

KIC 005536715

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})
005536715-01	OBS	No	0.701323	131.988213	53.1	1.058	9.3	12.6	1.30	6746	1.11	11307.68
005536715-02	OBS	No	0.701314	131.755756	52.1	1.275	12.1	13.3	1.30	6746	1.10	11307.88
005536715-03	OBS	No	0.701322	131.522141	55.5	0.982	9.8	13.1	1.30	6746	1.05	11307.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005536715-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
005536715-02	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005536715-03	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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 005536715-01

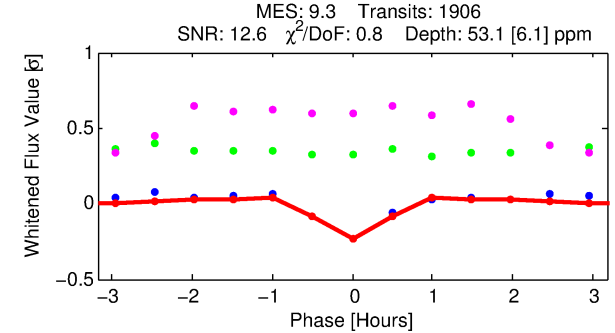
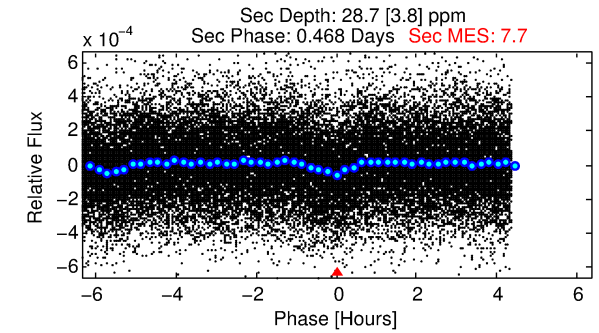
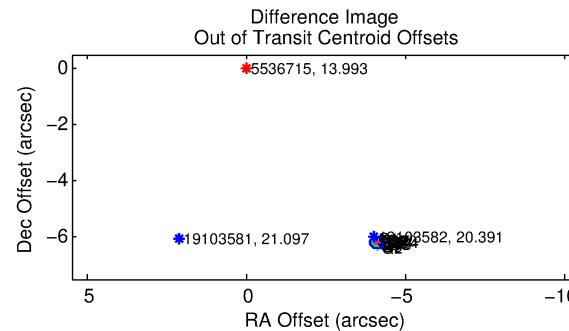
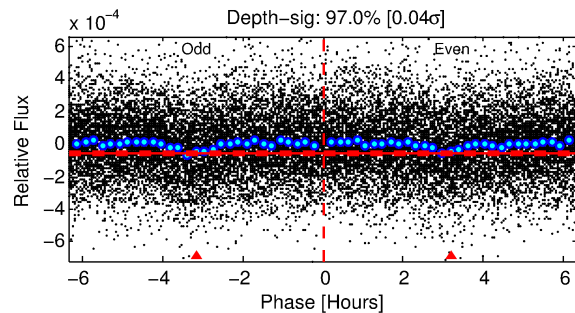
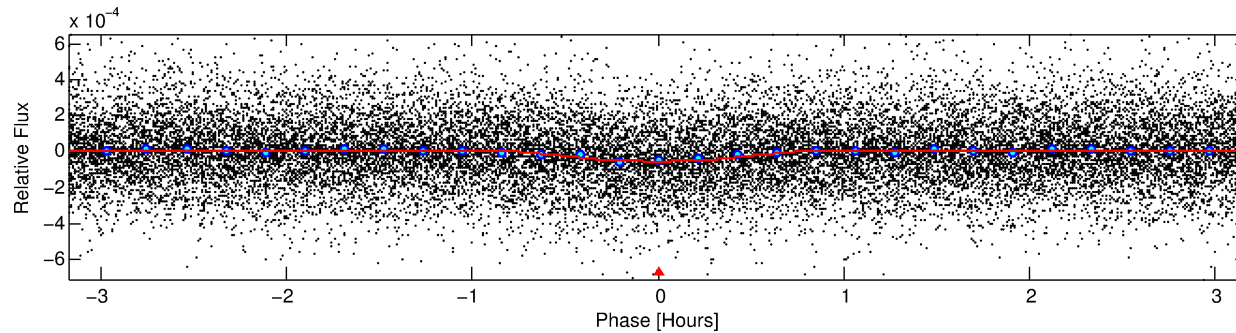
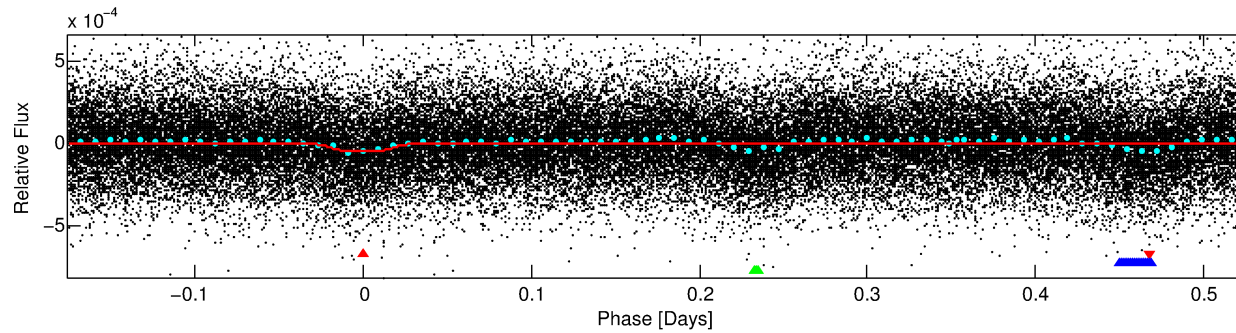
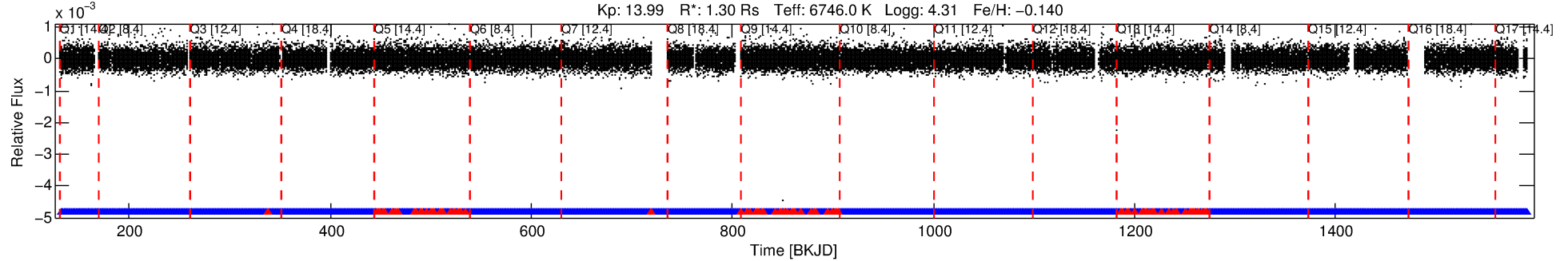
No Significant Match Found

DV One-Page Summary

KIC: 5536715 Candidate: 1 of 3 Period: 0.701 d

KOI: K04305 Corr: No Ephemeris Match

Kp: 13.99 R*: 1.30 Rs Teff: 6746.0 K Logg: 4.31 Fe/H: -0.140



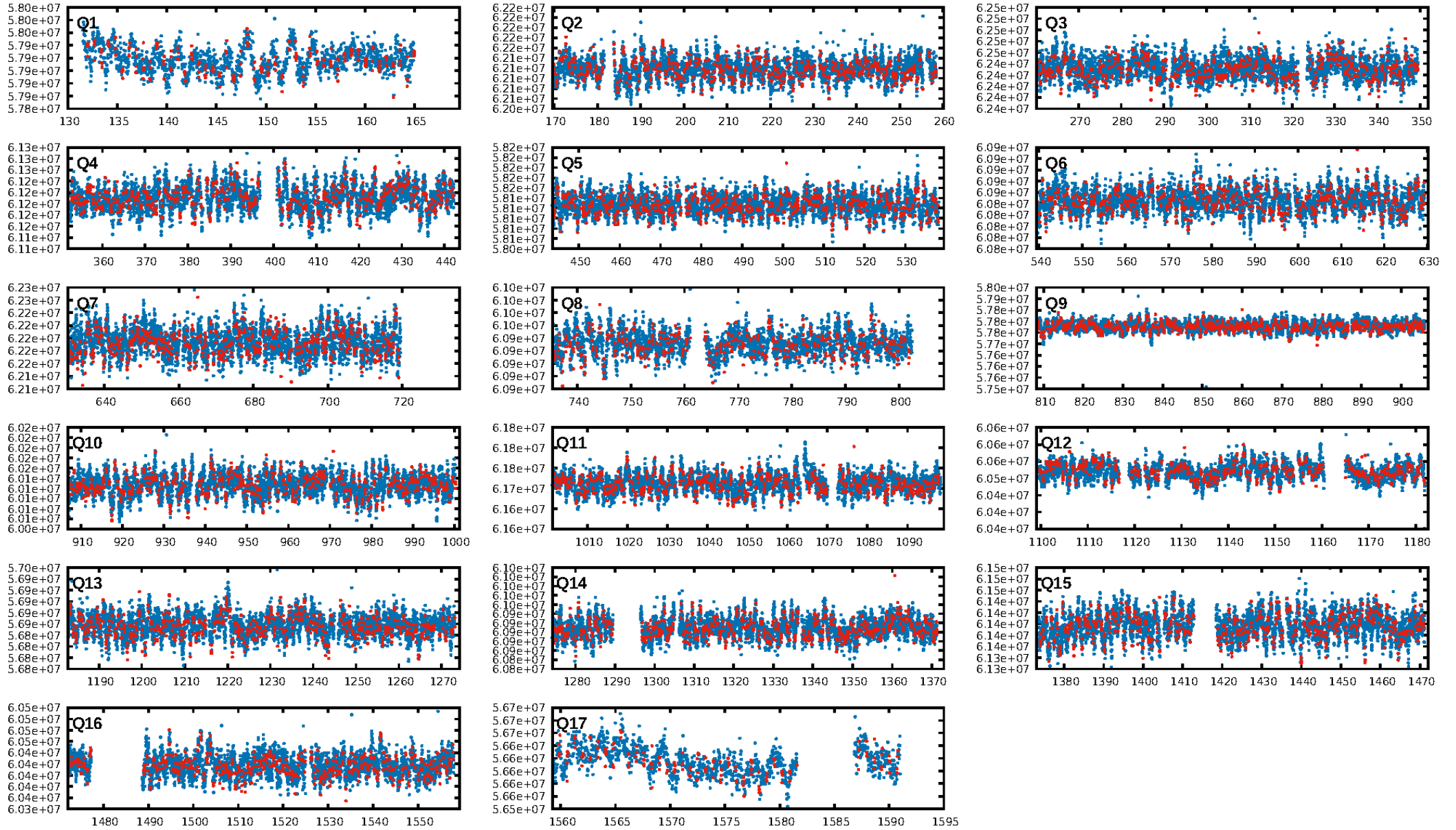
DV Fit Results:

Period = 0.70132 [0.00001] d
Epoch = 131.9882 [0.0012] BKJD
Rp/R* = 0.0078 [0.0015]
a/R* = 2.47 [2.36]
b = 0.90 [0.24]
Seff = 11307.68 [4636.46]
Teq = 2629 [270] K
Rp = 1.11 [0.43] Re
a = 0.0167 [0.0045] AU
Ag = 3.54 [2.00] [1.27σ]
Teff = 5578 [620] K [4.36σ]

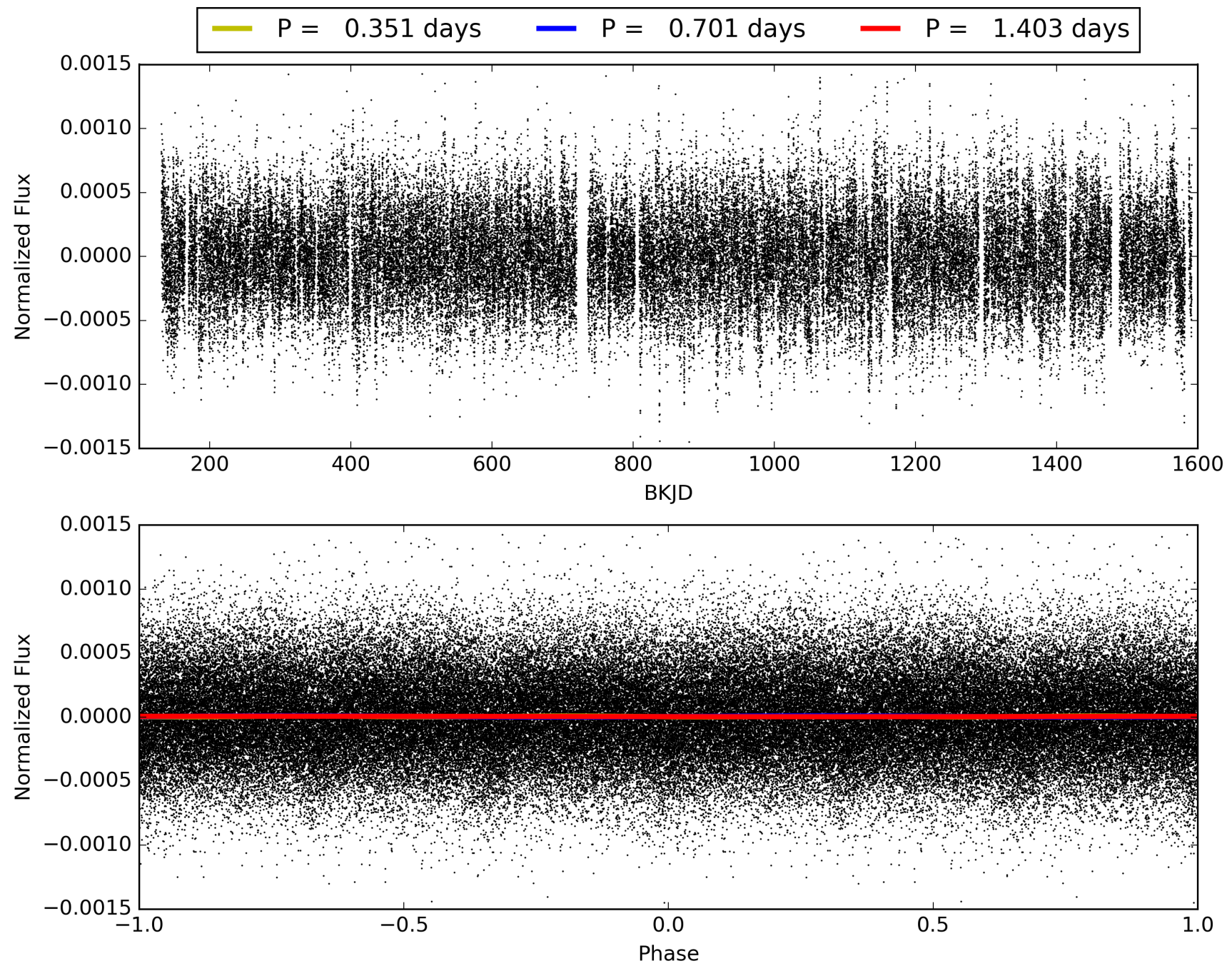
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.35e-22
RollingBand-fgt: 0.95 [1727/1821]
GhostDiagnostic-chr: -3.432
Centroid-sig: N/A
Centroid-so: 3.696 arcsec [4.67σ]
OotOffset-rm: 7.436 arcsec [103.69σ]
KicOffset-rm: 7.360 arcsec [103.51σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 005536715-01, PDC Light Curves

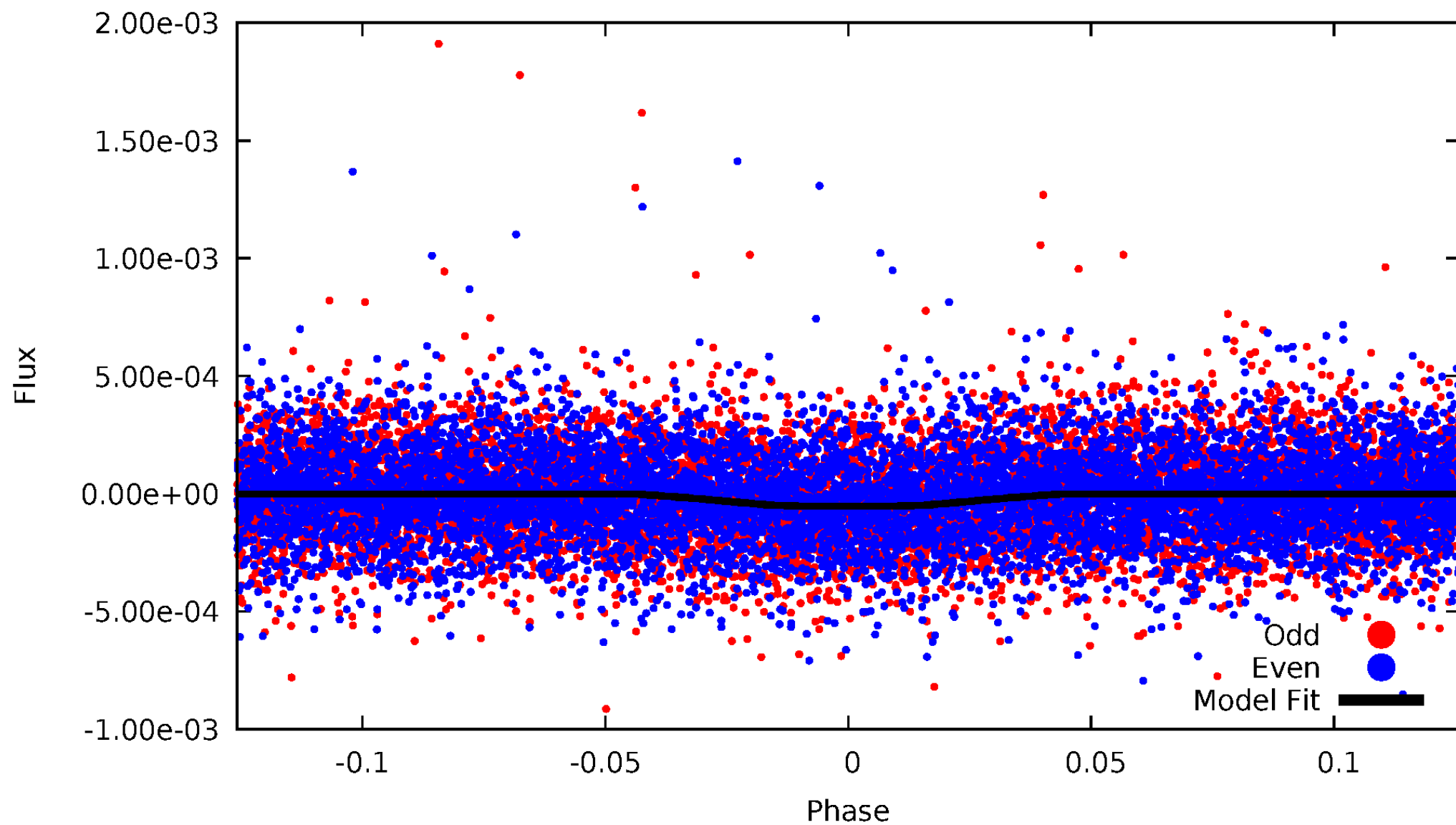


TCE 005536715-01



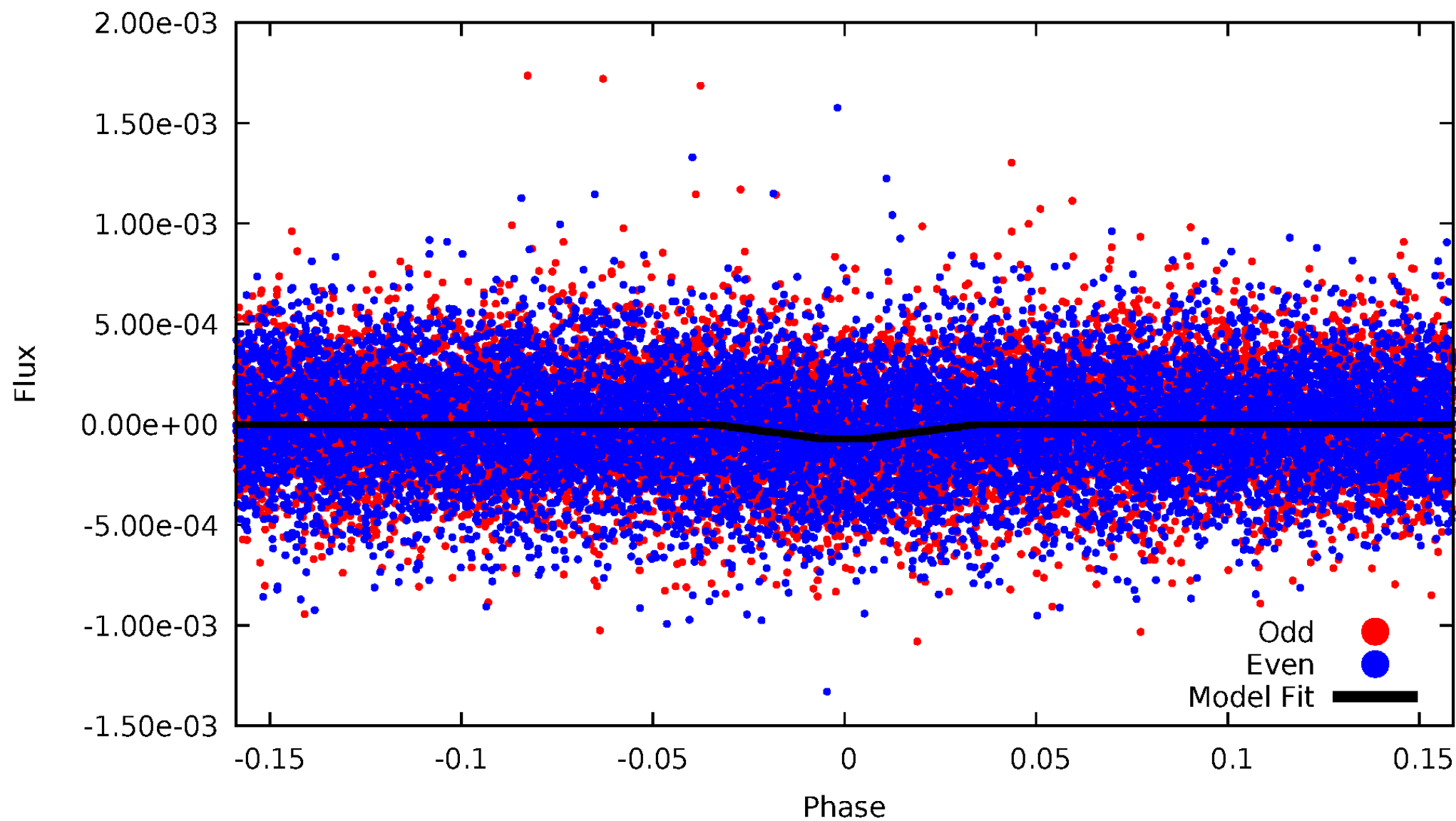
DV Odd/Even

TCE 005536715-01

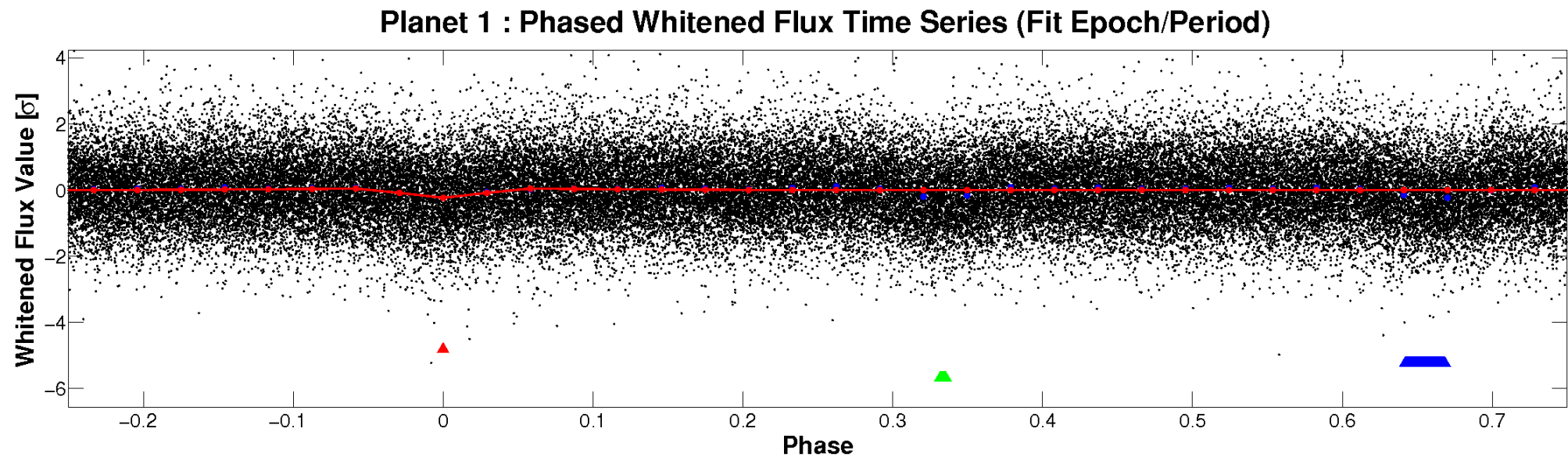
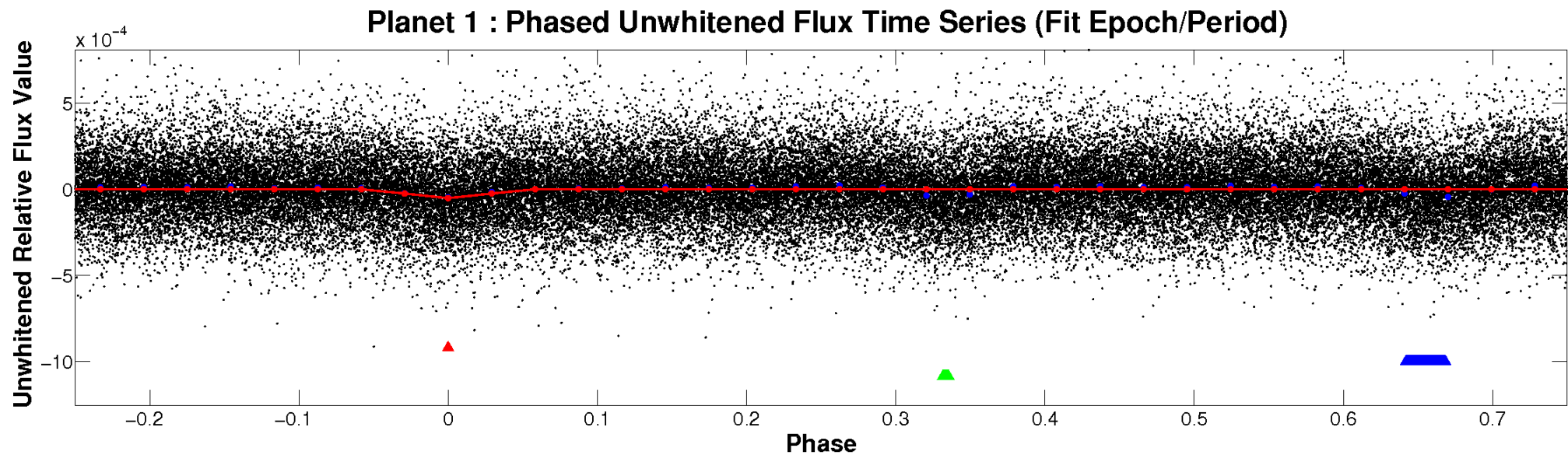


ALT Odd/Even

TCE 005536715-01

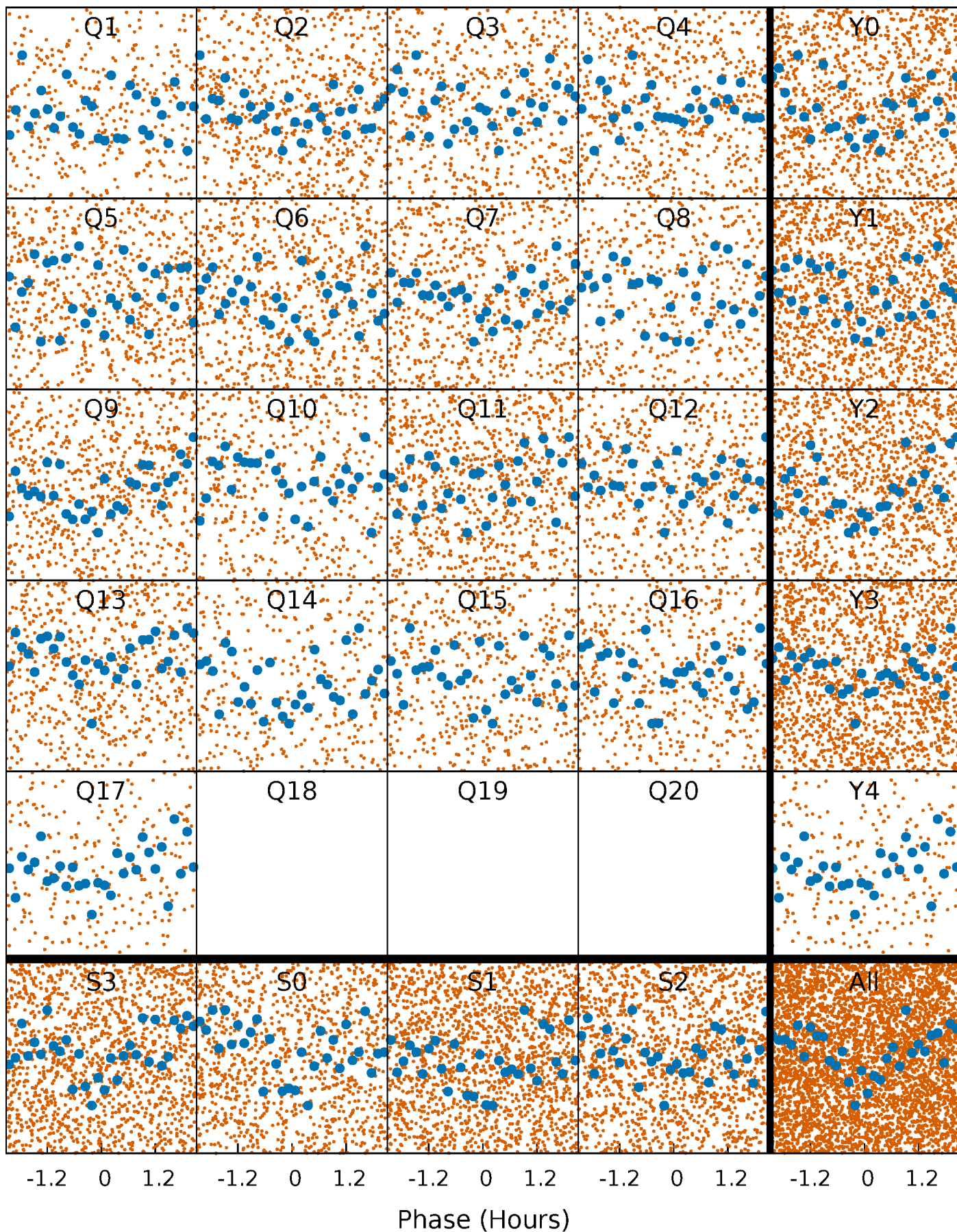


Non-Whitened Vs. Whitened Light Curve



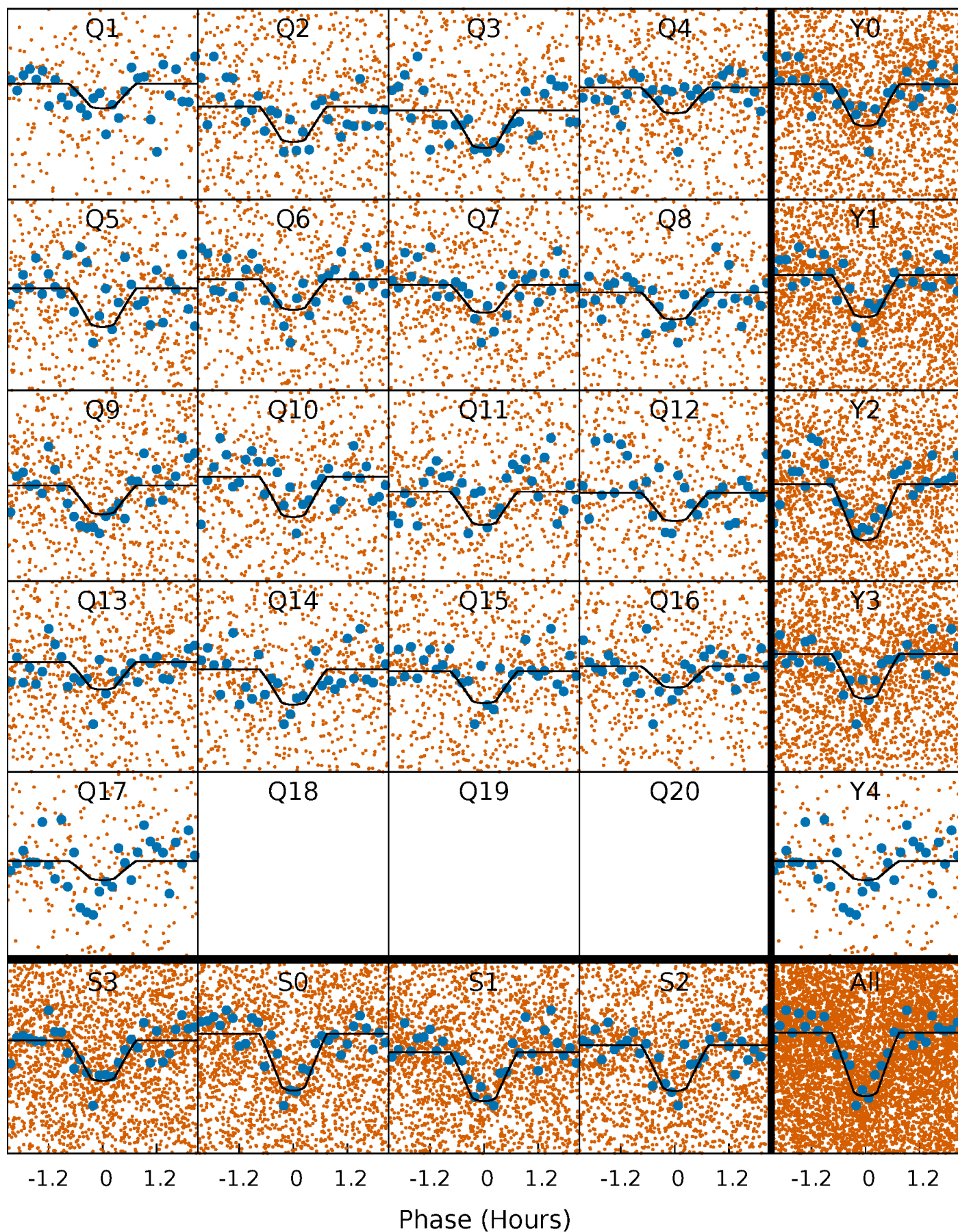
PDC Quarter-Phased Transit Curves

TCE 005536715-01 P= 0.701323 Days $T_0=131.988213$ (BKJD)



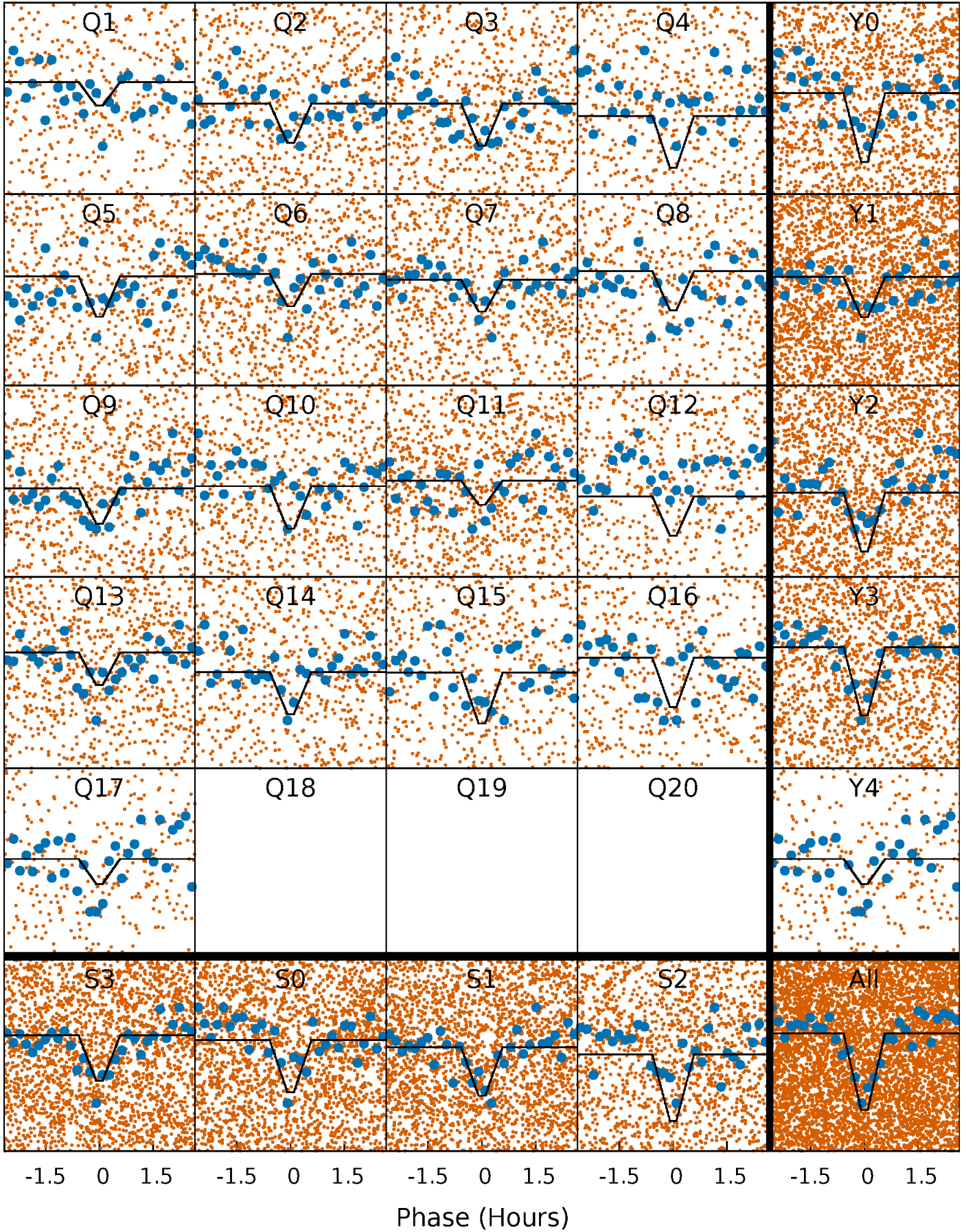
DV Quarter-Phased Transit Curves

TCE 005536715-01 P= 0.701323 Days $T_0=131.988213$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

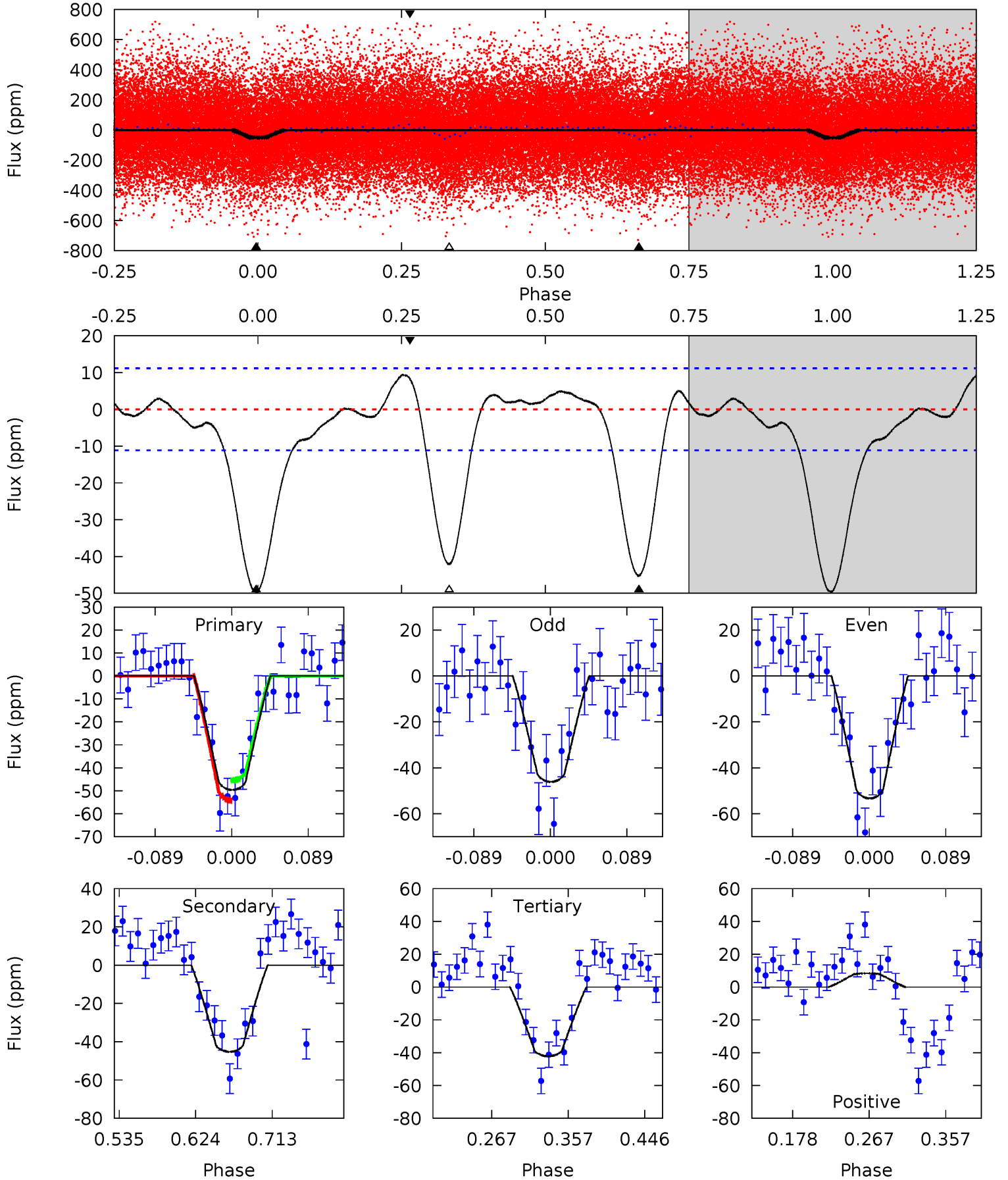
TCE 005536715-01 P= 0.701322 Days $T_0=131.987349$ (BKJD)



DV Model-Shift Uniqueness Test

005536715-01, P = 0.701323 Days, E = 131.286890 Days

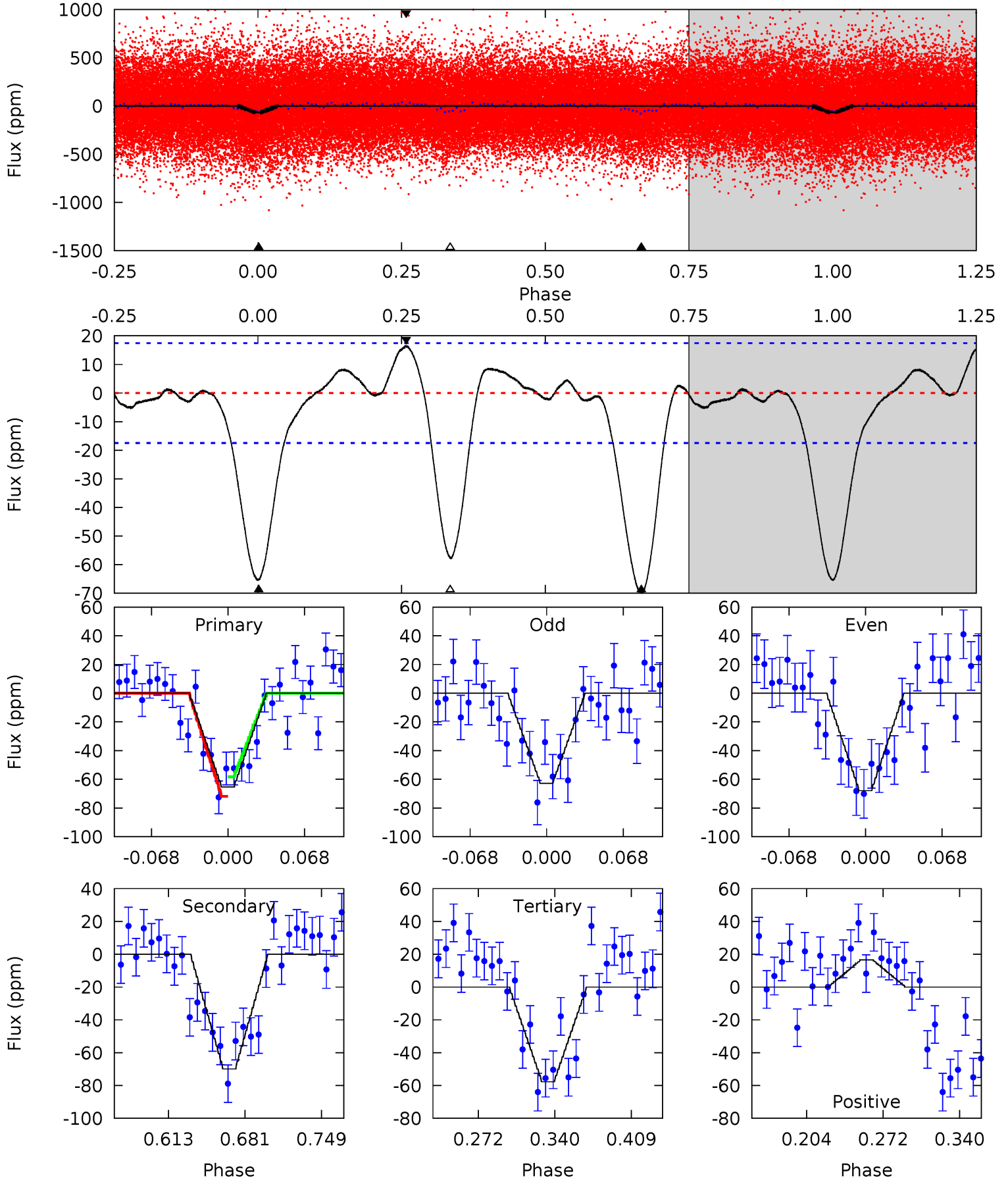
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	18.6	17.4	3.43	4.59	1.70	4.60	3.11	17.0	1.30	15.2	1.49	1.02	0.16	1.83



Alt Model-Shift Uniqueness Test

005536715-01, P = 0.701322 Days, E = 131.286027 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	18.6	15.4	4.39	4.64	1.82	3.76	2.04	13.0	3.25	14.2	0.68	0.95	0.19	1.80



Stellar Parameters For KIC 005536715

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6746^{+165}_{-259}	$4.309^{+0.072}_{-0.203}$	$-0.140^{+0.250}_{-0.300}$	$1.304^{+0.426}_{-0.183}$	$1.271^{+0.190}_{-0.190}$	$0.807^{+0.303}_{-0.420}$
	+2%/-4%	+2%/-5%	+179%/-214%	+33%/-14%	+15%/-15%	+38%/-52%
Source	PHO1	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 005536715-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-45 ± 2	$1.17^{+0.32}_{-0.27}$	3746^{+270}_{-197}	6105^{+873}_{-602}	$4.986^{+3.069}_{-1.778}$
Alt.	-70 ± 4	$1.26^{+0.29}_{-0.26}$	3747^{+277}_{-216}	6577^{+851}_{-616}	$6.665^{+3.655}_{-2.258}$

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 $A_{obs} \gg 1.0$

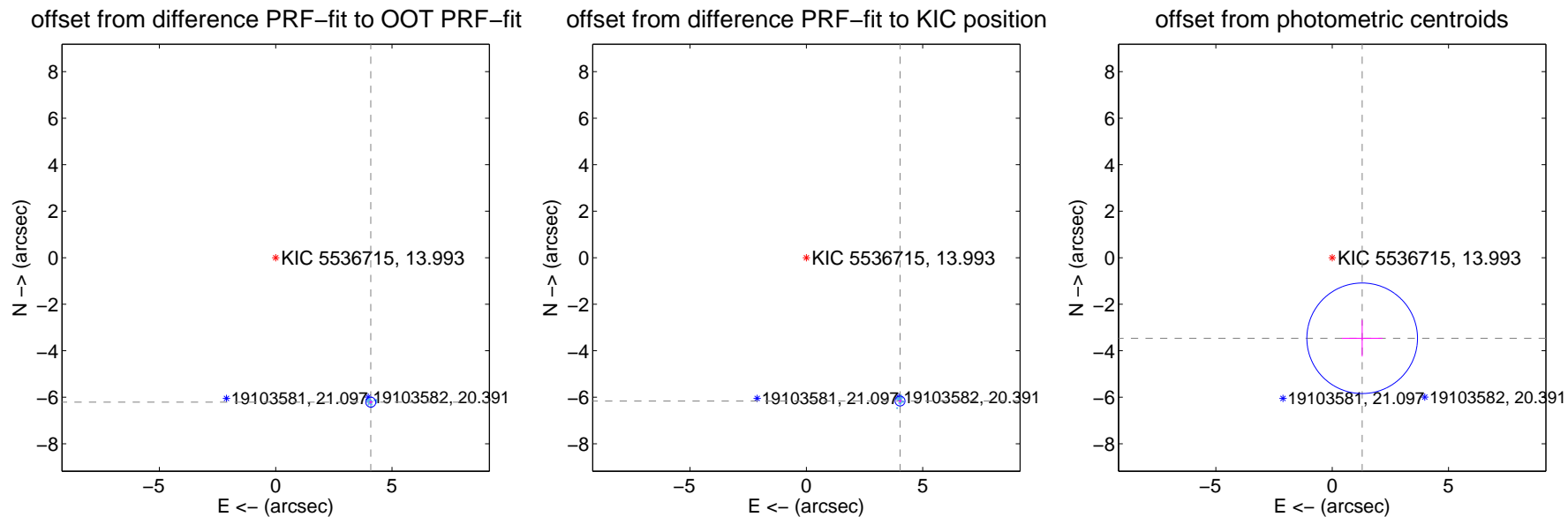
DV Centroid Data

Supplemental centroid analysis for 005536715-01. Kepler magnitude: 13.99. Transit SNR 12.62

There are 17 quarters with good PRF difference image offsets

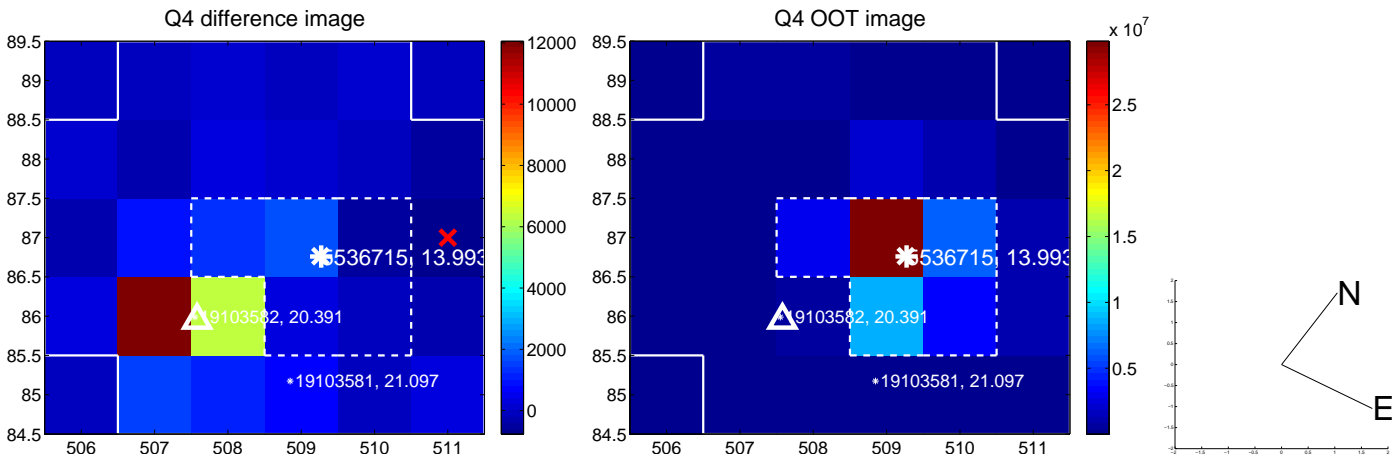
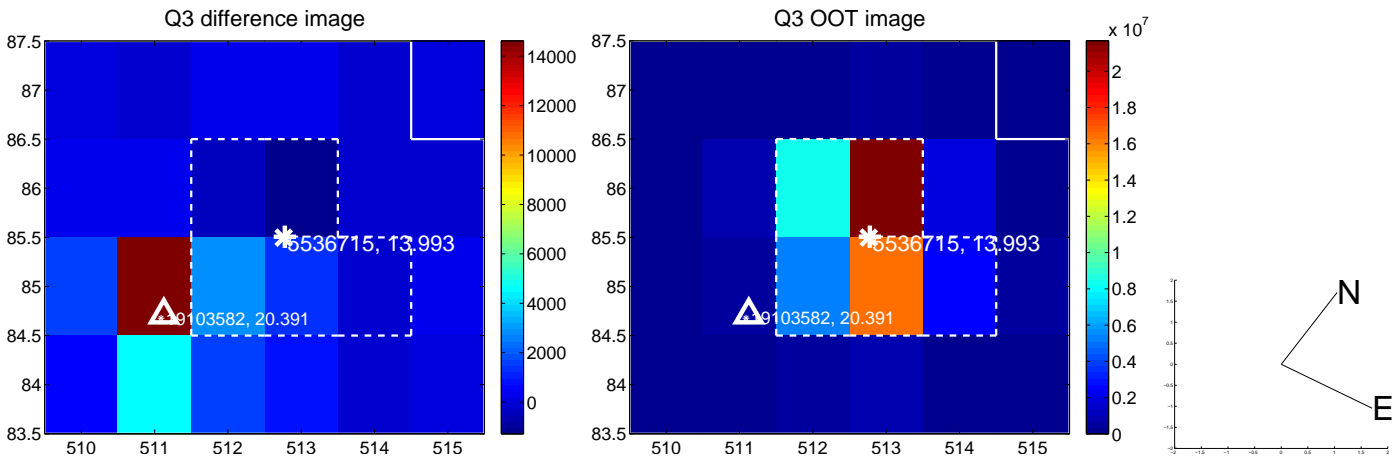
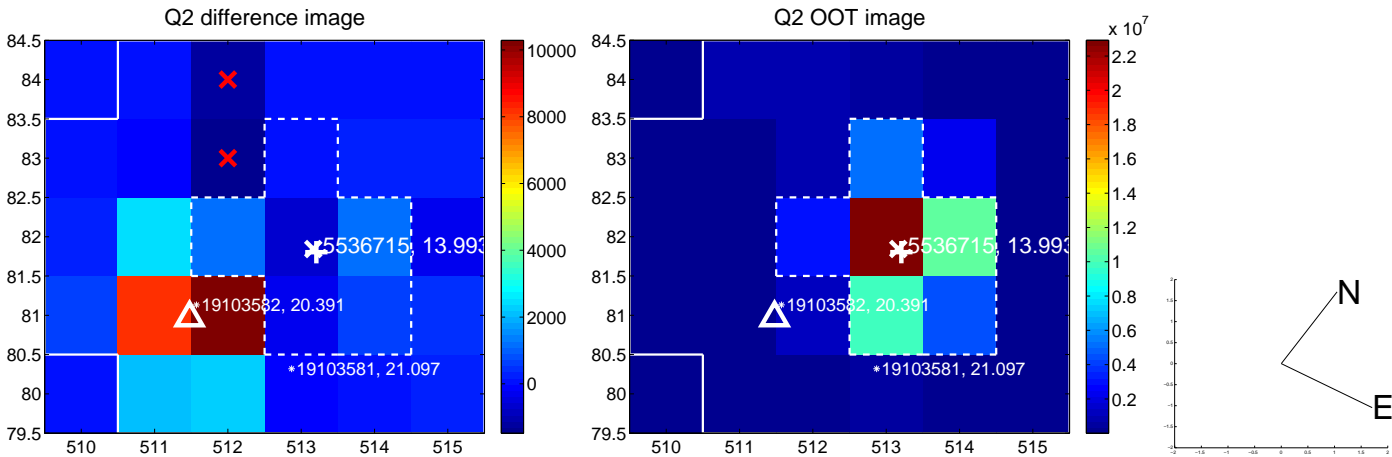
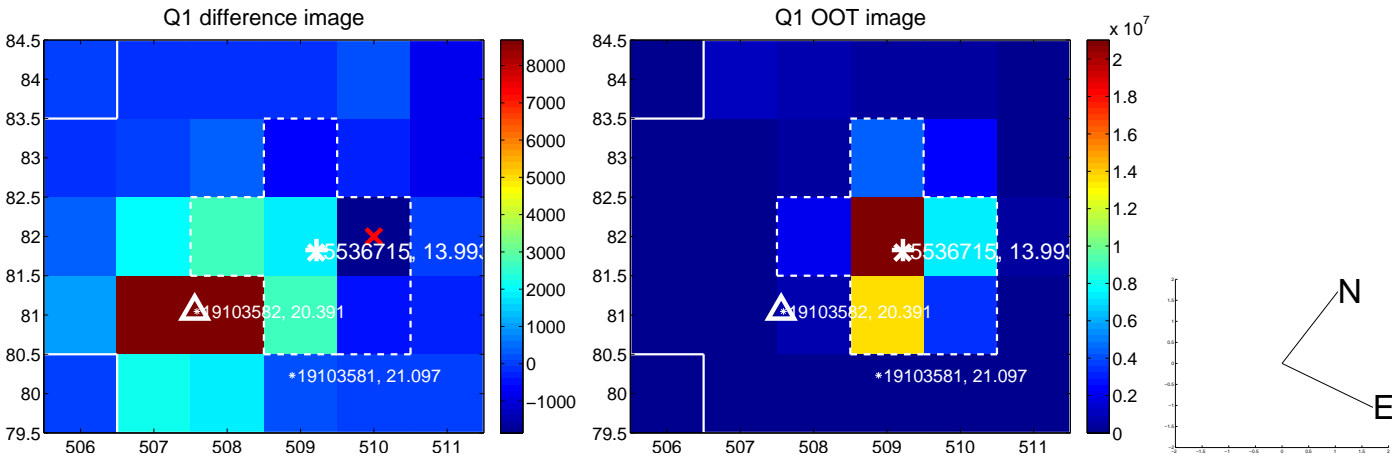
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.436 ± 0.072	103.69	-4.086 ± 0.072	-6.212 ± 0.070
PRF-fit source offset from KIC position	7.360 ± 0.071	103.51	-4.025 ± 0.069	-6.161 ± 0.072
photometric centroid source offset	3.70 ± 0.79	4.67	-1.29 ± 0.87	-3.46 ± 0.78

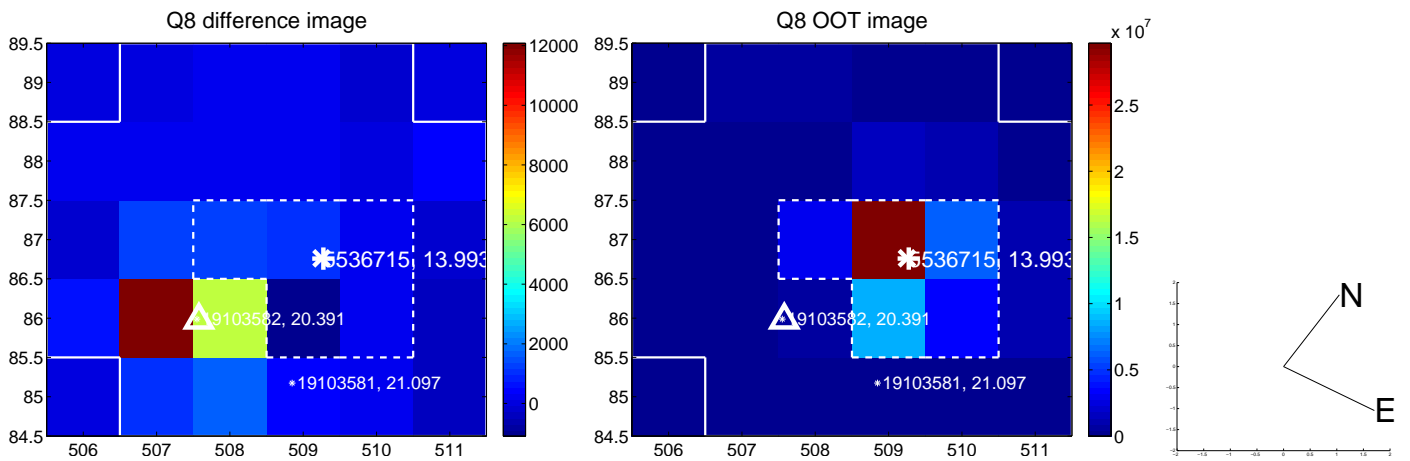
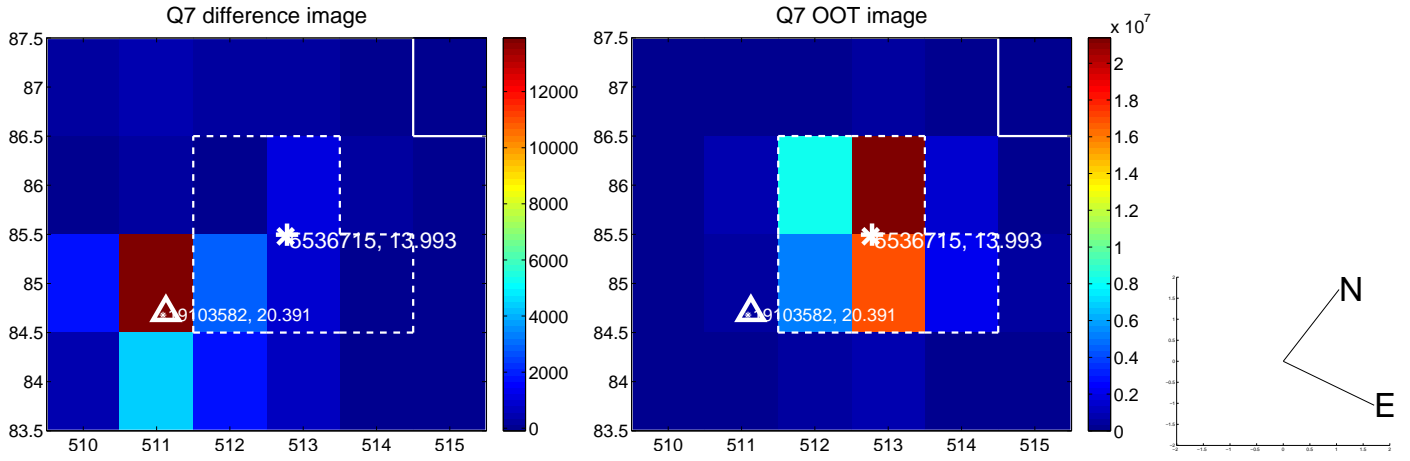
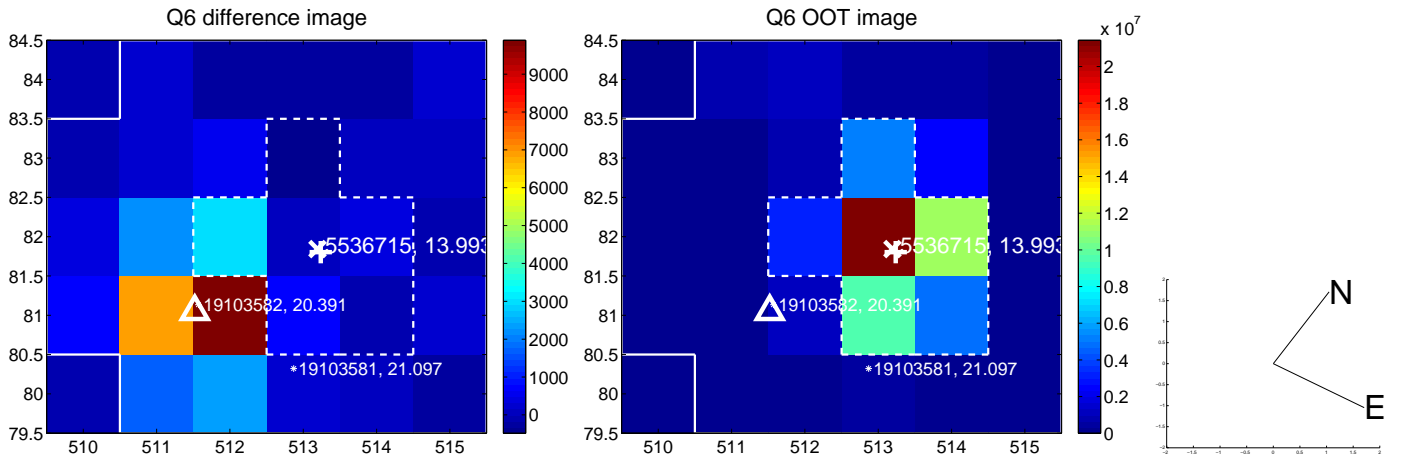
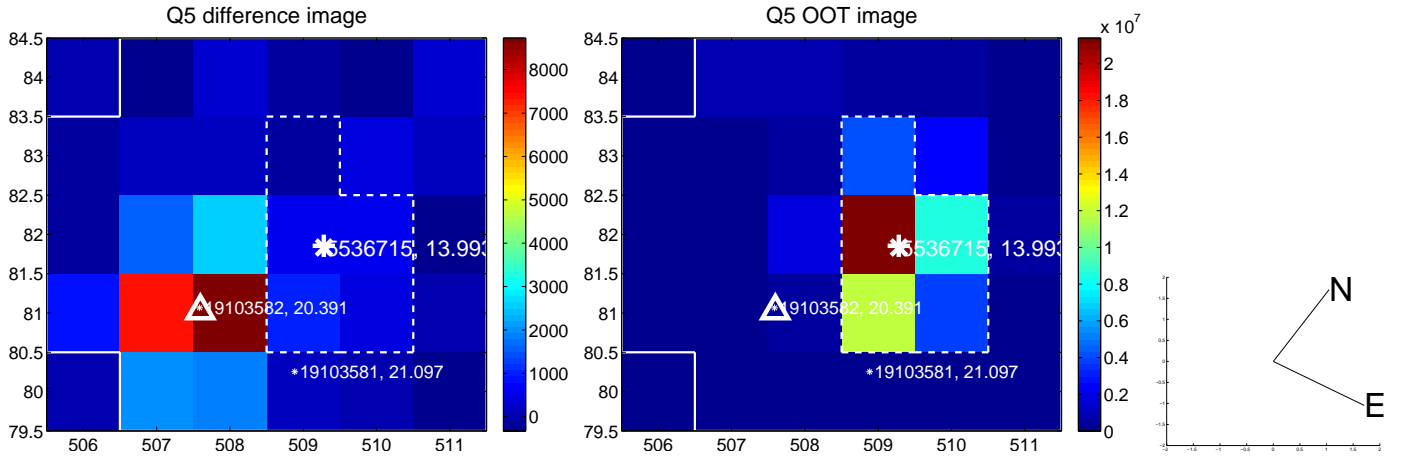


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

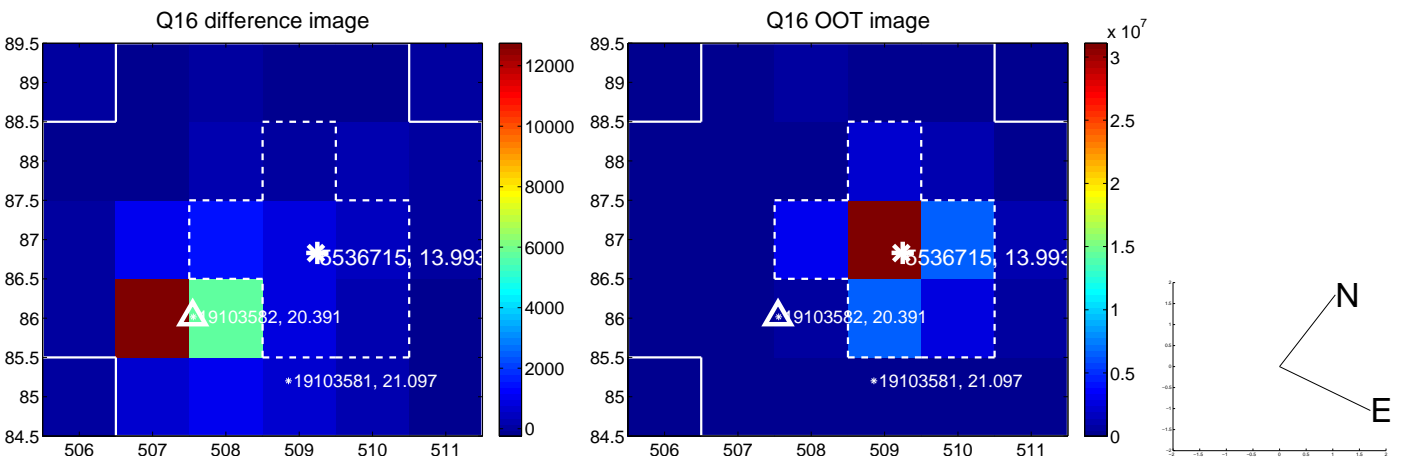
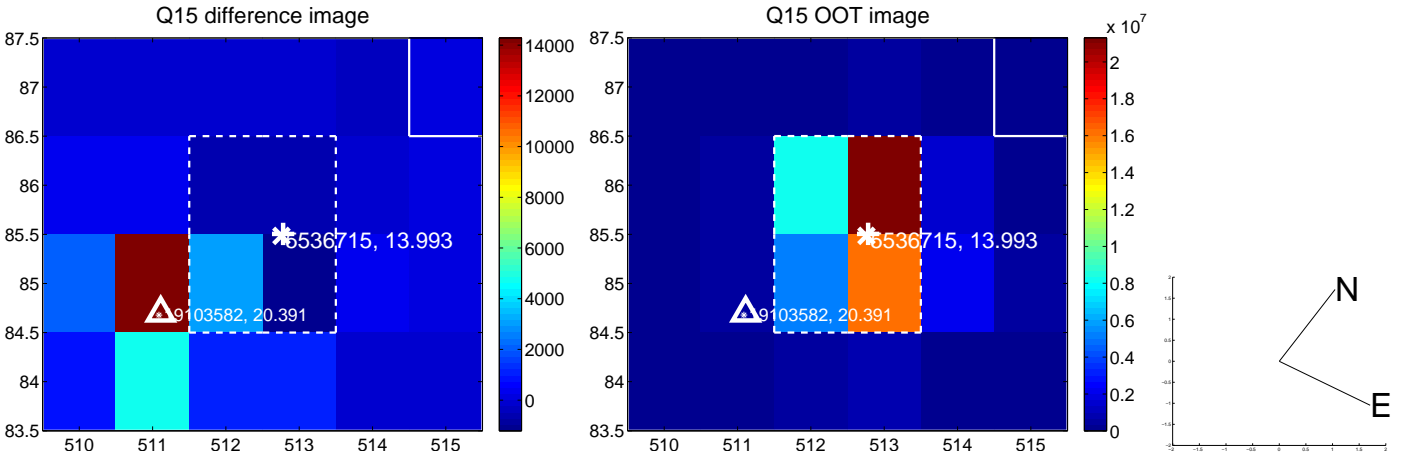
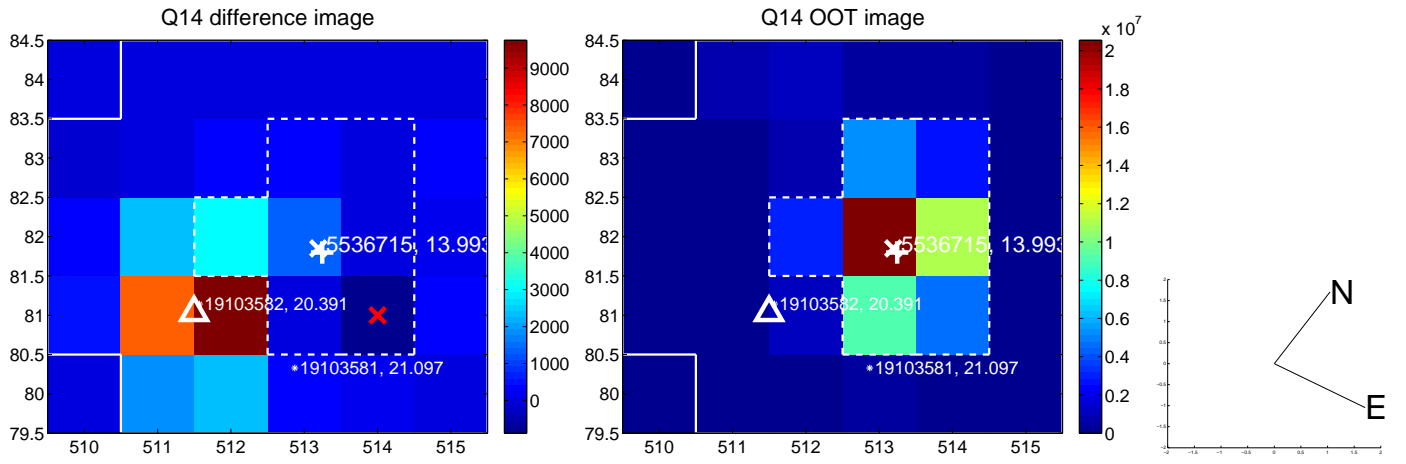
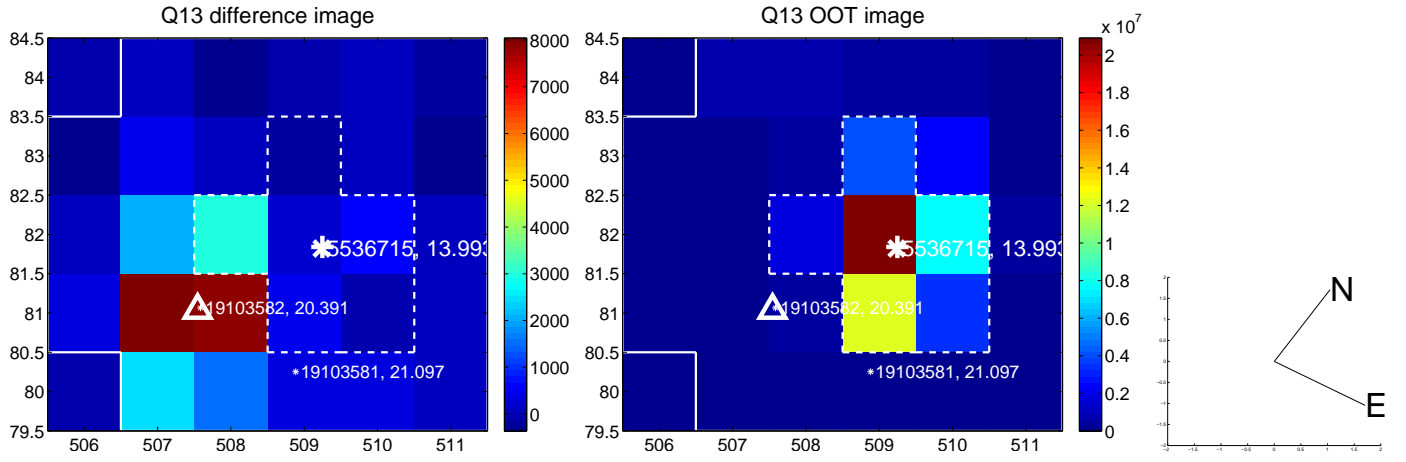
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



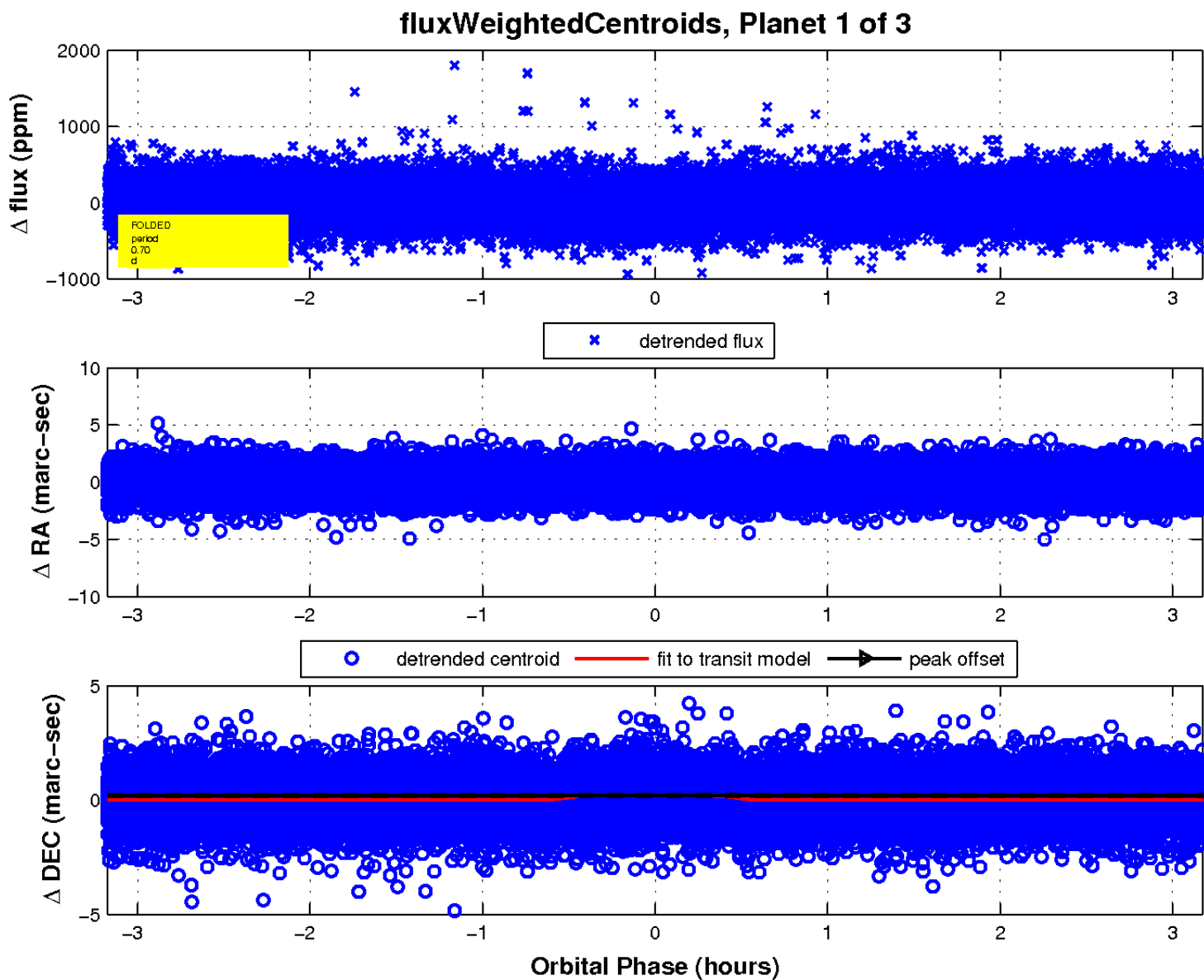
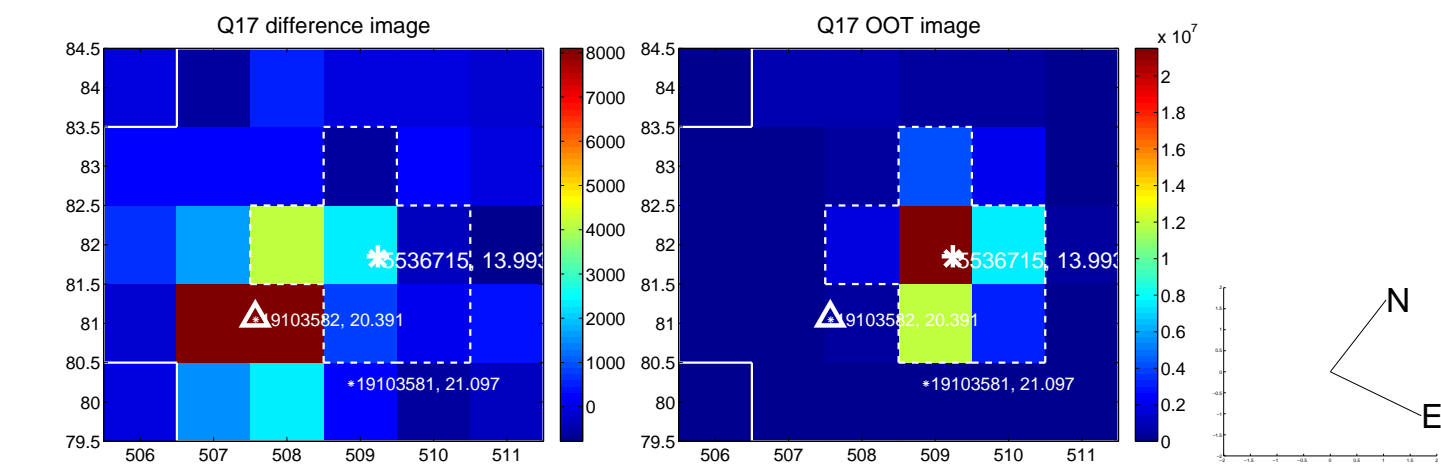
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

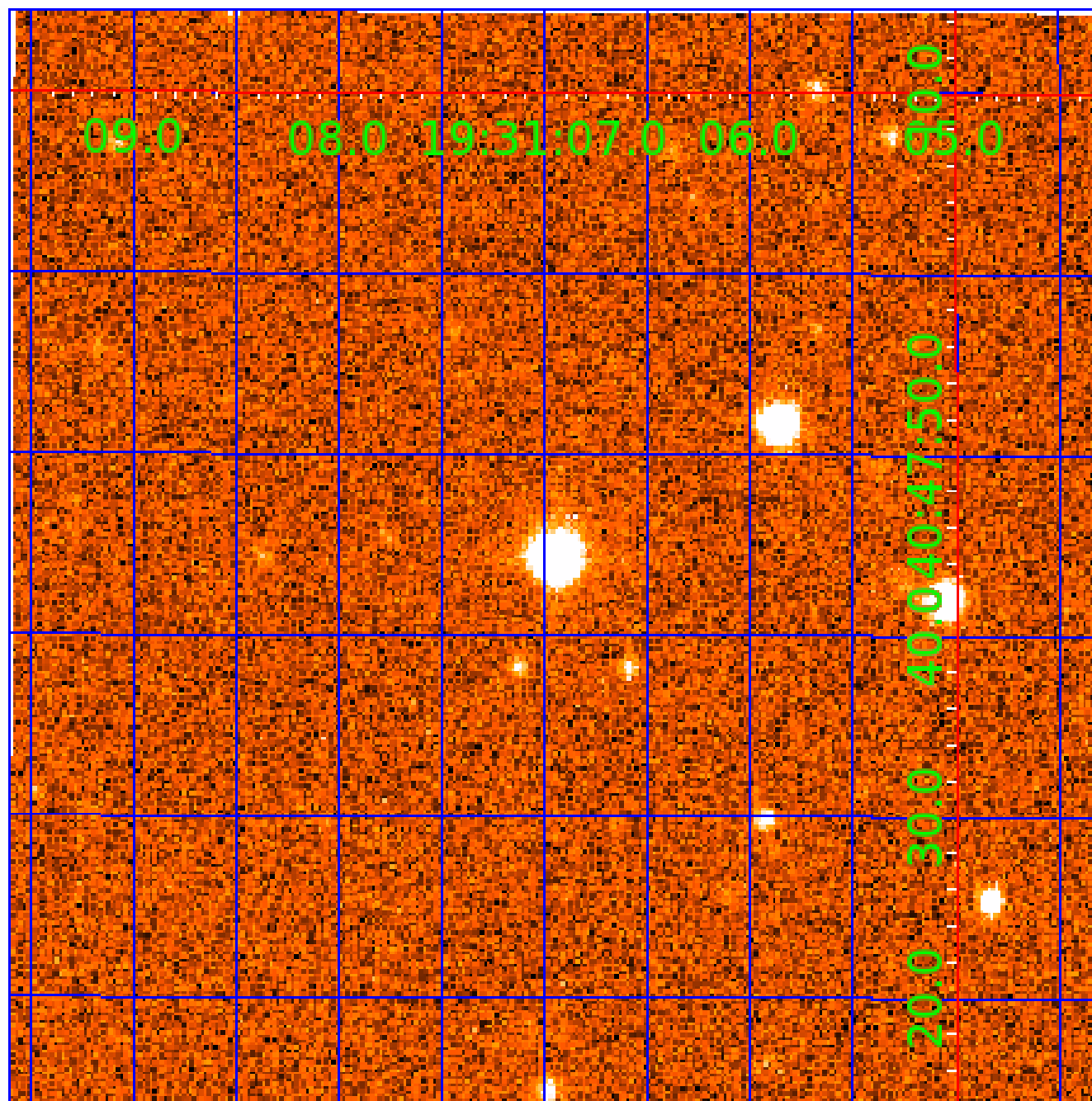


white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005536715

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})
005536715-01	OBS	No	0.701323	131.988213	53.1	1.058	9.3	12.6	1.30	6746	1.11	11307.68
005536715-02	OBS	No	0.701314	131.755756	52.1	1.275	12.1	13.3	1.30	6746	1.10	11307.88
005536715-03	OBS	No	0.701322	131.522141	55.5	0.982	9.8	13.1	1.30	6746	1.05	11307.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005536715-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
005536715-02	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005536715-03	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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 005536715-02

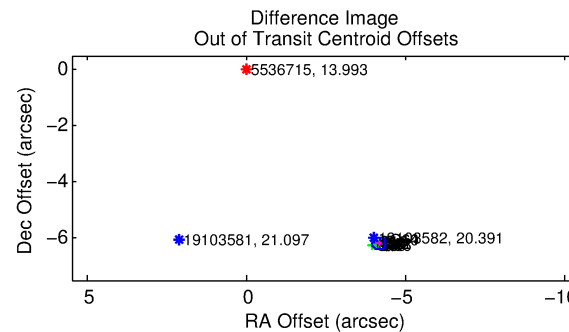
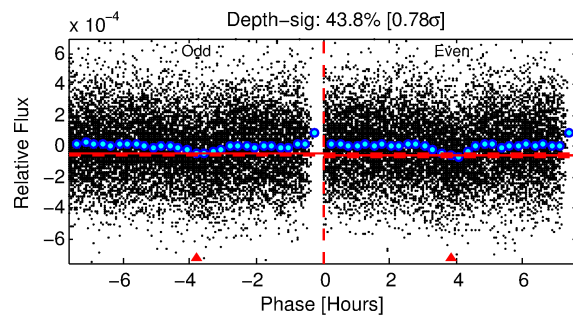
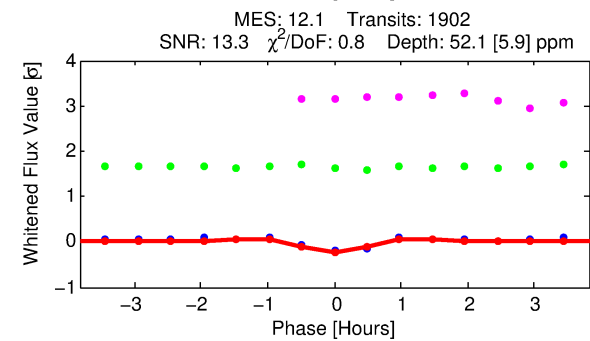
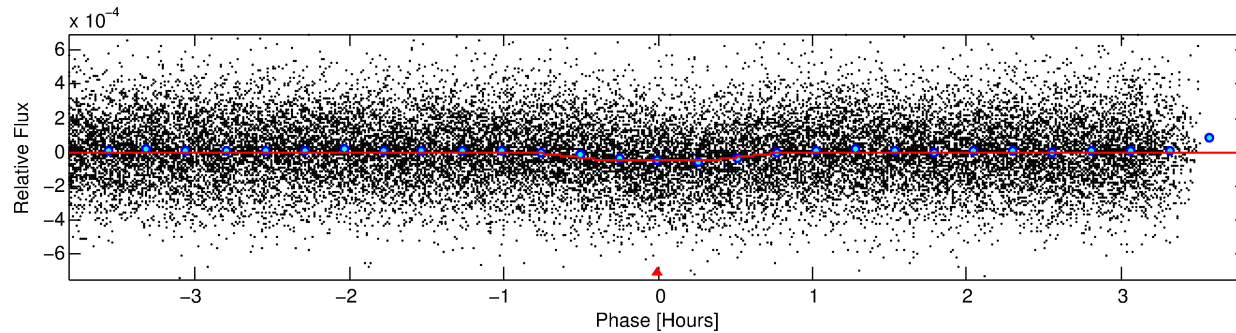
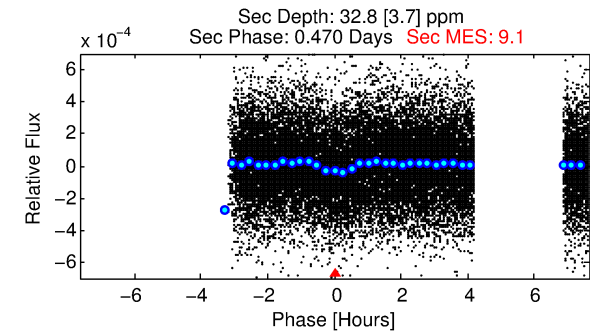
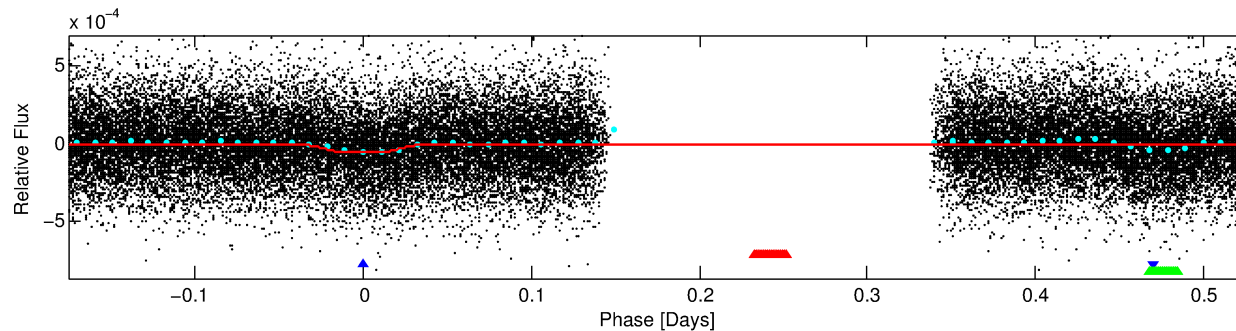
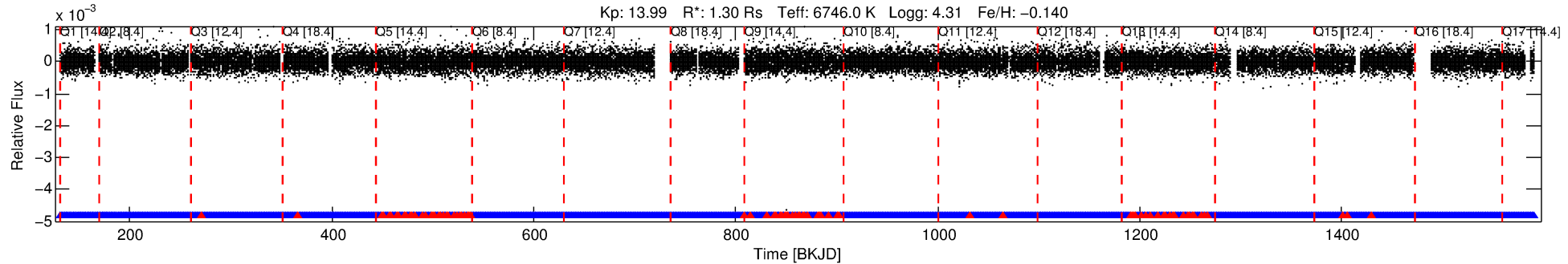
No Significant Match Found

DV One-Page Summary

KIC: 5536715 Candidate: 2 of 3 Period: 0.701 d

KOI: K04305 Corr: No Ephemeris Match

Kp: 13.99 R*: 1.30 Rs Teff: 6746.0 K Logg: 4.31 Fe/H: -0.140



DV Fit Results:

Period = 0.70131 [0.00001] d
Epoch = 131.7558 [0.0013] BKJD
Rp/R* = 0.0078 [0.0022]
a/R* = 2.09 [2.68]
b = 0.90 [0.34]
Seff = 11307.88 [4636.54]
Teq = 2629 [270] K
Rp = 1.10 [0.48] Re
a = 0.0167 [0.0045] AU
Ag = 4.13 [2.84] [1.10σ]
Teff = 5795 [859] K [3.52σ]

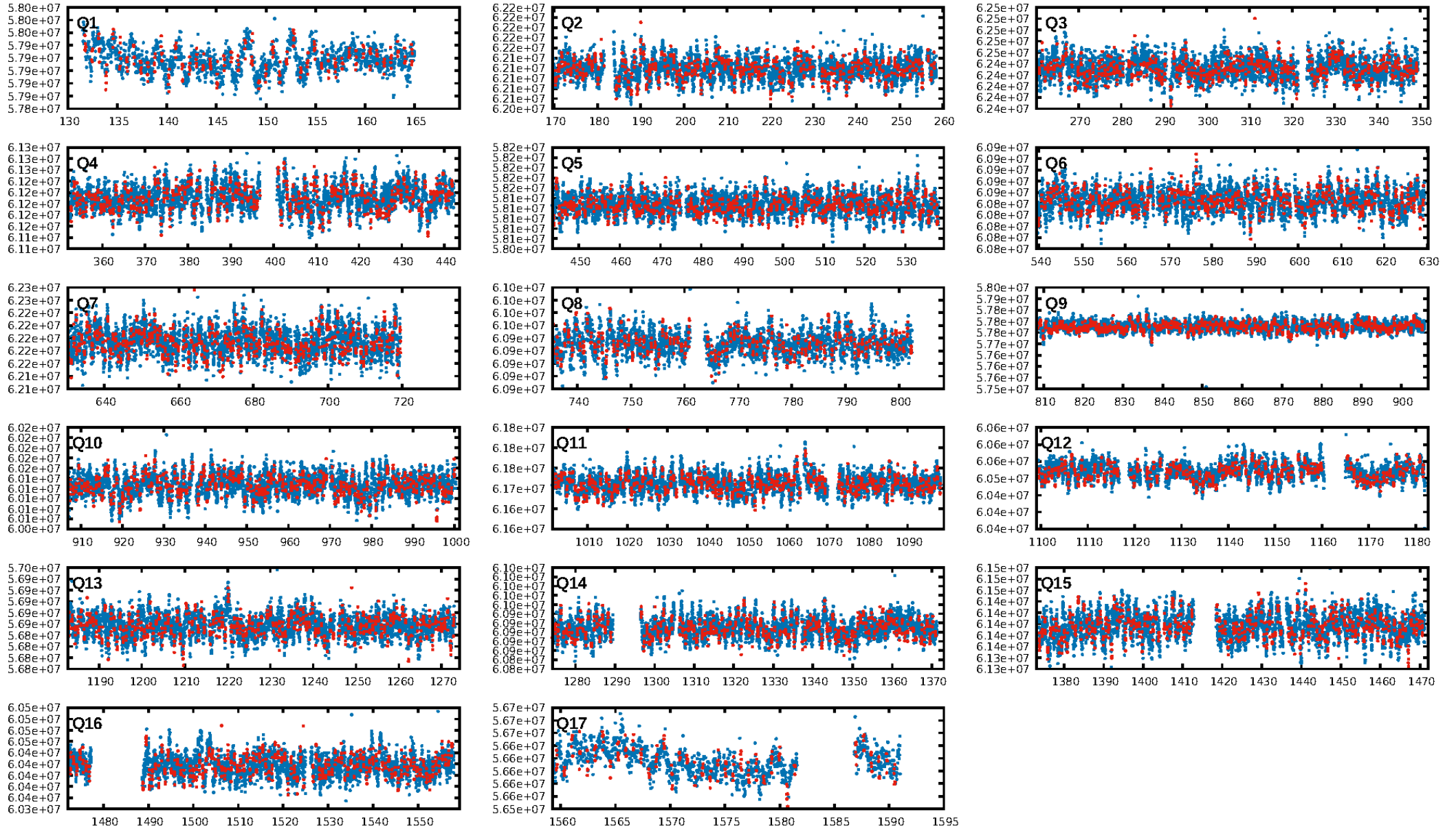
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.80e-31
RollingBand-fgt: 0.95 [1725/1816]
GhostDiagnostic-chr: -3.824
Centroid-sig: N/A
Centroid-so: 0.773 arcsec [1.07σ]
OotOffset-rm: 7.471 arcsec [105.20σ]
KicOffset-rm: 7.368 arcsec [107.01σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

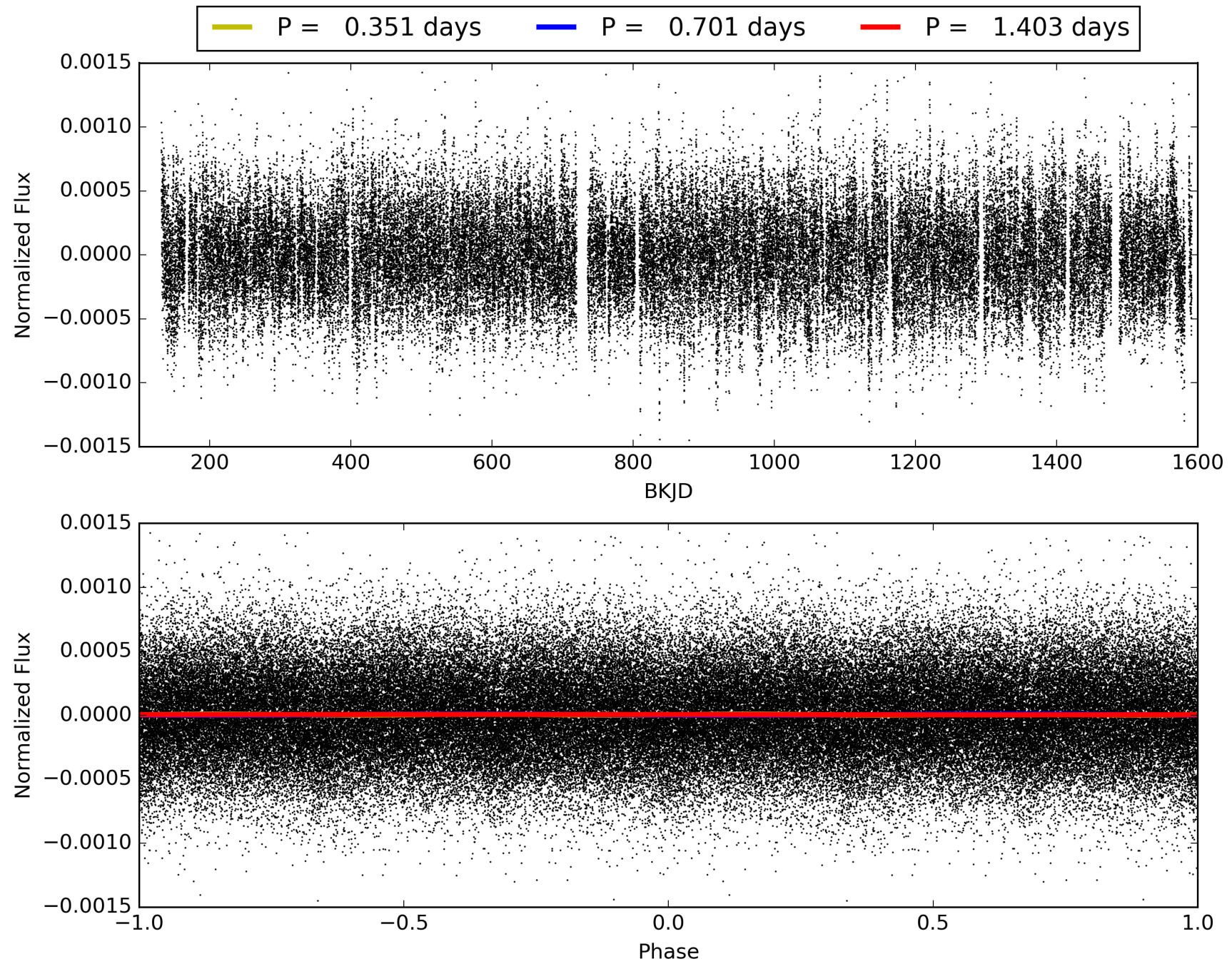
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:44:30 Z

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

TCE 005536715-02, PDC Light Curves

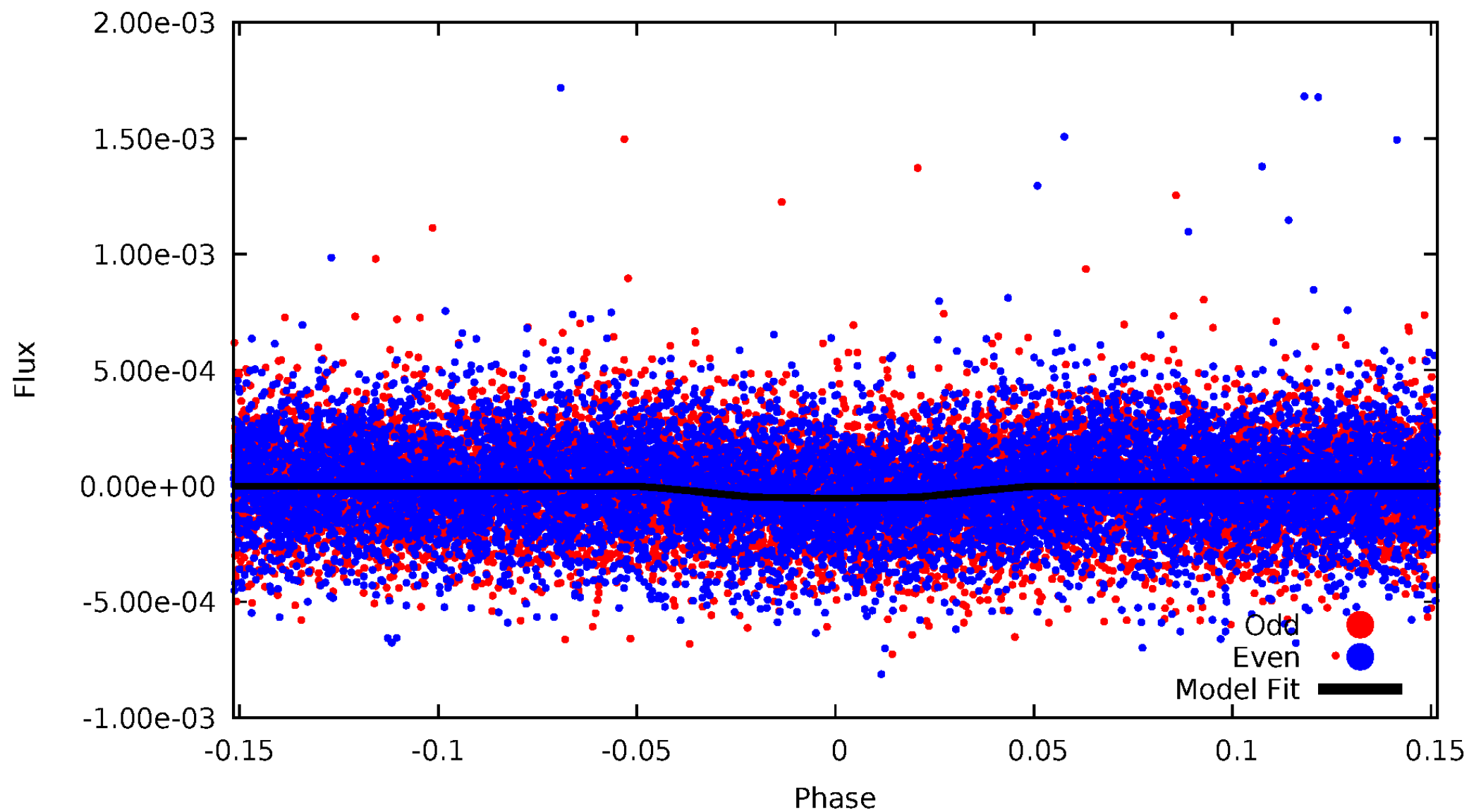


TCE 005536715-02



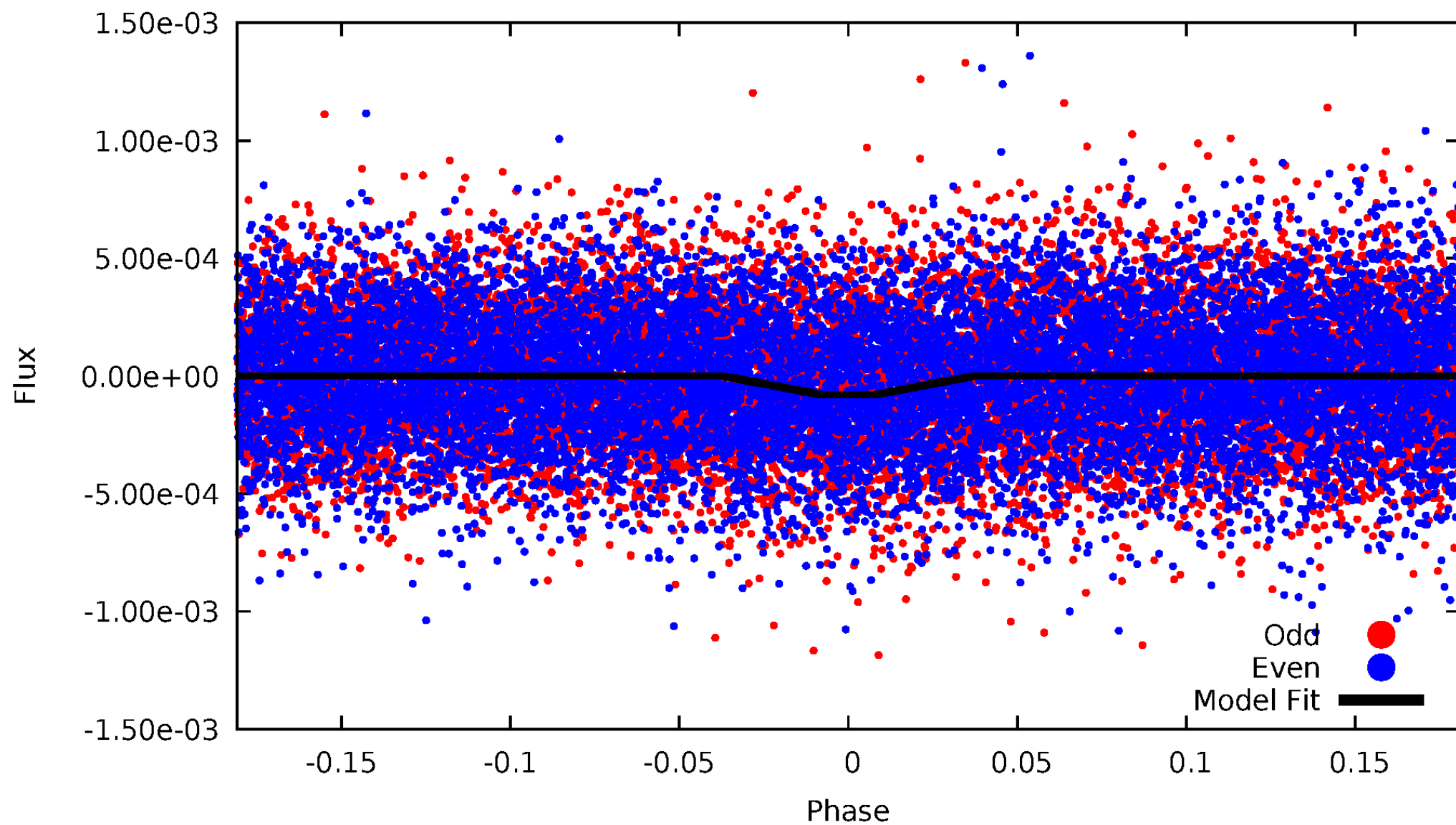
DV Odd/Even

TCE 005536715-02



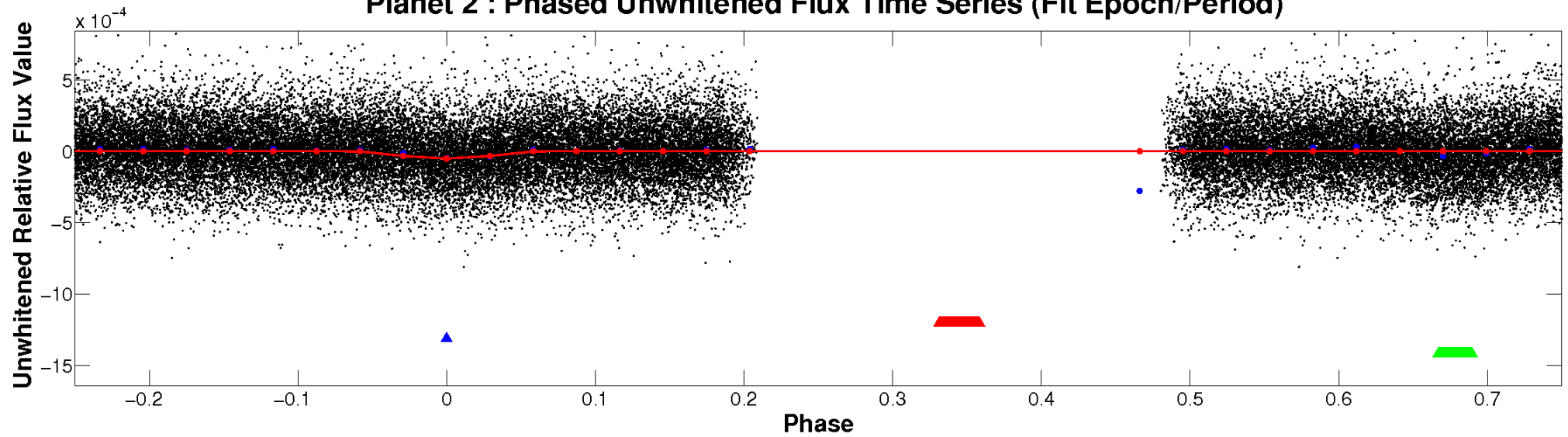
ALT Odd/Even

TCE 005536715-02

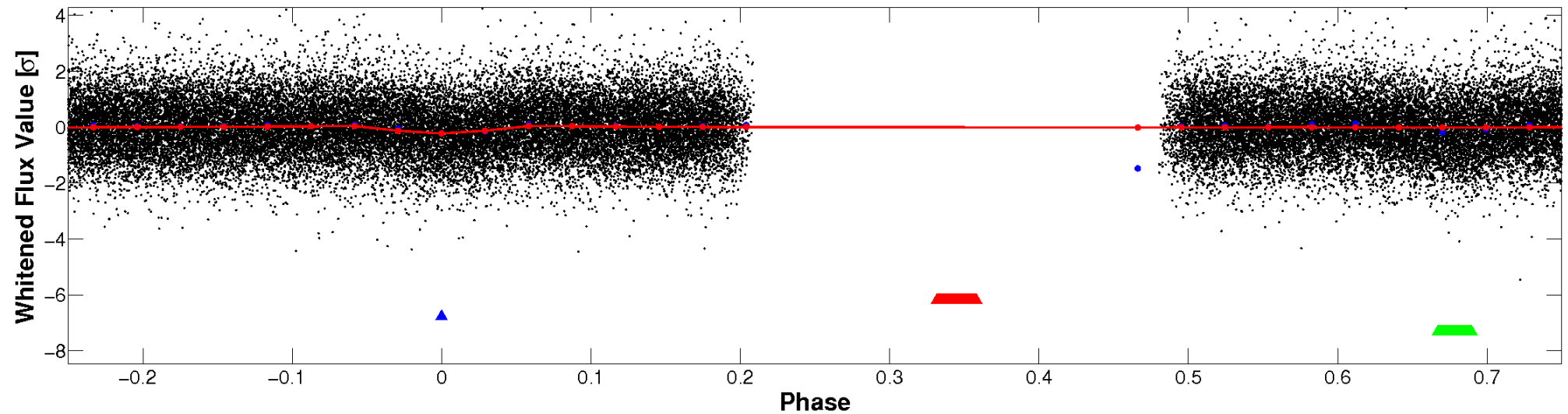


Non-Whitened Vs. Whitened Light Curve

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

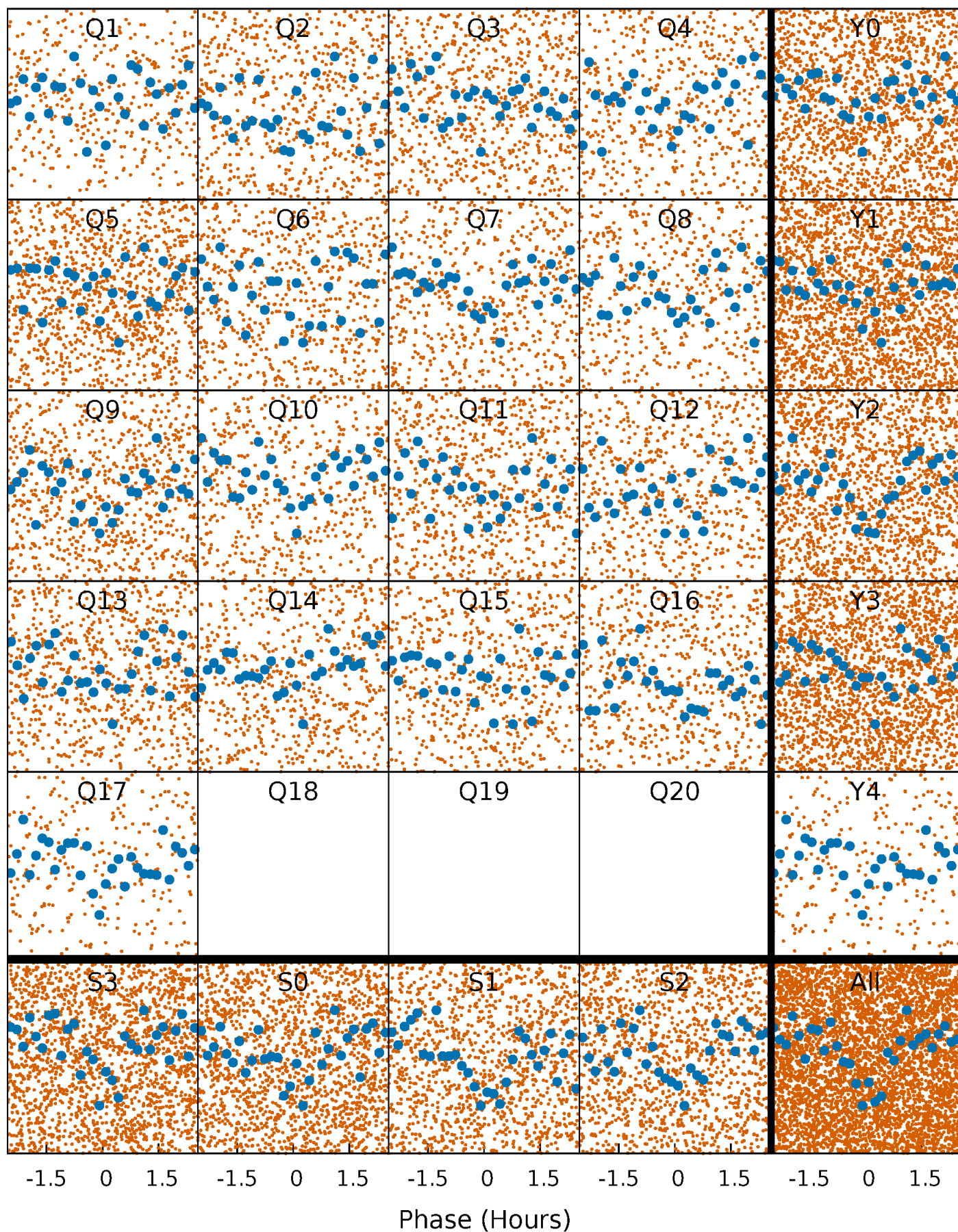


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



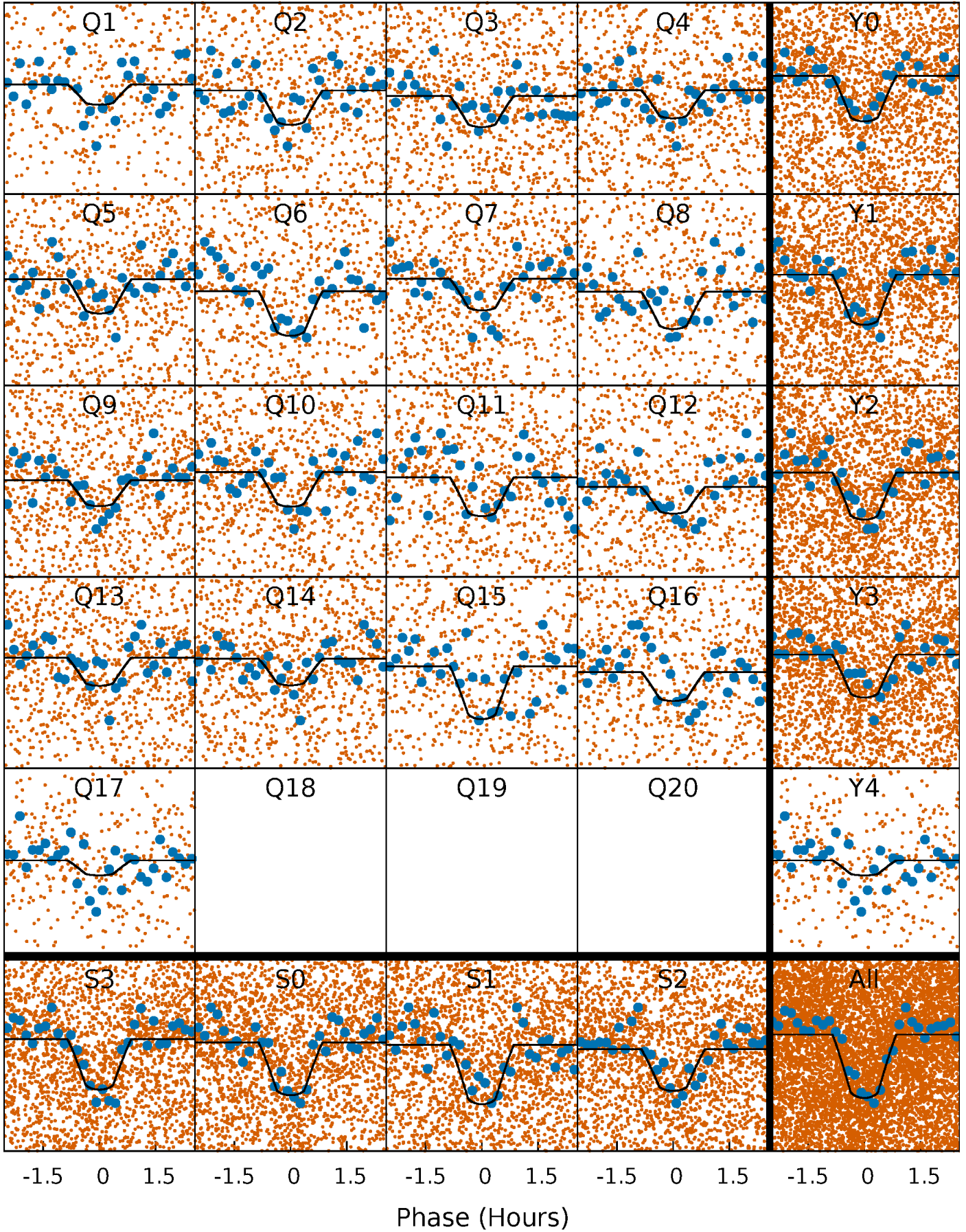
PDC Quarter-Phased Transit Curves

TCE 005536715-02 P= 0.701314 Days $T_0=131.755756$ (BKJD)



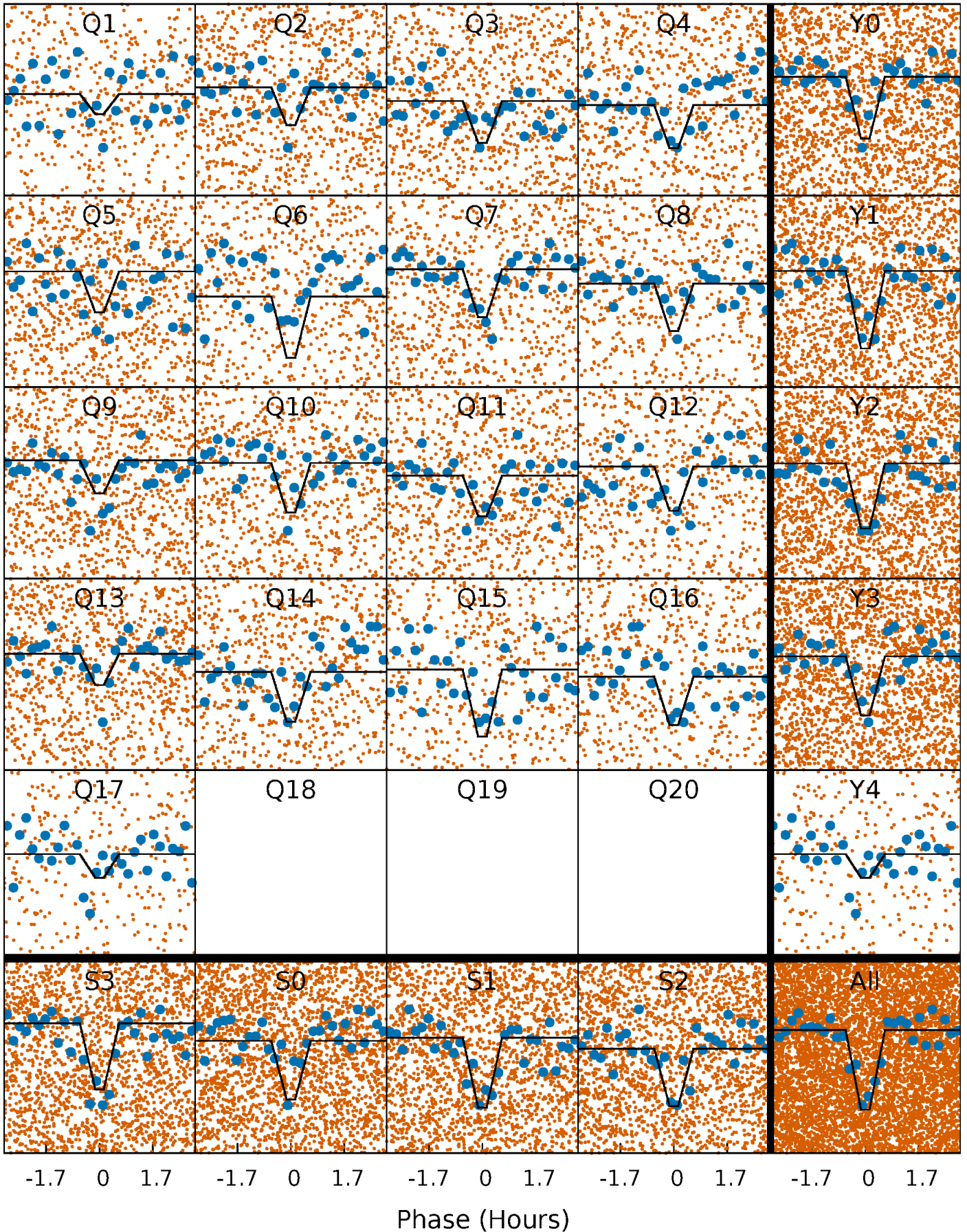
DV Quarter-Phased Transit Curves

TCE 005536715-02 P= 0.701314 Days $T_0=131.755756$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

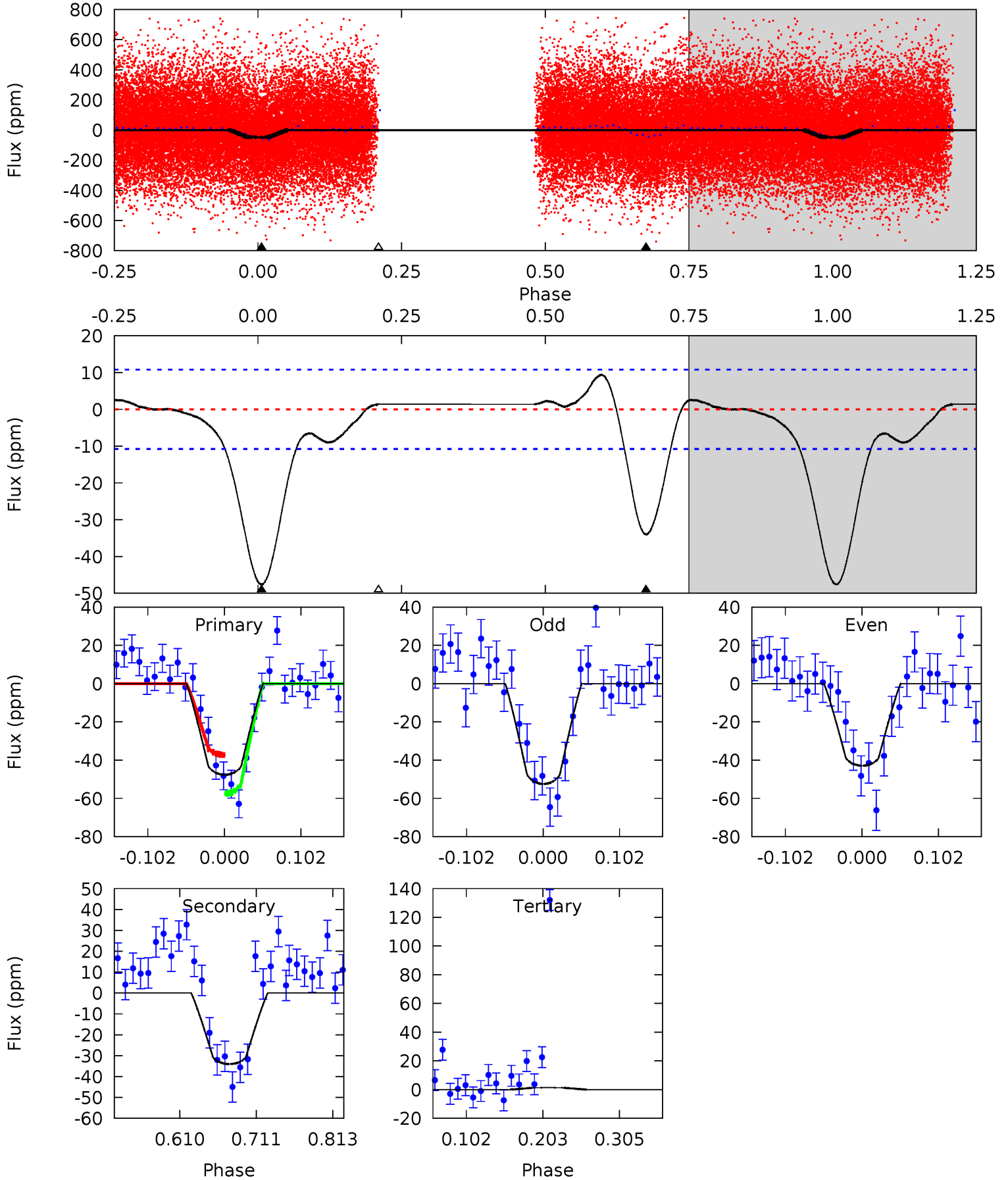
TCE 005536715-02 P= 0.701321 Days $T_0=131.753711$ (BKJD)



DV Model-Shift Uniqueness Test

005536715-02, P = 0.701314 Days, E = 131.054442 Days

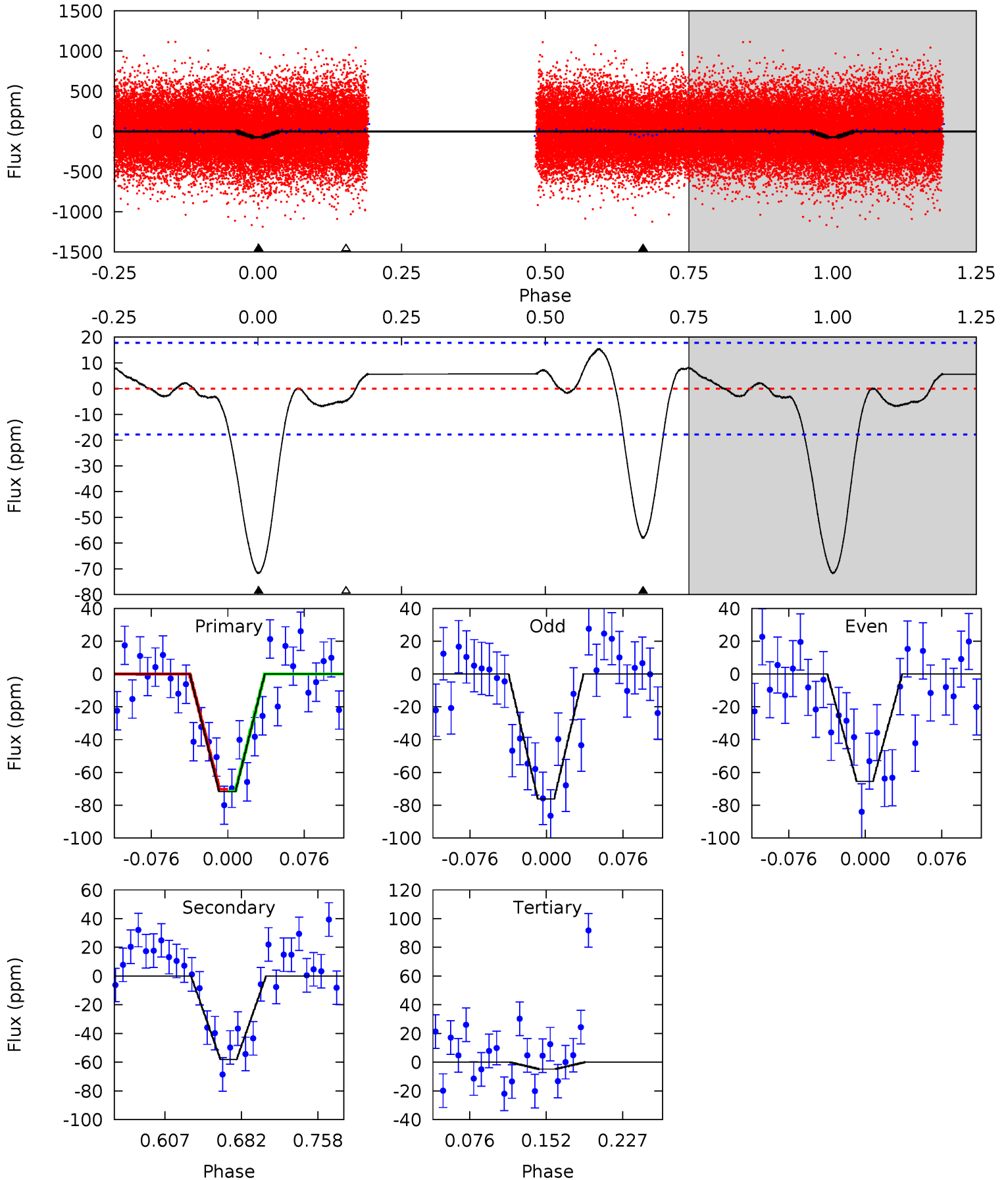
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.2	14.4	-0.57	0	4.56	1.64	1.47	20.7	20.2	15.0	14.4	2.03	1.03	0.17	4.29



Alt Model-Shift Uniqueness Test

005536715-02, P = 0.701321 Days, E = 131.052390 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	15.1	1.25	0	4.62	1.78	1.31	17.4	18.6	13.8	15.1	1.40	0.96	0.18	0.14



Stellar Parameters For KIC 005536715

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6746^{+165}_{-259}	$4.309^{+0.072}_{-0.203}$	$-0.140^{+0.250}_{-0.300}$	$1.304^{+0.426}_{-0.183}$	$1.271^{+0.190}_{-0.190}$	$0.807^{+0.303}_{-0.420}$
	+2%/-4%	+2%/-5%	+179%/-214%	+33%/-14%	+15%/-15%	+38%/-52%
Source	PHO1	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 005536715-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-34 ± 2	$1.15^{+0.38}_{-0.32}$	3722^{+280}_{-205}	5668^{+1056}_{-666}	$3.855^{+3.590}_{-1.641}$
Alt.	-58 ± 4	$1.34^{+0.40}_{-0.40}$	3738^{+279}_{-196}	6103^{+1122}_{-711}	$4.981^{+4.631}_{-2.042}$

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

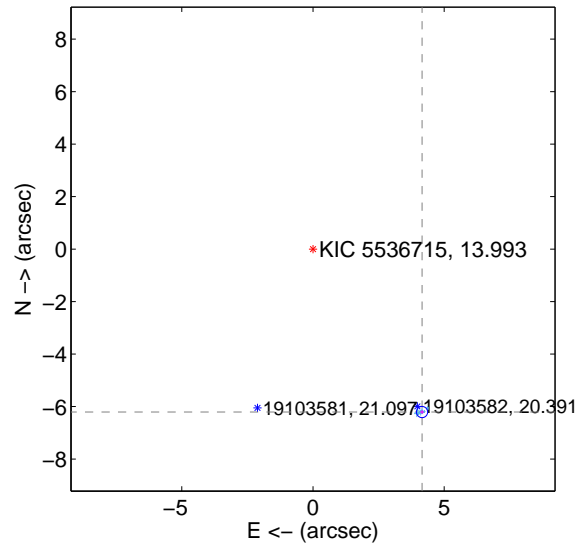
Supplemental centroid analysis for 005536715-02. Kepler magnitude: 13.99. Transit SNR 13.32

There are 17 quarters with good PRF difference image offsets

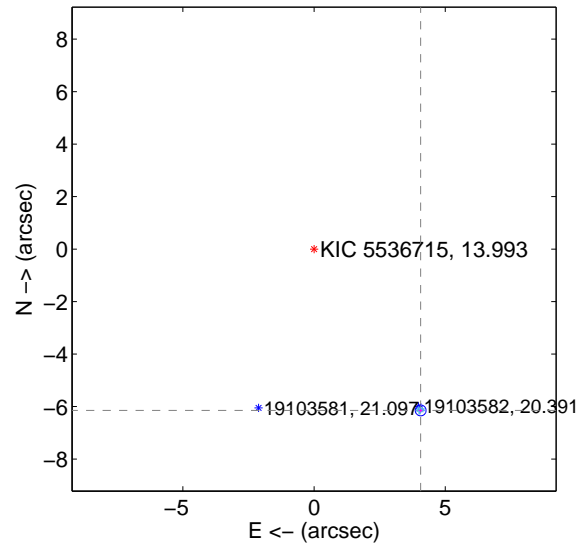
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.471 ± 0.071	105.20	-4.156 ± 0.076	-6.209 ± 0.069
PRF-fit source offset from KIC position	7.368 ± 0.069	107.01	-4.061 ± 0.069	-6.147 ± 0.069
photometric centroid source offset	0.77 ± 0.72	1.07	0.08 ± 0.80	0.77 ± 0.72

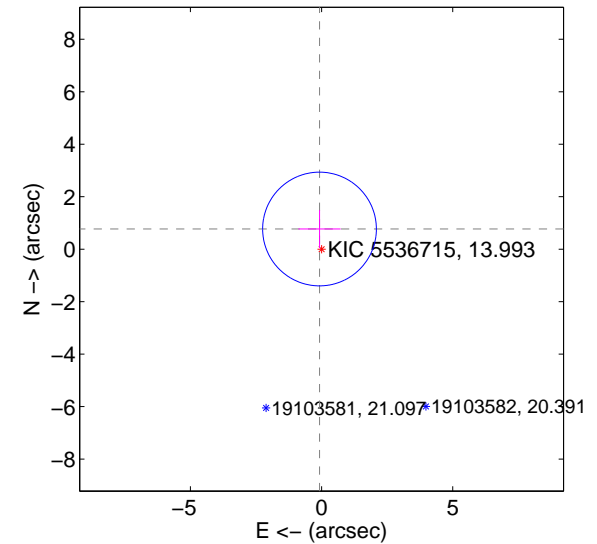
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

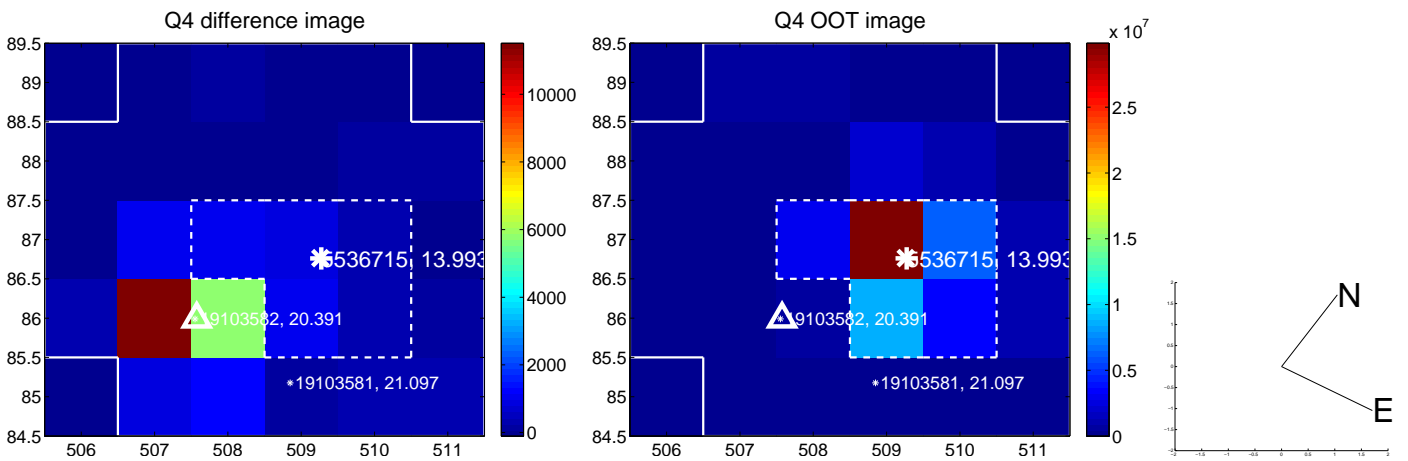
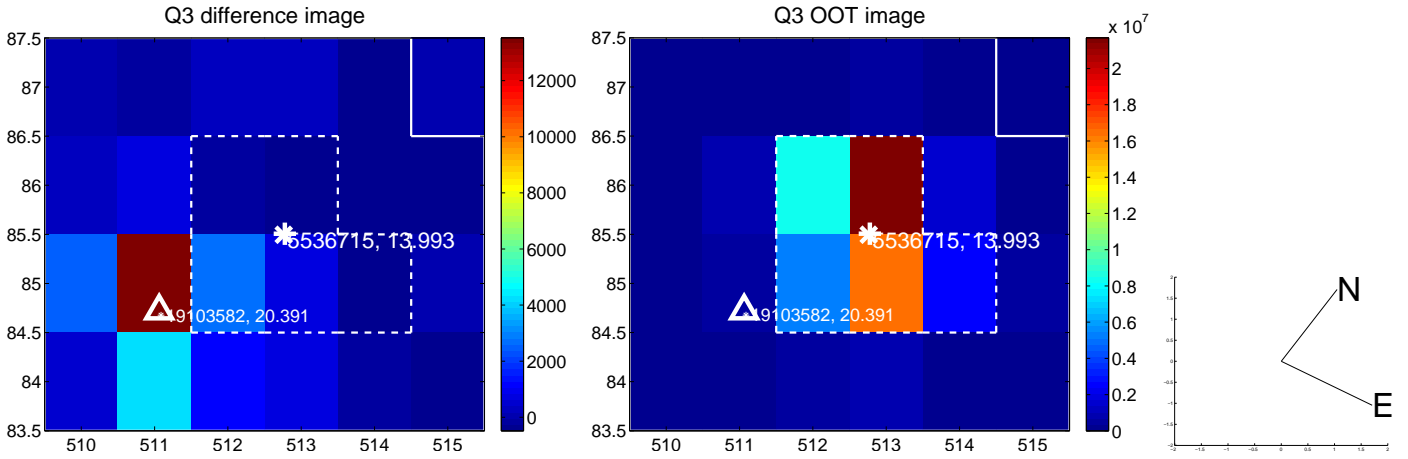
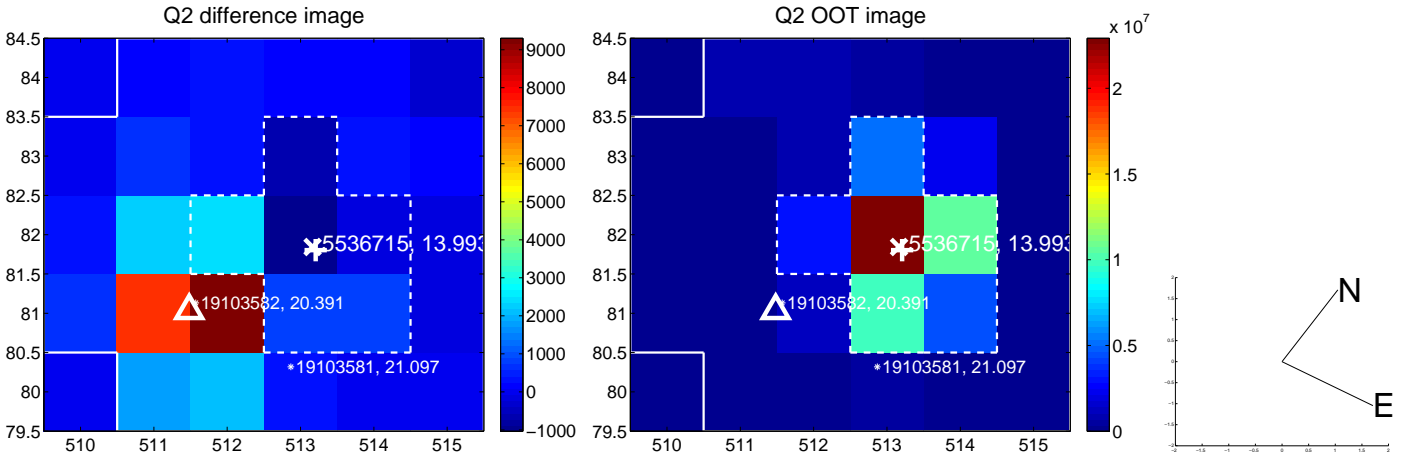
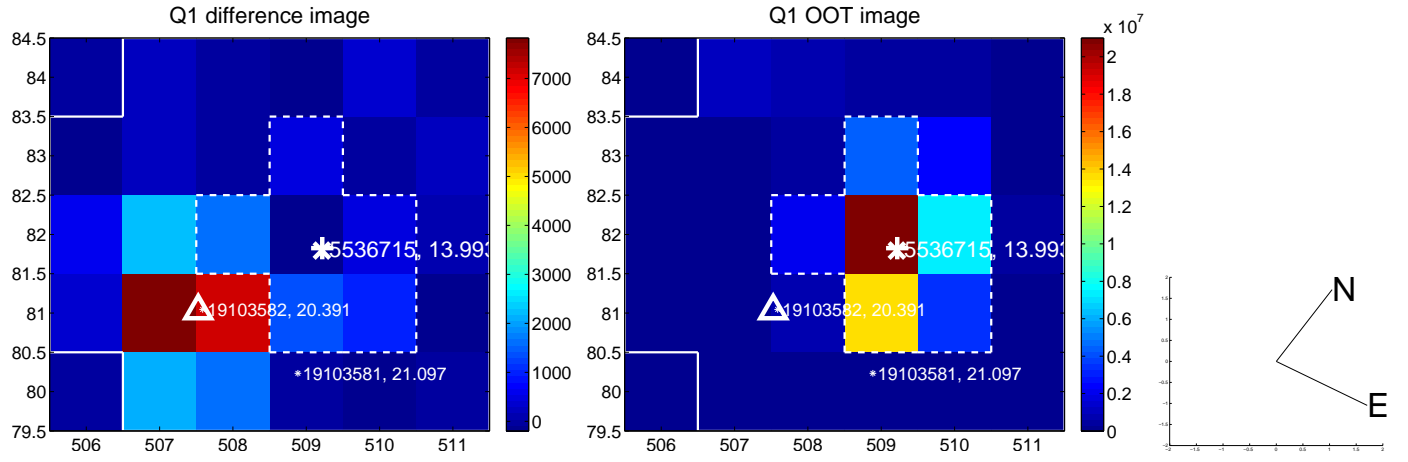


offset from photometric centroids

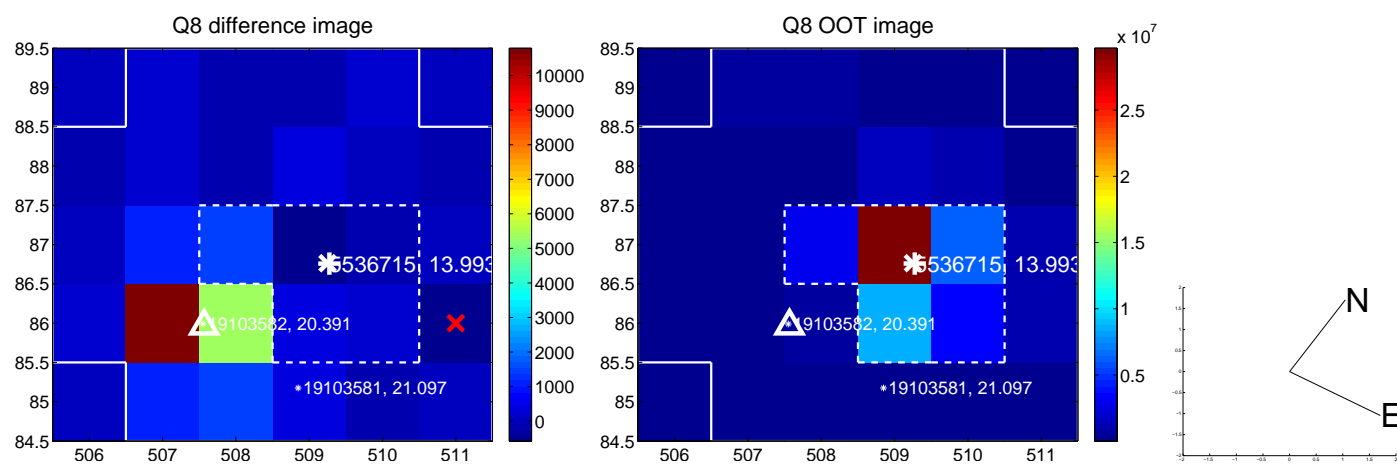
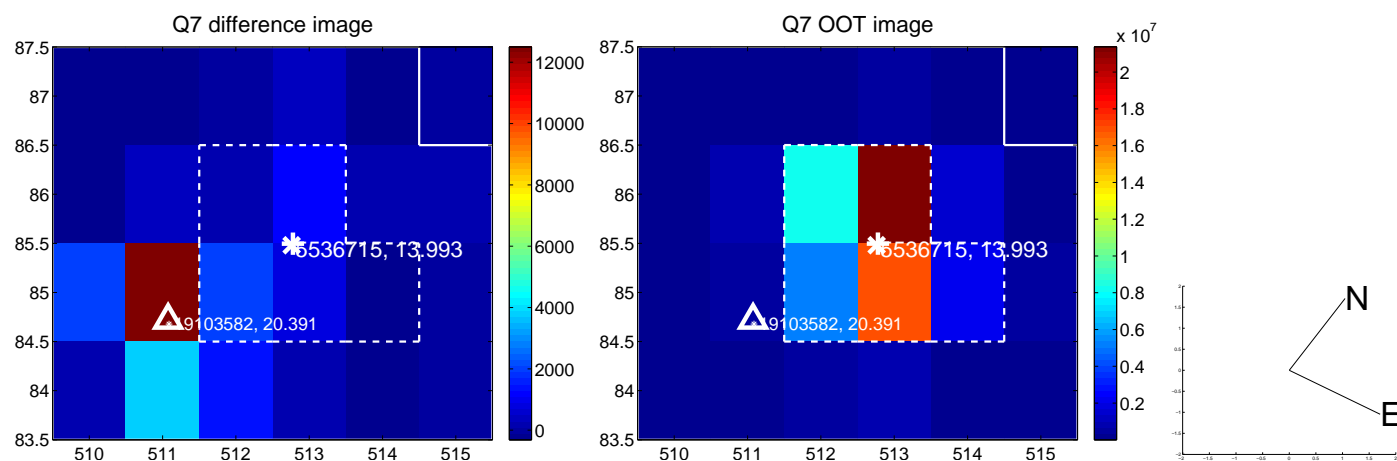
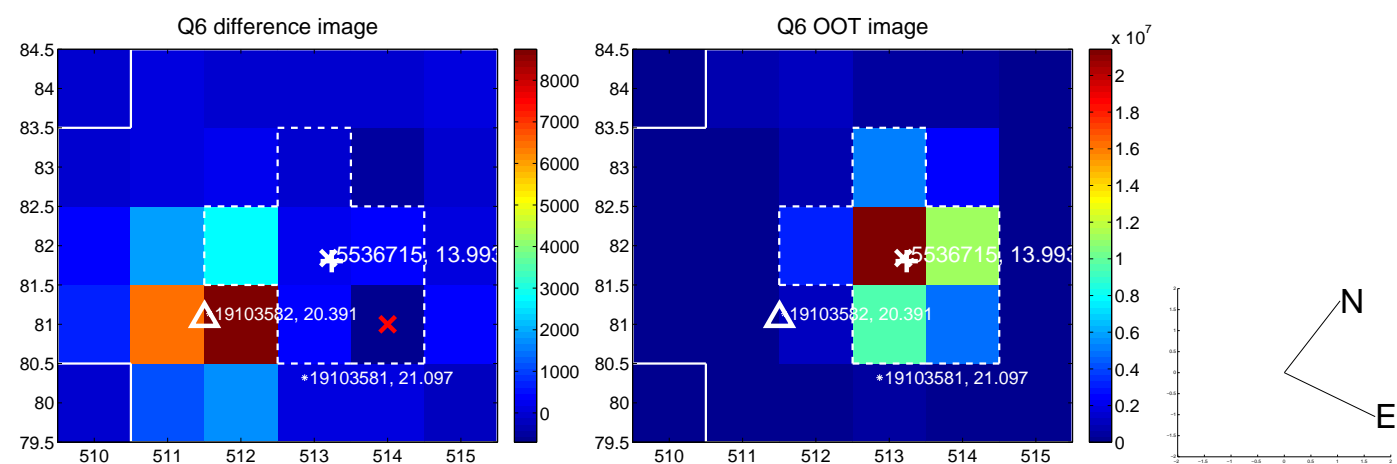
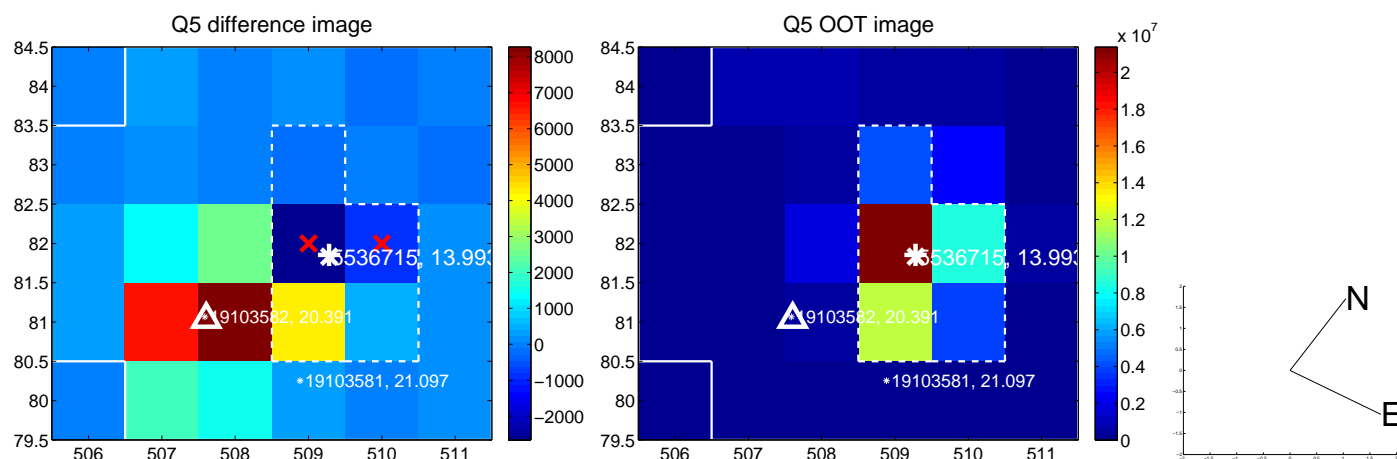


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

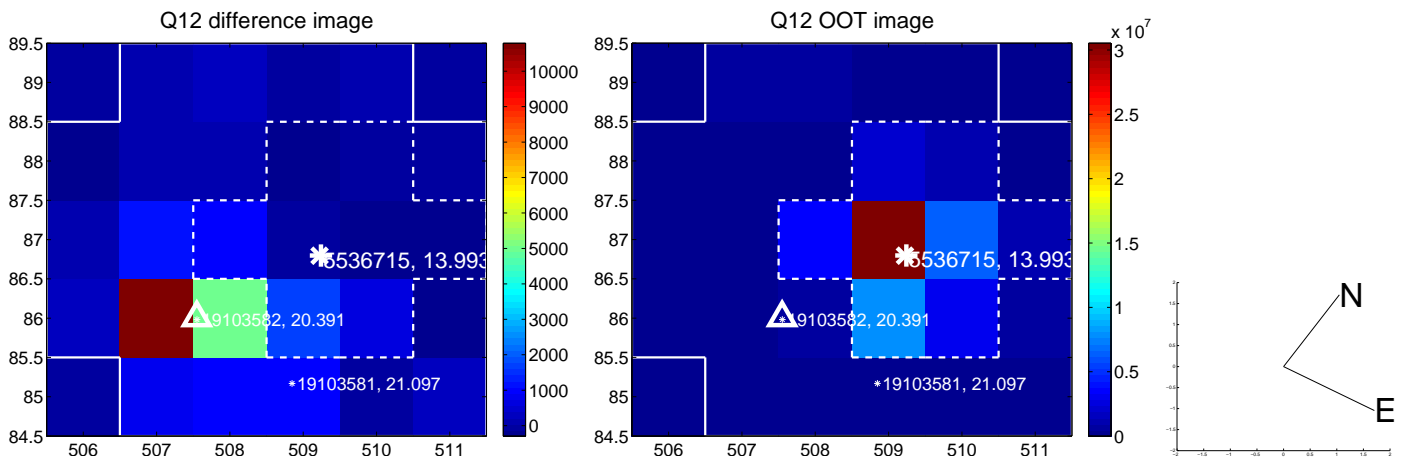
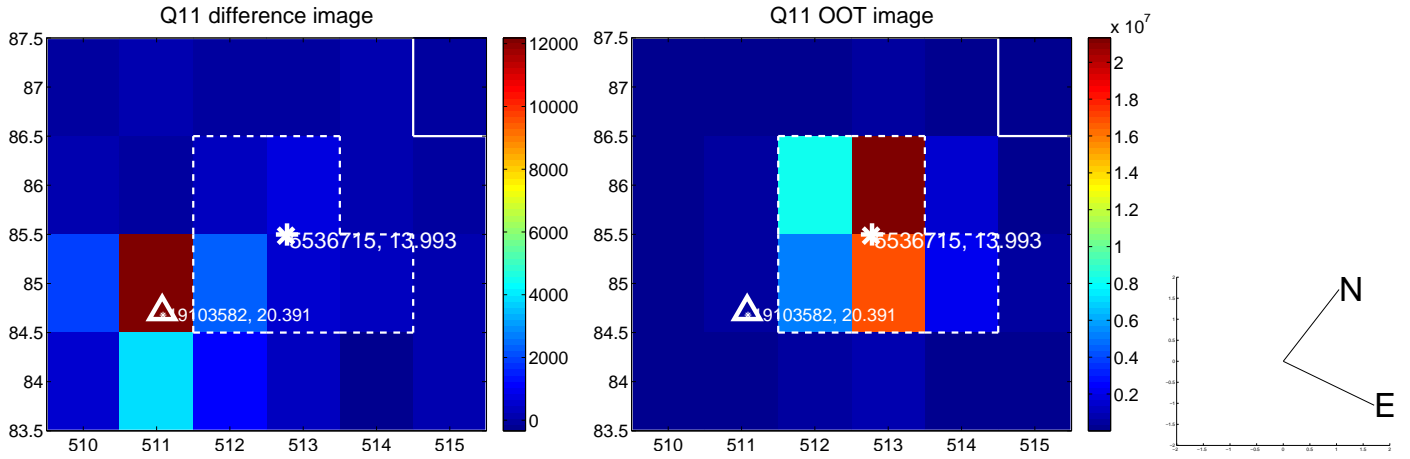
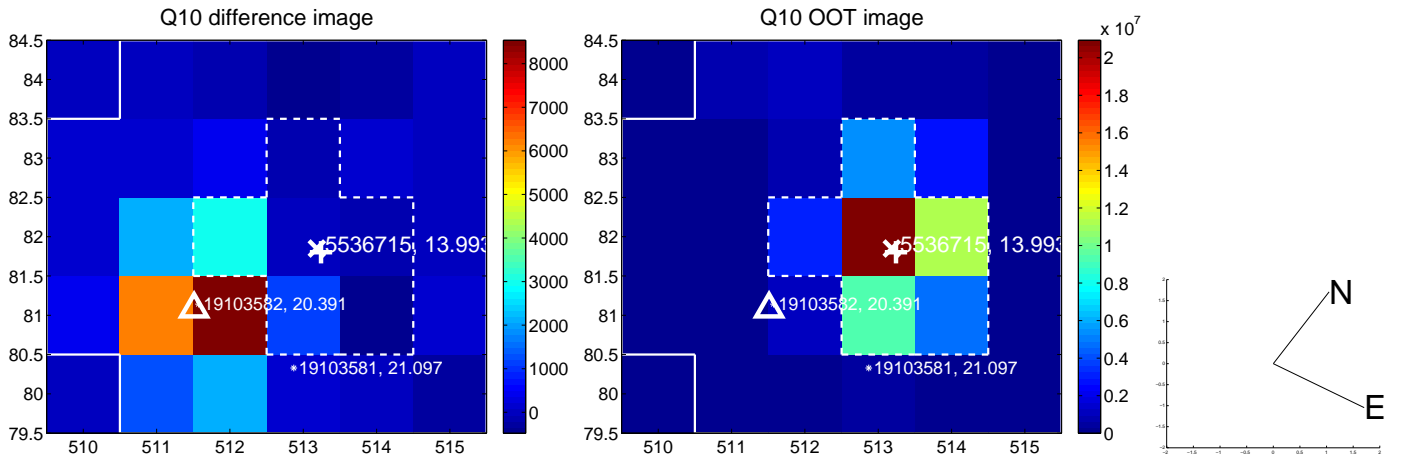
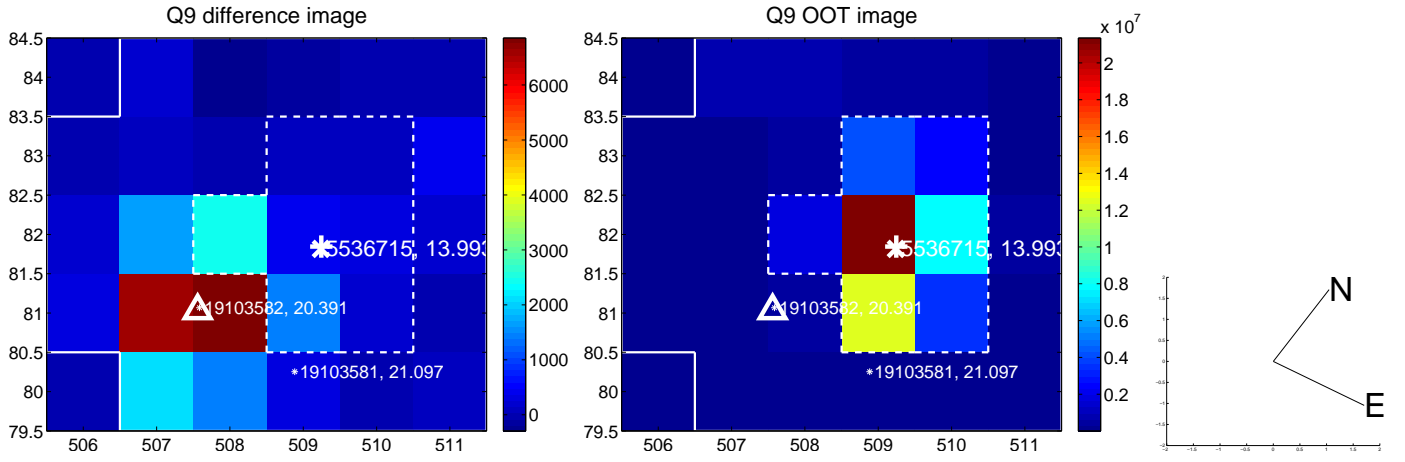
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



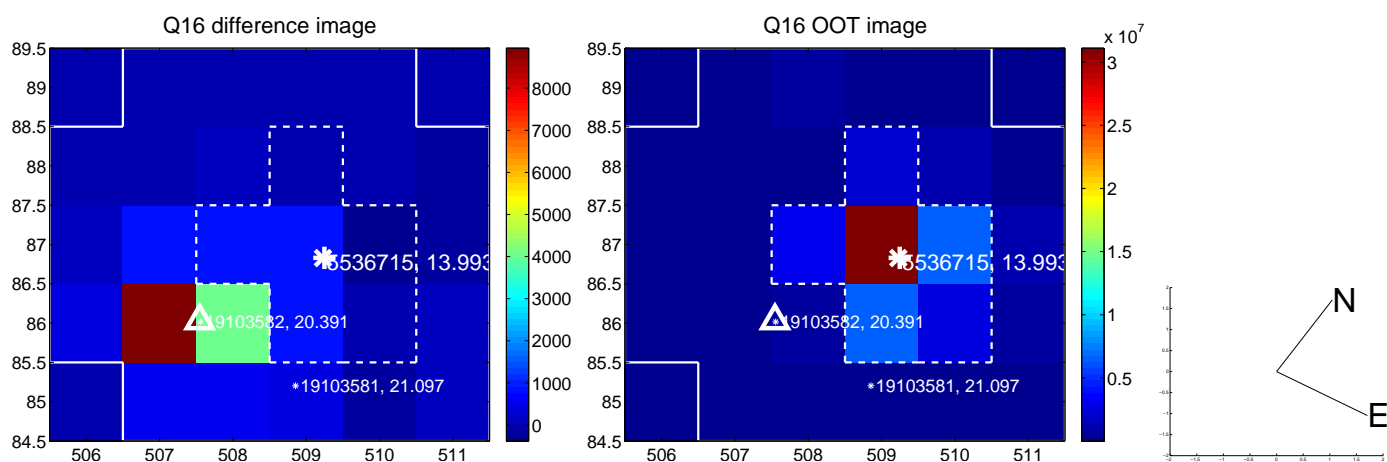
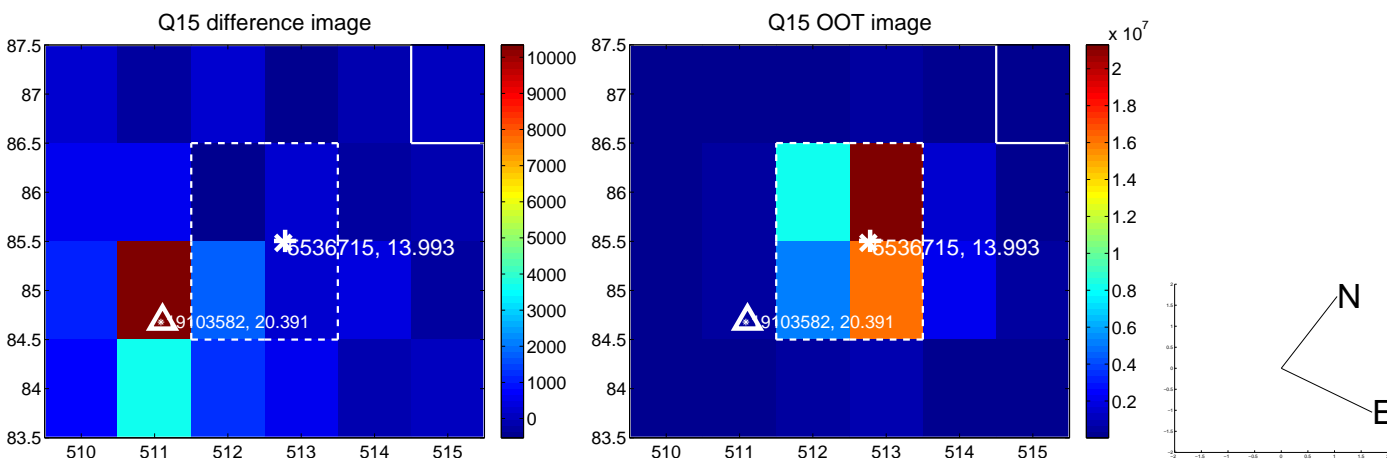
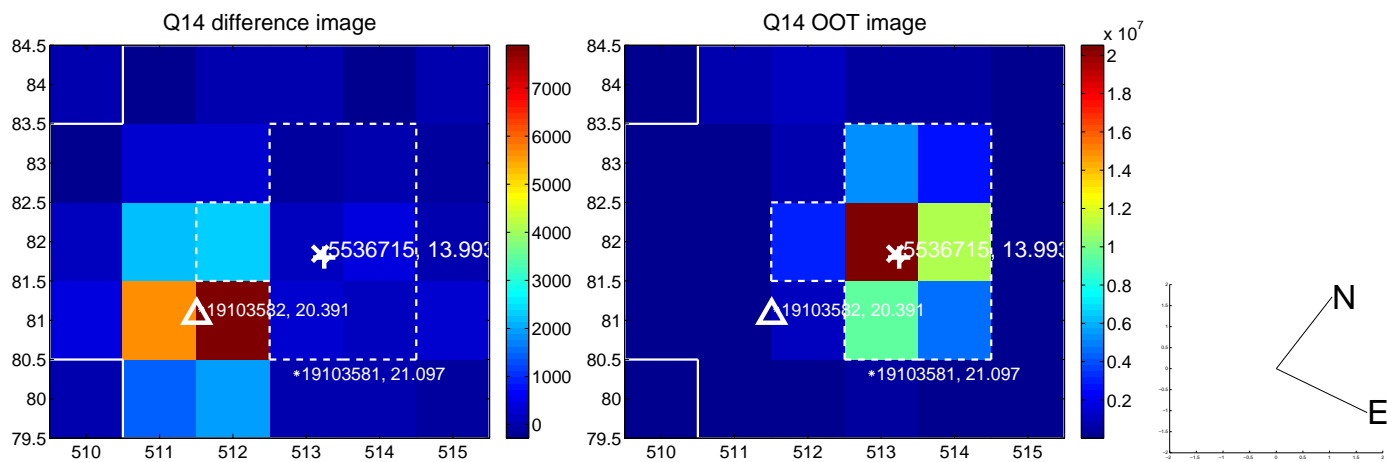
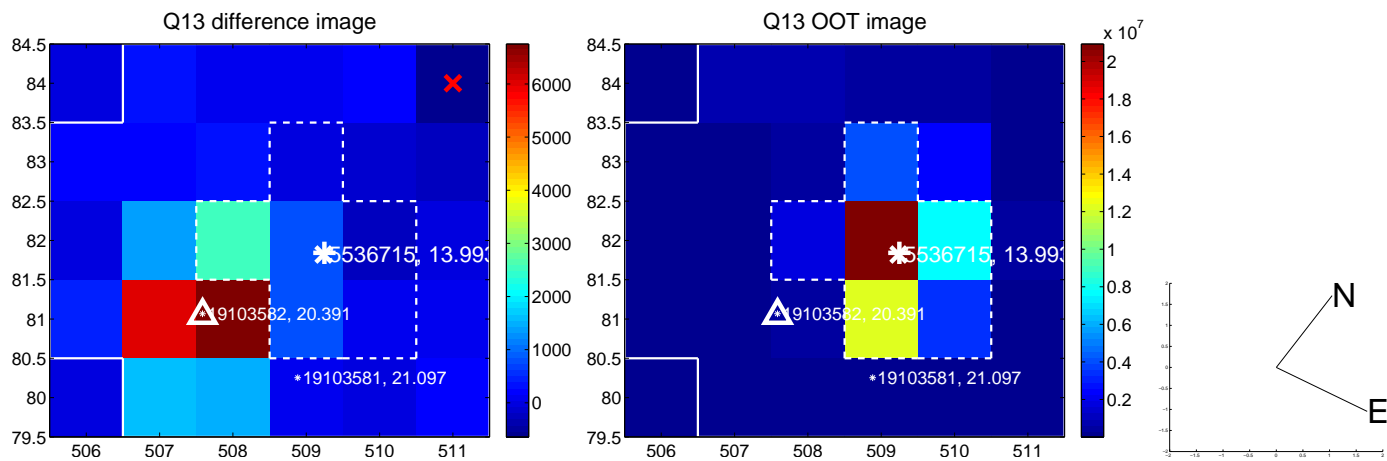
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



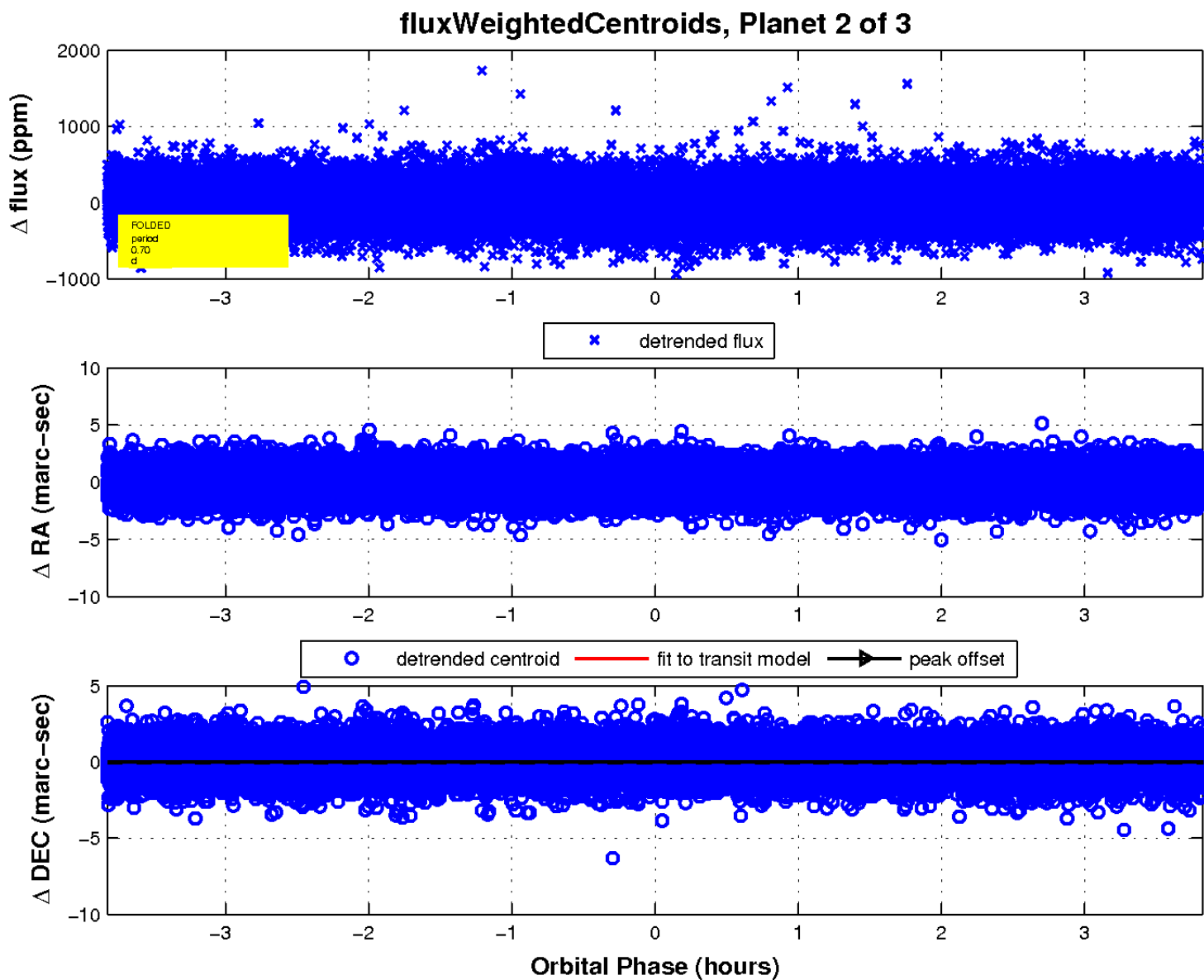
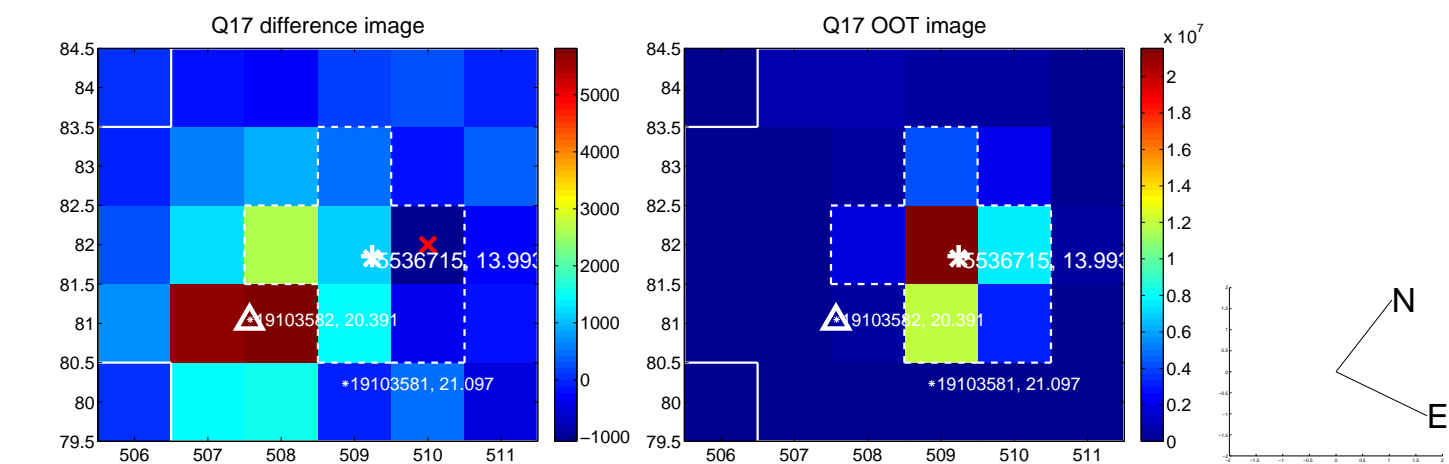
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

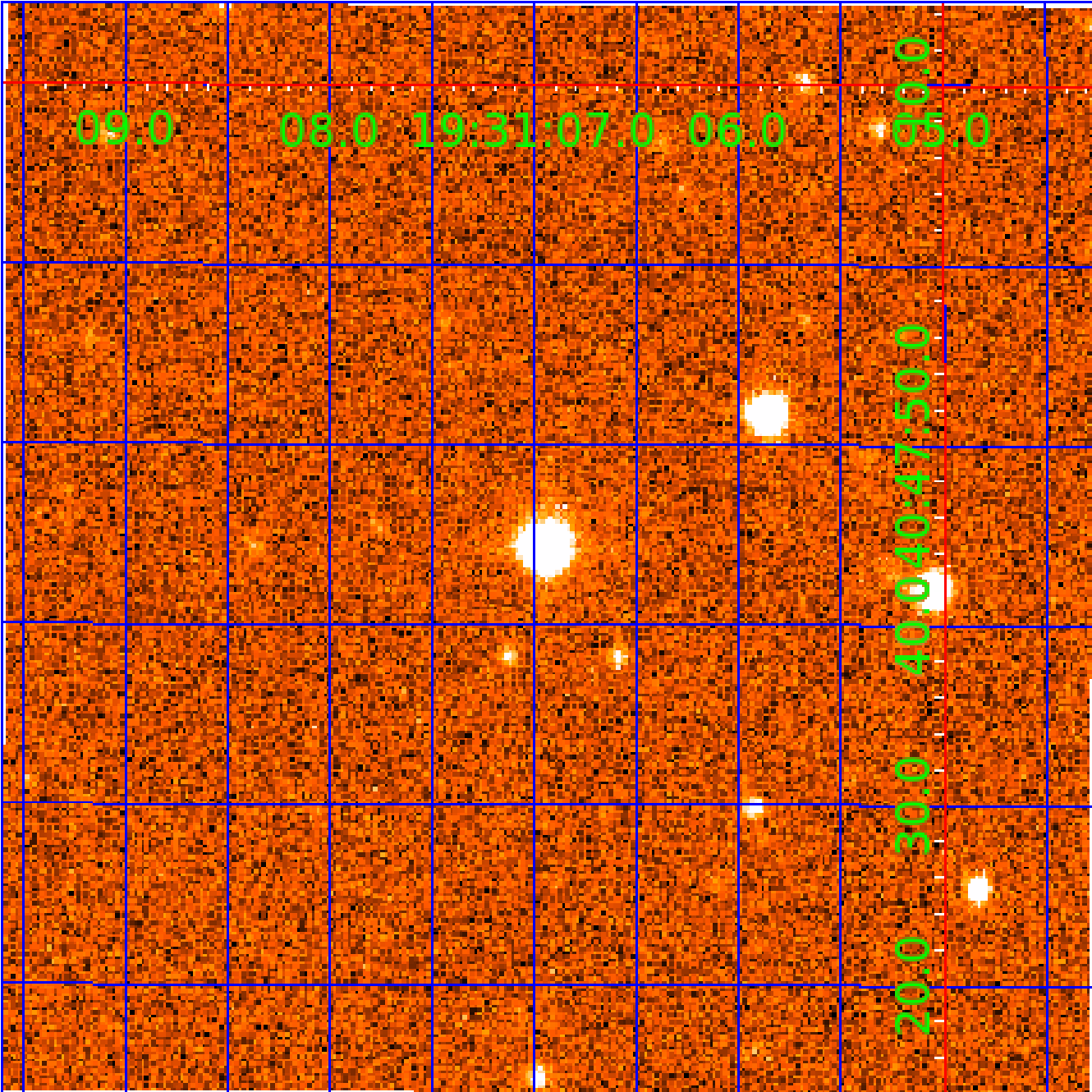


white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005536715

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})
005536715-01	OBS	No	0.701323	131.988213	53.1	1.058	9.3	12.6	1.30	6746	1.11	11307.68
005536715-02	OBS	No	0.701314	131.755756	52.1	1.275	12.1	13.3	1.30	6746	1.10	11307.88
005536715-03	OBS	No	0.701322	131.522141	55.5	0.982	9.8	13.1	1.30	6746	1.05	11307.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005536715-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
005536715-02	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005536715-03	OBS	FP	0.00	1	0	1	0	LPP_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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 005536715-03

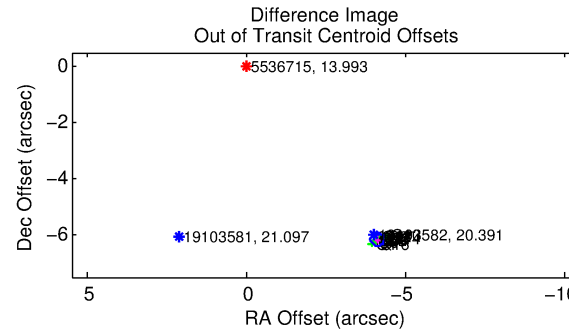
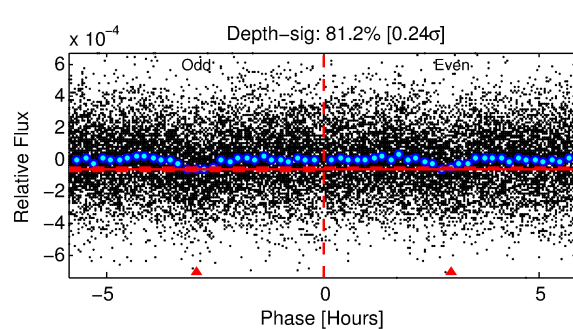
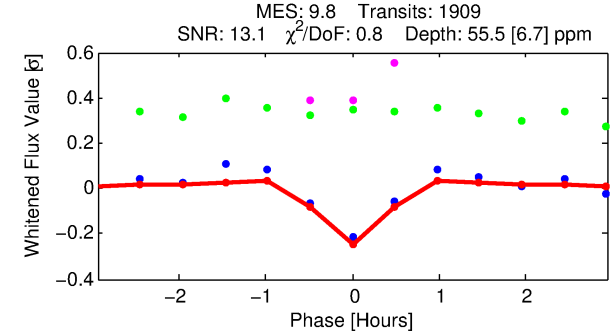
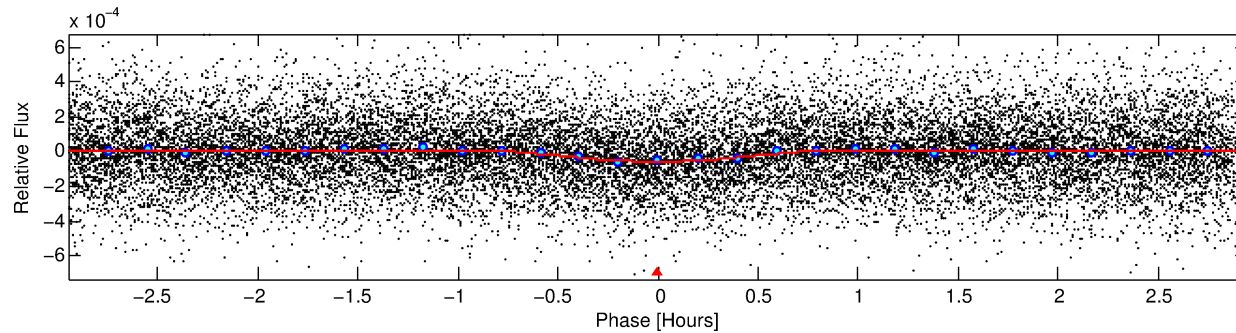
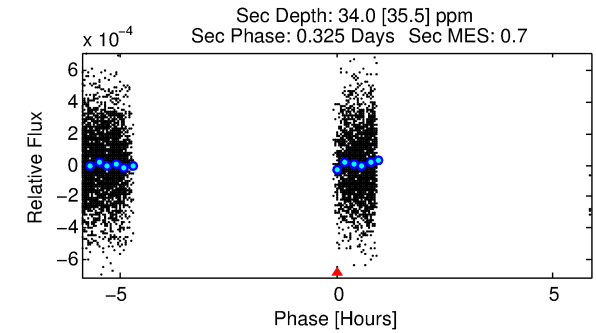
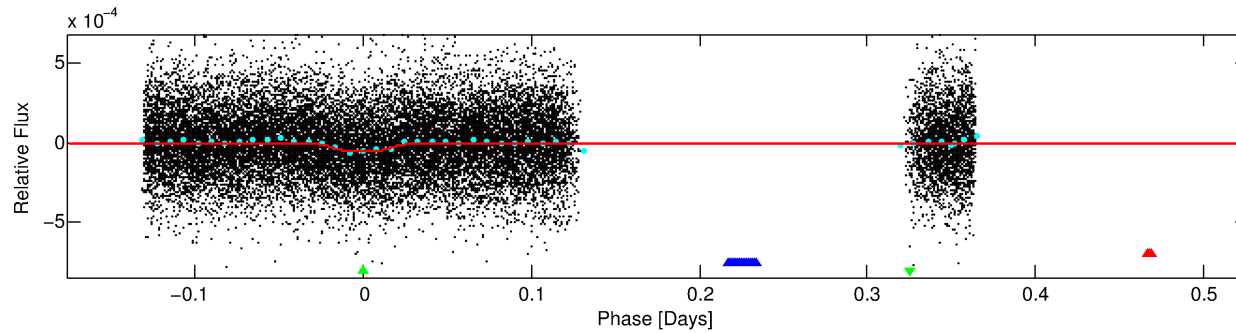
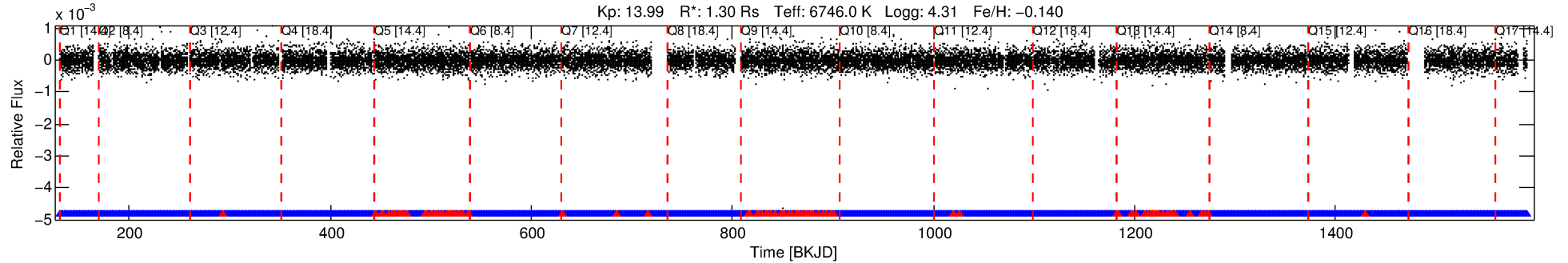
No Significant Match Found

DV One-Page Summary

KIC: 5536715 Candidate: 3 of 3 Period: 0.701 d

KOI: K04305 Corr: No Ephemeris Match

Kp: 13.99 R*: 1.30 Rs Teff: 6746.0 K Logg: 4.31 Fe/H: -0.140



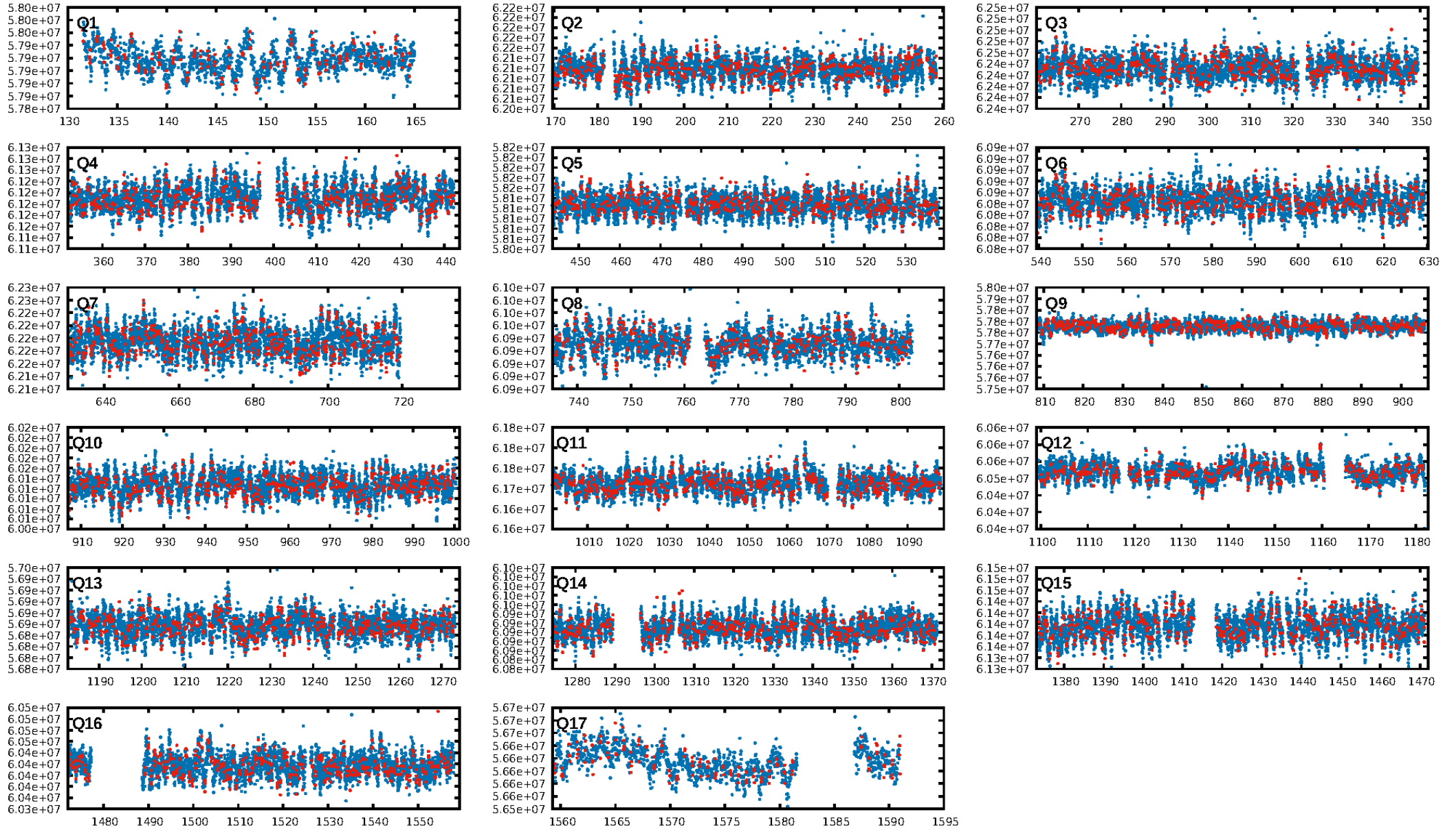
DV Fit Results:

Period = 0.70132 [0.00001] d
Epoch = 131.5221 [0.0012] BKJD
Rp/R* = 0.0074 [0.0015]
a/R* = 4.03 [4.35]
b = 0.70 [0.84]
Seff = 11307.71 [4636.47]
Teq = 2629 [270] K
Rp = 1.05 [0.41] Re
a = 0.0167 [0.0045] AU
Ag = 4.74 [5.64] [0.66σ]
Teff = 5999 [1705] K [1.95σ]

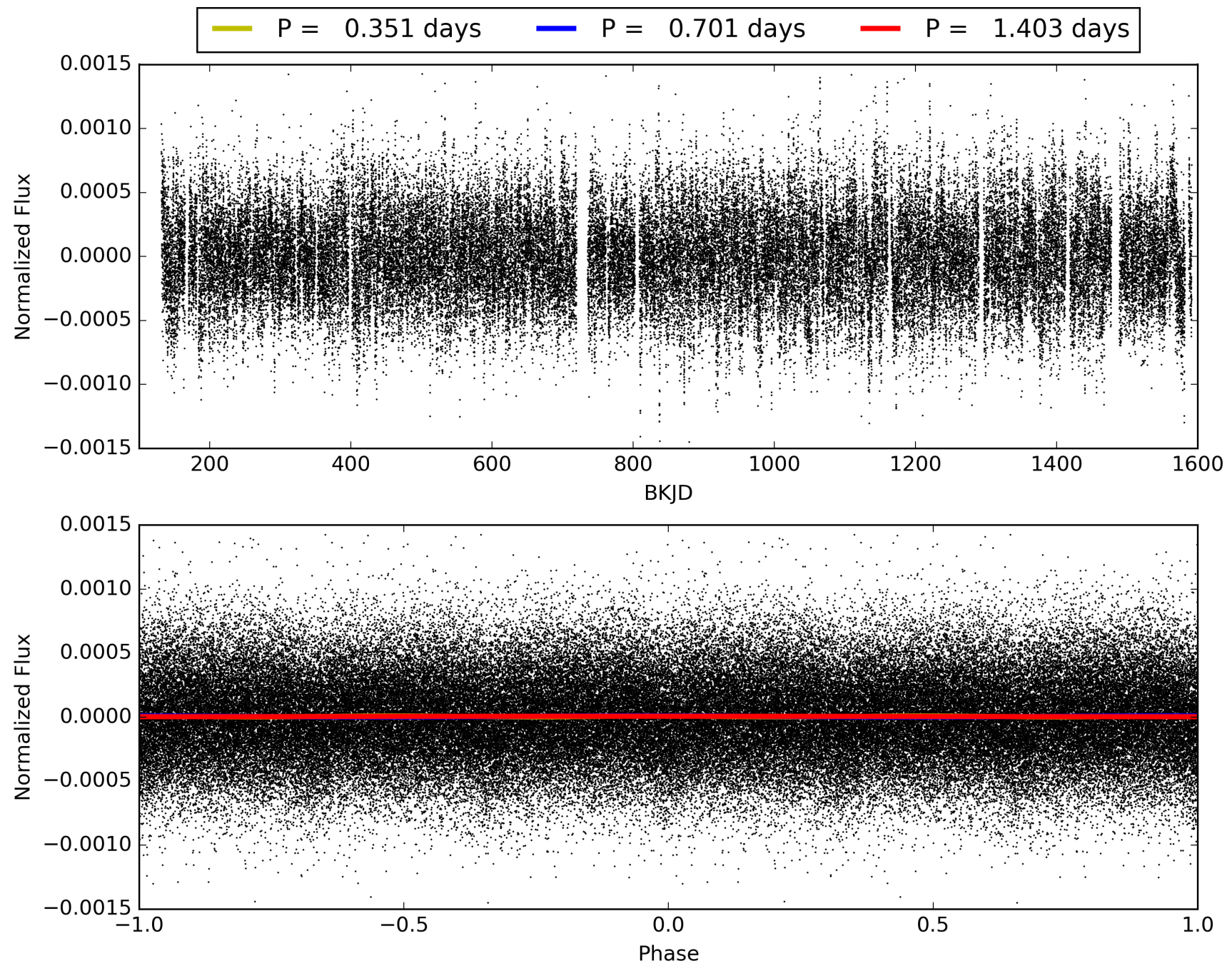
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.34e-21
RollingBand-fgt: 0.95 [1724/1823]
GhostDiagnostic-chr: -5.557
Centroid-sig: N/A
Centroid-so: 2.262 arcsec [2.92σ]
OotOffset-rm: 7.413 arcsec [103.90σ]
KicOffset-rm: 7.362 arcsec [106.30σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 005536715-03, PDC Light Curves

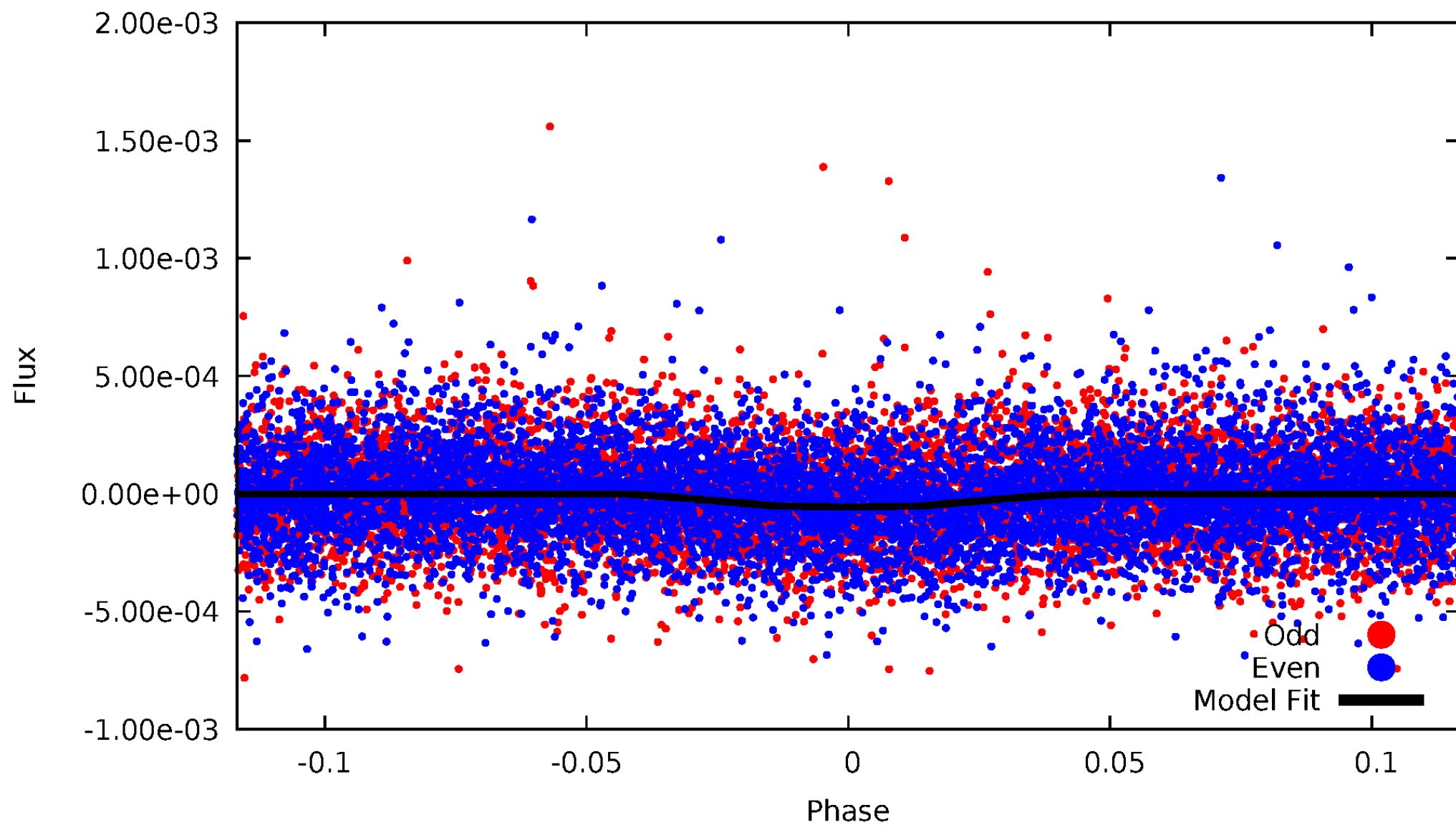


TCE 005536715-03



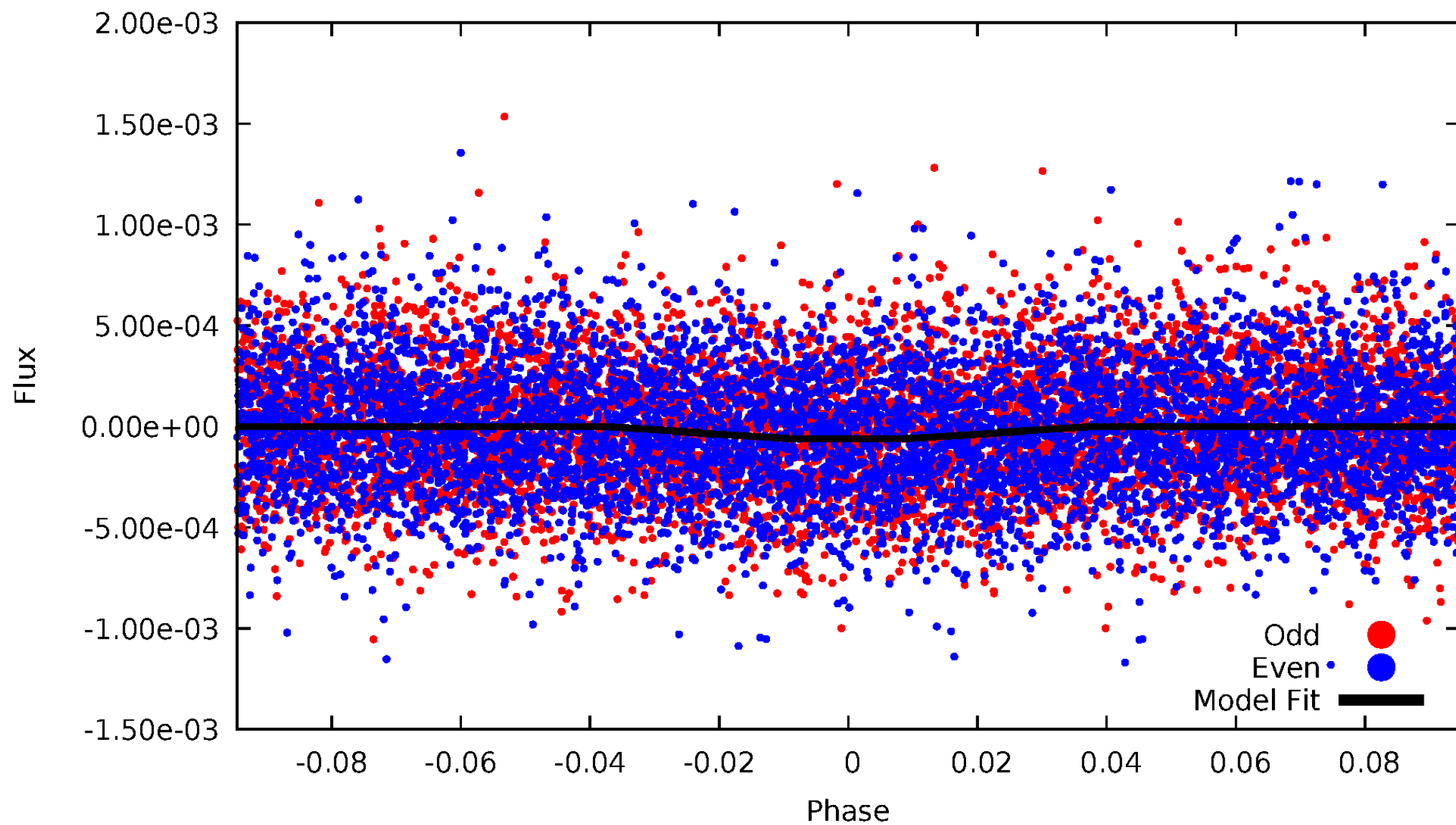
DV Odd/Even

TCE 005536715-03



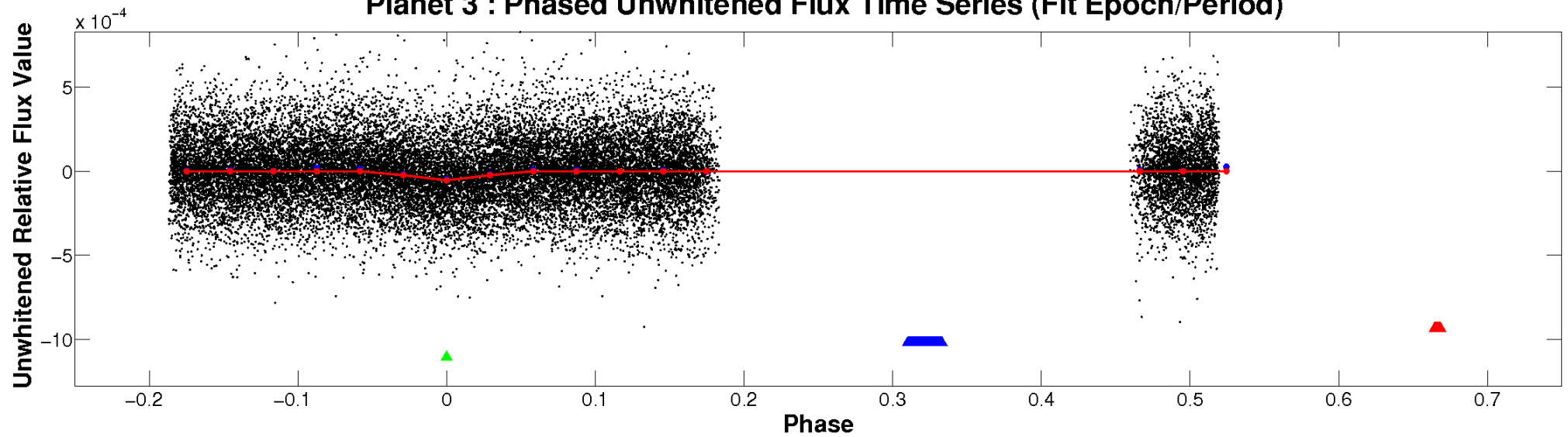
ALT Odd/Even

TCE 005536715-03

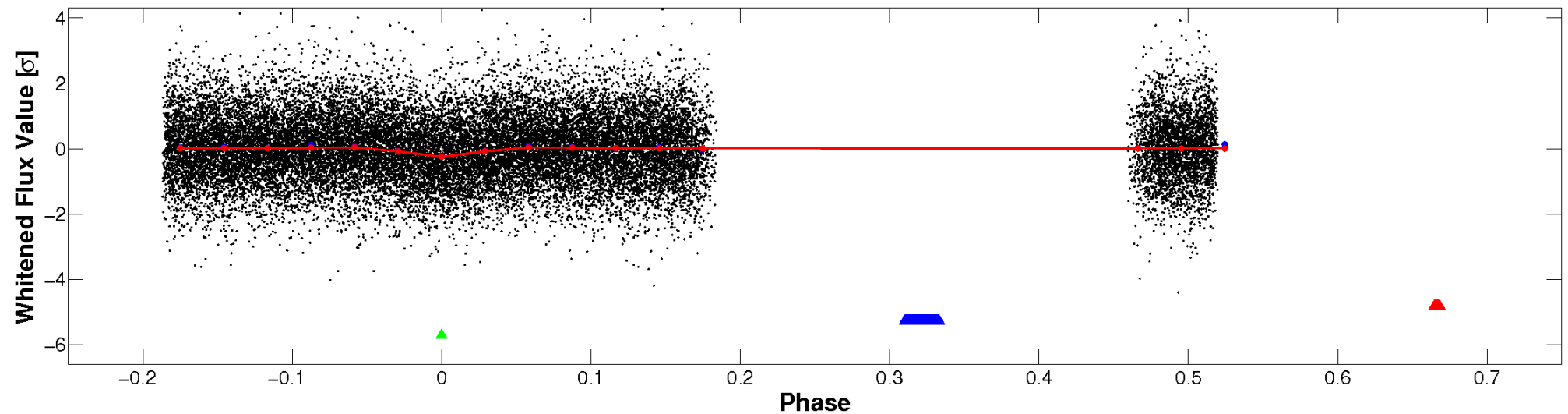


Non-Whitened Vs. Whitened Light Curve

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

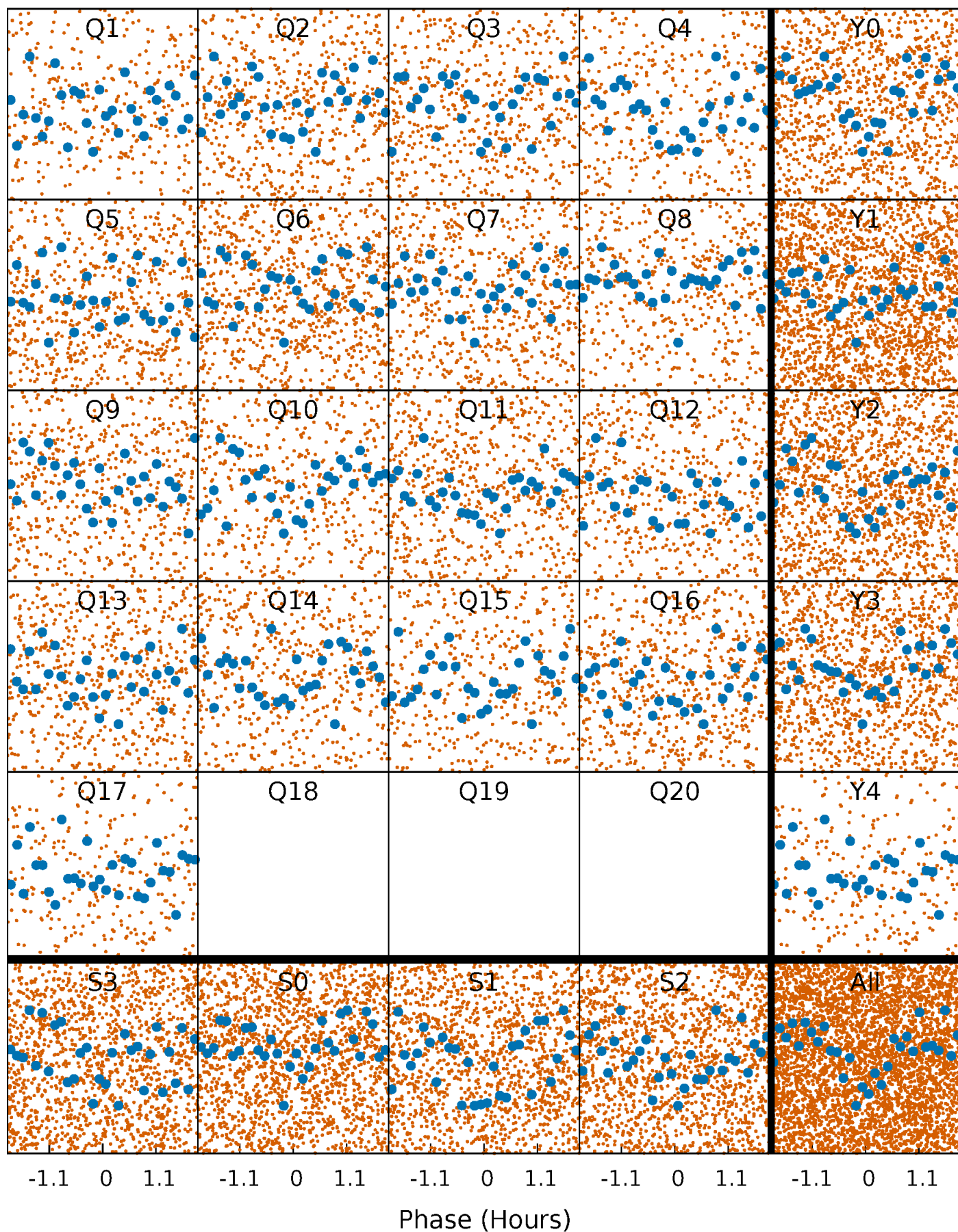


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



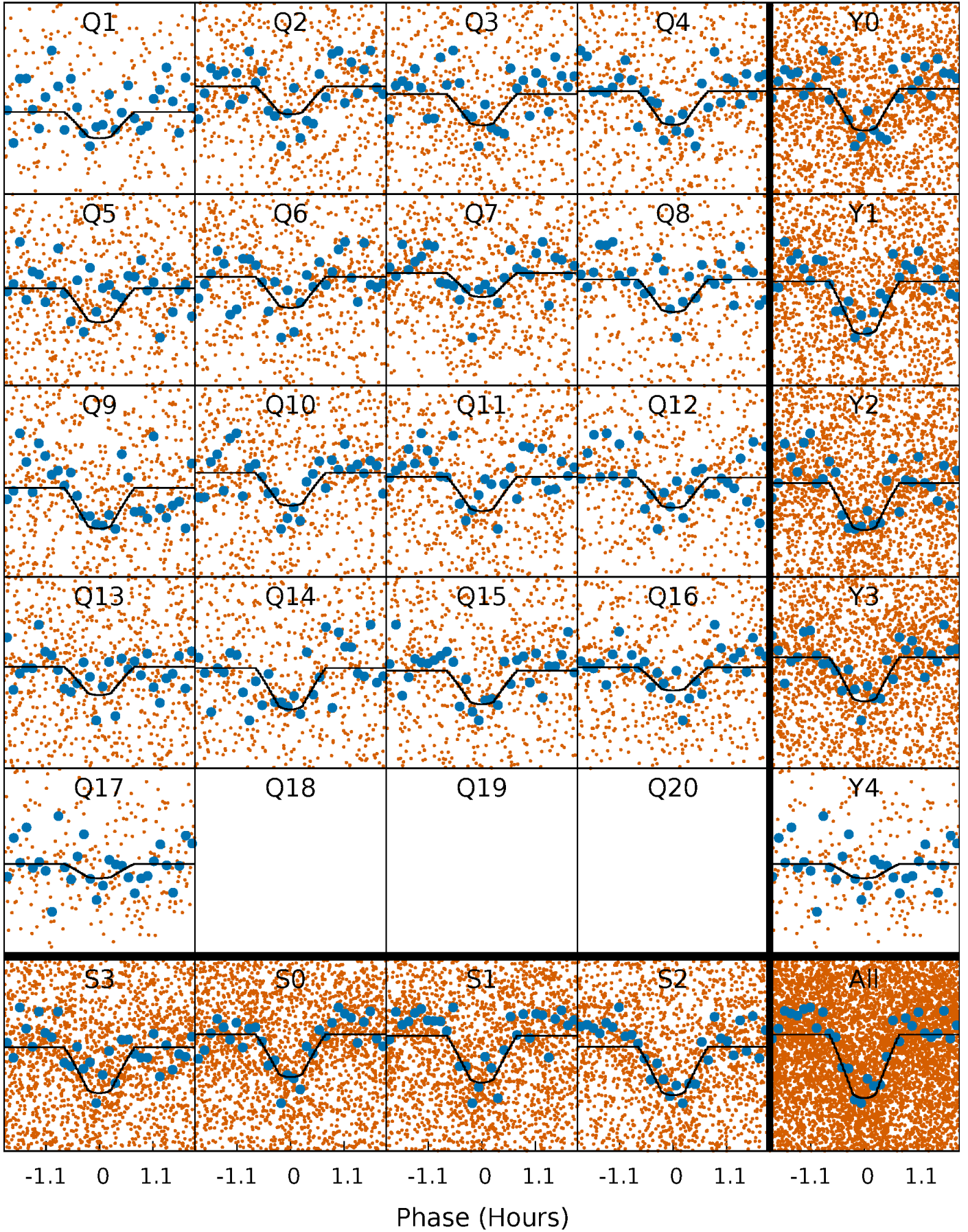
PDC Quarter-Phased Transit Curves

TCE 005536715-03 P= 0.701322 Days $T_0=131.522141$ (BKJD)



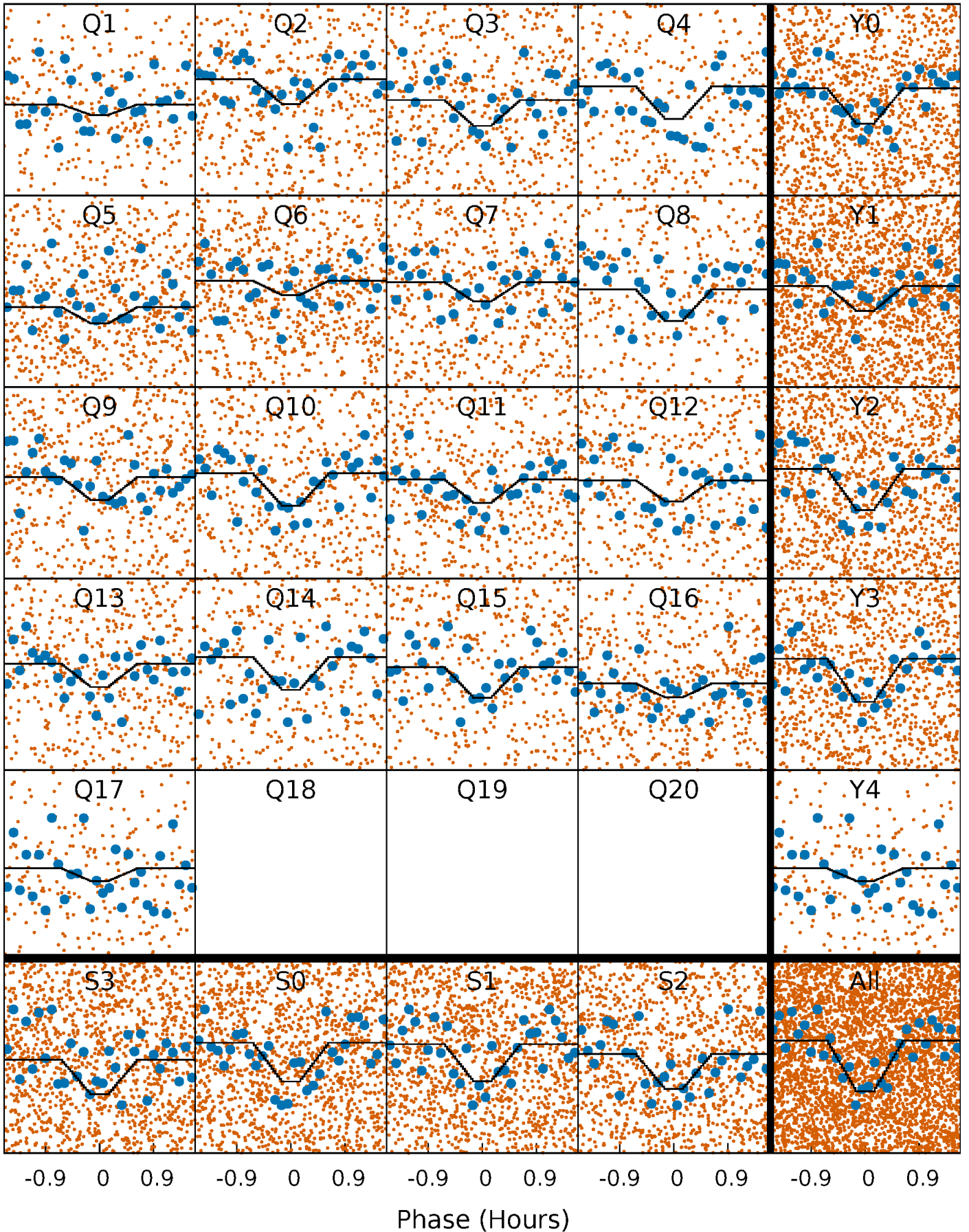
DV Quarter-Phased Transit Curves

TCE 005536715-03 P= 0.701322 Days $T_0=131.522141$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

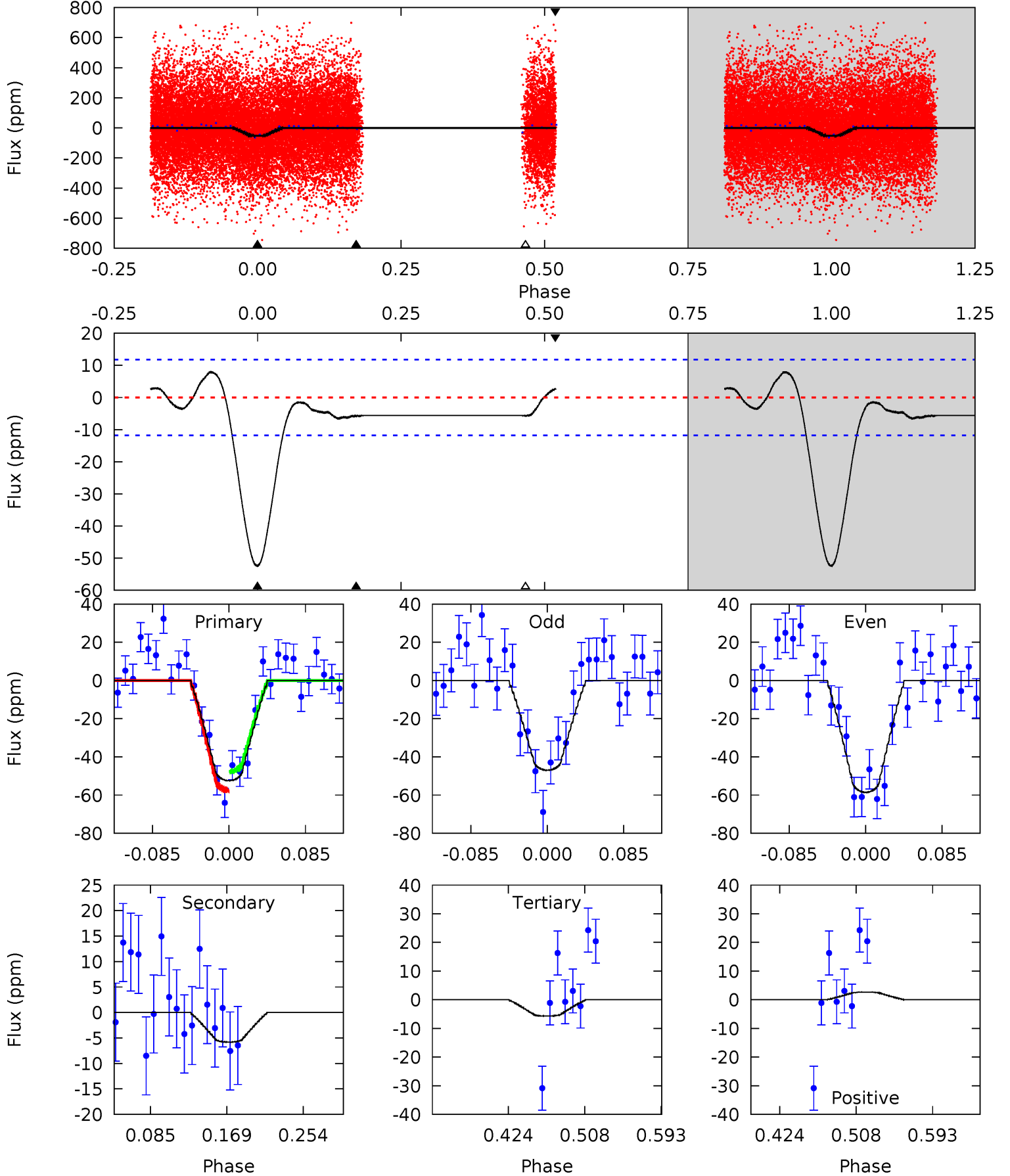
TCE 005536715-03 P= 0.701321 Days $T_0=131.522368$ (BKJD)



DV Model-Shift Uniqueness Test

005536715-03, P = 0.701322 Days, E = 130.820819 Days

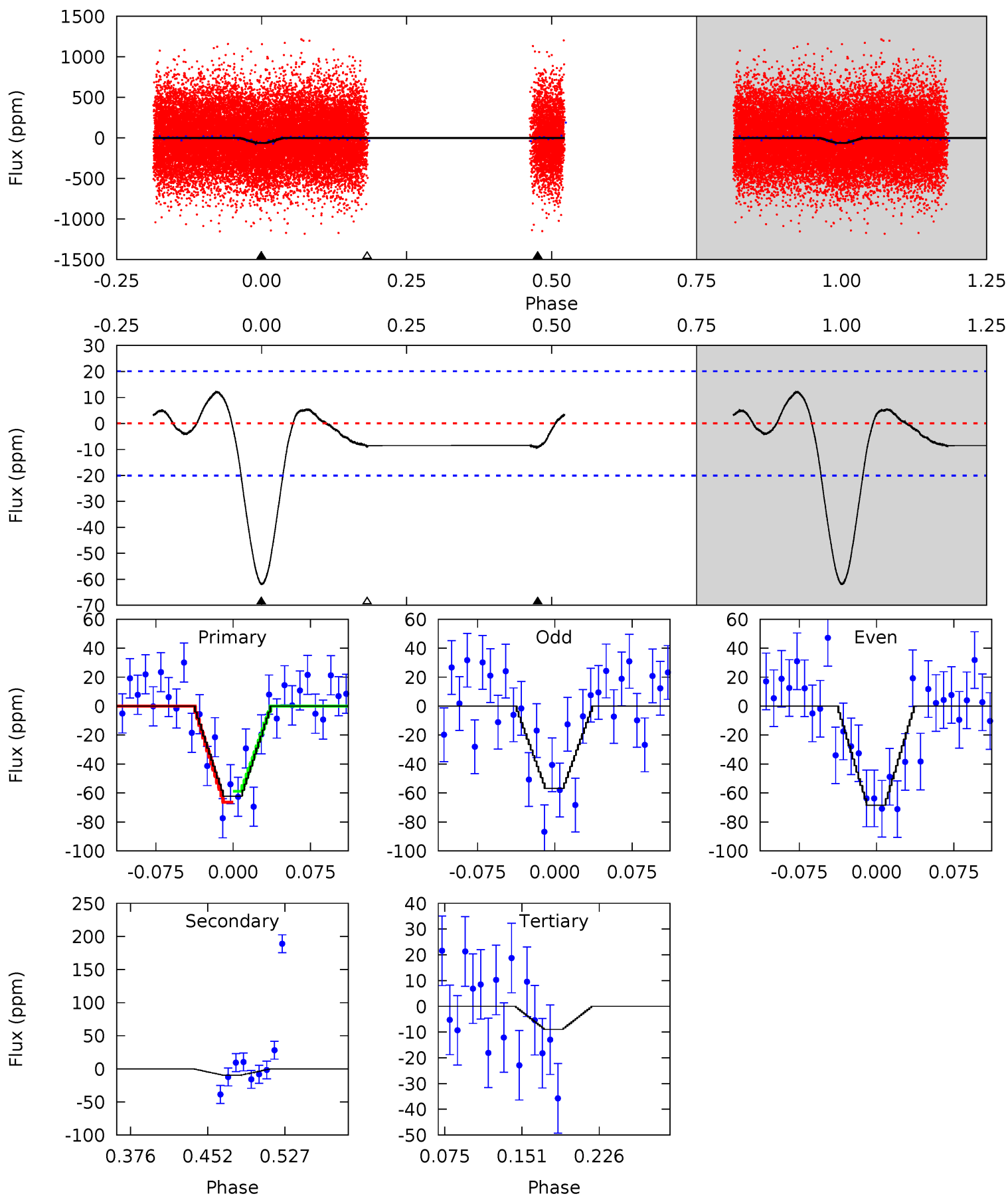
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	2.27	2.22	1.03	4.60	1.72	1.26	18.3	19.4	0.05	1.23	2.27	0.89	0.13	1.93



Alt Model-Shift Uniqueness Test

005536715-03, P = 0.701321 Days, E = 130.821047 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	2.20	2.07	0	4.62	1.78	1.19	12.2	14.3	0.13	2.20	1.33	0.95	0.17	0.87



Stellar Parameters For KIC 005536715

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6746^{+165}_{-259}	$4.309^{+0.072}_{-0.203}$	$-0.140^{+0.250}_{-0.300}$	$1.304^{+0.426}_{-0.183}$	$1.271^{+0.190}_{-0.190}$	$0.807^{+0.303}_{-0.420}$
	+2%/-4%	+2%/-5%	+179%/-214%	+33%/-14%	+15%/-15%	+38%/-52%
Source	PHO1	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 005536715-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 3	$1.09^{+0.28}_{-0.25}$	3728^{+283}_{-204}	3719^{+642}_{-976}	$0.712^{+0.647}_{-0.363}$
Alt.	-10 ± 4	$1.16^{+0.33}_{-0.26}$	3747^{+259}_{-208}	4049^{+669}_{-815}	$0.988^{+0.968}_{-0.537}$

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

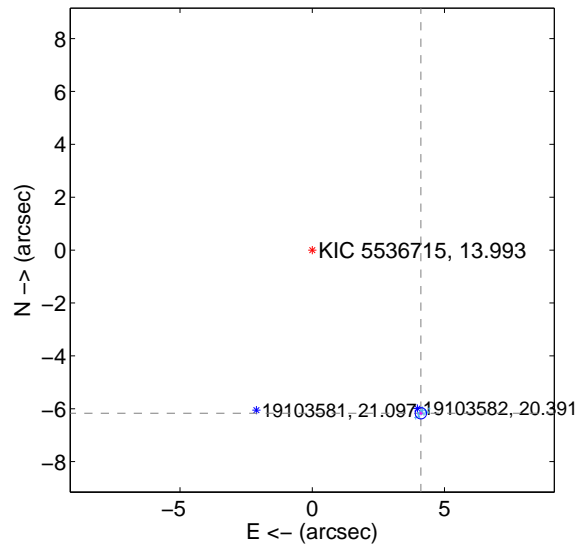
Supplemental centroid analysis for 005536715-03. Kepler magnitude: 13.99. Transit SNR 13.06

There are 17 quarters with good PRF difference image offsets

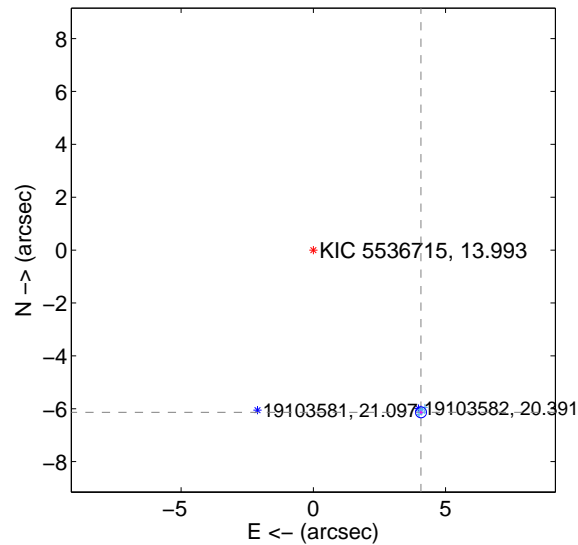
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.413 \pm 0.071	103.90	-4.108 \pm 0.072	-6.171 \pm 0.071
PRF-fit source offset from KIC position	7.362 \pm 0.069	106.30	-4.071 \pm 0.067	-6.134 \pm 0.070
photometric centroid source offset	2.26 \pm 0.77	2.92	-0.57 \pm 0.86	-2.19 \pm 0.77

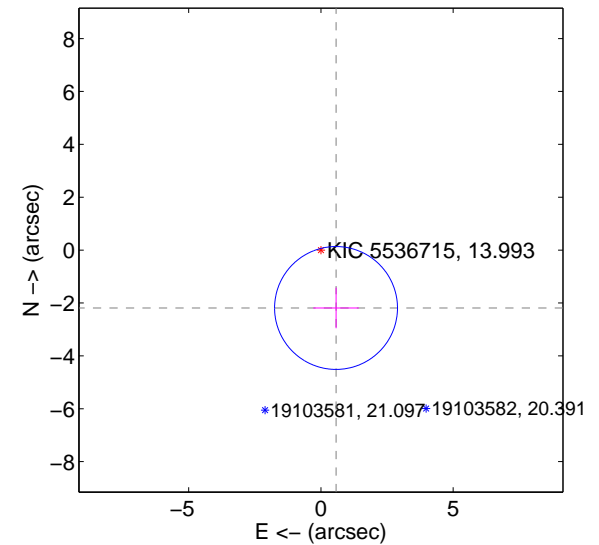
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

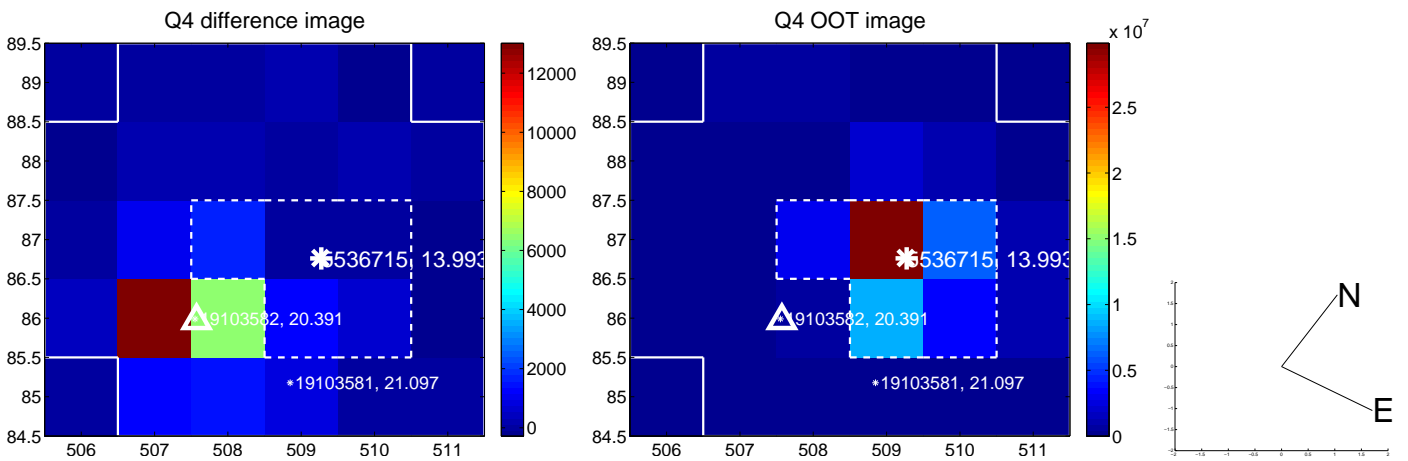
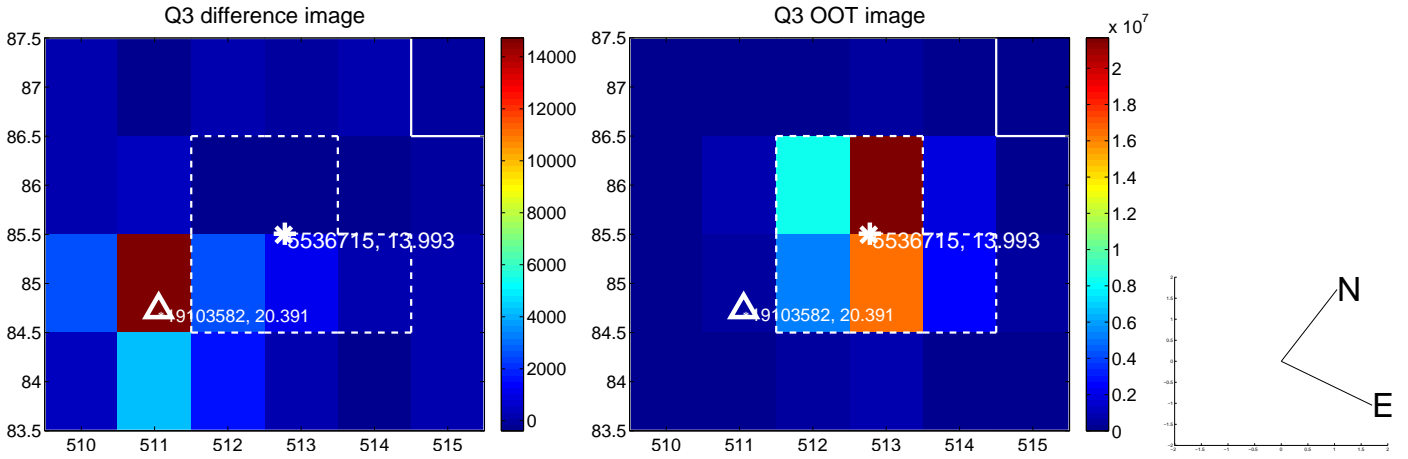
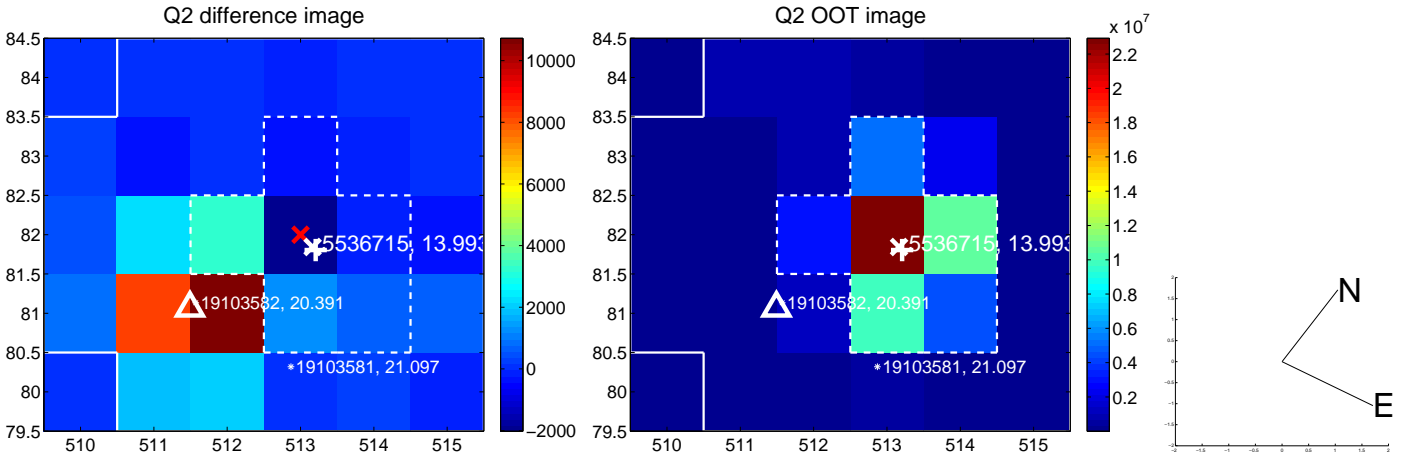
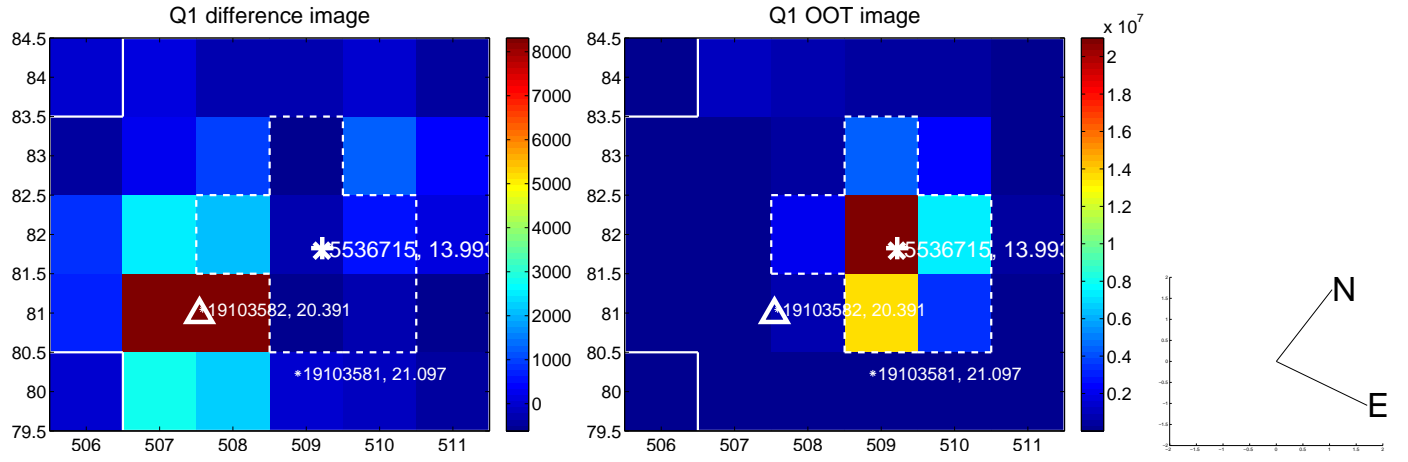


offset from photometric centroids

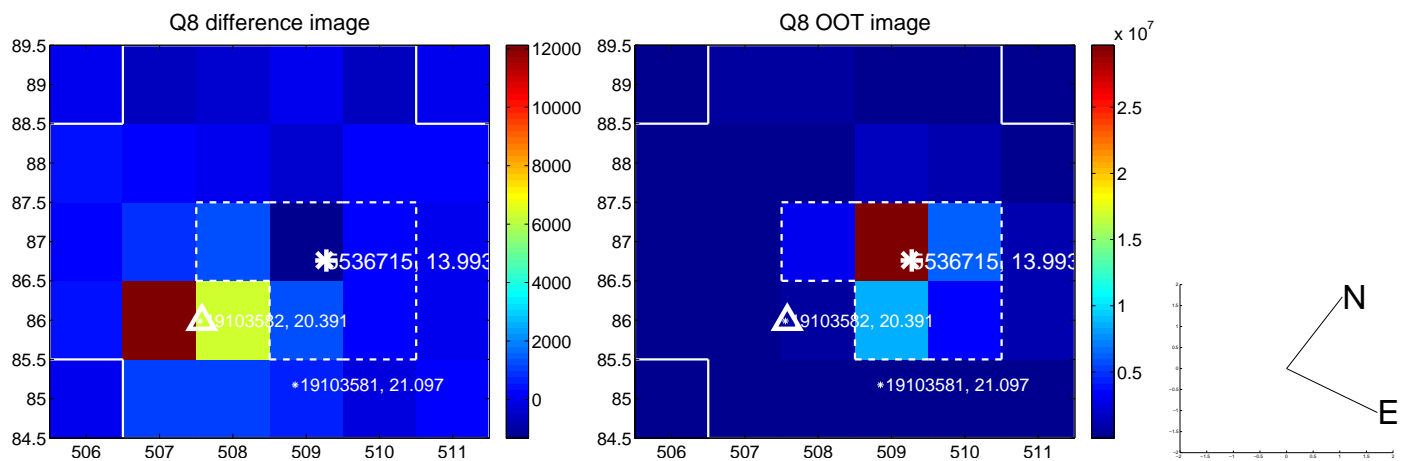
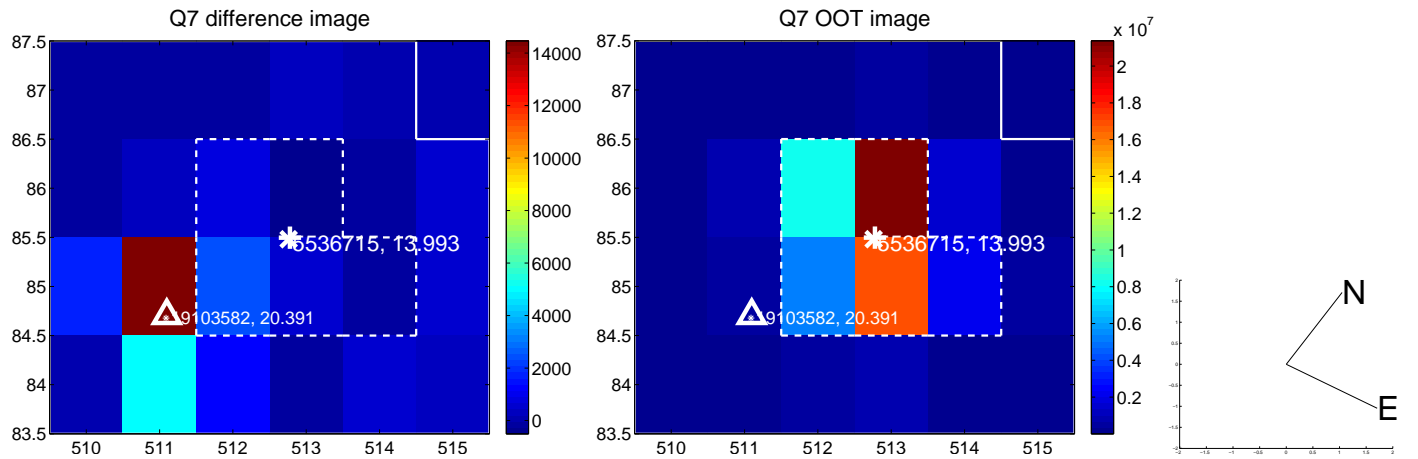
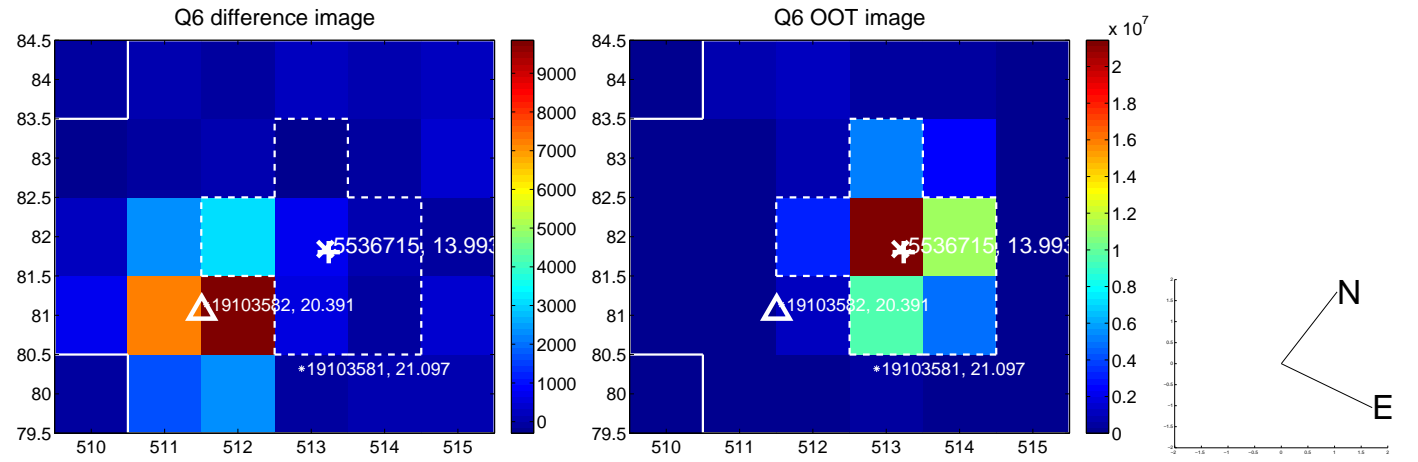
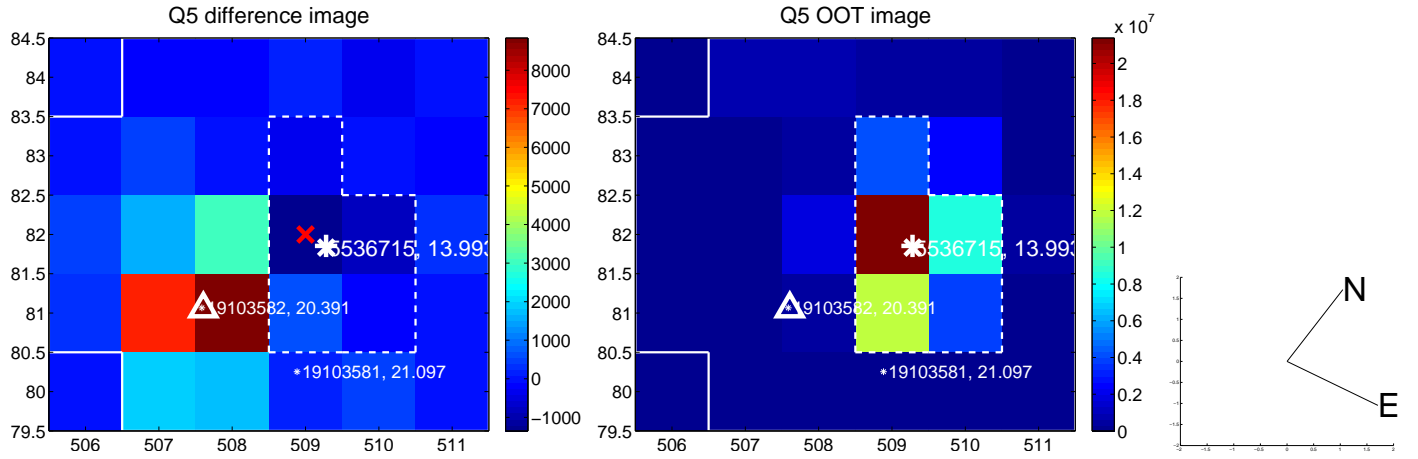


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

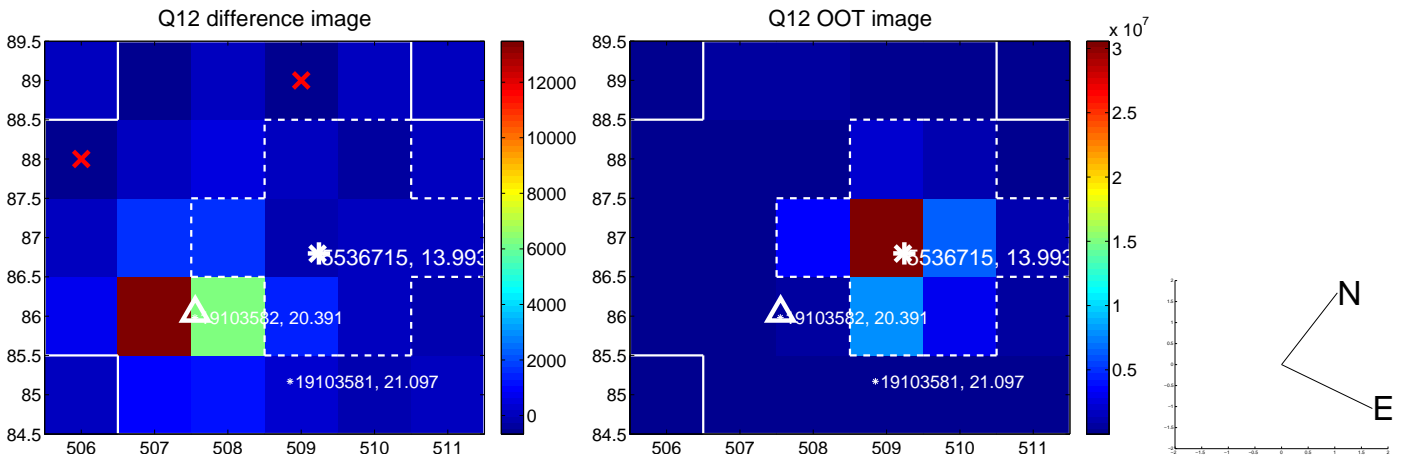
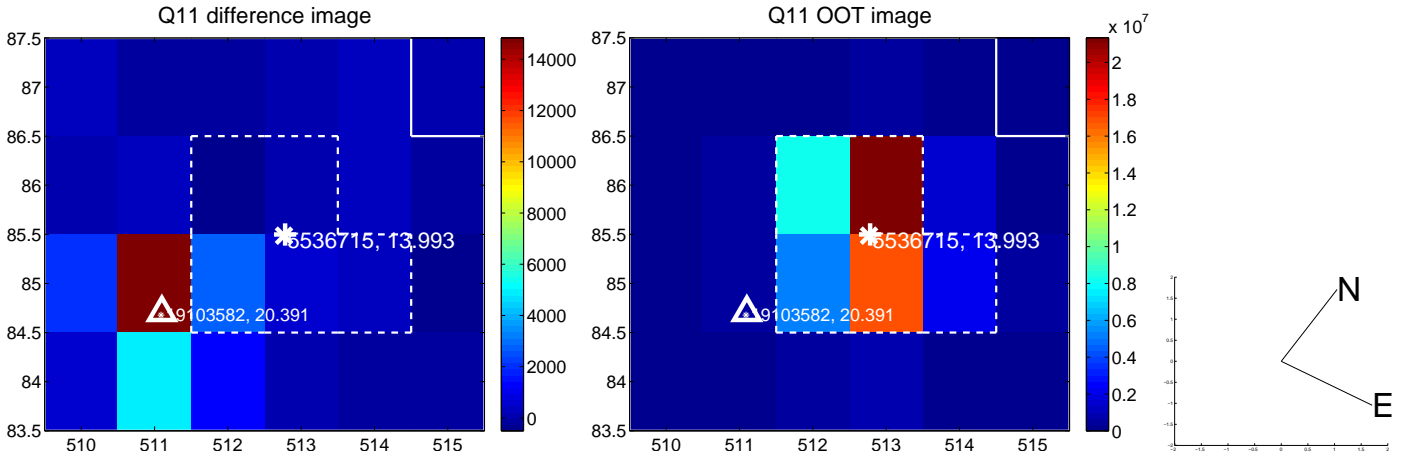
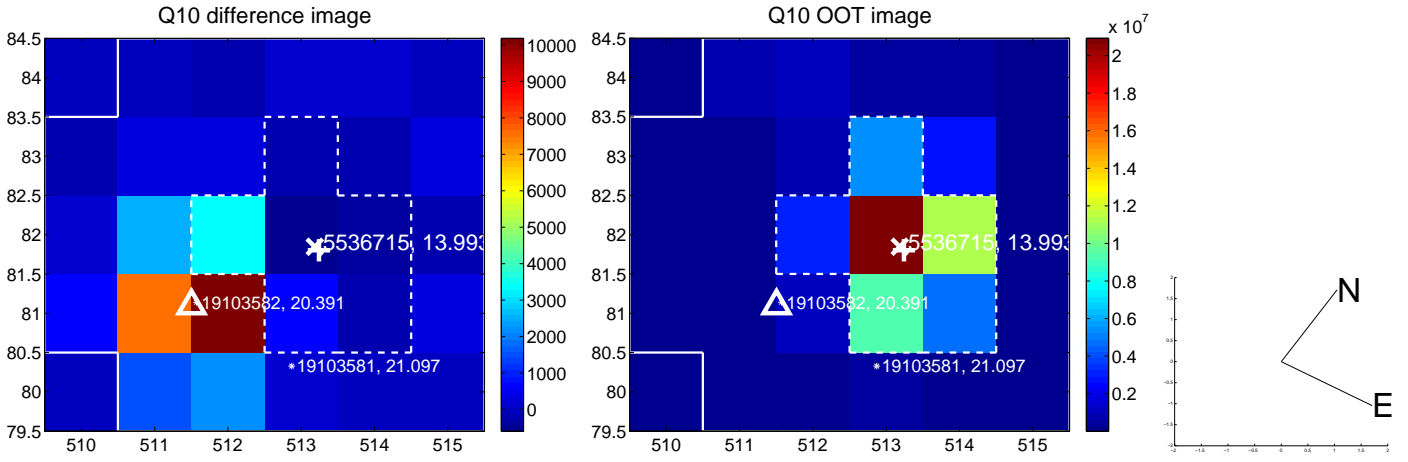
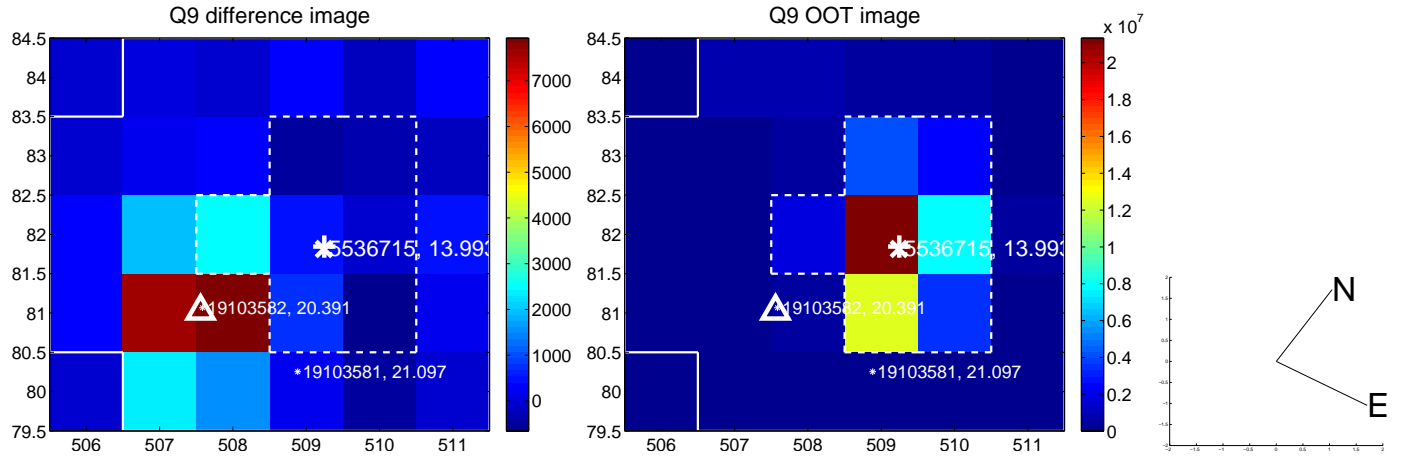
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



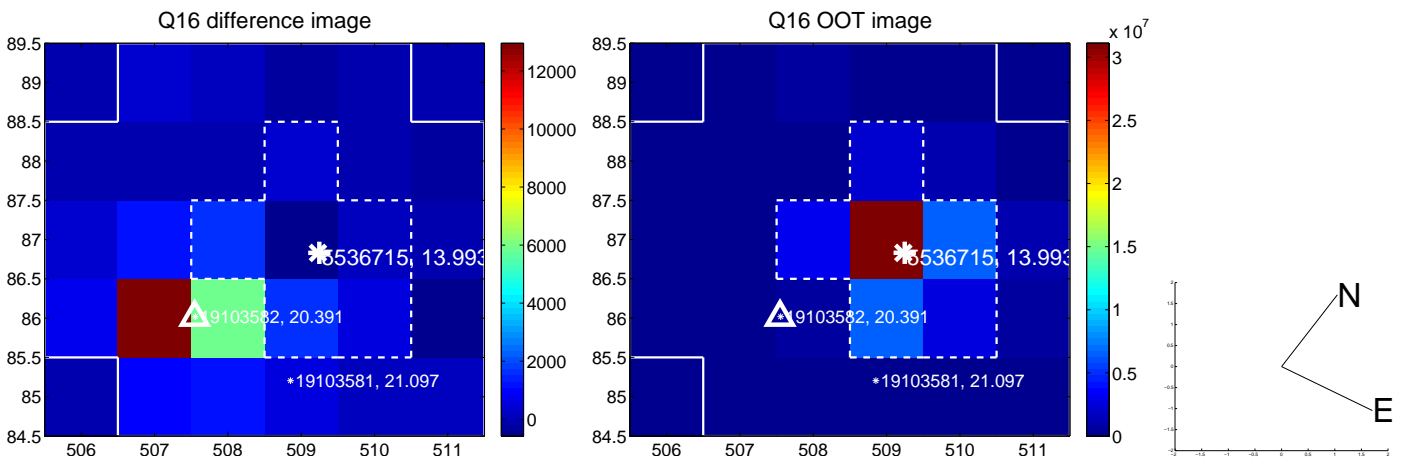
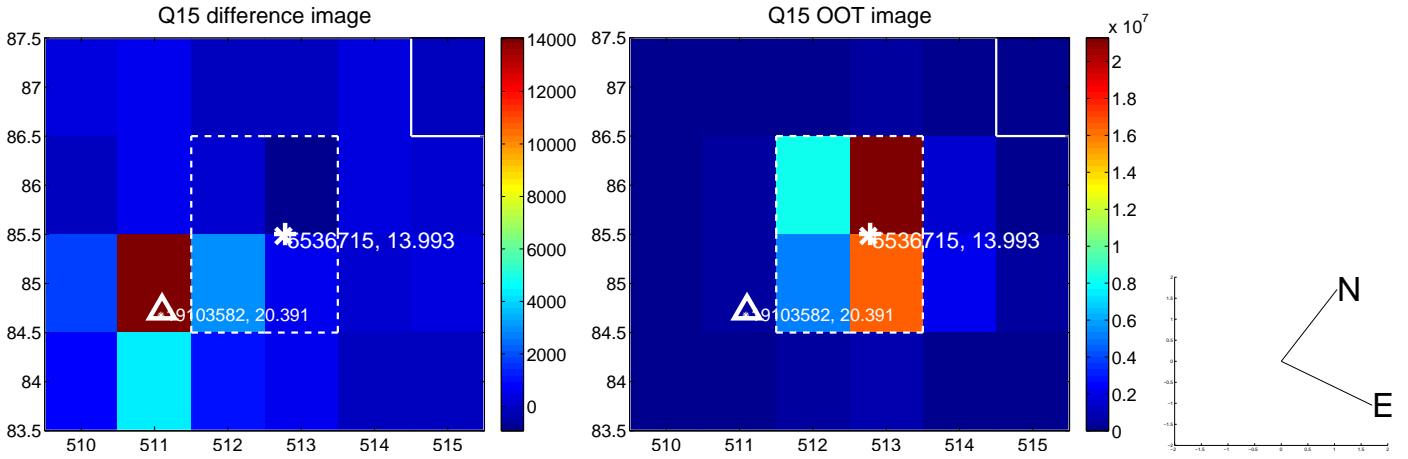
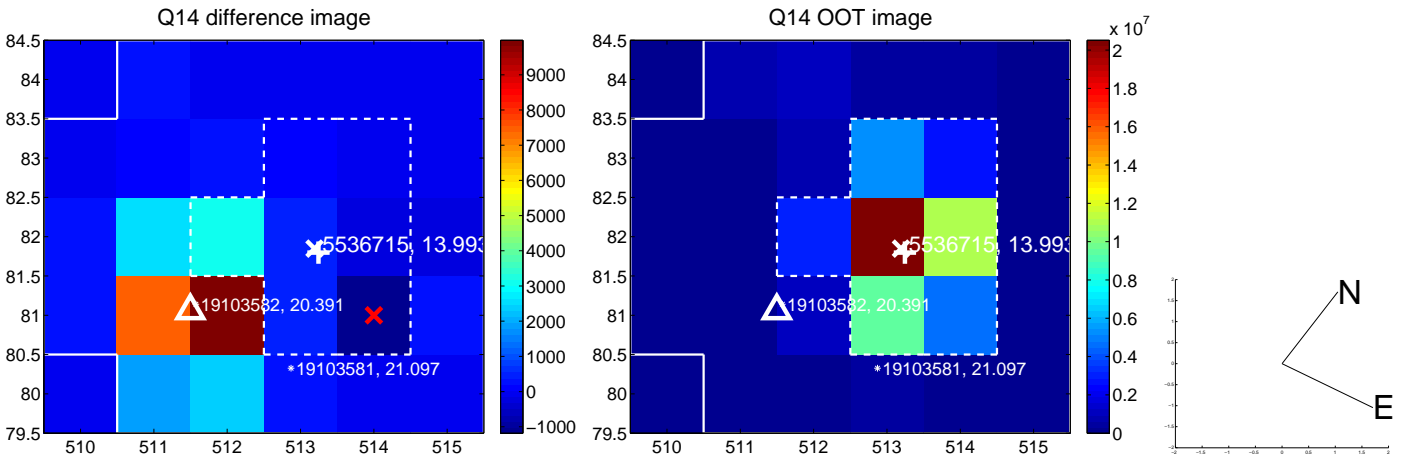
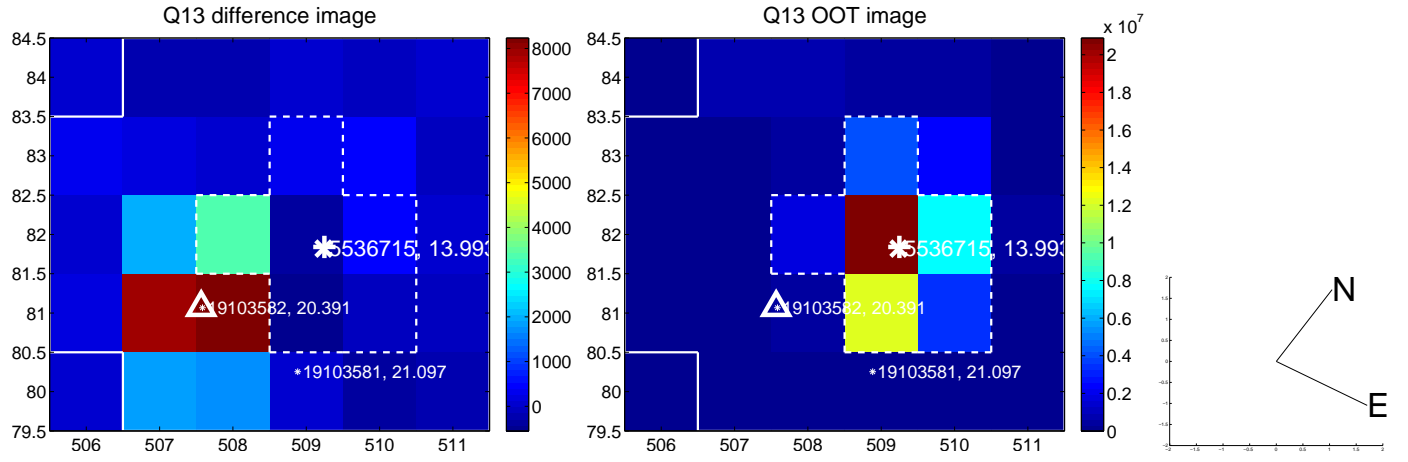
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



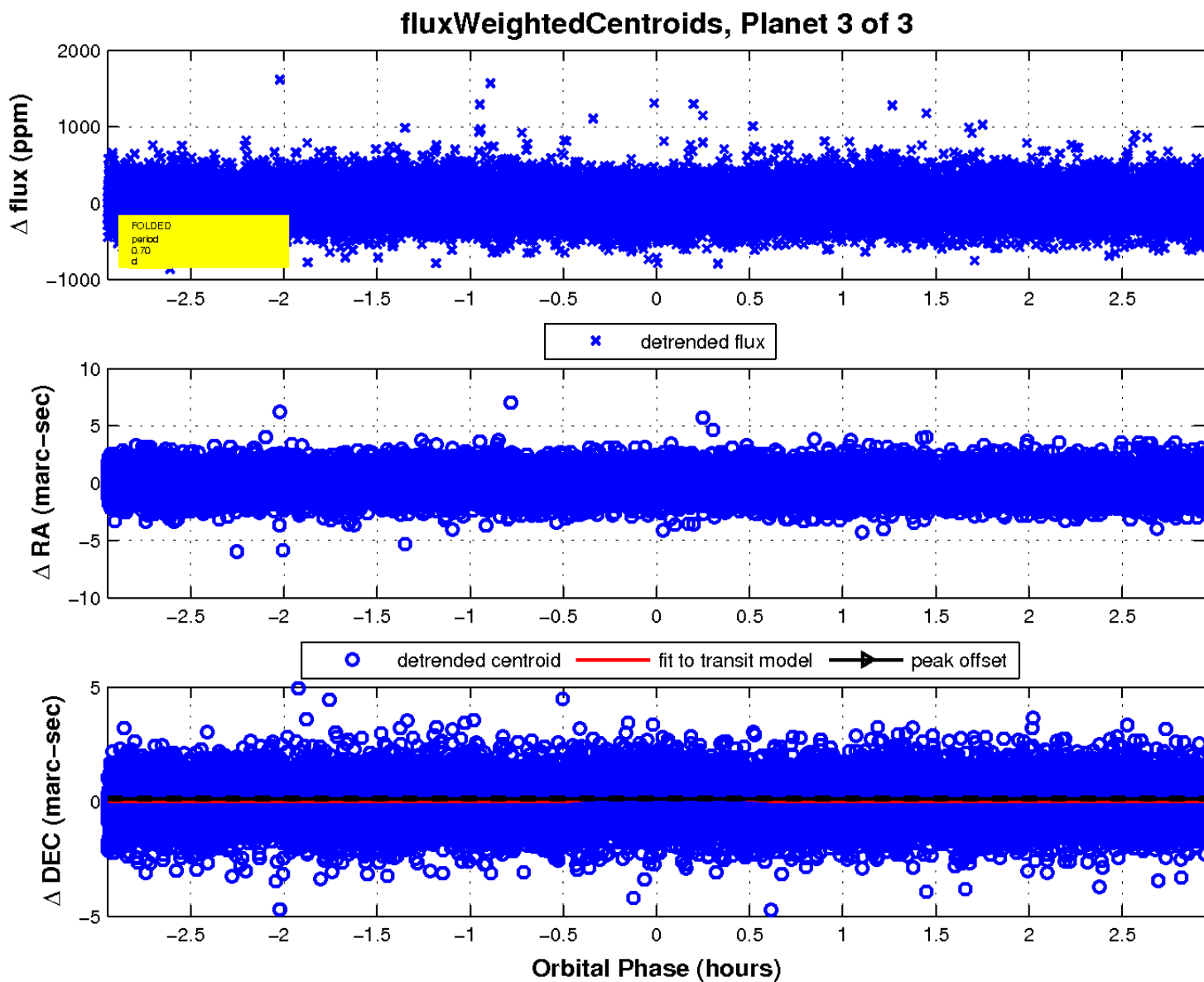
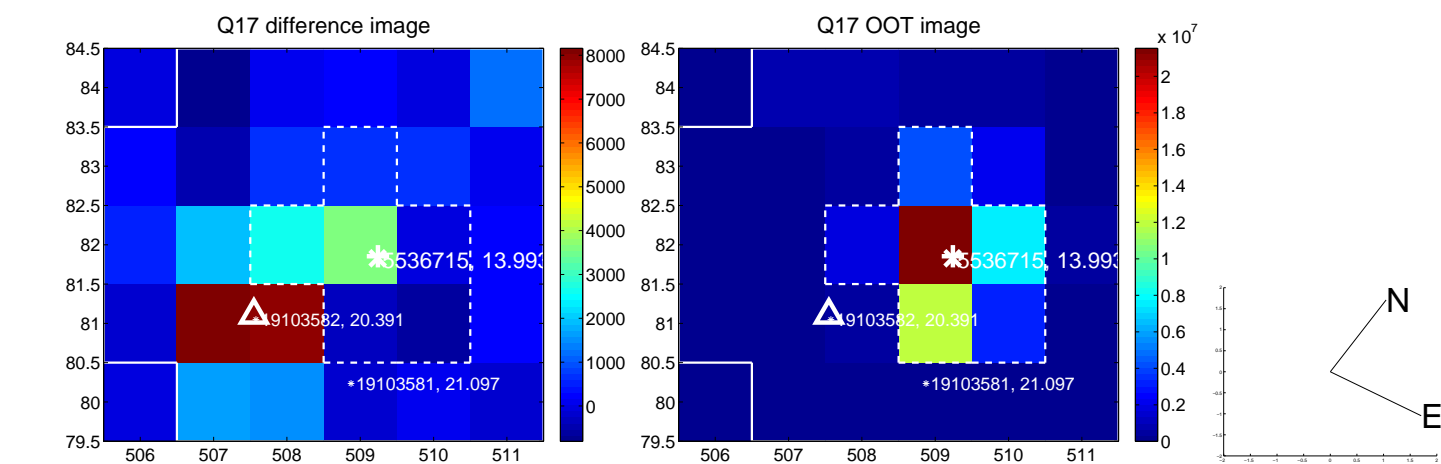
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

