

KIC 005567711

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})
005567711-01	OBS	No	3.596641	134.171584	32.1	8.922	10.9	10.6	2.73	8949	1.60	11550.12
005567711-02	OBS	No	3.596148	132.454343	181.2	12.000	8.0	-1.0	2.73	8949	3.74	11552.23
005567711-03	OBS	No	91.162719	186.784465	173.7	16.020	18.7	5.4	2.73	8949	3.97	155.13
005567711-04	OBS	No	177.758350	152.874281	449.6	9.000	11.7	-1.0	2.73	8949	5.89	63.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005567711-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
005567711-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_NOFITS
005567711-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
005567711-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

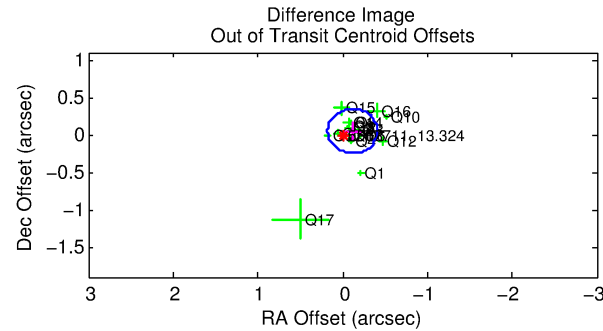
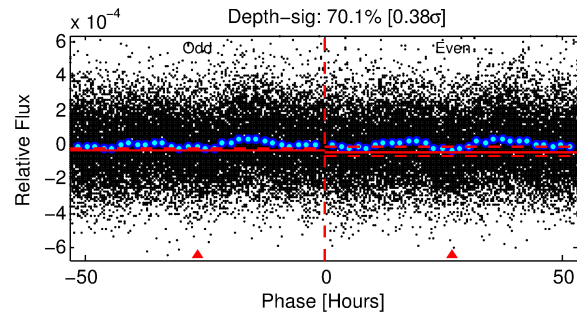
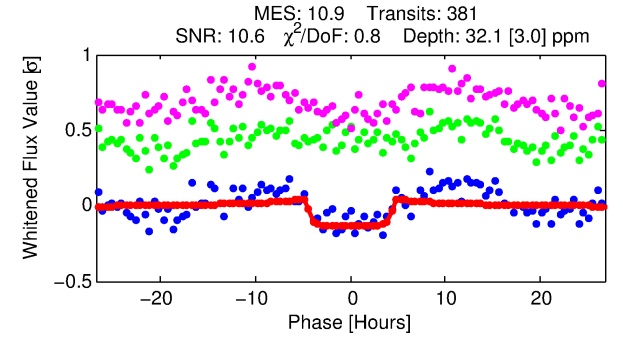
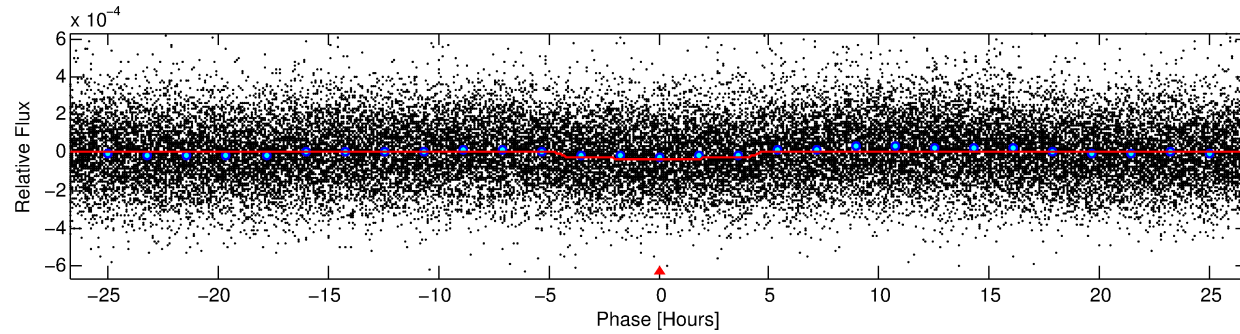
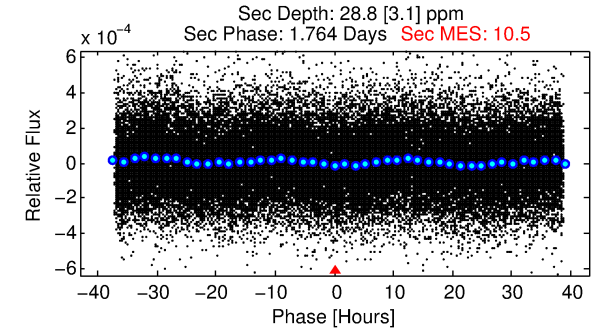
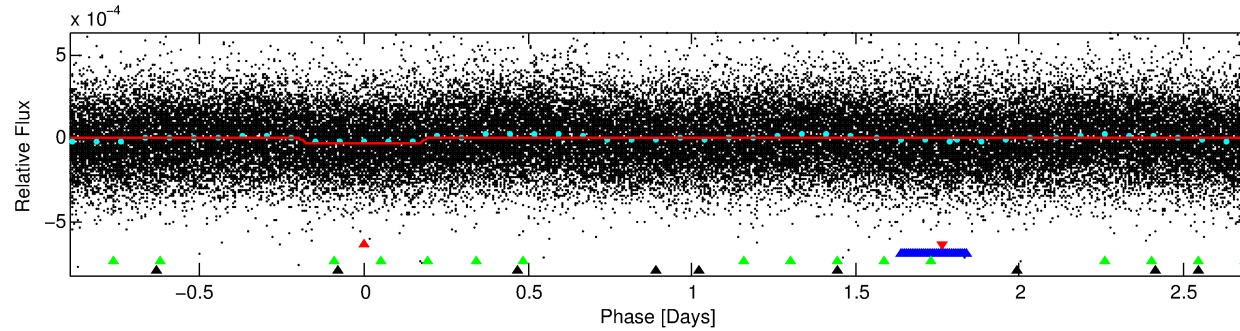
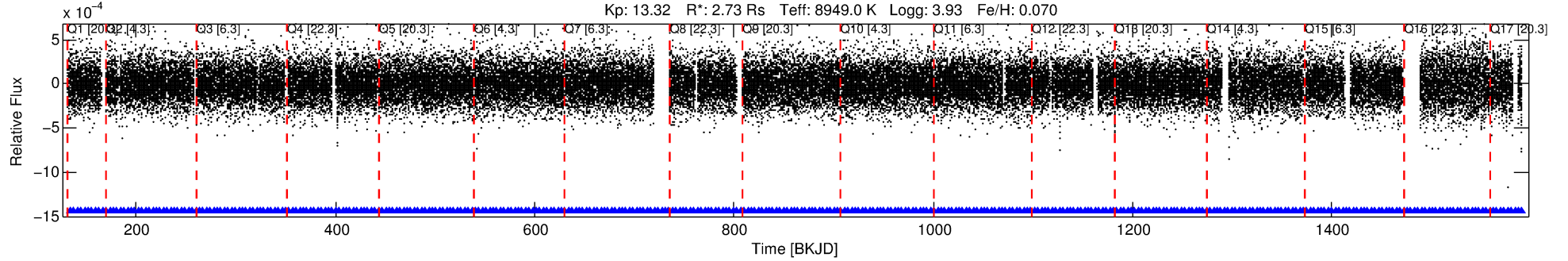
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005567711-01

No Significant Match Found

DV One-Page Summary

KIC: 5567711 Candidate: 1 of 4 Period: 3.597 d



DV Fit Results:

Period = 3.59664 [0.00004] d
Epoch = 134.1716 [0.0071] BKJD
Rp/R* = 0.0054 [0.0017]
a/R* = 2.86 [5.08]
b = 0.44 [3.69]
Seff = 11550.12 [5900.11]
Teq = 2643 [338] K
Rp = 1.60 [0.80] Re
a = 0.0608 [0.0198] AU
Ag = 22.92 [18.26] [1.20σ]
Teffp = 8943 [1495] K [4.11σ]

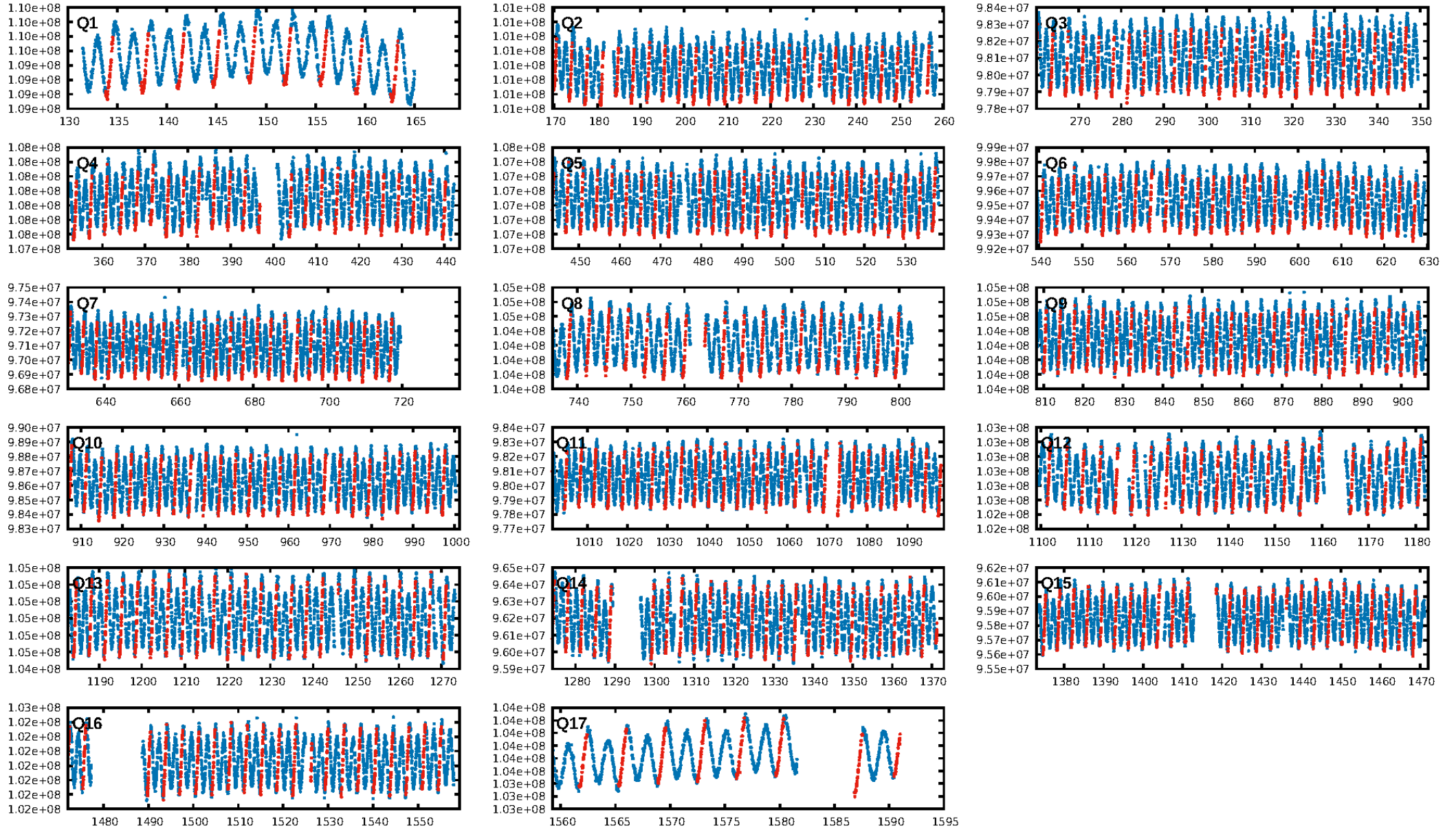
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: 100.0% [114.61σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.01e-22
RollingBand-fgt: 1.00 [364/364]
GhostDiagnostic-chr: 1.413
Centroid-sig: 20.3%
Centroid-so: 0.738 arcsec [0.59σ]
OotOffset-rm: 0.126 arcsec [1.28σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.104 arcsec [1.12σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

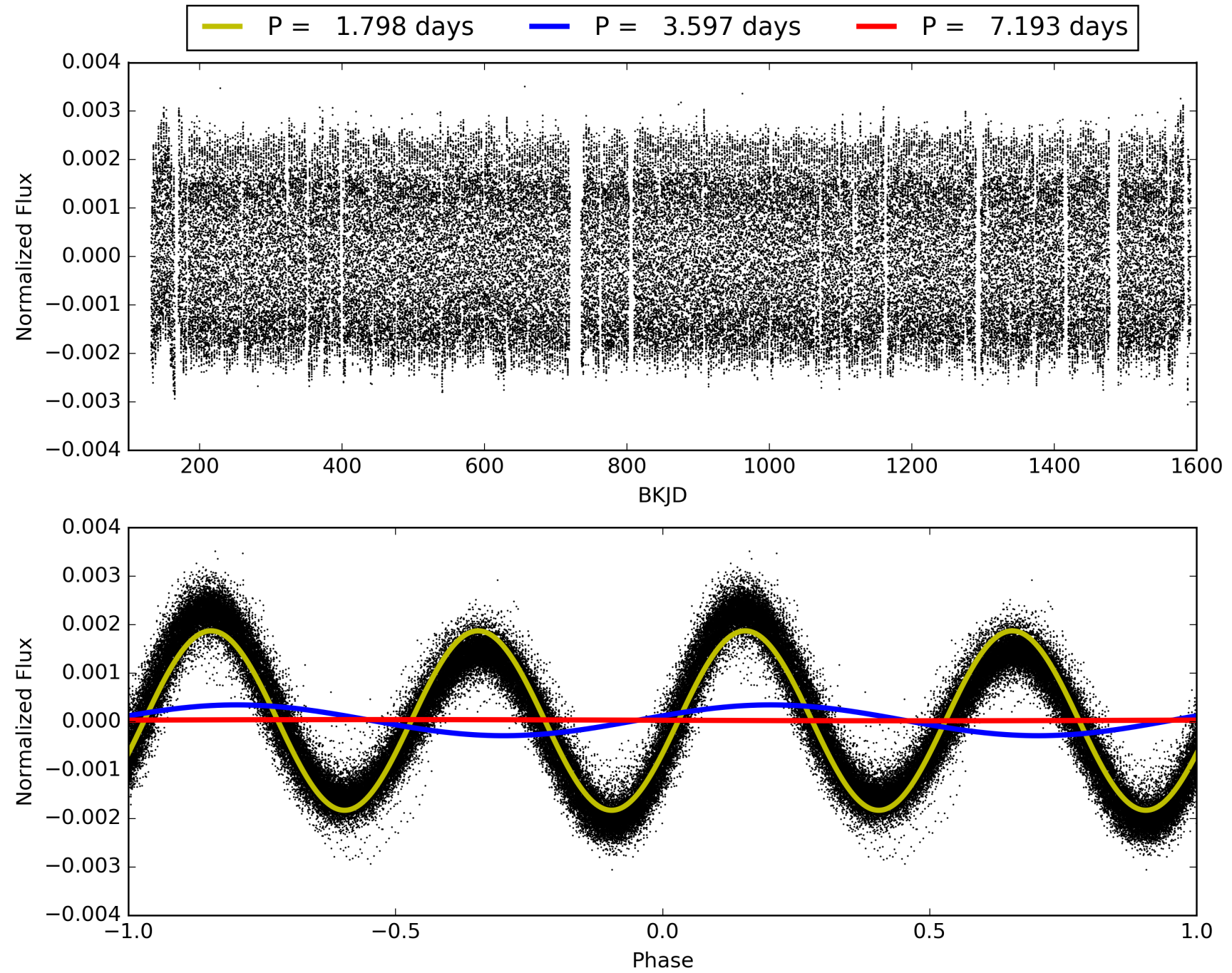
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:32:33 Z

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

TCE 005567711-01, PDC Light Curves

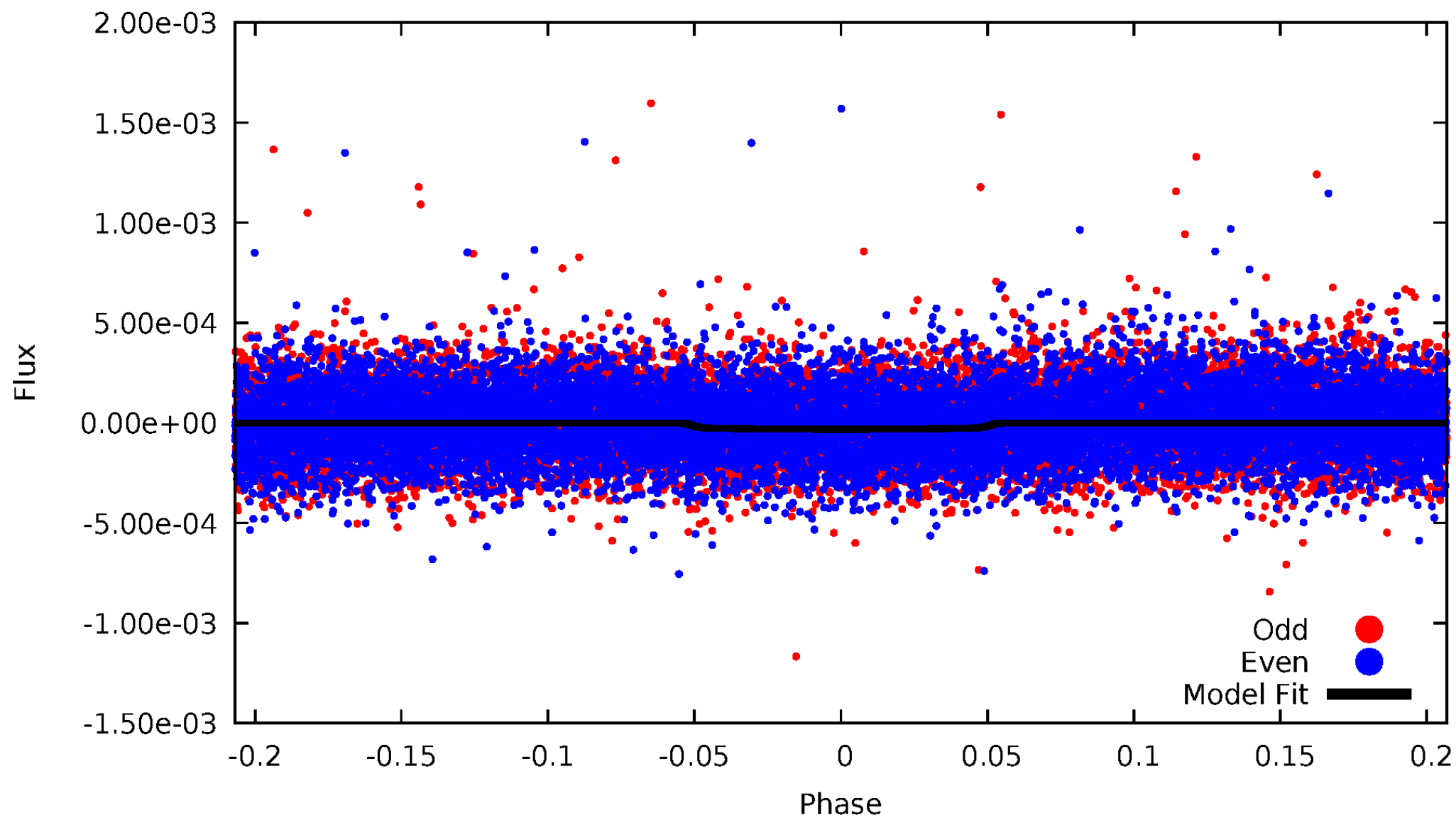


TCE 005567711-01



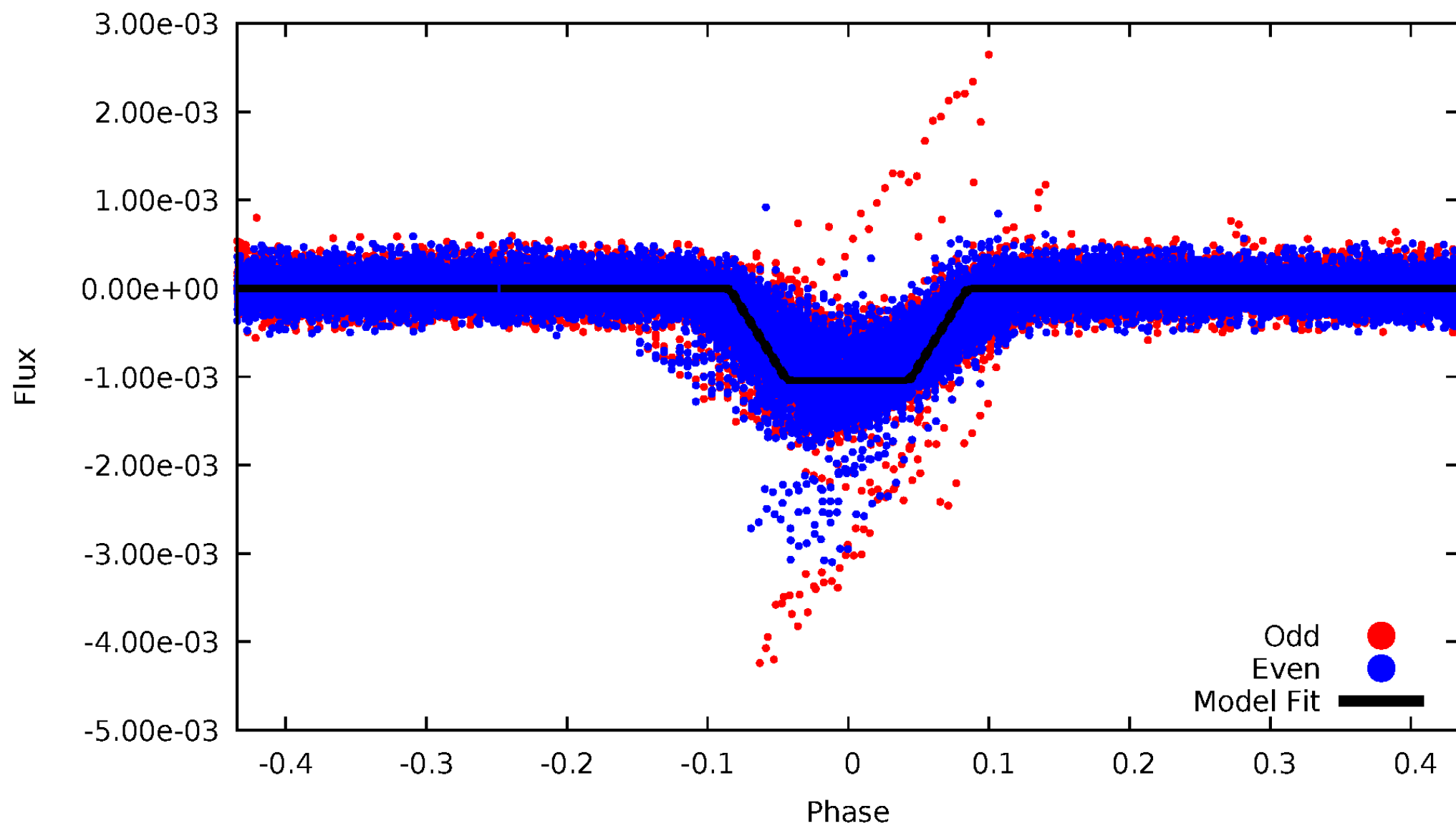
DV Odd/Even

TCE 005567711-01

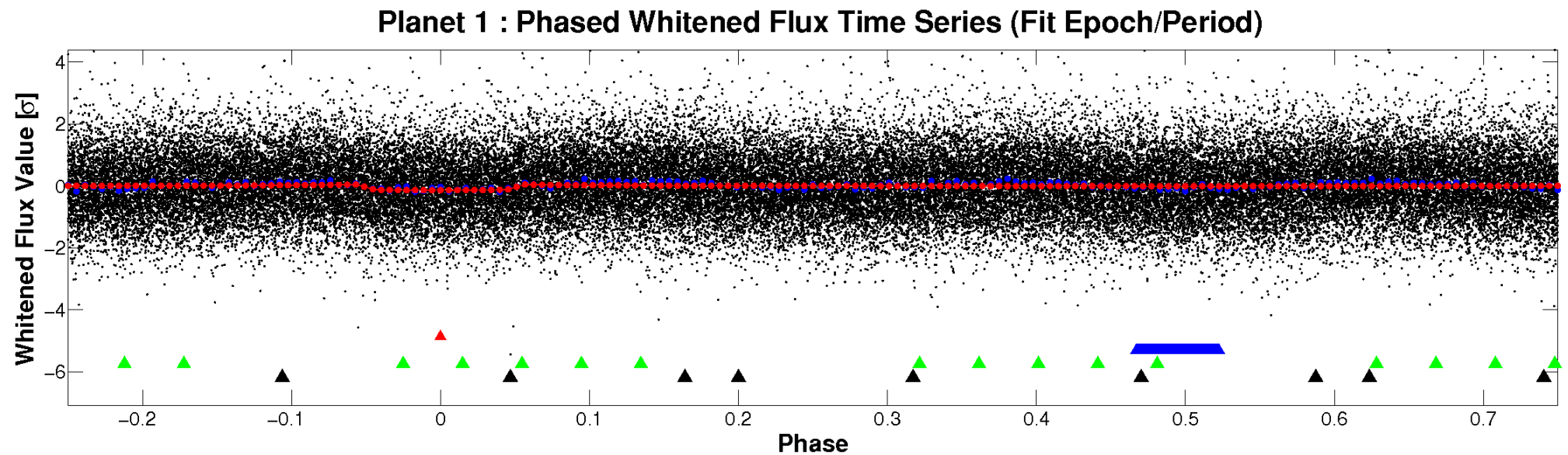
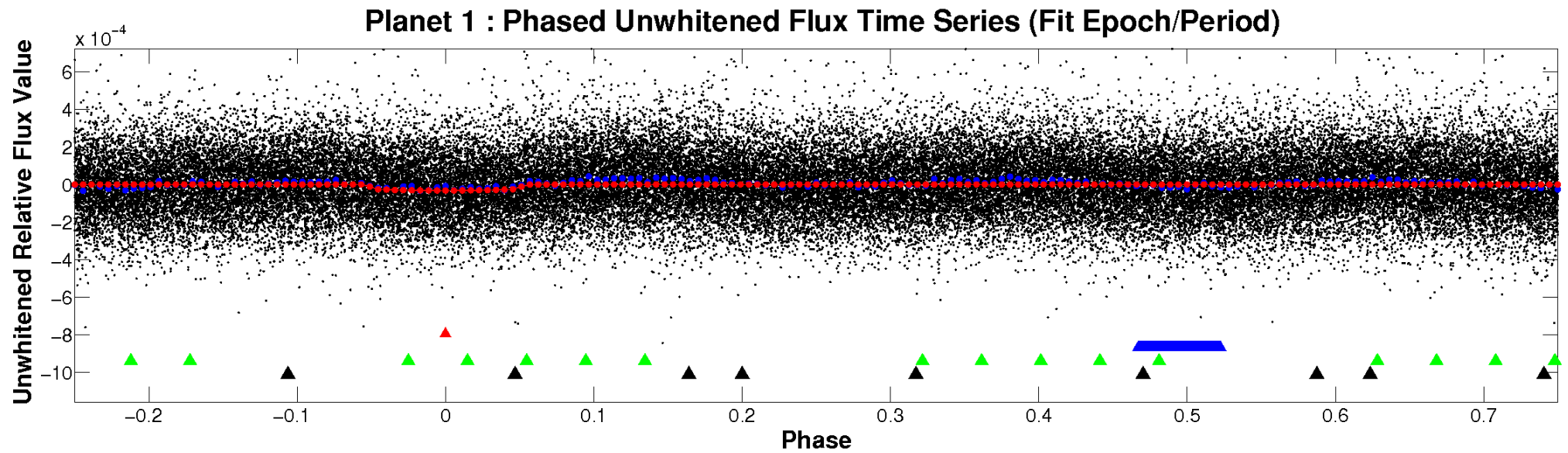


ALT Odd/Even

TCE 005567711-01

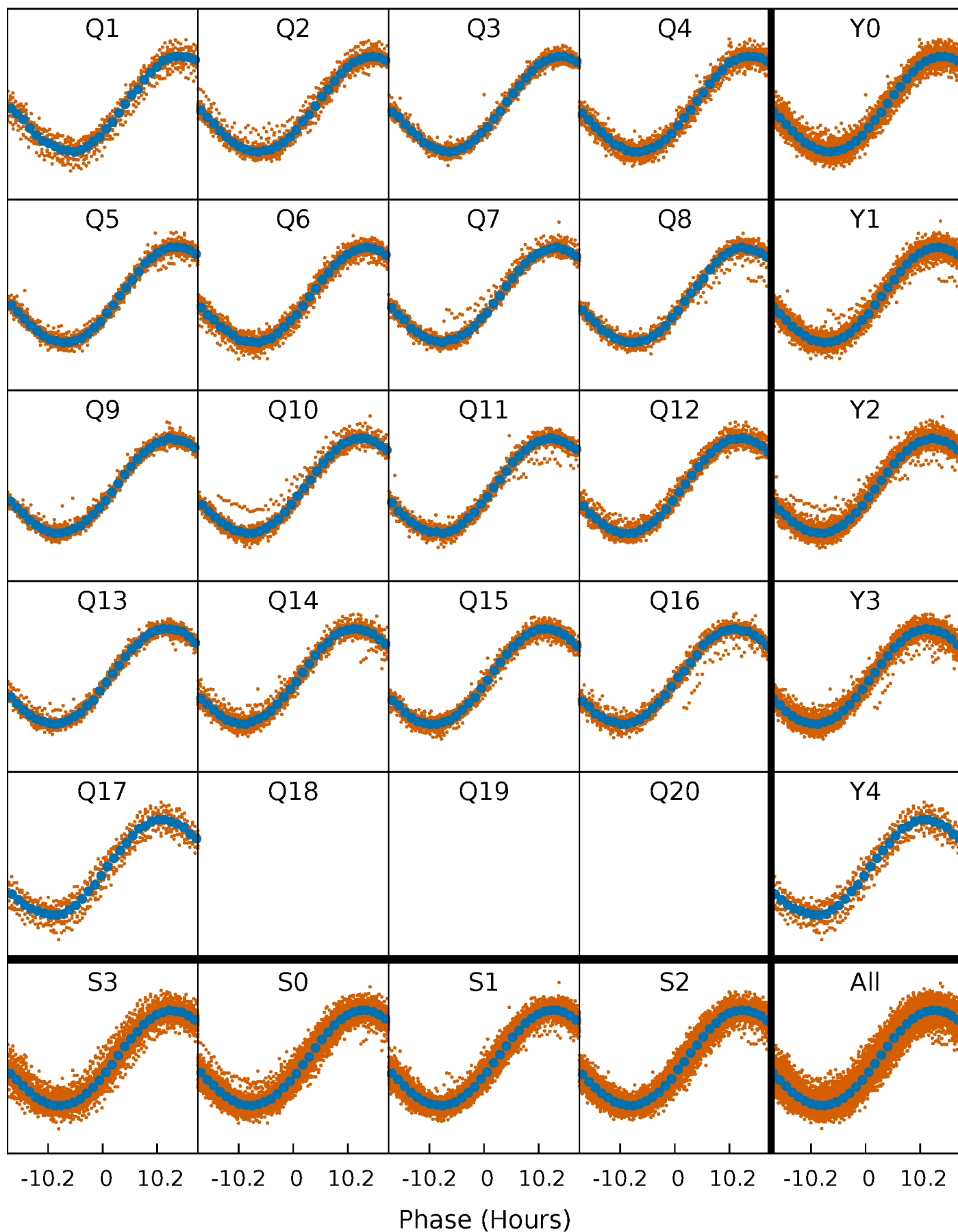


Non-Whitened Vs. Whitened Light Curve



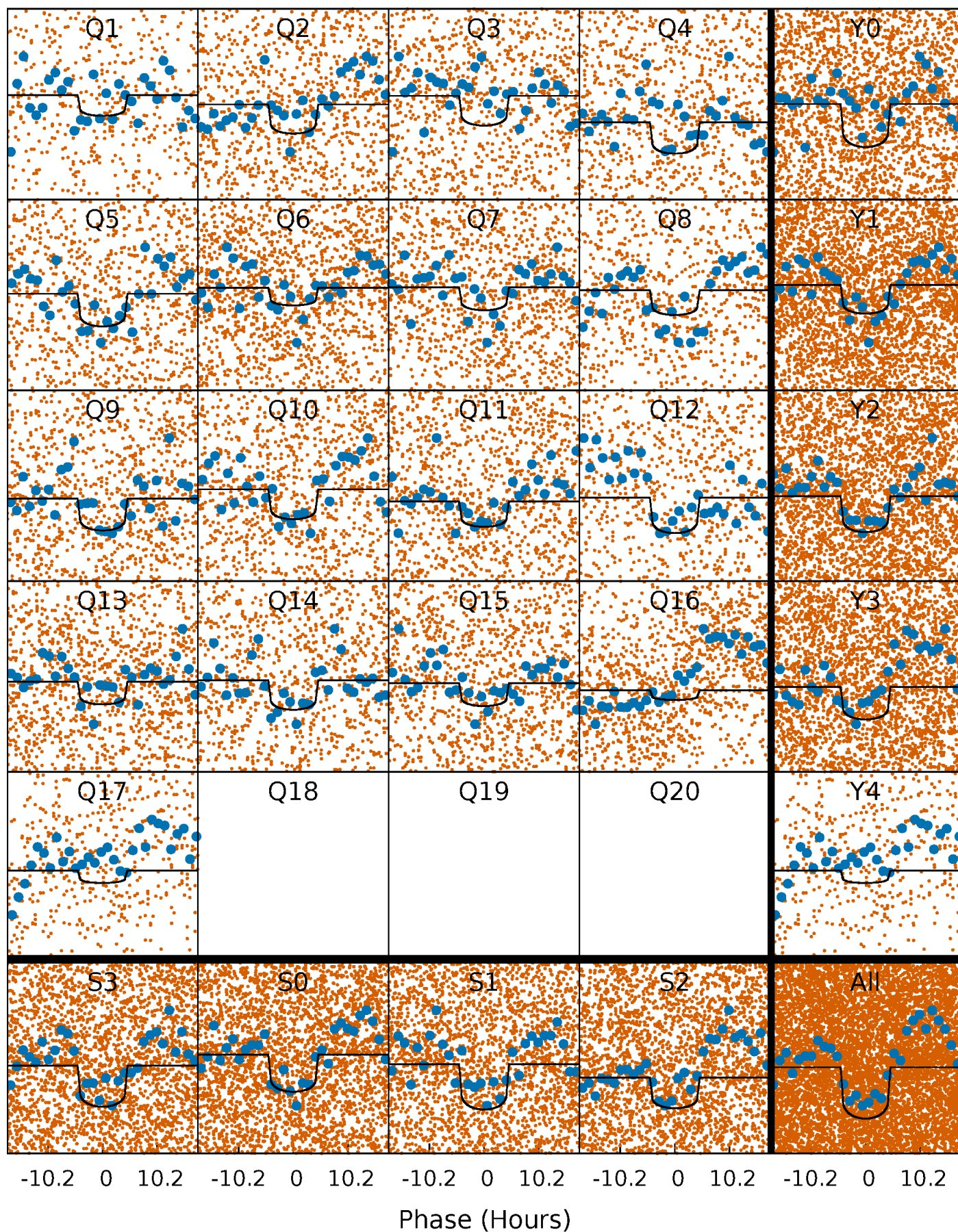
PDC Quarter-Phased Transit Curves

TCE 005567711-01 P= 3.596641 Days $T_0=134.171584$ (BKJD)



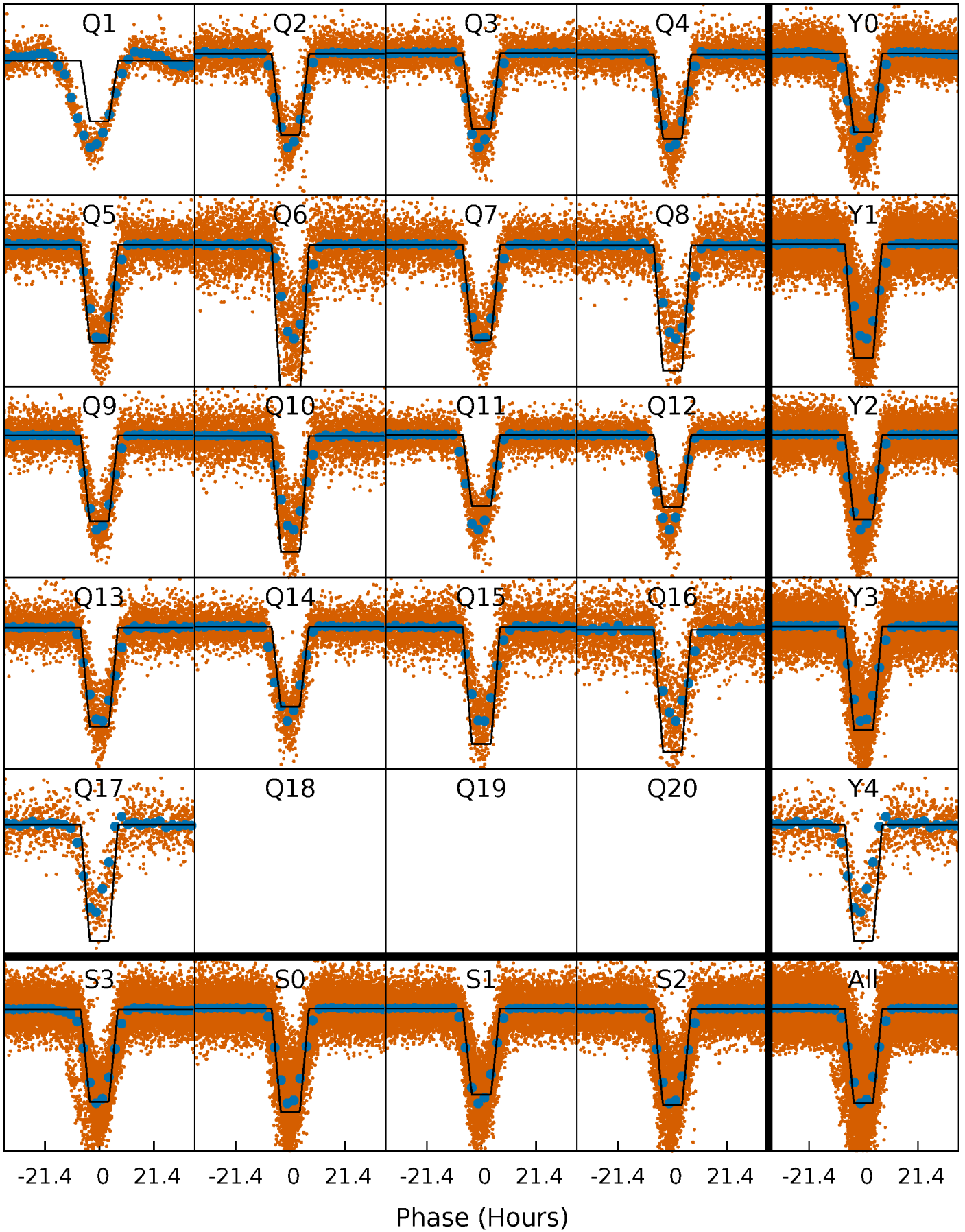
DV Quarter-Phased Transit Curves

TCE 005567711-01 P= 3.596641 Days $T_0=134.171584$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

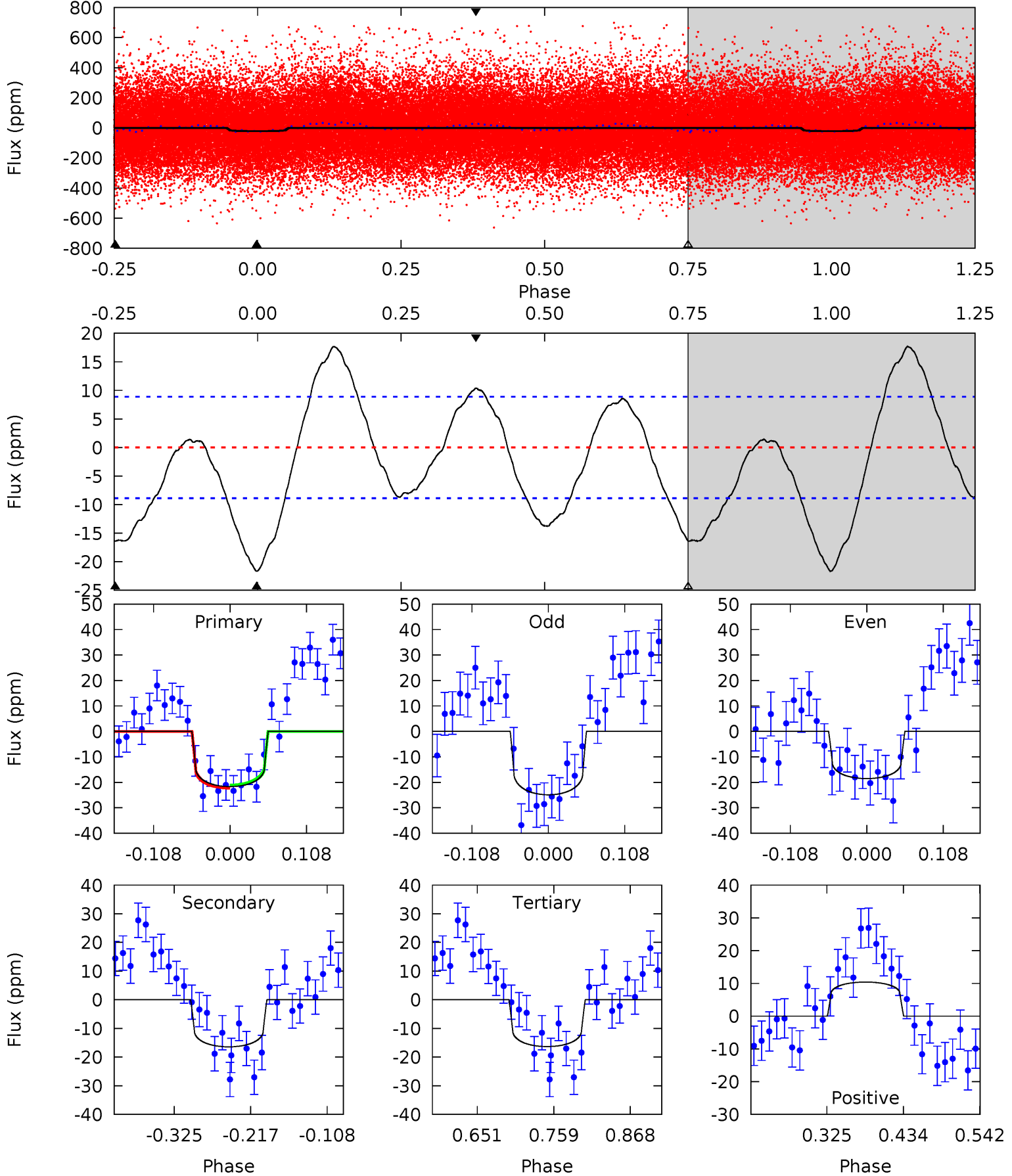
TCE 005567711-01 P= 3.596325 Days $T_0=134.130058$ (BKJD)



DV Model-Shift Uniqueness Test

005567711-01, P = 3.596641 Days, E = 130.574943 Days

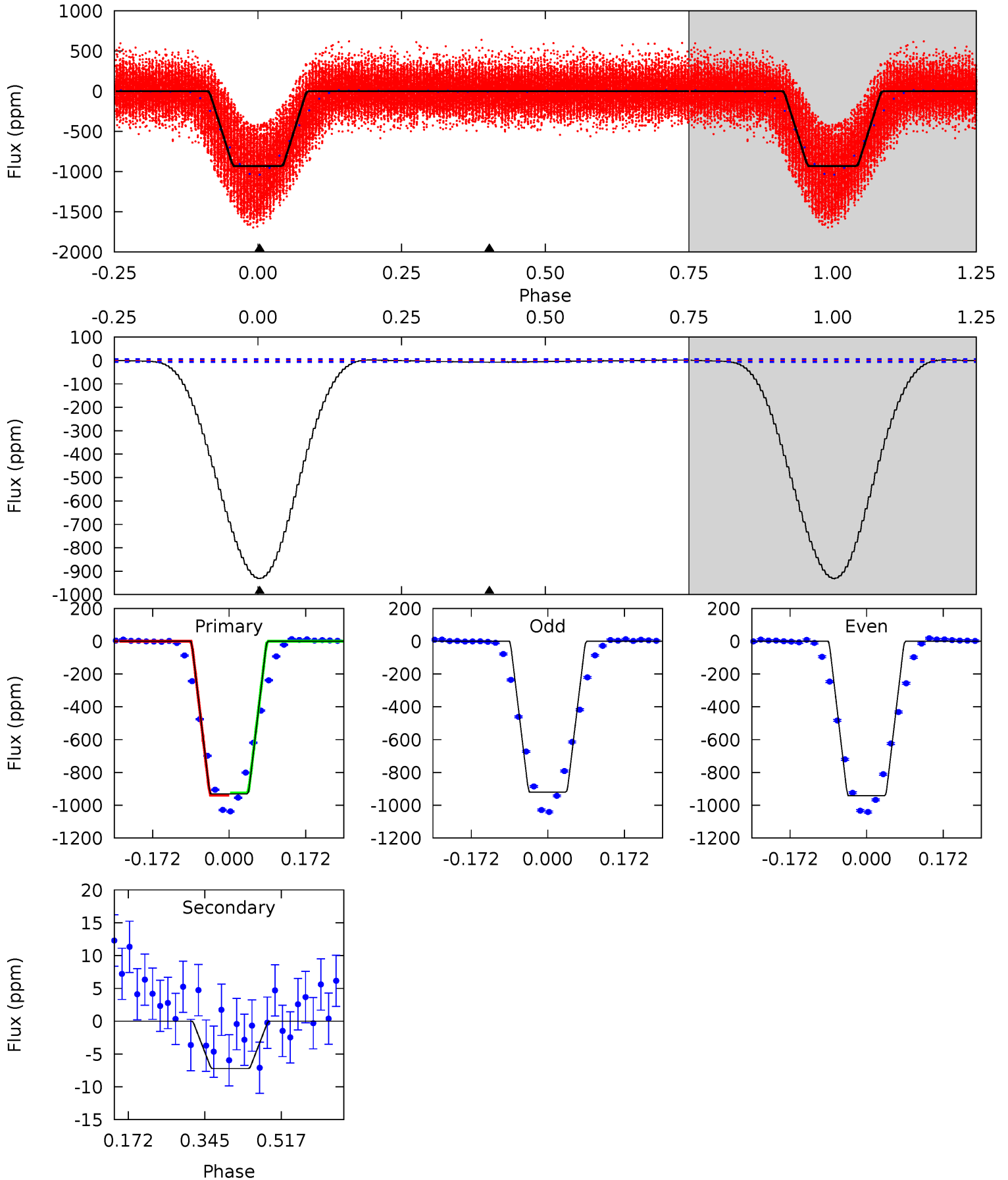
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	8.41	8.36	5.32	4.55	1.61	4.40	2.73	5.76	0.05	3.08	1.63	0.94	0.45	0.29



Alt Model-Shift Uniqueness Test

005567711-01, P = 3.596325 Days, E = 130.533733 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
695.1	5.39	0	0	4.45	1.36	1.52	695.1	695.1	5.39	5.39	8.33	1.06	0.00	5.47



Stellar Parameters For KIC 005567711

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8949^{+251}_{-430}	$3.932^{+0.258}_{-0.172}$	$0.070^{+0.250}_{-0.650}$	$2.727^{+0.867}_{-1.060}$	$2.320^{+0.361}_{-0.670}$	$0.161^{+0.303}_{-0.083}$
	+3%/-5%	+7%/-4%	+357%/-929%	+32%/-39%	+16%/-29%	+188%/-52%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005567711-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-16 ± 2	$1.52^{+0.63}_{-0.54}$	3647^{+318}_{-373}	7414^{+2296}_{-1130}	14^{+20}_{-7}
Alt.	-7 ± 1	$9.47^{+1.71}_{-1.85}$	3653^{+302}_{-354}	-3010^{+457}_{-255}	$0.162^{+0.081}_{-0.049}$

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

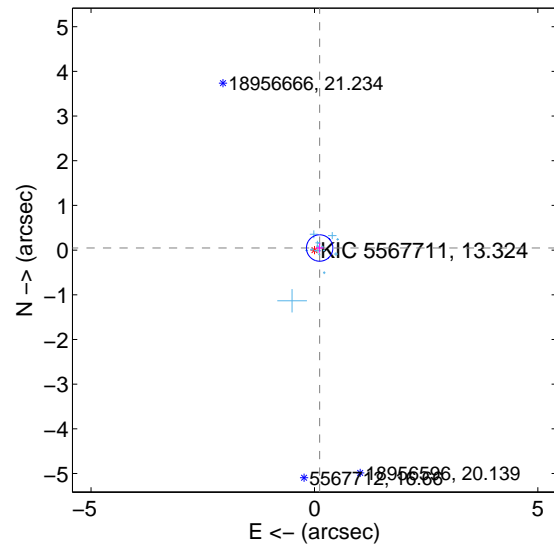
Supplemental centroid analysis for 005567711-01. Kepler magnitude: 13.32. Transit SNR 10.62

There are 17 quarters with good PRF difference image offsets

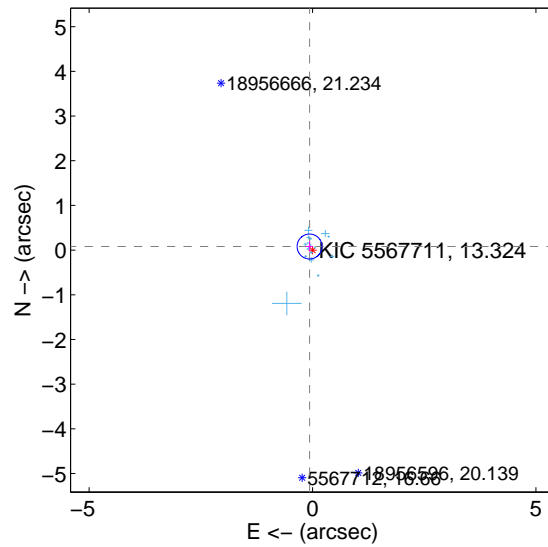
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.126 ± 0.099	1.28	-0.117 ± 0.086	0.047 ± 0.107
PRF-fit source offset from KIC position	0.104 ± 0.093	1.12	0.066 ± 0.084	0.081 ± 0.111
photometric centroid source offset	0.74 ± 1.26	0.59	-0.72 ± 1.27	0.17 ± 1.01

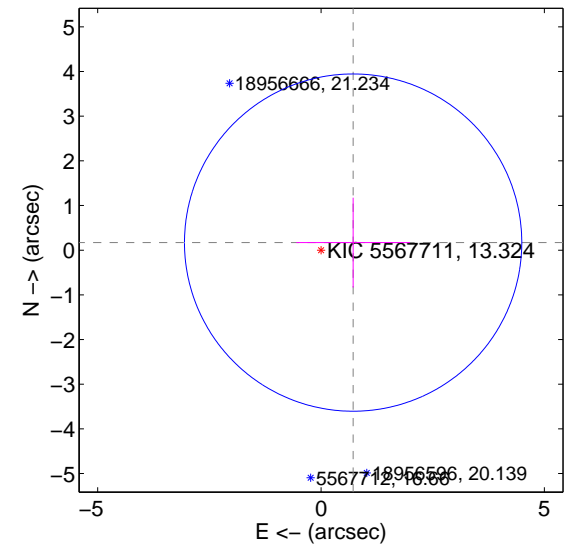
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

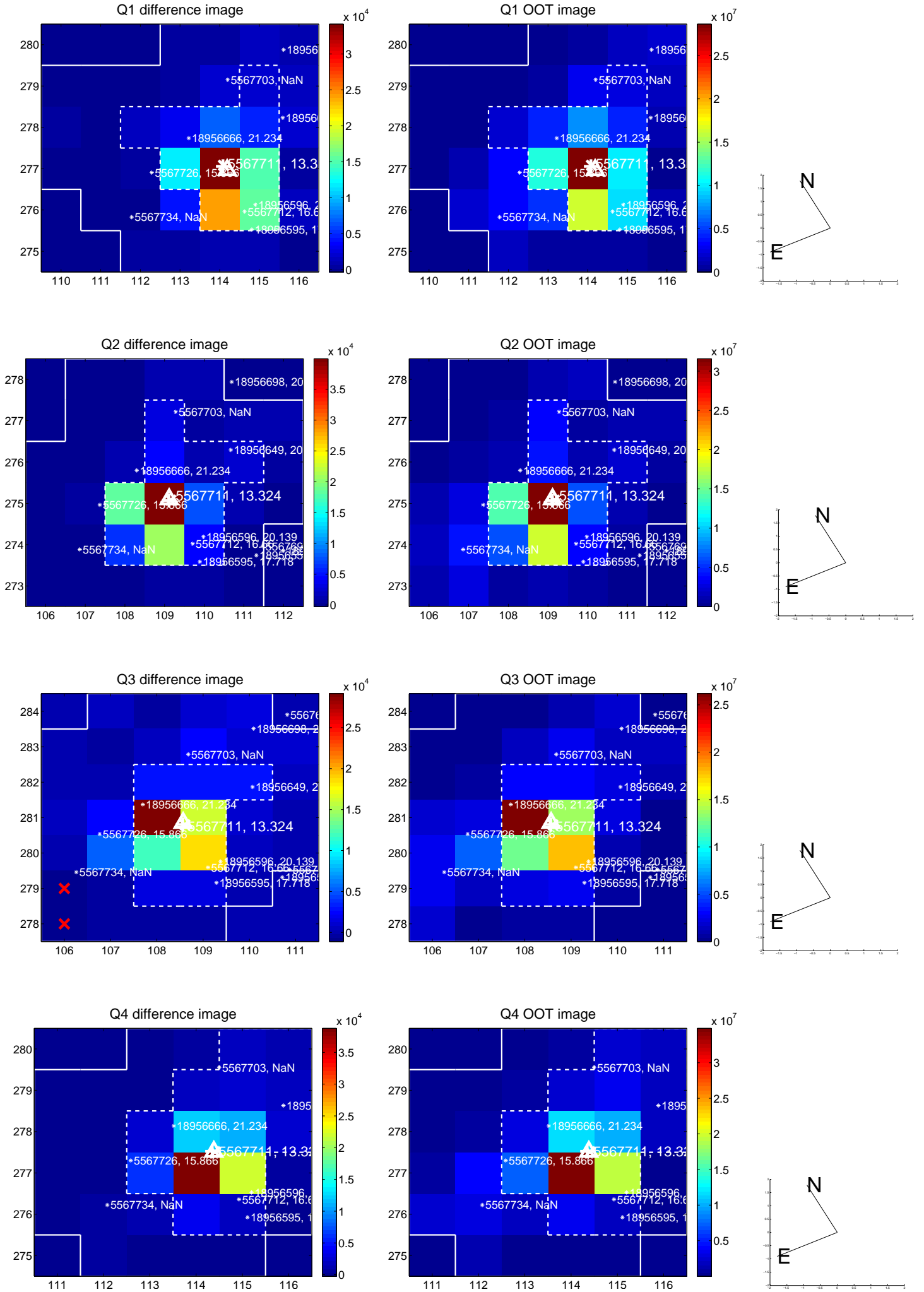


offset from photometric centroids

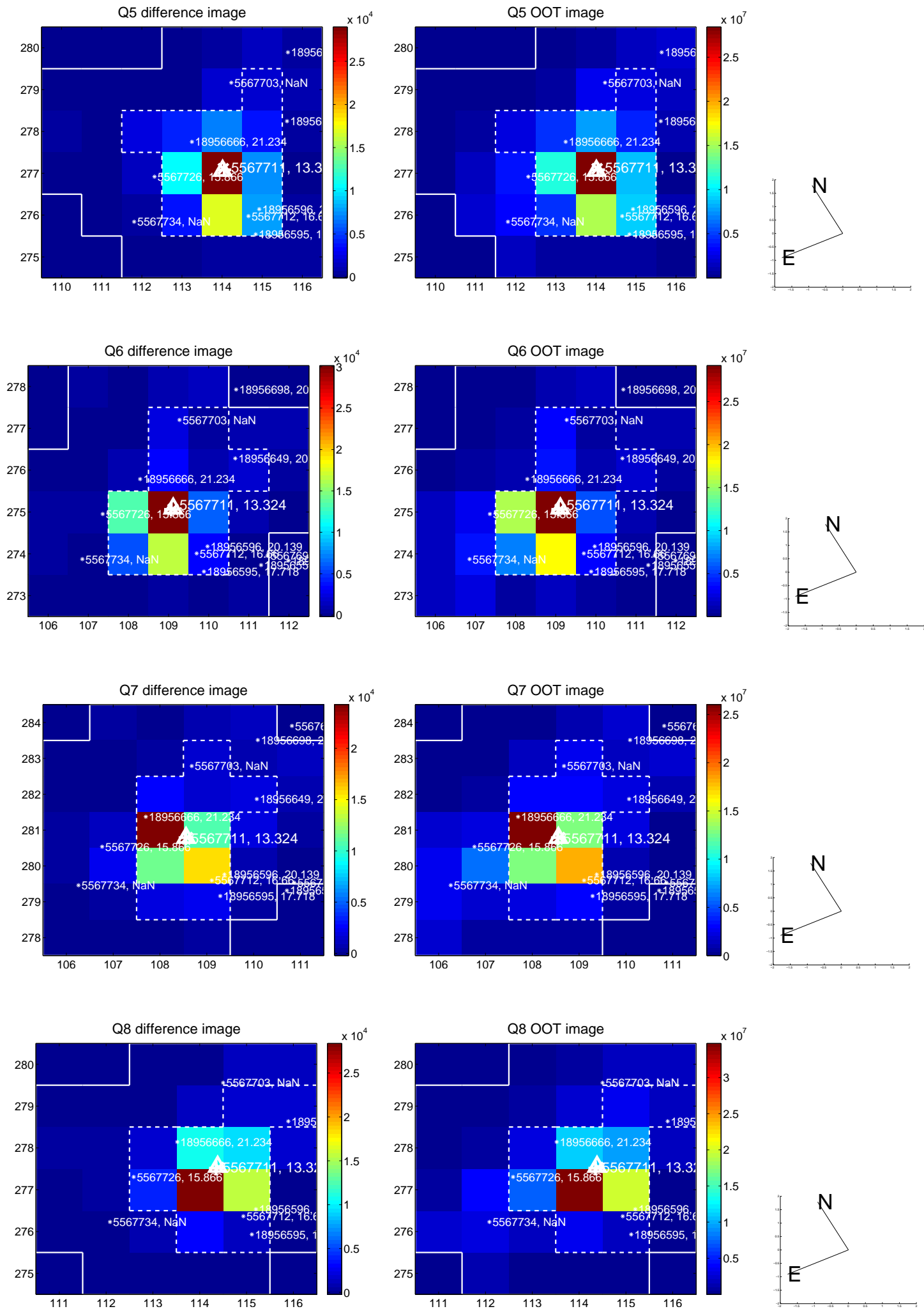


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

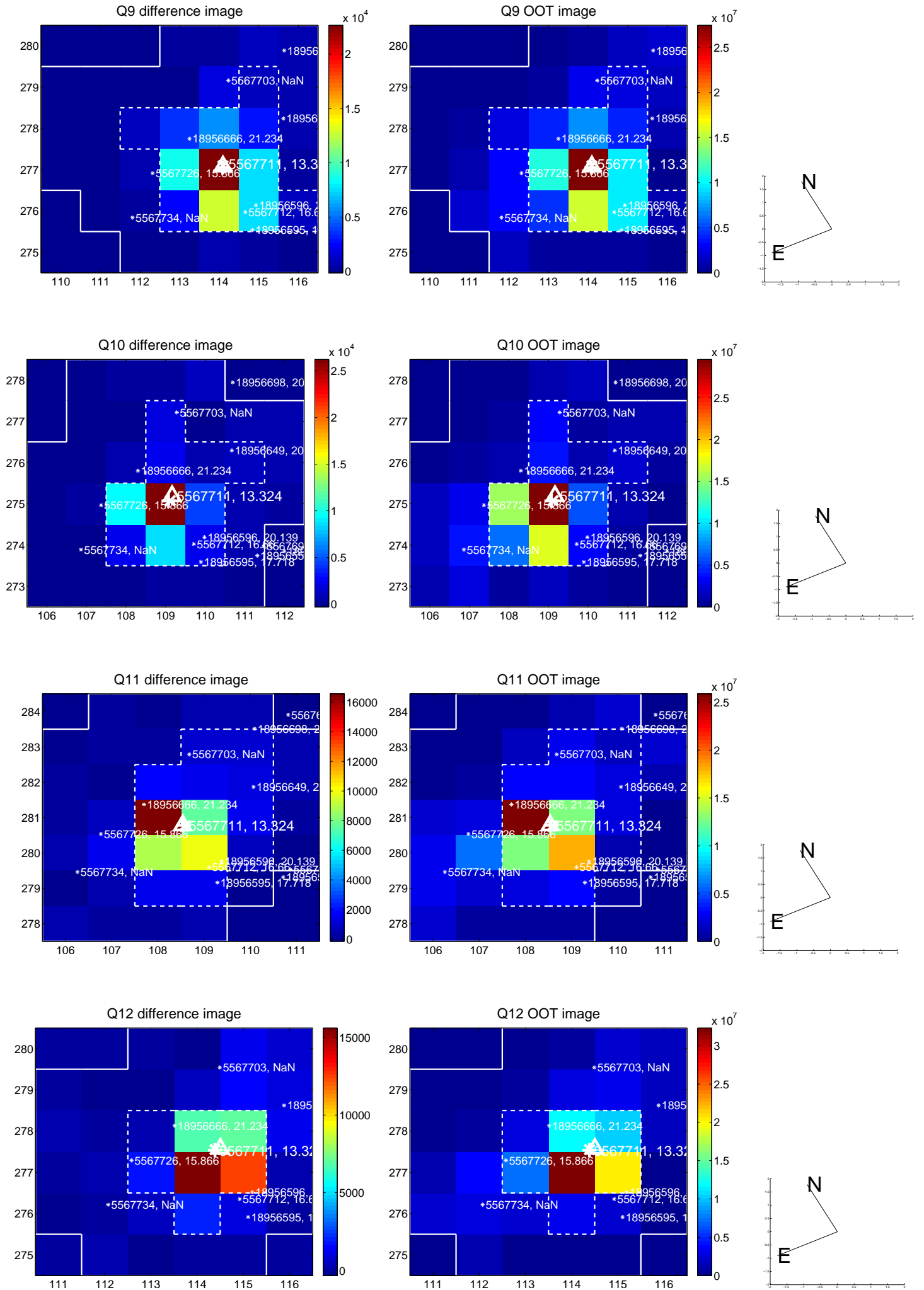
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



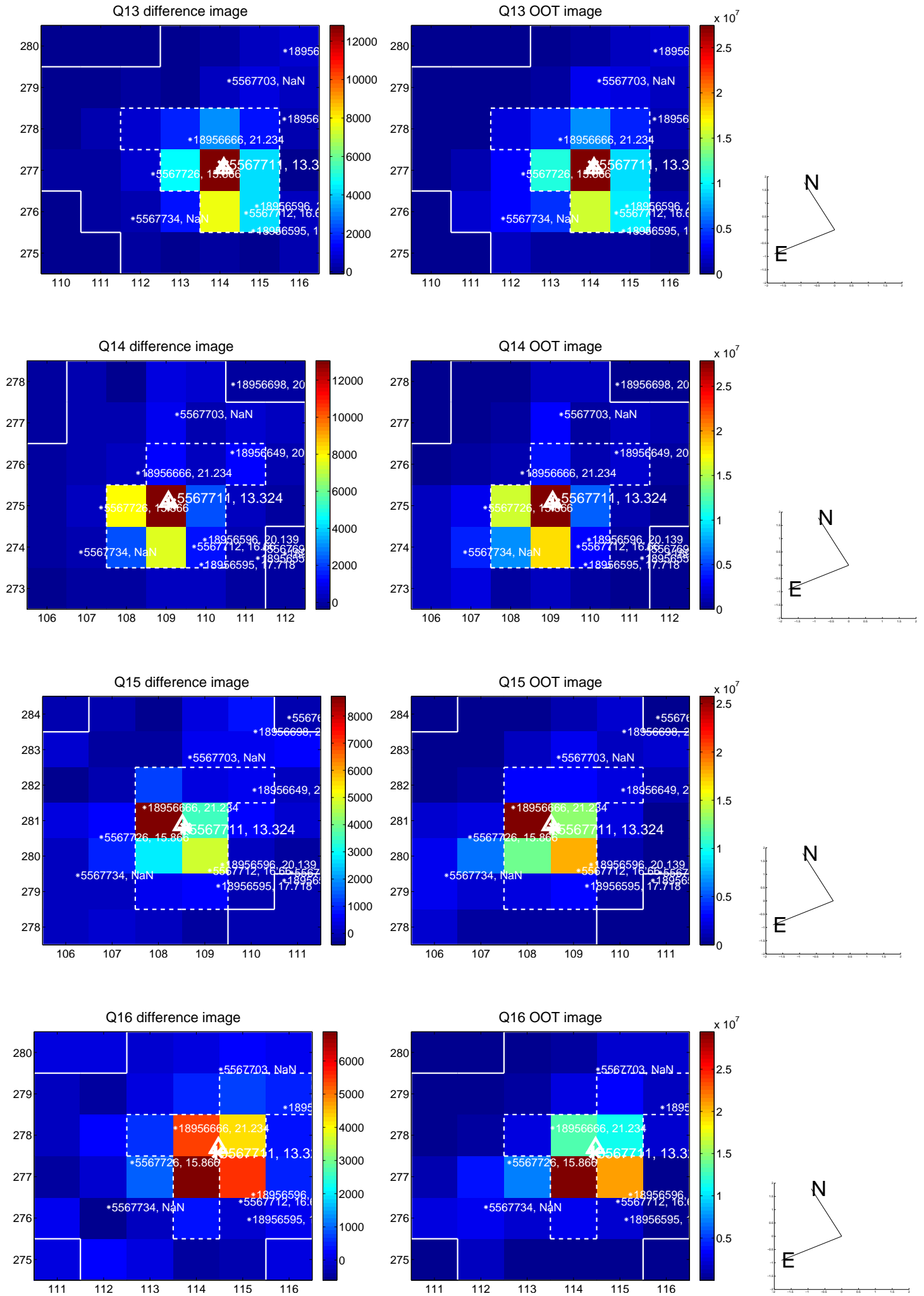
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



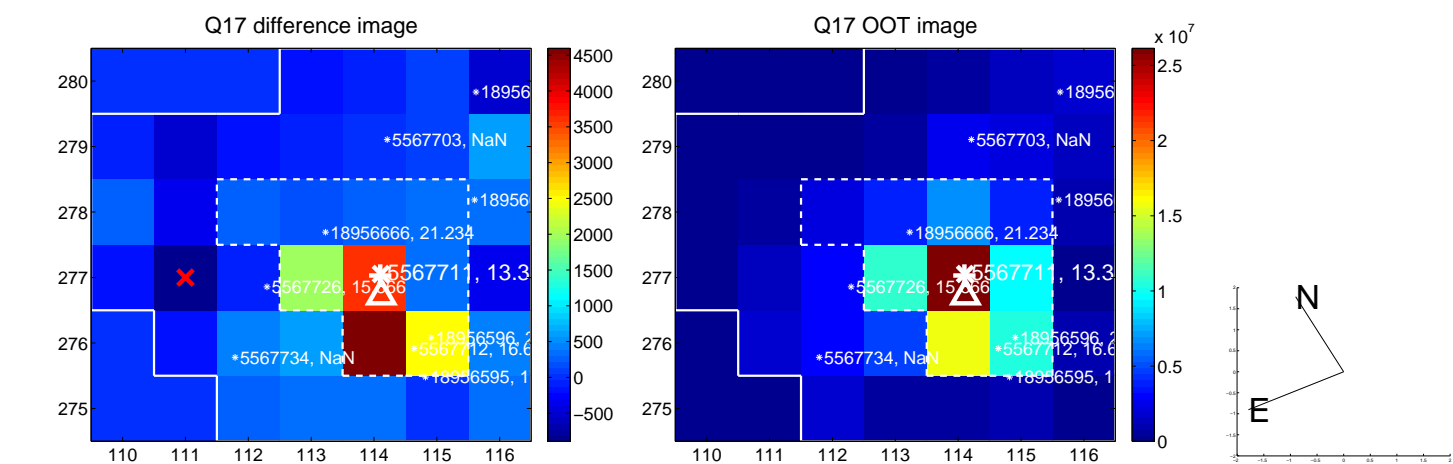
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



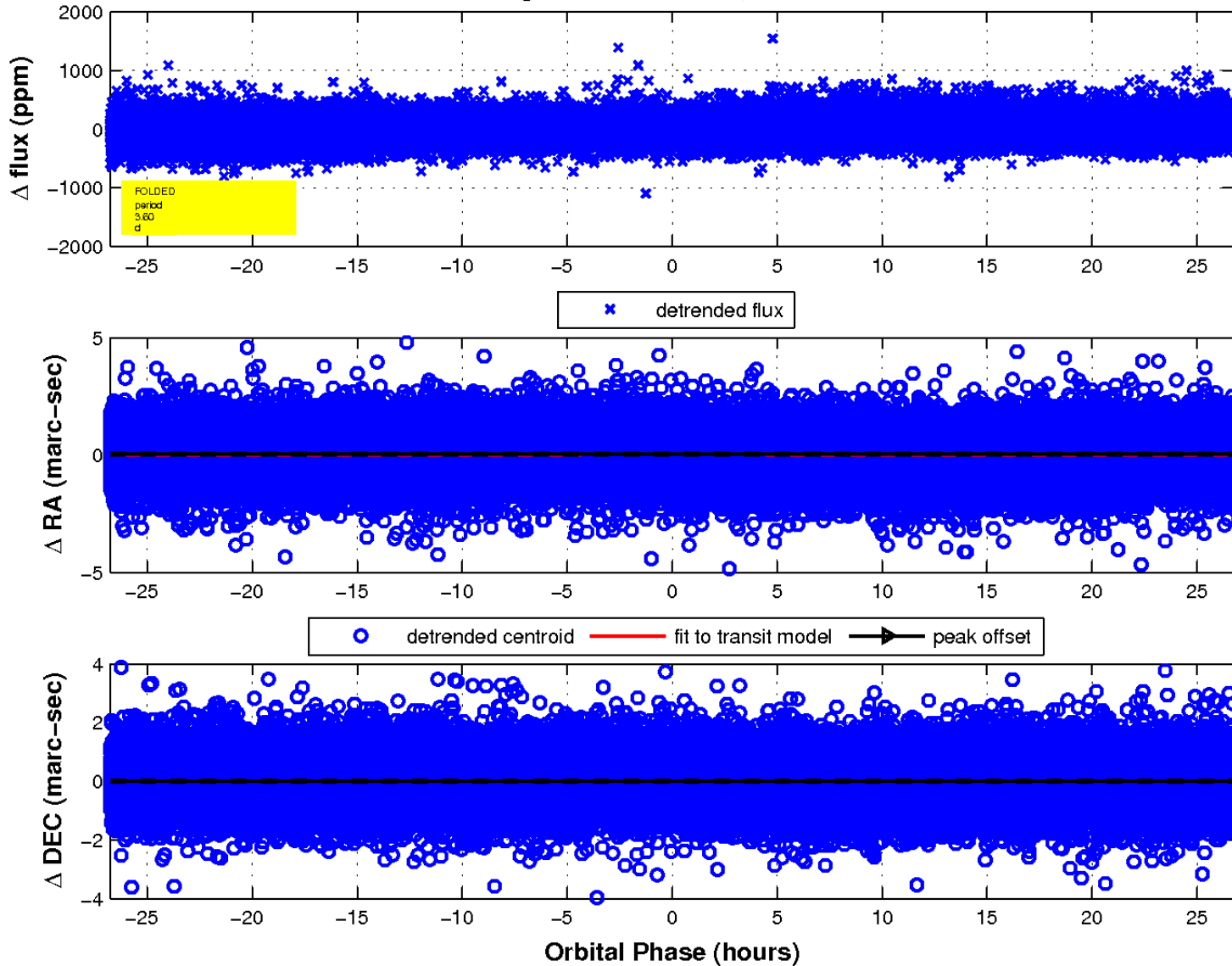
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



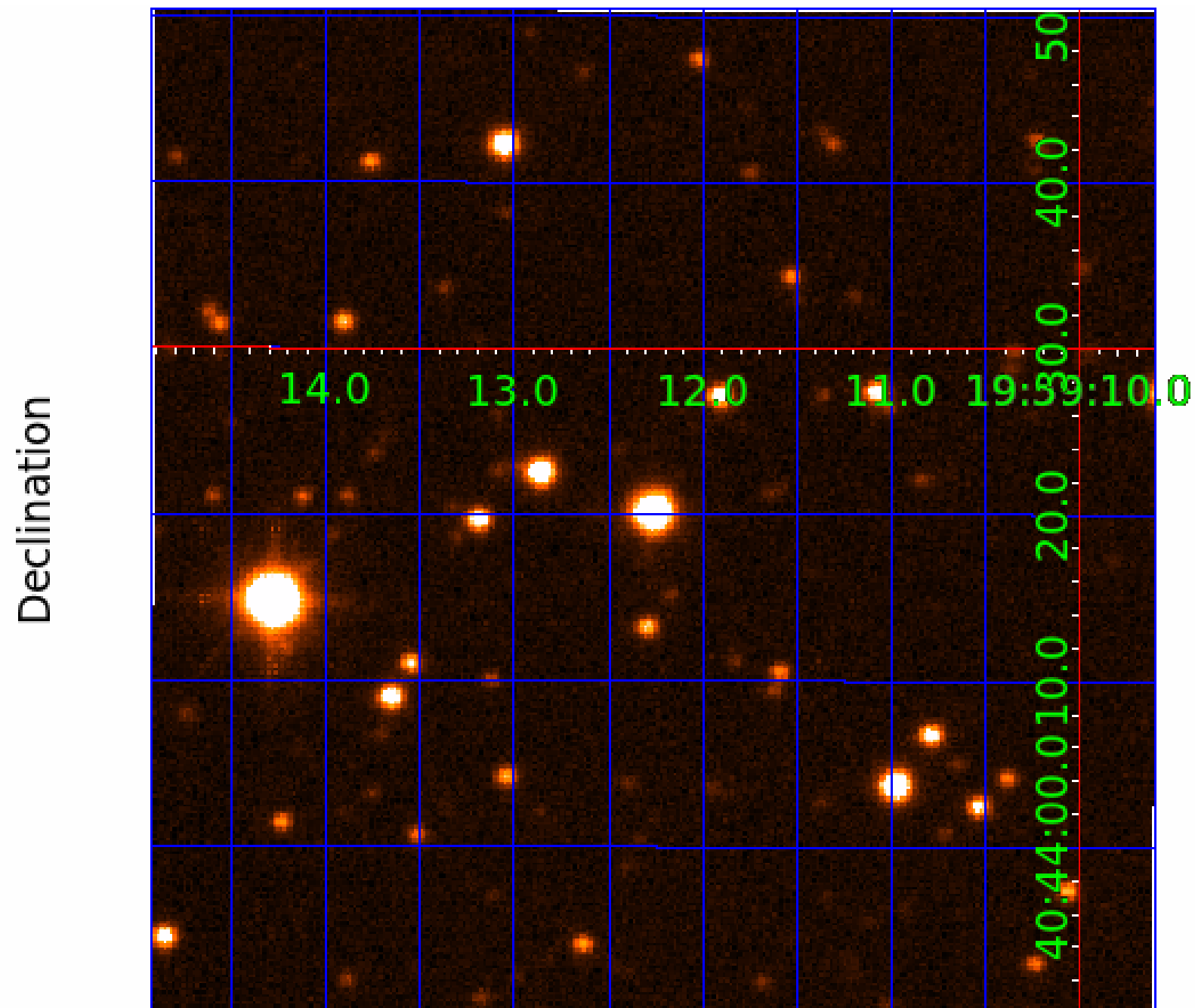
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 4



UKIRT Image



KIC 005567711

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})
005567711-01	OBS	No	3.596641	134.171584	32.1	8.922	10.9	10.6	2.73	8949	1.60	11550.12
005567711-02	OBS	No	3.596148	132.454343	181.2	12.000	8.0	-1.0	2.73	8949	3.74	11552.23
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005567711-04	OBS	No	177.758350	152.874281	449.6	9.000	11.7	-1.0	2.73	8949	5.89	63.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005567711-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
005567711-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_NOFITS
005567711-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
005567711-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

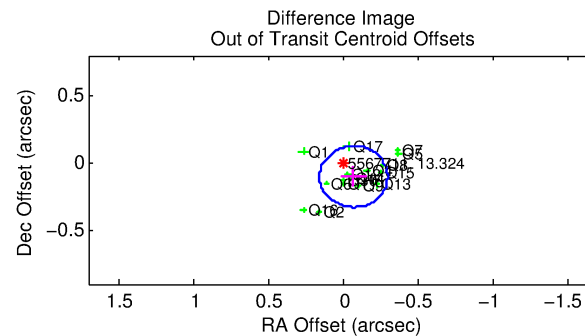
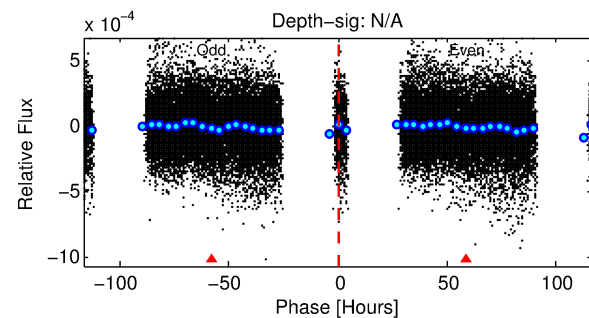
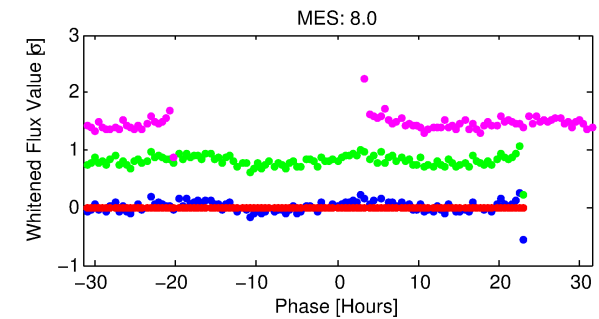
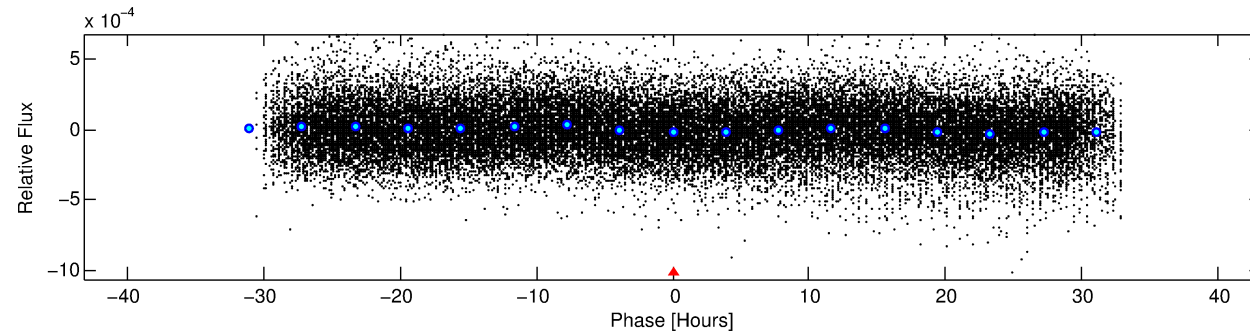
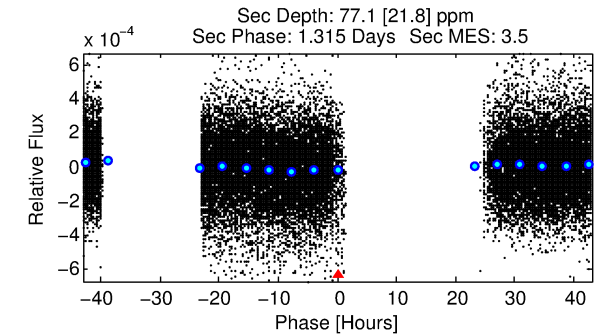
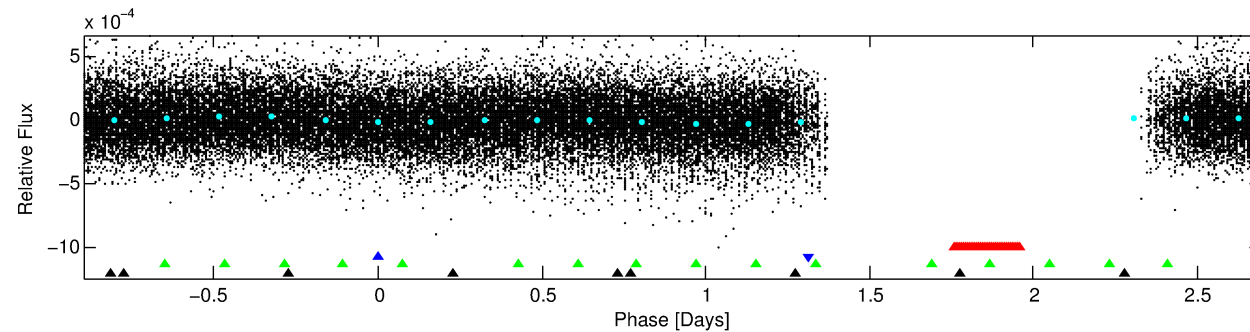
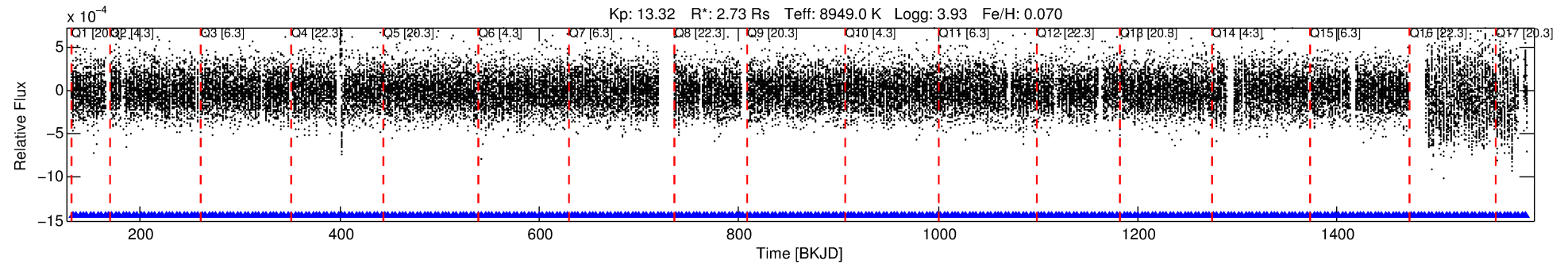
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005567711-02

No Significant Match Found

DV One-Page Summary

KIC: 5567711 Candidate: 2 of 4 Period: 3.596 d



TPS TCE Results:

Period = 3.59615 d
Epoch = 132.4543 BKJD

DV fit results are unavailable

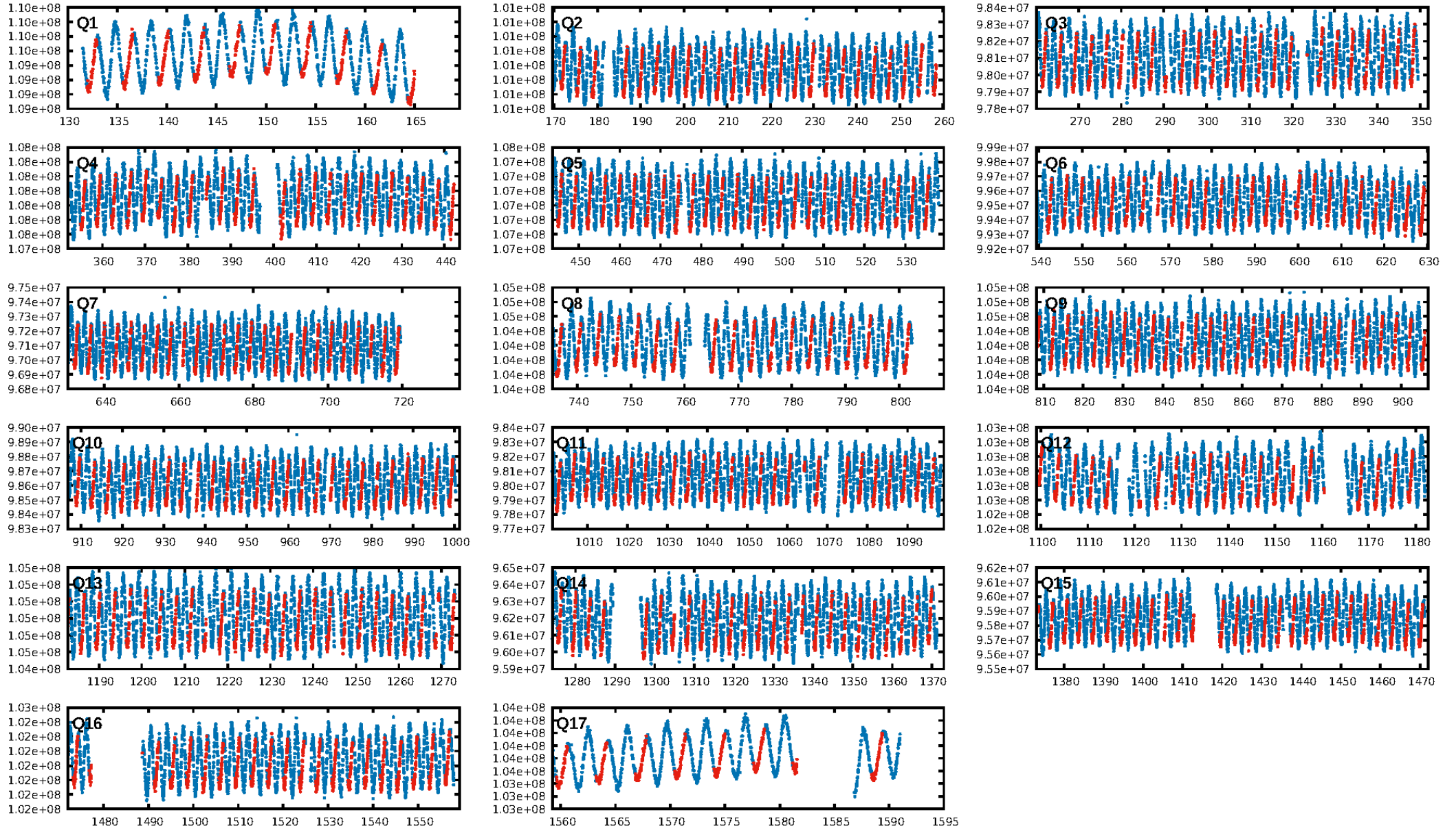
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.39e-12
RollingBand-fgt: 1.00 [363/363]
GhostDiagnostic-chr: 1.854
Centroid-sig: 0.4%
Centroid-so: 0.851 arcsec [8.67σ]
OotOffset-rm: 0.125 arcsec [1.64σ]
KicOffset-rm: 0.090 arcsec [1.08σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

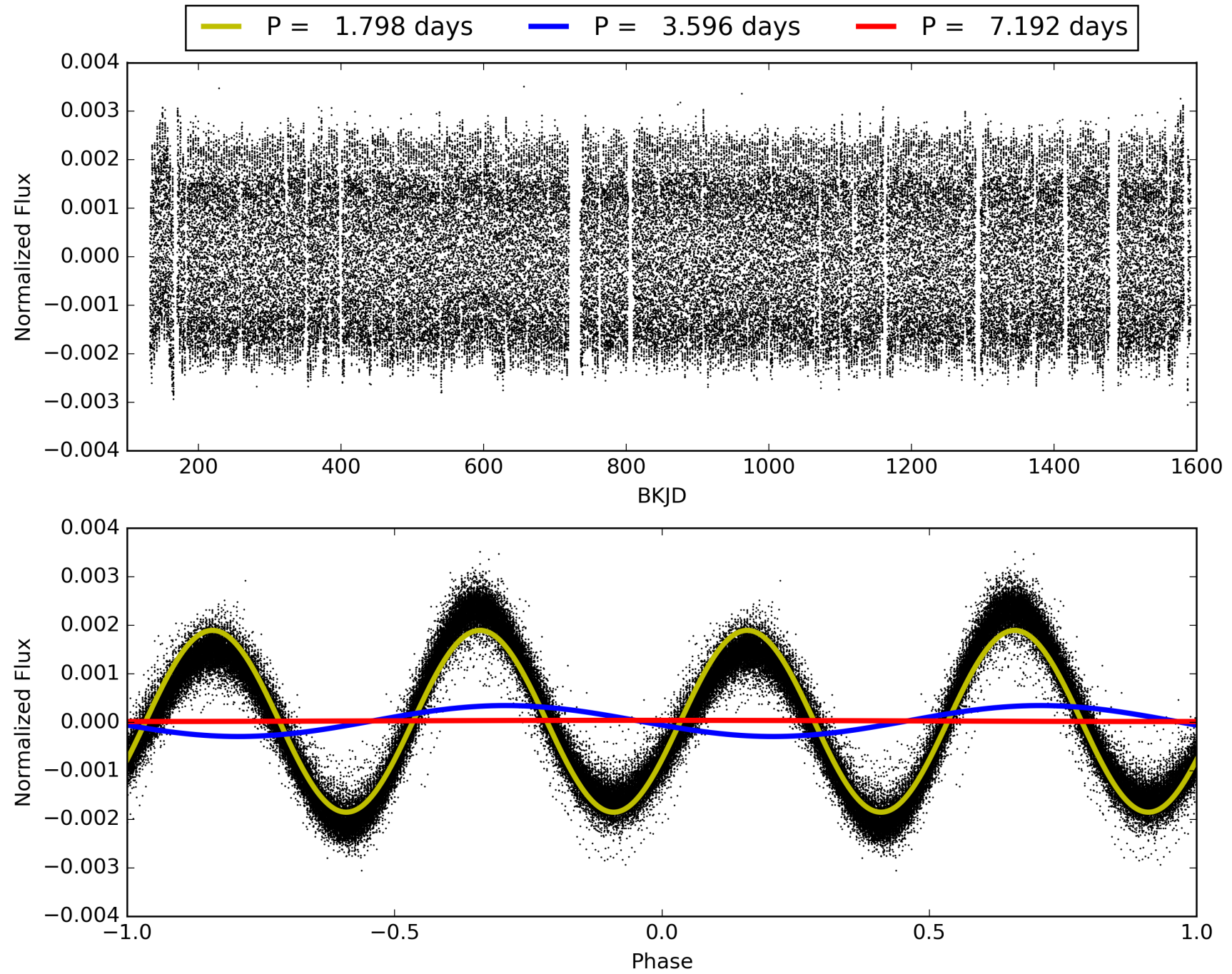
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:32:45 Z

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

TCE 005567711-02, PDC Light Curves

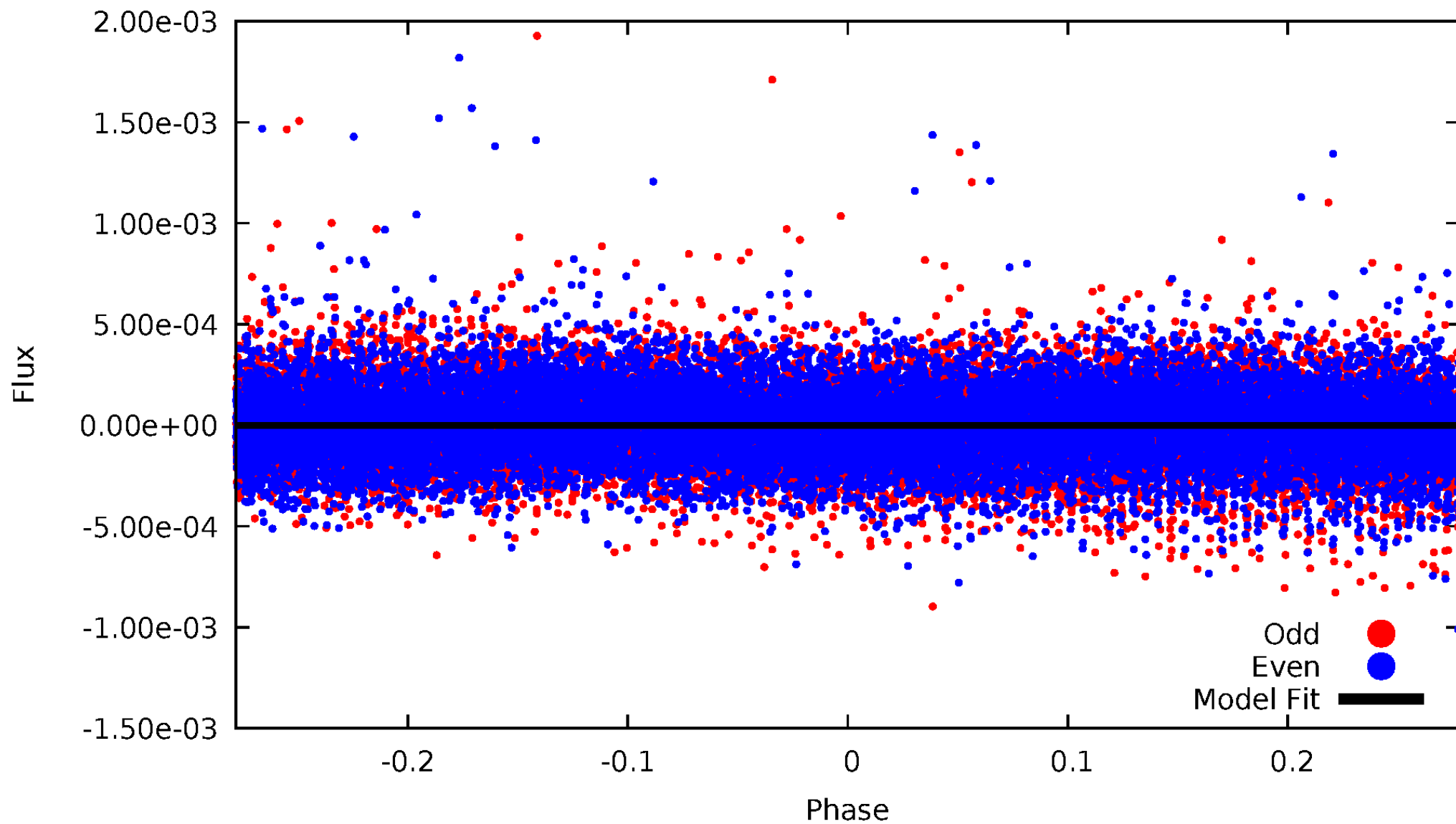


TCE 005567711-02



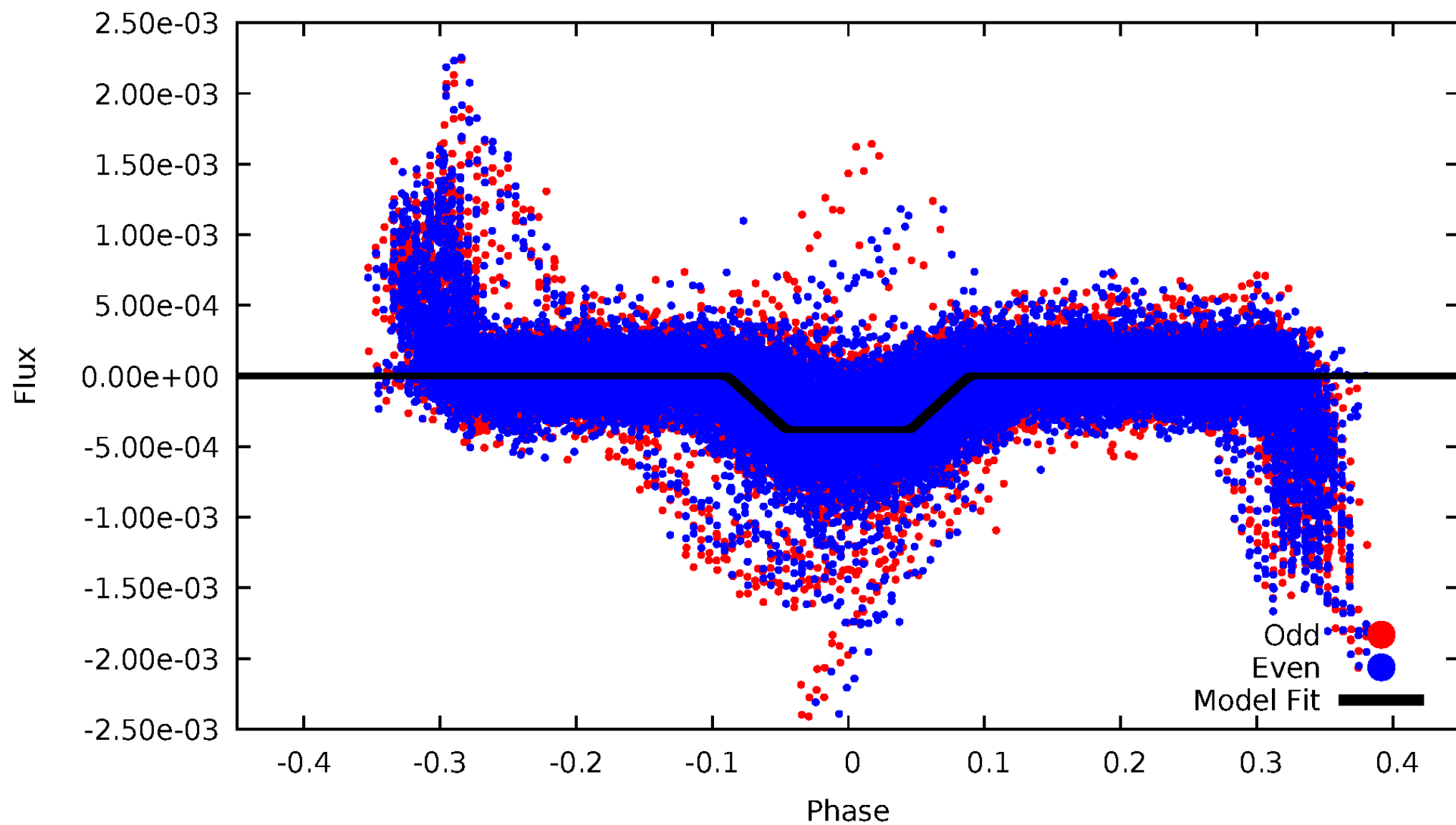
DV Odd/Even

TCE 005567711-02



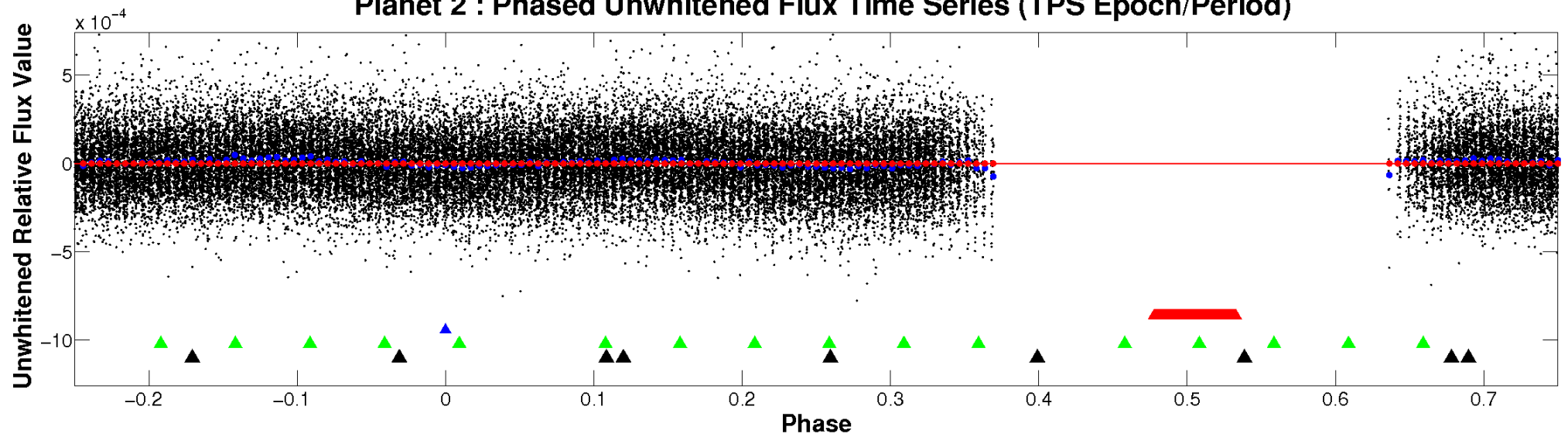
ALT Odd/Even

TCE 005567711-02

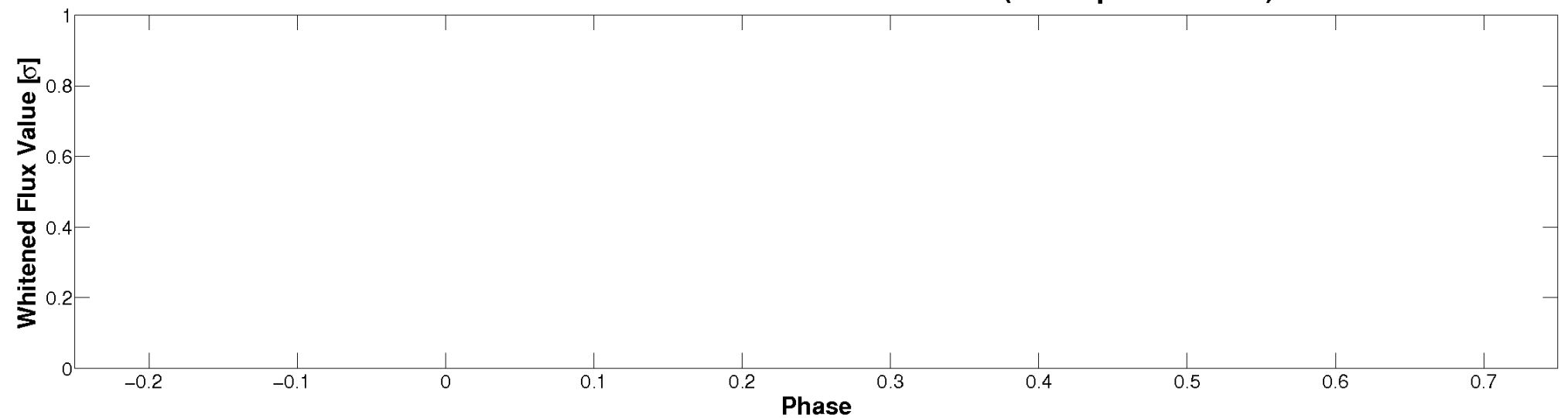


Non-Whitened Vs. Whitened Light Curve

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

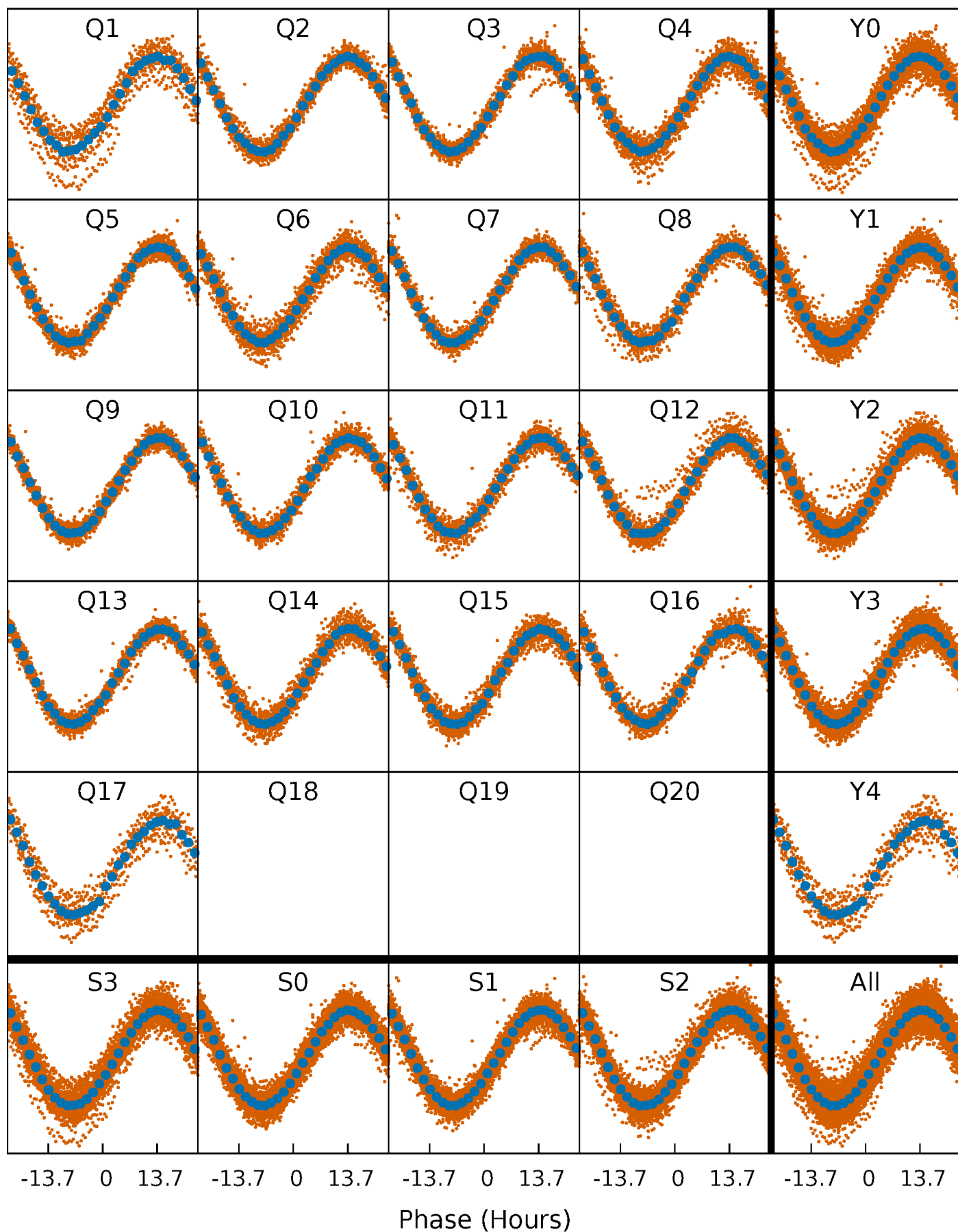


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



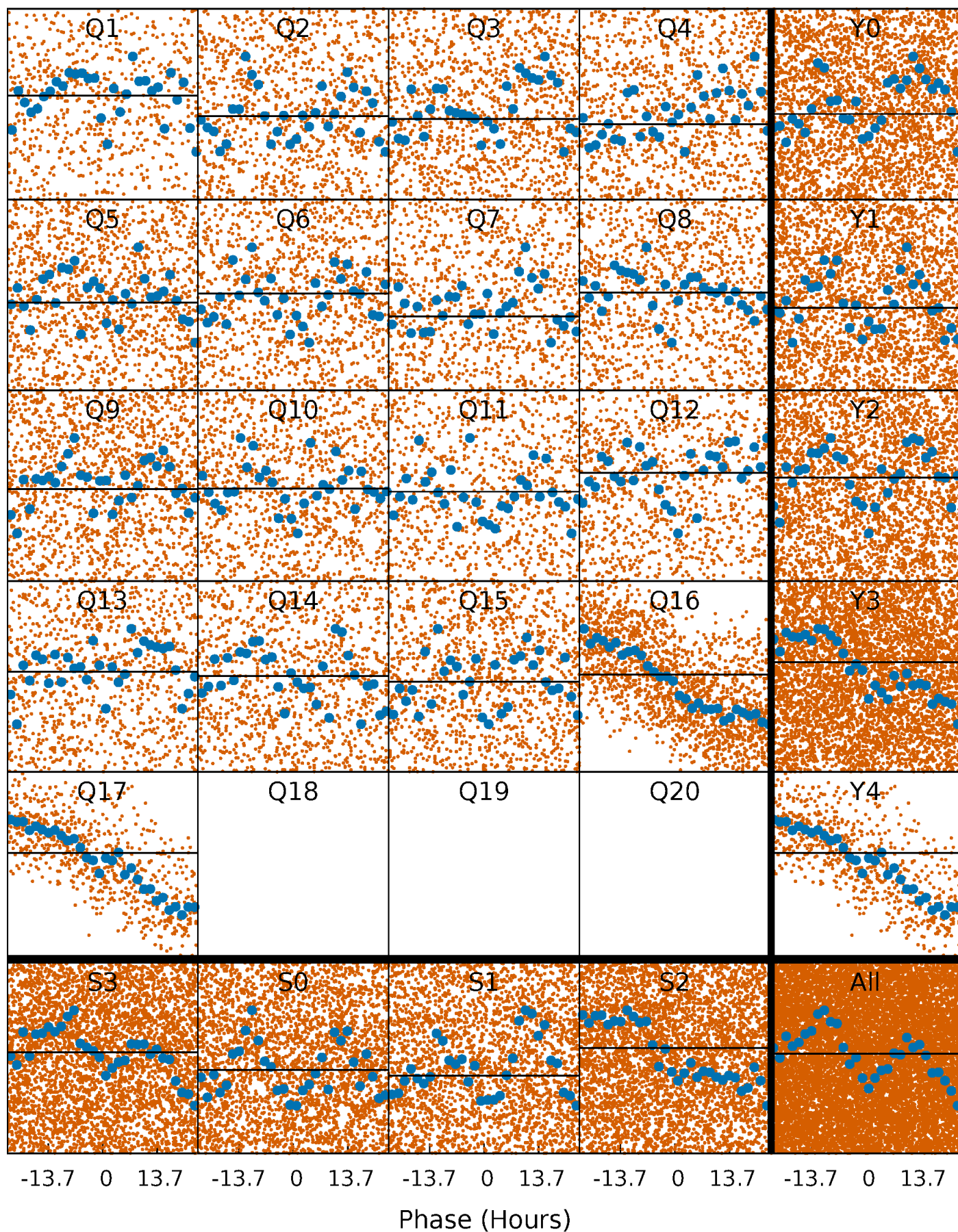
PDC Quarter-Phased Transit Curves

TCE 005567711-02 P= 3.596148 Days $T_0=132.454343$ (BKJD)



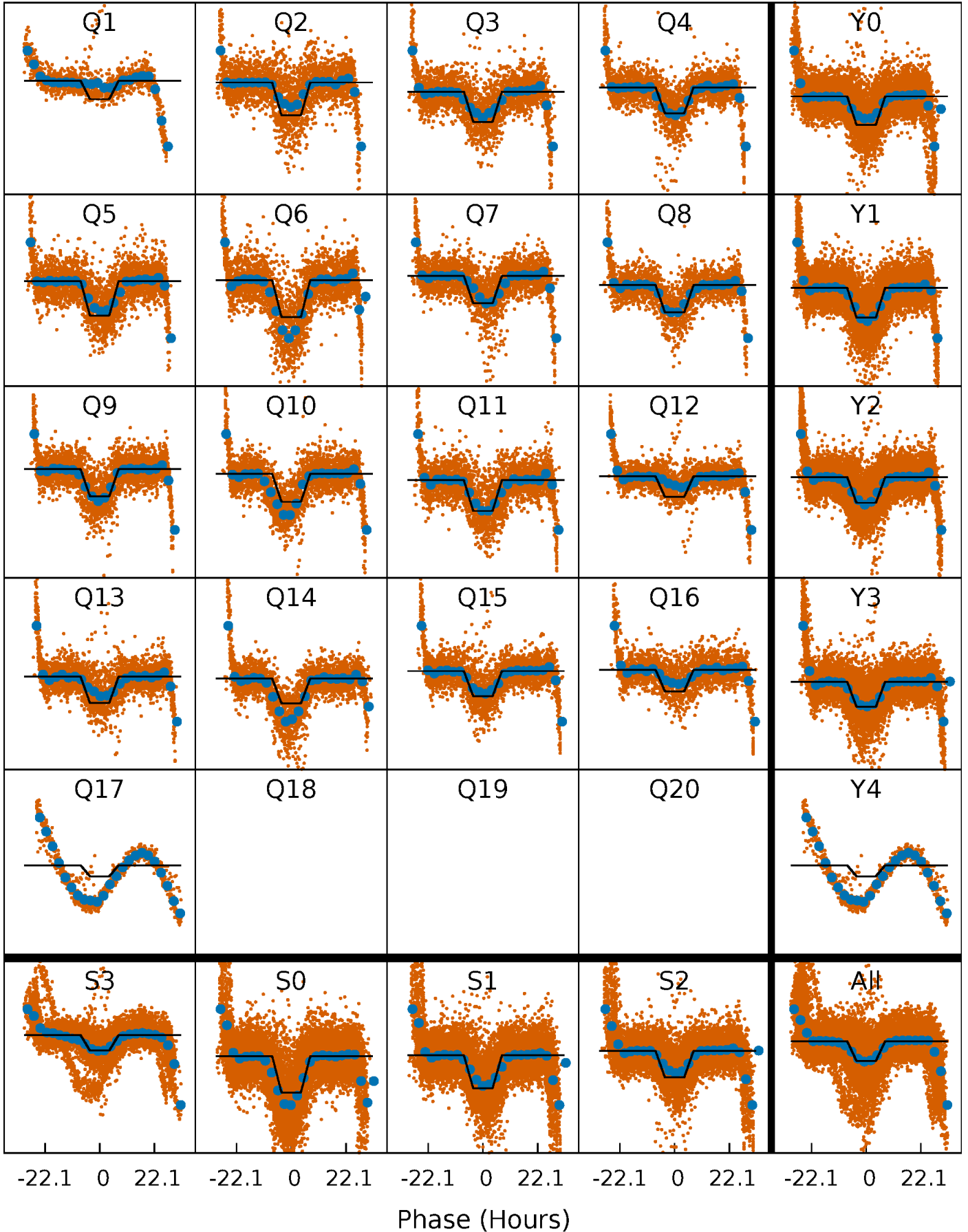
DV Quarter-Phased Transit Curves

TCE 005567711-02 P= 3.596148 Days $T_0=132.454343$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

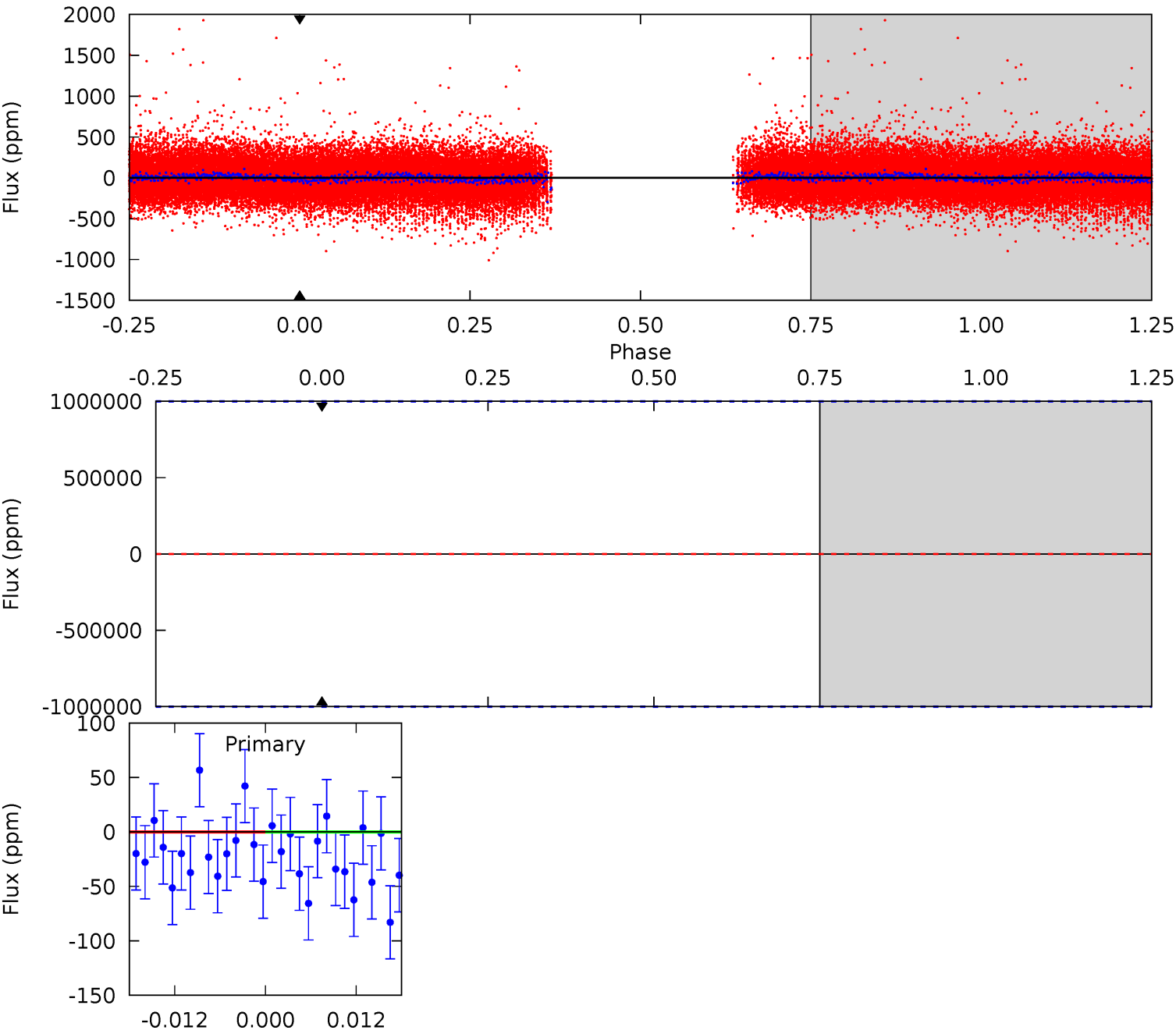
TCE 005567711-02 P= 3.596148 Days $T_0=132.413814$ (BKJD)



DV Model-Shift Uniqueness Test

005567711-02, P = 3.596148 Days, E = 128.858195 Days

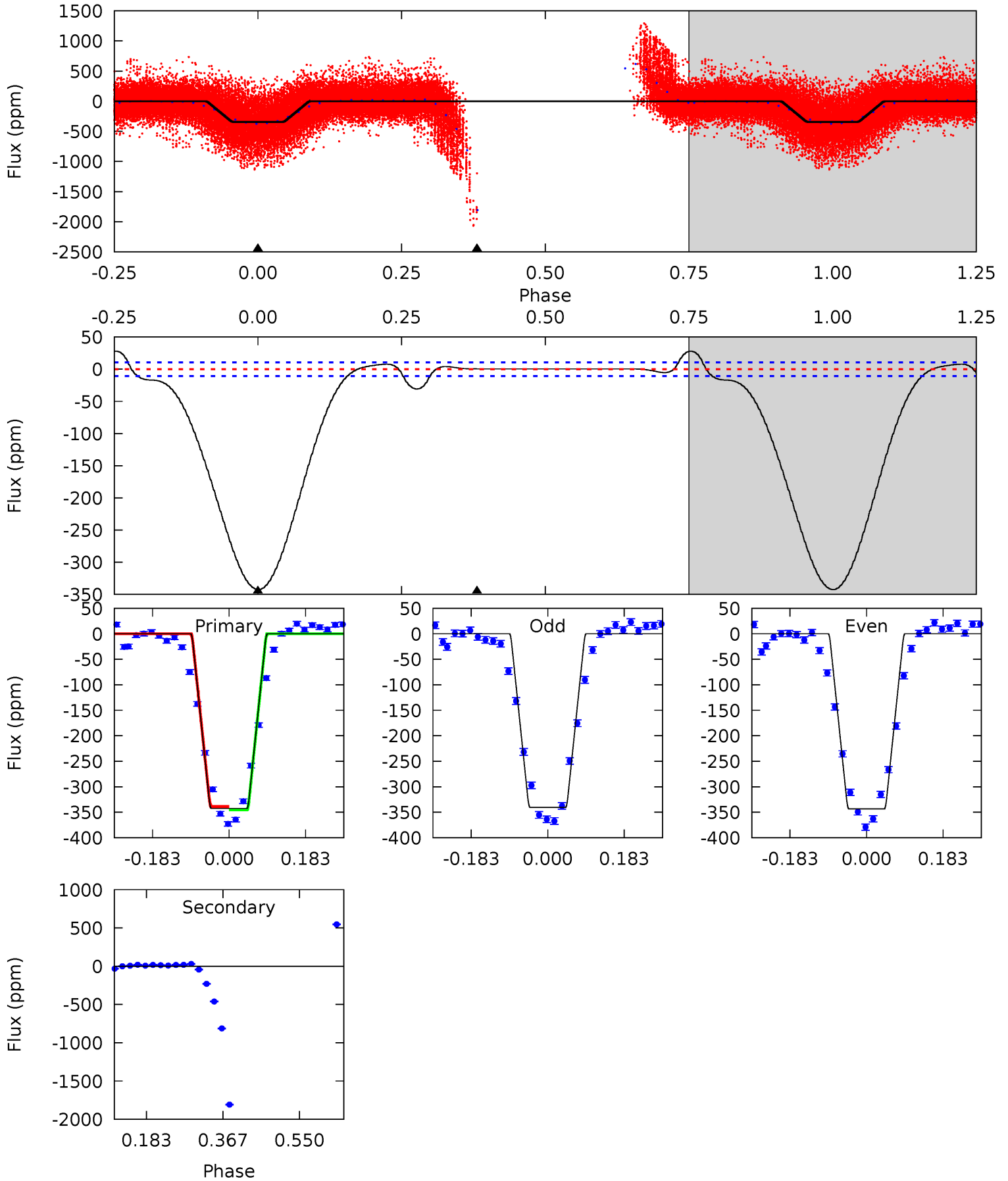
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005567711-02, P = 3.596148 Days, E = 128.817666 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
142.2	-0.19	0	0	4.44	1.33	5.83	142.2	142.2	-0.19	-0.19	0.58	1.14	0.08	1.37



Stellar Parameters For KIC 005567711

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8949^{+251}_{-430}	$3.932^{+0.258}_{-0.172}$	$0.070^{+0.250}_{-0.650}$	$2.727^{+0.867}_{-1.060}$	$2.320^{+0.361}_{-0.670}$	$0.161^{+0.303}_{-0.083}$
	+3%/-5%	+7%/-4%	+357%/-929%	+32%/-39%	+16%/-29%	+188%/-52%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005567711-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$20.07^{+20.63}_{-13.65}$	3615^{+341}_{-342}	6597^{+62406}_{-56790}	11^{+890}_{-704}
Alt.	0 ± 2	$21.96^{+22.41}_{-15.63}$	3658^{+292}_{-354}	-3394^{+240}_{-207}	$-0.001^{+0.011}_{-0.026}$

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

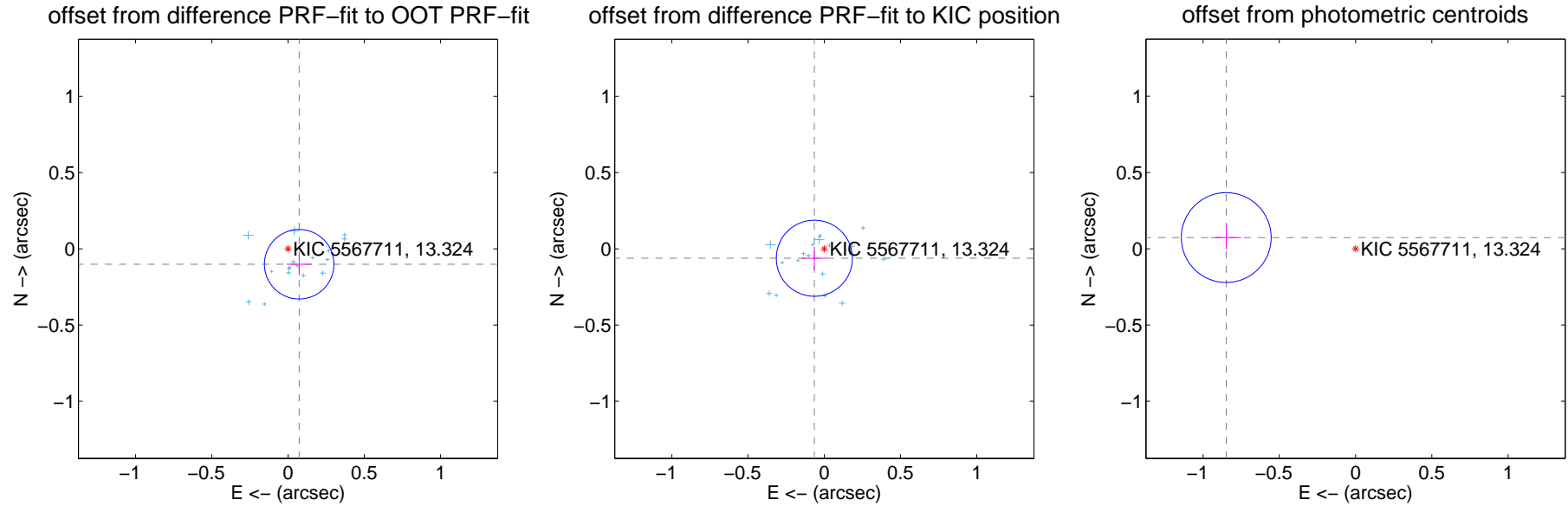
DV Centroid Data

Supplemental centroid analysis for 005567711-02. Kepler magnitude: 13.32. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

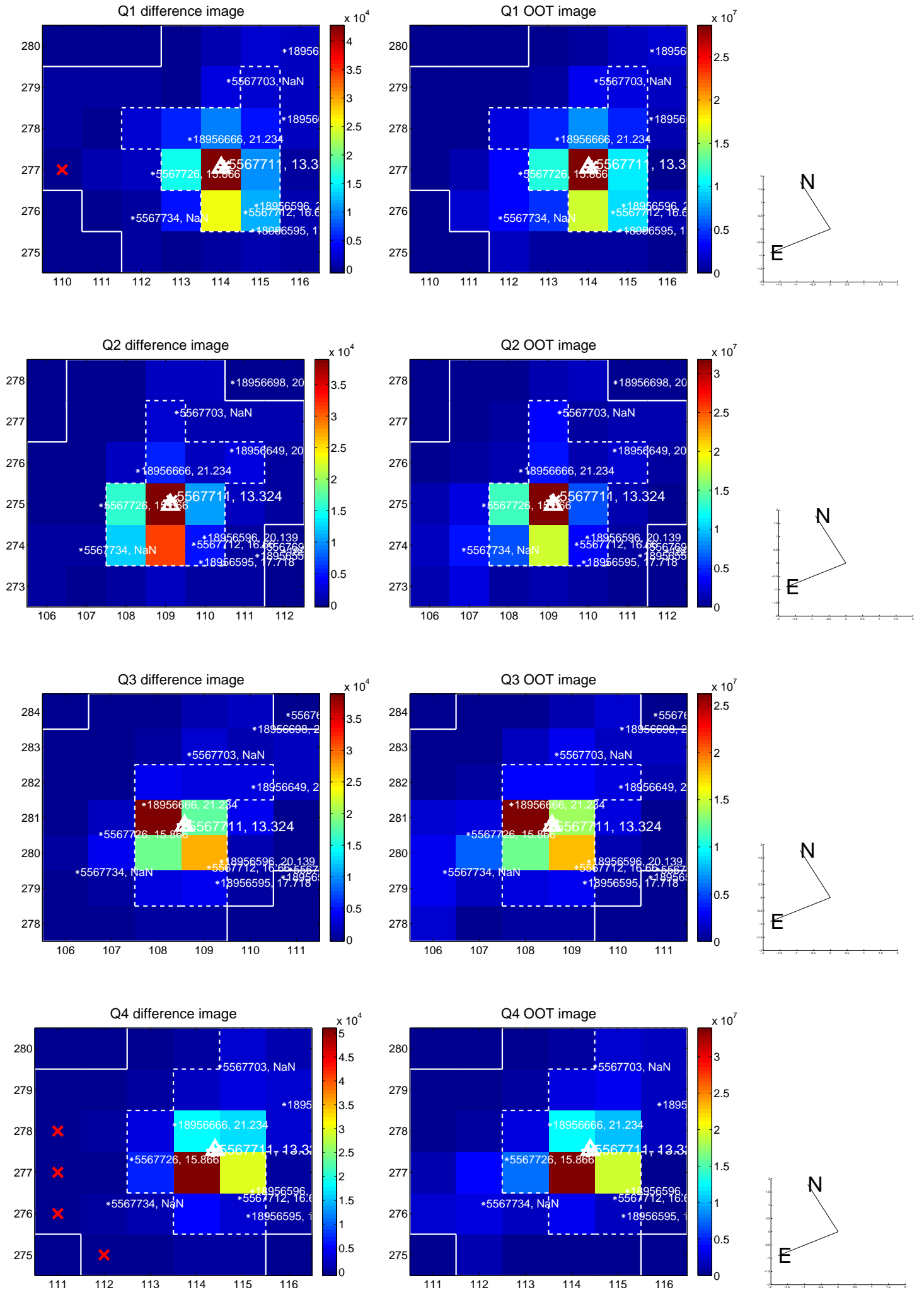
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.125 ± 0.076	1.64	-0.073 ± 0.082	-0.101 ± 0.072
PRF-fit source offset from KIC position	0.090 ± 0.083	1.08	0.065 ± 0.084	-0.062 ± 0.076
photometric centroid source offset	0.85 ± 0.10	8.67	0.85 ± 0.10	0.07 ± 0.08

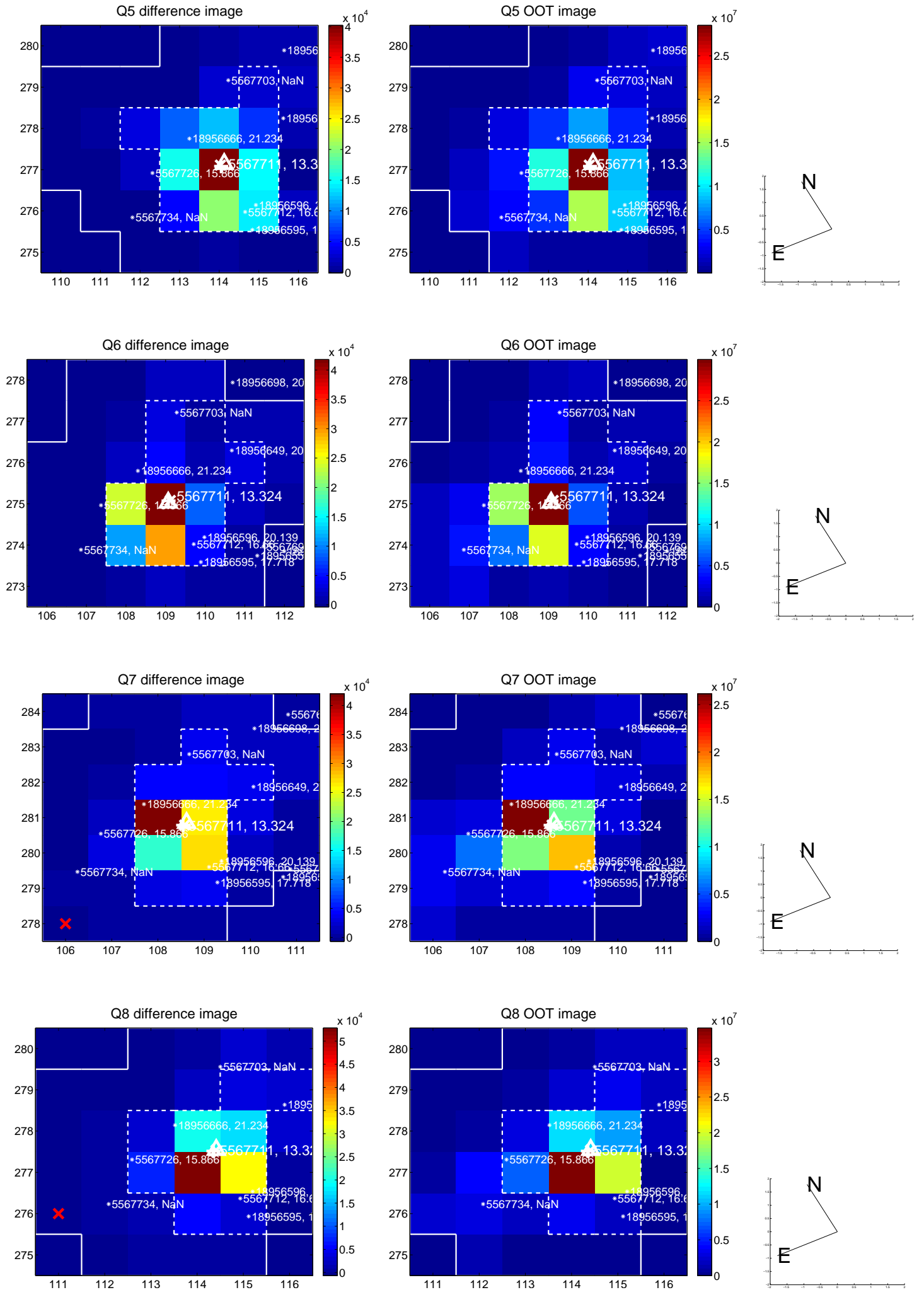


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

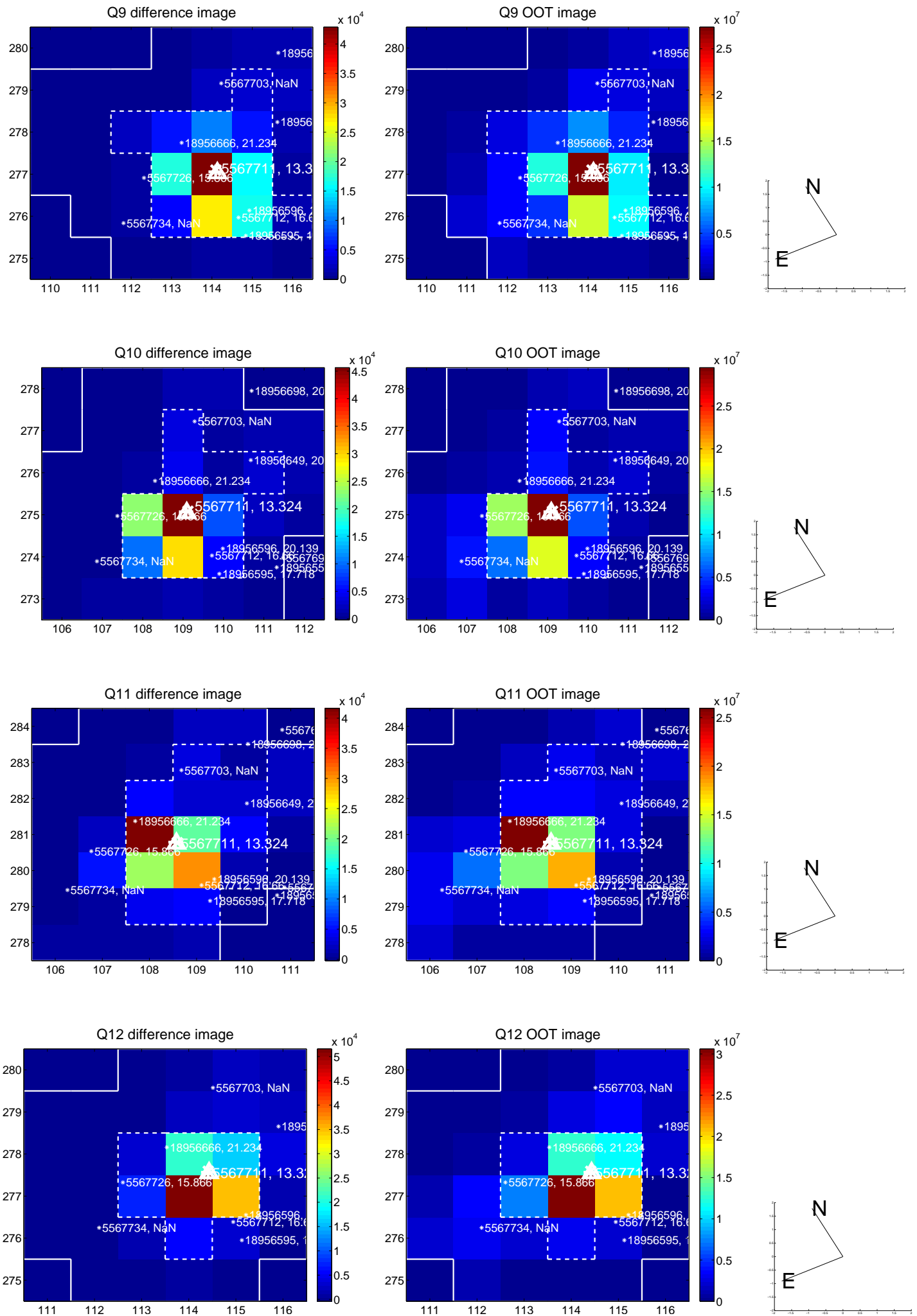
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



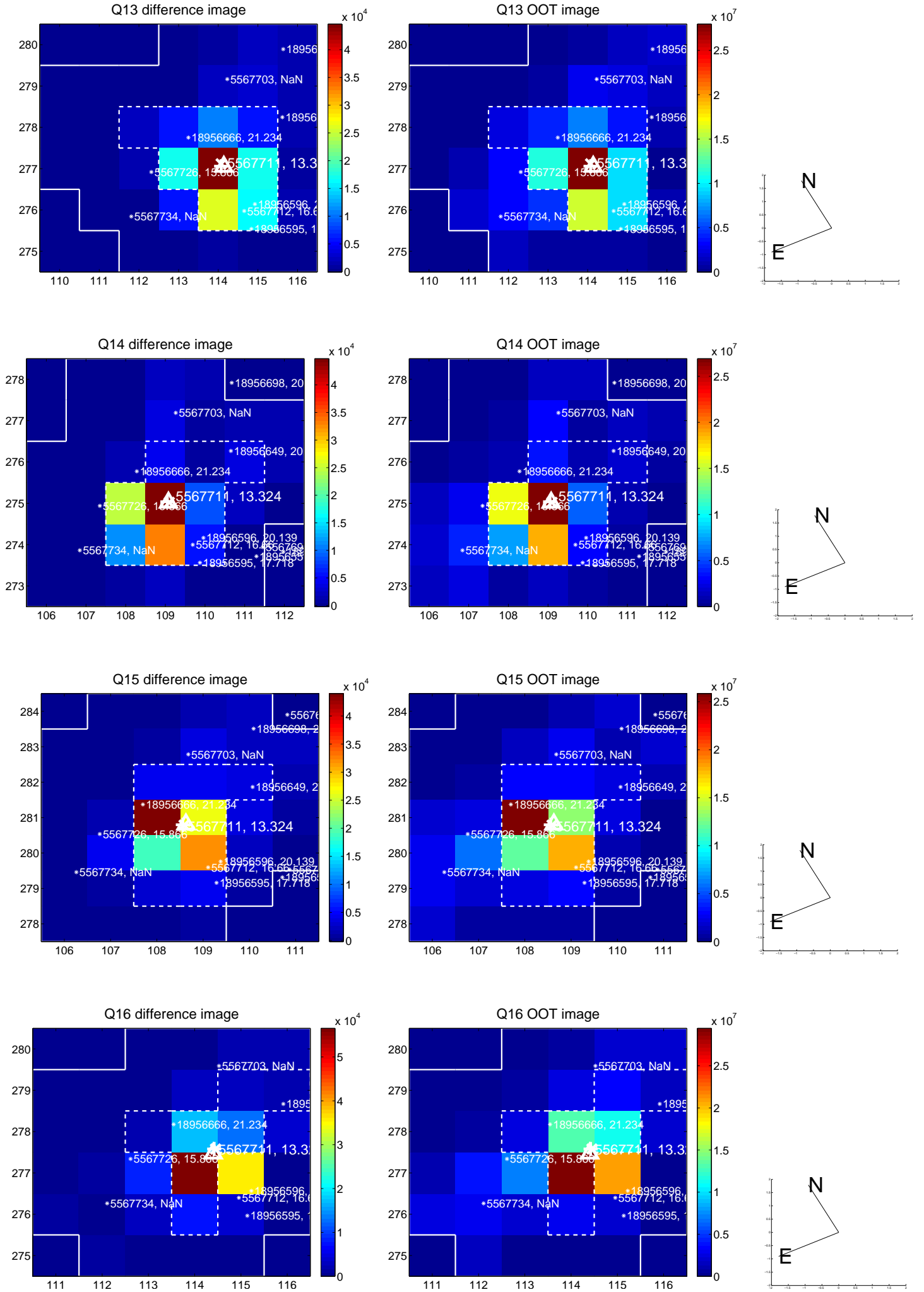
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



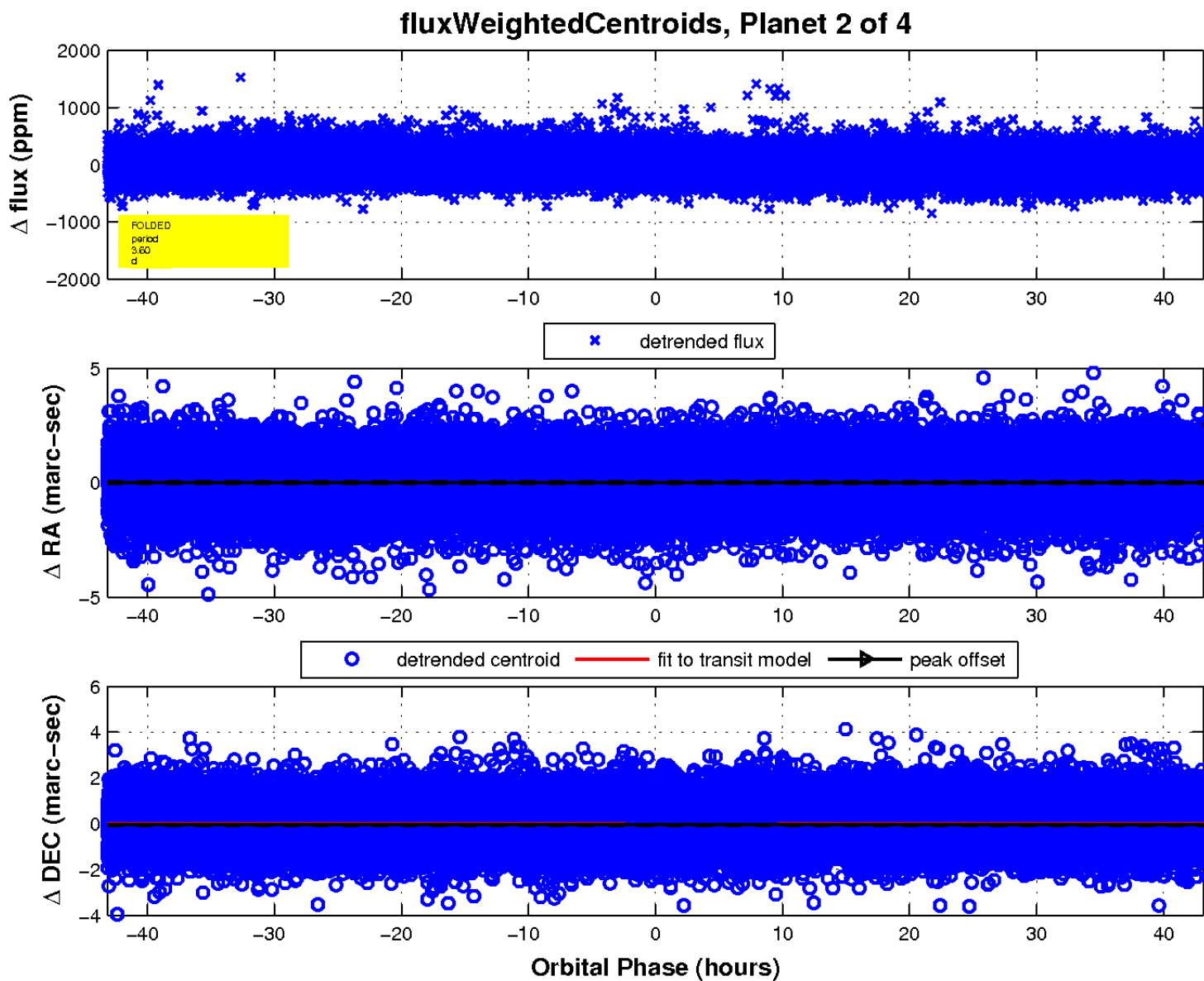
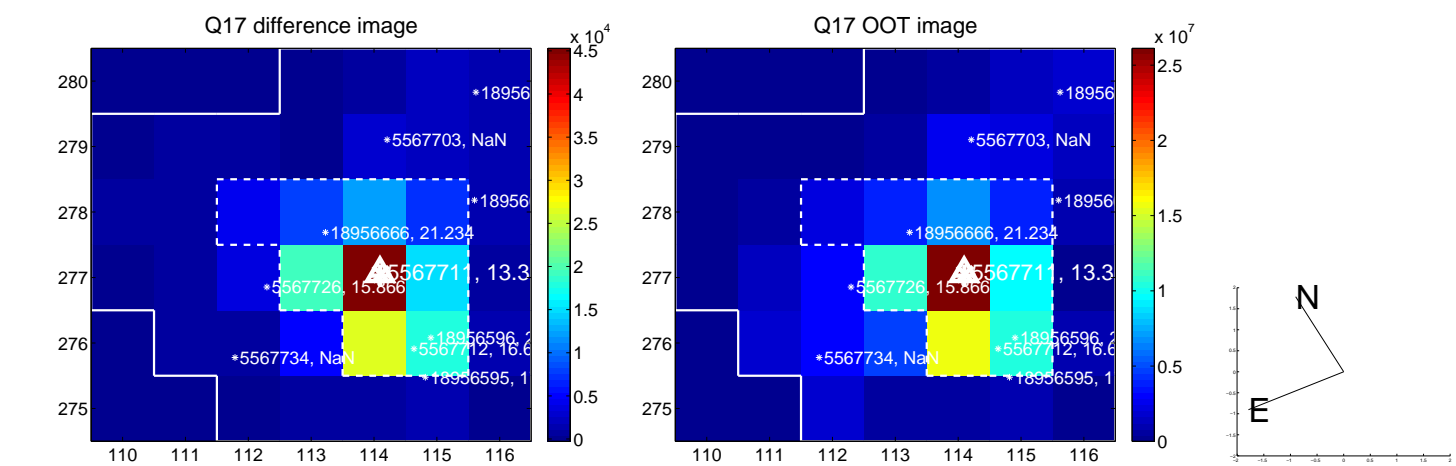
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



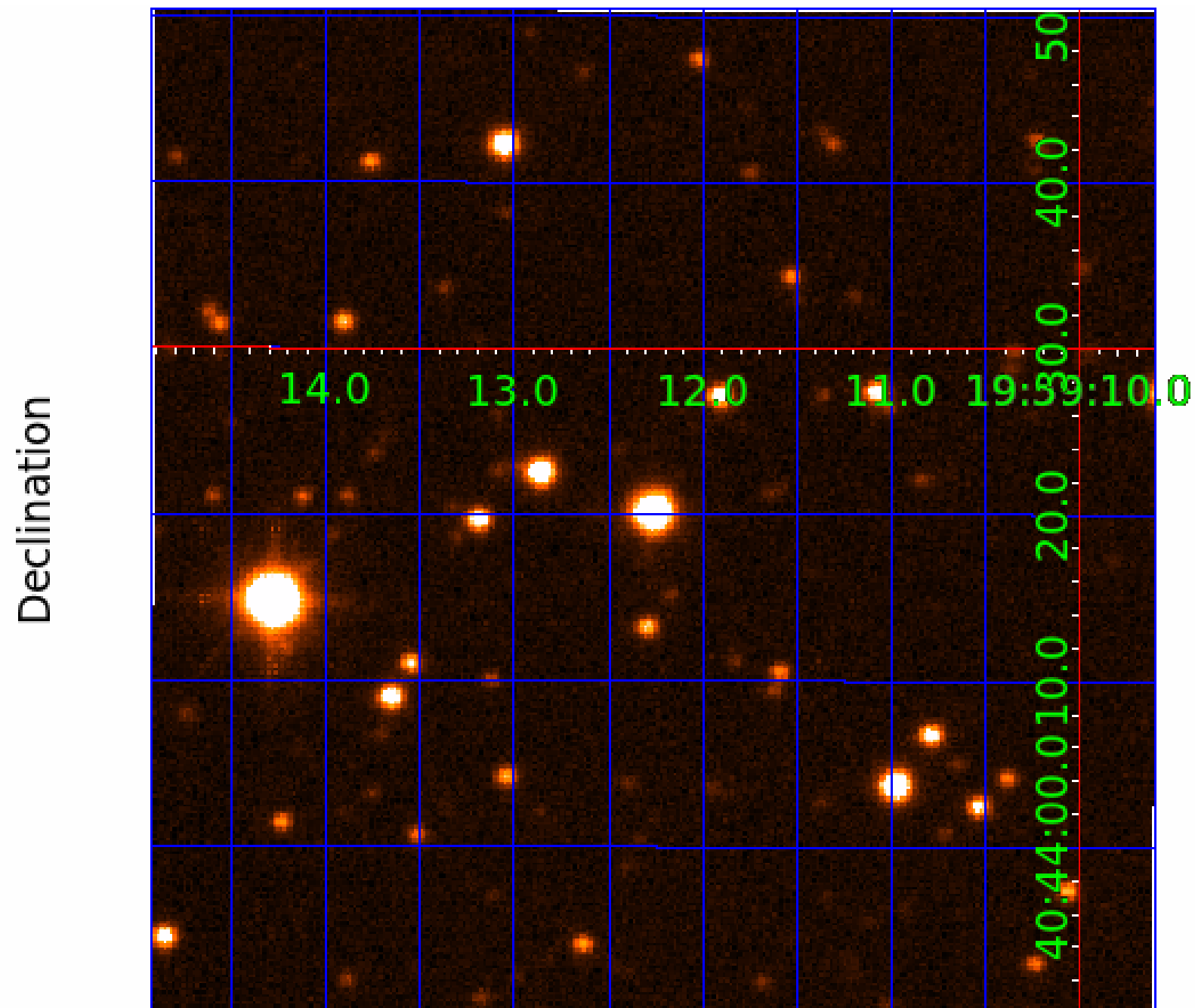
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005567711

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})
005567711-01	OBS	No	3.596641	134.171584	32.1	8.922	10.9	10.6	2.73	8949	1.60	11550.12
005567711-02	OBS	No	3.596148	132.454343	181.2	12.000	8.0	-1.0	2.73	8949	3.74	11552.23
005567711-03	OBS	No	91.162719	186.784465	173.7	16.020	18.7	5.4	2.73	8949	3.97	155.13
005567711-04	OBS	No	177.758350	152.874281	449.6	9.000	11.7	-1.0	2.73	8949	5.89	63.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005567711-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
005567711-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_NOFITS
005567711-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
005567711-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

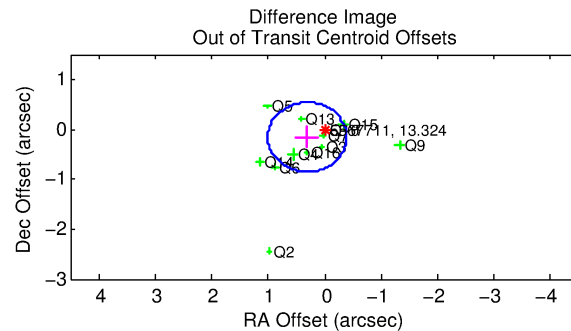
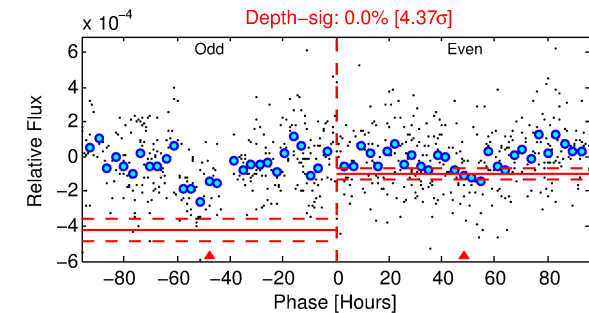
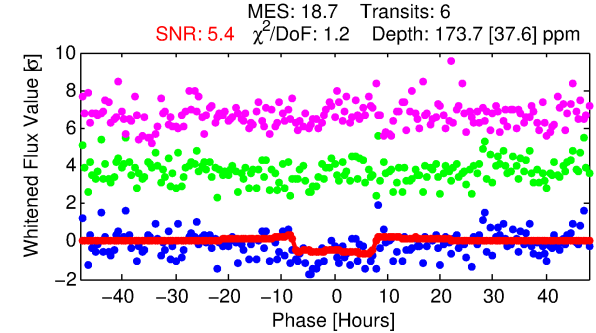
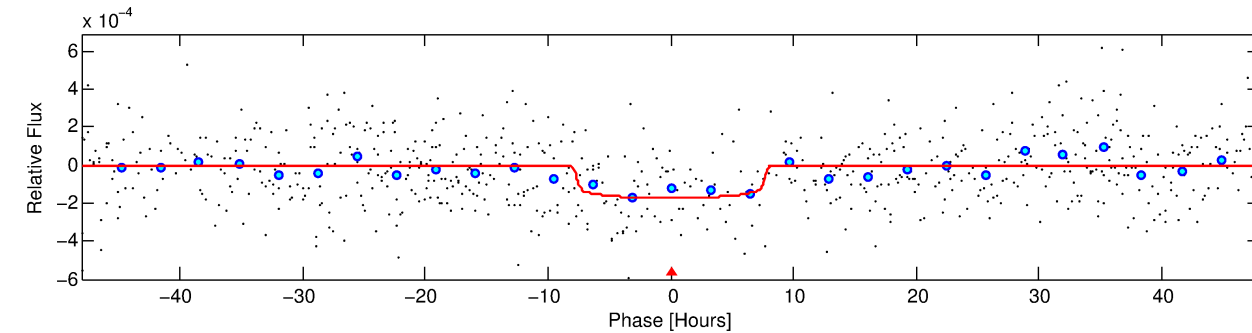
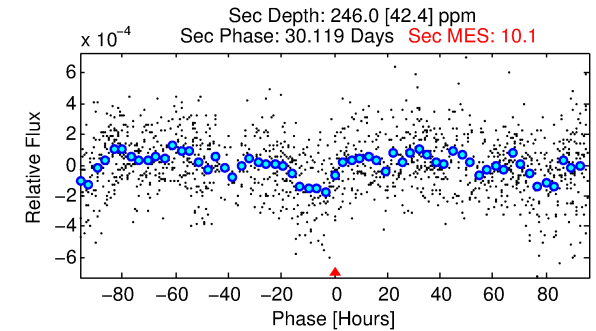
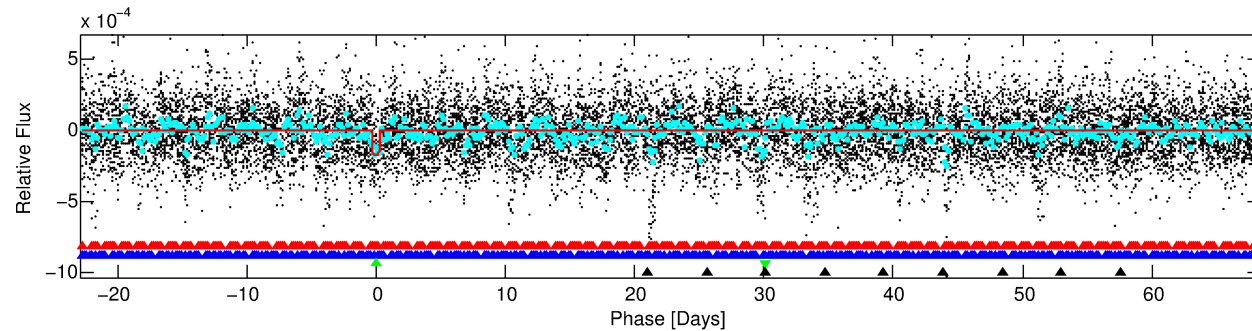
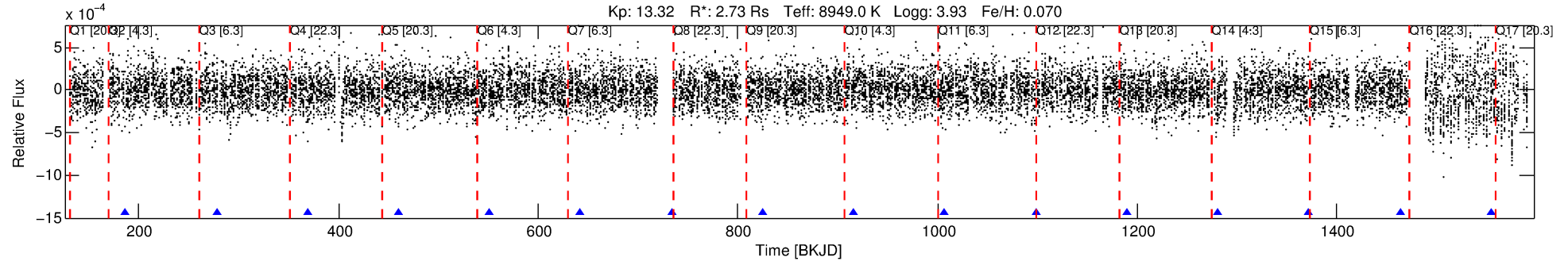
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005567711-03

No Significant Match Found

DV One-Page Summary

KIC: 5567711 Candidate: 3 of 4 Period: 91.163 d



DV Fit Results:

Period = 91.16272 [0.00354] d
Epoch = 186.7845 [0.0293] BKJD
Rp/R* = 0.0133 [0.0031]
a/R* = 26.66 [35.39]
b = 0.81 [0.58]
Seff = 155.13 [79.24]
Teq = 900 [115] K
Rp = 3.97 [1.80] Re
a = 0.5248 [0.1712] AU
Ag = 2366.65 [1627.47] [1.45σ]
Teffp = 9705 [1297] K [6.76σ]

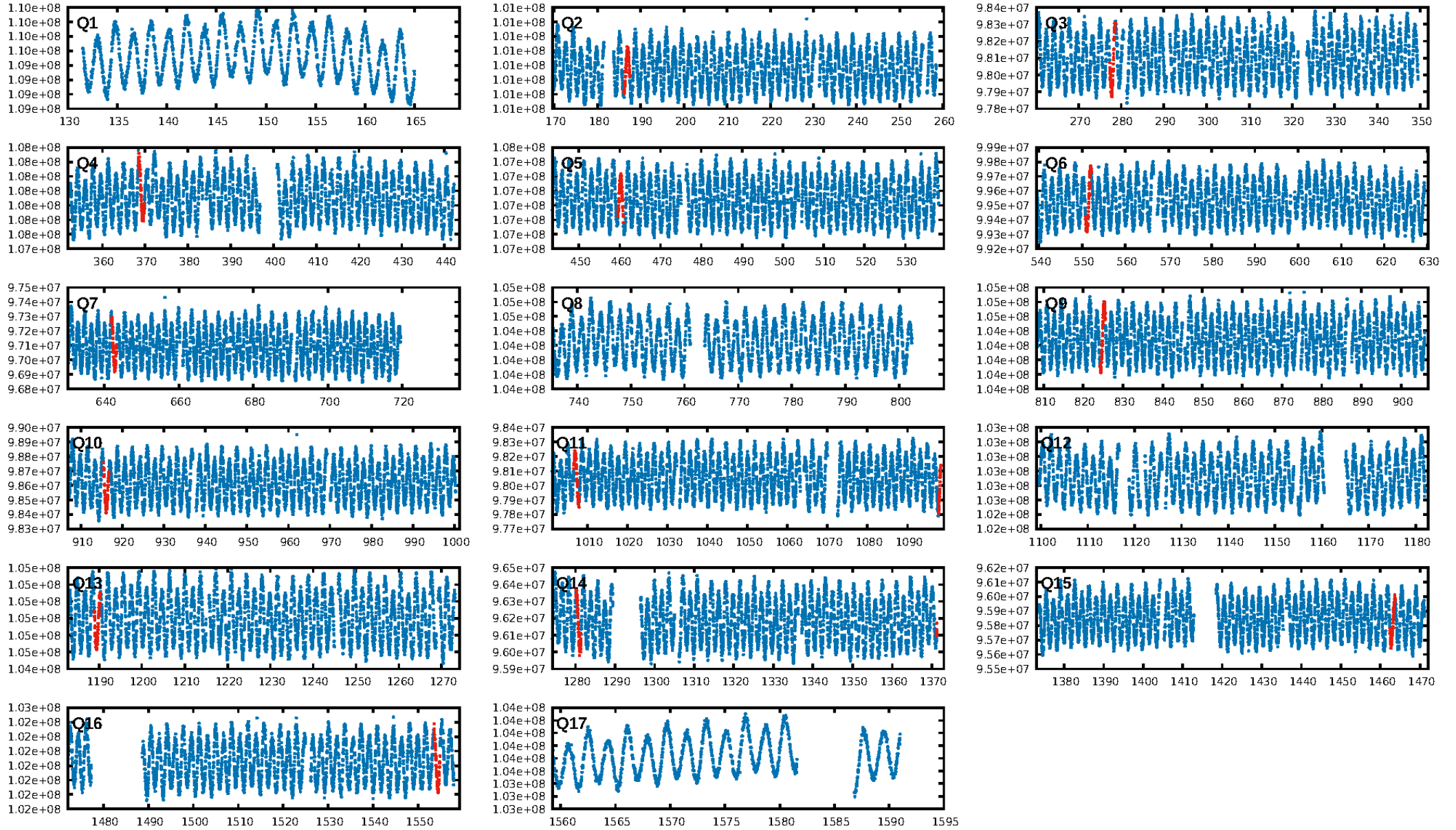
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [114.61σ]
LongPeriod-sig: 100.0% [113.11σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.99e-66
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -1.19
Centroid-sig: 32.1%
Centroid-so: 0.995 arcsec [1.00σ]
OotOffset-rm: 0.349 arcsec [1.50σ]
OotOffset-st: 4/3/2/3 [12]
KicOffset-rm: 0.466 arcsec [2.26σ]
KicOffset-st: 4/3/2/3 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 0.00 [0/12]

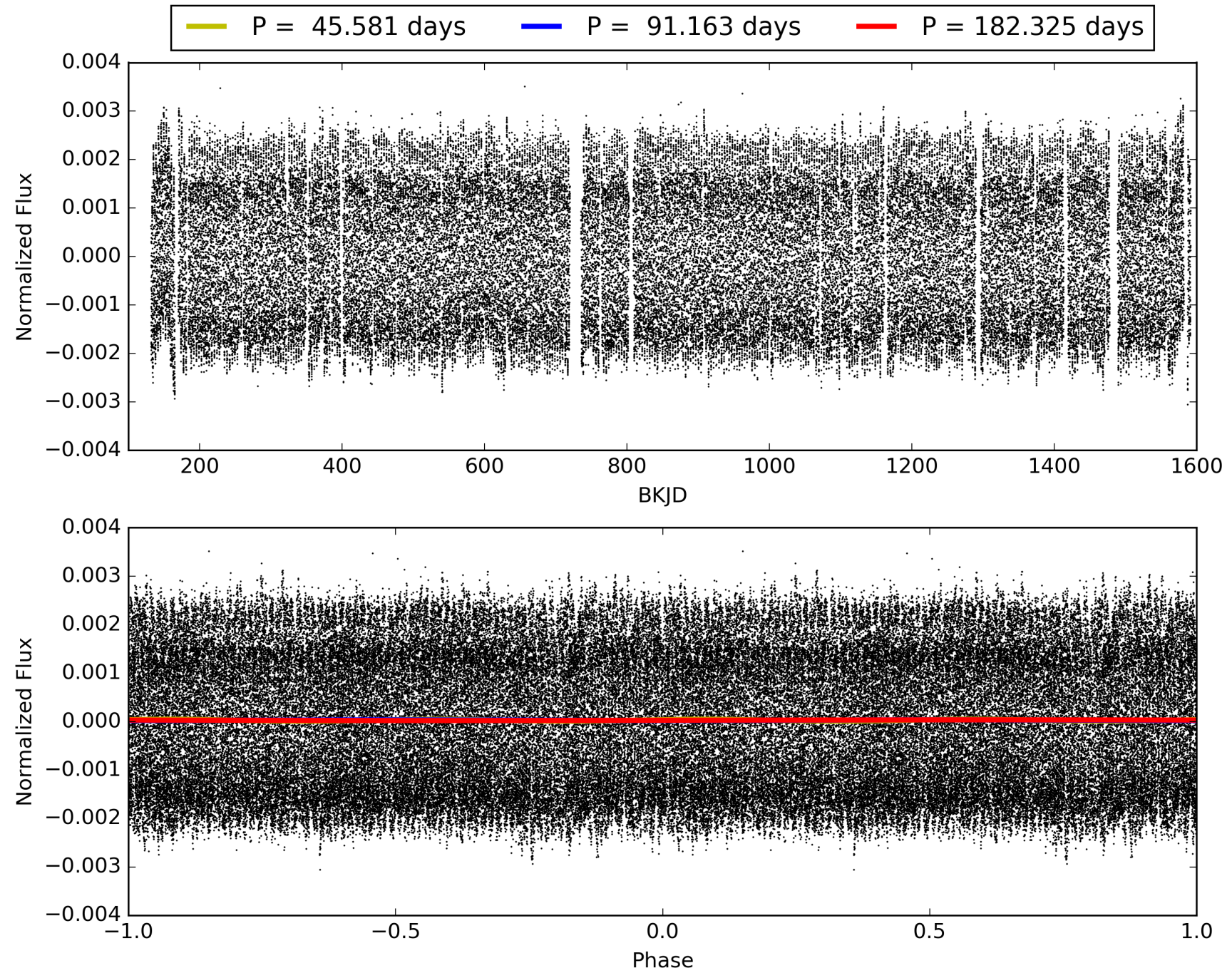
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:32:53 Z

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

TCE 005567711-03, PDC Light Curves

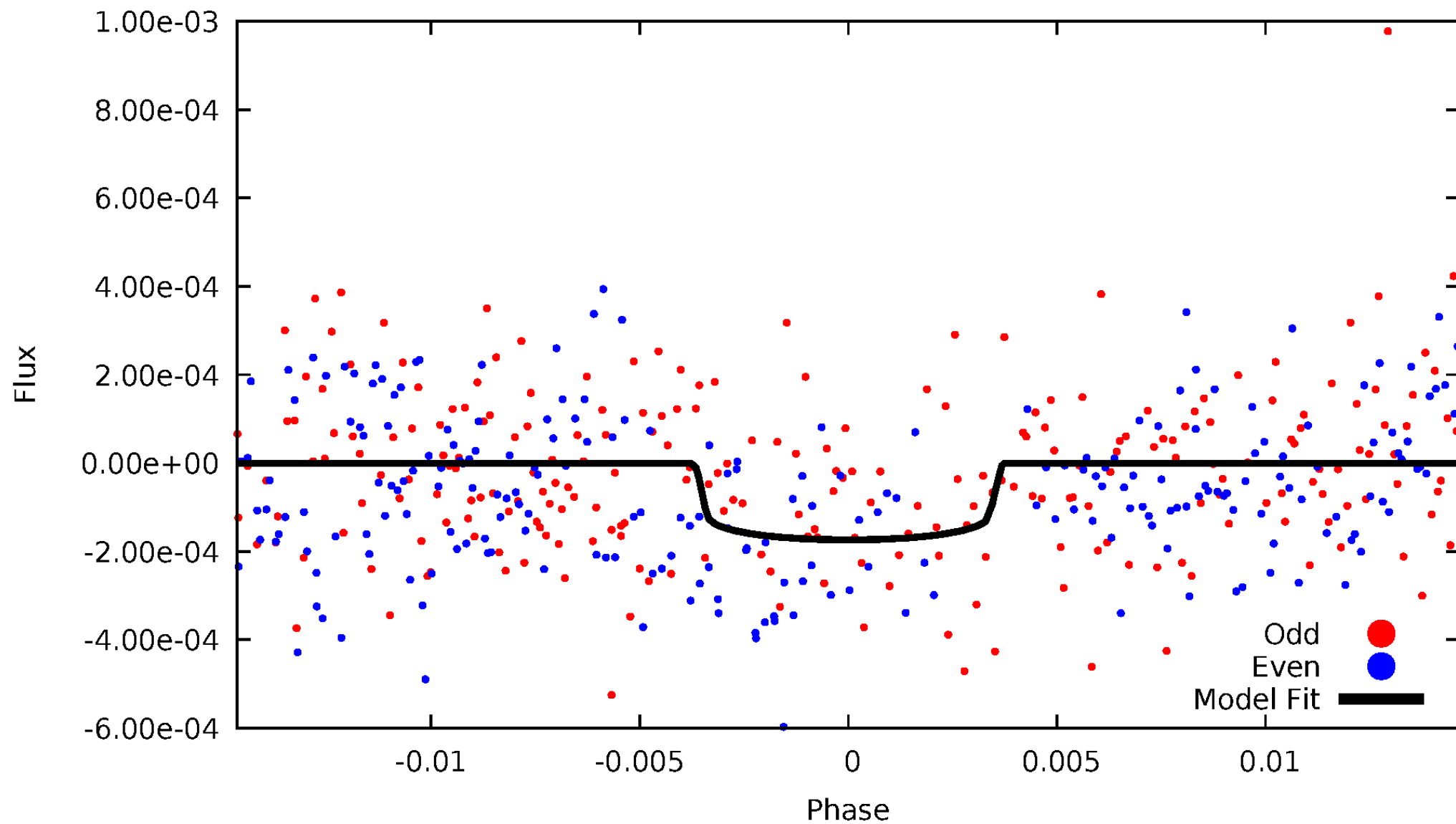


TCE 005567711-03



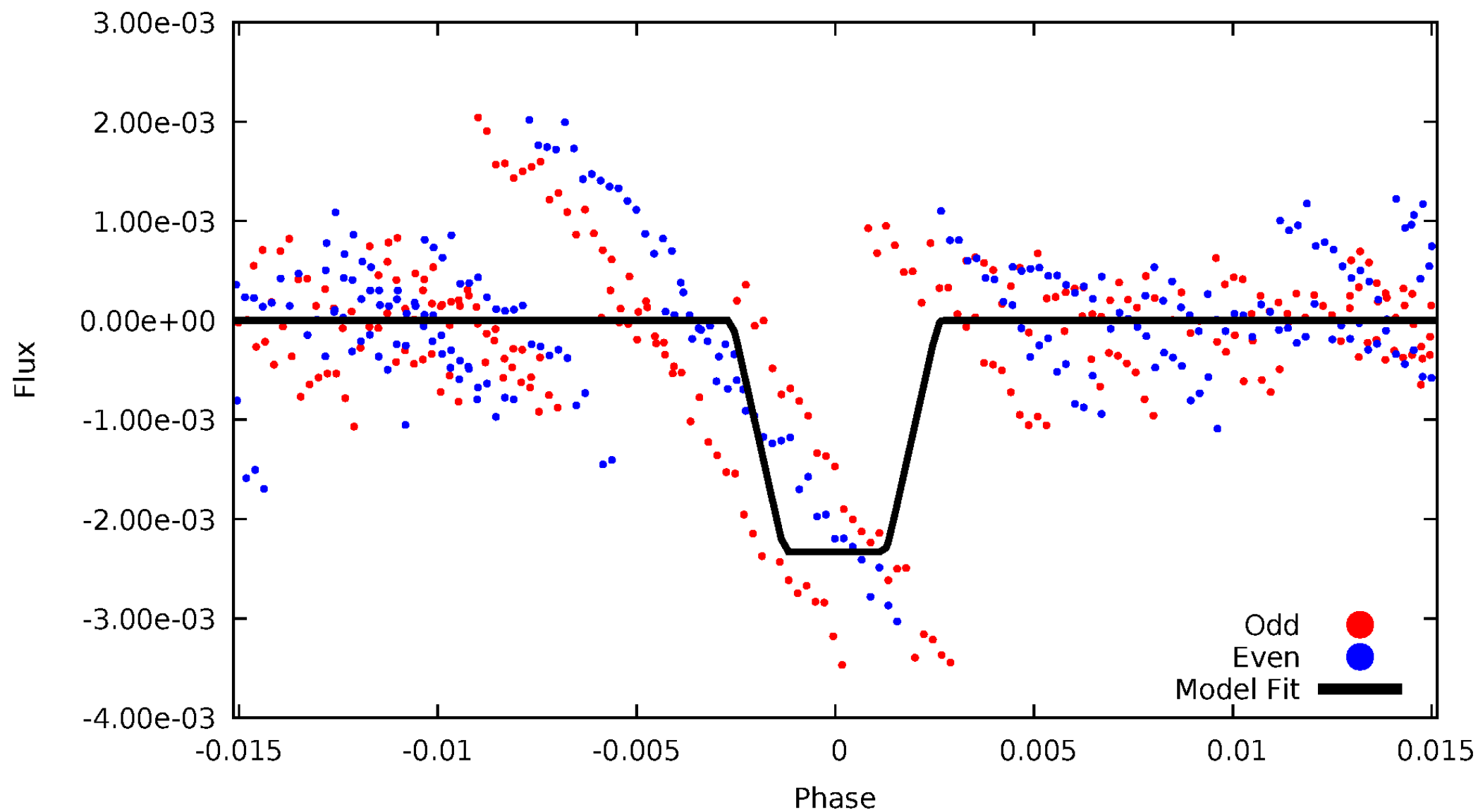
DV Odd/Even

TCE 005567711-03



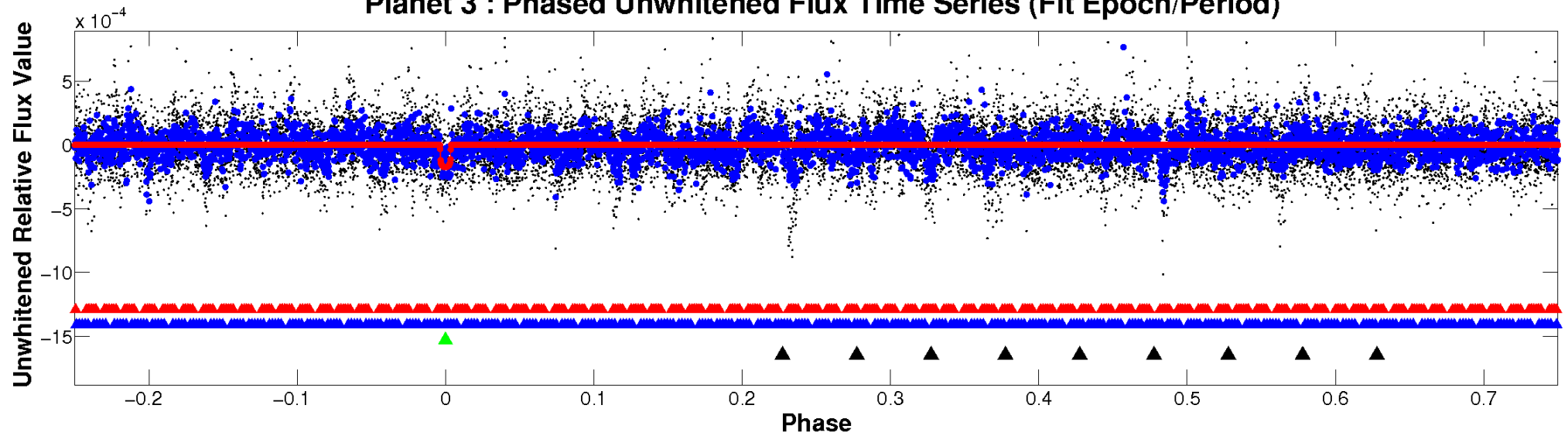
ALT Odd/Even

TCE 005567711-03

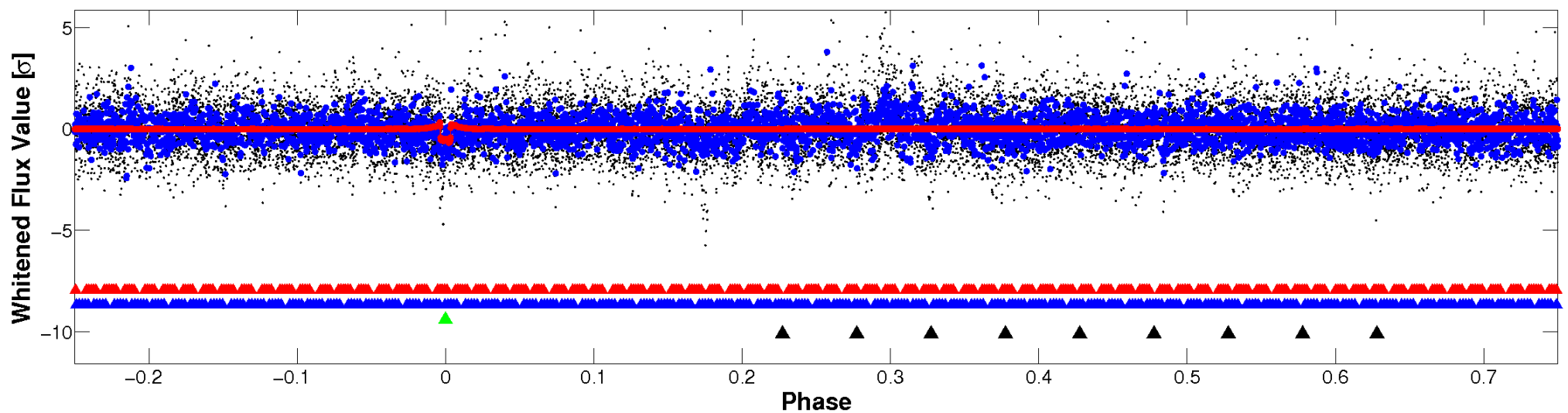


Non-Whitened Vs. Whitened Light Curve

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

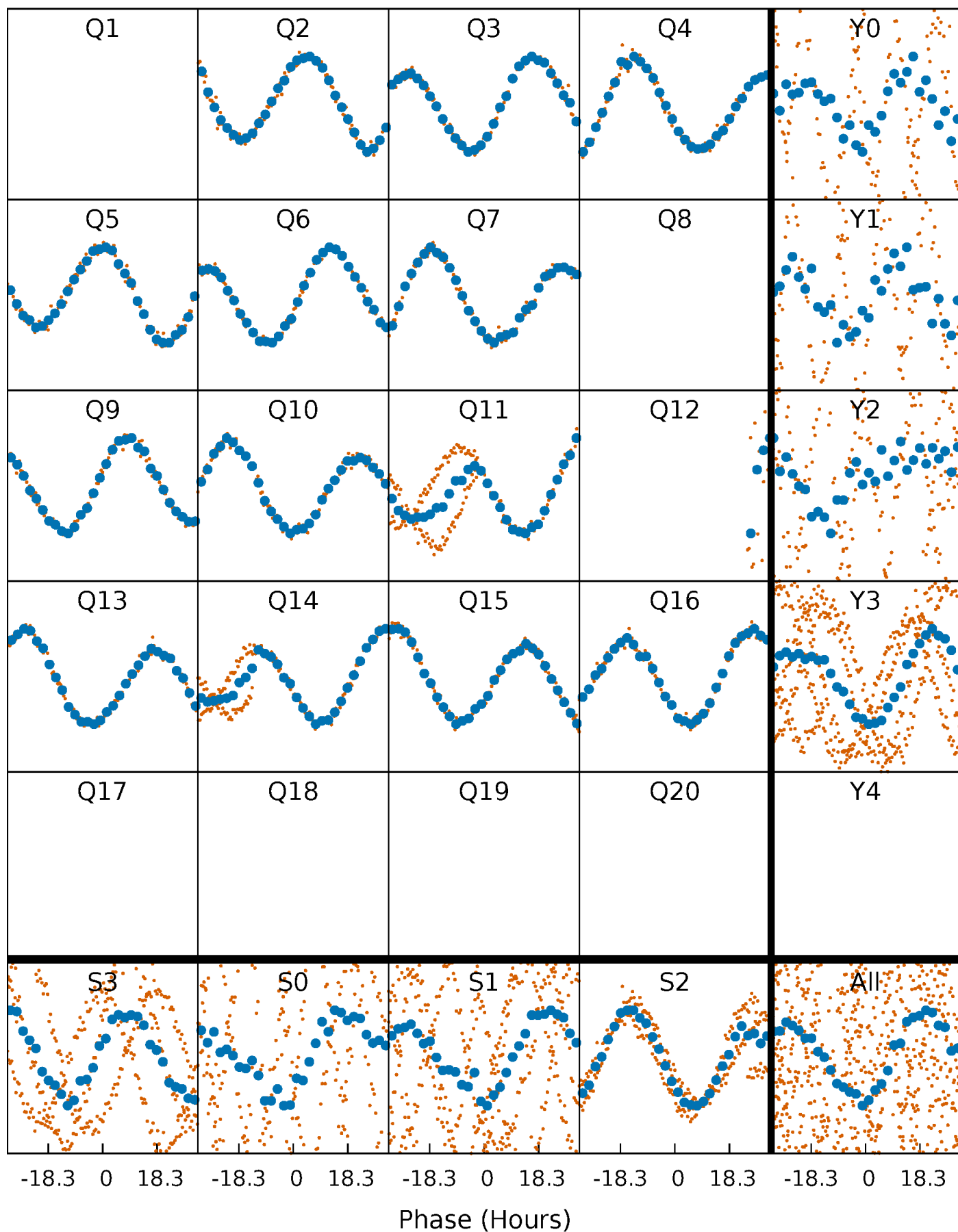


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



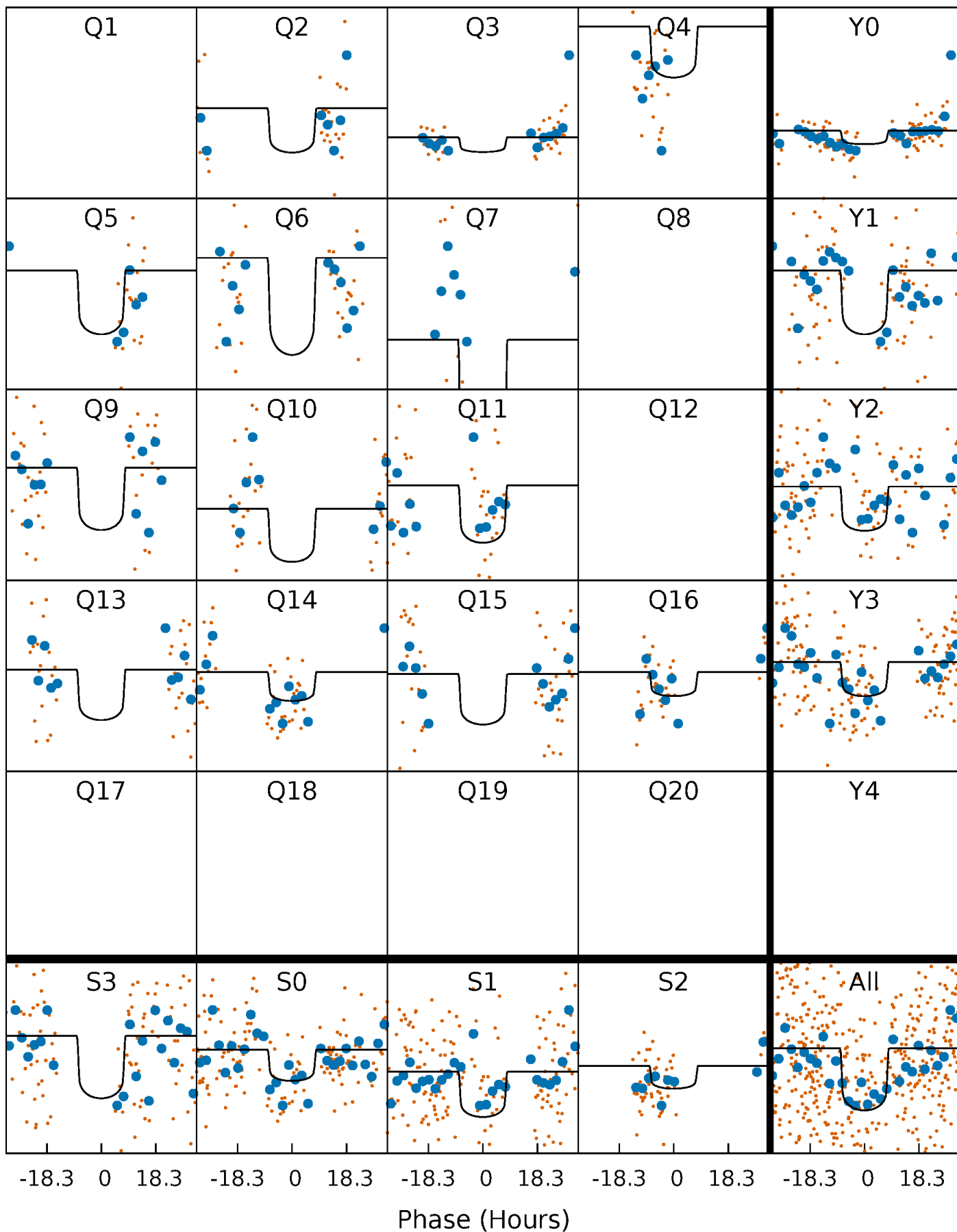
PDC Quarter-Phased Transit Curves

TCE 005567711-03 P= 91.162719 Days $T_0=186.784465$ (BKJD)



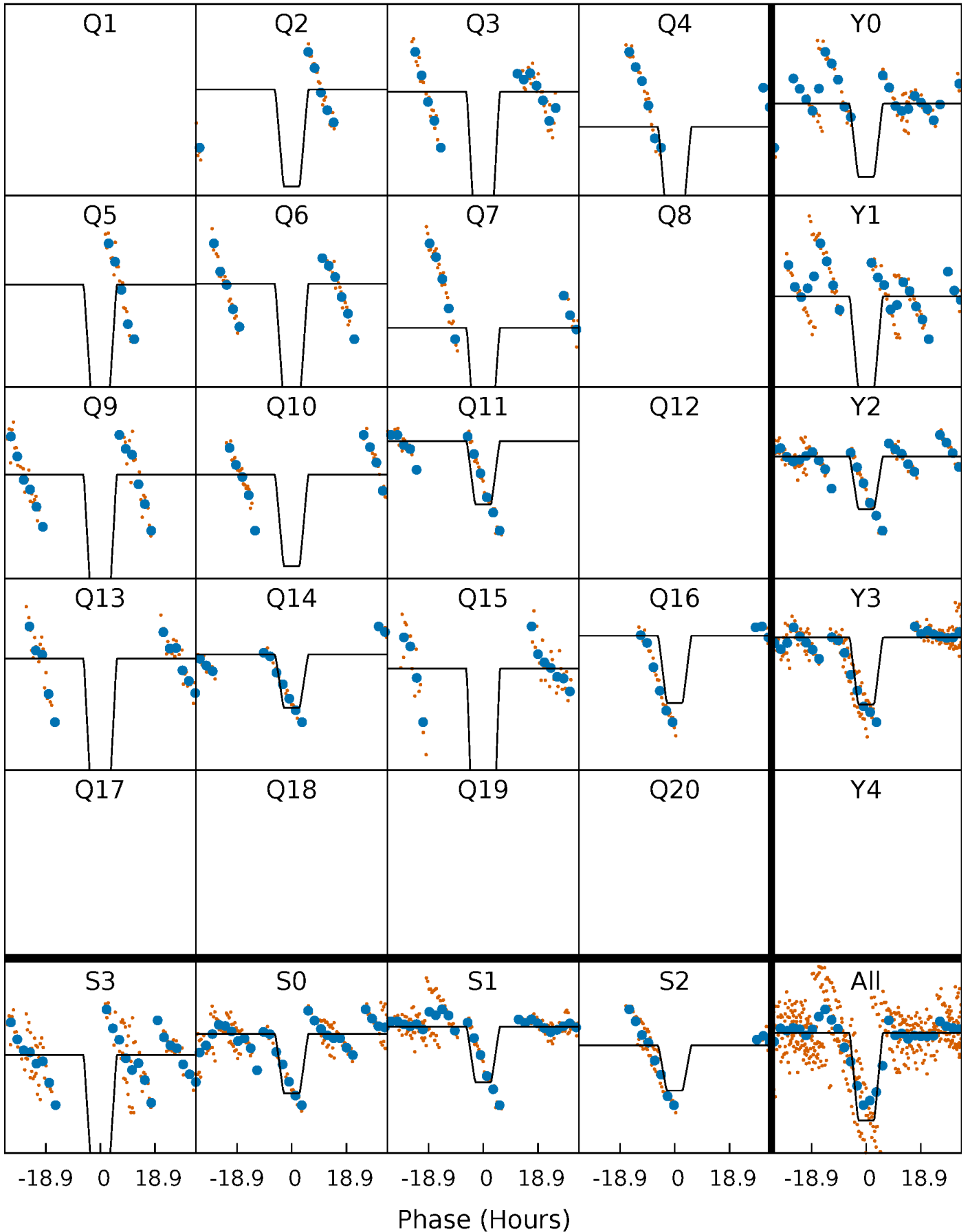
DV Quarter-Phased Transit Curves

TCE 005567711-03 P= 91.162719 Days $T_0=186.784465$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

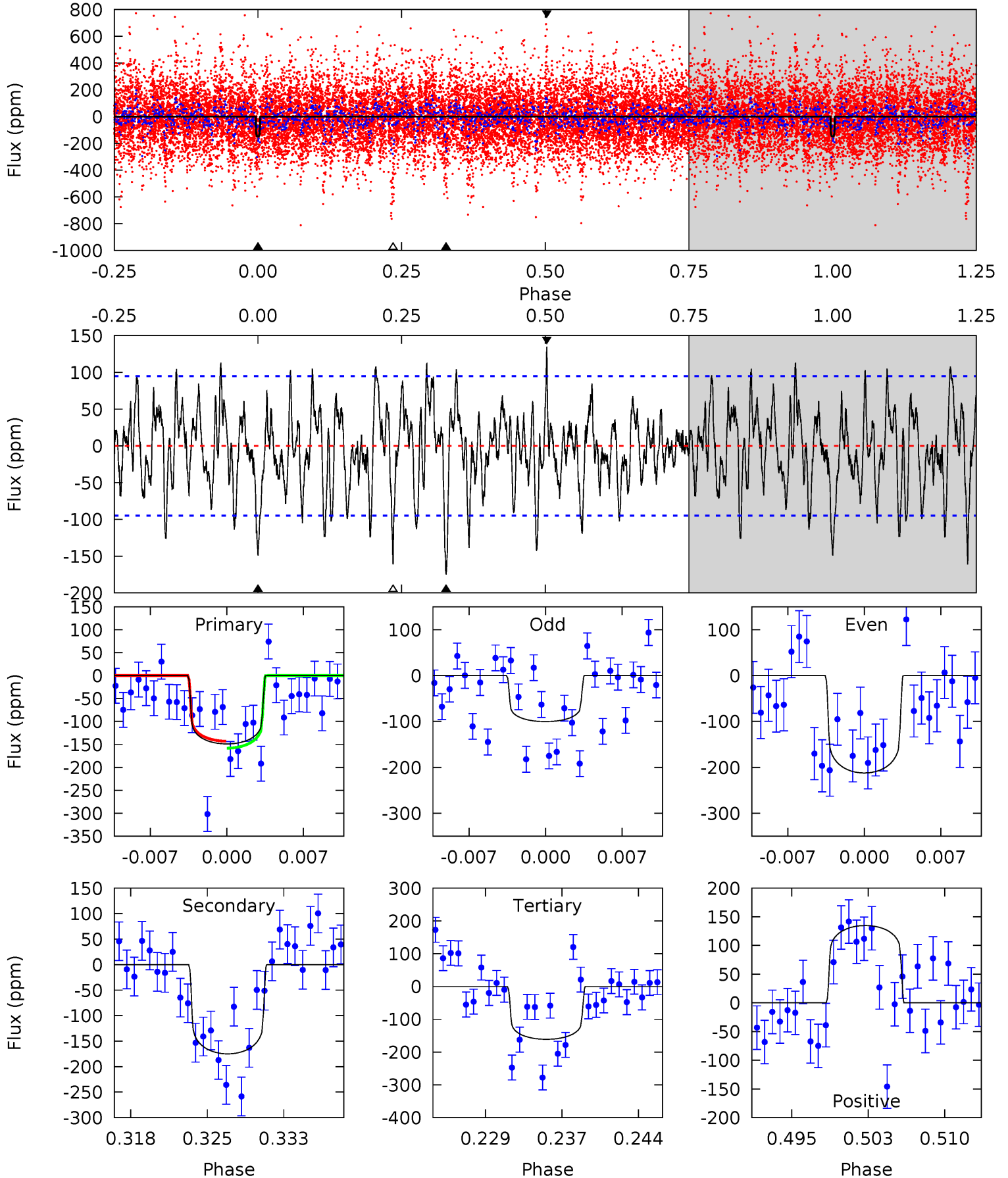
TCE 005567711-03 P= 91.154111 Days $T_0=186.932572$ (BKJD)



DV Model-Shift Uniqueness Test

005567711-03, P = 91.162719 Days, E = 95.621746 Days

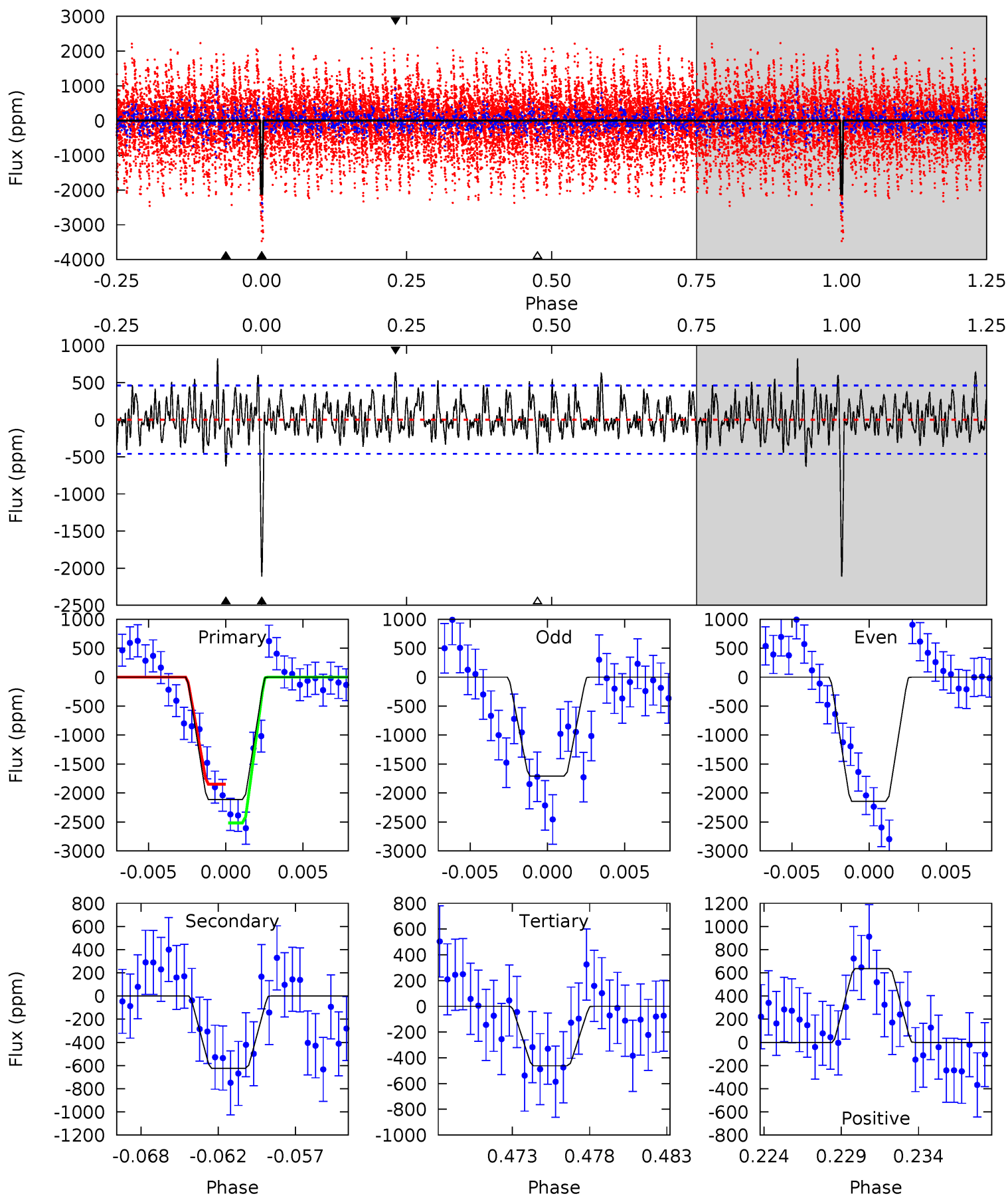
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.99	9.38	8.64	7.22	5.08	2.68	2.42	-0.65	0.76	0.74	2.16	2.99	0.97	0.44	0.40



Alt Model-Shift Uniqueness Test

005567711-03, P = 91.154111 Days, E = 95.778461 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.7	6.98	5.17	7.12	5.15	2.79	2.09	18.5	16.5	1.81	-0.14	2.35	0.89	0.28	3.71



Stellar Parameters For KIC 005567711

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8949^{+251}_{-430}	$3.932^{+0.258}_{-0.172}$	$0.070^{+0.250}_{-0.650}$	$2.727^{+0.867}_{-1.060}$	$2.320^{+0.361}_{-0.670}$	$0.161^{+0.303}_{-0.083}$
	+3%/-5%	+7%/-4%	+357%/-929%	+32%/-39%	+16%/-29%	+188%/-52%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005567711-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-175 ± 19	$3.83^{+1.21}_{-1.20}$	1231^{+105}_{-109}	8813^{+2089}_{-1180}	1808^{+1728}_{-767}
Alt.	-623 ± 89	$14.24^{+2.79}_{-2.93}$	1246^{+105}_{-118}	6064^{+357}_{-315}	462^{+246}_{-144}

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

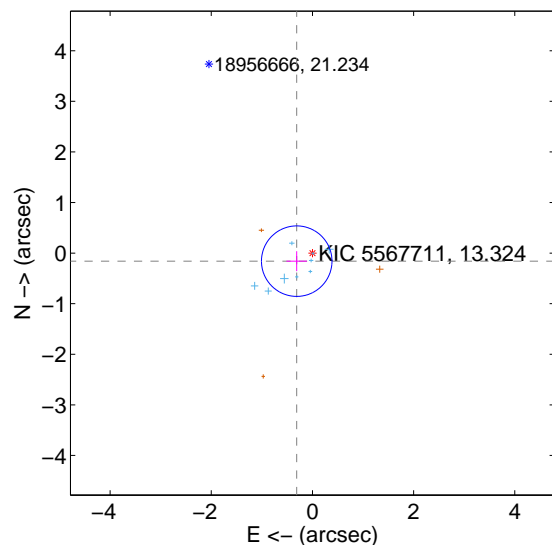
Supplemental centroid analysis for 005567711-03. Kepler magnitude: 13.32. Transit SNR 5.35

There are 9 quarters with good PRF difference image offsets

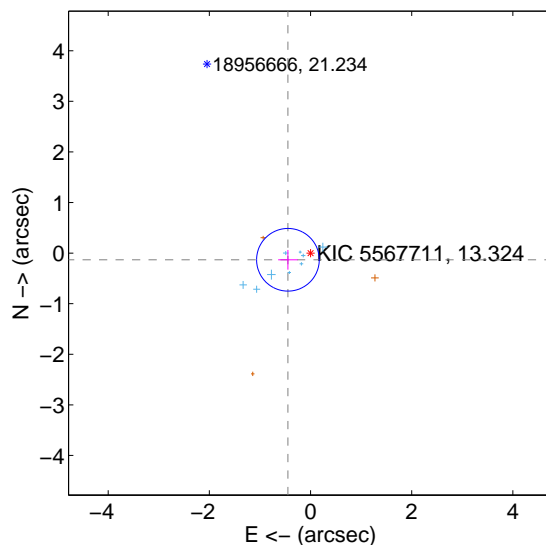
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.349 ± 0.232	1.50	0.311 ± 0.203	-0.159 ± 0.197
PRF-fit source offset from KIC position	0.466 ± 0.206	2.26	0.447 ± 0.192	-0.132 ± 0.194
photometric centroid source offset	0.99 ± 1.00	1.00	0.78 ± 1.09	0.61 ± 0.82

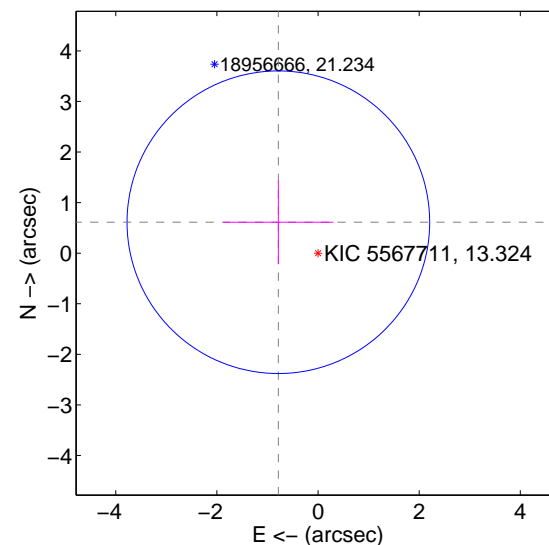
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

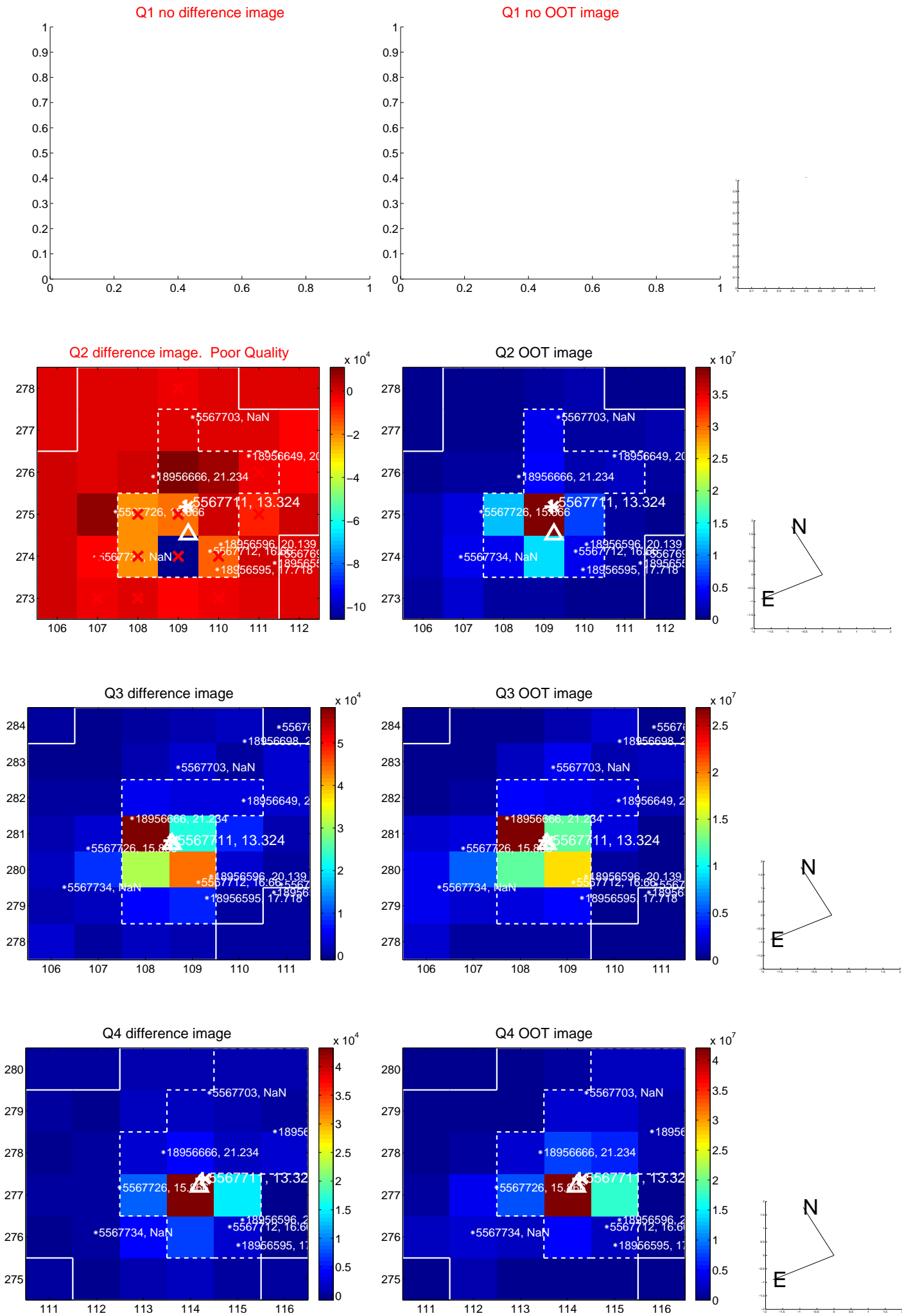


offset from photometric centroids

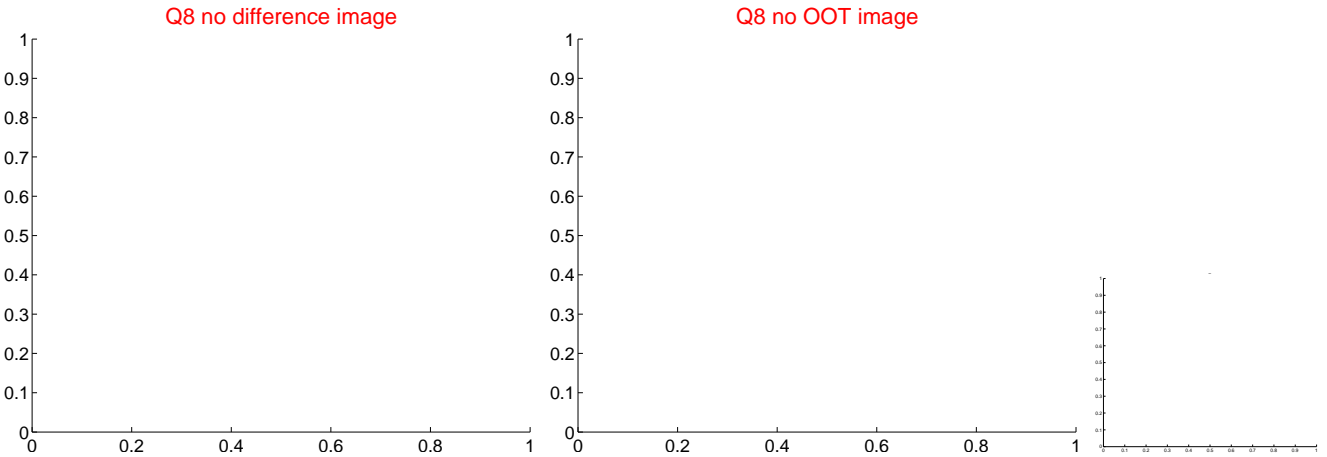
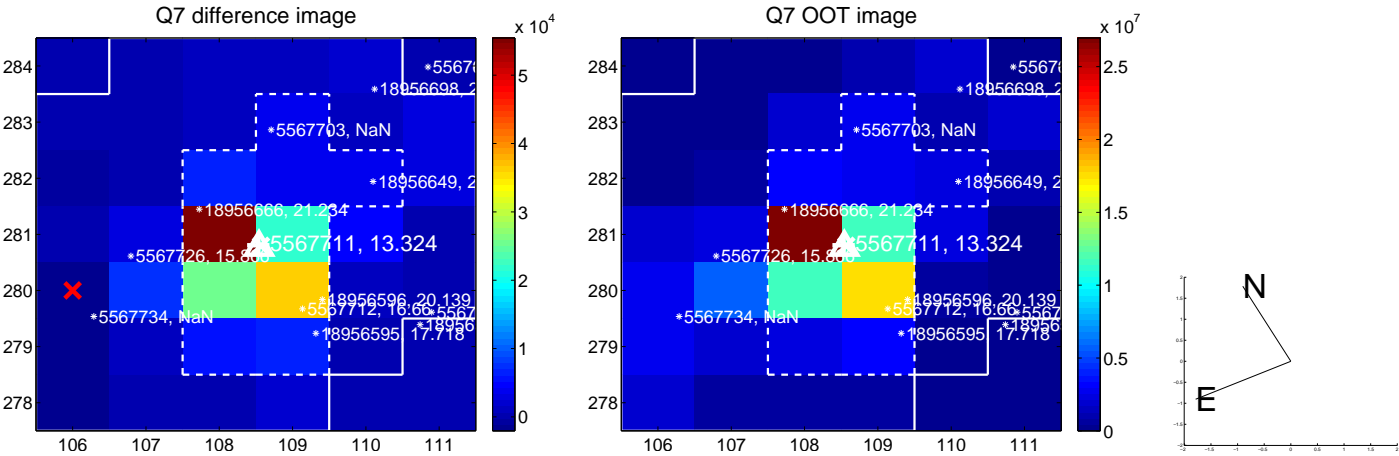
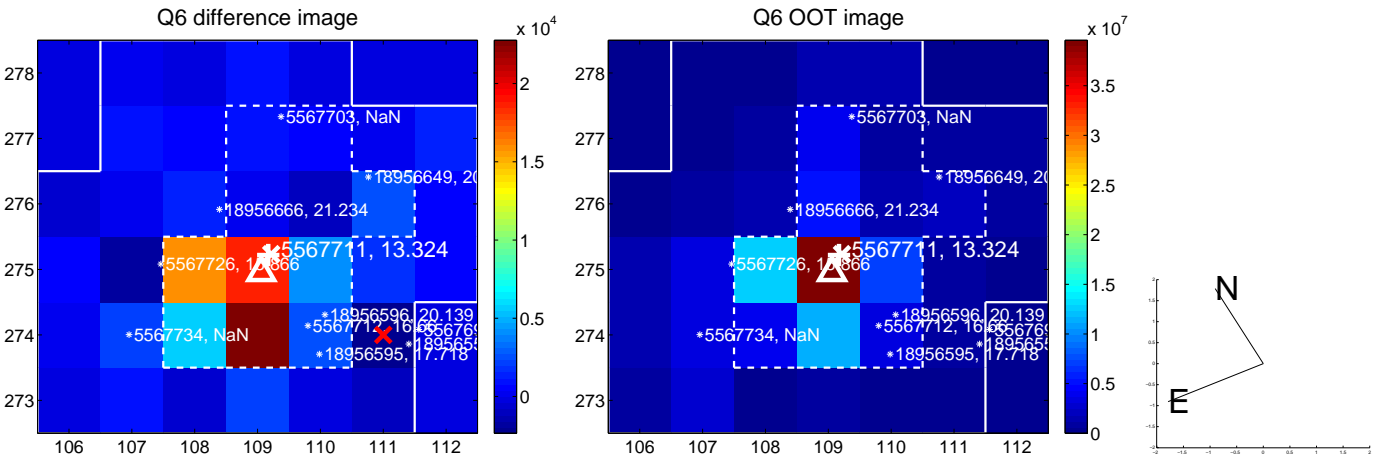
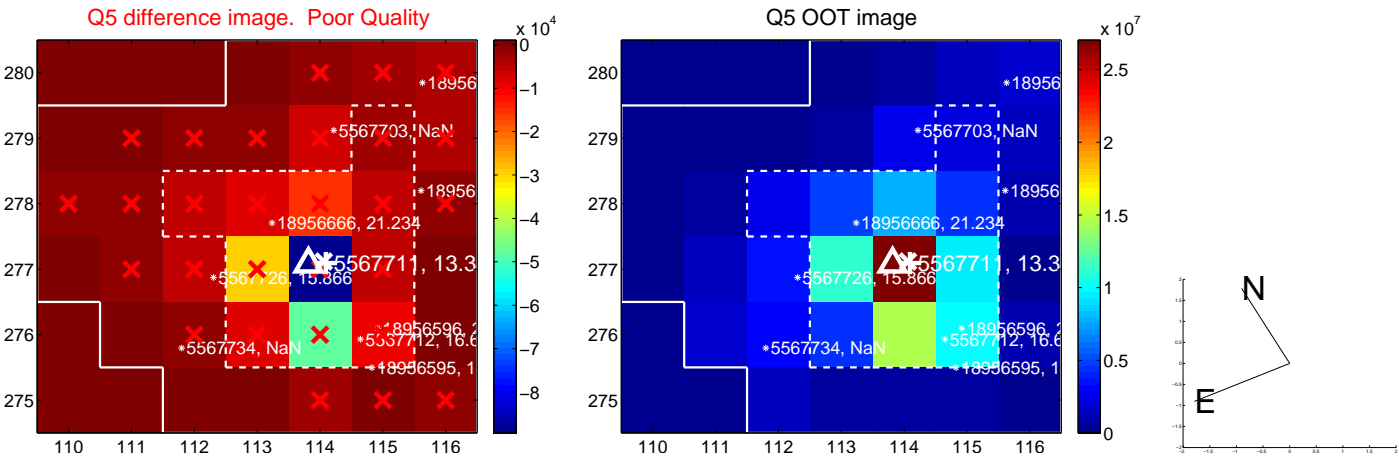


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

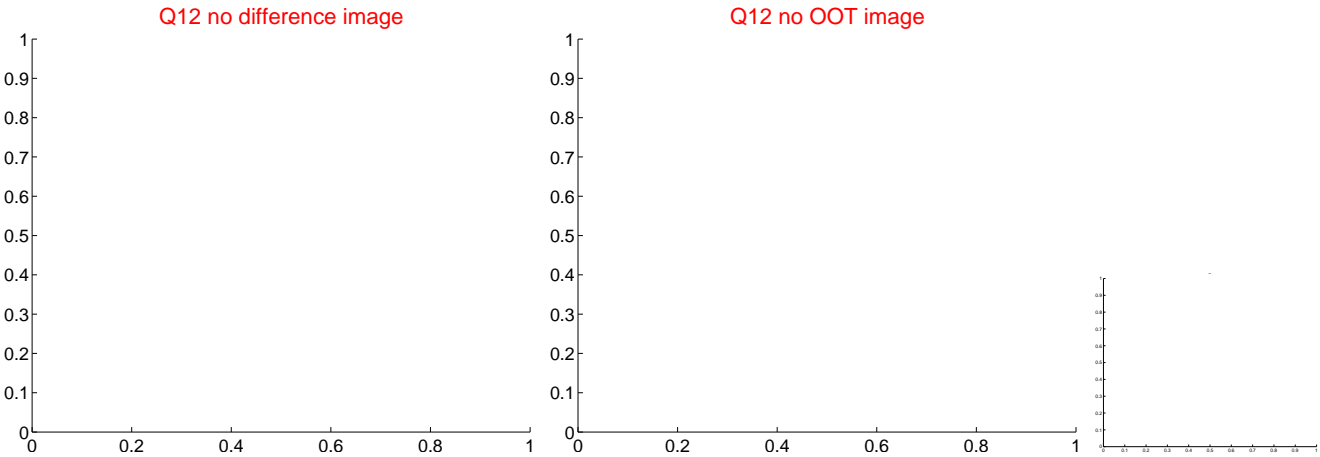
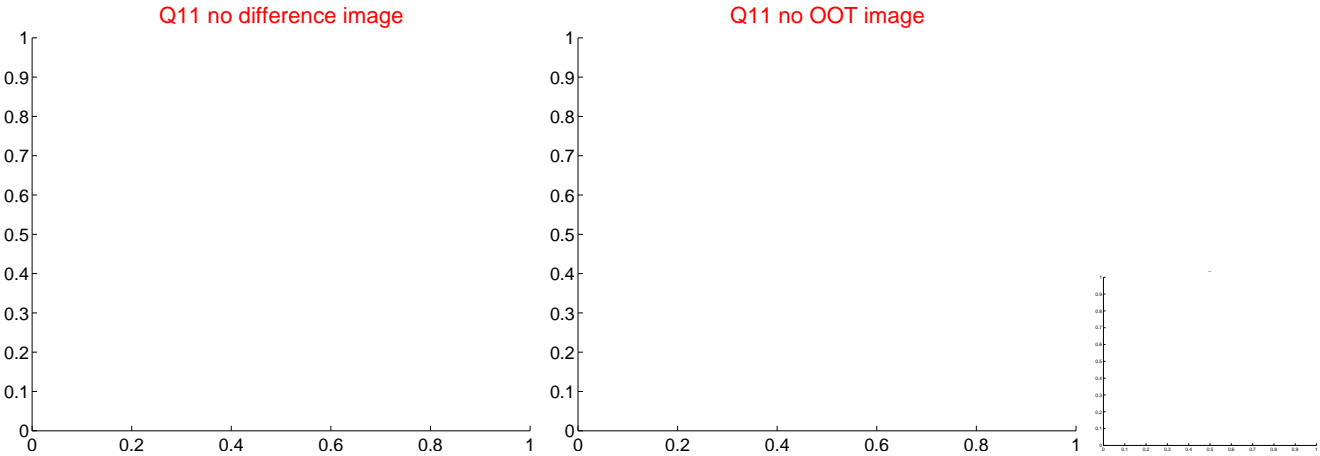
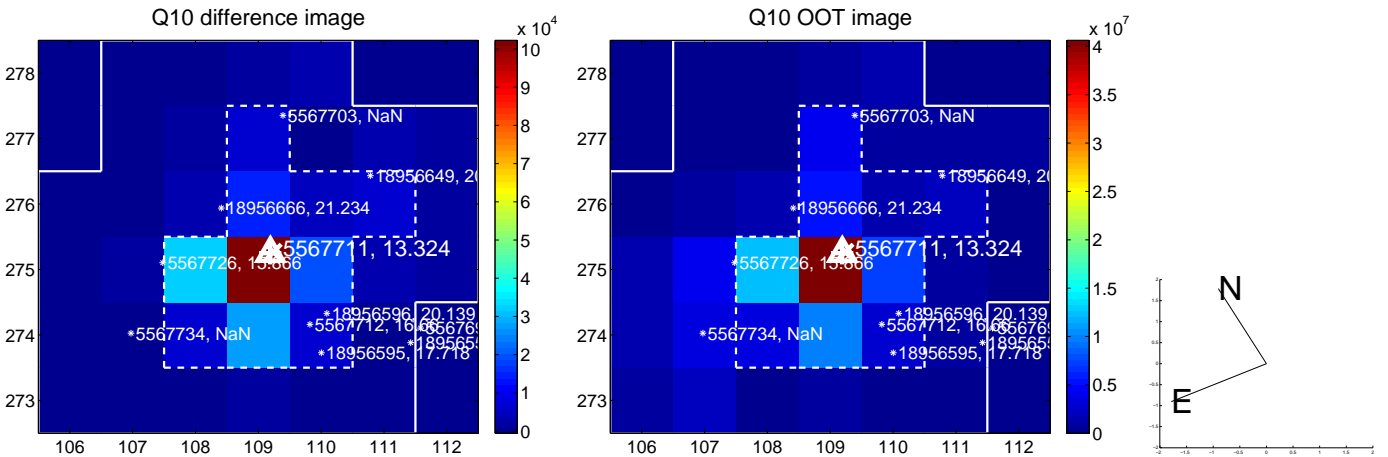
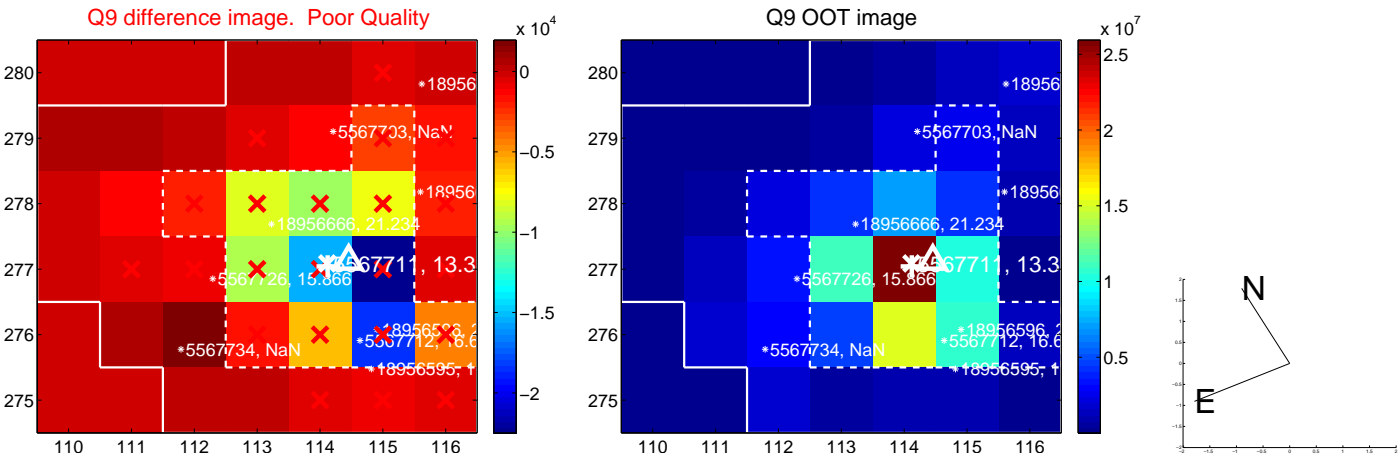
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



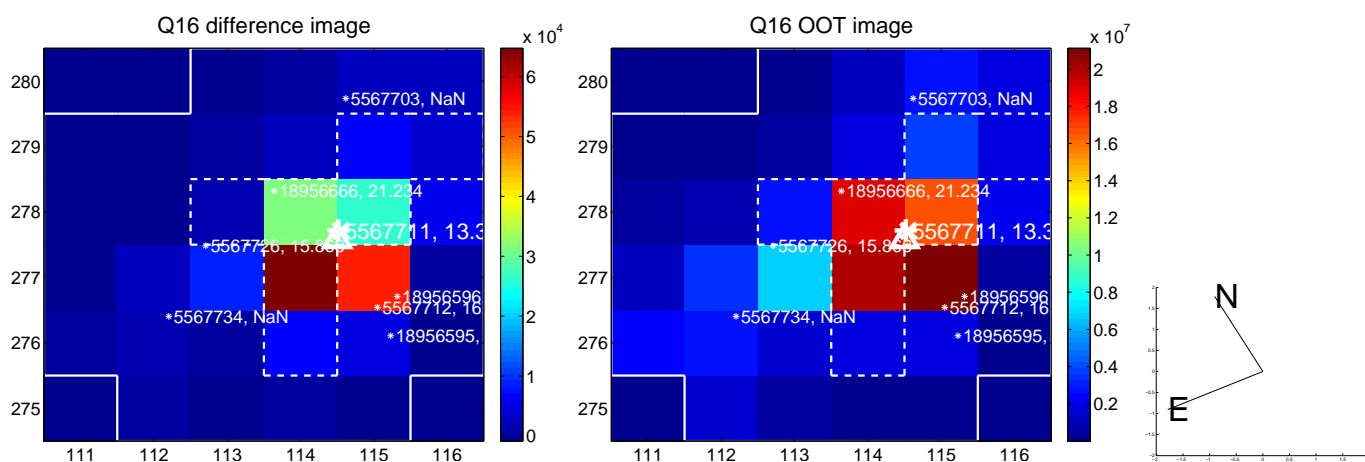
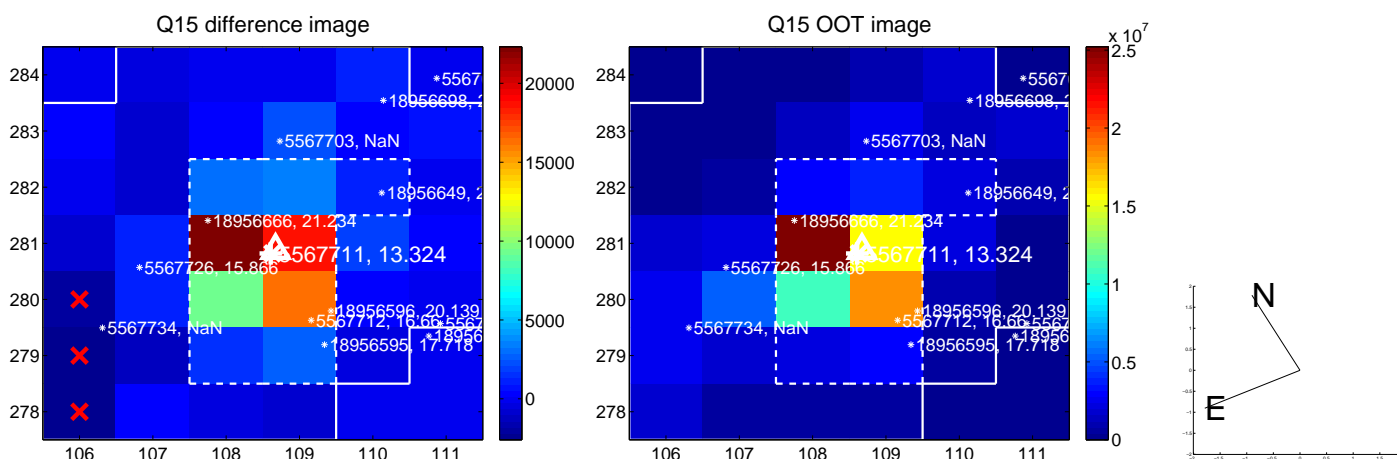
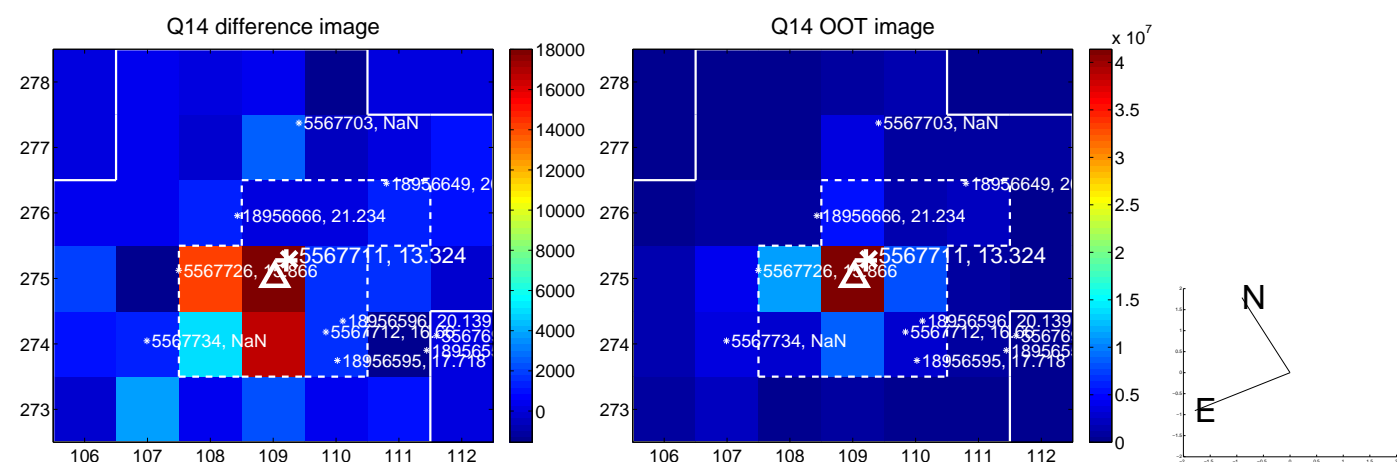
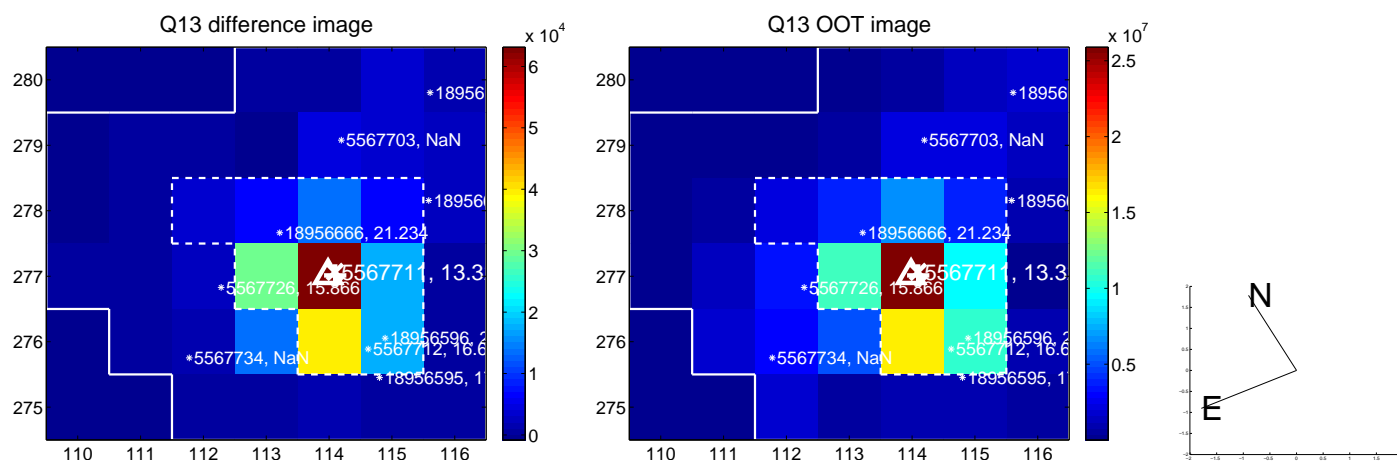
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



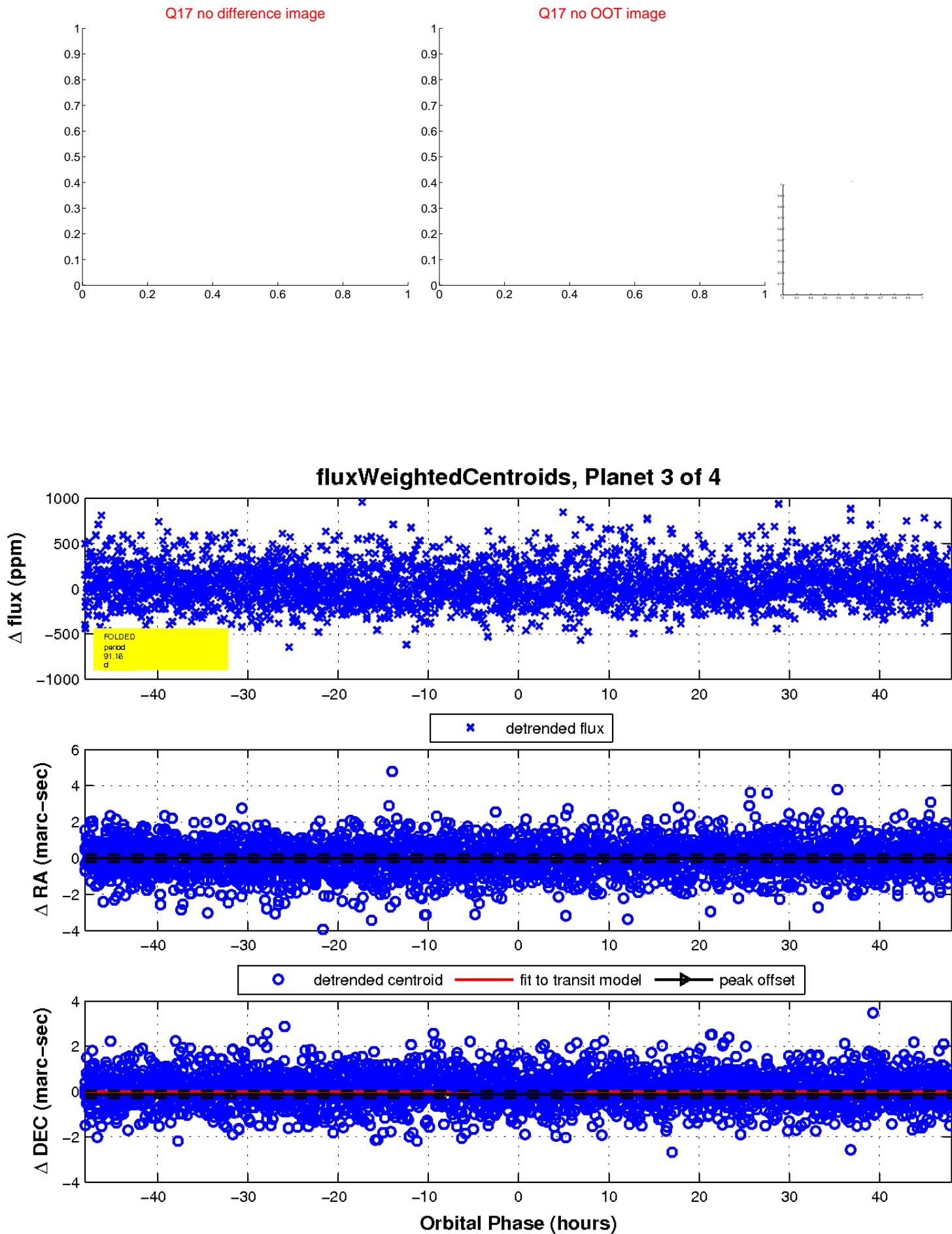
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



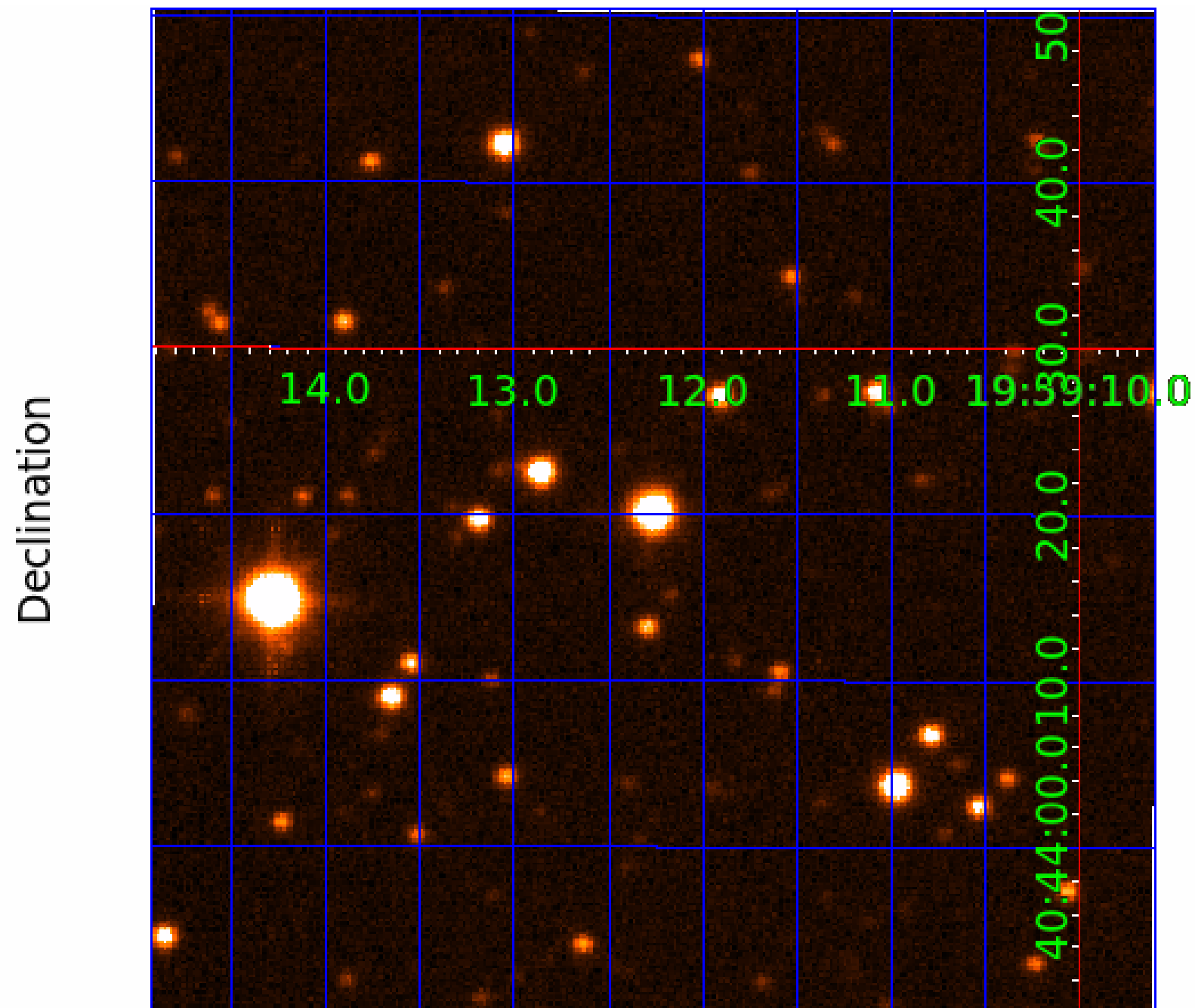
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005567711

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})
005567711-01	OBS	No	3.596641	134.171584	32.1	8.922	10.9	10.6	2.73	8949	1.60	11550.12
005567711-02	OBS	No	3.596148	132.454343	181.2	12.000	8.0	-1.0	2.73	8949	3.74	11552.23
005567711-03	OBS	No	91.162719	186.784465	173.7	16.020	18.7	5.4	2.73	8949	3.97	155.13
005567711-04	OBS	No	177.758350	152.874281	449.6	9.000	11.7	-1.0	2.73	8949	5.89	63.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005567711-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
005567711-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_NOFITS
005567711-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
005567711-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

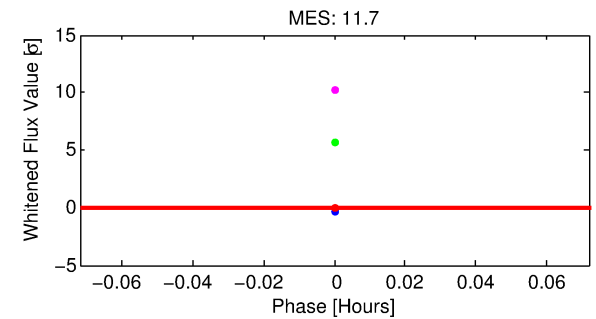
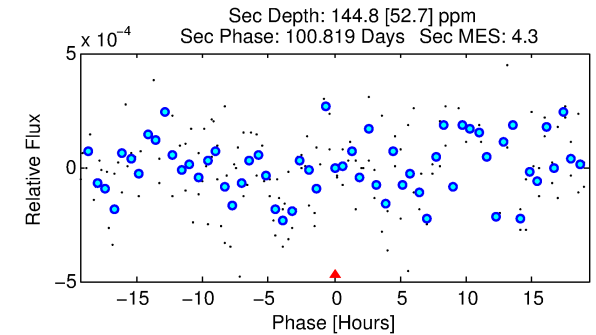
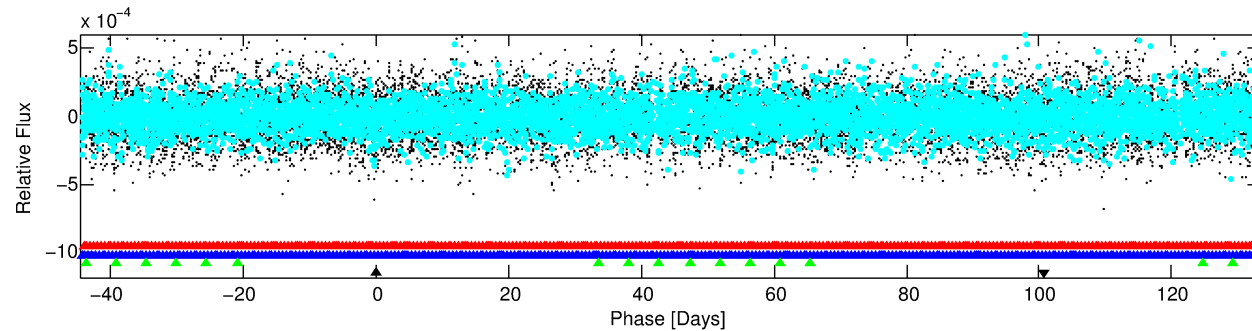
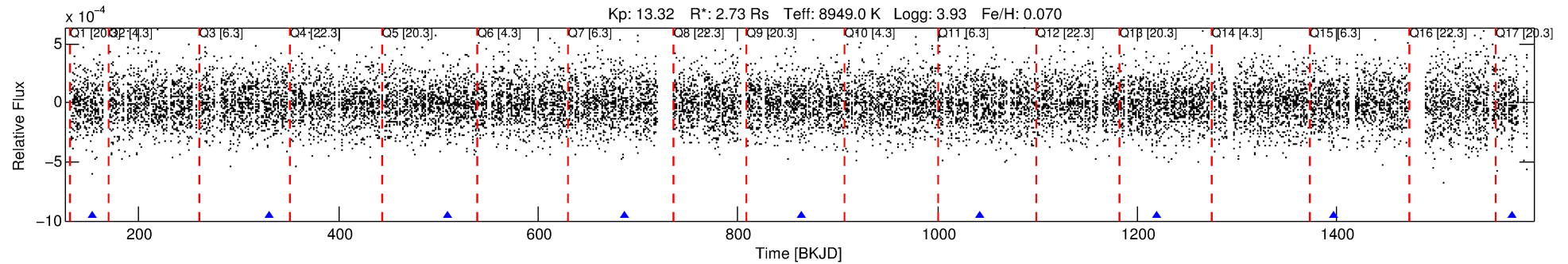
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005567711-04

No Significant Match Found

DV One-Page Summary

KIC: 5567711 Candidate: 4 of 4 Period: 177.758 d



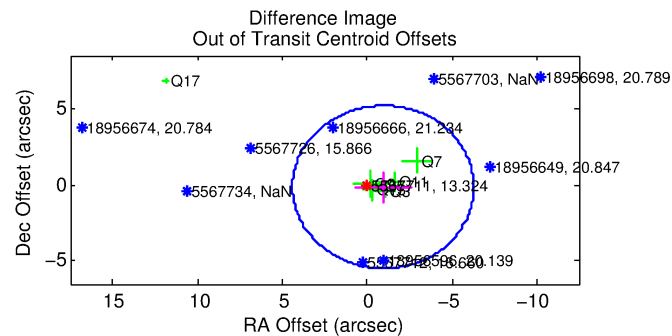
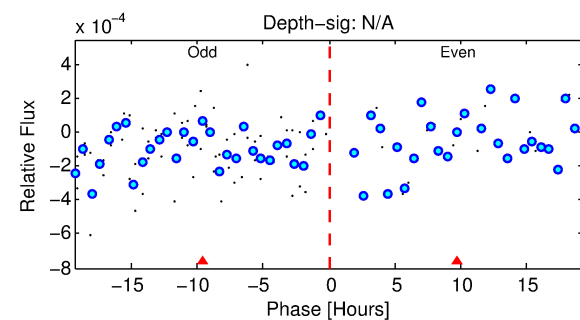
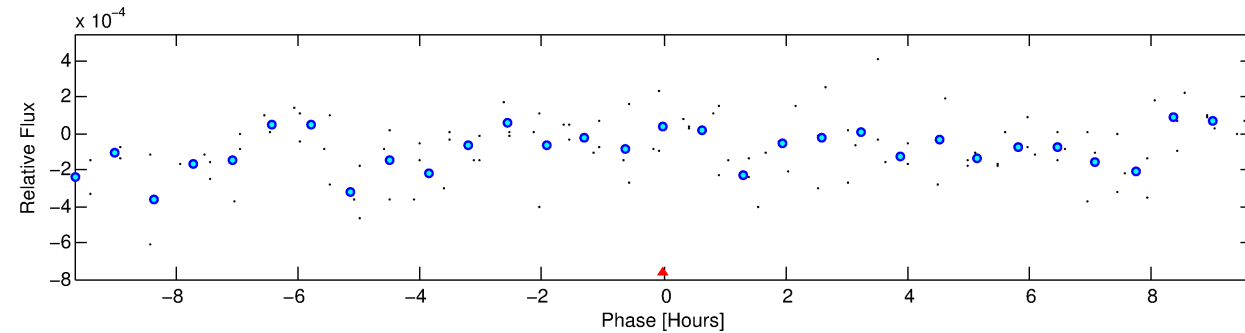
TPS TCE Results:

Period = 177.75835 d
Epoch = 152.8743 BKJD

DV fit results are unavailable

DV Diagnostic Results:

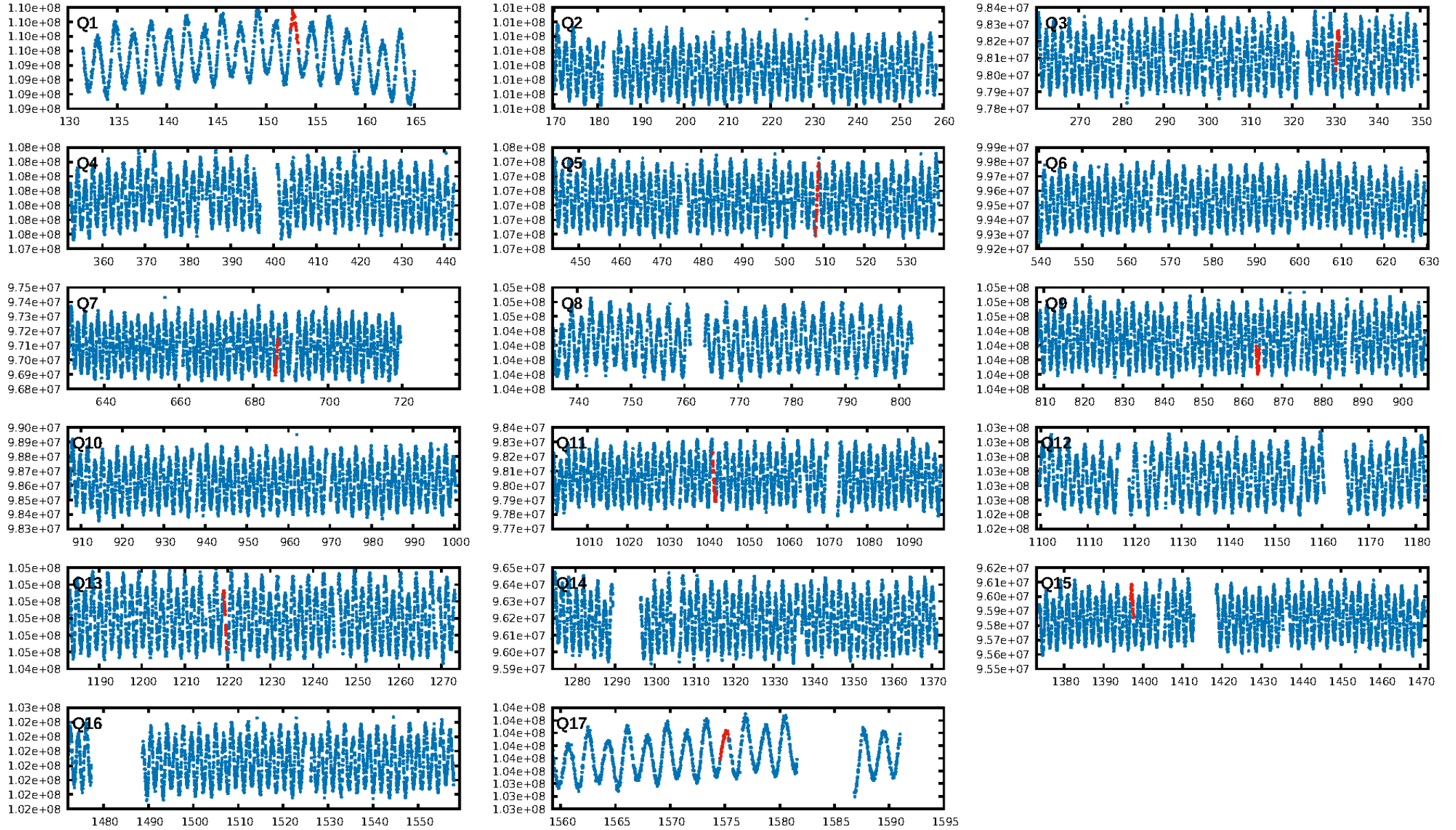
ShortPeriod-sig: 100.0% [113.11σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.59e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.449
Centroid-sig: 0.5%
Centroid-so: 1.138 arcsec [2.36σ]
OotOffset-rm: 0.963 arcsec [0.54σ]
KicOffset-rm: 0.901 arcsec [0.46σ]
OotOffset-st: 0/3/0/4 [7]
KicOffset-st: 0/3/0/4 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 0.56 [5/9]



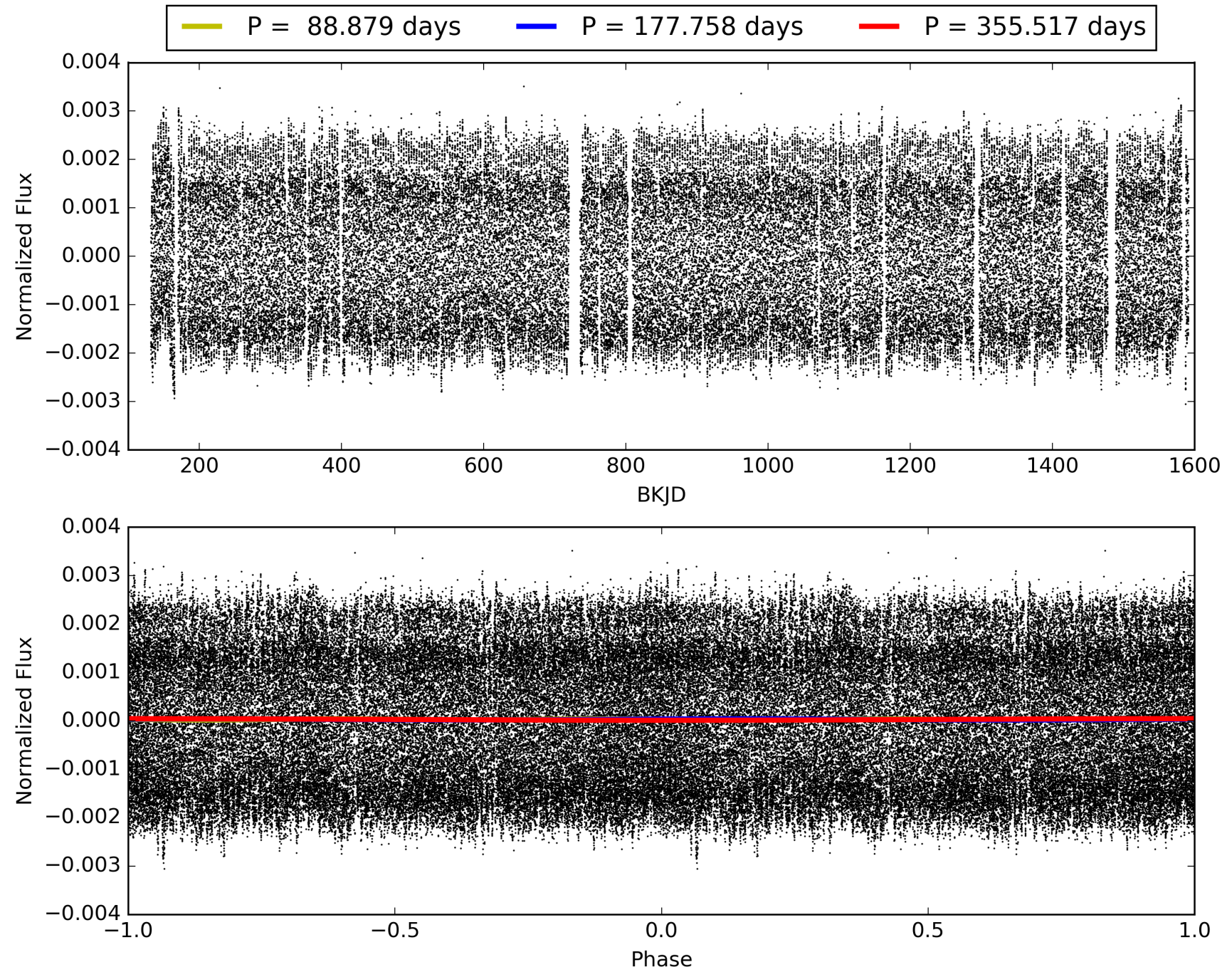
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:32:58 Z

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

TCE 005567711-04, PDC Light Curves

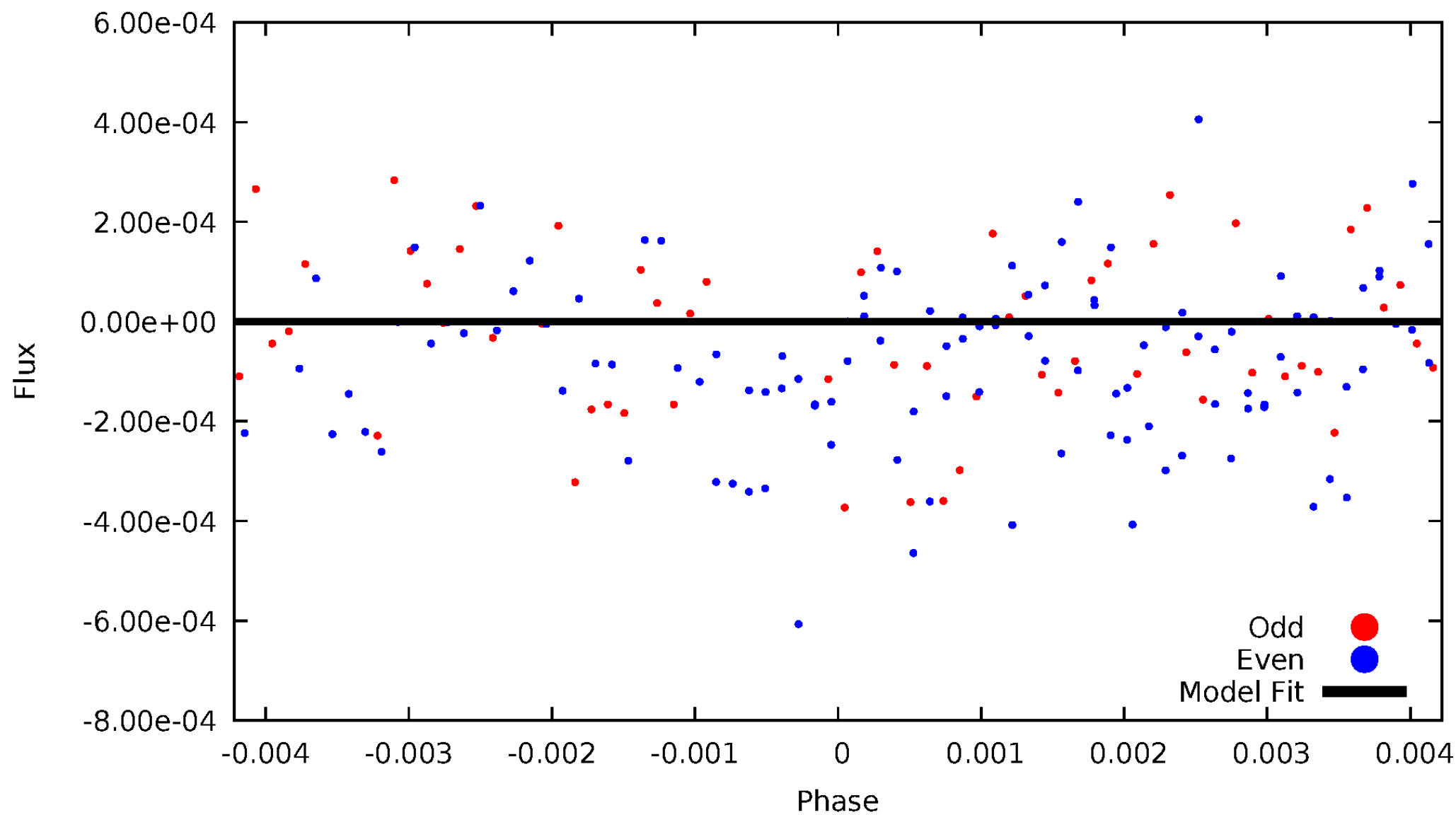


TCE 005567711-04



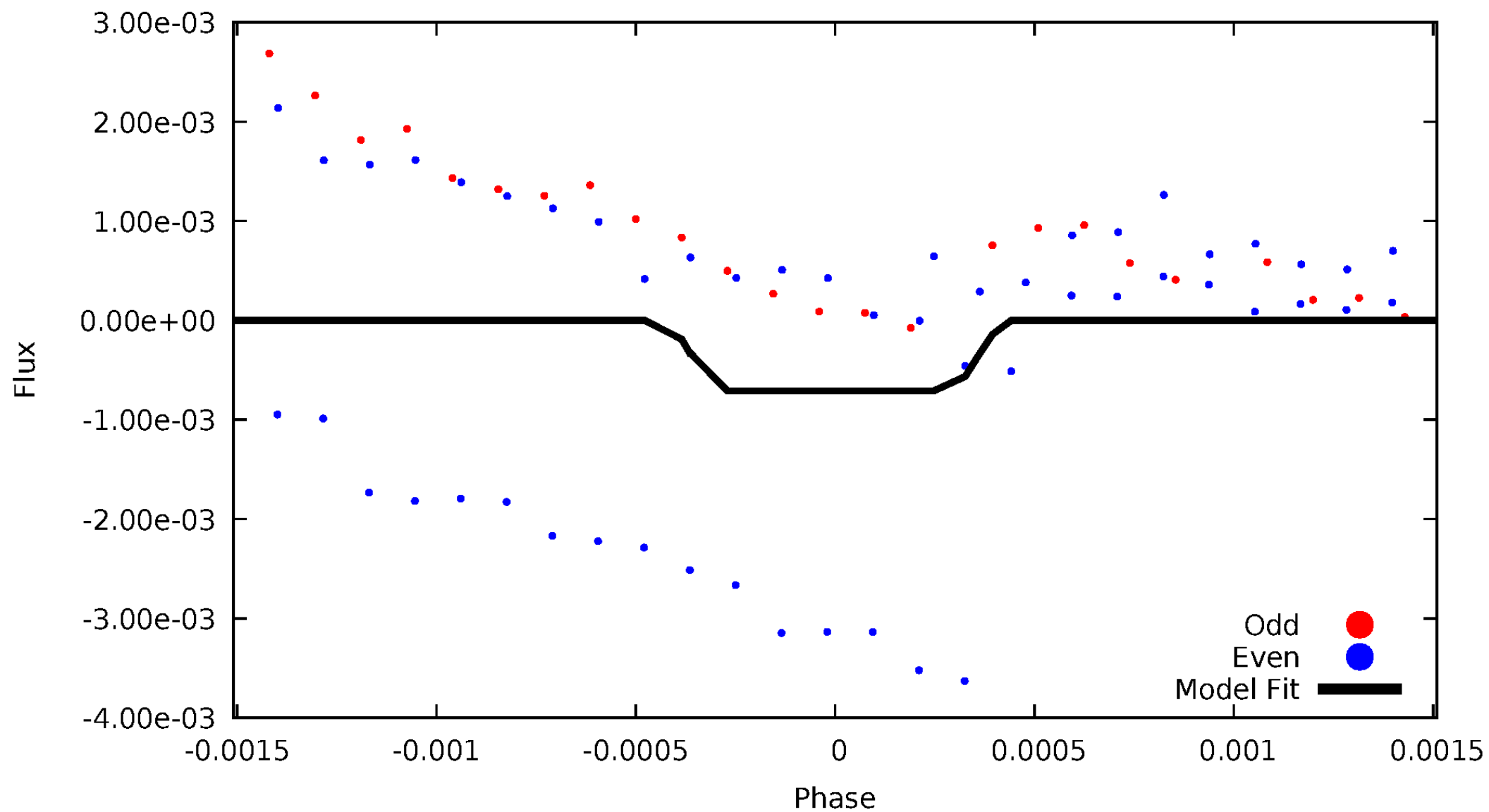
DV Odd/Even

TCE 005567711-04

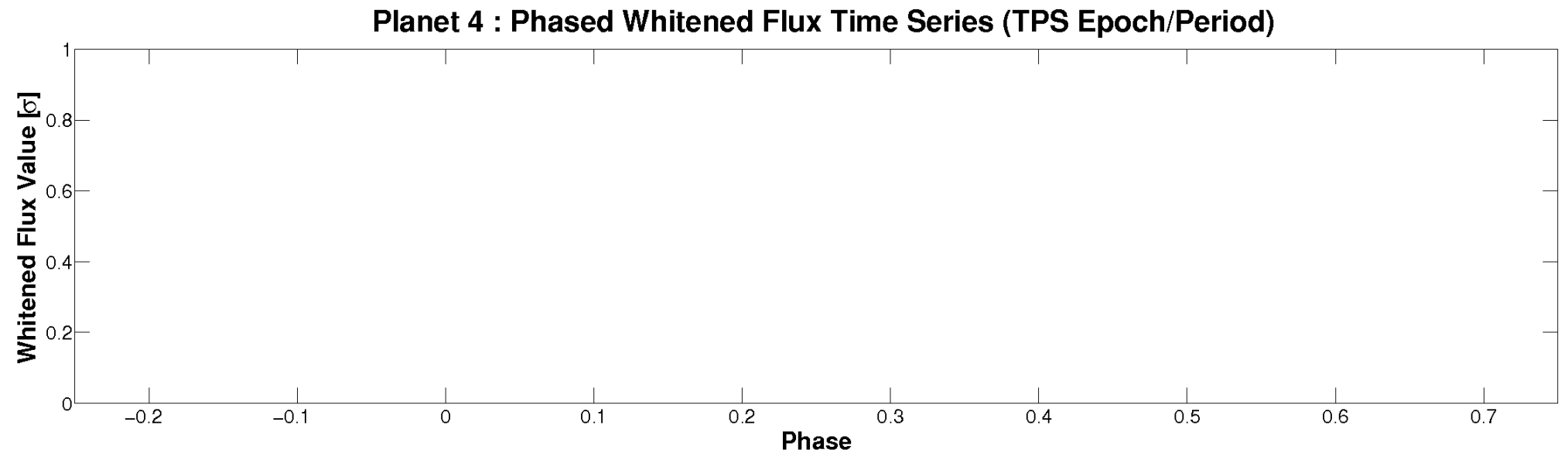
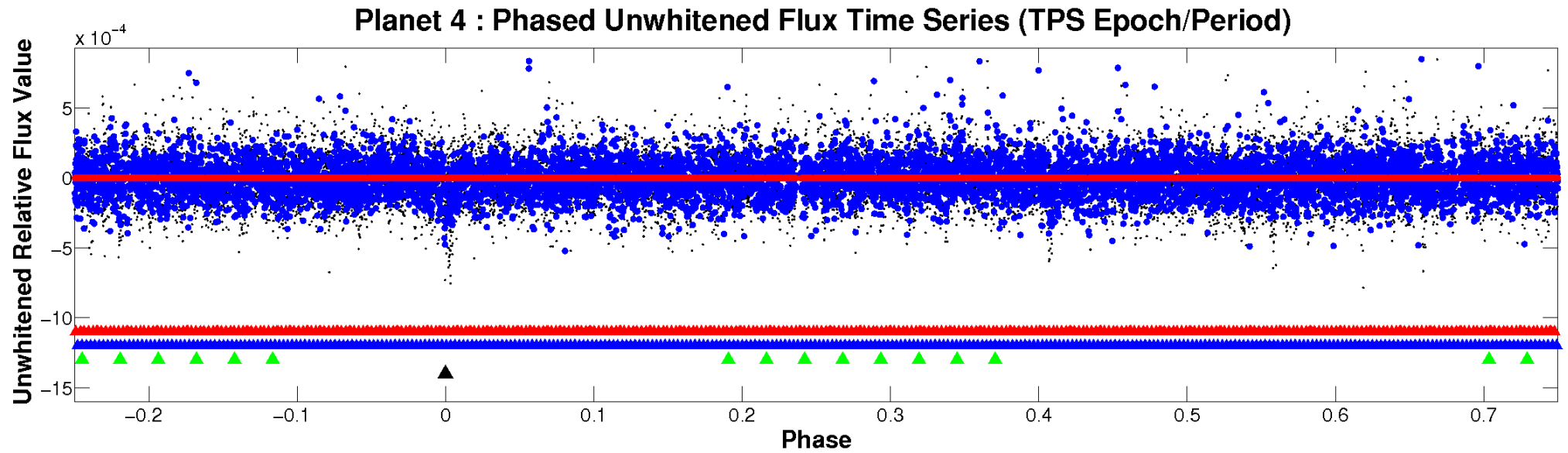


ALT Odd/Even

TCE 005567711-04

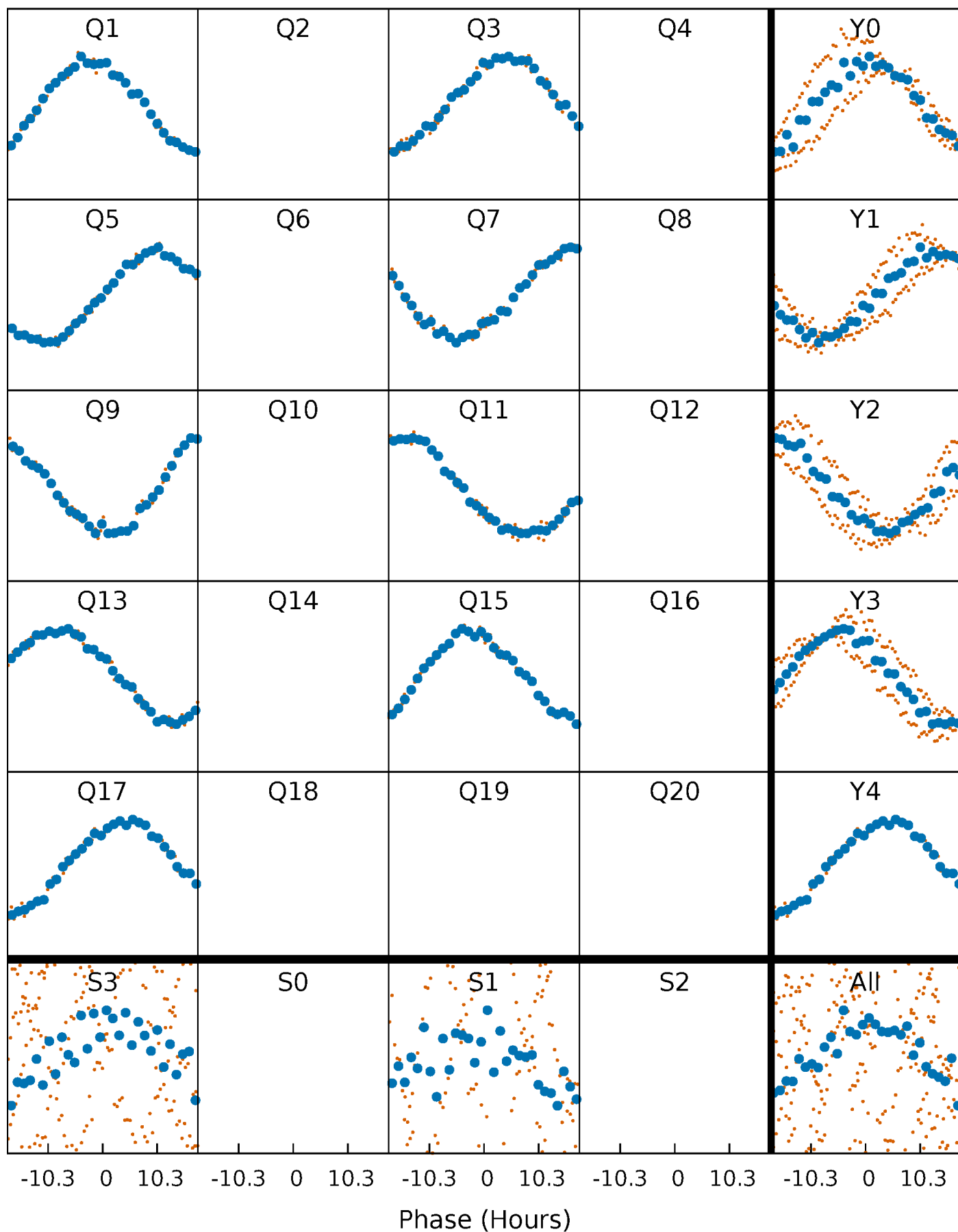


Non-Whitened Vs. Whitened Light Curve



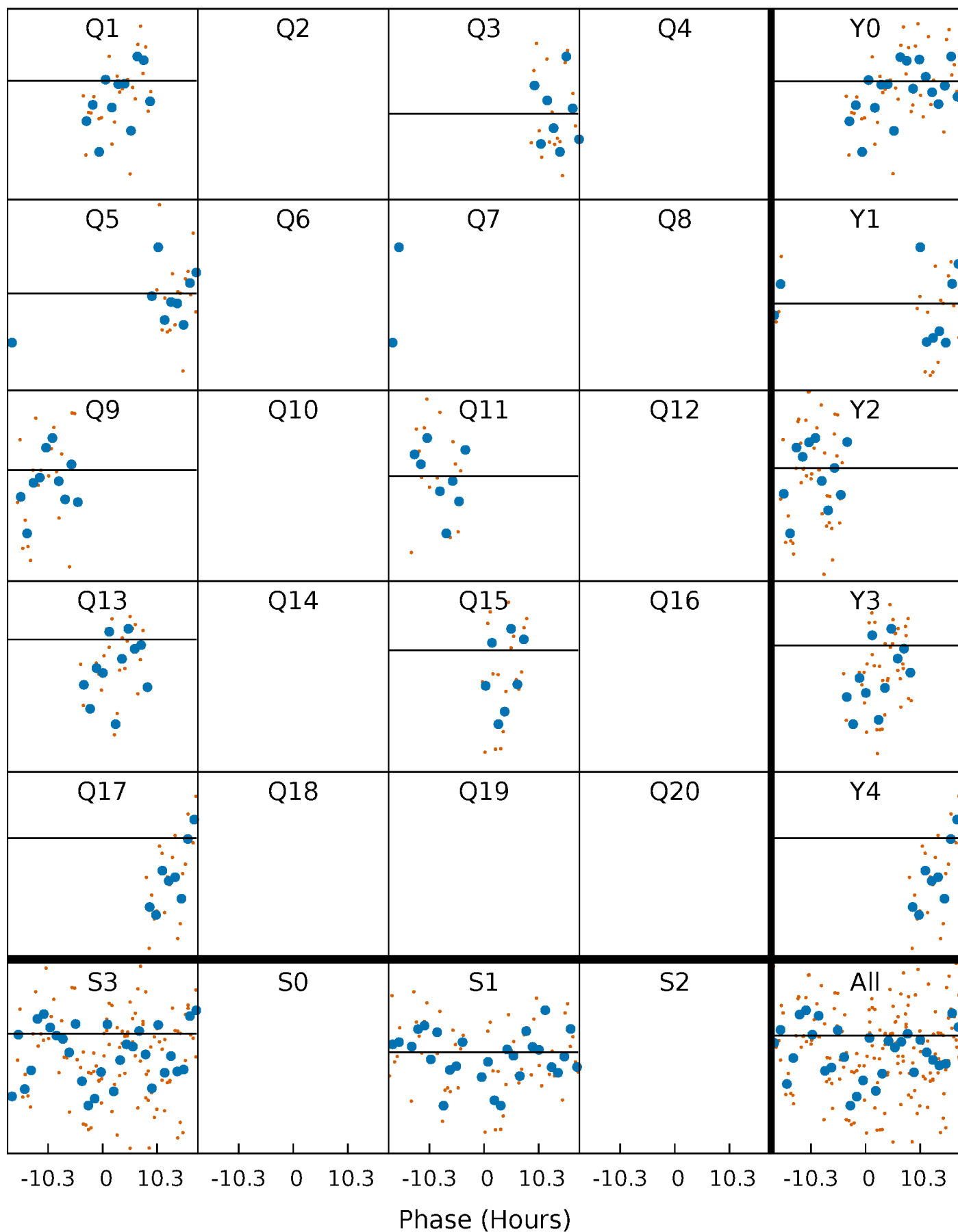
PDC Quarter-Phased Transit Curves

TCE 005567711-04 $P=177.758350$ Days $T_0=152.874281$ (BKJD)



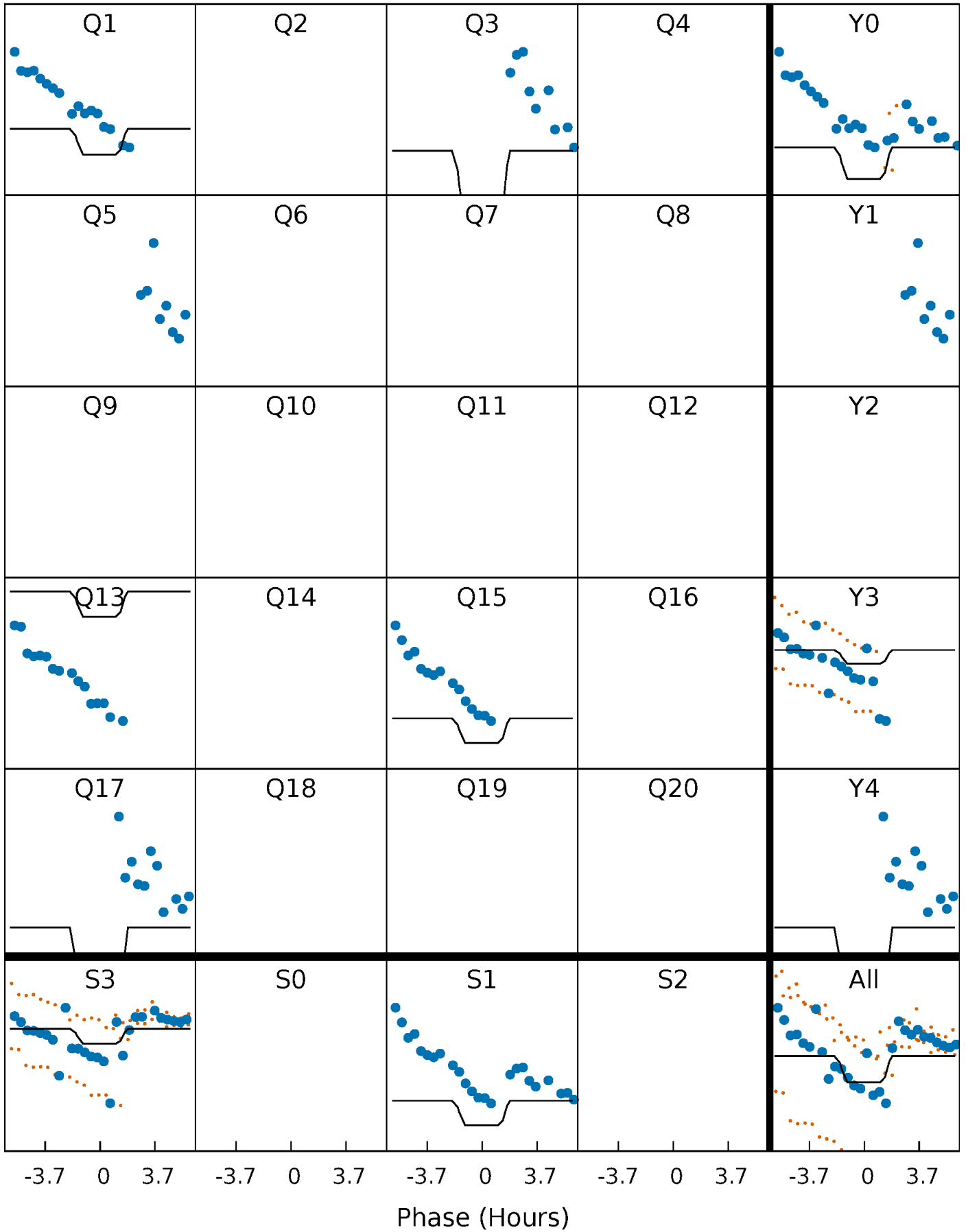
DV Quarter-Phased Transit Curves

TCE 005567711-04 $P=177.758350$ Days $T_0=152.874281$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

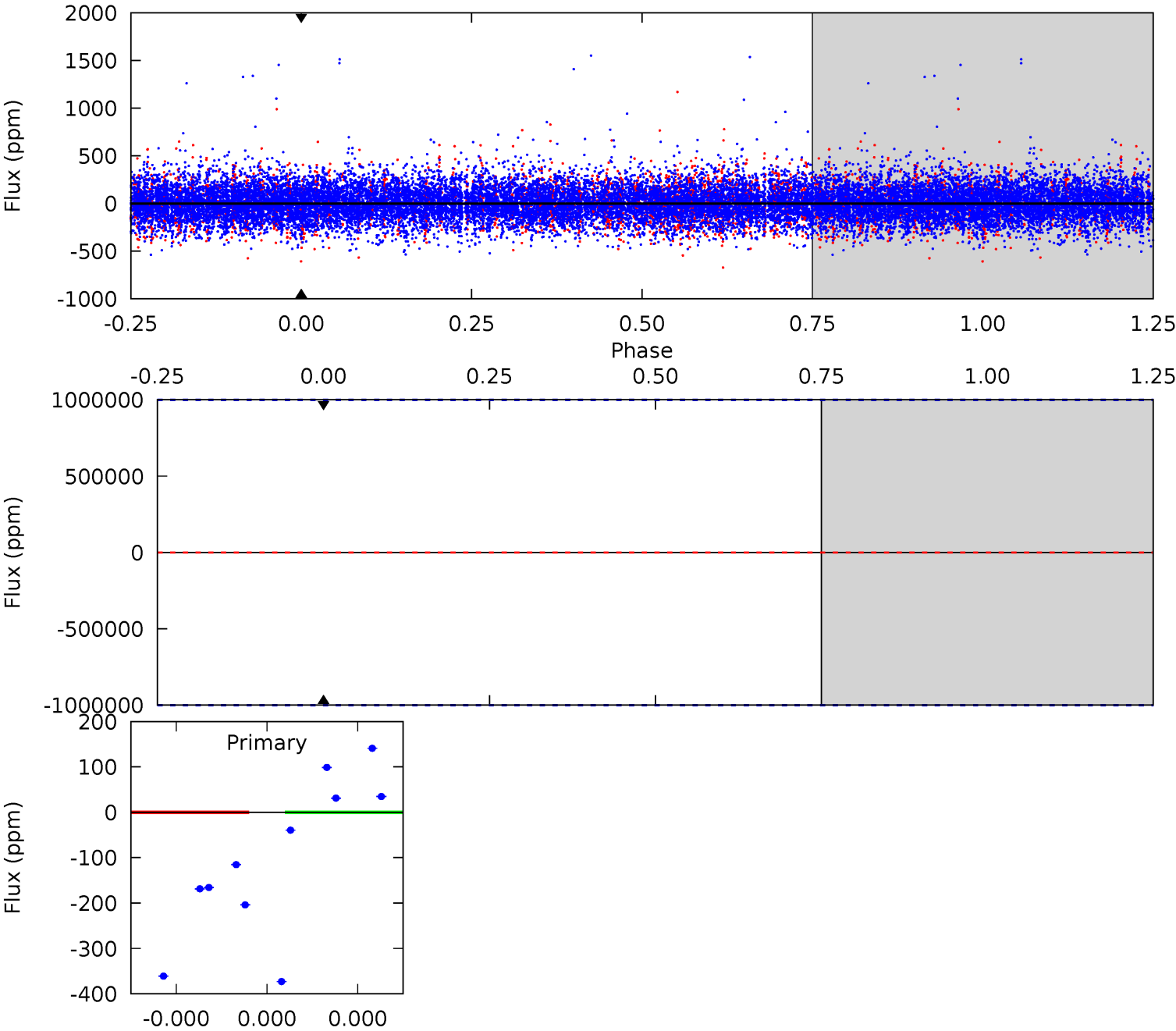
TCE 005567711-04 P=177.758350 Days $T_0=153.175764$ (BKJD)



DV Model-Shift Uniqueness Test

005567711-04, P = 177.758350 Days, E = 152.874281 Days

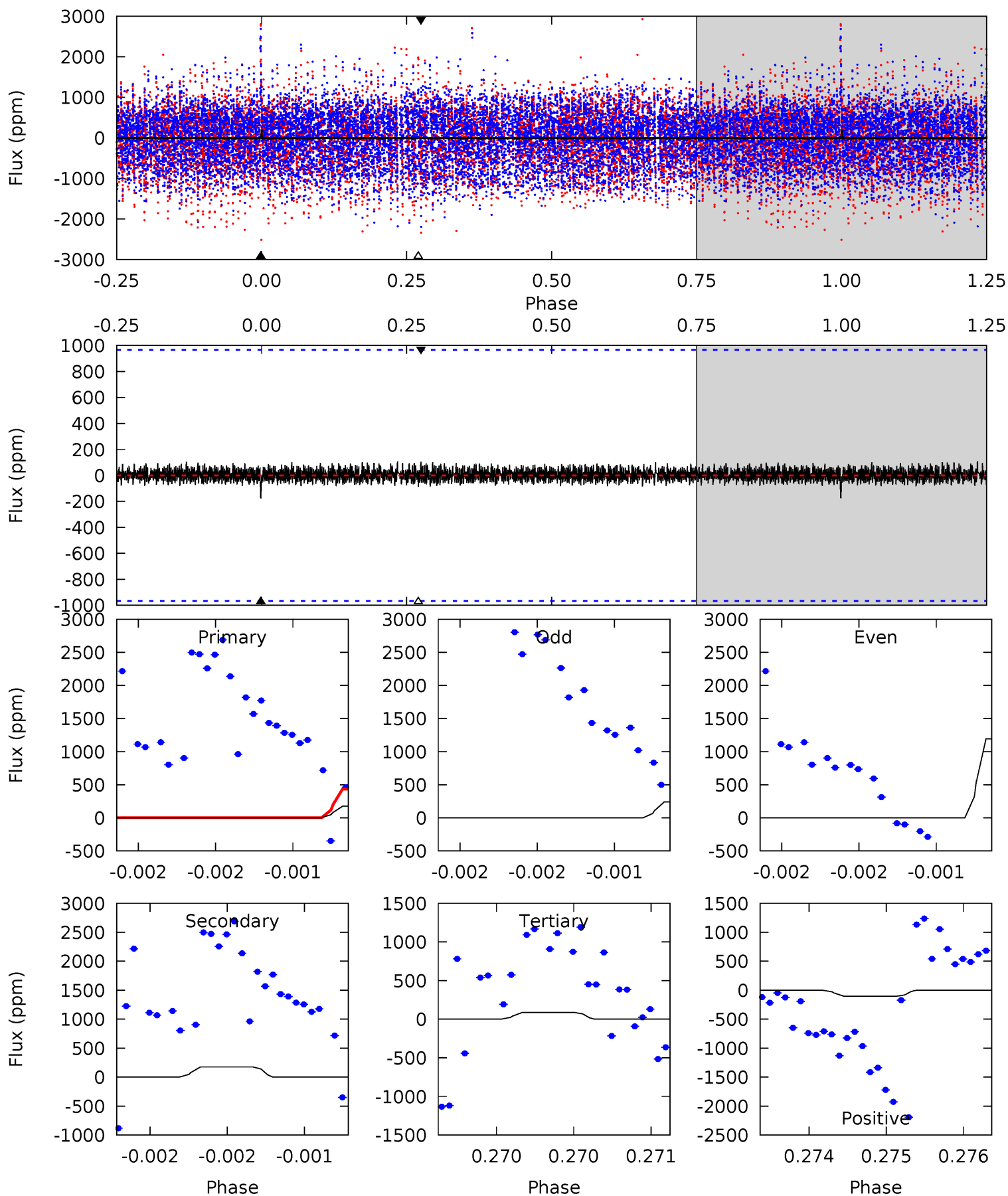
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005567711-04, P = 177.758350 Days, E = 153.175764 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.00	1.00	0.49	0.60	5.50	3.37	0.22	0.51	0.40	0.51	0.40	2.86	-2.58	0.37	0.94



Stellar Parameters For KIC 005567711

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8949^{+251}_{-430}	$3.932^{+0.258}_{-0.172}$	$0.070^{+0.250}_{-0.650}$	$2.727^{+0.867}_{-1.060}$	$2.320^{+0.361}_{-0.670}$	$0.161^{+0.303}_{-0.083}$
	+3%/-5%	+7%/-4%	+357%/-929%	+32%/-39%	+16%/-29%	+188%/-52%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005567711-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$21.84^{+24.96}_{-14.45}$	1001^{+87}_{-89}	4587^{+75187}_{-57505}	$313^{+178834}_{-124948}$
Alt.	-175 ± 176	$22.36^{+24.24}_{-15.58}$	993^{+84}_{-91}	3685^{+2475}_{-1567}	98^{+1250}_{-96}

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 $A_{obs} \gg 1.0$

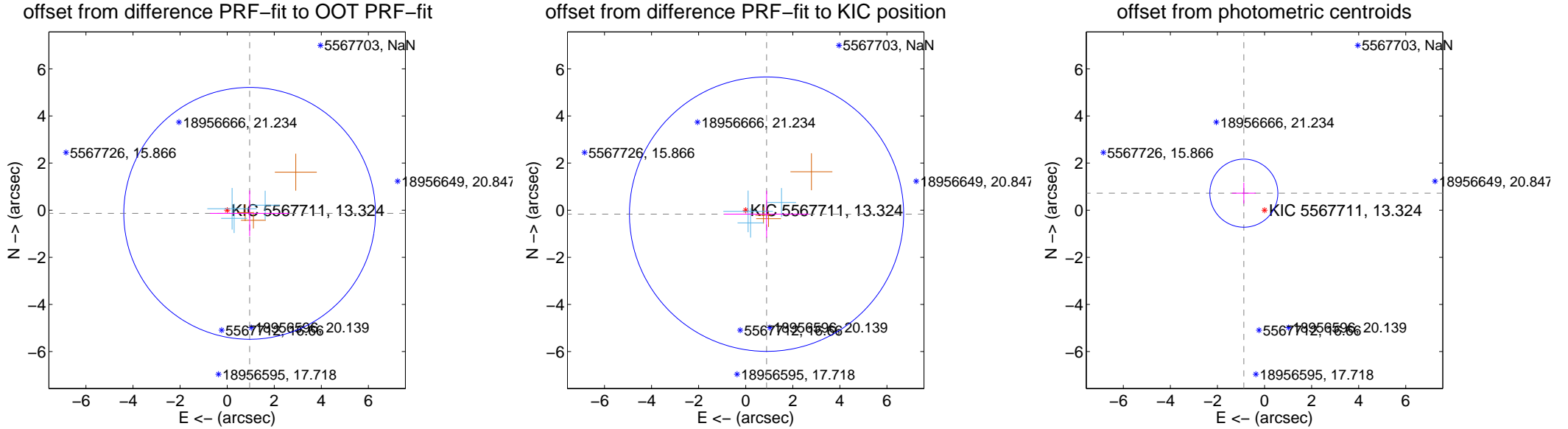
DV Centroid Data

Supplemental centroid analysis for 005567711-04. Kepler magnitude: 13.32. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

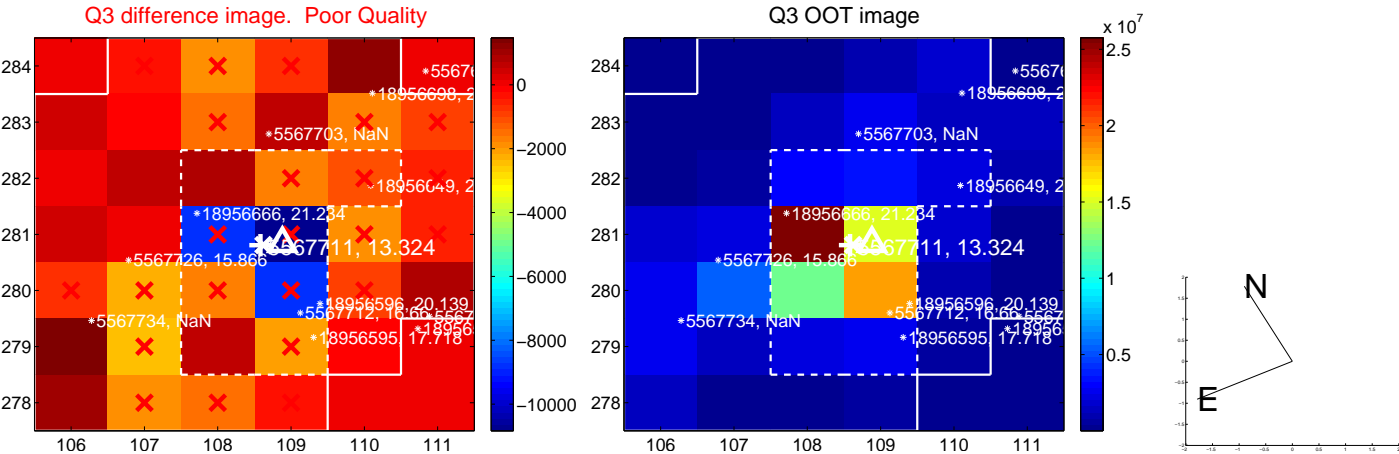
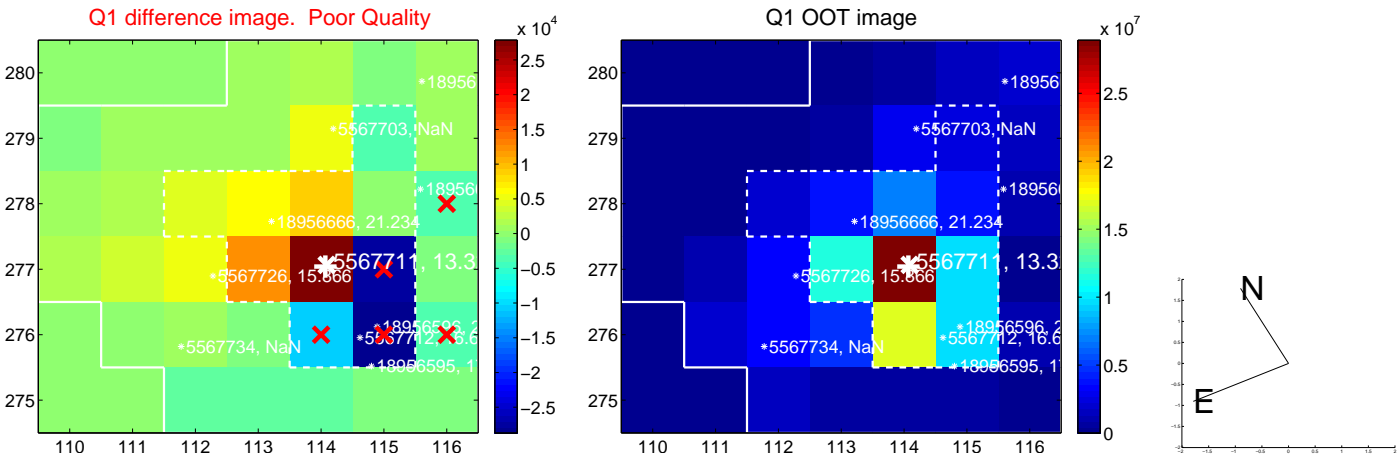
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.963 ± 1.782	0.54	-0.954 ± 1.679	-0.134 ± 0.967
PRF-fit source offset from KIC position	0.901 ± 1.941	0.46	-0.885 ± 1.801	-0.168 ± 0.995
photometric centroid source offset	1.14 ± 0.48	2.36	0.88 ± 0.51	0.72 ± 0.44

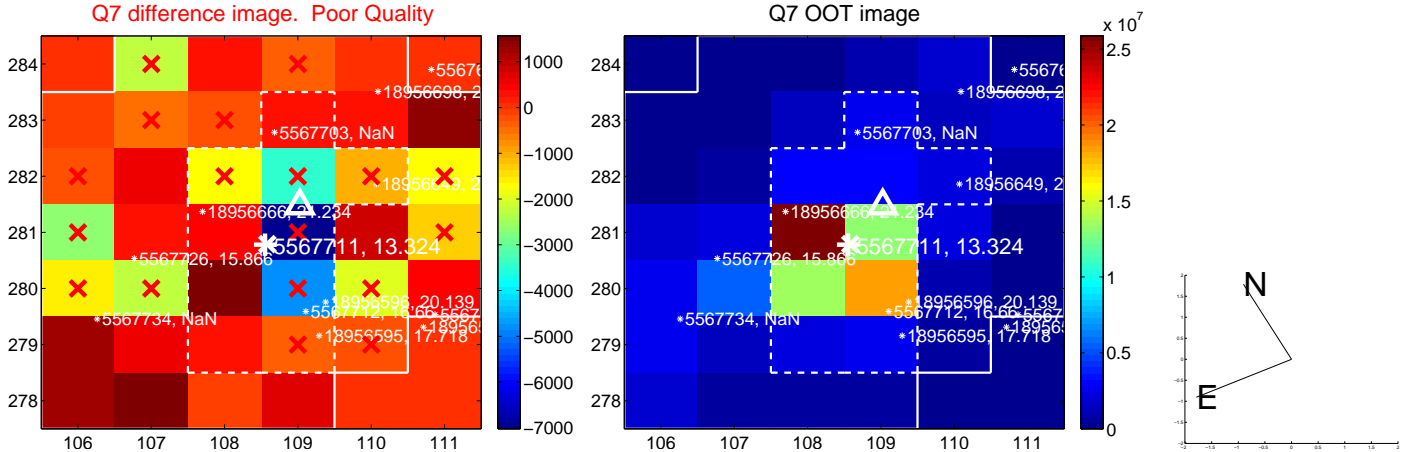
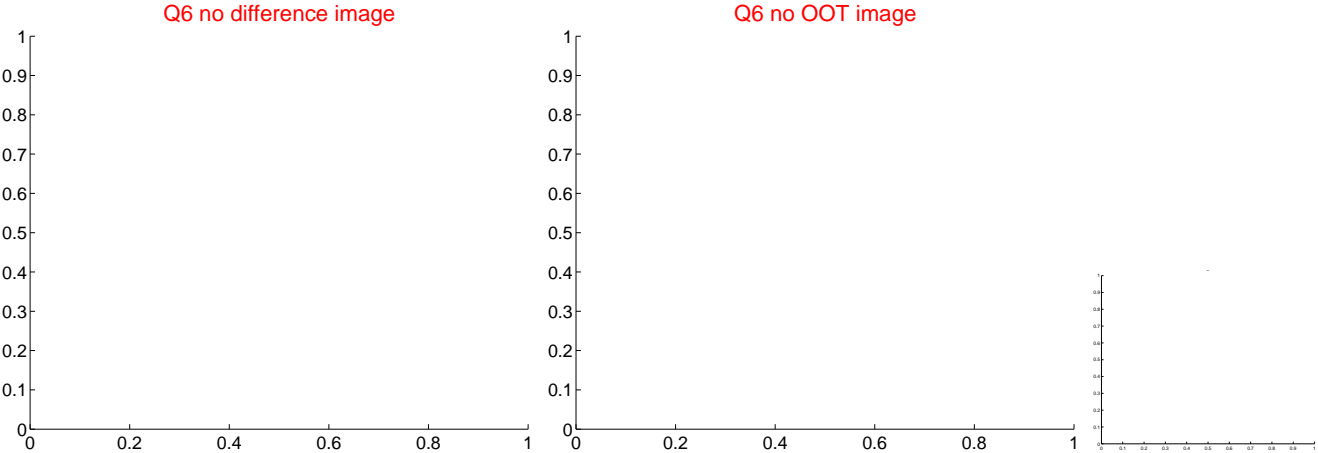
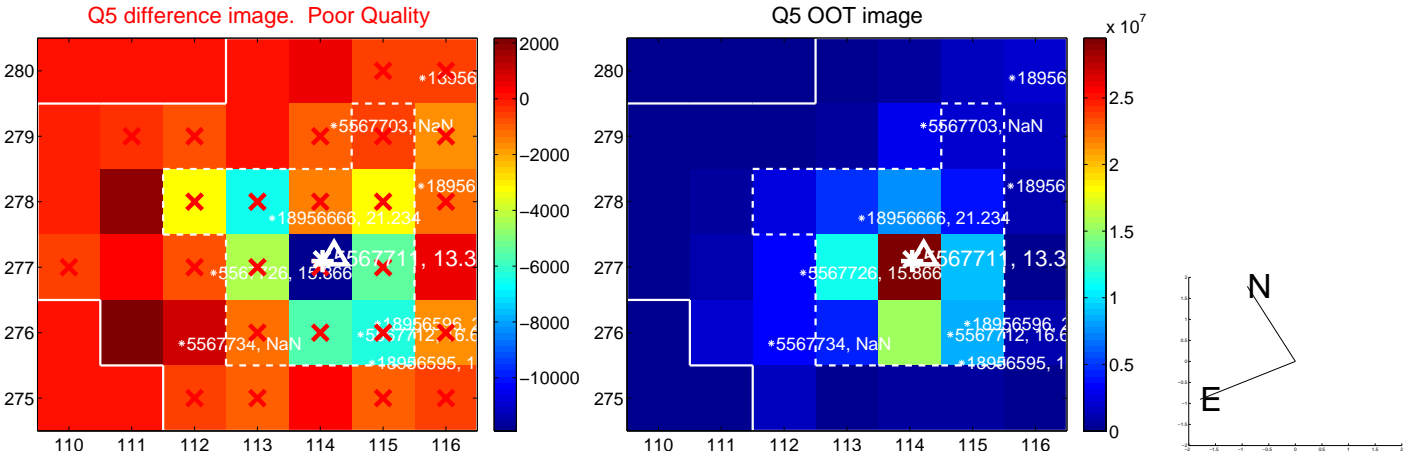


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

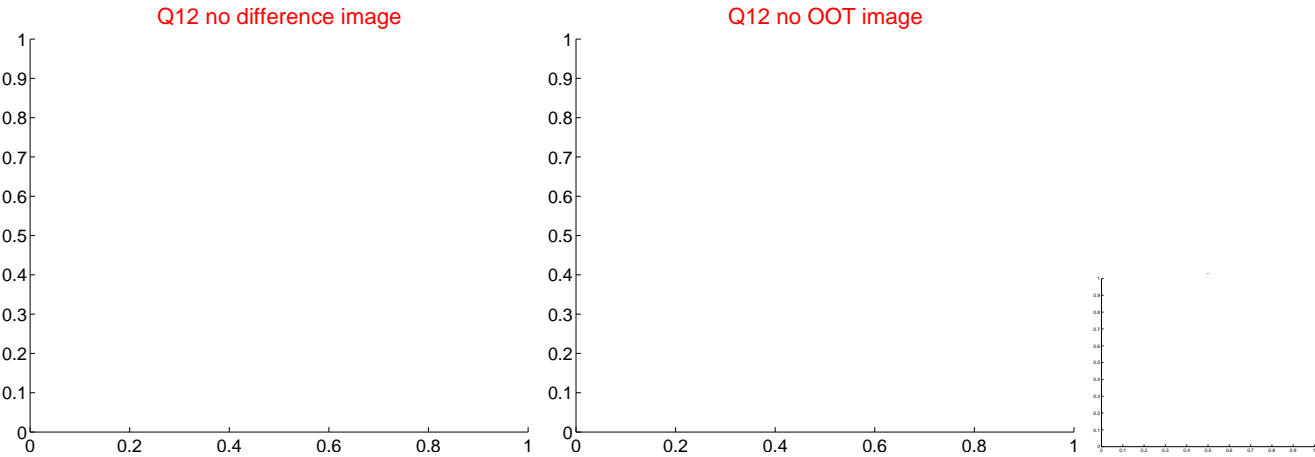
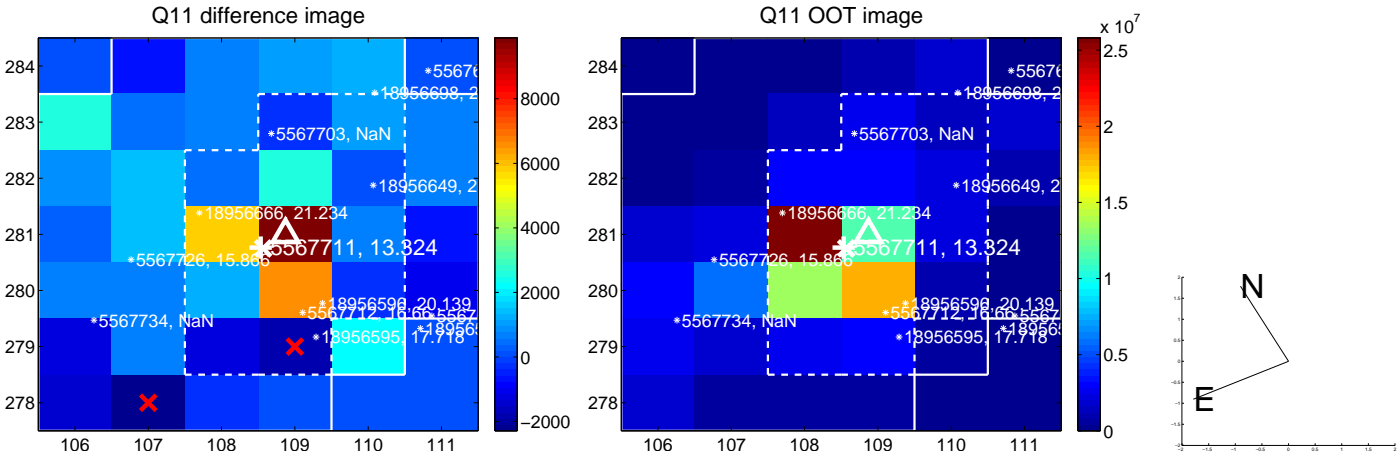
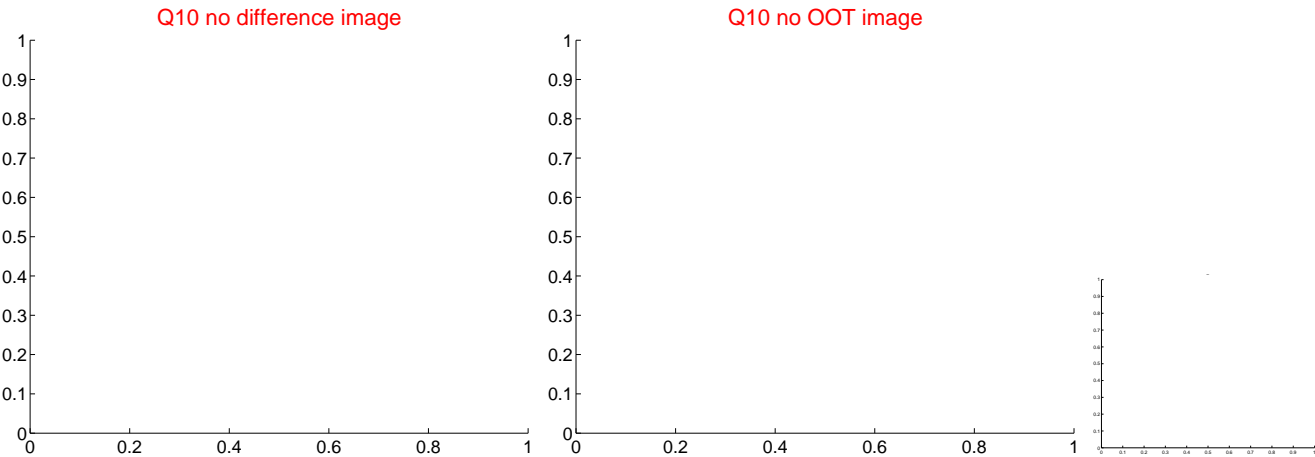
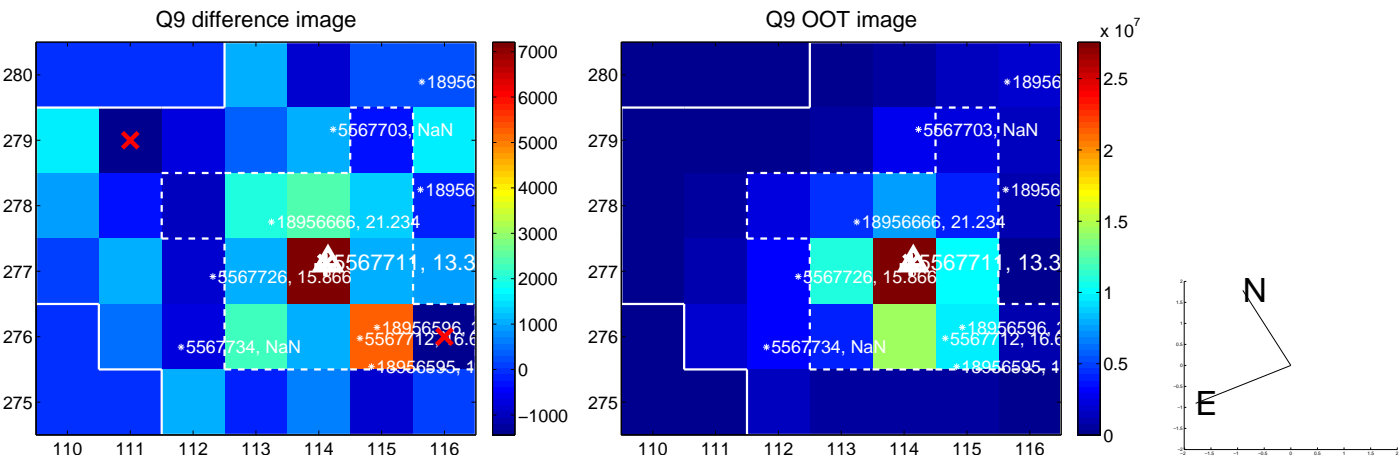
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



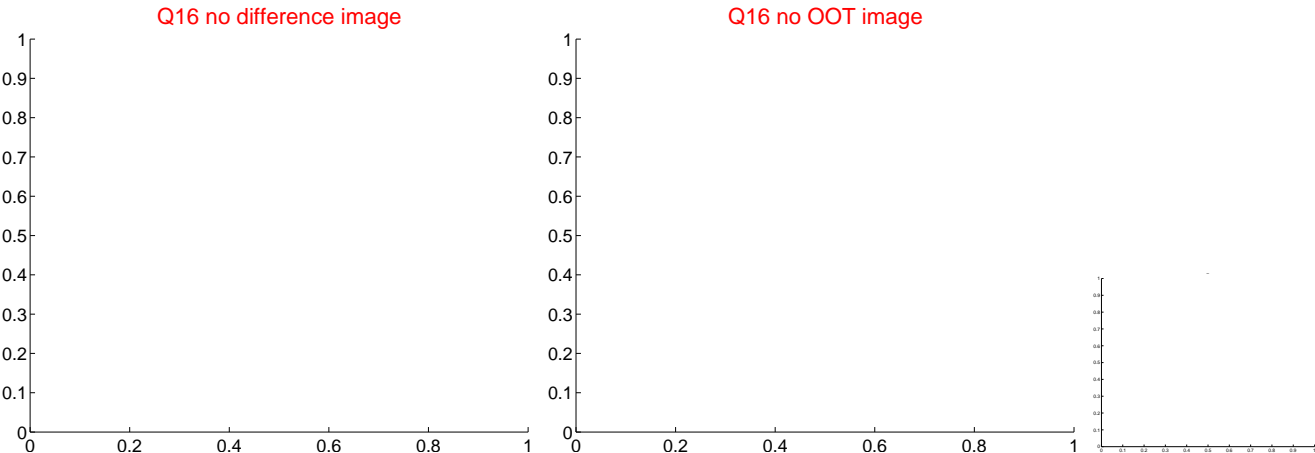
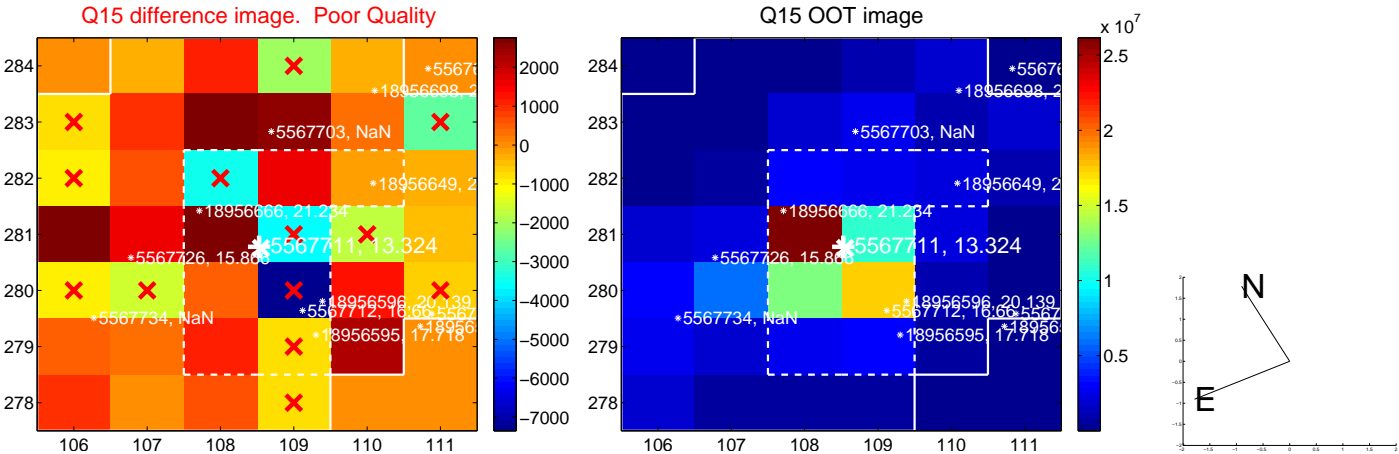
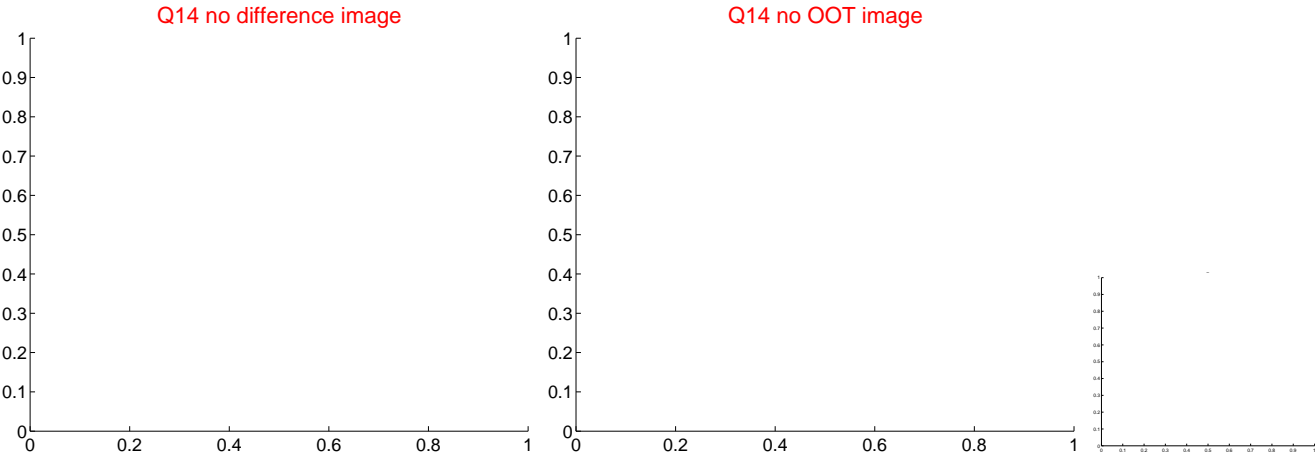
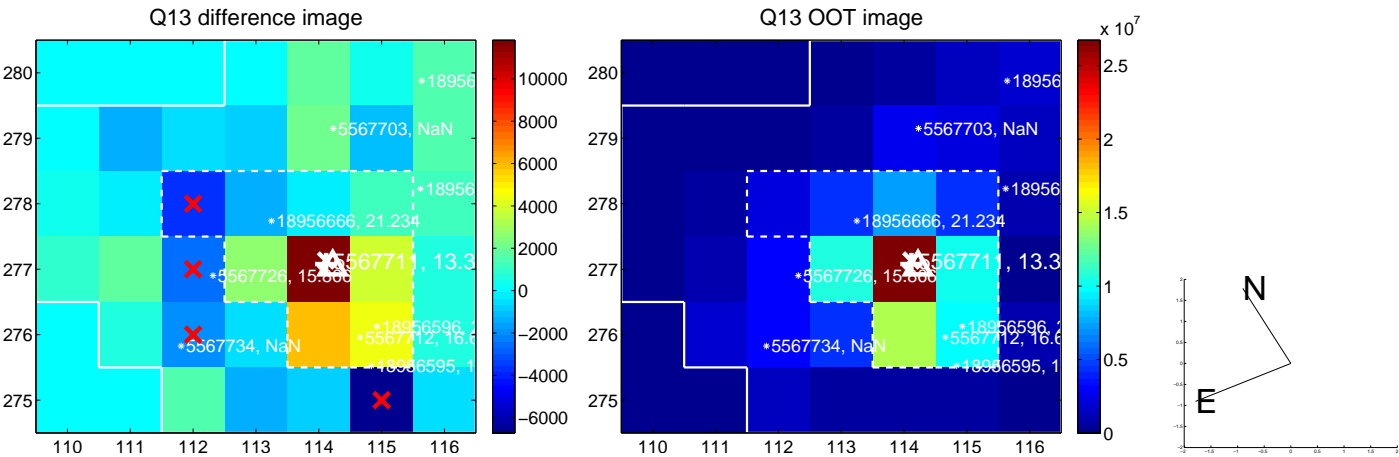
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



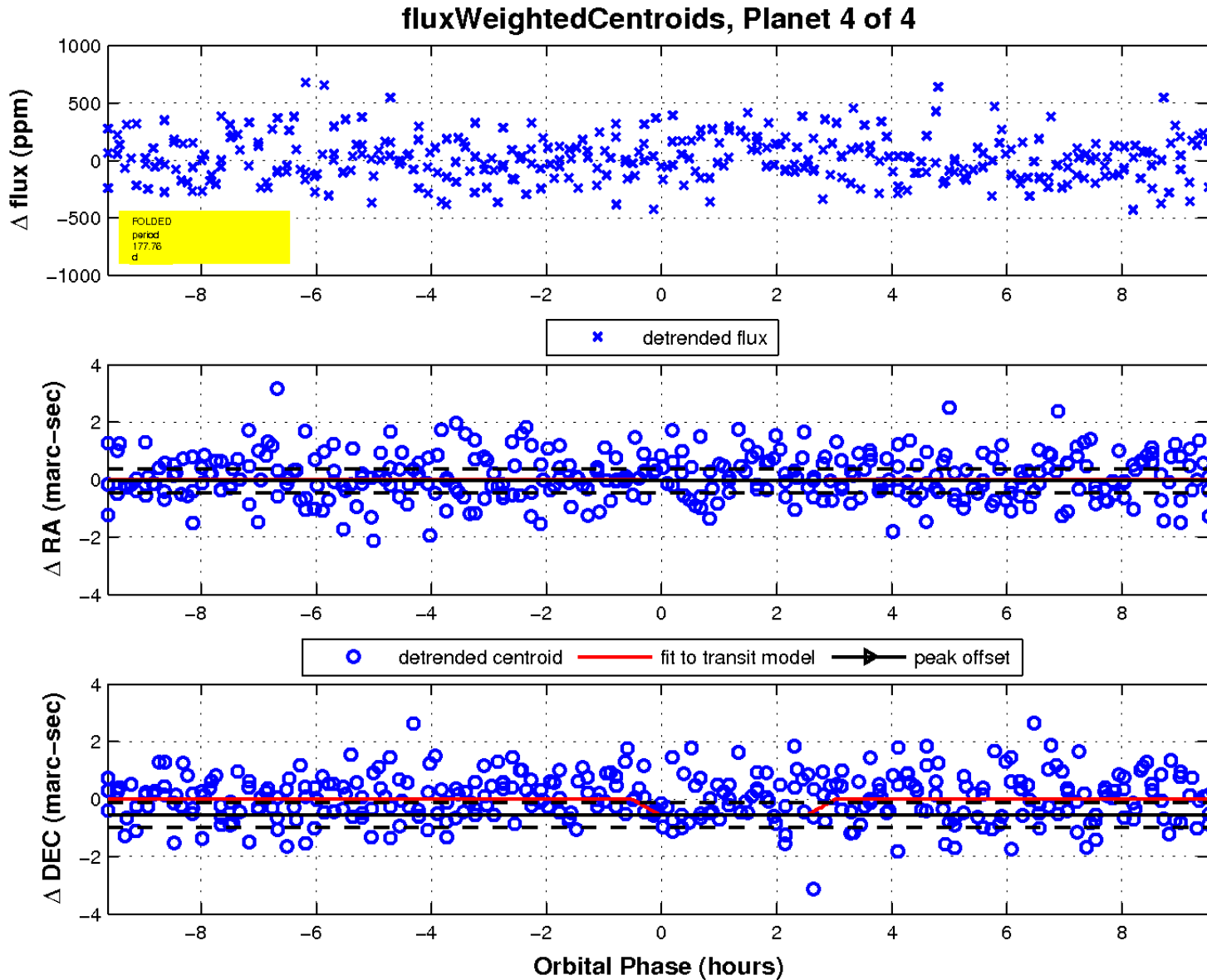
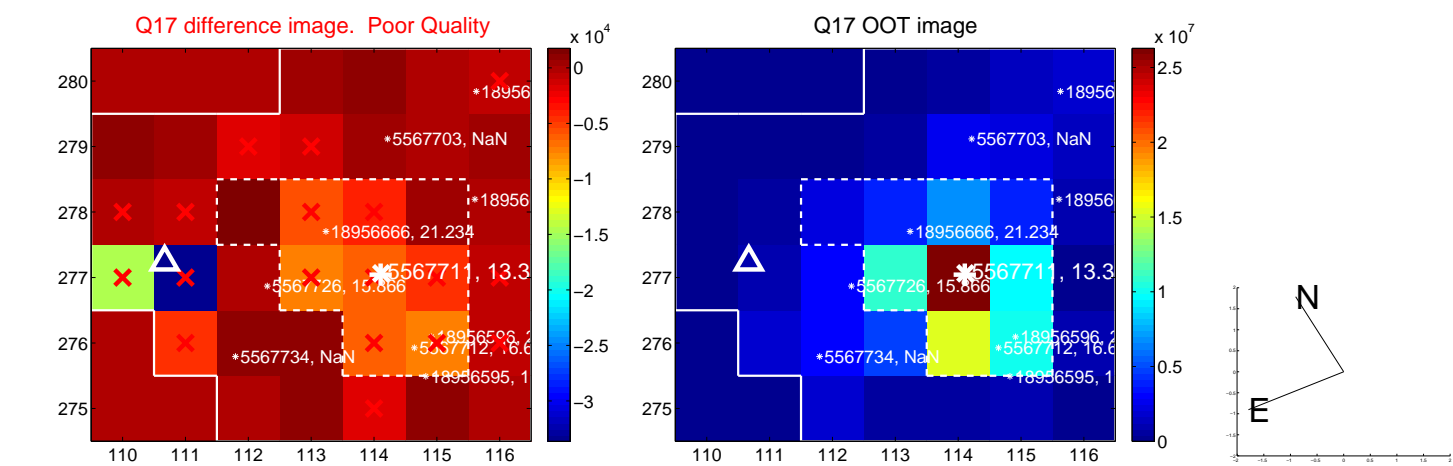
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

