

KIC 010026136

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})
010026136-01	OBS	7274.01	9.080154	136.816908	329765.4	4.500	9252.2	-1.0	1.13	6461	54.33	249.04
010026136-02	OBS	No	9.080186	133.630419	263449.3	12.059	8033.6	5831.9	1.13	6461	71.33	249.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010026136-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010026136-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_KIC_POS

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.

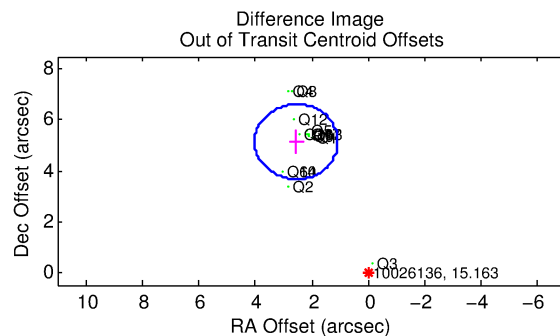
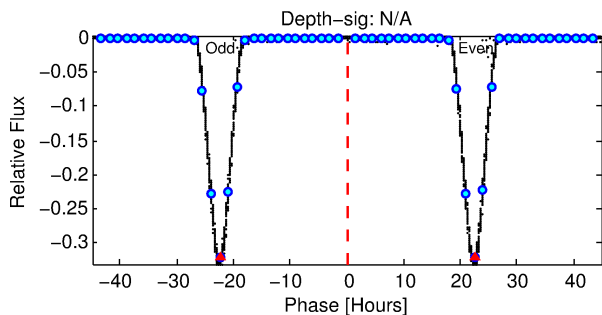
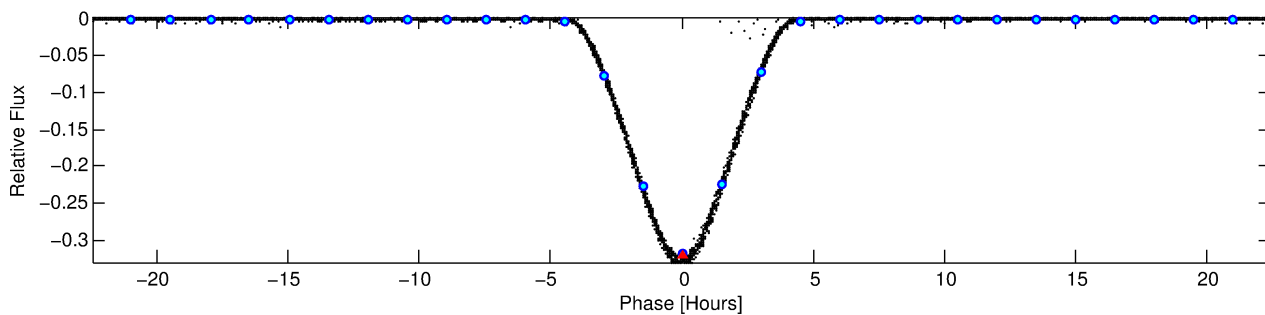
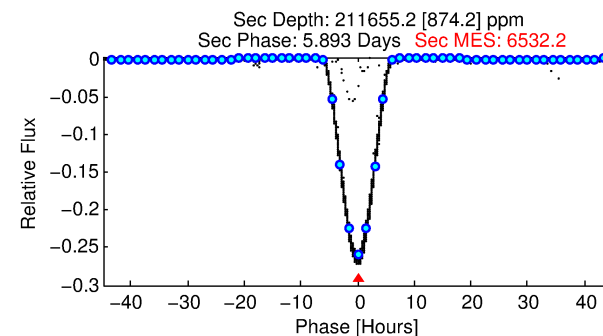
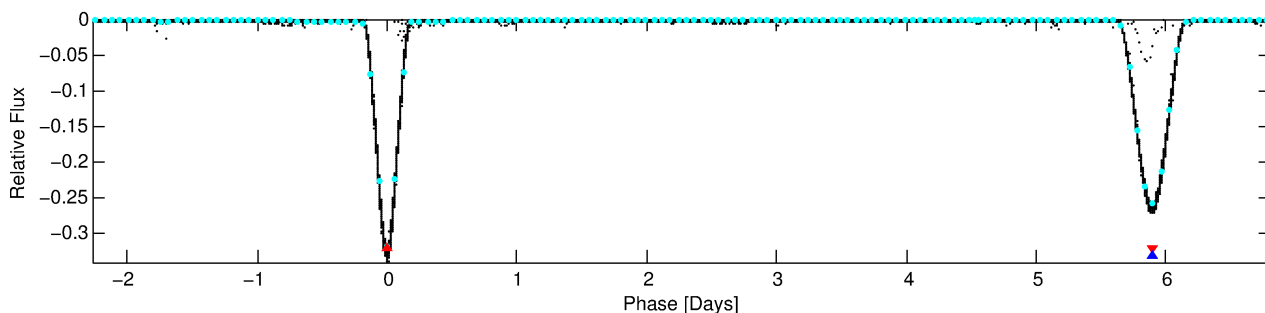
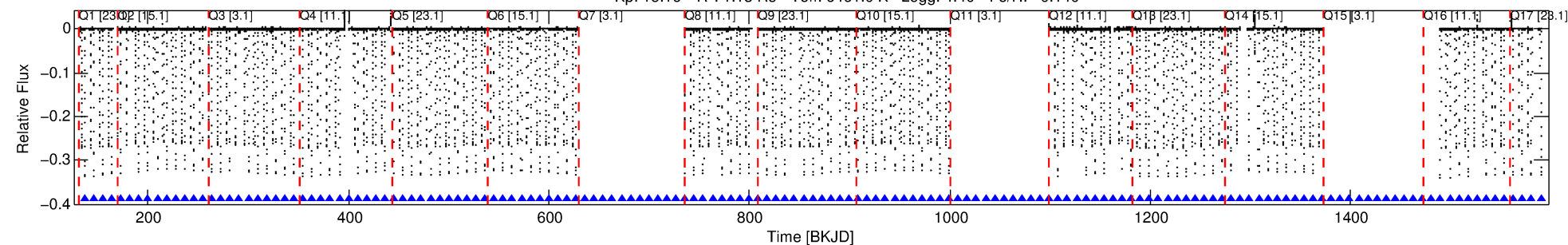
Ephemeris Match Information For 010026136-01

No Significant Match Found

DV One-Page Summary

KIC: 10026136 Candidate: 1 of 2 Period: 9.080 d
KOI: K07274 Corr: No Ephemeris Match

Kp: 15.16 R*: 1.13 Rs Teff: 6461.0 K Logg: 4.40 Fe/H: -0.140



TPS TCE Results:

Period = 9.08015 d
Epoch = 136.8169 BKJD

DV fit results are unavailable

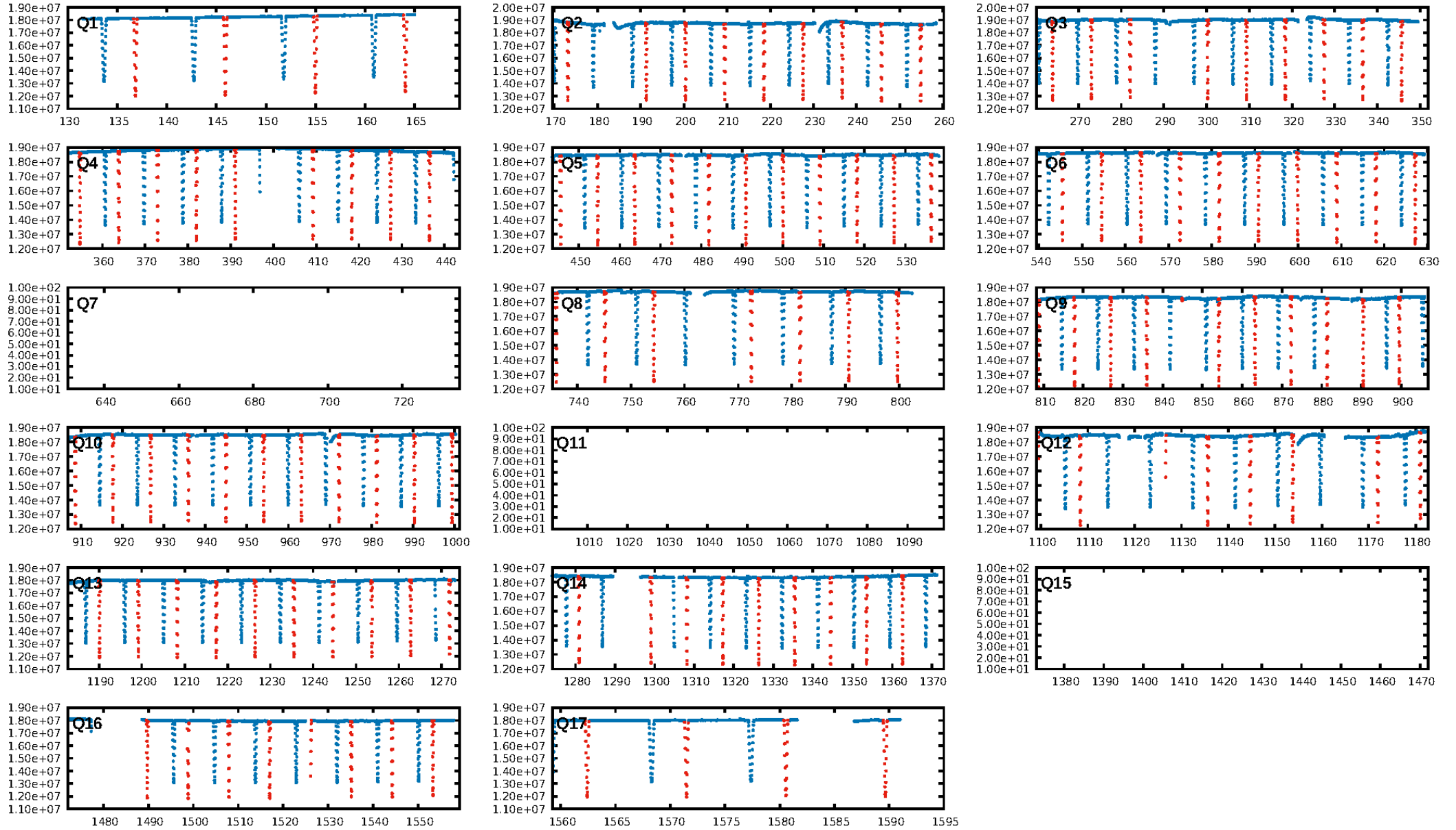
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [112/112]
GhostDiagnostic-chr: 2.019
Centroid-sig: N/A
Centroid-so: 1.257 arcsec [1137.99σ]
OotOffset-rm: 5.743 arcsec [11.67σ]
KicOffset-rm: 0.074 arcsec [1.07σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

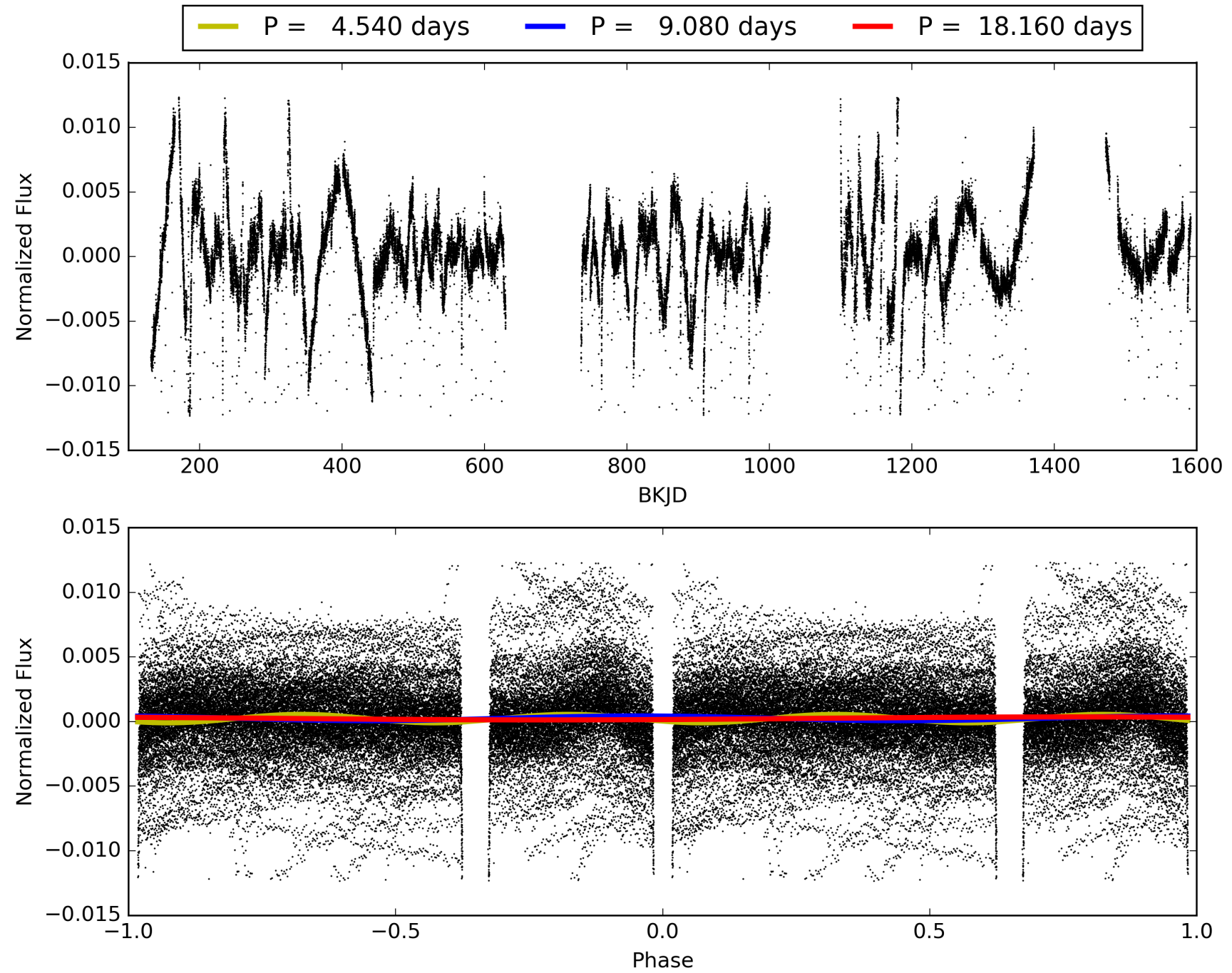
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:03:59 Z

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

TCE 010026136-01, PDC Light Curves

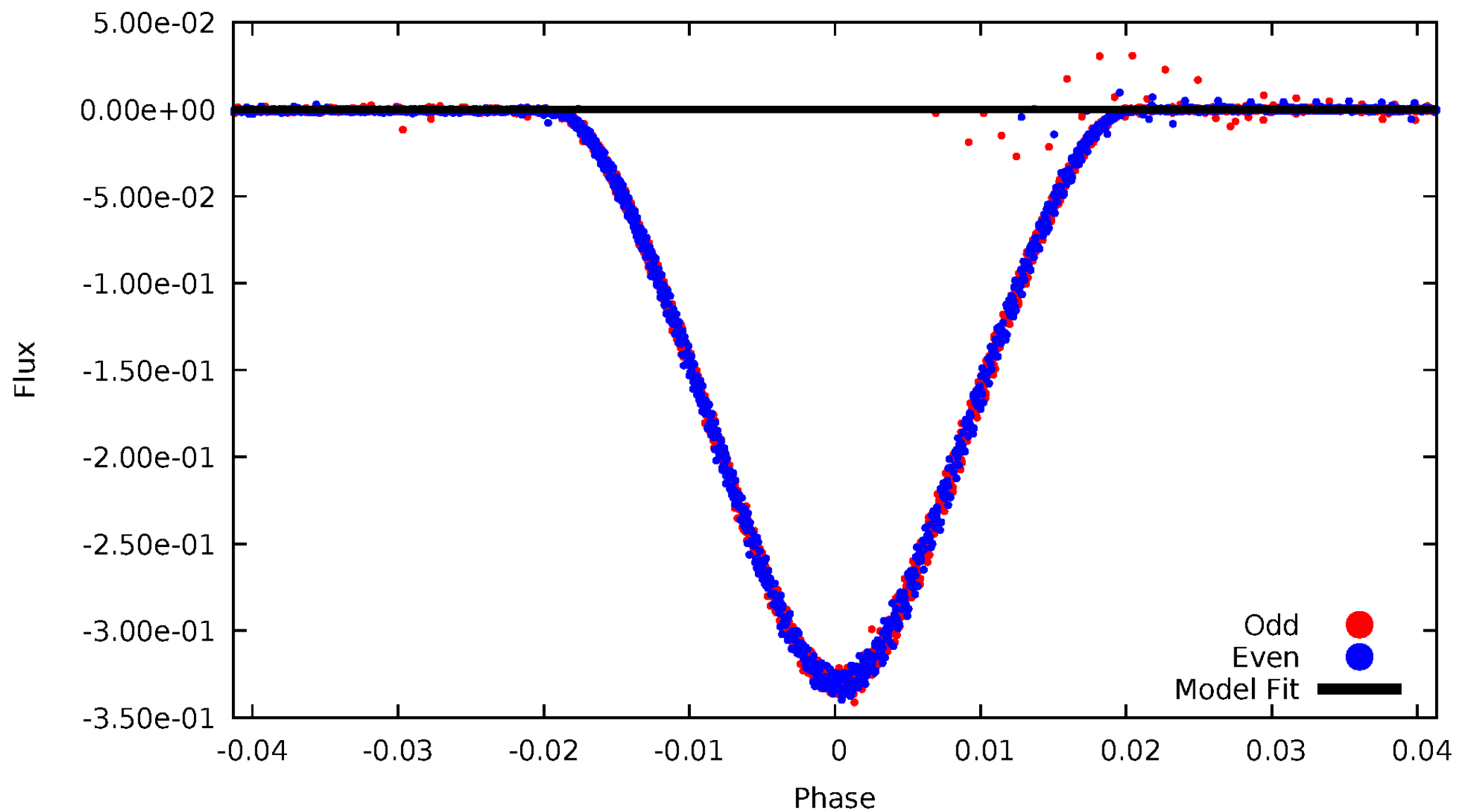


TCE 010026136-01



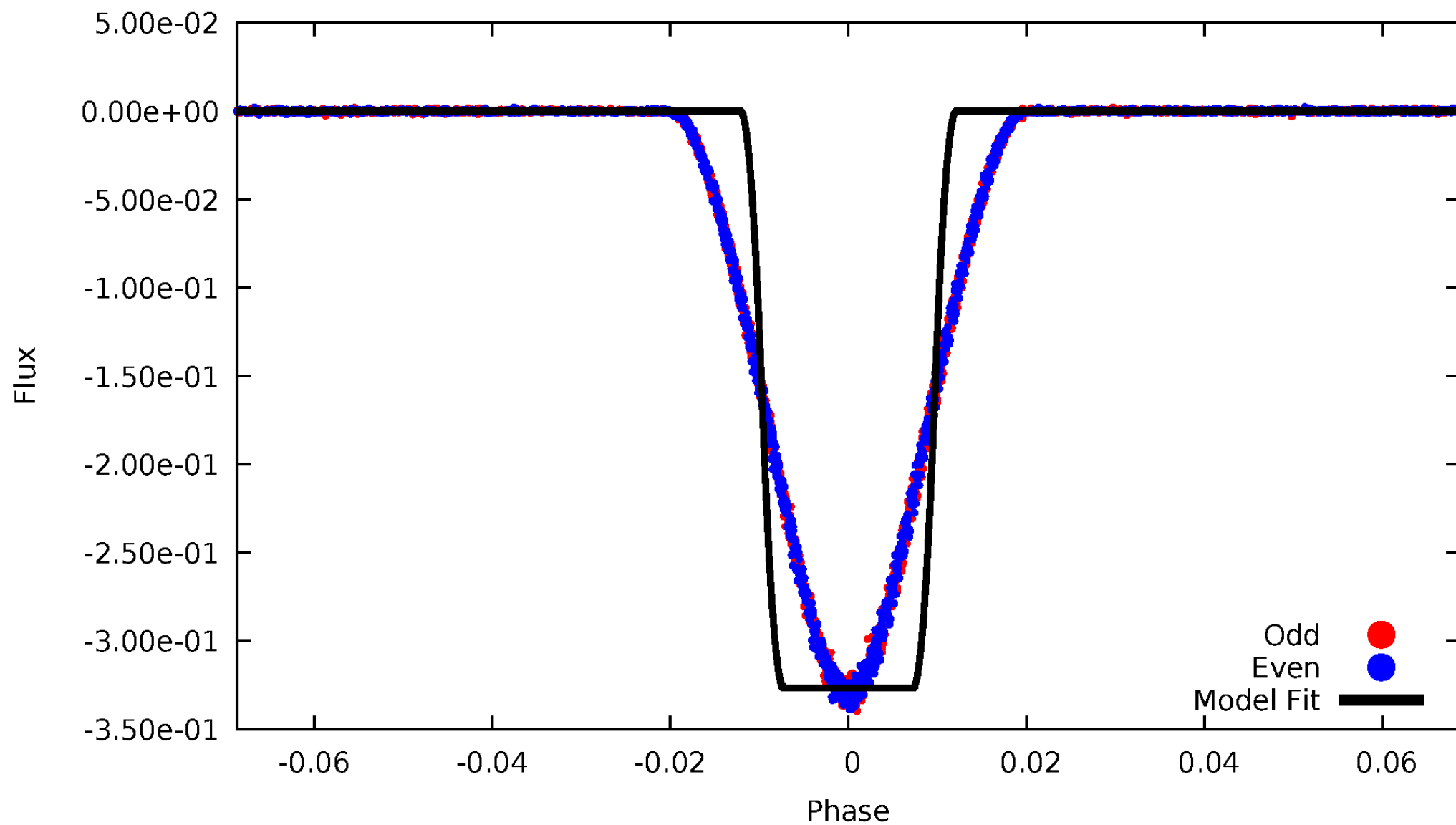
DV Odd/Even

TCE 010026136-01



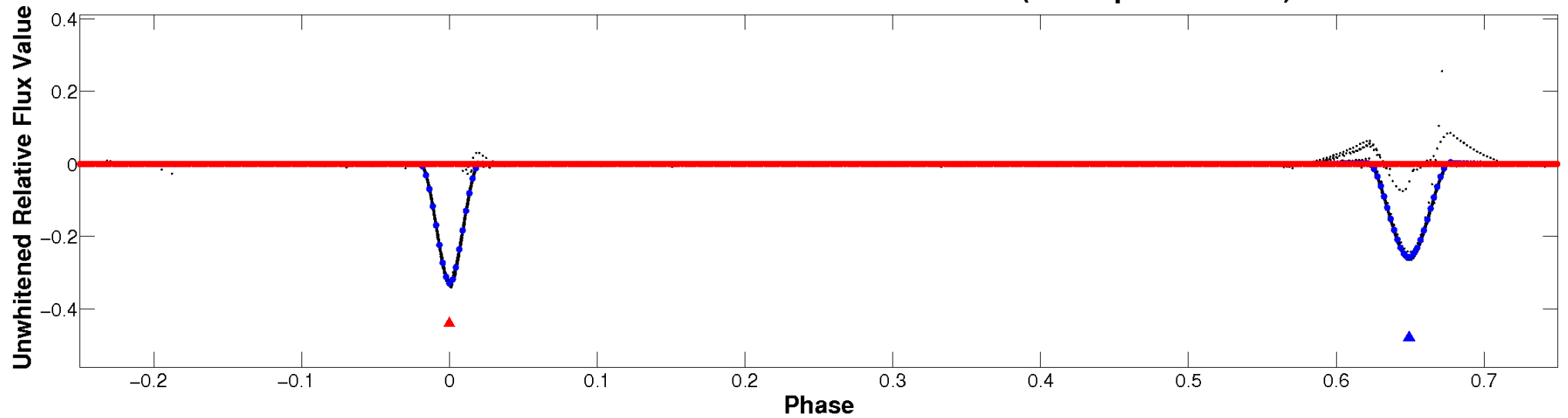
ALT Odd/Even

TCE 010026136-01



Non-Whitened Vs. Whitened Light Curve

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

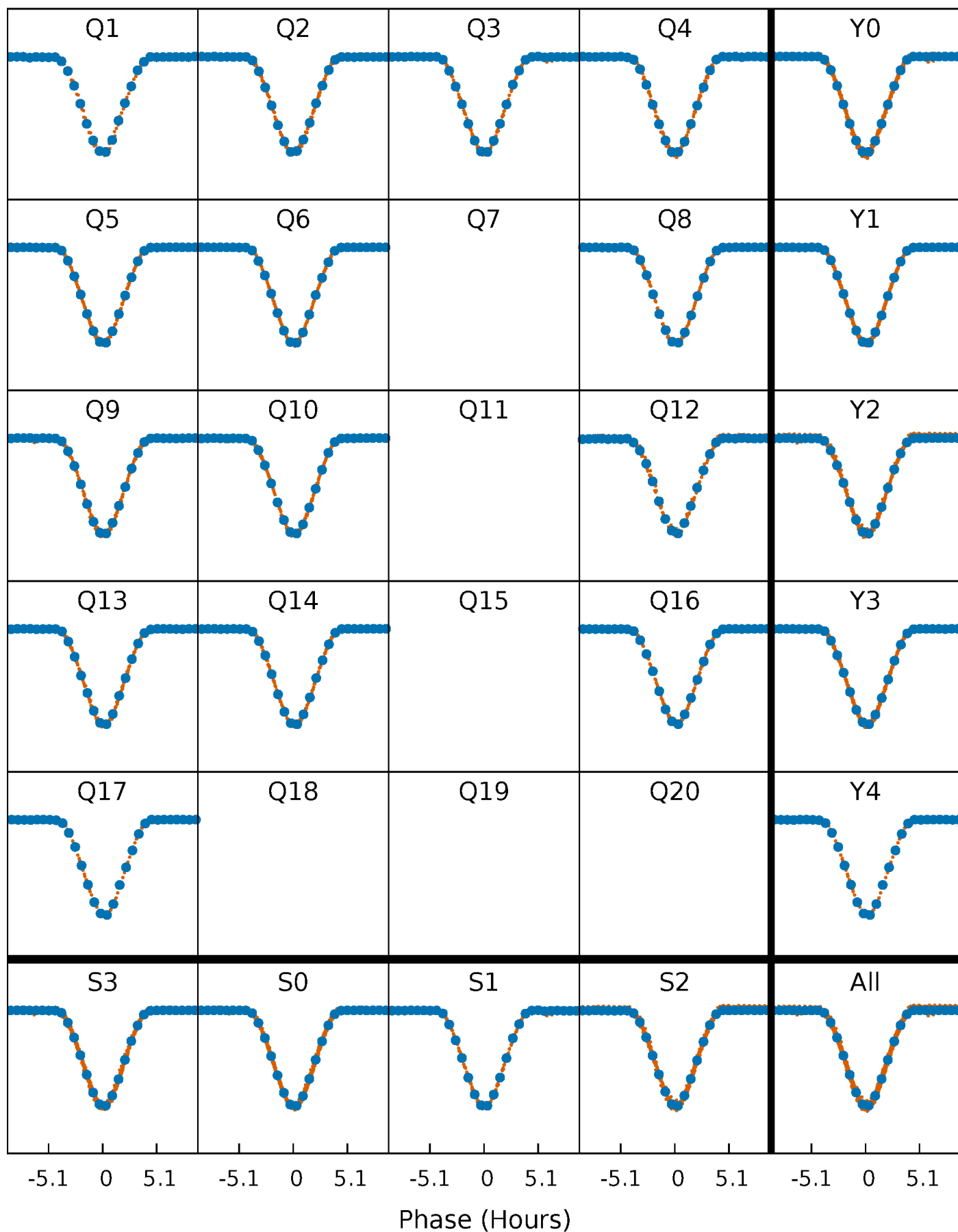


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



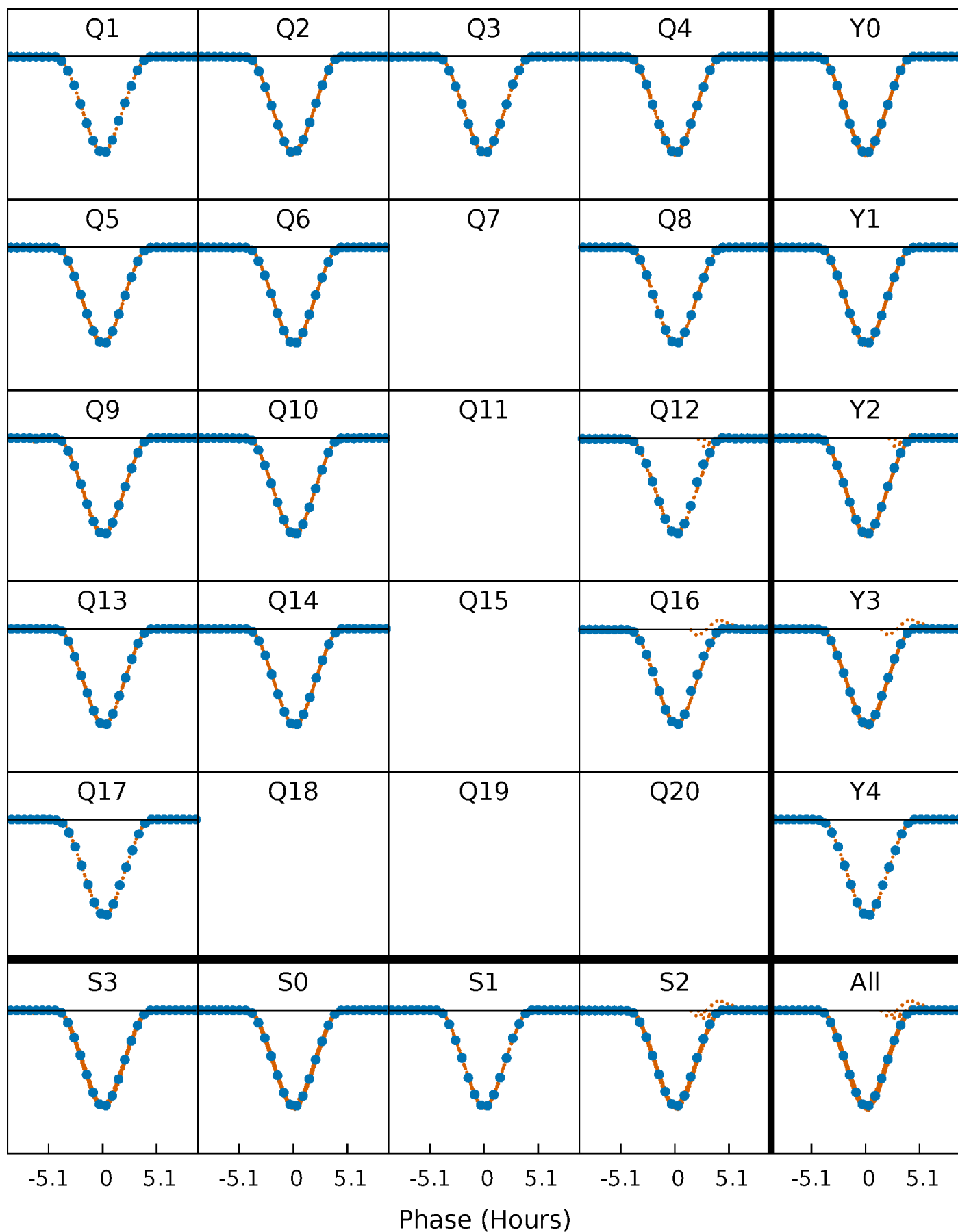
PDC Quarter-Phased Transit Curves

TCE 010026136-01 P= 9.080154 Days $T_0=136.816908$ (BKJD)



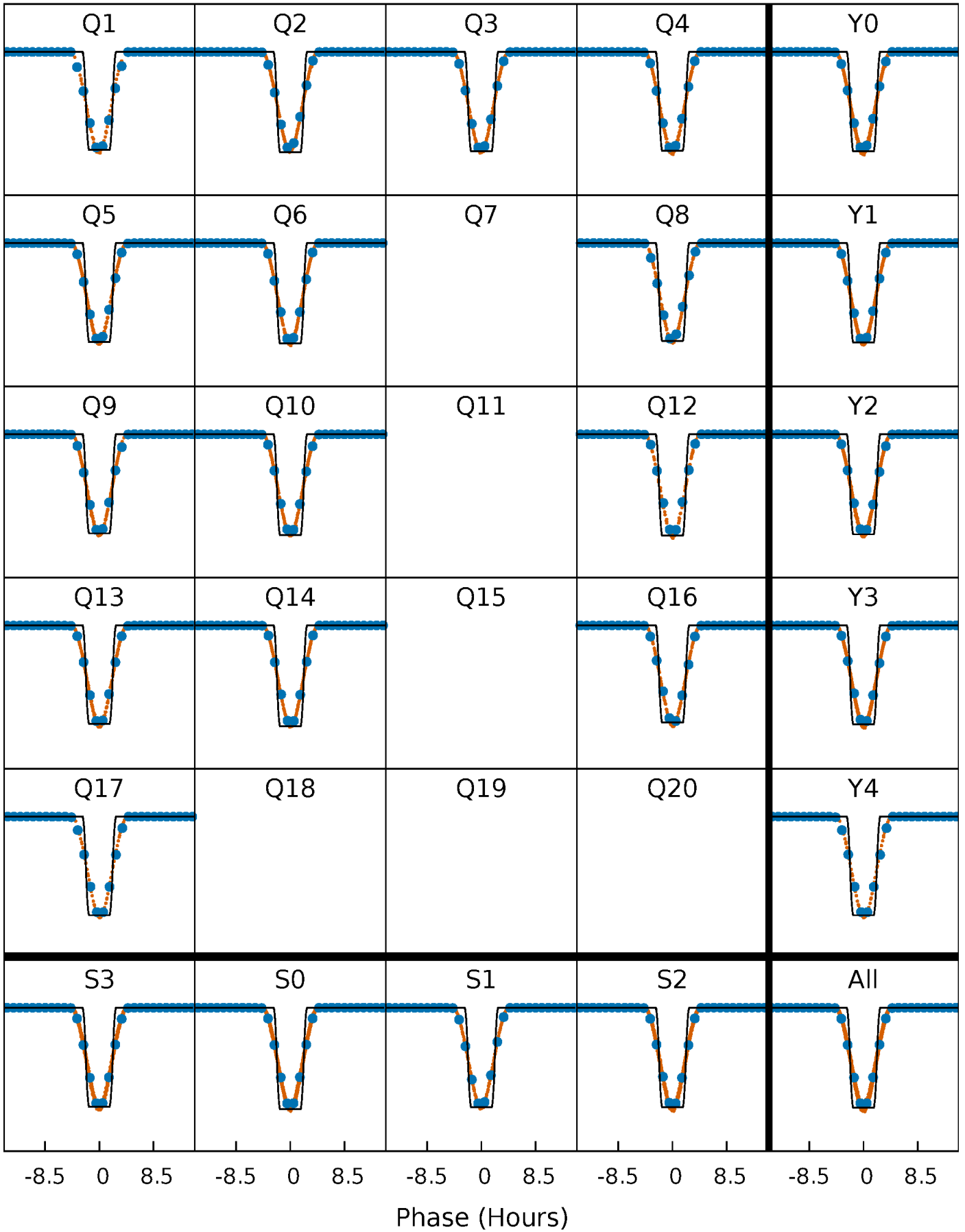
DV Quarter-Phased Transit Curves

TCE 010026136-01 P= 9.080154 Days $T_0=136.816908$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

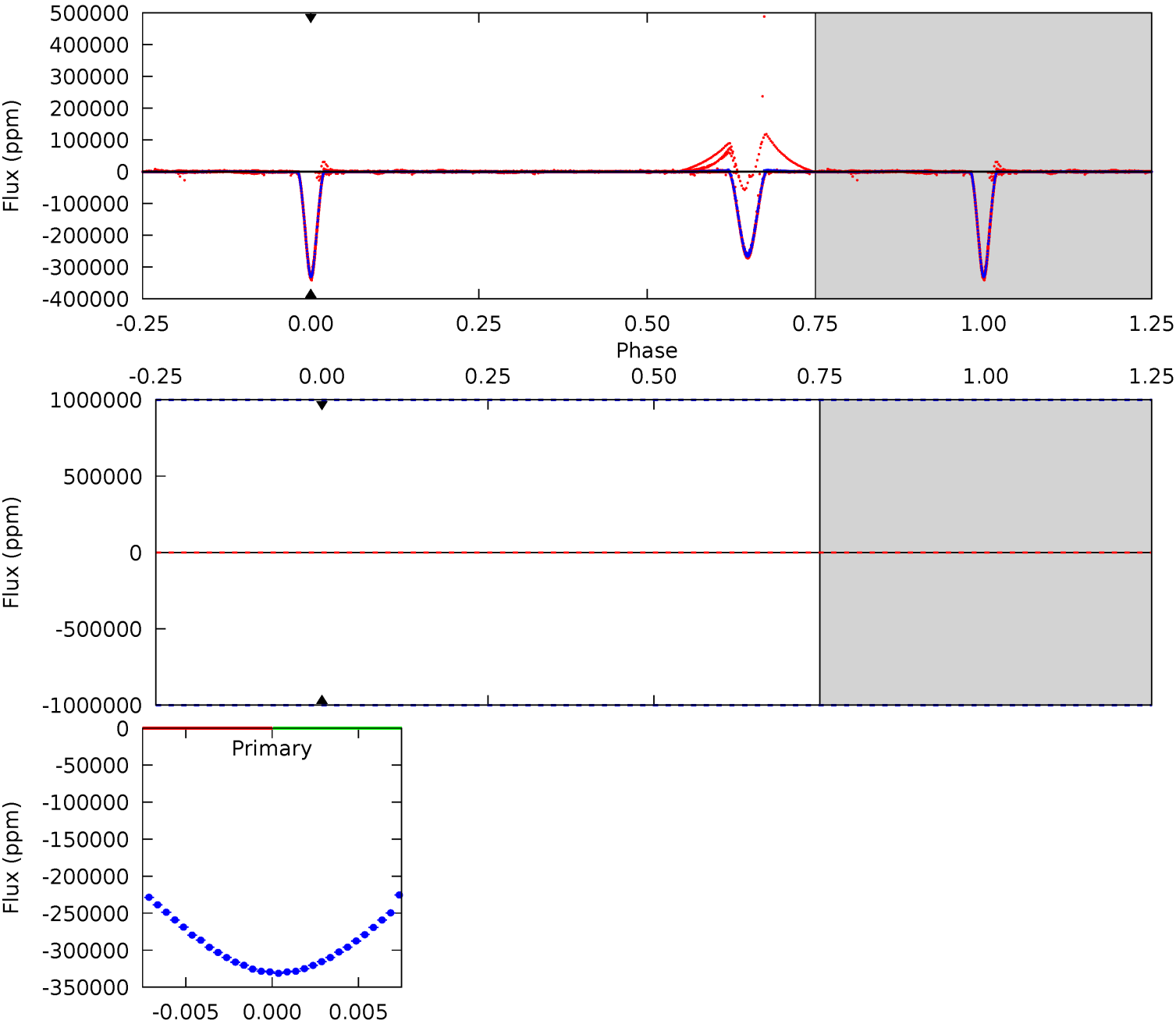
TCE 010026136-01 P= 9.080154 Days $T_0=136.820219$ (BKJD)



DV Model-Shift Uniqueness Test

010026136-01, P = 9.080154 Days, E = 127.736754 Days

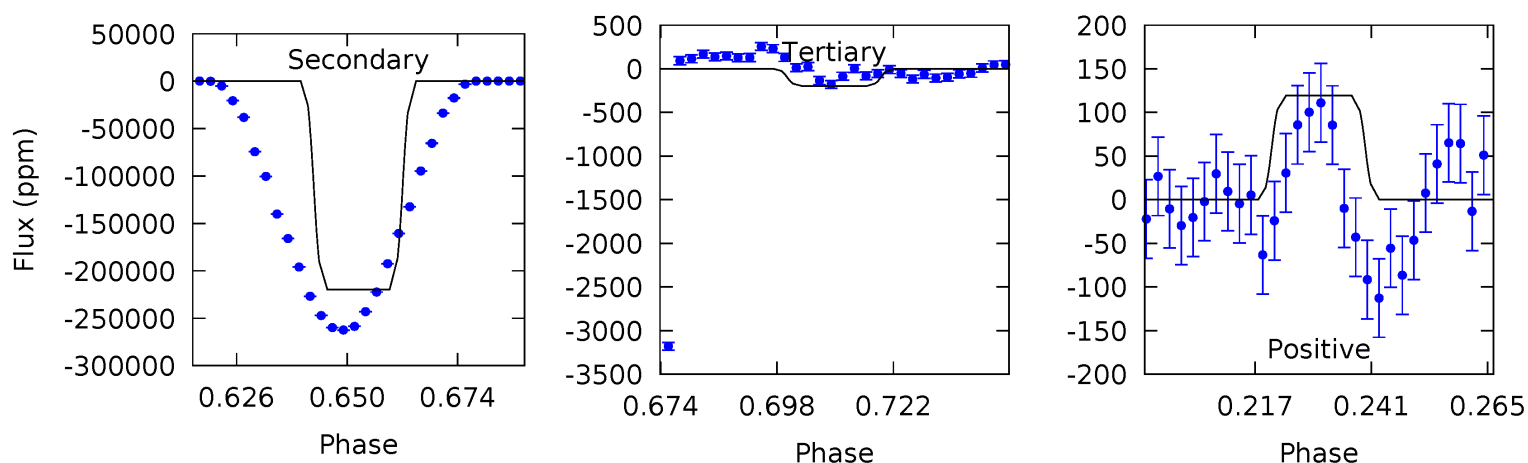
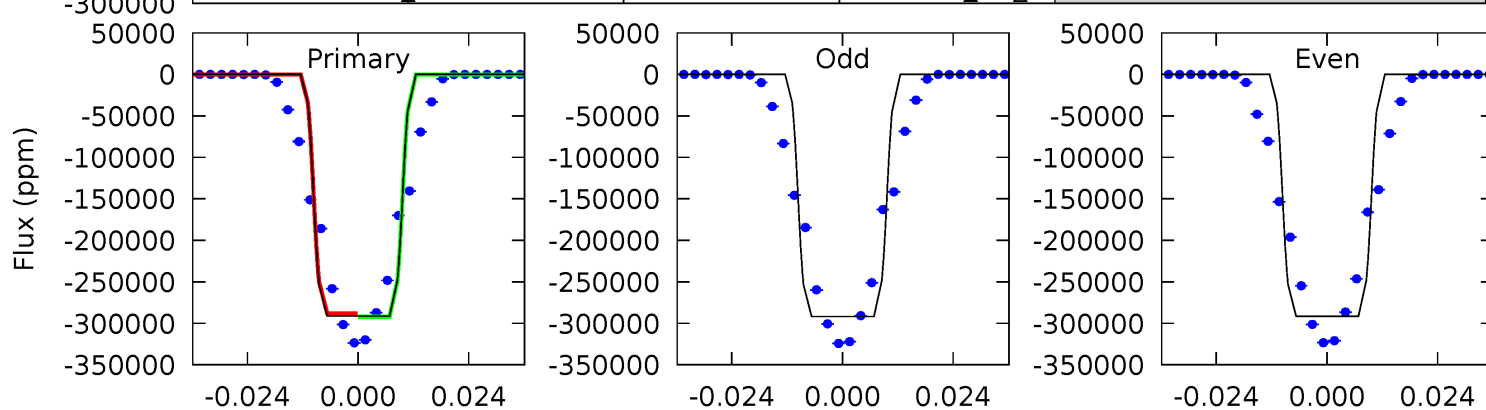
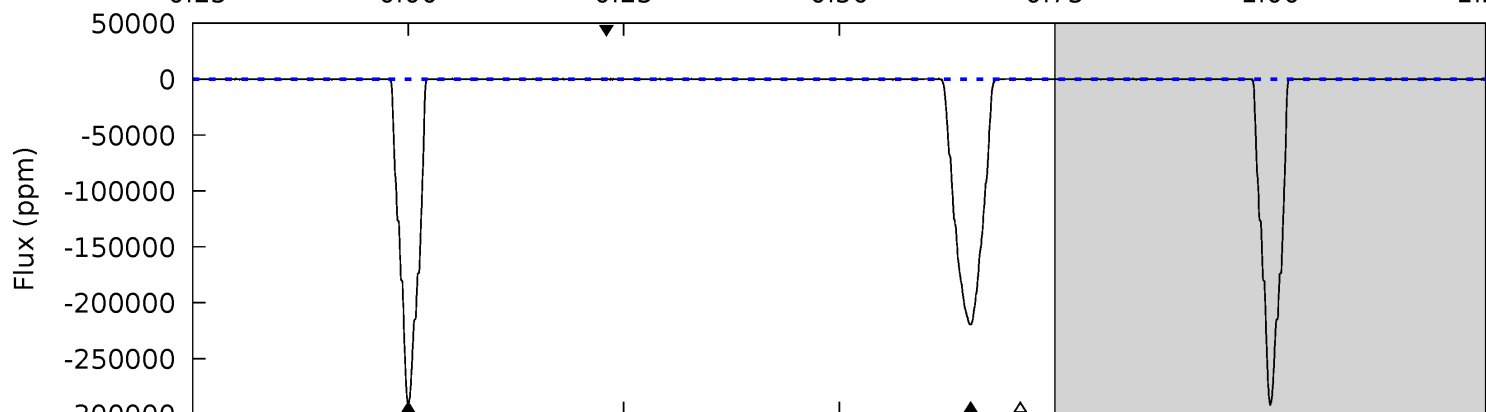
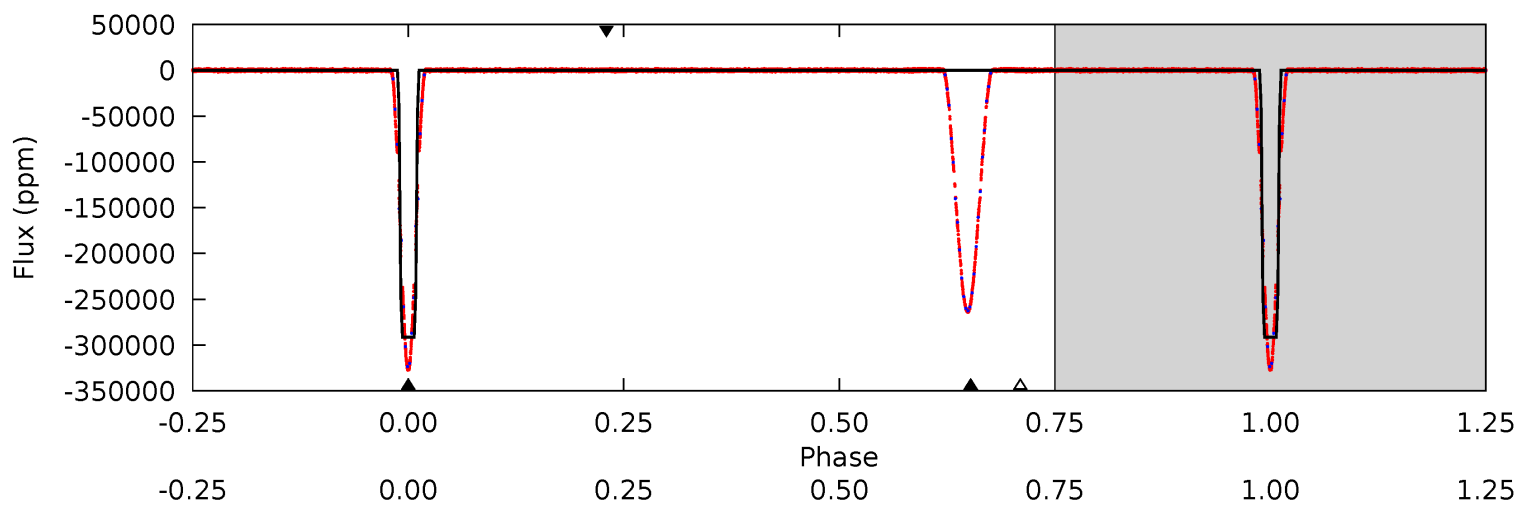
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010026136-01, P = 9.080154 Days, E = 127.740065 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4332	3266	2.91	1.78	4.86	2.26	26.4	4329	4330	3263	3264	3.71	1.00	0.00	0



Stellar Parameters For KIC 010026136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6461^{+154}_{-212}	$4.396^{+0.062}_{-0.175}$	$-0.140^{+0.250}_{-0.300}$	$1.131^{+0.322}_{-0.138}$	$1.162^{+0.148}_{-0.164}$	$1.131^{+0.366}_{-0.541}$
	+2%/-3%	+1%/-4%	+179%/-214%	+28%/-12%	+13%/-14%	+32%/-48%
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 010026136-01 / KOI 7274.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$55.17^{+14.38}_{-12.95}$	1431^{+84}_{-62}	3179^{+2534}_{-8560}	$5.827^{+156.694}_{-130.556}$
Alt.	-219565 ± 67	$73.68^{+15.28}_{-14.69}$	1433^{+93}_{-68}	6159^{+684}_{-471}	224^{+121}_{-69}

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 $A_{obs} \gg 1.0$

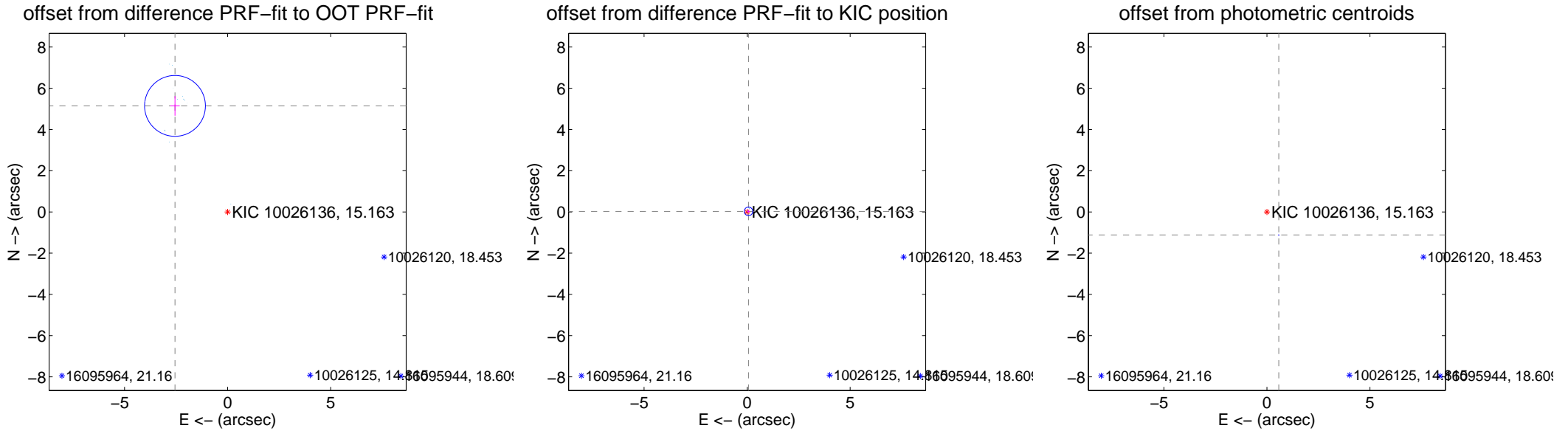
DV Centroid Data

Supplemental centroid analysis for 010026136-01. Kepler magnitude: 15.16. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

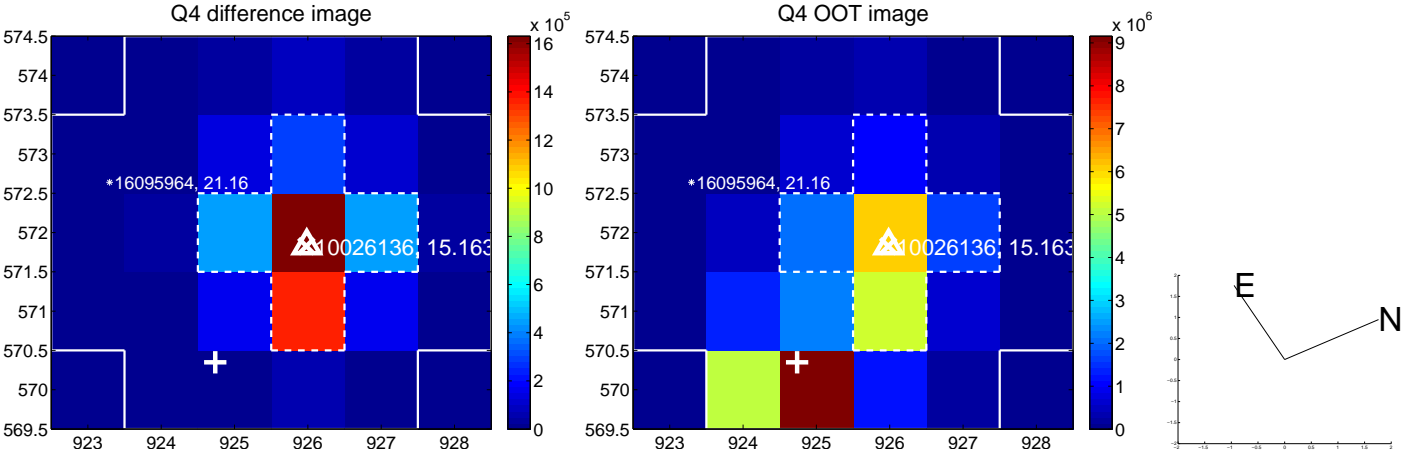
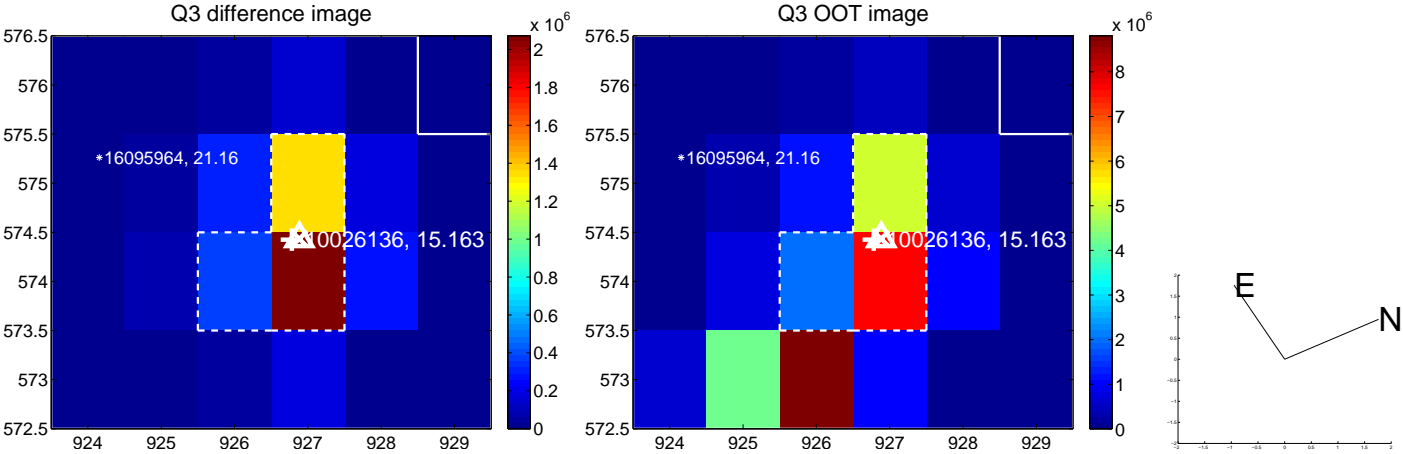
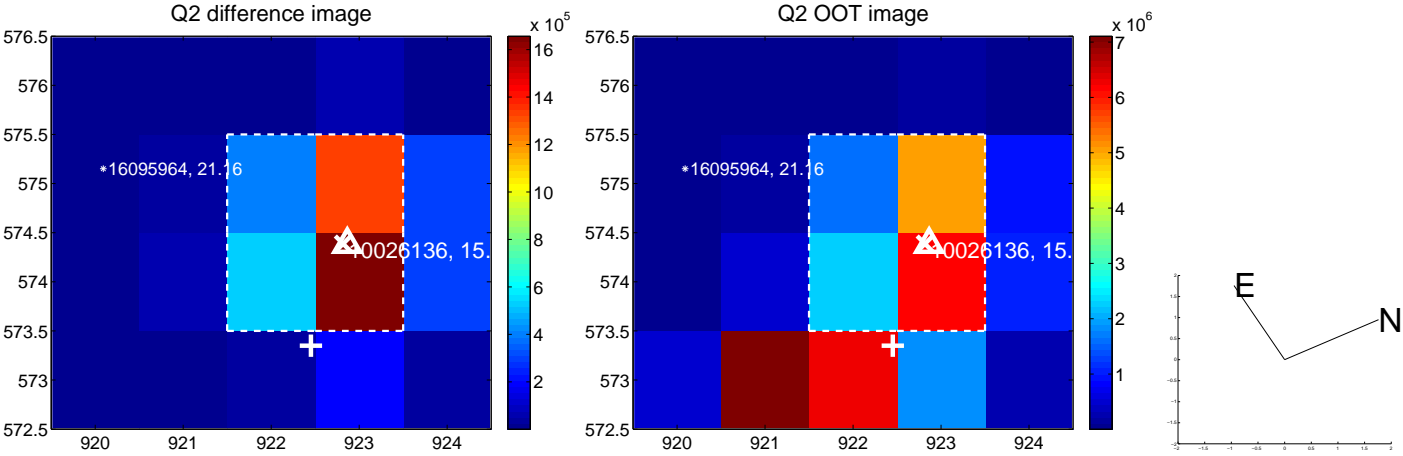
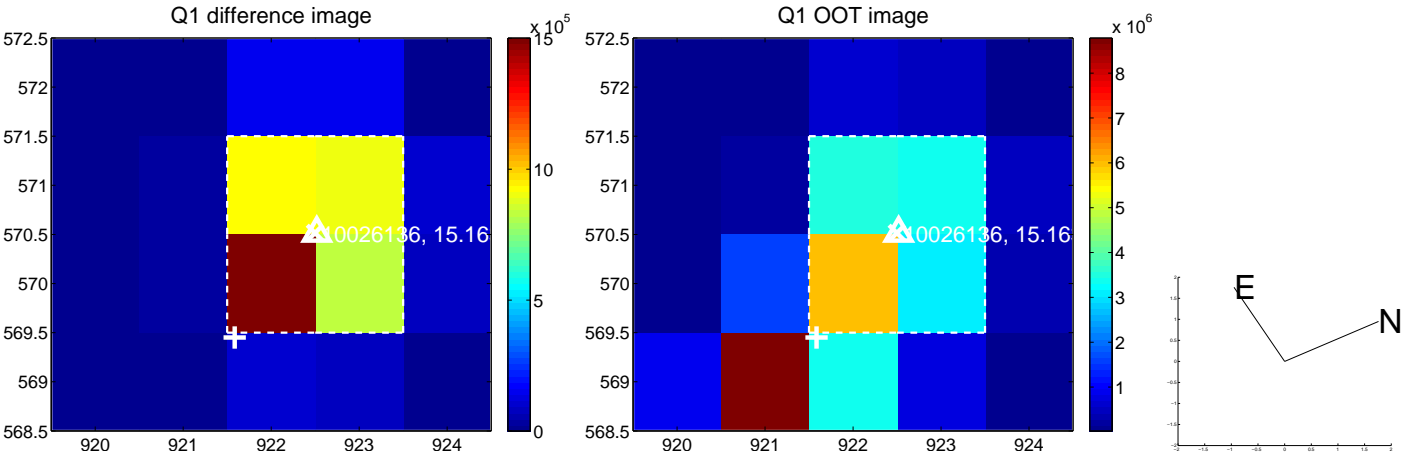
The OOT PRF centroid is offset from the target star catalog position by about 5.88 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.743 ± 0.492	11.67	2.552 ± 0.229	5.144 ± 0.476
PRF-fit source offset from KIC position	0.074 ± 0.069	1.07	-0.068 ± 0.068	0.029 ± 0.071
photometric centroid source offset	1.26 ± 0.00	1138.00	-0.58 ± 0.00	-1.12 ± 0.00

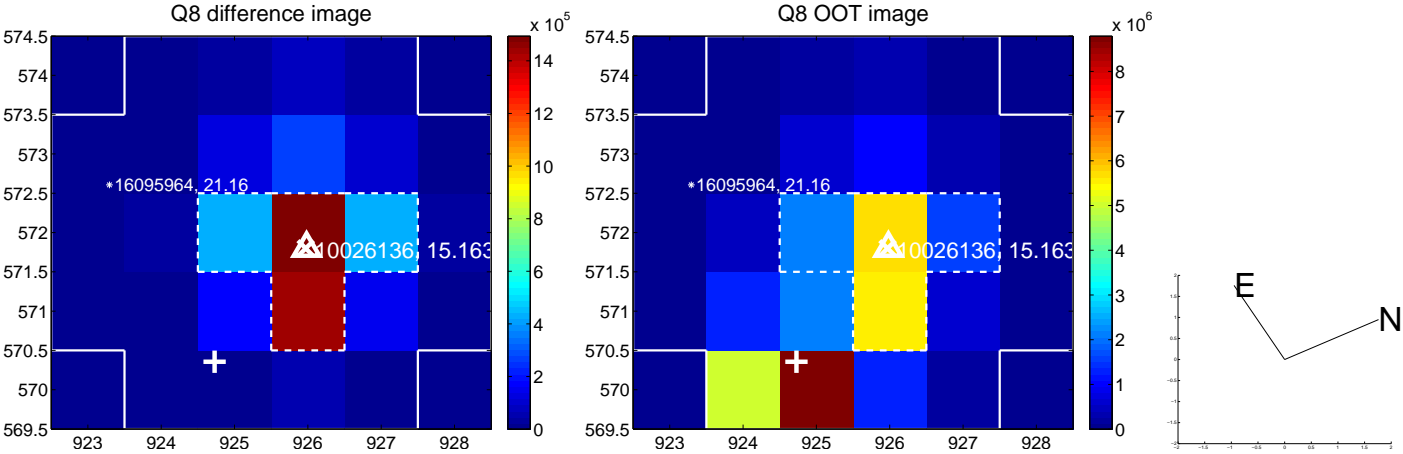
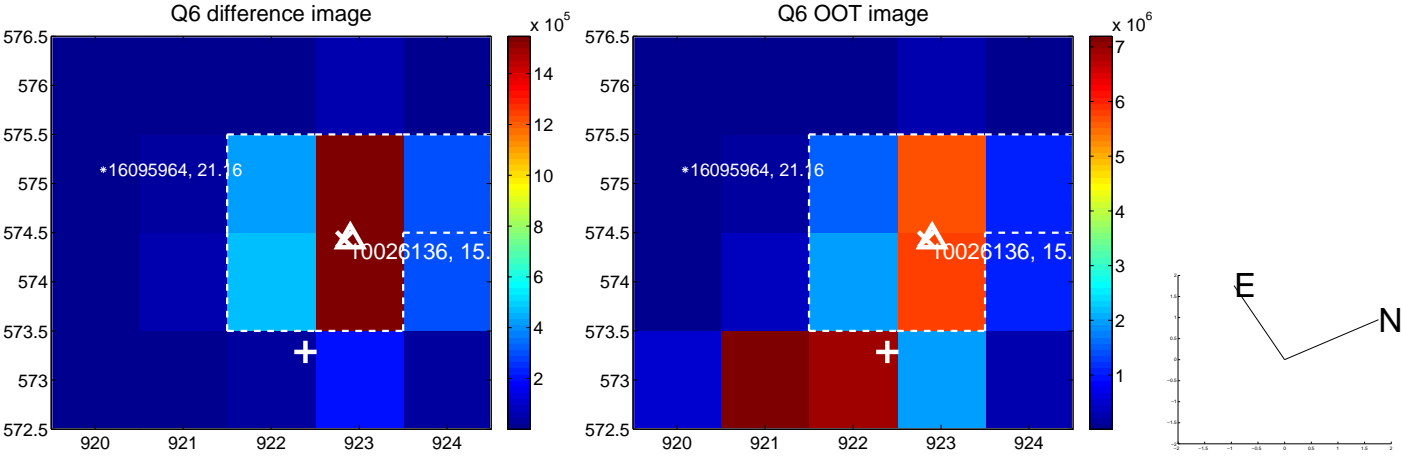
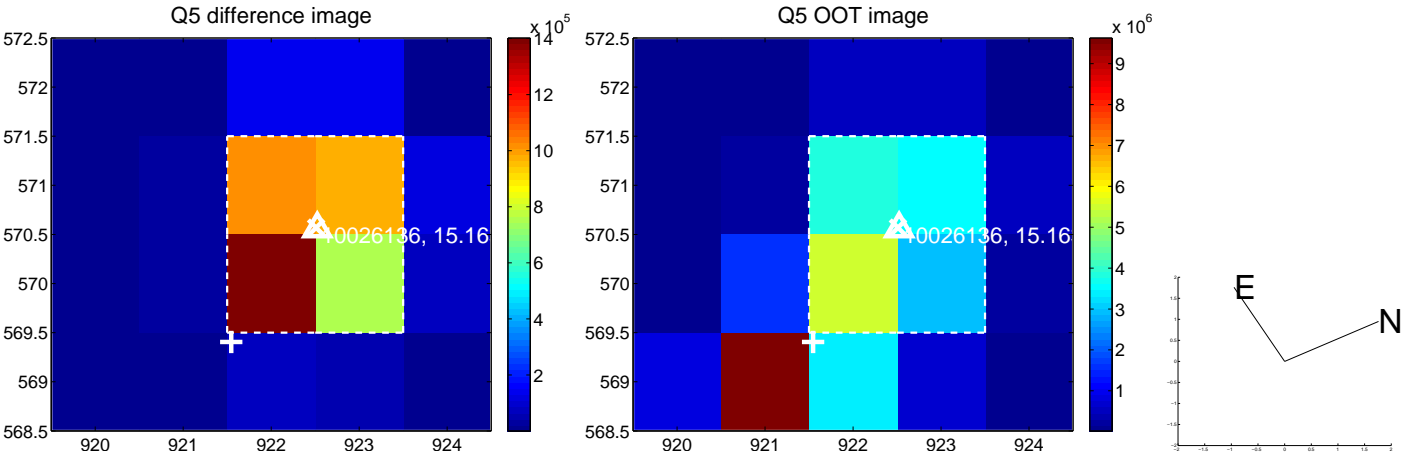


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

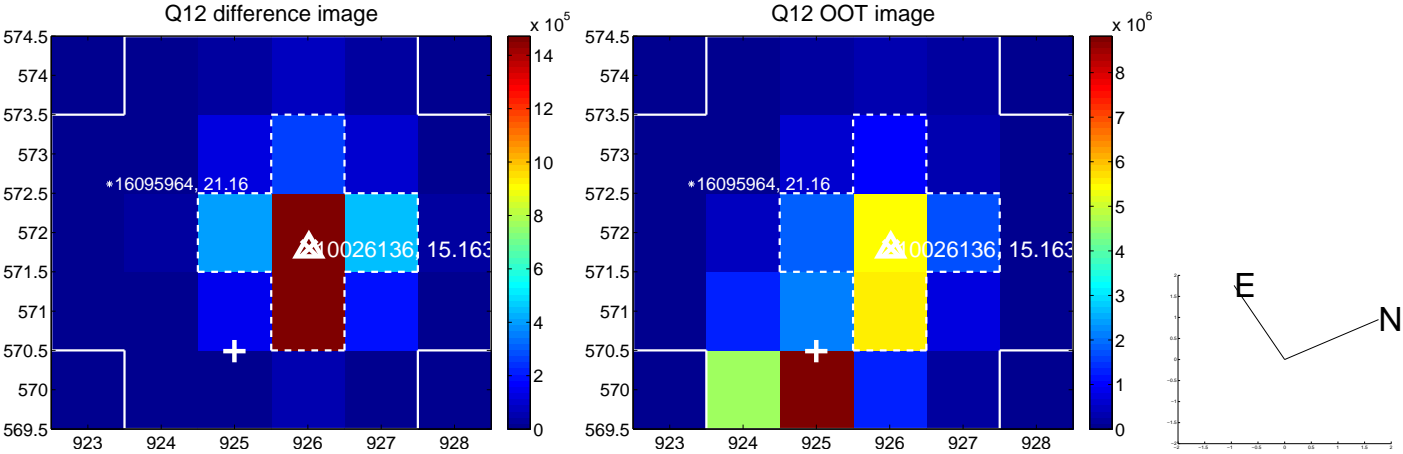
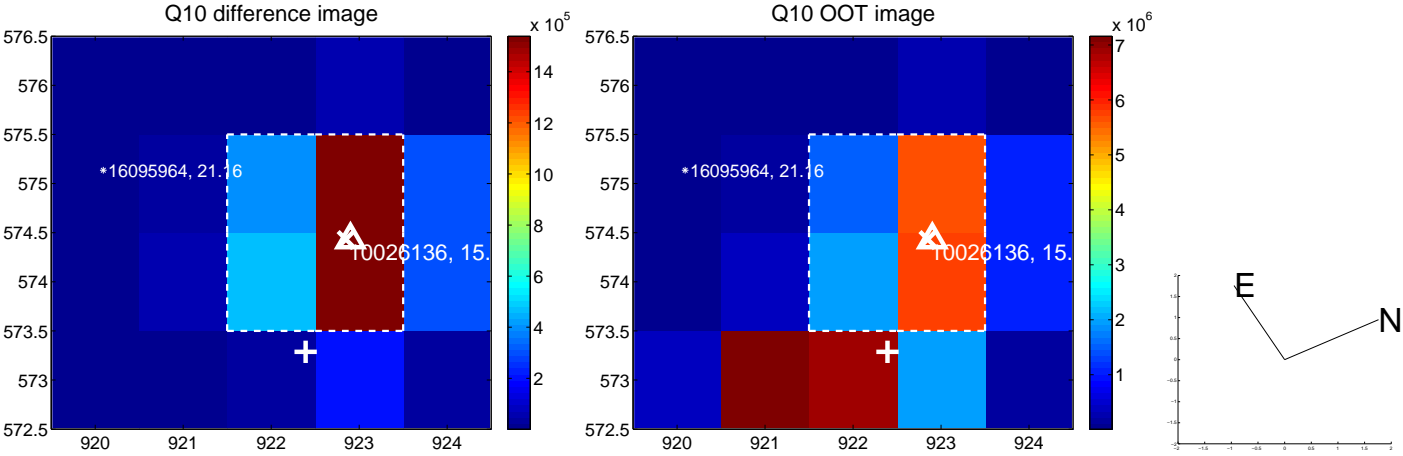
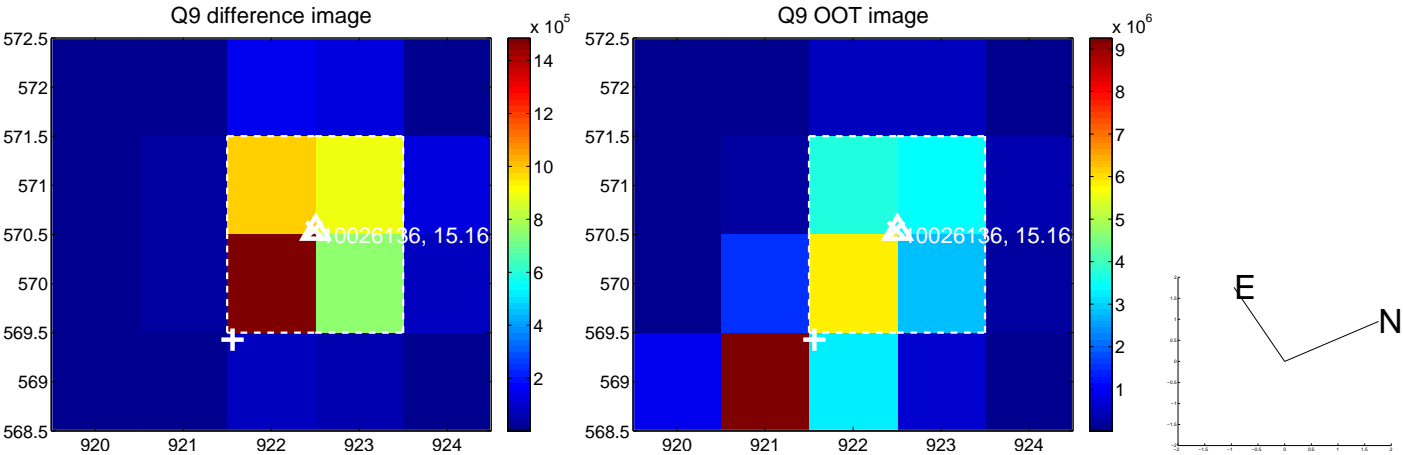
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



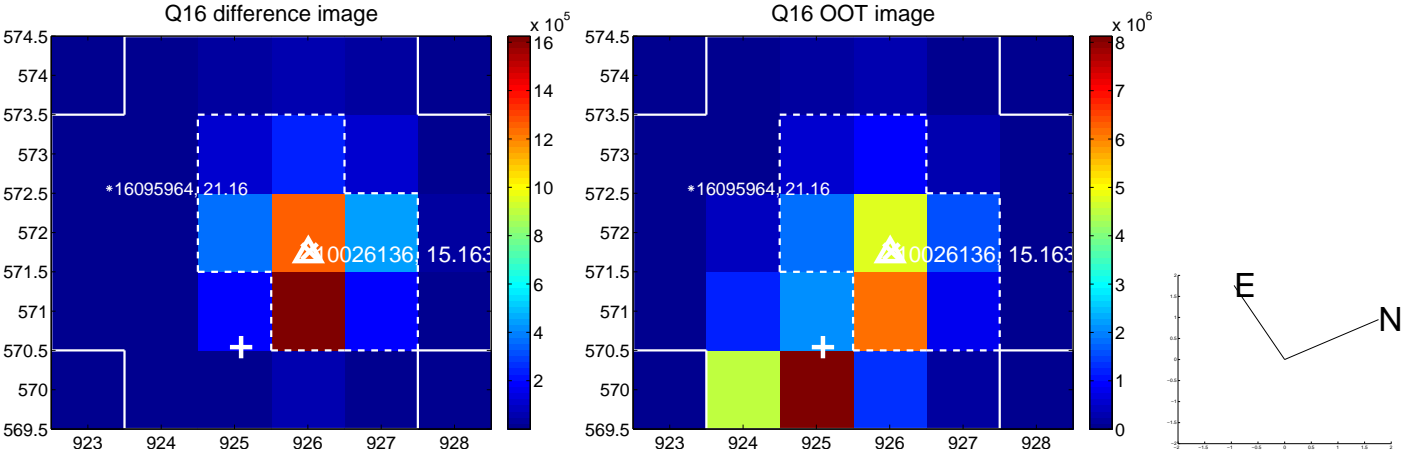
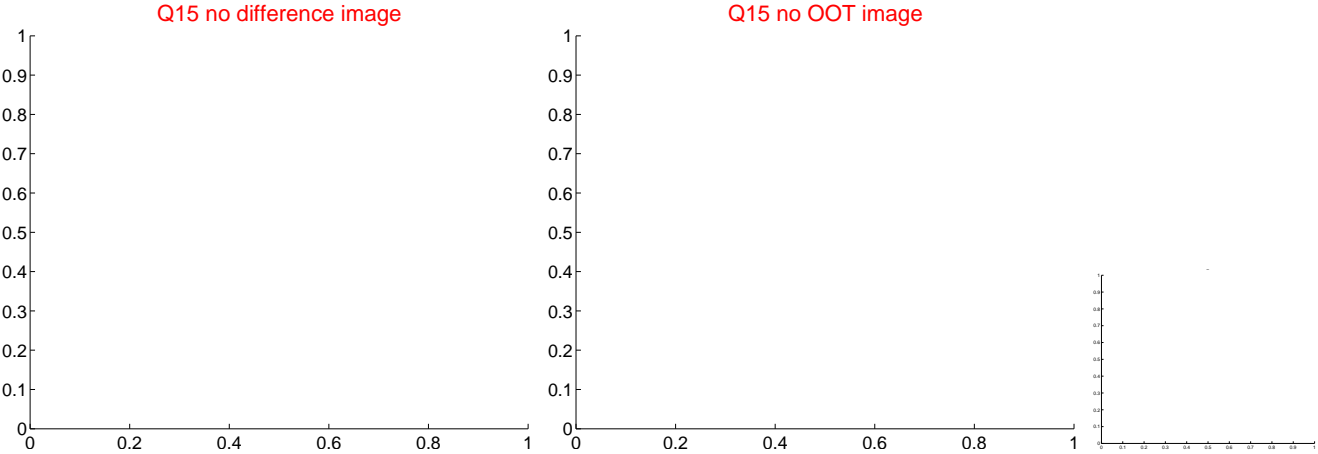
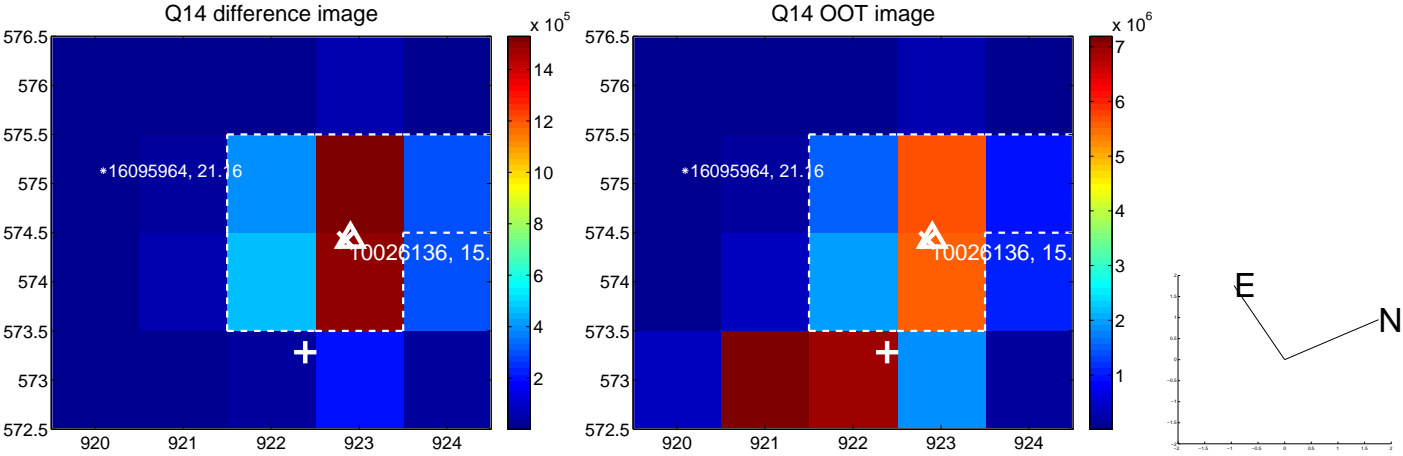
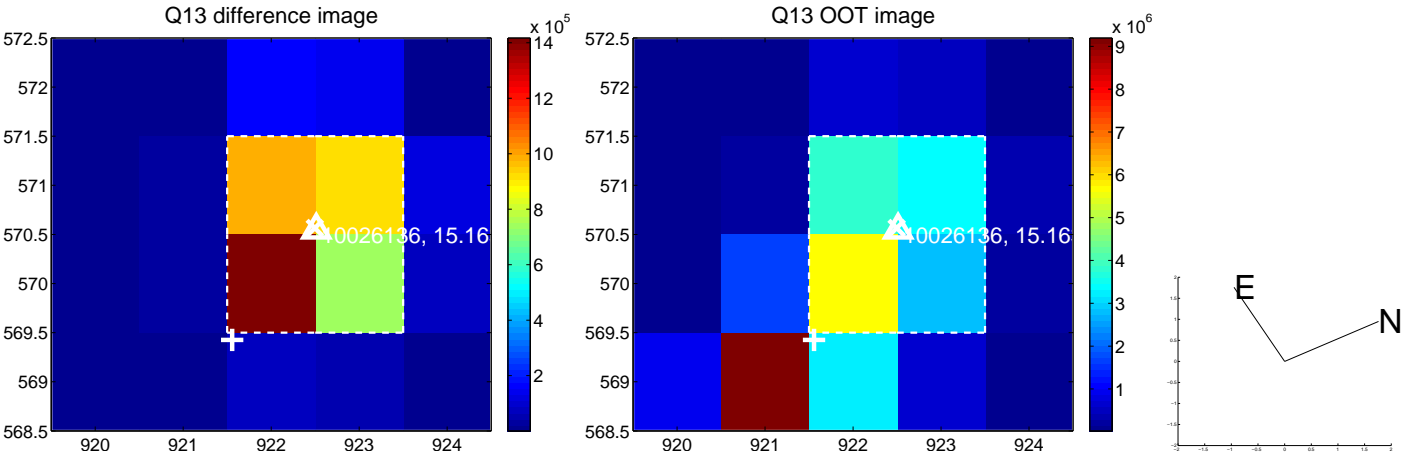
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



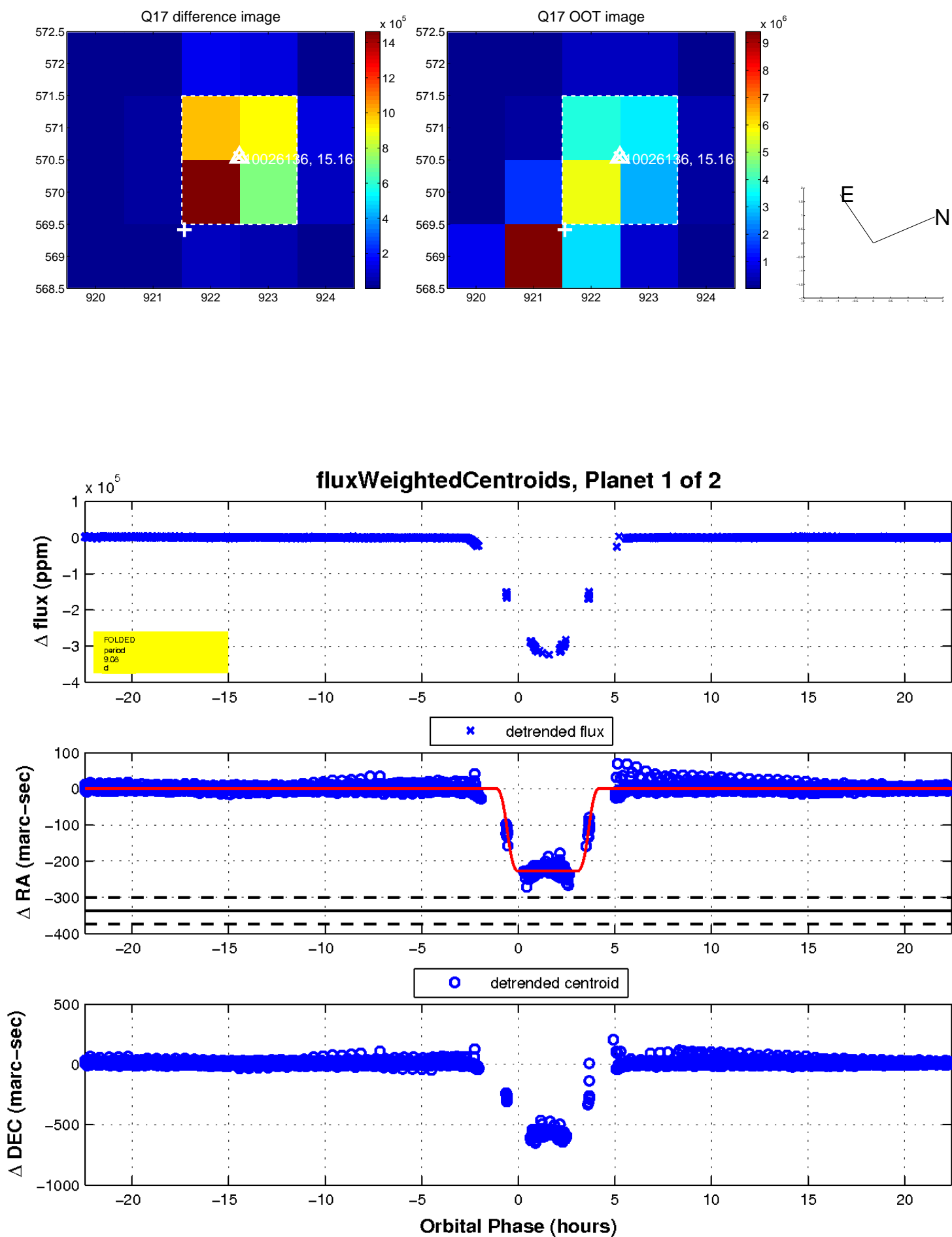
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

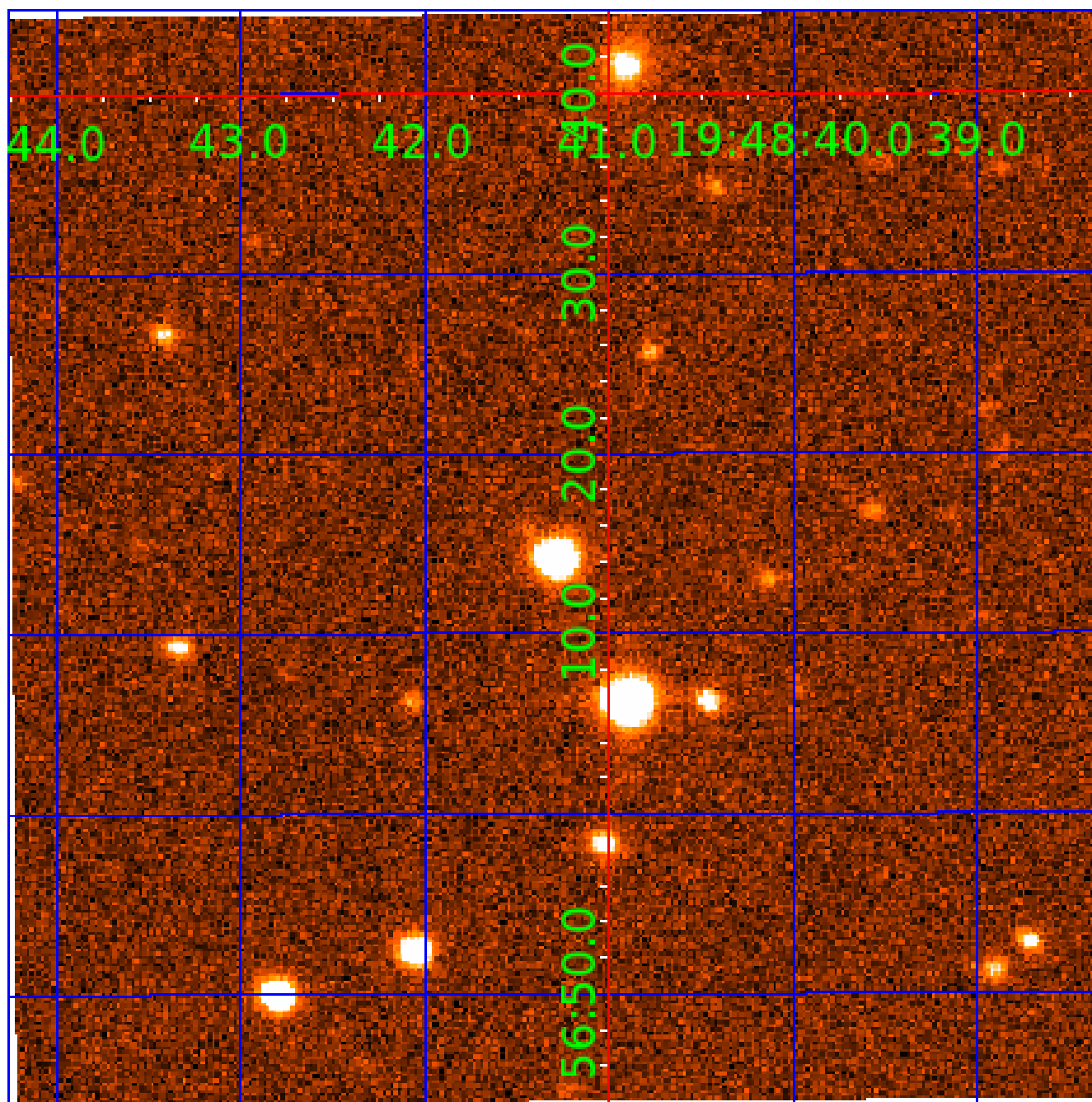


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010026136

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})
010026136-01	OBS	7274.01	9.080154	136.816908	329765.4	4.500	9252.2	-1.0	1.13	6461	54.33	249.04
010026136-02	OBS	No	9.080186	133.630419	263449.3	12.059	8033.6	5831.9	1.13	6461	71.33	249.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010026136-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010026136-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_KIC_POS

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.

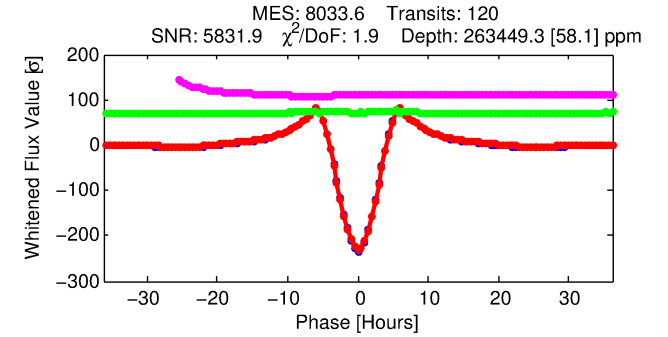
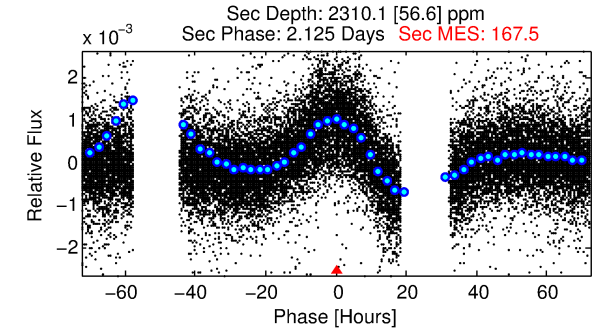
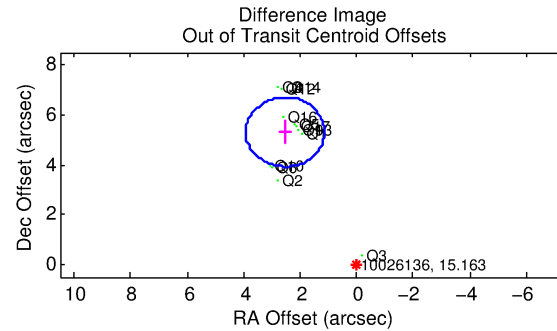
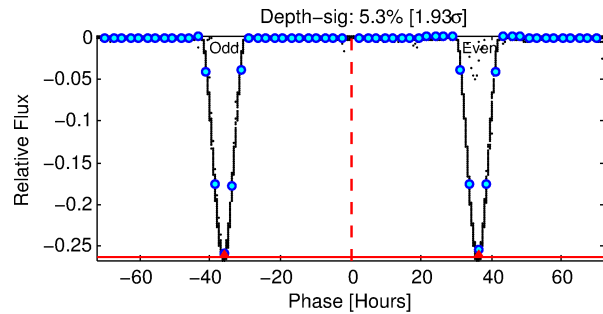
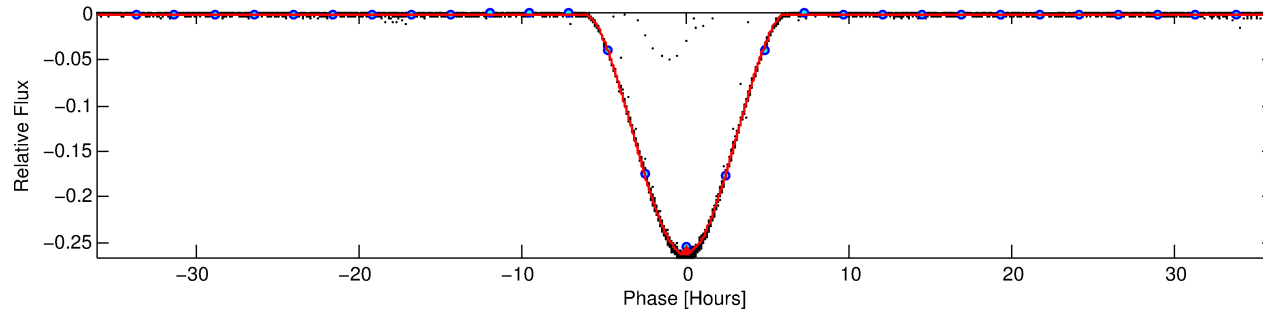
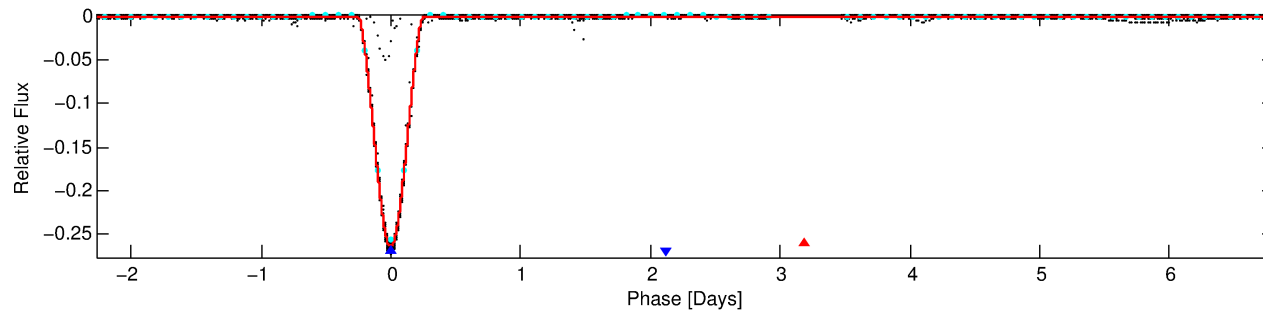
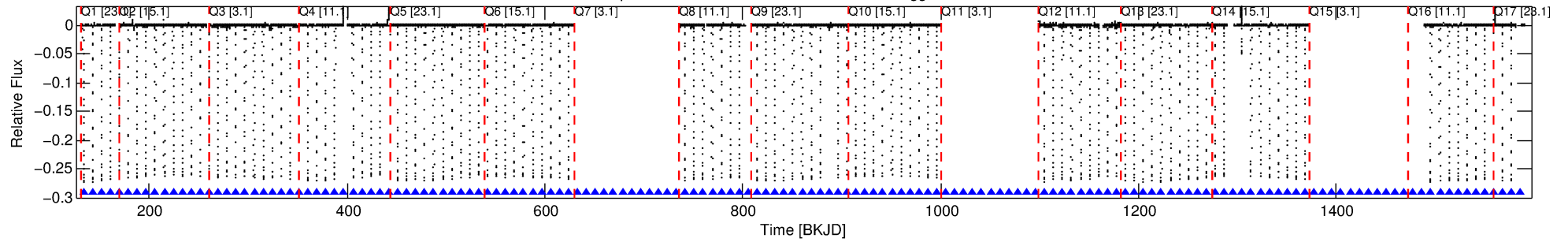
Ephemeris Match Information For 010026136-02

No Significant Match Found

DV One-Page Summary

KIC: 10026136 Candidate: 2 of 2 Period: 9.080 d
KOI: K07274 Corr: No Ephemeris Match

Kp: 15.16 R*: 1.13 Rs Teff: 6461.0 K Logg: 4.40 Fe/H: -0.140



DV Fit Results:

Period = 9.08019 [0.00000] d
Epoch = 133.6304 [0.0000] BKJD
Rp/R* = 0.5779 [0.0100]
a/R* = 8.24 [0.02]
b = 0.69 [0.02]
Seff = 249.04 [88.20]
Teq = 1013 [90] K
Rp = 71.33 [20.34] Re
a = 0.0896 [0.0208] AU
Ag = 2.00 [0.66] [1.51σ]
Teffp = 1863 [64] K [7.71σ]

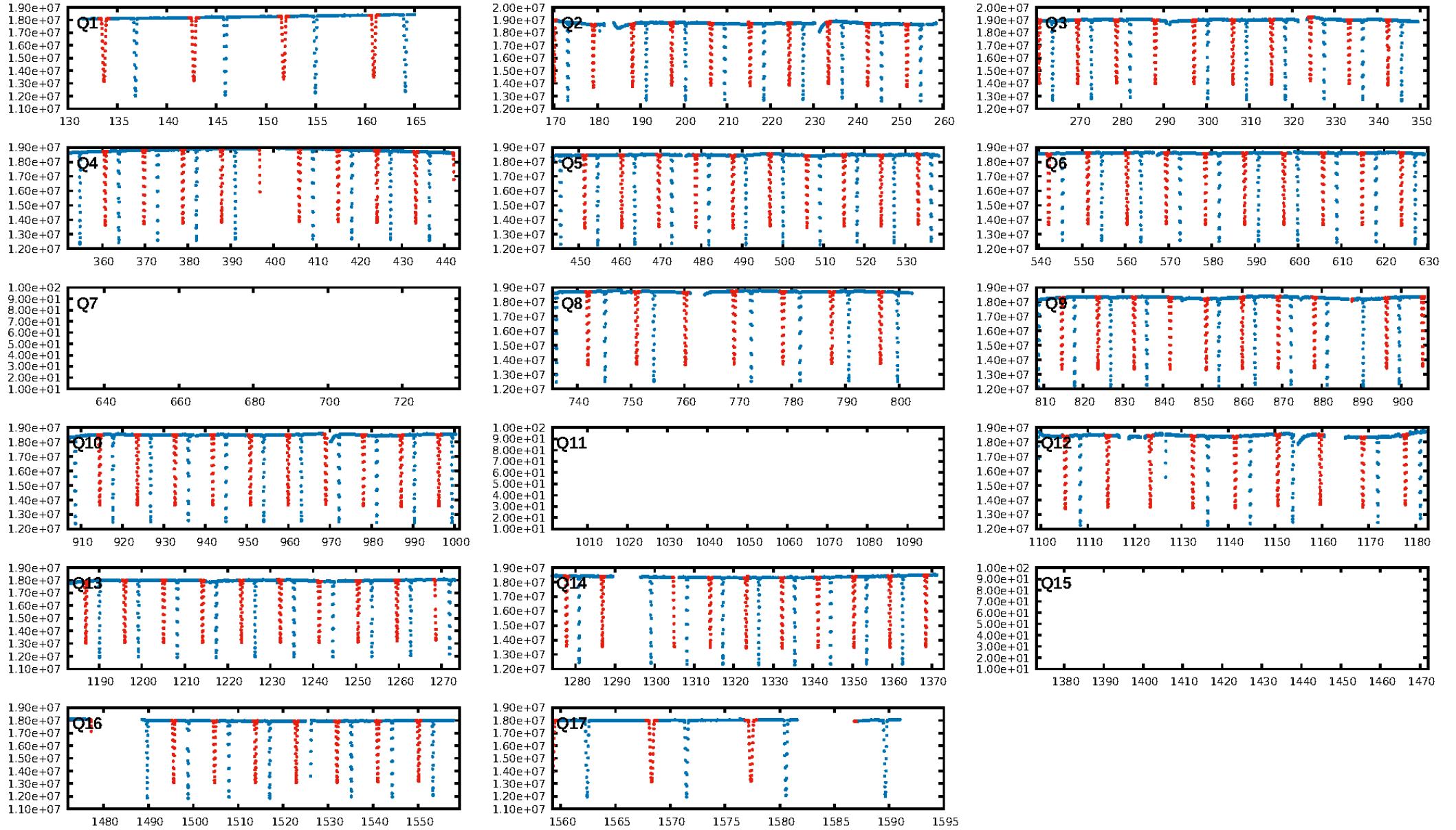
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [113/113]
GhostDiagnostic-chr: 3.081
Centroid-sig: N/A
Centroid-so: 1.279 arcsec [848.07σ]
OotOffset-rm: 5.881 arcsec [12.69σ]
KicOffset-rm: 0.068 arcsec [1.00σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

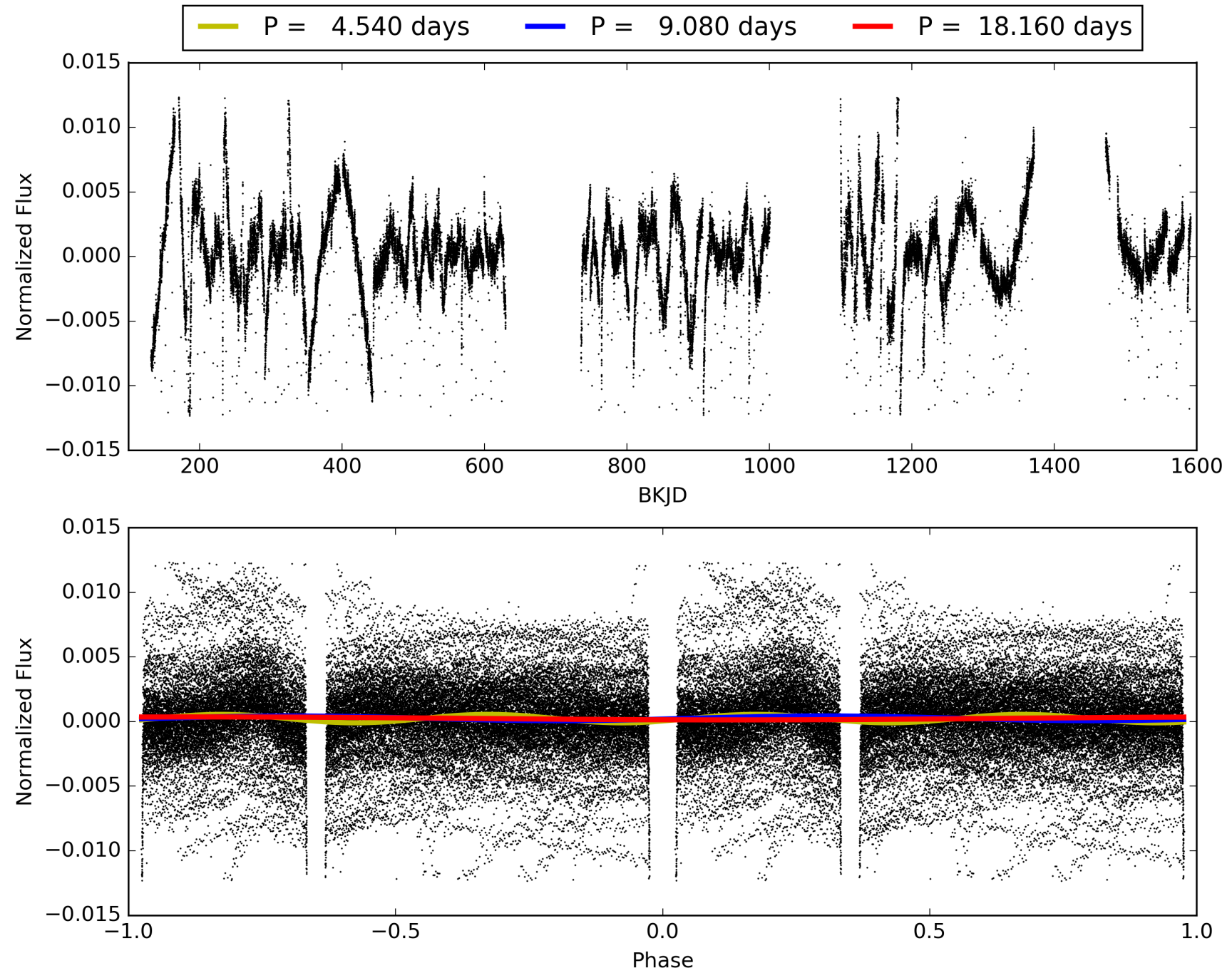
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 18:04:05 Z

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

TCE 010026136-02, PDC Light Curves

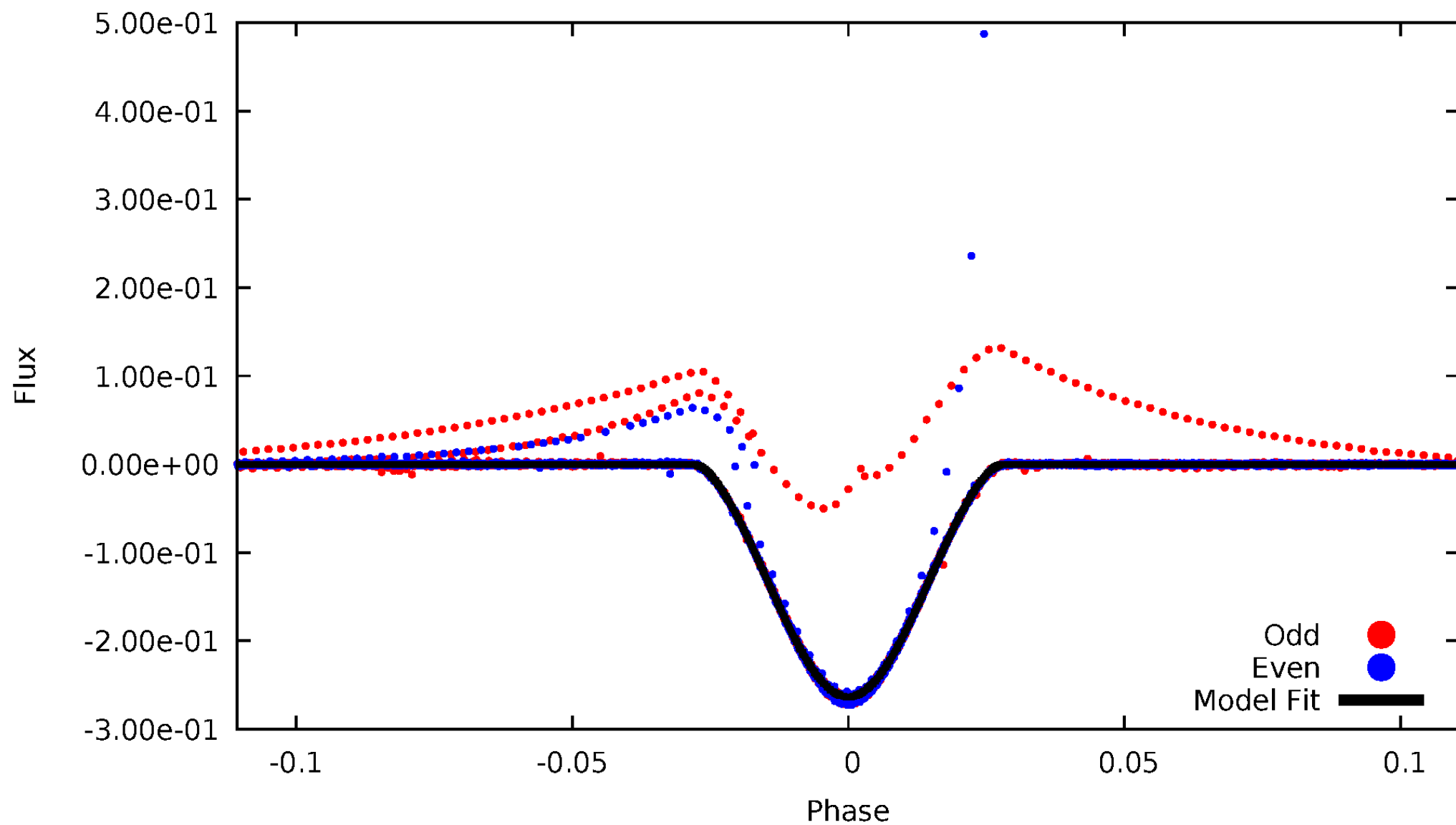


TCE 010026136-02



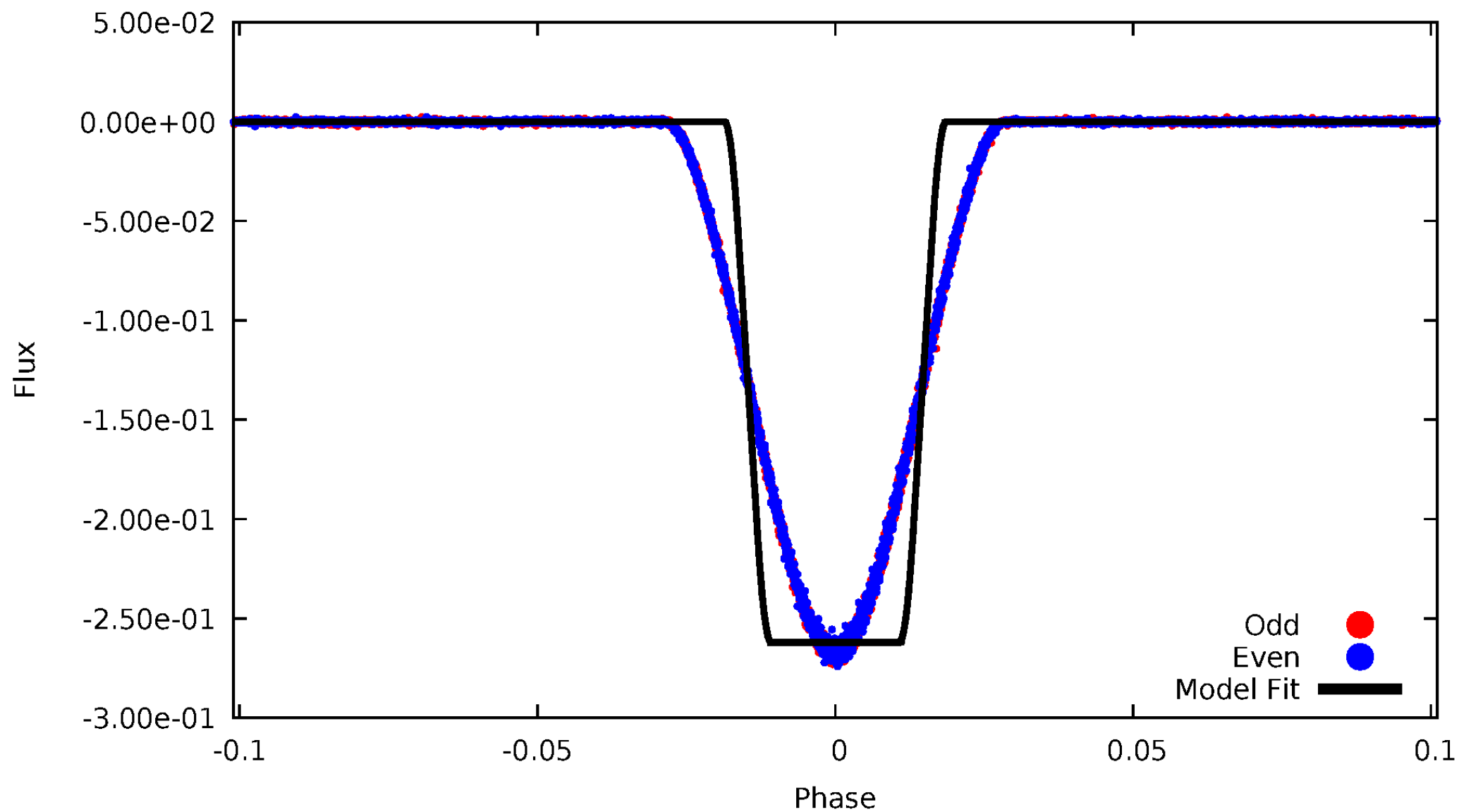
DV Odd/Even

TCE 010026136-02



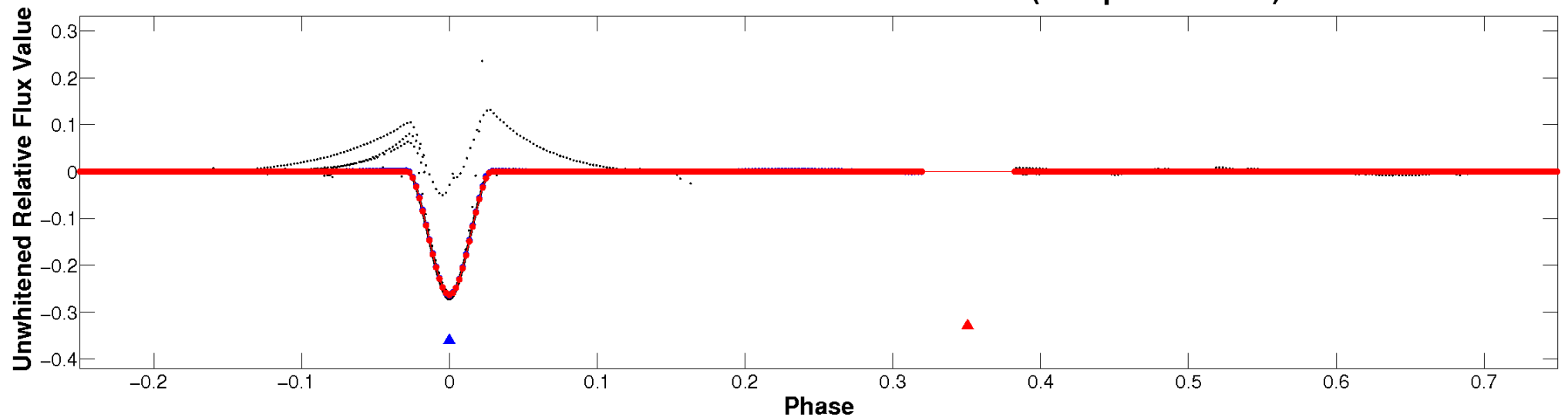
ALT Odd/Even

TCE 010026136-02

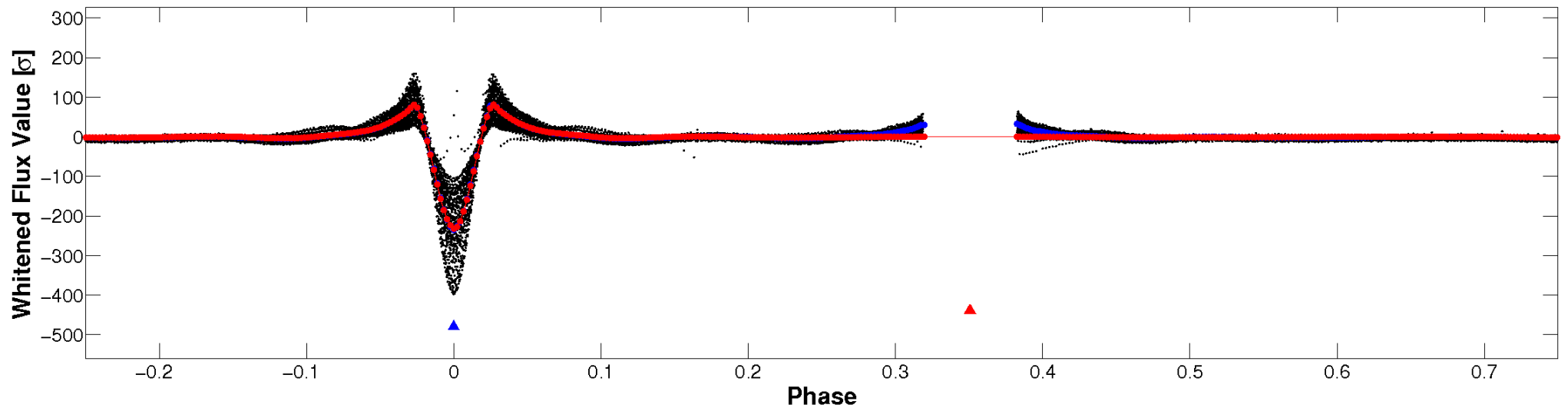


Non-Whitened Vs. Whitened Light Curve

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

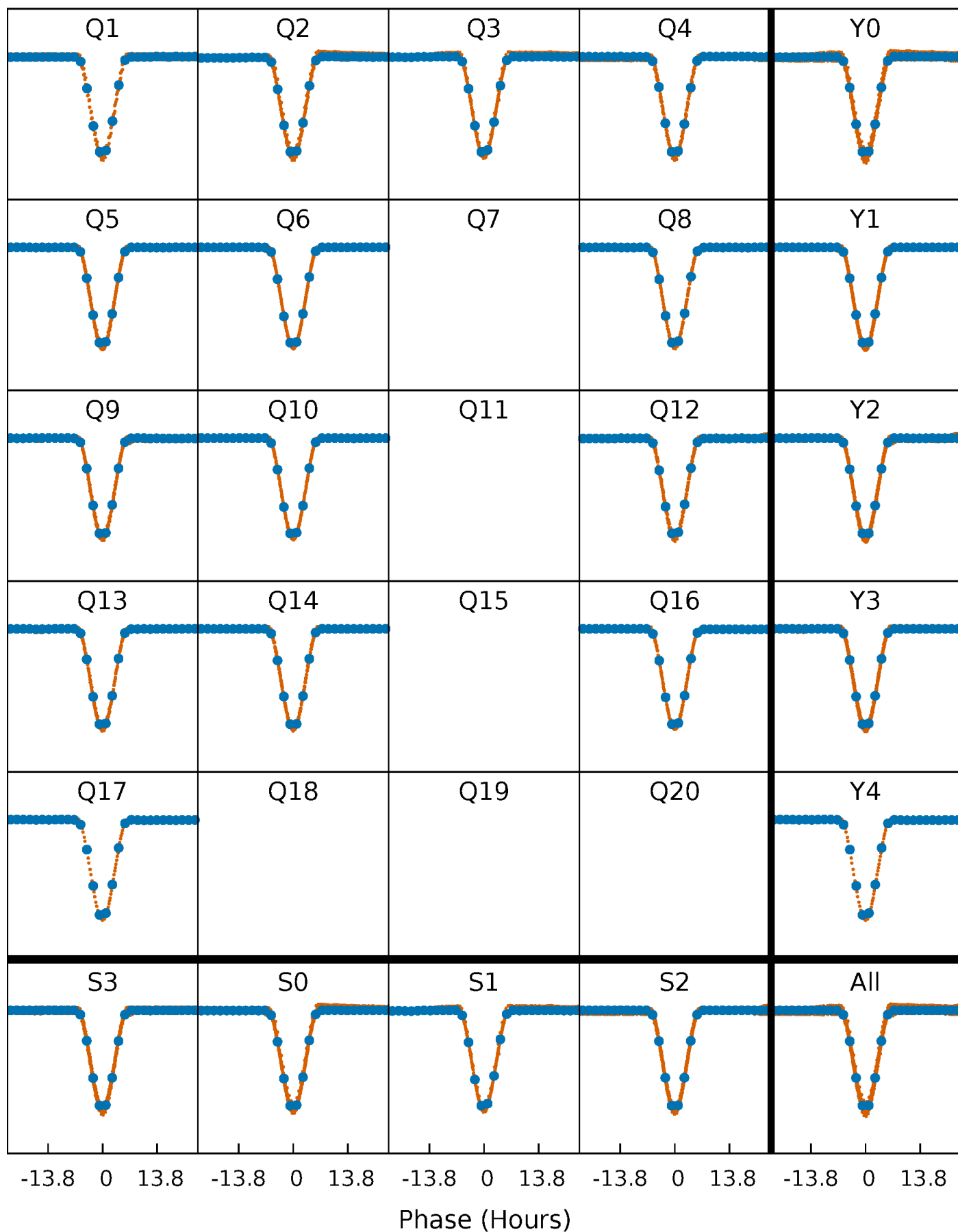


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



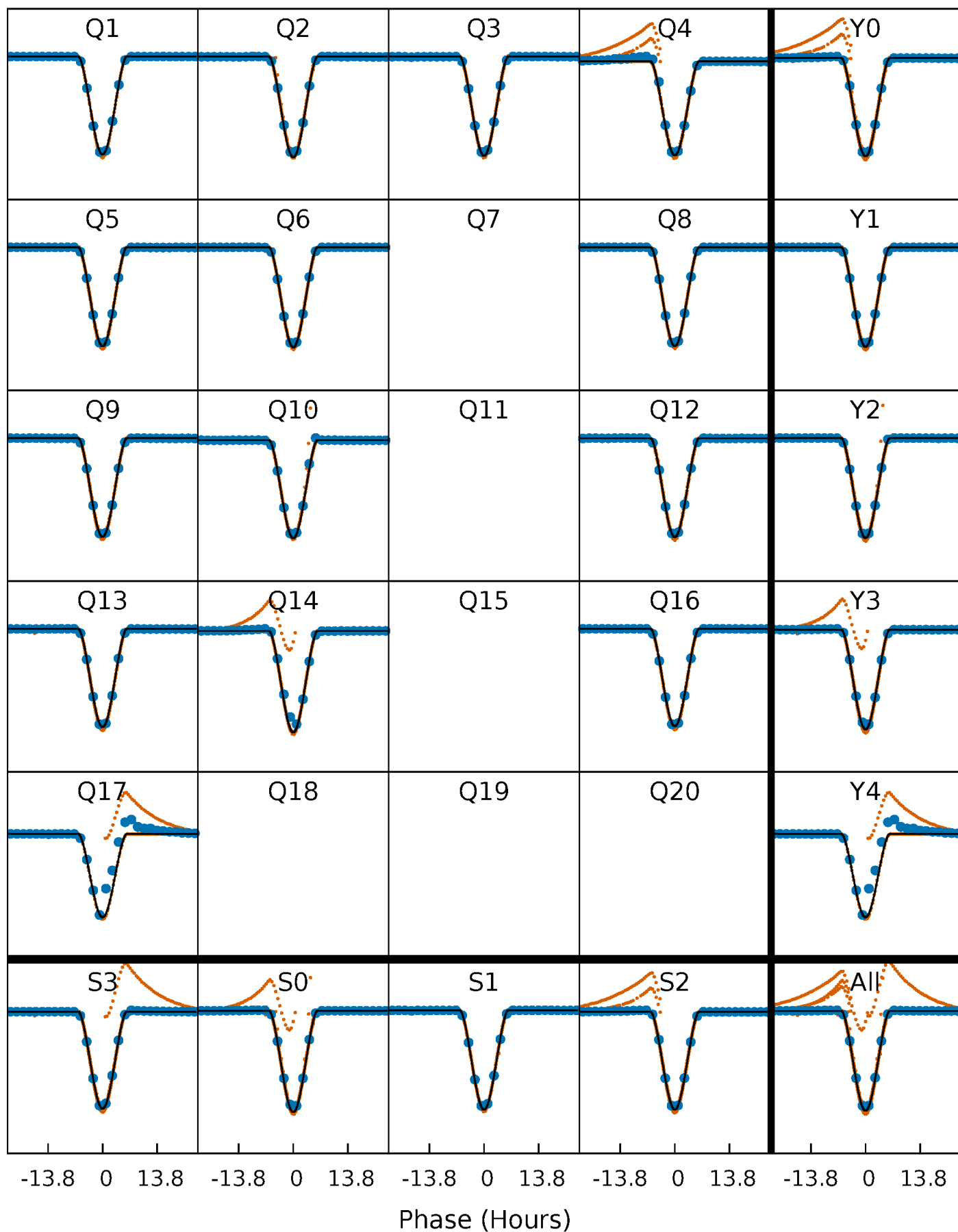
PDC Quarter-Phased Transit Curves

TCE 010026136-02 P= 9.080186 Days $T_0=133.630419$ (BKJD)



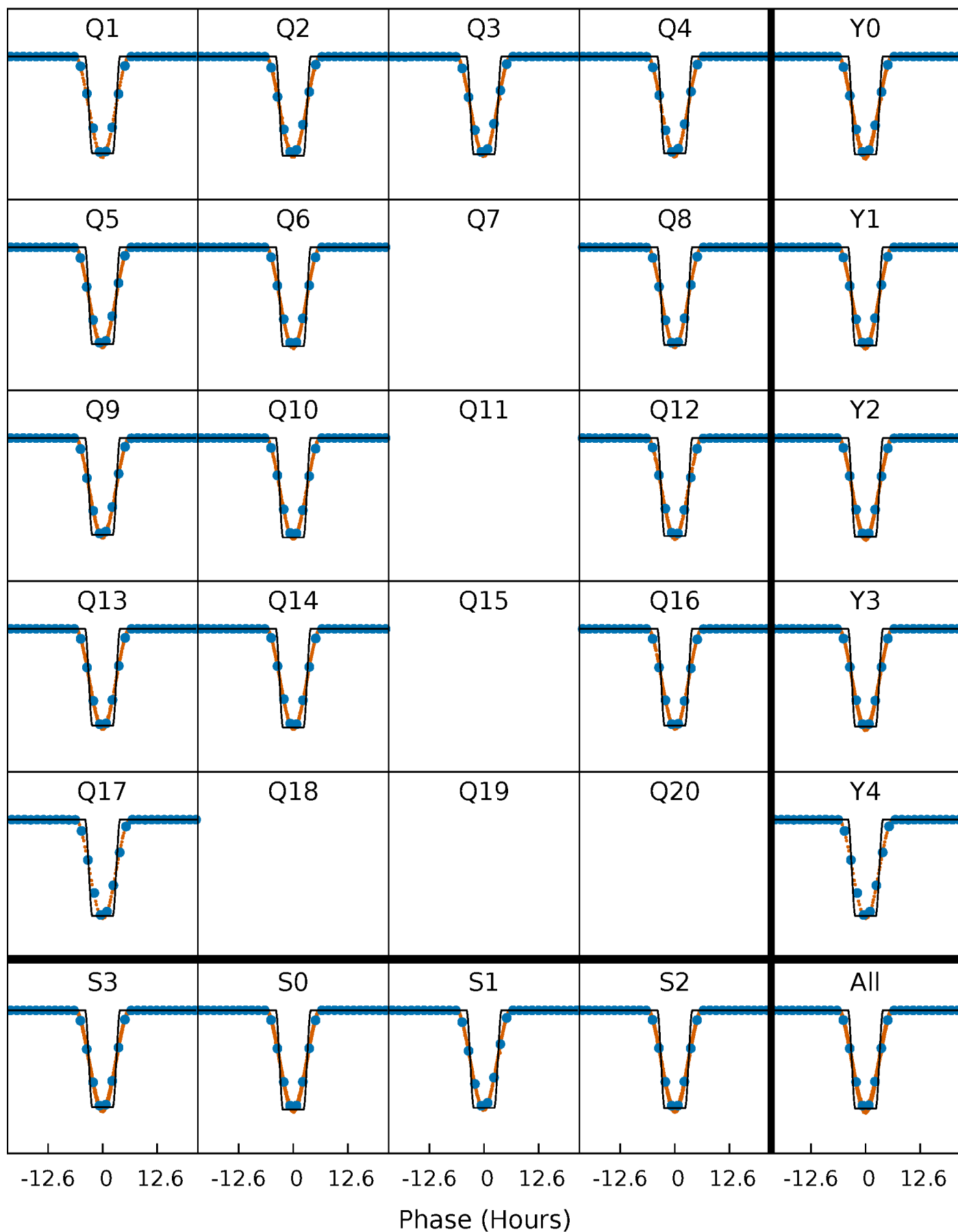
DV Quarter-Phased Transit Curves

TCE 010026136-02 P= 9.080186 Days $T_0=133.630419$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

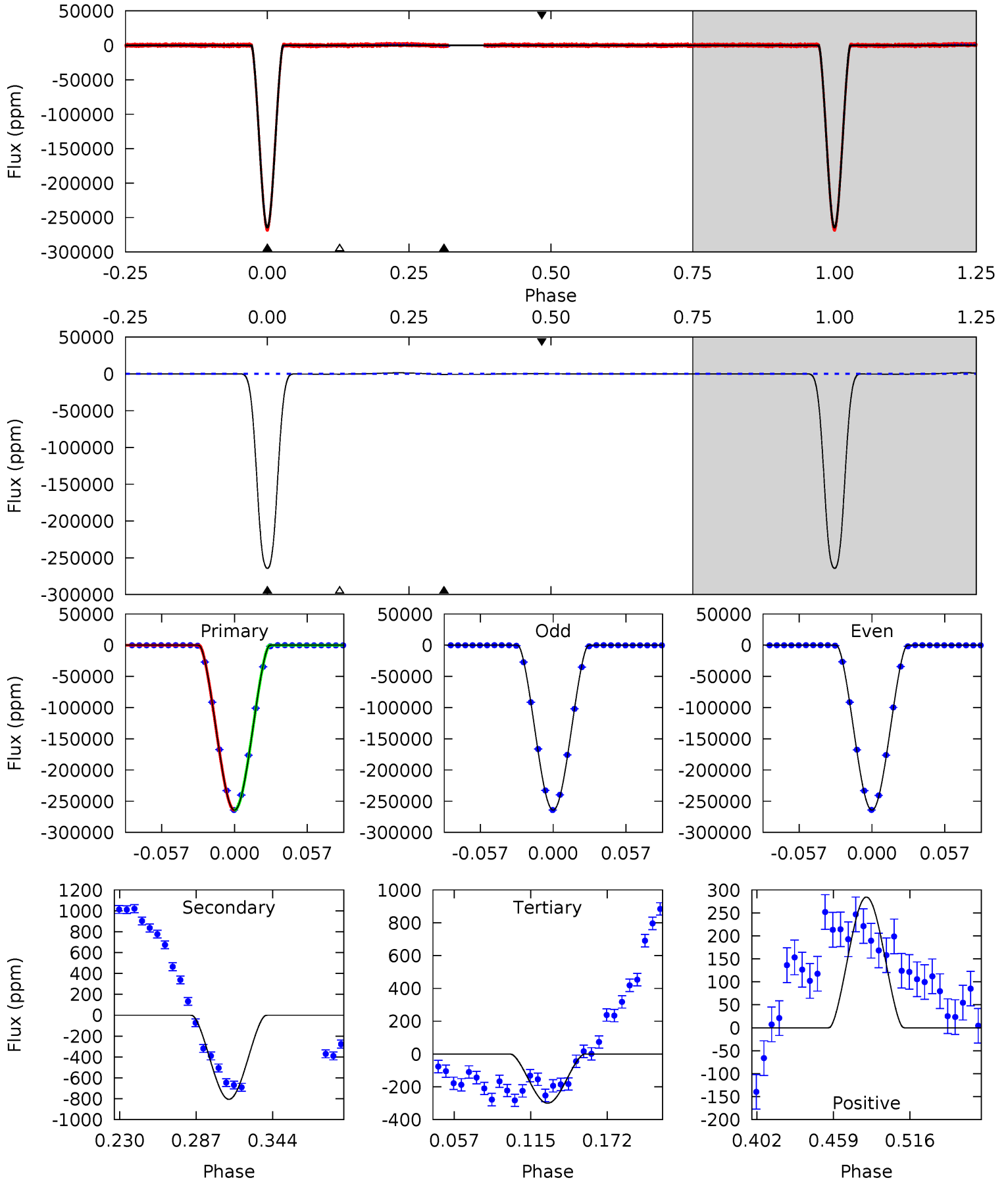
TCE 010026136-02 P= 9.080148 Days $T_0=133.633381$ (BKJD)



DV Model-Shift Uniqueness Test

010026136-02, P = 9.080186 Days, E = 124.550233 Days

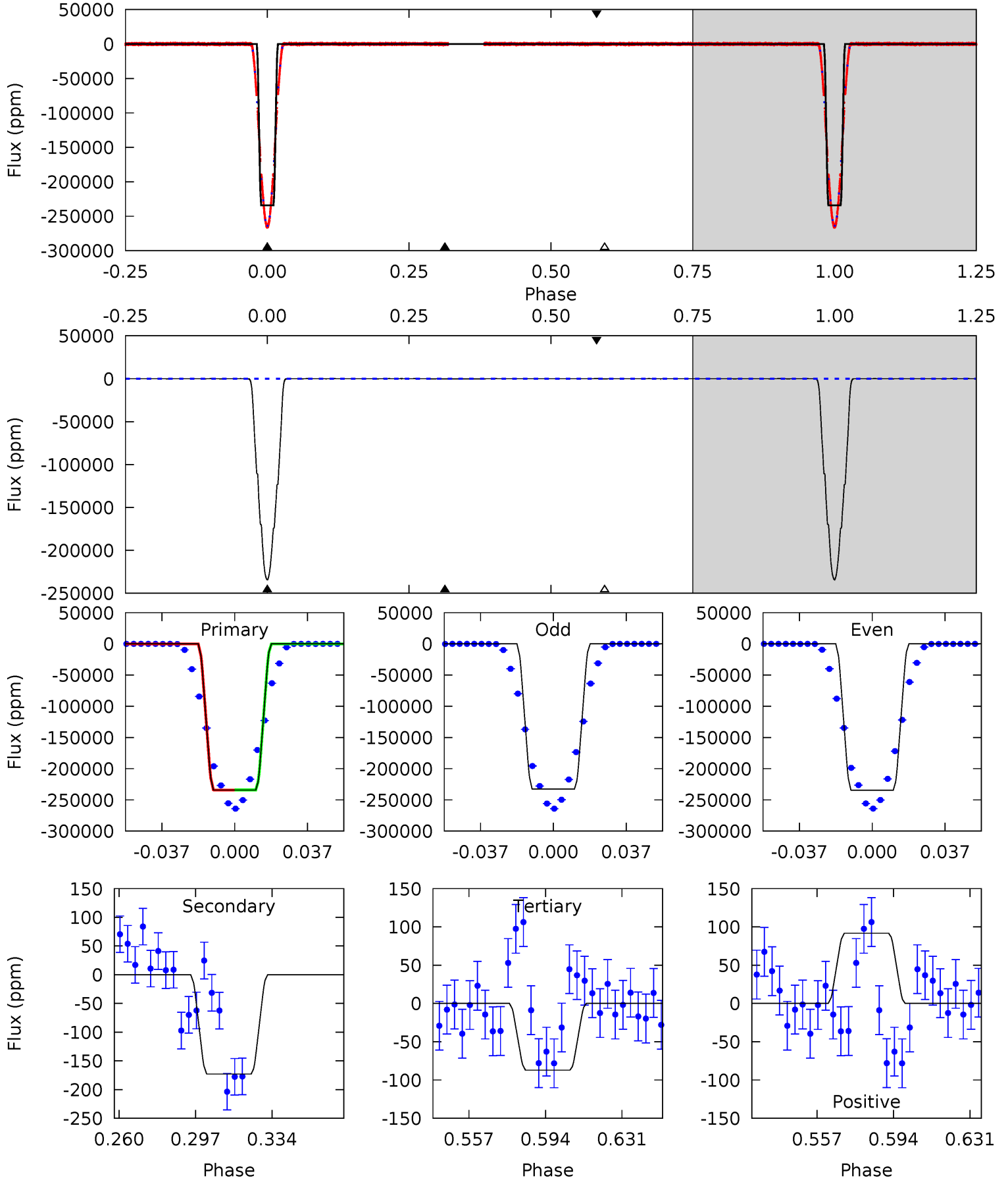
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18545	56.5	21.0	20.0	4.68	1.90	27.5	18524	18525	35.5	36.6	0.43	0.96	0.01	9.10



Alt Model-Shift Uniqueness Test

010026136-02, P = 9.080148 Days, E = 124.553233 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12771	9.43	4.75	5.00	4.77	2.08	1.69	12766	12766	4.68	4.43	47.9	1.00	0.00	1.14



Stellar Parameters For KIC 010026136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6461^{+154}_{-212}	$4.396^{+0.062}_{-0.175}$	$-0.140^{+0.250}_{-0.300}$	$1.131^{+0.322}_{-0.138}$	$1.162^{+0.148}_{-0.164}$	$1.131^{+0.366}_{-0.541}$
	+2%/-3%	+1%/-4%	+179%/-214%	+28%/-12%	+13%/-14%	+32%/-48%
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 010026136-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-806 ± 14	$73.32^{+10.43}_{-6.23}$	1440^{+89}_{-69}	2175^{+47}_{-66}	$0.654^{+0.108}_{-0.137}$
Alt.	-173 ± 18	$65.54^{+9.38}_{-6.50}$	1440^{+99}_{-70}	-1961^{+103}_{-105}	$0.174^{+0.039}_{-0.041}$

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 $A_{obs} \gg 1.0$

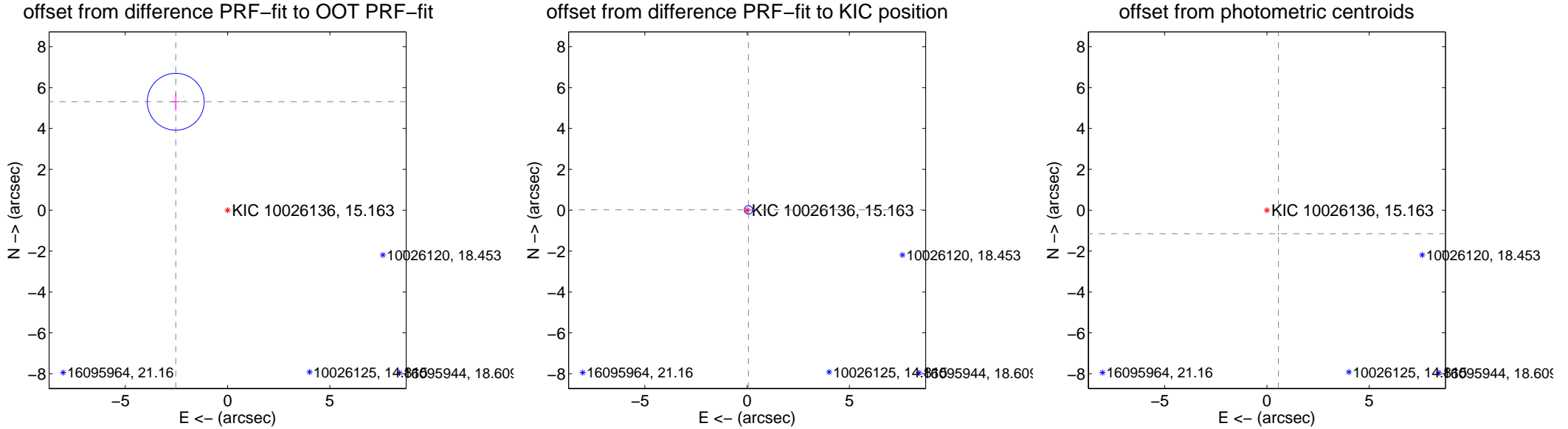
DV Centroid Data

Supplemental centroid analysis for 010026136-02. Kepler magnitude: 15.16. Transit SNR 5831.87

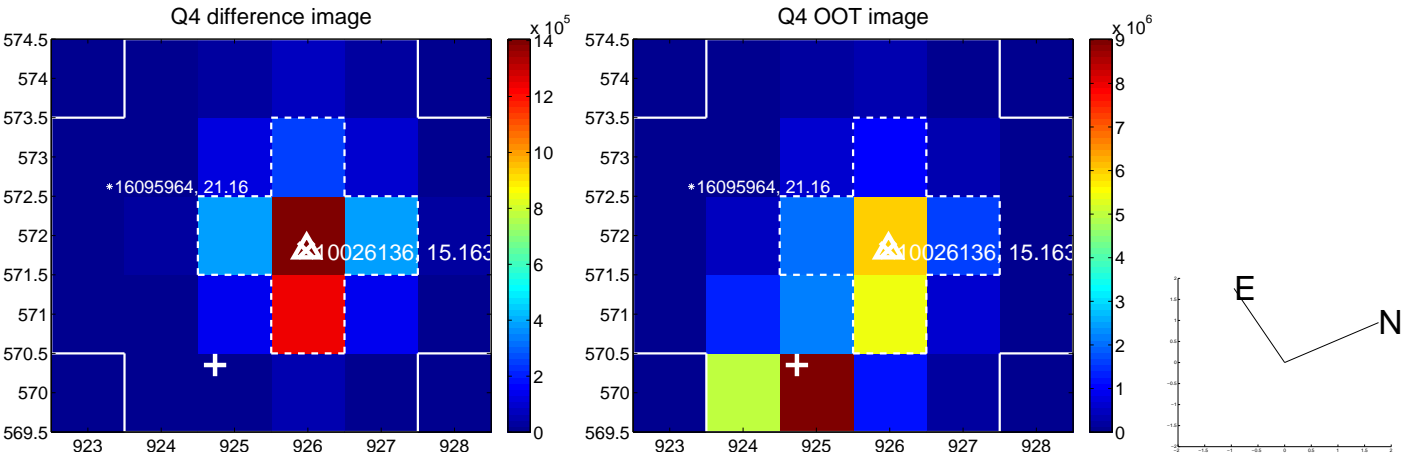
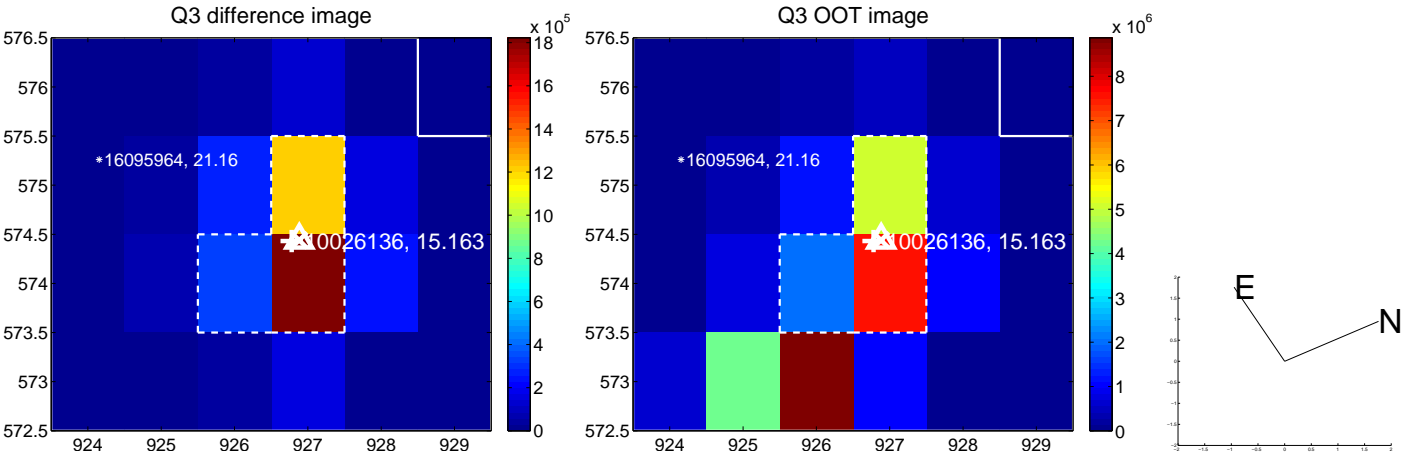
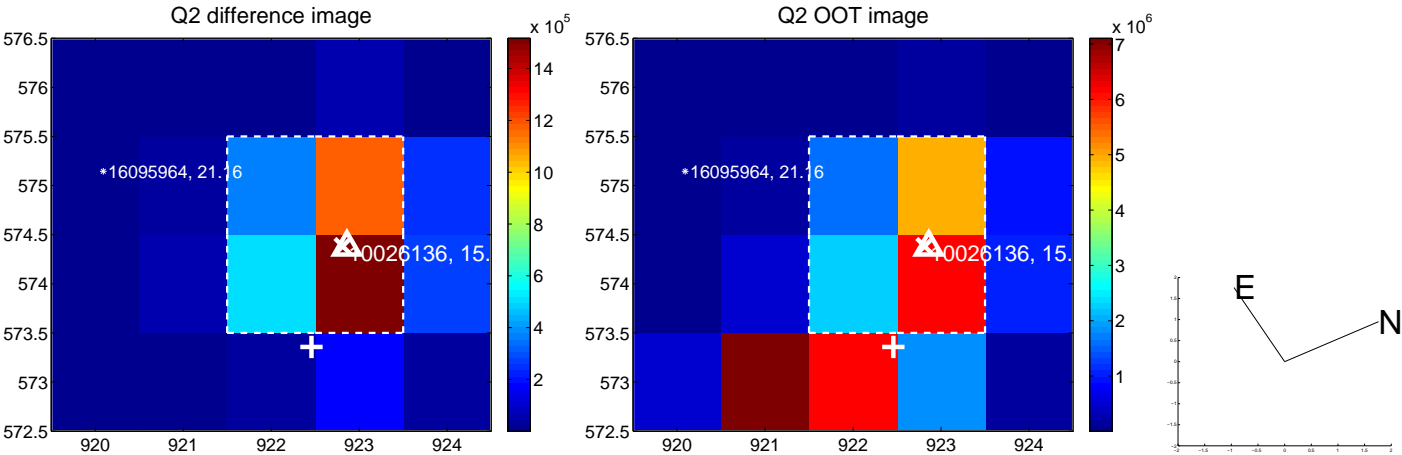
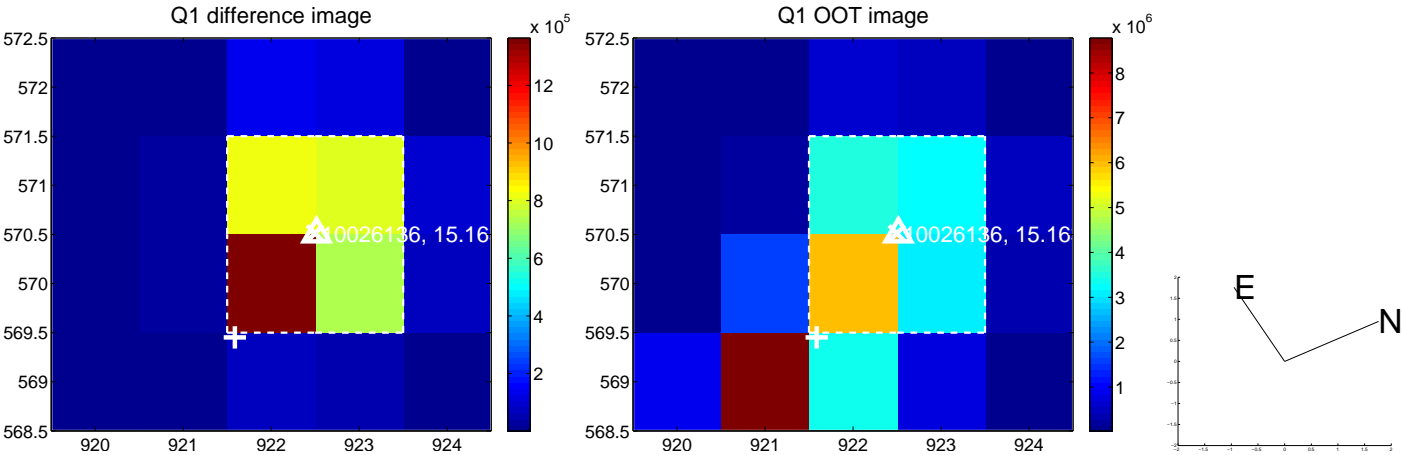
There are 14 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 5.92 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

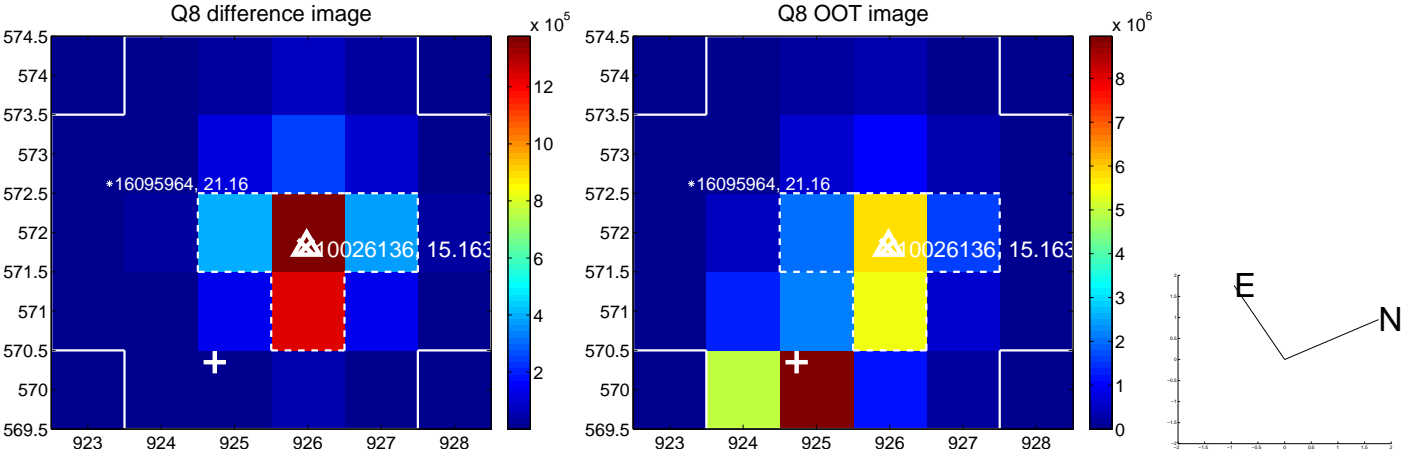
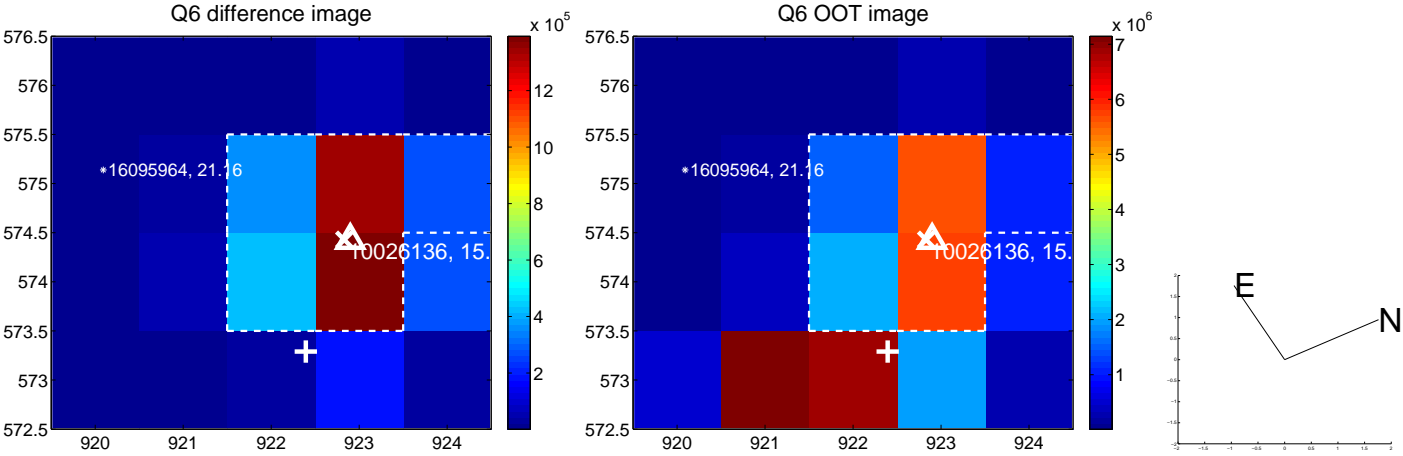
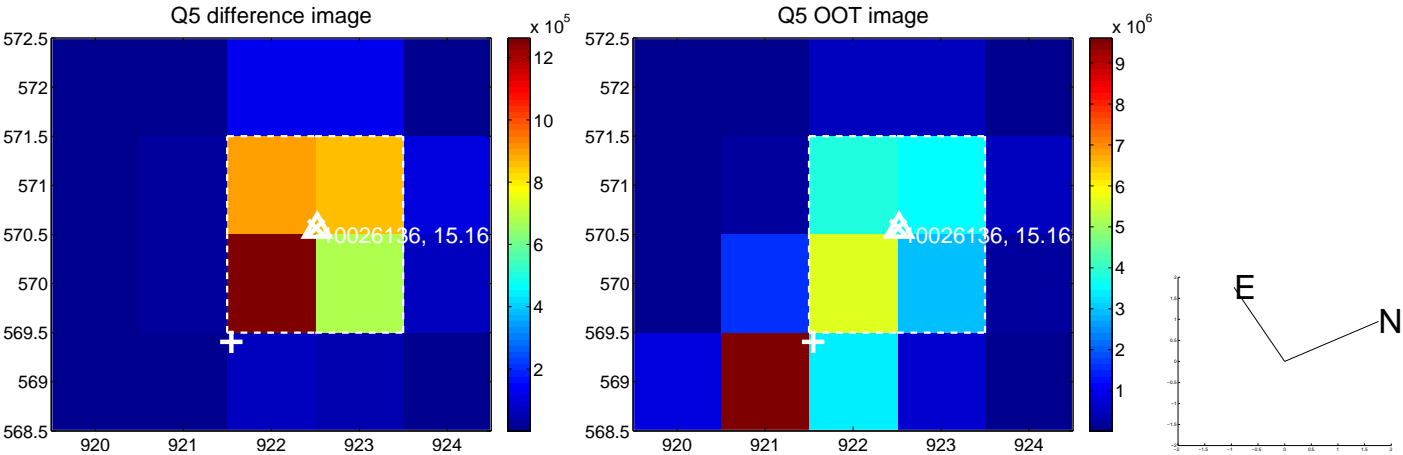
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.881 ± 0.463	12.69	2.535 ± 0.210	5.307 ± 0.453
PRF-fit source offset from KIC position	0.068 ± 0.068	1.00	-0.066 ± 0.068	0.017 ± 0.071
photometric centroid source offset	1.28 ± 0.00	848.07	-0.56 ± 0.00	-1.15 ± 0.00



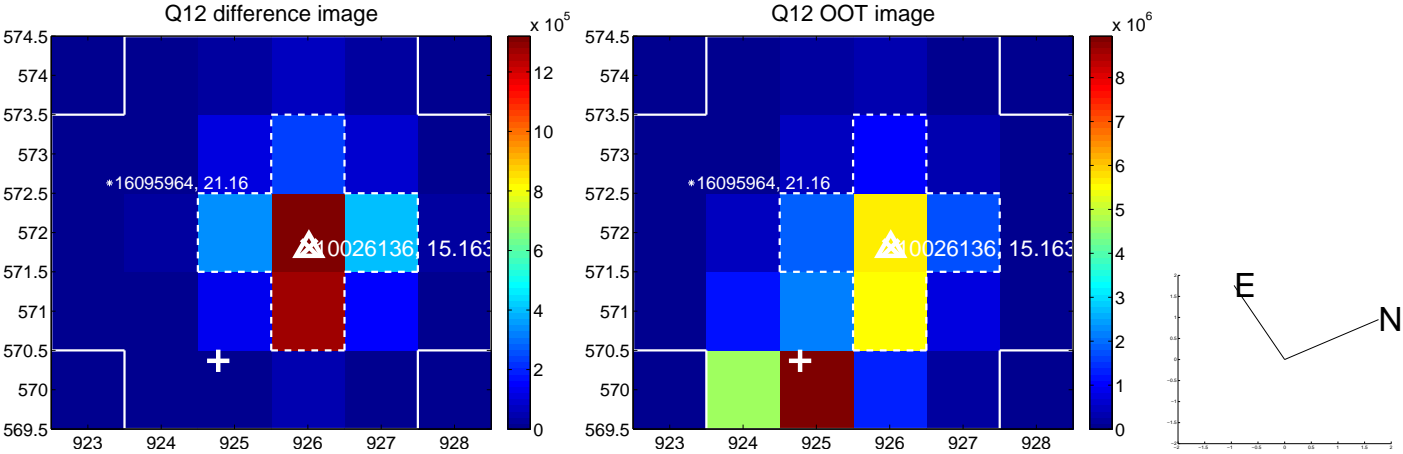
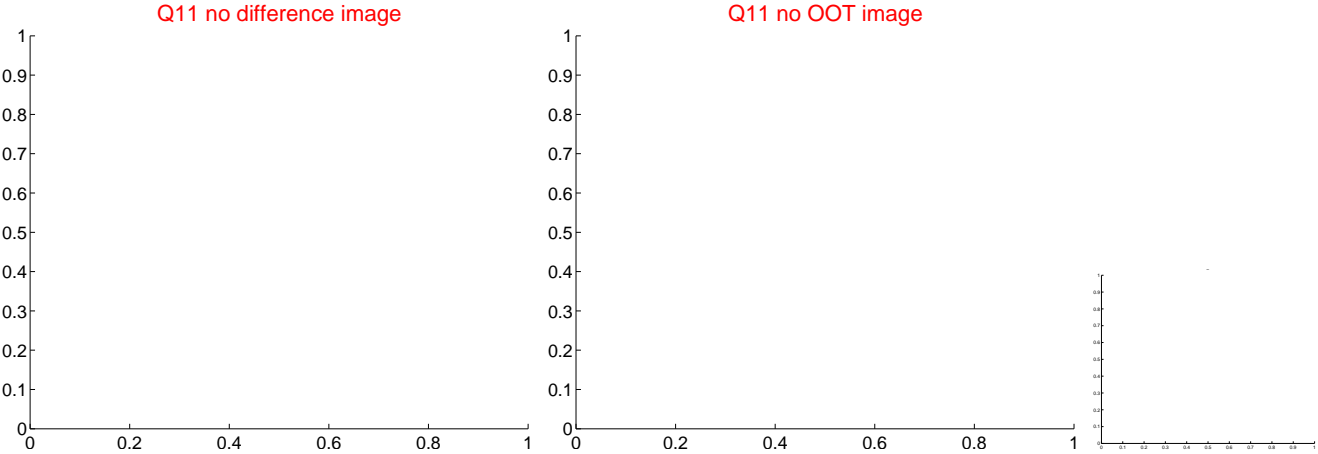
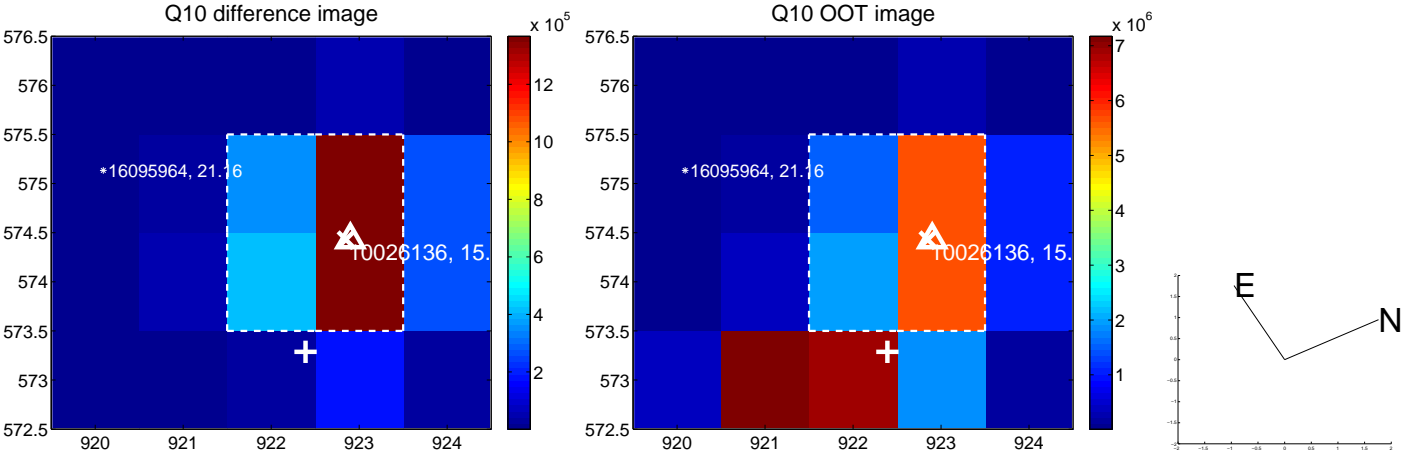
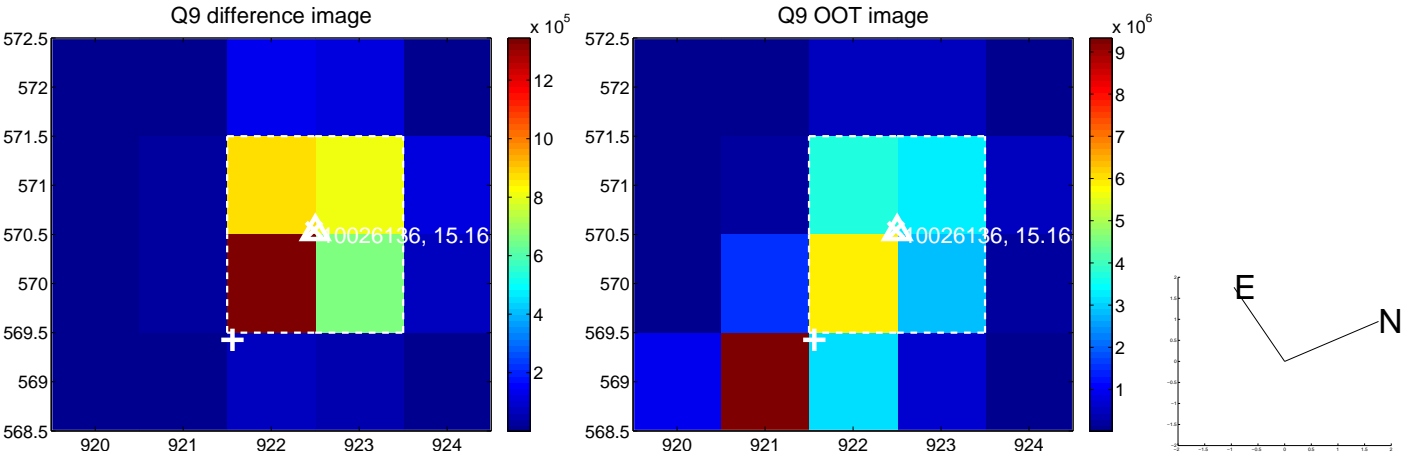
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



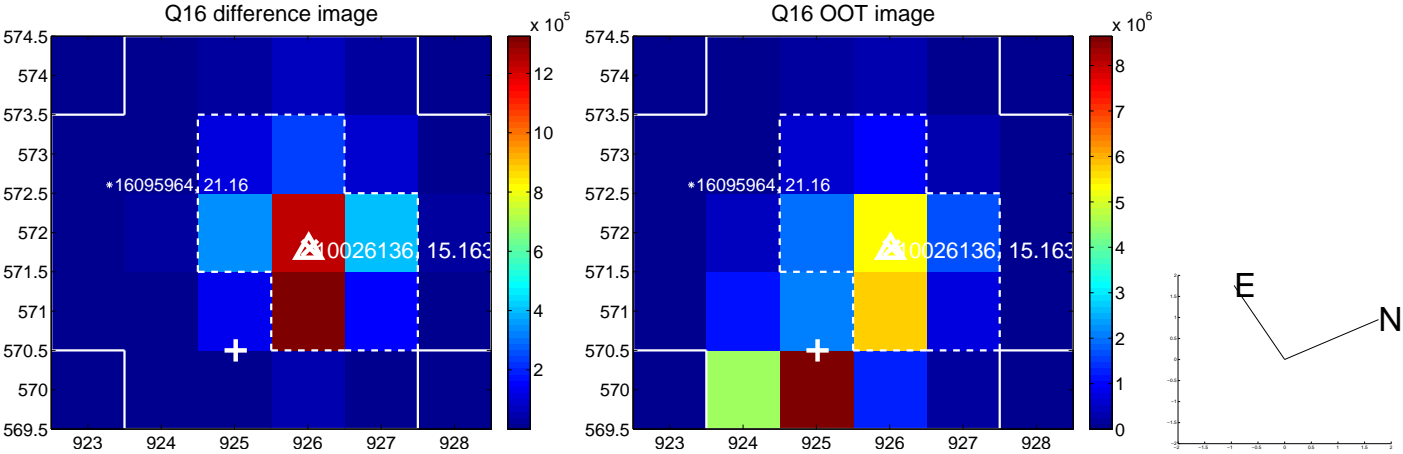
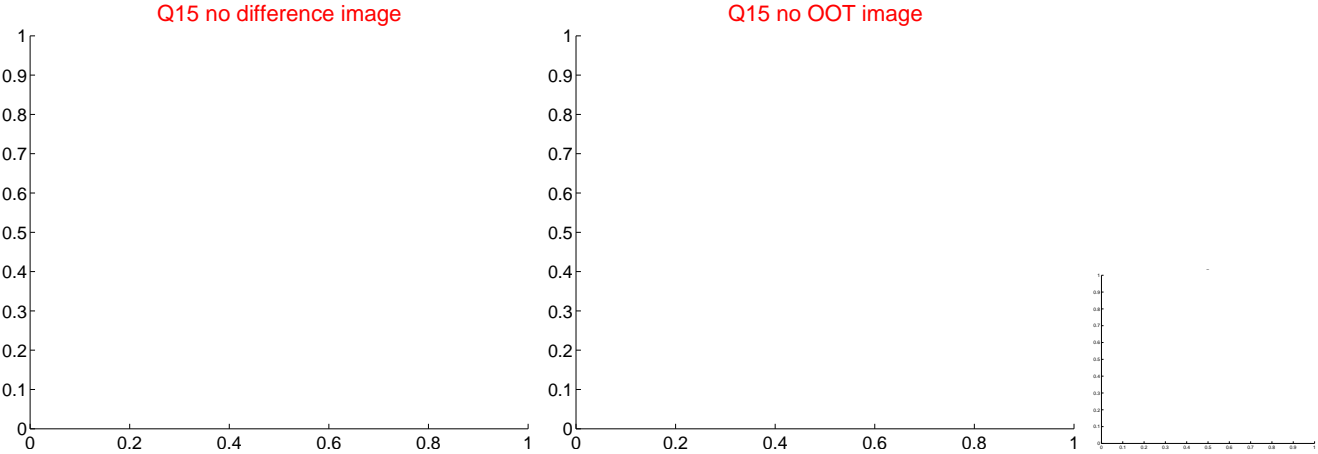
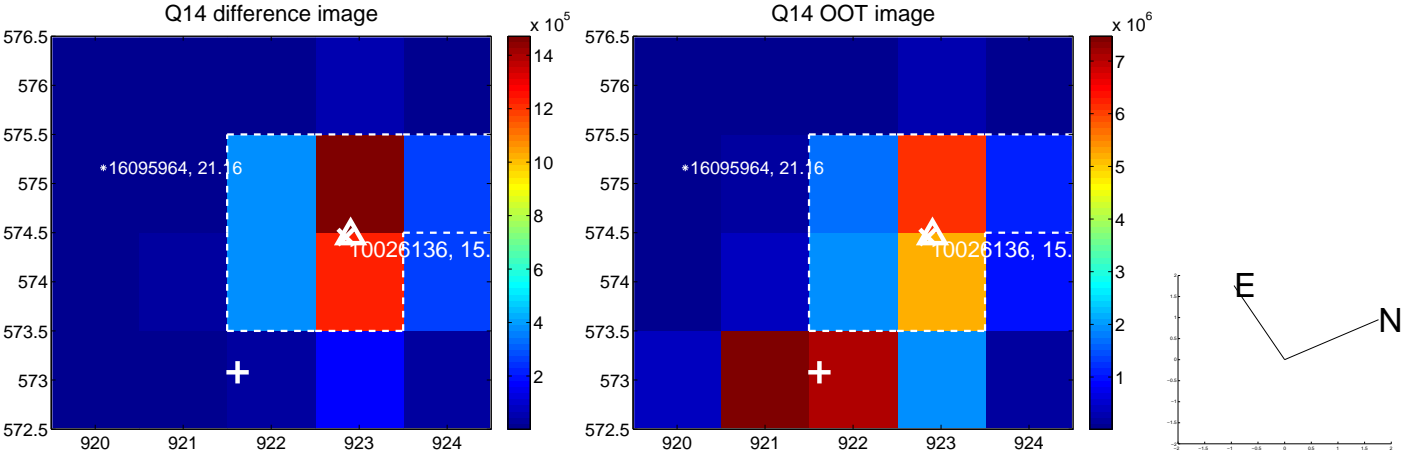
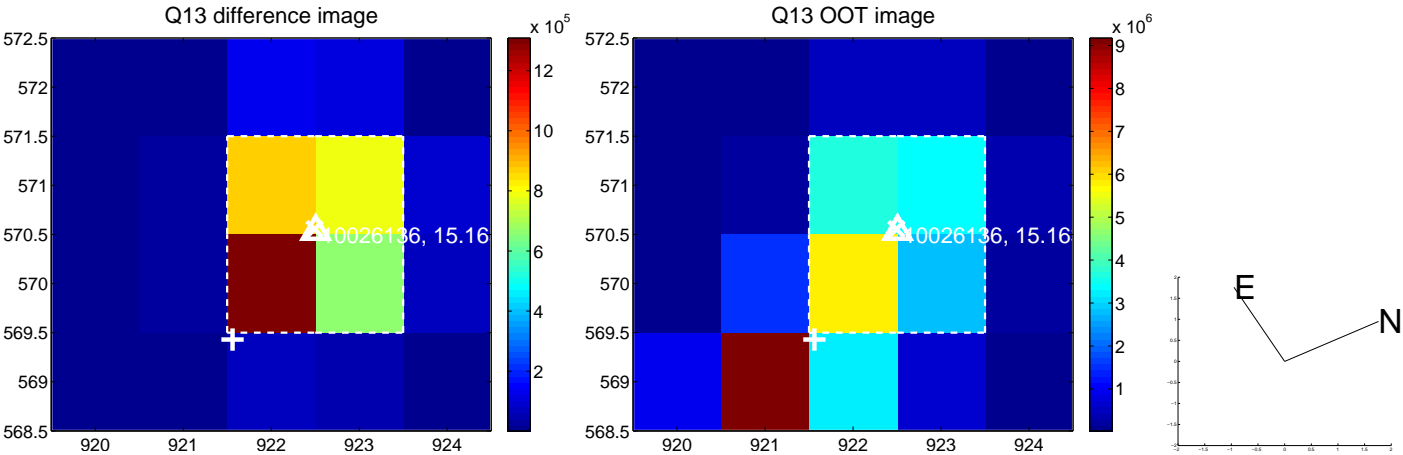
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



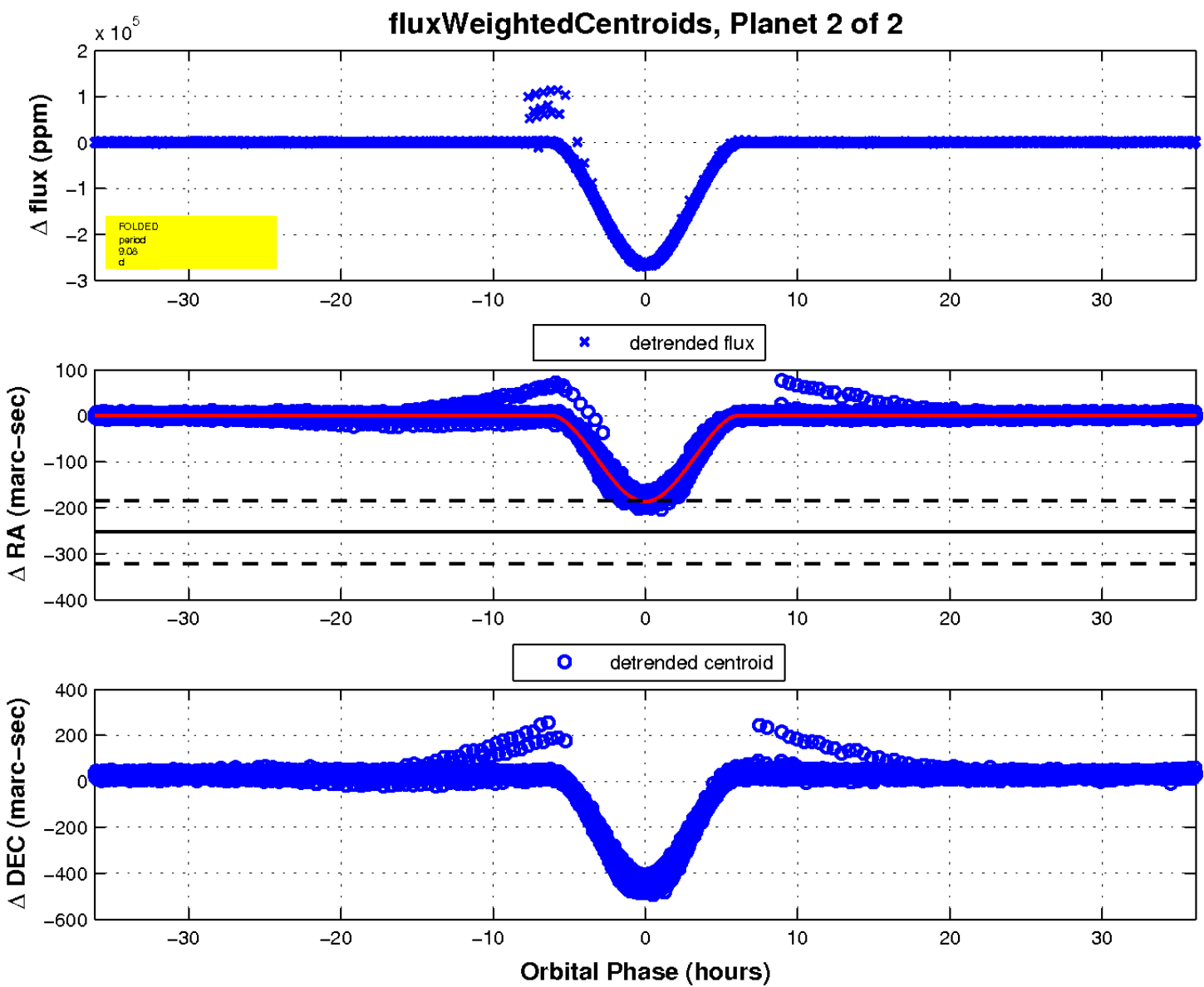
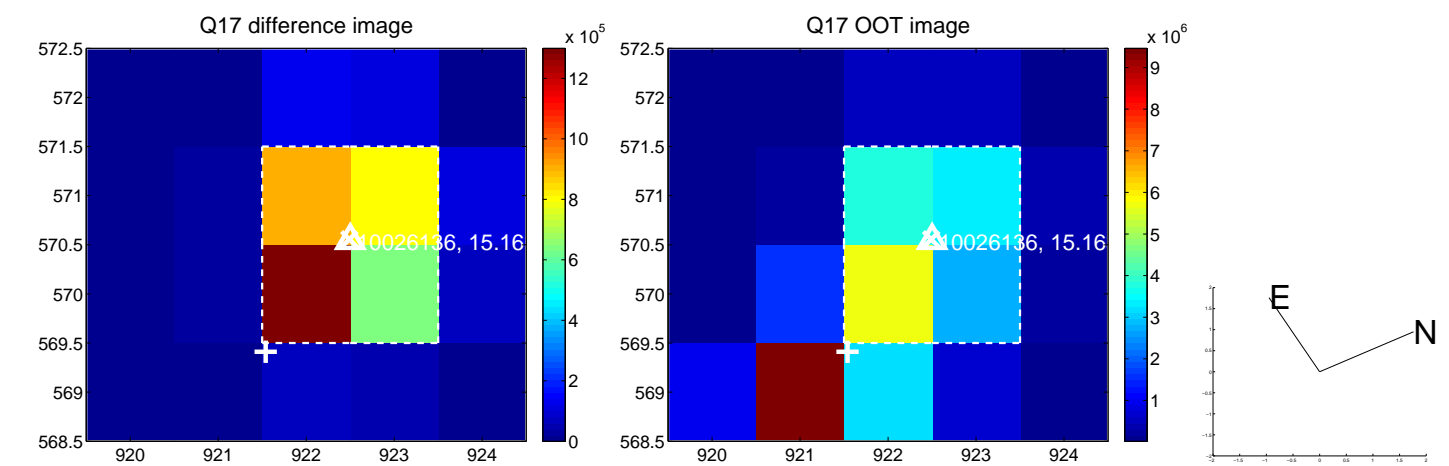
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

