

KIC 001717722

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})
001717722-01	OBS	No	417.666243	186.188308	724.1	21.975	44.1	5.2	0.69	4805	1.93	0.23
001717722-02	OBS	3145.01	4.537002	132.186249	480.5	1.866	13.8	15.2	0.69	4805	1.82	95.87
001717722-03	OBS	3145.02	0.977296	131.710324	210.4	1.658	12.2	13.5	0.69	4805	1.23	742.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001717722-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_DIFFS
001717722-02	OBS	PC	1.00	0	0	0	0	CENT_FEW_MEAS
001717722-03	OBS	PC	0.86	0	0	0	0	CENT_KIC_POS

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

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

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

Ephemeris Match Information For 001717722-01

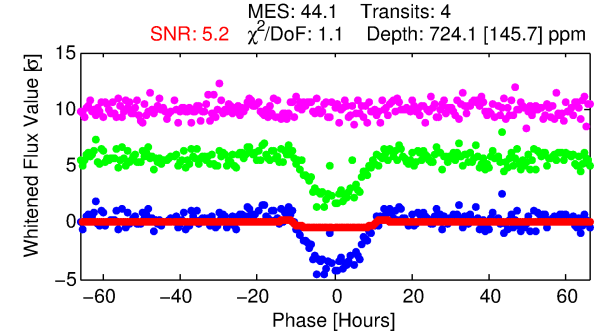
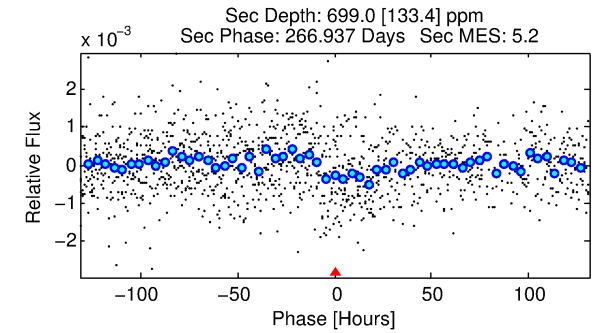
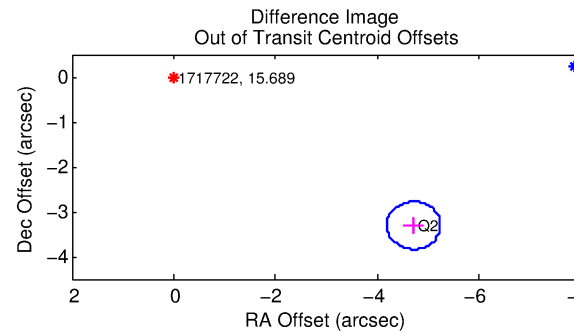
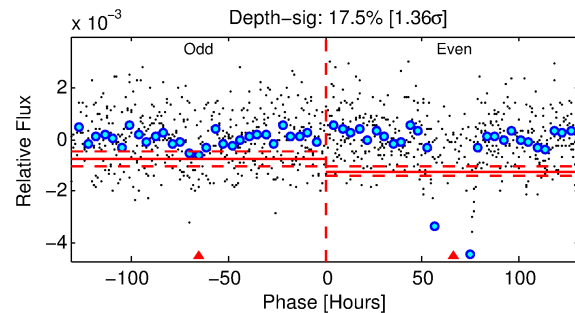
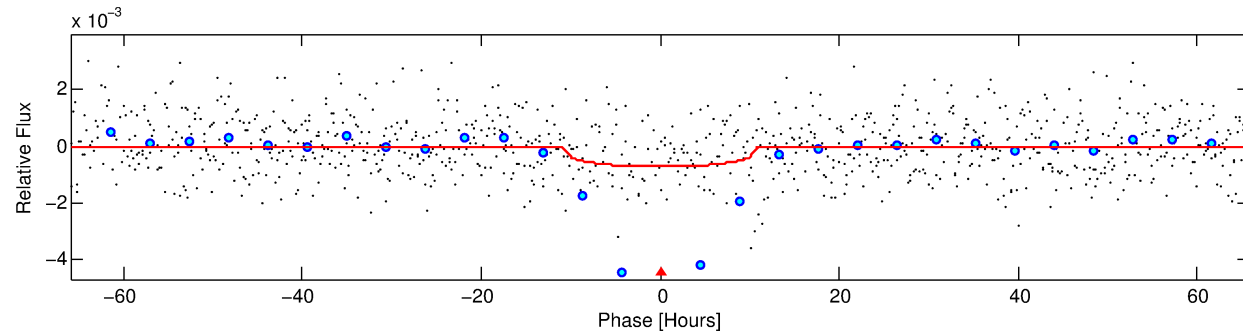
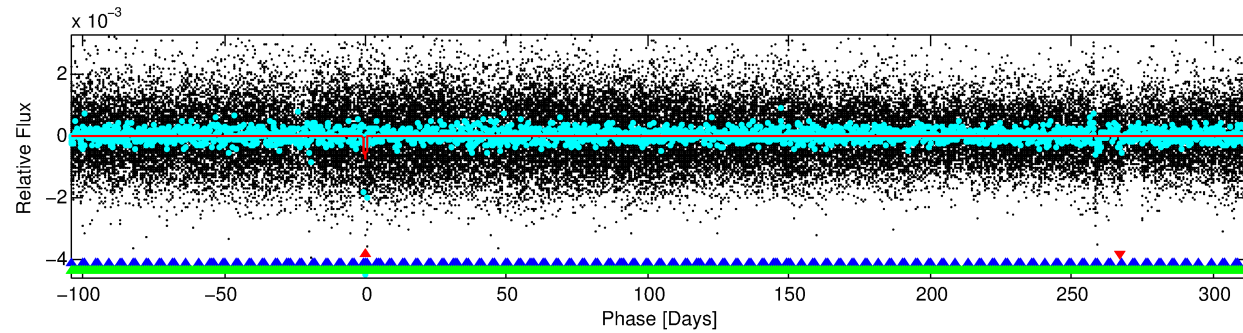
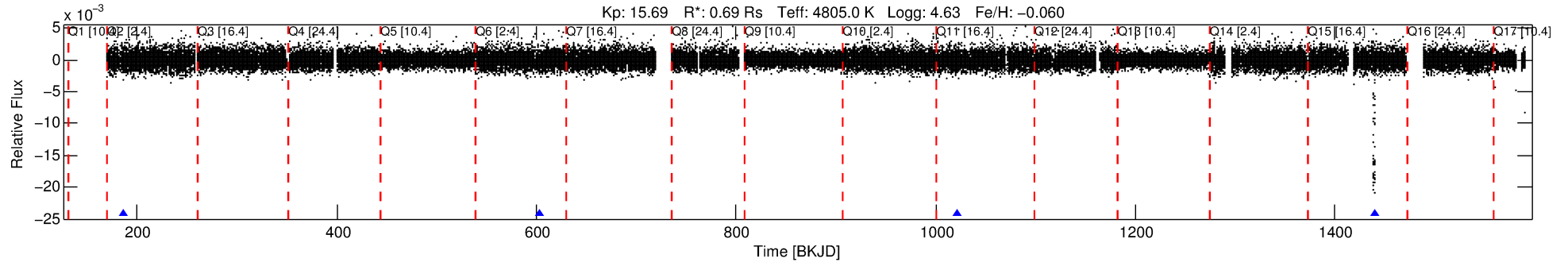
No Significant Match Found

DV One-Page Summary

KIC: 1717722 Candidate: 1 of 3 Period: 417.666 d

KOI: K03145 Corr: No Ephemeris Match

Kp: 15.69 R*: 0.69 Rs Teff: 4805.0 K Logg: 4.63 Fe/H: -0.060



DV Fit Results:

Period = 417.66624 [0.02777] d
Epoch = 186.1883 [0.0520] BKJD
Rp/R* = 0.0257 [0.0167]
a/R* = 115.97 [245.67]
b = 0.64 [1.96]
Seff = 0.23 [0.04]
Teq = 177 [7] K
Rp = 1.93 [1.27] Re
a = 0.9900 [0.0881] AU
Ag = 100894.08 [132955.31] [0.76σ]
Teffp = 4869 [1604] K [2.92σ]

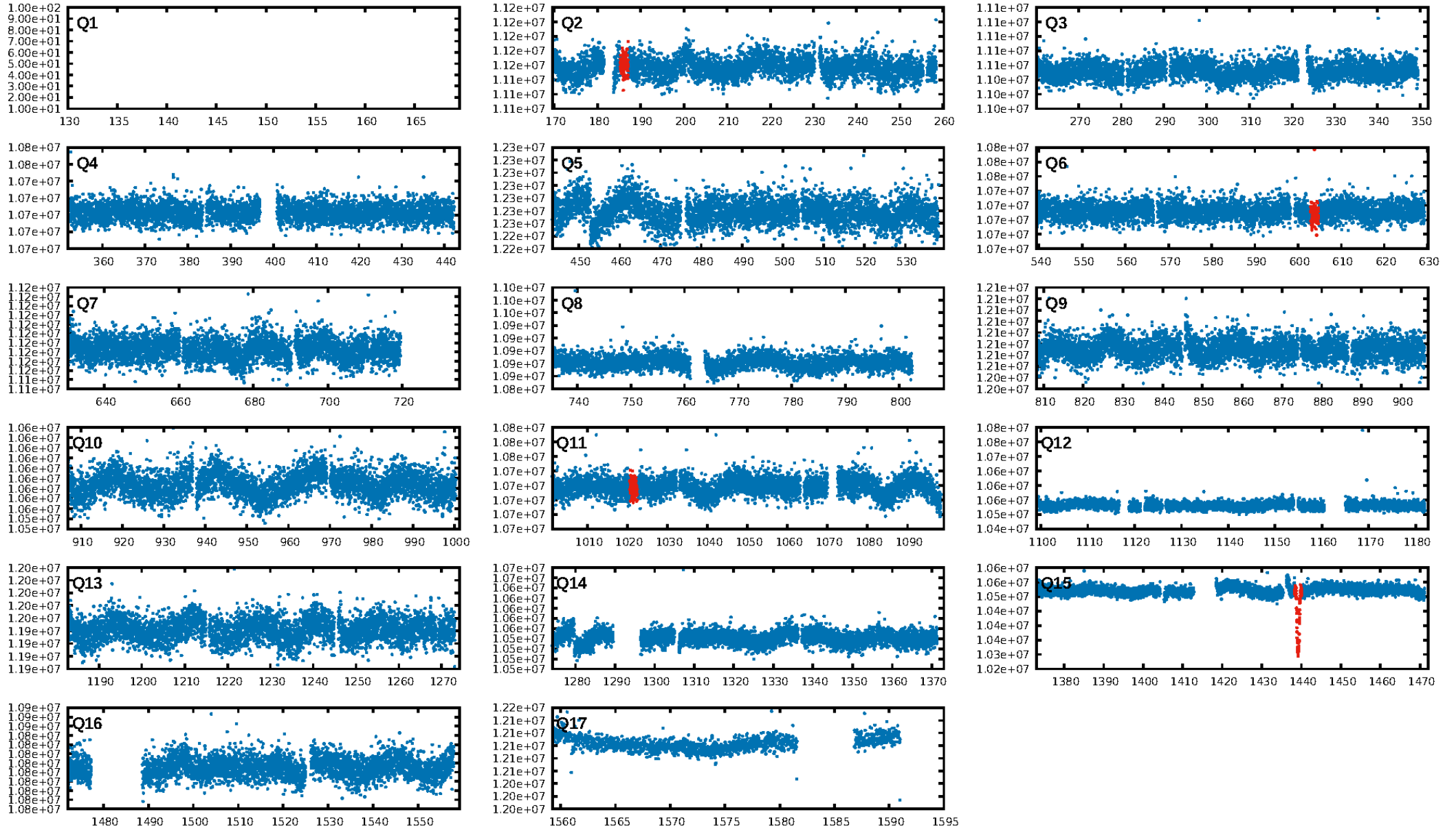
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [449.57σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.7293
Centroid-sig: 0.0%
Centroid-so: 8.379 arcsec [9.61σ]
OotOffset-rm: 5.757 arcsec [32.57σ]
KicOffset-rm: 6.389 arcsec [34.40σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/3]

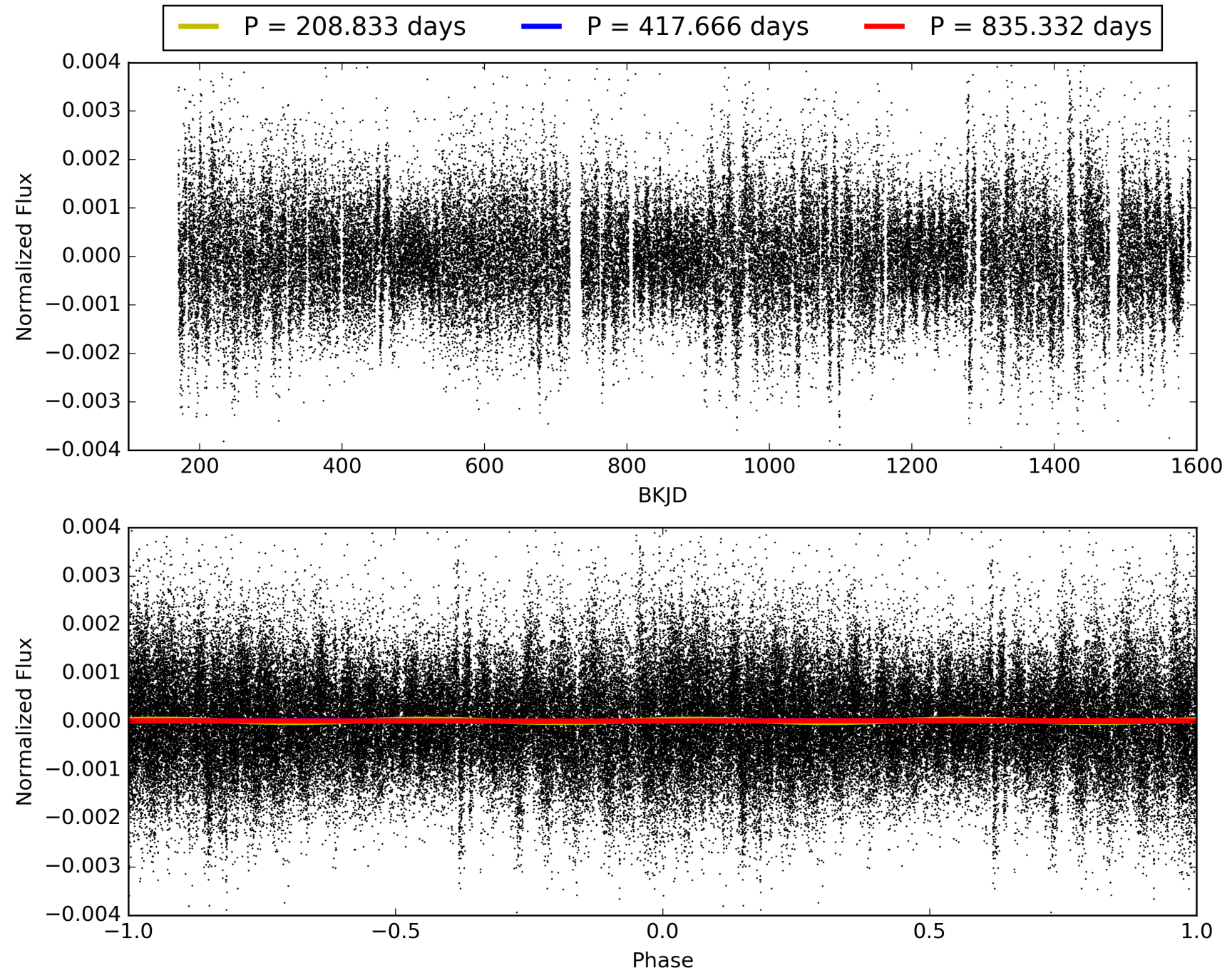
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:15:10 Z

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

TCE 001717722-01, PDC Light Curves

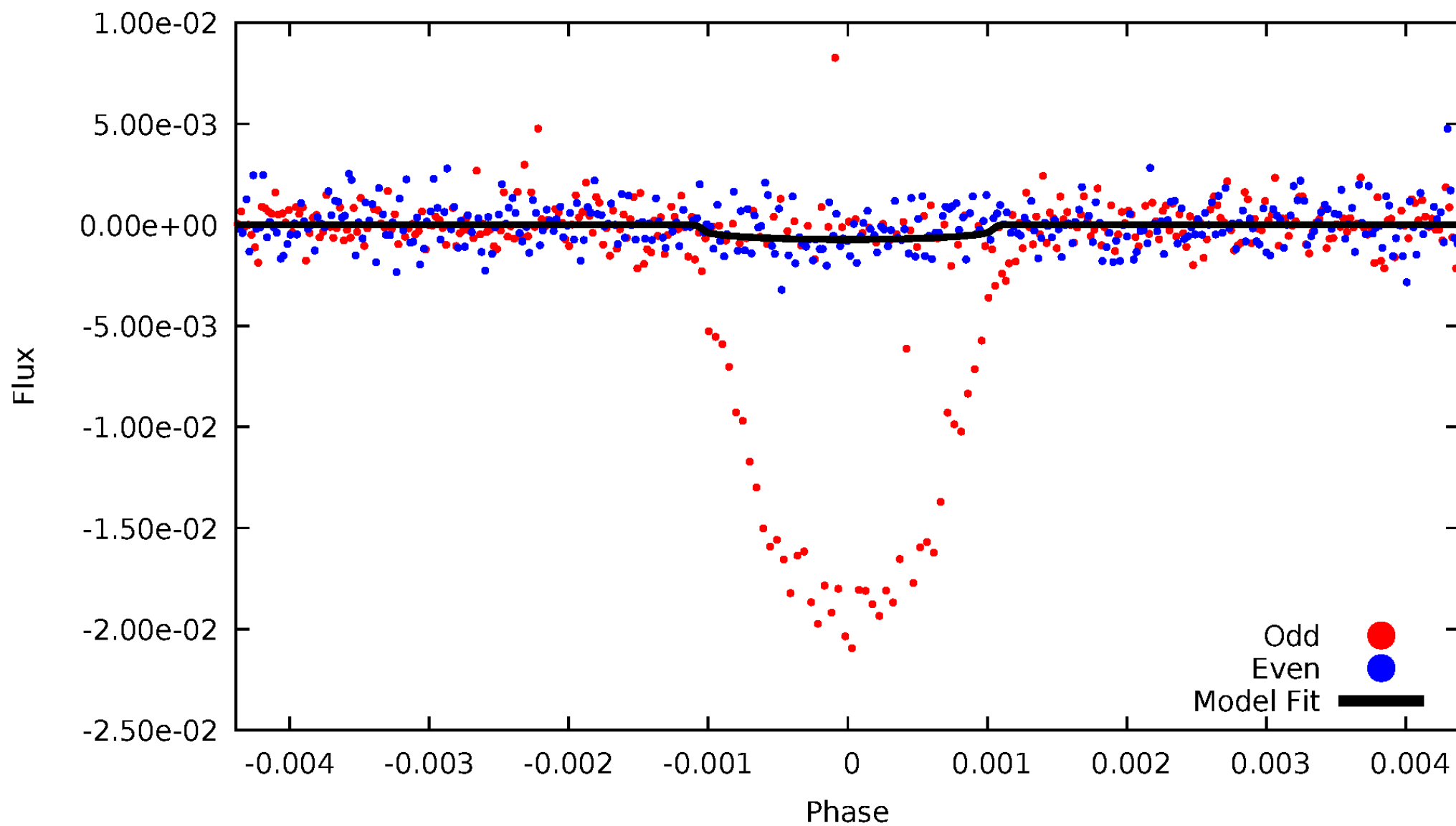


TCE 001717722-01



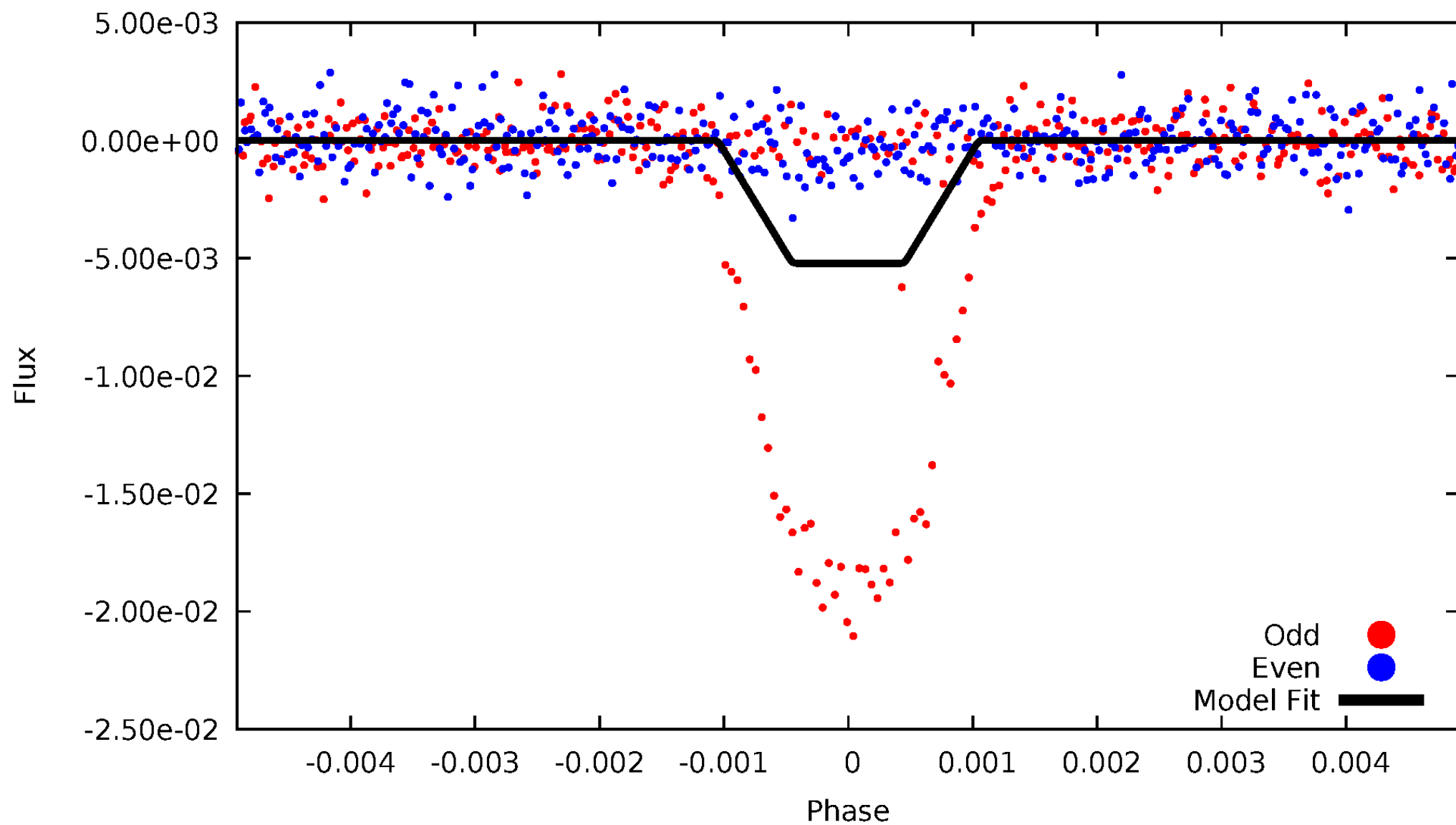
DV Odd/Even

TCE 001717722-01



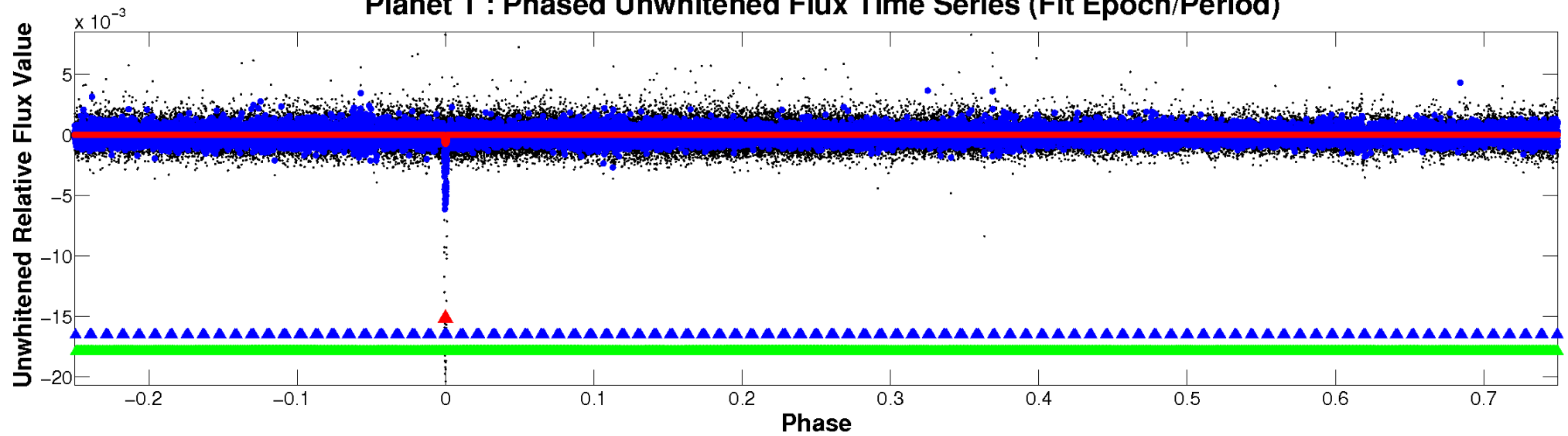
ALT Odd/Even

TCE 001717722-01

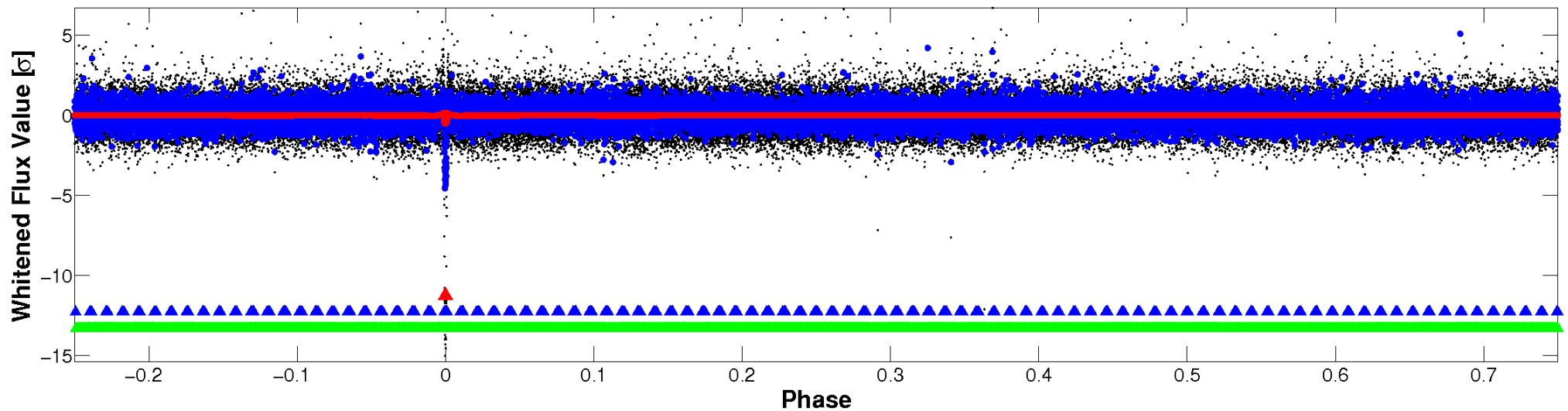


Non-Whitened Vs. Whitened Light Curve

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

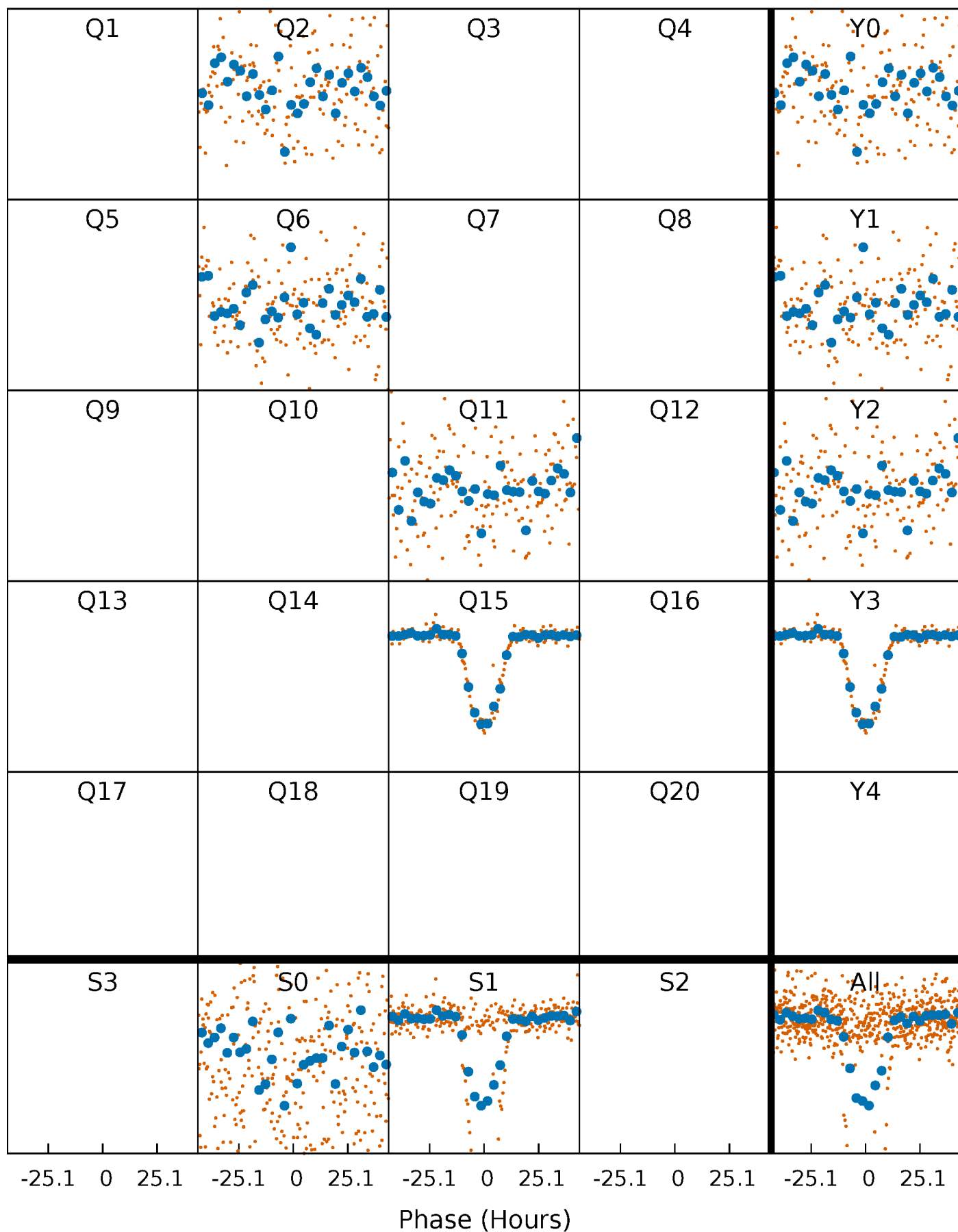


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



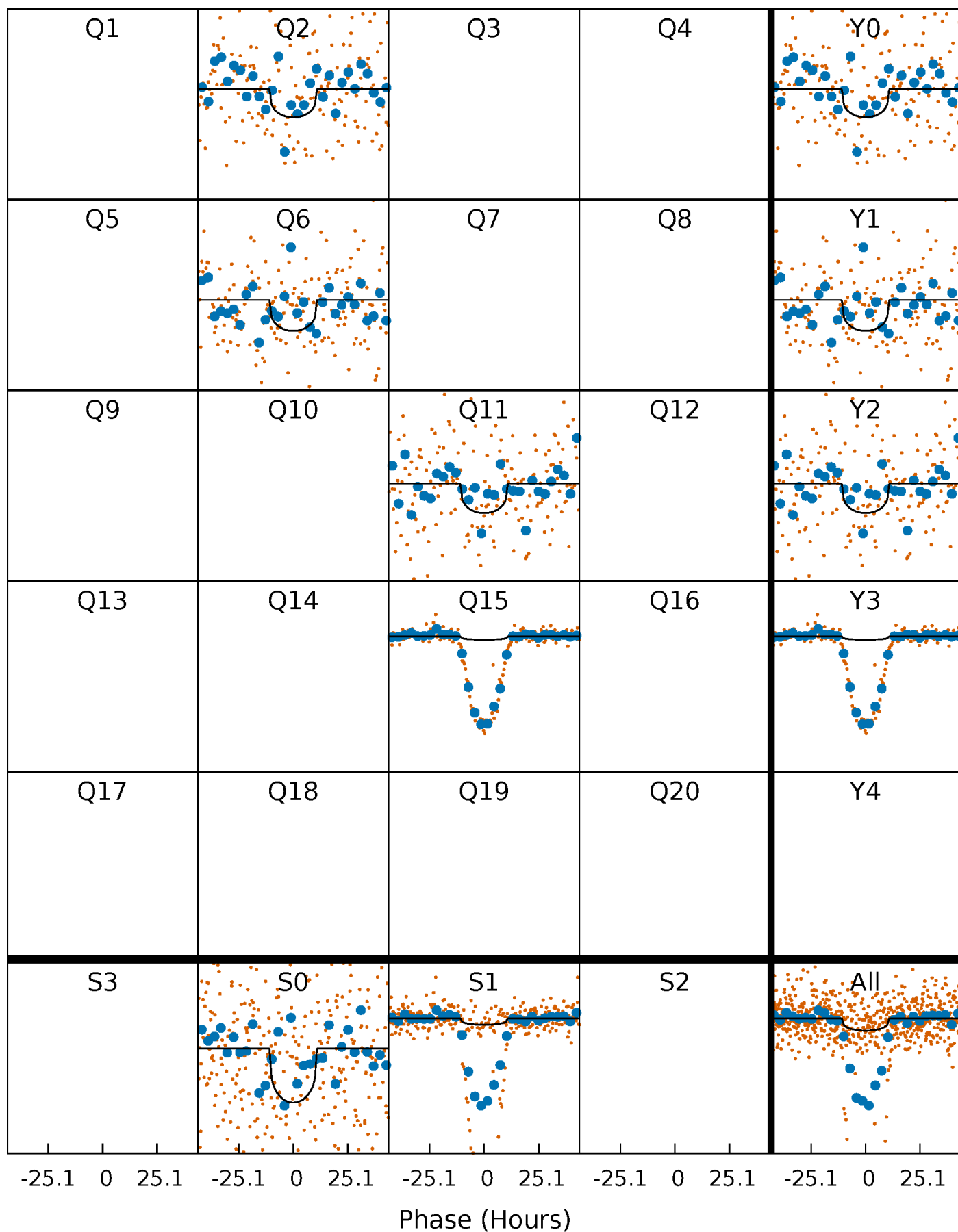
PDC Quarter-Phased Transit Curves

TCE 001717722-01 P=417.666243 Days $T_0=186.188308$ (BKJD)



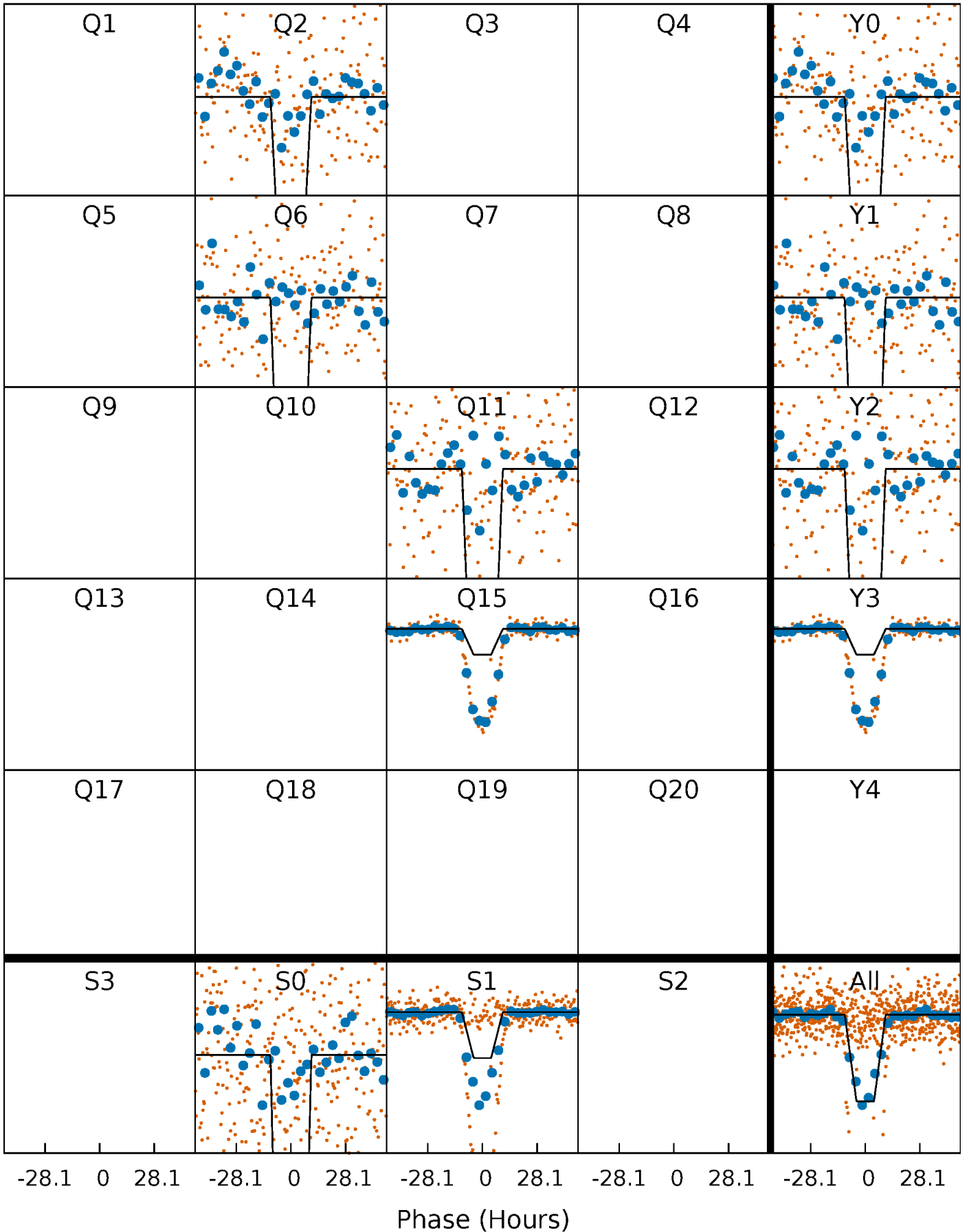
DV Quarter-Phased Transit Curves

TCE 001717722-01 P=417.666243 Days $T_0=186.188308$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

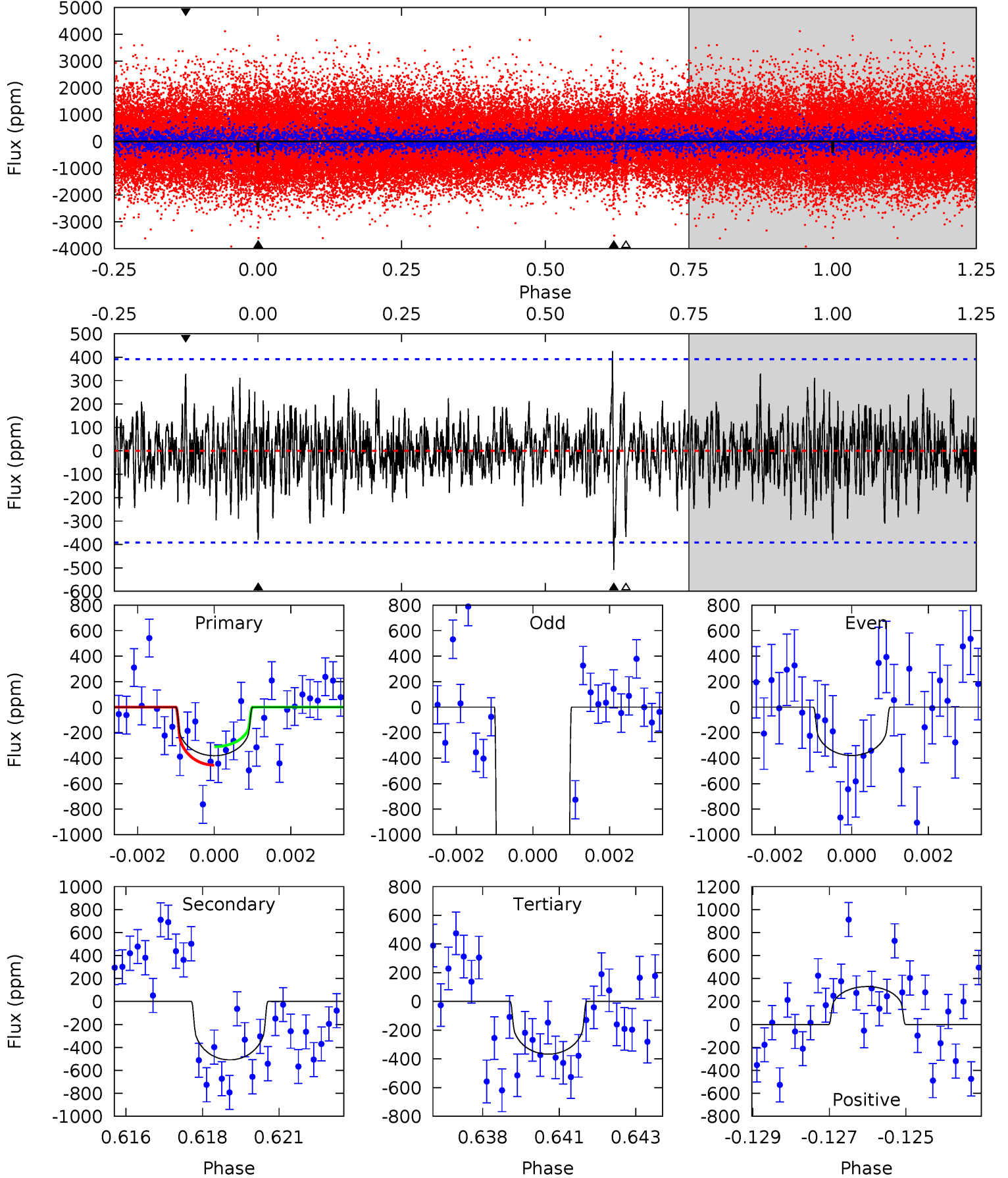
TCE 001717722-01 P=417.668778 Days $T_0=186.177009$ (BKJD)



DV Model-Shift Uniqueness Test

001717722-01, P = 417.666243 Days, E = 186.188308 Days

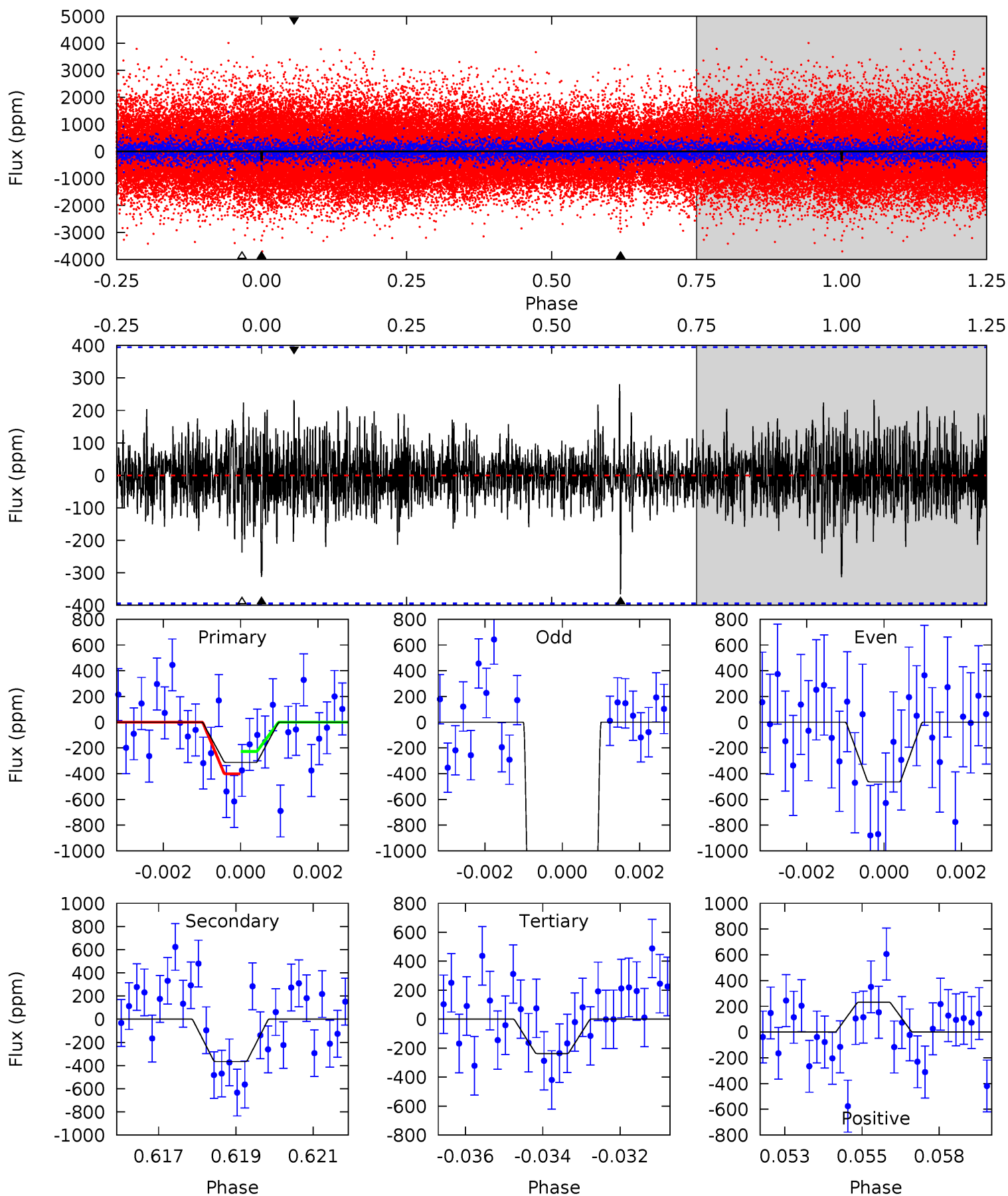
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.16	6.89	4.98	4.47	5.31	3.06	1.29	0.18	0.69	1.92	2.43	60.1	11.3	0.46	0.98



Alt Model-Shift Uniqueness Test

001717722-01, P = 417.668778 Days, E = 186.177009 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.21	4.93	3.19	3.12	5.31	3.07	0.88	1.02	1.09	1.74	1.82	67.6	10.5	0.43	1.18



Stellar Parameters For KIC 001717722

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4805^{+144}_{-144}	$4.633^{+0.027}_{-0.059}$	$-0.060^{+0.300}_{-0.300}$	$0.688^{+0.079}_{-0.045}$	$0.769^{+0.053}_{-0.079}$	$3.325^{+0.388}_{-0.755}$
	+3%/-3%	+1%/-1%	+500%/-500%	+11%/-7%	+7%/-10%	+12%/-23%
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 001717722-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-509 ± 74	$2.05^{+1.27}_{-1.06}$	249^{+10}_{-8}	4480^{+1686}_{-709}	$65038^{+211343}_{-39780}$
Alt.	-366 ± 74	$5.51^{+1.34}_{-1.34}$	249^{+9}_{-9}	3064^{+277}_{-210}	6644^{+4917}_{-2575}

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 $A_{obs} \gg 1.0$

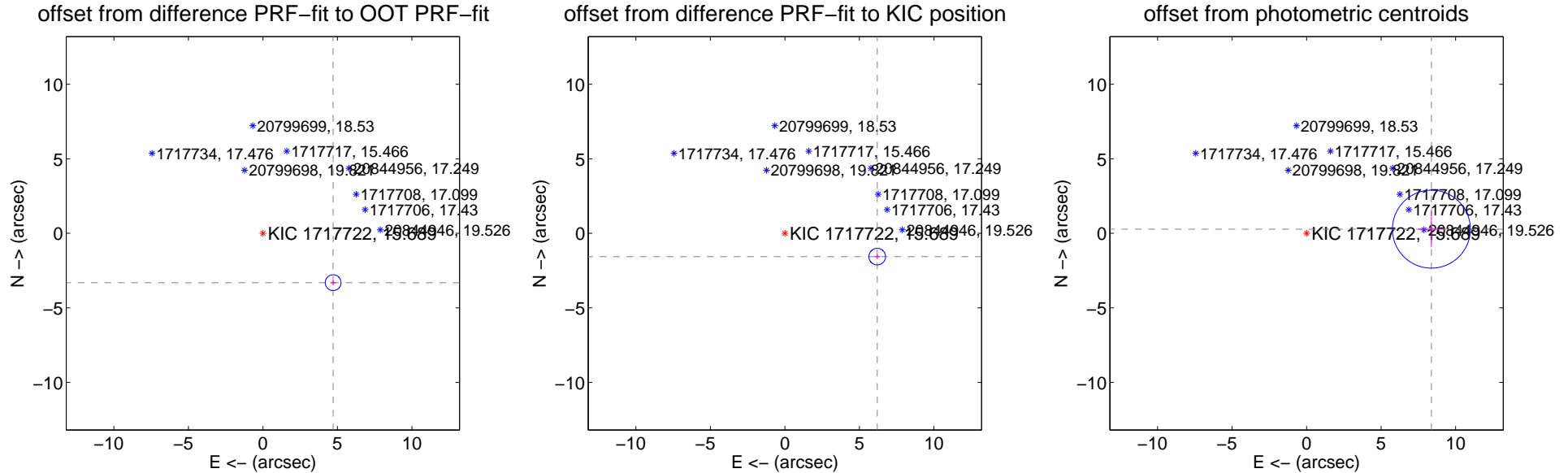
DV Centroid Data

Supplemental centroid analysis for 001717722-01. Kepler magnitude: 15.69. Transit SNR 5.23

There are 0 quarters with good PRF difference image offsets

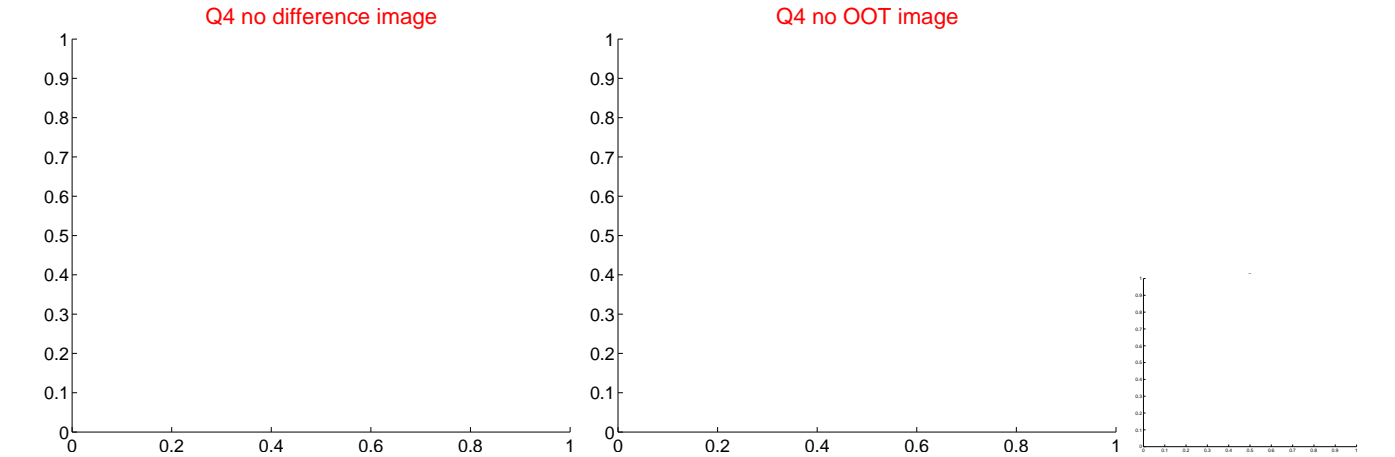
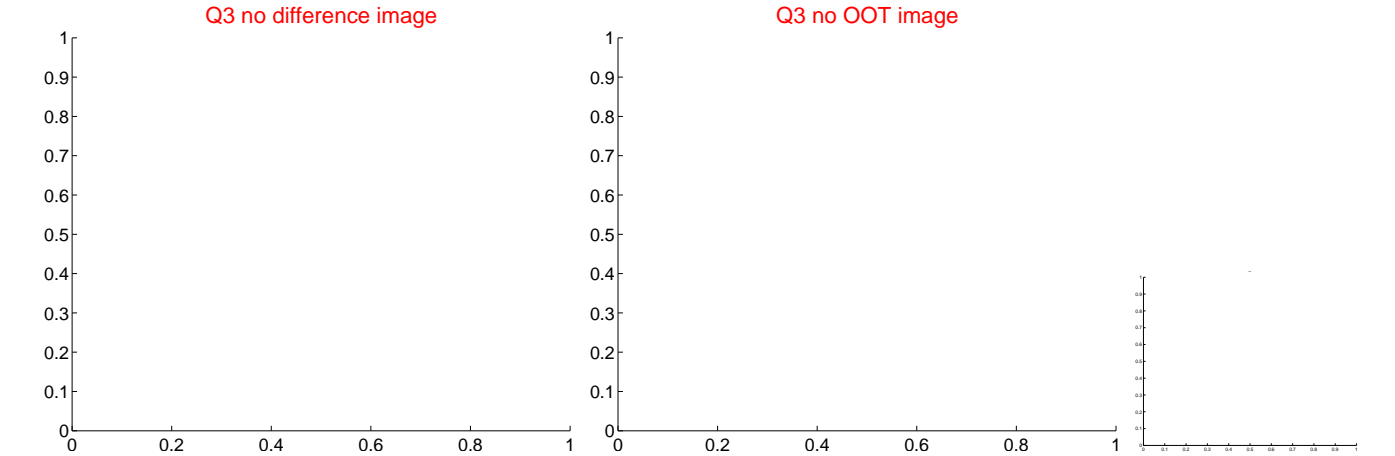
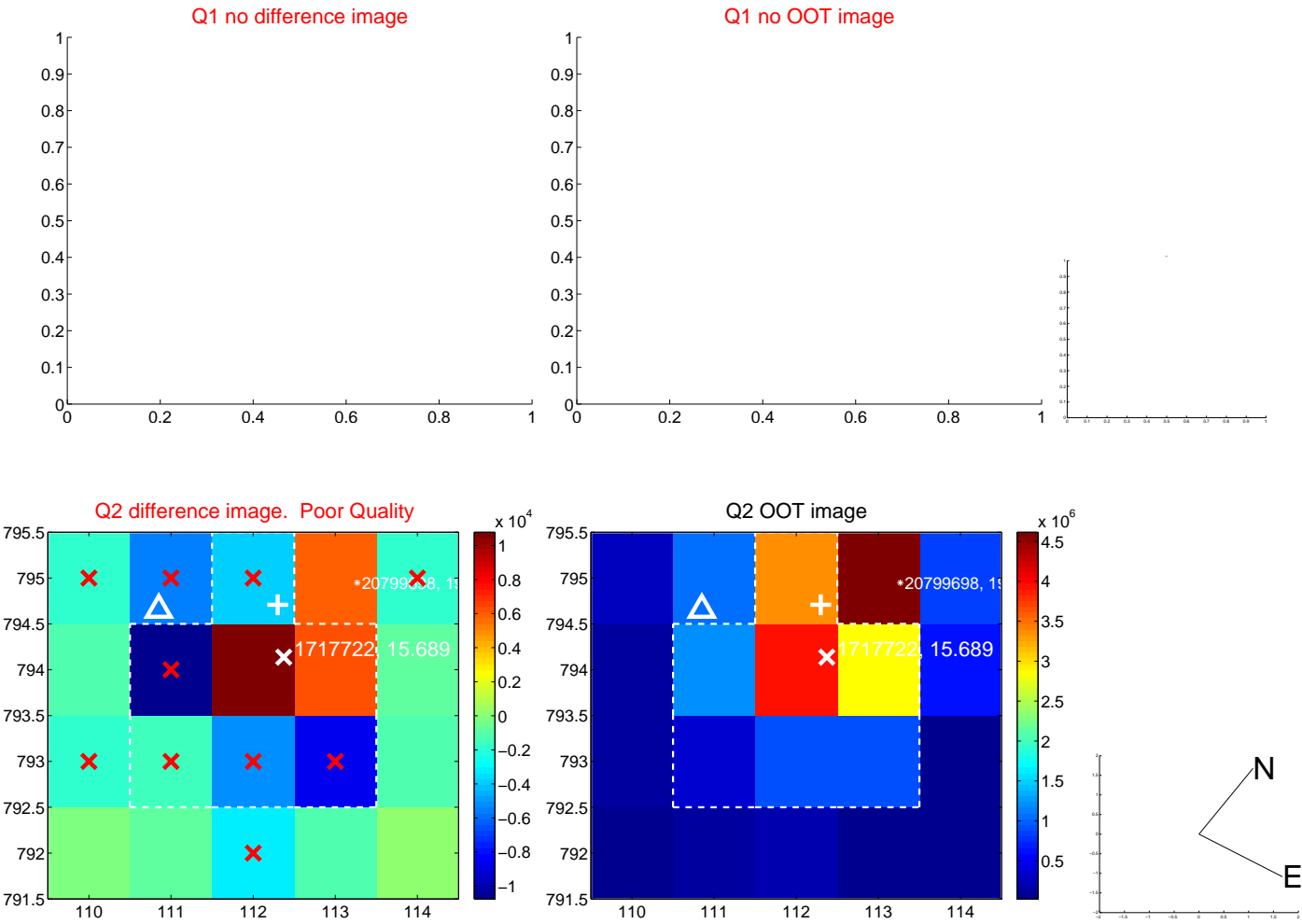
The OOT PRF centroid is offset from the target star catalog position by about 2.29 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.757 ± 0.177	32.57	-4.711 ± 0.188	-3.309 ± 0.152
PRF-fit source offset from KIC position	6.389 ± 0.186	34.40	-6.195 ± 0.188	-1.563 ± 0.152
photometric centroid source offset	8.38 ± 0.87	9.61	-8.37 ± 0.87	0.28 ± 1.21

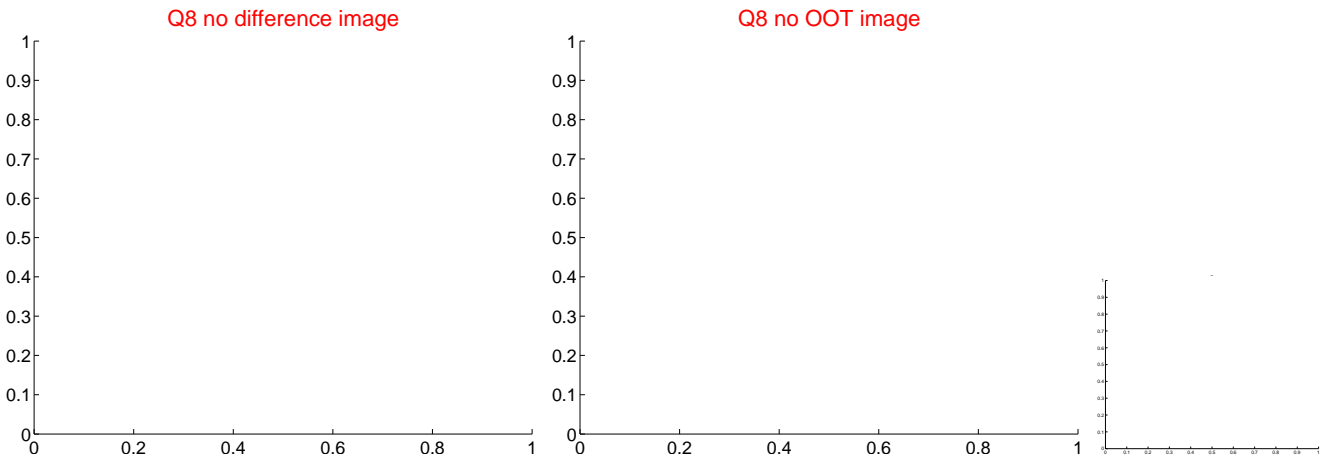
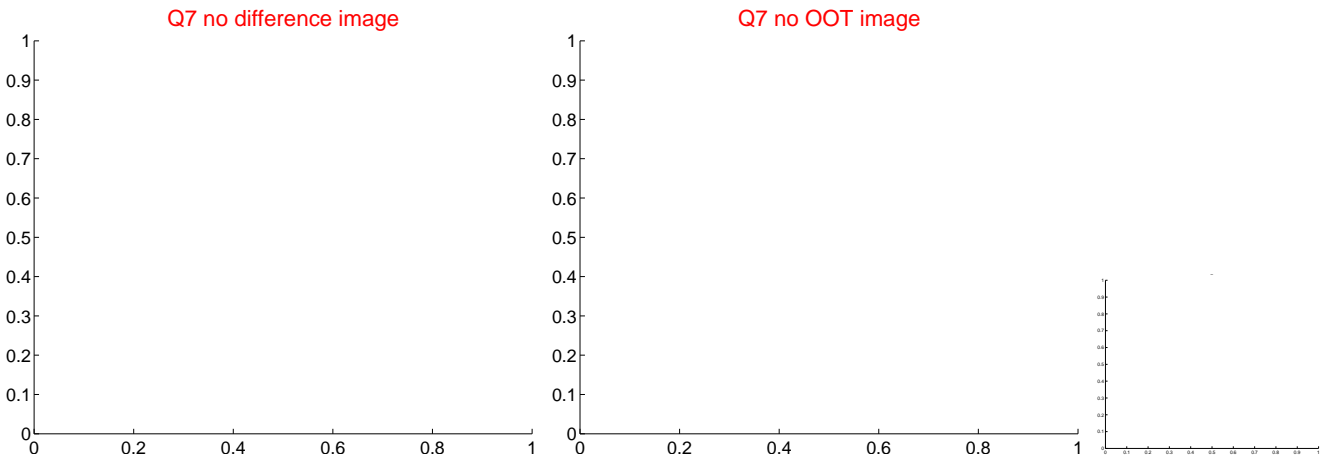
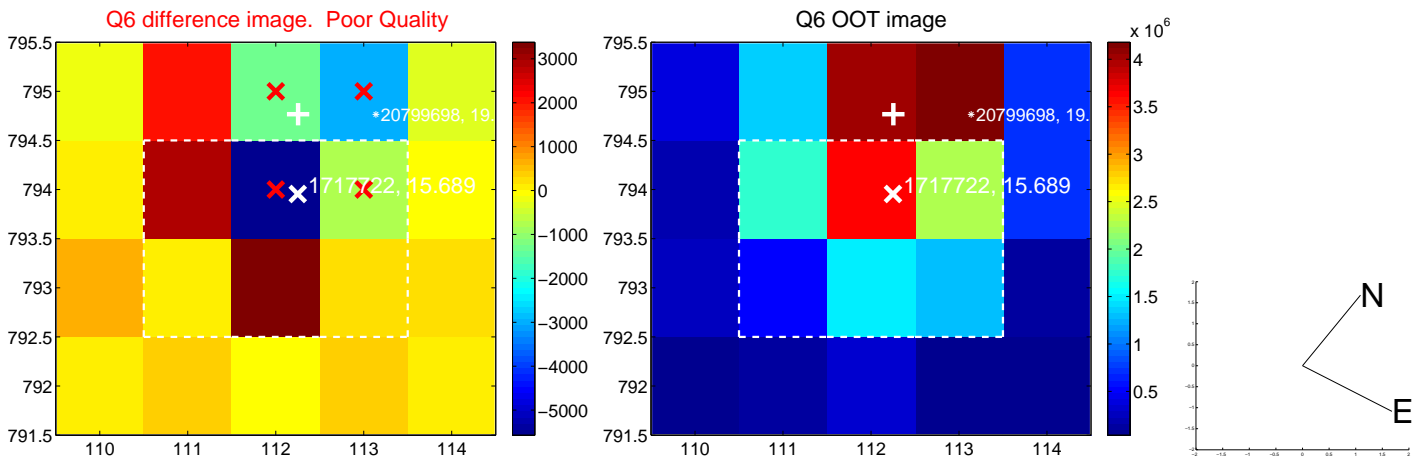
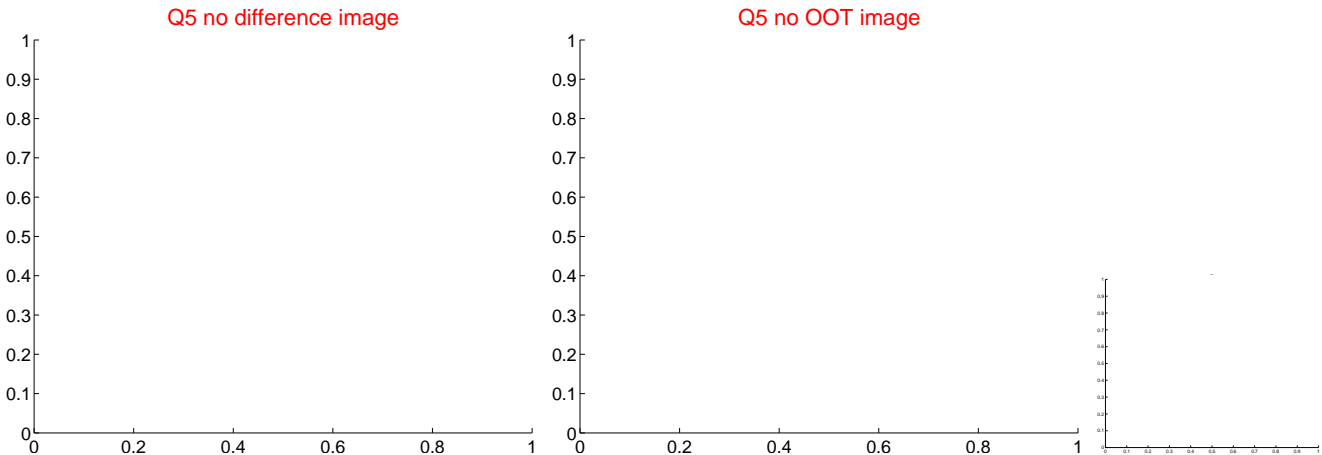


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



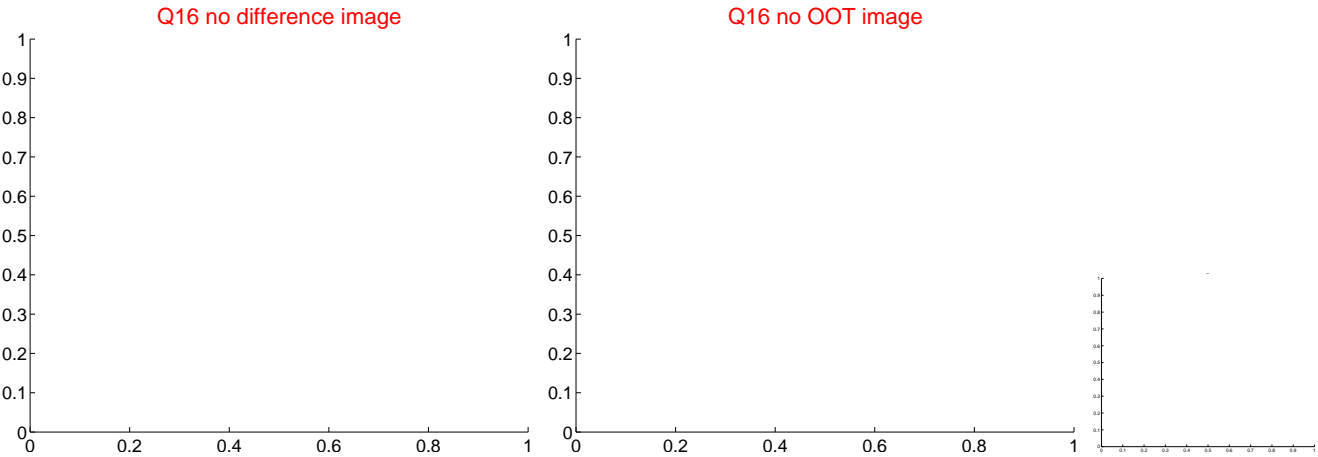
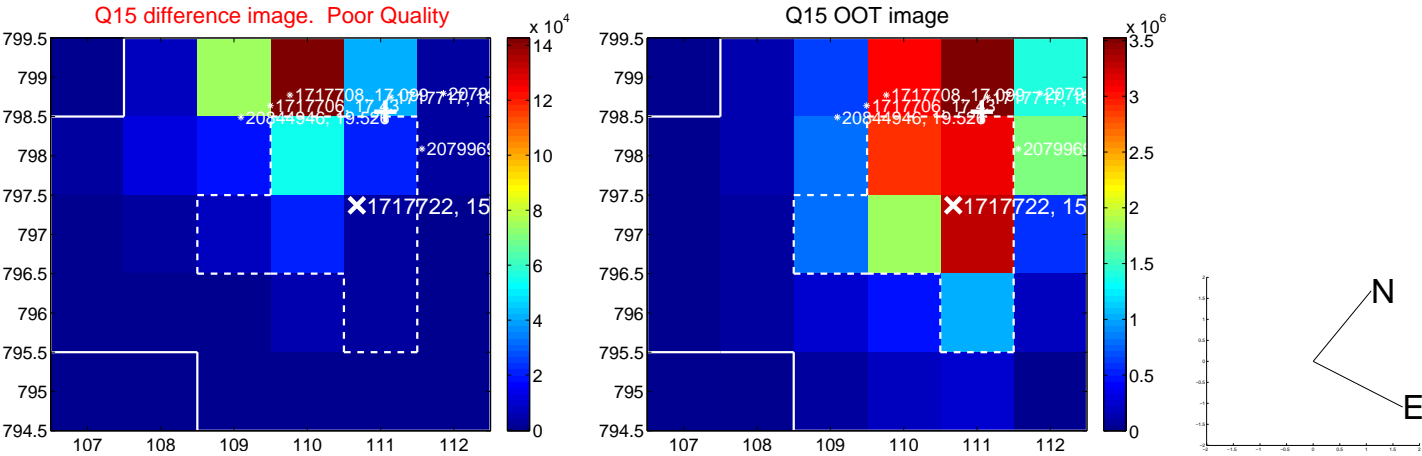
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



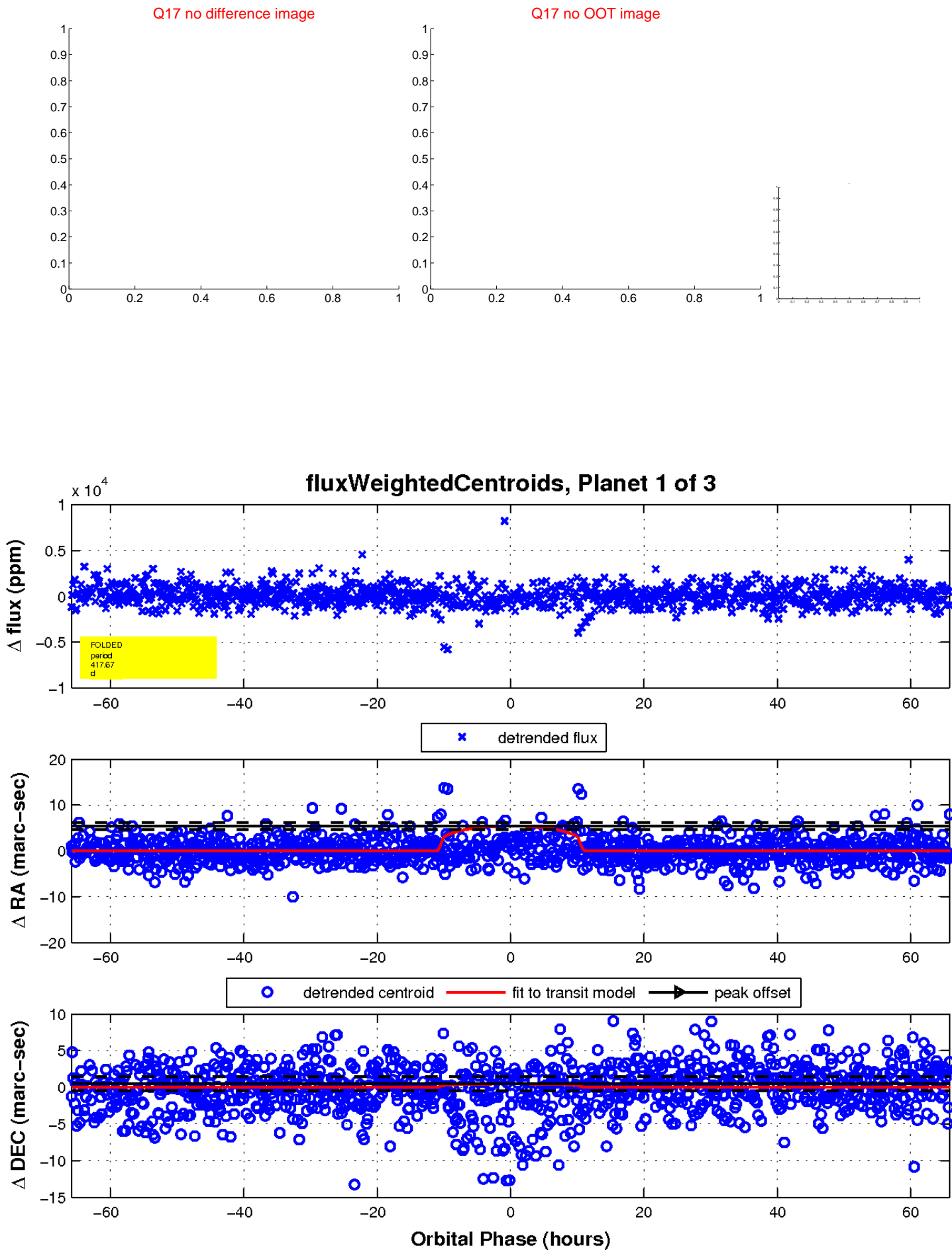
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

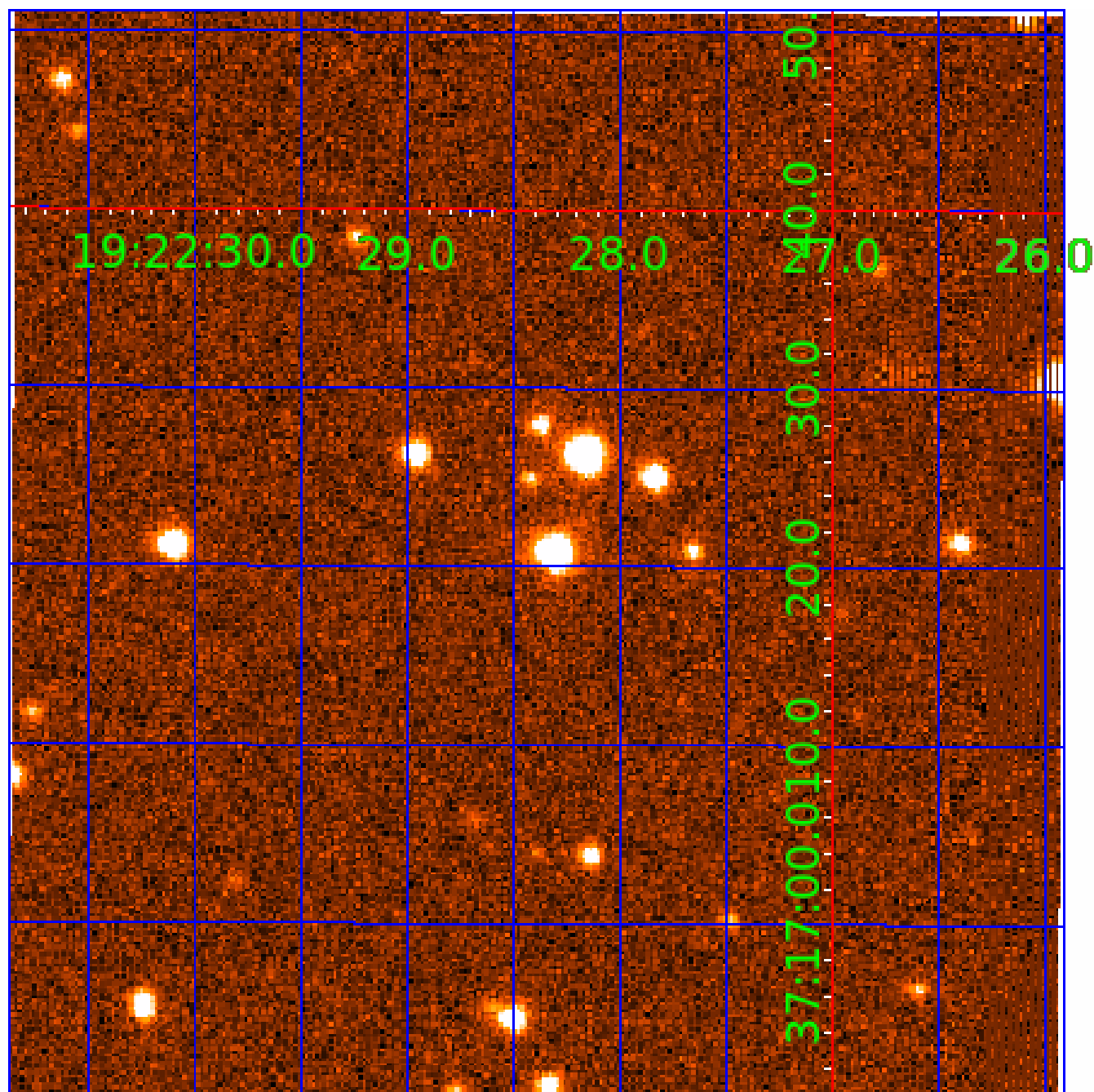


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 001717722

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})
001717722-01	OBS	No	417.666243	186.188308	724.1	21.975	44.1	5.2	0.69	4805	1.93	0.23
001717722-02	OBS	3145.01	4.537002	132.186249	480.5	1.866	13.8	15.2	0.69	4805	1.82	95.87
001717722-03	OBS	3145.02	0.977296	131.710324	210.4	1.658	12.2	13.5	0.69	4805	1.23	742.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001717722-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_DIFFS
001717722-02	OBS	PC	1.00	0	0	0	0	CENT_FEW_MEAS
001717722-03	OBS	PC	0.86	0	0	0	0	CENT_KIC_POS

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

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

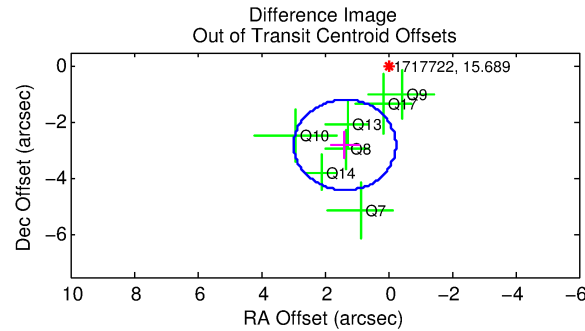
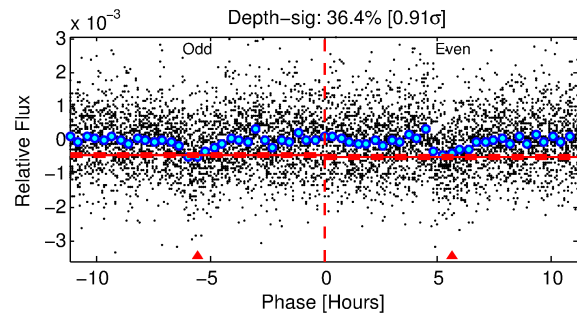
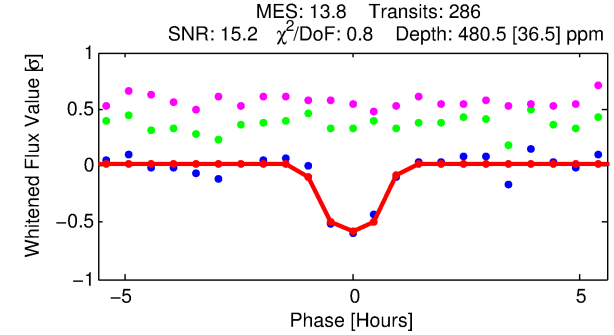
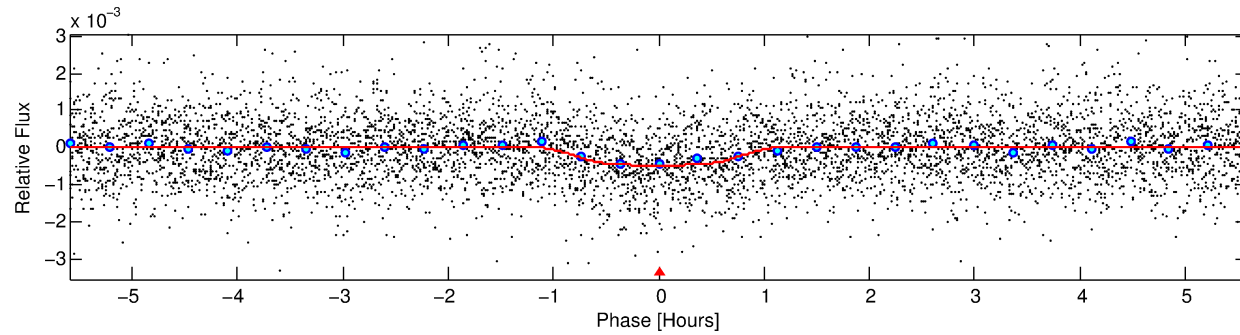
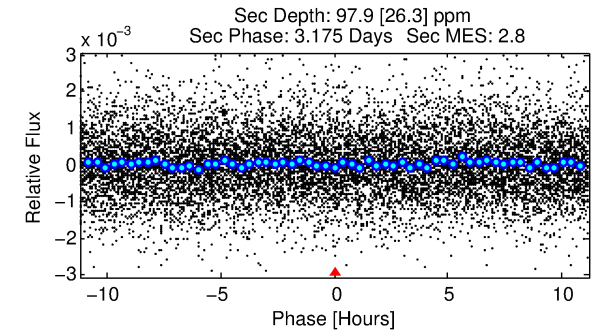
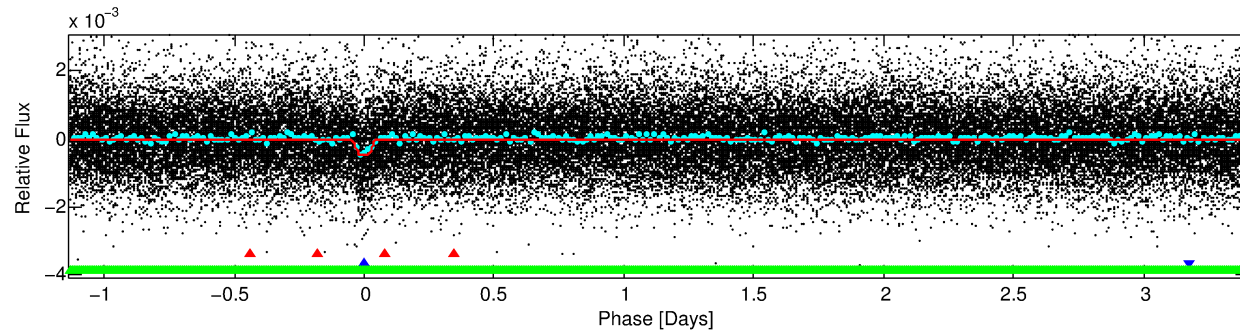
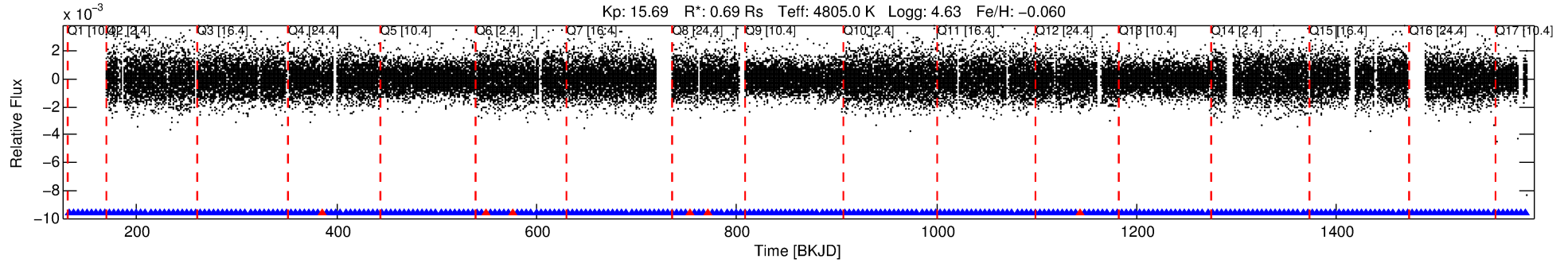
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001717722-02

No Significant Match Found

DV One-Page Summary

KIC: 1717722 Candidate: 2 of 3 Period: 4.537 d
KOI: K03145.01 Corr: 0.966



DV Fit Results:

Period = 4.53700 [0.00002] d
Epoch = 132.1862 [0.0025] BKJD
Rp/R* = 0.0243 [0.0140]
a/R* = 9.62 [20.22]
b = 0.89 [0.54]
Seff = 95.87 [16.17]
Teq = 798 [34] K
Rp = 1.82 [1.07] Re
a = 0.0486 [0.0043] AU
Ag = 38.26 [45.41] [0.82σ]
Teffp = 3068 [910] K [2.49σ]

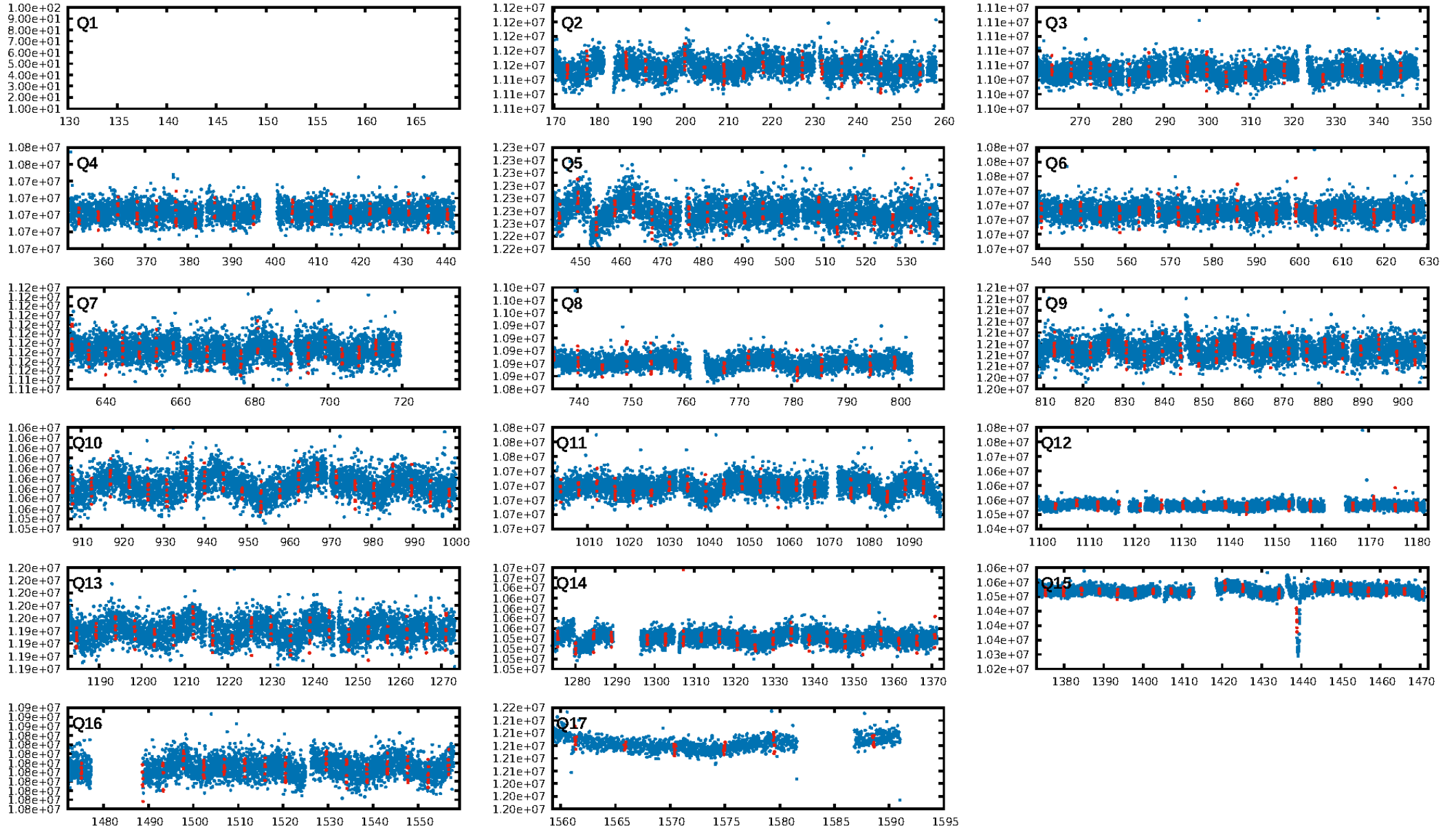
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [34.22σ]
LongPeriod-sig: 100.0% [449.57σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.93e-42
RollingBand-fgt: 0.98 [274/280]
GhostDiagnostic-chr: 0.9422
Centroid-sig: 0.9%
Centroid-so: 0.956 arcsec [2.15σ]
OotOffset-rm: 3.113 arcsec [5.80σ]
KicOffset-rm: 0.253 arcsec [0.66σ]
OotOffset-st: 2/1/1/3 [7]
KicOffset-st: 2/1/1/4 [8]
DiffImageQuality-fgm: 0.62 [5/8]
DiffImageOverlap-fno: 1.00 [16/16]

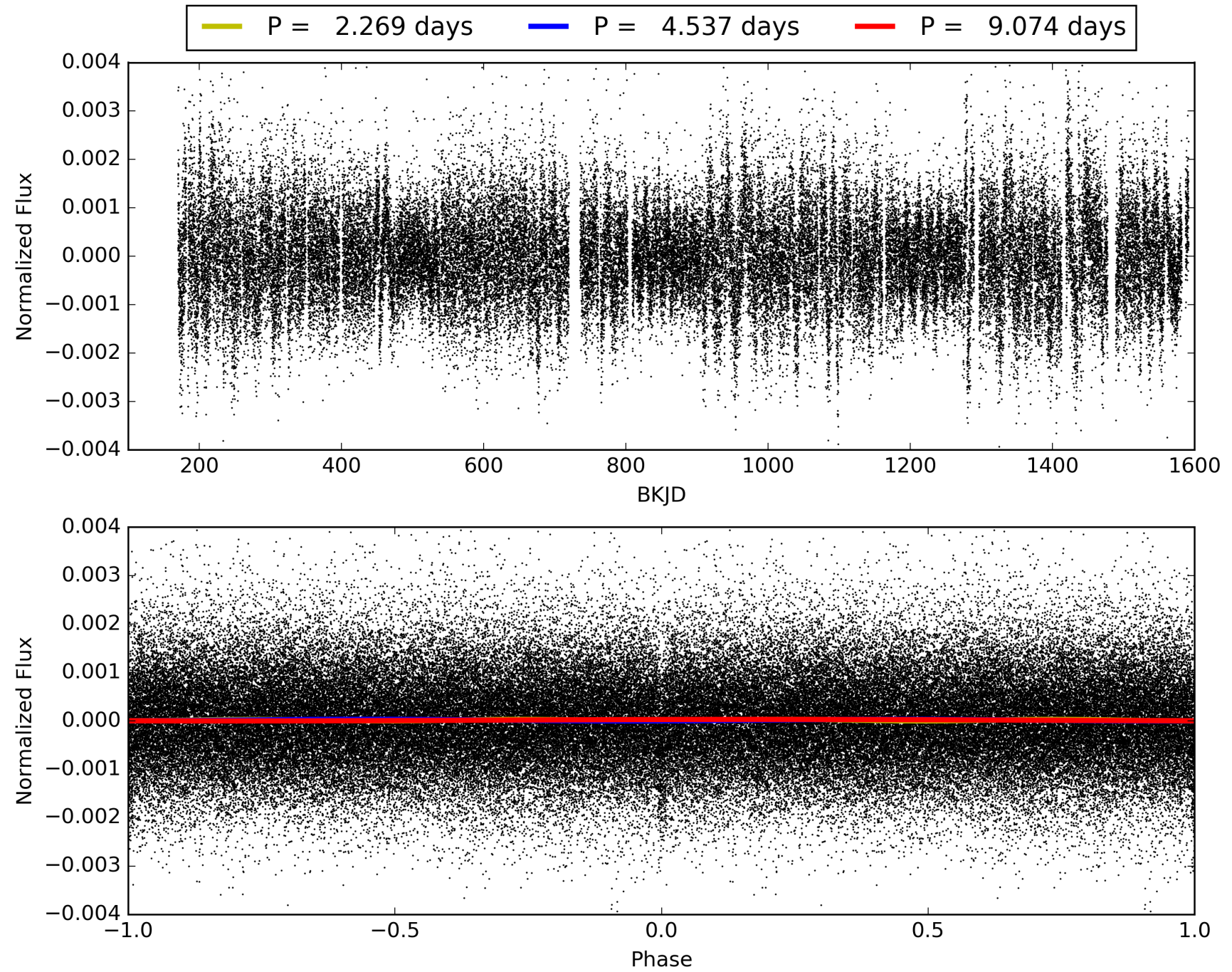
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:15:17 Z

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

TCE 001717722-02, PDC Light Curves

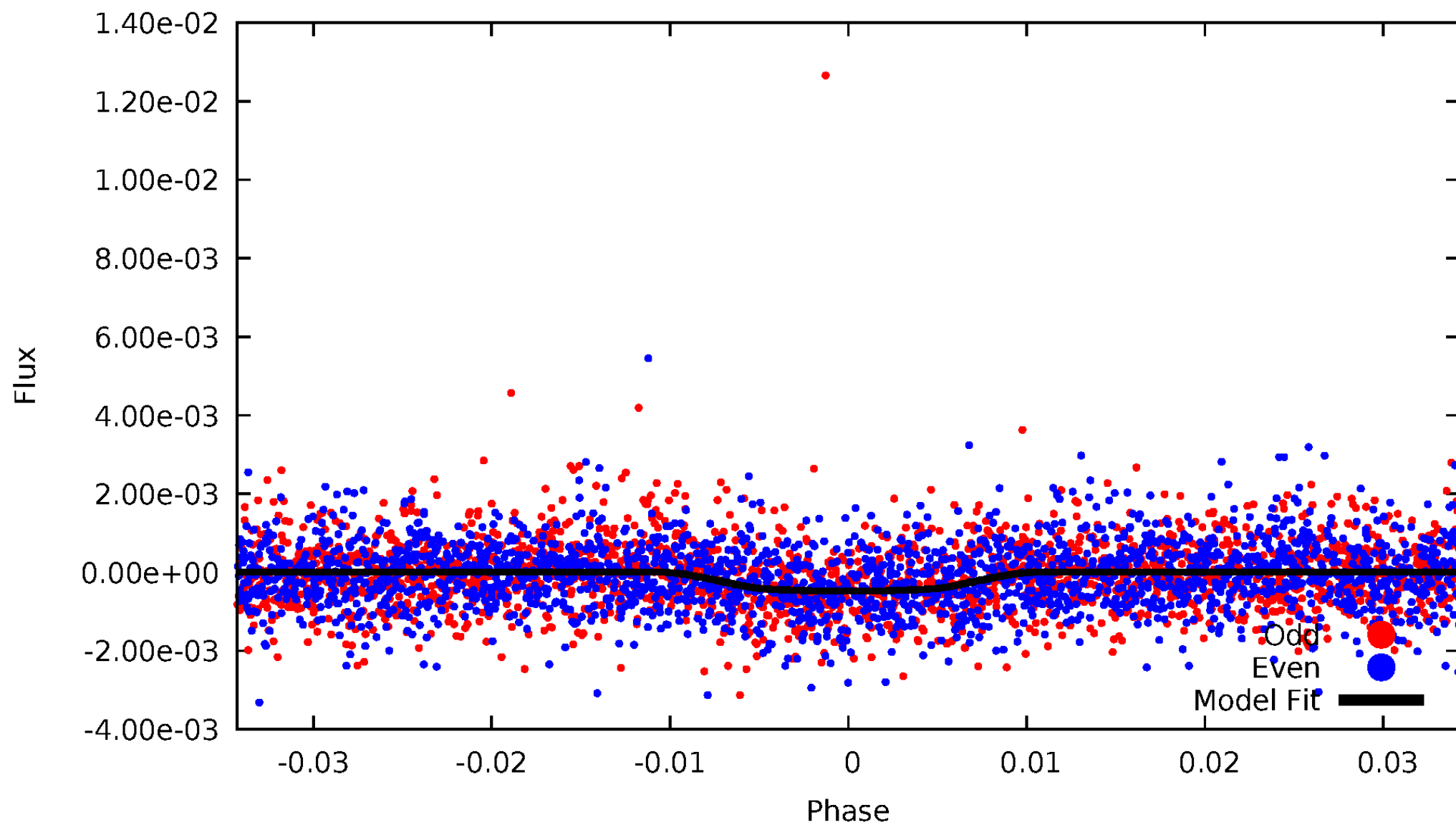


TCE 001717722-02



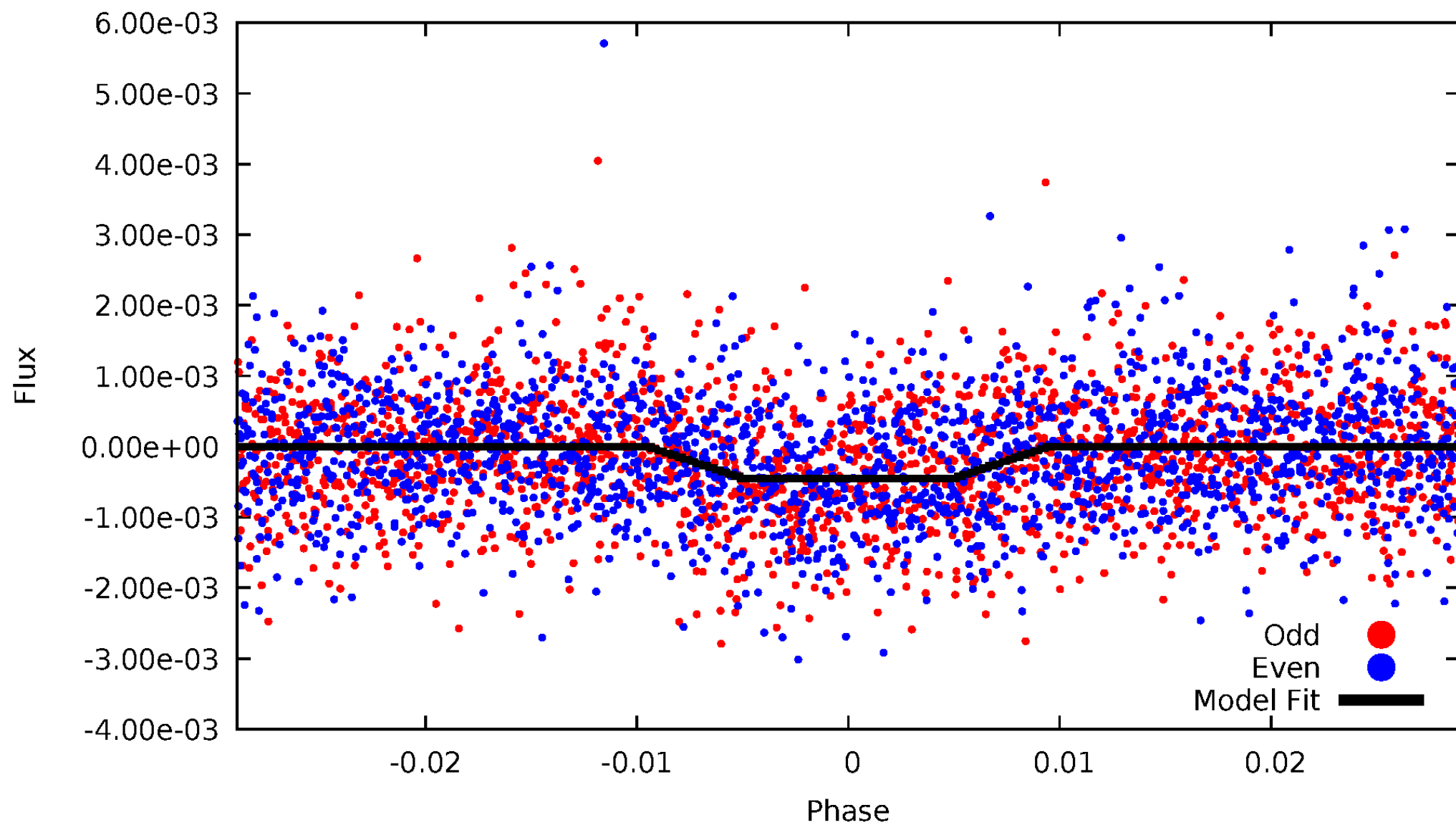
DV Odd/Even

TCE 001717722-02



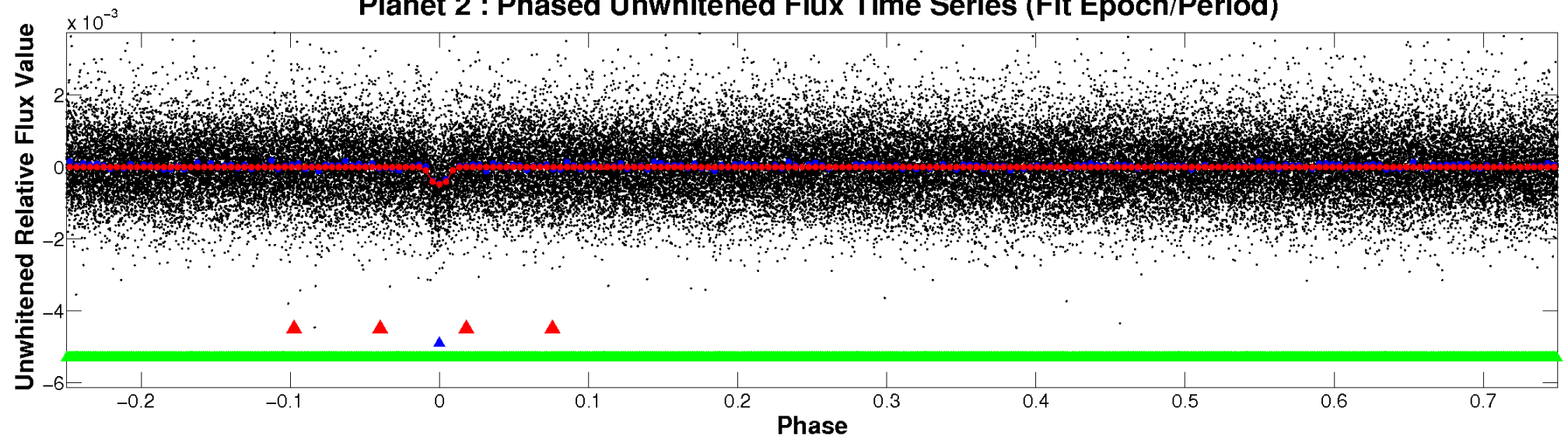
ALT Odd/Even

TCE 001717722-02

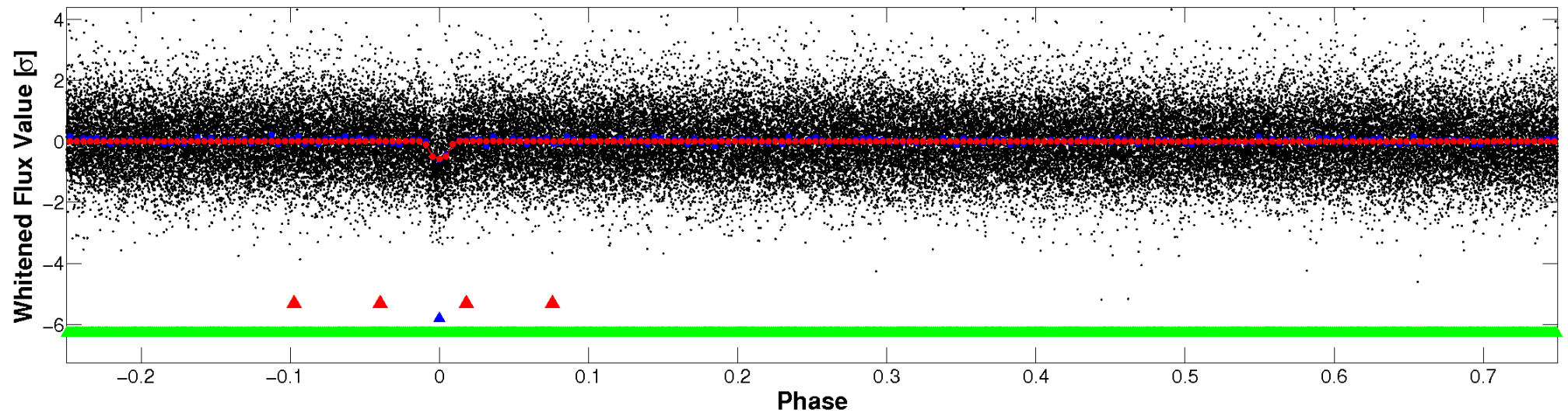


Non-Whitened Vs. Whitened Light Curve

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

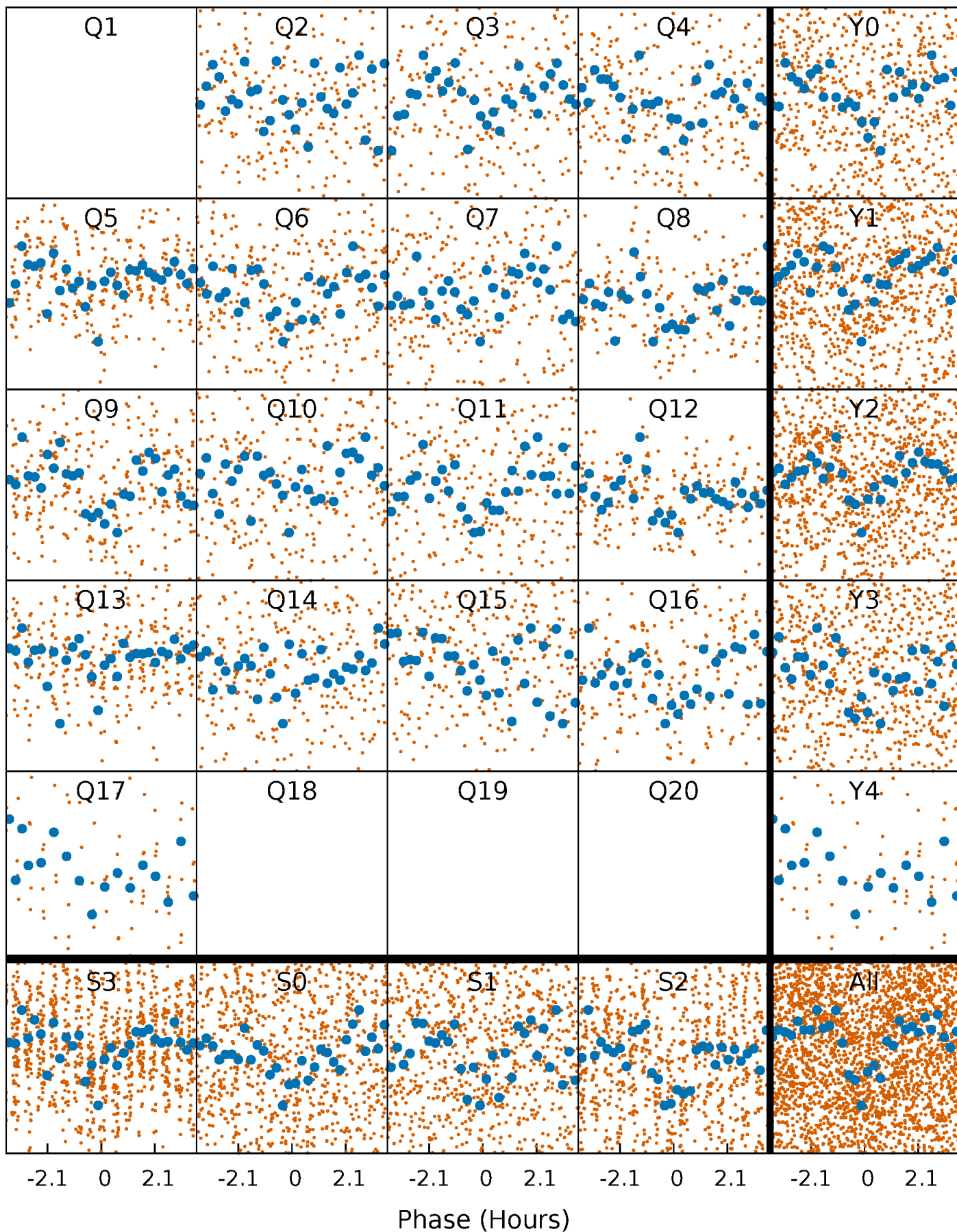


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



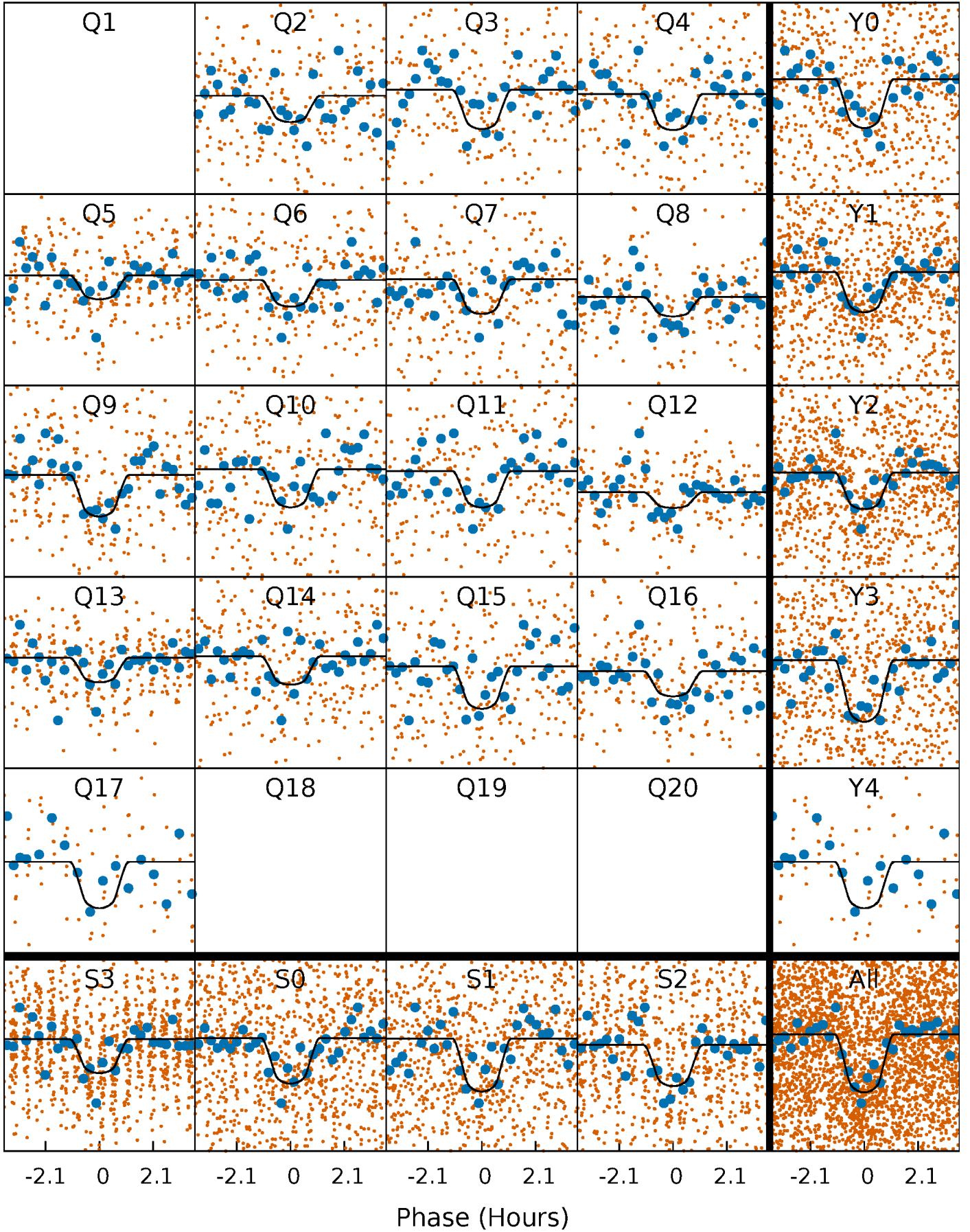
PDC Quarter-Phased Transit Curves

TCE 001717722-02 P= 4.537002 Days $T_0=132.186249$ (BKJD)



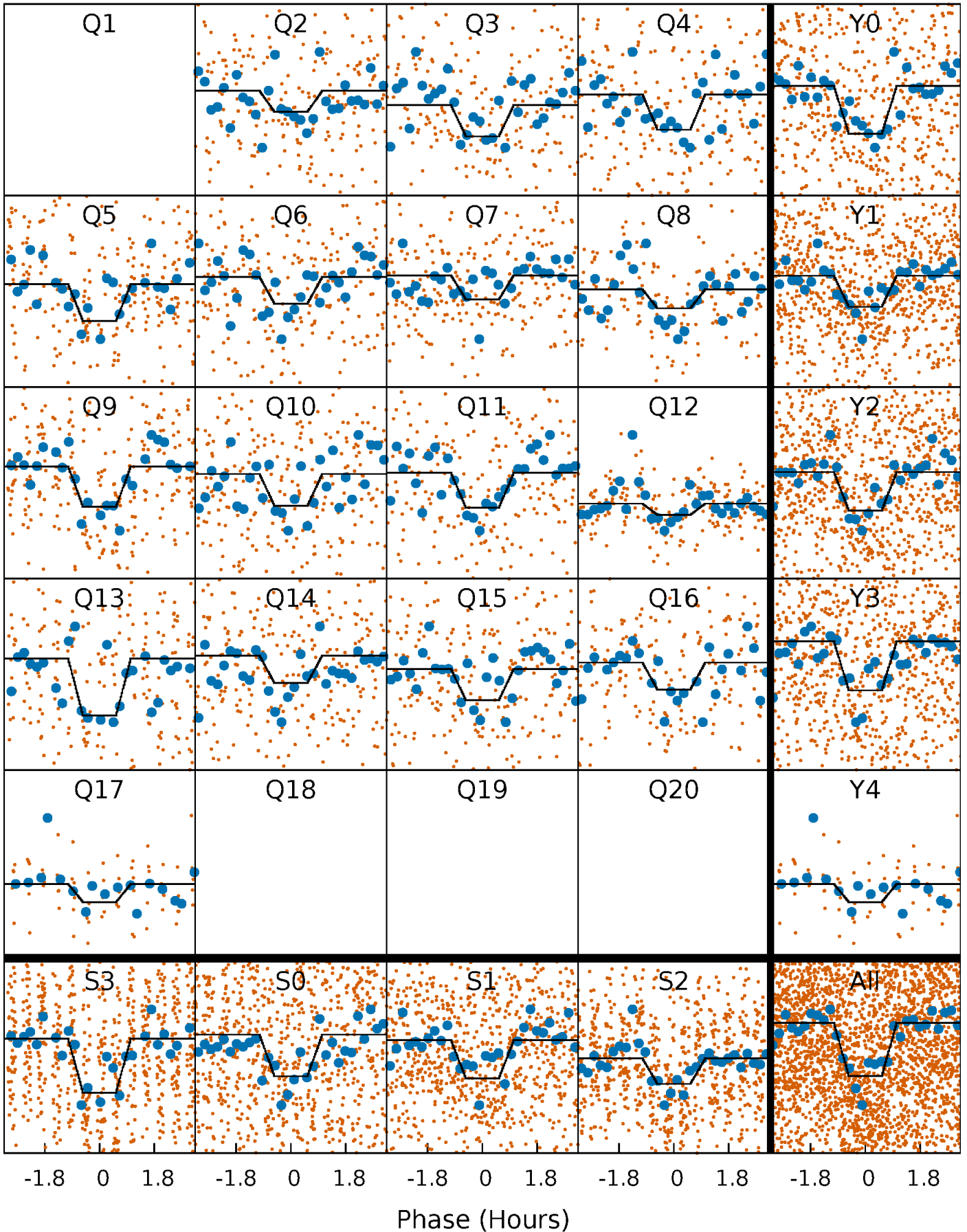
DV Quarter-Phased Transit Curves

TCE 001717722-02 P= 4.537002 Days $T_0=132.186249$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

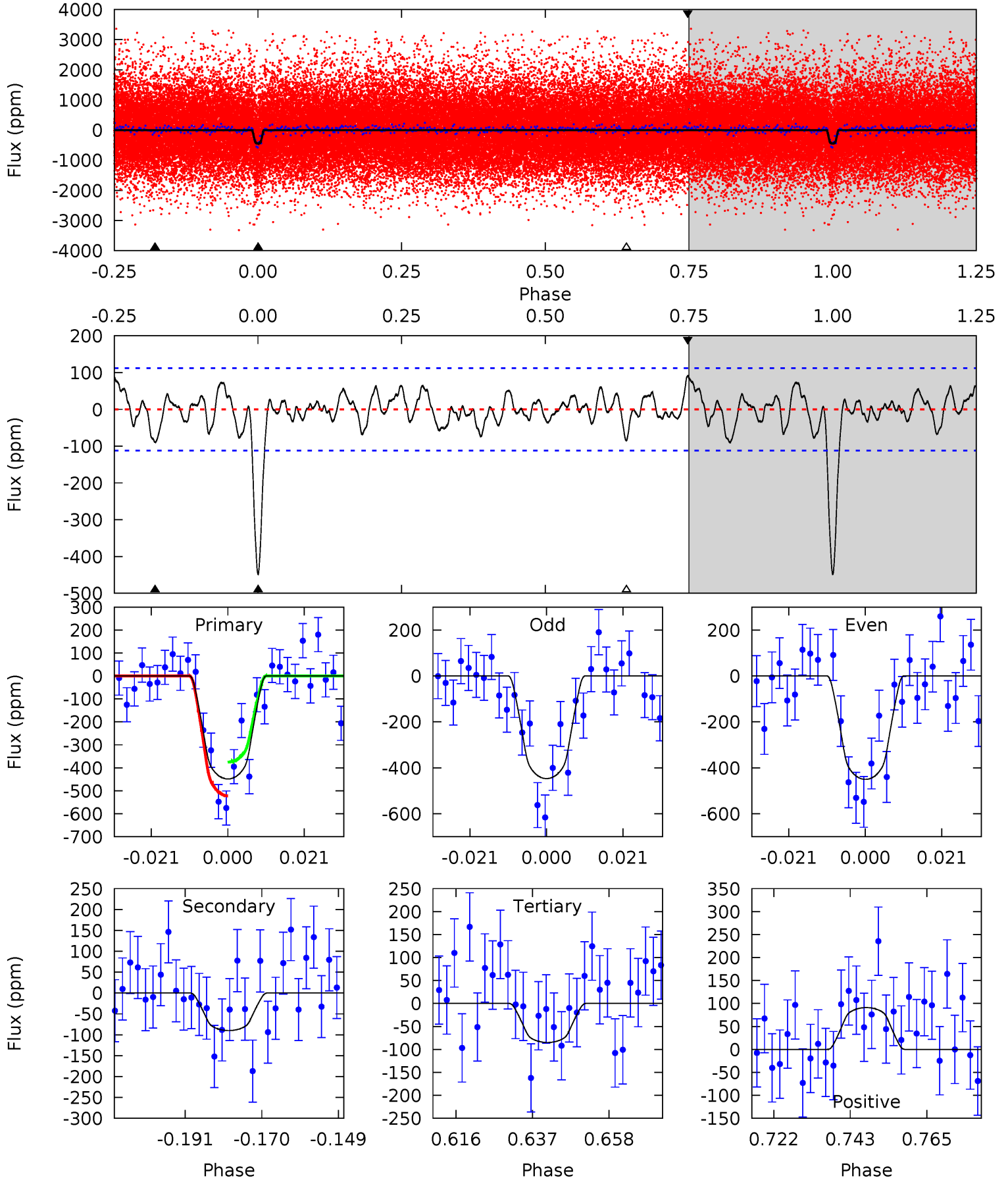
TCE 001717722-02 P= 4.537012 Days $T_0=132.185655$ (BKJD)



DV Model-Shift Uniqueness Test

001717722-02, P = 4.537002 Days, E = 132.186249 Days

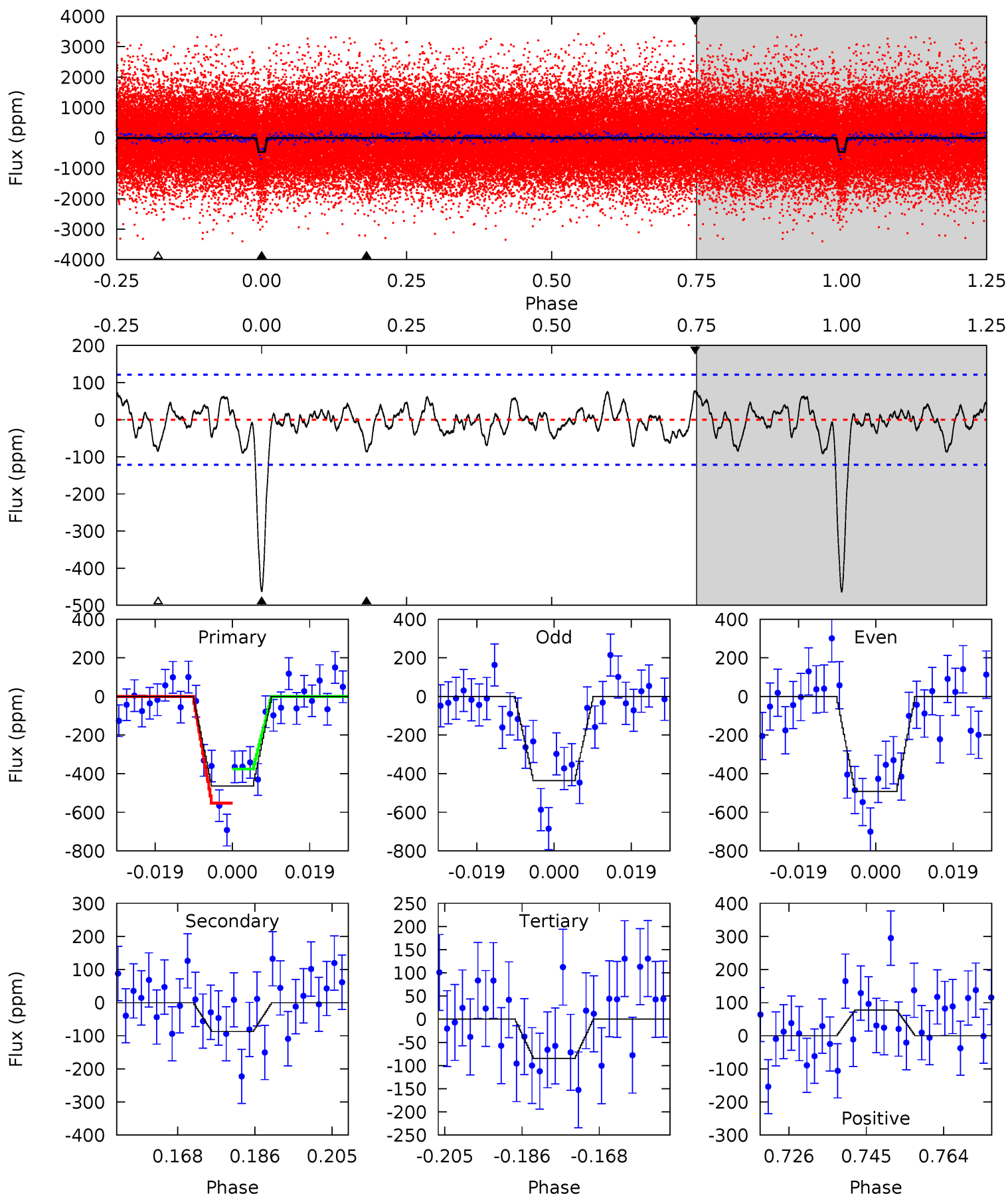
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.5	3.92	3.70	3.96	4.88	2.30	1.43	15.8	15.6	0.22	-0.05	0.07	0.92	0.17	3.21



Alt Model-Shift Uniqueness Test

001717722-02, P = 4.537012 Days, E = 132.185655 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.8	3.53	3.42	3.15	4.91	2.35	1.27	15.4	15.6	0.10	0.38	1.15	1.02	0.14	3.57



Stellar Parameters For KIC 001717722

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4805^{+144}_{-144}	$4.633^{+0.027}_{-0.059}$	$-0.060^{+0.300}_{-0.300}$	$0.688^{+0.079}_{-0.045}$	$0.769^{+0.053}_{-0.079}$	$3.325^{+0.388}_{-0.755}$
	+3%/-3%	+1%/-1%	+500%/-500%	+11%/-7%	+7%/-10%	+12%/-23%
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 001717722-02 / KOI 3145.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-90 ± 23	$1.92^{+1.10}_{-1.09}$	1125^{+39}_{-41}	3401^{+1184}_{-477}	32^{+147}_{-20}
Alt.	-87 ± 25	$1.68^{+1.05}_{-0.93}$	1124^{+42}_{-41}	3525^{+1222}_{-530}	40^{+172}_{-26}

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

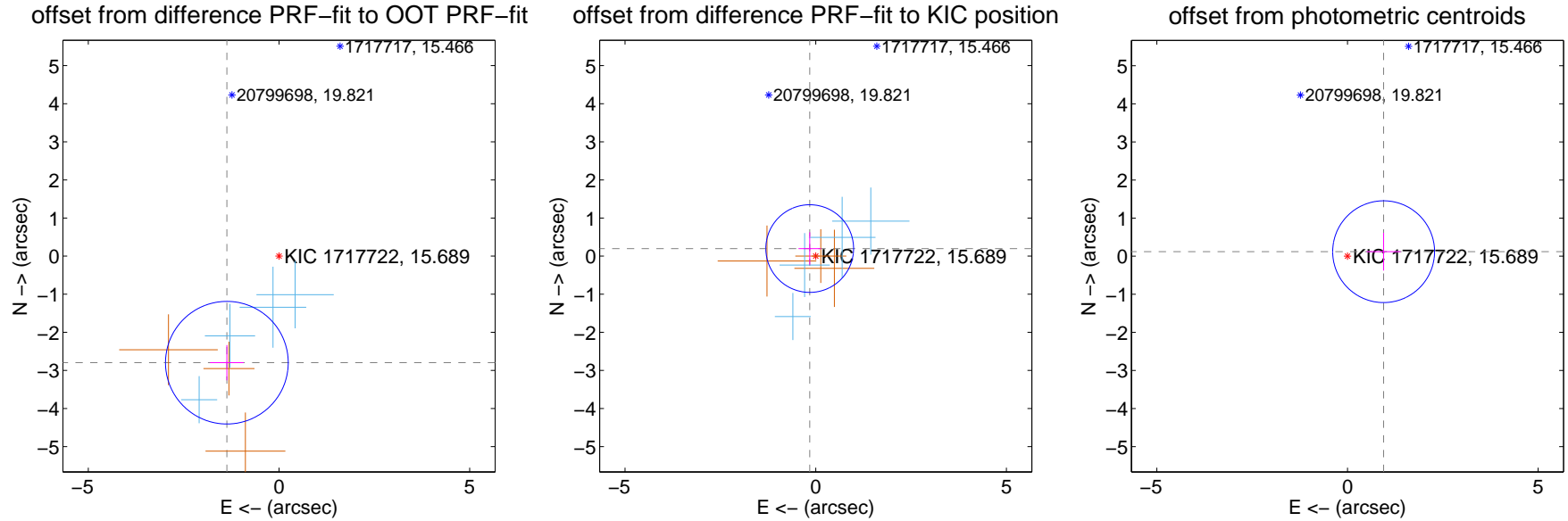
DV Centroid Data

Supplemental centroid analysis for 001717722-02. Kepler magnitude: 15.69. Transit SNR 15.23

There are 5 quarters with good PRF difference image offsets

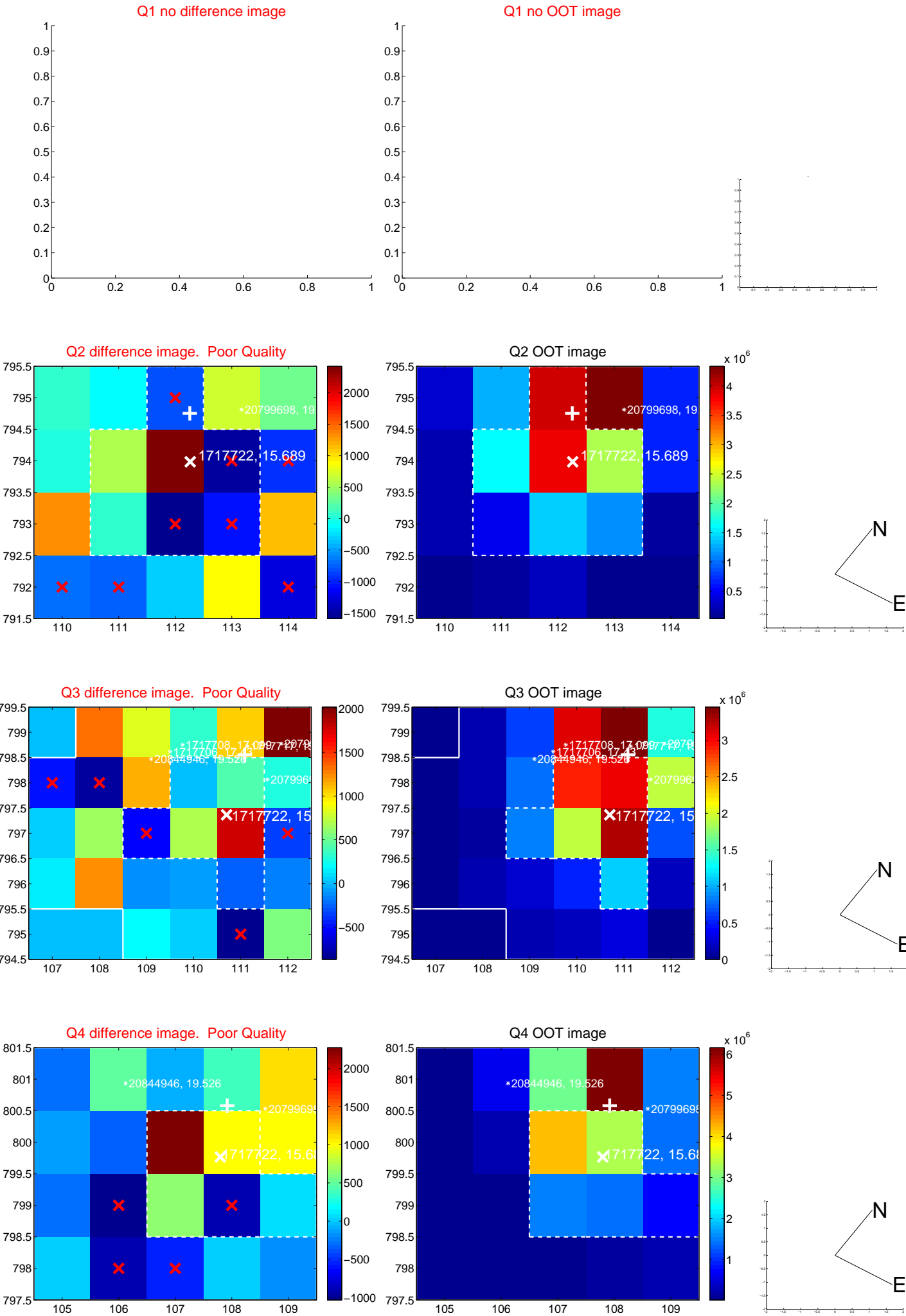
The OOT PRF centroid is offset from the target star catalog position by about 2.02 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.113 ± 0.536	5.80	1.366 ± 0.439	-2.797 ± 0.464
PRF-fit source offset from KIC position	0.253 ± 0.383	0.66	0.157 ± 0.295	0.198 ± 0.428
photometric centroid source offset	0.96 ± 0.45	2.15	-0.95 ± 0.44	0.12 ± 0.50

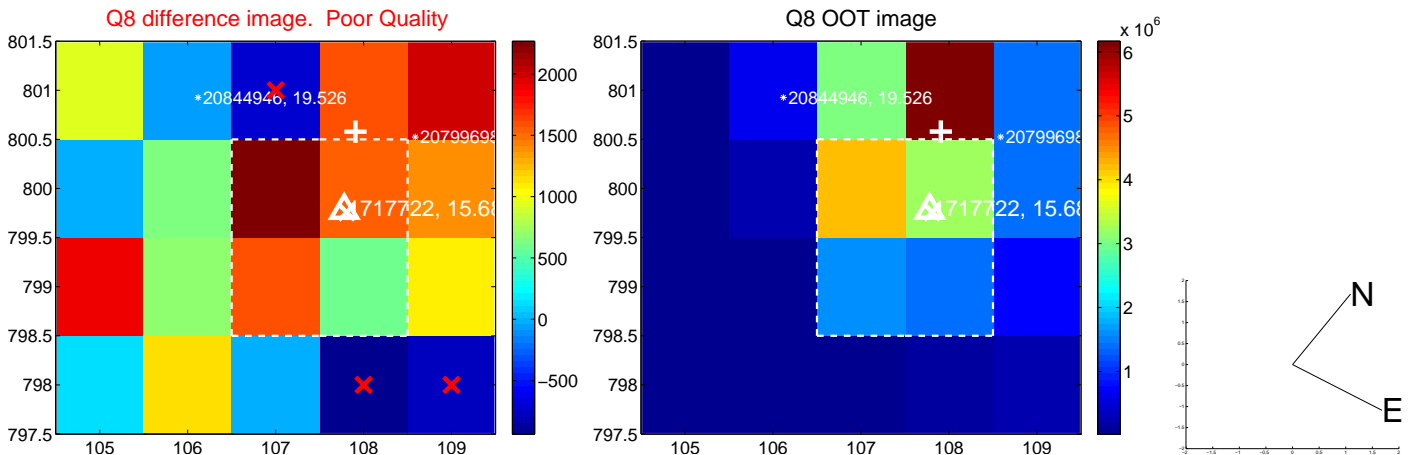
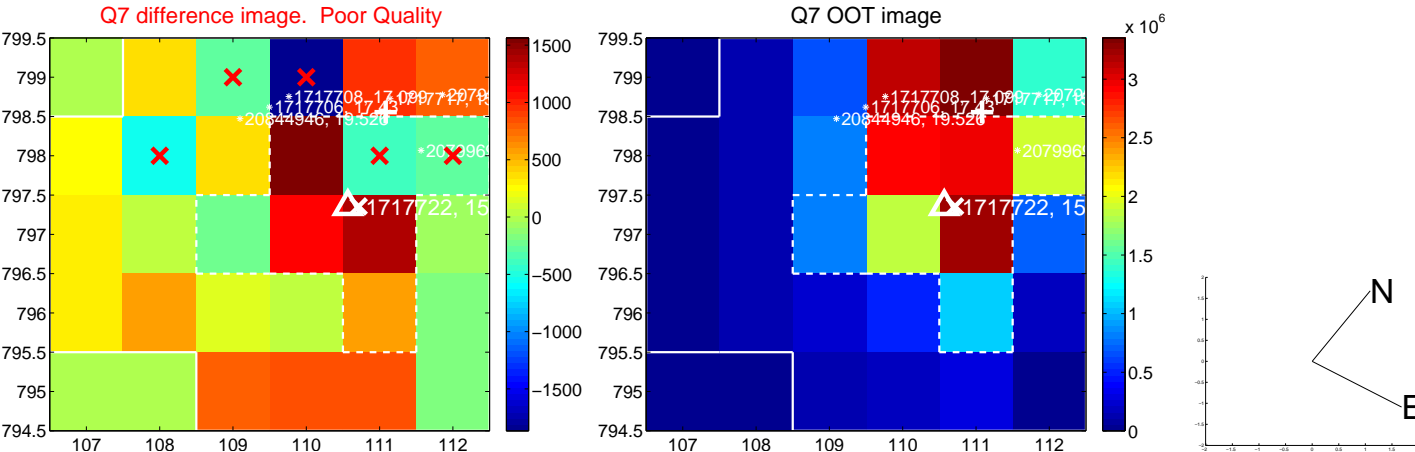
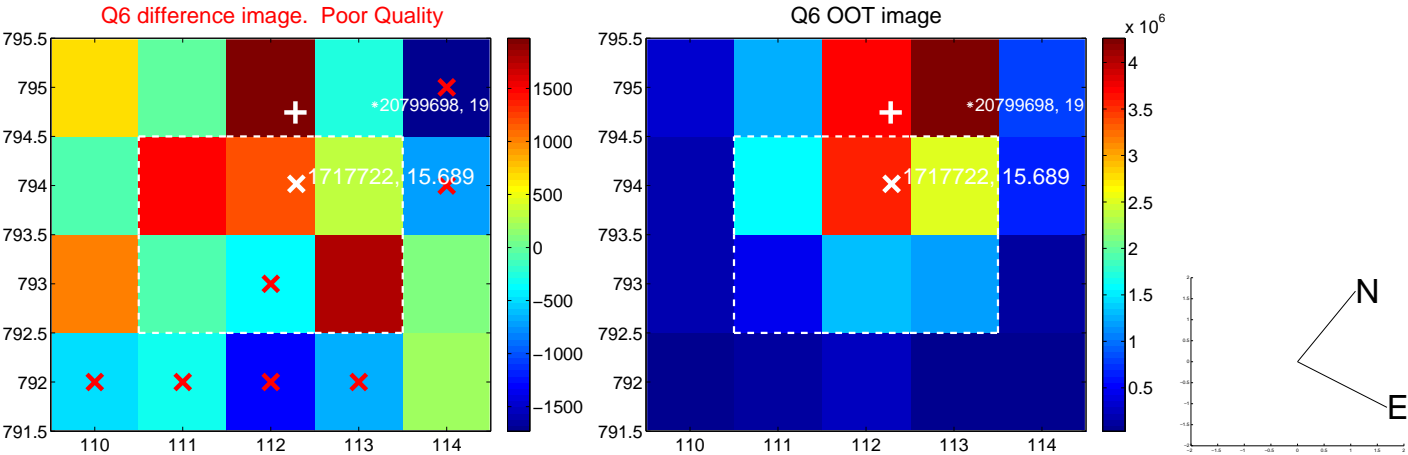
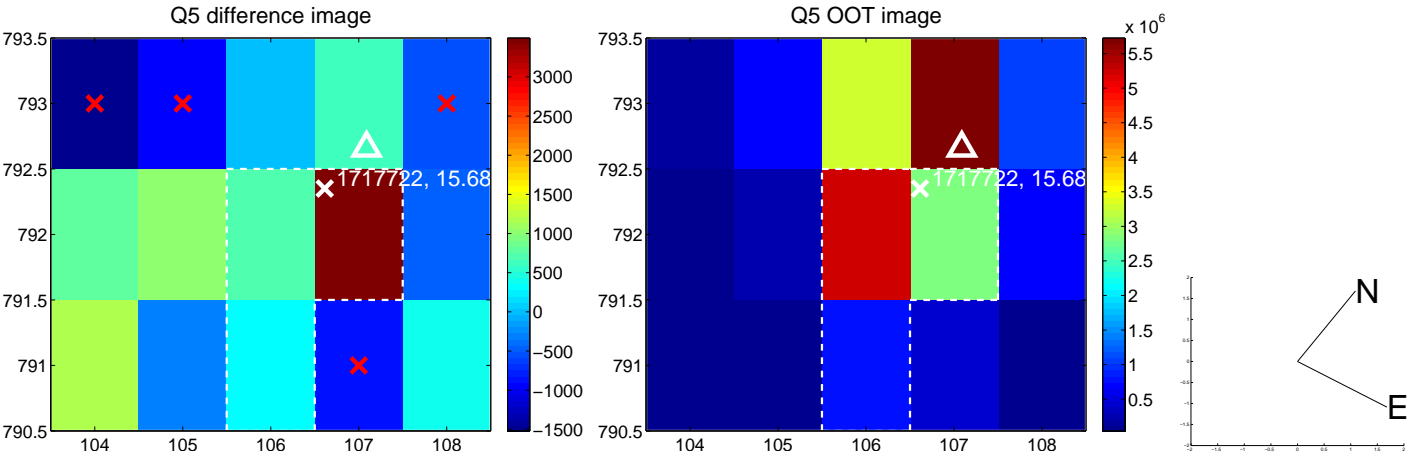


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

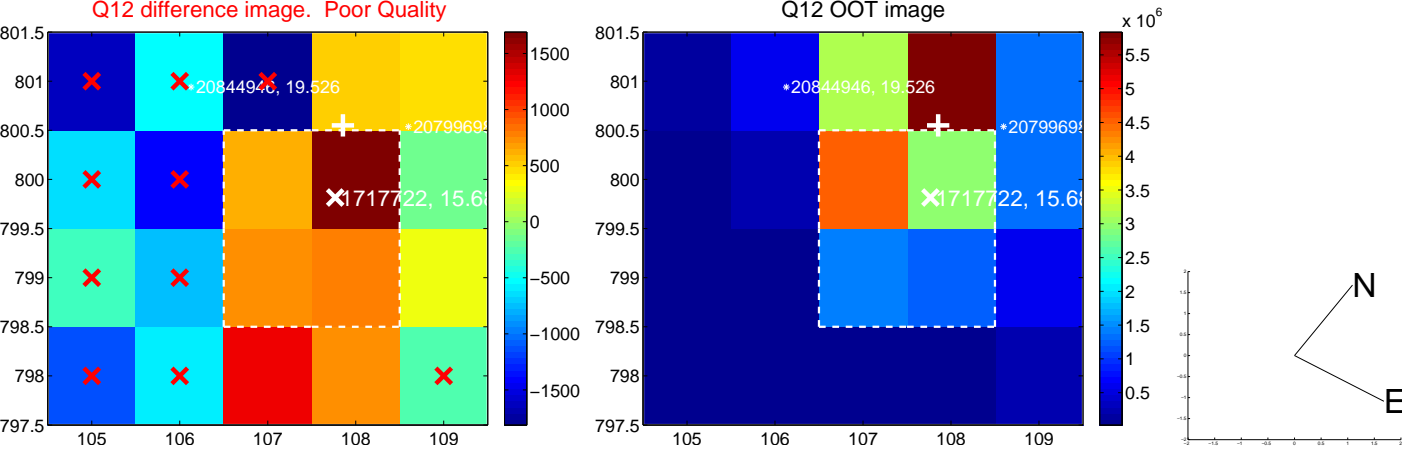
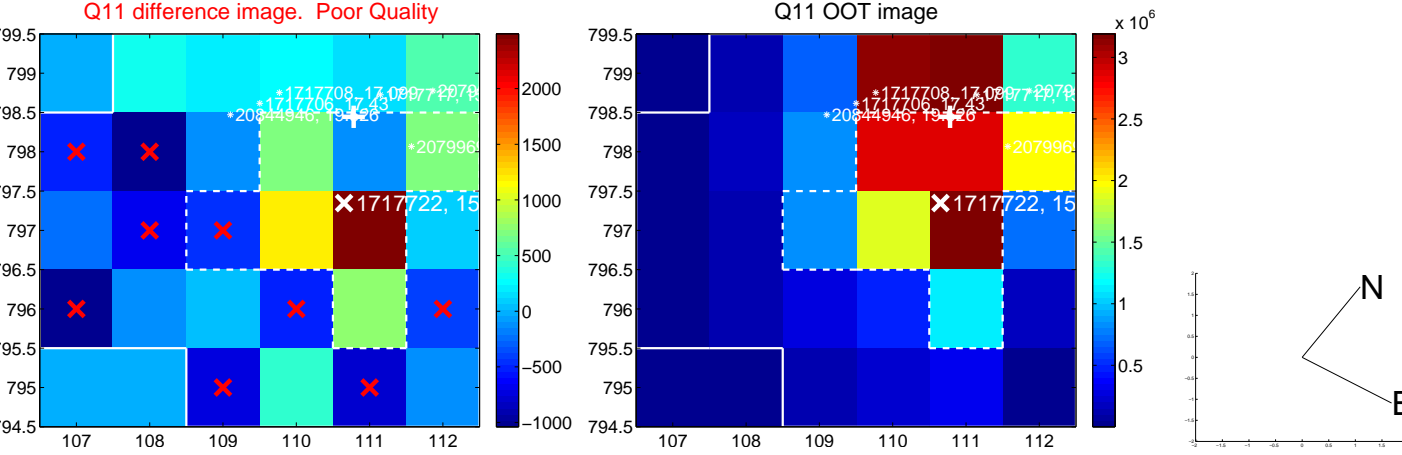
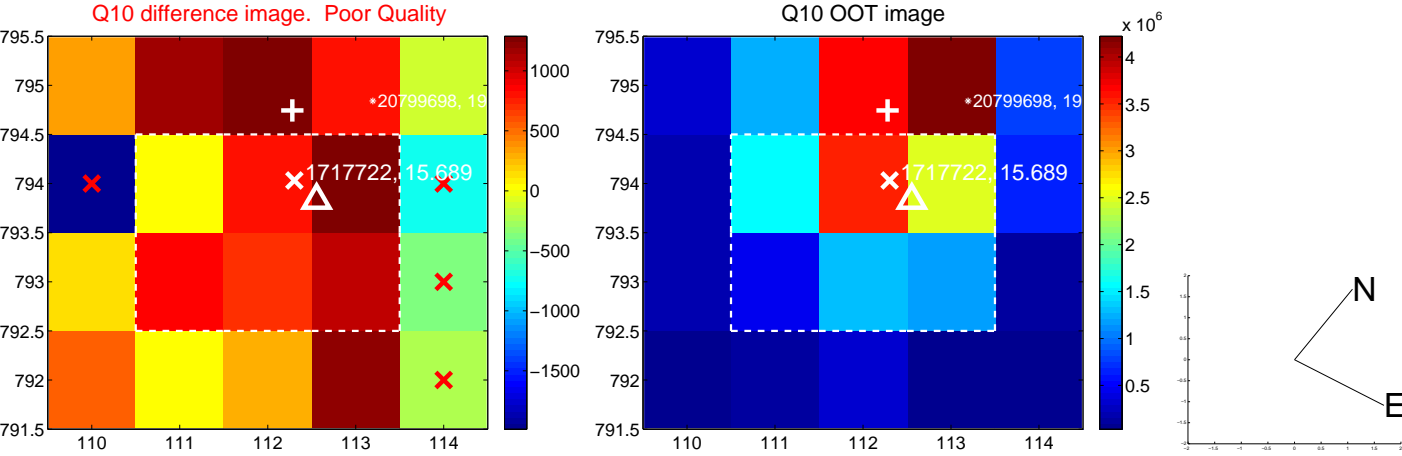
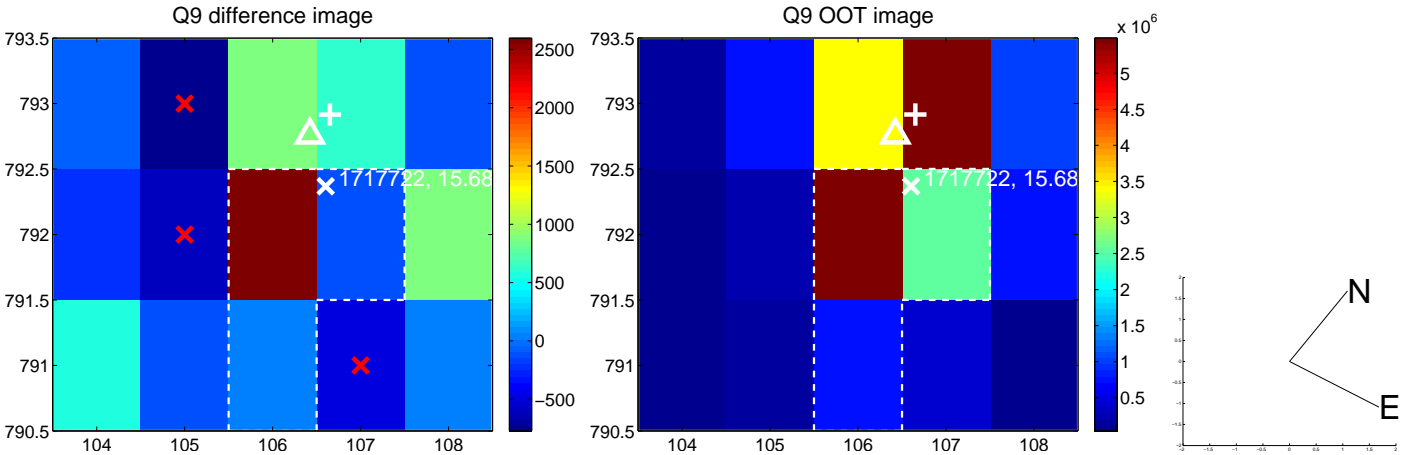
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



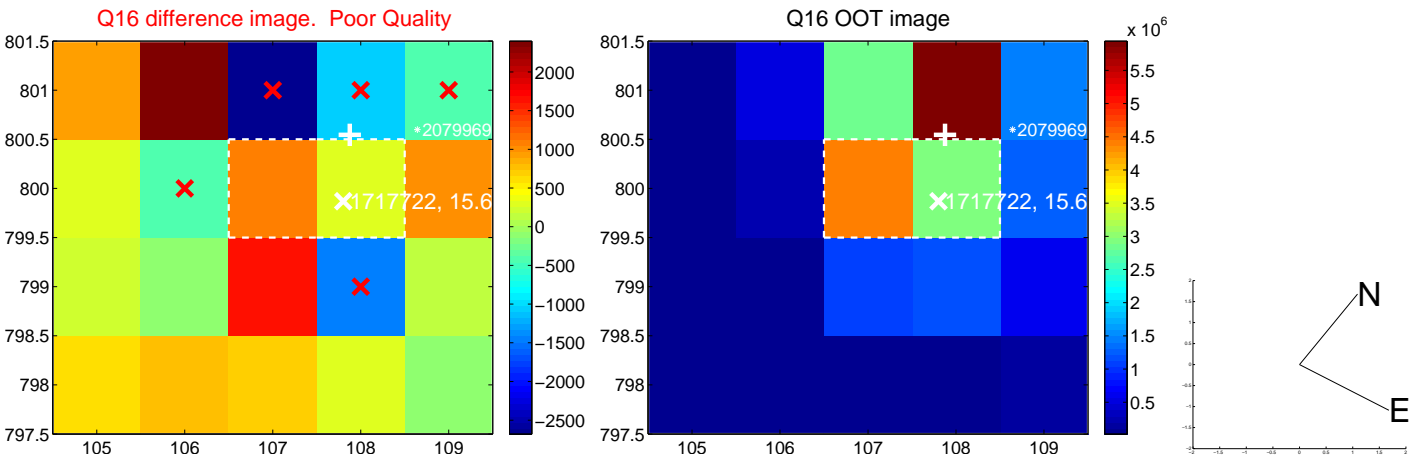
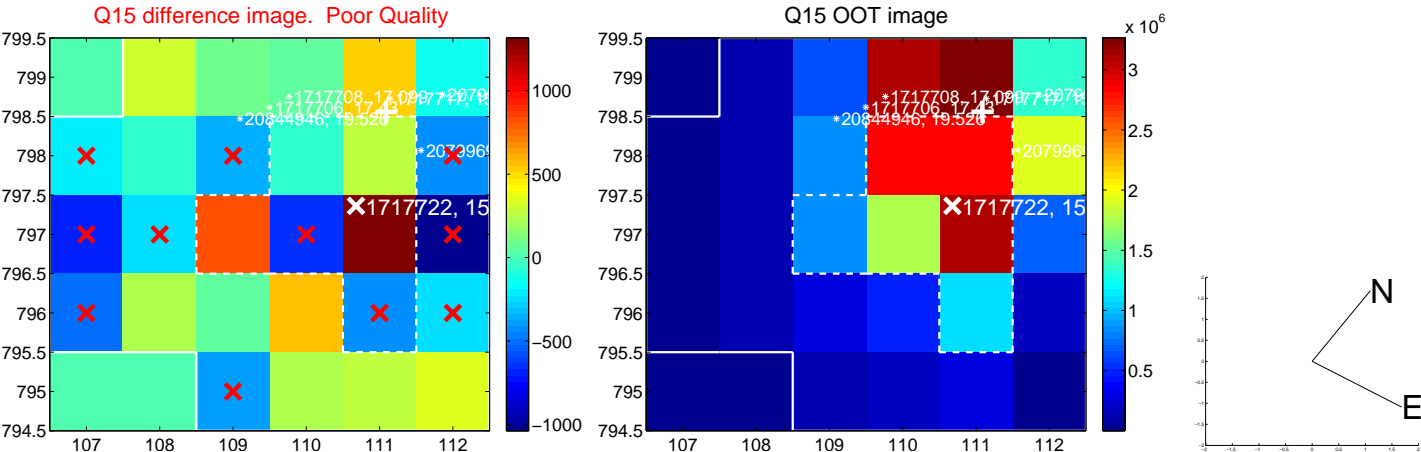
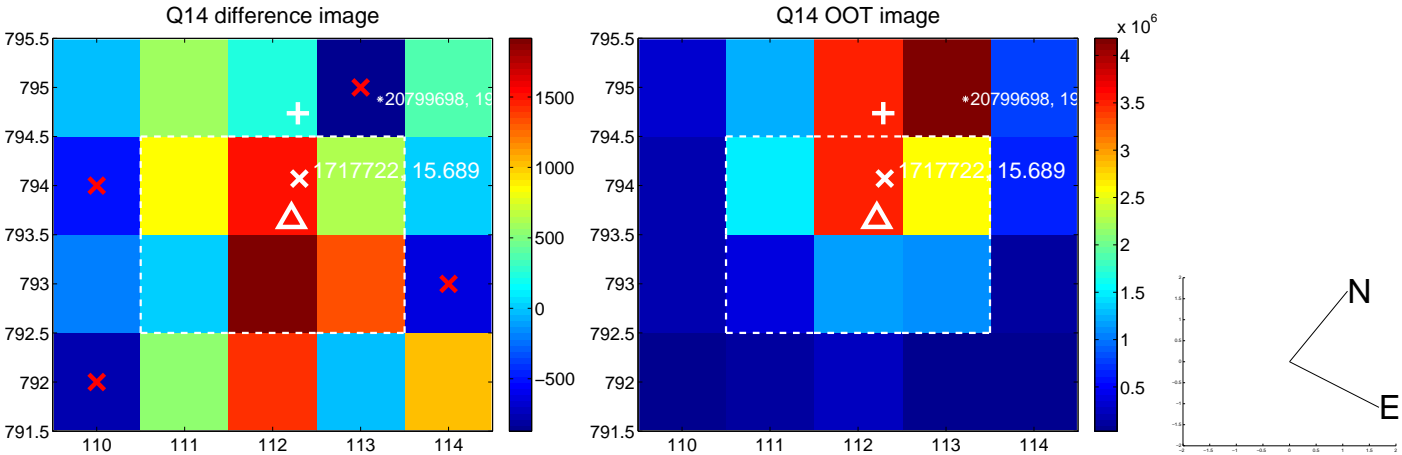
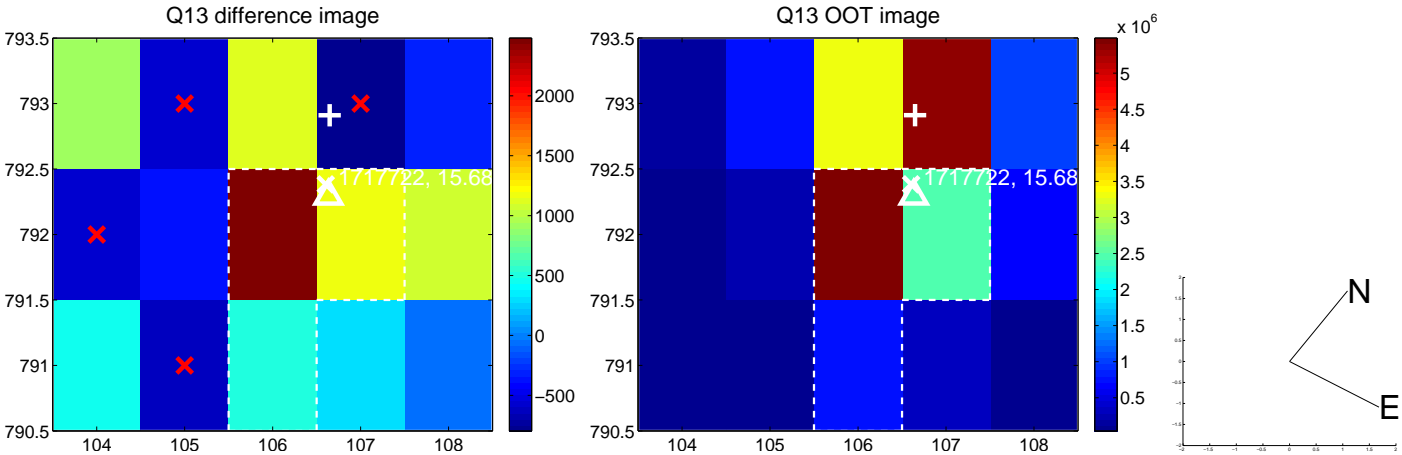
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



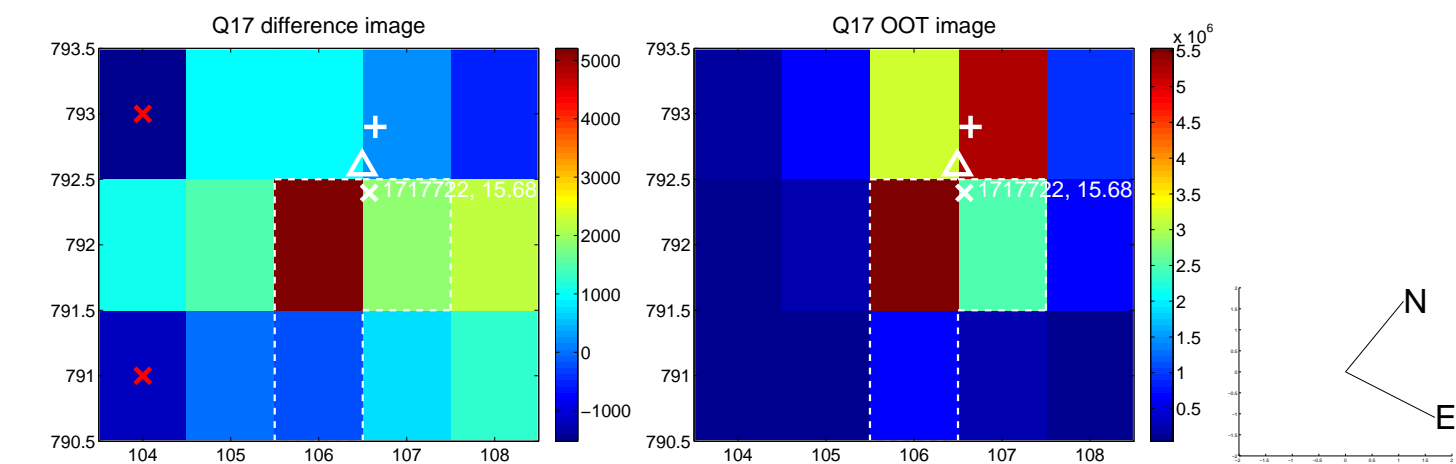
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



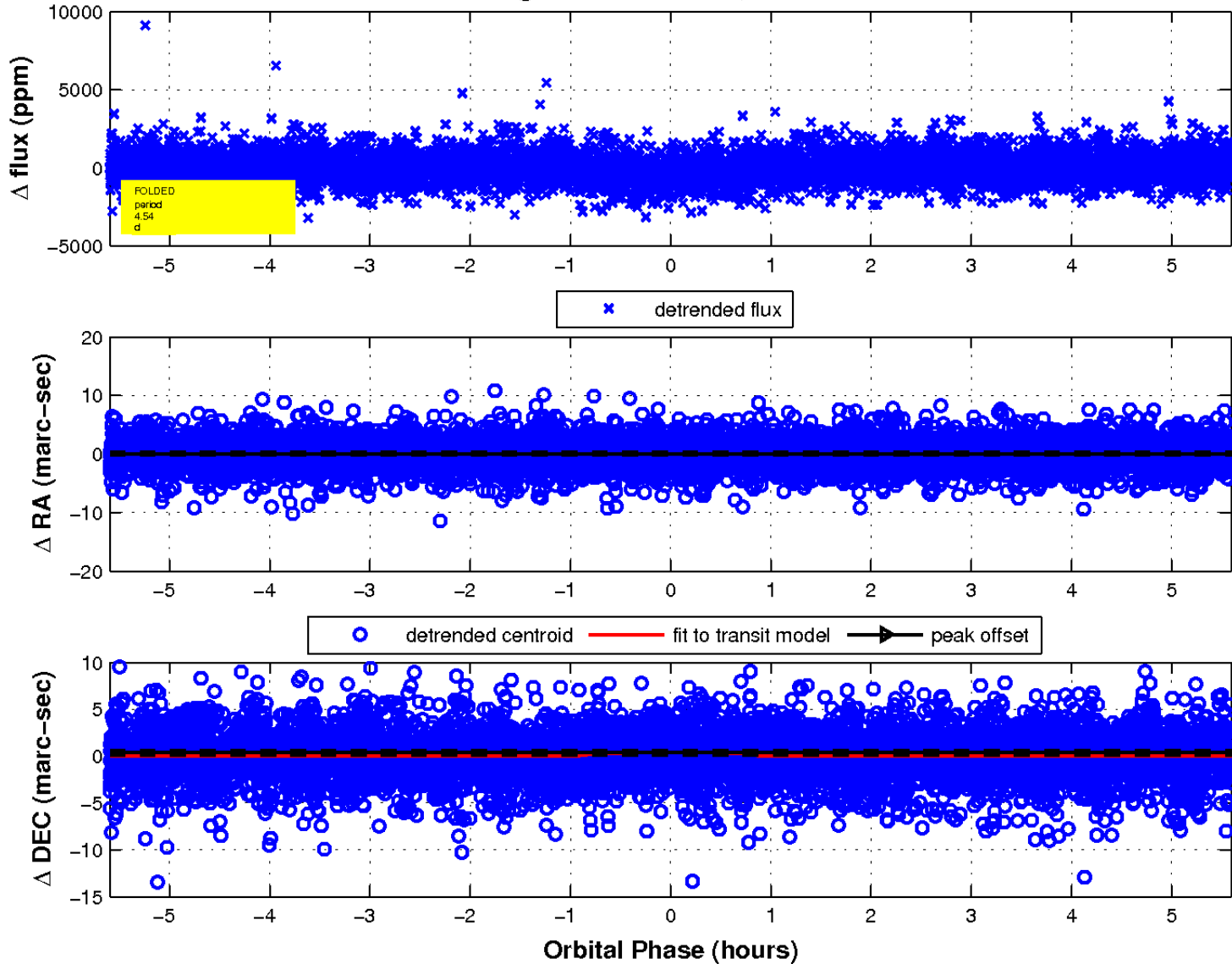
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

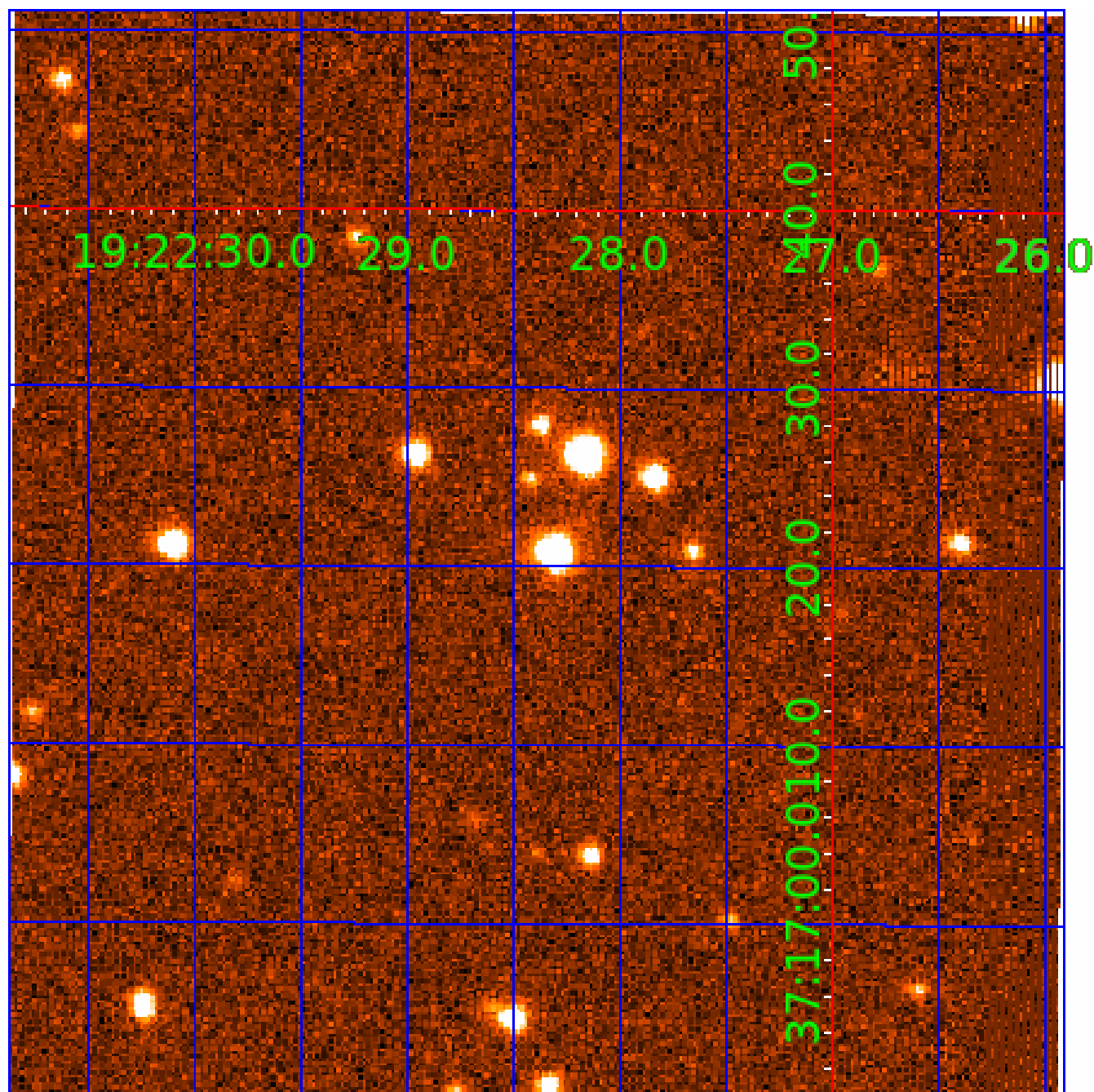


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 001717722

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})
001717722-01	OBS	No	417.666243	186.188308	724.1	21.975	44.1	5.2	0.69	4805	1.93	0.23
001717722-02	OBS	3145.01	4.537002	132.186249	480.5	1.866	13.8	15.2	0.69	4805	1.82	95.87
001717722-03	OBS	3145.02	0.977296	131.710324	210.4	1.658	12.2	13.5	0.69	4805	1.23	742.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001717722-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_DIFFS
001717722-02	OBS	PC	1.00	0	0	0	0	CENT_FEW_MEAS
001717722-03	OBS	PC	0.86	0	0	0	0	CENT_KIC_POS

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

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

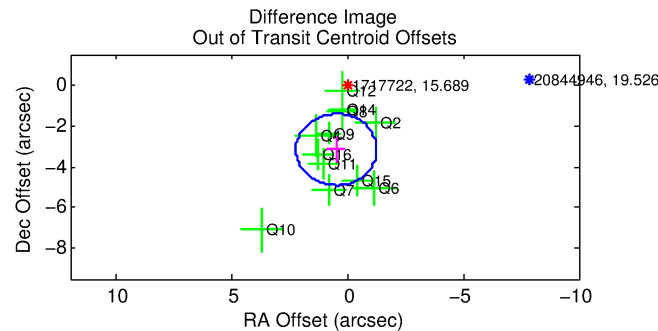
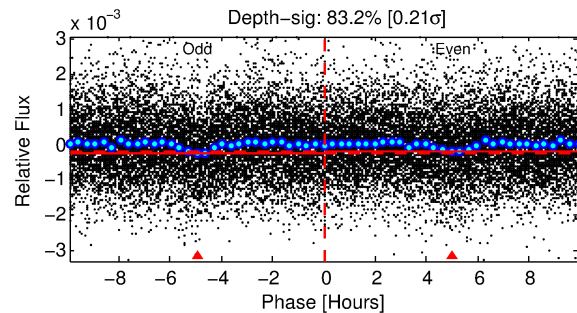
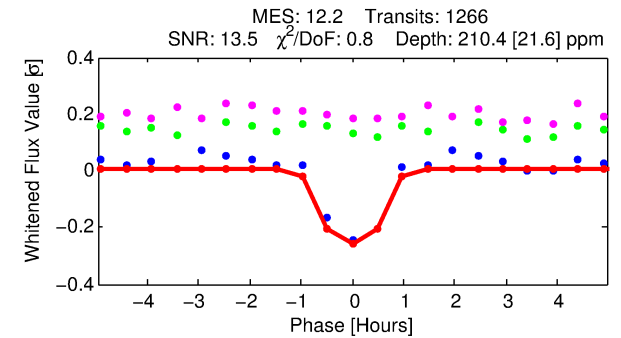
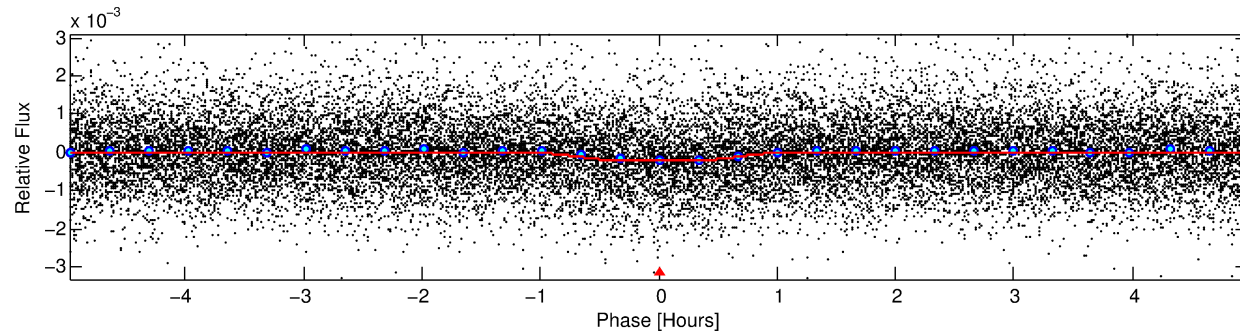
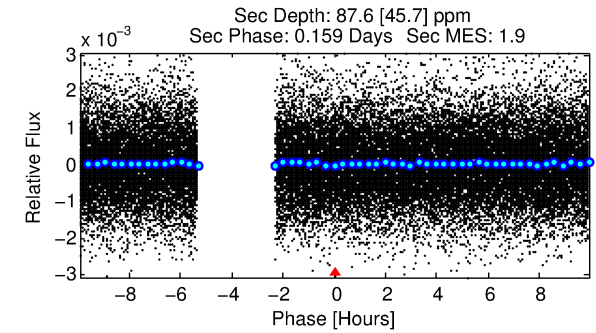
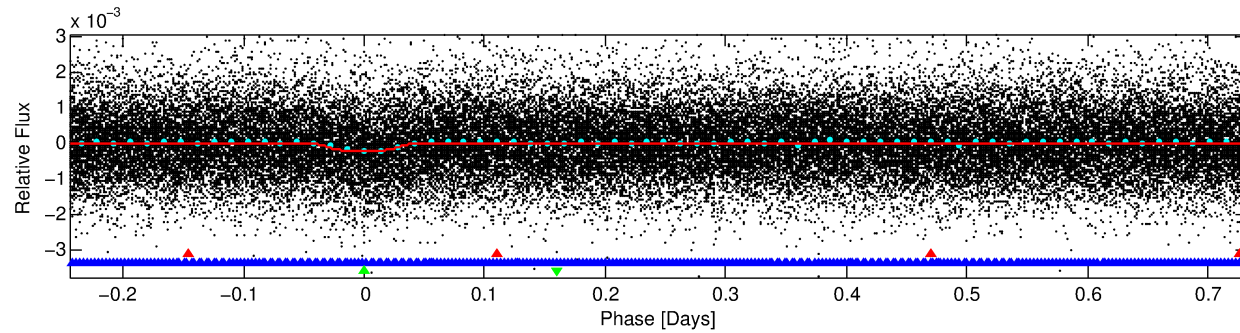
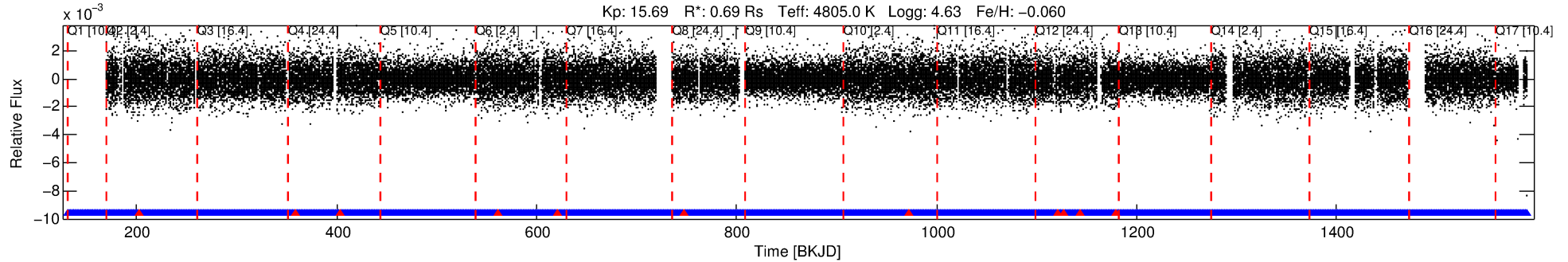
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001717722-03

No Significant Match Found

DV One-Page Summary

KIC: 1717722 Candidate: 3 of 3 Period: 0.977 d
KOI: K03145.02 Corr: 0.893



DV Fit Results:

Period = 0.97730 [0.00001] d
Epoch = 131.7103 [0.0018] BKJD
Rp/R* = 0.0164 [0.0122]
a/R* = 2.32 [5.39]
b = 0.90 [0.62]
Seff = 742.49 [125.20]
Teq = 1331 [56] K
Rp = 1.23 [0.93] Re
a = 0.0174 [0.0016] AU
Ag = 9.72 [15.39] [0.57σ]
Teffp = 3634 [1438] K [1.60σ]

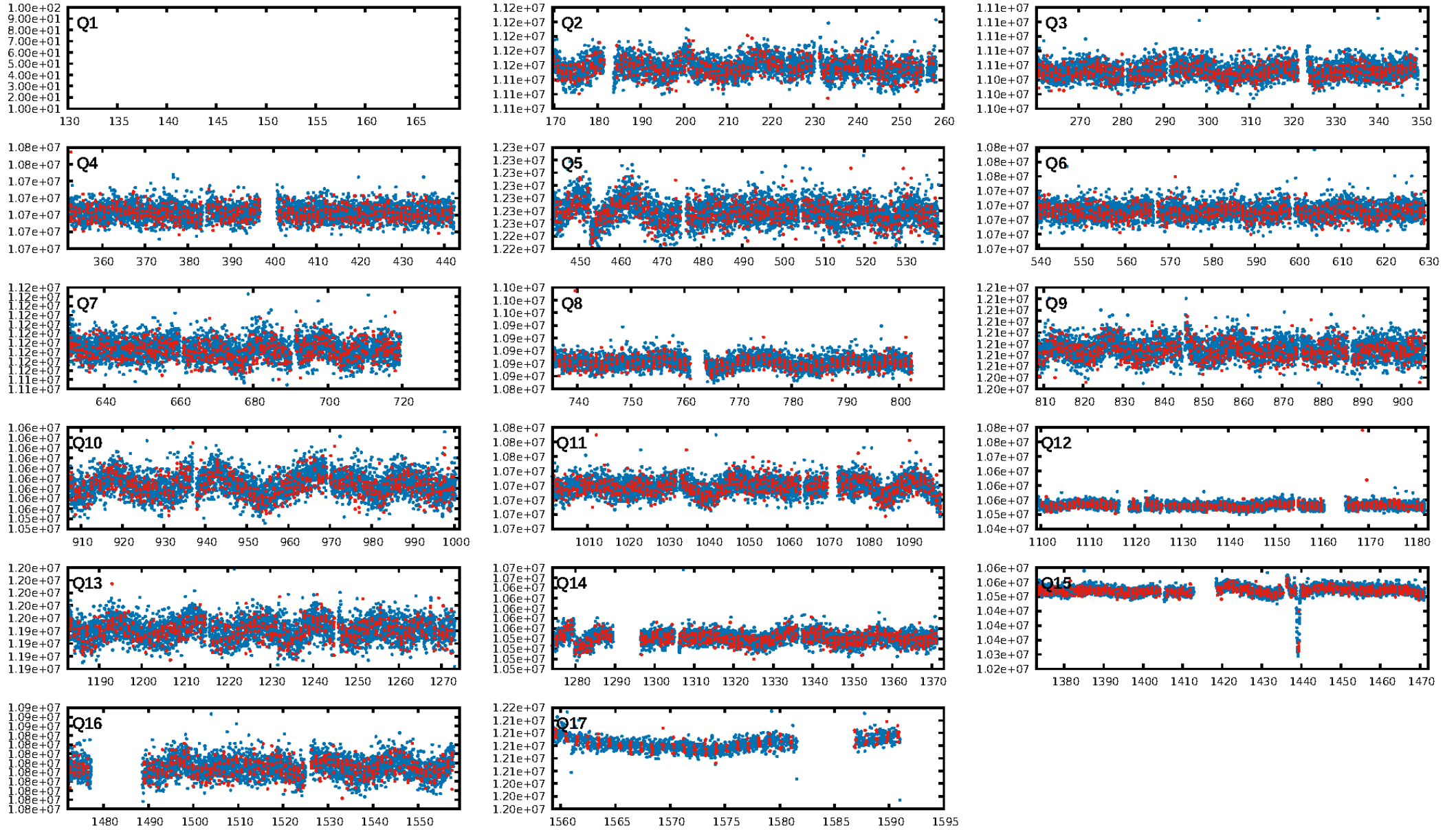
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [34.22σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.63e-40
RollingBand-fgt: 0.99 [1227/1238]
GhostDiagnostic-chr: 3.216
Centroid-sig: 0.8%
Centroid-so: 0.978 arcsec [1.97σ]
OotOffset-rm: 3.205 arcsec [5.49σ]
KicOffset-rm: 0.962 arcsec [2.08σ]
OotOffset-st: 4/3/4/1 [12]
KicOffset-st: 4/3/4/2 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 1.00 [16/16]

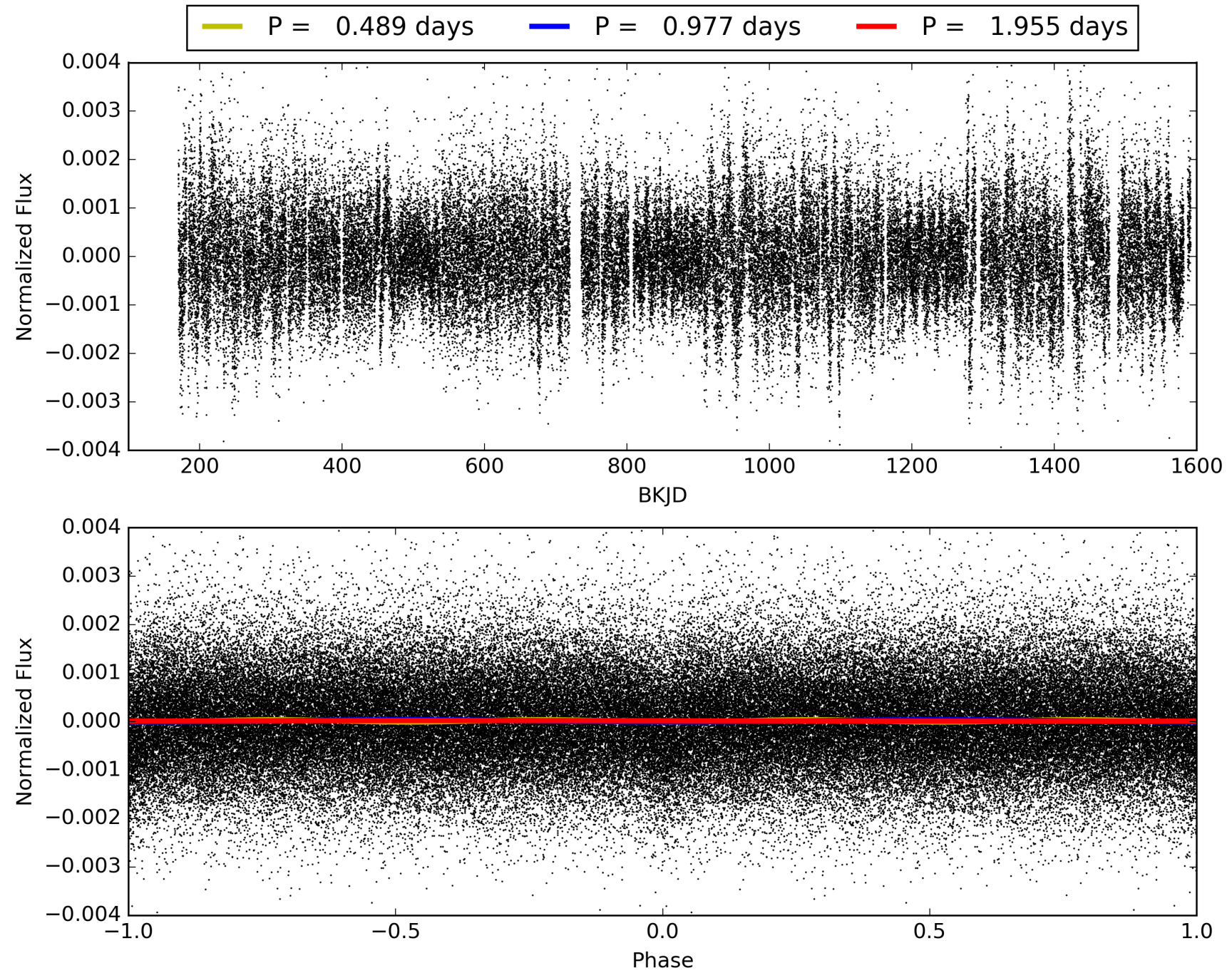
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:15:24 Z

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

TCE 001717722-03, PDC Light Curves

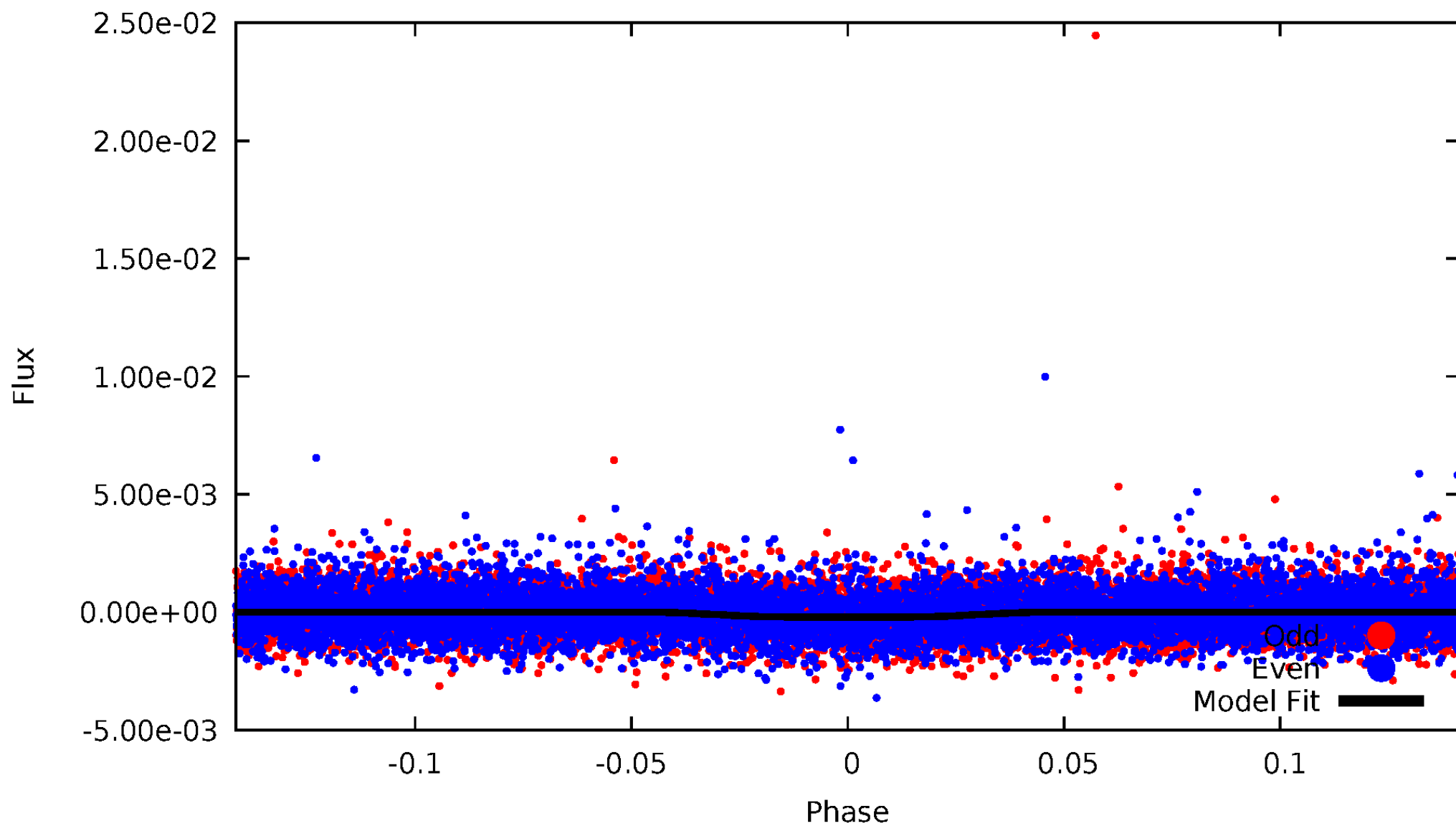


TCE 001717722-03



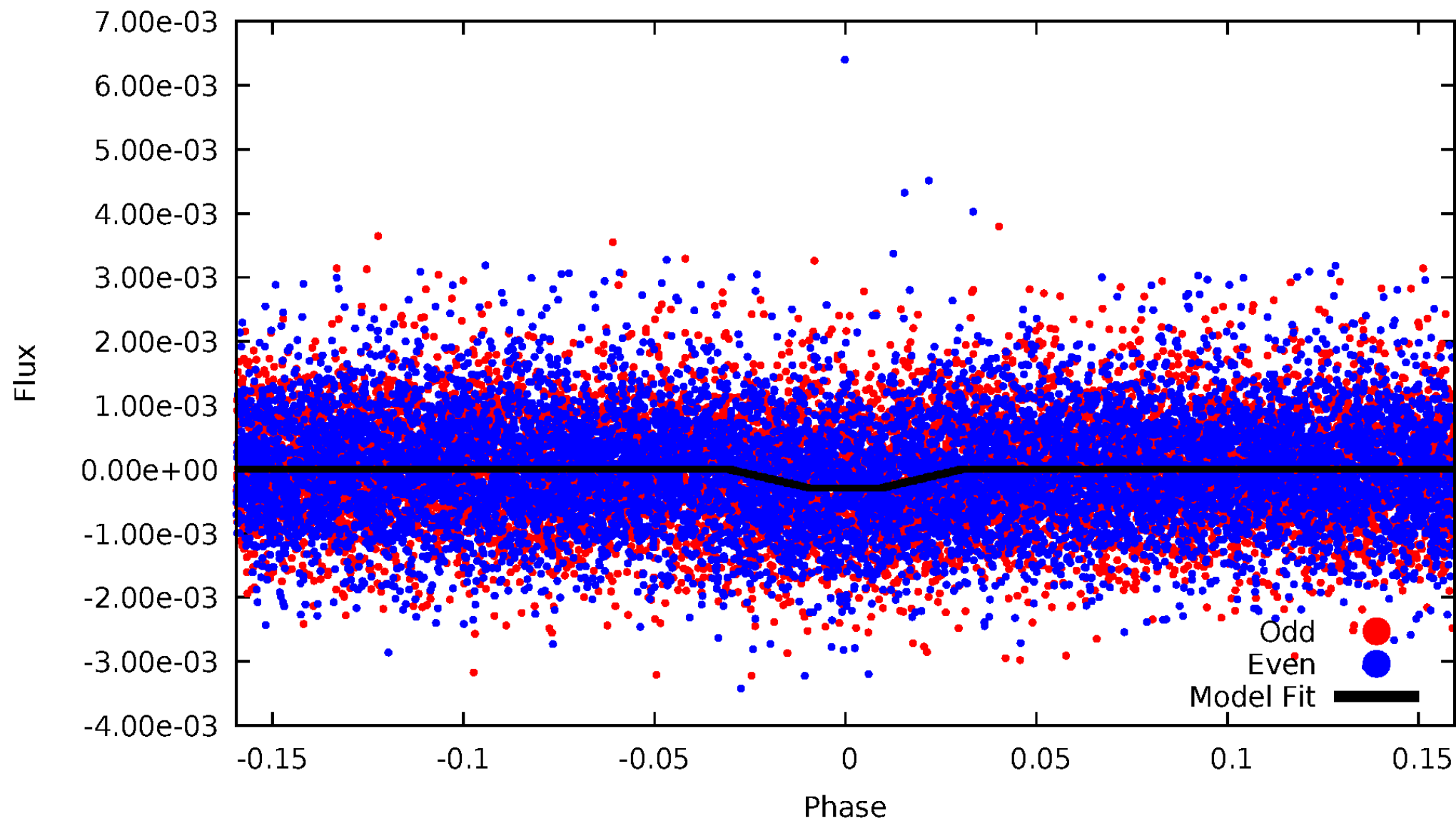
DV Odd/Even

TCE 001717722-03



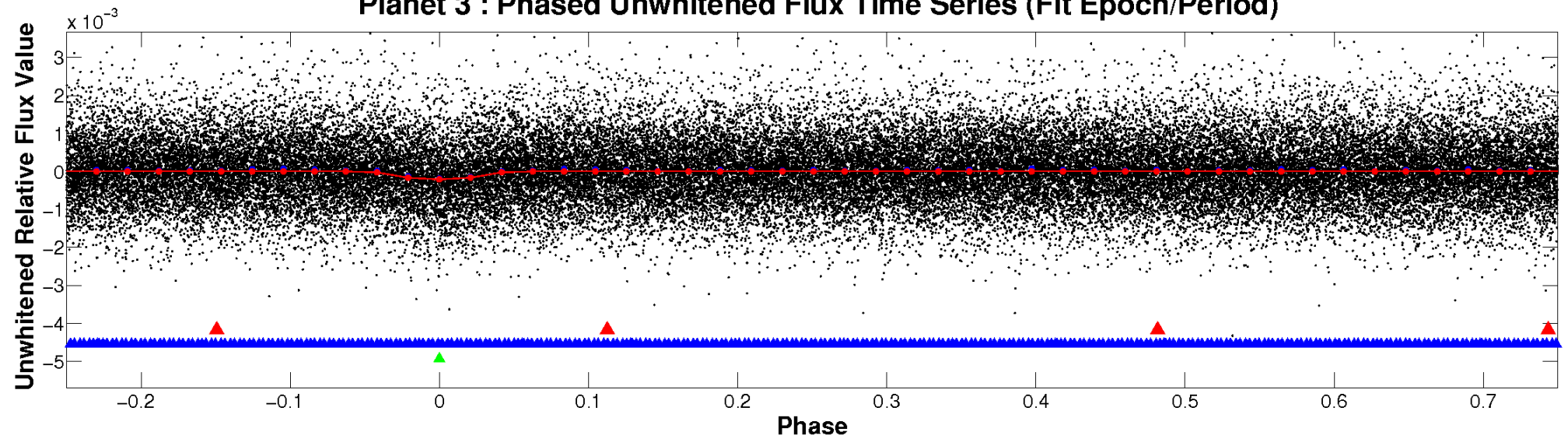
ALT Odd/Even

TCE 001717722-03

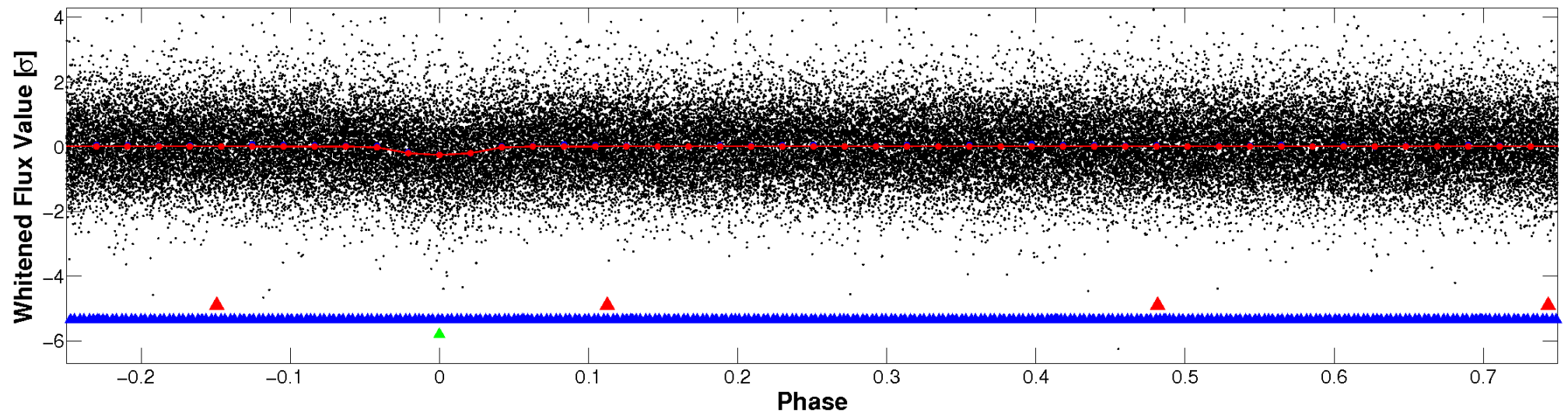


Non-Whitened Vs. Whitened Light Curve

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

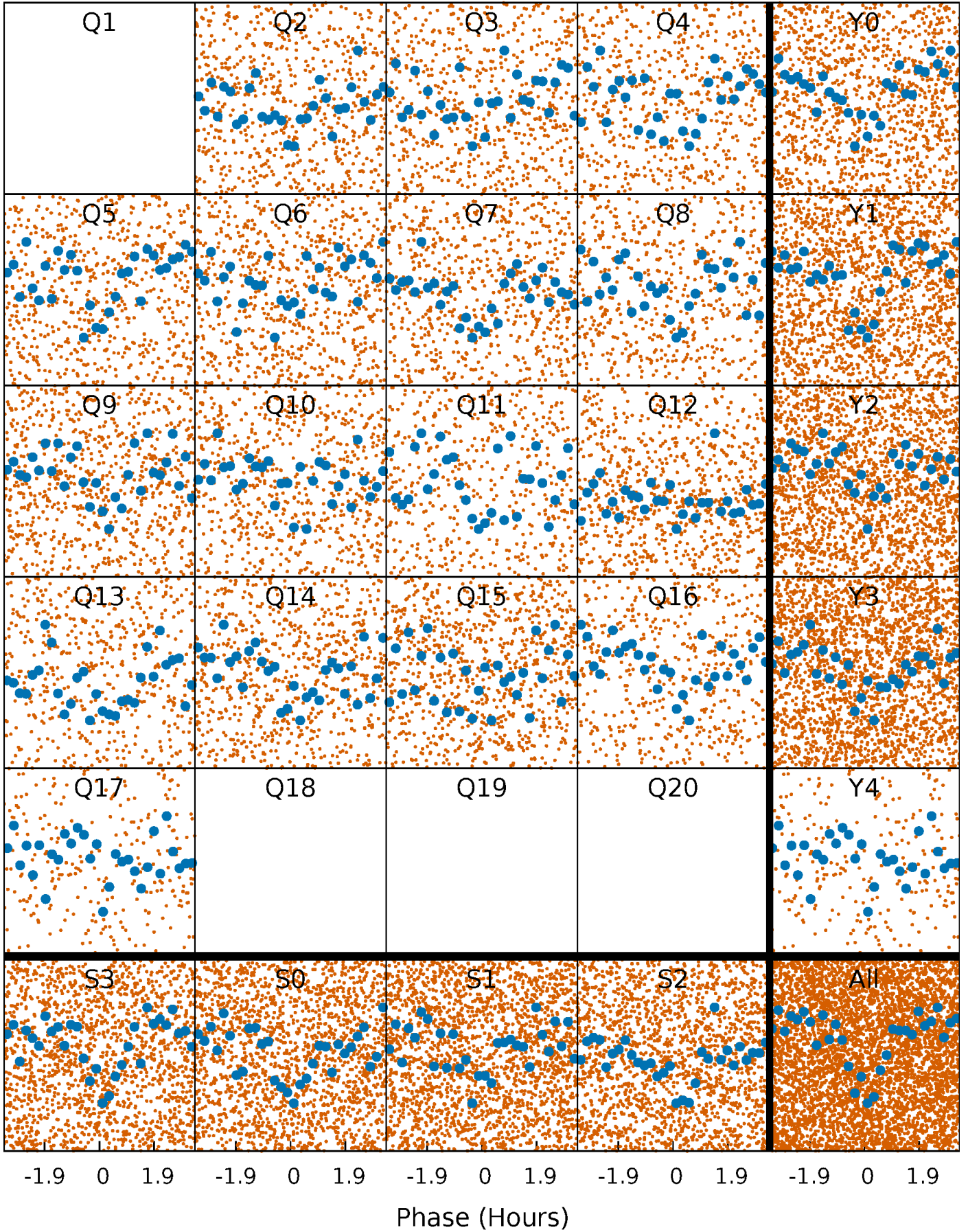


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



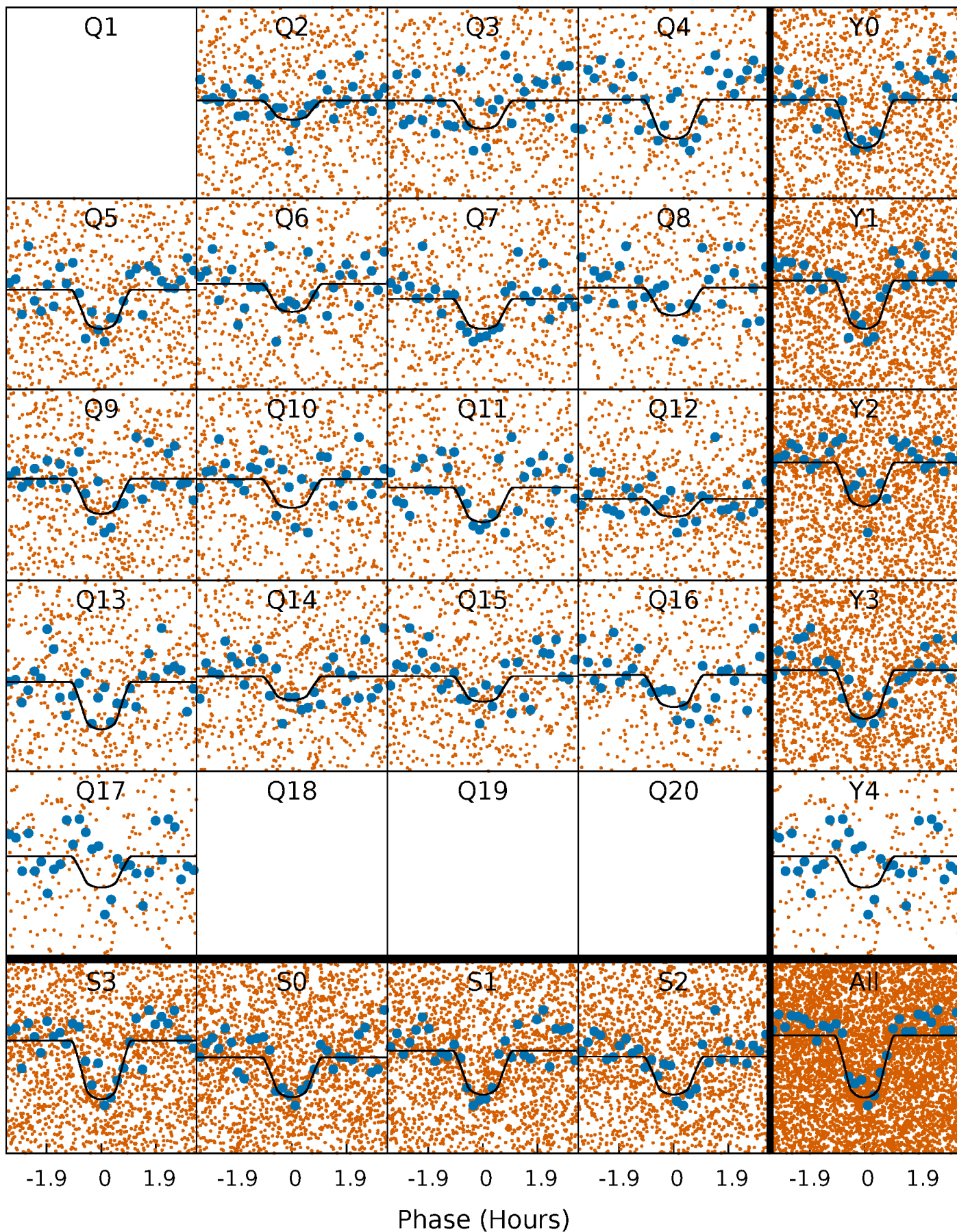
PDC Quarter-Phased Transit Curves

TCE 001717722-03 P= 0.977296 Days $T_0=131.710324$ (BKJD)



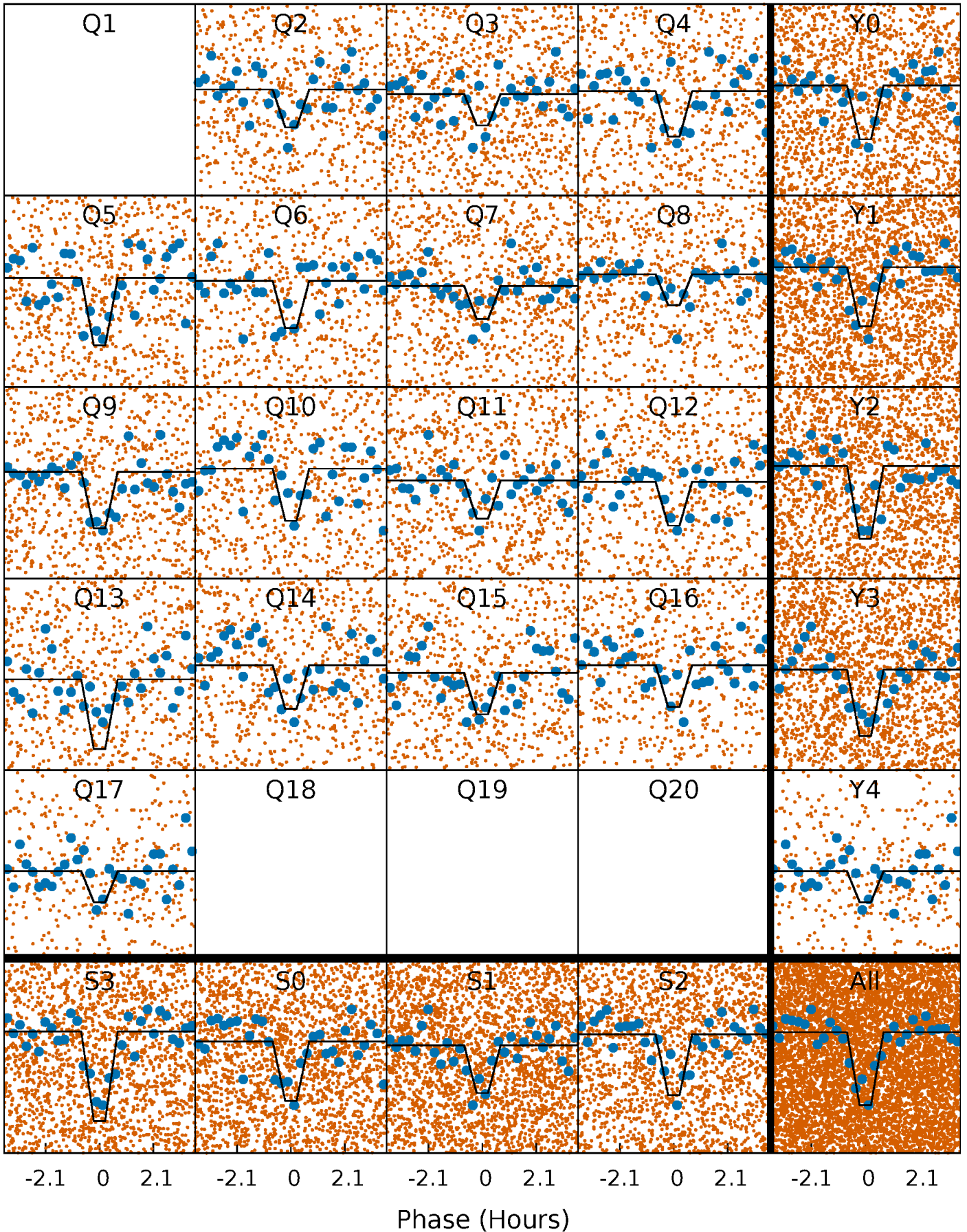
DV Quarter-Phased Transit Curves

TCE 001717722-03 P= 0.977296 Days $T_0=131.710324$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

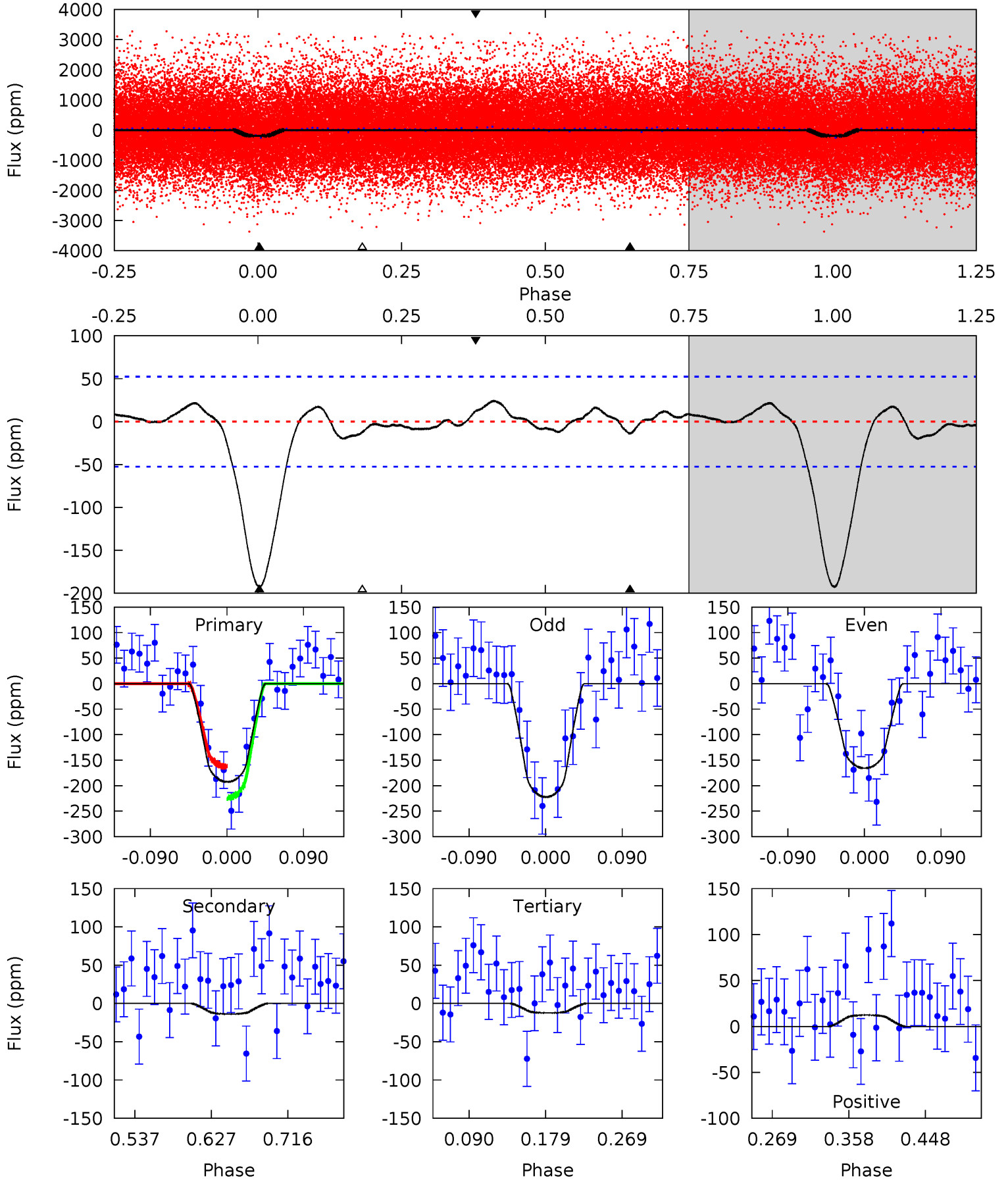
TCE 001717722-03 P= 0.977303 Days $T_0=131.710267$ (BKJD)



DV Model-Shift Uniqueness Test

001717722-03, P = 0.977296 Days, E = 131.710324 Days

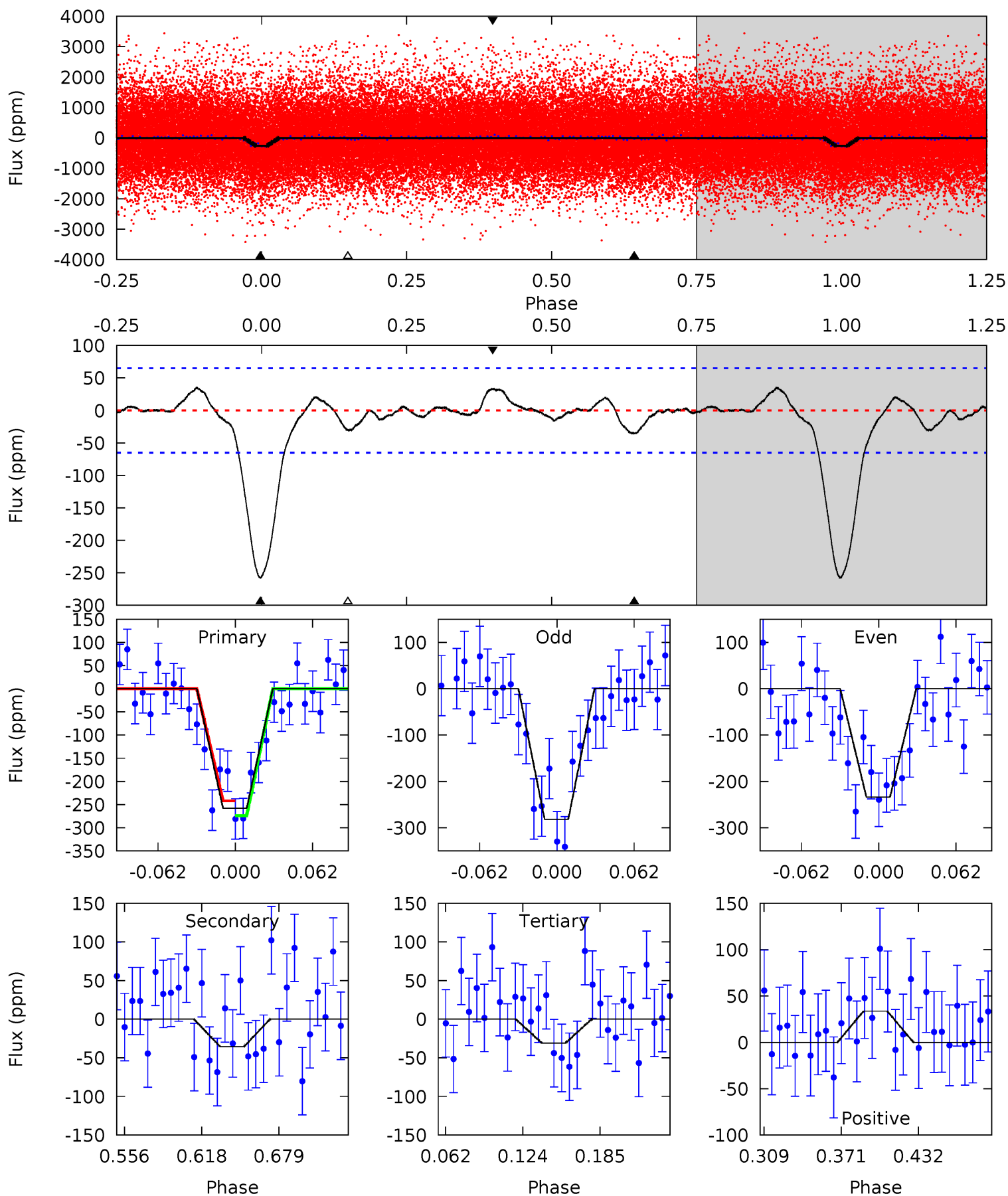
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	1.21	1.09	1.08	4.59	1.70	0.91	15.7	15.7	0.13	0.13	2.47	0.93	0.11	2.66



Alt Model-Shift Uniqueness Test

001717722-03, P = 0.977303 Days, E = 131.710267 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	2.56	2.22	2.42	4.66	1.87	0.91	16.3	16.1	0.34	0.14	1.72	0.94	0.12	1.16



Stellar Parameters For KIC 001717722

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4805^{+144}_{-144}	$4.633^{+0.027}_{-0.059}$	$-0.060^{+0.300}_{-0.300}$	$0.688^{+0.079}_{-0.045}$	$0.769^{+0.053}_{-0.079}$	$3.325^{+0.388}_{-0.755}$
	+3%/-3%	+1%/-1%	+500%/-500%	+11%/-7%	+7%/-10%	+12%/-23%
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 001717722-03 / KOI 3145.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-14 ± 11	$1.43^{+0.85}_{-0.80}$	1871^{+76}_{-61}	2639^{+892}_{-4900}	$0.979^{+4.429}_{-0.865}$
Alt.	-36 ± 14	$1.36^{+0.92}_{-0.78}$	1872^{+73}_{-62}	3186^{+1182}_{-526}	$3.070^{+14.692}_{-2.040}$

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

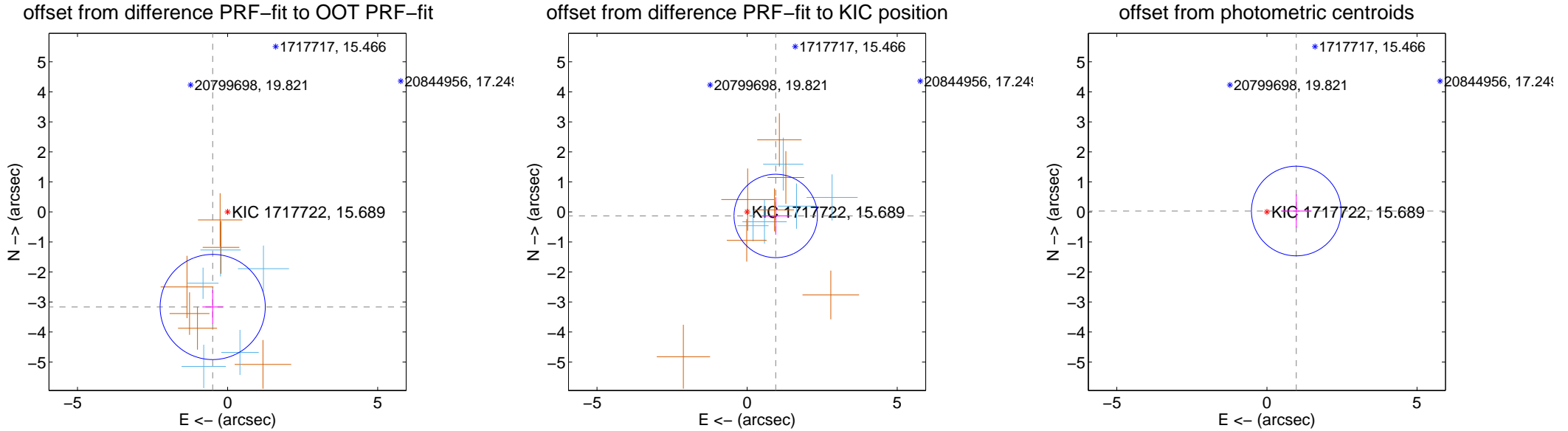
DV Centroid Data

Supplemental centroid analysis for 001717722-03. Kepler magnitude: 15.69. Transit SNR 13.50

There are 5 quarters with good PRF difference image offsets

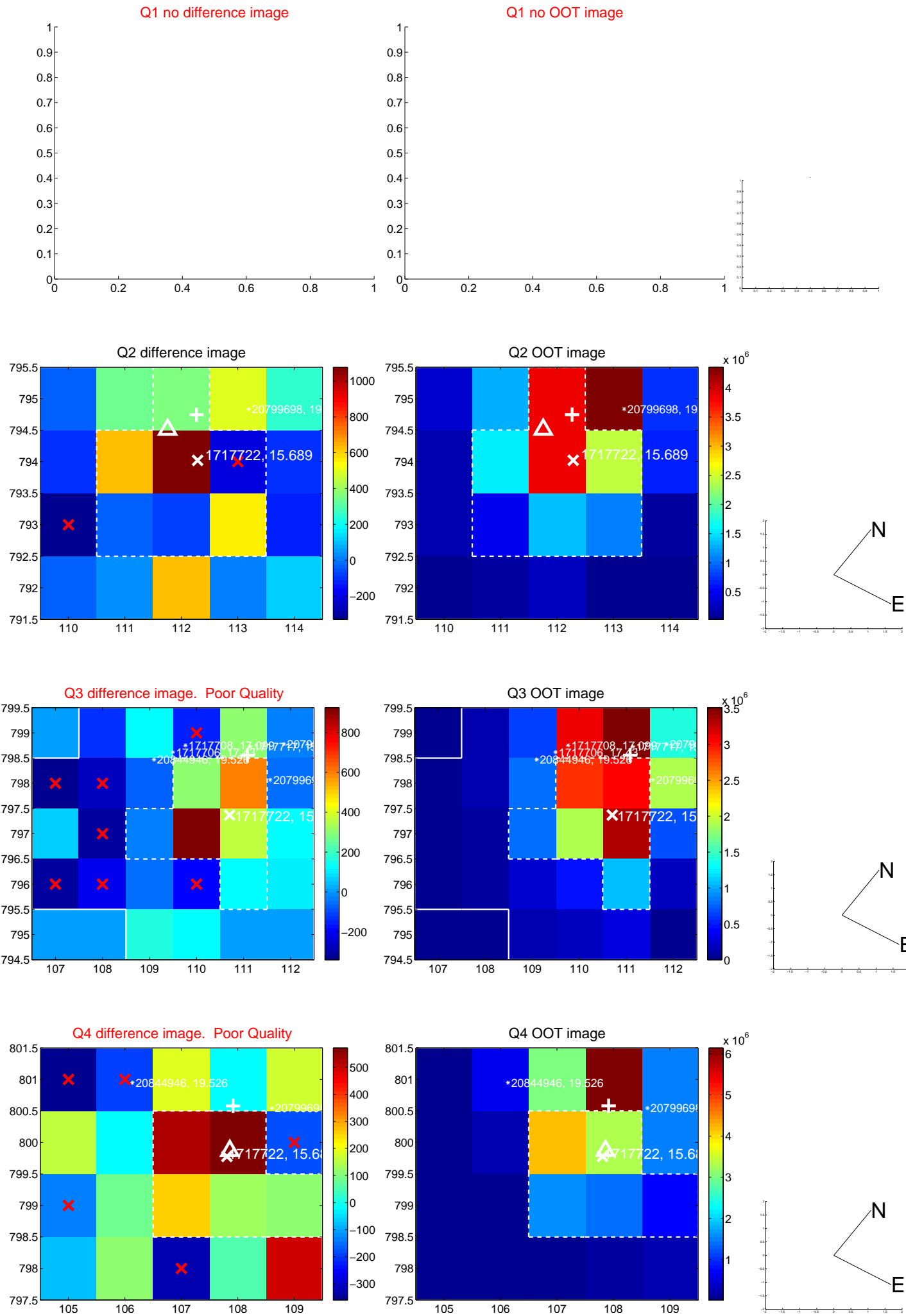
The OOT PRF centroid is offset from the target star catalog position by about 2.74 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.205 ± 0.584	5.49	0.497 ± 0.344	-3.166 ± 0.565
PRF-fit source offset from KIC position	0.962 ± 0.463	2.08	-0.953 ± 0.440	-0.134 ± 0.626
photometric centroid source offset	0.98 ± 0.50	1.97	-0.98 ± 0.50	0.03 ± 0.55

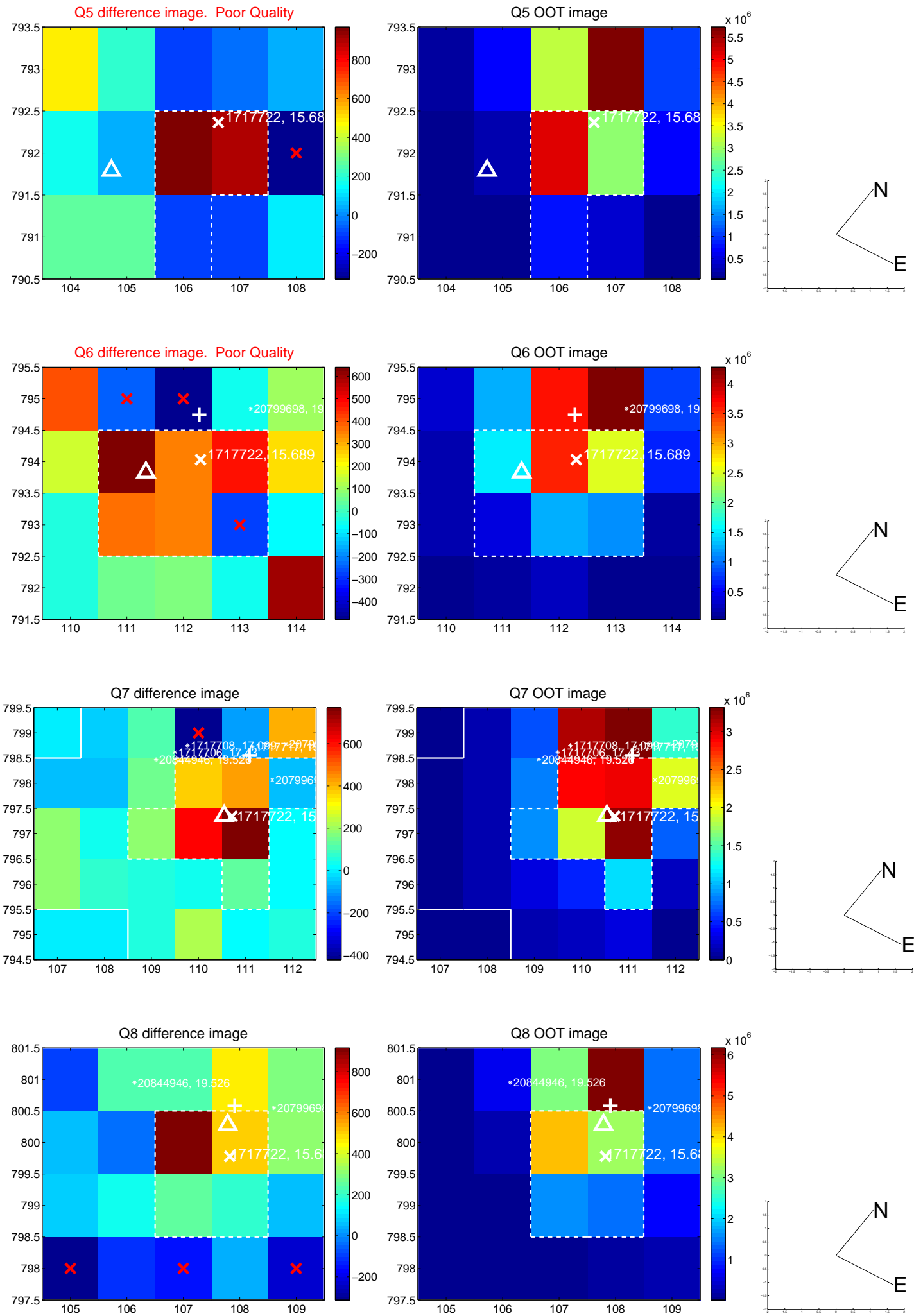


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

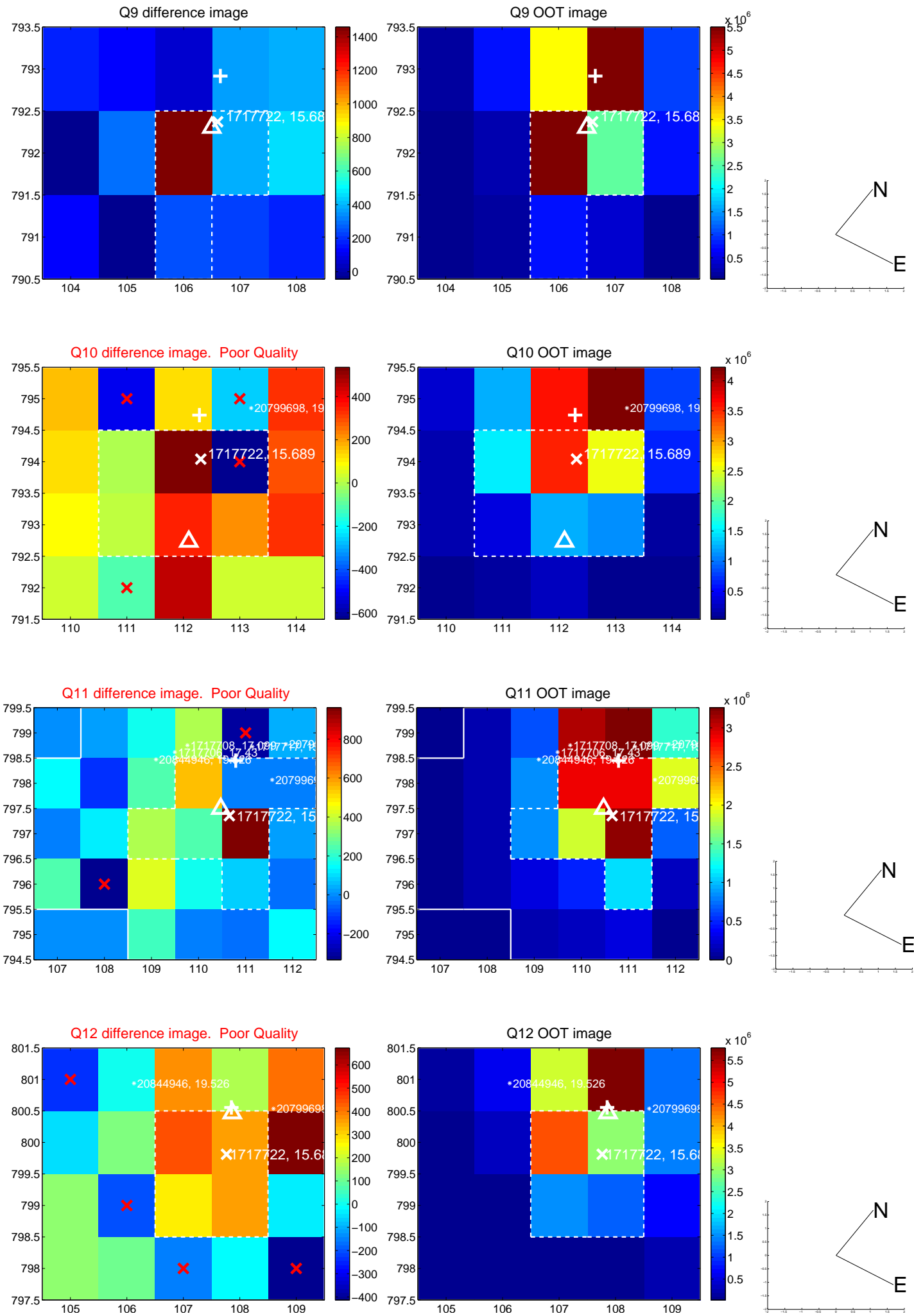
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



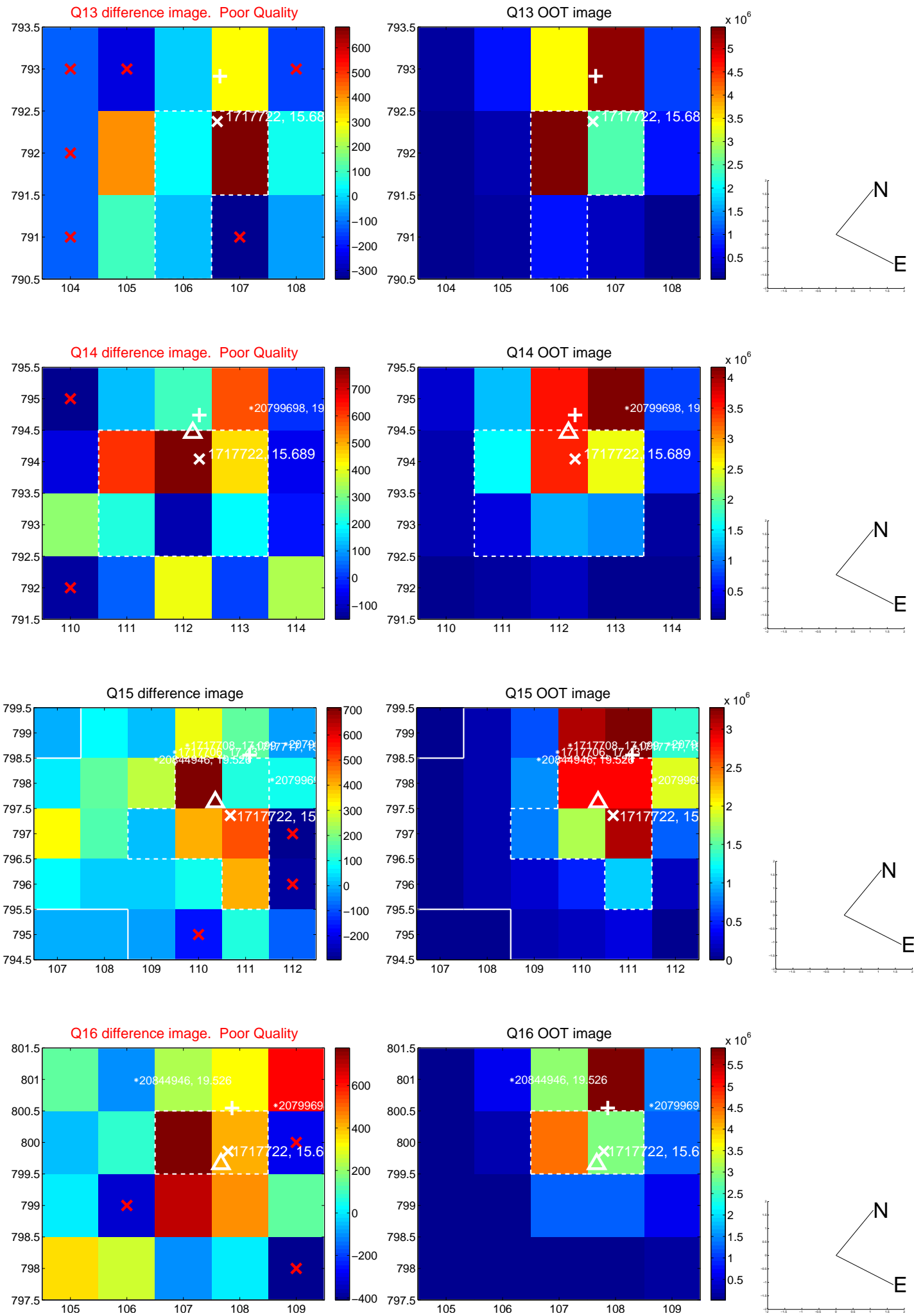
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



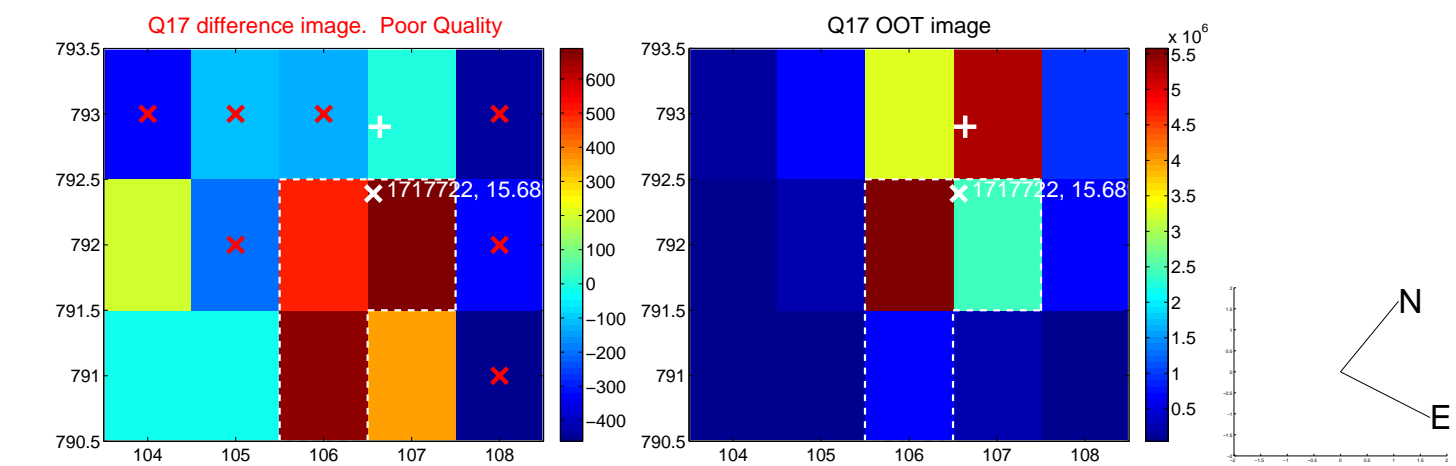
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



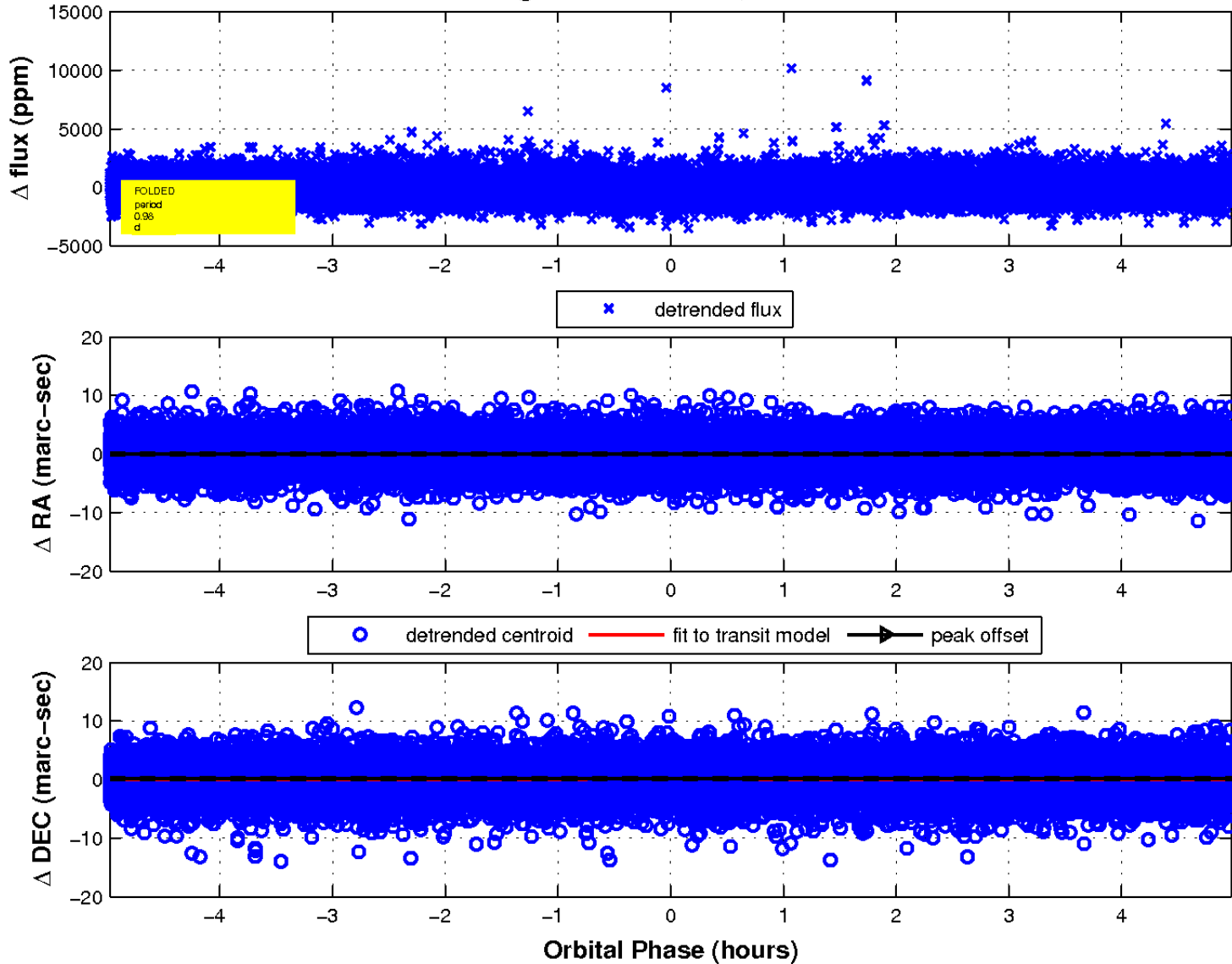
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

