

KIC 006927629

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})
006927629-01	OBS	6789.01	3.867619	135.338881	299726.9	3.500	13211.1	-1.0	1.05	5780	57.07	496.25
006927629-02	OBS	No	5.156711	132.772797	5988.4	47.857	412.8	43.8	1.05	5780	10.11	338.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006927629-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS
006927629-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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.

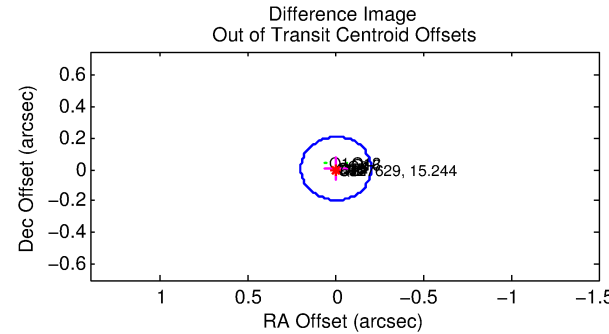
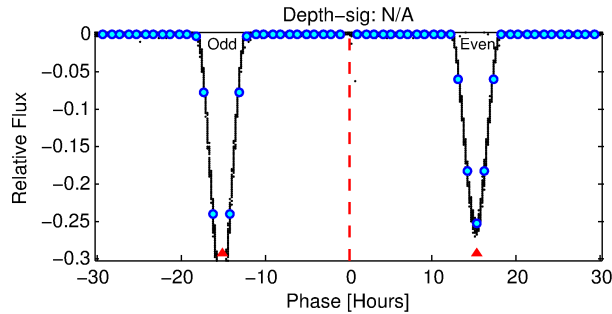
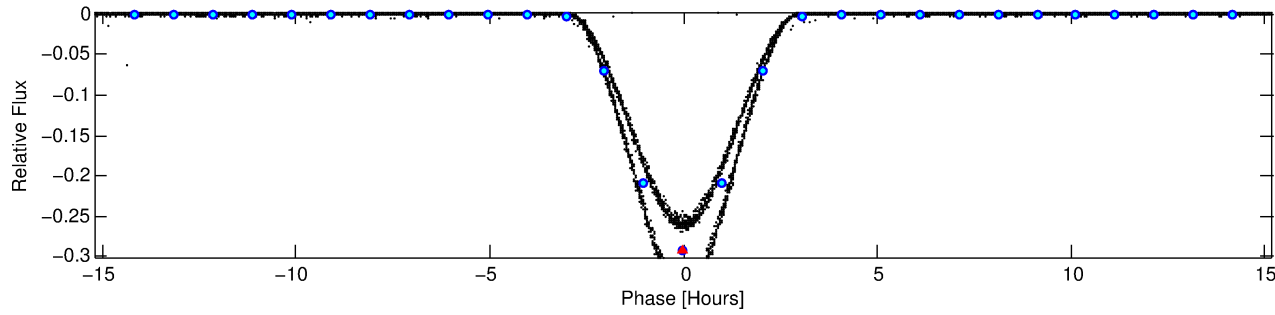
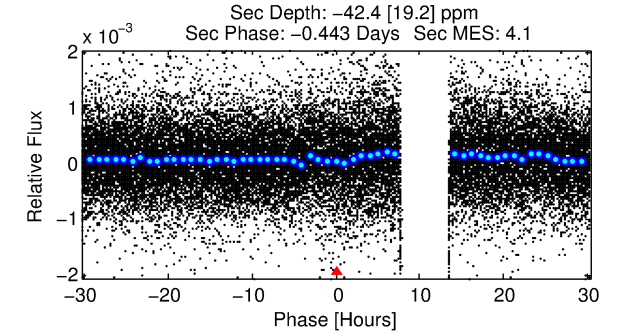
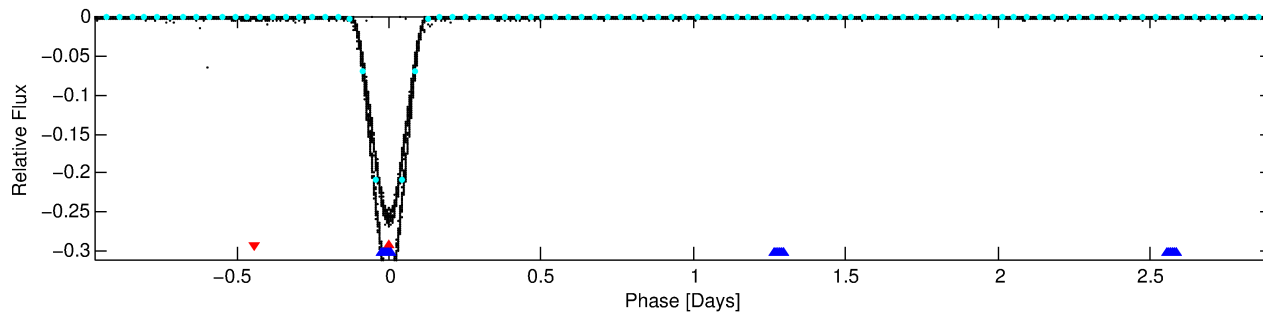
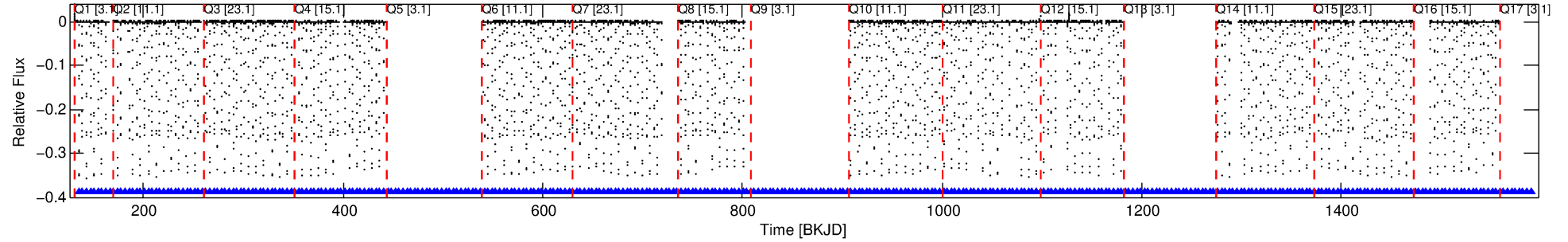
Ephemeris Match Information For 006927629-01

No Significant Match Found

DV One-Page Summary

KIC: 6927629 Candidate: 1 of 2 Period: 3.868 d
KOI: K06789.01 Corr: 0.792

Kp: 15.24 R*: 1.05 Rs Teff: 5780.0 K Logg: 4.36 Fe/H: -0.120



TPS TCE Results:

Period = 3.86762 d
Epoch = 135.3389 BKJD

DV fit results are unavailable

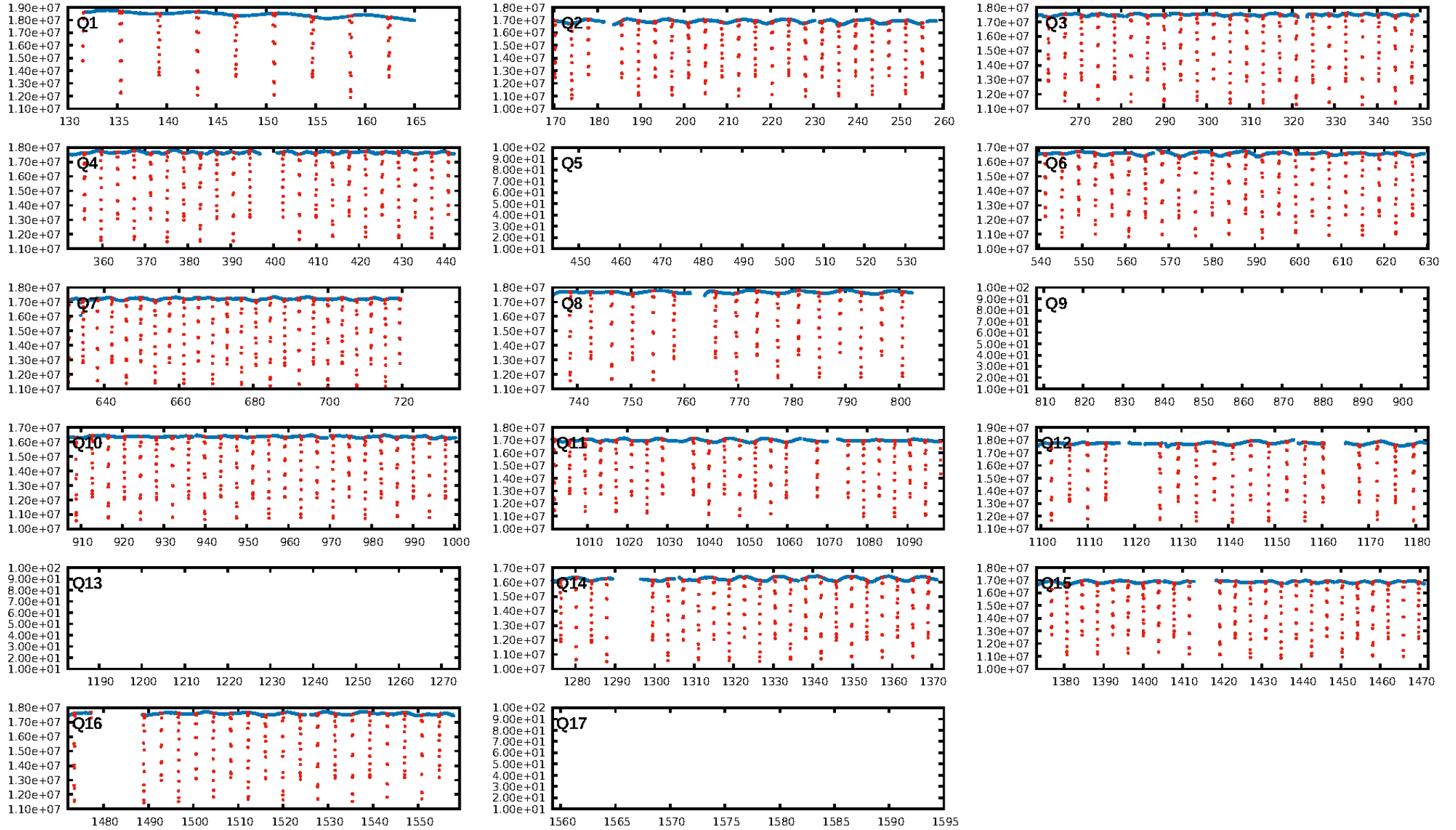
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 48.1% [0.64 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [260/260]
GhostDiagnostic-chr: 1.651
Centroid-sig: 0.0%
Centroid-so: 0.091 arcsec [115.83 σ]
OotOffset-rm: 0.008 arcsec [0.13 σ]
KicOffset-rm: 0.086 arcsec [1.17 σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

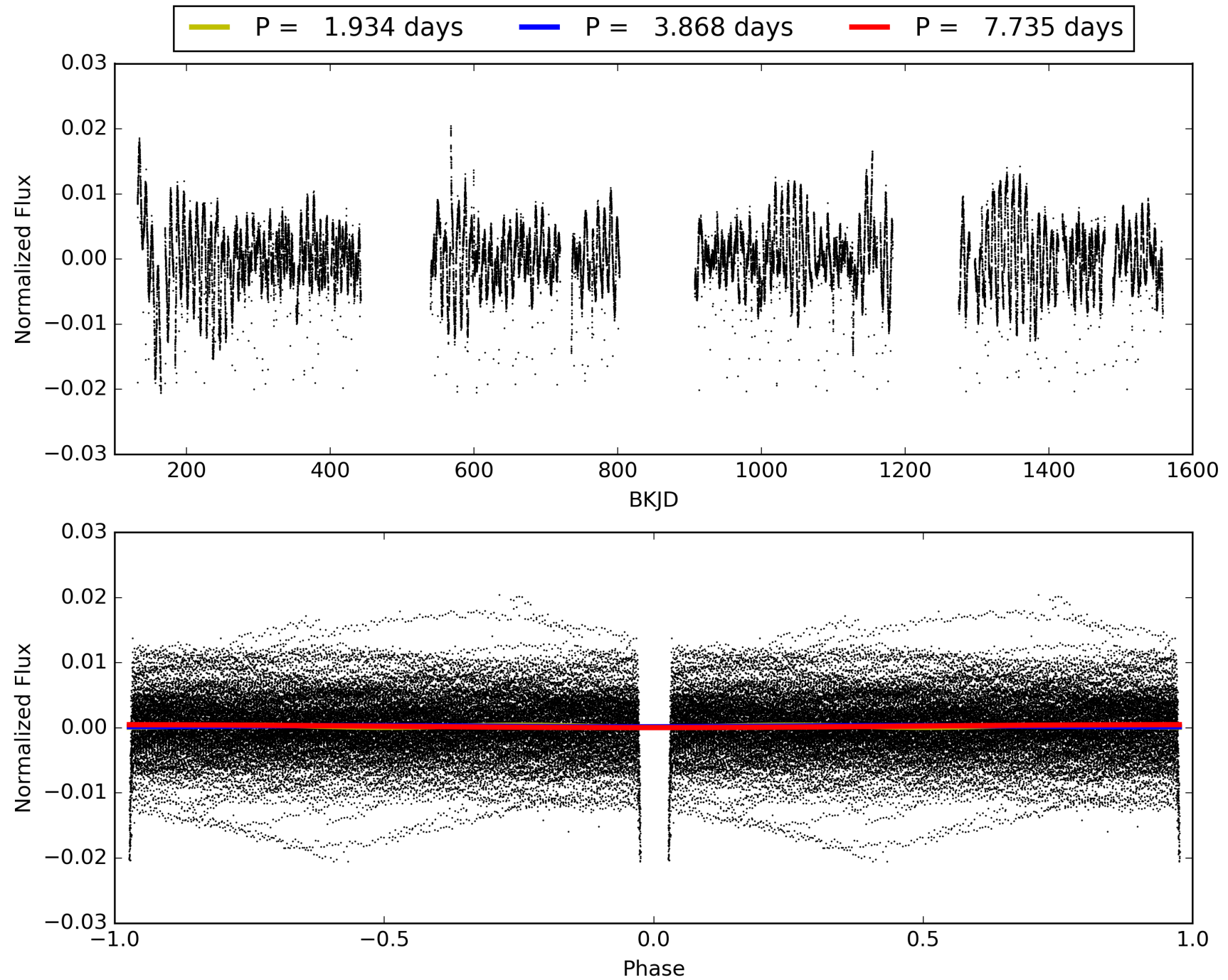
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:02:14 Z

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

TCE 006927629-01, PDC Light Curves

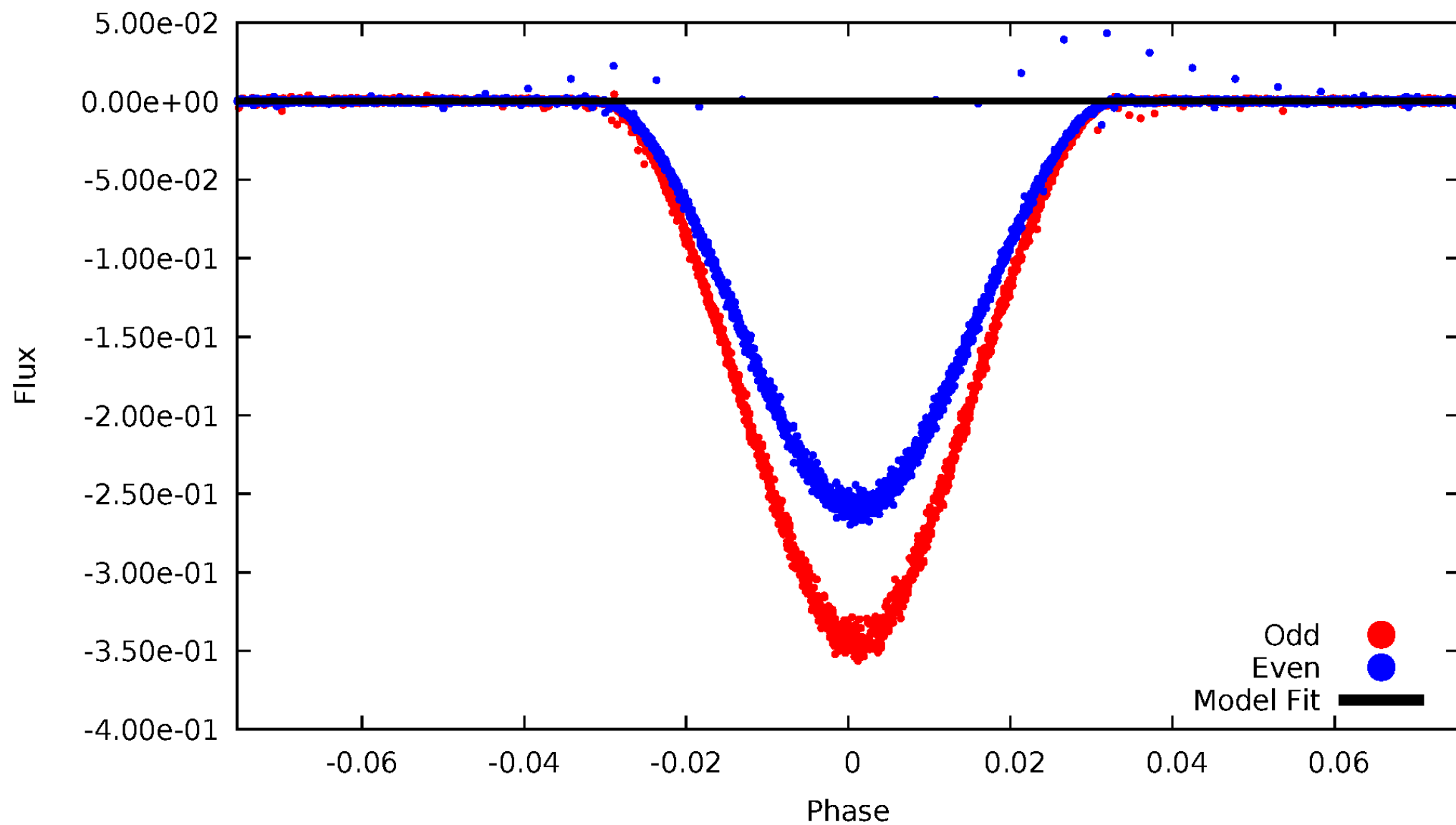


TCE 006927629-01



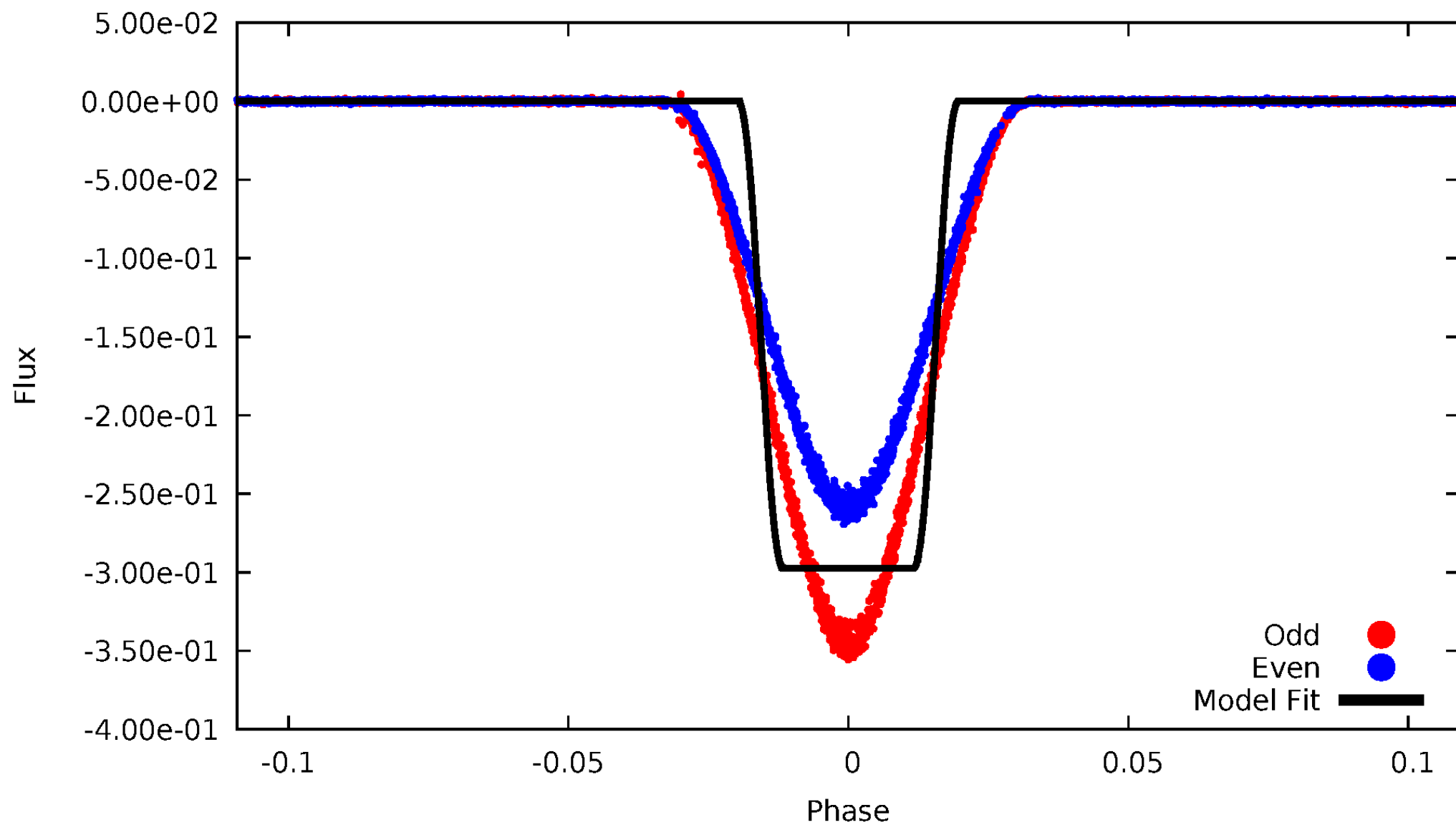
DV Odd/Even

TCE 006927629-01



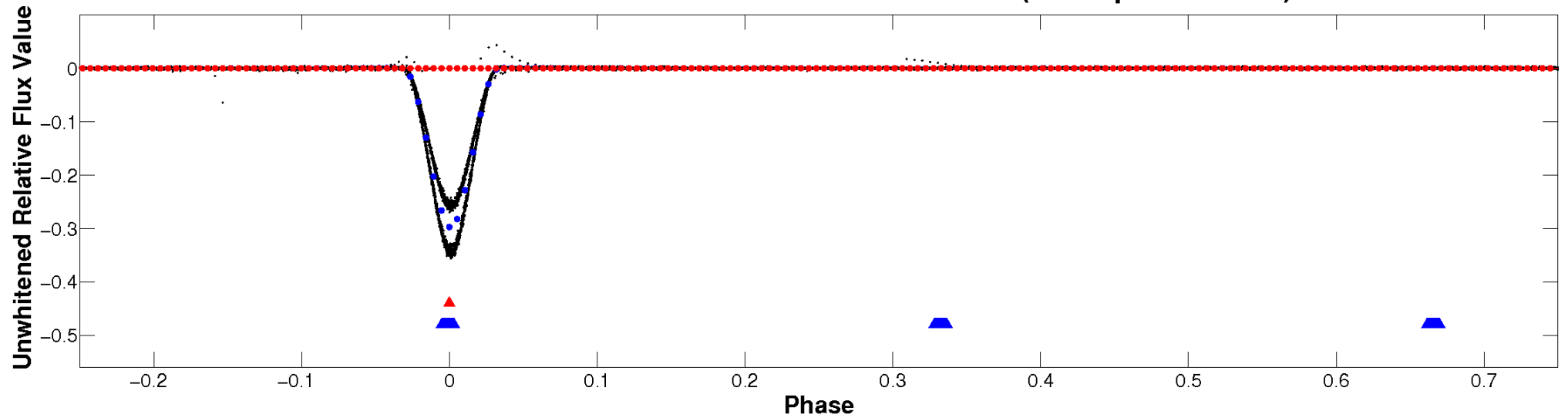
ALT Odd/Even

TCE 006927629-01



Non-Whitened Vs. Whitened Light Curve

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

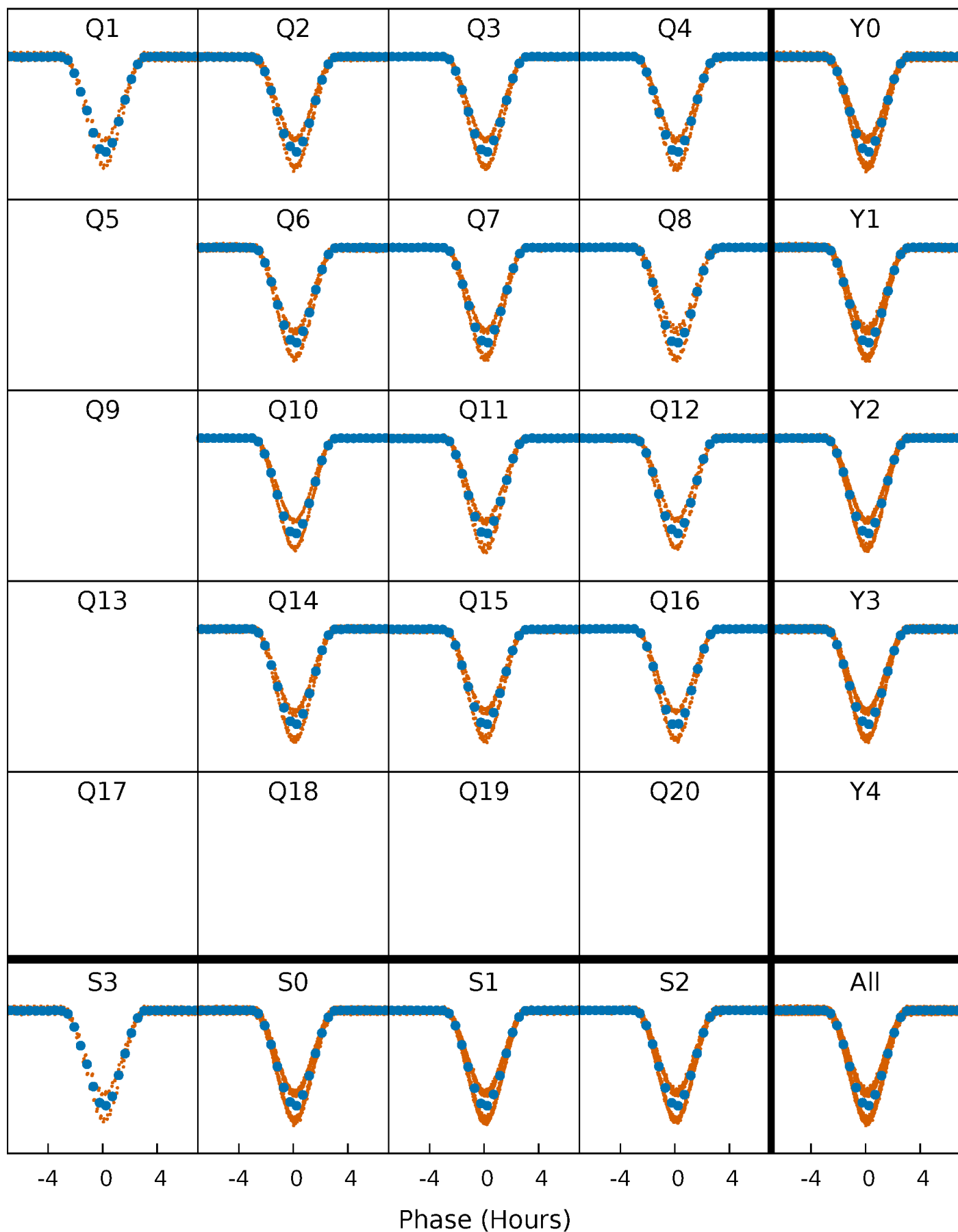


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



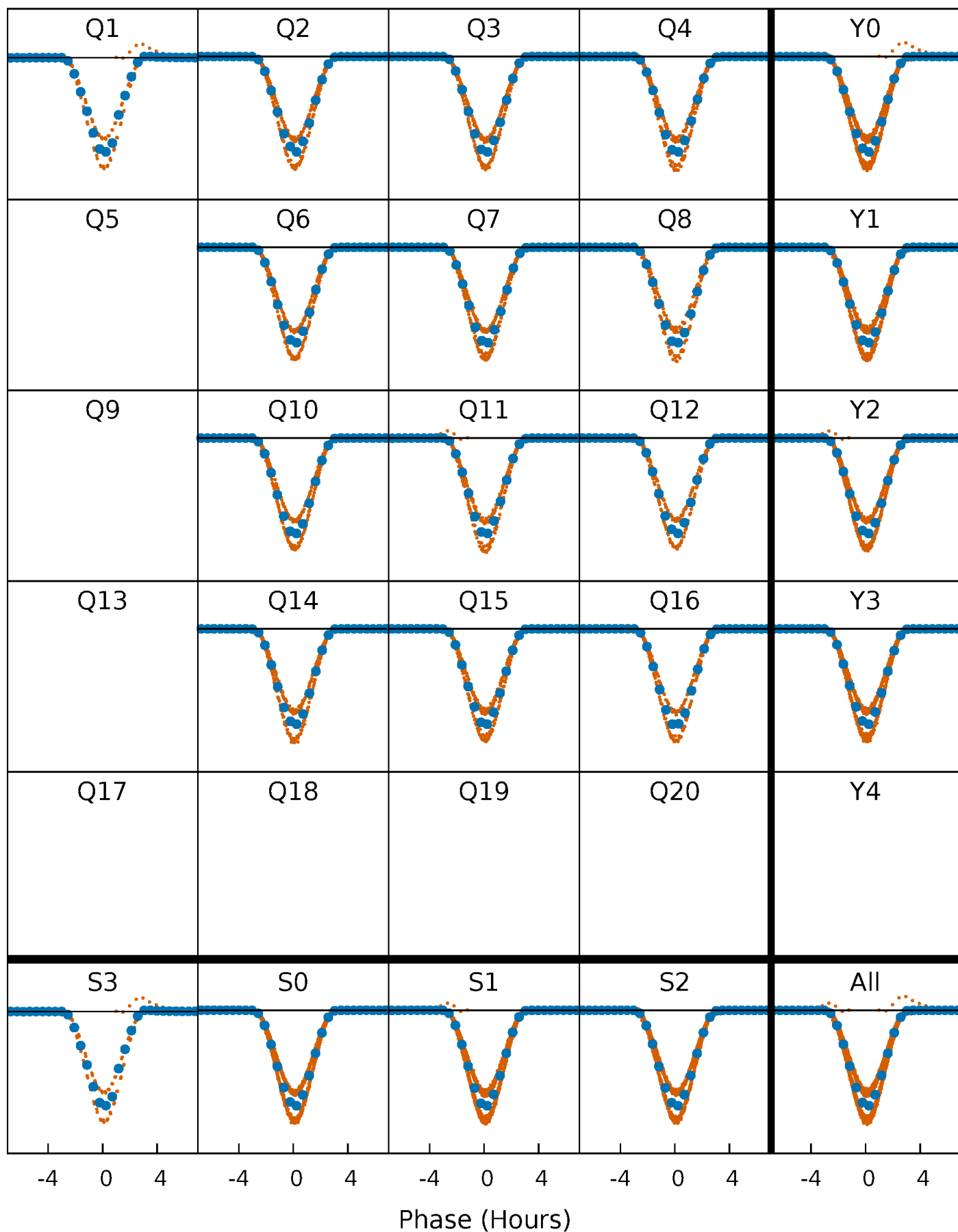
PDC Quarter-Phased Transit Curves

TCE 006927629-01 P= 3.867619 Days $T_0=135.338881$ (BKJD)



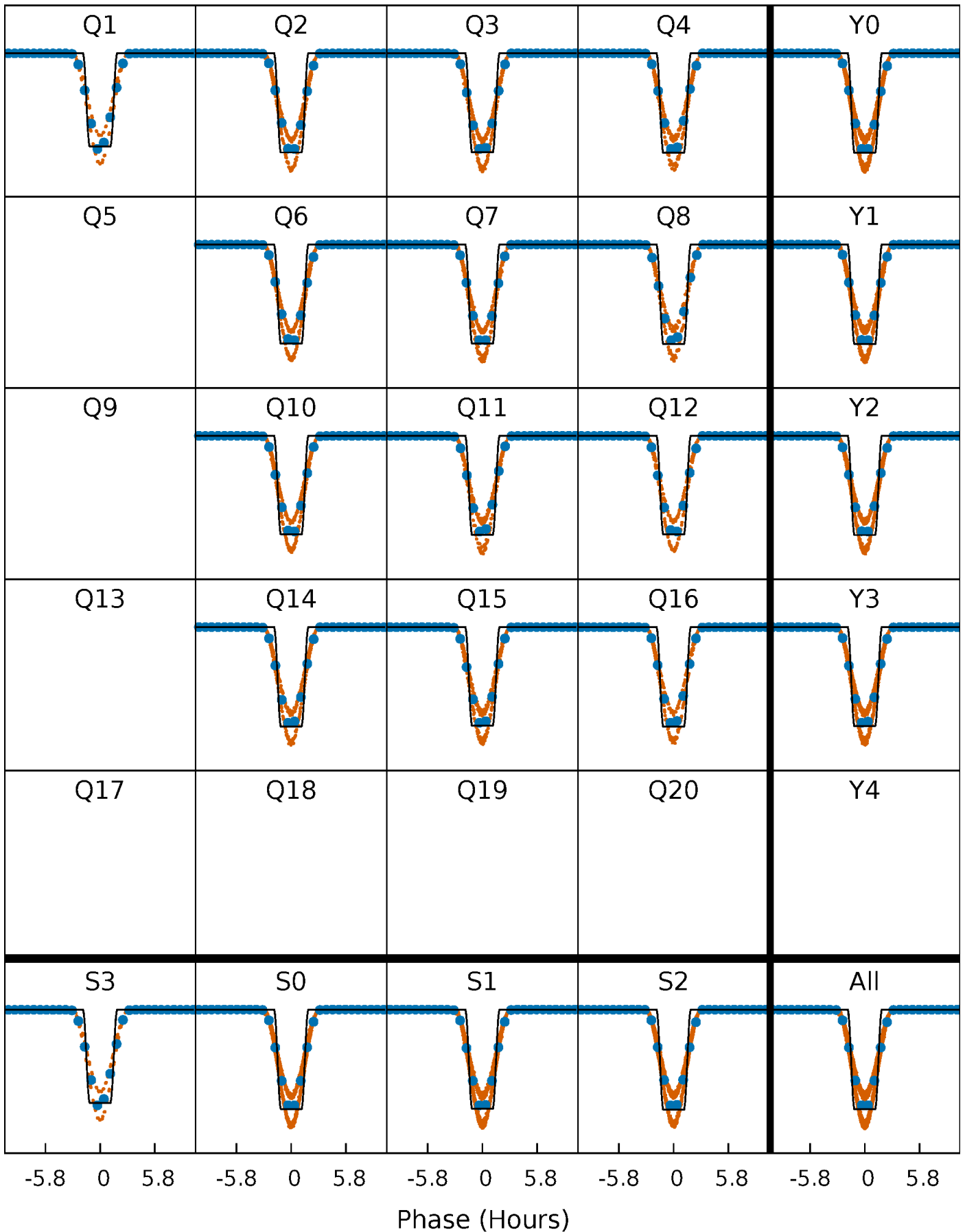
DV Quarter-Phased Transit Curves

TCE 006927629-01 P= 3.867619 Days $T_0=135.338881$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

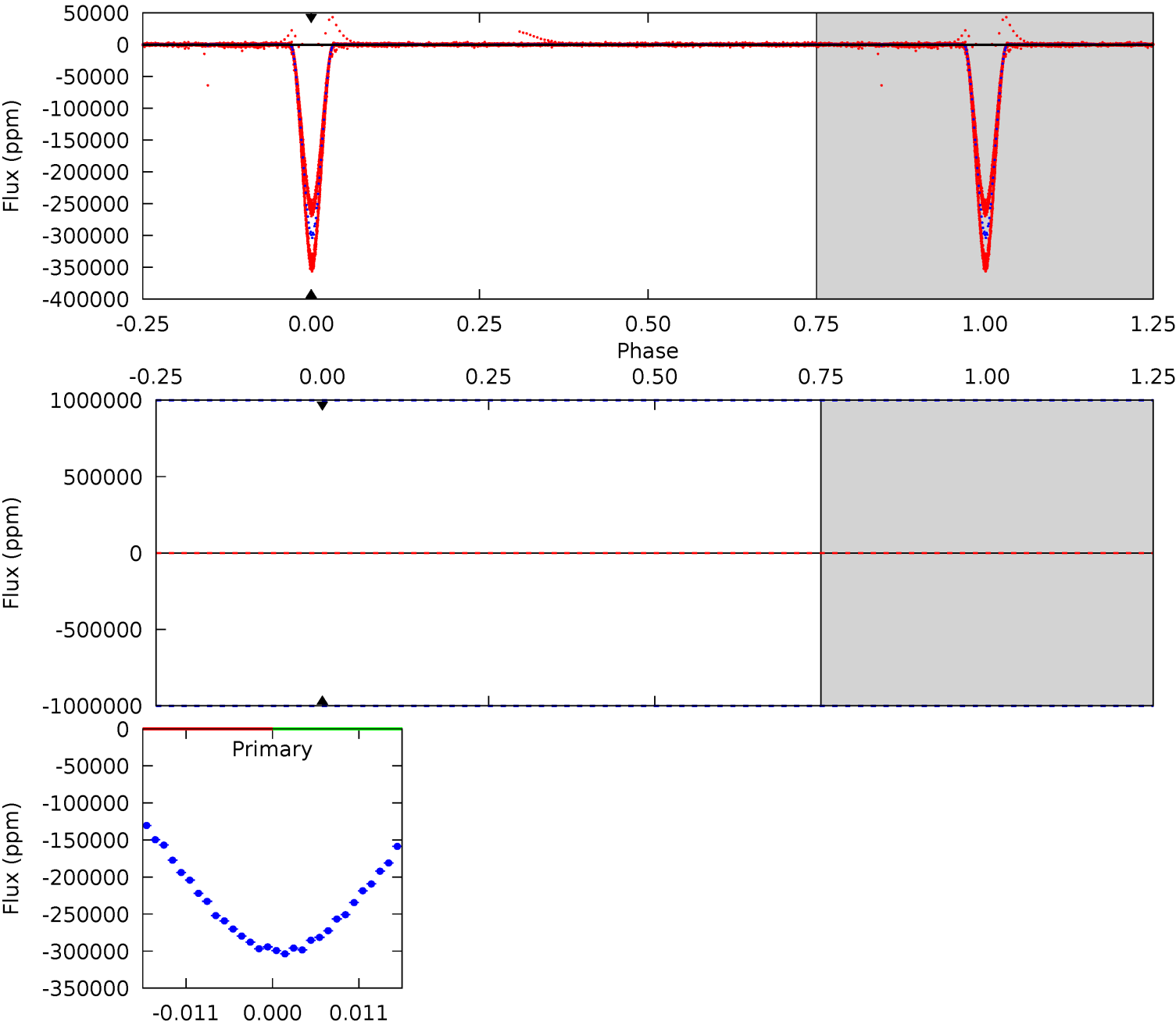
TCE 006927629-01 P= 3.867619 Days $T_0=135.342926$ (BKJD)



DV Model-Shift Uniqueness Test

006927629-01, P = 3.867619 Days, E = 131.471262 Days

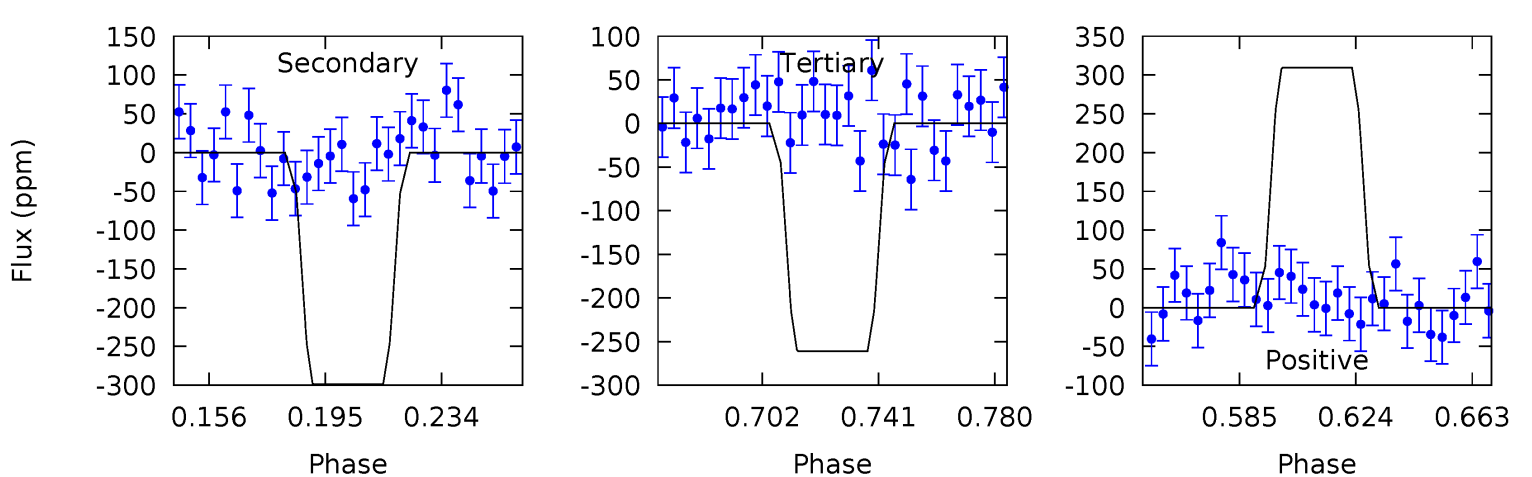
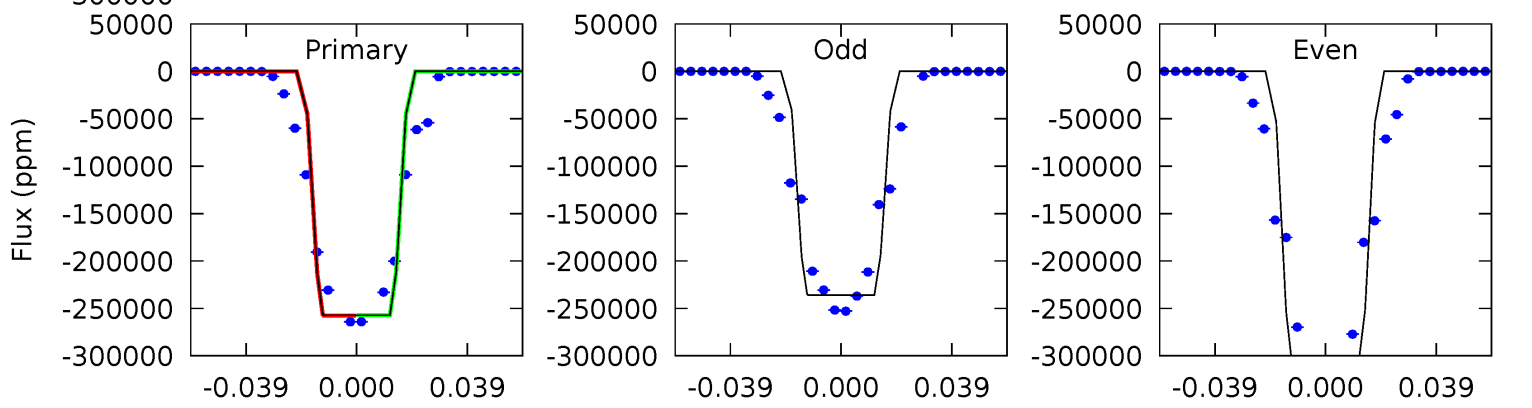
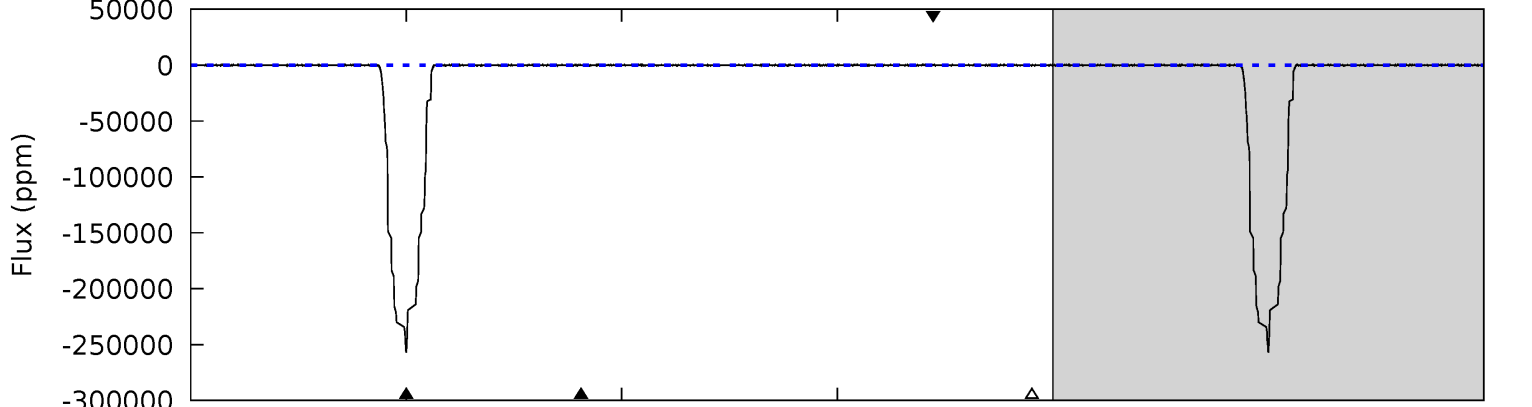
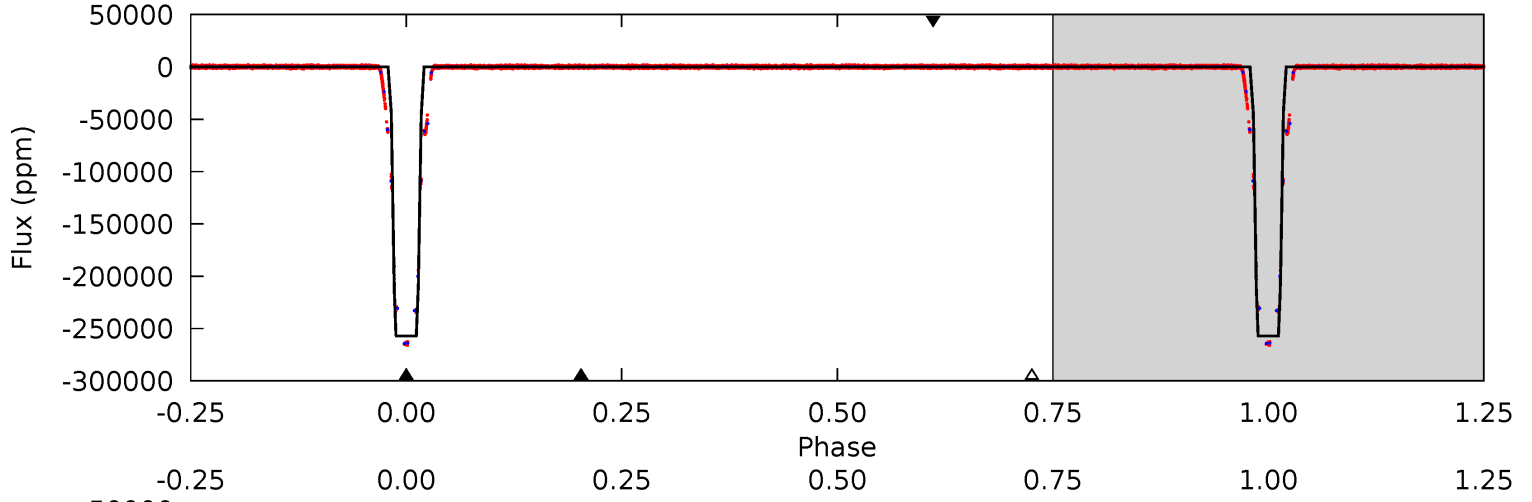
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006927629-01, P = 3.867619 Days, E = 131.475307 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3829	4.45	3.89	4.61	4.76	2.06	1.23	3825	3825	0.56	-0.16	1326	1.11	0.00	0



Stellar Parameters For KIC 006927629

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+156}_{-173}	$4.364^{+0.149}_{-0.182}$	$-0.120^{+0.300}_{-0.300}$	$1.046^{+0.298}_{-0.184}$	$0.921^{+0.124}_{-0.093}$	$1.135^{+0.802}_{-0.583}$
	+3%/-3%	+3%/-4%	+250%/-250%	+28%/-18%	+13%/-10%	+71%/-51%
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 006927629-01 / KOI 6789.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$57.98^{+14.58}_{-13.83}$	1702^{+111}_{-115}	2702^{+2153}_{-7317}	$1.195^{+40.958}_{-32.815}$
Alt.	-299 ± 67	$63.42^{+15.39}_{-13.91}$	1692^{+120}_{-102}	-2210^{+118}_{-96}	$0.089^{+0.065}_{-0.037}$

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 $A_{obs} \gg 1.0$

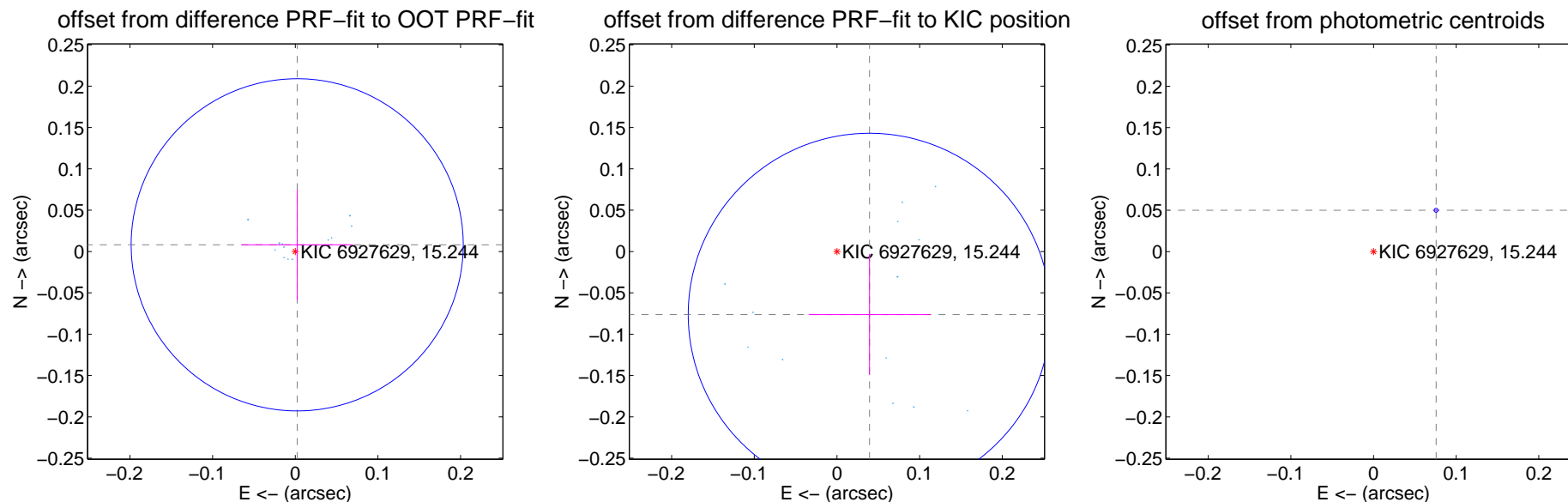
DV Centroid Data

Supplemental centroid analysis for 006927629-01. Kepler magnitude: 15.24. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

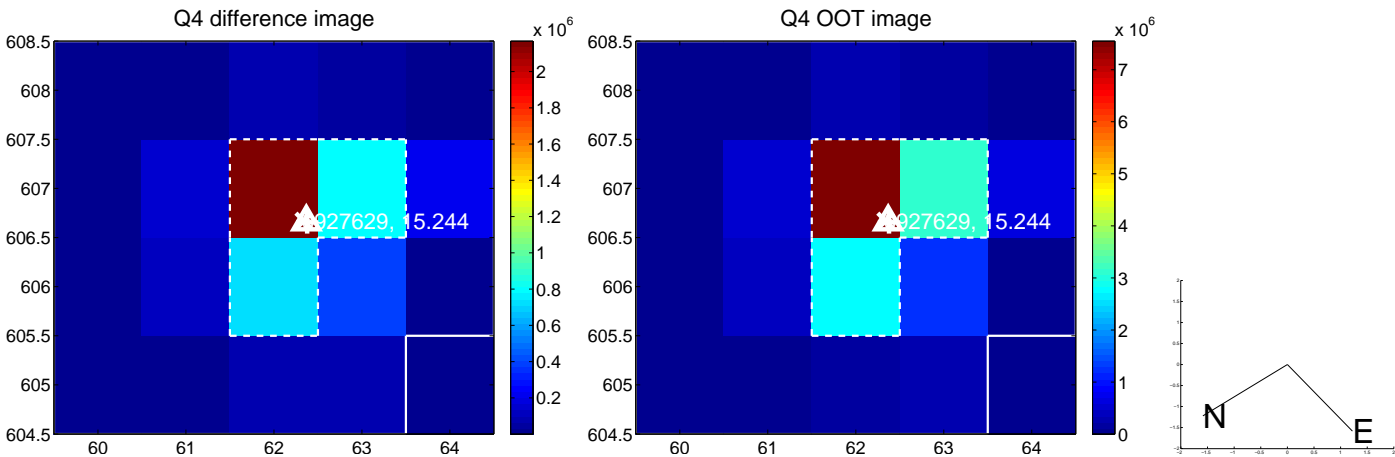
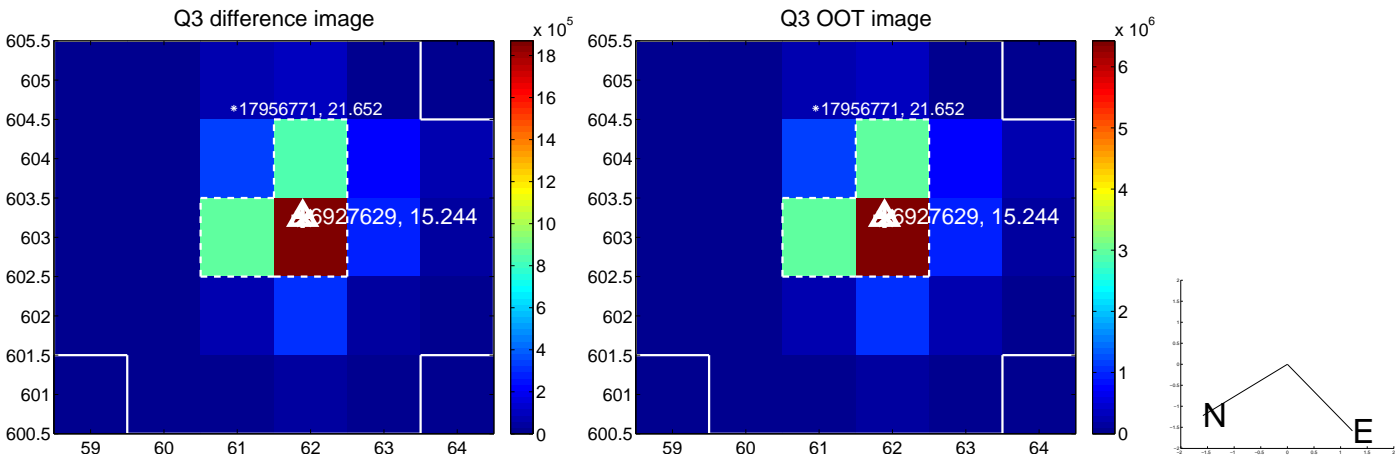
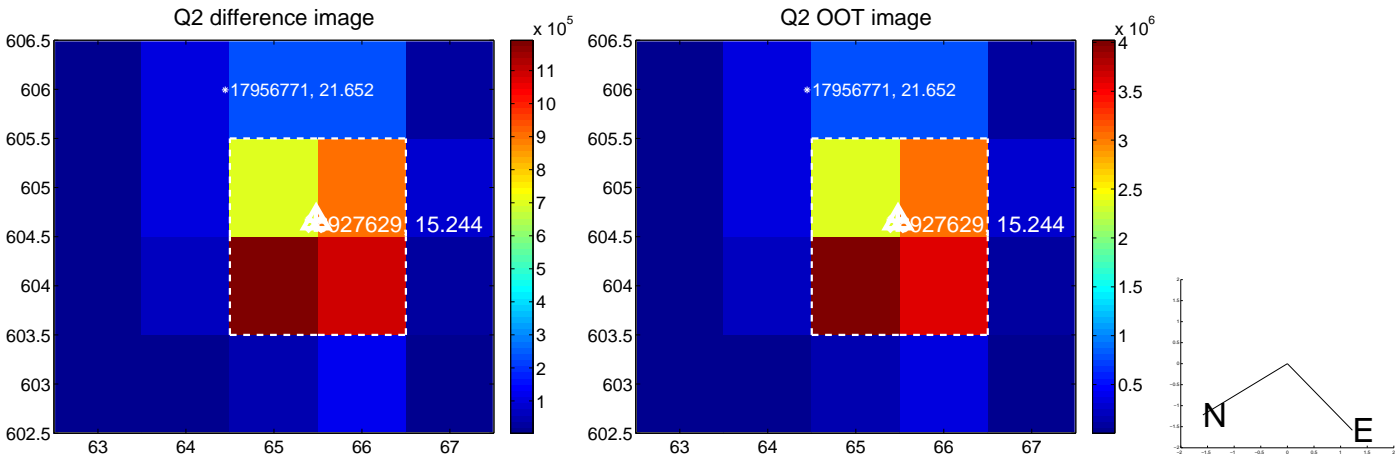
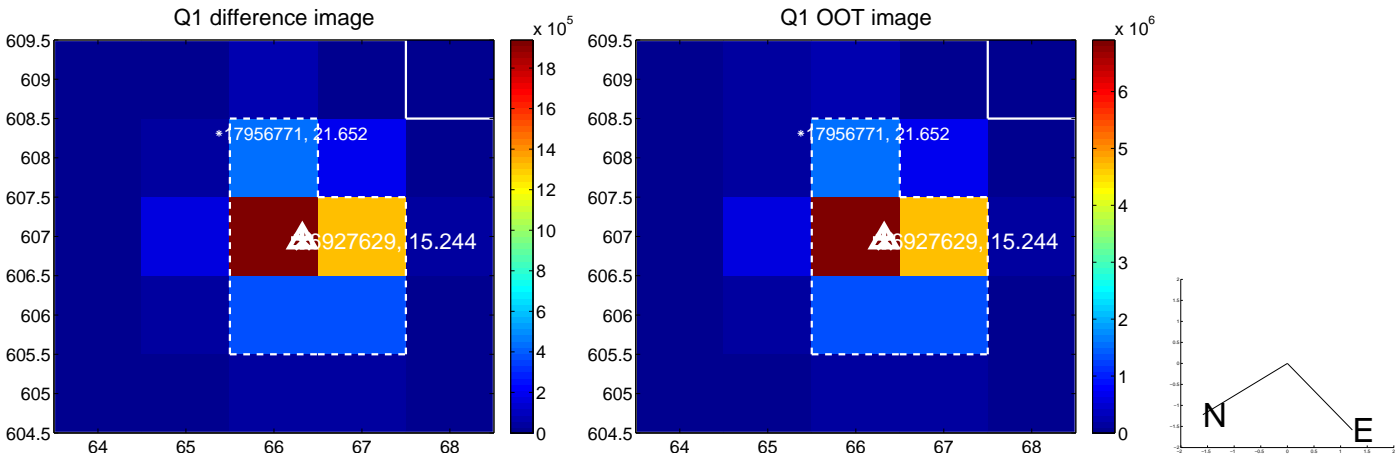
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.008 ± 0.067	0.13	-0.002 ± 0.067	0.008 ± 0.067
PRF-fit source offset from KIC position	0.086 ± 0.073	1.17	-0.039 ± 0.074	-0.076 ± 0.073
photometric centroid source offset	0.09 ± 0.00	115.83	-0.08 ± 0.00	0.05 ± 0.00

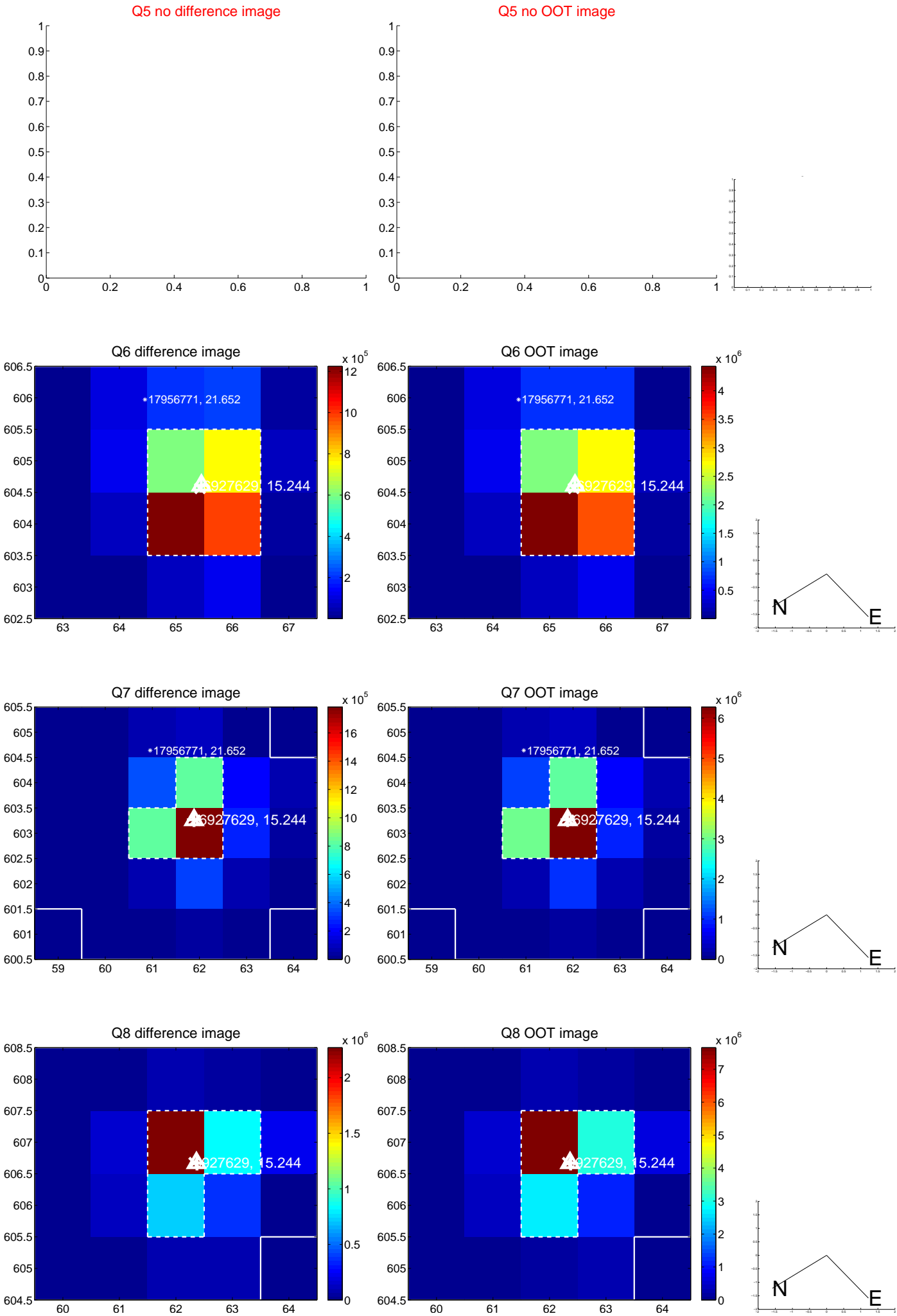


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

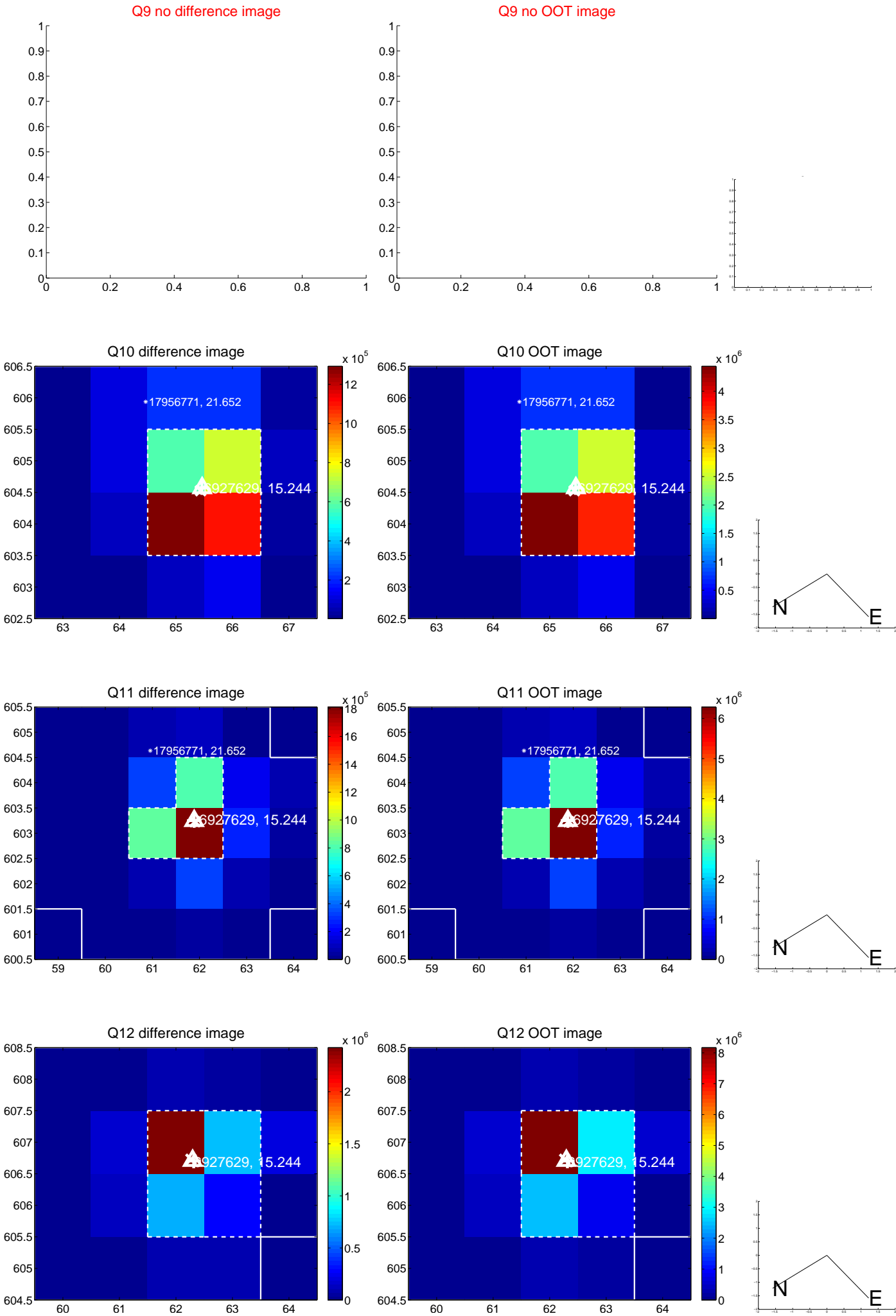
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



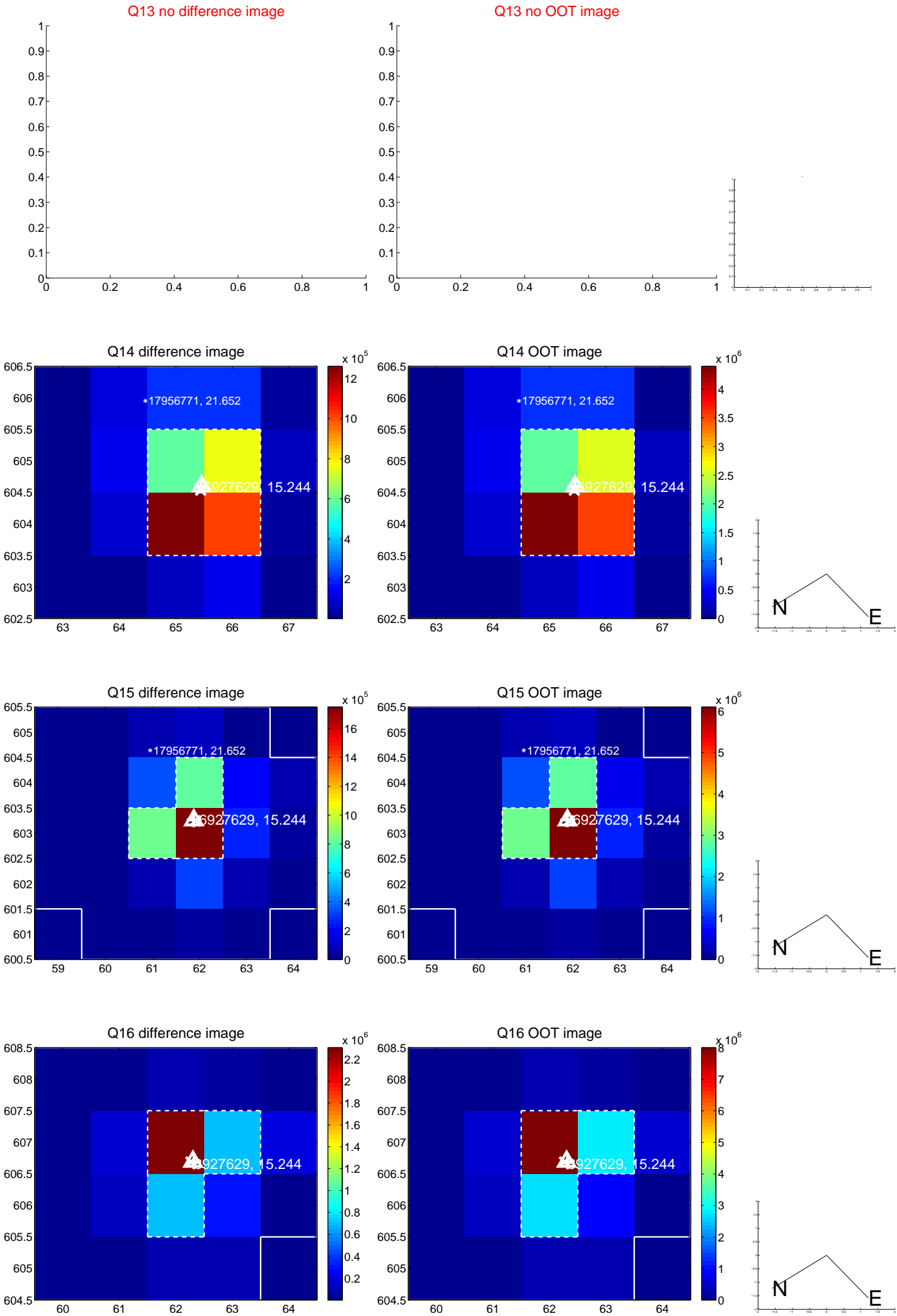
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



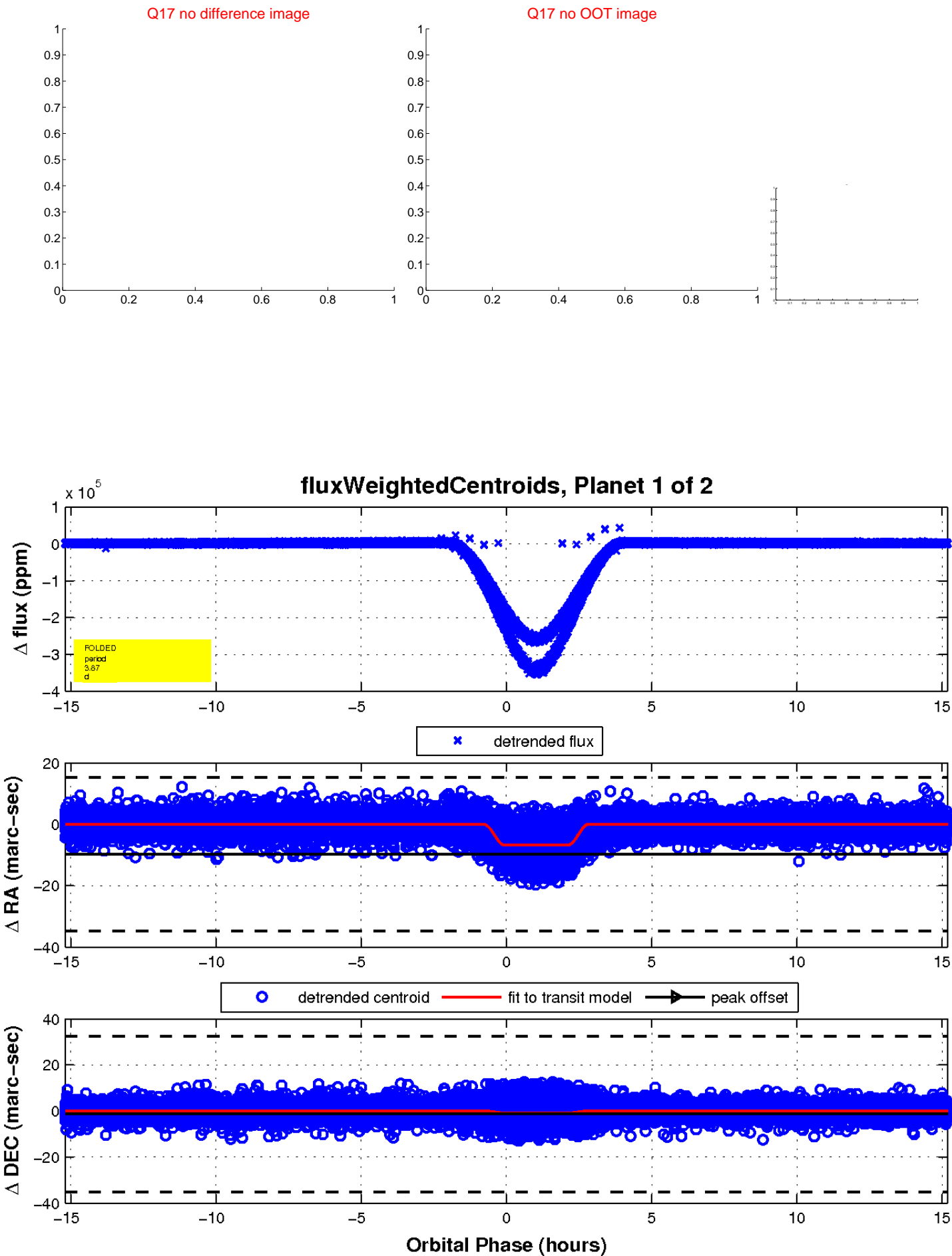
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



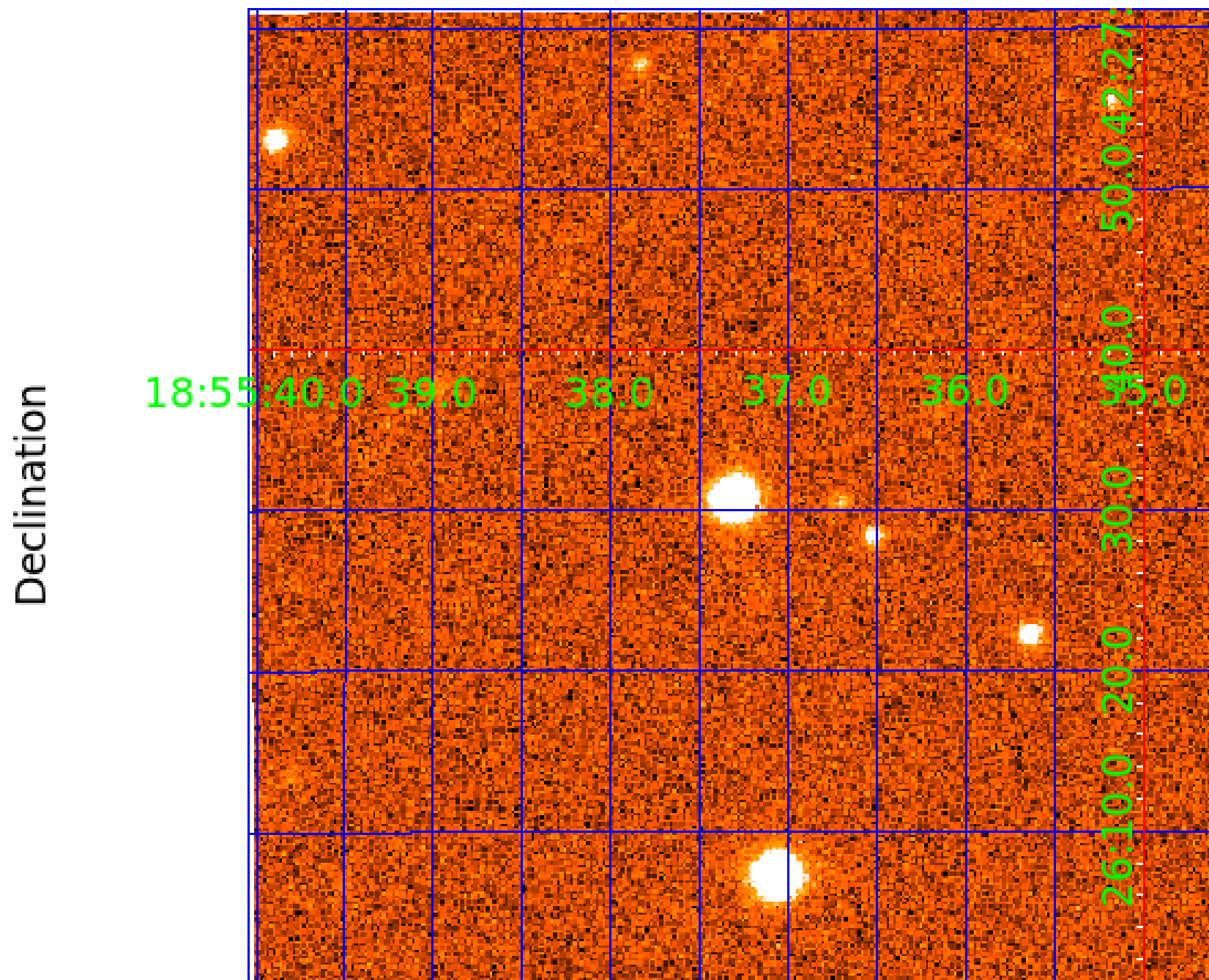
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006927629

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})
006927629-01	OBS	6789.01	3.867619	135.338881	299726.9	3.500	13211.1	-1.0	1.05	5780	57.07	496.25
006927629-02	OBS	No	5.156711	132.772797	5988.4	47.857	412.8	43.8	1.05	5780	10.11	338.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006927629-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS
006927629-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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.

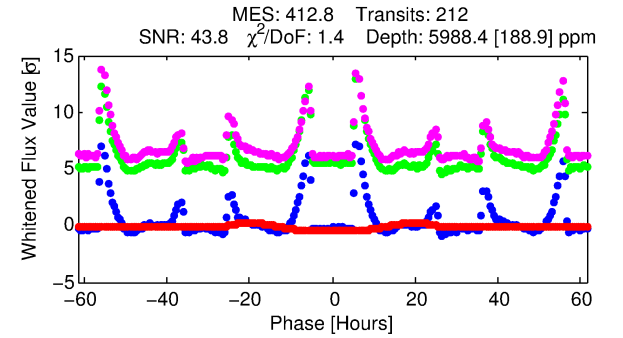
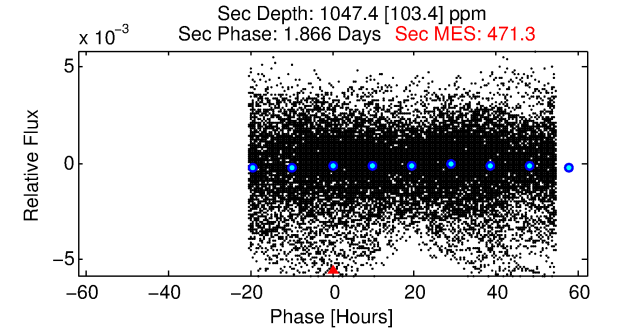
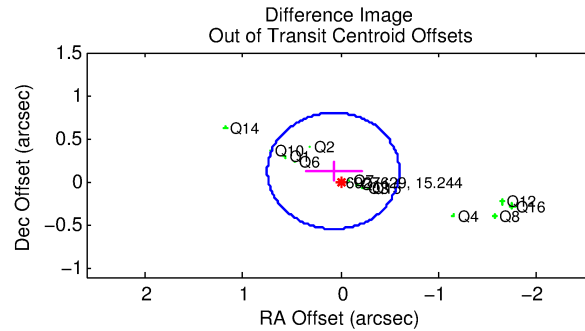
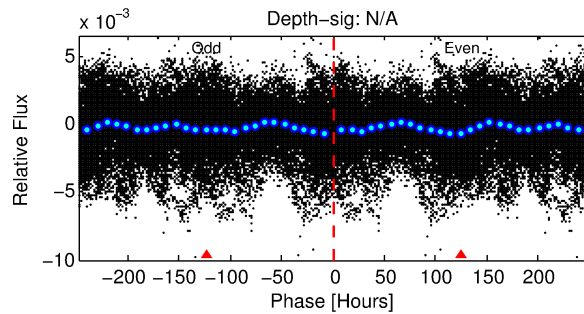
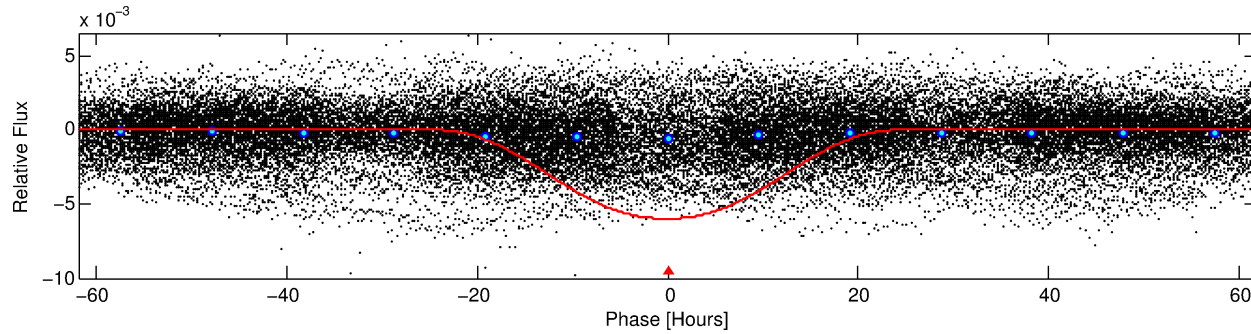
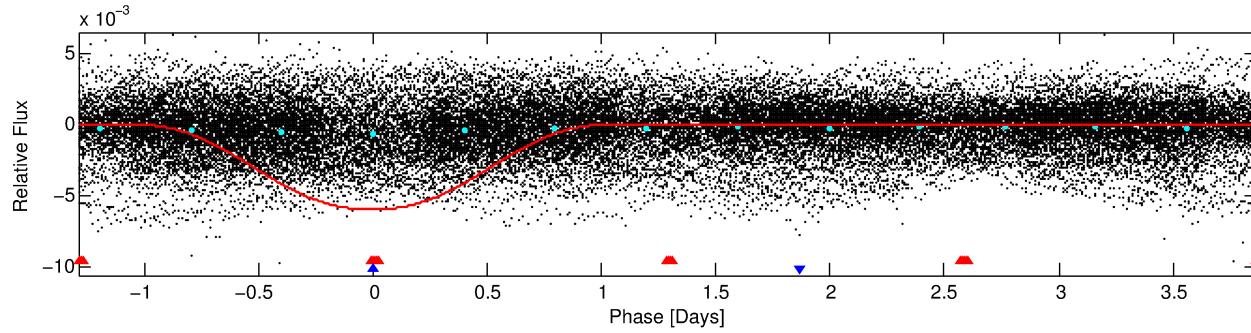
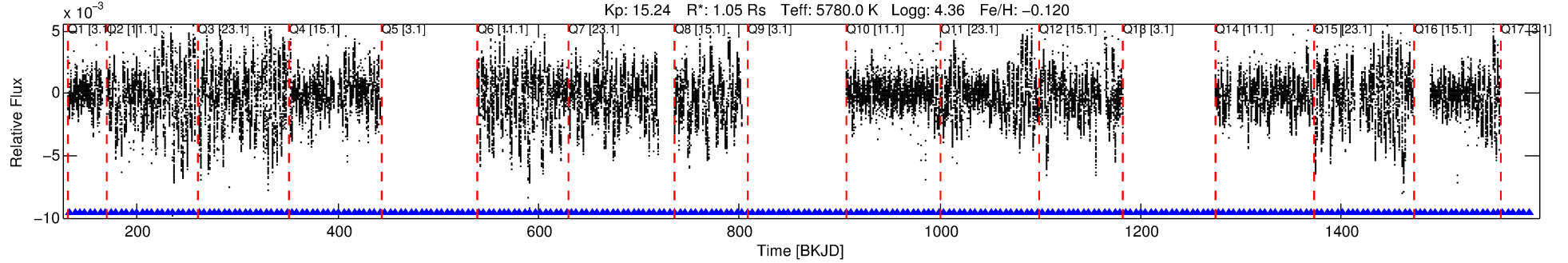
Ephemeris Match Information For 006927629-02

No Significant Match Found

DV One-Page Summary

KIC: 6927629 Candidate: 2 of 2 Period: 5.157 d
KOI: K06789 Corr: No Ephemeris Match

Kp: 15.24 R*: 1.05 Rs T_{eff}: 5780.0 K Logg: 4.36 Fe/H: -0.120



DV Fit Results:

Period = 5.15671 [0.00009] d
Epoch = 132.7728 [0.0149] BKJD
Rp/R* = 0.0885 [0.0021]
a/R* = 1.11 [0.00]
b = 0.92 [0.00]
Seff = 338.17 [121.20]
Teq = 1093 [98] K
Rp = 10.11 [2.89] Re
a = 0.0569 [0.0134] AU
Ag = 18.26 [6.49] [2.66σ]
T_{effp} = 3495 [142] K [13.92σ]

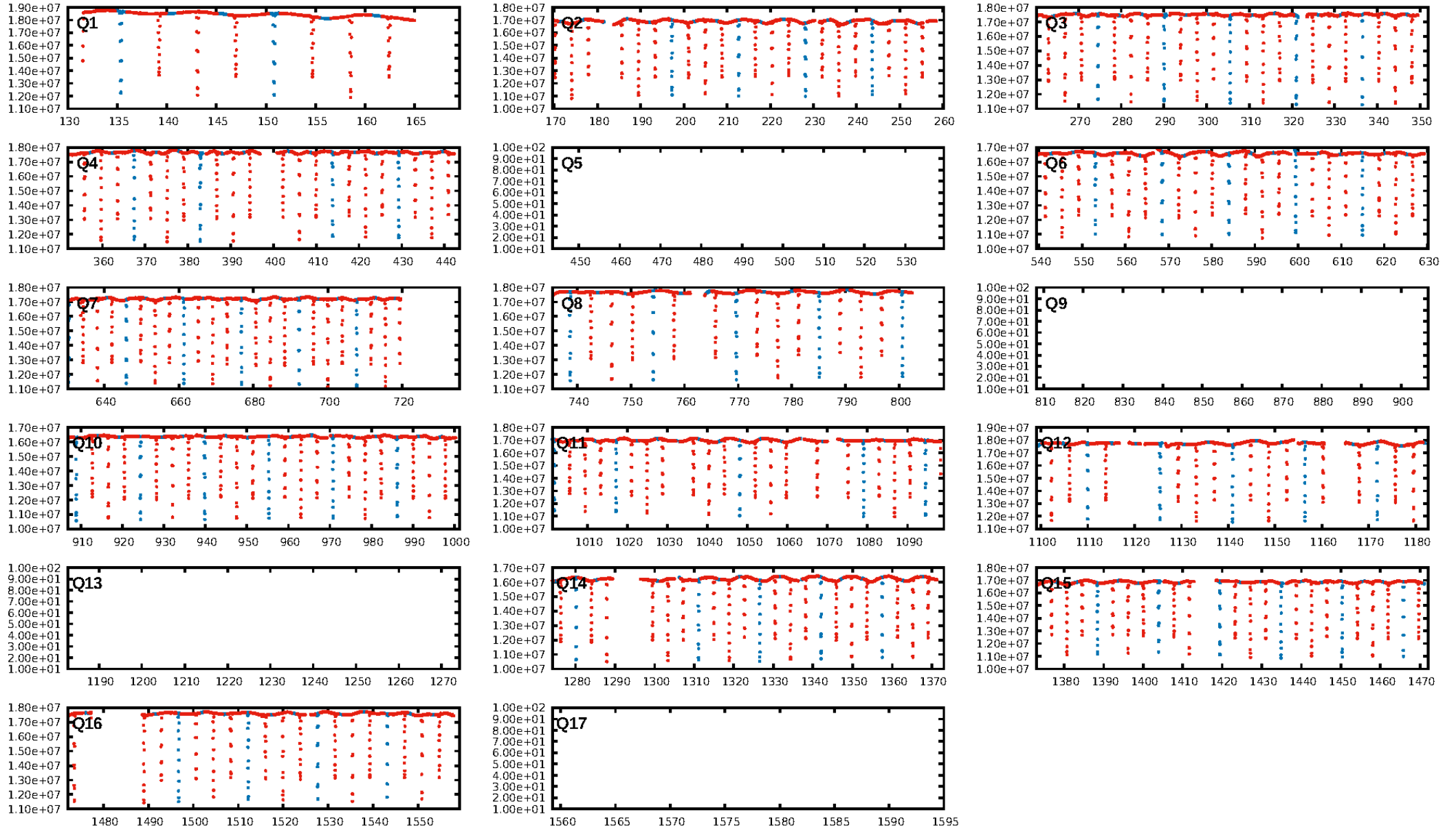
DV Diagnostic Results:

ShortPeriod-sig: 48.1% [0.64σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [205/205]
GhostDiagnostic-chr: 0.3751
Centroid-sig: 3.4%
Centroid-so: 0.138 arcsec [10.18σ]
OotOffset-rm: 0.148 arcsec [0.66σ]
KicOffset-rm: 0.035 arcsec [0.37σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 0.00 [0/13]

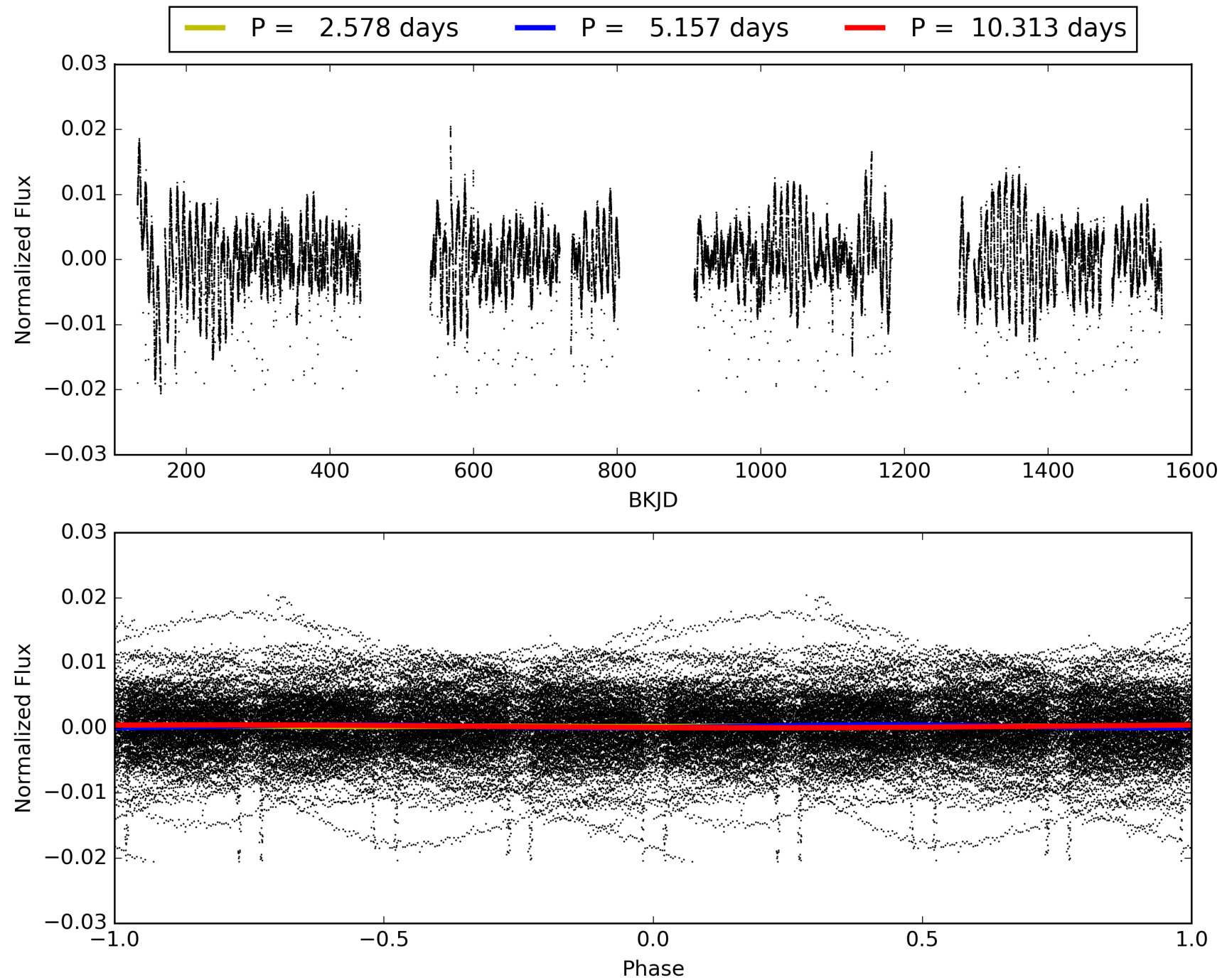
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:02:25 Z

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

TCE 006927629-02, PDC Light Curves

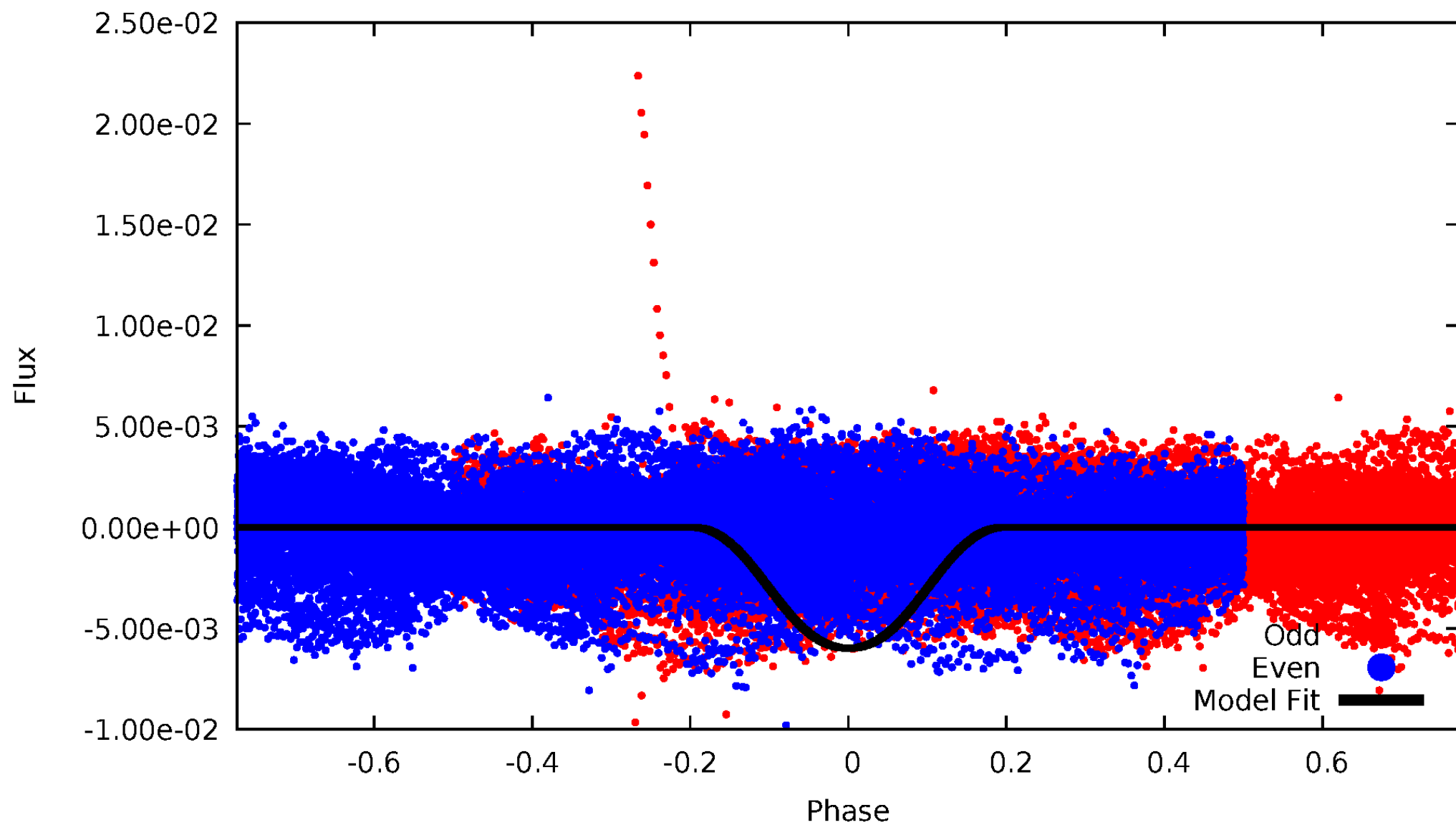


TCE 006927629-02



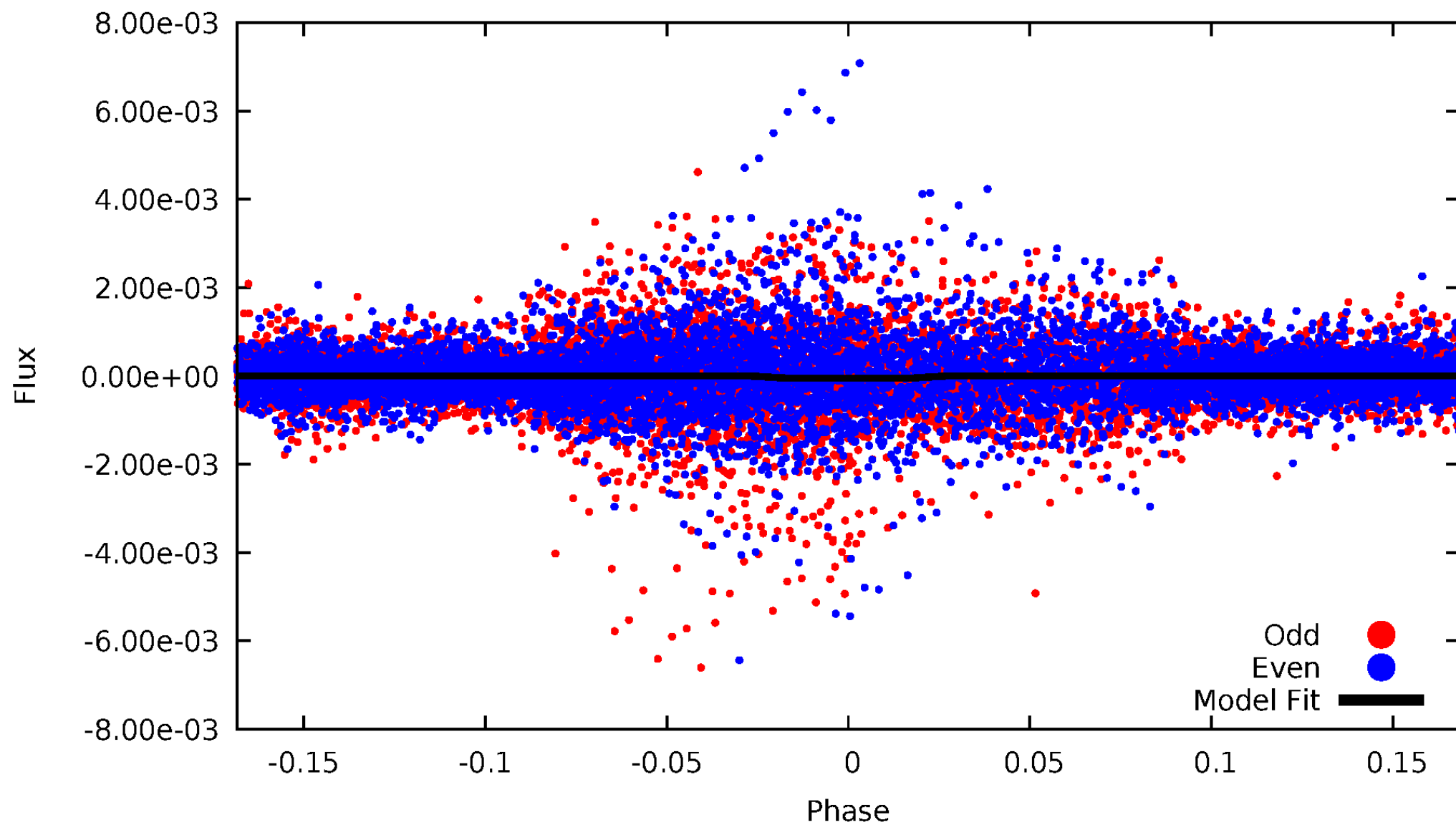
DV Odd/Even

TCE 006927629-02



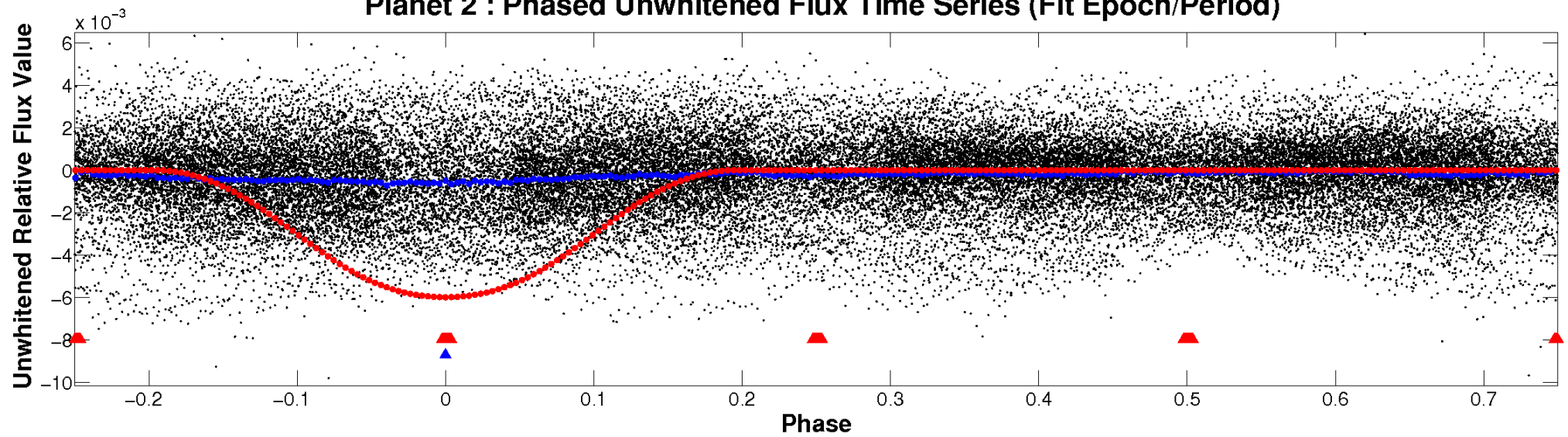
ALT Odd/Even

TCE 006927629-02

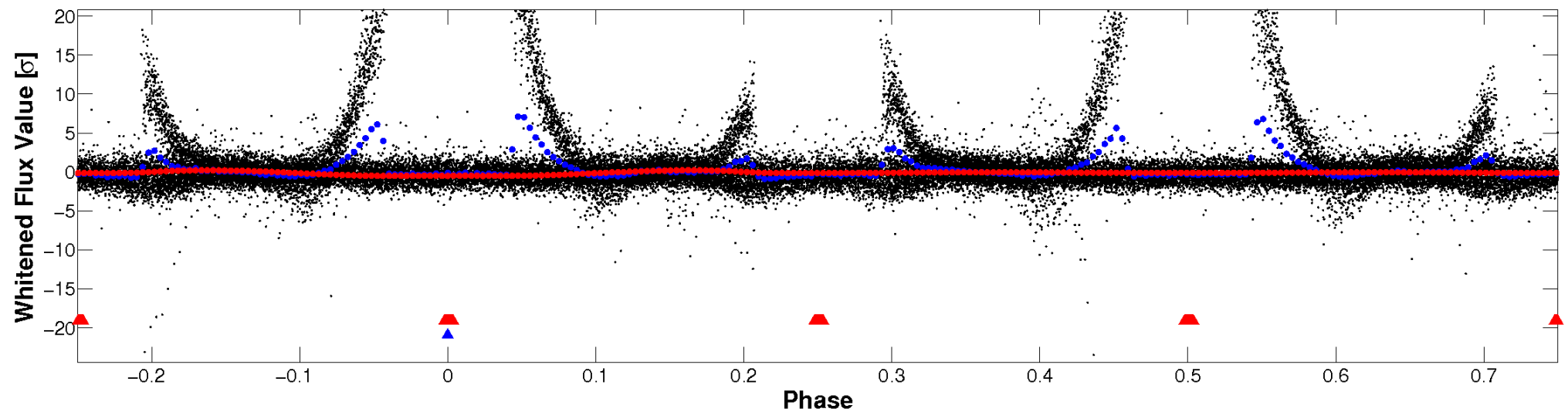


Non-Whitened Vs. Whitened Light Curve

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

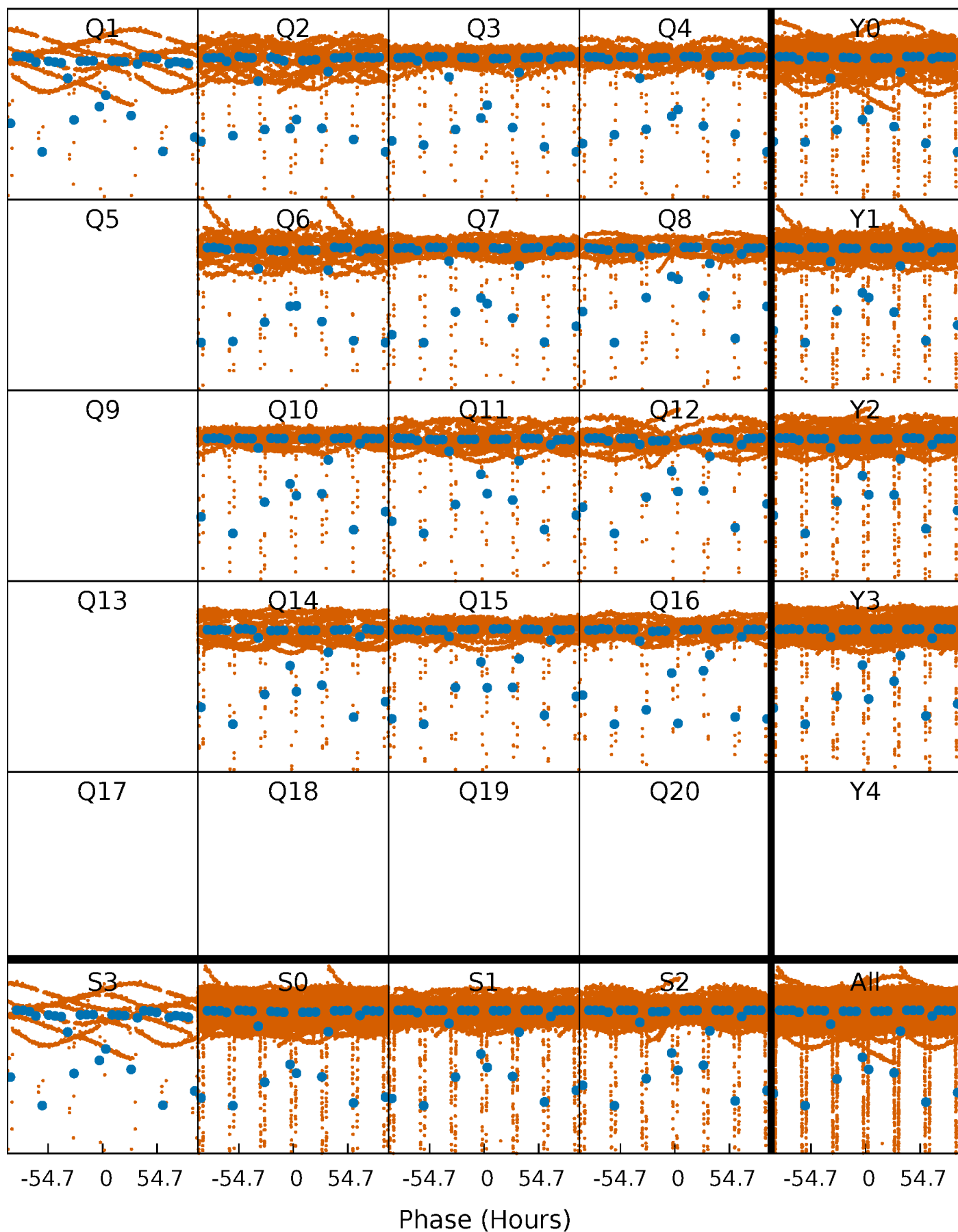


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



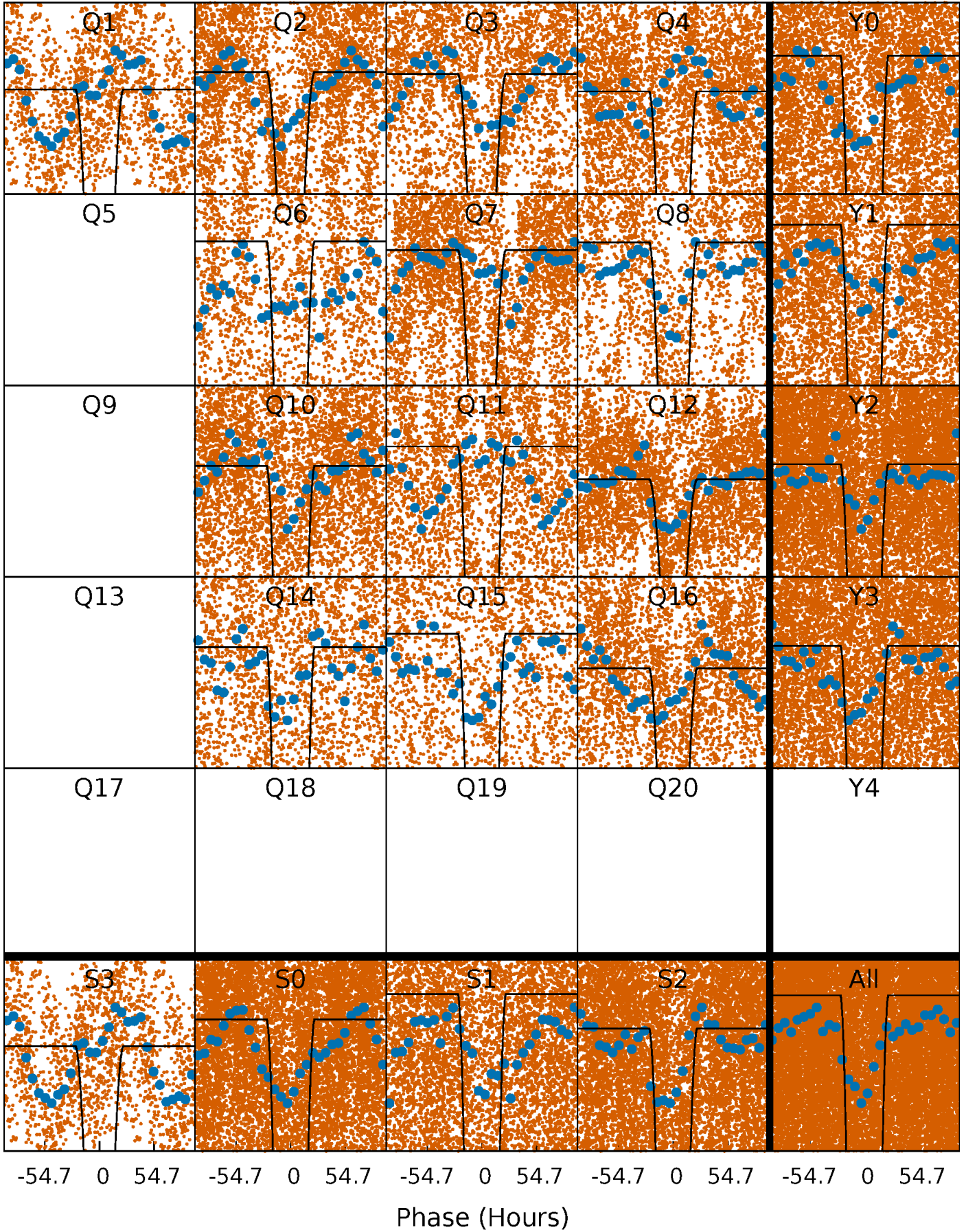
PDC Quarter-Phased Transit Curves

TCE 006927629-02 P= 5.156711 Days $T_0=132.772797$ (BKJD)



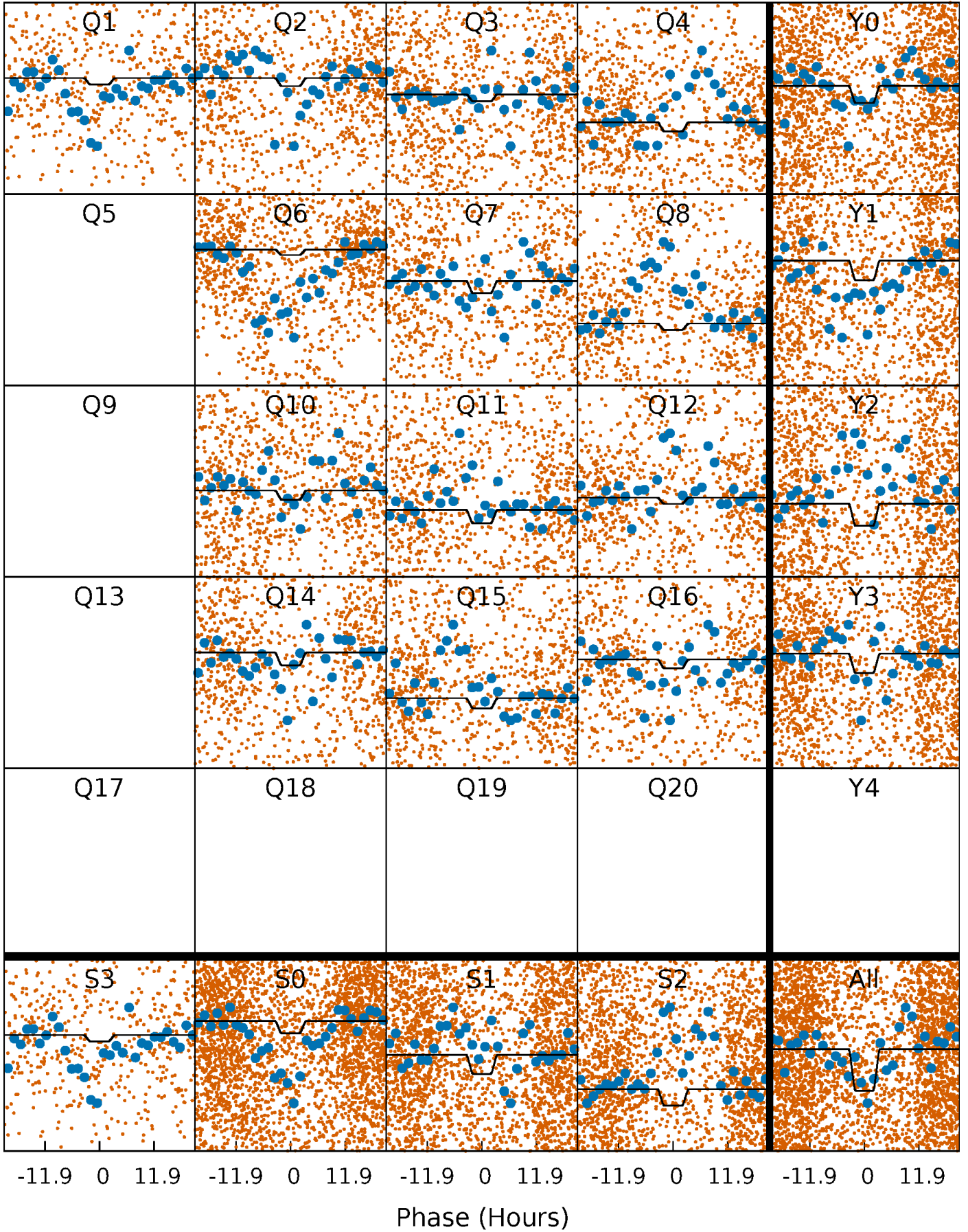
DV Quarter-Phased Transit Curves

TCE 006927629-02 P= 5.156711 Days $T_0=132.772797$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

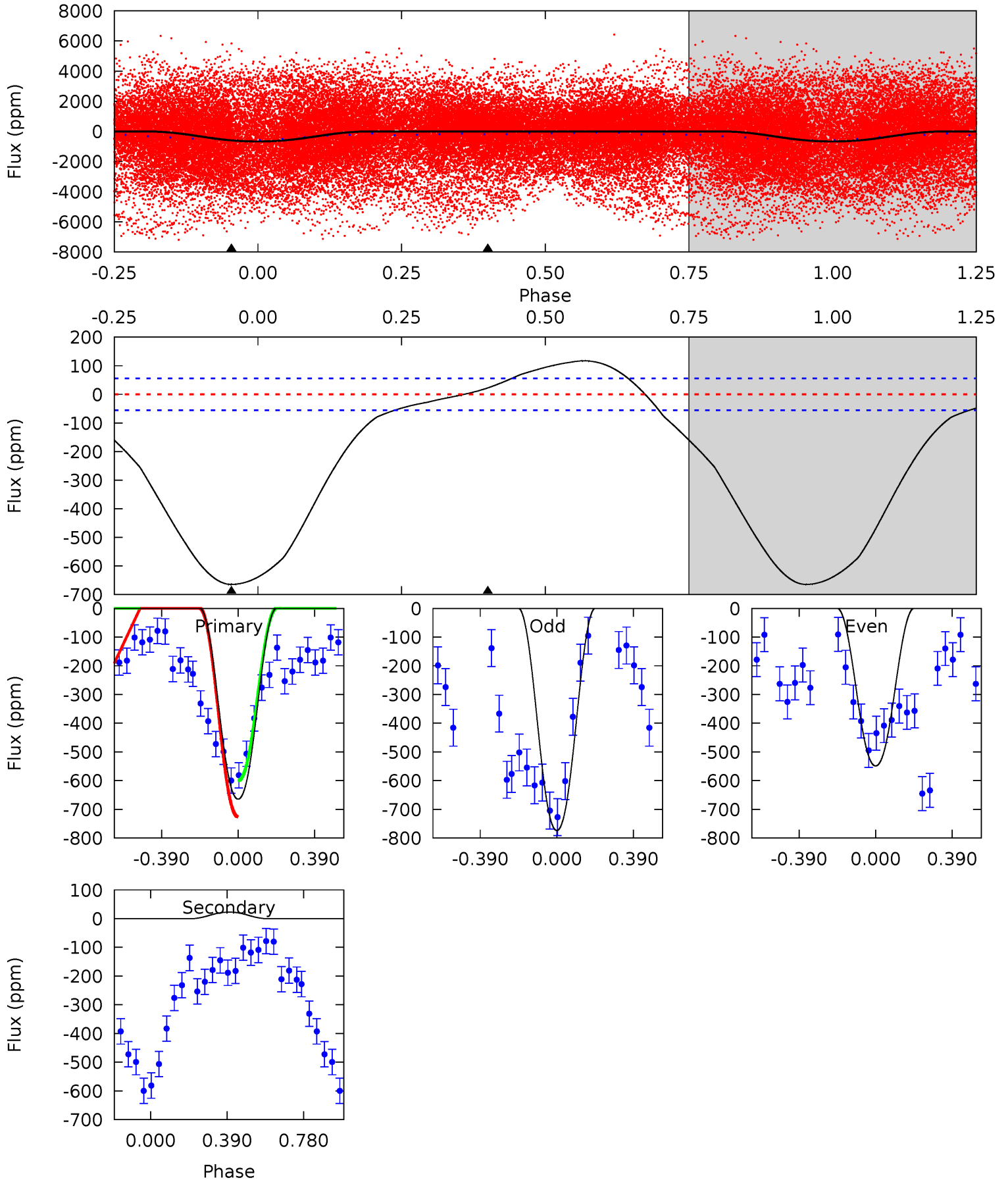
TCE 006927629-02 P= 5.156778 Days $T_0=132.519568$ (BKJD)



DV Model-Shift Uniqueness Test

006927629-02, P = 5.156711 Days, E = 127.616086 Days

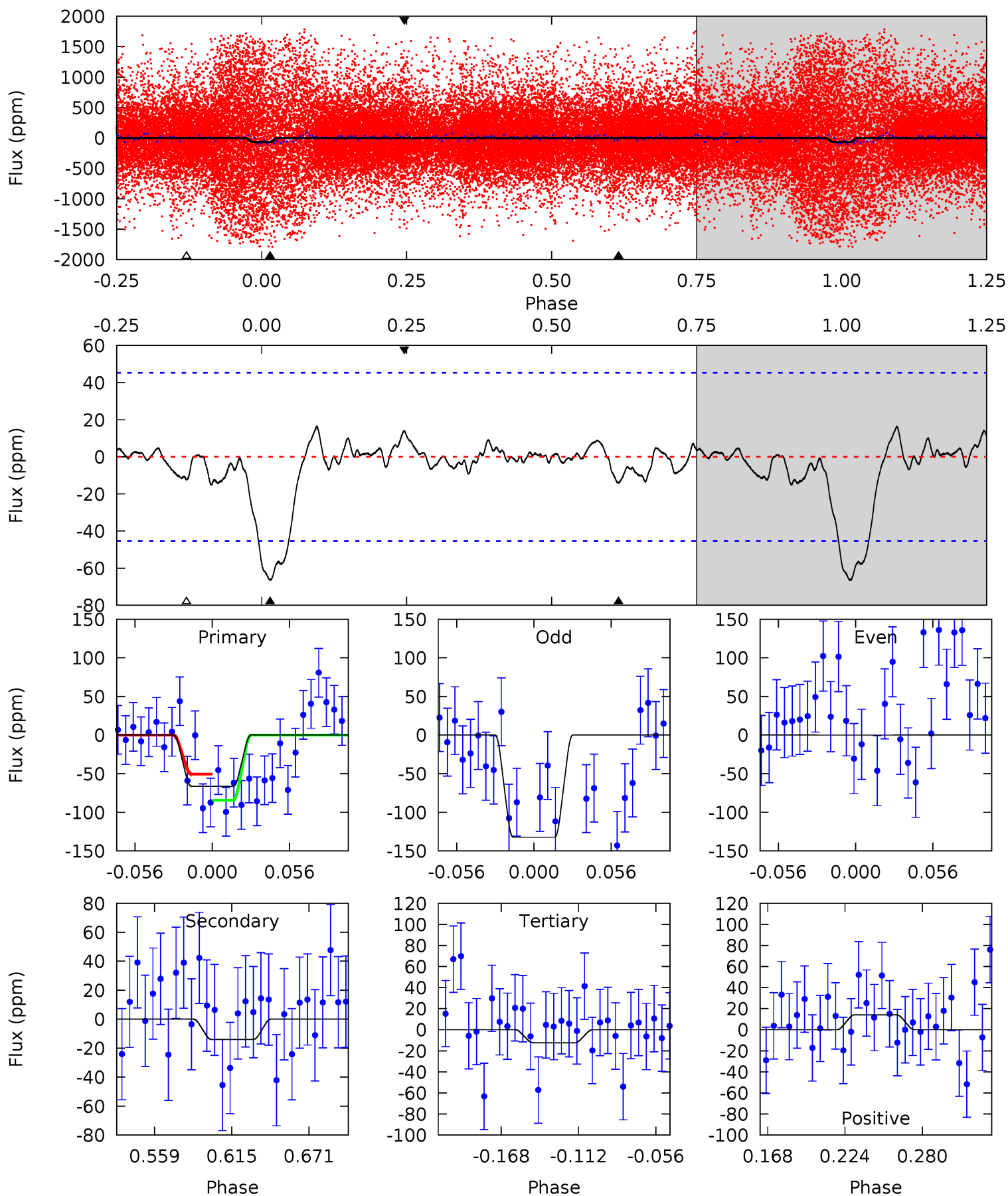
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.9	-1.73	0	0	4.27	0.86	4.26	50.9	50.9	-1.73	-1.73	8.88	-7.28	0.15	4.52



Alt Model-Shift Uniqueness Test

006927629-02, P = 5.156778 Days, E = 127.362790 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.87	1.45	1.28	1.46	4.69	1.91	0.58	5.60	5.41	0.17	-0.01	6.66	1.21	0.20	1.76



Stellar Parameters For KIC 006927629

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+156}_{-173}	$4.364^{+0.149}_{-0.182}$	$-0.120^{+0.300}_{-0.300}$	$1.046^{+0.298}_{-0.184}$	$0.921^{+0.124}_{-0.093}$	$1.135^{+0.802}_{-0.583}$
	+3%/-3%	+3%/-4%	+250%/-250%	+28%/-18%	+13%/-10%	+71%/-51%
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 006927629-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	23 ± 13	$10.13^{+1.66}_{-1.02}$	1535^{+111}_{-91}	-2429^{+122}_{-99}	$-0.378^{+0.236}_{-0.240}$
Alt.	-14 ± 10	$0.85^{+0.28}_{-0.26}$	1529^{+110}_{-89}	4291^{+817}_{-871}	33^{+49}_{-24}

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 $A_{obs} \gg 1.0$

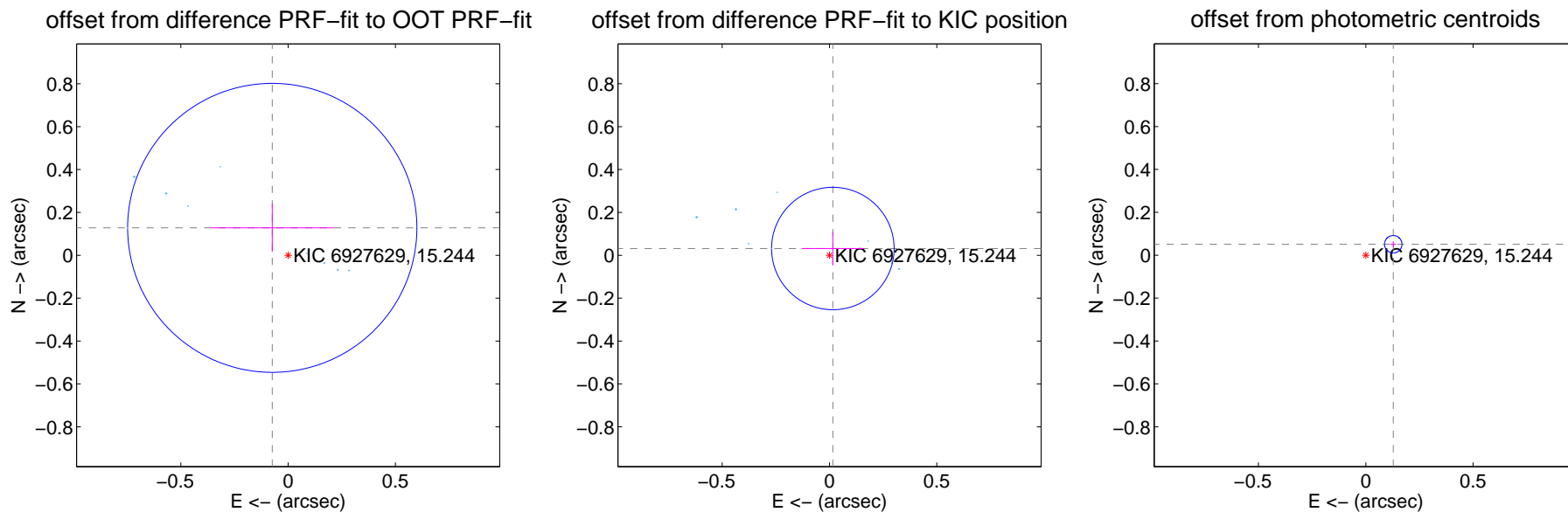
DV Centroid Data

Supplemental centroid analysis for 006927629-02. Kepler magnitude: 15.24. Transit SNR 43.76

There are 13 quarters with good PRF difference image offsets

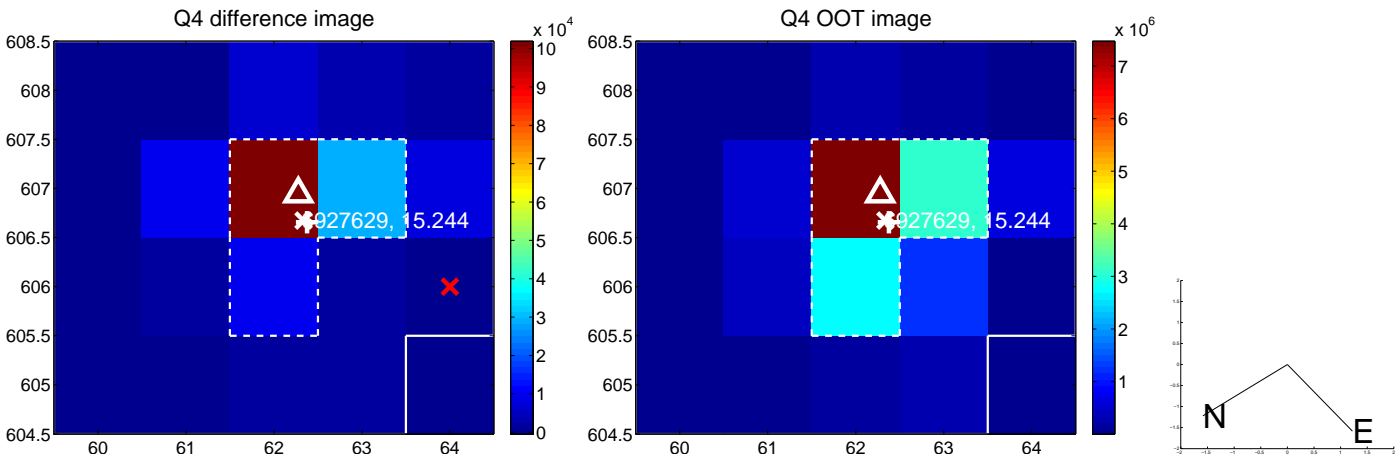
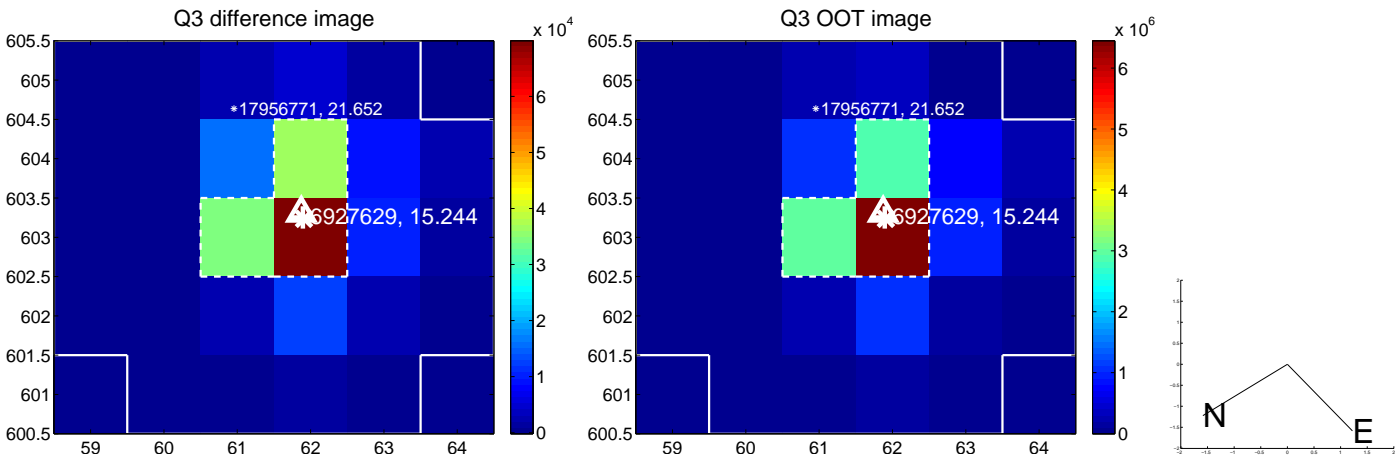
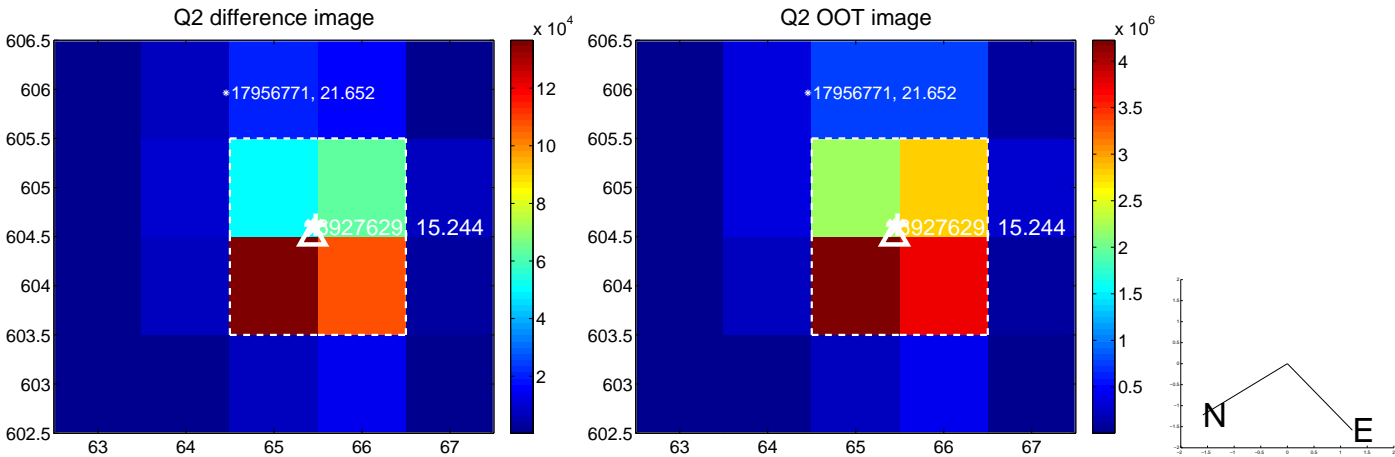
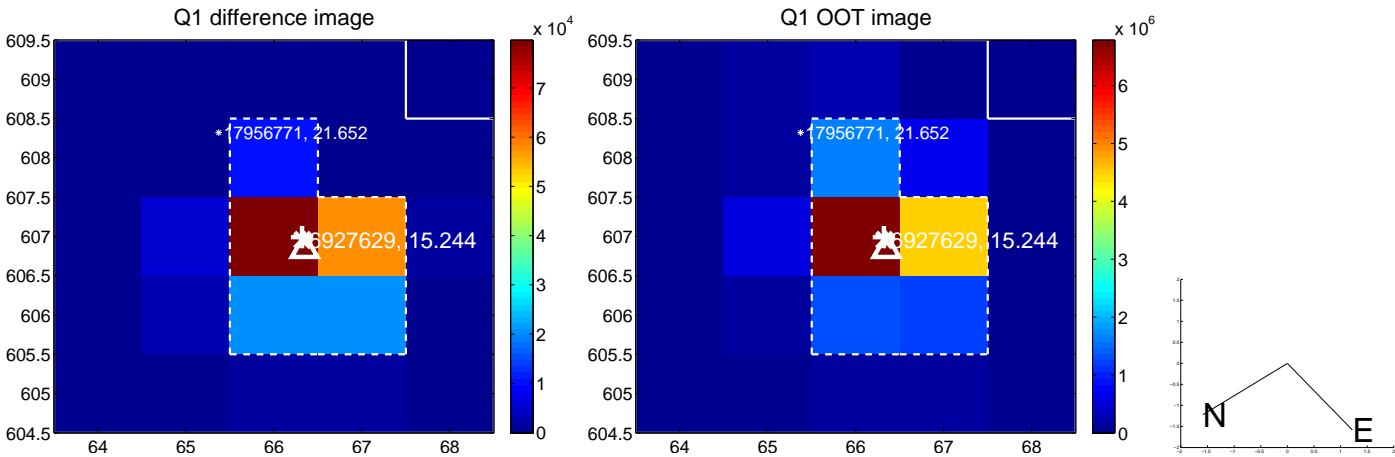
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.148 ± 0.225	0.66	0.074 ± 0.287	0.128 ± 0.112
PRF-fit source offset from KIC position	0.035 ± 0.095	0.37	-0.016 ± 0.145	0.032 ± 0.078
photometric centroid source offset	0.14 ± 0.01	10.18	-0.13 ± 0.01	0.05 ± 0.01

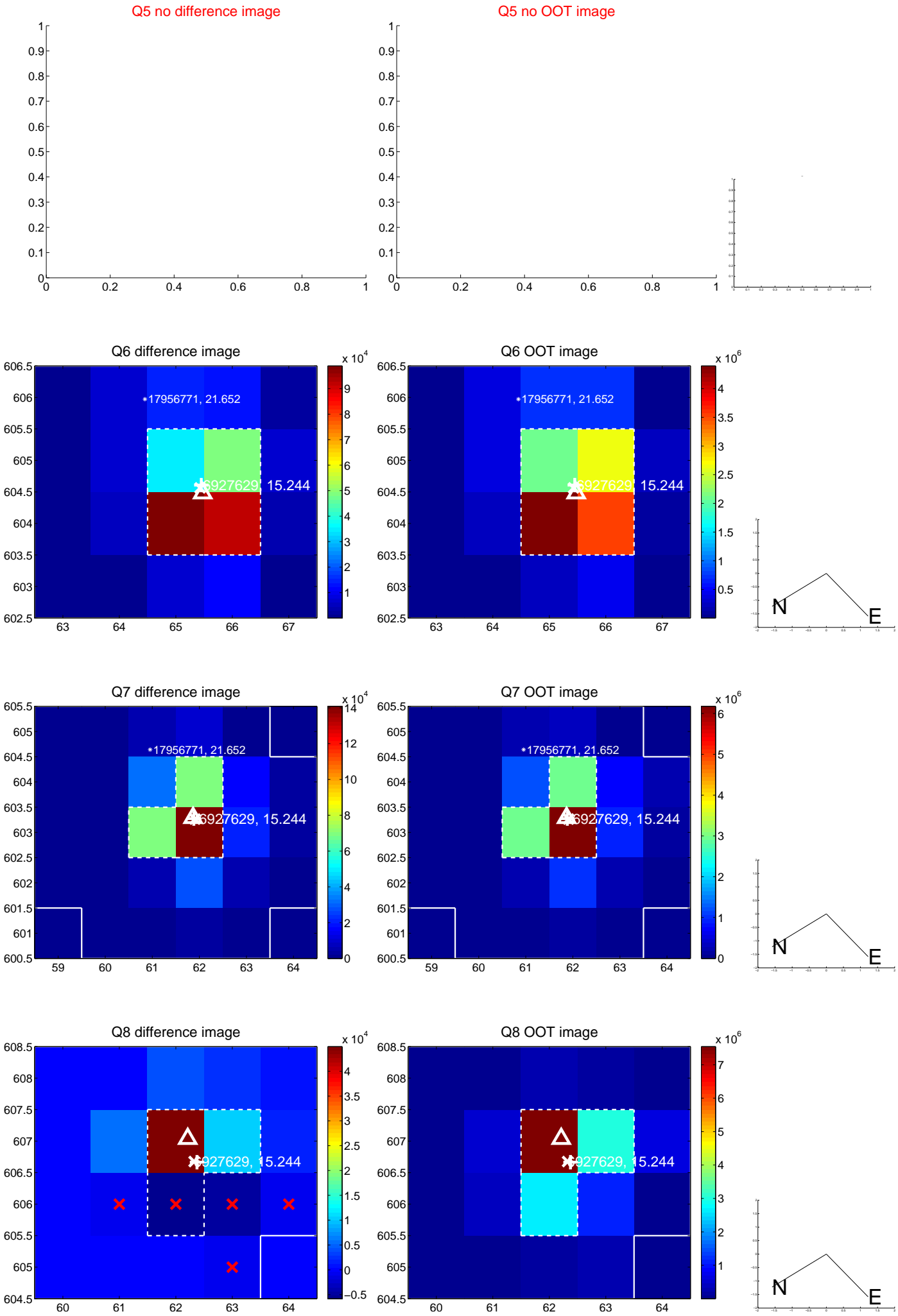


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

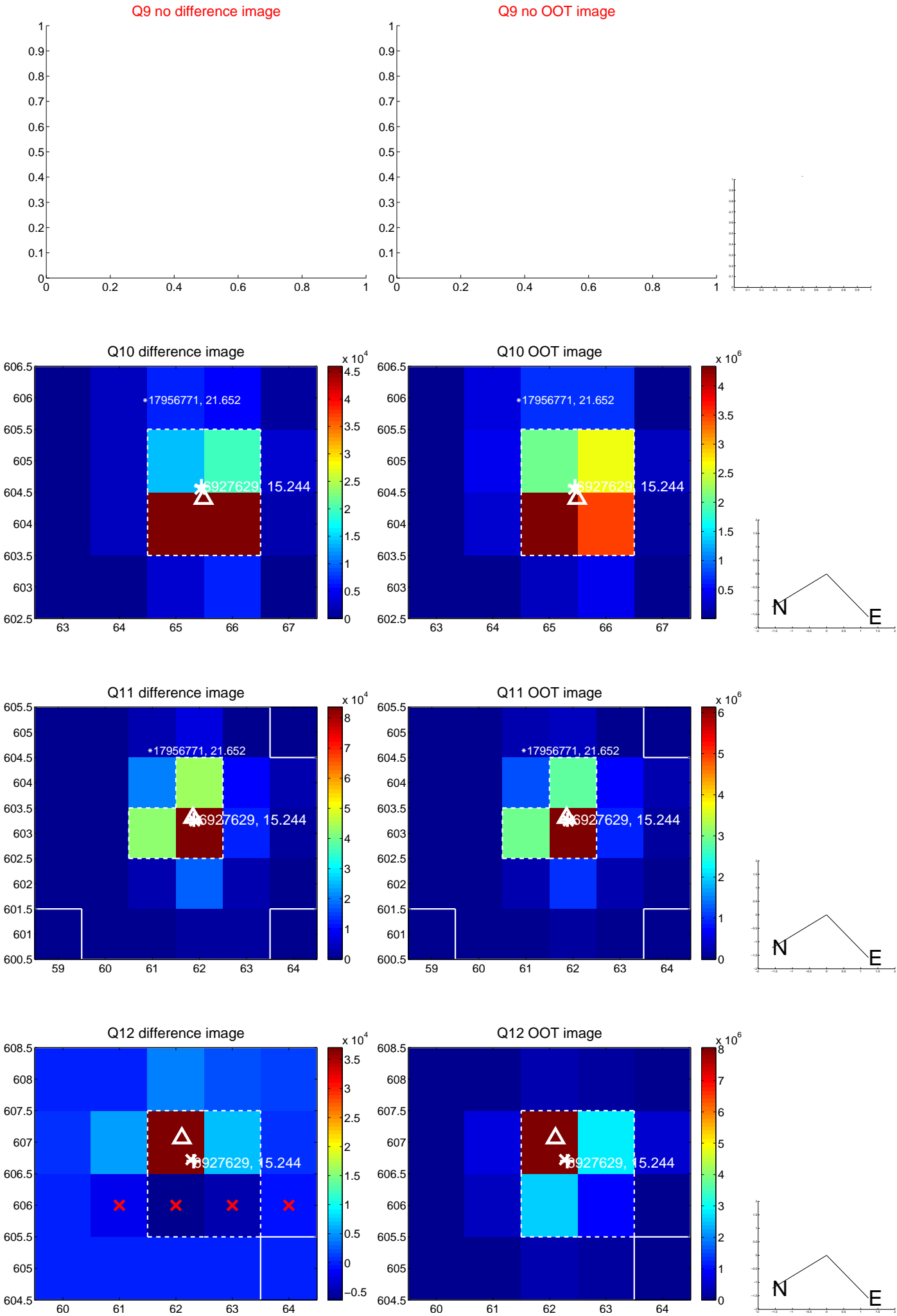
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



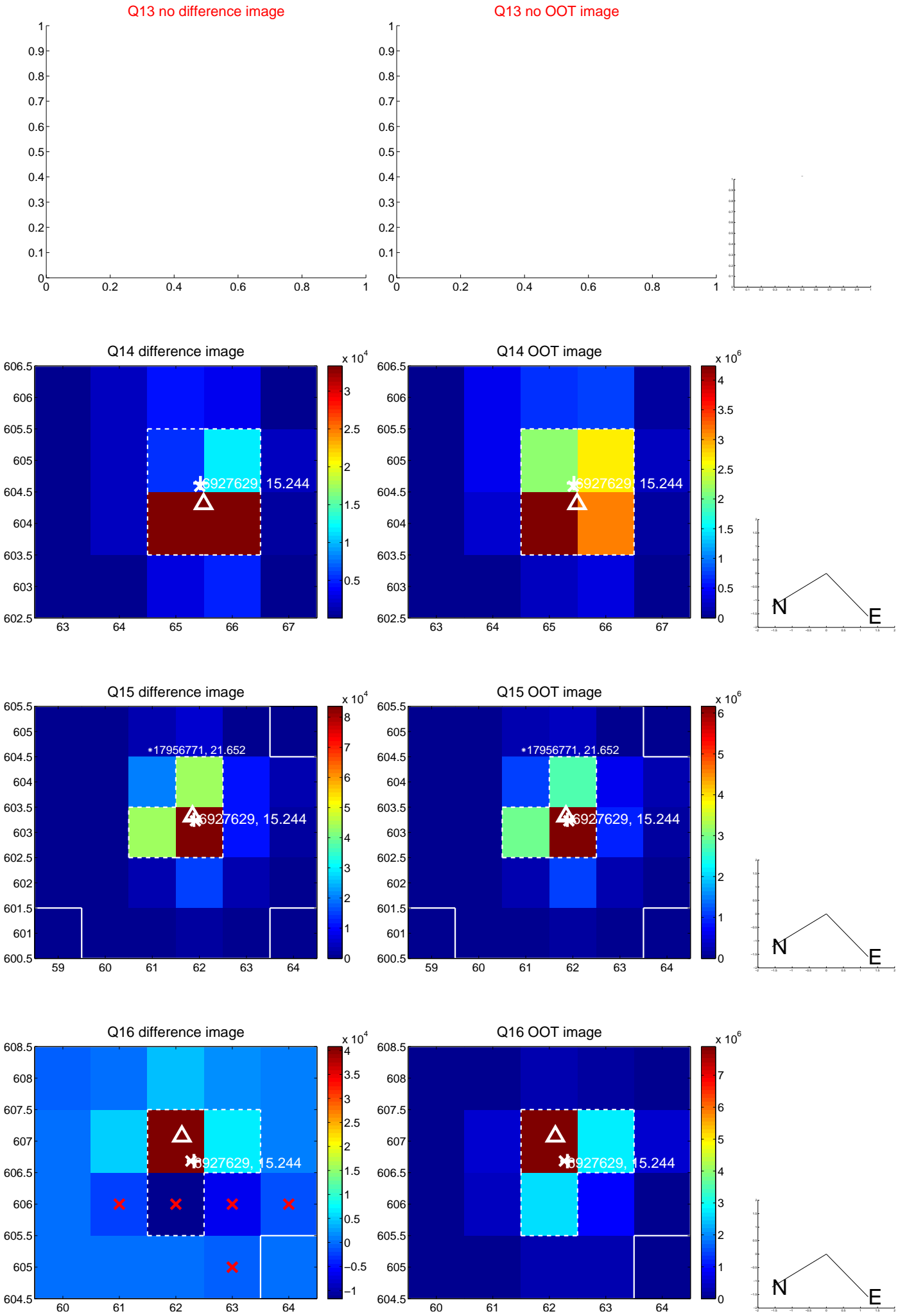
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



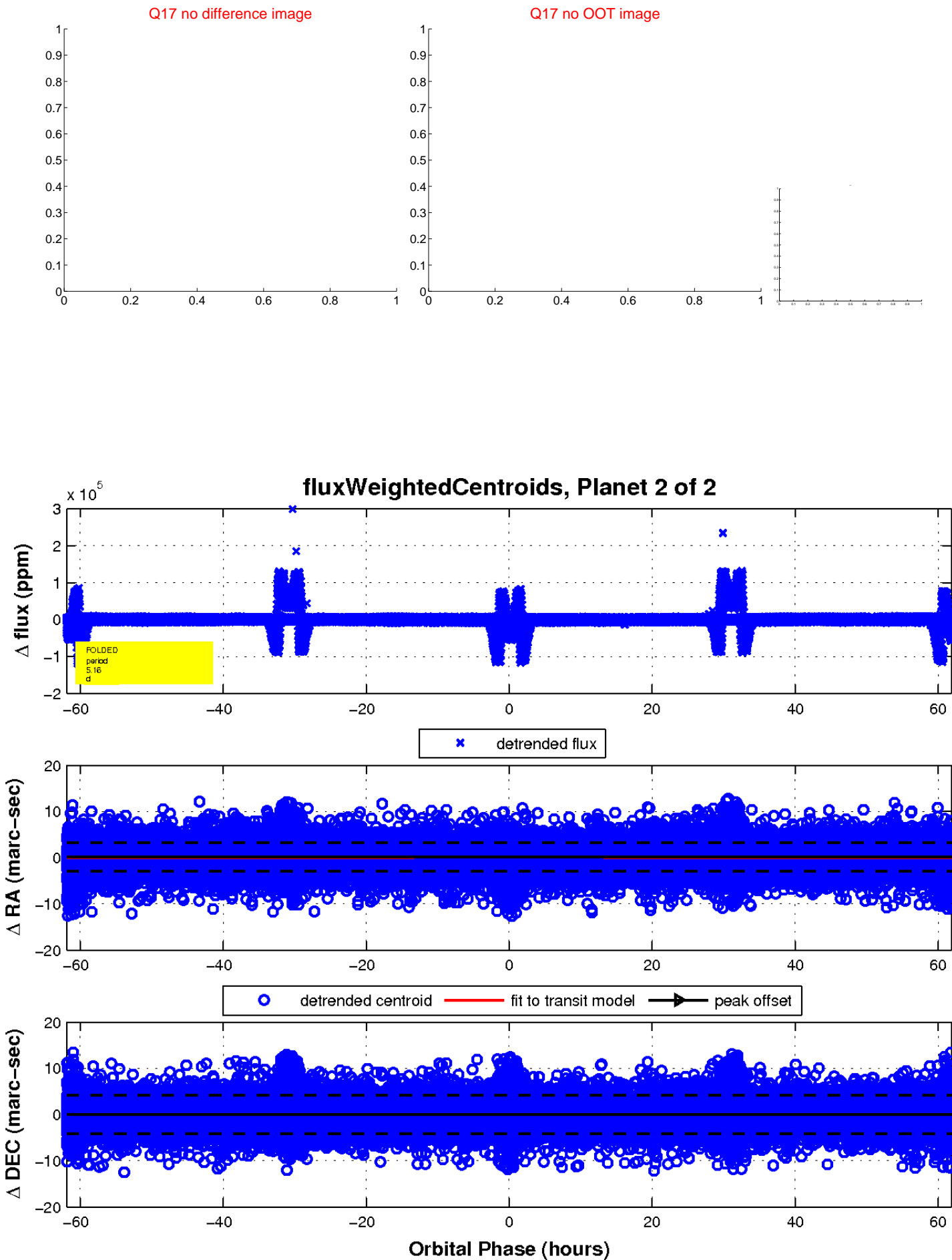
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

