

KIC 010055126

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})
010055126-01	OBS	1608.01	9.176140	138.716750	199.2	4.861	29.1	31.1	1.16	5903	2.04	201.19
010055126-02	OBS	1608.02	19.738350	133.287022	148.9	4.896	15.6	16.1	1.16	5903	1.61	72.46
010055126-03	OBS	1608.03	232.047399	262.217414	285.0	11.938	12.5	12.5	1.16	5903	2.07	2.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010055126-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010055126-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010055126-03	OBS	PC	0.96	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.

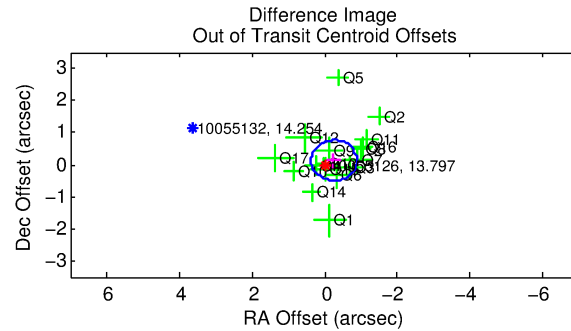
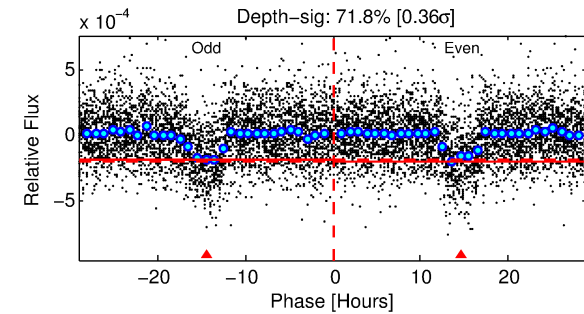
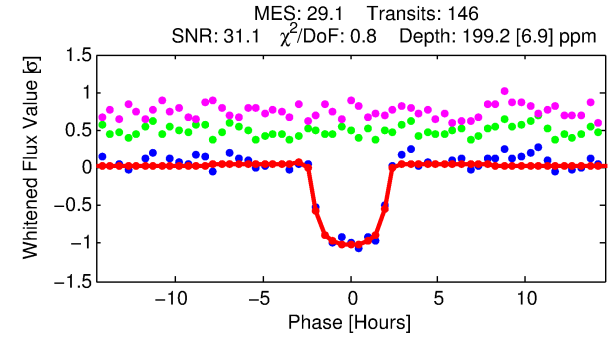
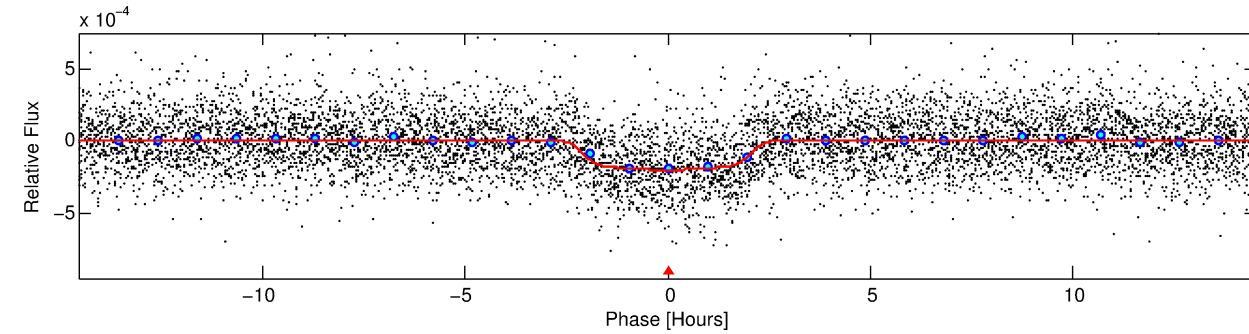
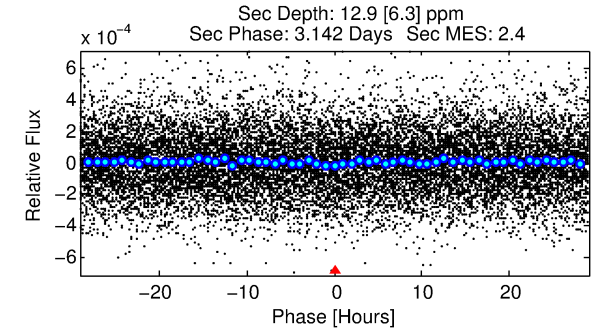
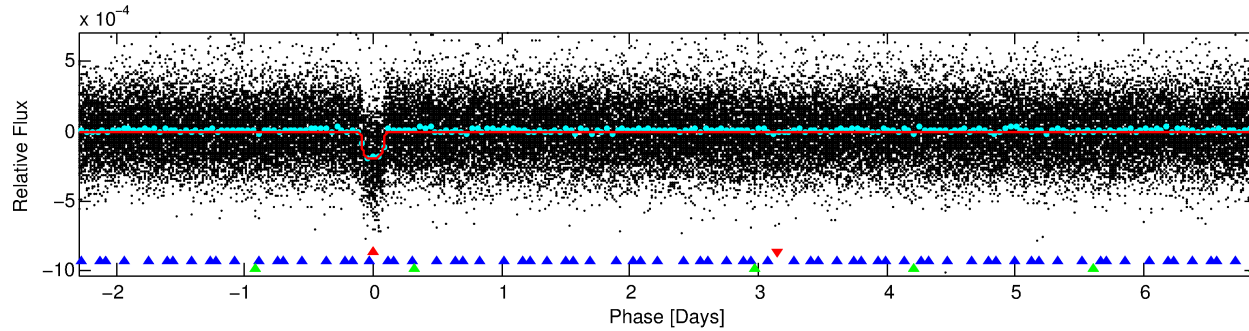
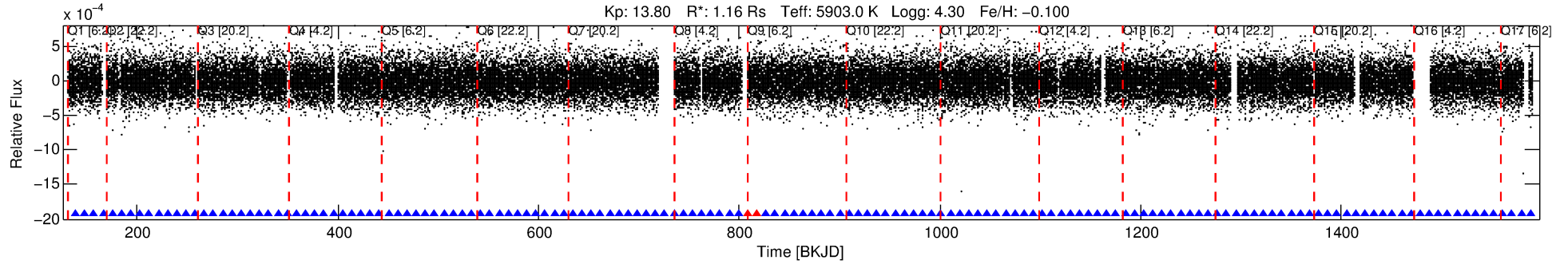
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010055126-01

No Significant Match Found

DV One-Page Summary

KIC: 10055126 Candidate: 1 of 3 Period: 9.176 d
KOI: K01608.01 Name: Kepler-311b Corr: 0.939



DV Fit Results:

Period = 9.17614 [0.00004] d
Epoch = 138.7168 [0.0032] BKJD
Rp/R* = 0.0162 [0.0008]
a/R* = 5.48 [1.19]
b = 0.94 [0.03]
Seff = 201.19 [53.49]
Teq = 960 [64] K
Rp = 2.04 [0.34] Re
a = 0.0850 [0.0133] AU
Ag = 12.37 [6.87] [1.65σ]
Teffp = 2785 [348] K [5.15σ]

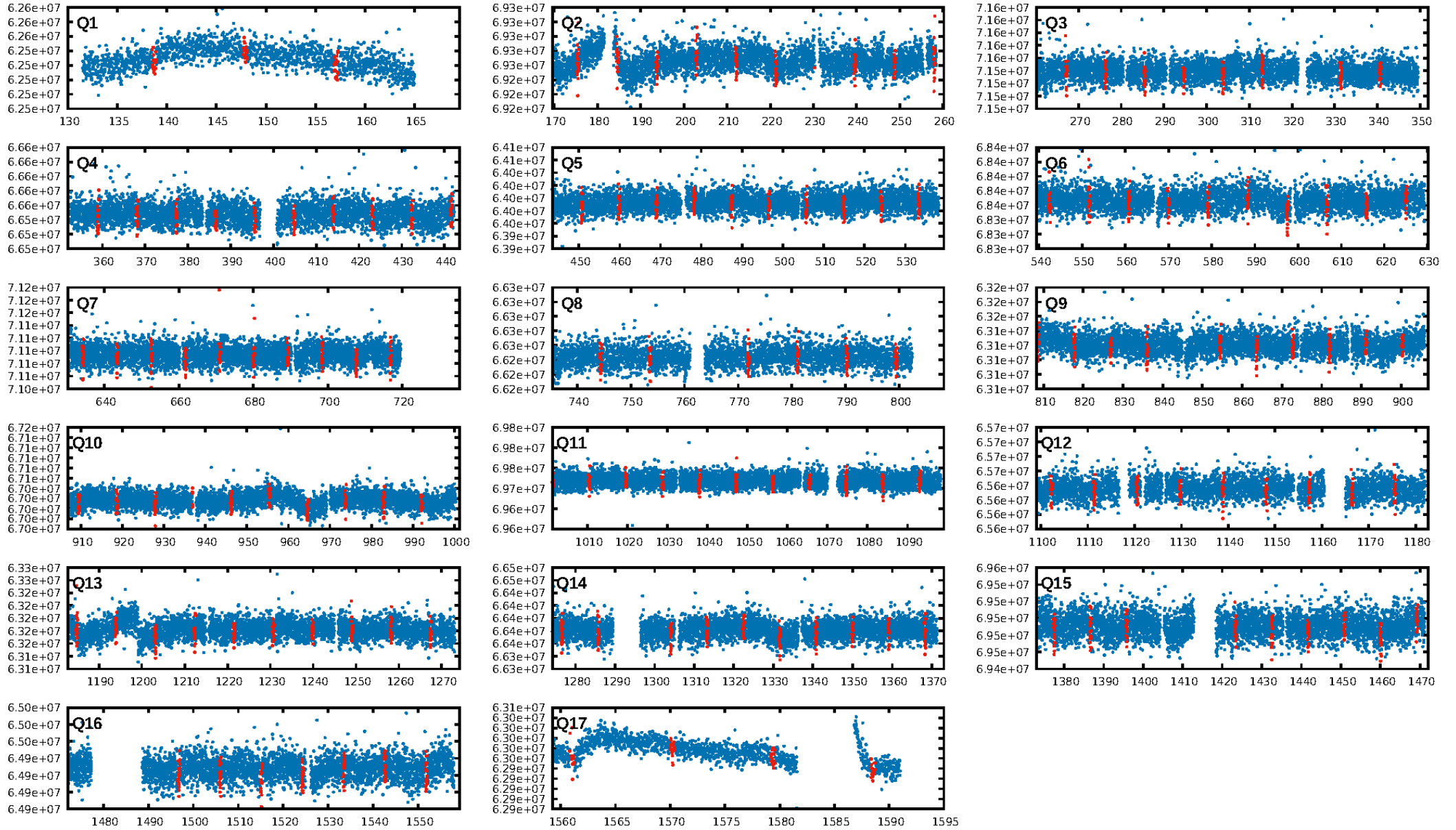
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [36.74σ]
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.68e-178
RollingBand-fgt: 0.99 [137/139]
GhostDiagnostic-chr: 3.447
Centroid-sig: 1.8%
Centroid-so: 0.750 arcsec [1.62σ]
OotOffset-rm: 0.287 arcsec [1.36σ]
KicOffset-rm: 0.337 arcsec [1.37σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

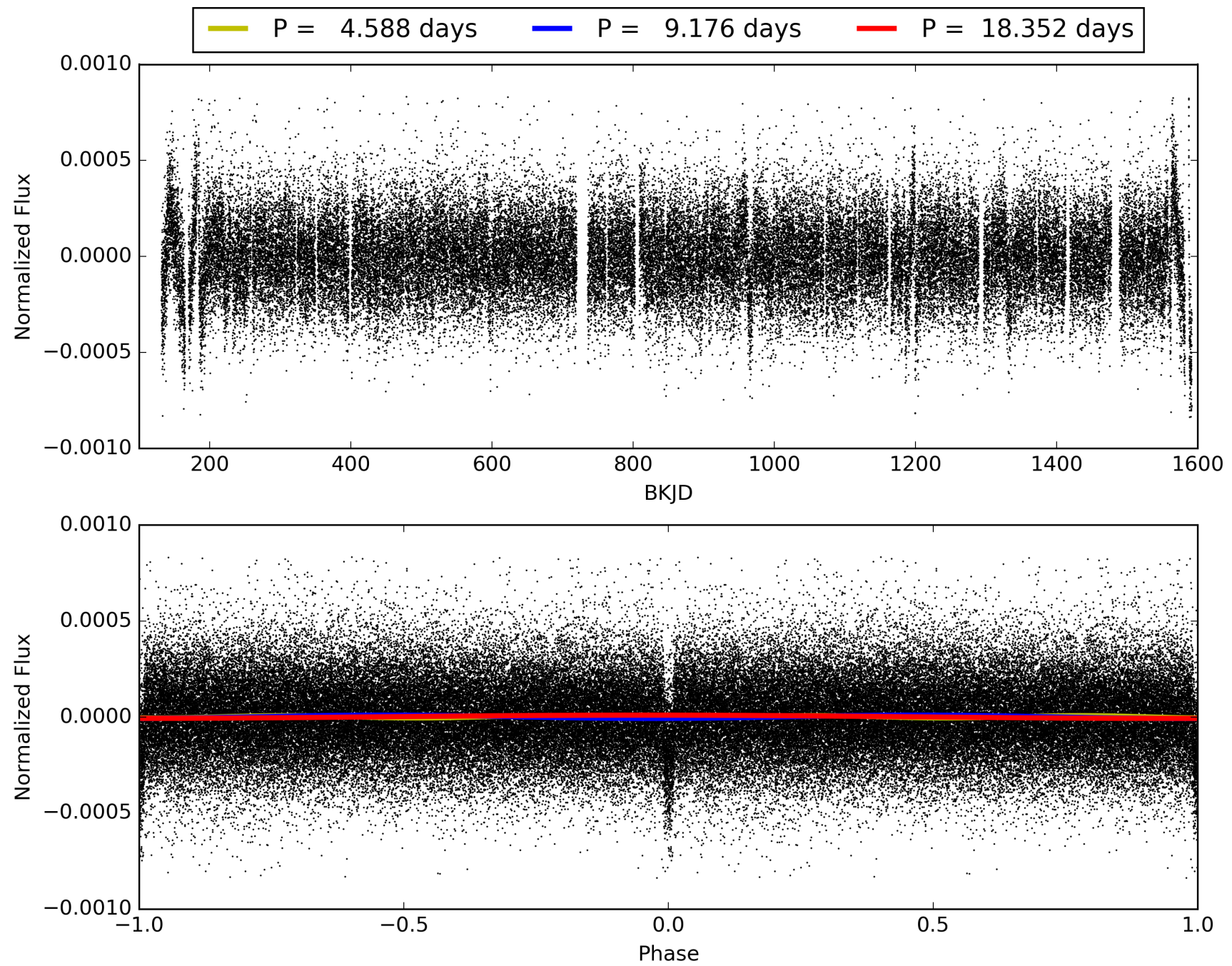
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:23:03 Z

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

TCE 010055126-01, PDC Light Curves

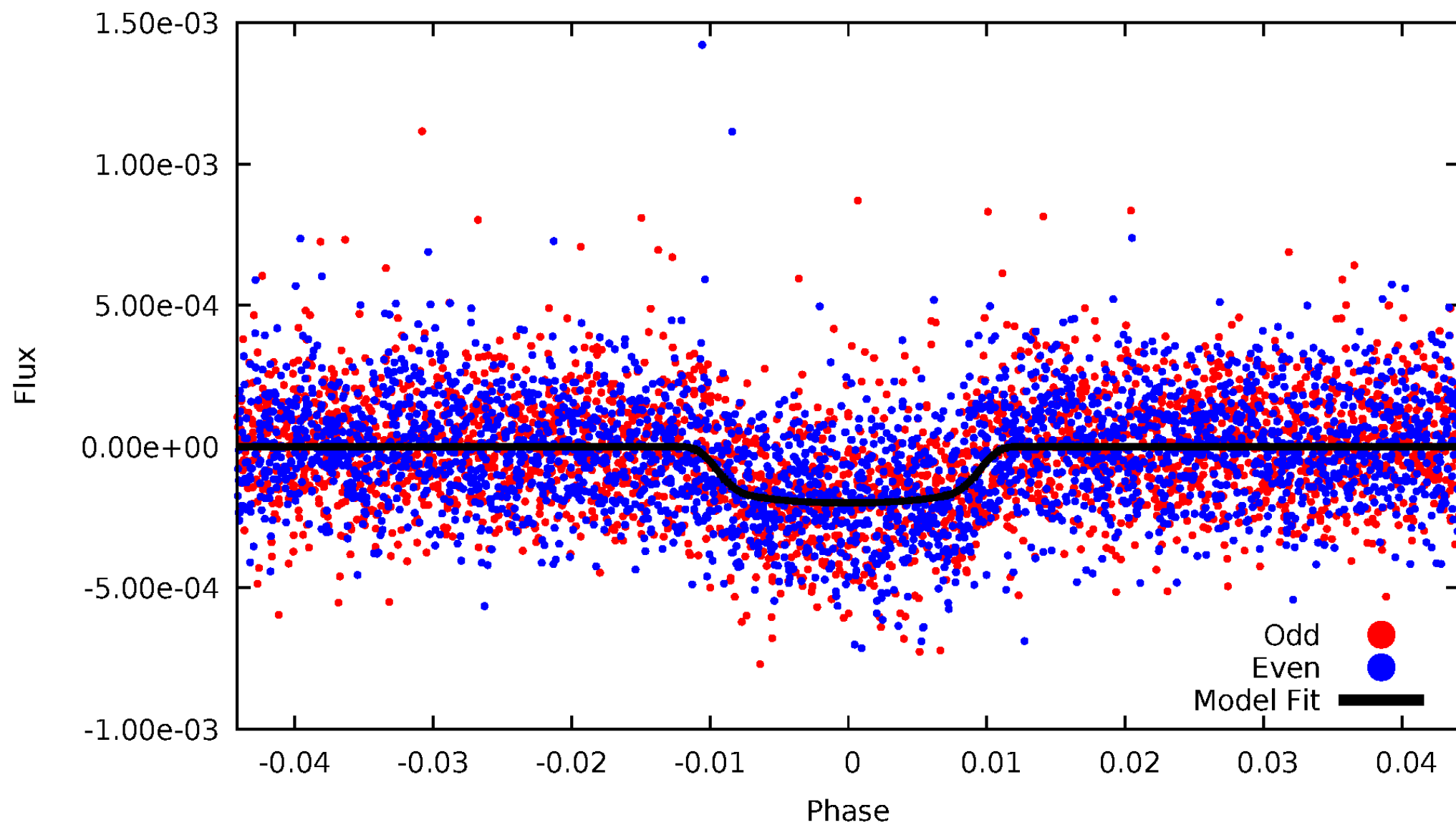


TCE 010055126-01



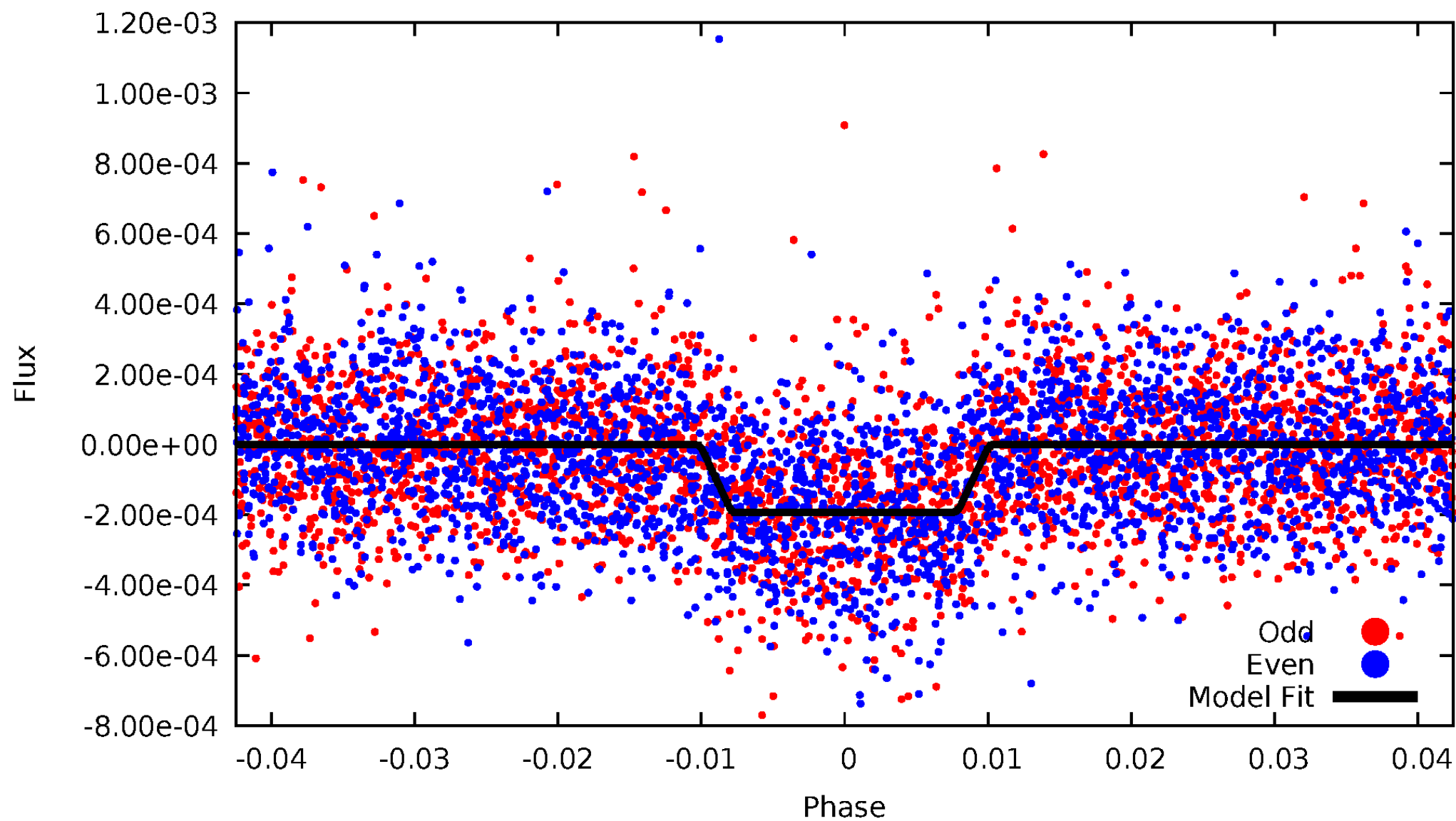
DV Odd/Even

TCE 010055126-01



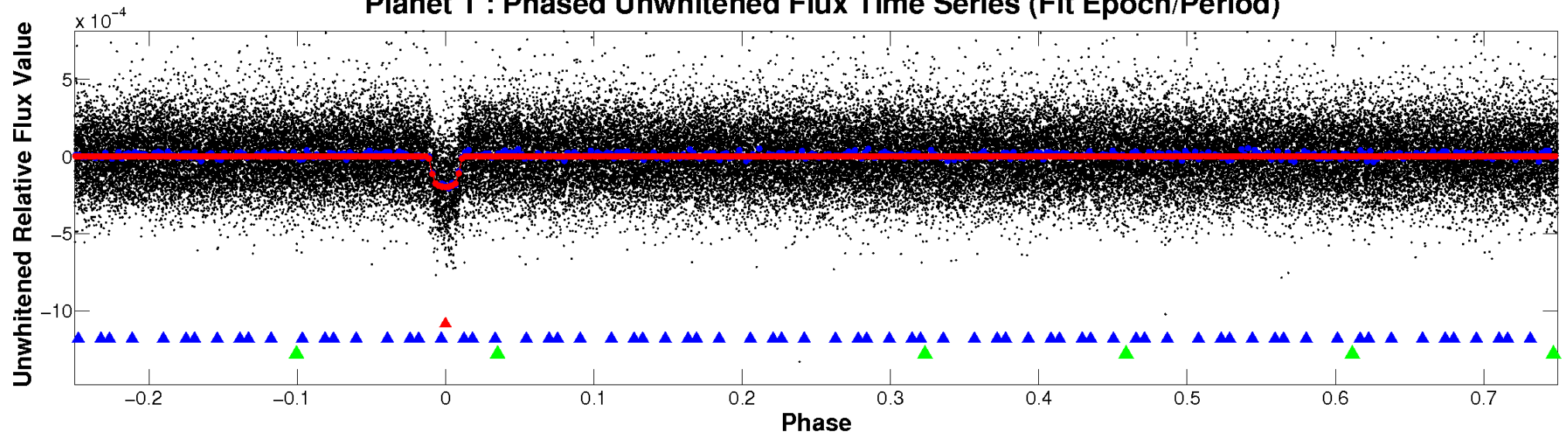
ALT Odd/Even

TCE 010055126-01

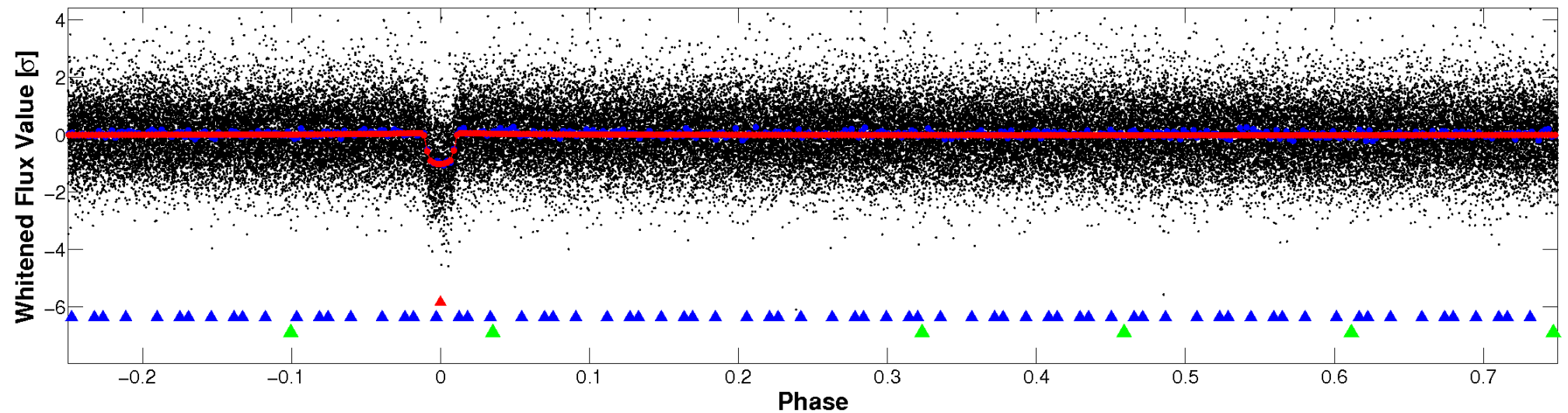


Non-Whitened Vs. Whitened Light Curve

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

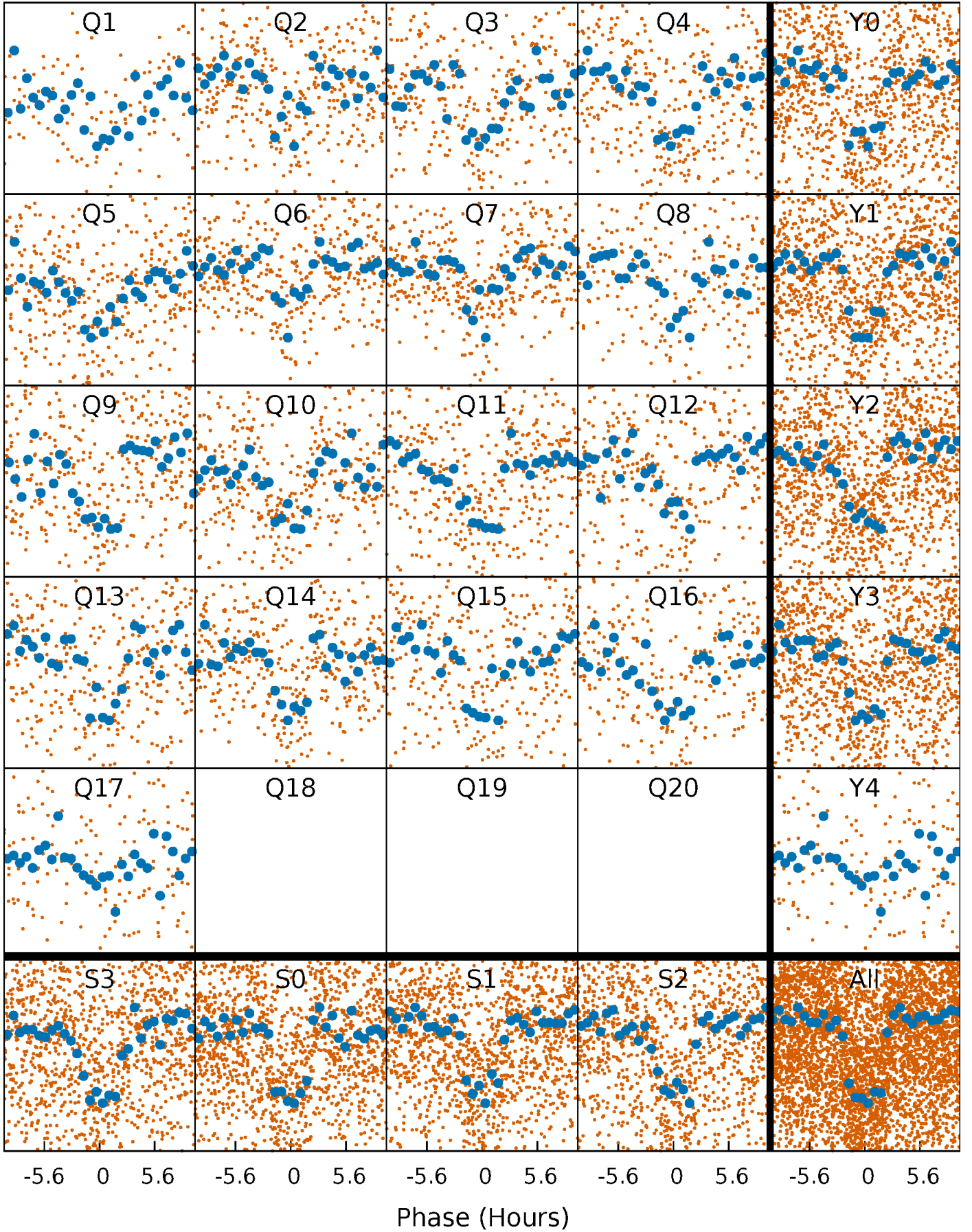


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



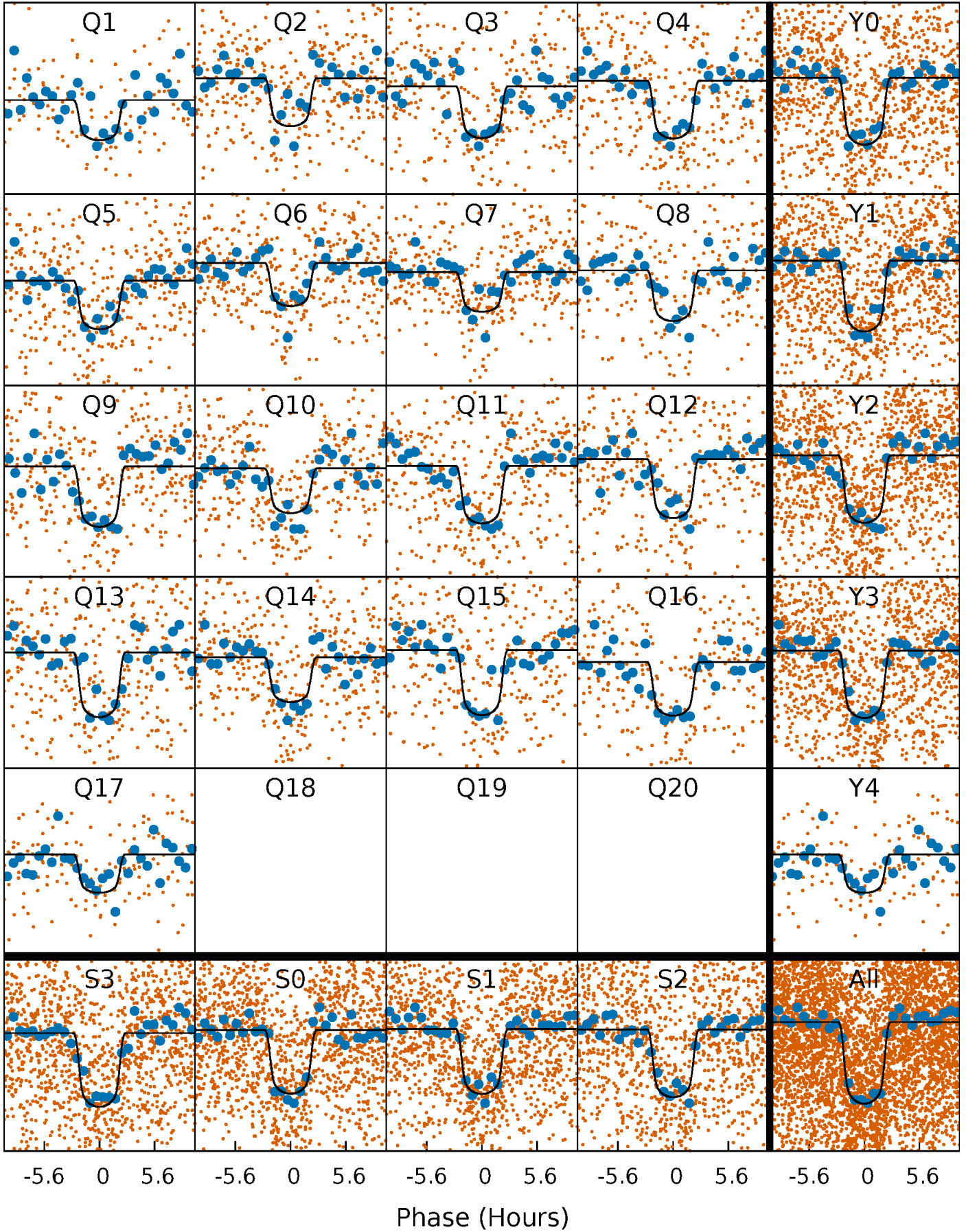
PDC Quarter-Phased Transit Curves

TCE 010055126-01 P= 9.176140 Days $T_0=138.716750$ (BKJD)



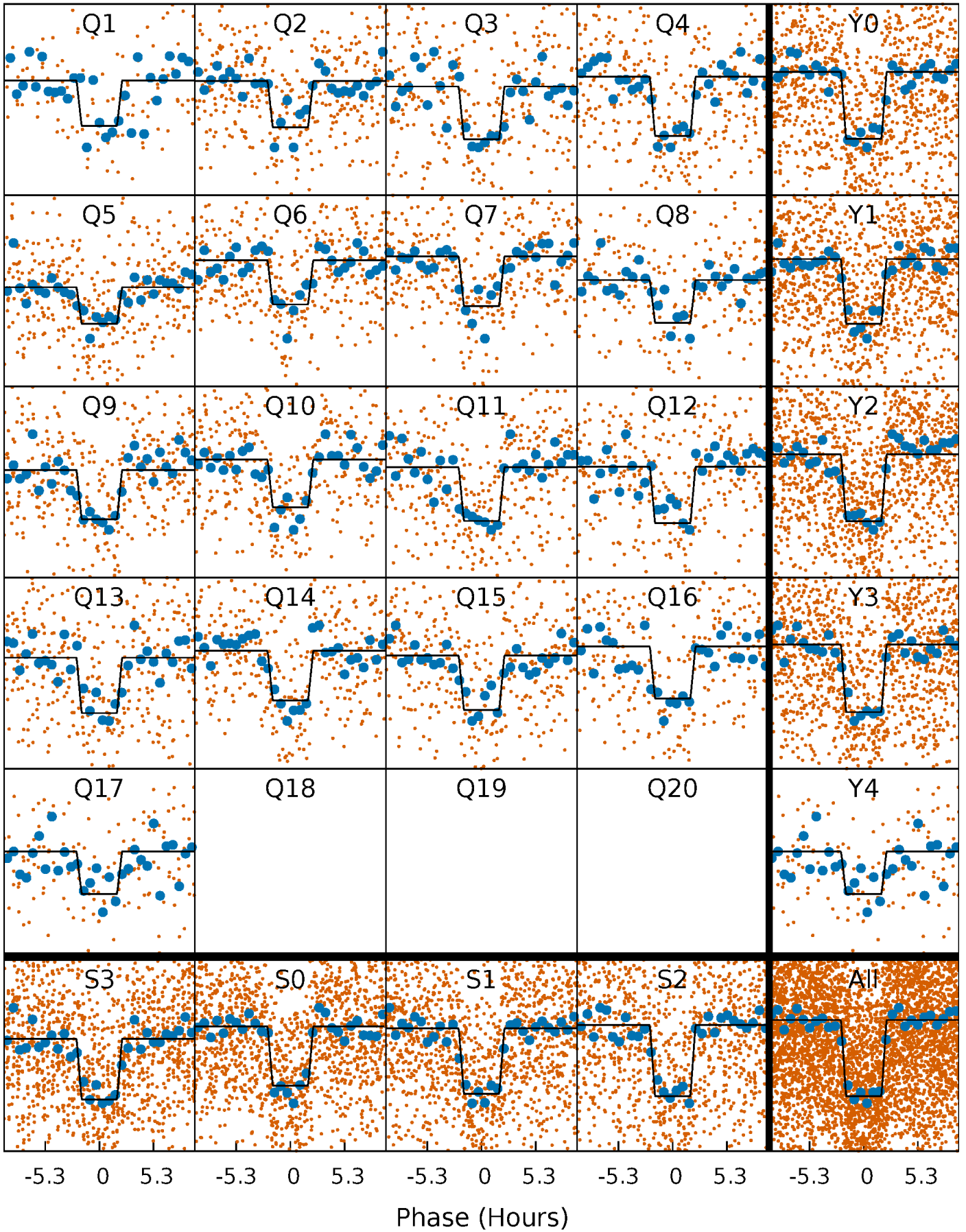
DV Quarter-Phased Transit Curves

TCE 010055126-01 P= 9.176140 Days $T_0=138.716750$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

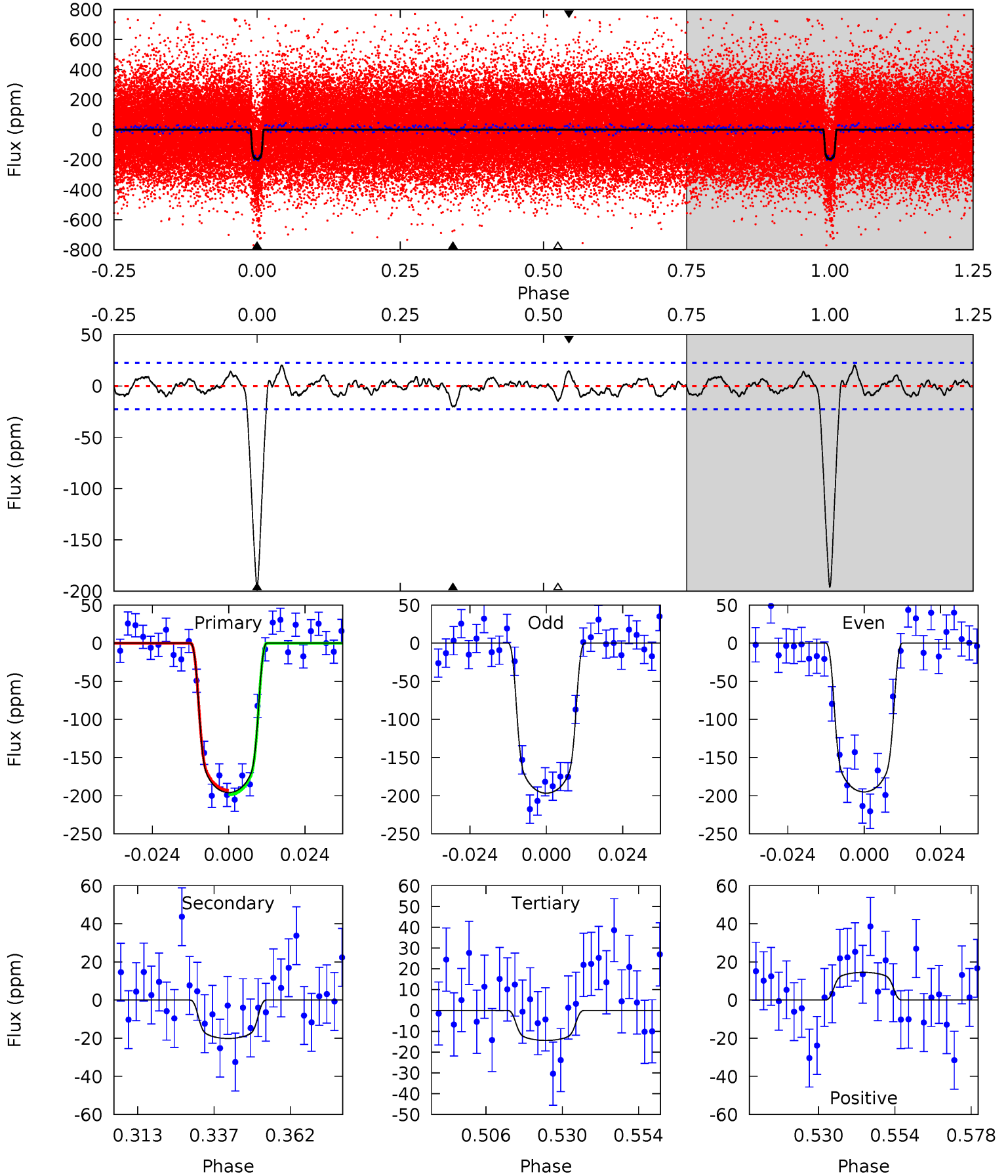
TCE 010055126-01 P= 9.176220 Days $T_0=138.710877$ (BKJD)



DV Model-Shift Uniqueness Test

010055126-01, P = 9.176140 Days, E = 129.540610 Days

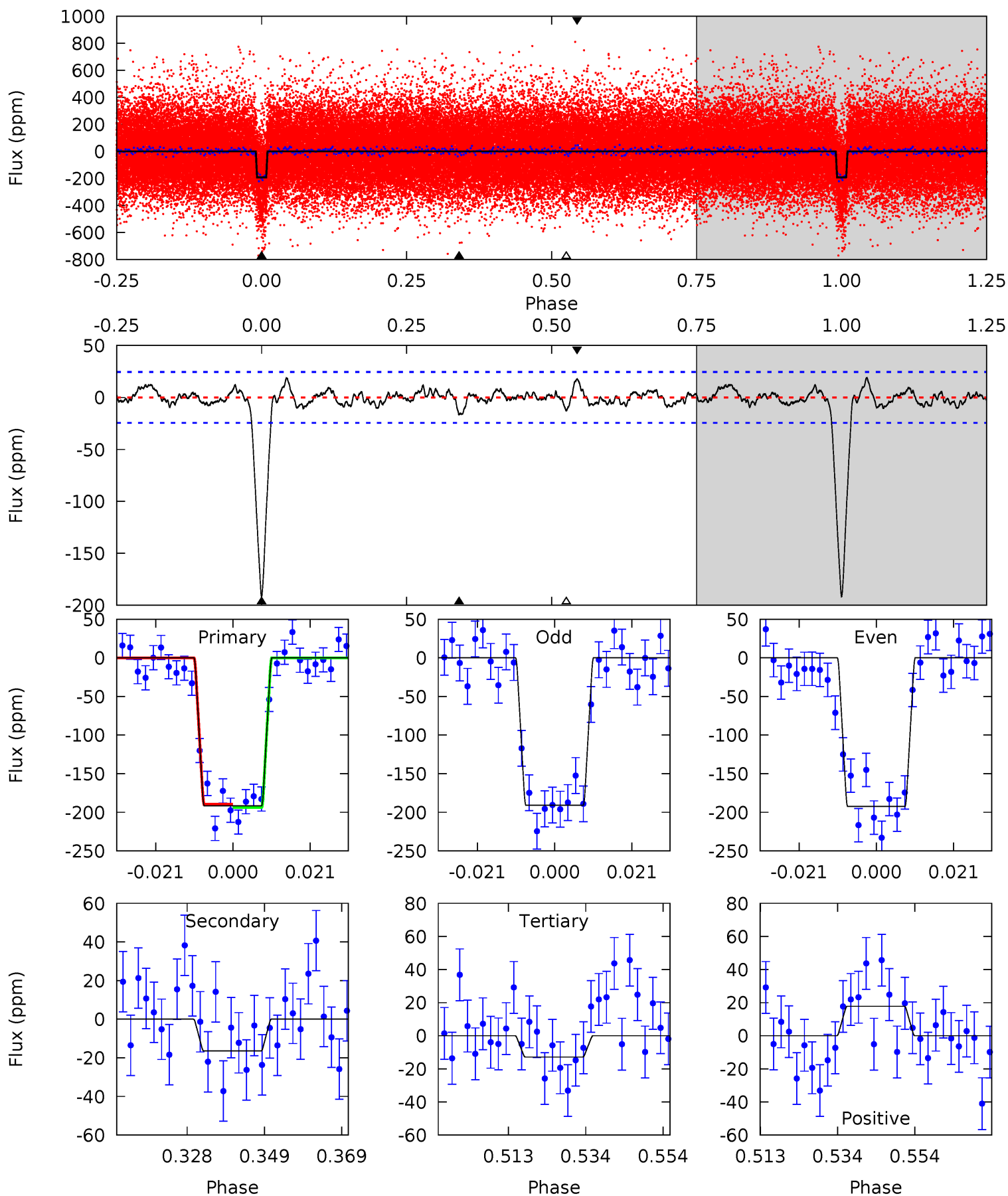
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.1	4.33	3.09	3.12	4.85	2.26	1.25	39.0	39.0	1.24	1.22	0.18	0.98	0.09	0.63



Alt Model-Shift Uniqueness Test

010055126-01, P = 9.176220 Days, E = 129.534657 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.3	3.28	2.57	3.55	4.89	2.32	1.08	35.7	34.7	0.71	-0.26	0.15	0.97	0.09	0



Stellar Parameters For KIC 010055126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5903^{+106}_{-117}	$4.300^{+0.150}_{-0.100}$	$-0.100^{+0.150}_{-0.150}$	$1.156^{+0.185}_{-0.166}$	$0.974^{+0.082}_{-0.062}$	$0.888^{+0.548}_{-0.288}$
	+2%/-2%	+3%/-2%	+150%/-150%	+16%/-14%	+8%/-6%	+62%/-32%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 010055126-01 / KOI 1608.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-20 ± 5	$2.02^{+0.20}_{-0.20}$	1332^{+58}_{-62}	3573^{+137}_{-163}	20^{+7}_{-5}
Alt.	-16 ± 5	$1.74^{+0.18}_{-0.18}$	1333^{+56}_{-63}	3615^{+208}_{-208}	21^{+10}_{-7}

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

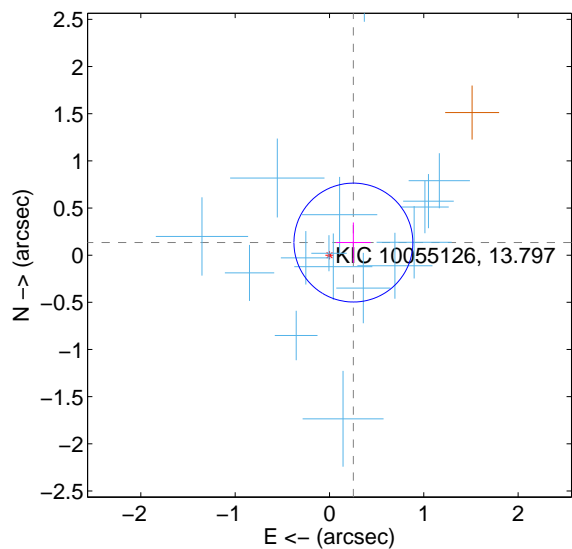
Supplemental centroid analysis for 010055126-01. Kepler magnitude: 13.80. Transit SNR 31.15

There are 16 quarters with good PRF difference image offsets

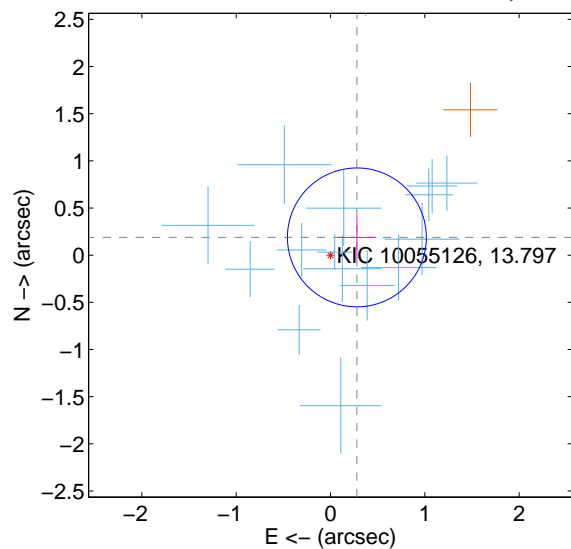
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.287 ± 0.210	1.36	-0.254 ± 0.183	0.134 ± 0.213
PRF-fit source offset from KIC position	0.337 ± 0.245	1.37	-0.280 ± 0.206	0.189 ± 0.223
photometric centroid source offset	0.75 ± 0.46	1.62	0.32 ± 0.51	0.68 ± 0.45

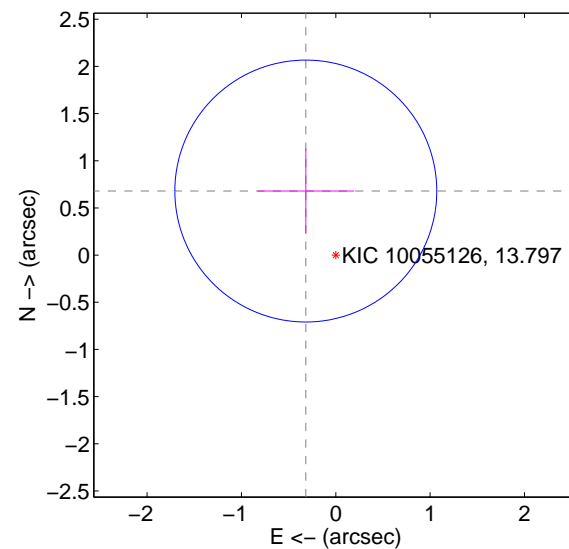
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

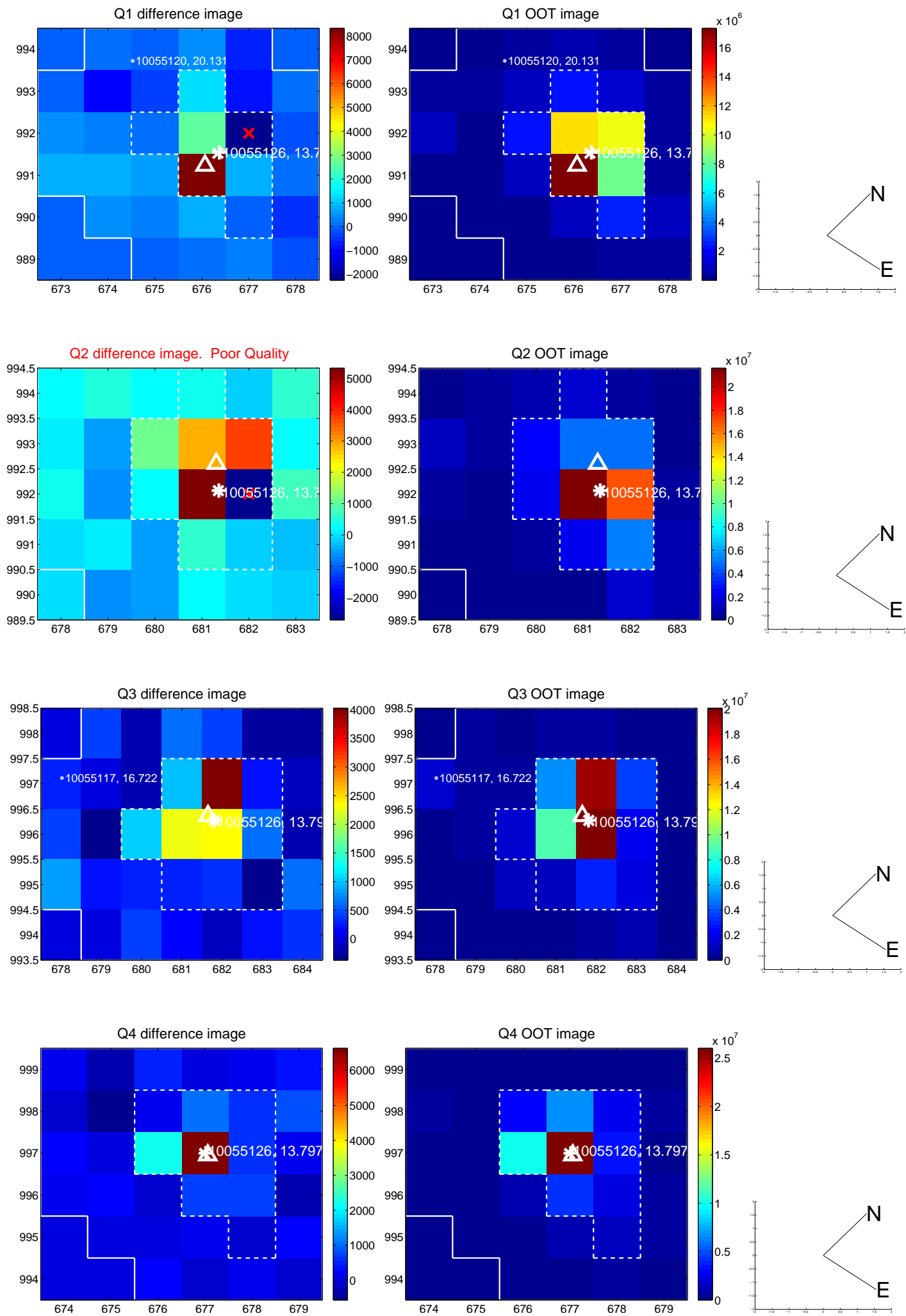


offset from photometric centroids

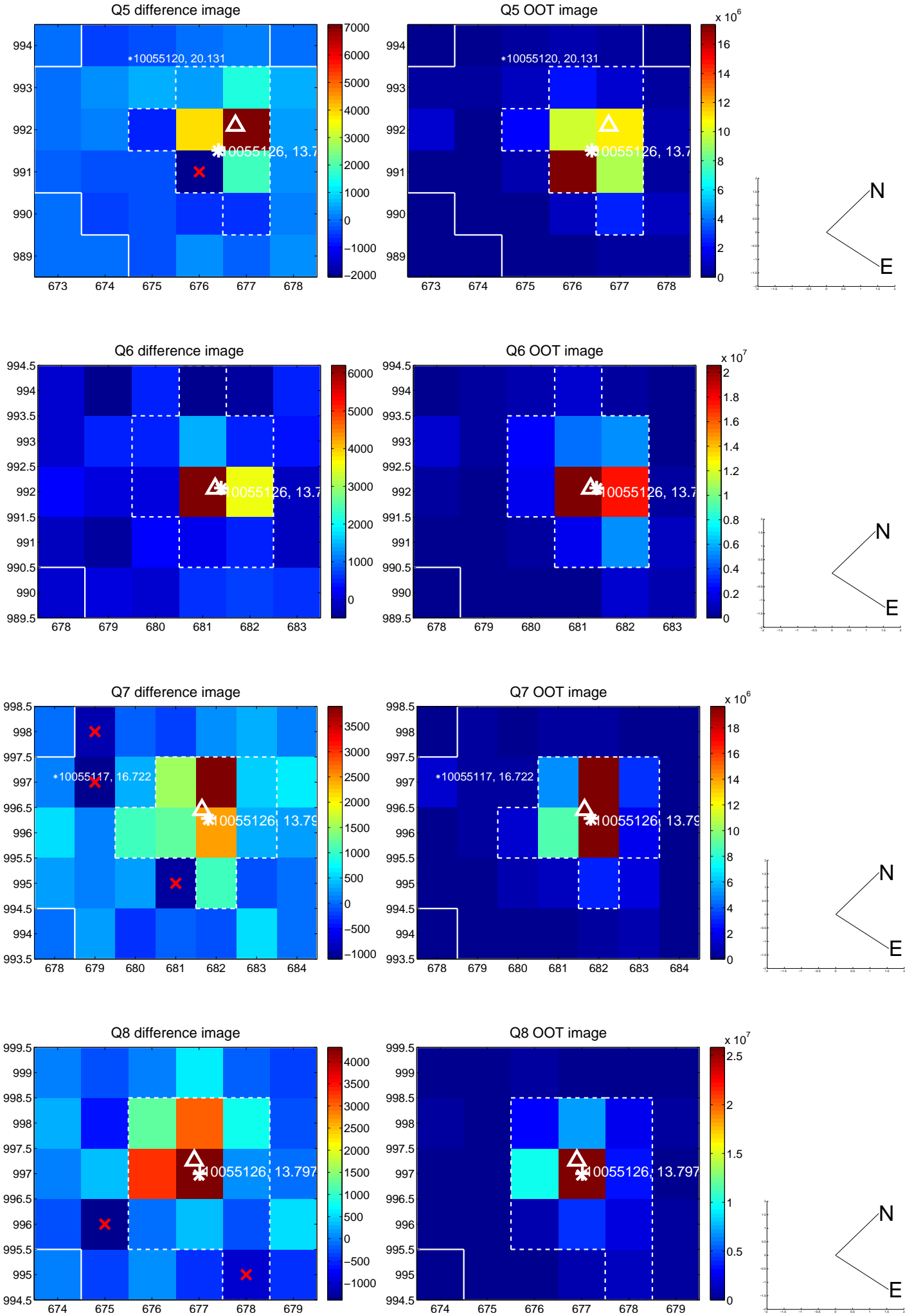


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

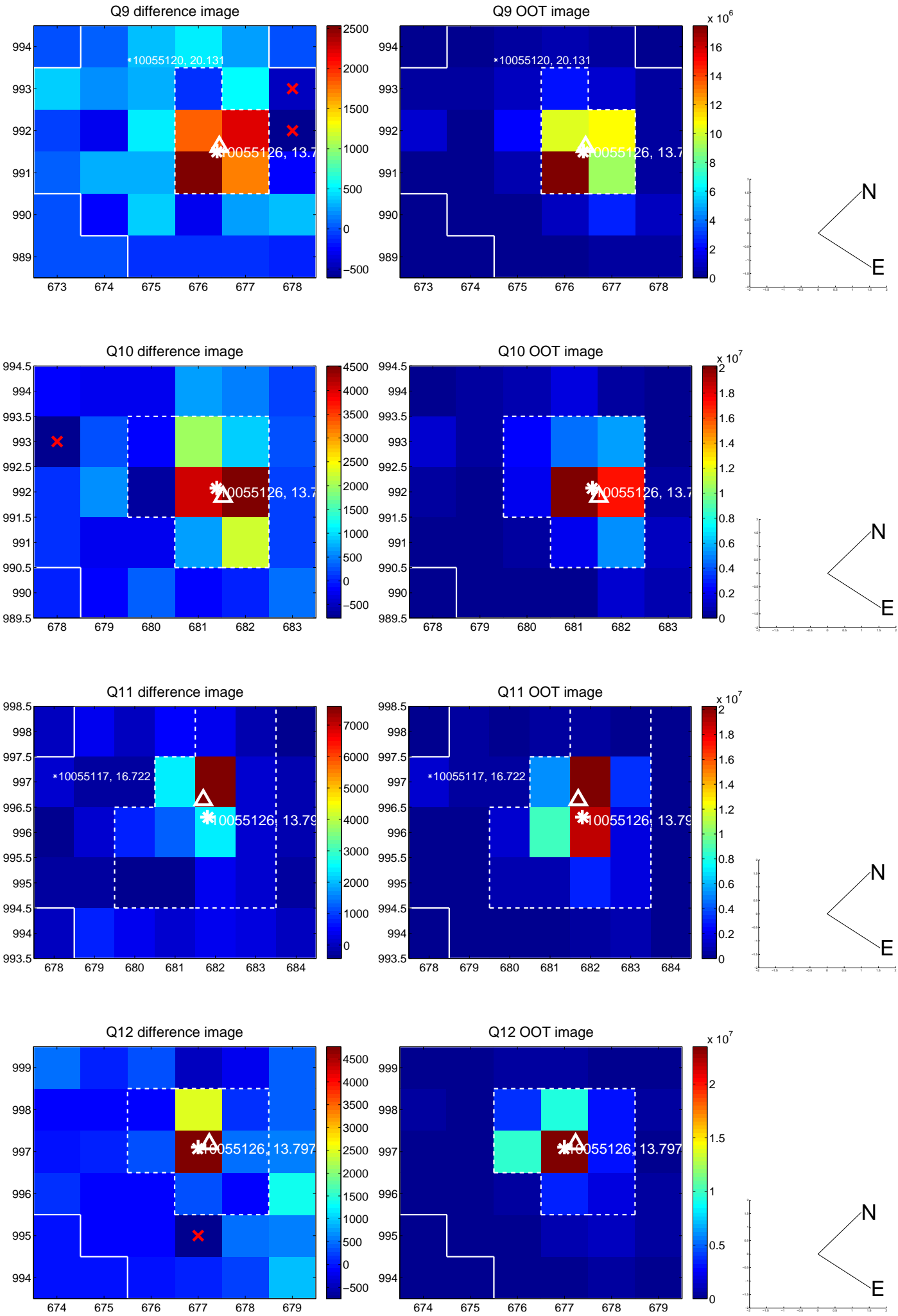
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



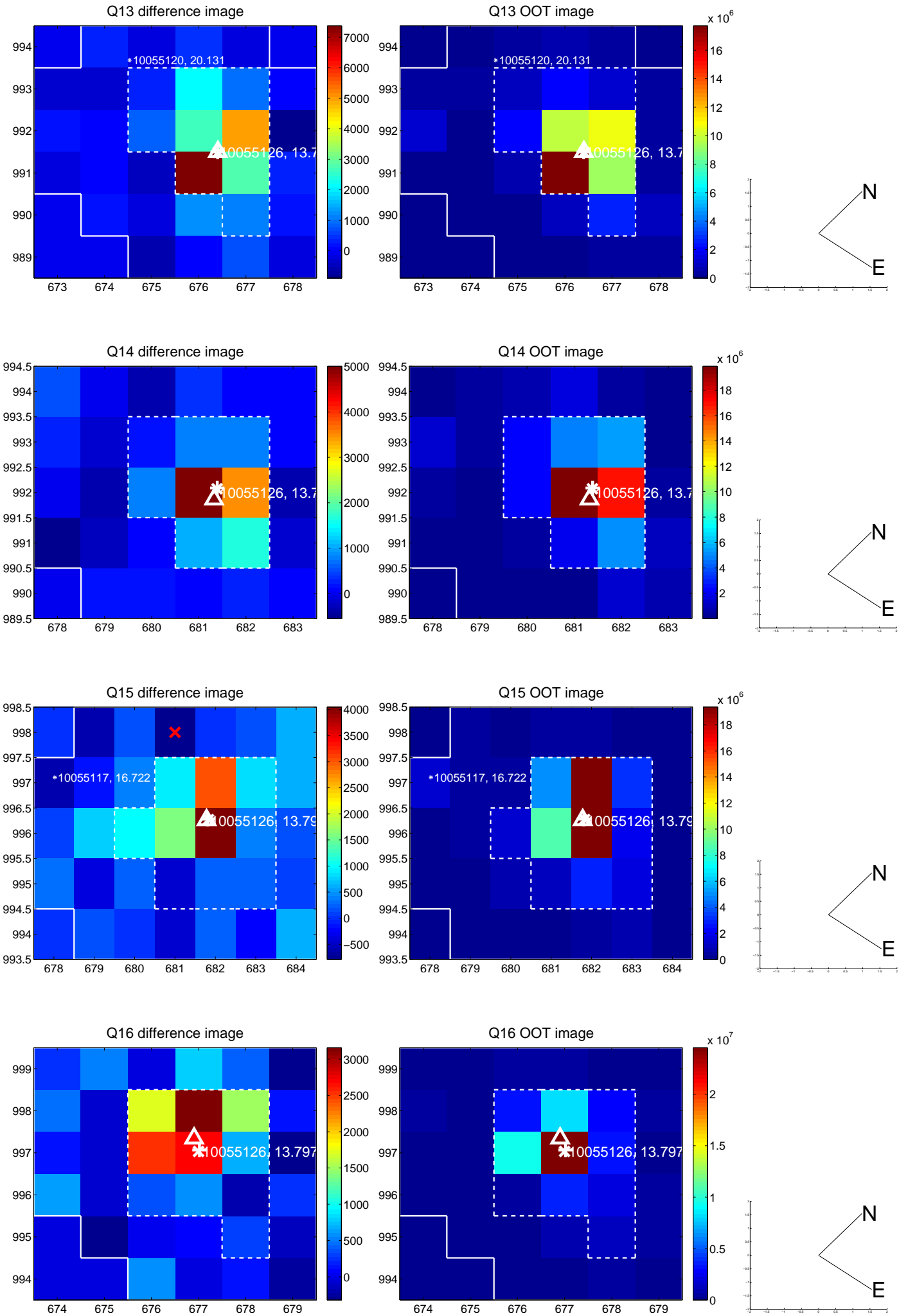
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



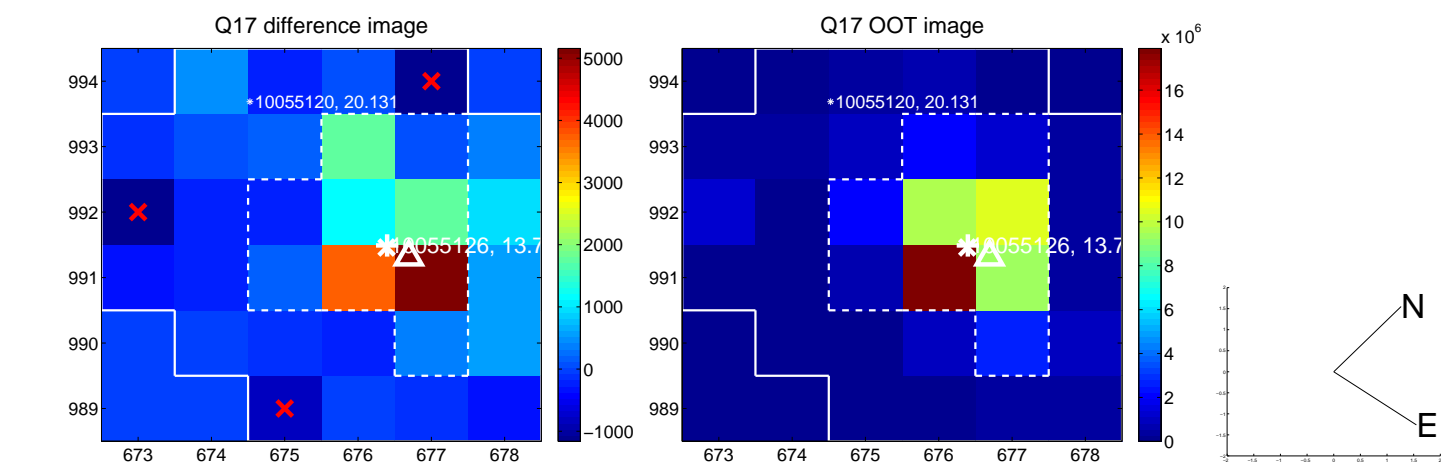
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



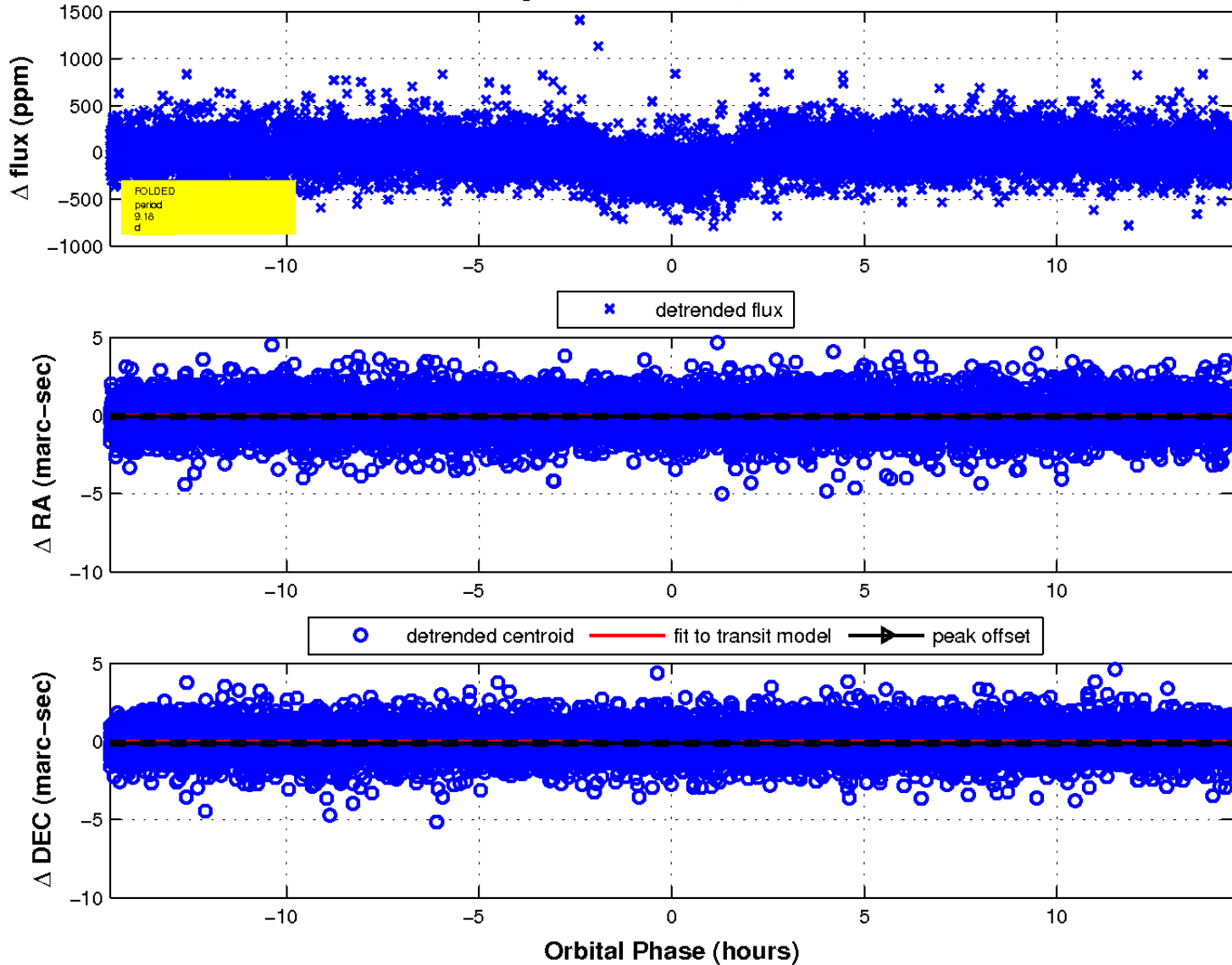
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

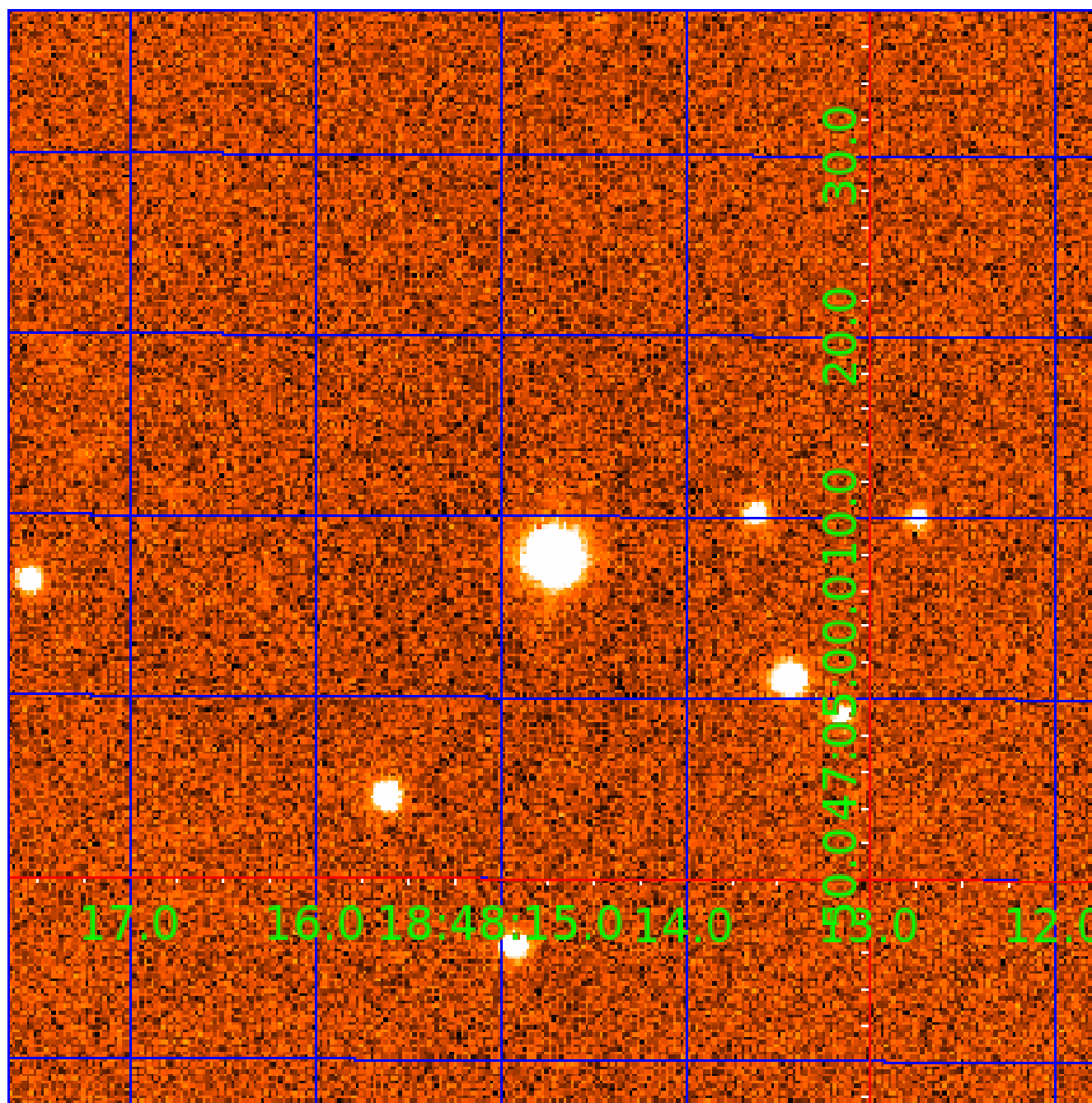


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 010055126

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})
010055126-01	OBS	1608.01	9.176140	138.716750	199.2	4.861	29.1	31.1	1.16	5903	2.04	201.19
010055126-02	OBS	1608.02	19.738350	133.287022	148.9	4.896	15.6	16.1	1.16	5903	1.61	72.46
010055126-03	OBS	1608.03	232.047399	262.217414	285.0	11.938	12.5	12.5	1.16	5903	2.07	2.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010055126-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010055126-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010055126-03	OBS	PC	0.96	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.

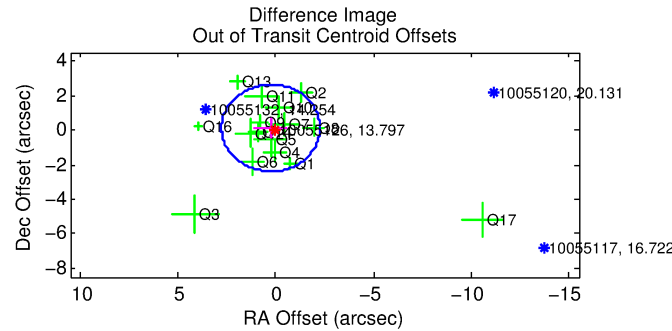
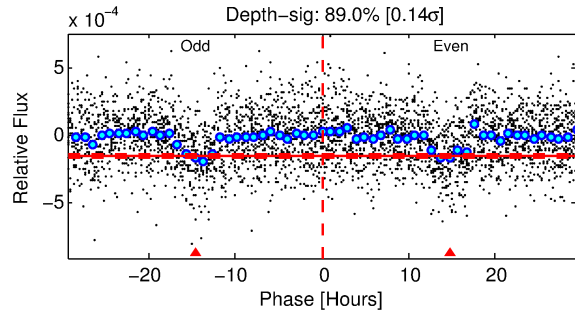
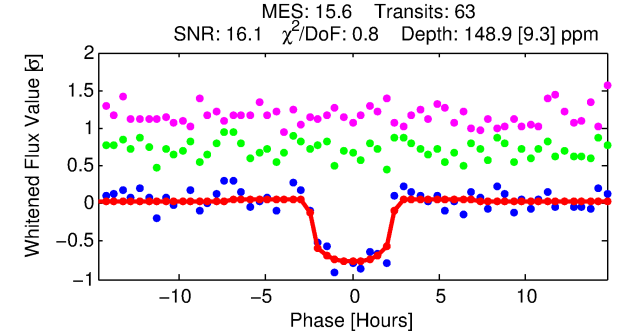
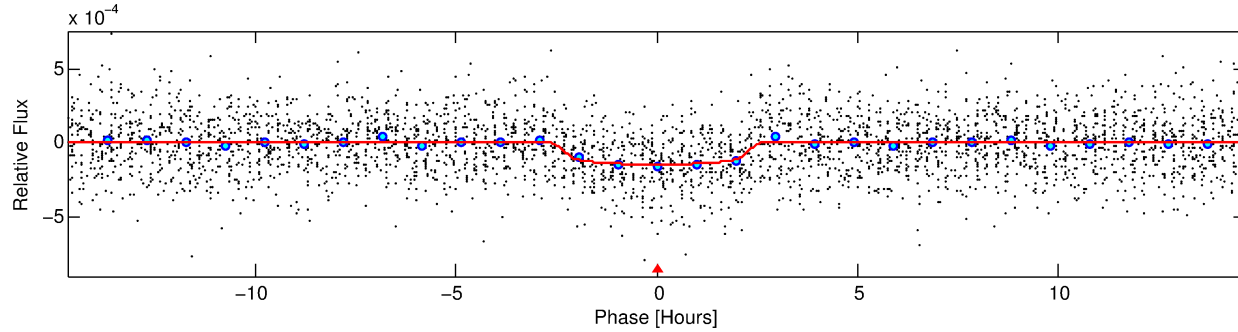
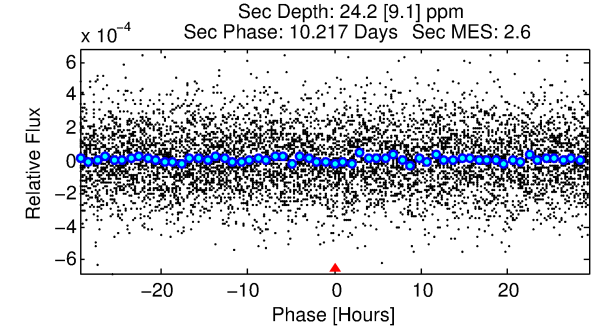
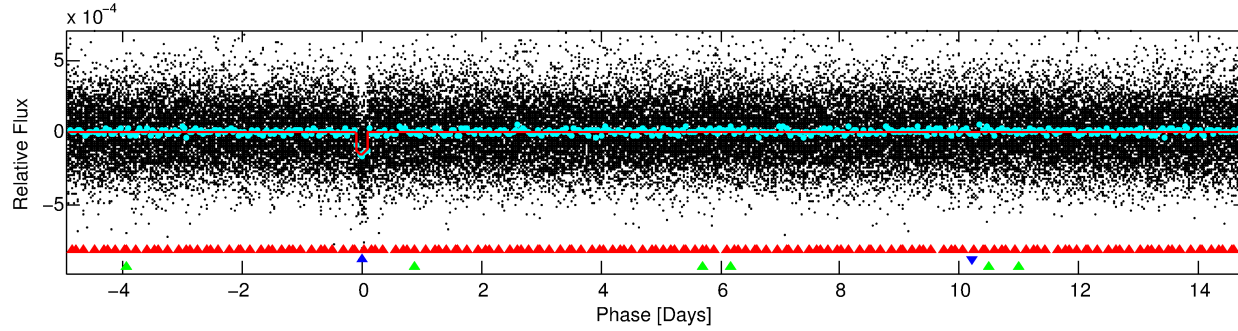
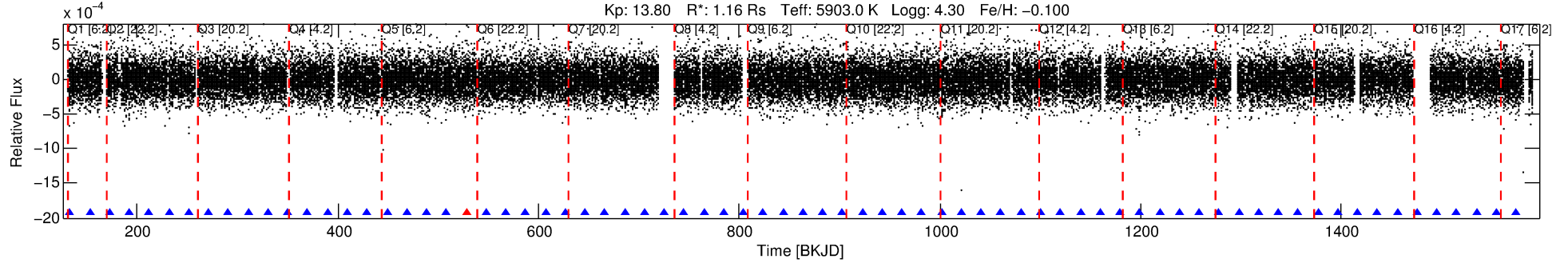
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010055126-02

No Significant Match Found

DV One-Page Summary

KIC: 10055126 Candidate: 2 of 3 Period: 19.738 d
KOI: K01608.02 Name: Kepler-311c Corr: 0.993



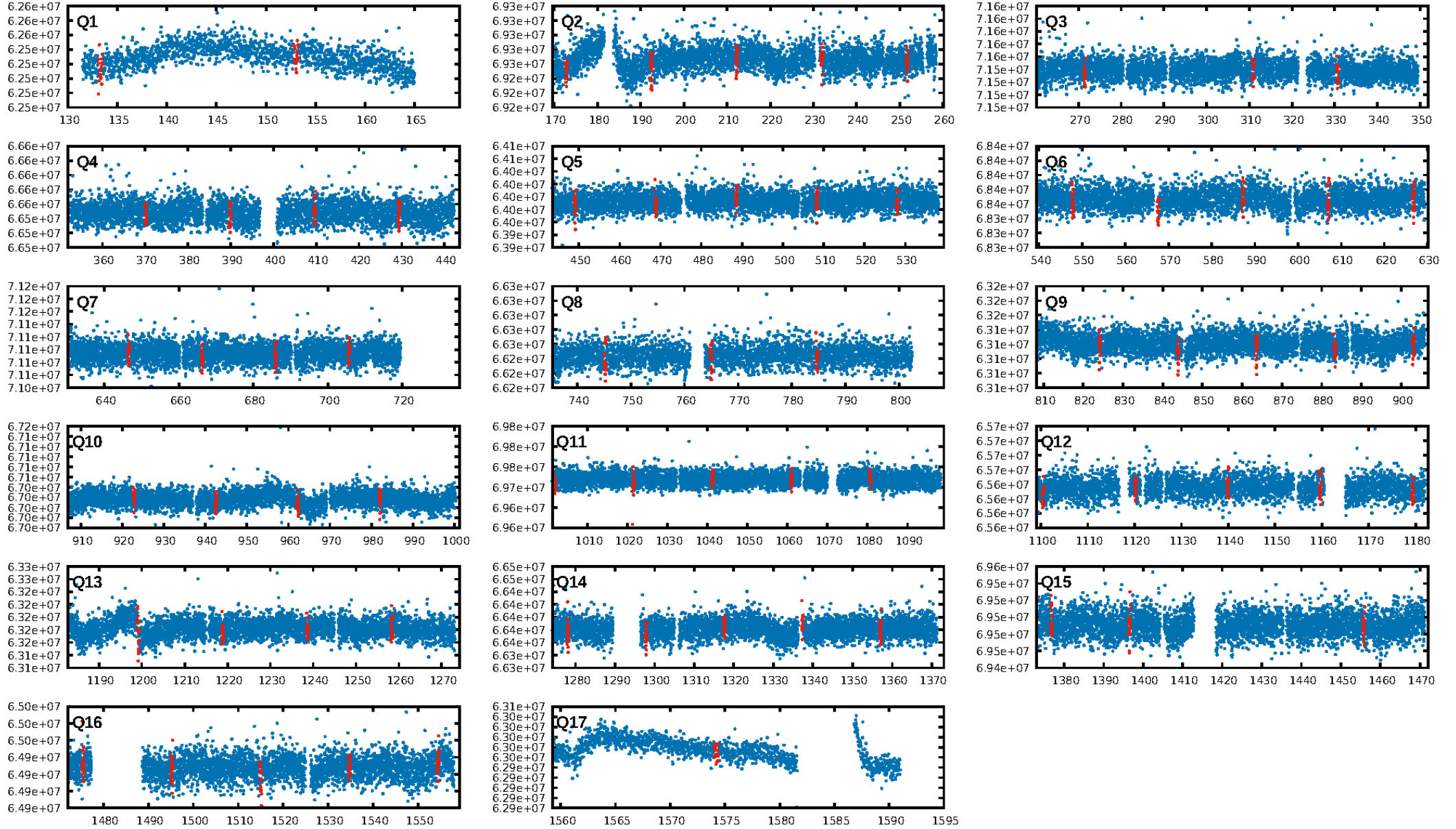
DV Fit Results:

Period = 19.73835 [0.00015] d
Epoch = 133.2870 [0.0064] BKJD
Rp/R* = 0.0128 [0.0039]
a/R* = 16.60 [24.44]
b = 0.86 [0.46]
Seff = 72.46 [19.26]
Teq = 744 [49] K
Rp = 1.61 [0.55] Re
a = 0.1416 [0.0222] AU
Ag = 102.39 [77.42] [1.31σ]
Teffp = 3659 [656] K [4.43σ]

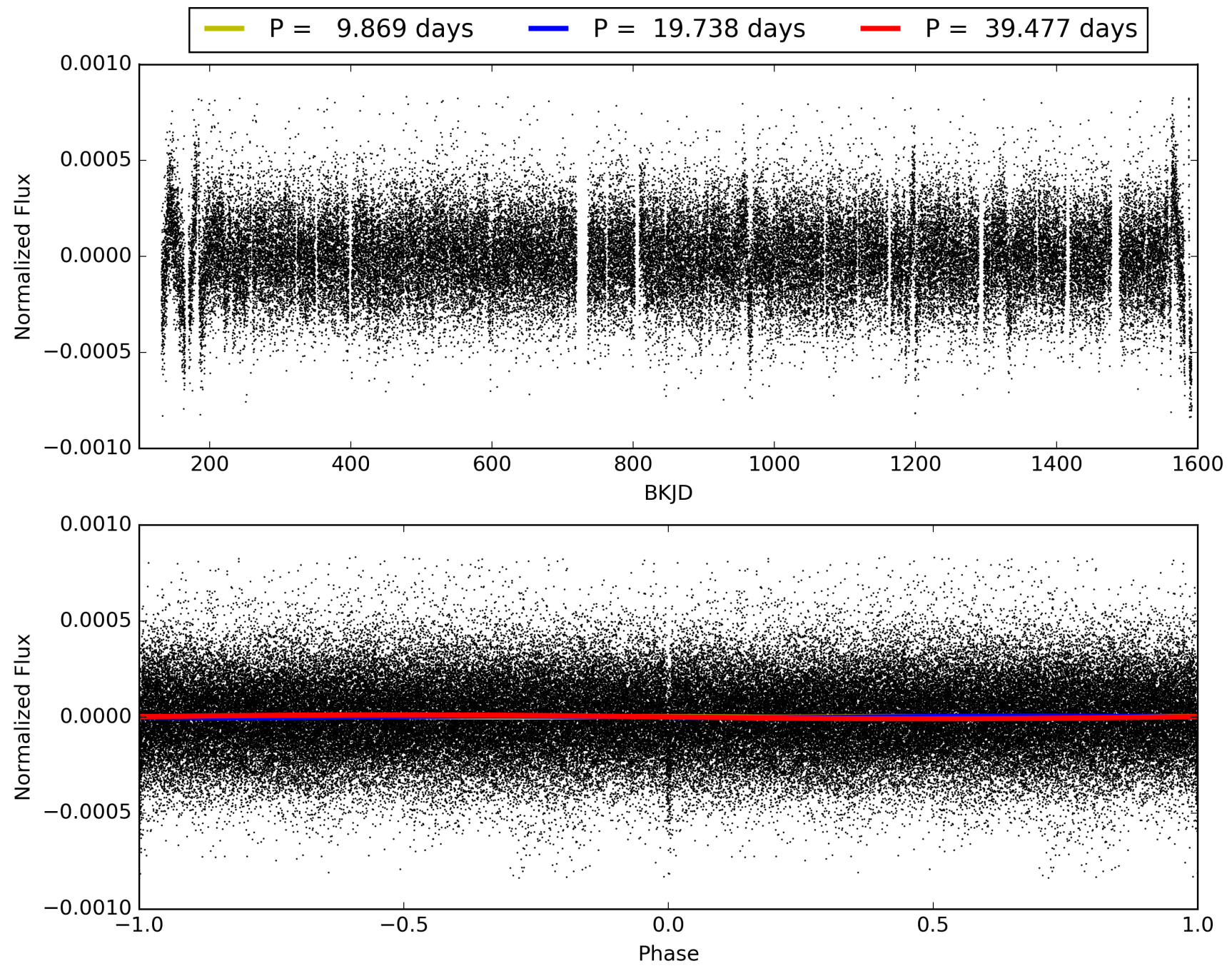
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [36.74σ]
LongPeriod-sig: 100.0% [394.89σ]
ModelChiSquare2-sig: 57.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.48e-52
RollingBand-fgt: 0.98 [59/60]
GhostDiagnostic-chr: -12.05
Centroid-sig: 0.1%
Centroid-so: 1.923 arcsec [2.19σ]
OotOffset-rm: 0.284 arcsec [0.34σ]
KicOffset-rm: 0.338 arcsec [0.47σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.88 [14/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 010055126-02, PDC Light Curves

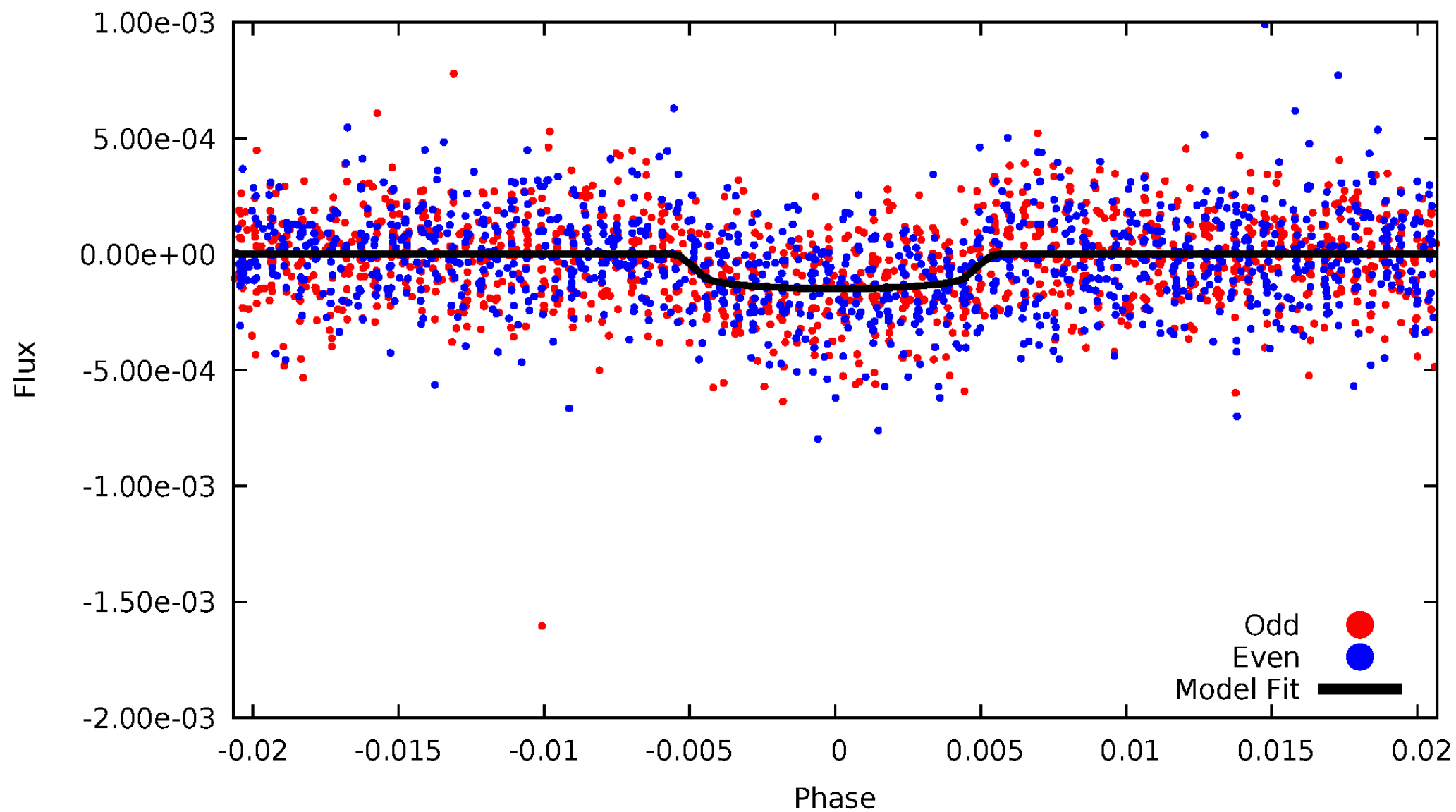


TCE 010055126-02



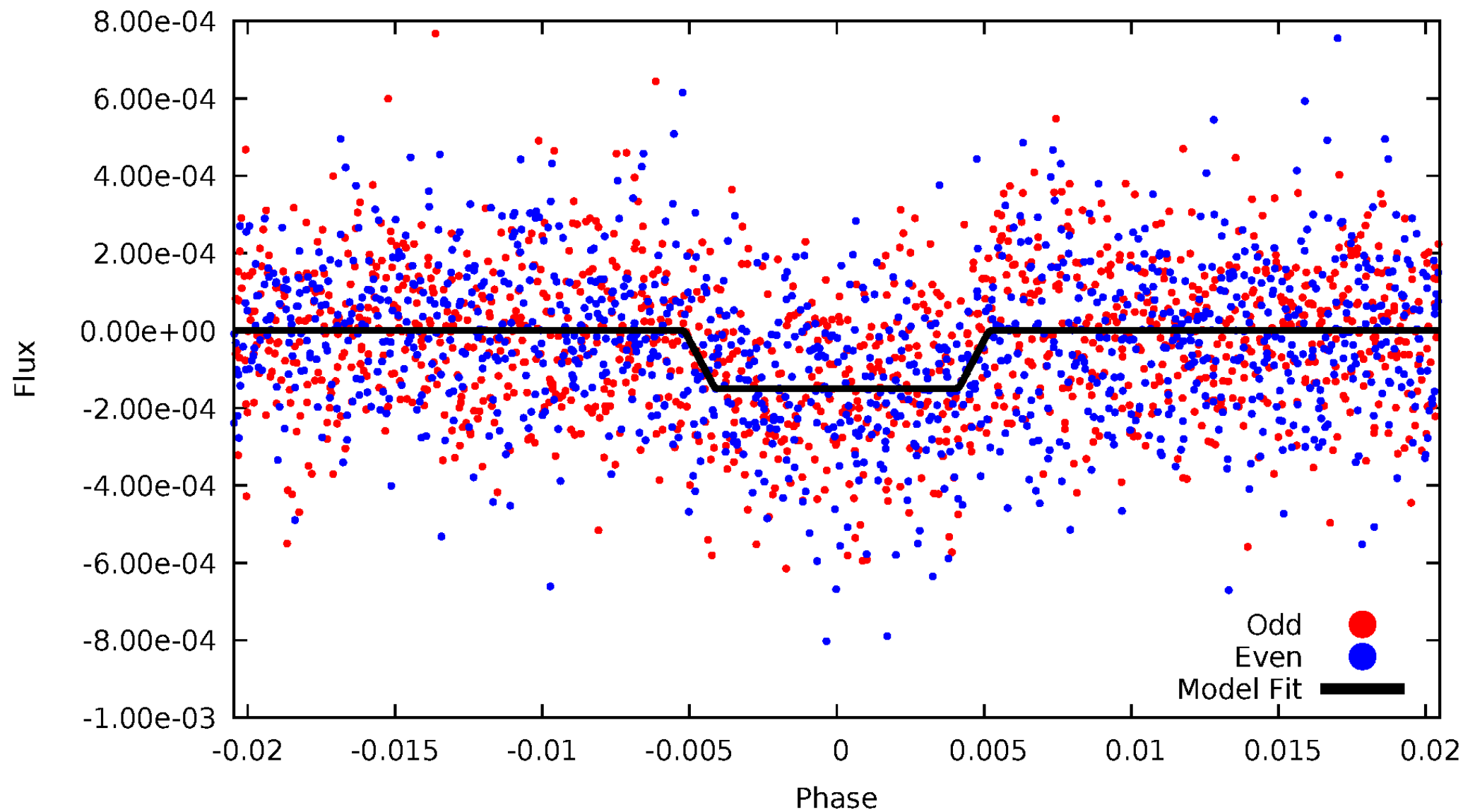
DV Odd/Even

TCE 010055126-02



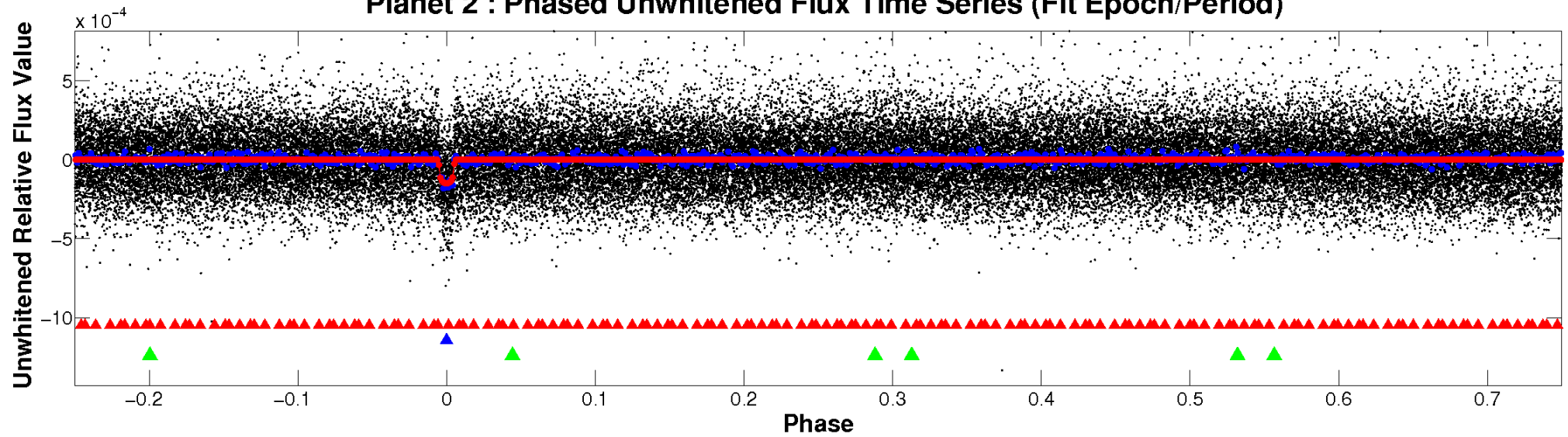
ALT Odd/Even

TCE 010055126-02

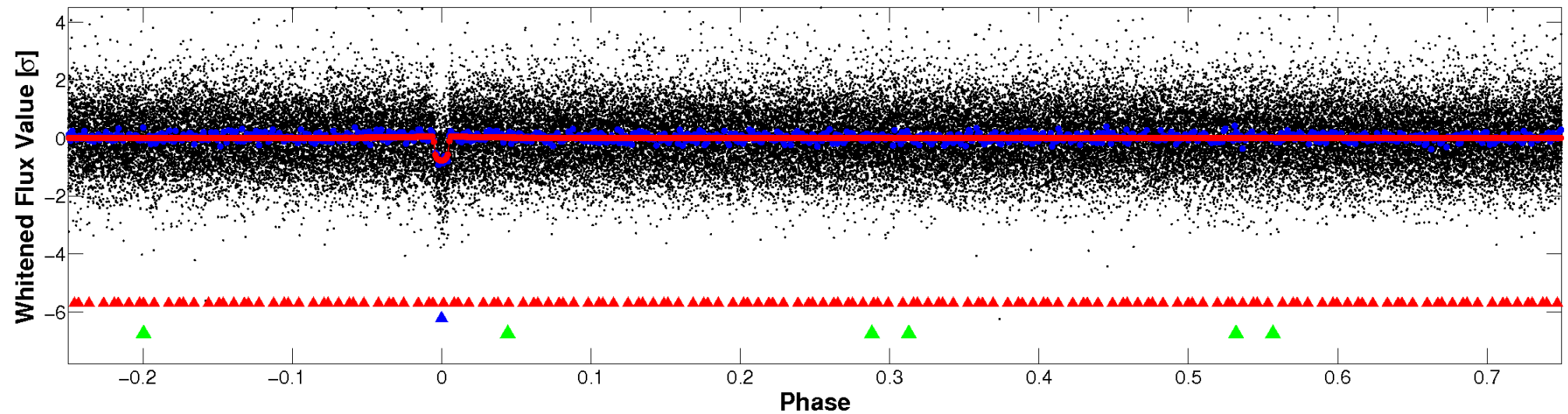


Non-Whitened Vs. Whitened Light Curve

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

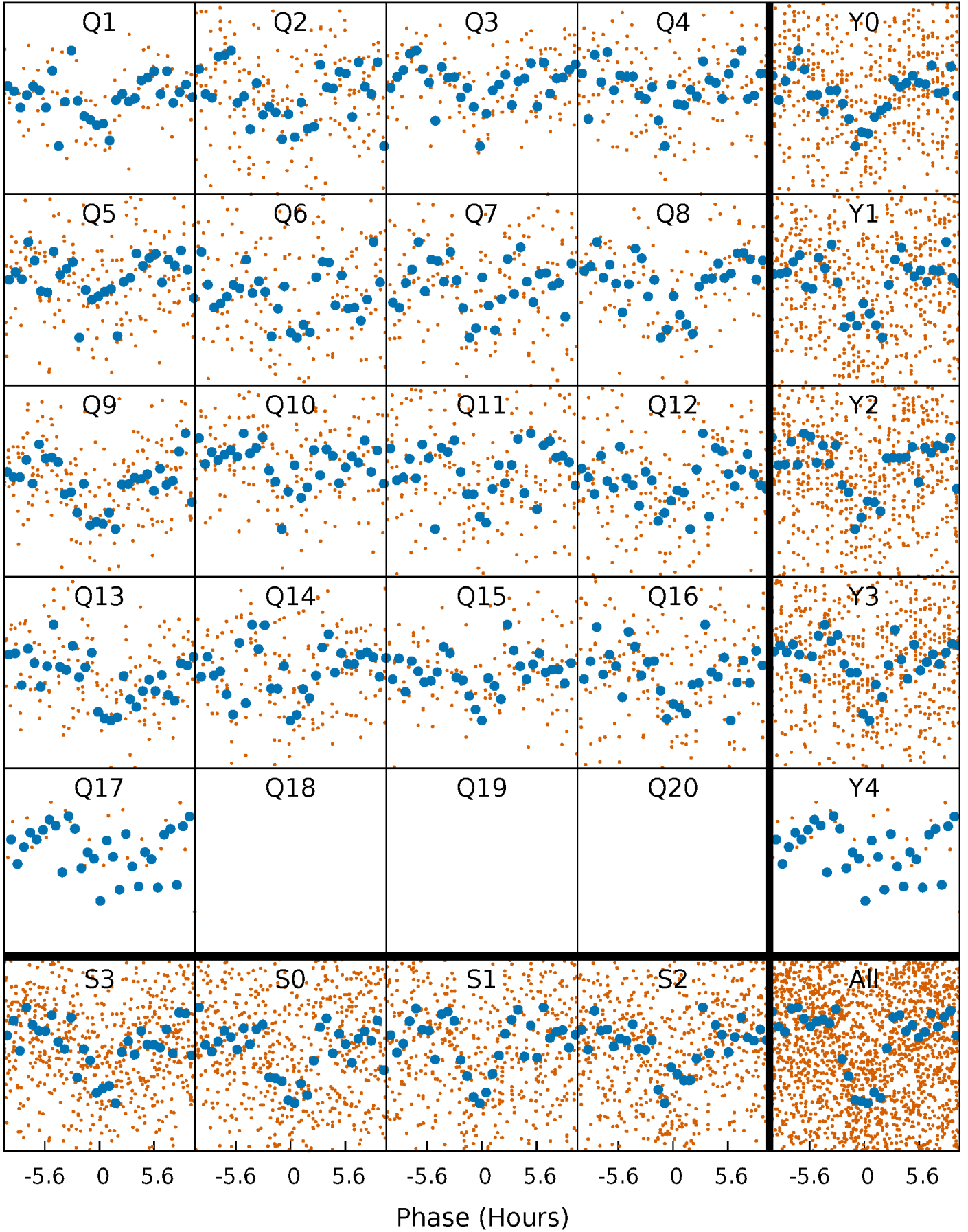


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



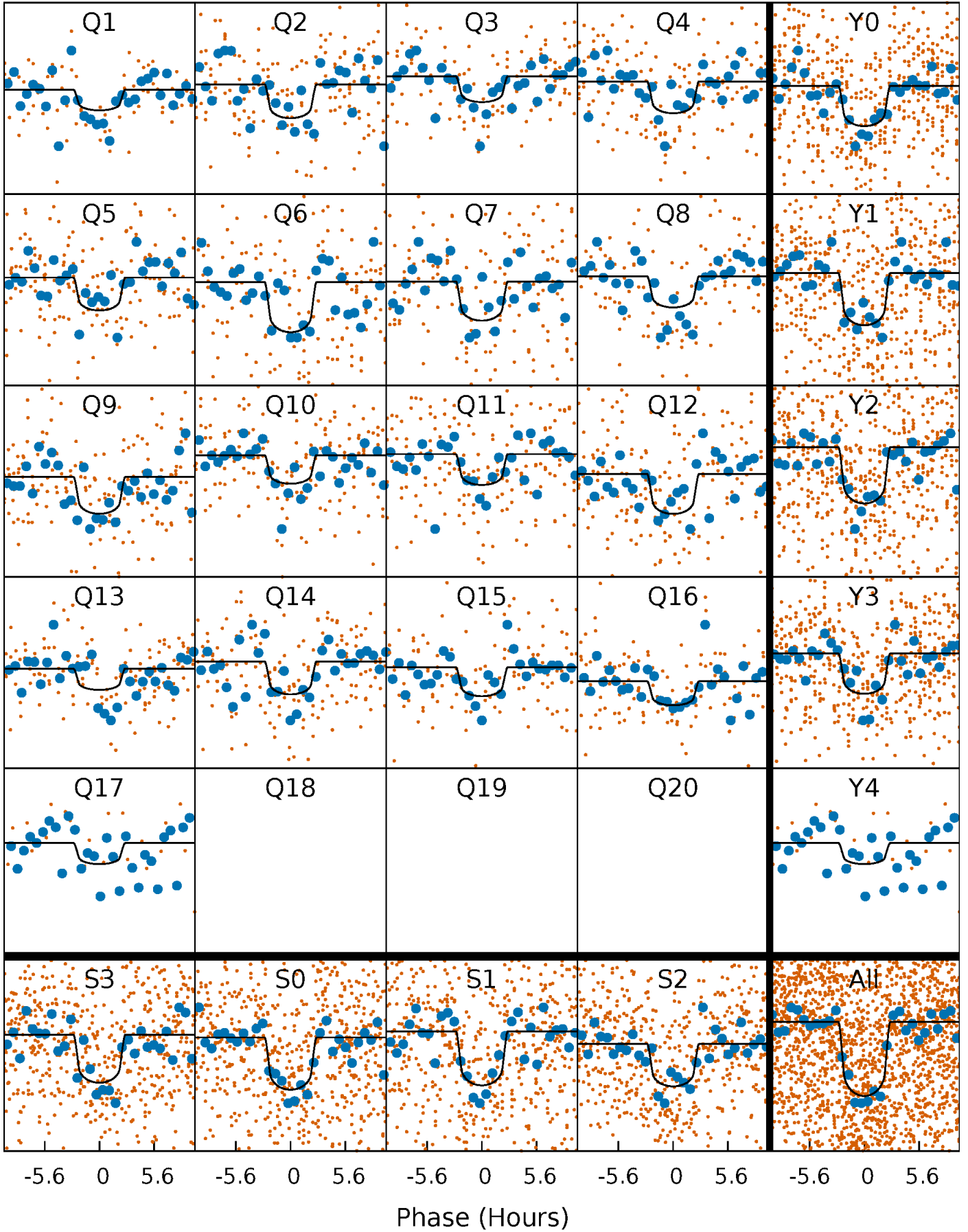
PDC Quarter-Phased Transit Curves

TCE 010055126-02 P= 19.738350 Days $T_0=133.287022$ (BKJD)



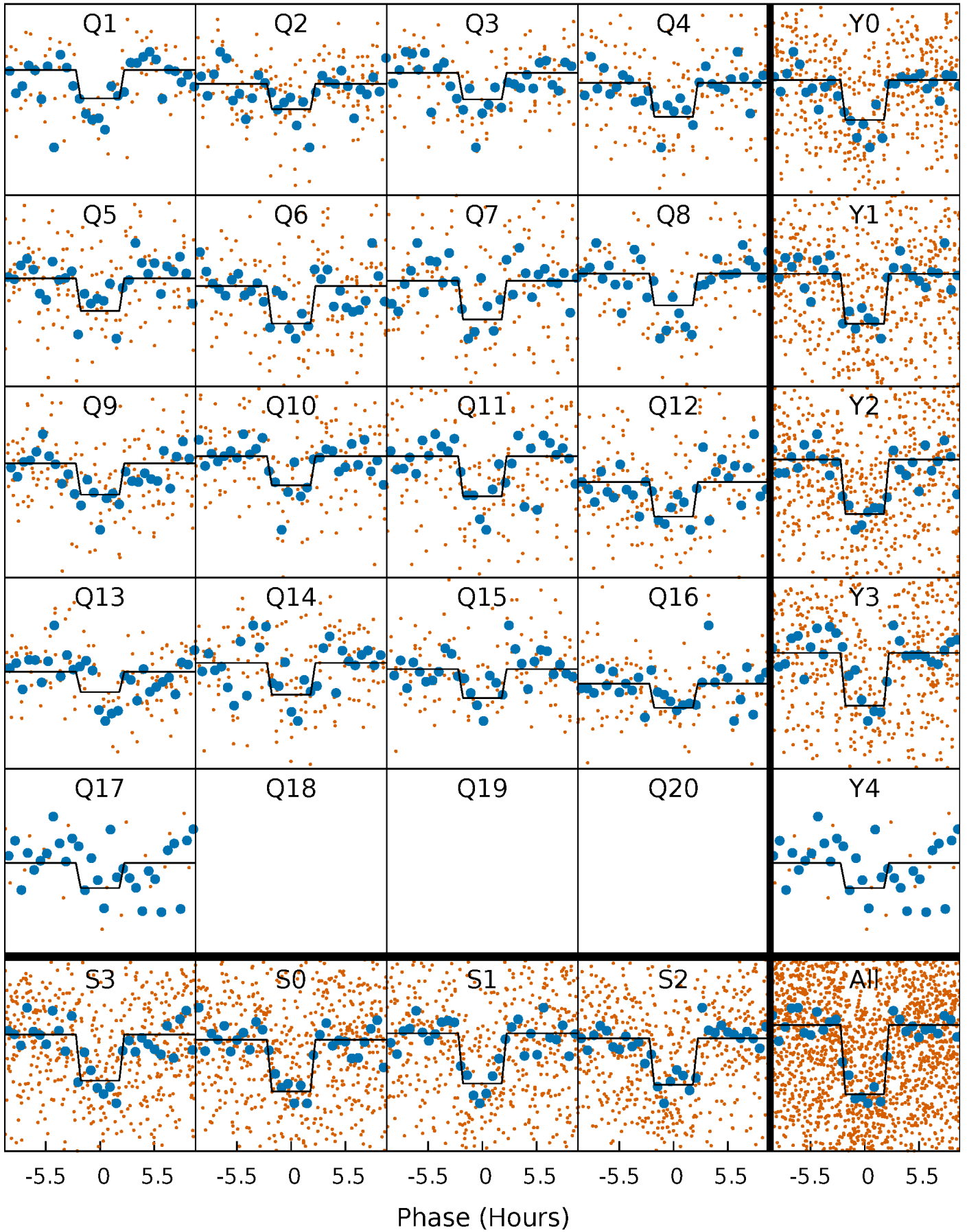
DV Quarter-Phased Transit Curves

TCE 010055126-02 P= 19.738350 Days $T_0=133.287022$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

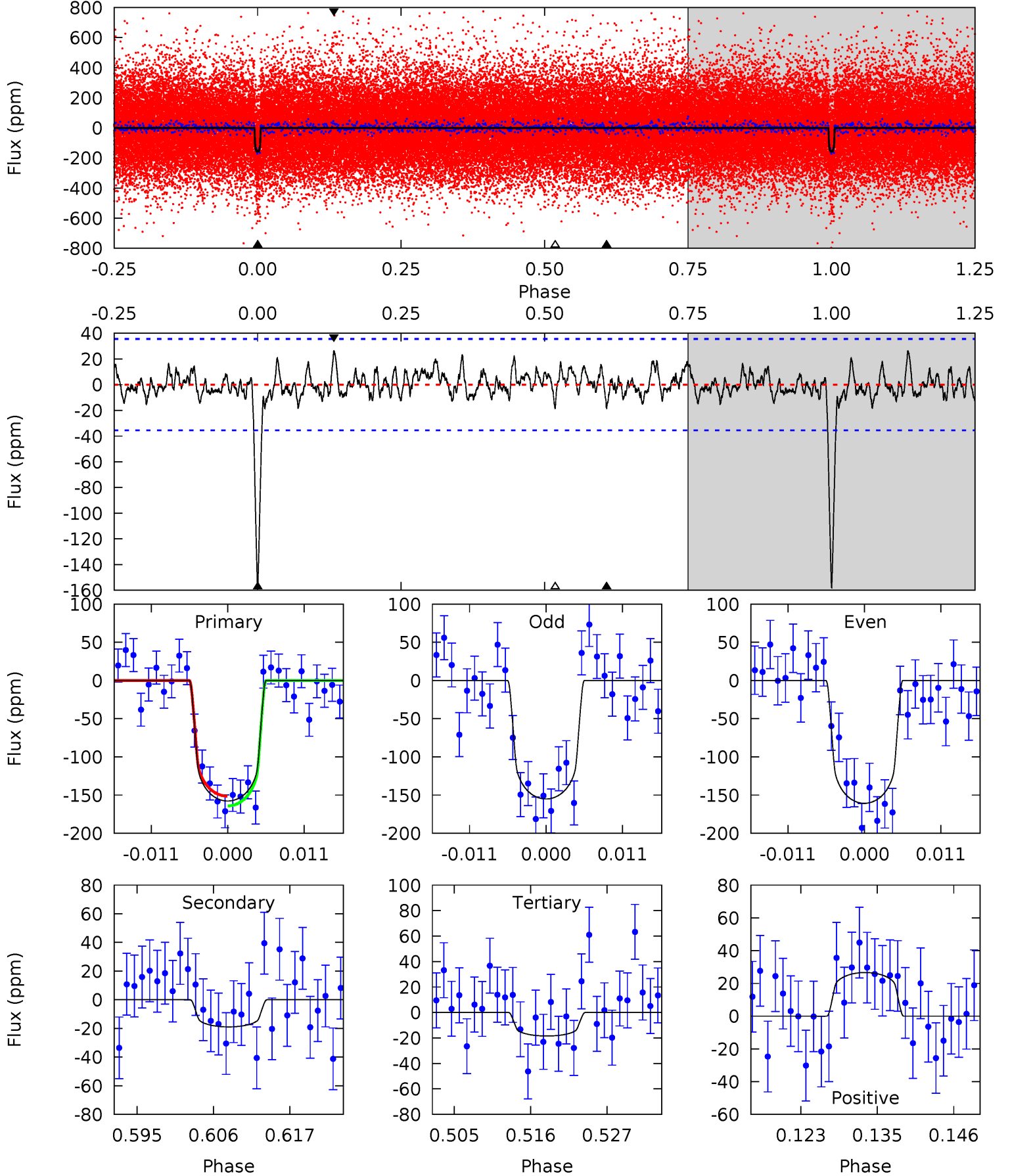
TCE 010055126-02 P= 19.738048 Days $T_0=133.298537$ (BKJD)



DV Model-Shift Uniqueness Test

010055126-02, $P = 19.738350$ Days, $E = 113.548672$ Days

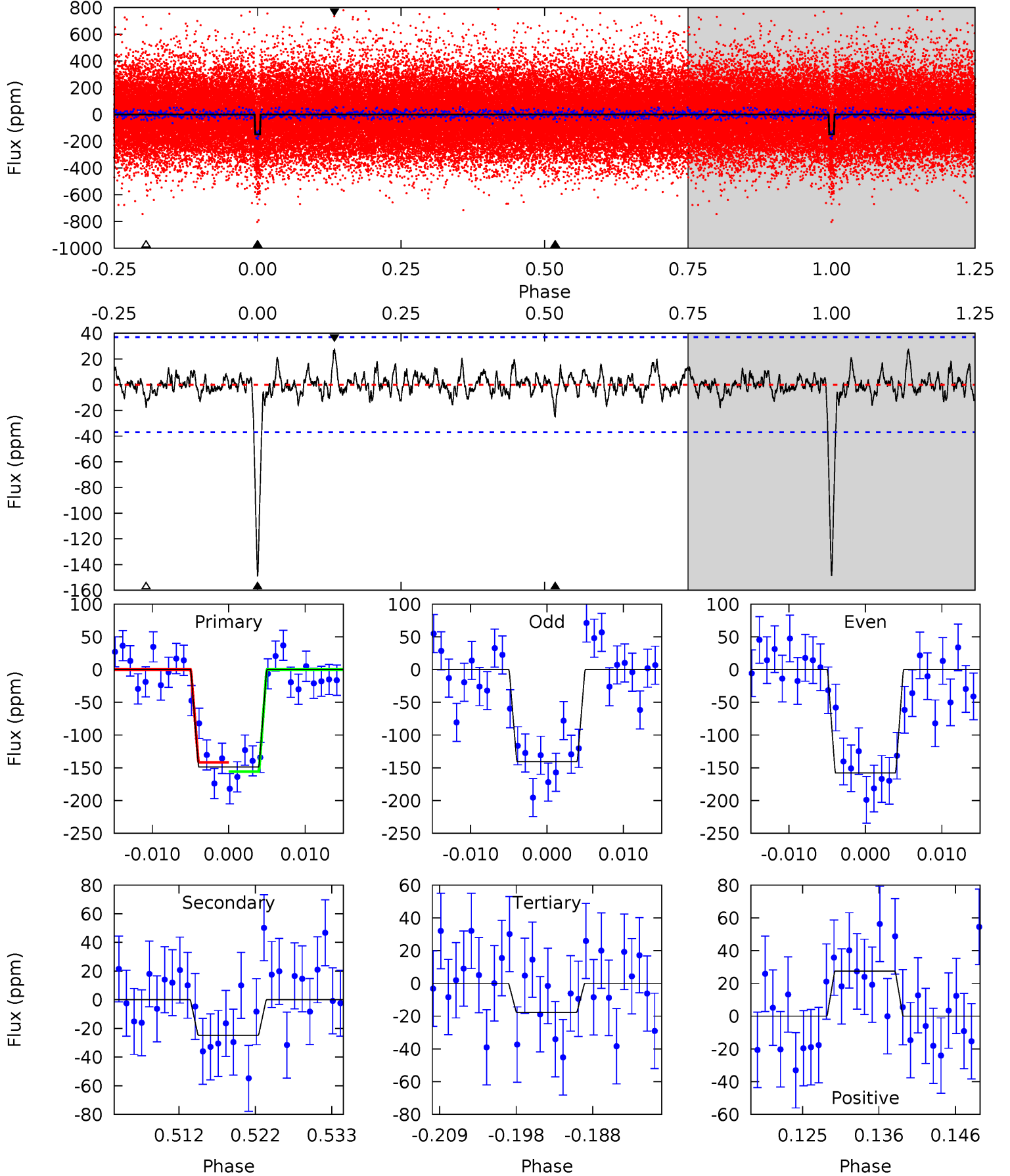
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.2	2.67	2.60	3.75	5.00	2.54	1.09	19.6	18.5	0.07	-1.08	0.40	1.04	0.14	0.90



Alt Model-Shift Uniqueness Test

010055126-02, $P = 19.738048$ Days, $E = 113.560489$ 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	3.36	2.40	3.74	5.02	2.56	0.91	17.8	16.5	0.96	-0.38	1.16	1.02	0.16	0.94



Stellar Parameters For KIC 010055126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5903^{+106}_{-117}	$4.300^{+0.150}_{-0.100}$	$-0.100^{+0.150}_{-0.150}$	$1.156^{+0.185}_{-0.166}$	$0.974^{+0.082}_{-0.062}$	$0.888^{+0.548}_{-0.288}$
	+2%/-2%	+3%/-2%	+150%/-150%	+16%/-14%	+8%/-6%	+62%/-32%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 010055126-02 / KOI 1608.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-19 ± 7	$1.58^{+0.52}_{-0.51}$	1033^{+46}_{-50}	3795^{+632}_{-399}	81^{+112}_{-42}
Alt.	-25 ± 7	$1.49^{+0.53}_{-0.51}$	1034^{+47}_{-52}	4079^{+675}_{-420}	122^{+149}_{-61}

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 $A_{obs} \gg 1.0$

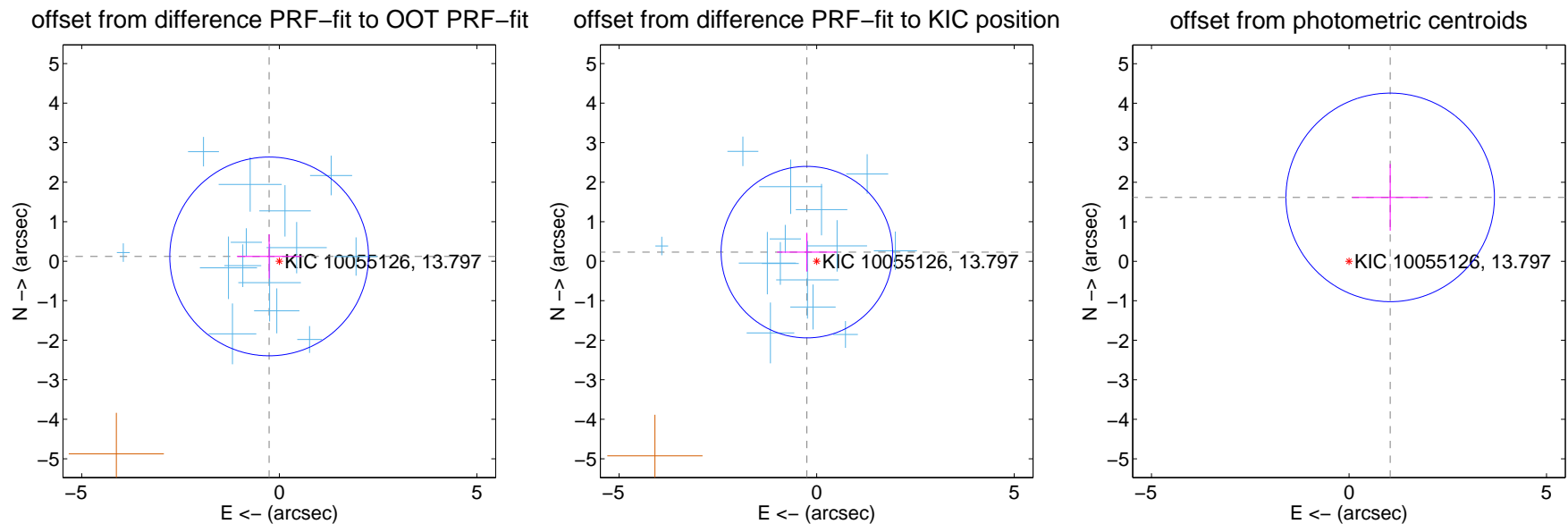
DV Centroid Data

Supplemental centroid analysis for 010055126-02. Kepler magnitude: 13.80. Transit SNR 16.07

There are 14 quarters with good PRF difference image offsets

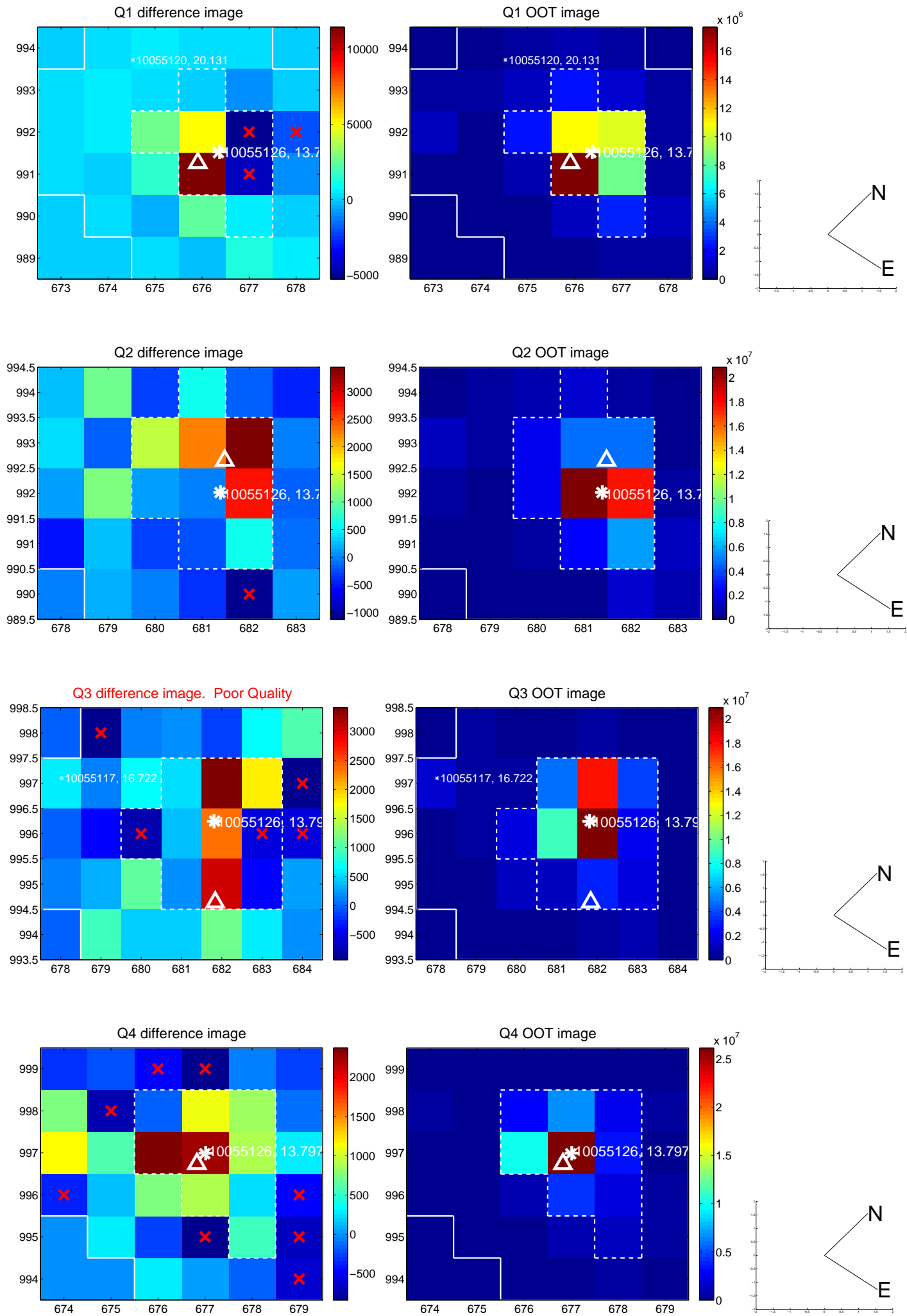
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.284 ± 0.838	0.34	0.257 ± 0.818	0.121 ± 0.559
PRF-fit source offset from KIC position	0.338 ± 0.723	0.47	0.248 ± 0.753	0.229 ± 0.491
photometric centroid source offset	1.92 ± 0.88	2.19	-1.04 ± 0.96	1.62 ± 0.84

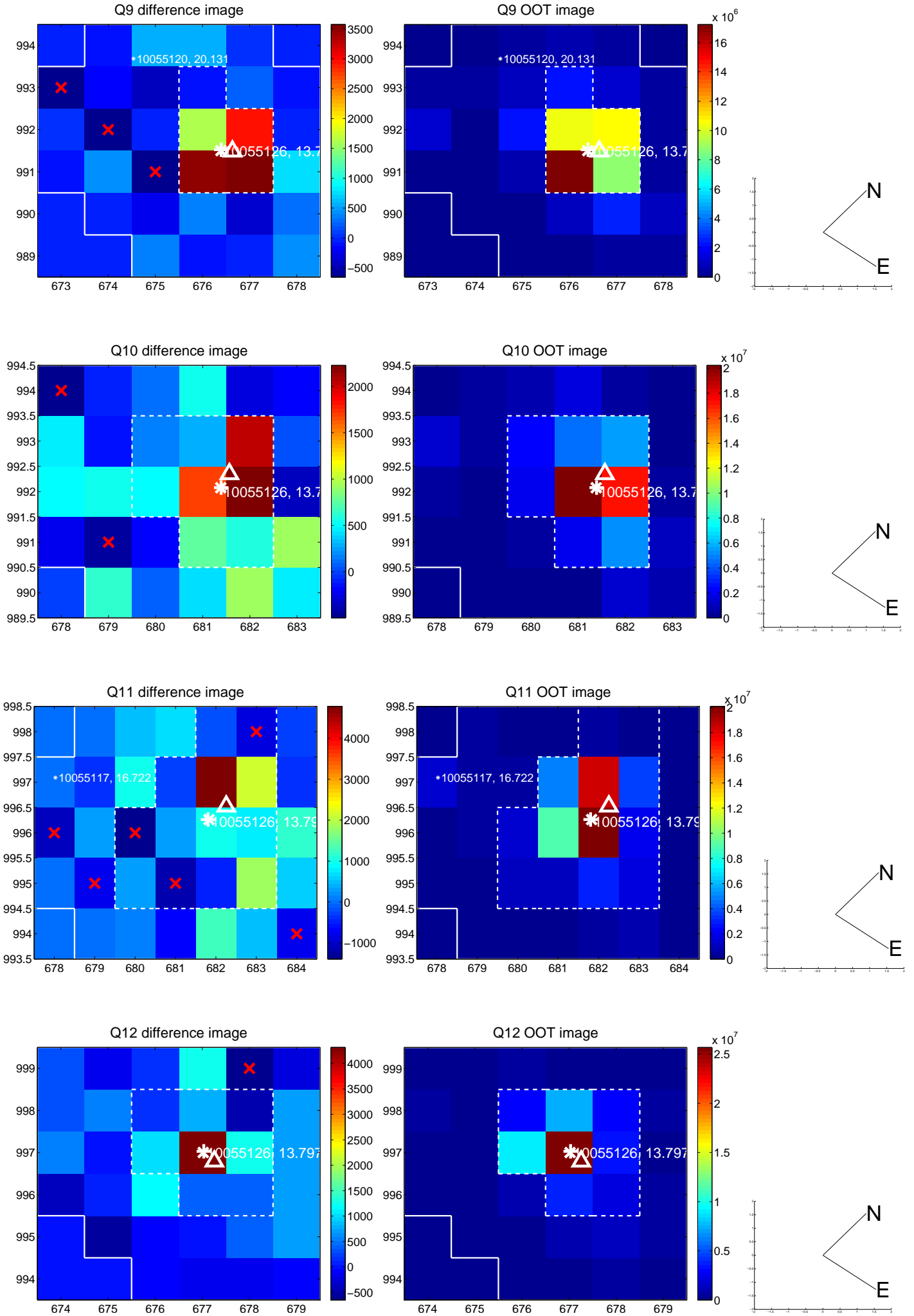


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

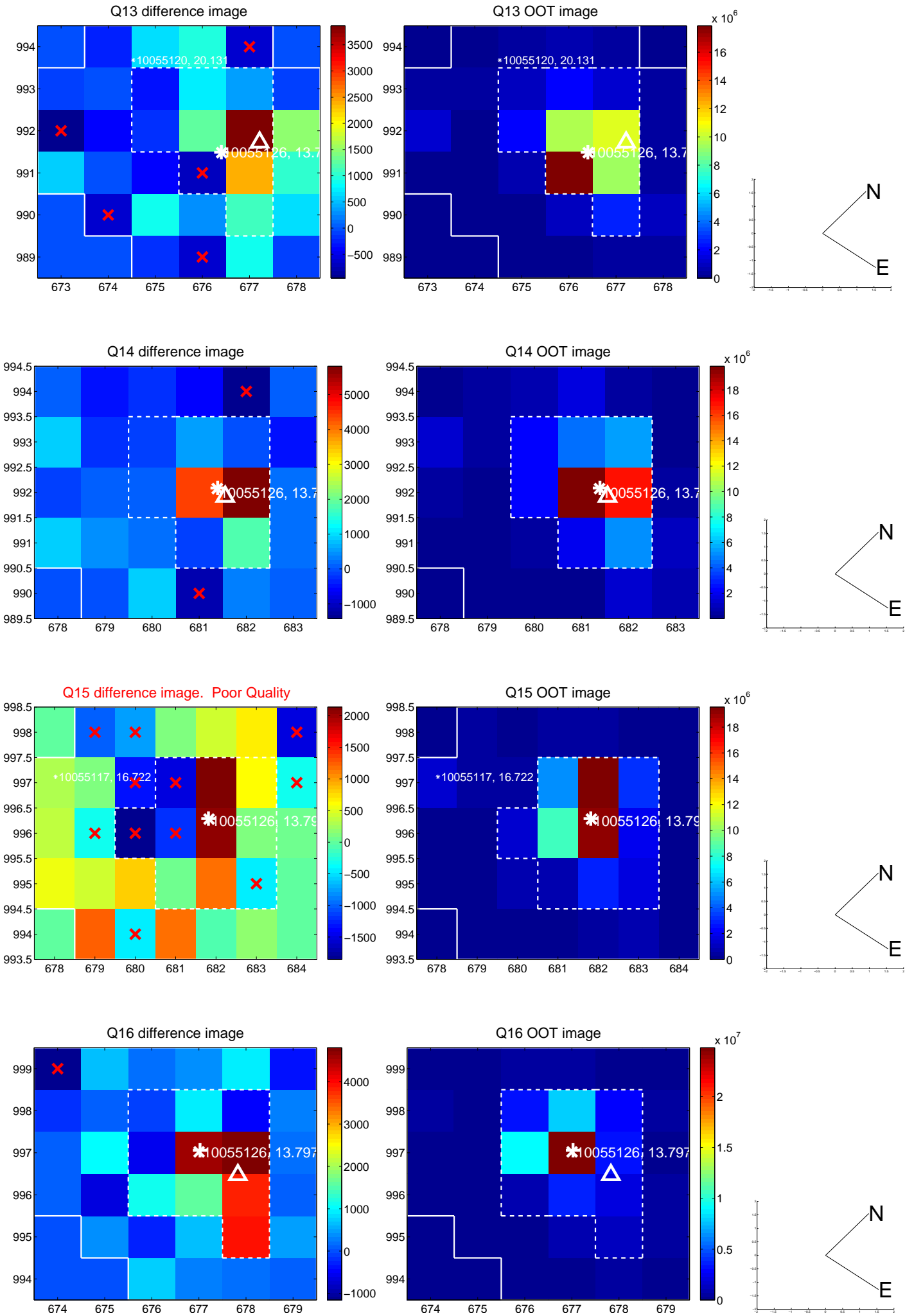
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



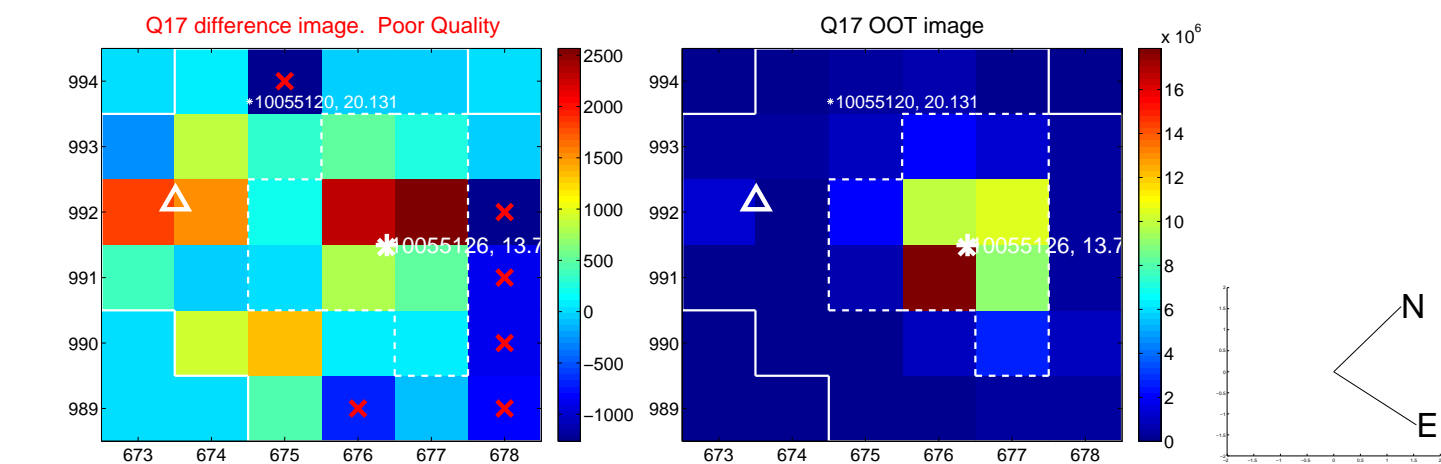
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



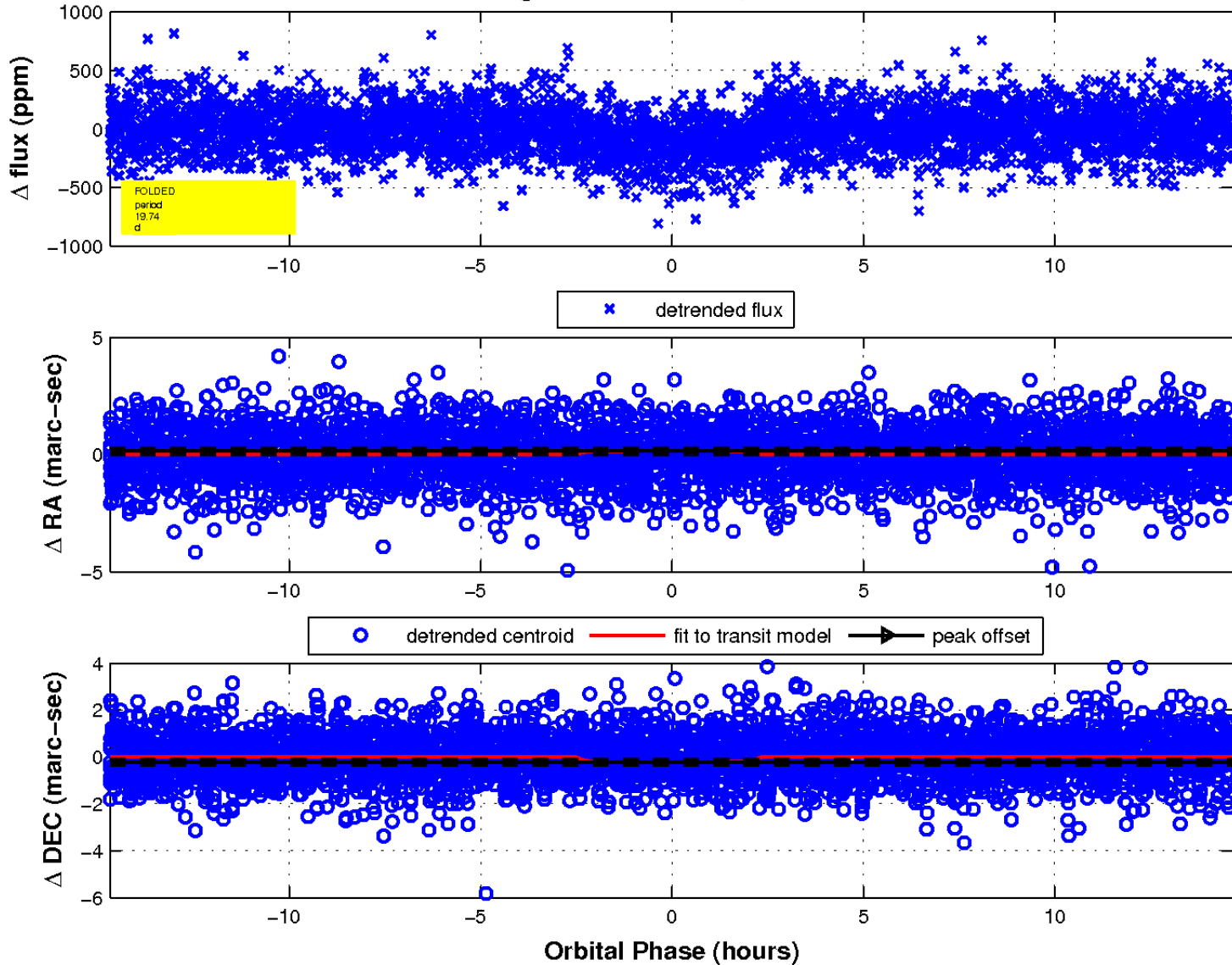
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

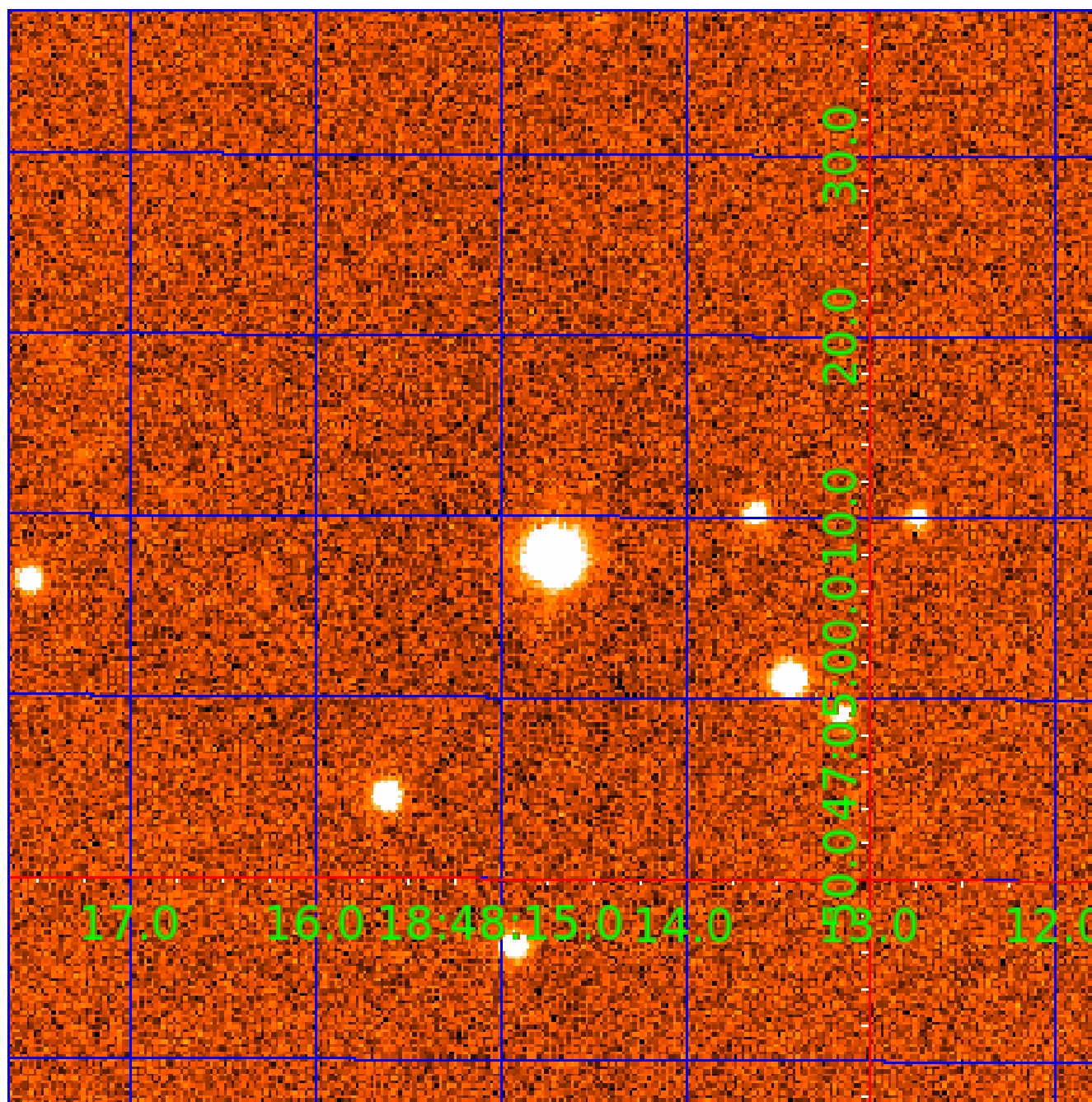


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 010055126

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})
010055126-01	OBS	1608.01	9.176140	138.716750	199.2	4.861	29.1	31.1	1.16	5903	2.04	201.19
010055126-02	OBS	1608.02	19.738350	133.287022	148.9	4.896	15.6	16.1	1.16	5903	1.61	72.46
010055126-03	OBS	1608.03	232.047399	262.217414	285.0	11.938	12.5	12.5	1.16	5903	2.07	2.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010055126-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010055126-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
010055126-03	OBS	PC	0.96	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.

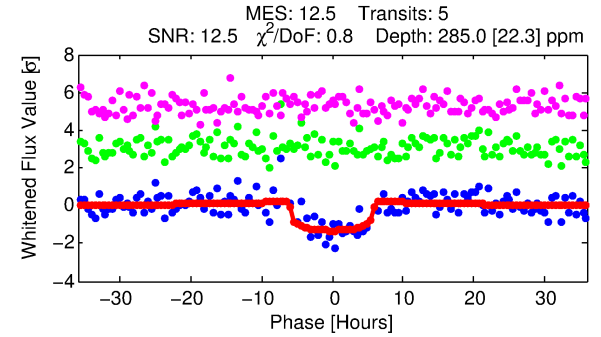
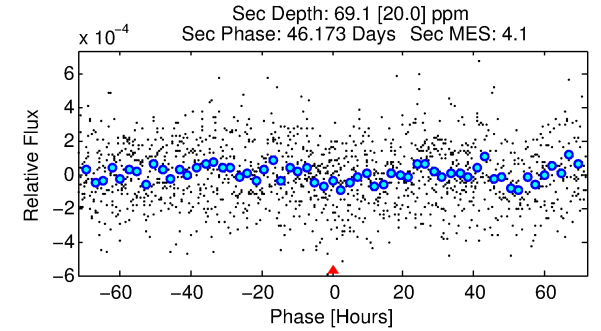
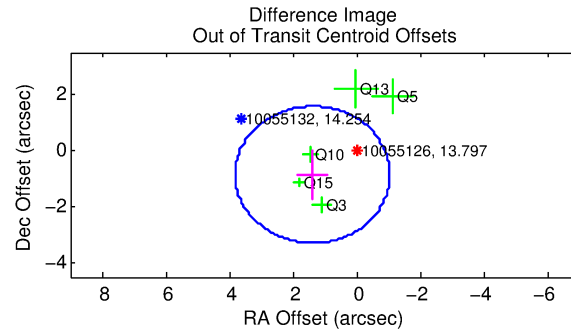
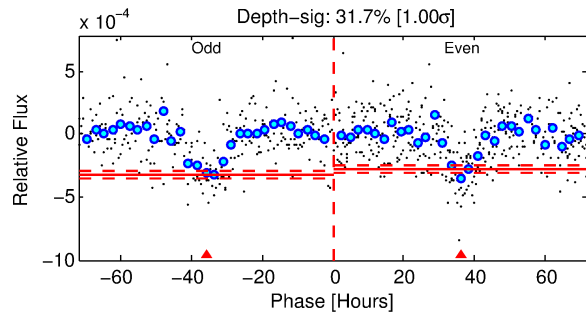
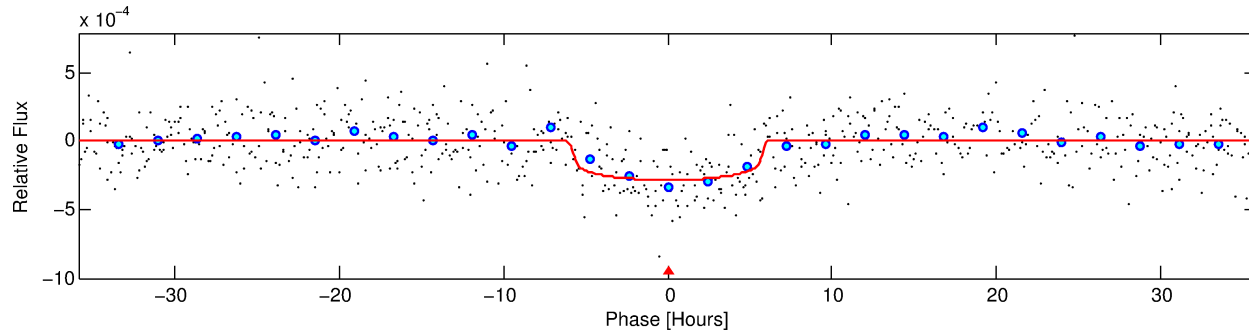
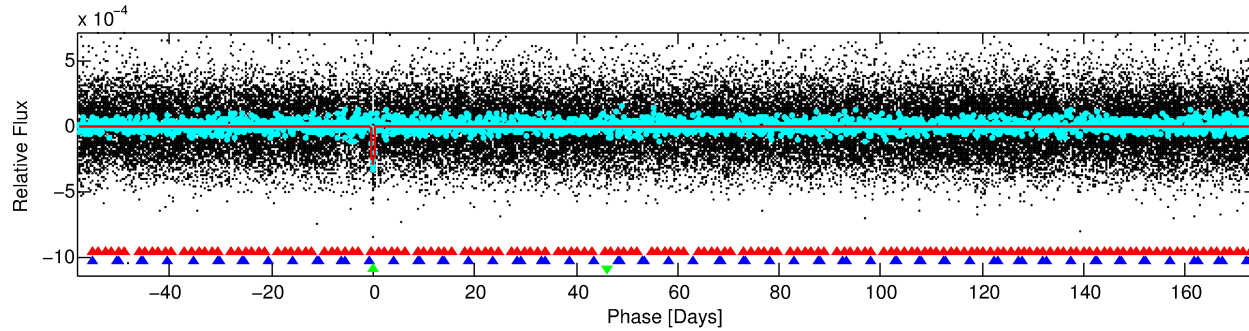
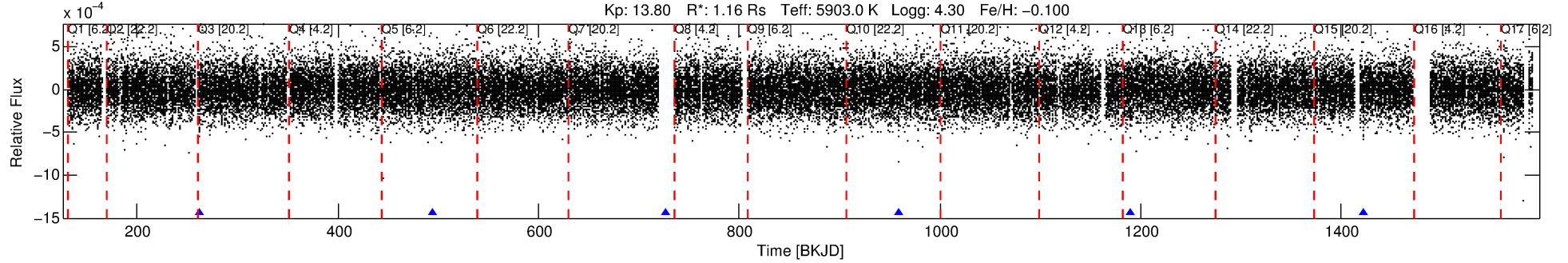
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010055126-03

No Significant Match Found

DV One-Page Summary

KIC: 10055126 Candidate: 3 of 3 Period: 232.047 d
KOI: K01608.03 Corr: 0.909



DV Fit Results:

Period = 232.04740 [0.00400] d
Epoch = 262.2174 [0.0119] BKJD
Rp/R* = 0.0164 [0.0063]
a/R* = 112.15 [201.35]
b = 0.68 [1.43]
Seff = 2.71 [0.72]
Teq = 327 [22] K
Rp = 2.07 [0.86] Re
a = 0.7324 [0.1150] AU
Ag = 4745.90 [4078.56] [1.16 σ]
Teffp = 4199 [866] K [4.47 σ]

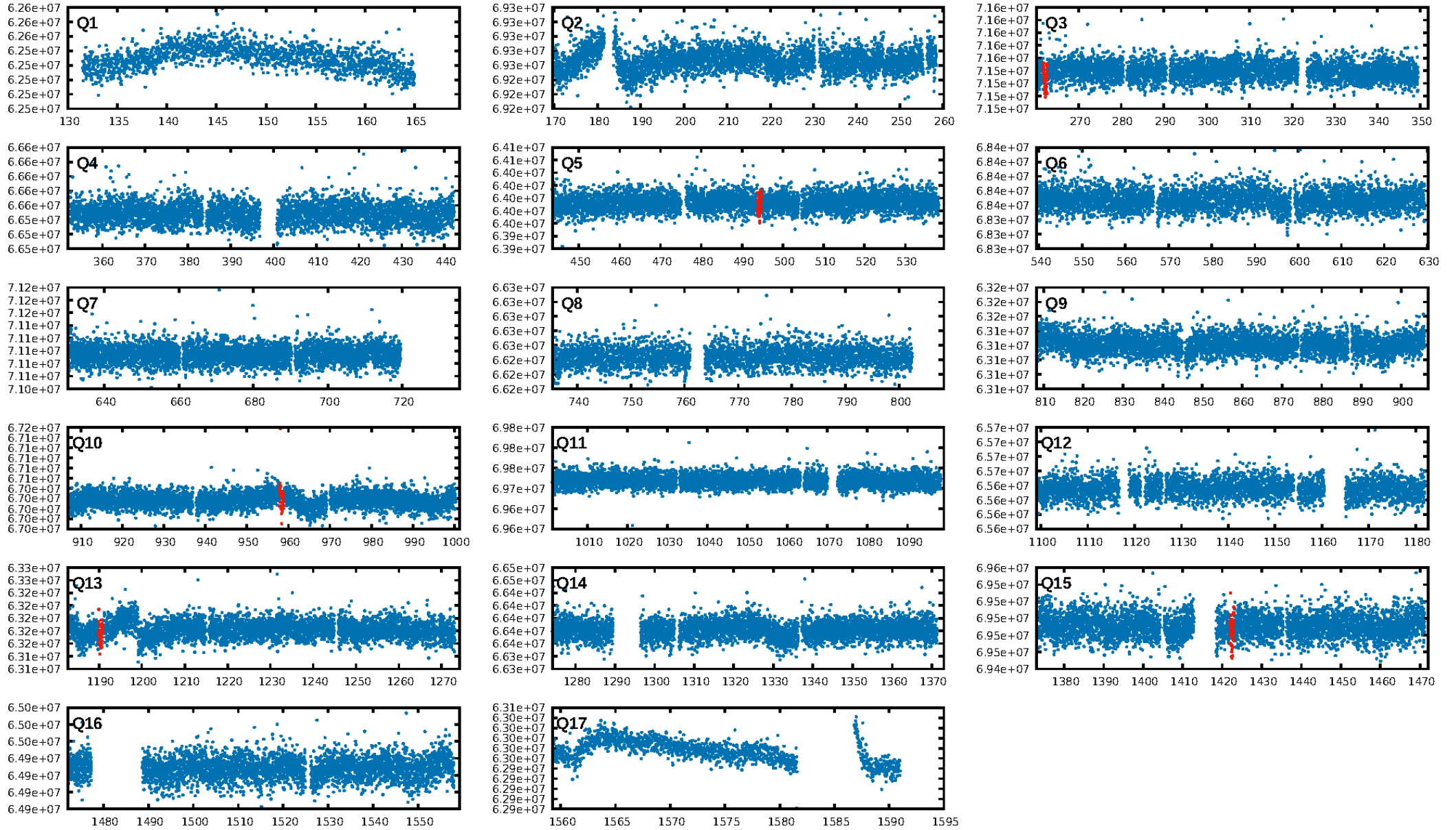
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [394.89 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 18.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.52e-31
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 3.826
Centroid-sig: 44.7%
Centroid-so: 1.376 arcsec [0.94 σ]
OotOffset-rm: 1.627 arcsec [2.00 σ]
KicOffset-rm: 1.600 arcsec [2.28 σ]
OotOffset-st: 1/2/0/2 [5]
KicOffset-st: 1/2/0/2 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 0.80 [4/5]

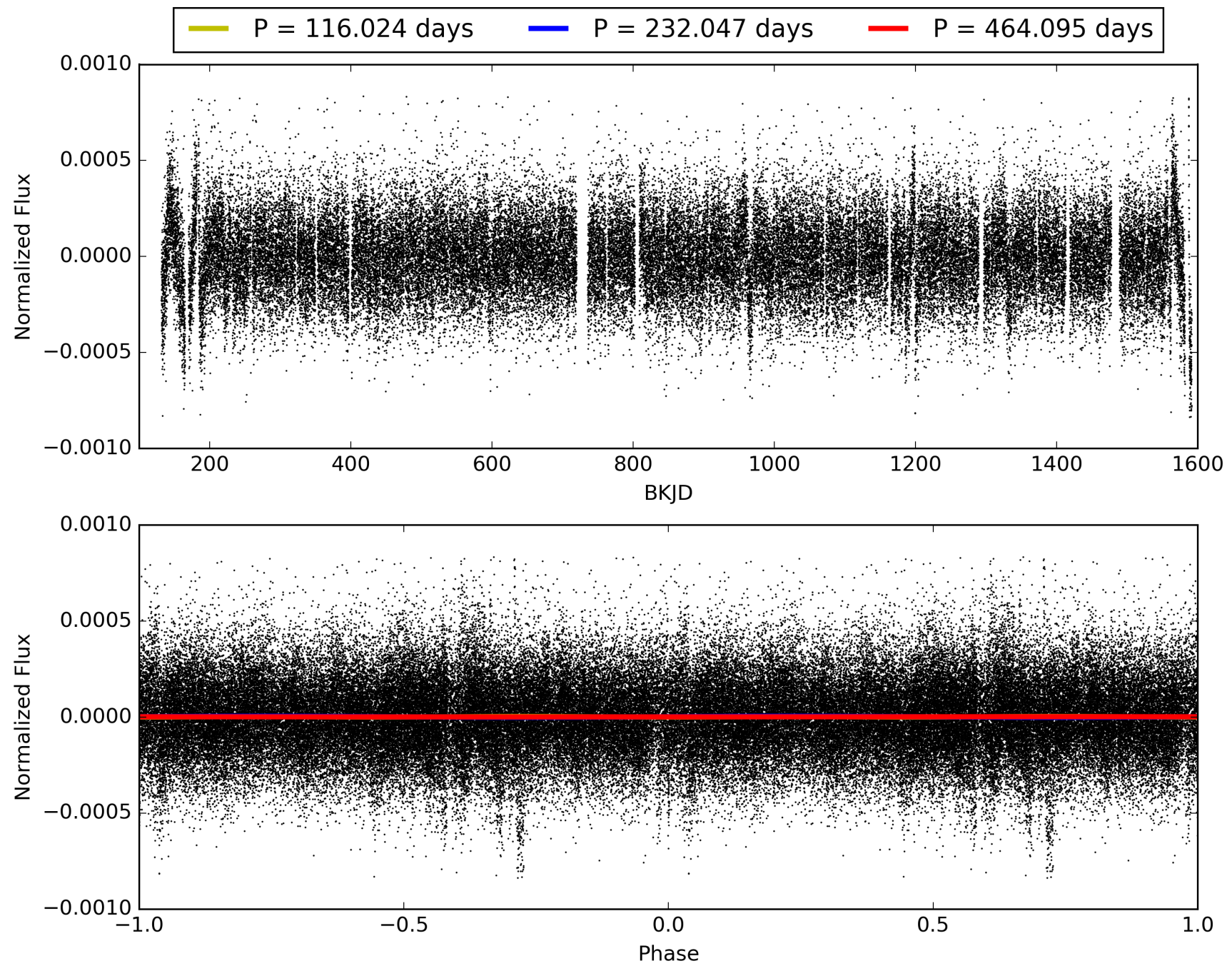
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:23:18 Z

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

TCE 010055126-03, PDC Light Curves

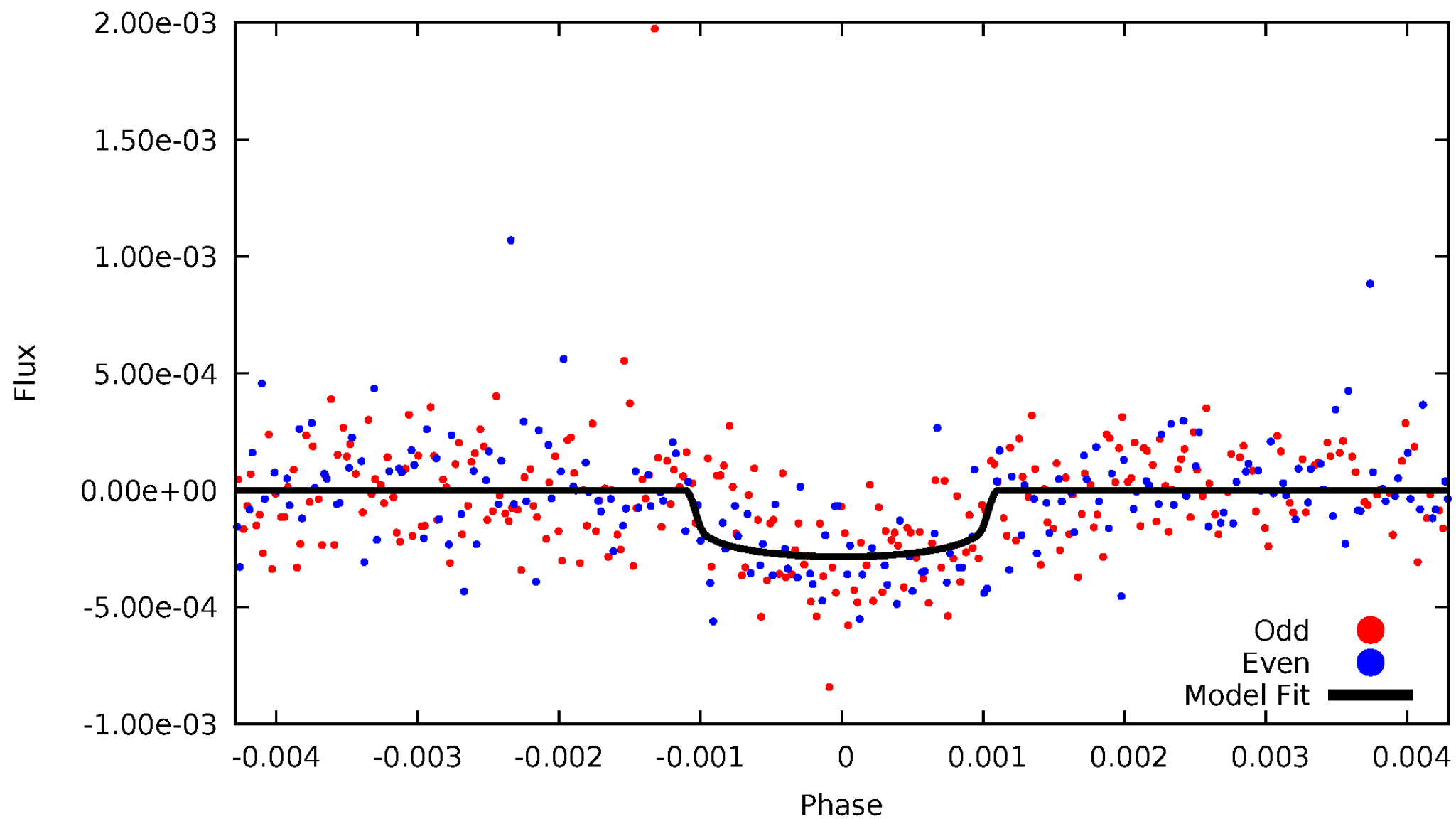


TCE 010055126-03



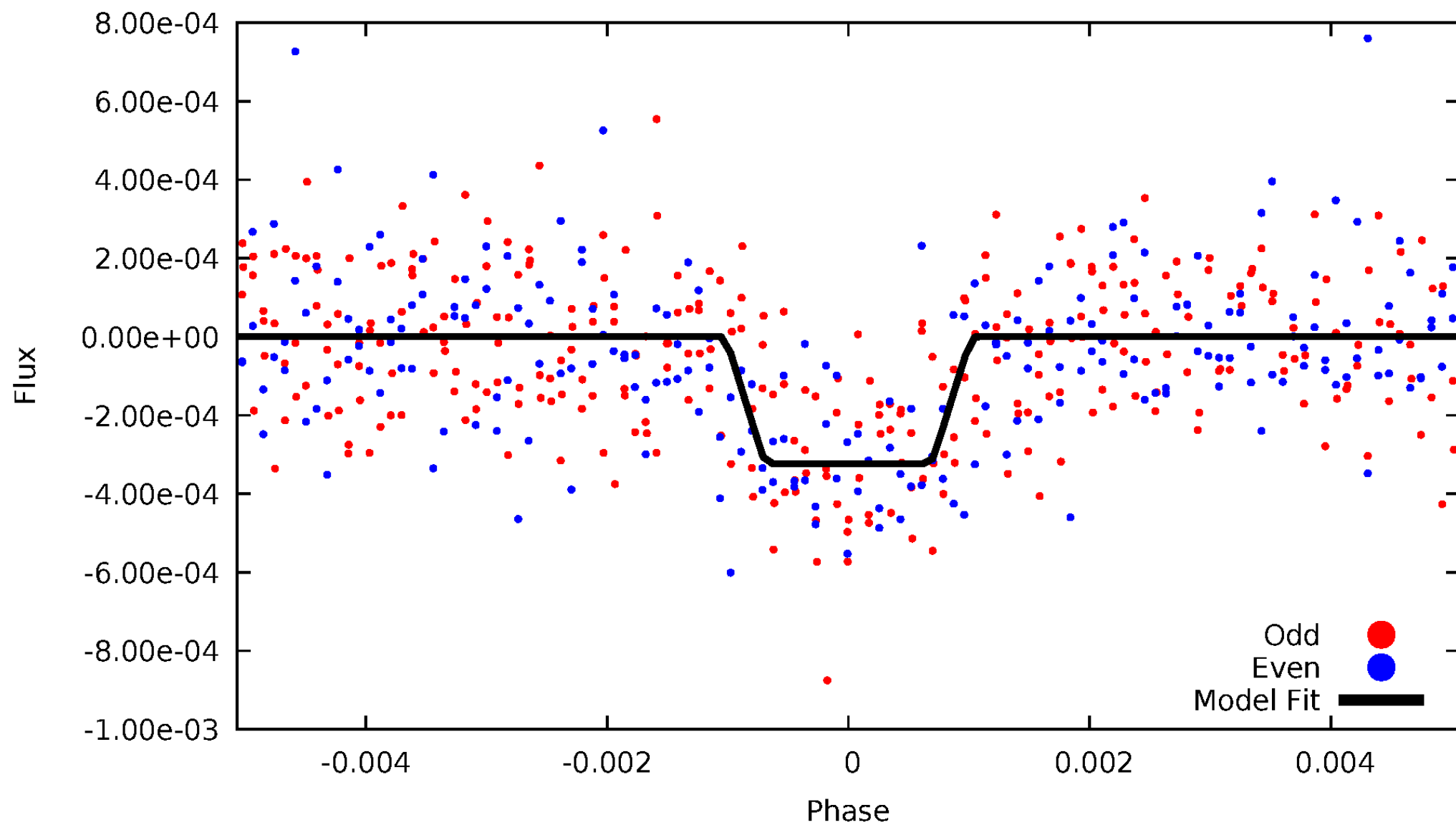
DV Odd/Even

TCE 010055126-03



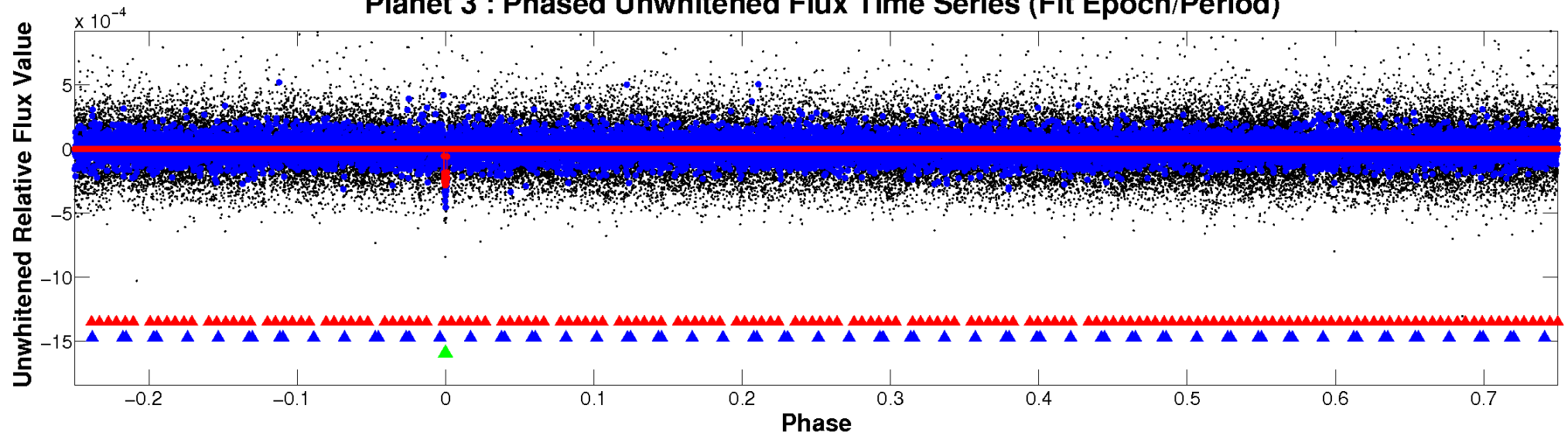
ALT Odd/Even

TCE 010055126-03

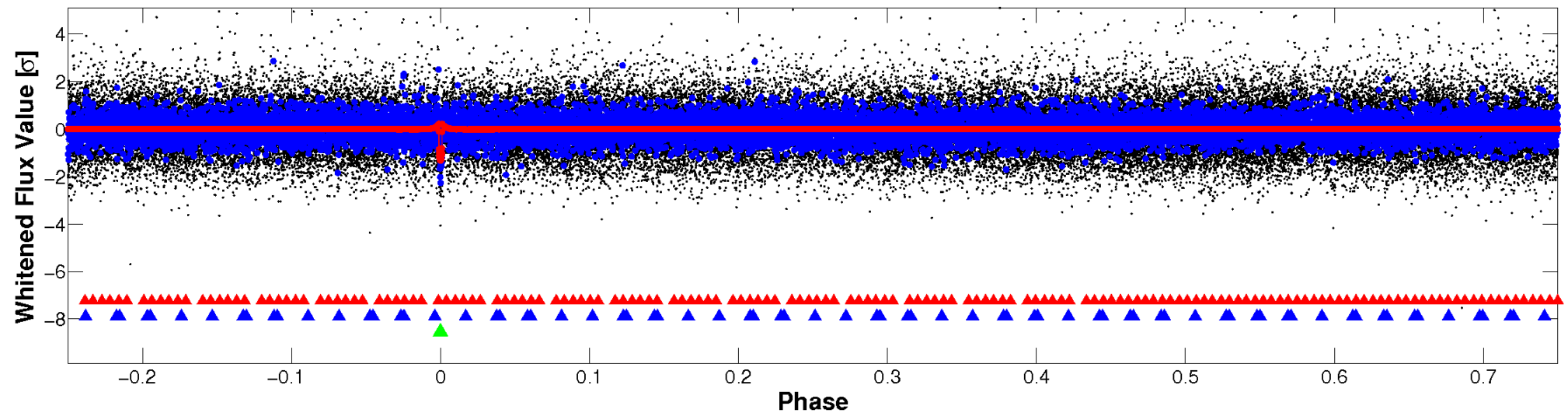


Non-Whitened Vs. Whitened Light Curve

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

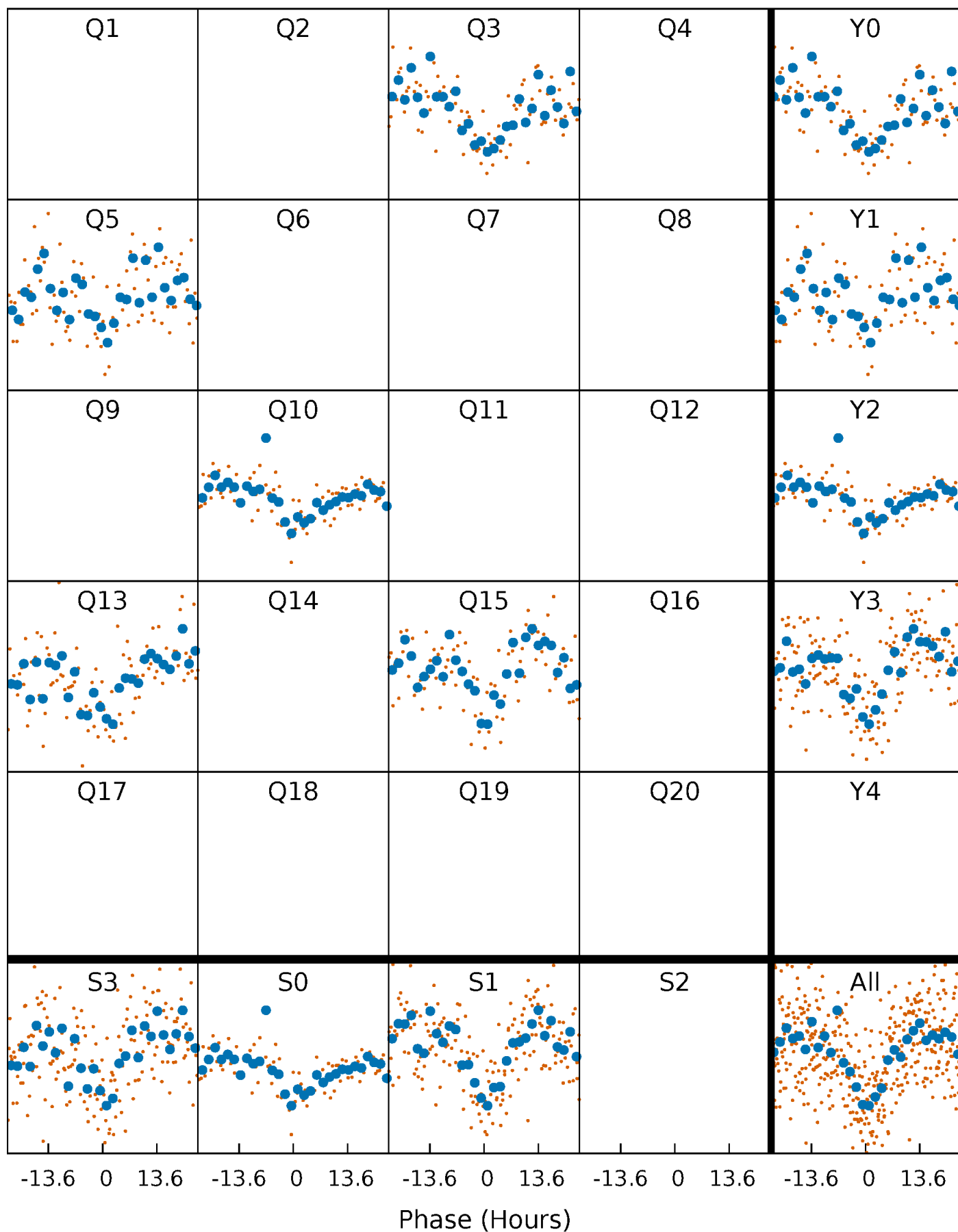


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 010055126-03 $P=232.047399$ Days $T_0=262.217414$ (BKJD)



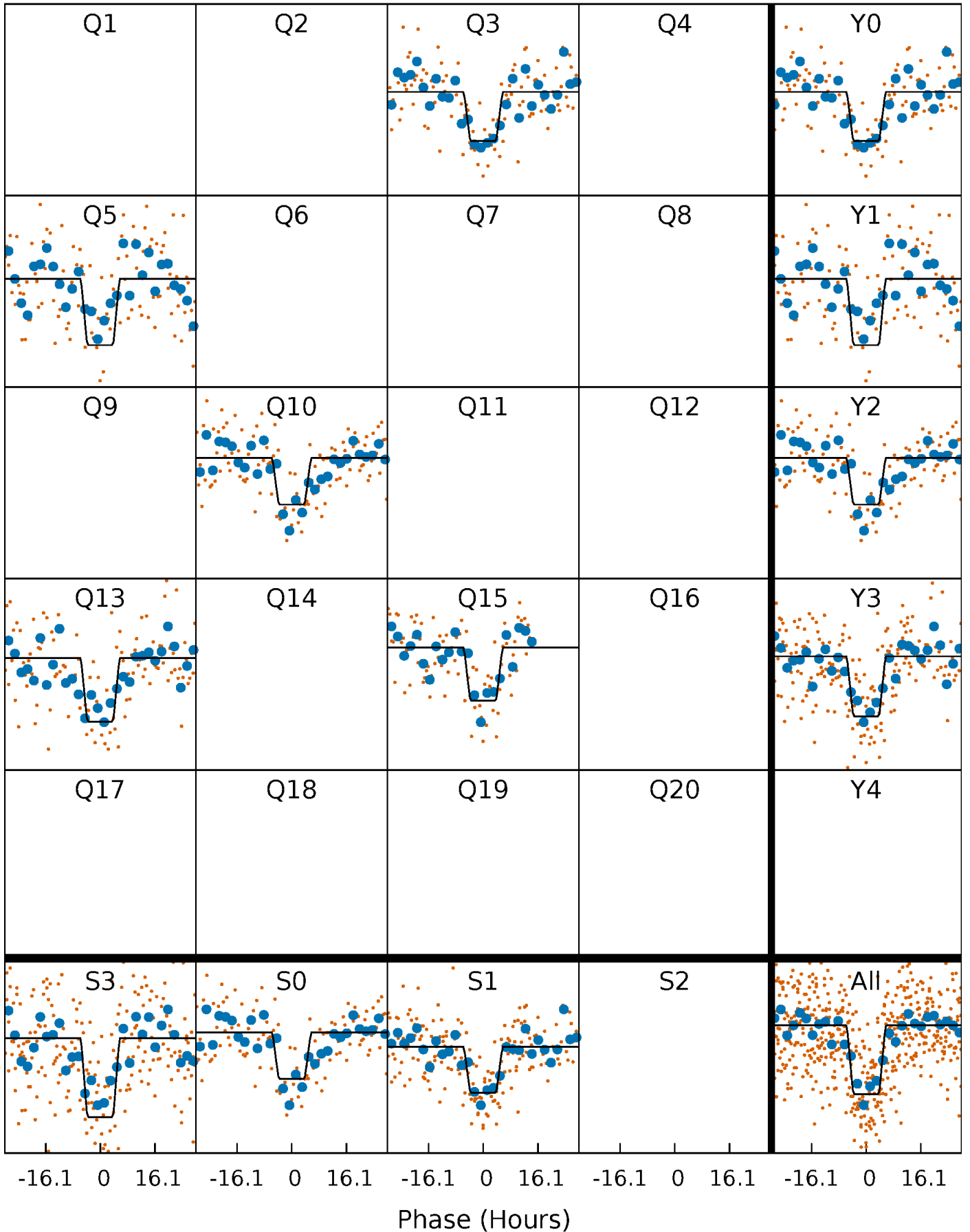
DV Quarter-Phased Transit Curves

TCE 010055126-03 $P=232.047399$ Days $T_0=262.217414$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

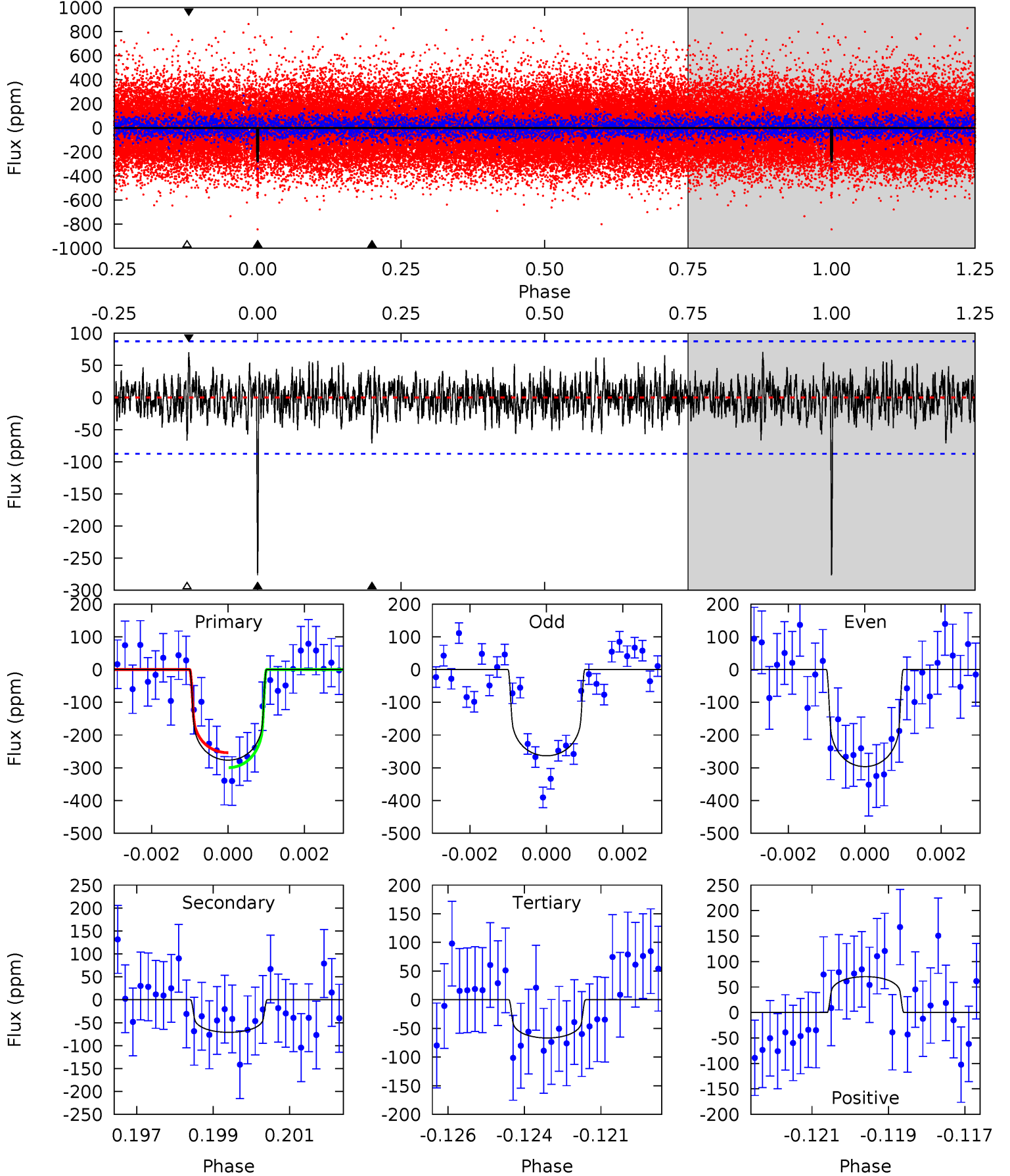
TCE 010055126-03 P=232.043507 Days $T_0=262.248703$ (BKJD)



DV Model-Shift Uniqueness Test

010055126-03, $P = 232.047399$ Days, $E = 30.170015$ Days

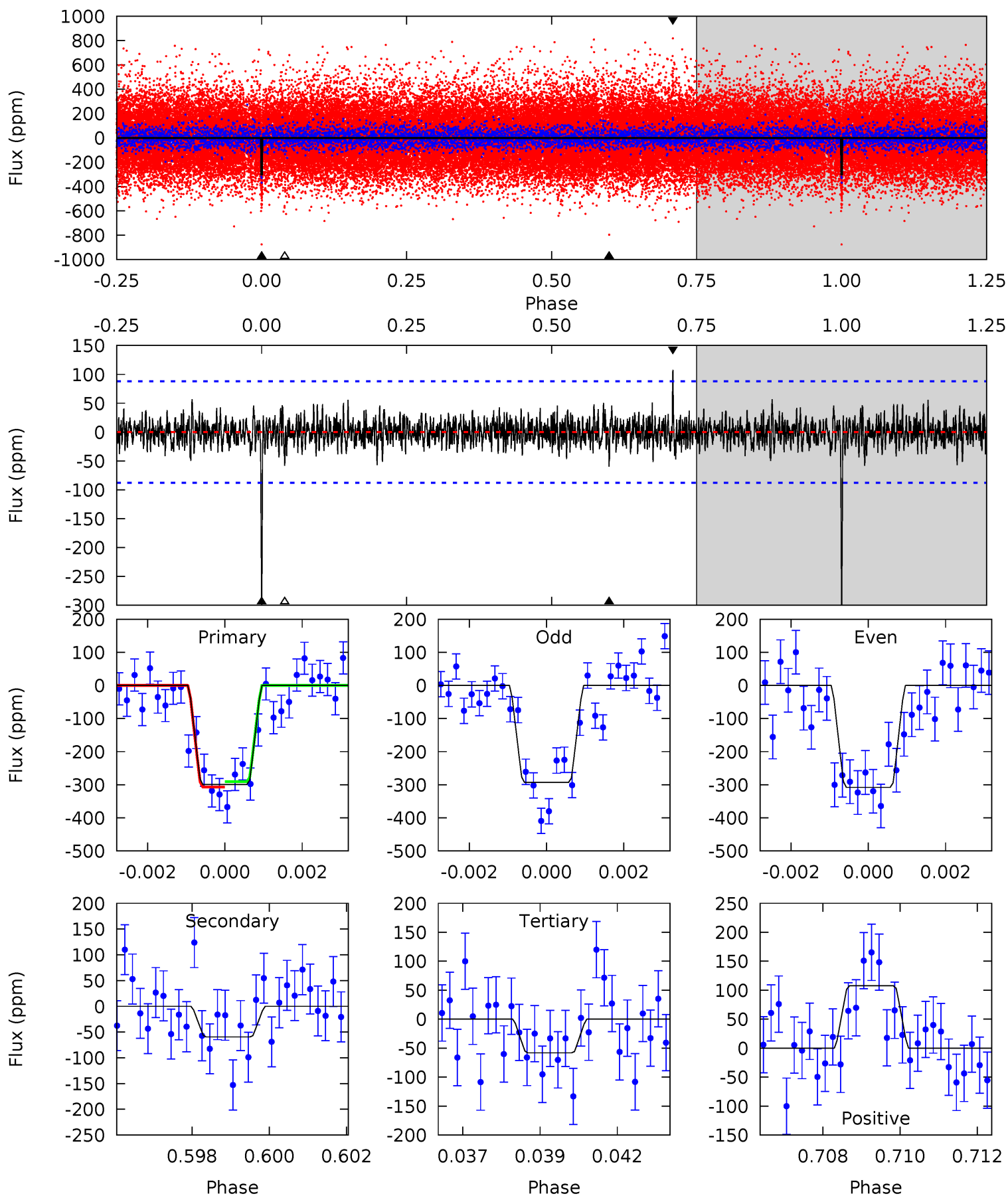
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	4.31	4.05	4.27	5.31	3.06	1.20	12.7	12.5	0.27	0.04	0.99	0.89	0.20	1.39



Alt Model-Shift Uniqueness Test

010055126-03, P = 232.043507 Days, E = 30.205196 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.1	3.59	3.52	6.50	5.31	3.06	1.03	14.6	11.6	0.08	-2.91	0.43	0.95	0.26	0.50



Stellar Parameters For KIC 010055126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5903^{+106}_{-117}	$4.300^{+0.150}_{-0.100}$	$-0.100^{+0.150}_{-0.150}$	$1.156^{+0.185}_{-0.166}$	$0.974^{+0.082}_{-0.062}$	$0.888^{+0.548}_{-0.288}$
	+2%/-2%	+3%/-2%	+150%/-150%	+16%/-14%	+8%/-6%	+62%/-32%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 010055126-03 / KOI 1608.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-71 ± 16	$2.07^{+0.90}_{-0.85}$	454^{+20}_{-22}	4400^{+1009}_{-530}	4946^{+9125}_{-2568}
Alt.	-59 ± 17	$2.25^{+0.86}_{-0.80}$	453^{+23}_{-21}	4105^{+774}_{-444}	3367^{+4620}_{-1656}

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

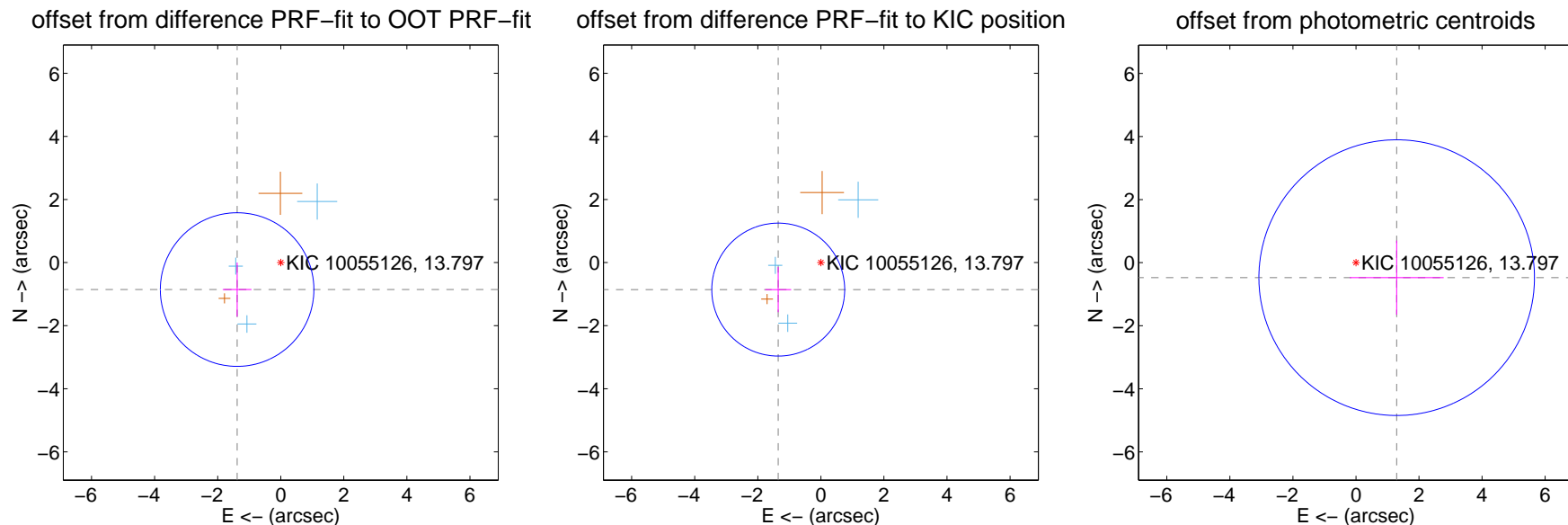
DV Centroid Data

Supplemental centroid analysis for 010055126-03. Kepler magnitude: 13.80. Transit SNR 12.54

There are 3 quarters with good PRF difference image offsets

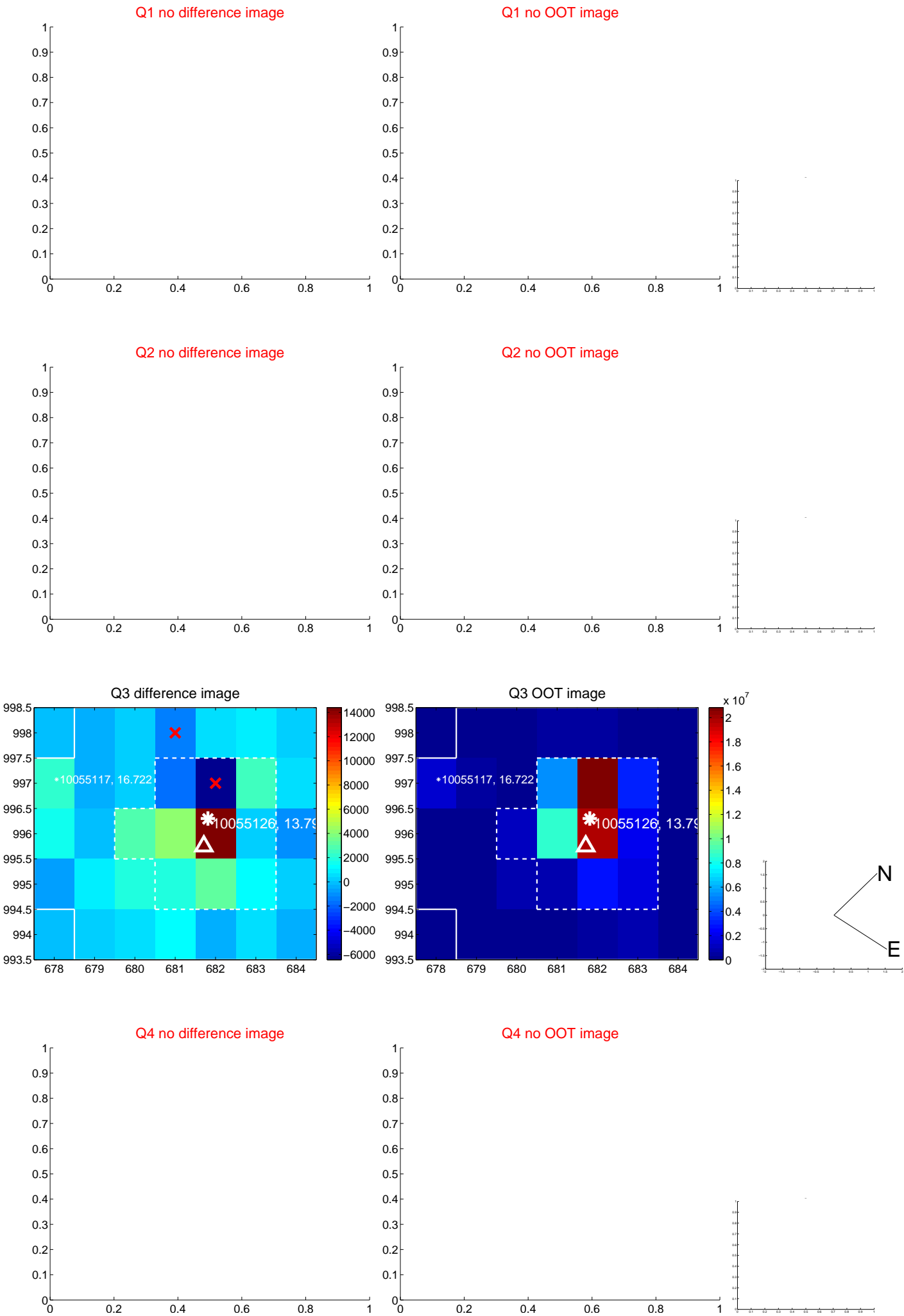
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.627 ± 0.812	2.00	1.384 ± 0.455	-0.855 ± 0.856
PRF-fit source offset from KIC position	1.600 ± 0.702	2.28	1.352 ± 0.410	-0.856 ± 0.715
photometric centroid source offset	1.38 ± 1.46	0.94	-1.29 ± 1.49	-0.47 ± 1.17

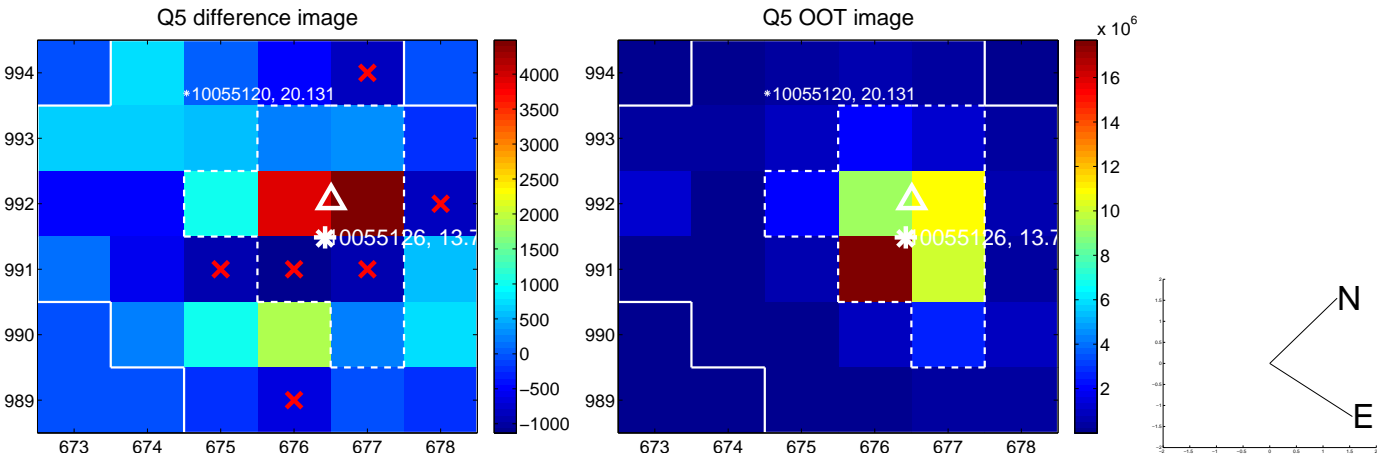


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

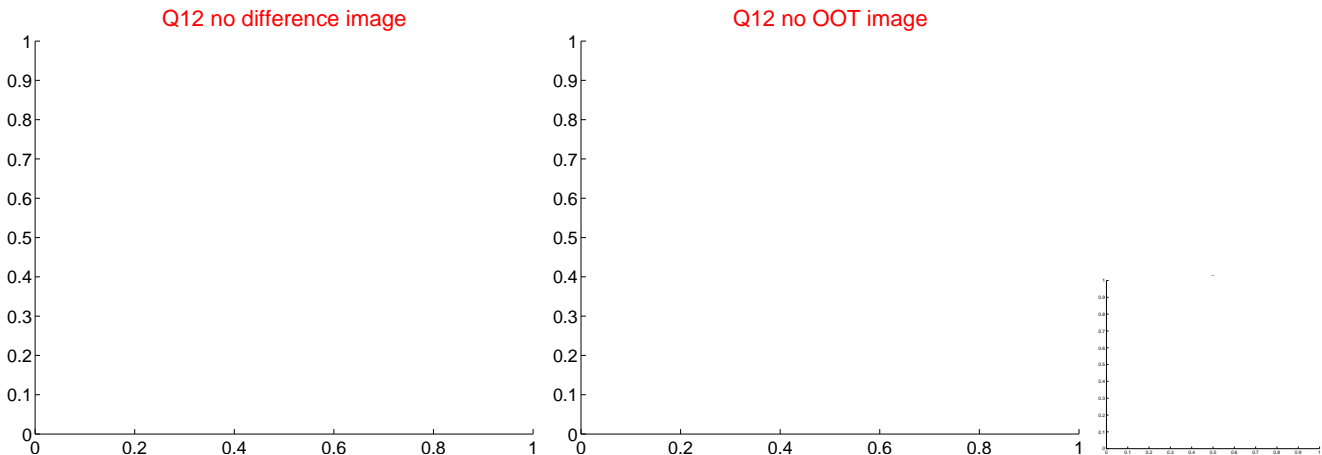
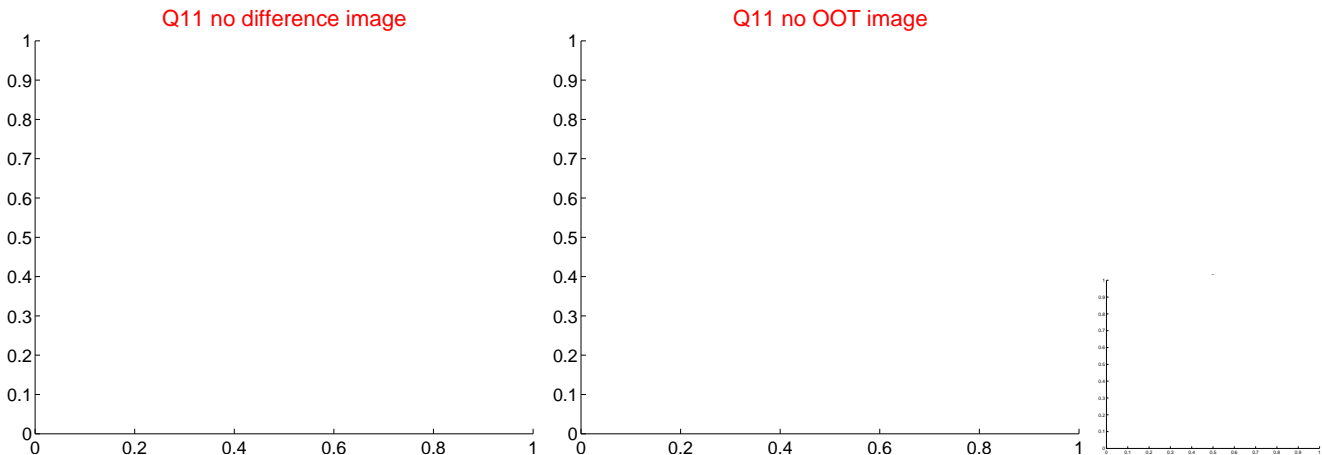
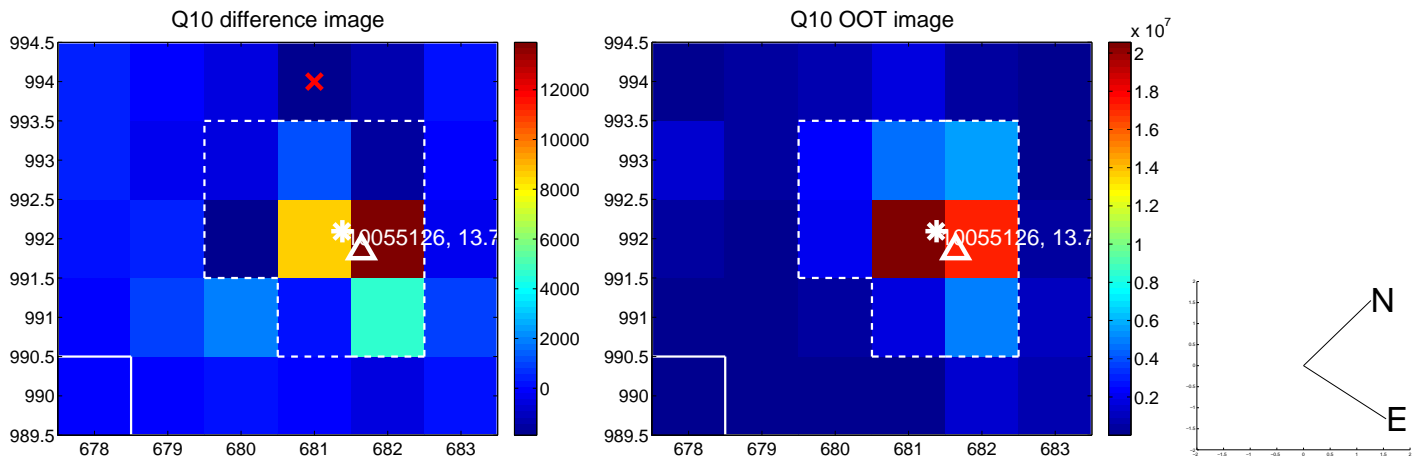
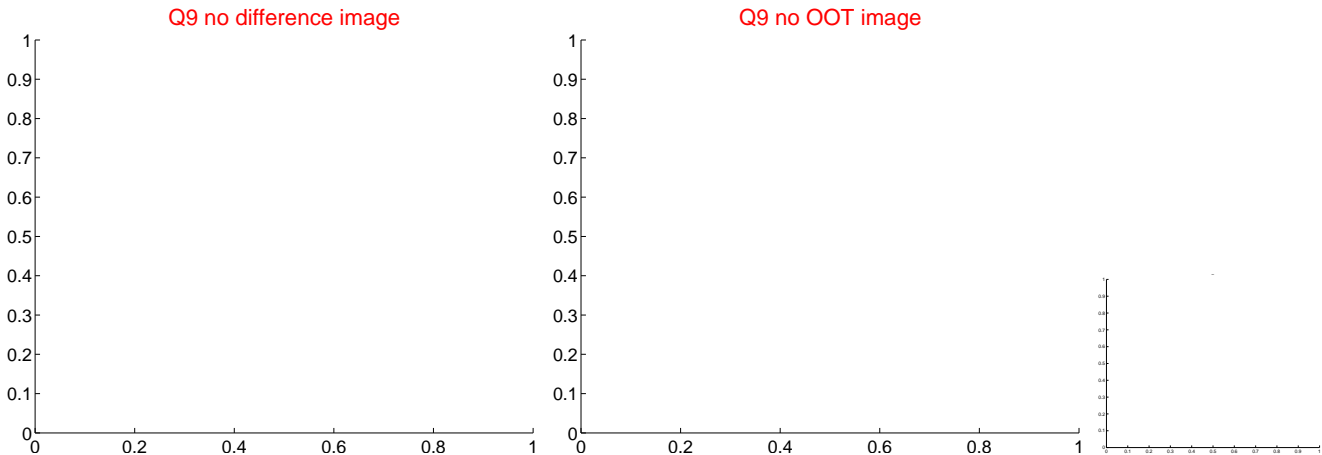
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



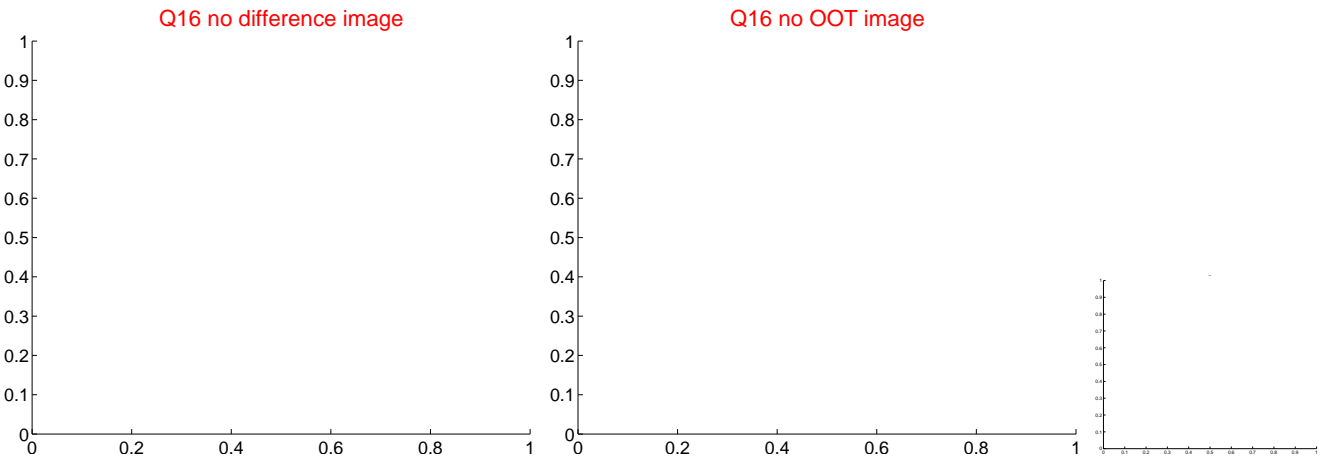
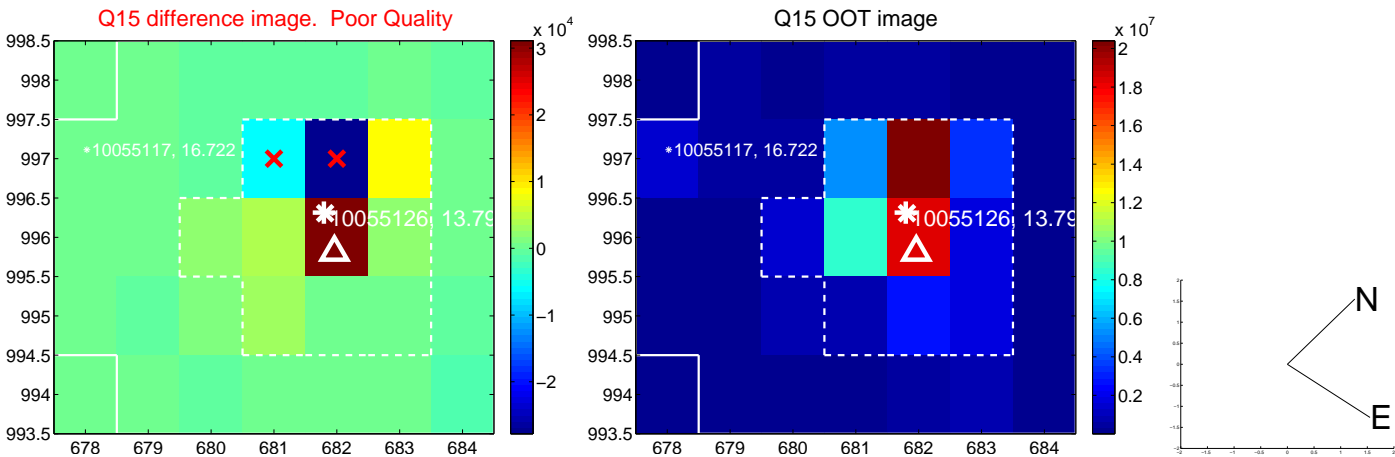
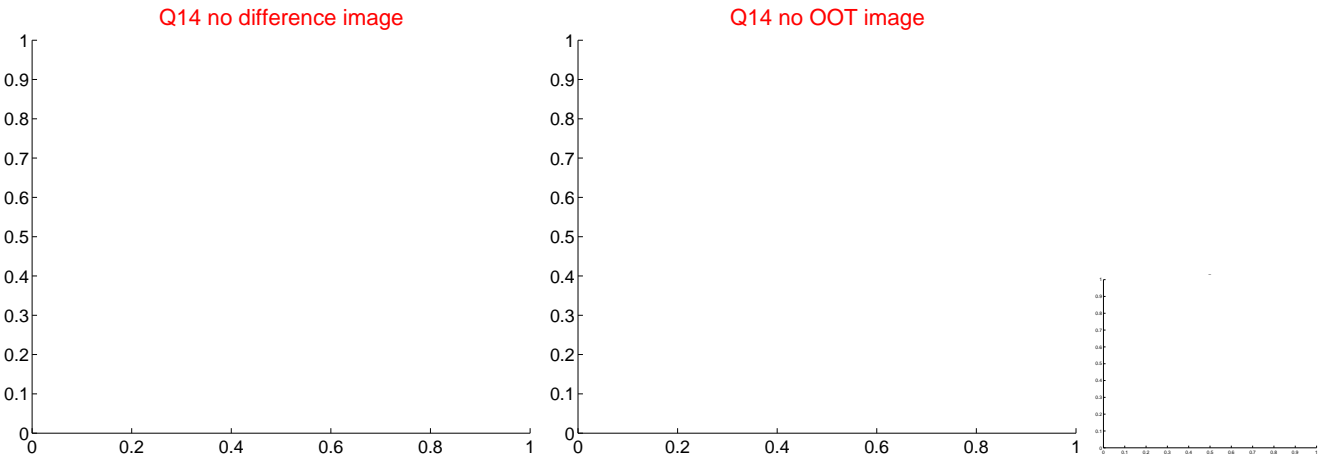
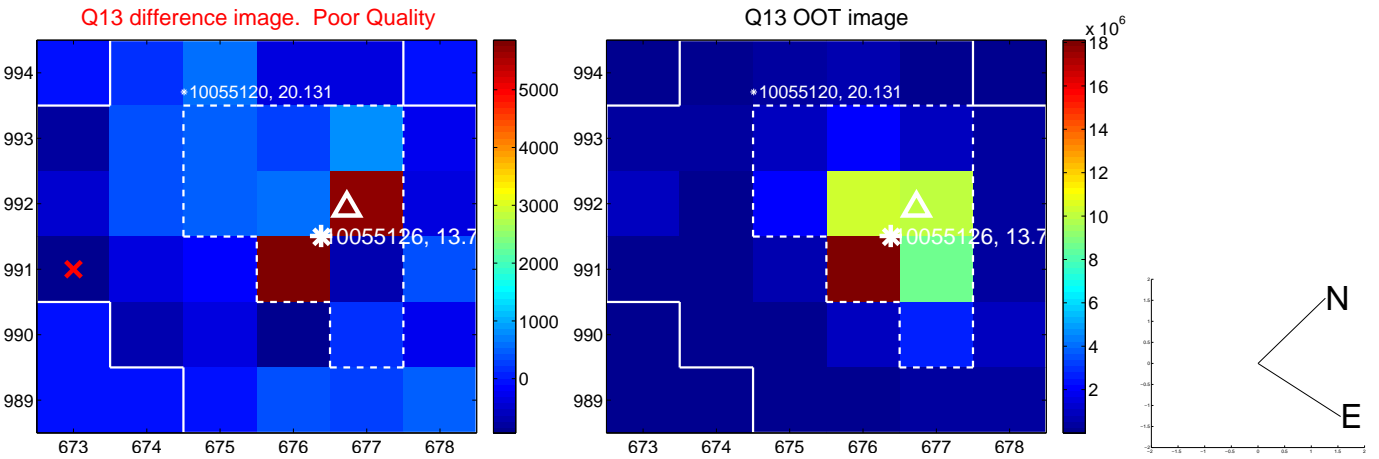
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



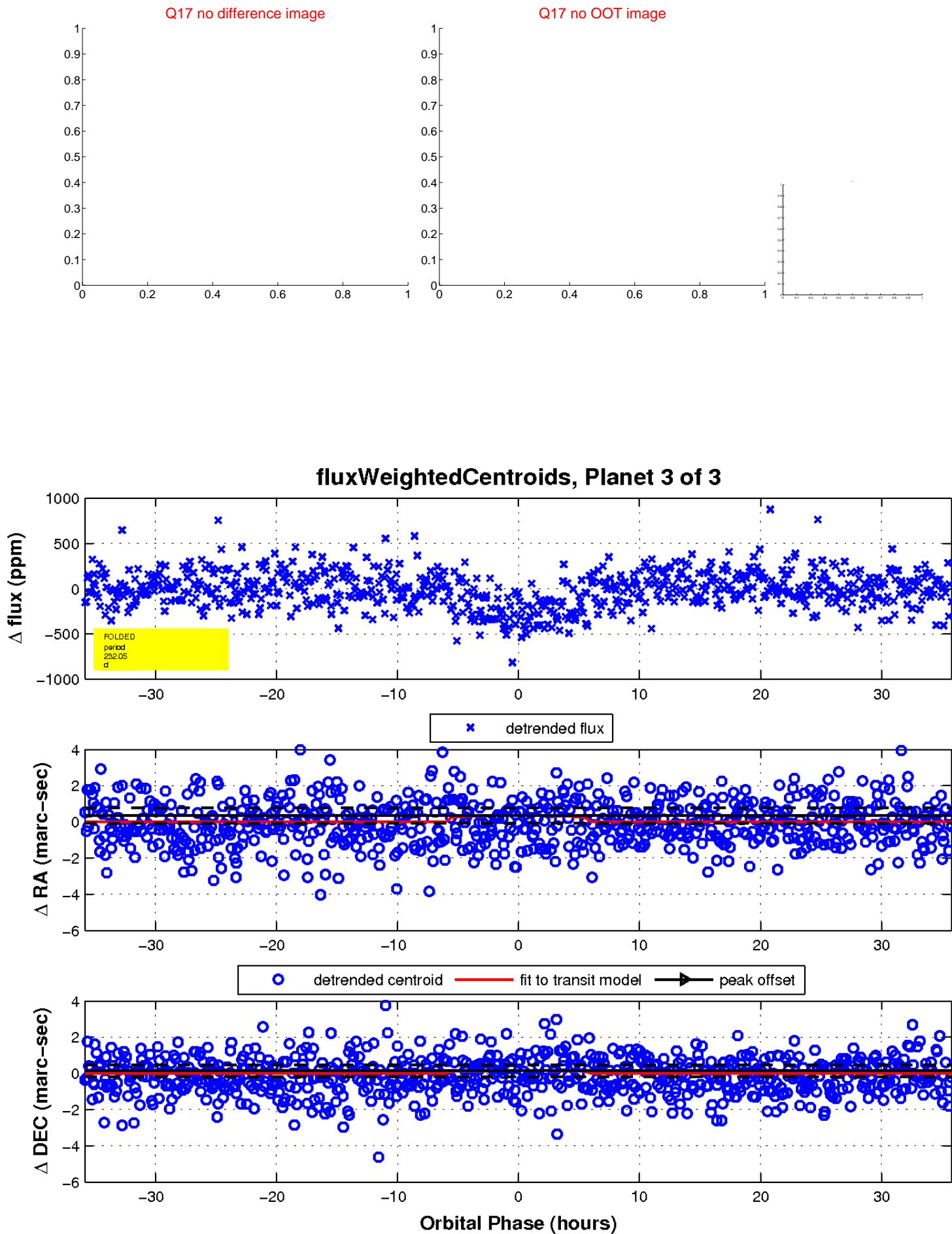
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



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



UKIRT Image

Declination

