

KIC 007691527

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})
007691527-01	OBS	6905.01	4.800254	135.775778	275618.9	2.000	10011.8	-1.0	0.76	5591	36.70	185.43
007691527-02	OBS	No	4.800230	133.176885	225477.1	4.054	9531.0	5987.5	0.76	5591	51.88	185.43
007691527-03	OBS	No	7.200275	135.779264	7050.5	15.170	758.8	67.1	0.76	5591	11.51	107.99
007691527-04	OBS	No	4.800178	131.521211	4159.9	6.000	176.4	-1.0	0.76	5591	4.83	185.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007691527-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
007691527-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
007691527-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
007691527-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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.

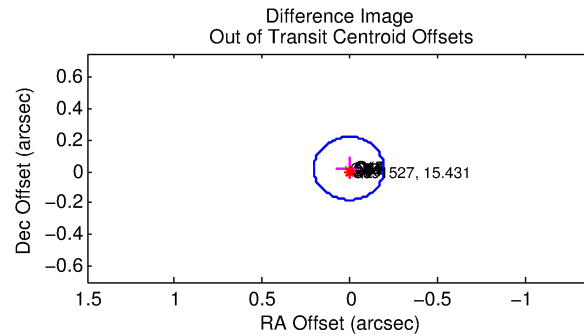
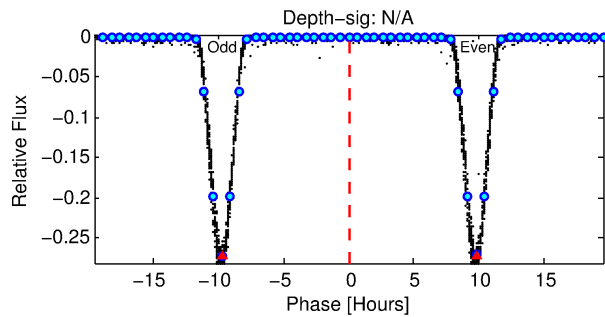
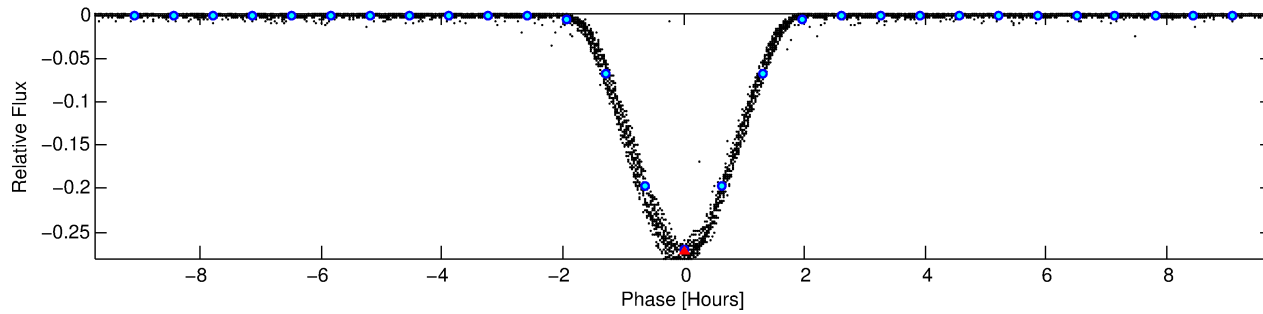
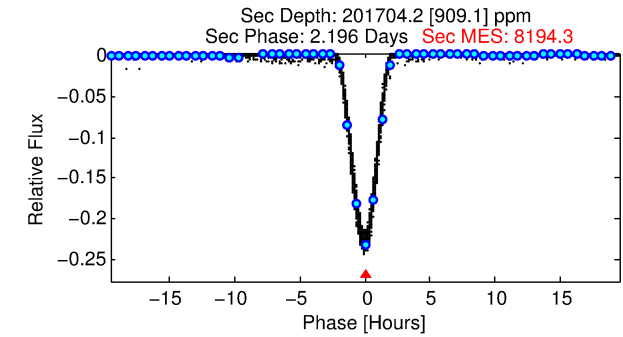
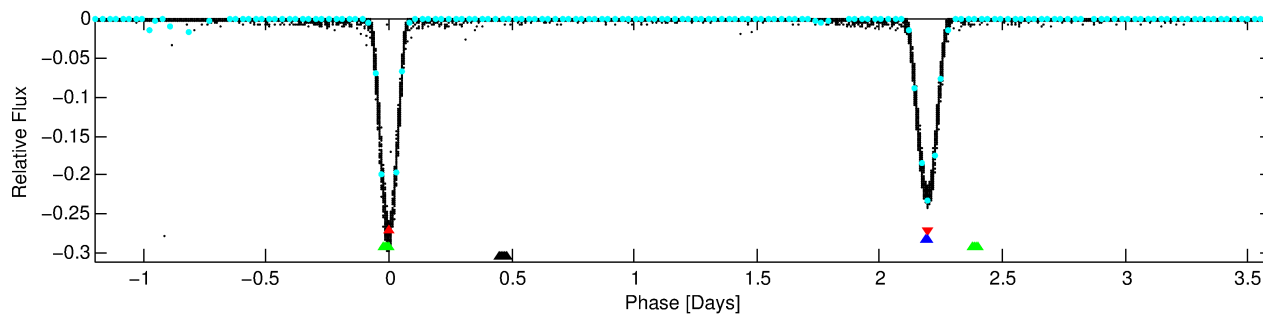
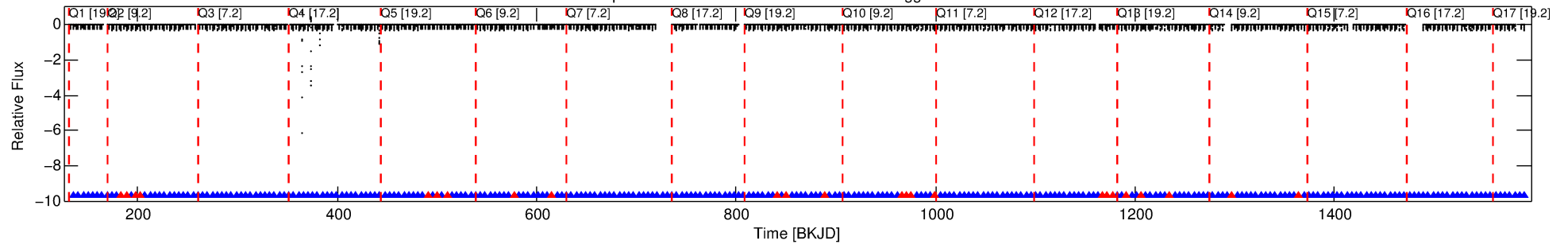
Ephemeris Match Information For 007691527-01

No Significant Match Found

DV One-Page Summary

KIC: 7691527 Candidate: 1 of 4 Period: 4.800 d
KOI: K06905 Corr: No Ephemeris Match

Kp: 15.43 R*: 0.76 Rs Teff: 5591.0 K Logg: 4.59 Fe/H: -0.440



TPS TCE Results:

Period = 4.80025 d
Epoch = 135.7758 BKJD

DV fit results are unavailable

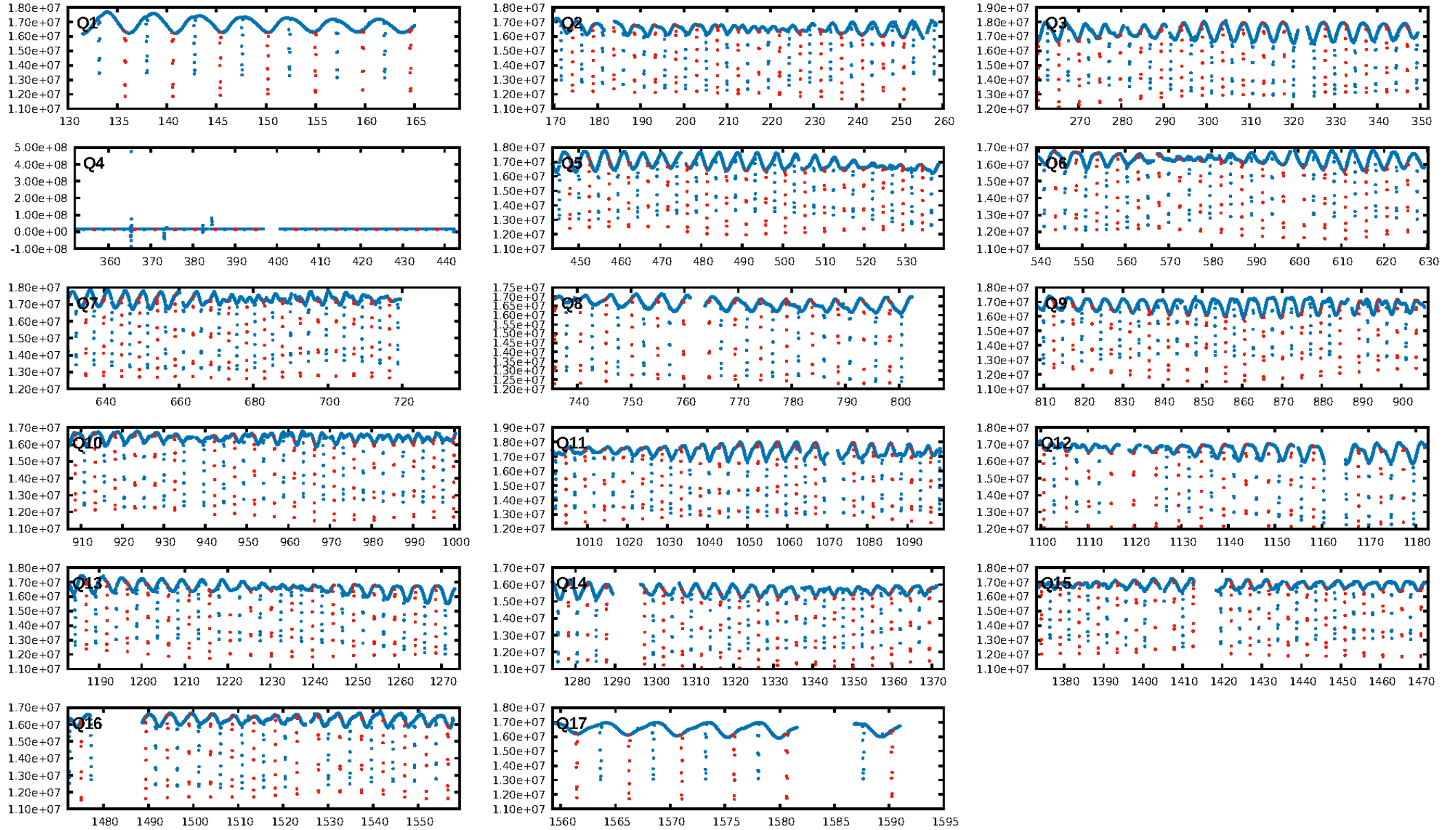
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 100.0% [3.76 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.91 [244/268]
GhostDiagnostic-chr: 1.182
Centroid-sig: N/A
Centroid-so: 0.118 arcsec [122.40 σ]
OotOffset-rm: 0.023 arcsec [0.35 σ]
KicOffset-rm: 0.043 arcsec [0.63 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

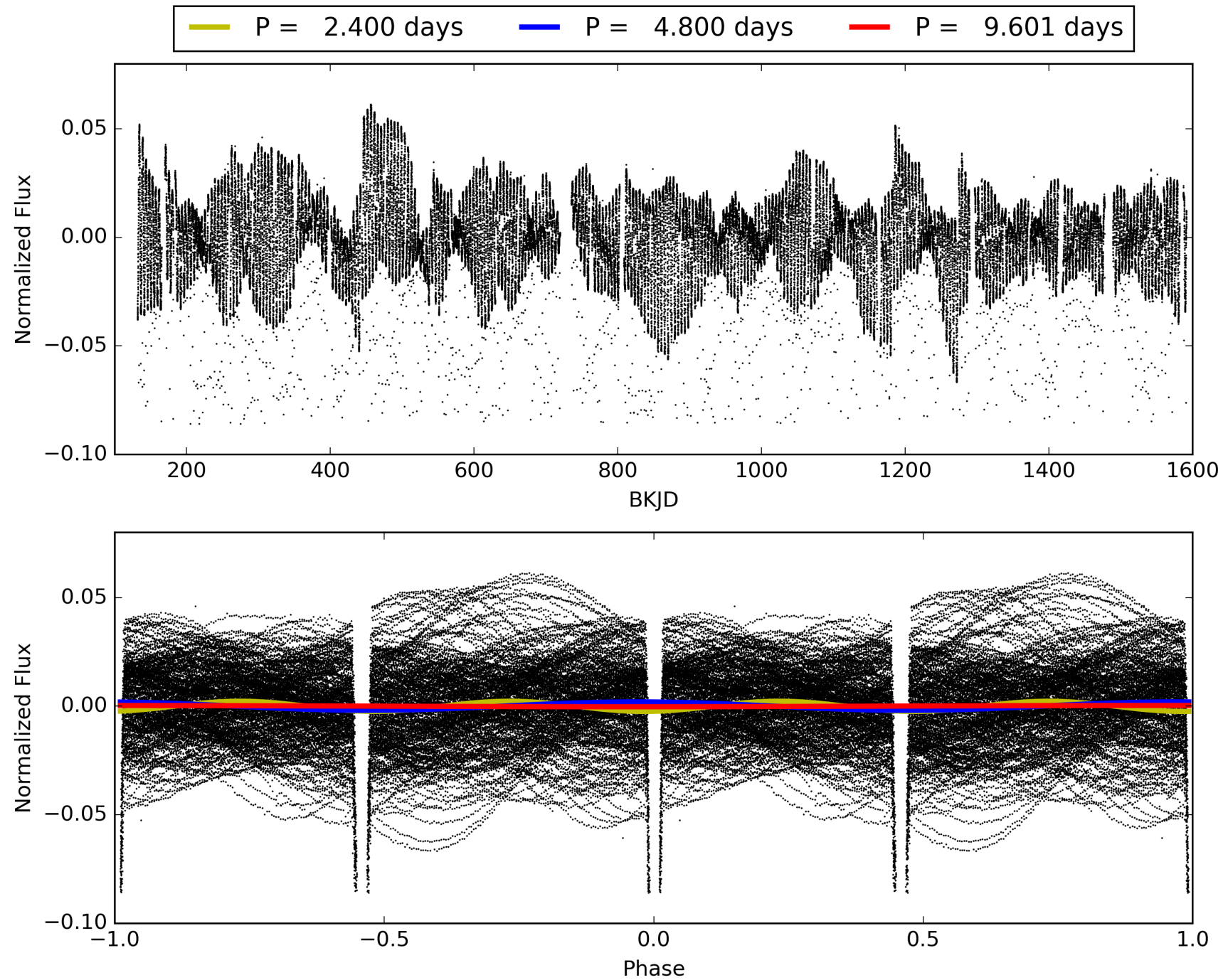
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:20:43 Z

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

TCE 007691527-01, PDC Light Curves

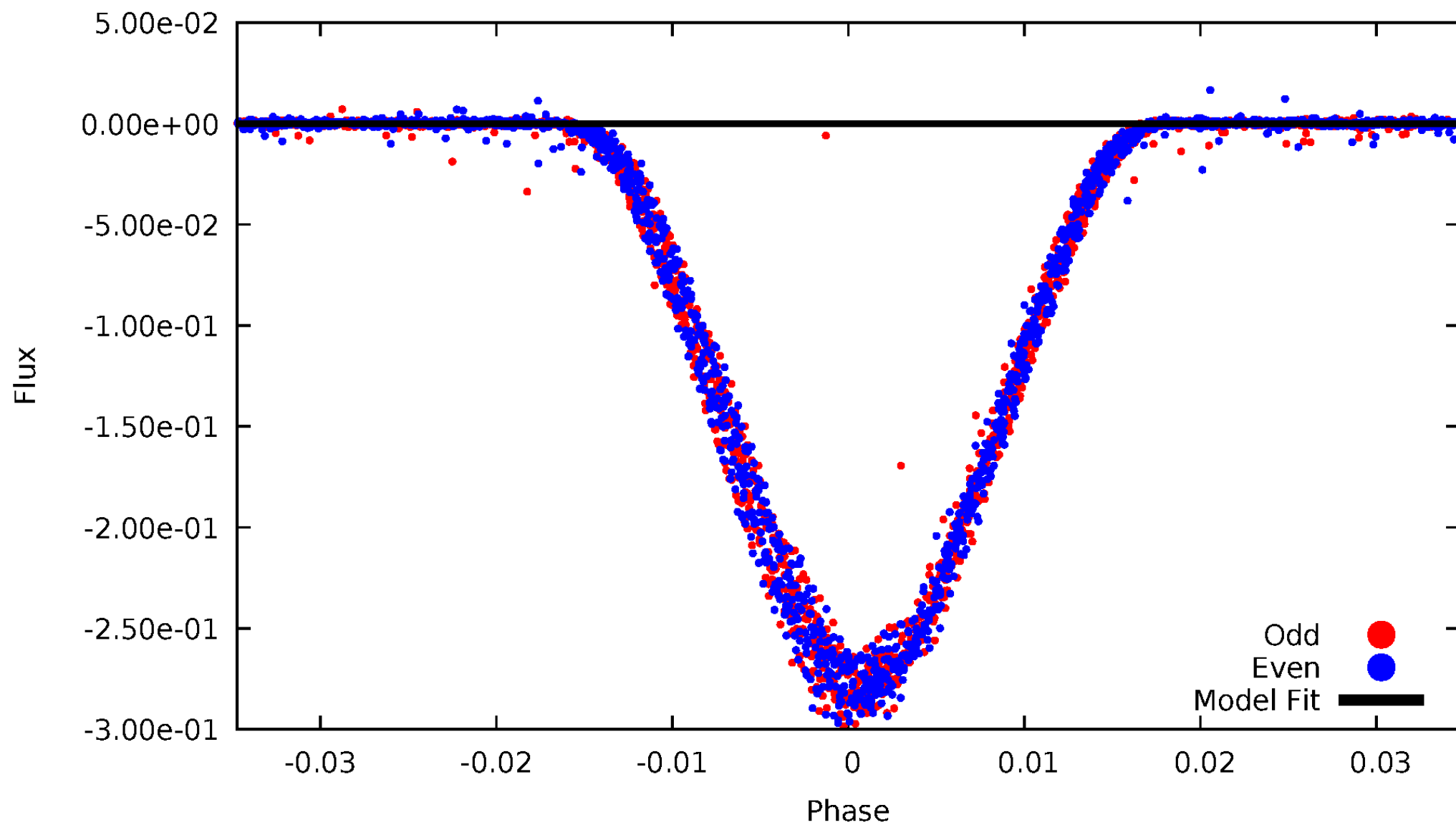


TCE 007691527-01



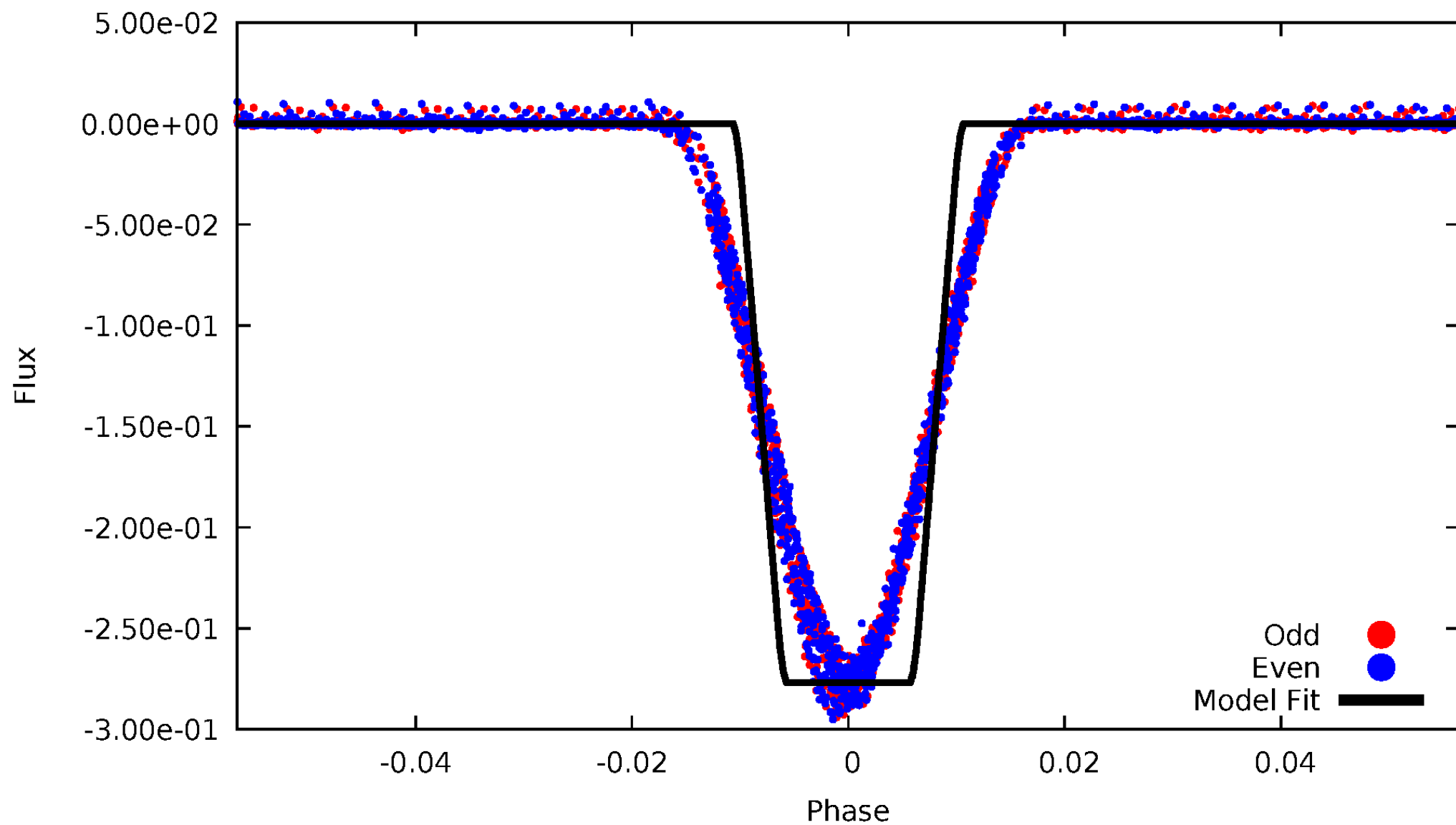
DV Odd/Even

TCE 007691527-01



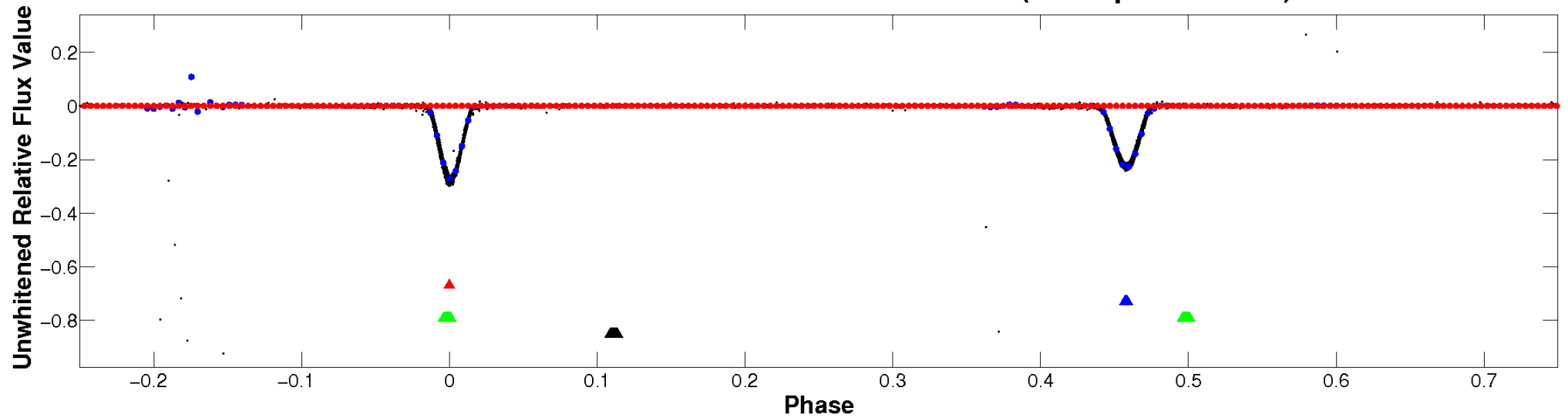
ALT Odd/Even

TCE 007691527-01



Non-Whitened Vs. Whitened Light Curve

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

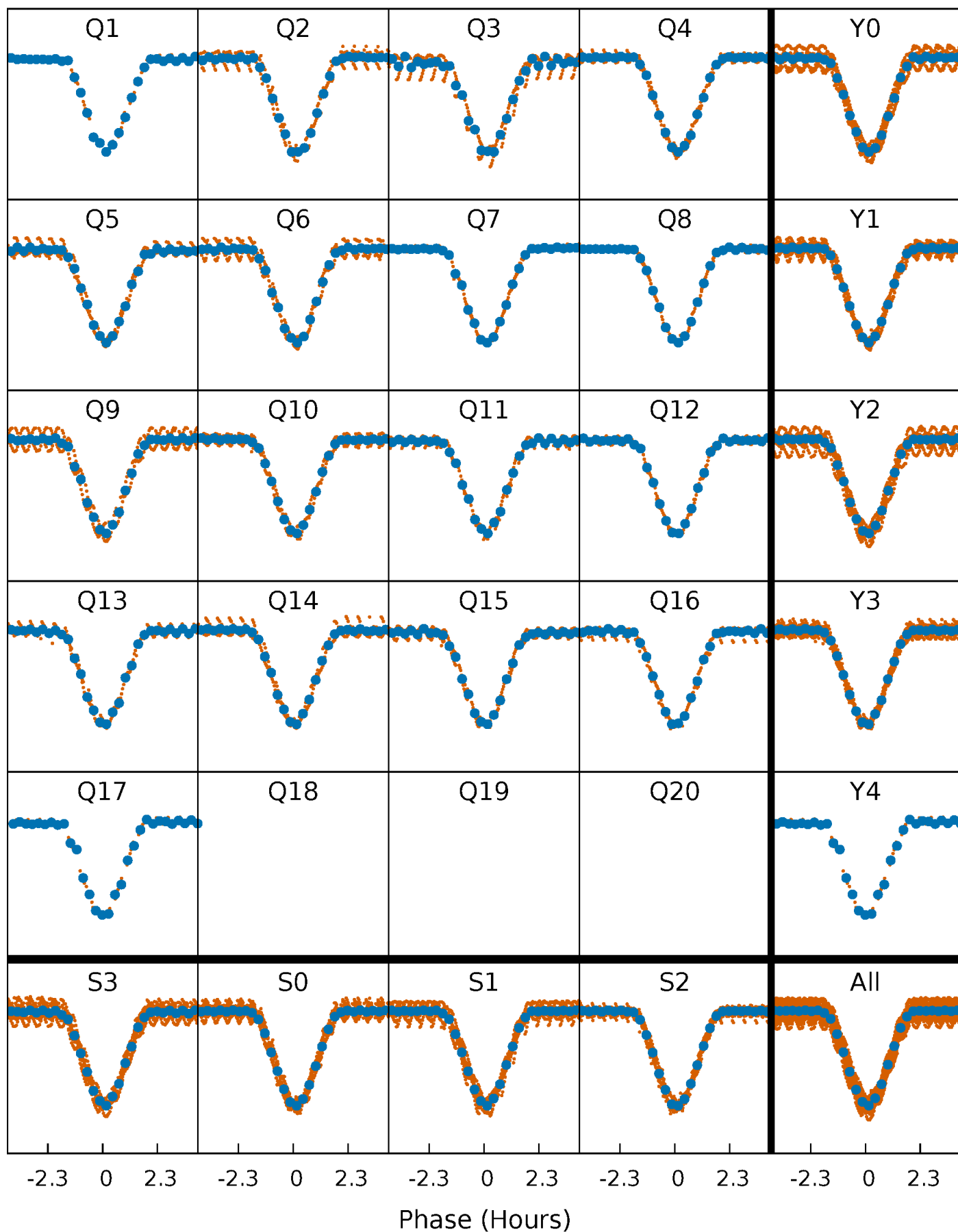


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



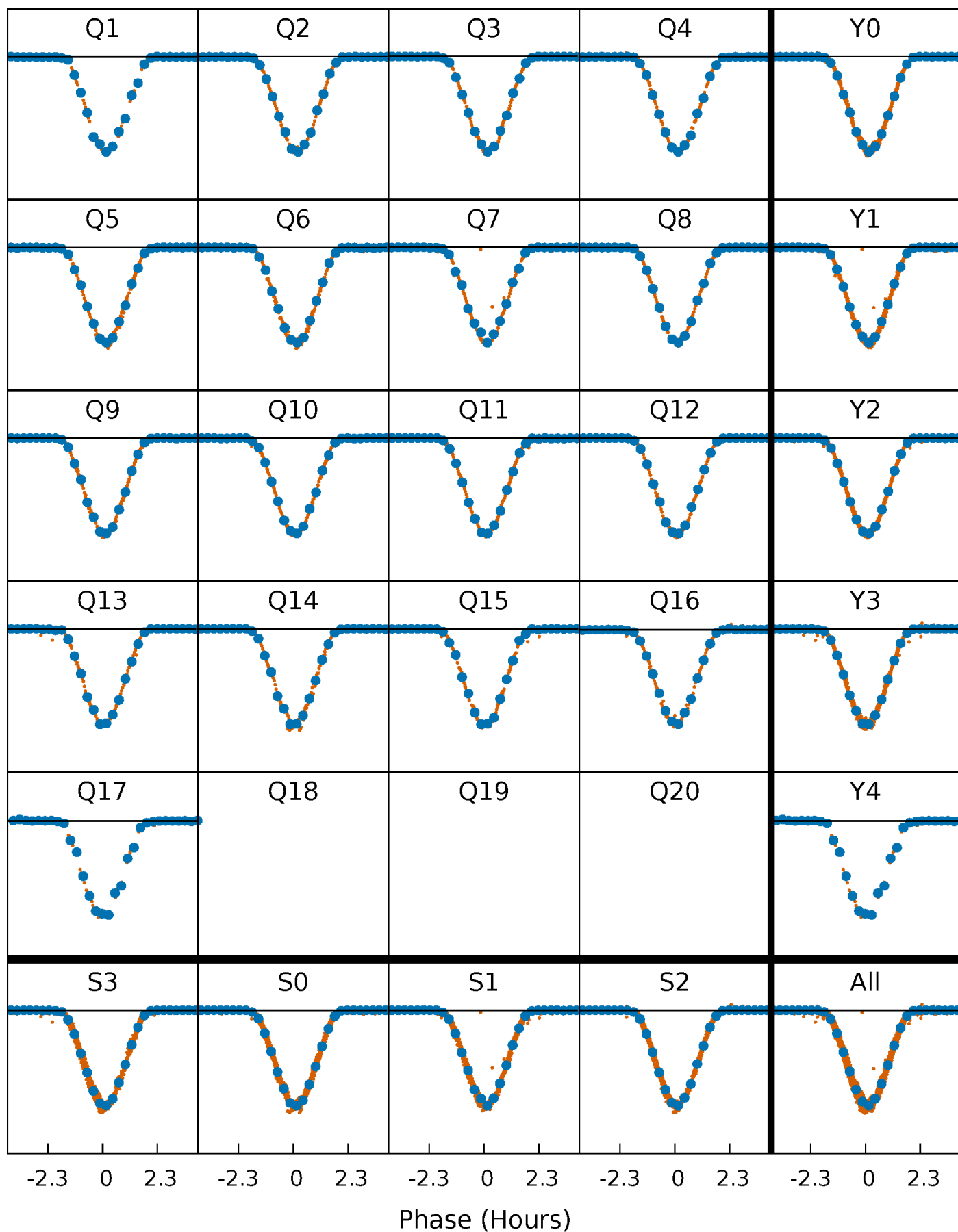
PDC Quarter-Phased Transit Curves

TCE 007691527-01 P= 4.800254 Days $T_0=135.775778$ (BKJD)



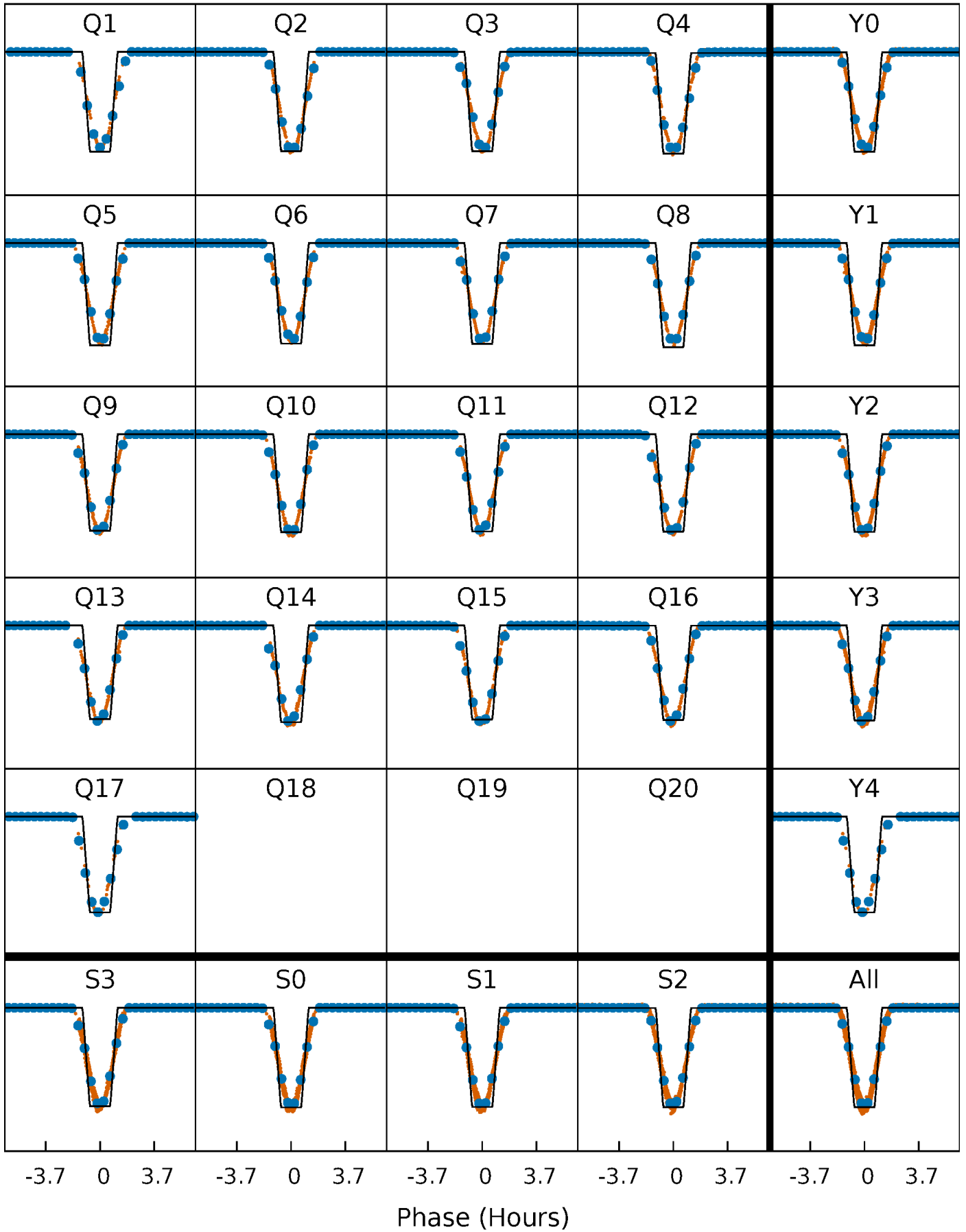
DV Quarter-Phased Transit Curves

TCE 007691527-01 P= 4.800254 Days $T_0=135.775778$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

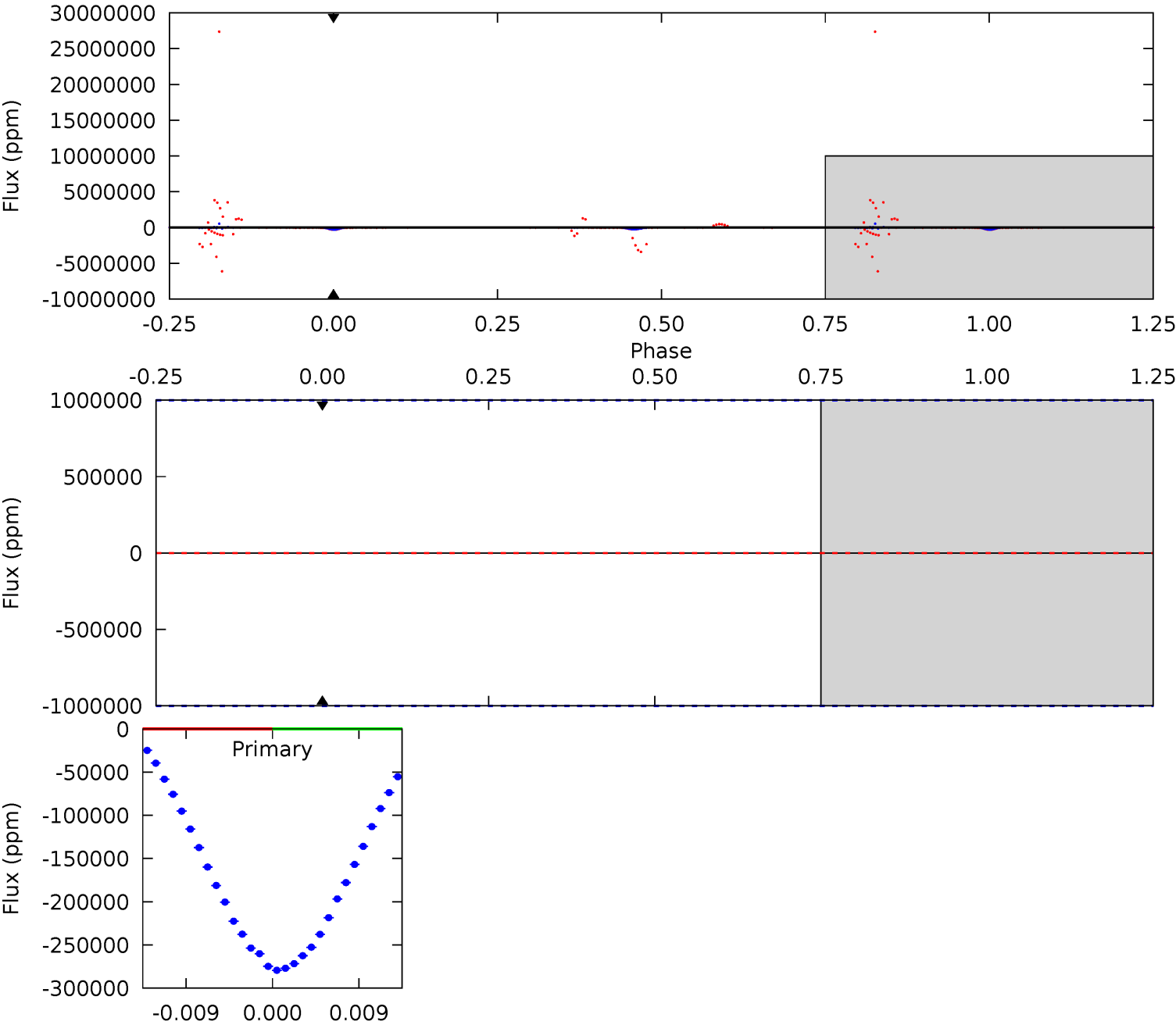
TCE 007691527-01 P= 4.800254 Days $T_0=135.779763$ (BKJD)



DV Model-Shift Uniqueness Test

007691527-01, P = 4.800254 Days, E = 130.975524 Days

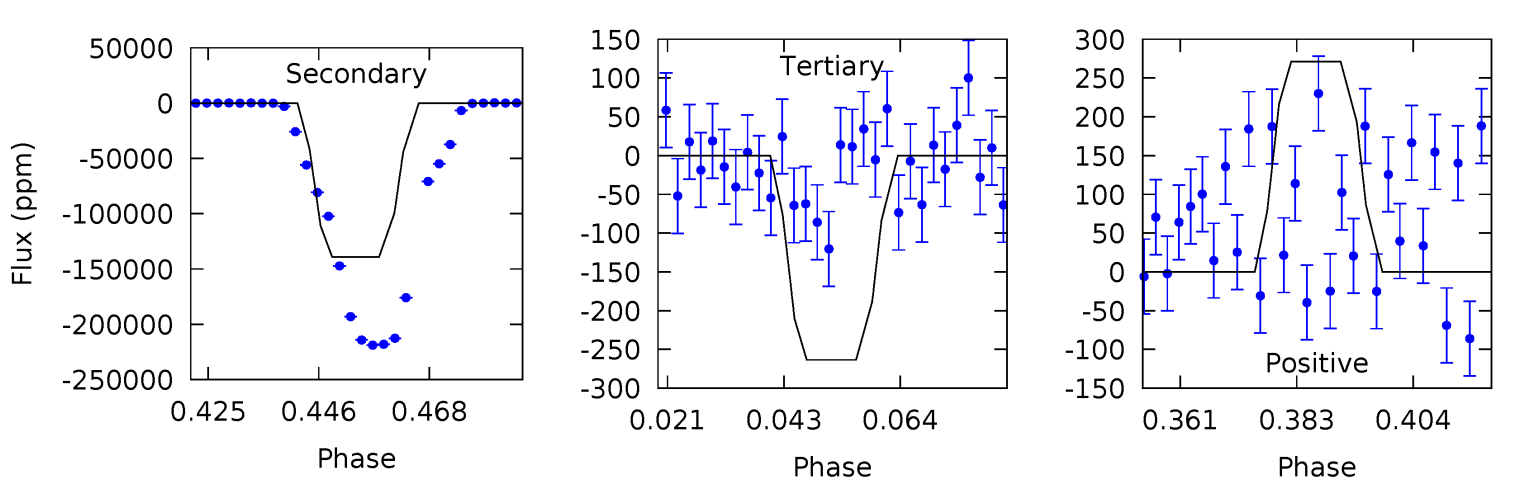
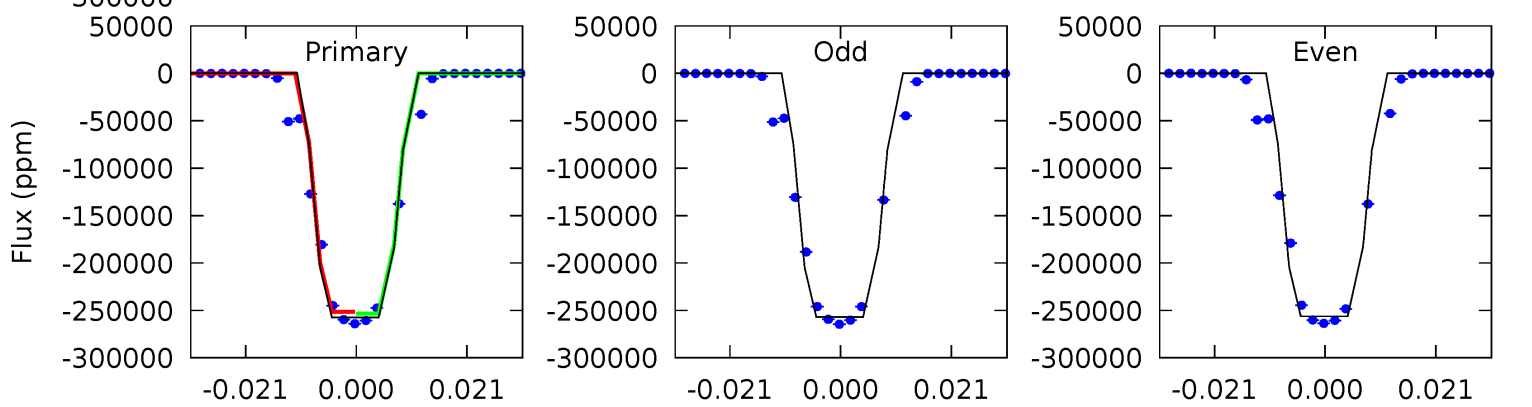
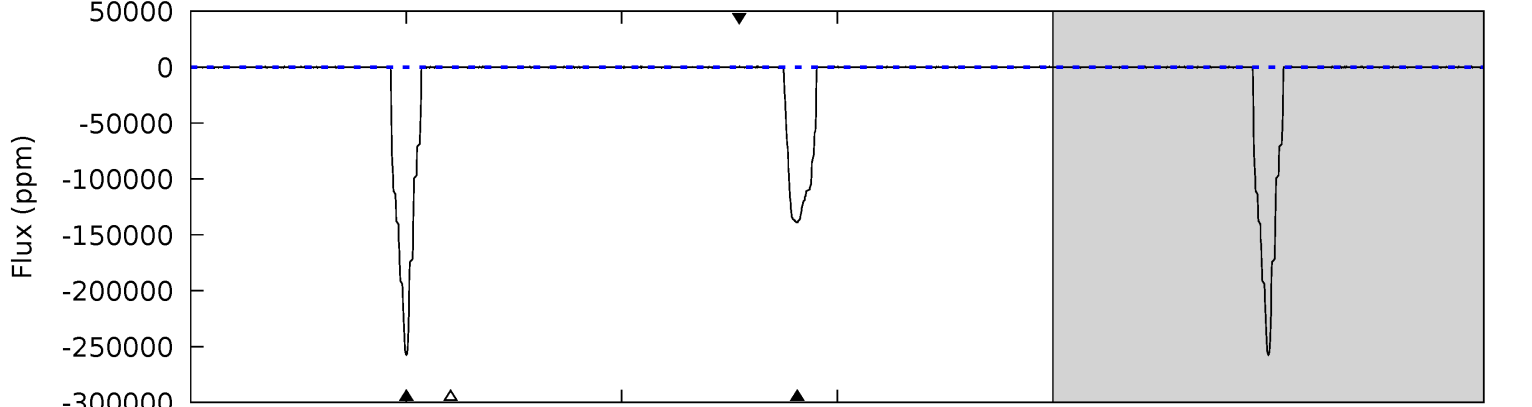
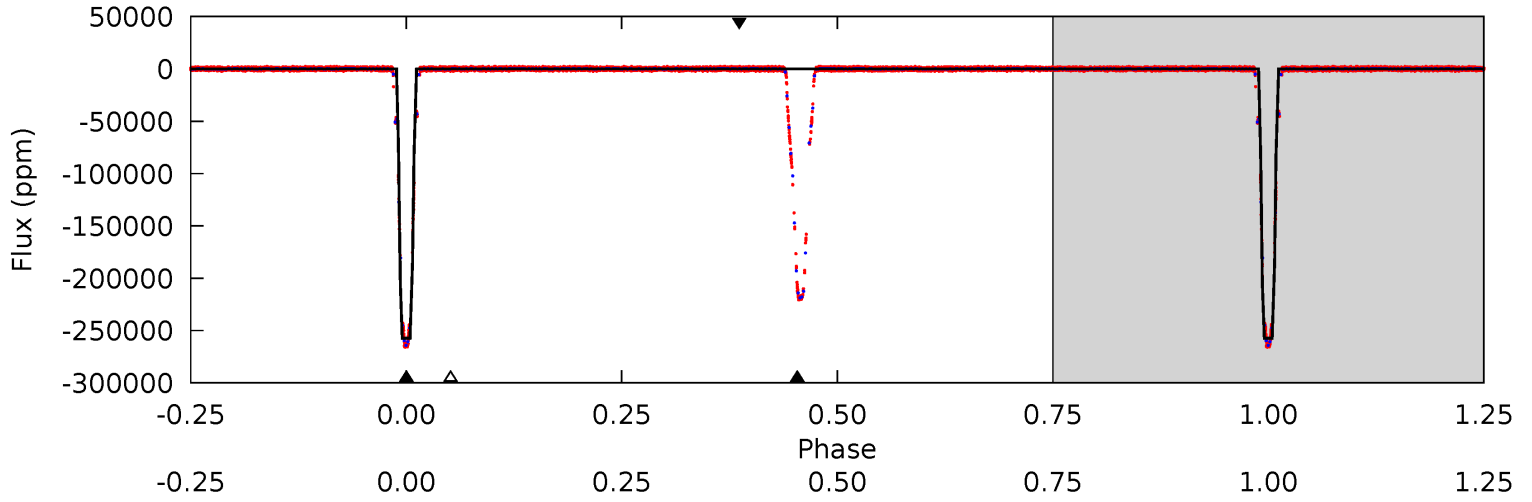
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007691527-01, P = 4.800254 Days, E = 130.979509 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5313	2868	5.44	5.60	4.88	2.30	14.1	5308	5308	2863	2862	5.60	1.00	0.00	0



Stellar Parameters For KIC 007691527

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5591^{+169}_{-169}	$4.590^{+0.043}_{-0.136}$	$-0.440^{+0.300}_{-0.300}$	$0.756^{+0.158}_{-0.056}$	$0.812^{+0.089}_{-0.071}$	$2.642^{+0.484}_{-1.049}$
	+3%/-3%	+1%/-3%	+68%/-68%	+21%/-7%	+11%/-9%	+18%/-40%
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 007691527-01 / KOI 6905.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$38.14^{+9.34}_{-10.04}$	1332^{+68}_{-55}	-3293^{+8242}_{-1447}	$-10.251^{+131.130}_{-85.000}$
Alt.	-138929 ± 48	$44.76^{+10.20}_{-8.12}$	1334^{+71}_{-56}	4957^{+469}_{-356}	120^{+58}_{-39}

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

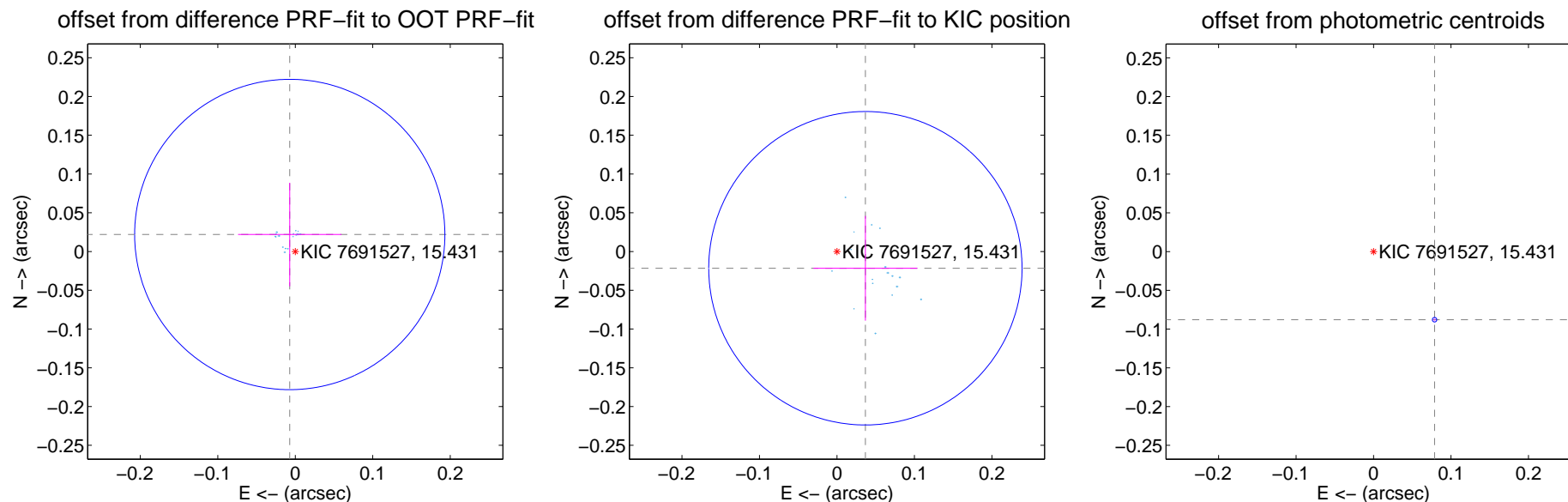
DV Centroid Data

Supplemental centroid analysis for 007691527-01. Kepler magnitude: 15.43. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

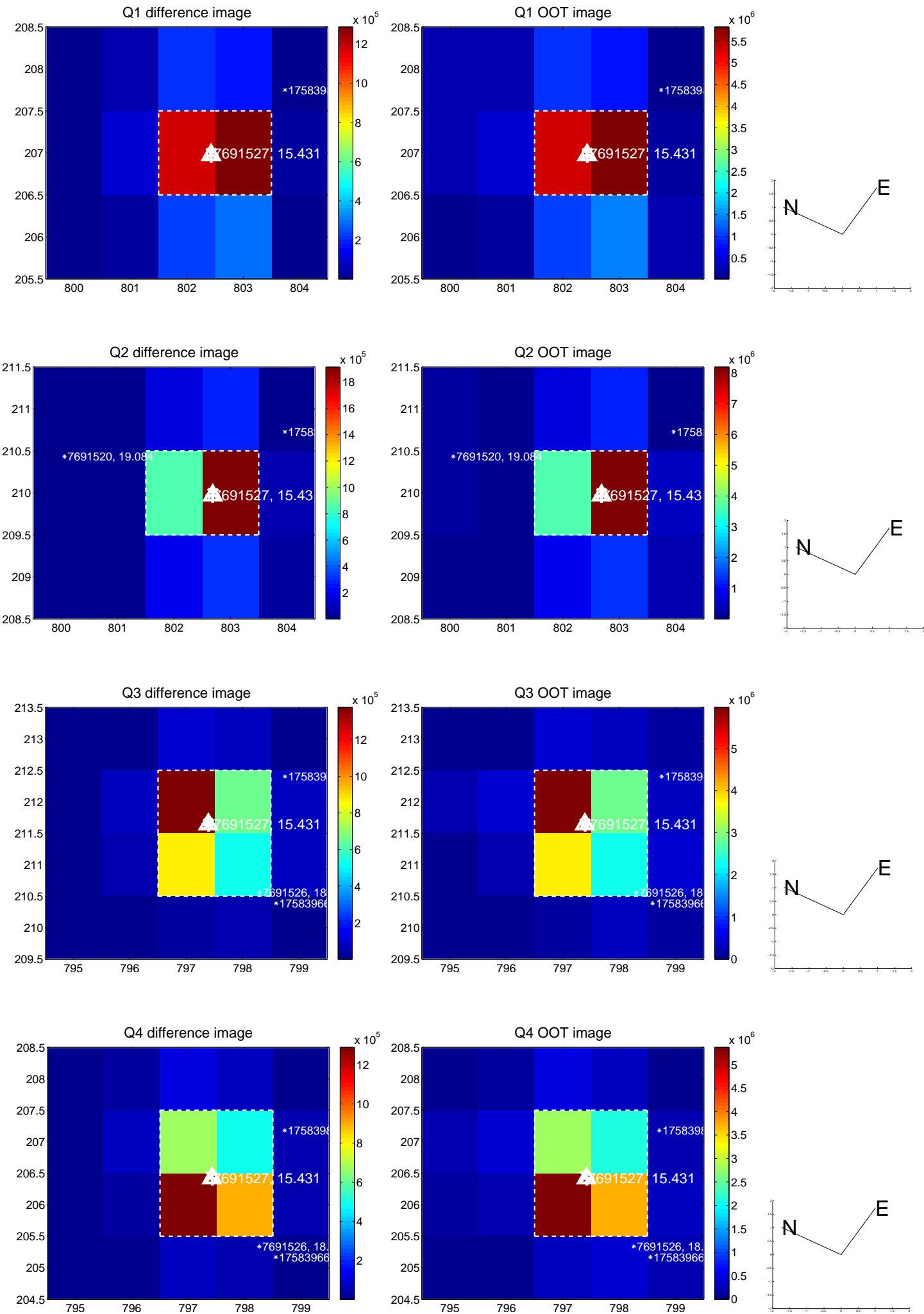
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.023 ± 0.067	0.35	0.007 ± 0.067	0.022 ± 0.067
PRF-fit source offset from KIC position	0.043 ± 0.067	0.63	-0.037 ± 0.067	-0.022 ± 0.068
photometric centroid source offset	0.12 ± 0.00	122.40	-0.08 ± 0.00	-0.09 ± 0.00

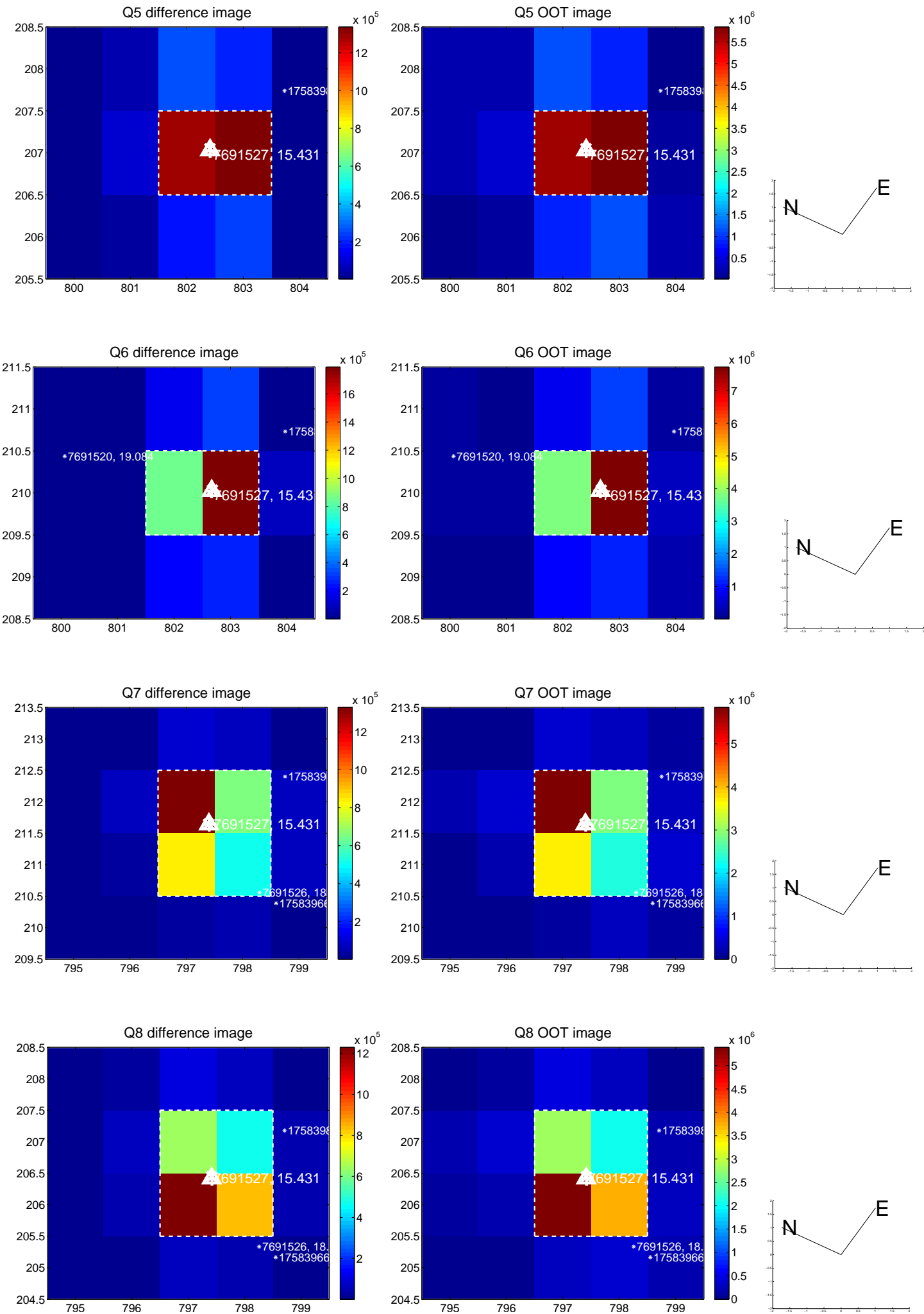


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

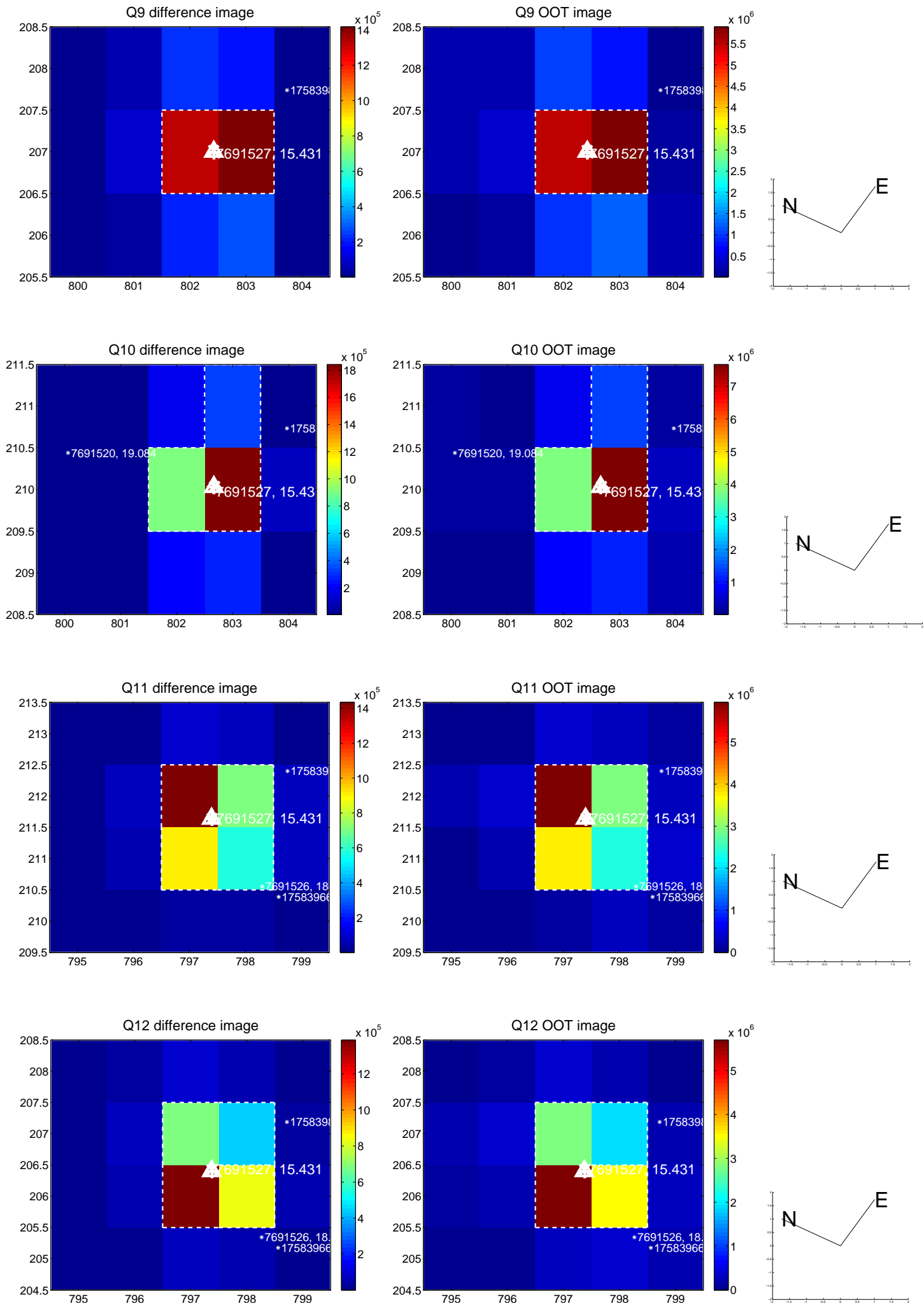
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



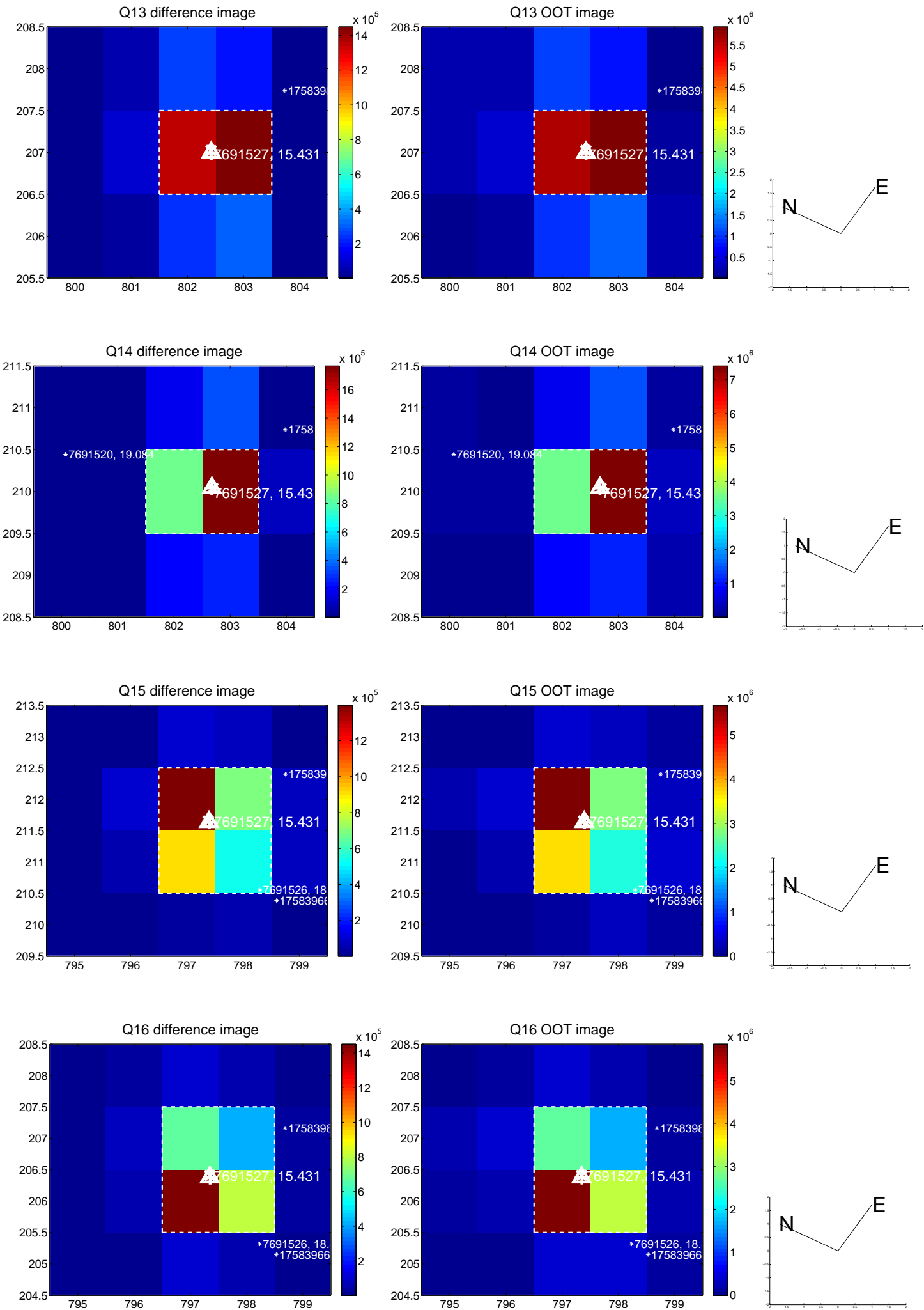
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



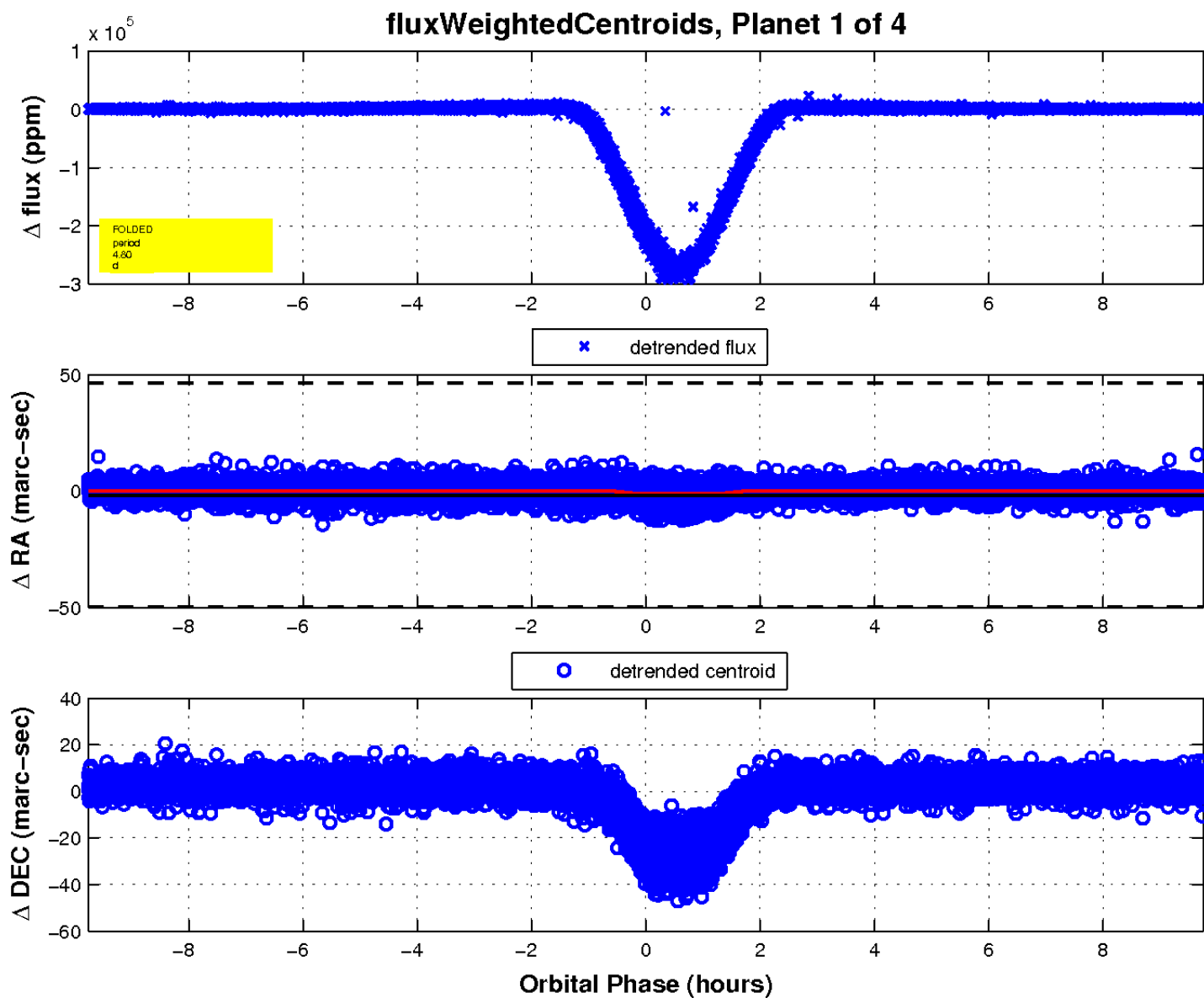
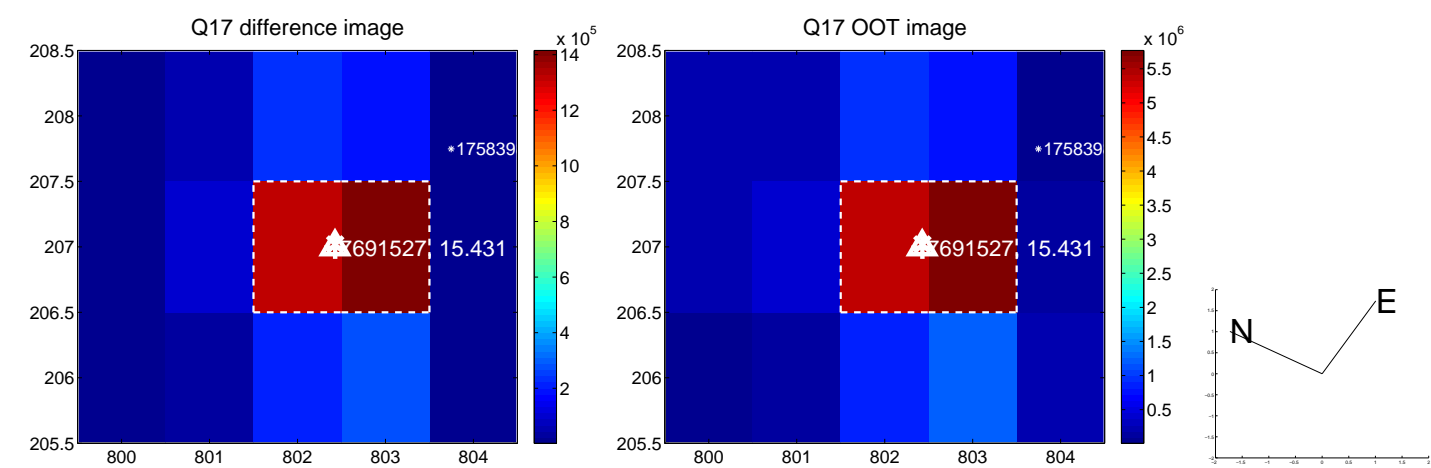
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

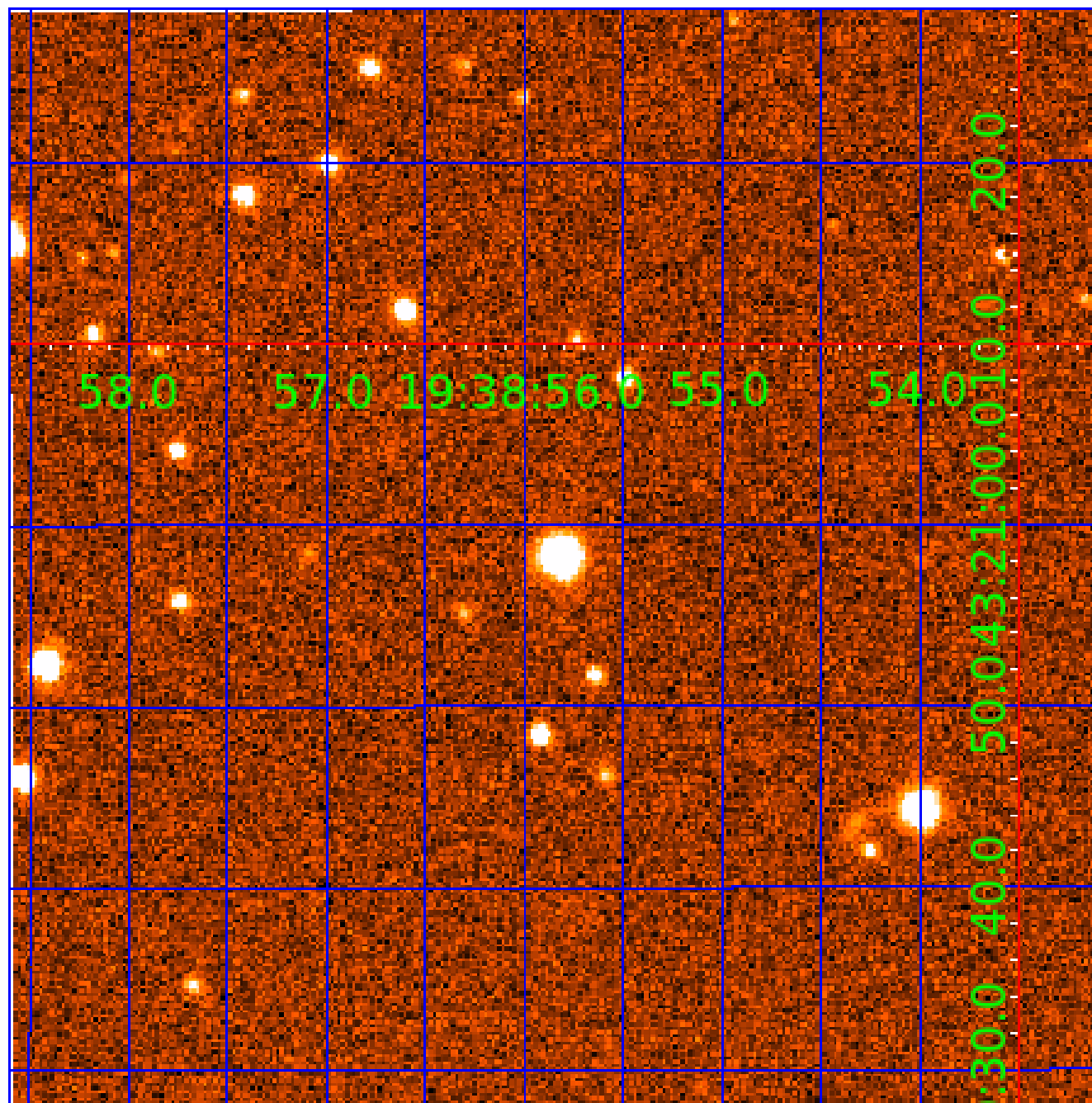


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007691527

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})
007691527-01	OBS	6905.01	4.800254	135.775778	275618.9	2.000	10011.8	-1.0	0.76	5591	36.70	185.43
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007691527-03	OBS	No	7.200275	135.779264	7050.5	15.170	758.8	67.1	0.76	5591	11.51	107.99
007691527-04	OBS	No	4.800178	131.521211	4159.9	6.000	176.4	-1.0	0.76	5591	4.83	185.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007691527-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
007691527-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
007691527-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
007691527-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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.

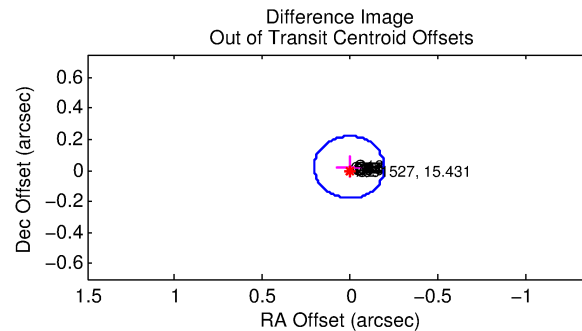
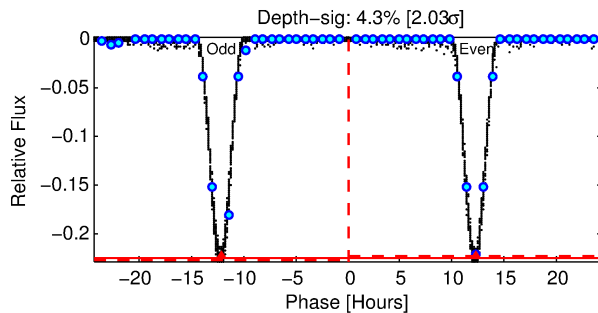
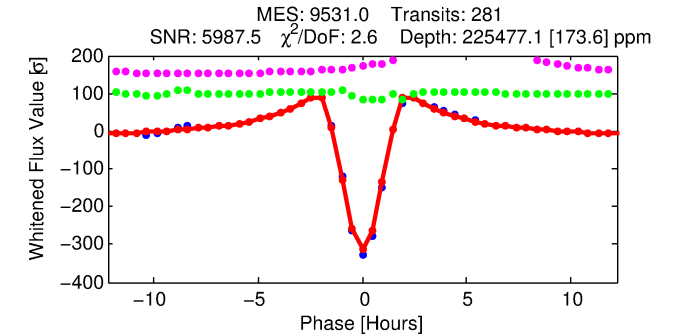
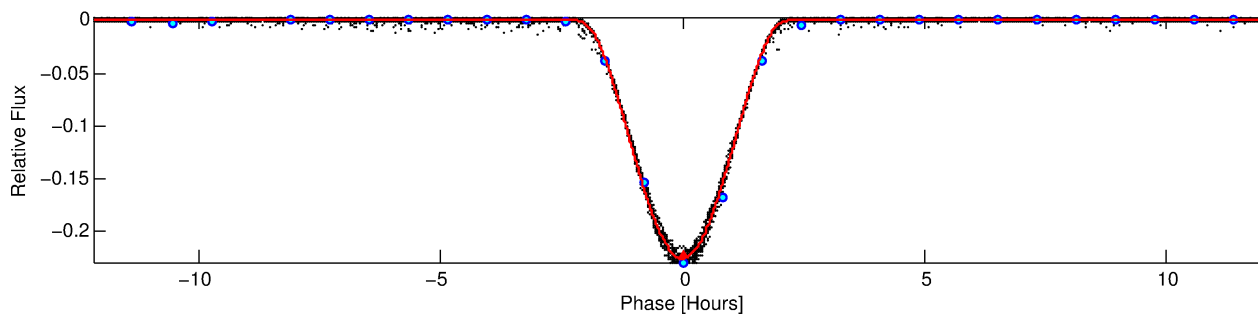
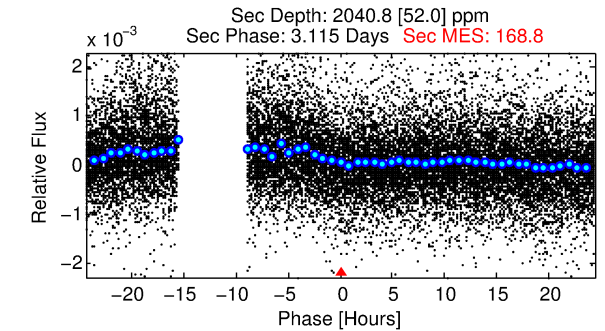
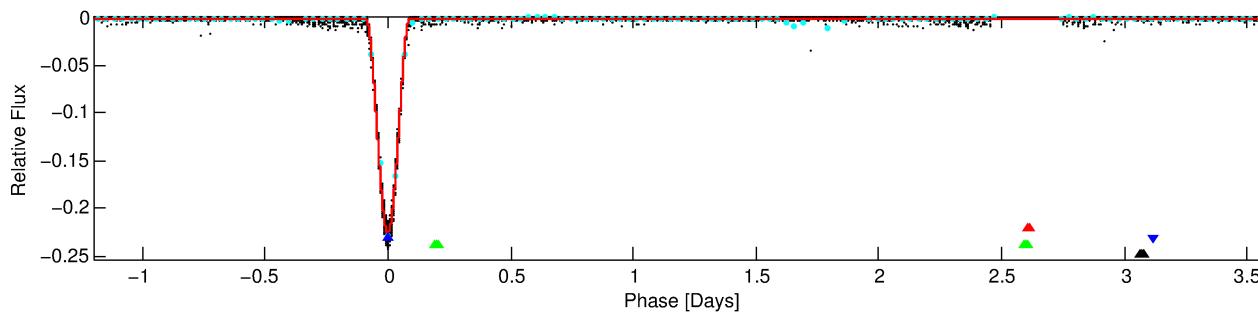
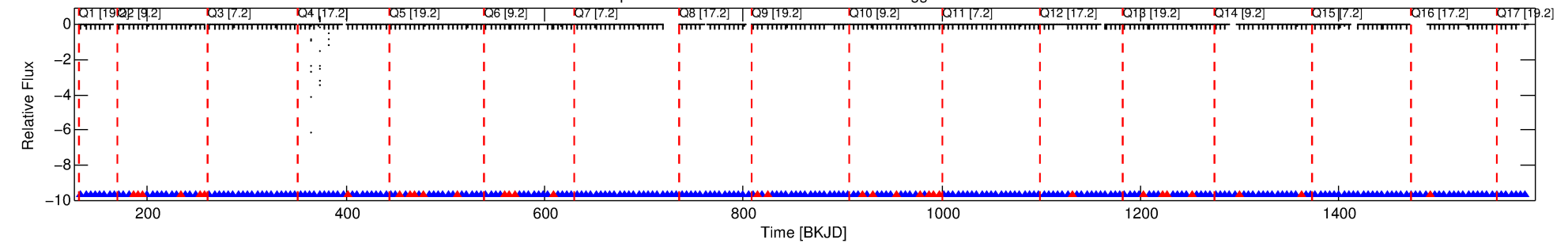
Ephemeris Match Information For 007691527-02

No Significant Match Found

DV One-Page Summary

KIC: 7691527 Candidate: 2 of 4 Period: 4.800 d
KOI: K06905 Corr: No Ephemeris Match

Kp: 15.43 R*: 0.76 Rs Teff: 5591.0 K Logg: 4.59 Fe/H: -0.440



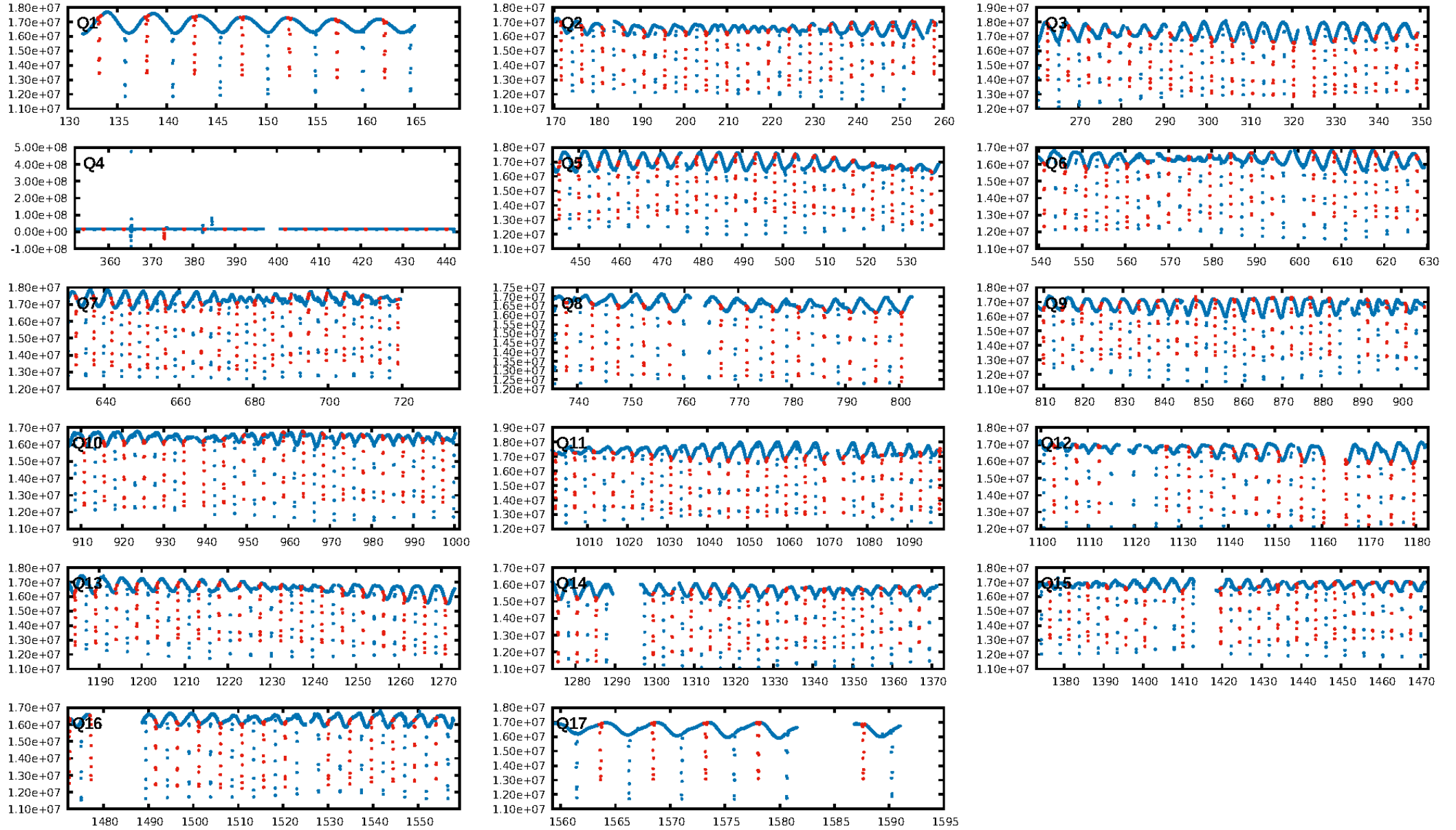
DV Fit Results:

Period = 4.80023 [0.00000] d
Epoch = 133.1769 [0.0000] BKJD
Rp/R* = 0.6288 [0.0200]
a/R* = 12.62 [0.07]
b = 0.85 [0.03]
Seff = 185.43 [51.66]
Teq = 941 [66] K
Rp = 51.88 [10.97] Re
a = 0.0519 [0.0090] AU
Ag = 1.13 [0.29] [0.43σ]
Teffp = 1499 [52] K [6.66σ]

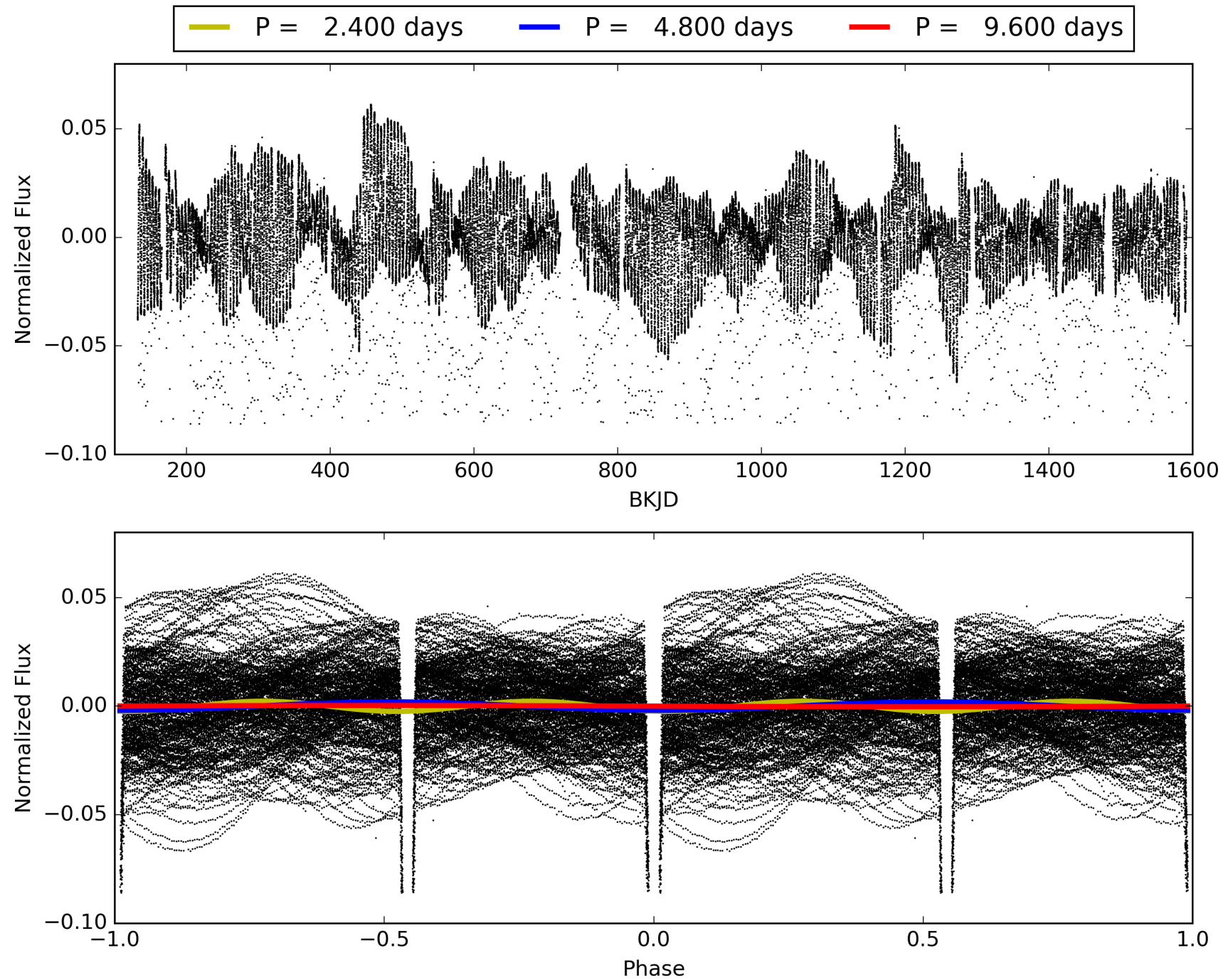
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.88 [236/269]
GhostDiagnostic-chr: 1.739
Centroid-sig: N/A
Centroid-so: 0.108 arcsec [90.62σ]
OotOffset-rm: 0.022 arcsec [0.33σ]
KicOffset-rm: 0.046 arcsec [0.68σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007691527-02, PDC Light Curves

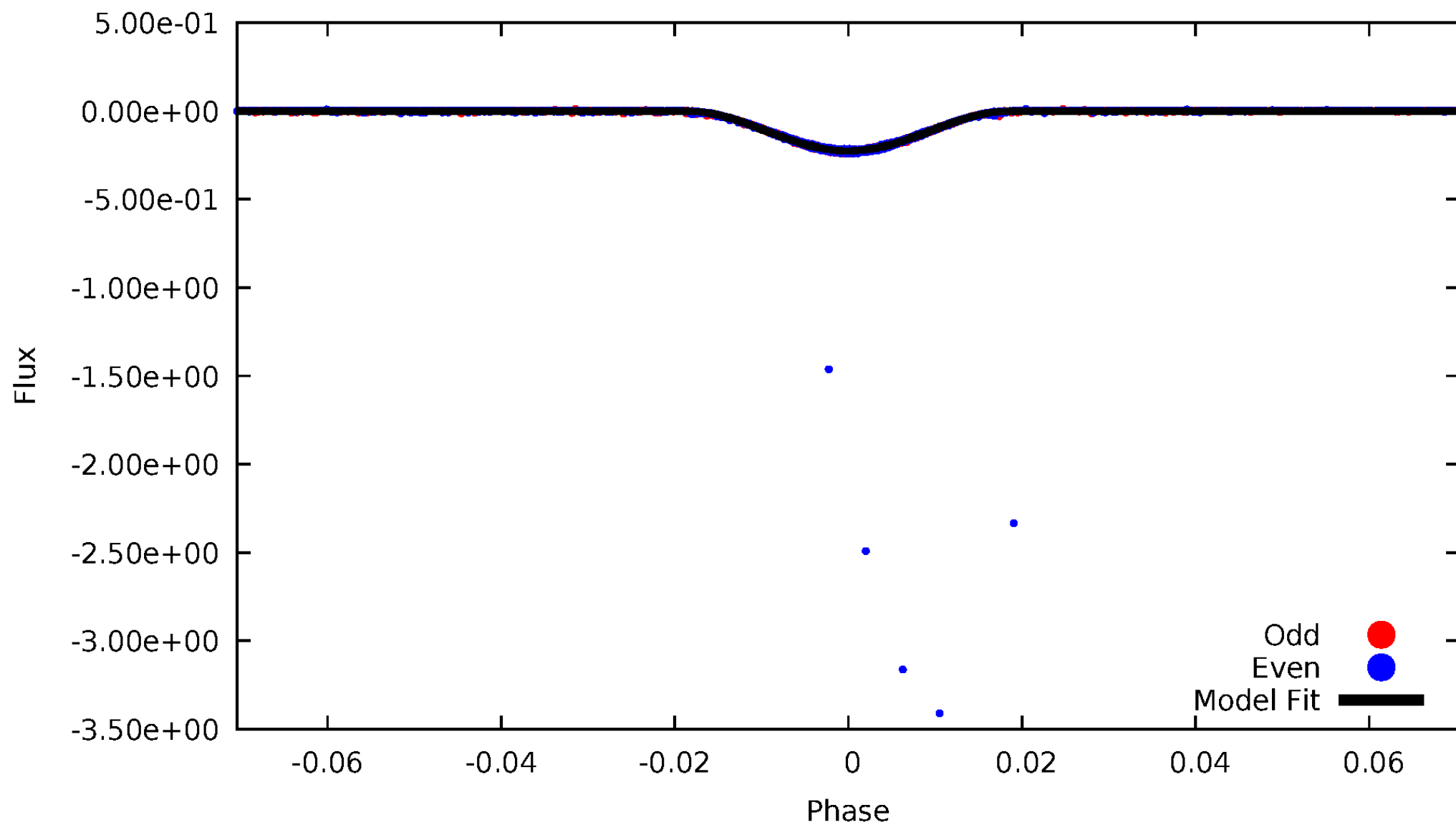


TCE 007691527-02



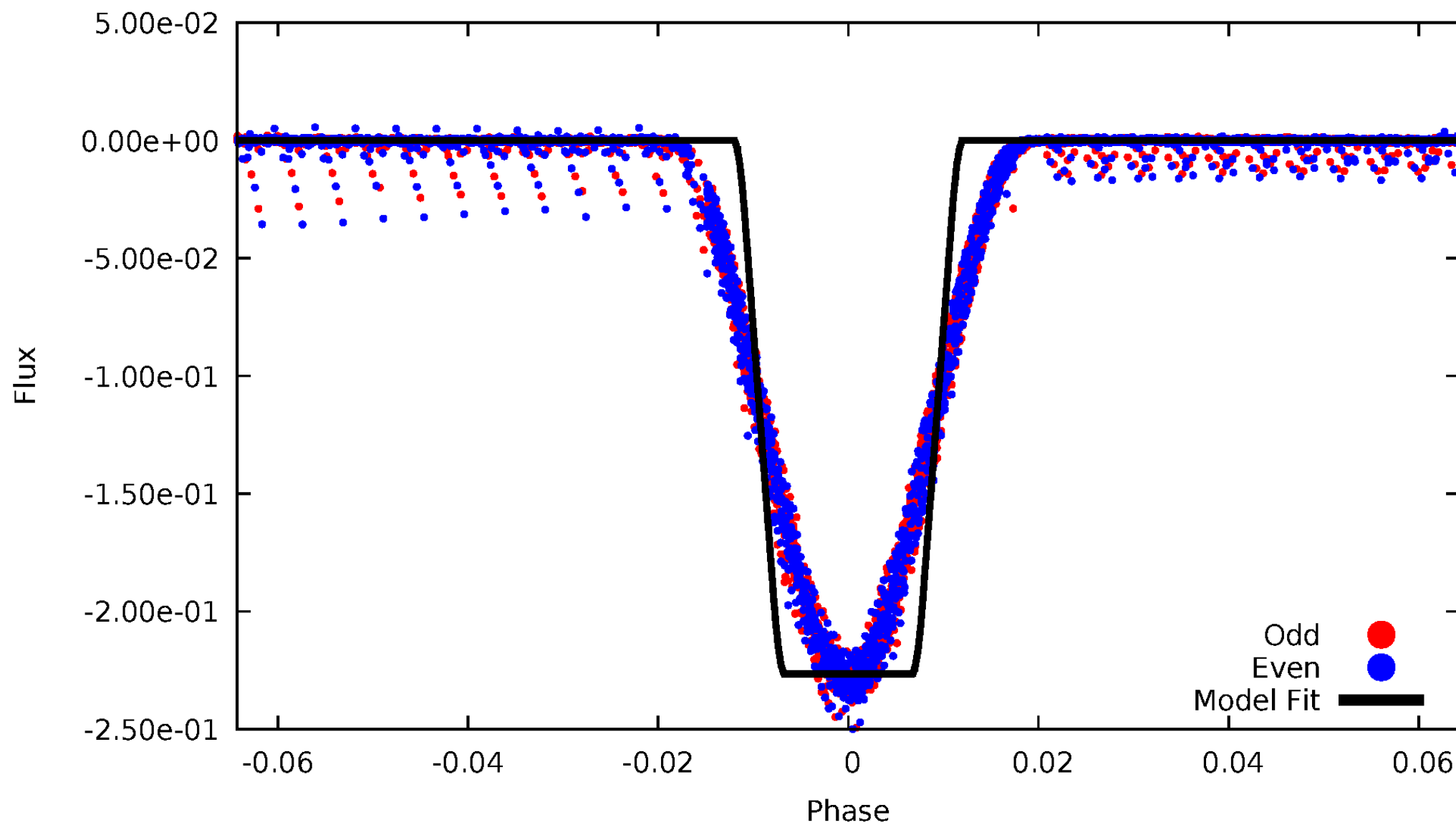
DV Odd/Even

TCE 007691527-02



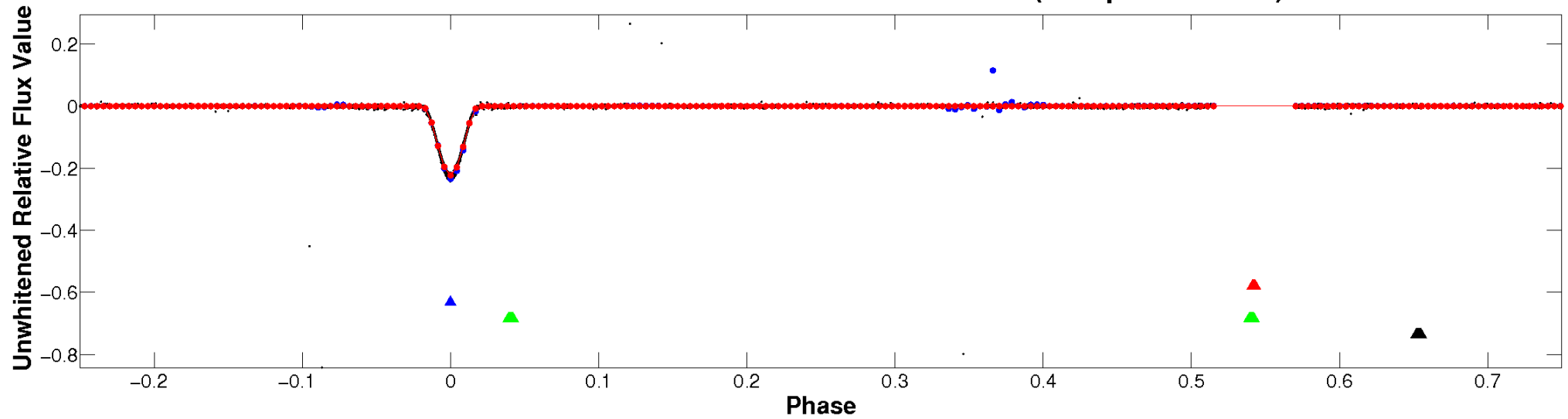
ALT Odd/Even

TCE 007691527-02

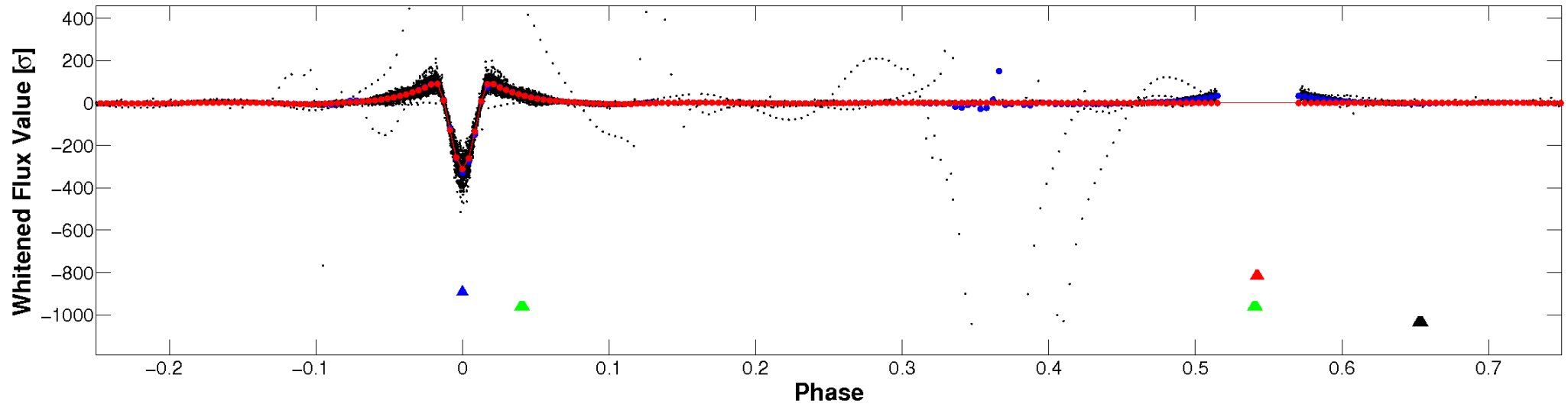


Non-Whitened Vs. Whitened Light Curve

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

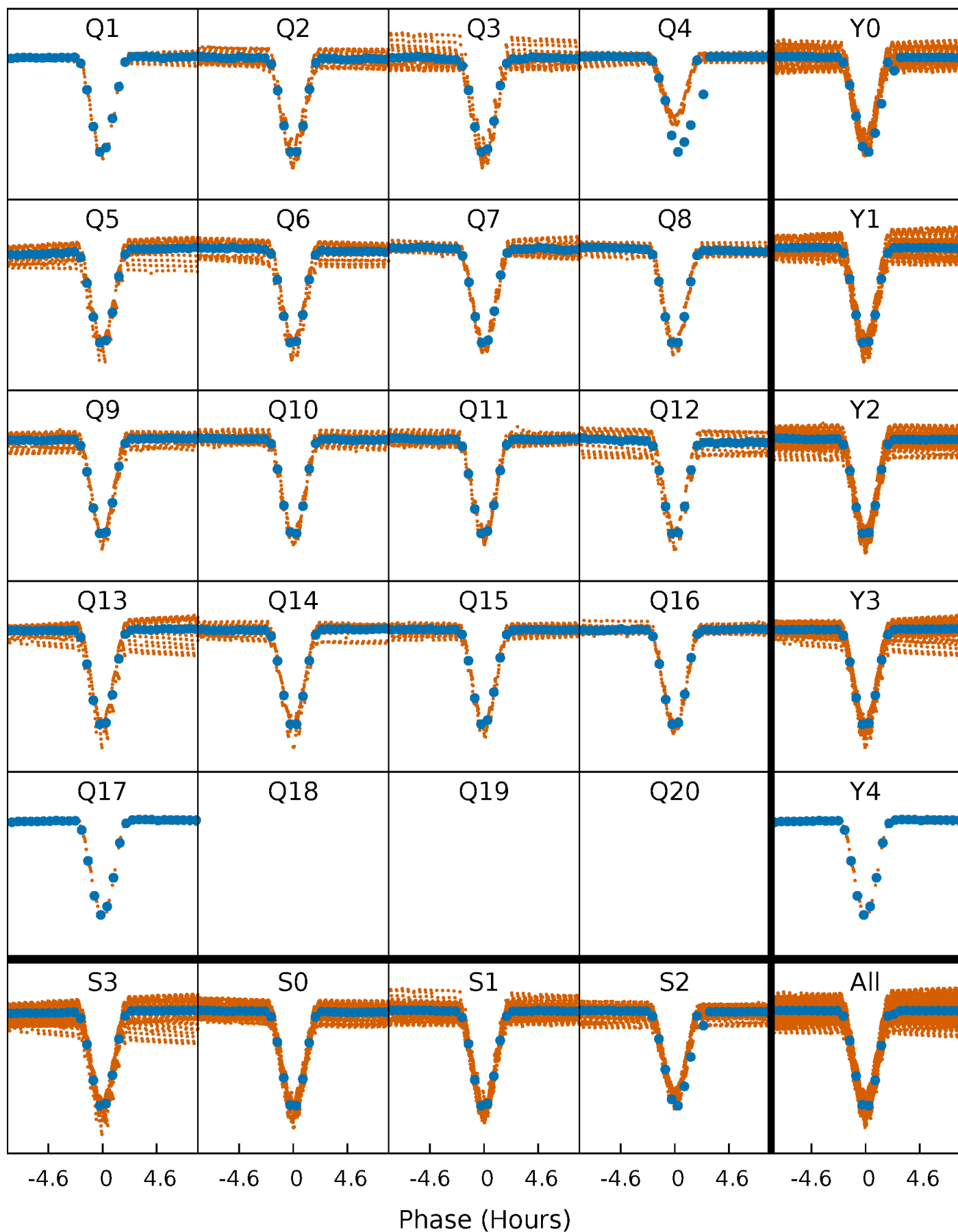


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



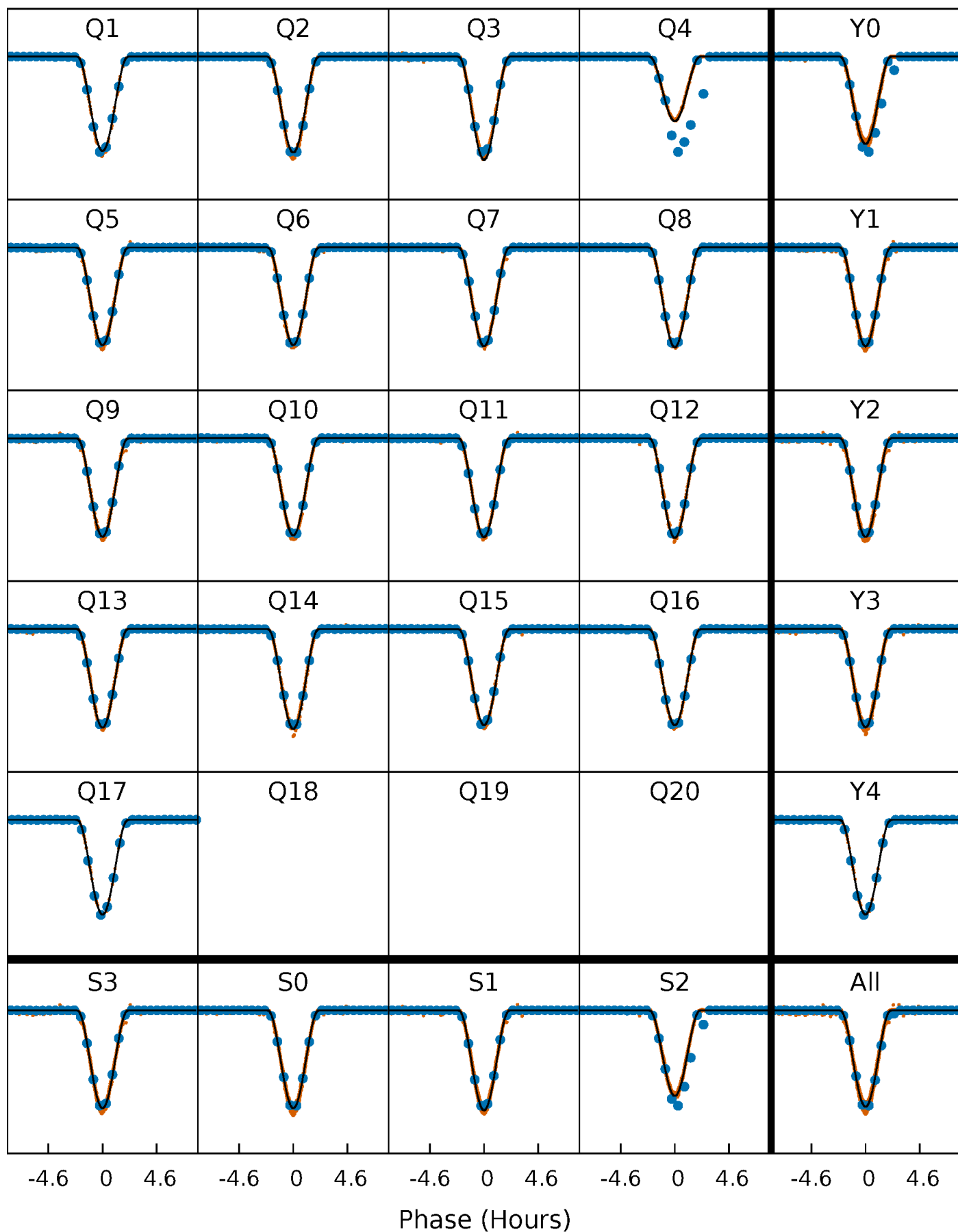
PDC Quarter-Phased Transit Curves

TCE 007691527-02 P= 4.800230 Days $T_0=133.176885$ (BKJD)



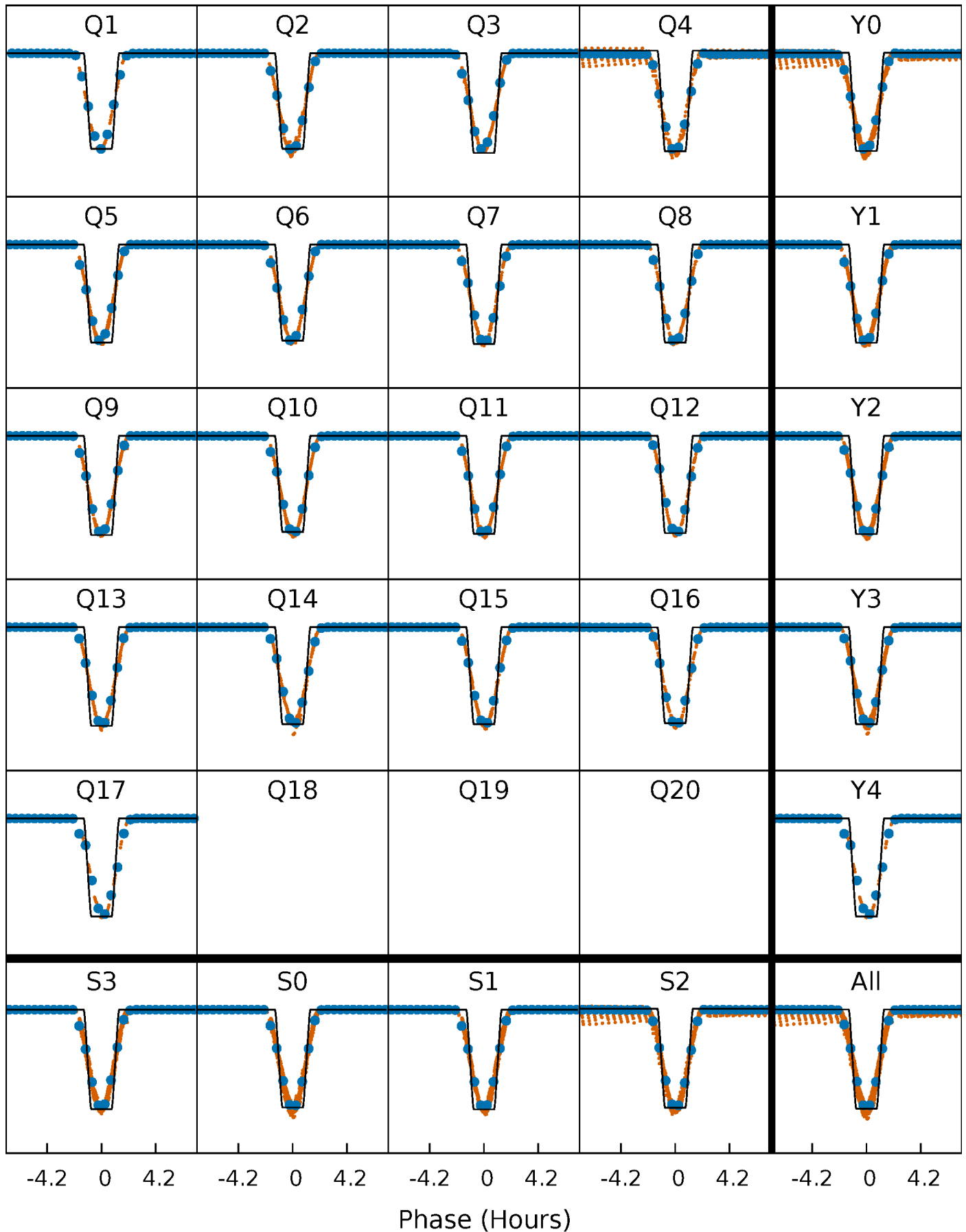
DV Quarter-Phased Transit Curves

TCE 007691527-02 P= 4.800230 Days $T_0=133.176885$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

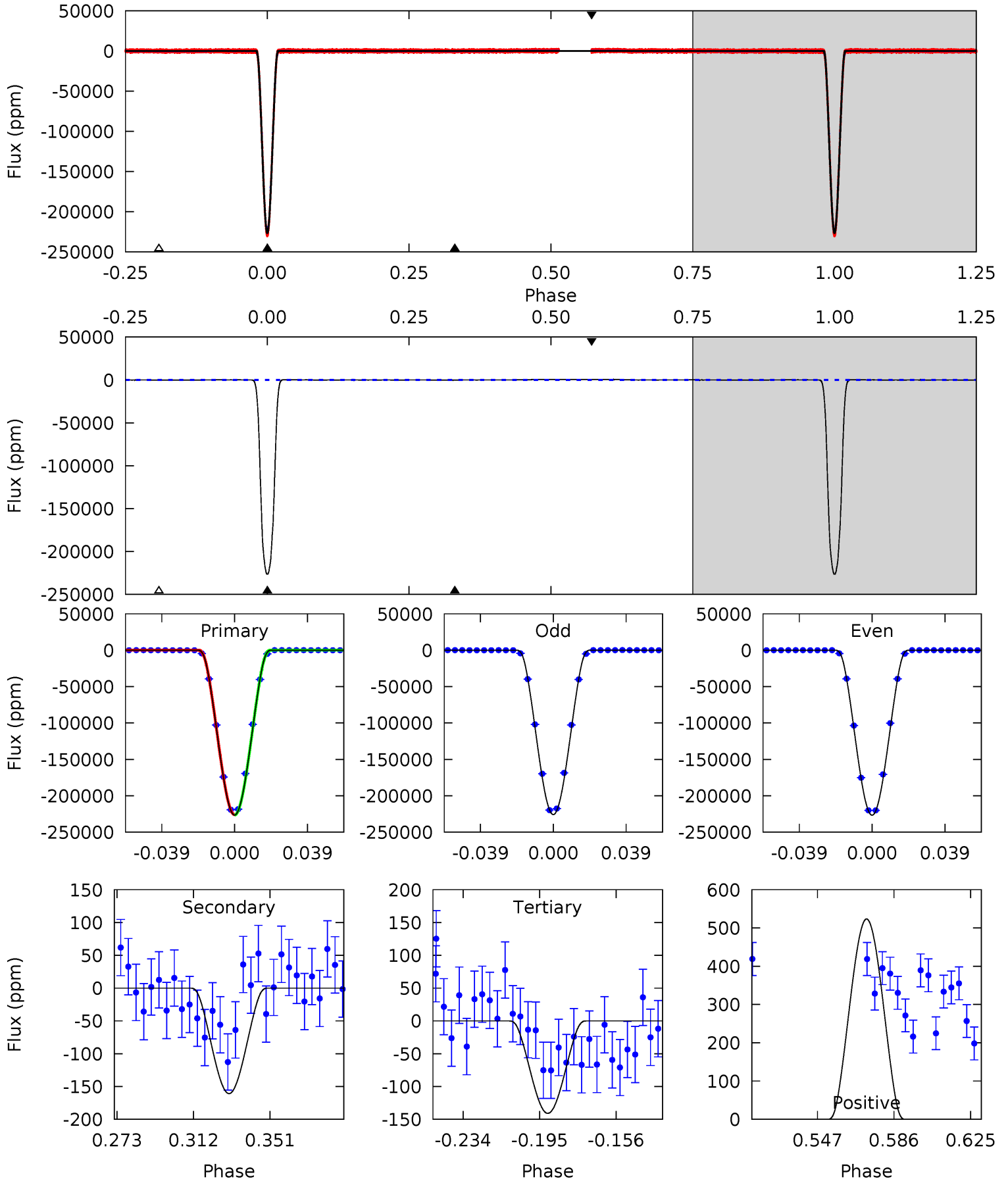
TCE 007691527-02 P= 4.800203 Days $T_0=133.180918$ (BKJD)



DV Model-Shift Uniqueness Test

007691527-02, P = 4.800230 Days, E = 128.376655 Days

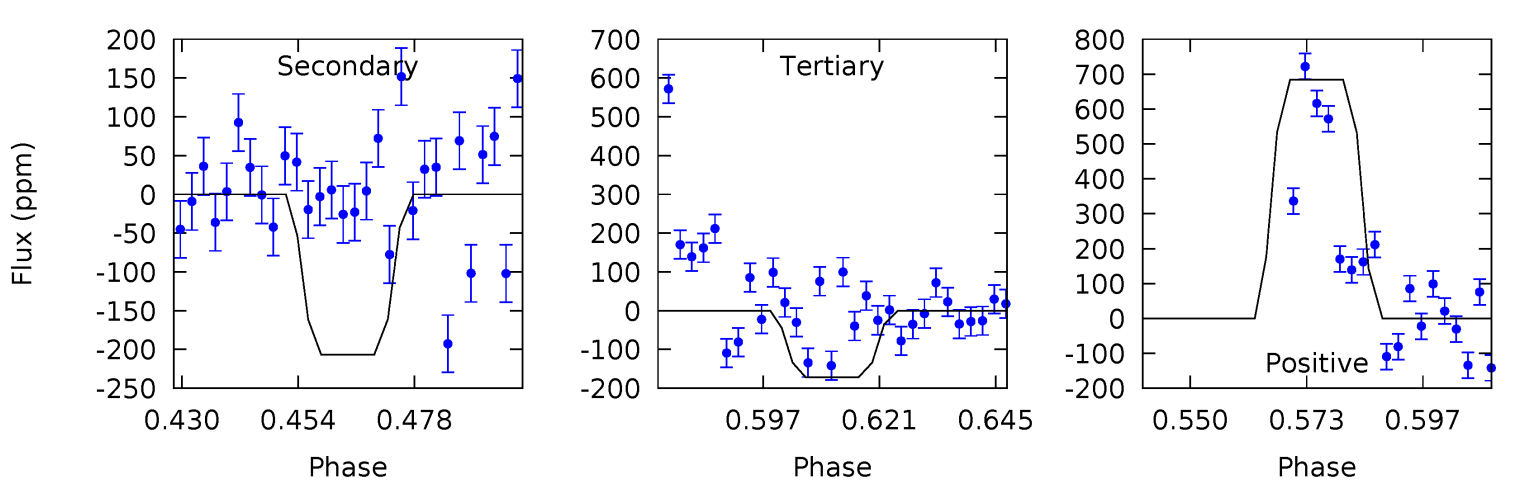
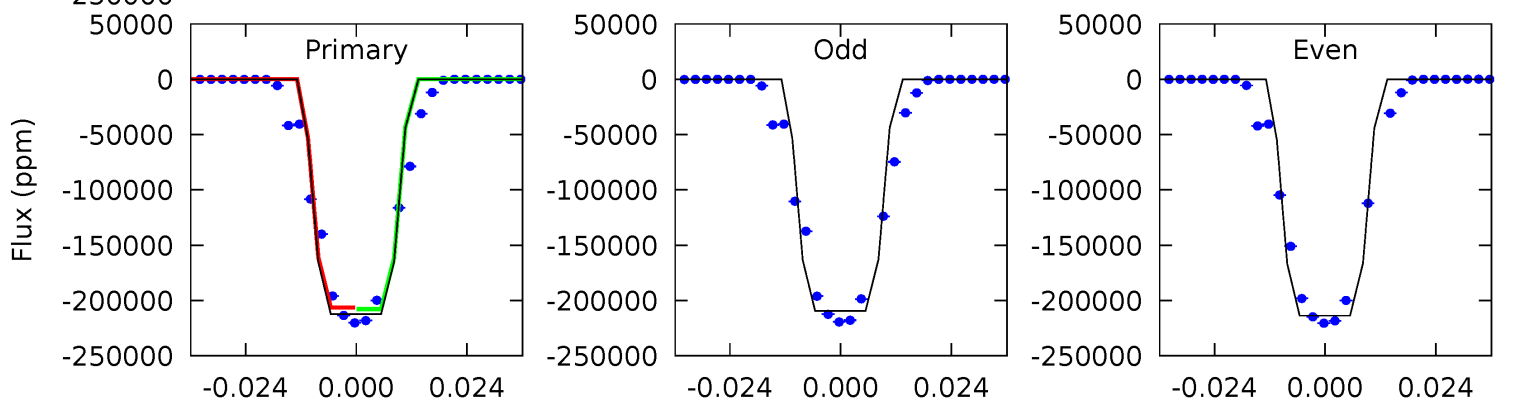
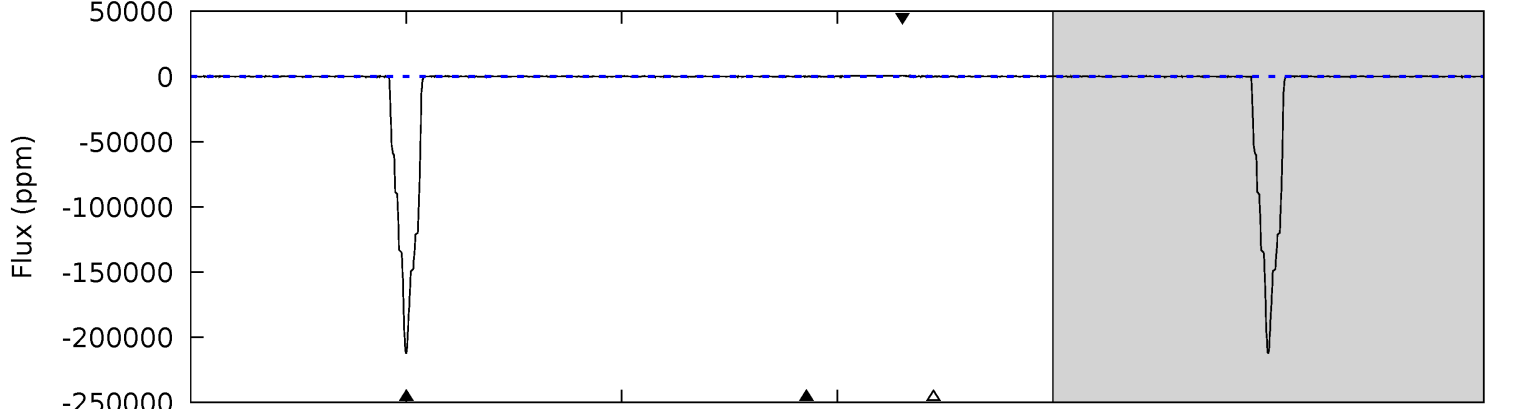
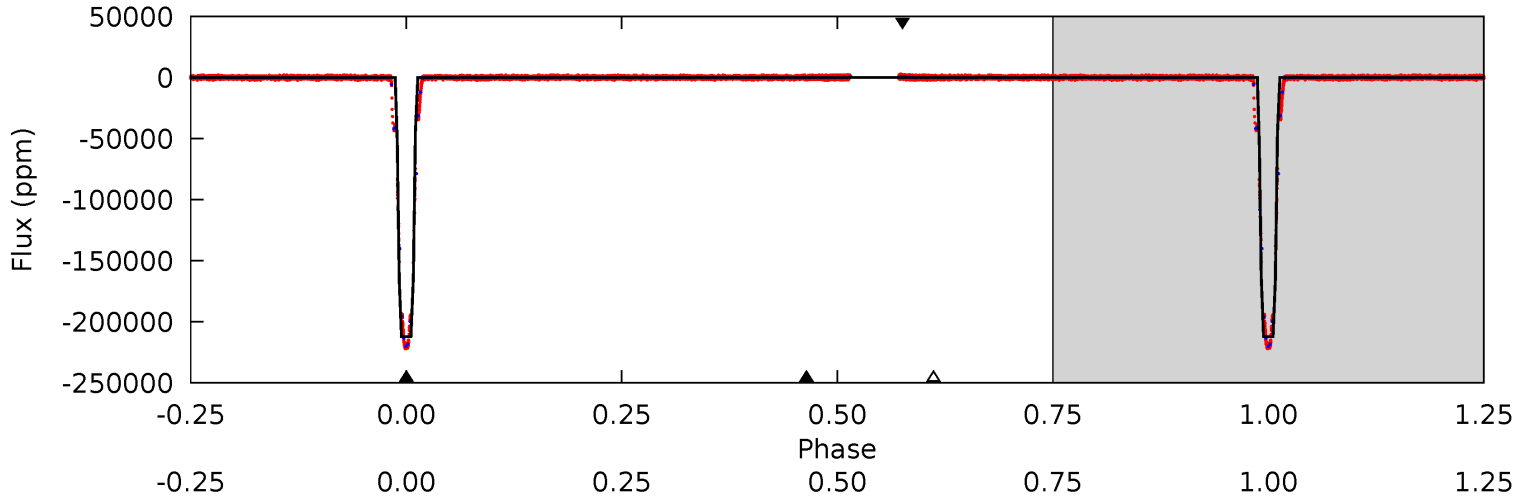
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14097	10.0	8.78	32.6	4.76	2.06	10.5	14088	14064	1.23	-22.6	29.9	1.03	0.00	0



Alt Model-Shift Uniqueness Test

007691527-02, P = 4.800203 Days, E = 128.380715 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5029	4.90	4.07	16.2	4.86	2.26	1.42	5025	5013	0.84	-11.3	51.3	1.00	0.00	0



Stellar Parameters For KIC 007691527

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5591^{+169}_{-169}	$4.590^{+0.043}_{-0.136}$	$-0.440^{+0.300}_{-0.300}$	$0.756^{+0.158}_{-0.056}$	$0.812^{+0.089}_{-0.071}$	$2.642^{+0.484}_{-1.049}$
	+3%/-3%	+1%/-3%	+68%/-68%	+21%/-7%	+11%/-9%	+18%/-40%
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 007691527-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-161 ± 16	$53.04^{+5.96}_{-3.77}$	1334^{+70}_{-56}	-2005^{+45}_{-55}	$0.083^{+0.015}_{-0.015}$
Alt.	-207 ± 42	$39.74^{+4.68}_{-2.71}$	1329^{+70}_{-54}	-1876^{+124}_{-92}	$0.187^{+0.052}_{-0.046}$

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 $A_{obs} \gg 1.0$

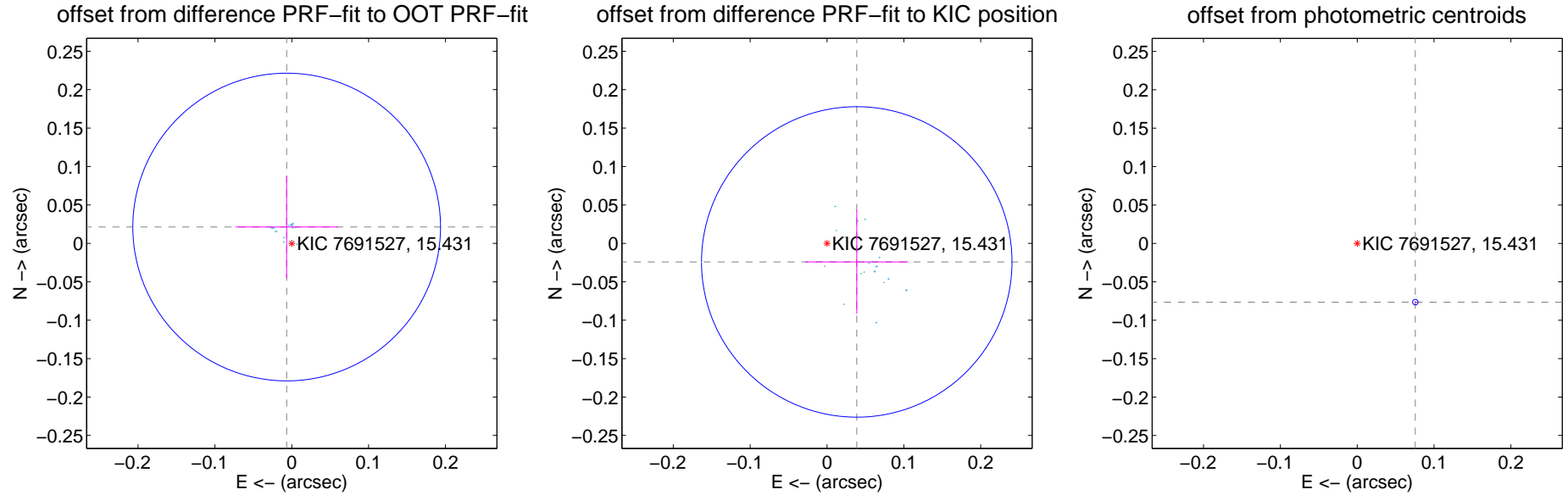
DV Centroid Data

Supplemental centroid analysis for 007691527-02. Kepler magnitude: 15.43. Transit SNR 5987.51

There are 17 quarters with good PRF difference image offsets

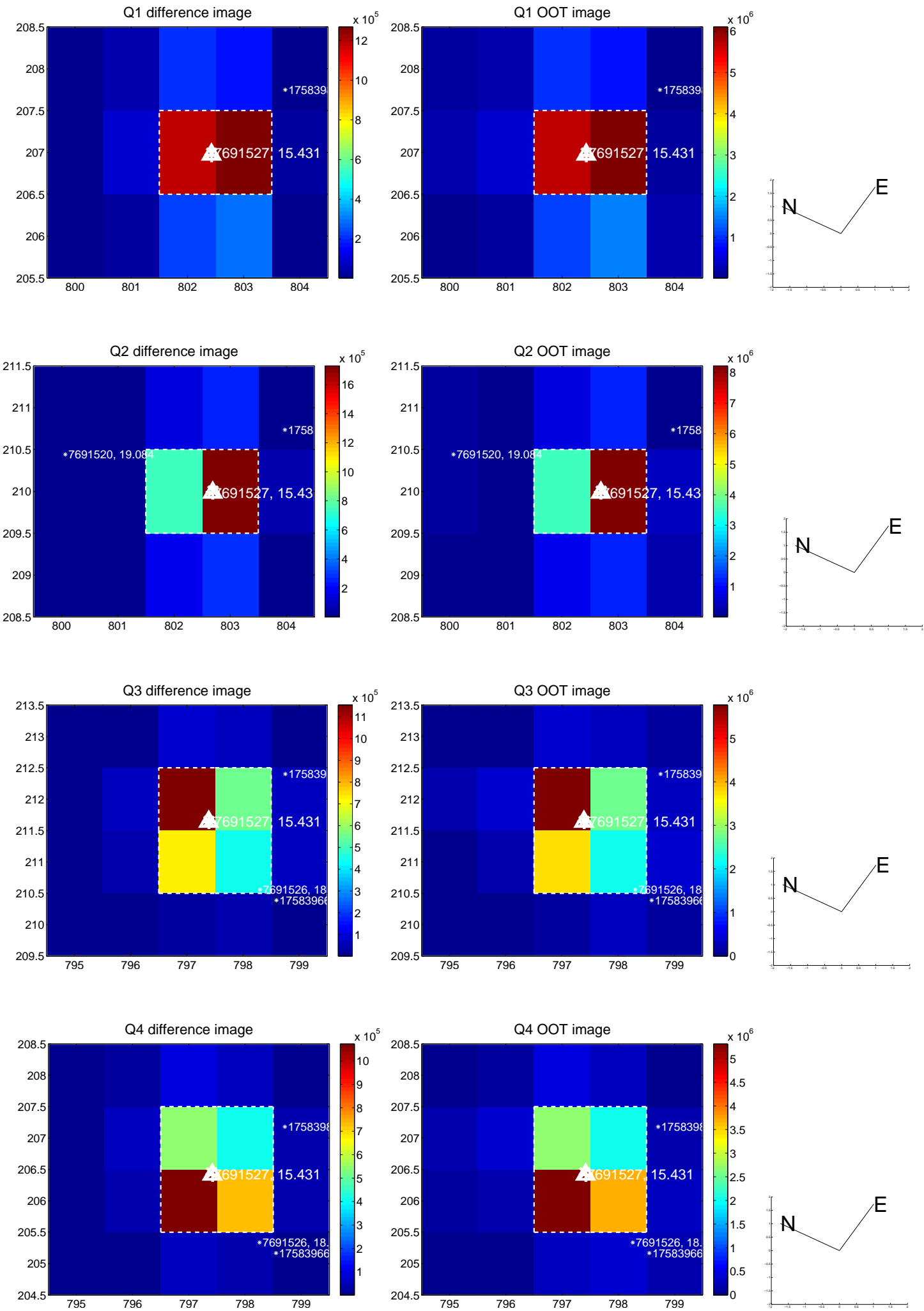
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.022 ± 0.067	0.33	0.007 ± 0.067	0.021 ± 0.067
PRF-fit source offset from KIC position	0.046 ± 0.067	0.68	-0.039 ± 0.067	-0.024 ± 0.067
photometric centroid source offset	0.11 ± 0.00	90.62	-0.08 ± 0.00	-0.08 ± 0.00

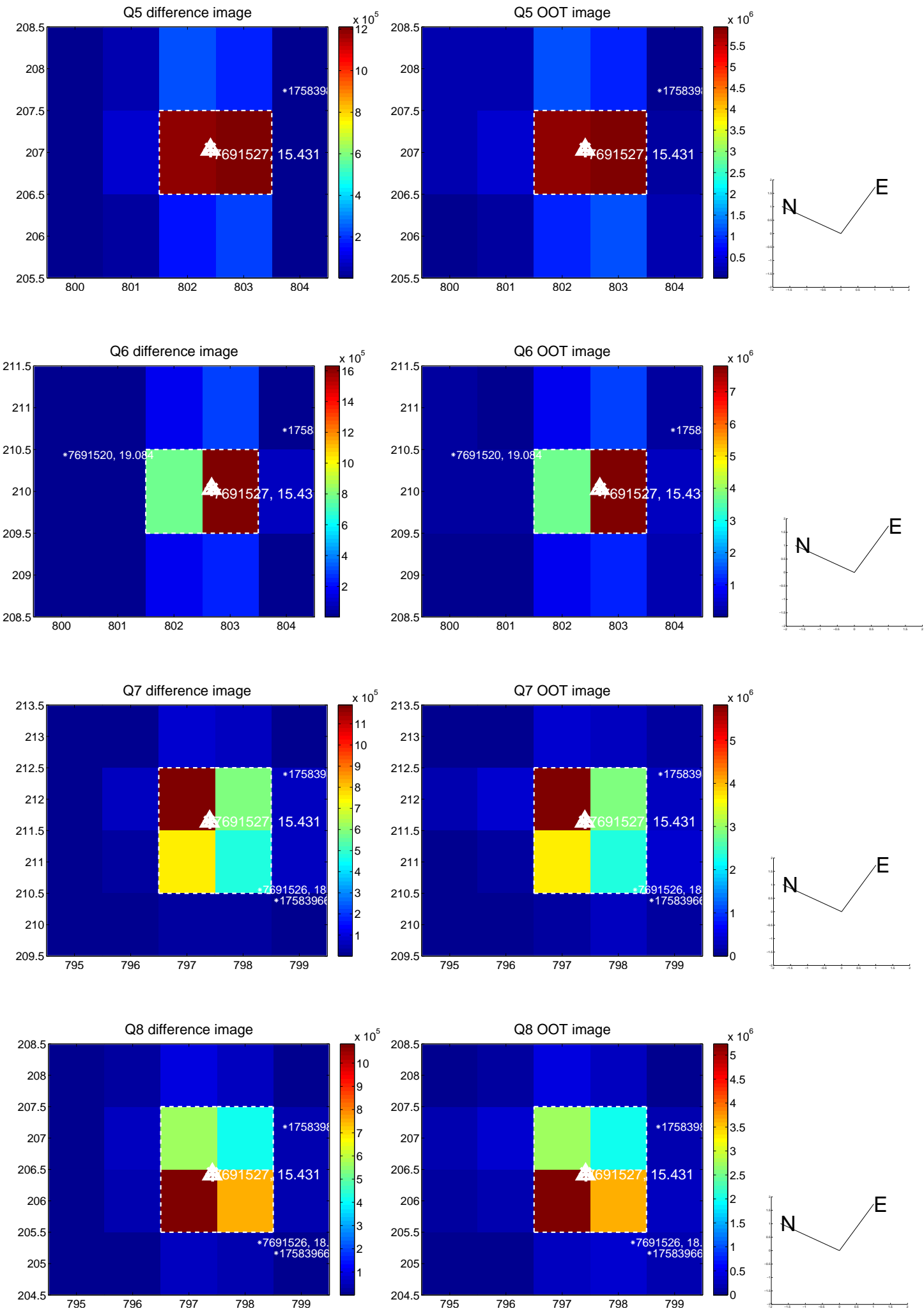


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

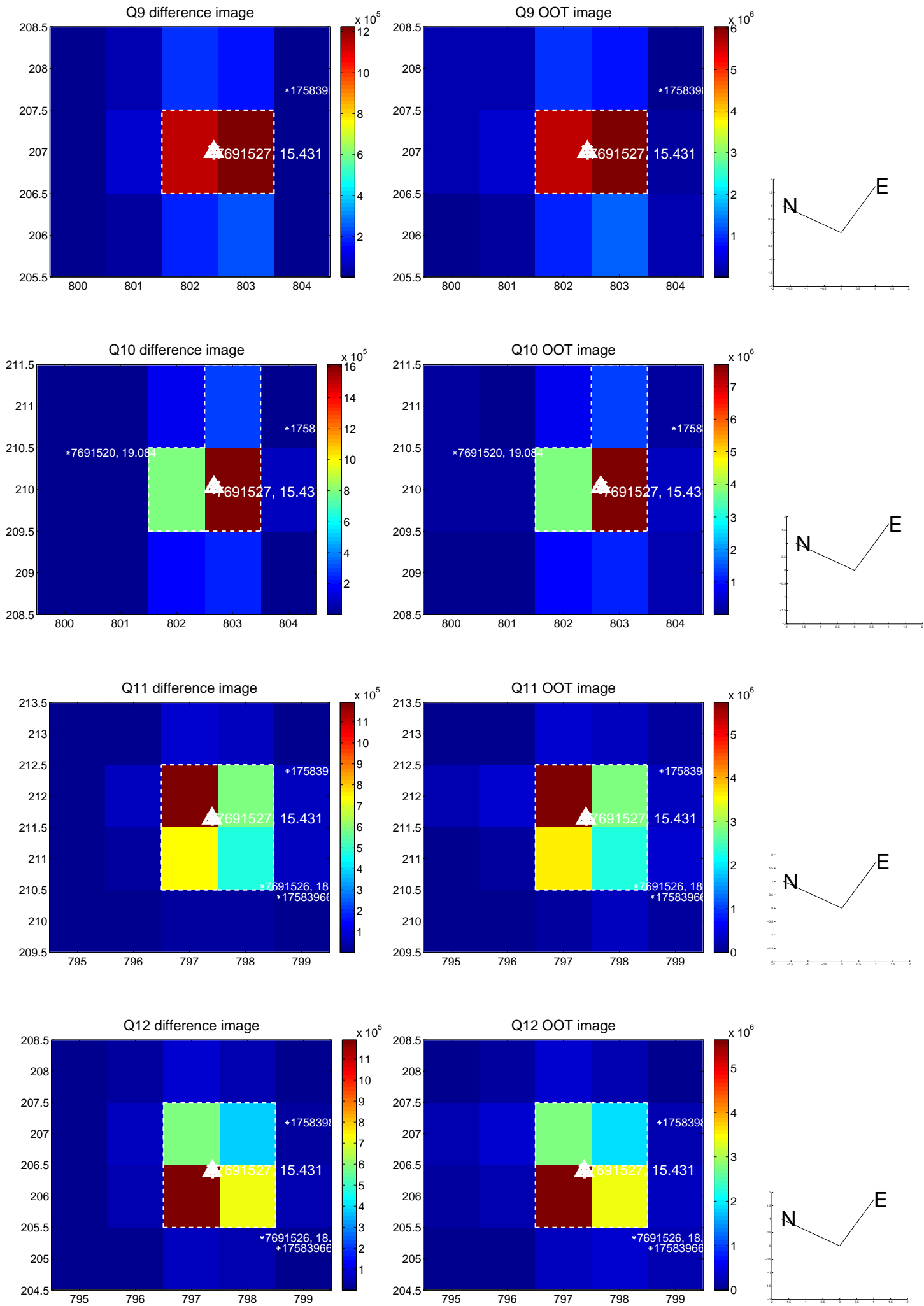
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



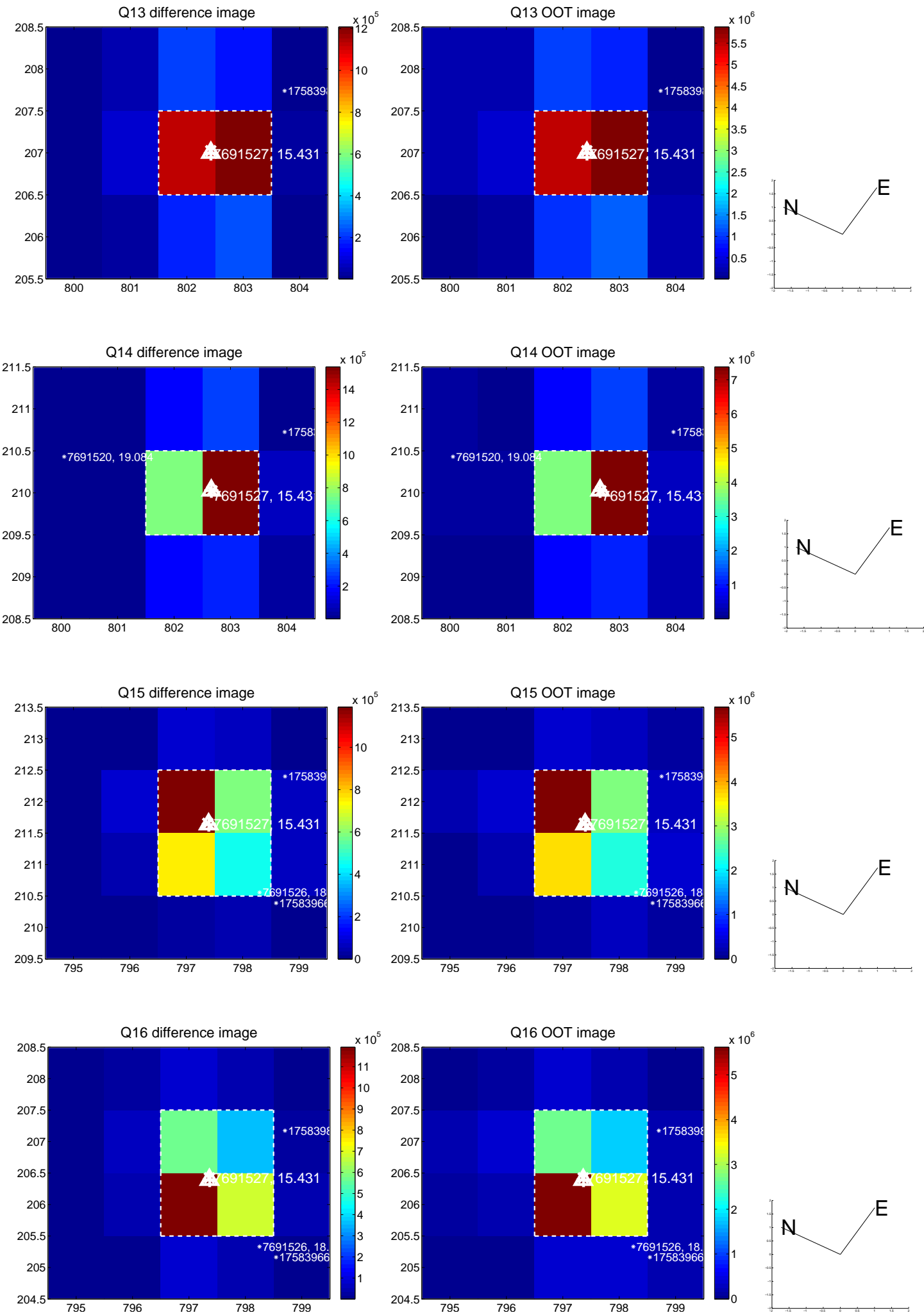
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



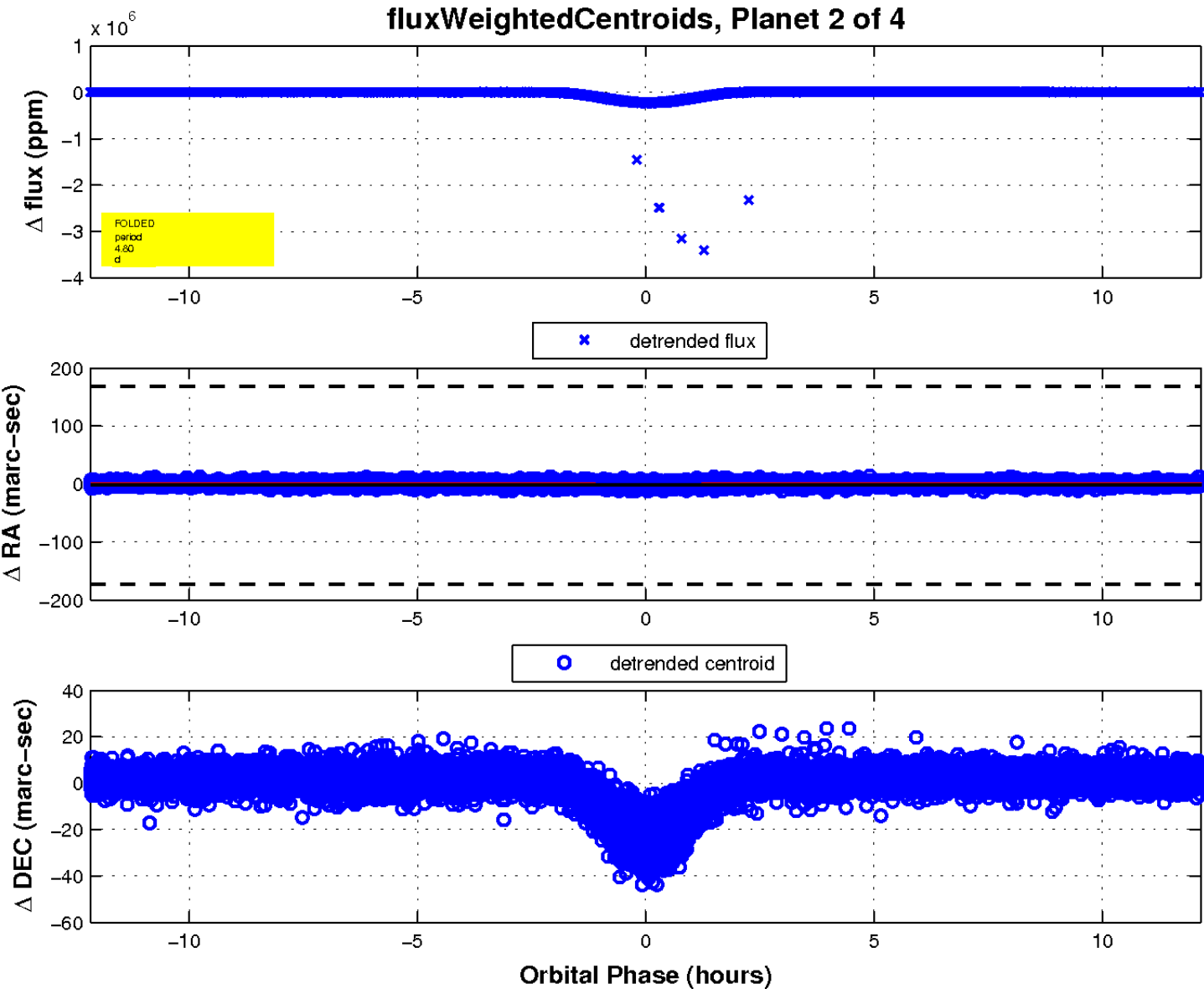
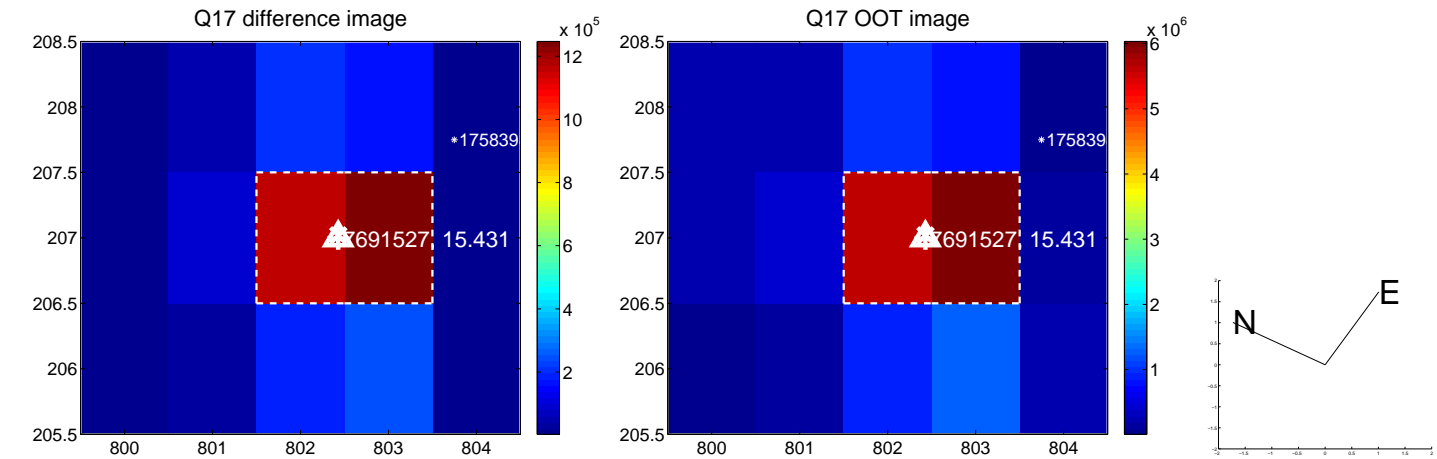
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

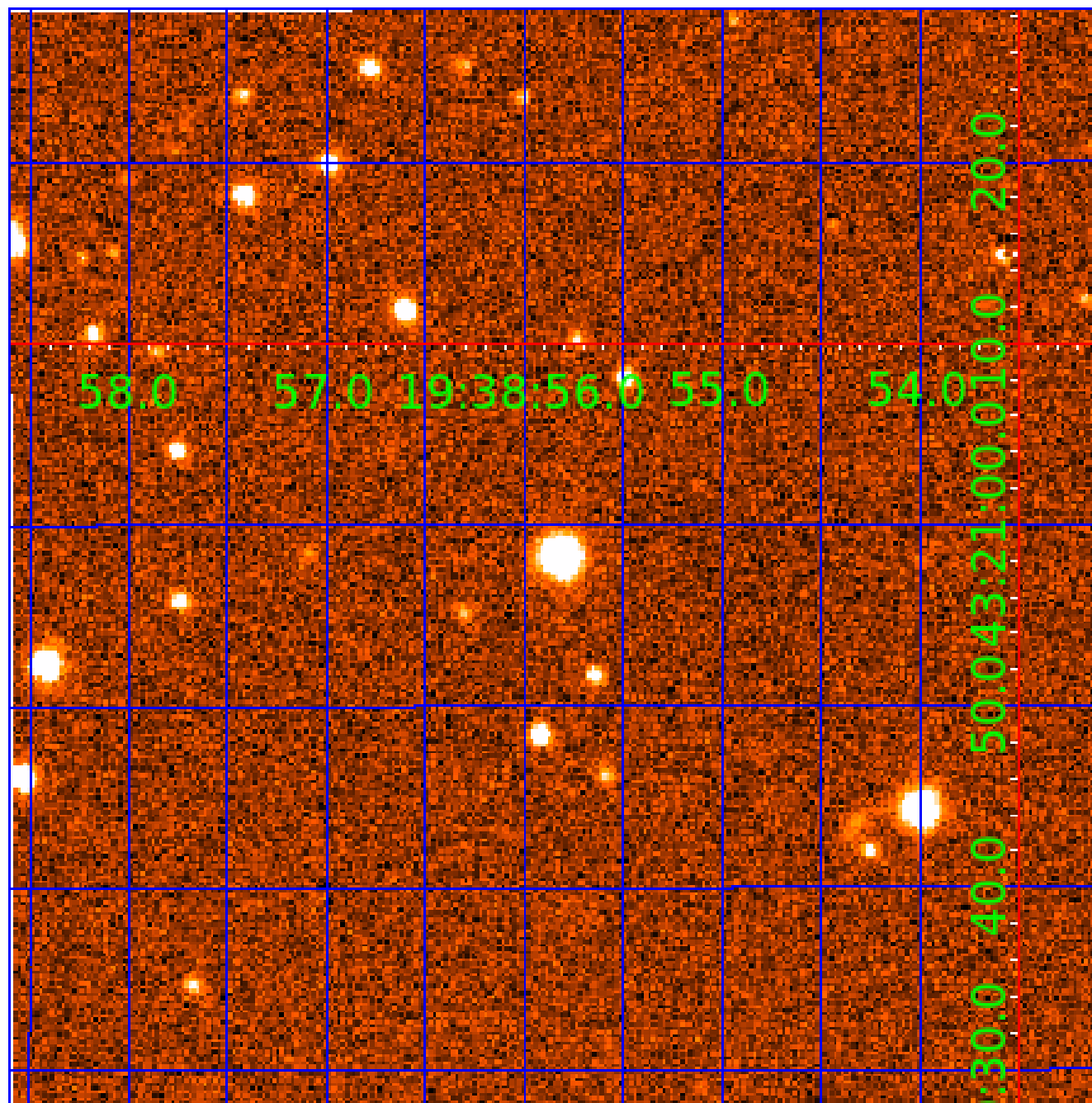


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007691527

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})
007691527-01	OBS	6905.01	4.800254	135.775778	275618.9	2.000	10011.8	-1.0	0.76	5591	36.70	185.43
007691527-02	OBS	No	4.800230	133.176885	225477.1	4.054	9531.0	5987.5	0.76	5591	51.88	185.43
007691527-03	OBS	No	7.200275	135.779264	7050.5	15.170	758.8	67.1	0.76	5591	11.51	107.99
007691527-04	OBS	No	4.800178	131.521211	4159.9	6.000	176.4	-1.0	0.76	5591	4.83	185.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007691527-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
007691527-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
007691527-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
007691527-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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 007691527-03

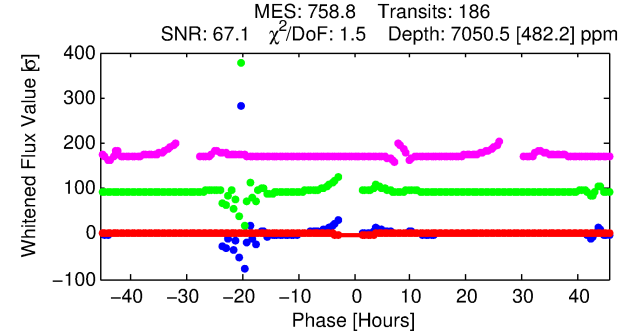
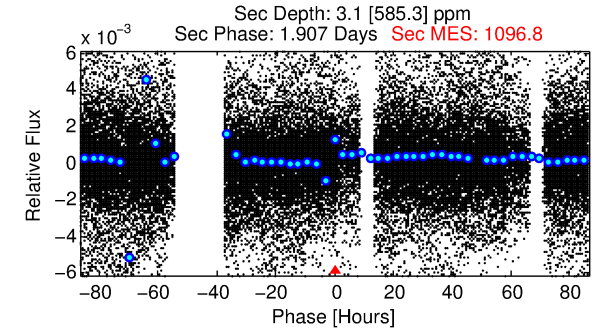
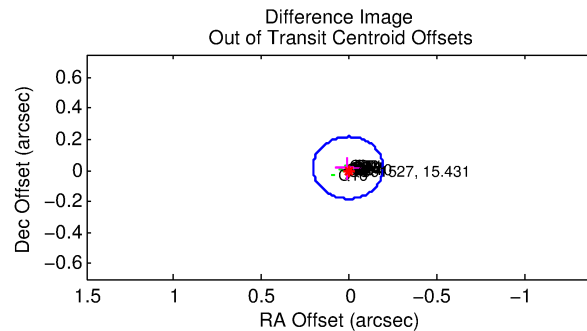
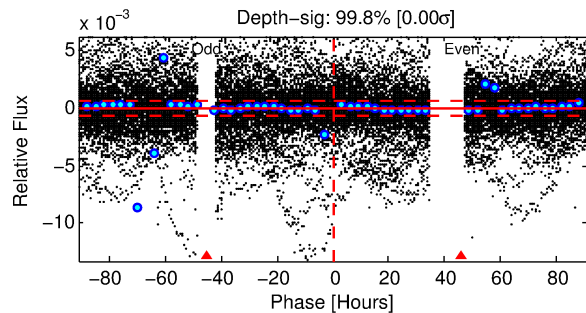
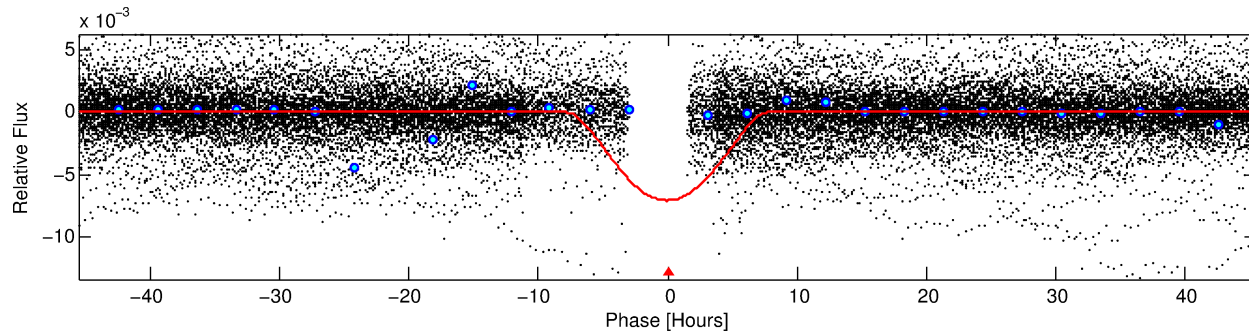
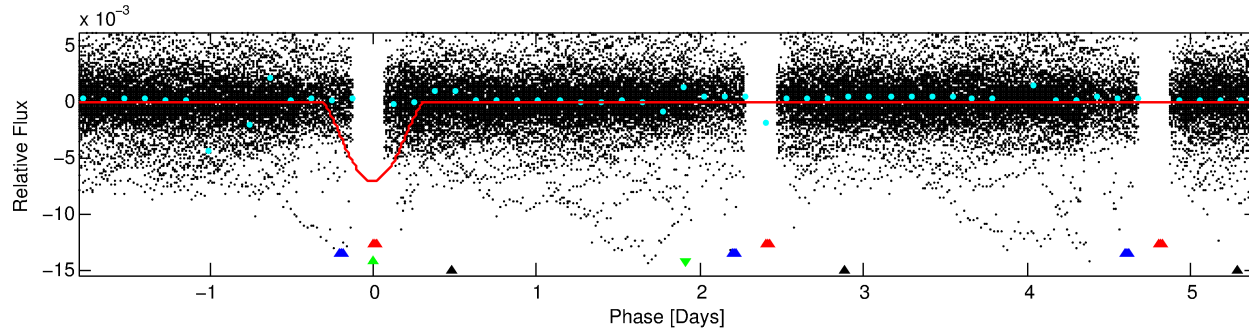
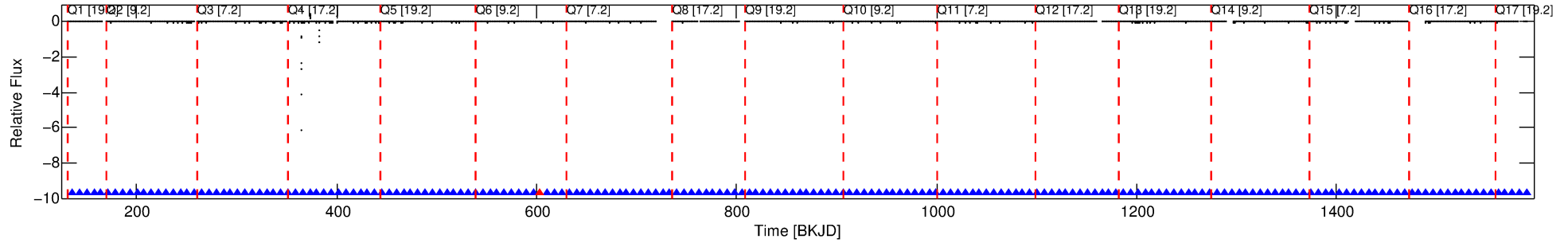
No Significant Match Found

DV One-Page Summary

KIC: 7691527 Candidate: 3 of 4 Period: 7.200 d

KOI: K06905 Corr: No Ephemeris Match

Kp: 15.43 R*: 0.76 Rs Teff: 5591.0 K Logg: 4.59 Fe/H: -0.440



DV Fit Results:

Period = 7.20028 [0.00008] d
Epoch = 135.7793 [0.0094] BKJD
Rp/R* = 0.1395 [0.1215]
a/R* = 2.25 [0.15]
b = 1.00 [0.17]
Seff = 107.99 [30.09]
Teq = 822 [57] K
Rp = 11.51 [10.30] Re
a = 0.0681 [0.0119] AU
Ag = 0.06 [11.27] [-0.08σ]
Teffp = 627 [29758] K [-0.01σ]

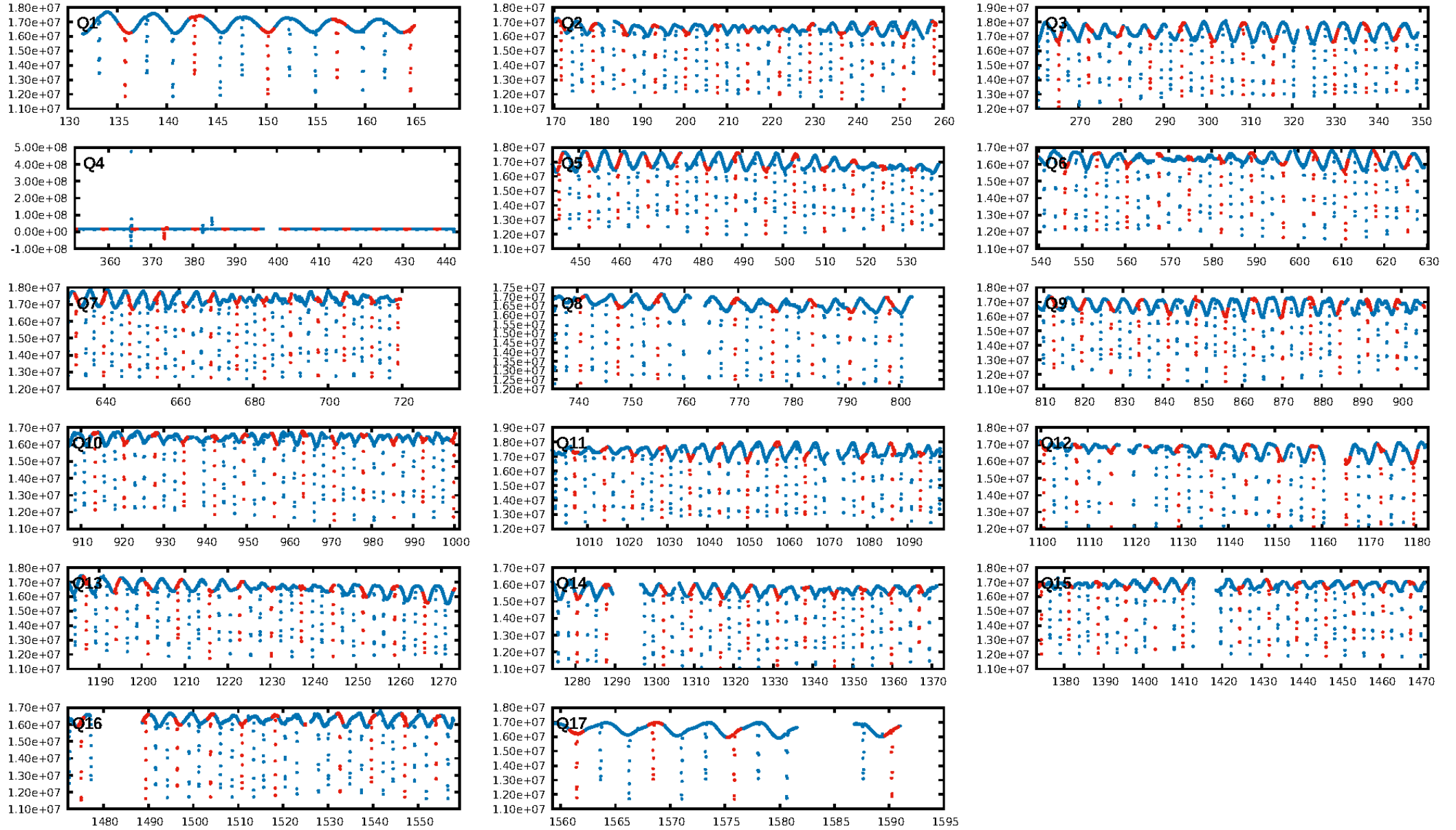
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [3.76σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [176/177]
GhostDiagnostic-chr: -1.26
Centroid-sig: N/A
Centroid-so: 0.186 arcsec [5.30σ]
OotOffset-rm: 0.020 arcsec [0.30σ]
KicOffset-rm: 0.045 arcsec [0.67σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

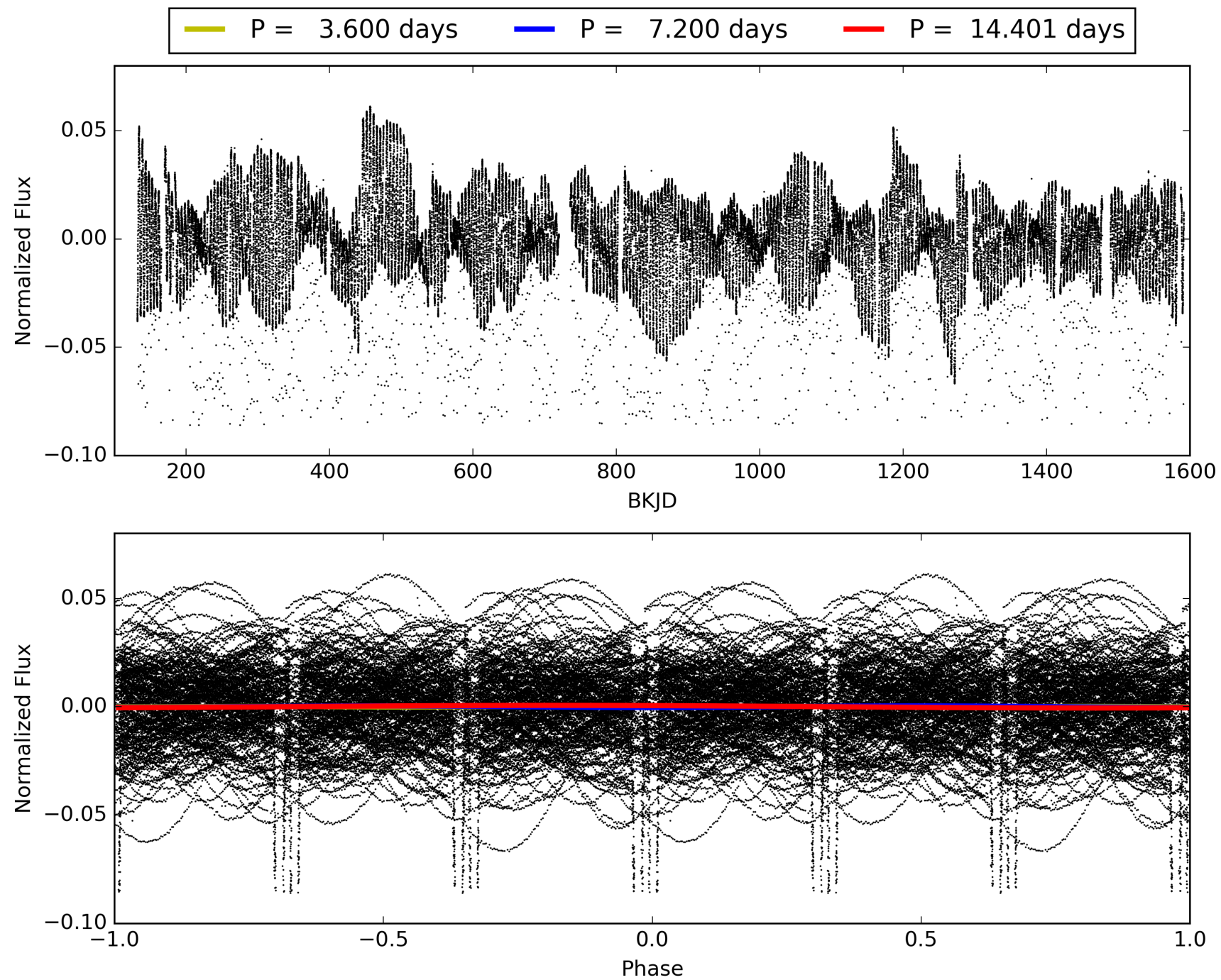
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:20:54 Z

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

TCE 007691527-03, PDC Light Curves

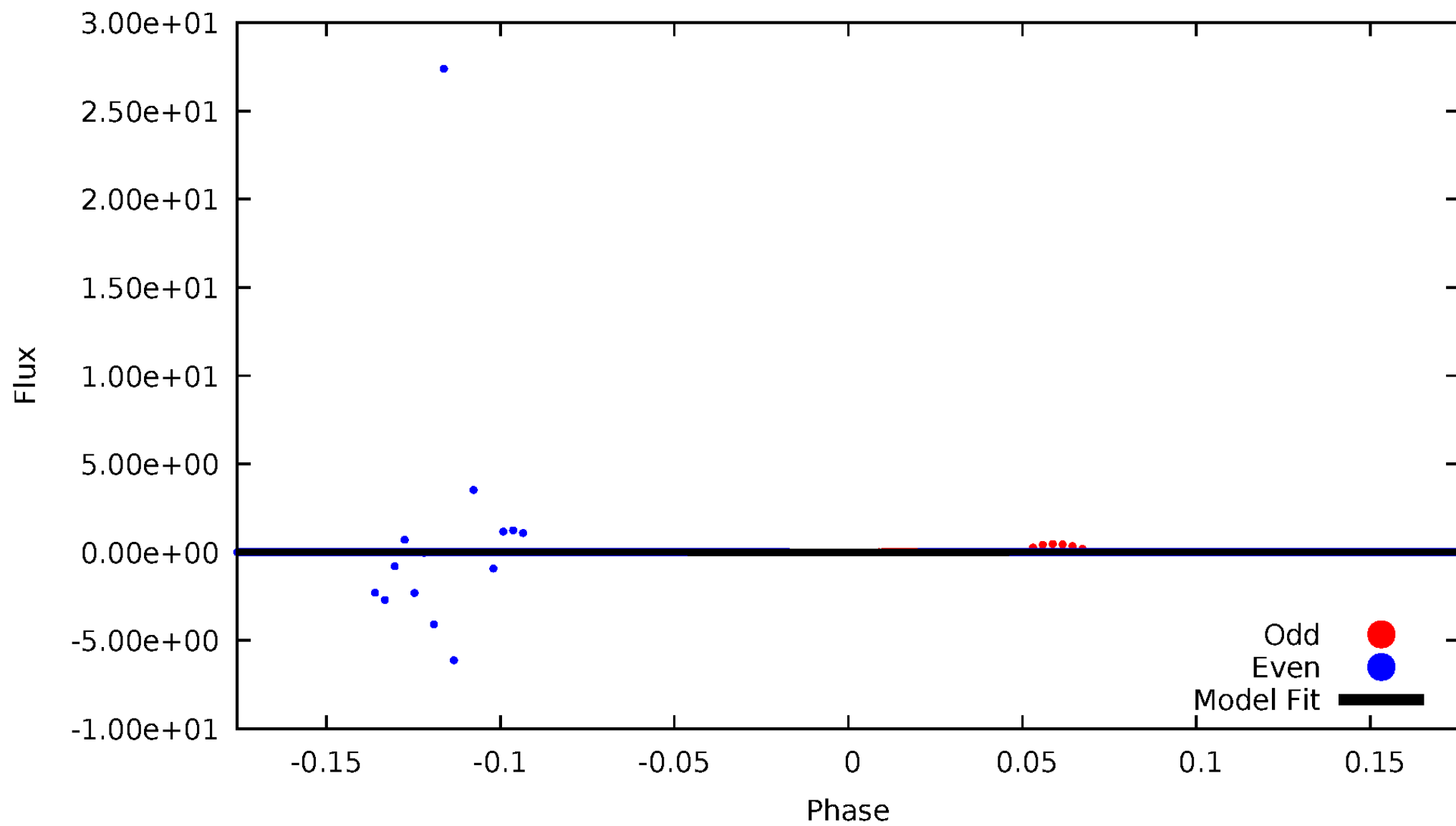


TCE 007691527-03



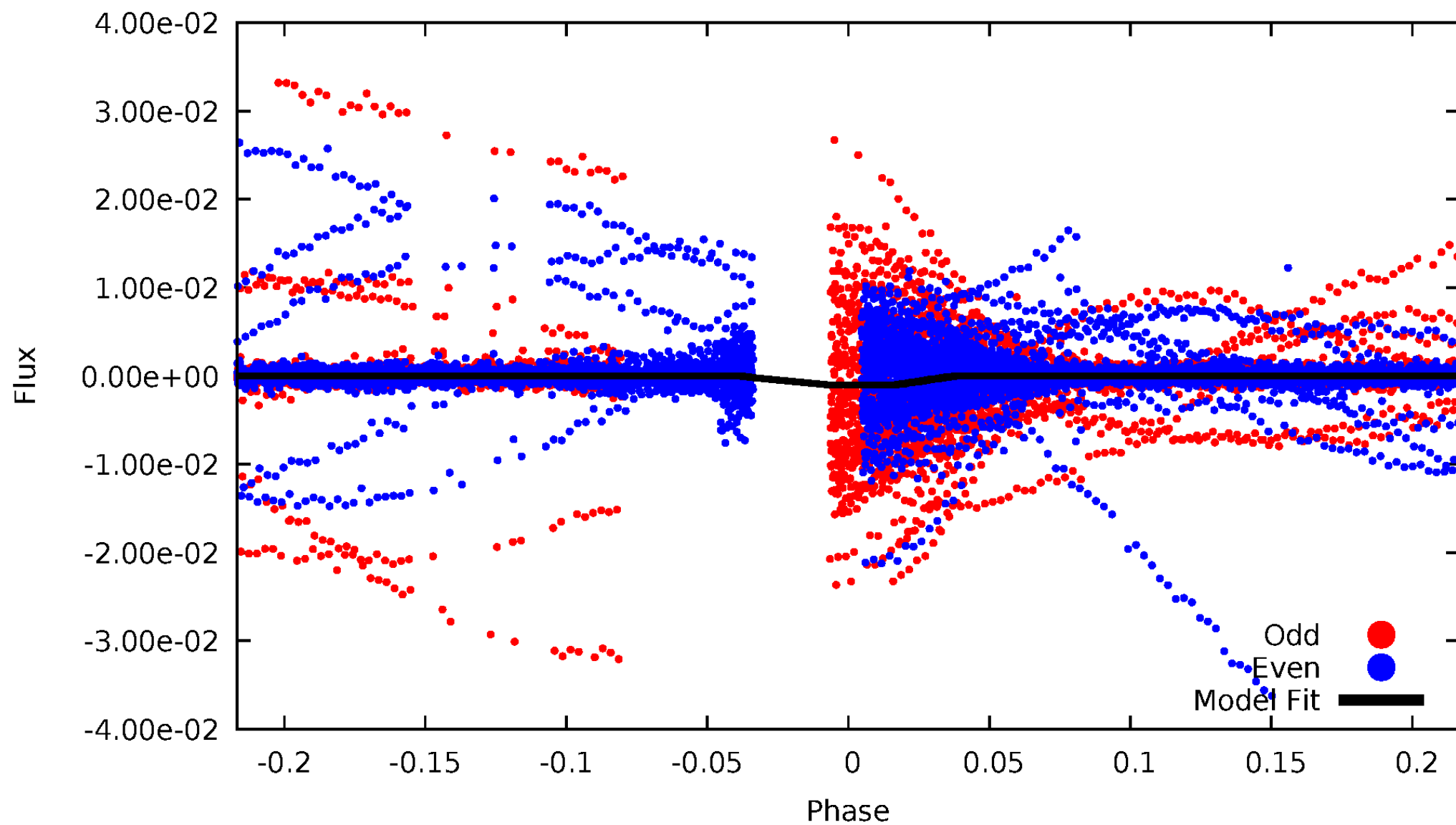
DV Odd/Even

TCE 007691527-03



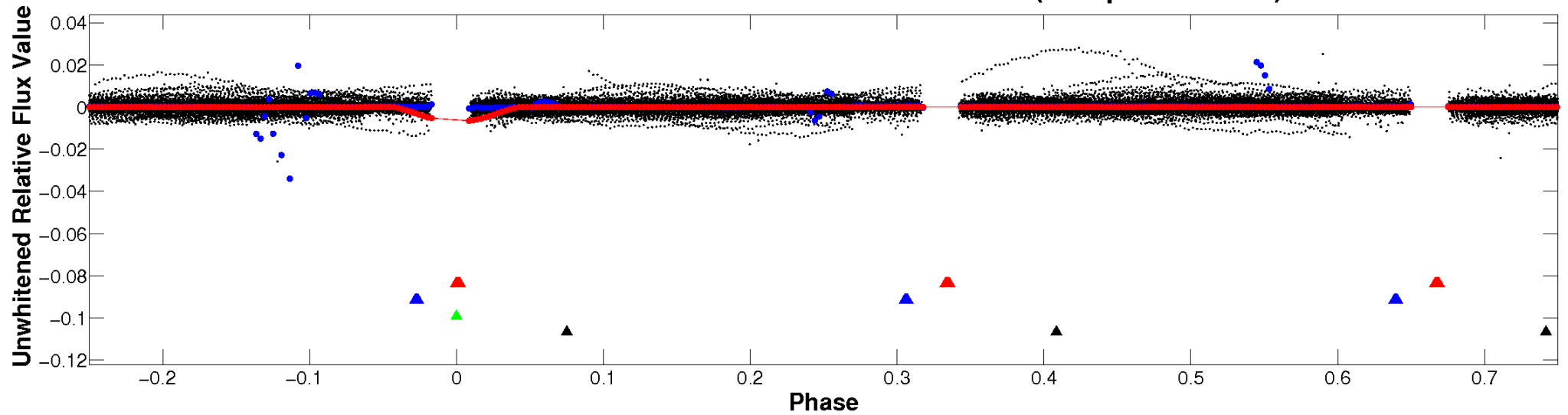
ALT Odd/Even

TCE 007691527-03

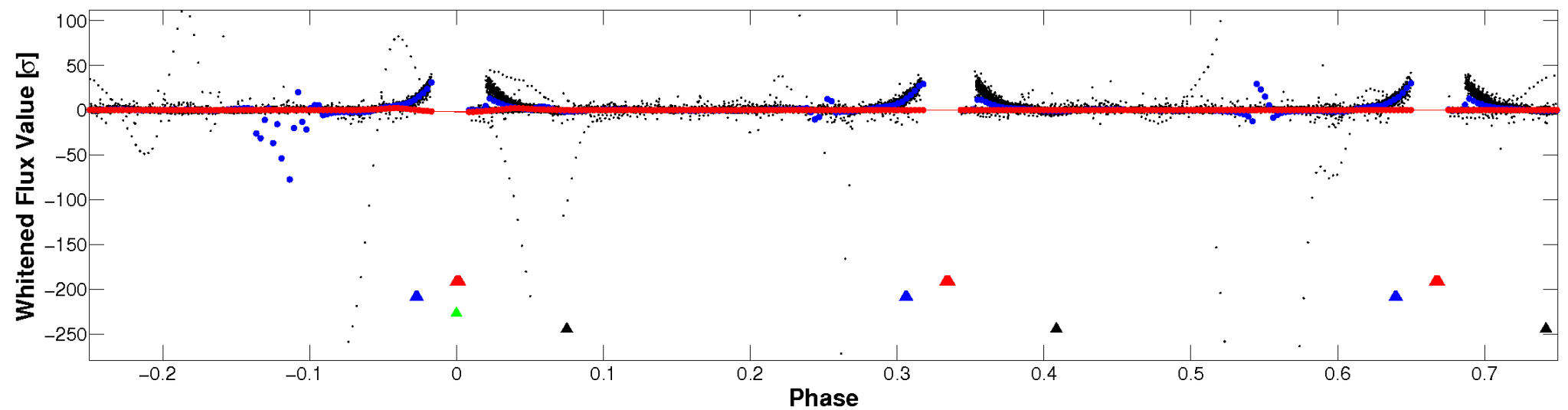


Non-Whitened Vs. Whitened Light Curve

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

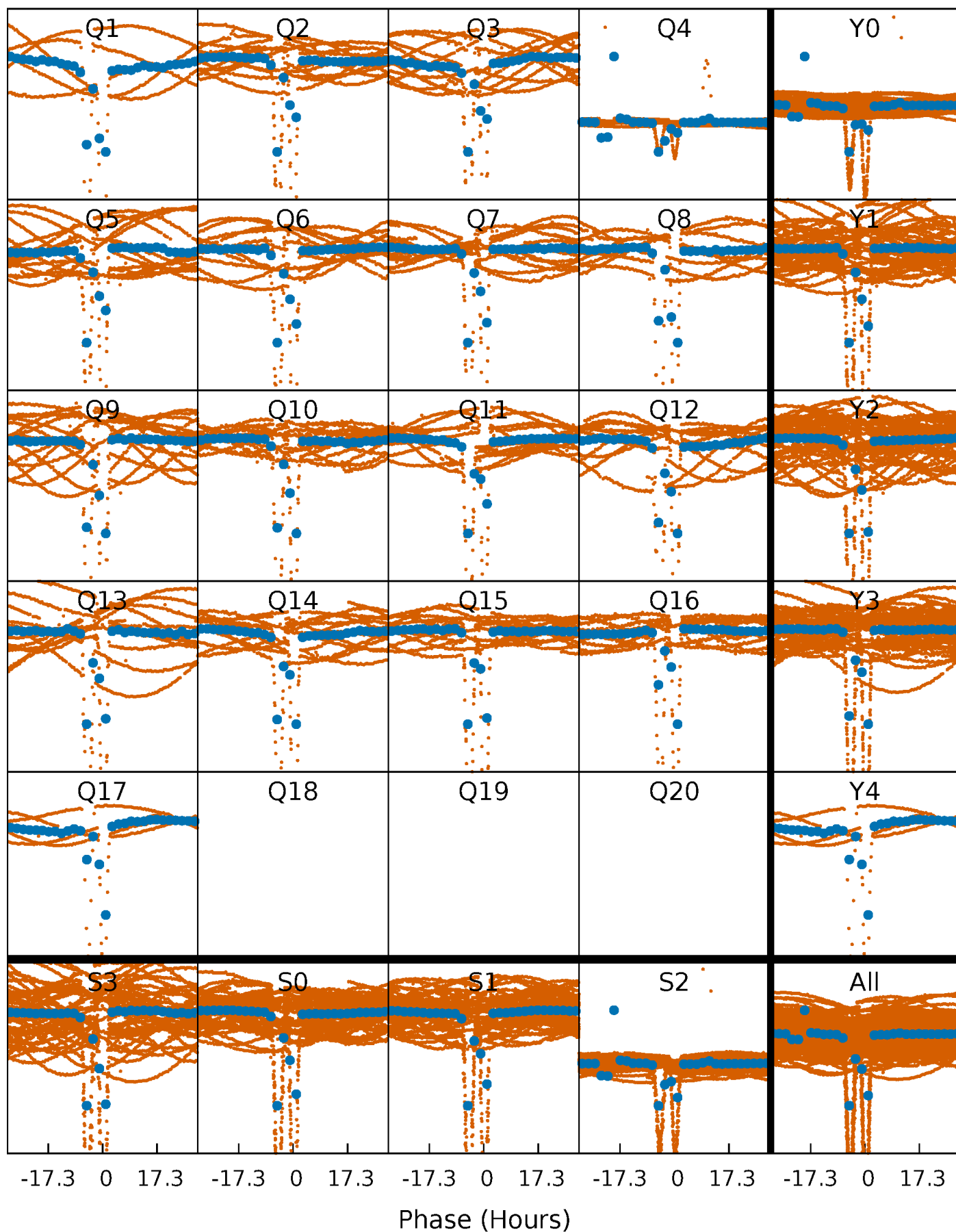


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



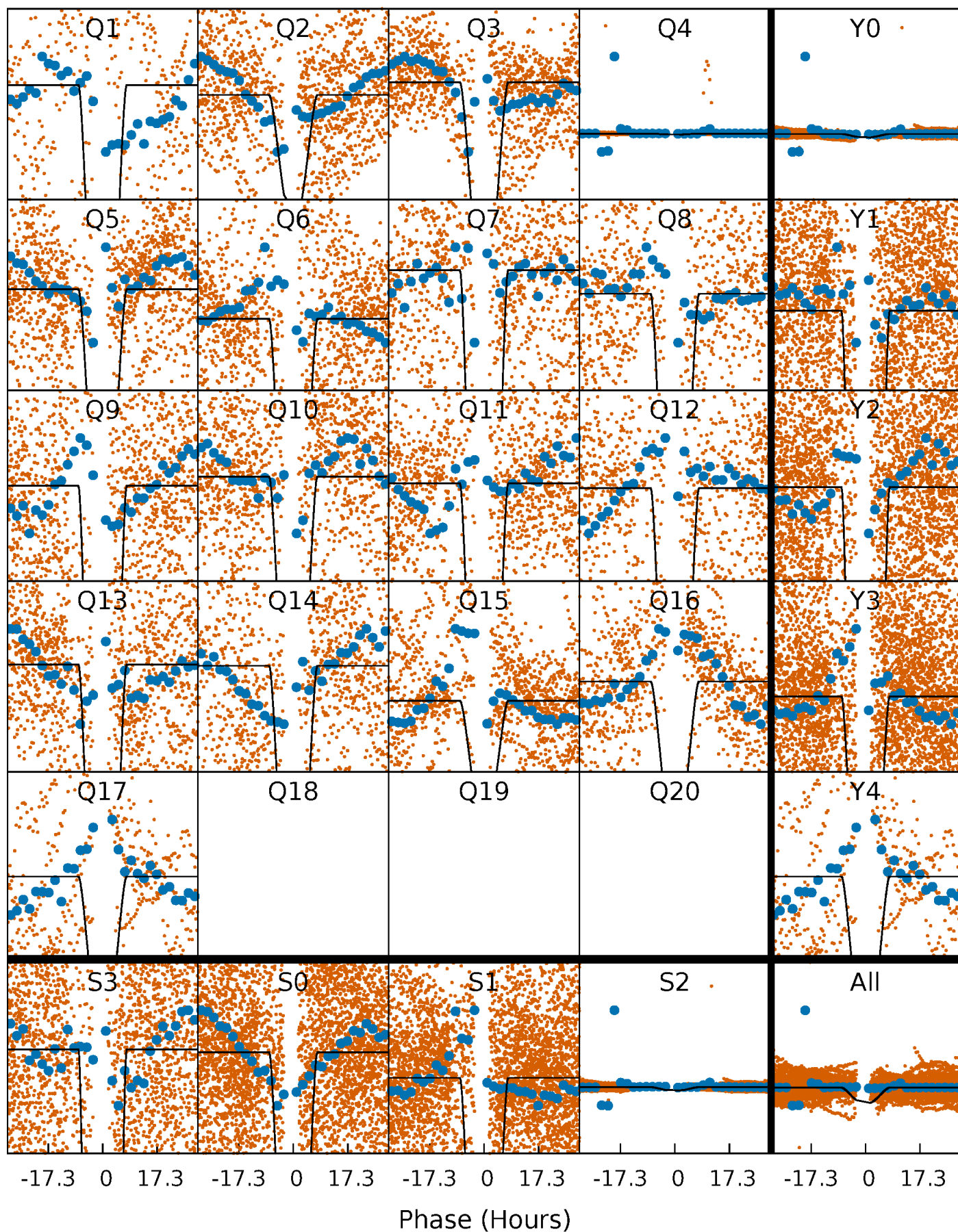
PDC Quarter-Phased Transit Curves

TCE 007691527-03 P= 7.200275 Days $T_0=135.779264$ (BKJD)



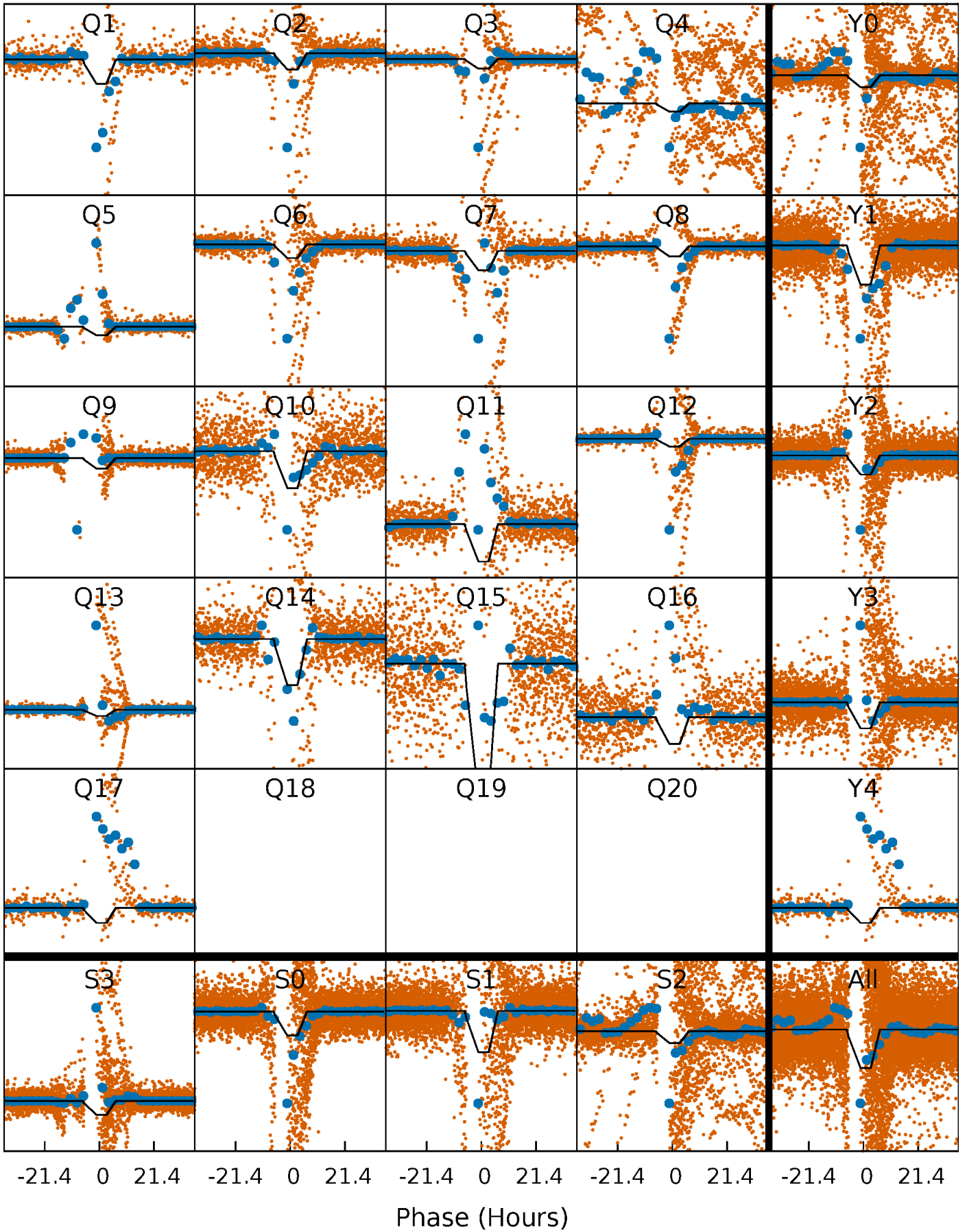
DV Quarter-Phased Transit Curves

TCE 007691527-03 P= 7.200275 Days $T_0=135.779264$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

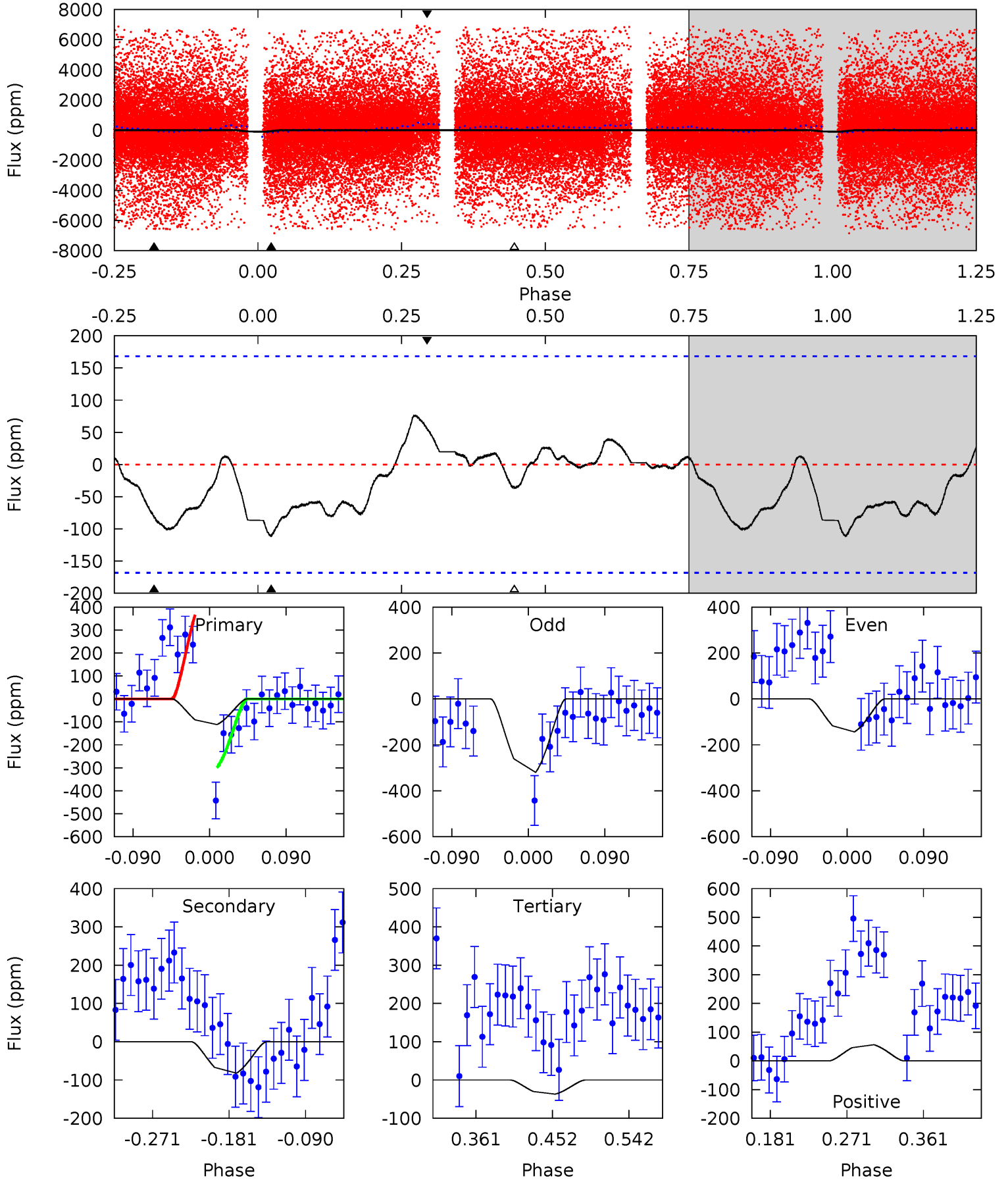
TCE 007691527-03 P= 7.200355 Days $T_0=135.886053$ (BKJD)



DV Model-Shift Uniqueness Test

007691527-03, P = 7.200275 Days, E = 128.578989 Days

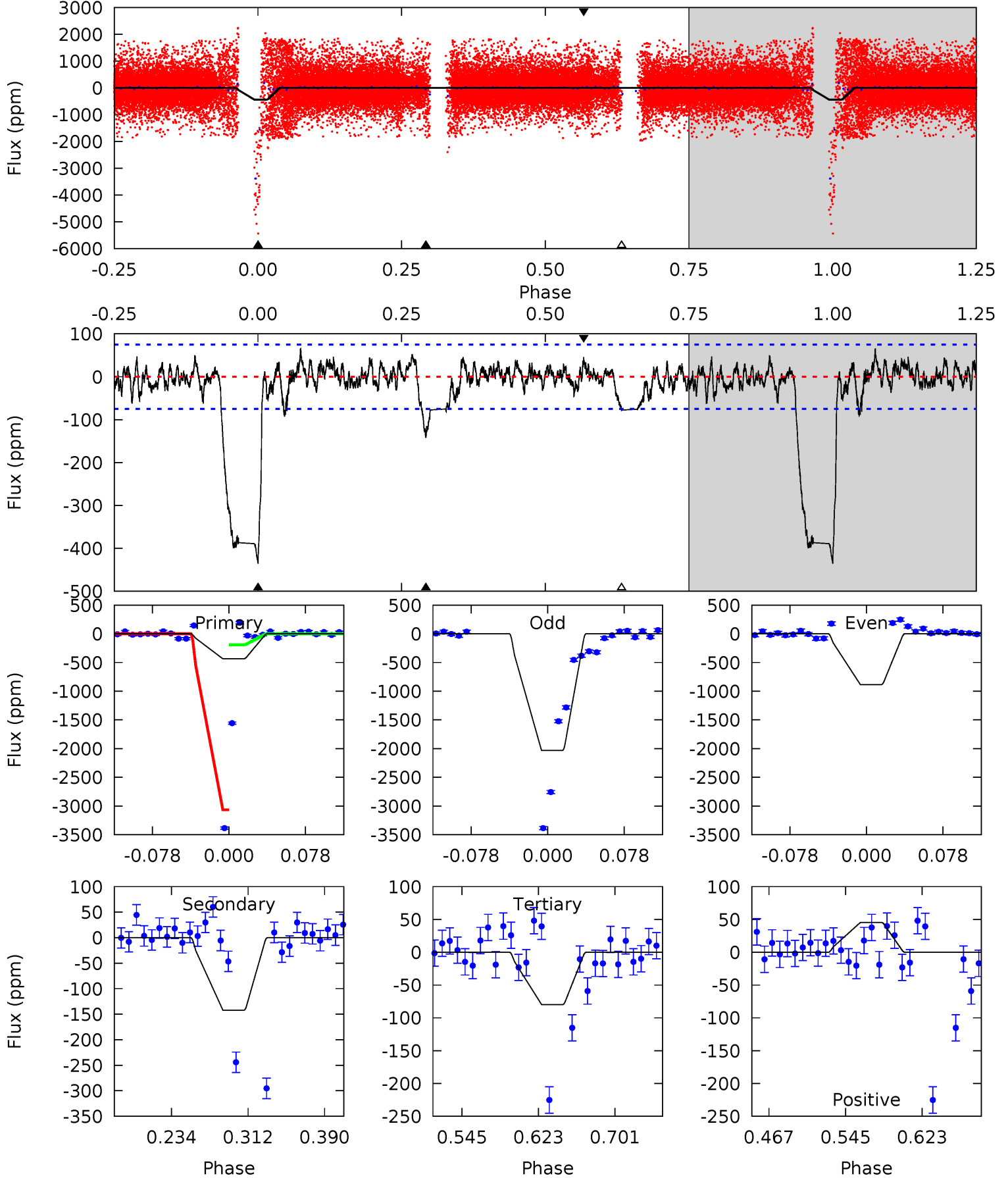
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.04	2.23	1.01	1.53	4.59	1.69	0.92	2.04	1.51	1.23	0.70	2.37	0.46	0.41	0.83



Alt Model-Shift Uniqueness Test

007691527-03, P = 7.200355 Days, E = 128.685698 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.9	8.79	4.93	2.81	4.62	1.76	1.21	22.0	24.1	3.86	5.98	33.5	4.66	0.13	0



Stellar Parameters For KIC 007691527

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5591^{+169}_{-169}	$4.590^{+0.043}_{-0.136}$	$-0.440^{+0.300}_{-0.300}$	$0.756^{+0.158}_{-0.056}$	$0.812^{+0.089}_{-0.071}$	$2.642^{+0.484}_{-1.049}$
	+3%/-3%	+1%/-3%	+68%/-68%	+21%/-7%	+11%/-9%	+18%/-40%
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 007691527-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-82 ± 37	$13.22^{+9.65}_{-8.02}$	1165^{+62}_{-45}	2193^{+607}_{-541}	$1.148^{+5.311}_{-0.801}$
Alt.	-142 ± 16	$8.59^{+8.24}_{-6.00}$	1165^{+61}_{-48}	2689^{+1205}_{-471}	$4.853^{+47.725}_{-3.612}$

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 $A_{obs} \gg 1.0$

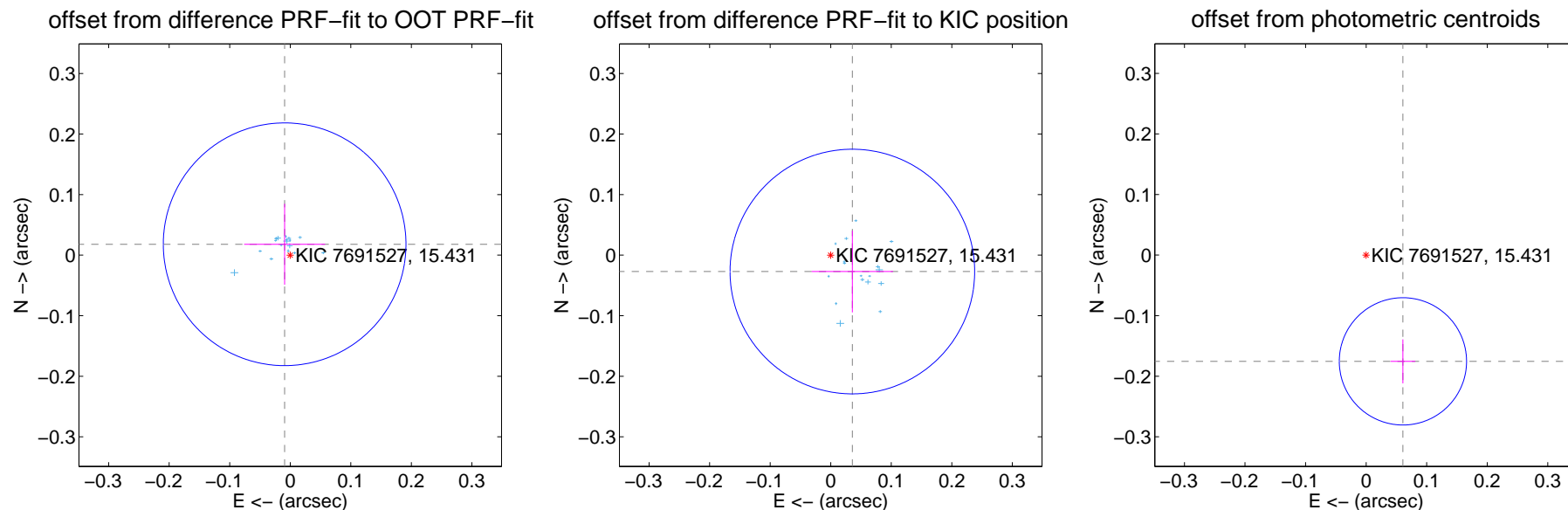
DV Centroid Data

Supplemental centroid analysis for 007691527-03. Kepler magnitude: 15.43. Transit SNR 67.07

There are 17 quarters with good PRF difference image offsets

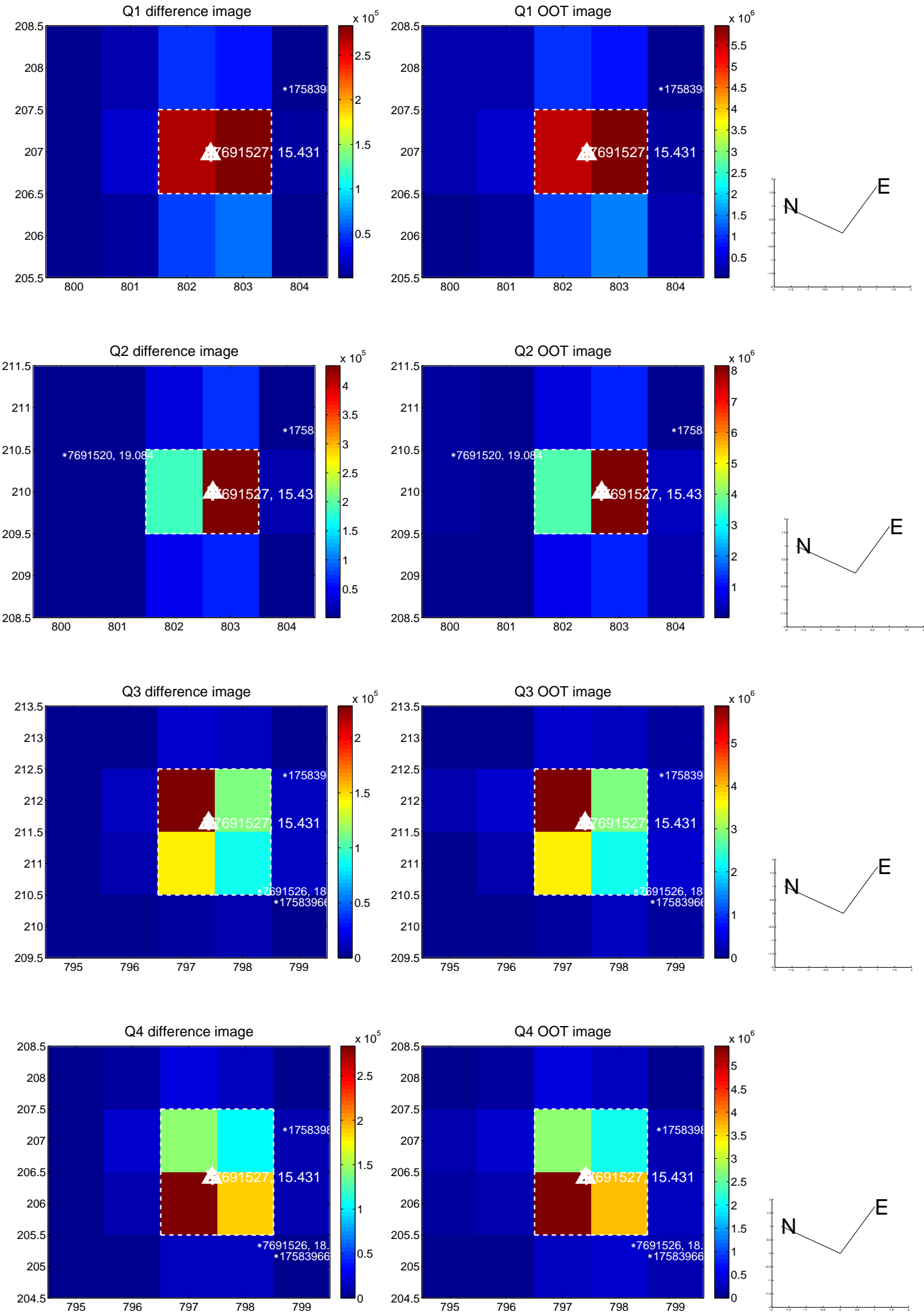
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.067	0.30	0.009 ± 0.067	0.018 ± 0.067
PRF-fit source offset from KIC position	0.045 ± 0.067	0.67	-0.036 ± 0.067	-0.027 ± 0.067
photometric centroid source offset	0.19 ± 0.04	5.30	-0.06 ± 0.02	-0.18 ± 0.04

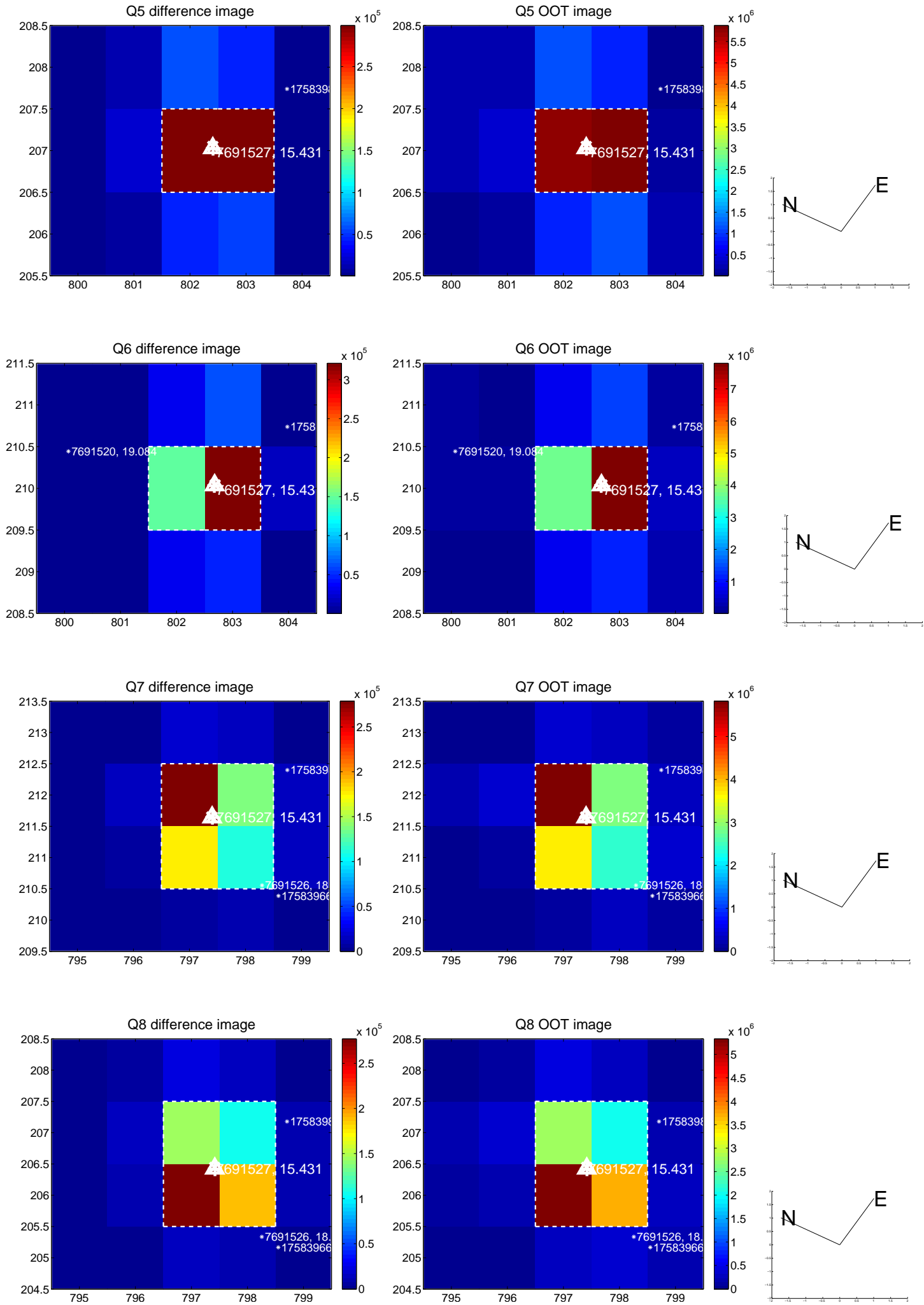


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

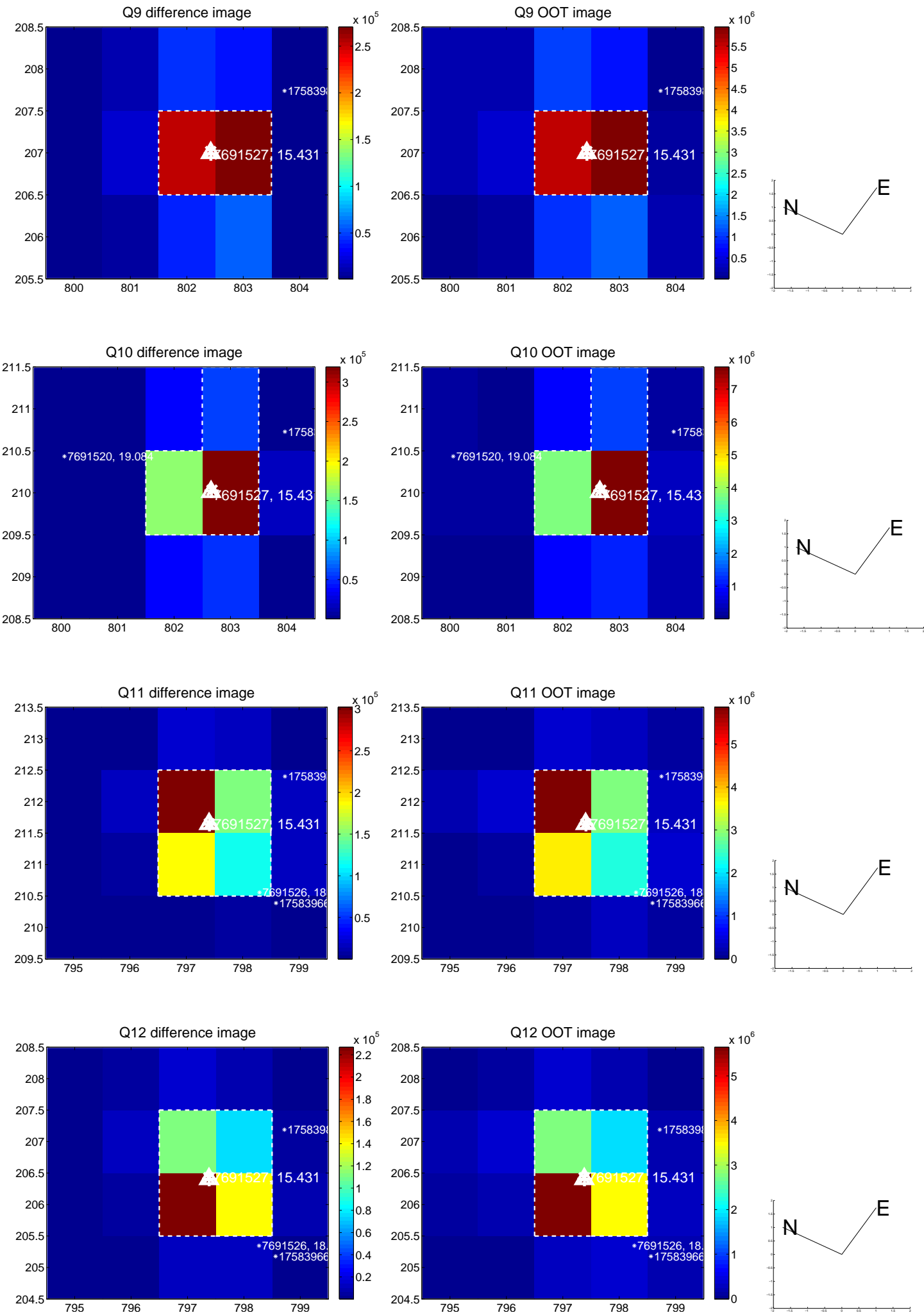
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



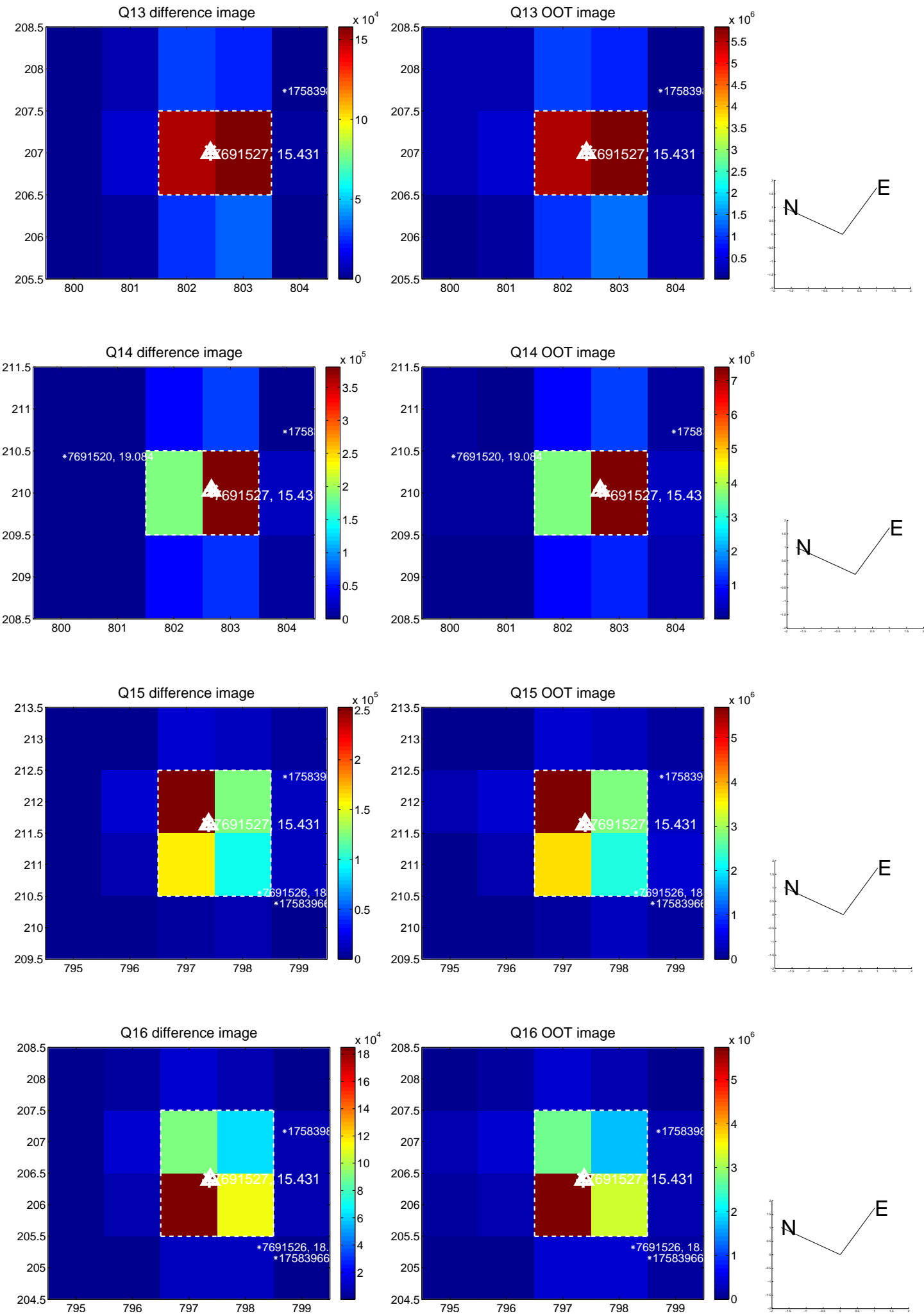
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



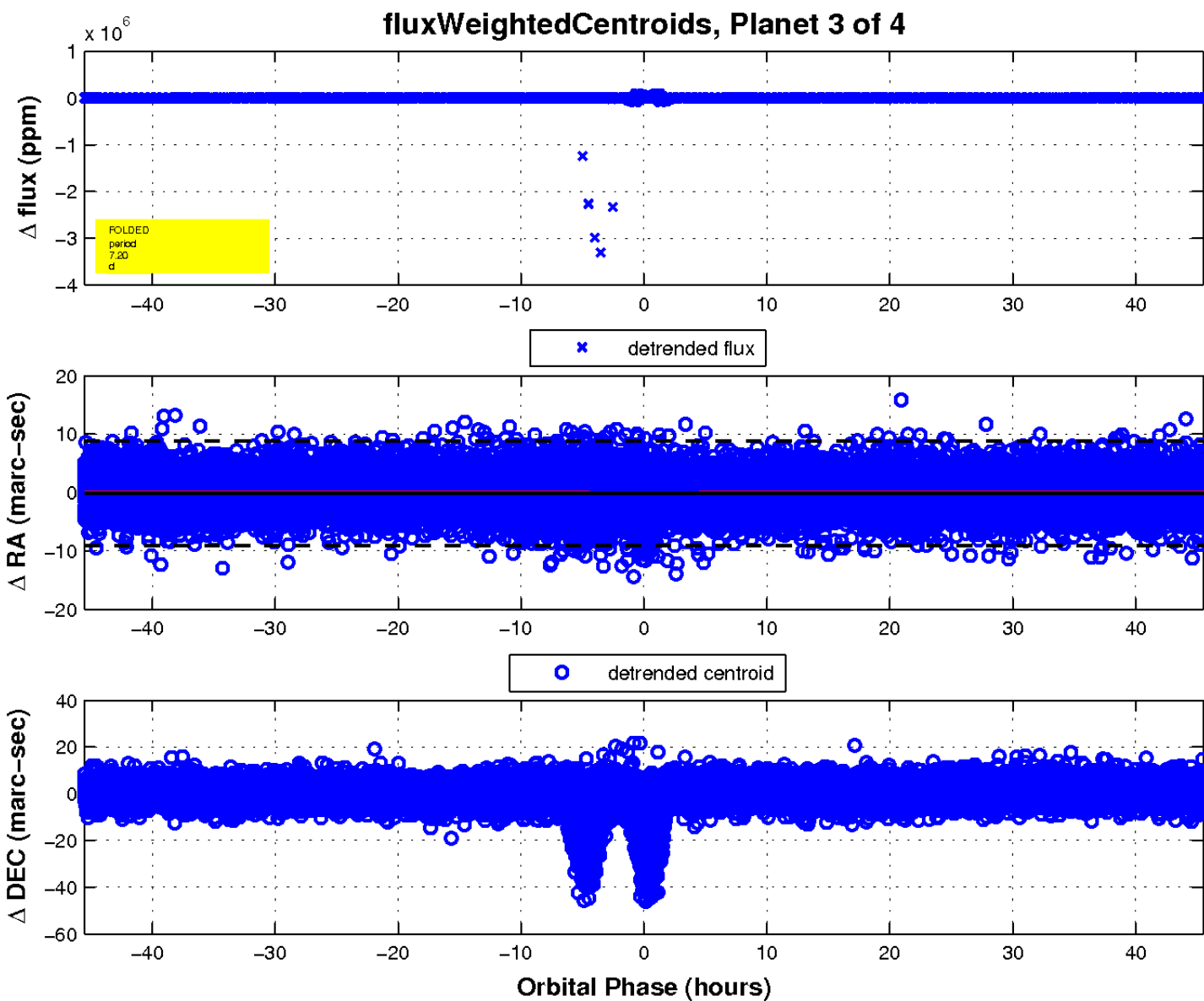
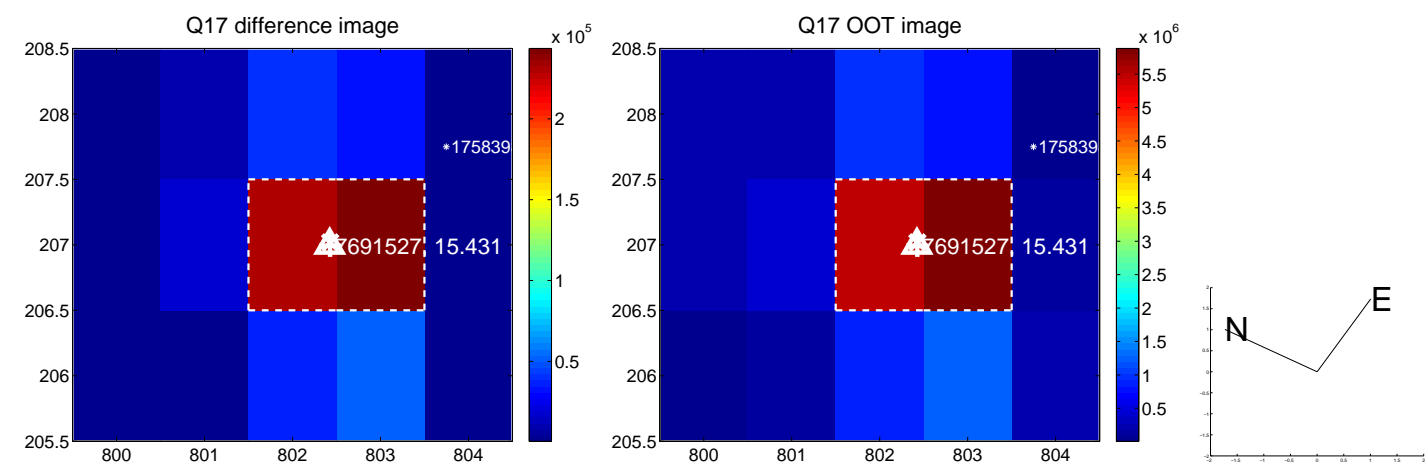
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

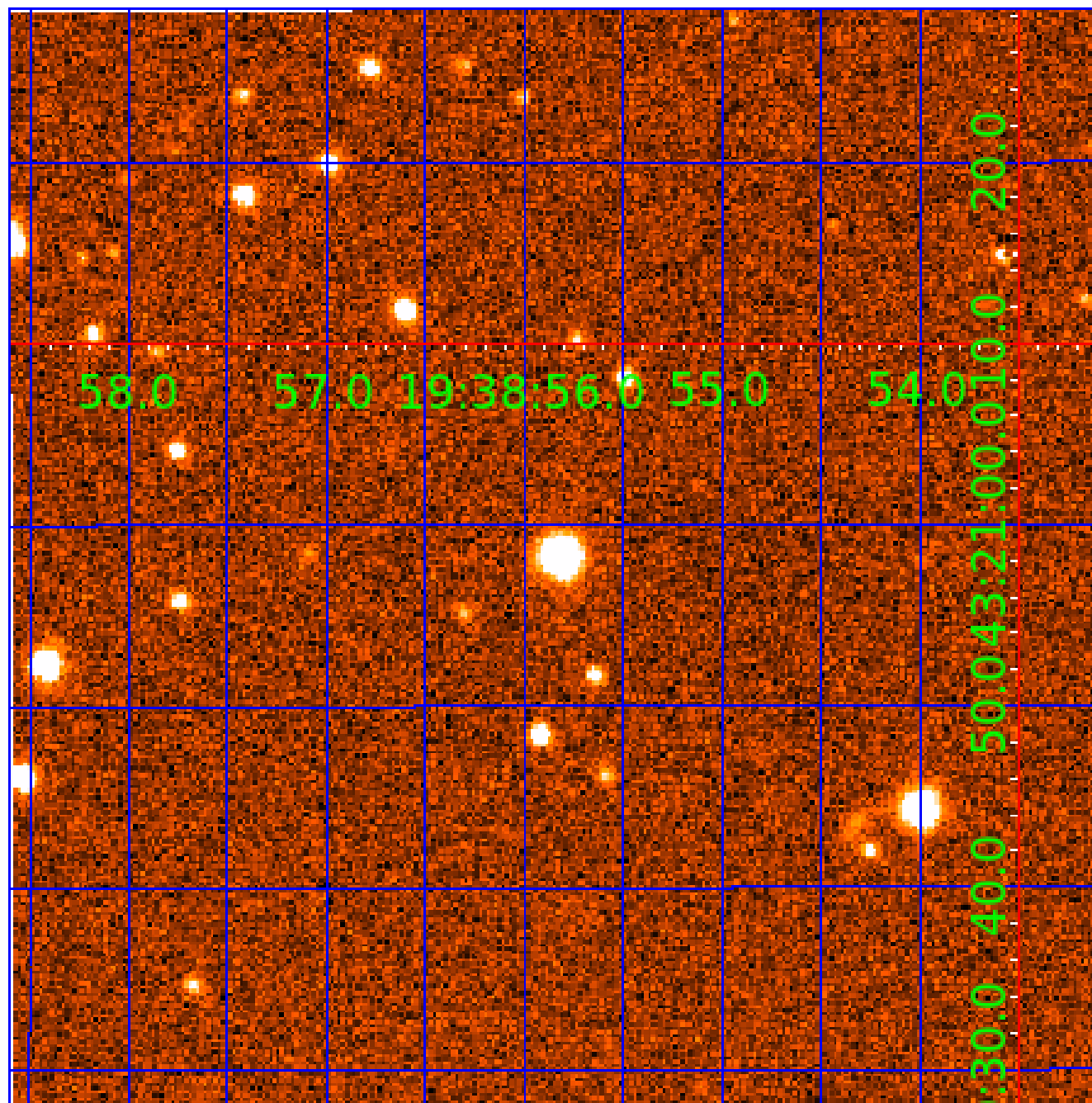


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007691527

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})
007691527-01	OBS	6905.01	4.800254	135.775778	275618.9	2.000	10011.8	-1.0	0.76	5591	36.70	185.43
007691527-02	OBS	No	4.800230	133.176885	225477.1	4.054	9531.0	5987.5	0.76	5591	51.88	185.43
007691527-03	OBS	No	7.200275	135.779264	7050.5	15.170	758.8	67.1	0.76	5591	11.51	107.99
007691527-04	OBS	No	4.800178	131.521211	4159.9	6.000	176.4	-1.0	0.76	5591	4.83	185.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007691527-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
007691527-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
007691527-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
007691527-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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 007691527-04

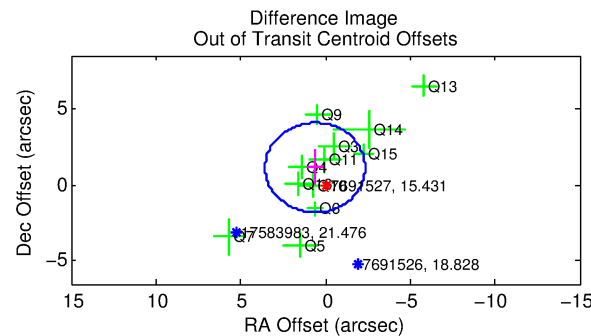
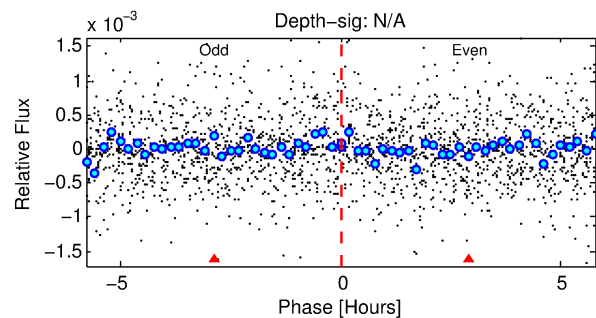
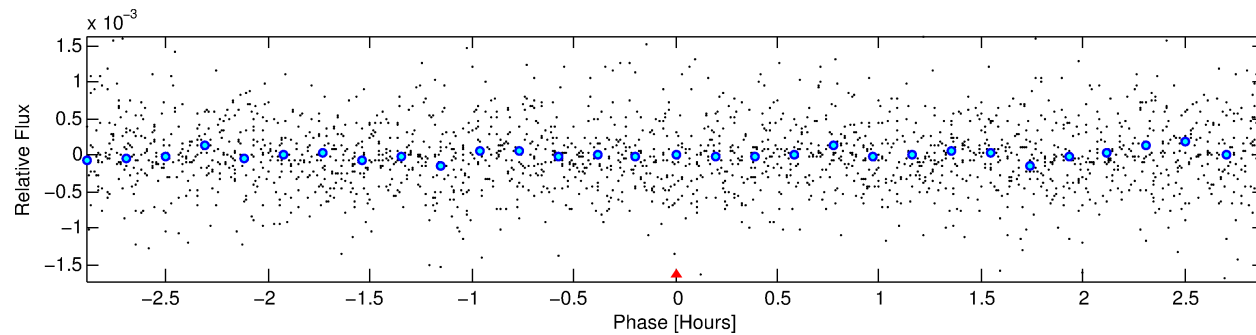
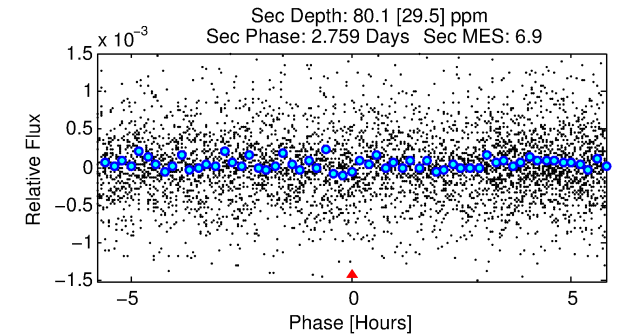
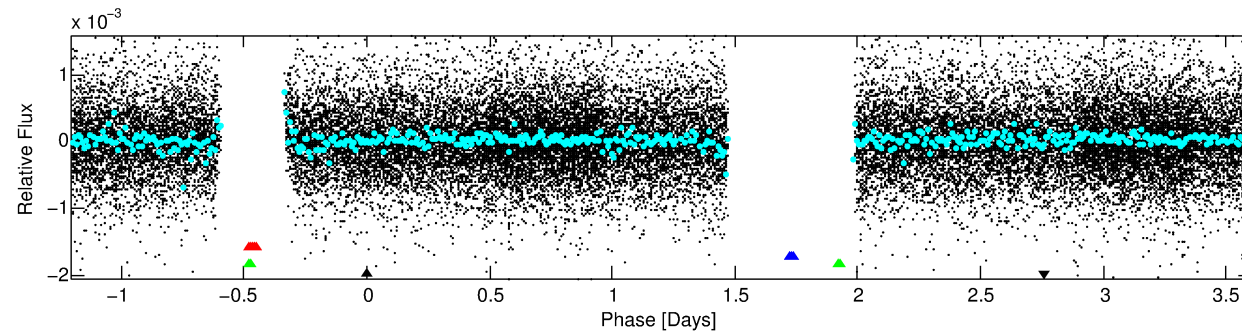
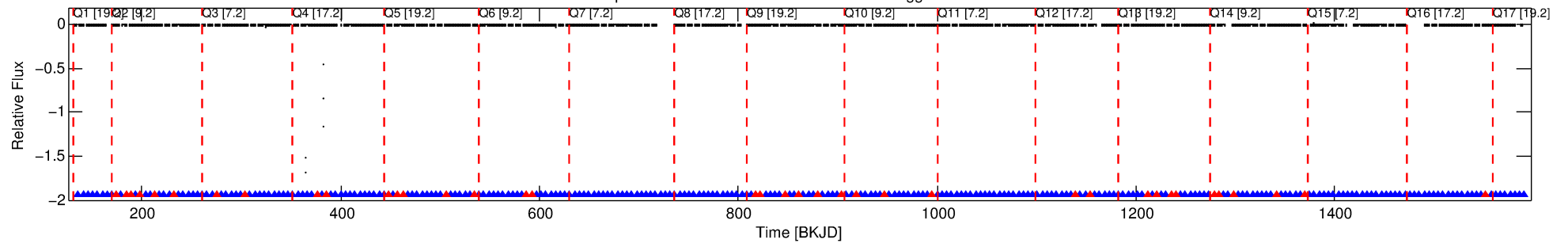
No Significant Match Found

DV One-Page Summary

KIC: 7691527 Candidate: 4 of 4 Period: 4.800 d

KOI: K06905 Corr: No Ephemeris Match

Kp: 15.43 R*: 0.76 Rs Teff: 5591.0 K Logg: 4.59 Fe/H: -0.440



TPS TCE Results:

Period = 4.80018 d
Epoch = 131.5212 BKJD

DV fit results are unavailable

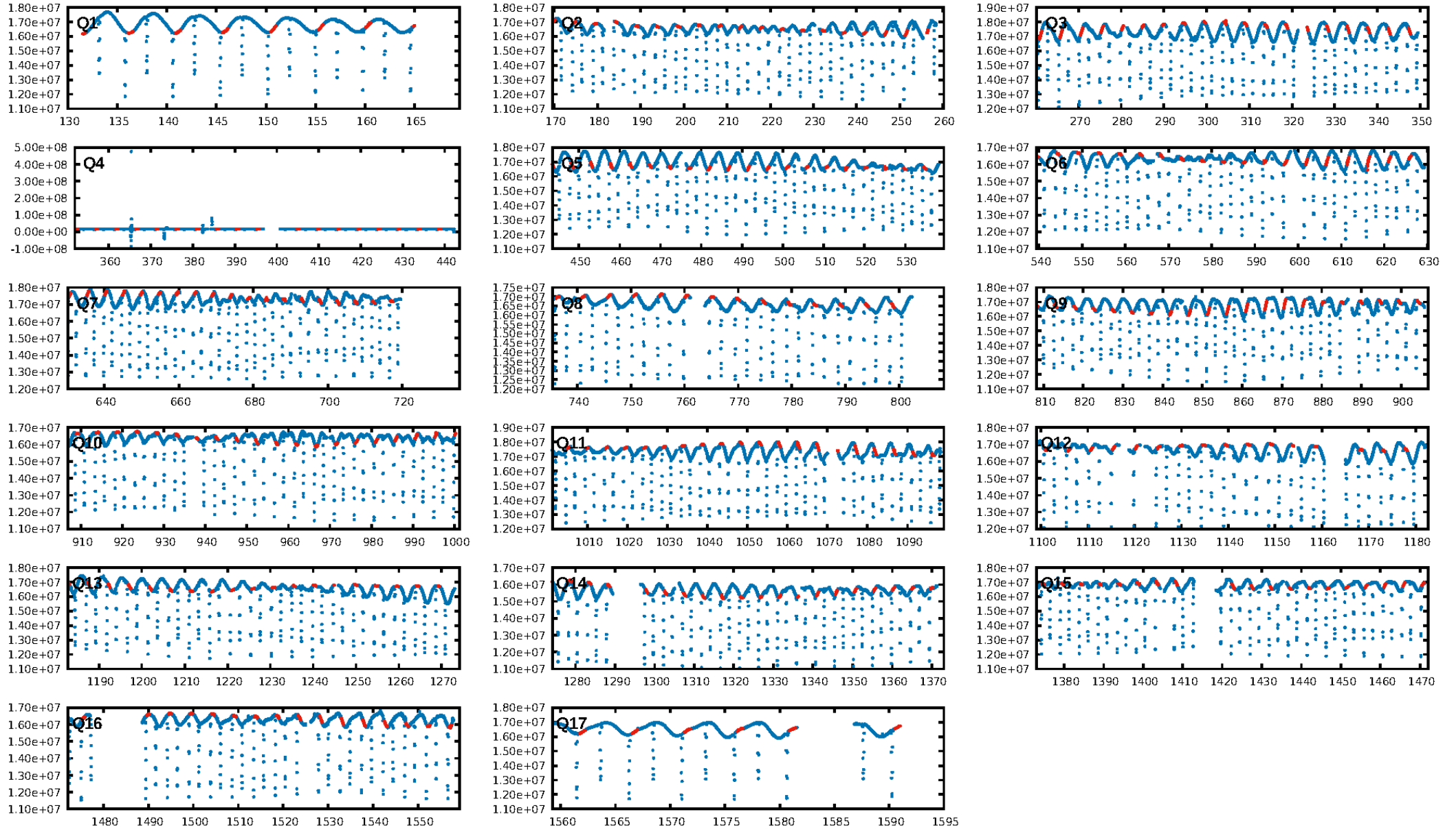
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.79 [142/180]
GhostDiagnostic-chr: 1.814
Centroid-sig: N/A
Centroid-so: 8.400 arcsec [1.71σ]
OotOffset-rm: 1.296 arcsec [1.32σ]
KicOffset-rm: 1.136 arcsec [1.20σ]
OotOffset-st: 3/4/2/3 [12]
KicOffset-st: 3/4/2/3 [12]
DiffImageQuality-fgm: 0.25 [3/12]
DiffImageOverlap-fno: 1.00 [17/17]

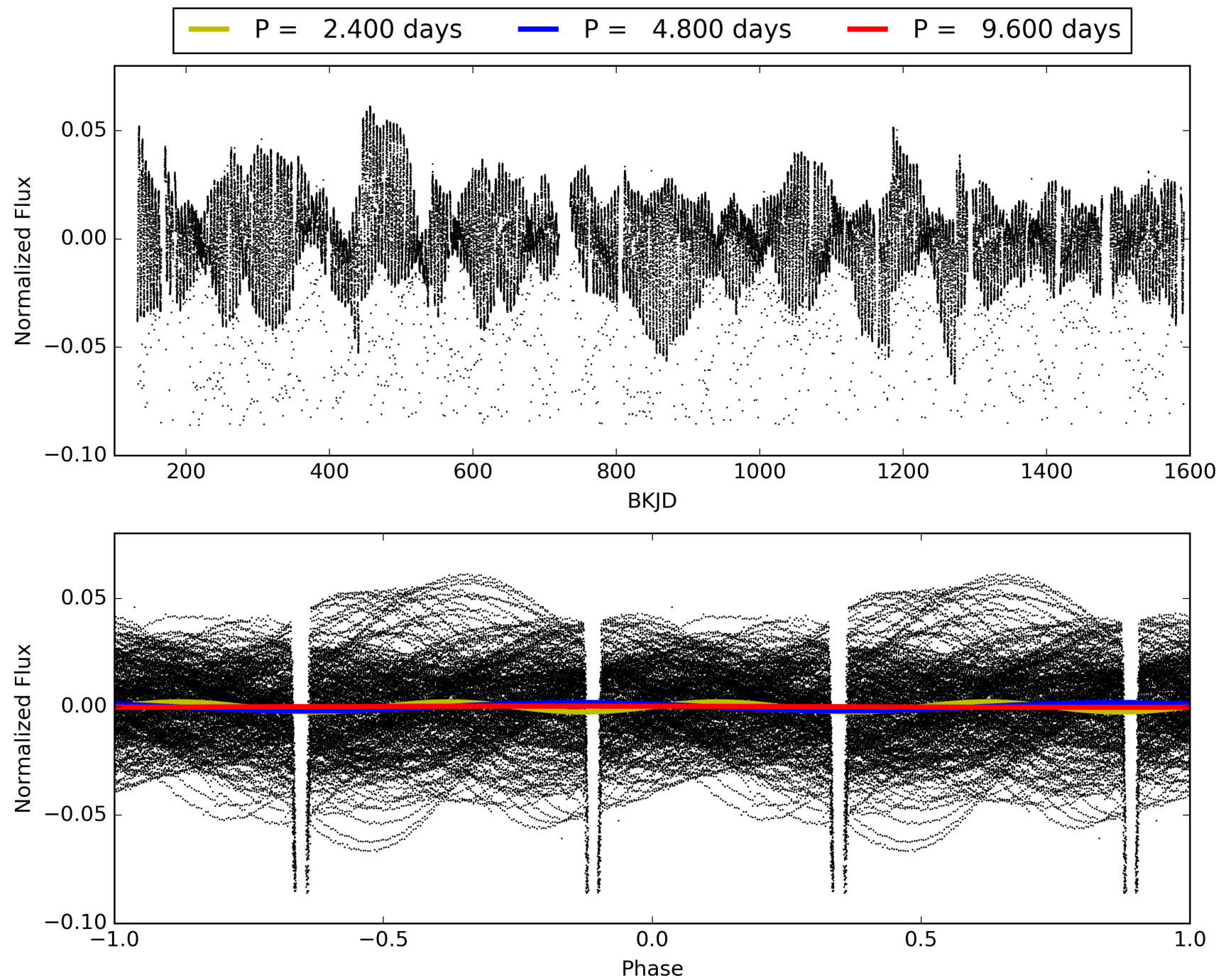
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:21:01 Z

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

TCE 007691527-04, PDC Light Curves

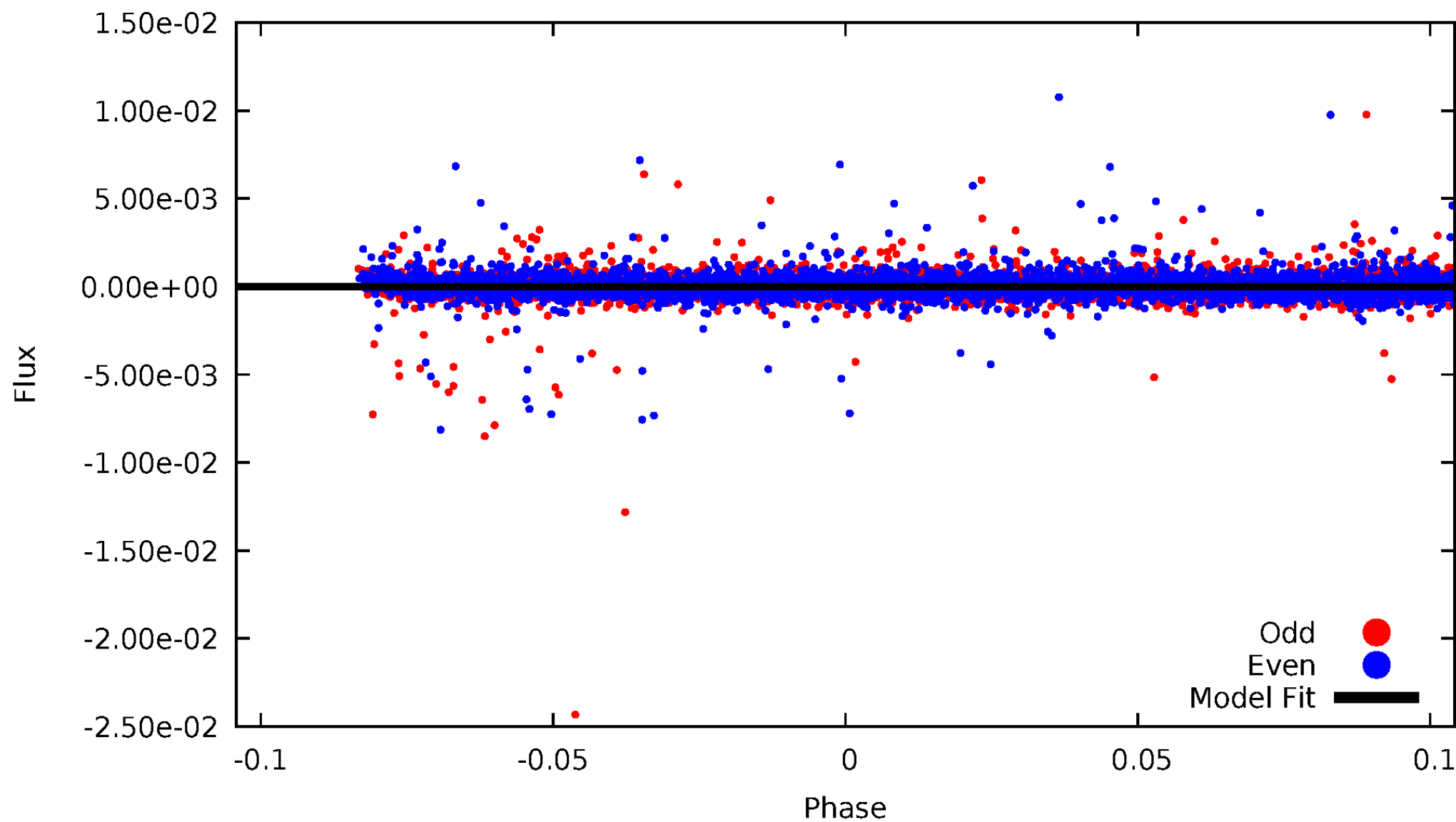


TCE 007691527-04



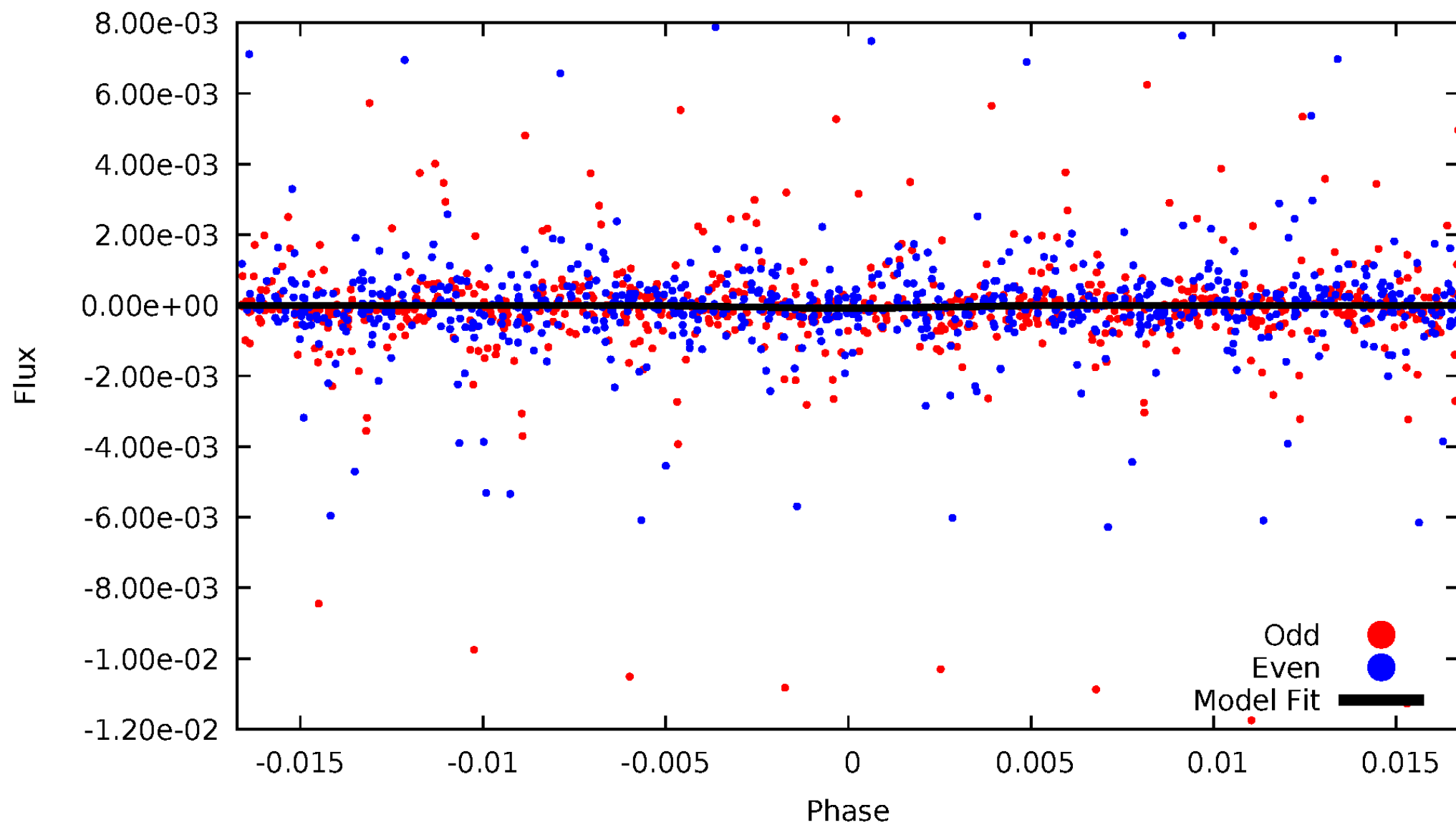
DV Odd/Even

TCE 007691527-04

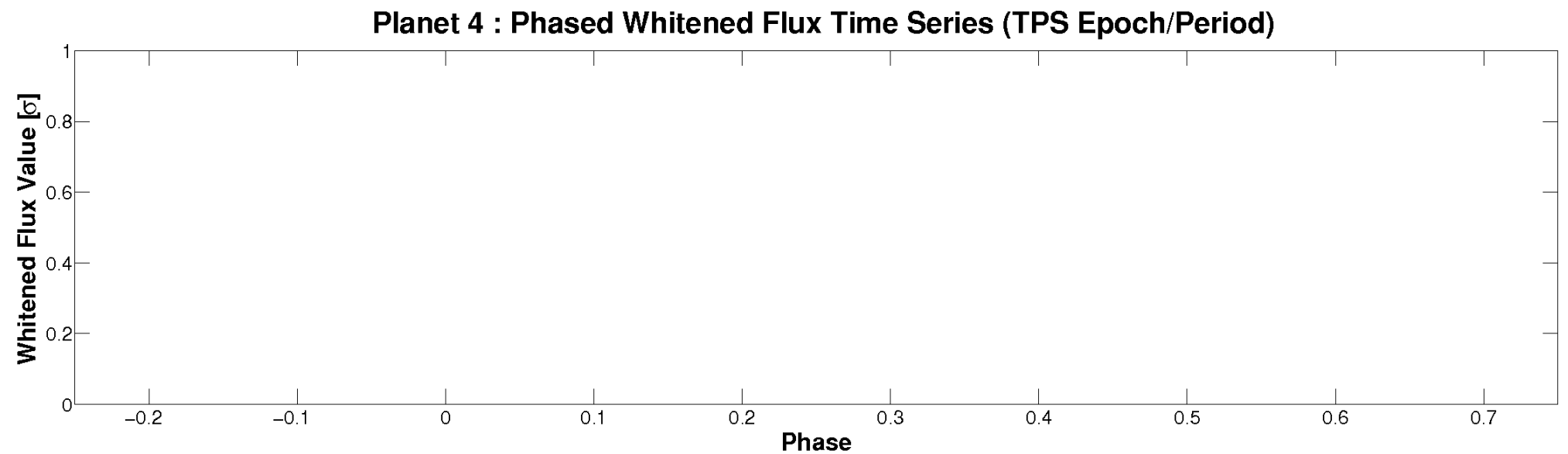
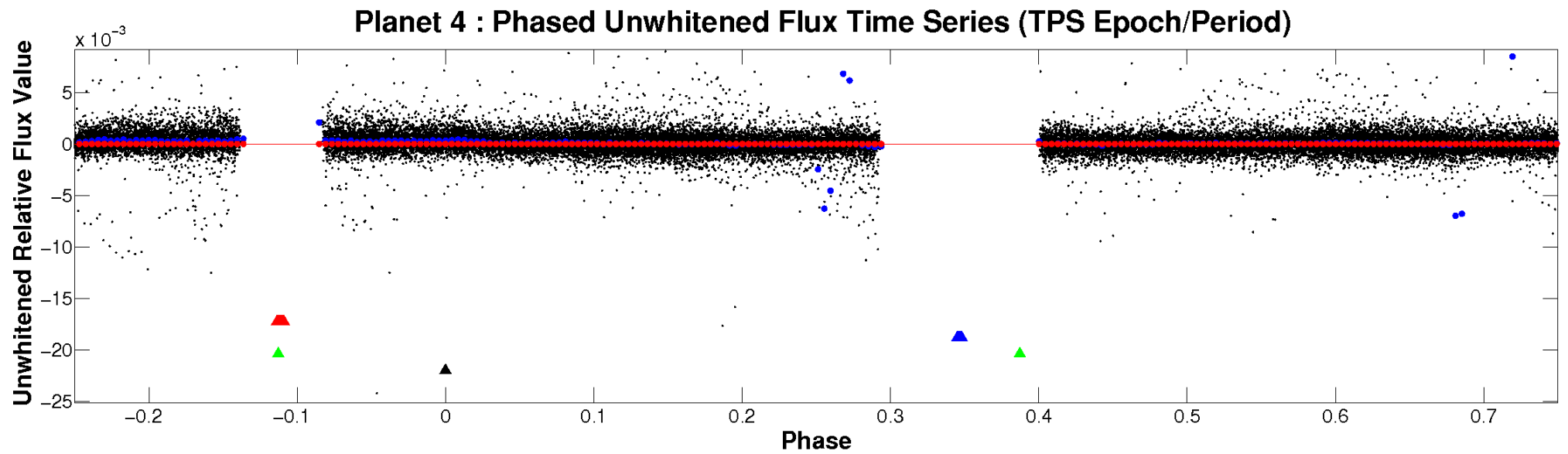


ALT Odd/Even

TCE 007691527-04

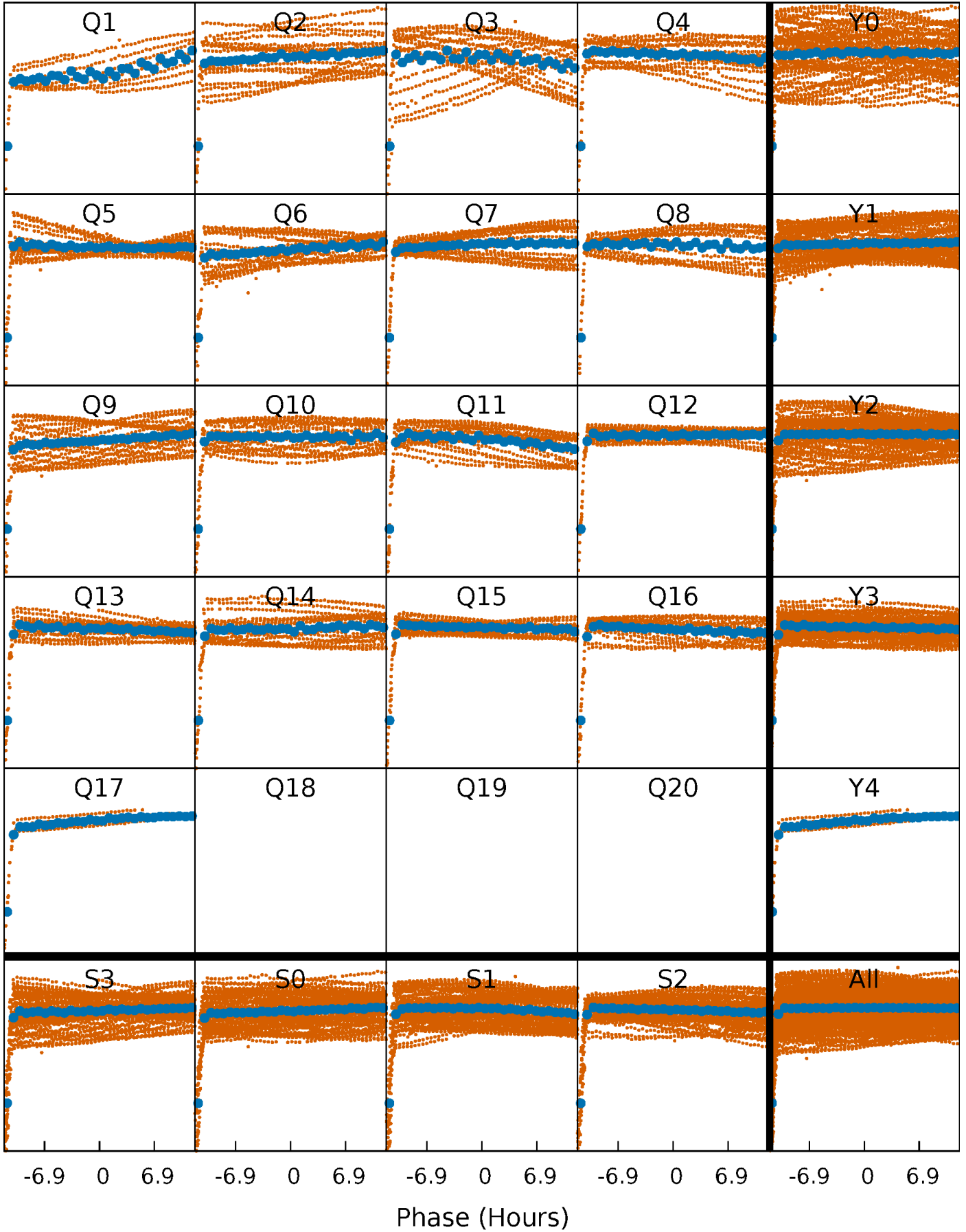


Non-Whitened Vs. Whitened Light Curve



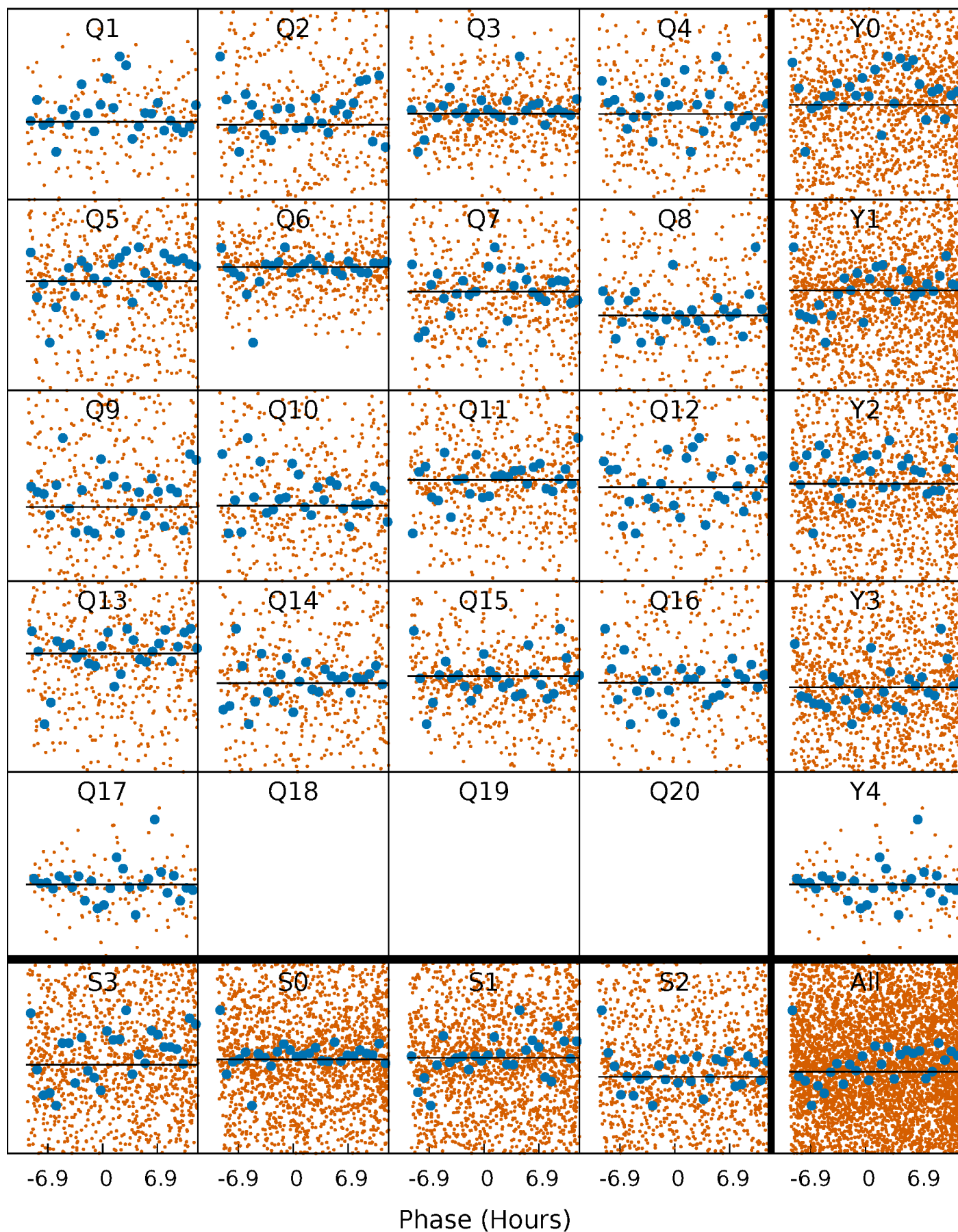
PDC Quarter-Phased Transit Curves

TCE 007691527-04 P= 4.800178 Days $T_0=131.521211$ (BKJD)



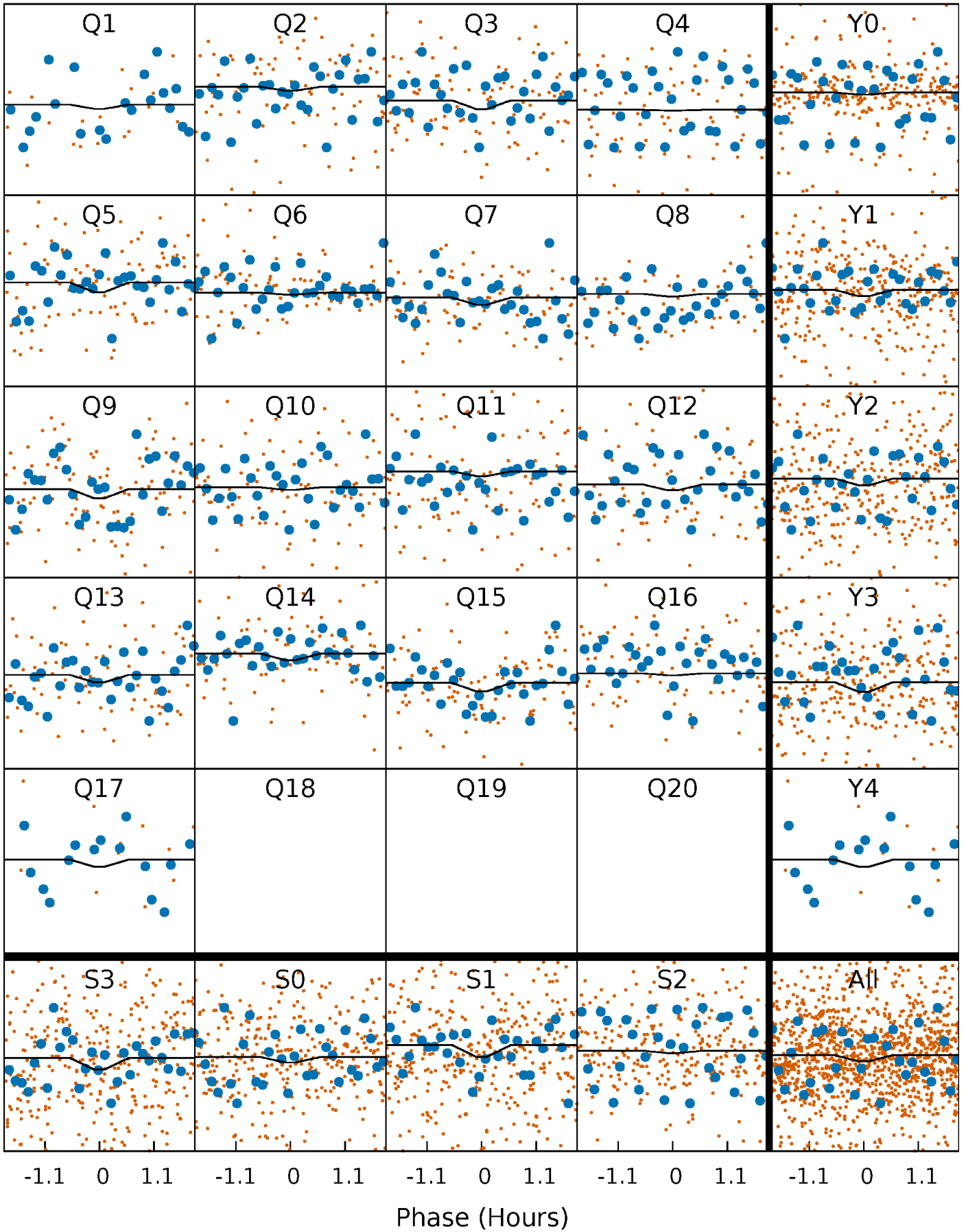
DV Quarter-Phased Transit Curves

TCE 007691527-04 P= 4.800178 Days $T_0=131.521211$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

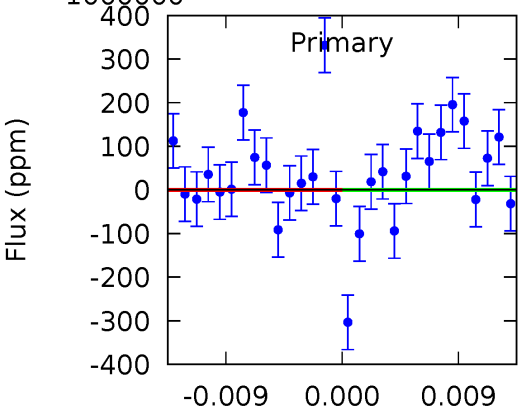
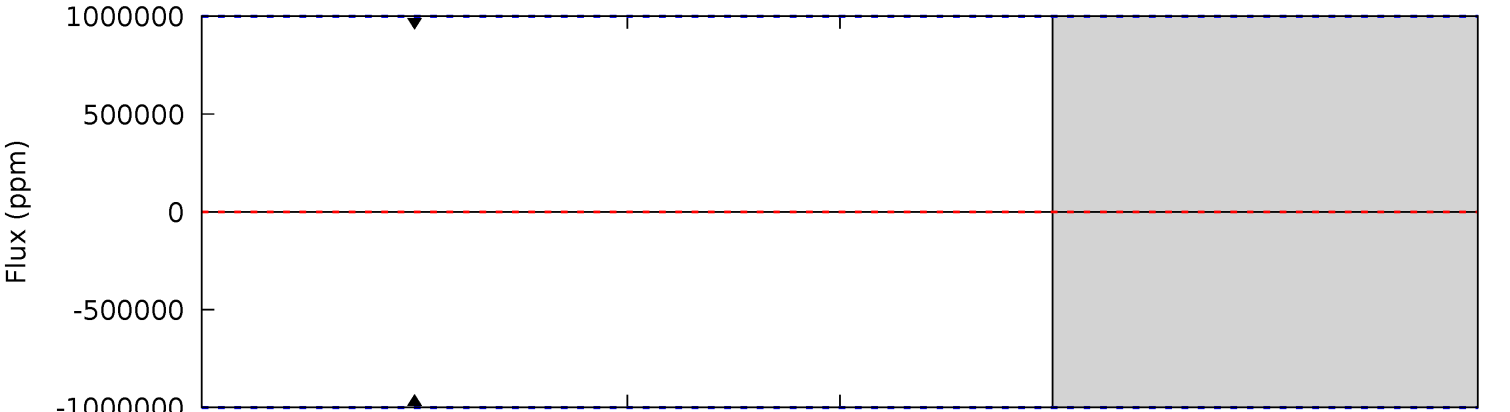
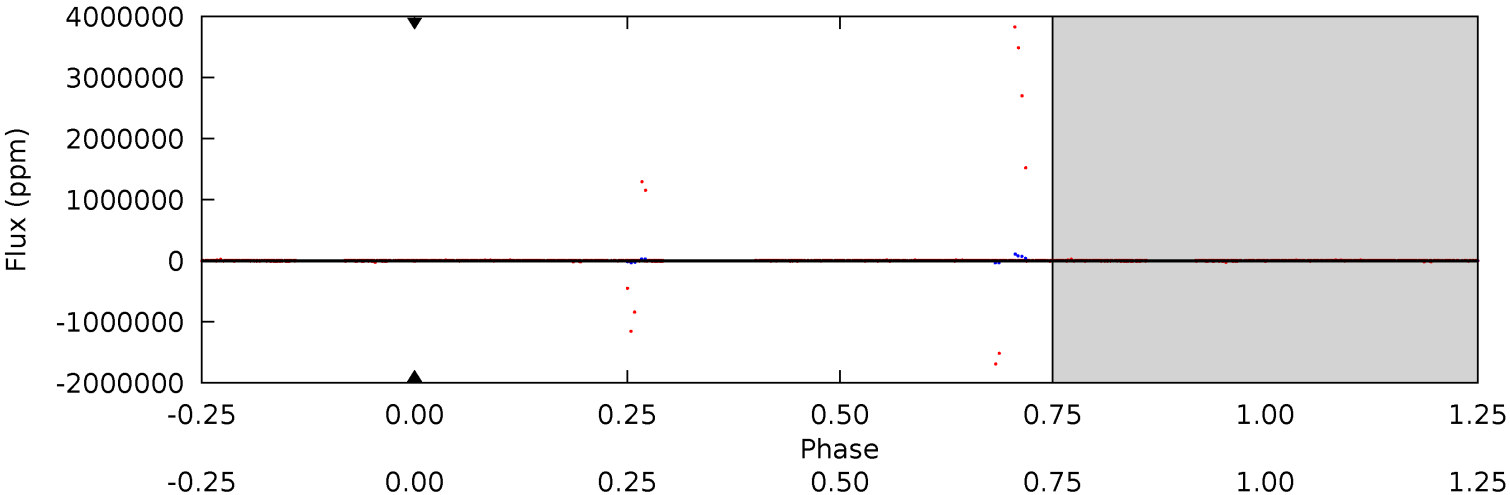
TCE 007691527-04 P= 4.800178 Days $T_0=136.256059$ (BKJD)



DV Model-Shift Uniqueness Test

007691527-04, P = 4.800178 Days, E = 126.721033 Days

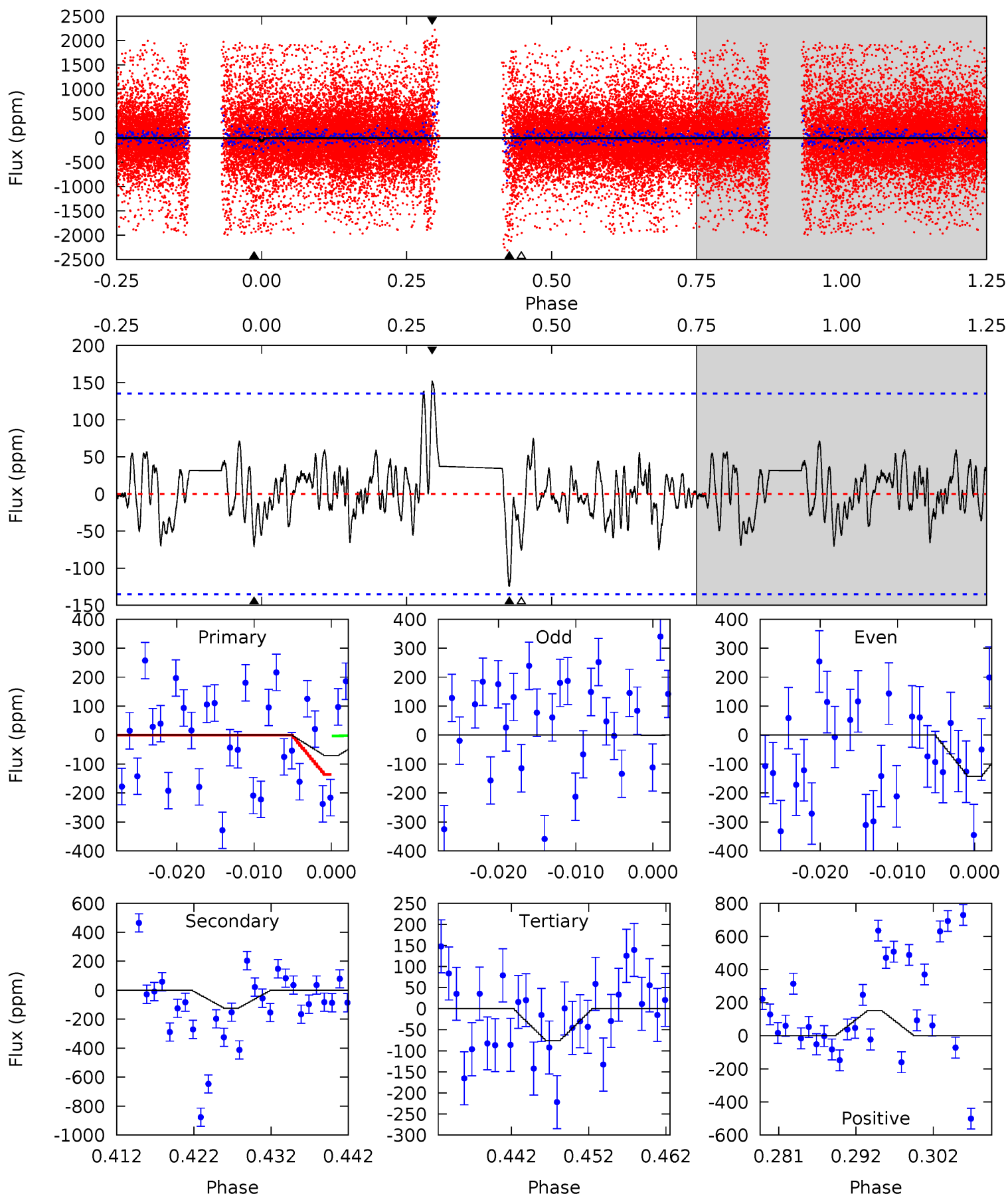
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007691527-04, P = 4.800178 Days, E = 131.455881 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.63	4.64	2.83	5.67	5.03	2.57	1.17	-0.19	-3.04	1.82	-1.03	2.67	0.68	0.55	2.50



Stellar Parameters For KIC 007691527

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5591^{+169}_{-169}	$4.590^{+0.043}_{-0.136}$	$-0.440^{+0.300}_{-0.300}$	$0.756^{+0.158}_{-0.056}$	$0.812^{+0.089}_{-0.071}$	$2.642^{+0.484}_{-1.049}$
	+3%/-3%	+1%/-3%	+68%/-68%	+21%/-7%	+11%/-9%	+18%/-40%
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 007691527-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$7.99^{+7.44}_{-5.22}$	1336^{+68}_{-54}	-3518^{+17378}_{-10650}	$-18.617^{+3617.364}_{-3576.923}$
Alt.	-125 ± 27	$5.92^{+6.65}_{-4.08}$	1330^{+70}_{-52}	2904^{+1313}_{-585}	$5.315^{+49.004}_{-4.202}$

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 $A_{obs} \gg 1.0$

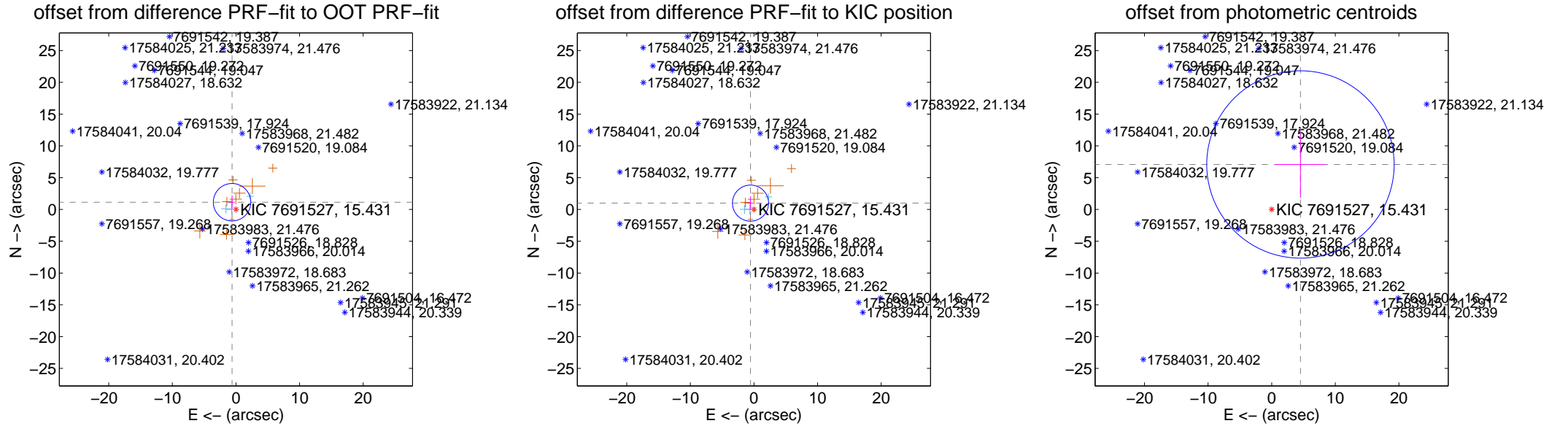
DV Centroid Data

Supplemental centroid analysis for 007691527-04. Kepler magnitude: 15.43. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

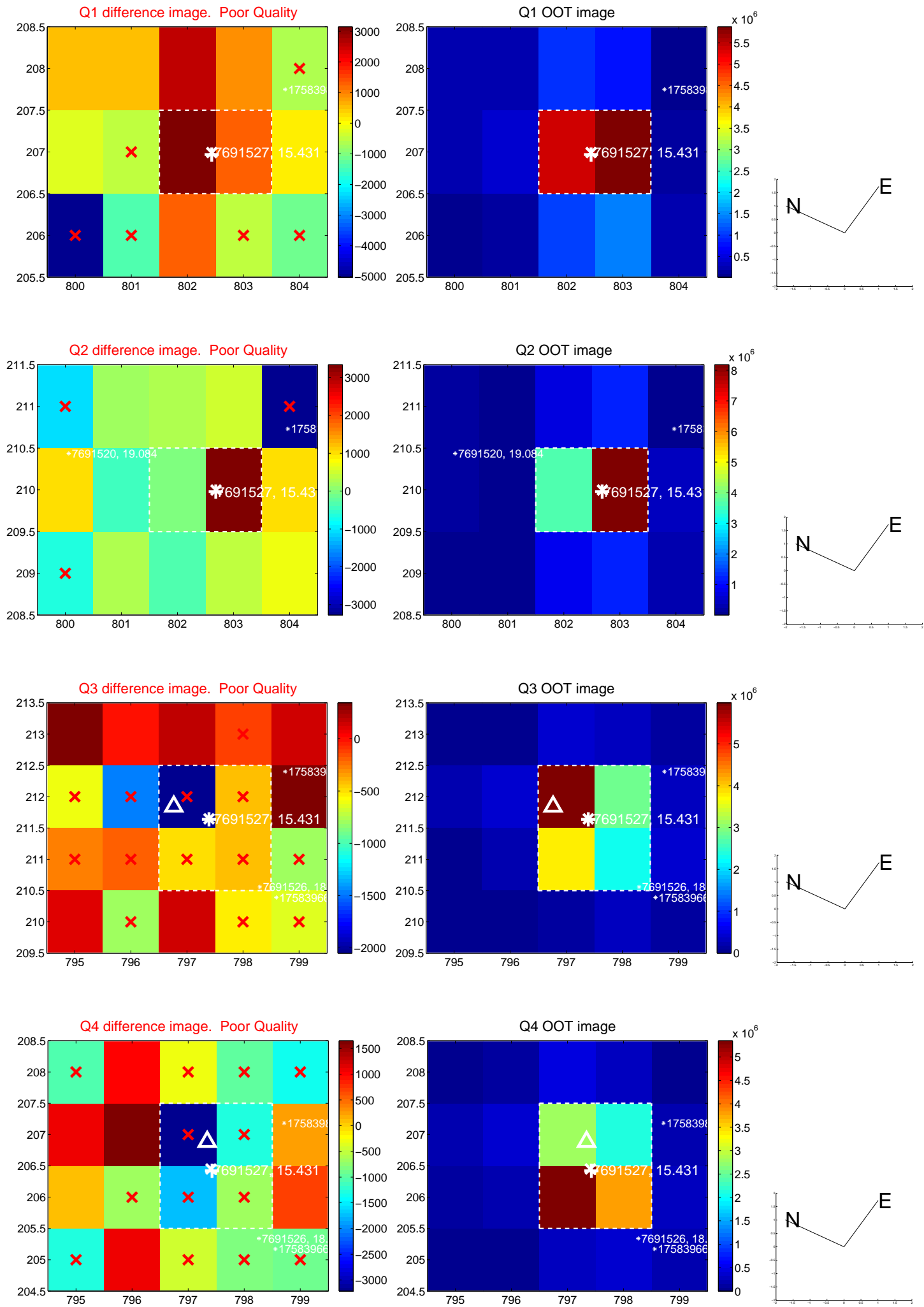
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.296 ± 0.982	1.32	0.612 ± 0.430	1.143 ± 1.089
PRF-fit source offset from KIC position	1.136 ± 0.946	1.20	0.541 ± 0.420	0.999 ± 1.052
photometric centroid source offset	8.40 ± 4.91	1.71	-4.52 ± 3.99	7.08 ± 5.24

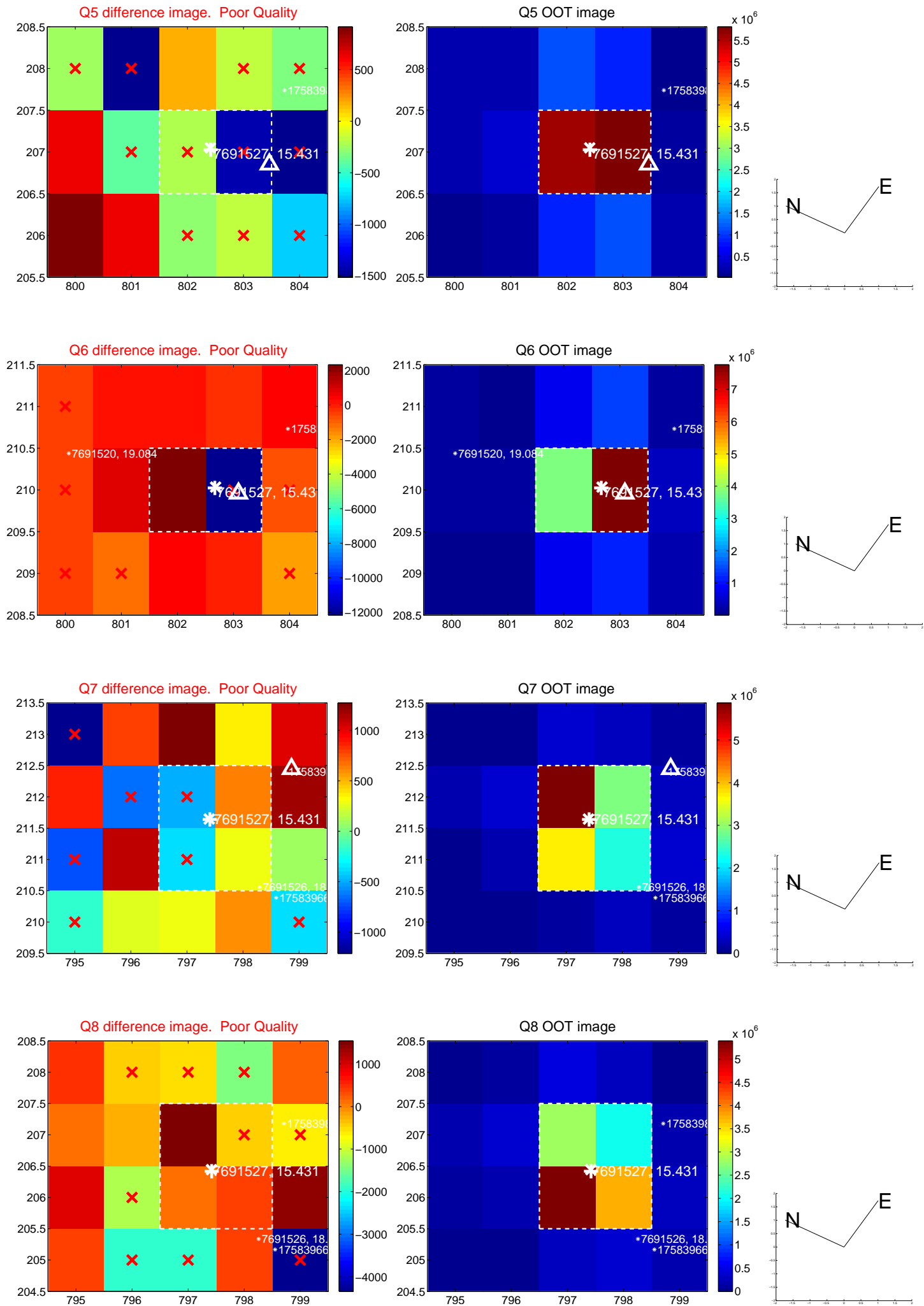


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

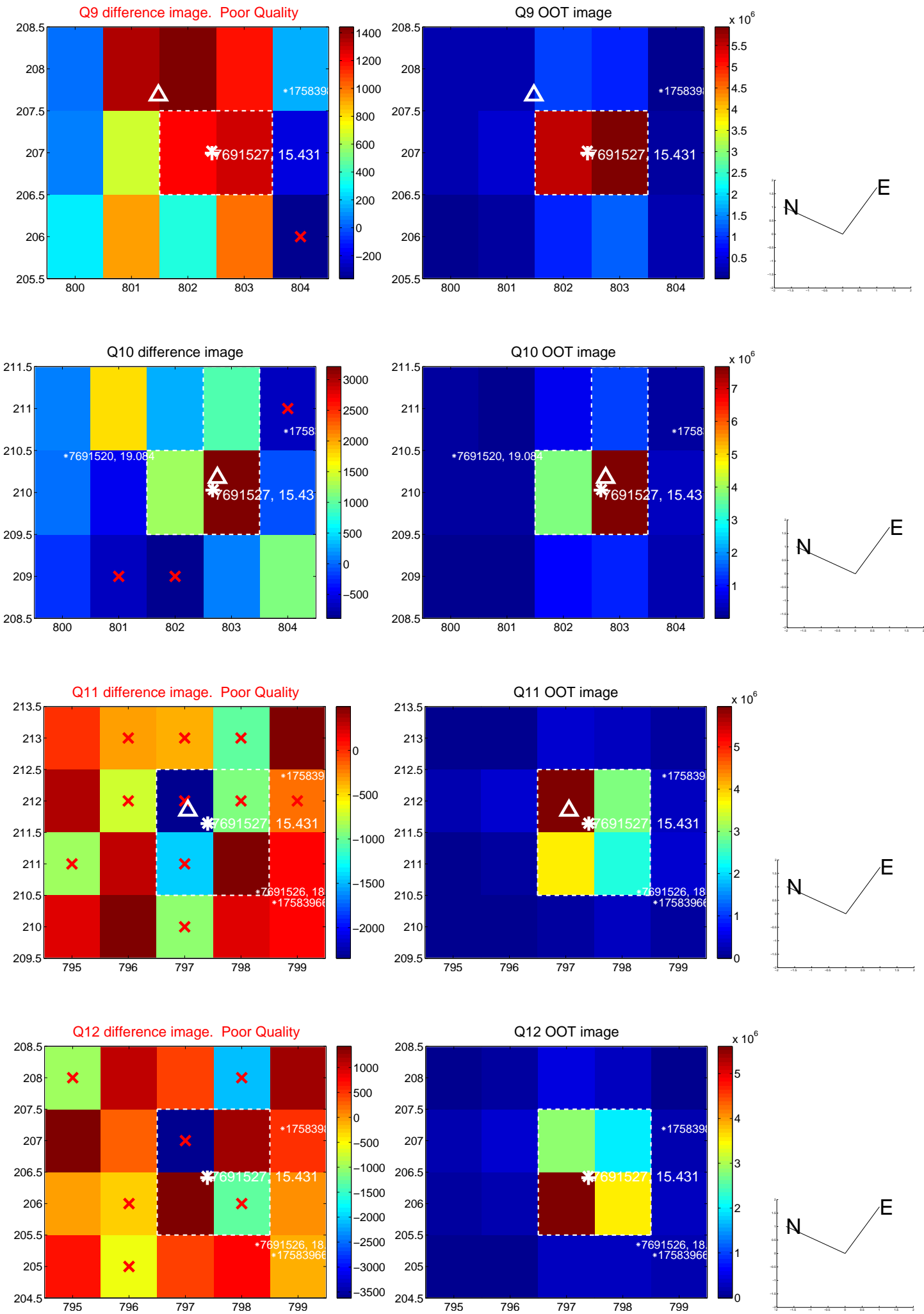
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



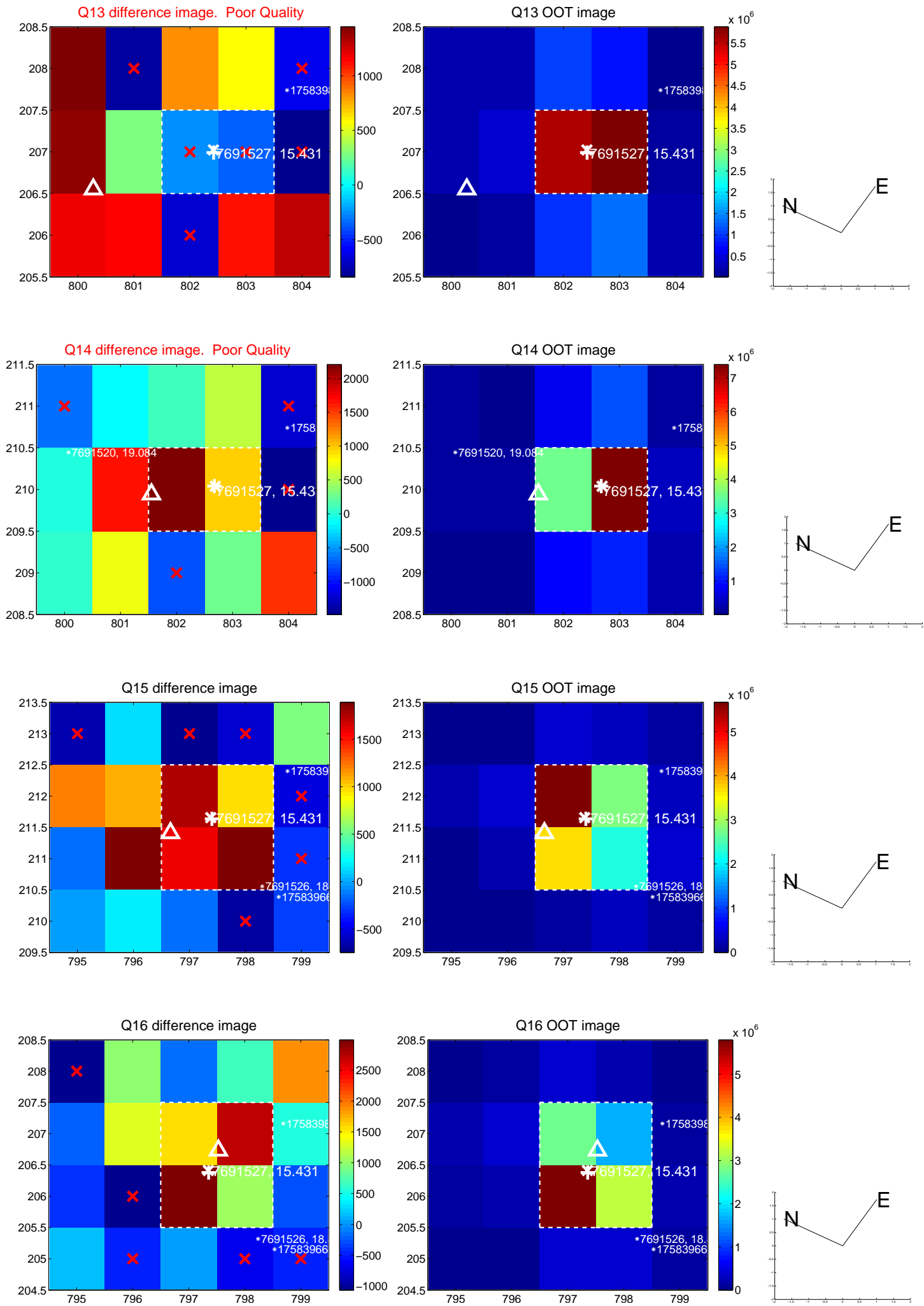
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



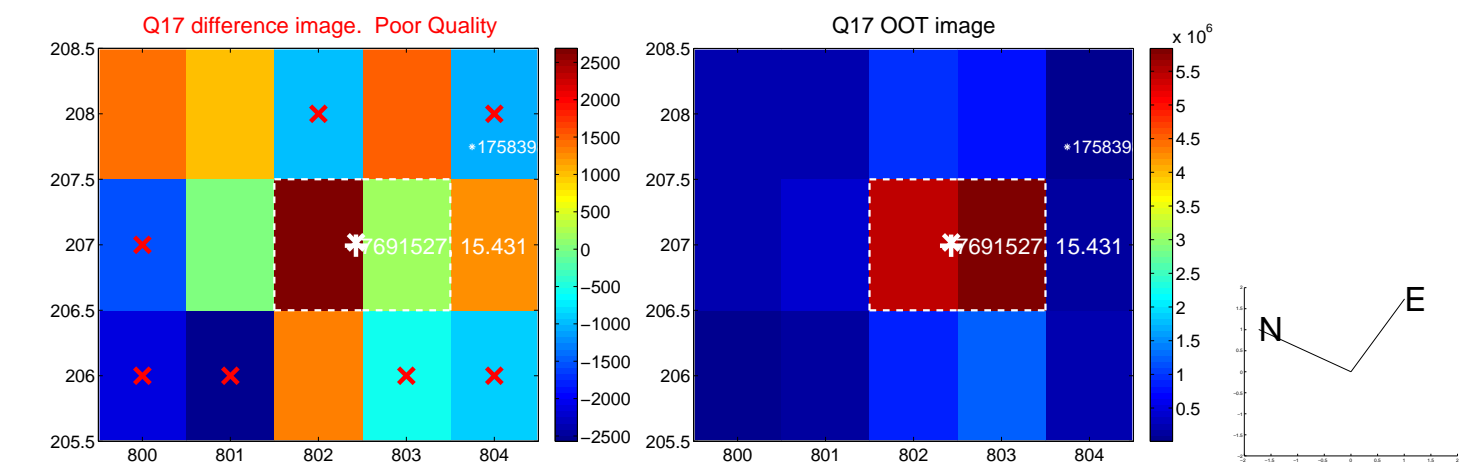
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



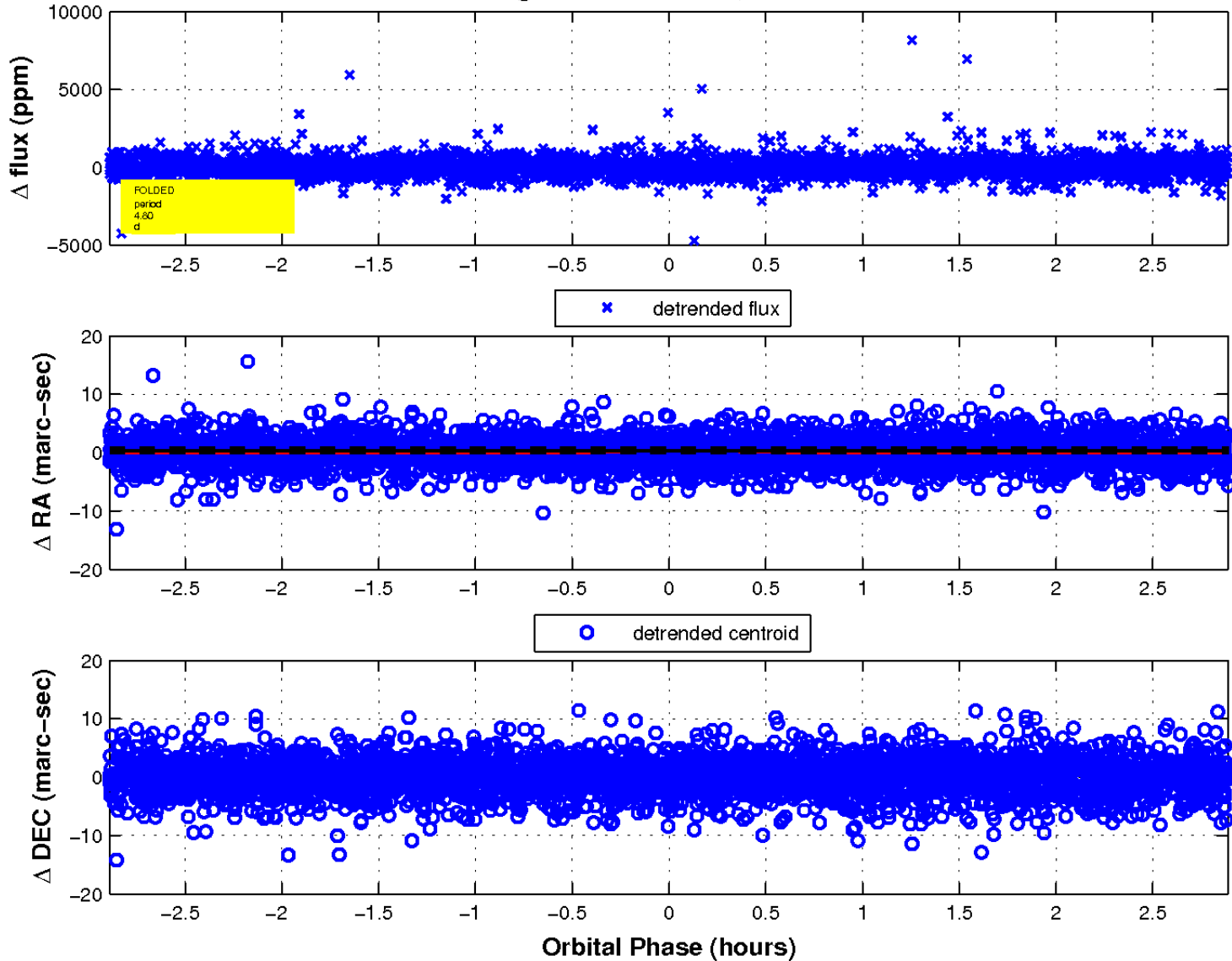
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 4 of 4



UKIRT Image

Declination

