

KIC 006685609

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})
006685609-01	OBS	0665.01	5.868055	135.116668	431.6	4.193	75.9	84.5	1.55	5918	3.73	586.26
006685609-02	OBS	0665.02	1.611896	131.956475	98.7	3.136	31.8	35.0	1.55	5918	1.83	3283.21
006685609-03	OBS	0665.03	3.071593	133.296084	82.8	4.089	18.2	20.6	1.55	5918	1.68	1389.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006685609-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
006685609-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
006685609-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

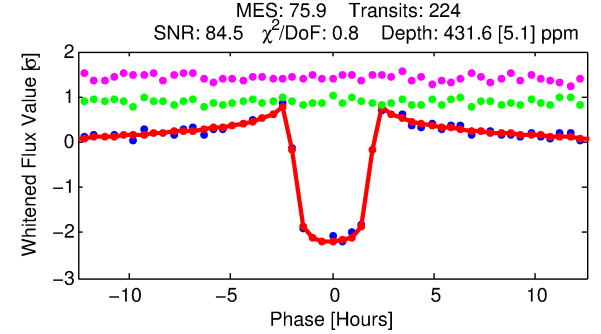
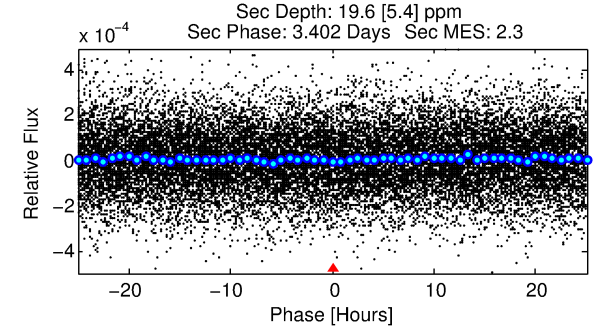
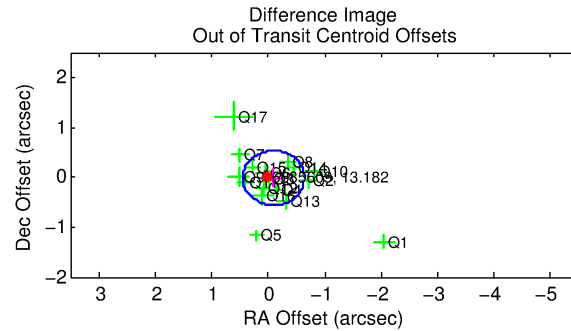
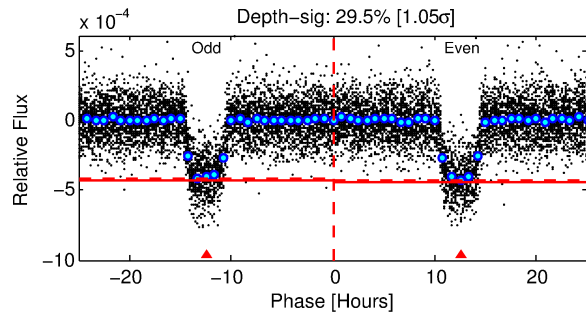
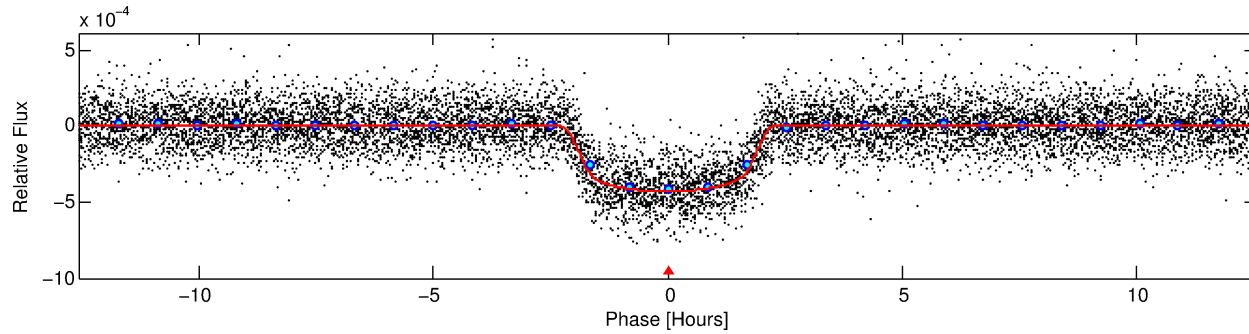
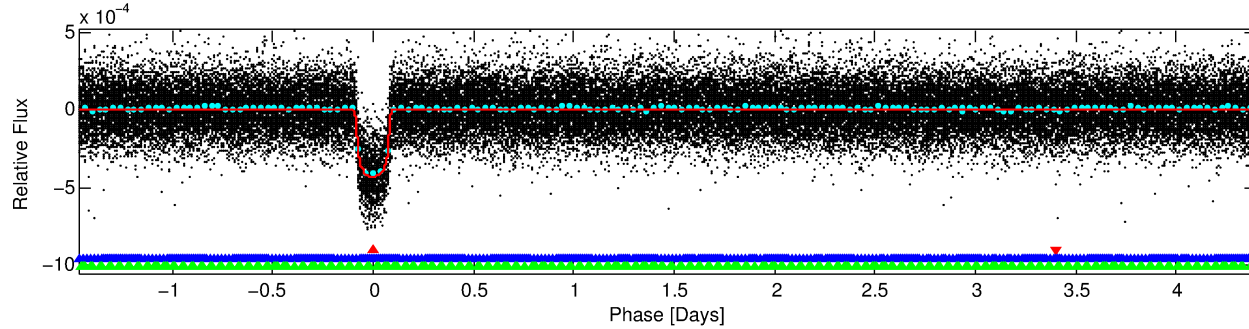
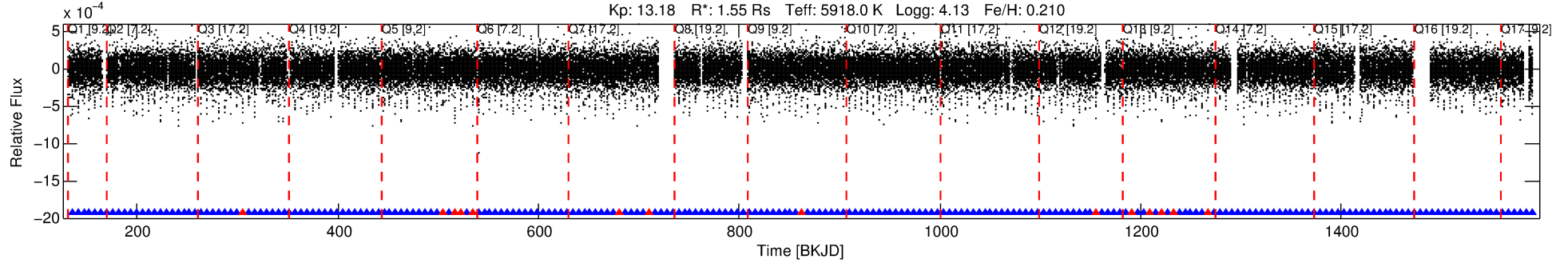
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006685609-01

No Significant Match Found

DV One-Page Summary

KIC: 6685609 Candidate: 1 of 3 Period: 5.868 d
KOI: K00665.01 Name: Kepler-207d Corr: 0.972



DV Fit Results:

Period = 5.86805 [0.00001] d
Epoch = 135.1167 [0.0006] BKJD
Rp/R* = 0.0220 [0.0008]
a/R* = 5.88 [0.94]
b = 0.87 [0.05]
Seff = 586.26 [178.08]
Teff = 1255 [95] K
Rp = 3.73 [0.79] Re
a = 0.0673 [0.0128] AU
Ag = 3.52 [1.44] [1.75 σ]
Teffp = 2657 [197] K [6.40 σ]

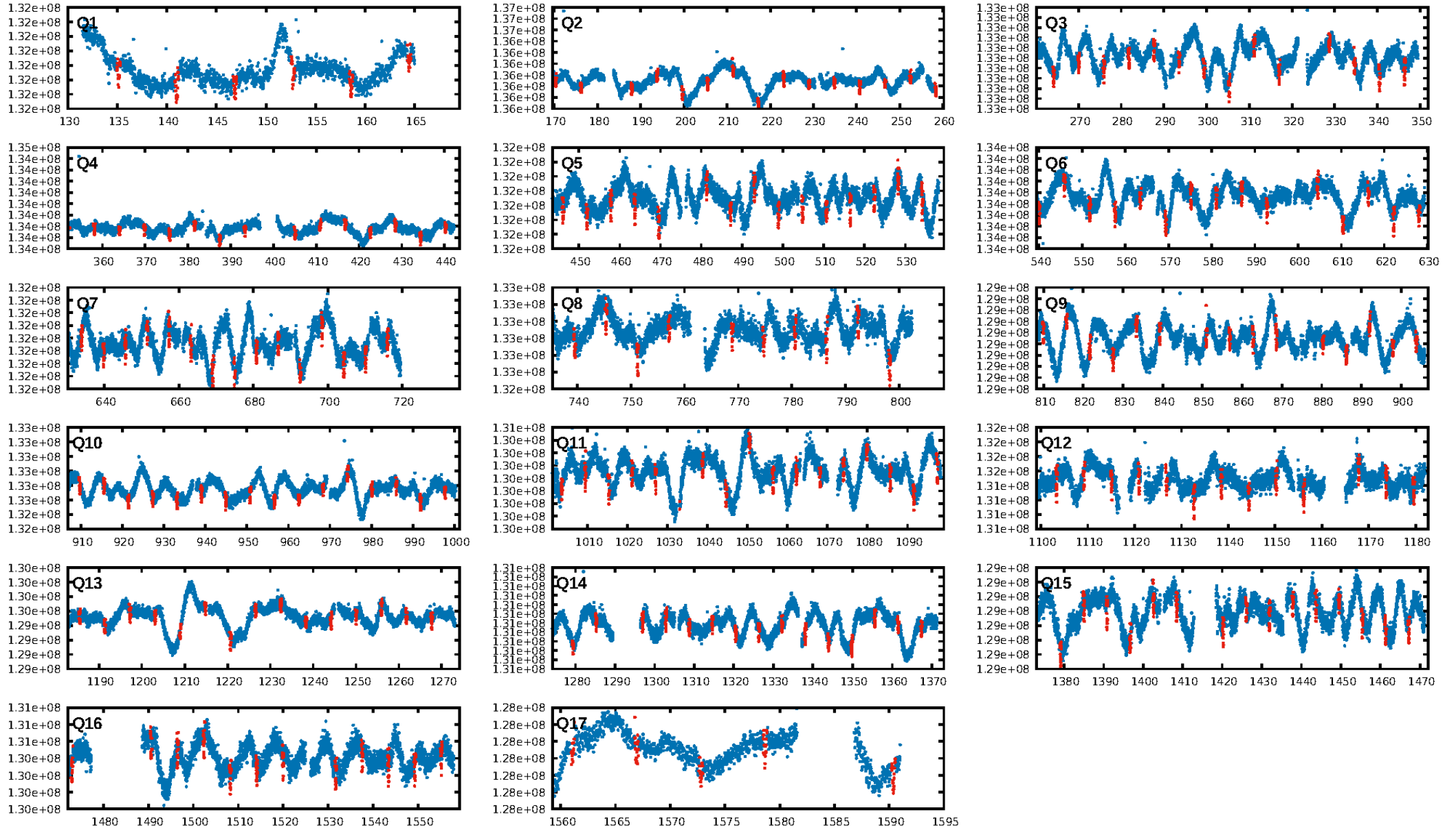
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [11.46 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.93 [199/213]
GhostDiagnostic-chr: 10.28
Centroid-sig: 7.7%
Centroid-so: 0.231 arcsec [2.21 σ]
OotOffset-rm: 0.093 arcsec [0.51 σ]
KicOffset-rm: 0.221 arcsec [1.49 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]

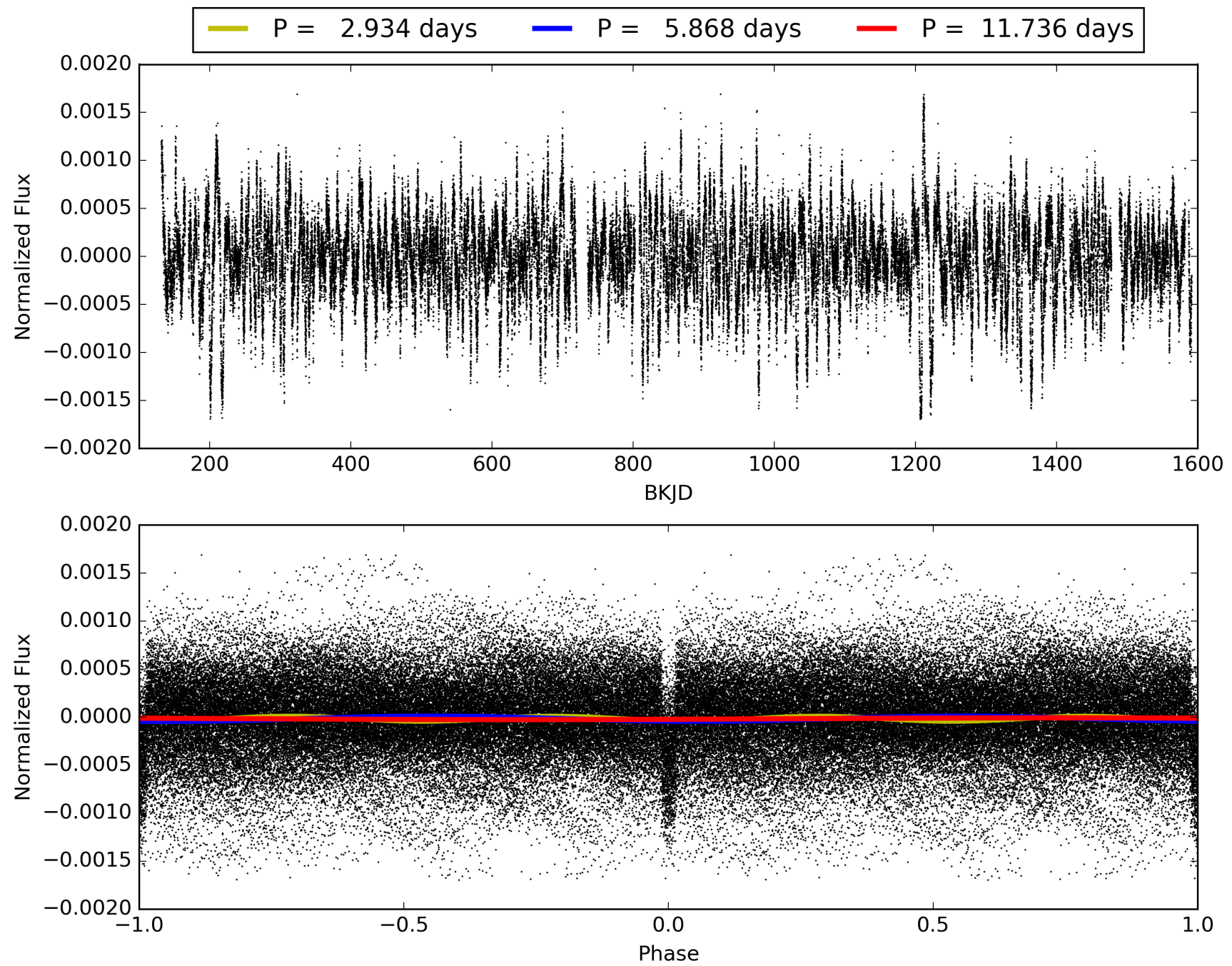
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:16:07 Z

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

TCE 006685609-01, PDC Light Curves

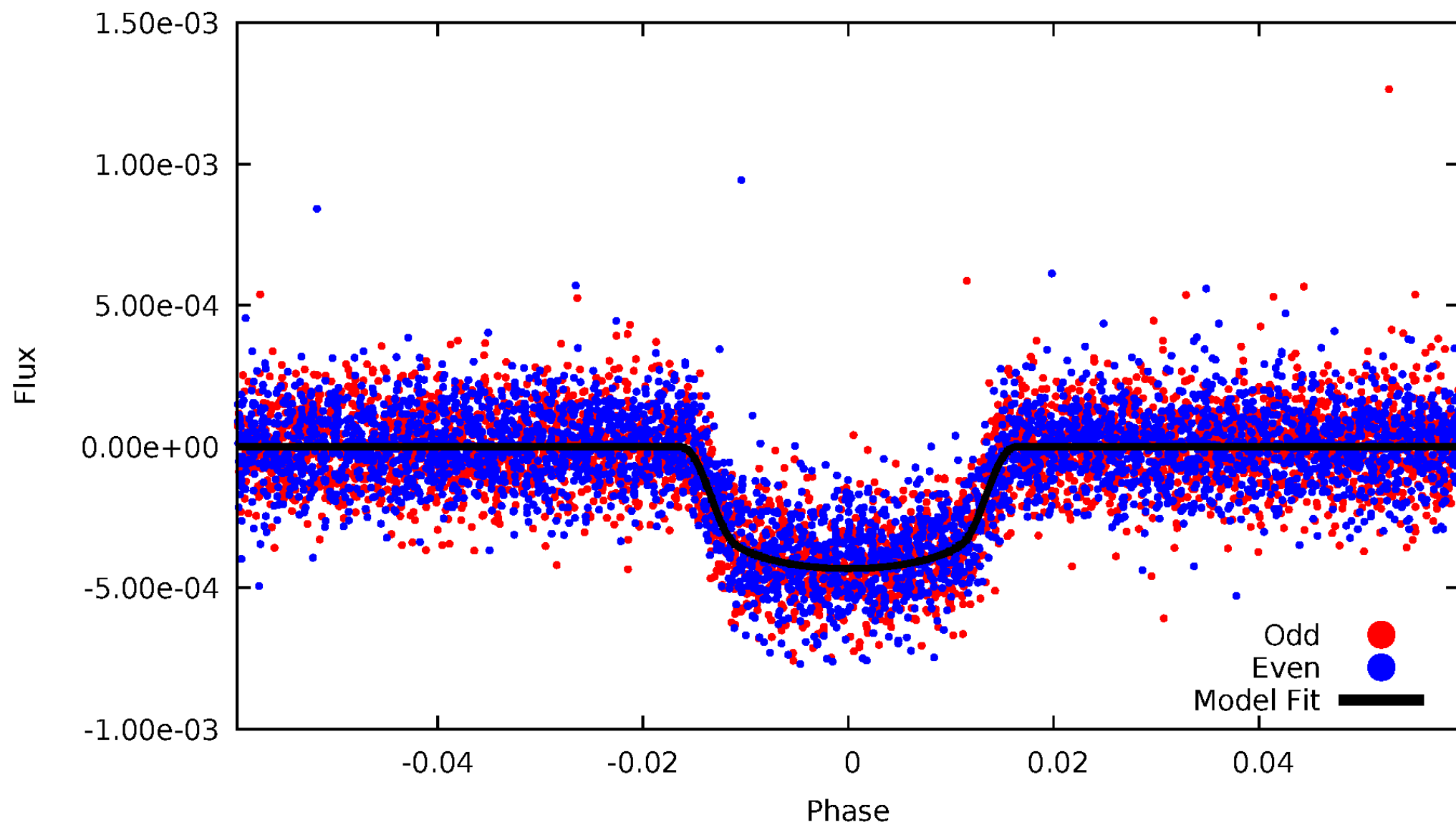


TCE 006685609-01



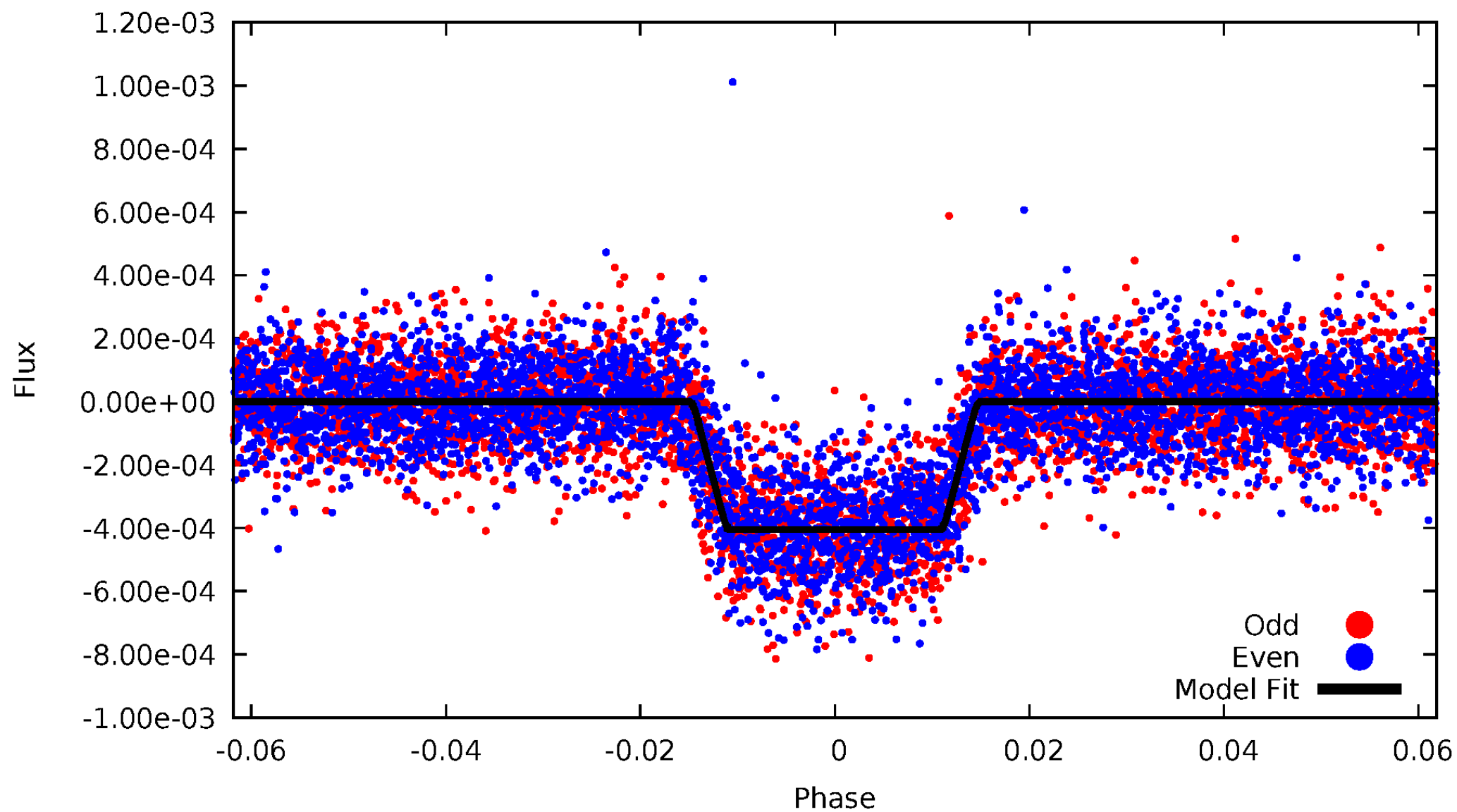
DV Odd/Even

TCE 006685609-01



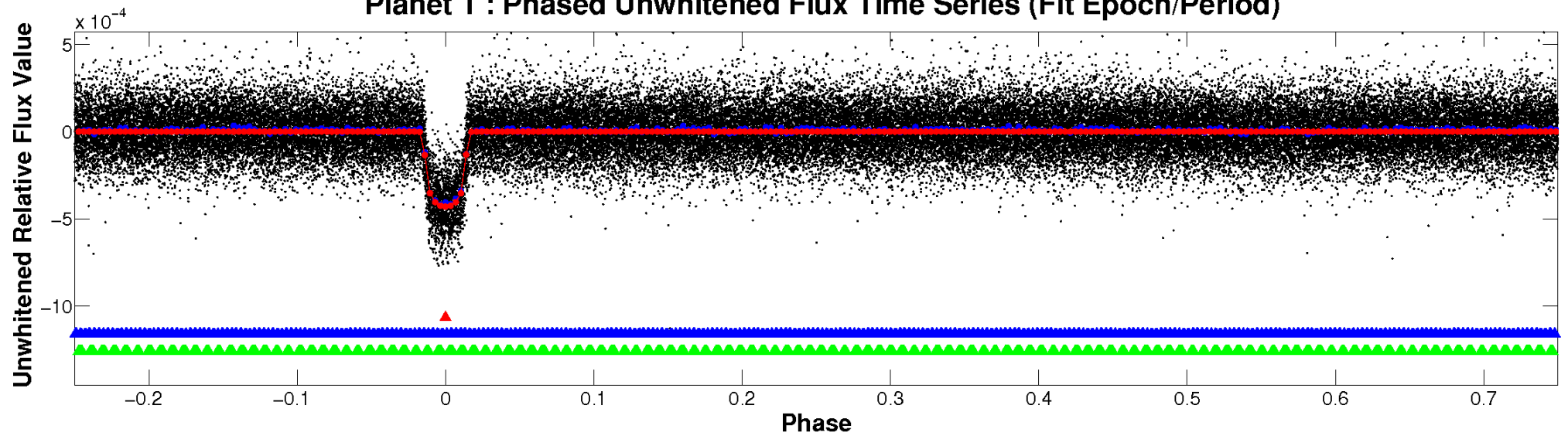
ALT Odd/Even

TCE 006685609-01

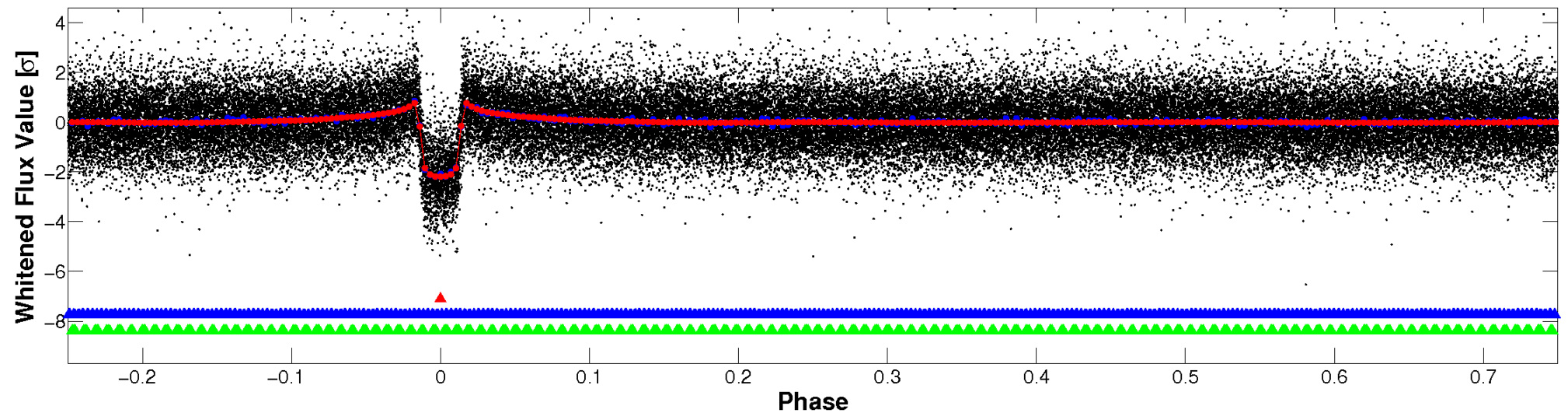


Non-Whitened Vs. Whitened Light Curve

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

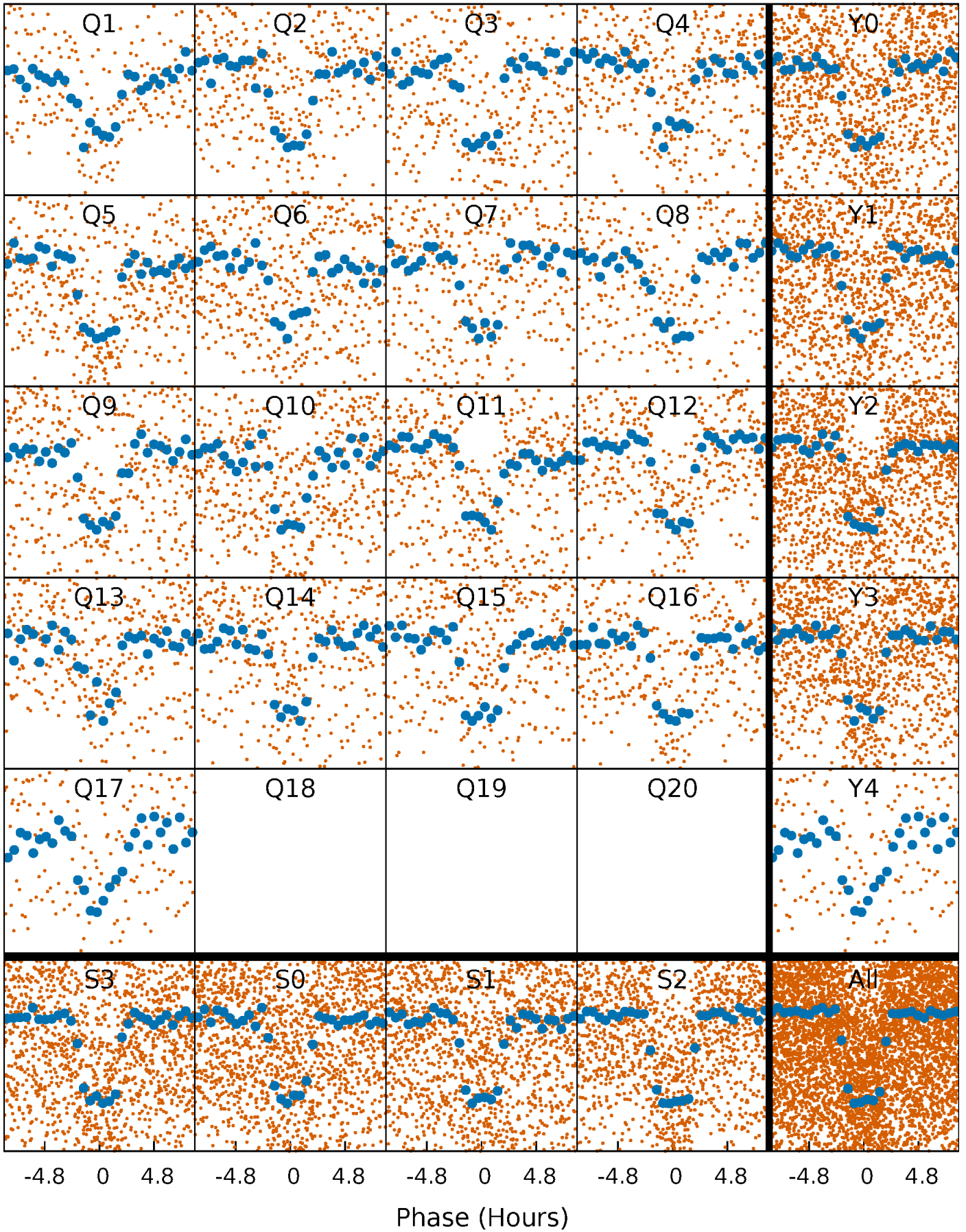


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



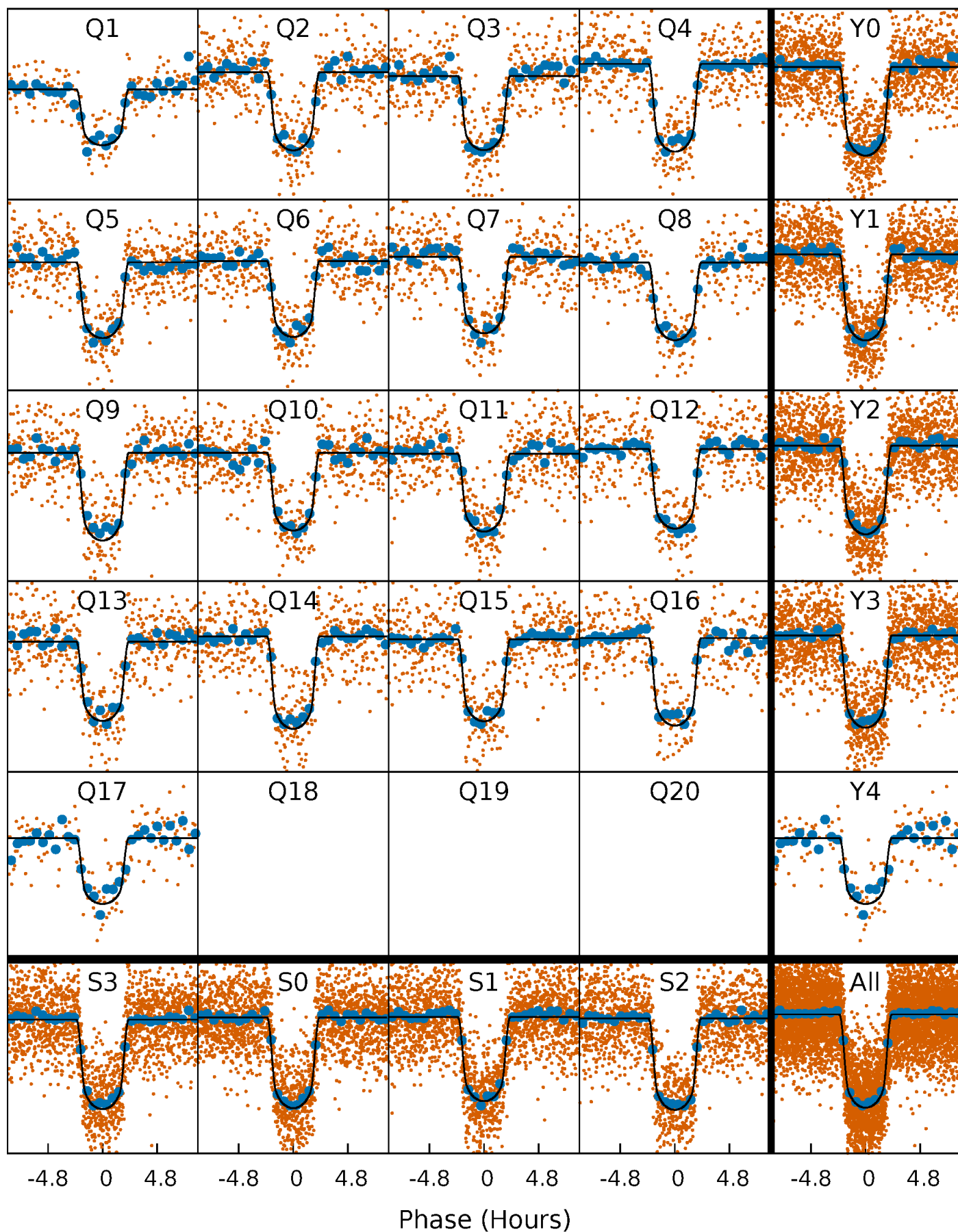
PDC Quarter-Phased Transit Curves

TCE 006685609-01 P= 5.868055 Days $T_0=135.116668$ (BKJD)



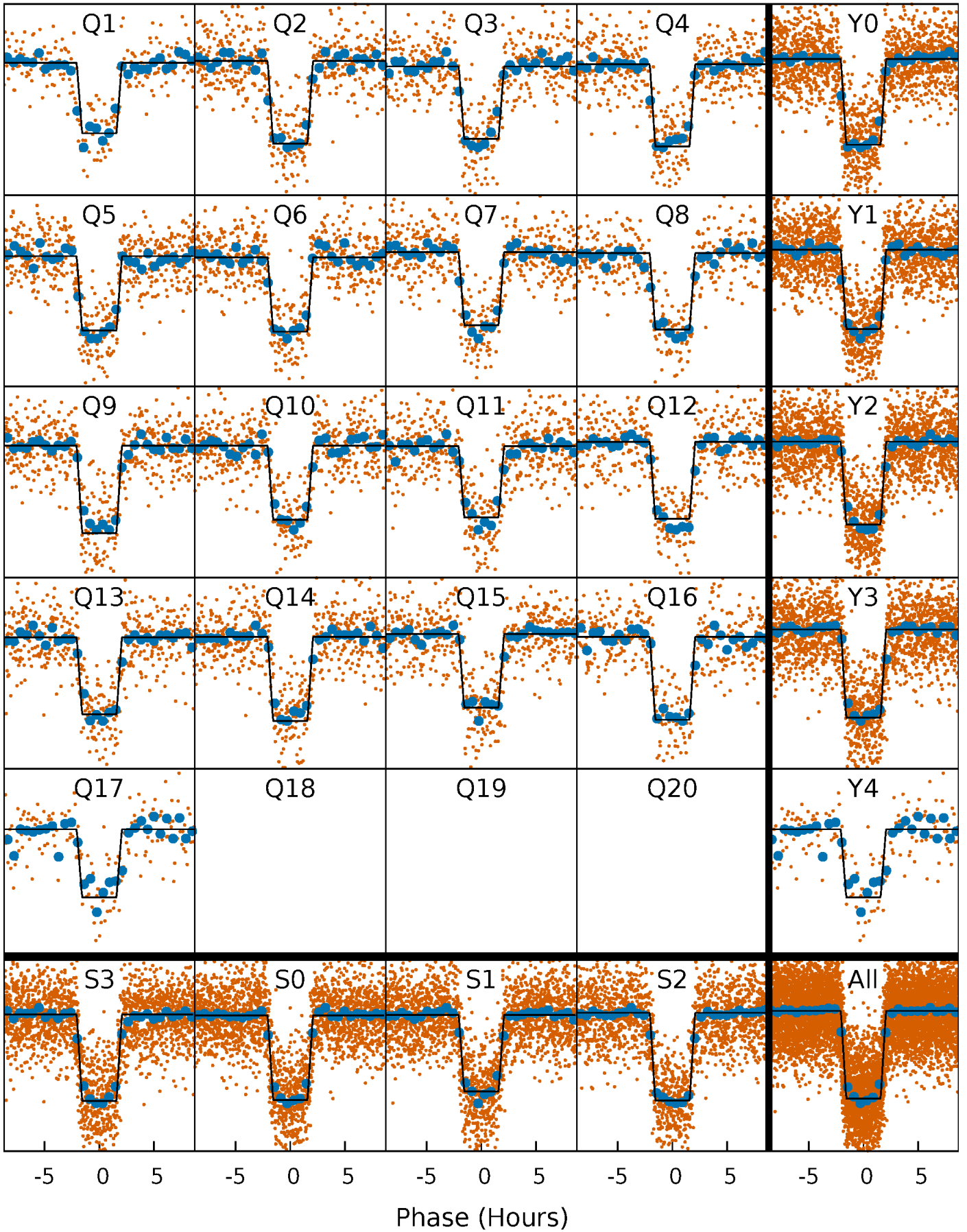
DV Quarter-Phased Transit Curves

TCE 006685609-01 P= 5.868055 Days $T_0=135.116668$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

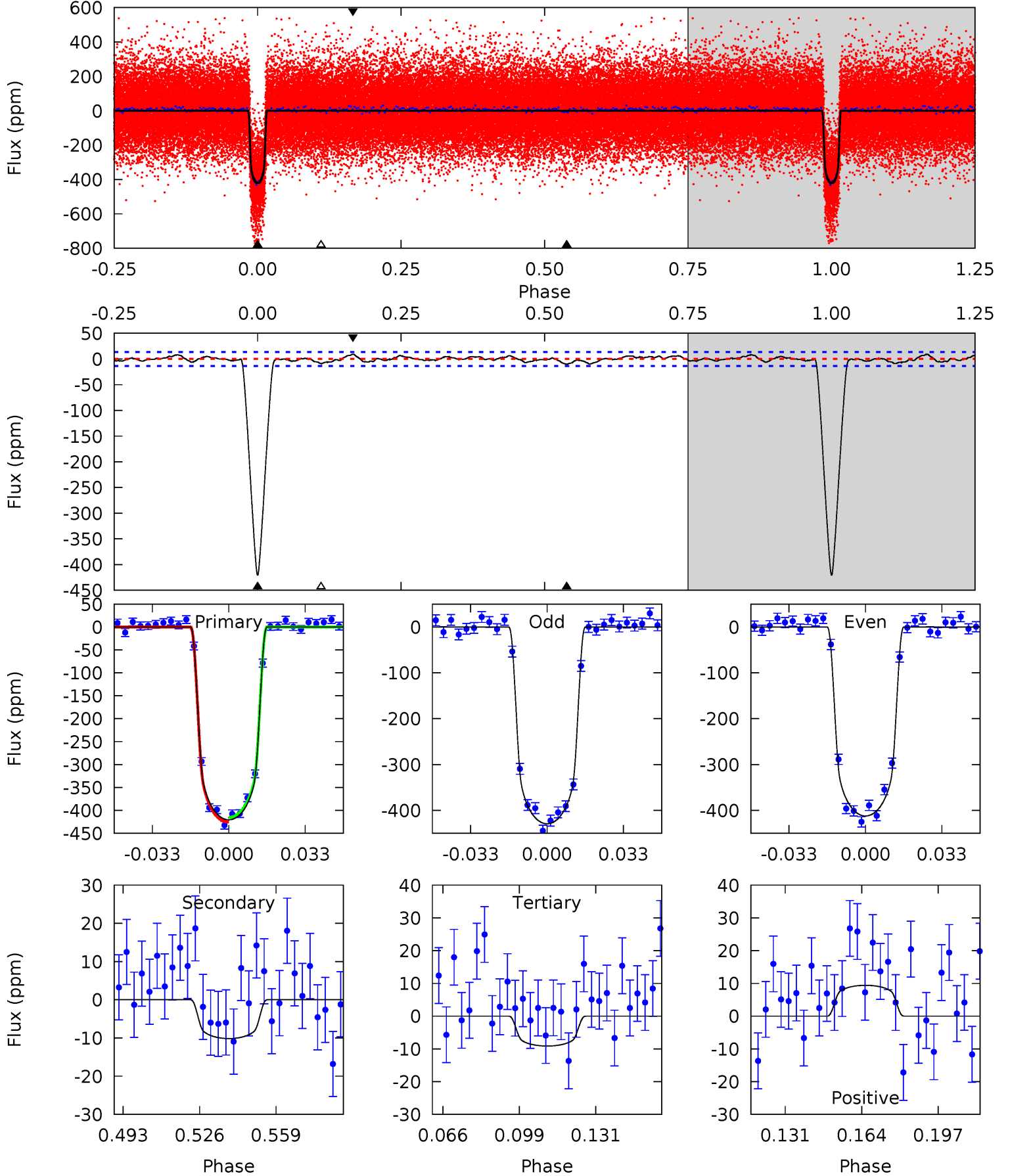
TCE 006685609-01 P= 5.867999 Days $T_0=135.123894$ (BKJD)



DV Model-Shift Uniqueness Test

006685609-01, P = 5.868055 Days, E = 129.248613 Days

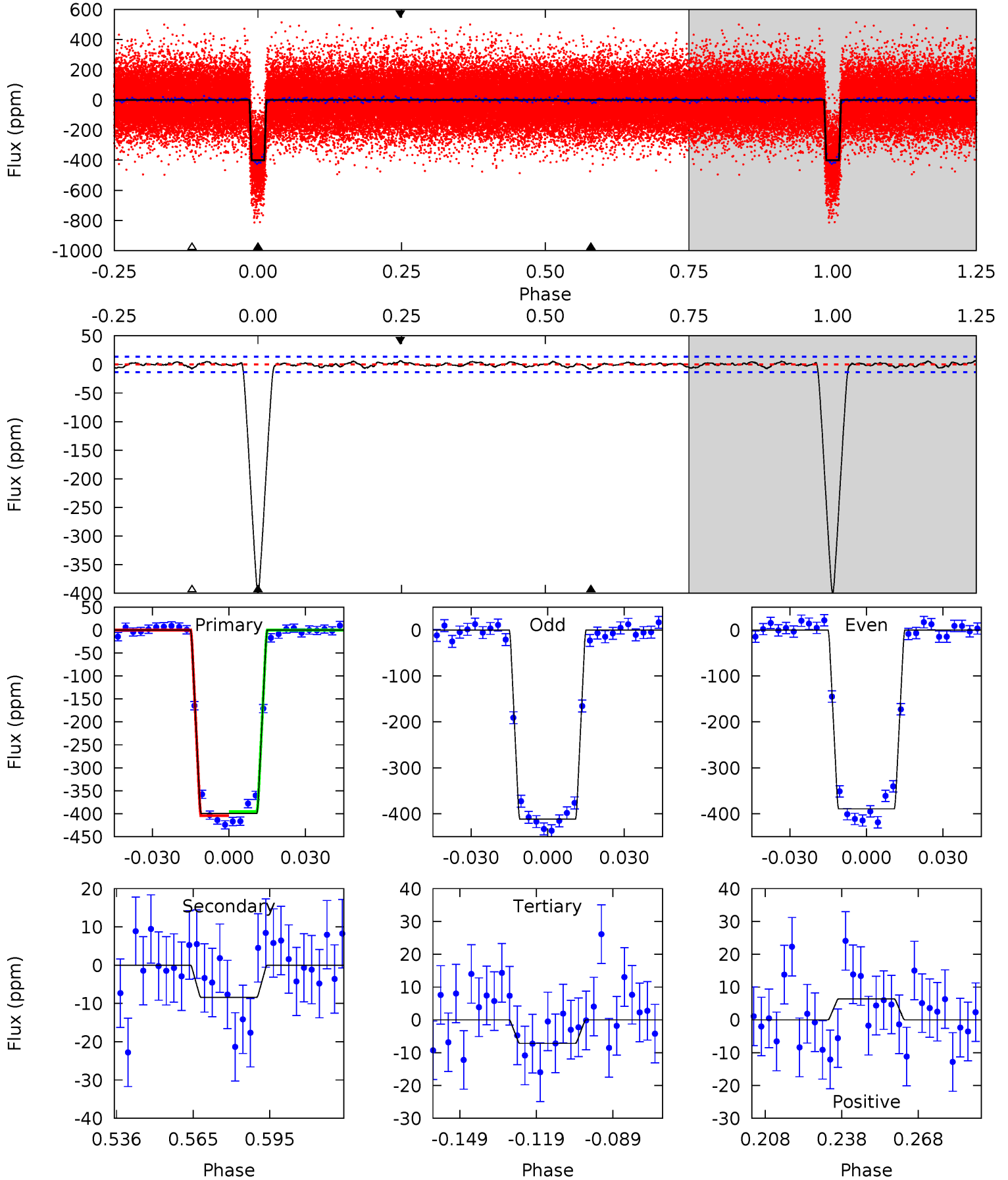
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
148.1	3.58	3.21	3.31	4.79	2.13	1.30	144.9	144.8	0.36	0.26	3.02	1.01	0.02	1.75



Alt Model-Shift Uniqueness Test

006685609-01, P = 5.867999 Days, E = 129.255895 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
142.4	2.99	2.56	2.28	4.81	2.17	0.91	139.8	140.1	0.44	0.72	3.97	1.00	0.02	1.57



Stellar Parameters For KIC 006685609

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5918^{+107}_{-119}	$4.127^{+0.168}_{-0.098}$	$0.210^{+0.150}_{-0.150}$	$1.555^{+0.265}_{-0.324}$	$1.181^{+0.113}_{-0.113}$	$0.443^{+0.417}_{-0.132}$
	+2%/-2%	+4%/-2%	+71%/-71%	+17%/-21%	+10%/-10%	+94%/-30%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 006685609-01 / KOI 0665.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 3	$3.69^{+0.36}_{-0.42}$	1738^{+80}_{-94}	2868^{+132}_{-165}	$1.851^{+0.745}_{-0.568}$
Alt.	-8 ± 3	$3.38^{+0.34}_{-0.38}$	1743^{+75}_{-101}	2865^{+144}_{-192}	$1.841^{+0.881}_{-0.666}$

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

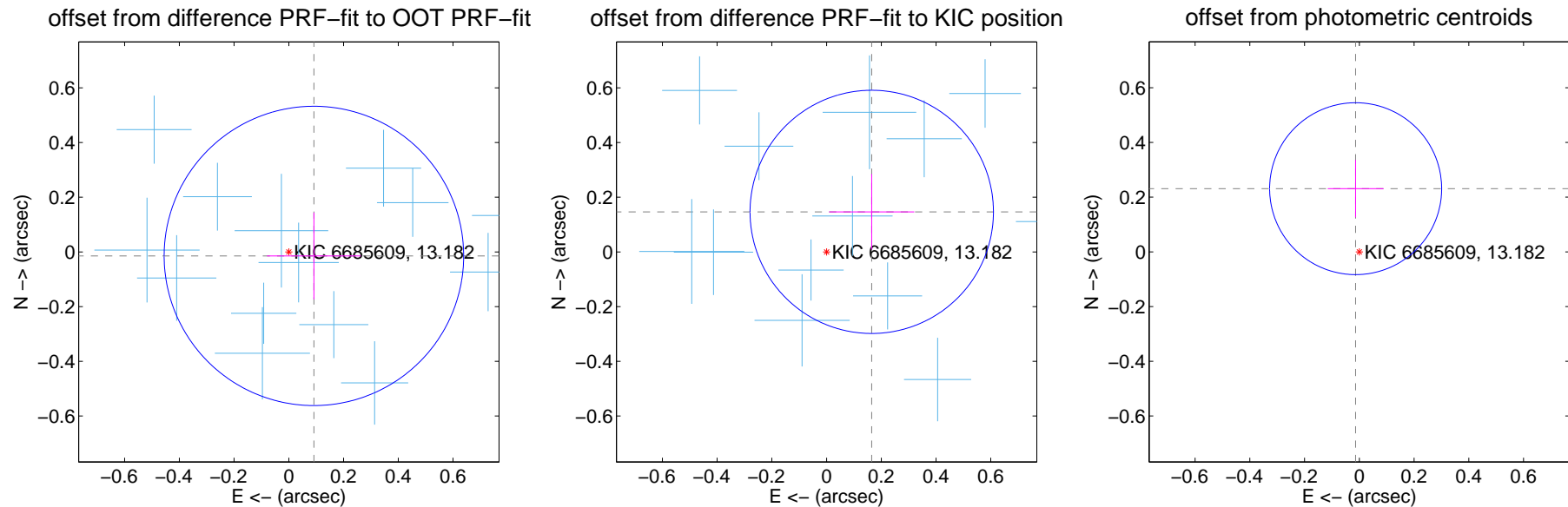
DV Centroid Data

Supplemental centroid analysis for 006685609-01. Kepler magnitude: 13.18. Transit SNR 84.55

There are 17 quarters with good PRF difference image offsets

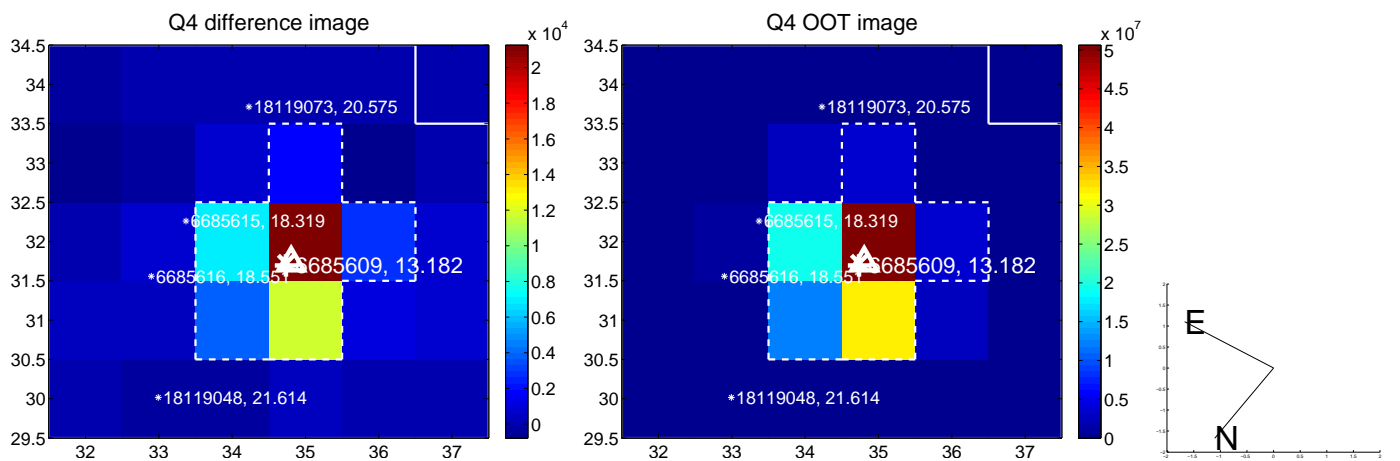
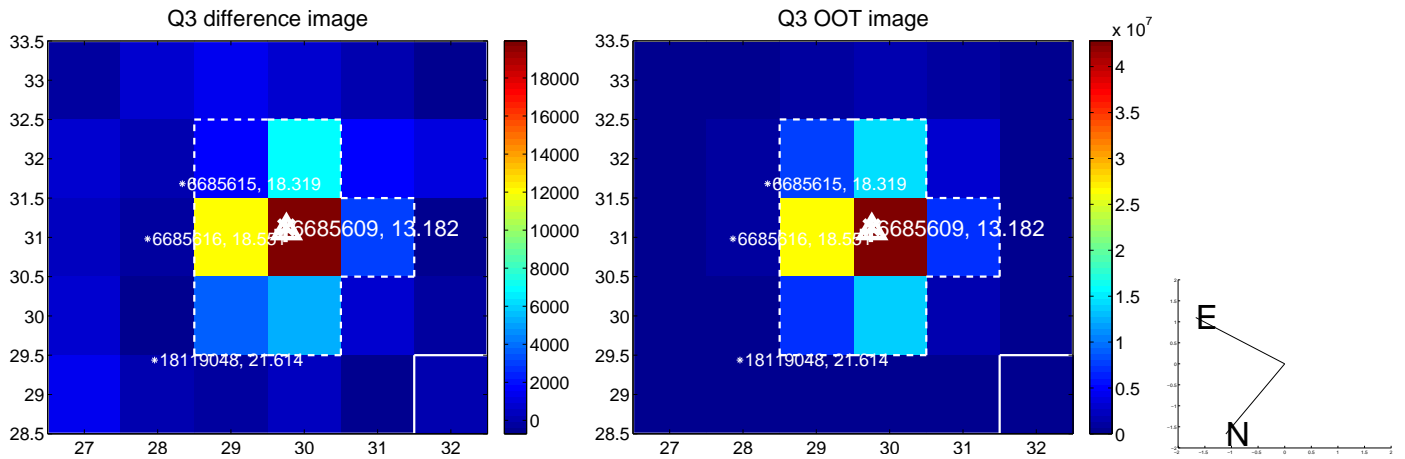
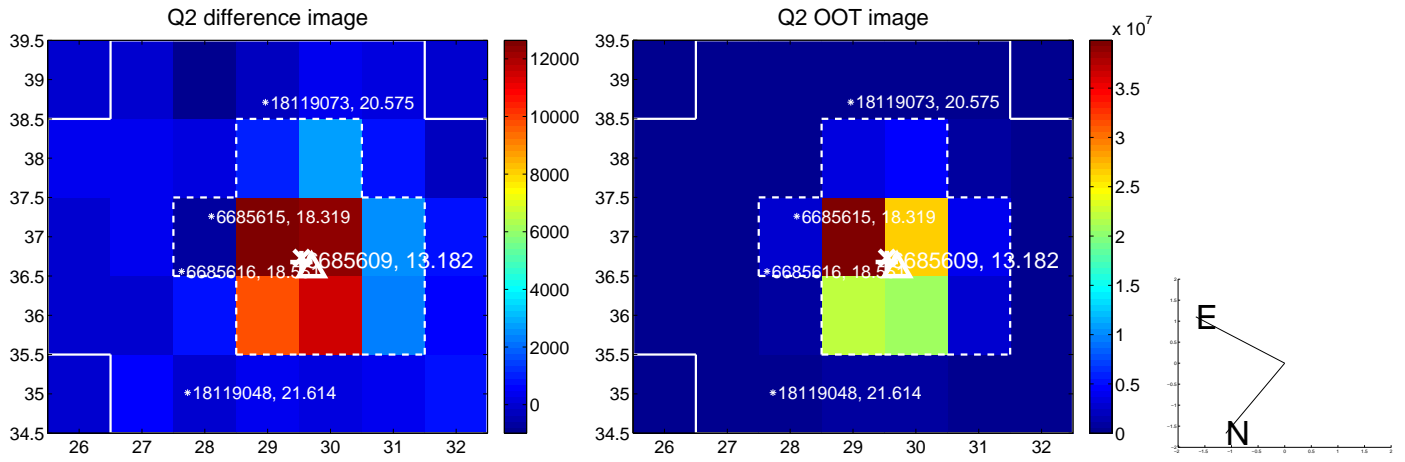
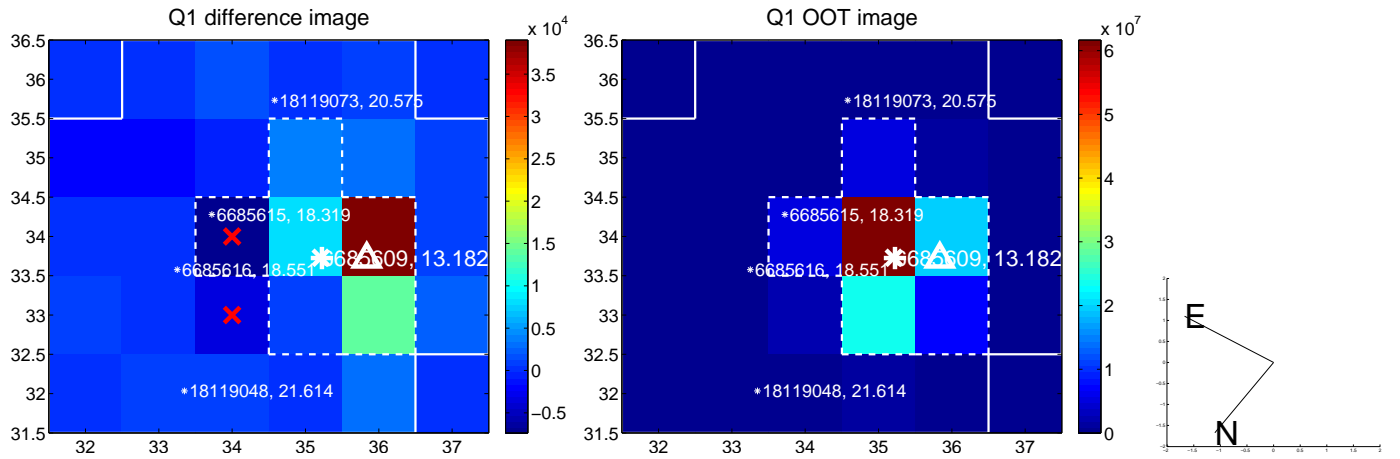
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.093 ± 0.182	0.51	-0.092 ± 0.171	-0.015 ± 0.158
PRF-fit source offset from KIC position	0.221 ± 0.148	1.49	-0.165 ± 0.156	0.146 ± 0.138
photometric centroid source offset	0.23 ± 0.10	2.21	0.01 ± 0.10	0.23 ± 0.10

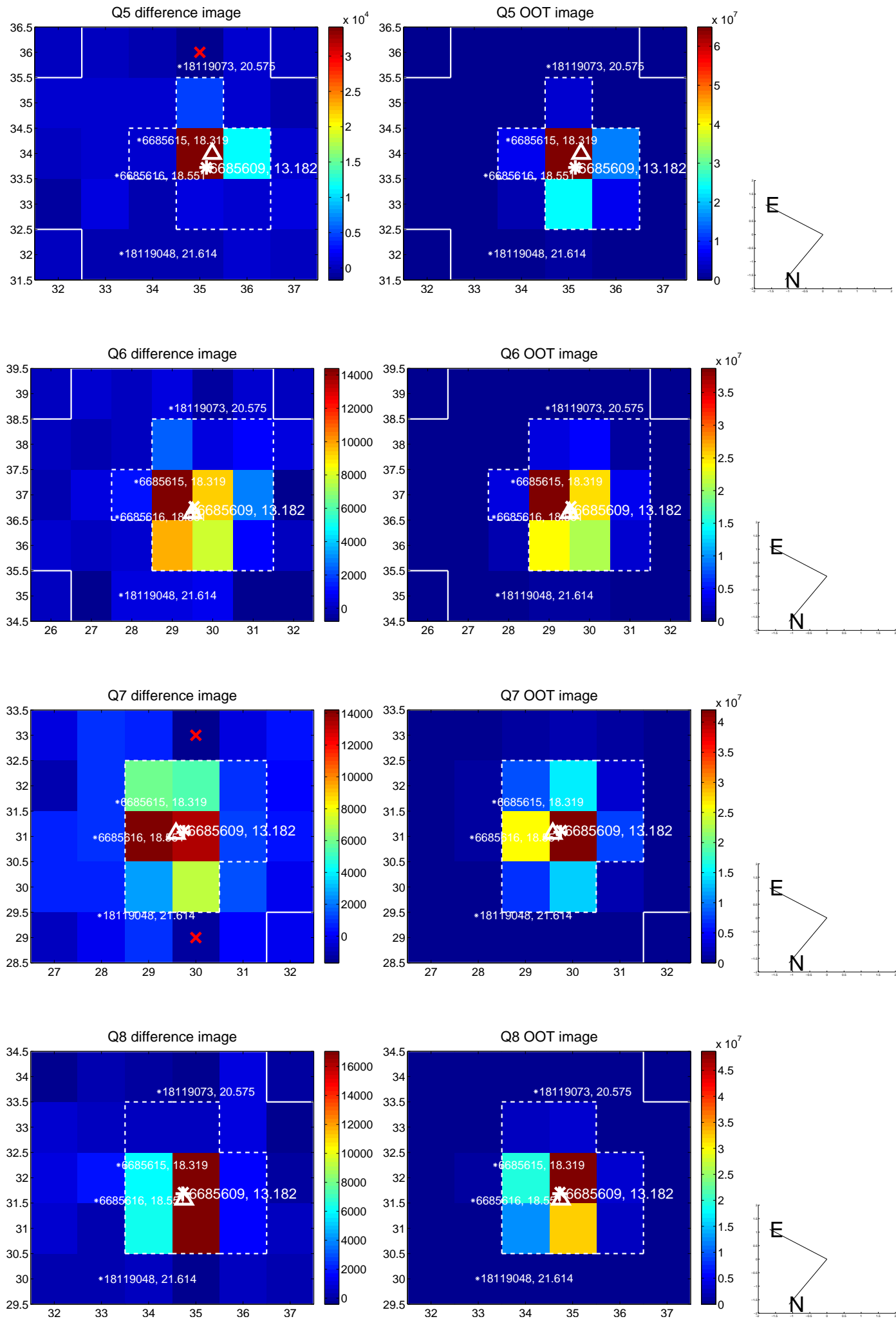


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

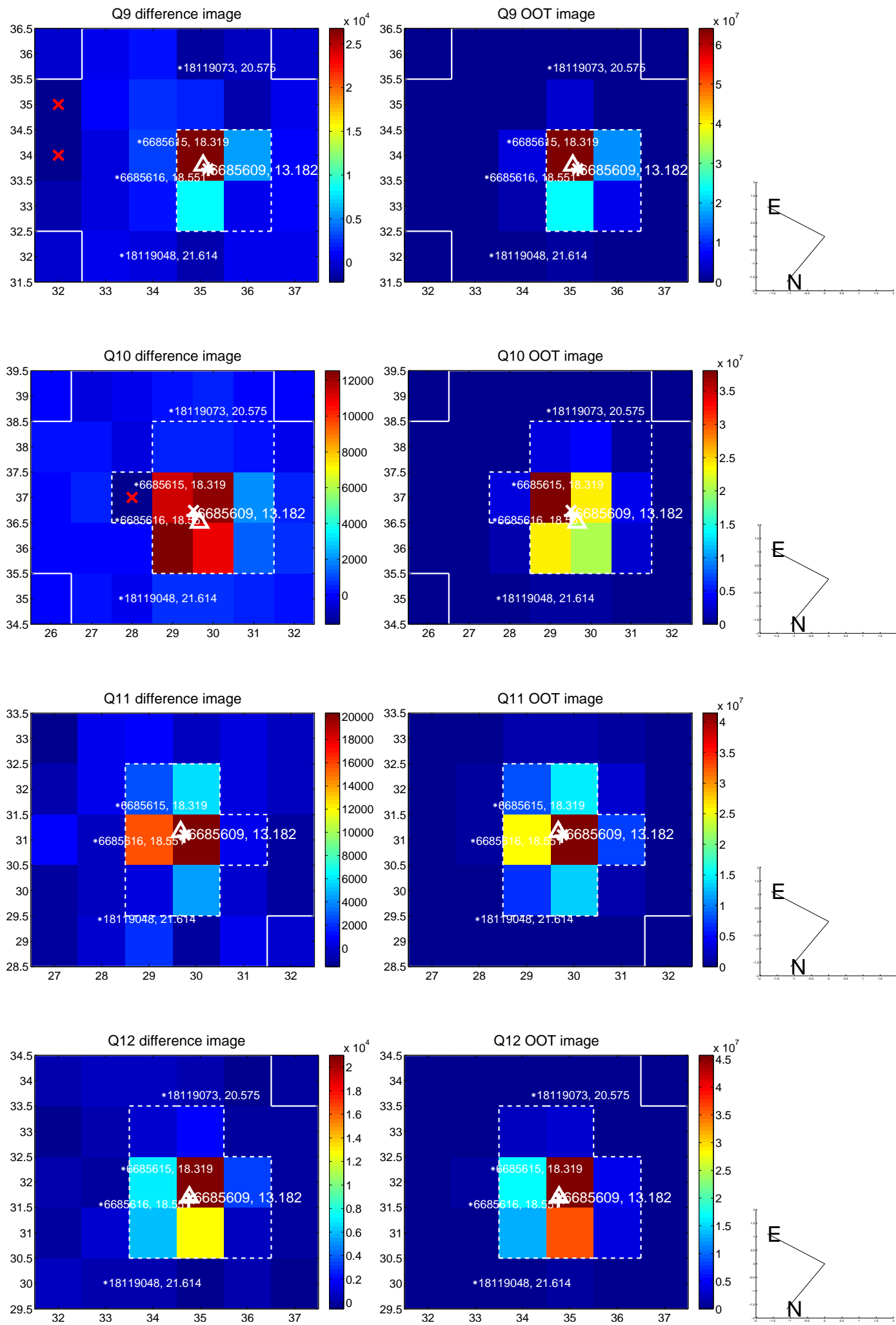
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



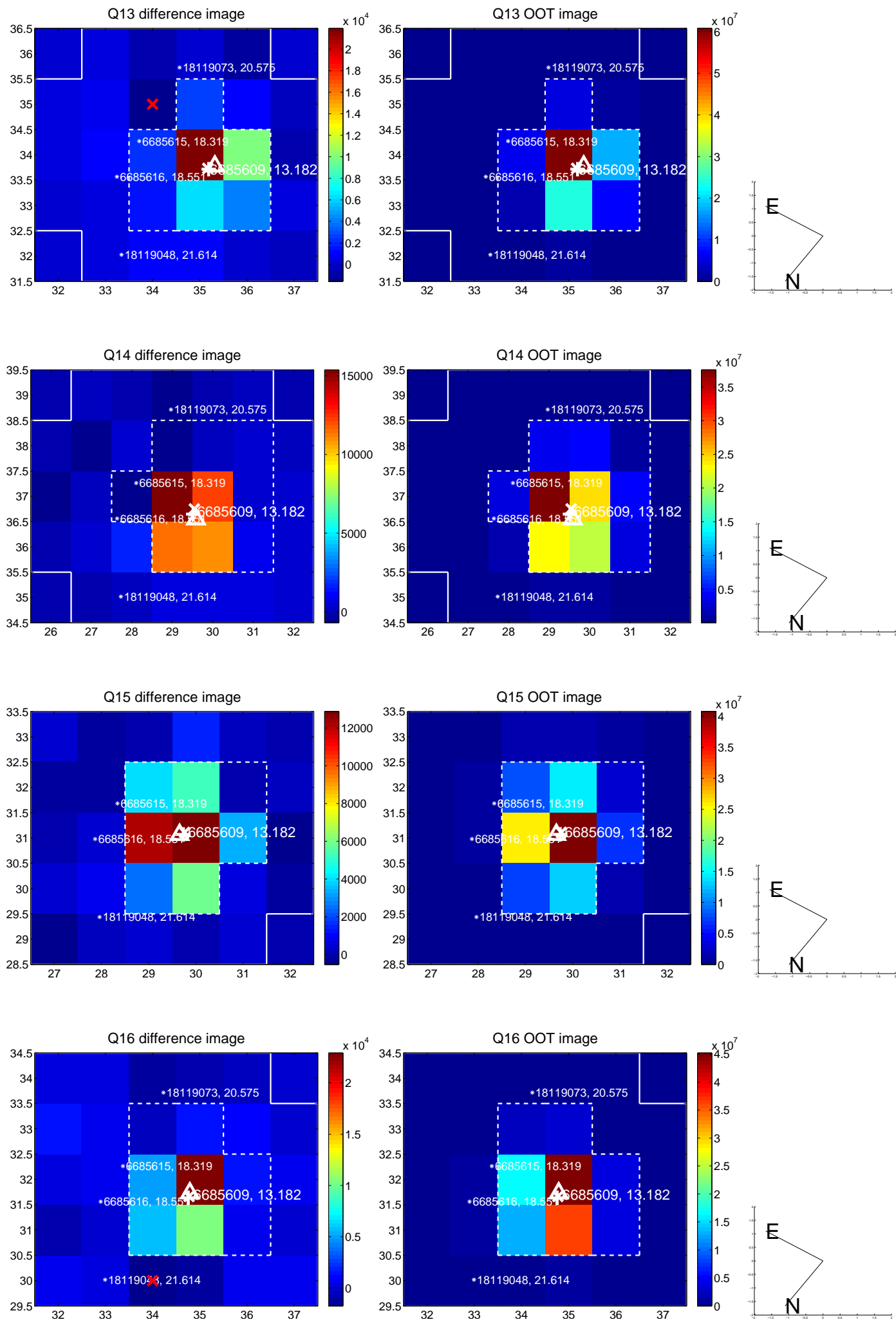
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



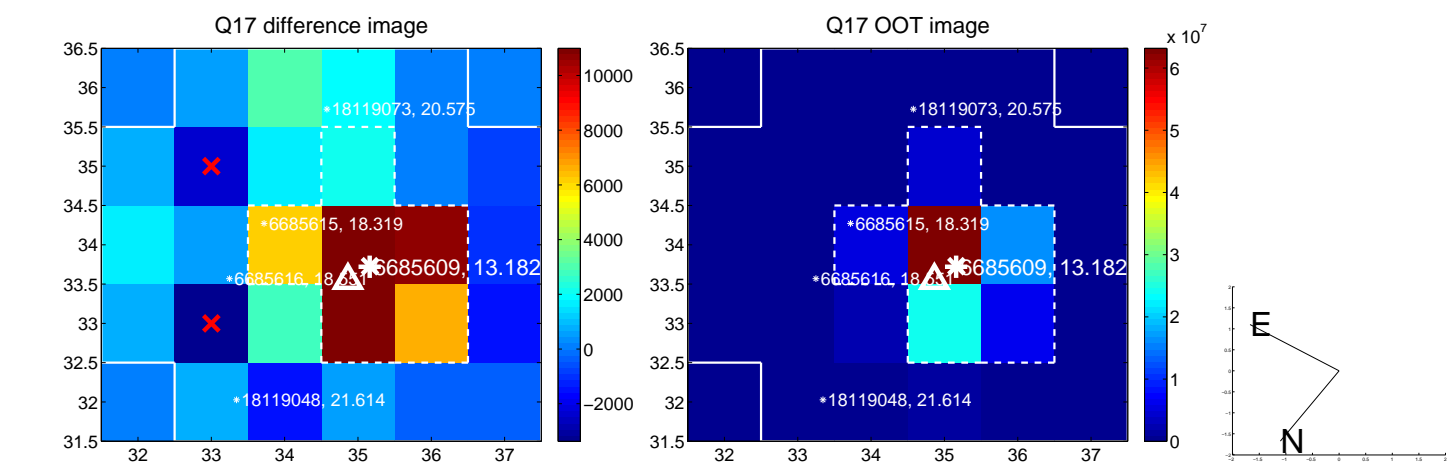
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



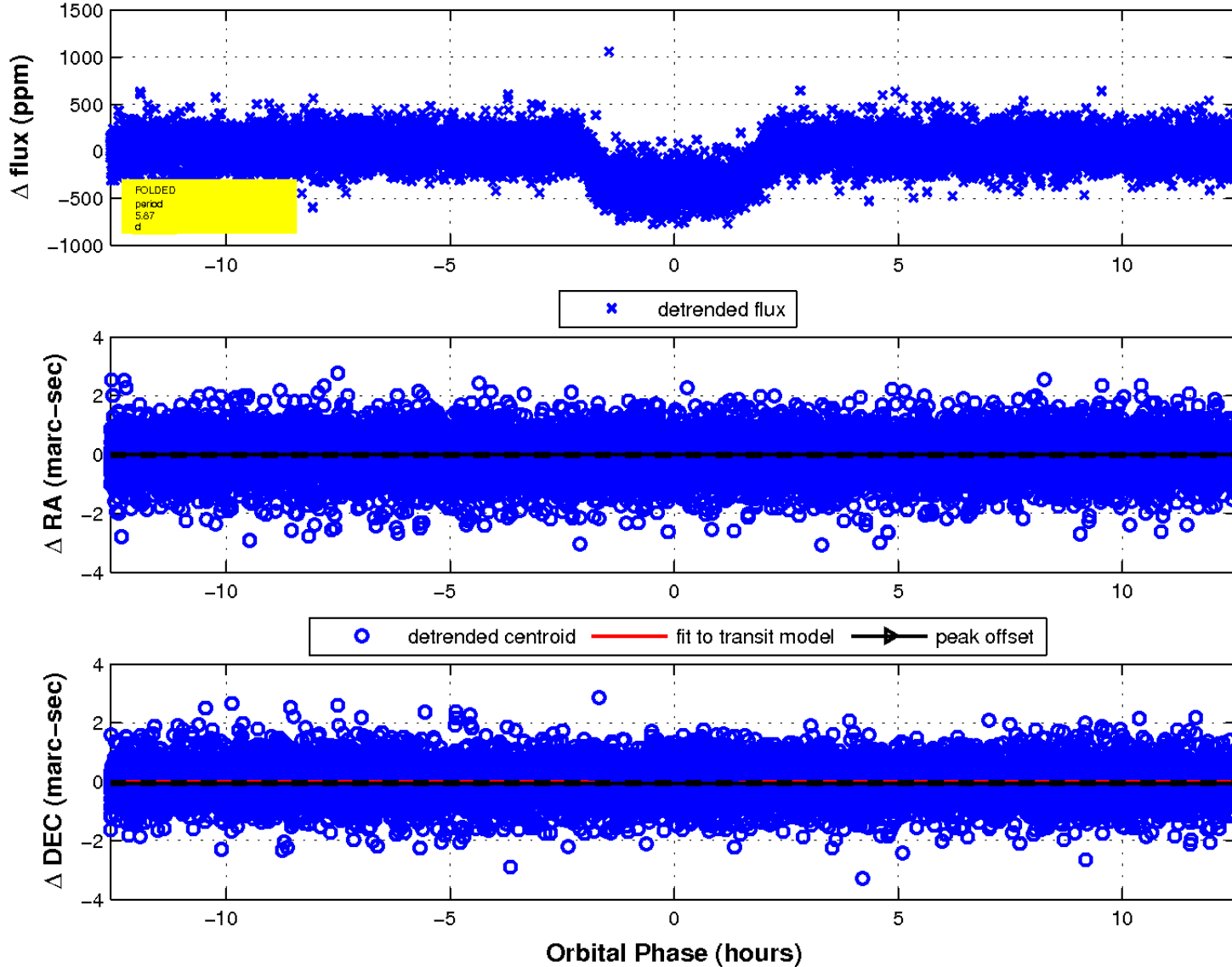
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

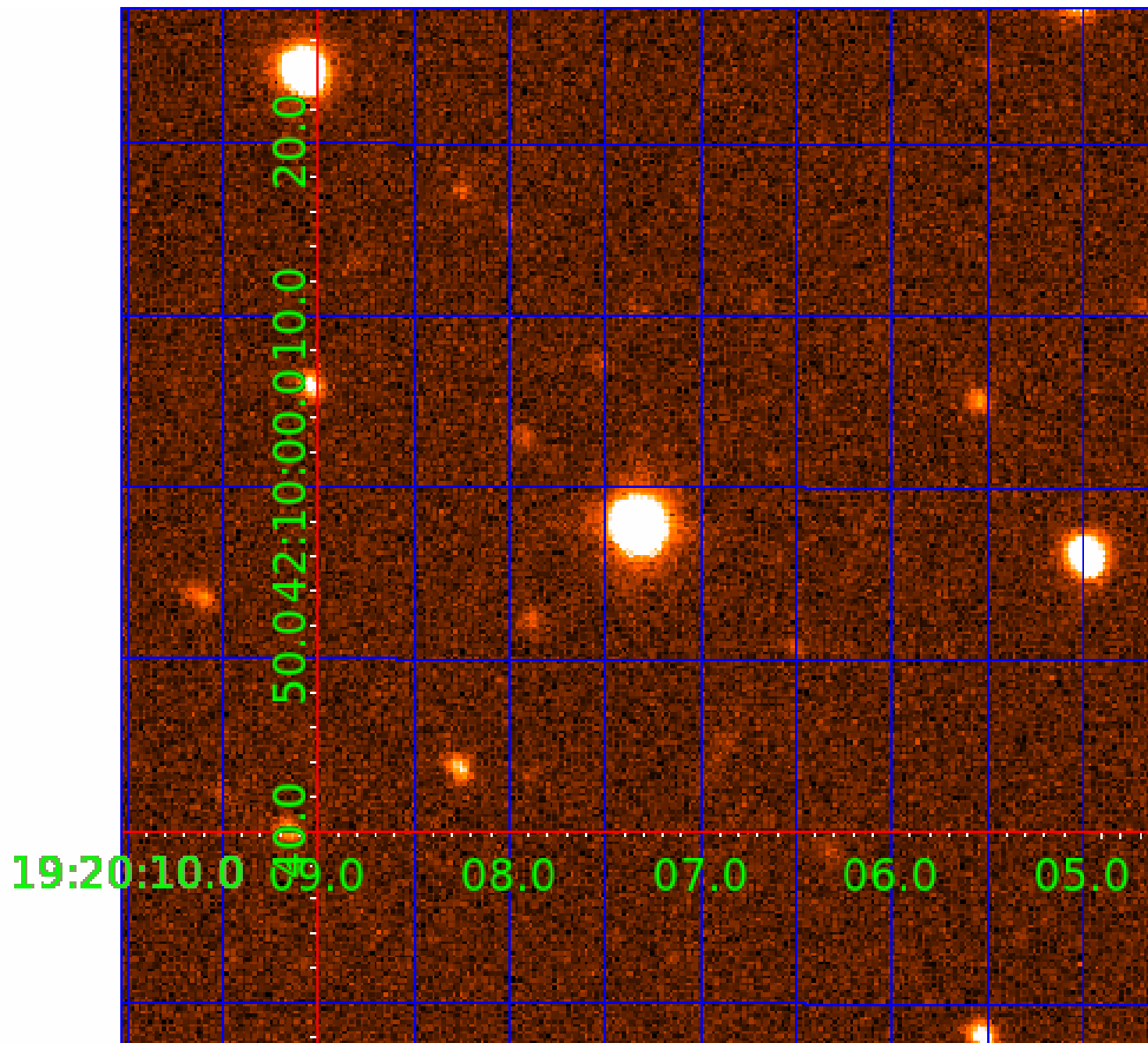


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 006685609

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})
006685609-01	OBS	0665.01	5.868055	135.116668	431.6	4.193	75.9	84.5	1.55	5918	3.73	586.26
006685609-02	OBS	0665.02	1.611896	131.956475	98.7	3.136	31.8	35.0	1.55	5918	1.83	3283.21
006685609-03	OBS	0665.03	3.071593	133.296084	82.8	4.089	18.2	20.6	1.55	5918	1.68	1389.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006685609-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
006685609-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
006685609-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

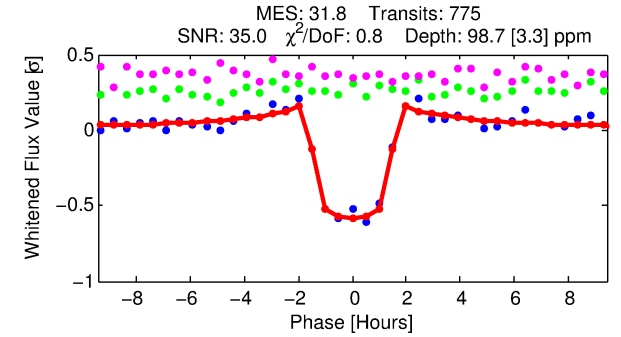
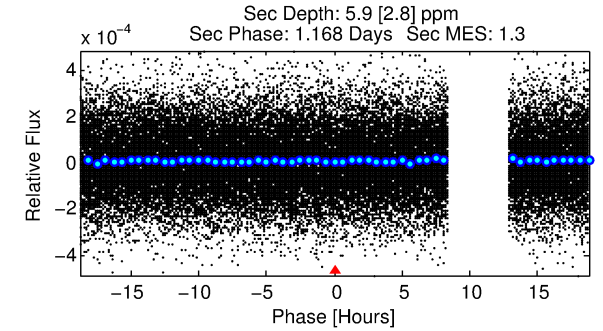
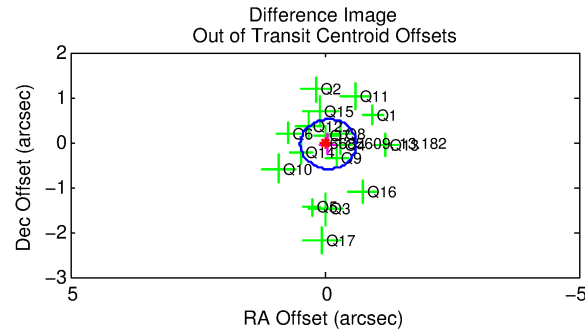
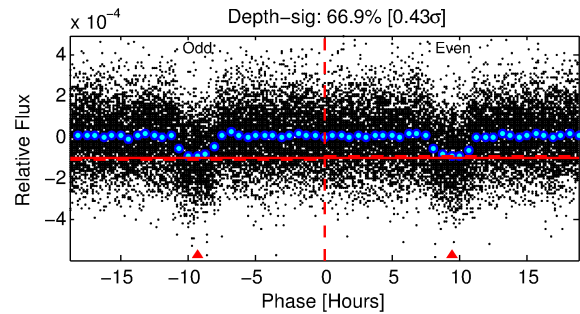
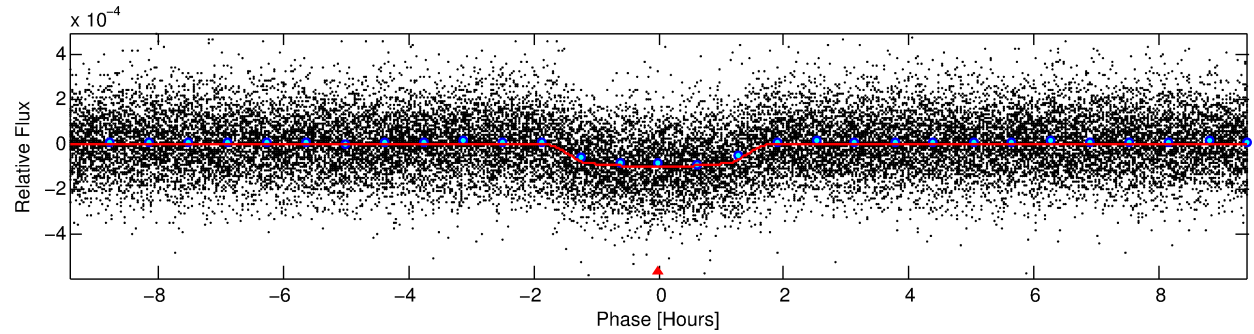
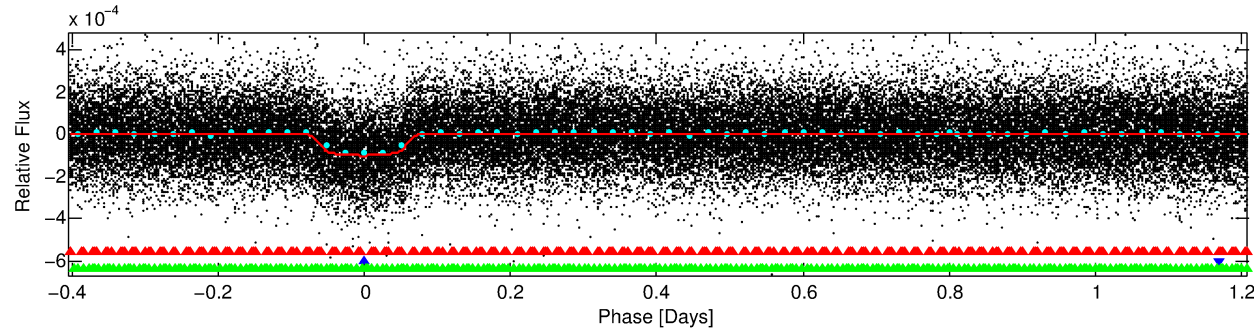
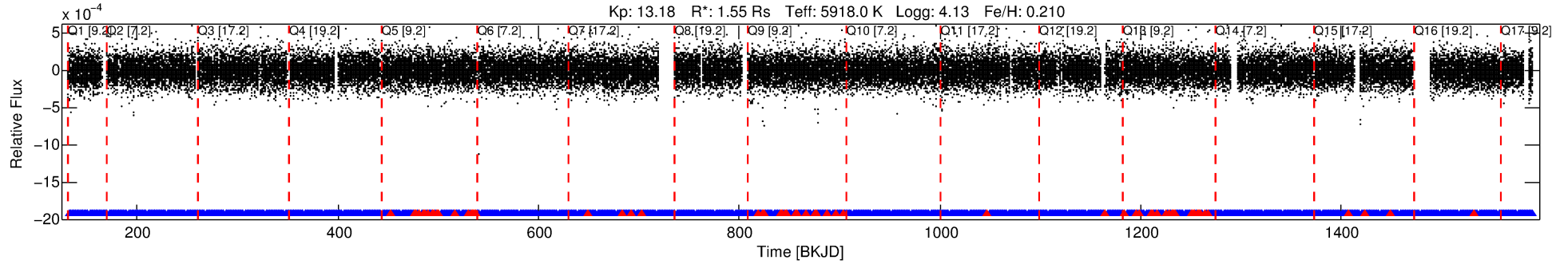
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006685609-02

No Significant Match Found

DV One-Page Summary

KIC: 6685609 Candidate: 2 of 3 Period: 1.612 d
KOI: K00665.02 Name: Kepler-207b Corr: 0.981



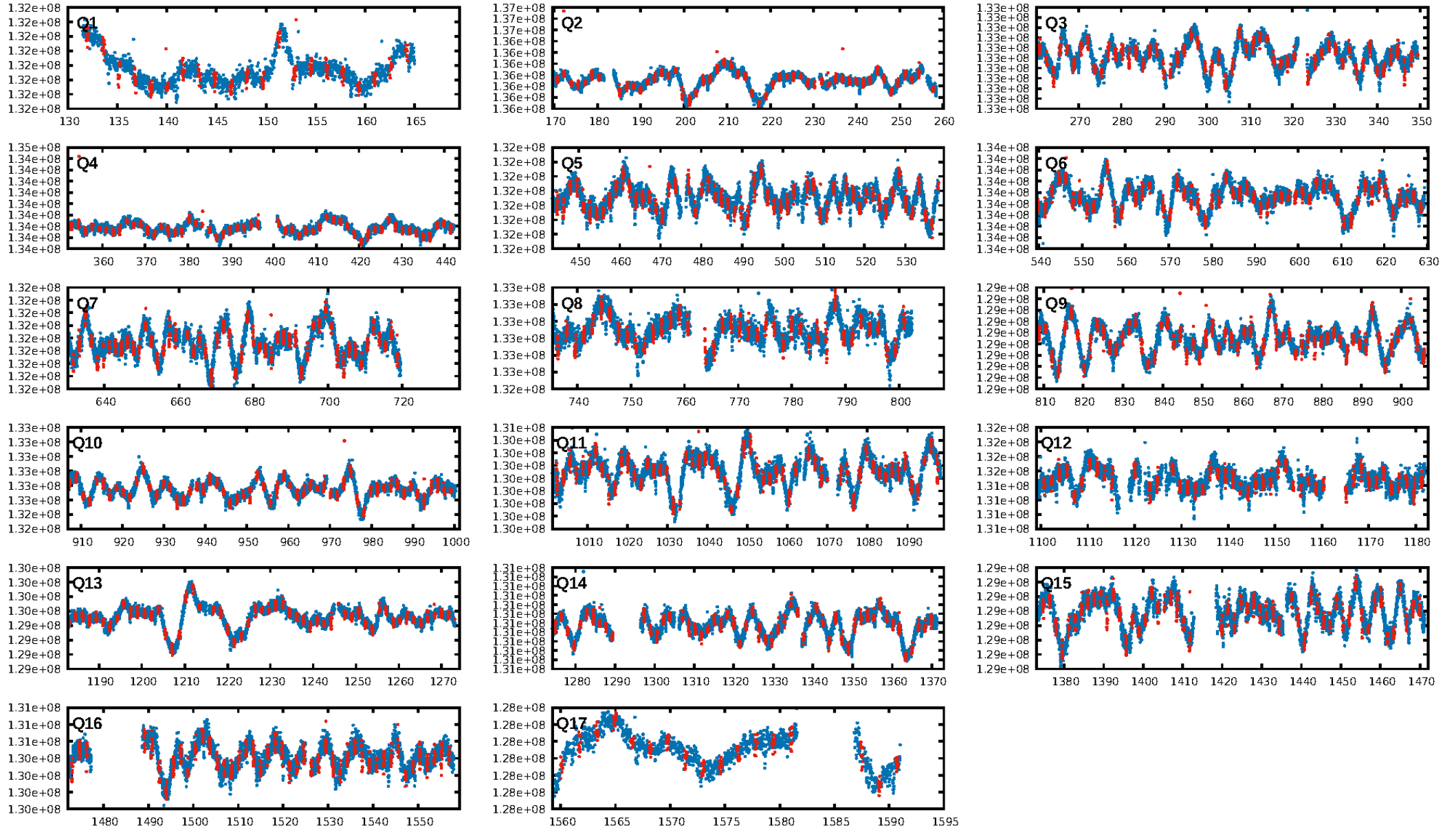
DV Fit Results:

Period = 1.61190 [0.00000] d
Epoch = 131.9565 [0.0010] BKJD
Rp/R* = 0.0108 [0.0015]
a/R* = 2.04 [1.07]
b = 0.90 [0.15]
Seff = 3283.21 [997.31]
Teq = 1930 [147] K
Rp = 1.83 [0.46] Re
a = 0.0284 [0.0054] AU
Ag = 0.78 [0.49] [-0.45 σ]
Teffp = 2805 [391] K [2.09 σ]

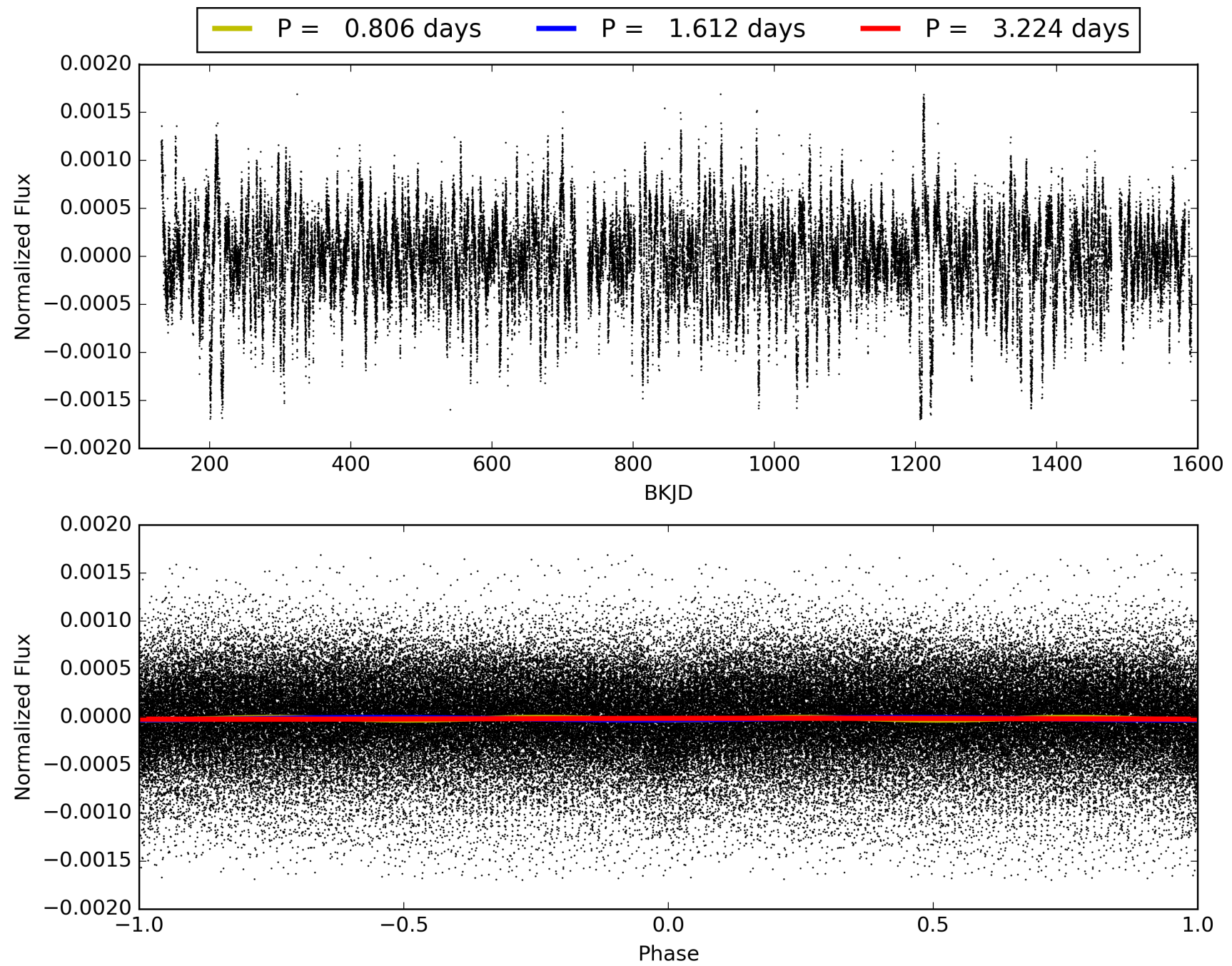
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [6.80 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.69e-204
RollingBand-fgt: 0.92 [679/740]
GhostDiagnostic-chr: 3.785
Centroid-sig: 0.0%
Centroid-so: 0.694 arcsec [2.68 σ]
OotOffset-rm: 0.082 arcsec [0.45 σ]
KicOffset-rm: 0.125 arcsec [0.82 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]

TCE 006685609-02, PDC Light Curves

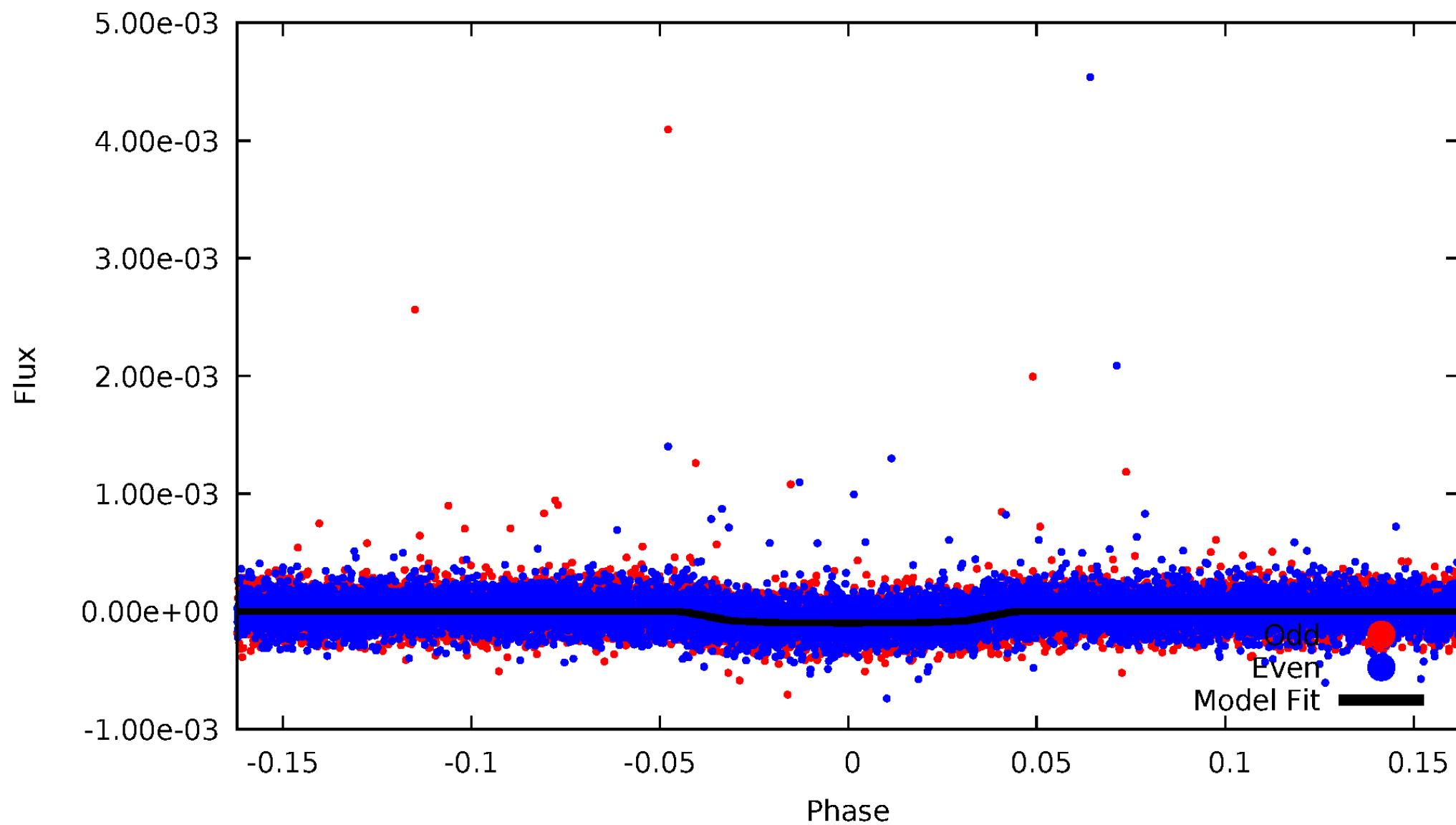


TCE 006685609-02



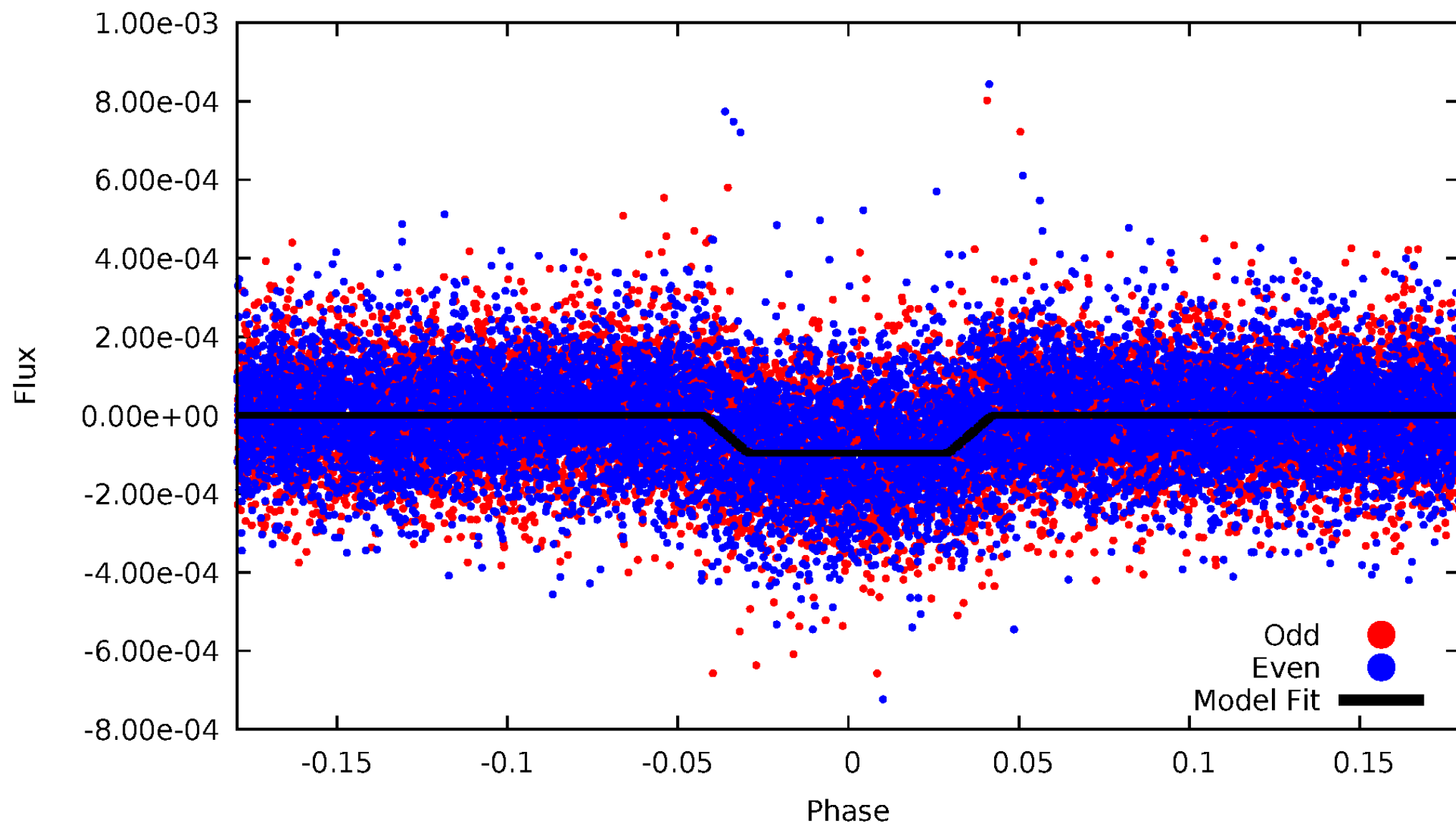
DV Odd/Even

TCE 006685609-02



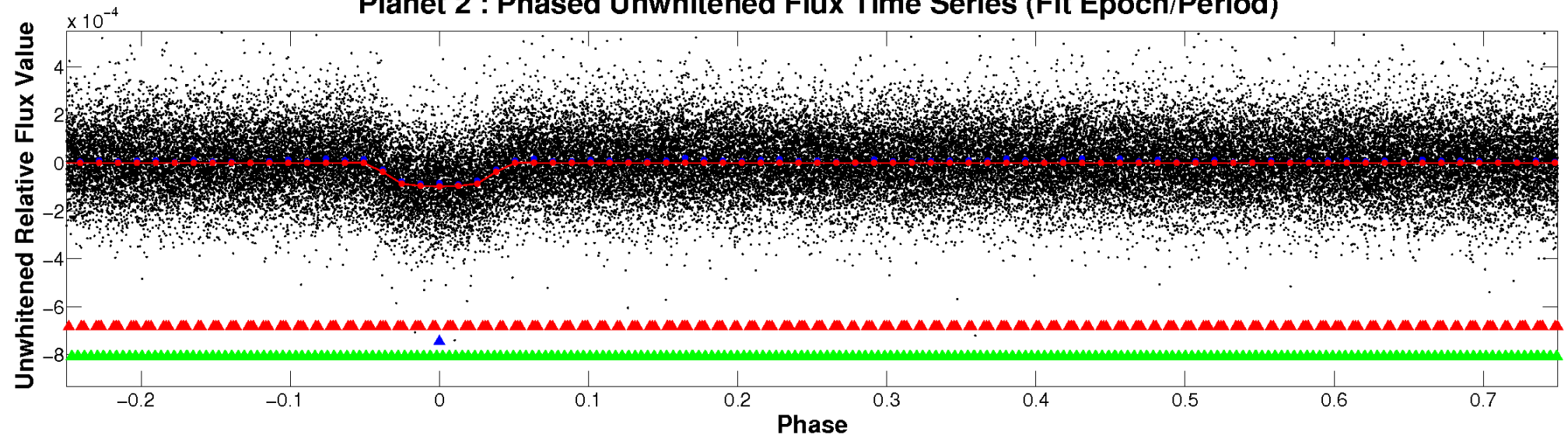
ALT Odd/Even

TCE 006685609-02

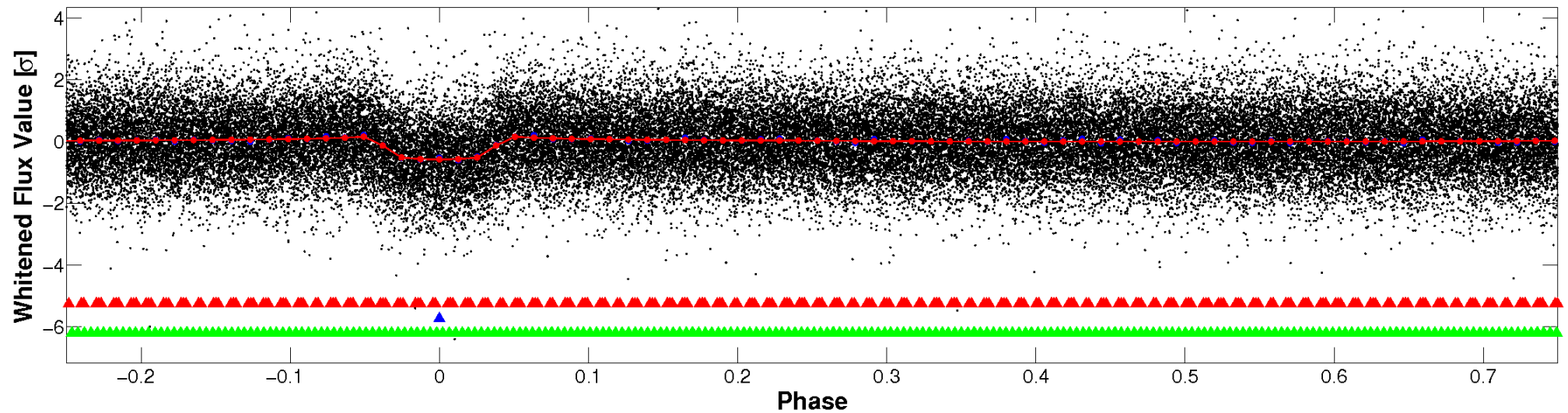


Non-Whitened Vs. Whitened Light Curve

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

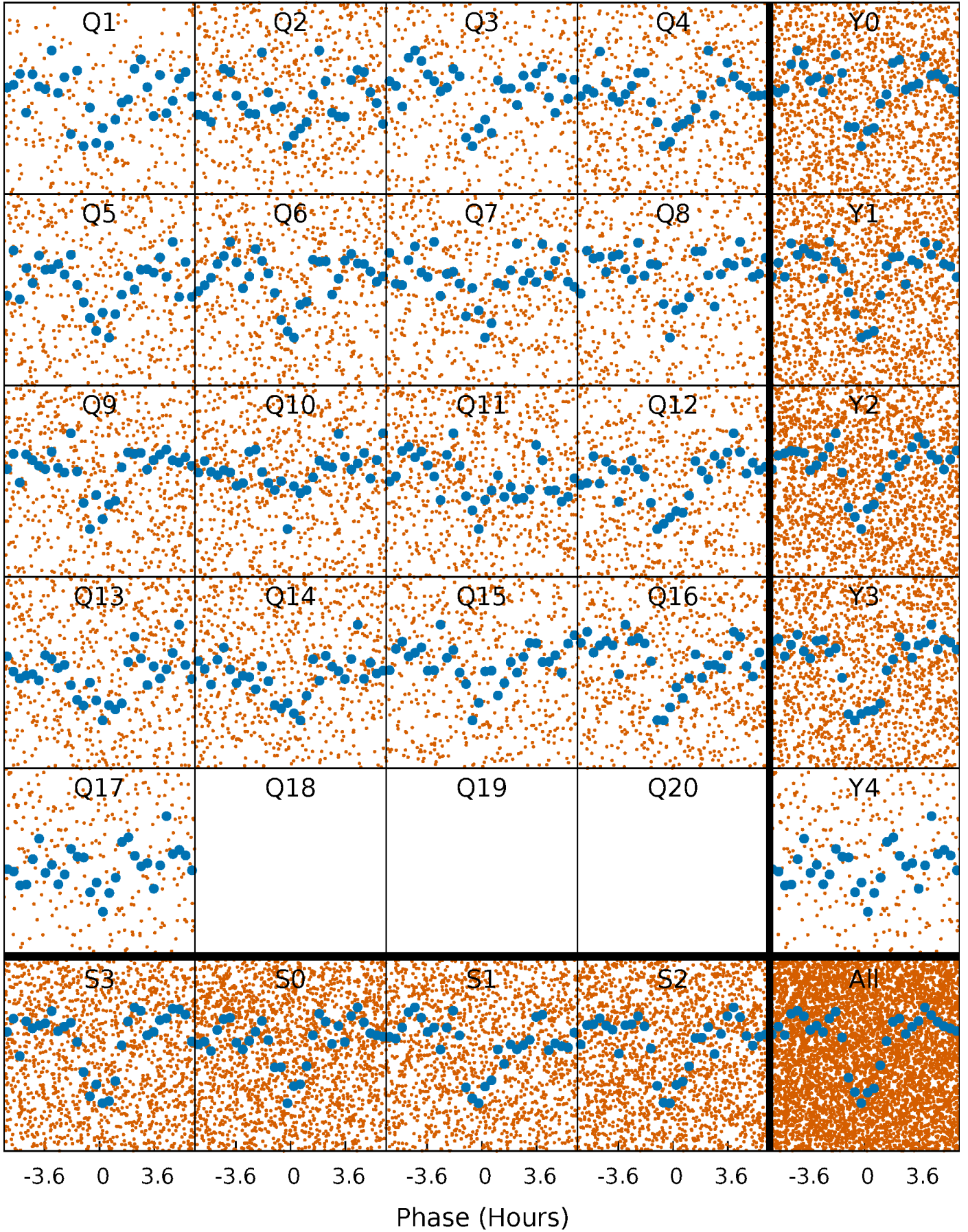


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



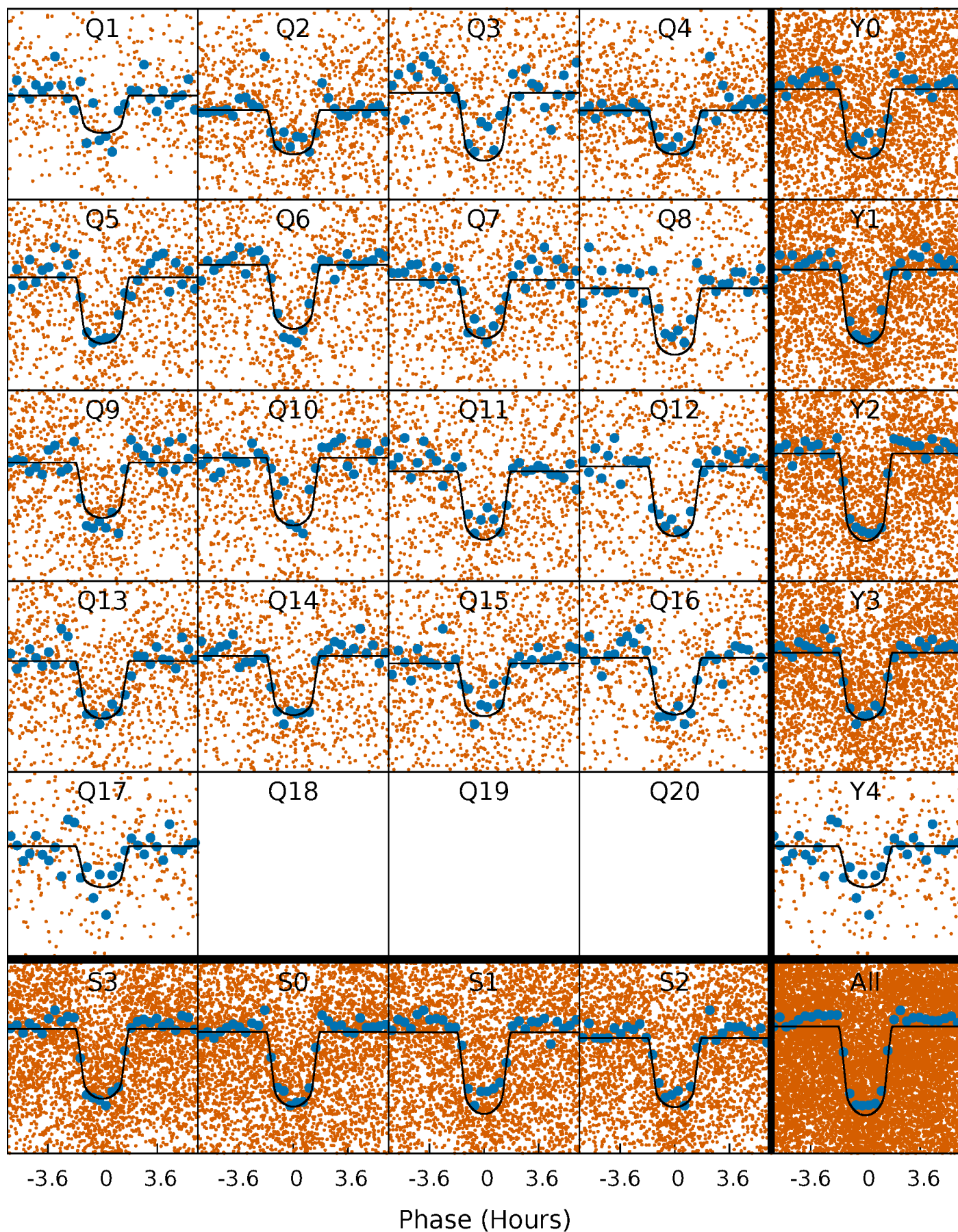
PDC Quarter-Phased Transit Curves

TCE 006685609-02 P= 1.611896 Days $T_0=131.956475$ (BKJD)



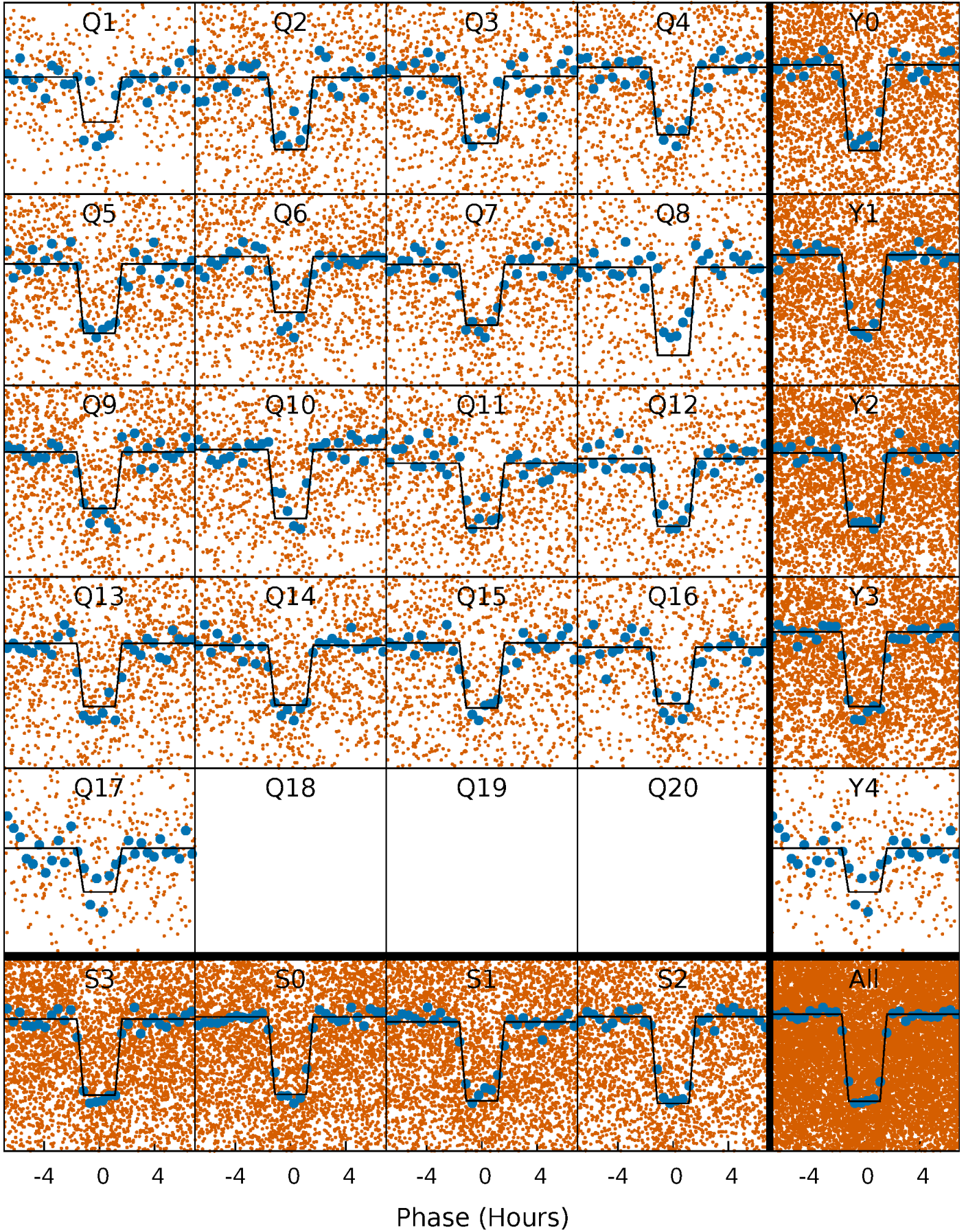
DV Quarter-Phased Transit Curves

TCE 006685609-02 P= 1.611896 Days $T_0=131.956475$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

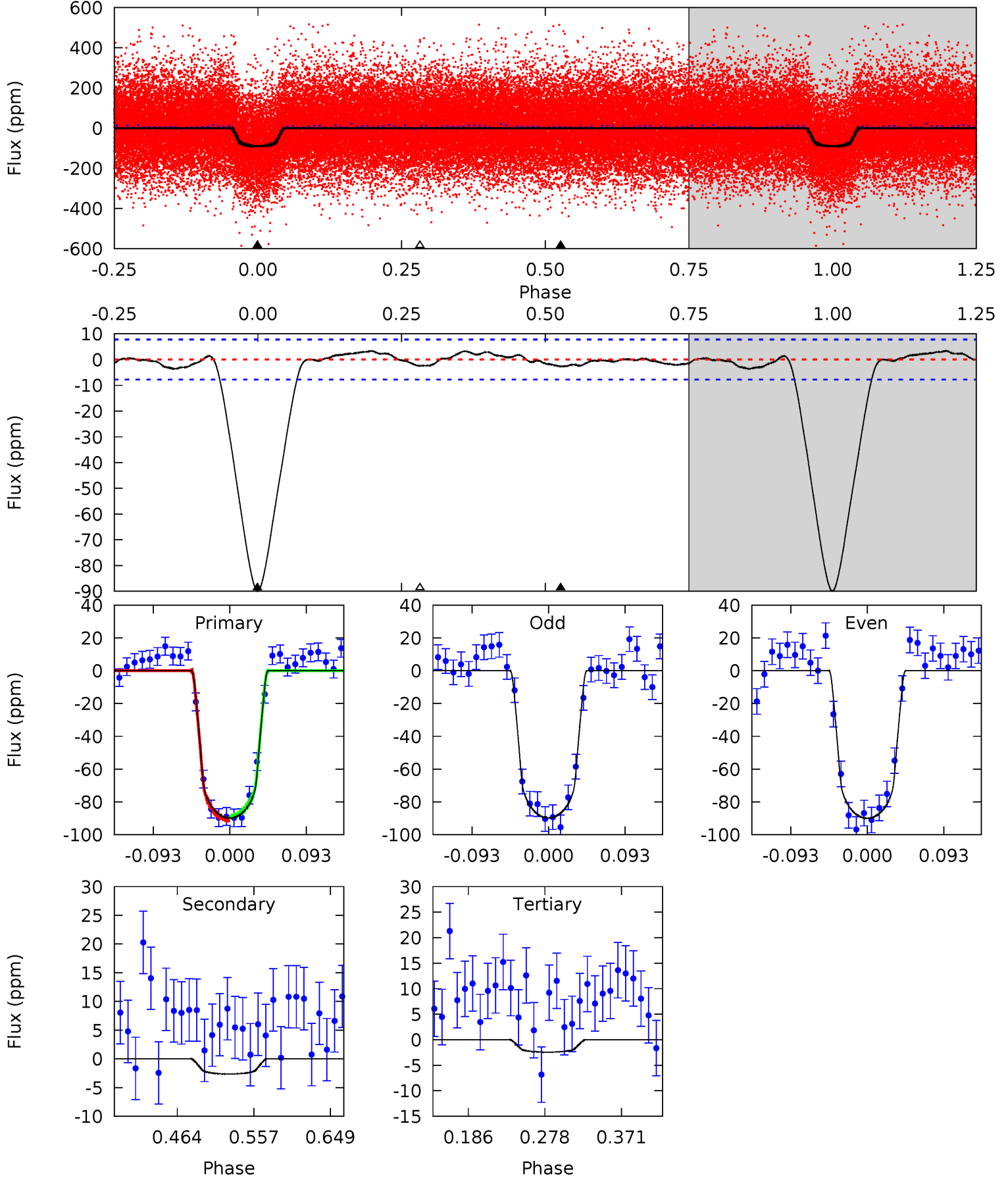
TCE 006685609-02 P= 1.611892 Days $T_0=131.958125$ (BKJD)



DV Model-Shift Uniqueness Test

006685609-02, P = 1.611896 Days, E = 130.344579 Days

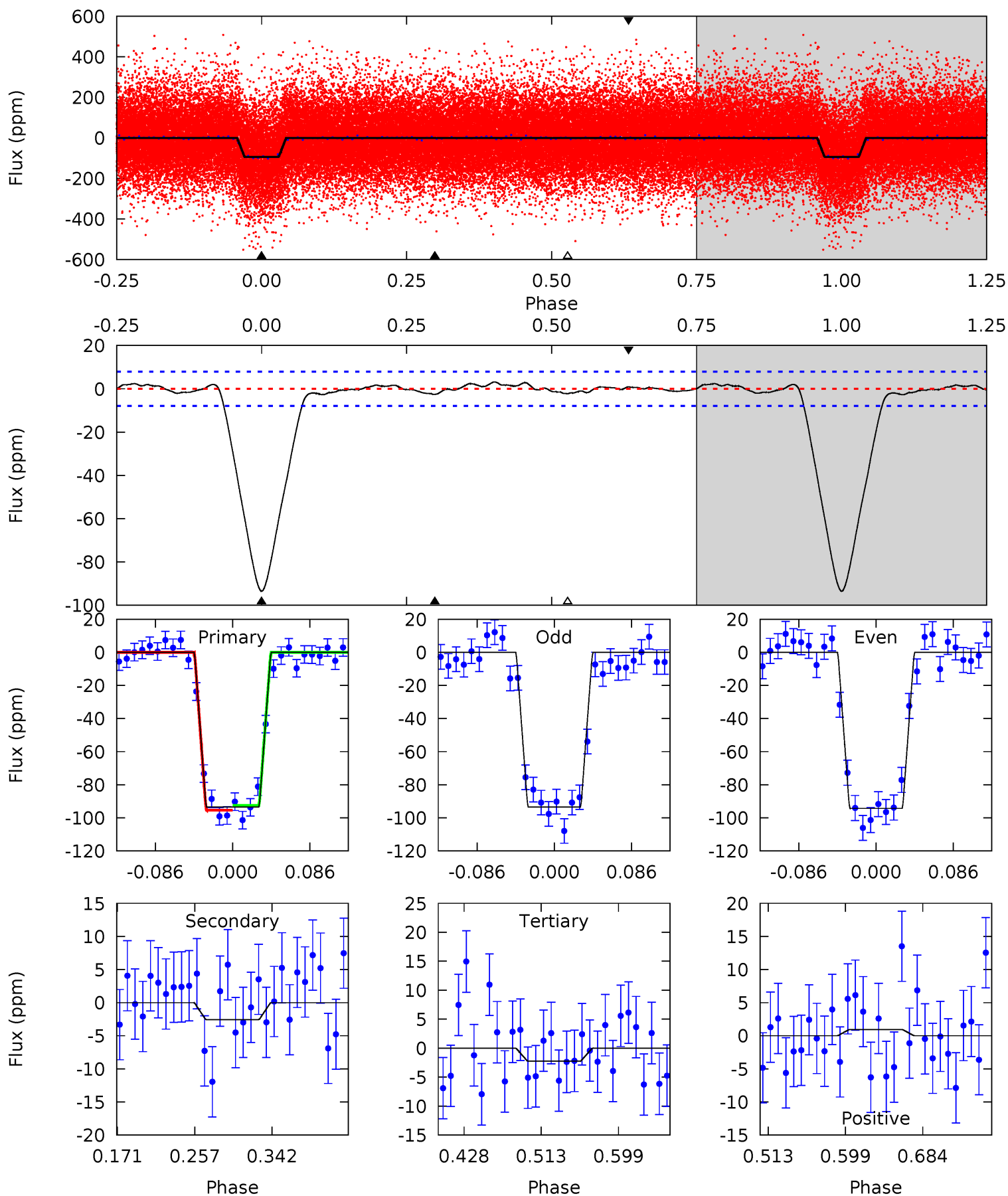
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.8	1.55	1.43	0	4.58	1.68	1.06	51.4	52.8	0.12	1.55	0.06	0.98	0.04	0.59



Alt Model-Shift Uniqueness Test

006685609-02, P = 1.611892 Days, E = 130.346233 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.4	1.50	1.31	0.55	4.60	1.72	0.80	53.1	53.9	0.19	0.95	0.21	1.04	0.03	0.85



Stellar Parameters For KIC 006685609

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5918^{+107}_{-119}	$4.127^{+0.168}_{-0.098}$	$0.210^{+0.150}_{-0.150}$	$1.555^{+0.265}_{-0.324}$	$1.181^{+0.113}_{-0.113}$	$0.443^{+0.417}_{-0.132}$
	+2%/-2%	+4%/-2%	+71%/-71%	+17%/-21%	+10%/-10%	+94%/-30%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 006685609-02 / KOI 0665.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 2	$1.79^{+0.33}_{-0.31}$	2675^{+126}_{-148}	2396^{+590}_{-5100}	$0.367^{+0.325}_{-0.242}$
Alt.	-3 ± 2	$1.63^{+0.33}_{-0.29}$	2676^{+129}_{-136}	2596^{+483}_{-5262}	$0.431^{+0.372}_{-0.286}$

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 $A_{obs} \gg 1.0$

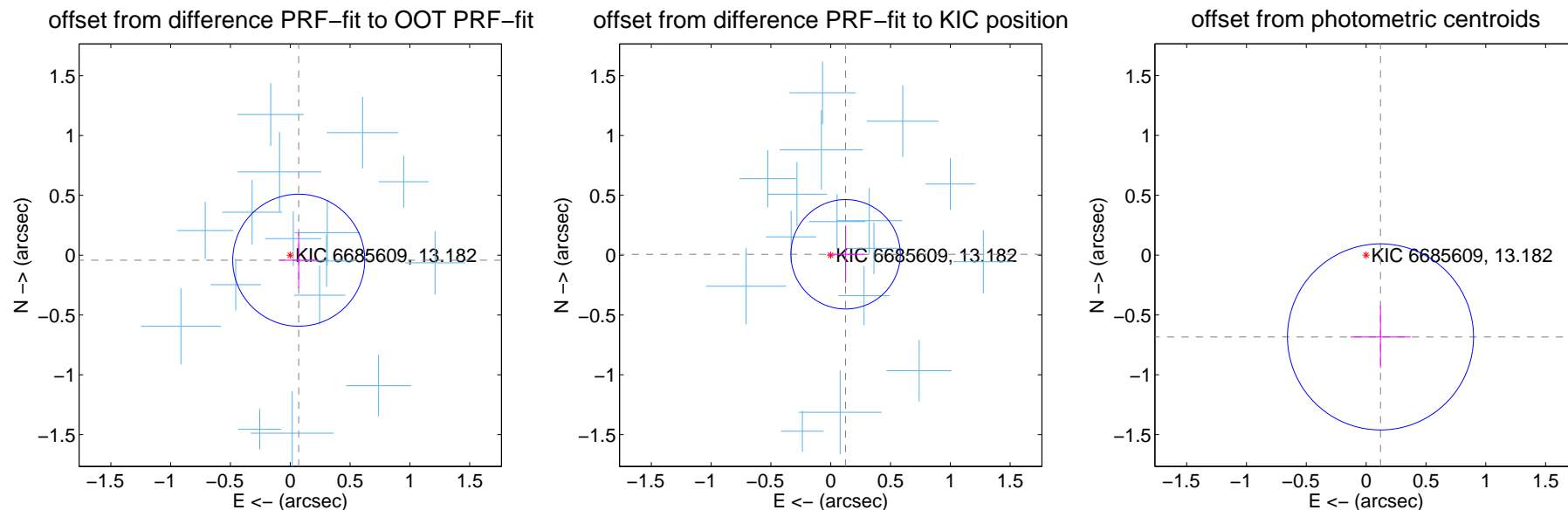
DV Centroid Data

Supplemental centroid analysis for 006685609-02. Kepler magnitude: 13.18. Transit SNR 35.04

There are 17 quarters with good PRF difference image offsets

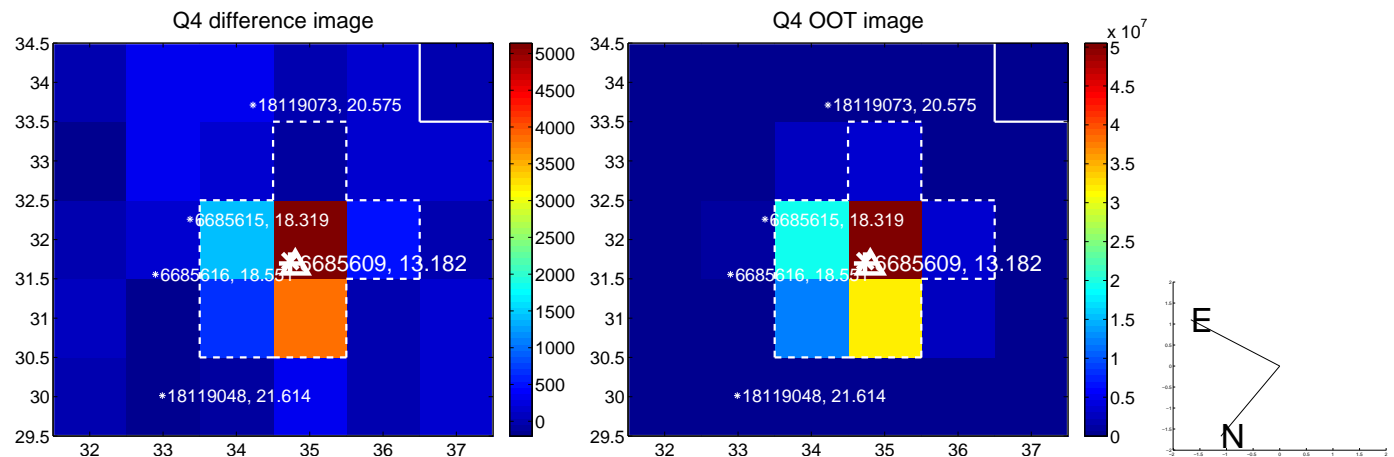
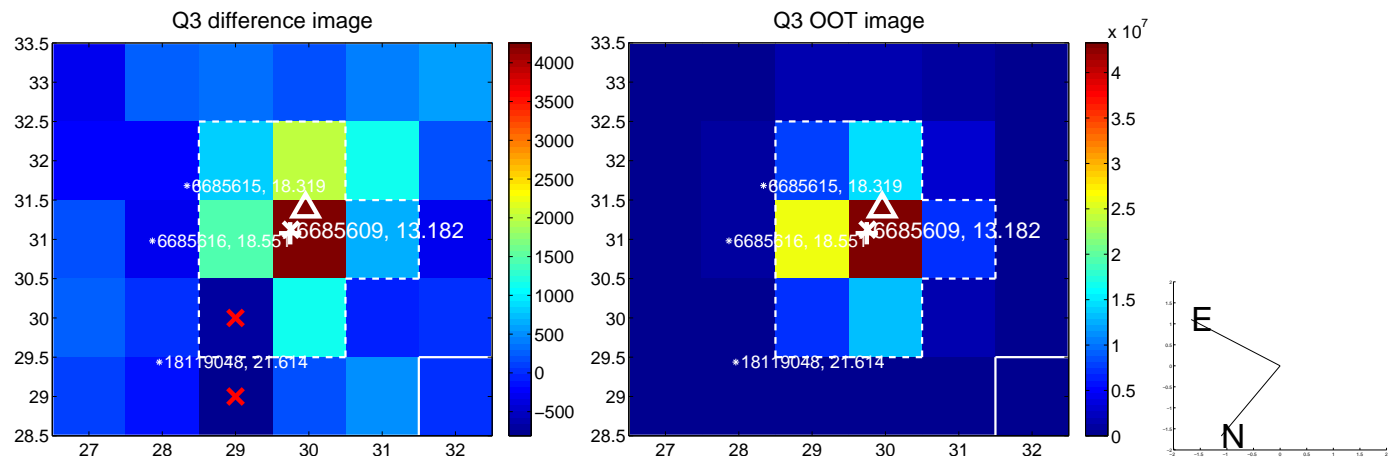
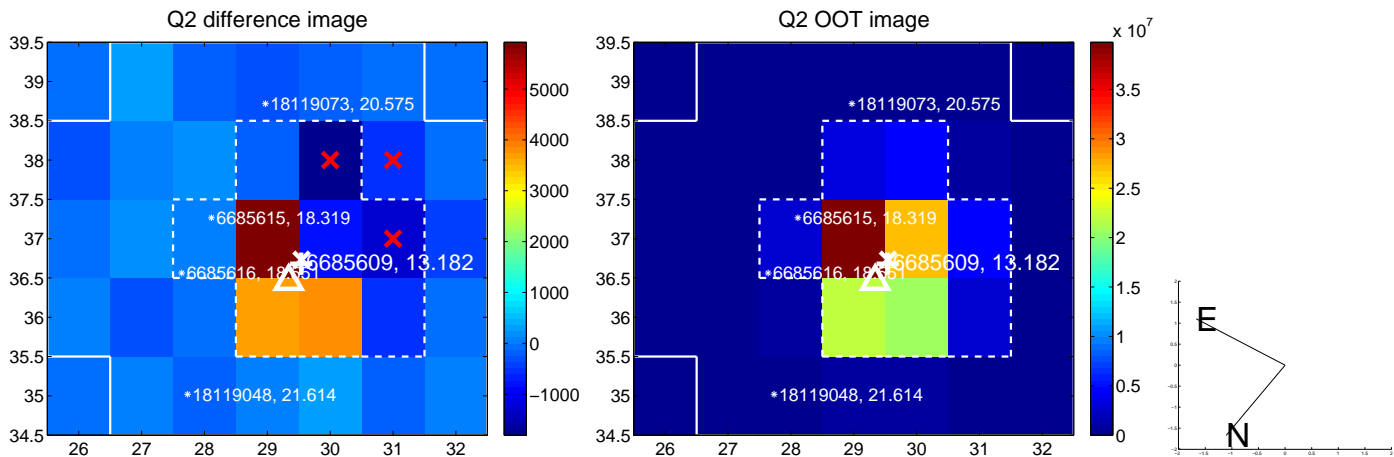
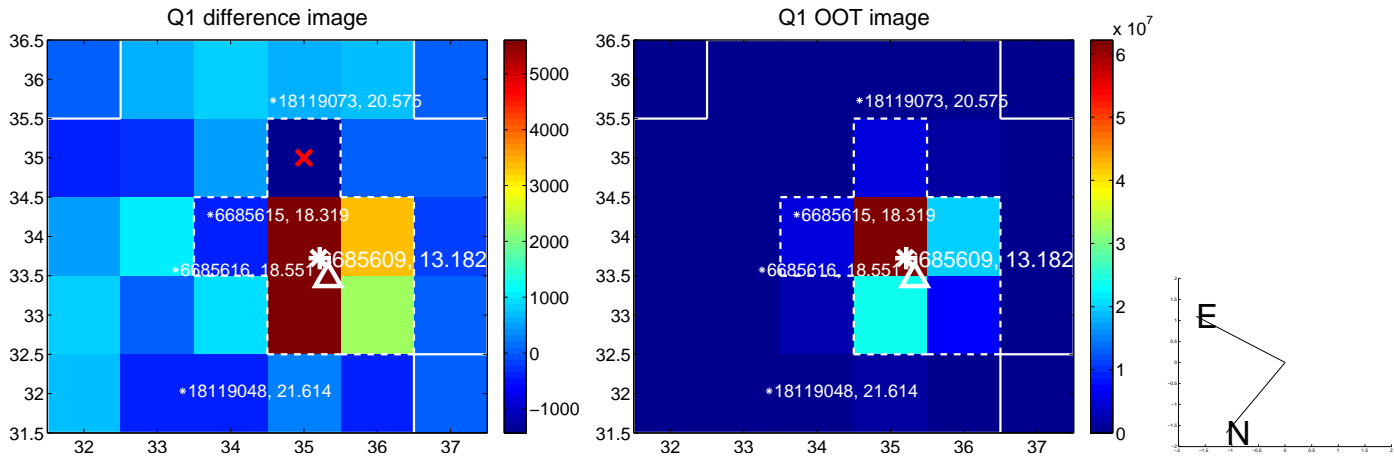
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.082 ± 0.184	0.45	-0.071 ± 0.162	-0.042 ± 0.235
PRF-fit source offset from KIC position	0.125 ± 0.152	0.82	-0.124 ± 0.152	0.007 ± 0.238
photometric centroid source offset	0.69 ± 0.26	2.68	-0.12 ± 0.25	-0.68 ± 0.26

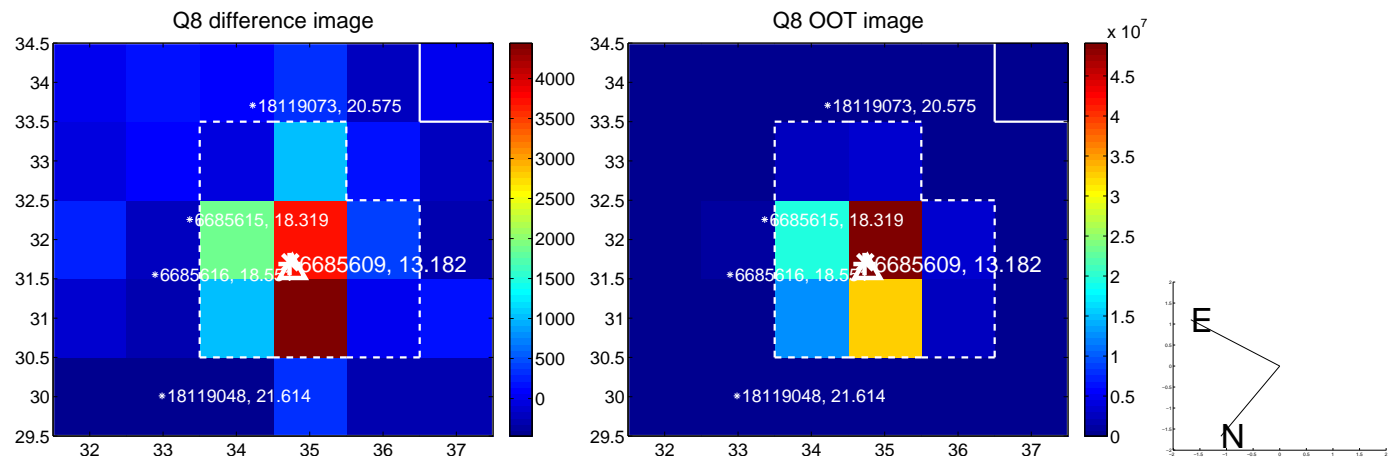
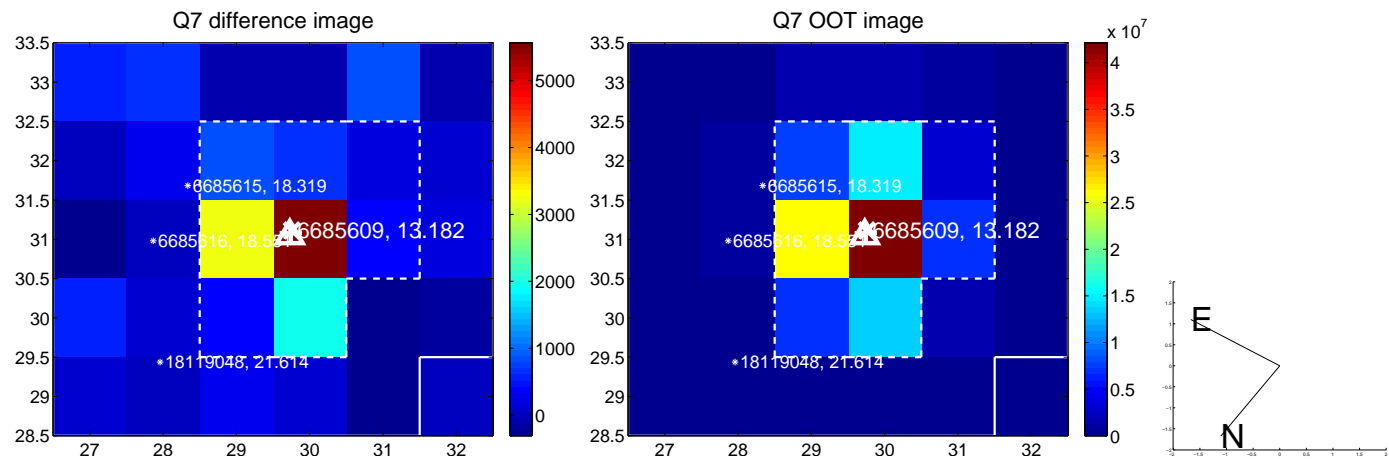
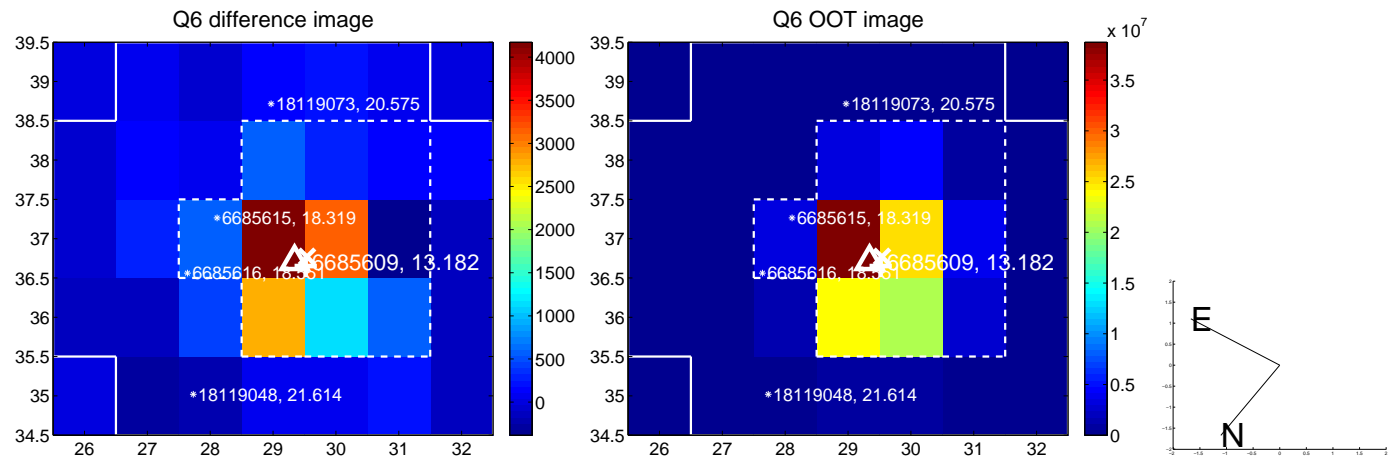
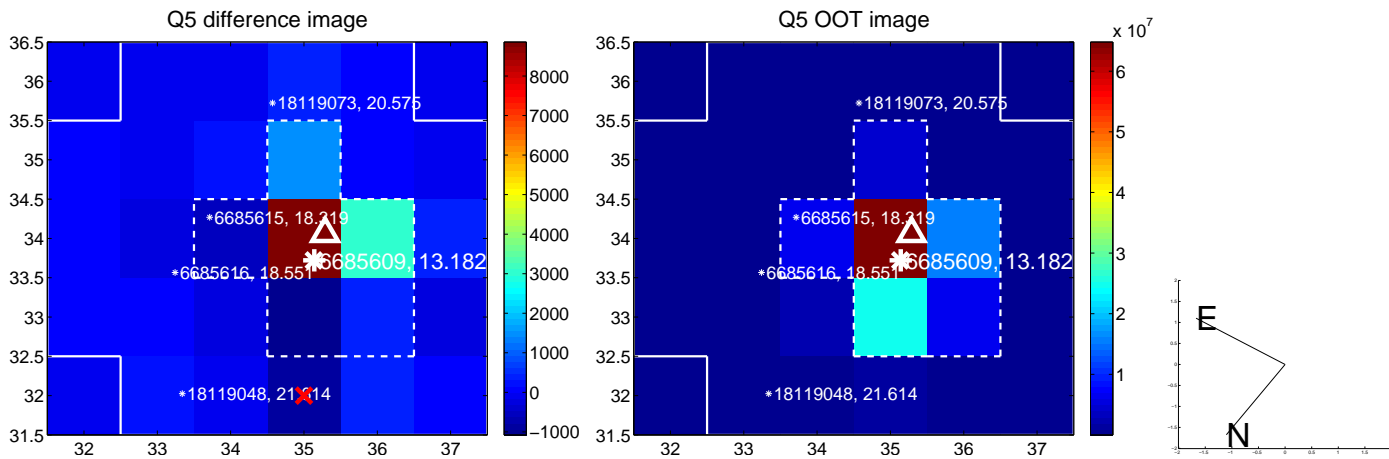


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

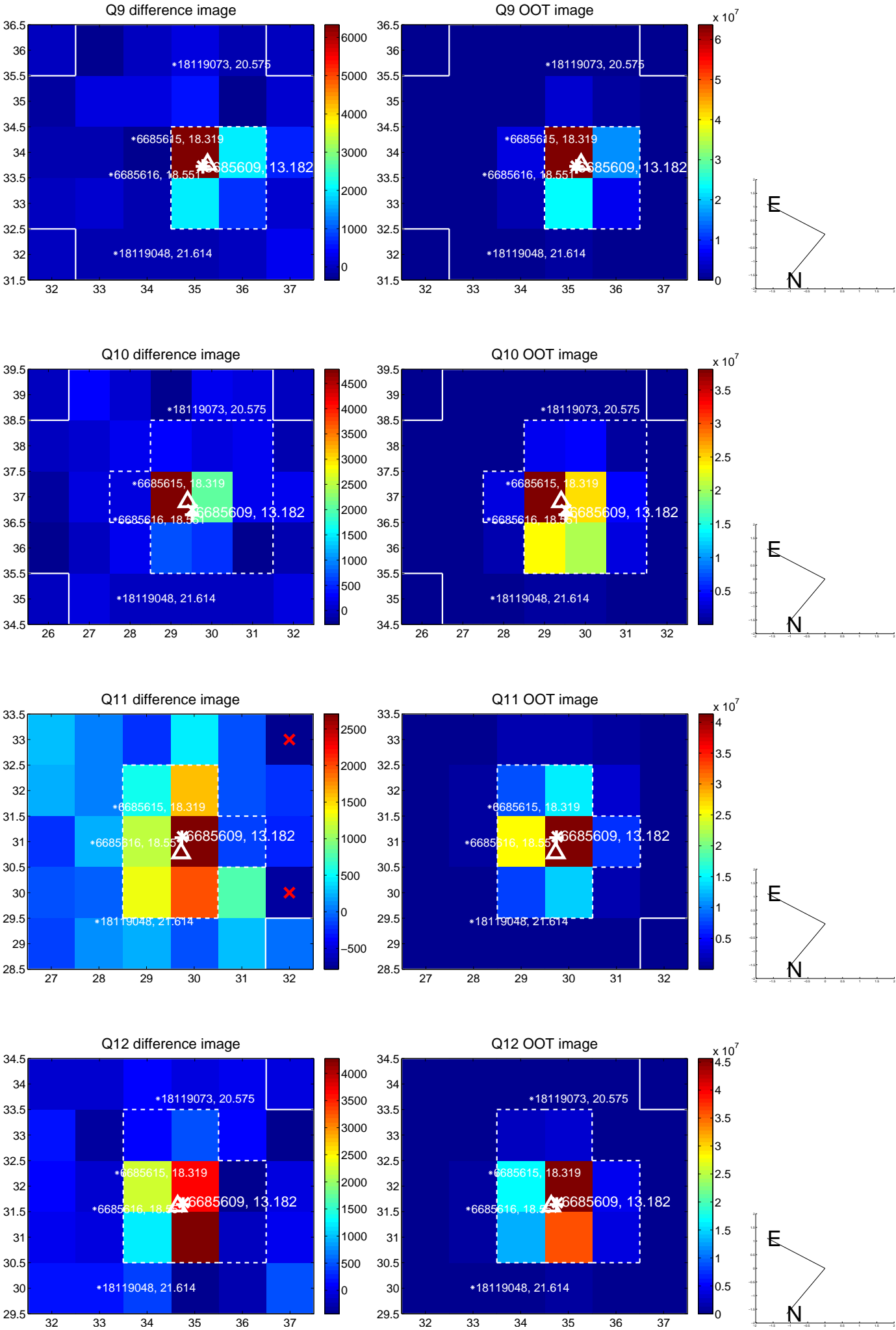
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



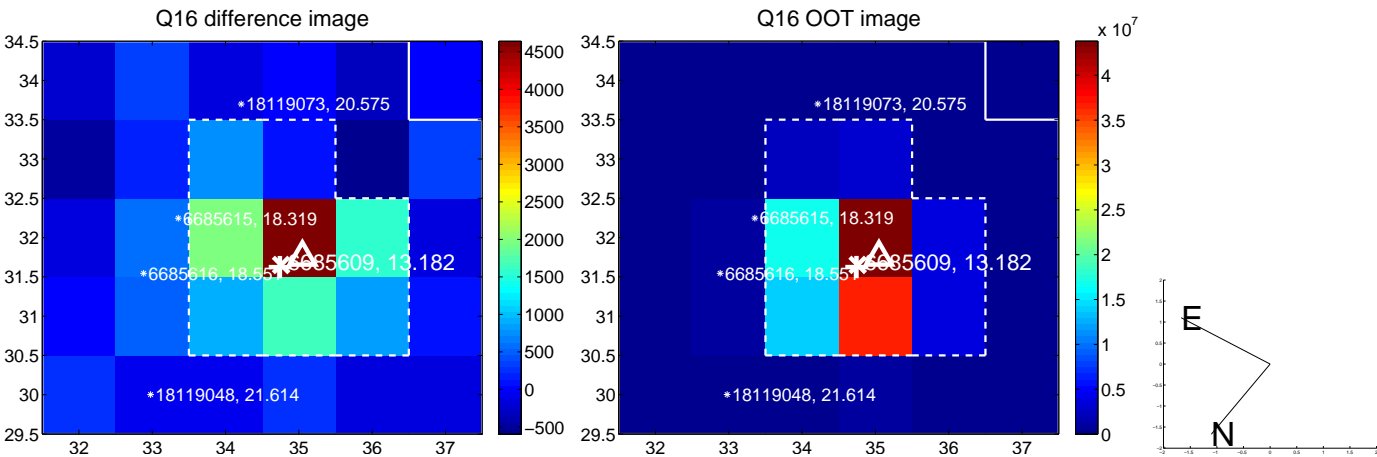
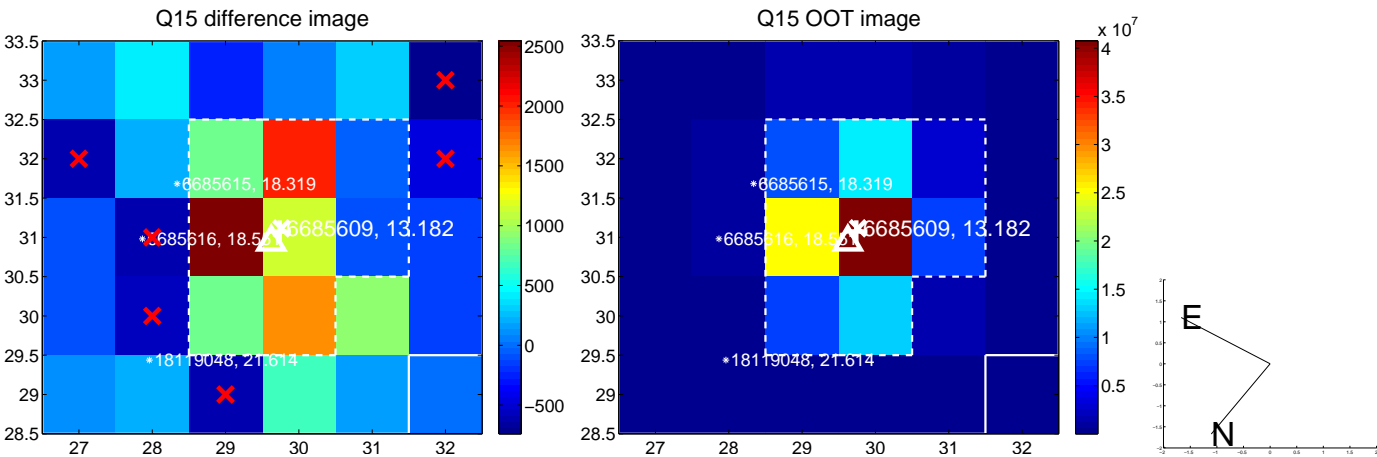
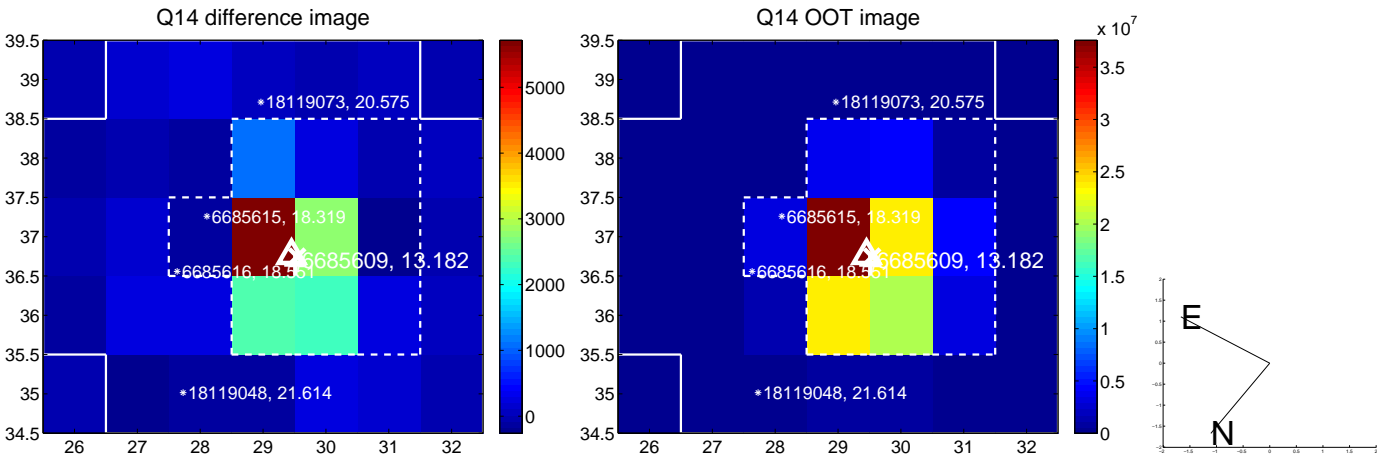
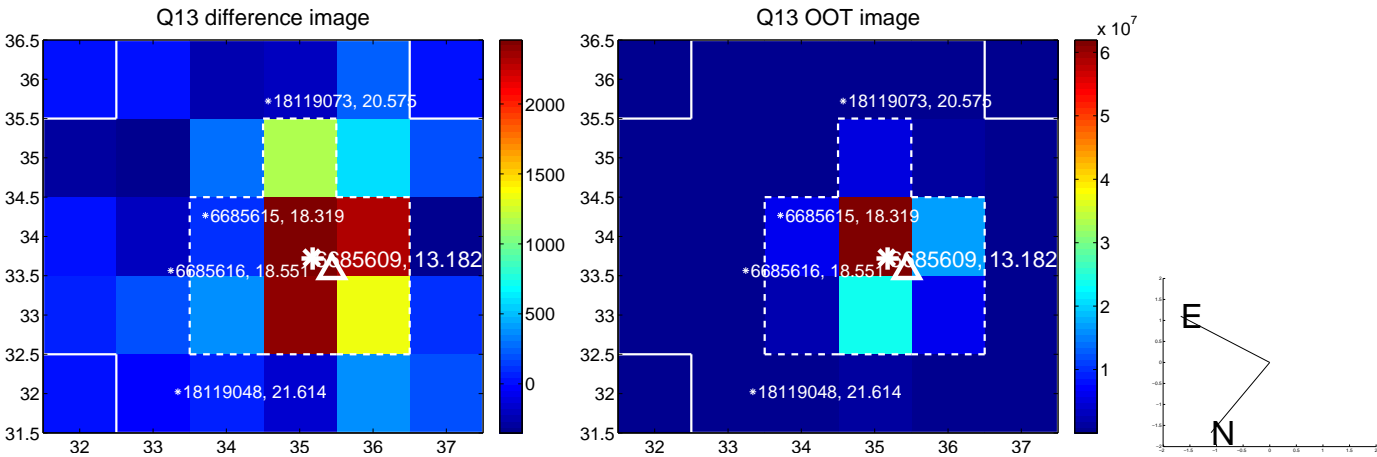
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



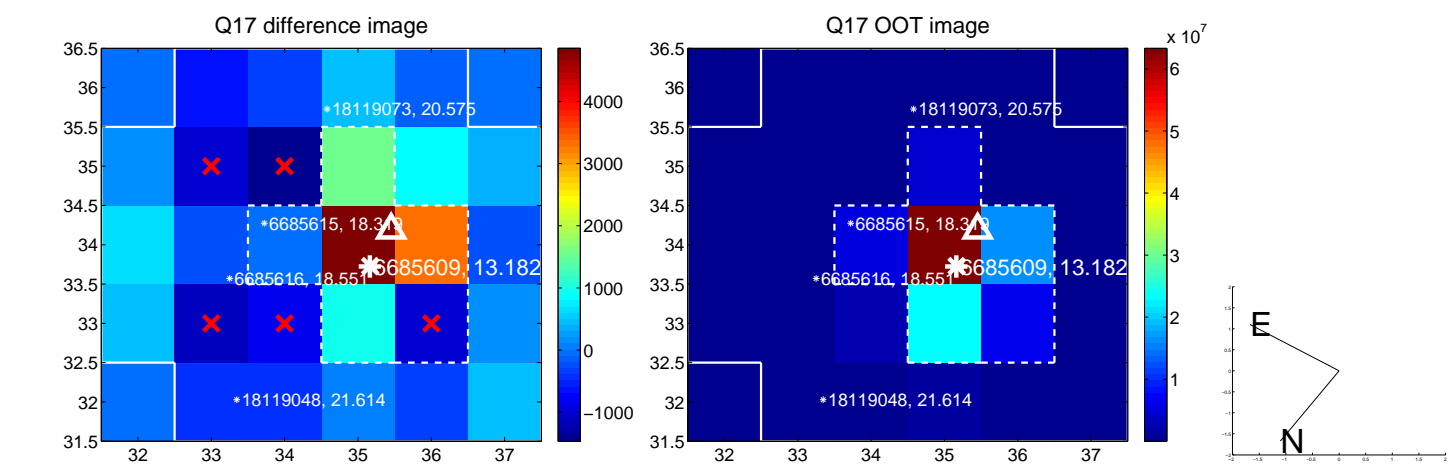
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



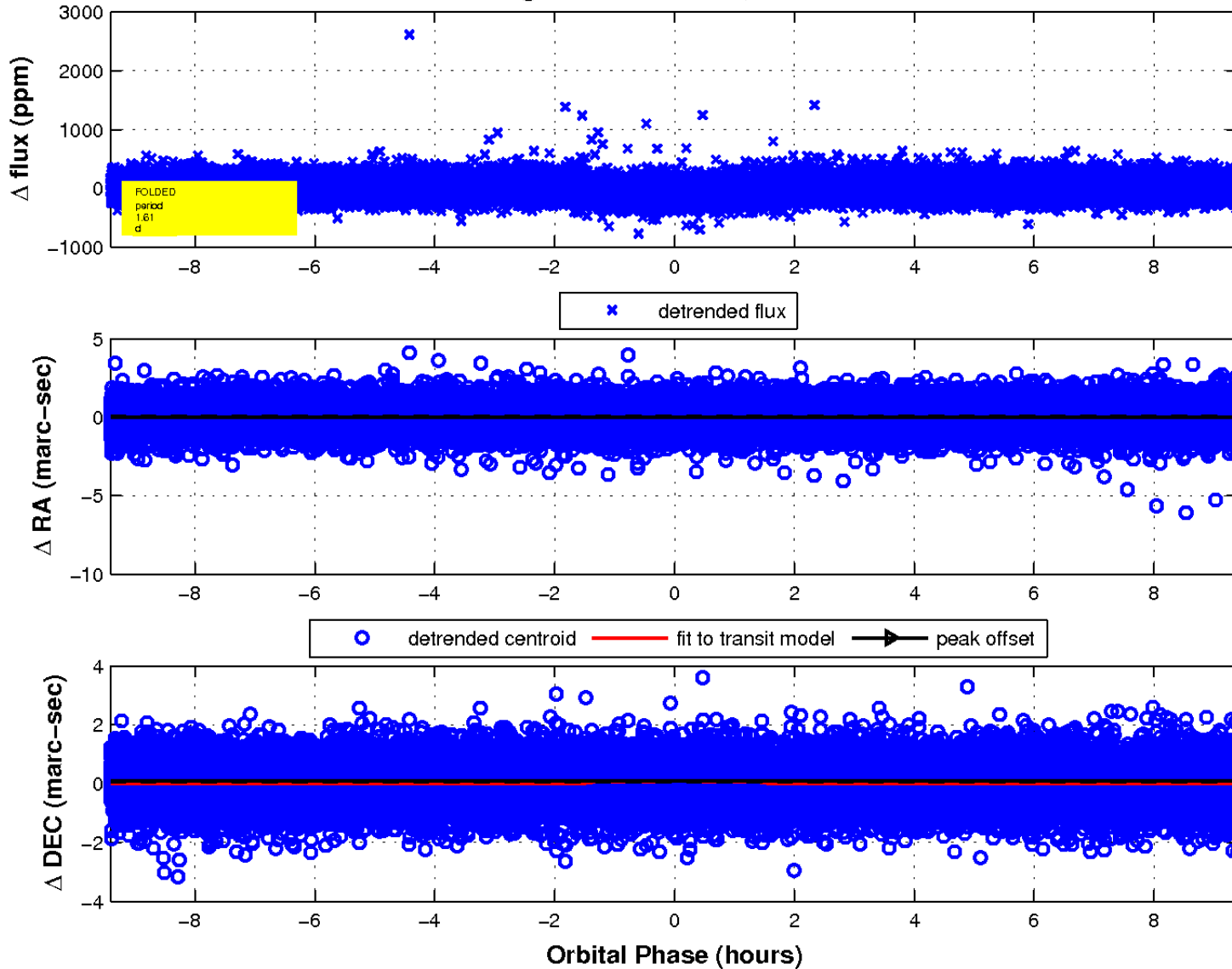
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

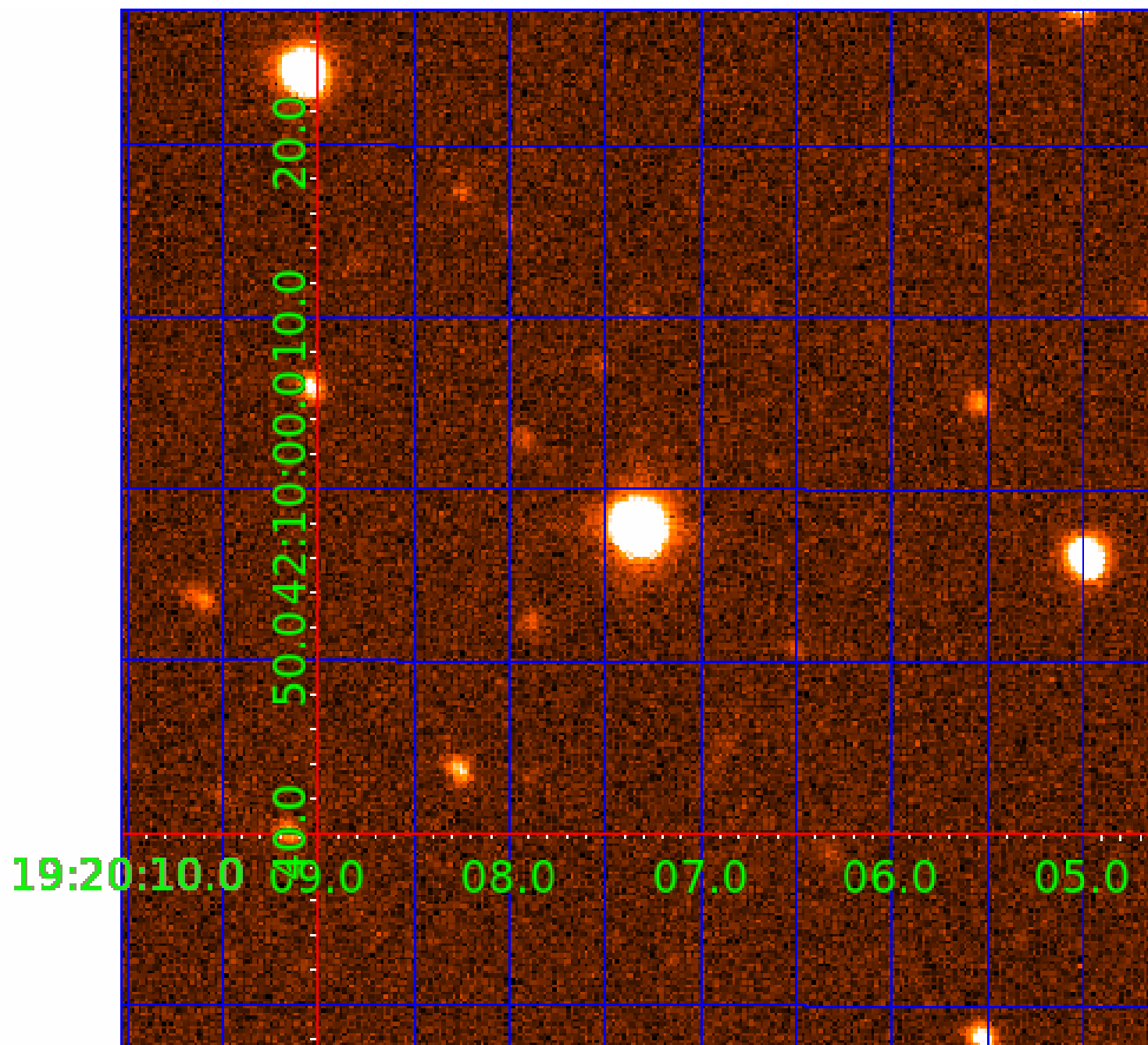


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 006685609

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})
006685609-01	OBS	0665.01	5.868055	135.116668	431.6	4.193	75.9	84.5	1.55	5918	3.73	586.26
006685609-02	OBS	0665.02	1.611896	131.956475	98.7	3.136	31.8	35.0	1.55	5918	1.83	3283.21
006685609-03	OBS	0665.03	3.071593	133.296084	82.8	4.089	18.2	20.6	1.55	5918	1.68	1389.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006685609-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
006685609-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
006685609-03	OBS	PC	1.00	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

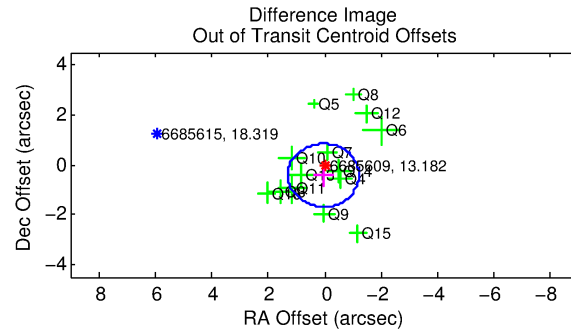
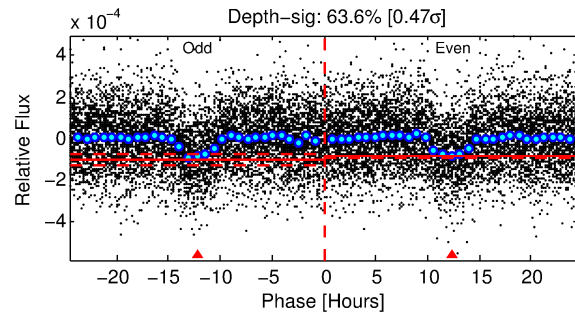
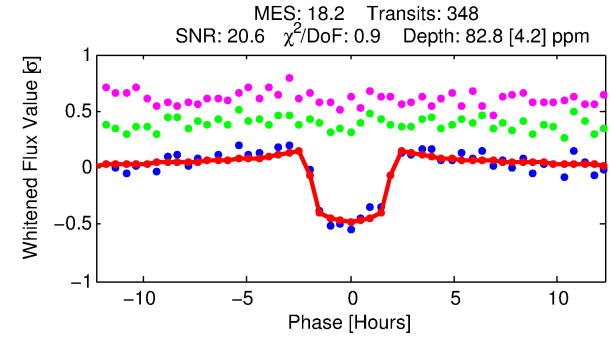
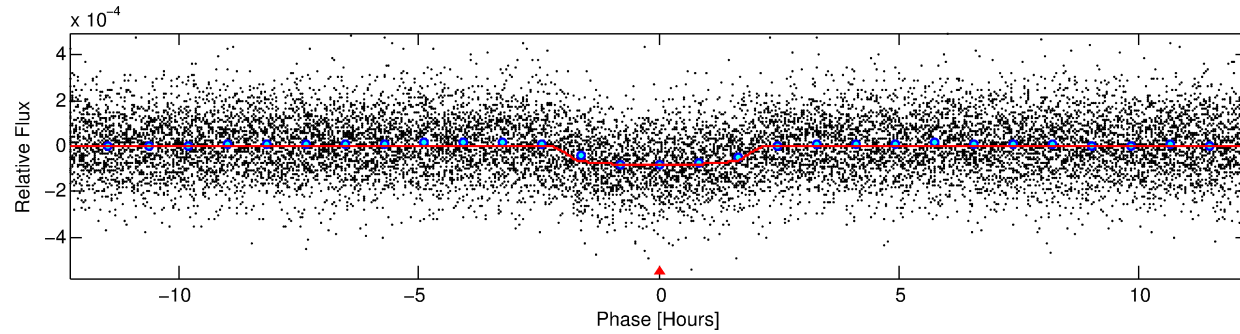
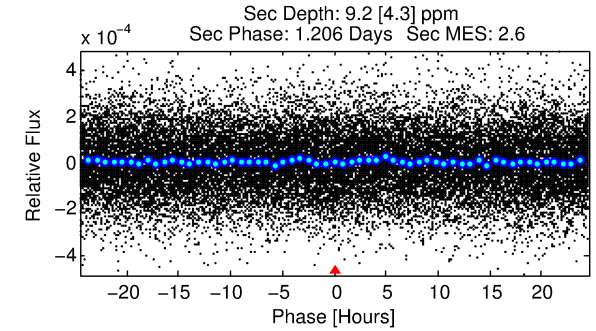
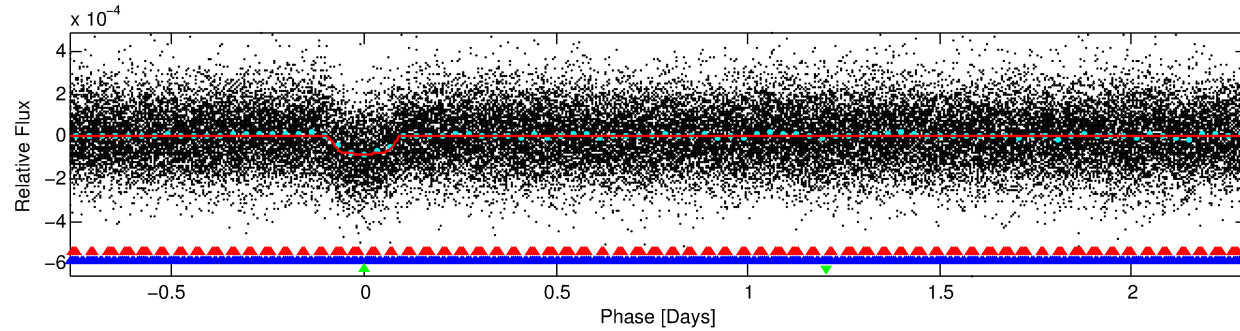
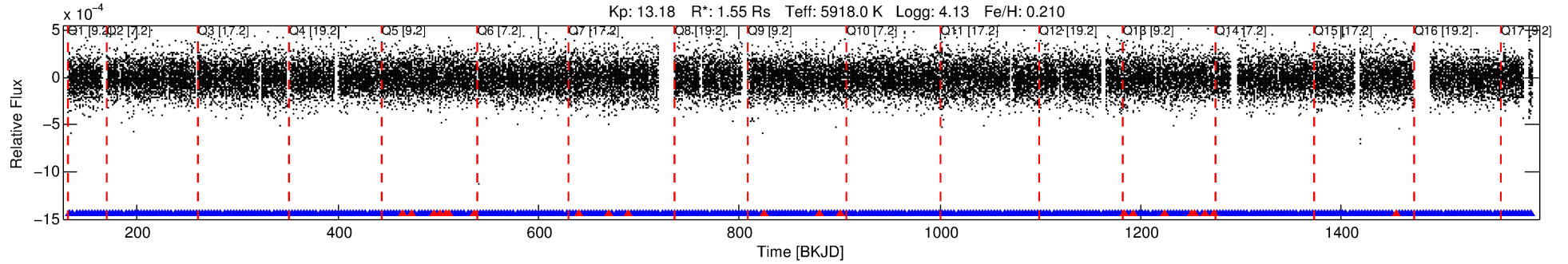
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006685609-03

No Significant Match Found

DV One-Page Summary

KIC: 6685609 Candidate: 3 of 3 Period: 3.072 d
KOI: K00665.03 Name: Kepler-207c Corr: 0.964



DV Fit Results:

Period = 3.07159 [0.00001] d
Epoch = 133.2961 [0.0022] BKJD
Rp/R* = 0.0099 [0.0021]
a/R* = 2.80 [2.59]
b = 0.90 [0.23]
Seff = 1389.73 [422.15]
Teq = 1557 [118] K
Rp = 1.68 [0.51] Re
a = 0.0437 [0.0083] AU
Ag = 3.44 [2.43] [1.01σ]
Teffp = 3279 [529] K [3.17σ]

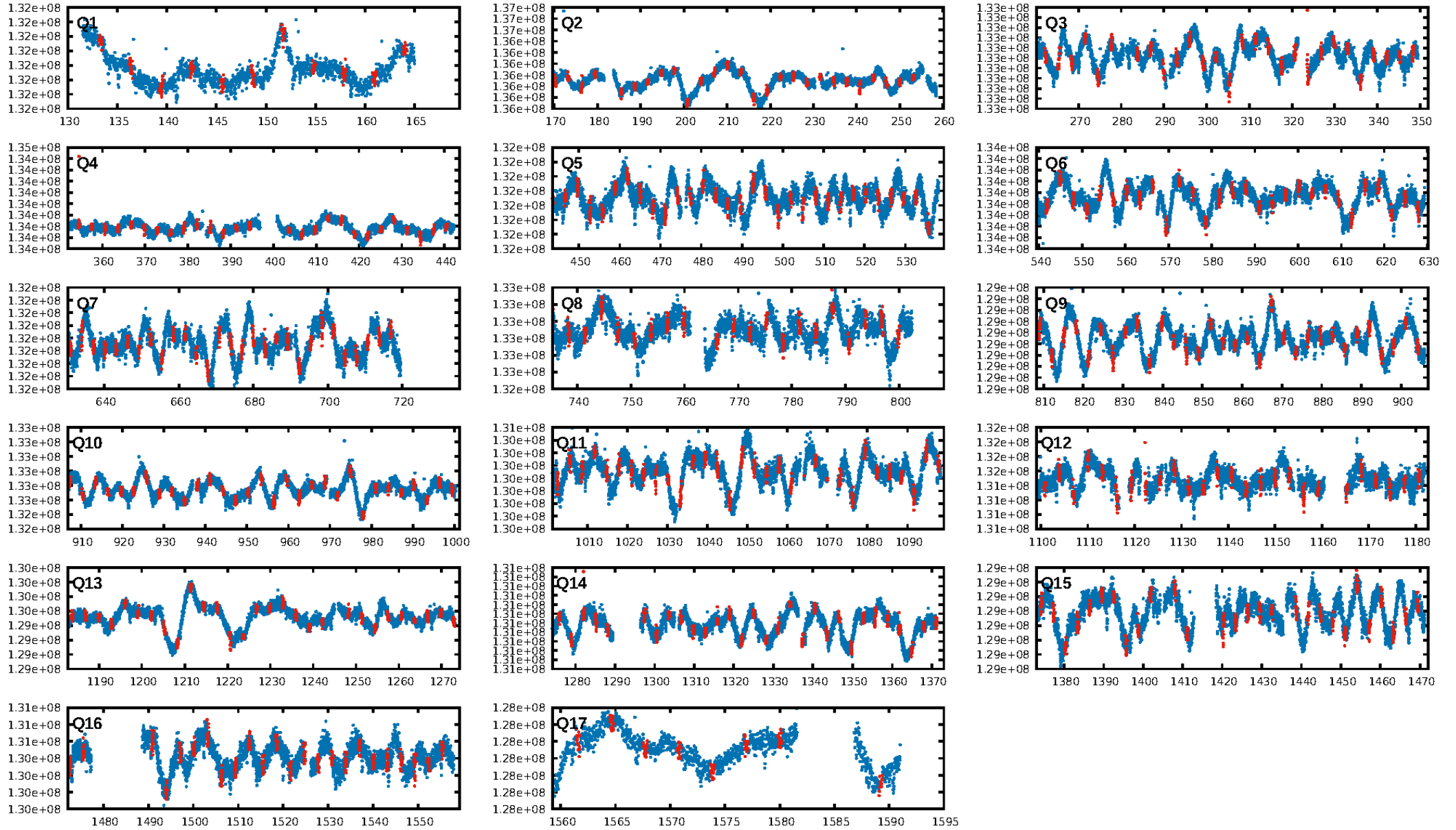
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.80σ]
LongPeriod-sig: 100.0% [11.46σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.70e-70
RollingBand-fgt: 0.94 [309/330]
GhostDiagnostic-chr: 11.77
Centroid-sig: 2.9%
Centroid-so: 0.460 arcsec [1.20σ]
OotOffset-rm: 0.429 arcsec [1.02σ]
KicOffset-rm: 0.219 arcsec [0.48σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [17/17]

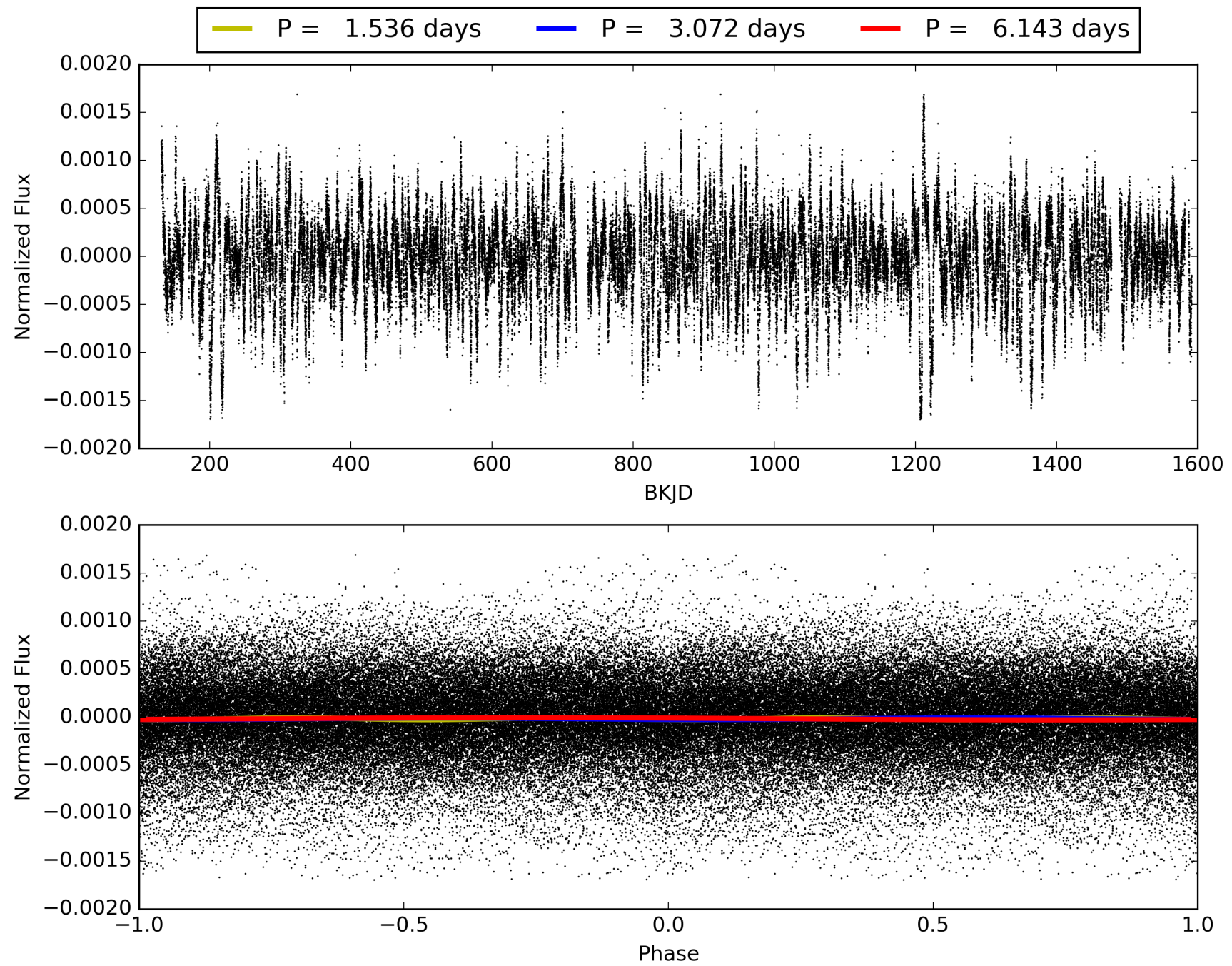
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:16:24 Z

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

TCE 006685609-03, PDC Light Curves

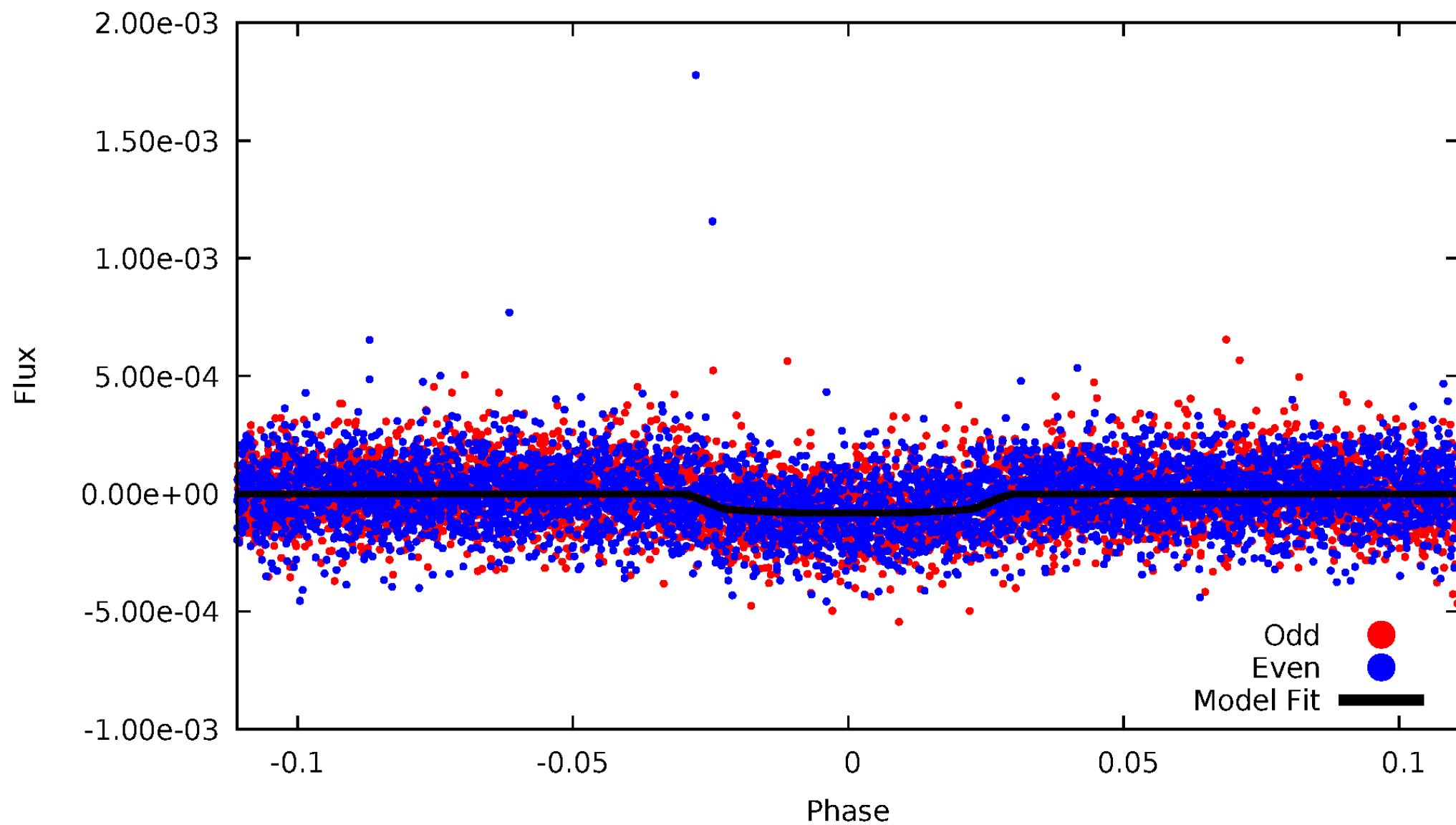


TCE 006685609-03



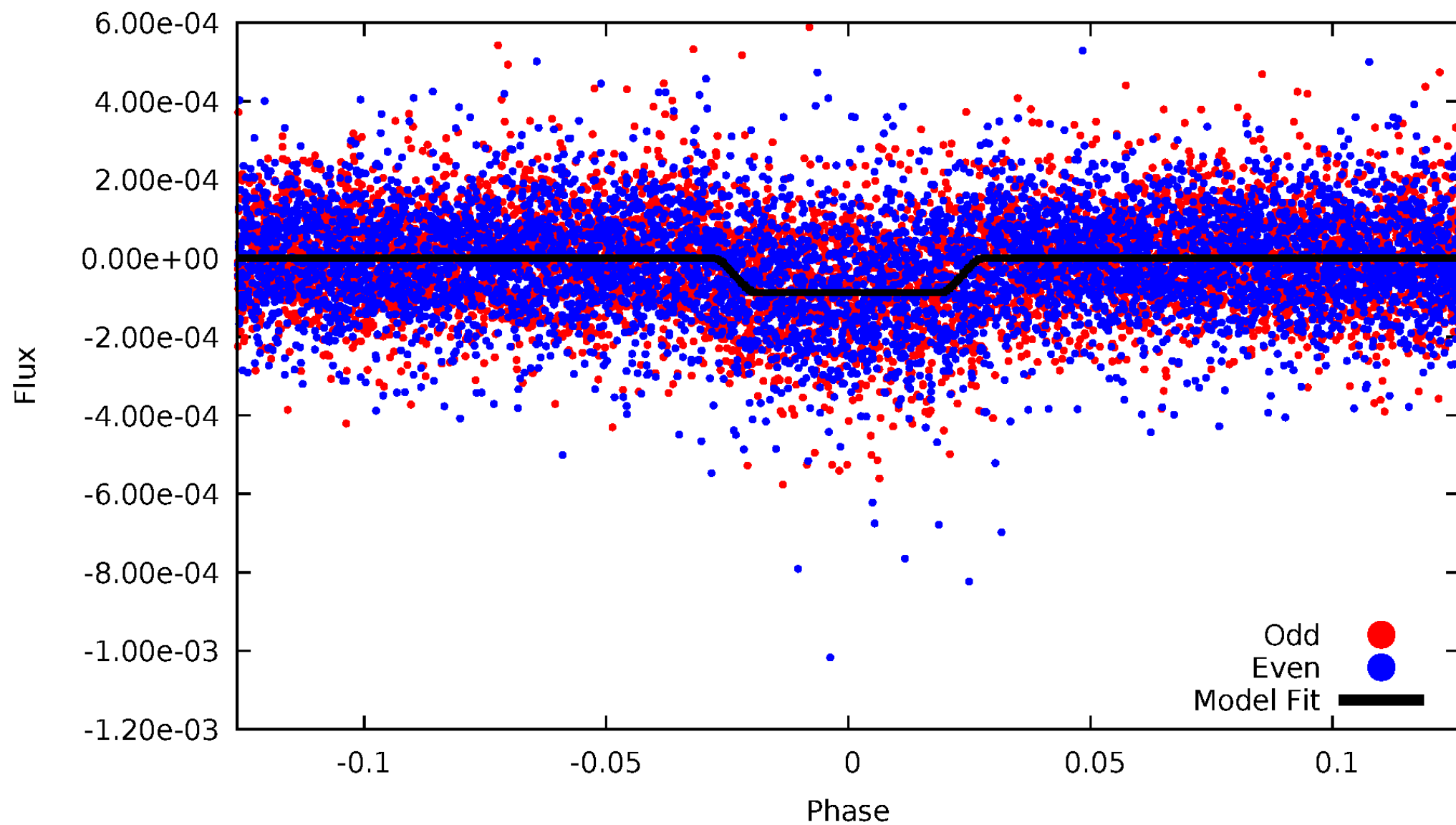
DV Odd/Even

TCE 006685609-03



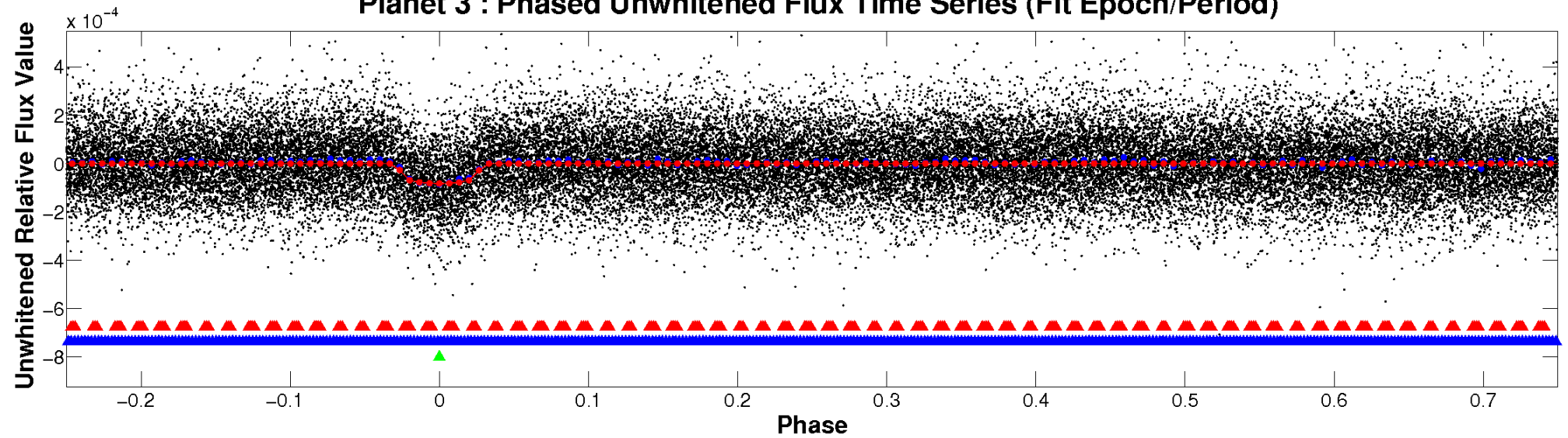
ALT Odd/Even

TCE 006685609-03

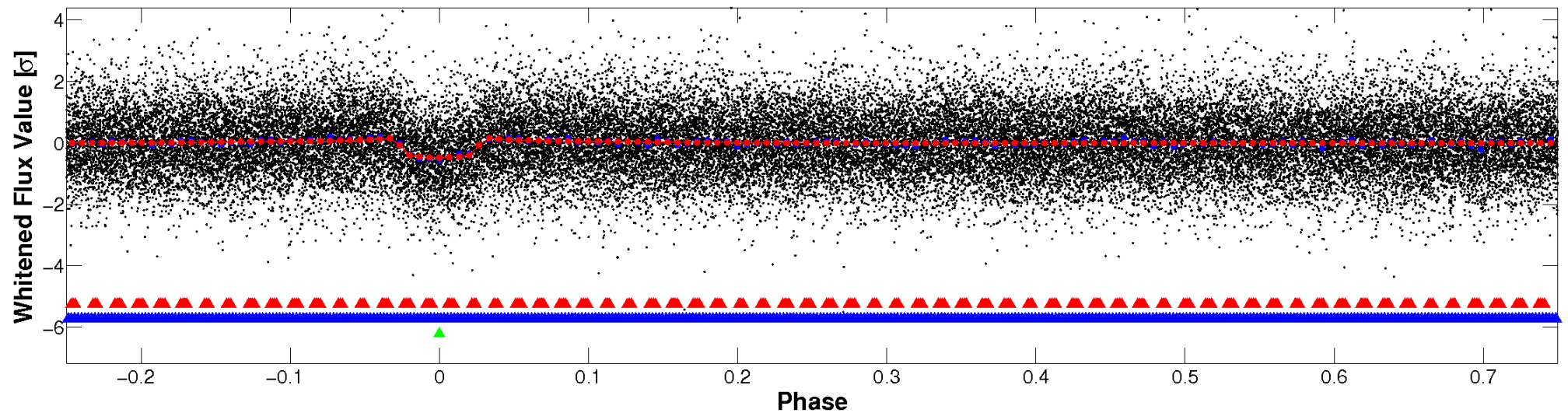


Non-Whitened Vs. Whitened Light Curve

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

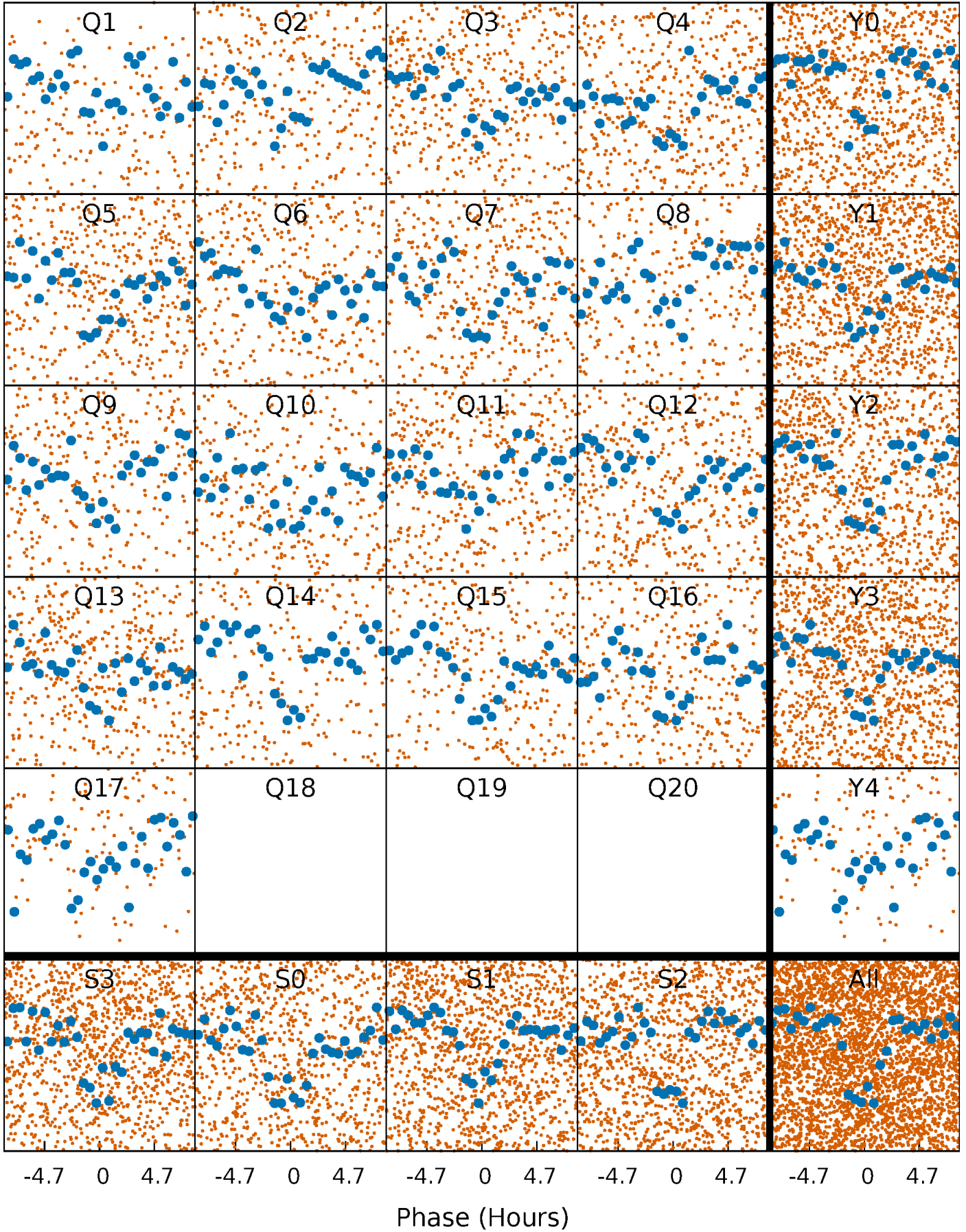


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



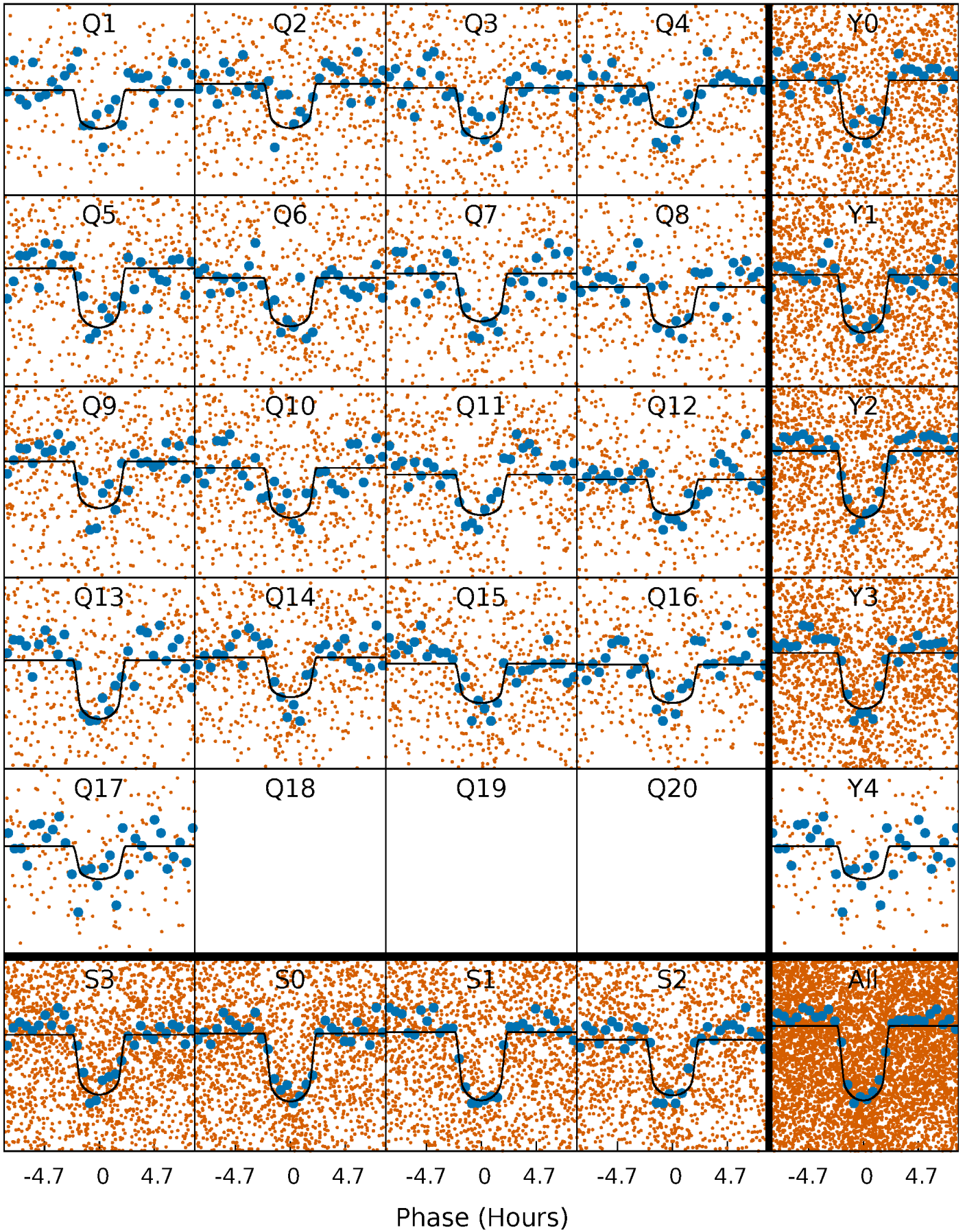
PDC Quarter-Phased Transit Curves

TCE 006685609-03 P= 3.071593 Days $T_0=133.296084$ (BKJD)



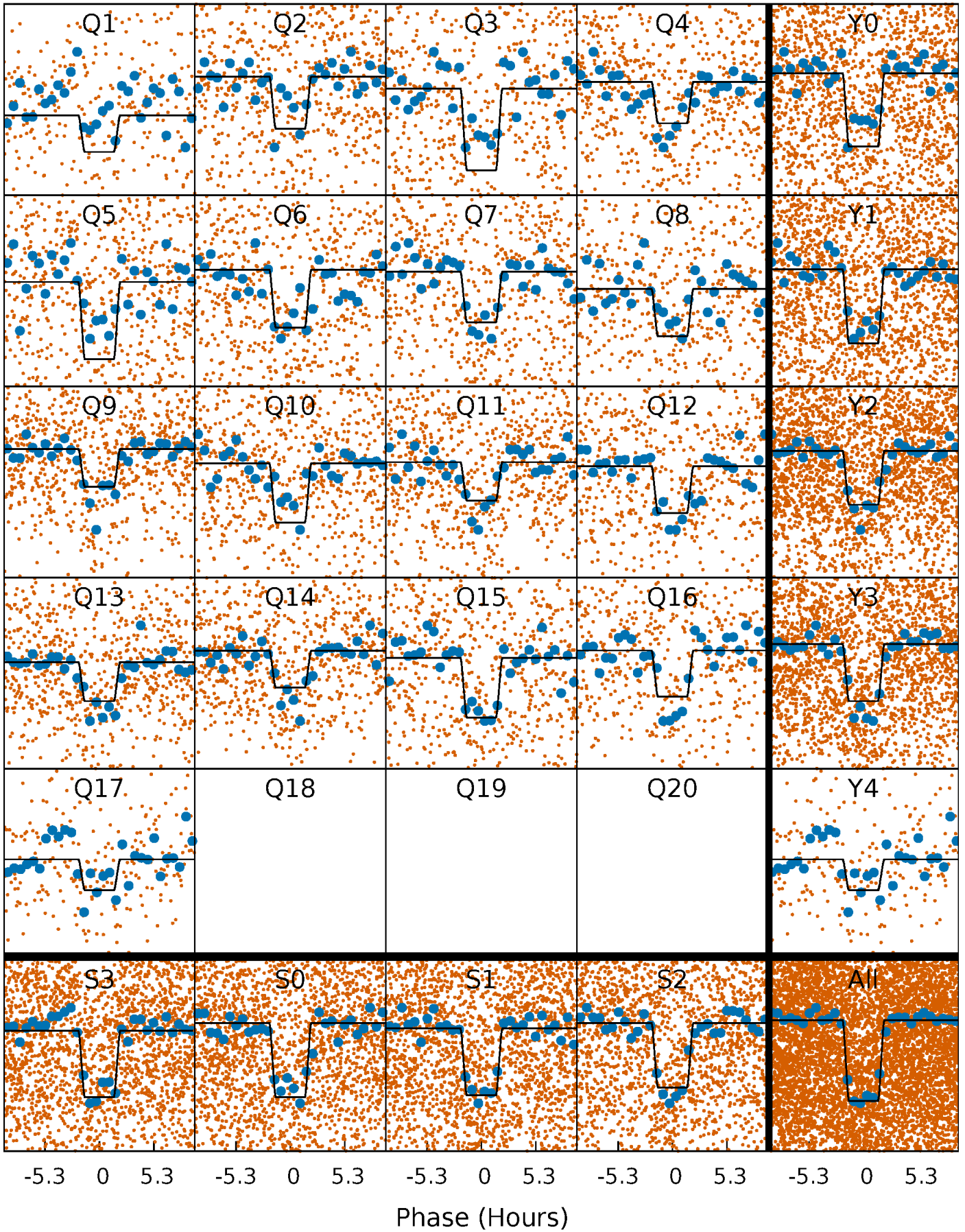
DV Quarter-Phased Transit Curves

TCE 006685609-03 P= 3.071593 Days $T_0=133.296084$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

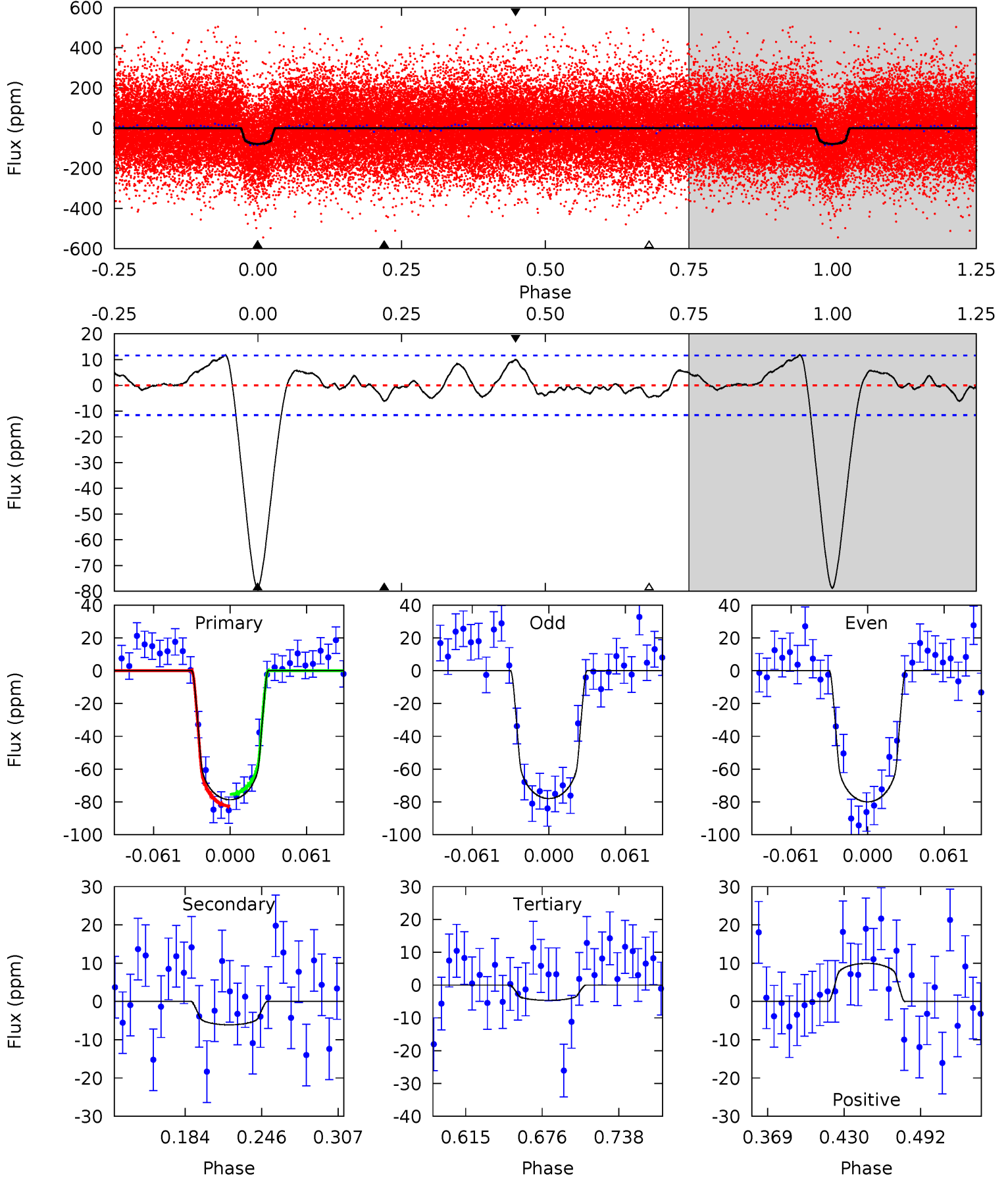
TCE 006685609-03 P= 3.071541 Days $T_0=133.306659$ (BKJD)



DV Model-Shift Uniqueness Test

006685609-03, P = 3.071593 Days, E = 130.224491 Days

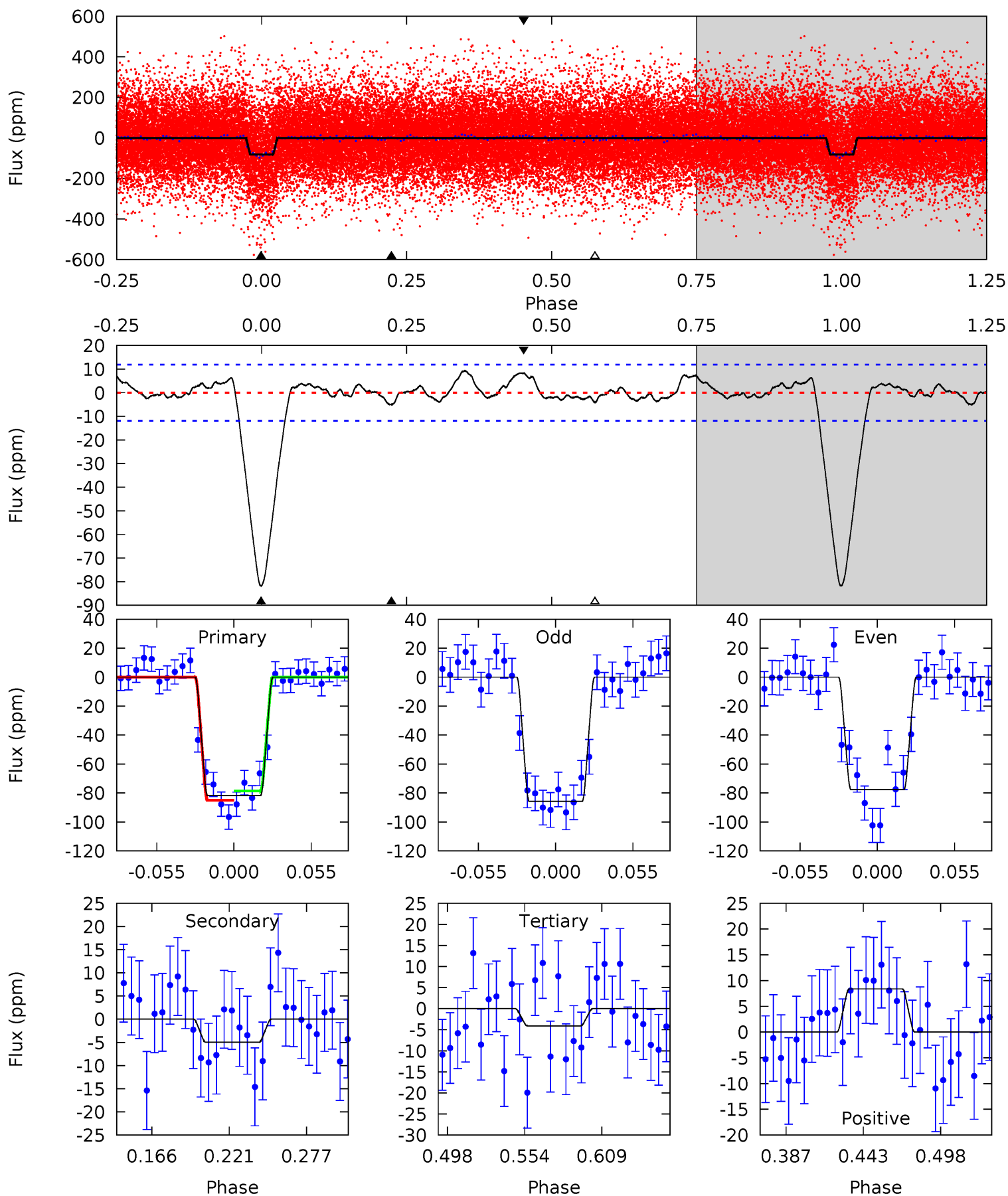
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.6	2.45	1.87	4.00	4.67	1.87	1.56	29.8	27.6	0.58	-1.55	0.41	1.01	0.13	1.45



Alt Model-Shift Uniqueness Test

006685609-03, P = 3.071541 Days, E = 130.235118 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.3	1.97	1.62	3.30	4.69	1.92	1.29	30.7	29.0	0.35	-1.33	1.59	1.00	0.10	1.28



Stellar Parameters For KIC 006685609

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5918^{+107}_{-119}	$4.127^{+0.168}_{-0.098}$	$0.210^{+0.150}_{-0.150}$	$1.555^{+0.265}_{-0.324}$	$1.181^{+0.113}_{-0.113}$	$0.443^{+0.417}_{-0.132}$
	+2%/-2%	+4%/-2%	+71%/-71%	+17%/-21%	+10%/-10%	+94%/-30%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 006685609-03 / KOI 0665.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 2	$1.65^{+0.40}_{-0.39}$	2155^{+111}_{-115}	3387^{+370}_{-356}	$2.319^{+1.968}_{-1.055}$
Alt.	-5 ± 3	$1.55^{+0.44}_{-0.36}$	2166^{+100}_{-122}	3294^{+457}_{-438}	$2.008^{+2.069}_{-1.115}$

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

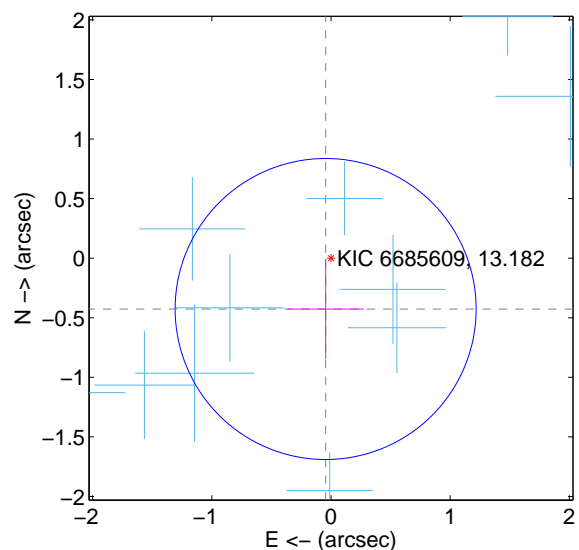
Supplemental centroid analysis for 006685609-03. Kepler magnitude: 13.18. Transit SNR 20.59

There are 14 quarters with good PRF difference image offsets

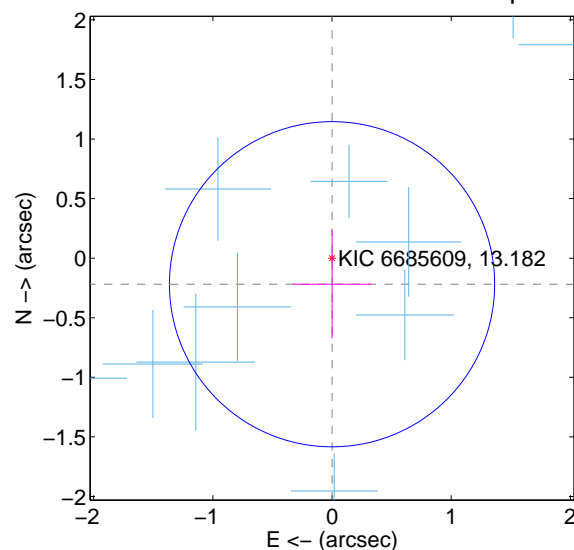
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.429 ± 0.421	1.02	0.045 ± 0.321	-0.427 ± 0.422
PRF-fit source offset from KIC position	0.219 ± 0.455	0.48	-0.000 ± 0.330	-0.219 ± 0.455
photometric centroid source offset	0.46 ± 0.38	1.20	-0.11 ± 0.37	-0.45 ± 0.38

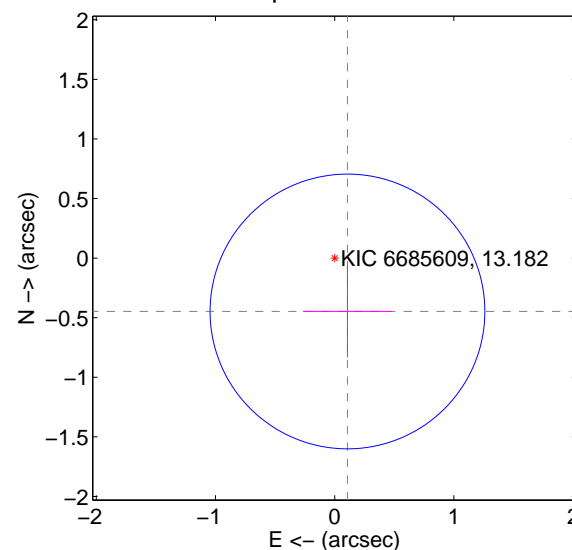
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

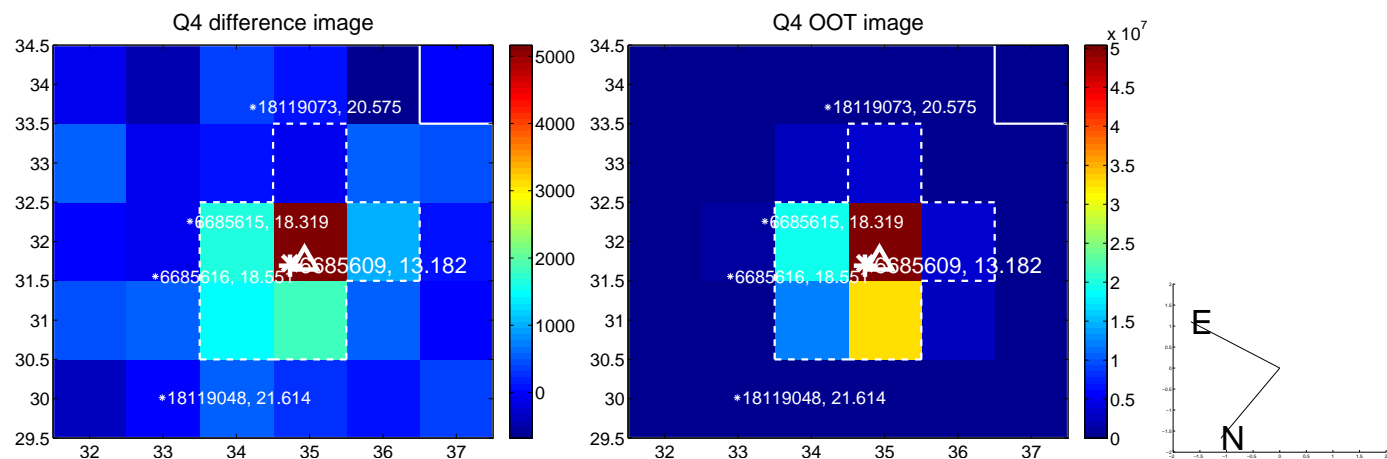
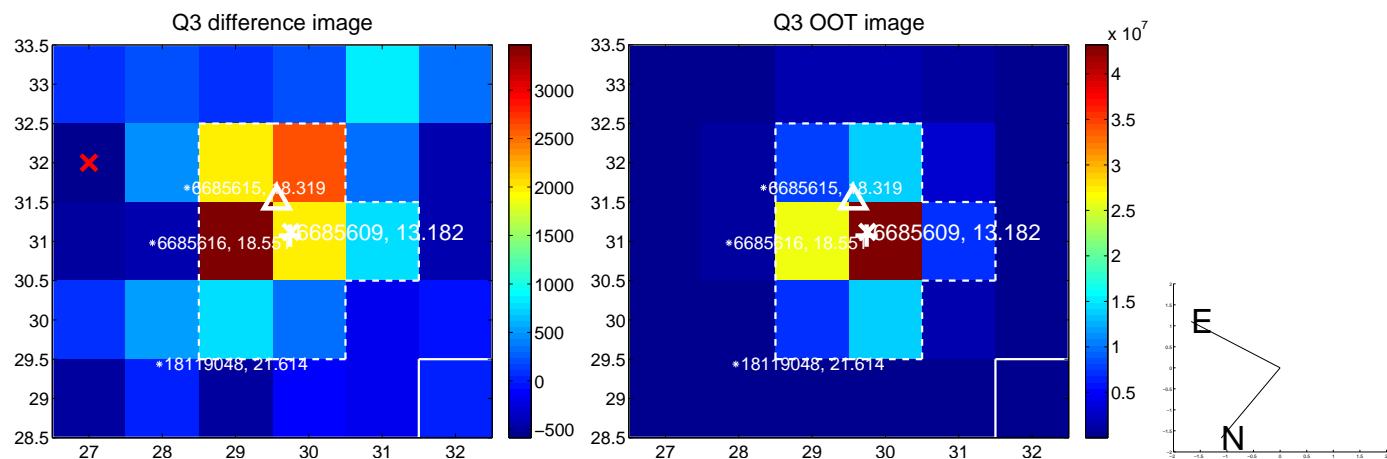
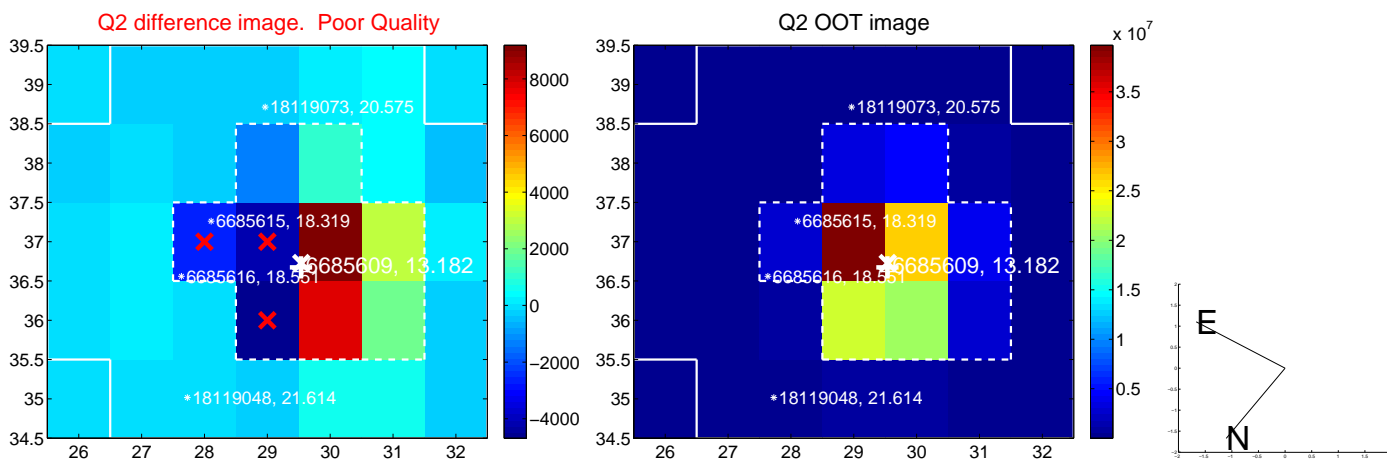
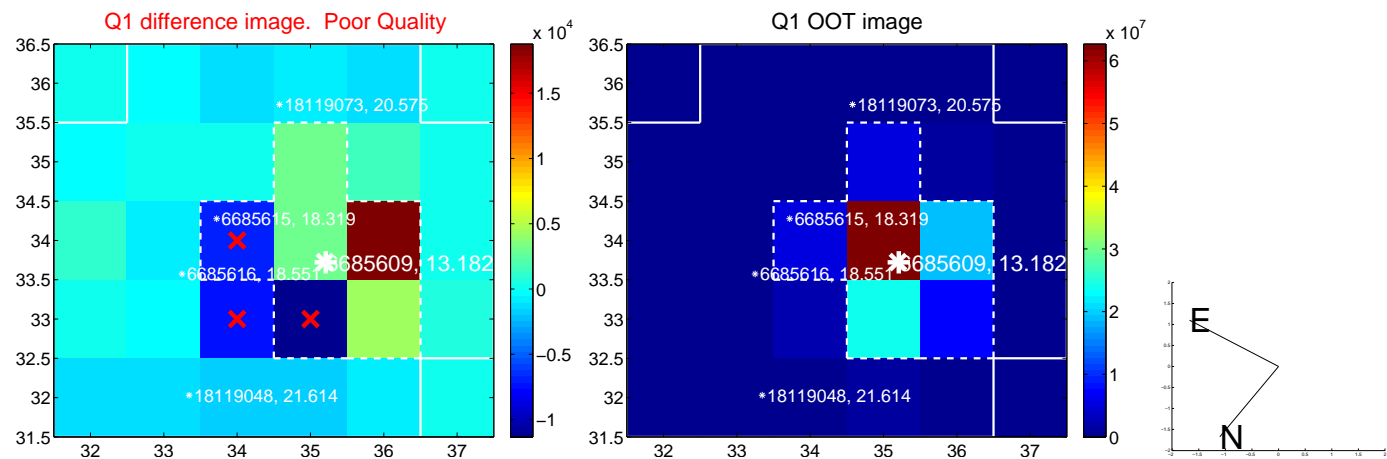


offset from photometric centroids

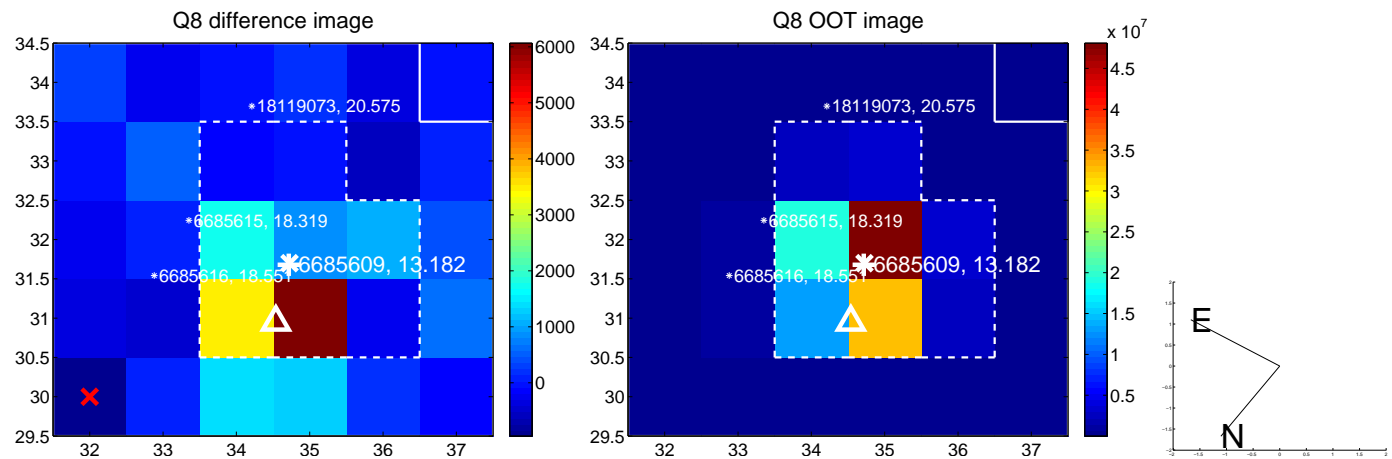
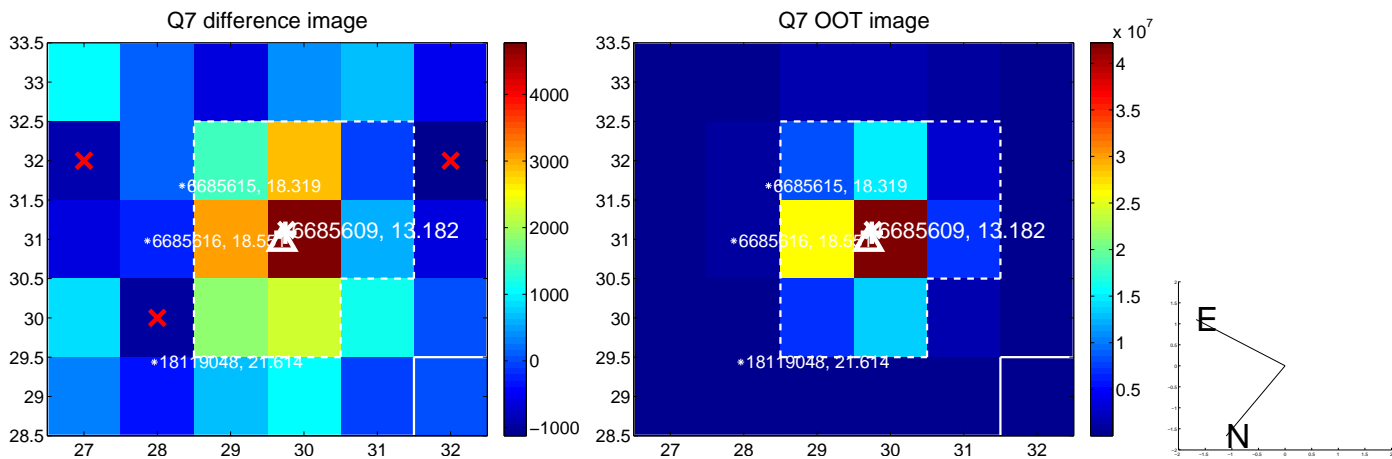
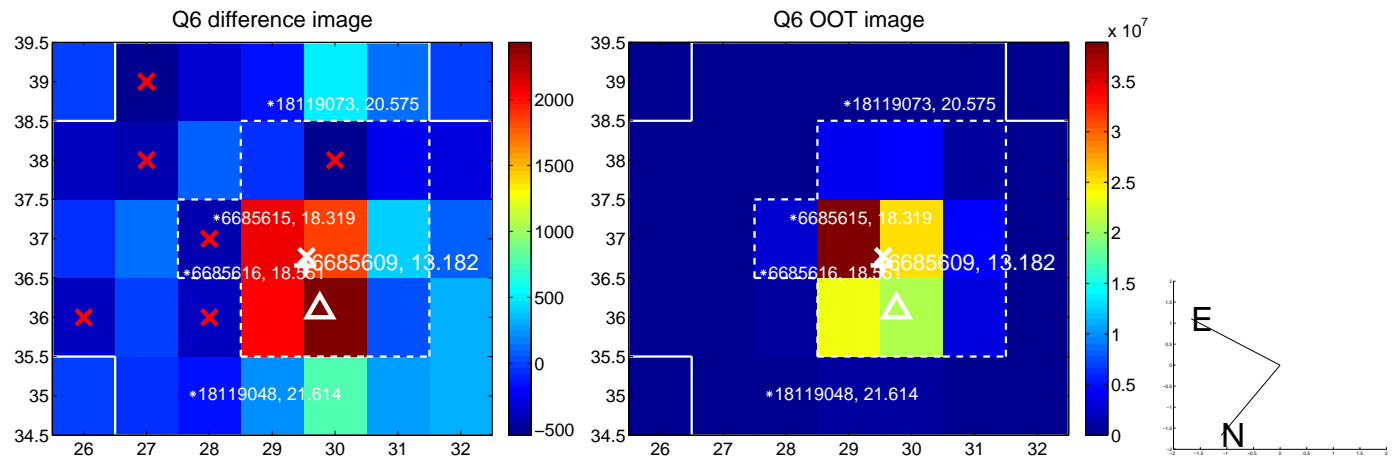
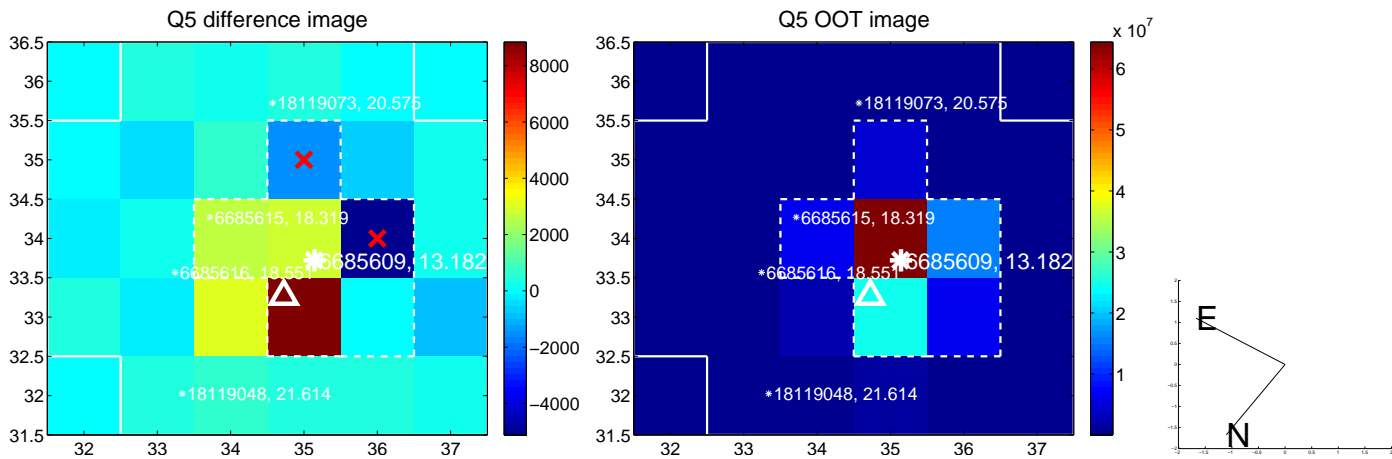


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

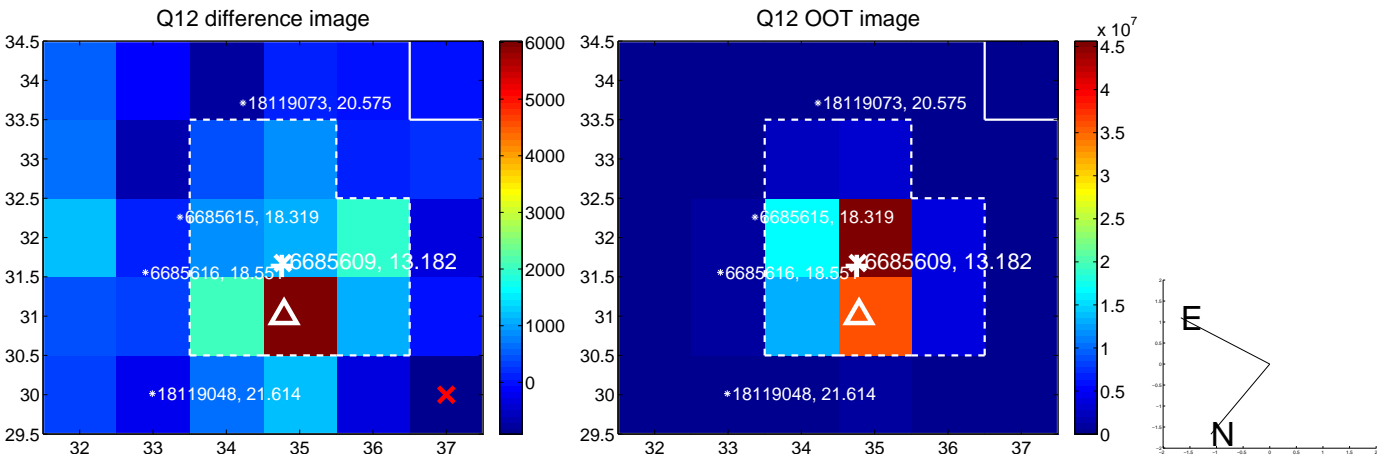
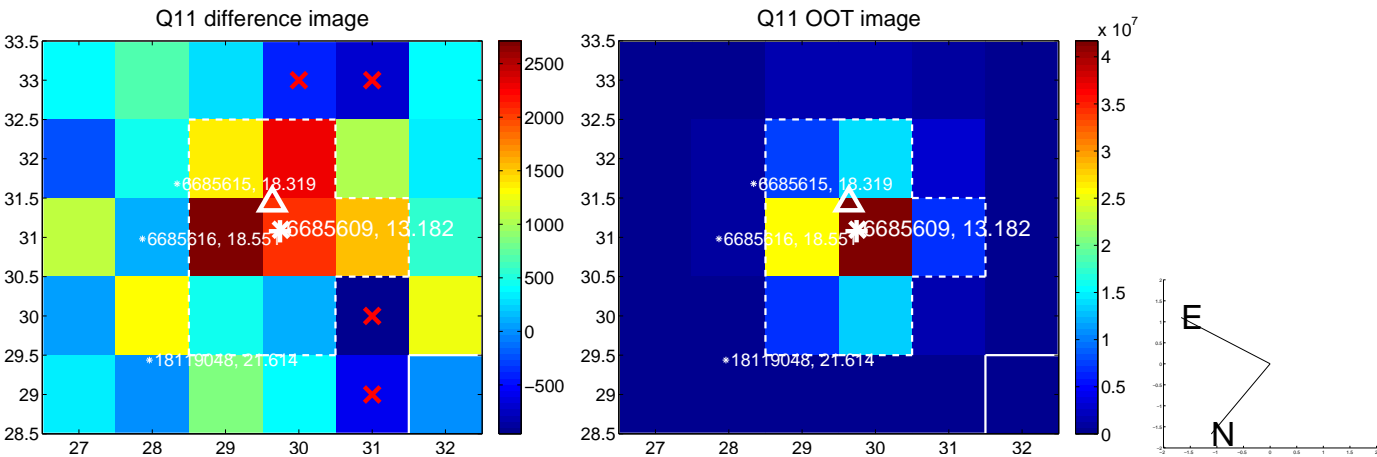
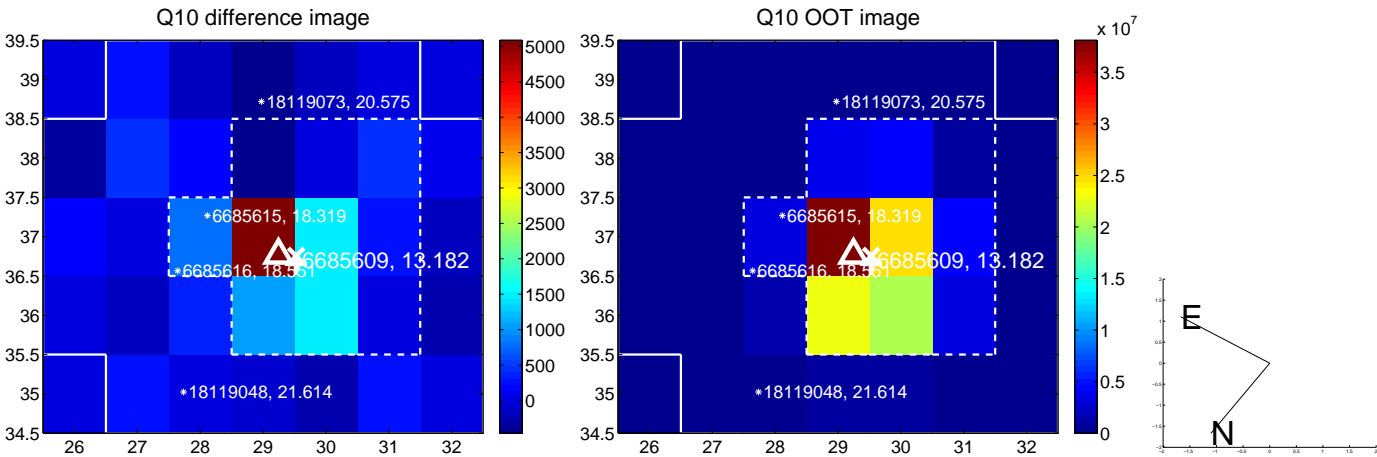
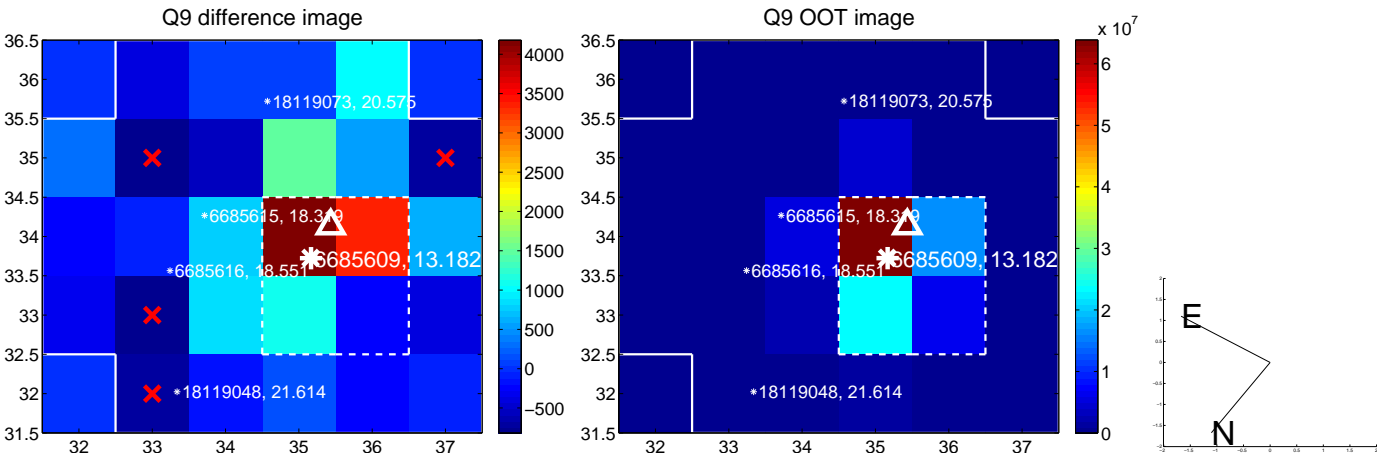
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



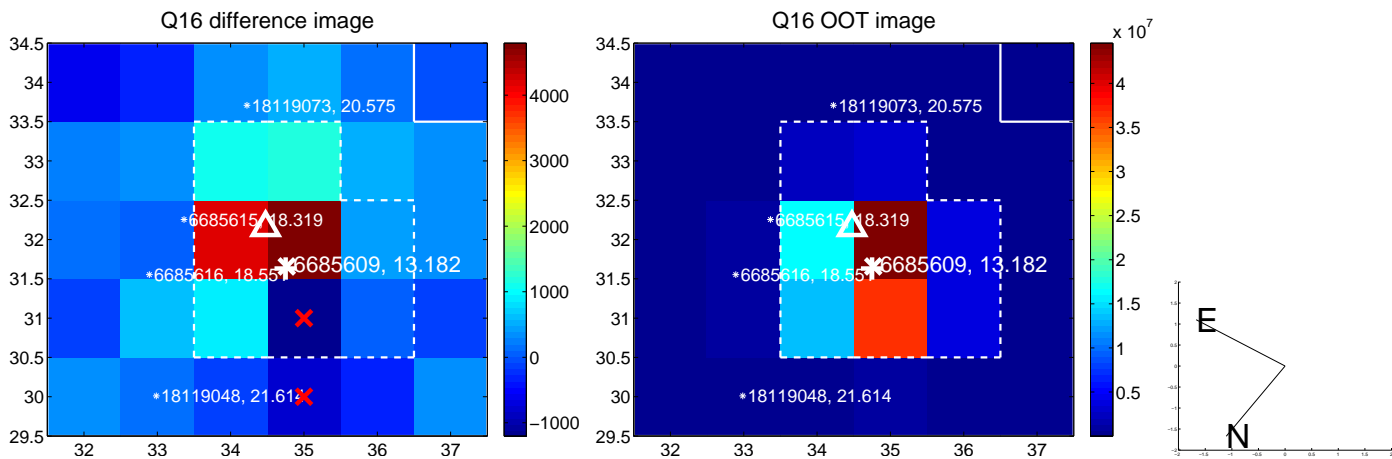
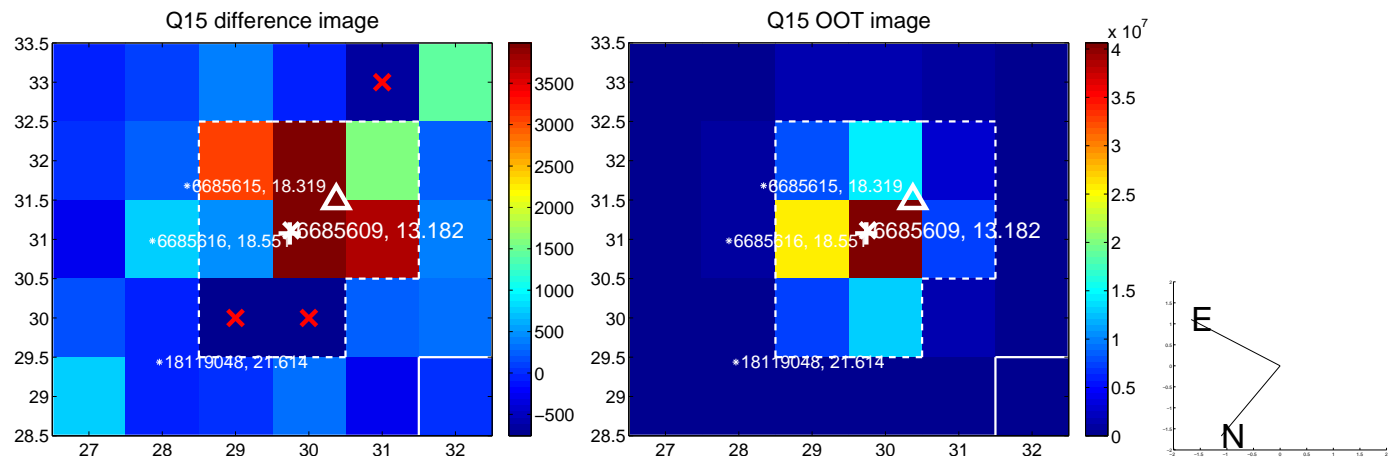
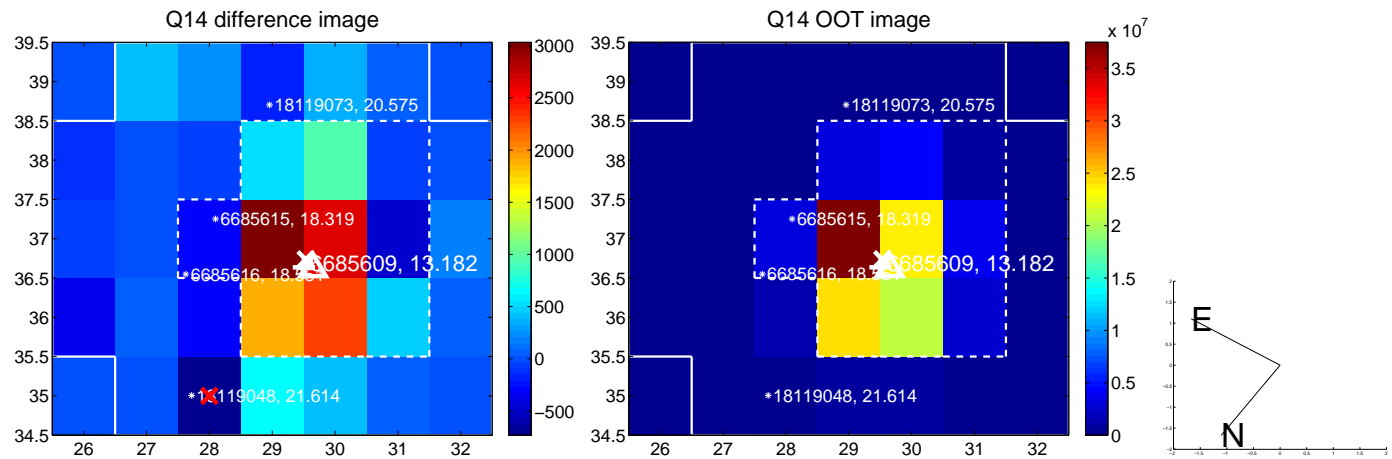
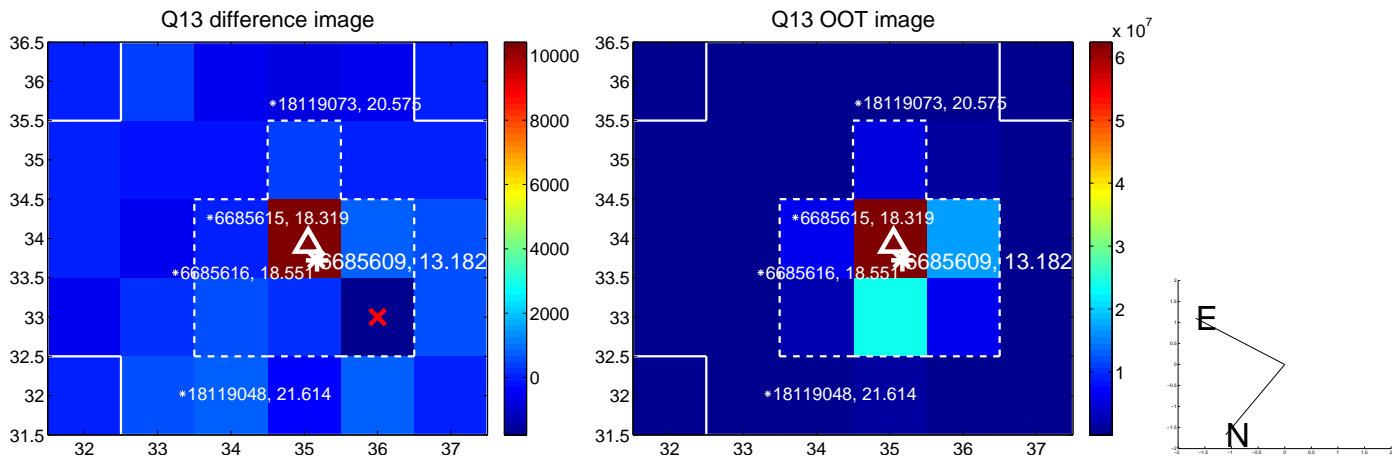
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



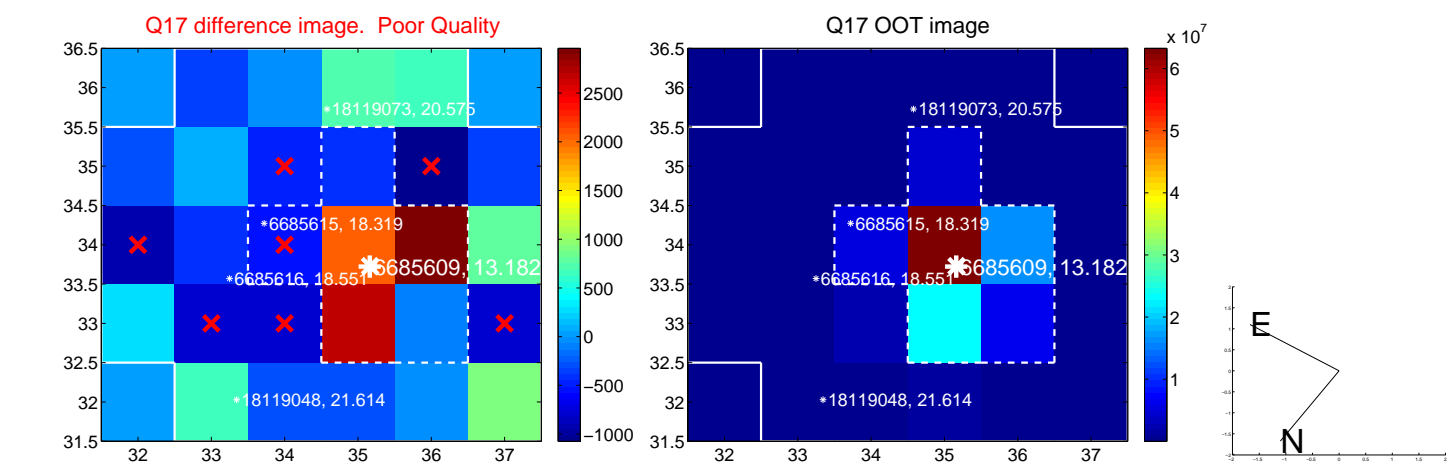
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



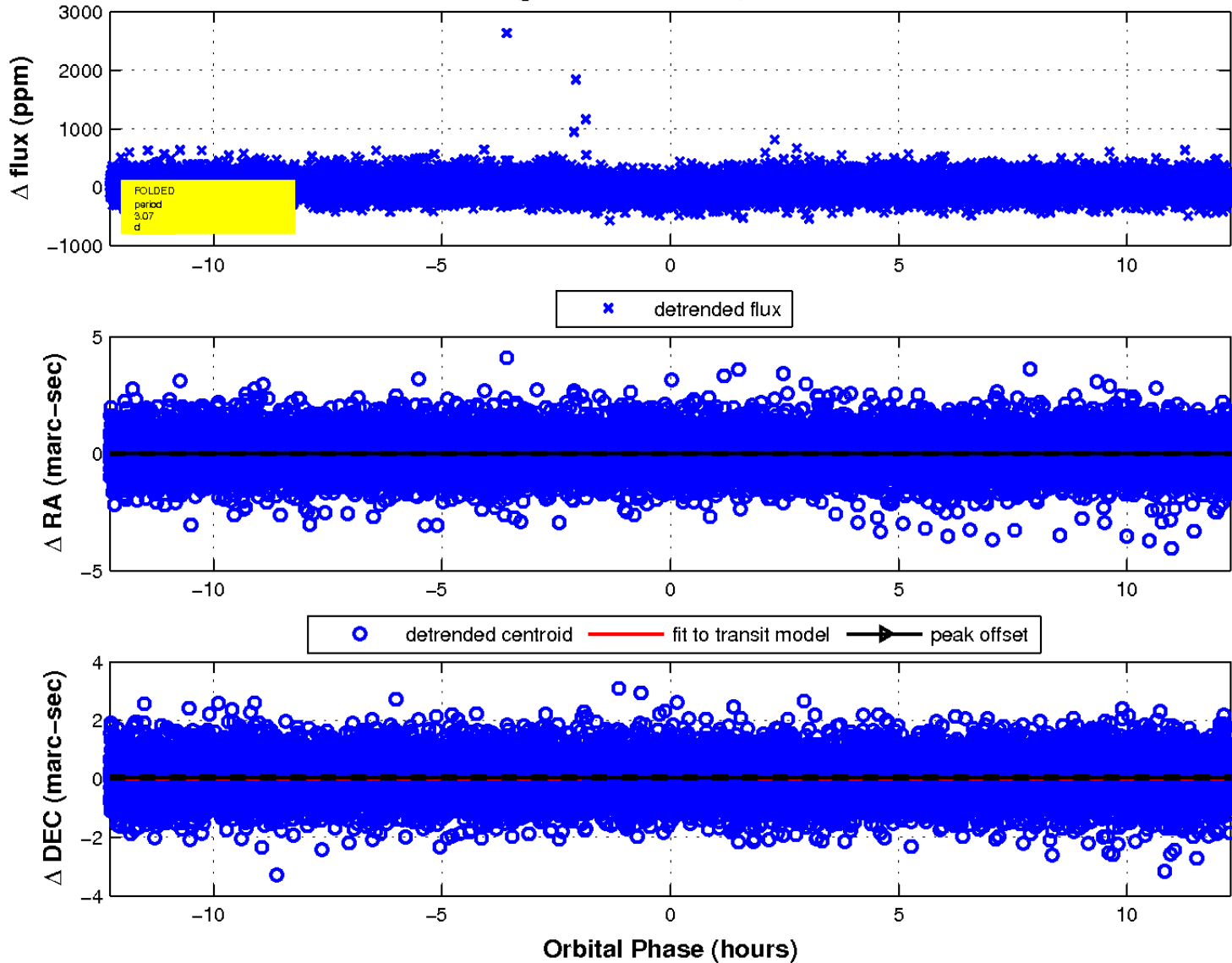
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

