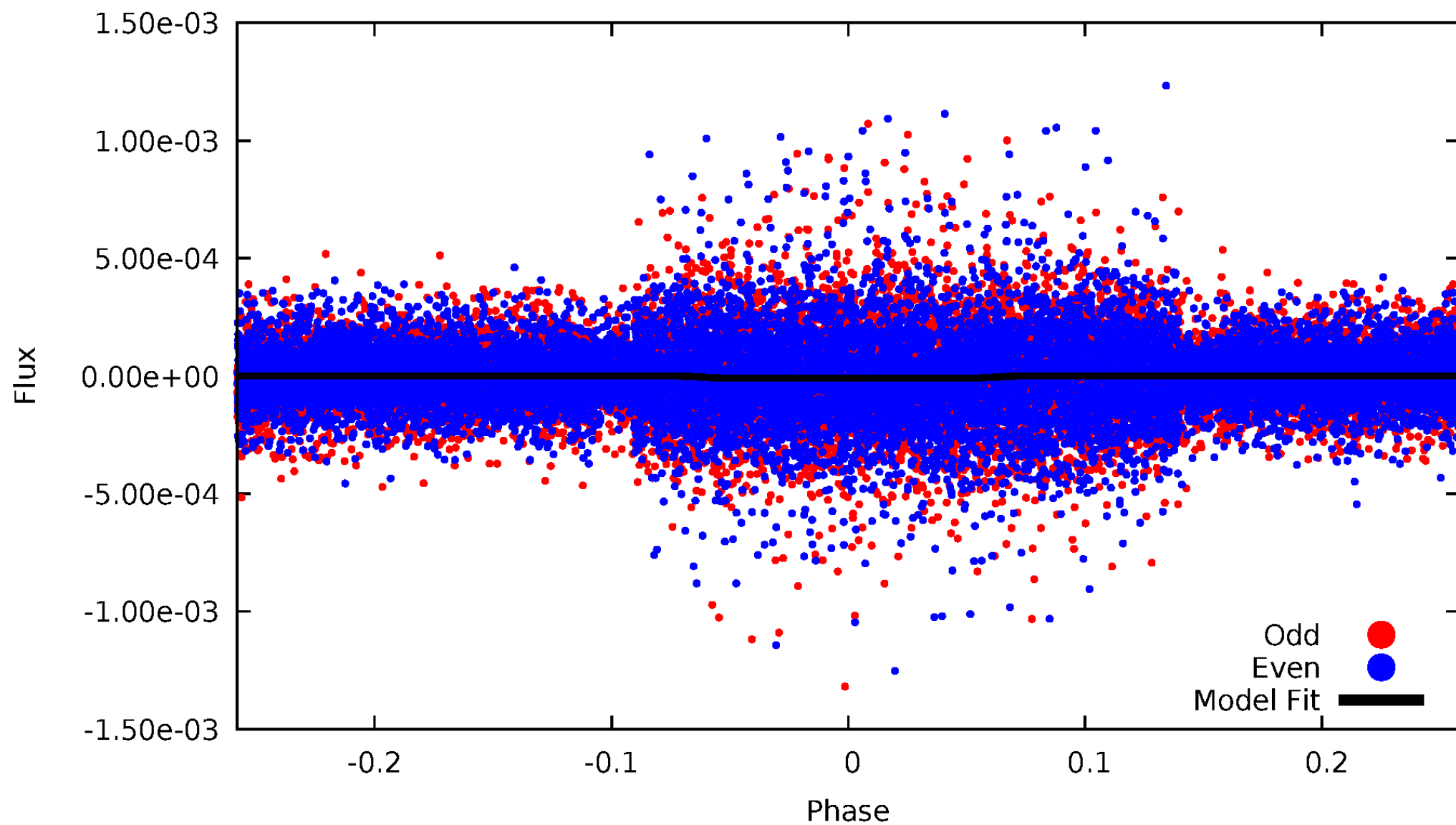
DV Odd/Even

TCE 009119568-04



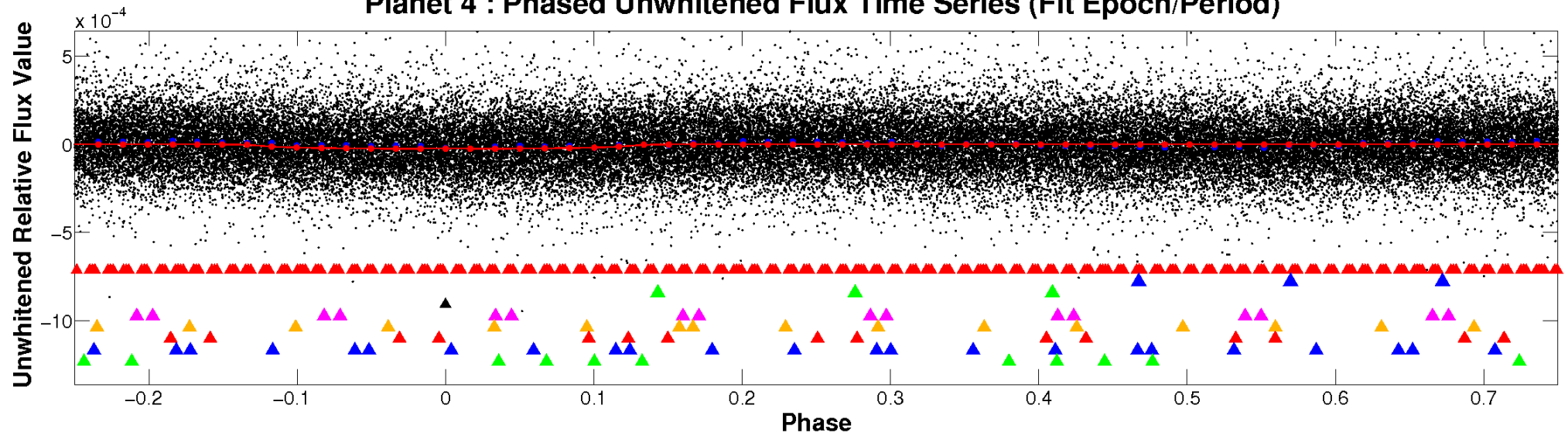
ALT Odd/Even

TCE 009119568-04

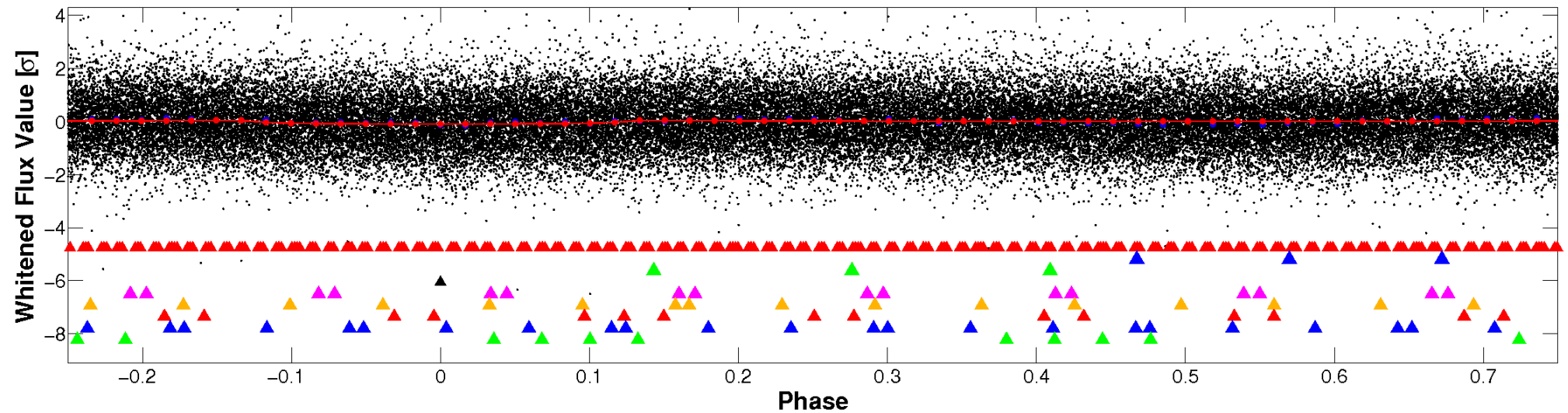


Non-Whitened Vs. Whitened Light Curve

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

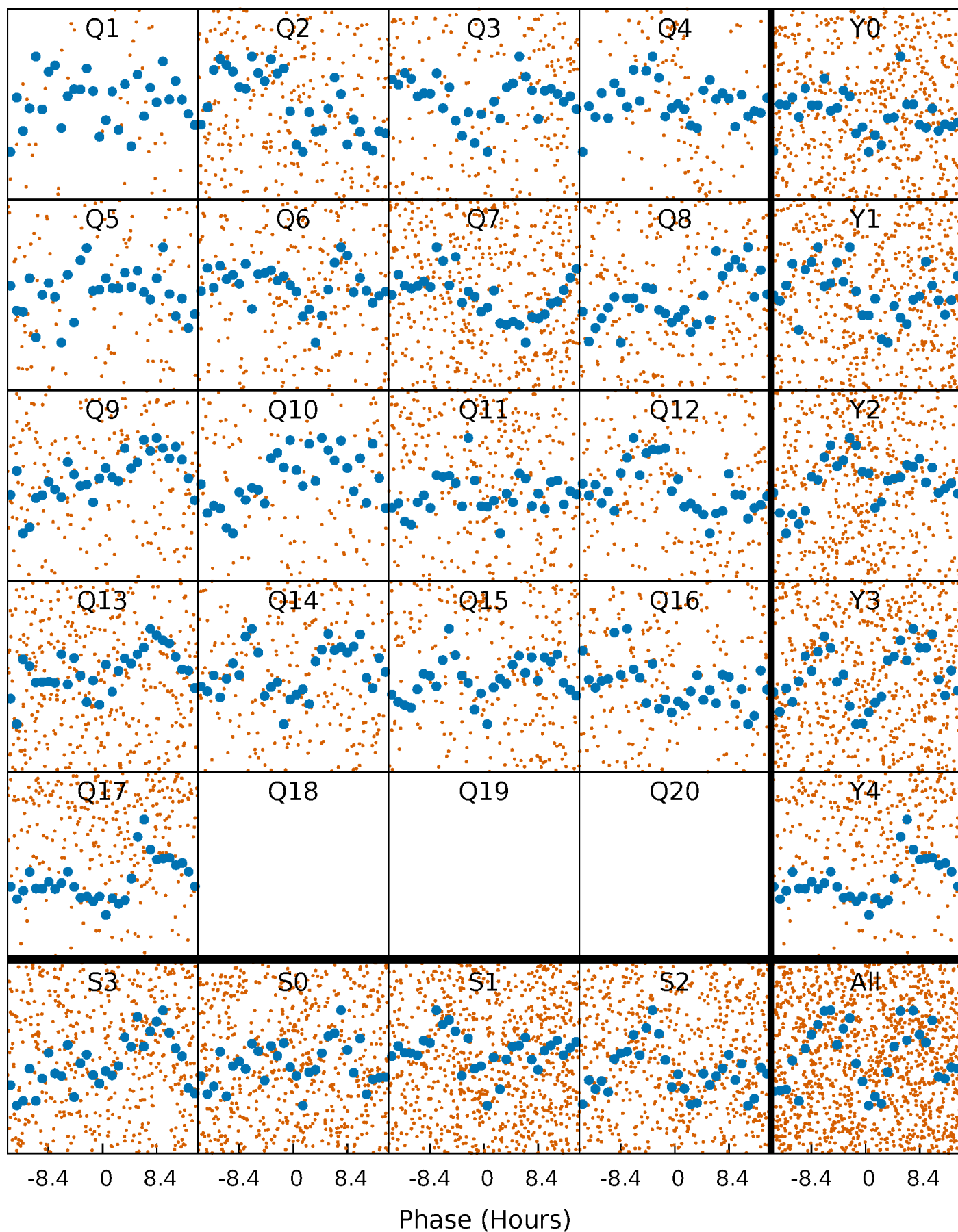


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



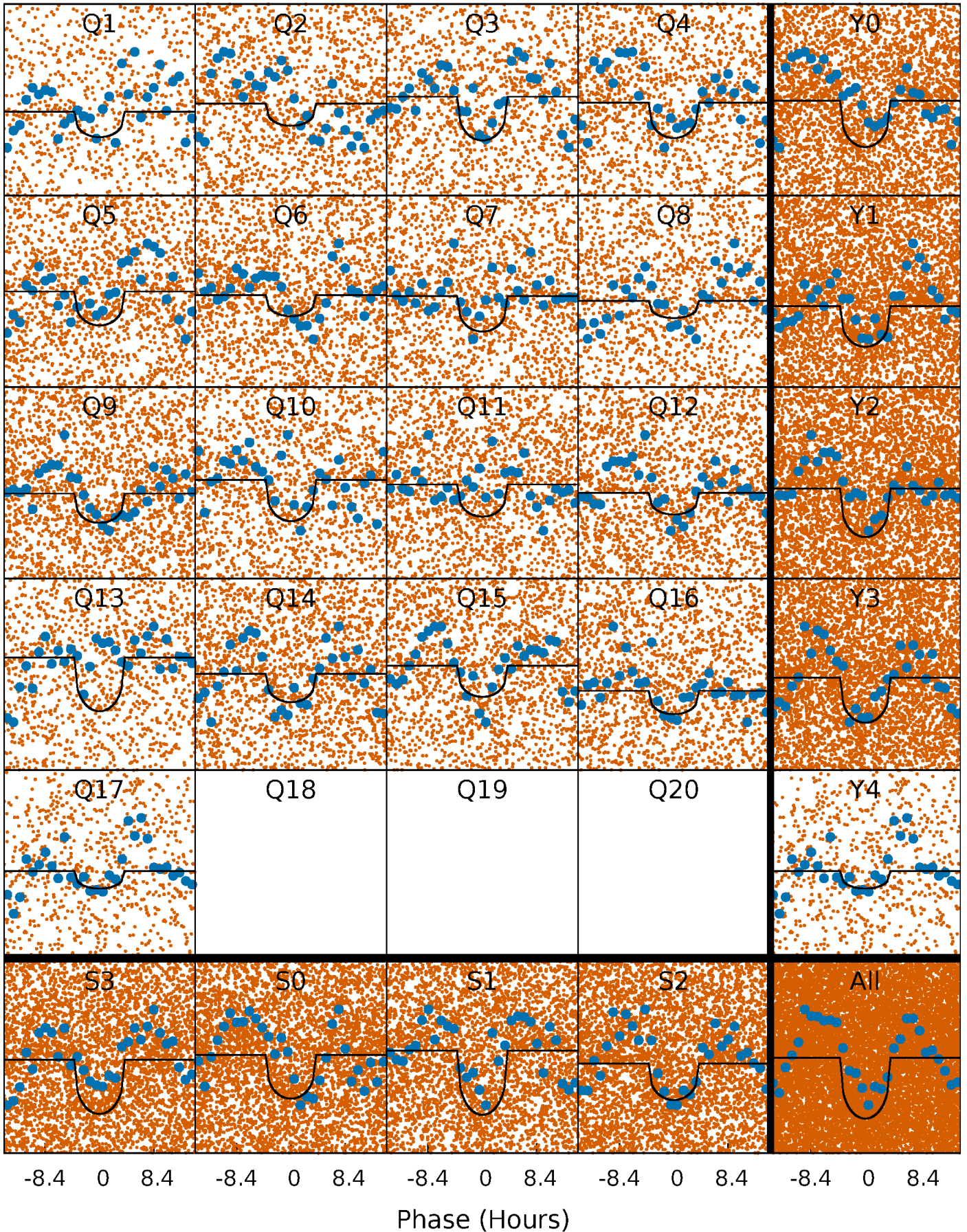
PDC Quarter-Phased Transit Curves

TCE 009119568-04 P= 1.221848 Days $T_0=131.916069$ (BKJD)



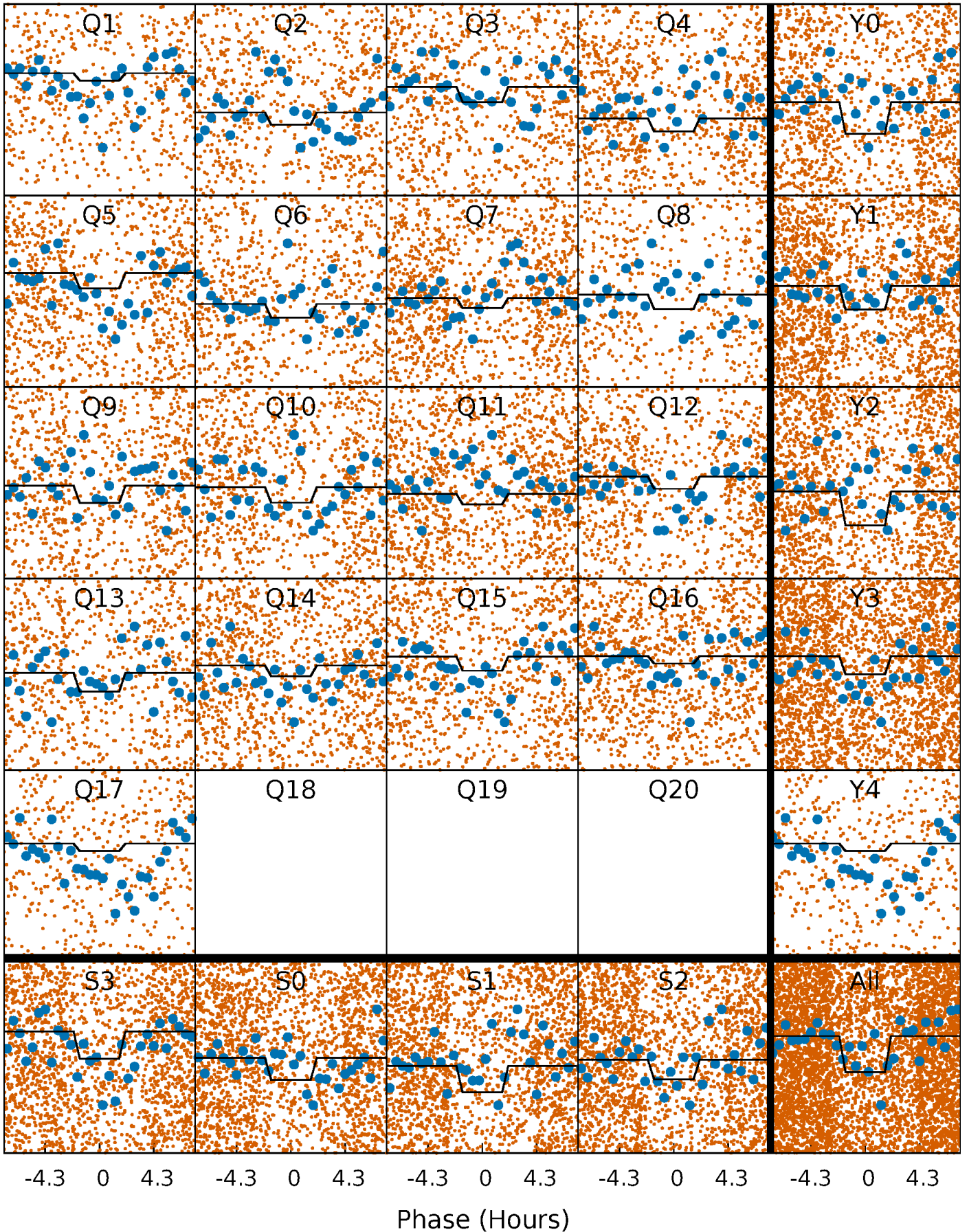
DV Quarter-Phased Transit Curves

TCE 009119568-04 P= 1.221848 Days $T_0=131.916069$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

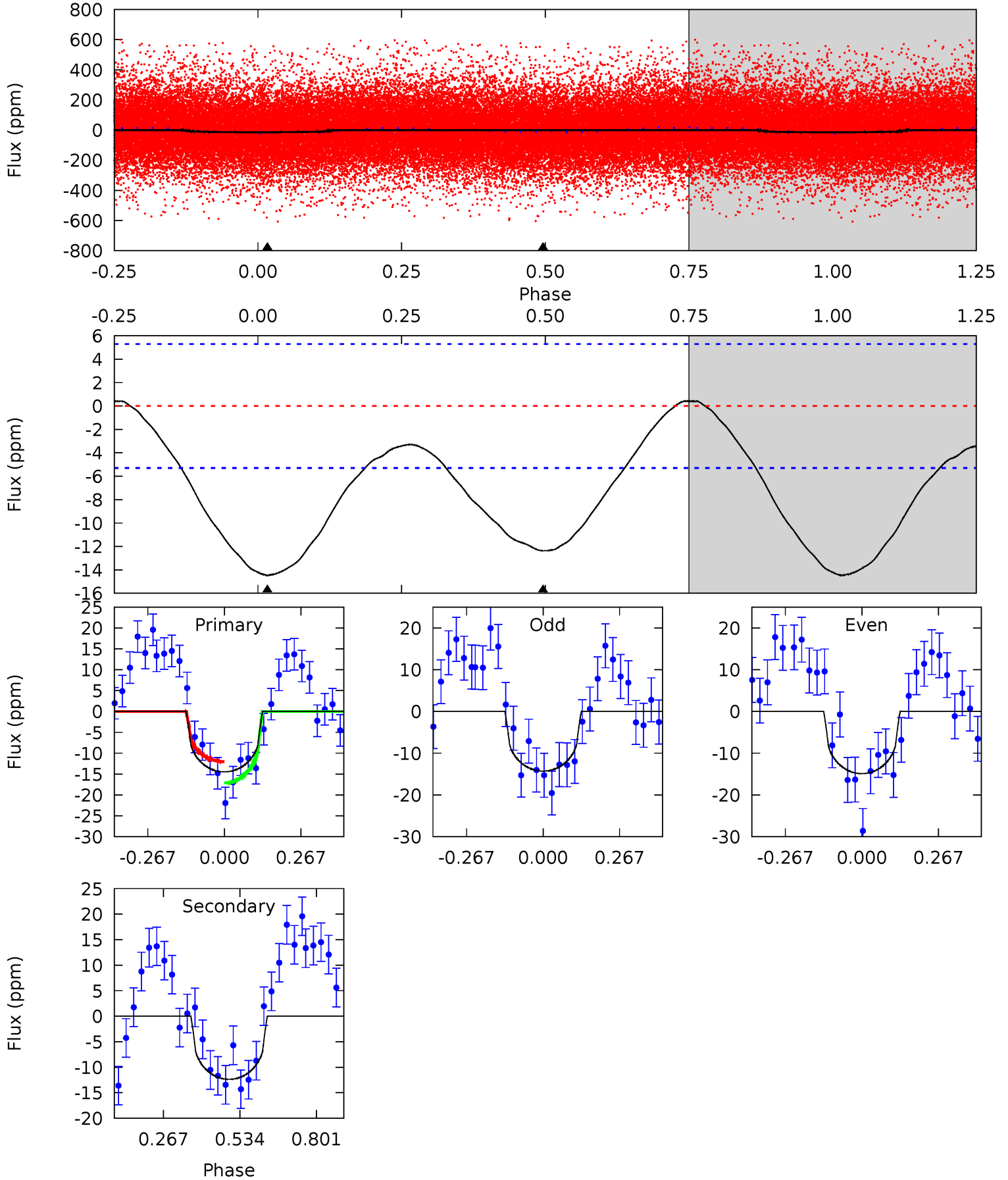
TCE 009119568-04 P= 1.221818 Days $T_0=131.890275$ (BKJD)



DV Model-Shift Uniqueness Test

009119568-04, P = 1.221848 Days, E = 130.694221 Days

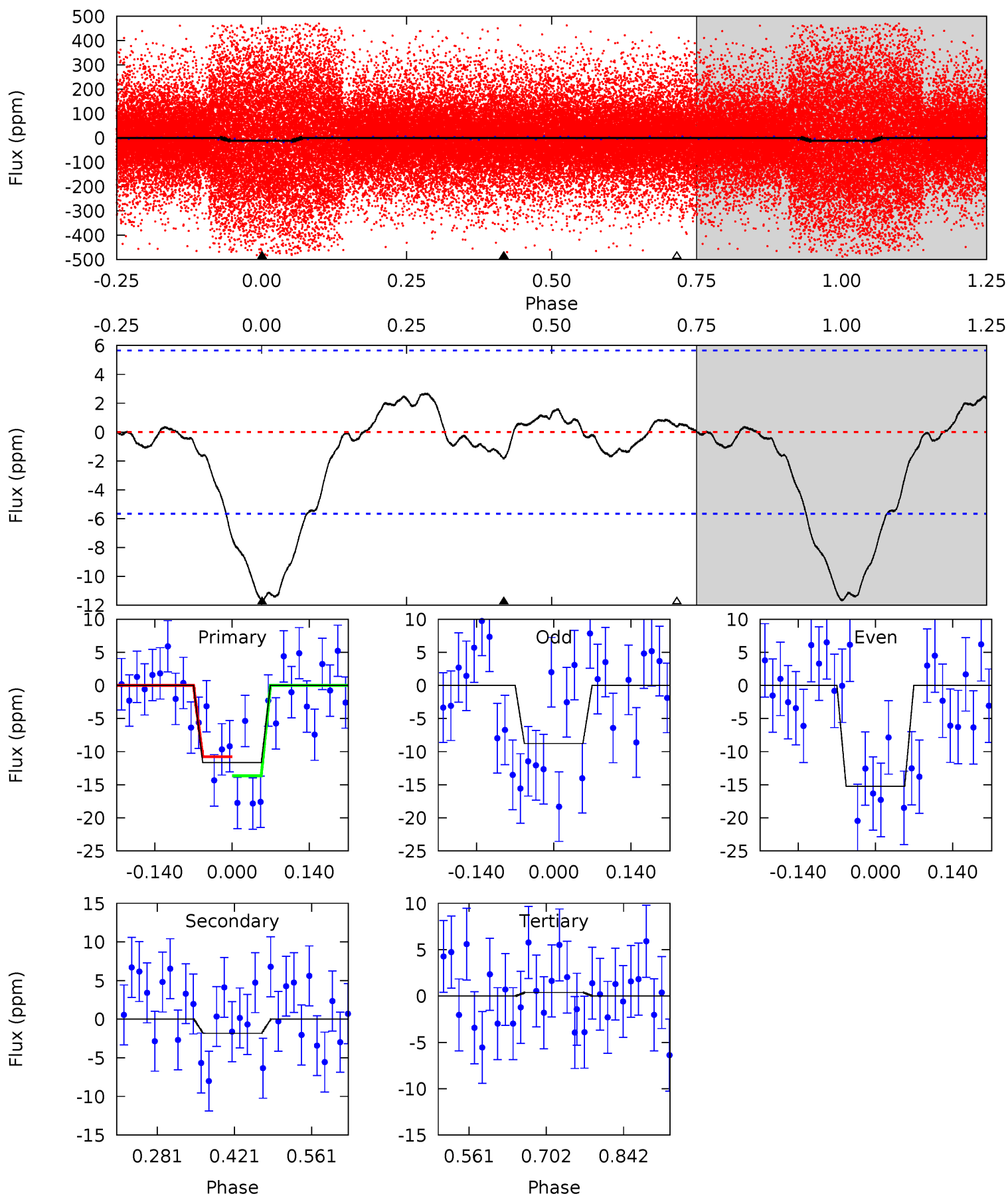
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	10.2	0	0	4.35	1.11	1.35	11.9	11.9	10.2	10.2	0.25	0.74	0.03	2.11



Alt Model-Shift Uniqueness Test

009119568-04, P = 1.221818 Days, E = 130.668457 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.27	1.46	-0.30	0	4.49	1.47	0.85	9.57	9.27	1.75	1.46	2.45	1.07	0.19	1.14



Stellar Parameters For KIC 009119568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5258^{+105}_{-105}	$4.514^{+0.055}_{-0.055}$	$0.000^{+0.150}_{-0.150}$	$0.835^{+0.063}_{-0.057}$	$0.831^{+0.053}_{-0.042}$	$2.010^{+0.449}_{-0.336}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+8%/-7%	+6%/-5%	+22%/-17%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 009119568-04 / KOI 3087.02

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12 ± 1	$0.44^{+0.31}_{-0.25}$	2042^{+55}_{-60}	4587^{+2311}_{-825}	16^{+71}_{-10}
Alt.	-2 ± 1	$0.36^{+0.30}_{-0.23}$	2044^{+58}_{-59}	3298^{+1730}_{-788}	$2.581^{+20.857}_{-1.984}$

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 $A_{obs} \gg 1.0$

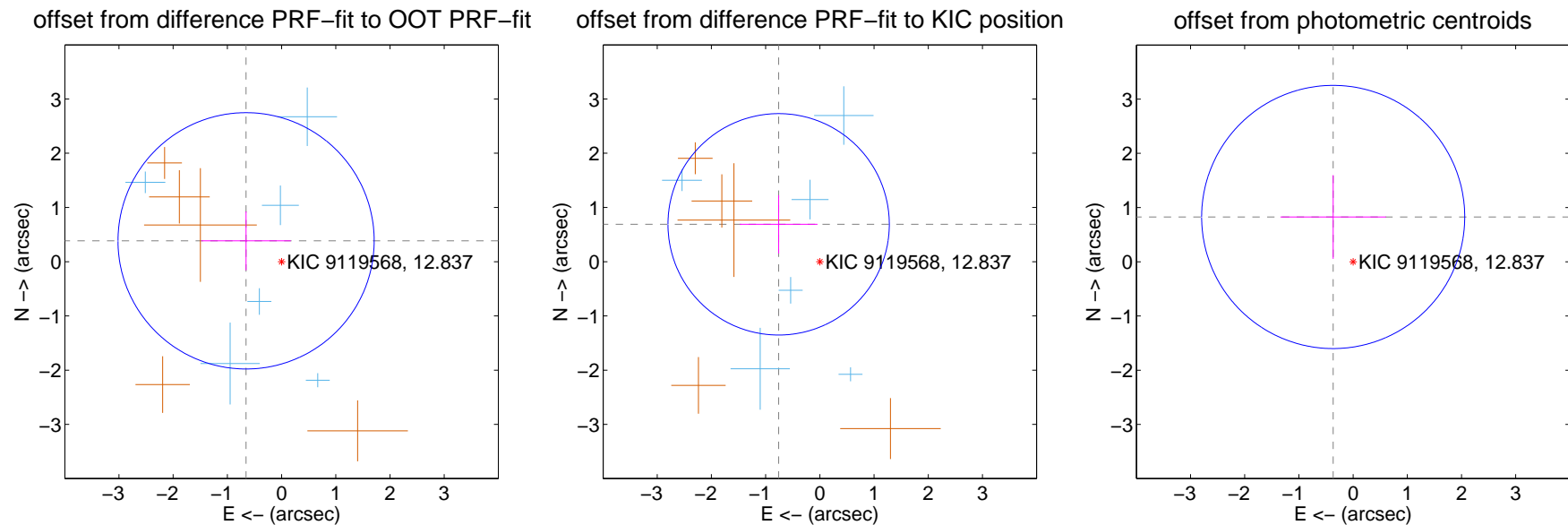
DV Centroid Data

Supplemental centroid analysis for 009119568-04. Kepler magnitude: 12.84. Transit SNR 10.52

There are 6 quarters with good PRF difference image offsets

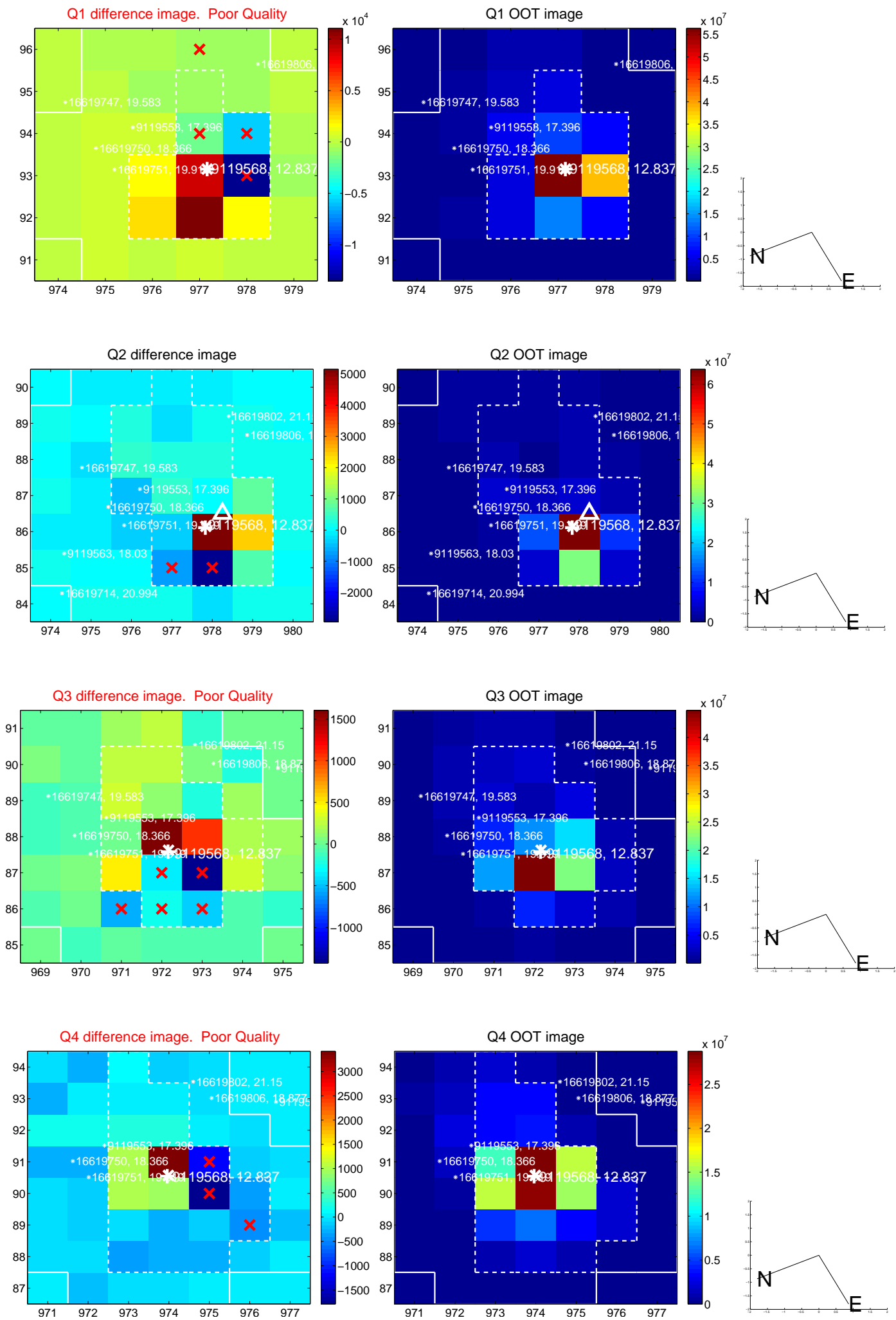
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.759 ± 0.788	0.96	0.655 ± 0.825	0.385 ± 0.542
PRF-fit source offset from KIC position	1.026 ± 0.680	1.51	0.760 ± 0.717	0.689 ± 0.538
photometric centroid source offset	0.90 ± 0.81	1.12	0.37 ± 0.97	0.83 ± 0.77

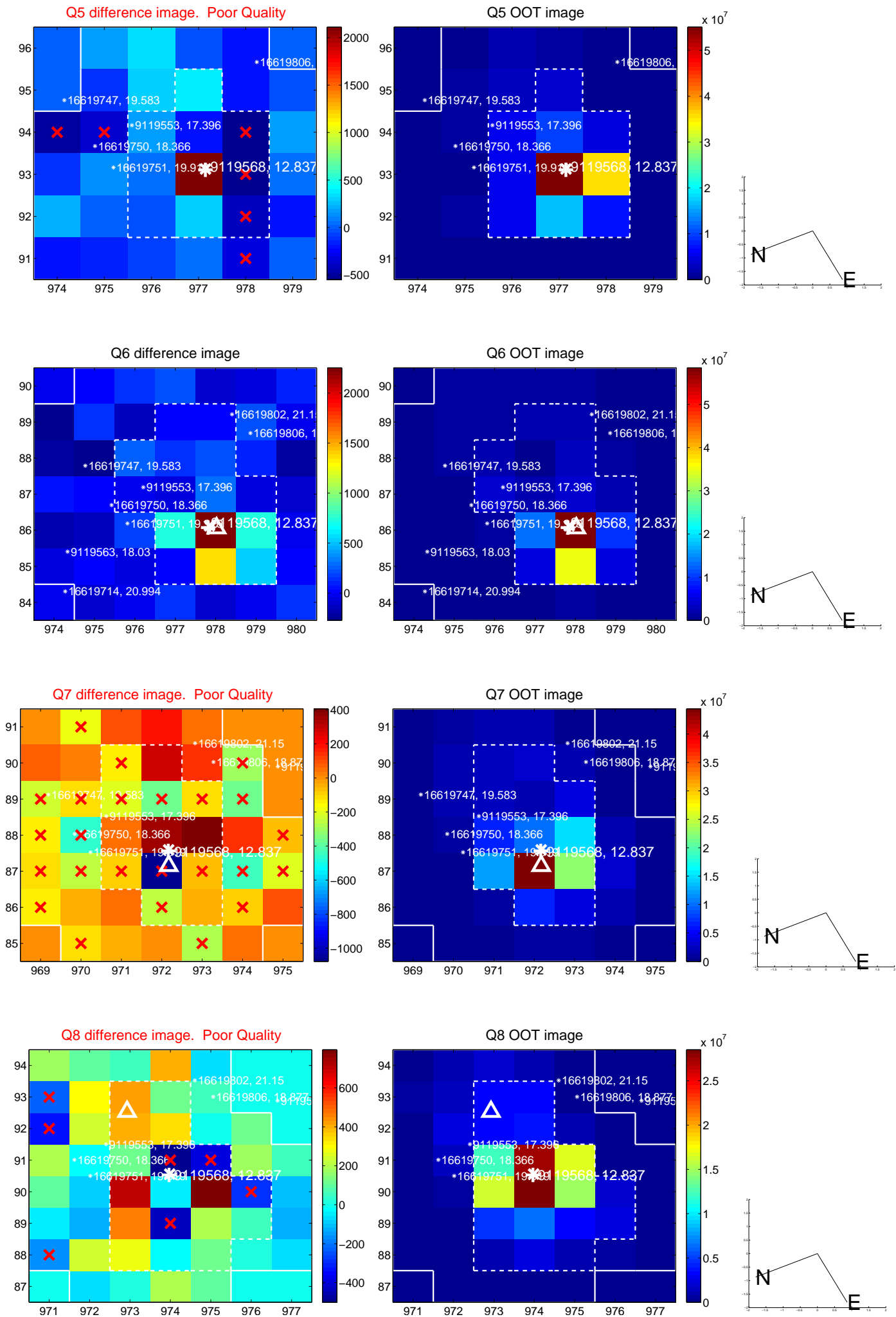


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

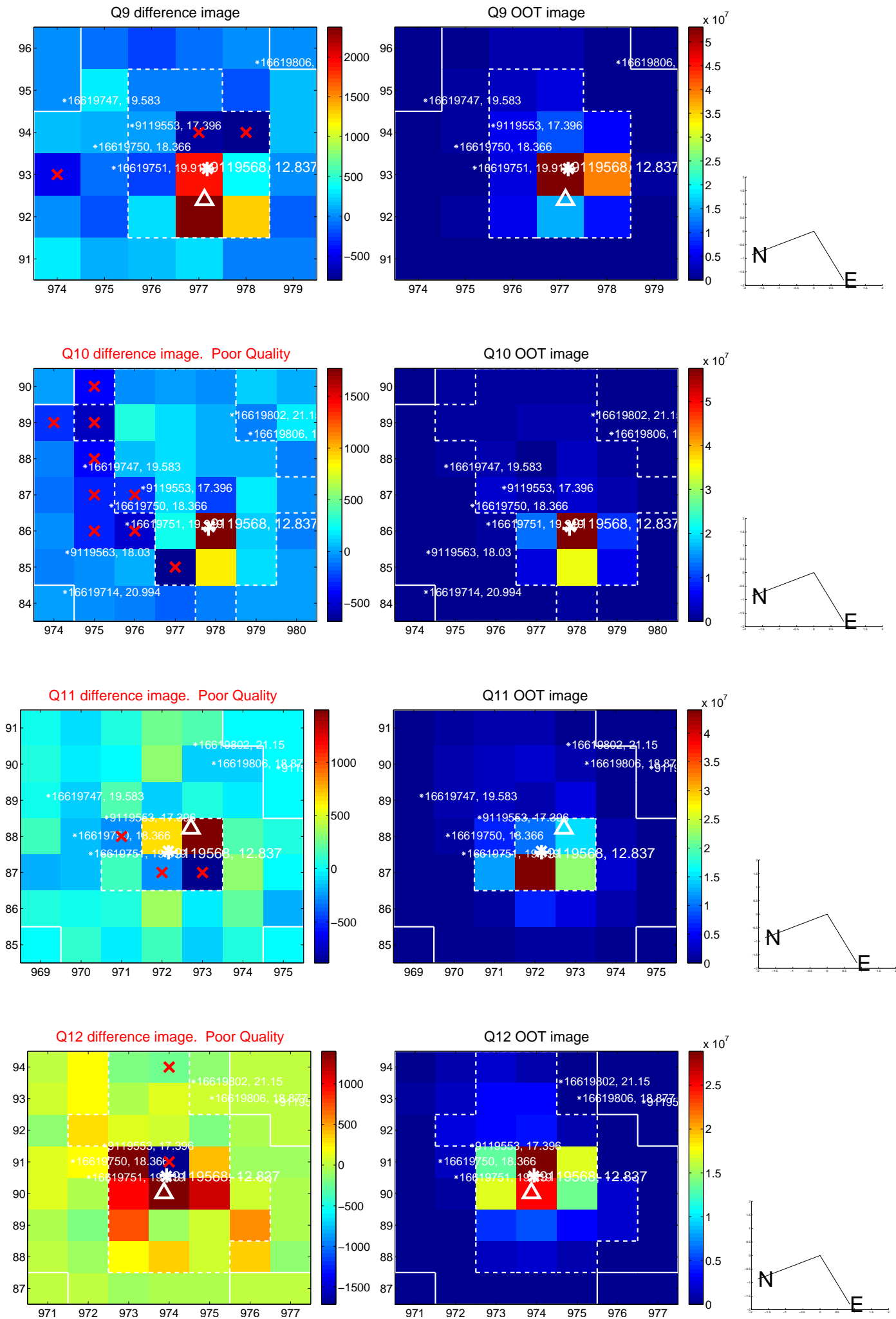
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



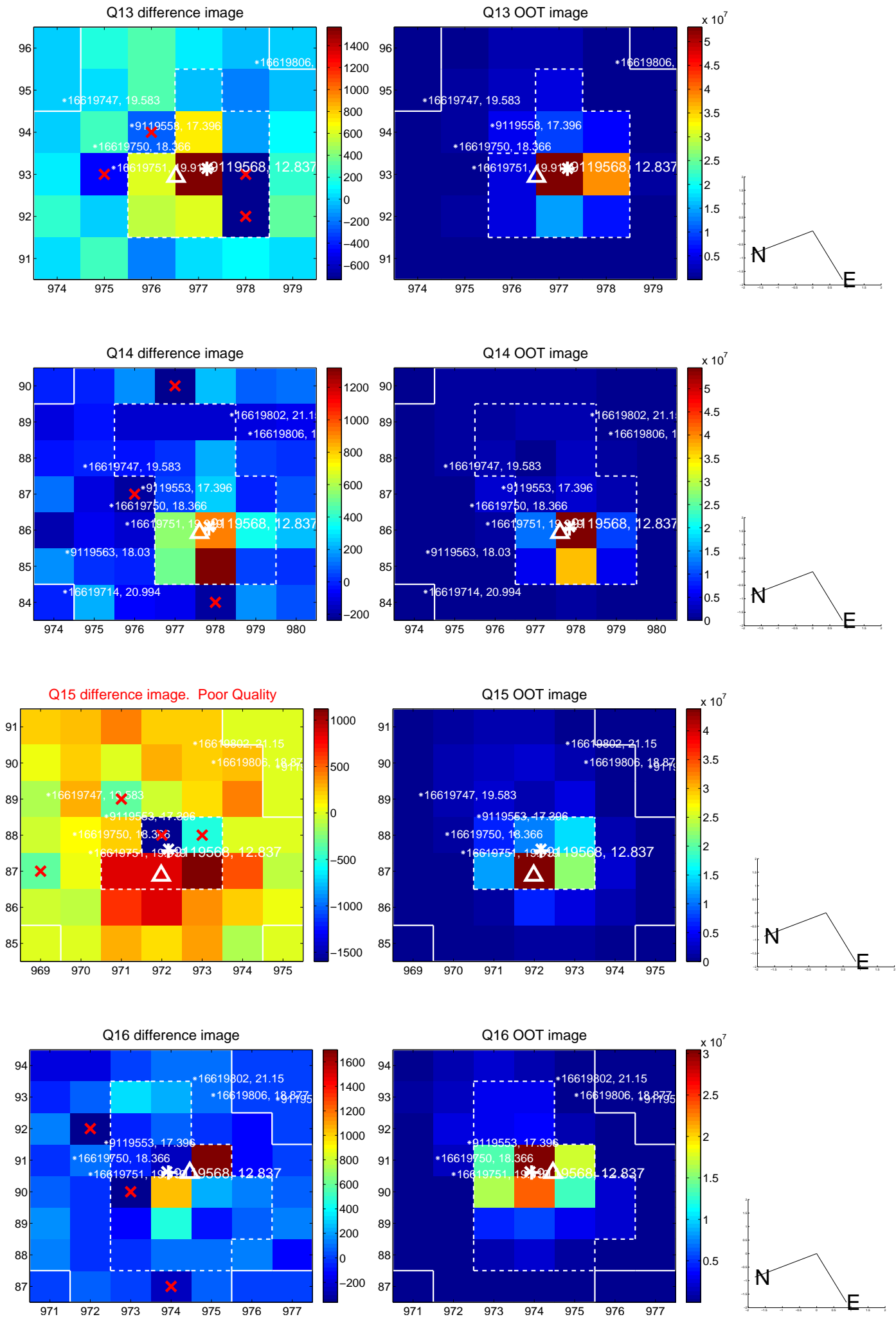
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



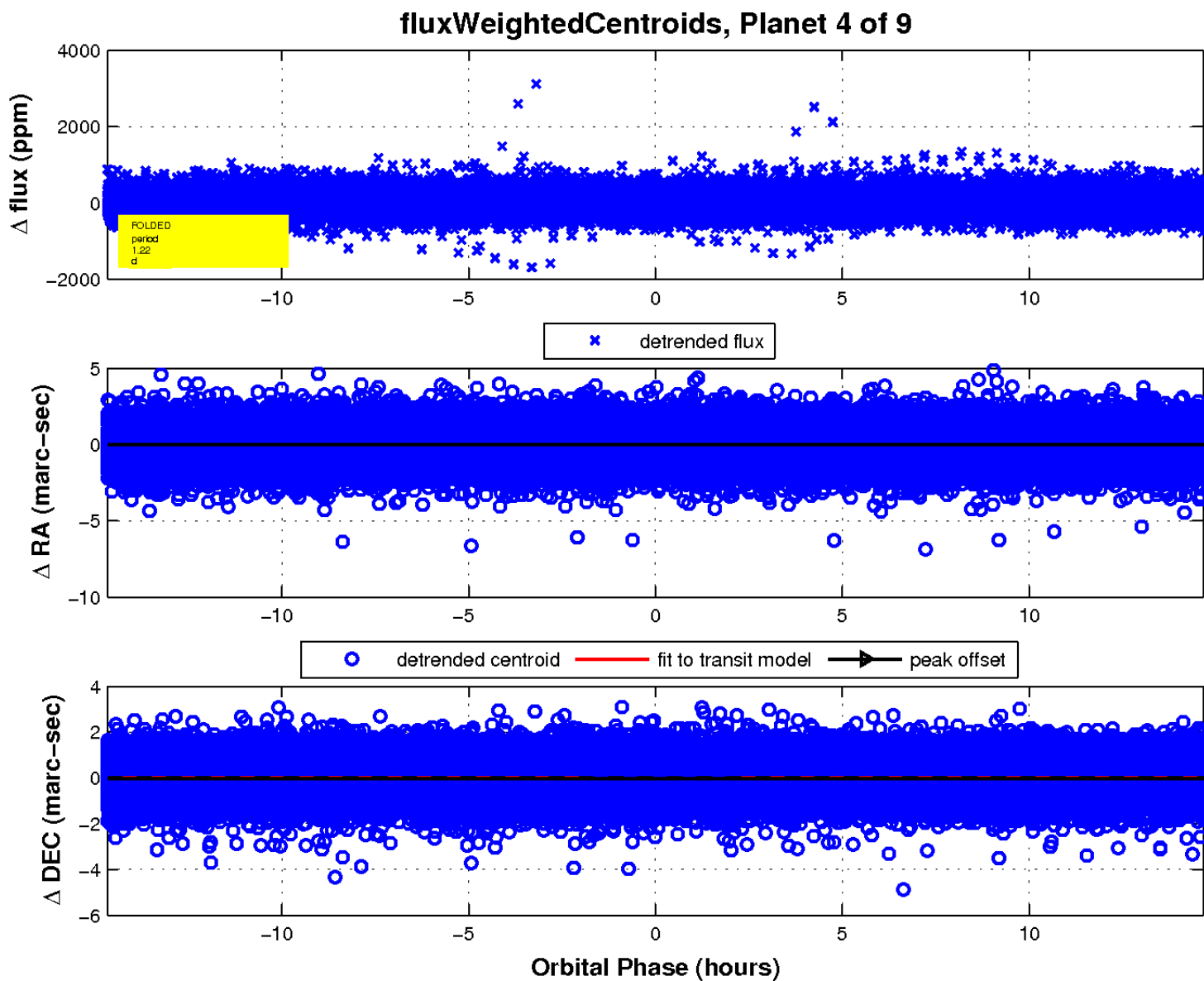
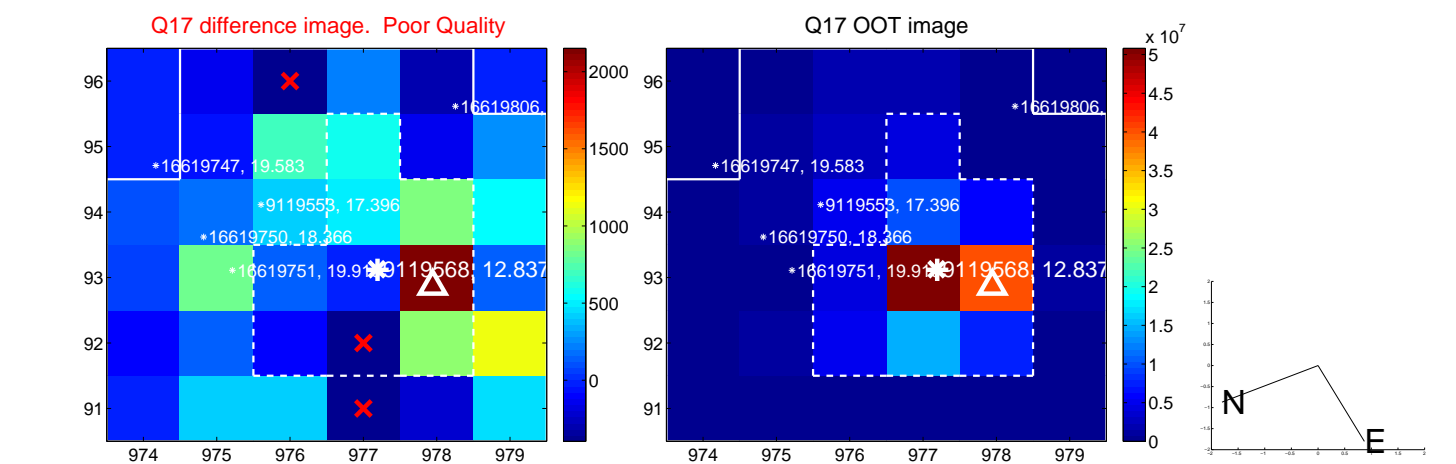
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

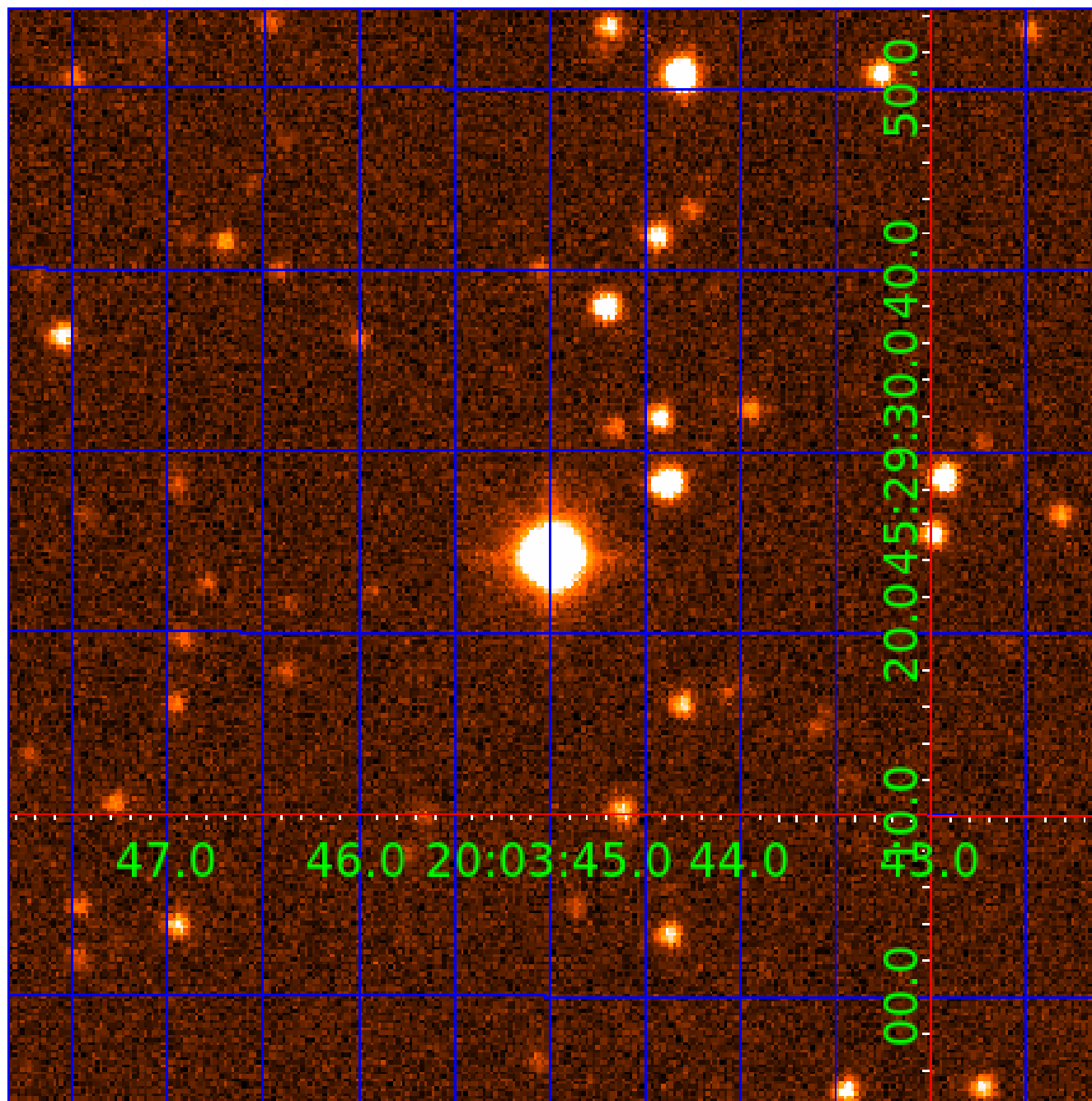


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009119568

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})
009119568-01	OBS	3087.01	5.548603	133.942592	64.1	4.672	12.1	12.8	0.83	5258	0.81	143.57
009119568-02	OBS	No	594.914962	203.604580	218.9	1.450	16.0	2.1	0.83	5258	1.49	0.28
009119568-03	OBS	No	595.202594	202.958220	231.5	3.708	16.2	2.0	0.83	5258	1.56	0.28
009119568-04	OBS	3087.02	1.221848	131.916069	23.8	7.385	7.5	10.5	0.83	5258	0.40	1079.64
009119568-05	OBS	No	94.236684	152.728762	168.6	1.213	21.8	3.0	0.83	5258	1.06	3.29
009119568-07	OBS	No	95.648610	204.188265	304.7	3.255	16.4	6.6	0.83	5258	1.58	3.22
009119568-08	OBS	No	62.099321	174.458969	58.4	1.823	15.5	1.6	0.83	5258	0.64	5.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009119568-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
009119568-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-04	OBS	FP	0.00	1	0	0	0	LPP_DV
009119568-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
009119568-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
009119568-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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 009119568-05

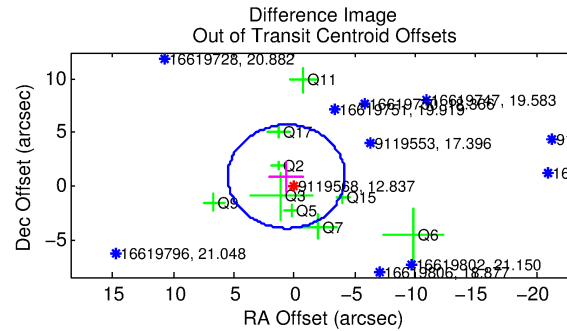
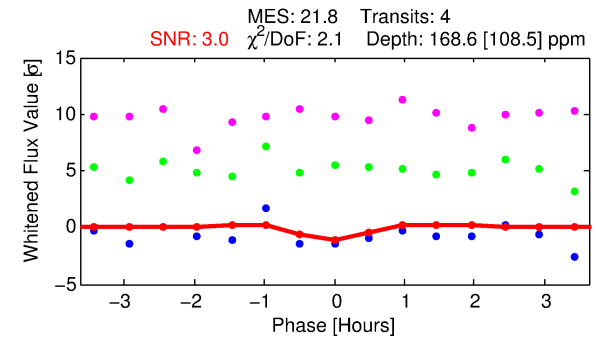
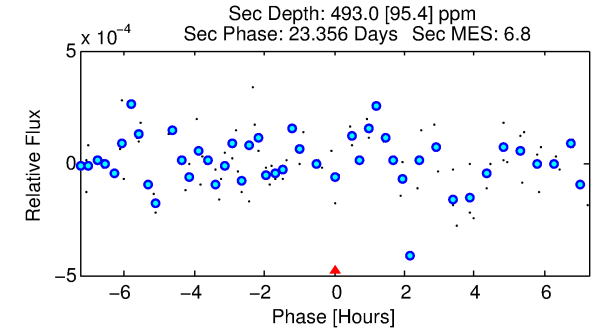
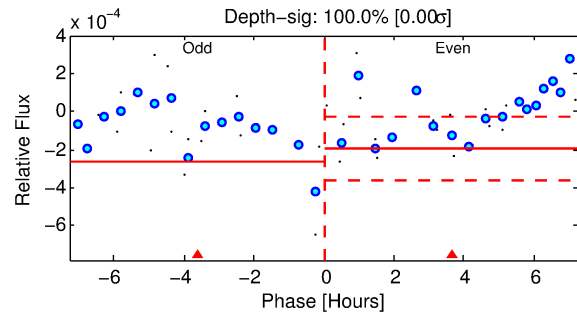
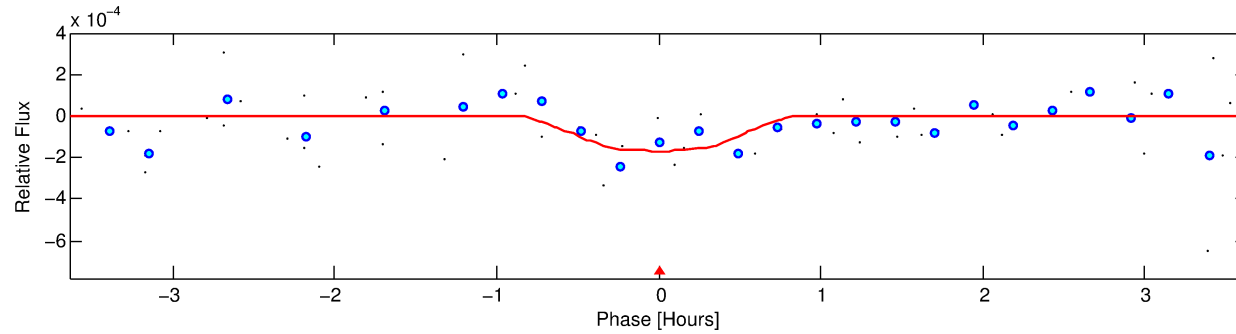
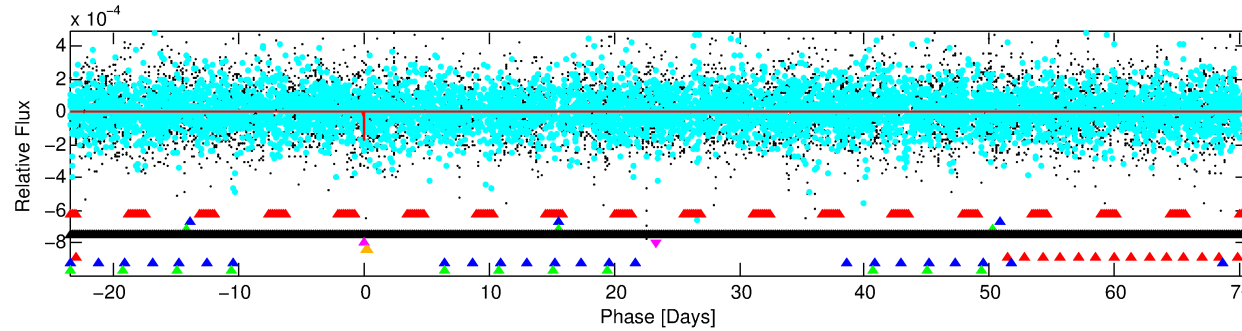
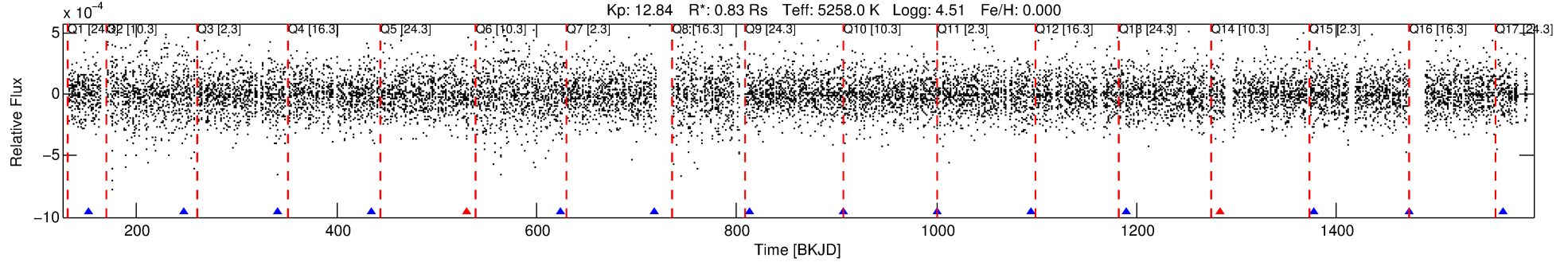
No Significant Match Found

DV One-Page Summary

KIC: 9119568 Candidate: 5 of 9 Period: 94.237 d

KOI: K03087 Corr: No Ephemeris Match

Kp: 12.84 R*: 0.83 Rs Teff: 5258.0 K Logg: 4.51 Fe/H: 0.000



DV Fit Results:

Period = 94.23668 [0.00213] d
Epoch = 152.7288 [0.0208] BKJD
Rp/R* = 0.0117 [0.2019]
a/R* = 598.86 [38137.50]
b = 0.07 [902.82]
Seff = 3.29 [0.42]
Teq = 343 [11] K
Rp = 1.07 [18.40] Re
a = 0.3810 [0.0250] AU
Ag = 34713.55 [1199386.22] [0.03σ]
Teffp = 7247 [62595] K [0.1σ]

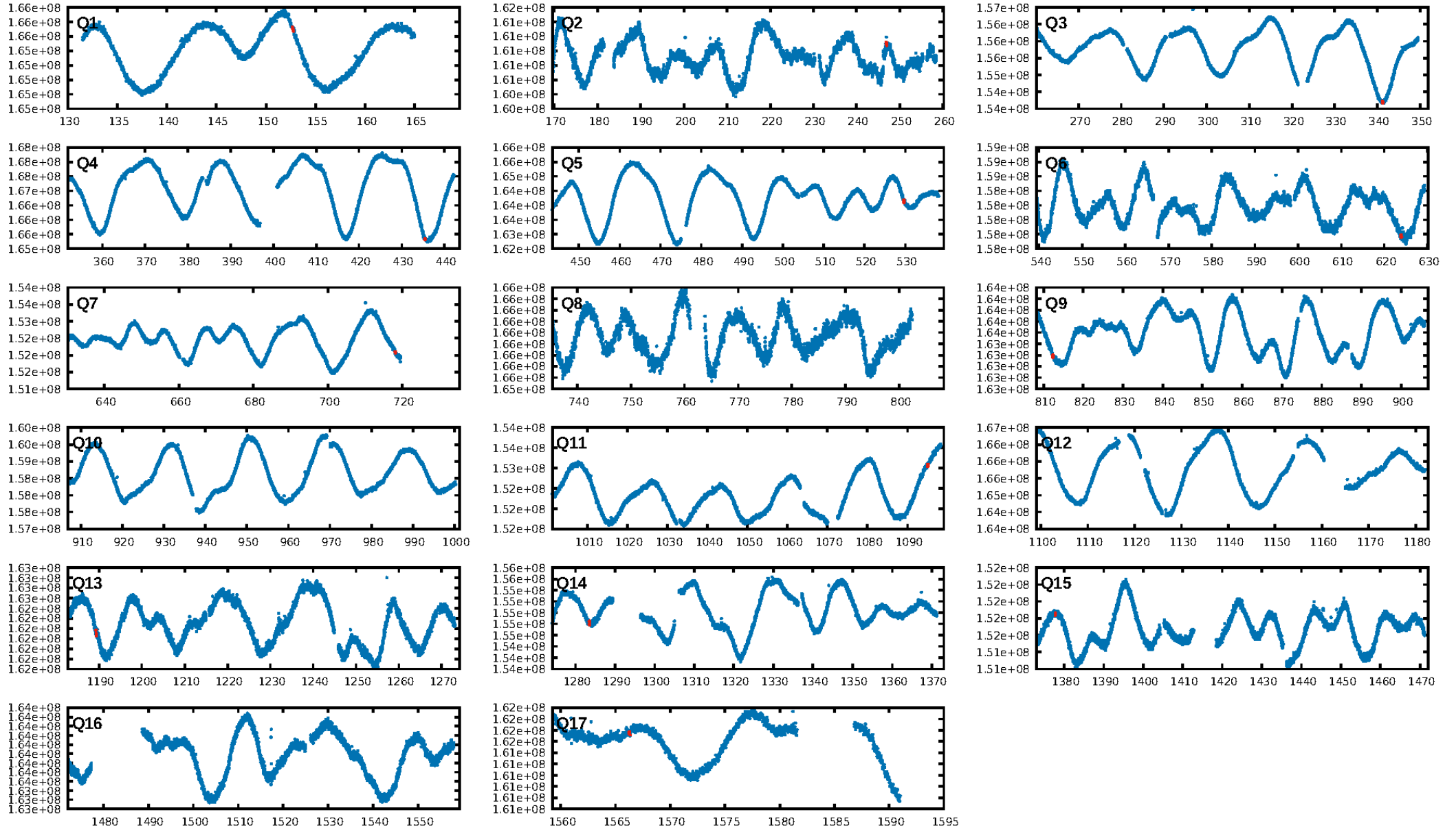
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [352.30σ]
LongPeriod-sig: 2.3% [0.03σ]
ModelChiSquare2-sig: 10.6%
ModelChiSquareGof-sig: 57.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.50 [2/4]
GhostDiagnostic-chr: -0.4923
Centroid-sig: 13.1%
Centroid-so: 2.540 arcsec [1.06σ]
OotOffset-rm: 1.104 arcsec [0.68σ]
OotOffset-st: 2/4/0/3 [9]
KicOffset-rm: 1.168 arcsec [0.65σ]
KicOffset-st: 2/4/0/3 [9]
DiffImageQuality-fgm: 0.11 [1/9]
DiffImageOverlap-fno: 0.00 [0/13]

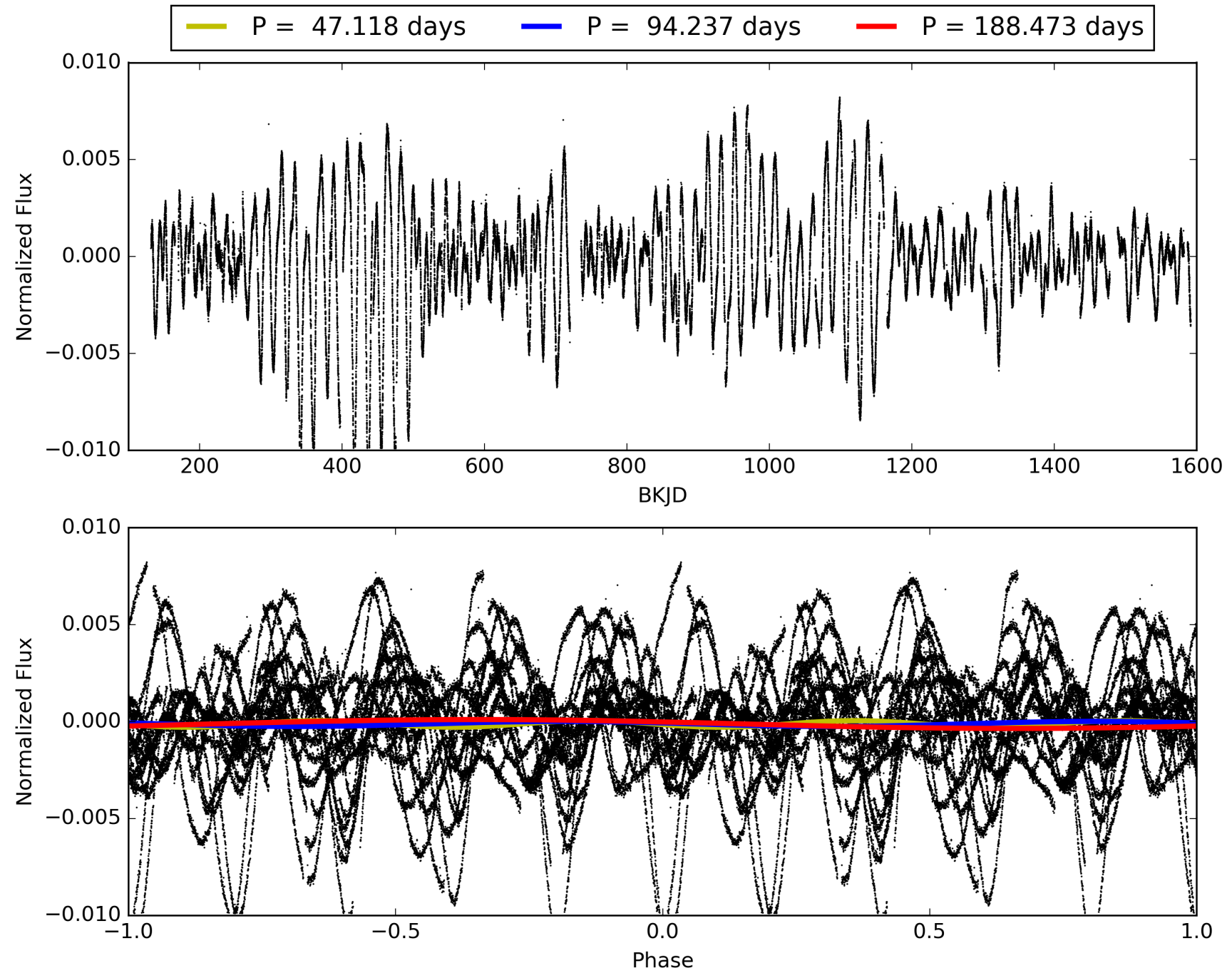
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 14:27:00 Z

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

TCE 009119568-05, PDC Light Curves

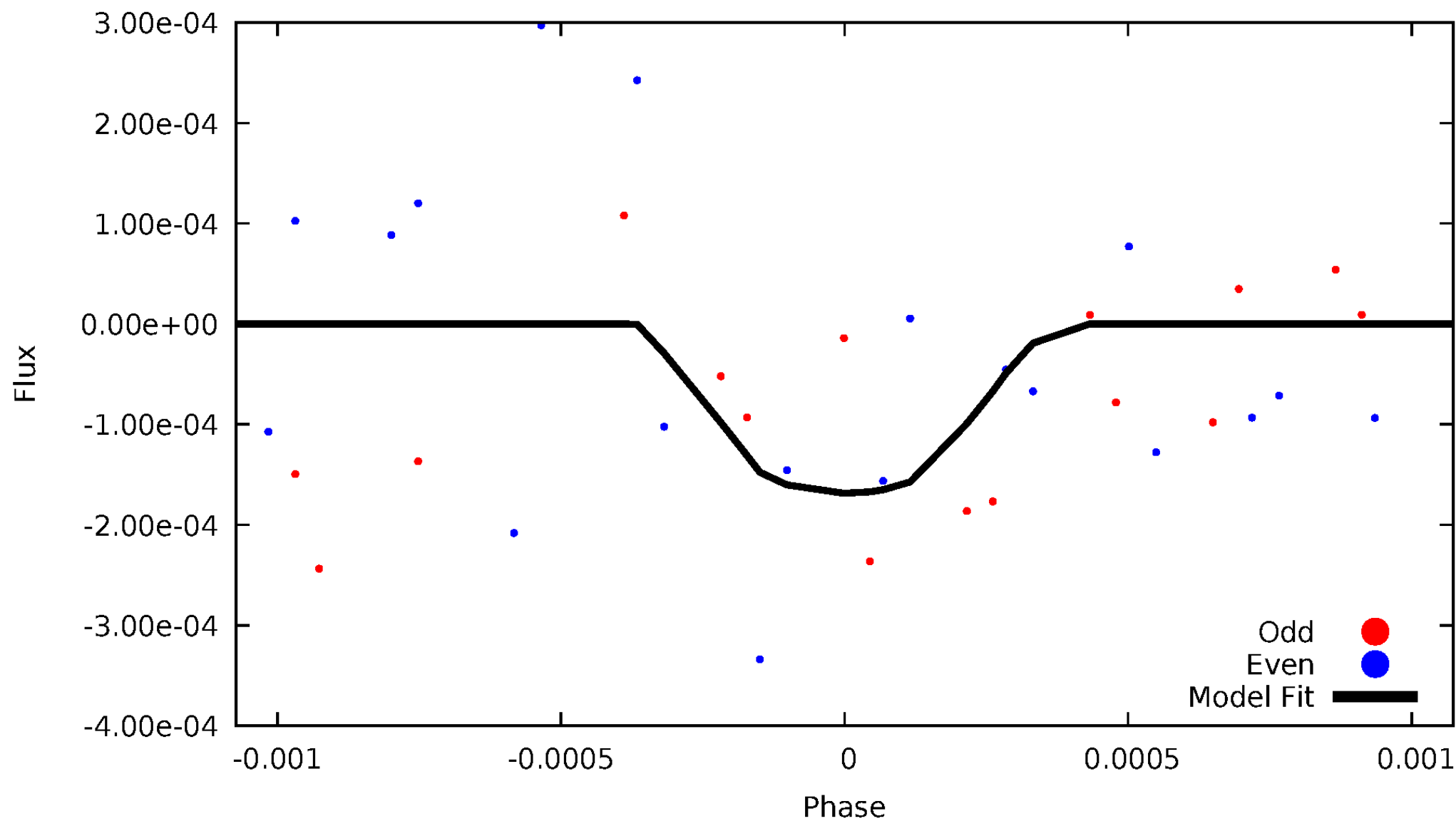


TCE 009119568-05



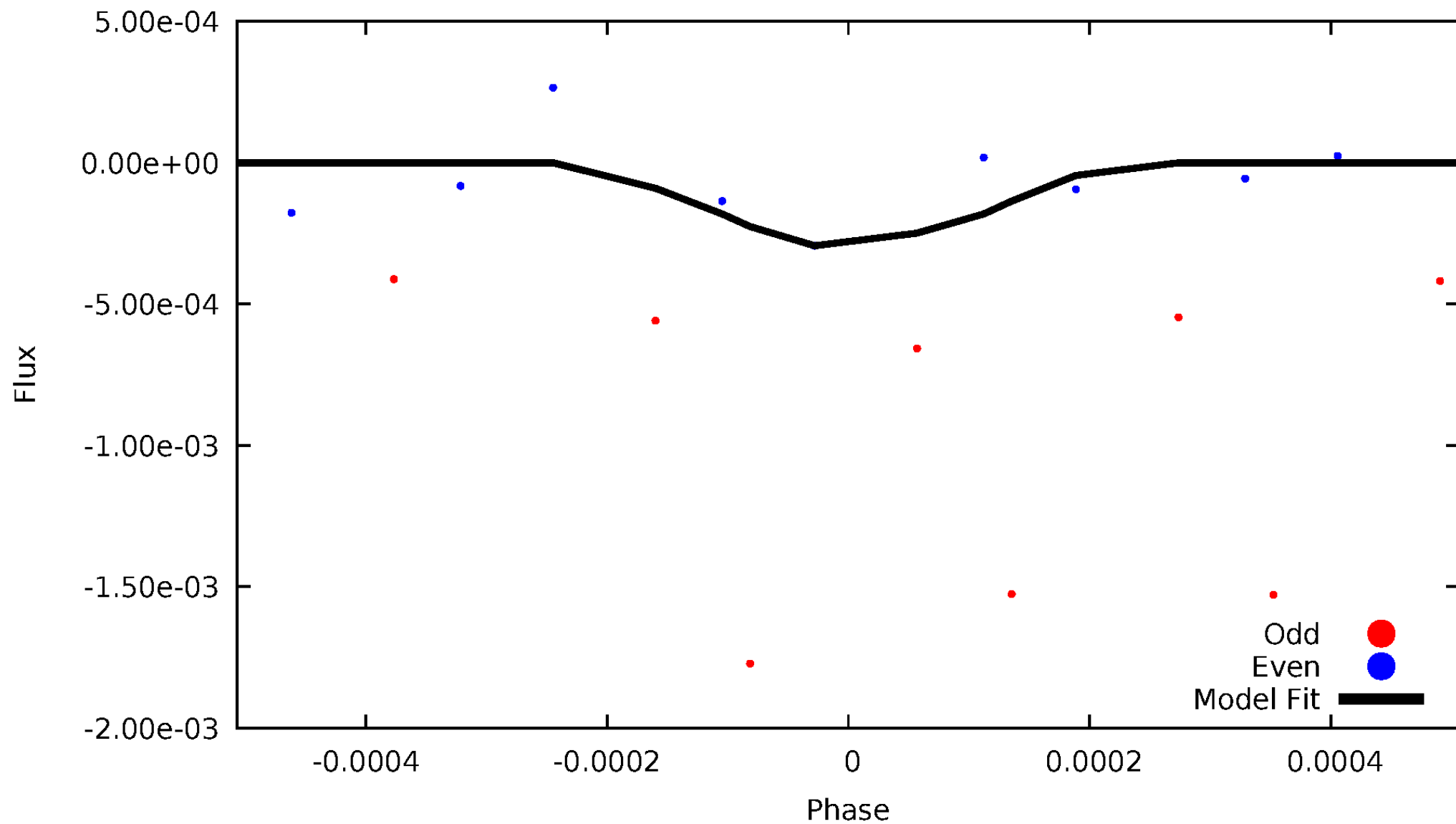
DV Odd/Even

TCE 009119568-05

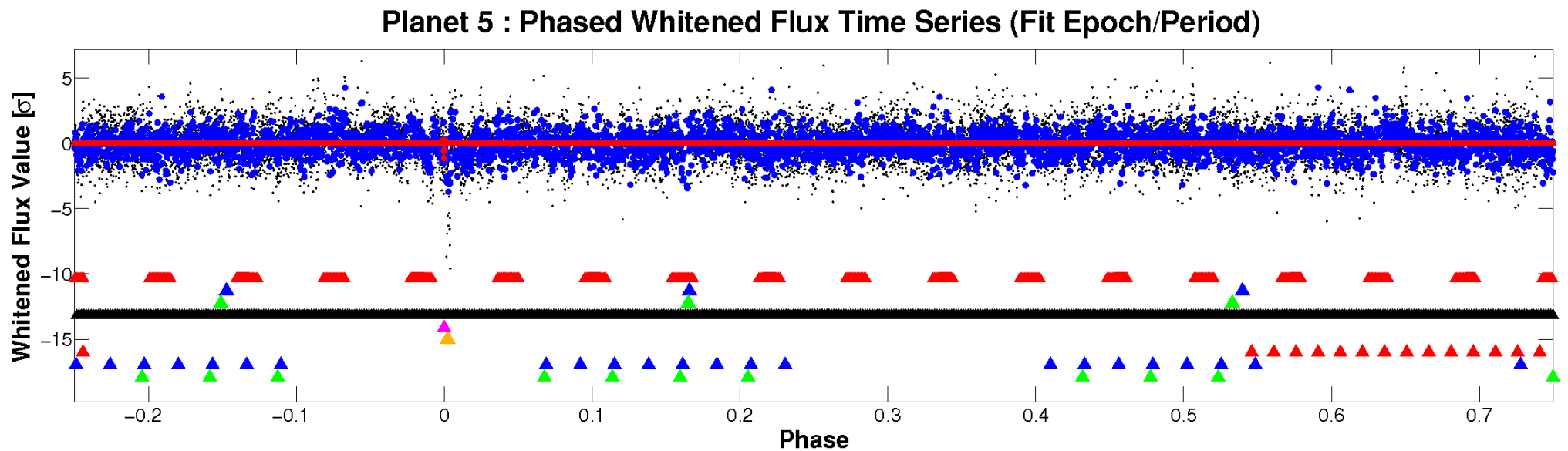
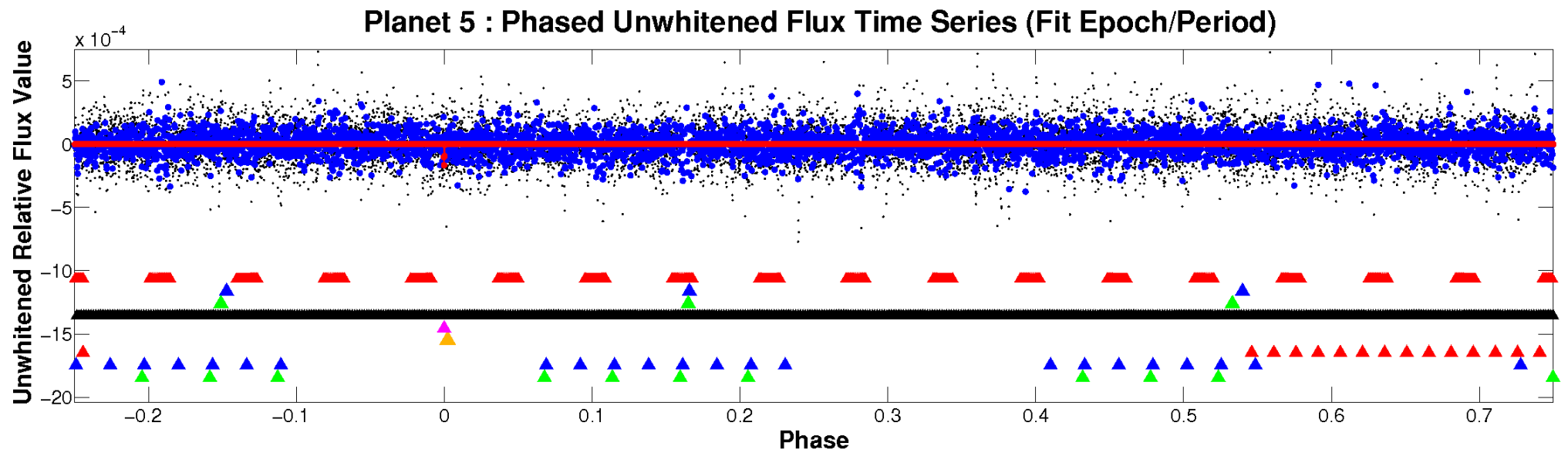


ALT Odd/Even

TCE 009119568-05

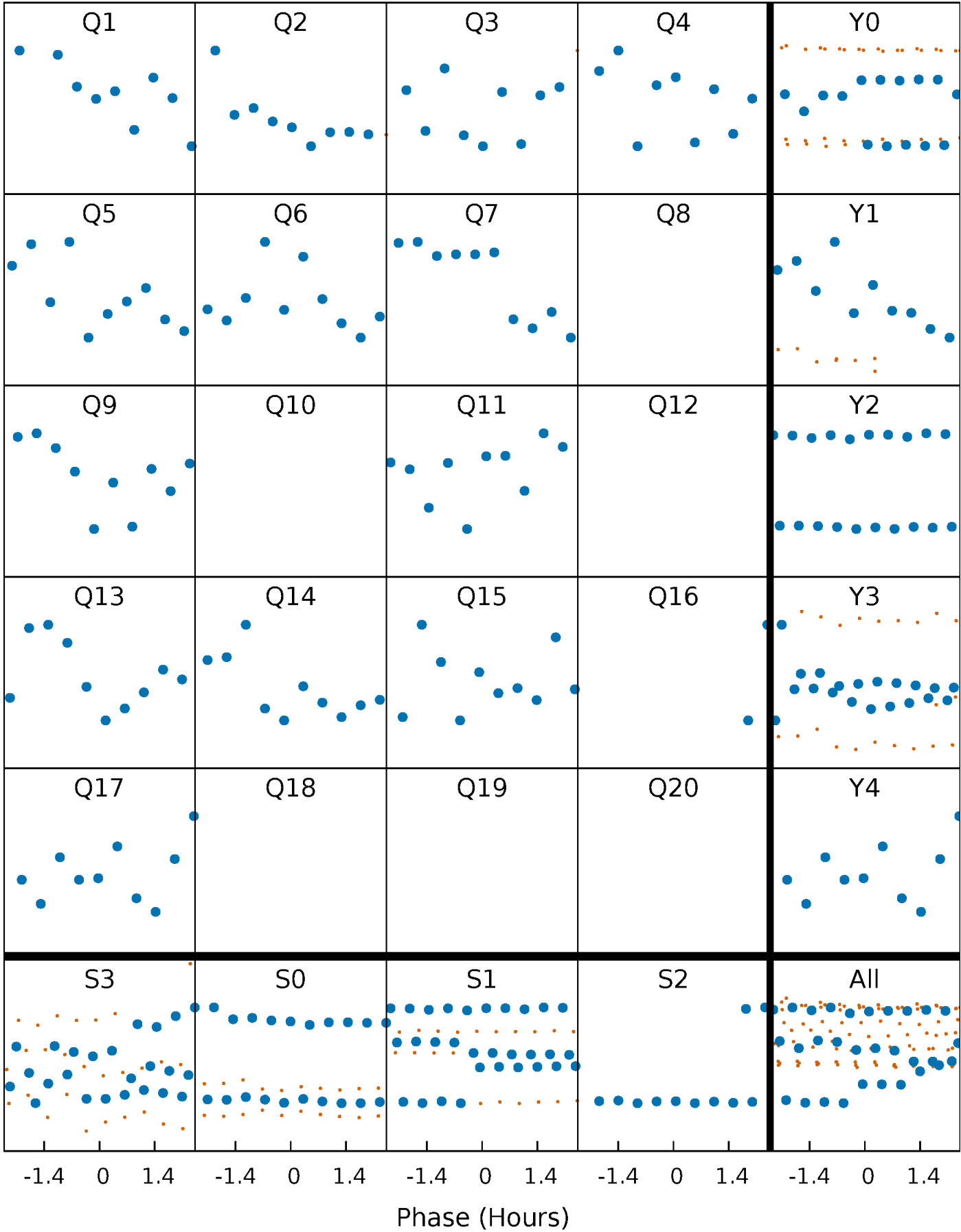


Non-Whitened Vs. Whitened Light Curve



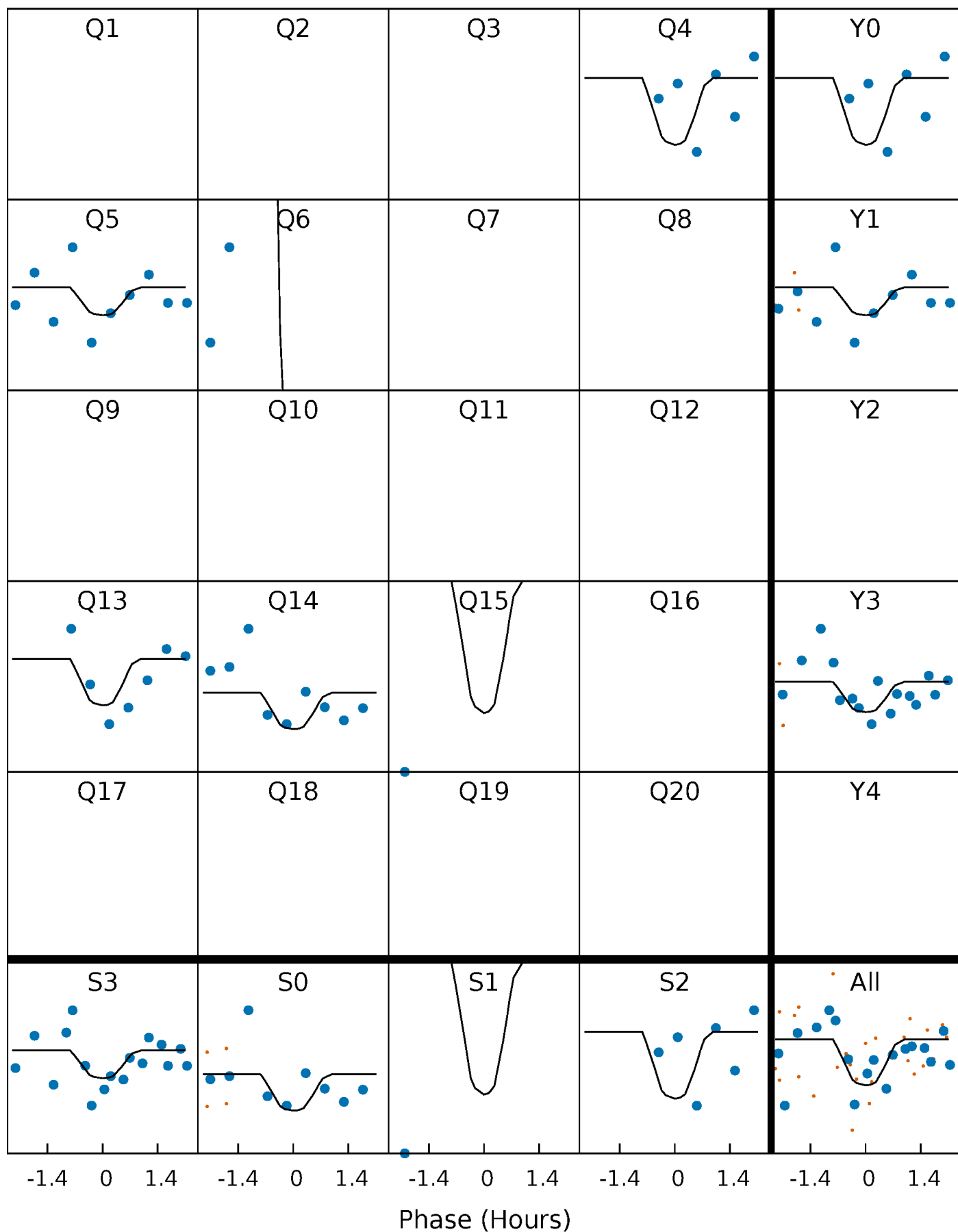
PDC Quarter-Phased Transit Curves

TCE 009119568-05 P= 94.236684 Days $T_0=152.728762$ (BKJD)



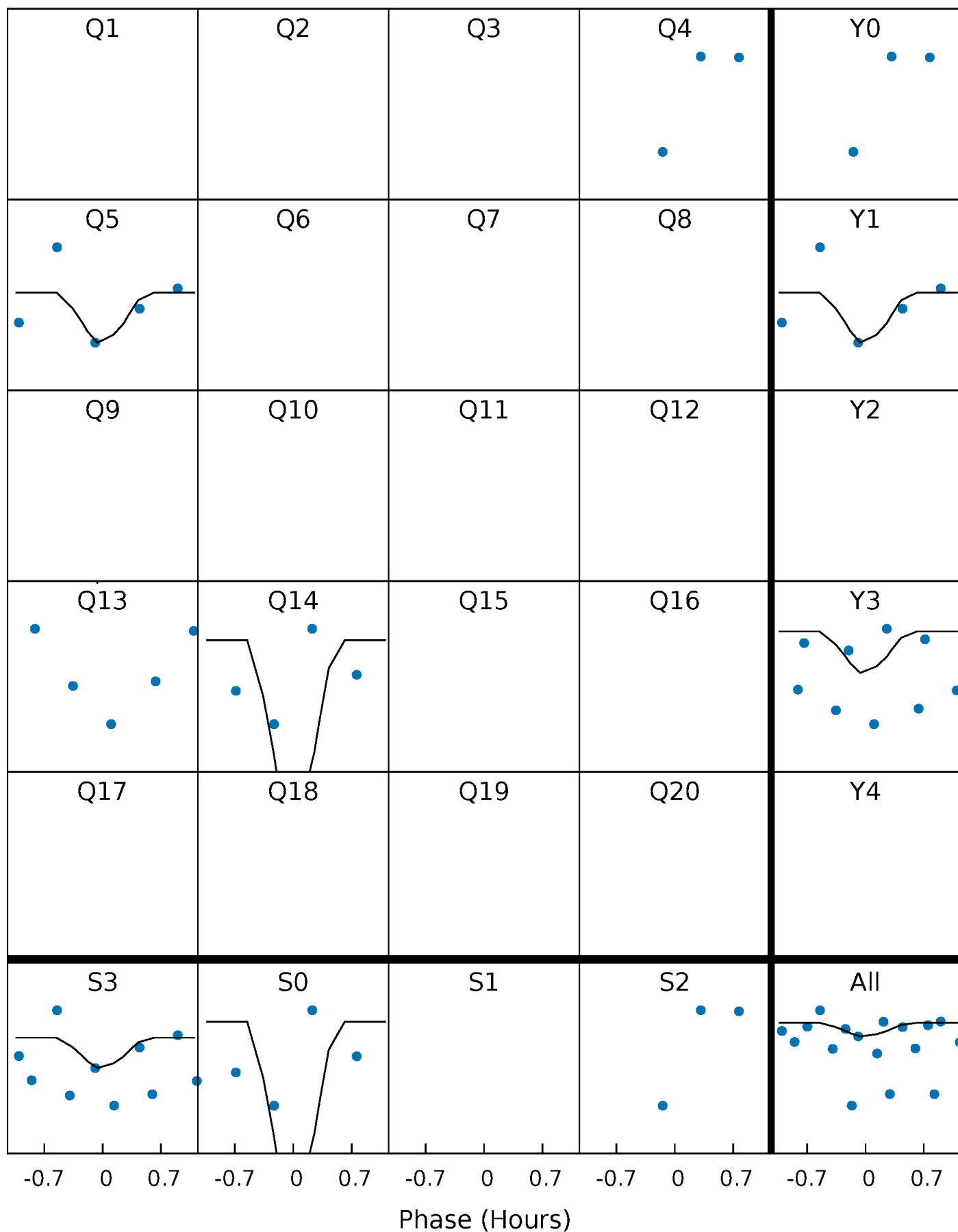
DV Quarter-Phased Transit Curves

TCE 009119568-05 P= 94.236684 Days $T_0=152.728762$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

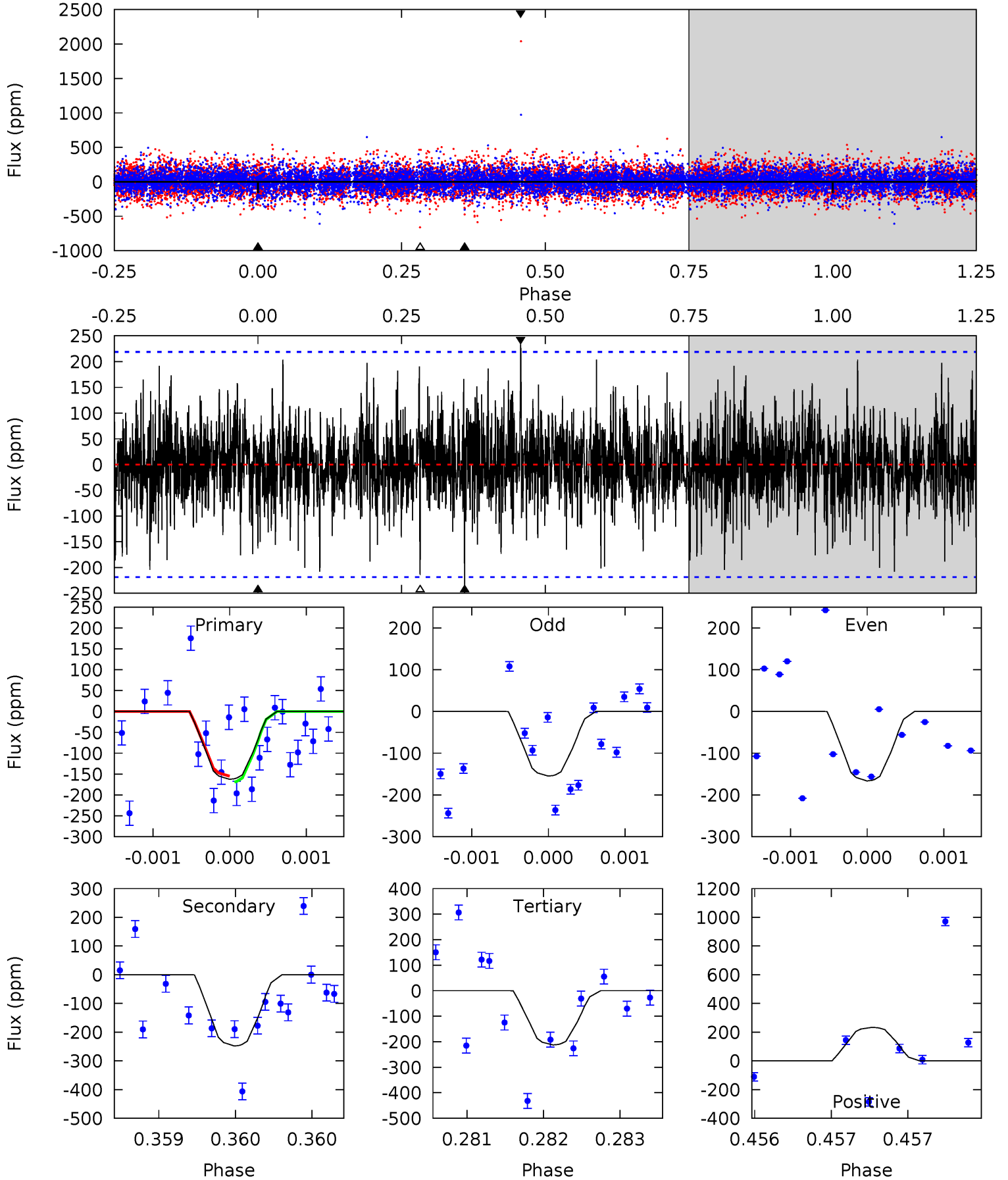
TCE 009119568-05 P= 94.238150 Days $T_0=152.711484$ (BKJD)



DV Model-Shift Uniqueness Test

009119568-05, P = 94.236684 Days, E = 58.492078 Days

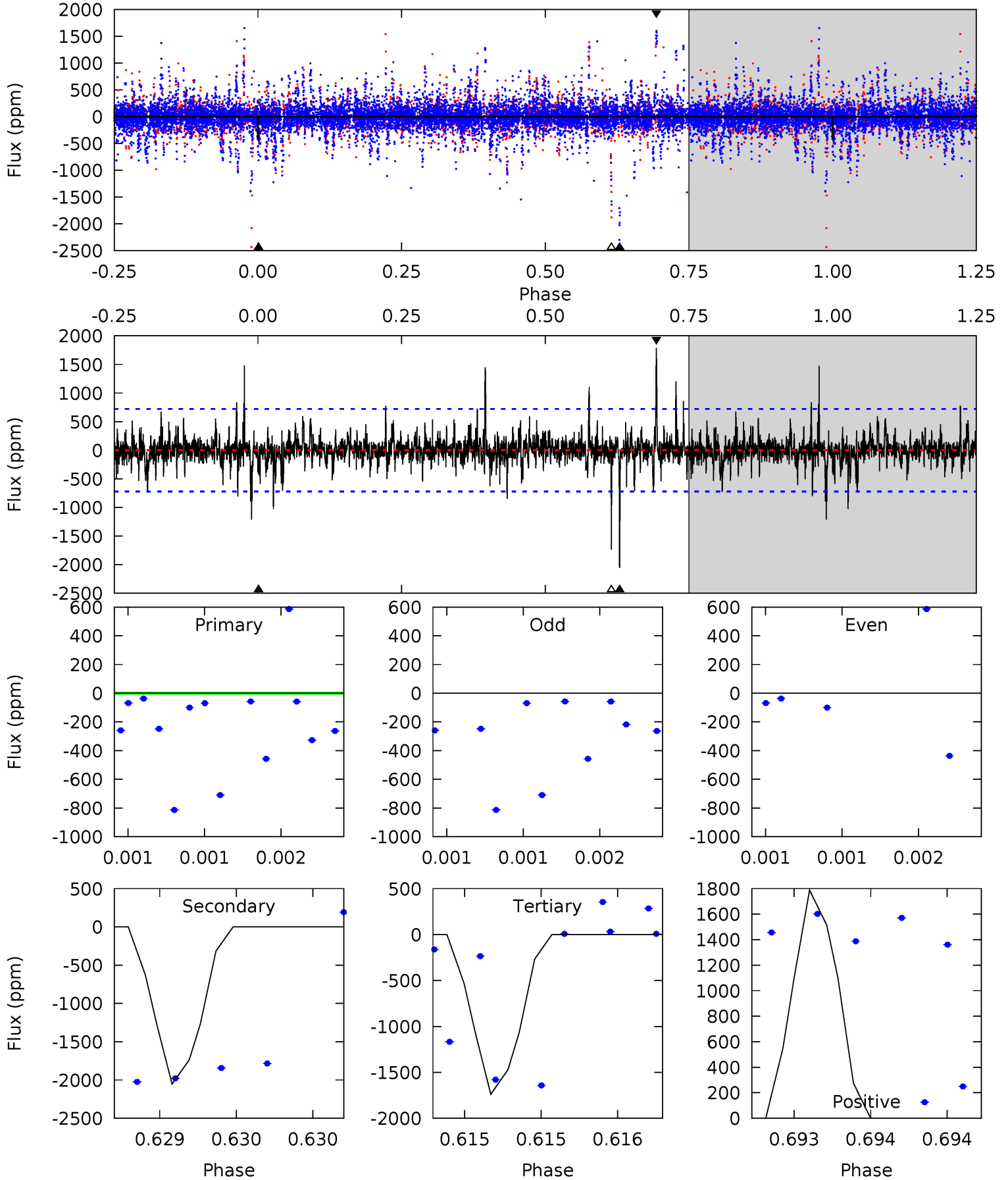
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.10	6.26	5.36	5.89	5.51	3.39	1.40	-1.26	-1.78	0.90	0.37	0.14	1.05	0.48	0.18



Alt Model-Shift Uniqueness Test

009119568-05, P = 94.238150 Days, E = 58.473334 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.33	16.0	13.5	13.9	5.62	3.55	1.48	-10.2	-10.6	2.45	2.06	2.99	1.61	0.47	0.17



Stellar Parameters For KIC 009119568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5258^{+105}_{-105}	$4.514^{+0.055}_{-0.055}$	$0.000^{+0.150}_{-0.150}$	$0.835^{+0.063}_{-0.057}$	$0.831^{+0.053}_{-0.042}$	$2.010^{+0.449}_{-0.336}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+8%/-7%	+6%/-5%	+22%/-17%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 009119568-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-248 ± 40	$12.60^{+13.51}_{-8.72}$	480^{+14}_{-14}	2582^{+1027}_{-402}	128^{+1232}_{-98}
Alt.	-2053 ± 128	$12.87^{+14.13}_{-9.19}$	480^{+14}_{-13}	3457^{+2040}_{-668}	990^{+10773}_{-767}

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 $A_{obs} \gg 1.0$

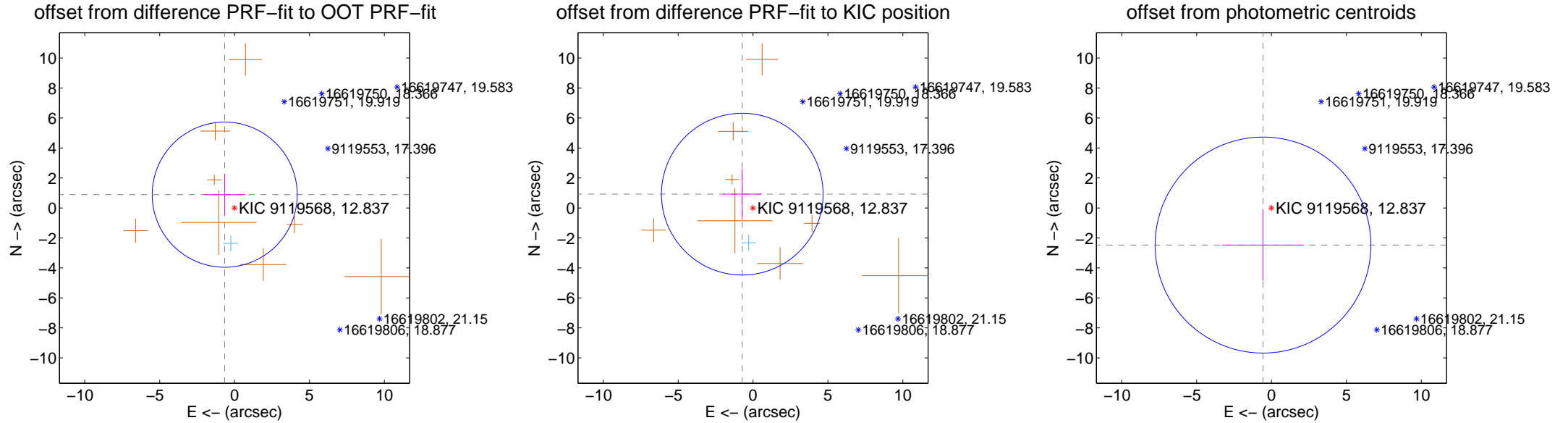
DV Centroid Data

Supplemental centroid analysis for 009119568-05. Kepler magnitude: 12.84. Transit SNR 3.04

There are 1 quarters with good PRF difference image offsets

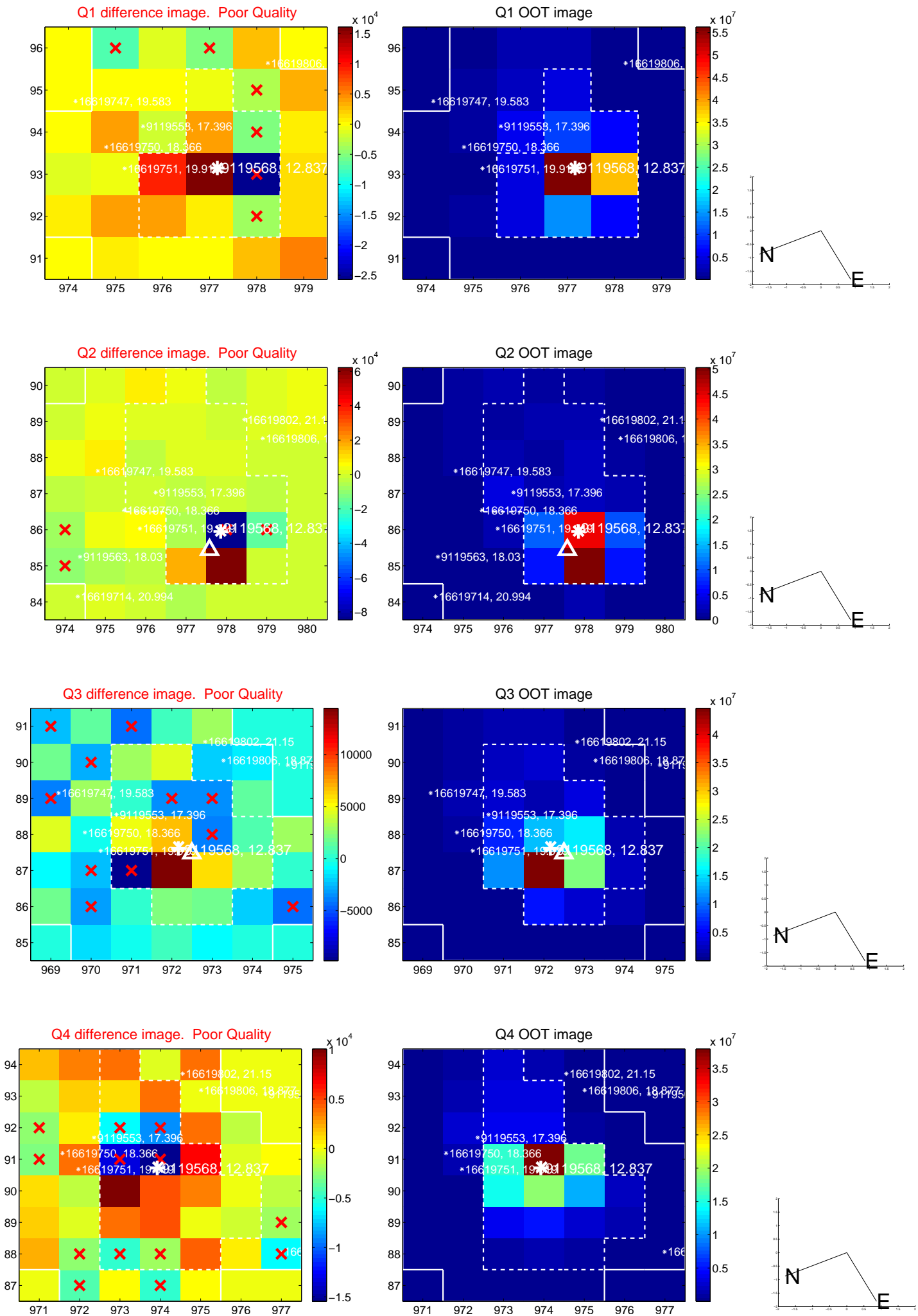
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.104 ± 1.614	0.68	0.659 ± 1.378	0.886 ± 1.403
PRF-fit source offset from KIC position	1.168 ± 1.799	0.65	0.720 ± 1.302	0.920 ± 1.686
photometric centroid source offset	2.54 ± 2.40	1.06	0.57 ± 2.73	-2.48 ± 2.38

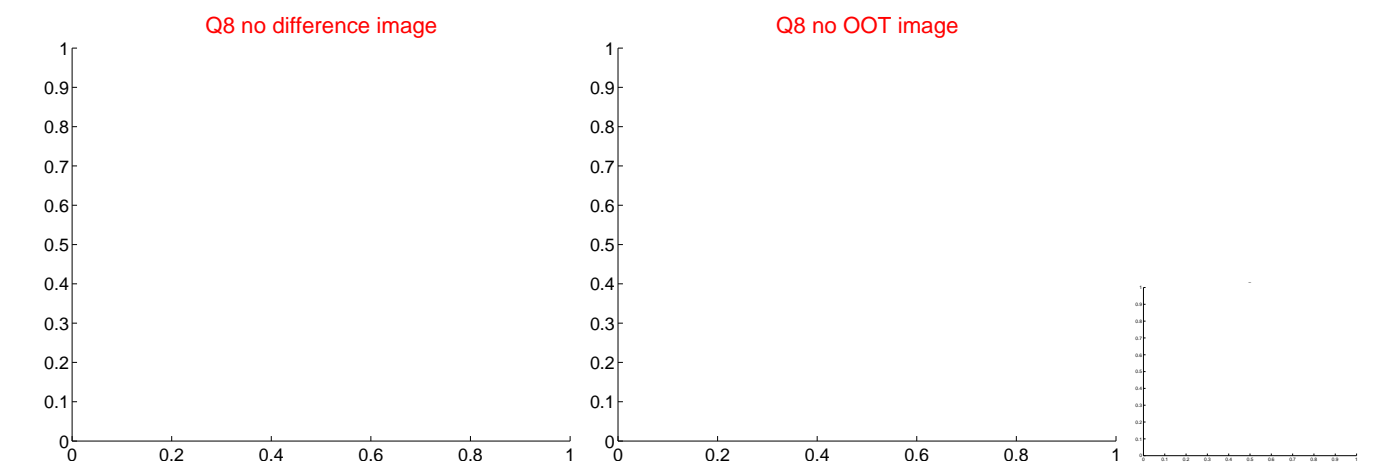
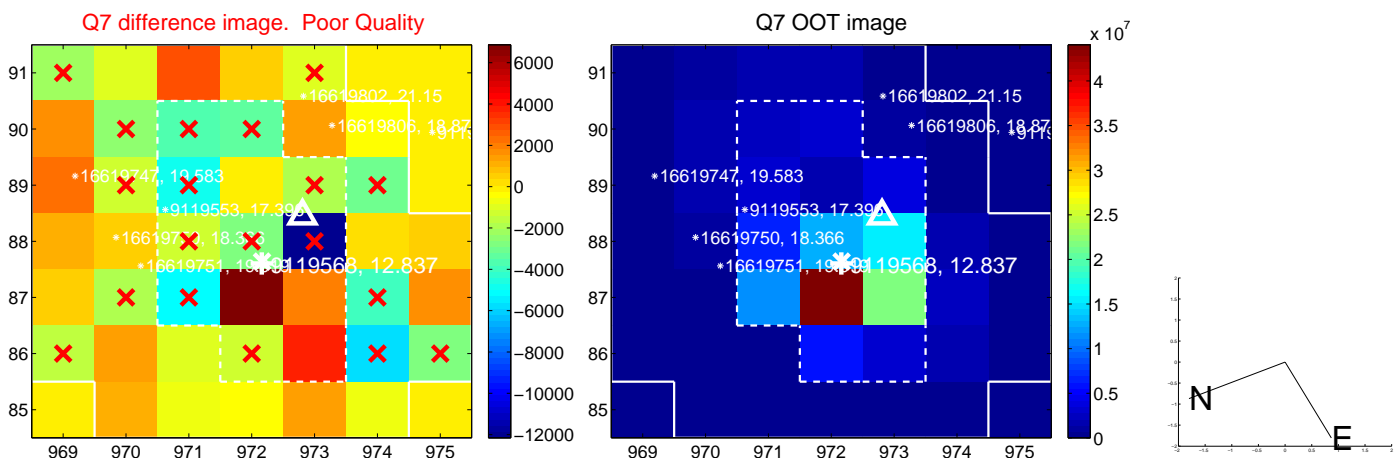
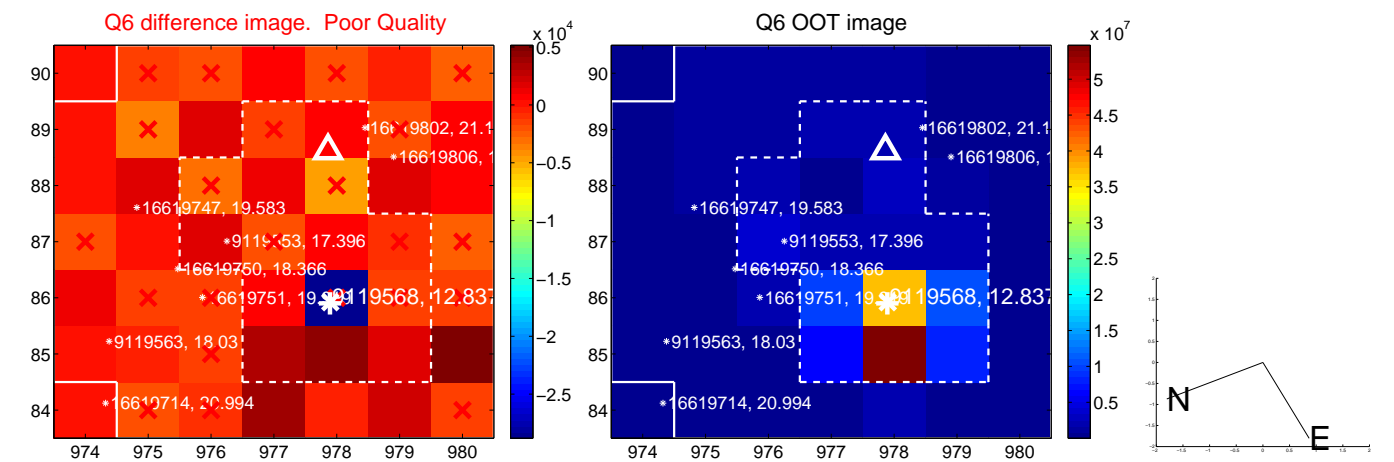
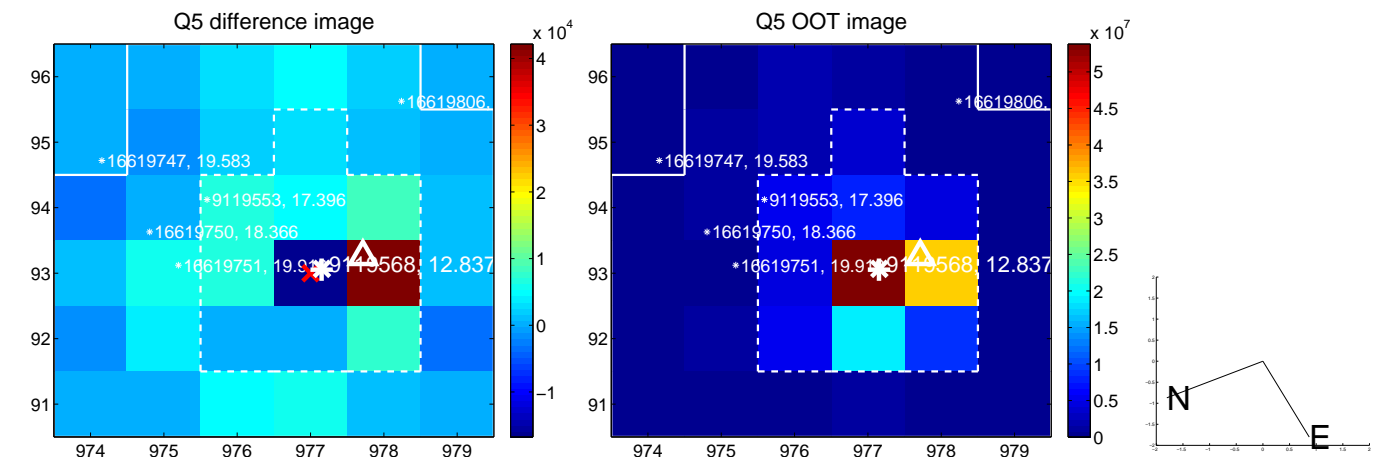


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

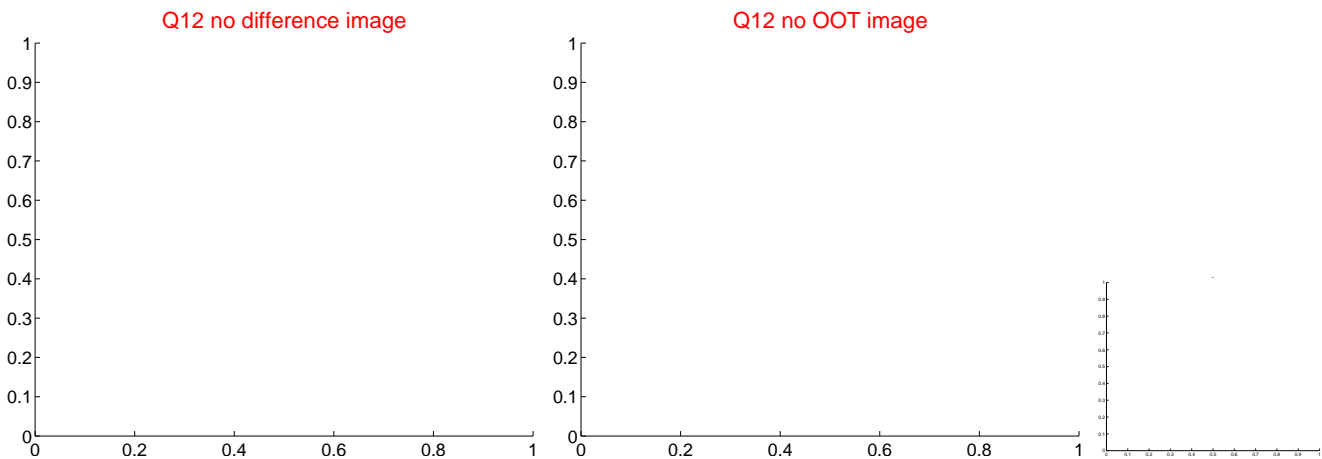
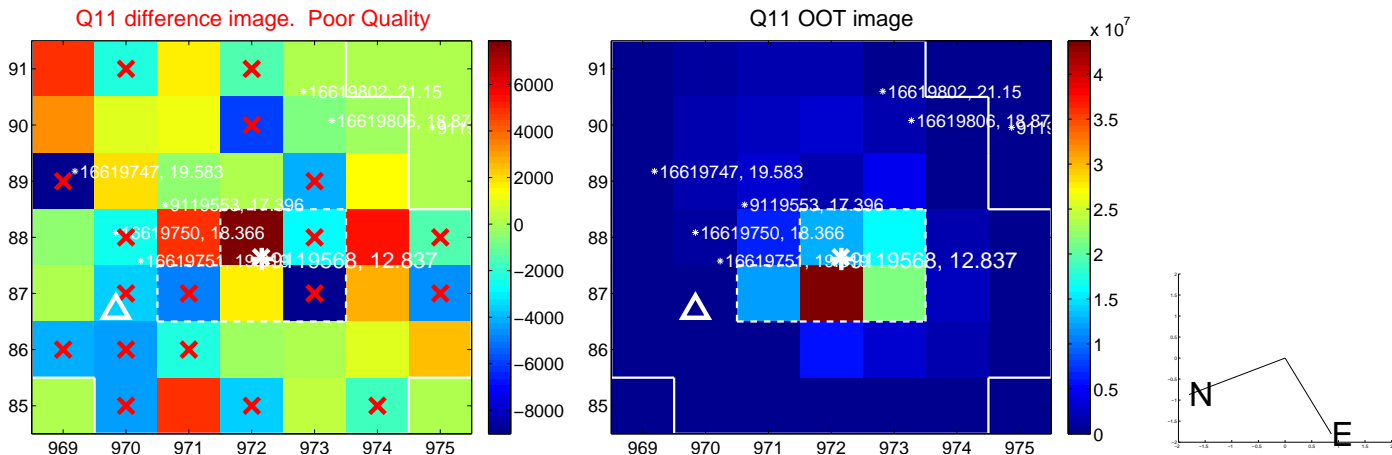
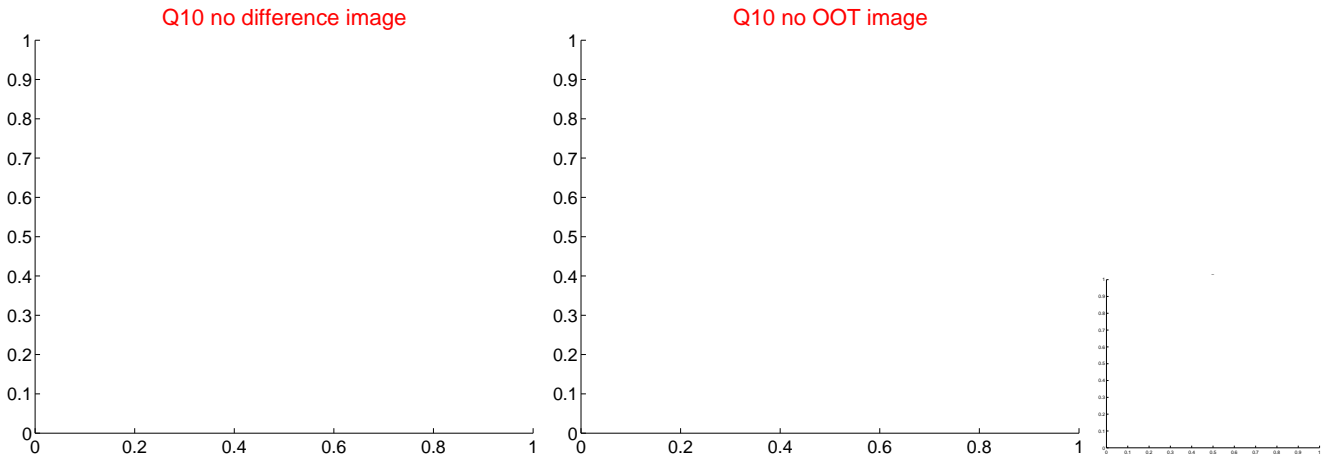
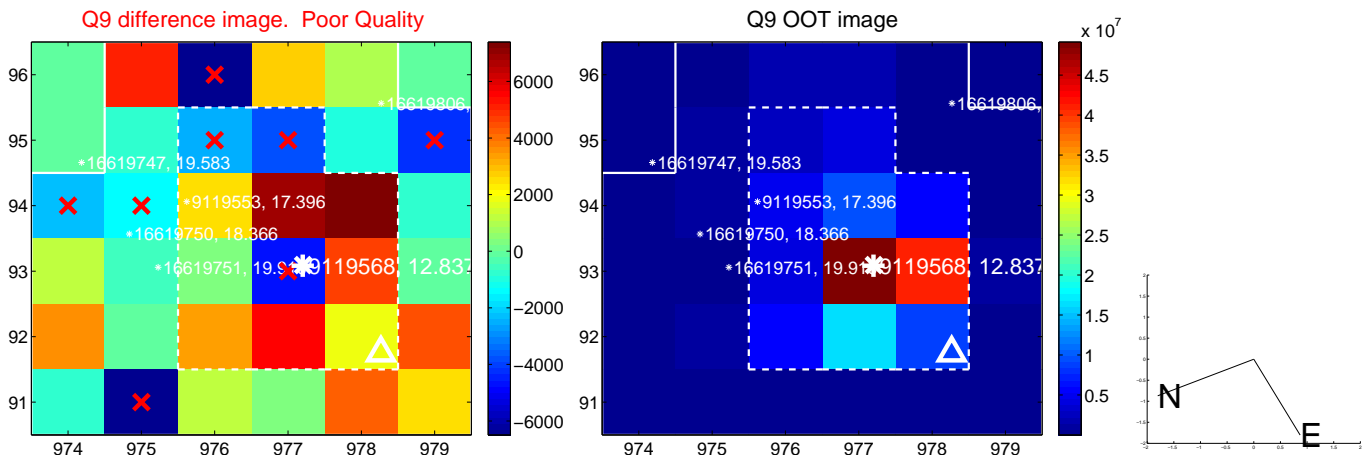
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



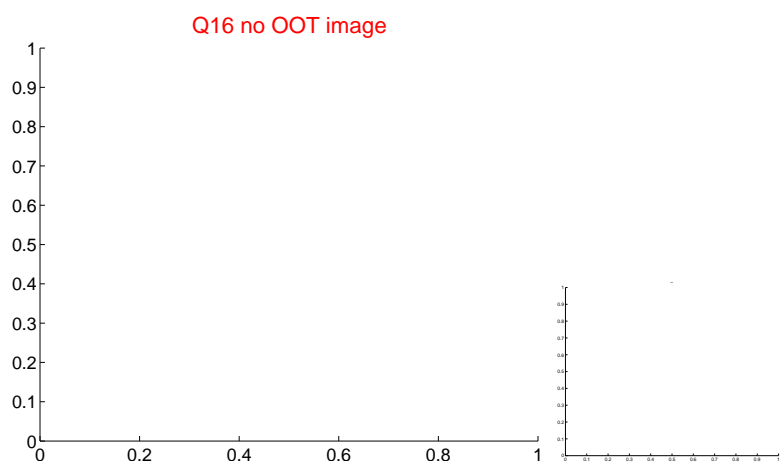
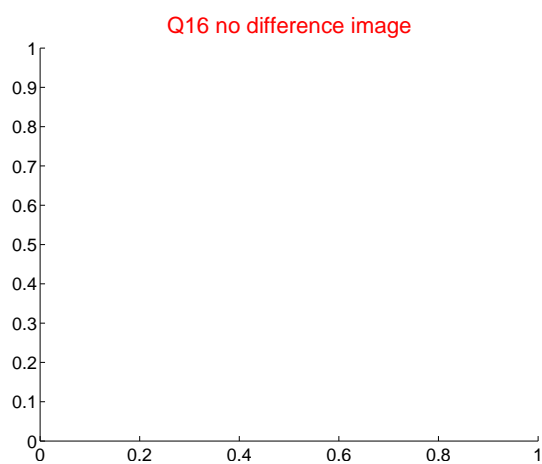
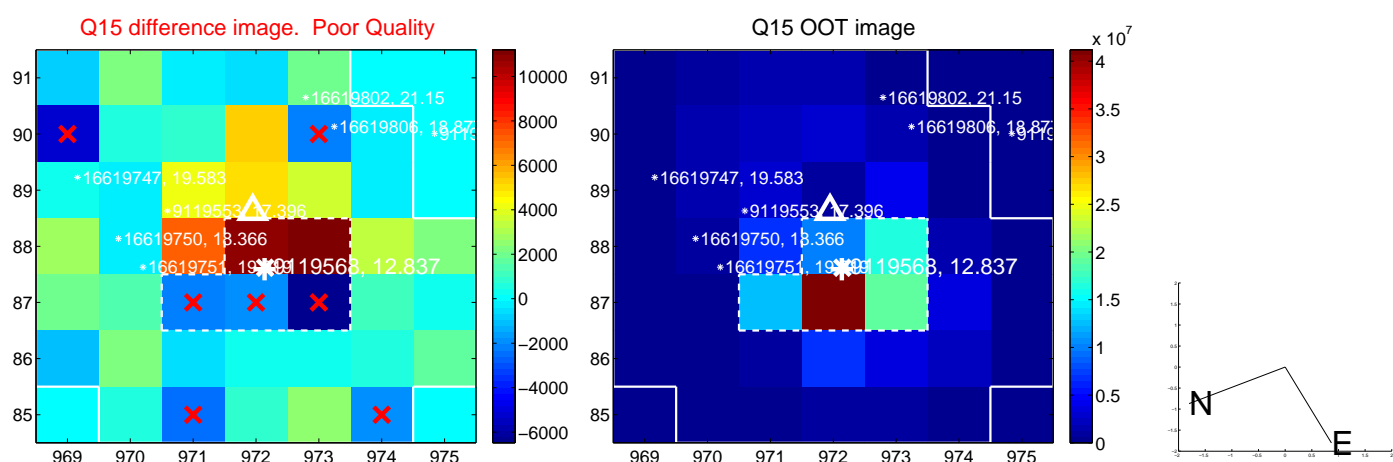
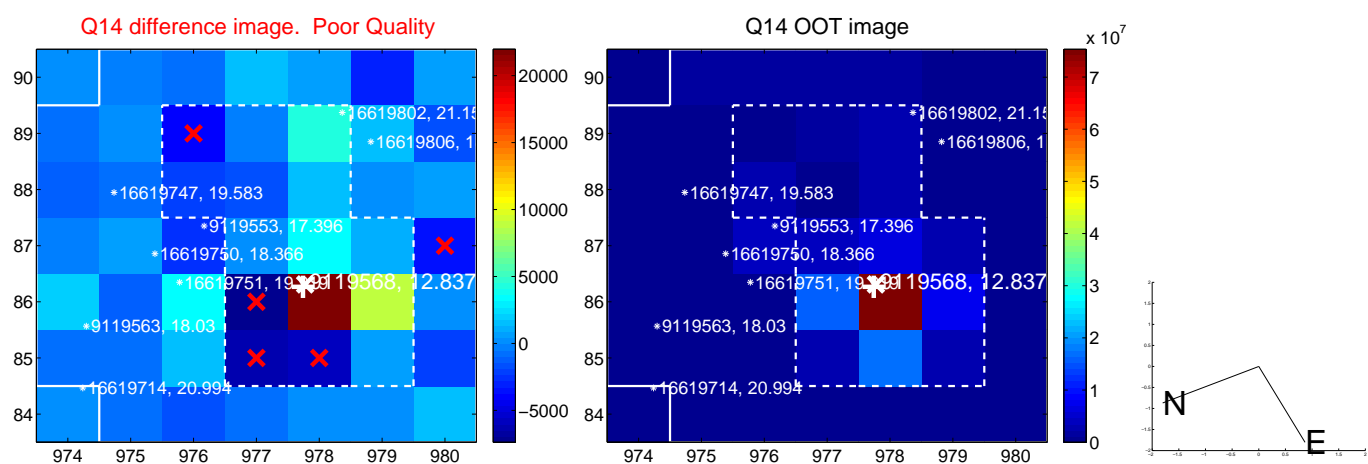
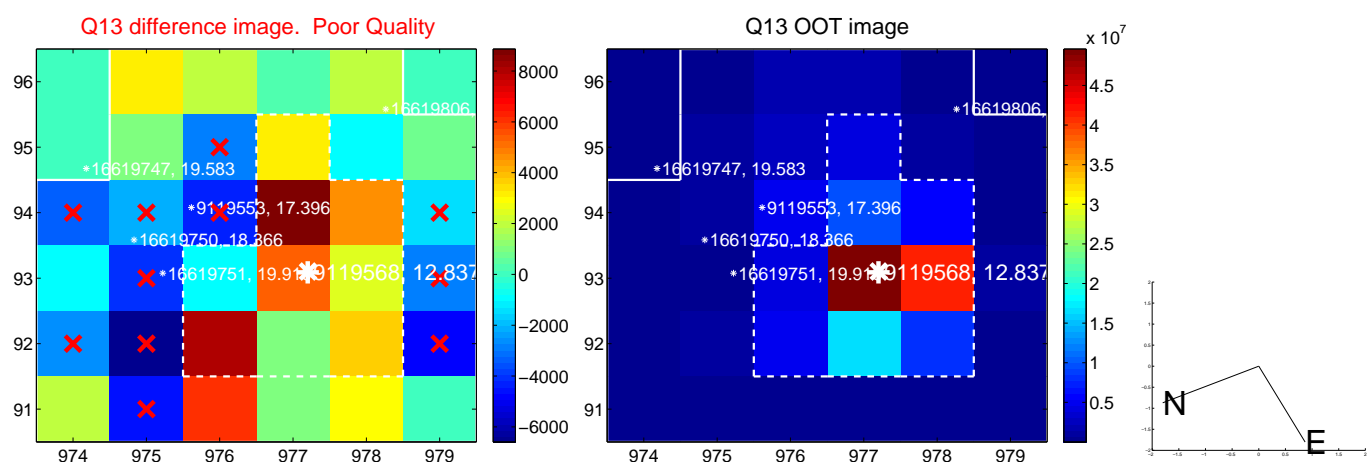
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



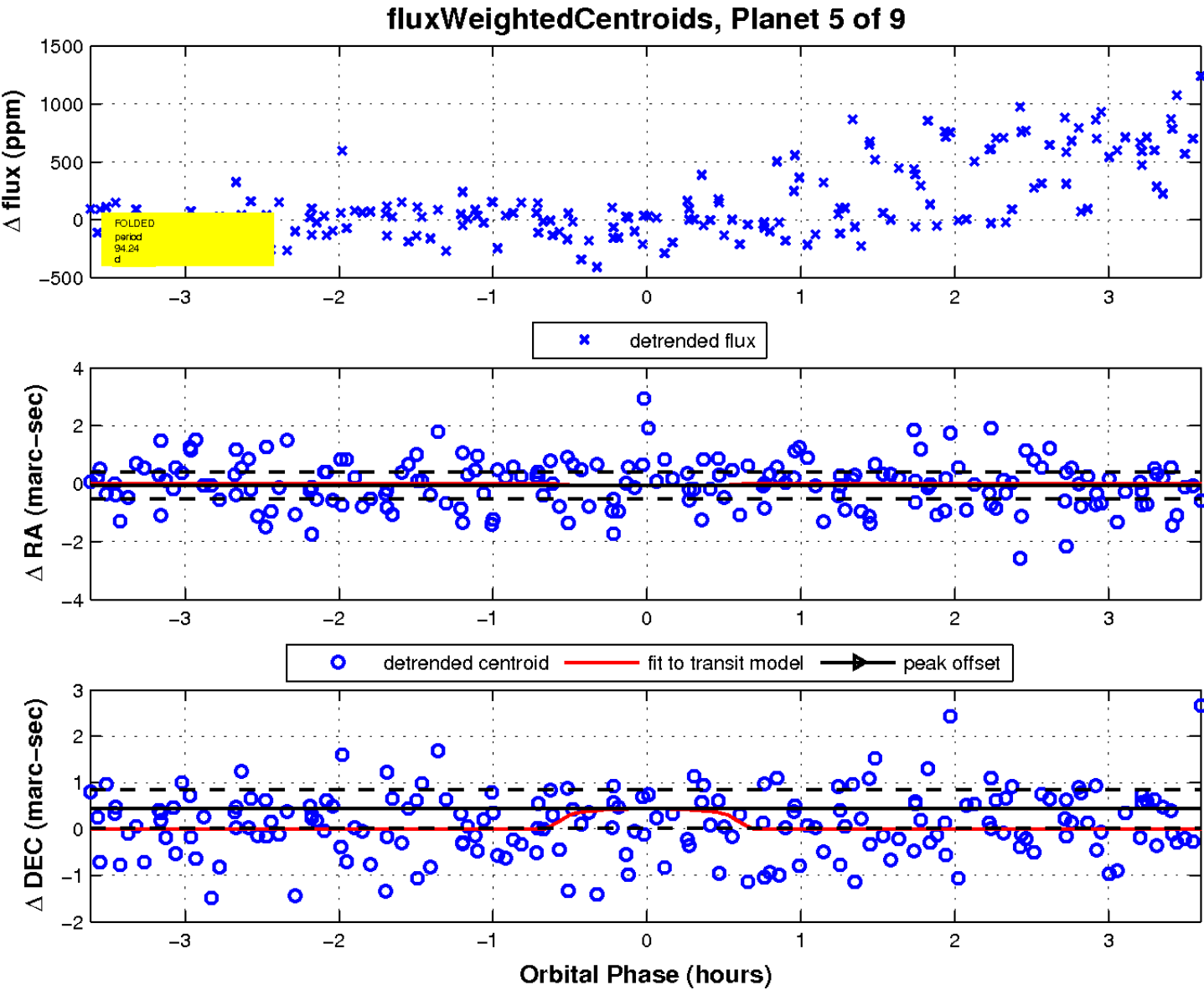
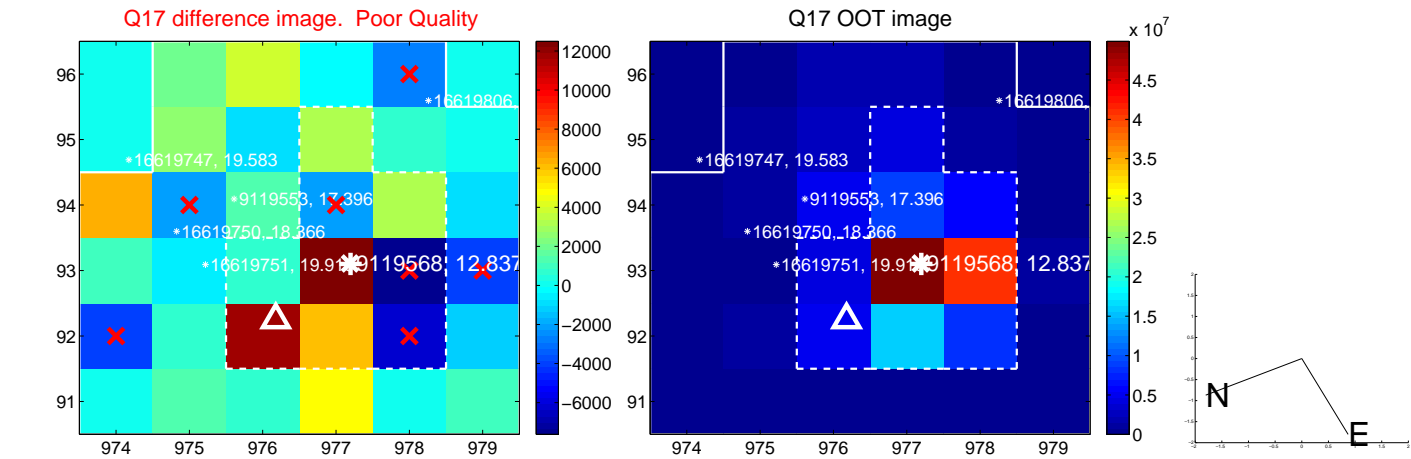
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

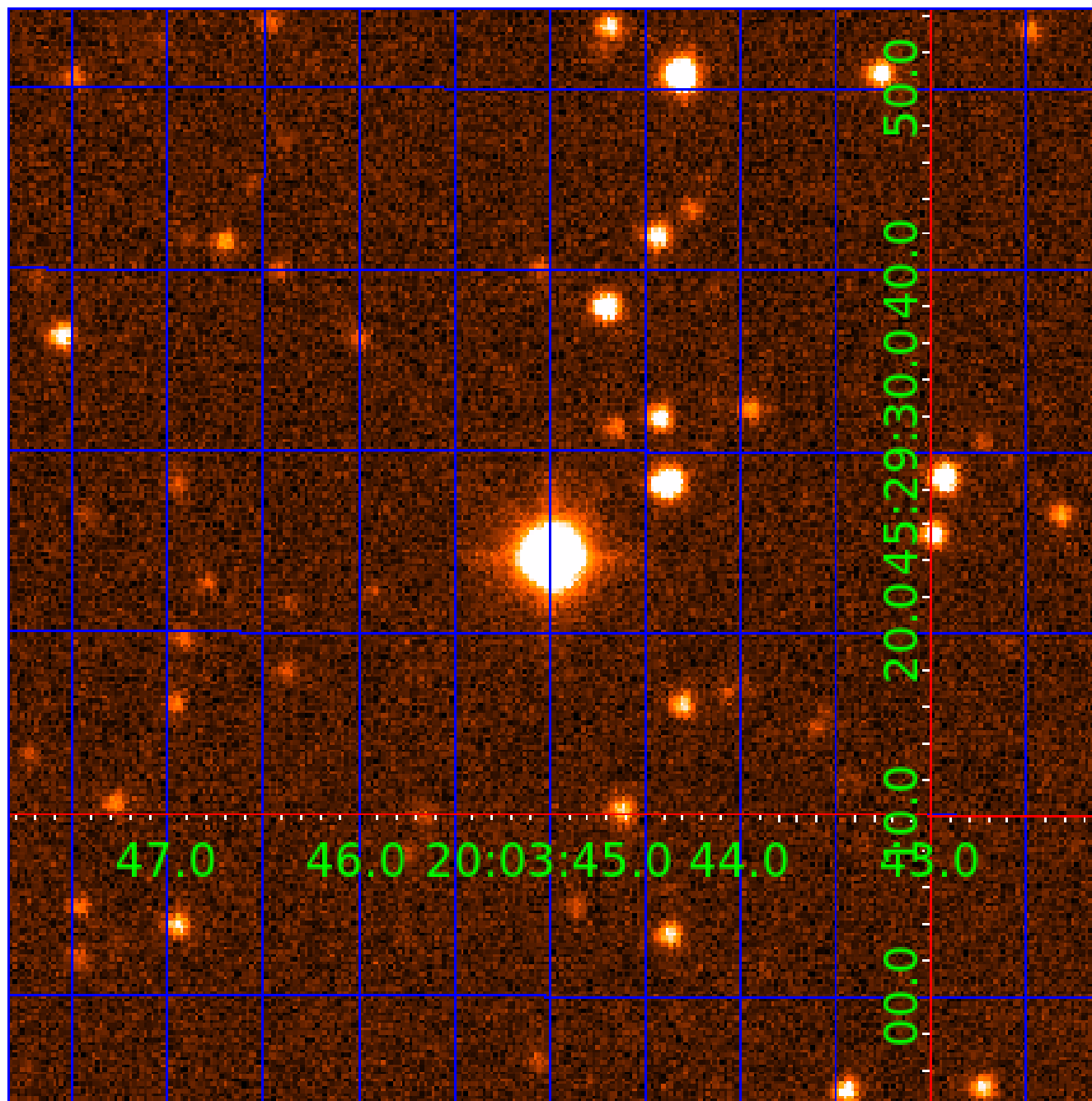


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009119568

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})
009119568-01	OBS	3087.01	5.548603	133.942592	64.1	4.672	12.1	12.8	0.83	5258	0.81	143.57
009119568-02	OBS	No	594.914962	203.604580	218.9	1.450	16.0	2.1	0.83	5258	1.49	0.28
009119568-03	OBS	No	595.202594	202.958220	231.5	3.708	16.2	2.0	0.83	5258	1.56	0.28
009119568-04	OBS	3087.02	1.221848	131.916069	23.8	7.385	7.5	10.5	0.83	5258	0.40	1079.64
009119568-05	OBS	No	94.236684	152.728762	168.6	1.213	21.8	3.0	0.83	5258	1.06	3.29
009119568-07	OBS	No	95.648610	204.188265	304.7	3.255	16.4	6.6	0.83	5258	1.58	3.22
009119568-08	OBS	No	62.099321	174.458969	58.4	1.823	15.5	1.6	0.83	5258	0.64	5.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009119568-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
009119568-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-04	OBS	FP	0.00	1	0	0	0	LPP_DV
009119568-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
009119568-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
009119568-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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 009119568-07

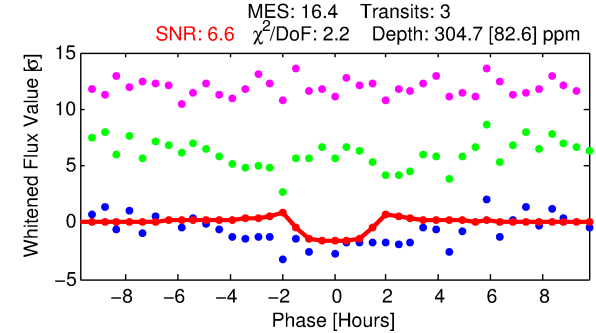
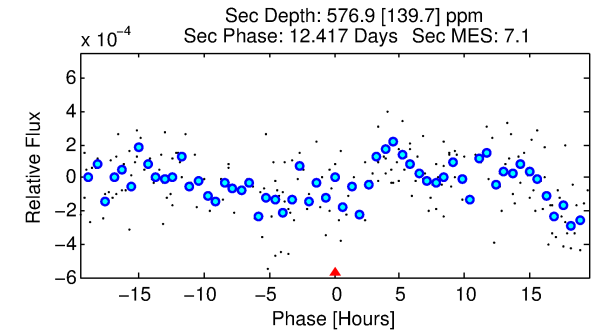
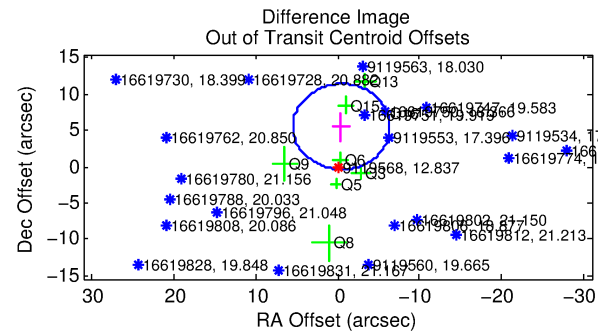
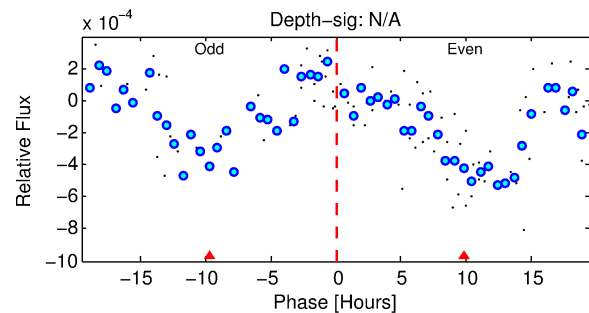
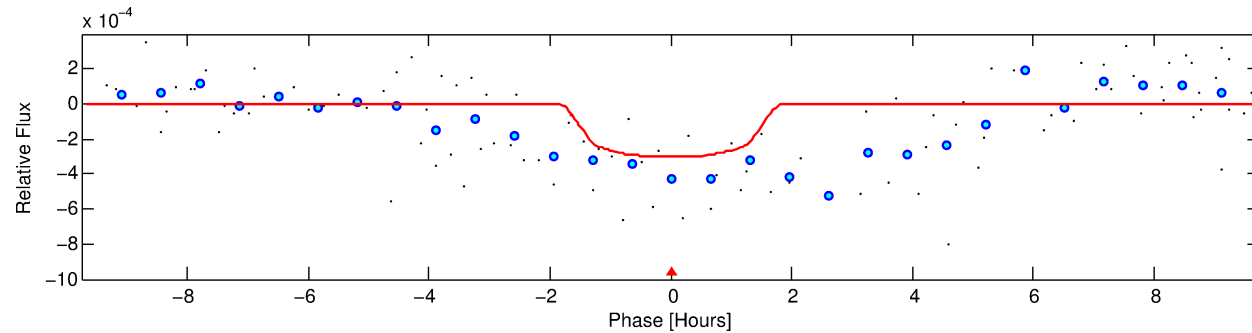
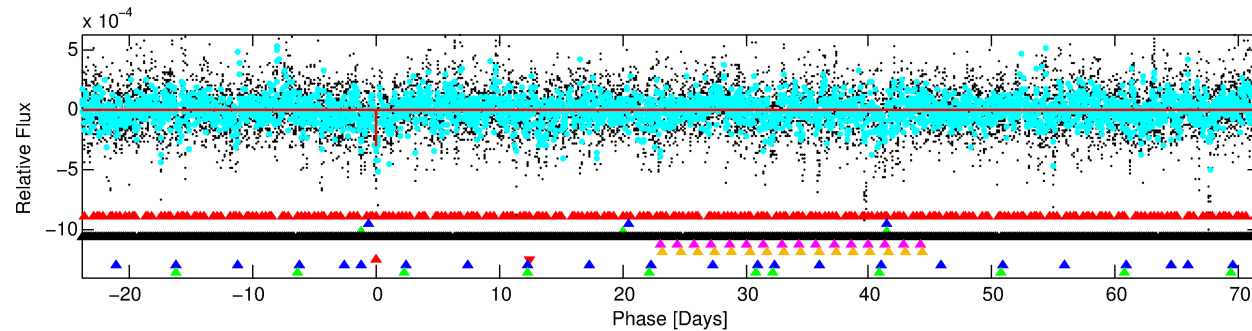
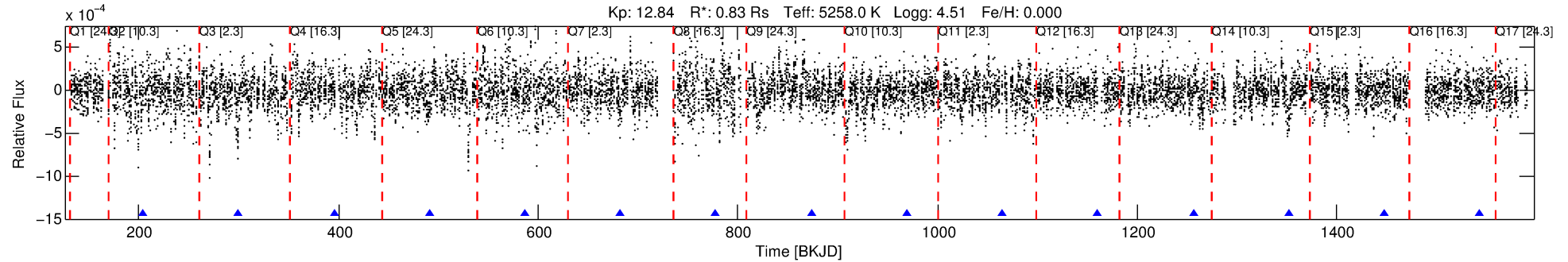
No Significant Match Found

DV One-Page Summary

KIC: 9119568 Candidate: 7 of 9 Period: 95.649 d

KOI: K03087 Corr: No Ephemeris Match

Kp: 12.84 R*: 0.83 Rs Teff: 5258.0 K Logg: 4.51 Fe/H: 0.000



DV Fit Results:

Period = 95.64861 [0.00146] d
Epoch = 204.1883 [0.0135] BKJD
Rp/R* = 0.0174 [0.0422]
a/R* = 155.15 [1432.21]
b = 0.75 [5.61]
Seff = 3.22 [0.41]
Teq = 342 [11] K
Rp = 1.58 [3.84] Re
a = 0.3848 [0.0253] AU
Ag = 18714.34 [90860.54] [0.21σ]
Teff = 6179 [7499] K [0.78σ]

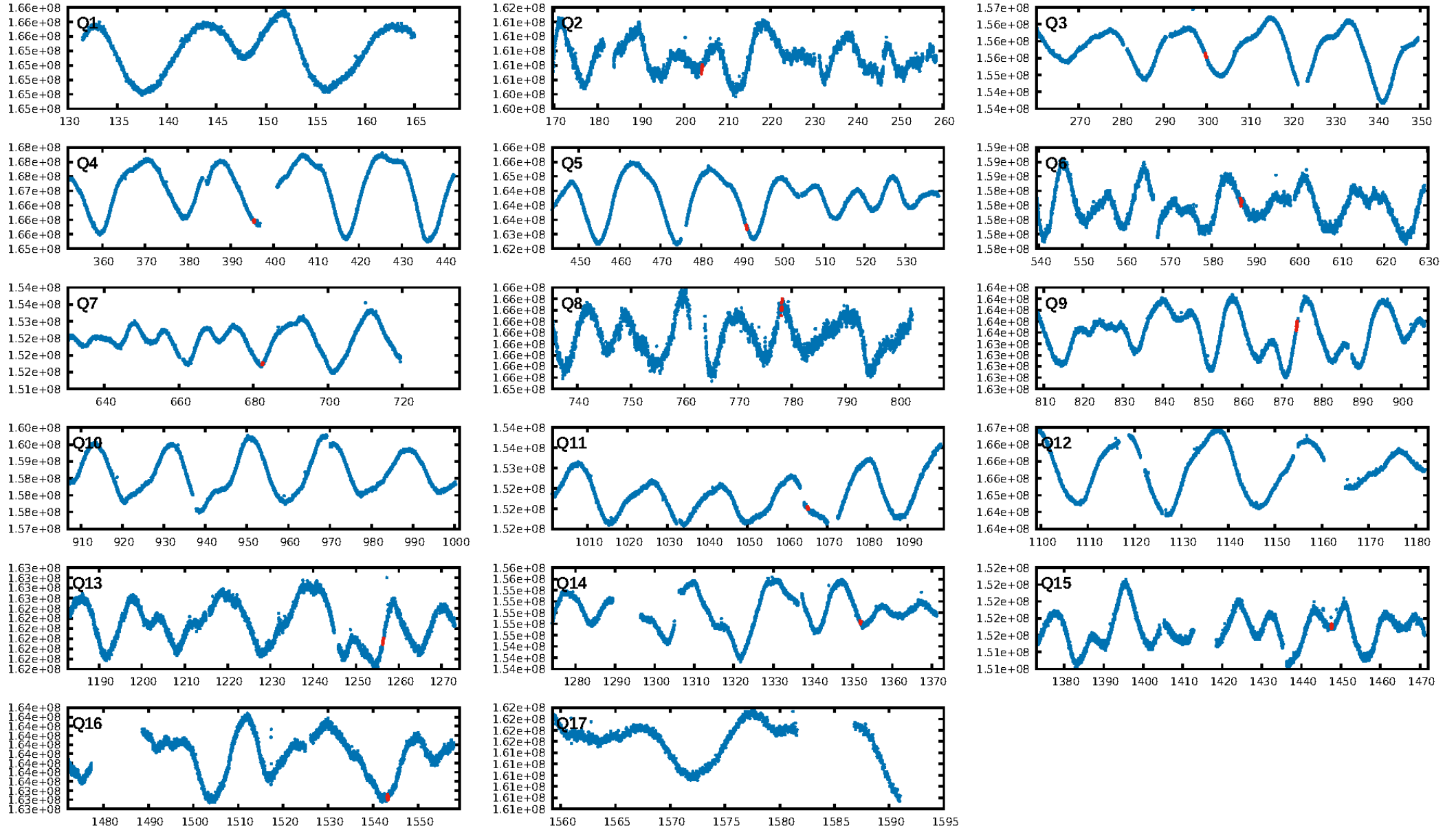
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [3.98σ]
LongPeriod-sig: 100.0% [143.40σ]
ModelChiSquare2-sig: 25.8%
ModelChiSquareGof-sig: 77.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.05957
Centroid-sig: 92.3%
Centroid-so: 0.440 arcsec [0.46σ]
OotOffset-rm: 5.526 arcsec [2.81σ]
OotOffset-st: 1/2/2/3 [8]
KicOffset-rm: 5.486 arcsec [2.24σ]
KicOffset-st: 1/2/2/3 [8]
DiffImageQuality-fgm: 0.25 [2/8]
DiffImageOverlap-fno: 0.25 [3/12]

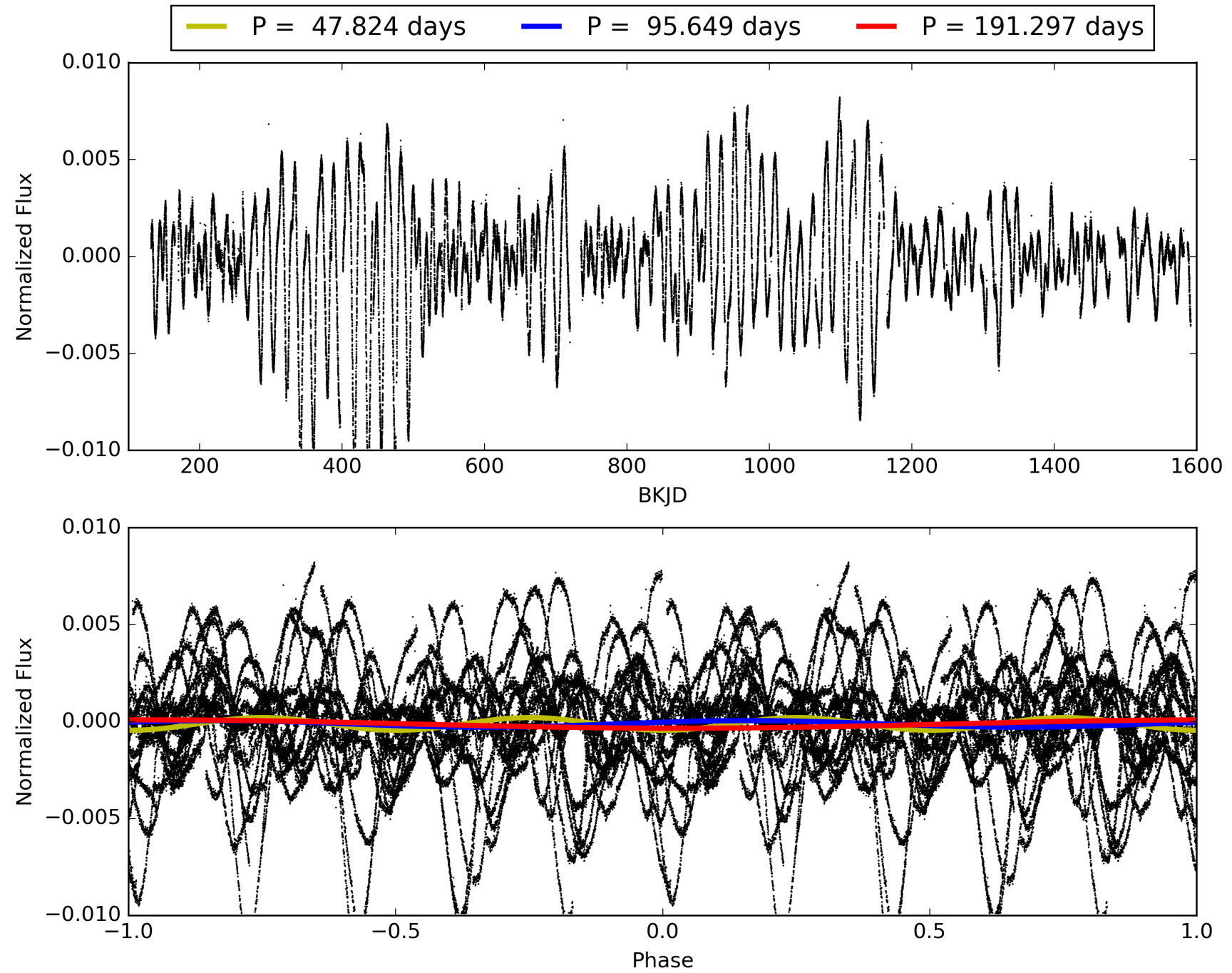
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 14:27:08 Z

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

TCE 009119568-07, PDC Light Curves

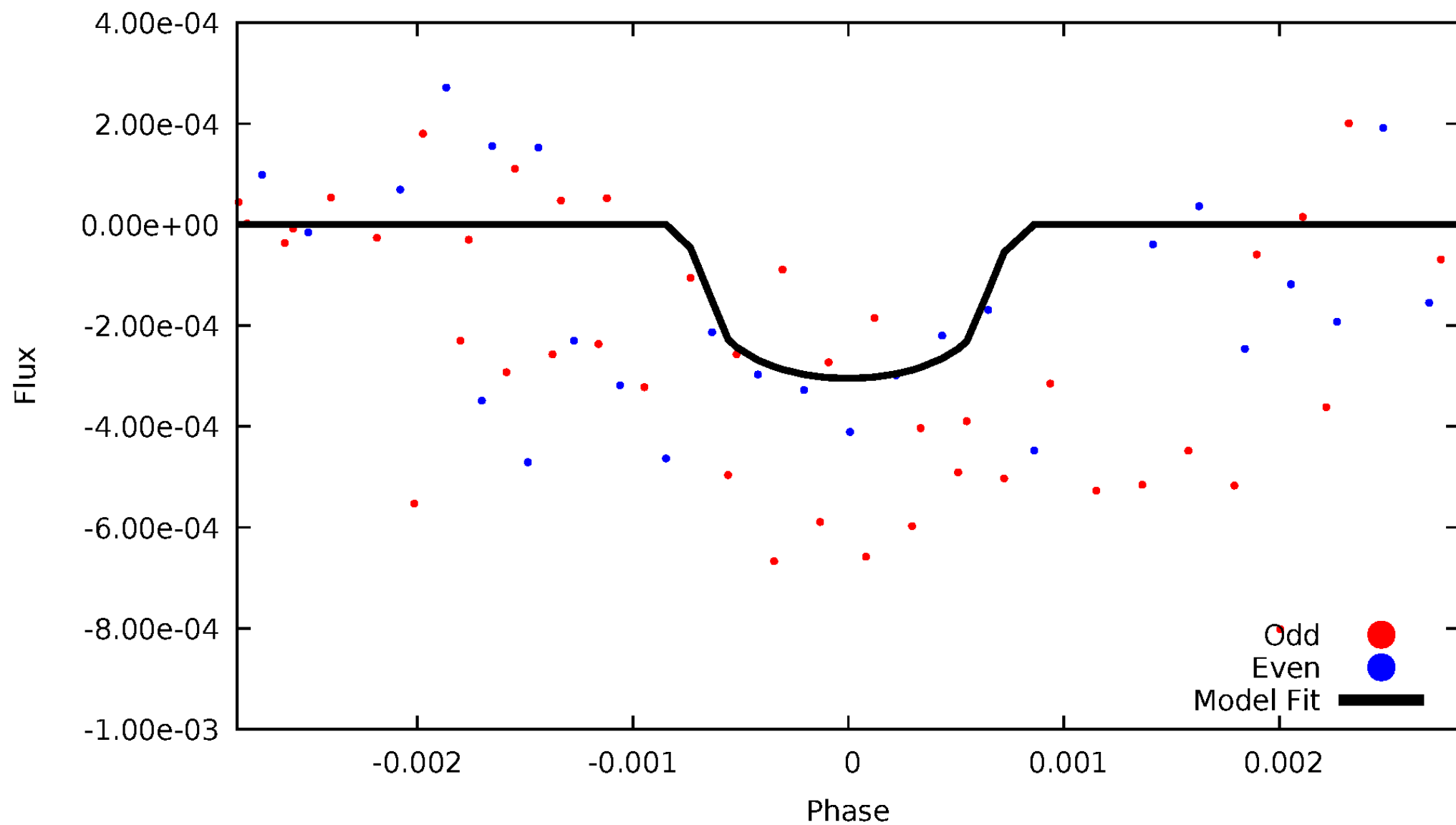


TCE 009119568-07



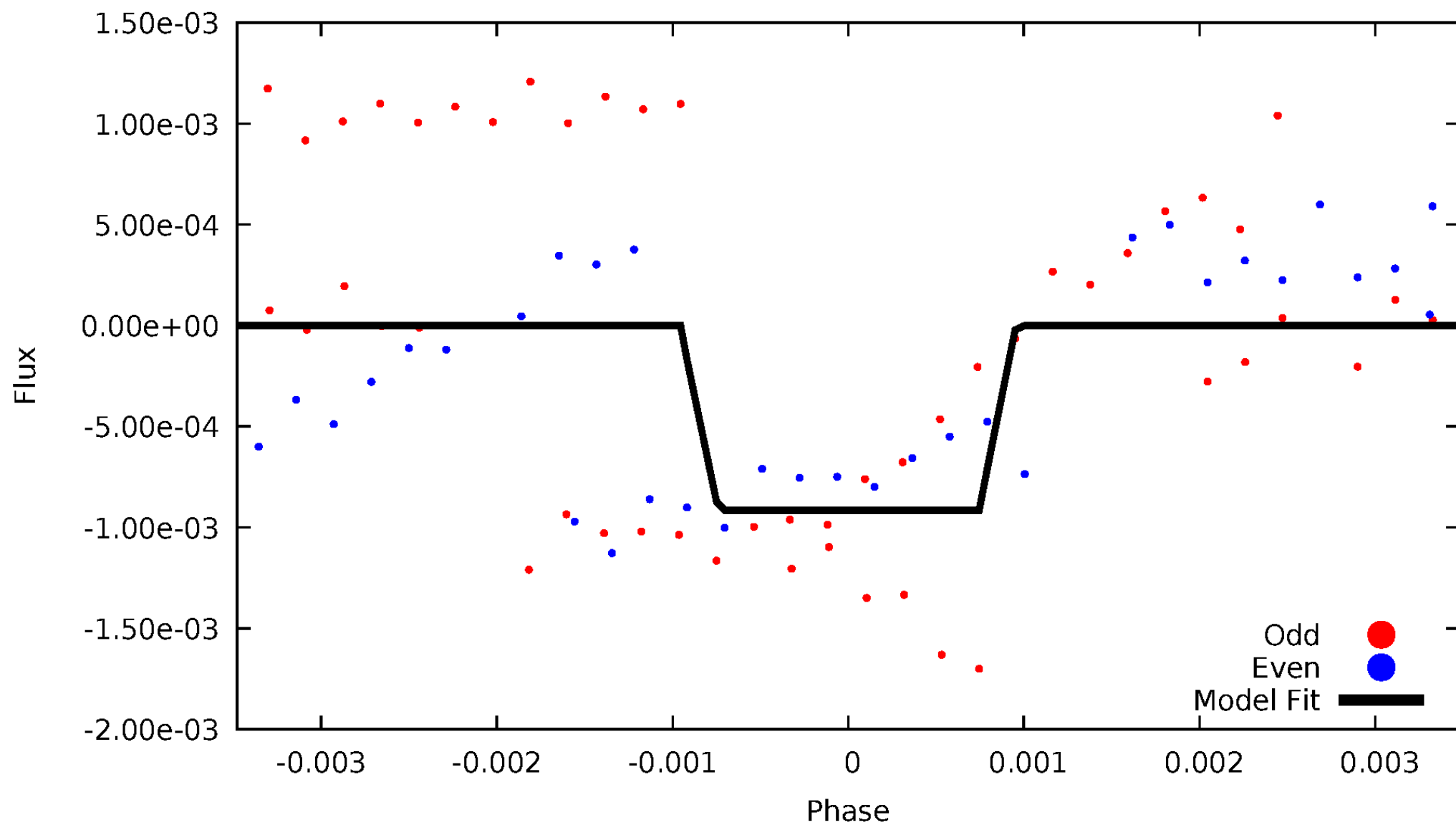
DV Odd/Even

TCE 009119568-07



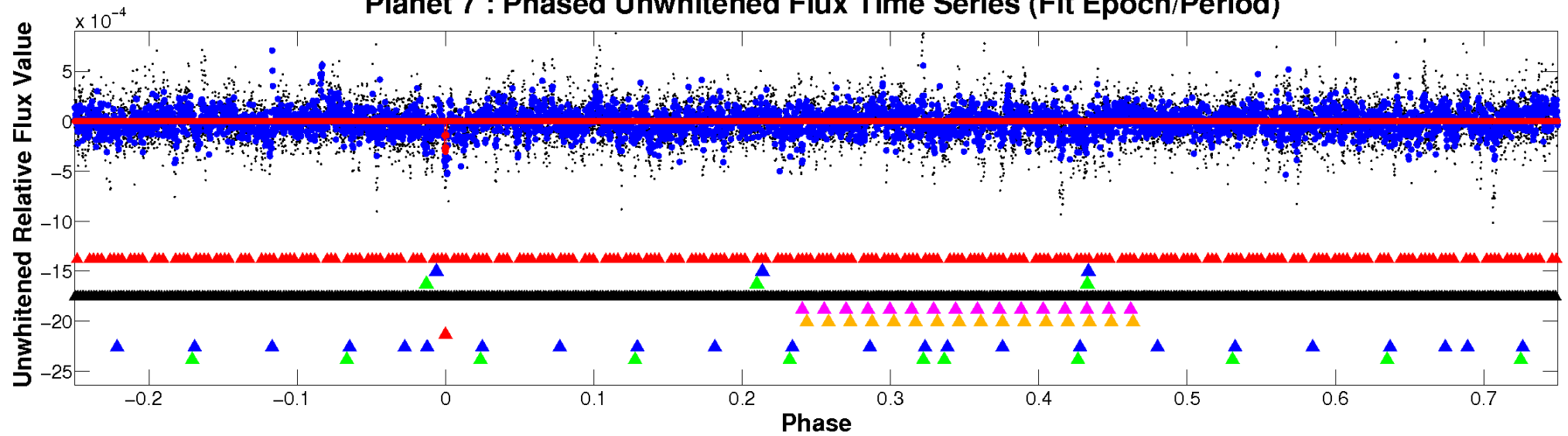
ALT Odd/Even

TCE 009119568-07

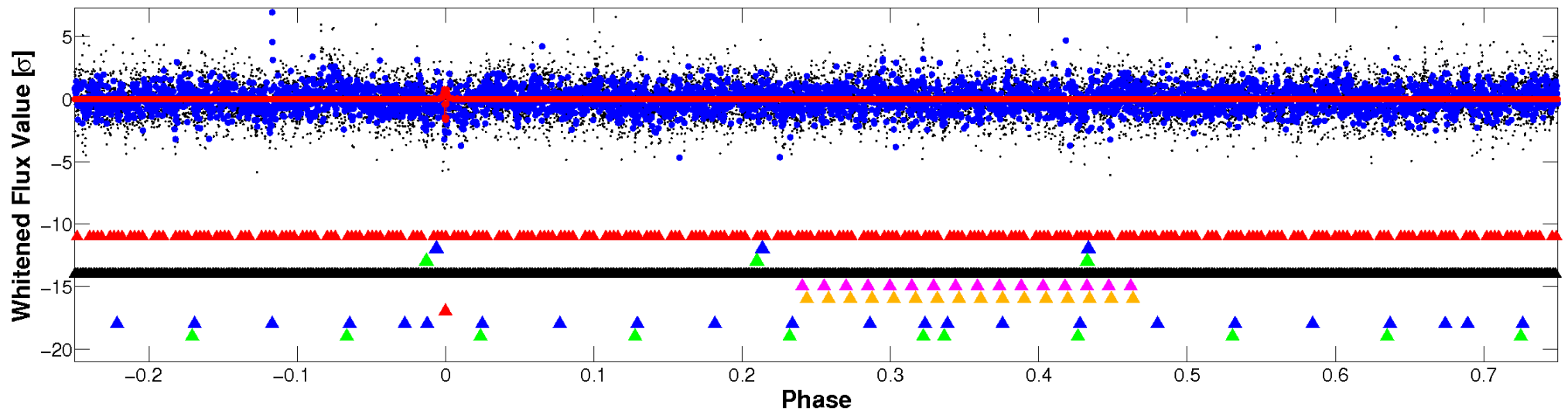


Non-Whitened Vs. Whitened Light Curve

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

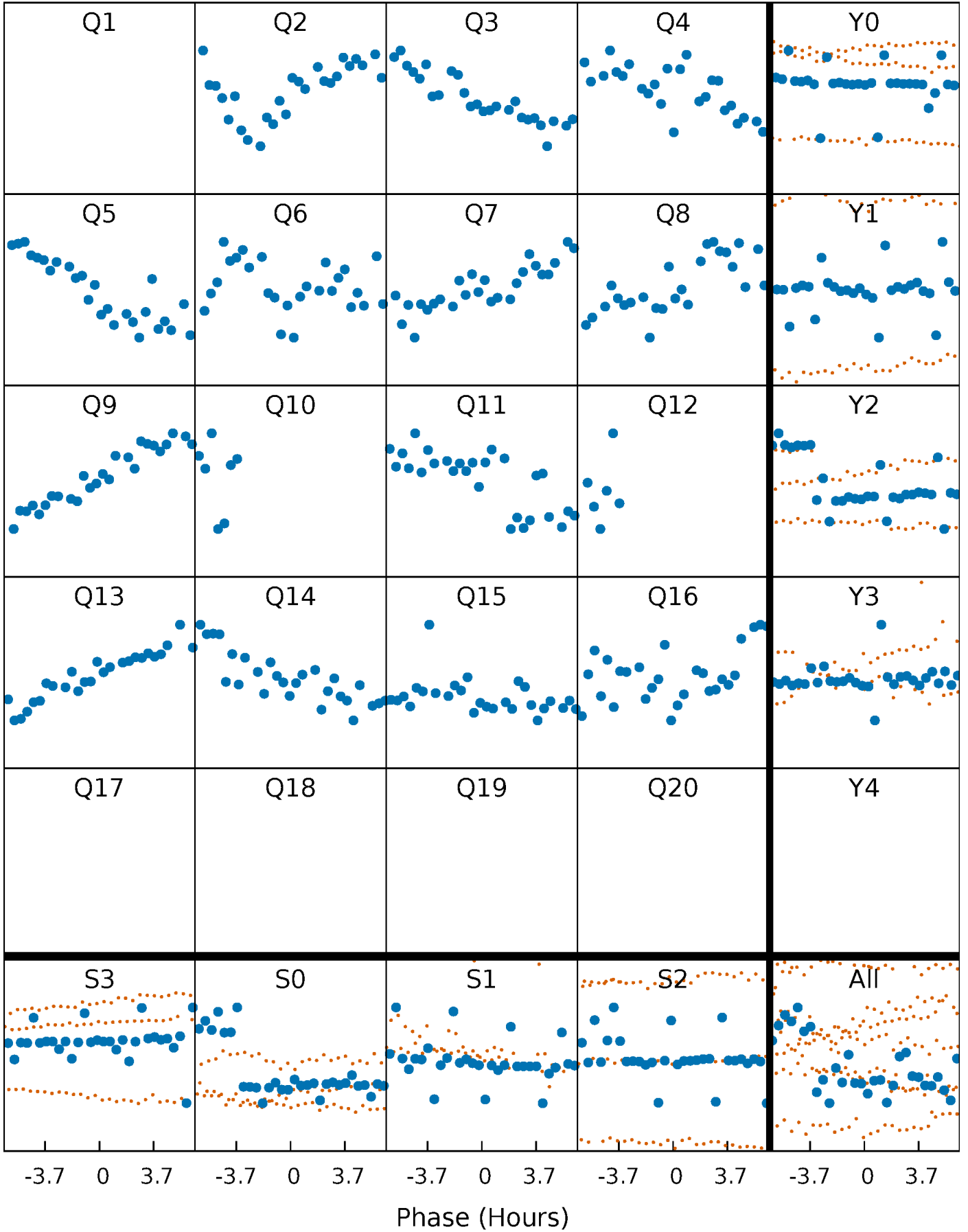


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



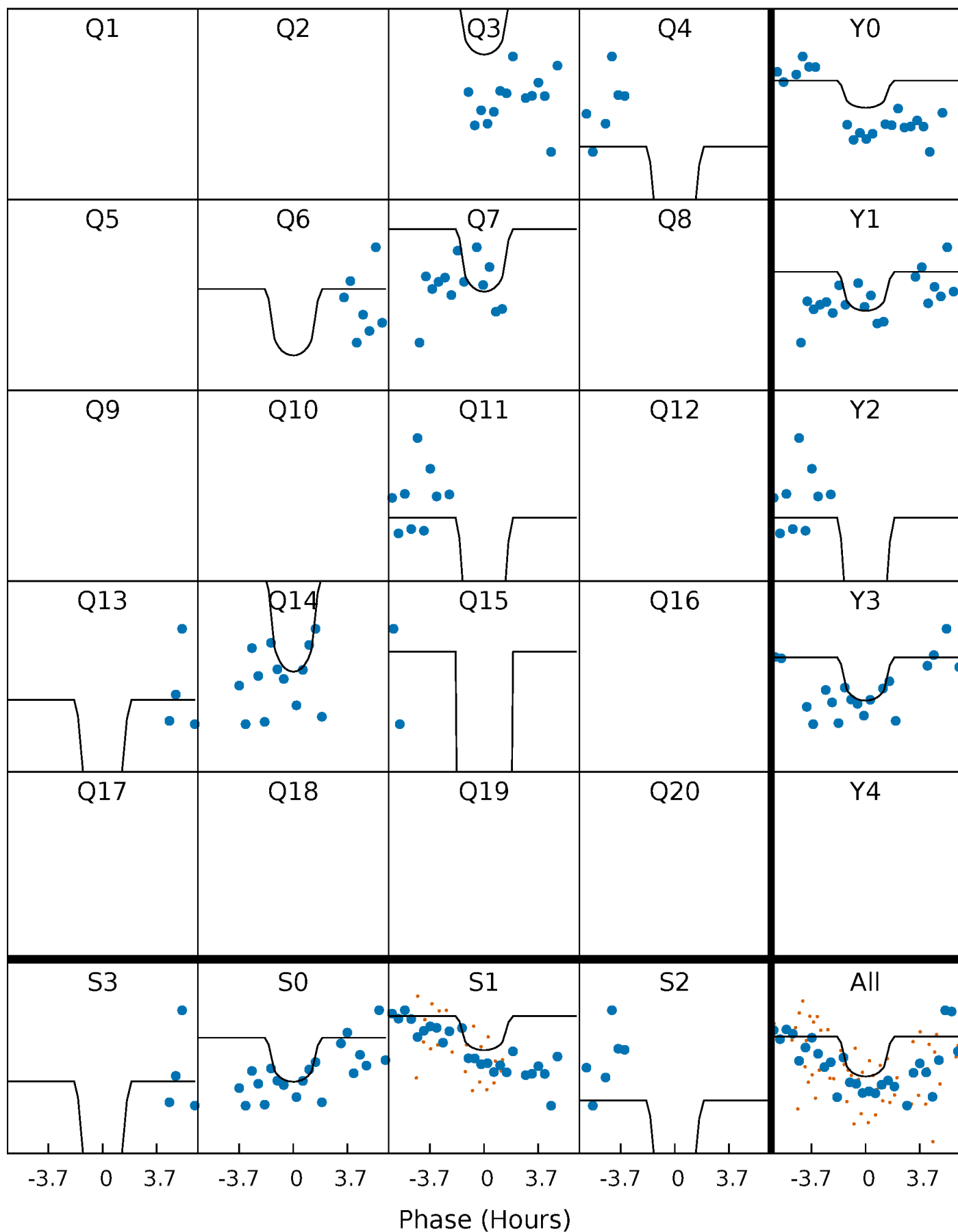
PDC Quarter-Phased Transit Curves

TCE 009119568-07 P= 95.648610 Days $T_0=204.188265$ (BKJD)



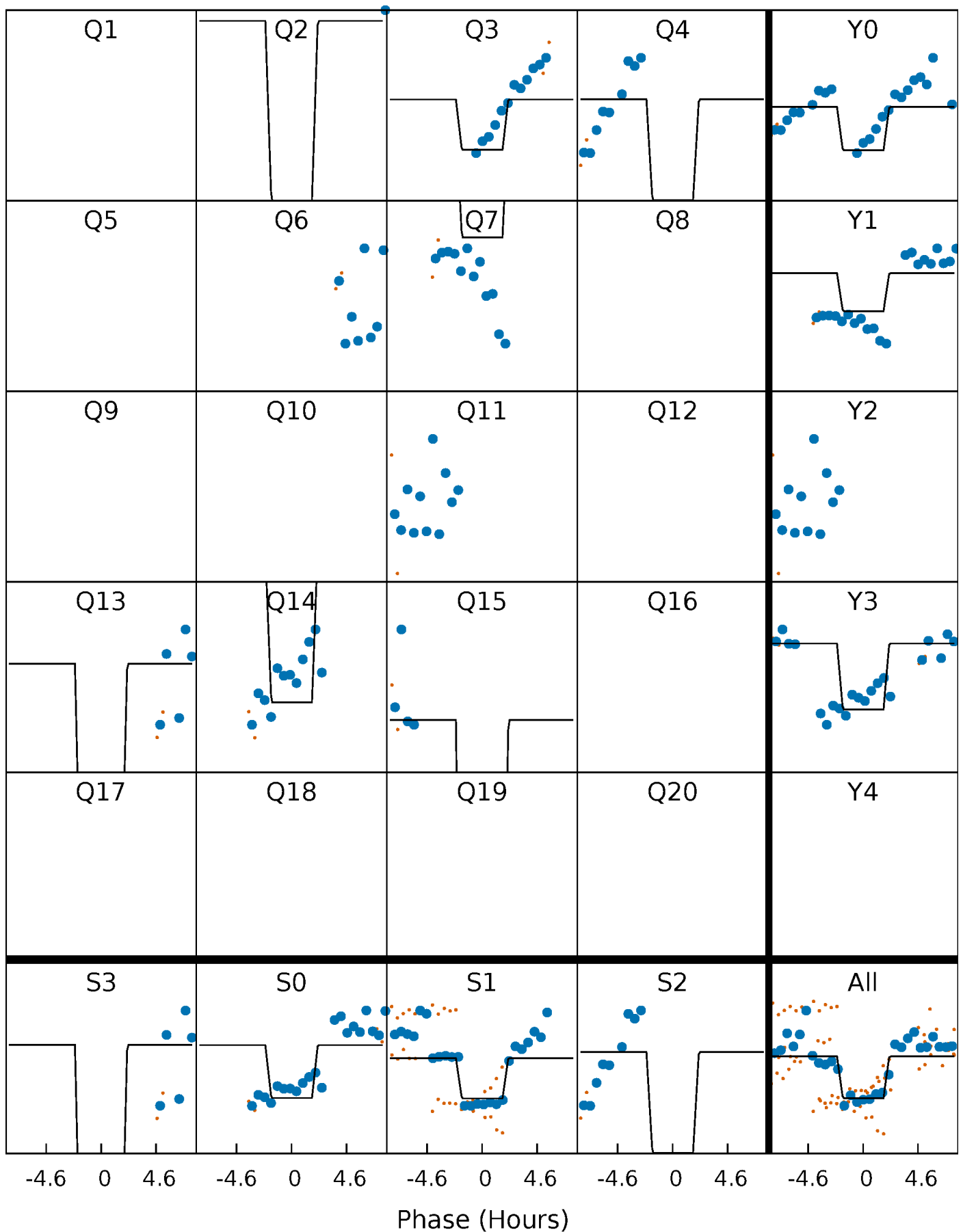
DV Quarter-Phased Transit Curves

TCE 009119568-07 P= 95.648610 Days $T_0=204.188265$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

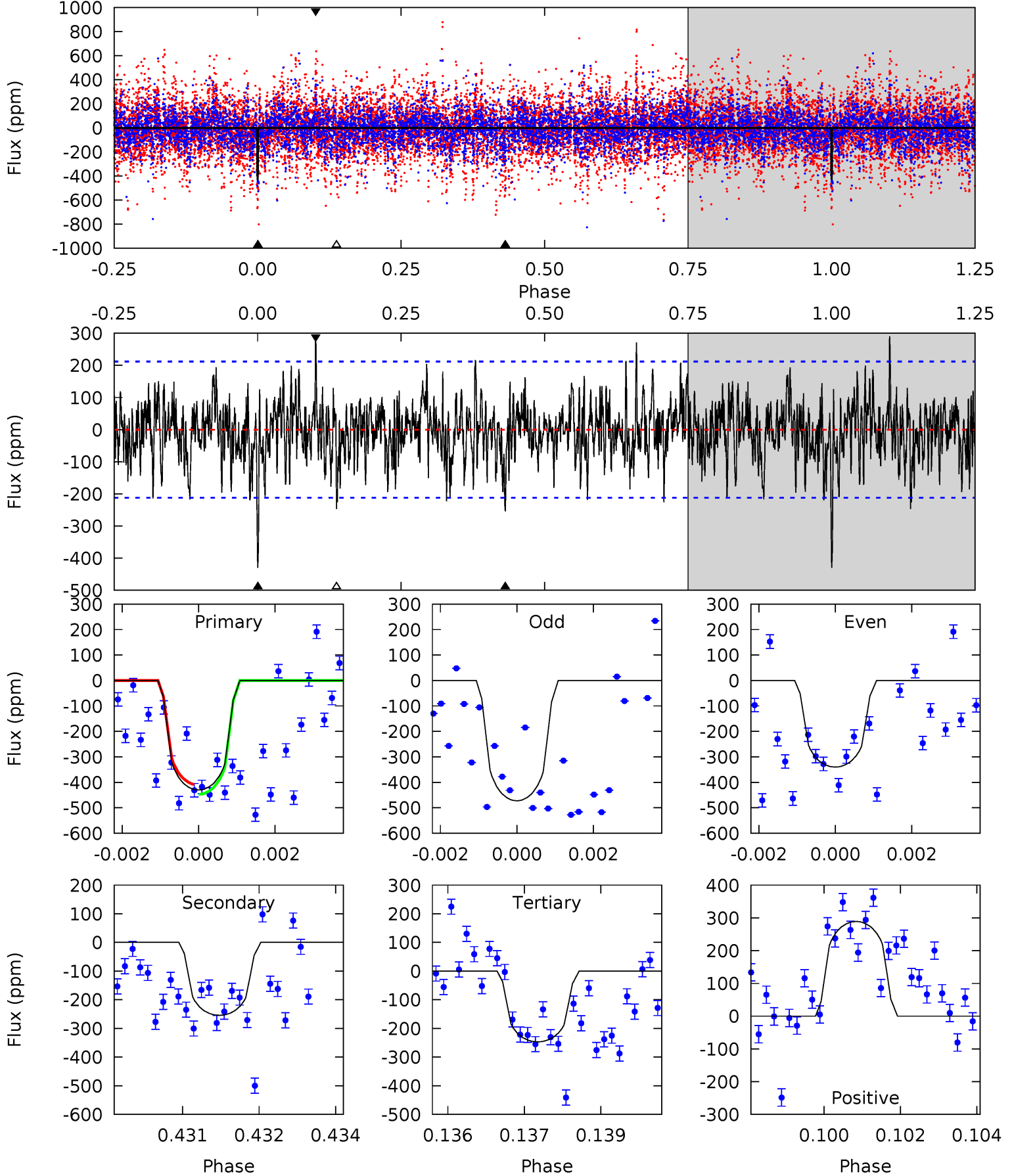
TCE 009119568-07 P= 95.649342 Days $T_0=204.165898$ (BKJD)



DV Model-Shift Uniqueness Test

009119568-07, P = 95.648610 Days, E = 108.539655 Days

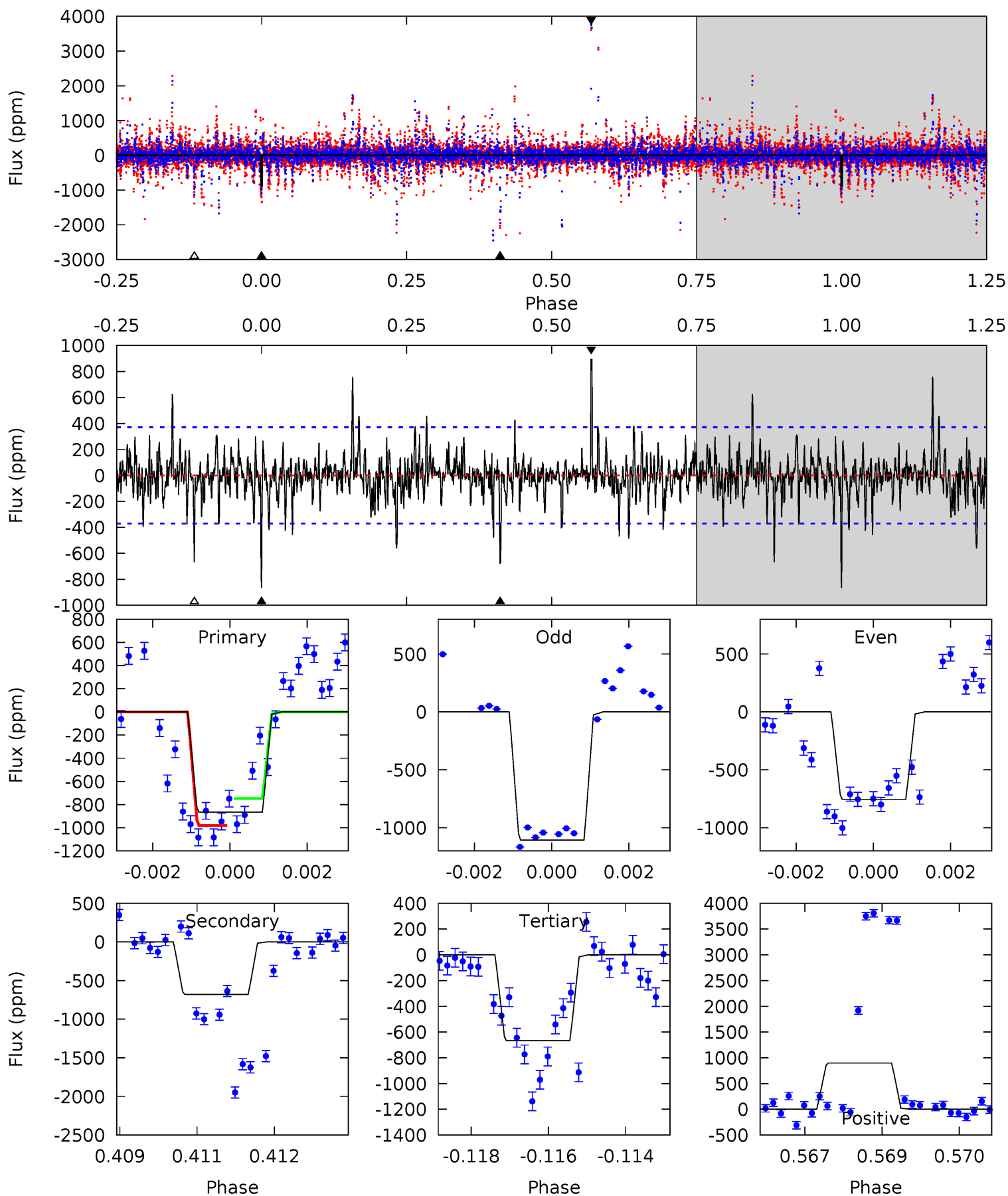
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	6.43	6.25	7.32	5.37	3.16	1.91	4.64	3.57	0.18	-0.88	1.52	1.26	0.40	0.49



Alt Model-Shift Uniqueness Test

009119568-07, P = 95.649342 Days, E = 108.516556 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	9.80	9.62	13.0	5.35	3.13	1.83	2.87	-0.48	0.18	-3.17	1.80	1.21	0.51	1.71



Stellar Parameters For KIC 009119568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5258^{+105}_{-105}	$4.514^{+0.055}_{-0.055}$	$0.000^{+0.150}_{-0.150}$	$0.835^{+0.063}_{-0.057}$	$0.831^{+0.053}_{-0.042}$	$2.010^{+0.449}_{-0.336}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+8%/-7%	+6%/-5%	+22%/-17%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 009119568-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-254 ± 40	$3.32^{+3.23}_{-2.25}$	478^{+14}_{-13}	3806^{+2231}_{-715}	1884^{+16352}_{-1413}
Alt.	-679 ± 69	$3.87^{+3.50}_{-2.65}$	478^{+13}_{-13}	4307^{+3013}_{-843}	3632^{+32523}_{-2616}

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

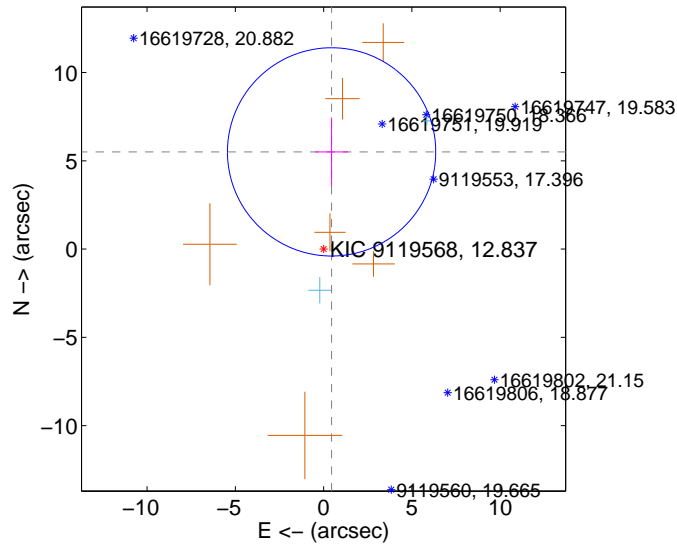
Supplemental centroid analysis for 009119568-07. Kepler magnitude: 12.84. Transit SNR 6.56

There are 2 quarters with good PRF difference image offsets

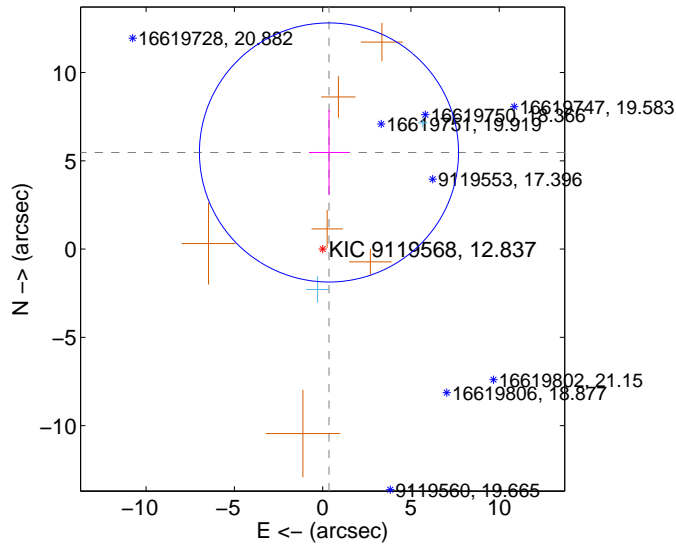
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.526 ± 1.967	2.81	-0.452 ± 0.931	5.508 ± 1.944
PRF-fit source offset from KIC position	5.486 ± 2.446	2.24	-0.358 ± 1.136	5.474 ± 2.414
photometric centroid source offset	0.44 ± 0.96	0.46	0.40 ± 0.99	0.18 ± 0.81

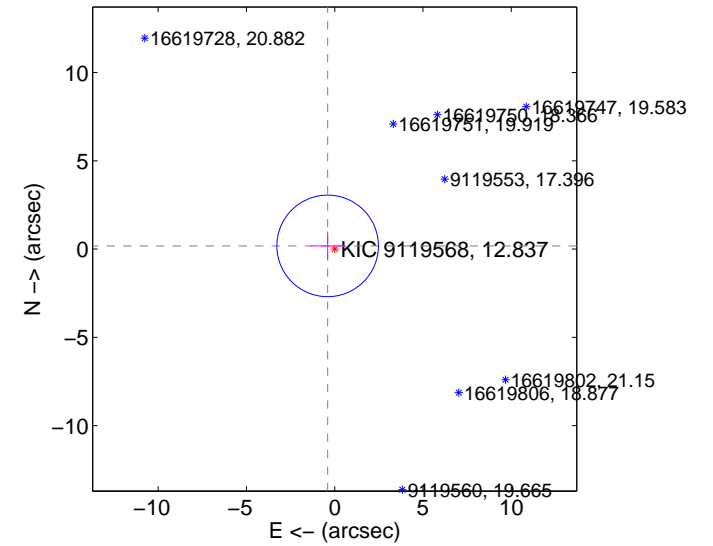
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

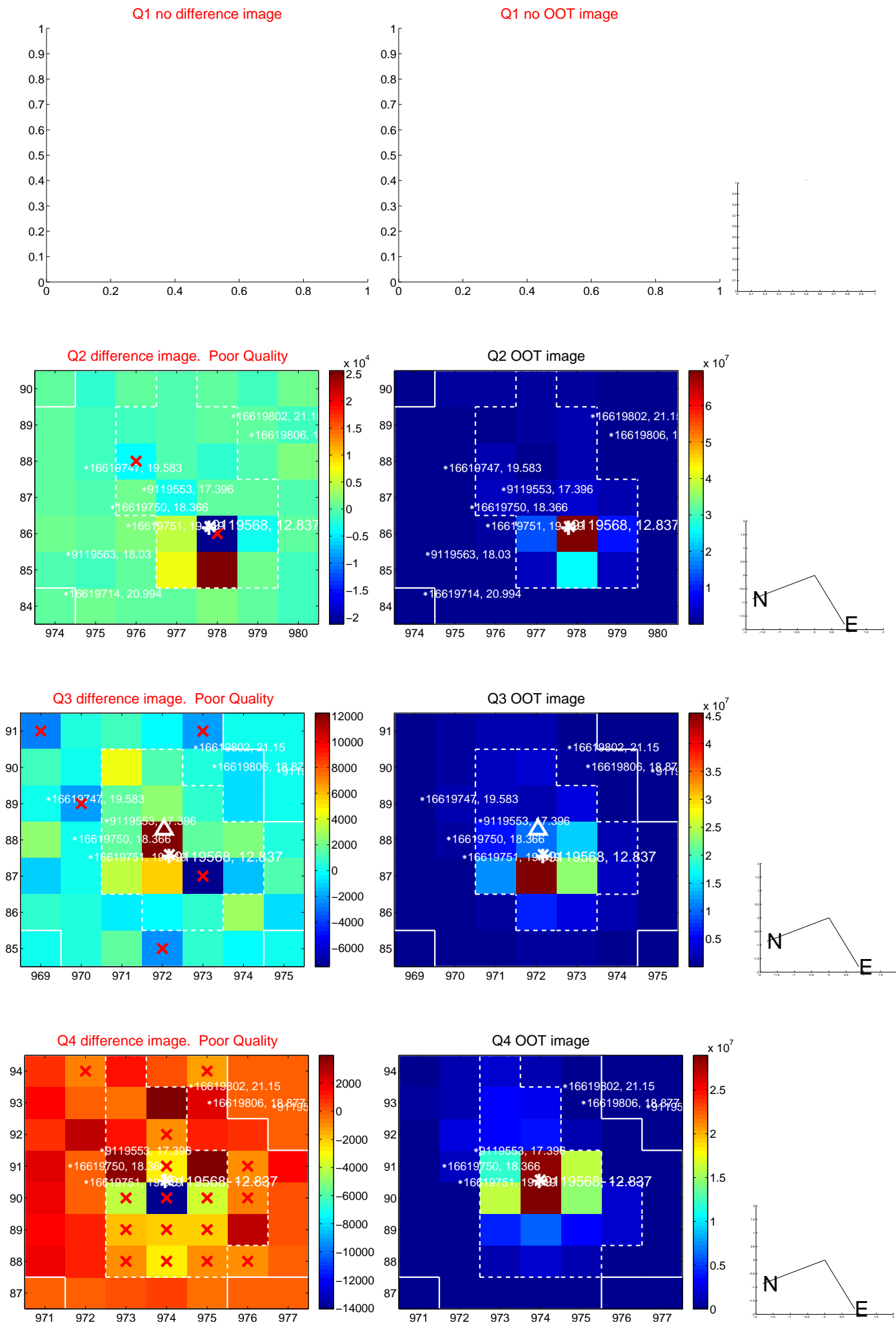


offset from photometric centroids

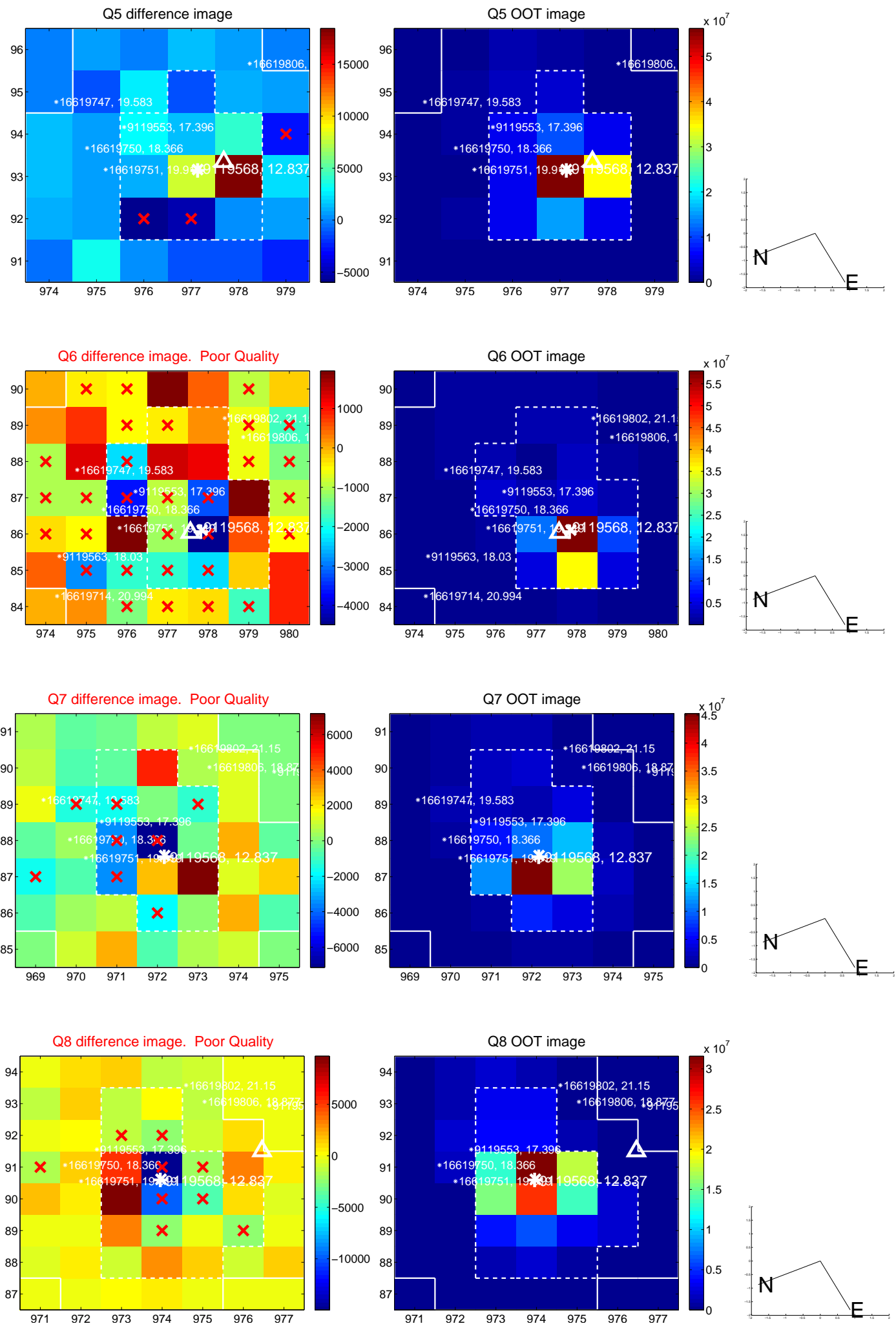


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

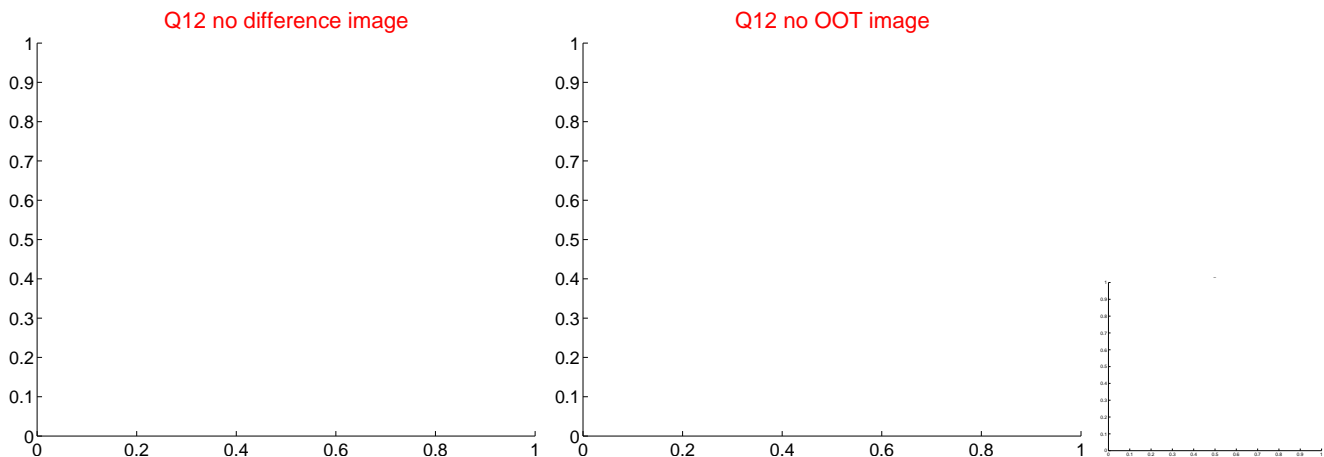
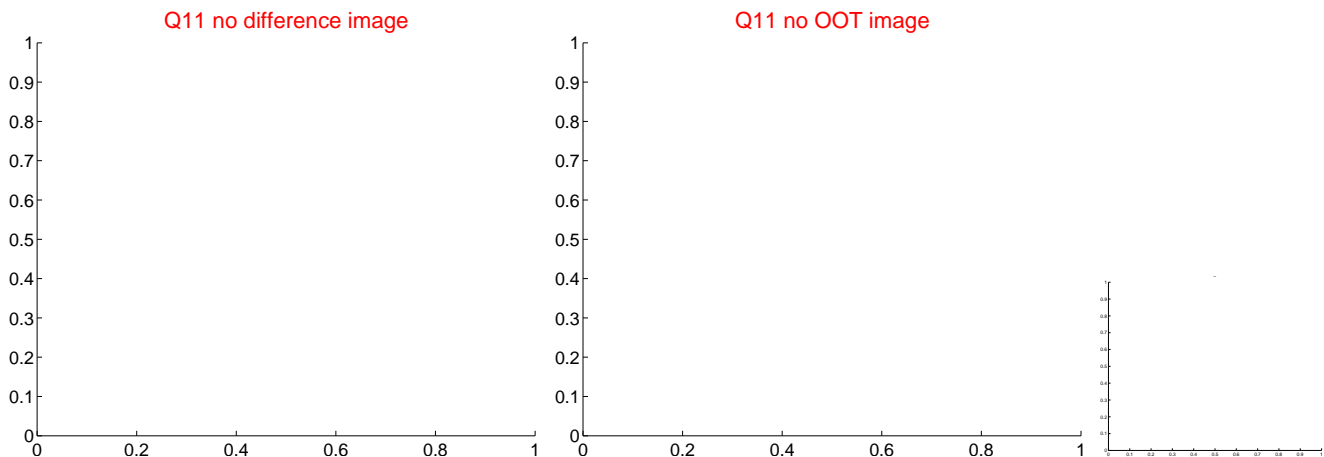
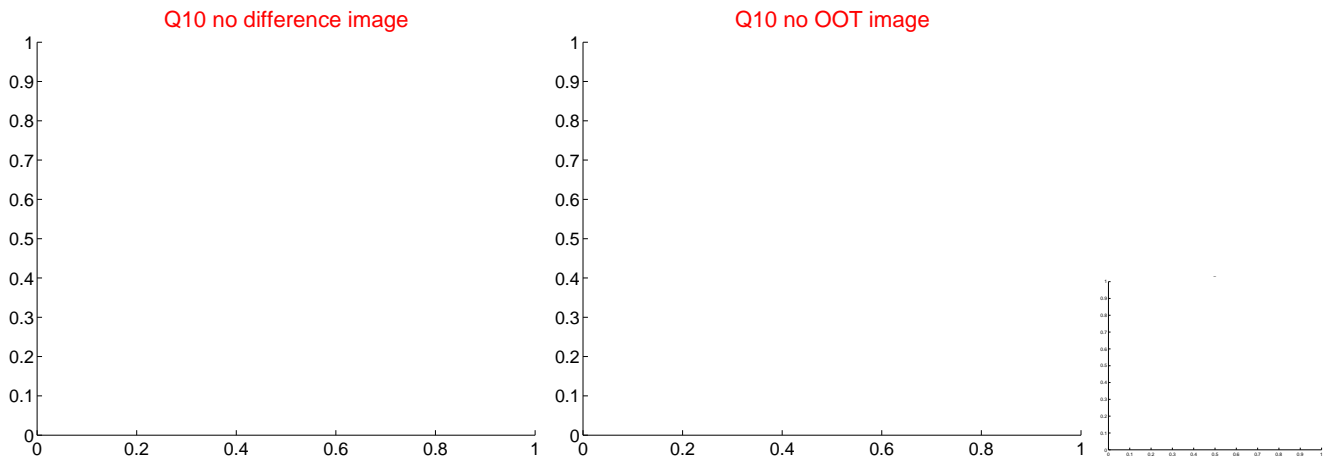
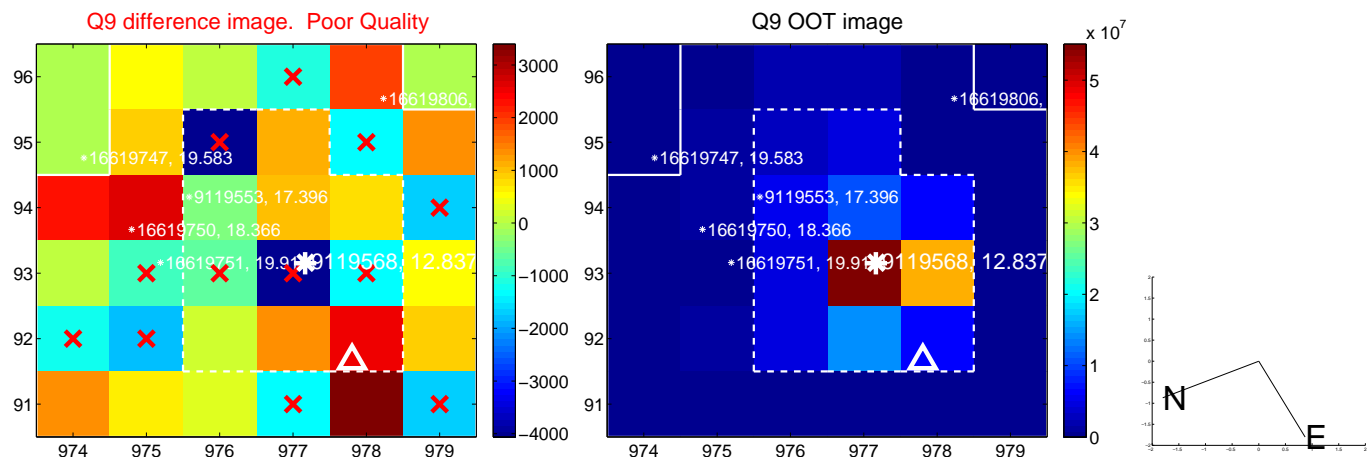
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



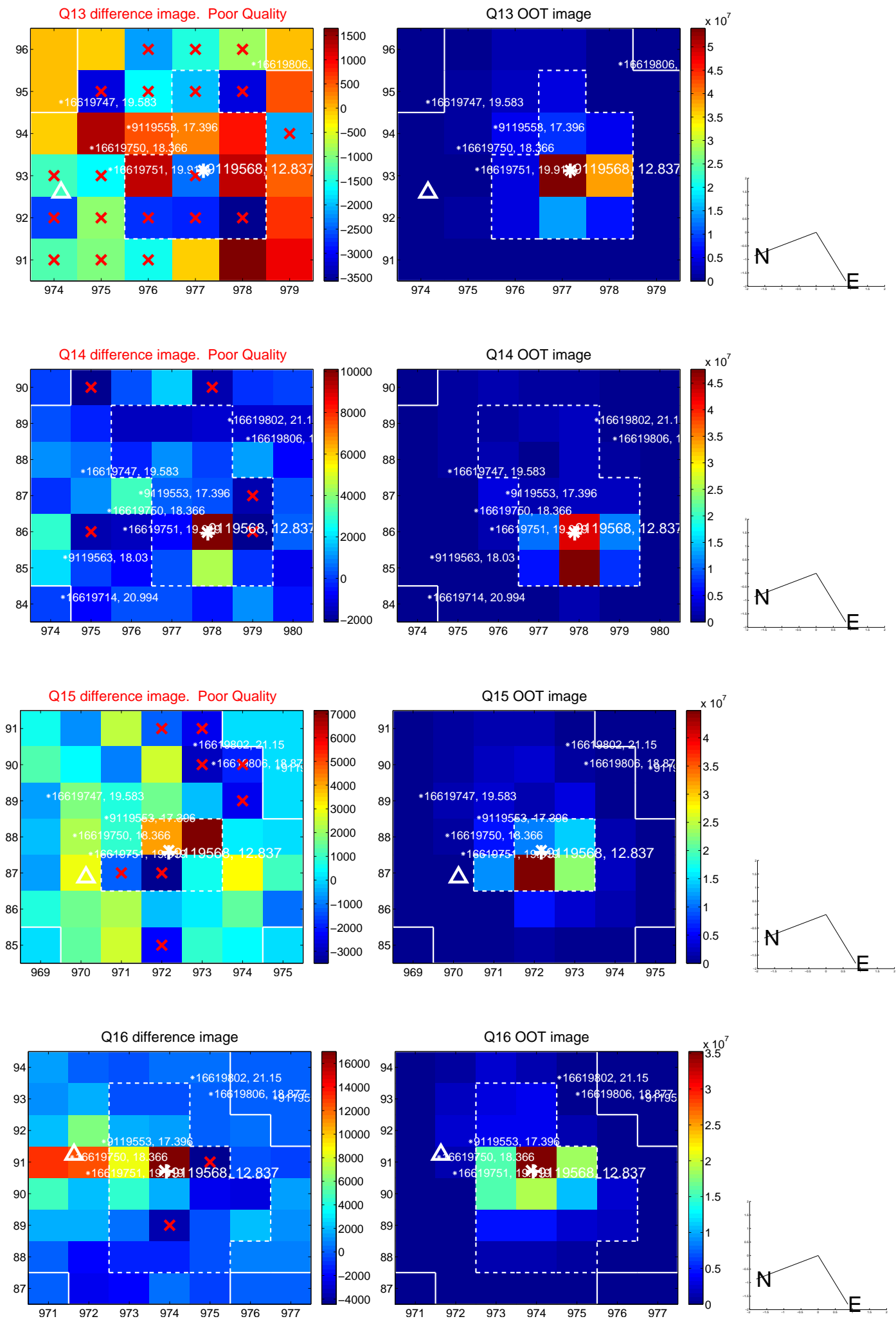
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



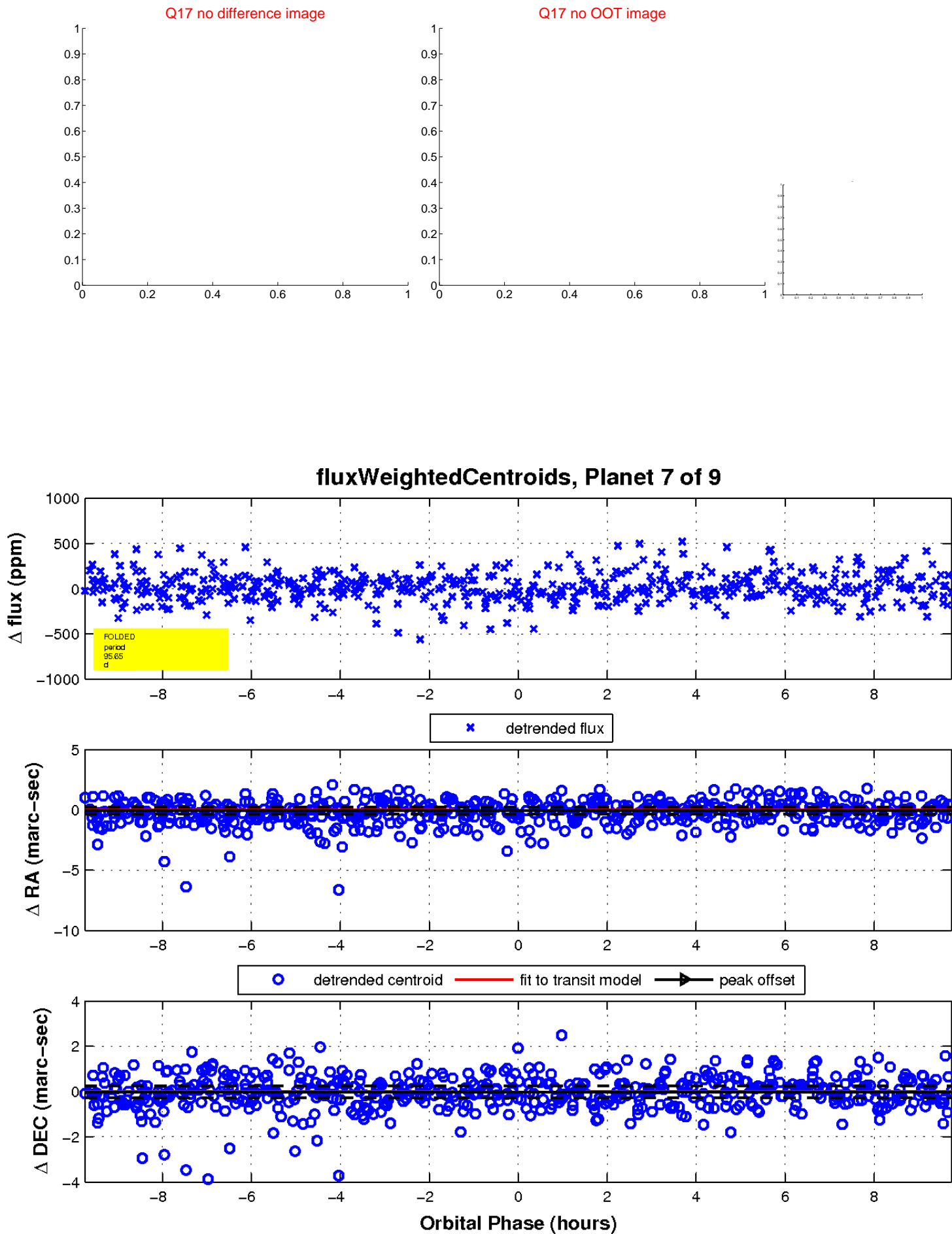
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

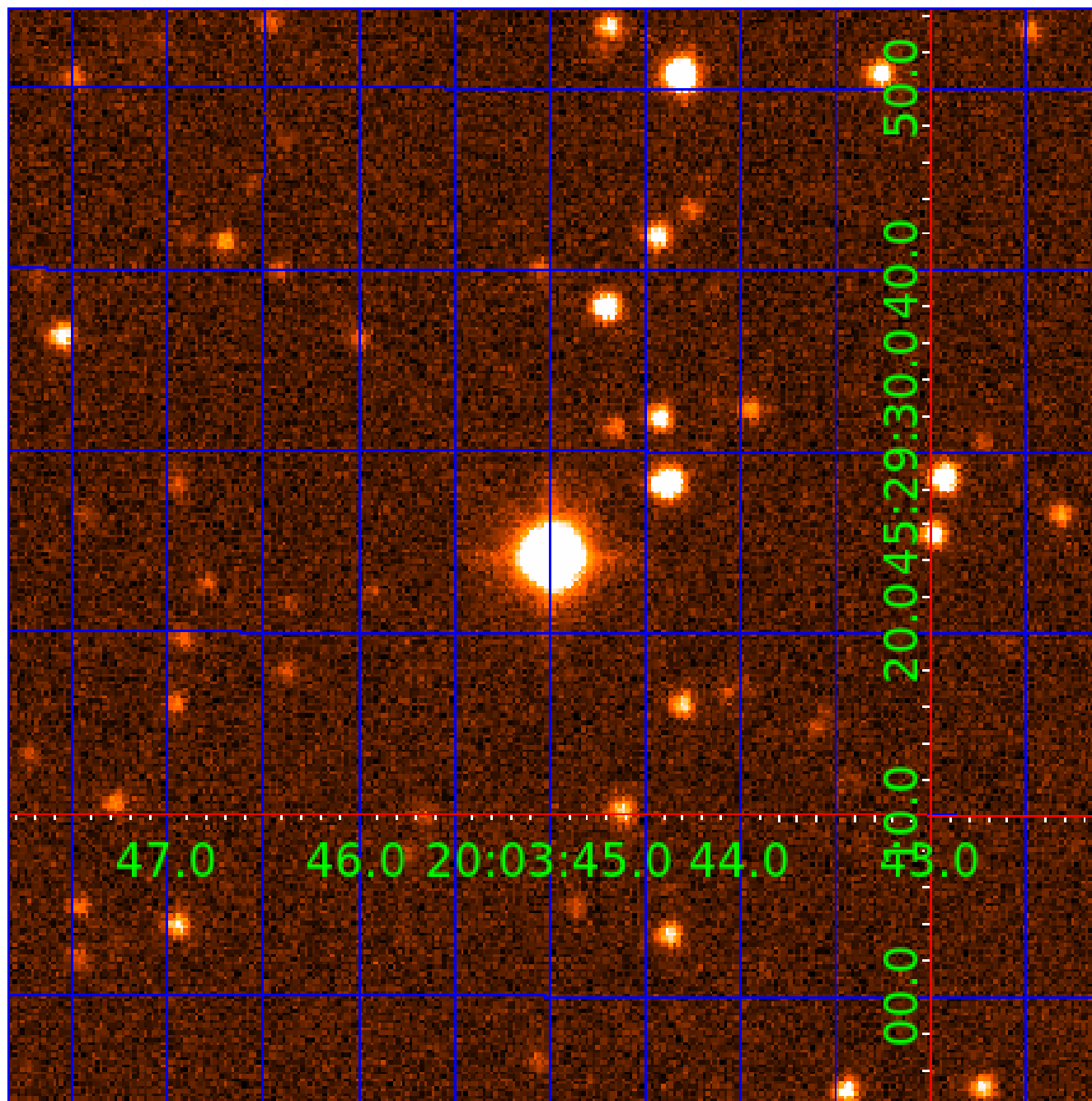


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009119568

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})
009119568-01	OBS	3087.01	5.548603	133.942592	64.1	4.672	12.1	12.8	0.83	5258	0.81	143.57
009119568-02	OBS	No	594.914962	203.604580	218.9	1.450	16.0	2.1	0.83	5258	1.49	0.28
009119568-03	OBS	No	595.202594	202.958220	231.5	3.708	16.2	2.0	0.83	5258	1.56	0.28
009119568-04	OBS	3087.02	1.221848	131.916069	23.8	7.385	7.5	10.5	0.83	5258	0.40	1079.64
009119568-05	OBS	No	94.236684	152.728762	168.6	1.213	21.8	3.0	0.83	5258	1.06	3.29
009119568-07	OBS	No	95.648610	204.188265	304.7	3.255	16.4	6.6	0.83	5258	1.58	3.22
009119568-08	OBS	No	62.099321	174.458969	58.4	1.823	15.5	1.6	0.83	5258	0.64	5.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009119568-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST
009119568-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
009119568-04	OBS	FP	0.00	1	0	0	0	LPP_DV
009119568-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS
009119568-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST
009119568-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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 009119568-08

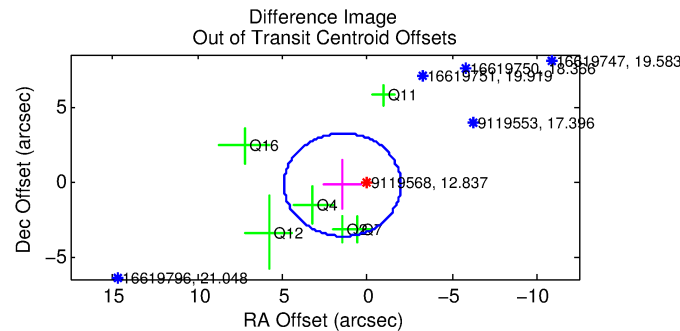
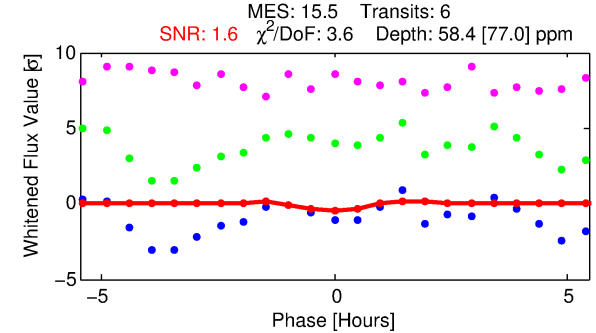
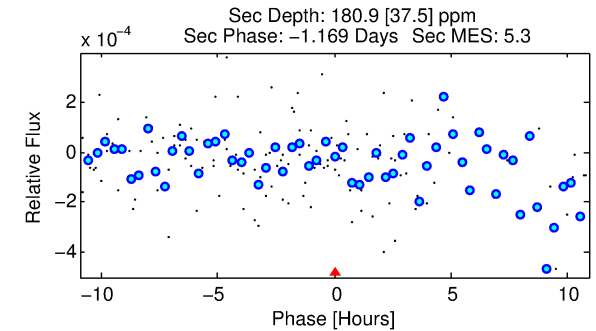
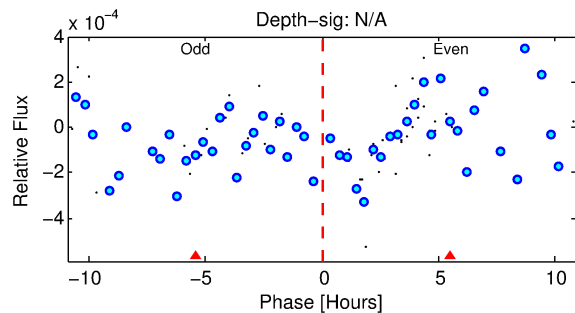
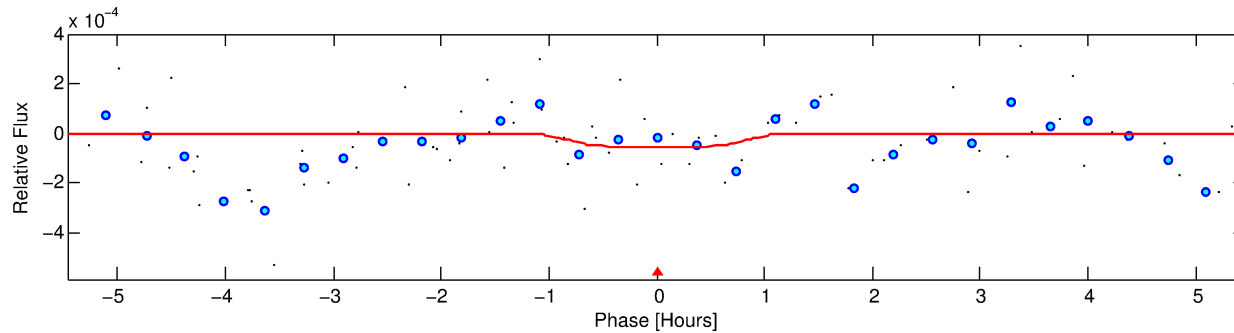
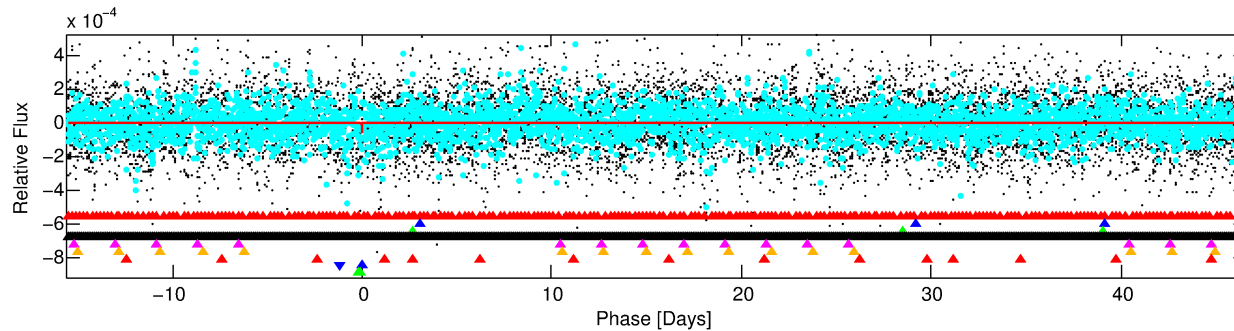
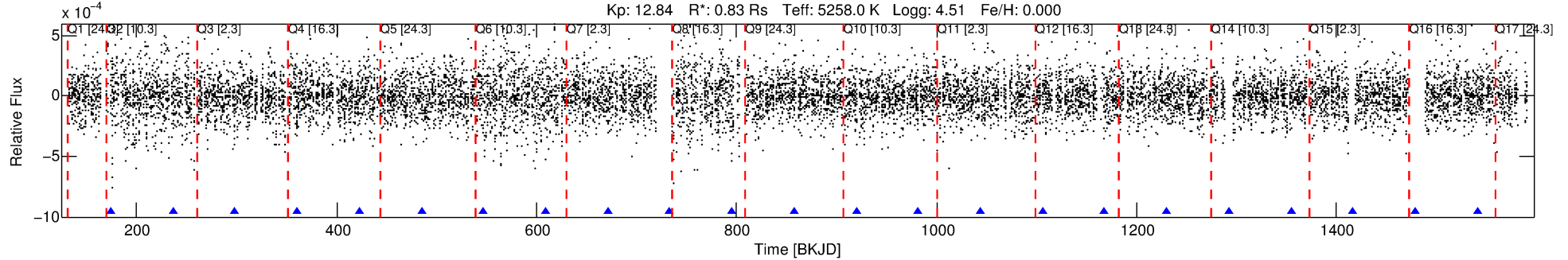
No Significant Match Found

DV One-Page Summary

KIC: 9119568 Candidate: 8 of 9 Period: 62.099 d

KOI: K03087 Corr: No Ephemeris Match

Kp: 12.84 R*: 0.83 Rs Teff: 5258.0 K Logg: 4.51 Fe/H: 0.000



DV Fit Results:

Period = 62.09932 [0.00571] d
Epoch = 174.4590 [0.0702] BKJD
Rp/R* = 0.0070 [0.0315]
a/R* = 240.32 [3765.73]
b = 0.40 [33.84]
Seff = 5.73 [0.73]
Teq = 395 [12] K
Rp = 0.64 [2.87] Re
a = 0.2885 [0.0189] AU
Ag = 20324.38 [182731.79] [0.11σ]
Teffp = 7285 [16373] K [0.42σ]

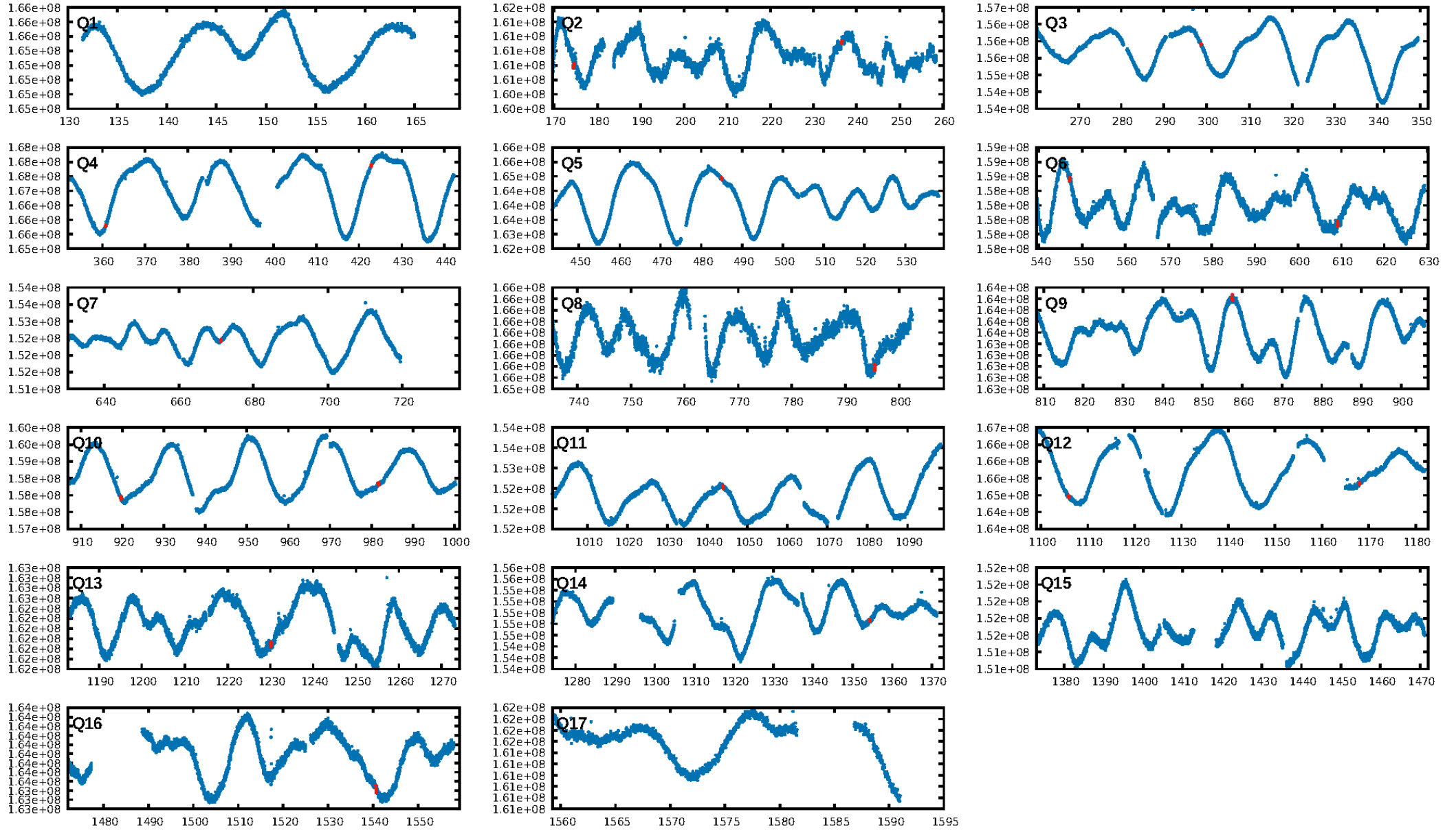
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [270.62σ]
LongPeriod-sig: 100.0% [352.30σ]
ModelChiSquare2-sig: 19.4%
ModelChiSquareGof-sig: 62.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -0.5556
Centroid-sig: 15.0%
Centroid-so: 5.047 arcsec [1.02σ]
OotOffset-rm: 1.464 arcsec [1.28σ]
KicOffset-rm: 1.570 arcsec [1.22σ]
OotOffset-st: 1/2/3/0 [6]
KicOffset-st: 1/2/3/0 [6]
DiffImageQuality-fgm: 0.00 [0/6]
DiffImageOverlap-fno: 0.15 [2/13]

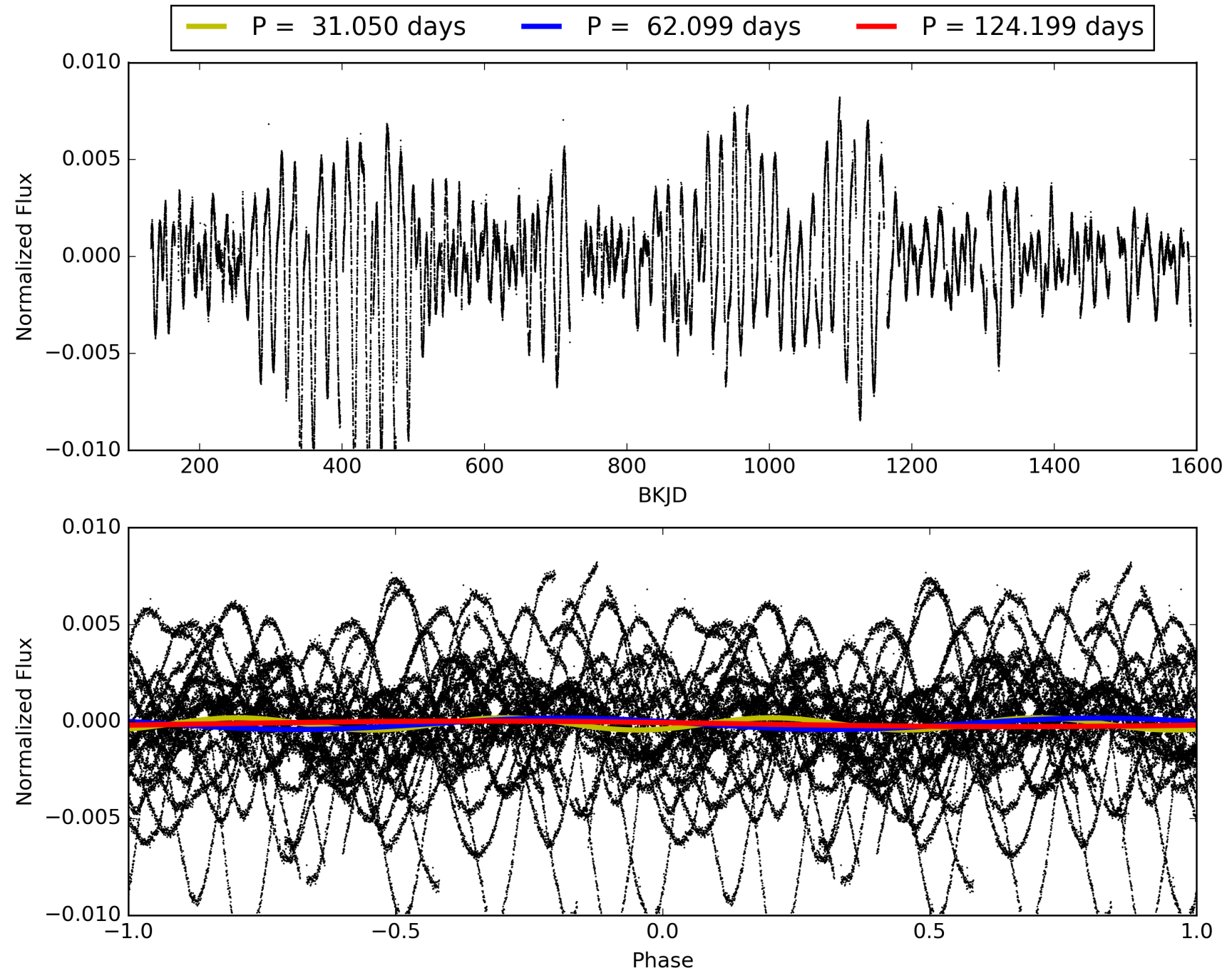
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 14:27:12 Z

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

TCE 009119568-08, PDC Light Curves

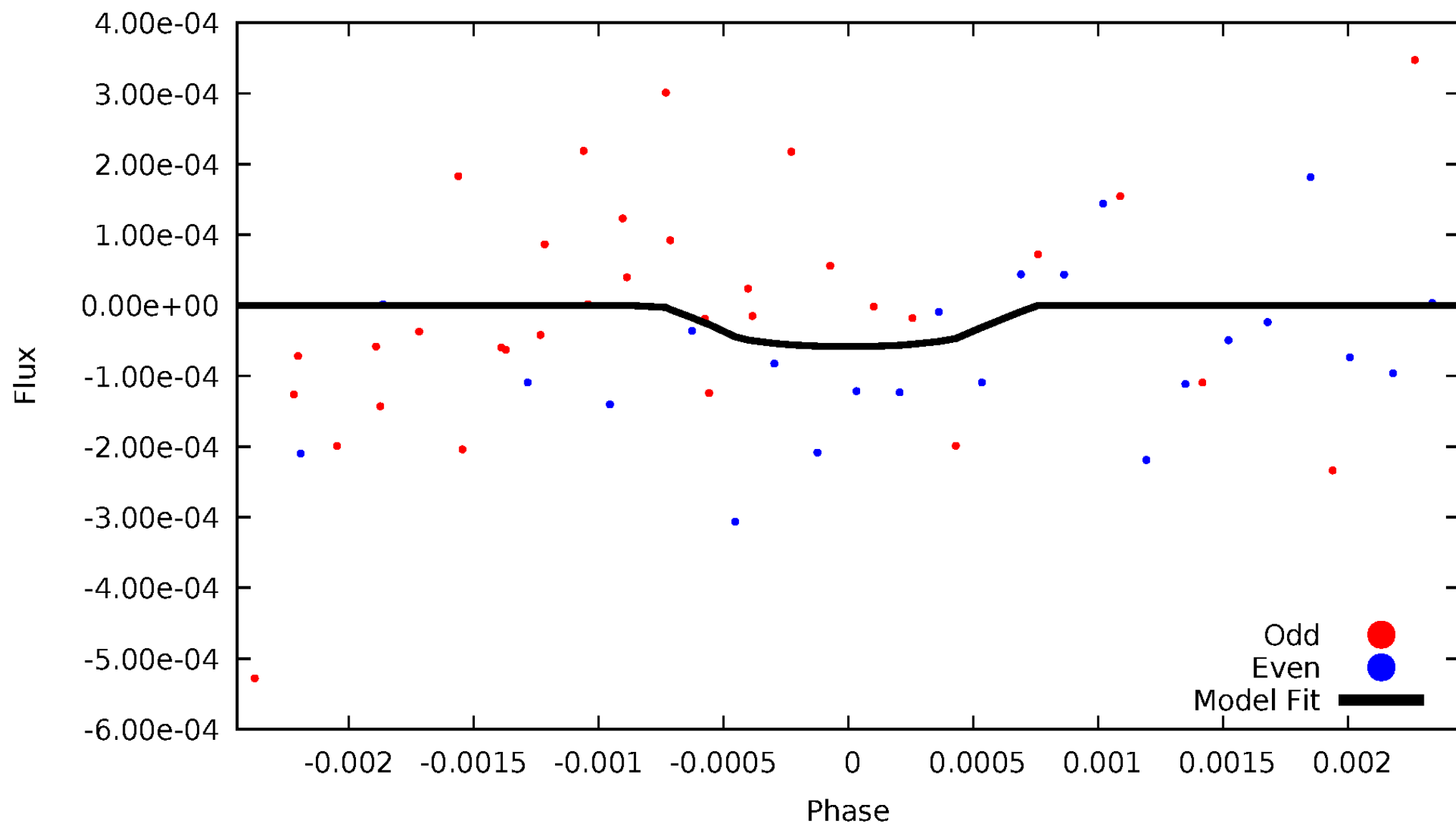


TCE 009119568-08



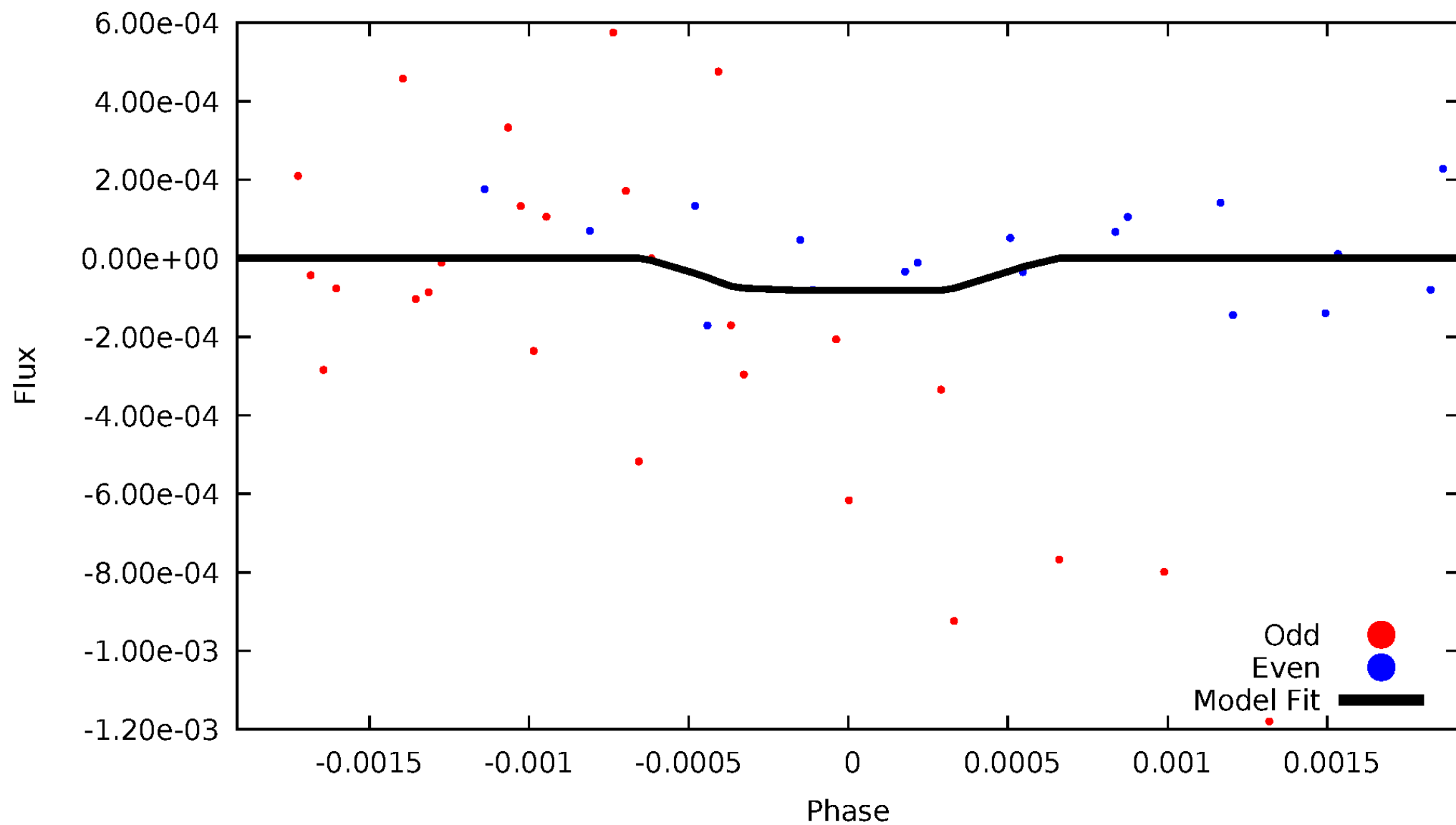
DV Odd/Even

TCE 009119568-08



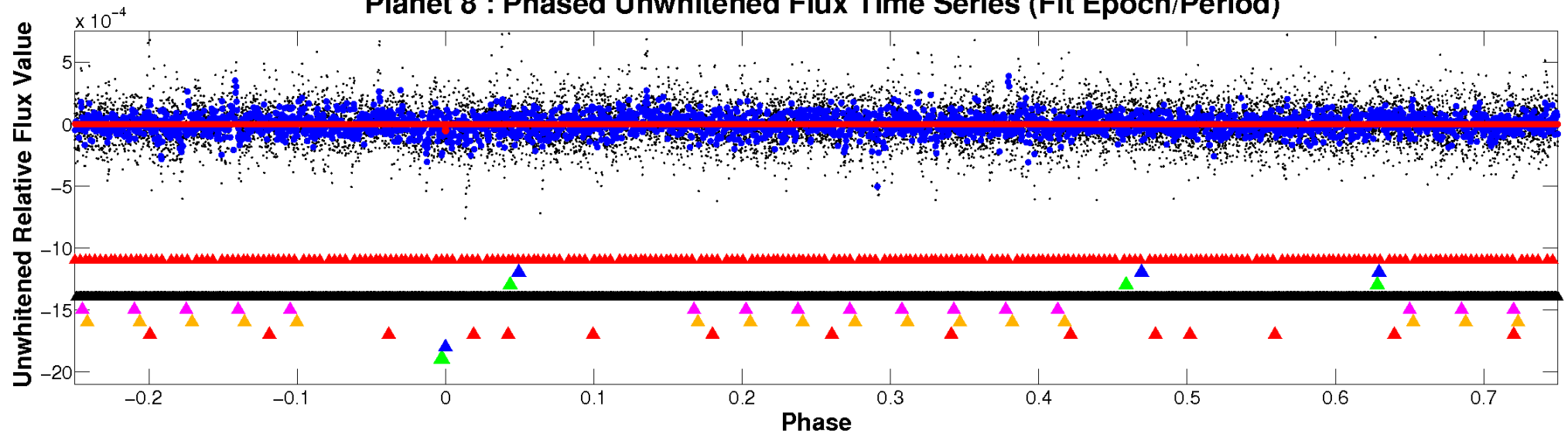
ALT Odd/Even

TCE 009119568-08

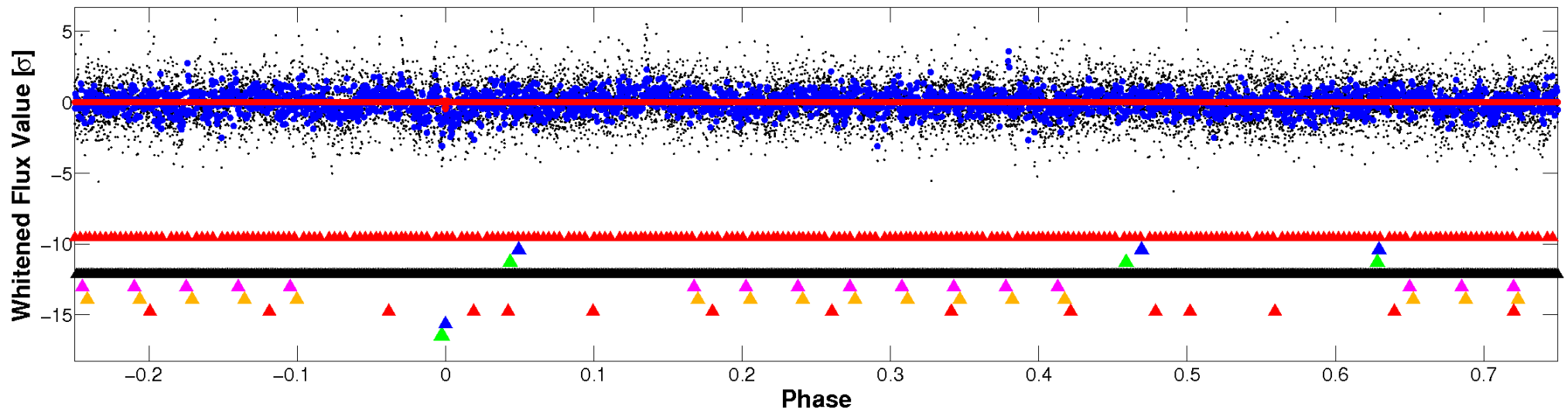


Non-Whitened Vs. Whitened Light Curve

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

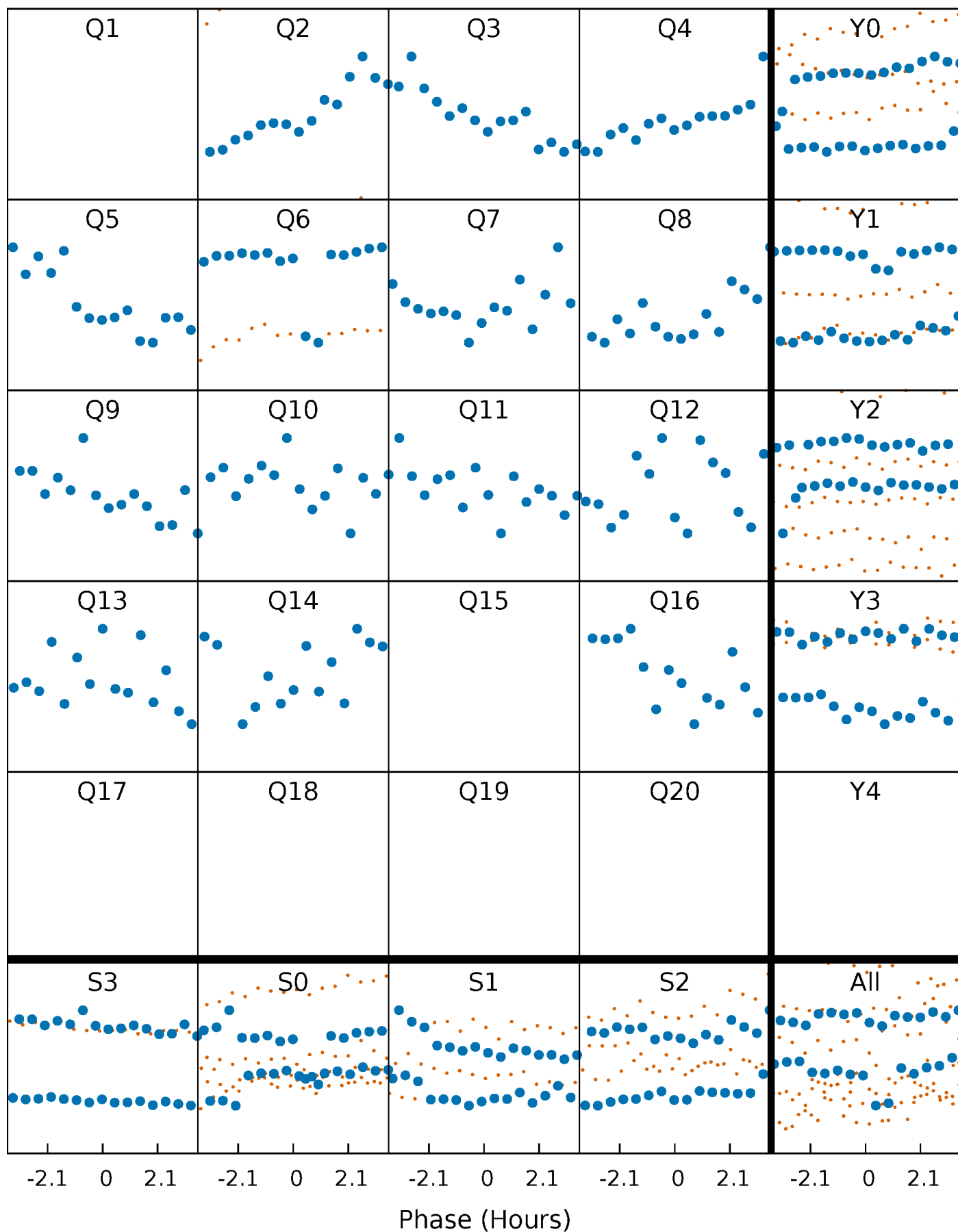


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



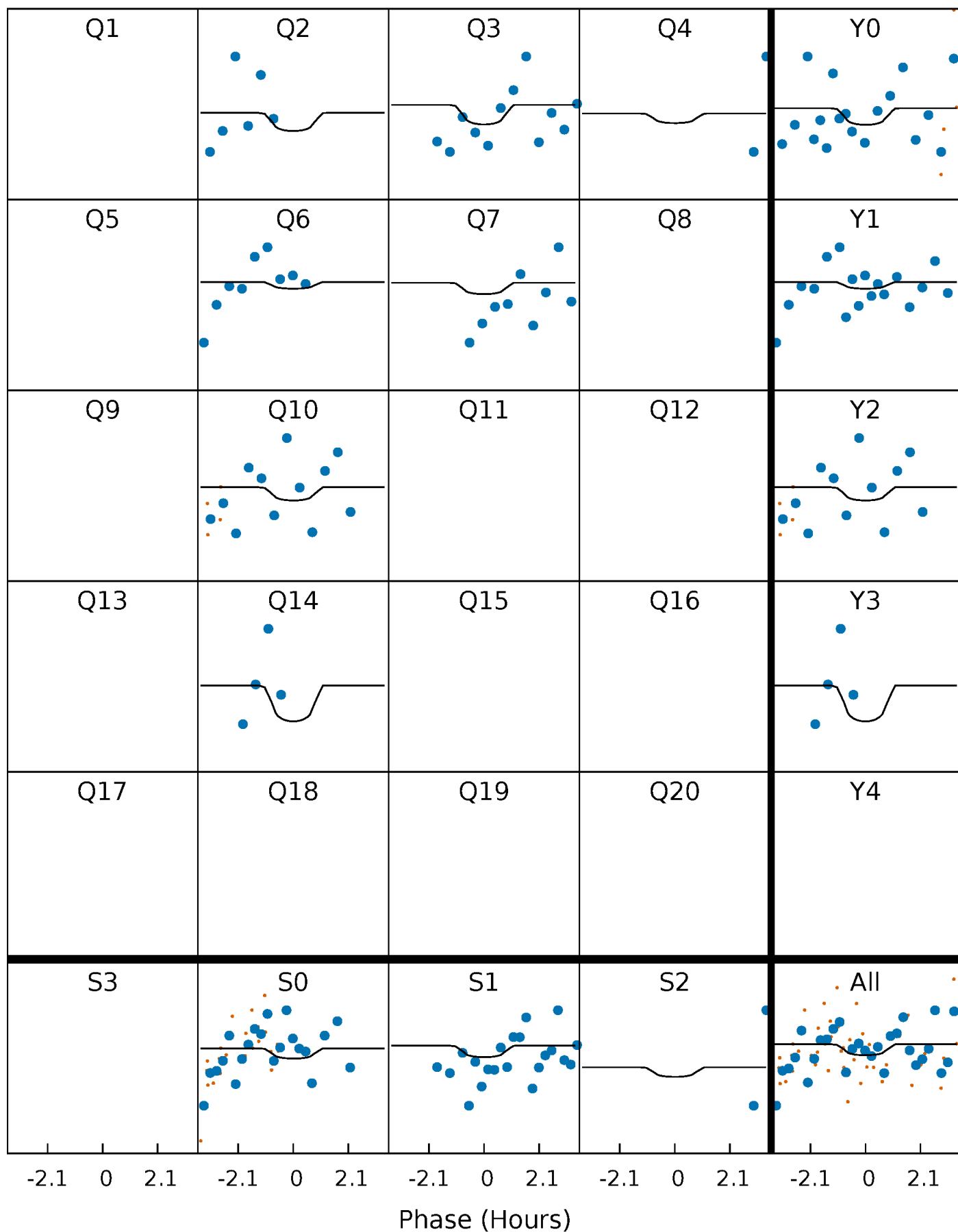
PDC Quarter-Phased Transit Curves

TCE 009119568-08 P= 62.099321 Days $T_0=174.458969$ (BKJD)



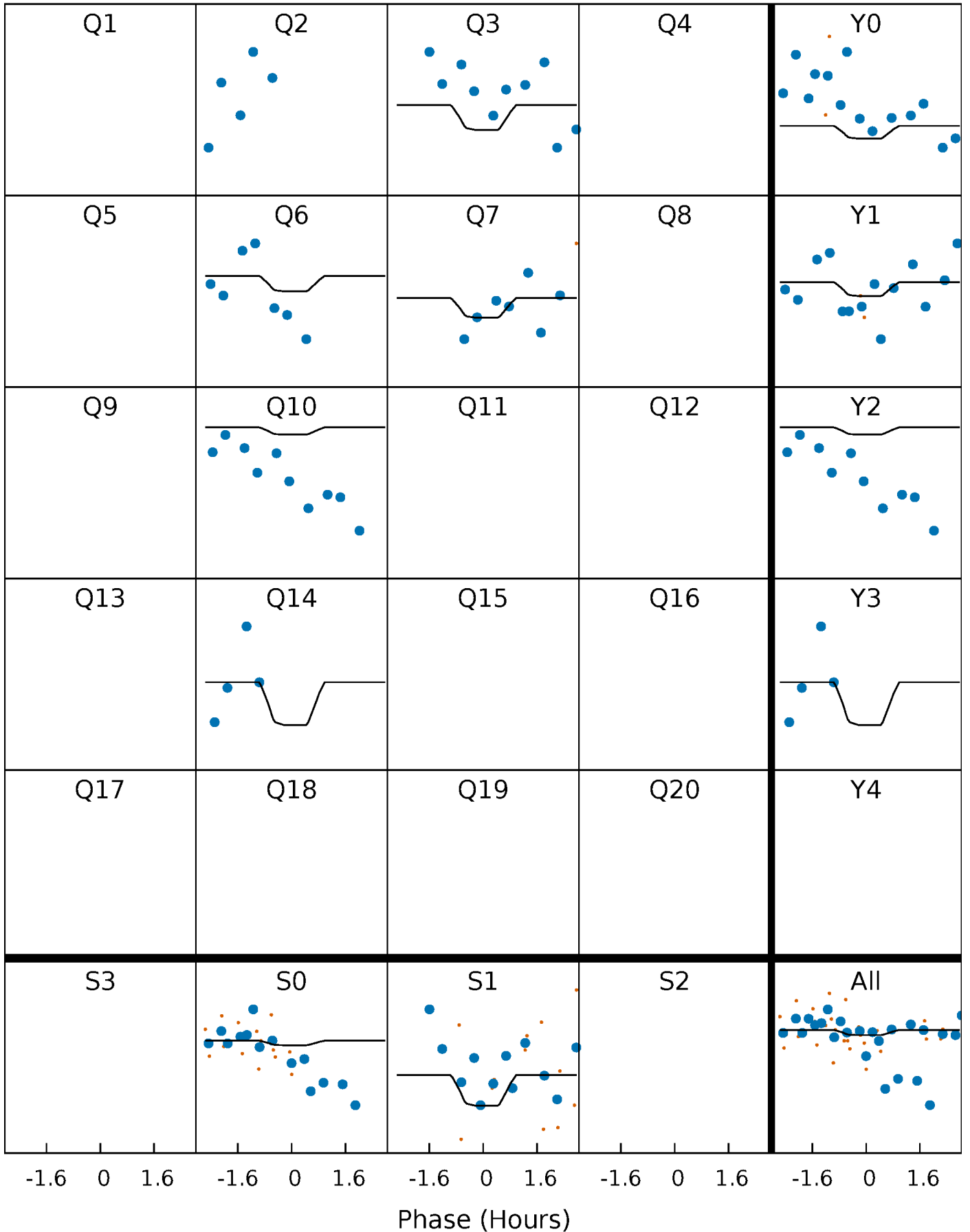
DV Quarter-Phased Transit Curves

TCE 009119568-08 P= 62.099321 Days $T_0=174.458969$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

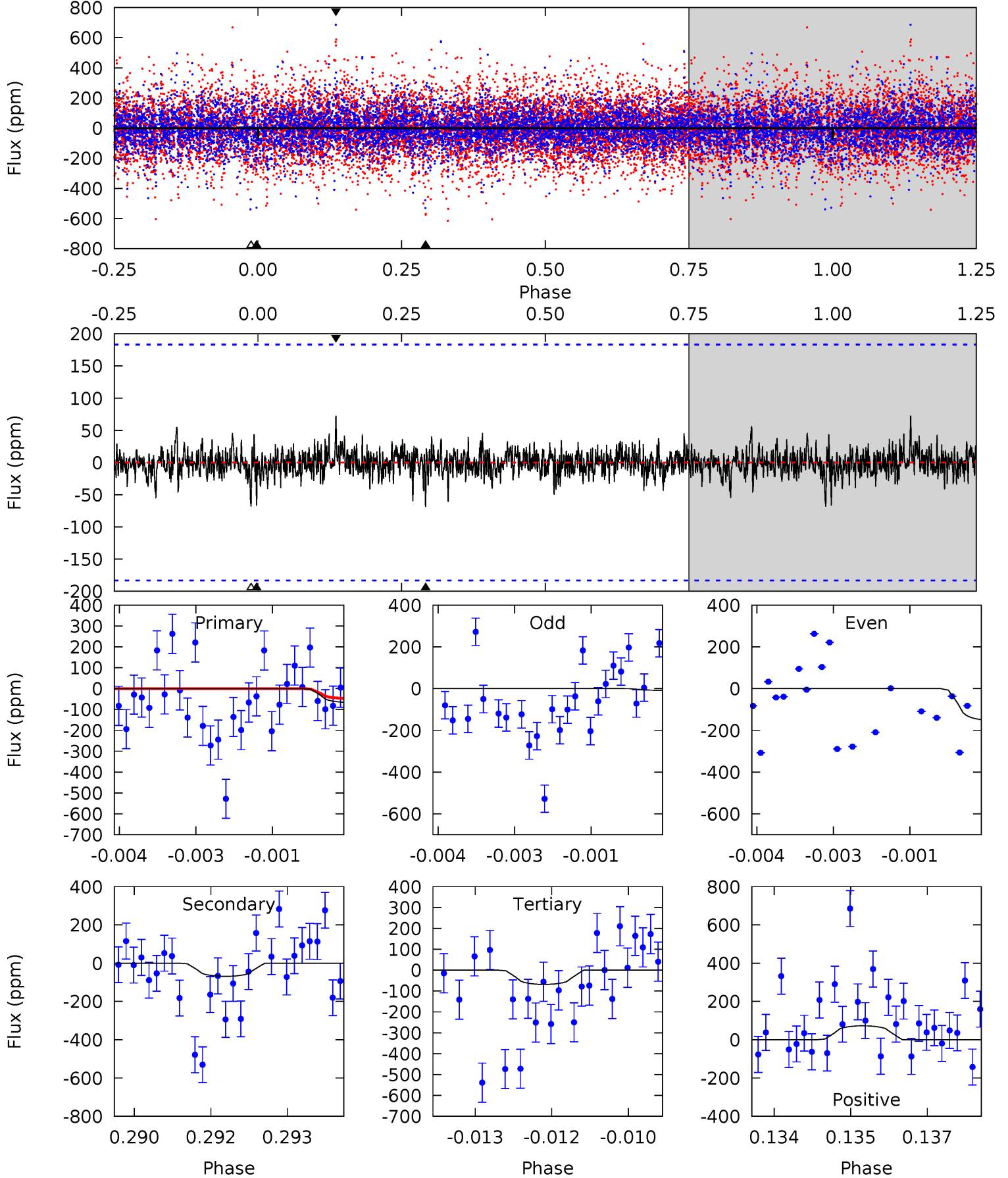
TCE 009119568-08 $P = 62.100699$ Days $T_0 = 174.447206$ (BKJD)



DV Model-Shift Uniqueness Test

009119568-08, P = 62.099321 Days, E = 112.359648 Days

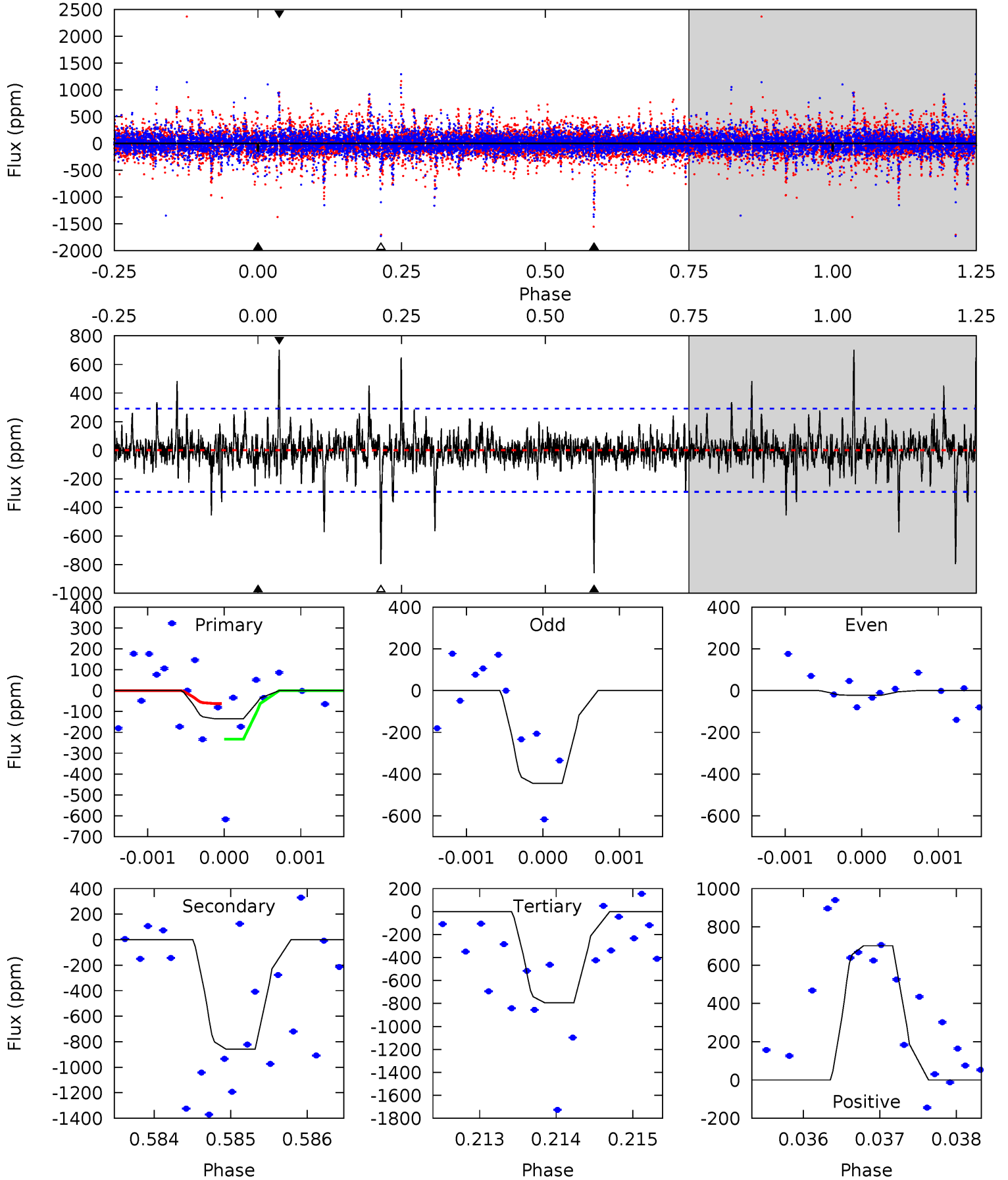
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.93	2.02	2.01	2.14	5.38	3.18	0.45	-0.08	-0.21	0.01	-0.12	2.08	11.5	0.51	0.57



Alt Model-Shift Uniqueness Test

009119568-08, P = 62.100699 Days, E = 112.346507 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.51	16.0	14.8	13.1	5.42	3.25	1.69	-12.3	-10.6	1.19	2.93	3.12	1.40	0.45	1.56



Stellar Parameters For KIC 009119568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5258^{+105}_{-105}	$4.514^{+0.055}_{-0.055}$	$0.000^{+0.150}_{-0.150}$	$0.835^{+0.063}_{-0.057}$	$0.831^{+0.053}_{-0.042}$	$2.010^{+0.449}_{-0.336}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+8%/-7%	+6%/-5%	+22%/-17%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 009119568-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-69 ± 34	$2.23^{+2.01}_{-1.50}$	552^{+16}_{-15}	3513^{+1811}_{-686}	612^{+5222}_{-470}
Alt.	-859 ± 54	$2.28^{+2.41}_{-1.46}$	552^{+15}_{-16}	5617^{+4819}_{-1407}	7311^{+50460}_{-5509}

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 $A_{obs} \gg 1.0$

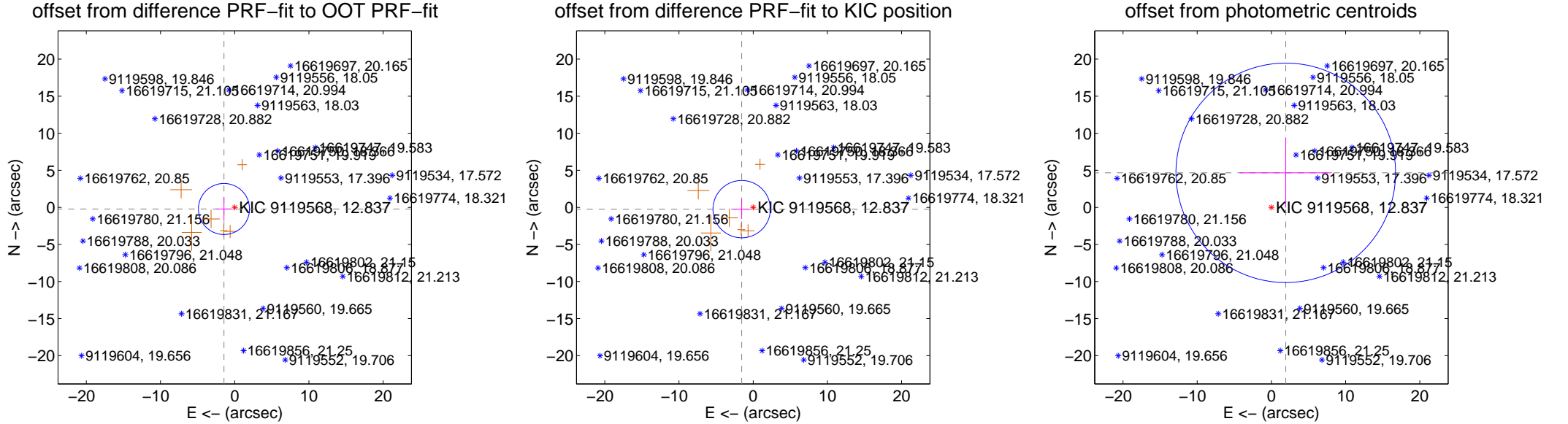
DV Centroid Data

Supplemental centroid analysis for 009119568-08. Kepler magnitude: 12.84. Transit SNR 1.62

There are 0 quarters with good PRF difference image offsets

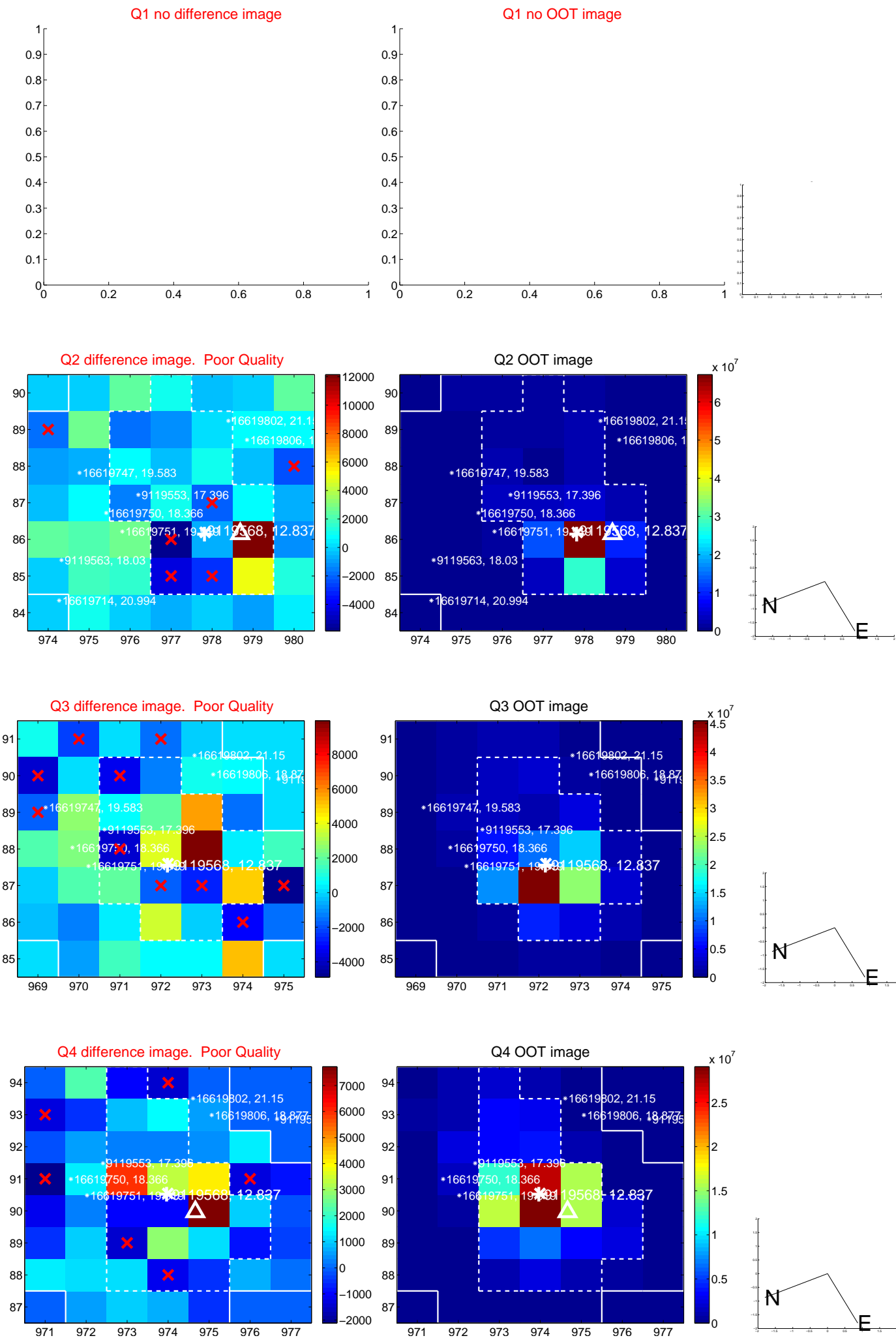
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.464 ± 1.147	1.28	1.448 ± 1.105	-0.217 ± 1.633
PRF-fit source offset from KIC position	1.570 ± 1.289	1.22	1.552 ± 1.204	-0.239 ± 1.326
photometric centroid source offset	5.05 ± 4.93	1.02	-1.93 ± 6.21	4.66 ± 4.68

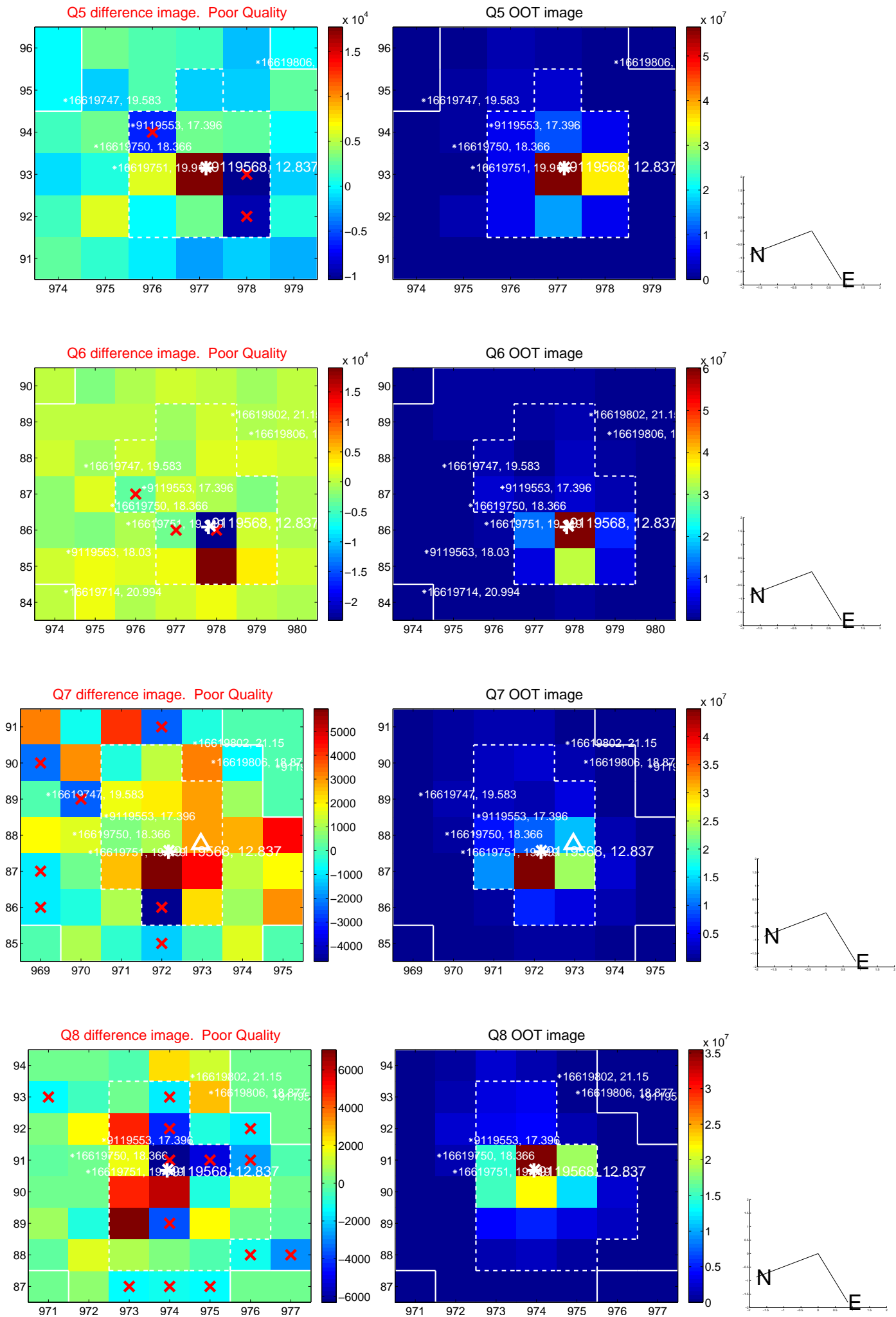


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

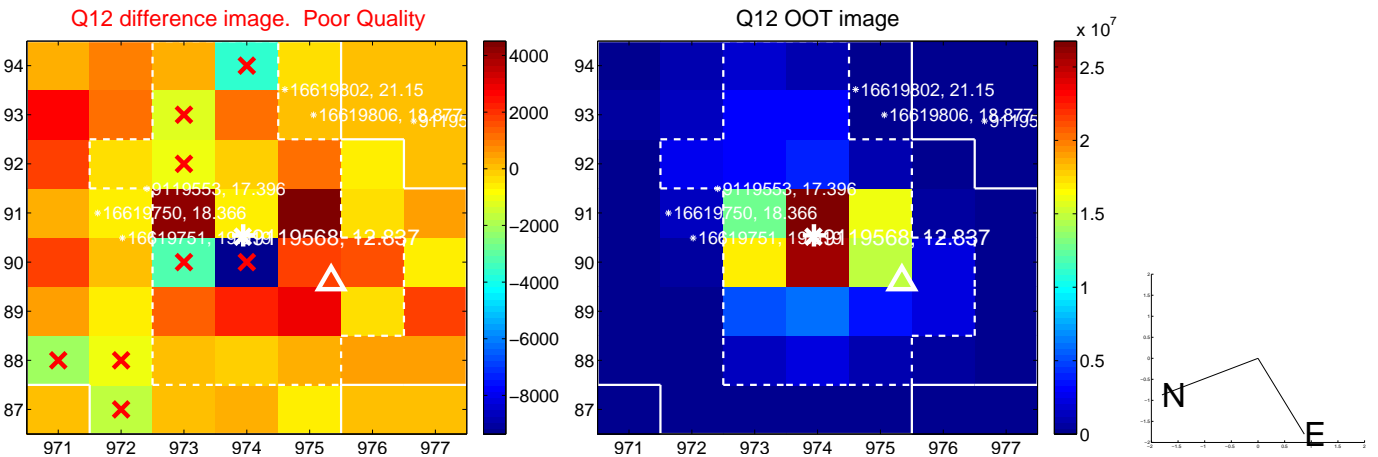
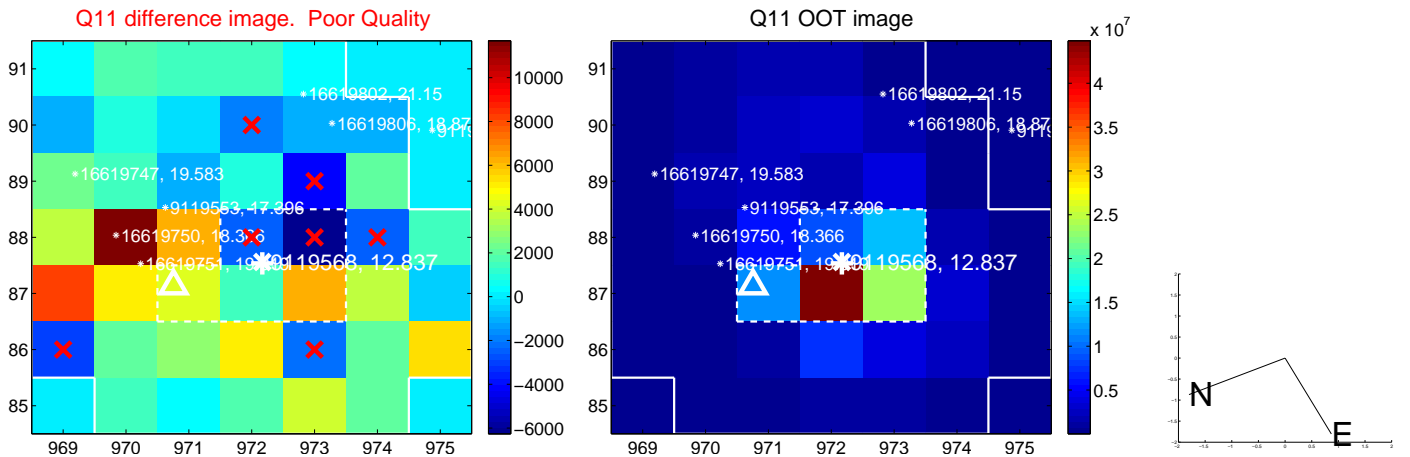
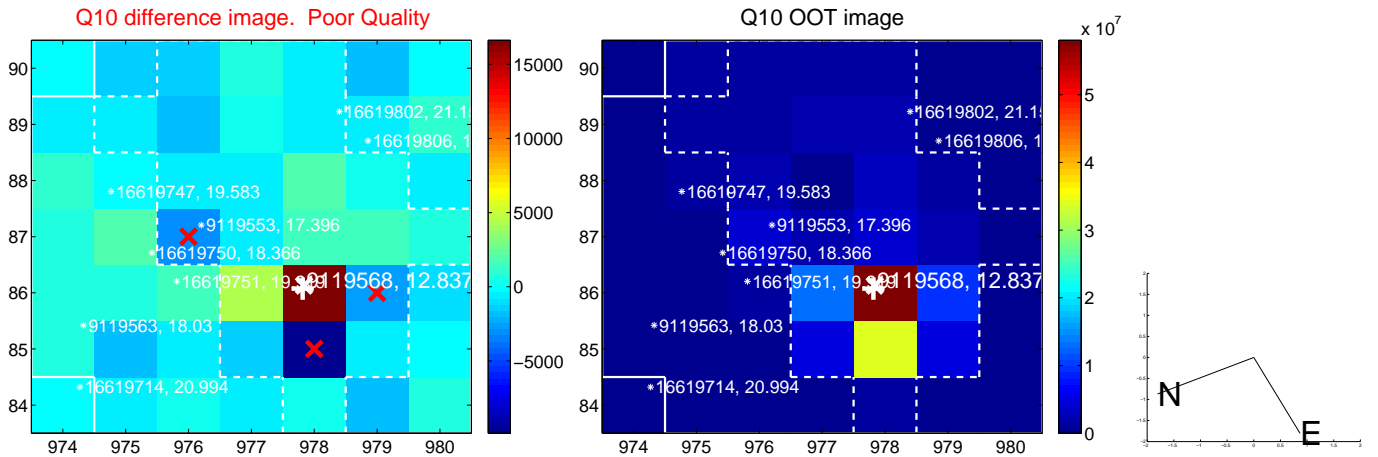
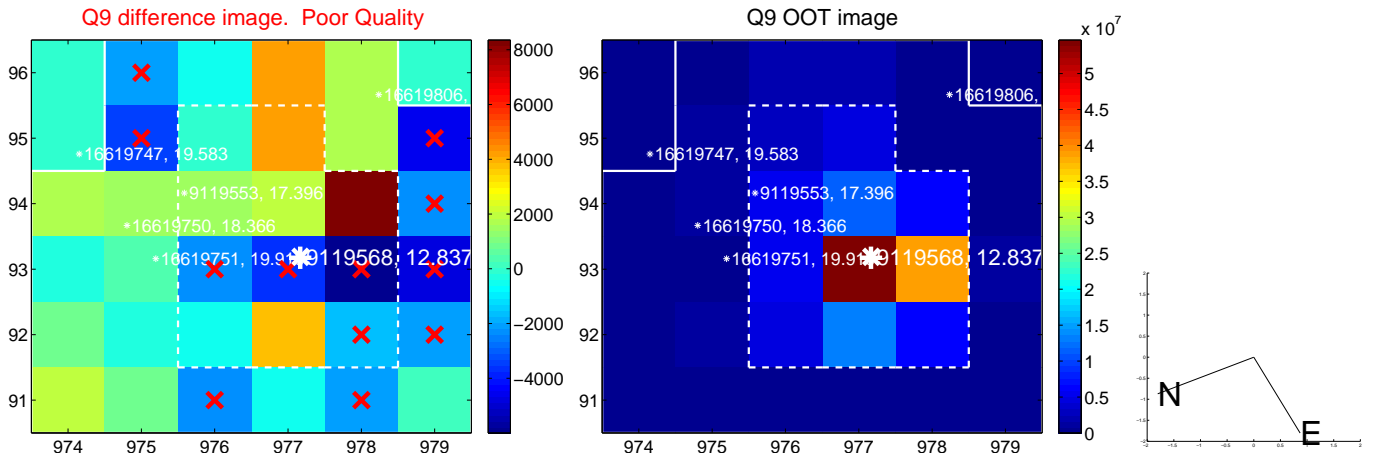
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



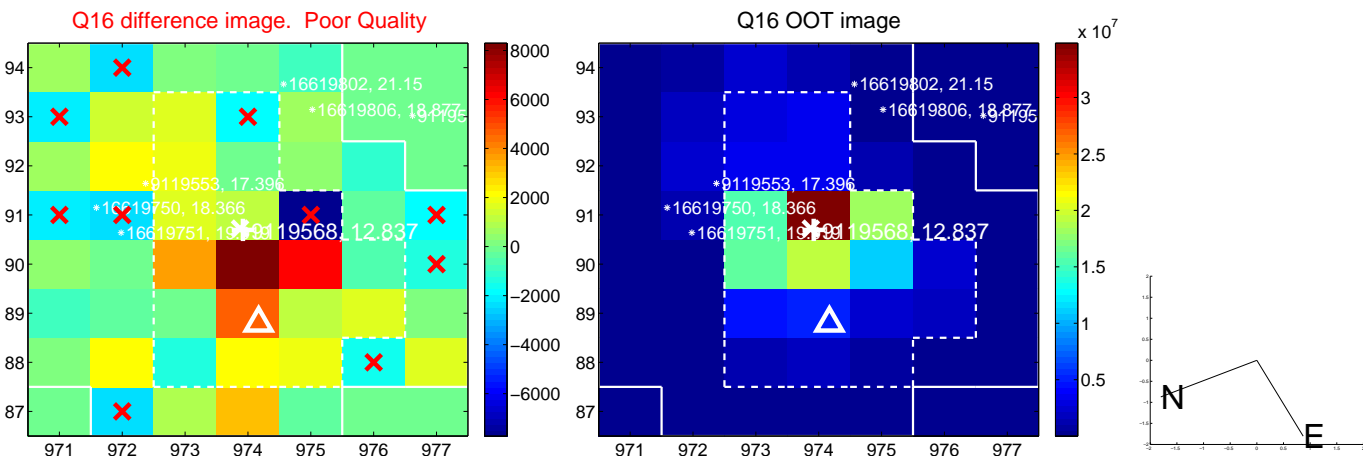
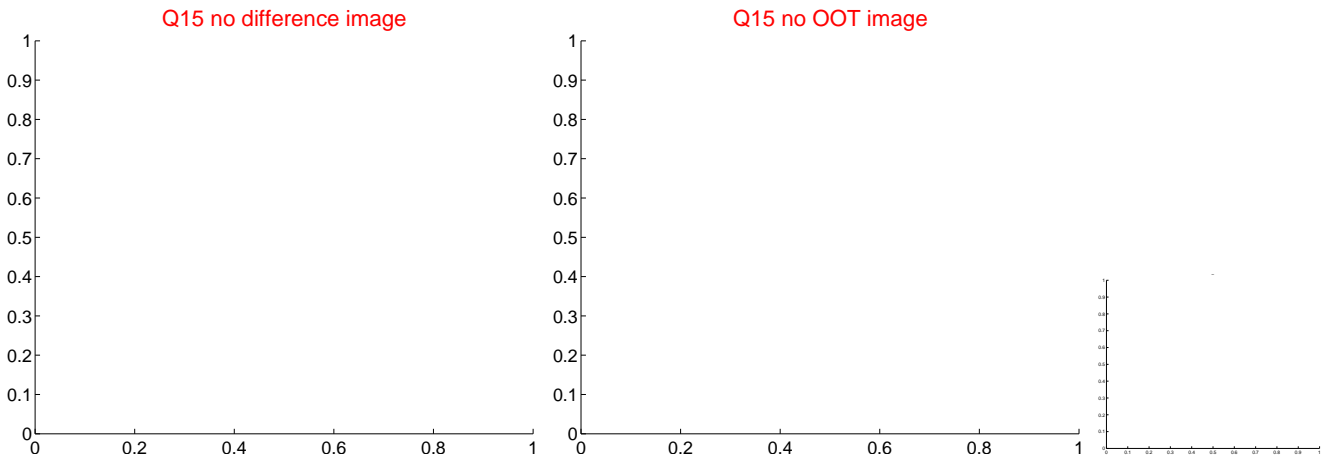
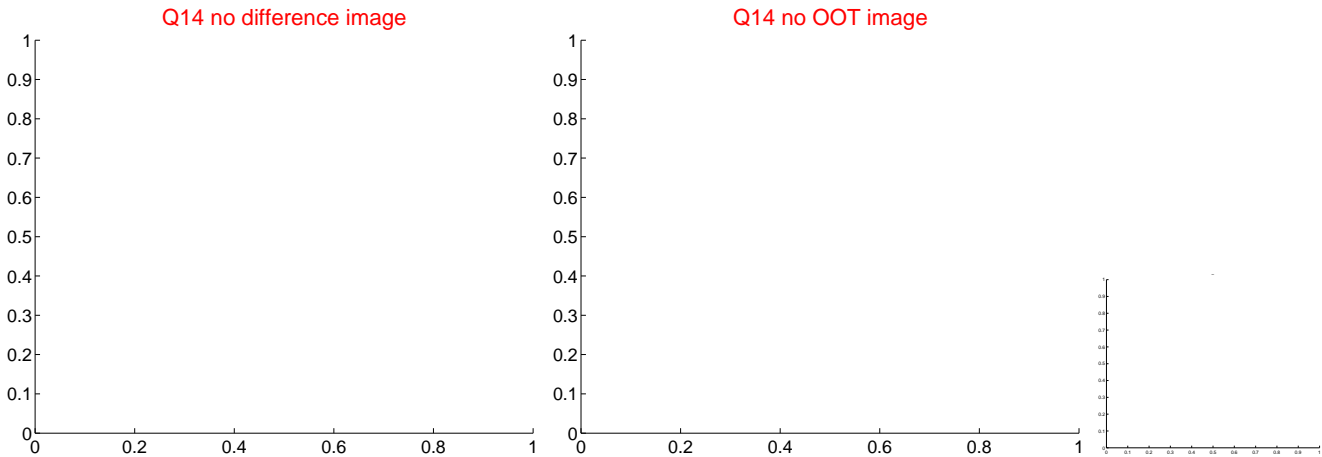
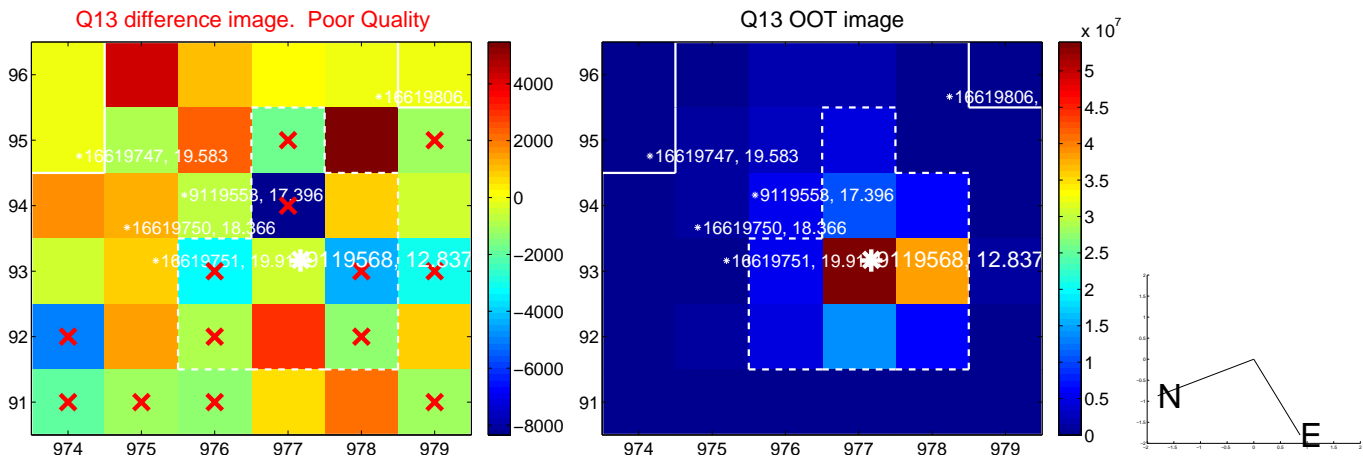
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



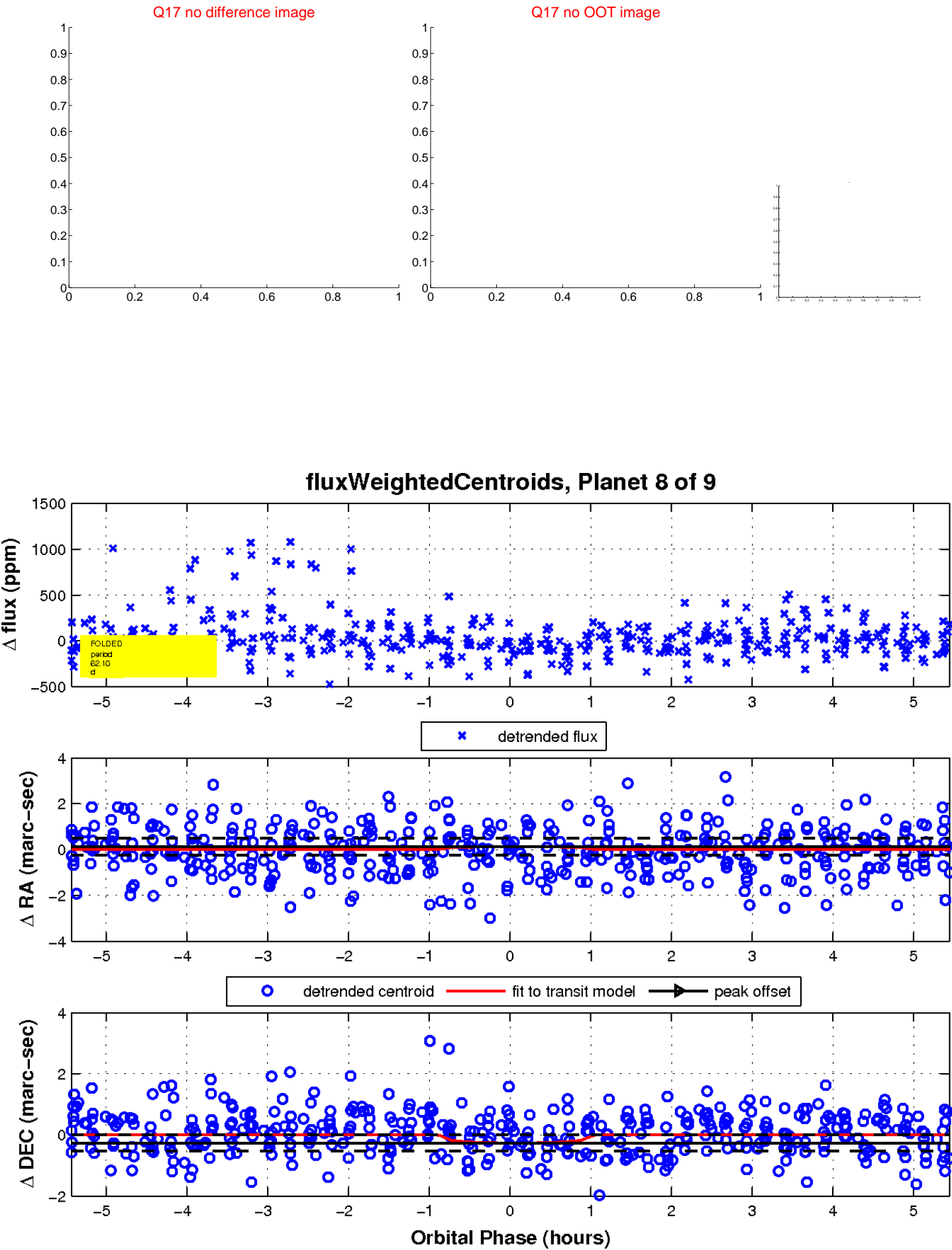
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

