

KIC 003437776

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})
003437776-01	OBS	0549.01	10.297667	131.734089	575.1	6.614	50.0	44.9	1.61	5671	6.70	258.67
003437776-02	OBS	0549.02	0.635541	131.533075	32.1	3.665	16.8	10.6	1.61	5671	0.97	10605.52
003437776-03	OBS	No	150.554118	181.488824	366.3	6.777	9.1	7.3	1.61	5671	3.31	7.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003437776-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
003437776-02	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
003437776-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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.

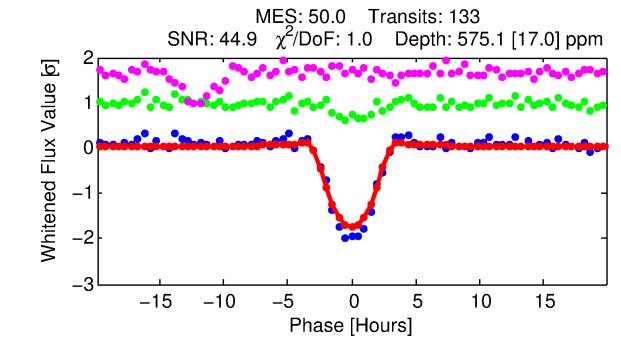
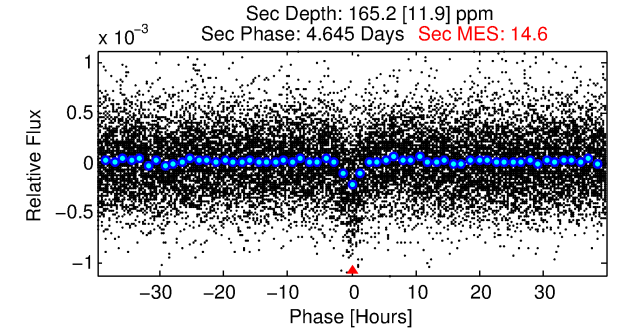
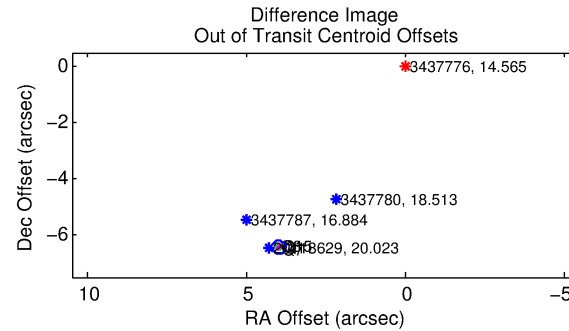
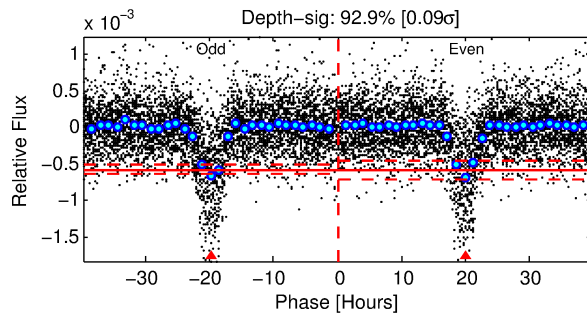
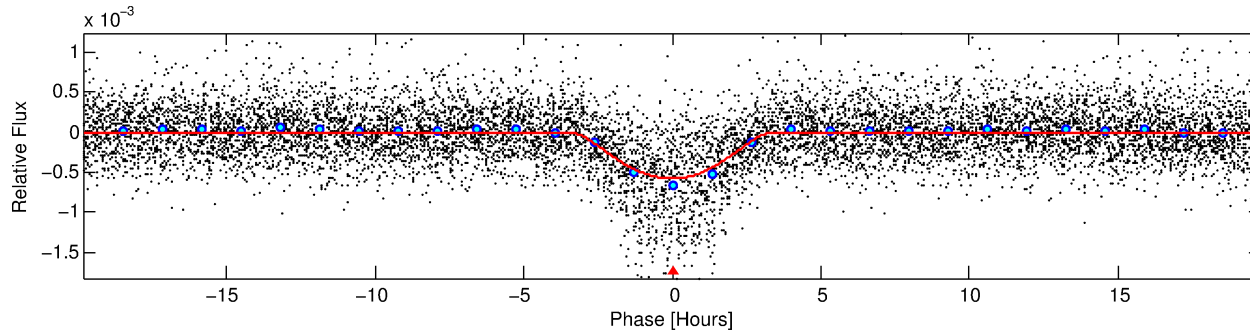
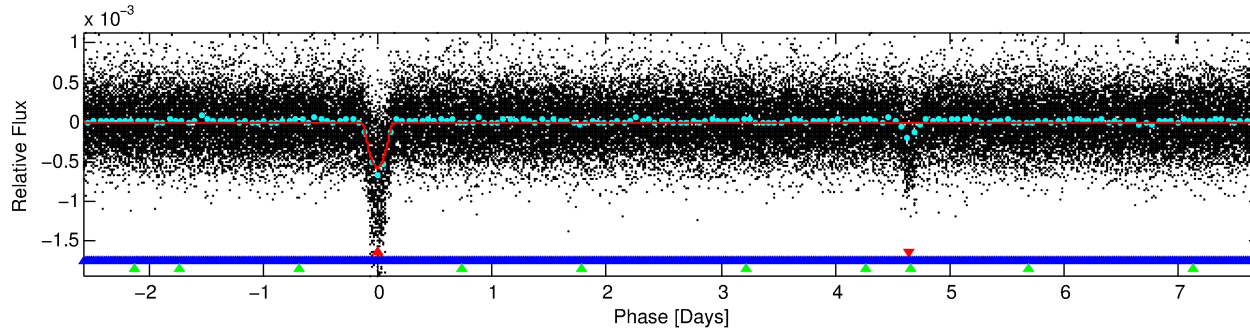
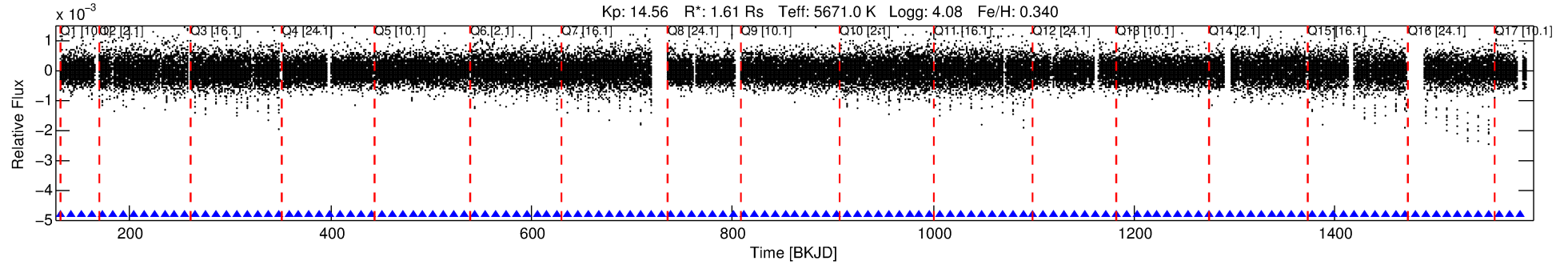
Ephemeris Match Information For 003437776-01

No Significant Match Found

DV One-Page Summary

KIC: 3437776 Candidate: 1 of 3 Period: 10.298 d
KOI: K00549.01 Corr: 0.980

Kp: 14.56 R*: 1.61 Rs Teff: 5671.0 K Logg: 4.08 Fe/H: 0.340



DV Fit Results:

Period = 10.29767 [0.00004] d
Epoch = 131.7341 [0.0034] BKJD
Rp/R* = 0.0382 [0.0178]
a/R* = 3.84 [0.52]
b = 0.99 [0.03]
Seff = 258.67 [85.09]
Teq = 1023 [84] K
Rp = 6.70 [3.45] Re
a = 0.0962 [0.0198] AU
Ag = 18.74 [18.57] [0.96σ]
Teffp = 3290 [771] K [2.92σ]

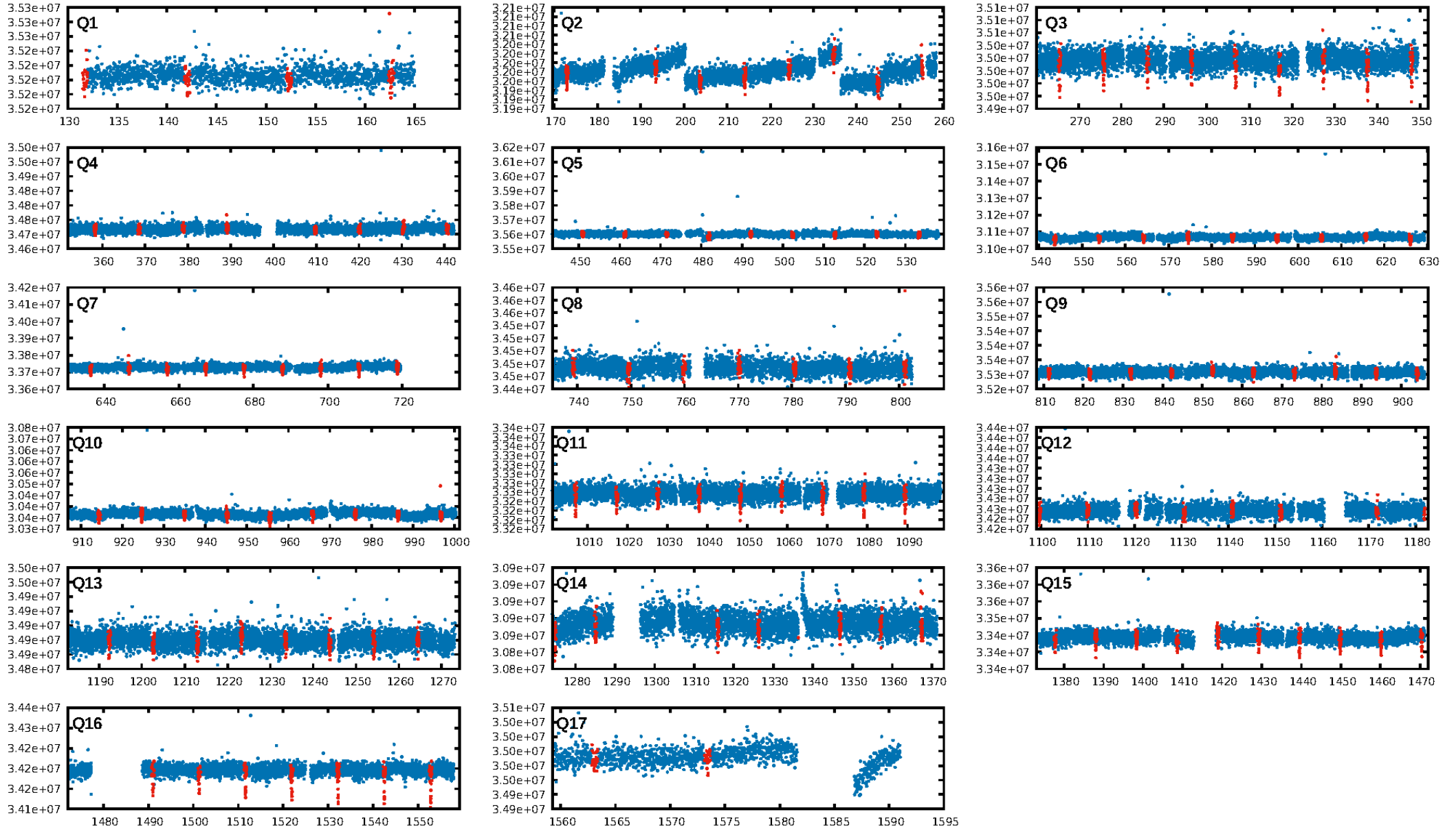
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [30.67σ]
LongPeriod-sig: 100.0% [355.48σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [127/127]
GhostDiagnostic-chr: -0.1907
Centroid-sig: 0.0%
Centroid-so: 15.590 arcsec [47.10σ]
OotOffset-rm: 7.585 arcsec [100.48σ]
KicOffset-rm: 7.724 arcsec [94.56σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 0.00 [0/17]

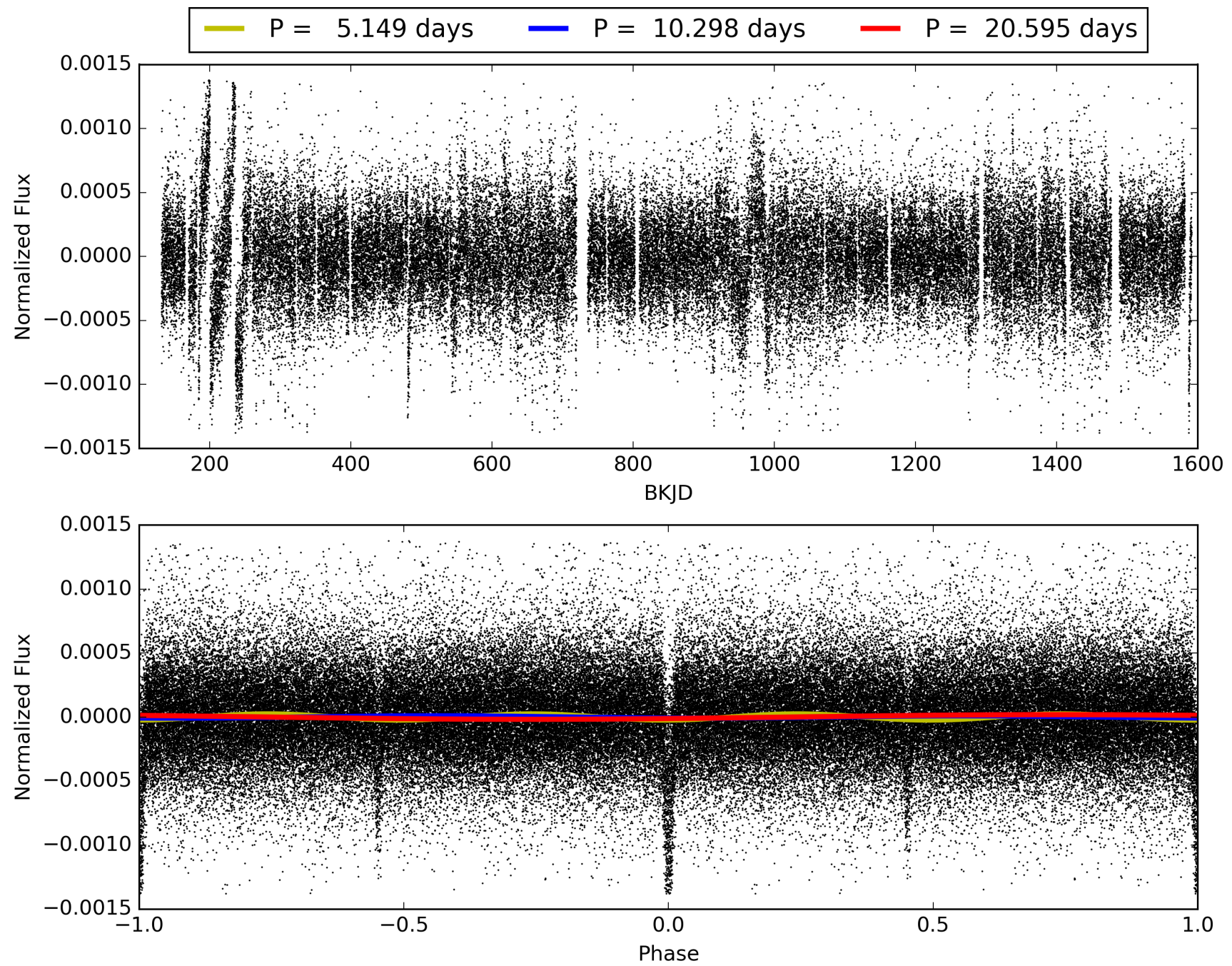
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:26:24 Z

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

TCE 003437776-01, PDC Light Curves

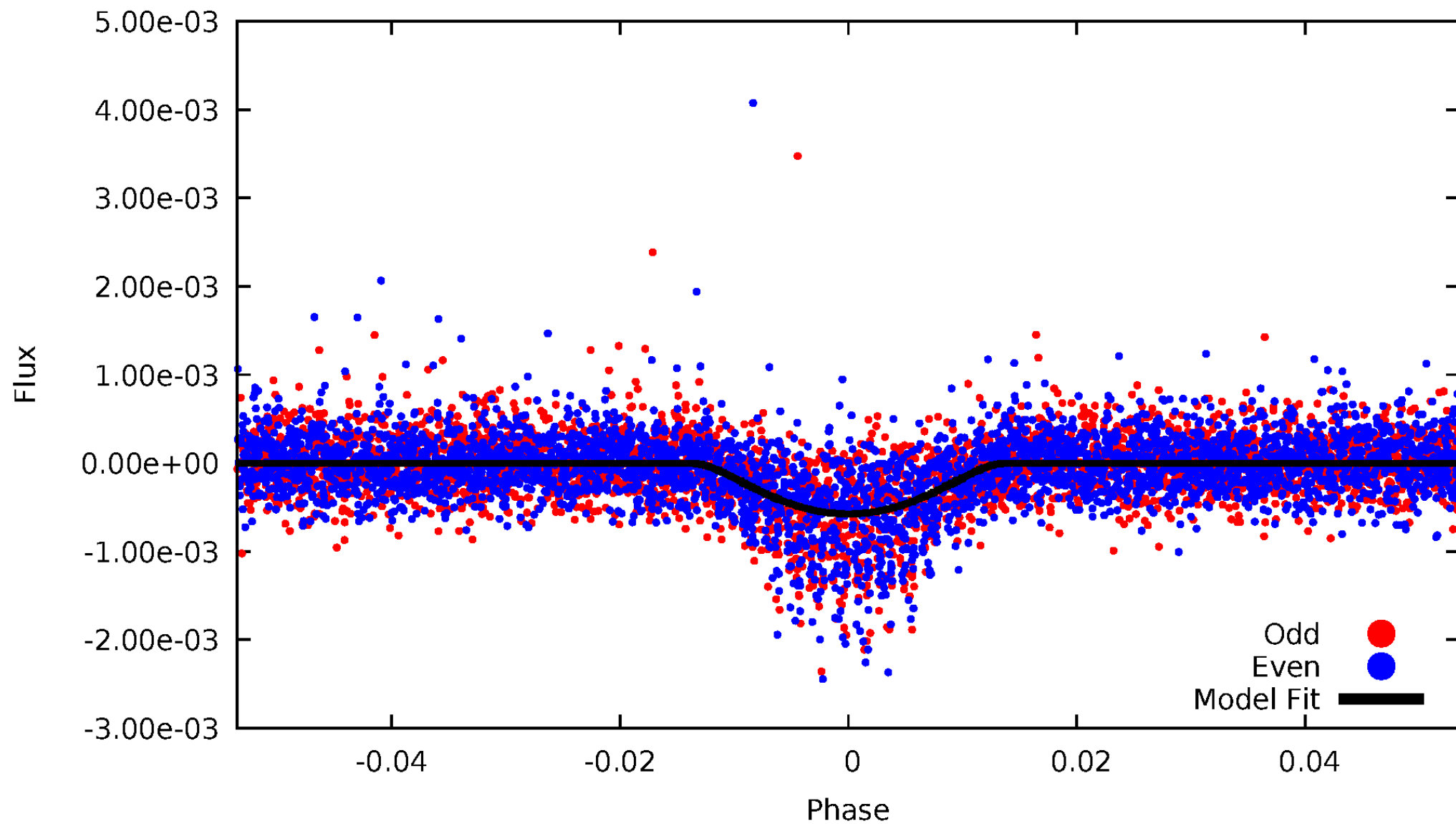


TCE 003437776-01



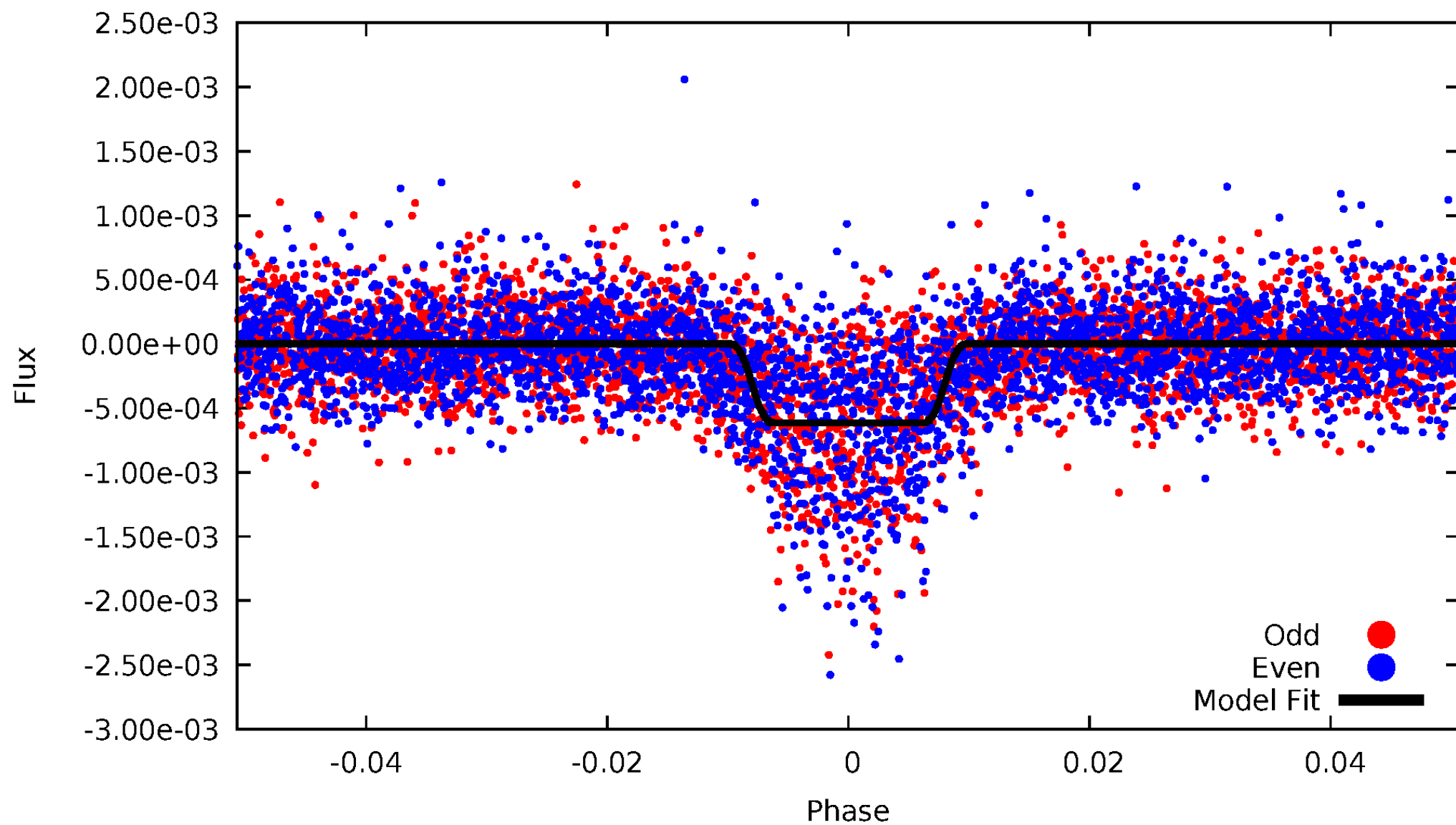
DV Odd/Even

TCE 003437776-01



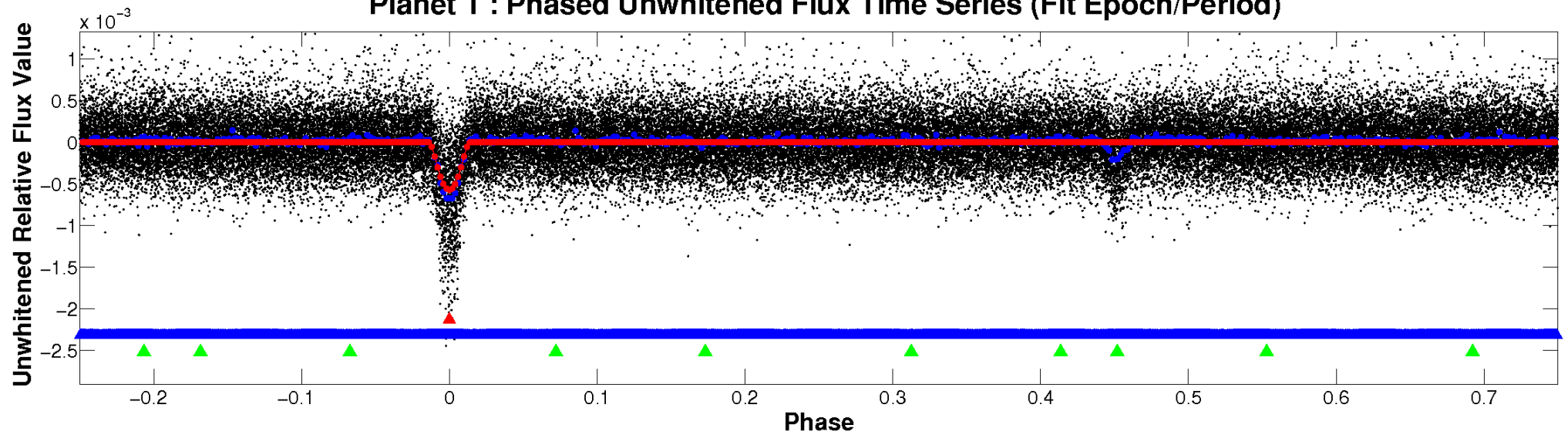
ALT Odd/Even

TCE 003437776-01

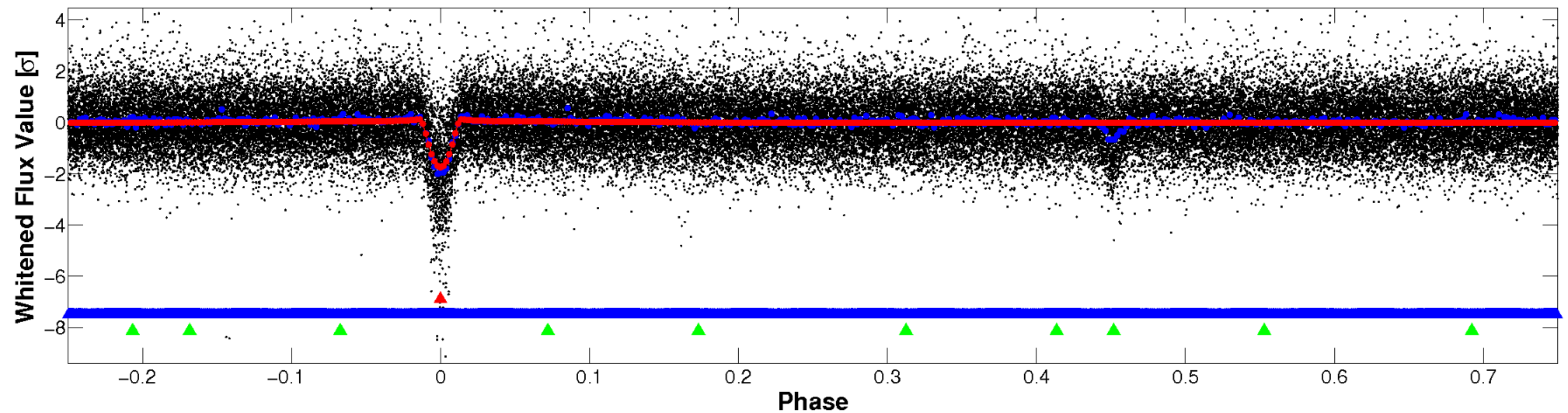


Non-Whitened Vs. Whitened Light Curve

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

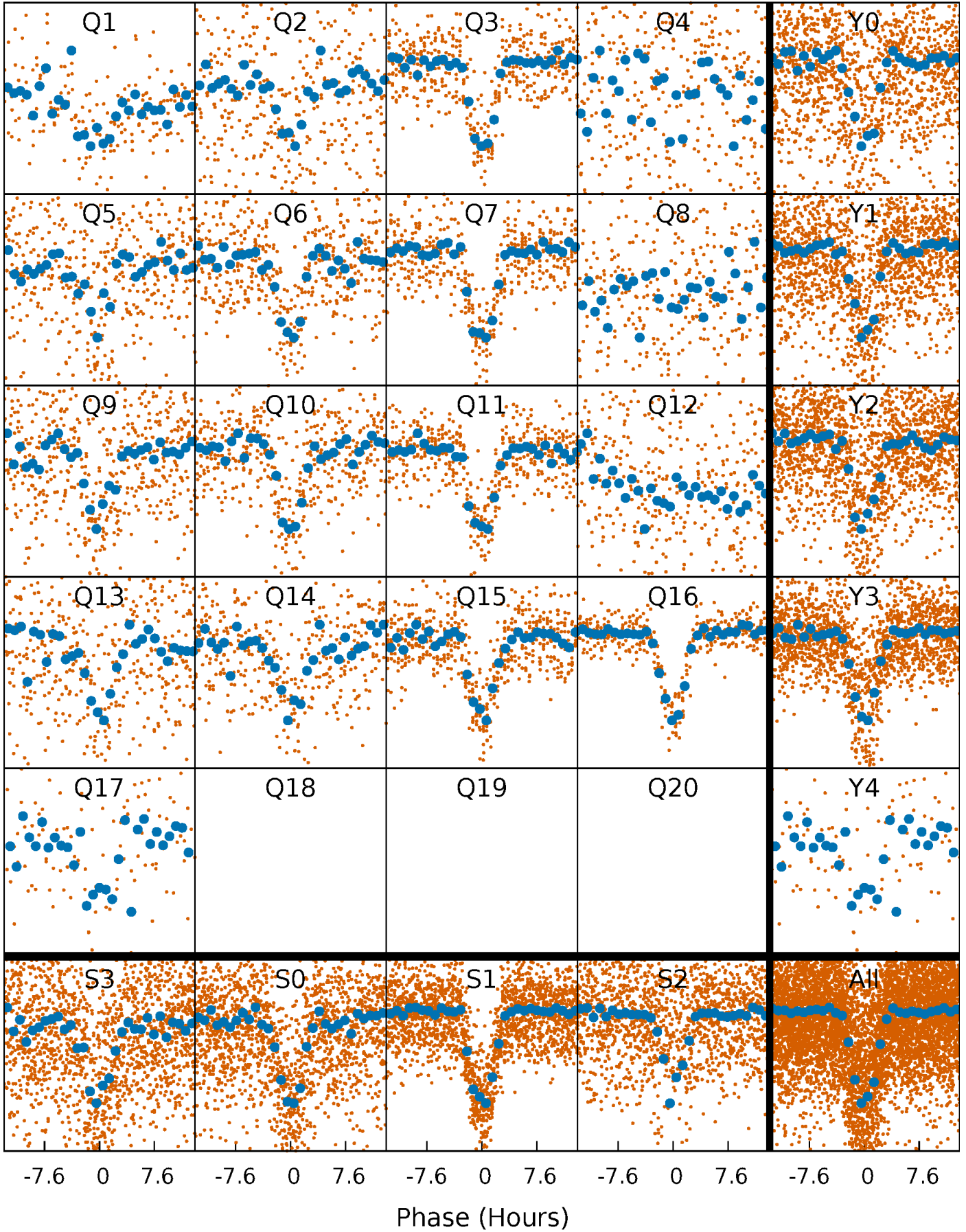


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



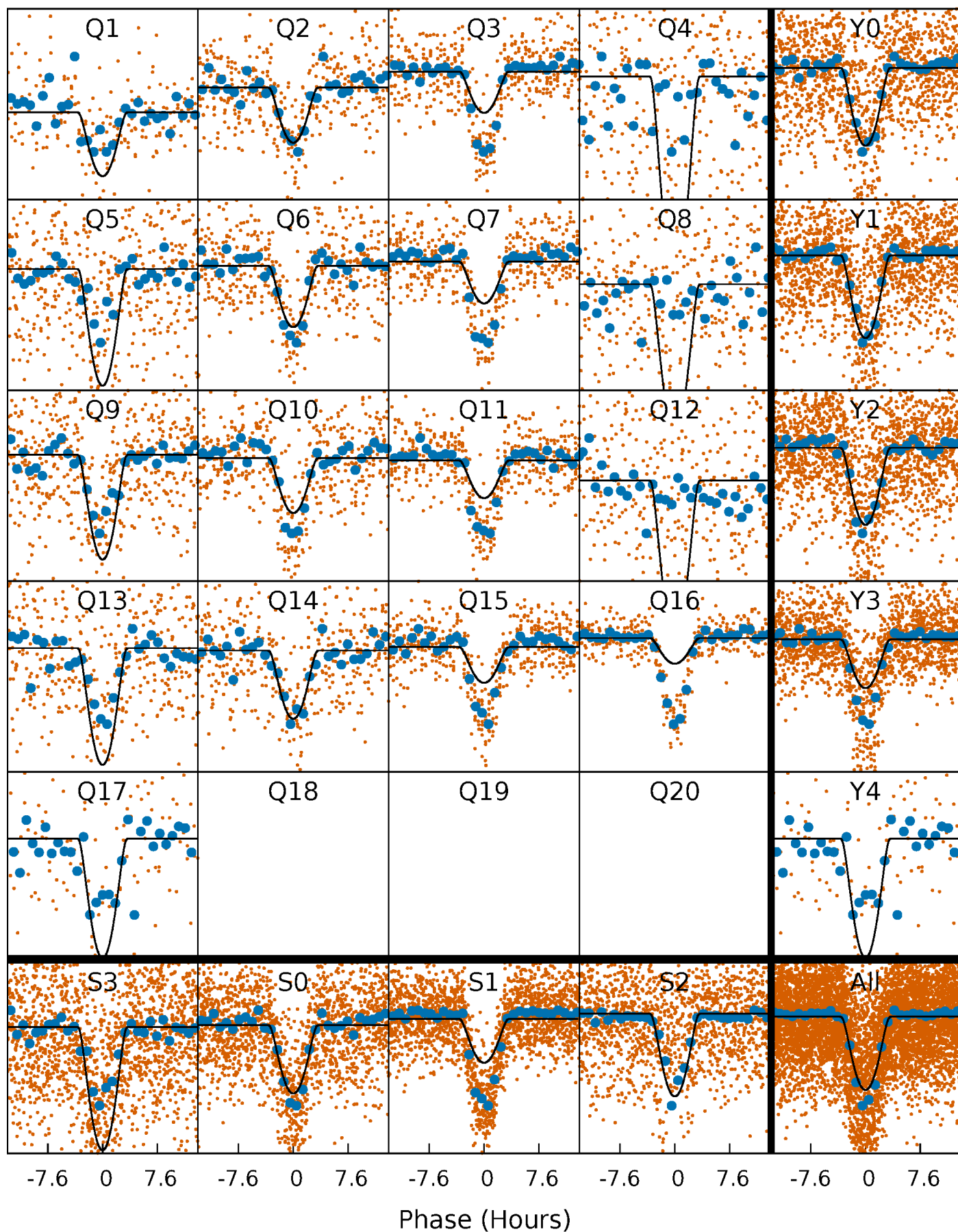
PDC Quarter-Phased Transit Curves

TCE 003437776-01 P= 10.297667 Days $T_0=131.734089$ (BKJD)



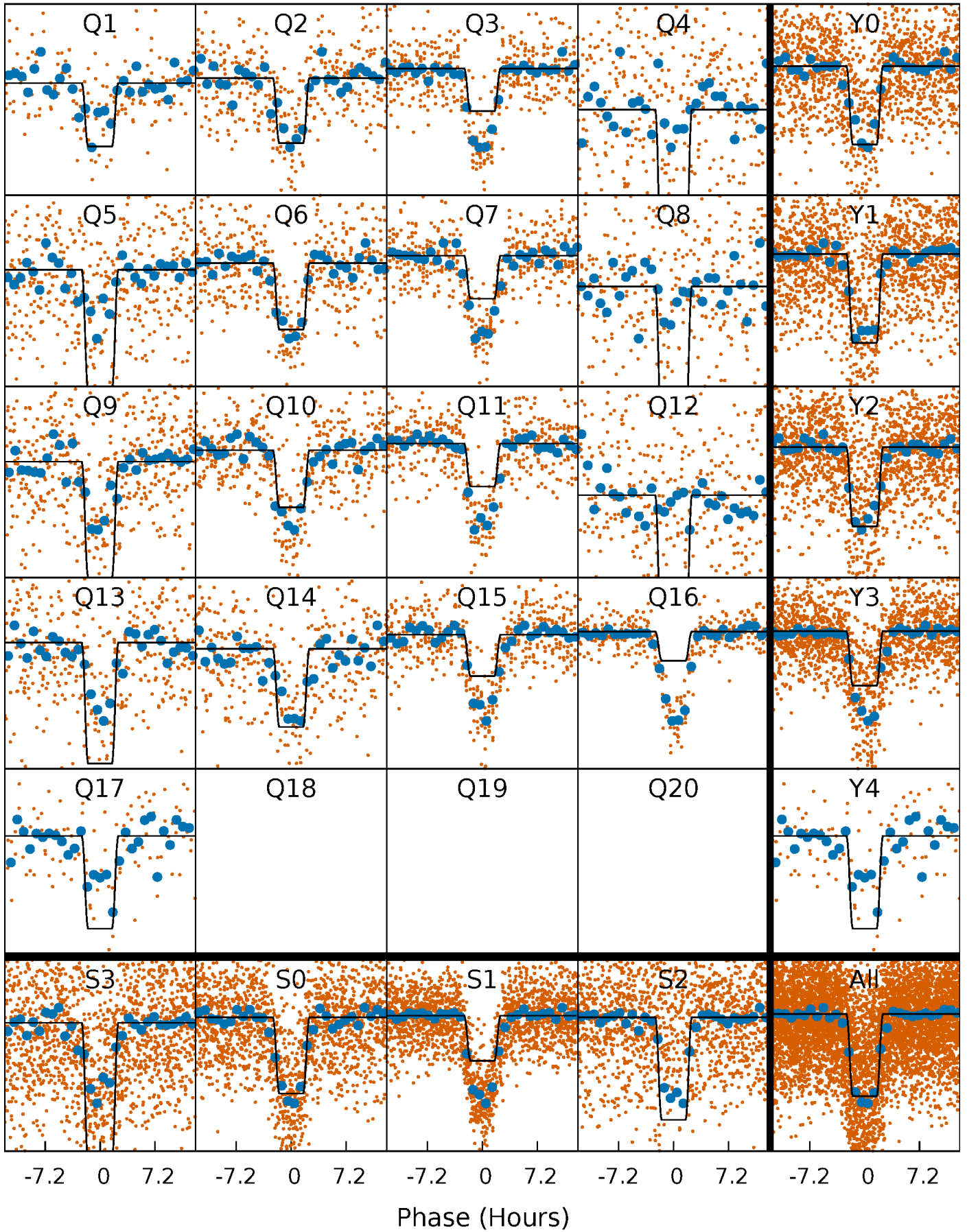
DV Quarter-Phased Transit Curves

TCE 003437776-01 P= 10.297667 Days $T_0=131.734089$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

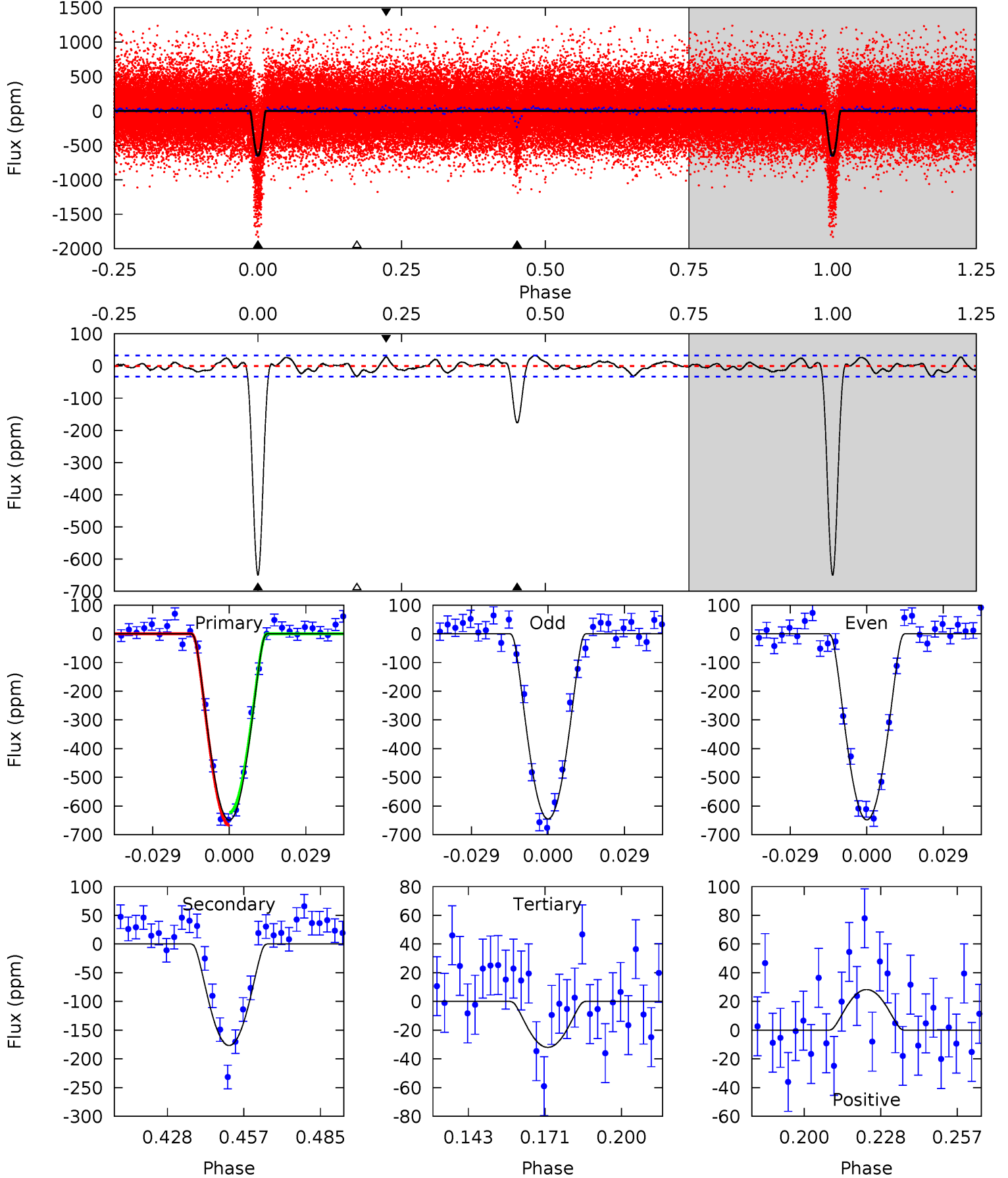
TCE 003437776-01 P= 10.297544 Days $T_0=131.743494$ (BKJD)



DV Model-Shift Uniqueness Test

003437776-01, P = 10.297667 Days, E = 121.436422 Days

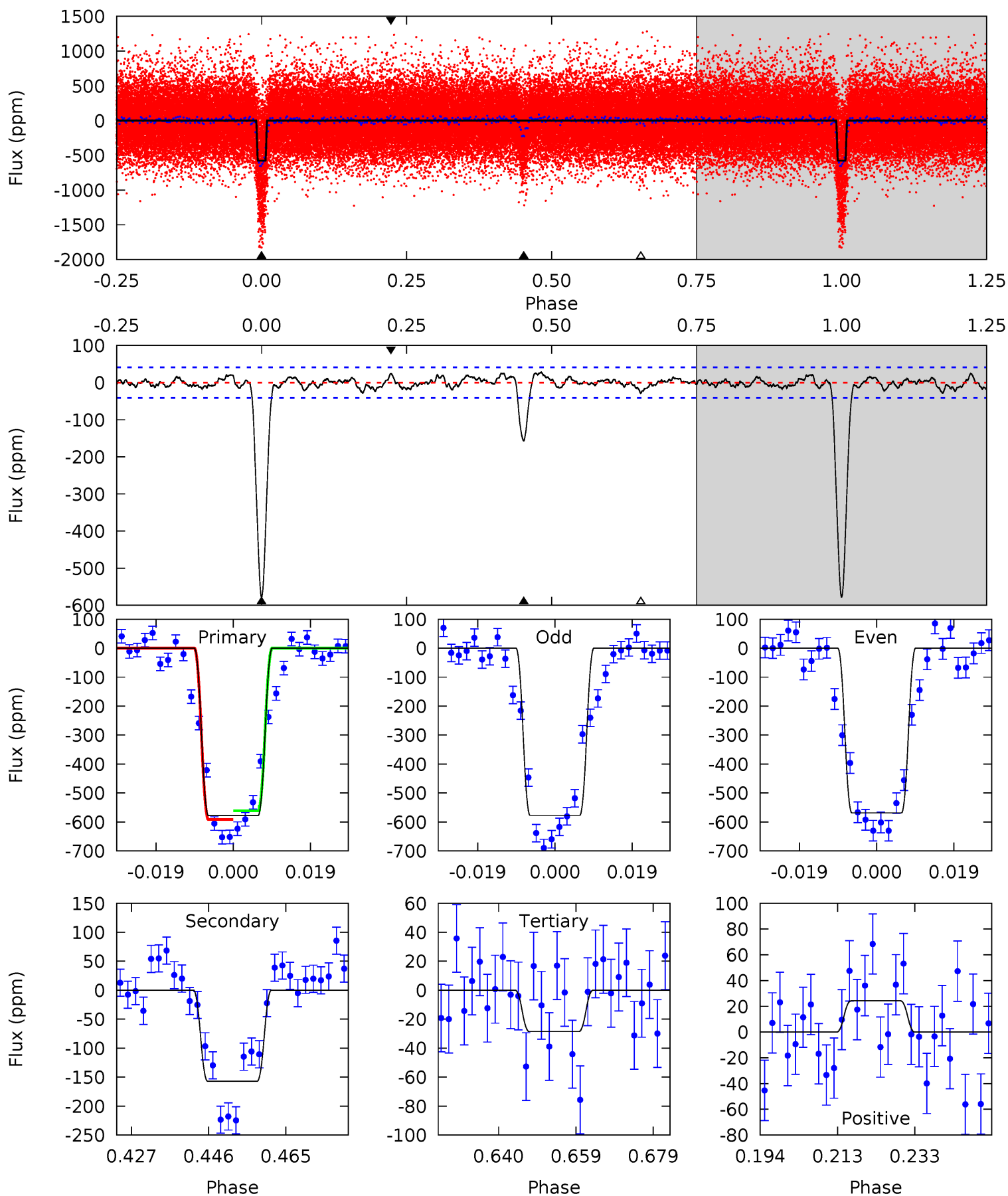
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
95.0	25.9	4.68	4.14	4.82	2.19	1.77	90.3	90.9	21.2	21.7	0.23	1.23	0.05	3.15



Alt Model-Shift Uniqueness Test

003437776-01, $P = 10.297544$ Days, $E = 121.445950$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.9	18.7	3.40	2.89	4.90	2.34	1.25	65.5	66.0	15.3	15.8	0.50	1.16	0.05	1.76



Stellar Parameters For KIC 003437776

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5671^{+76}_{-76}	$4.075^{+0.189}_{-0.081}$	$0.340^{+0.100}_{-0.150}$	$1.608^{+0.234}_{-0.351}$	$1.121^{+0.121}_{-0.088}$	$0.380^{+0.385}_{-0.098}$
	+1%/-1%	+5%/-2%	+29%/-44%	+15%/-22%	+11%/-8%	+101%/-26%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003437776-01 / KOI 0549.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-177 ± 7	$6.58^{+2.98}_{-2.93}$	1418^{+58}_{-79}	3700^{+945}_{-384}	21^{+46}_{-11}
Alt.	-157 ± 8	$4.34^{+3.10}_{-2.29}$	1414^{+61}_{-83}	4184^{+1592}_{-676}	44^{+151}_{-29}

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

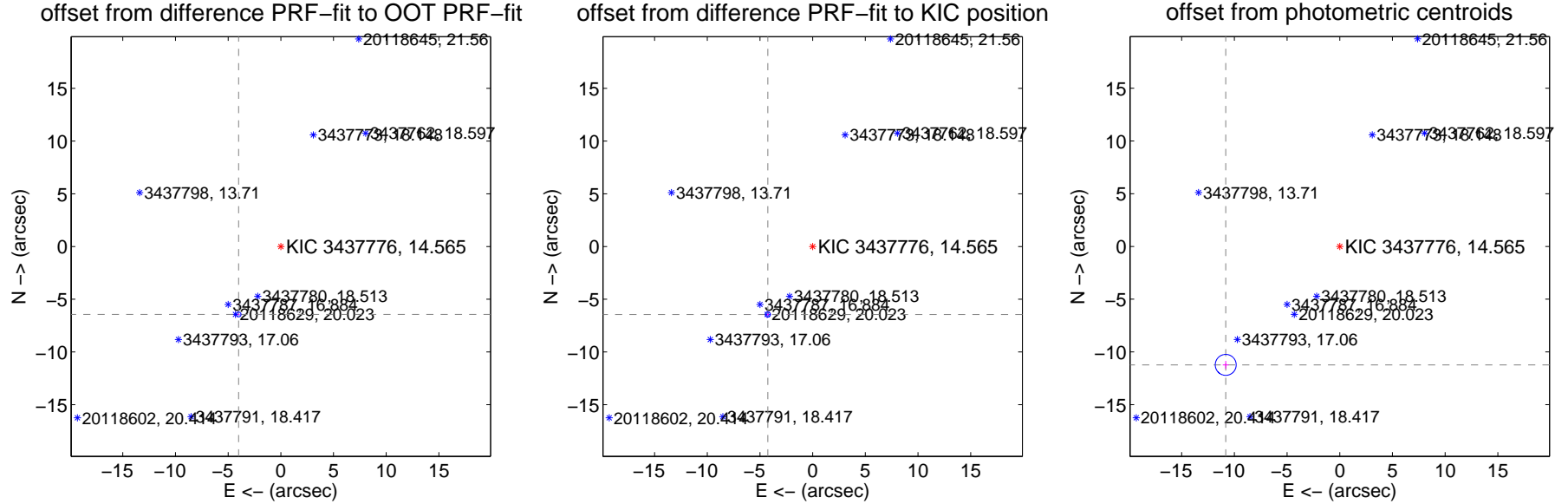
DV Centroid Data

Supplemental centroid analysis for 003437776-01. Kepler magnitude: 14.56. Transit SNR 44.92

There are 4 quarters with good PRF difference image offsets

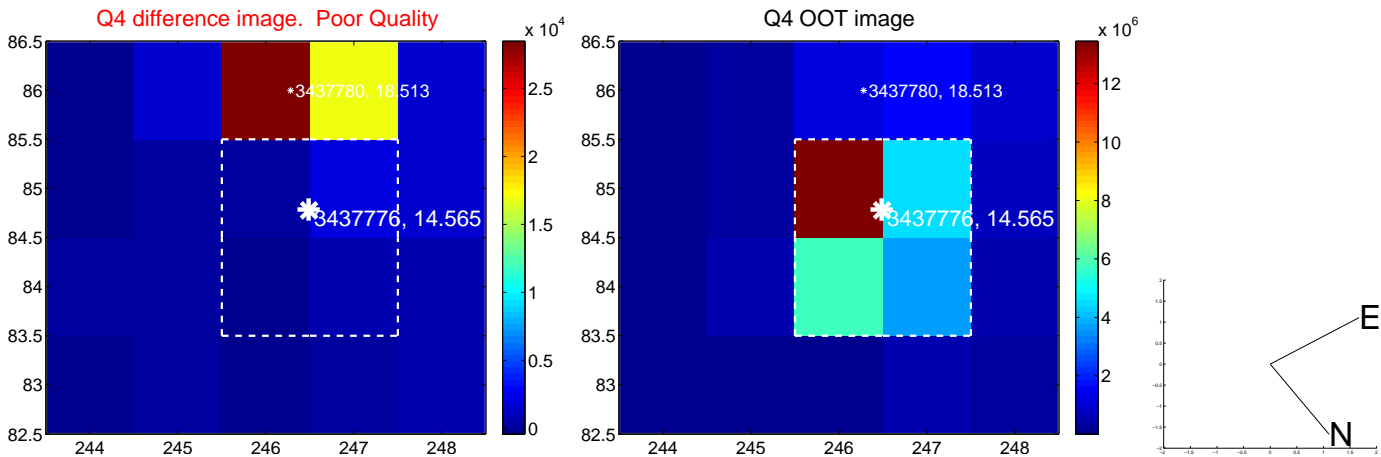
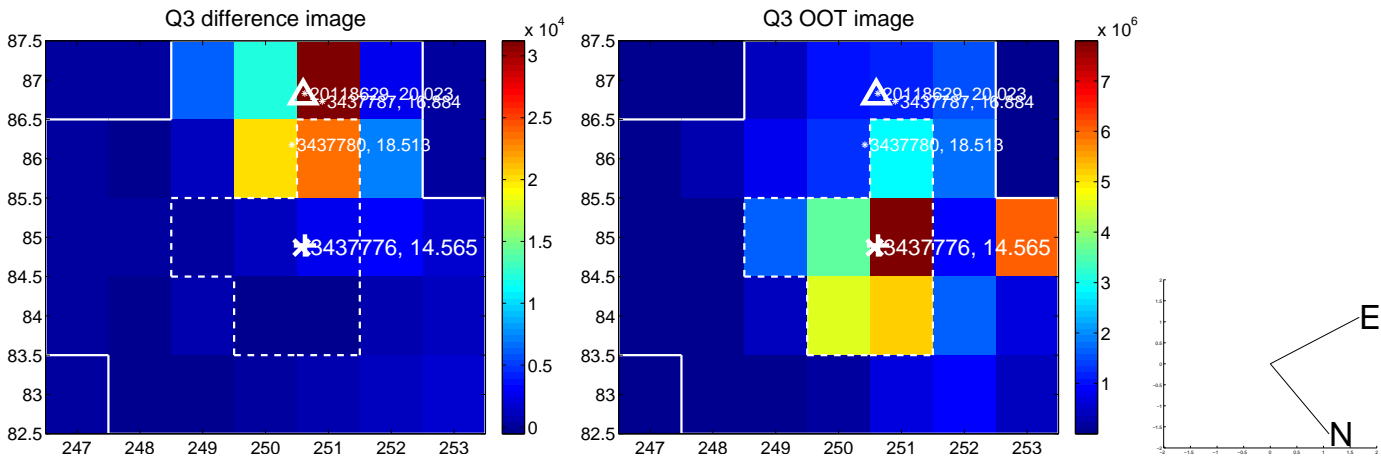
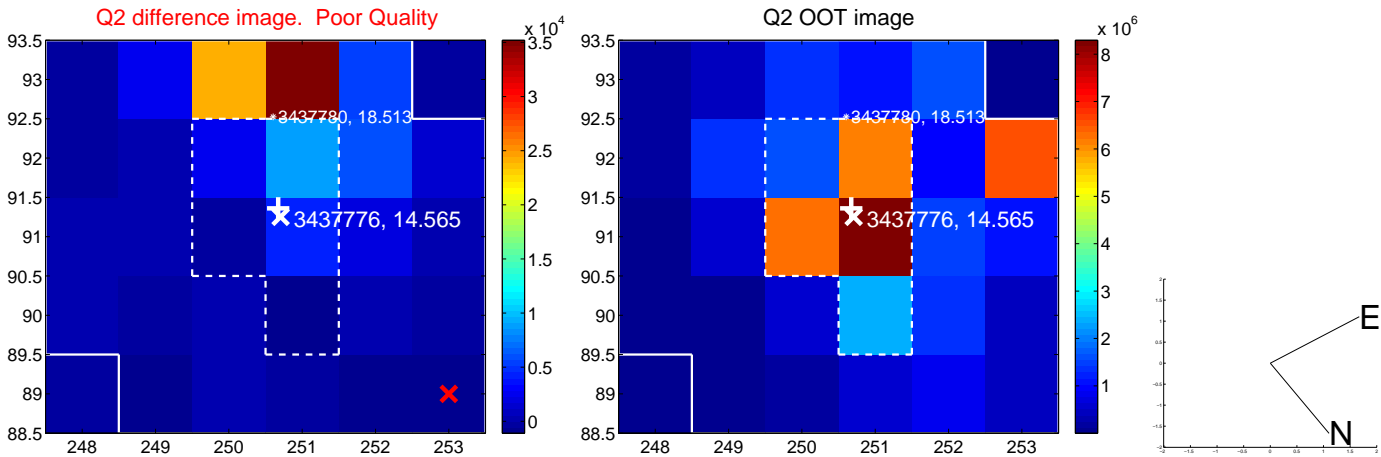
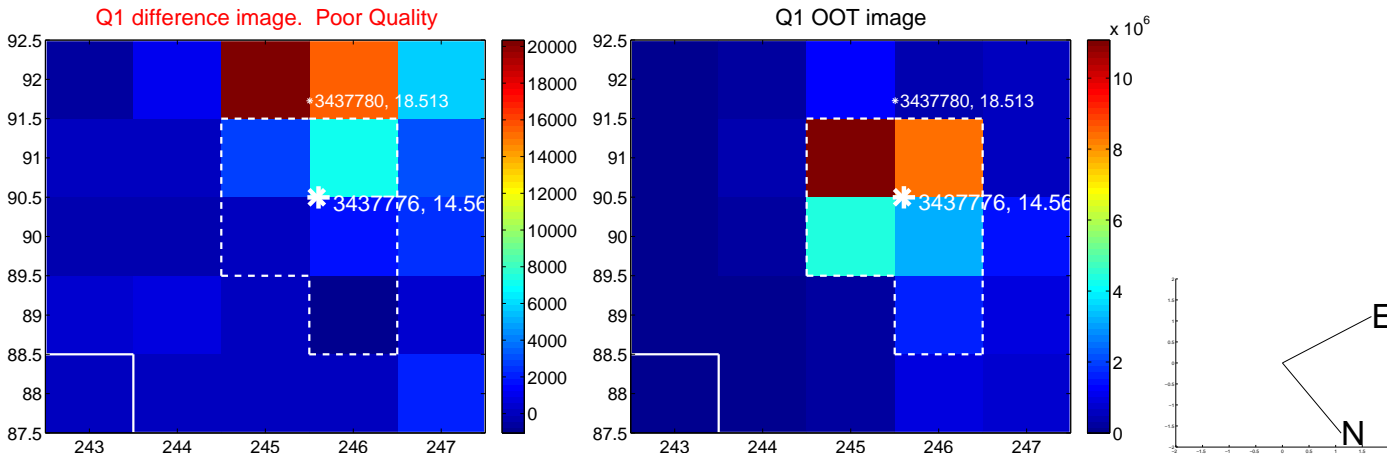
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.585 ± 0.075	100.48	4.006 ± 0.075	-6.441 ± 0.076
PRF-fit source offset from KIC position	7.724 ± 0.082	94.56	4.253 ± 0.081	-6.448 ± 0.082
photometric centroid source offset	15.59 ± 0.33	47.10	10.82 ± 0.28	-11.23 ± 0.37

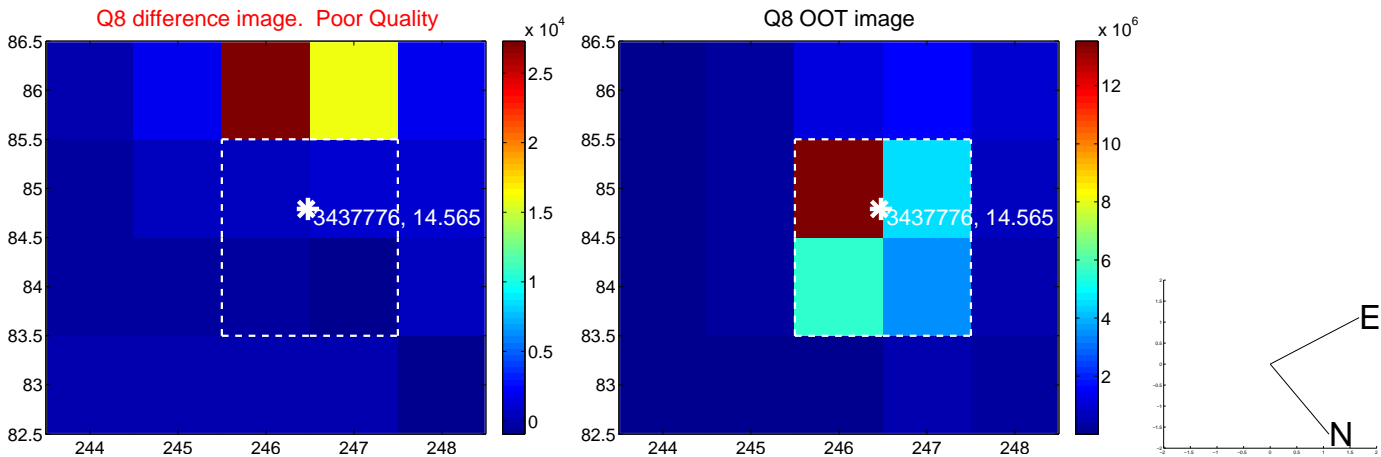
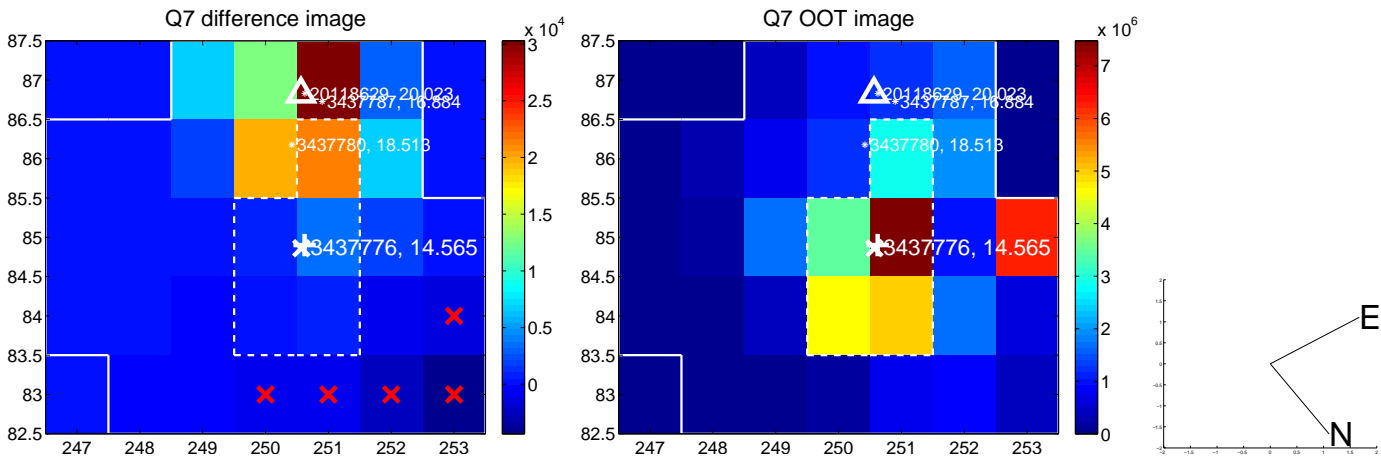
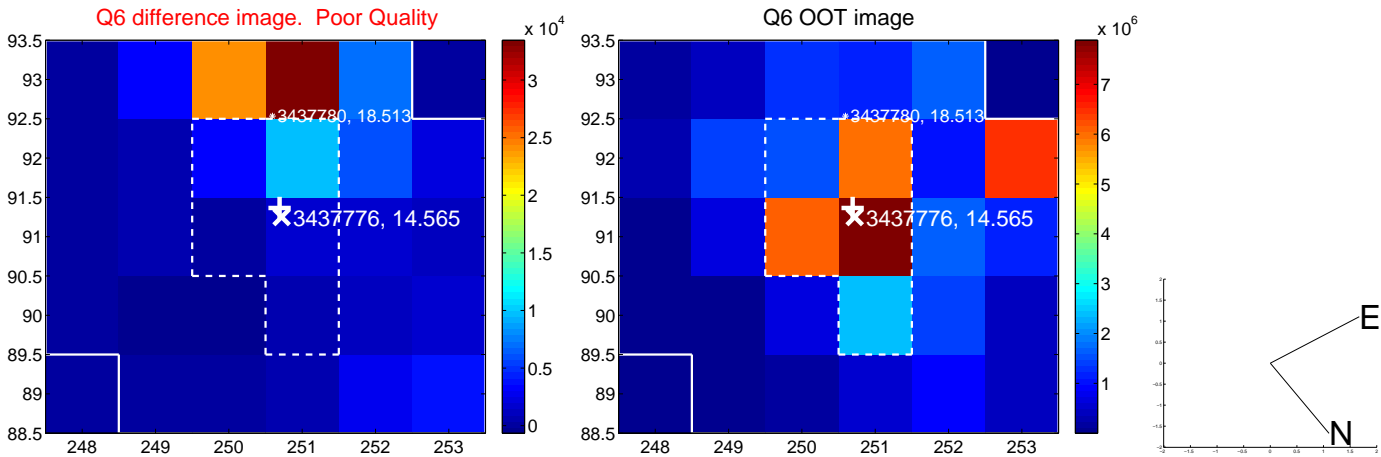
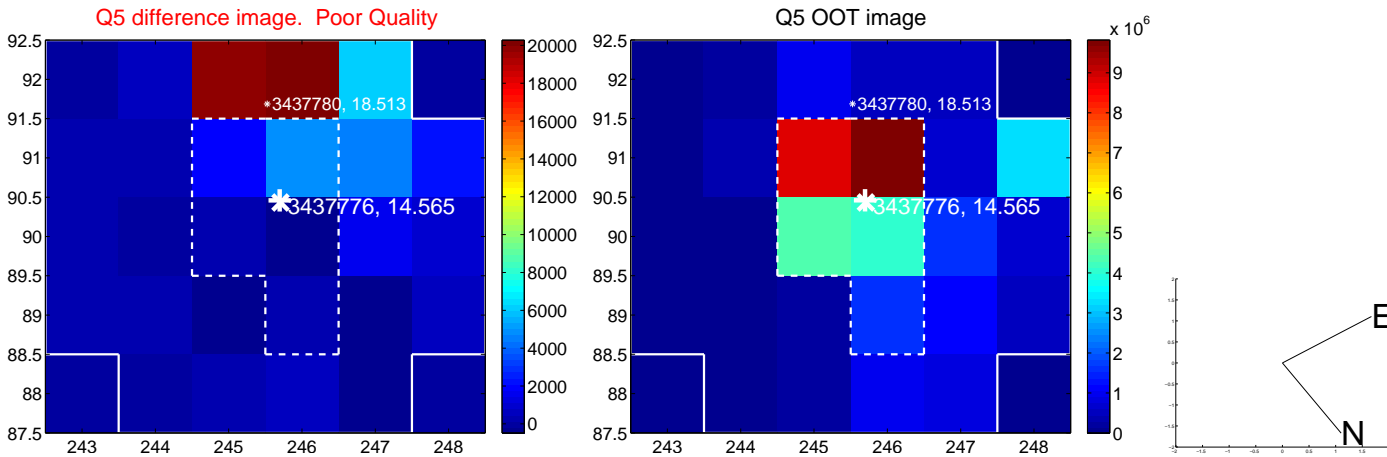


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

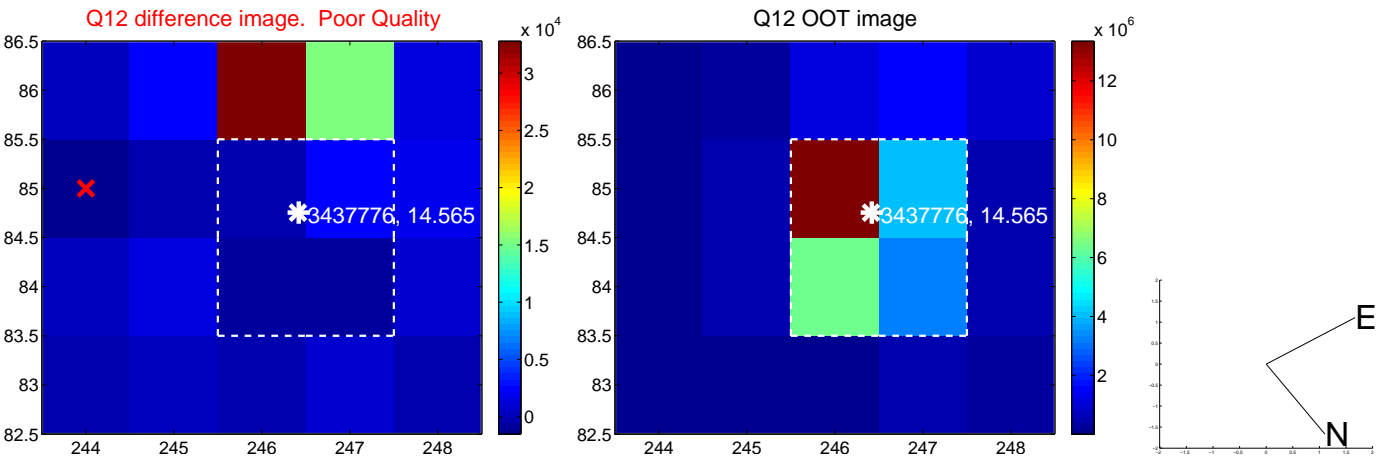
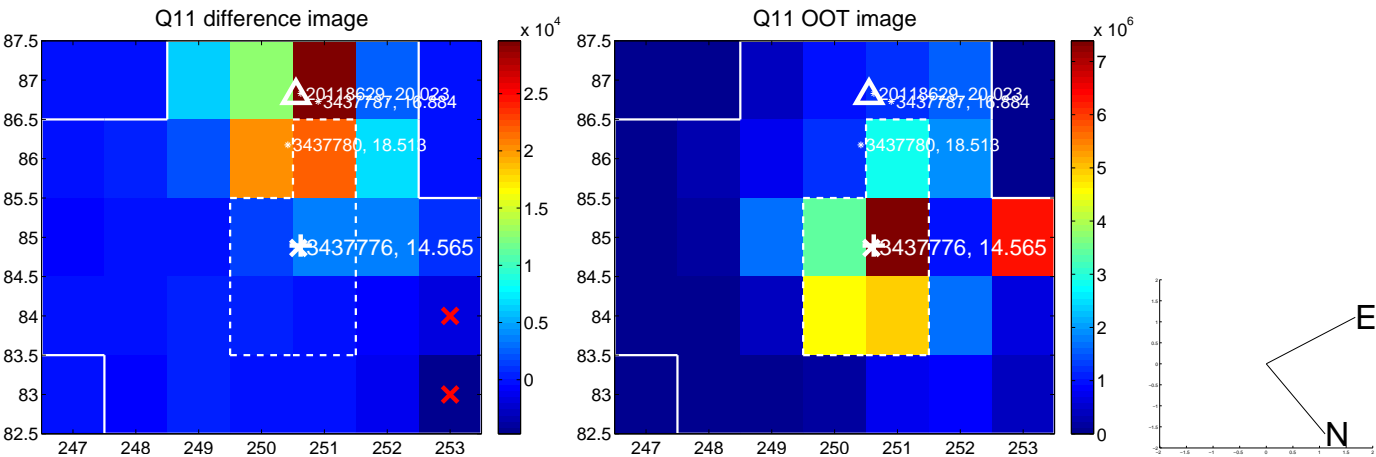
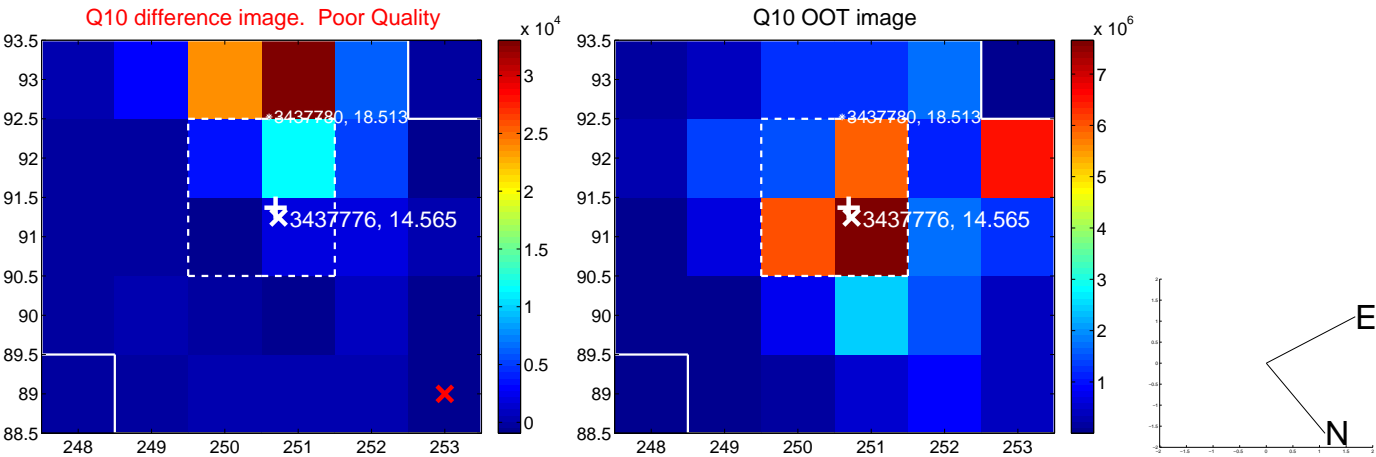
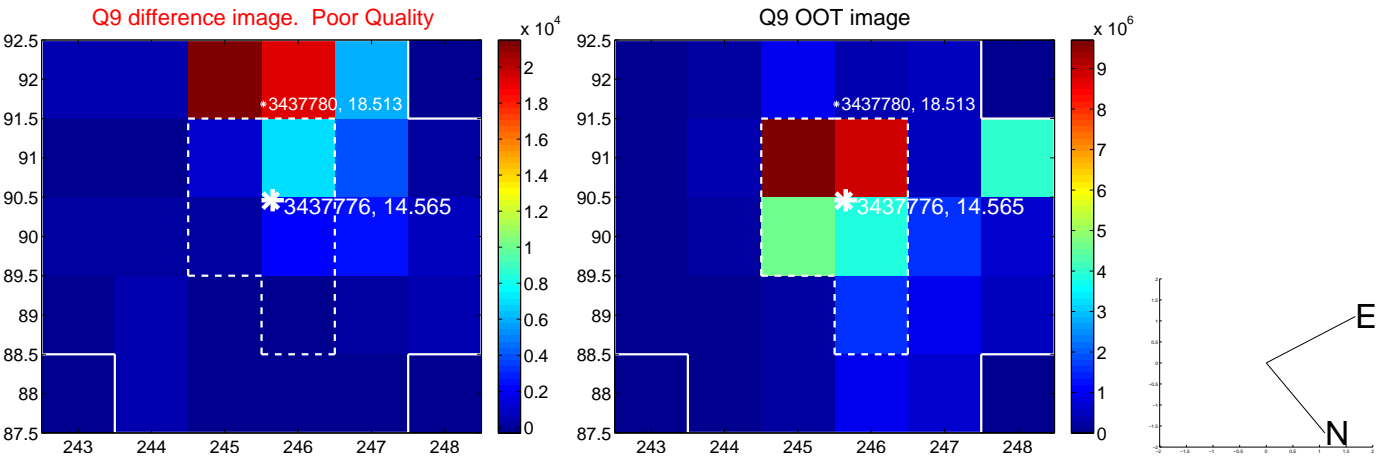
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



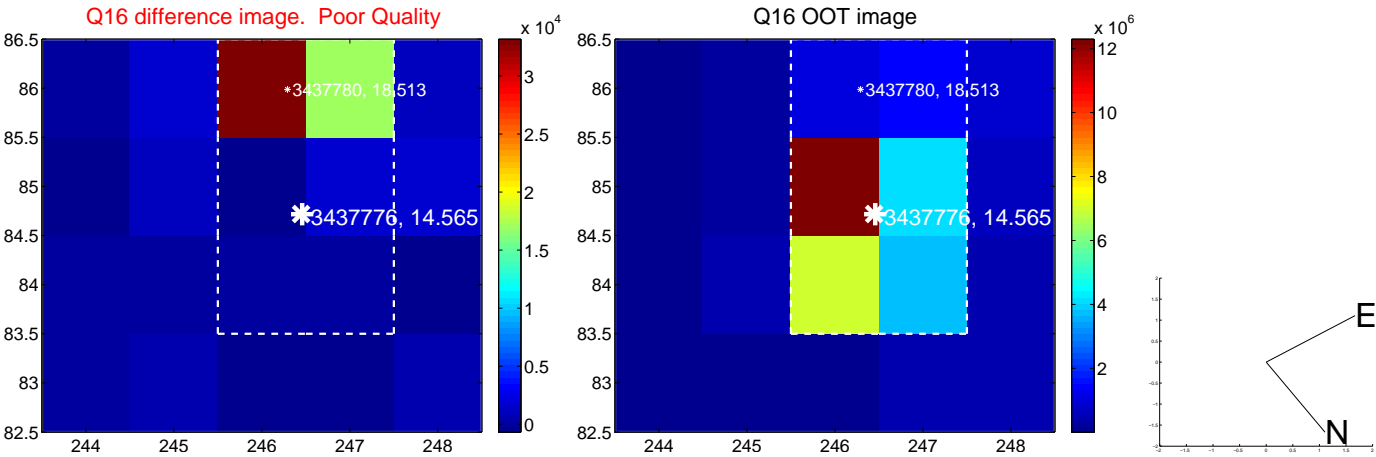
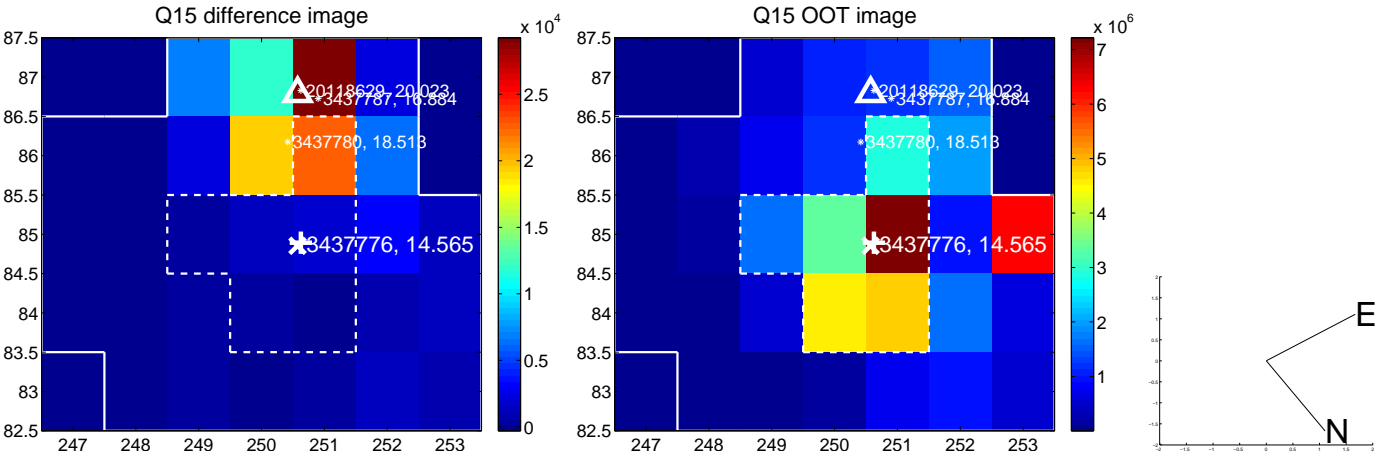
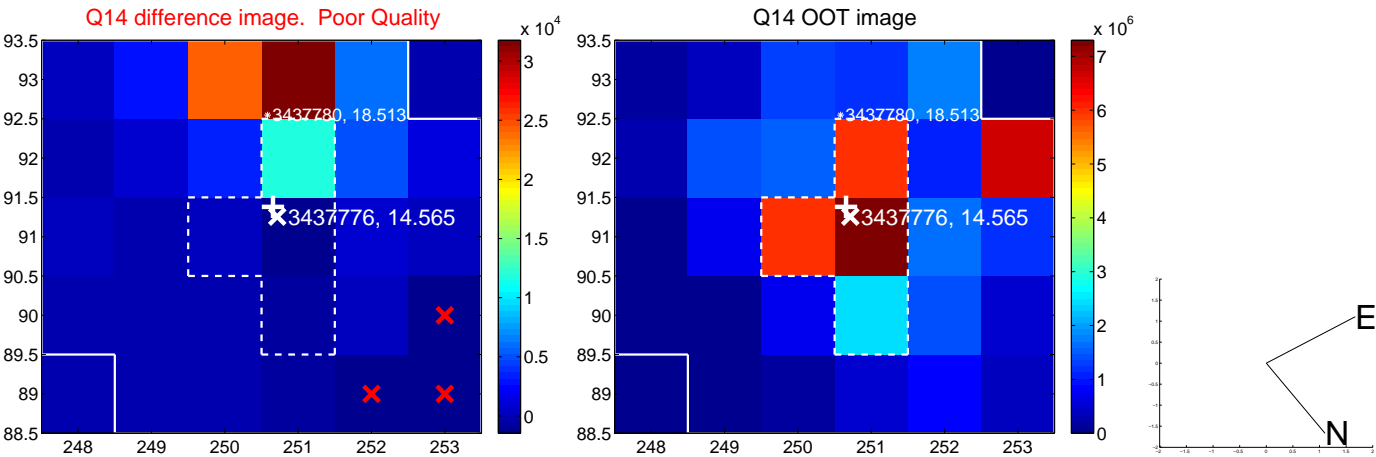
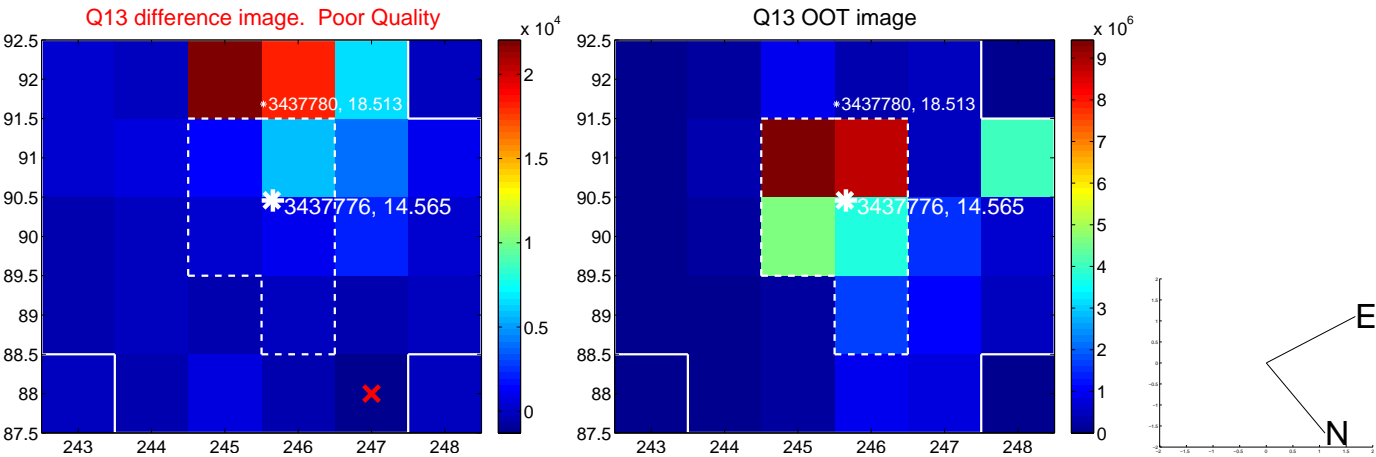
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



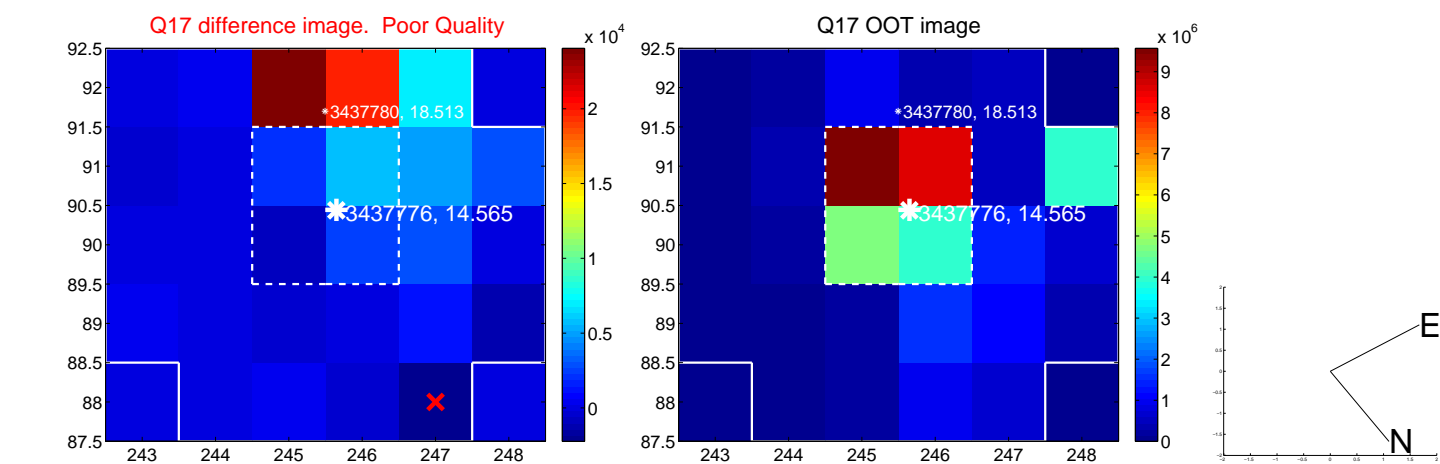
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



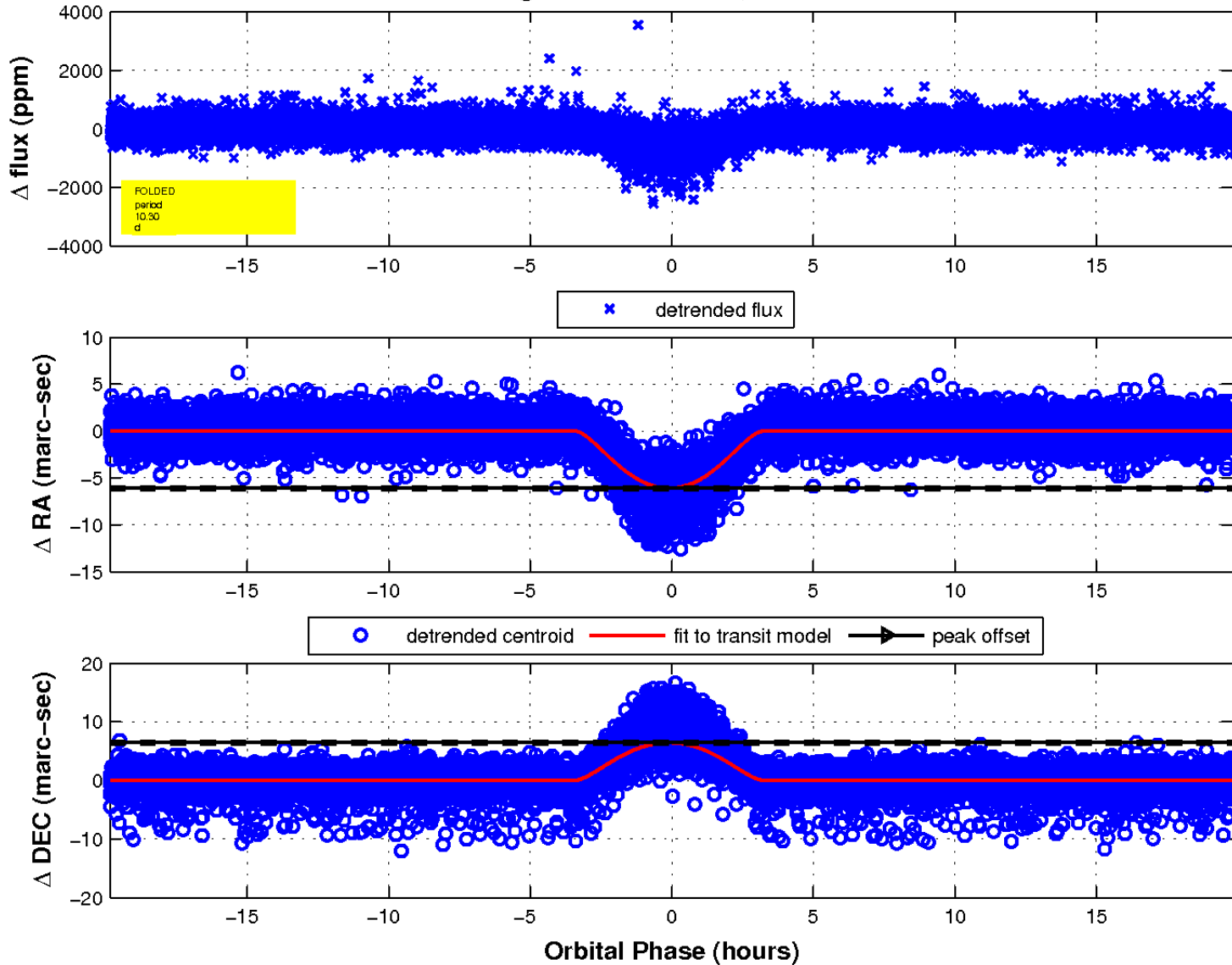
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

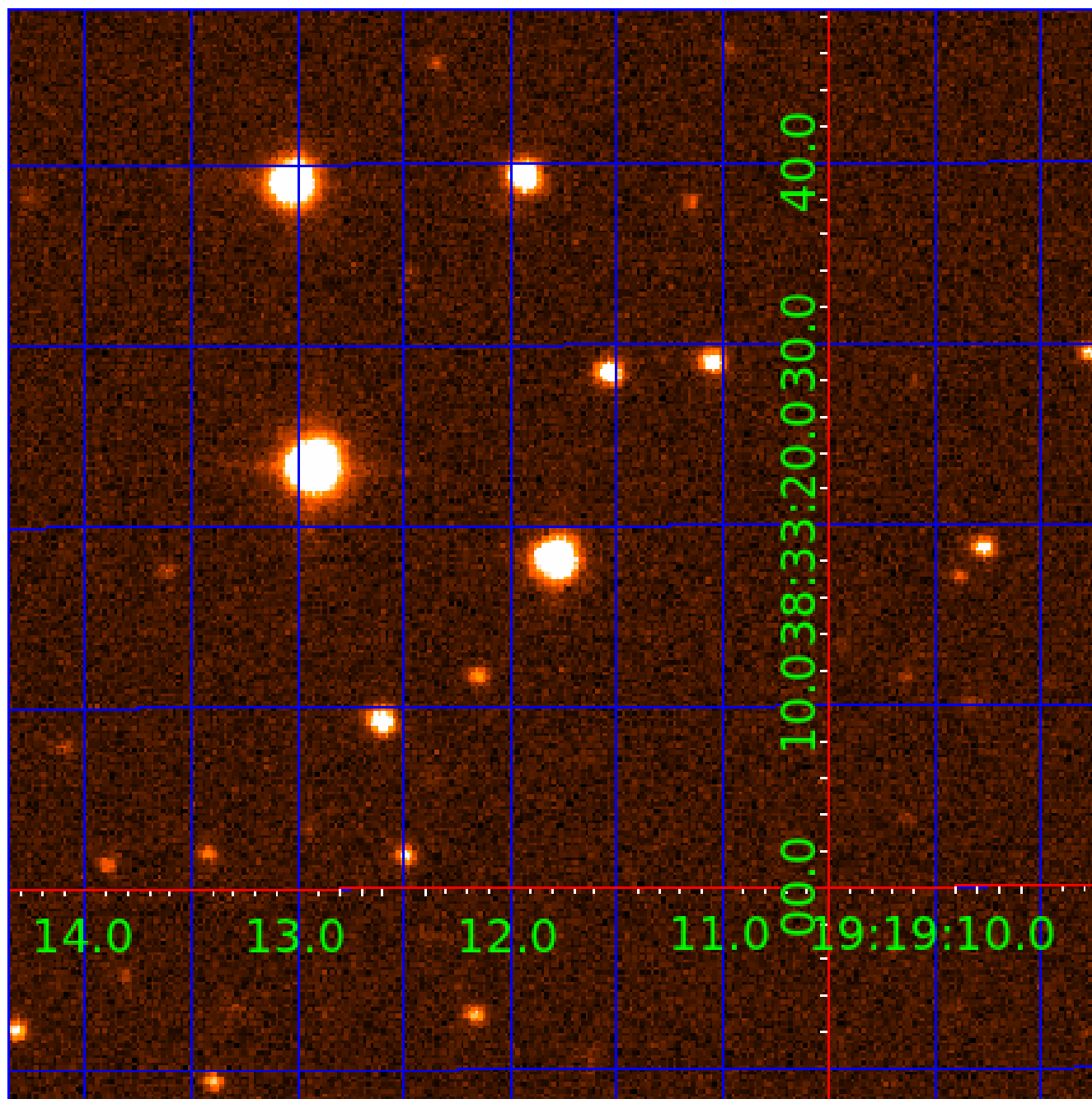


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 003437776

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})
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003437776-03	OBS	No	150.554118	181.488824	366.3	6.777	9.1	7.3	1.61	5671	3.31	7.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003437776-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
003437776-02	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
003437776-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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.

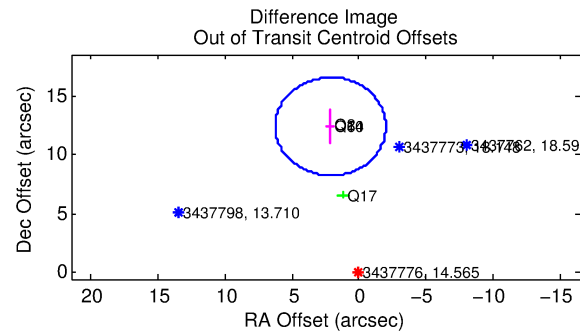
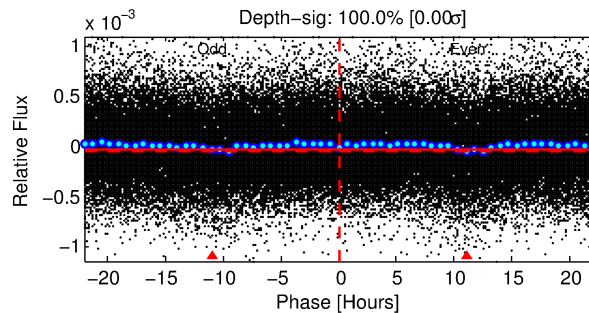
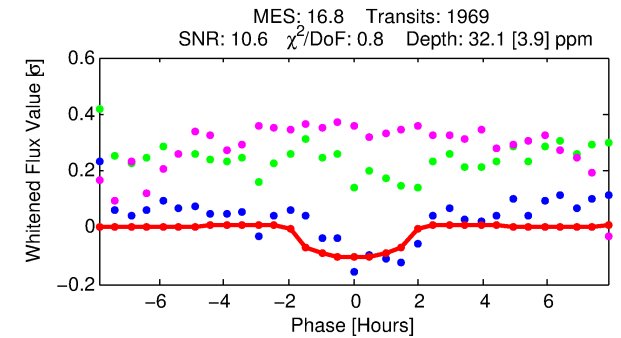
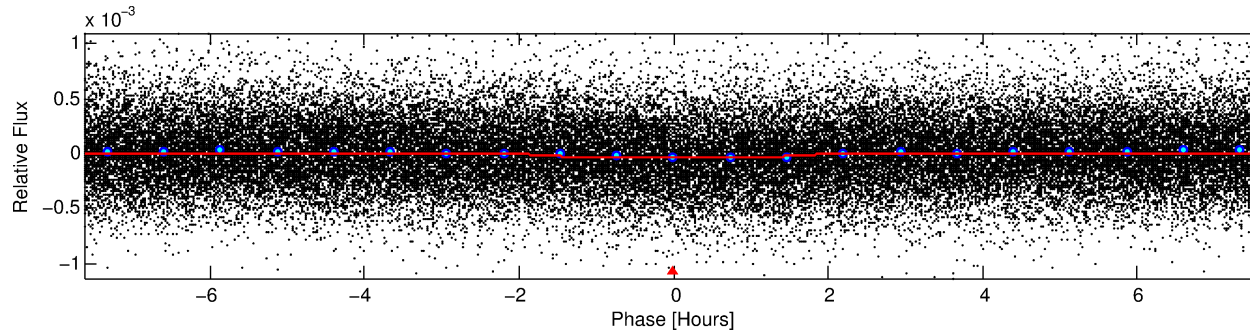
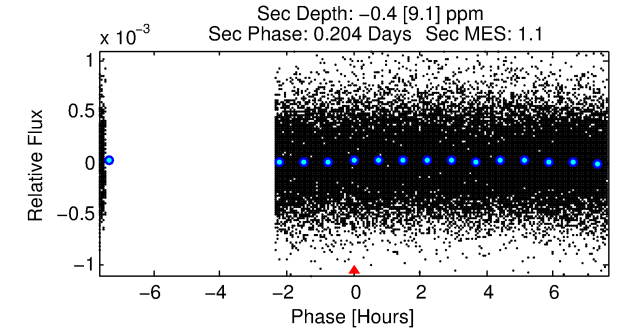
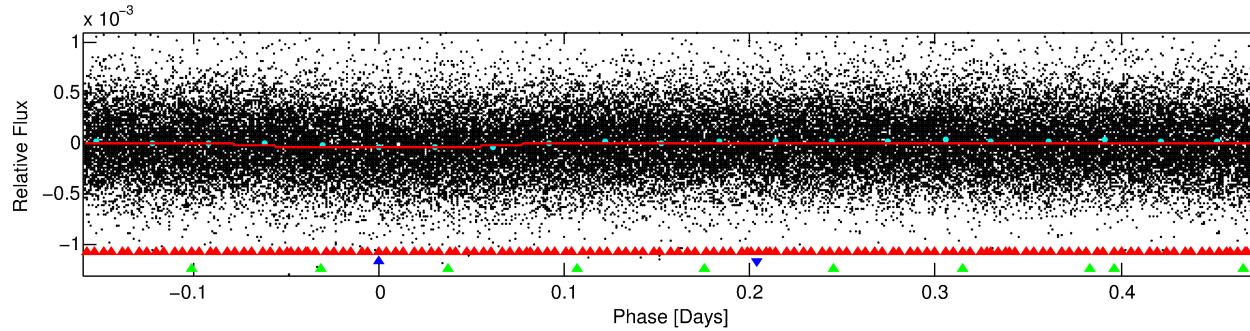
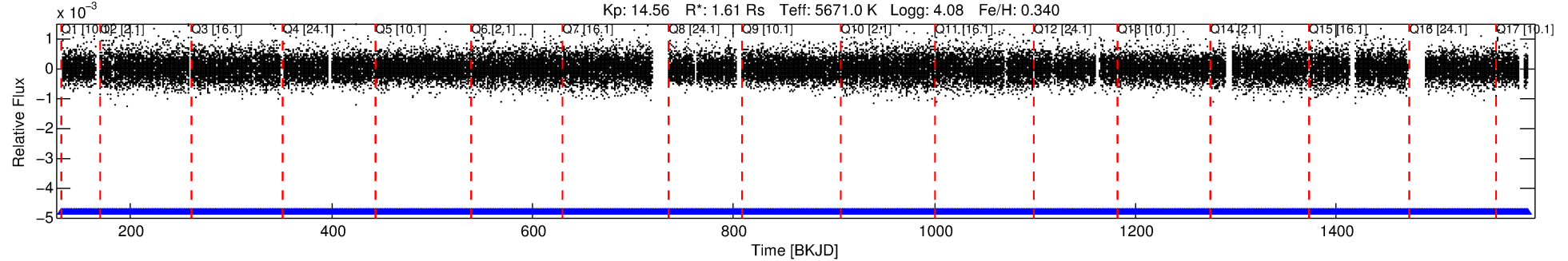
Ephemeris Match Information For 003437776-02

No Significant Match Found

DV One-Page Summary

KIC: 3437776 Candidate: 2 of 3 Period: 0.636 d
KOI: K00549.02 Corr: 0.785

Kp: 14.56 R*: 1.61 Rs Teff: 5671.0 K Logg: 4.08 Fe/H: 0.340



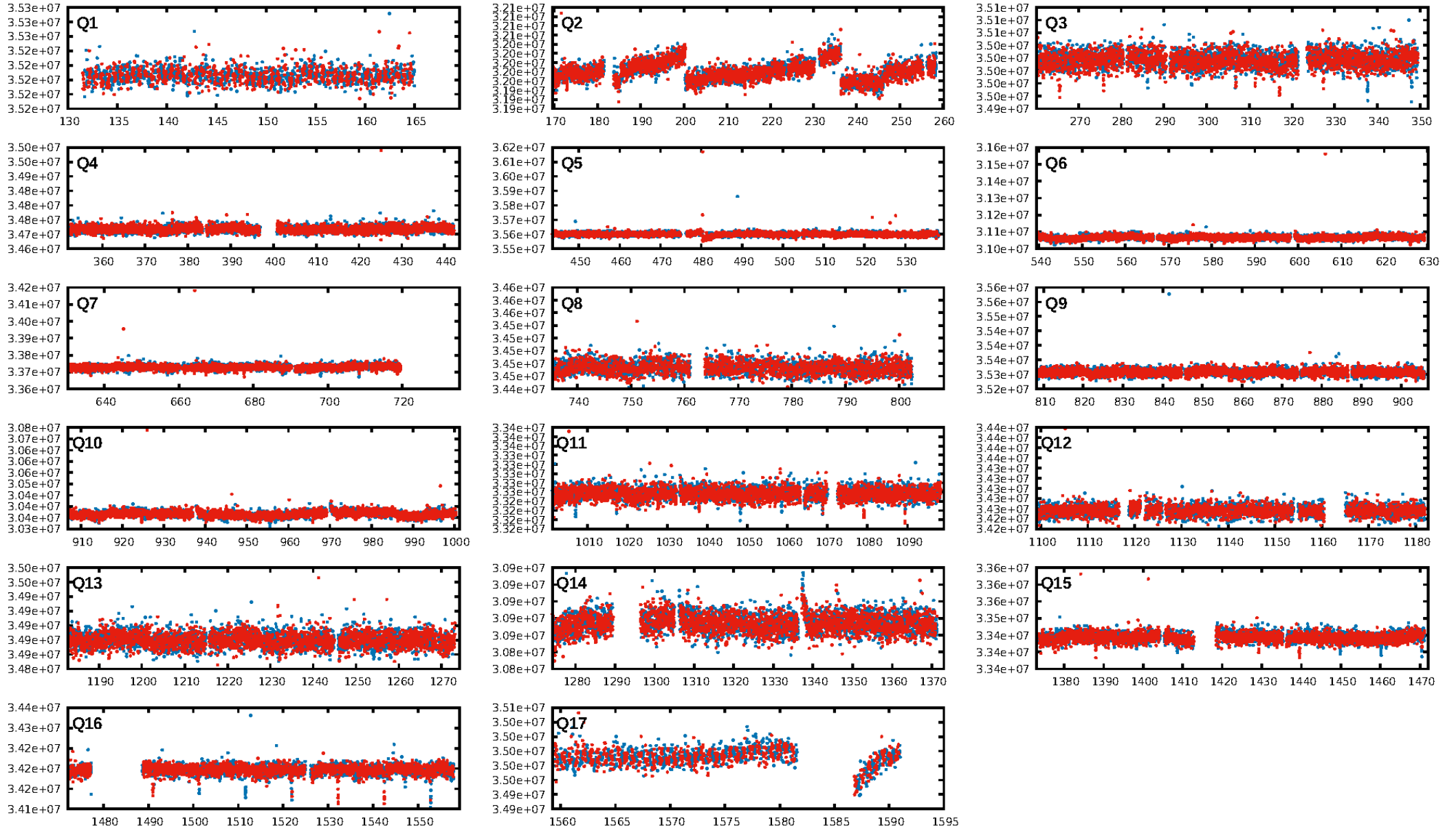
DV Fit Results:

Period = 0.63554 [0.00001] d
Epoch = 131.5331 [0.0041] BKJD
Rp/R* = 0.0055 [0.0042]
a/R* = 1.26 [1.47]
b = 0.70 [2.31]
Seff = 10605.52 [3488.93]
Teff = 2588 [213] K
Rp = 0.97 [0.77] Re
a = 0.0150 [0.0031] AU
Ag = N/A
Teffp = N/A

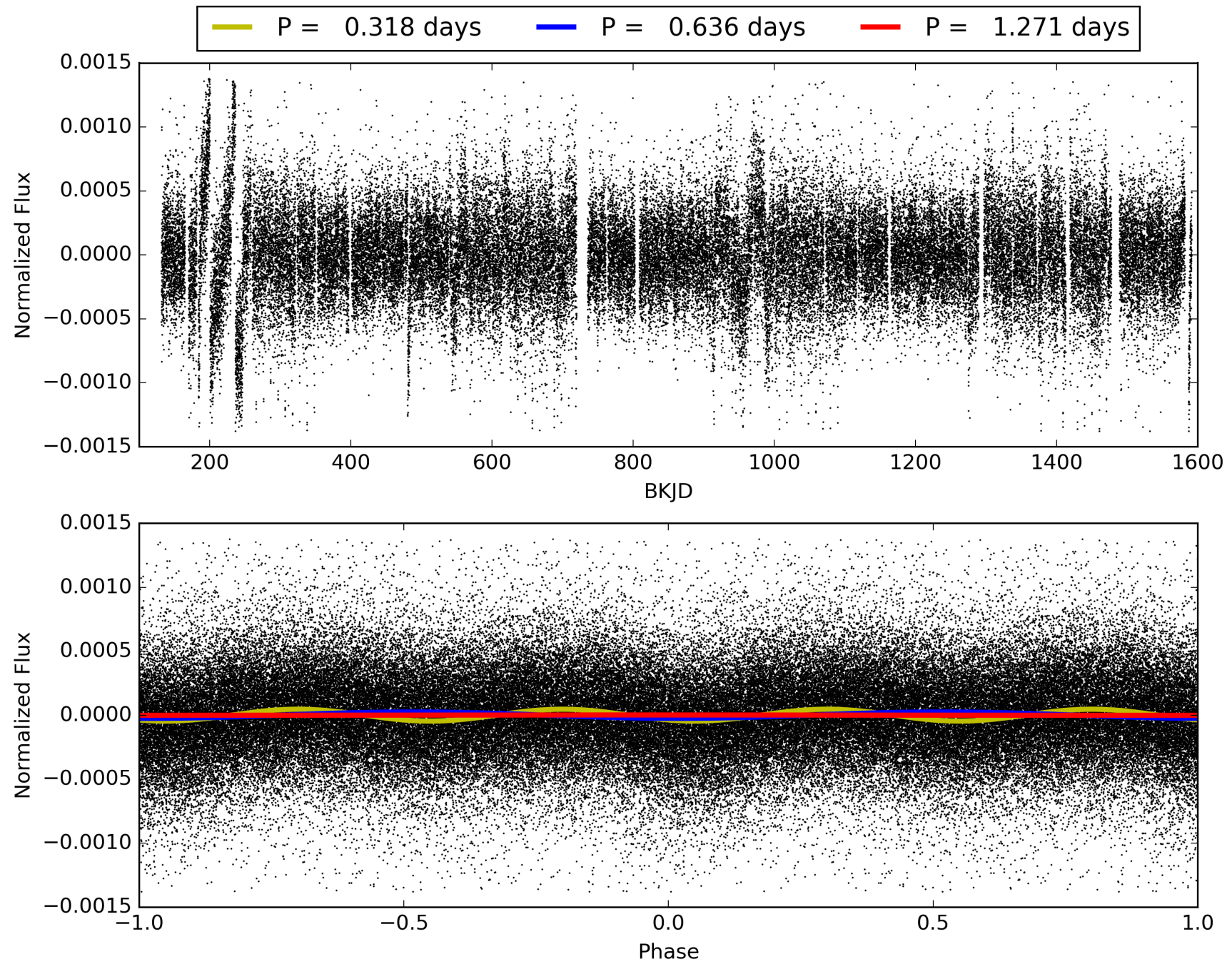
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [30.67σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.59e-46
RollingBand-fgt: 1.00 [1882/1882]
GhostDiagnostic-chr: -0.2522
Centroid-sig: 0.0%
Centroid-so: 15.451 arcsec [9.37σ]
OotOffset-rm: 12.579 arcsec [9.12σ]
KicOffset-rm: 12.165 arcsec [13.68σ]
OotOffset-st: 4/0/0/1 [5]
KicOffset-st: 4/0/0/1 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 003437776-02, PDC Light Curves

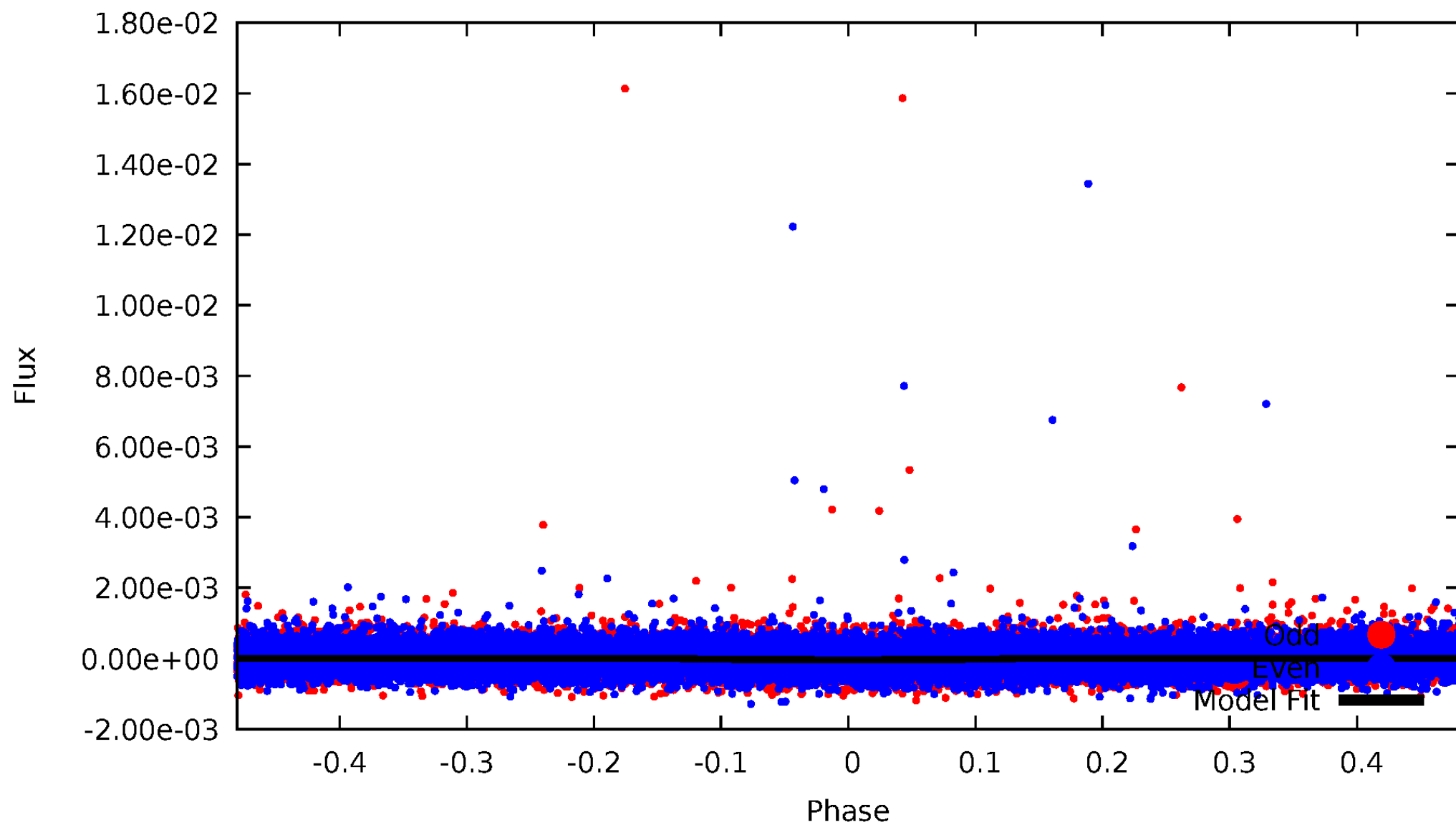


TCE 003437776-02



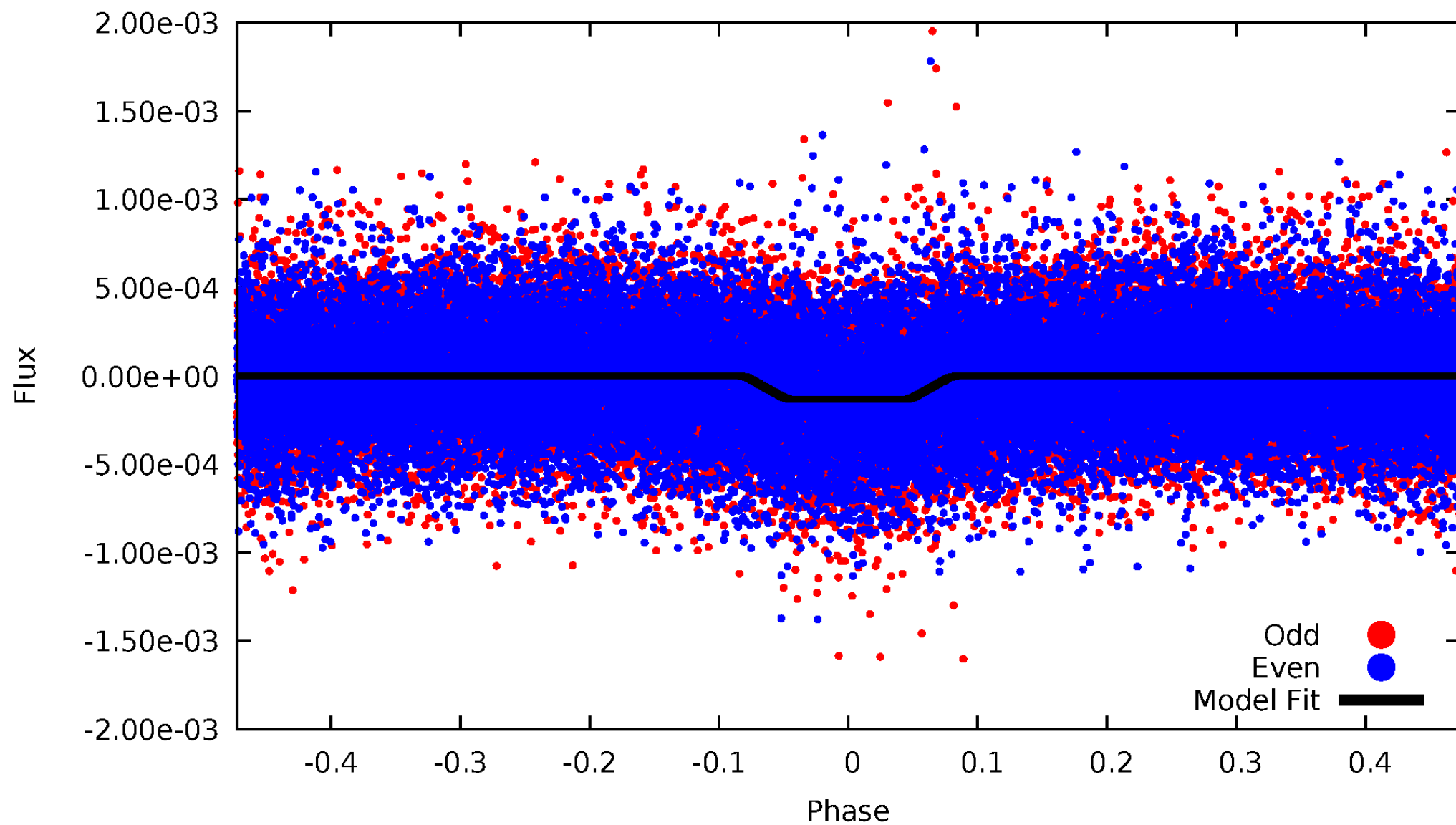
DV Odd/Even

TCE 003437776-02



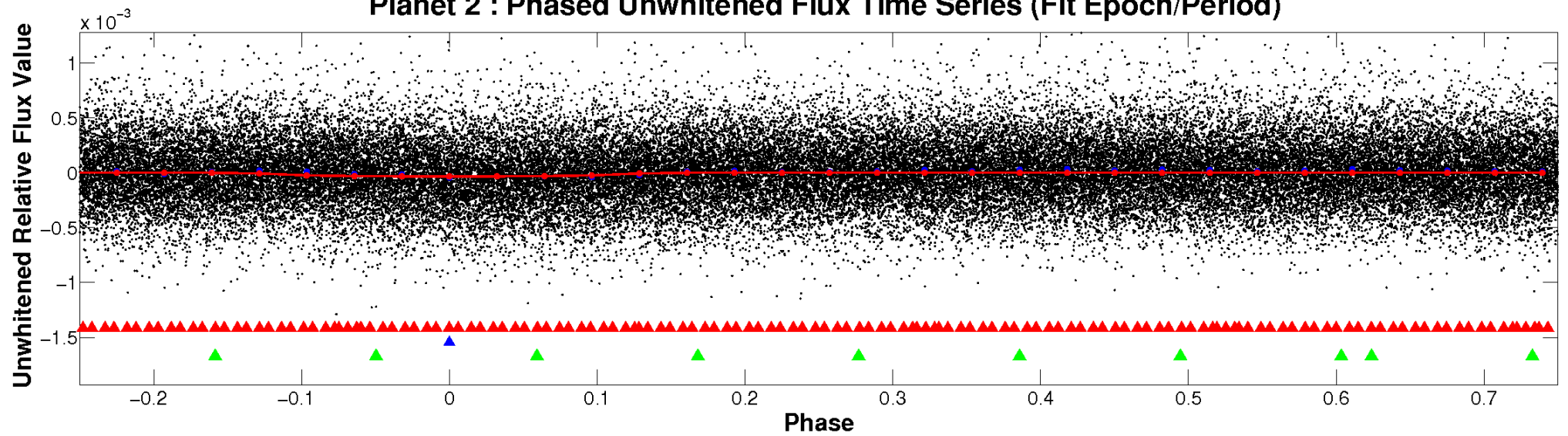
ALT Odd/Even

TCE 003437776-02

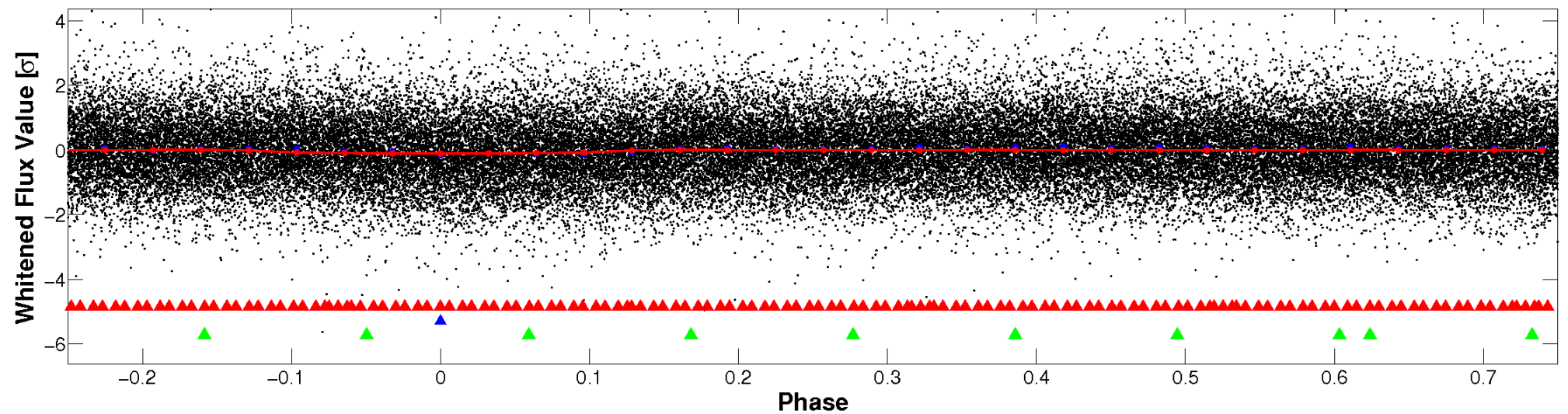


Non-Whitened Vs. Whitened Light Curve

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

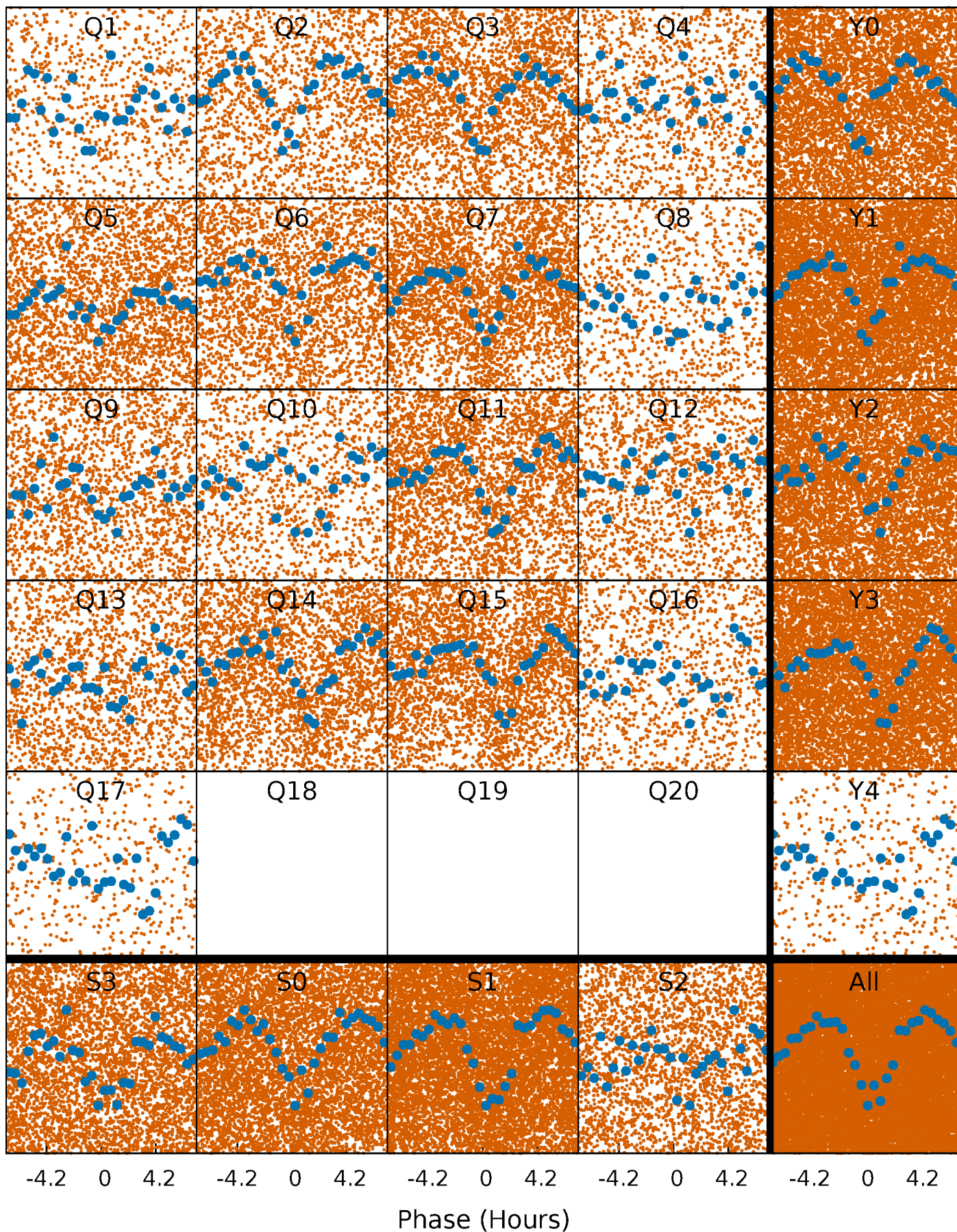


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



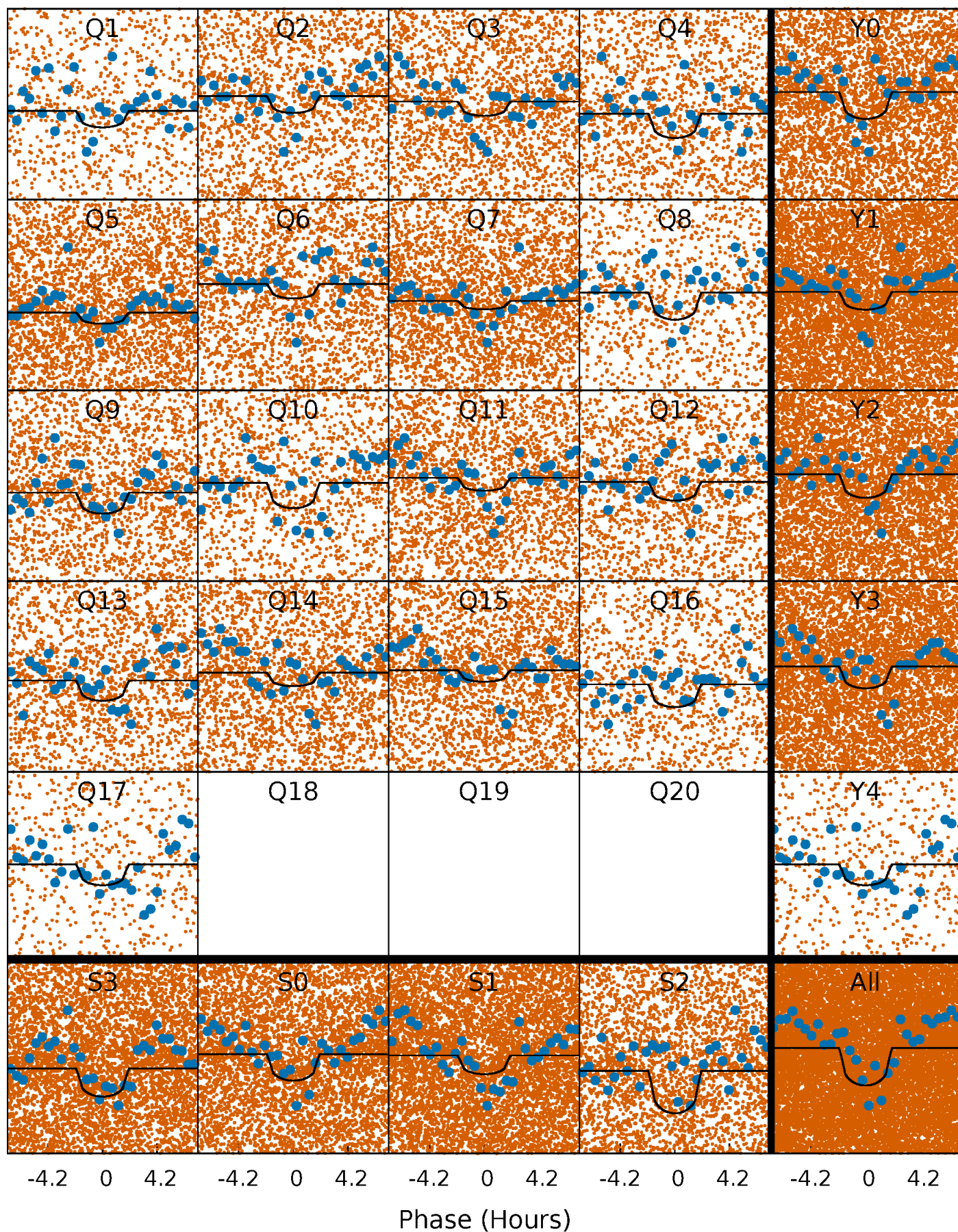
PDC Quarter-Phased Transit Curves

TCE 003437776-02 P= 0.635541 Days $T_0=131.533075$ (BKJD)



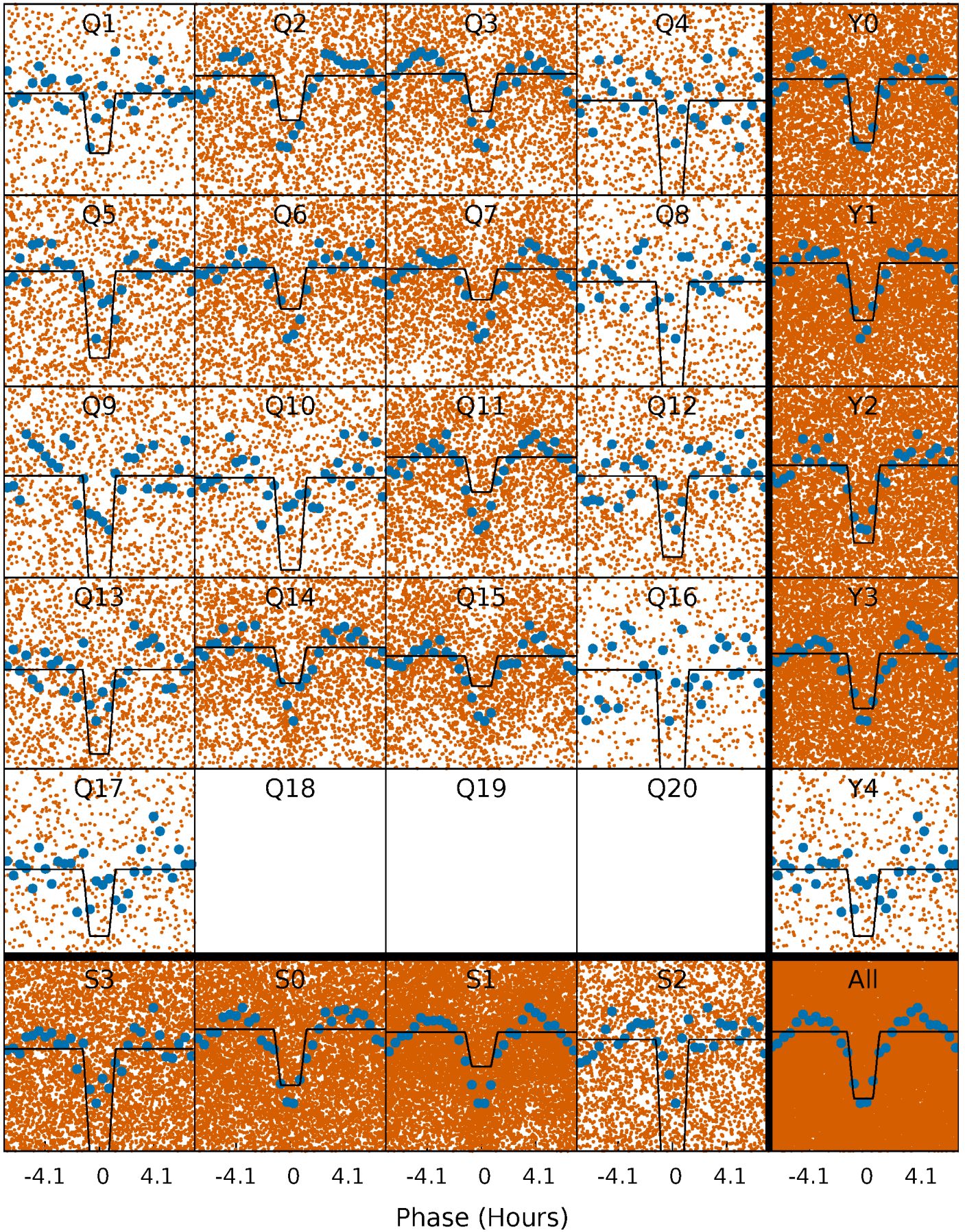
DV Quarter-Phased Transit Curves

TCE 003437776-02 P= 0.635541 Days $T_0=131.533075$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

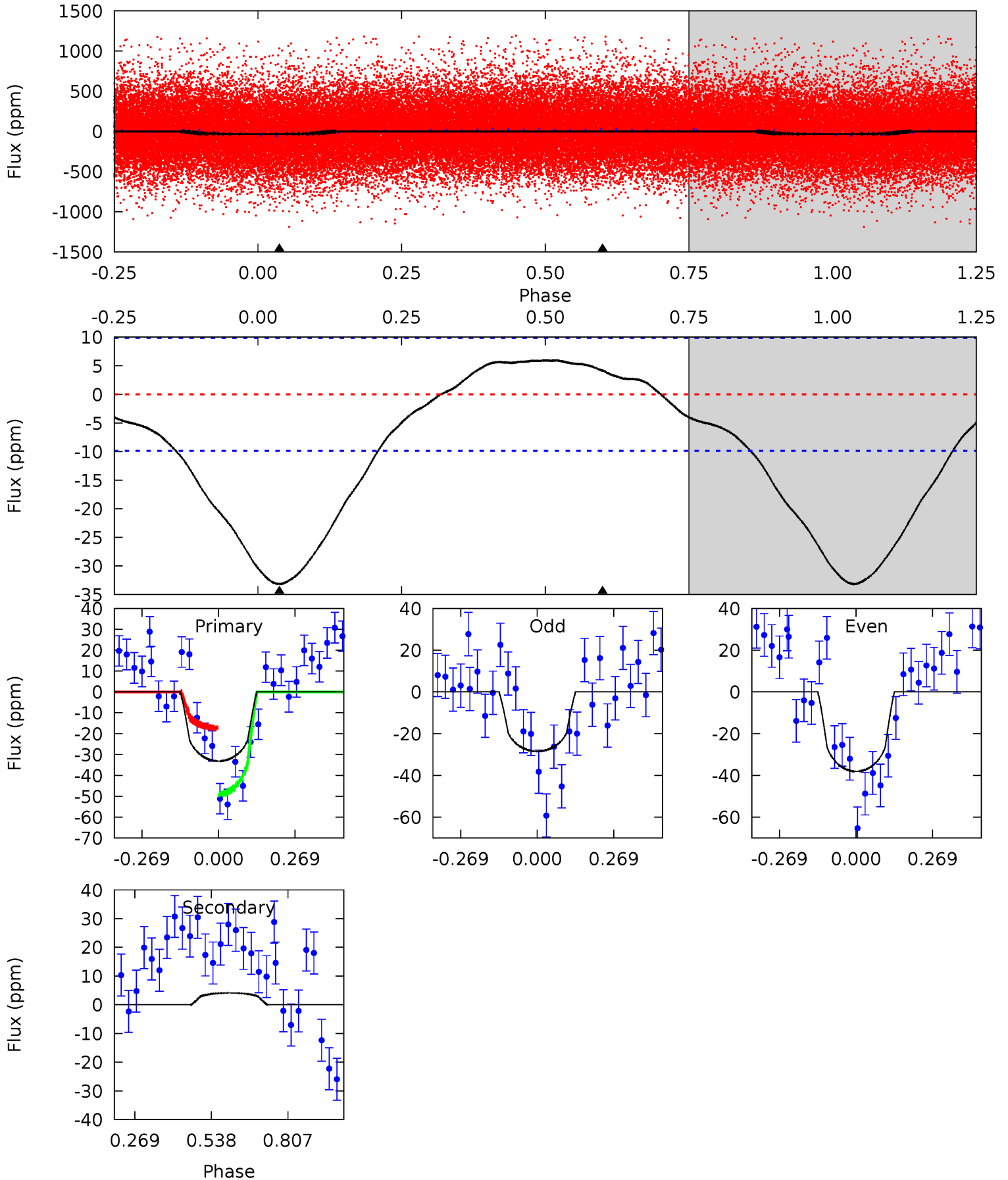
TCE 003437776-02 P= 0.635584 Days $T_0=131.513099$ (BKJD)



DV Model-Shift Uniqueness Test

003437776-02, P = 0.635541 Days, E = 131.533075 Days

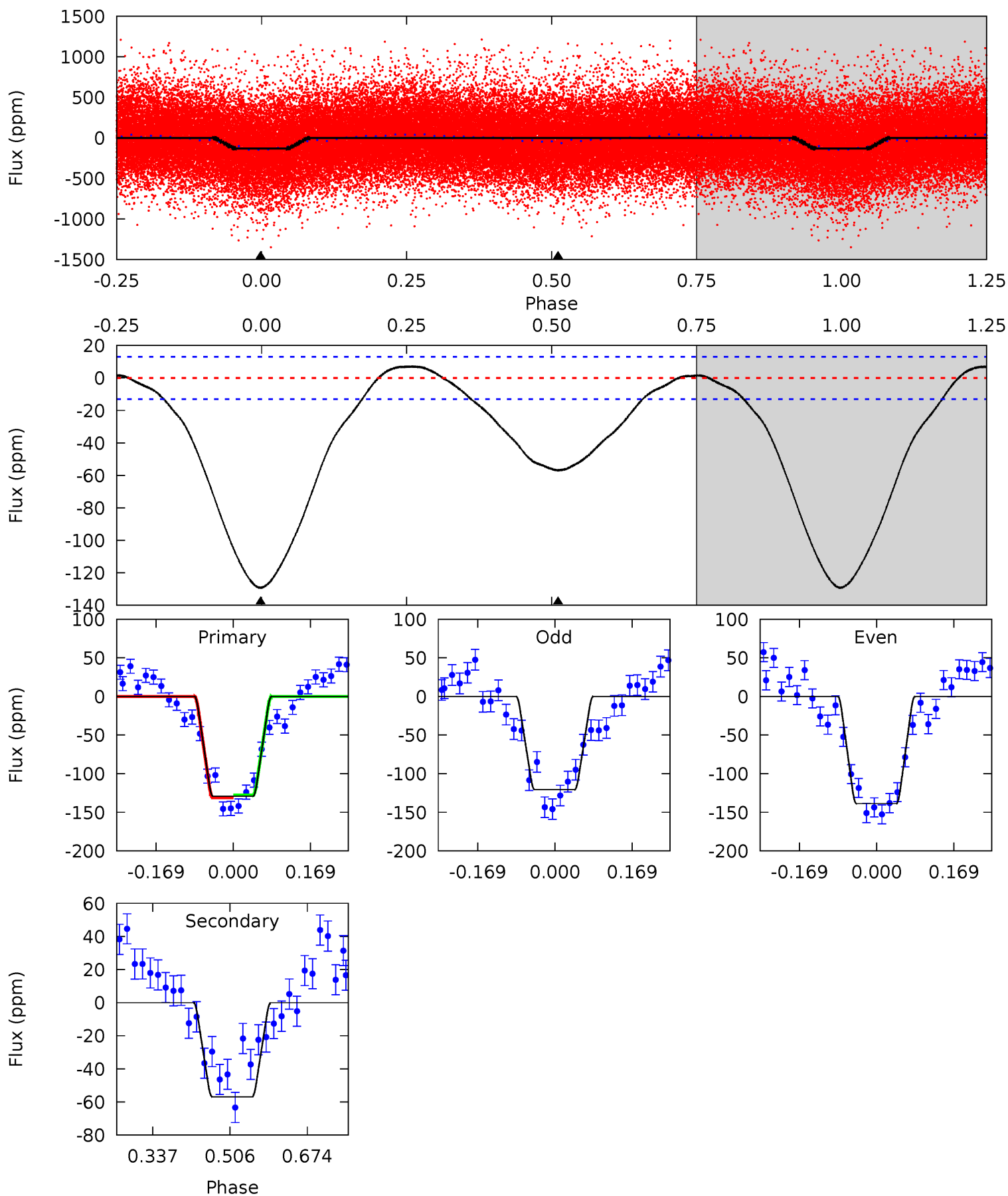
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	-1.82	0	0	4.35	1.11	0.81	14.6	14.6	-1.82	-1.82	2.12	0.84	0.15	6.92



Alt Model-Shift Uniqueness Test

003437776-02, P = 0.635584 Days, E = 131.513099 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.1	19.4	0	0	4.45	1.38	1.86	44.1	44.1	19.4	19.4	3.08	1.03	0.05	0.67



Stellar Parameters For KIC 003437776

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5671^{+76}_{-76}	$4.075^{+0.189}_{-0.081}$	$0.340^{+0.100}_{-0.150}$	$1.608^{+0.234}_{-0.351}$	$1.121^{+0.121}_{-0.088}$	$0.380^{+0.385}_{-0.098}$
	+1%/-1%	+5%/-2%	+29%/-44%	+15%/-22%	+11%/-8%	+101%/-26%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003437776-02 / KOI 0549.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	4 ± 2	$0.98^{+0.68}_{-0.59}$	3584^{+134}_{-206}	-4027^{+391}_{-1387}	$-0.505^{+0.374}_{-2.726}$
Alt.	-57 ± 3	$1.94^{+0.76}_{-0.75}$	3589^{+141}_{-231}	4581^{+1131}_{-670}	$1.907^{+3.047}_{-0.936}$

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

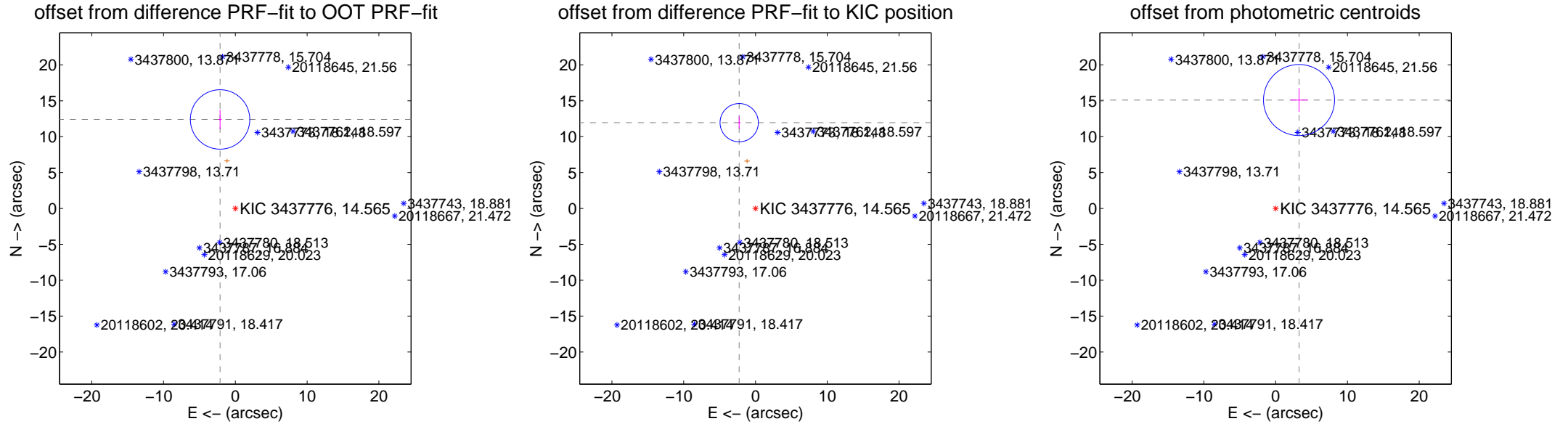
DV Centroid Data

Supplemental centroid analysis for 003437776-02. Kepler magnitude: 14.56. Transit SNR 10.56

There are 4 quarters with good PRF difference image offsets

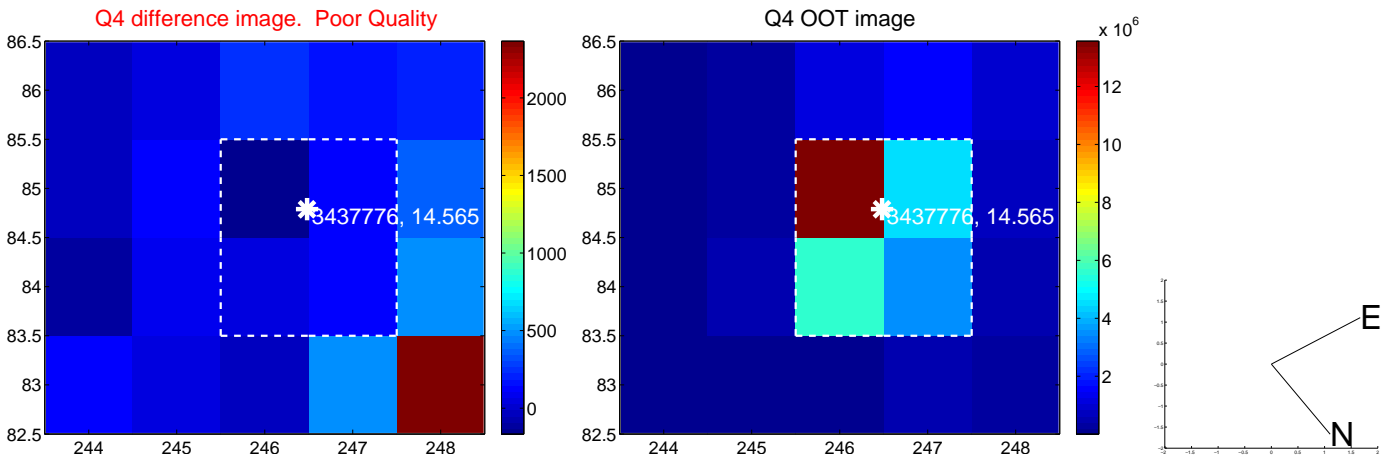
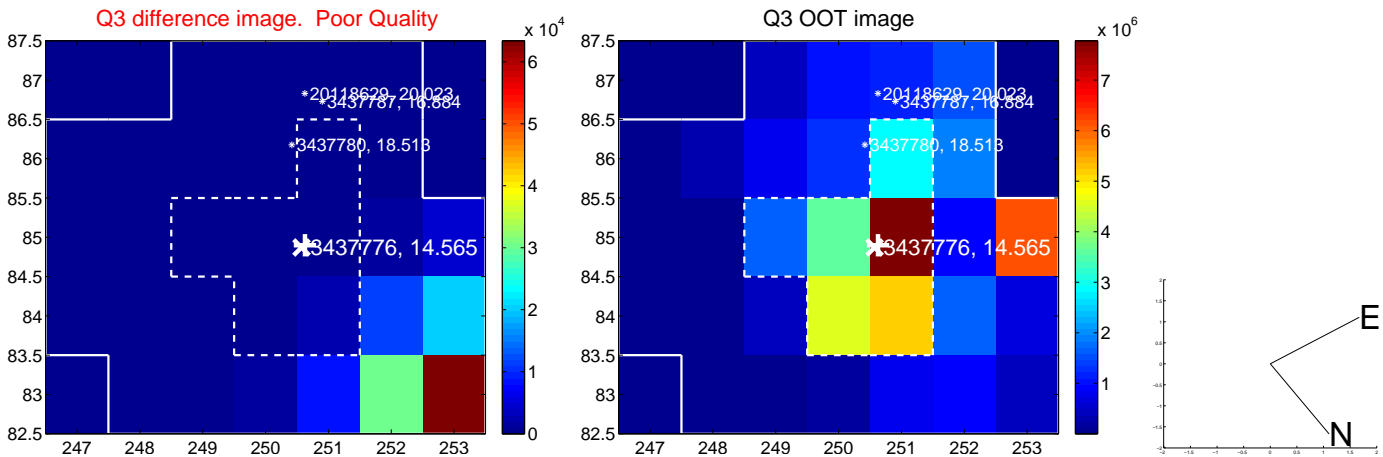
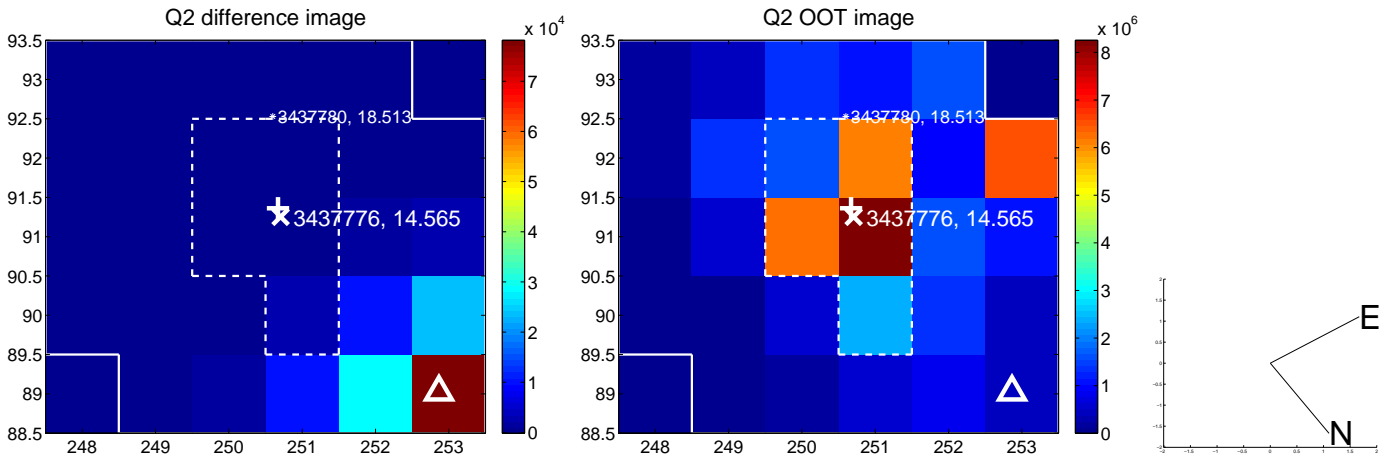
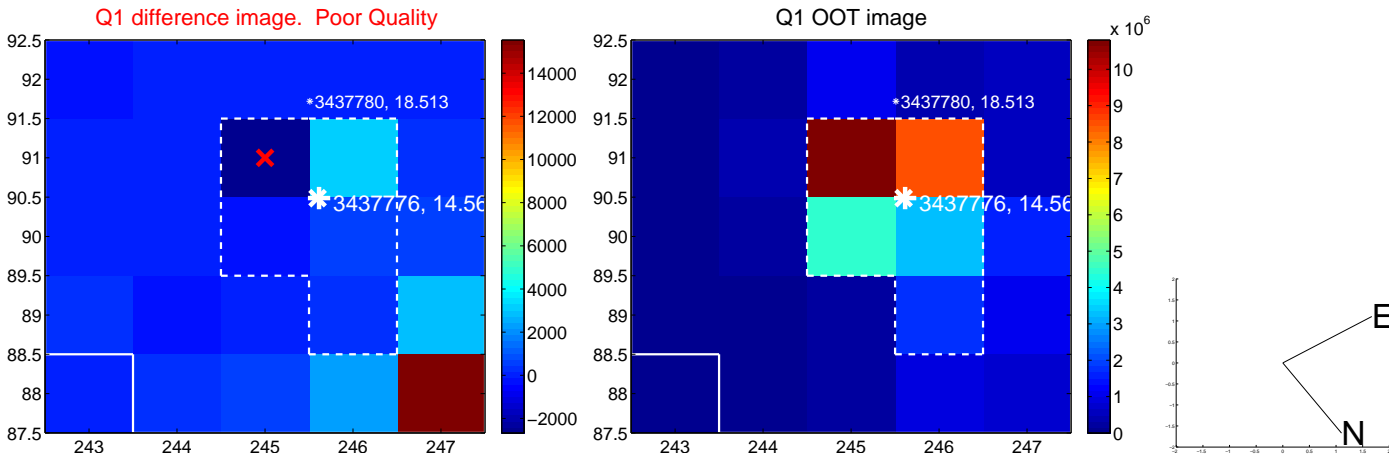
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	12.579 \pm 1.380	9.12	2.125 \pm 0.236	12.398 \pm 1.361
PRF-fit source offset from KIC position	12.165 \pm 0.889	13.68	2.271 \pm 0.188	11.951 \pm 0.872
photometric centroid source offset	15.45 \pm 1.65	9.37	-3.26 \pm 1.23	15.10 \pm 1.67

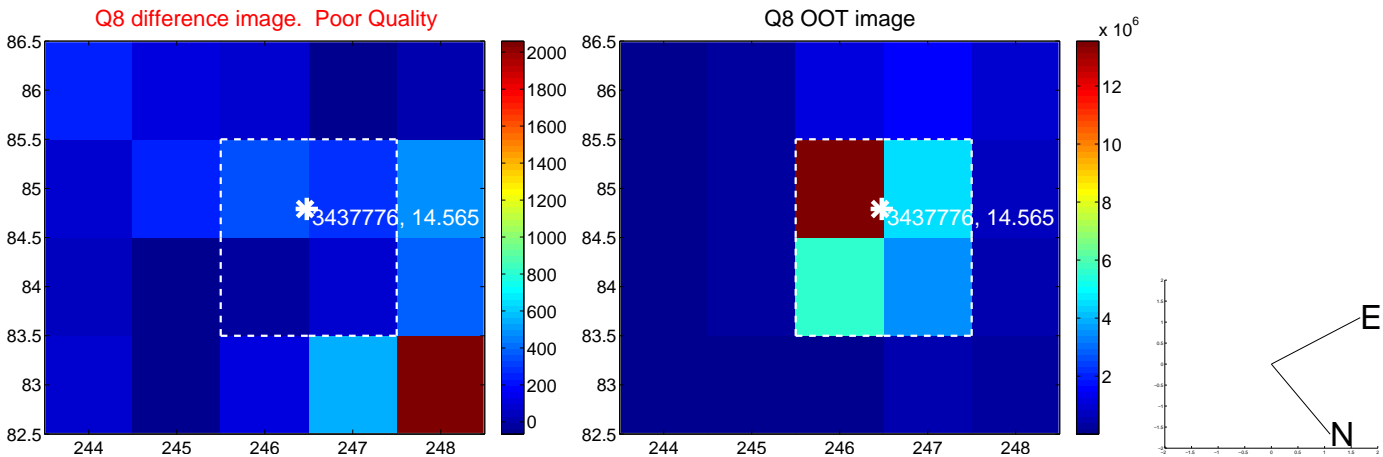
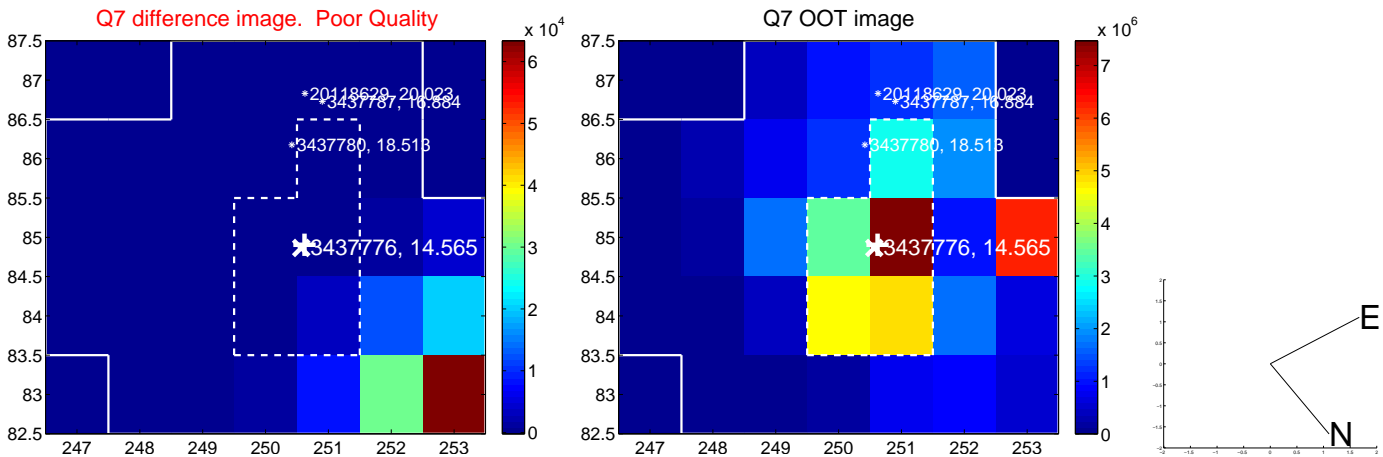
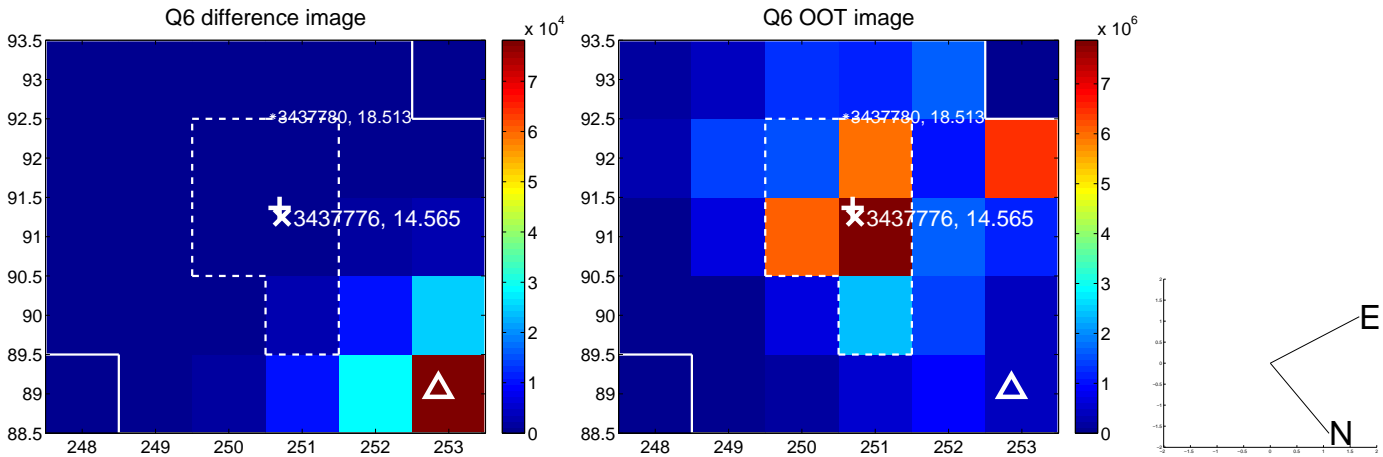
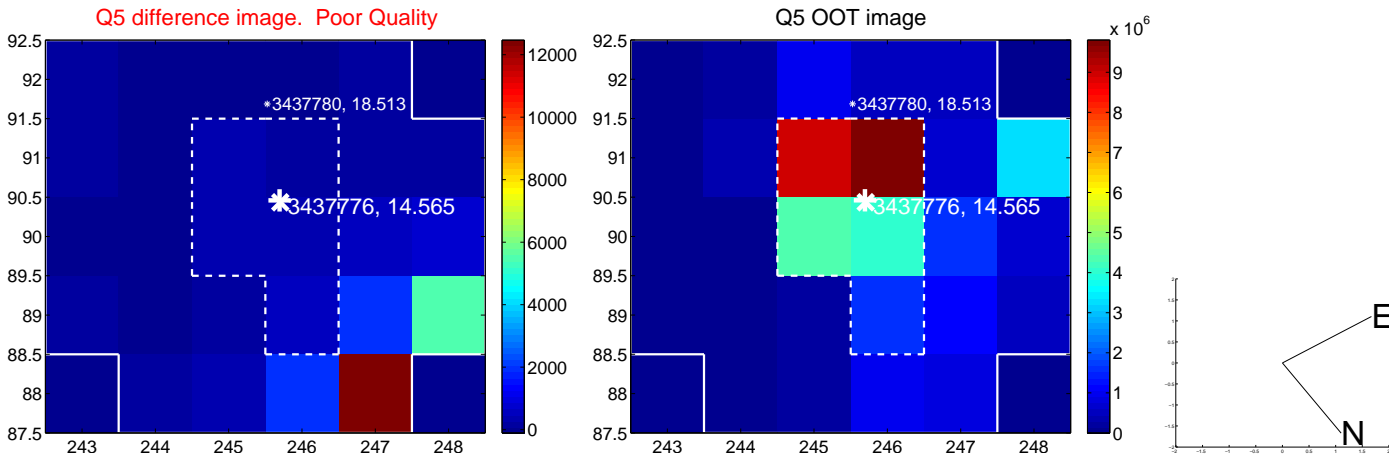


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

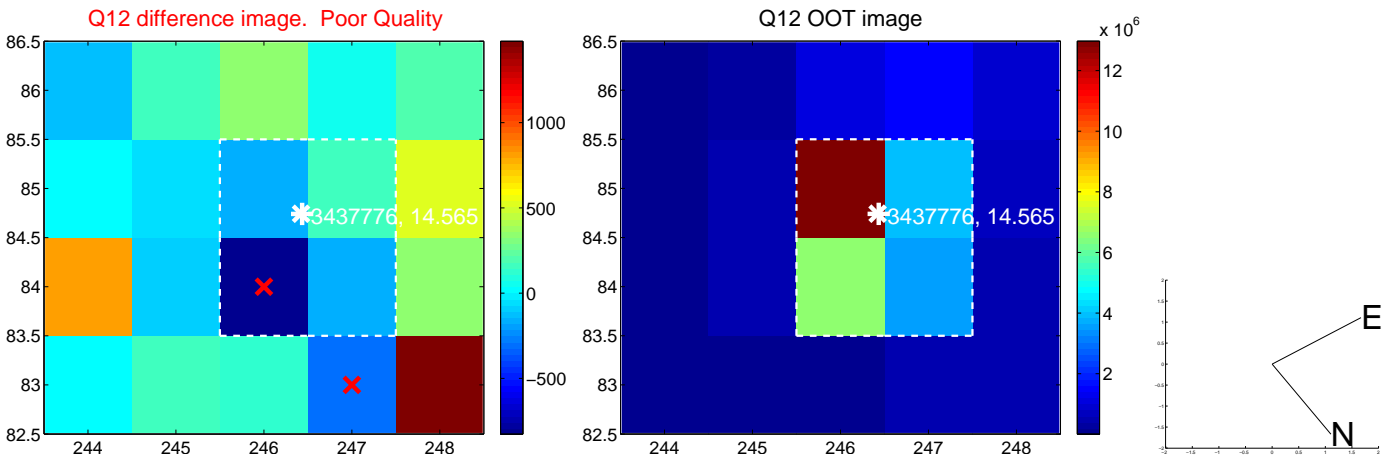
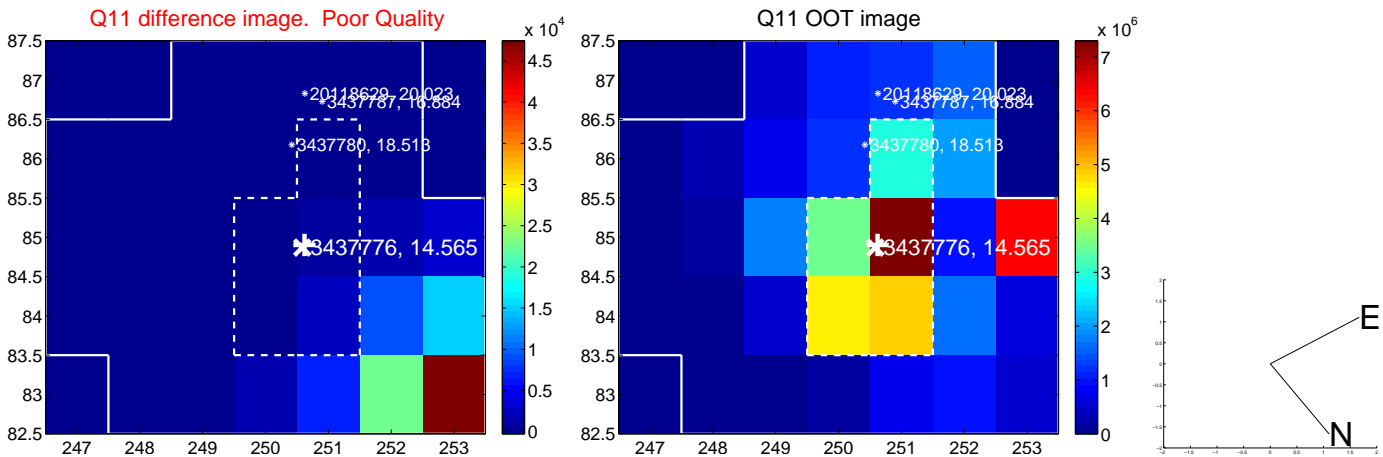
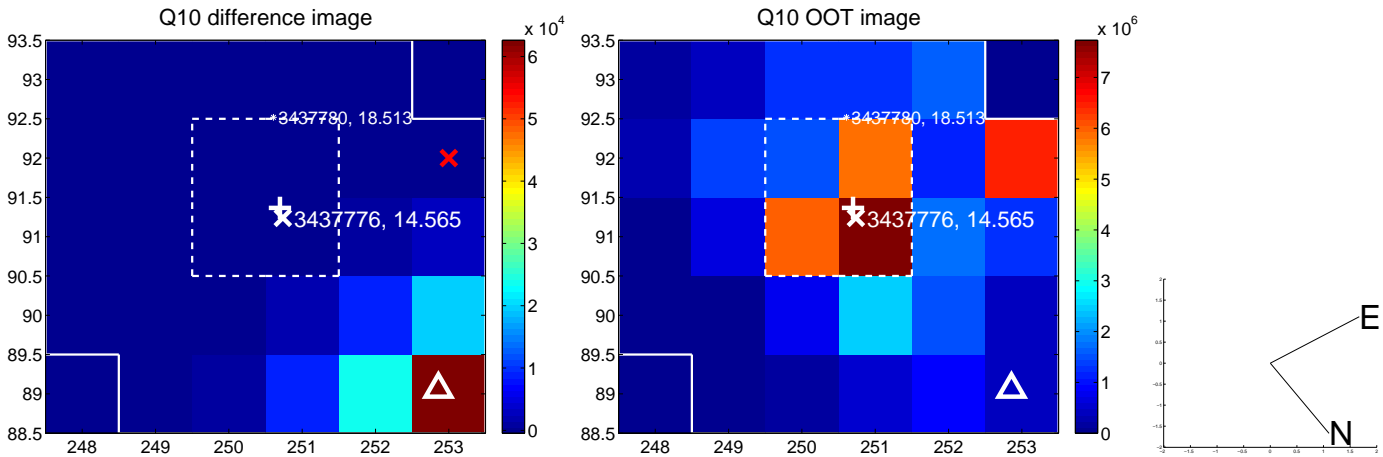
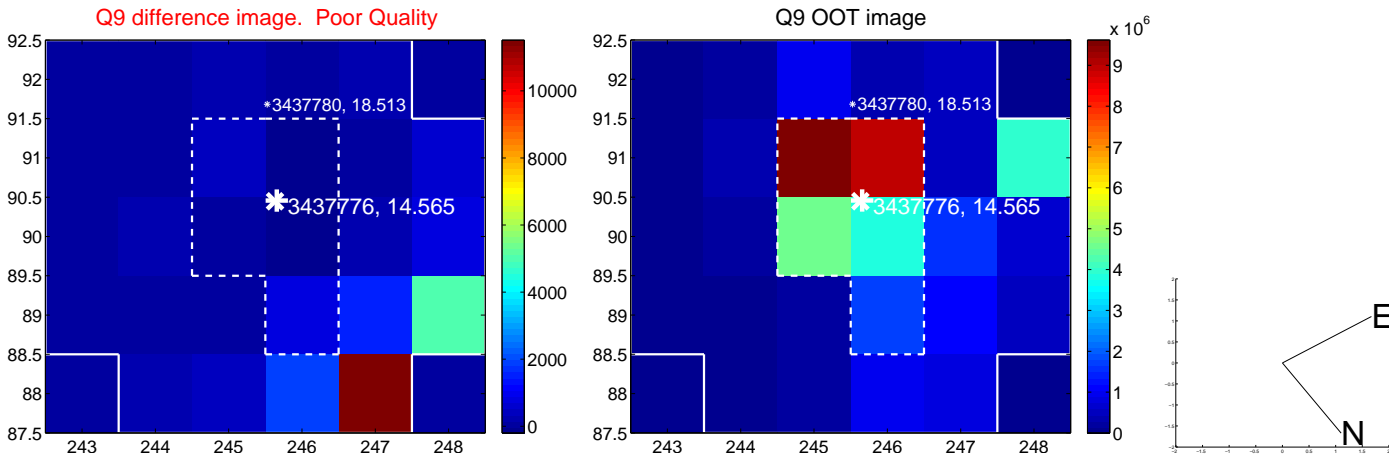
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



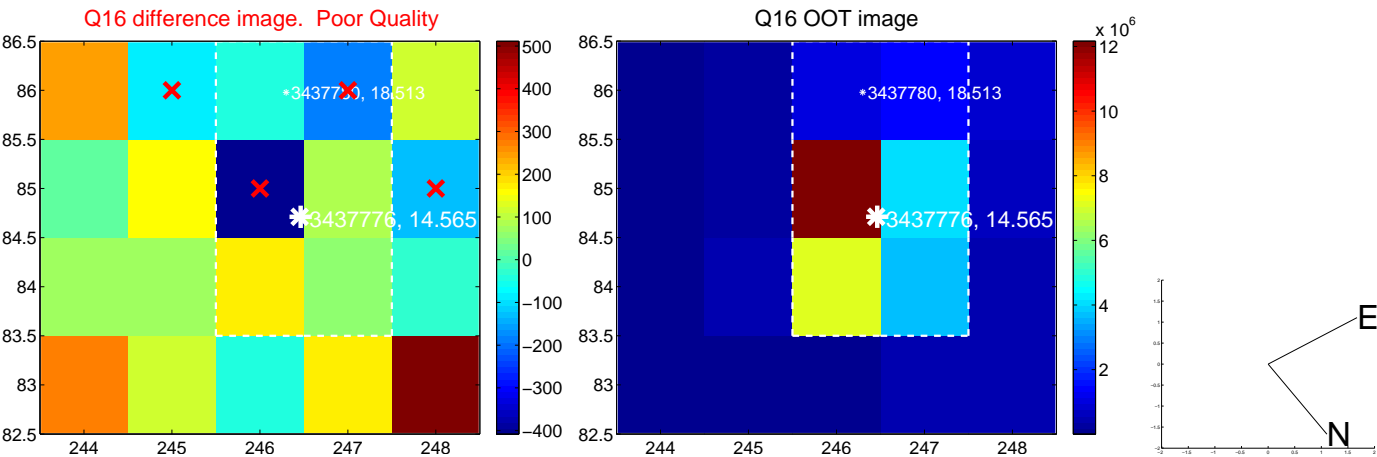
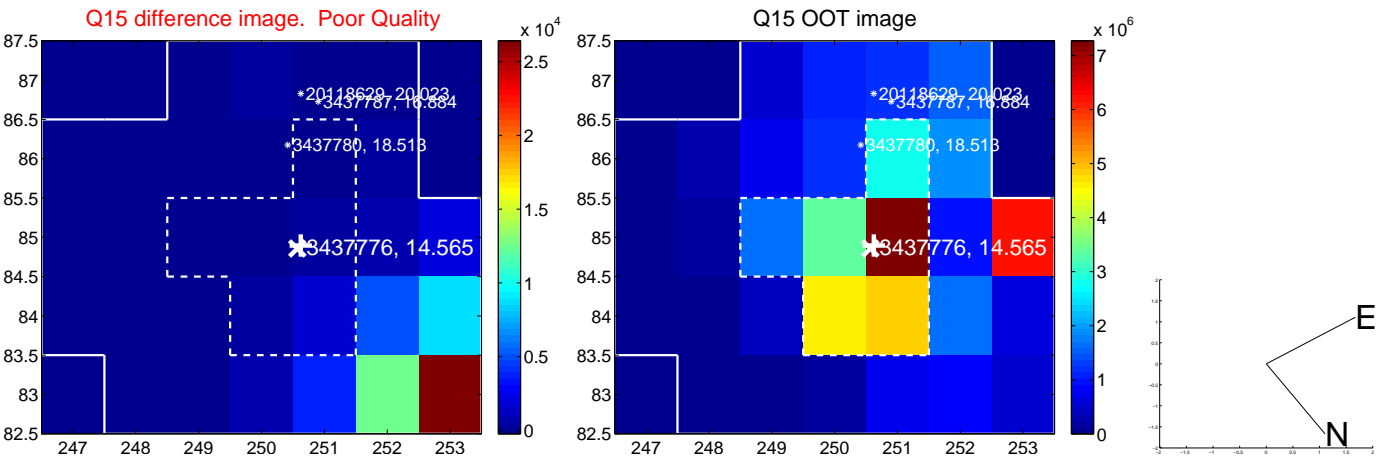
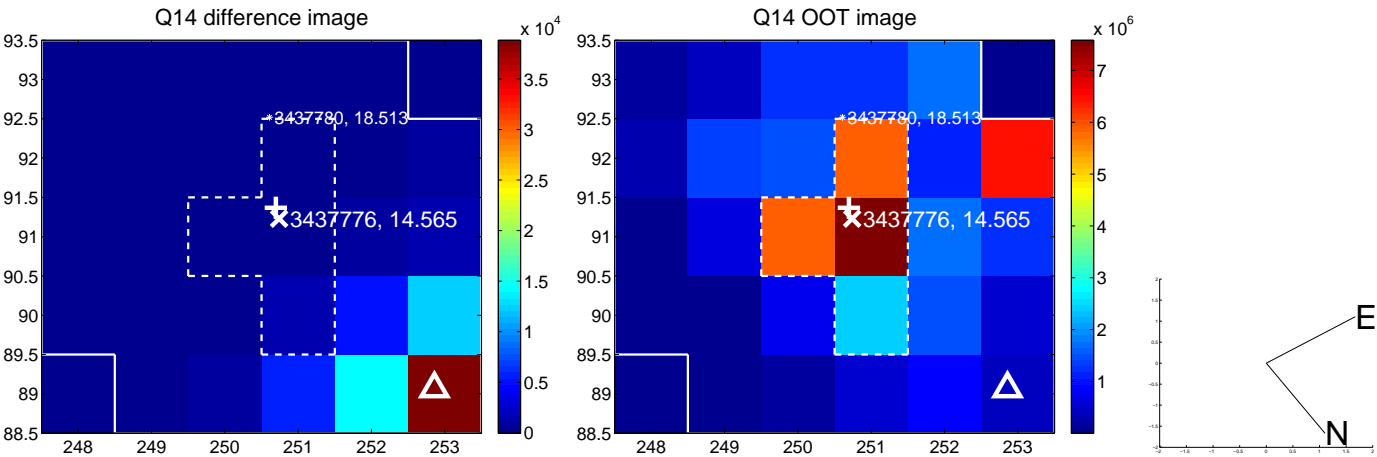
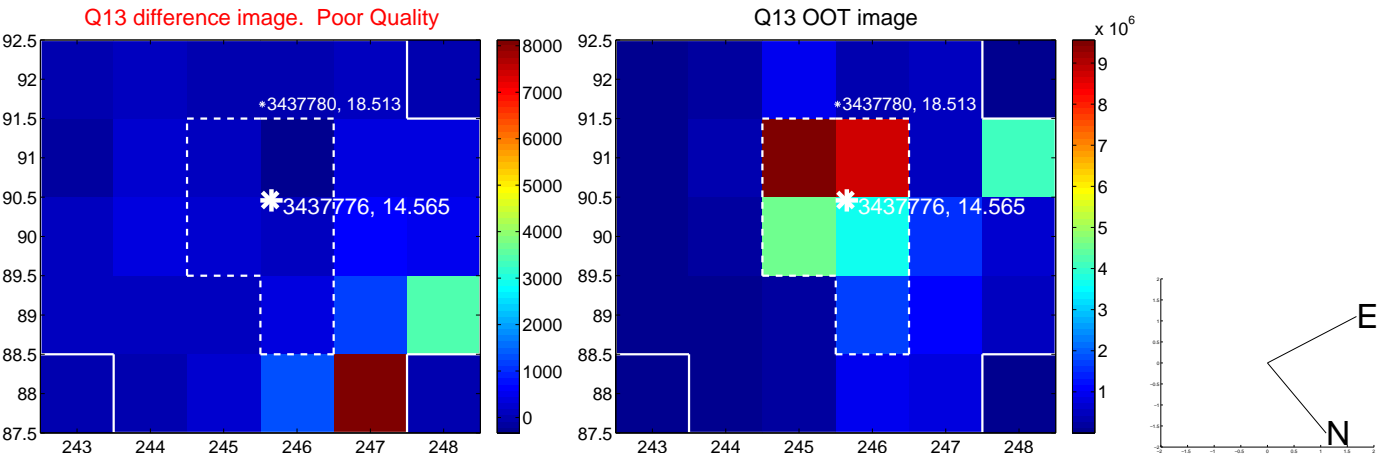
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



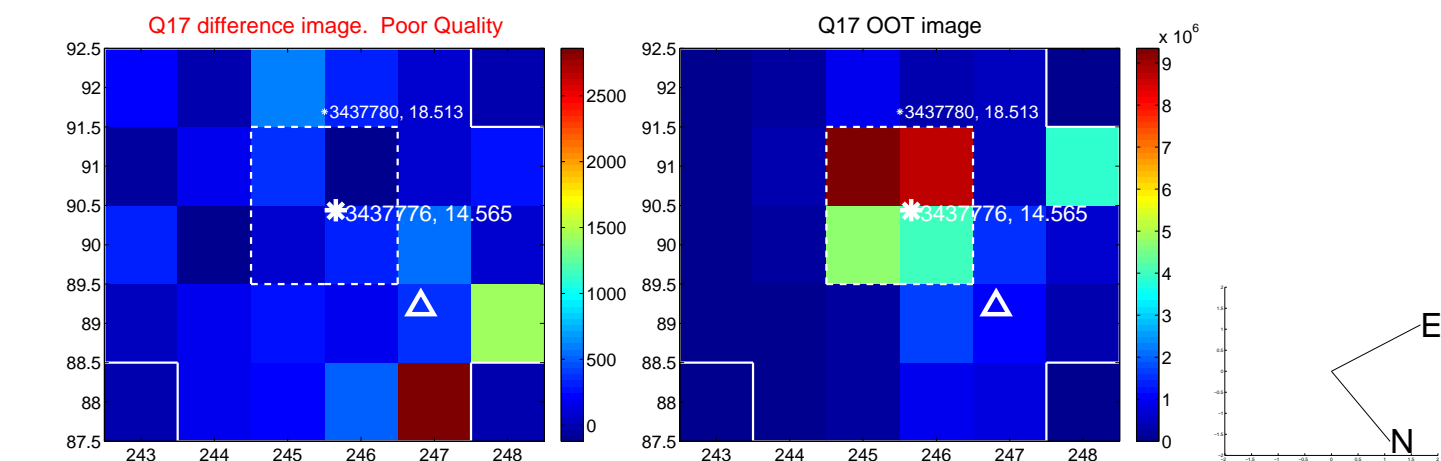
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



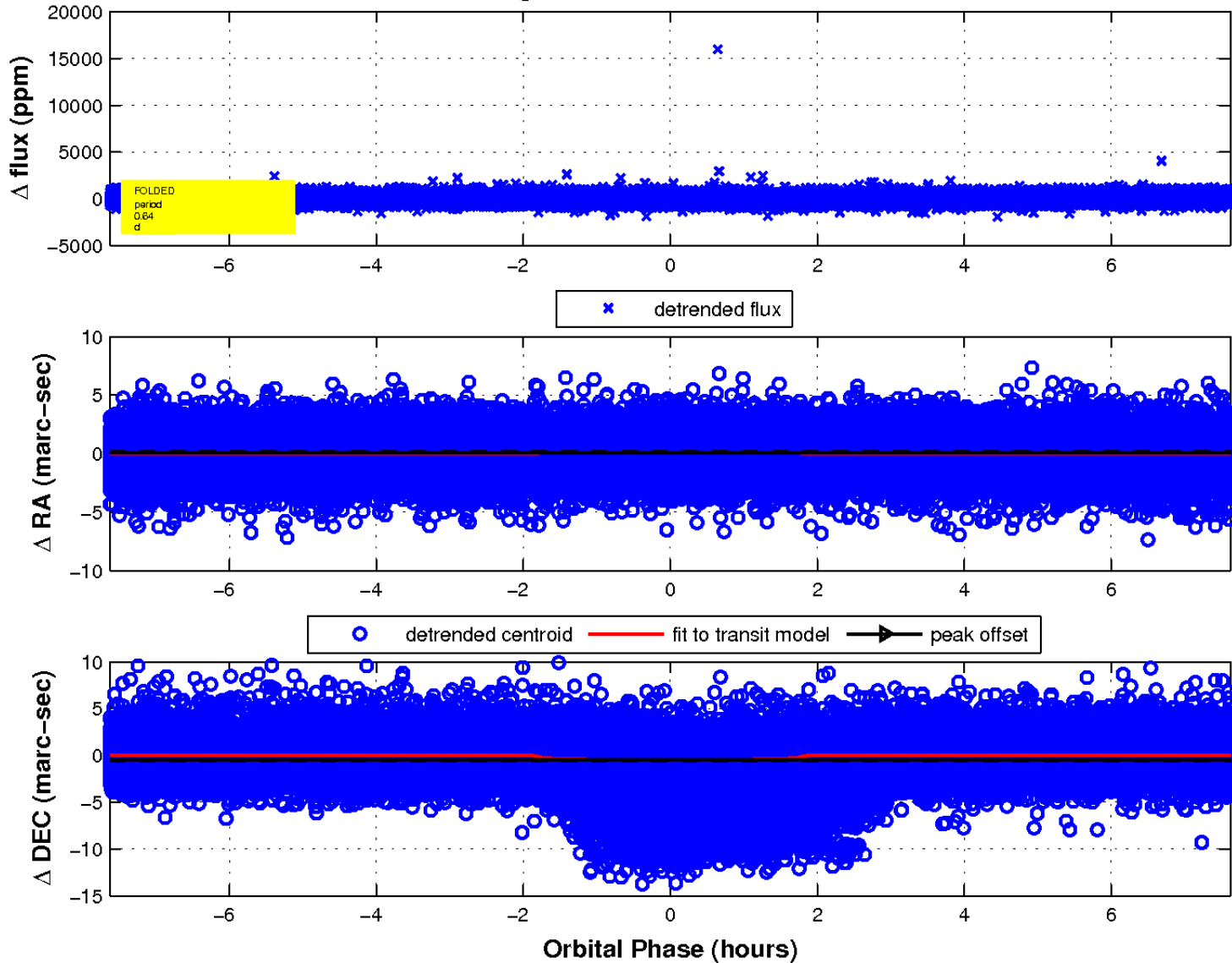
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

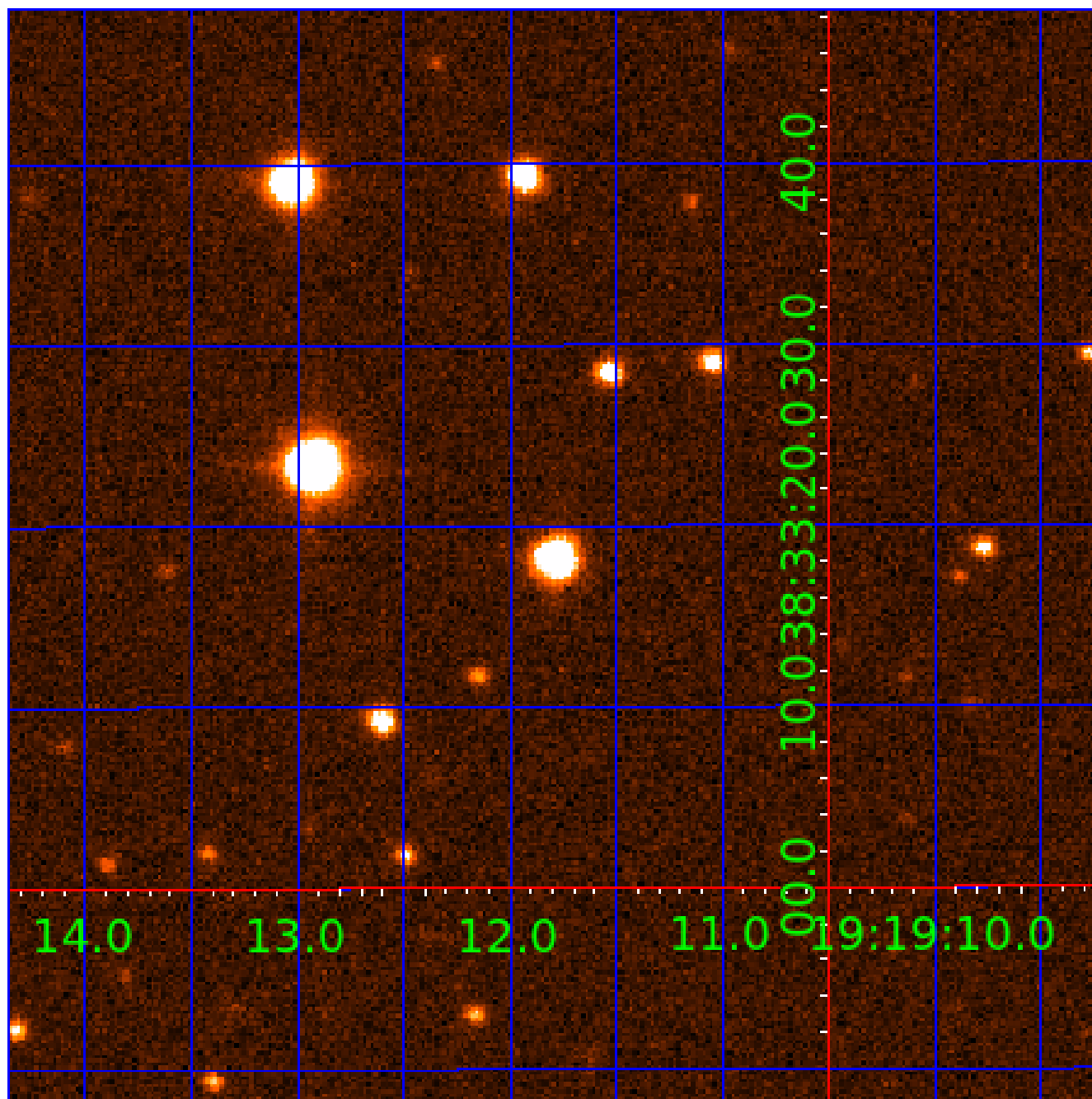


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 003437776

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})
003437776-01	OBS	0549.01	10.297667	131.734089	575.1	6.614	50.0	44.9	1.61	5671	6.70	258.67
003437776-02	OBS	0549.02	0.635541	131.533075	32.1	3.665	16.8	10.6	1.61	5671	0.97	10605.52
003437776-03	OBS	No	150.554118	181.488824	366.3	6.777	9.1	7.3	1.61	5671	3.31	7.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003437776-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
003437776-02	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
003437776-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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 003437776-03

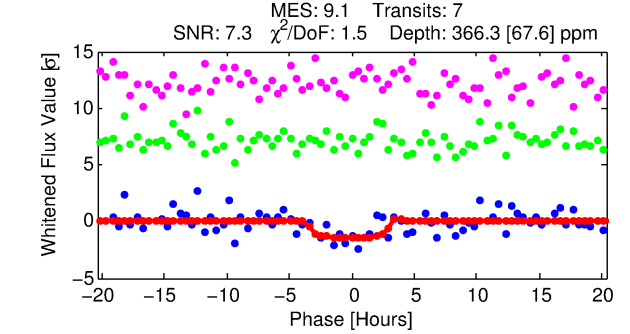
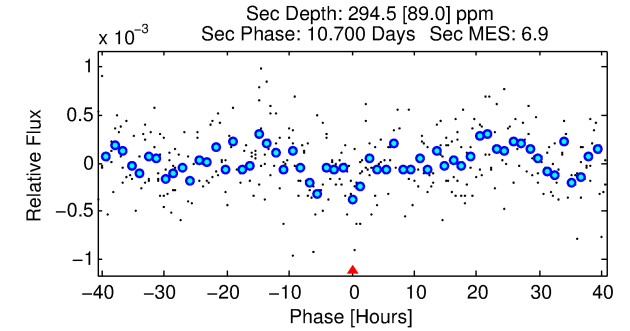
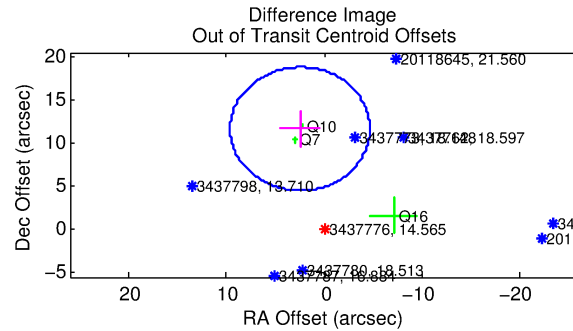
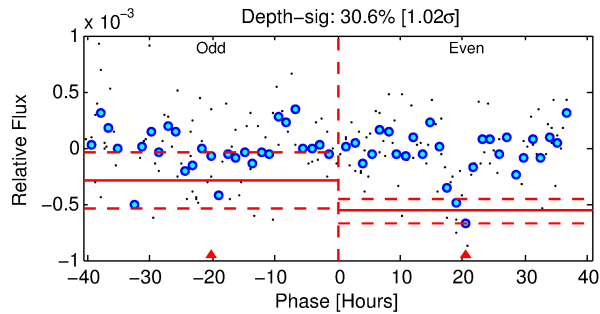
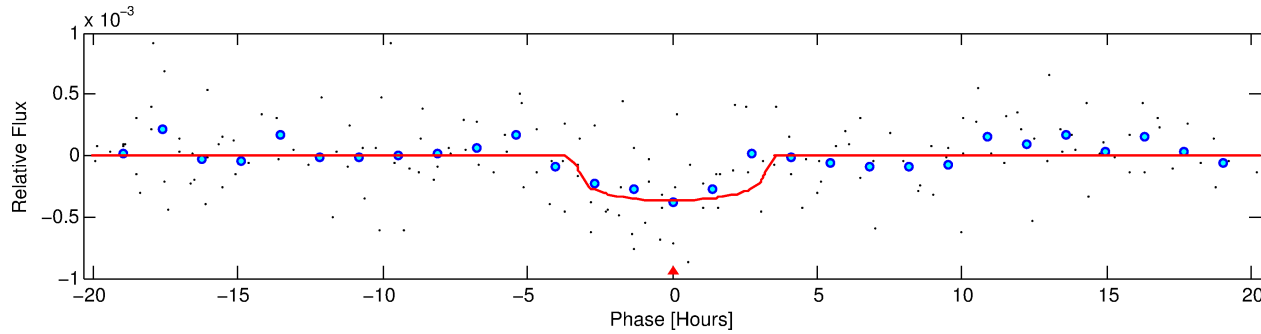
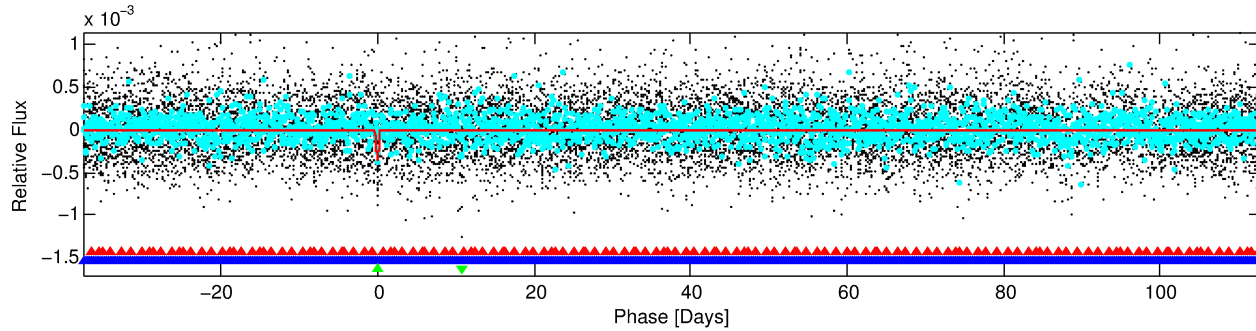
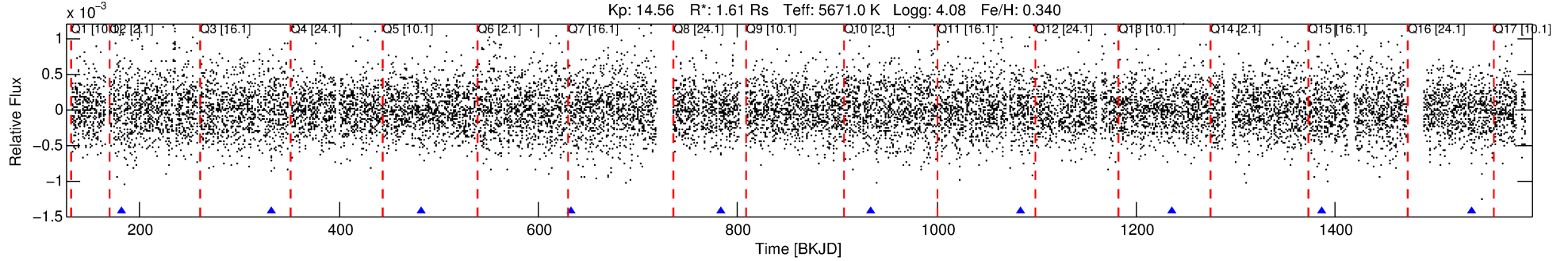
No Significant Match Found

DV One-Page Summary

KIC: 3437776 Candidate: 3 of 3 Period: 150.554 d

KOI: K00549 Corr: No Ephemeris Match

Kp: 14.56 R*: 1.61 Rs Teff: 5671.0 K Logg: 4.08 Fe/H: 0.340



DV Fit Results:

Period = 150.55412 [0.00433] d
Epoch = 181.4888 [0.0245] BKJD
Rp/R* = 0.0189 [0.0253]
a/R* = 121.51 [671.99]
b = 0.72 [3.67]
Seff = 7.24 [2.38]
Teq = 418 [34] K
Rp = 3.31 [4.50] Re
a = 0.5755 [0.1182] AU
Ag = 4889.31 [13282.00] [0.37σ]
Teffp = 5407 [3646] K [1.37σ]

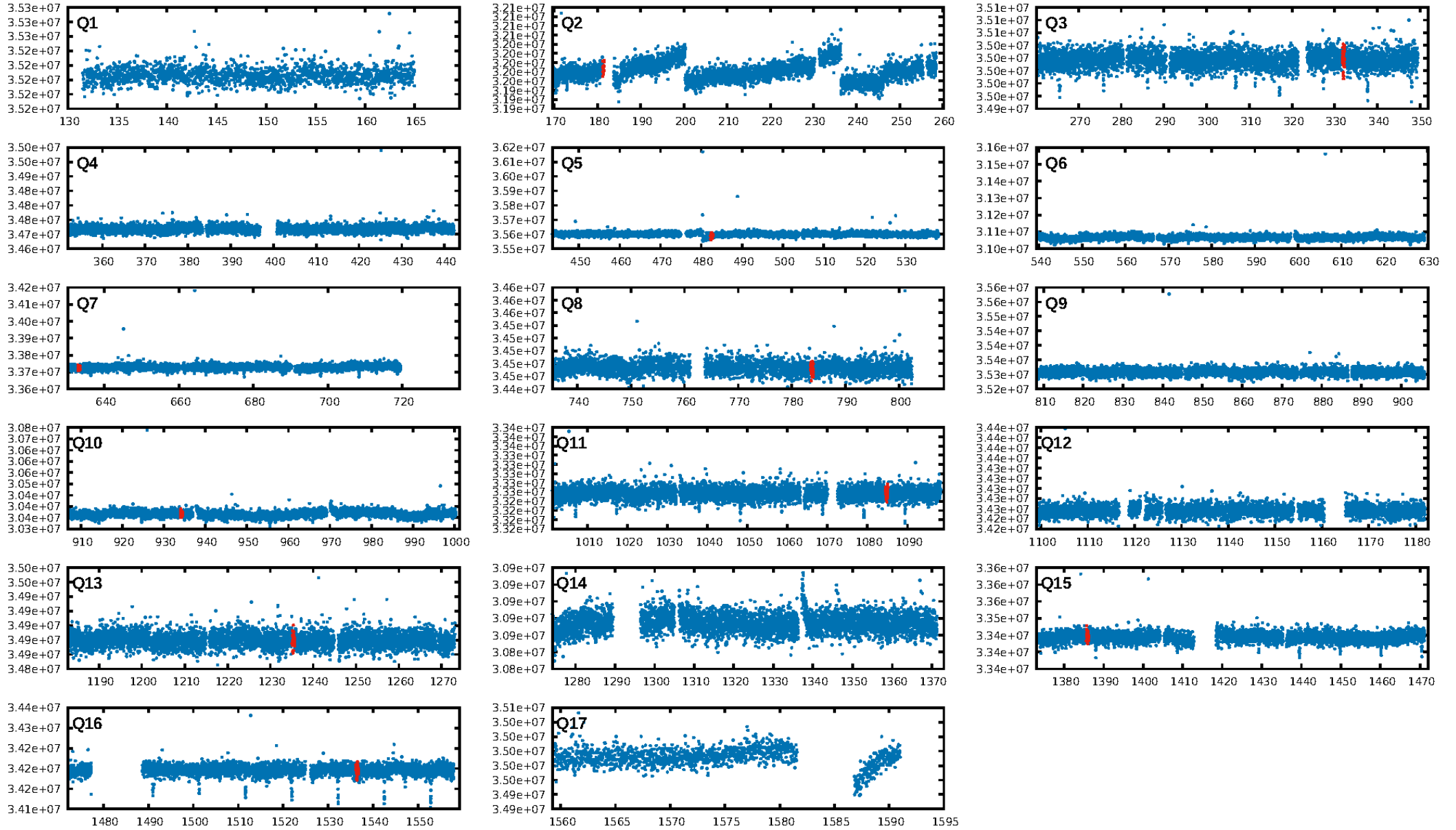
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [355.48σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.64e-11
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 14.49
Centroid-sig: 34.9%
Centroid-so: 1.094 arcsec [0.65σ]
OotOffset-rm: 11.896 arcsec [5.00σ]
KicOffset-rm: 11.490 arcsec [4.17σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/9]

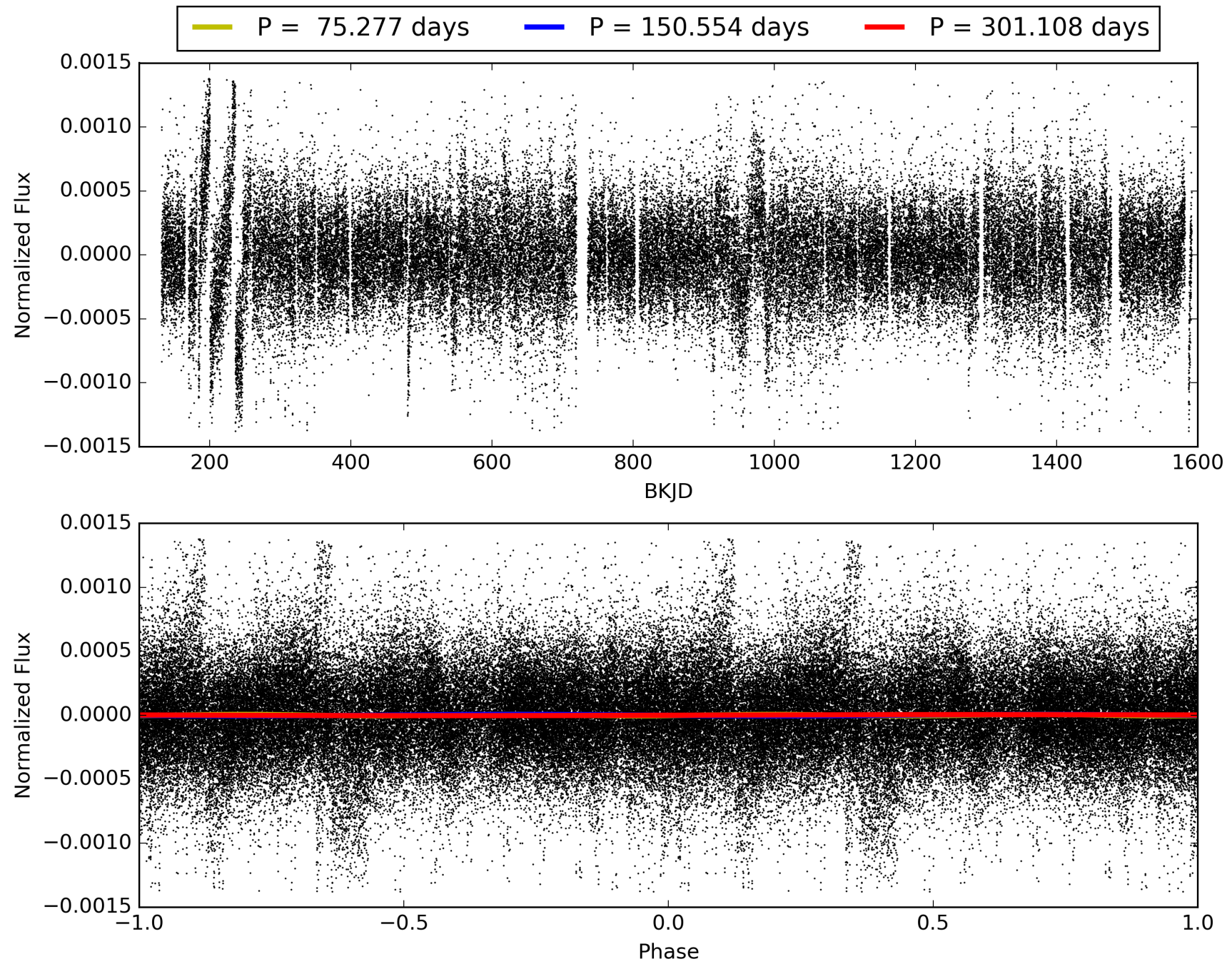
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:26:45 Z

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

TCE 003437776-03, PDC Light Curves

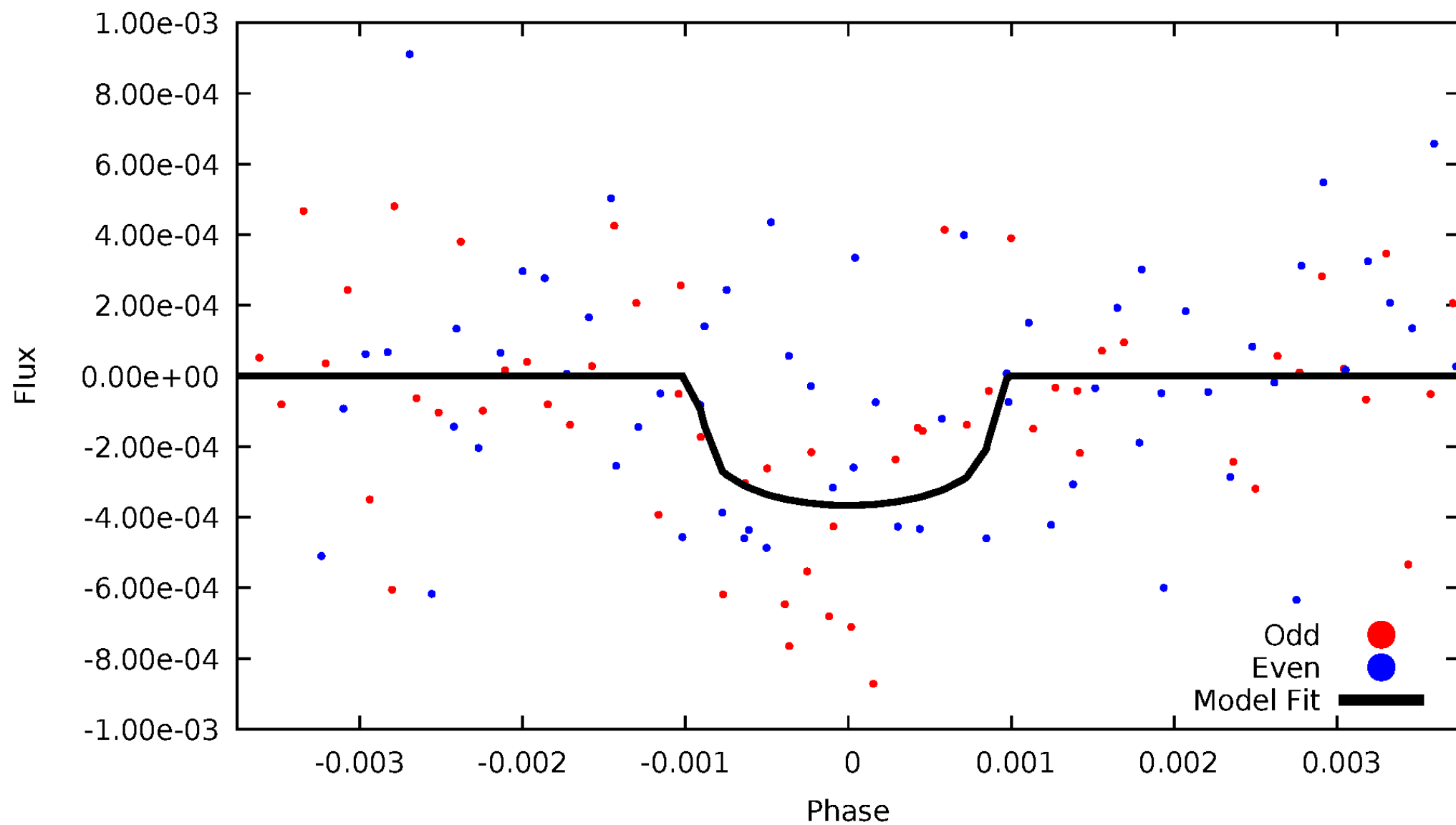


TCE 003437776-03



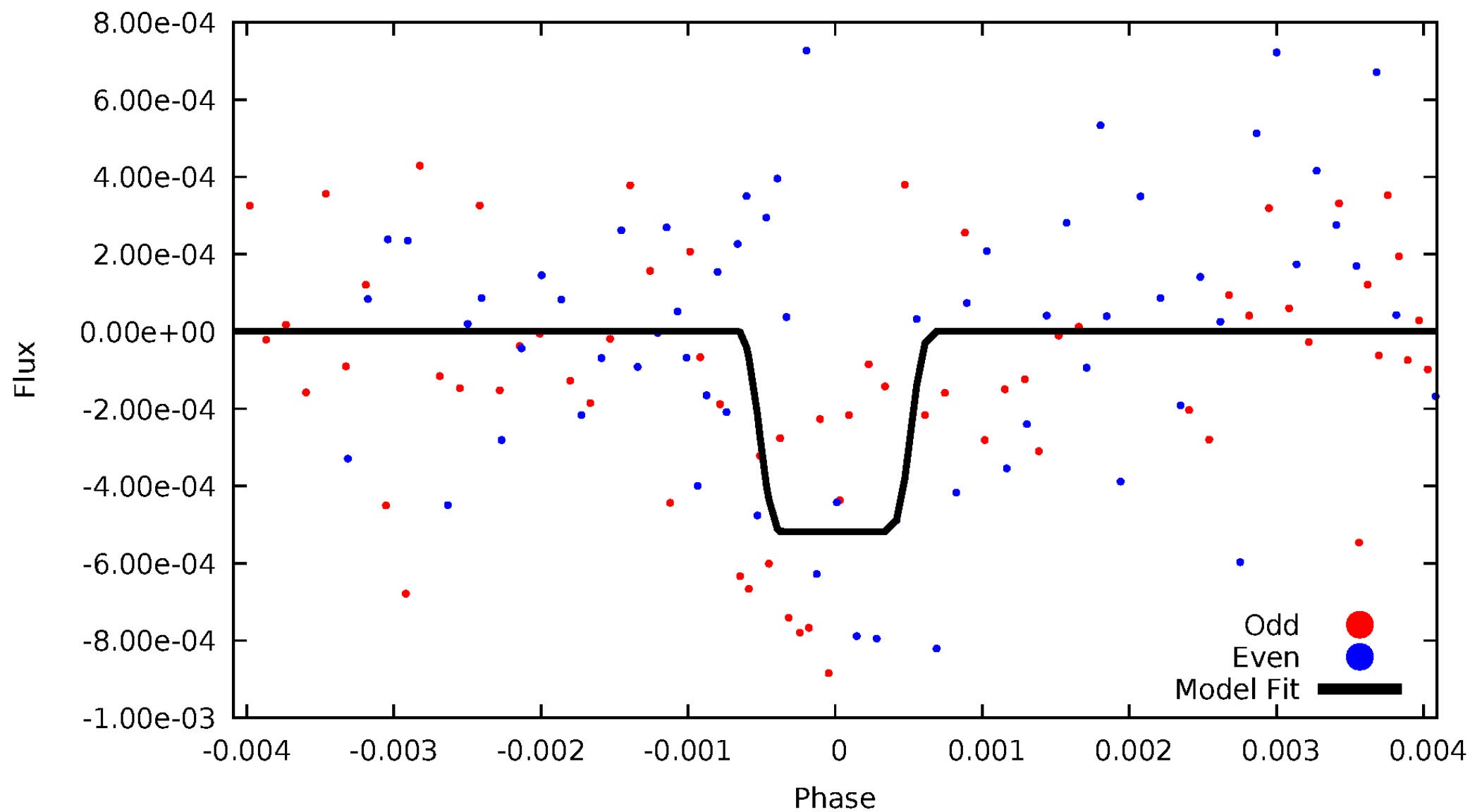
DV Odd/Even

TCE 00343776-03



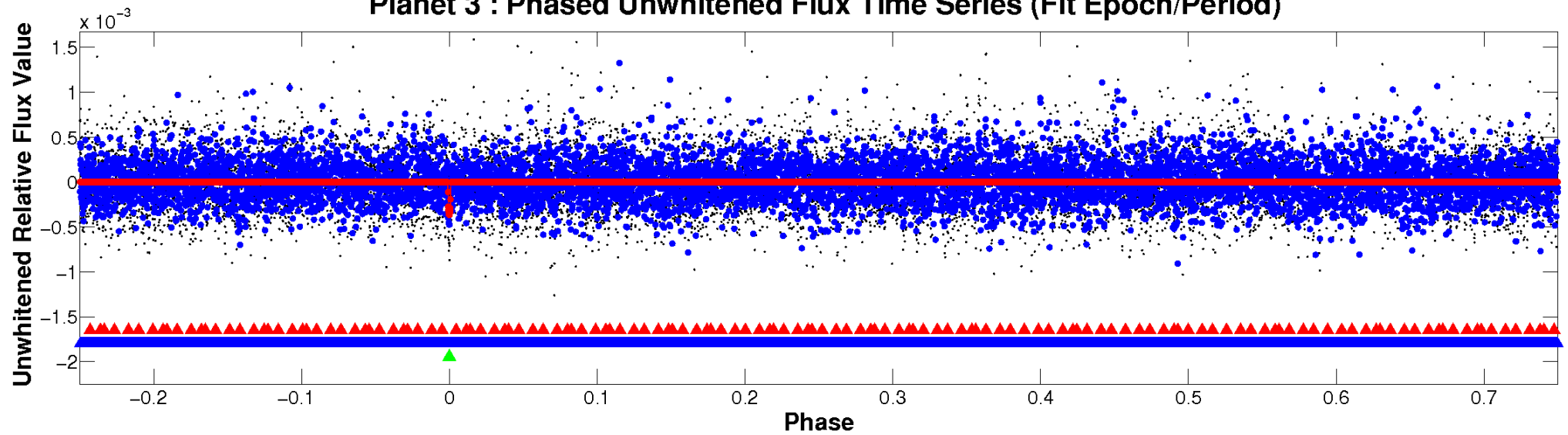
ALT Odd/Even

TCE 00343776-03

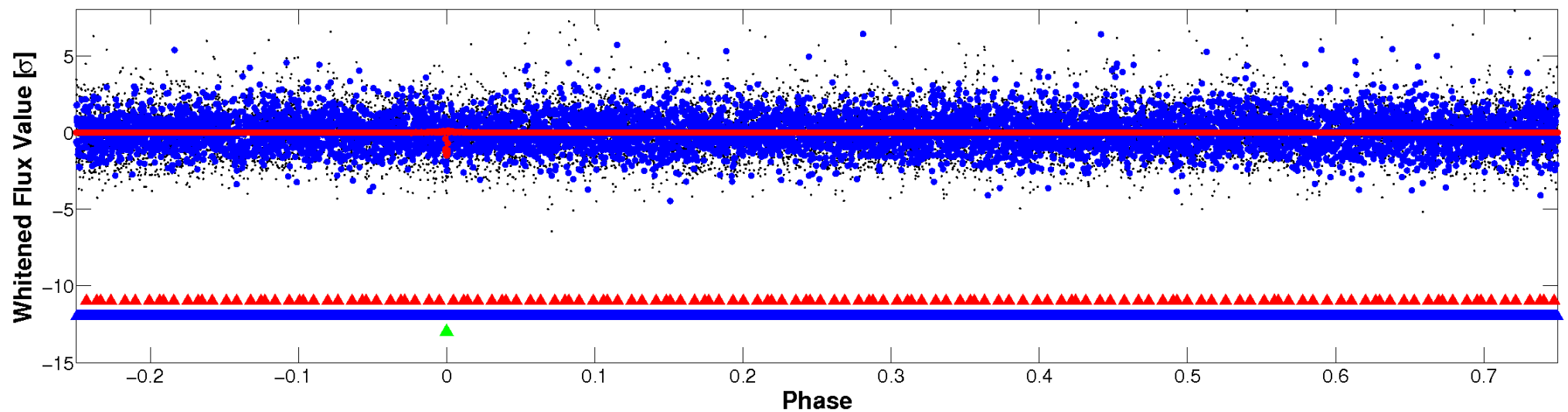


Non-Whitened Vs. Whitened Light Curve

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

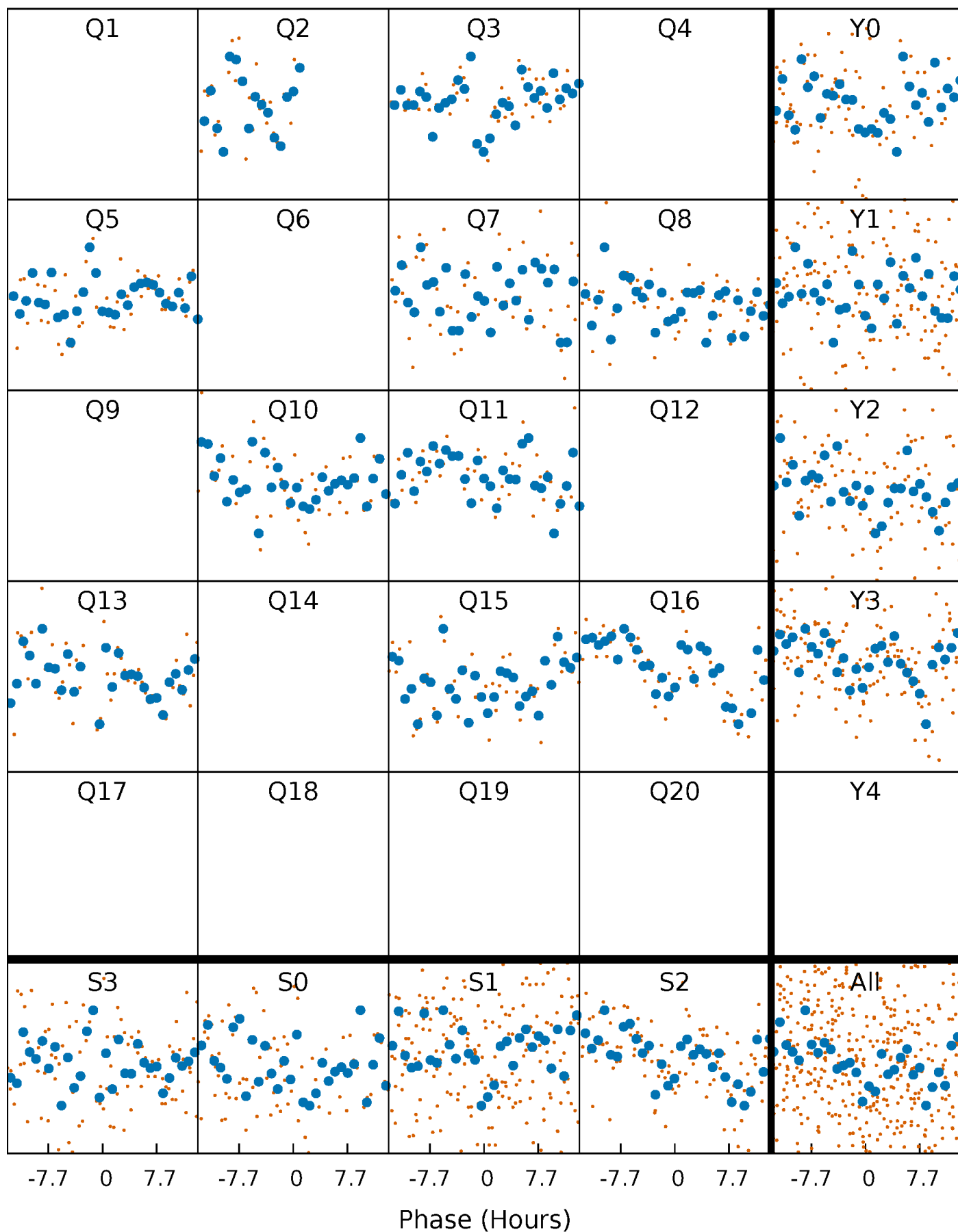


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



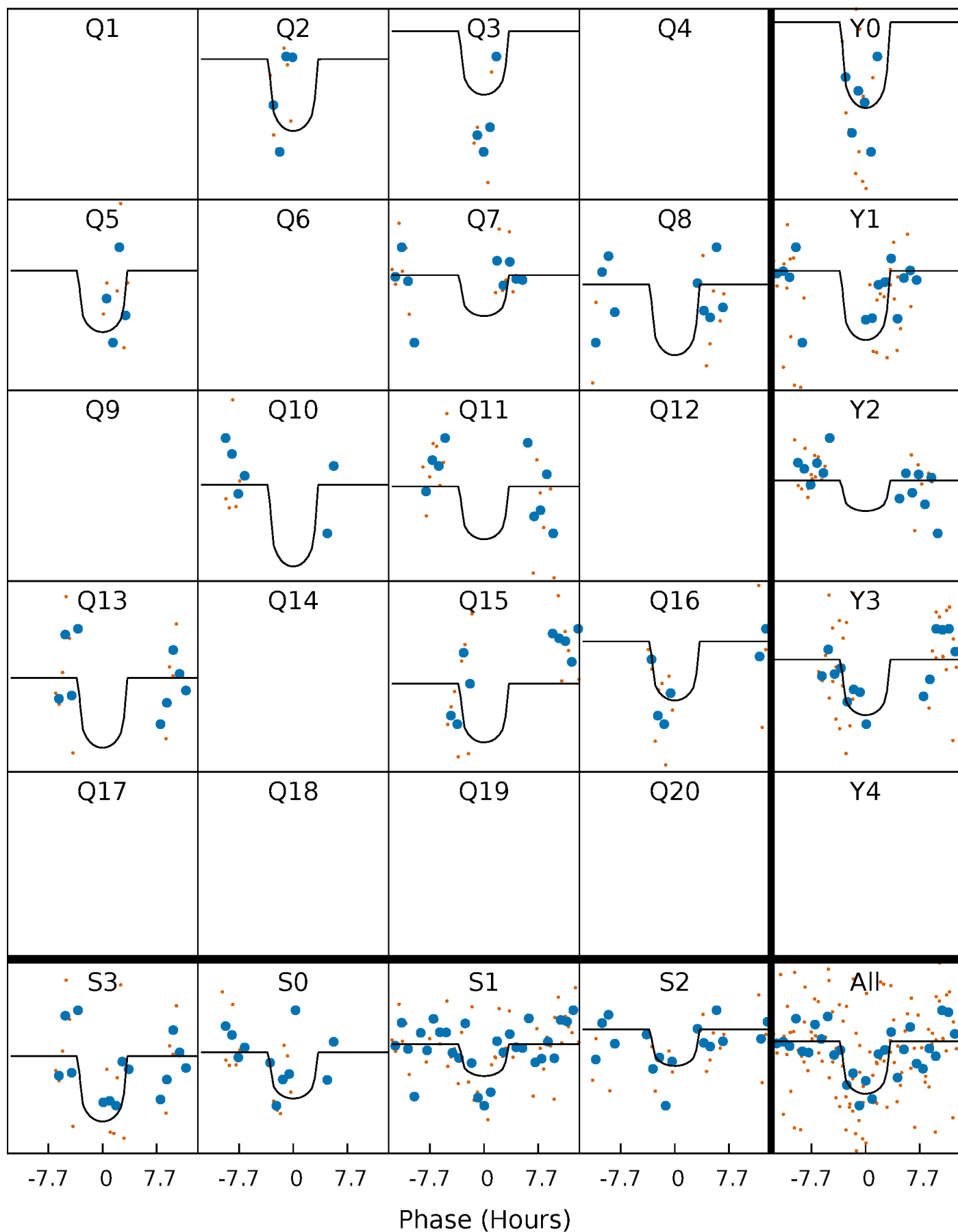
PDC Quarter-Phased Transit Curves

TCE 003437776-03 P=150.554117 Days $T_0=181.488824$ (BKJD)



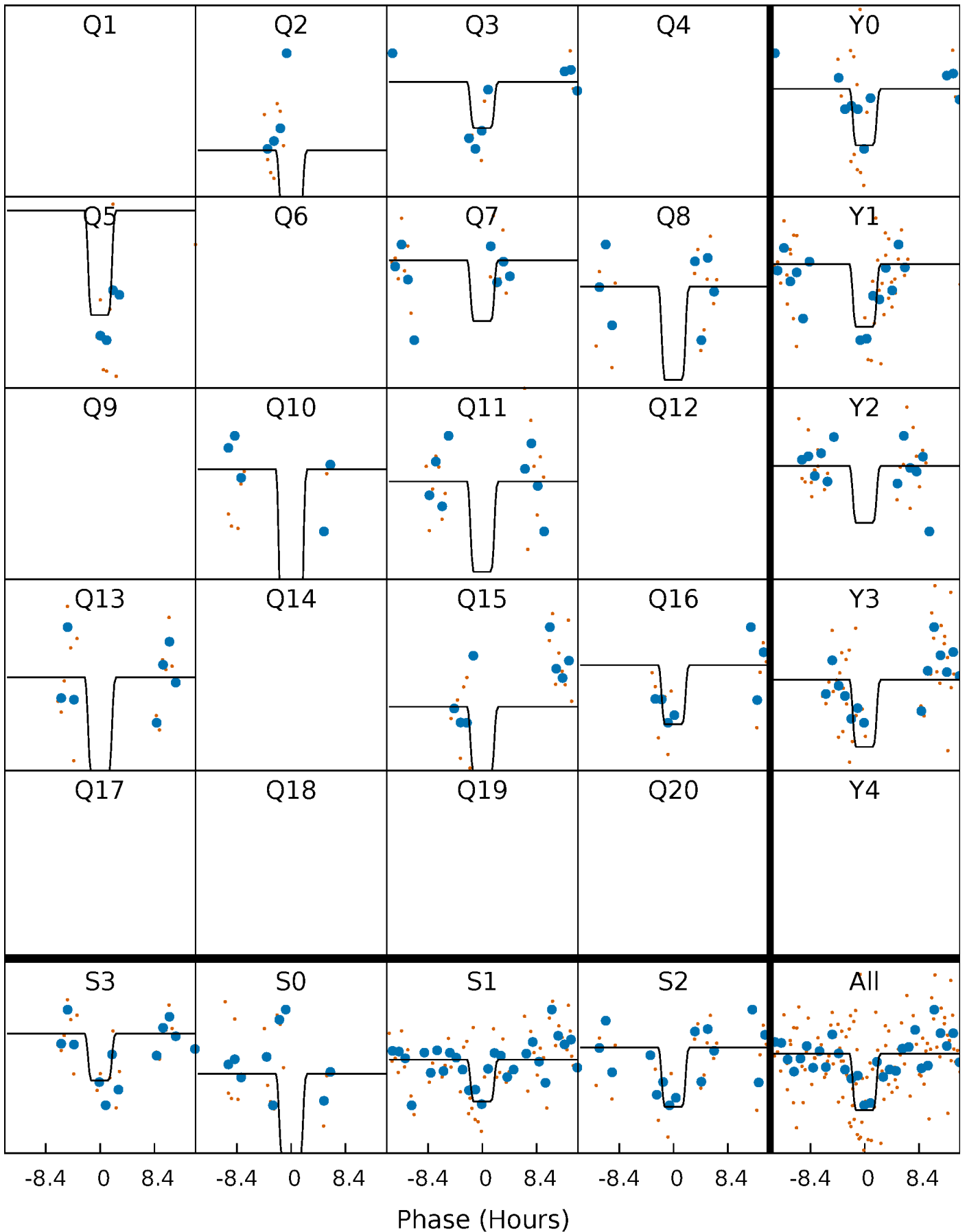
DV Quarter-Phased Transit Curves

TCE 003437776-03 P=150.554117 Days $T_0=181.488824$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

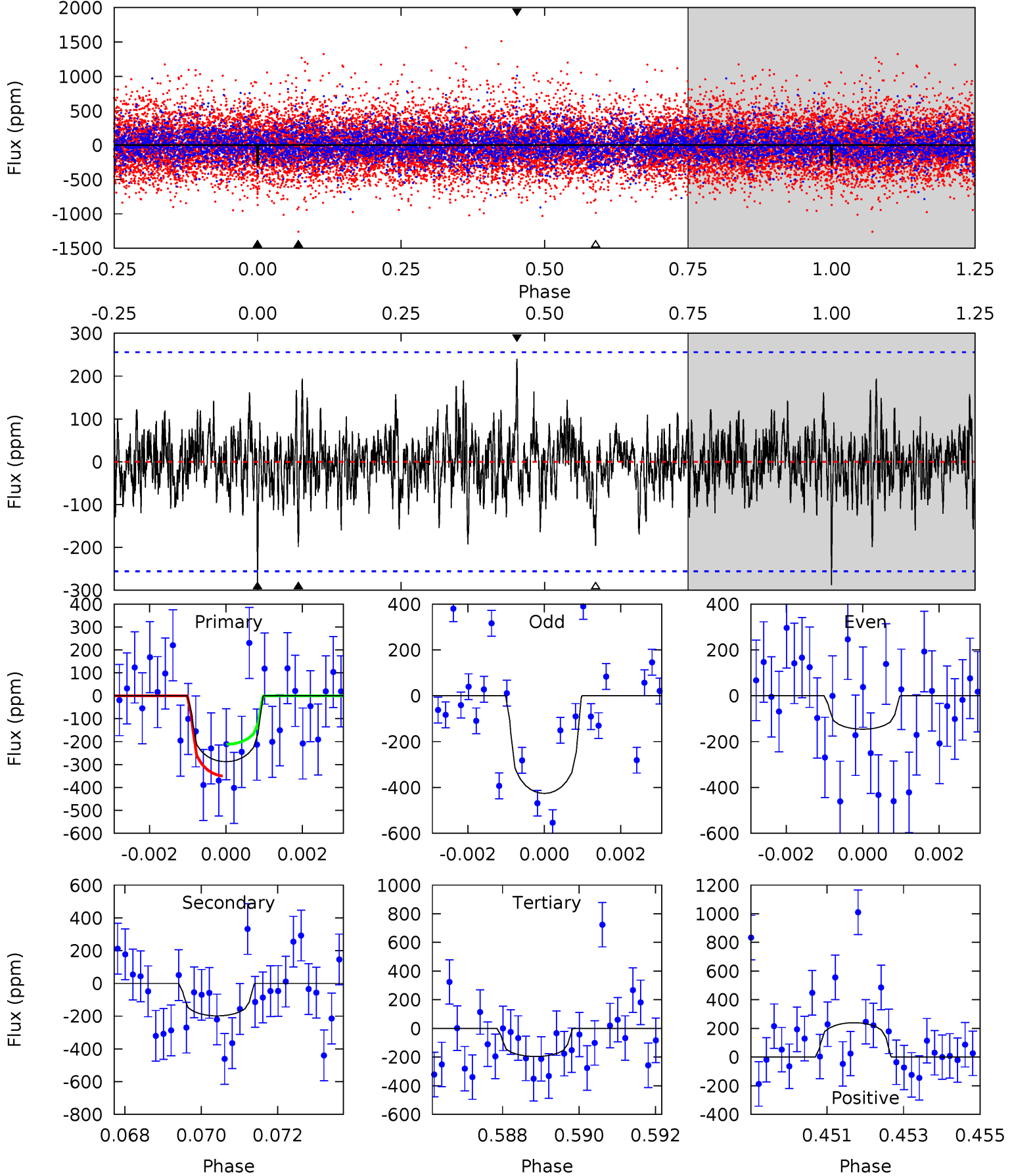
TCE 003437776-03 P=150.548087 Days $T_0=181.524492$ (BKJD)



DV Model-Shift Uniqueness Test

003437776-03, $P = 150.554117$ Days, $E = 30.934707$ Days

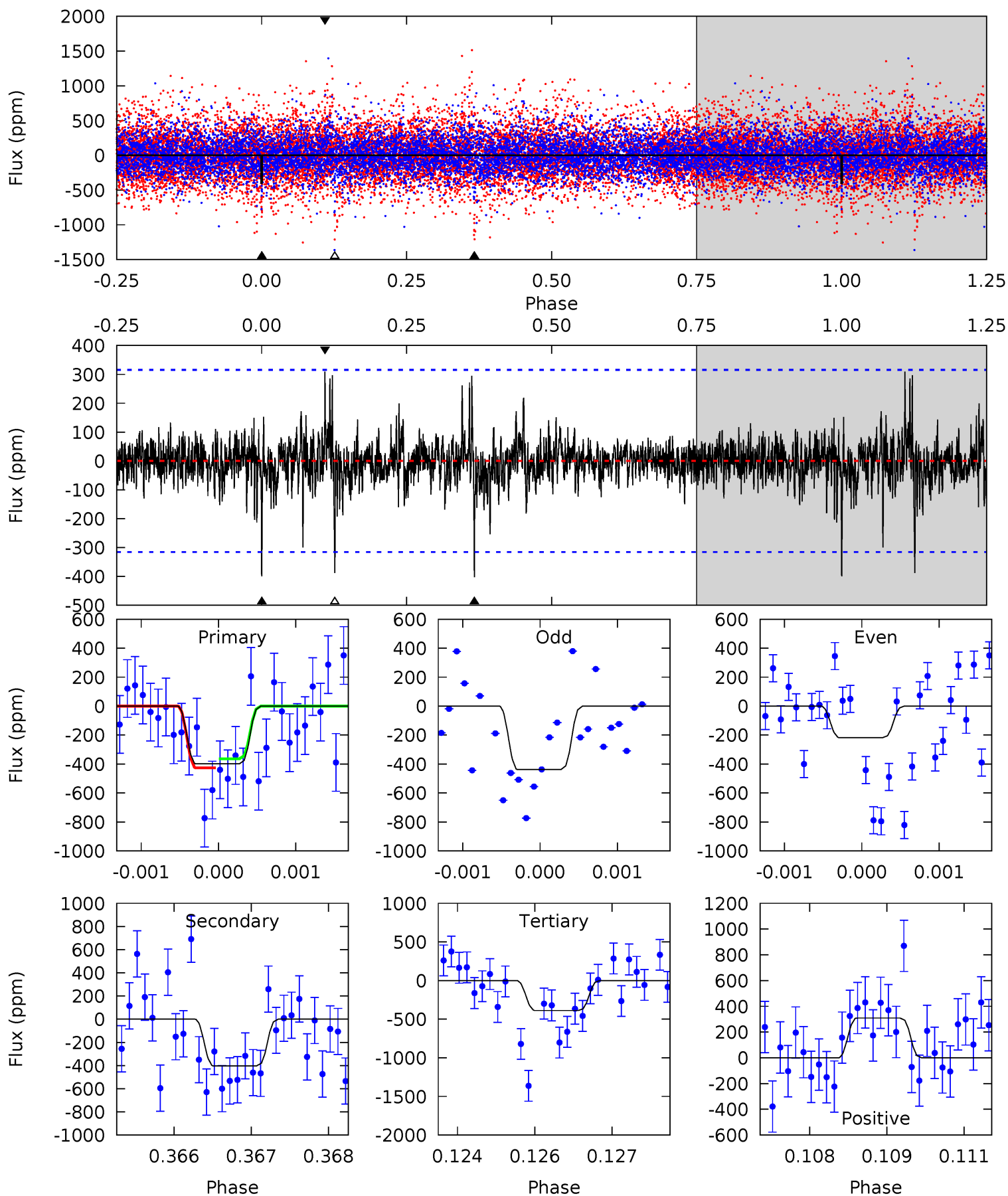
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.99	4.13	4.08	4.99	5.33	3.09	1.14	1.90	0.99	0.05	-0.86	2.91	1.07	0.45	1.44



Alt Model-Shift Uniqueness Test

003437776-03, P = 150.548087 Days, E = 30.976405 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.85	6.91	6.65	5.30	5.41	3.23	1.03	0.19	1.54	0.26	1.61	1.92	0.92	0.43	0.53



Stellar Parameters For KIC 003437776

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5671^{+76}_{-76}	$4.075^{+0.189}_{-0.081}$	$0.340^{+0.100}_{-0.150}$	$1.608^{+0.234}_{-0.351}$	$1.121^{+0.121}_{-0.088}$	$0.380^{+0.385}_{-0.098}$
	+1%/-1%	+5%/-2%	+29%/-44%	+15%/-22%	+11%/-8%	+101%/-26%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003437776-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-199 ± 48	$4.70^{+3.72}_{-3.16}$	578^{+25}_{-33}	4282^{+2925}_{-763}	1718^{+14783}_{-1220}
Alt.	-403 ± 58	$5.02^{+4.02}_{-3.12}$	580^{+23}_{-34}	4779^{+3029}_{-910}	2908^{+17451}_{-2015}

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 $A_{obs} \gg 1.0$

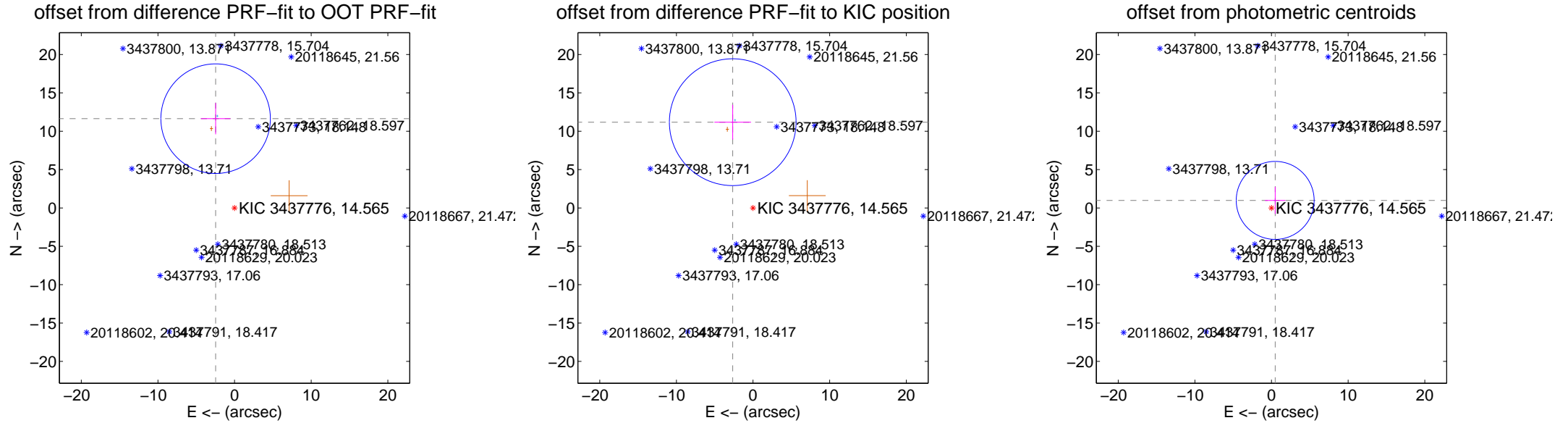
DV Centroid Data

Supplemental centroid analysis for 003437776-03. Kepler magnitude: 14.56. Transit SNR 7.35

There are 1 quarters with good PRF difference image offsets

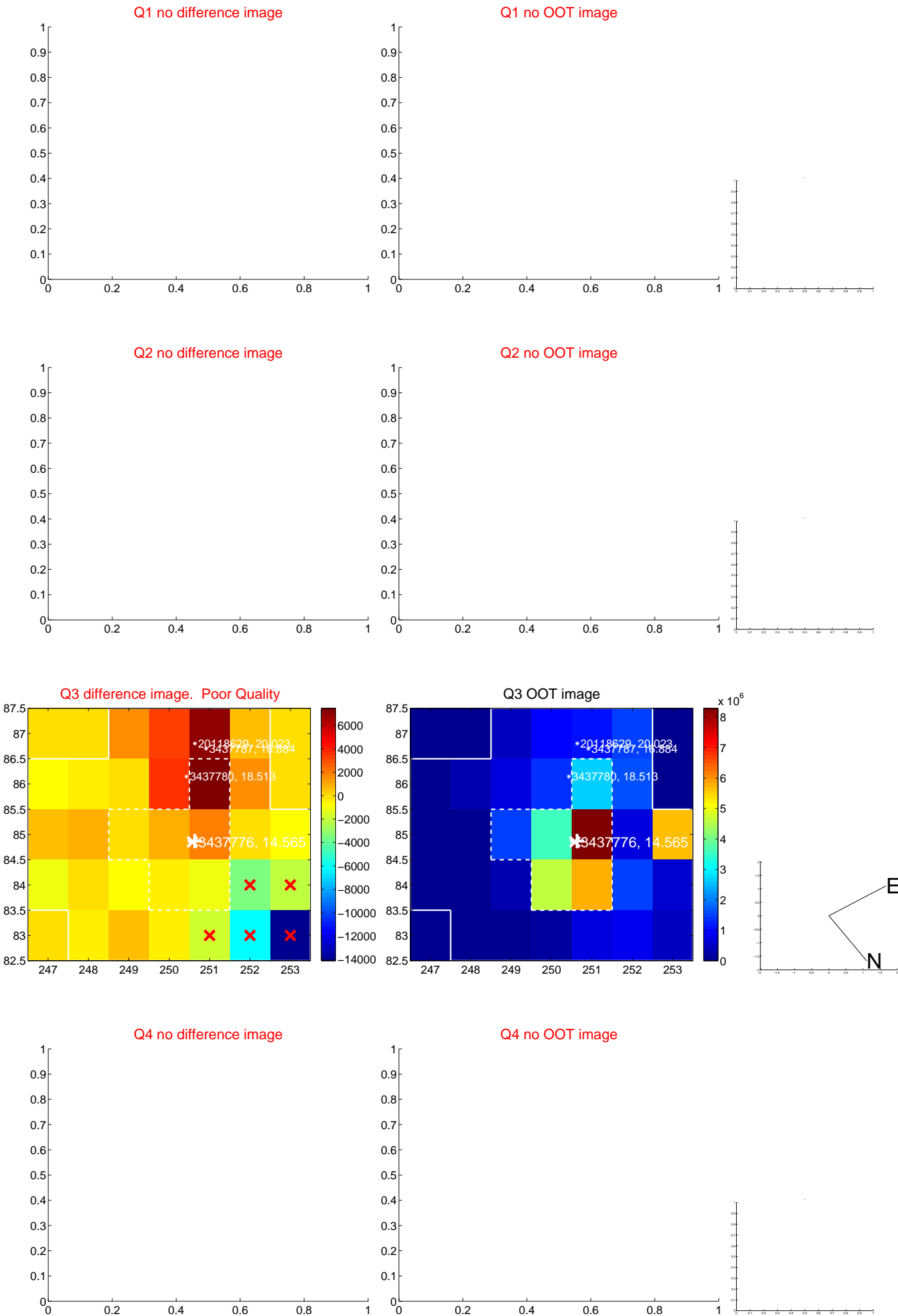
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.896 ± 2.381	5.00	2.473 ± 1.930	11.636 ± 2.043
PRF-fit source offset from KIC position	11.490 ± 2.755	4.17	2.652 ± 2.390	11.180 ± 2.269
photometric centroid source offset	1.09 ± 1.69	0.65	-0.48 ± 1.33	0.98 ± 1.77

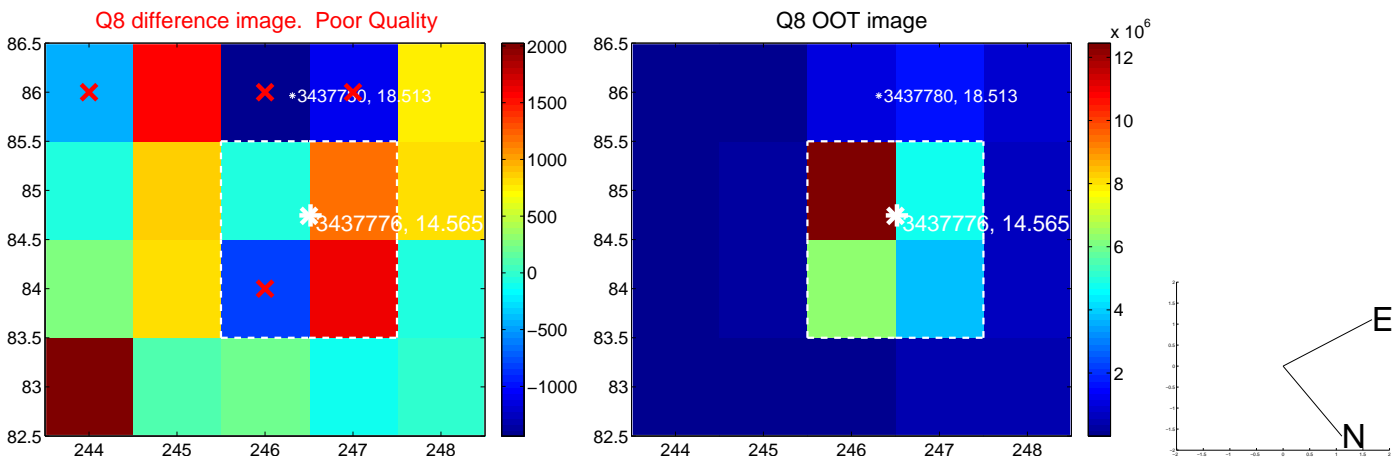
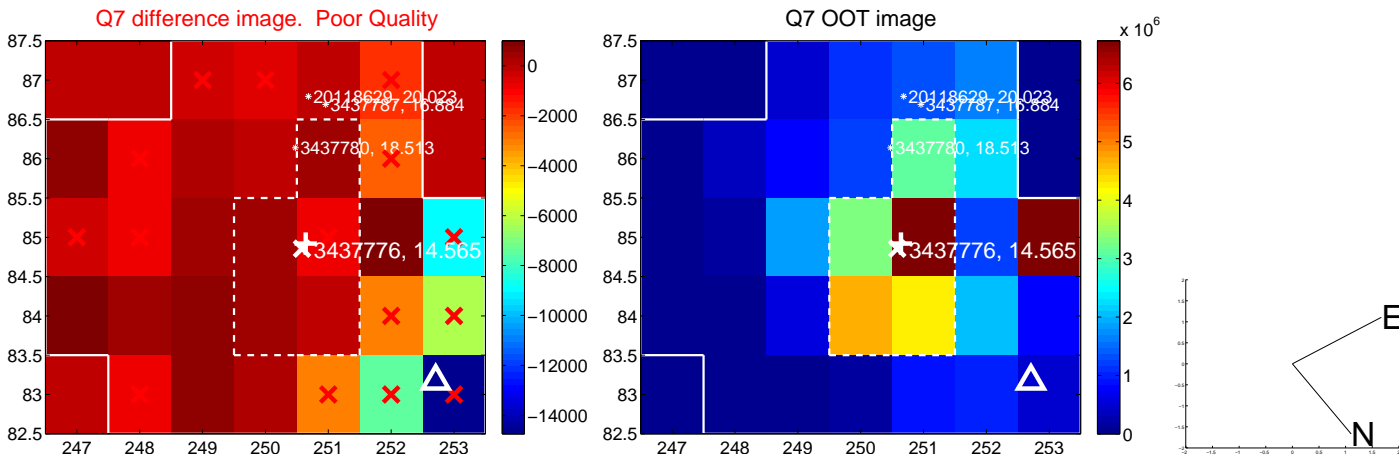
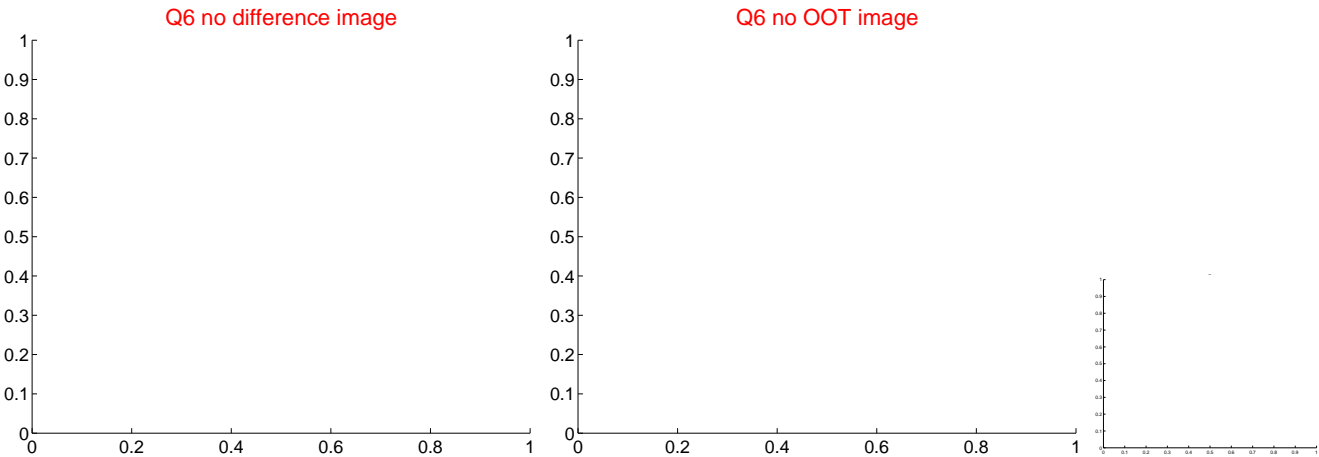
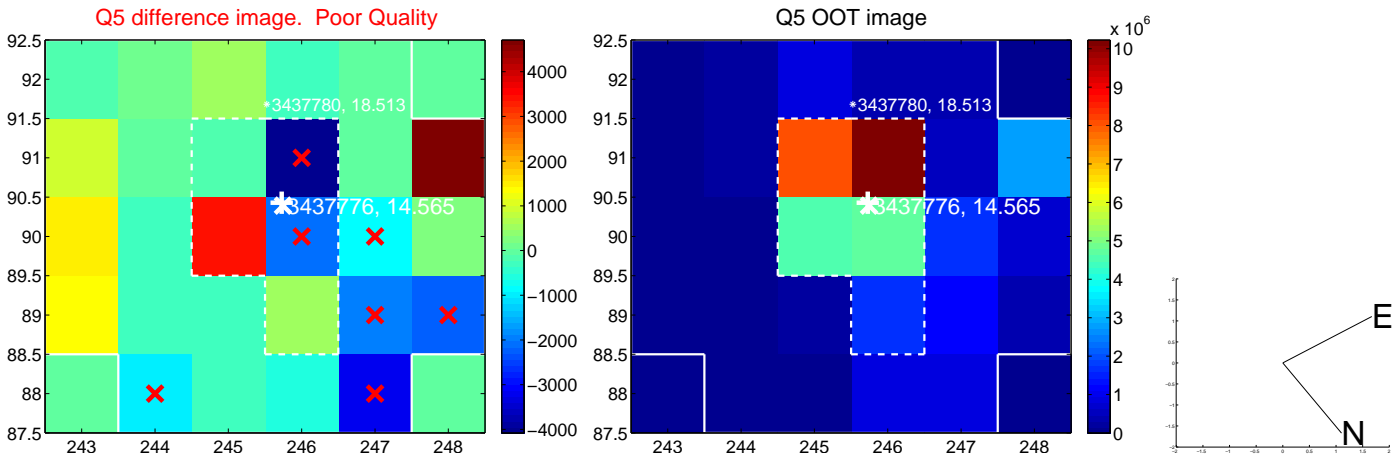


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

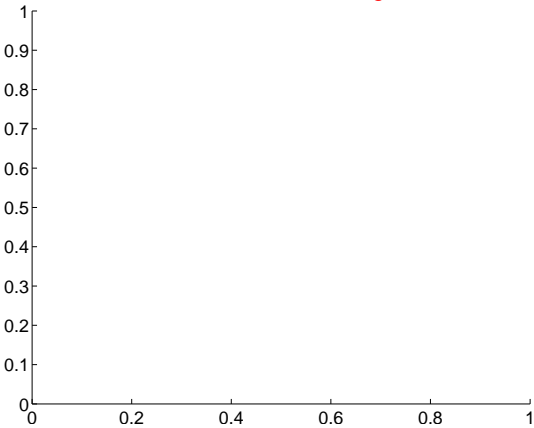


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

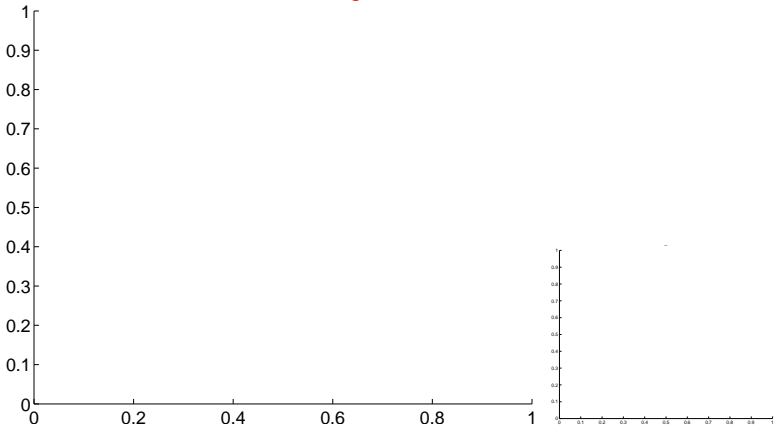


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

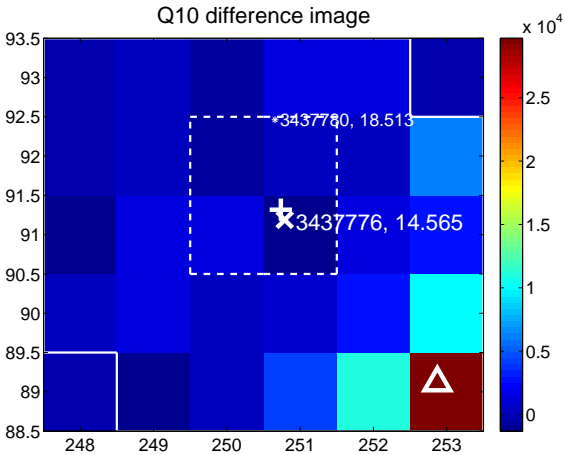
Q9 no difference image



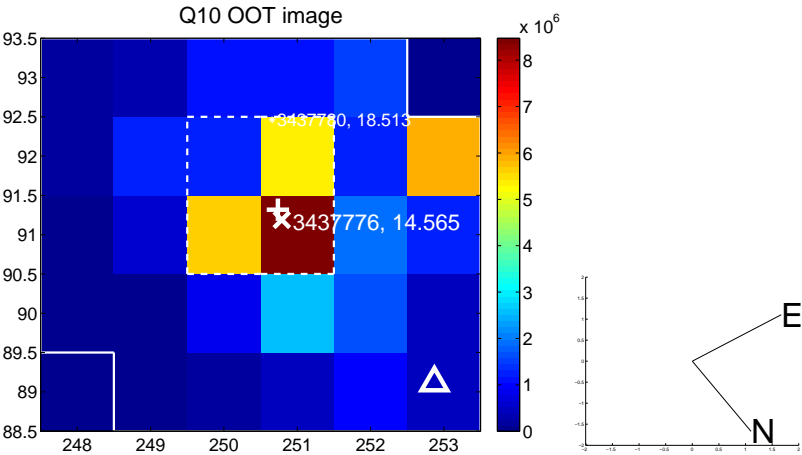
Q9 no OOT image



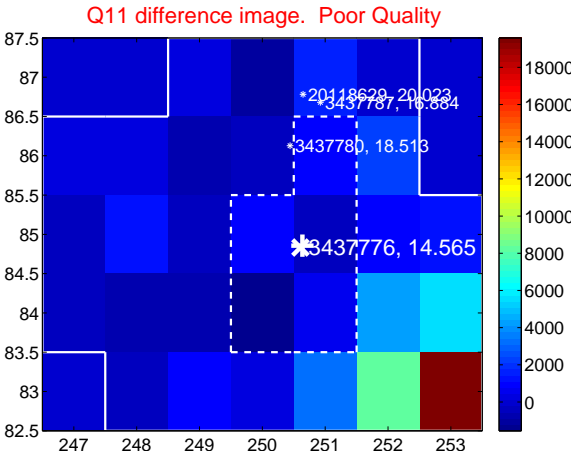
Q10 difference image



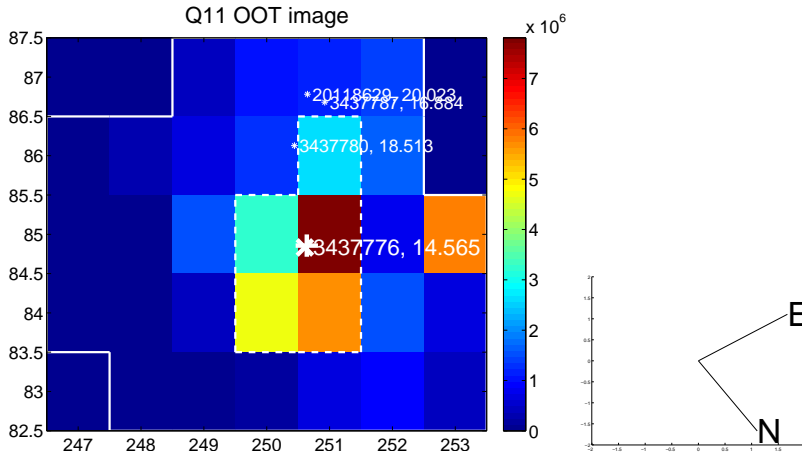
Q10 OOT image



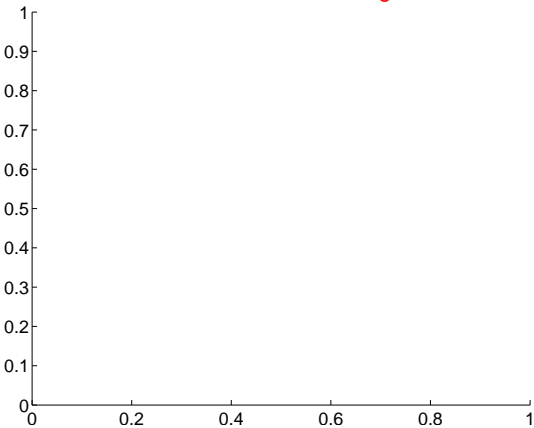
Q11 difference image. Poor Quality



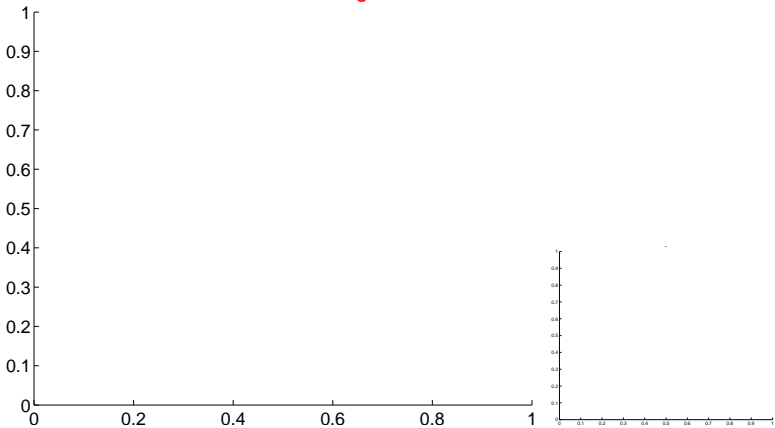
Q11 OOT image



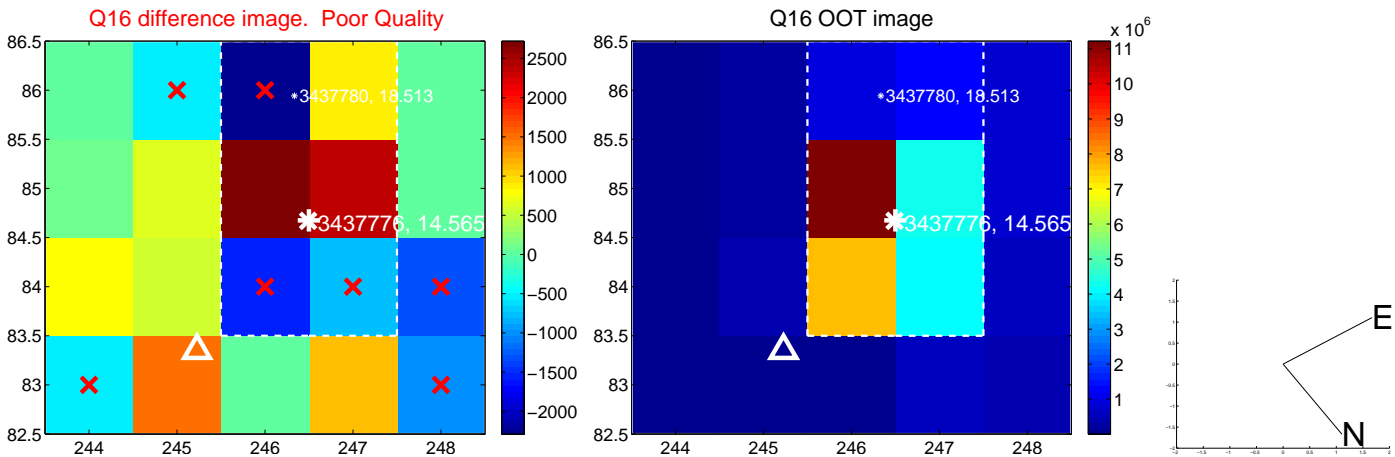
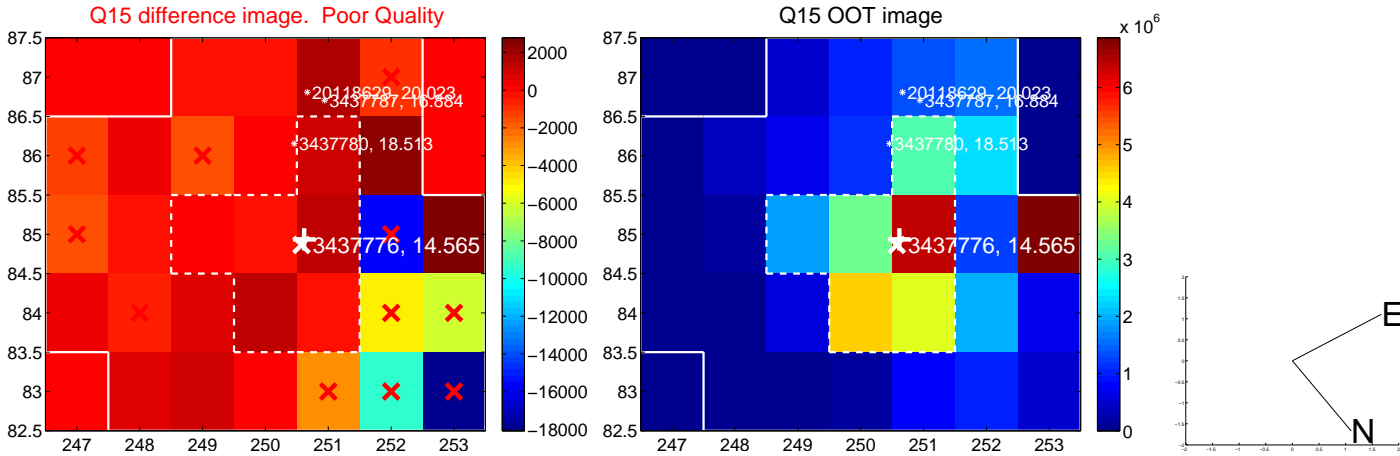
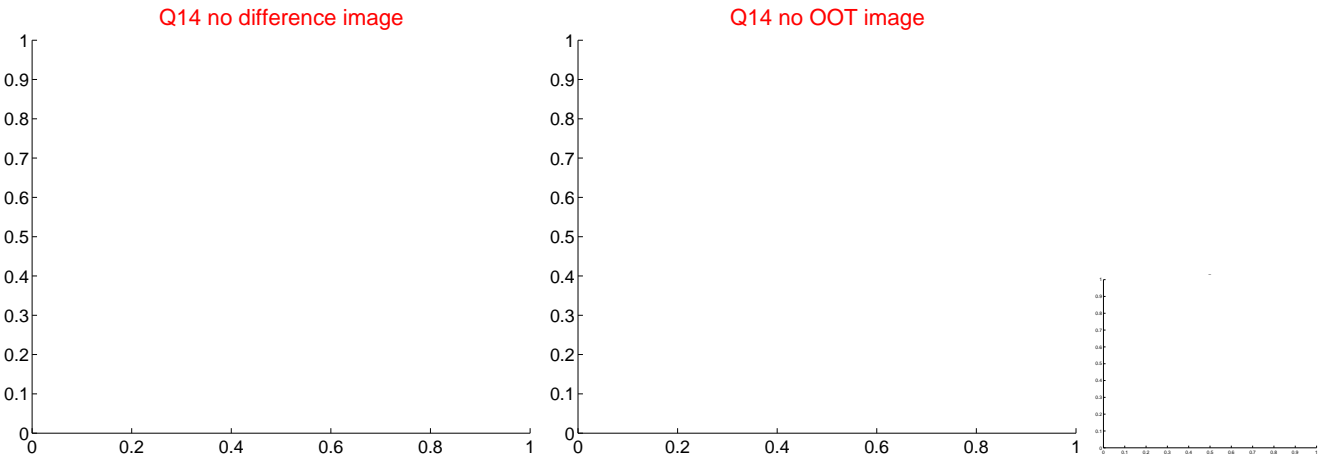
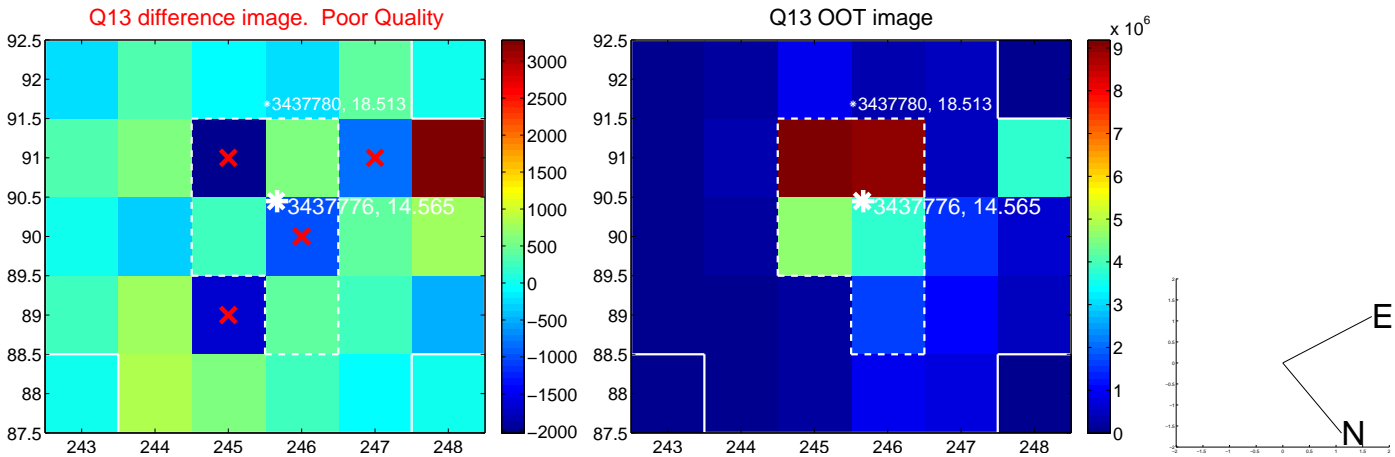
Q12 no difference image



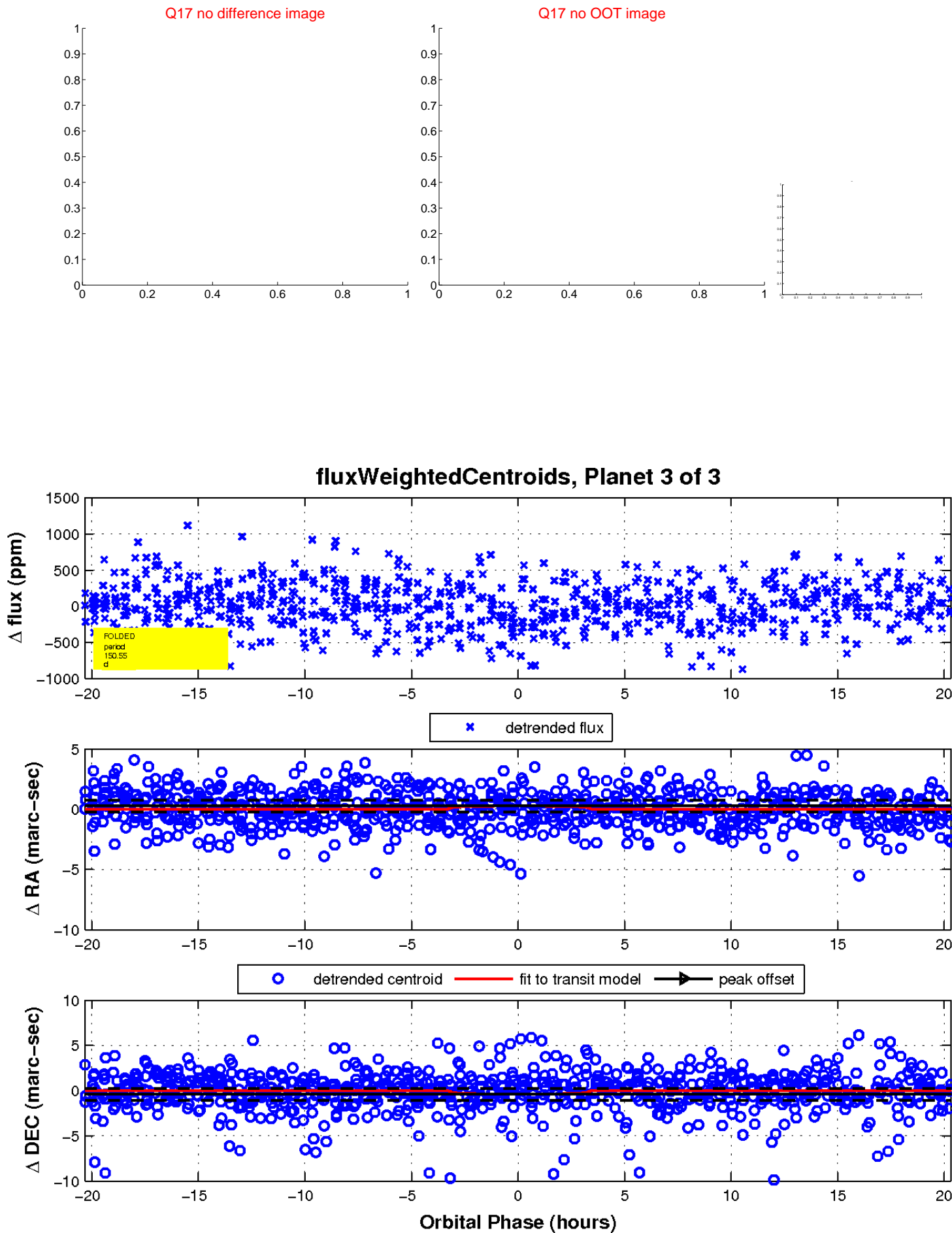
Q12 no OOT image



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

