

KIC 006715809

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})
006715809-01	OBS	No	476.143282	380.204877	348.0	7.344	21.0	6.2	2.35	8287	4.43	10.25
006715809-02	OBS	No	2.098994	131.849034	51.4	3.243	17.2	19.5	2.35	8287	1.97	14177.54
006715809-03	OBS	No	4.197895	134.152993	42.2	20.801	17.3	11.3	2.35	8287	1.67	5626.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006715809-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006715809-02	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—HALO_GHOST
006715809-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD

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

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

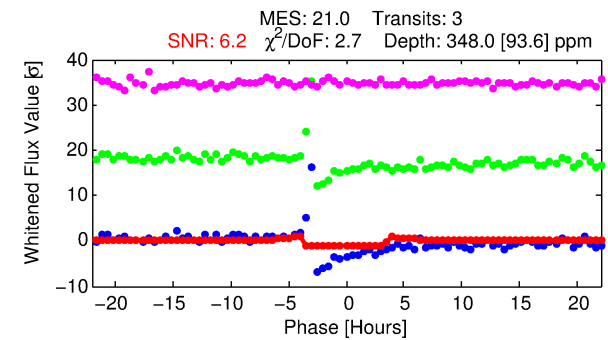
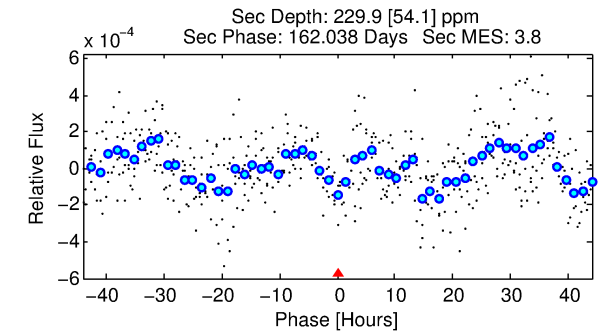
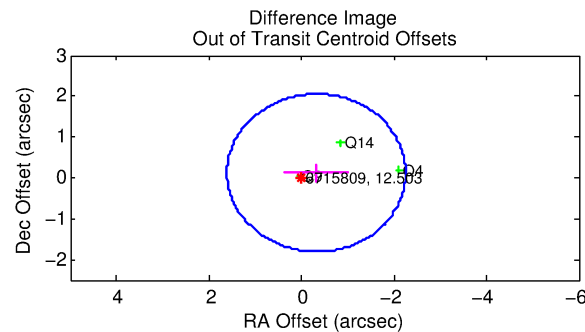
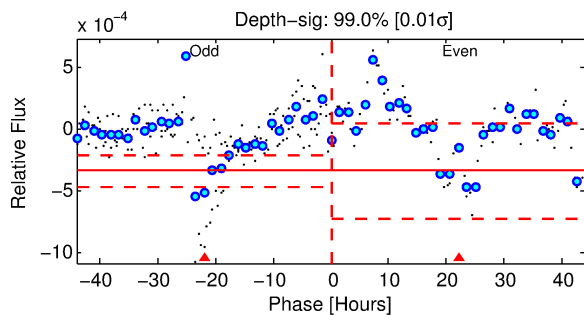
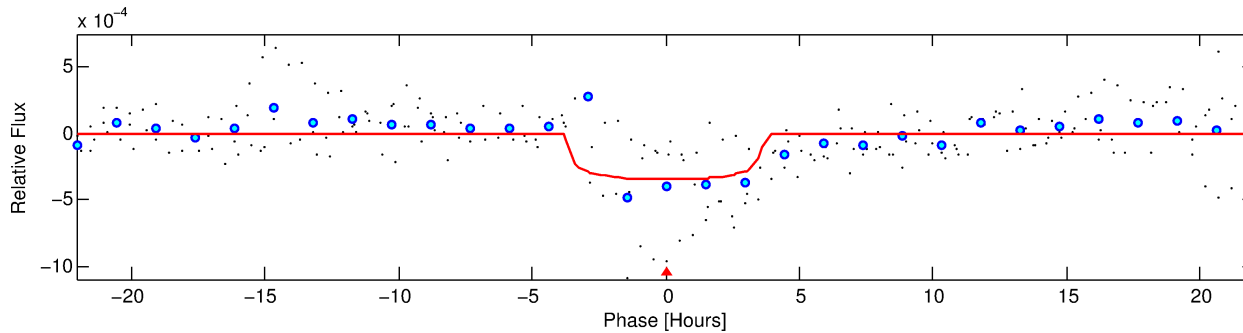
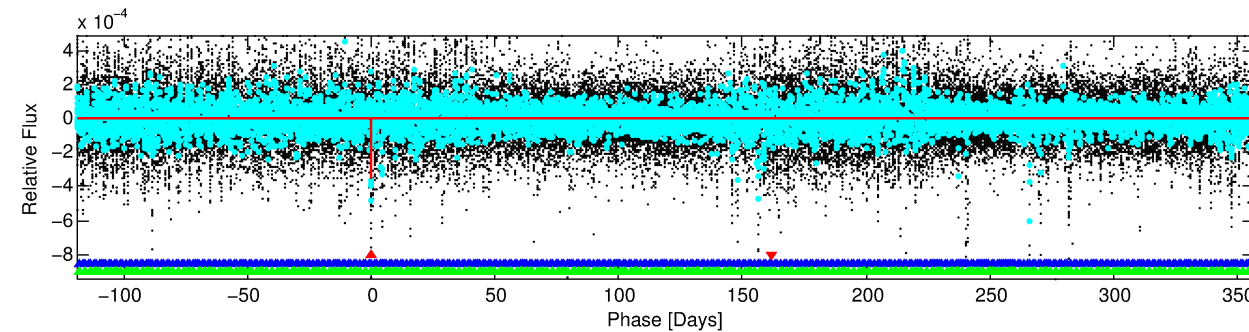
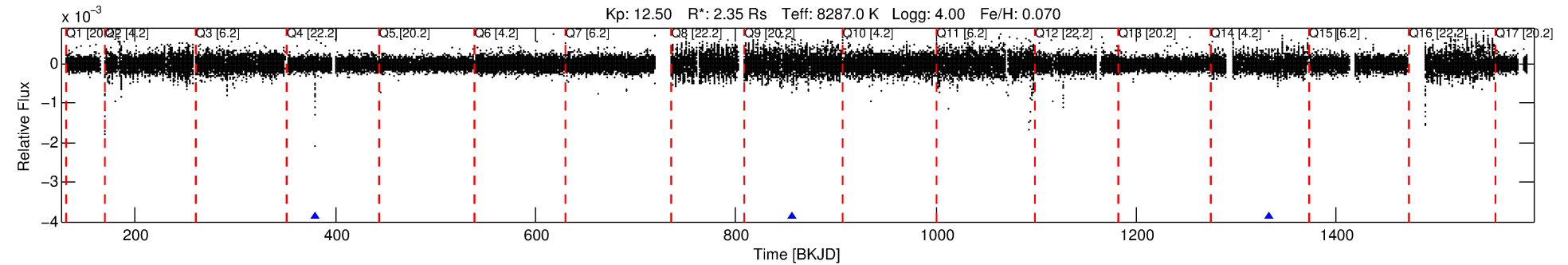
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006715809-01

No Significant Match Found

DV One-Page Summary

KIC: 6715809 Candidate: 1 of 3 Period: 476.143 d



DV Fit Results:

Period = 476.14328 [0.00902] d
Epoch = 380.2049 [0.0127] BKJD
Rp/R* = 0.0173 [0.0436]
a/R* = 503.84 [7341.52]
b = 0.01 [2609.23]
Seff = 10.25 [4.15]
Teq = 456 [46] K
Rp = 4.43 [11.24] Re
a = 1.5077 [0.3765] AU
Ag = 14659.23 [74185.28] [0.20 σ]
Teffp = 7762 [9799] K [0.75 σ]

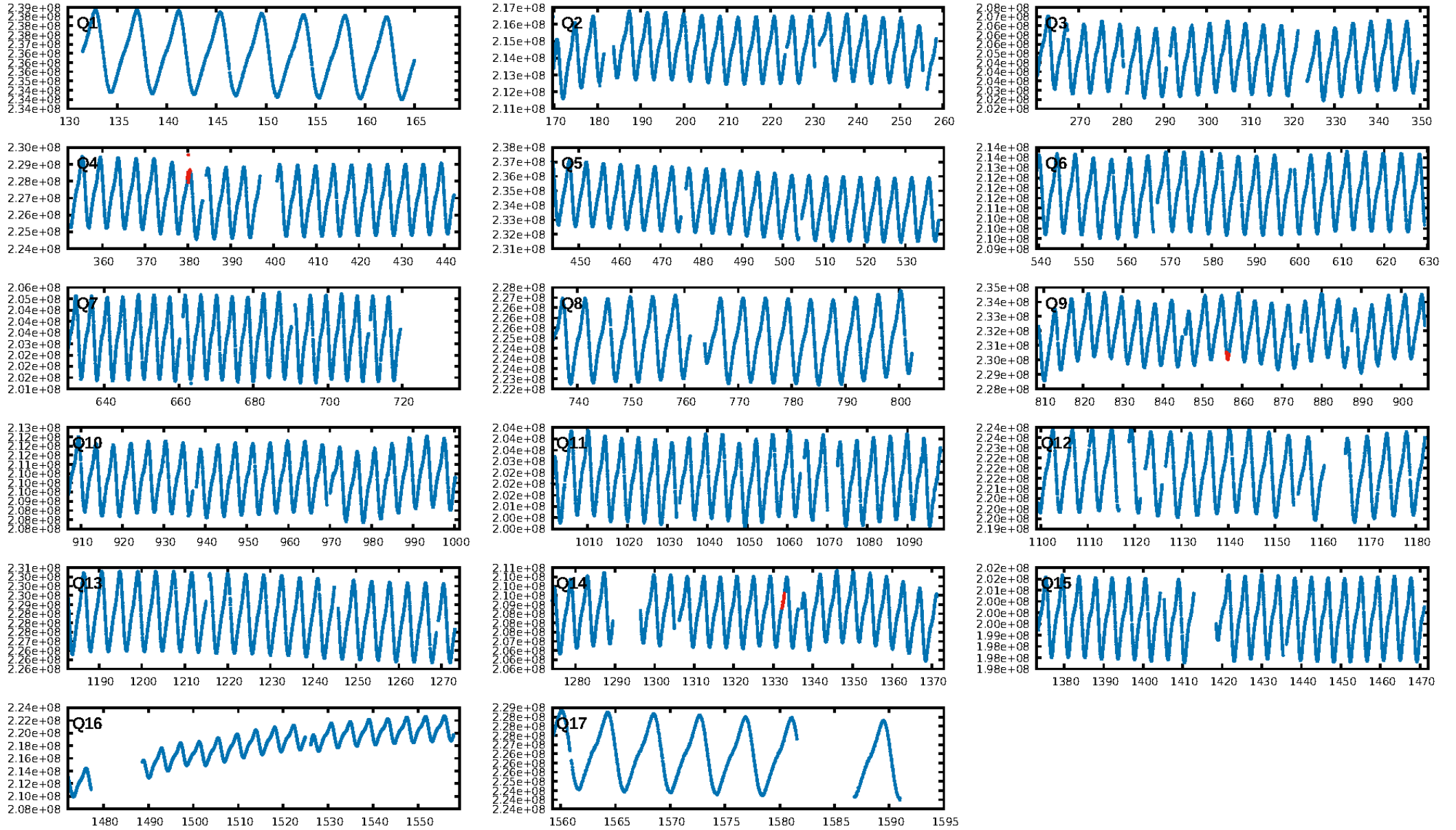
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [513.47 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 13.1%
Bootstrap-pfa: 6.30e-38
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.412
Centroid-sig: 34.9%
Centroid-so: 1.297 arcsec [1.03 σ]
OotOffset-rm: 0.342 arcsec [0.53 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-rm: 0.317 arcsec [0.58 σ]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.33 [1/3]

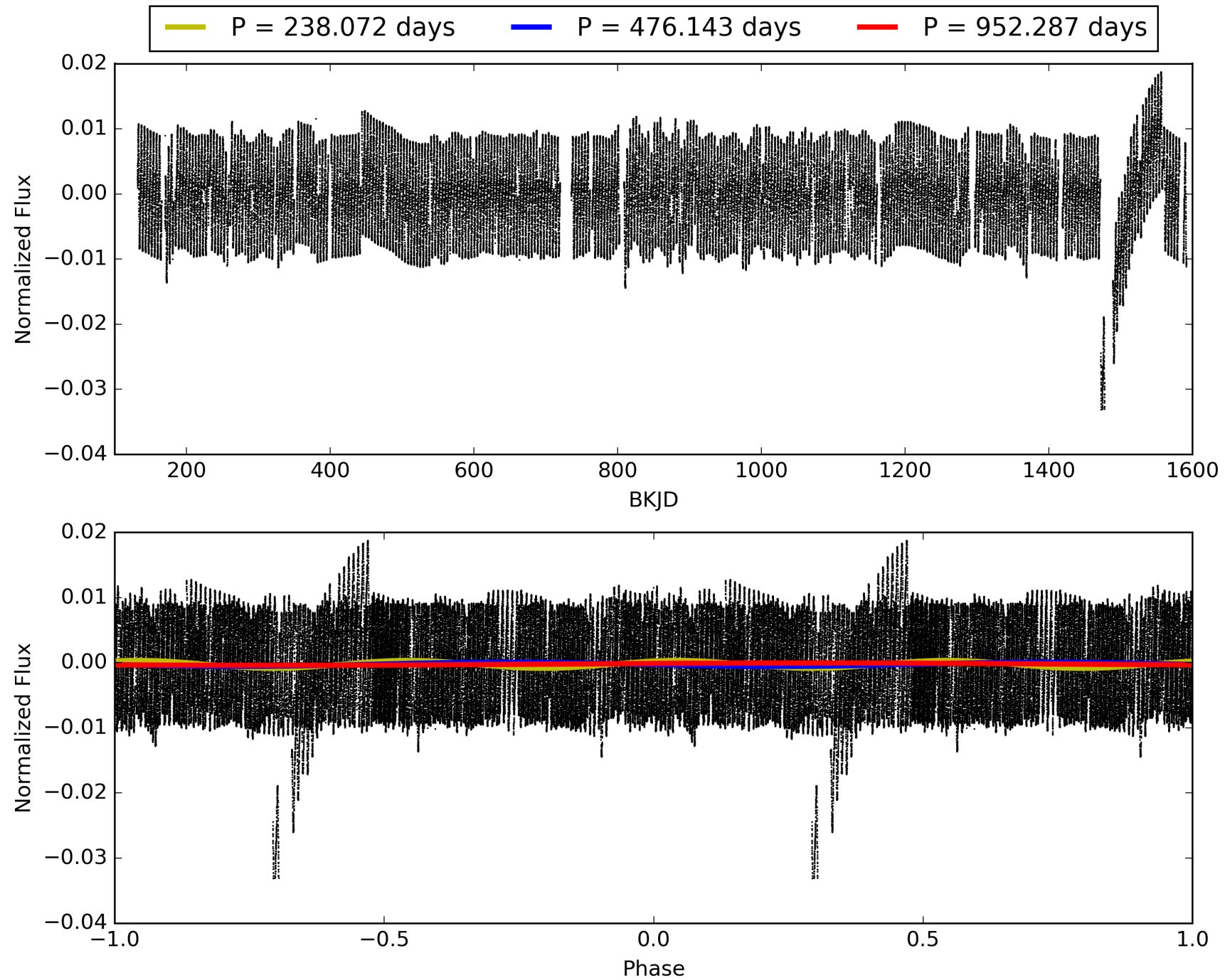
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:36:10 Z

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

TCE 006715809-01, PDC Light Curves

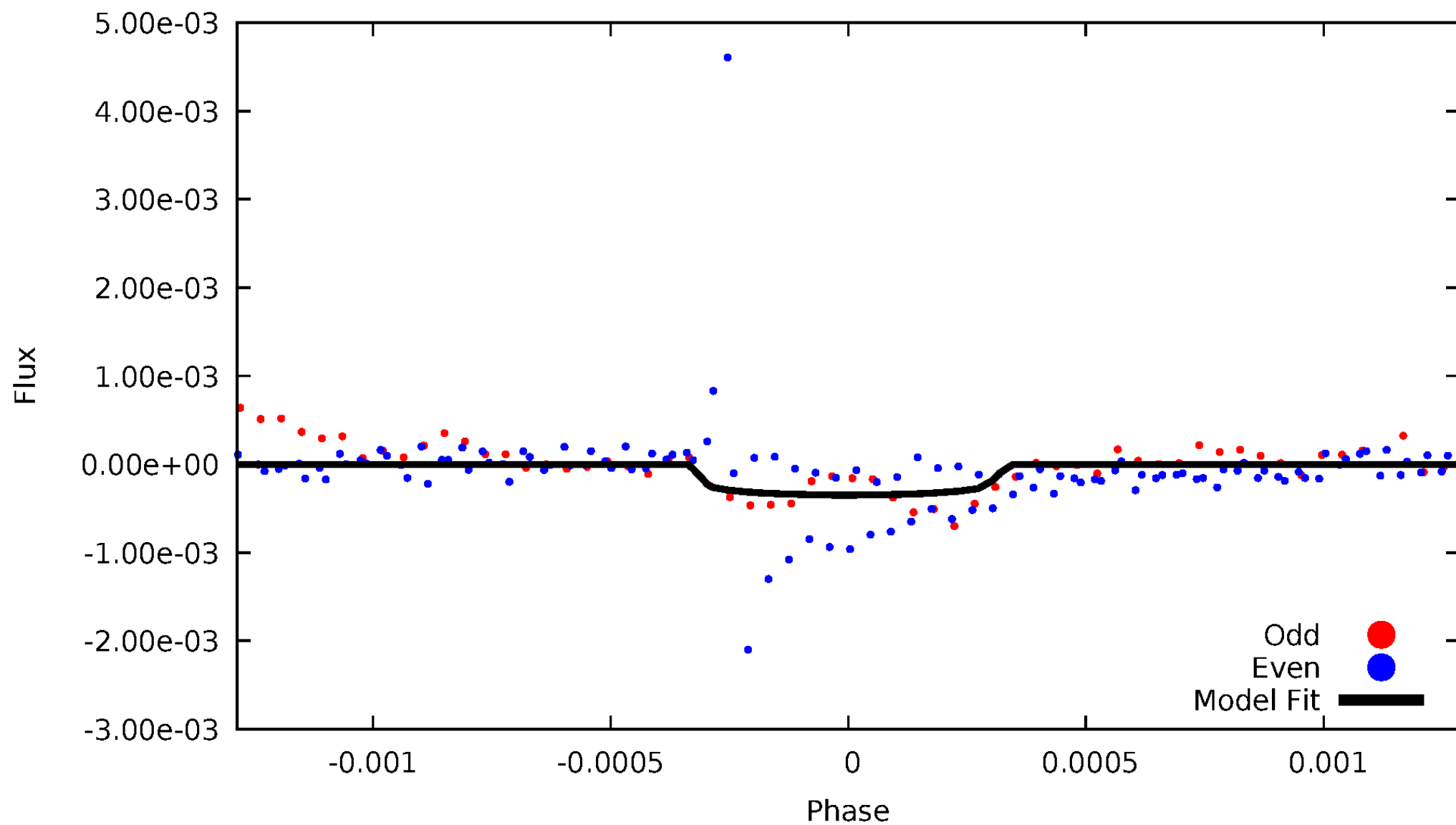


TCE 006715809-01



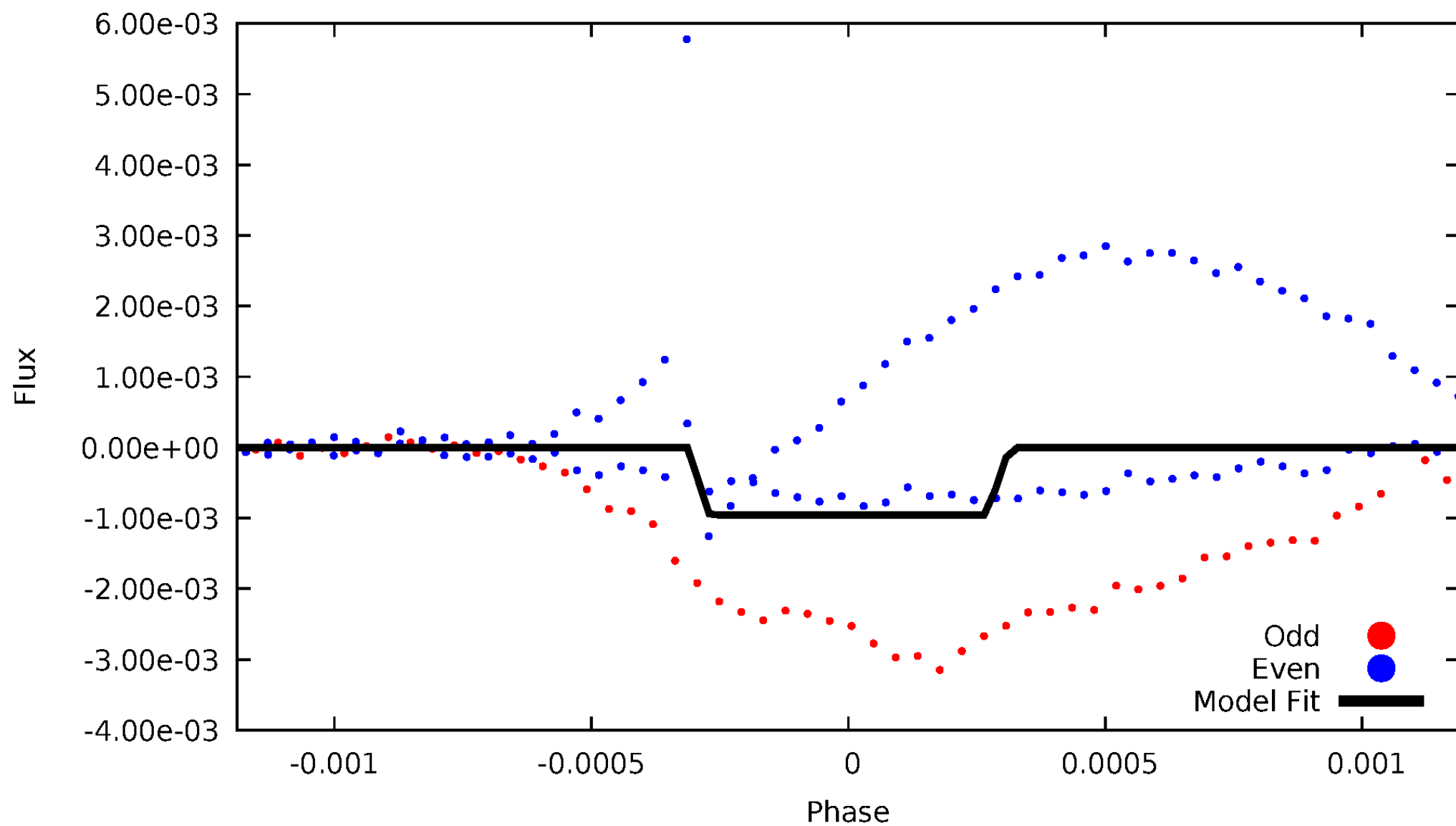
DV Odd/Even

TCE 006715809-01

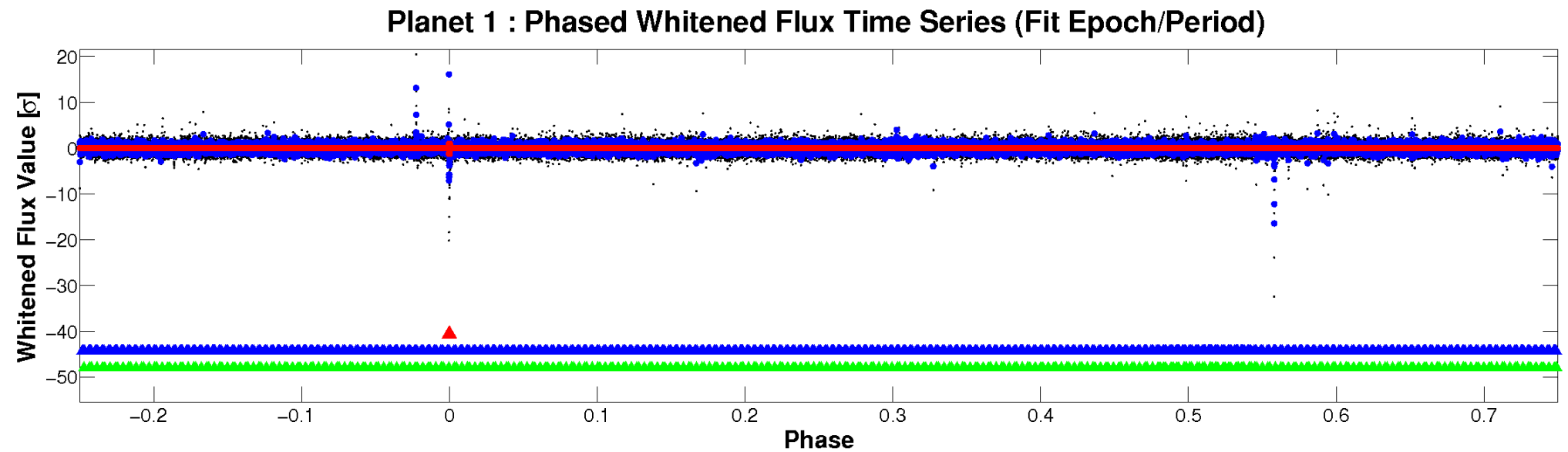
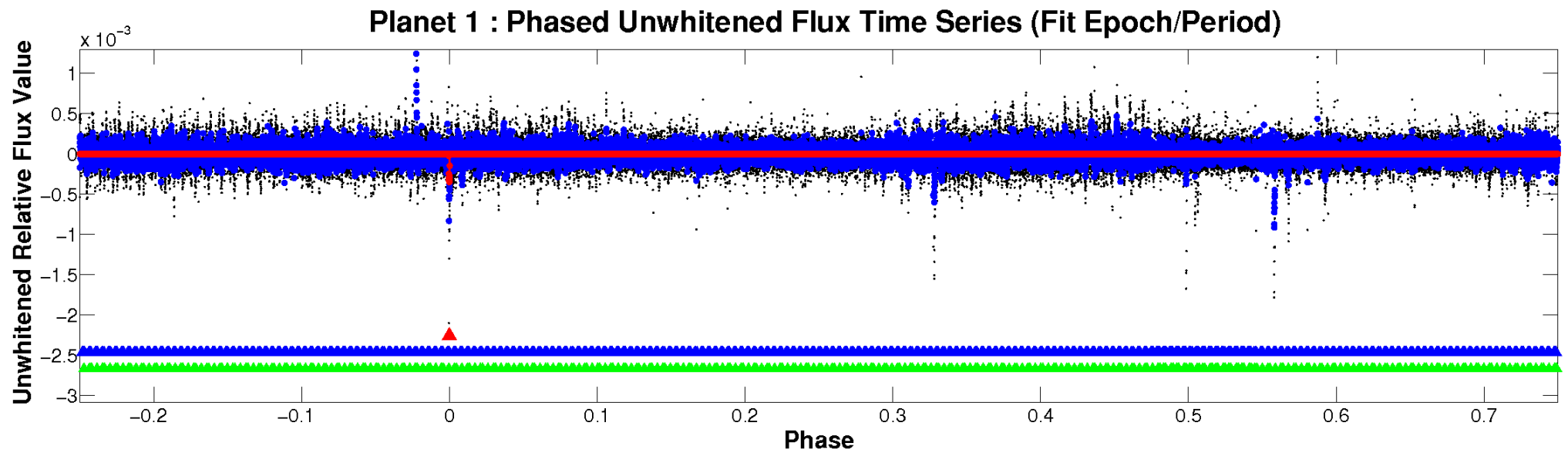


ALT Odd/Even

TCE 006715809-01

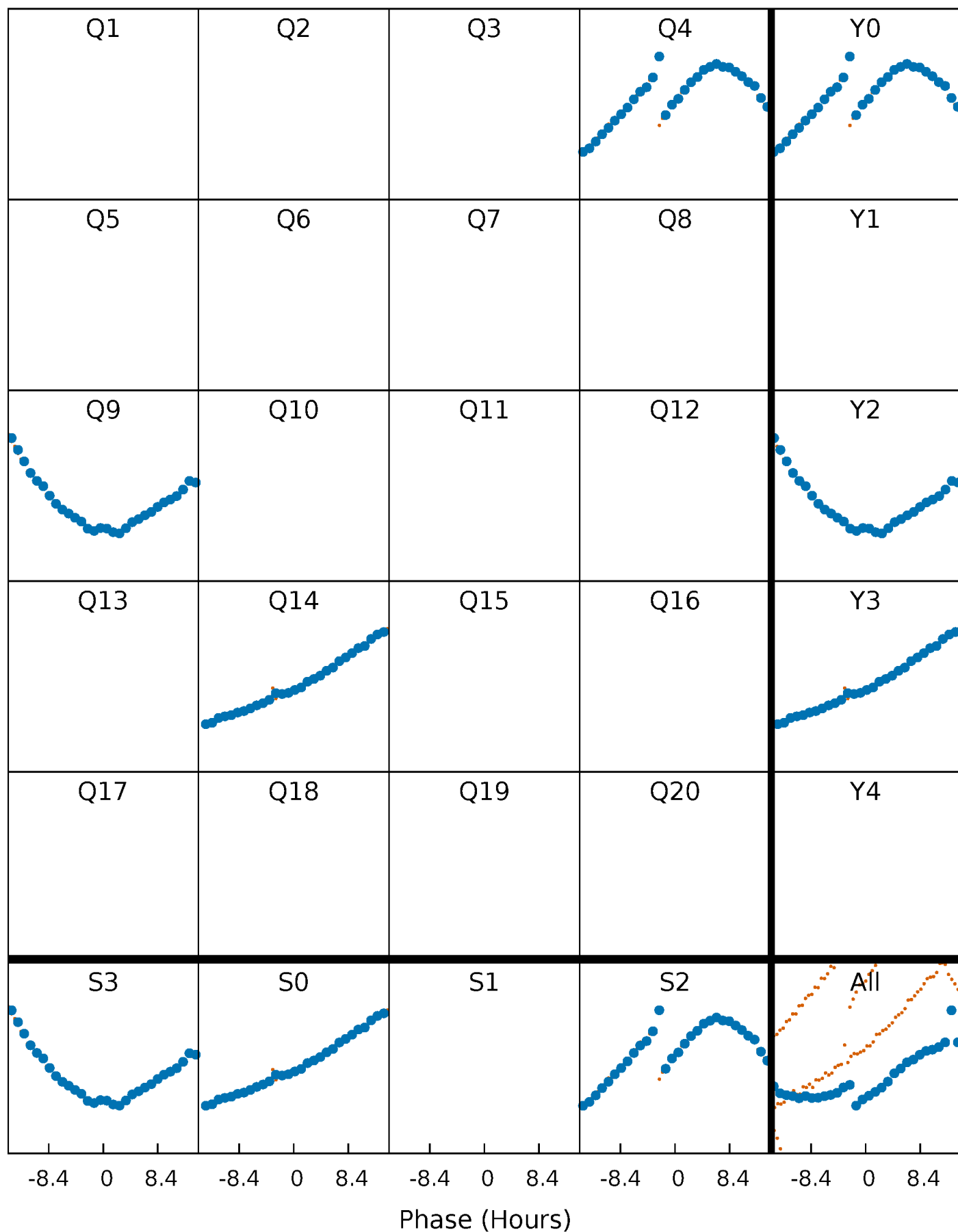


Non-Whitened Vs. Whitened Light Curve



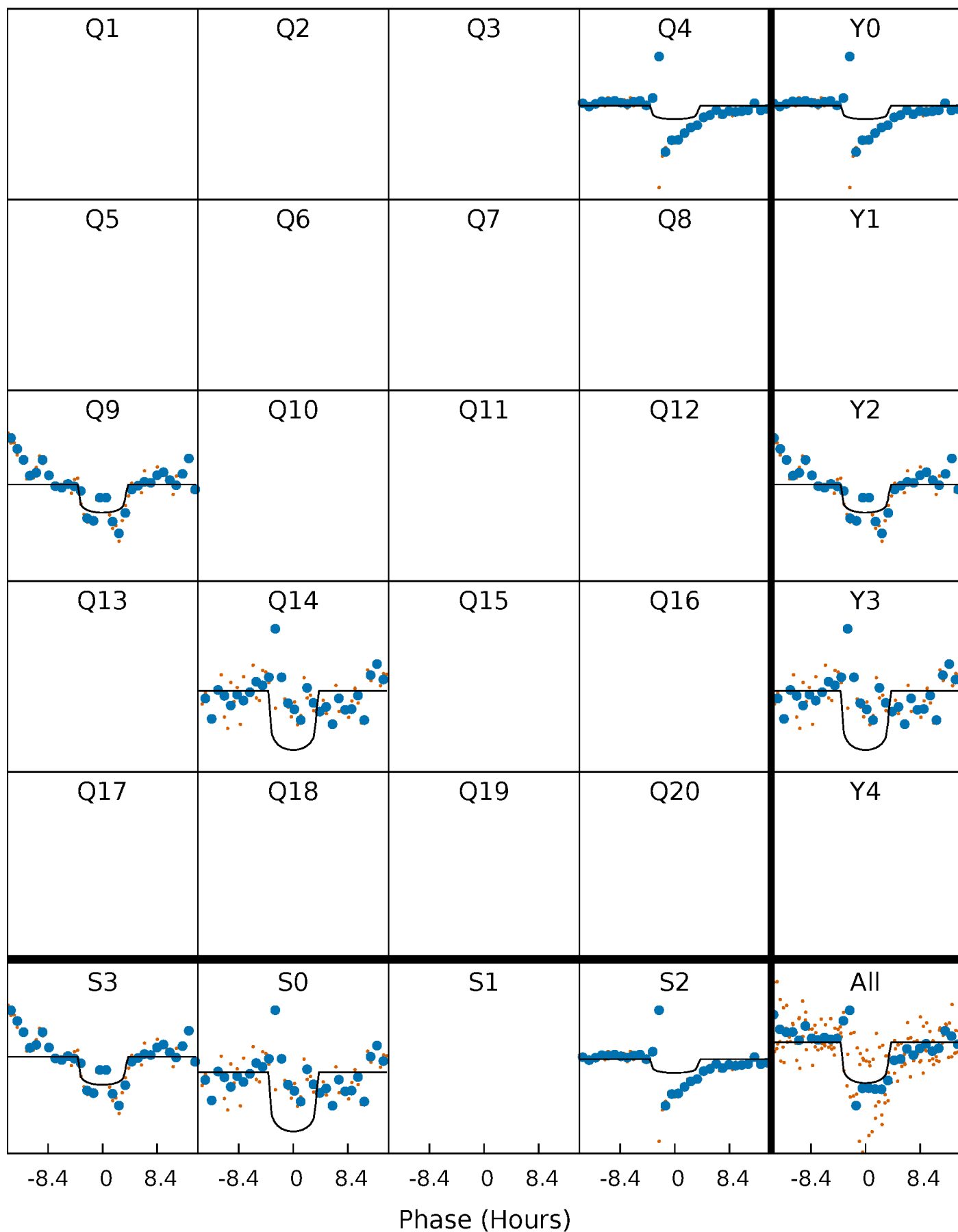
PDC Quarter-Phased Transit Curves

TCE 006715809-01 P=476.143282 Days $T_0=380.204877$ (BKJD)



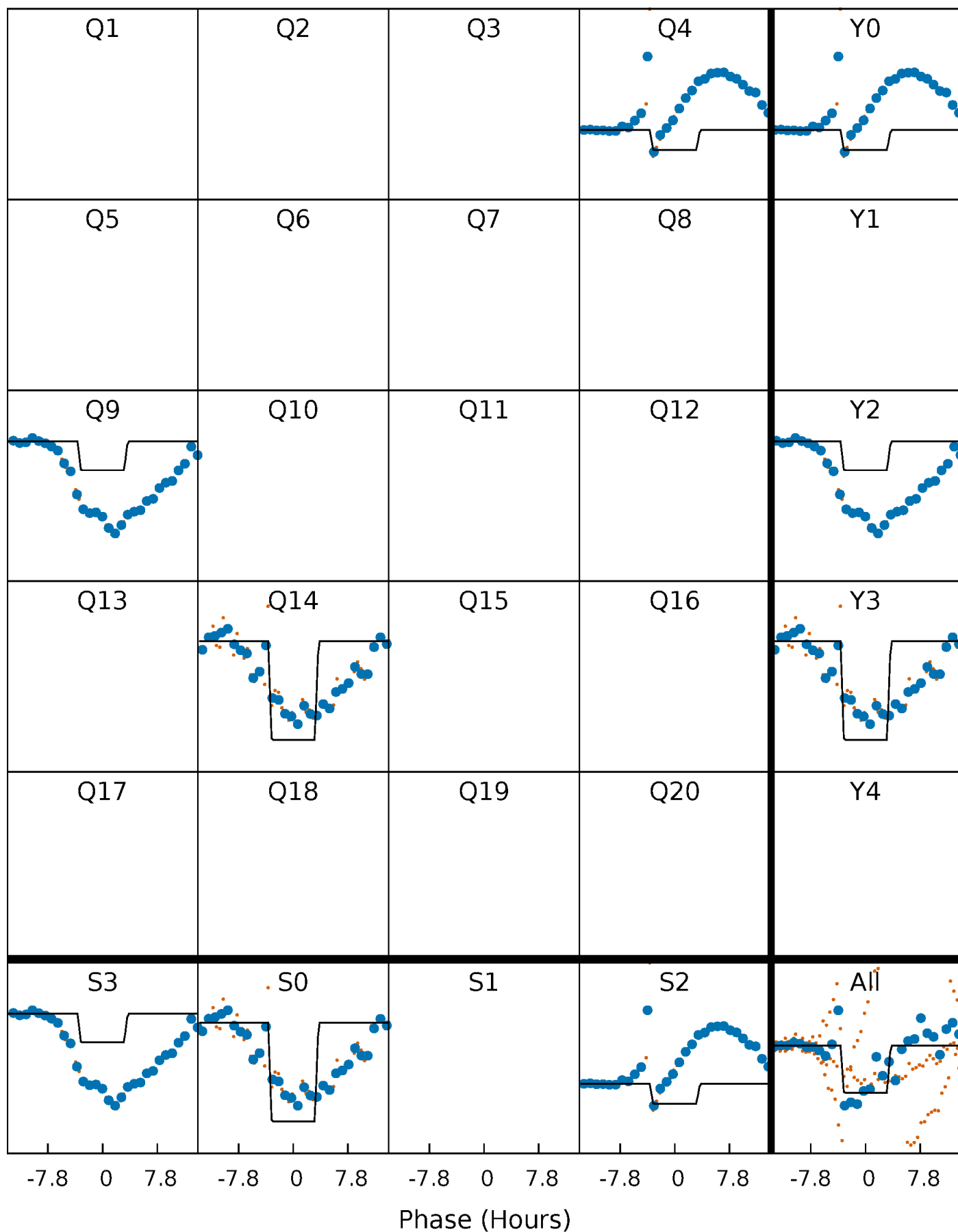
DV Quarter-Phased Transit Curves

TCE 006715809-01 P=476.143282 Days $T_0=380.204877$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

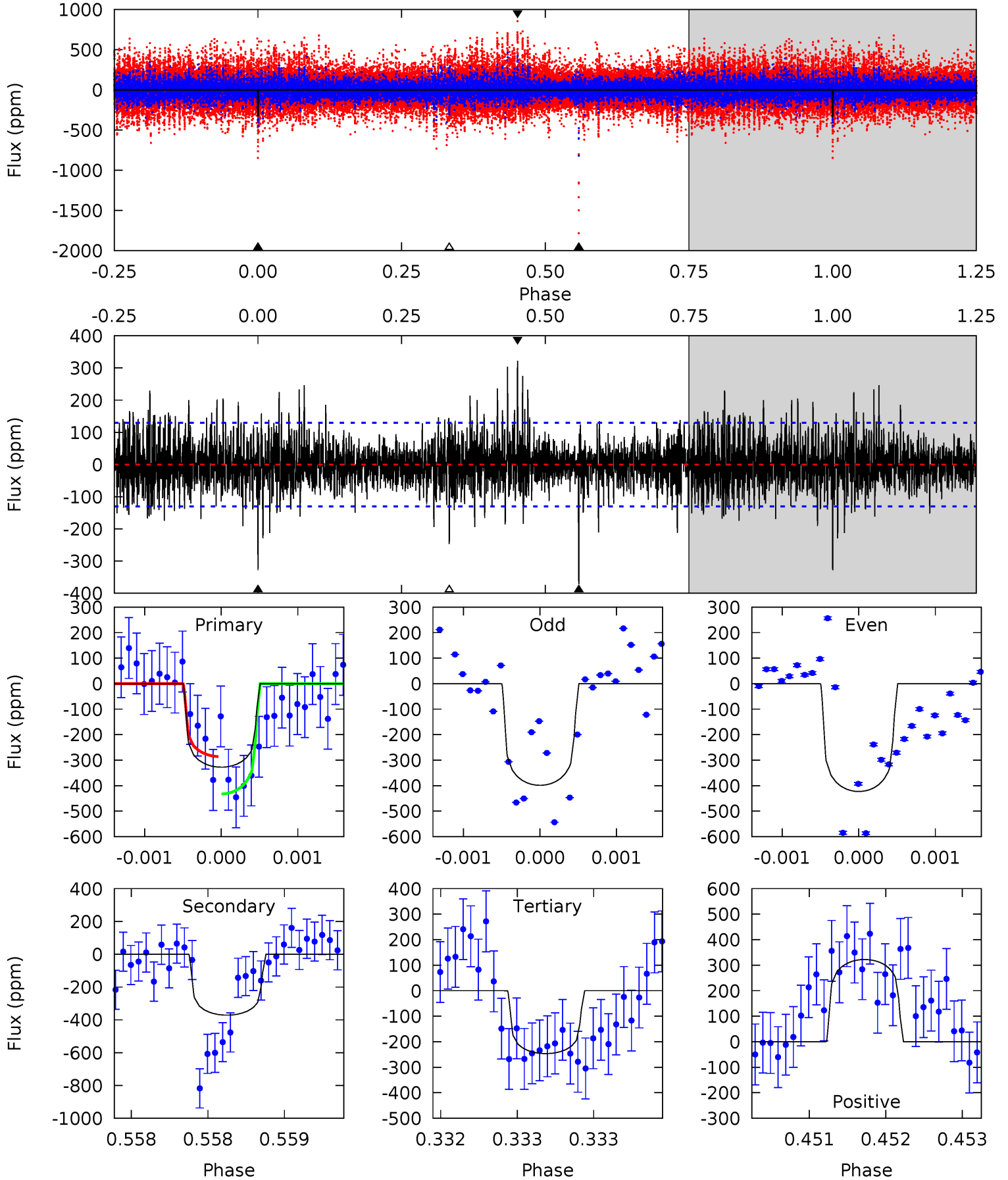
TCE 006715809-01 P=476.136004 Days $T_0=380.233644$ (BKJD)



DV Model-Shift Uniqueness Test

006715809-01, P = 476.143282 Days, E = 380.204877 Days

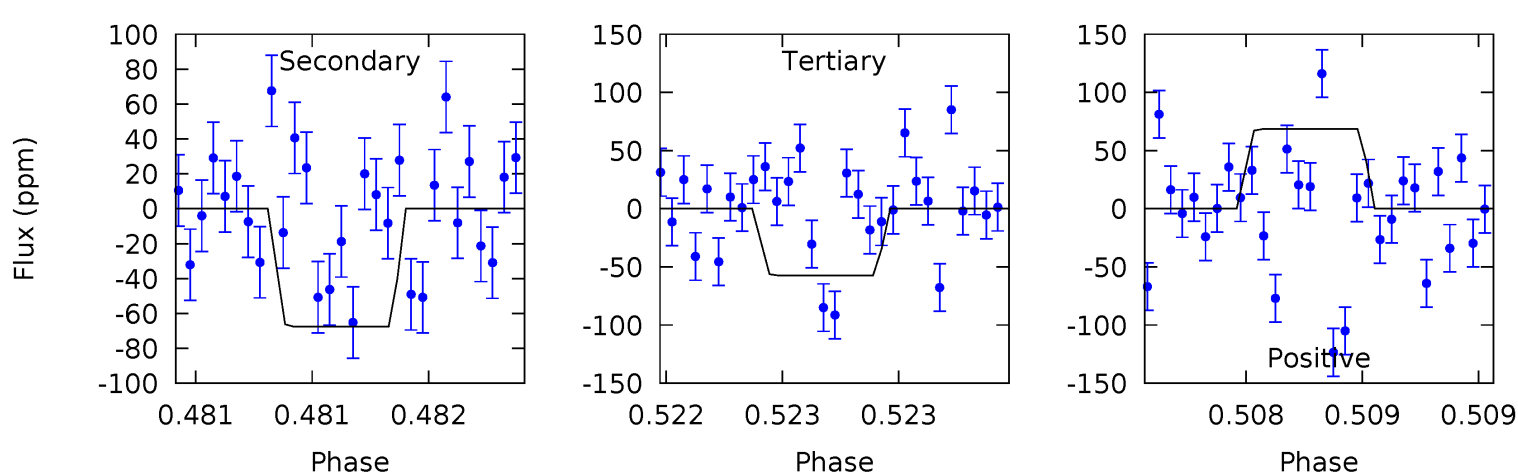
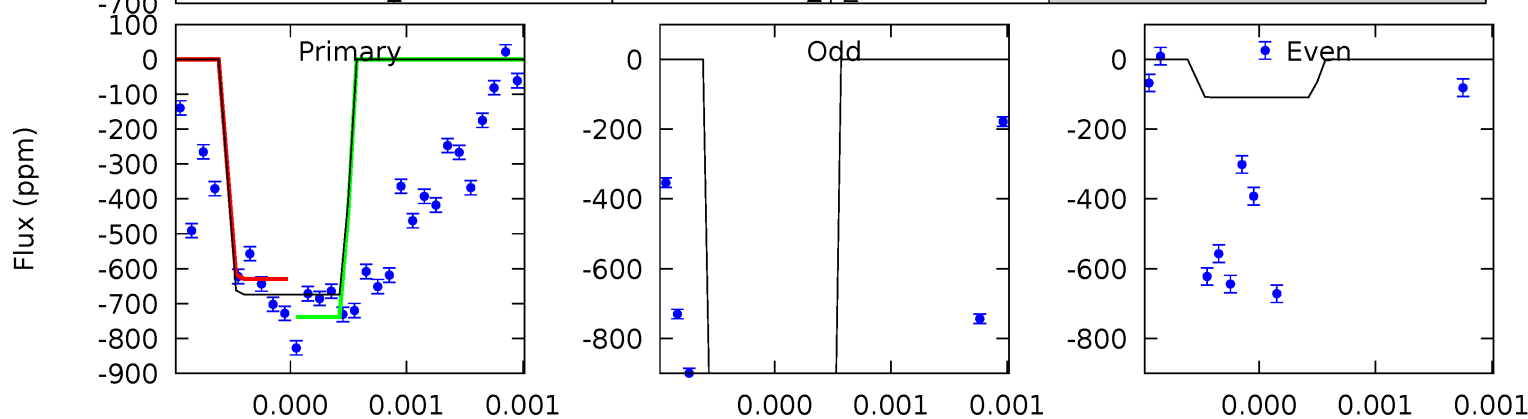
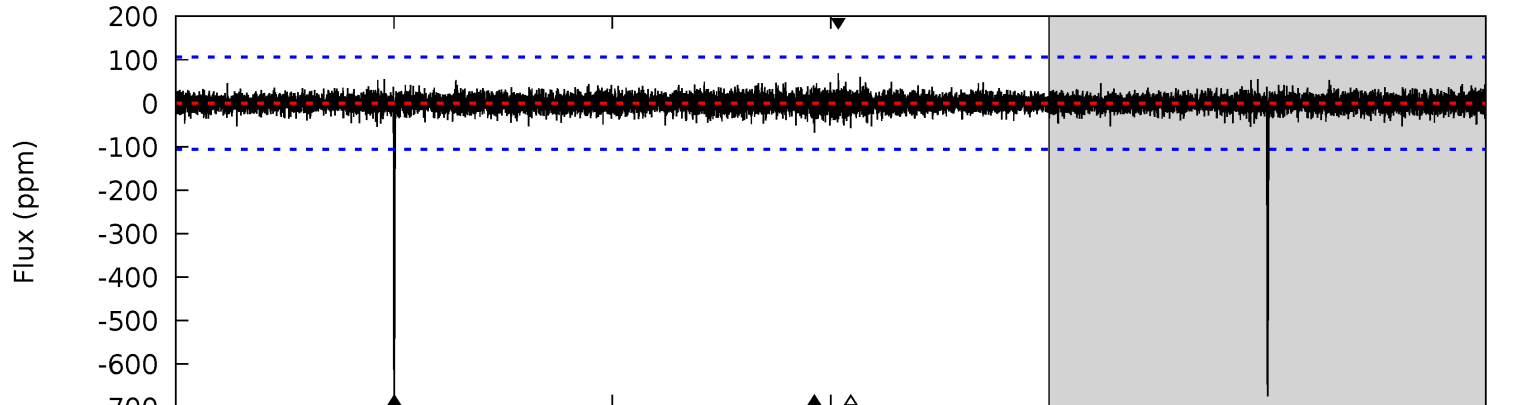
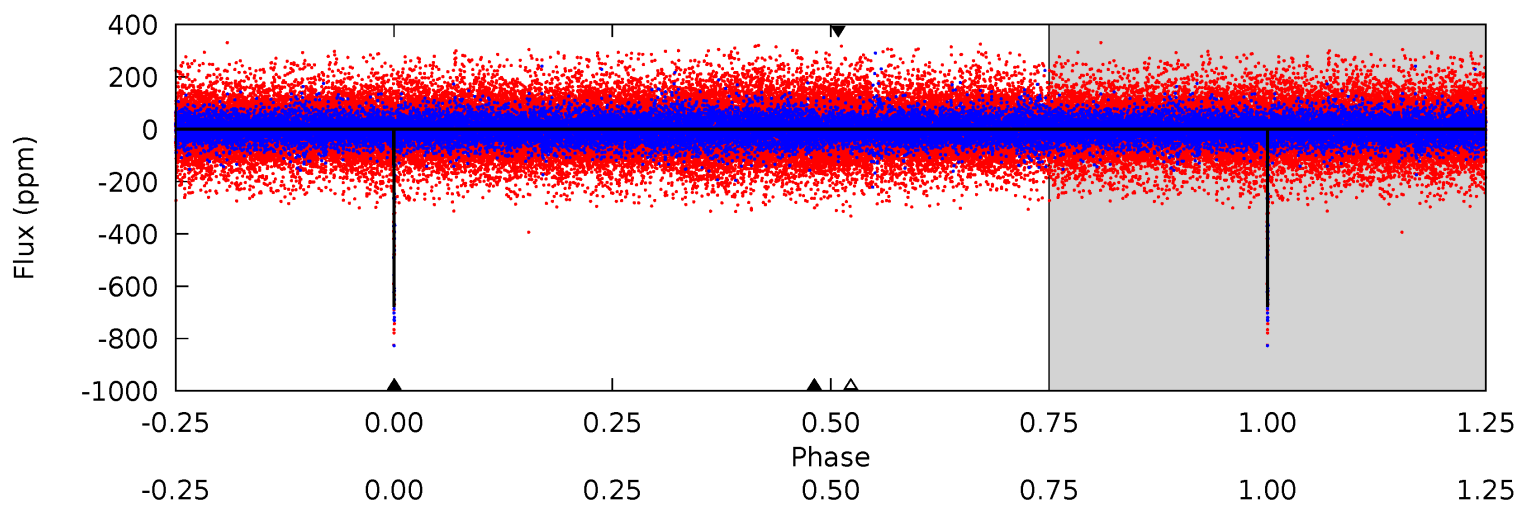
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	15.8	10.5	13.7	5.52	3.40	2.50	3.44	0.23	5.29	2.08	0.44	0.80	0.46	3.01



Alt Model-Shift Uniqueness Test

006715809-01, P = 476.136004 Days, E = 380.233644 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.2	3.52	3.00	3.57	5.55	3.44	0.66	32.2	31.6	0.53	-0.05	90.3	1.31	0.09	2.83



Stellar Parameters For KIC 006715809

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8287^{+231}_{-346}	$4.001^{+0.204}_{-0.119}$	$0.070^{+0.250}_{-0.550}$	$2.348^{+0.456}_{-0.685}$	$2.017^{+0.307}_{-0.461}$	$0.220^{+0.283}_{-0.078}$
	+3%/-4%	+5%/-3%	+357%/-786%	+19%/-29%	+15%/-23%	+129%/-36%
Source	KIC0	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 006715809-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-371 ± 24	$8.45^{+8.33}_{-5.60}$	630^{+37}_{-48}	6052^{+5645}_{-1612}	6444^{+55002}_{-4788}
Alt.	-68 ± 19	$11.59^{+10.19}_{-7.98}$	630^{+38}_{-46}	3751^{+2166}_{-656}	600^{+5589}_{-429}

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 $A_{obs} \gg 1.0$

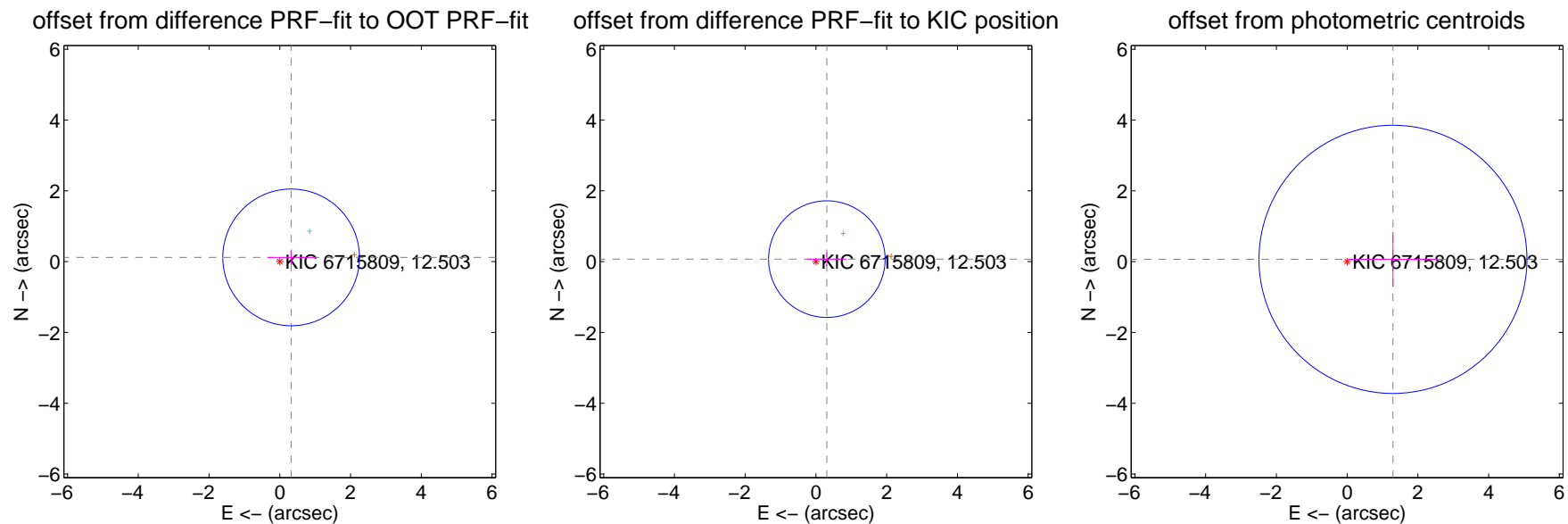
DV Centroid Data

Supplemental centroid analysis for 006715809-01. Kepler magnitude: 12.50. Transit SNR 6.19

There are 2 quarters with good PRF difference image offsets

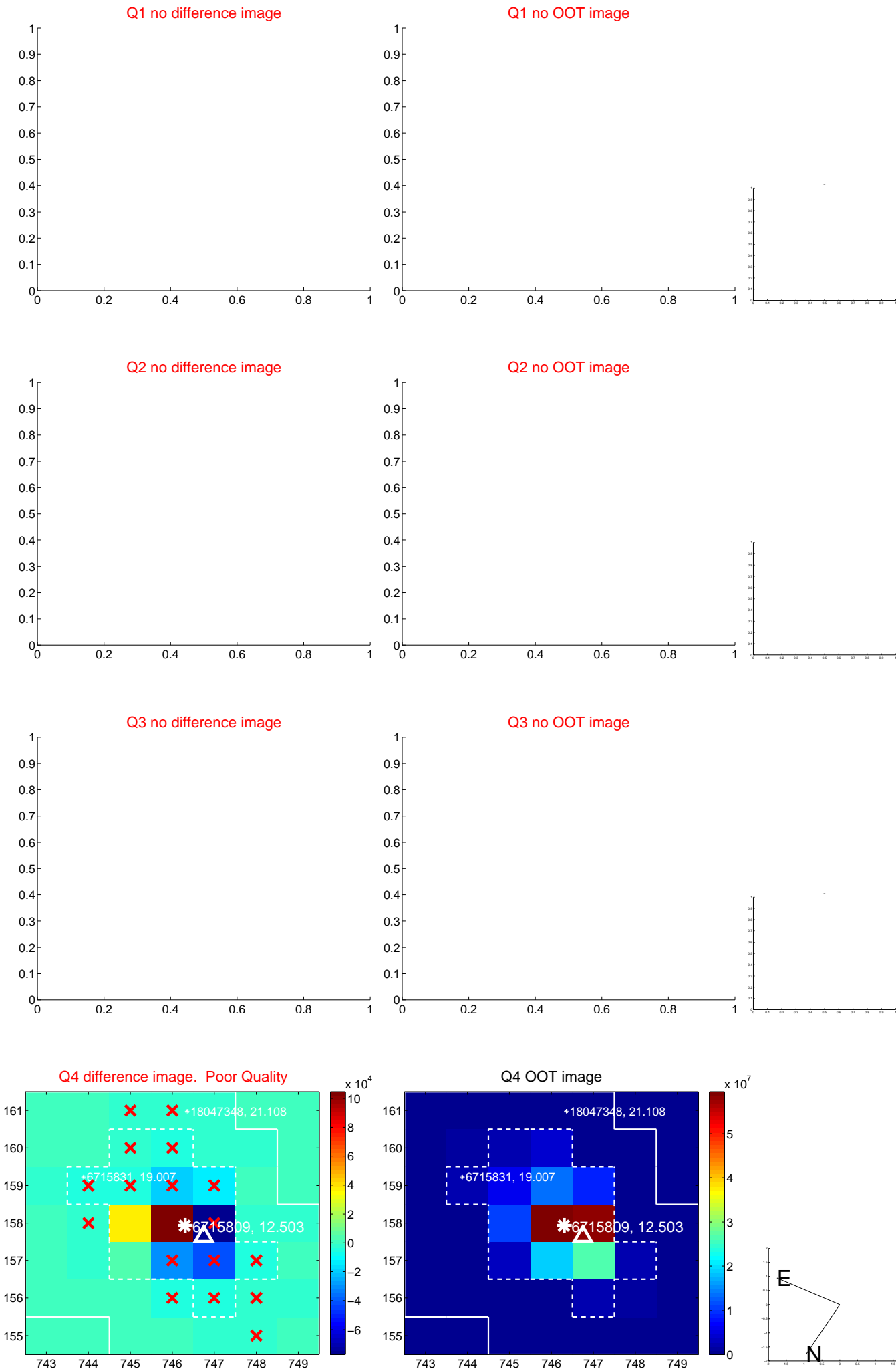
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.342 ± 0.644	0.53	-0.320 ± 0.671	0.120 ± 0.197
PRF-fit source offset from KIC position	0.317 ± 0.549	0.58	-0.309 ± 0.561	0.071 ± 0.195
photometric centroid source offset	1.30 ± 1.26	1.03	-1.30 ± 1.26	0.06 ± 0.77



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.

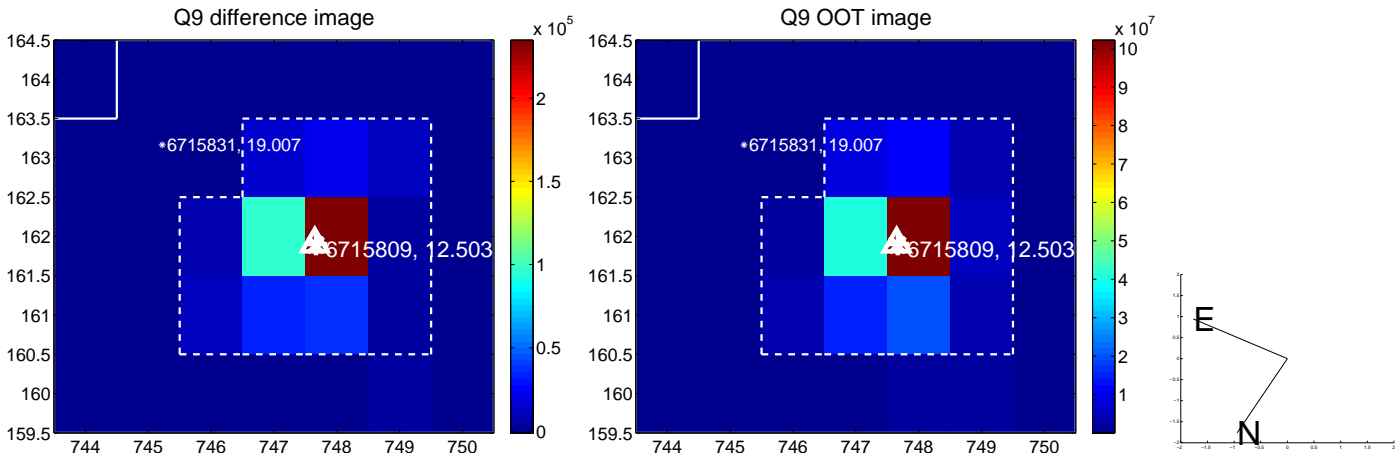
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



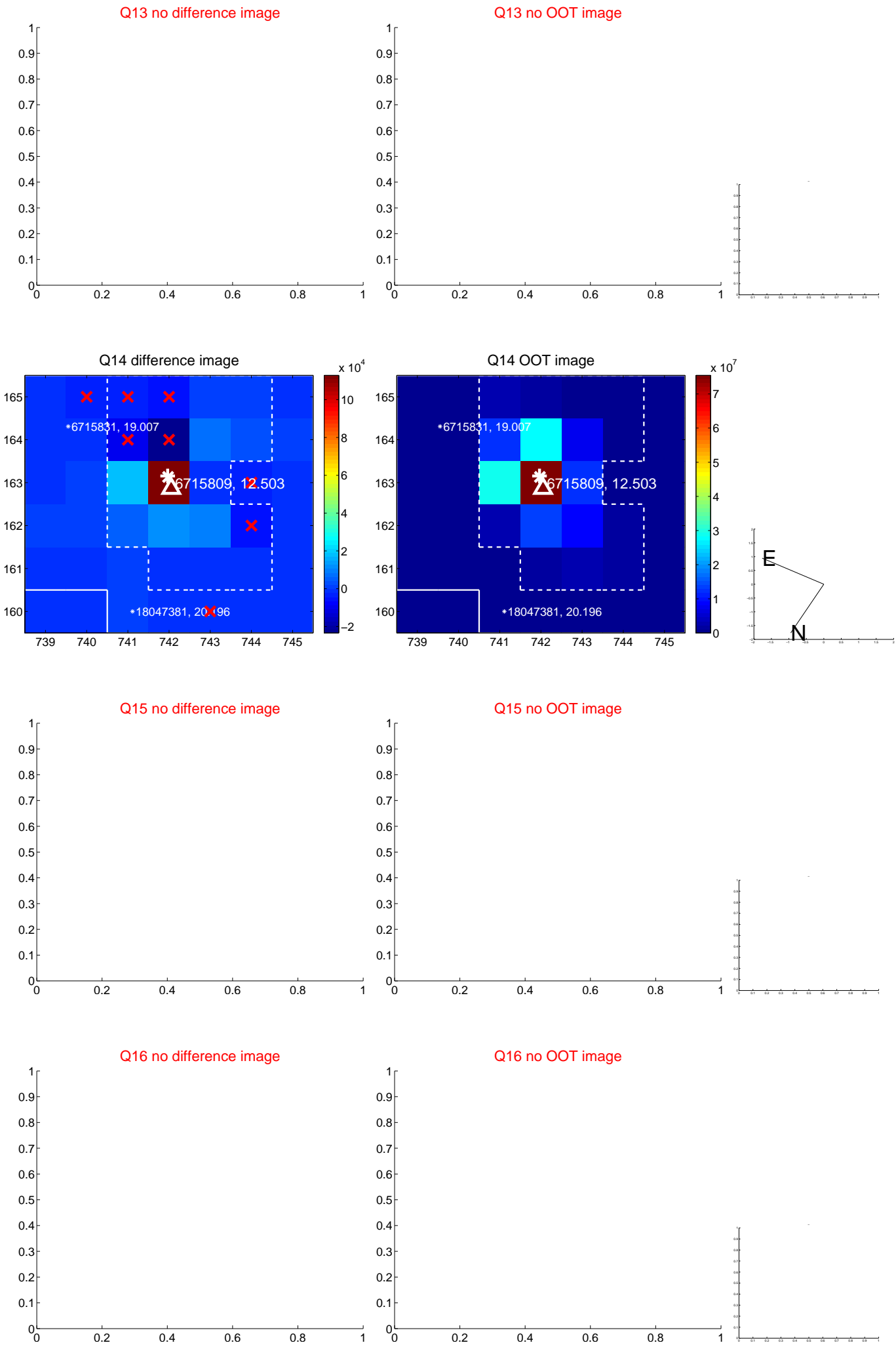
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



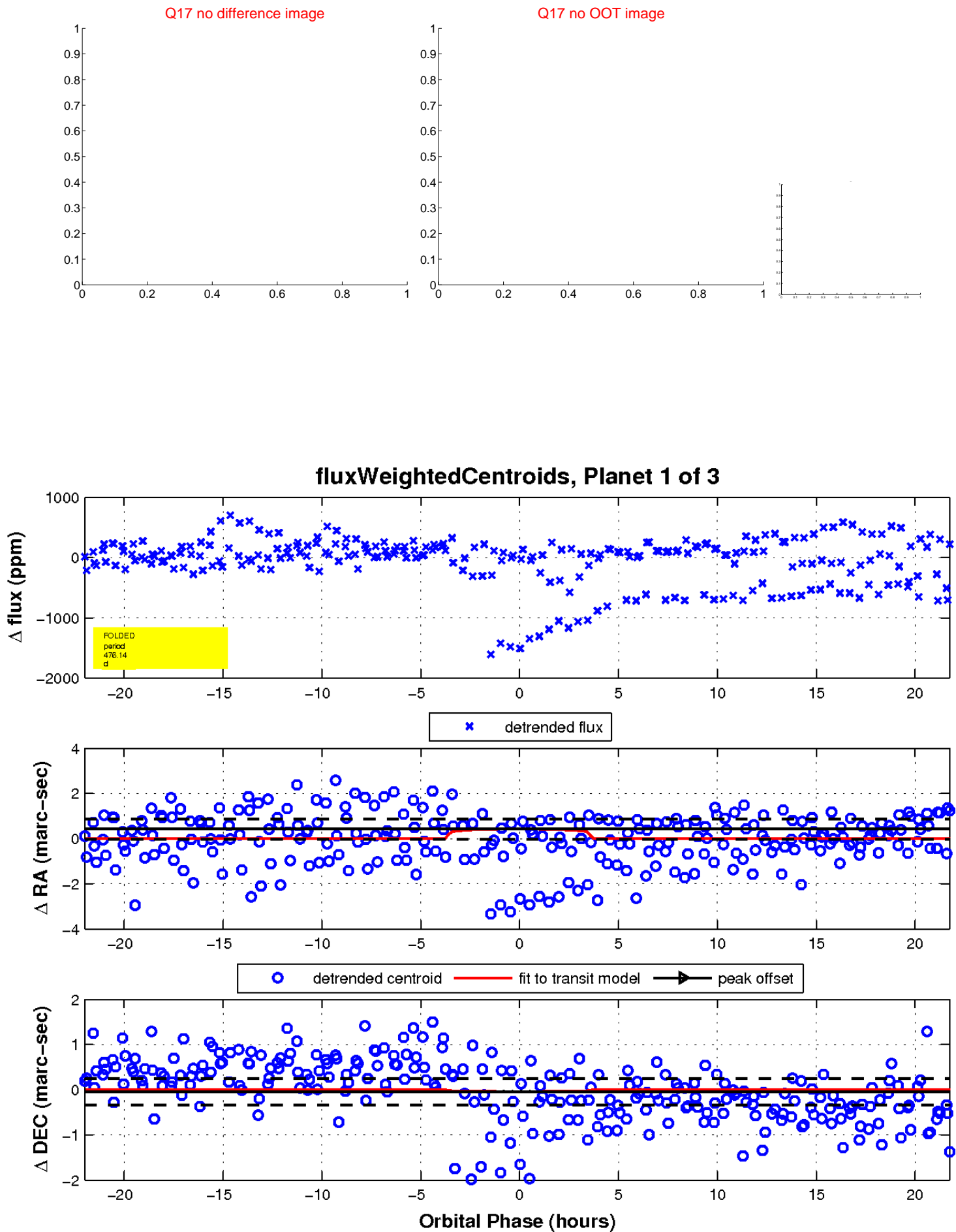
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

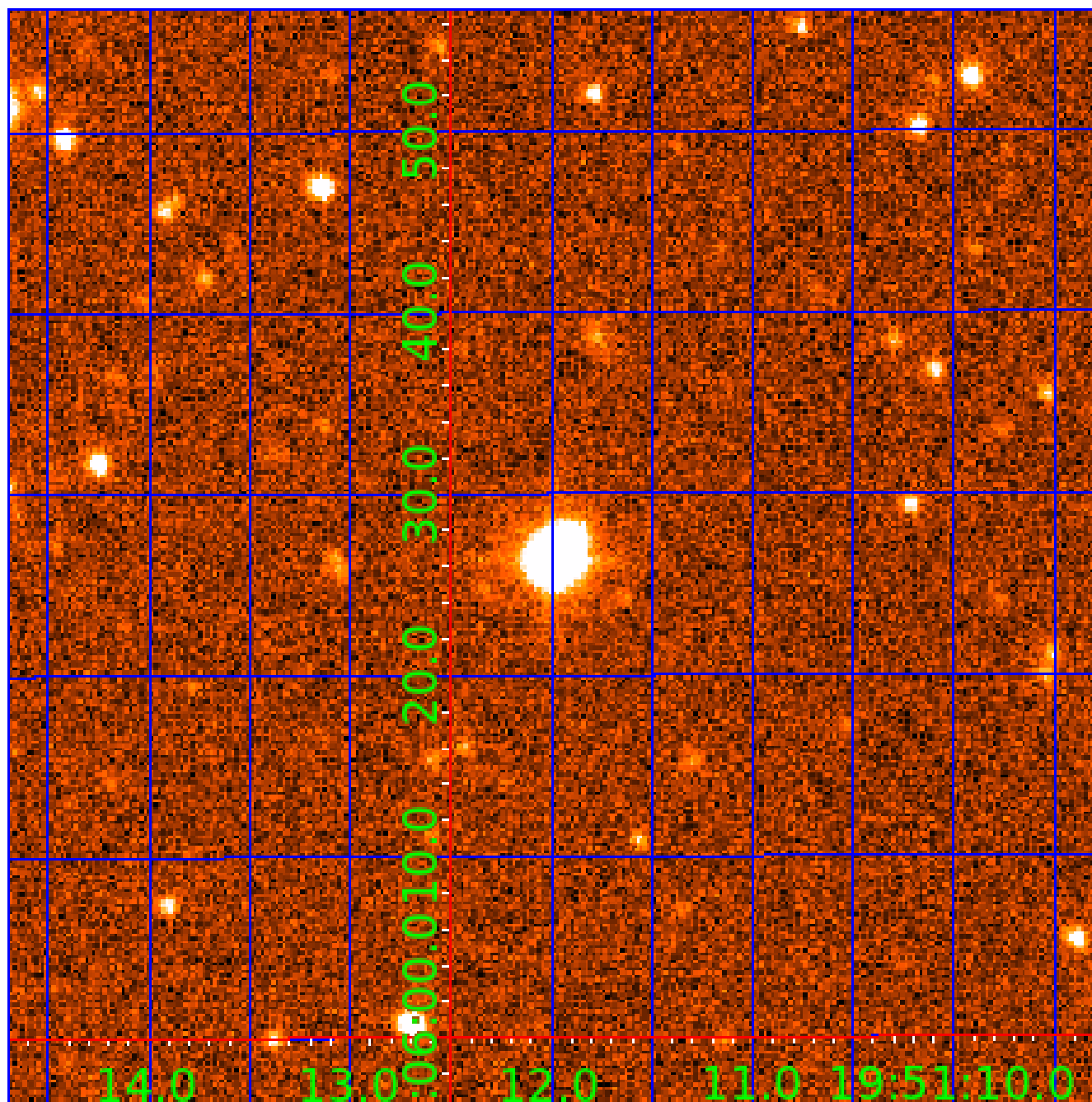


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006715809

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})
006715809-01	OBS	No	476.143282	380.204877	348.0	7.344	21.0	6.2	2.35	8287	4.43	10.25
006715809-02	OBS	No	2.098994	131.849034	51.4	3.243	17.2	19.5	2.35	8287	1.97	14177.54
006715809-03	OBS	No	4.197895	134.152993	42.2	20.801	17.3	11.3	2.35	8287	1.67	5626.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006715809-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006715809-02	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—HALO_GHOST
006715809-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD

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

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

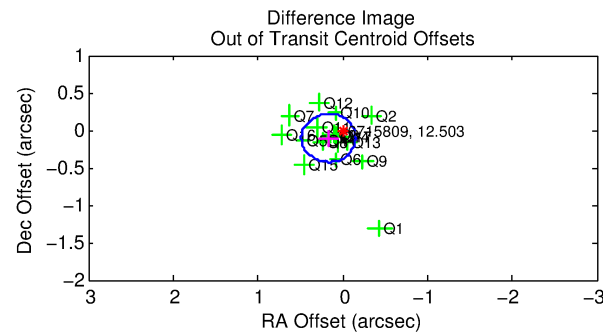
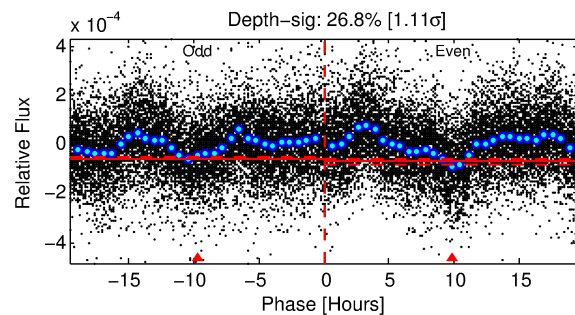
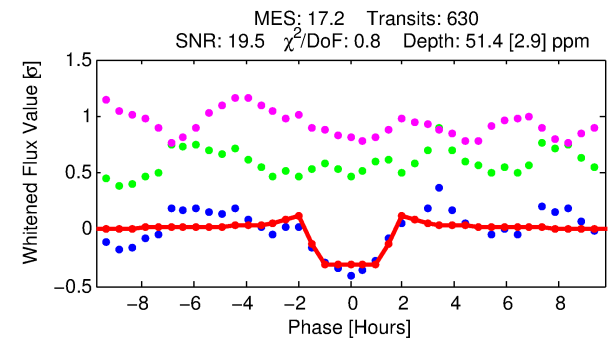
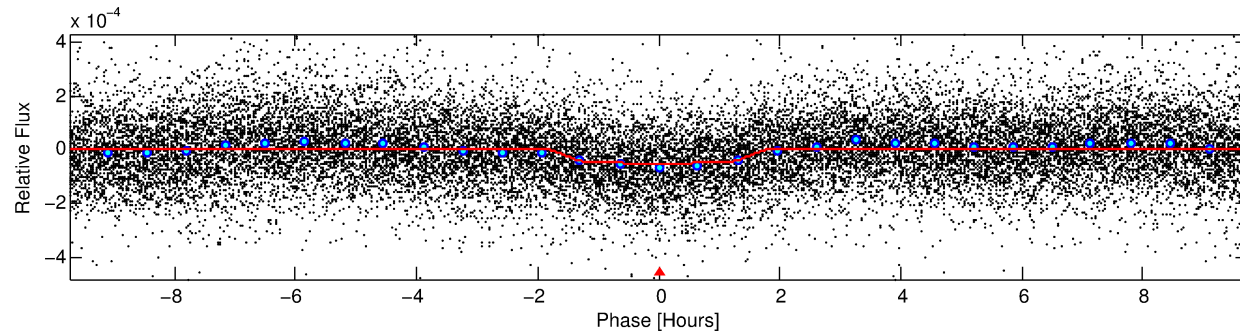
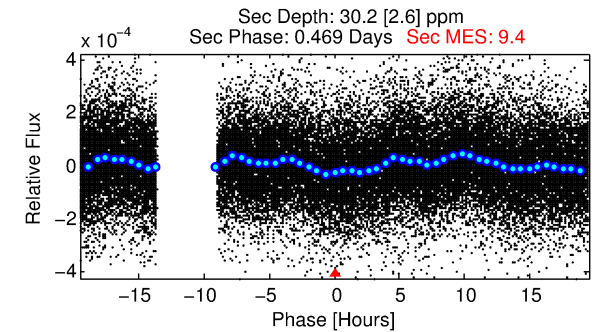
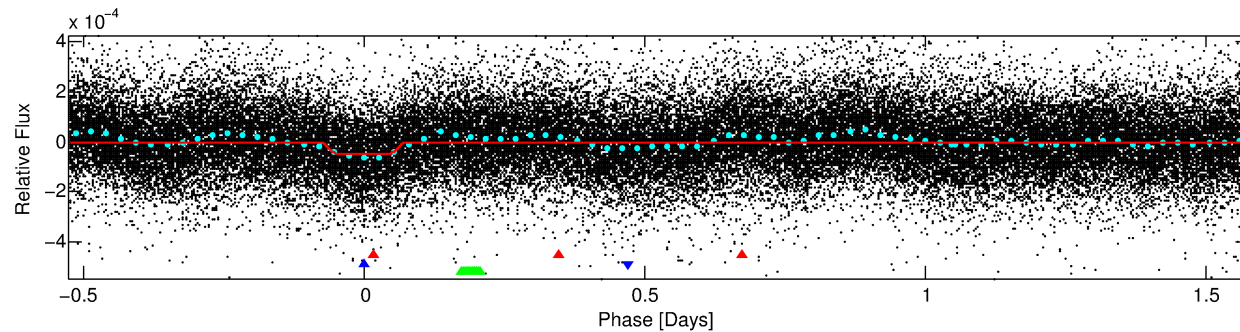
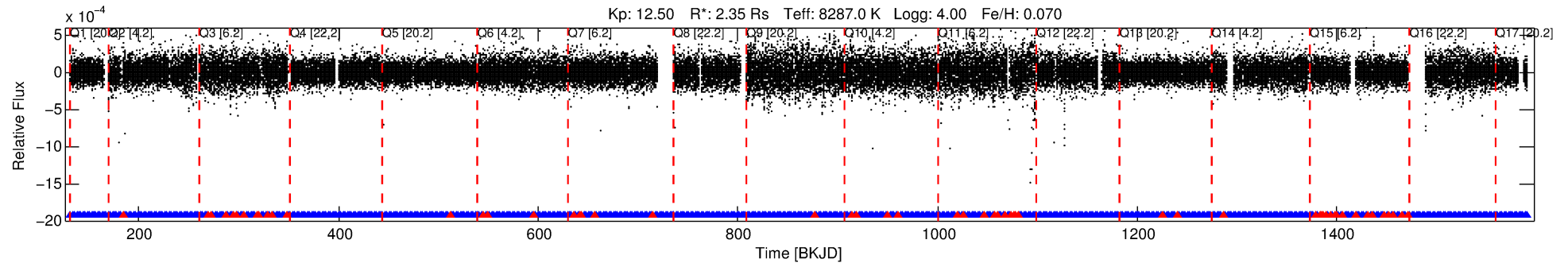
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006715809-02

No Significant Match Found

DV One-Page Summary

KIC: 6715809 Candidate: 2 of 3 Period: 2.099 d



DV Fit Results:

Period = 2.09899 [0.00001] d
Epoch = 131.8490 [0.0016] BKJD
Rp/R* = 0.0077 [0.0012]
a/R* = 2.35 [1.87]
b = 0.91 [0.19]
Seff = 14177.54 [5737.66]
Teq = 2782 [282] K
Rp = 1.97 [0.65] Re
a = 0.0405 [0.0101] AU
Ag = 7.04 [3.44] [1.76σ]
Teffp = 7009 [633] K [6.10σ]

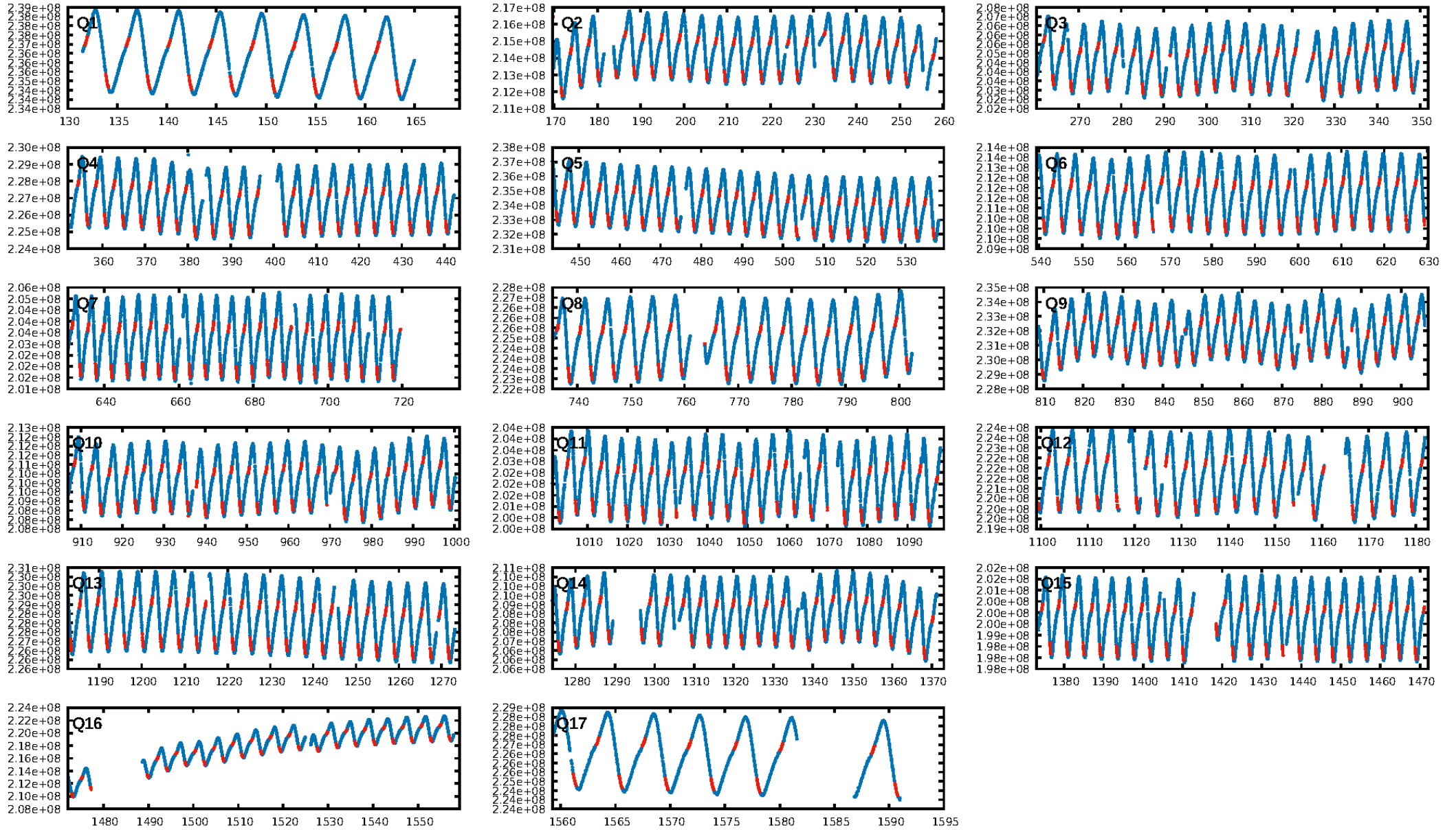
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 98.3% [2.39σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.36e-58
RollingBand-fgt: 0.91 [546/602]
GhostDiagnostic-chr: 0.1686
Centroid-sig: 22.4%
Centroid-so: 0.402 arcsec [0.81σ]
OotOffset-rm: 0.197 arcsec [1.84σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.245 arcsec [2.30σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

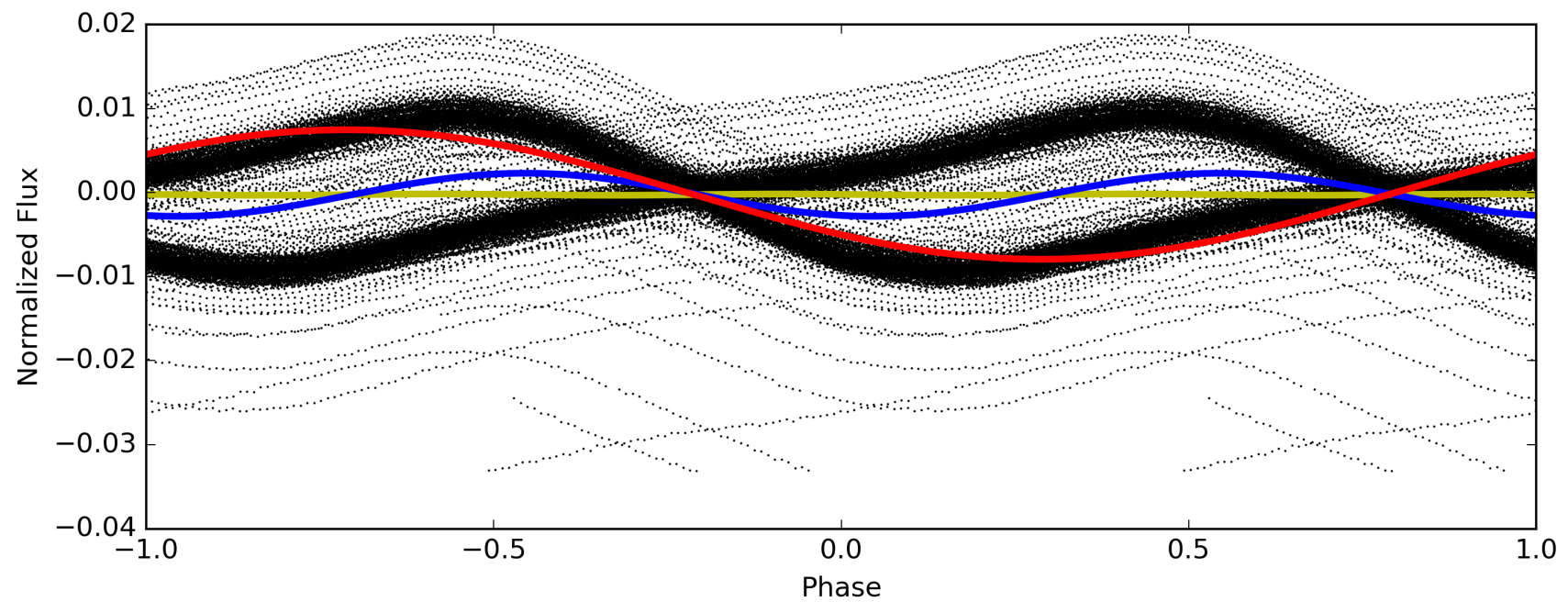
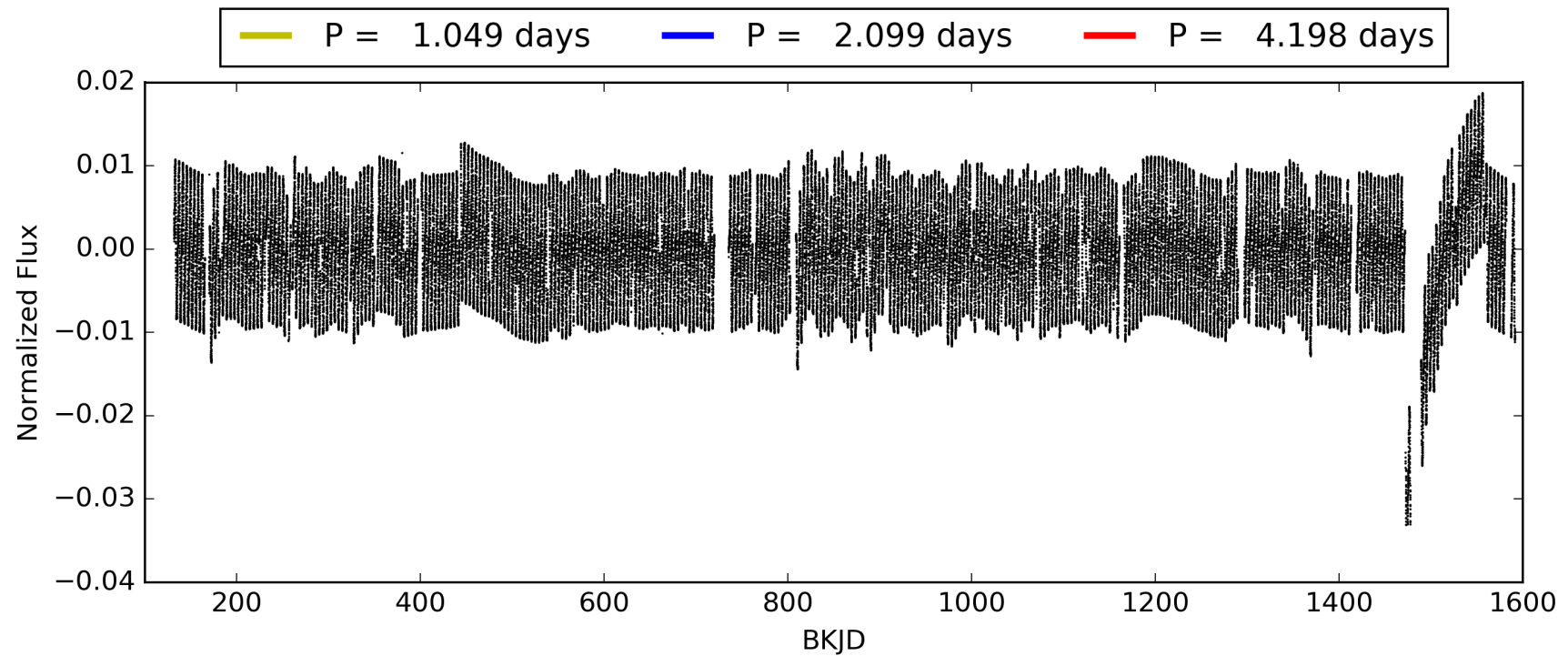
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:36:16 Z

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

TCE 006715809-02, PDC Light Curves

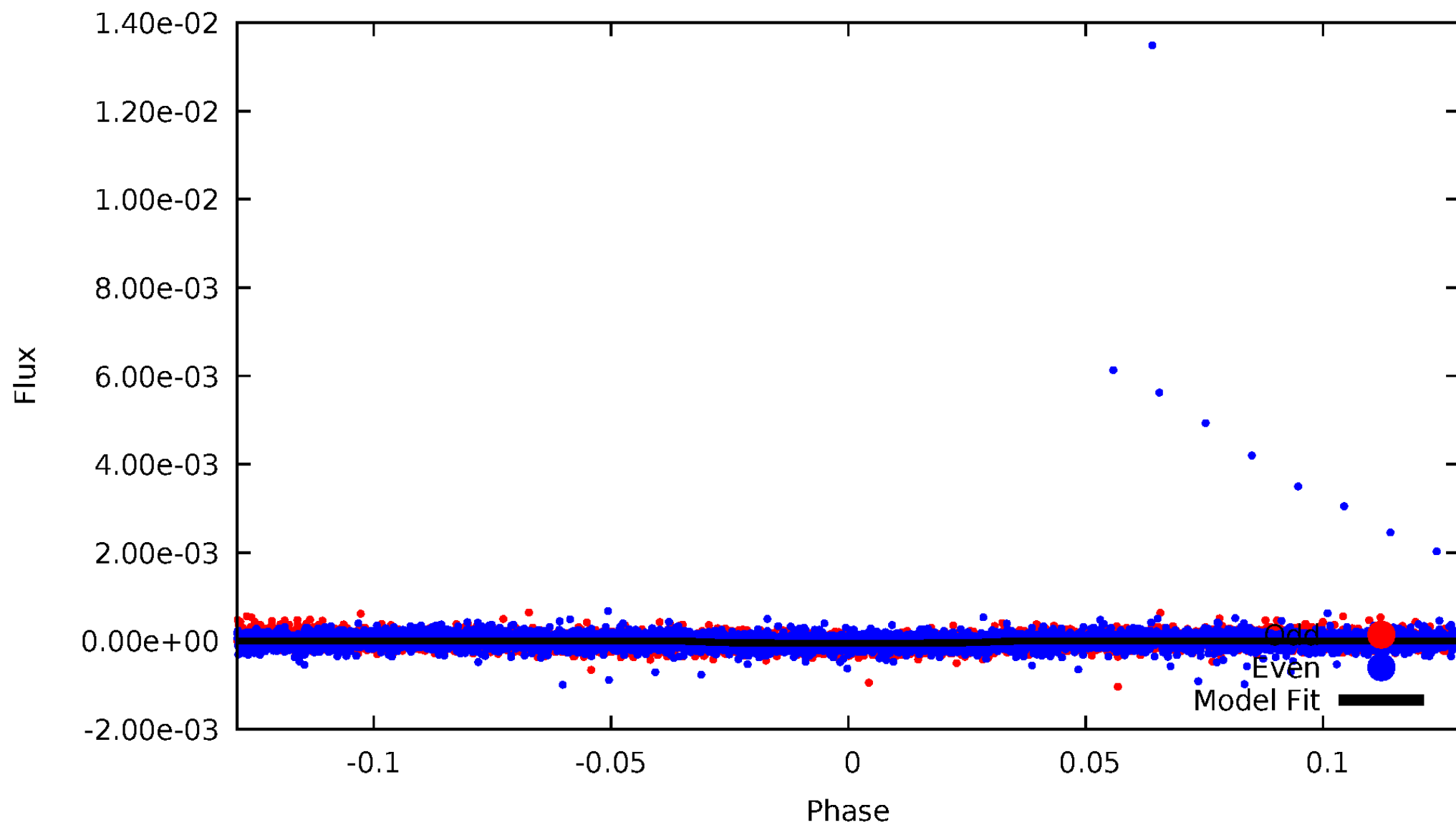


TCE 006715809-02



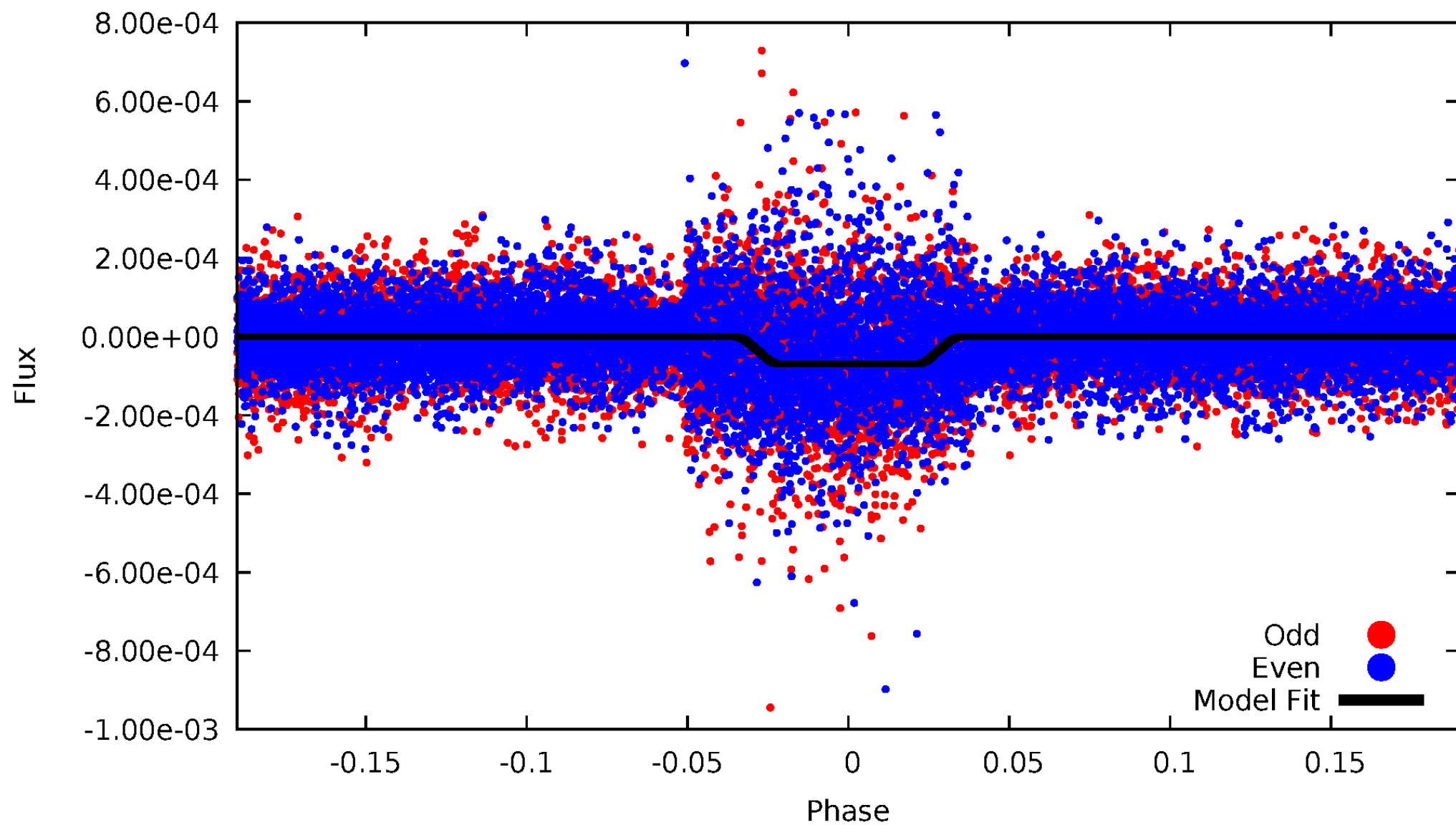
DV Odd/Even

TCE 006715809-02



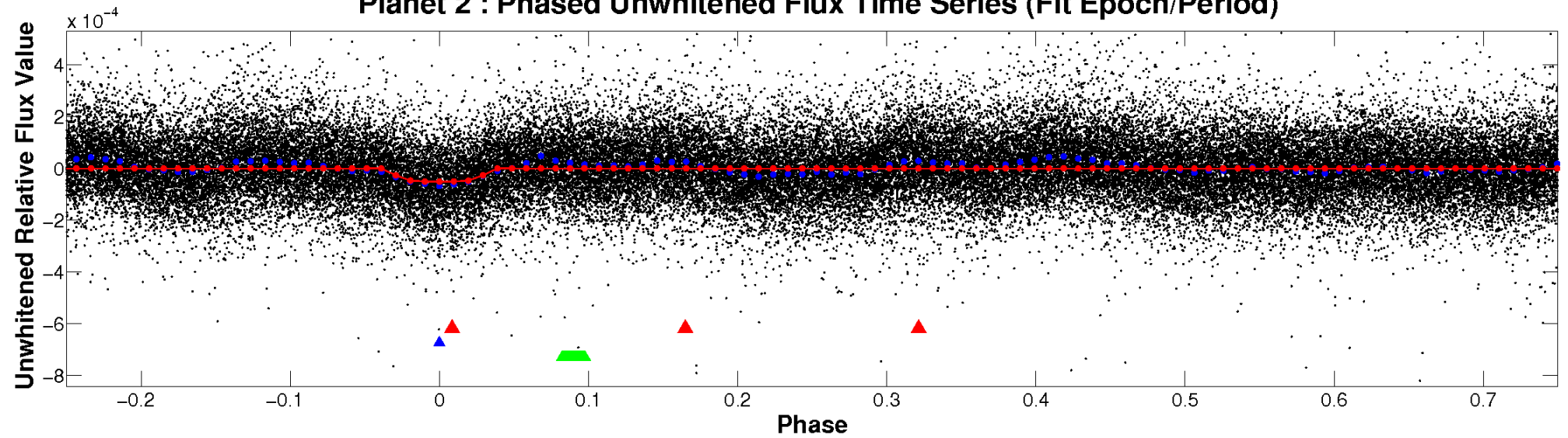
ALT Odd/Even

TCE 006715809-02

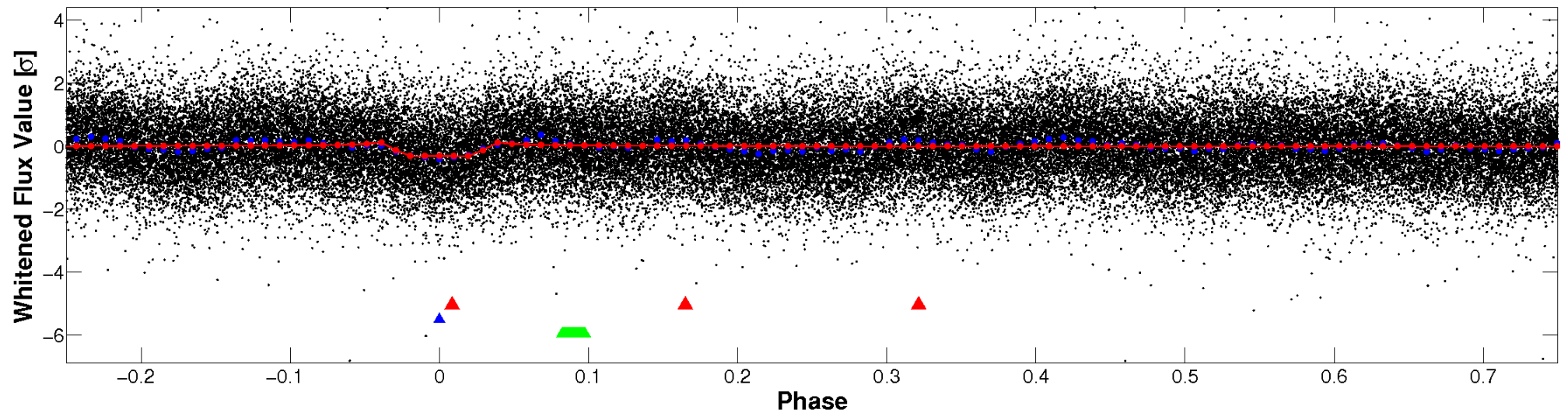


Non-Whitened Vs. Whitened Light Curve

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

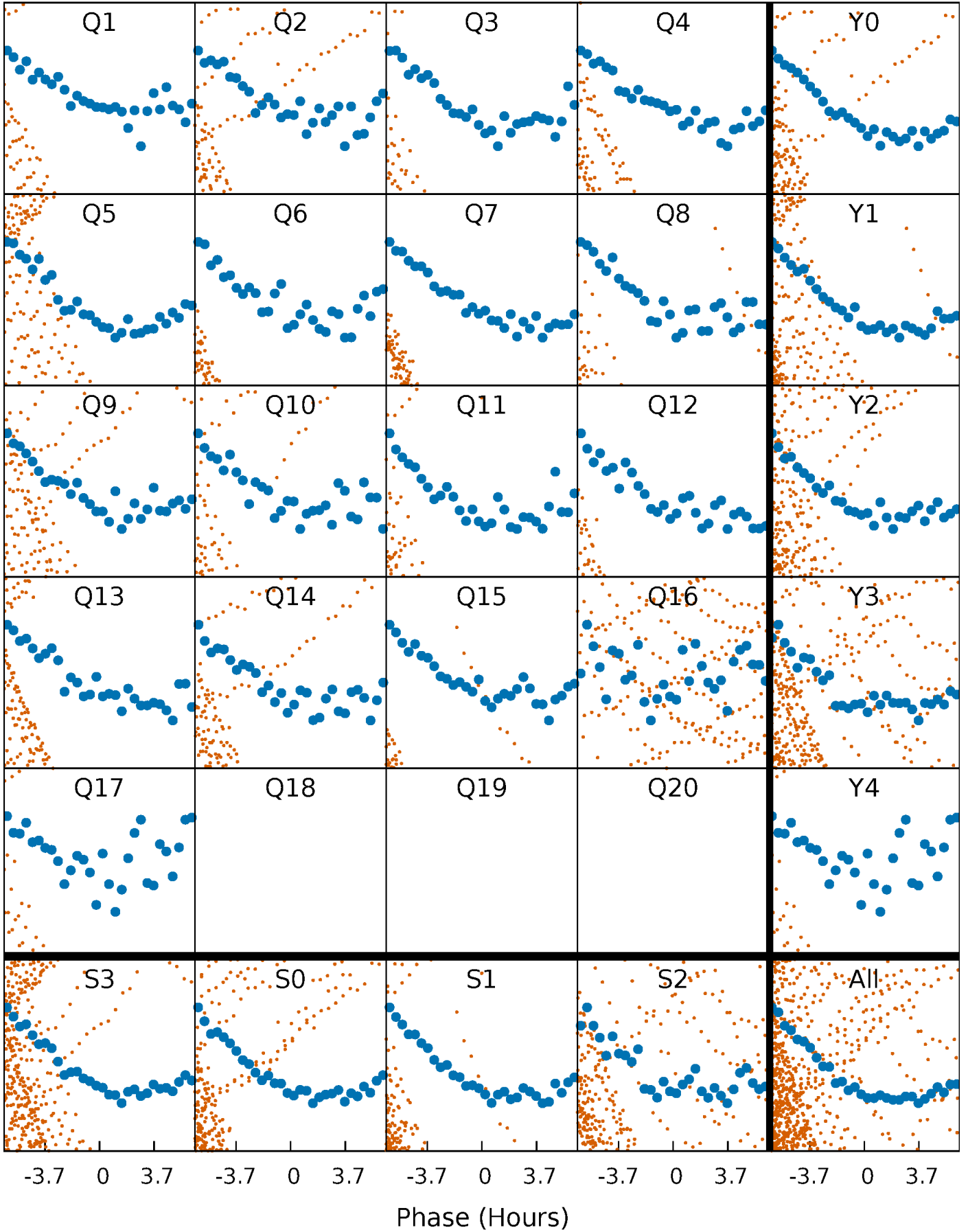


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



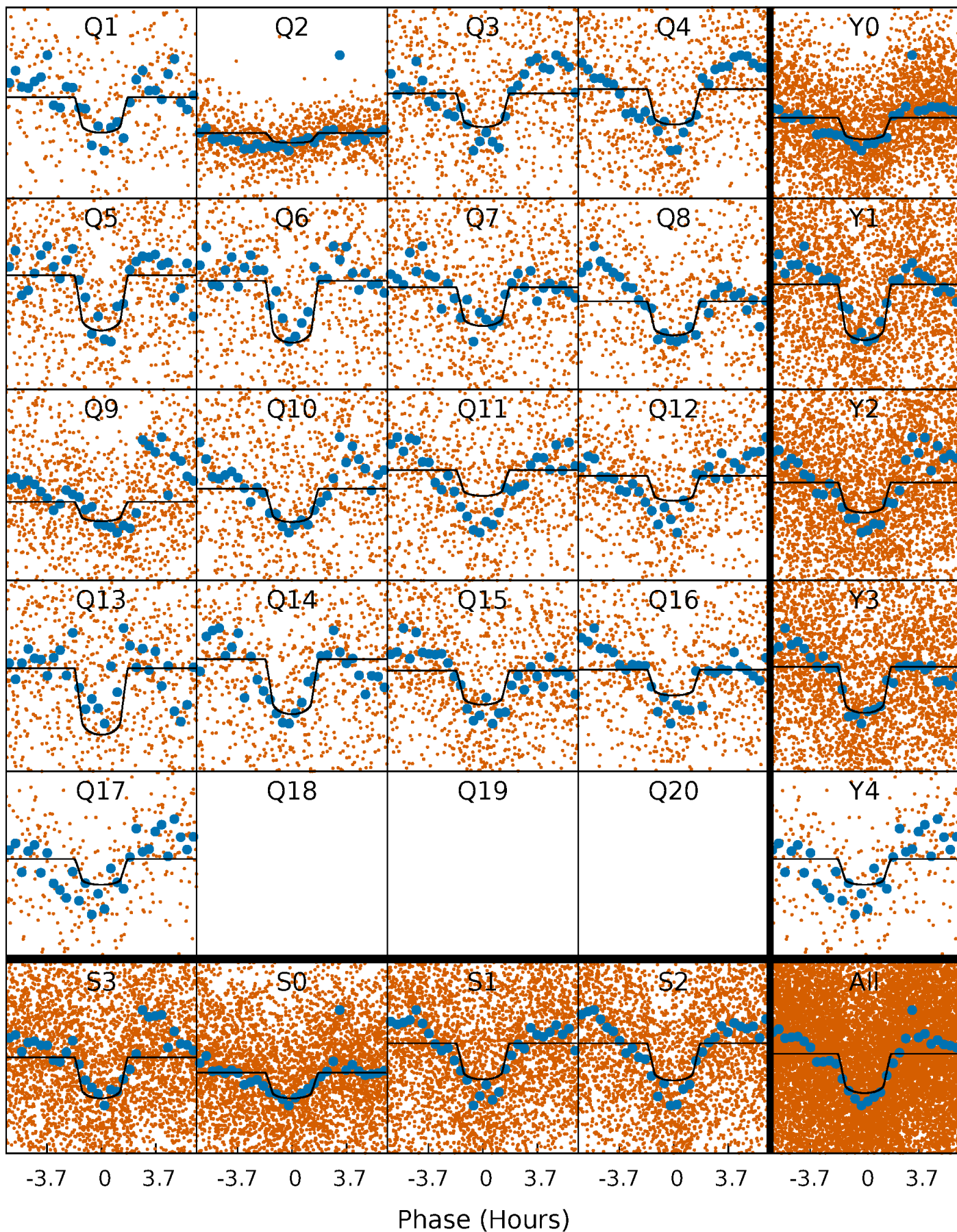
PDC Quarter-Phased Transit Curves

TCE 006715809-02 P= 2.098994 Days $T_0=131.849034$ (BKJD)



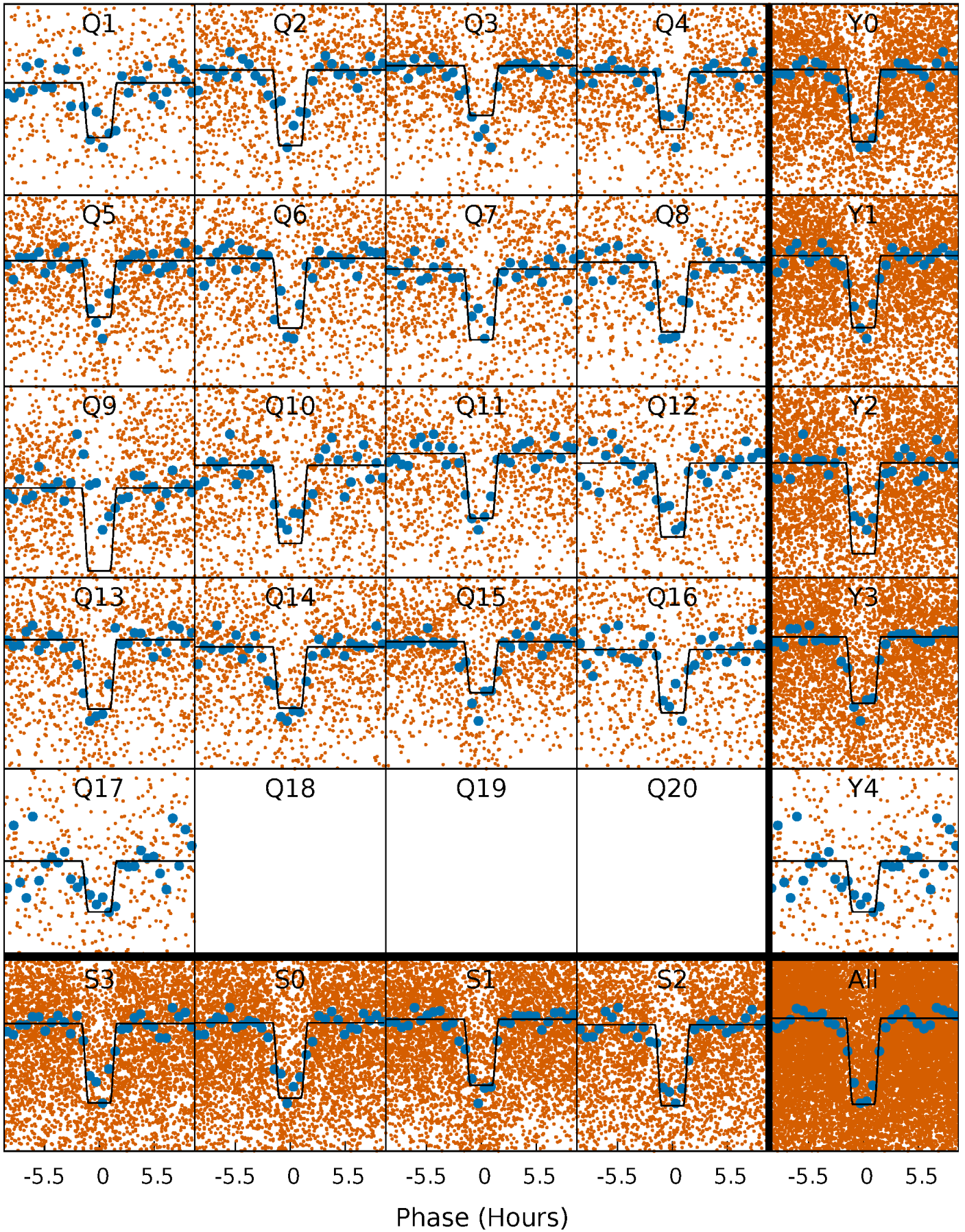
DV Quarter-Phased Transit Curves

TCE 006715809-02 P= 2.098994 Days $T_0=131.849034$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

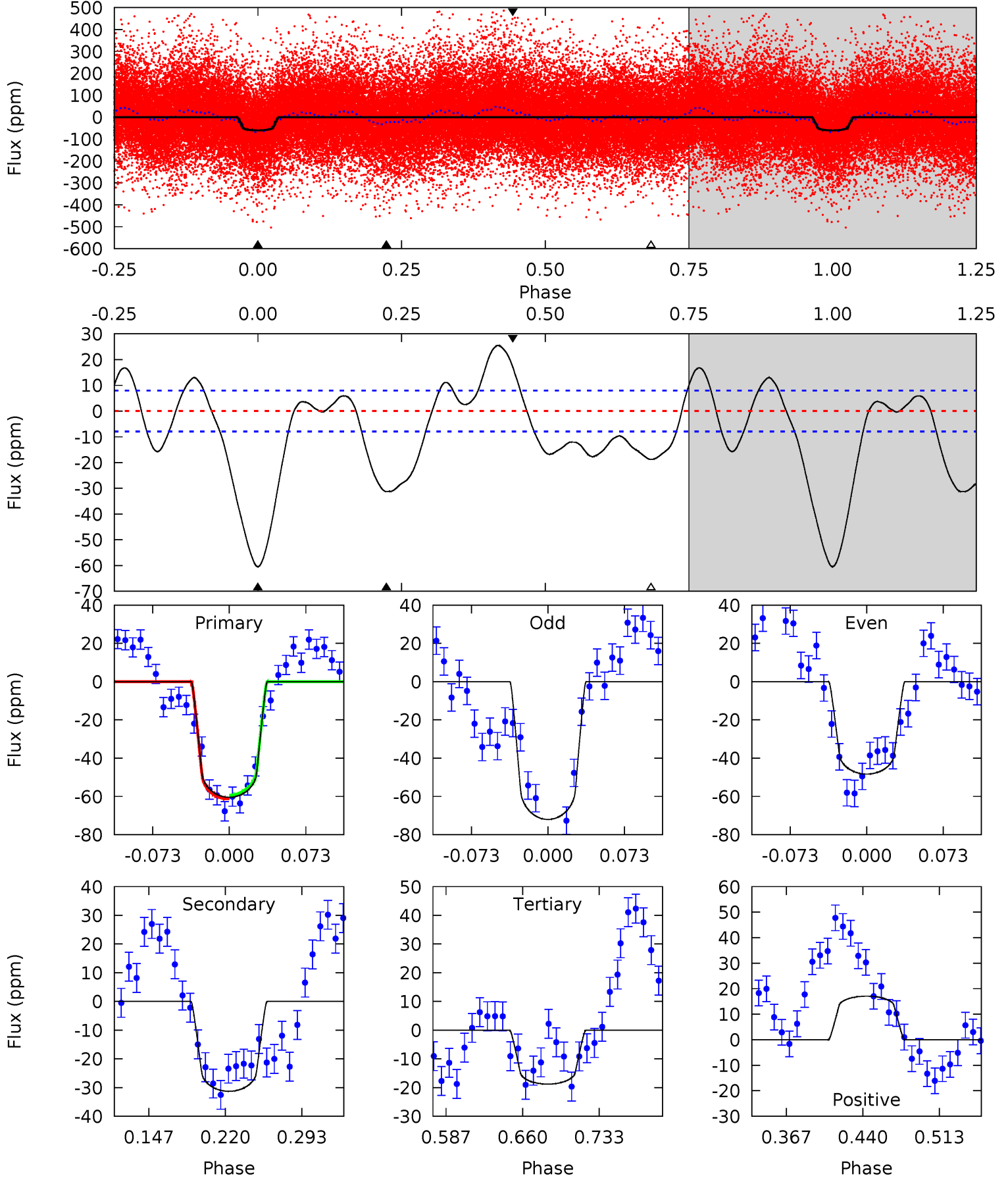
TCE 006715809-02 P= 2.098988 Days $T_0=131.852034$ (BKJD)



DV Model-Shift Uniqueness Test

006715809-02, P = 2.098994 Days, E = 129.750040 Days

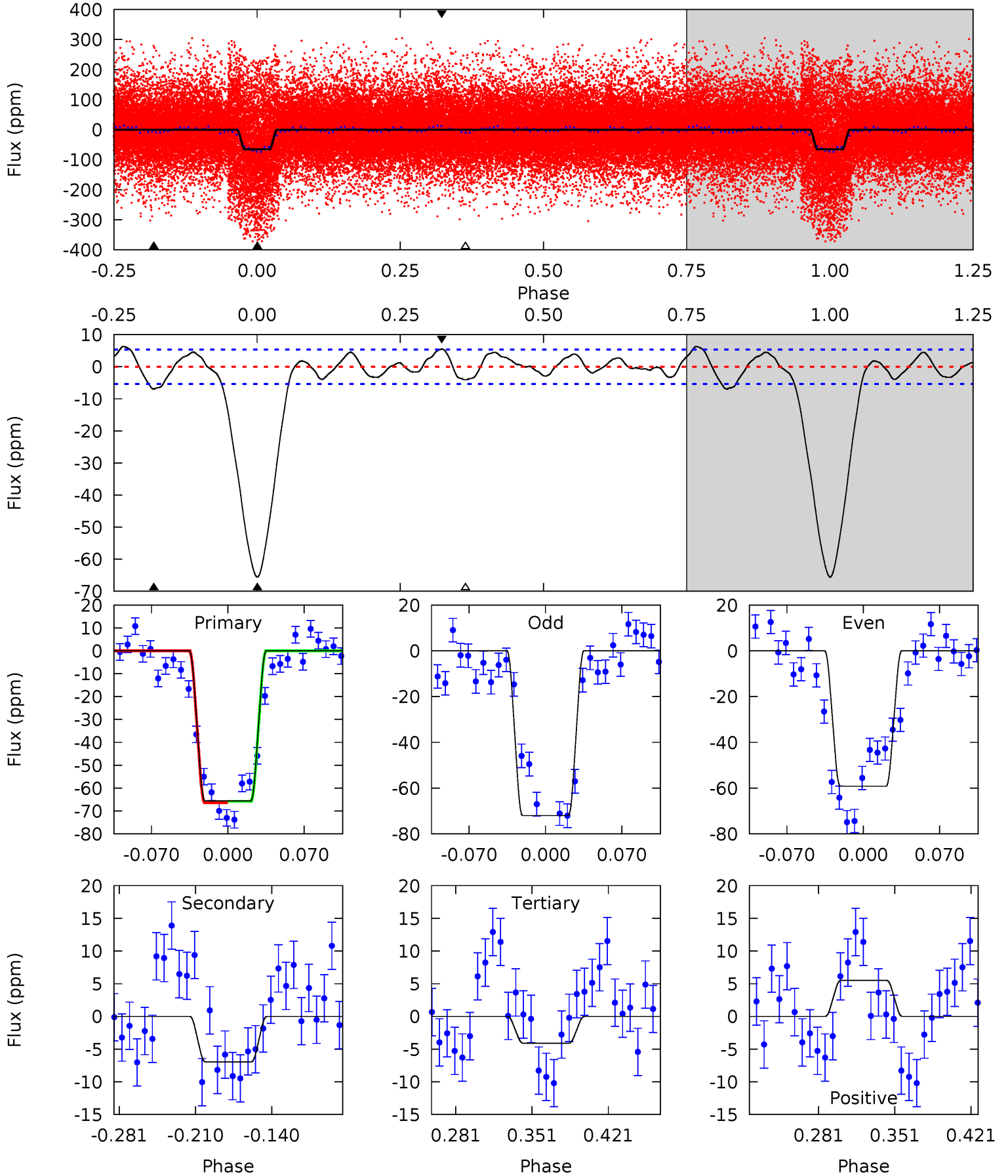
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.2	18.2	10.9	9.94	4.63	1.79	7.15	24.3	25.3	7.28	8.28	6.93	1.09	0.30	0.56



Alt Model-Shift Uniqueness Test

006715809-02, P = 2.098988 Days, E = 129.753046 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.8	6.03	3.54	4.77	4.64	1.81	2.07	53.3	52.1	2.48	1.26	5.55	0.95	0.09	0.25



Stellar Parameters For KIC 006715809

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8287^{+231}_{-346}	$4.001^{+0.204}_{-0.119}$	$0.070^{+0.250}_{-0.550}$	$2.348^{+0.456}_{-0.685}$	$2.017^{+0.307}_{-0.461}$	$0.220^{+0.283}_{-0.078}$
	+3%/-4%	+5%/-3%	+357%/-786%	+19%/-29%	+15%/-23%	+129%/-36%
Source	KIC0	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 006715809-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-31 ± 2	$1.90^{+0.43}_{-0.40}$	3845^{+255}_{-296}	6816^{+742}_{-583}	$7.853^{+4.142}_{-2.593}$
Alt.	-7 ± 1	$2.11^{+0.45}_{-0.43}$	3857^{+242}_{-306}	4436^{+396}_{-378}	$1.422^{+0.759}_{-0.484}$

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 $A_{obs} \gg 1.0$

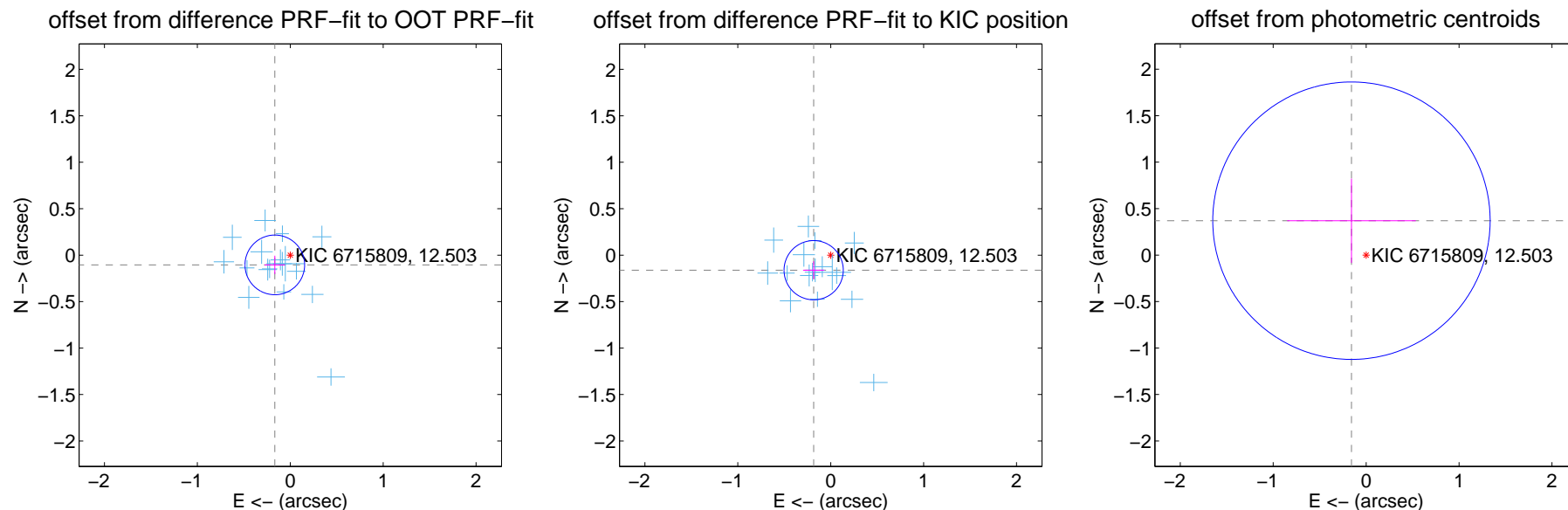
DV Centroid Data

Supplemental centroid analysis for 006715809-02. Kepler magnitude: 12.50. Transit SNR 19.50

There are 17 quarters with good PRF difference image offsets

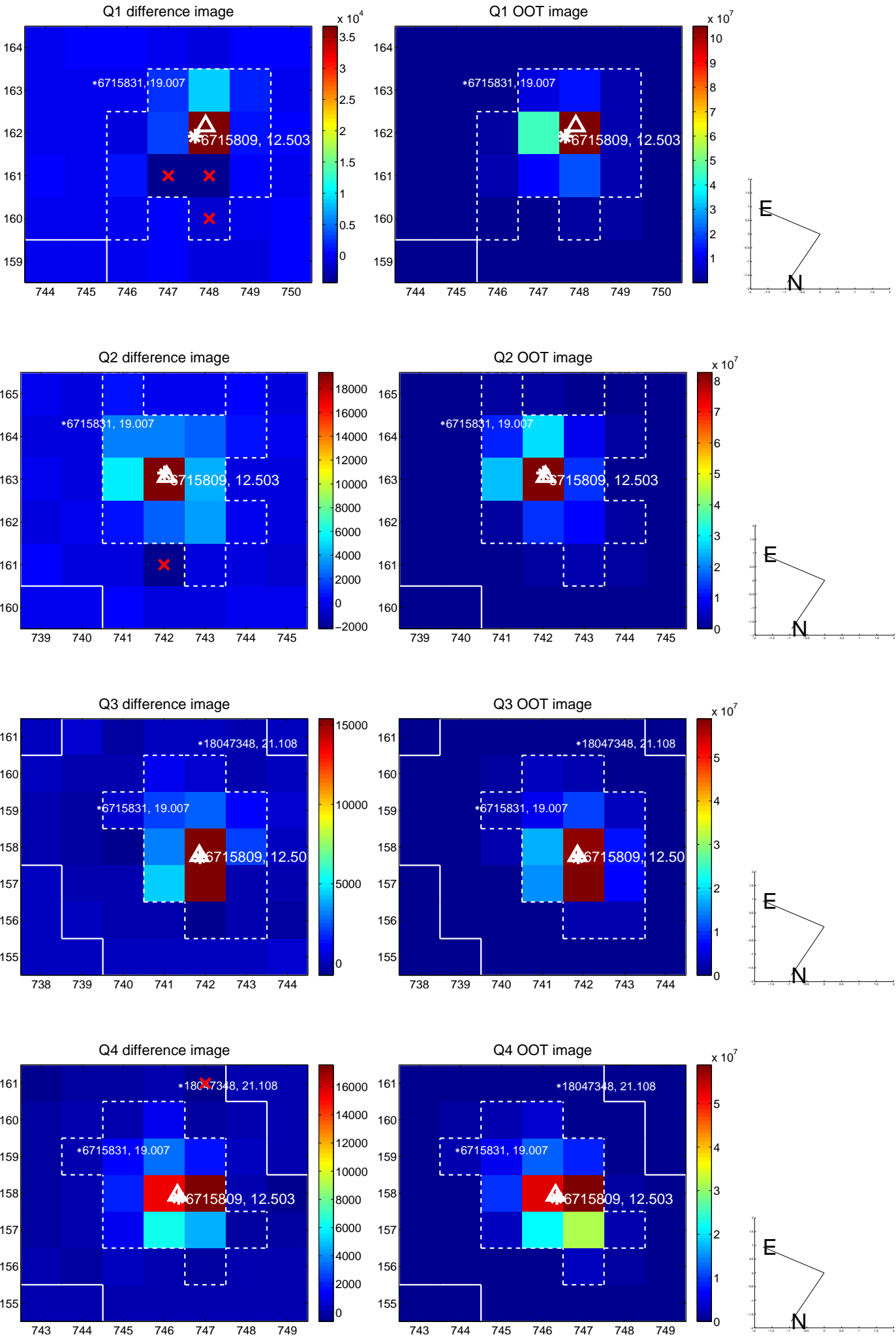
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.197 ± 0.107	1.84	0.166 ± 0.110	-0.105 ± 0.098
PRF-fit source offset from KIC position	0.245 ± 0.106	2.30	0.184 ± 0.114	-0.162 ± 0.096
photometric centroid source offset	0.40 ± 0.50	0.81	0.16 ± 0.69	0.37 ± 0.45

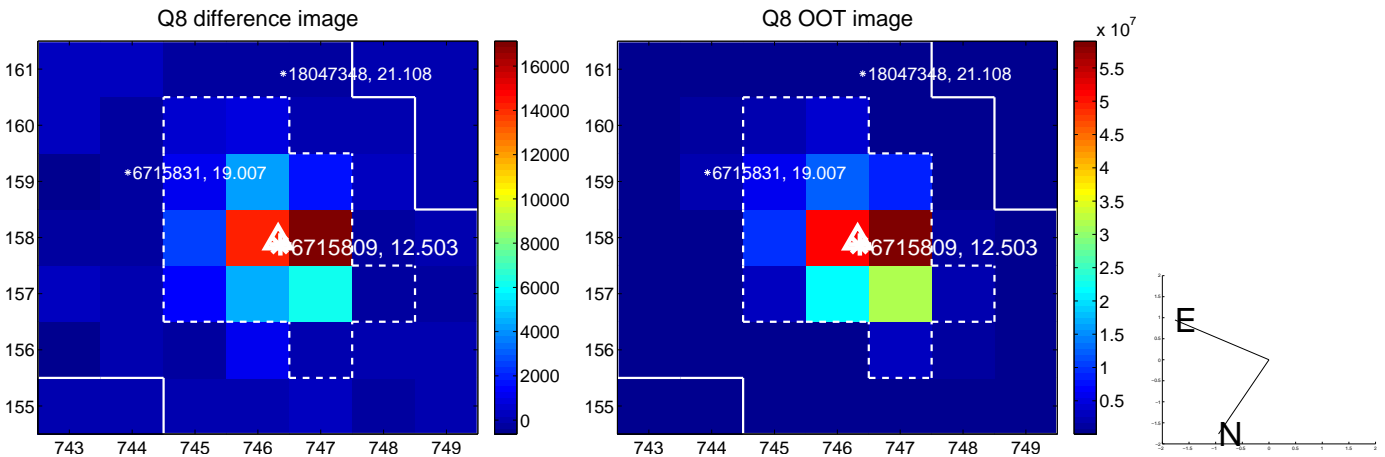
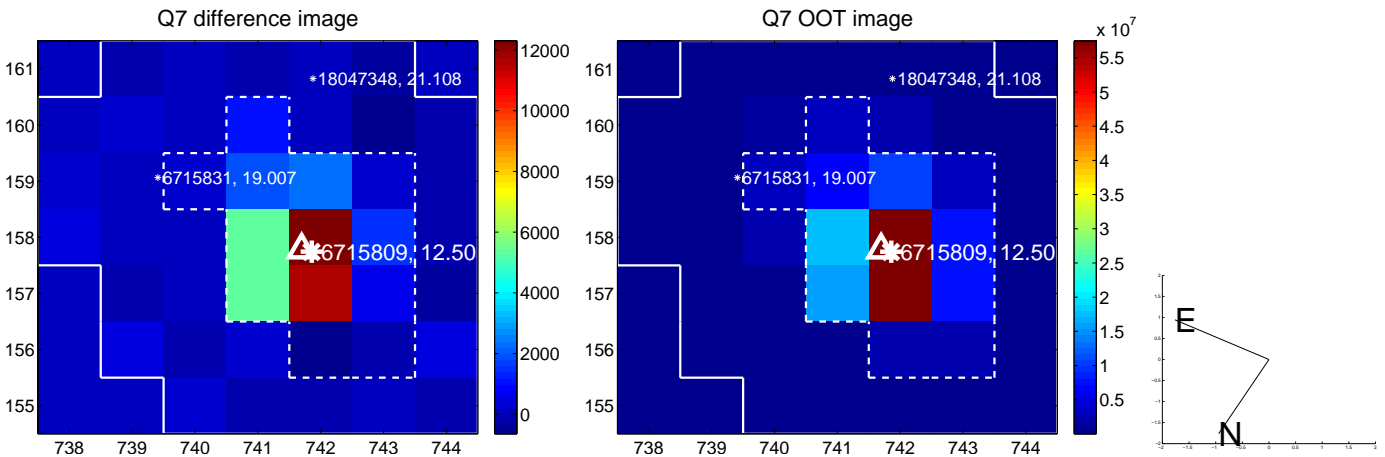
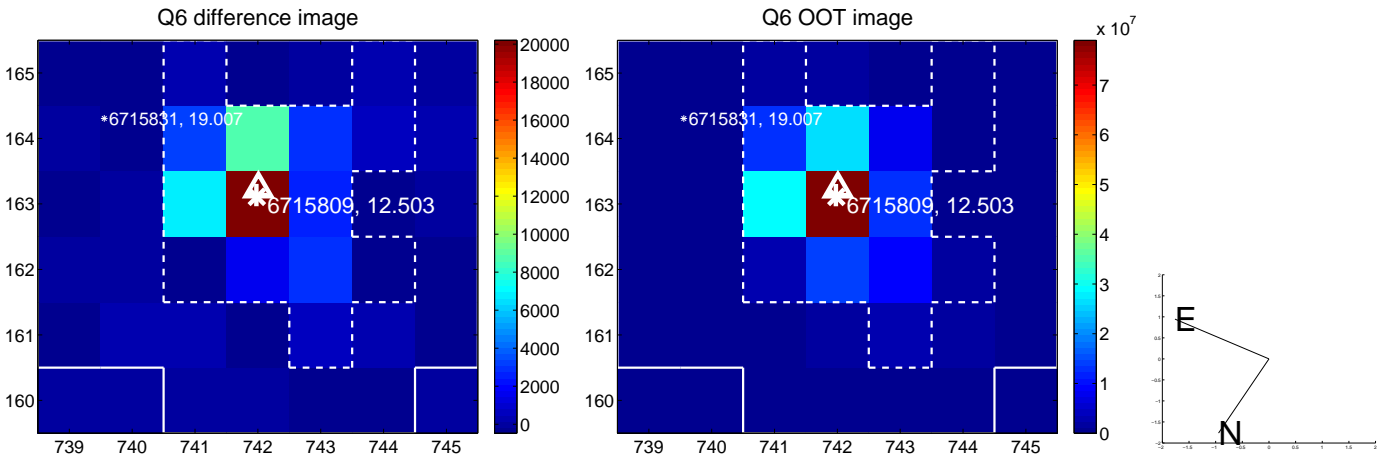
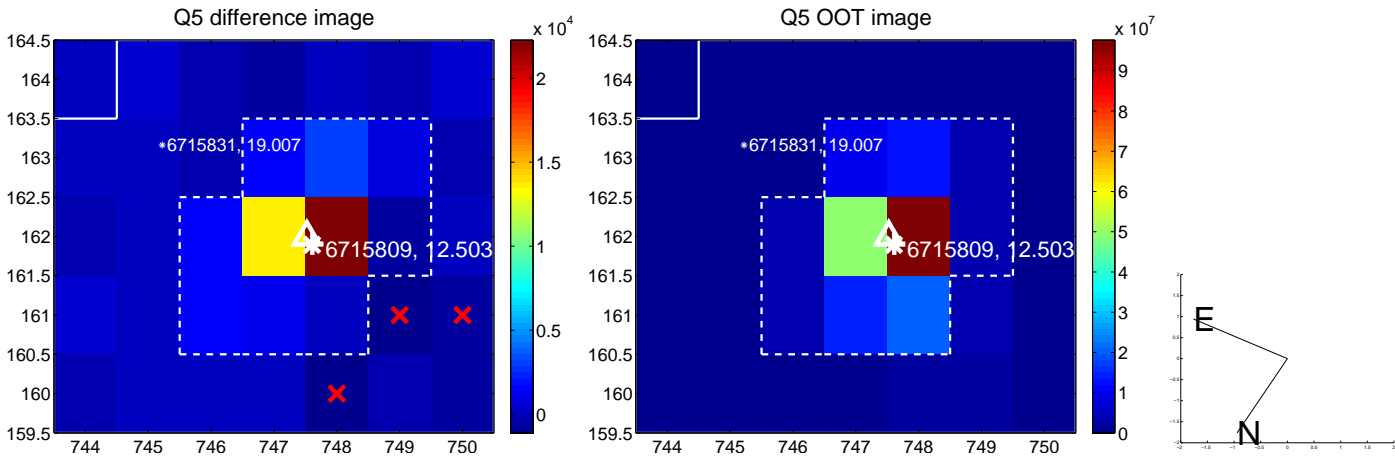


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

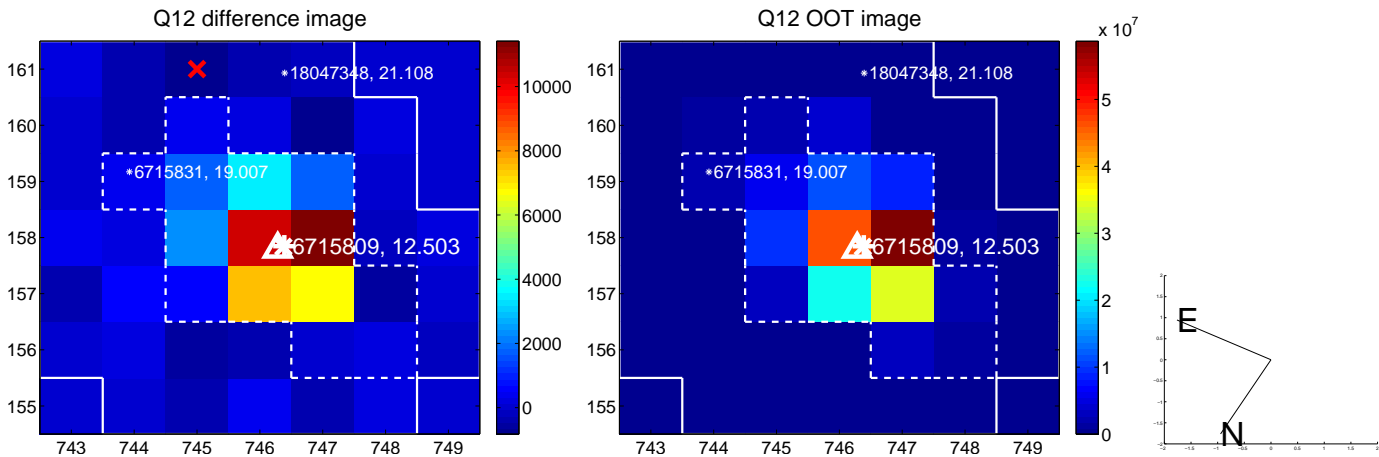
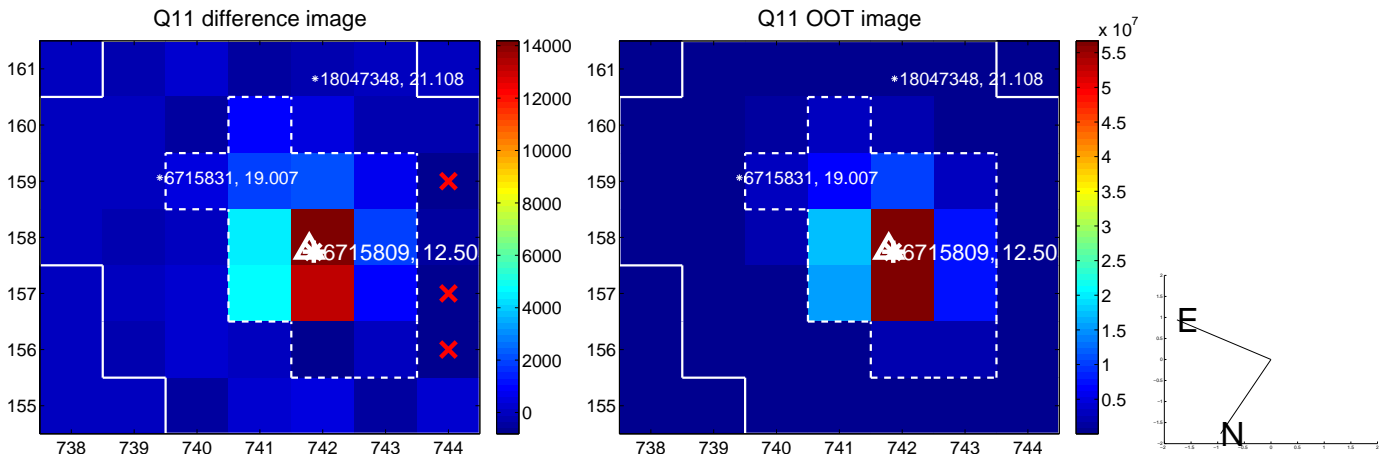
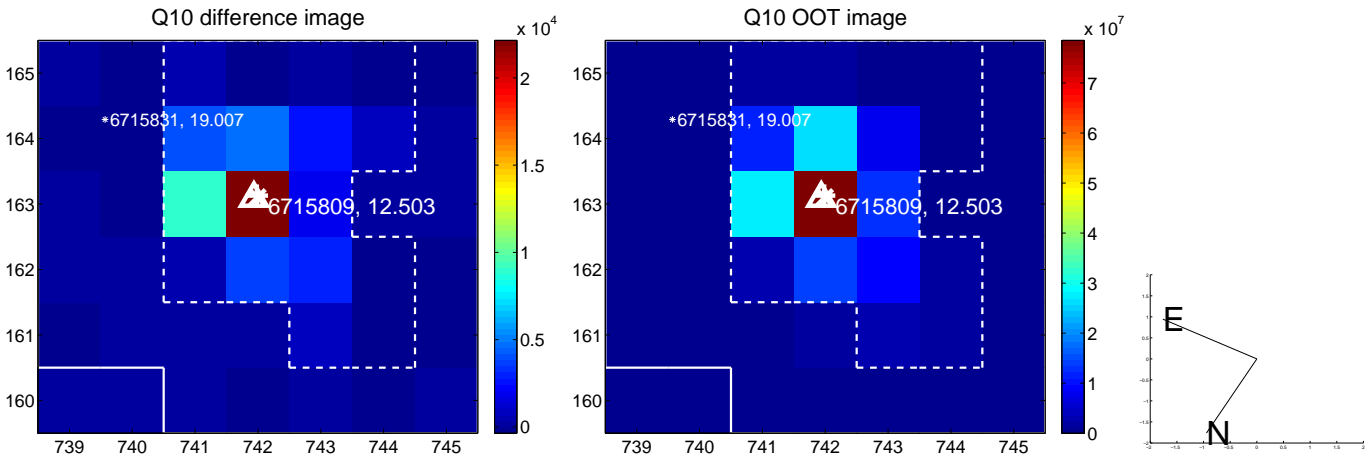
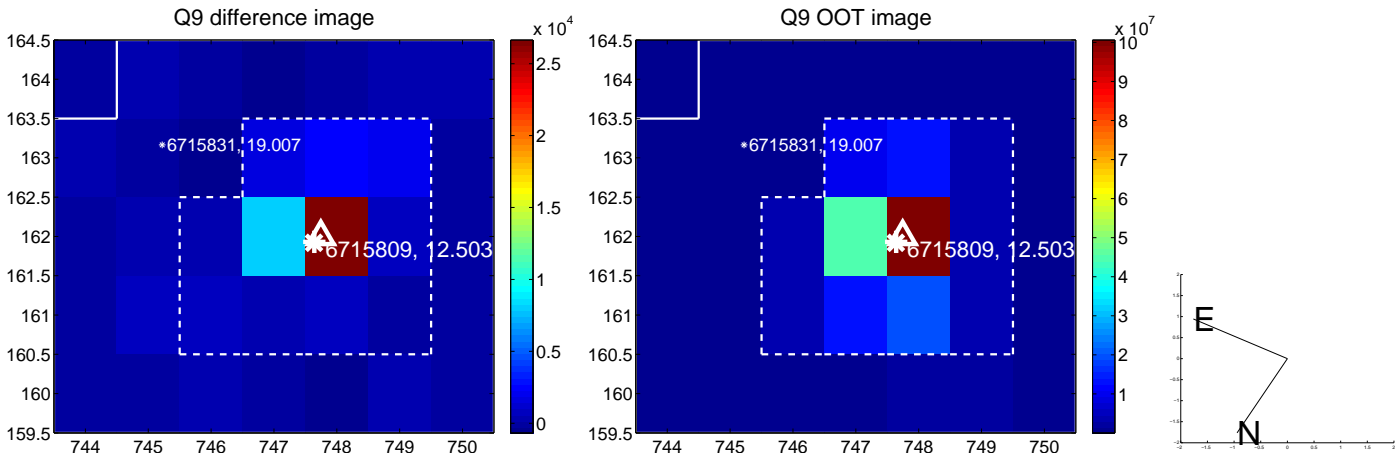
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



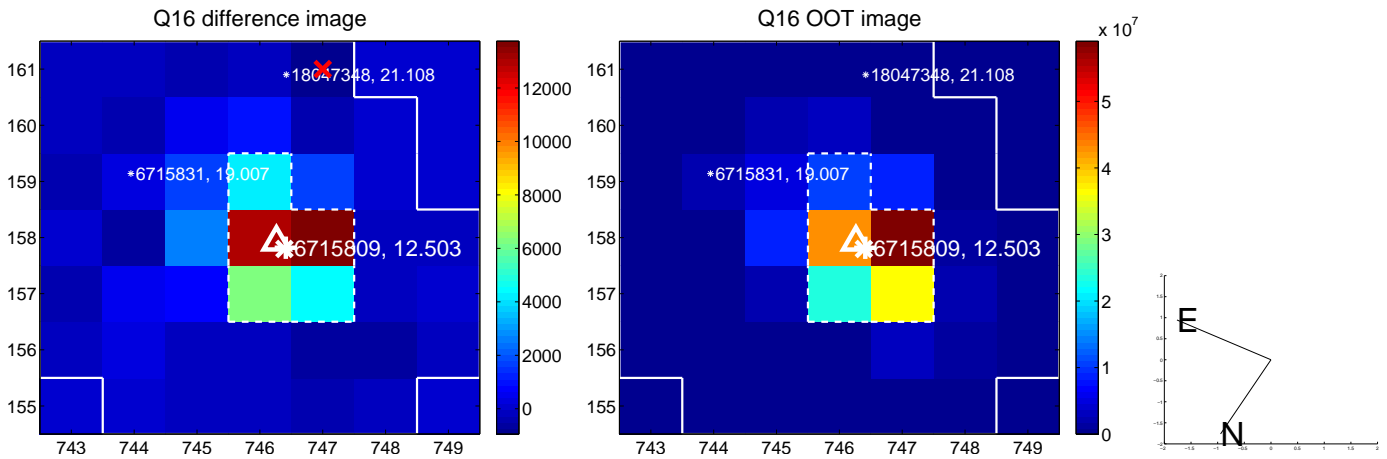
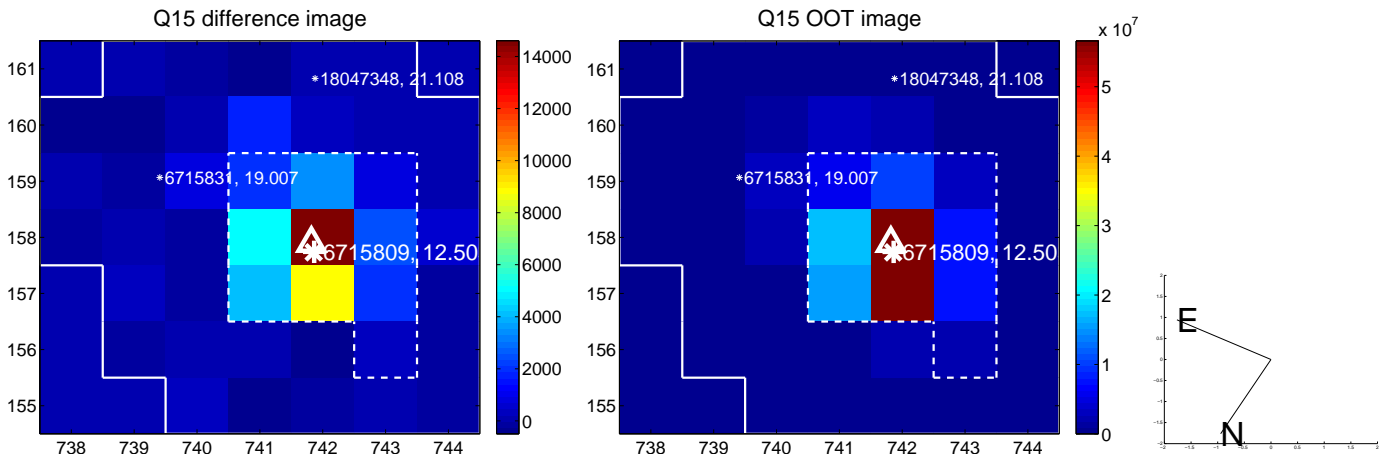
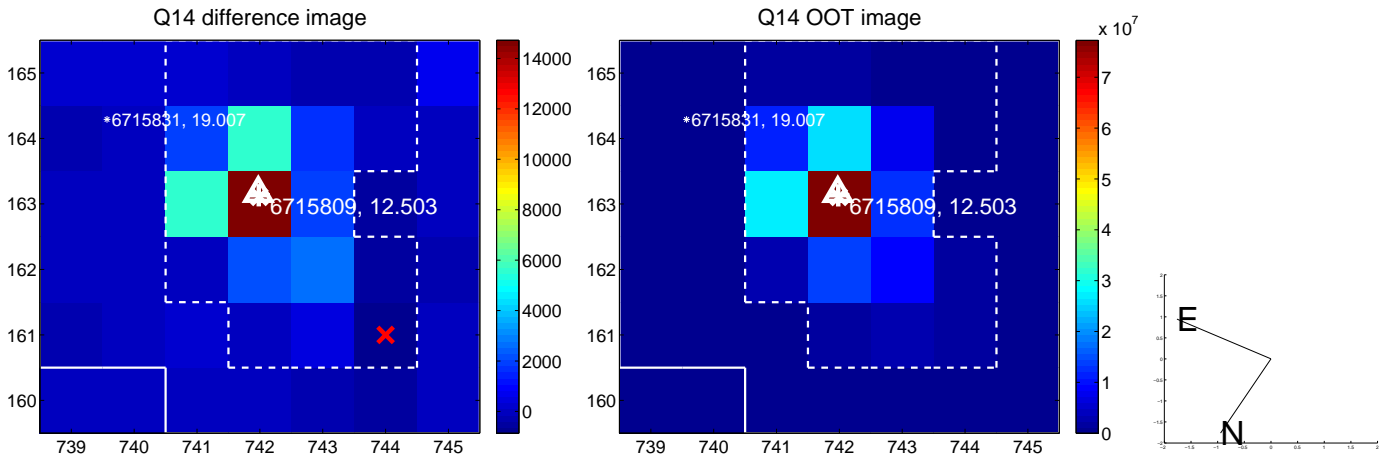
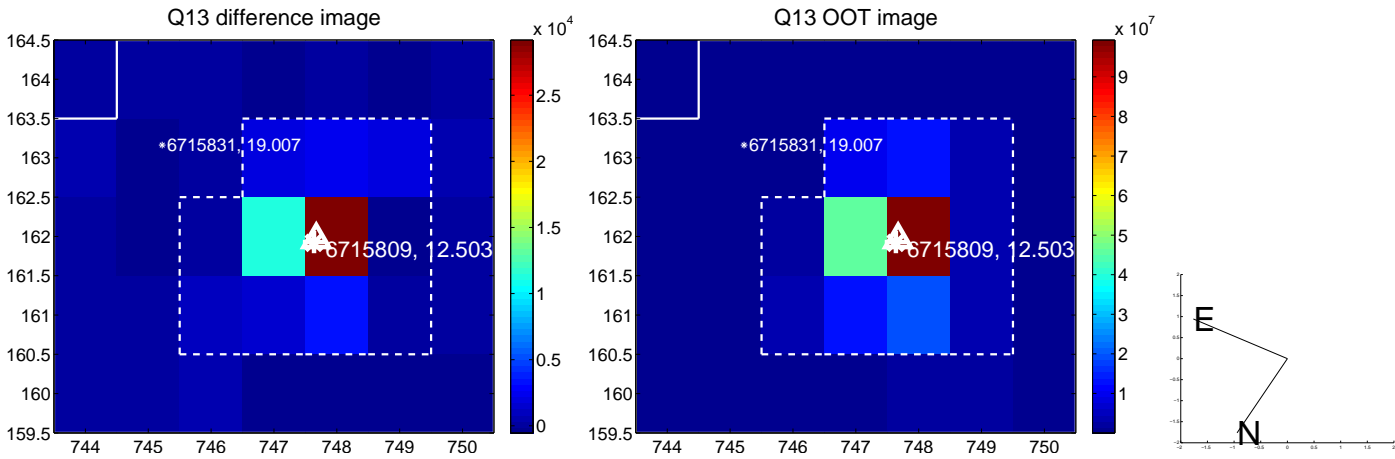
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



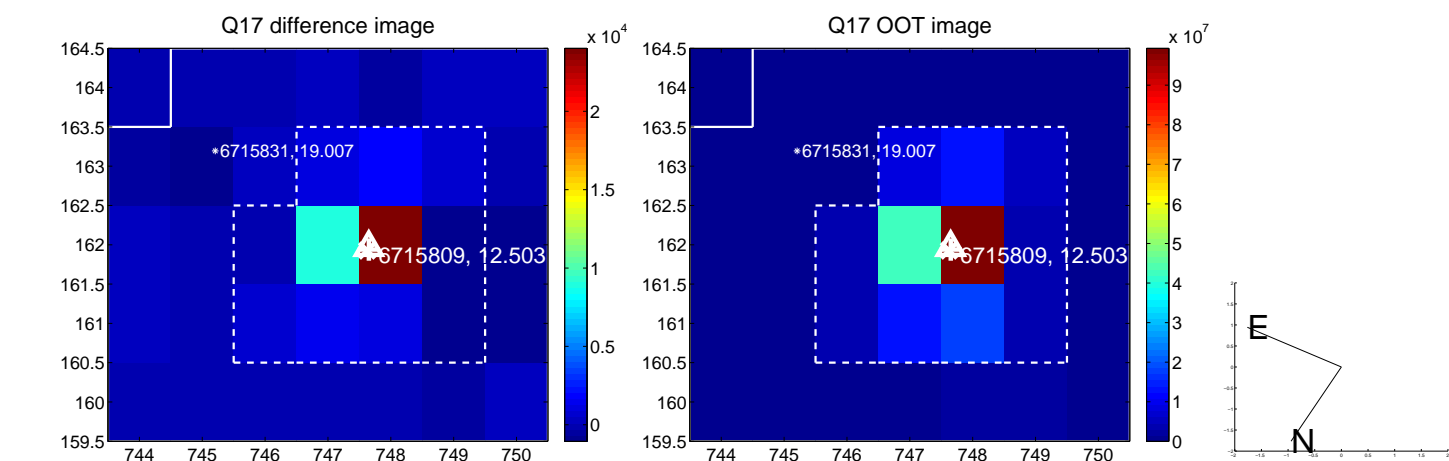
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



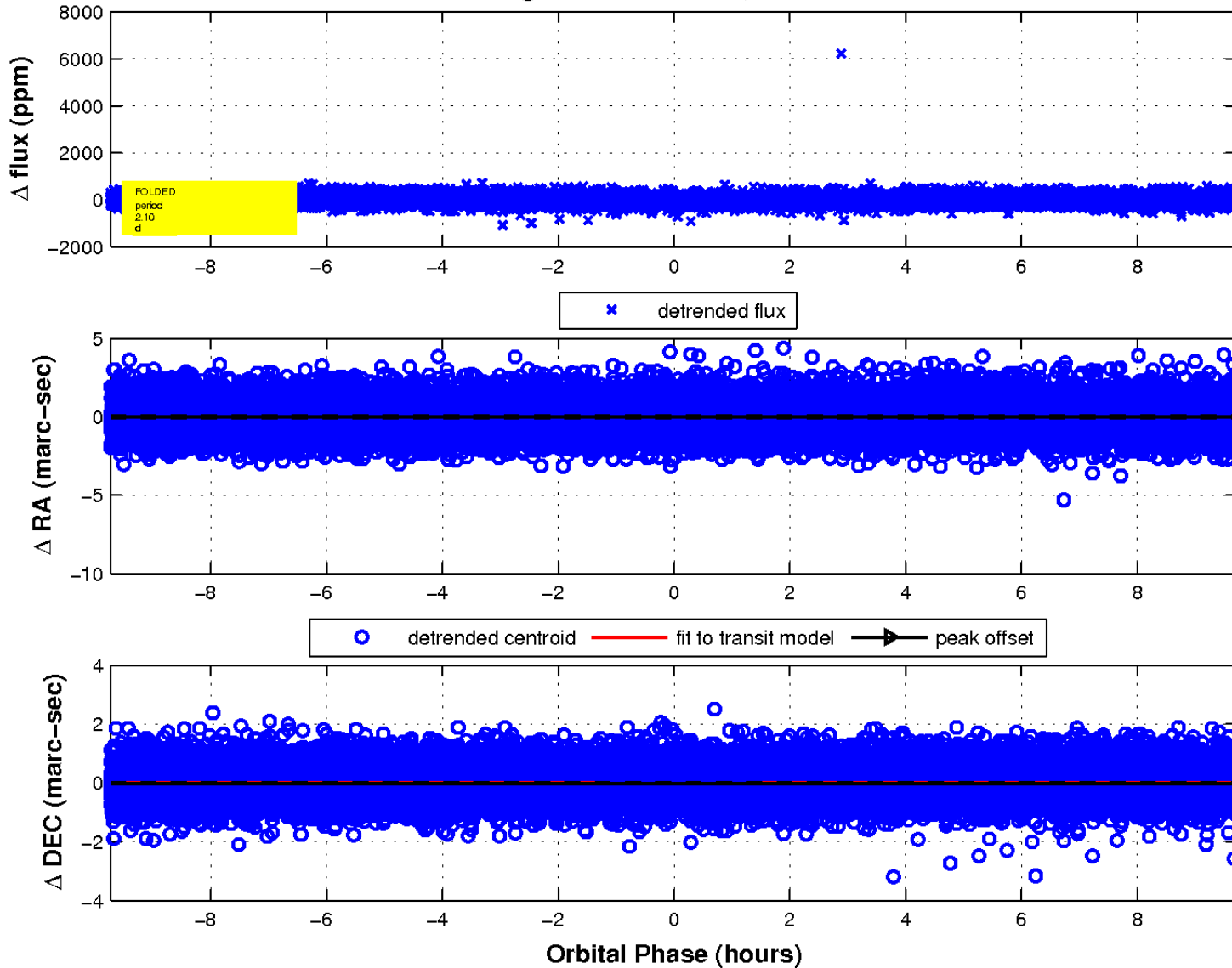
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

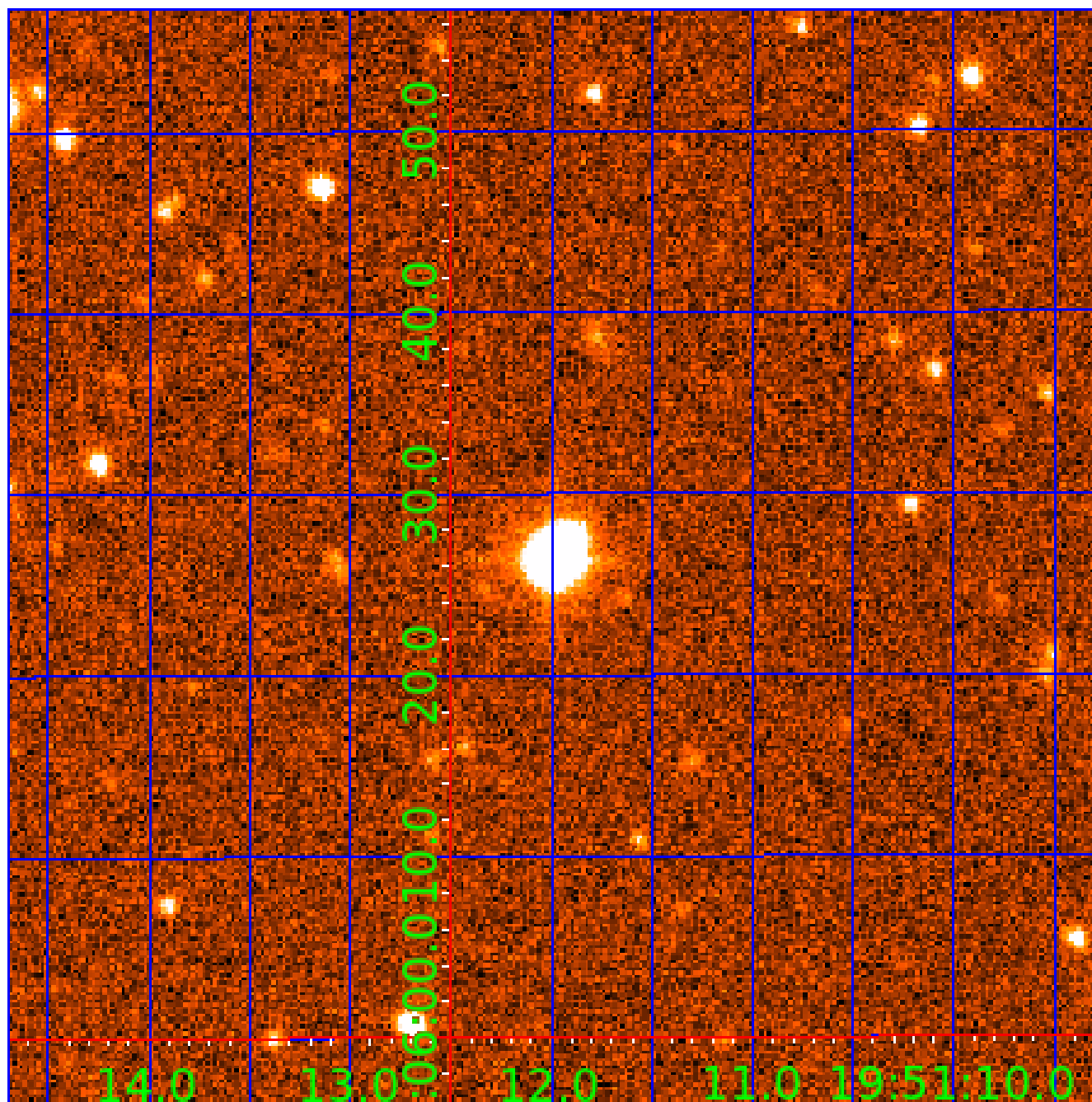


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 006715809

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})
006715809-01	OBS	No	476.143282	380.204877	348.0	7.344	21.0	6.2	2.35	8287	4.43	10.25
006715809-02	OBS	No	2.098994	131.849034	51.4	3.243	17.2	19.5	2.35	8287	1.97	14177.54
006715809-03	OBS	No	4.197895	134.152993	42.2	20.801	17.3	11.3	2.35	8287	1.67	5626.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006715809-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006715809-02	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—HALO_GHOST
006715809-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD

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

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

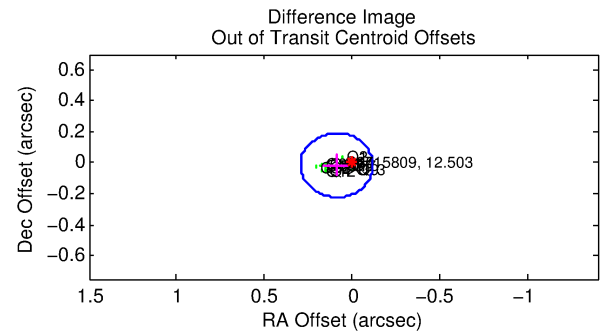
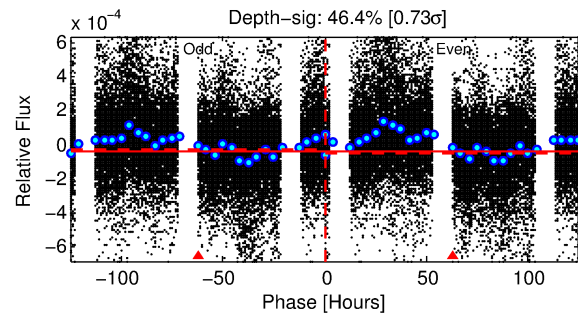
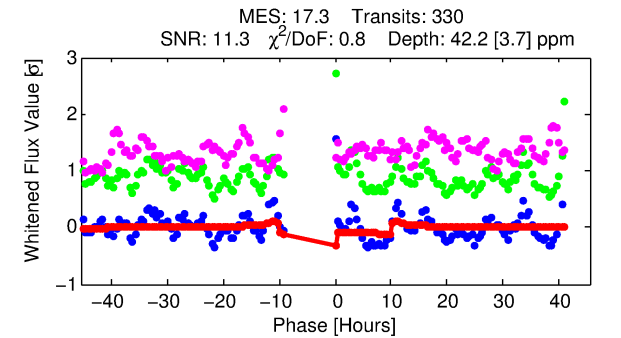
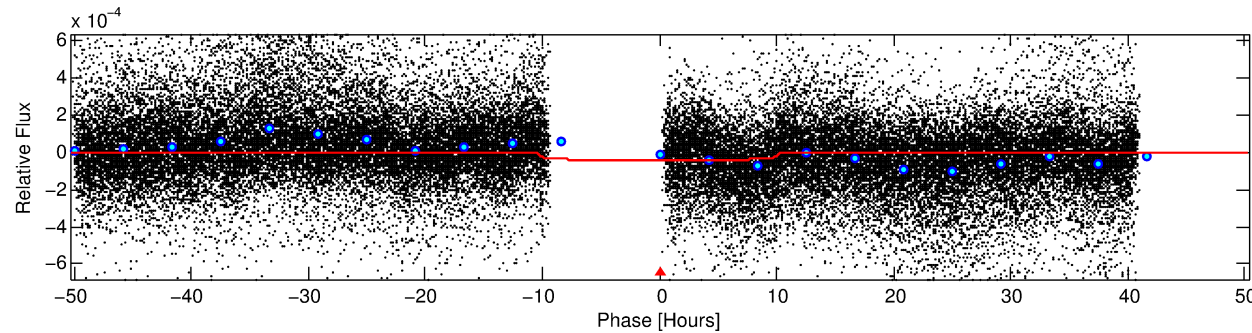
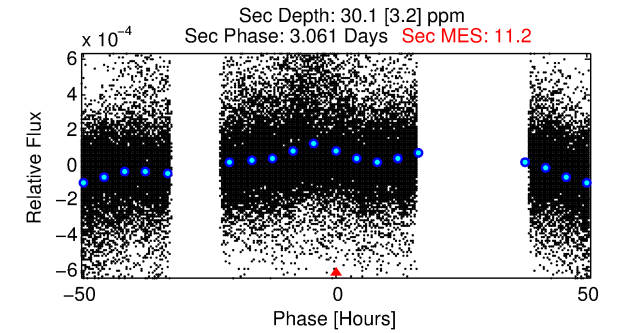
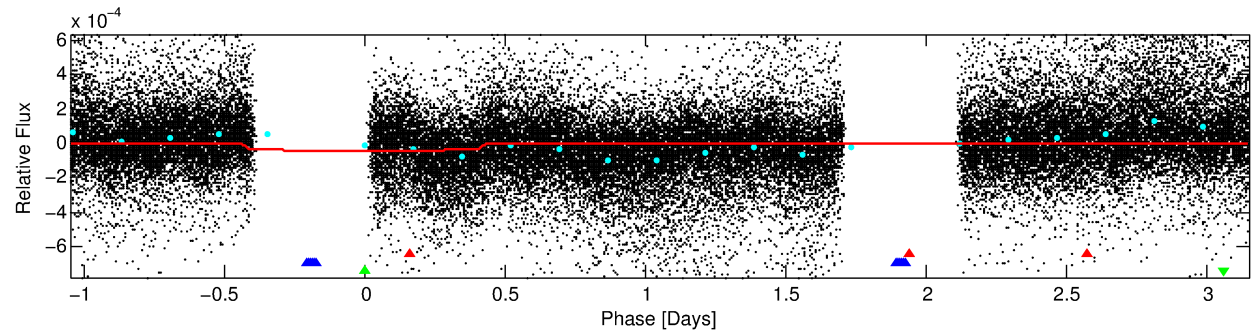
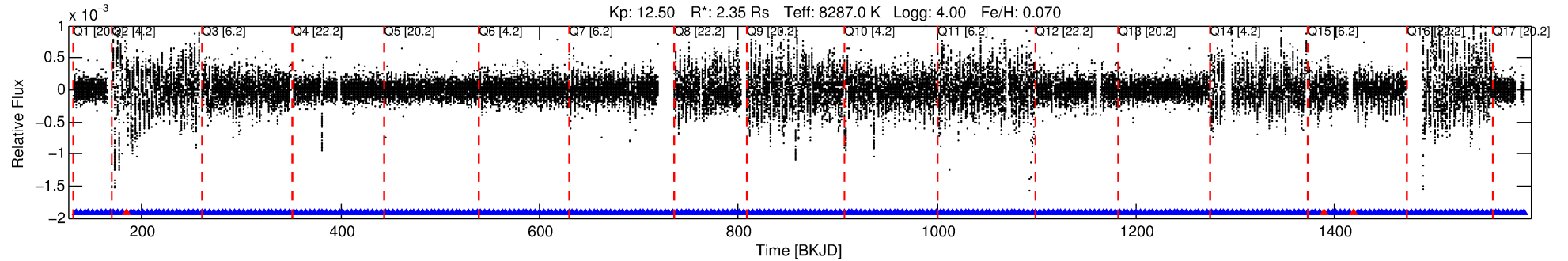
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006715809-03

No Significant Match Found

DV One-Page Summary

KIC: 6715809 Candidate: 3 of 3 Period: 4.198 d



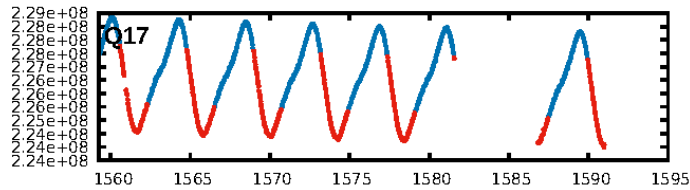
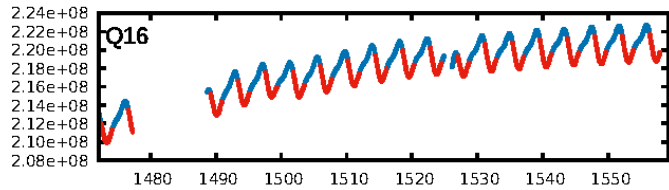
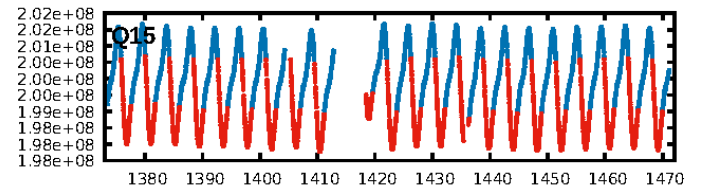
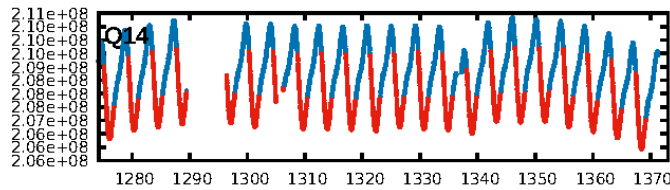
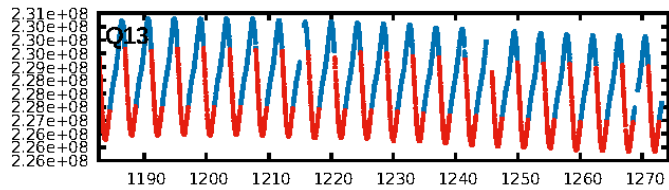
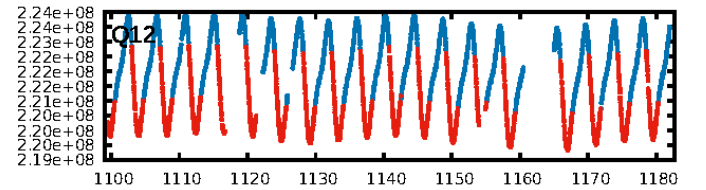
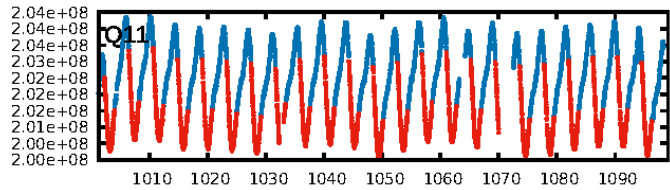
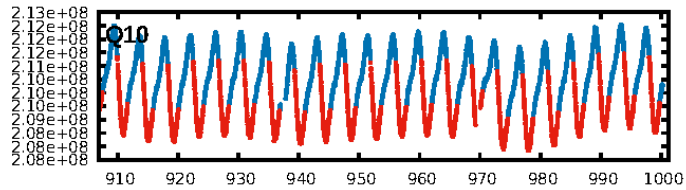
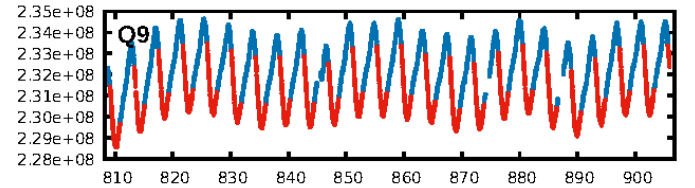
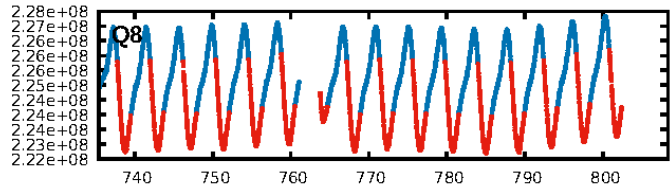
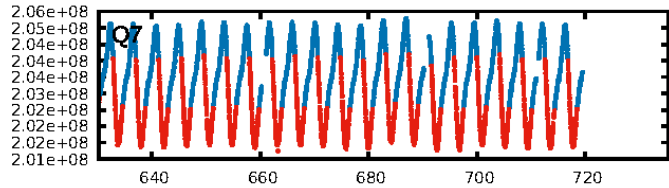
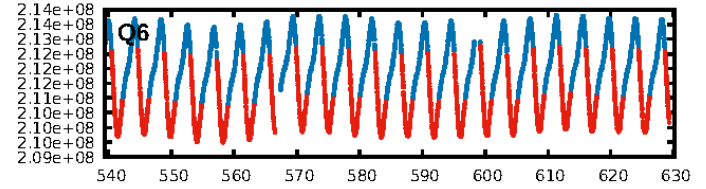
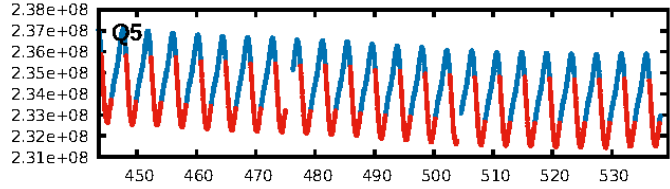
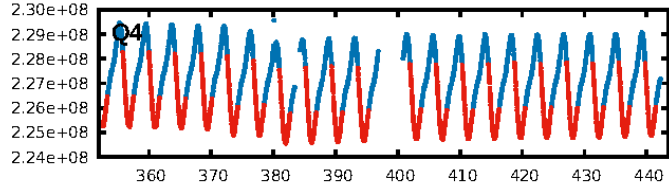
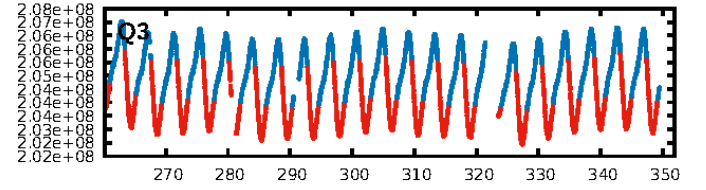
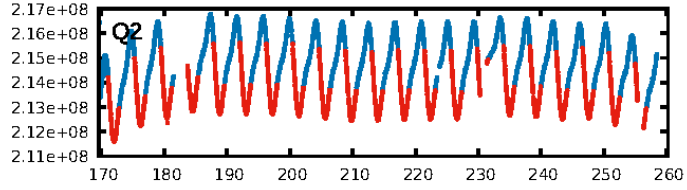
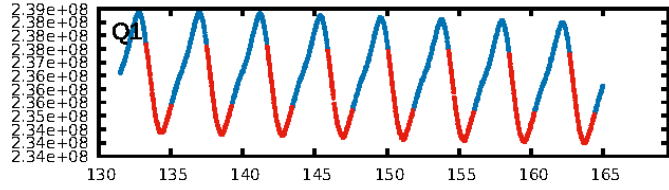
DV Fit Results:

Period = 4.19789 [0.00003] d
Epoch = 134.1530 [0.0048] BKJD
Rp/R* = 0.0065 [0.0006]
a/R* = 1.31 [0.24]
b = 0.78 [0.22]
Seff = 5626.53 [2277.06]
Teq = 2208 [223] K
Rp = 1.67 [0.51] Re
a = 0.0643 [0.0161] AU
Ag = 24.51 [10.35] [2.27 σ]
Teffp = 7598 [503] K [9.79 σ]

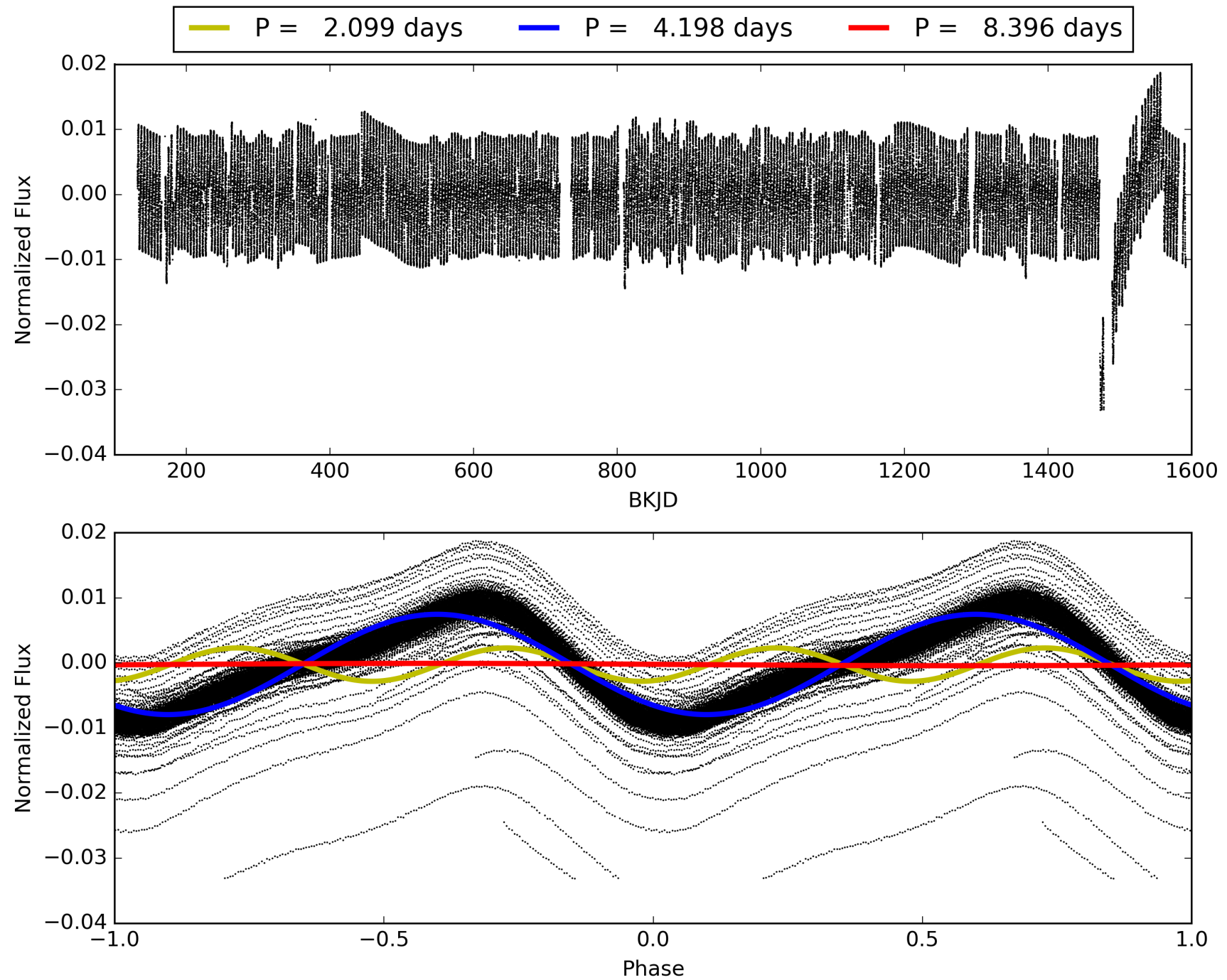
DV Diagnostic Results:

ShortPeriod-sig: 98.3% [2.39 σ]
LongPeriod-sig: 100.0% [513.47 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.22e-64
RollingBand-fgt: 0.99 [312/315]
GhostDiagnostic-chr: -5.565
Centroid-sig: 80.3%
Centroid-so: 0.236 arcsec [0.38 σ]
OotOffset-rm: 0.090 arcsec [1.31 σ]
KicOffset-rm: 0.162 arcsec [2.38 σ]
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]

TCE 006715809-03, PDC Light Curves

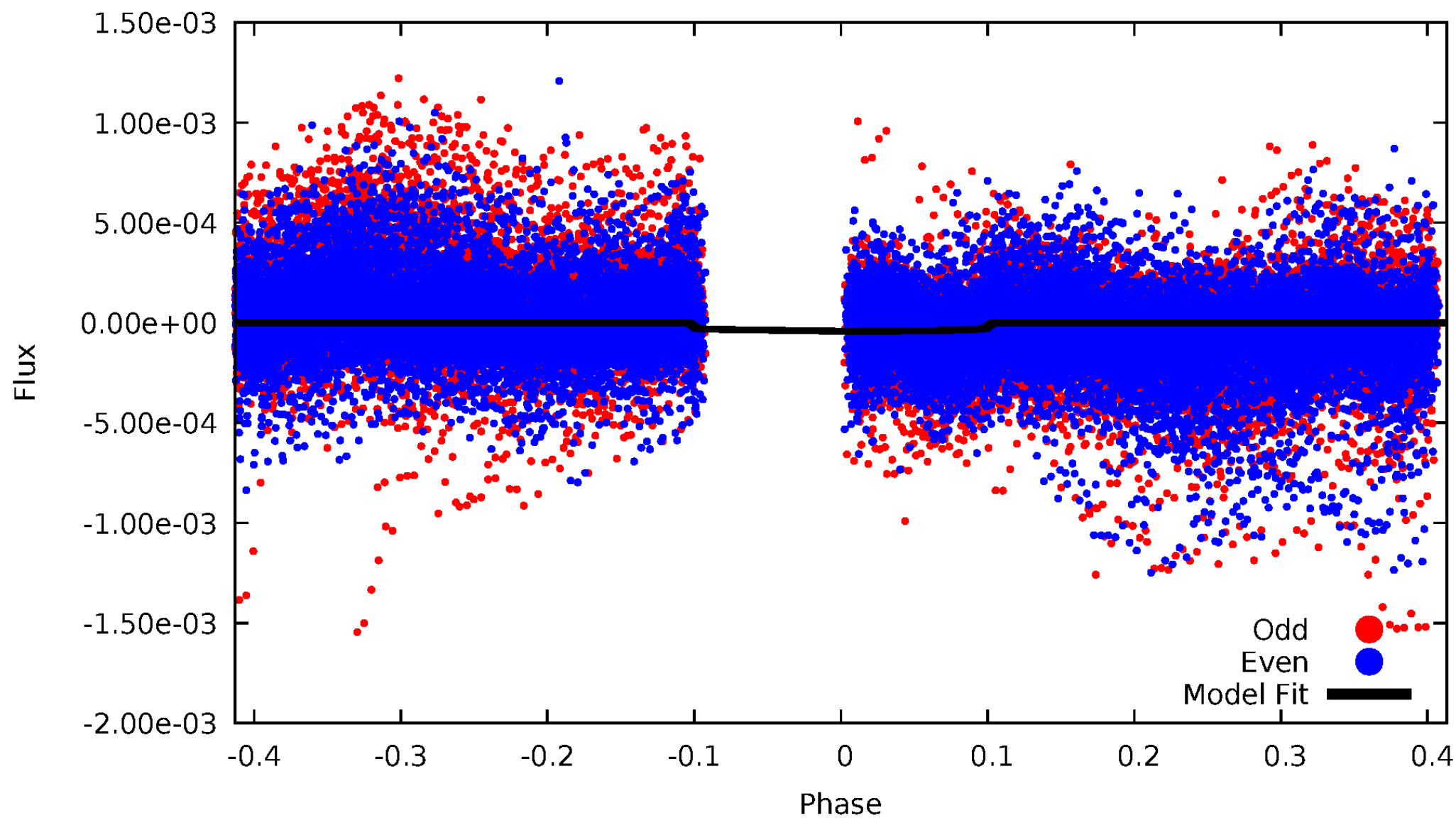


TCE 006715809-03



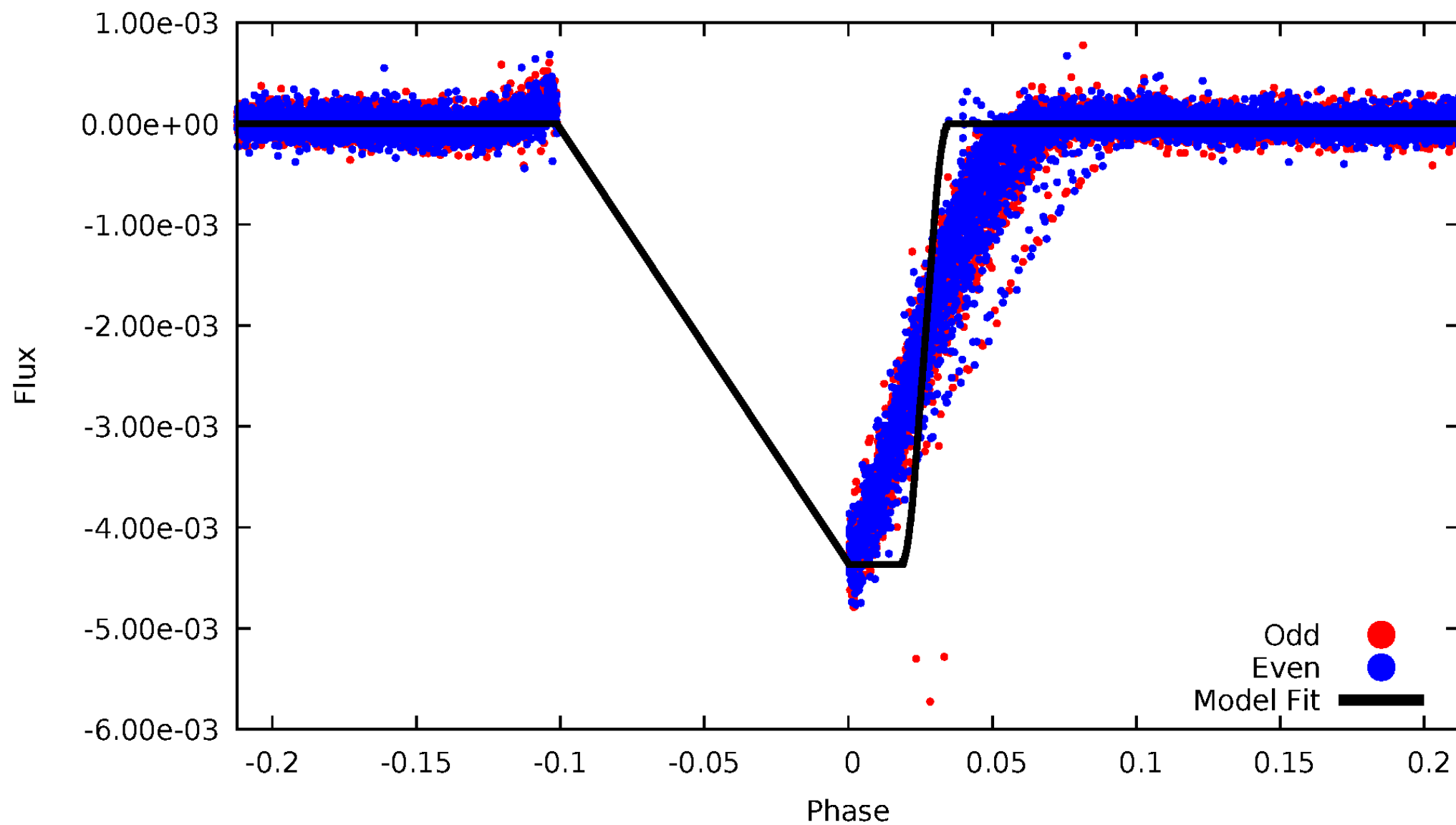
DV Odd/Even

TCE 006715809-03



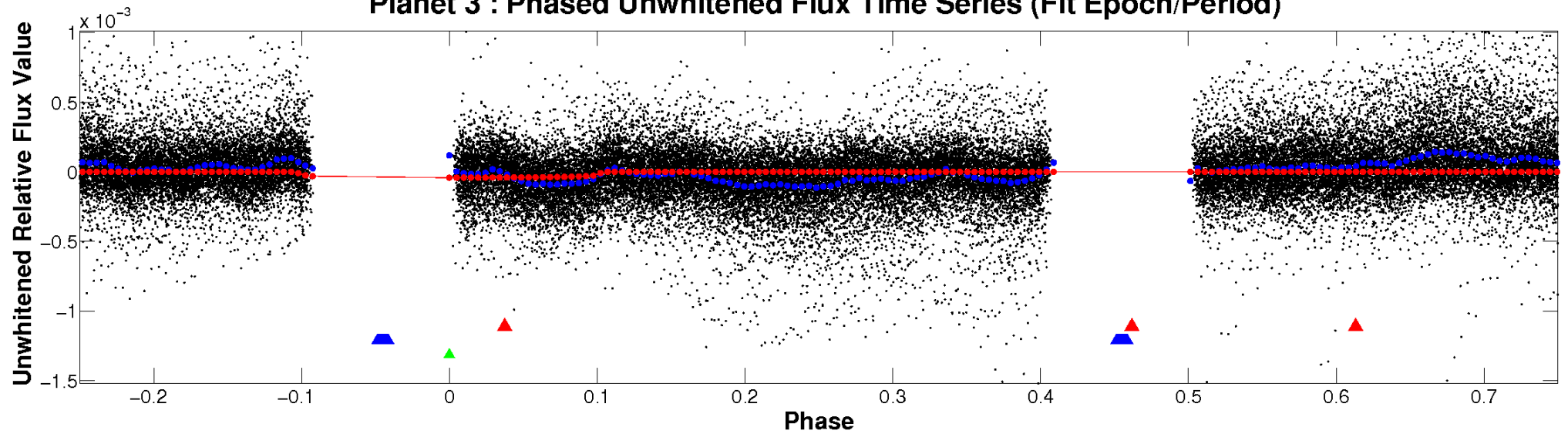
ALT Odd/Even

TCE 006715809-03

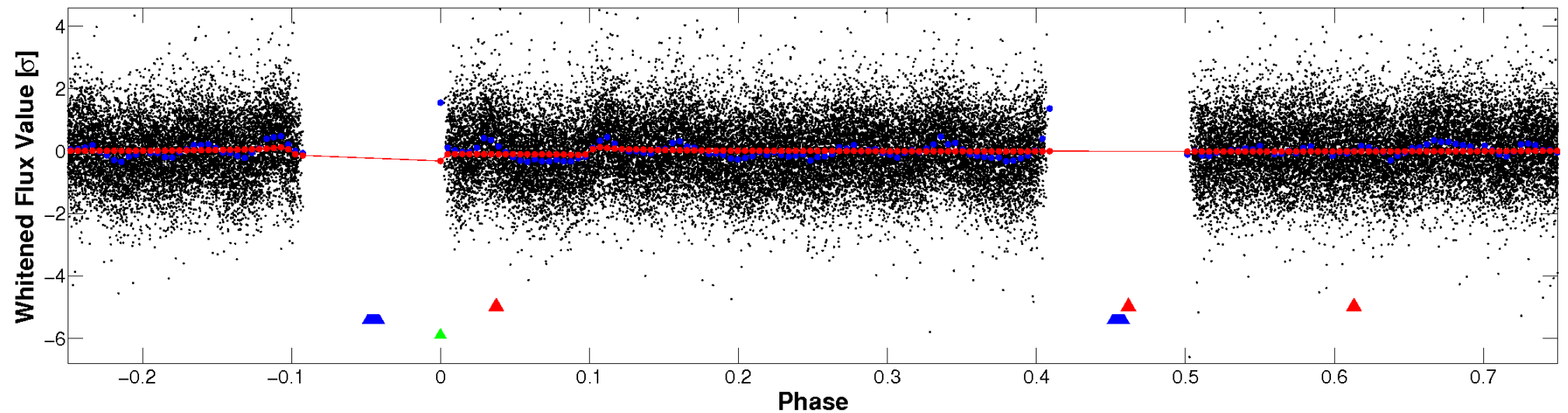


Non-Whitened Vs. Whitened Light Curve

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

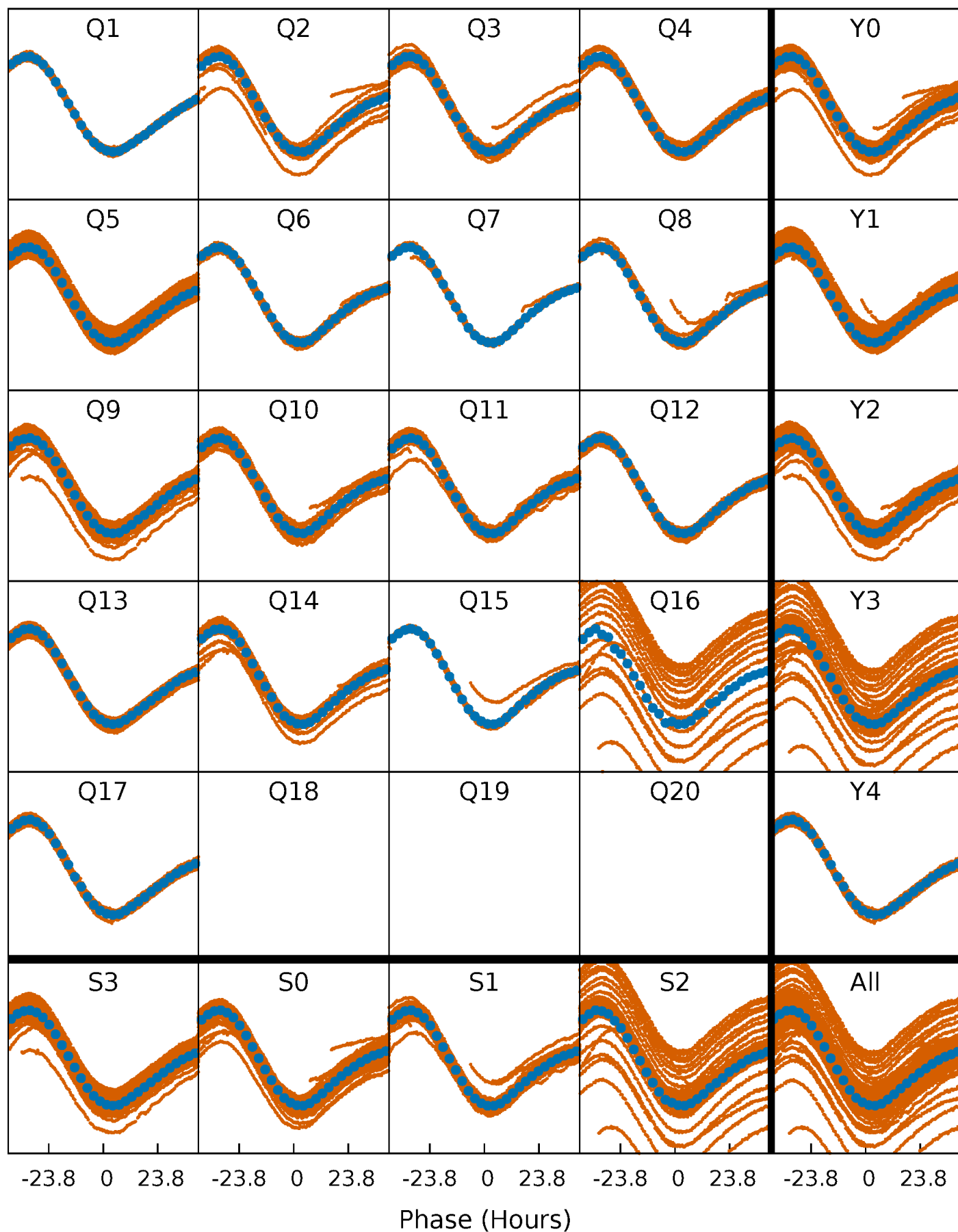


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



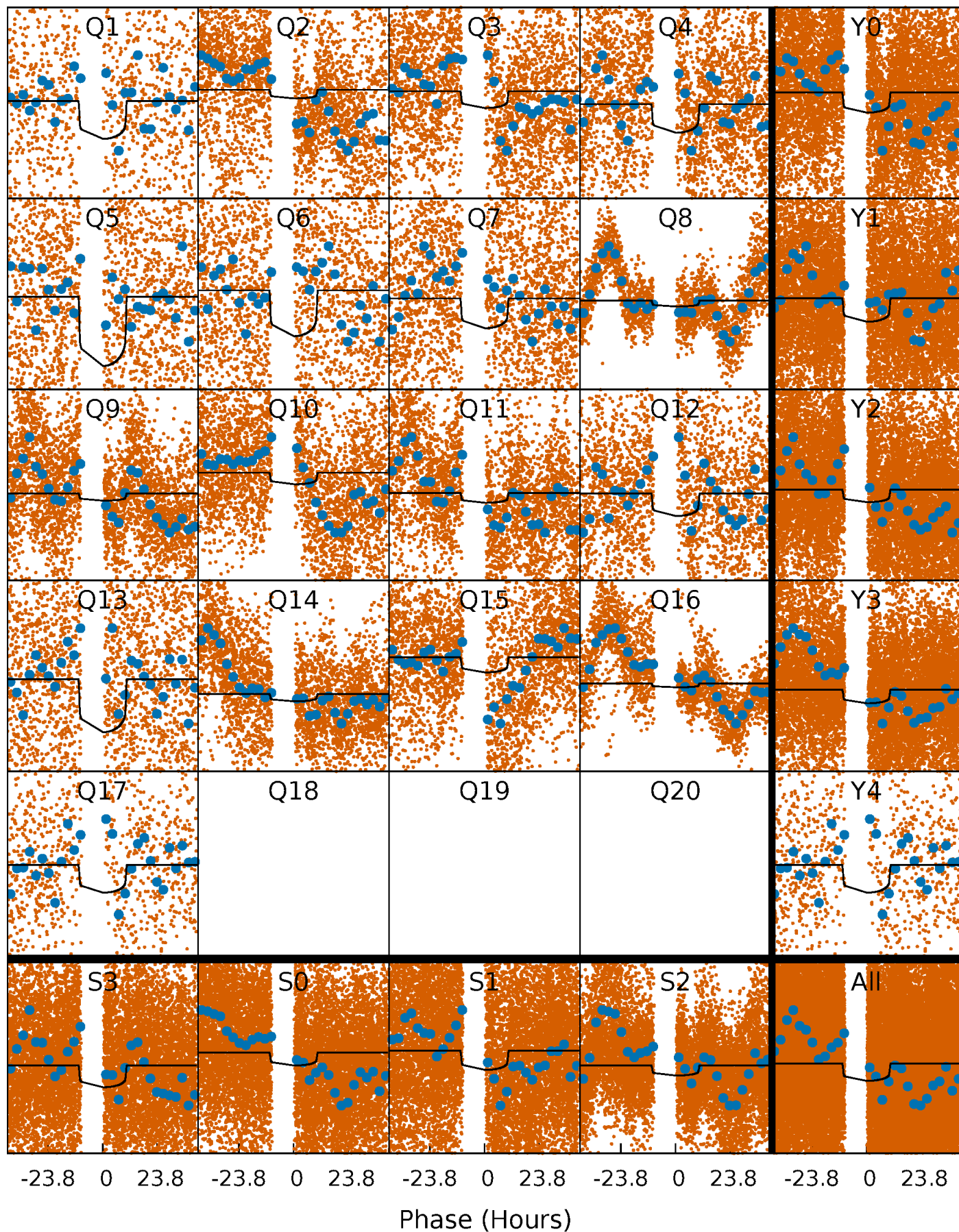
PDC Quarter-Phased Transit Curves

TCE 006715809-03 P= 4.197895 Days $T_0=134.152993$ (BKJD)



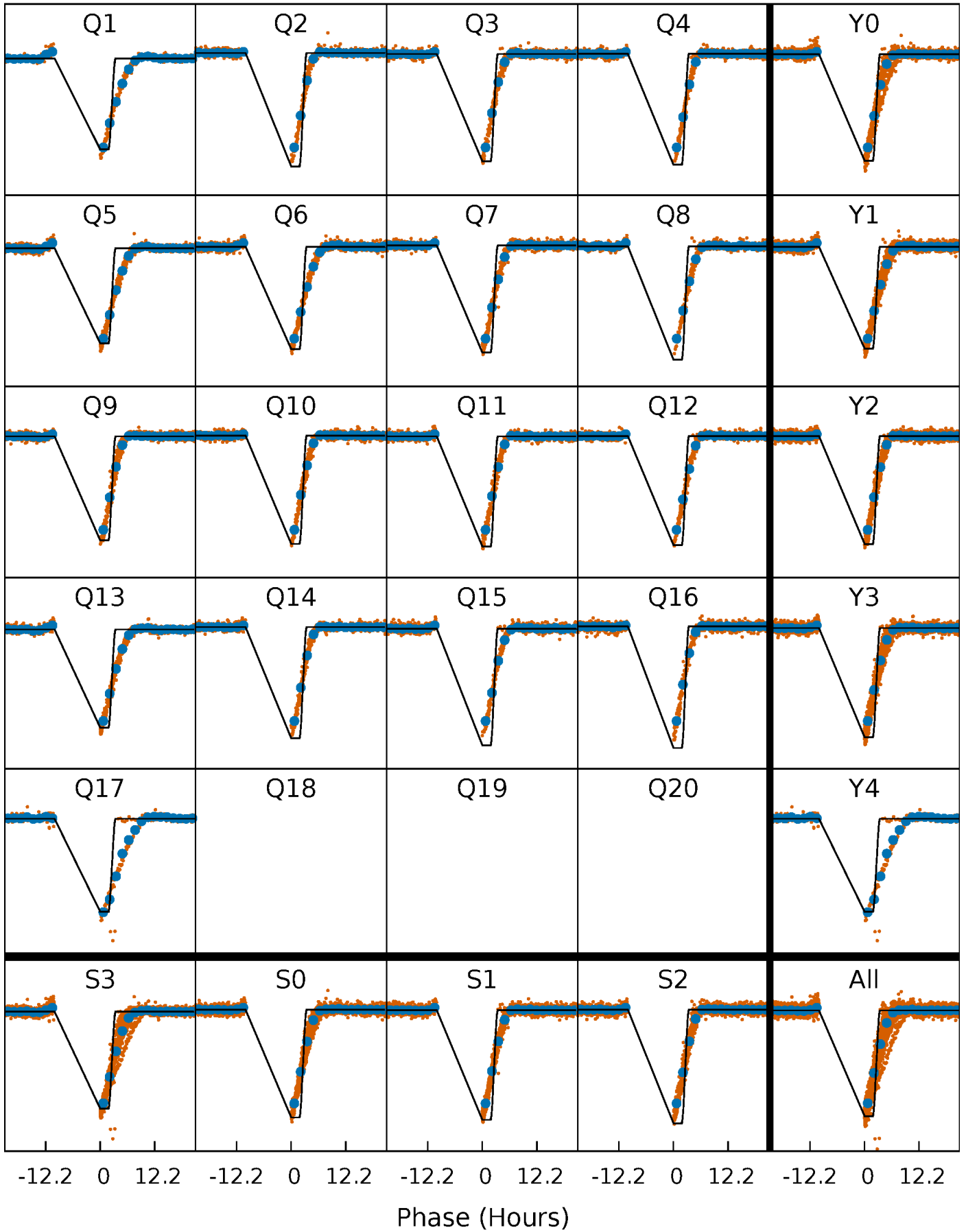
DV Quarter-Phased Transit Curves

TCE 006715809-03 P= 4.197895 Days $T_0=134.152993$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

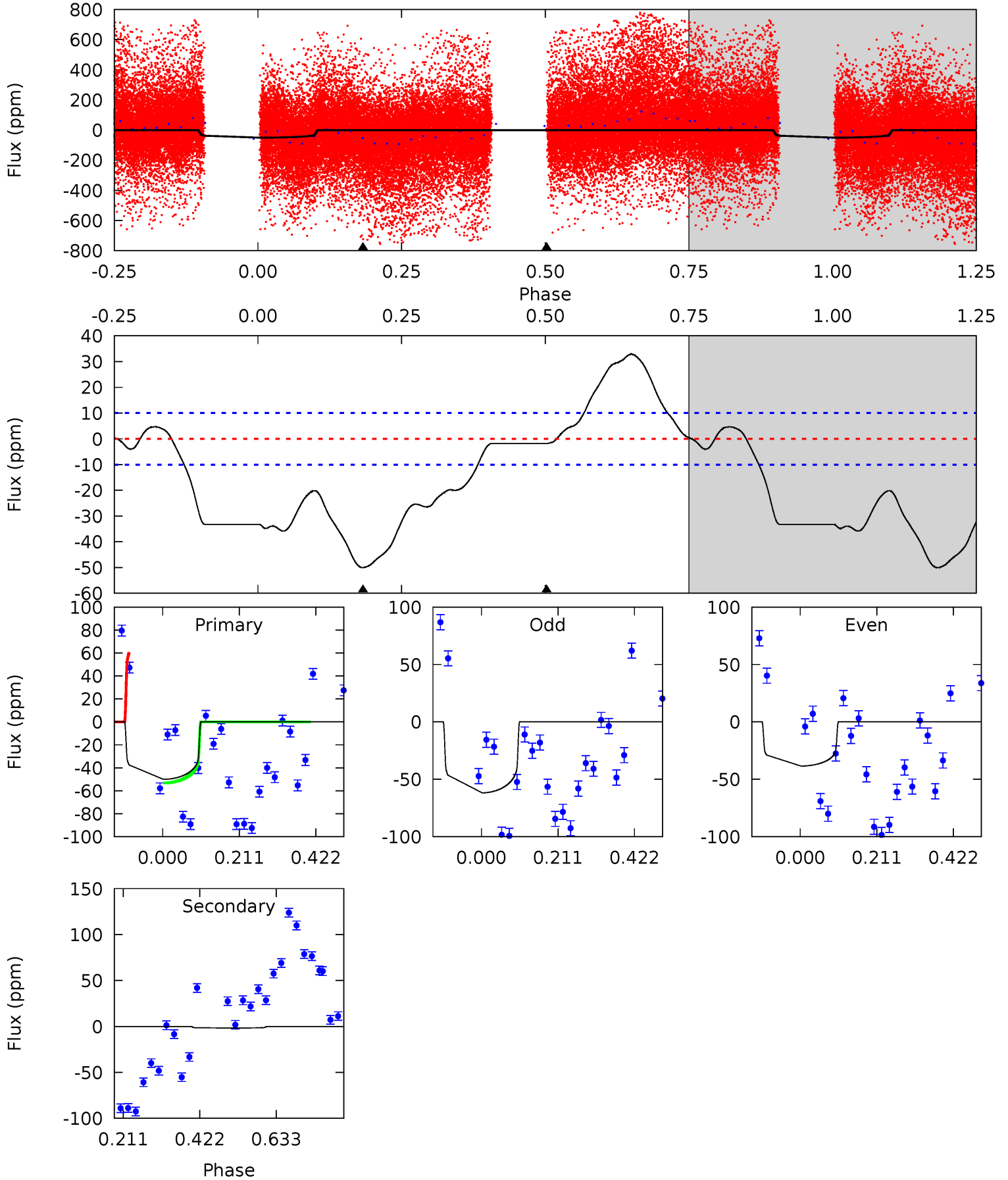
TCE 006715809-03 P= 4.197987 Days $T_0=134.159657$ (BKJD)



DV Model-Shift Uniqueness Test

006715809-03, P = 4.197895 Days, E = 129.955098 Days

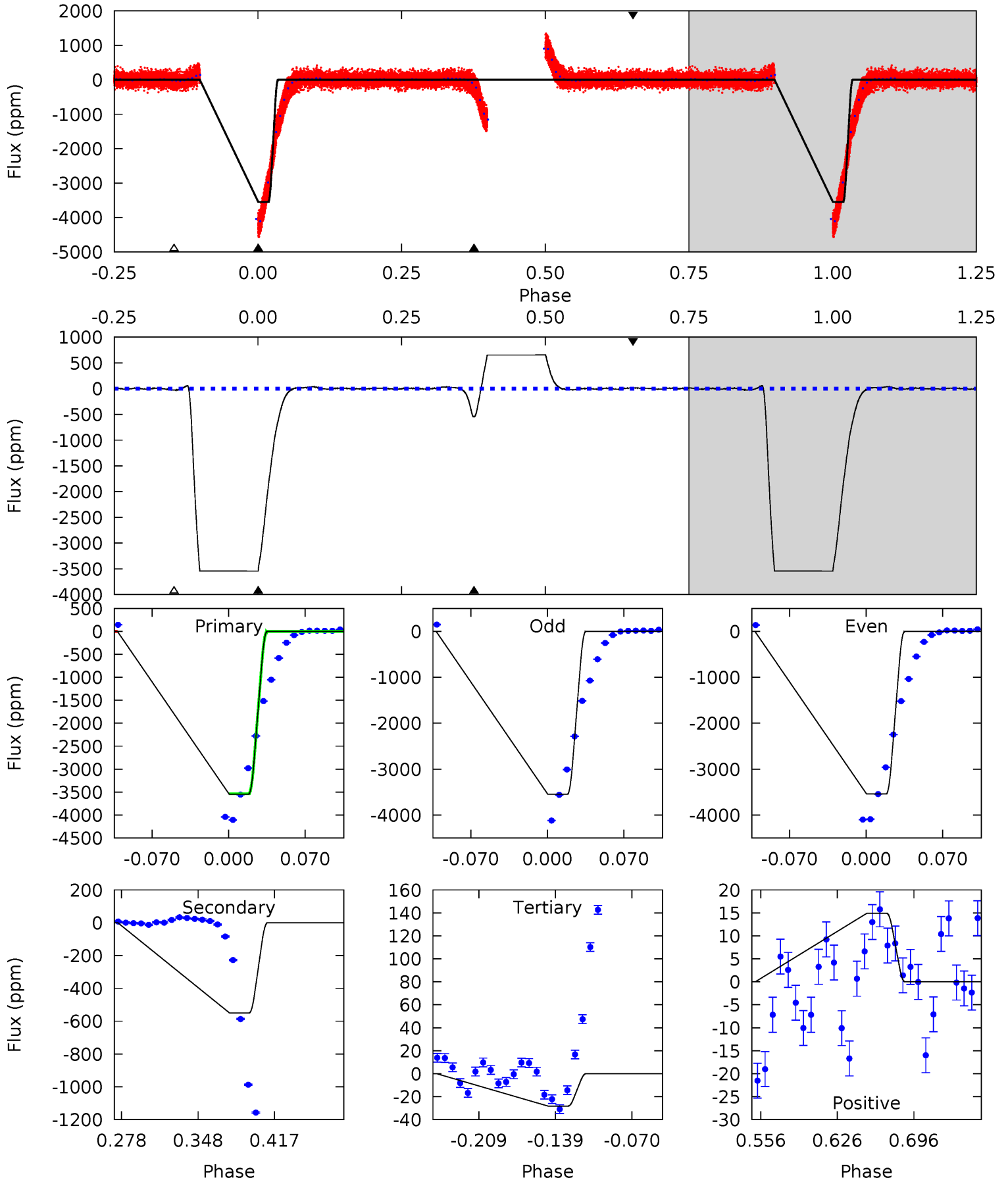
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.9	0.80	0	0	4.41	1.25	4.19	21.9	21.9	0.80	0.80	5.18	1.56	0.40	0.91



Alt Model-Shift Uniqueness Test

006715809-03, P = 4.197987 Days, E = 129.961670 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
953.8	147.9	7.61	4.02	4.64	1.81	96.5	946.2	949.8	140.3	143.9	0.71	1.02	0.16	0



Stellar Parameters For KIC 006715809

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8287^{+231}_{-346}	$4.001^{+0.204}_{-0.119}$	$0.070^{+0.250}_{-0.550}$	$2.348^{+0.456}_{-0.685}$	$2.017^{+0.307}_{-0.461}$	$0.220^{+0.283}_{-0.078}$
	+3%/-4%	+5%/-3%	+357%/-786%	+19%/-29%	+15%/-23%	+129%/-36%
Source	KIC0	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 006715809-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2 ± 2	$1.63^{+0.25}_{-0.27}$	3048^{+188}_{-258}	3769^{+788}_{-7257}	$1.474^{+2.273}_{-1.846}$
Alt.	-550 ± 4	$16.68^{+2.21}_{-2.50}$	3047^{+186}_{-236}	4806^{+95}_{-125}	$4.514^{+1.354}_{-0.848}$

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

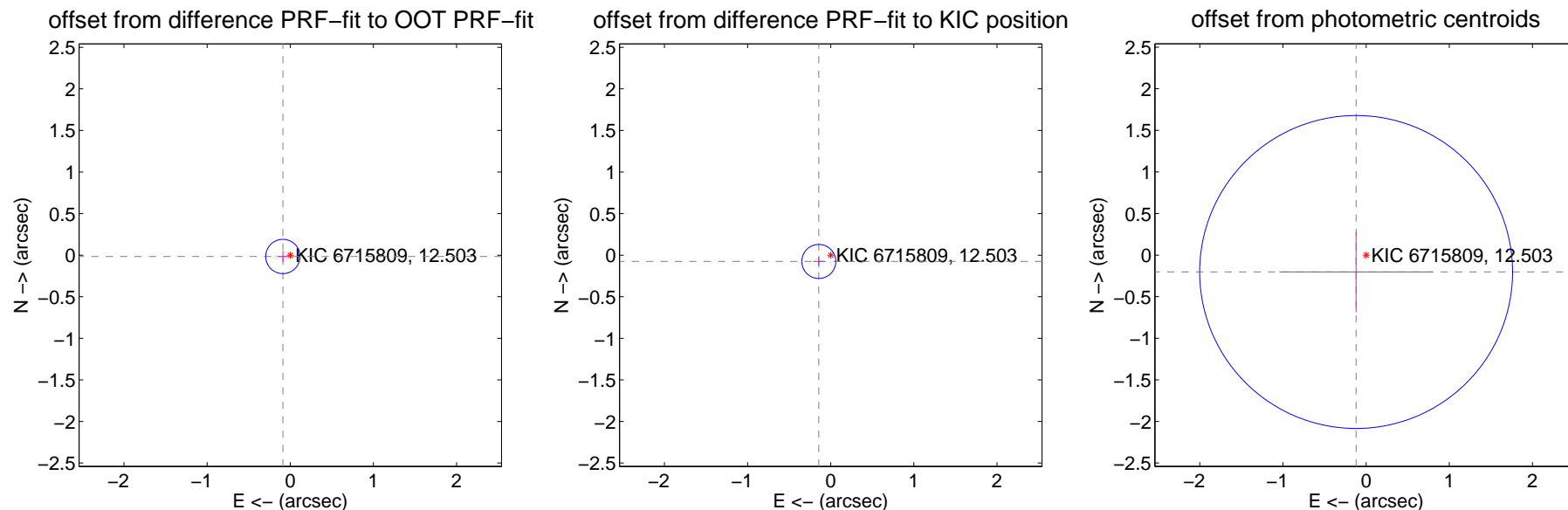
DV Centroid Data

Supplemental centroid analysis for 006715809-03. Kepler magnitude: 12.50. Transit SNR 11.31

There are 17 quarters with good PRF difference image offsets

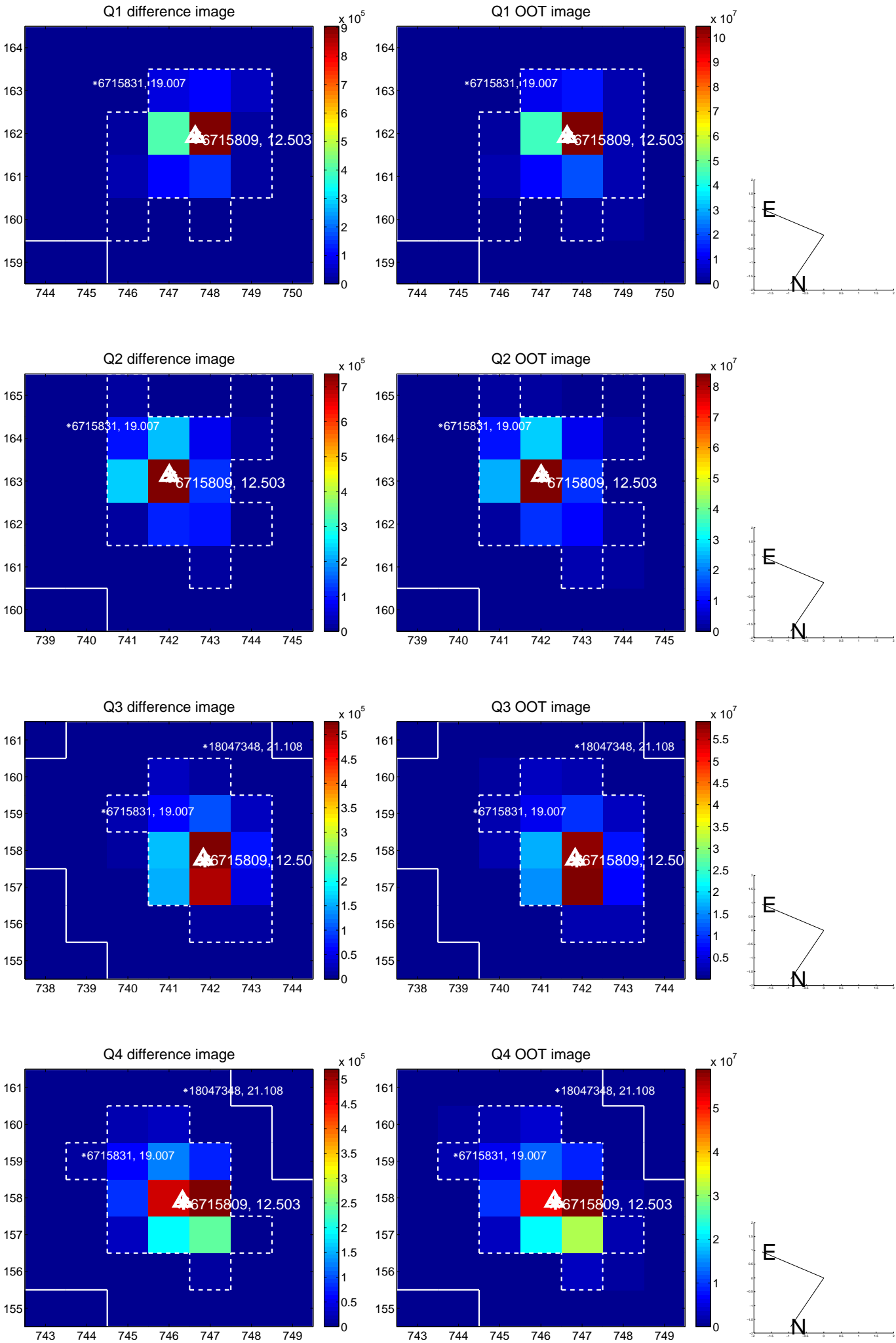
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.090 ± 0.069	1.31	0.089 ± 0.069	-0.016 ± 0.067
PRF-fit source offset from KIC position	0.162 ± 0.068	2.38	0.143 ± 0.069	-0.076 ± 0.067
photometric centroid source offset	0.24 ± 0.63	0.38	0.12 ± 0.92	-0.20 ± 0.48

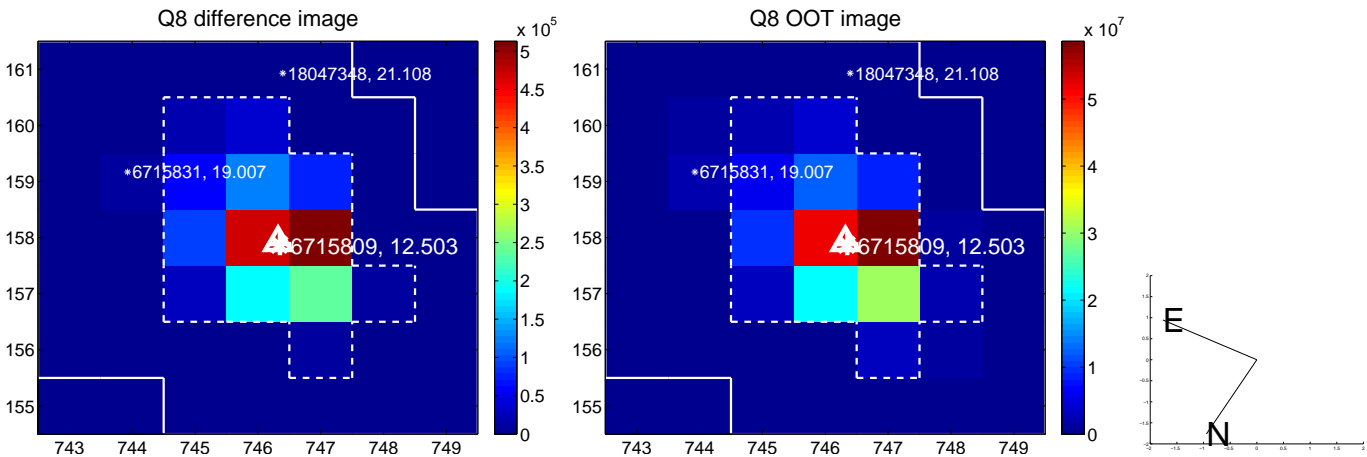
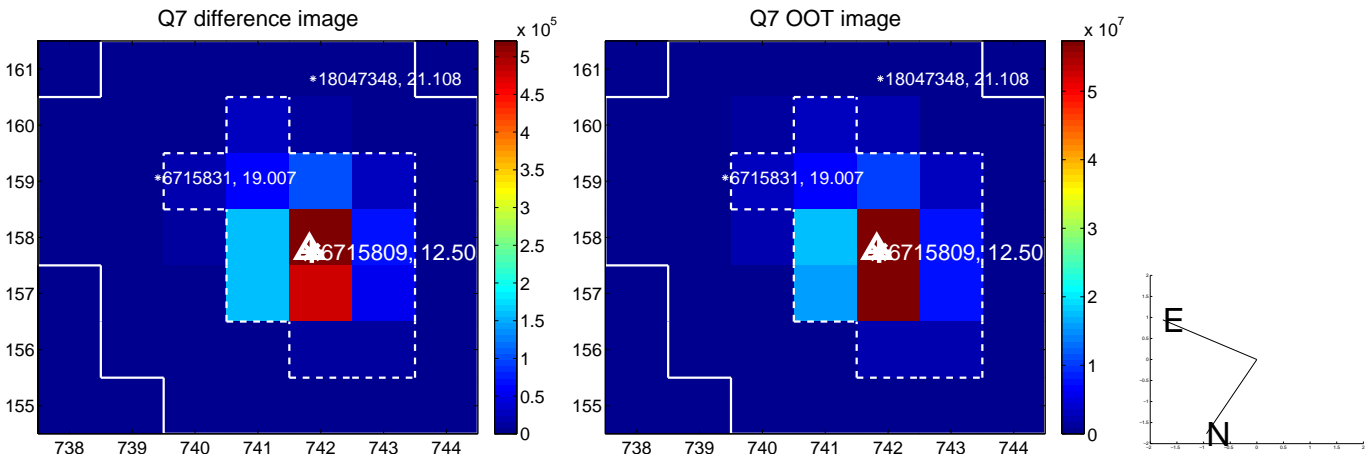
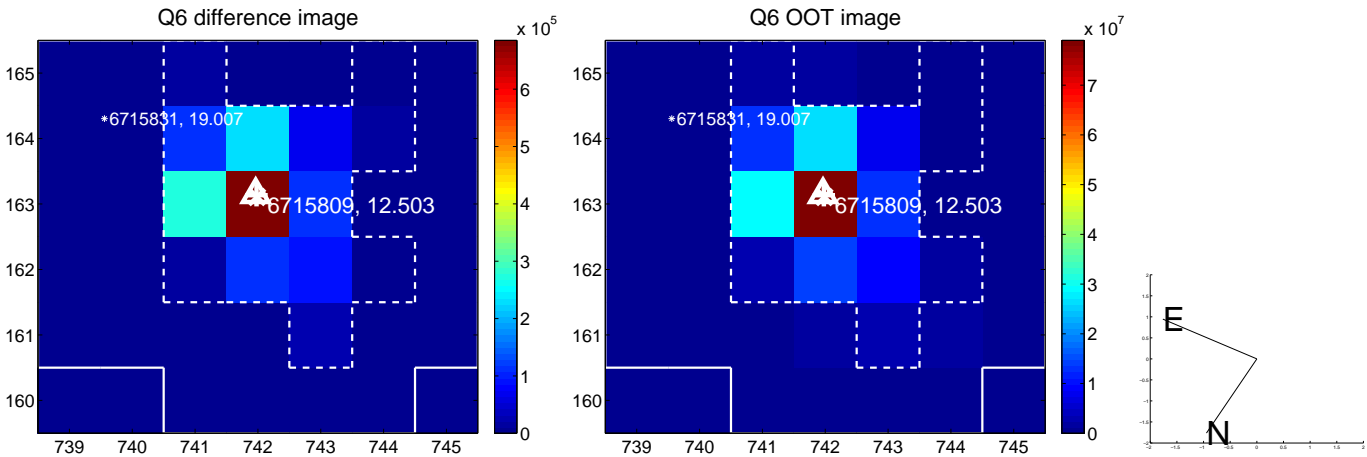
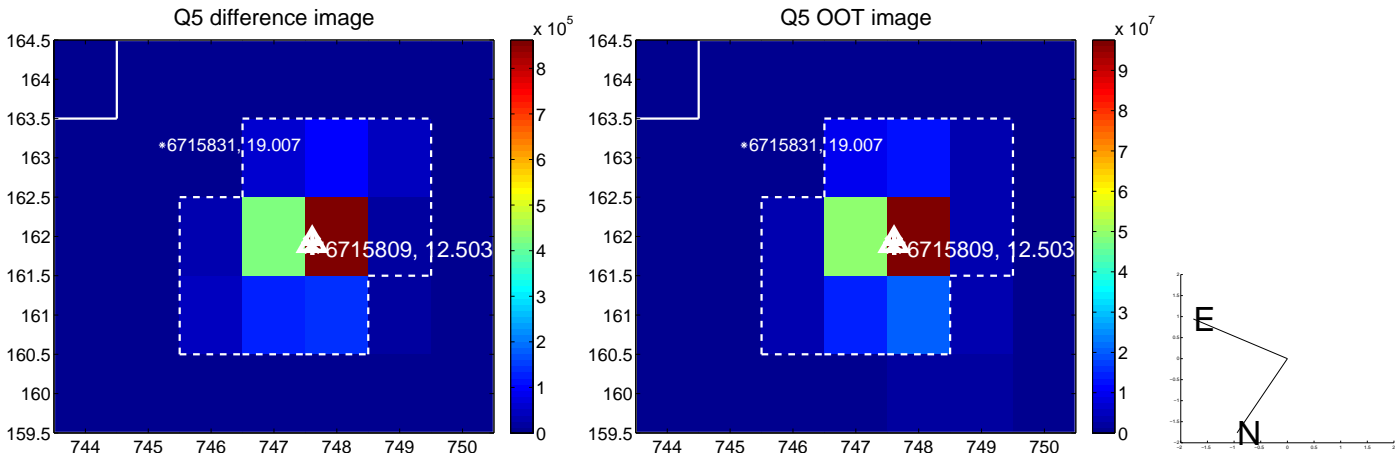


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

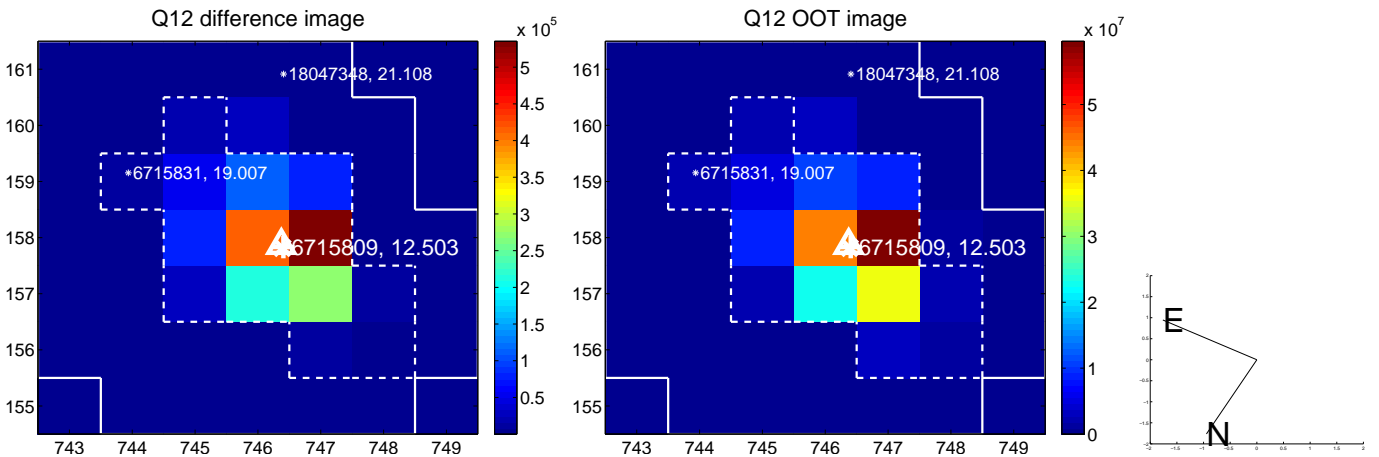
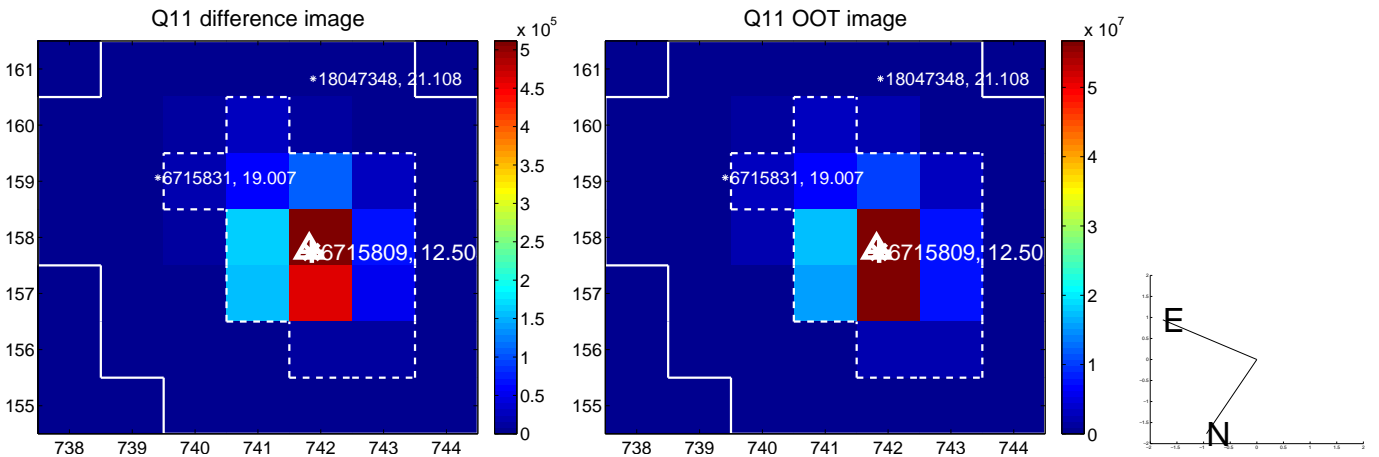
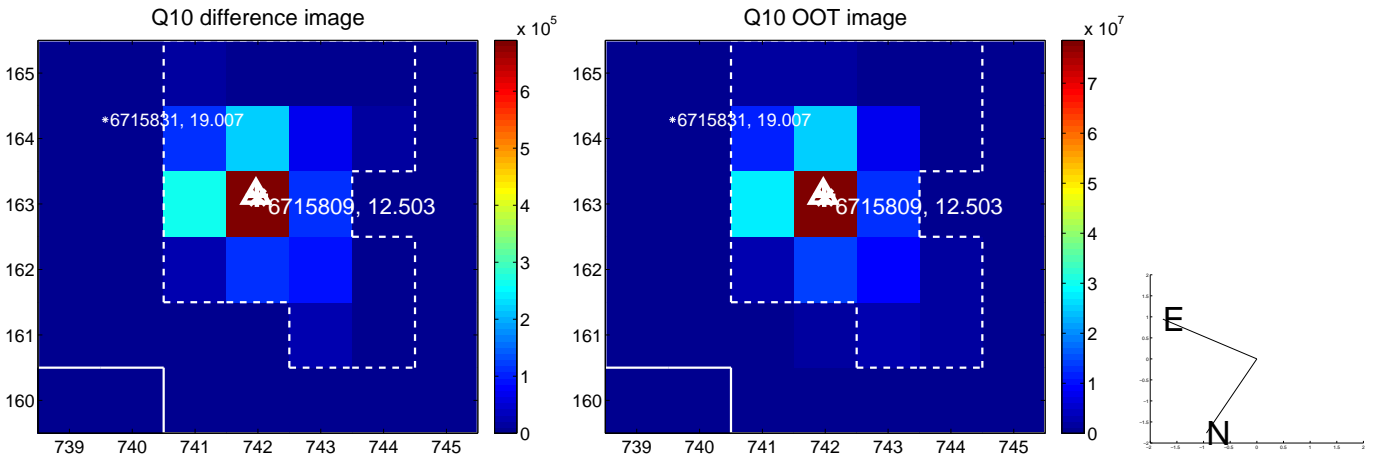
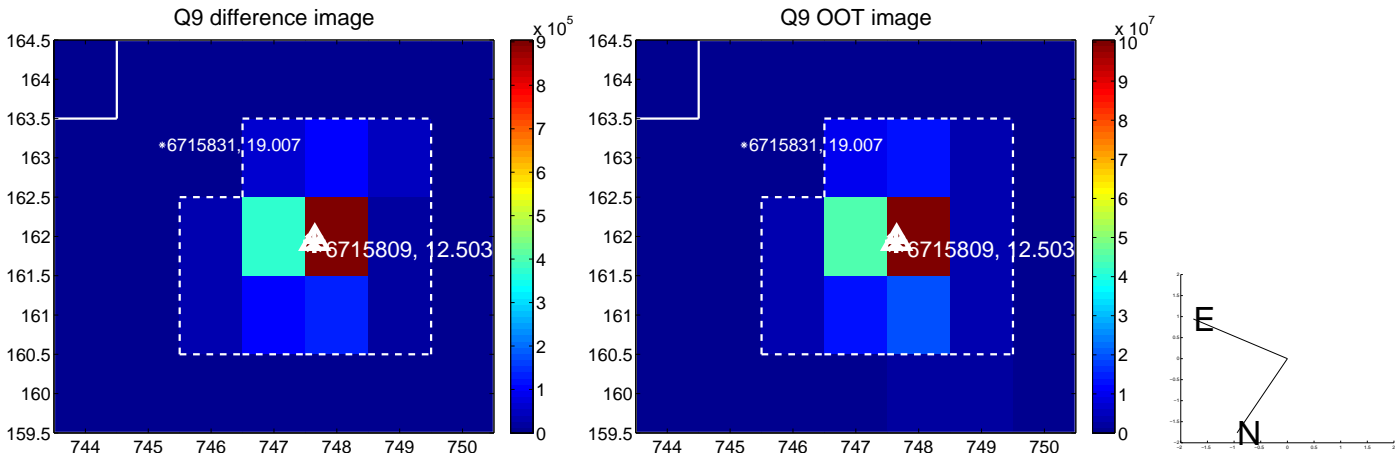
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



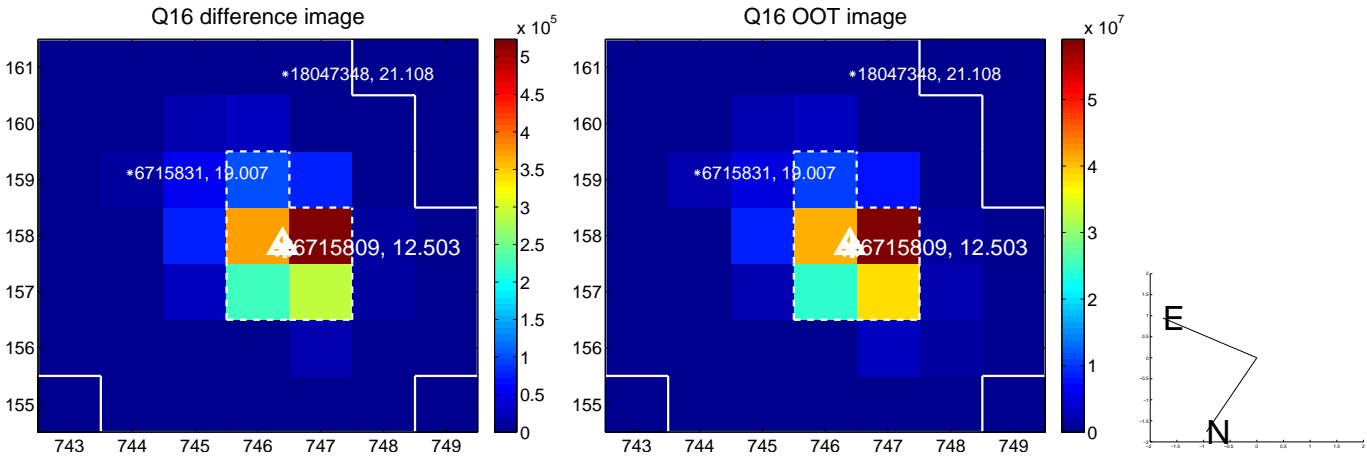
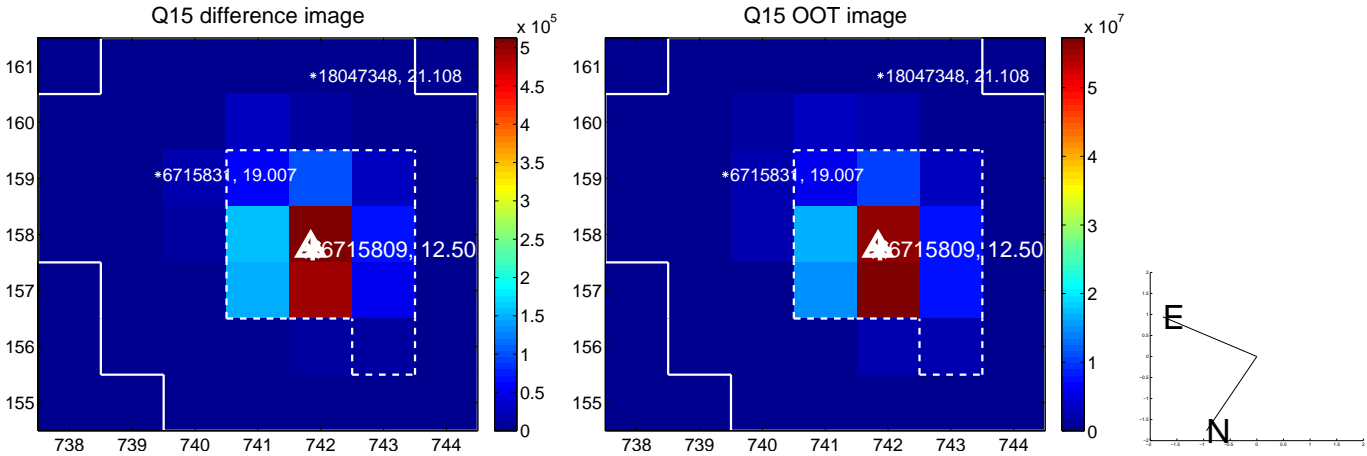
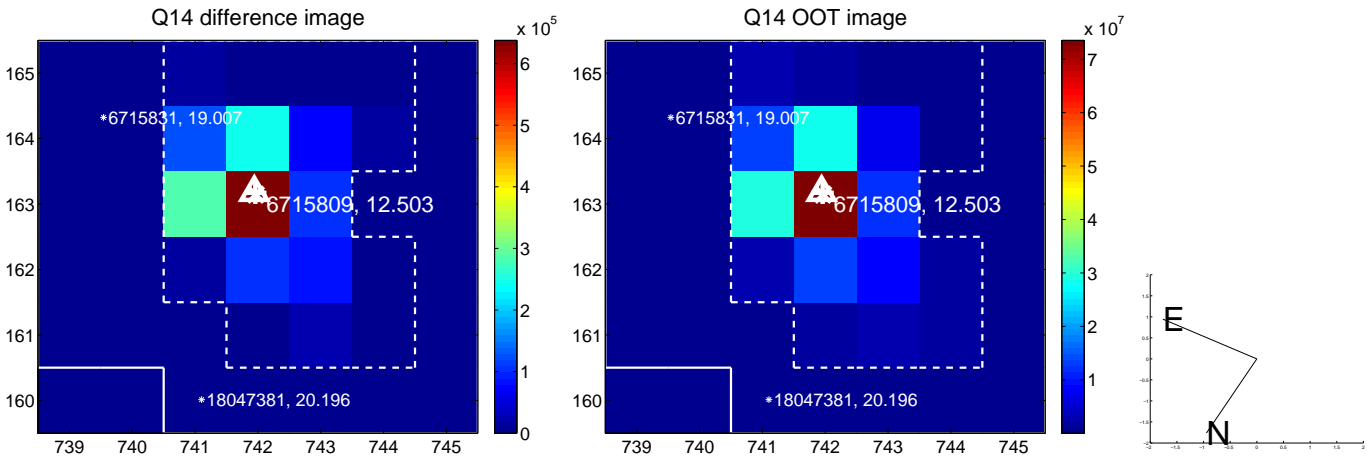
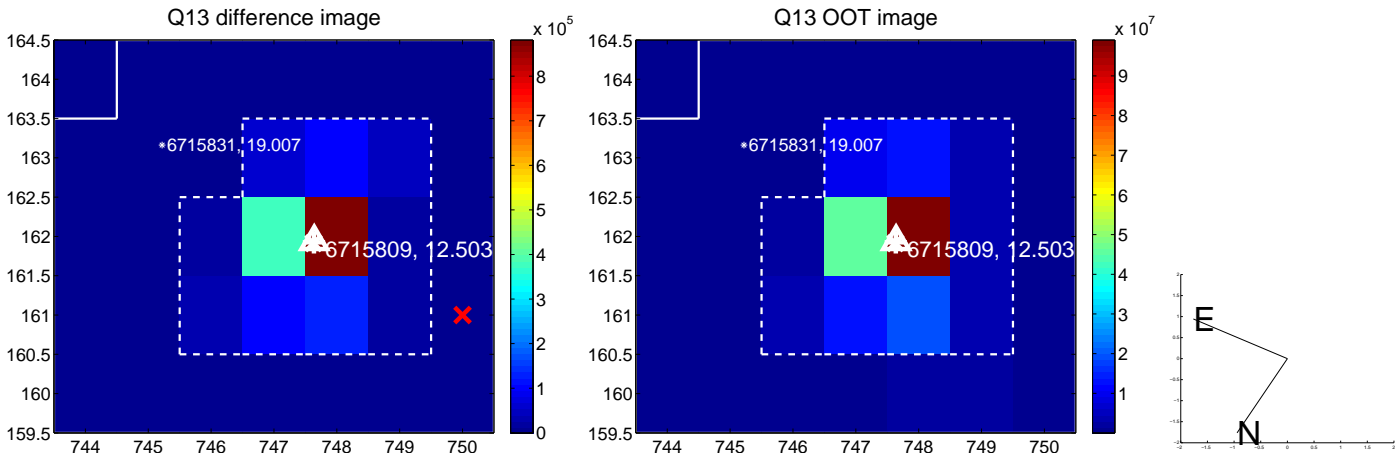
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



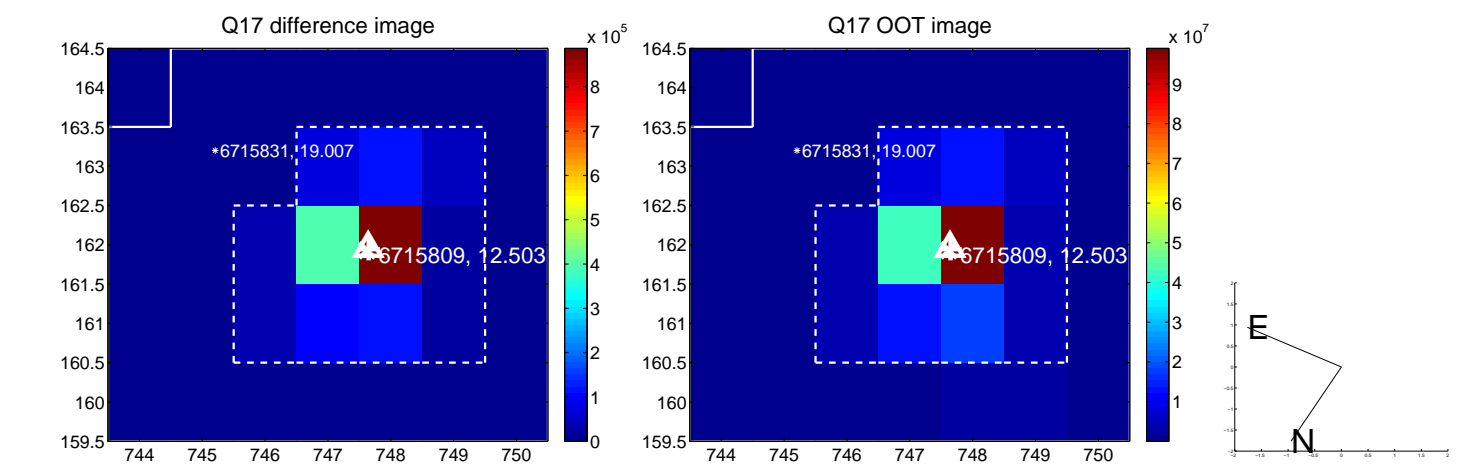
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



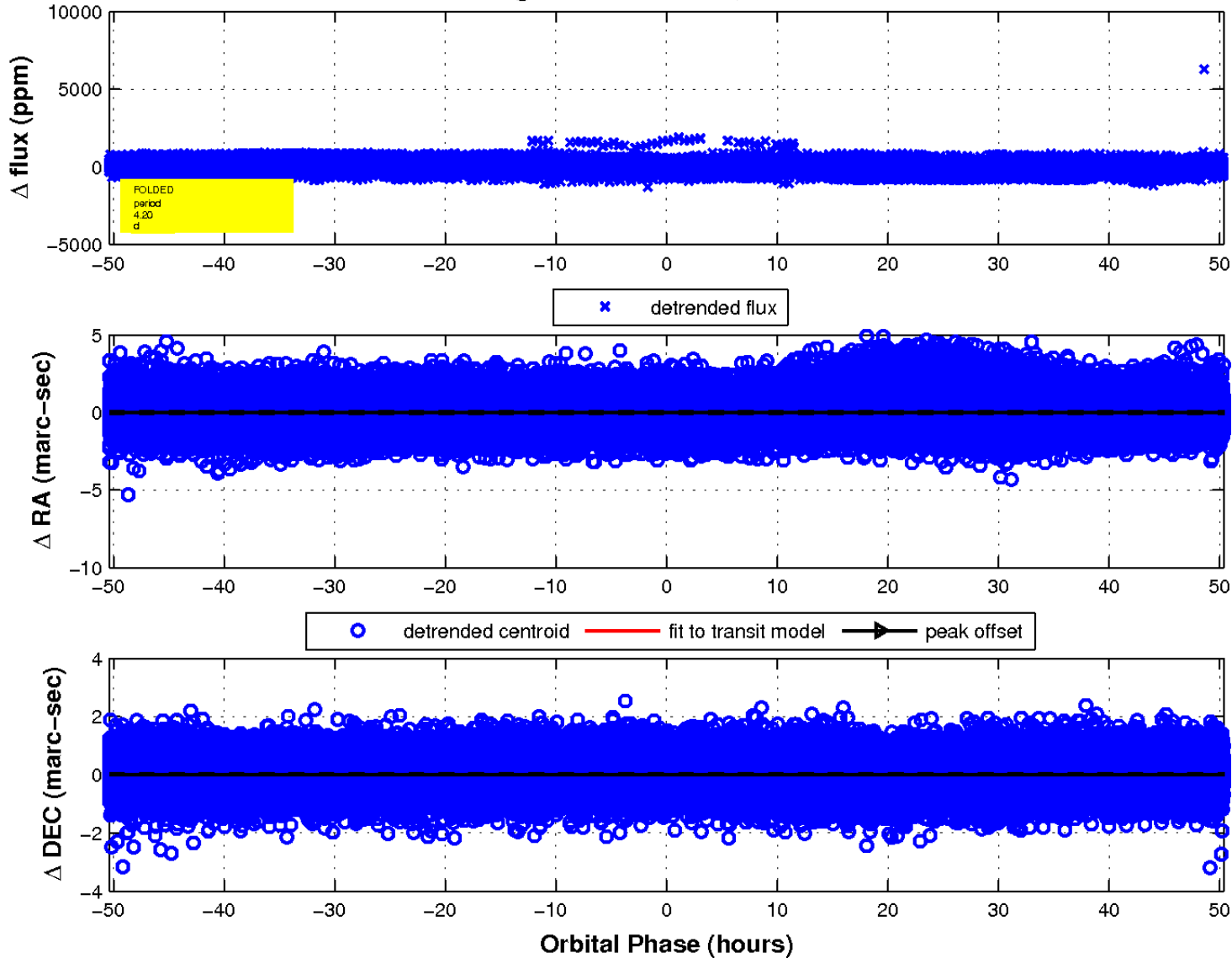
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

