

KIC 011021252

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})
011021252-01	OBS	6084.01	6.538377	133.256449	58909.3	2.731	838.7	1756.9	1.01	6372	34.54	311.18
011021252-02	OBS	No	6.538376	136.525651	58747.1	2.732	2278.4	1804.0	1.01	6372	34.39	311.18
011021252-03	OBS	No	3.269182	131.622496	2446.1	2.591	129.7	138.3	1.01	6372	7.16	784.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011021252-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—PERIOD_ALIAS_DV—PERIOD_ALIAS_ALT
011021252-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
011021252-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD

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.

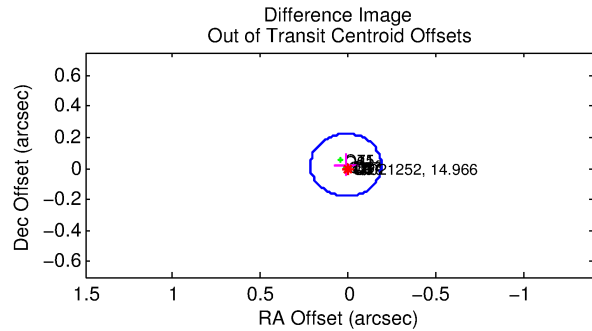
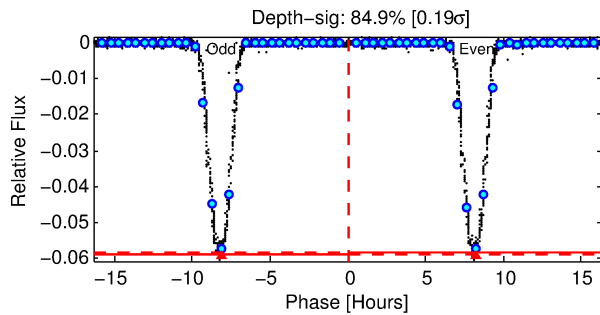
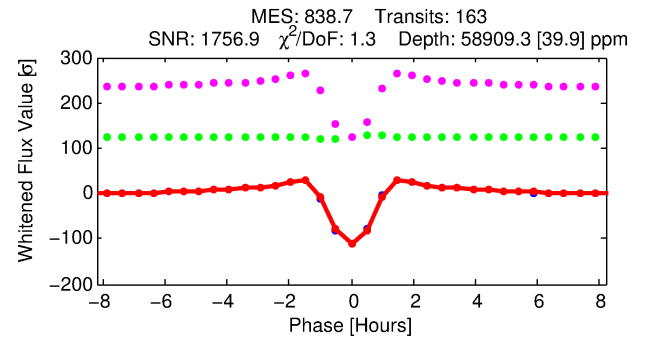
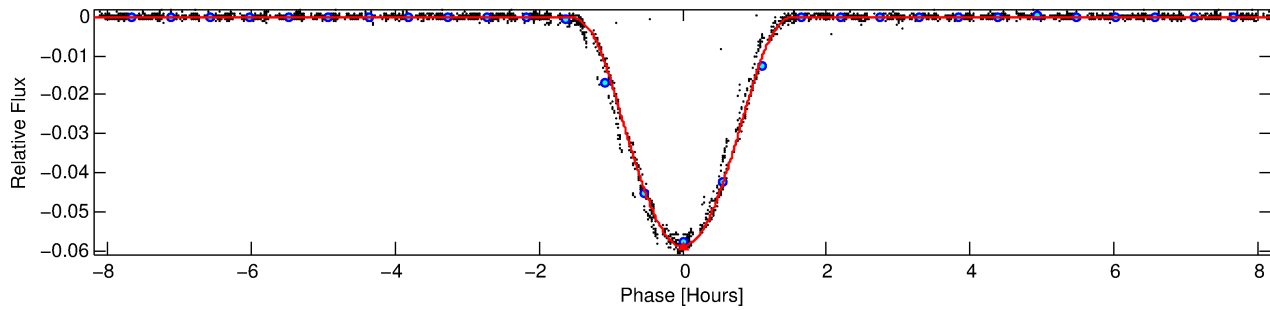
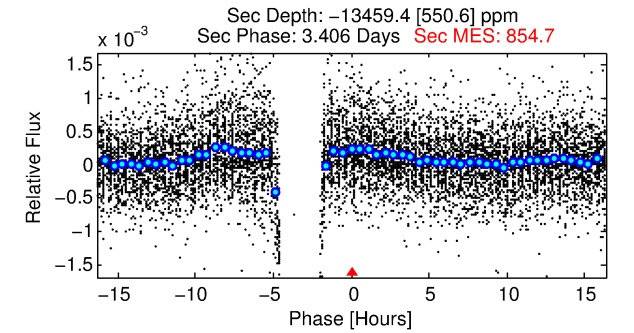
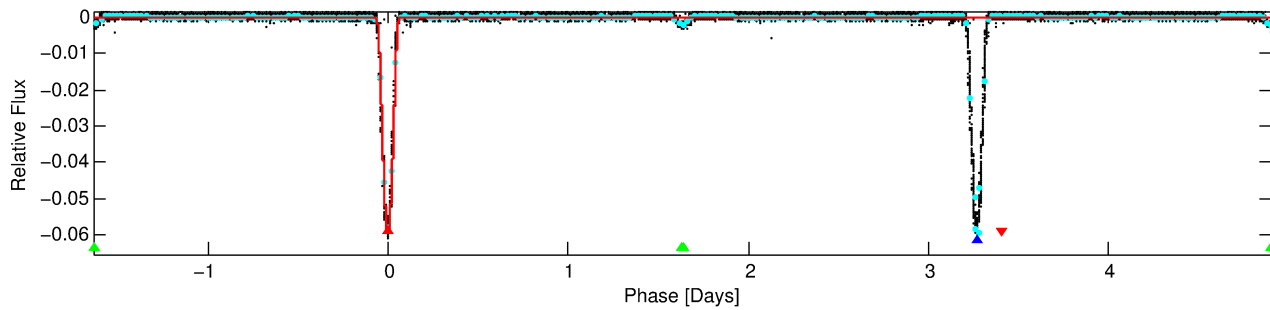
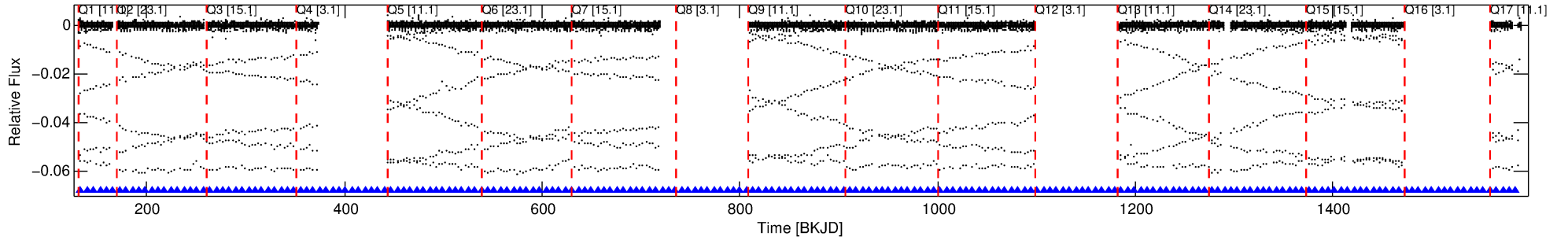
Ephemeris Match Information For 011021252-01

No Significant Match Found

DV One-Page Summary

KIC: 11021252 Candidate: 1 of 3 Period: 6.538 d
KOI: K06084 Corr: No Ephemeris Match

Kp: 14.97 R*: 1.01 Rs Teff: 6372.0 K Logg: 4.45 Fe/H: -0.320



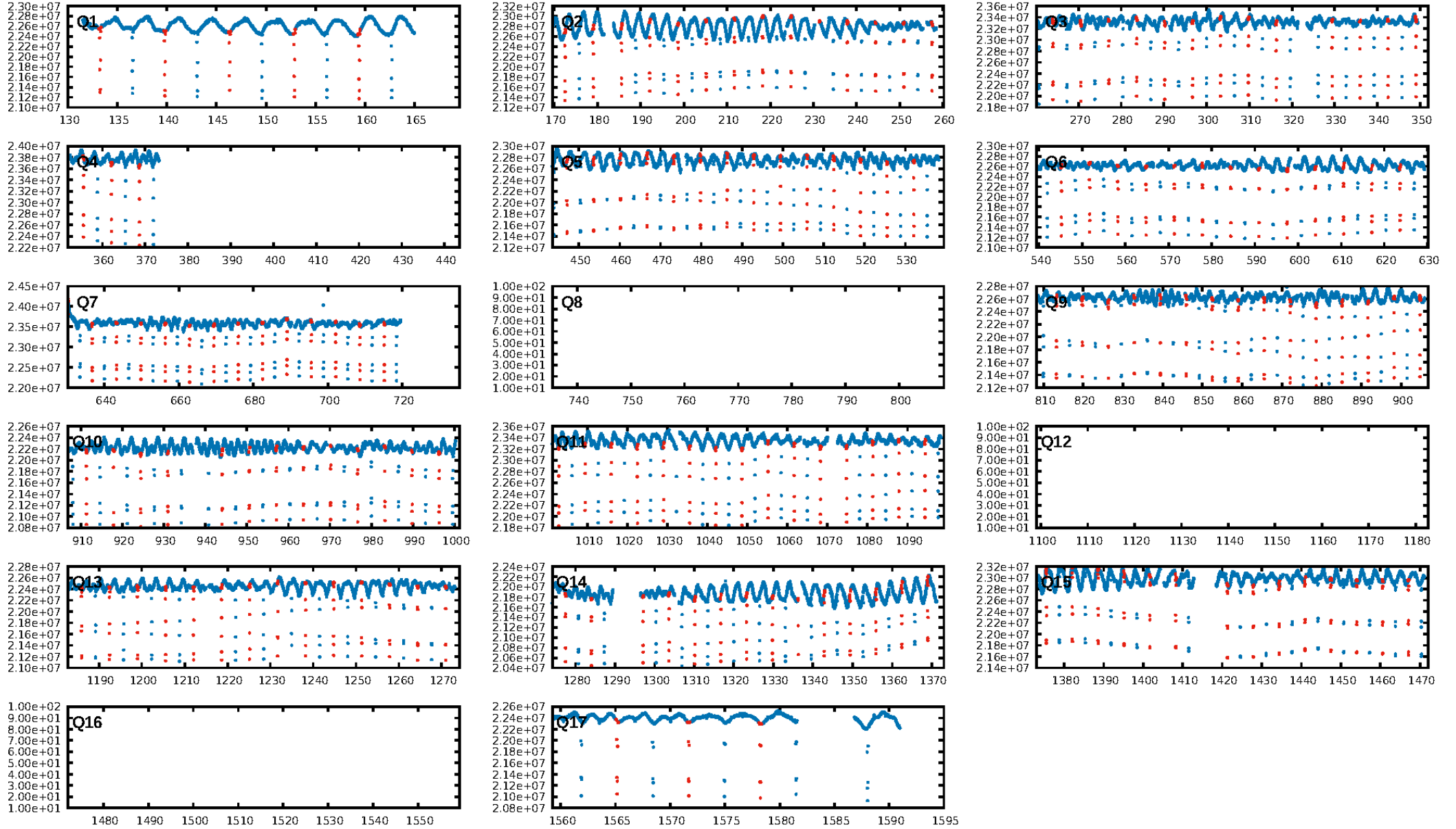
DV Fit Results:

Period = 6.53838 [0.00000] d
Epoch = 133.2564 [0.0000] BKJD
Rp/R* = 0.3118 [0.0061]
a/R* = 17.52 [0.03]
b = 0.90 [0.01]
Seff = 311.18 [127.79]
Teq = 1071 [110] K
Rp = 34.54 [11.35] Re
a = 0.0699 [0.0190] AU
Ag = N/A
Teffp = N/A

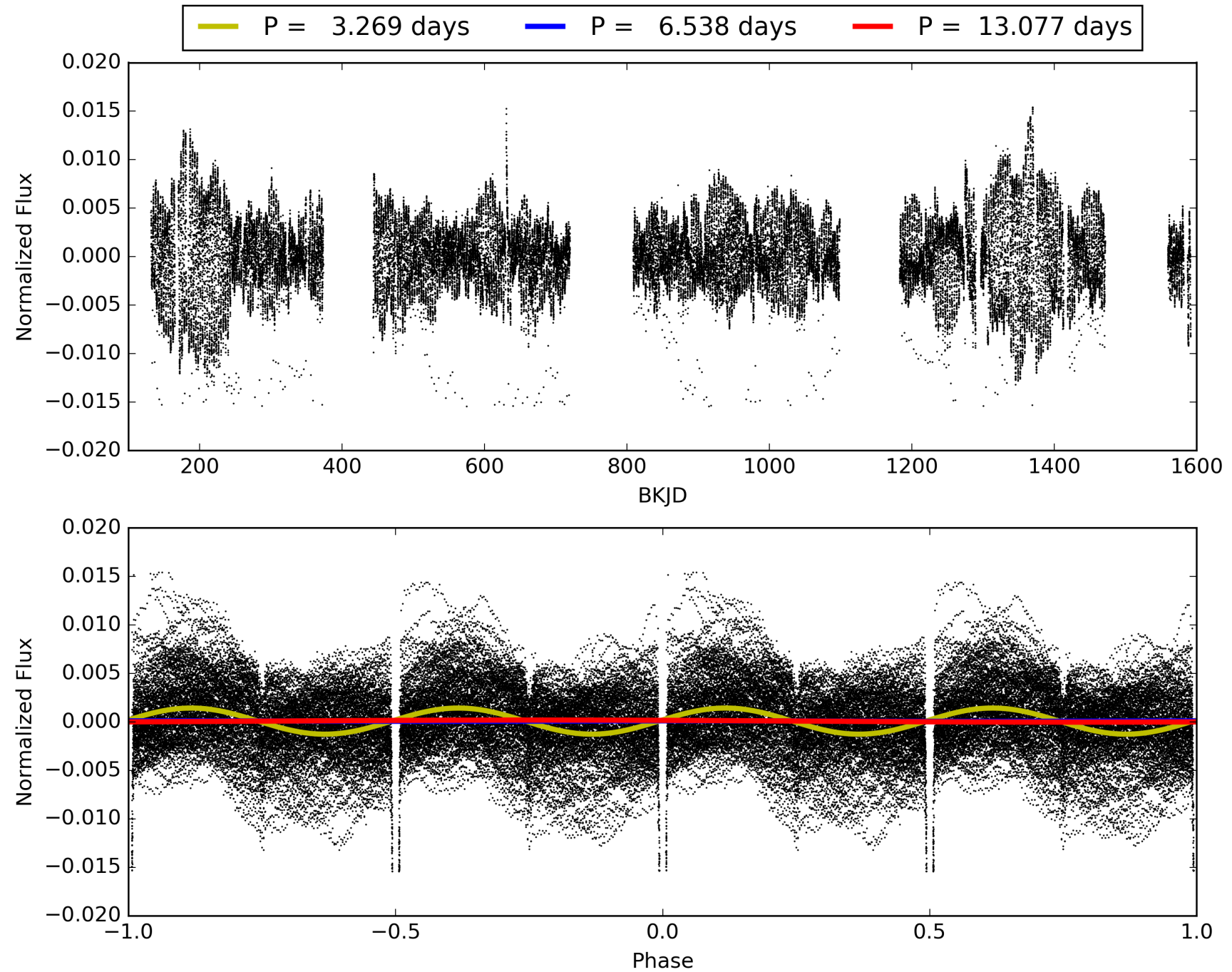
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 44.1%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [152/152]
GhostDiagnostic-chr: 2.743
Centroid-sig: 0.2%
Centroid-so: 0.121 arcsec [27.34σ]
OotOffset-rm: 0.026 arcsec [0.39σ]
KicOffset-rm: 0.084 arcsec [1.25σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011021252-01, PDC Light Curves

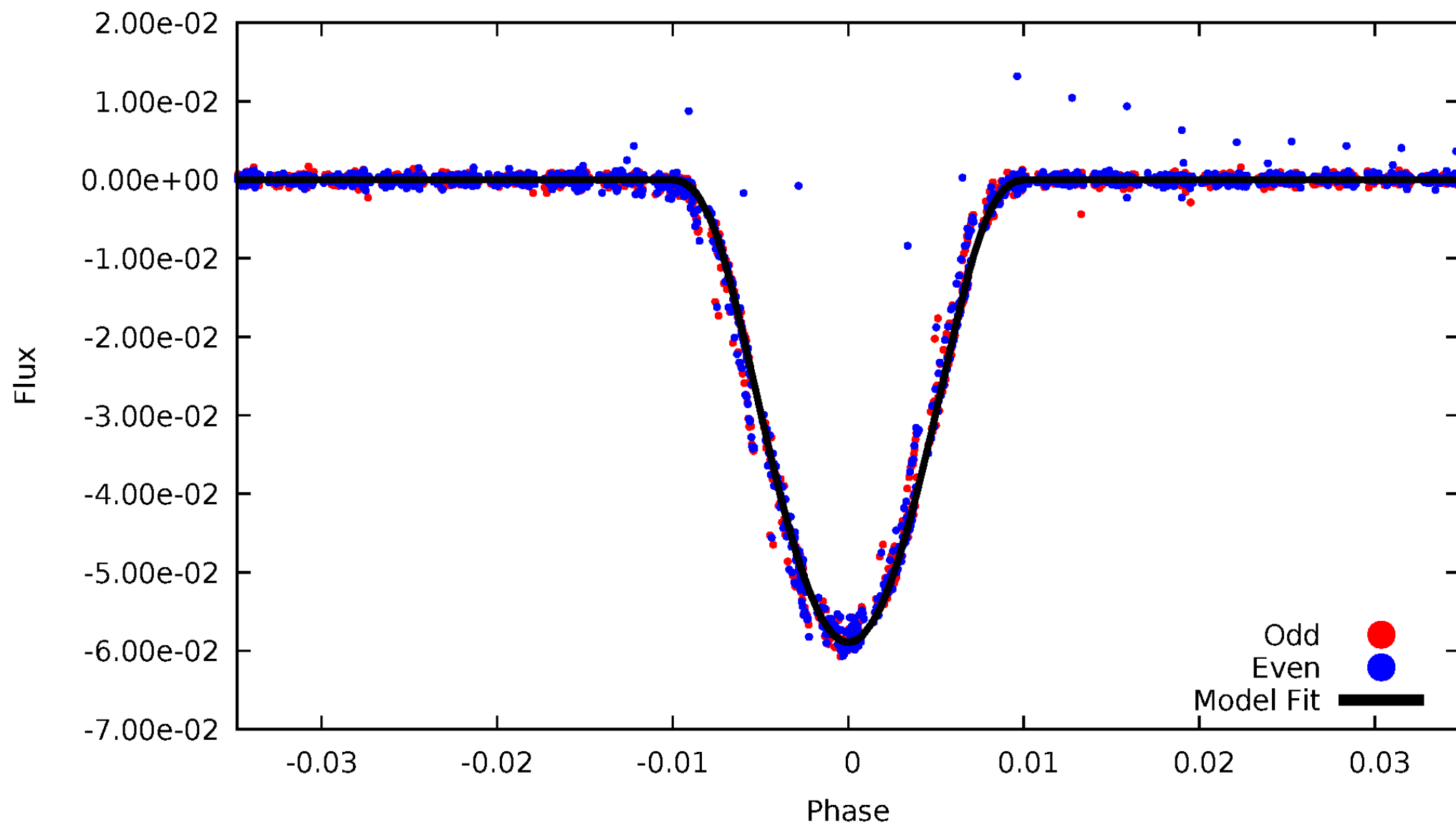


TCE 011021252-01



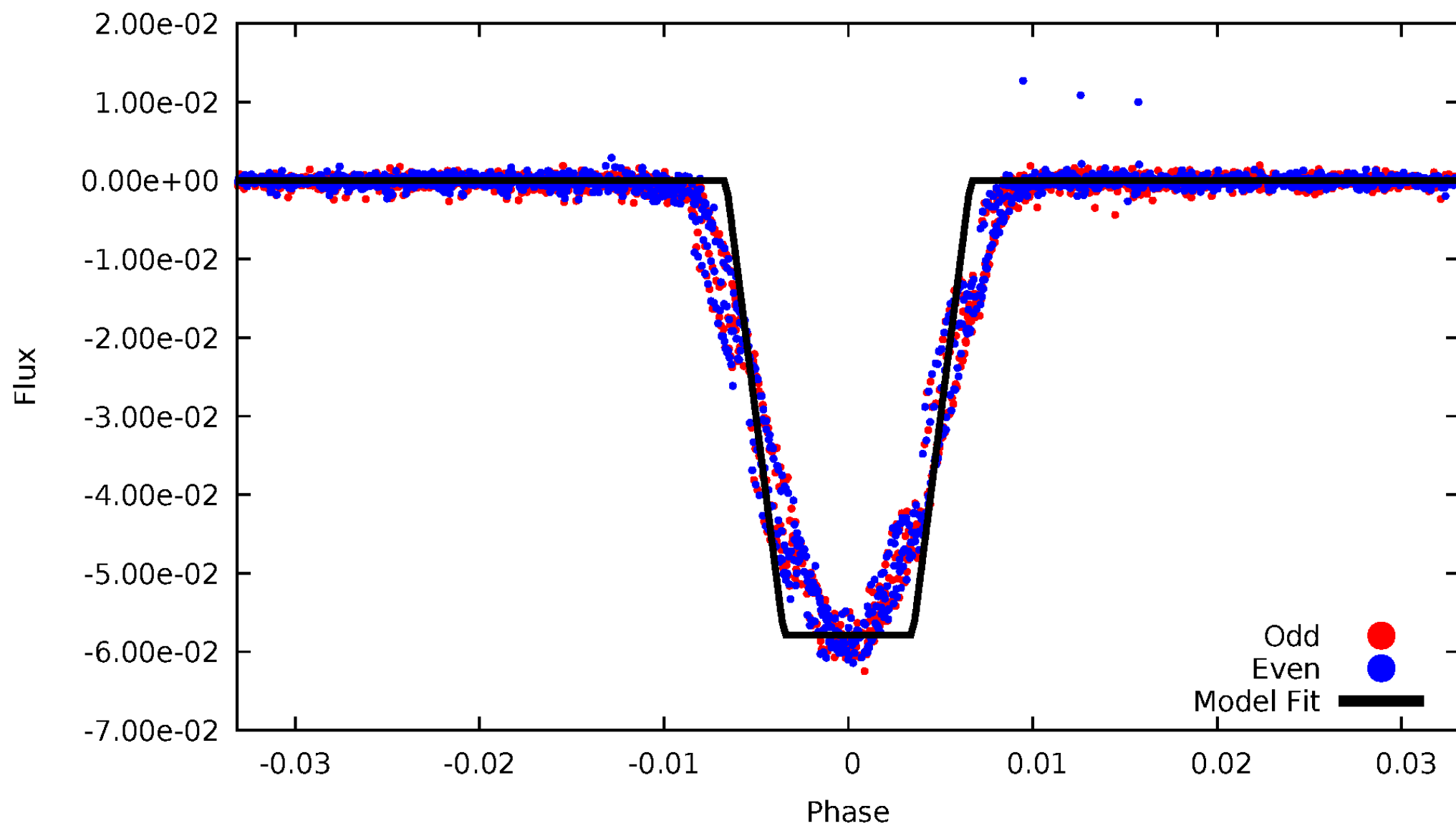
DV Odd/Even

TCE 011021252-01



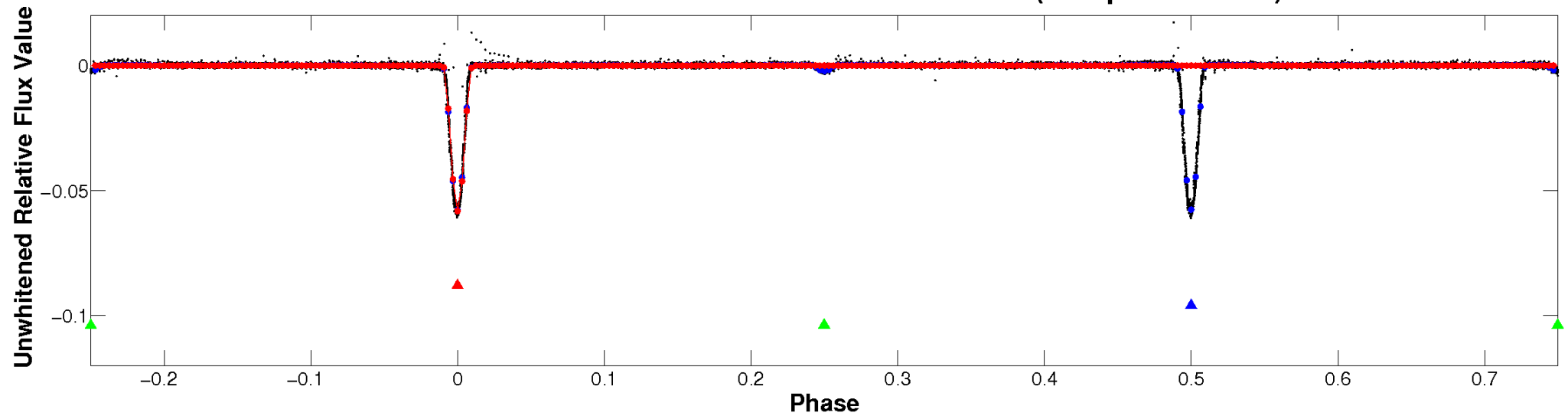
ALT Odd/Even

TCE 011021252-01

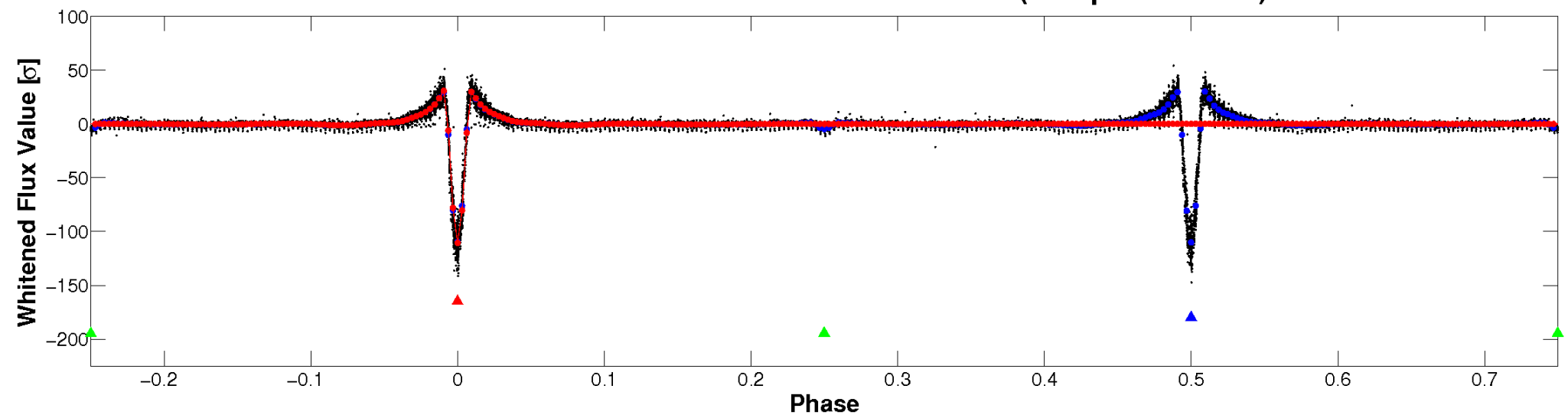


Non-Whitened Vs. Whitened Light Curve

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

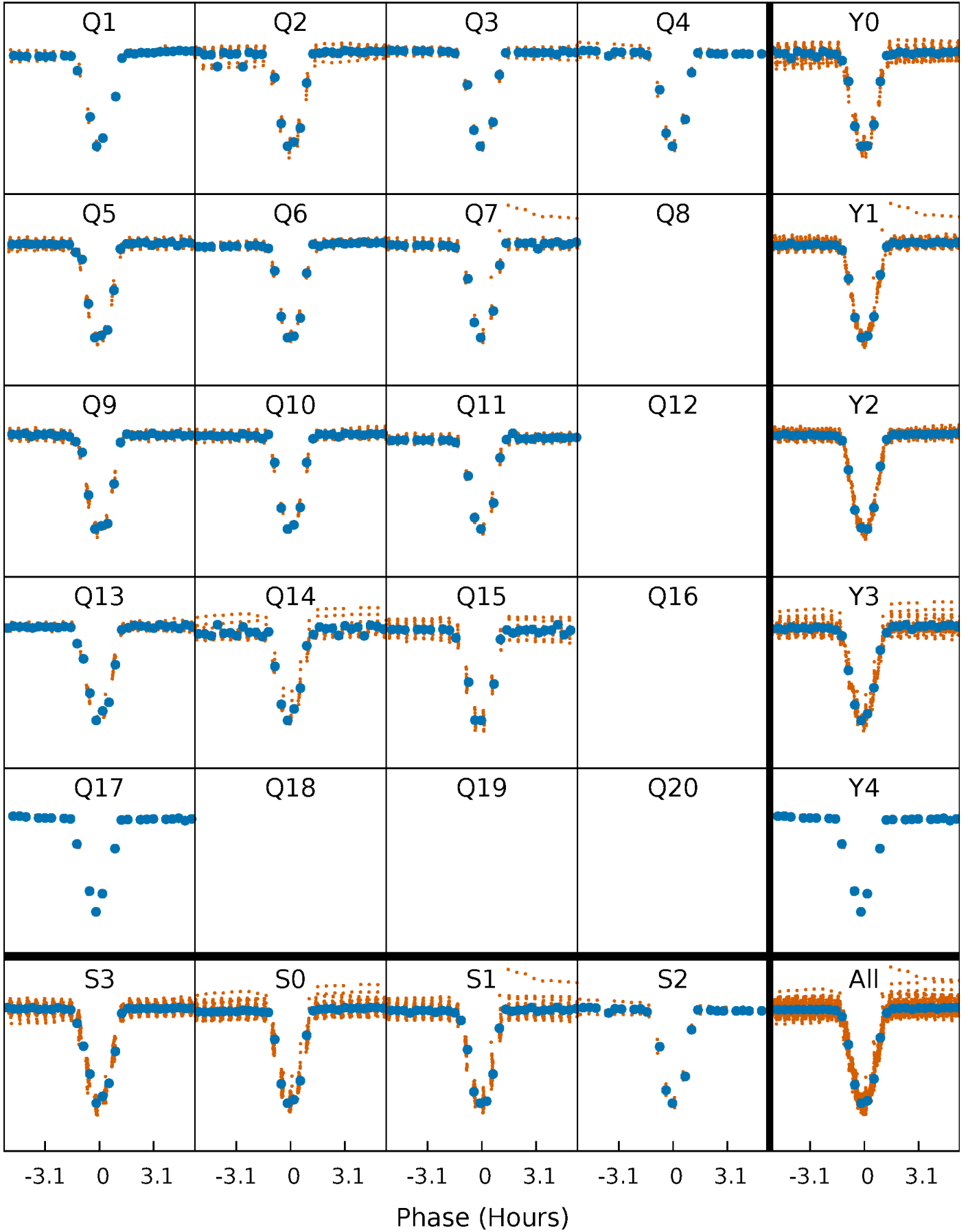


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



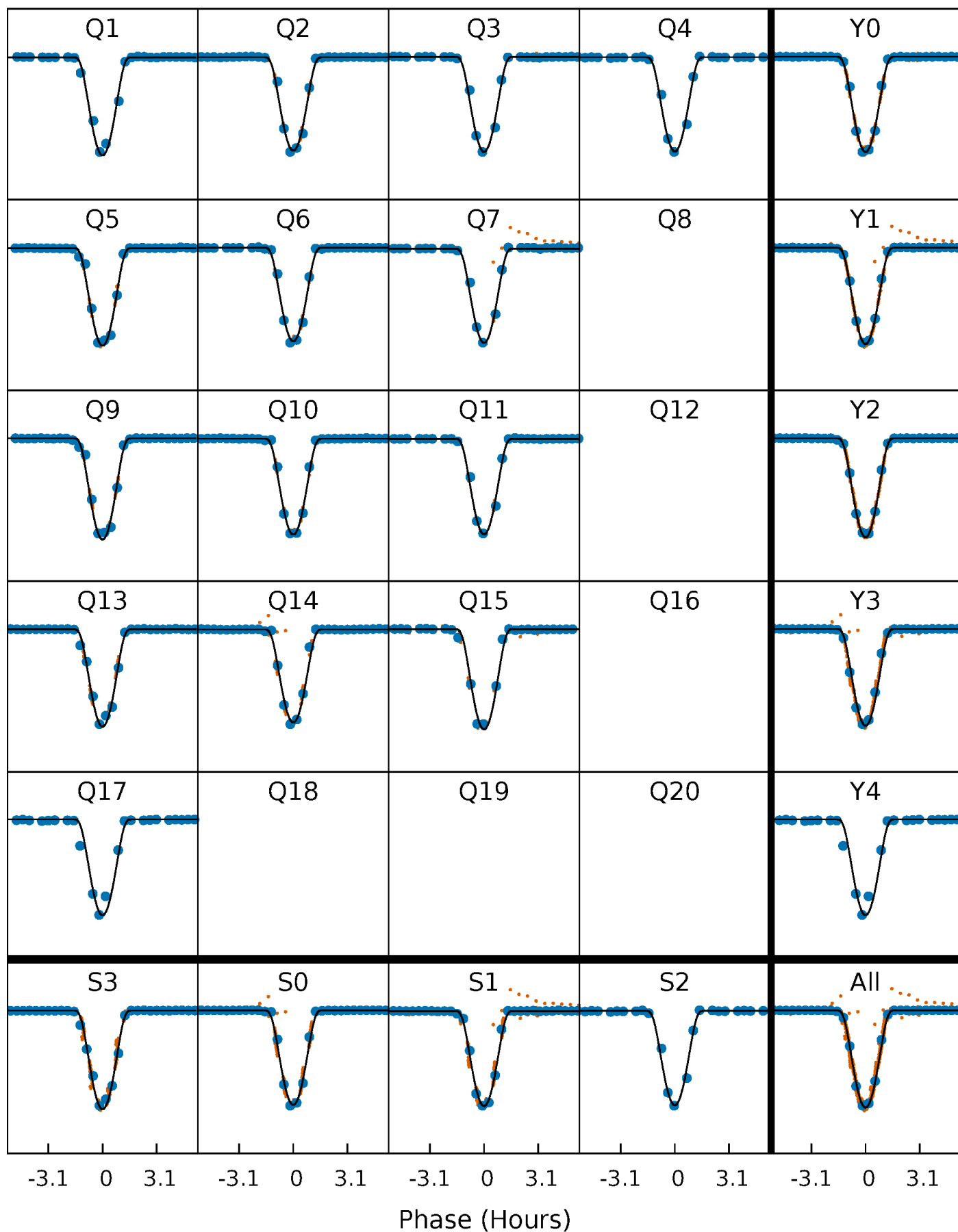
PDC Quarter-Phased Transit Curves

TCE 011021252-01 P= 6.538377 Days $T_0=133.256449$ (BKJD)



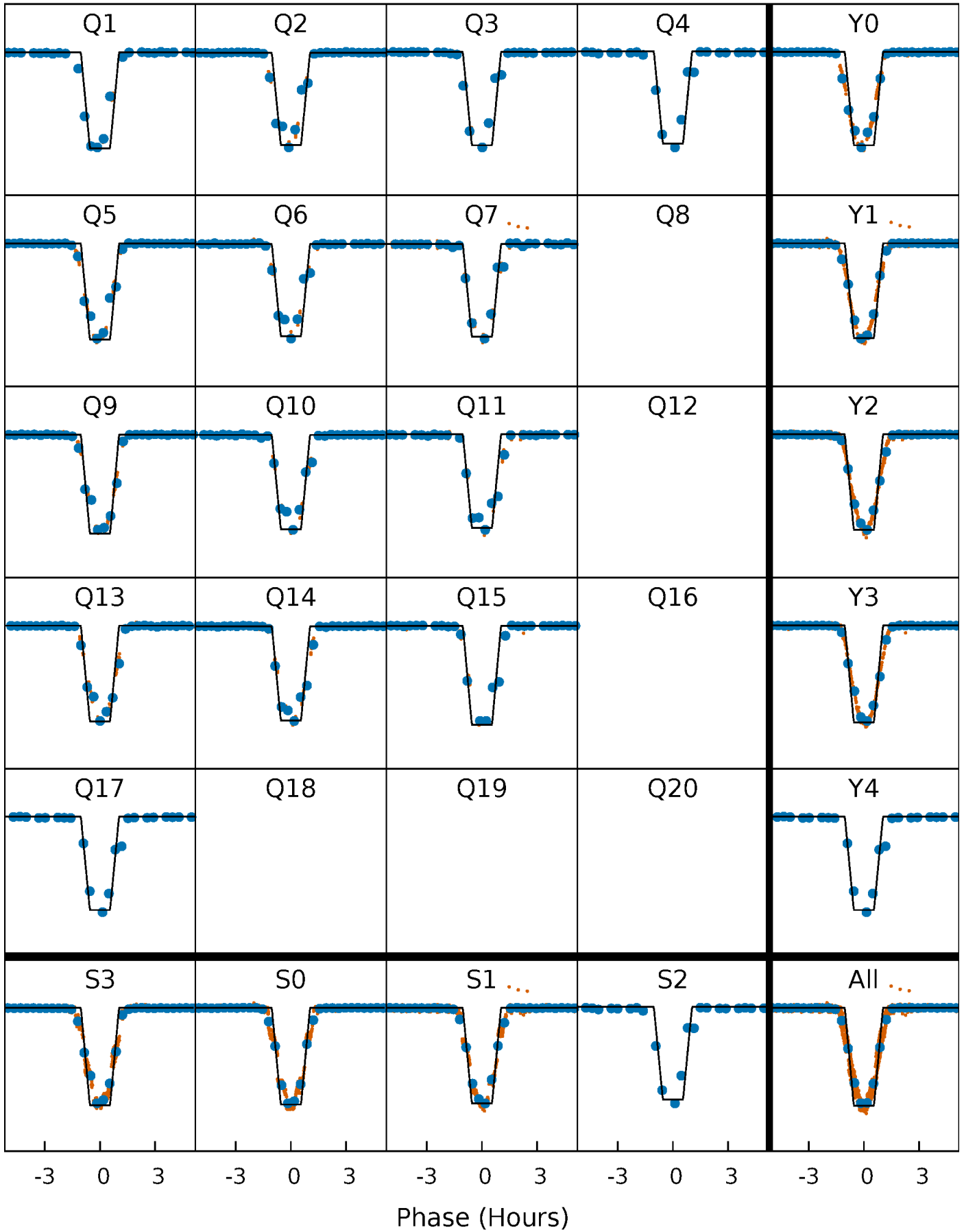
DV Quarter-Phased Transit Curves

TCE 011021252-01 P= 6.538377 Days $T_0=133.256449$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

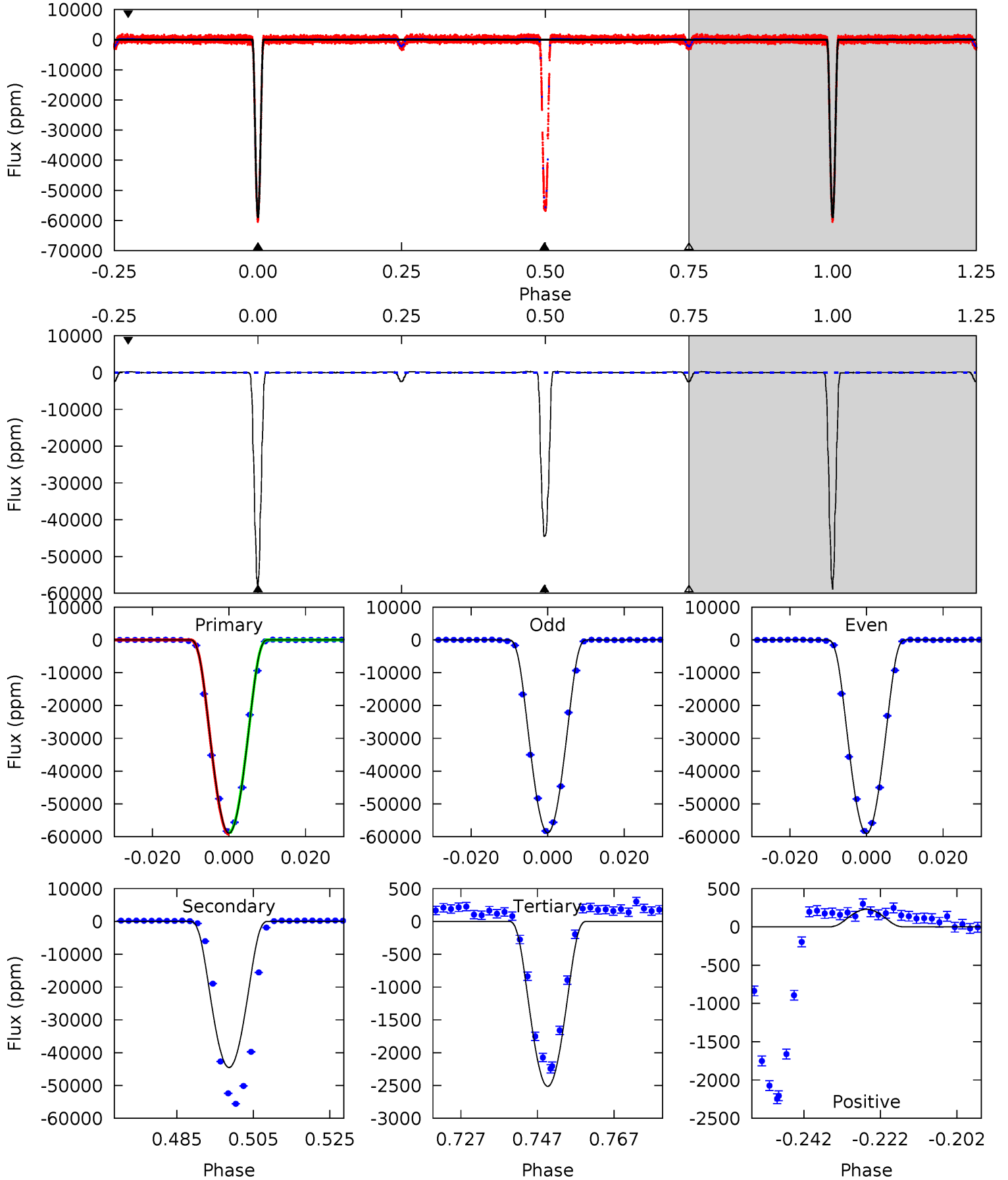
TCE 011021252-01 P= 6.538304 Days $T_0=133.262902$ (BKJD)



DV Model-Shift Uniqueness Test

011021252-01, P = 6.538377 Days, E = 126.718072 Days

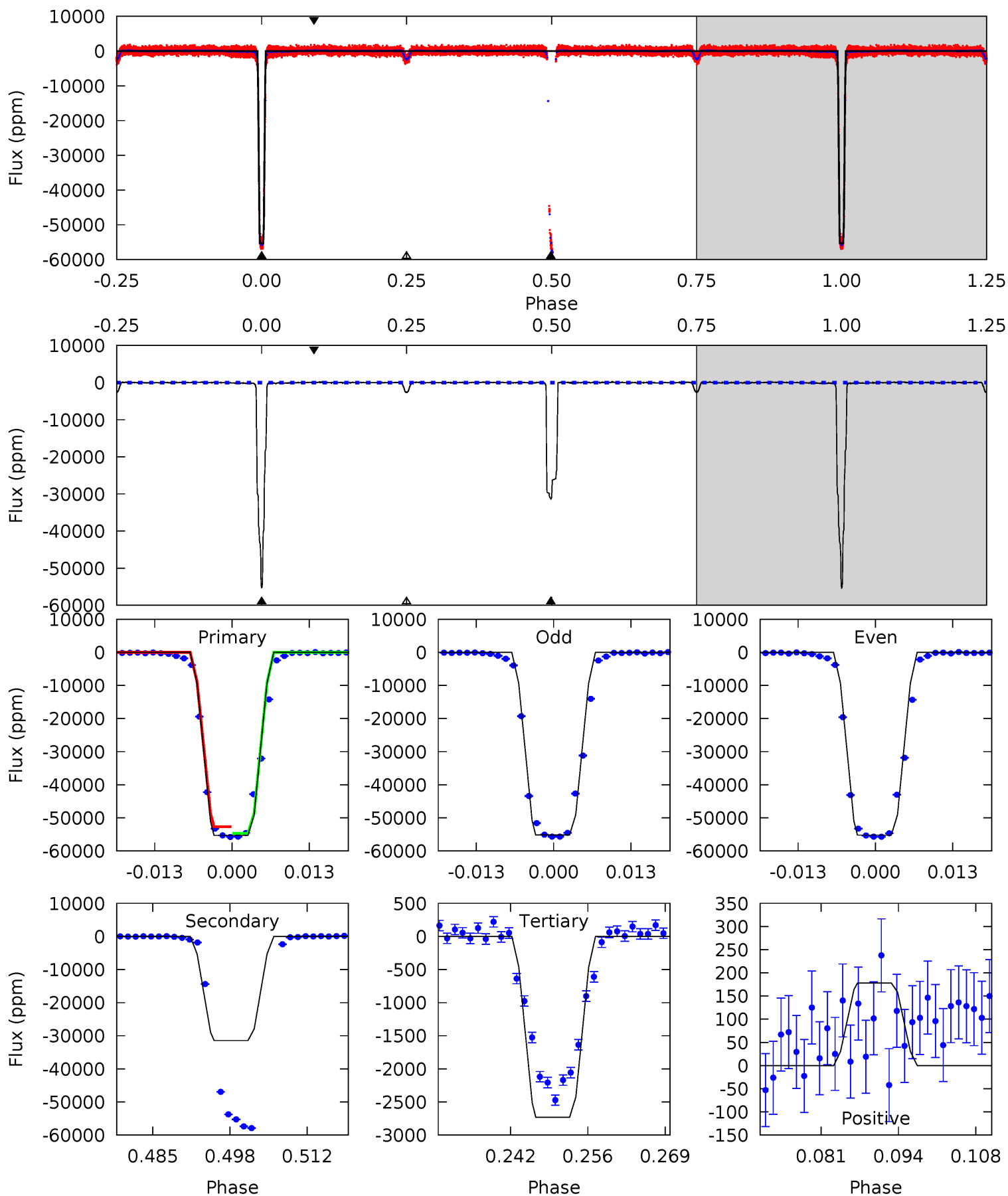
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3442	2601	146.8	13.4	4.89	2.32	19.8	3296	3429	2454	2588	6.13	0.99	0.00	16.1



Alt Model-Shift Uniqueness Test

011021252-01, P = 6.538304 Days, E = 126.724598 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1279	727.0	63.1	4.12	4.97	2.47	7.77	1216	1275	663.9	722.9	0.44	1.00	0.00	0



Stellar Parameters For KIC 011021252

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6372^{+170}_{-207}	$4.453^{+0.056}_{-0.210}$	$-0.320^{+0.250}_{-0.300}$	$1.015^{+0.333}_{-0.111}$	$1.066^{+0.143}_{-0.143}$	$1.435^{+0.430}_{-0.787}$
	+3%/-3%	+1%/-5%	+78%/-94%	+33%/-11%	+13%/-13%	+30%/-55%
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 011021252-01 / KOI 6084.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-44518 ± 17	$35.21^{+6.46}_{-3.03}$	1524^{+121}_{-77}	5330^{+140}_{-142}	99^{+16}_{-27}
Alt.	-31448 ± 43	$27.23^{+4.85}_{-2.11}$	1528^{+119}_{-77}	5527^{+148}_{-173}	114^{+18}_{-28}

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

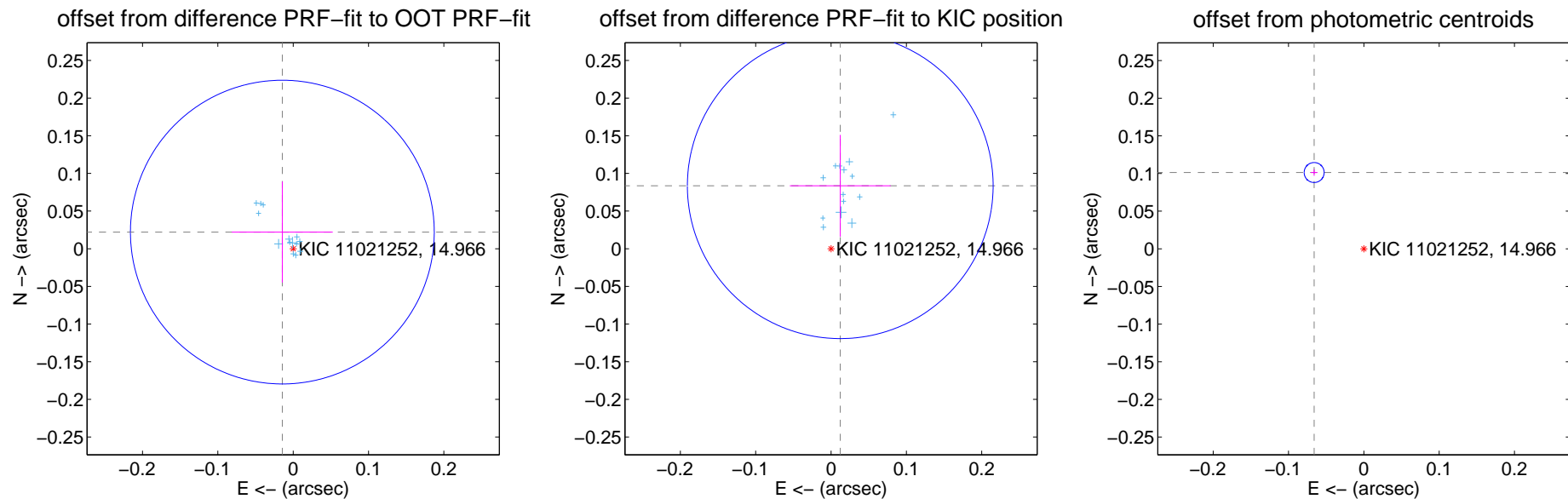
DV Centroid Data

Supplemental centroid analysis for 011021252-01. Kepler magnitude: 14.97. Transit SNR 1756.92

There are 14 quarters with good PRF difference image offsets

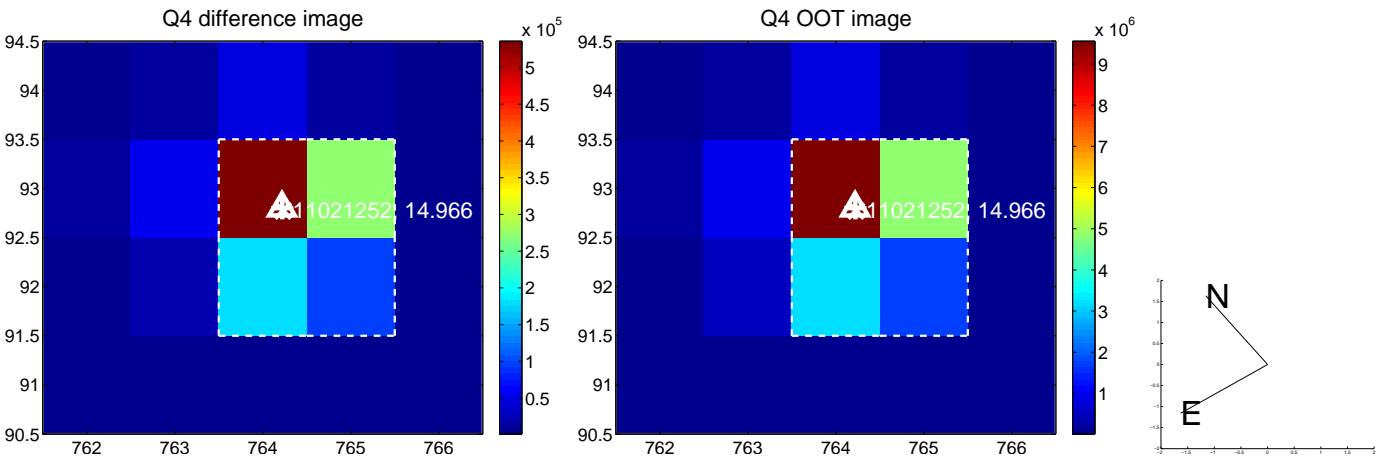
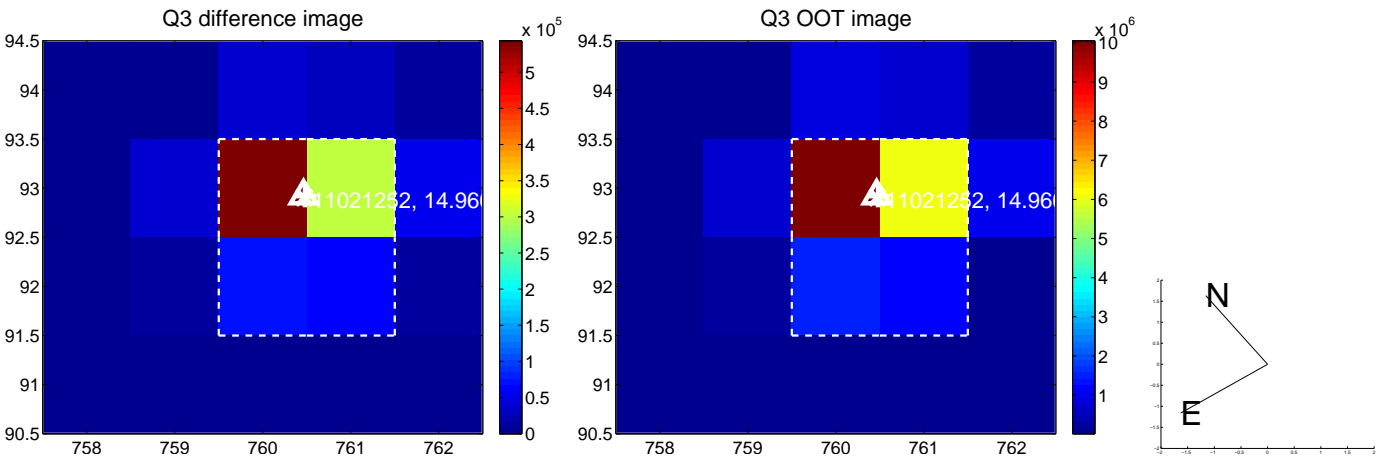
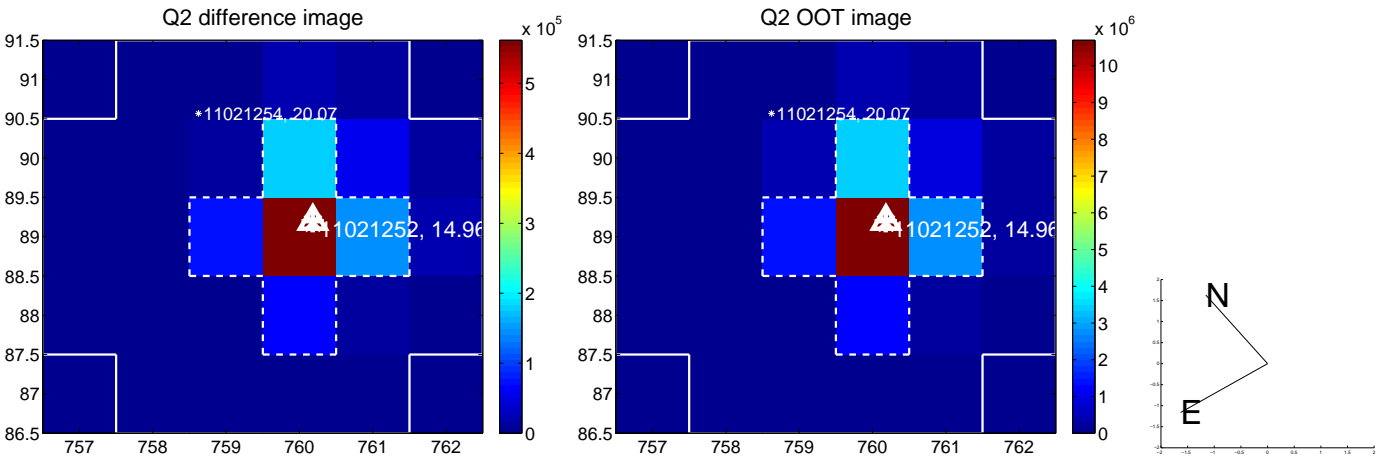
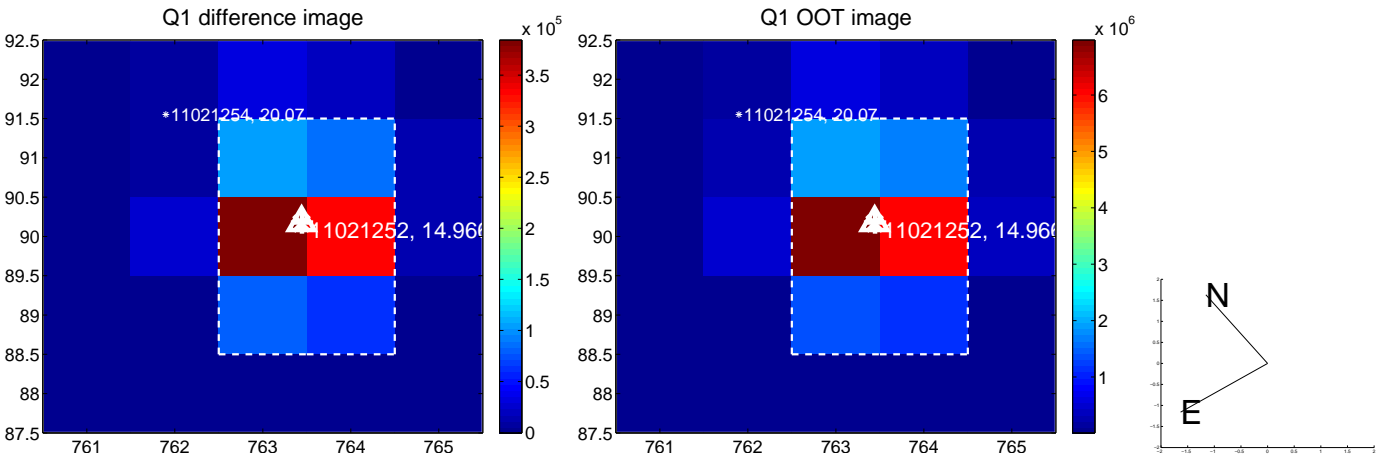
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.026 ± 0.067	0.39	0.014 ± 0.067	0.022 ± 0.067
PRF-fit source offset from KIC position	0.084 ± 0.068	1.25	-0.012 ± 0.067	0.084 ± 0.068
photometric centroid source offset	0.12 ± 0.00	27.34	0.07 ± 0.00	0.10 ± 0.00

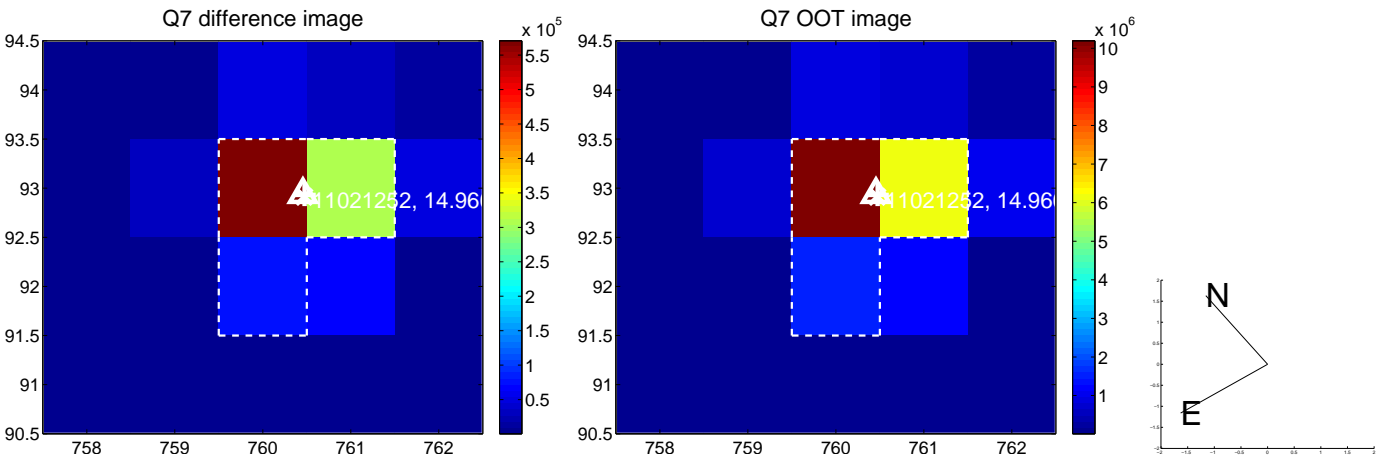
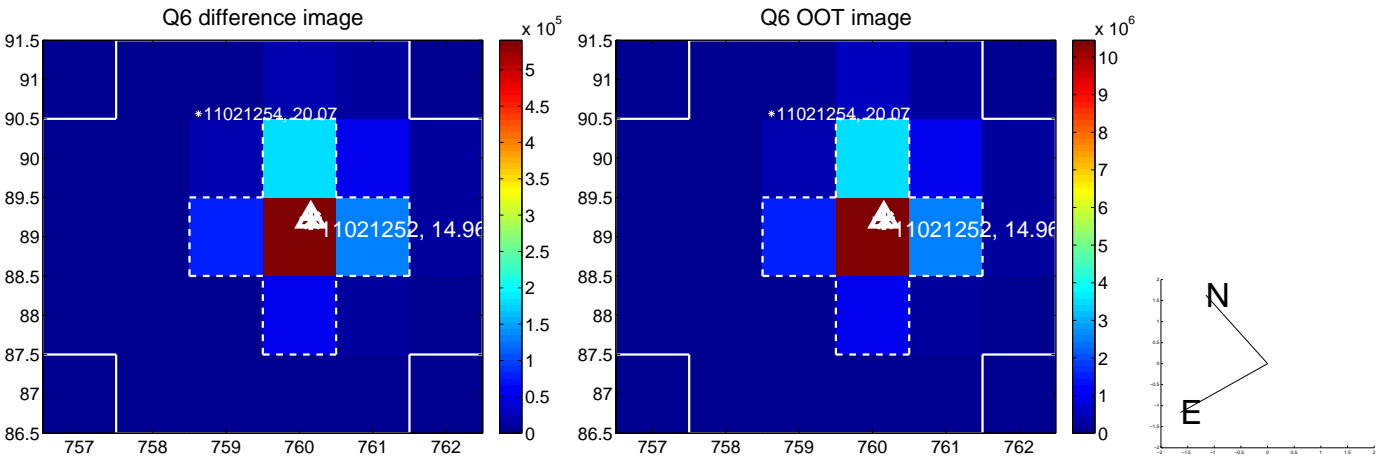
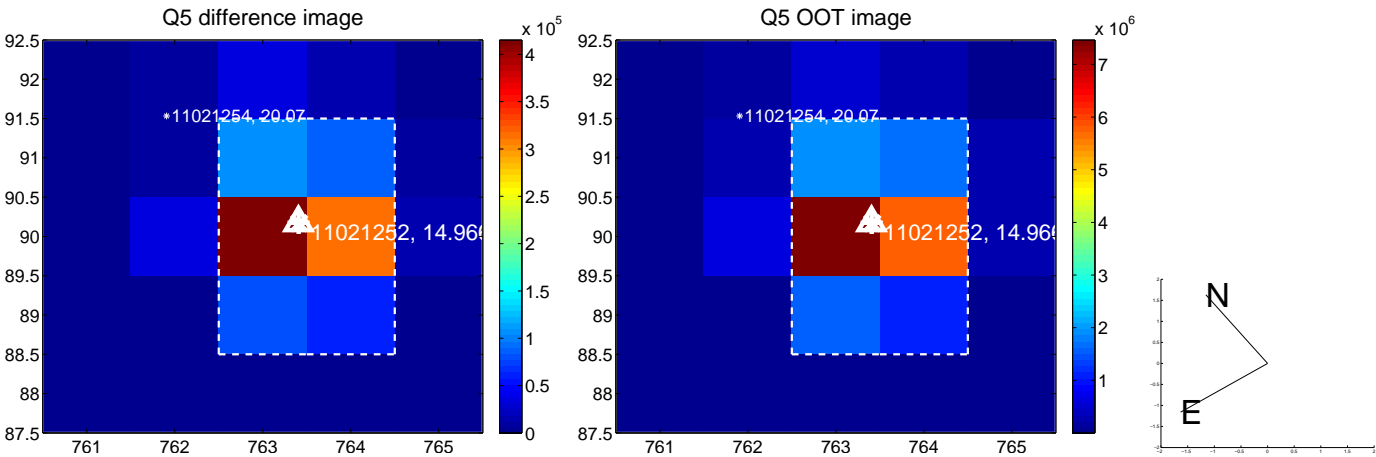


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

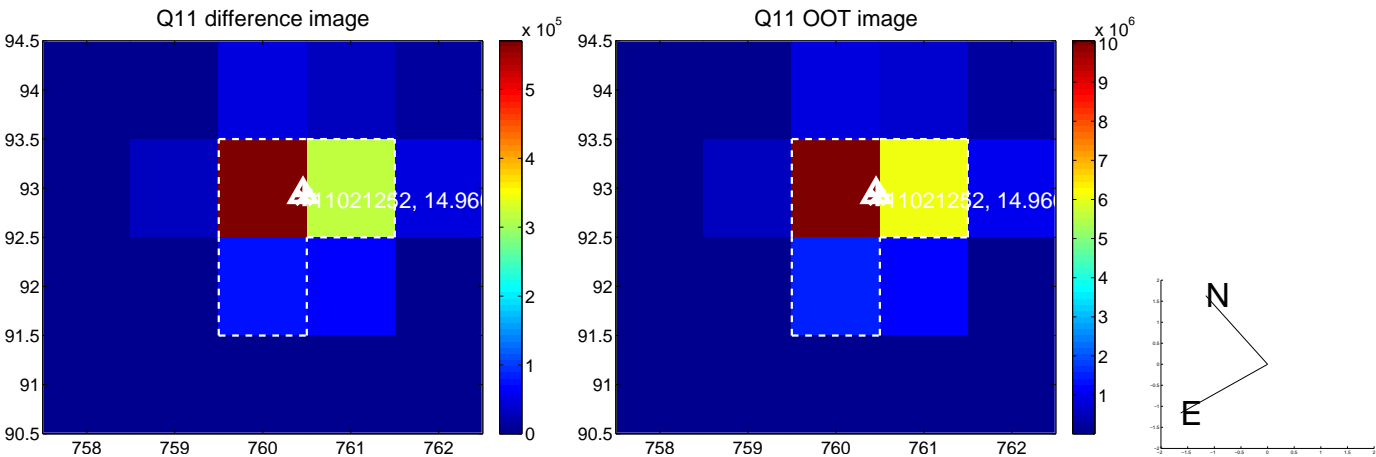
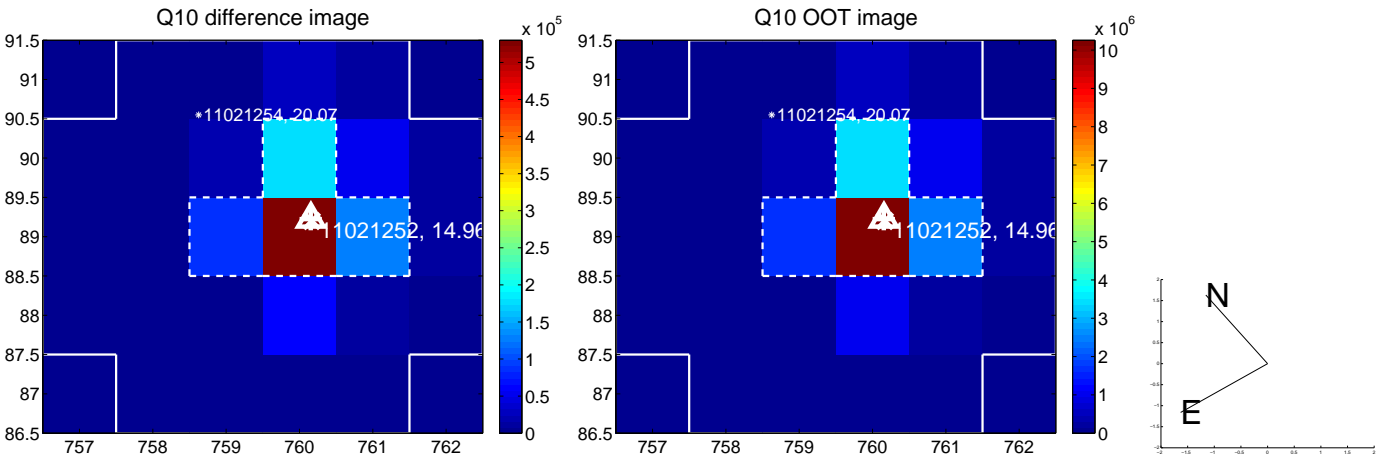
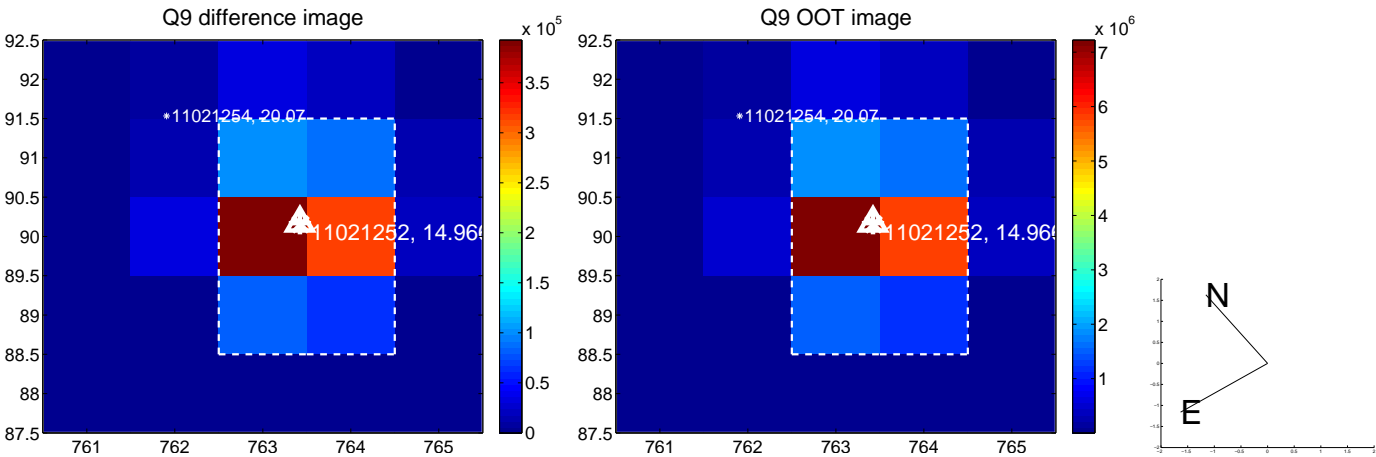
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



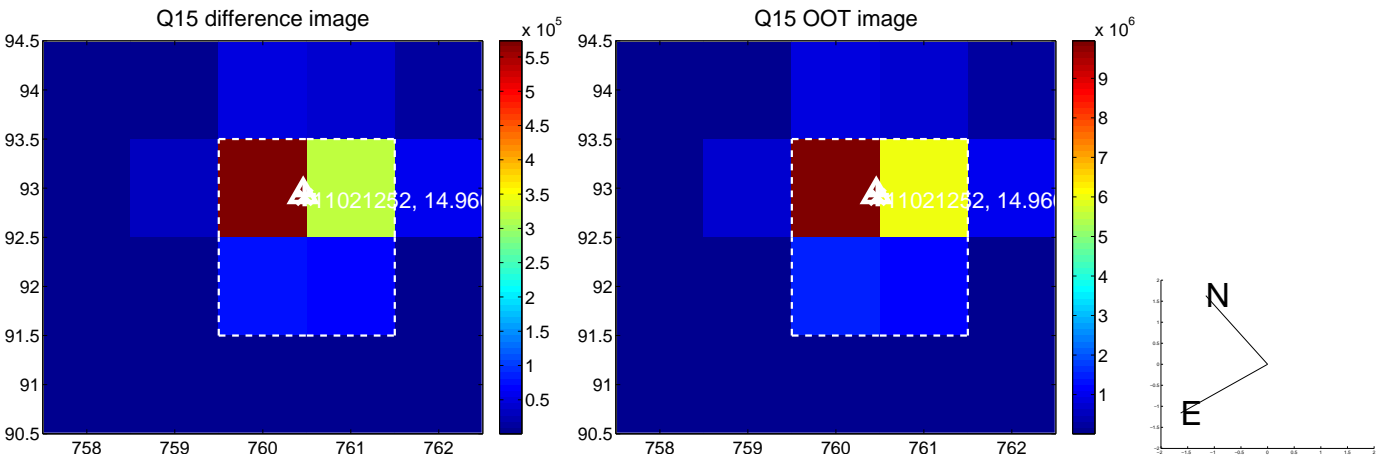
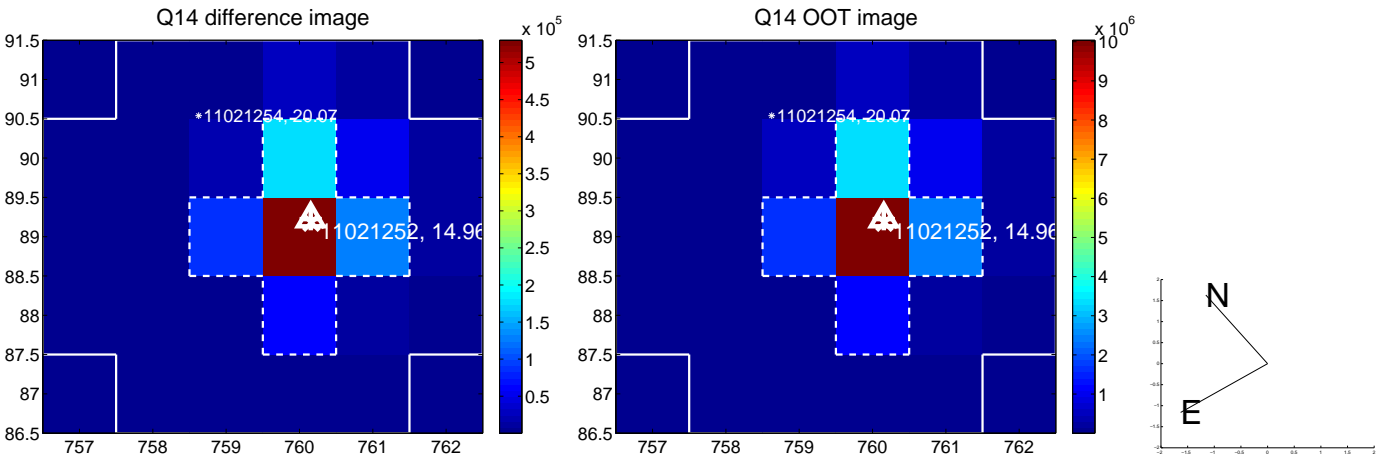
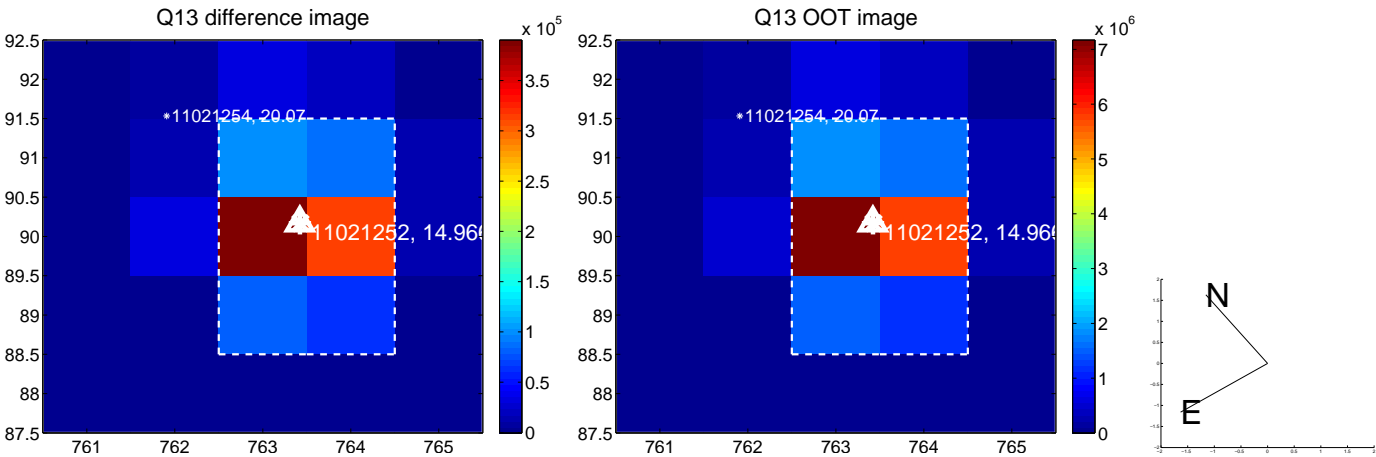
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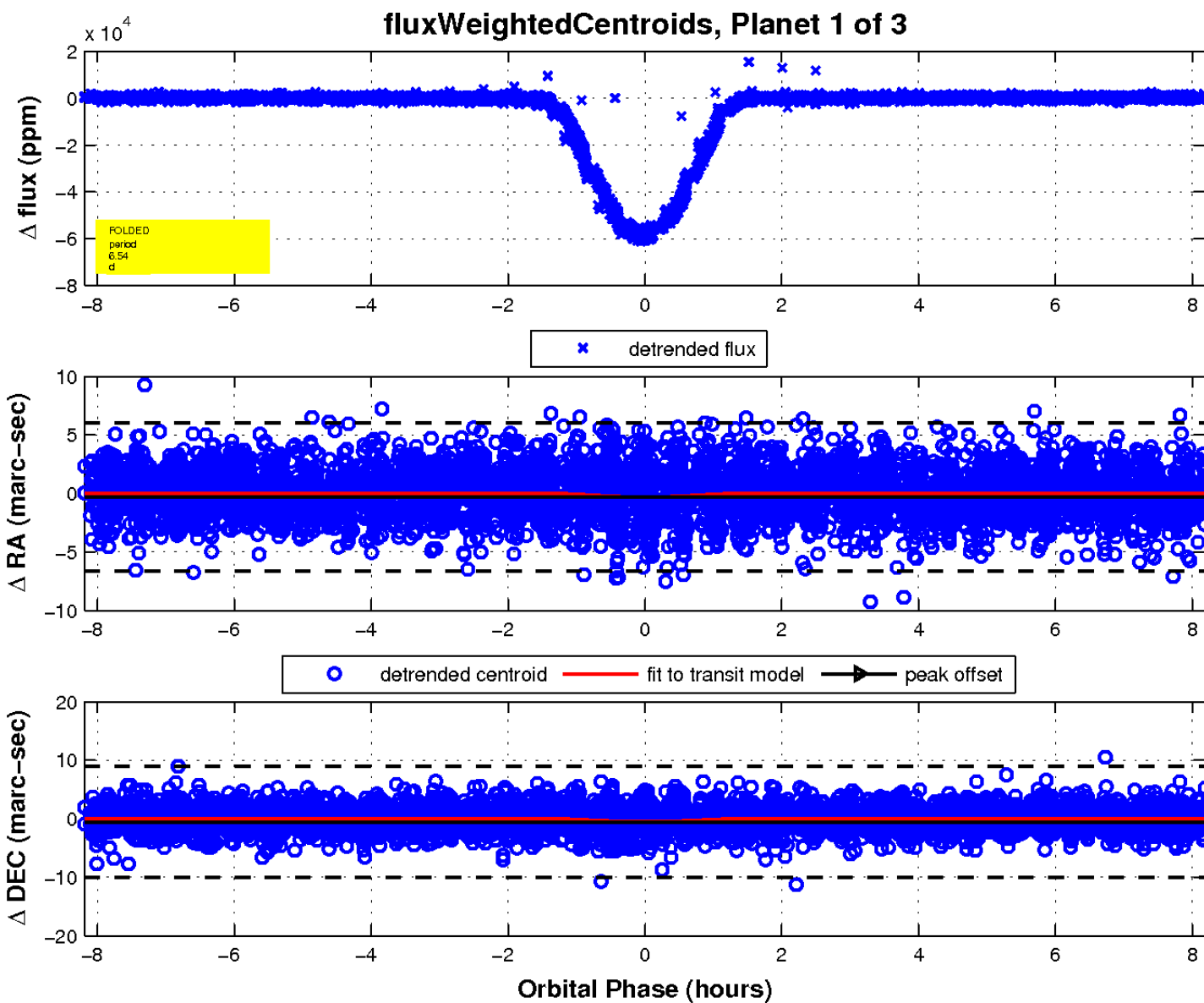
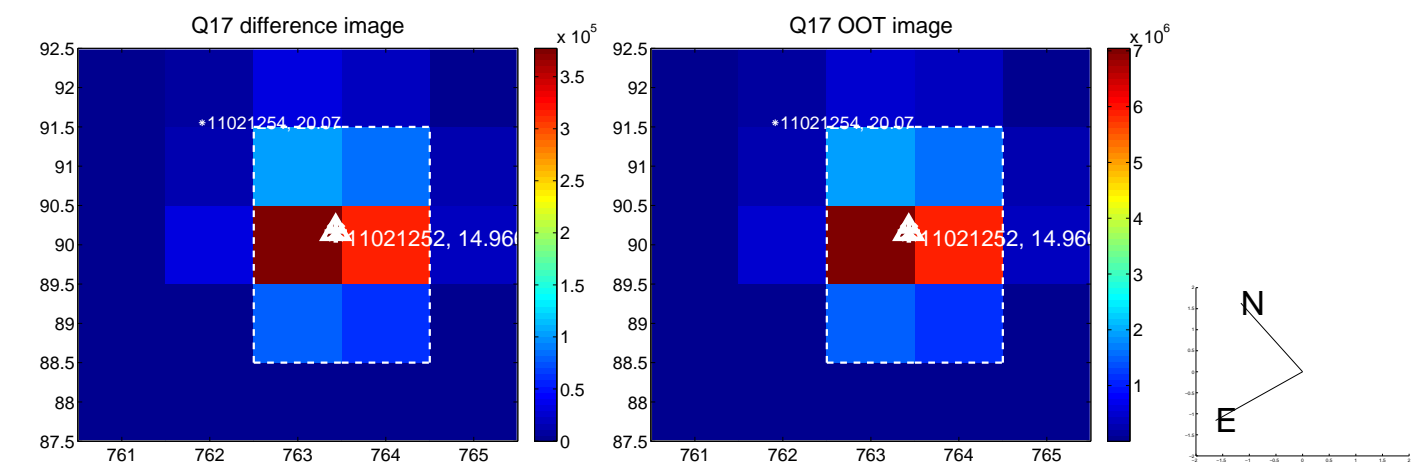
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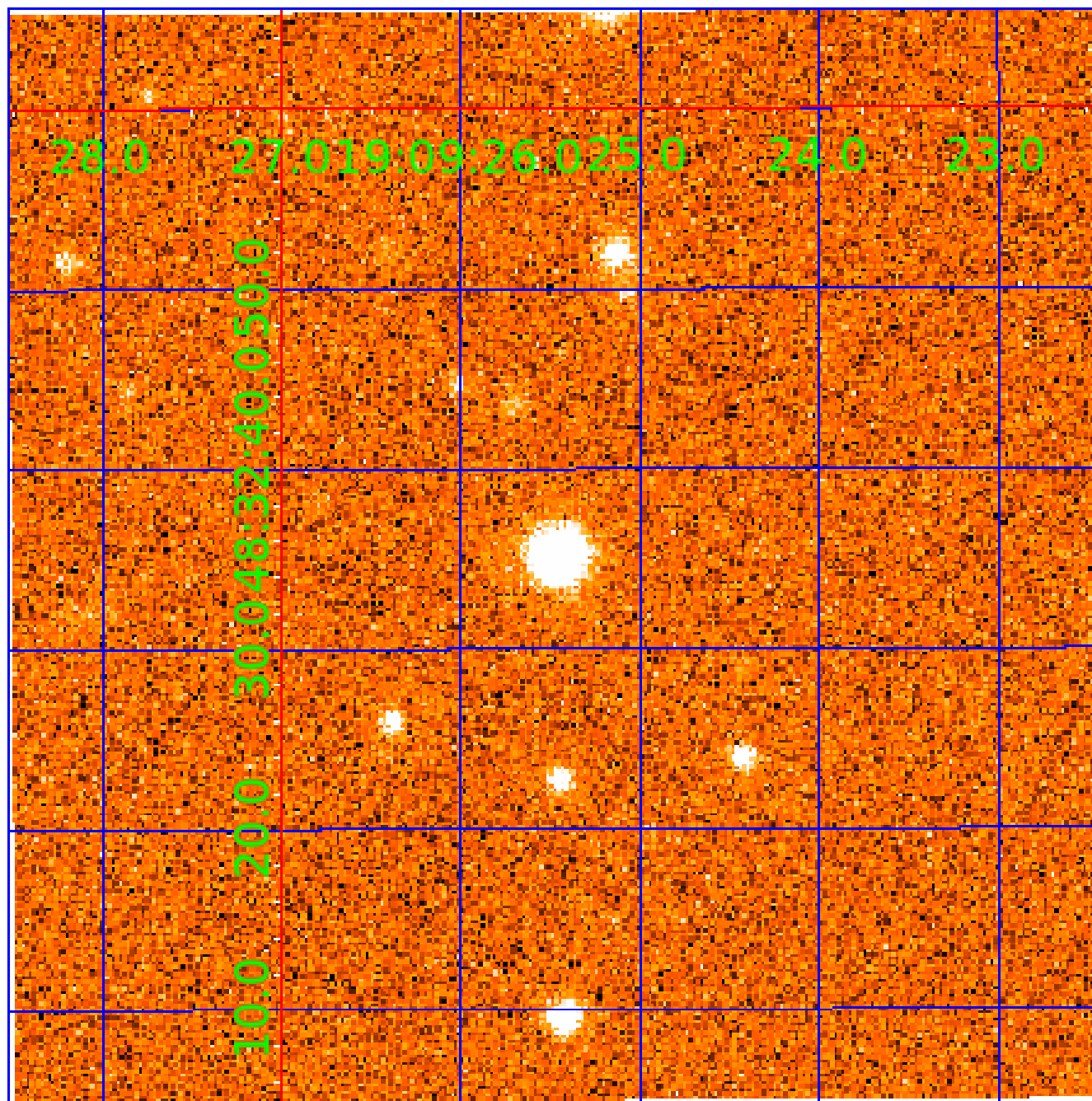


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011021252

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})
011021252-01	OBS	6084.01	6.538377	133.256449	58909.3	2.731	838.7	1756.9	1.01	6372	34.54	311.18
011021252-02	OBS	No	6.538376	136.525651	58747.1	2.732	2278.4	1804.0	1.01	6372	34.39	311.18
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011021252-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—PERIOD_ALIAS_DV—PERIOD_ALIAS_ALT
011021252-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
011021252-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD

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.

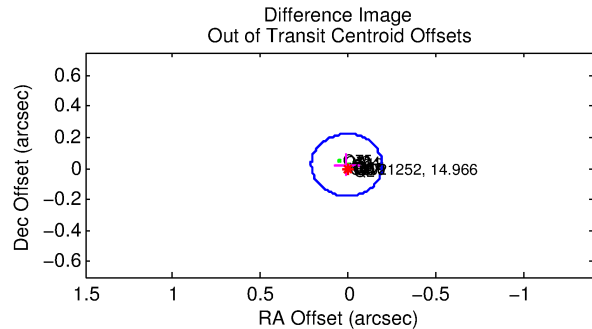
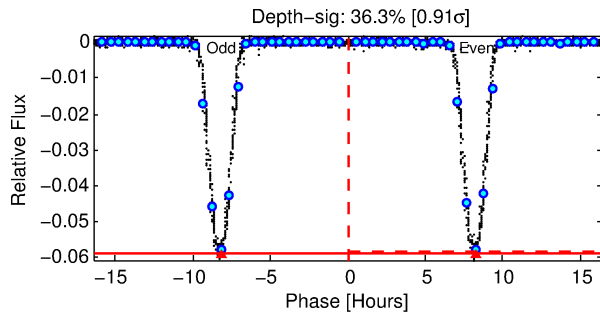
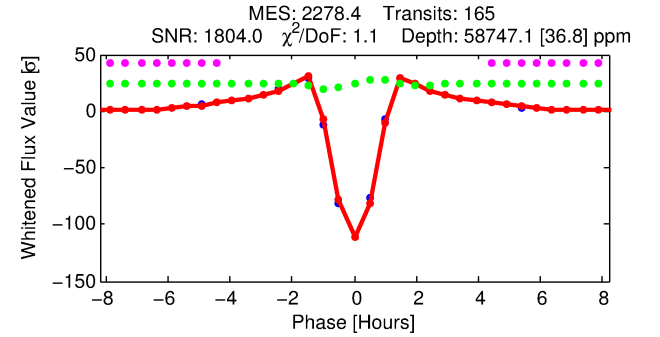
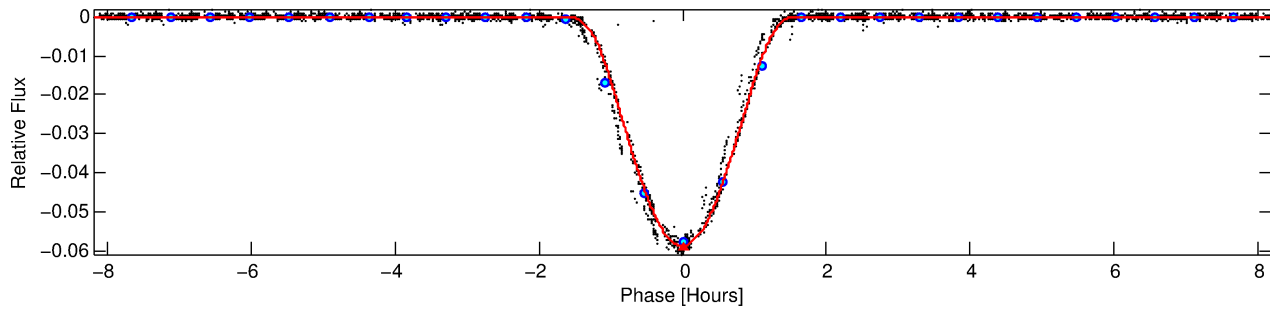
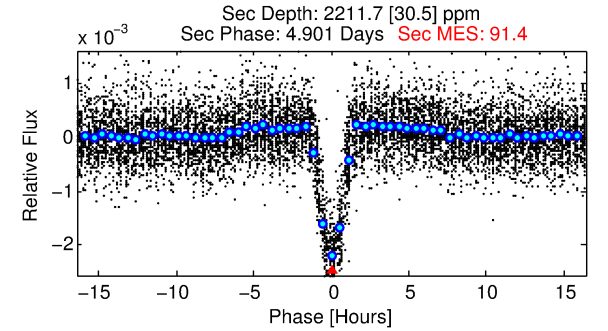
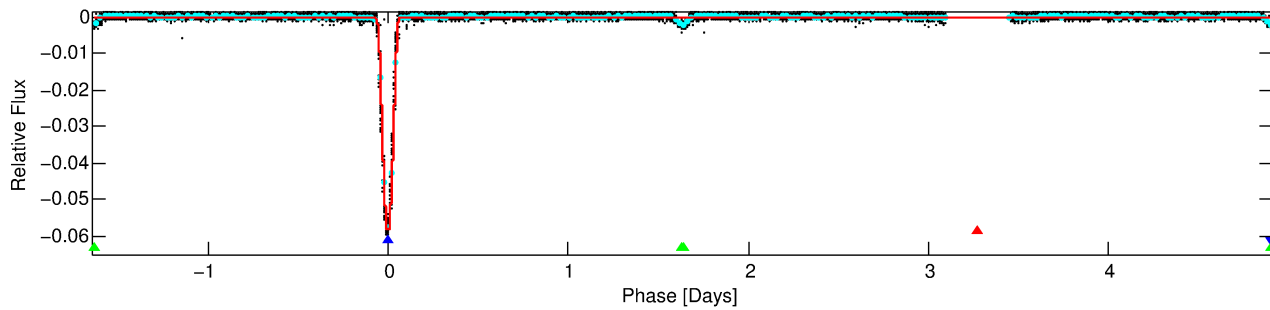
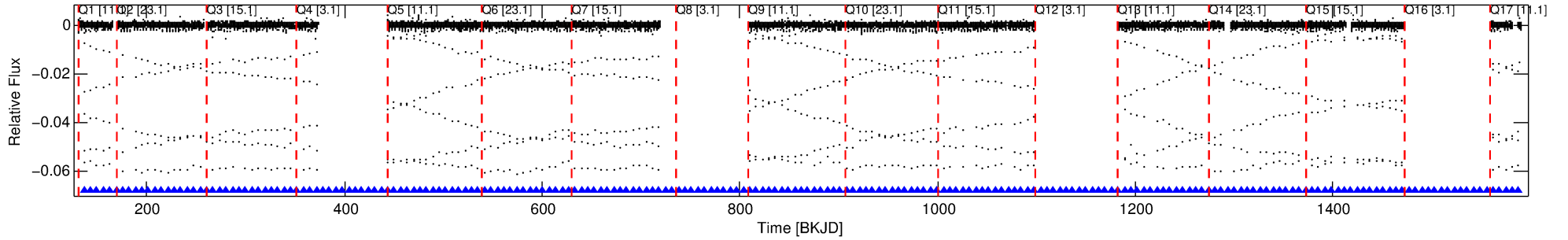
Ephemeris Match Information For 011021252-02

No Significant Match Found

DV One-Page Summary

KIC: 11021252 Candidate: 2 of 3 Period: 6.538 d
KOI: K06084 Corr: No Ephemeris Match

Kp: 14.97 R*: 1.01 Rs Teff: 6372.0 K Logg: 4.45 Fe/H: -0.320



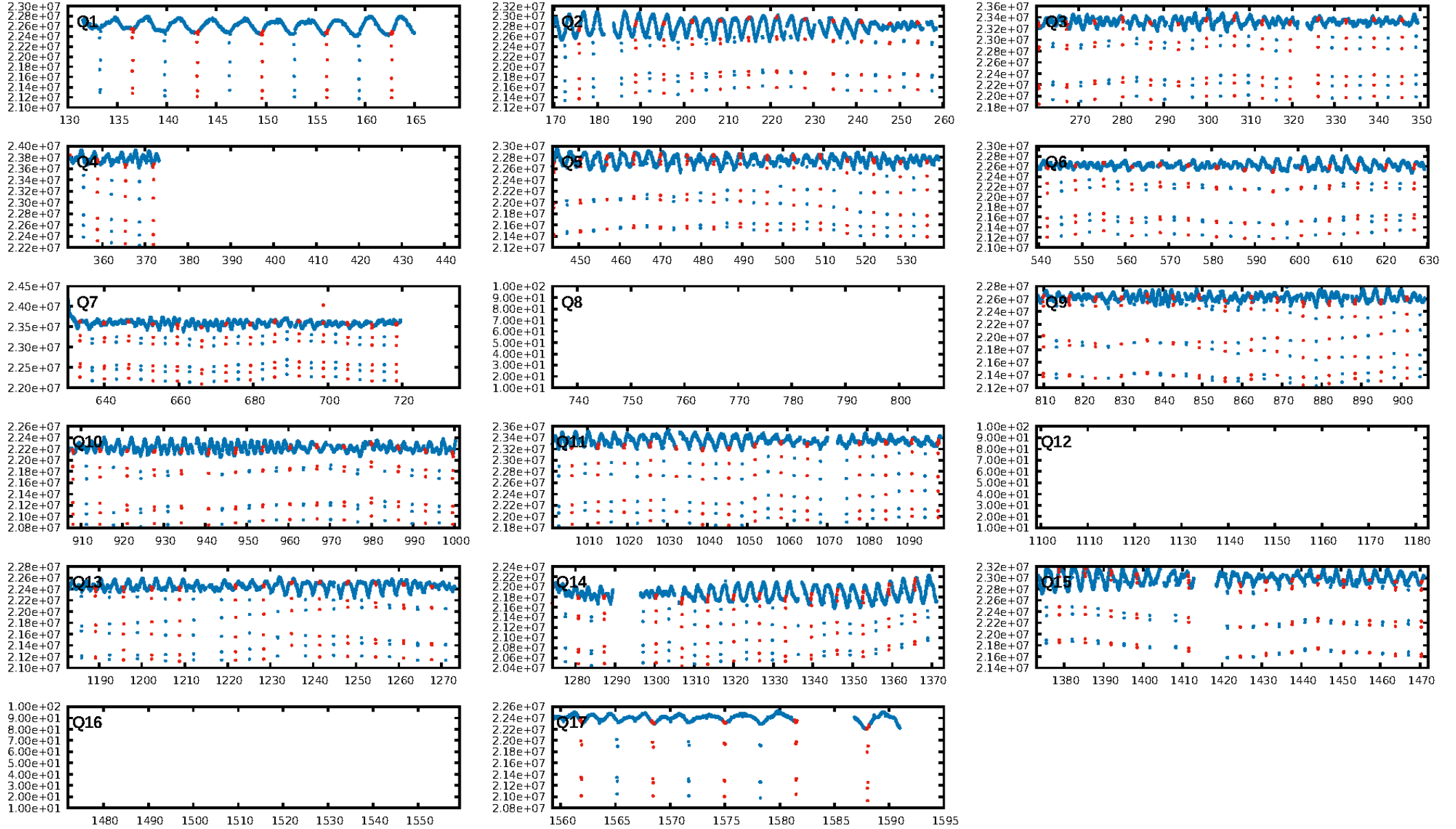
DV Fit Results:

Period = 6.53838 [0.00000] d
Epoch = 136.5257 [0.0000] BKJD
Rp/R* = 0.3105 [0.0059]
a/R* = 17.50 [0.03]
b = 0.90 [0.01]
Seff = 311.18 [127.79]
Teq = 1071 [110] K
Rp = 34.39 [11.30] Re
a = 0.0699 [0.0190] AU
Ag = 5.03 [1.97] [2.05σ]
Teffp = 2480 [84] K [10.17σ]

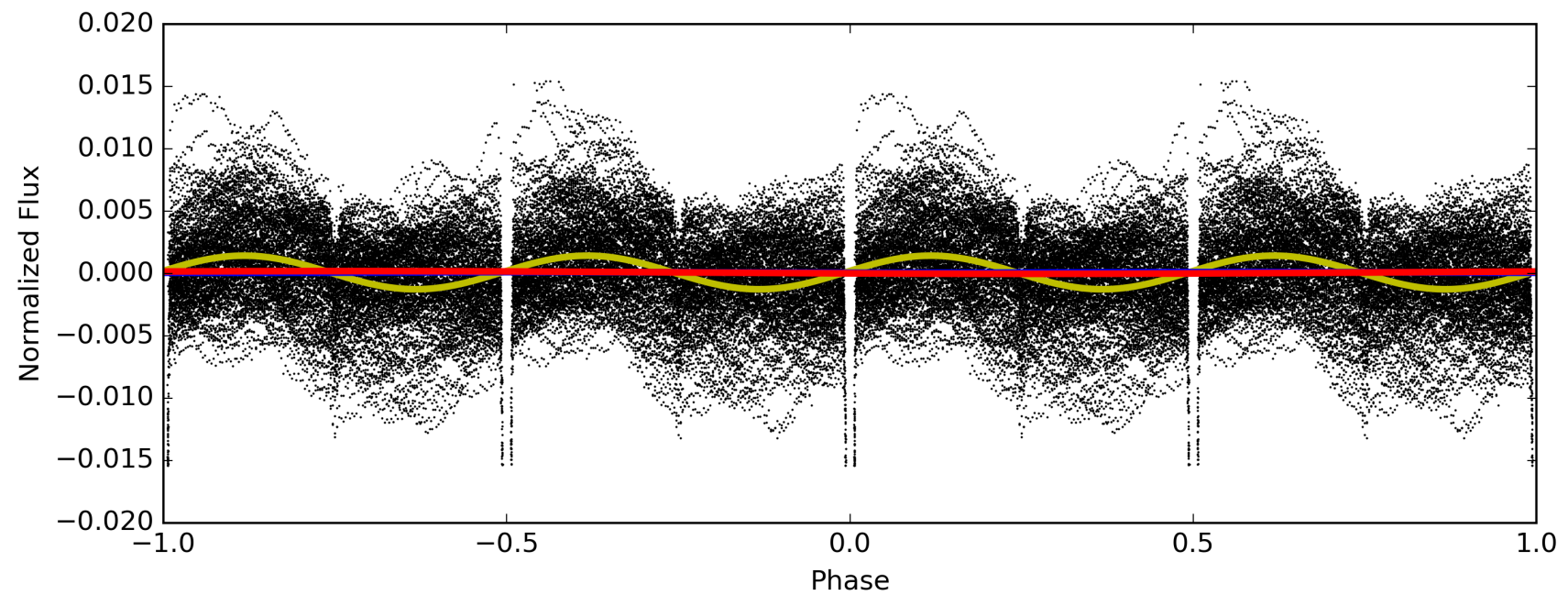
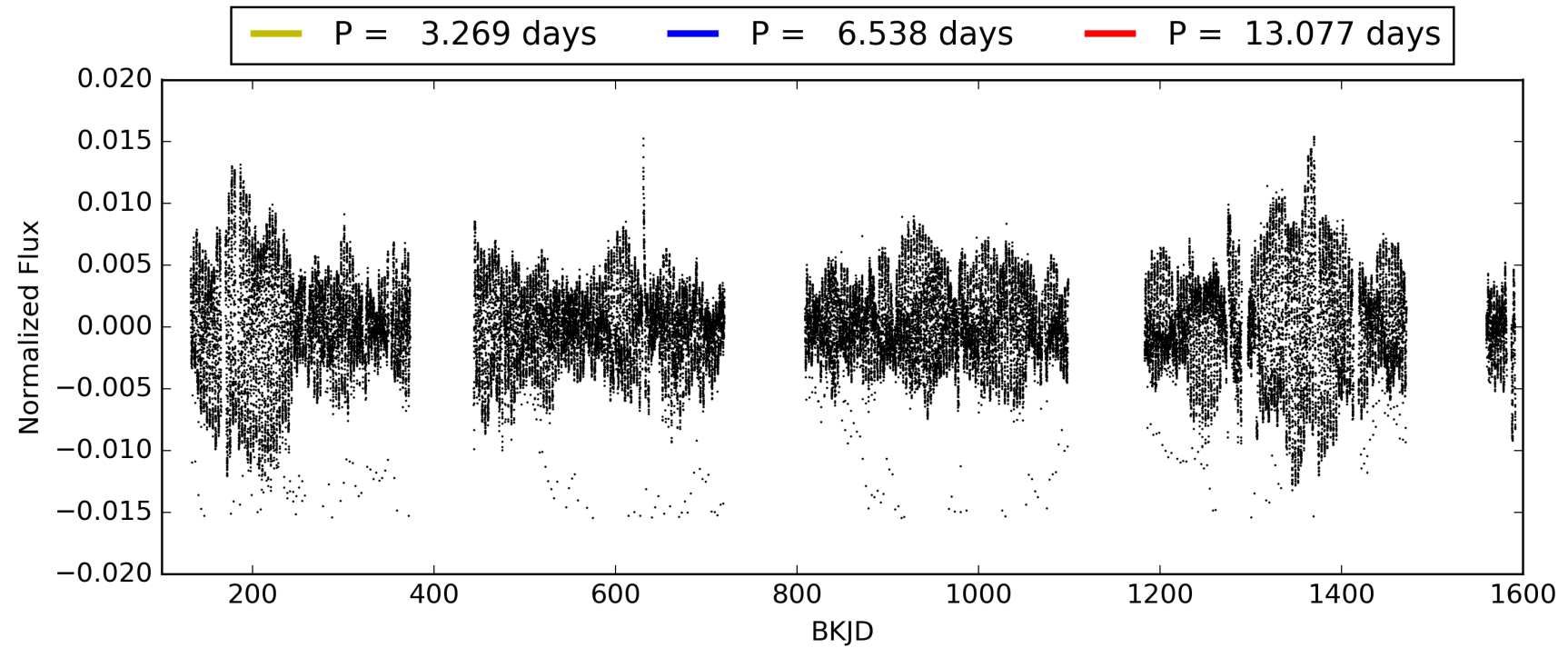
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [20.84σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 84.6%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [152/152]
GhostDiagnostic-chr: 3.153
Centroid-sig: 0.2%
Centroid-so: 0.116 arcsec [26.06σ]
OotOffset-rm: 0.024 arcsec [0.36σ]
KicOffset-rm: 0.087 arcsec [1.29σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011021252-02, PDC Light Curves

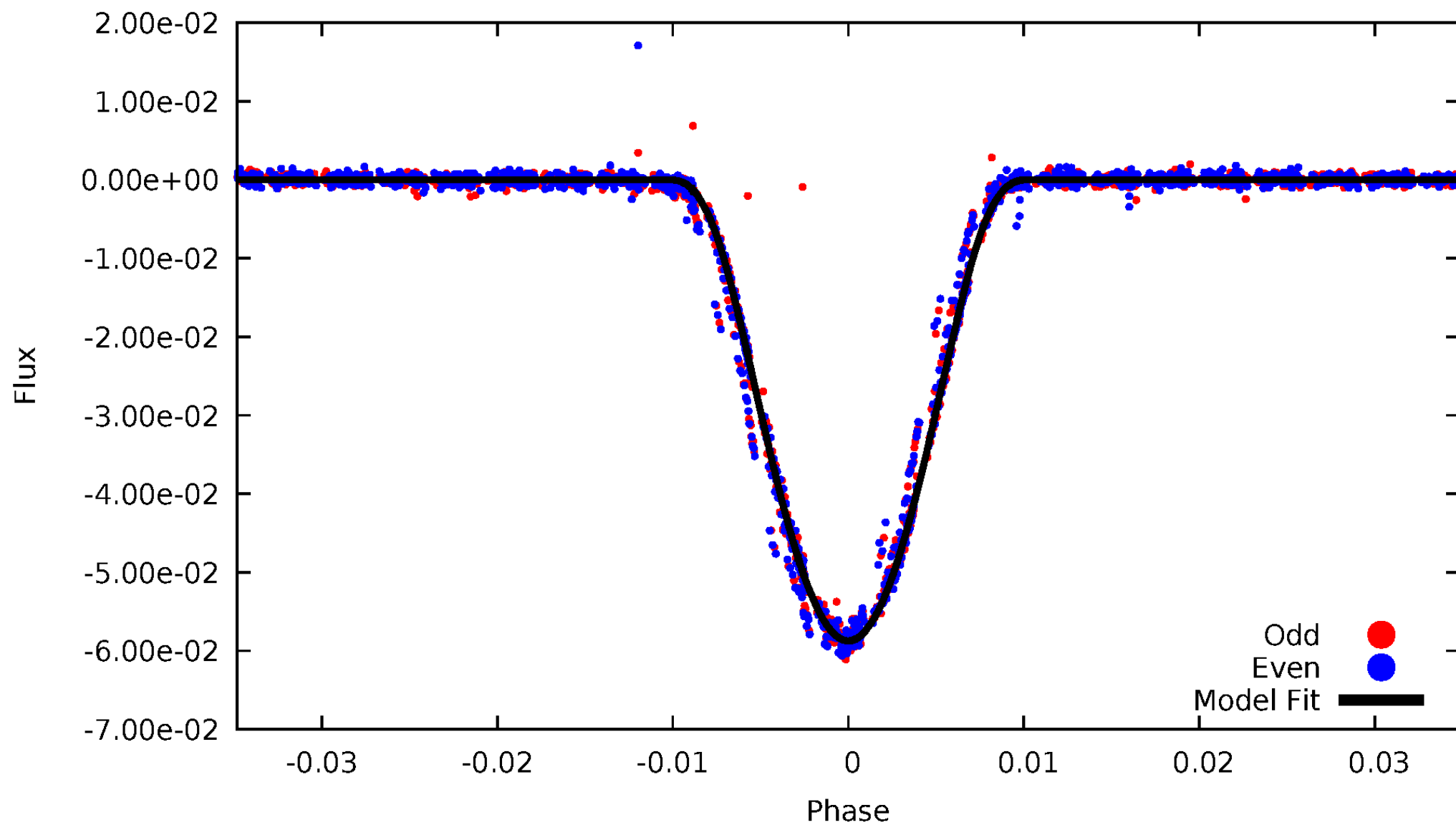


TCE 011021252-02



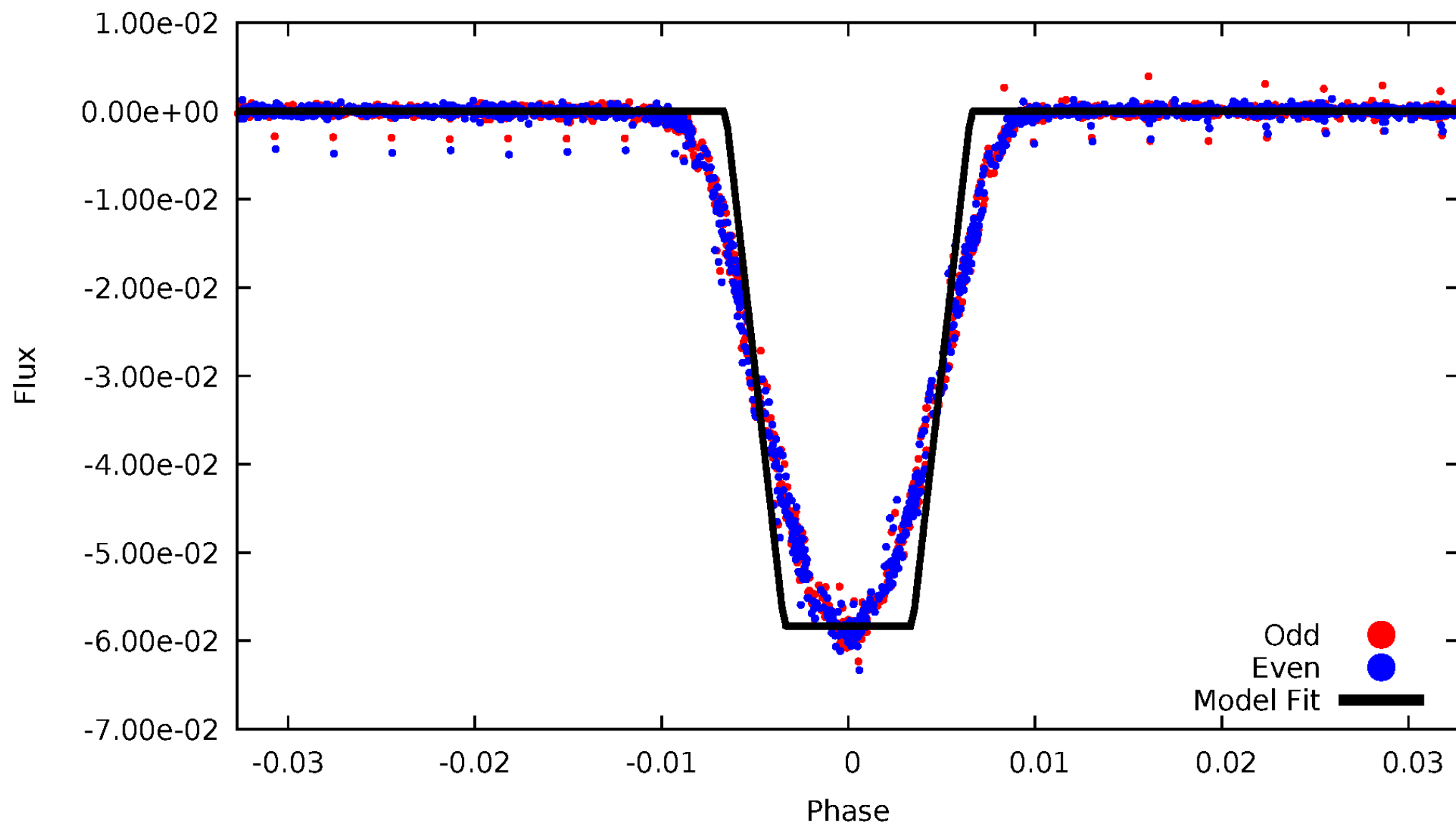
DV Odd/Even

TCE 011021252-02



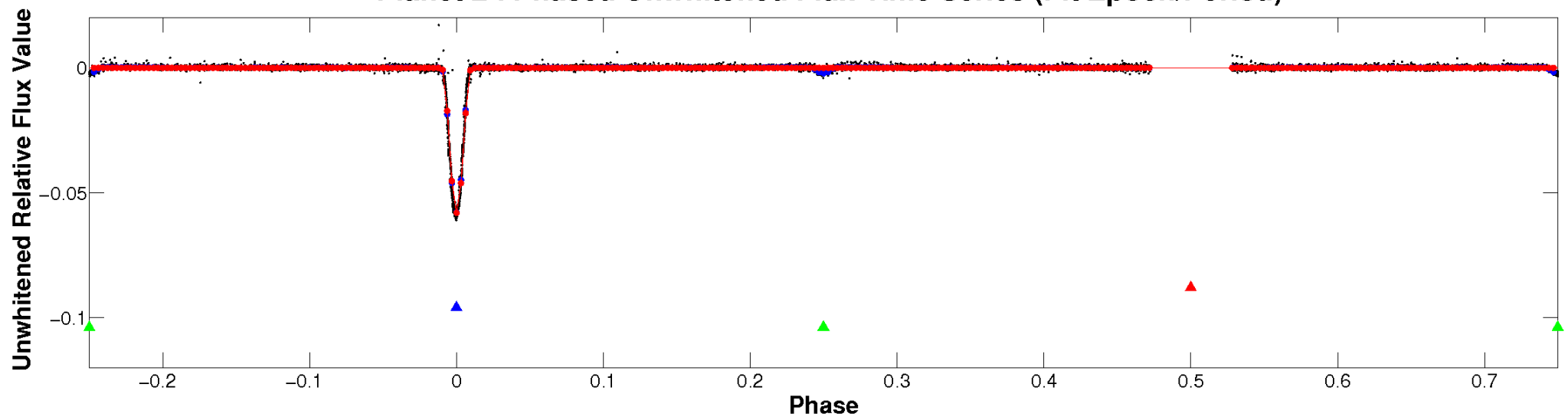
ALT Odd/Even

TCE 011021252-02

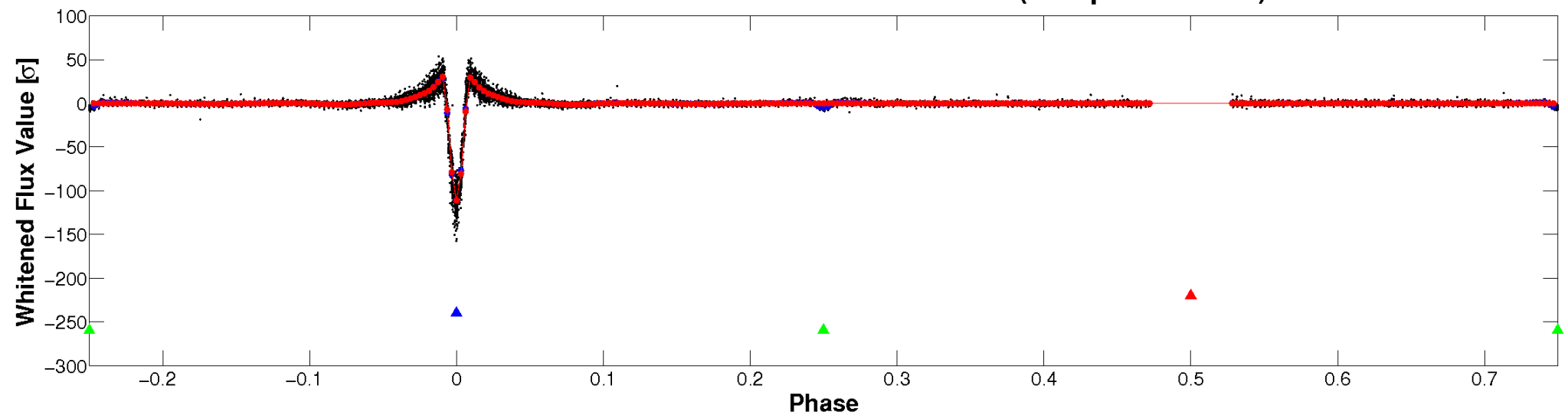


Non-Whitened Vs. Whitened Light Curve

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

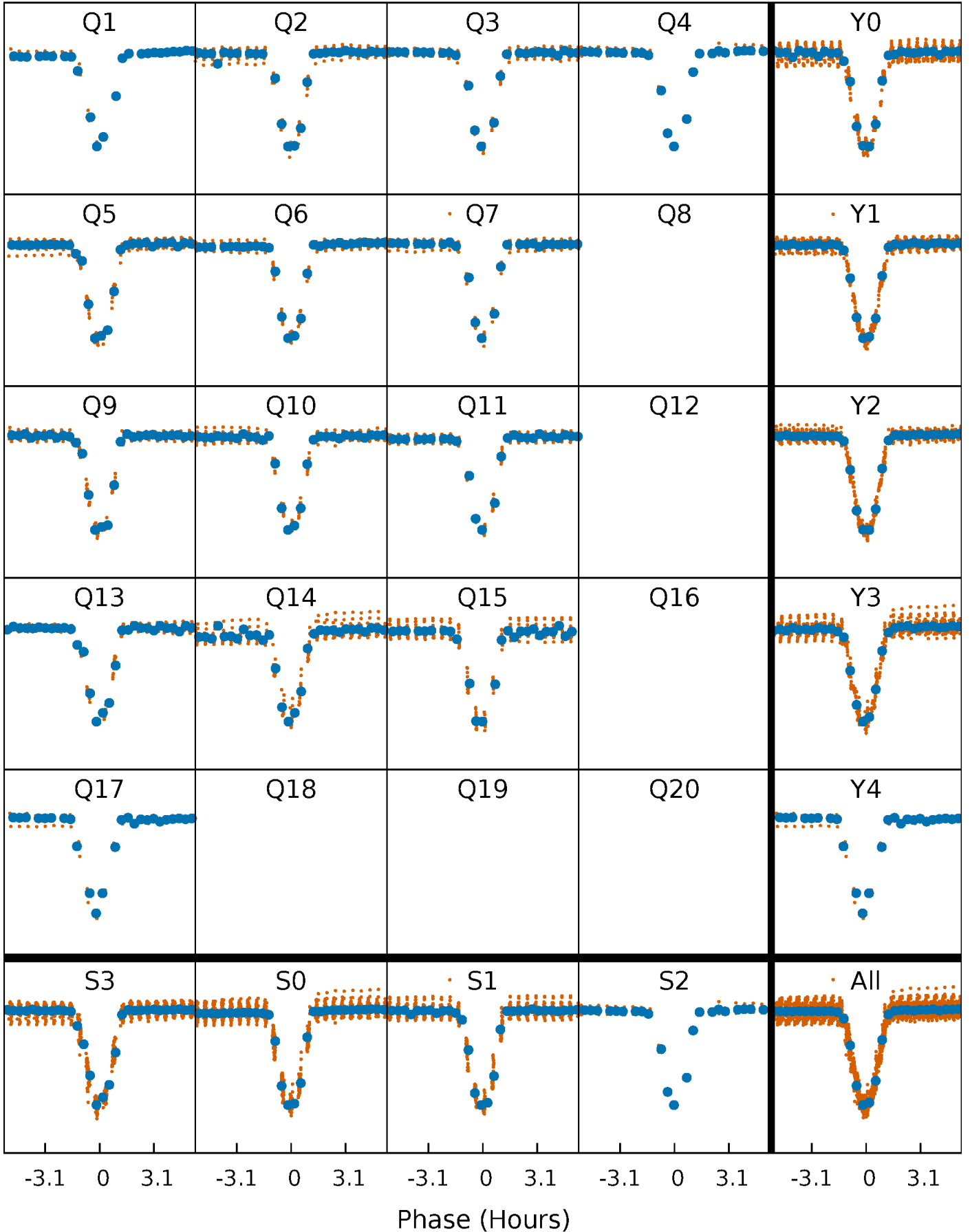


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



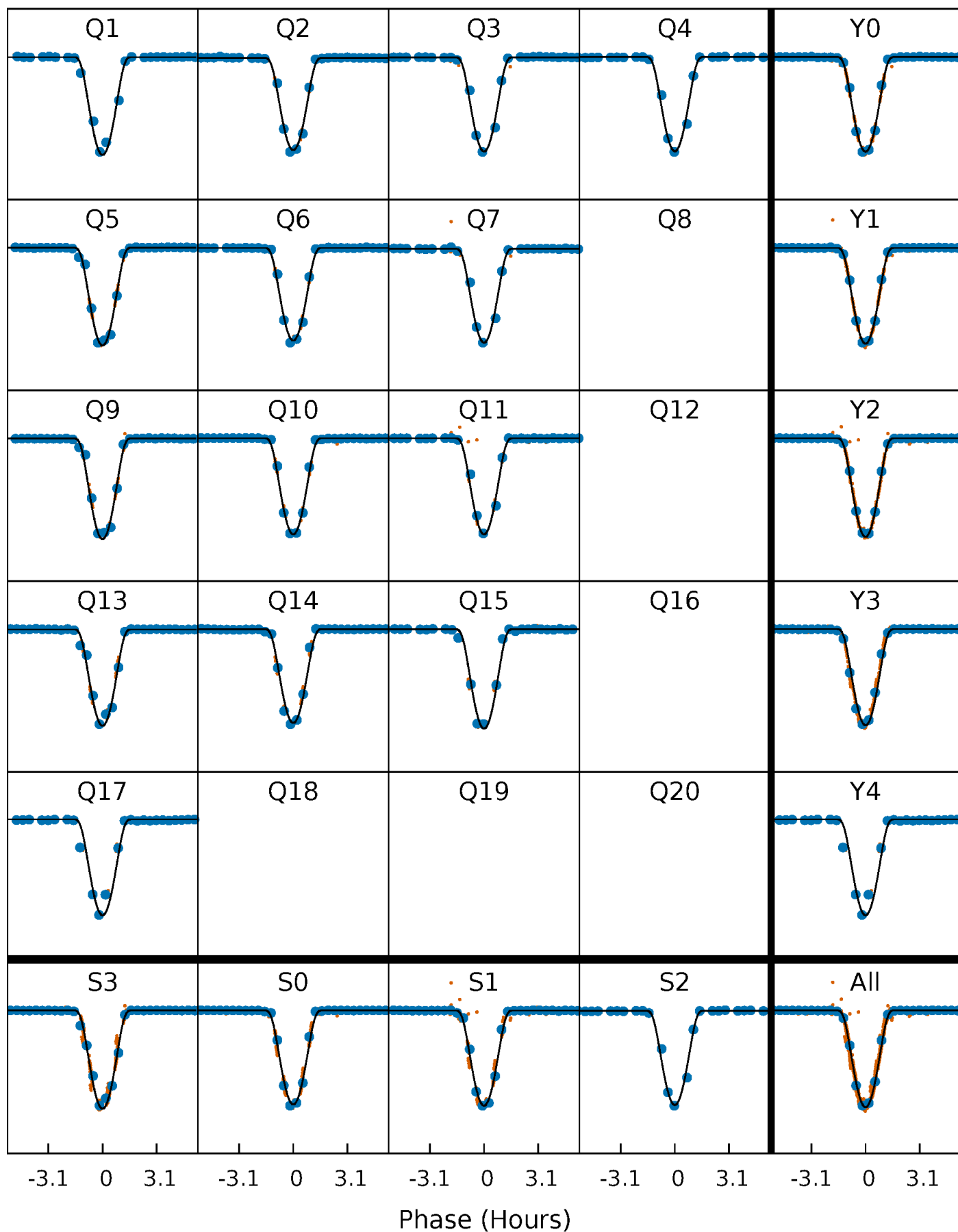
PDC Quarter-Phased Transit Curves

TCE 011021252-02 P= 6.538376 Days $T_0=136.525651$ (BKJD)



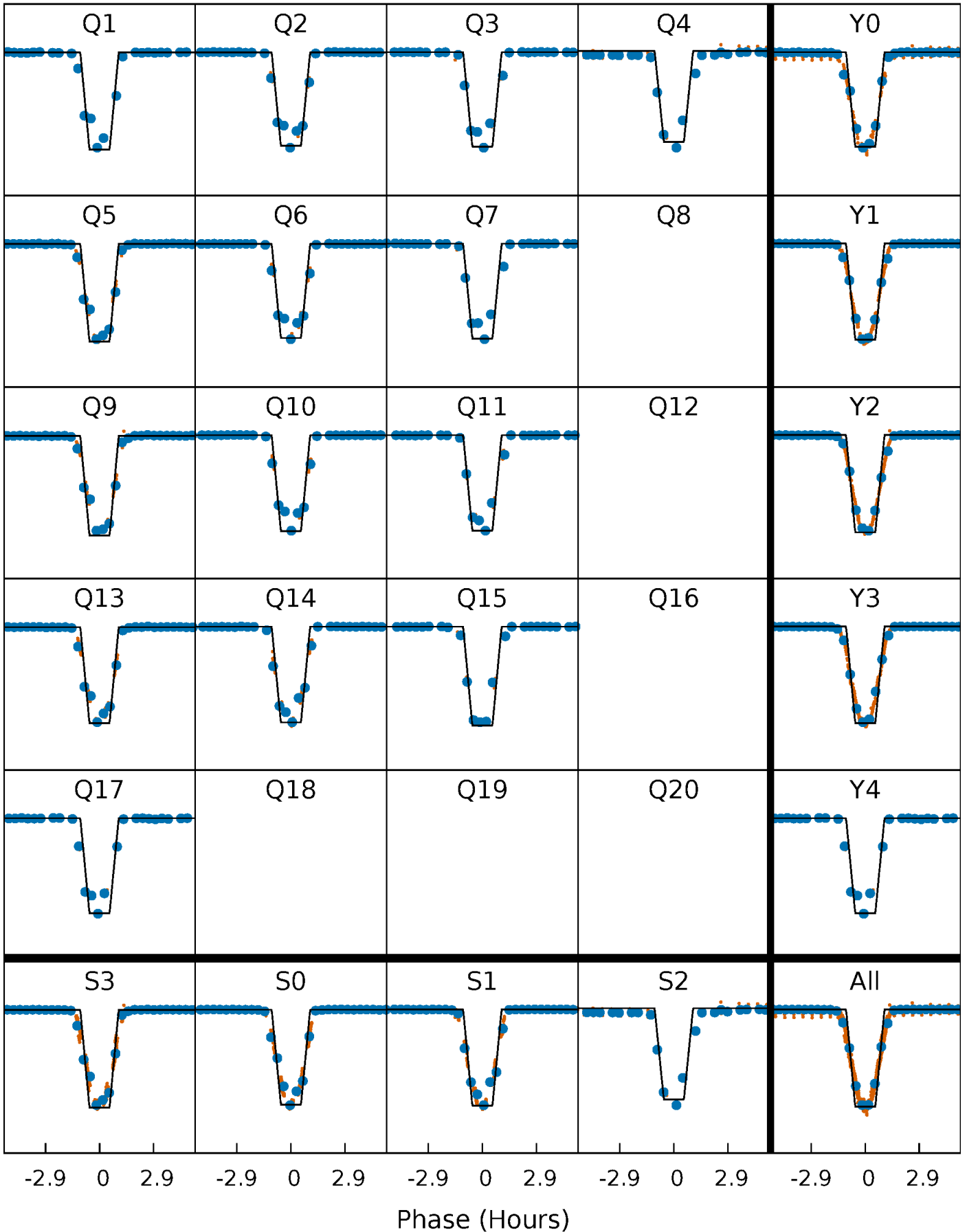
DV Quarter-Phased Transit Curves

TCE 011021252-02 P= 6.538376 Days $T_0=136.525651$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

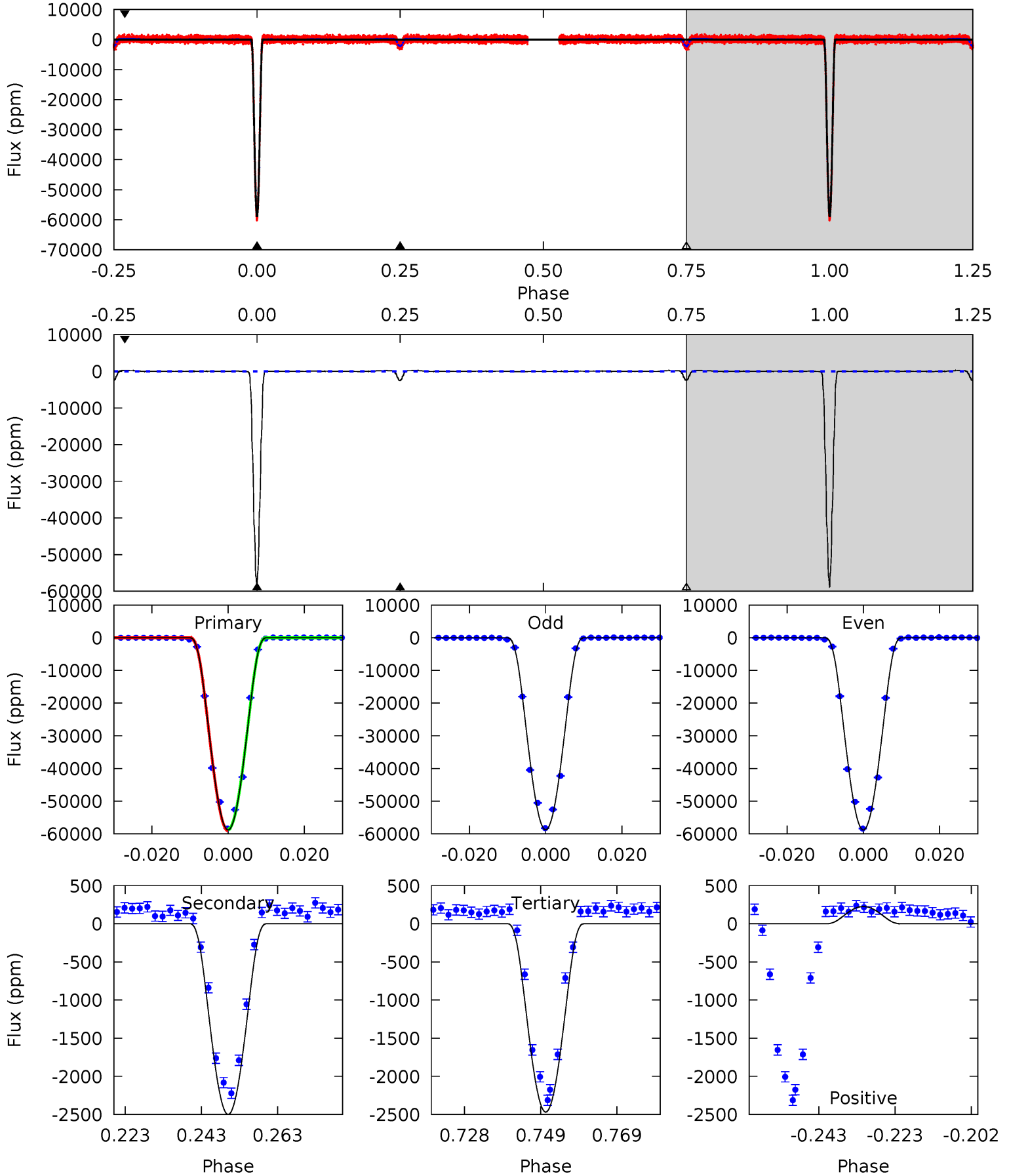
TCE 011021252-02 P= 6.538359 Days $T_0=136.526435$ (BKJD)



DV Model-Shift Uniqueness Test

011021252-02, P = 6.538376 Days, E = 129.987275 Days

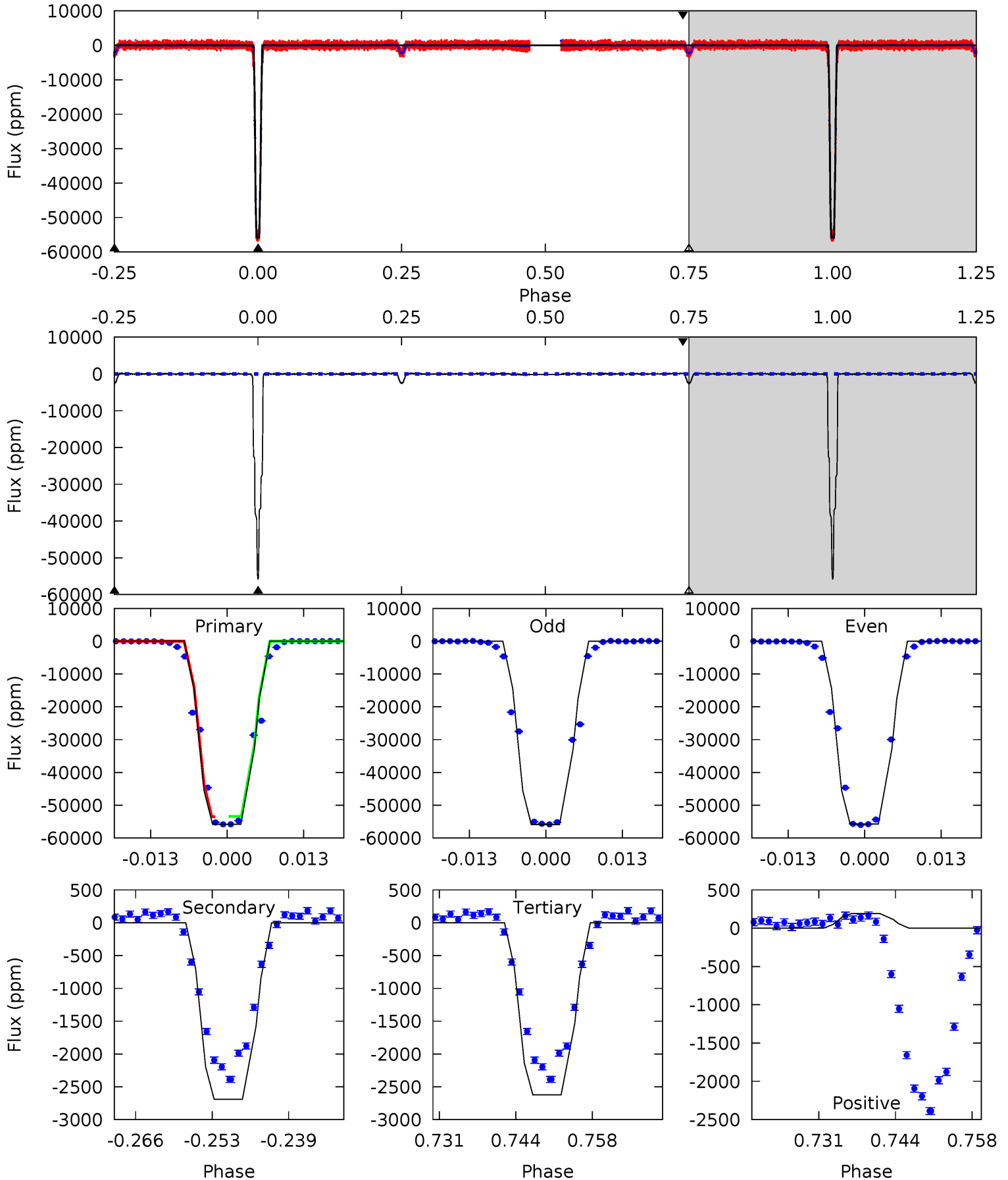
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3759	159.8	157.8	14.4	4.89	2.32	15.6	3602	3745	2.06	145.4	1.98	0.99	0.00	12.8



Alt Model-Shift Uniqueness Test

011021252-02, P = 6.538359 Days, E = 129.988076 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1247	60.1	58.6	4.27	4.97	2.48	6.44	1188	1243	1.52	55.9	1.82	1.00	0.00	0



Stellar Parameters For KIC 011021252

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6372^{+170}_{-207}	$4.453^{+0.056}_{-0.210}$	$-0.320^{+0.250}_{-0.300}$	$1.015^{+0.333}_{-0.111}$	$1.066^{+0.143}_{-0.143}$	$1.435^{+0.430}_{-0.787}$
	+3%/-3%	+1%/-5%	+78%/-94%	+33%/-11%	+13%/-13%	+30%/-55%
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 011021252-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2499 ± 16	$35.28^{+5.91}_{-3.13}$	1529^{+113}_{-76}	3137^{+56}_{-62}	$5.293^{+0.862}_{-1.298}$
Alt.	-2691 ± 45	$27.41^{+4.44}_{-2.39}$	1522^{+104}_{-72}	3435^{+65}_{-70}	$9.516^{+1.520}_{-2.244}$

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 $A_{obs} \gg 1.0$

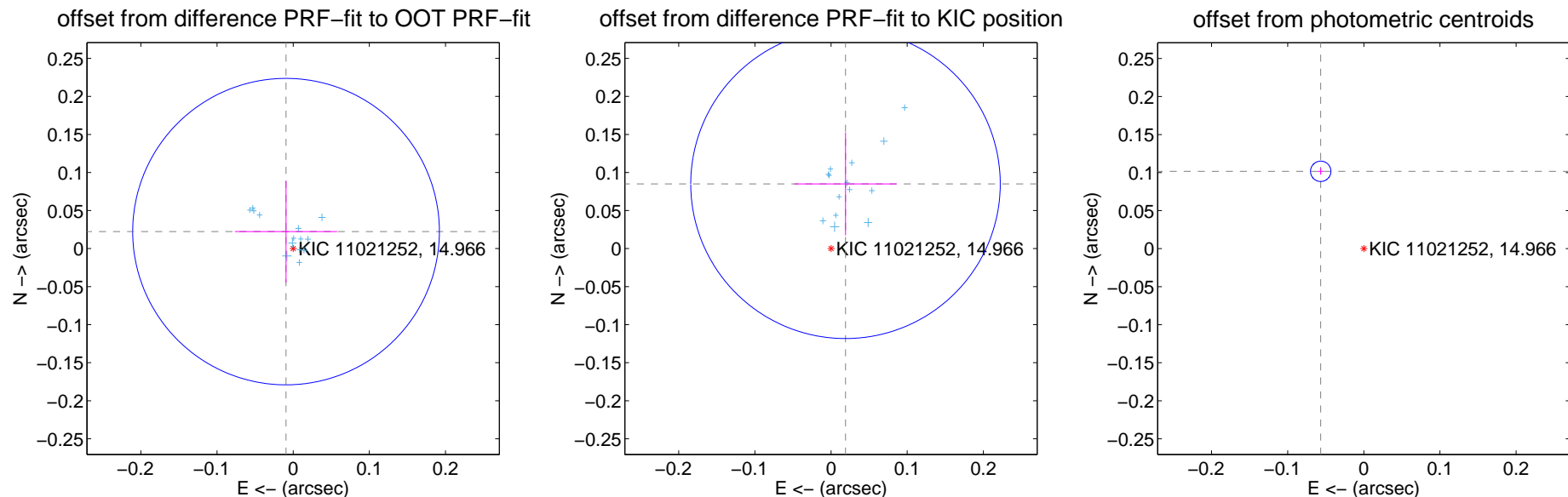
DV Centroid Data

Supplemental centroid analysis for 011021252-02. Kepler magnitude: 14.97. Transit SNR 1804.02

There are 14 quarters with good PRF difference image offsets

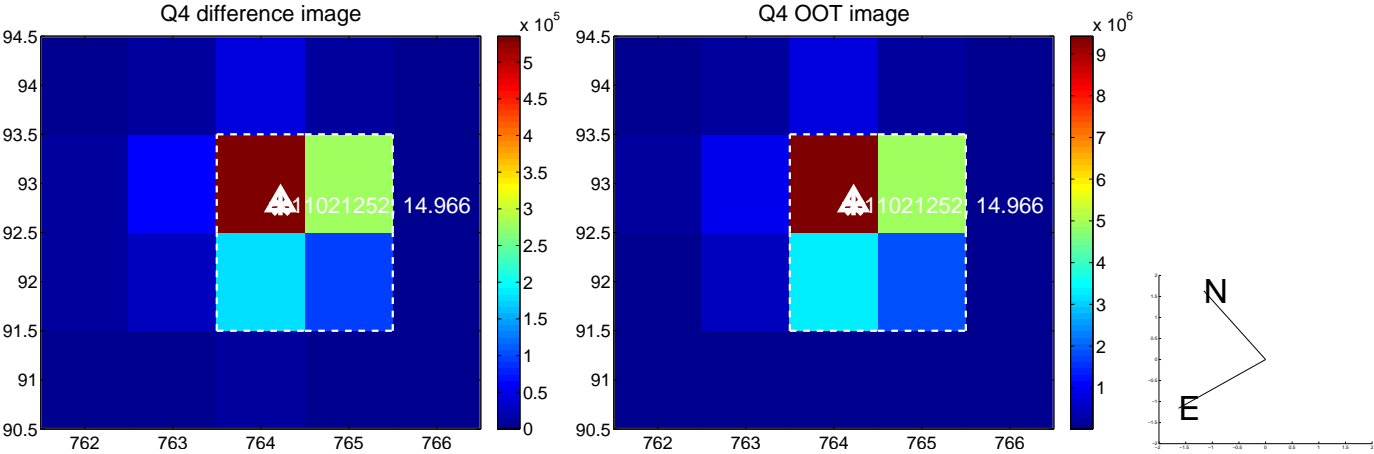
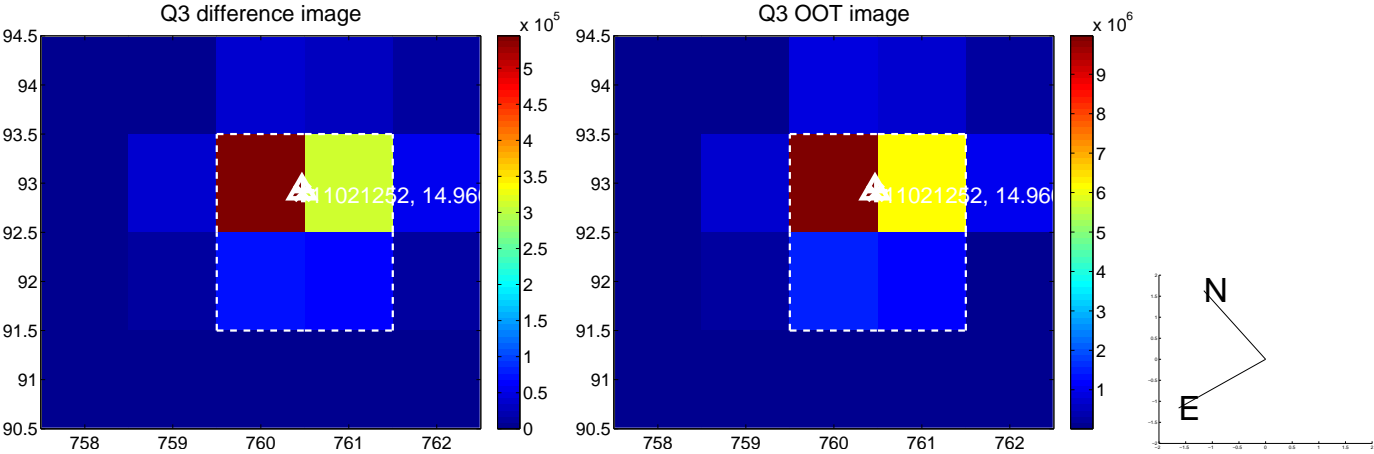
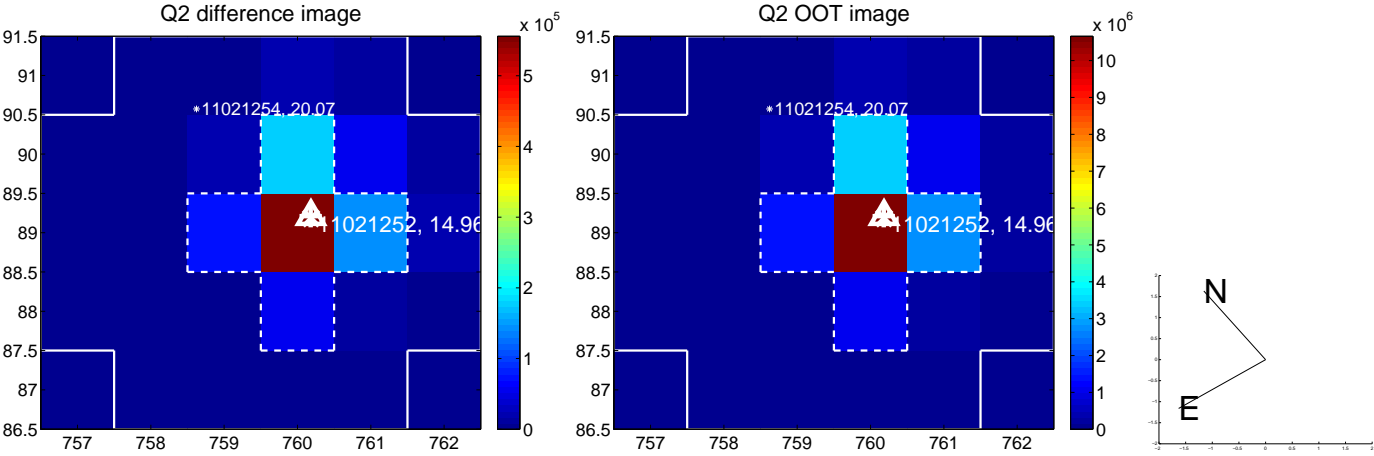
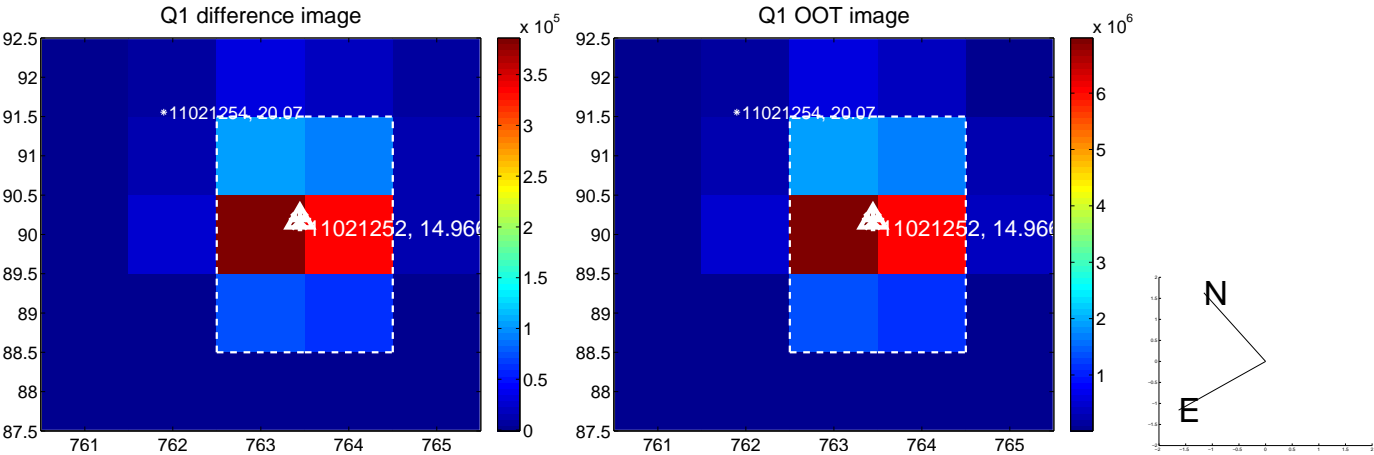
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.024 ± 0.067	0.36	0.009 ± 0.067	0.022 ± 0.067
PRF-fit source offset from KIC position	0.087 ± 0.068	1.29	-0.019 ± 0.067	0.085 ± 0.068
photometric centroid source offset	0.12 ± 0.00	26.06	0.06 ± 0.00	0.10 ± 0.00

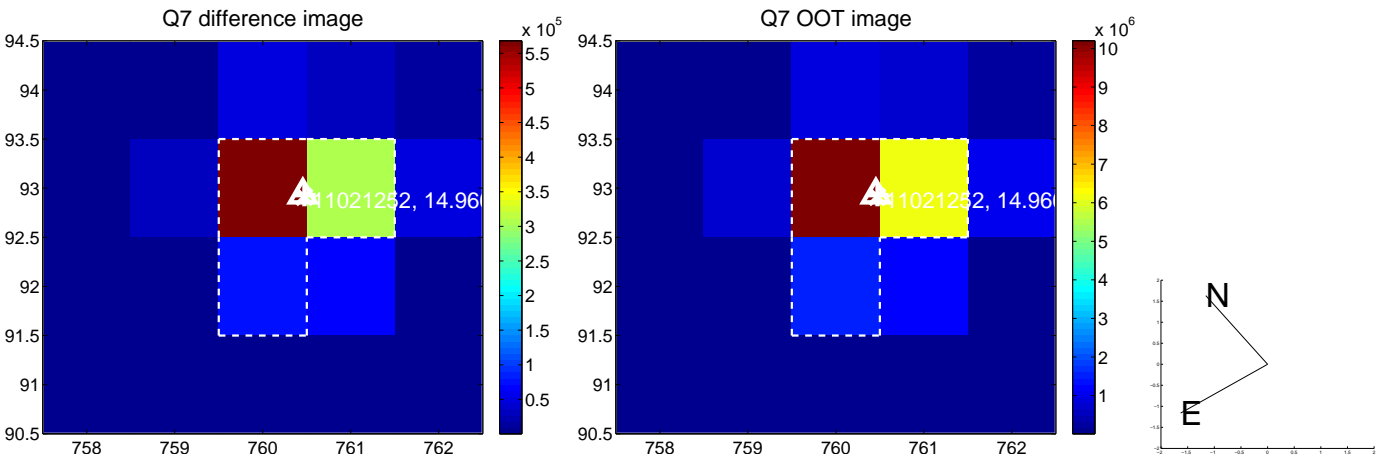
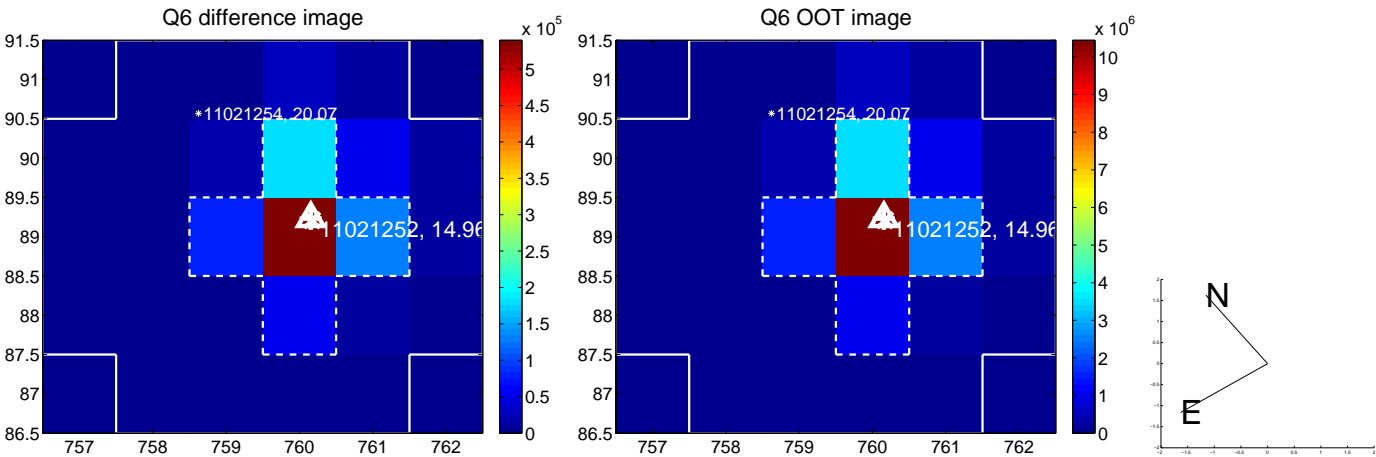
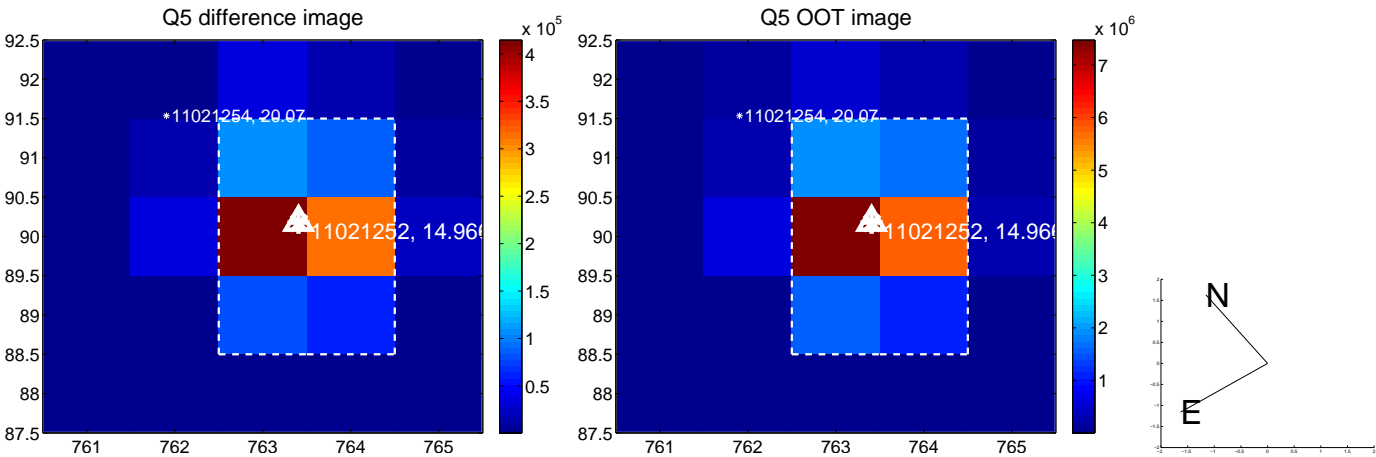


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

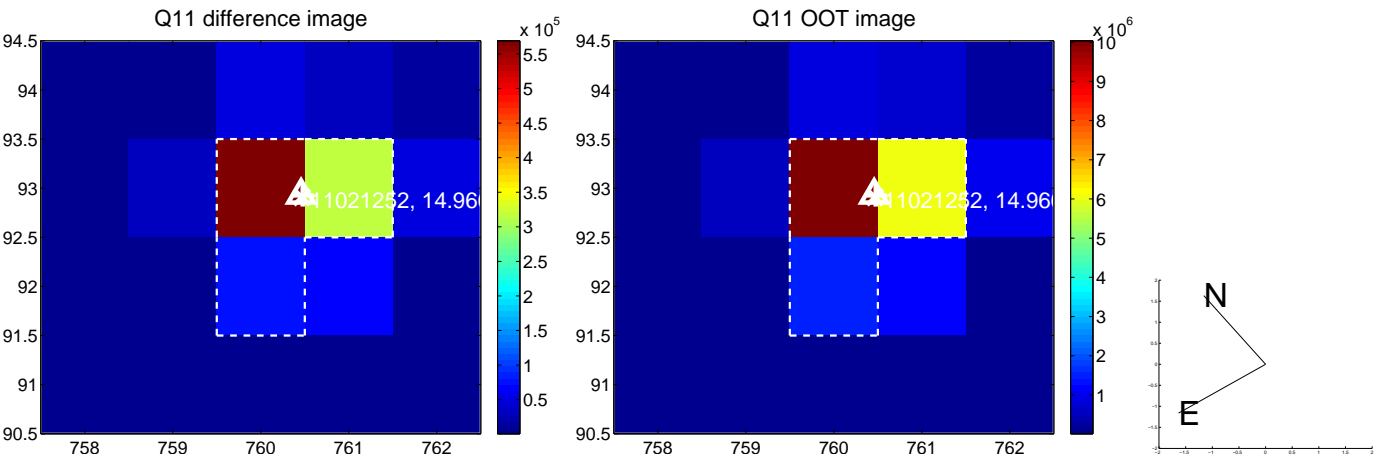
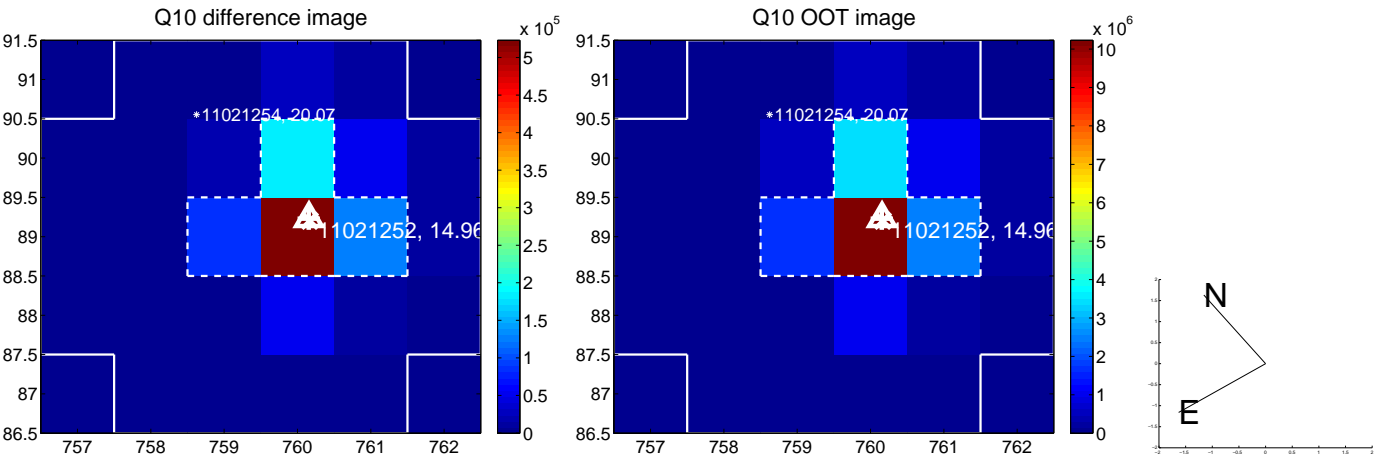
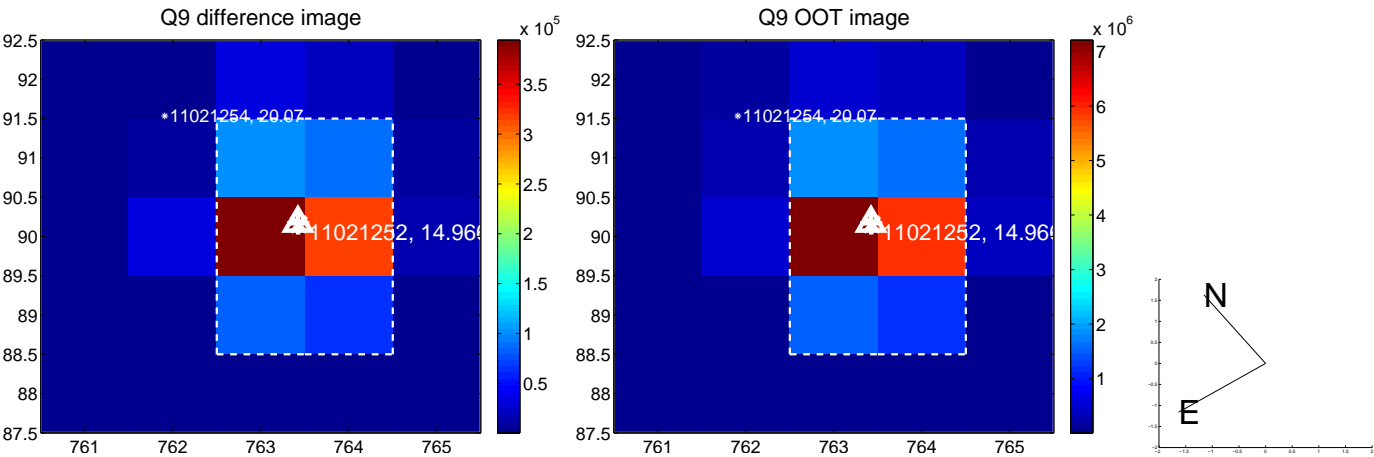
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



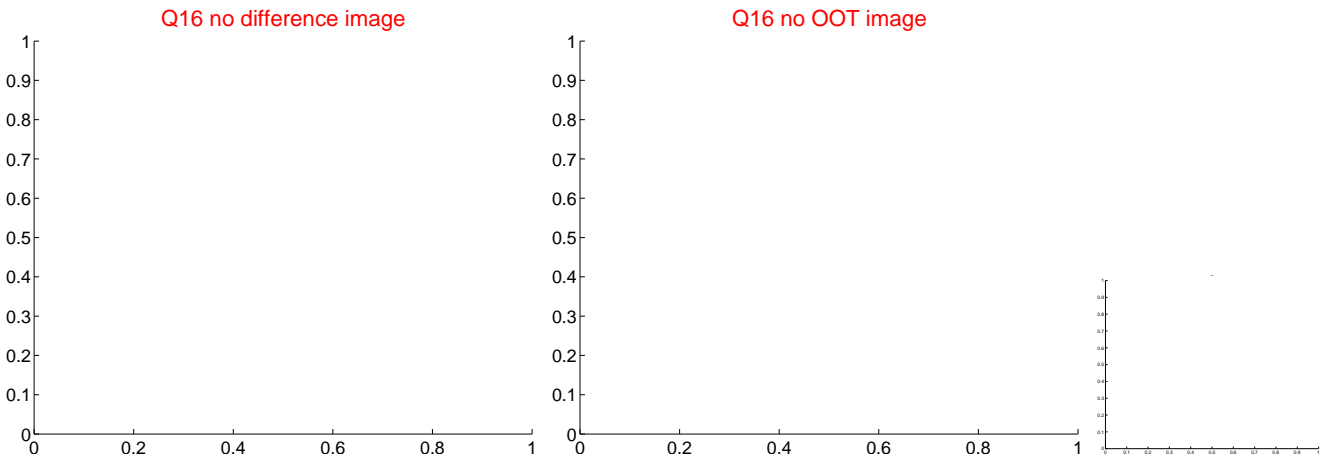
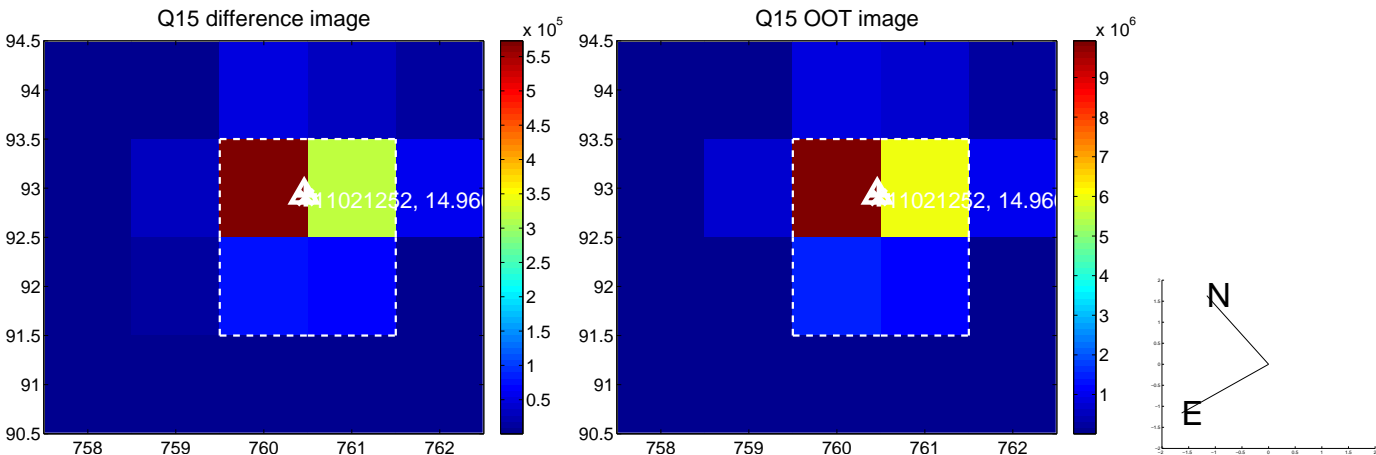
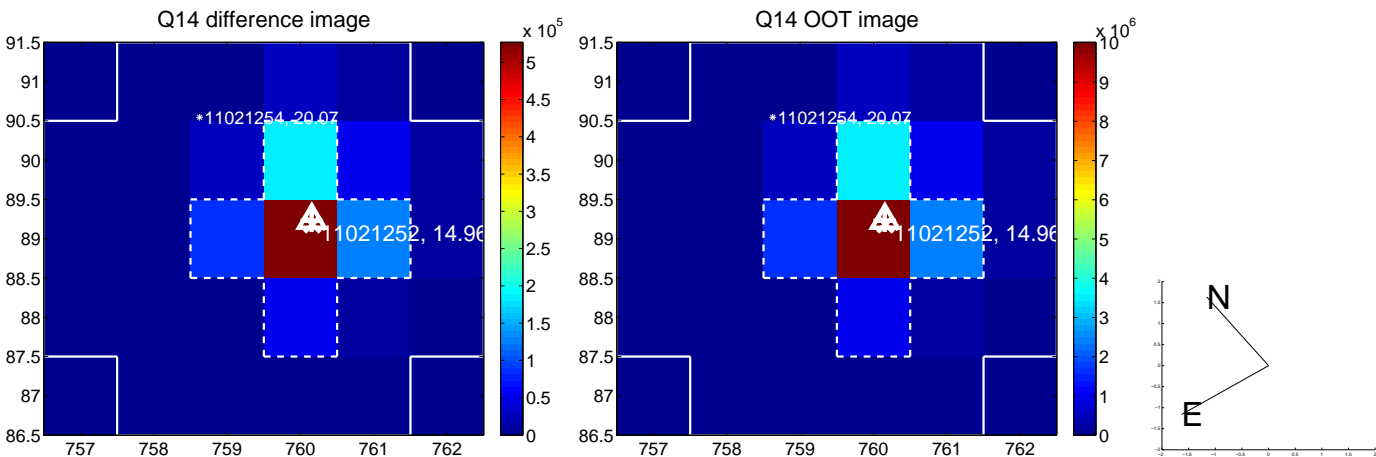
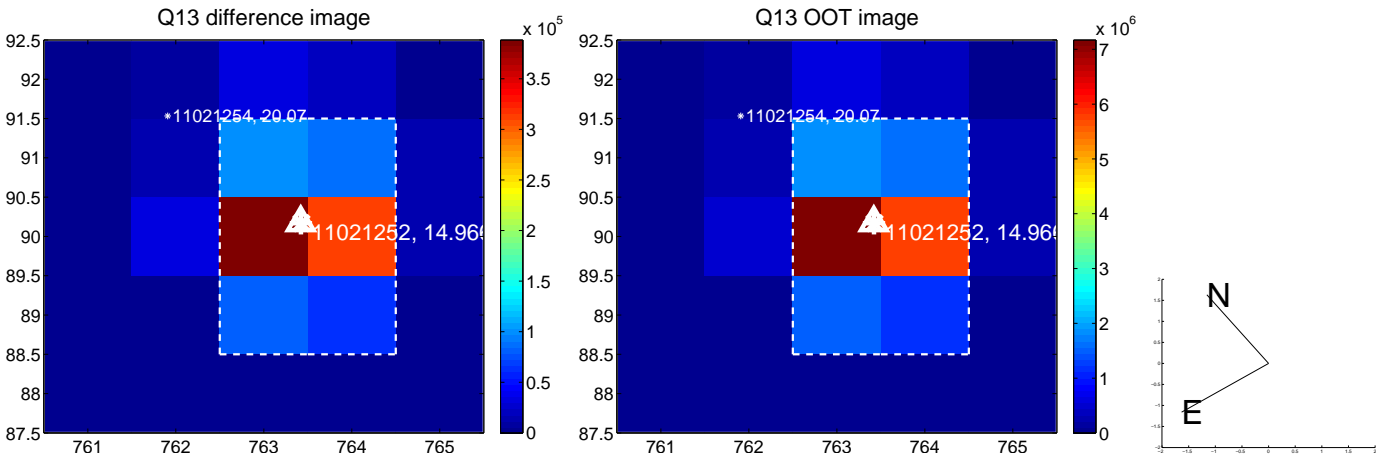
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



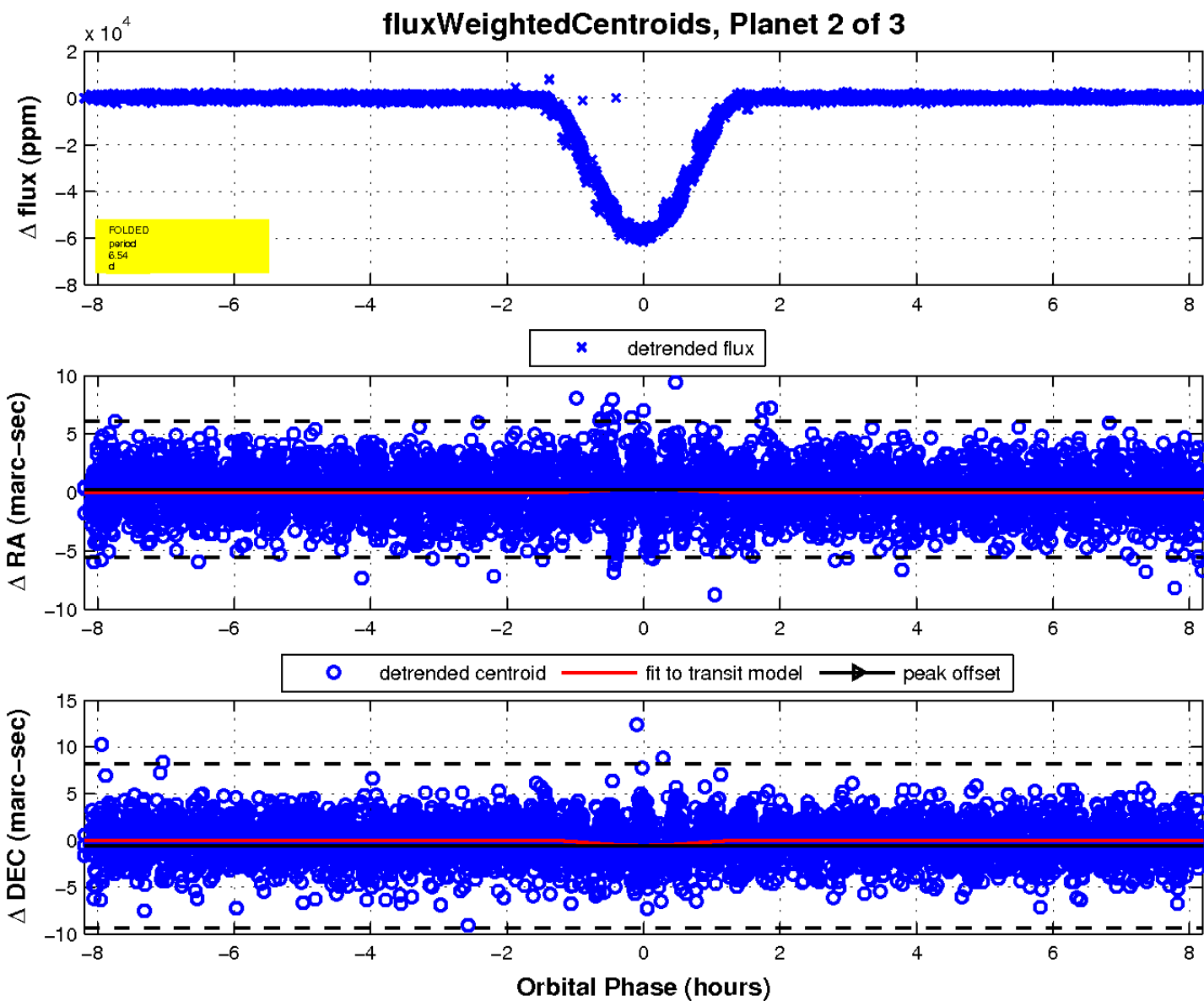
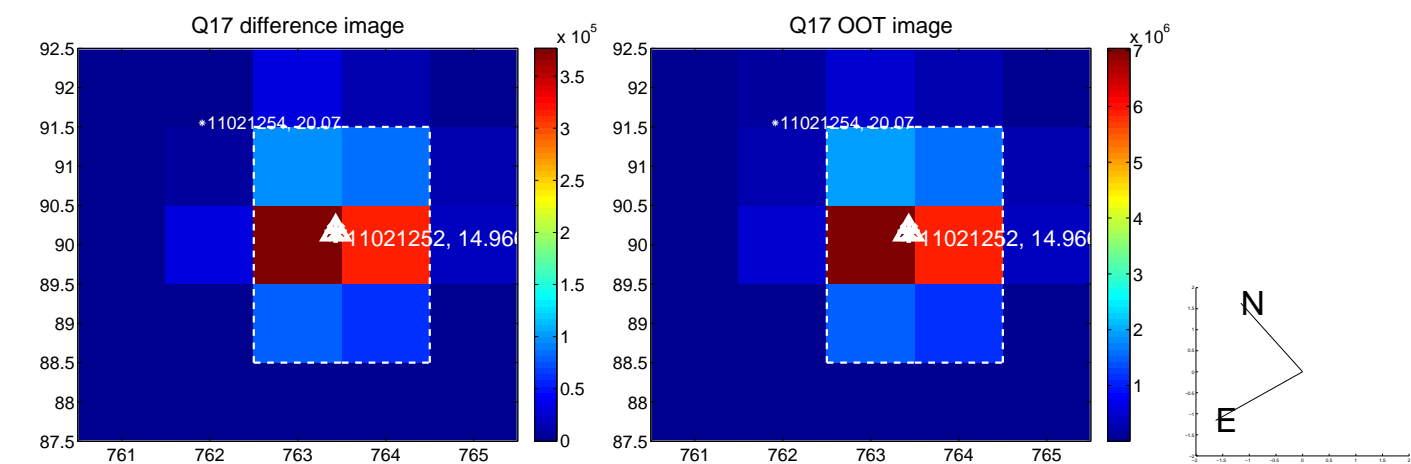
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

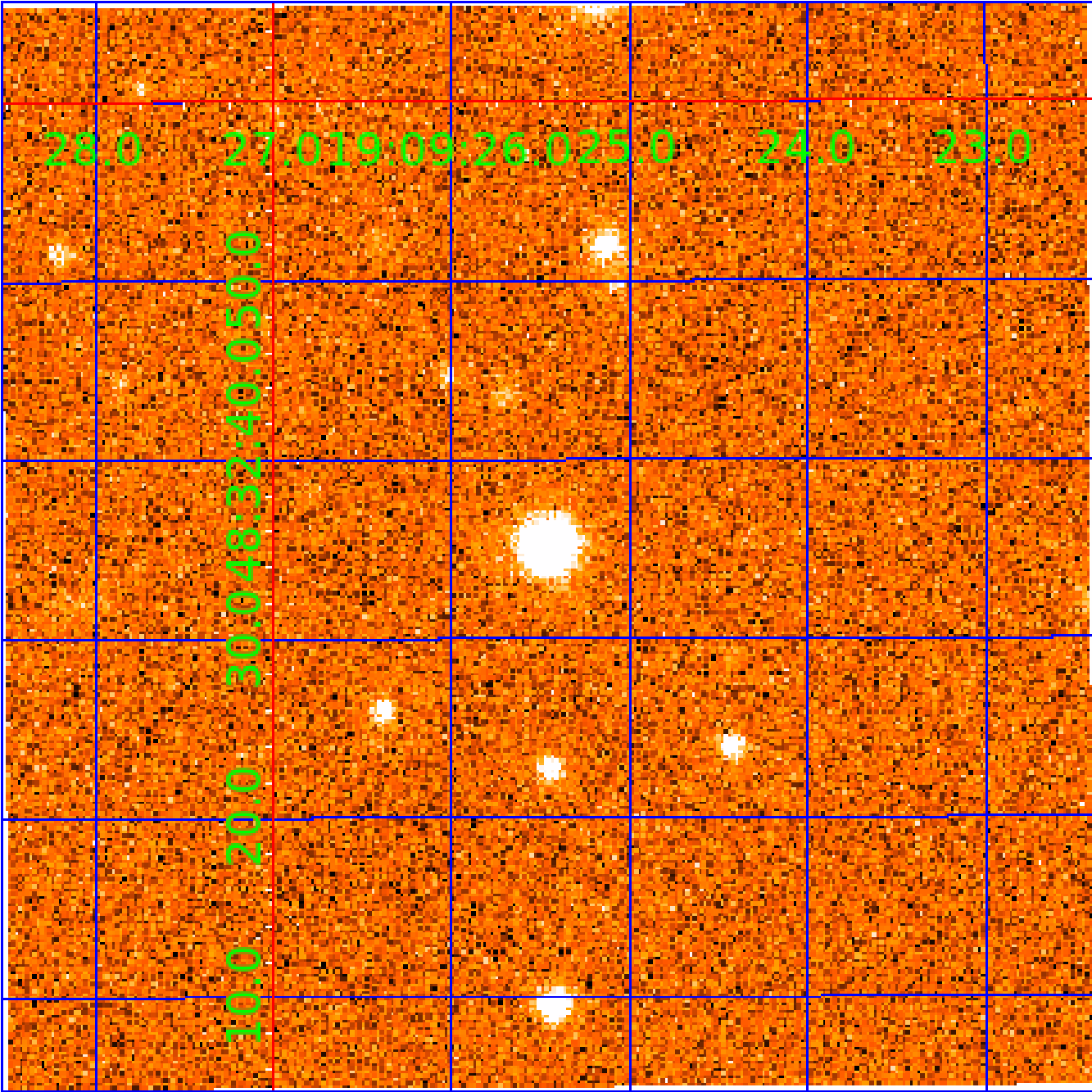


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011021252

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})
011021252-01	OBS	6084.01	6.538377	133.256449	58909.3	2.731	838.7	1756.9	1.01	6372	34.54	311.18
011021252-02	OBS	No	6.538376	136.525651	58747.1	2.732	2278.4	1804.0	1.01	6372	34.39	311.18
011021252-03	OBS	No	3.269182	131.622496	2446.1	2.591	129.7	138.3	1.01	6372	7.16	784.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011021252-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE—PERIOD_ALIAS_DV—PERIOD_ALIAS_ALT
011021252-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
011021252-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD

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.

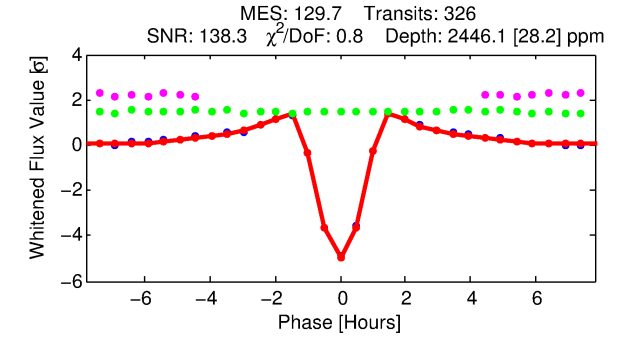
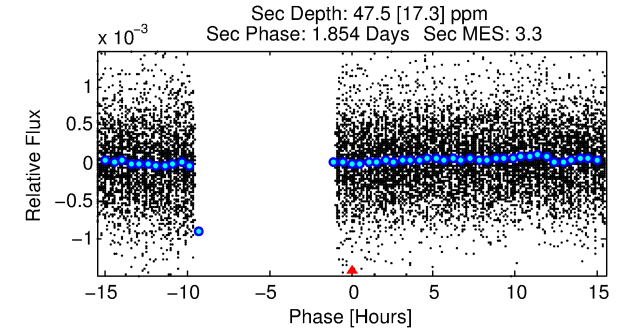
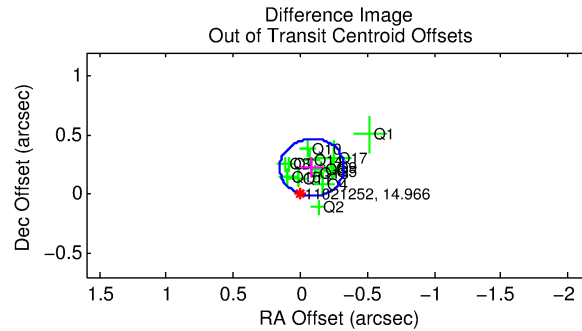
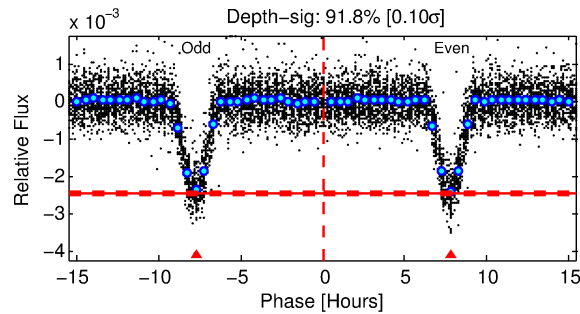
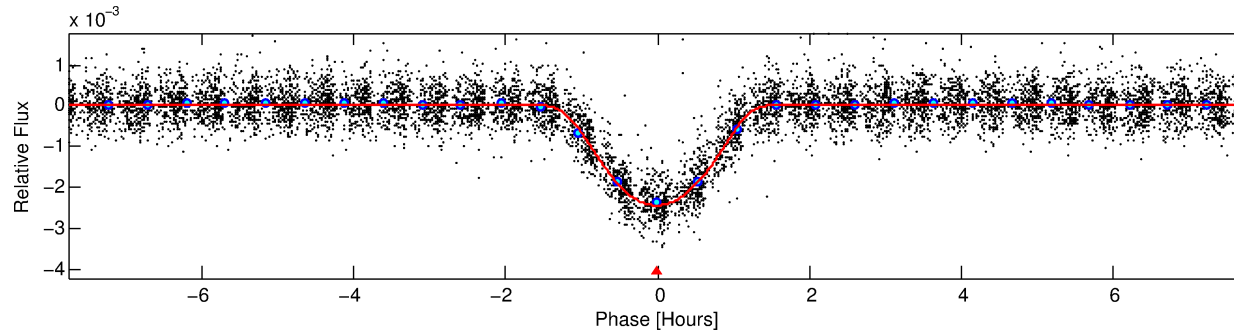
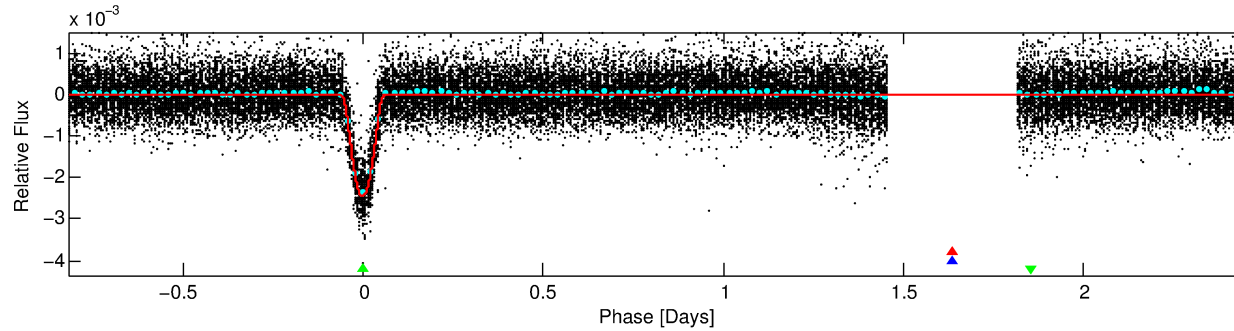
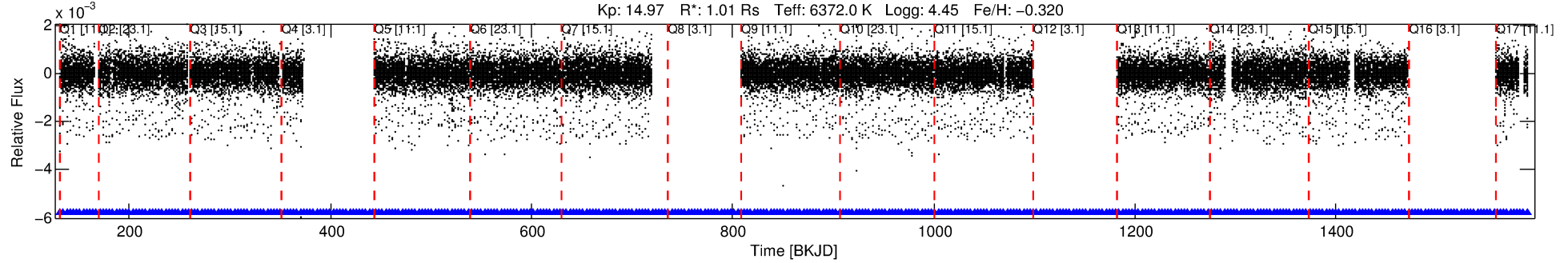
Ephemeris Match Information For 011021252-03

No Significant Match Found

DV One-Page Summary

KIC: 11021252 Candidate: 3 of 3 Period: 3.269 d
KOI: K06084 Corr: No Ephemeris Match

Kp: 14.97 R*: 1.01 Rs Teff: 6372.0 K Logg: 4.45 Fe/H: -0.320



DV Fit Results:

Period = 3.26918 [0.00000] d
Epoch = 131.6225 [0.0003] BKJD
Rp/R* = 0.0647 [0.0055]
a/R* = 4.40 [0.14]
b = 0.97 [0.01]
Seff = 784.13 [322.01]
Teq = 1349 [139] K
Rp = 7.16 [2.43] Re
a = 0.0441 [0.0120] AU
Ag = 0.99 [0.55] [-0.02σ]
Teffp = 2080 [219] K [2.82σ]

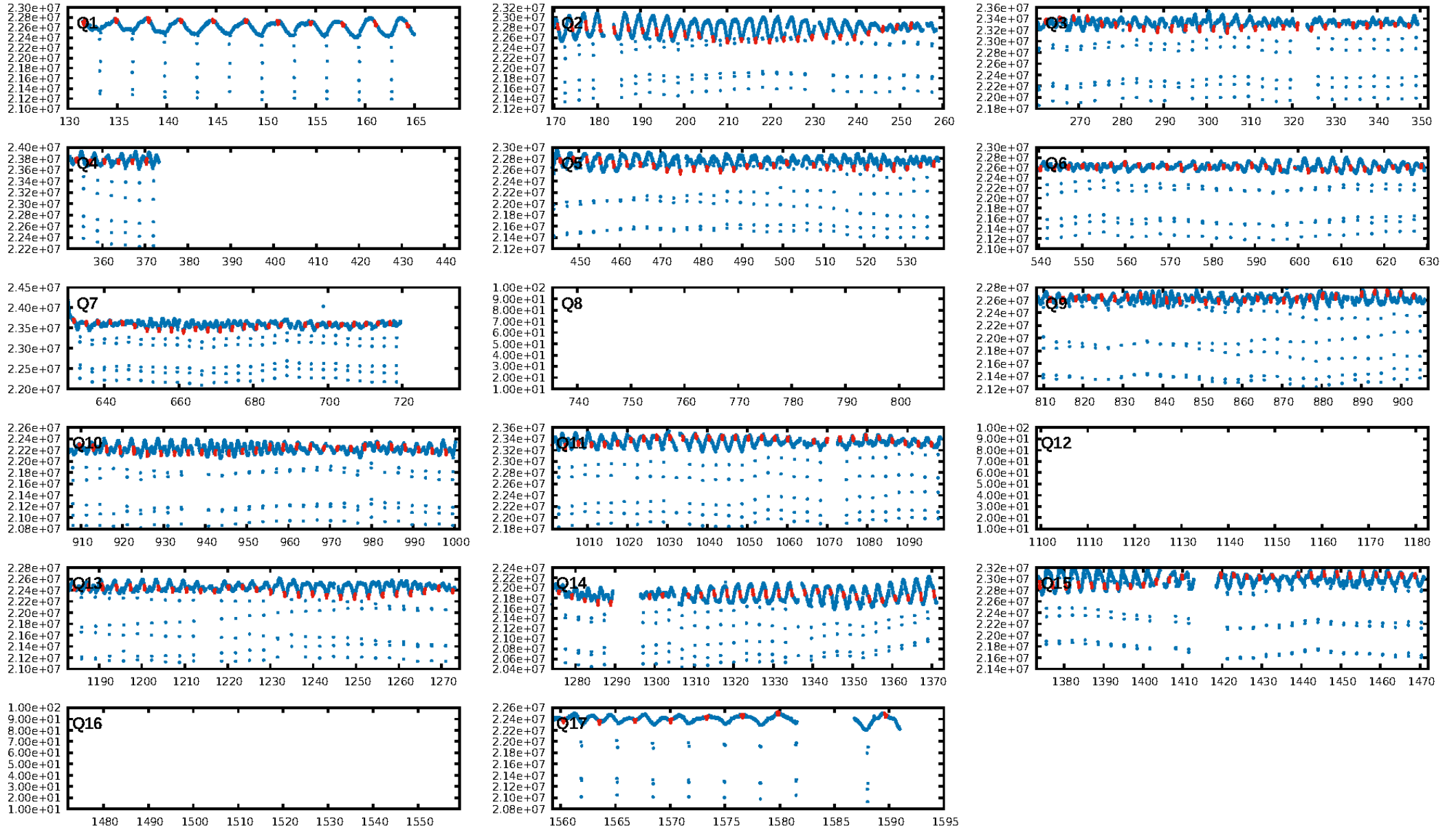
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [20.84σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [301/301]
GhostDiagnostic-chr: 2.864
Centroid-sig: 4.3%
Centroid-so: 0.193 arcsec [2.60σ]
OotOffset-rm: 0.241 arcsec [2.99σ]
KicOffset-rm: 0.297 arcsec [3.71σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

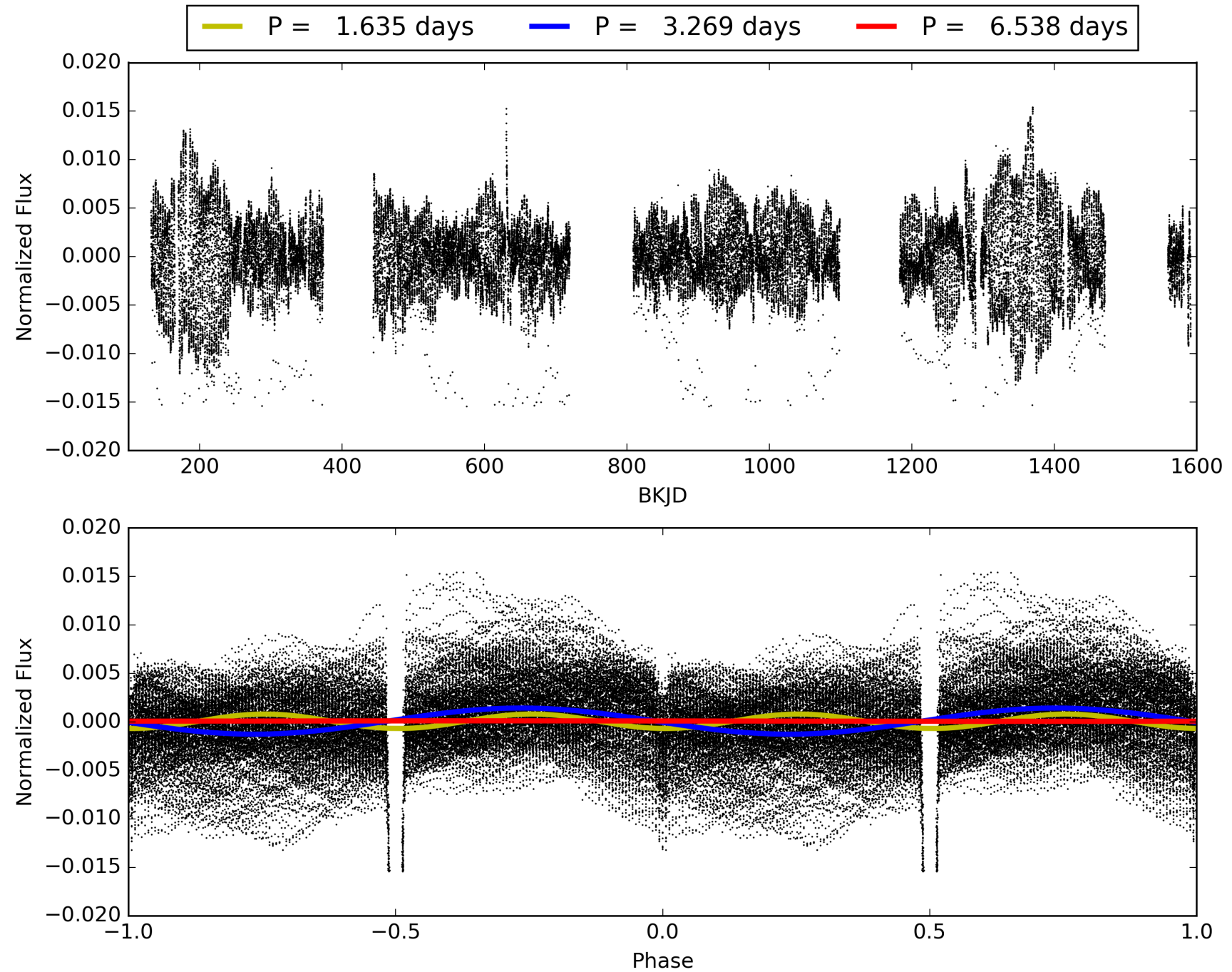
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:10:25 Z

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

TCE 011021252-03, PDC Light Curves

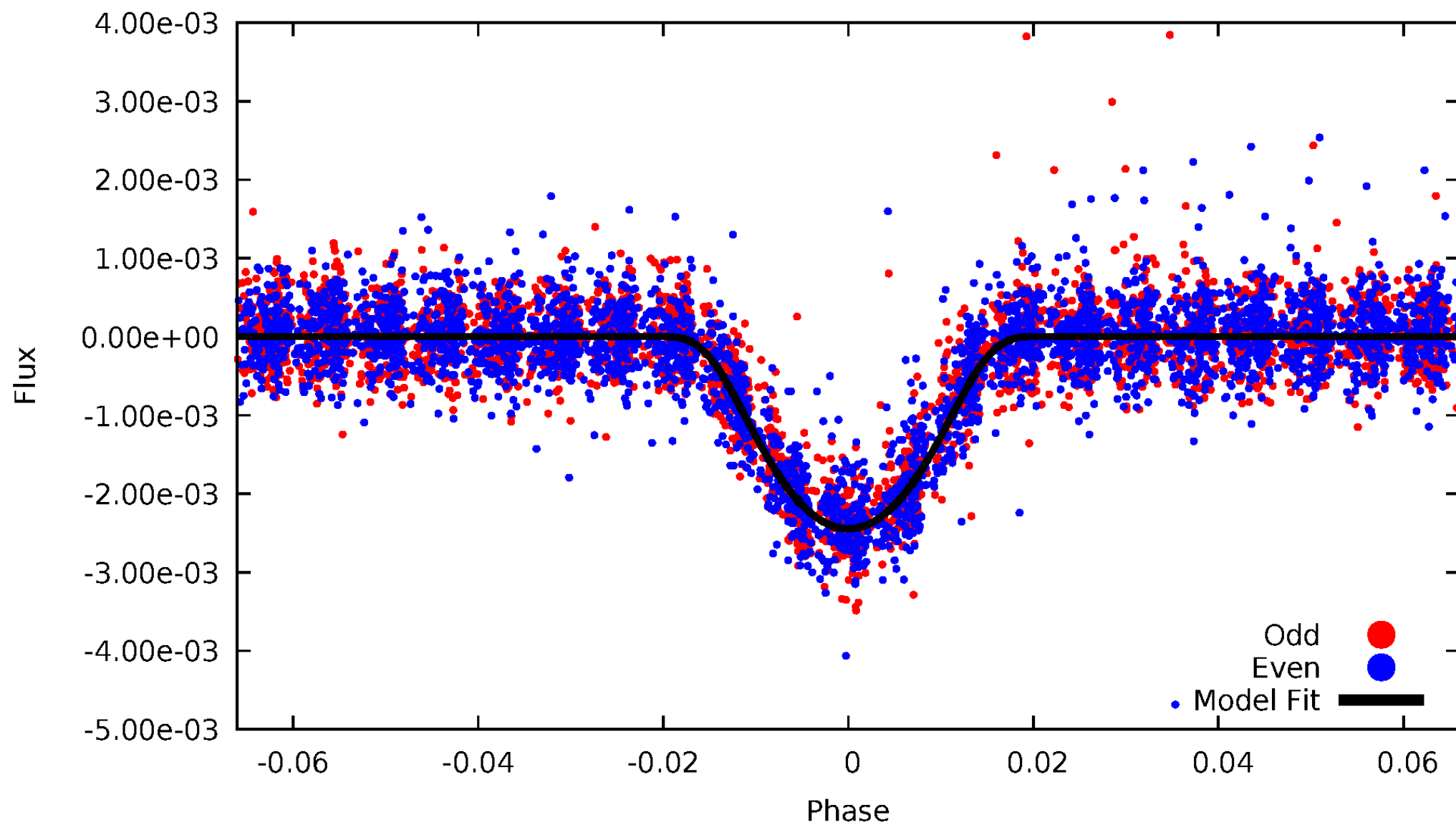


TCE 011021252-03



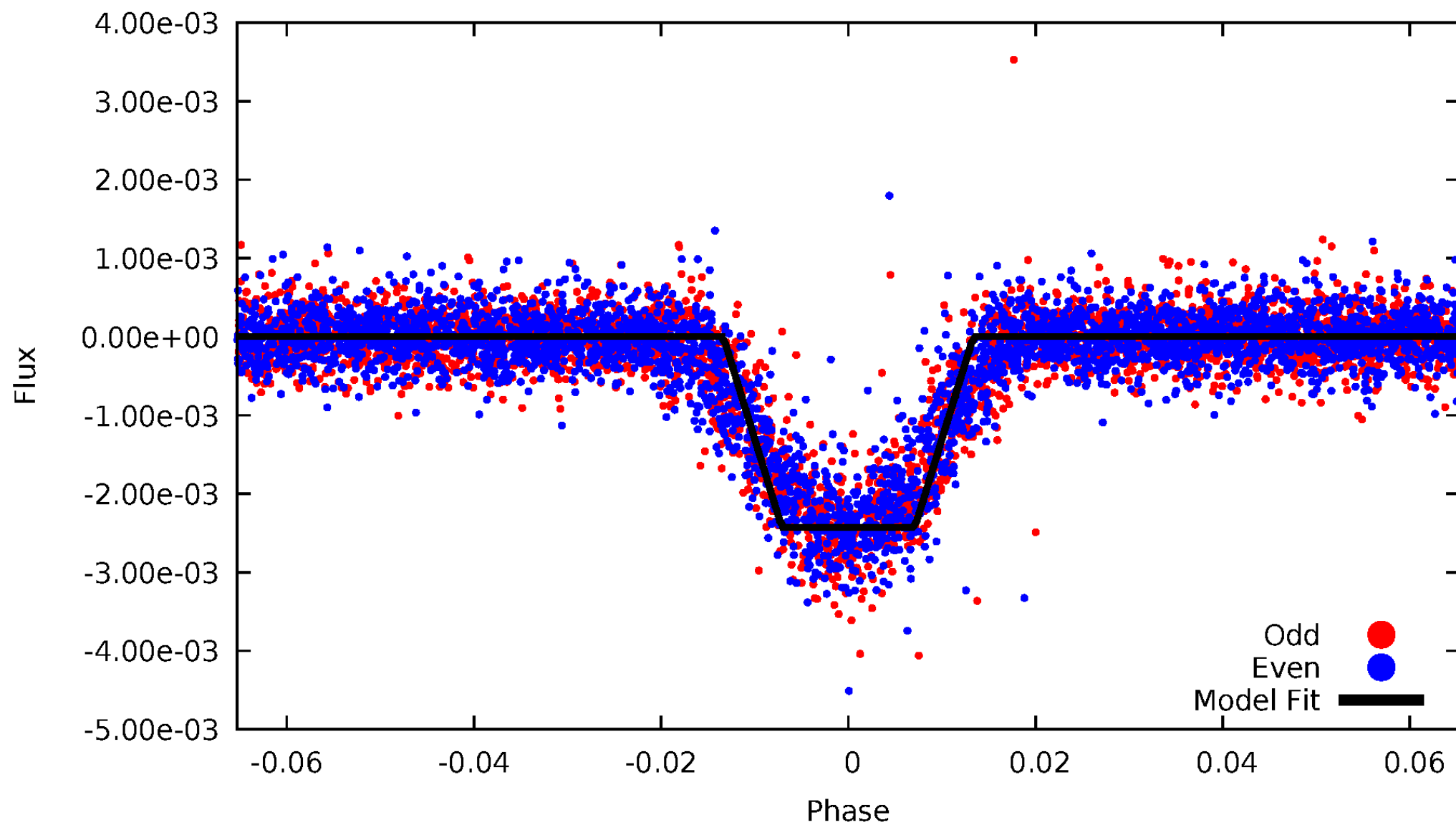
DV Odd/Even

TCE 011021252-03



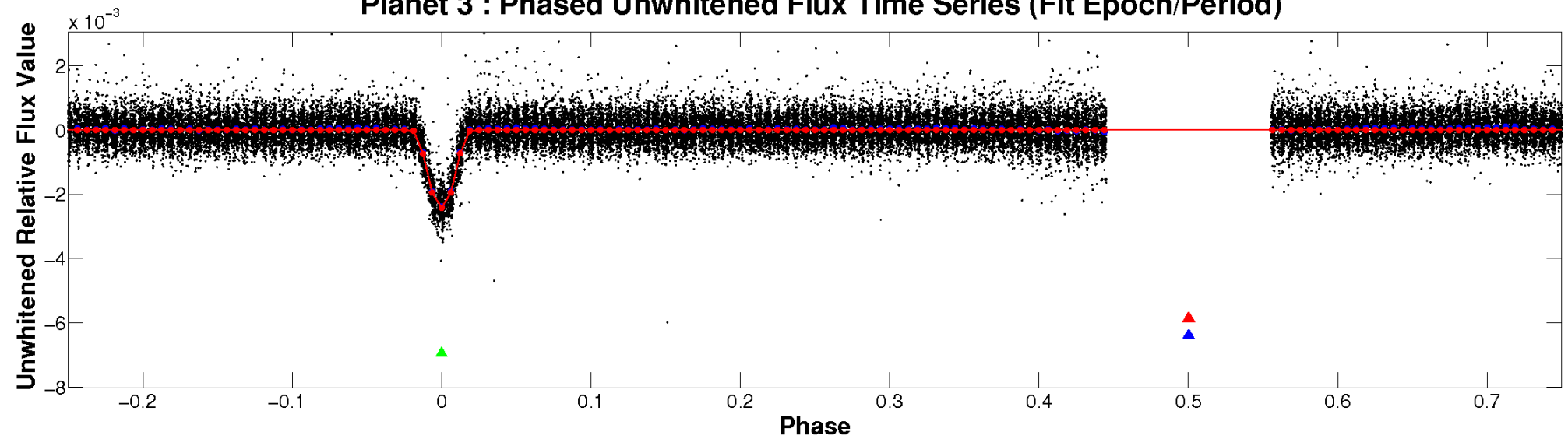
ALT Odd/Even

TCE 011021252-03

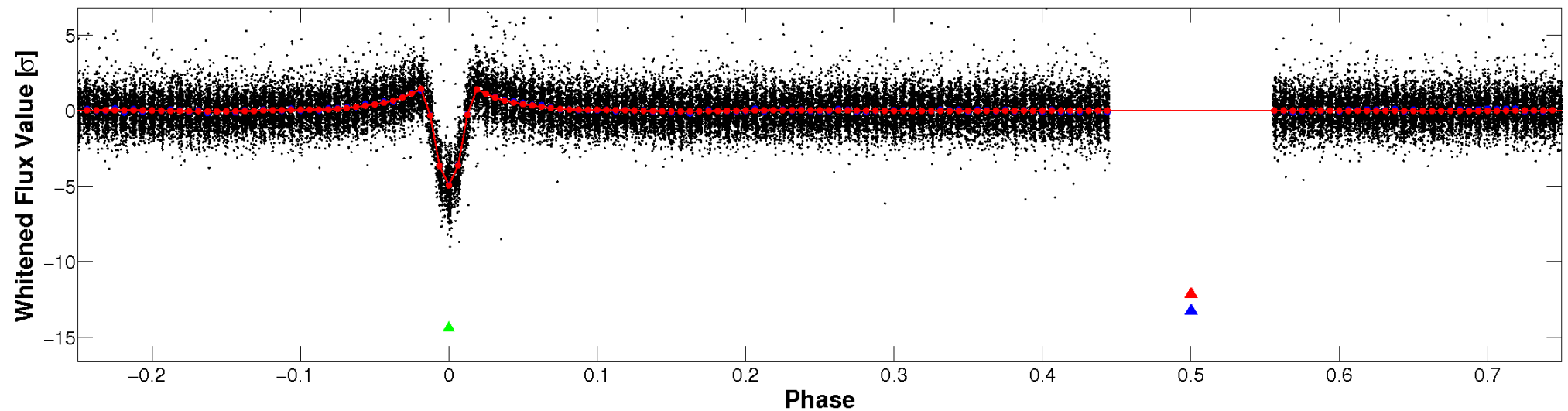


Non-Whitened Vs. Whitened Light Curve

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

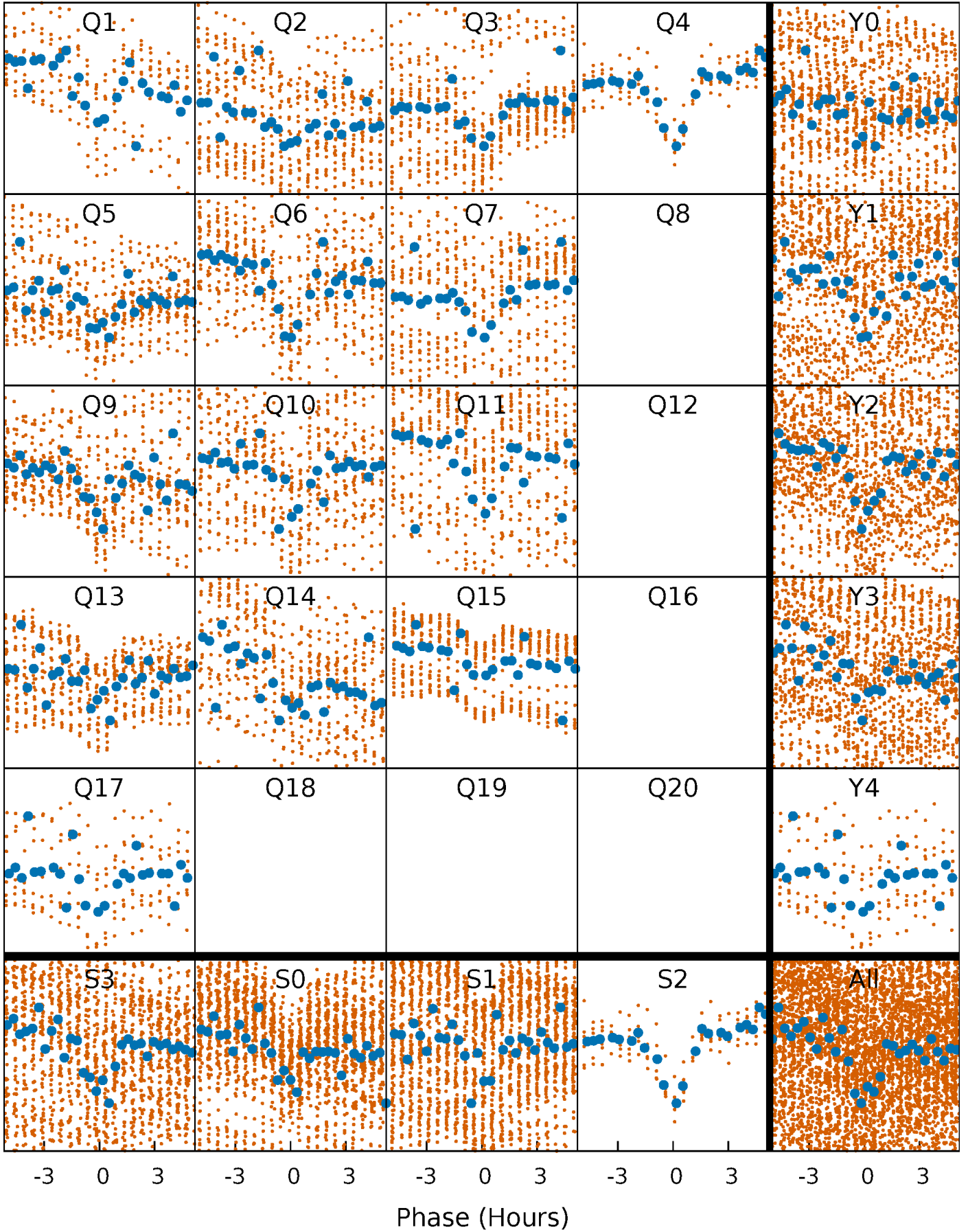


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



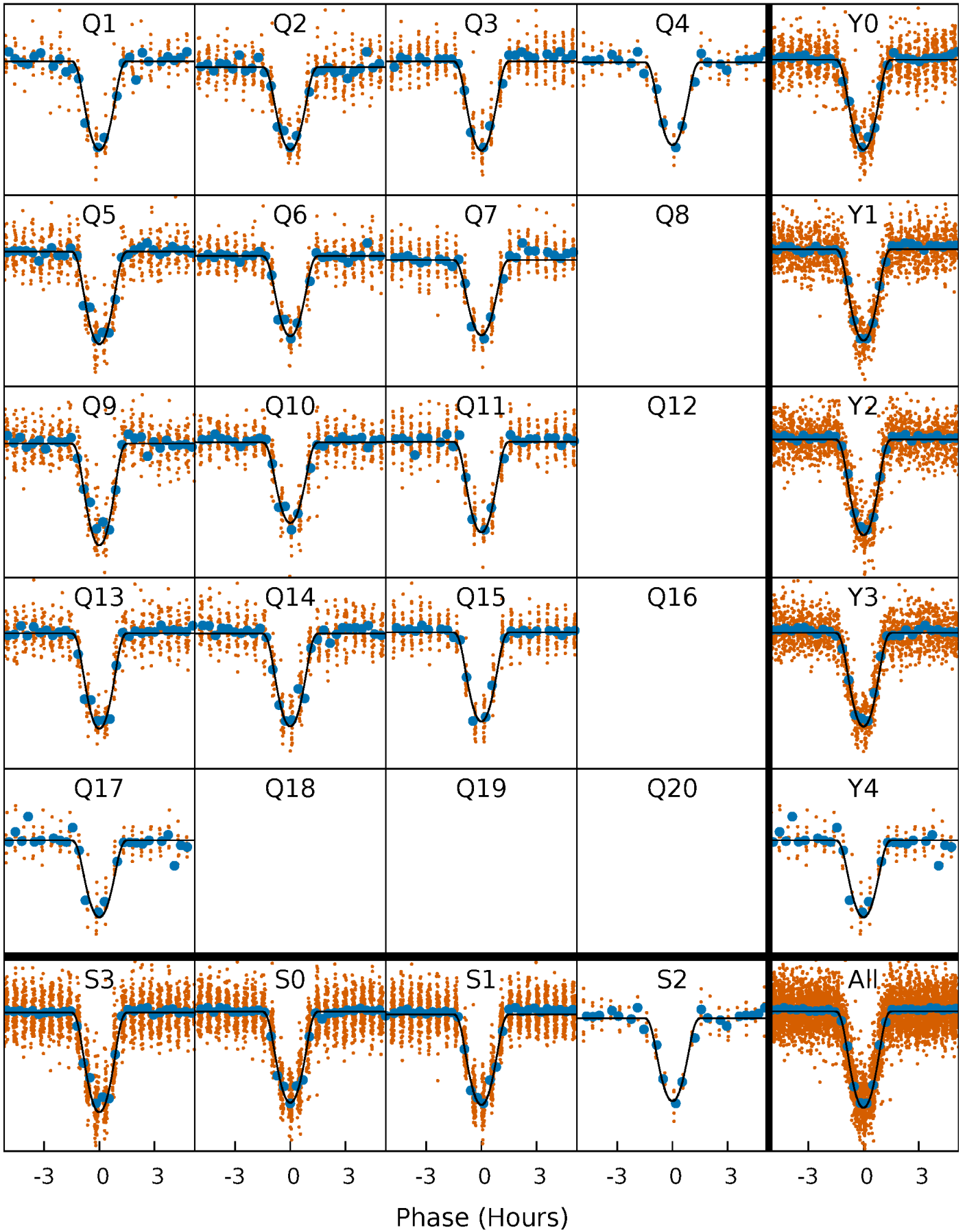
PDC Quarter-Phased Transit Curves

TCE 011021252-03 P= 3.269182 Days $T_0=131.622496$ (BKJD)



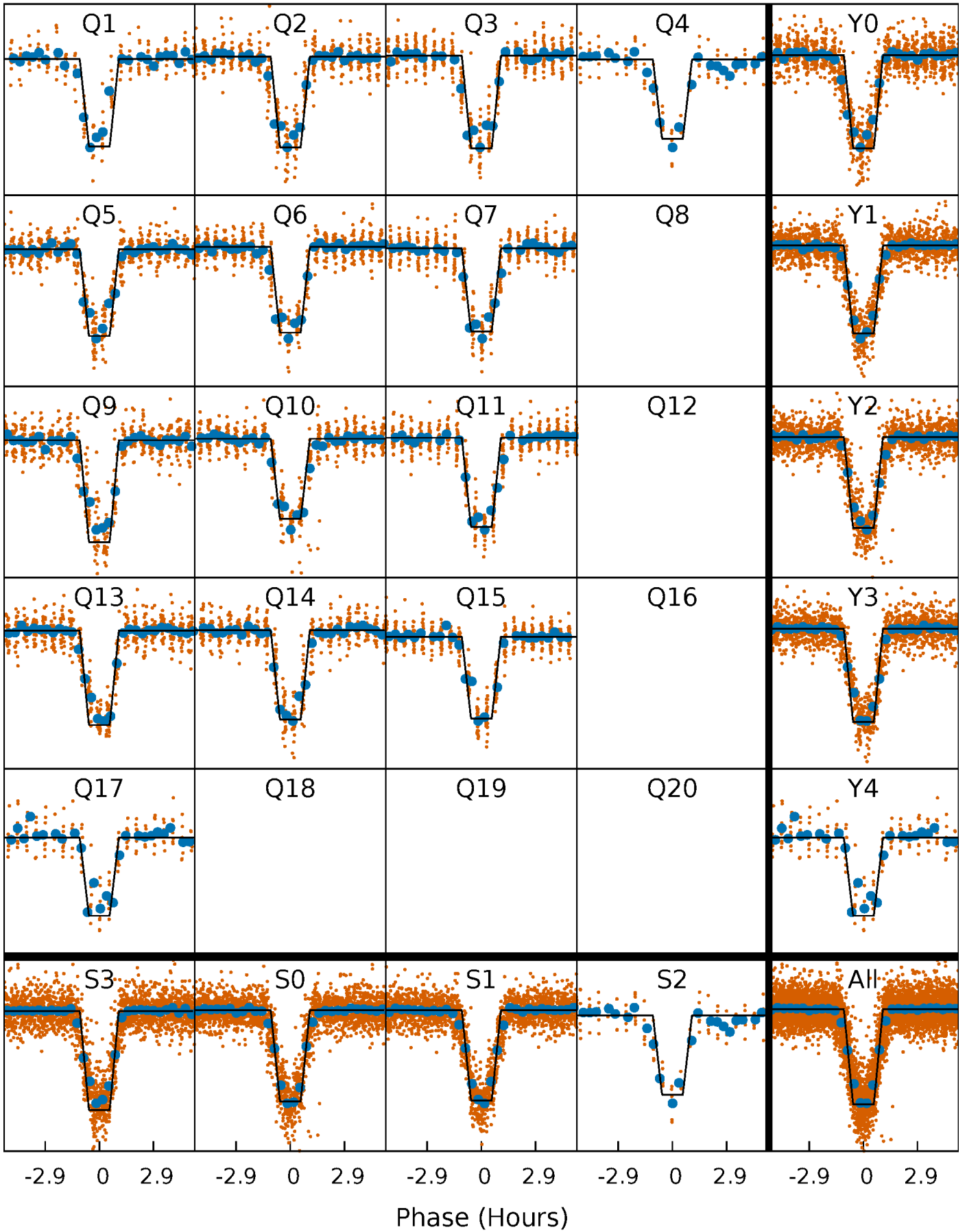
DV Quarter-Phased Transit Curves

TCE 011021252-03 P= 3.269182 Days $T_0=131.622496$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

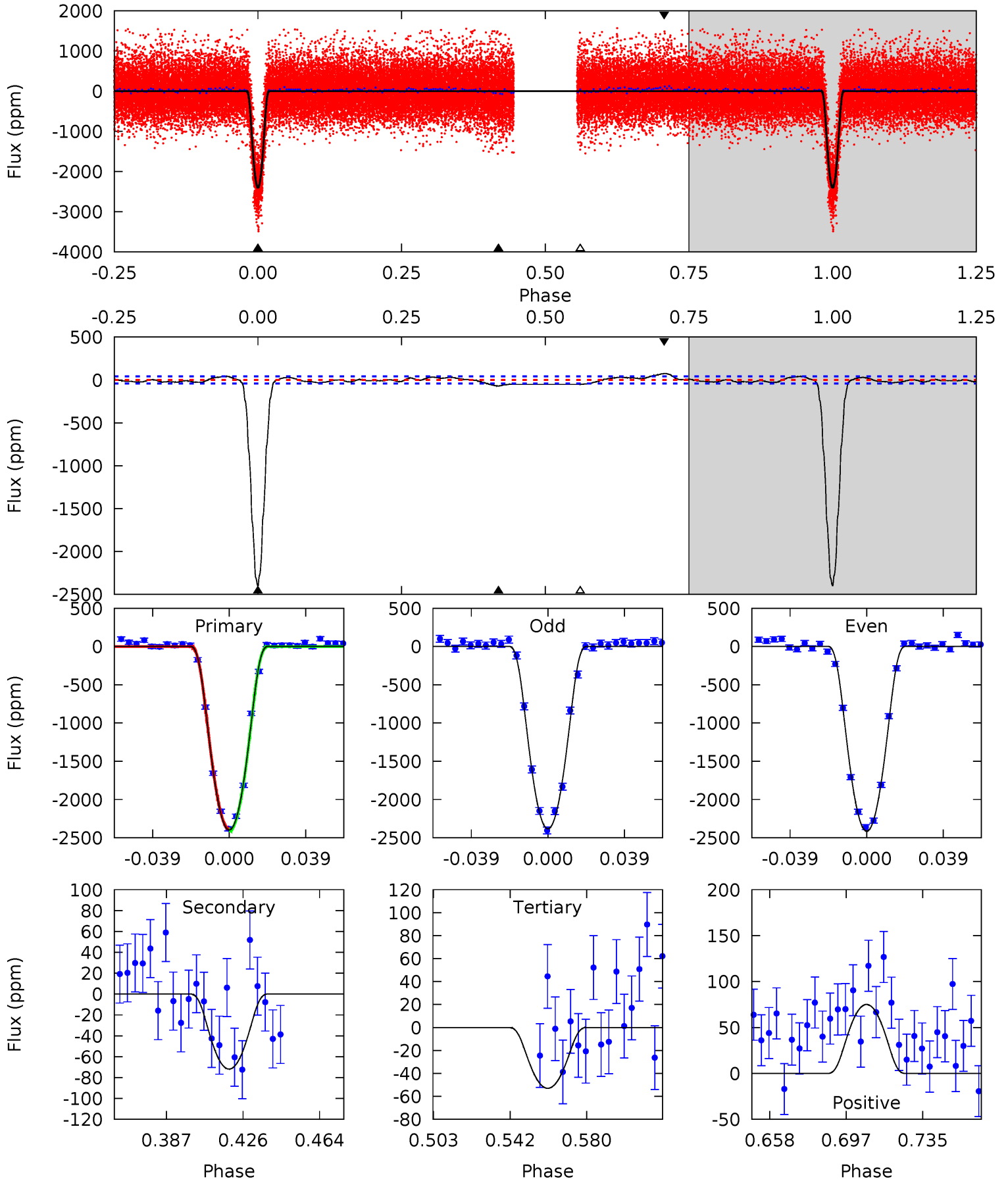
TCE 011021252-03 P= 3.269150 Days $T_0=131.629404$ (BKJD)



DV Model-Shift Uniqueness Test

011021252-03, P = 3.269182 Days, E = 128.353314 Days

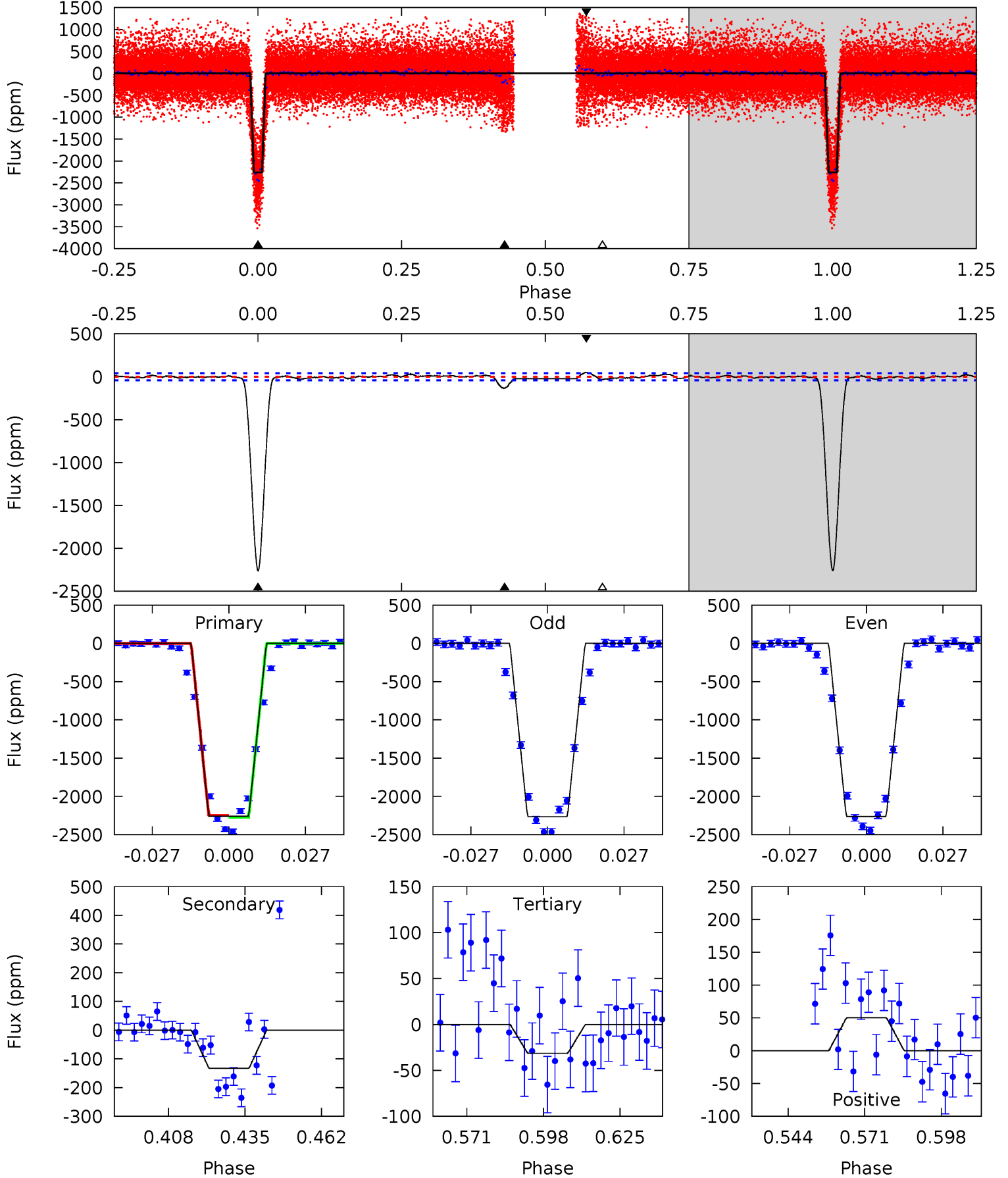
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
272.5	8.17	6.02	8.53	4.76	2.07	2.83	266.5	264.0	2.15	-0.36	1.81	1.00	0.03	1.44



Alt Model-Shift Uniqueness Test

011021252-03, P = 3.269150 Days, E = 128.360254 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
259.9	15.3	3.62	5.78	4.83	2.21	1.56	256.3	254.2	11.7	9.55	0.02	0.99	0.02	1.24



Stellar Parameters For KIC 011021252

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6372^{+170}_{-207}	$4.453^{+0.056}_{-0.210}$	$-0.320^{+0.250}_{-0.300}$	$1.015^{+0.333}_{-0.111}$	$1.066^{+0.143}_{-0.143}$	$1.435^{+0.430}_{-0.787}$
	+3%/-3%	+1%/-5%	+78%/-94%	+33%/-11%	+13%/-13%	+30%/-55%
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 011021252-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-72 ± 9	$7.42^{+1.36}_{-0.95}$	1924^{+146}_{-86}	2870^{+115}_{-124}	$1.338^{+0.427}_{-0.376}$
Alt.	-133 ± 9	$5.71^{+0.99}_{-0.85}$	1919^{+147}_{-97}	3498^{+172}_{-153}	$4.309^{+1.517}_{-1.243}$

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

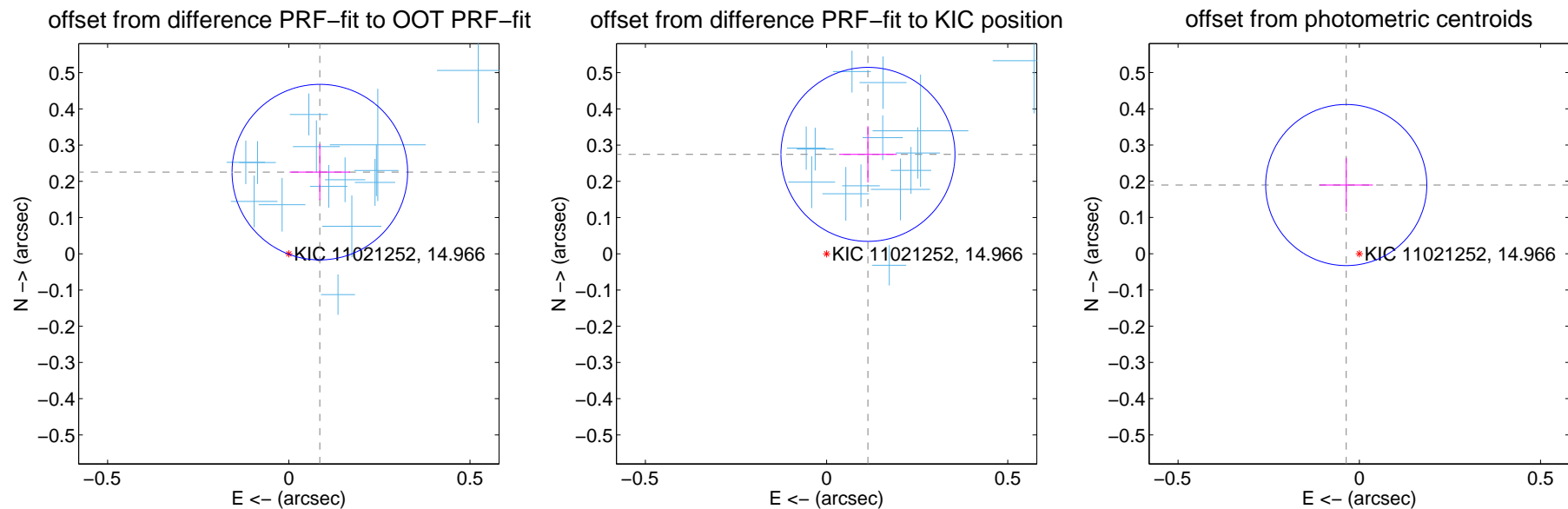
DV Centroid Data

Supplemental centroid analysis for 011021252-03. Kepler magnitude: 14.97. Transit SNR 138.33

There are 14 quarters with good PRF difference image offsets

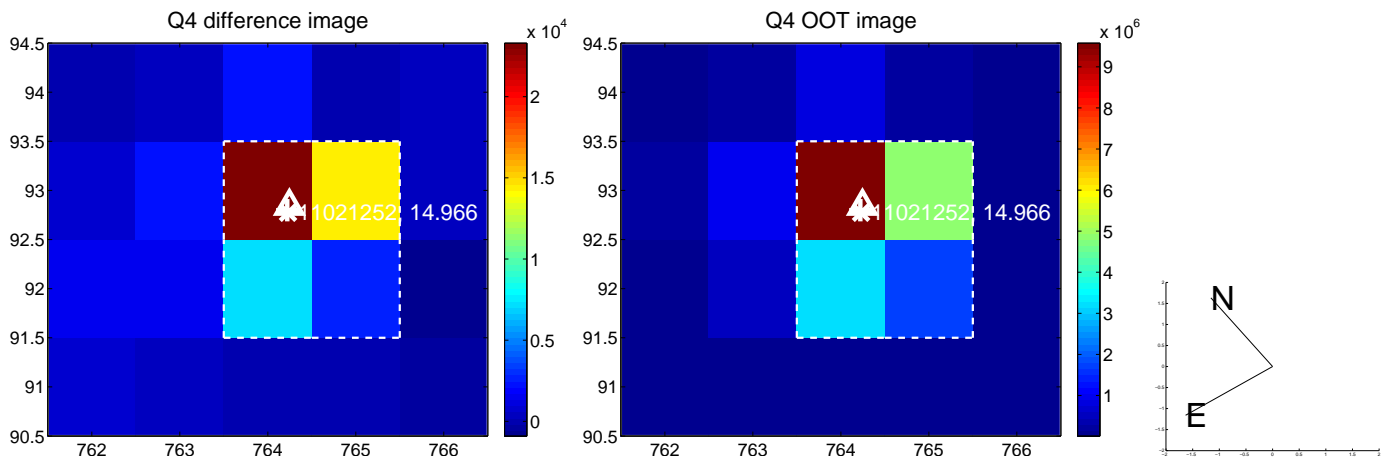
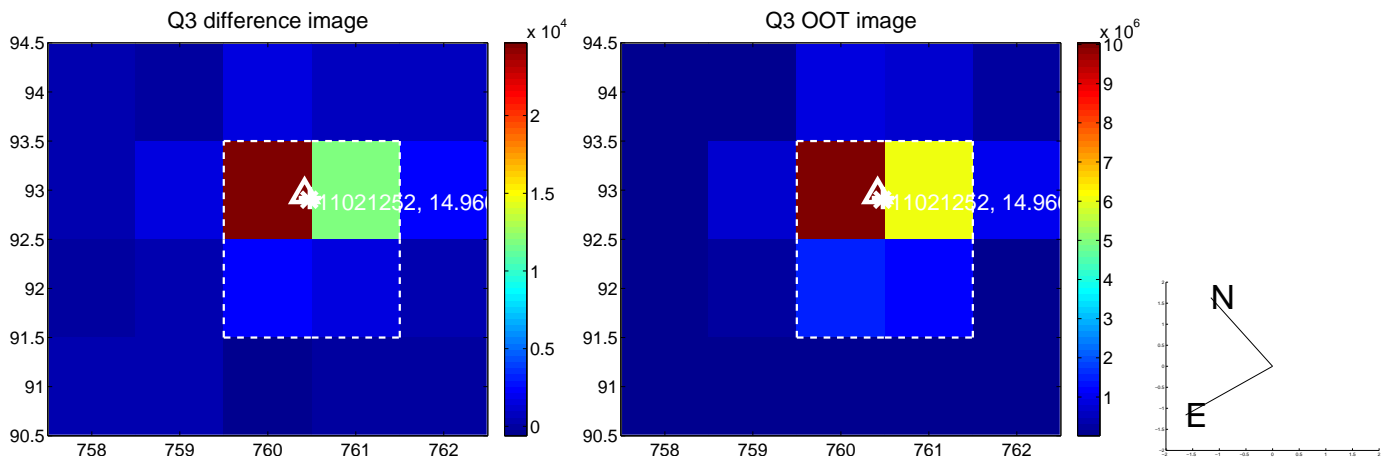
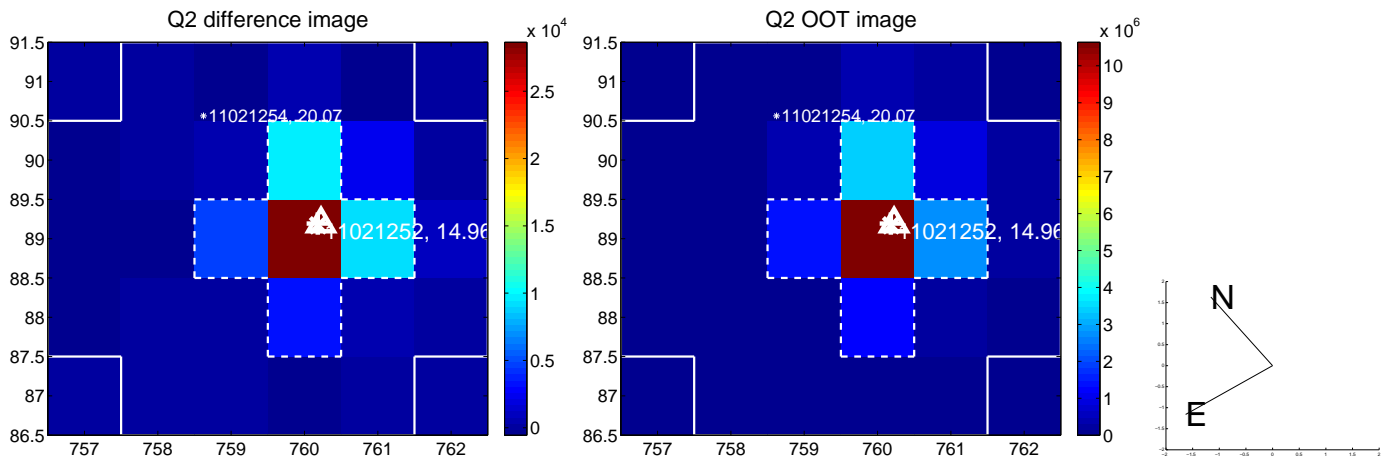
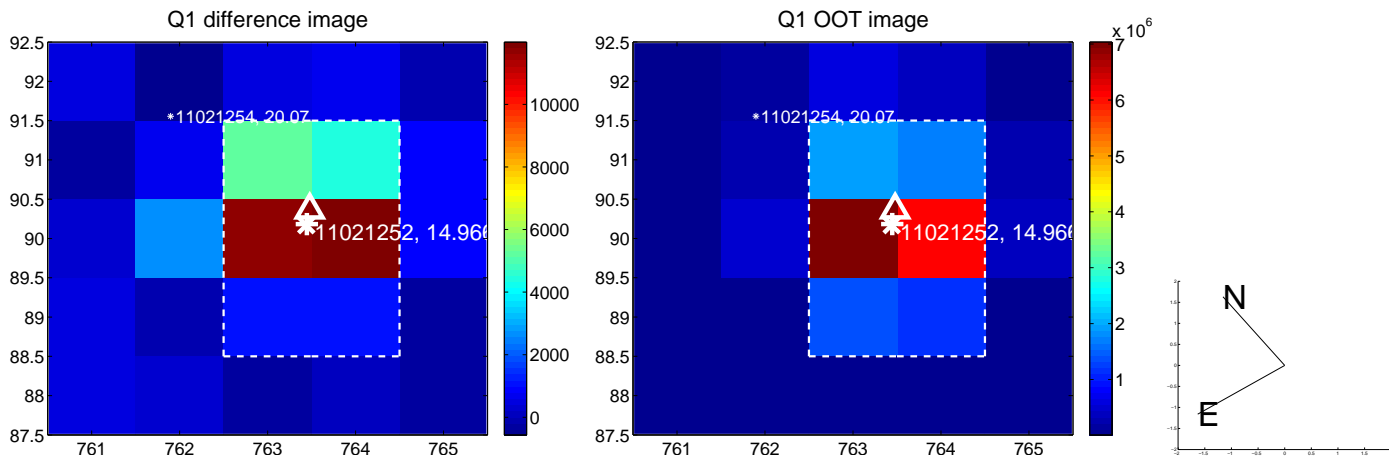
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.241 ± 0.081	2.99	-0.086 ± 0.083	0.225 ± 0.077
PRF-fit source offset from KIC position	0.297 ± 0.080	3.71	-0.114 ± 0.080	0.274 ± 0.078
photometric centroid source offset	0.19 ± 0.07	2.60	0.04 ± 0.07	0.19 ± 0.07

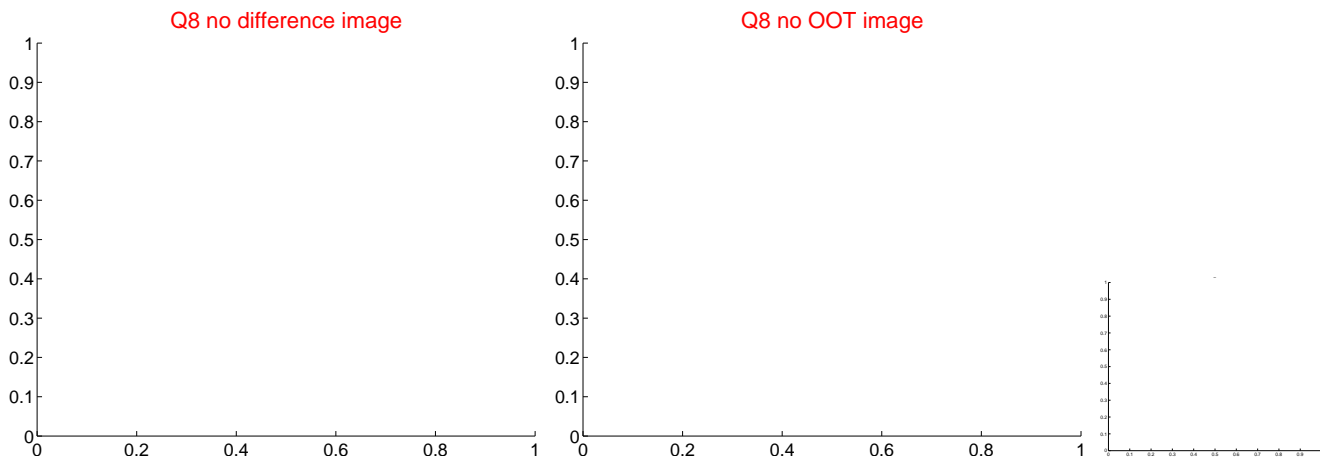
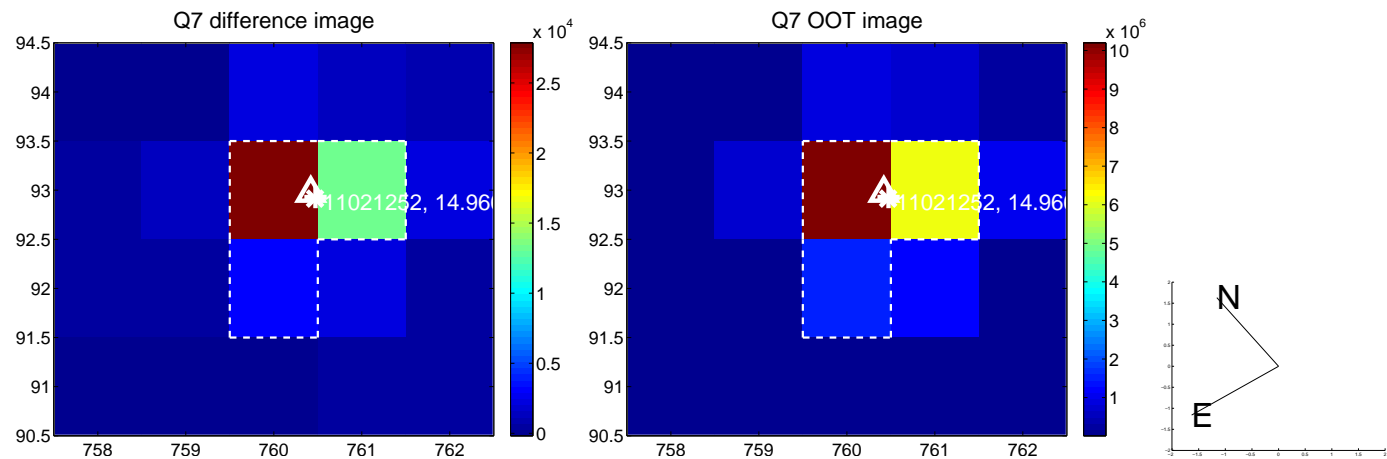
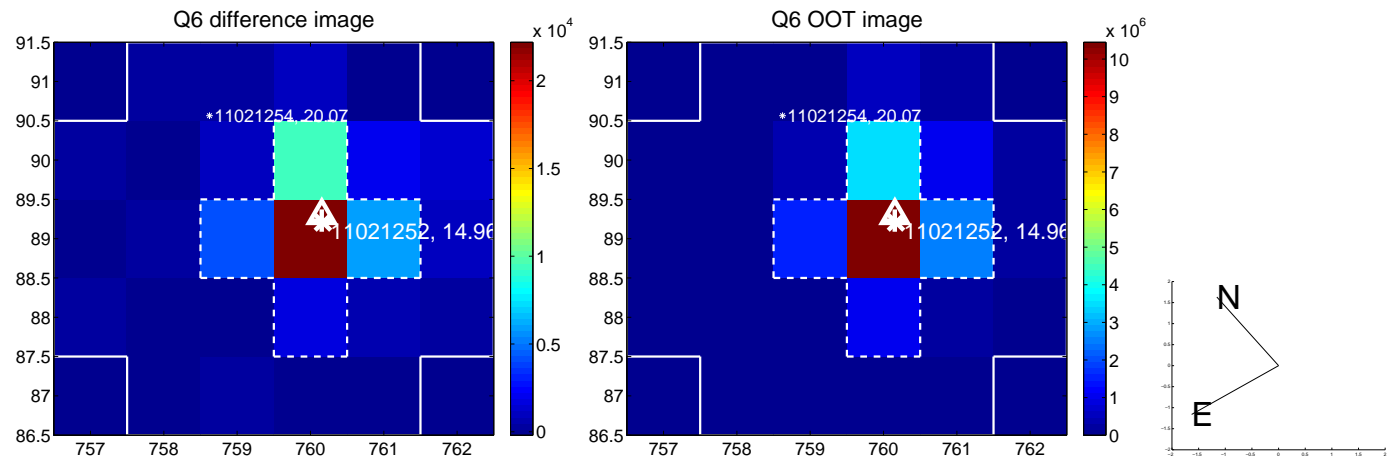
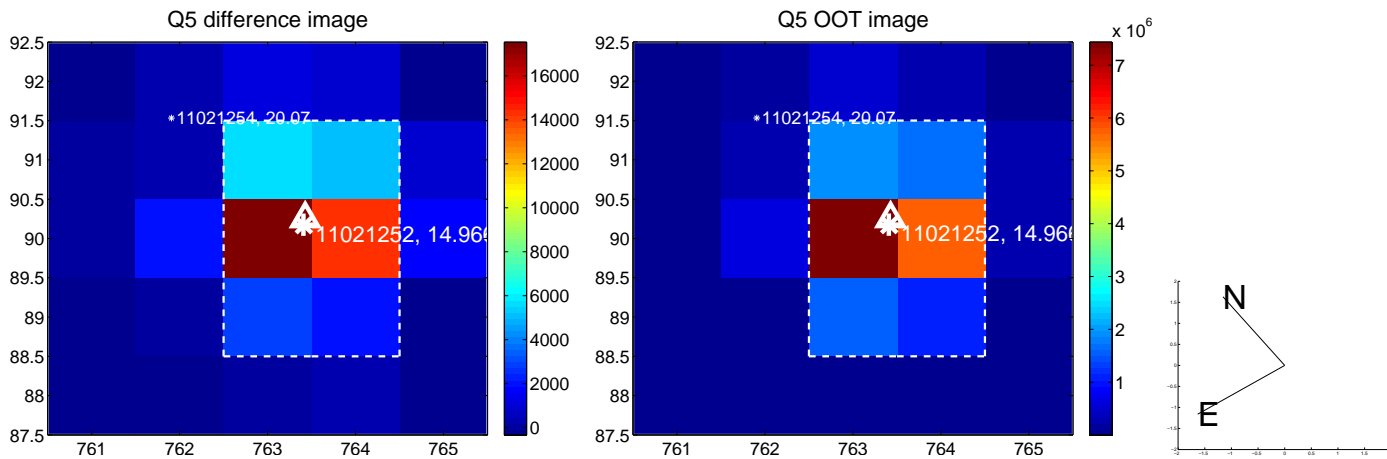


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

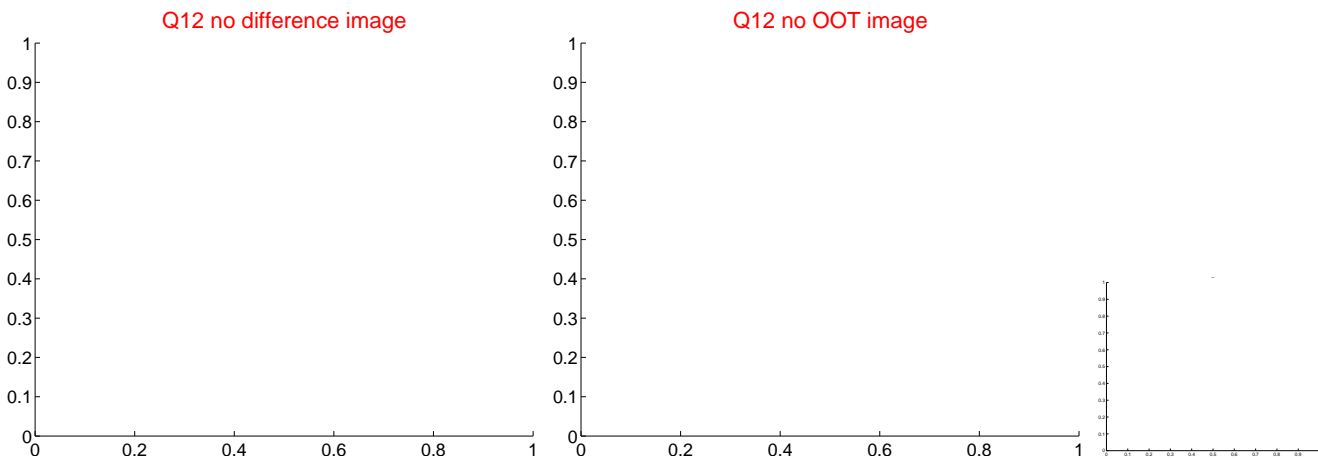
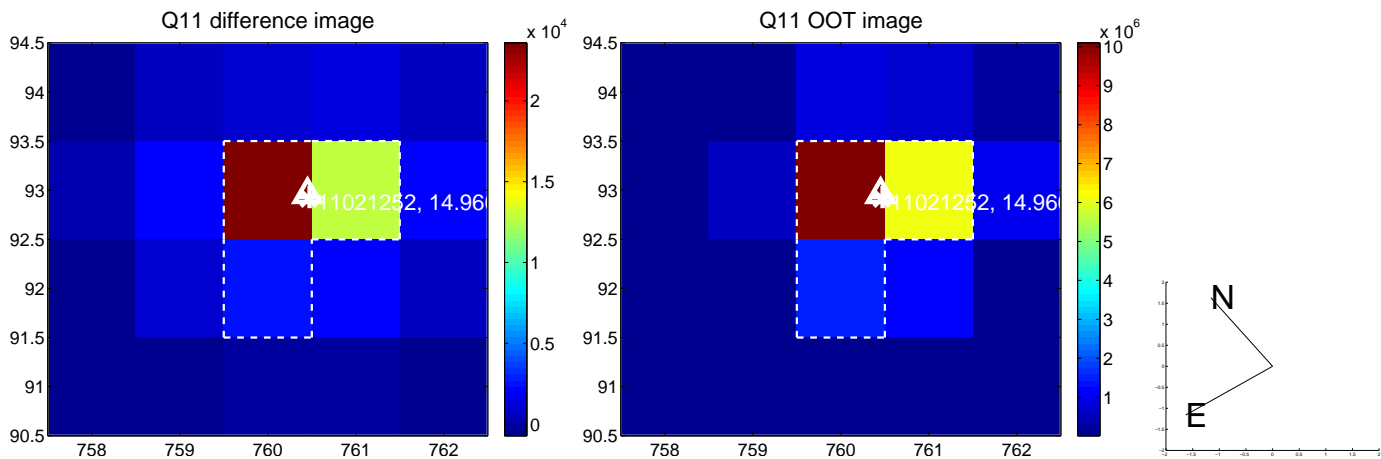
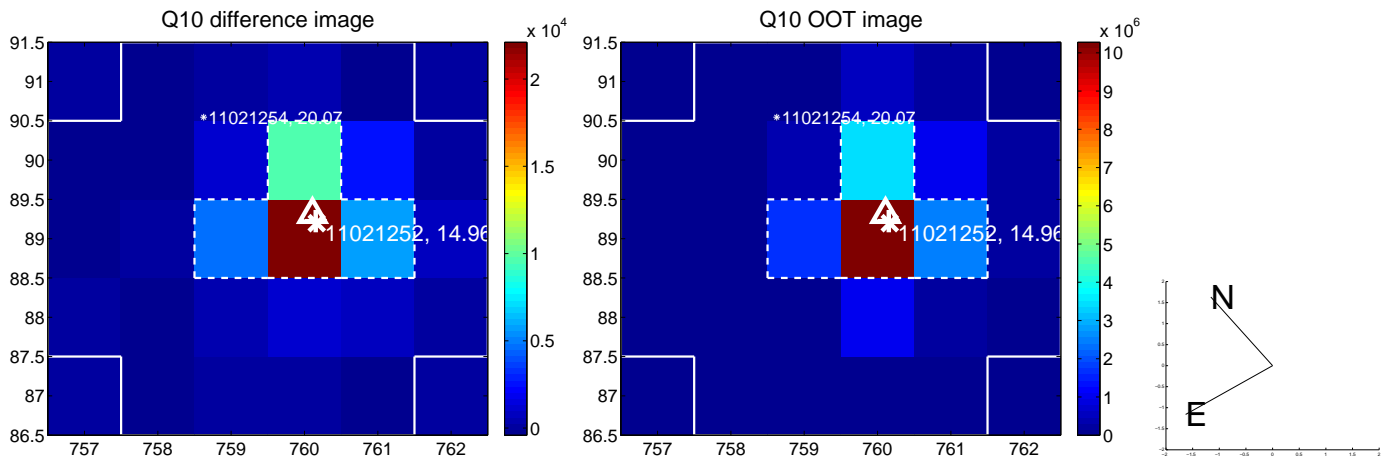
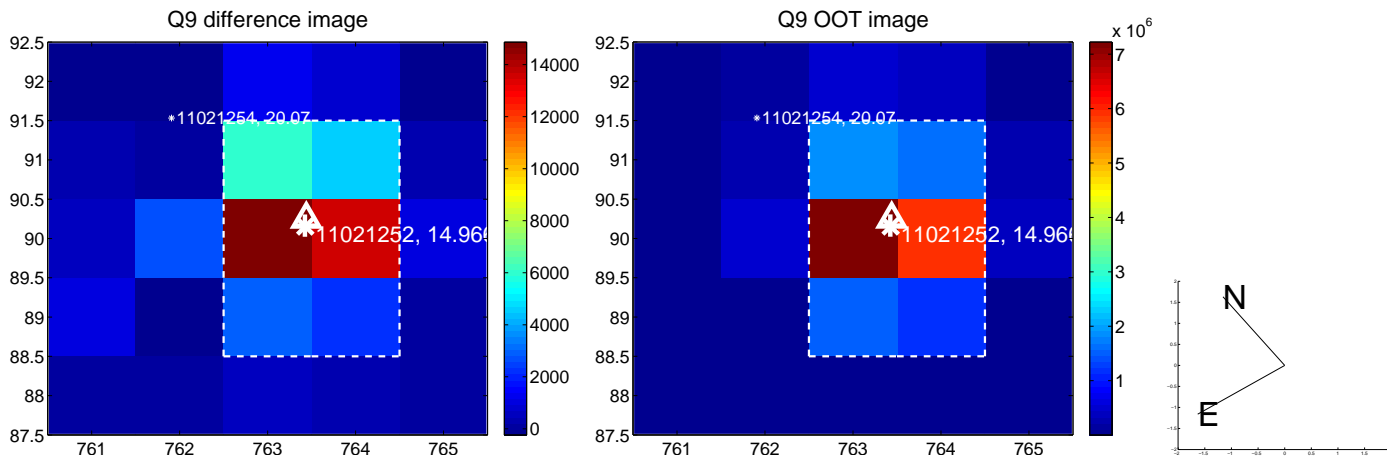
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



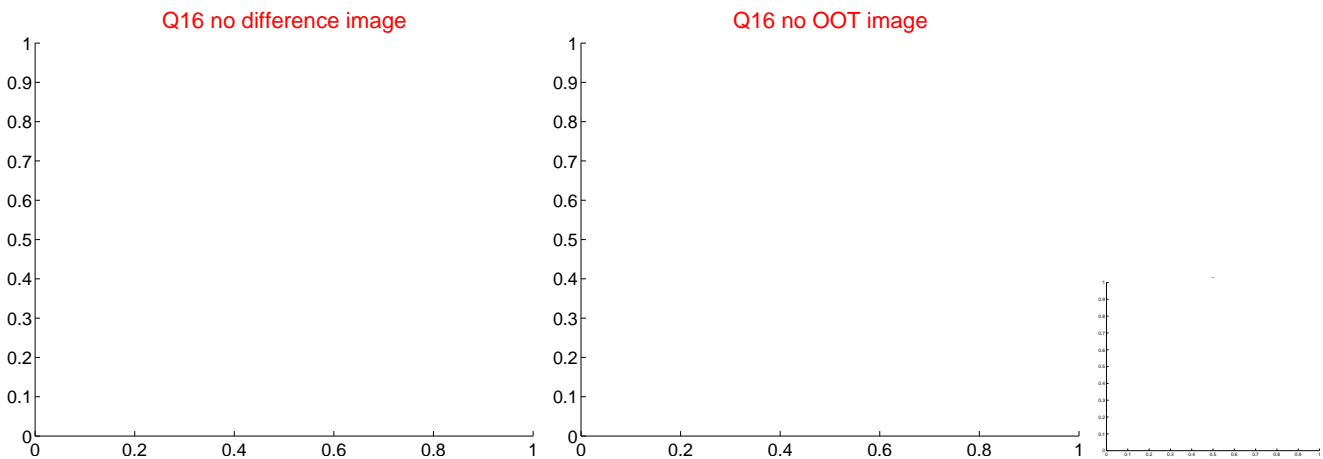
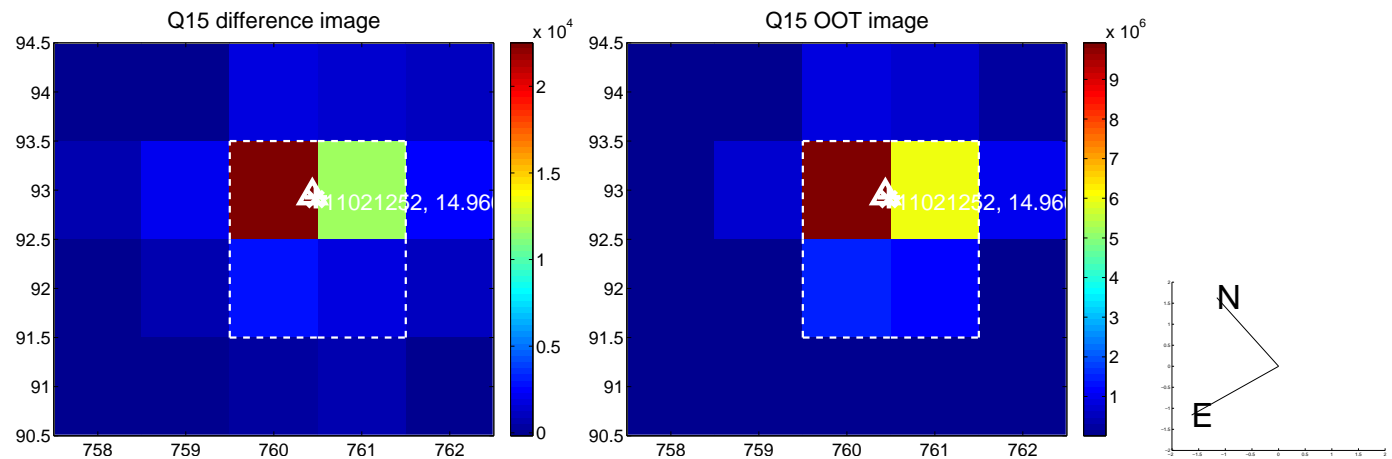
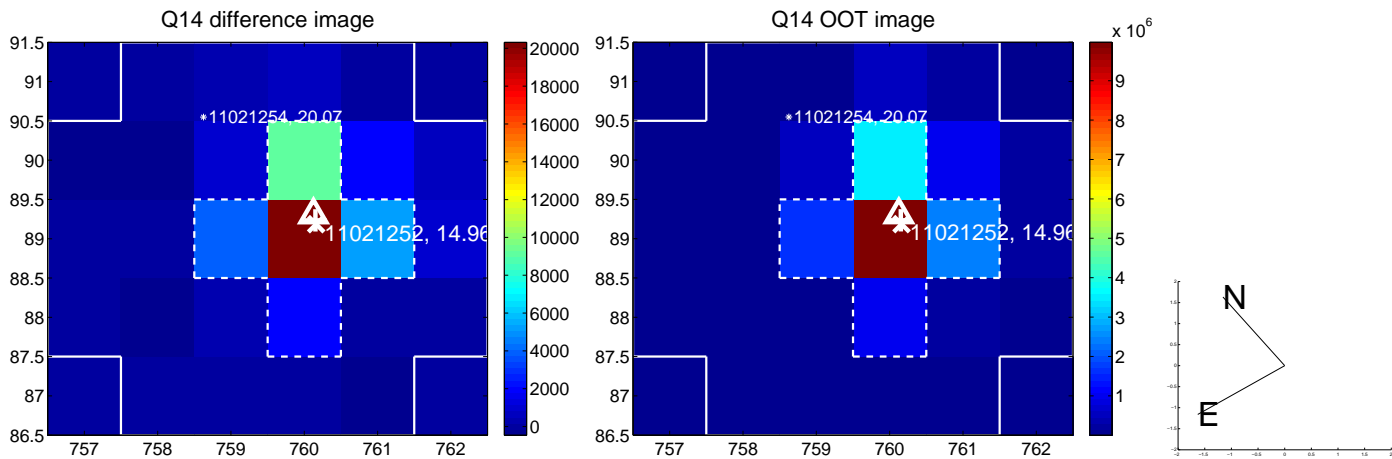
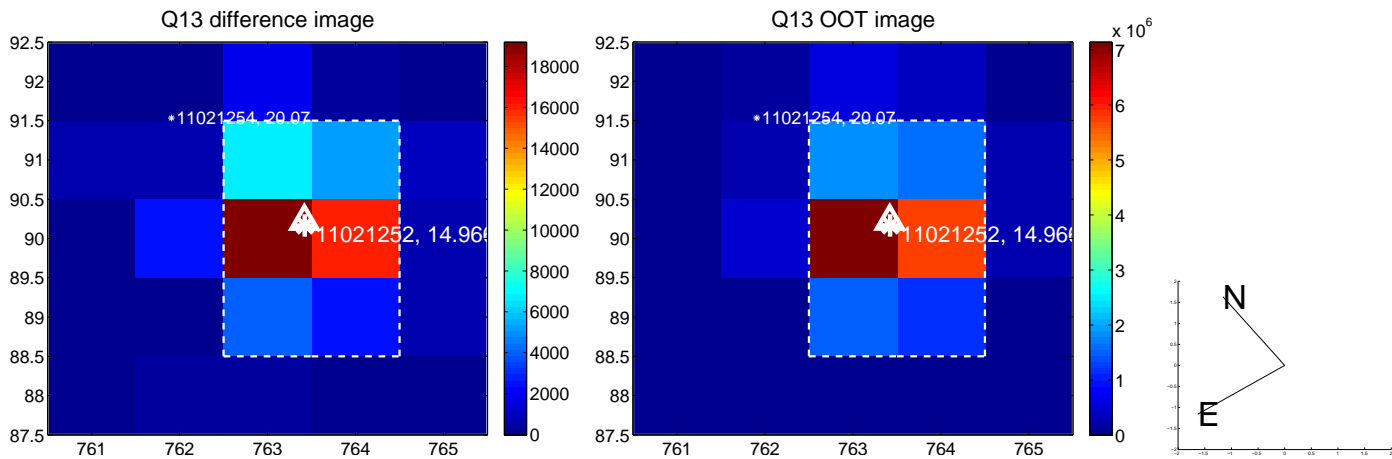
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



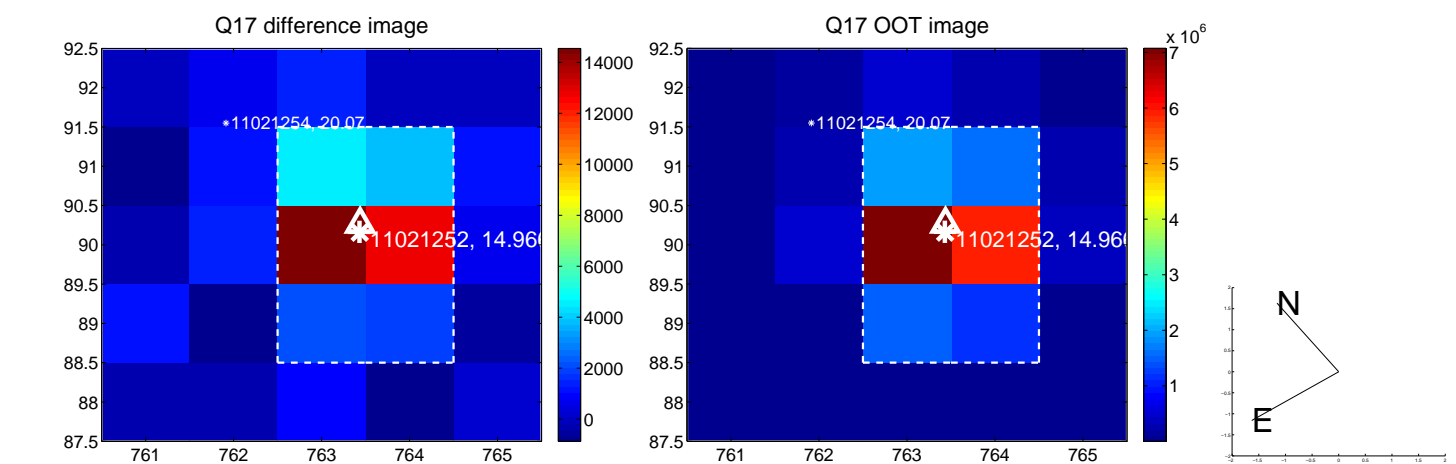
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



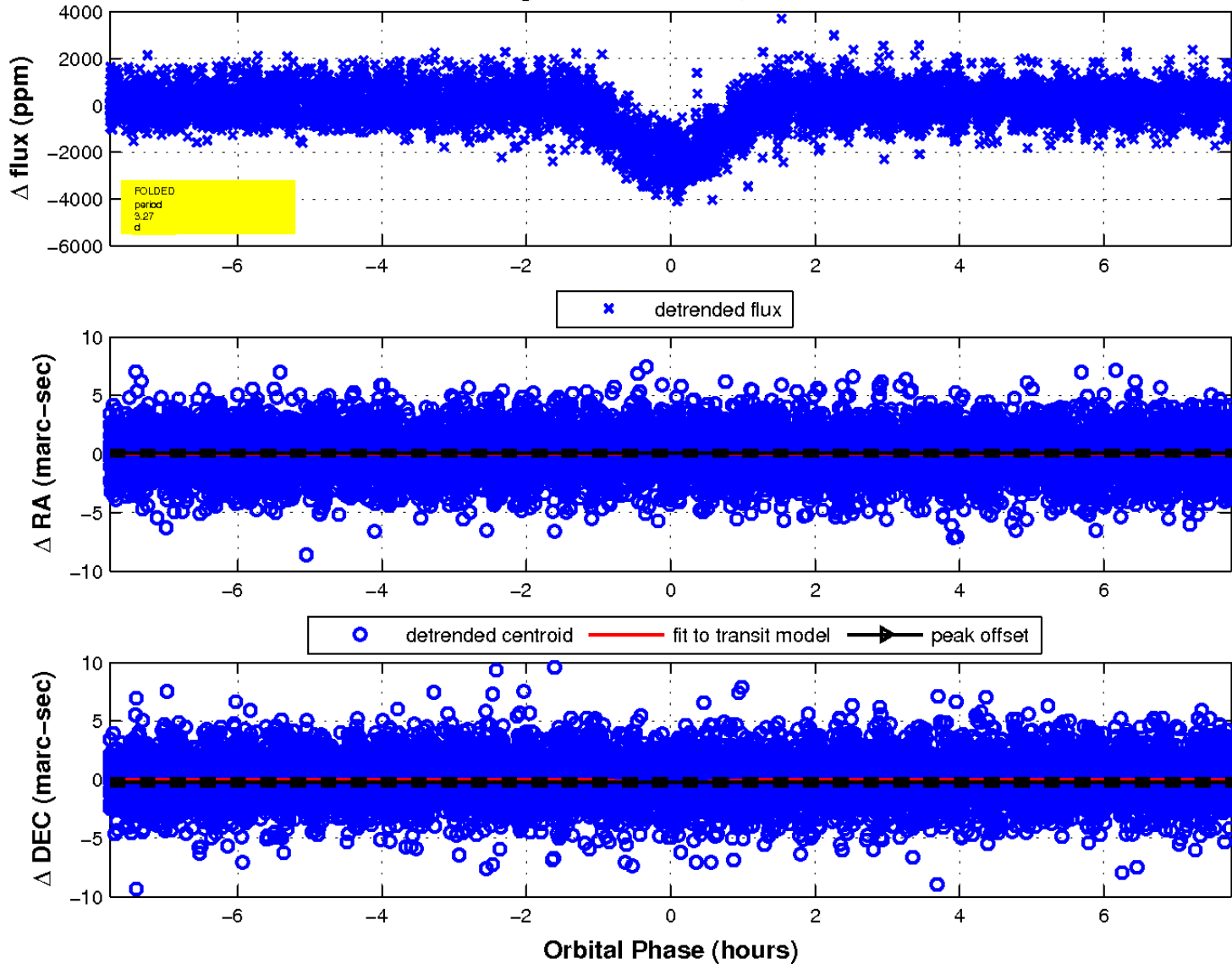
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

