

KIC 003128552

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})
003128552-01	OBS	2055.01	8.678894	133.037265	528.5	3.585	29.6	31.5	1.12	5509	2.82	158.61
003128552-02	OBS	2055.02	4.025757	135.435989	253.6	2.971	19.0	20.6	1.12	5509	2.13	441.74
003128552-03	OBS	2055.03	2.504757	133.634765	171.8	2.465	14.7	15.9	1.12	5509	1.71	831.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003128552-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
003128552-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003128552-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

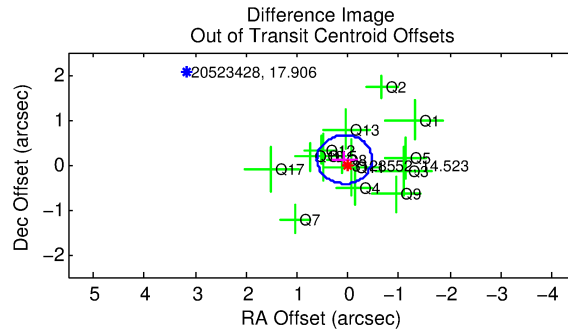
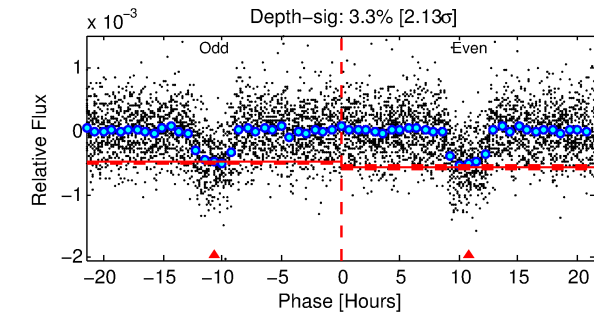
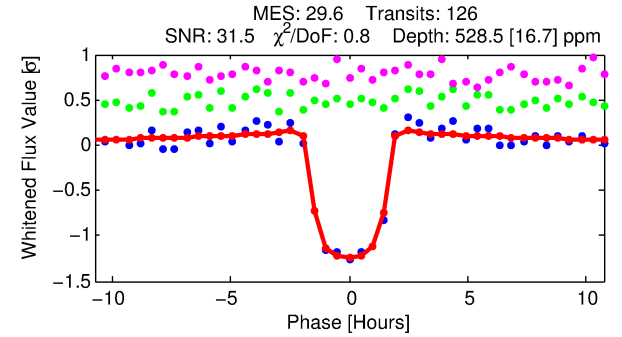
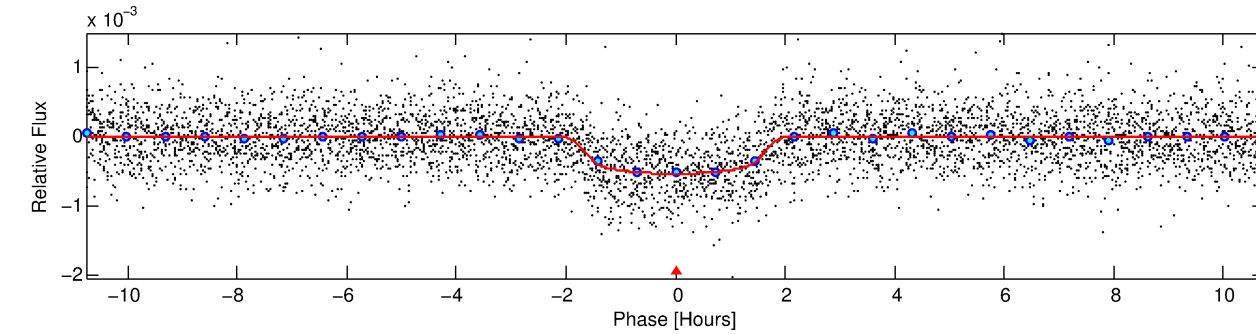
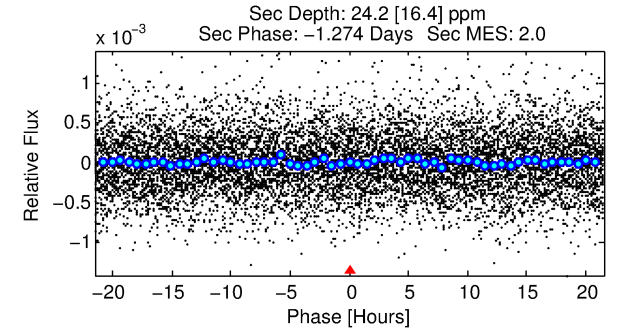
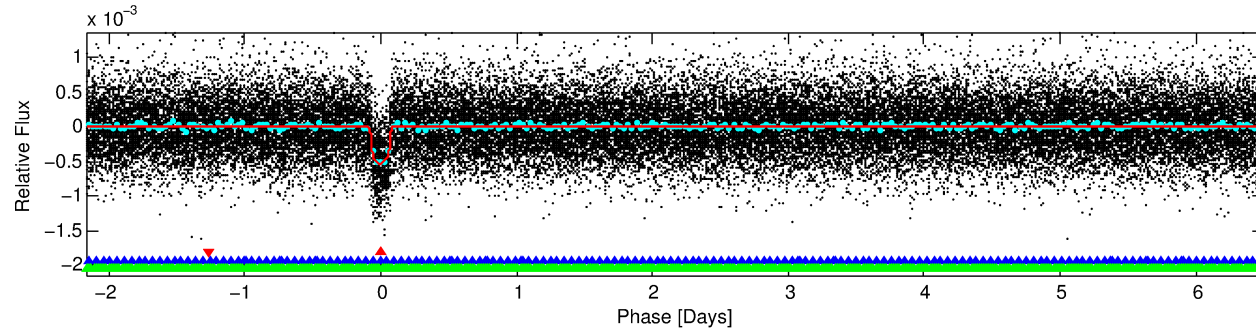
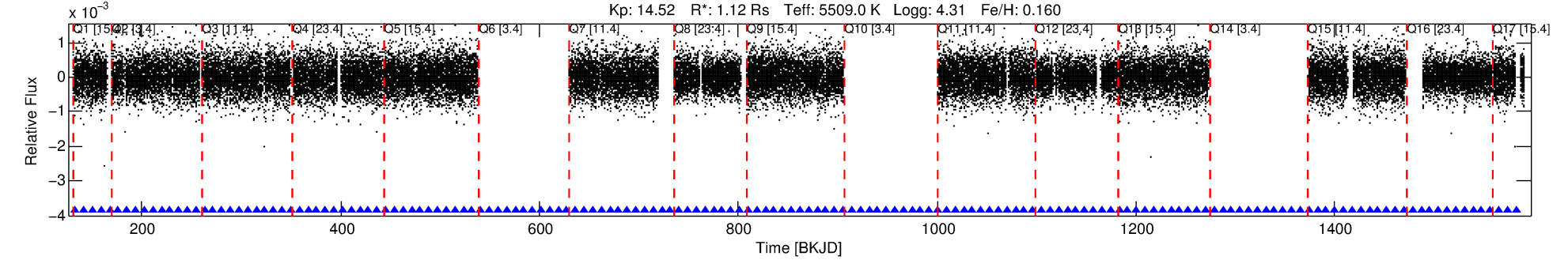
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003128552-01

No Significant Match Found

DV One-Page Summary

KIC: 3128552 Candidate: 1 of 3 Period: 8.679 d
KOI: K02055.01 Corr: 0.986



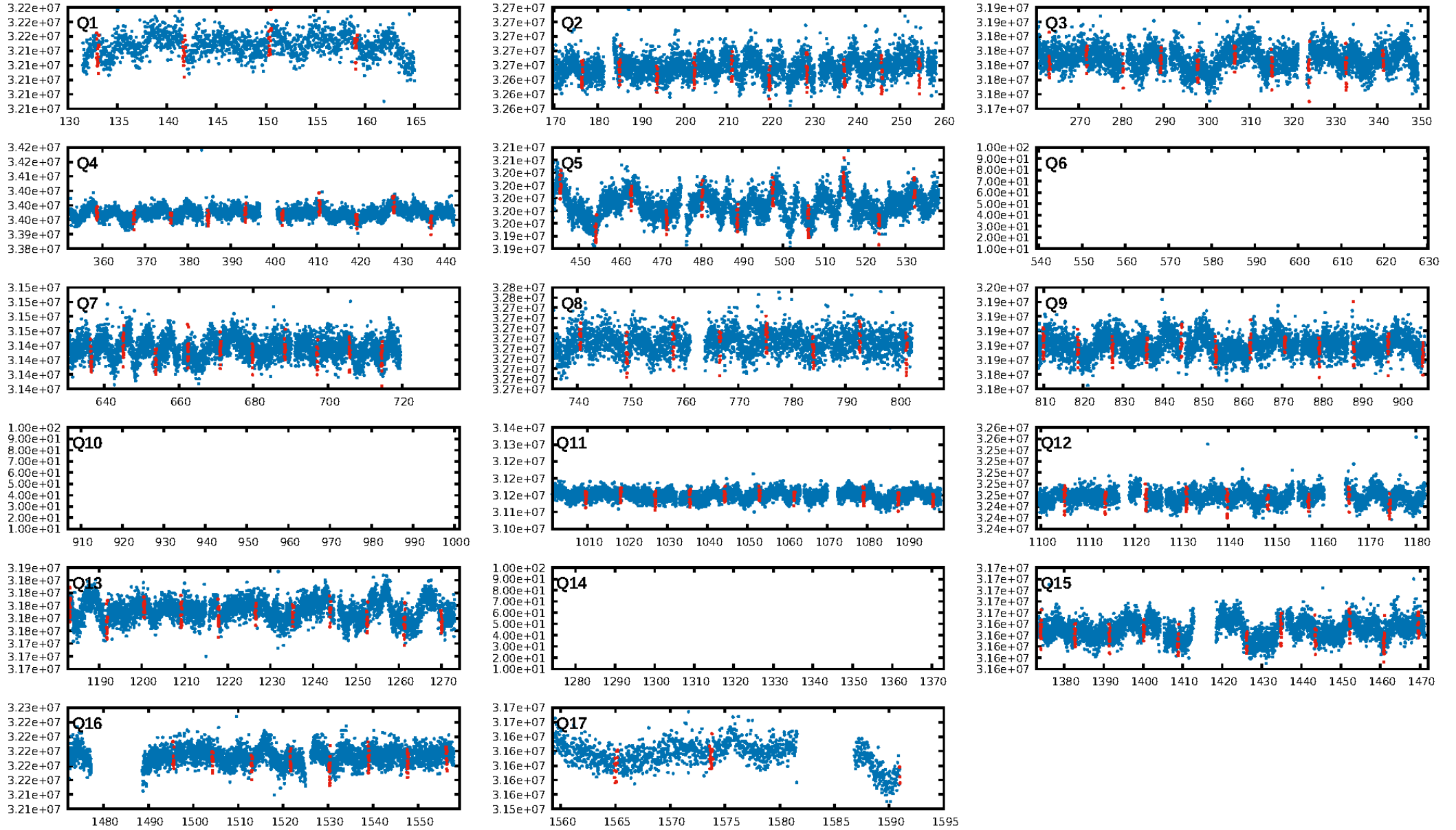
DV Fit Results:

Period = 8.67889 [0.00002] d
Epoch = 133.0373 [0.0021] BKJD
Rp/R* = 0.0231 [0.0066]
a/R* = 12.47 [14.27]
b = 0.77 [0.62]
Seff = 158.61 [42.92]
Teq = 905 [61] K
Rp = 2.82 [0.93] Re
a = 0.0805 [0.0131] AU
Ag = 10.89 [10.07] [0.98 σ]
Teffp = 2541 [564] K [2.88 σ]

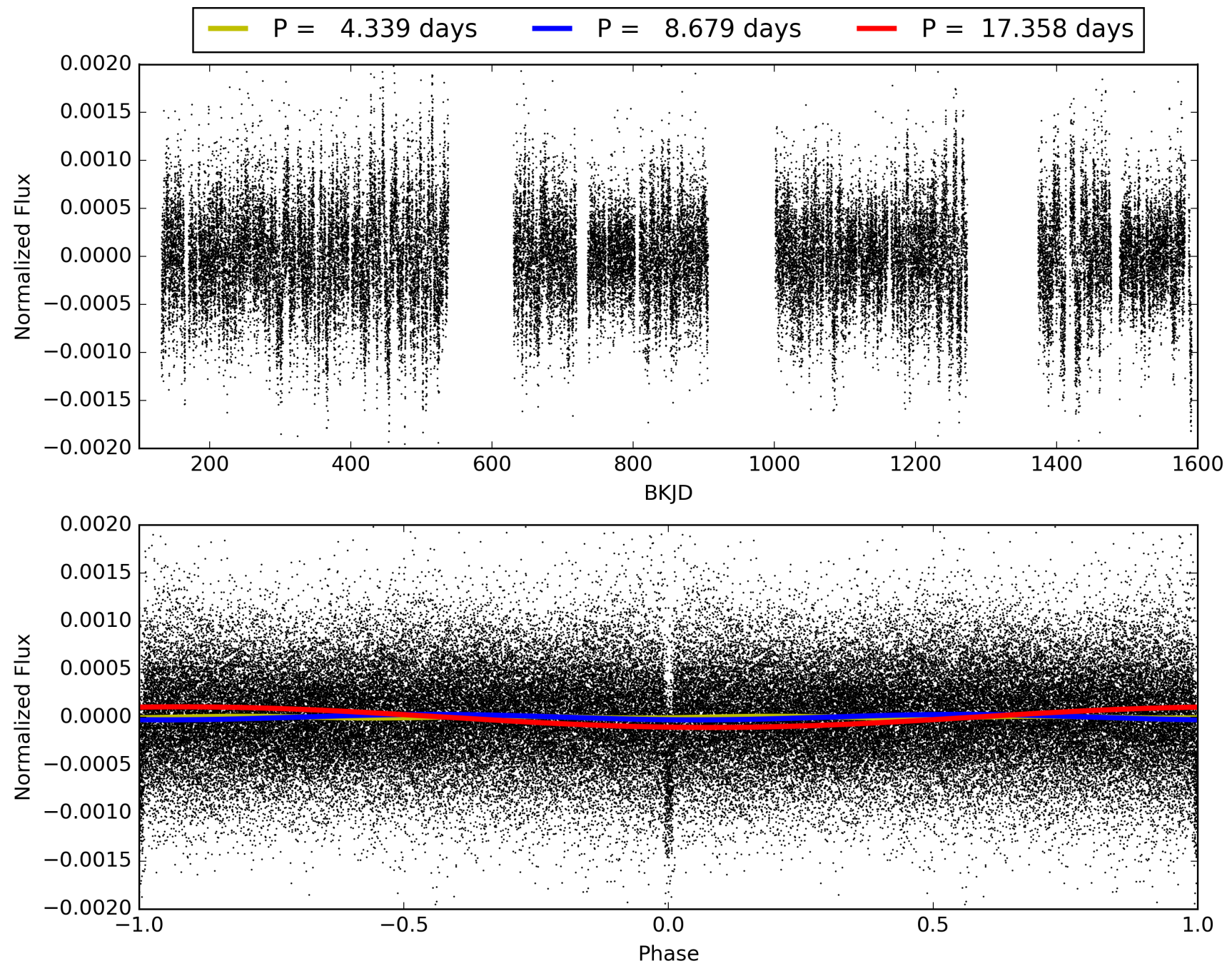
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [23.98 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 97.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.47e-185
RollingBand-fgt: 1.00 [120/120]
GhostDiagnostic-chr: 5.04
Centroid-sig: 31.0%
Centroid-so: 0.354 arcsec [0.88 σ]
OotOffset-rm: 0.135 arcsec [0.75 σ]
KicOffset-rm: 0.334 arcsec [1.67 σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 003128552-01, PDC Light Curves

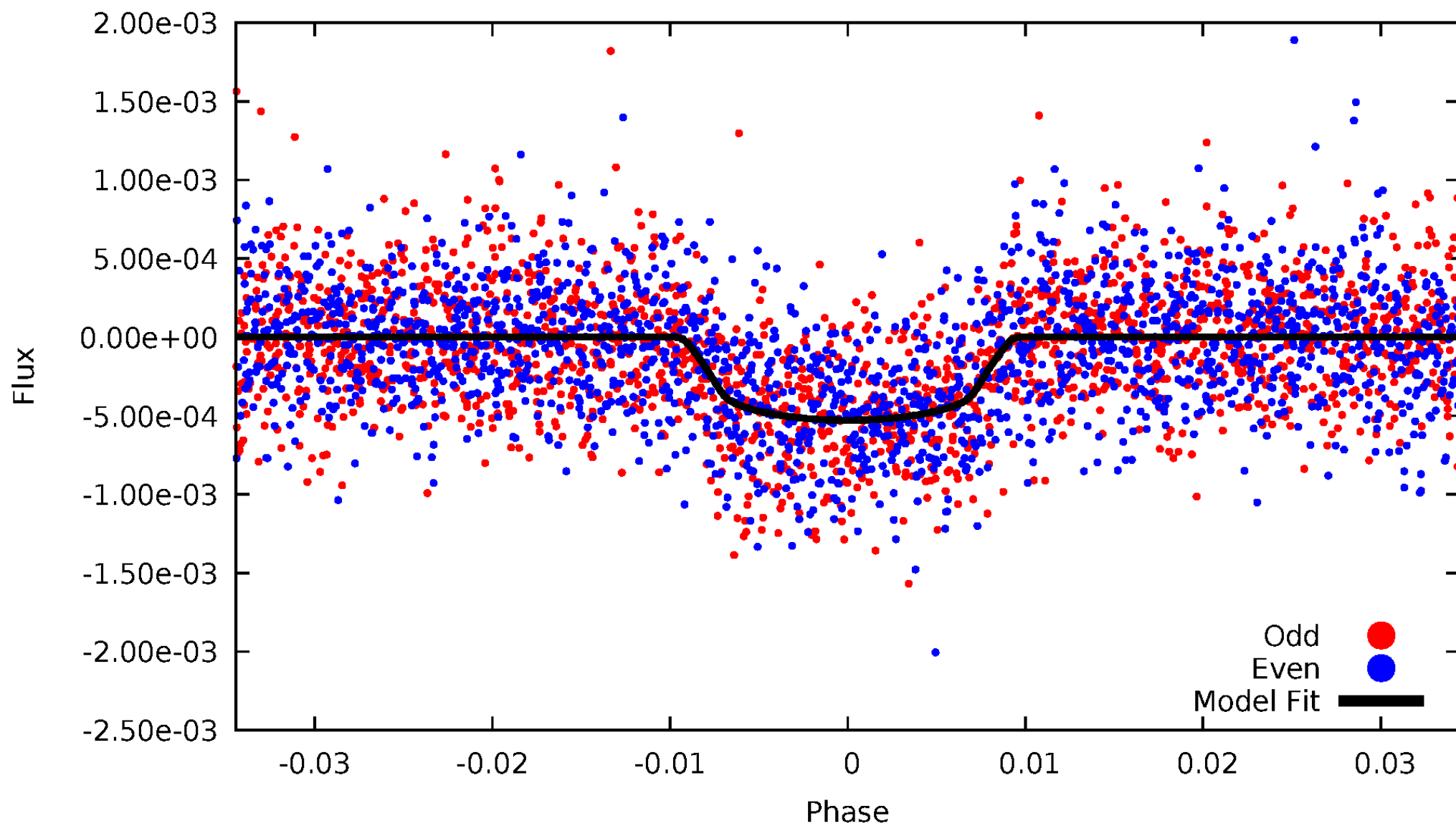


TCE 003128552-01



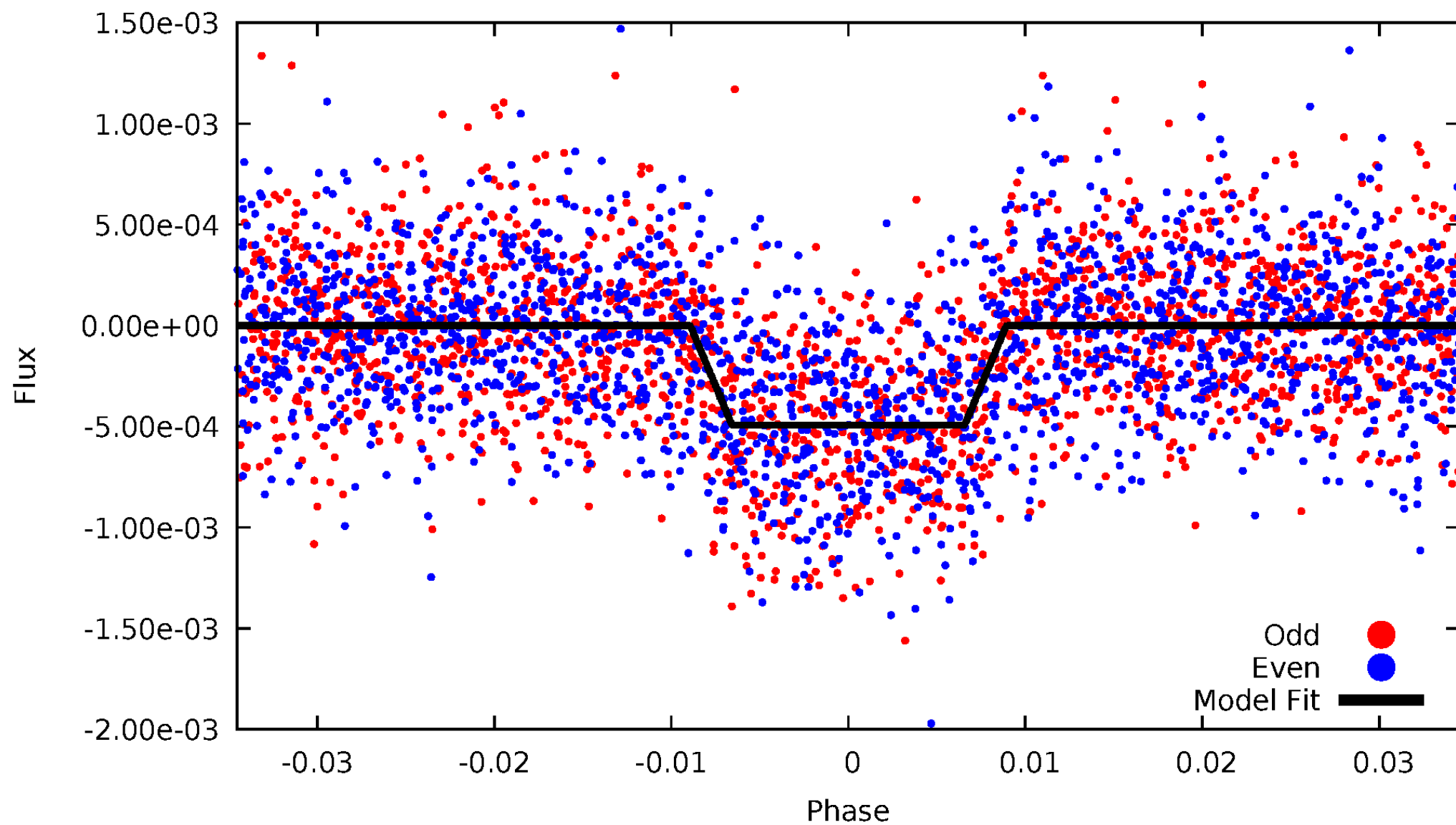
DV Odd/Even

TCE 003128552-01



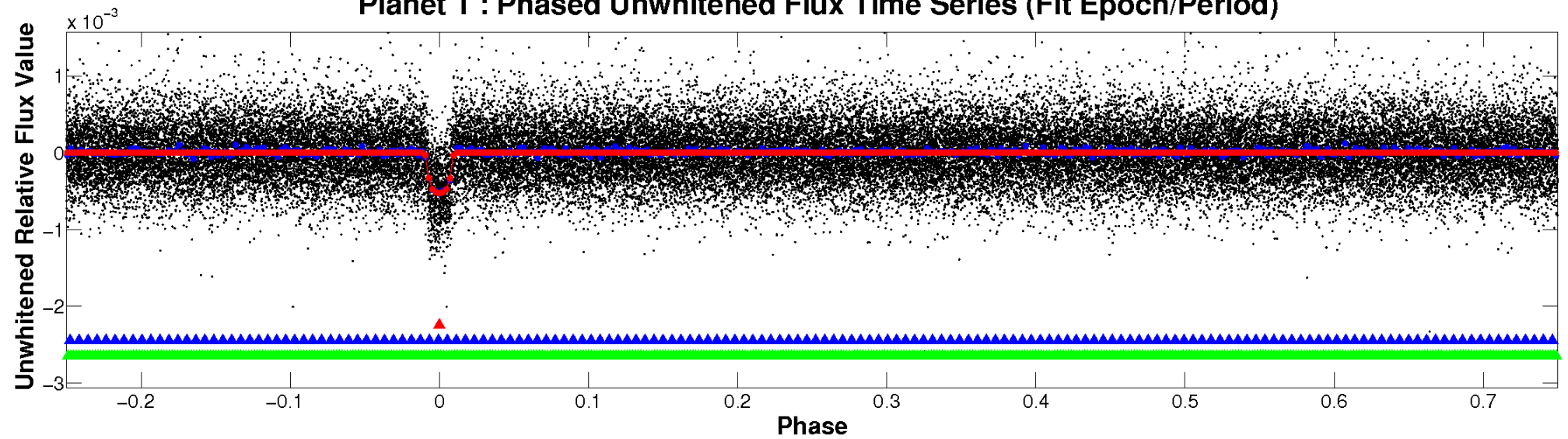
ALT Odd/Even

TCE 003128552-01

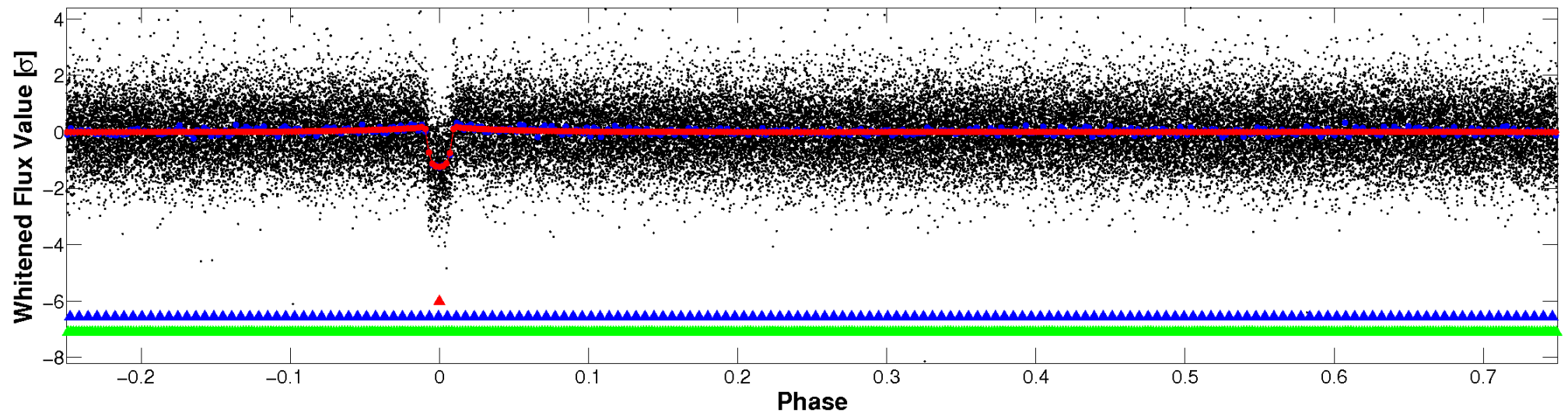


Non-Whitened Vs. Whitened Light Curve

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

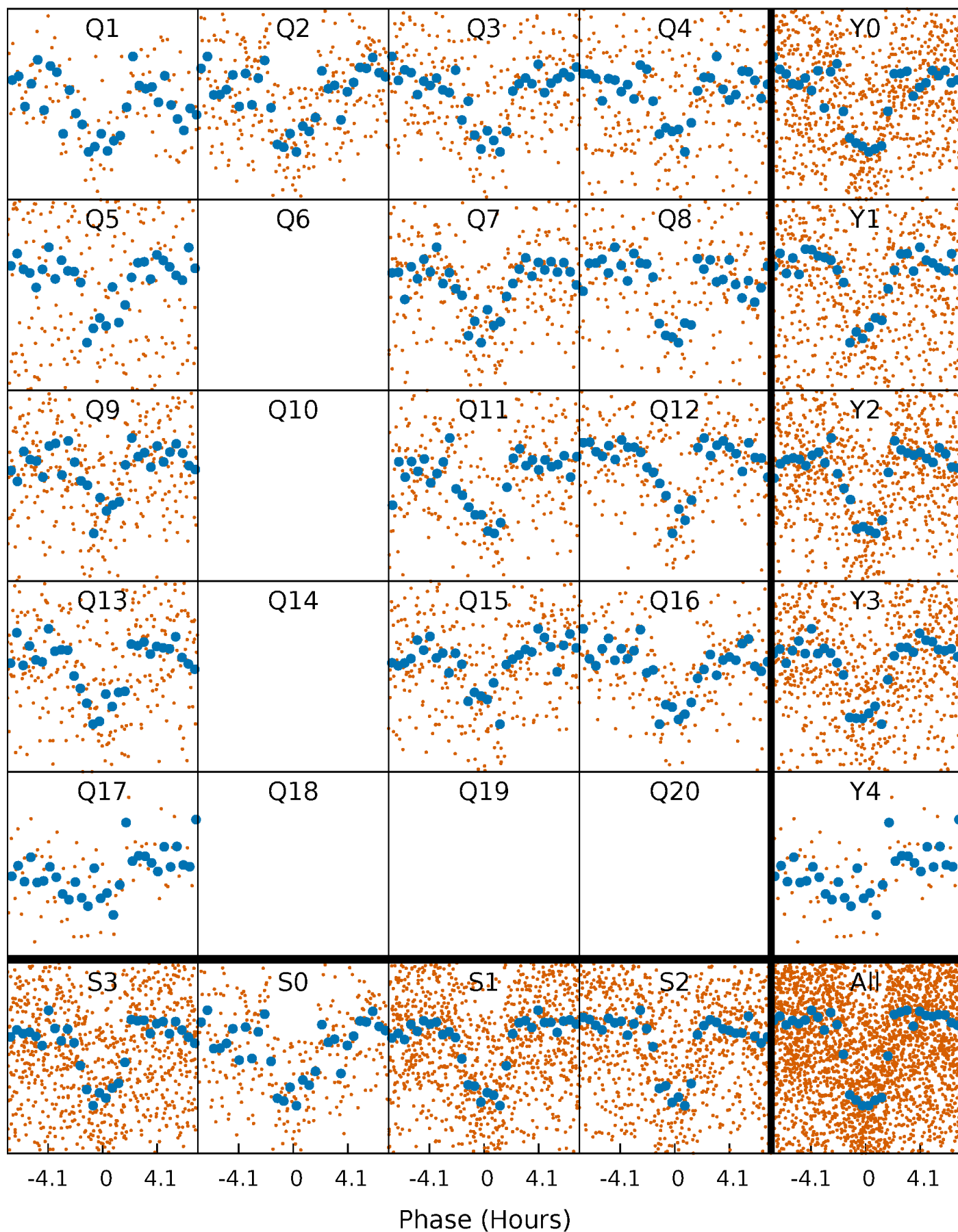


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



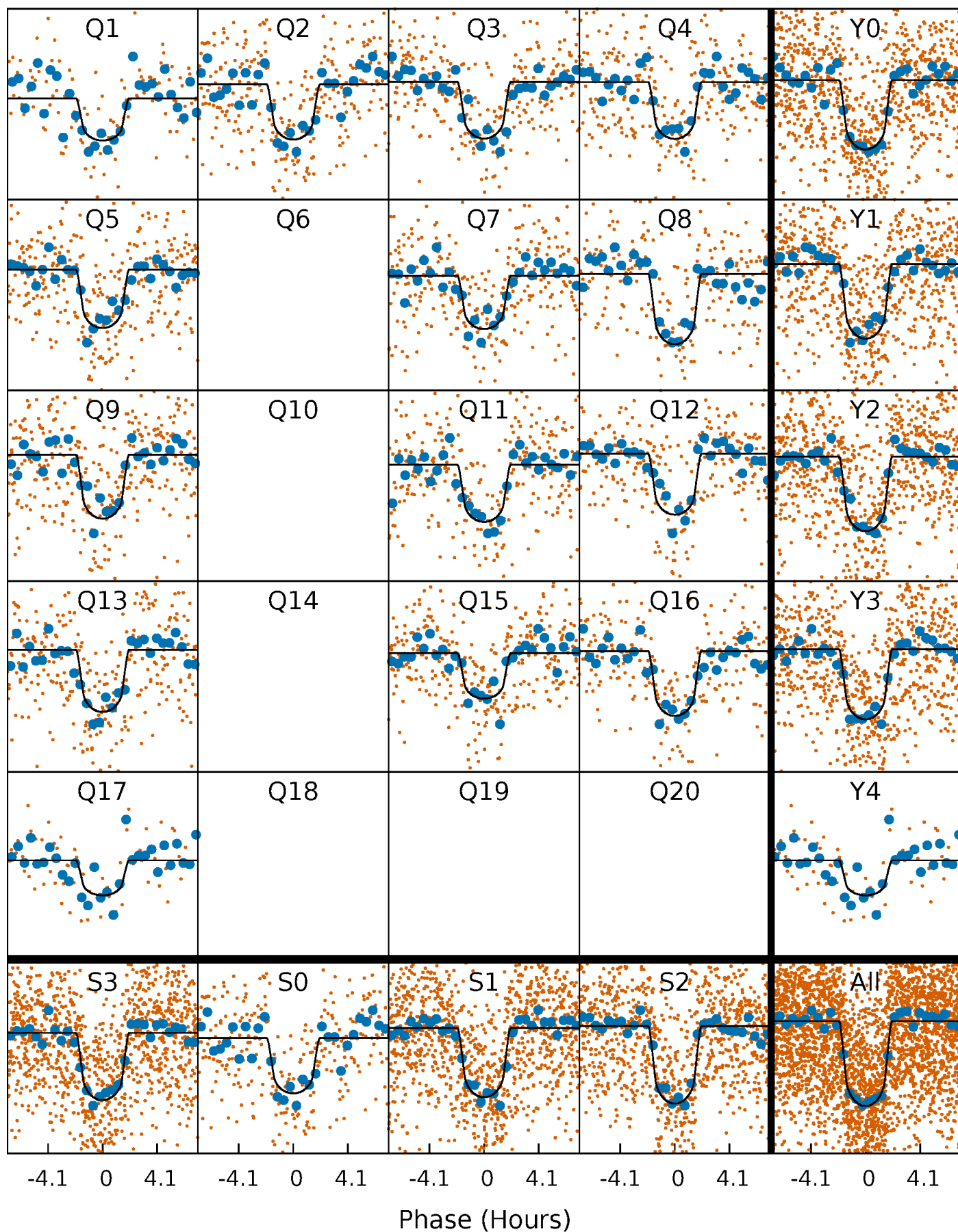
PDC Quarter-Phased Transit Curves

TCE 003128552-01 P= 8.678894 Days $T_0=133.037264$ (BKJD)



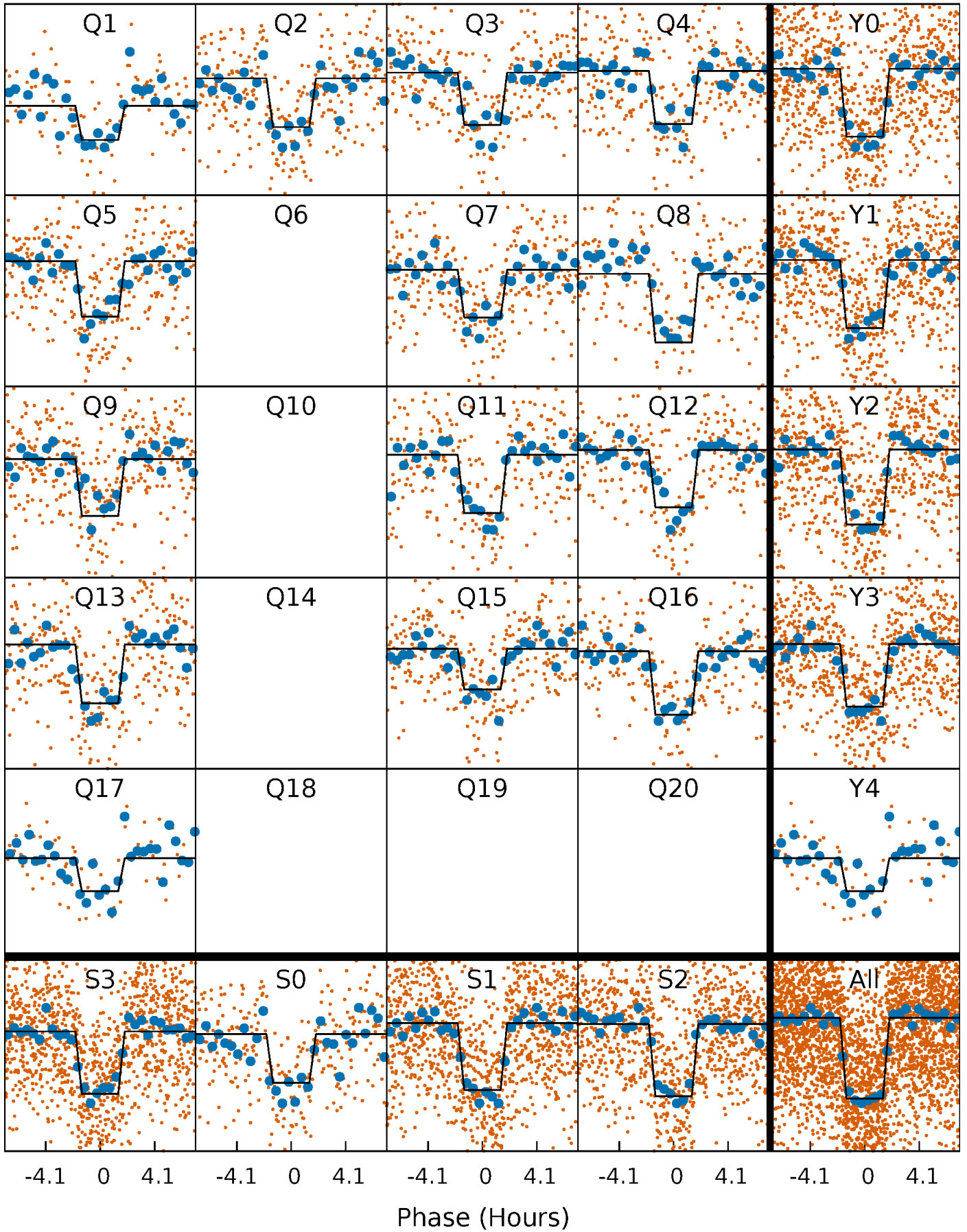
DV Quarter-Phased Transit Curves

TCE 003128552-01 P= 8.678894 Days $T_0=133.037264$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

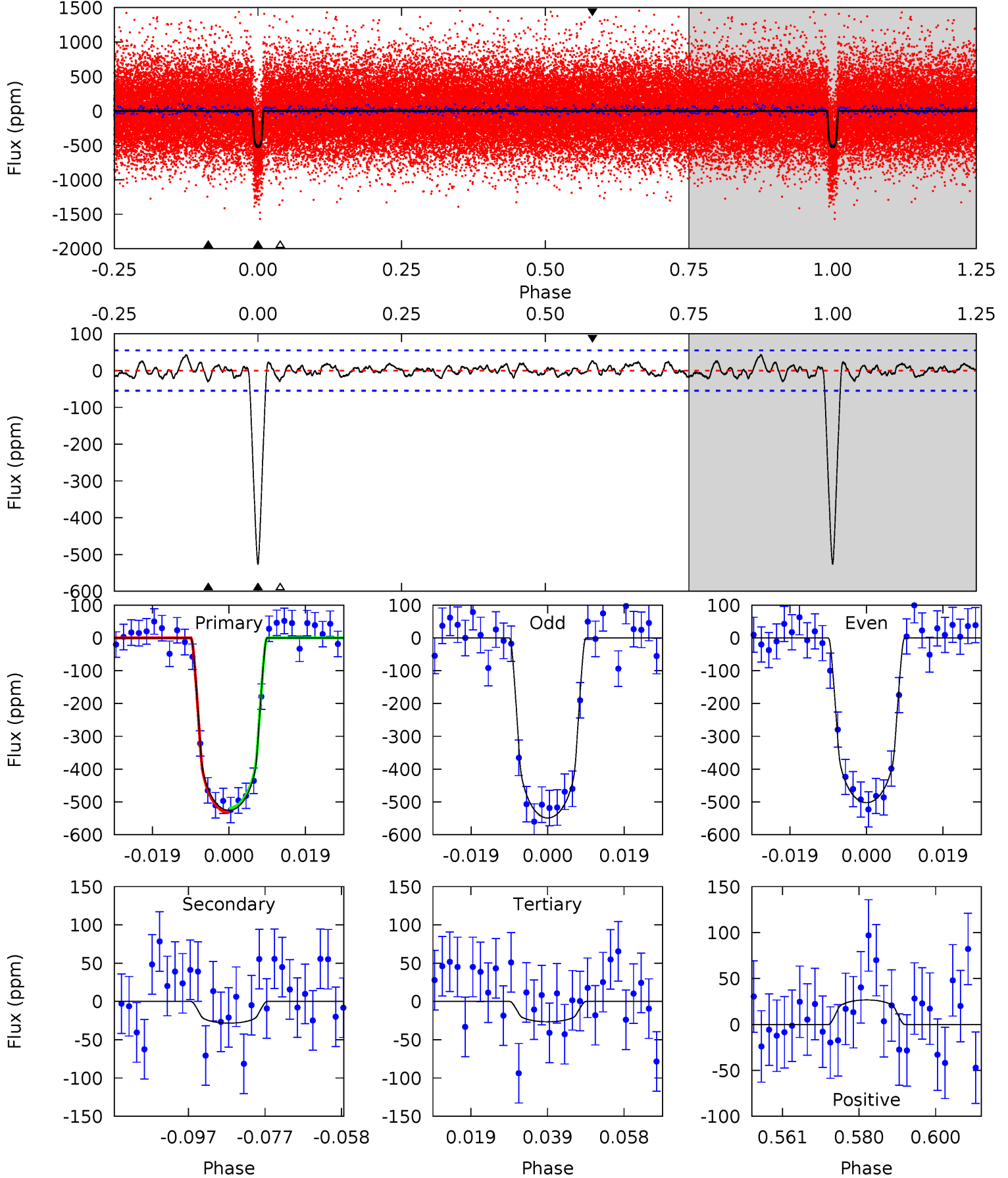
TCE 003128552-01 P= 8.678862 Days $T_0=133.040298$ (BKJD)



DV Model-Shift Uniqueness Test

003128552-01, P = 8.678894 Days, E = 124.358370 Days

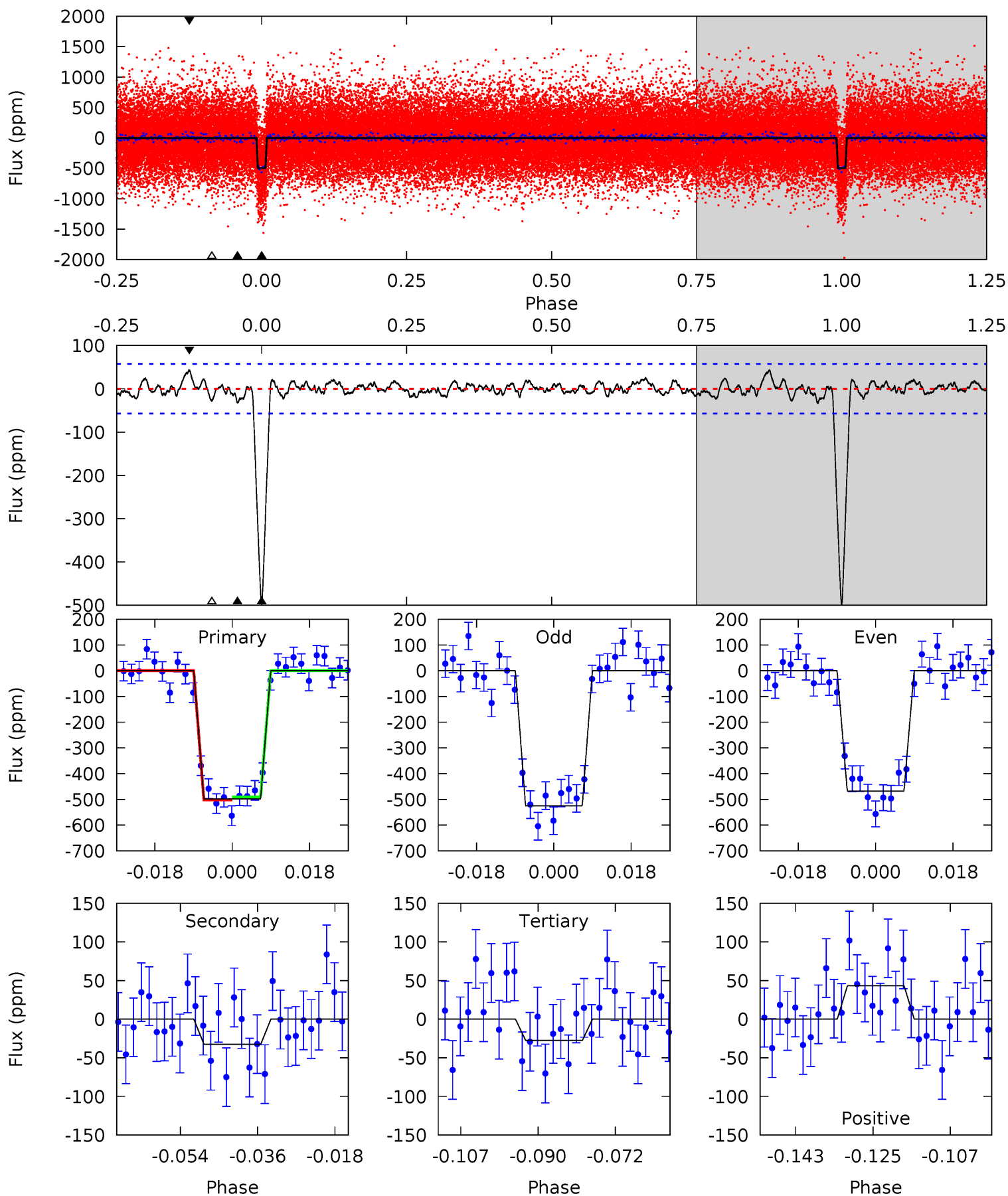
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
47.0	2.53	2.37	2.38	4.90	2.34	1.02	44.6	44.6	0.16	0.15	2.09	1.02	0.08	0.61



Alt Model-Shift Uniqueness Test

003128552-01, P = 8.678862 Days, E = 124.361436 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.8	2.80	2.37	3.71	4.91	2.37	0.96	40.4	39.1	0.43	-0.91	2.46	0.98	0.08	0.51



Stellar Parameters For KIC 003128552

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5509^{+82}_{-74}	$4.308^{+0.156}_{-0.104}$	$0.160^{+0.150}_{-0.150}$	$1.116^{+0.169}_{-0.186}$	$0.924^{+0.062}_{-0.043}$	$0.936^{+0.610}_{-0.317}$
	+1%/-1%	+4%/-2%	+94%/-94%	+15%/-17%	+7%/-5%	+65%/-34%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003128552-01 / KOI 2055.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-28 ± 11	$2.79^{+0.91}_{-0.85}$	1262^{+51}_{-70}	3190^{+404}_{-326}	13^{+15}_{-7}
Alt.	-33 ± 12	$2.64^{+0.82}_{-0.73}$	1259^{+56}_{-61}	3324^{+423}_{-325}	17^{+19}_{-9}

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

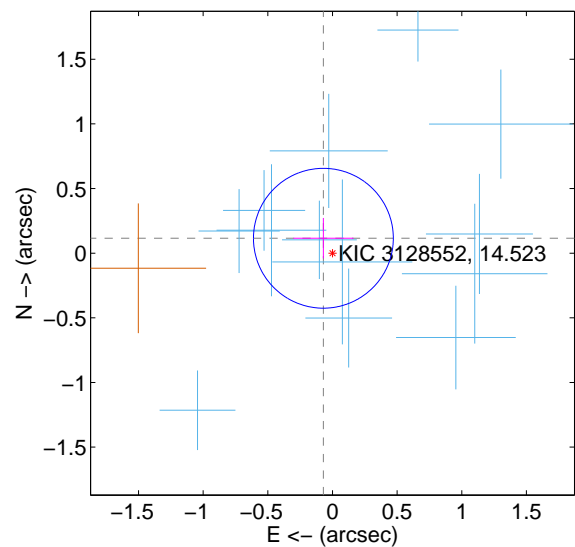
Supplemental centroid analysis for 003128552-01. Kepler magnitude: 14.52. Transit SNR 31.46

There are 13 quarters with good PRF difference image offsets

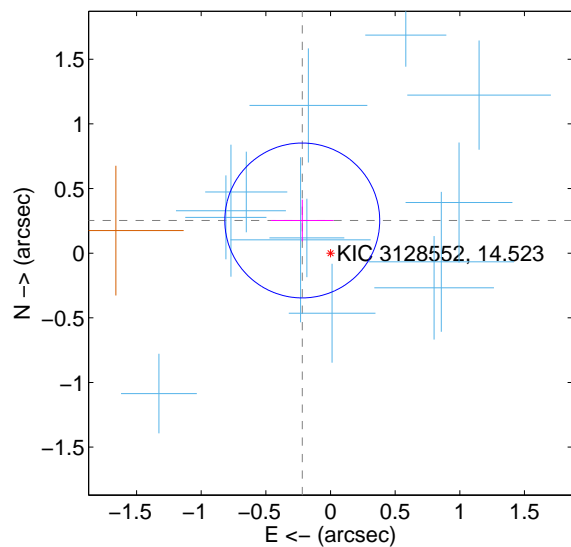
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.135 ± 0.180	0.75	0.070 ± 0.232	0.115 ± 0.157
PRF-fit source offset from KIC position	0.334 ± 0.200	1.67	0.219 ± 0.242	0.253 ± 0.161
photometric centroid source offset	0.35 ± 0.40	0.88	-0.12 ± 0.43	-0.33 ± 0.40

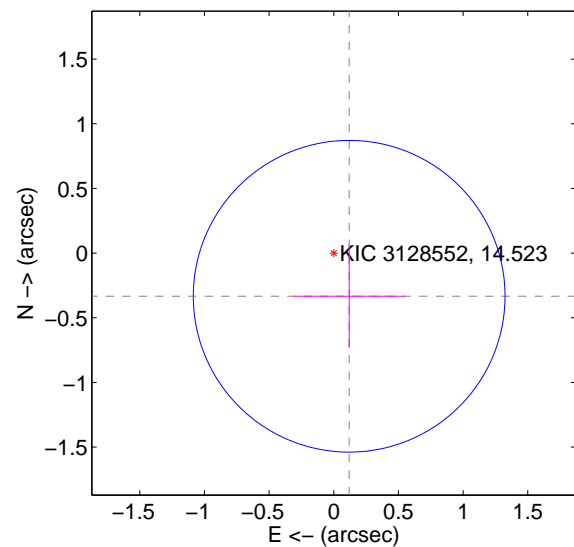
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

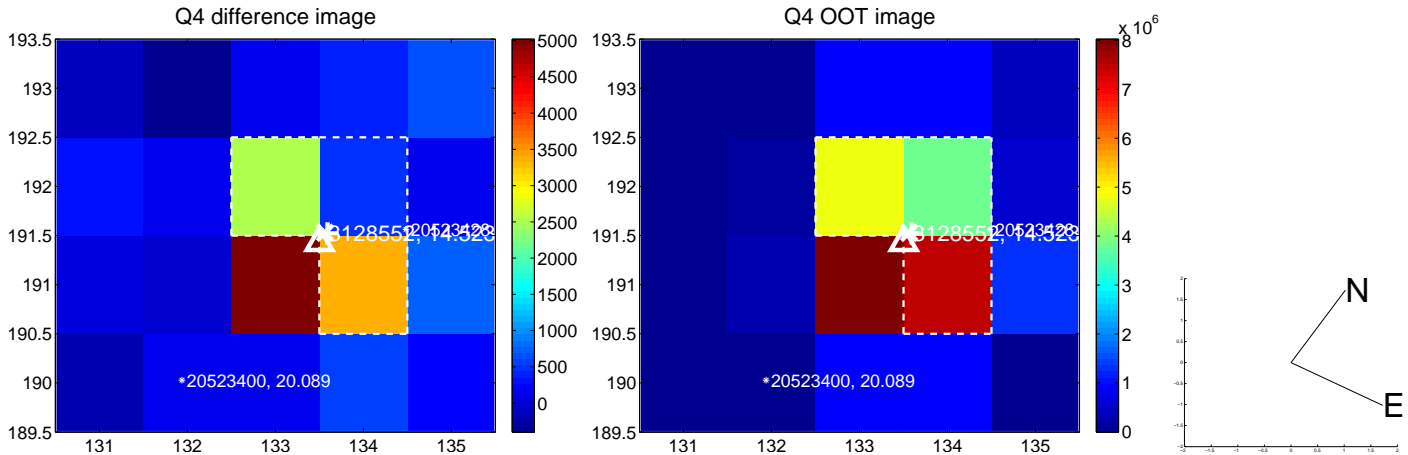
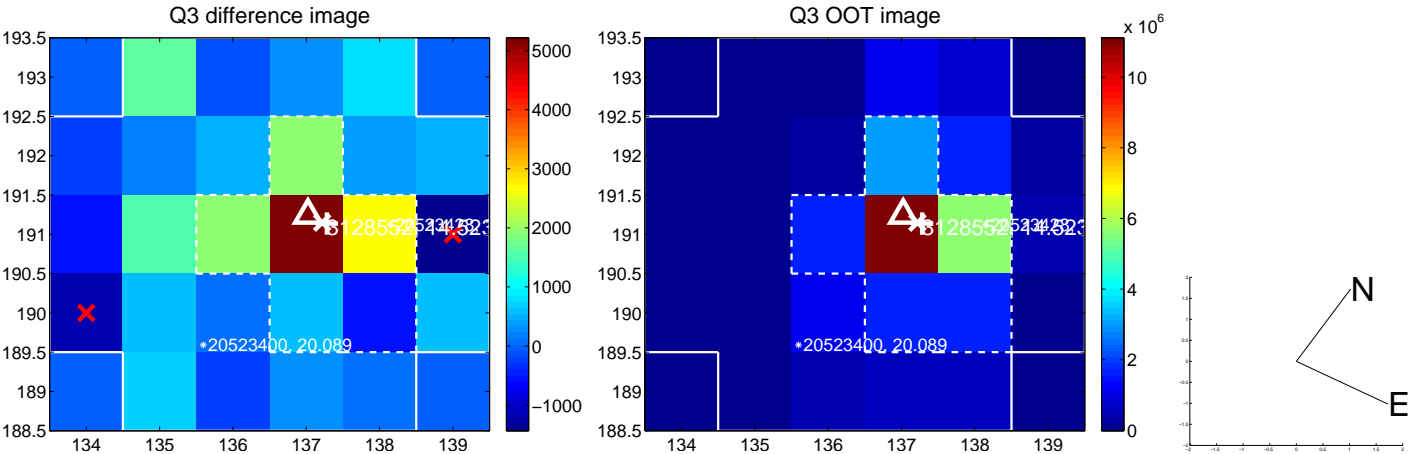
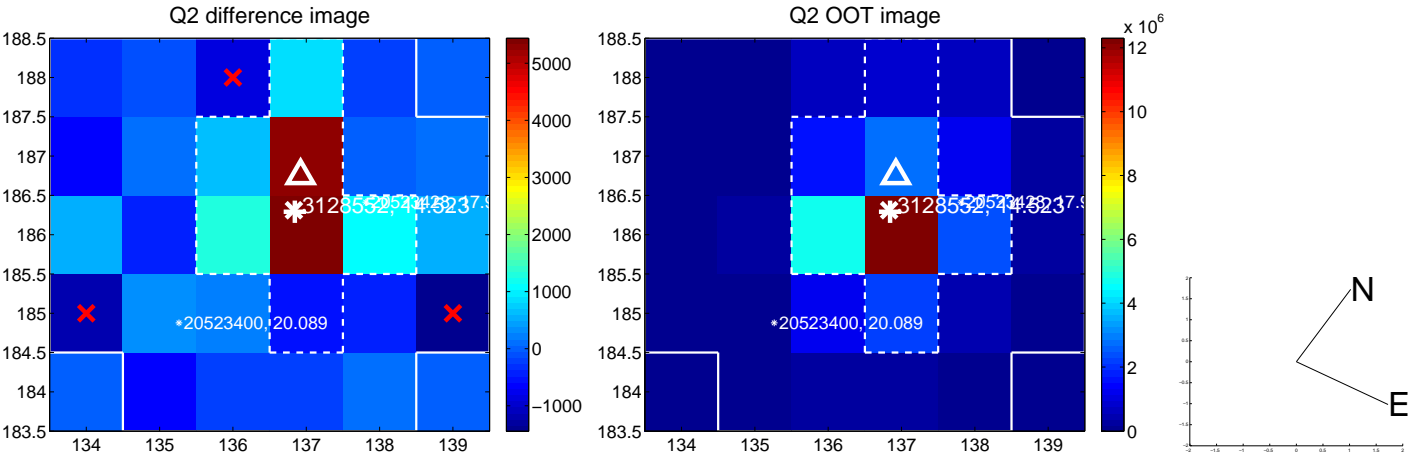
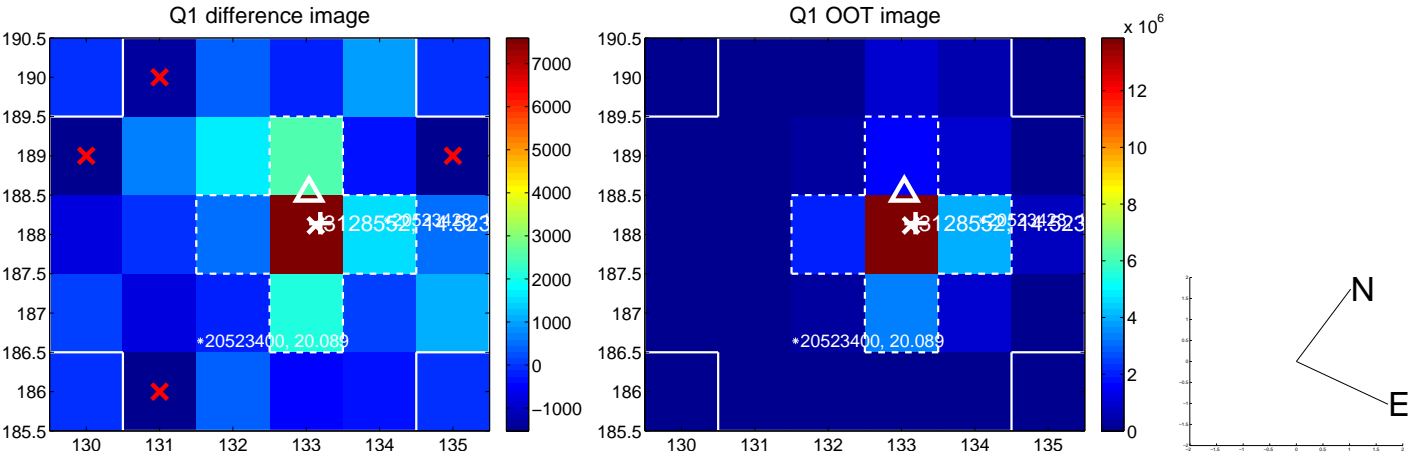


offset from photometric centroids

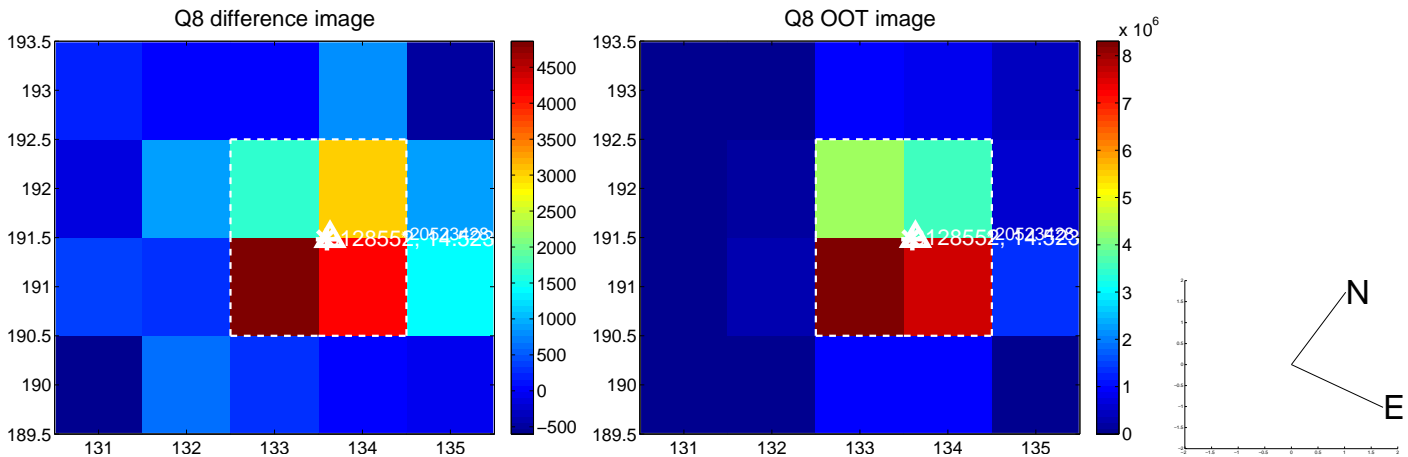
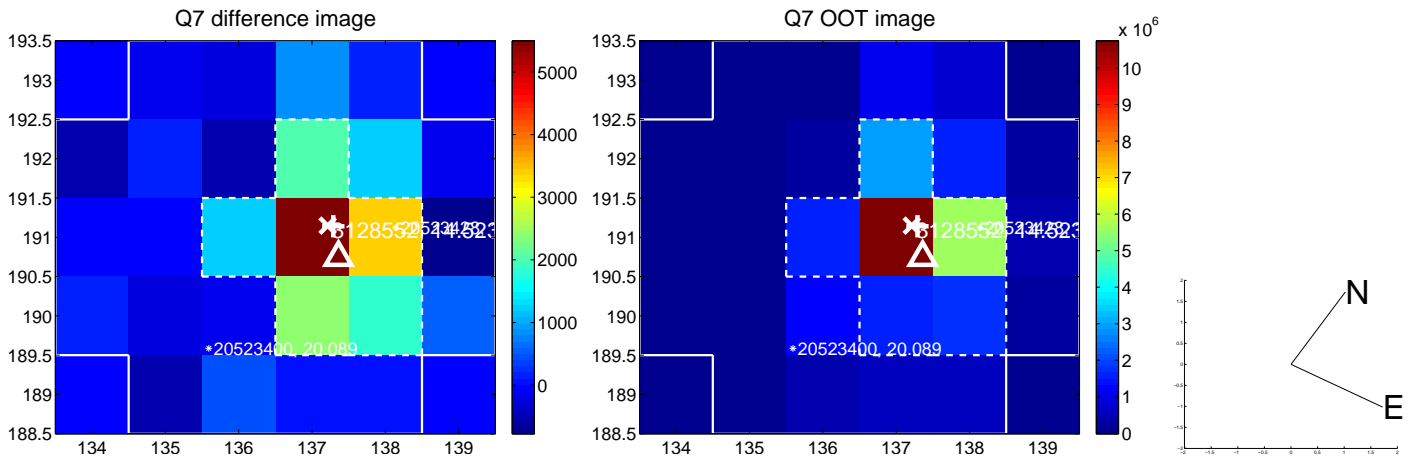
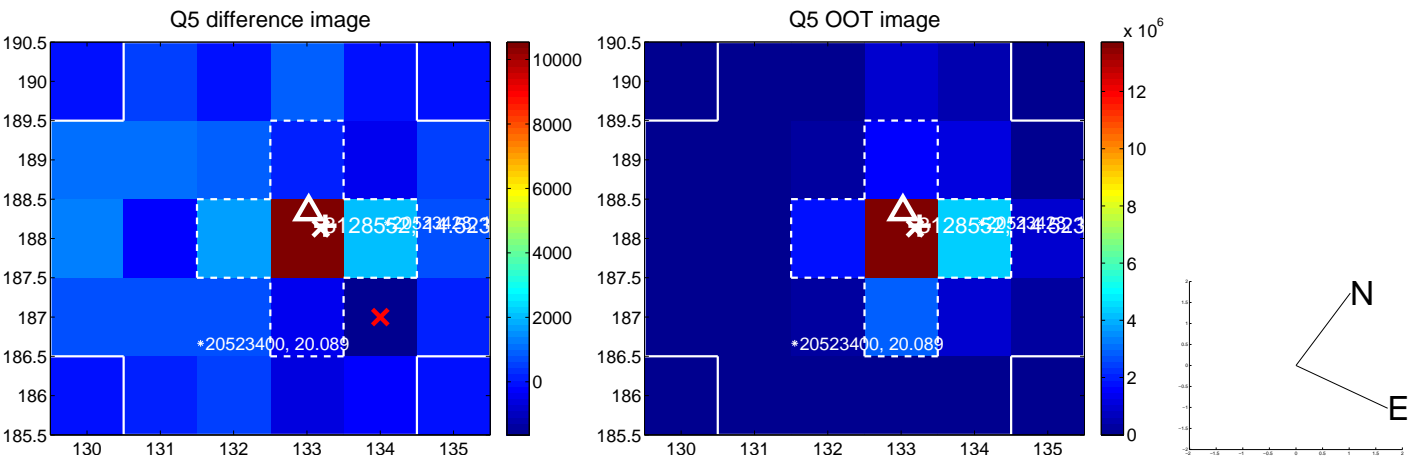


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

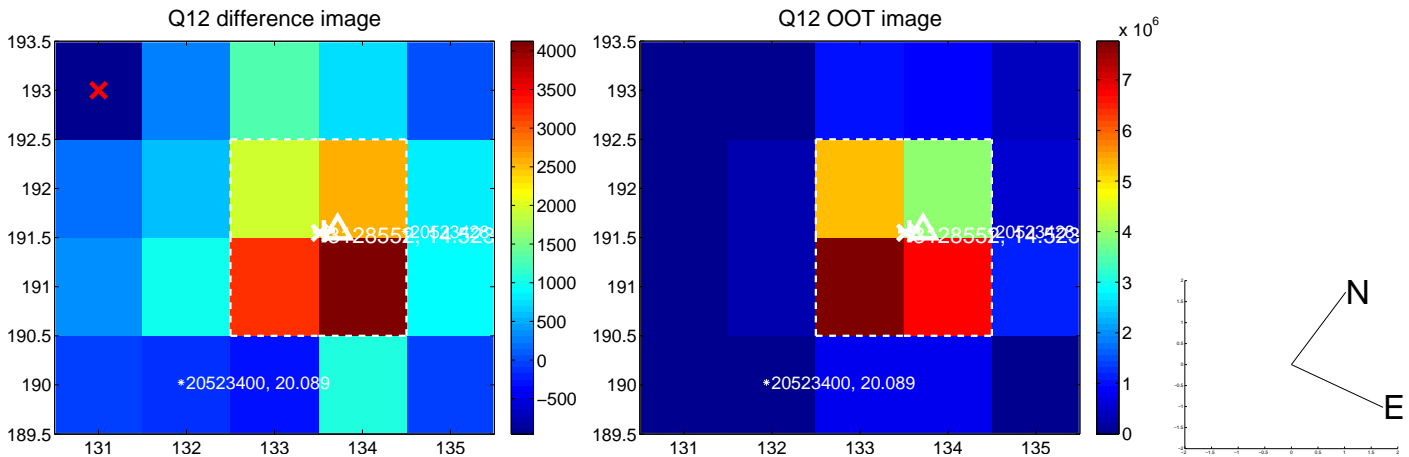
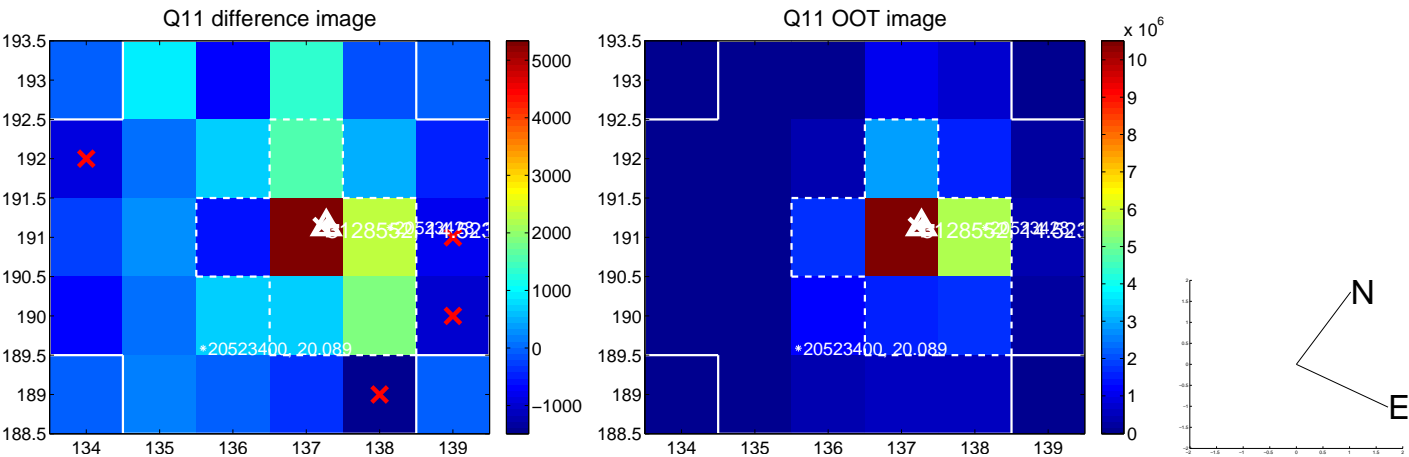
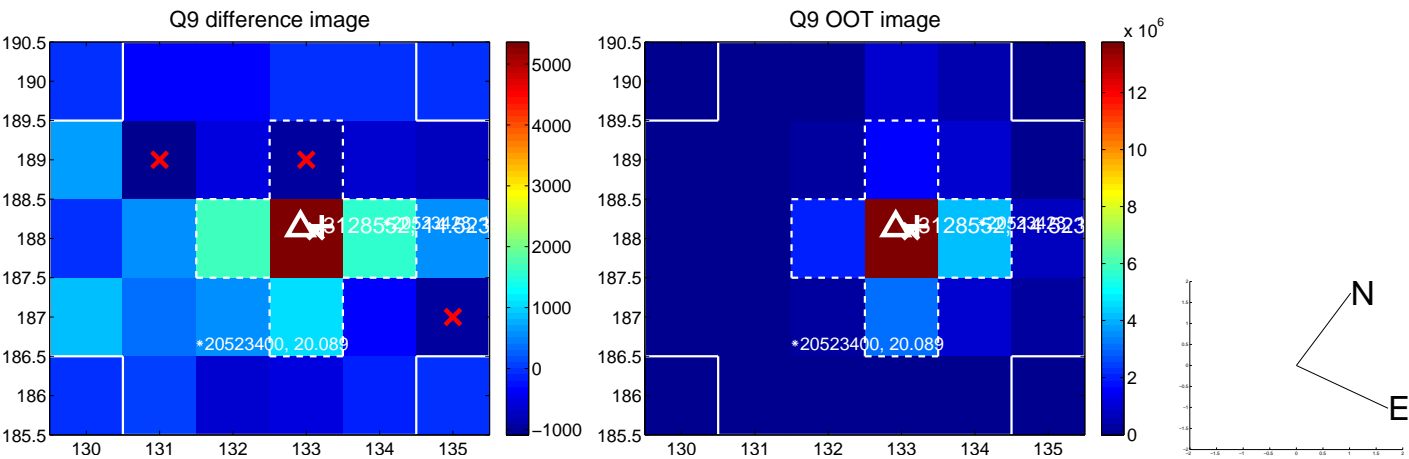
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



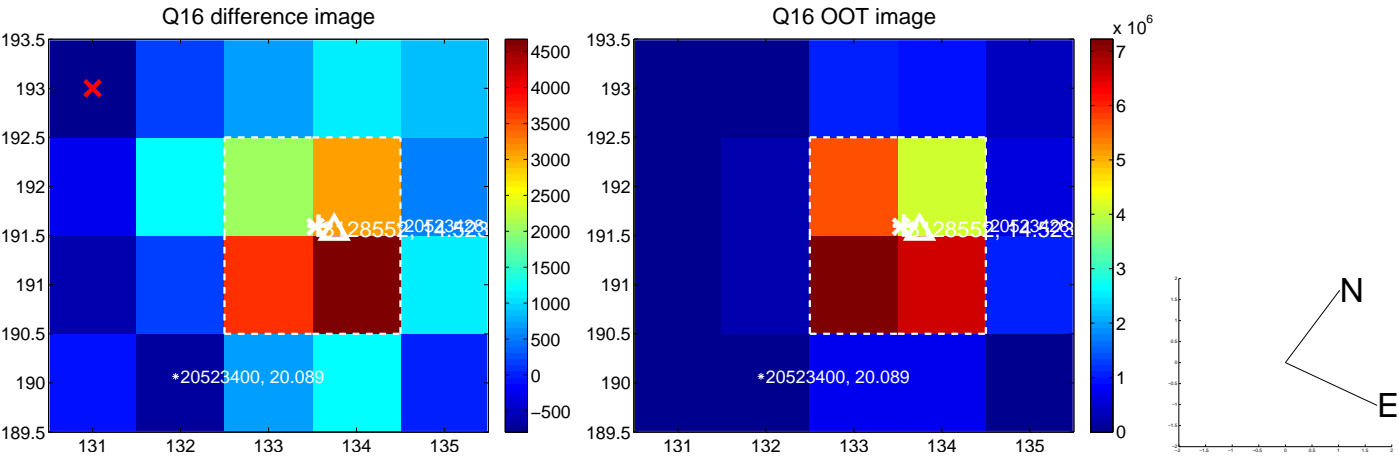
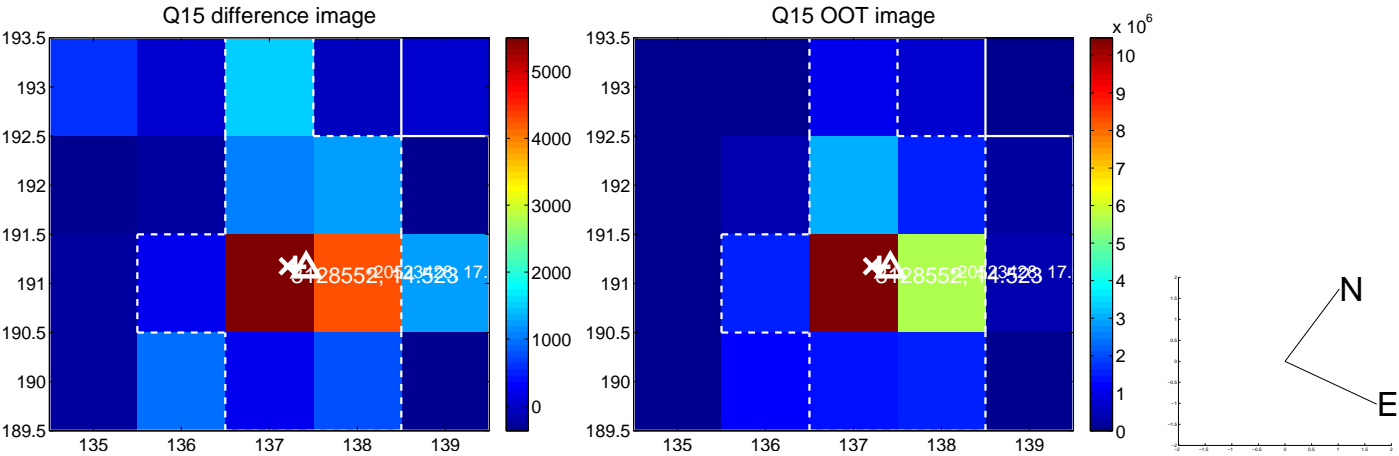
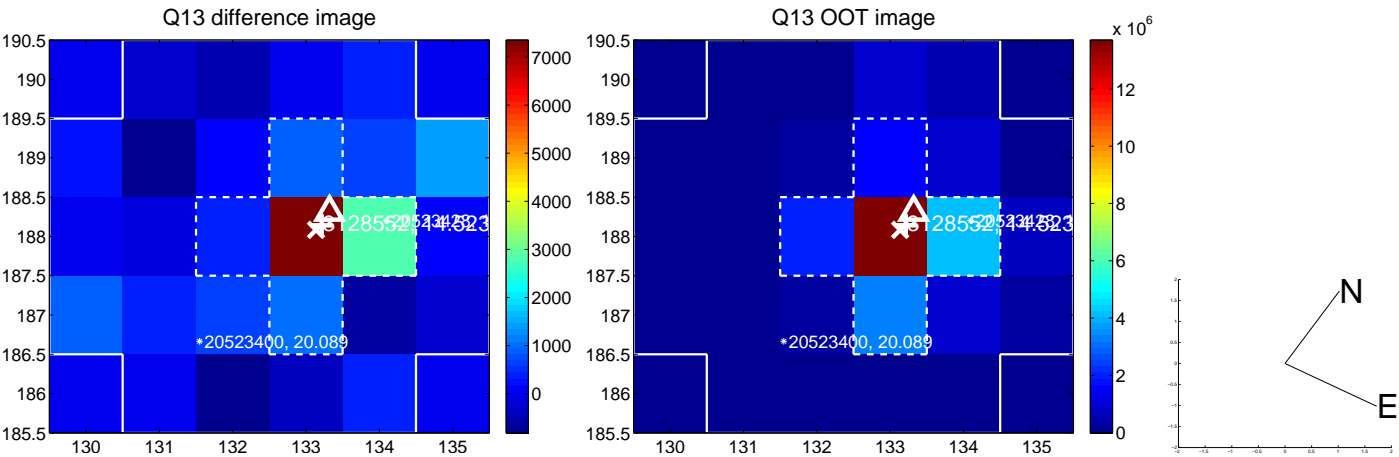
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



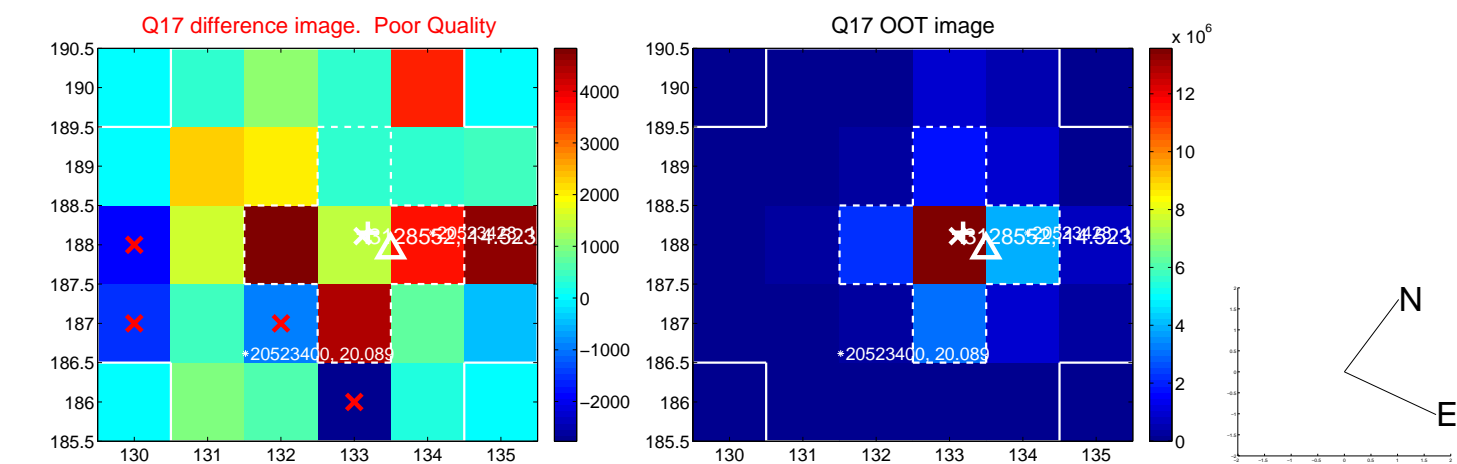
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



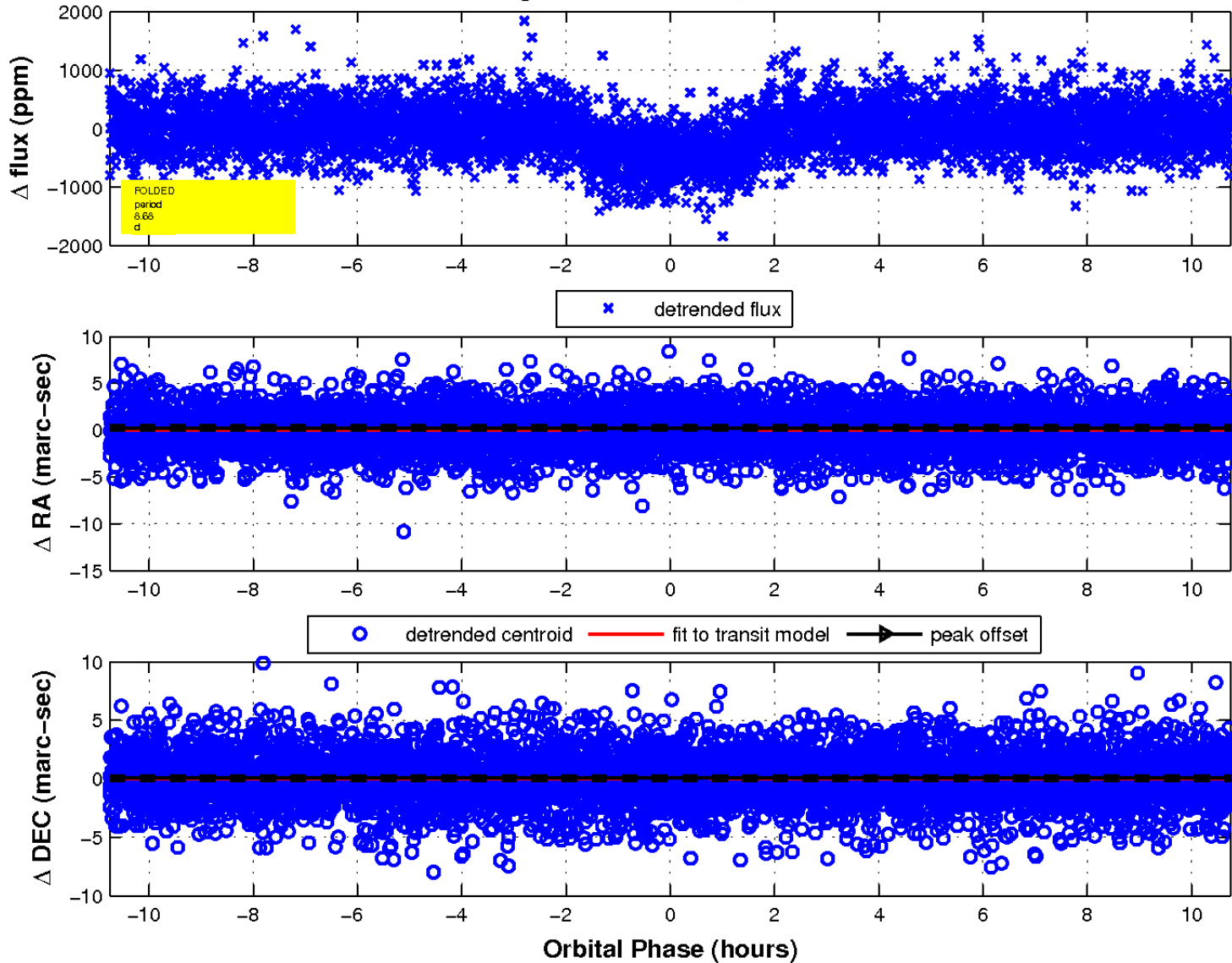
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

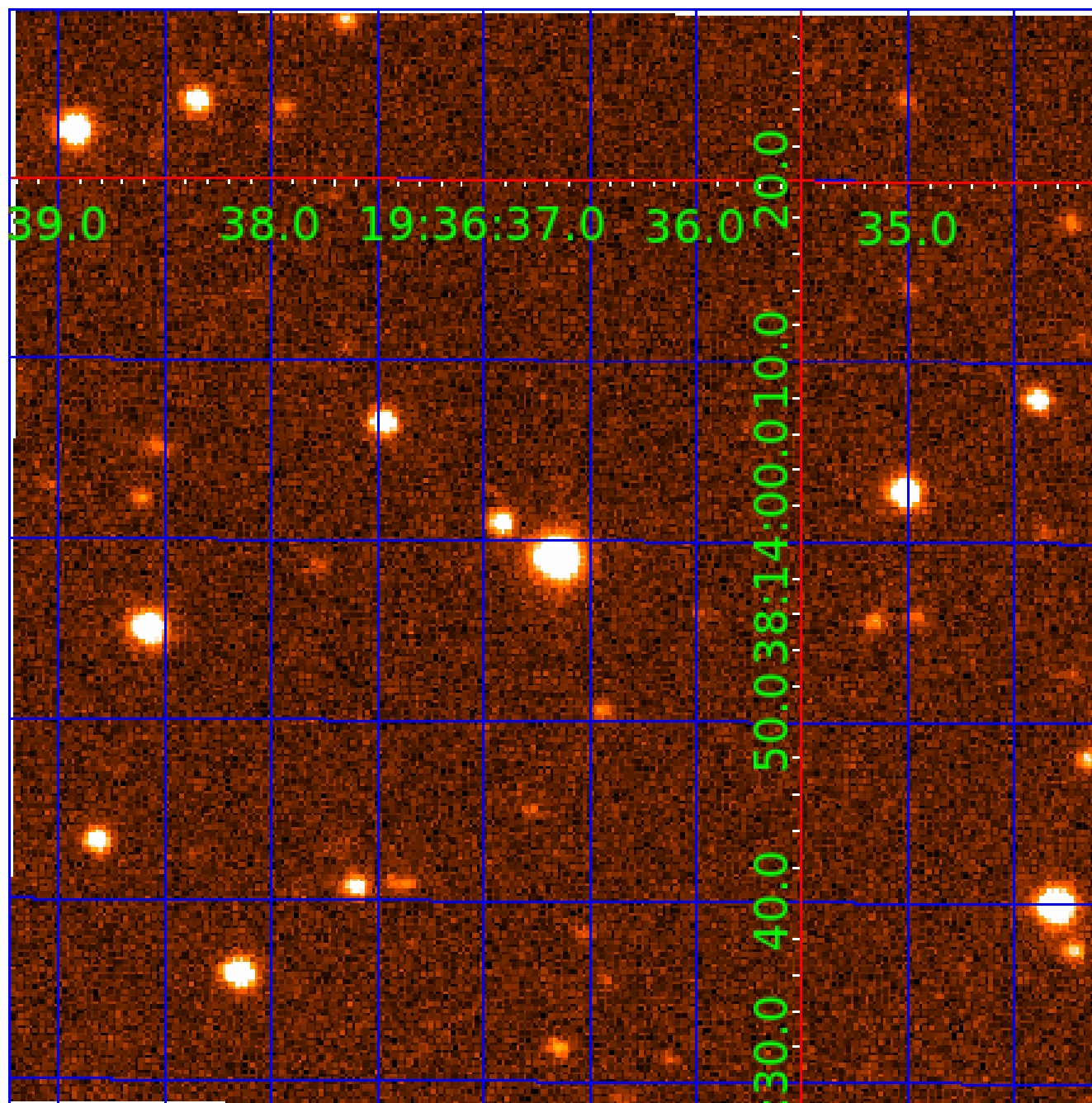


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 003128552

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})
003128552-01	OBS	2055.01	8.678894	133.037265	528.5	3.585	29.6	31.5	1.12	5509	2.82	158.61
003128552-02	OBS	2055.02	4.025757	135.435989	253.6	2.971	19.0	20.6	1.12	5509	2.13	441.74
003128552-03	OBS	2055.03	2.504757	133.634765	171.8	2.465	14.7	15.9	1.12	5509	1.71	831.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003128552-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
003128552-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003128552-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

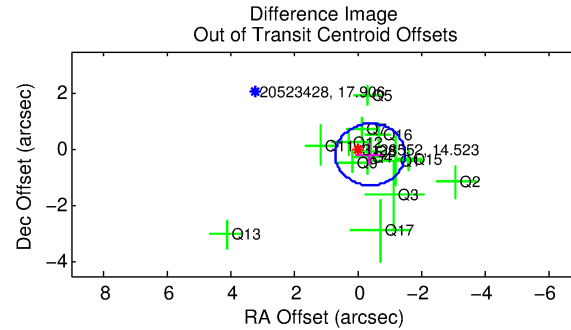
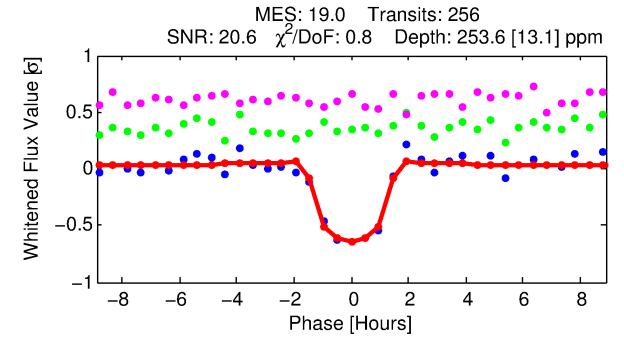
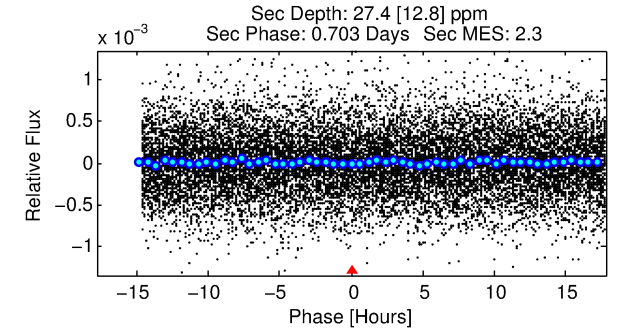
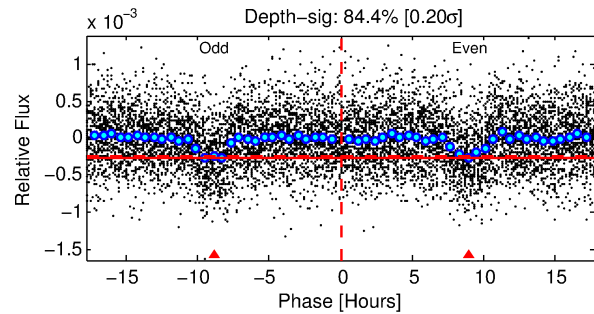
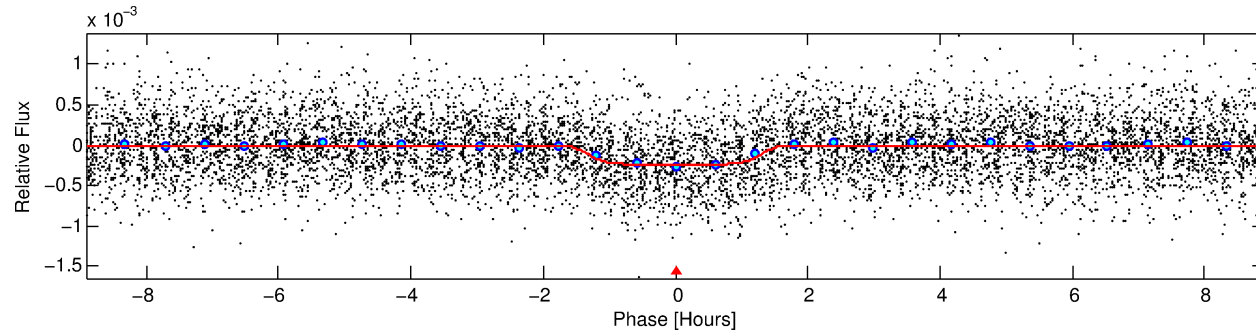
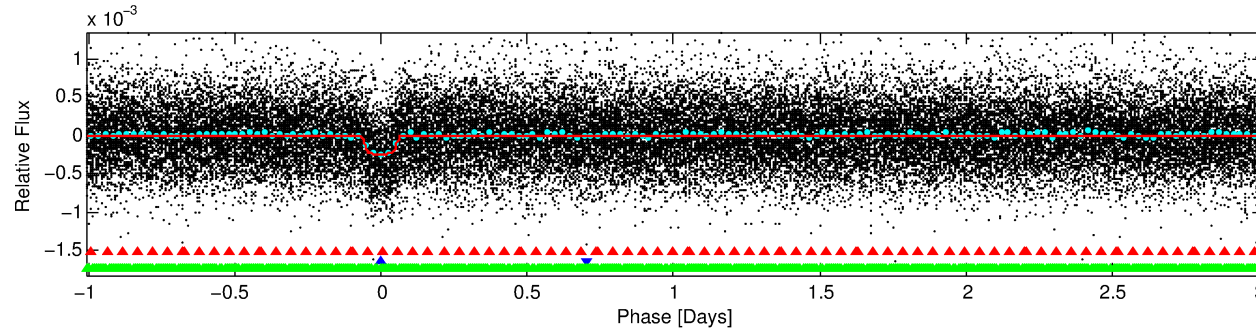
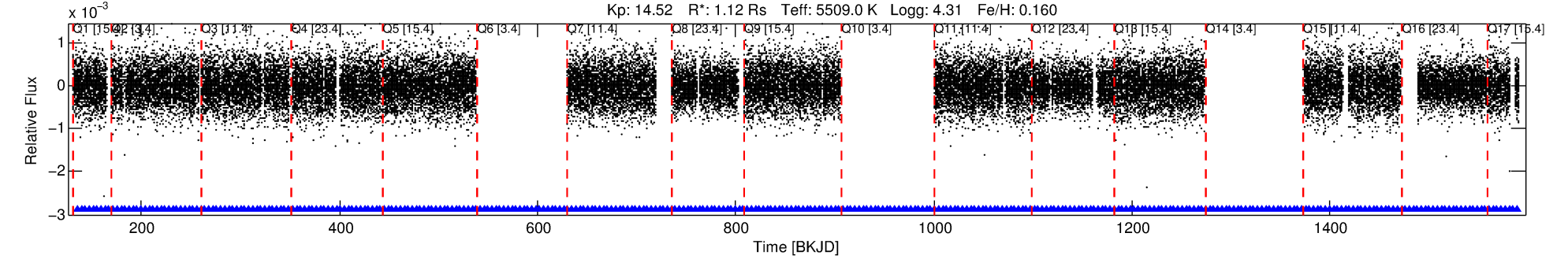
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003128552-02

No Significant Match Found

DV One-Page Summary

KIC: 3128552 Candidate: 2 of 3 Period: 4.026 d
KOI: K02055.02 Corr: 0.943



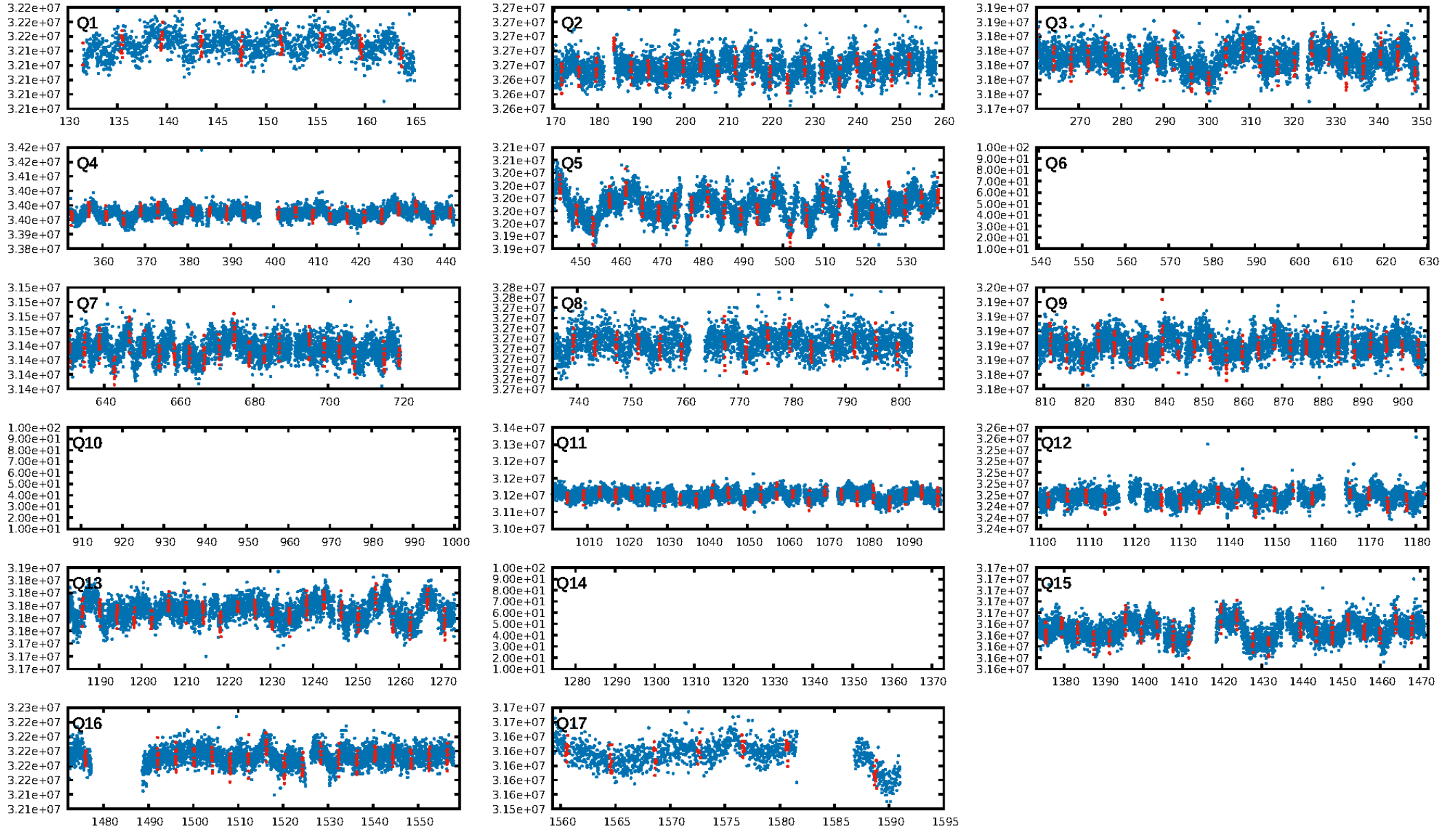
DV Fit Results:

Period = 4.02576 [0.00001] d
Epoch = 135.4360 [0.0022] BKJD
Rp/R* = 0.0175 [0.0047]
a/R* = 5.02 [5.74]
b = 0.90 [0.26]
Seff = 441.74 [119.54]
Teff = 1169 [79] K
Rp = 2.13 [0.68] Re
a = 0.0482 [0.0079] AU
Ag = 7.71 [5.88] [1.14 σ]
Teffp = 3012 [541] K [3.37 σ]

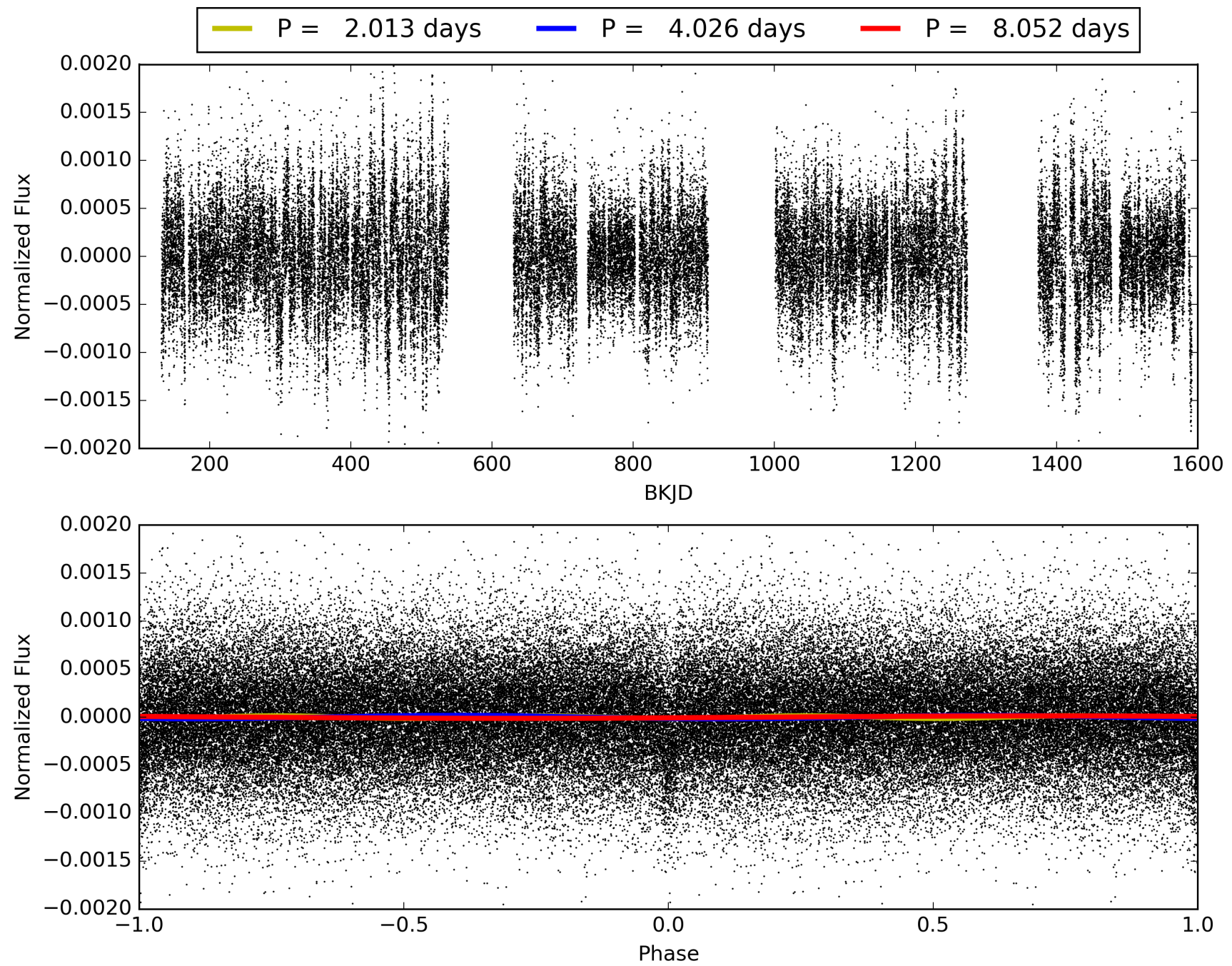
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.46 σ]
LongPeriod-sig: 100.0% [23.98 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.04e-76
RollingBand-fgt: 1.00 [241/241]
GhostDiagnostic-chr: 1.957
Centroid-sig: 99.1%
Centroid-so: 0.449 arcsec [0.69 σ]
OotOffset-rm: 0.438 arcsec [1.20 σ]
KicOffset-rm: 0.279 arcsec [0.63 σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 003128552-02, PDC Light Curves

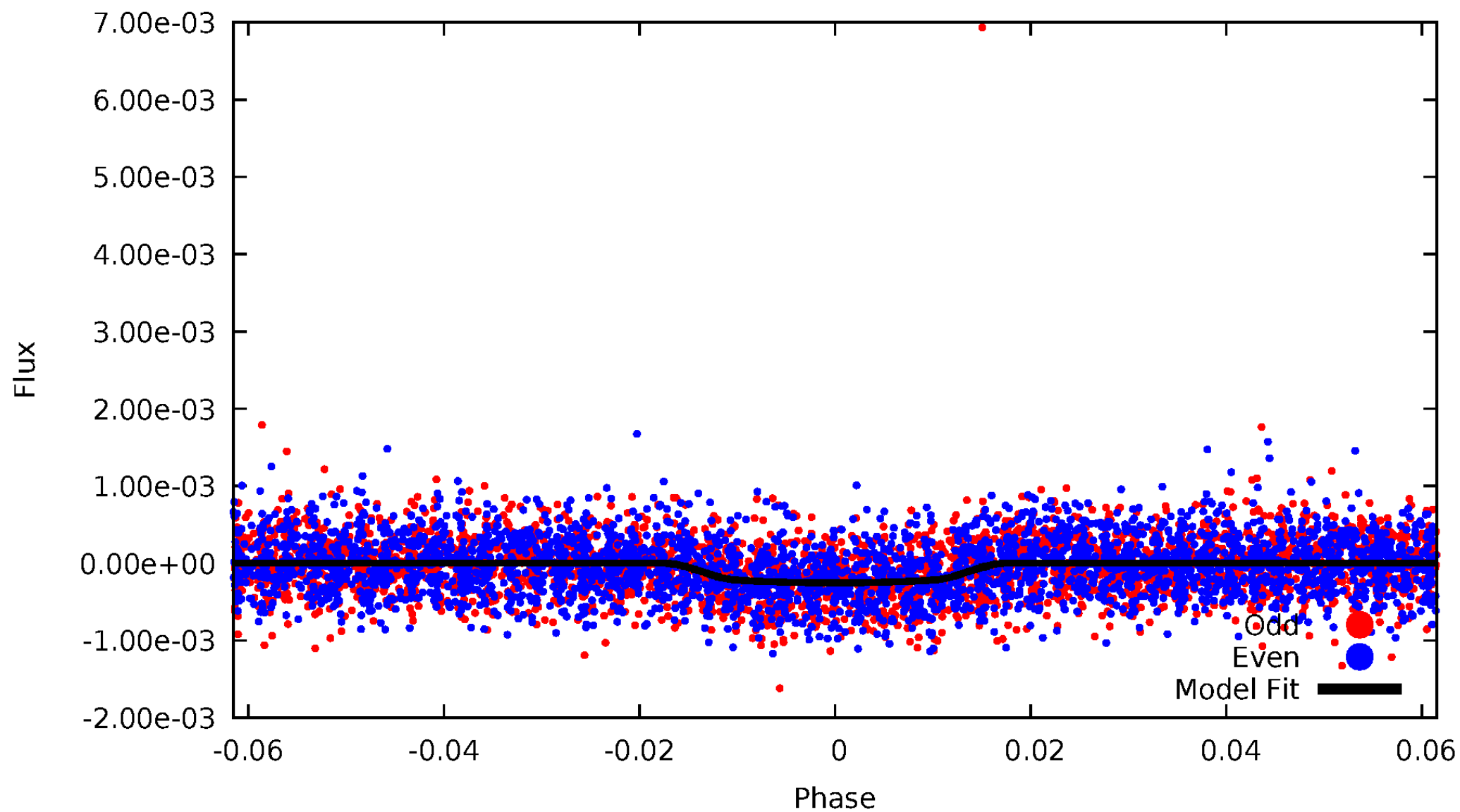


TCE 003128552-02



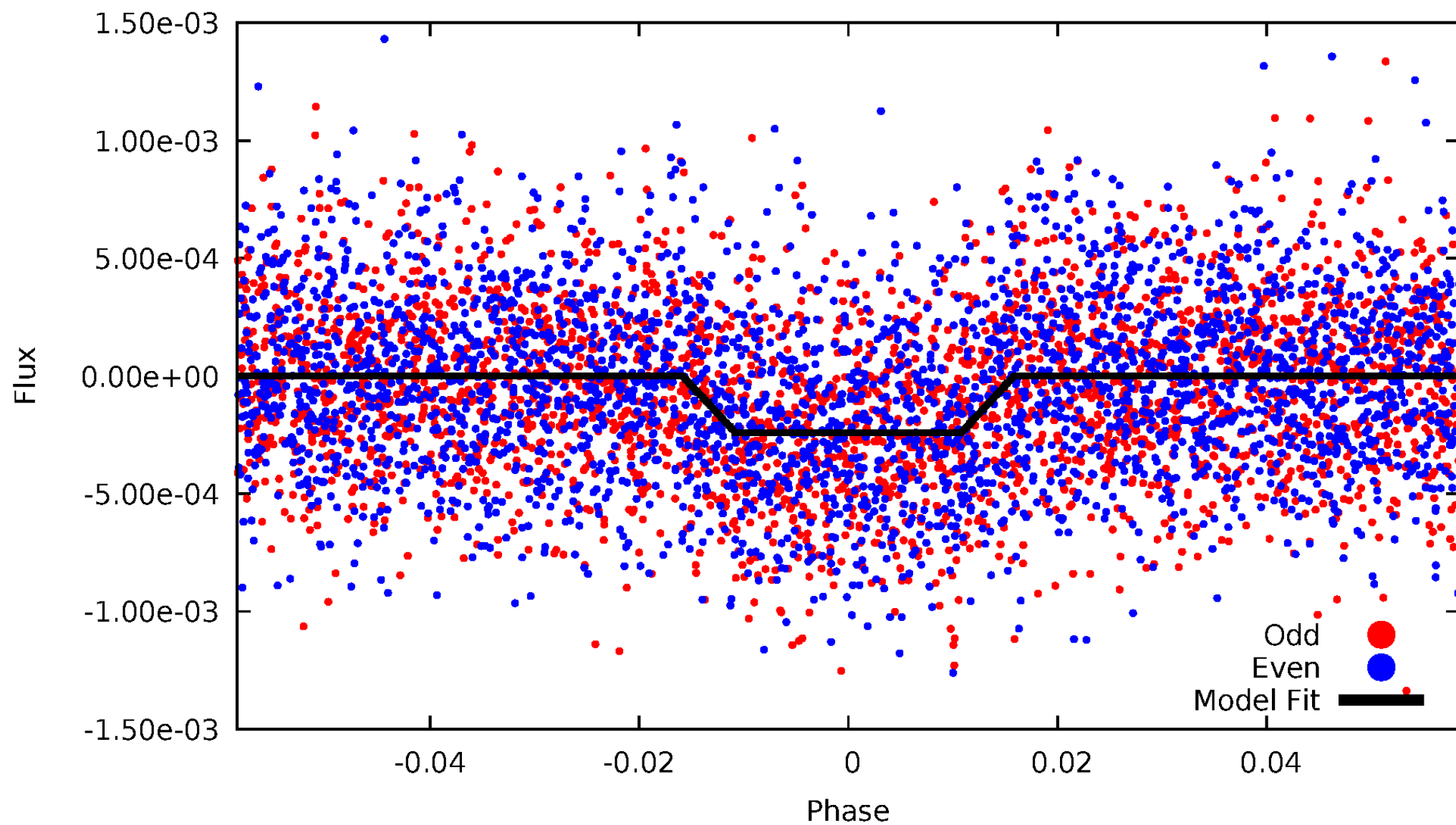
DV Odd/Even

TCE 003128552-02



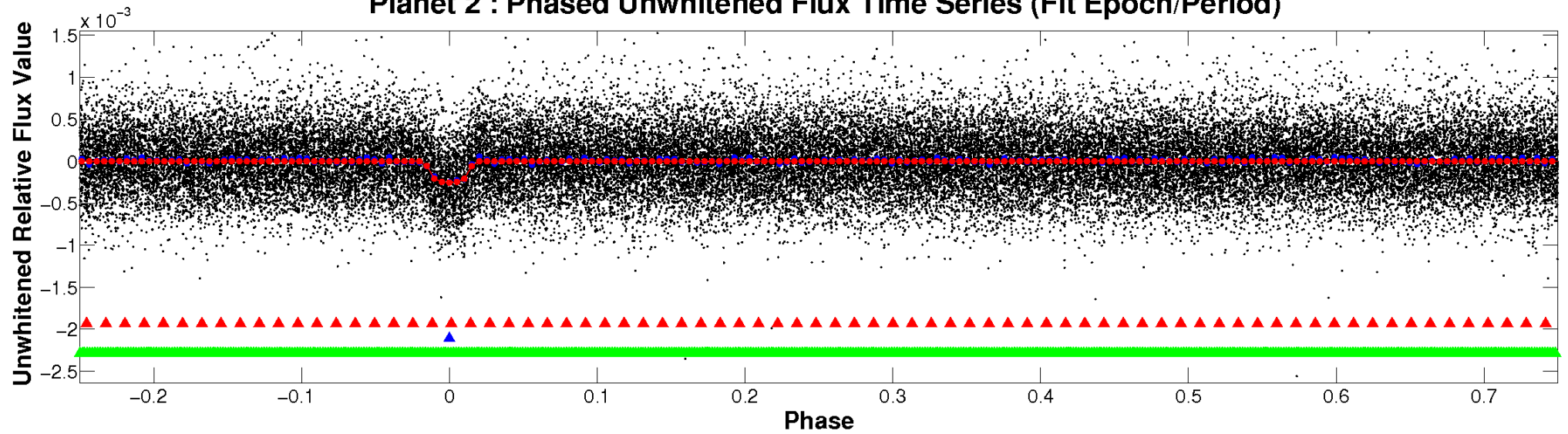
ALT Odd/Even

TCE 003128552-02

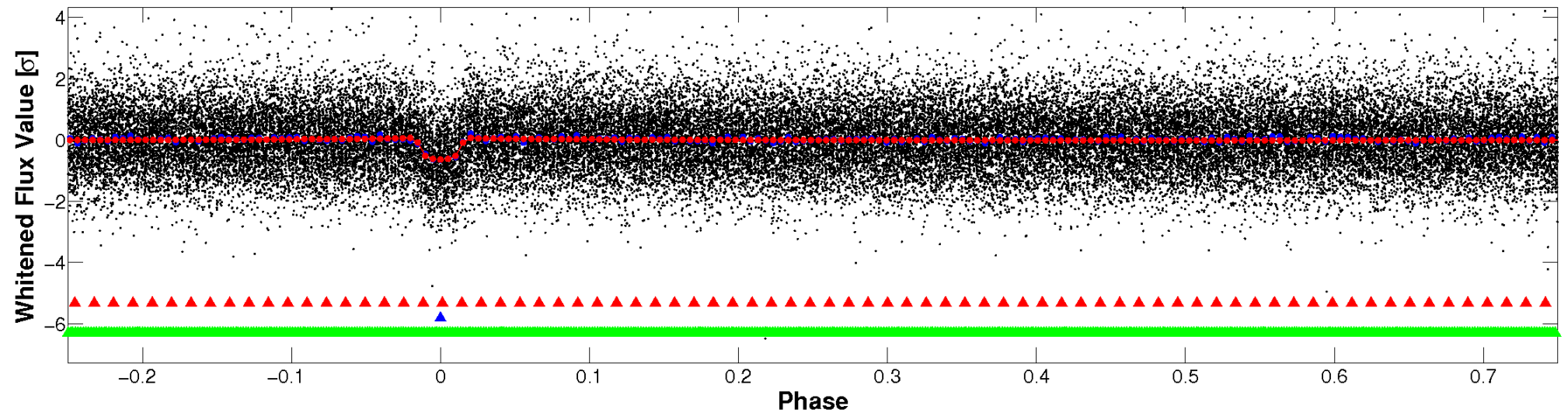


Non-Whitened Vs. Whitened Light Curve

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

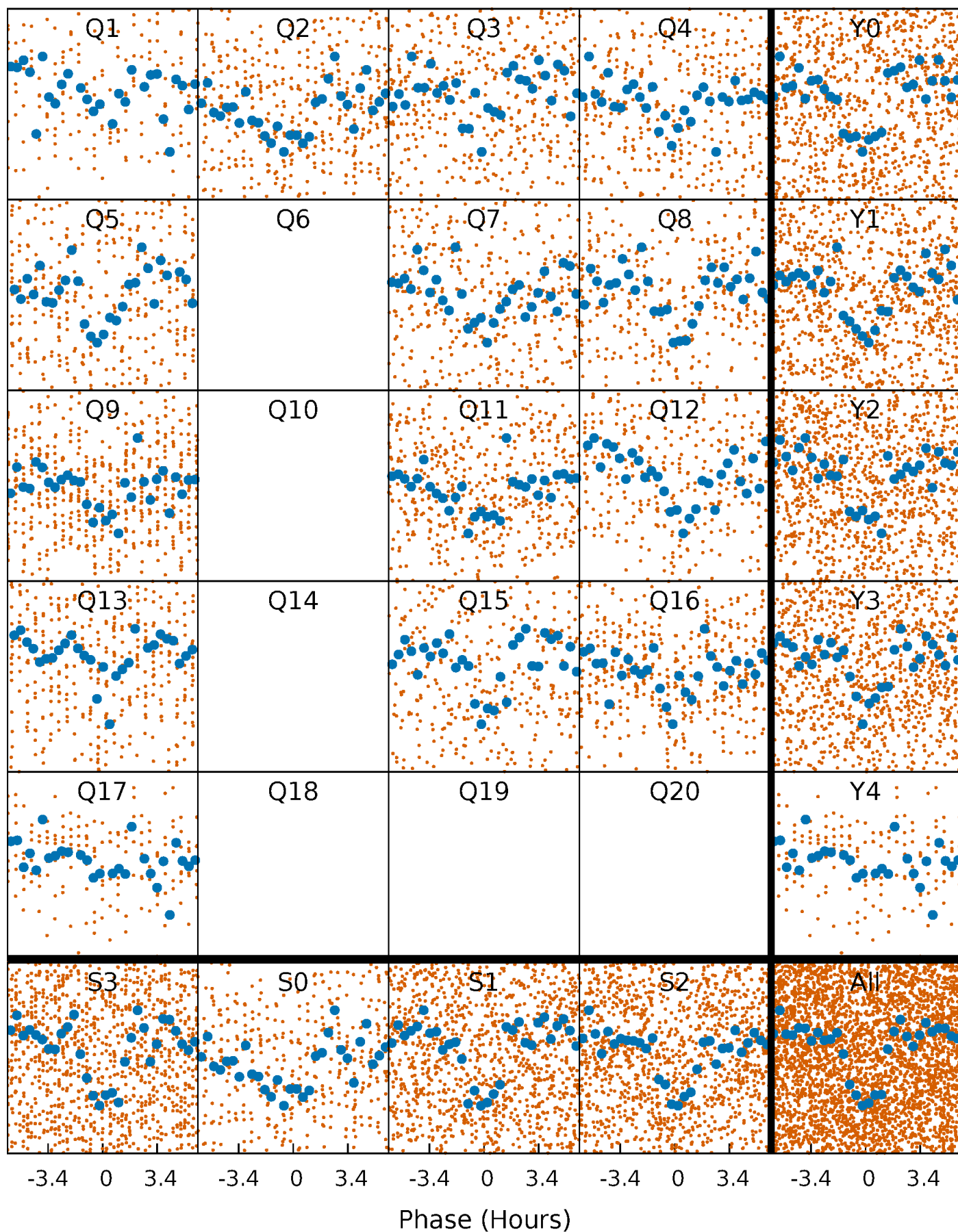


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



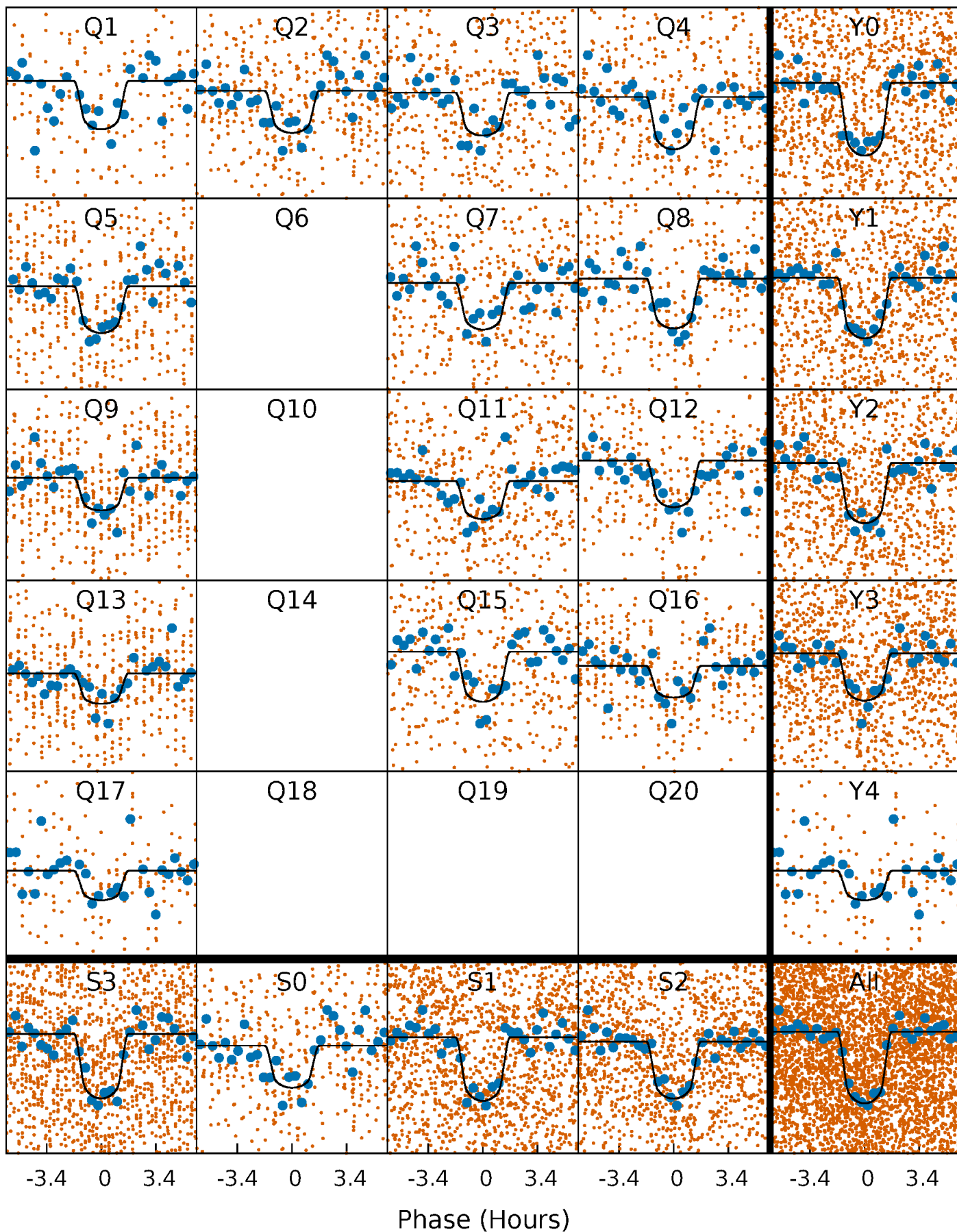
PDC Quarter-Phased Transit Curves

TCE 003128552-02 P= 4.025757 Days $T_0=135.435989$ (BKJD)



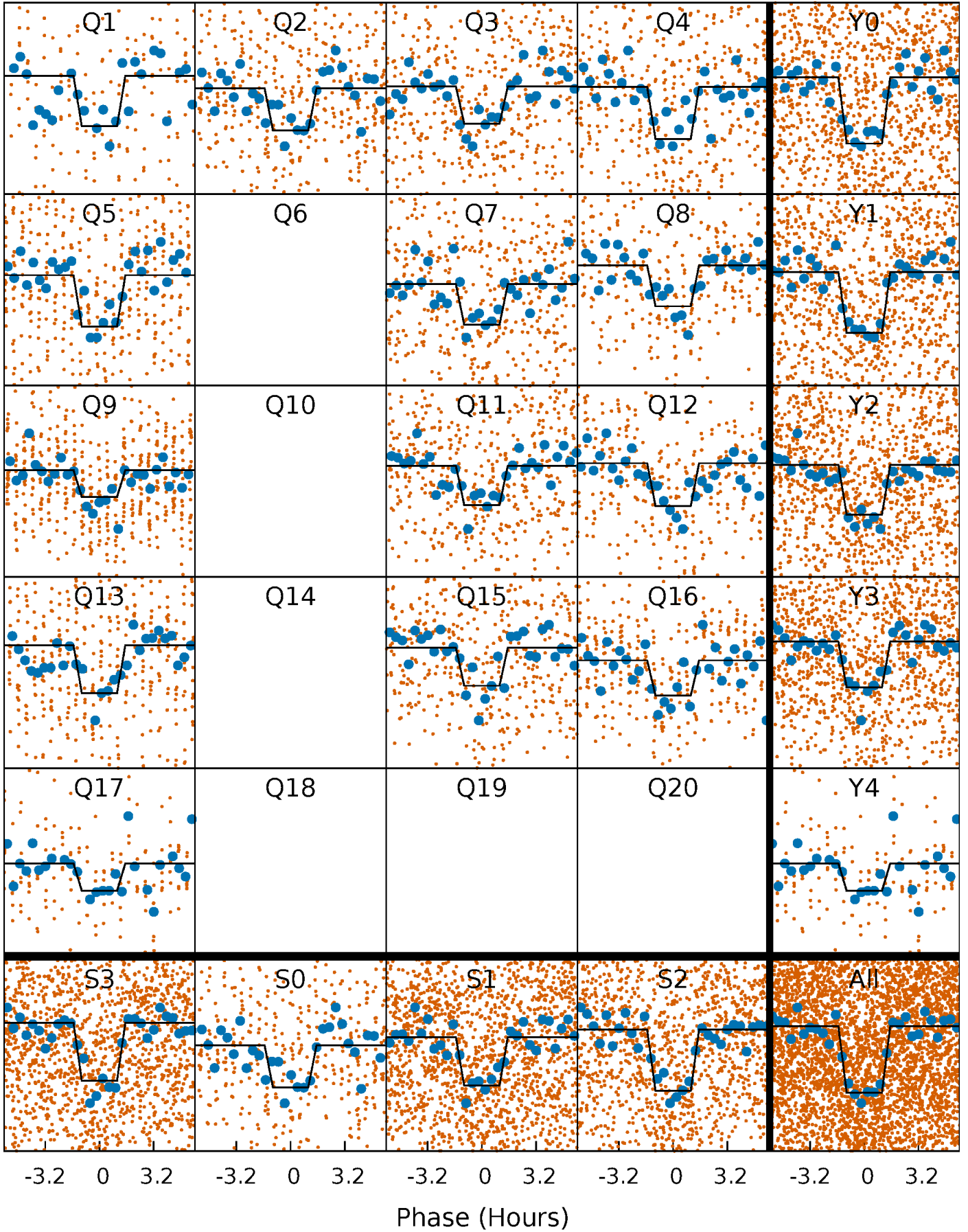
DV Quarter-Phased Transit Curves

TCE 003128552-02 P= 4.025757 Days $T_0=135.435989$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

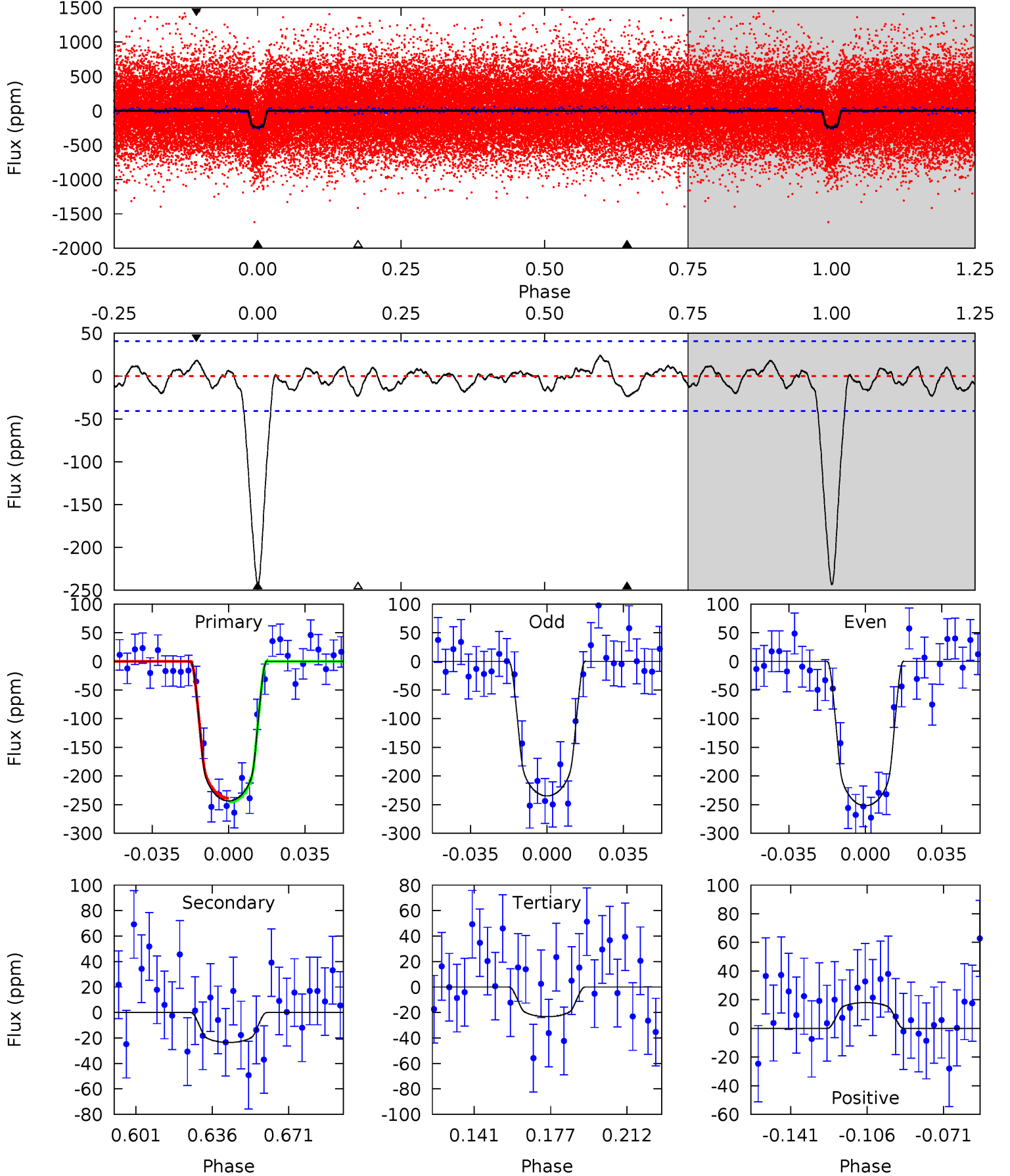
TCE 003128552-02 P= 4.025804 Days $T_0=135.427699$ (BKJD)



DV Model-Shift Uniqueness Test

003128552-02, P = 4.025757 Days, E = 131.410232 Days

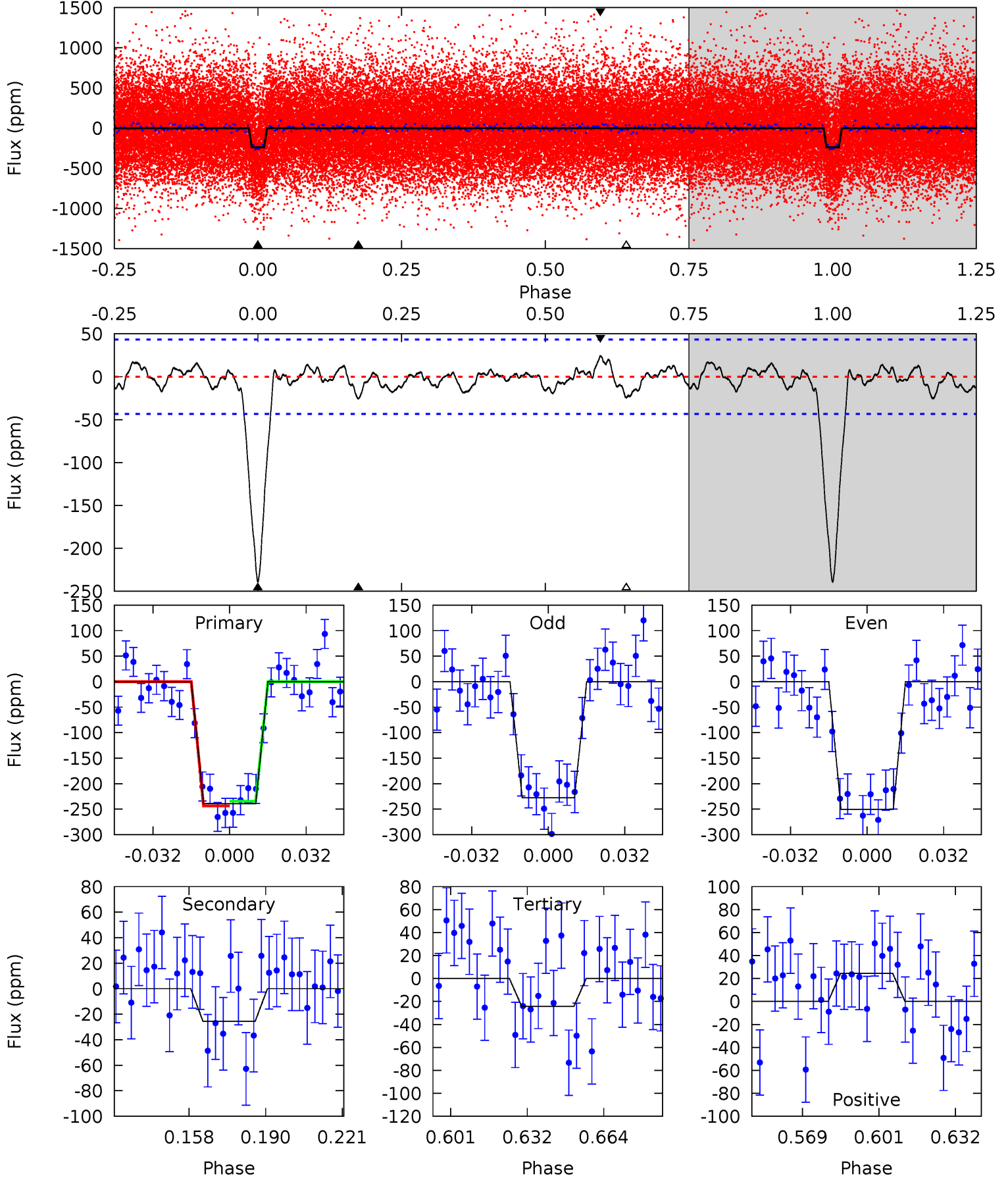
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.5	2.76	2.73	2.12	4.78	2.10	1.05	25.8	26.4	0.03	0.64	1.00	1.05	0.09	0.42



Alt Model-Shift Uniqueness Test

003128552-02, P = 4.025804 Days, E = 131.401895 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.4	2.82	2.68	2.70	4.80	2.15	1.01	23.7	23.7	0.14	0.12	1.25	1.03	0.09	0.52



Stellar Parameters For KIC 003128552

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5509^{+82}_{-74}	$4.308^{+0.156}_{-0.104}$	$0.160^{+0.150}_{-0.150}$	$1.116^{+0.169}_{-0.186}$	$0.924^{+0.062}_{-0.043}$	$0.936^{+0.610}_{-0.317}$
	+1%/-1%	+4%/-2%	+94%/-94%	+15%/-17%	+7%/-5%	+65%/-34%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003128552-02 / KOI 2055.02

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 9	$2.09^{+0.63}_{-0.58}$	1631^{+71}_{-78}	3375^{+408}_{-343}	$6.648^{+7.013}_{-3.265}$
Alt.	-26 ± 9	$1.90^{+0.58}_{-0.61}$	1632^{+71}_{-79}	3533^{+529}_{-352}	$8.958^{+11.480}_{-4.547}$

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 $A_{obs} \gg 1.0$

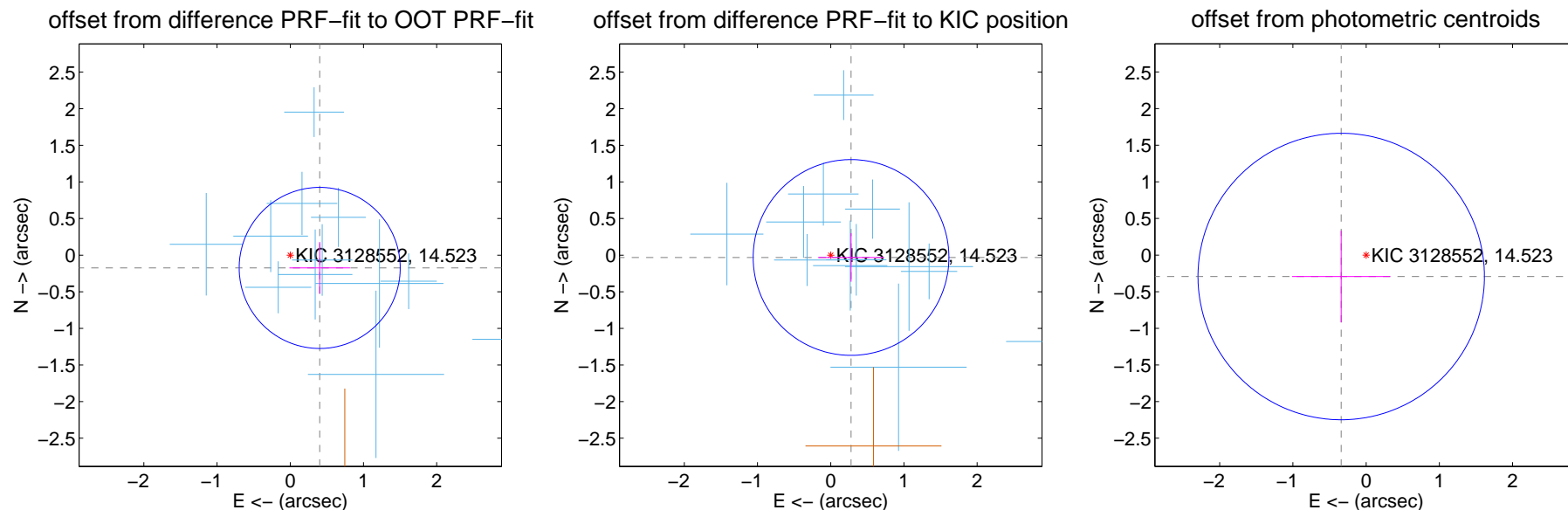
DV Centroid Data

Supplemental centroid analysis for 003128552-02. Kepler magnitude: 14.52. Transit SNR 20.56

There are 12 quarters with good PRF difference image offsets

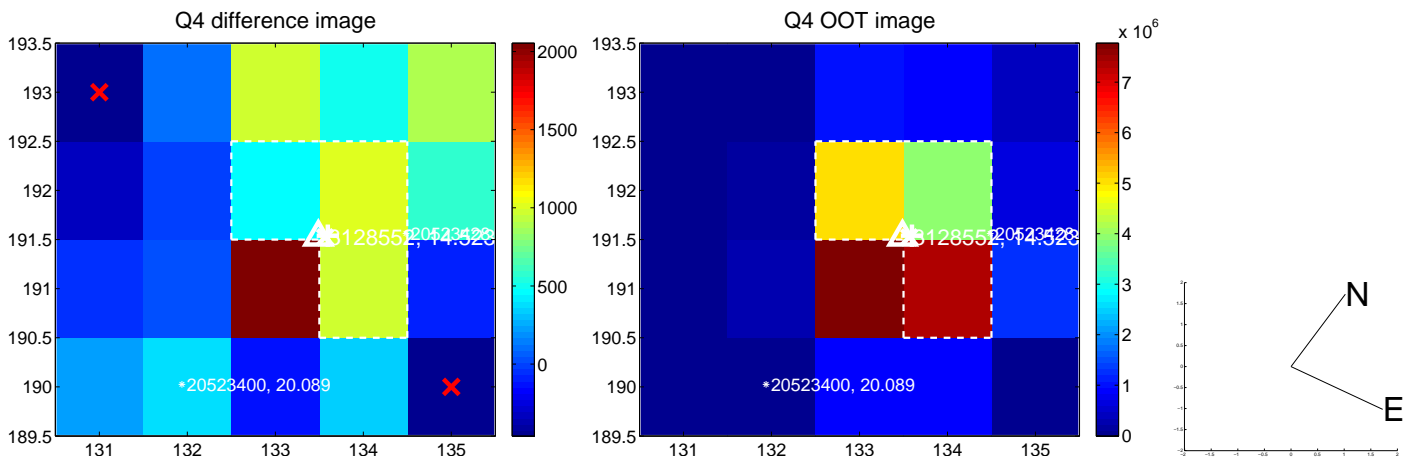
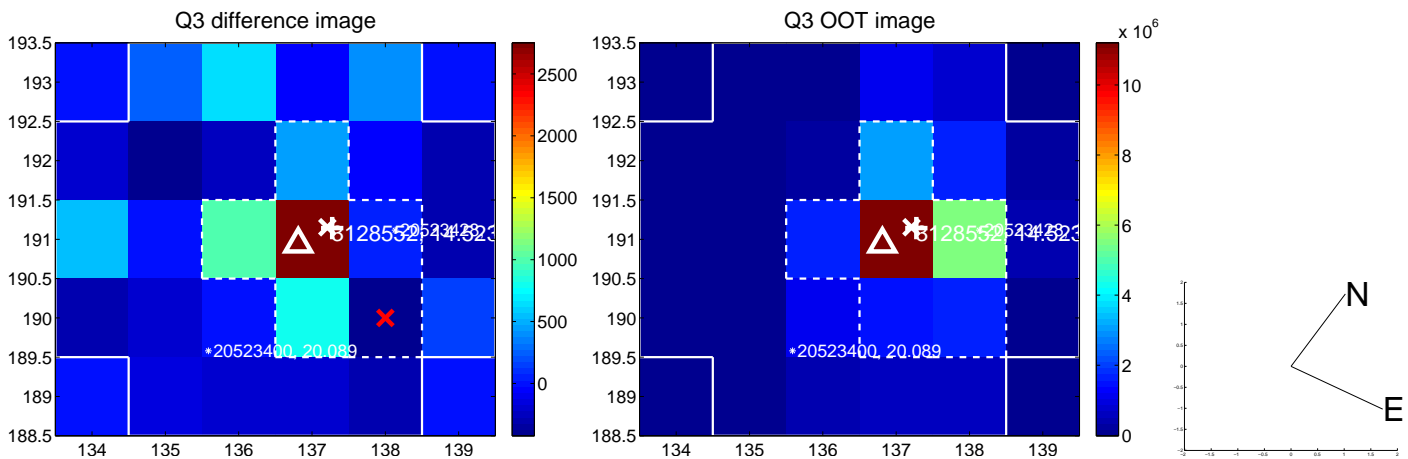
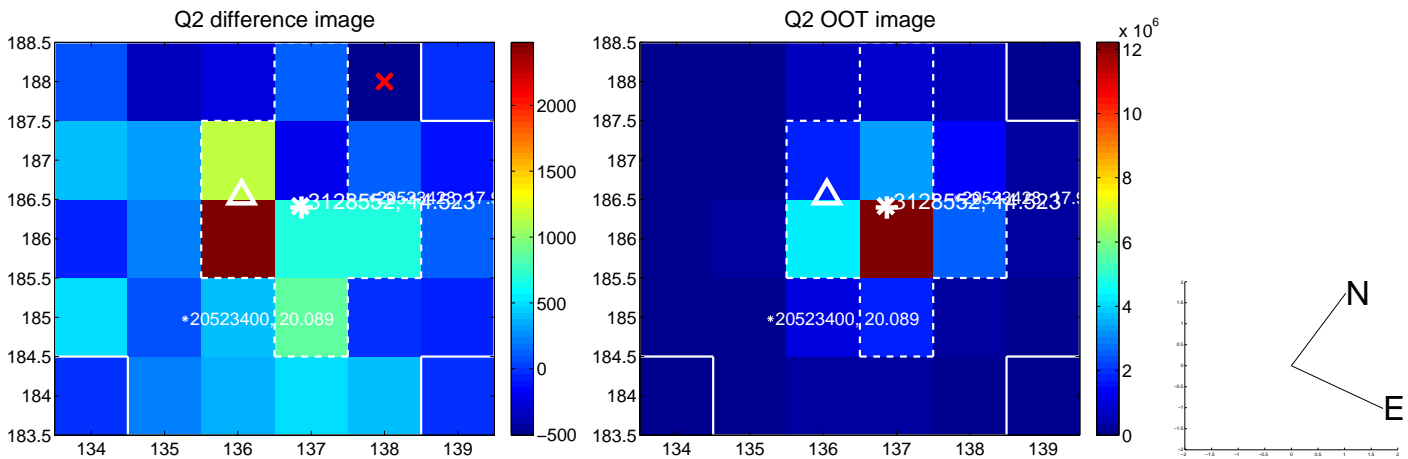
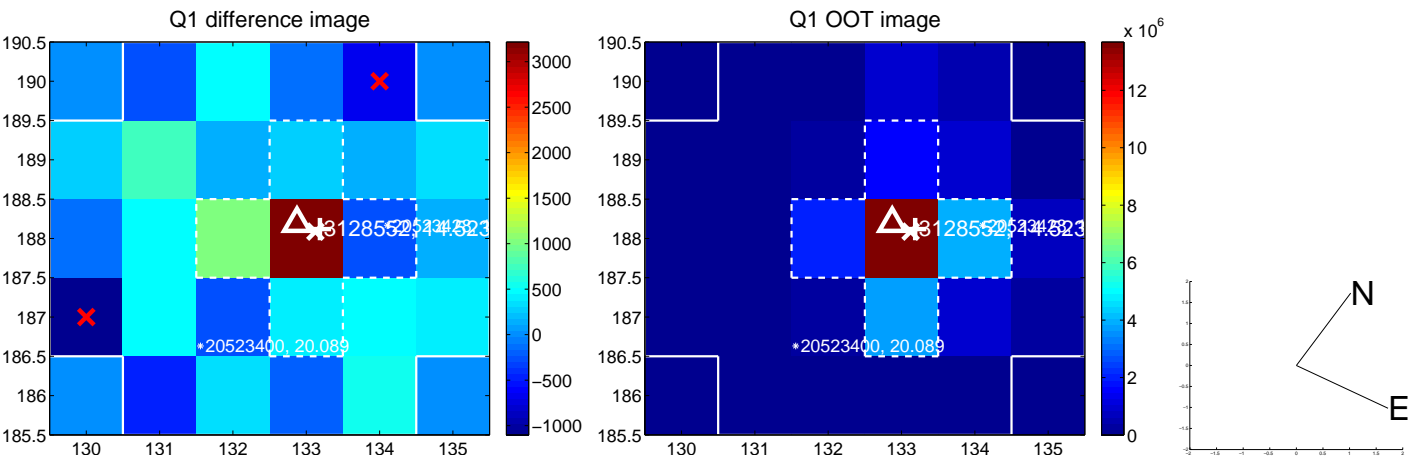
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.438 ± 0.367	1.20	-0.402 ± 0.414	-0.174 ± 0.354
PRF-fit source offset from KIC position	0.279 ± 0.446	0.63	-0.278 ± 0.451	-0.031 ± 0.332
photometric centroid source offset	0.45 ± 0.65	0.69	0.34 ± 0.67	-0.29 ± 0.63

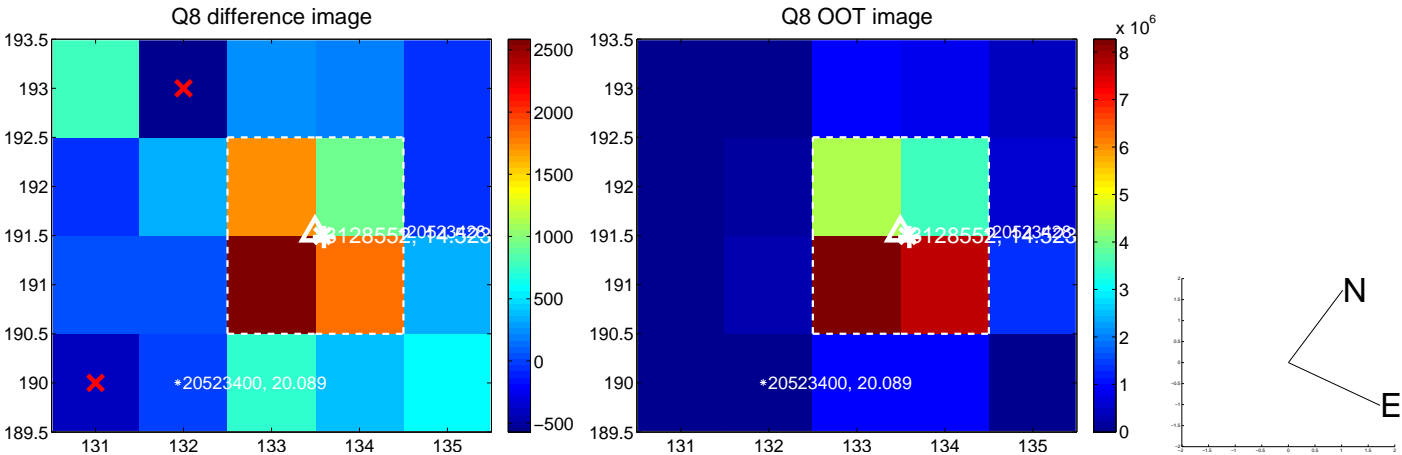
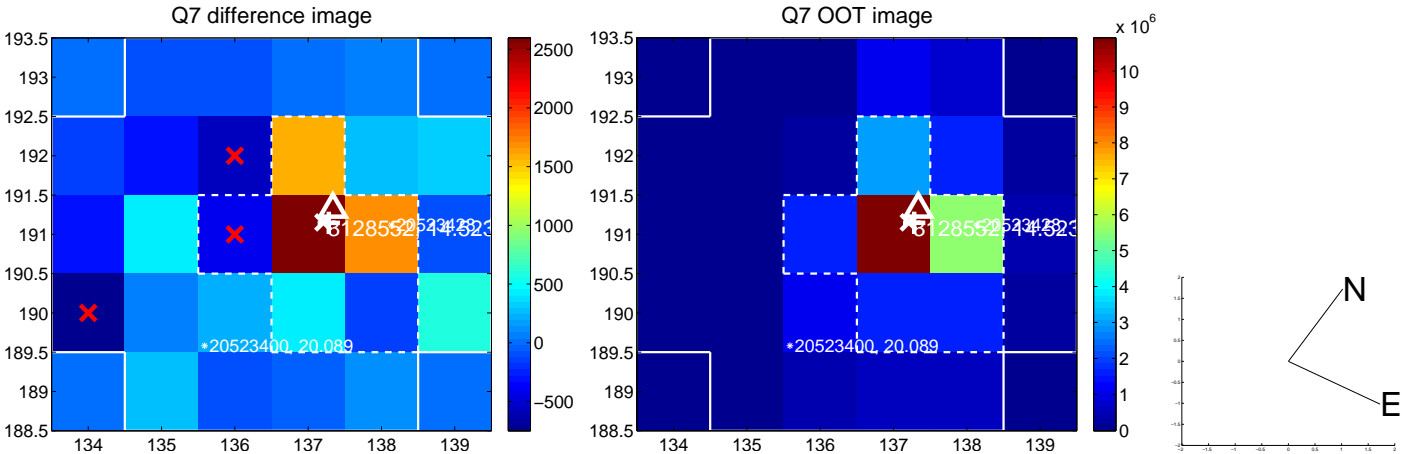
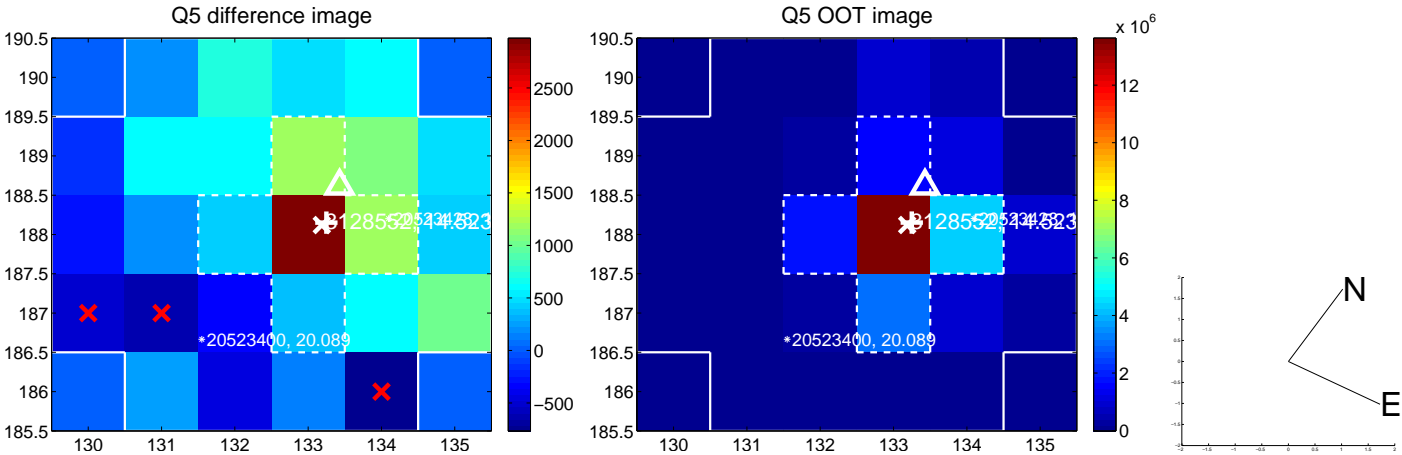


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

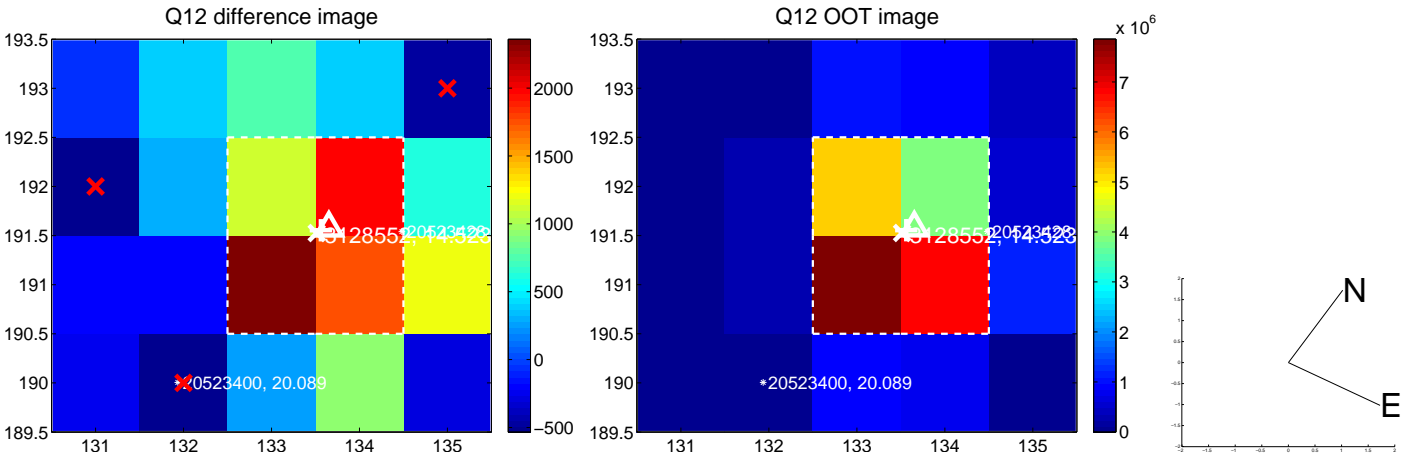
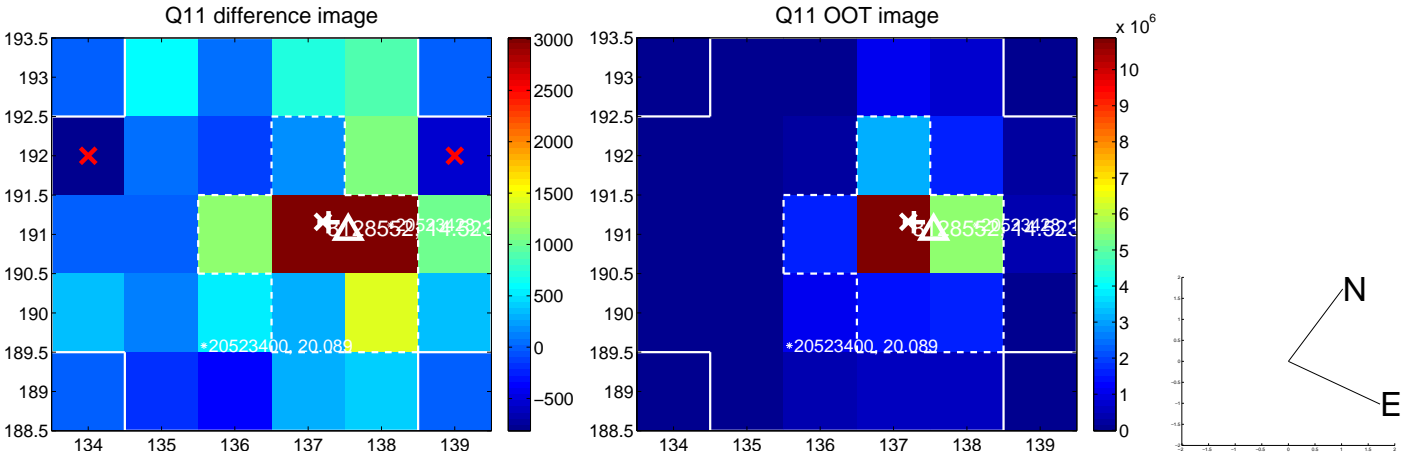
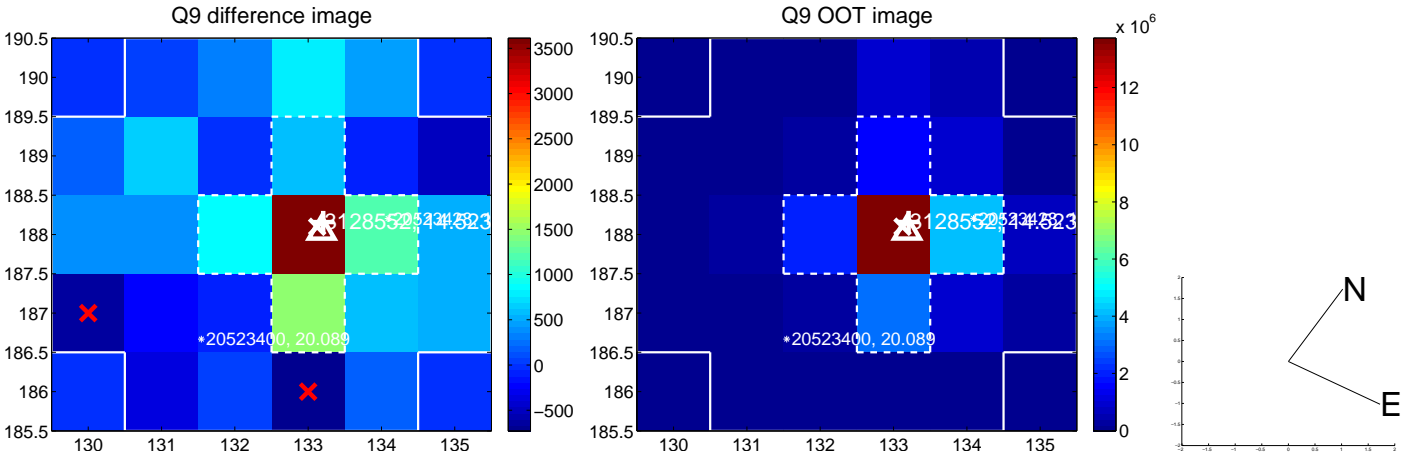
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



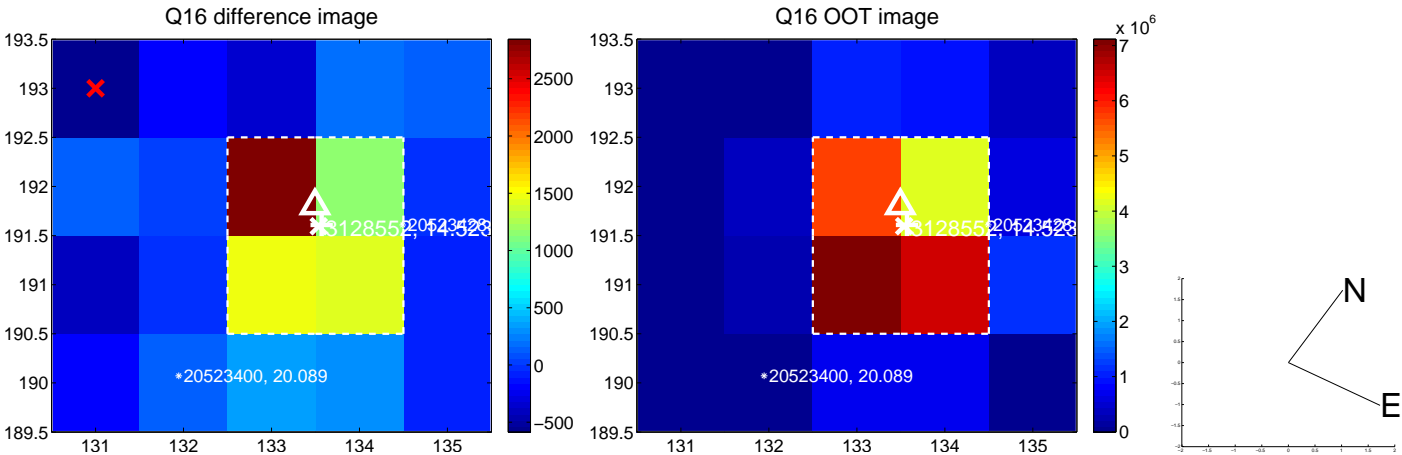
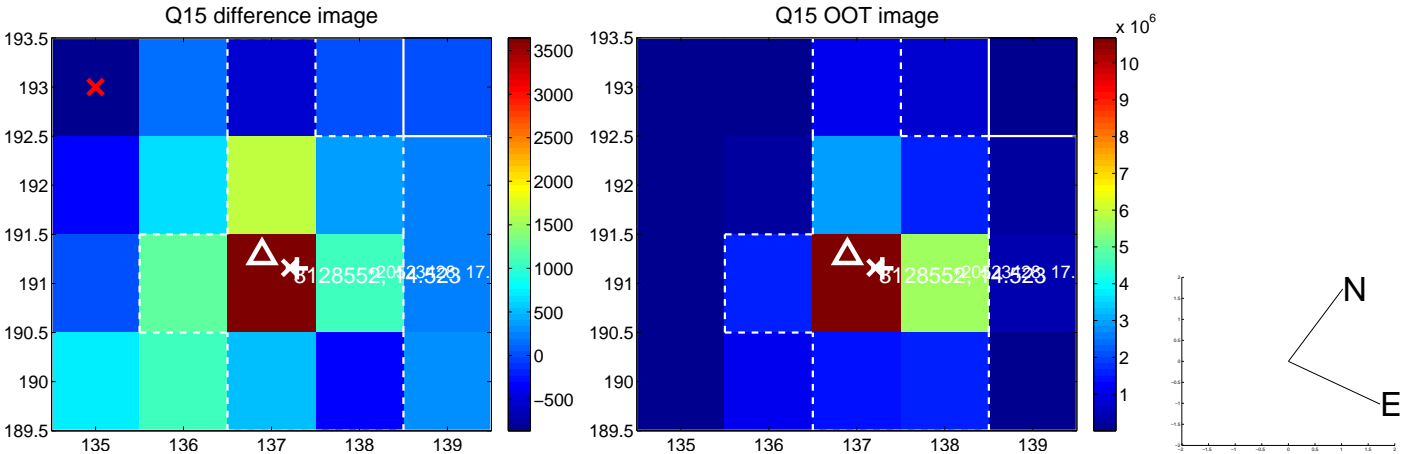
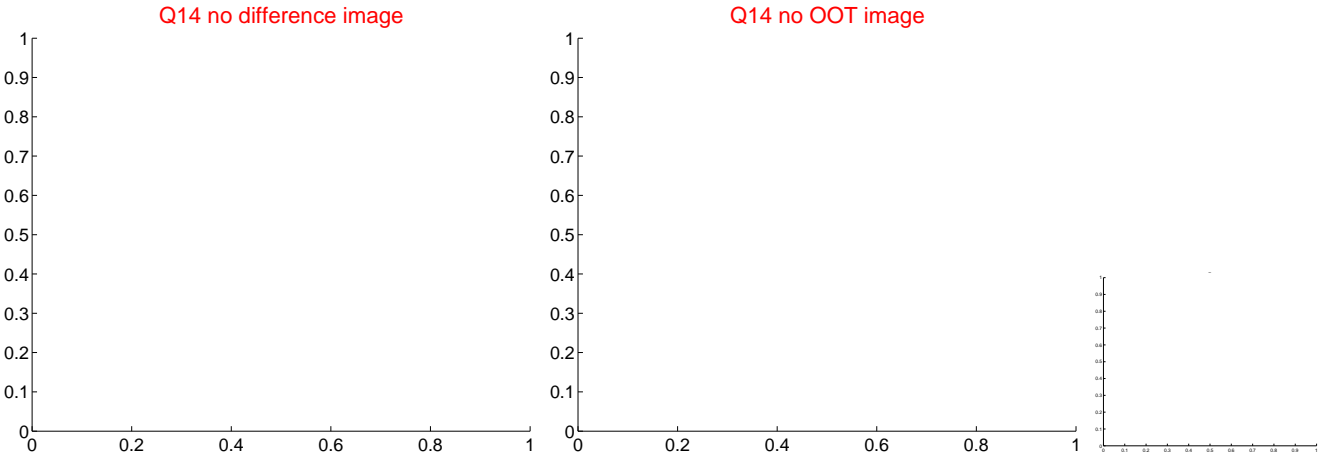
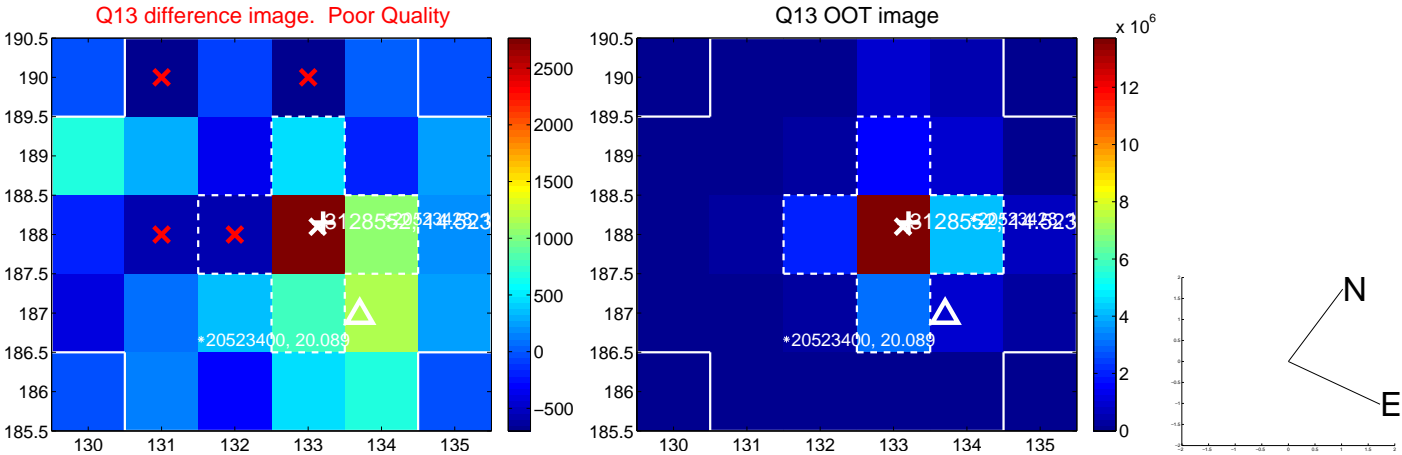
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



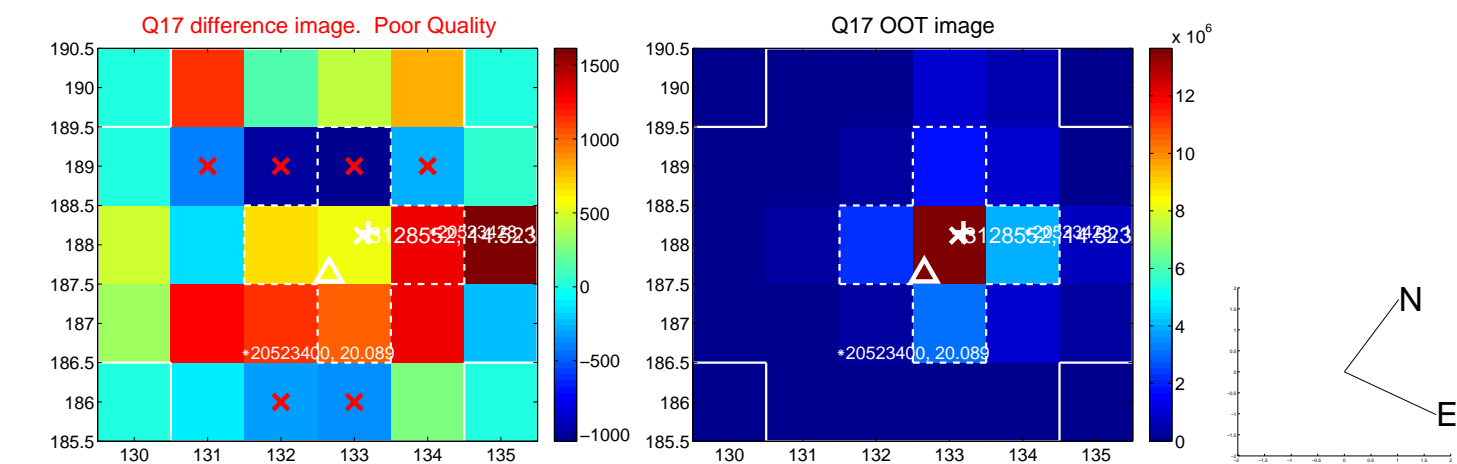
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



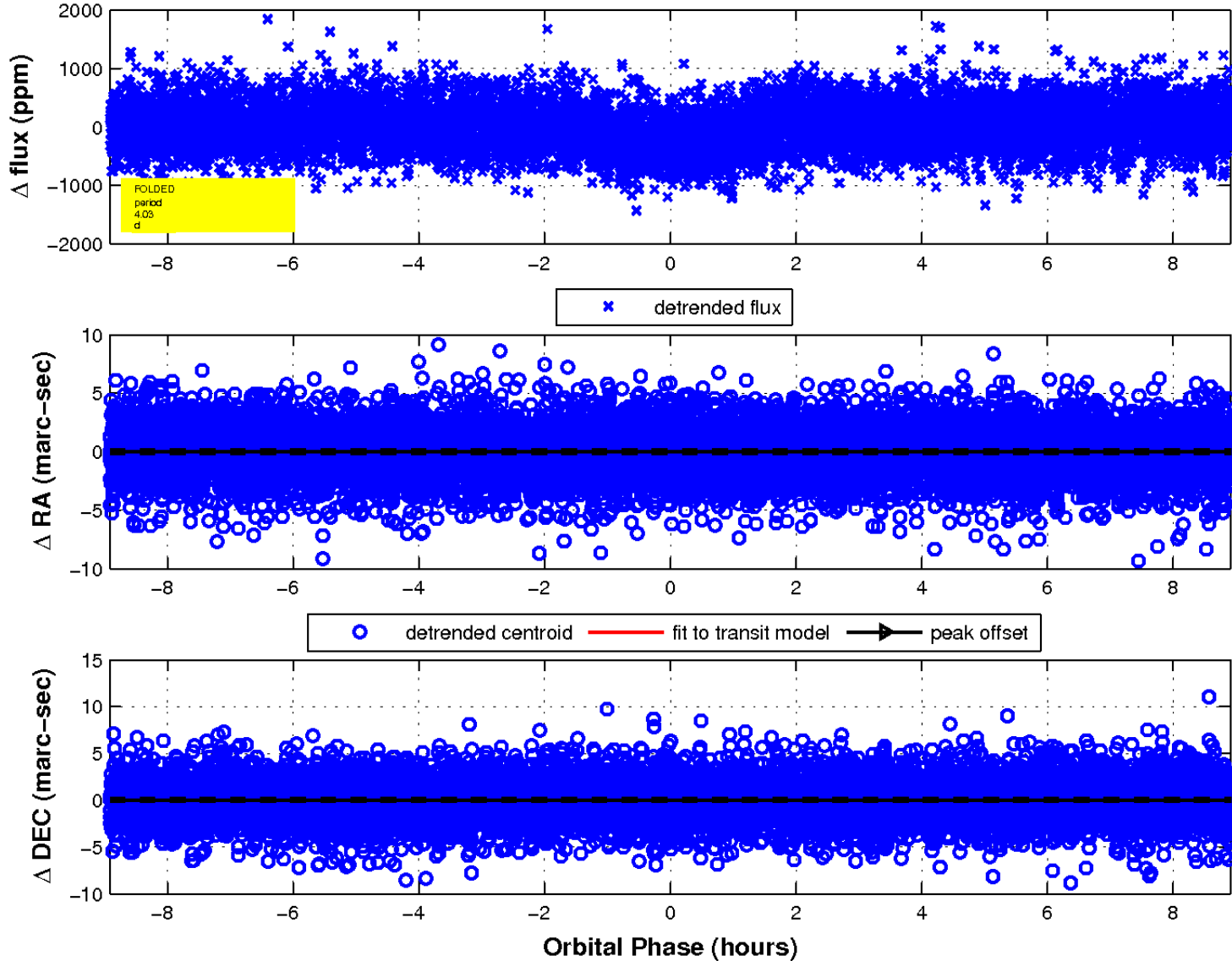
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

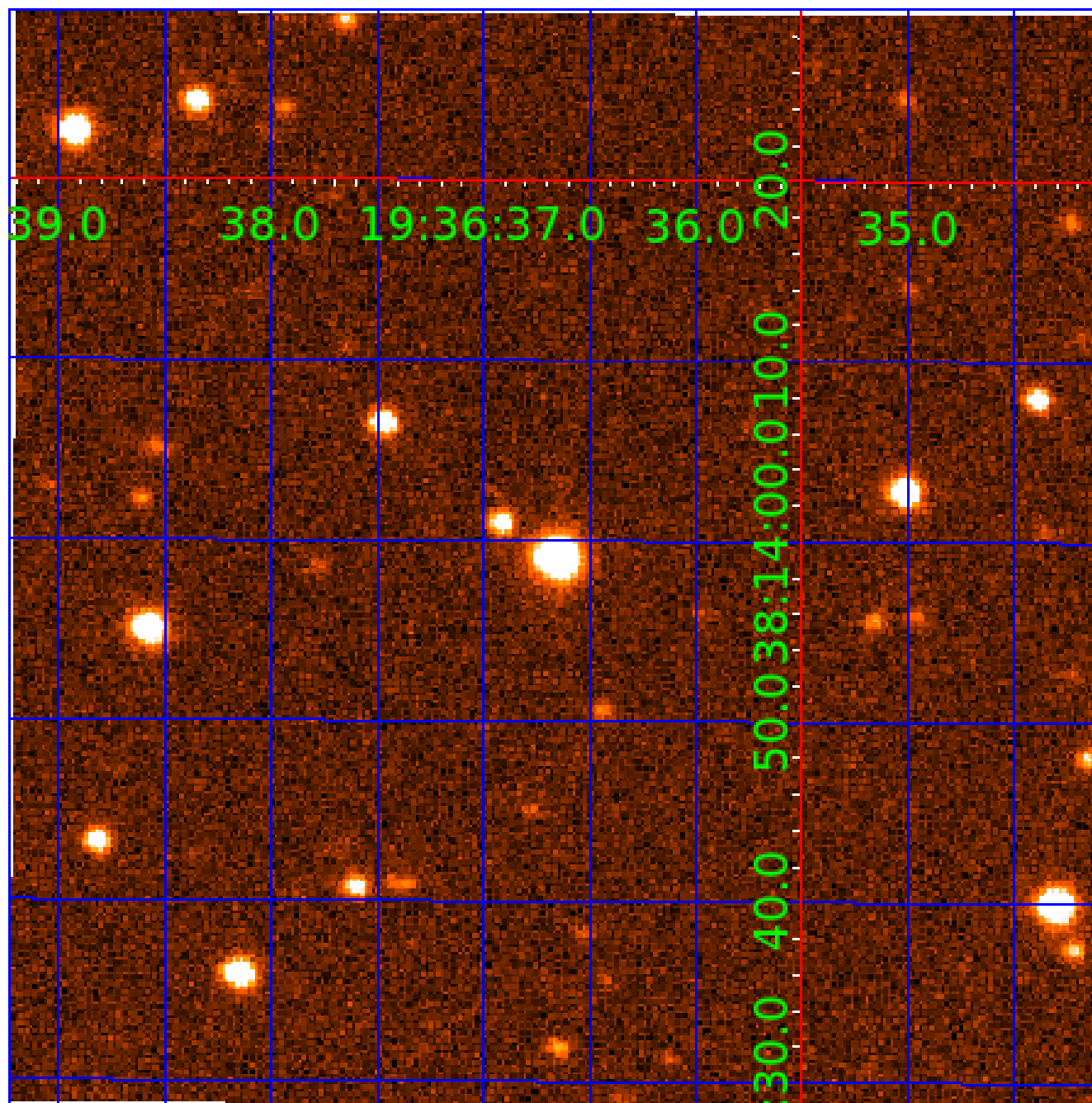


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 003128552

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})
003128552-01	OBS	2055.01	8.678894	133.037265	528.5	3.585	29.6	31.5	1.12	5509	2.82	158.61
003128552-02	OBS	2055.02	4.025757	135.435989	253.6	2.971	19.0	20.6	1.12	5509	2.13	441.74
003128552-03	OBS	2055.03	2.504757	133.634765	171.8	2.465	14.7	15.9	1.12	5509	1.71	831.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003128552-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
003128552-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
003128552-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

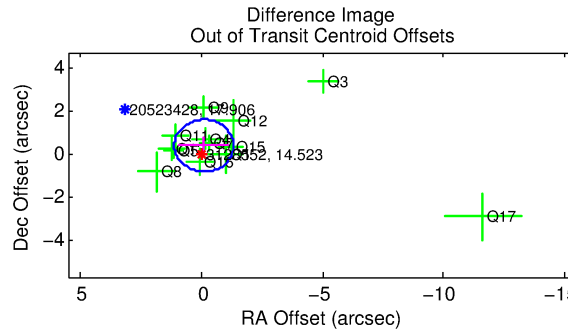
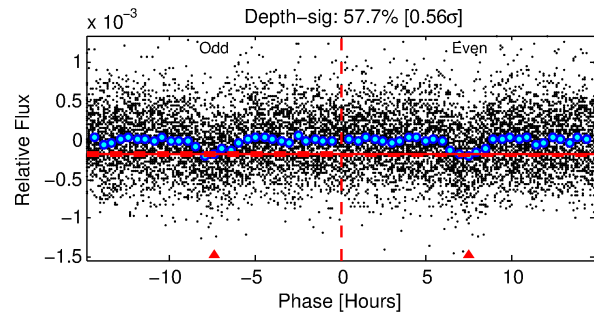
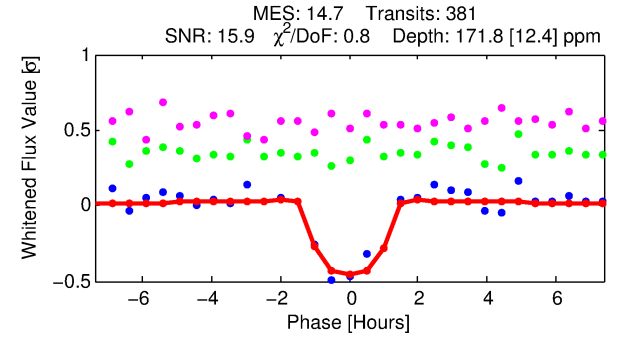
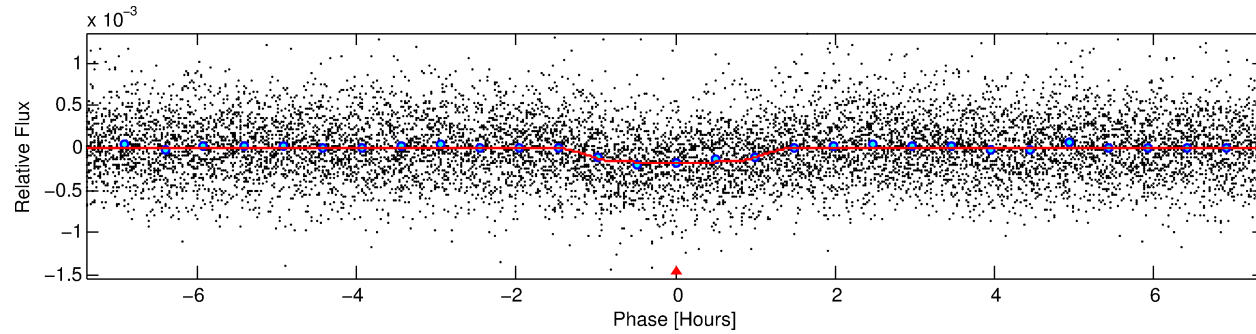
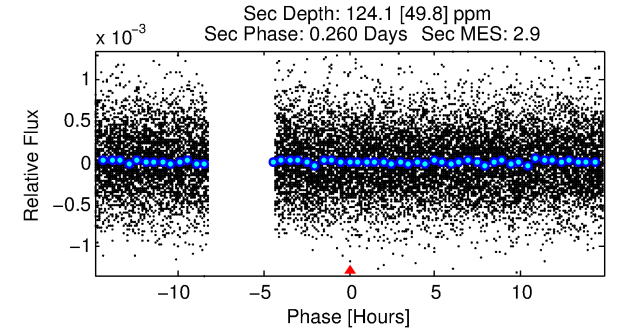
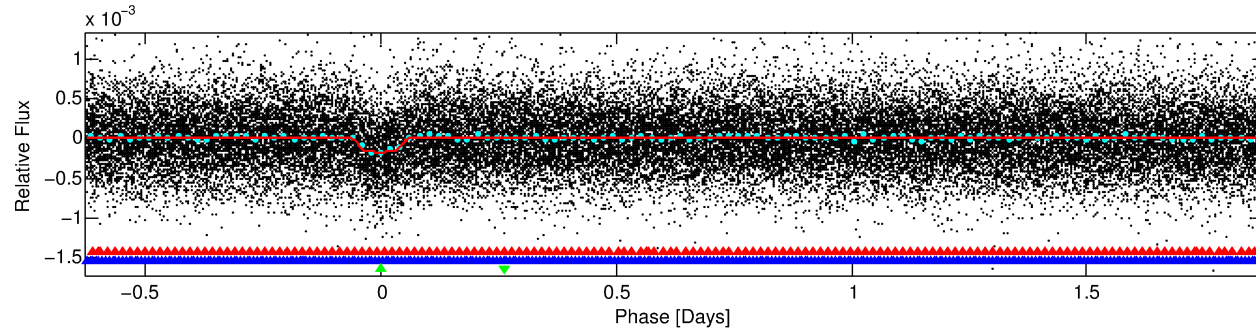
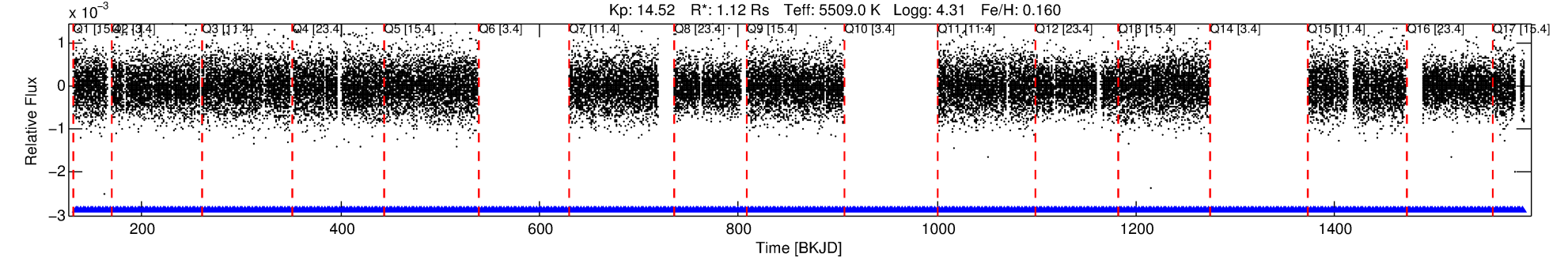
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003128552-03

No Significant Match Found

DV One-Page Summary

KIC: 3128552 Candidate: 3 of 3 Period: 2.505 d
KOI: K02055.03 Corr: 0.987



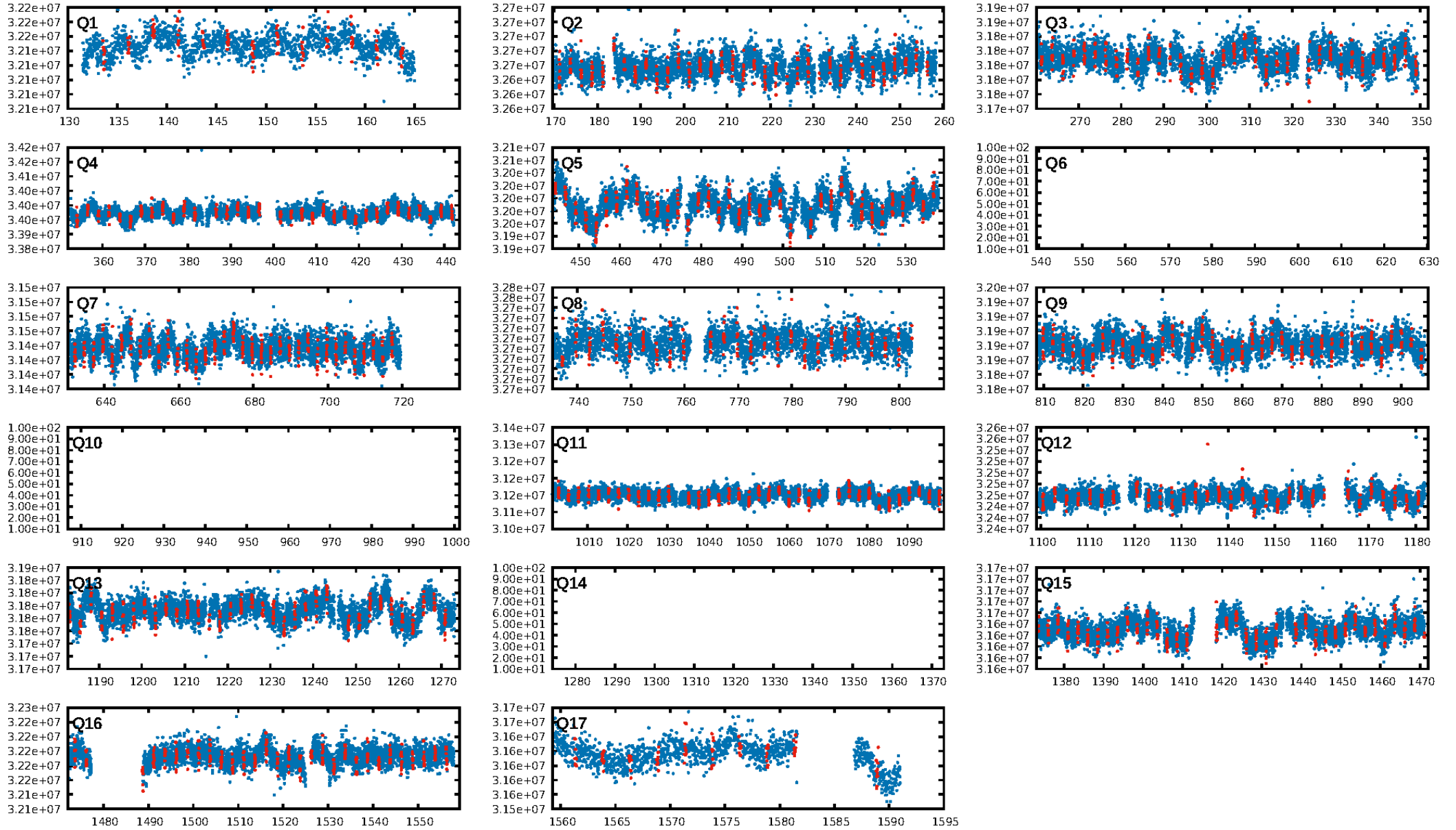
DV Fit Results:

Period = 2.50476 [0.00001] d
Epoch = 133.6348 [0.0024] BKJD
Rp/R* = 0.0140 [0.0072]
a/R* = 4.18 [8.64]
b = 0.87 [0.64]
Seff = 831.65 [225.06]
Teff = 1369 [93] K
Rp = 1.71 [0.92] Re
a = 0.0352 [0.0057] AU
Ag = 29.00 [32.84] [0.85σ]
Teffp = 4913 [1354] K [2.61σ]

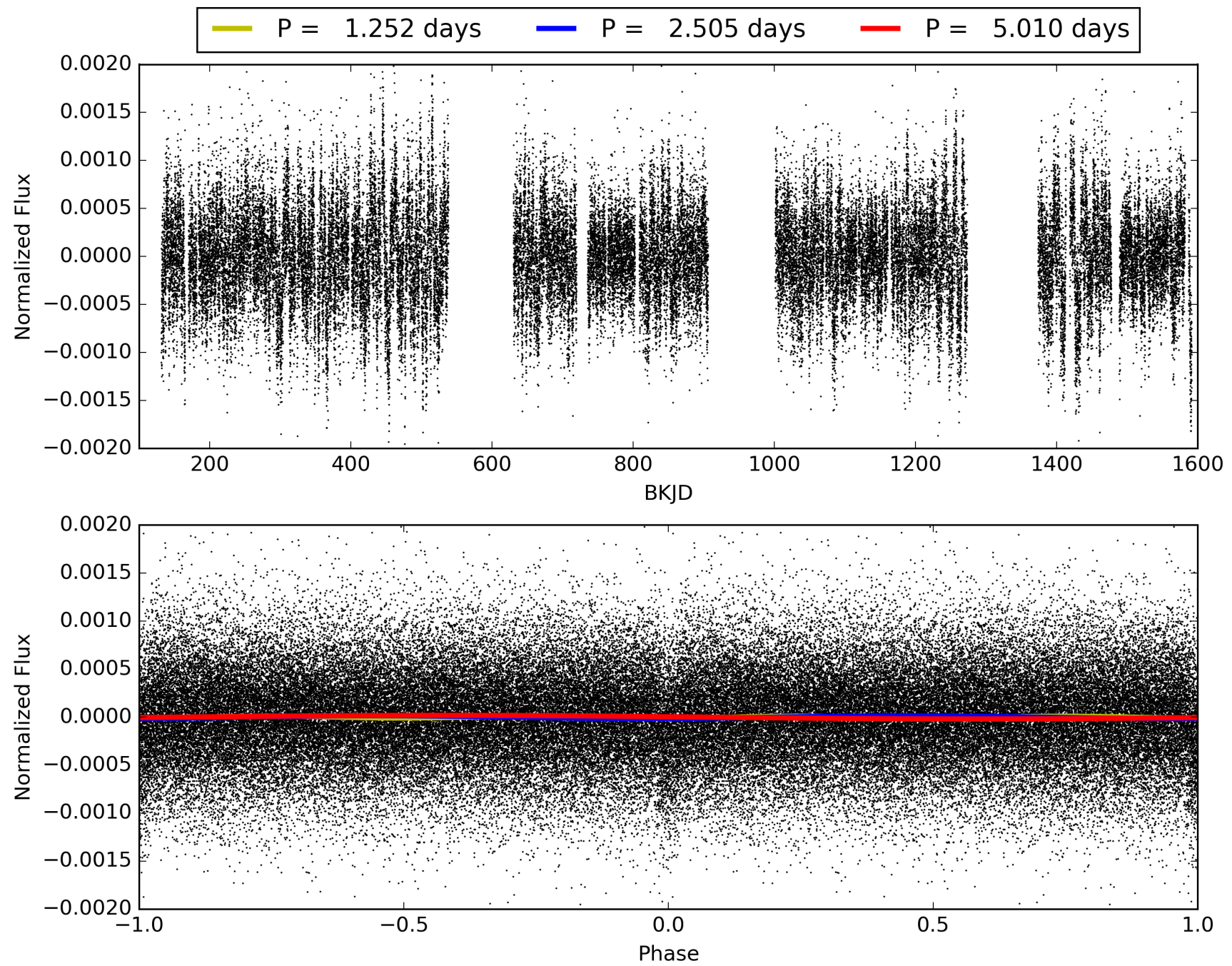
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [9.46σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.72e-47
RollingBand-fgt: 1.00 [360/360]
GhostDiagnostic-chr: 2.717
Centroid-sig: 0.0%
Centroid-so: 1.726 arcsec [2.21σ]
OotOffset-rm: 0.407 arcsec [1.00σ]
KicOffset-rm: 0.551 arcsec [1.32σ]
OotOffset-st: 0/4/4/5 [13]
KicOffset-st: 0/4/4/5 [13]
DiffImageQuality-fgm: 0.77 [10/13]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 003128552-03, PDC Light Curves

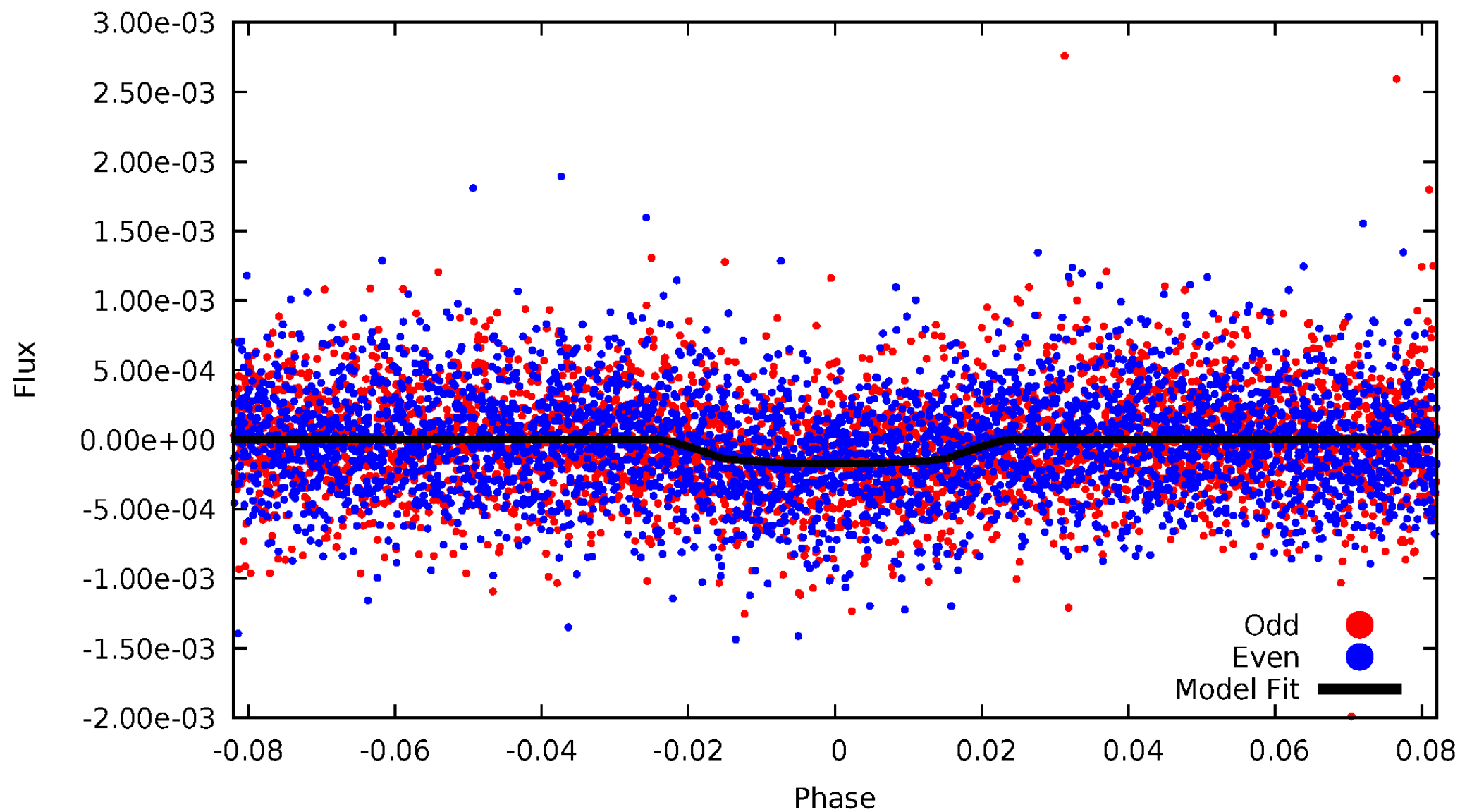


TCE 003128552-03



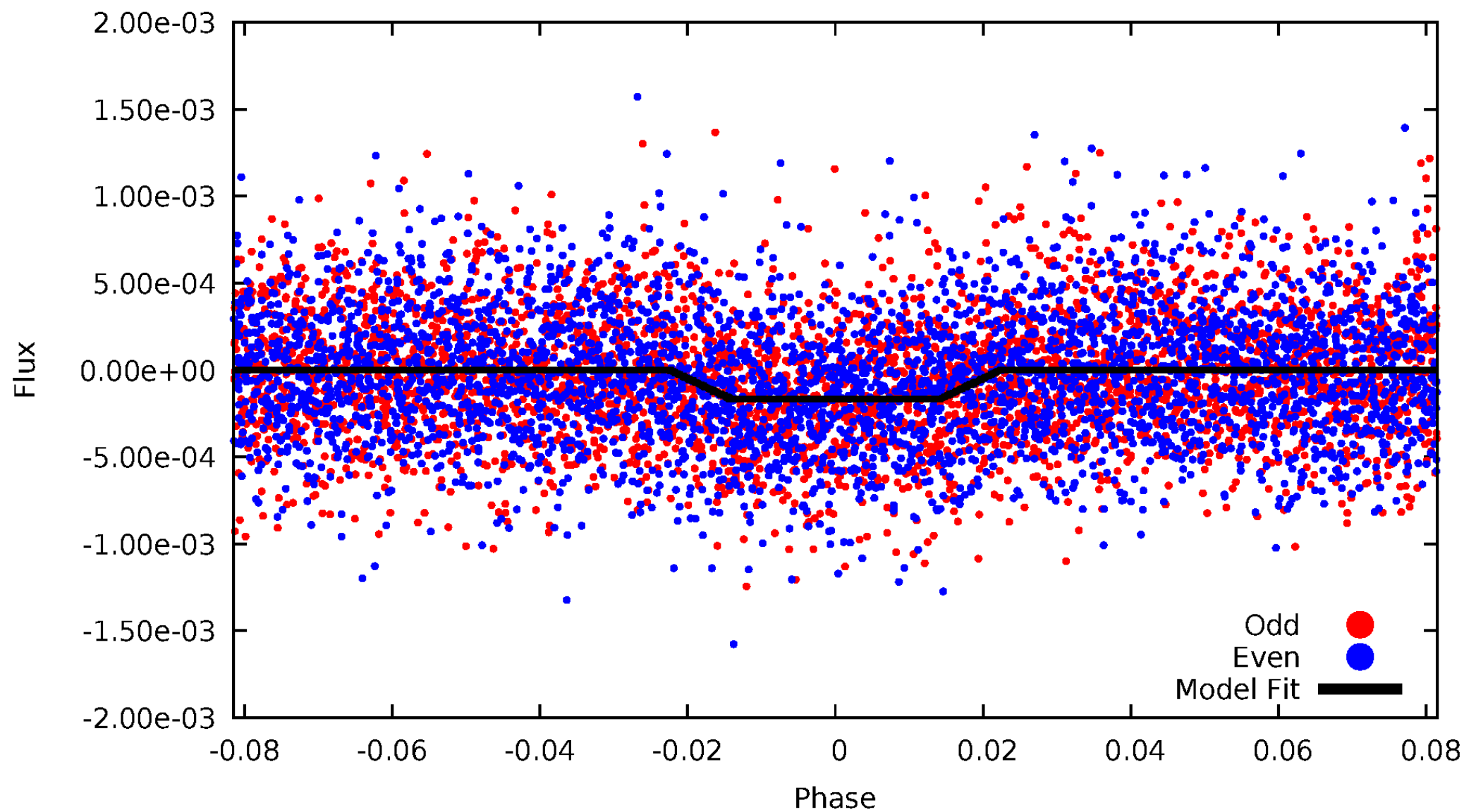
DV Odd/Even

TCE 003128552-03



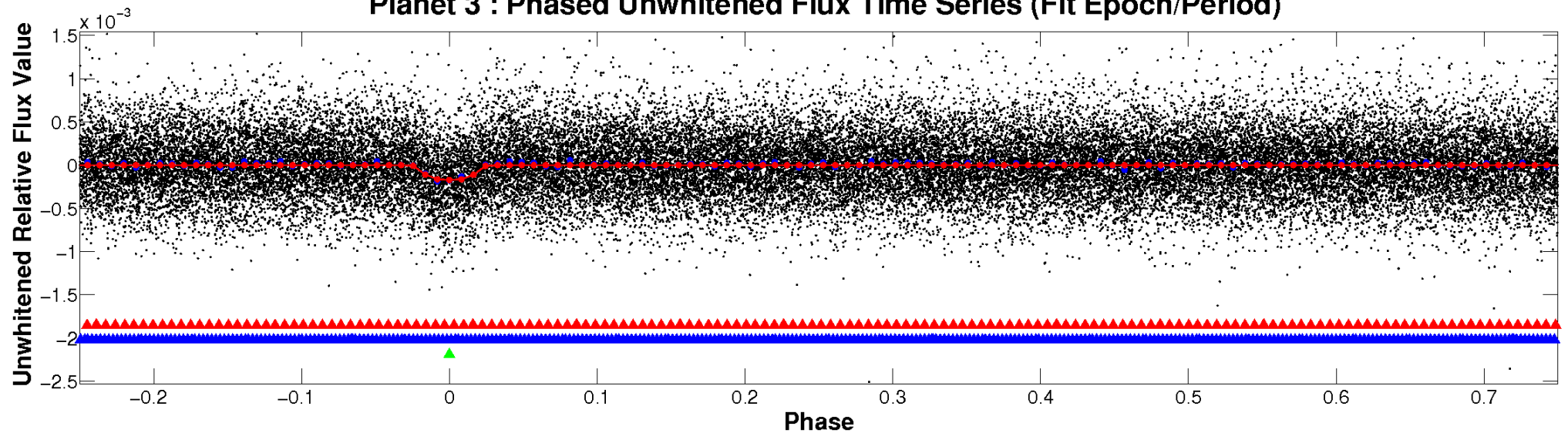
ALT Odd/Even

TCE 003128552-03

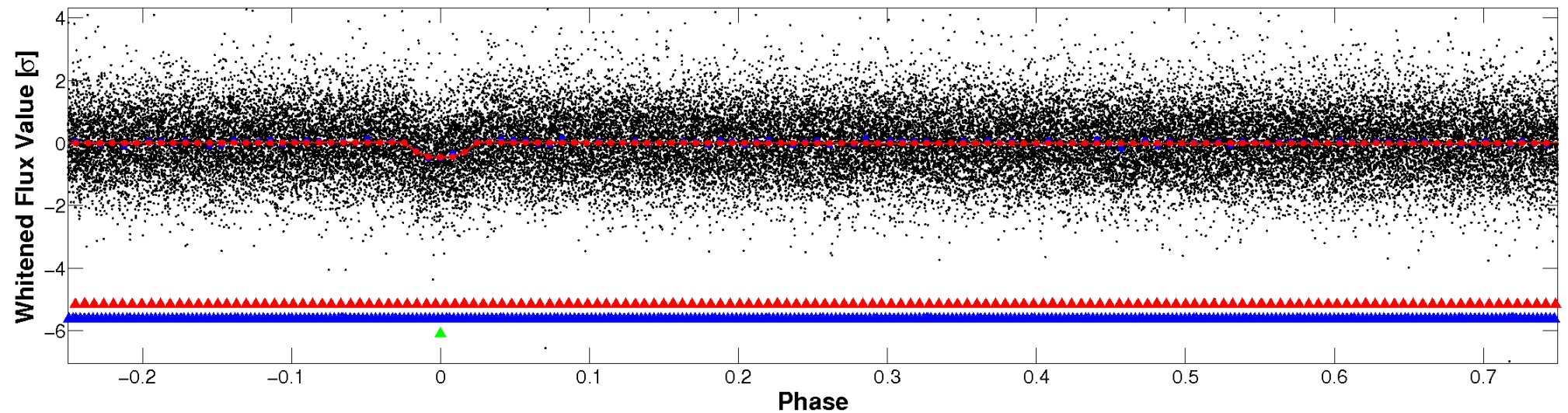


Non-Whitened Vs. Whitened Light Curve

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

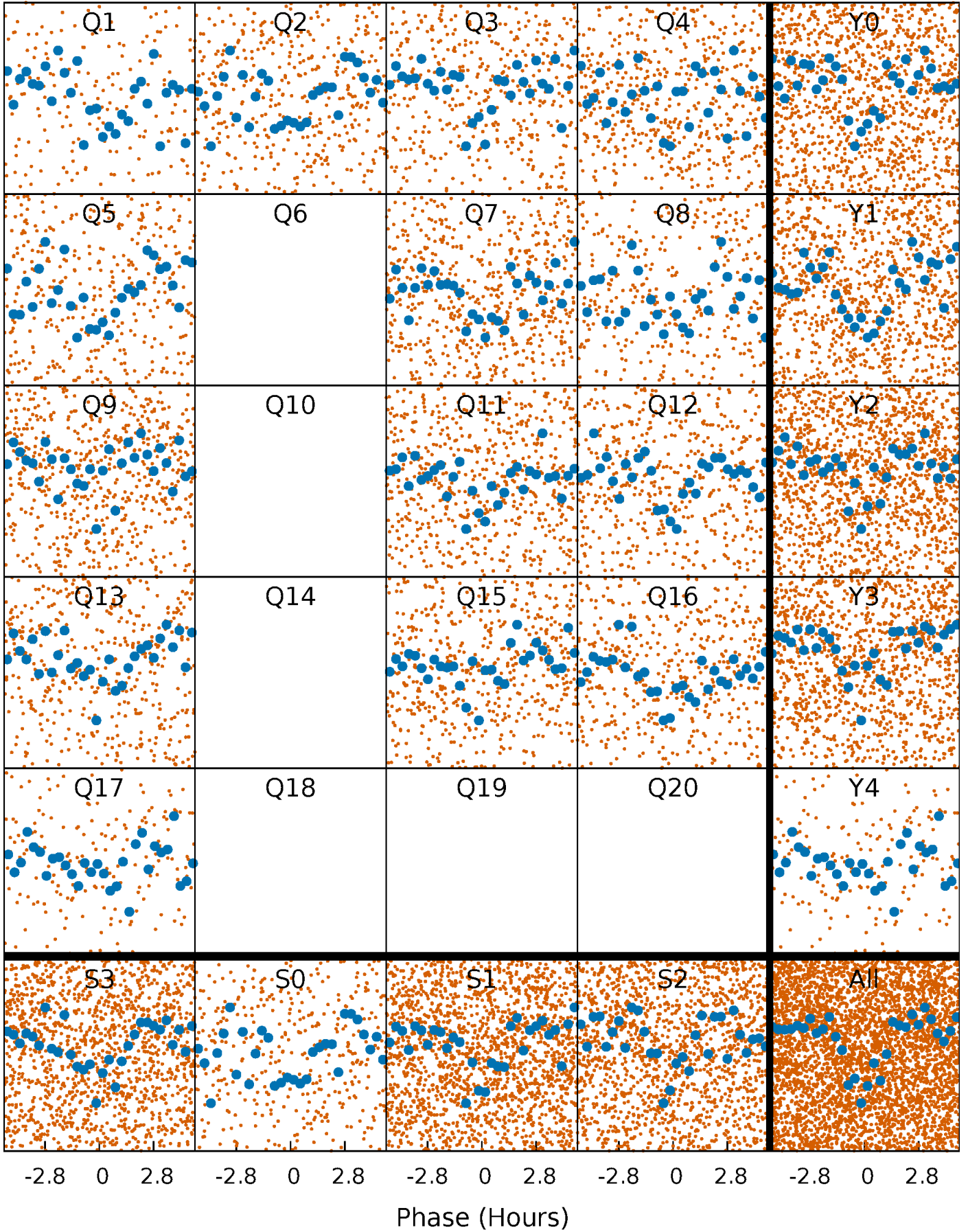


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



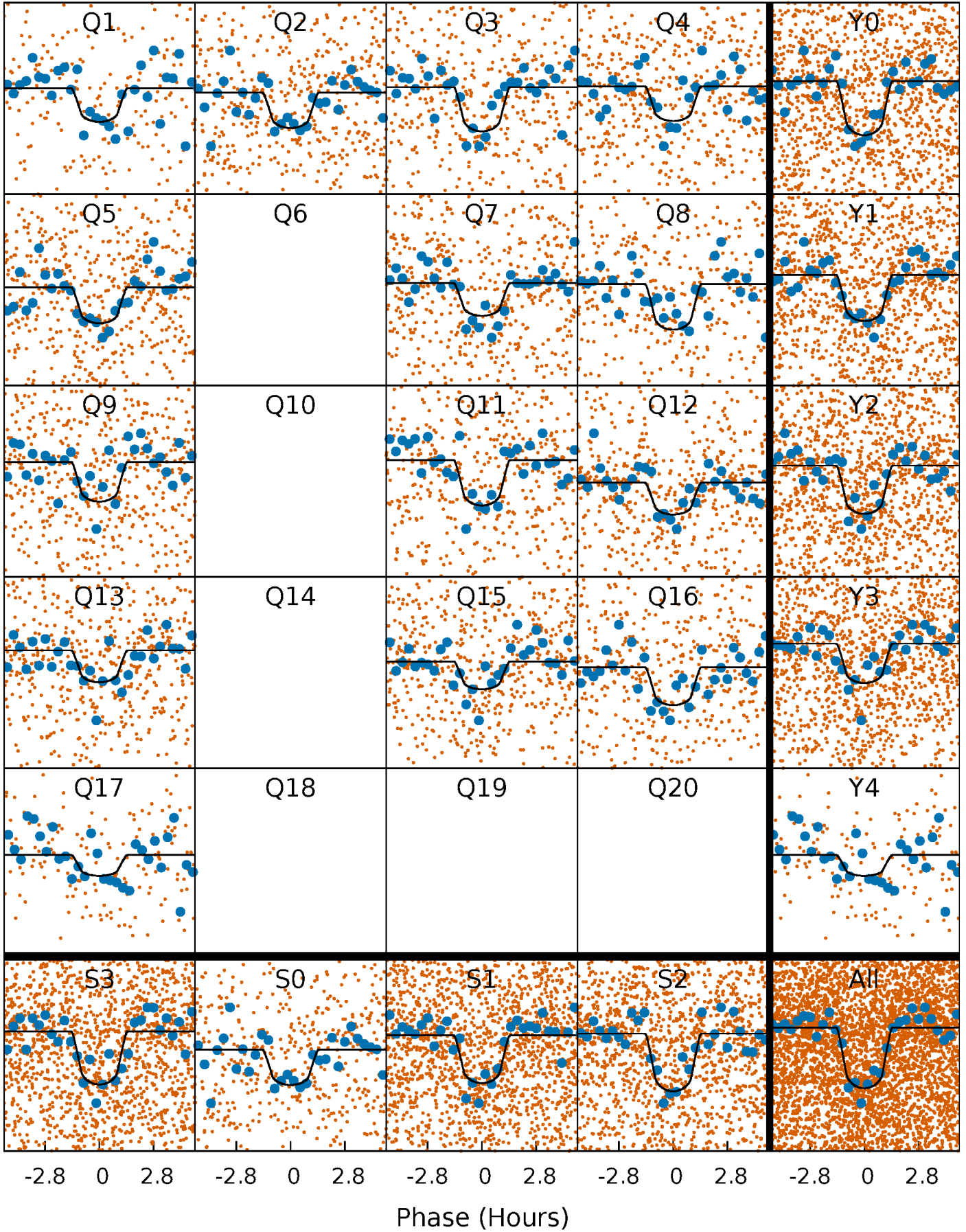
PDC Quarter-Phased Transit Curves

TCE 003128552-03 P= 2.504757 Days $T_0=133.634765$ (BKJD)



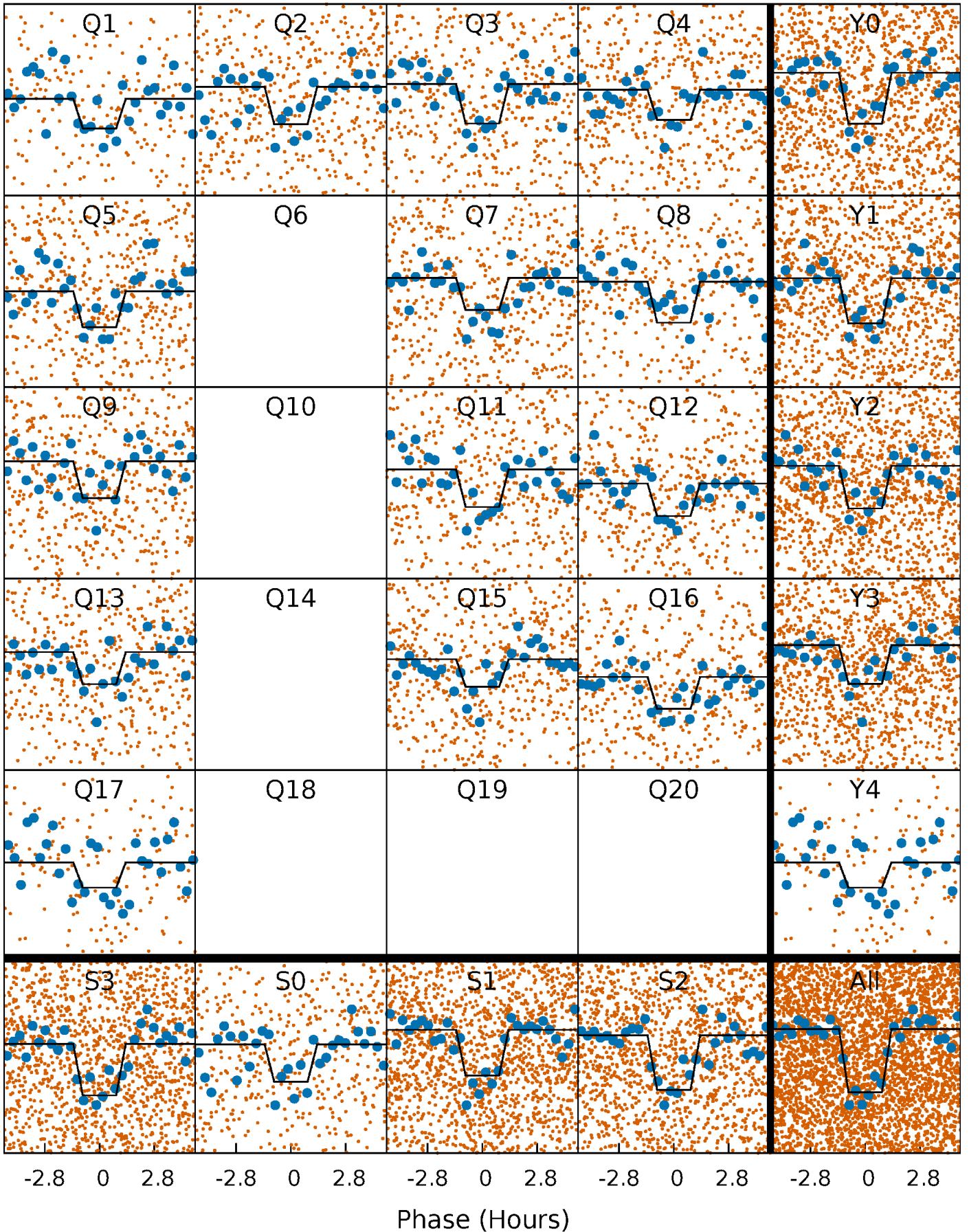
DV Quarter-Phased Transit Curves

TCE 003128552-03 P= 2.504757 Days $T_0=133.634765$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

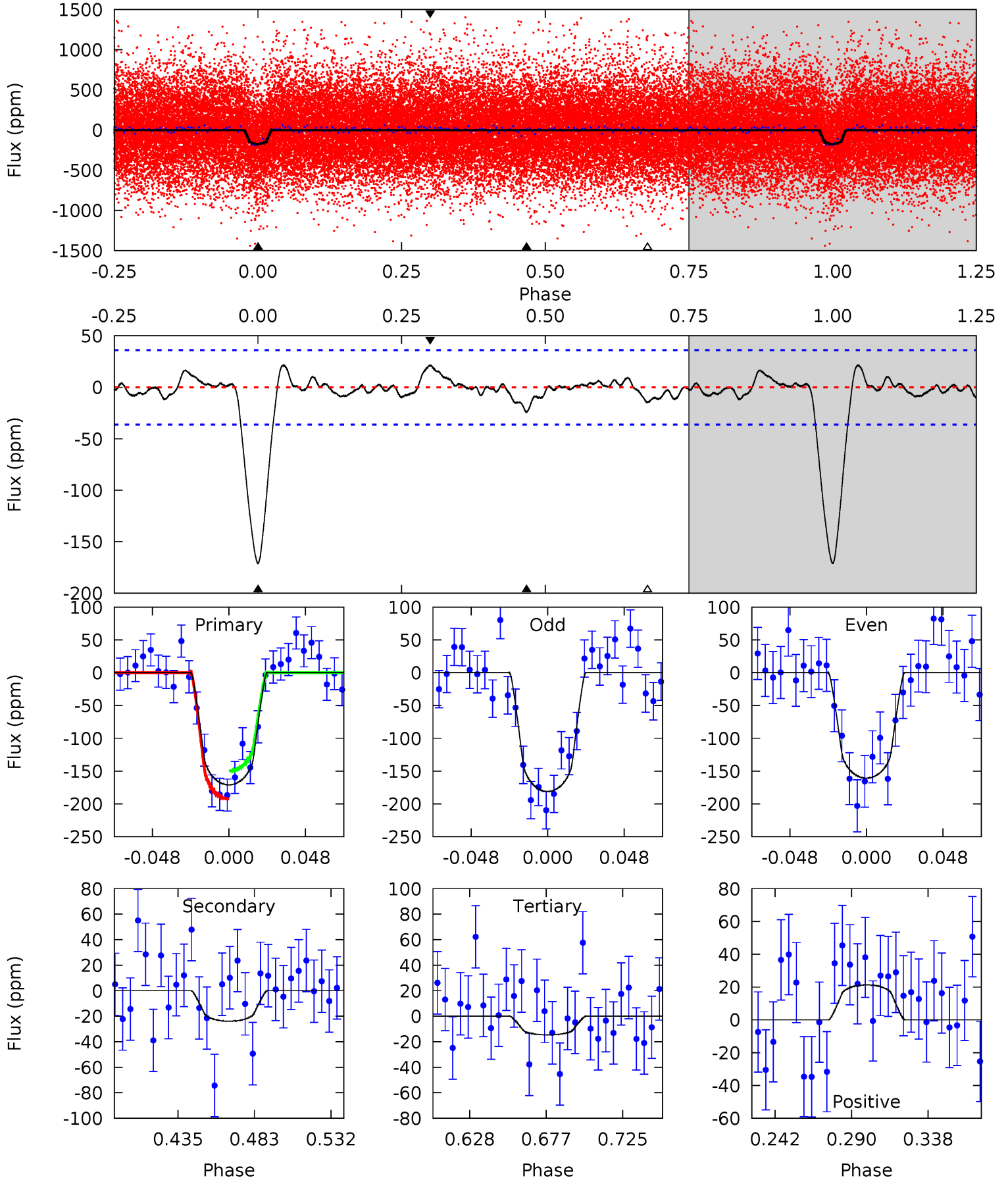
TCE 003128552-03 P= 2.504749 Days $T_0=133.638098$ (BKJD)



DV Model-Shift Uniqueness Test

003128552-03, P = 2.504757 Days, E = 131.130008 Days

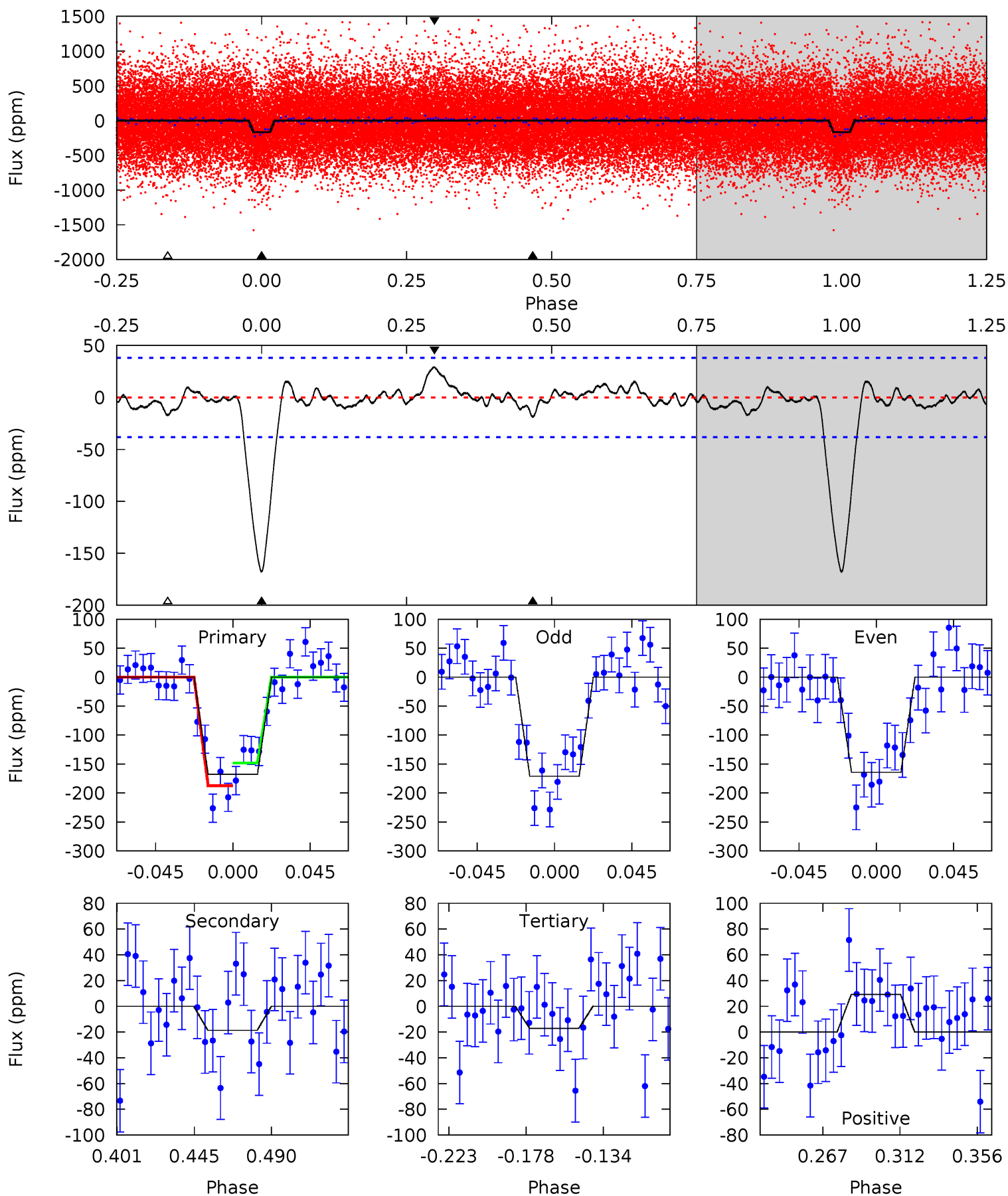
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	3.12	1.91	2.78	4.72	1.97	0.89	20.4	19.5	1.21	0.34	1.33	1.07	0.11	2.80



Alt Model-Shift Uniqueness Test

003128552-03, P = 2.504749 Days, E = 131.133349 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	2.32	2.12	3.62	4.73	2.01	0.98	18.7	17.2	0.20	-1.30	0.43	0.96	0.15	2.45



Stellar Parameters For KIC 003128552

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5509^{+82}_{-74}	$4.308^{+0.156}_{-0.104}$	$0.160^{+0.150}_{-0.150}$	$1.116^{+0.169}_{-0.186}$	$0.924^{+0.062}_{-0.043}$	$0.936^{+0.610}_{-0.317}$
	+1%/-1%	+4%/-2%	+94%/-94%	+15%/-17%	+7%/-5%	+65%/-34%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 003128552-03 / KOI 2055.03

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 8	$1.70^{+0.90}_{-0.79}$	1902^{+83}_{-92}	3593^{+920}_{-486}	$5.473^{+13.875}_{-3.209}$
Alt.	-19 ± 8	$1.58^{+0.91}_{-0.73}$	1909^{+80}_{-87}	3519^{+1044}_{-559}	$4.753^{+16.136}_{-3.033}$

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 $A_{obs} \gg 1.0$

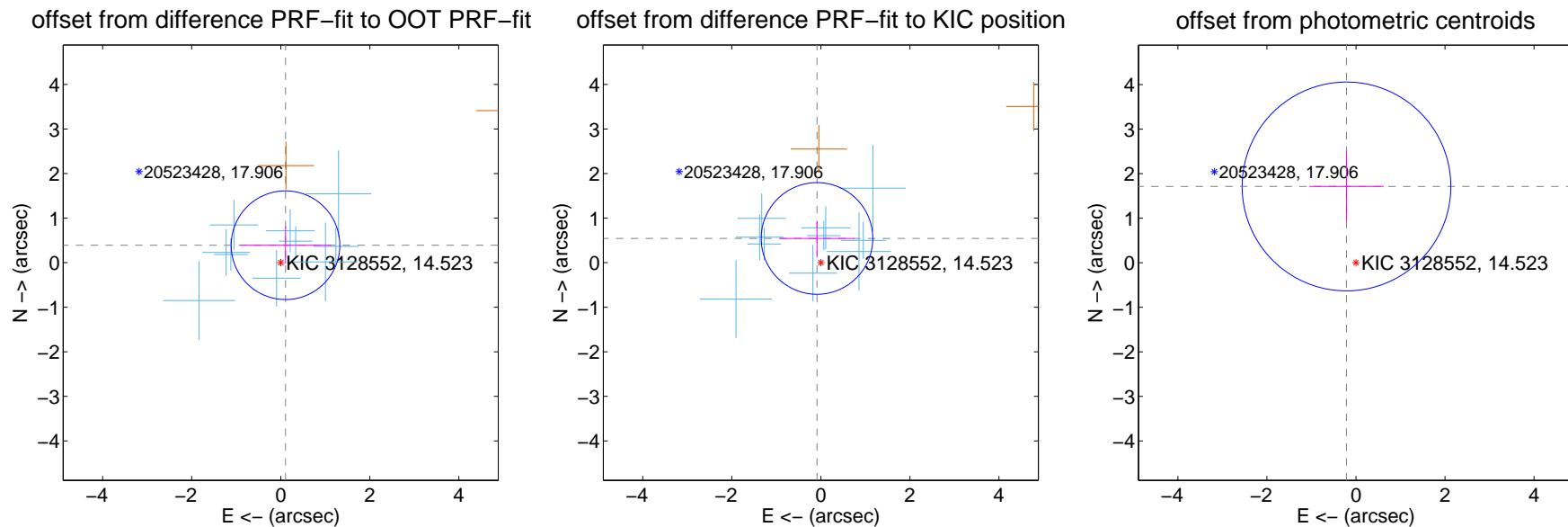
DV Centroid Data

Supplemental centroid analysis for 003128552-03. Kepler magnitude: 14.52. Transit SNR 15.90

There are 10 quarters with good PRF difference image offsets

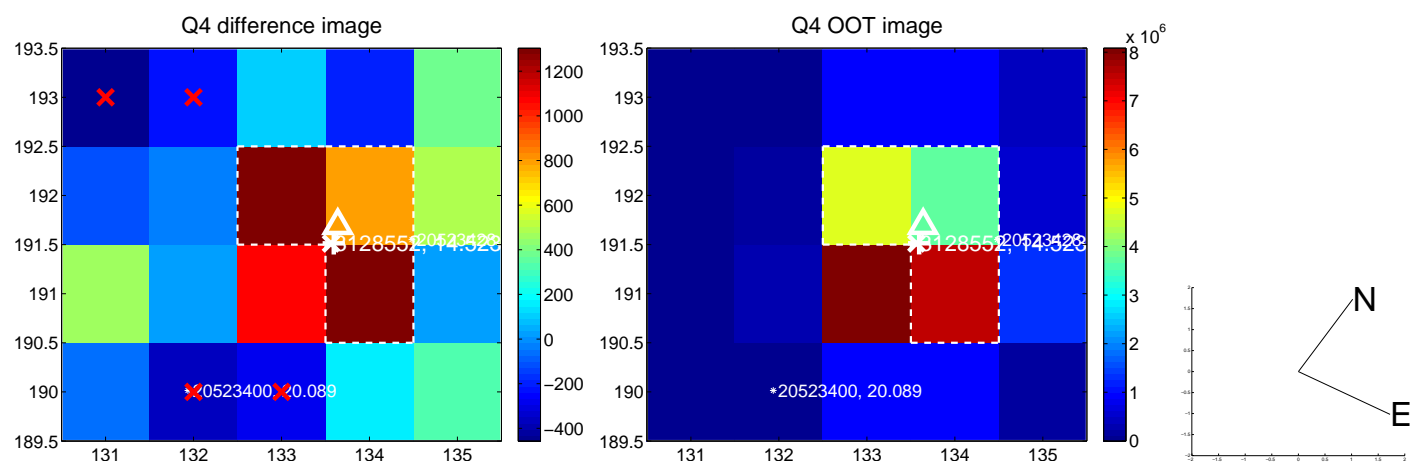
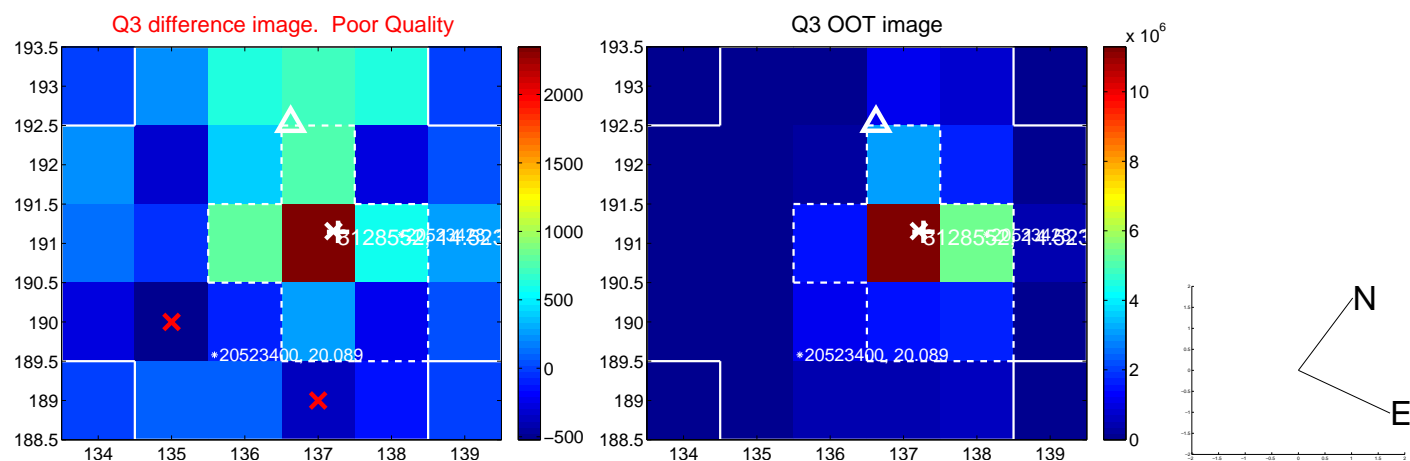
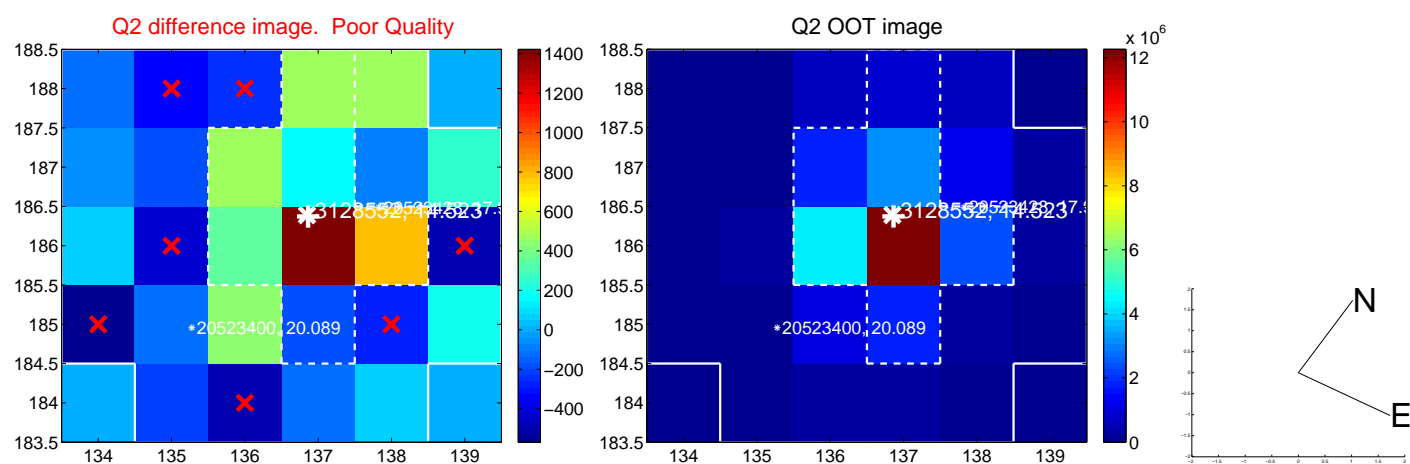
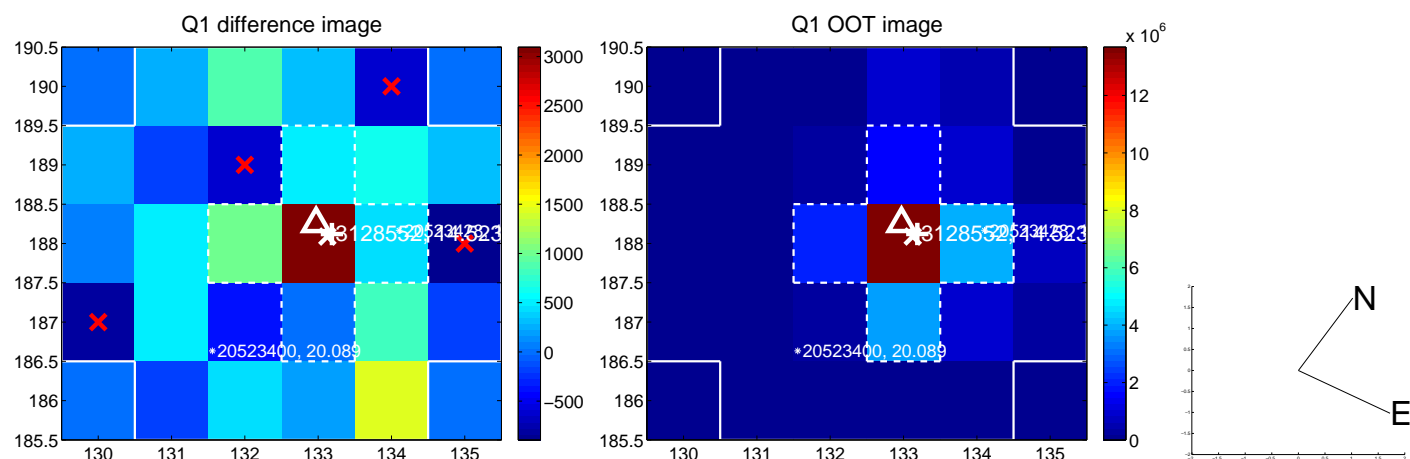
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.407 ± 0.407	1.00	-0.107 ± 1.030	0.392 ± 0.419
PRF-fit source offset from KIC position	0.551 ± 0.418	1.32	0.087 ± 0.837	0.544 ± 0.388
photometric centroid source offset	1.73 ± 0.78	2.21	0.21 ± 0.84	1.71 ± 0.78

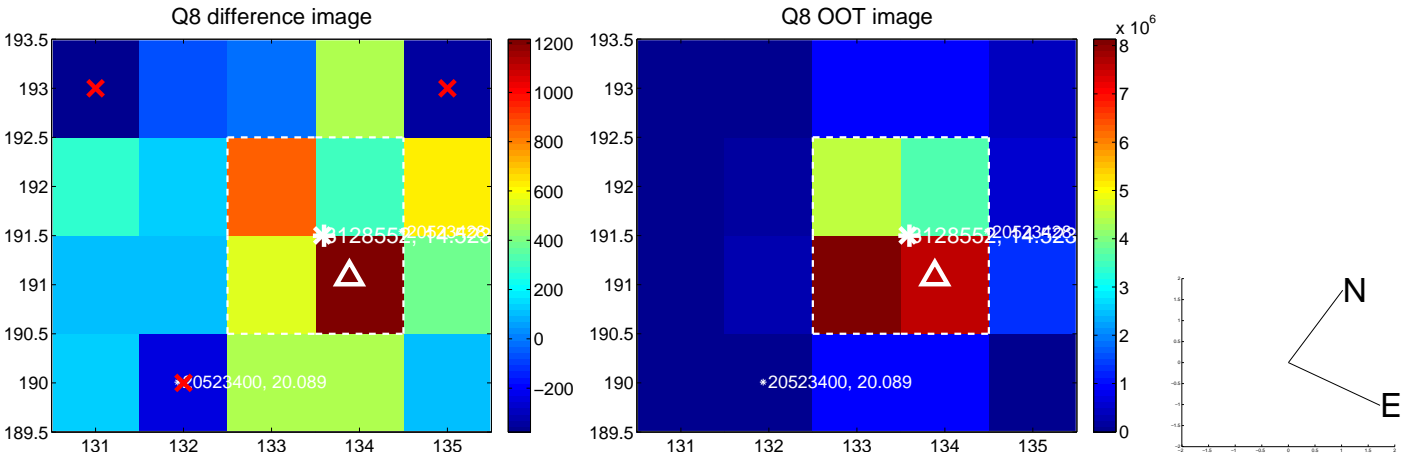
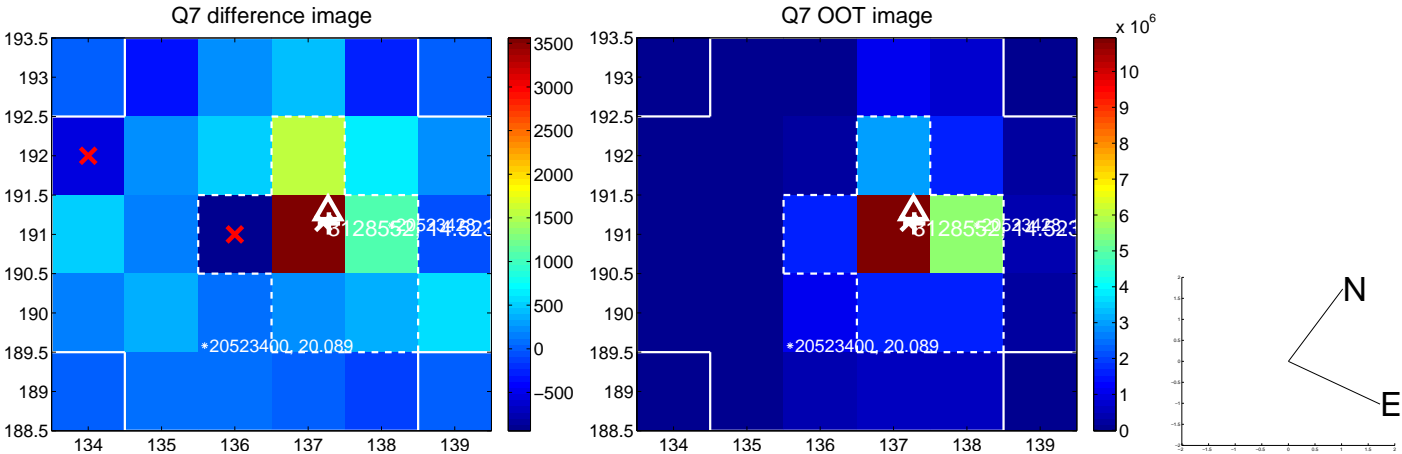
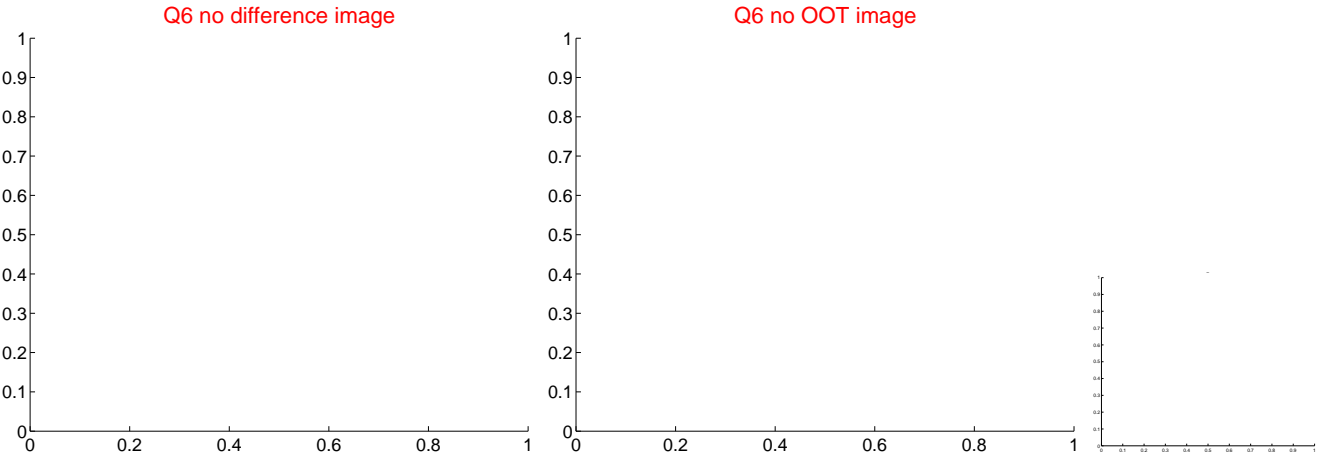
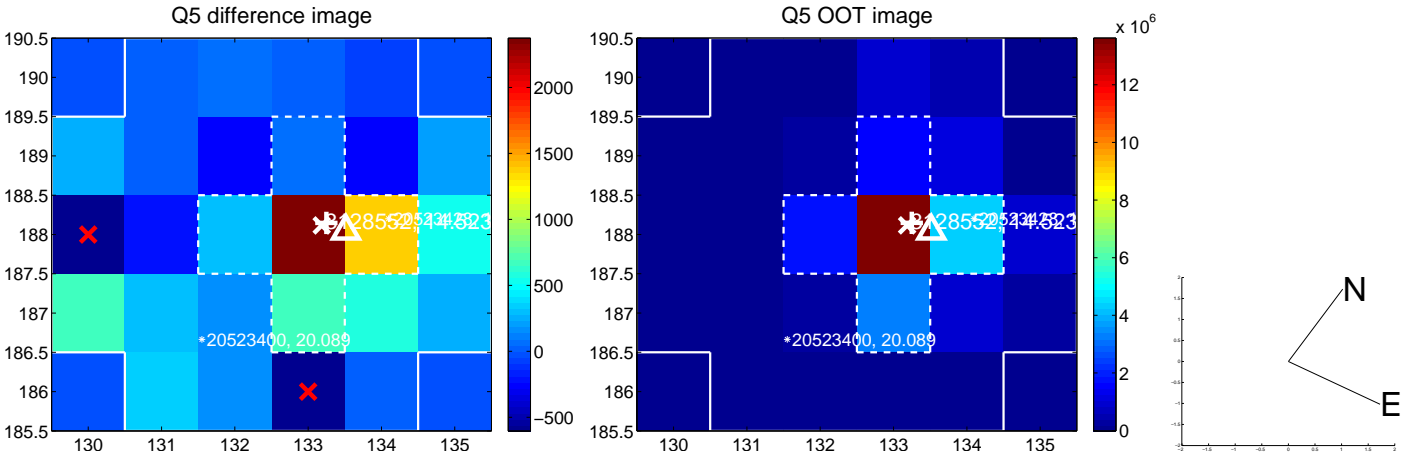


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

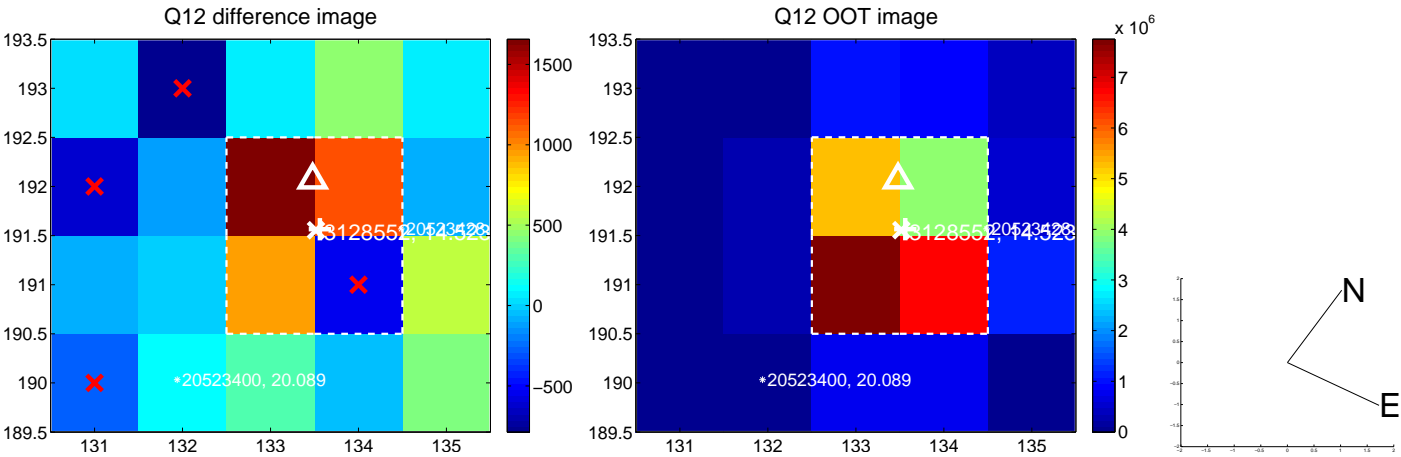
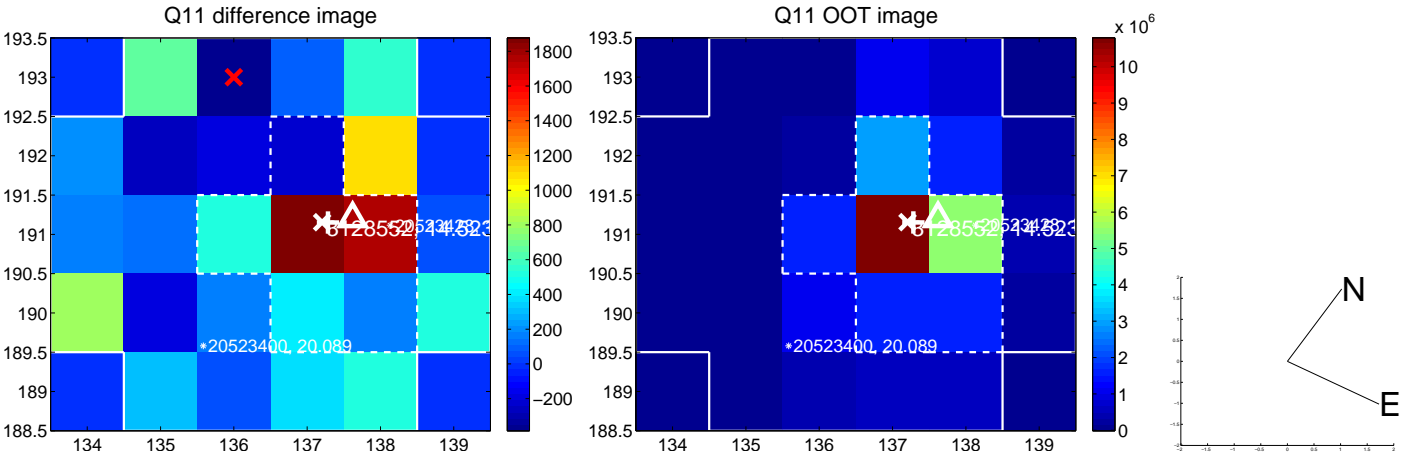
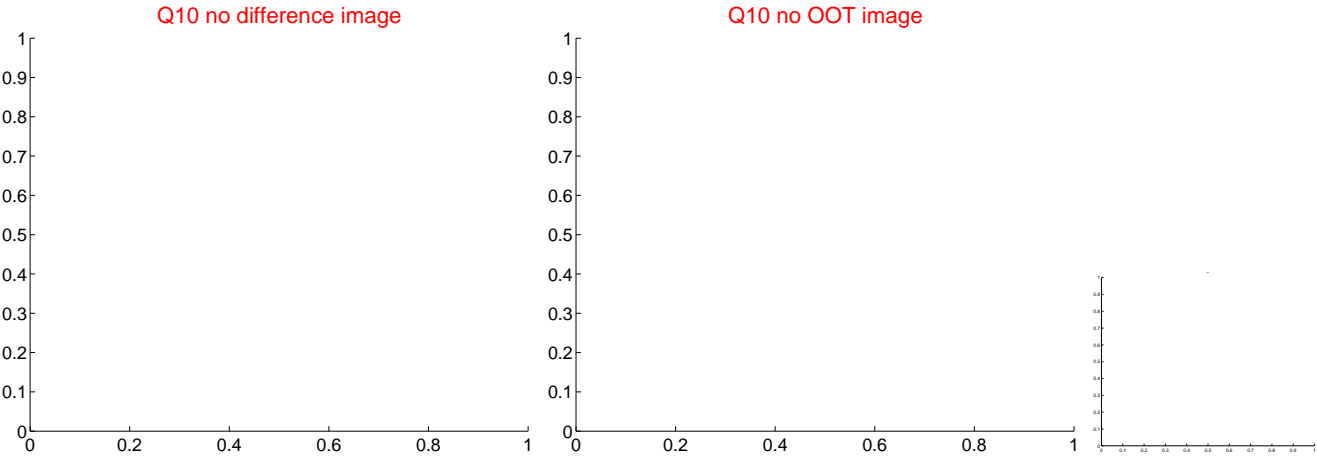
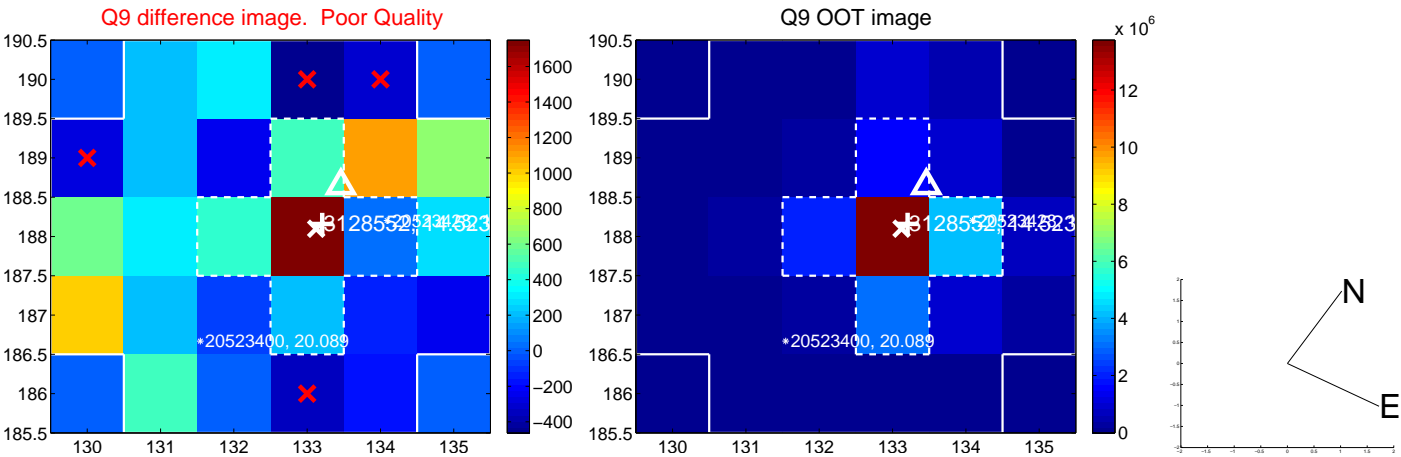
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



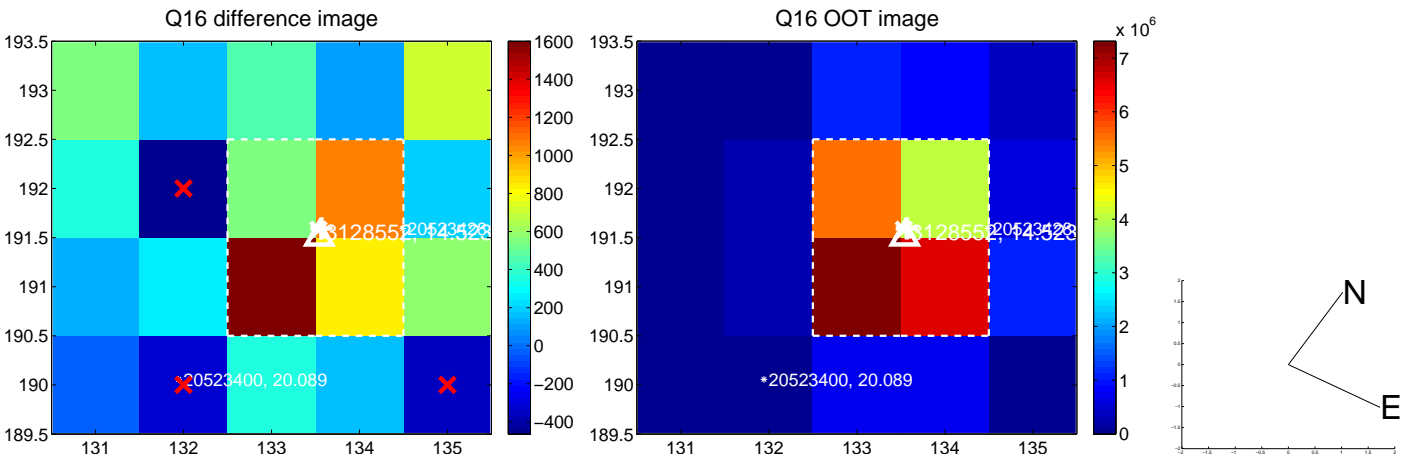
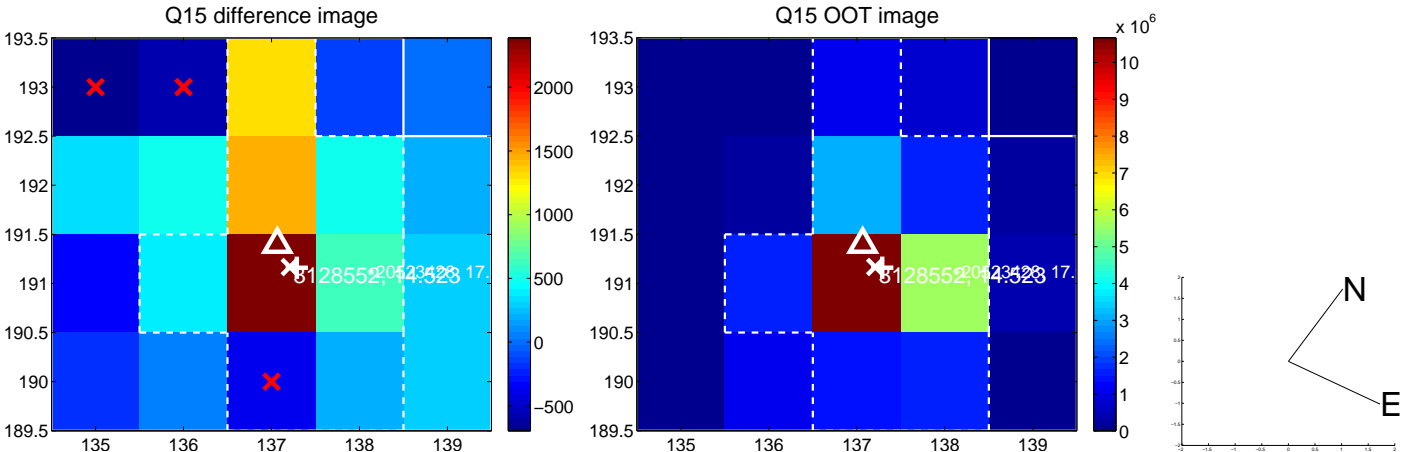
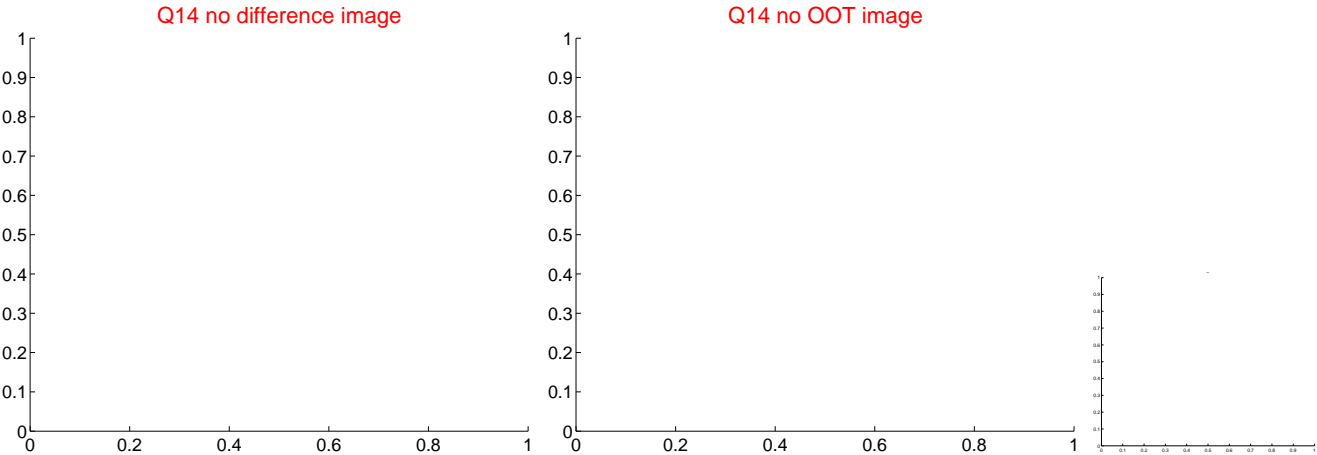
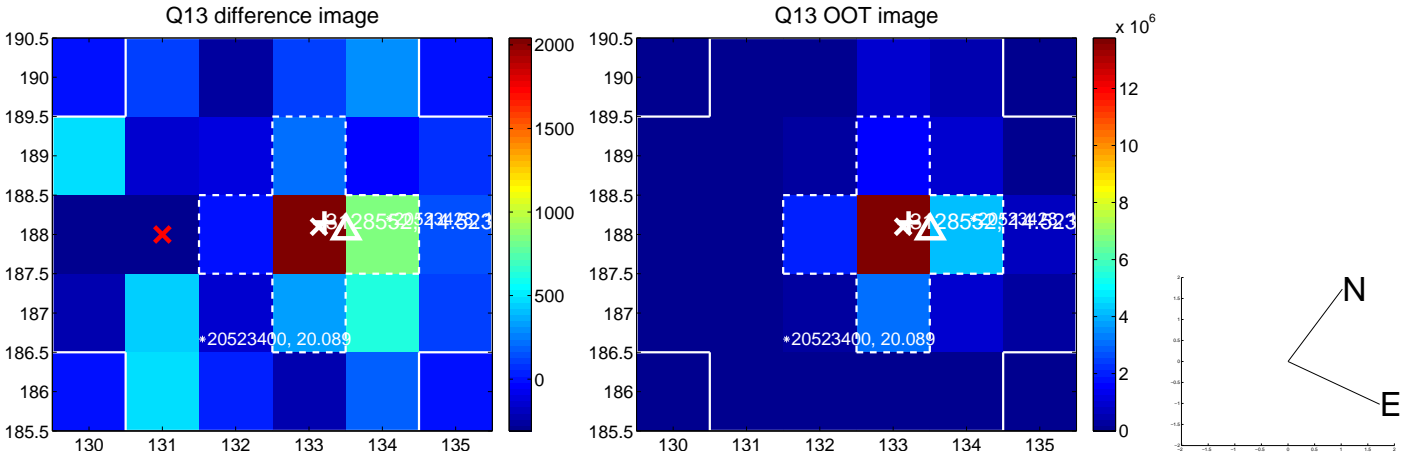
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



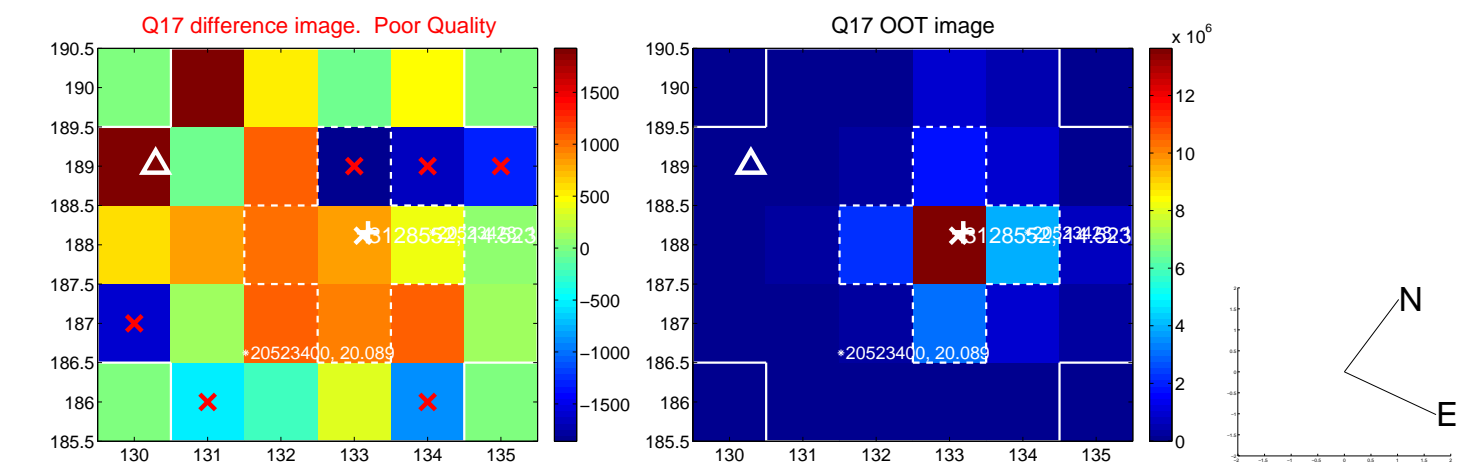
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



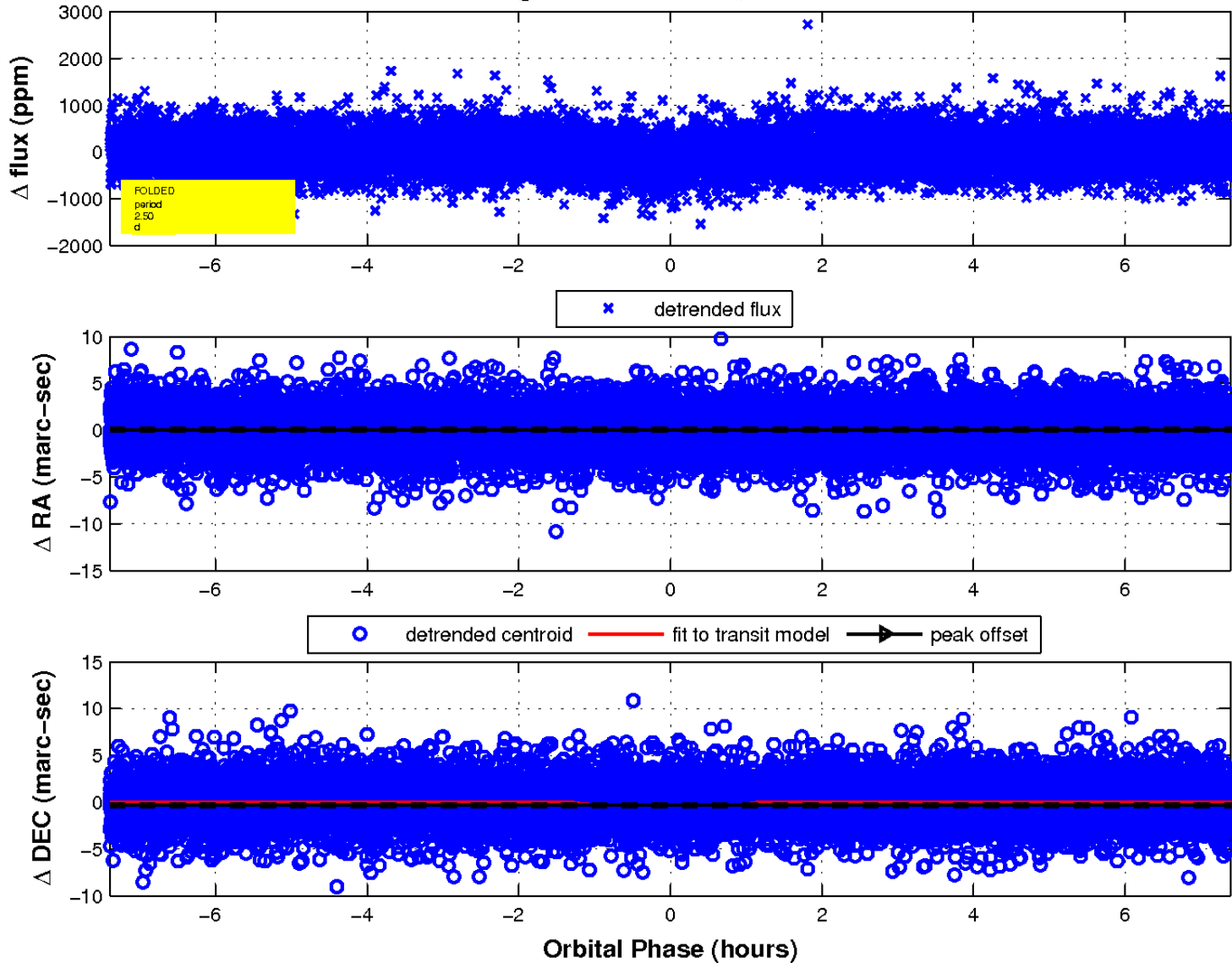
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

