

KIC 005297343

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})
005297343-01	OBS	No	2.122565	132.956331	29.6	12.637	10.7	11.0	2.07	8317	1.14	11362.81
005297343-02	OBS	No	197.518793	237.427762	499.1	2.061	9.1	9.4	2.07	8317	5.26	26.95
005297343-03	OBS	No	35.203370	145.793789	245.0	2.741	8.6	8.9	2.07	8317	3.76	268.65
005297343-04	OBS	No	67.260287	144.241770	387.6	1.954	8.6	7.8	2.07	8317	4.42	113.31
005297343-05	OBS	No	99.681871	159.715751	259.5	5.511	7.6	9.1	2.07	8317	3.75	67.06
005297343-06	OBS	No	92.795848	208.381520	273.4	3.206	8.5	7.6	2.07	8317	3.68	73.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005297343-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
005297343-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

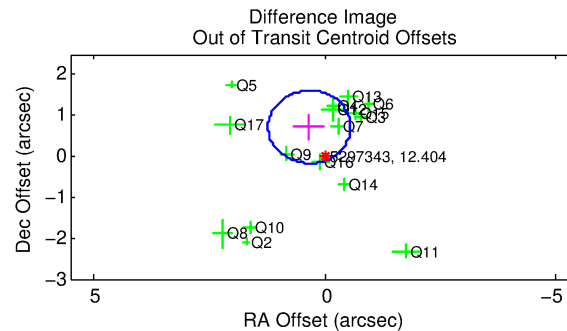
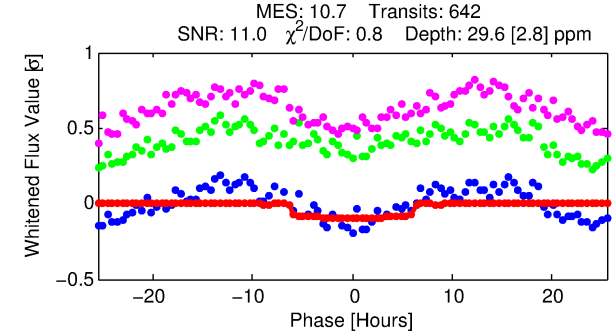
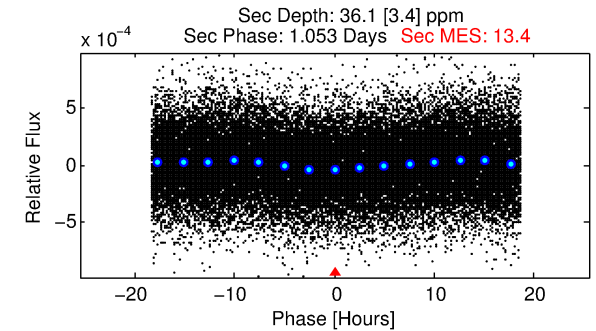
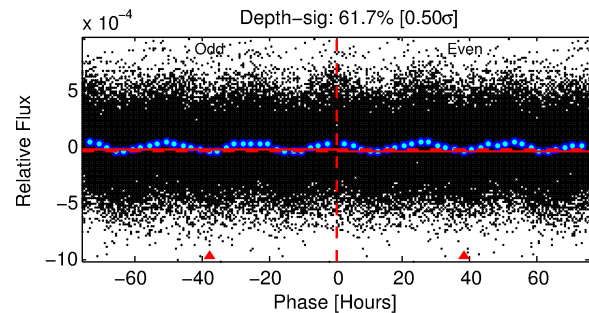
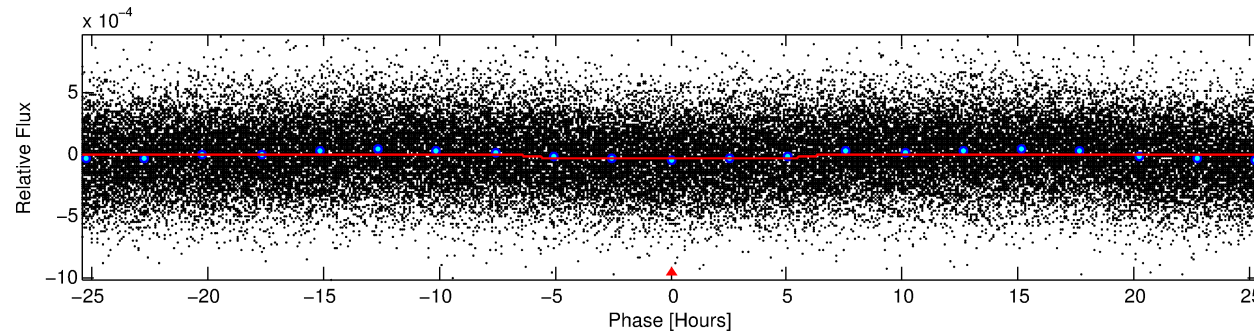
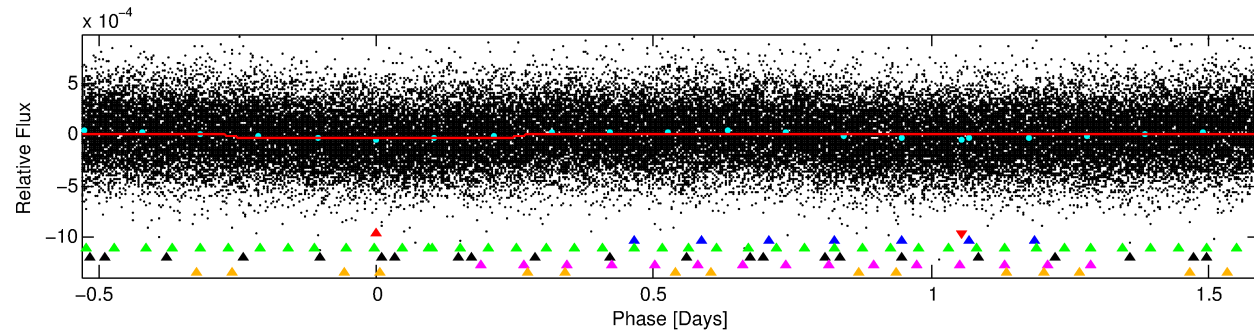
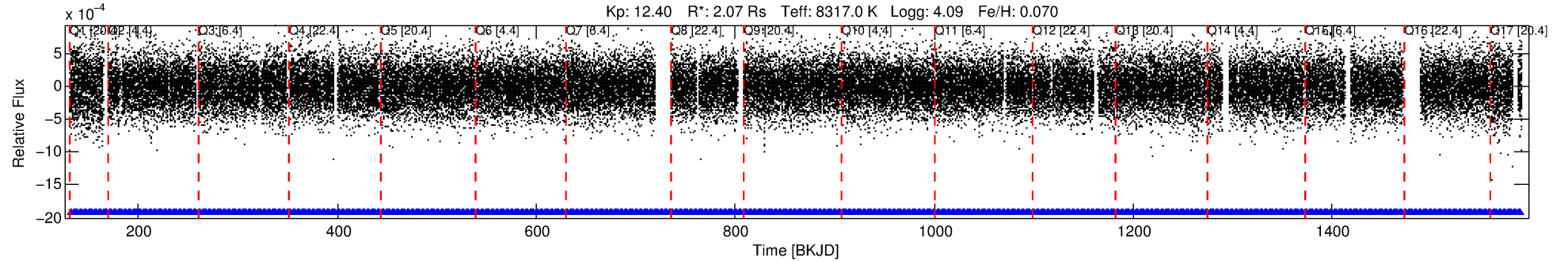
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005297343-01

No Significant Match Found

DV One-Page Summary

KIC: 5297343 Candidate: 1 of 6 Period: 2.123 d



DV Fit Results:

Period = 2.12257 [0.00004] d
Epoch = 132.9563 [0.0086] BKJD
Rp/R* = 0.0050 [0.0064]
a/R* = 1.43 [5.49]
b = 0.09 [83.51]
Seff = 11362.81 [3684.34]
Teq = 2633 [213] K
Rp = 1.14 [1.48] Re
a = 0.0403 [0.0076] AU
Ag = 24.69 [63.35] [0.37 σ]
Teffp = 9073 [5802] K [1.11 σ]

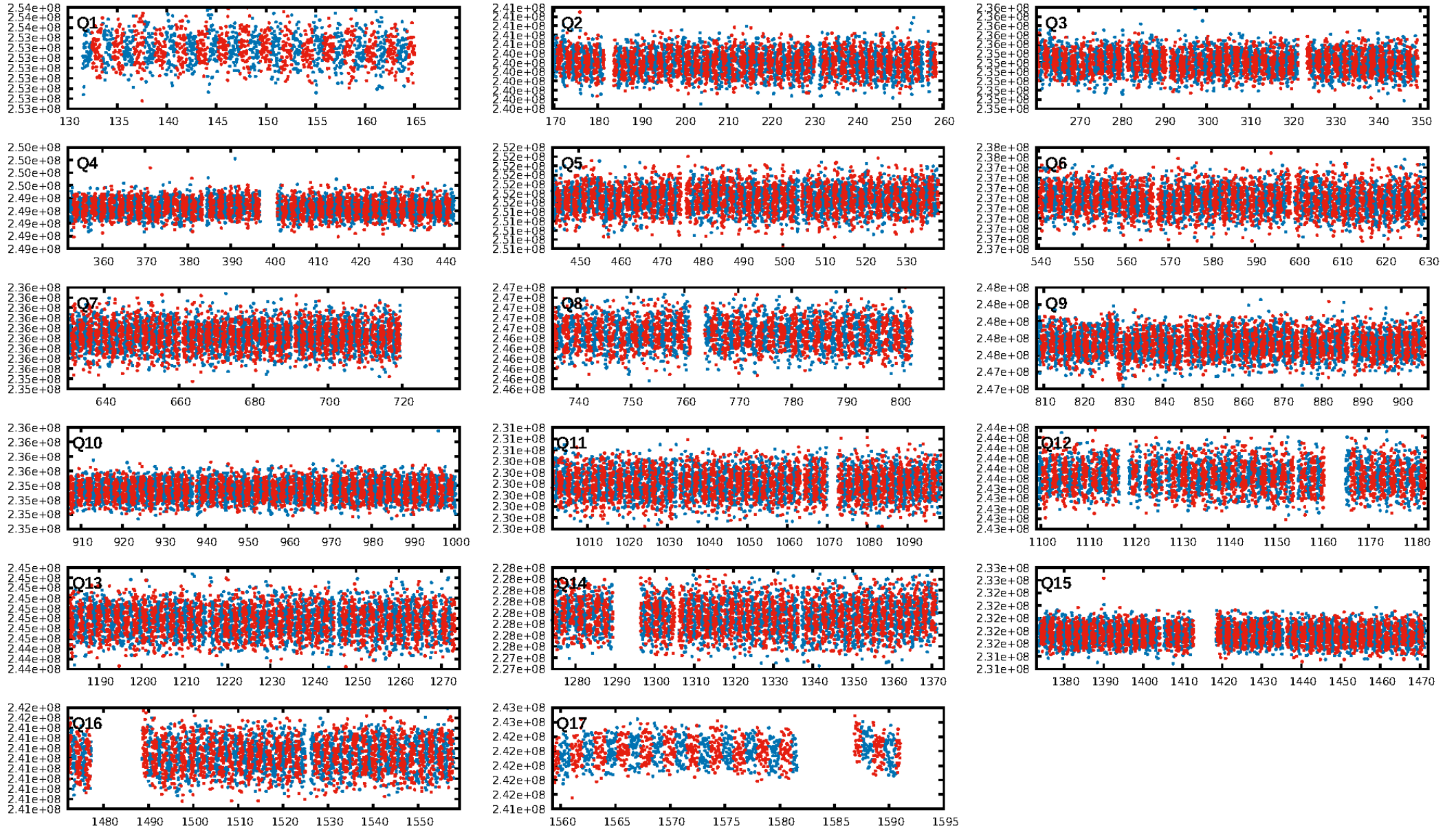
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [61.40 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [612/612]
GhostDiagnostic-chr: 8.325
Centroid-sig: 0.5%
Centroid-so: 1.046 arcsec [2.07 σ]
OotOffset-rm: 0.795 arcsec [2.68 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-rm: 0.855 arcsec [2.46 σ]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

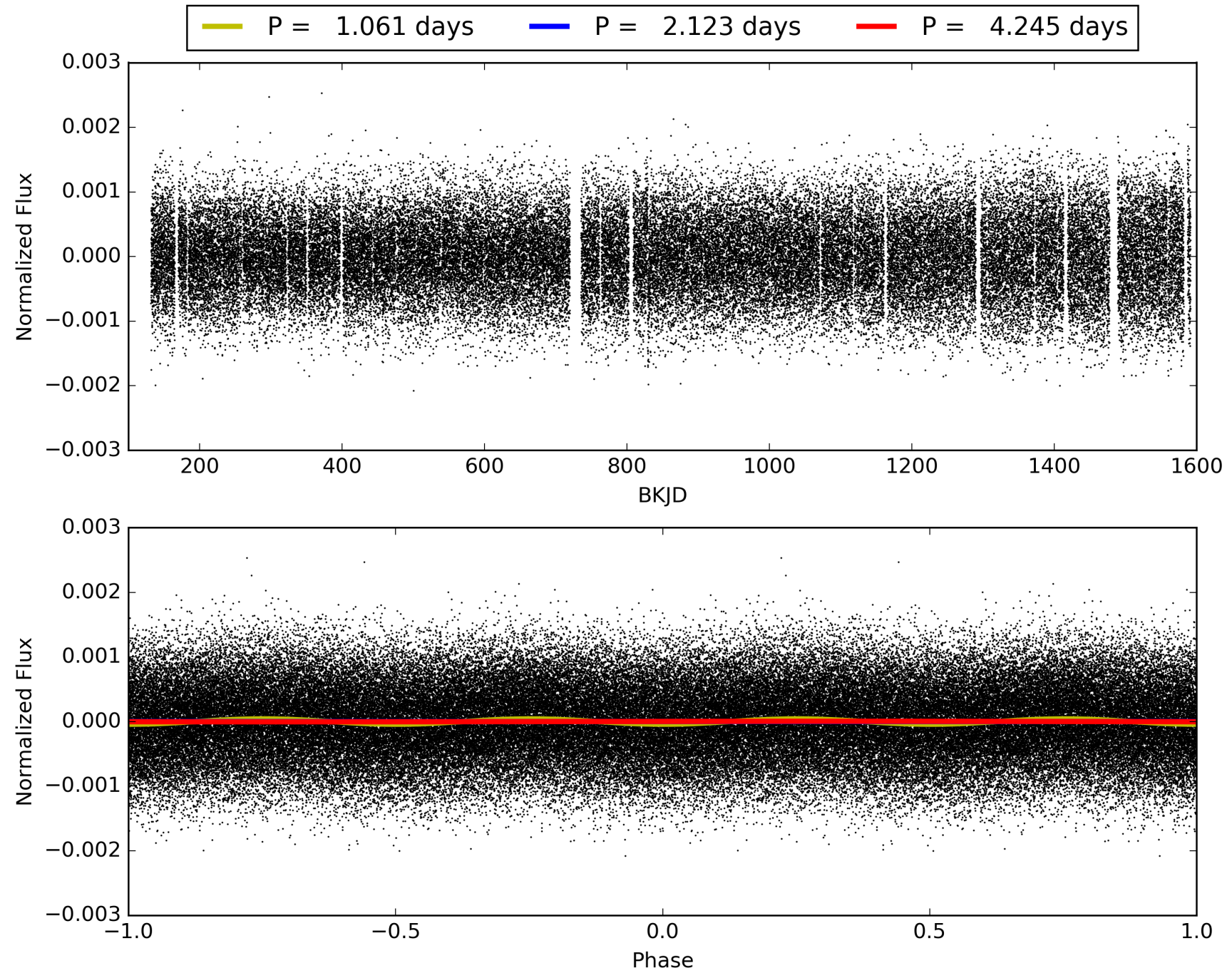
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:23:27 Z

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

TCE 005297343-01, PDC Light Curves

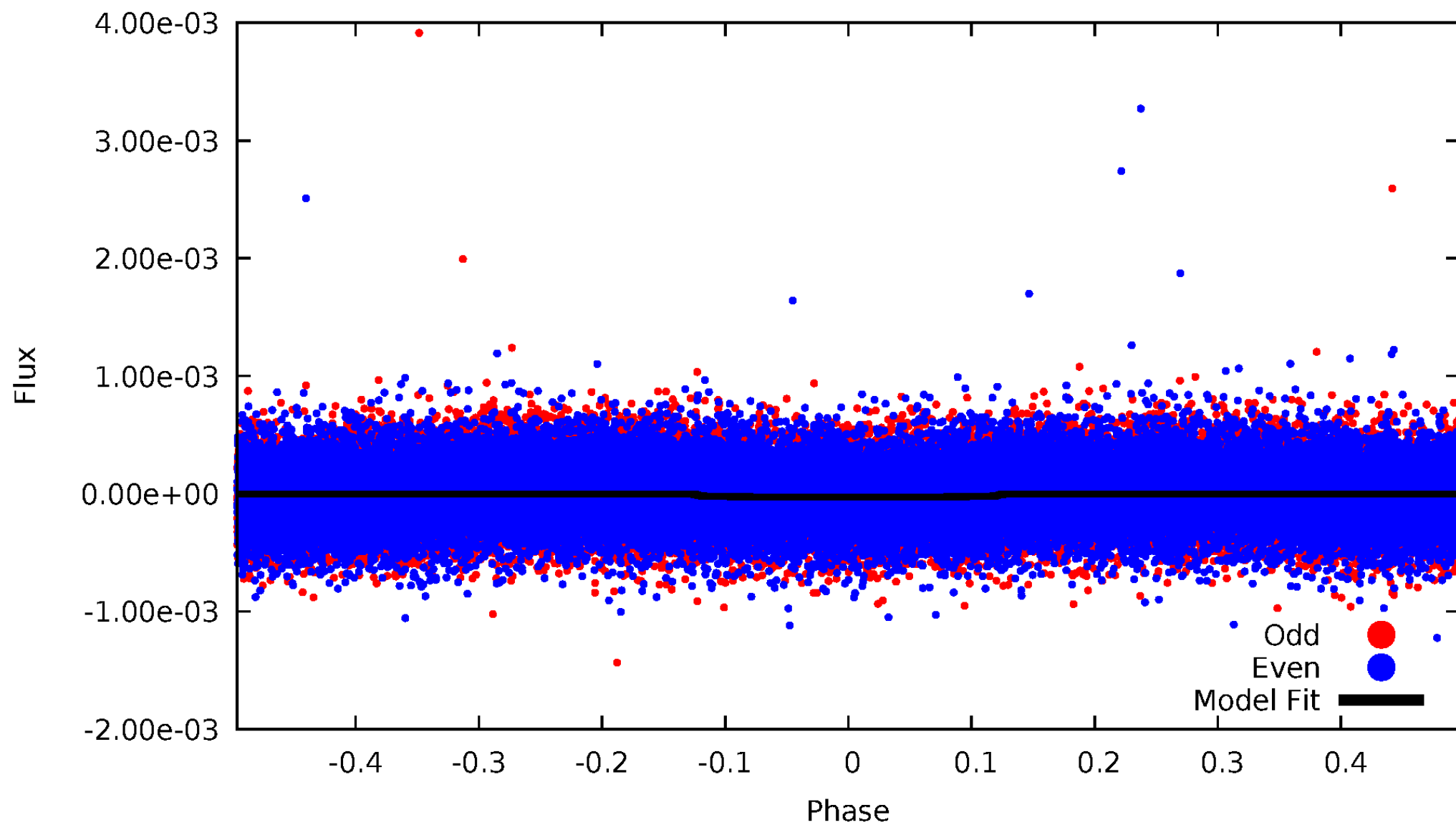


TCE 005297343-01



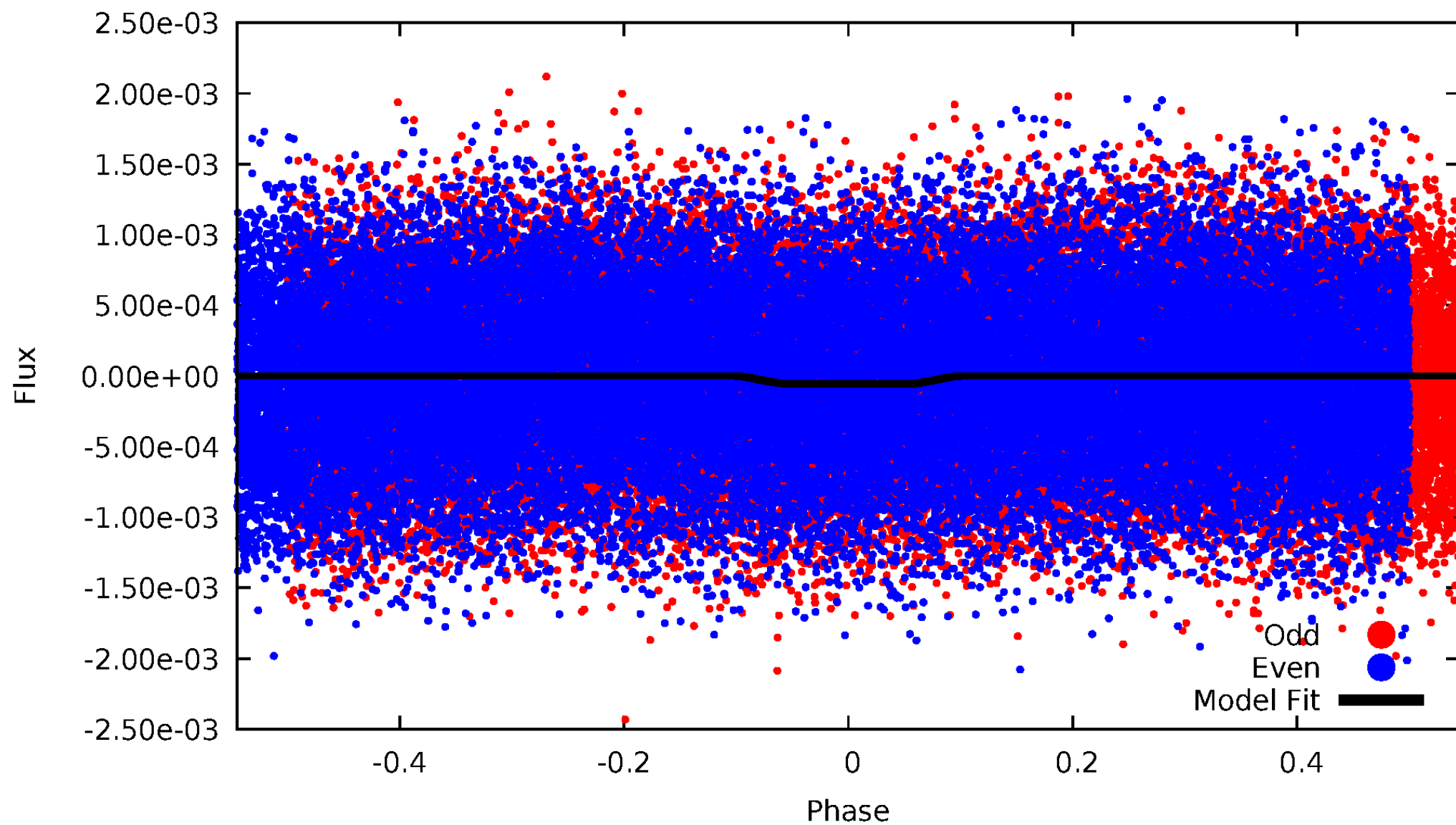
DV Odd/Even

TCE 005297343-01

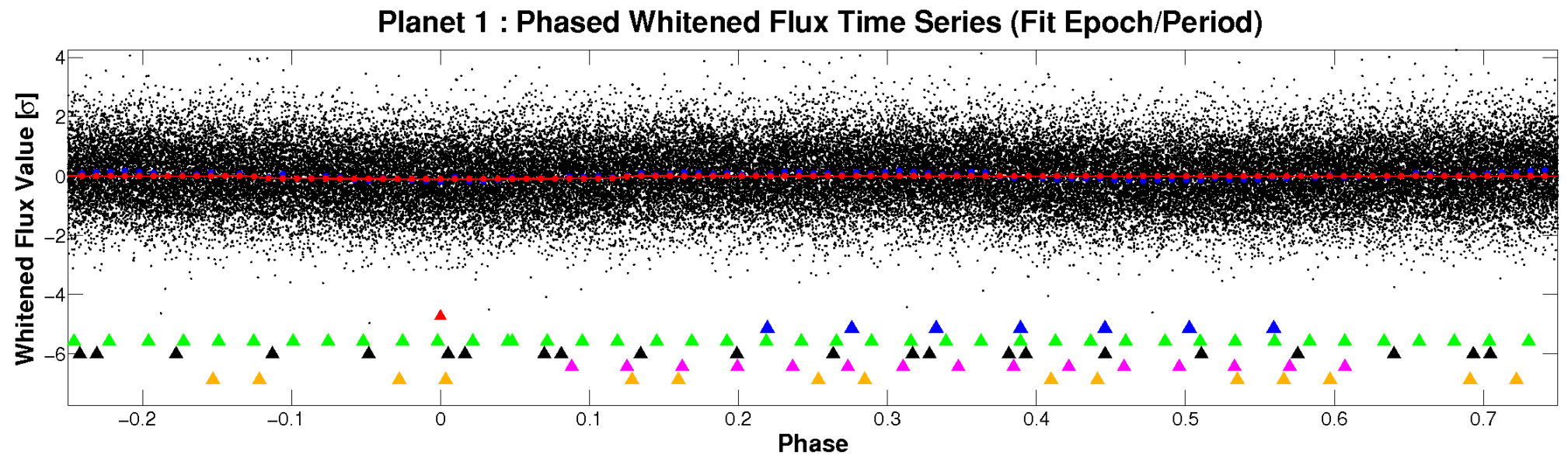
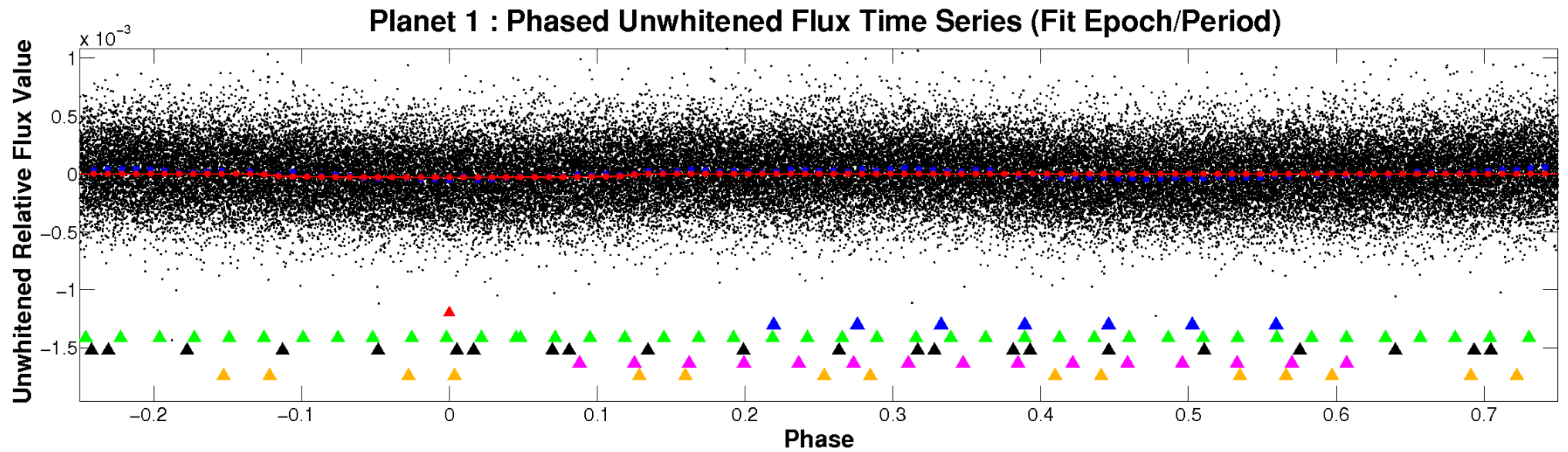


ALT Odd/Even

TCE 005297343-01

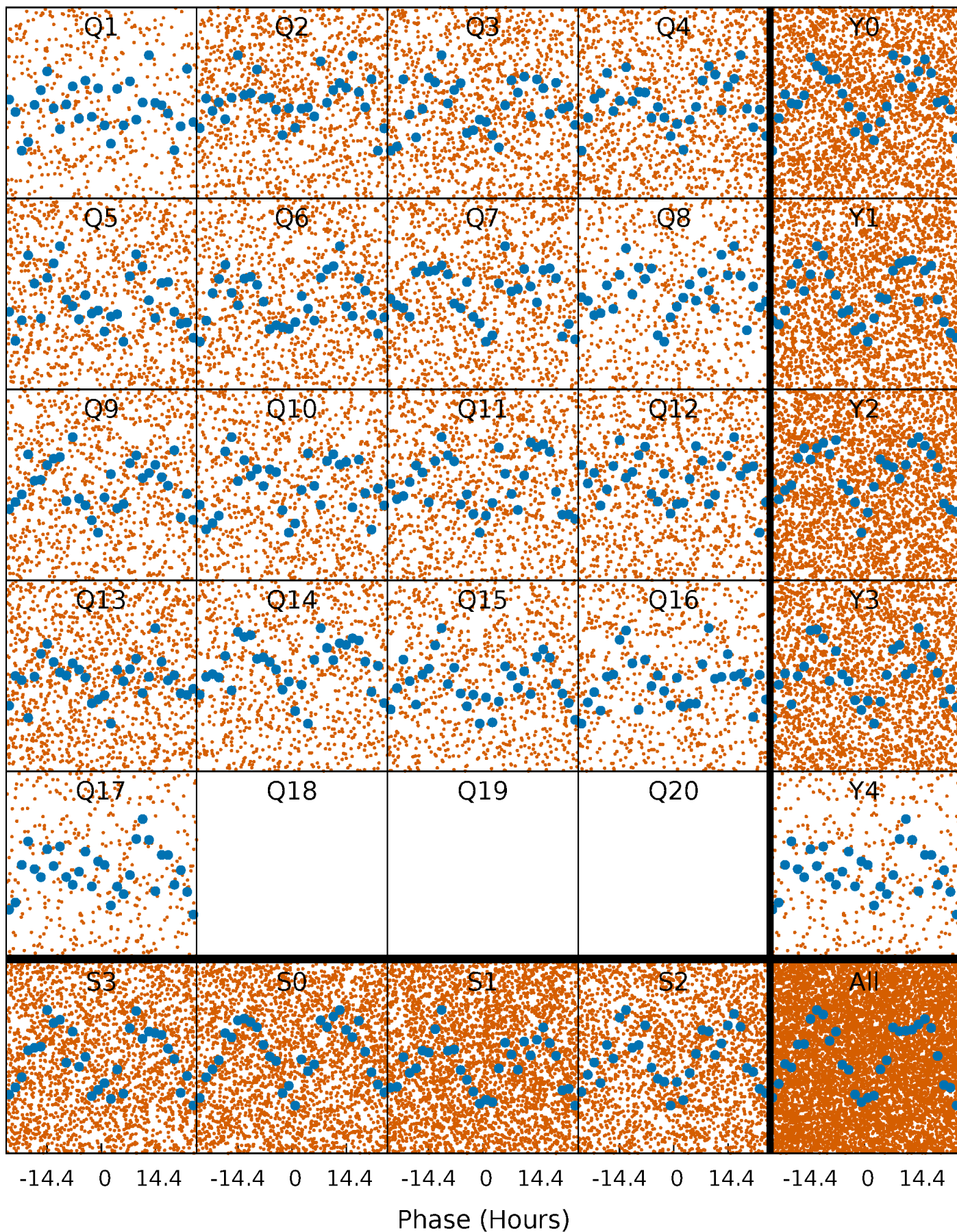


Non-Whitened Vs. Whitened Light Curve



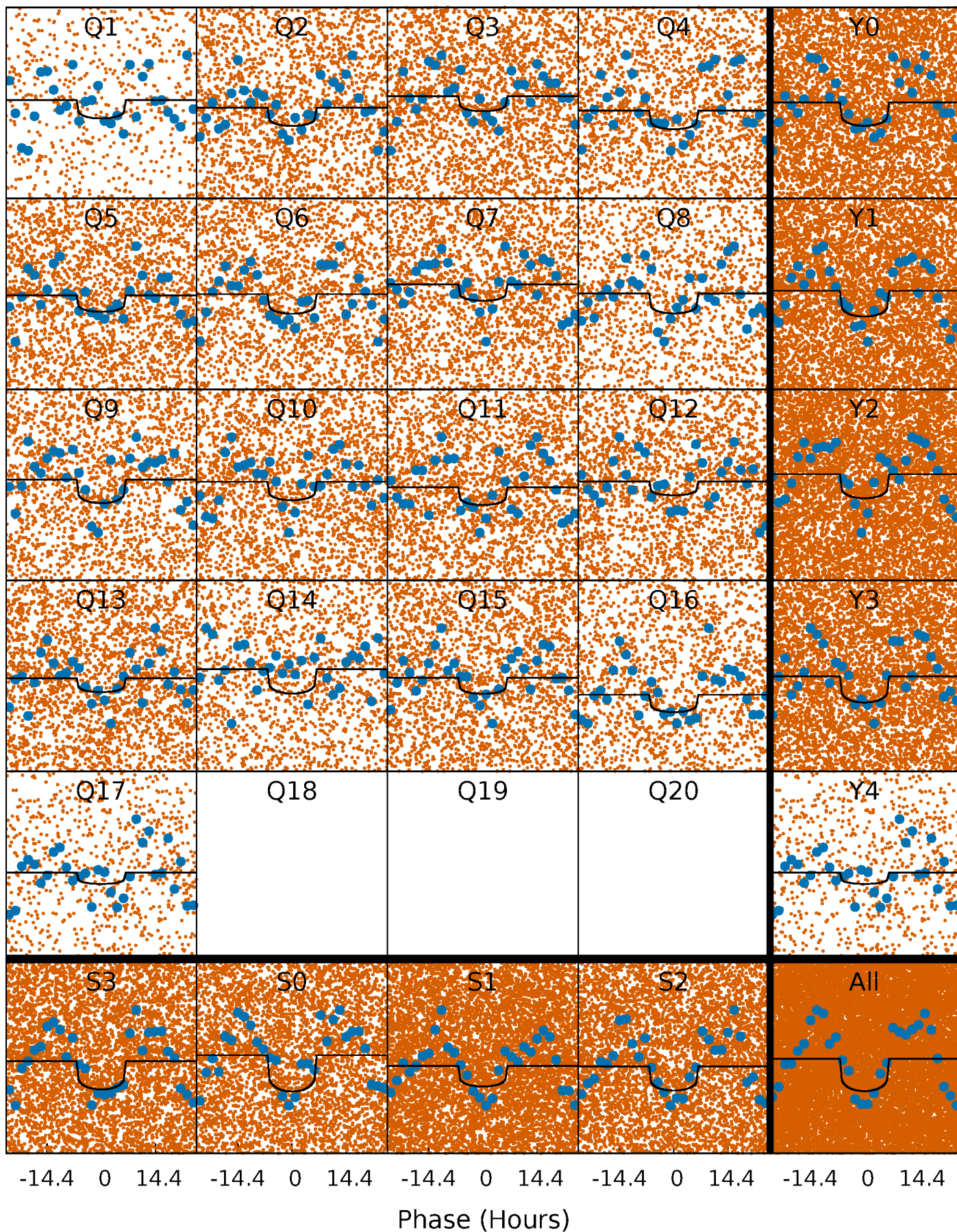
PDC Quarter-Phased Transit Curves

TCE 005297343-01 P= 2.122565 Days $T_0=132.956331$ (BKJD)



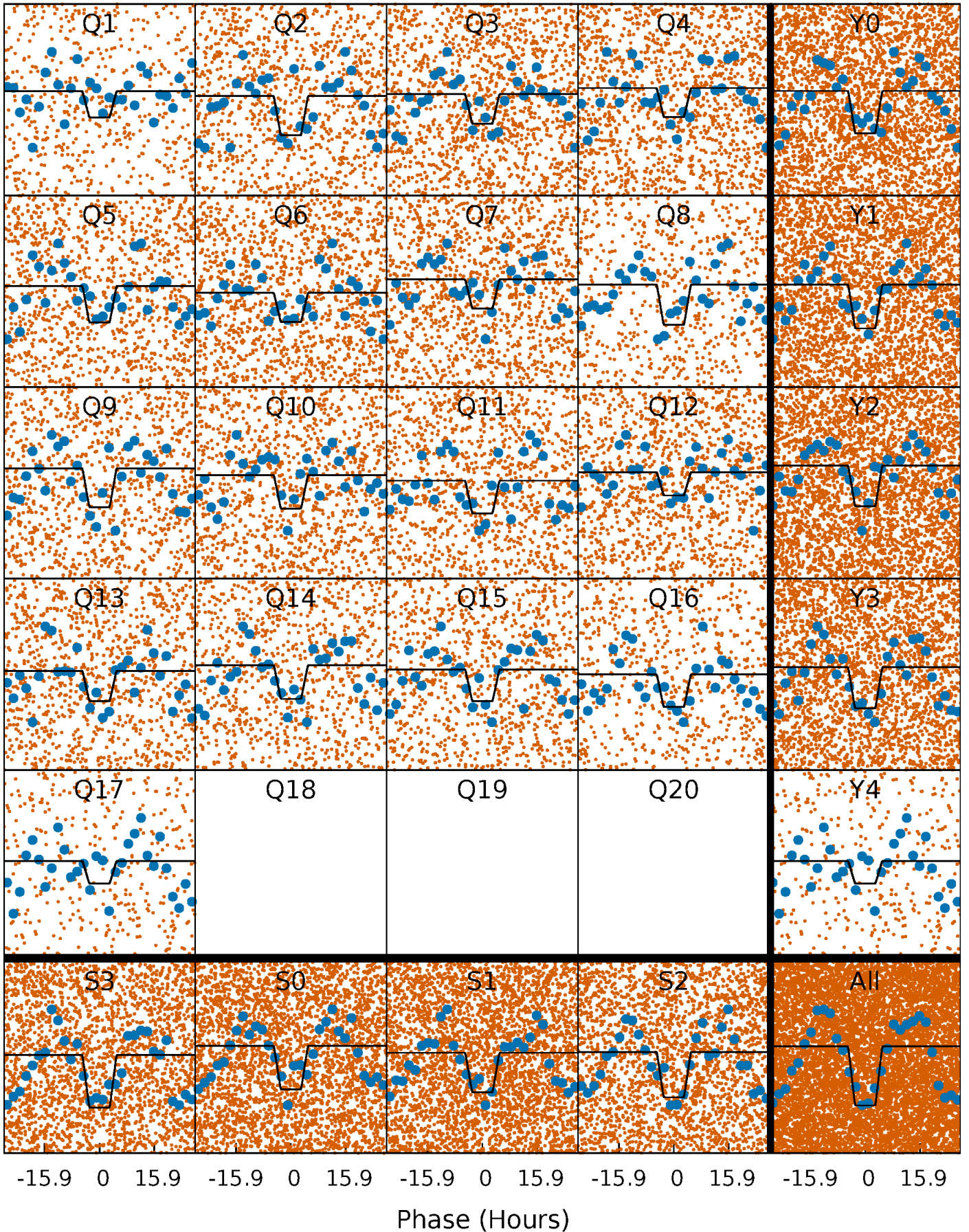
DV Quarter-Phased Transit Curves

TCE 005297343-01 P= 2.122565 Days $T_0=132.956331$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

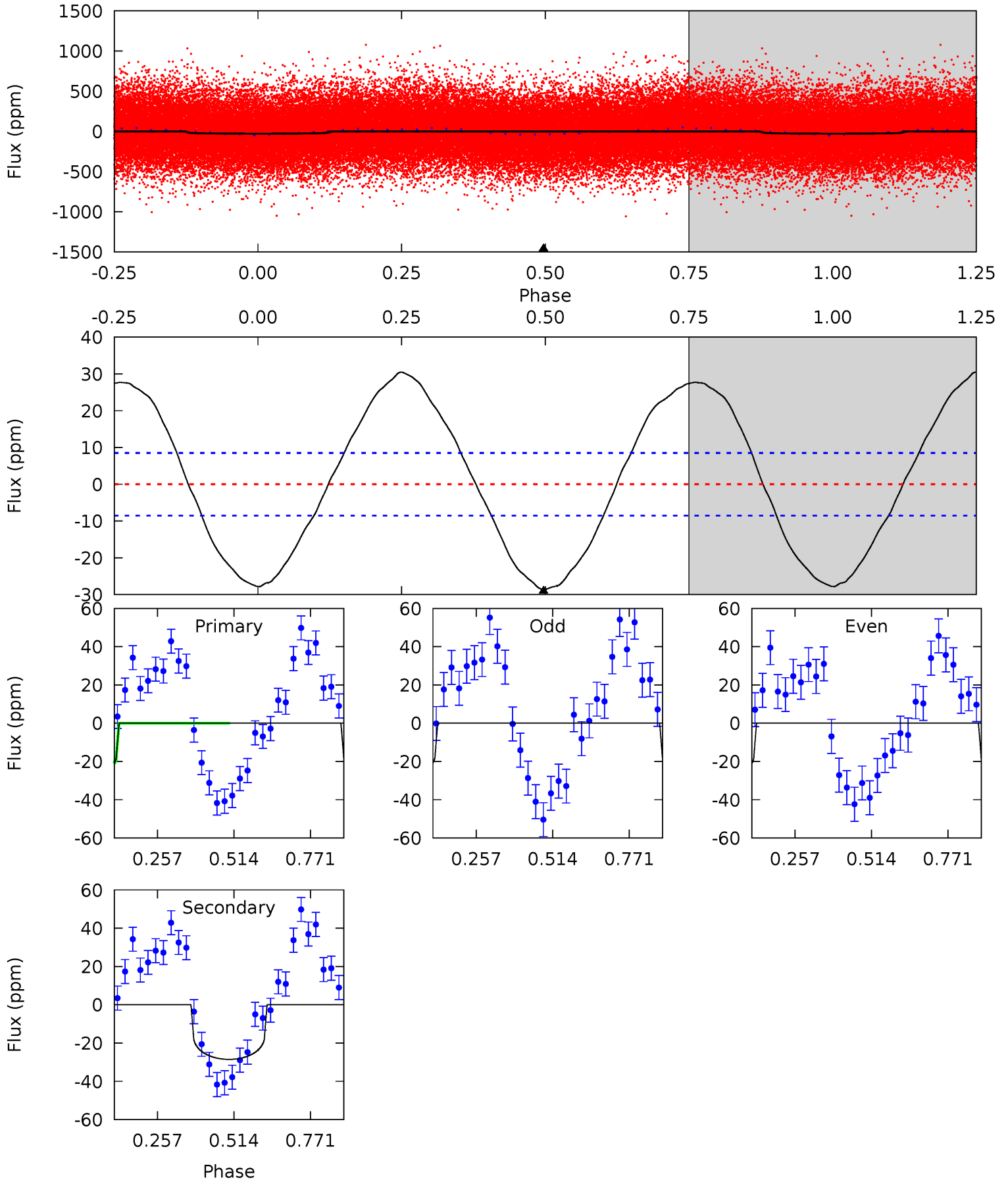
TCE 005297343-01 P= 2.122641 Days $T_0=132.929172$ (BKJD)



DV Model-Shift Uniqueness Test

005297343-01, P = 2.122565 Days, E = 130.833766 Days

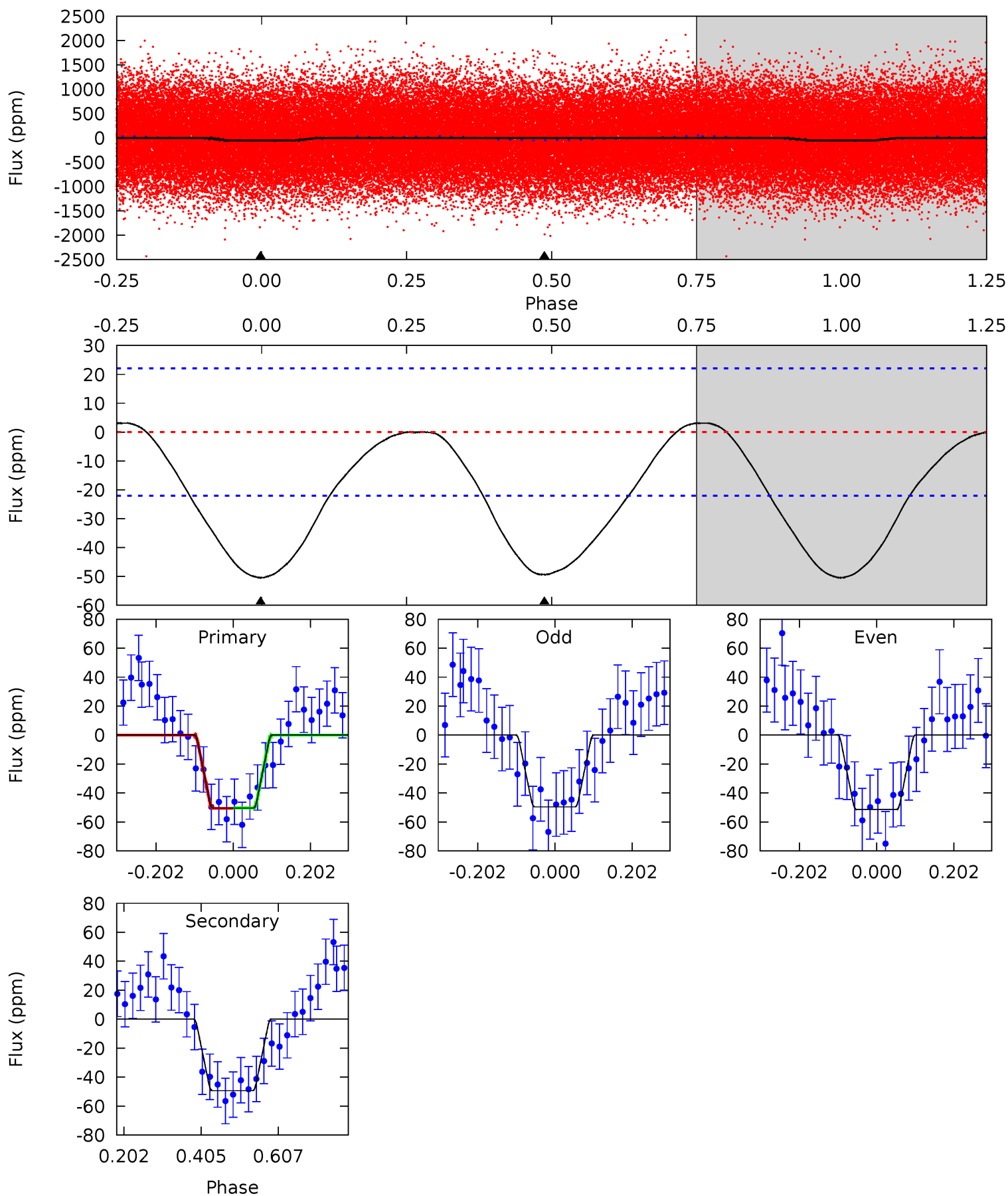
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	14.6	0	0	4.36	1.13	10.1	14.6	14.6	14.6	14.6	0.16	1.11	0.52	0.01



Alt Model-Shift Uniqueness Test

005297343-01, P = 2.122641 Days, E = 130.806531 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	9.88	0	0	4.41	1.27	0.45	10.1	10.1	9.88	9.88	0.18	1.07	0.06	0.02



Stellar Parameters For KIC 005297343

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8317^{+229}_{-373}	$4.091^{+0.130}_{-0.145}$	$0.070^{+0.250}_{-0.500}$	$2.074^{+0.476}_{-0.476}$	$1.935^{+0.315}_{-0.386}$	$0.306^{+0.230}_{-0.132}$
	+3%/-4%	+3%/-4%	+357%/-714%	+23%/-23%	+16%/-20%	+75%/-43%
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 005297343-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29 ± 2	$1.46^{+1.38}_{-0.96}$	3683^{+231}_{-231}	7215^{+9508}_{-2076}	12^{+93}_{-8}
Alt.	-49 ± 5	$1.96^{+1.46}_{-1.20}$	3676^{+237}_{-232}	7240^{+7027}_{-1864}	11^{+62}_{-8}

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

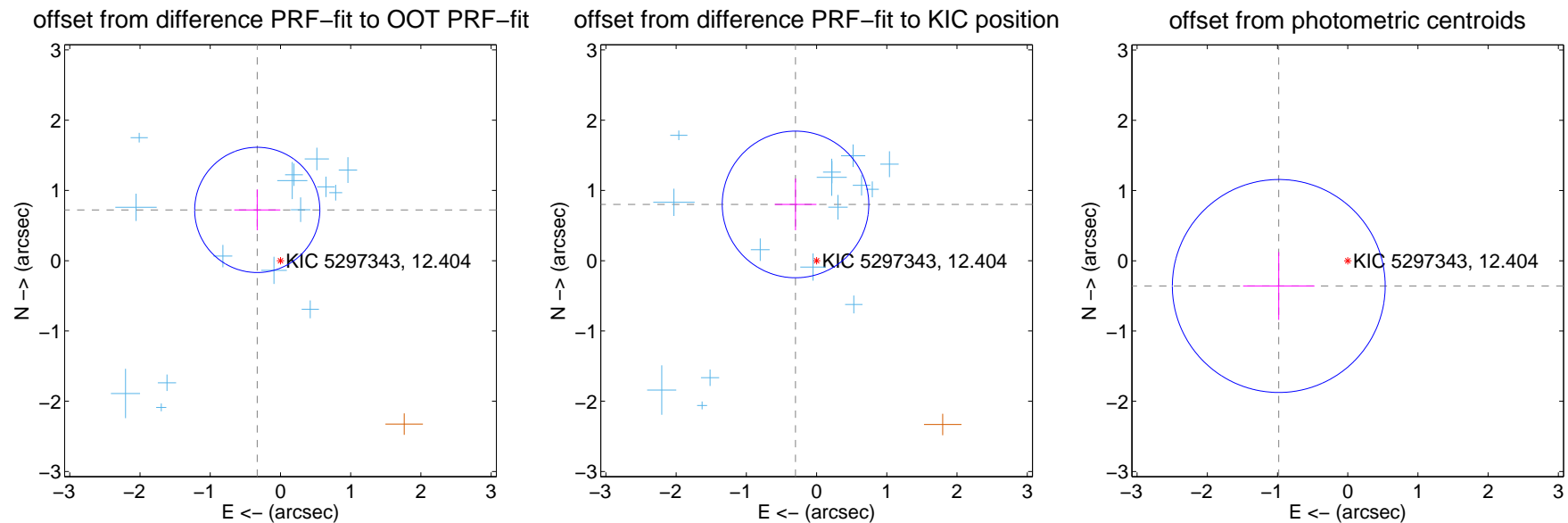
DV Centroid Data

Supplemental centroid analysis for 005297343-01. Kepler magnitude: 12.40. Transit SNR 11.02

There are 15 quarters with good PRF difference image offsets

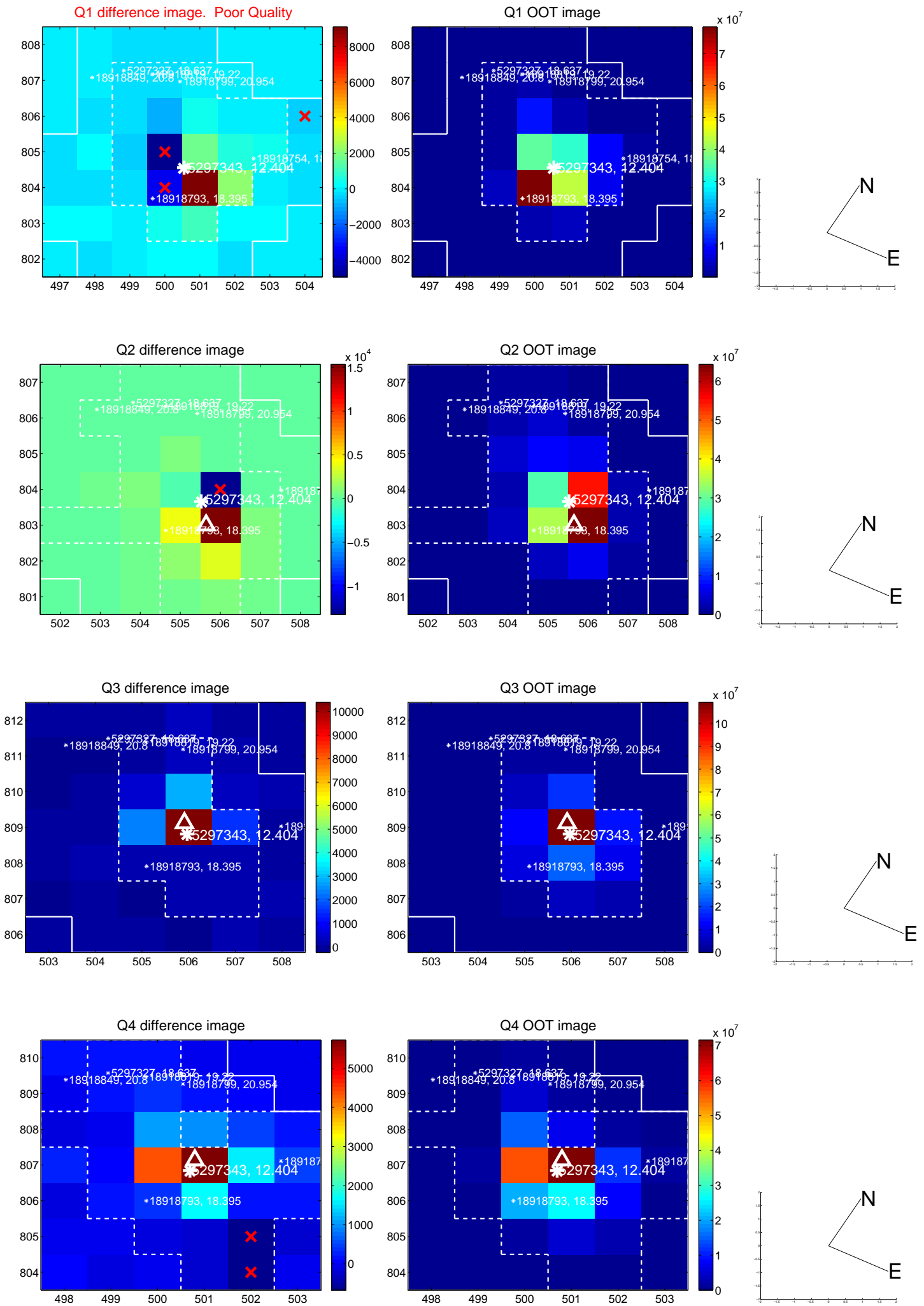
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.795 ± 0.297	2.68	0.330 ± 0.328	0.723 ± 0.290
PRF-fit source offset from KIC position	0.855 ± 0.348	2.46	0.300 ± 0.297	0.801 ± 0.368
photometric centroid source offset	1.05 ± 0.51	2.07	0.98 ± 0.51	-0.36 ± 0.48

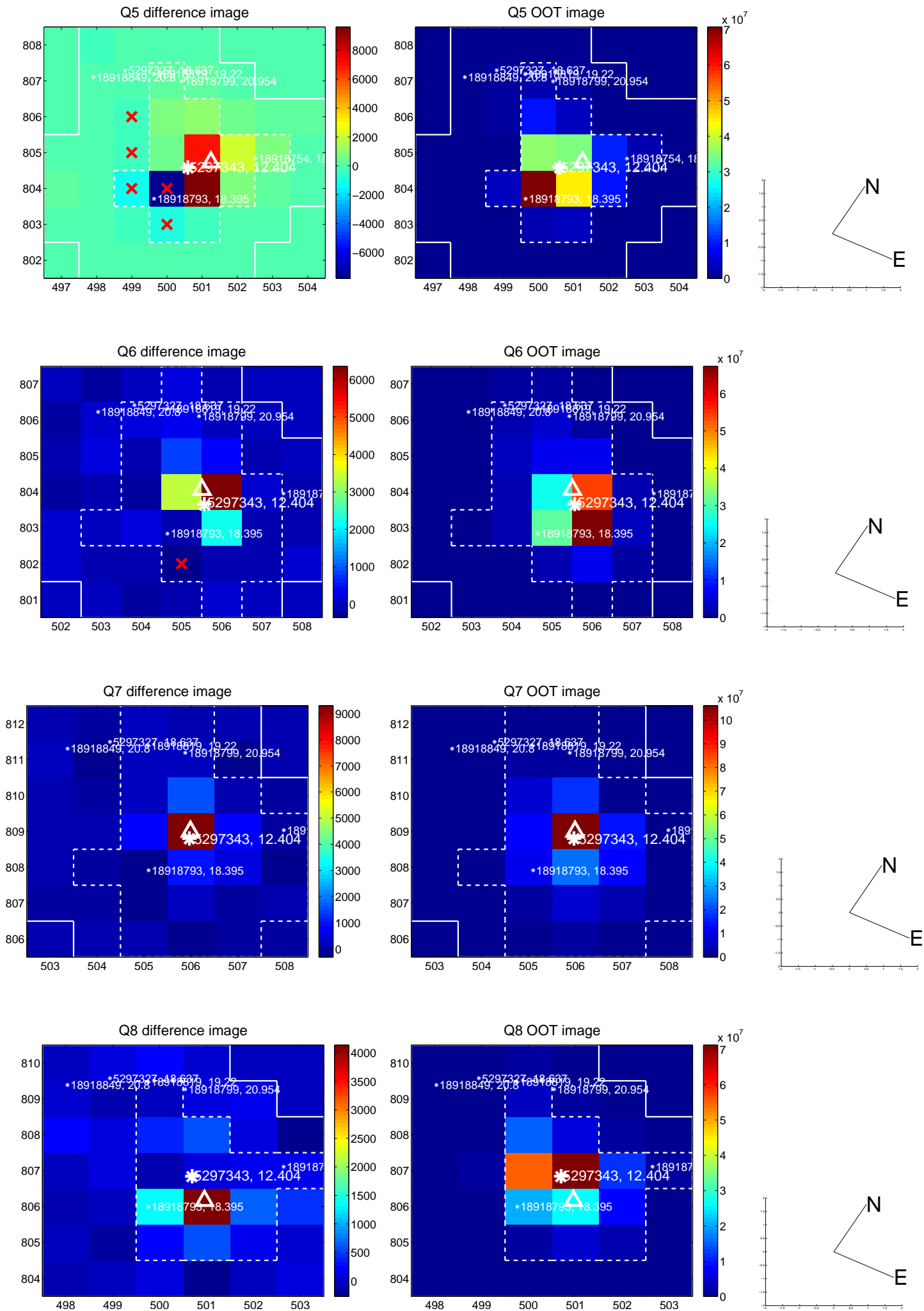


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

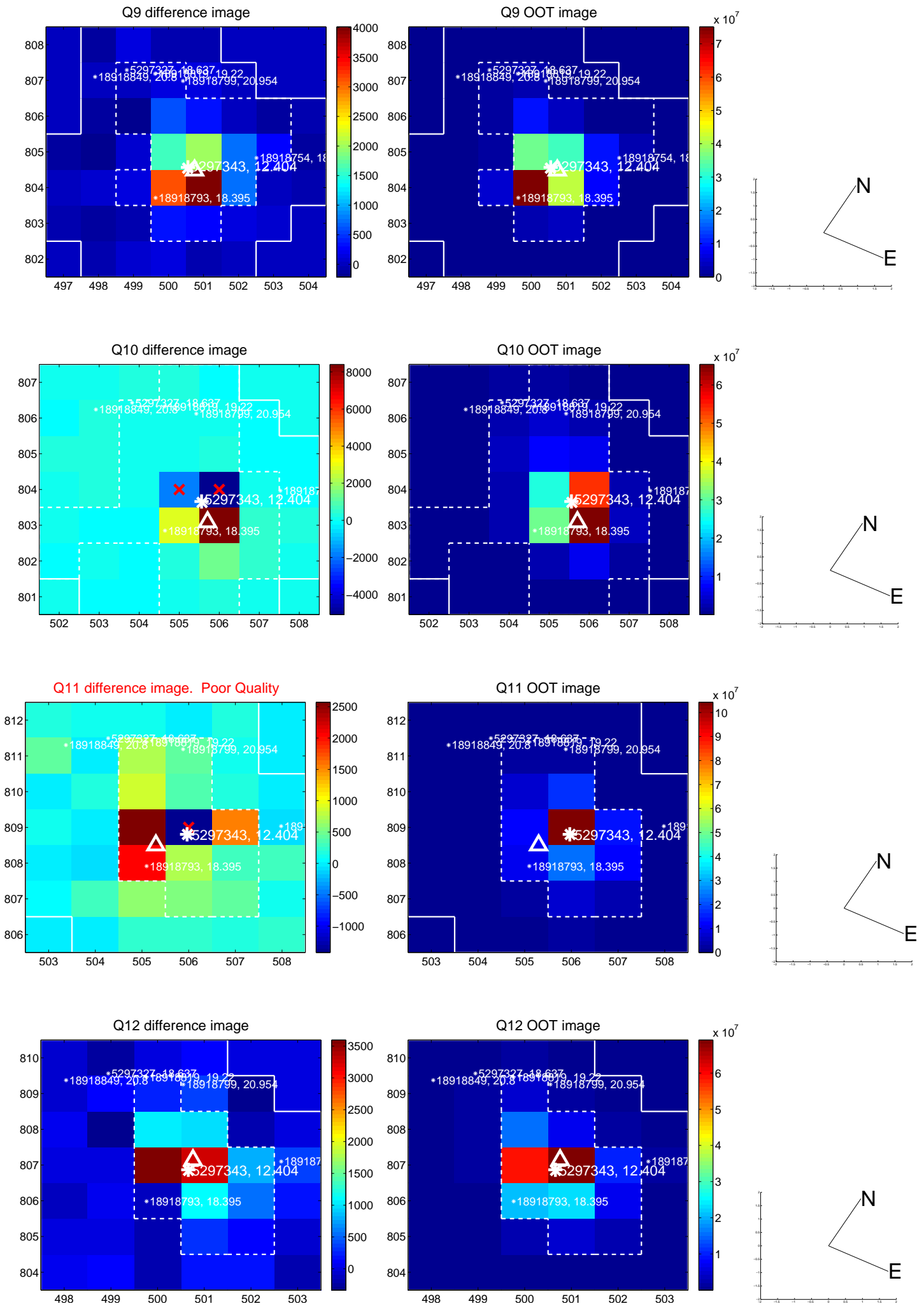
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



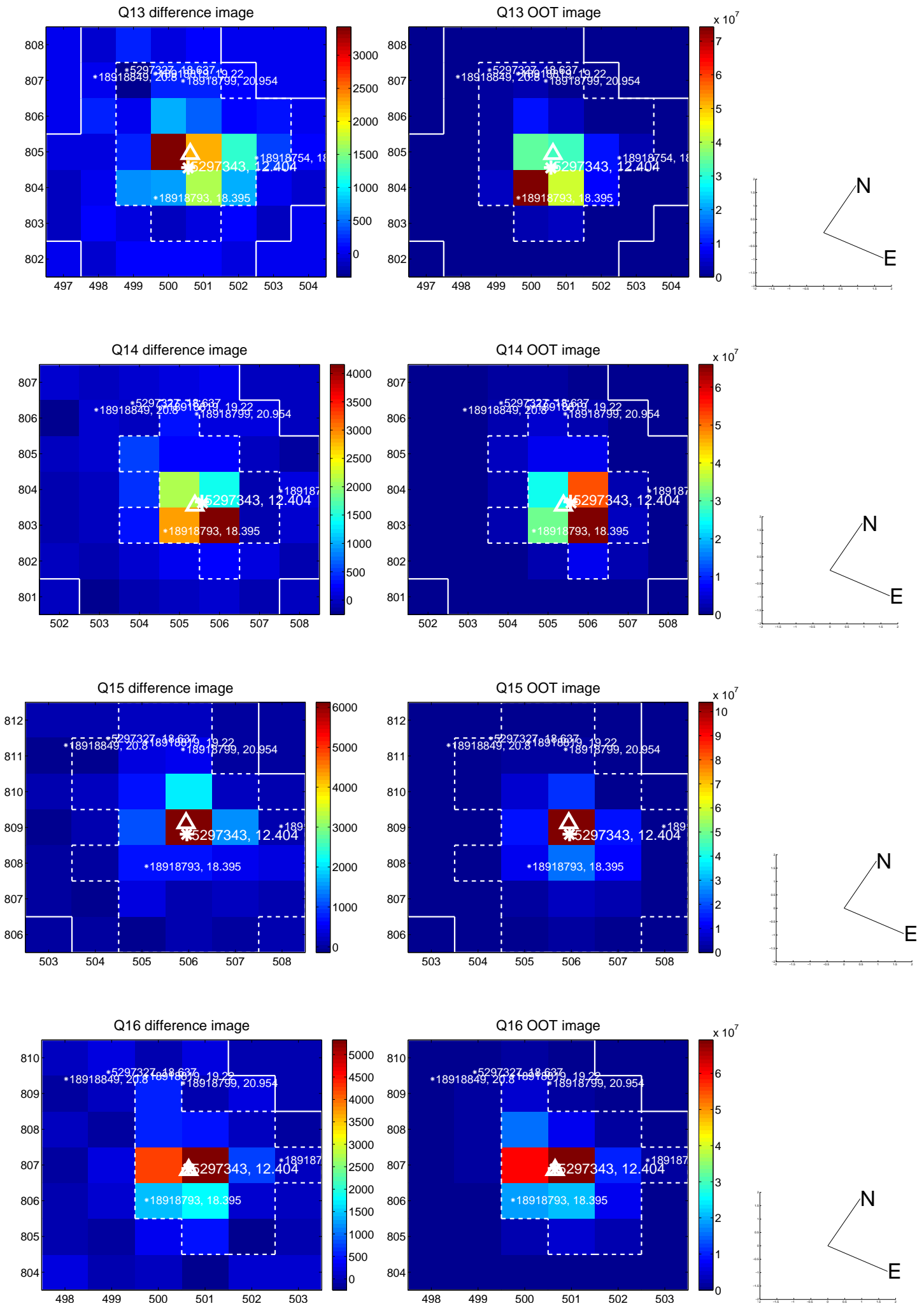
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



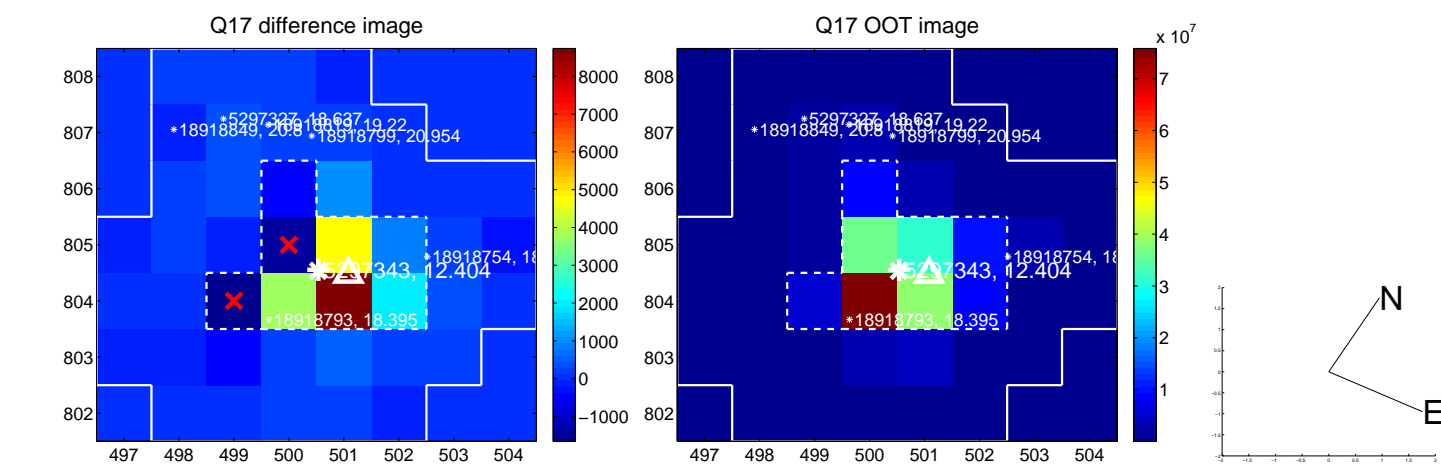
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



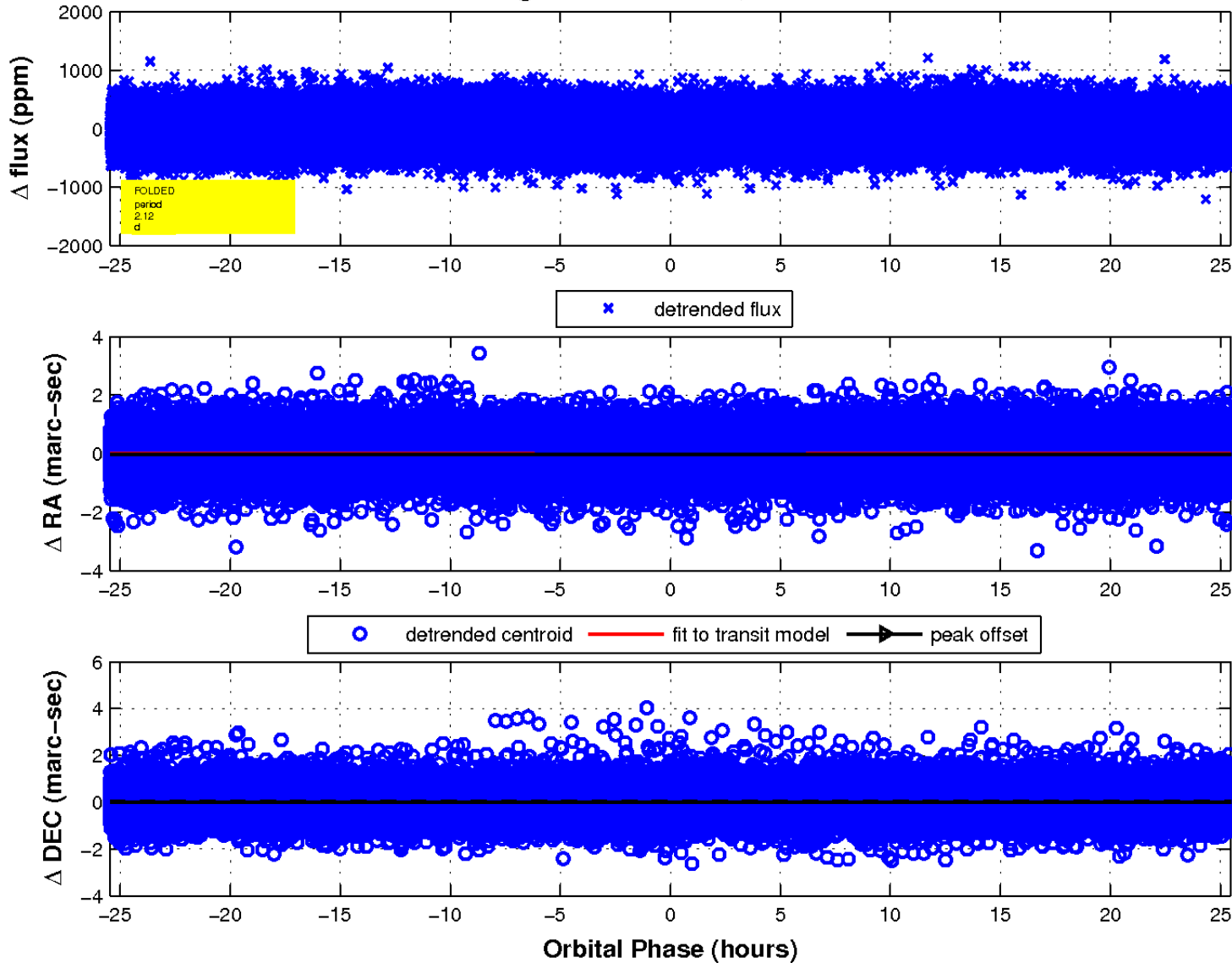
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

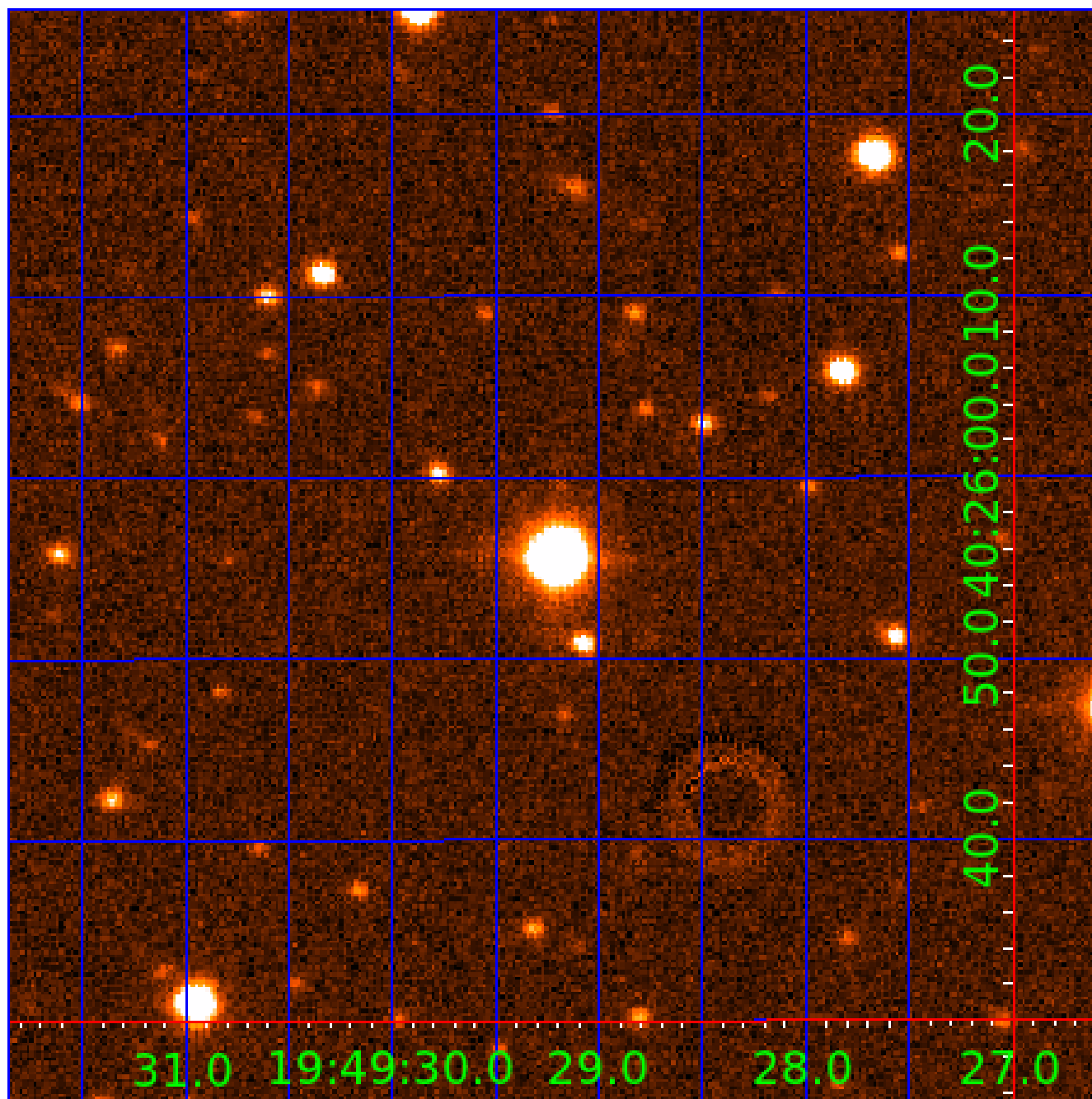


fluxWeightedCentroids, Planet 1 of 6



UKIRT Image

Declination



KIC 005297343

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})
005297343-01	OBS	No	2.122565	132.956331	29.6	12.637	10.7	11.0	2.07	8317	1.14	11362.81
005297343-02	OBS	No	197.518793	237.427762	499.1	2.061	9.1	9.4	2.07	8317	5.26	26.95
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005297343-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
005297343-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

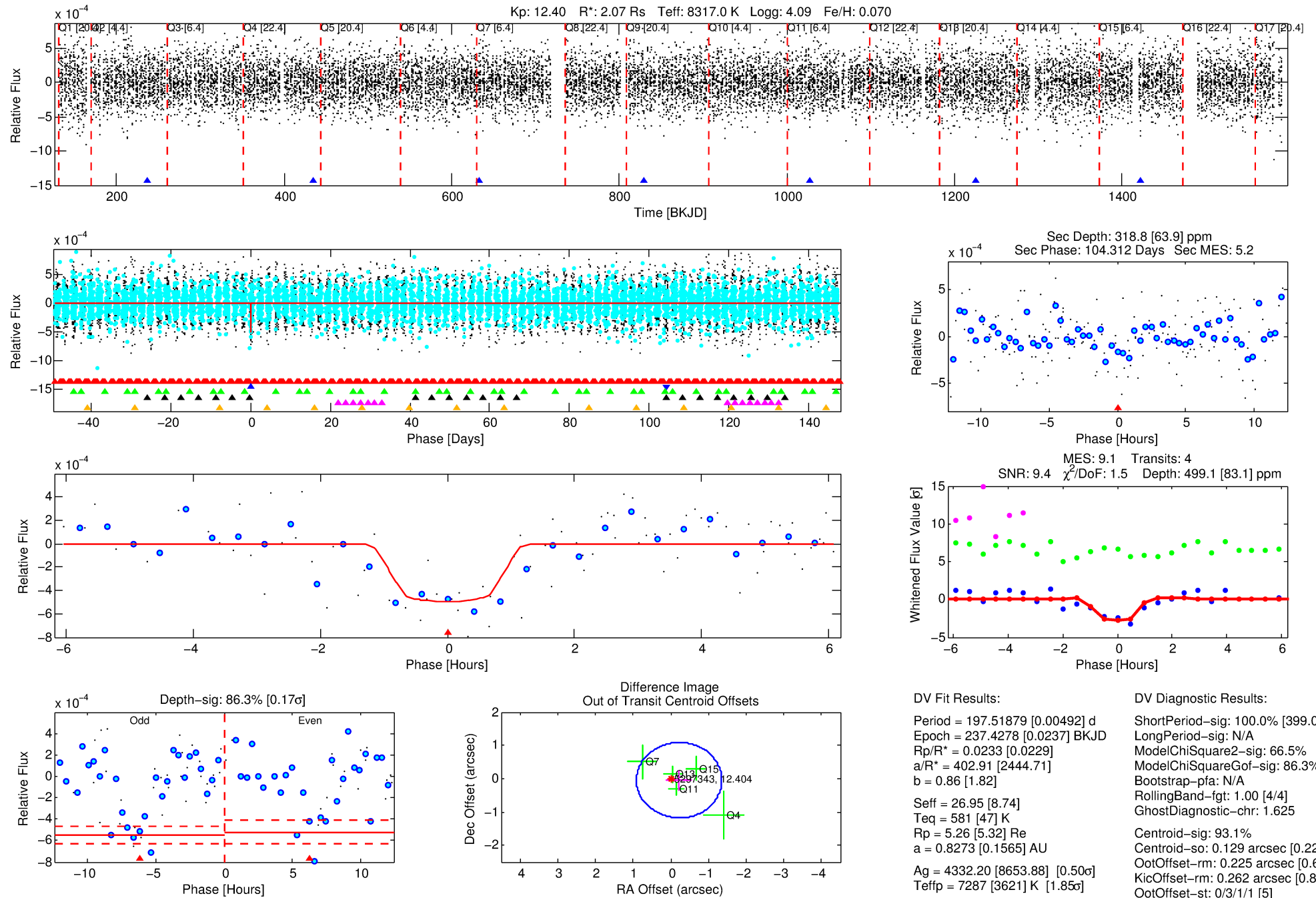
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005297343-02

No Significant Match Found

DV One-Page Summary

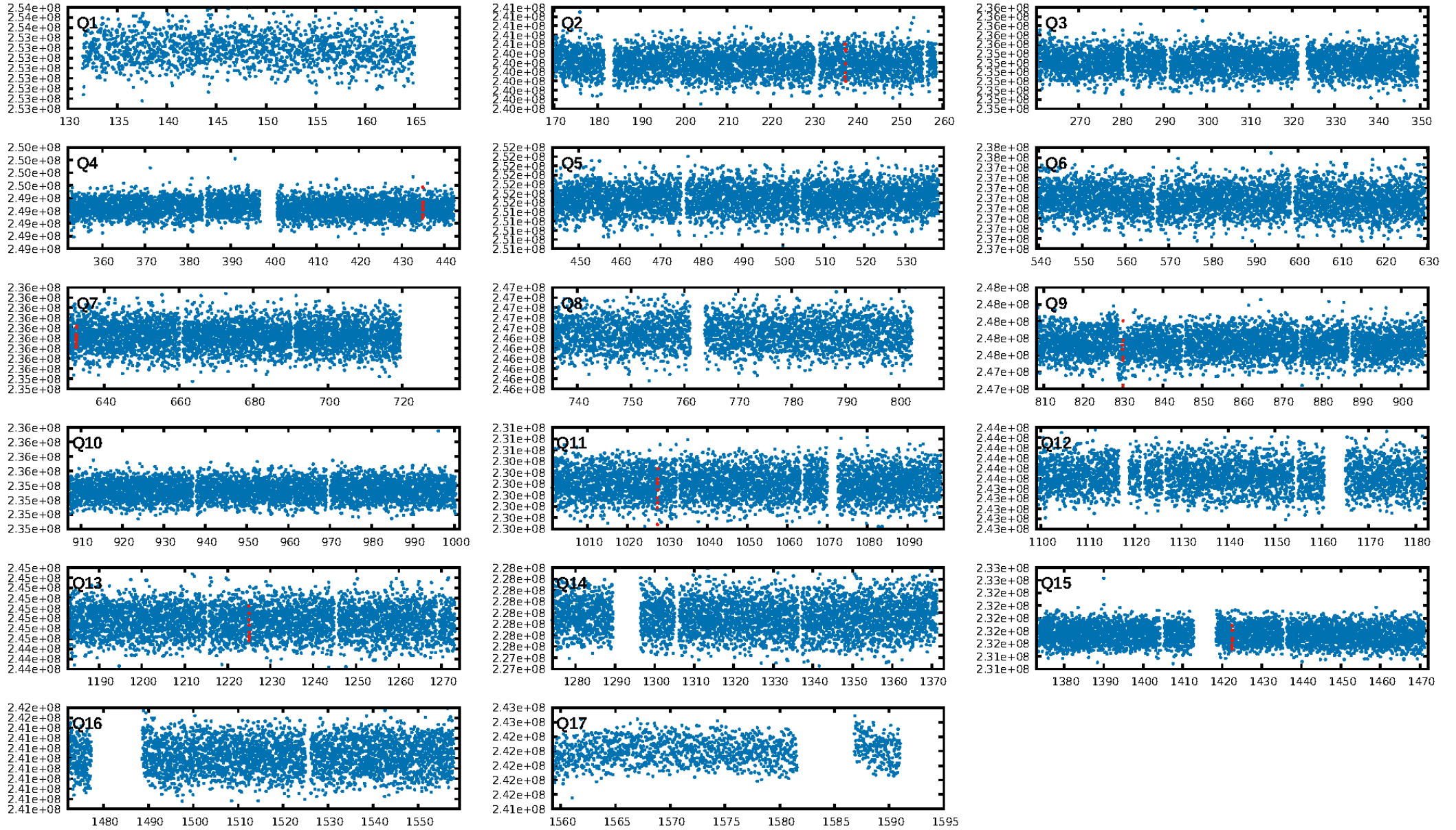
KIC: 5297343 Candidate: 2 of 6 Period: 197.519 d



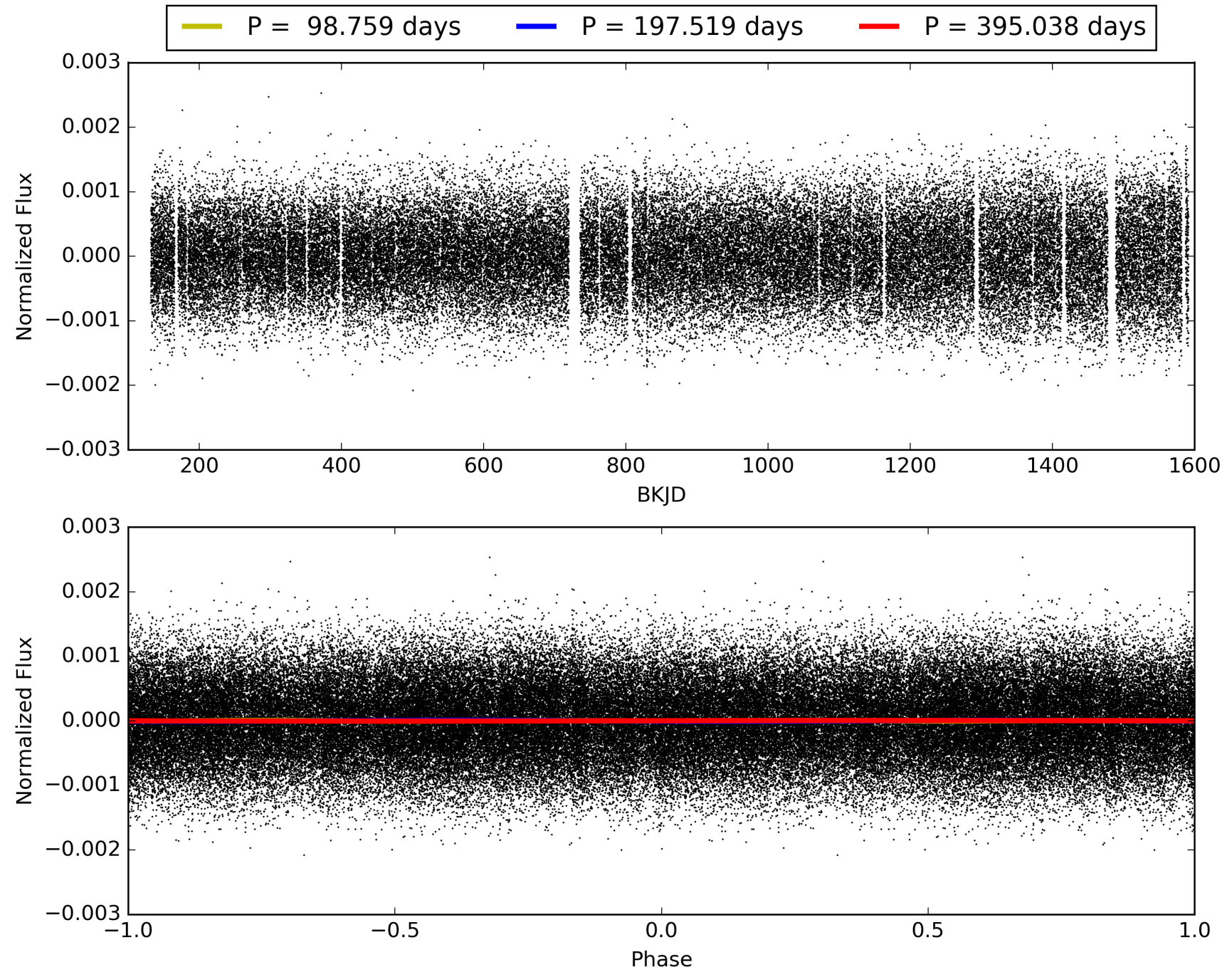
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:23:40 Z

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

TCE 005297343-02, PDC Light Curves

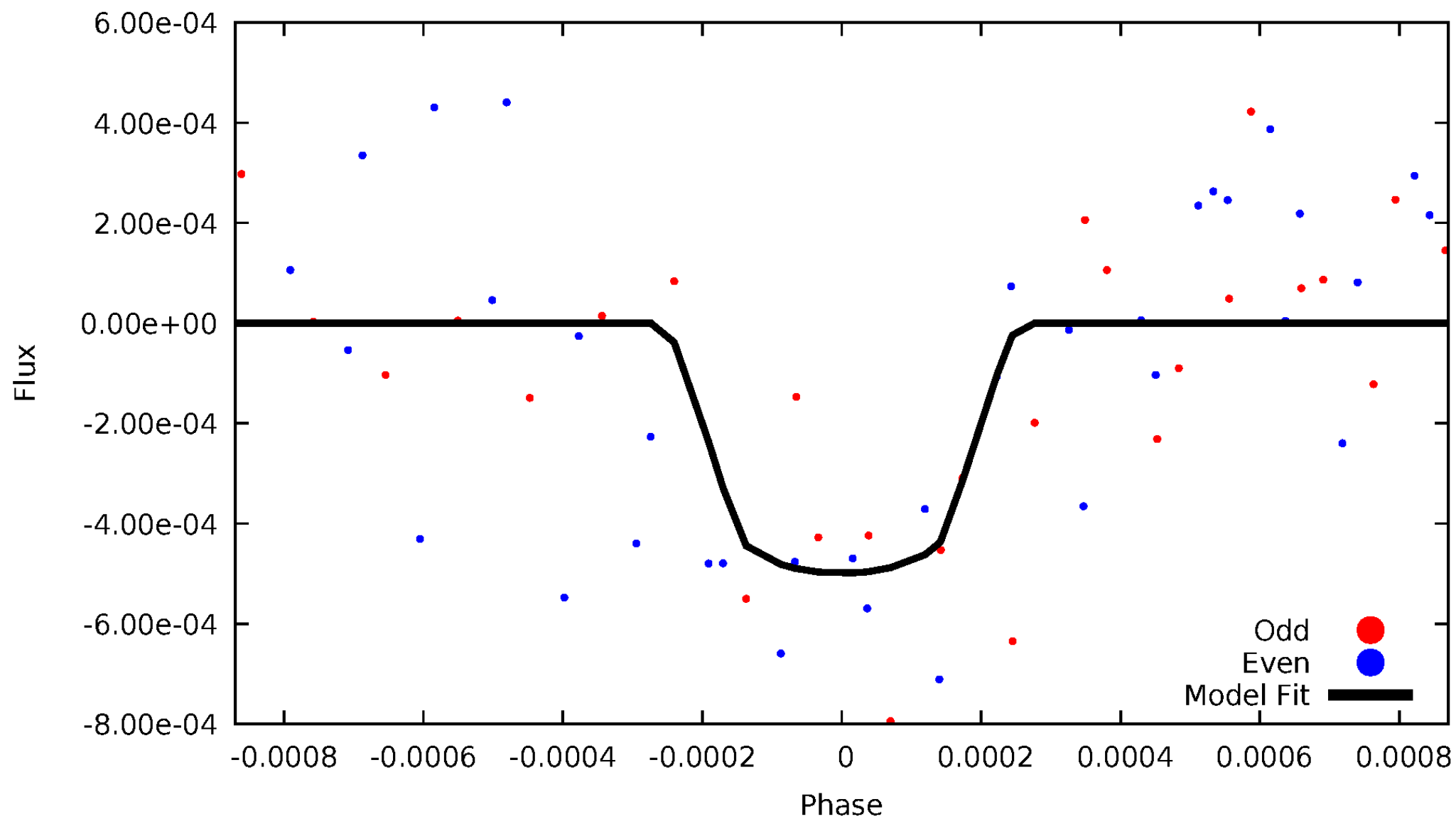


TCE 005297343-02



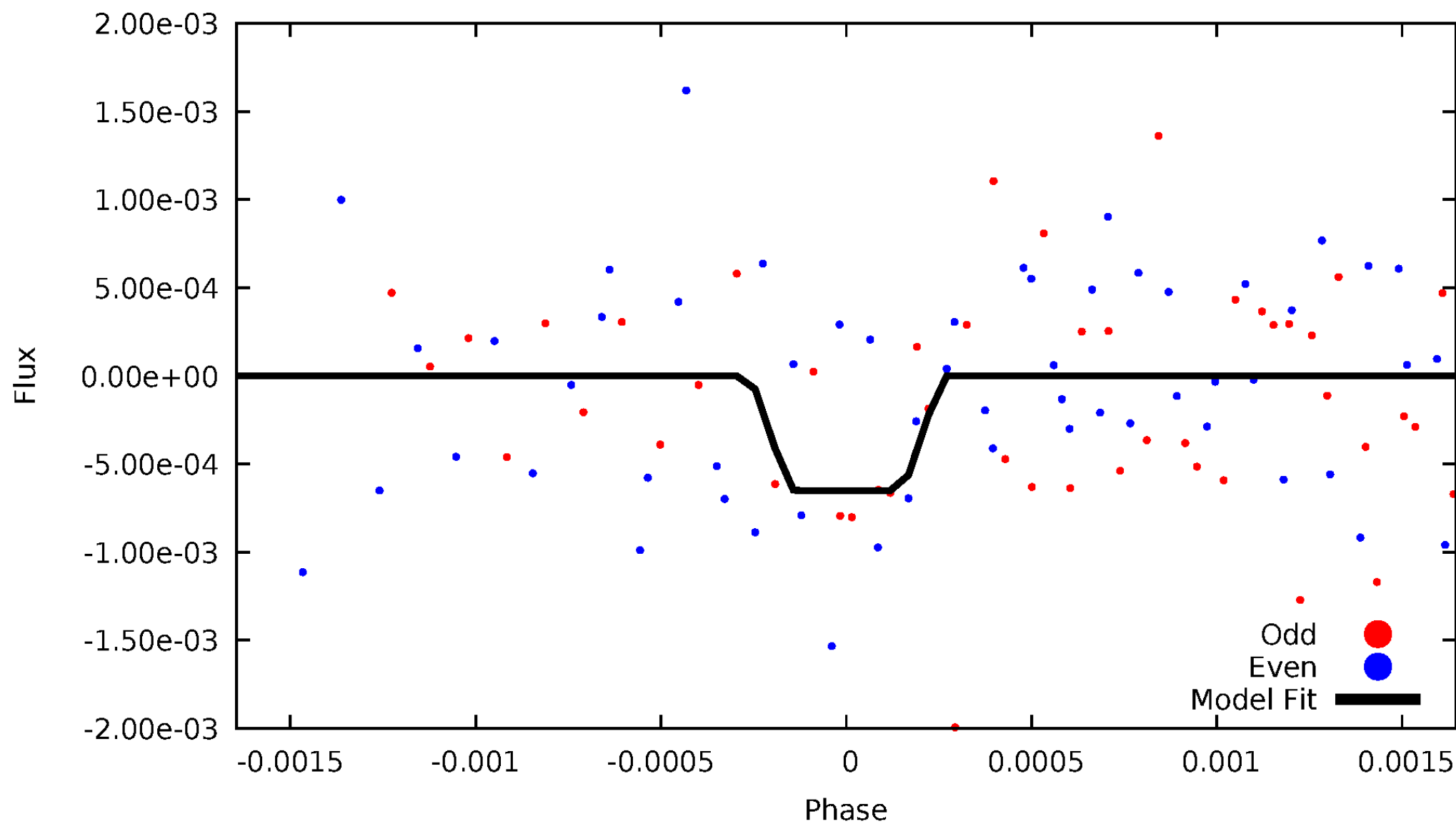
DV Odd/Even

TCE 005297343-02



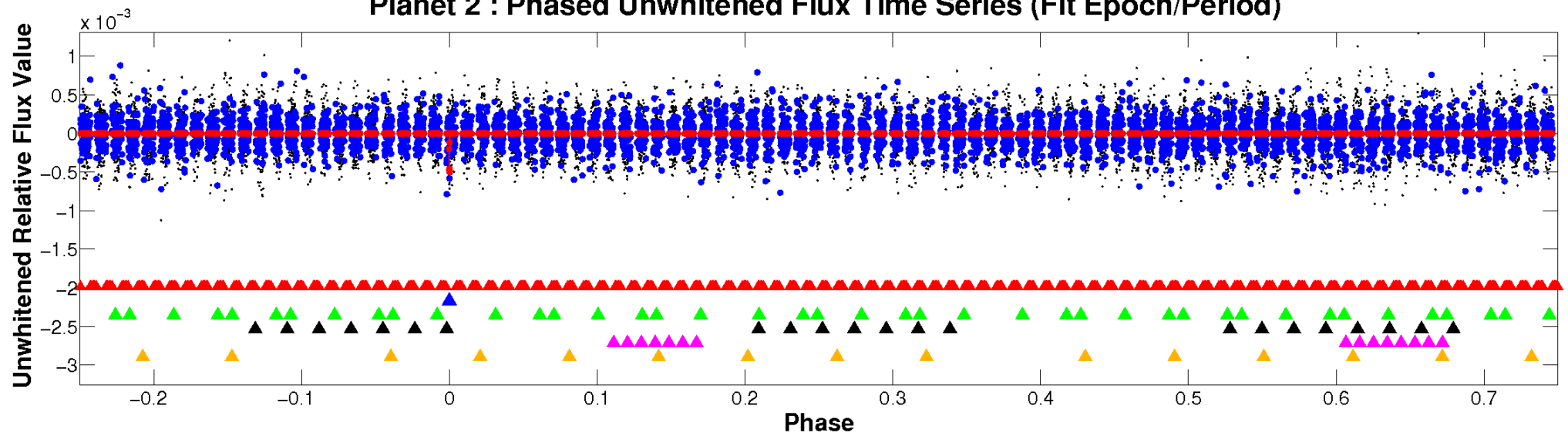
ALT Odd/Even

TCE 005297343-02

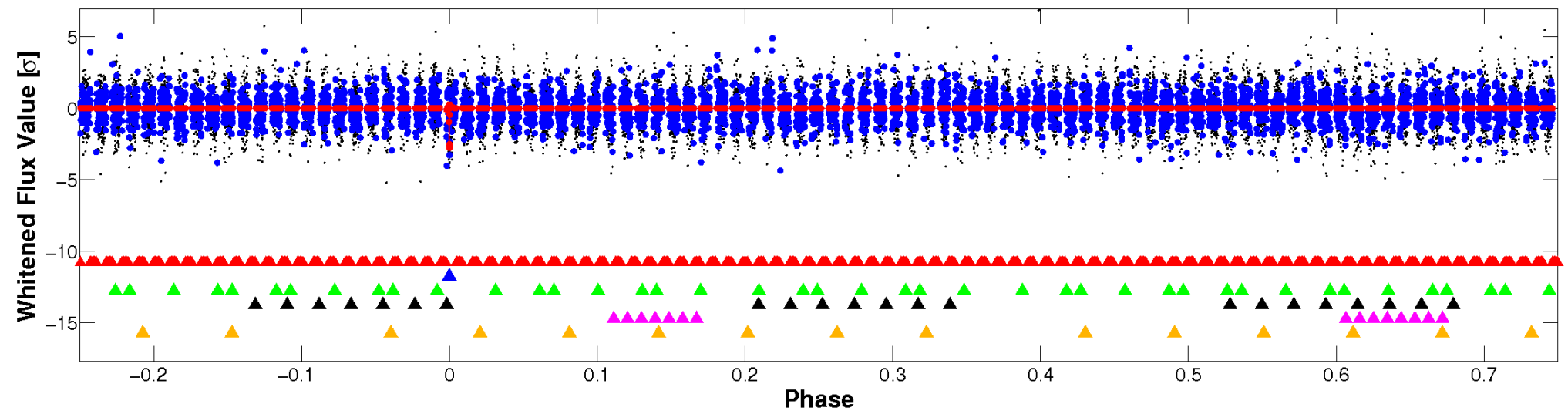


Non-Whitened Vs. Whitened Light Curve

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

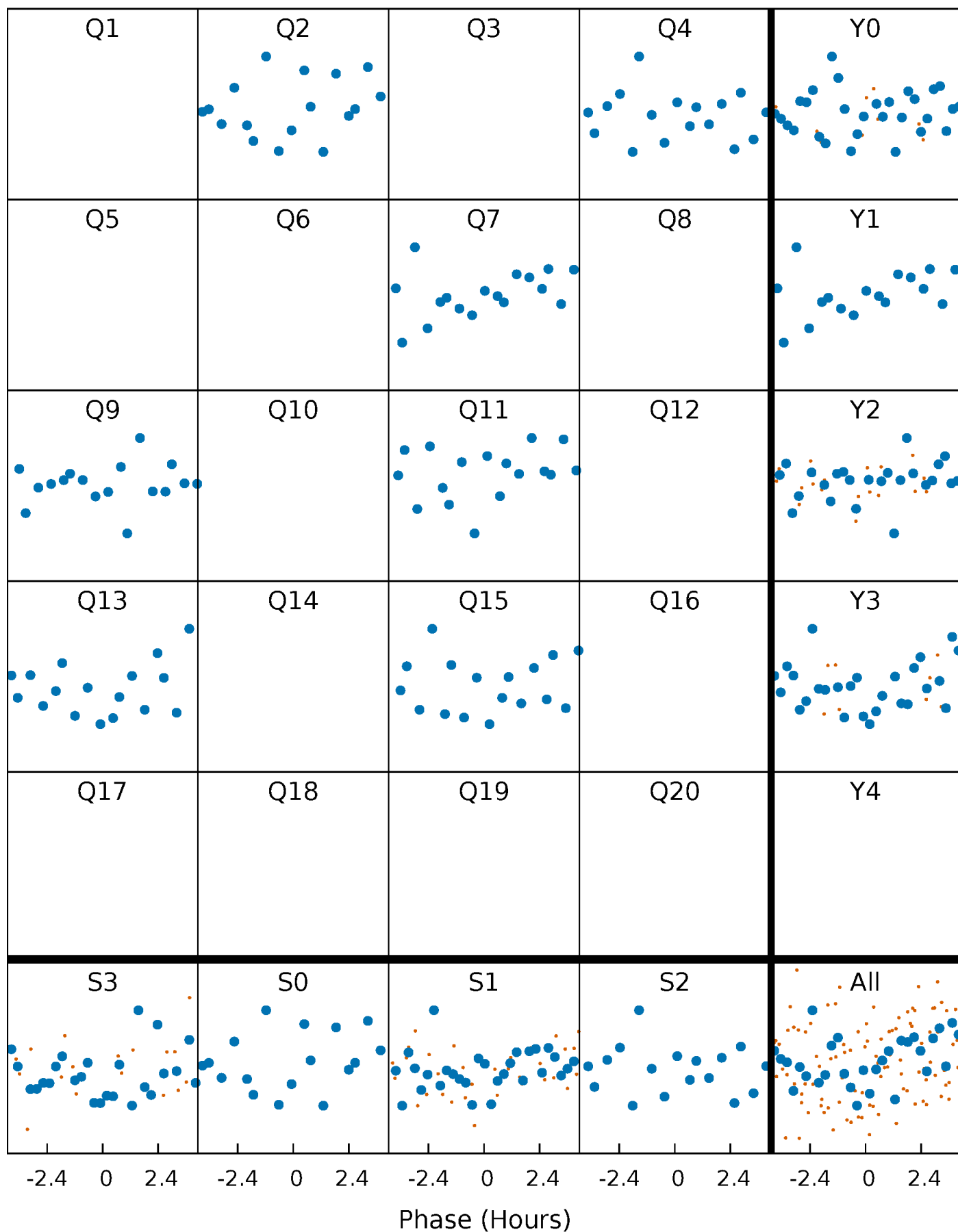


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



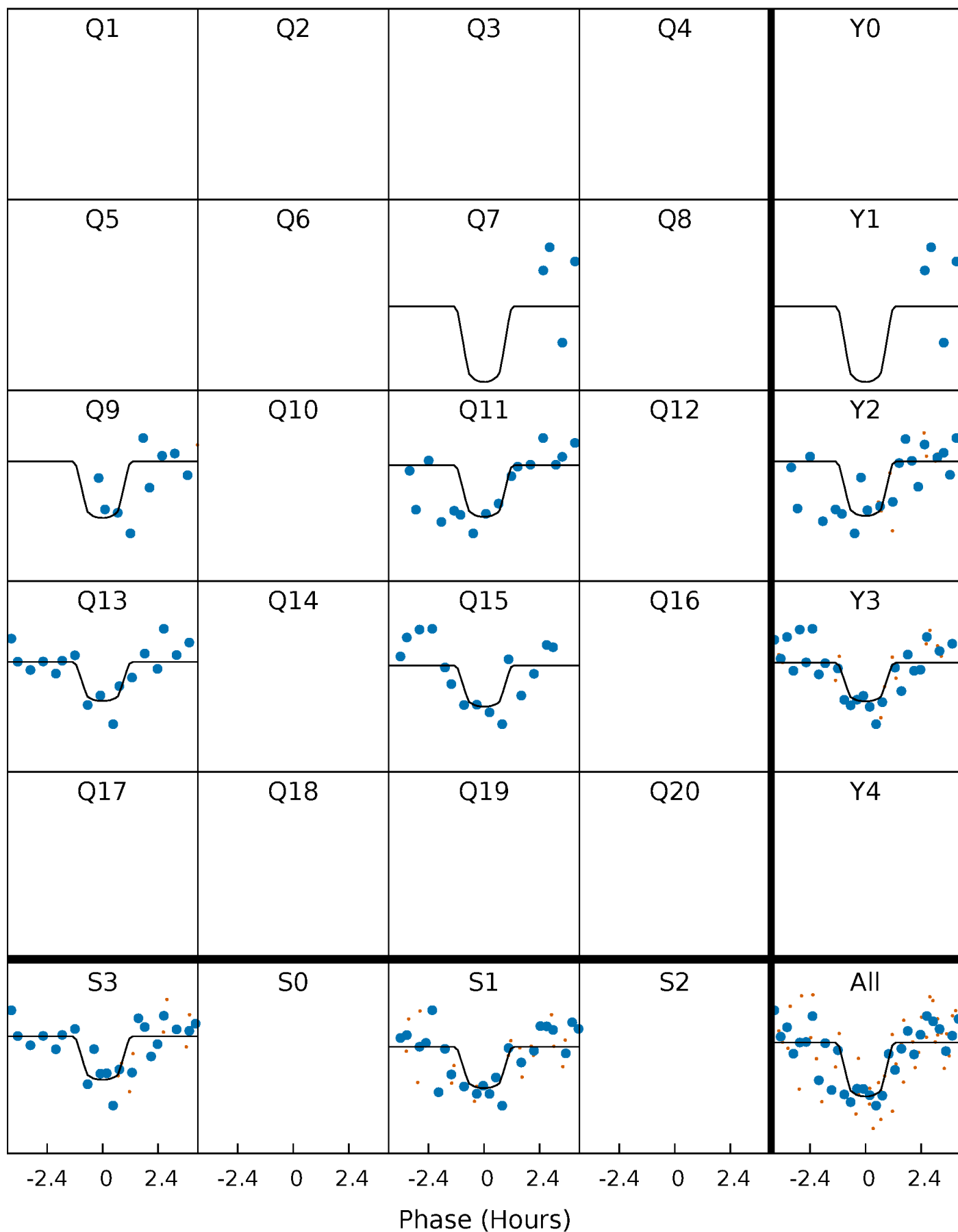
PDC Quarter-Phased Transit Curves

TCE 005297343-02 P=197.518793 Days $T_0=237.427762$ (BKJD)



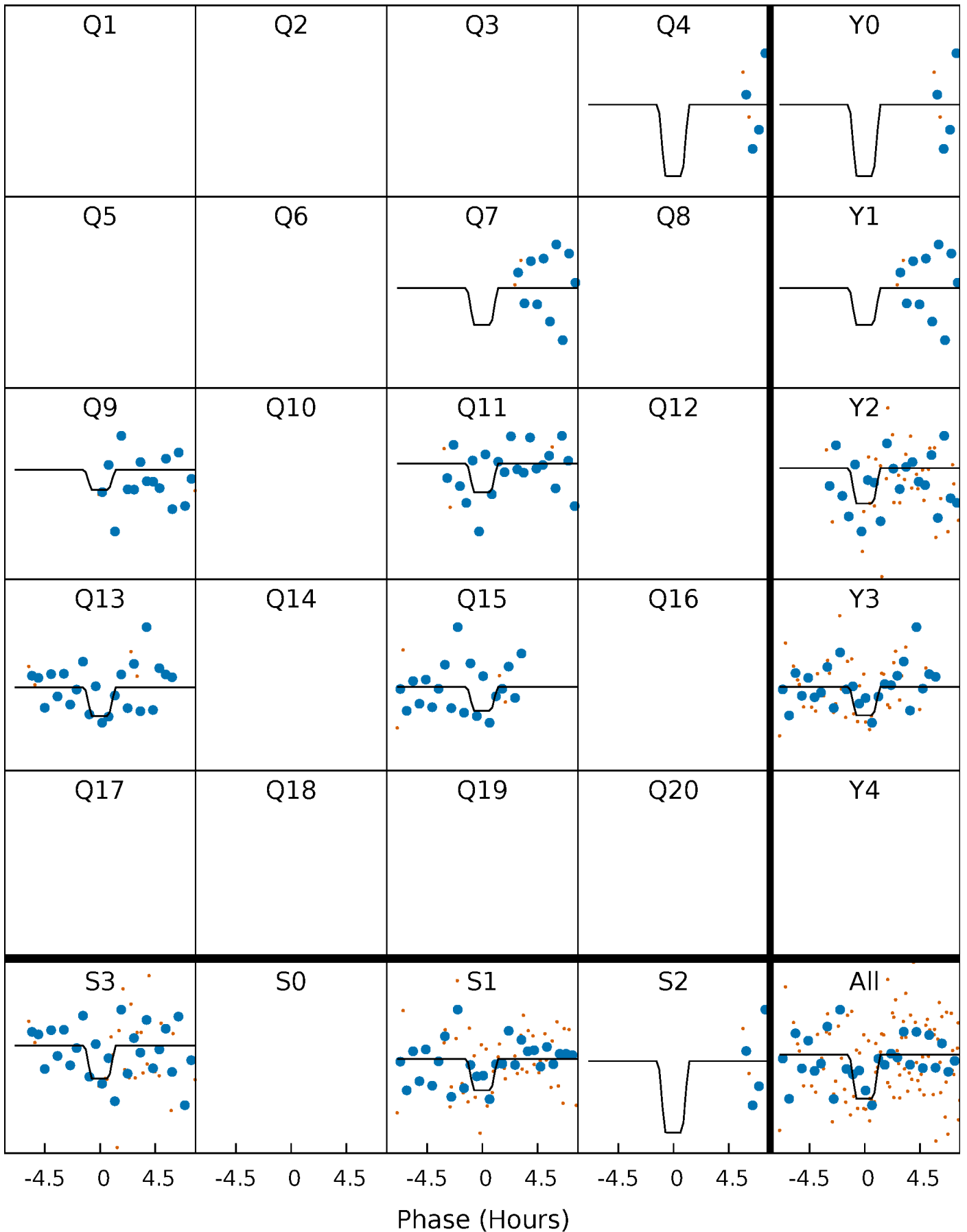
DV Quarter-Phased Transit Curves

TCE 005297343-02 $P=197.518793$ Days $T_0=237.427762$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

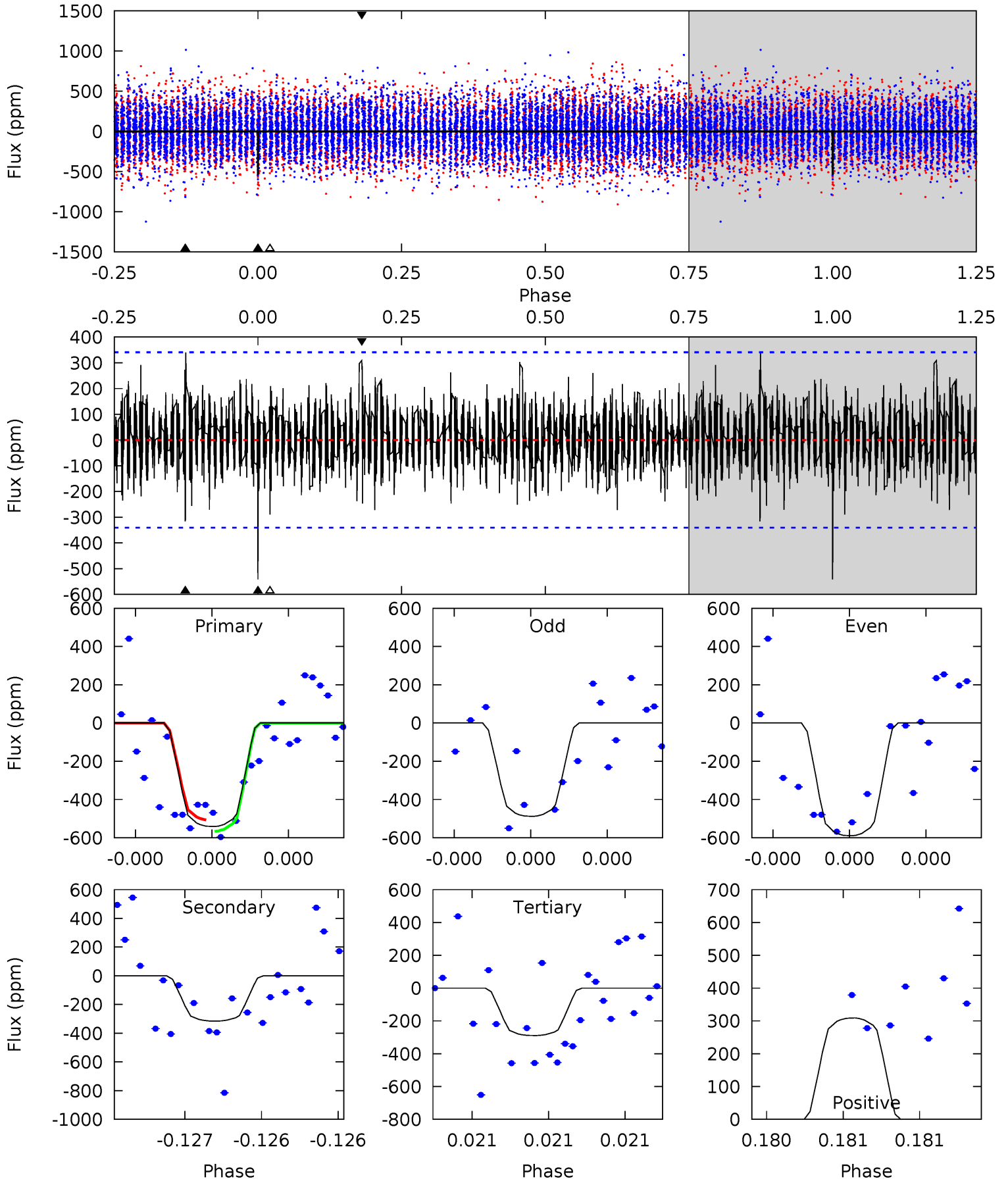
TCE 005297343-02 P=197.518772 Days $T_0=237.418252$ (BKJD)



DV Model-Shift Uniqueness Test

005297343-02, P = 197.518793 Days, E = 39.908969 Days

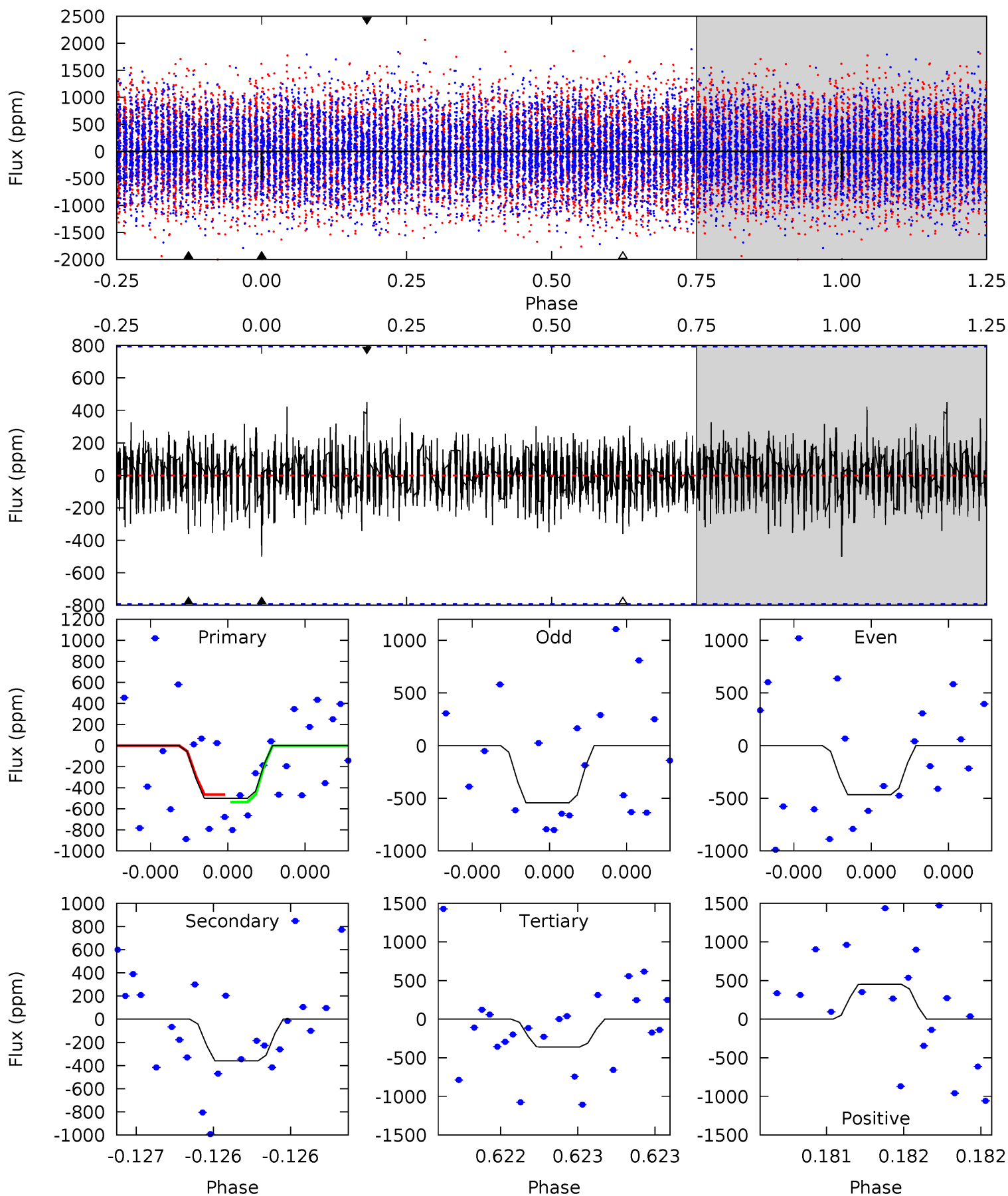
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.90	5.19	4.76	5.08	5.60	3.52	1.38	4.14	3.82	0.43	0.11	0.83	0.93	0.39	0.48



Alt Model-Shift Uniqueness Test

005297343-02, P = 197.518772 Days, E = 39.899480 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.53	2.53	2.53	3.18	5.58	3.50	0.76	1.00	0.35	0.01	-0.65	0.27	0.95	0.47	0.25



Stellar Parameters For KIC 005297343

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8317^{+229}_{-373}	$4.091^{+0.130}_{-0.145}$	$0.070^{+0.250}_{-0.500}$	$2.074^{+0.476}_{-0.476}$	$1.935^{+0.315}_{-0.386}$	$0.306^{+0.230}_{-0.132}$
	+3%/-4%	+3%/-4%	+357%/-714%	+23%/-23%	+16%/-20%	+75%/-43%
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 005297343-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-316 ± 61	$6.30^{+4.68}_{-4.02}$	808^{+55}_{-52}	6407^{+5950}_{-1546}	3017^{+19527}_{-2074}
Alt.	-360 ± 142	$6.57^{+5.53}_{-3.88}$	811^{+51}_{-51}	6360^{+5106}_{-1580}	2866^{+14455}_{-2071}

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

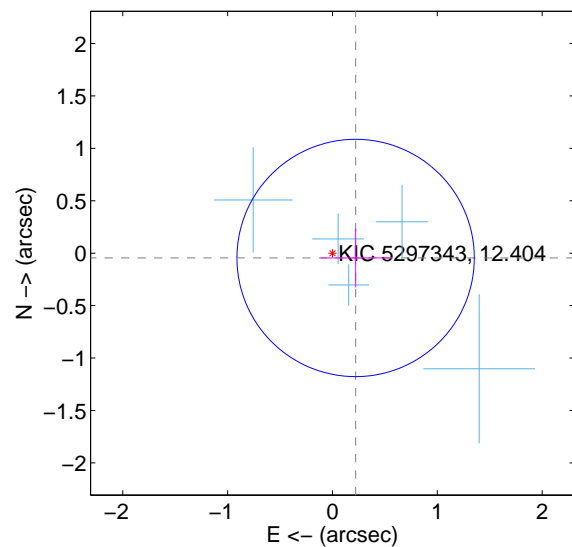
Supplemental centroid analysis for 005297343-02. Kepler magnitude: 12.40. Transit SNR 9.36

There are 5 quarters with good PRF difference image offsets

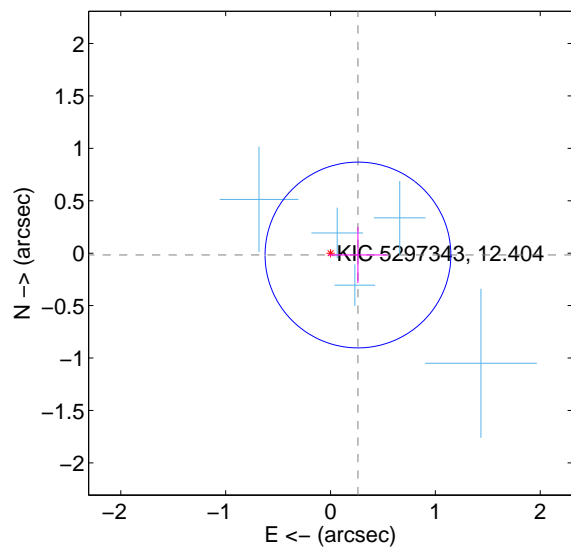
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.225 ± 0.377	0.60	-0.221 ± 0.335	-0.046 ± 0.280
PRF-fit source offset from KIC position	0.262 ± 0.295	0.89	-0.262 ± 0.282	-0.017 ± 0.267
photometric centroid source offset	0.13 ± 0.60	0.22	0.06 ± 0.65	0.12 ± 0.58

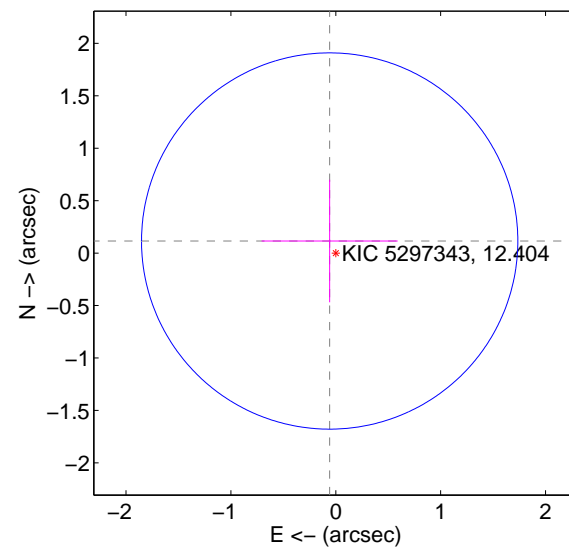
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

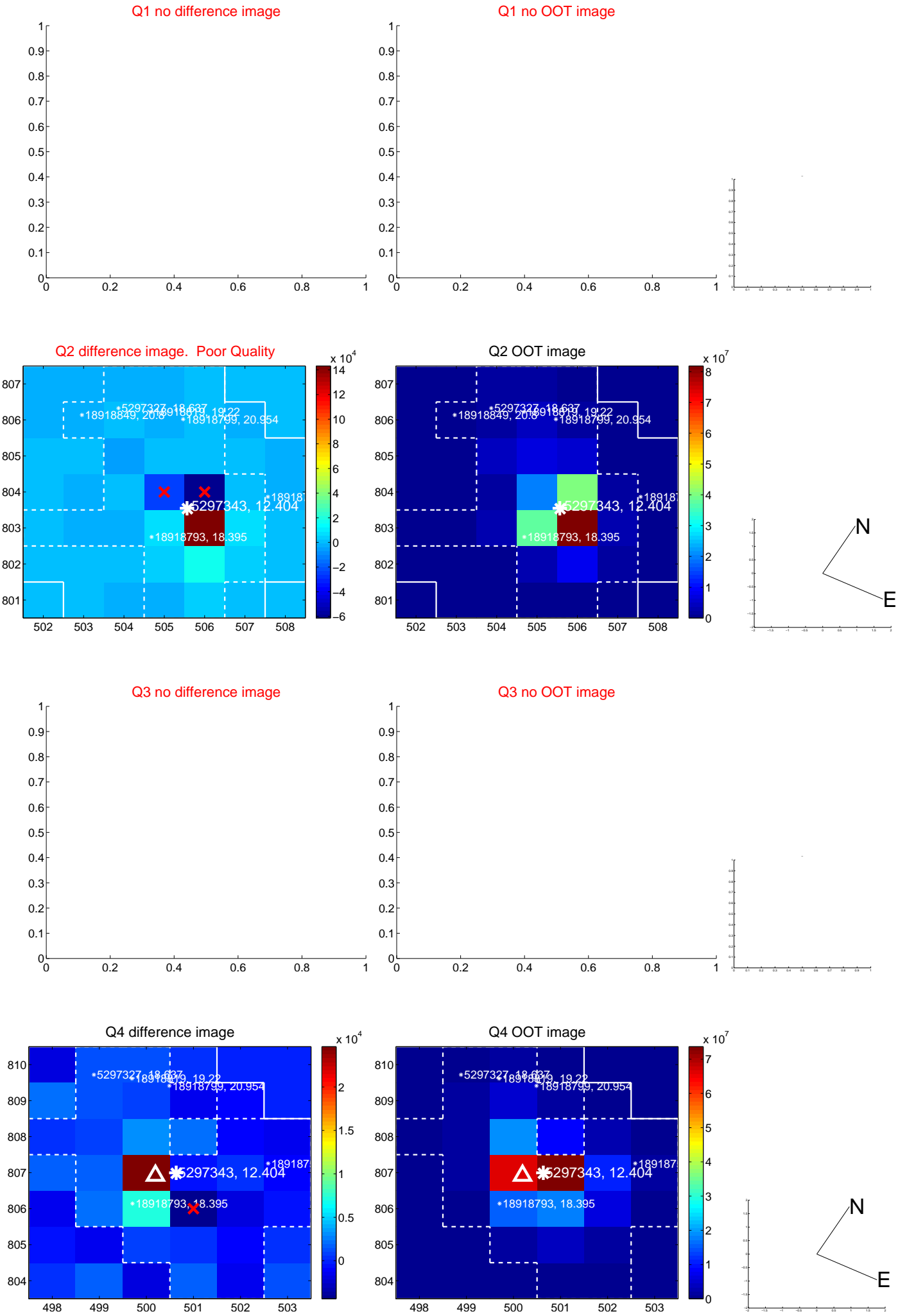


offset from photometric centroids



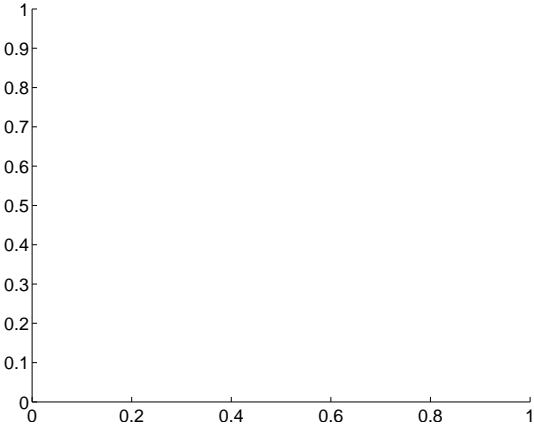
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

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

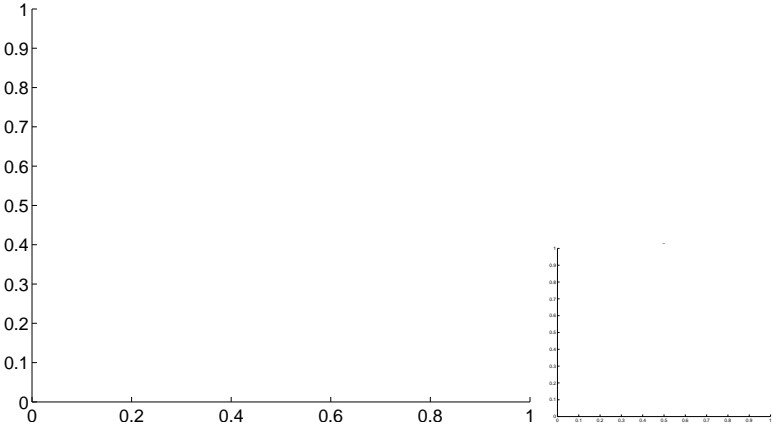


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

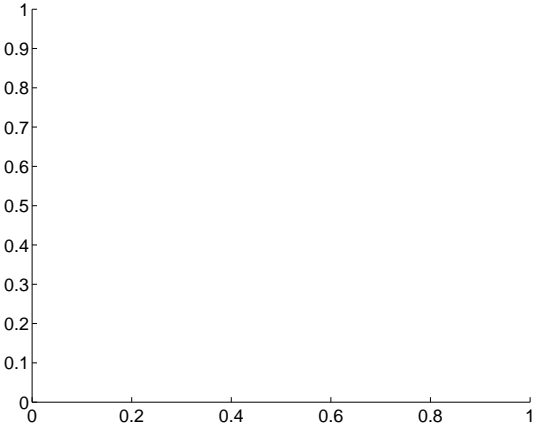
Q5 no difference image



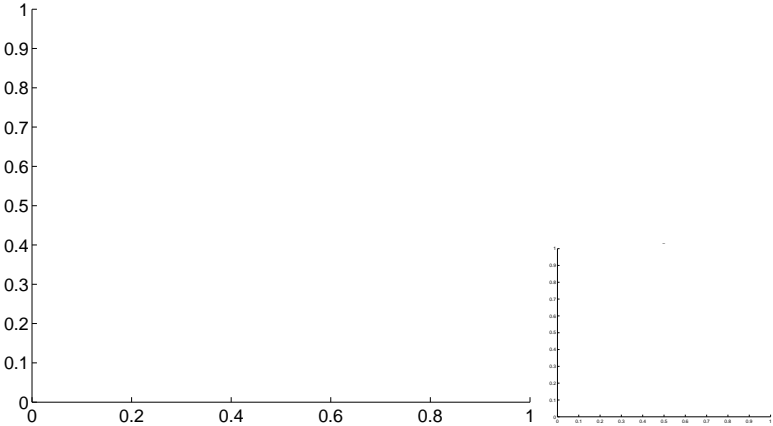
Q5 no OOT image



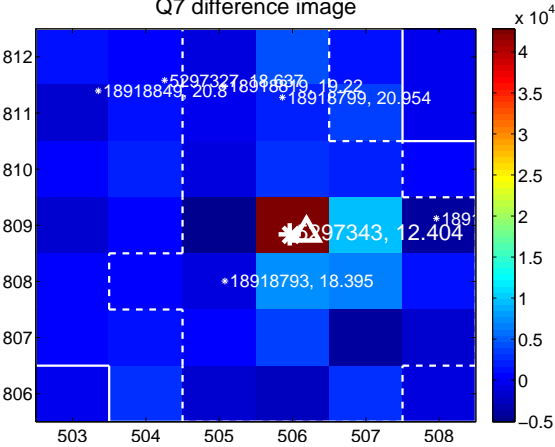
Q6 no difference image



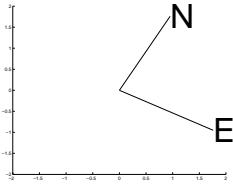
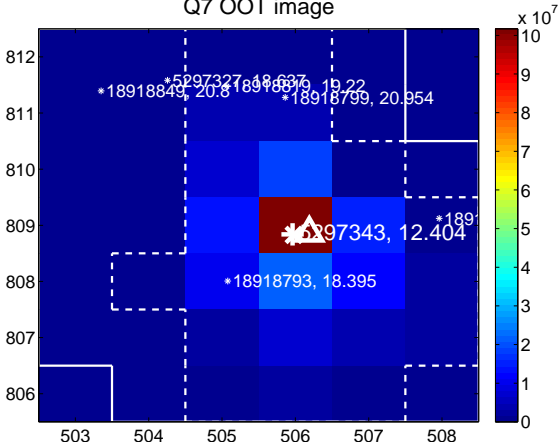
Q6 no OOT image



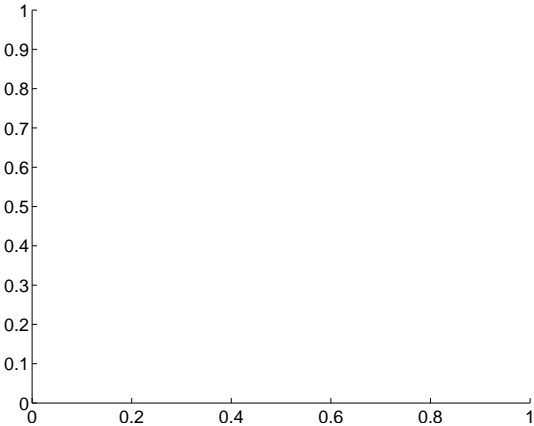
Q7 difference image



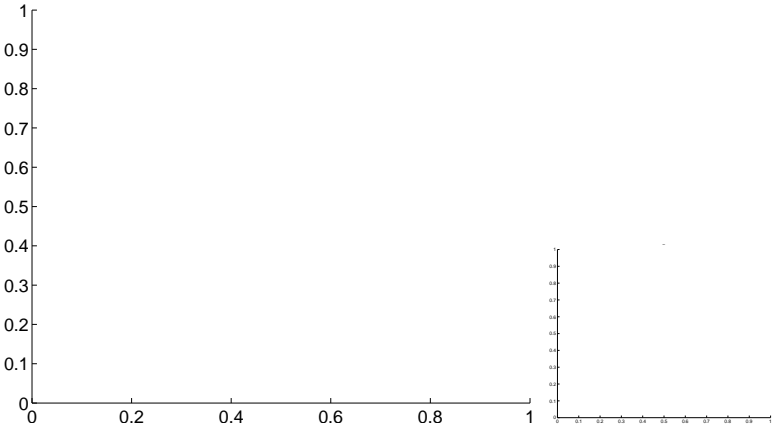
Q7 OOT image



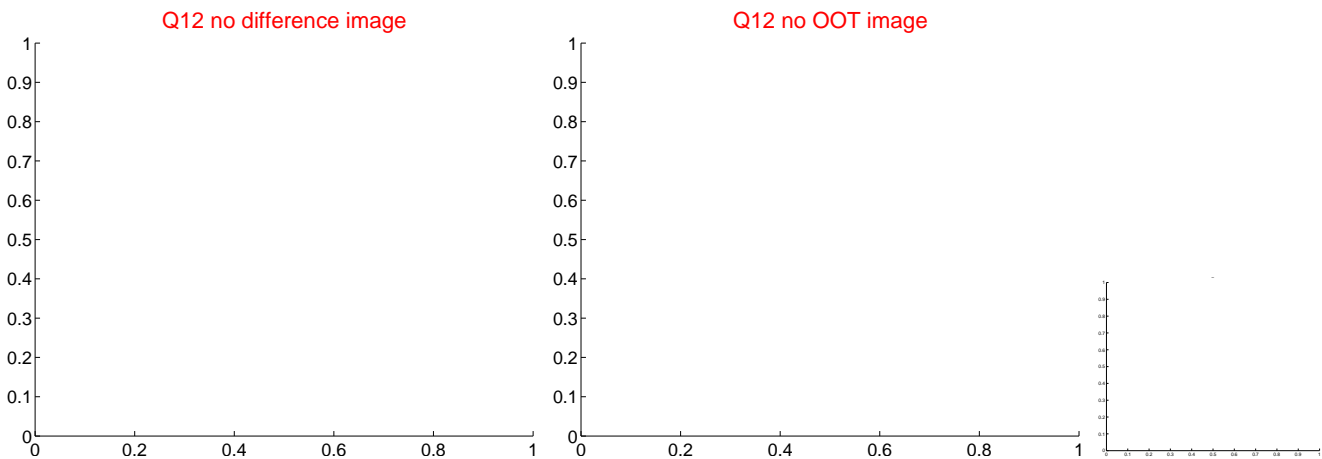
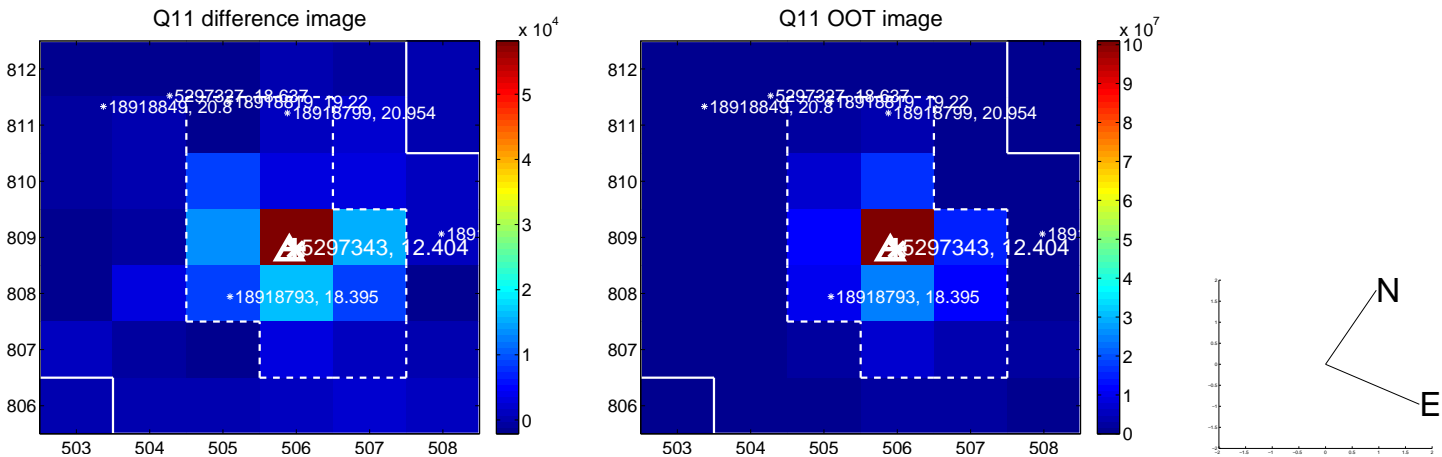
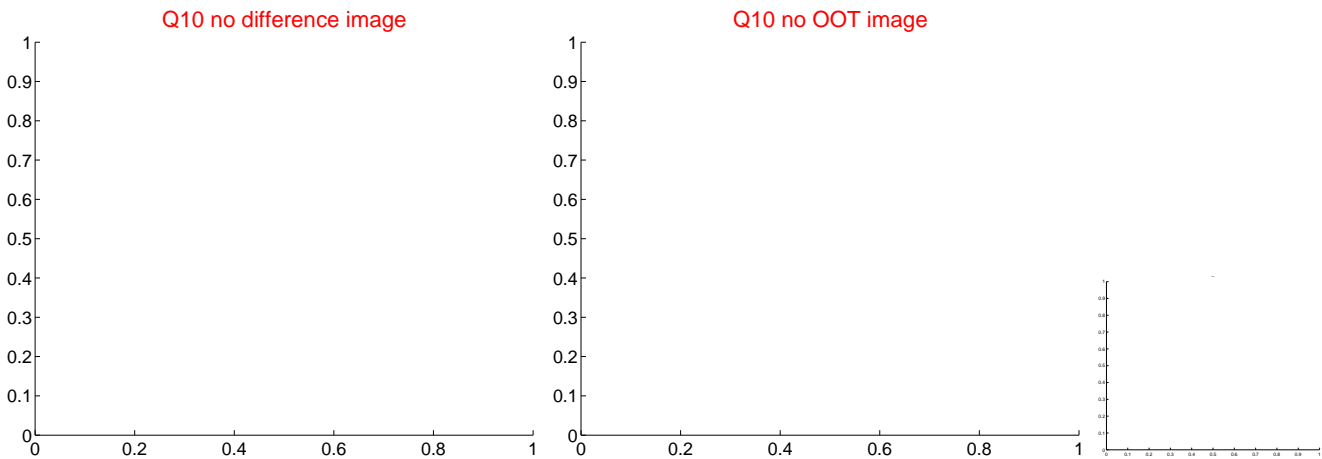
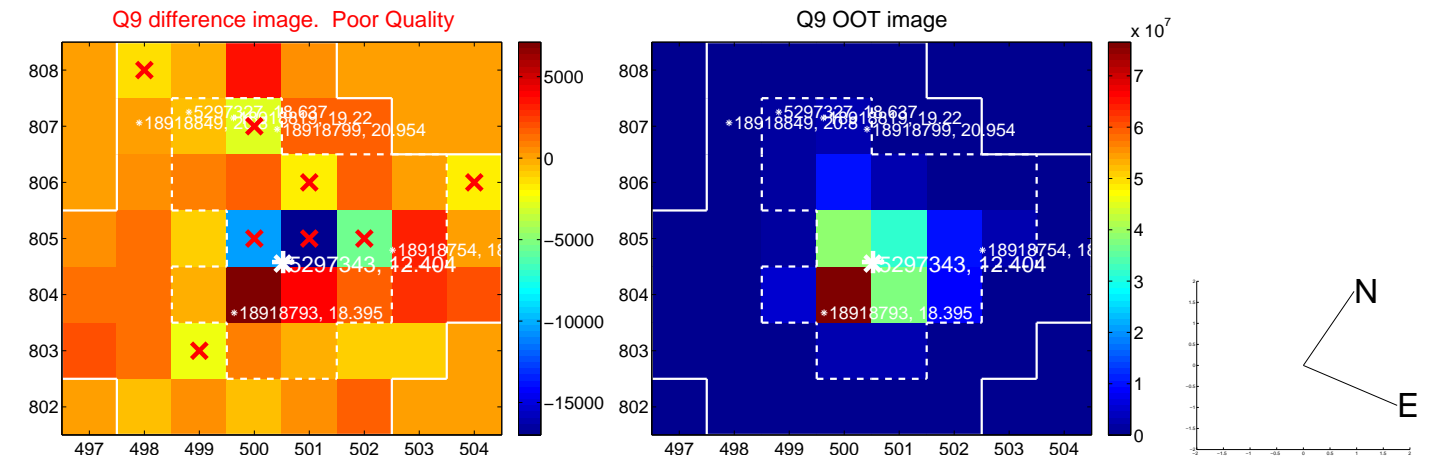
Q8 no difference image



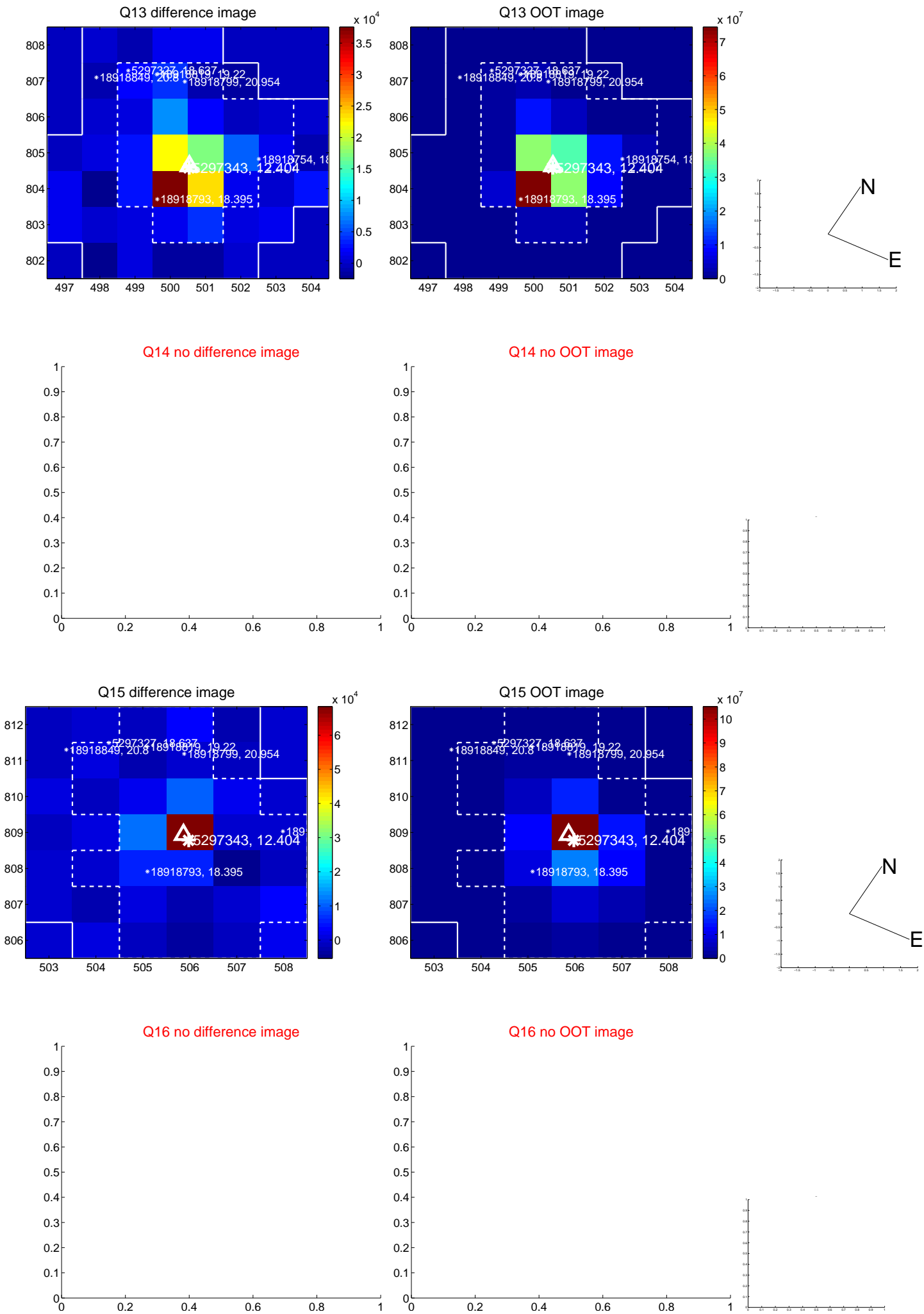
Q8 no OOT image



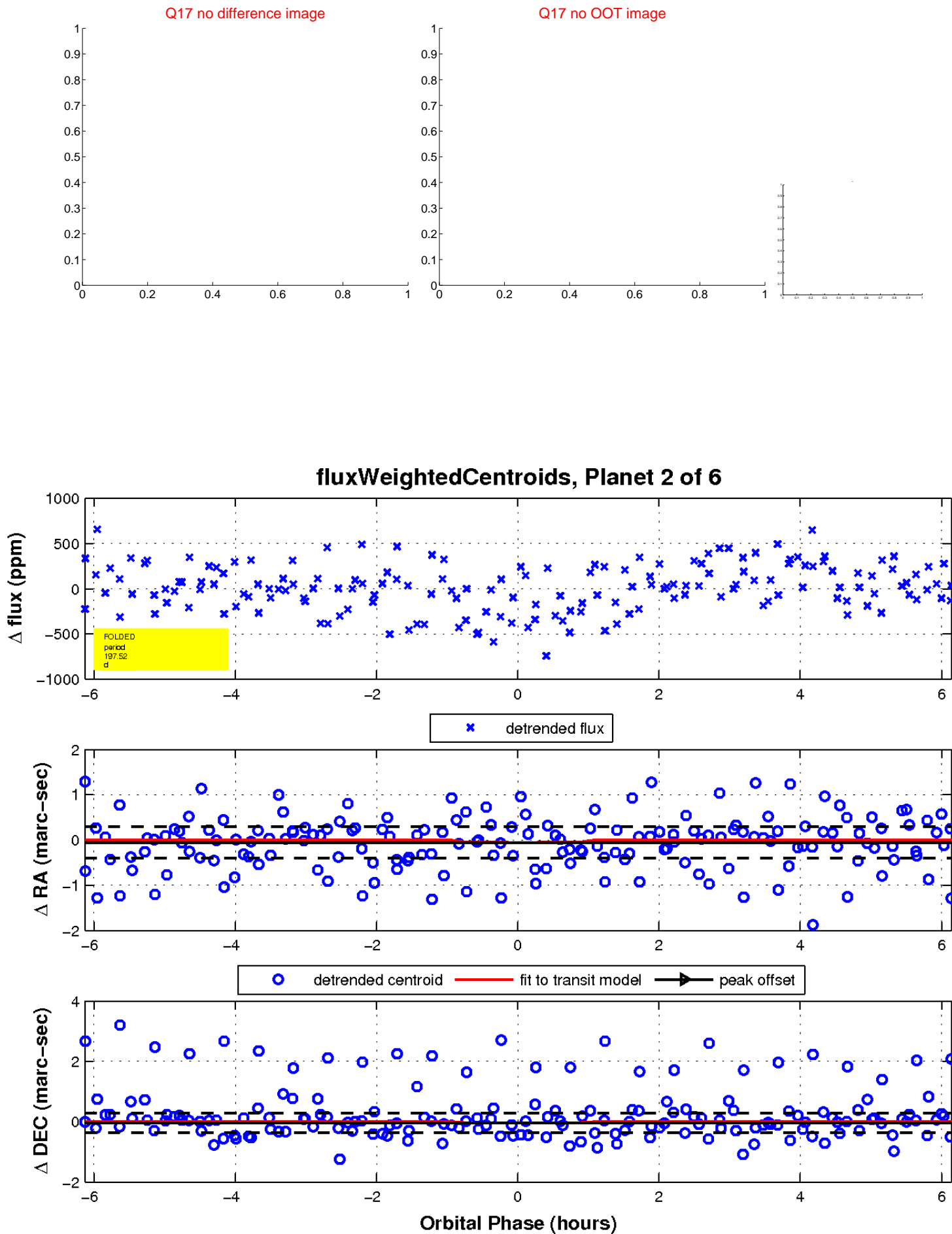
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

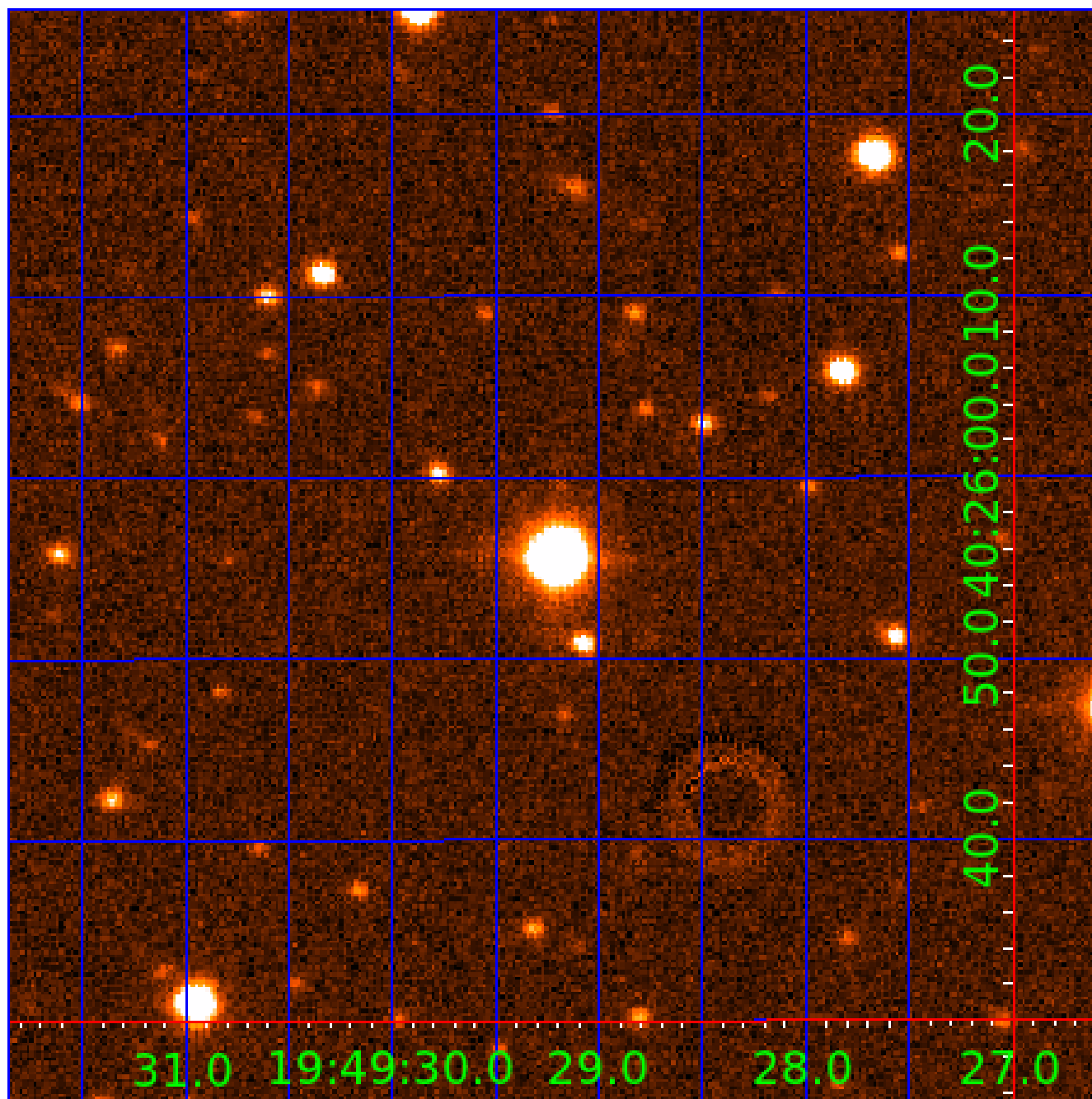


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005297343

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})
005297343-01	OBS	No	2.122565	132.956331	29.6	12.637	10.7	11.0	2.07	8317	1.14	11362.81
005297343-02	OBS	No	197.518793	237.427762	499.1	2.061	9.1	9.4	2.07	8317	5.26	26.95
005297343-03	OBS	No	35.203370	145.793789	245.0	2.741	8.6	8.9	2.07	8317	3.76	268.65
005297343-04	OBS	No	67.260287	144.241770	387.6	1.954	8.6	7.8	2.07	8317	4.42	113.31
005297343-05	OBS	No	99.681871	159.715751	259.5	5.511	7.6	9.1	2.07	8317	3.75	67.06
005297343-06	OBS	No	92.795848	208.381520	273.4	3.206	8.5	7.6	2.07	8317	3.68	73.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005297343-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
005297343-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

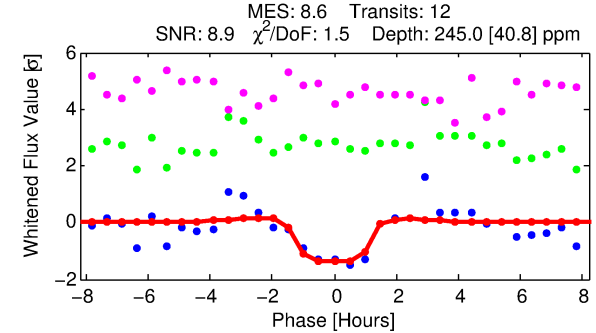
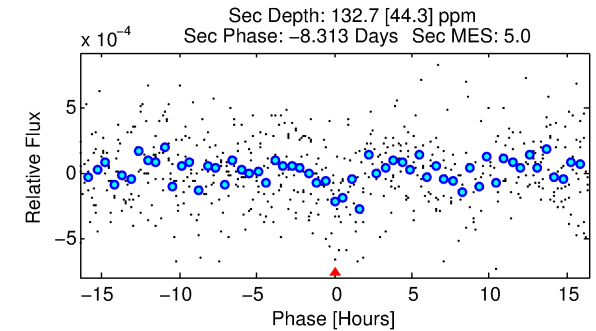
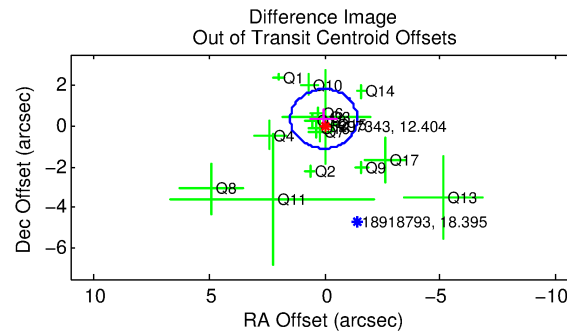
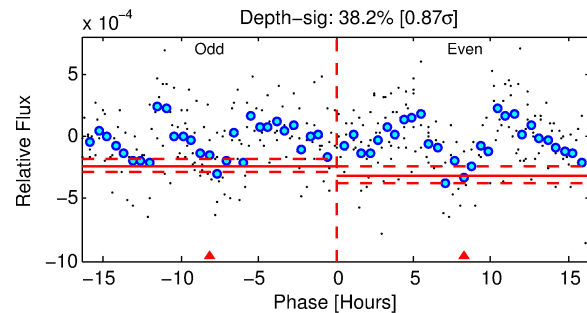
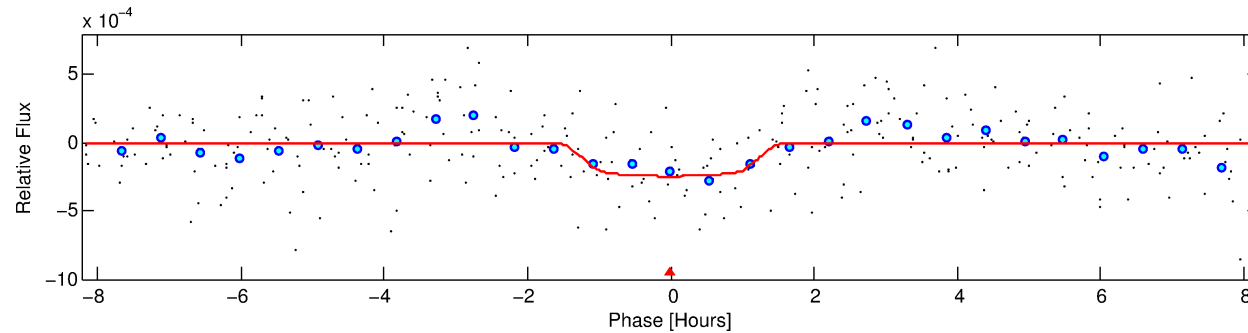
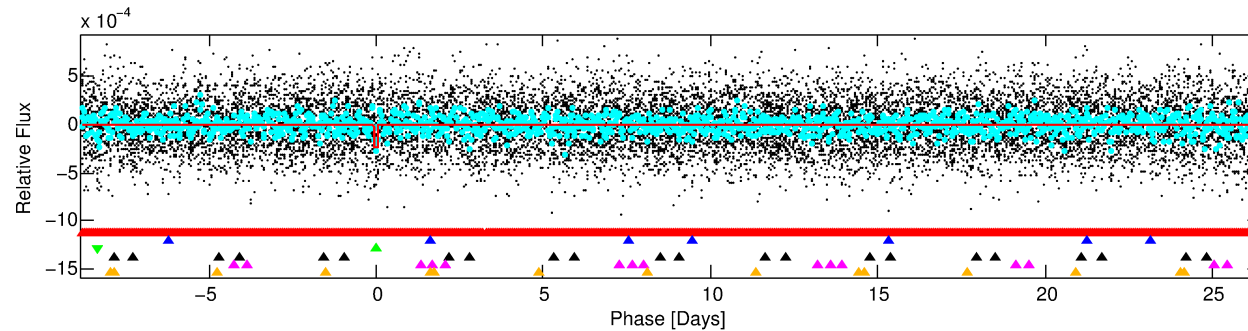
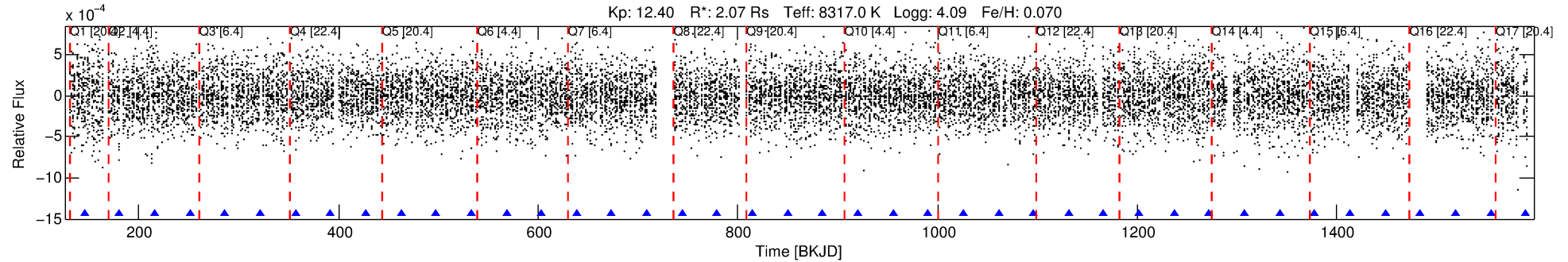
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005297343-03

No Significant Match Found

DV One-Page Summary

KIC: 5297343 Candidate: 3 of 6 Period: 35.203 d



DV Fit Results:

Period = 35.20337 [0.00050] d
Epoch = 145.7938 [0.0117] BKJD
Rp/R* = 0.0166 [0.0097]
a/R* = 47.20 [169.73]
b = 0.90 [0.81]
Seff = 268.65 [87.11]
Teff = 1032 [84] K
Rp = 3.76 [2.36] Re
a = 0.2620 [0.0496] AU
Ag = 354.58 [441.92] [0.80 σ]
Teffp = 6926 [2130] K [2.77 σ]

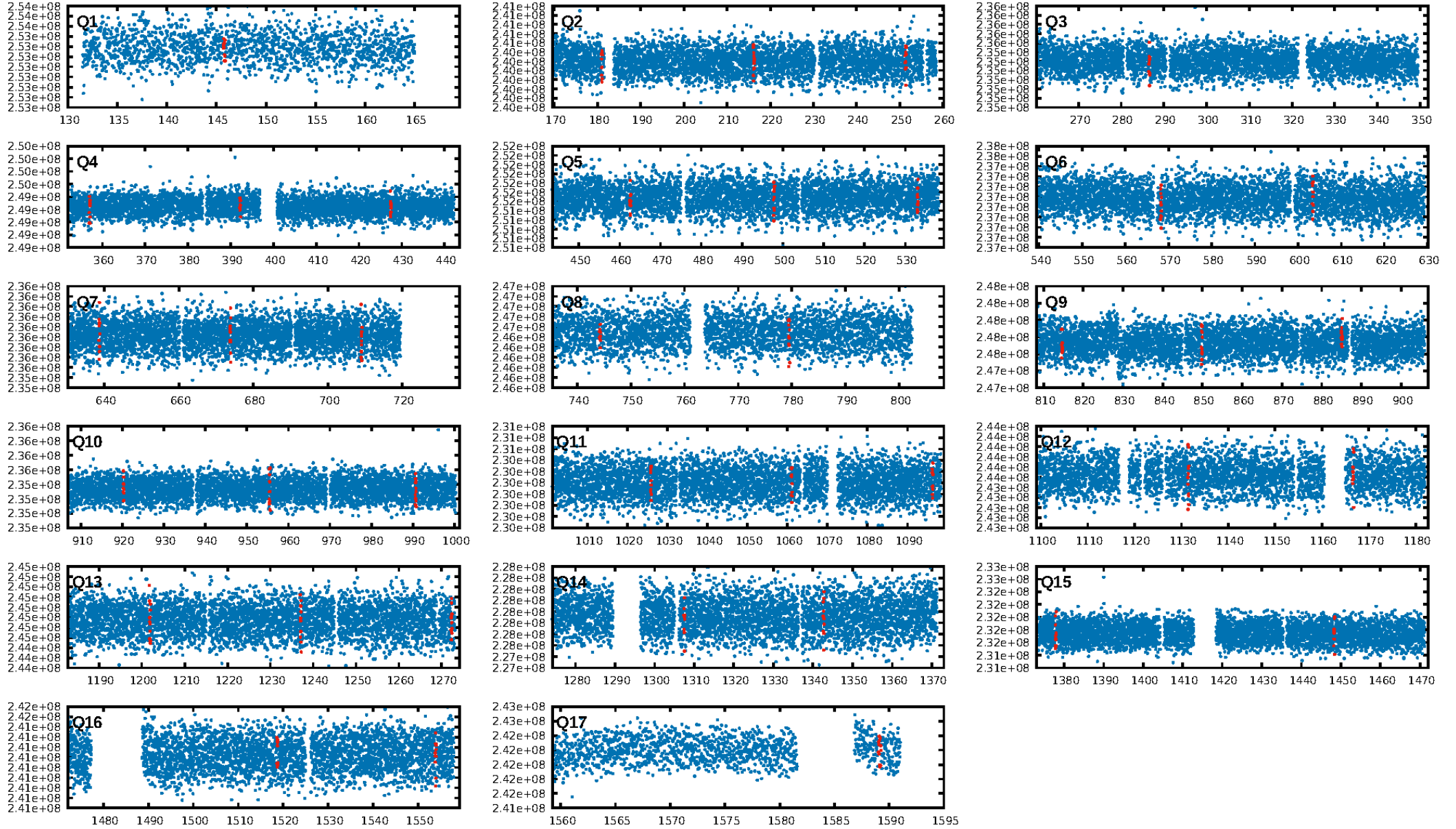
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [61.40 σ]
LongPeriod-sig: 100.0% [228.55 σ]
ModelChiSquare2-sig: 72.8%
ModelChiSquareGof-sig: 95.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: -1.81
Centroid-sig: 28.9%
Centroid-so: 0.372 arcsec [0.81 σ]
OotOffset-rm: 0.348 arcsec [0.72 σ]
OotOffset-st: 4/4/4 [16]
KicOffset-rm: 0.270 arcsec [0.55 σ]
KicOffset-st: 4/4/4 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 0.88 [15/17]

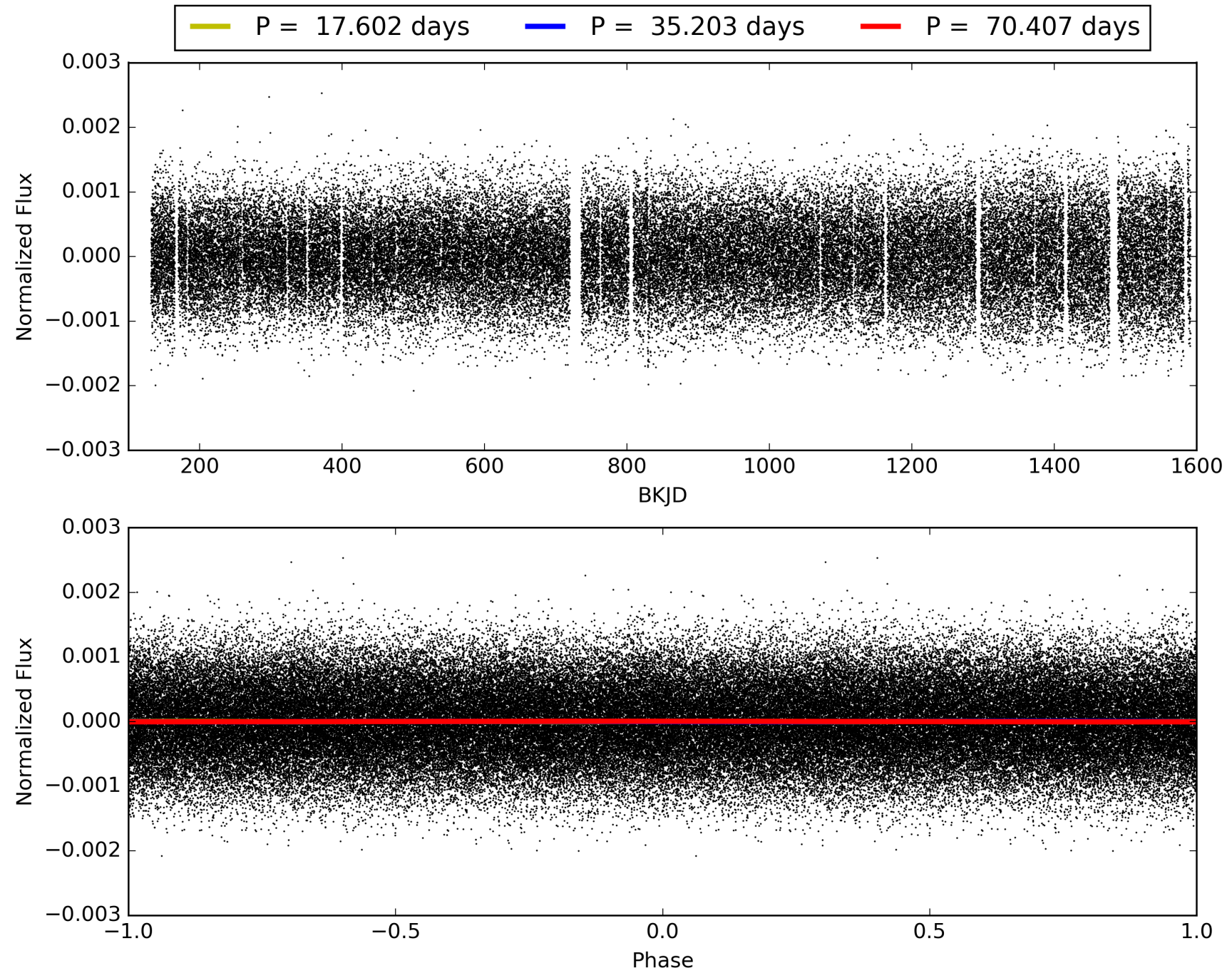
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:23:45 Z

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

TCE 005297343-03, PDC Light Curves

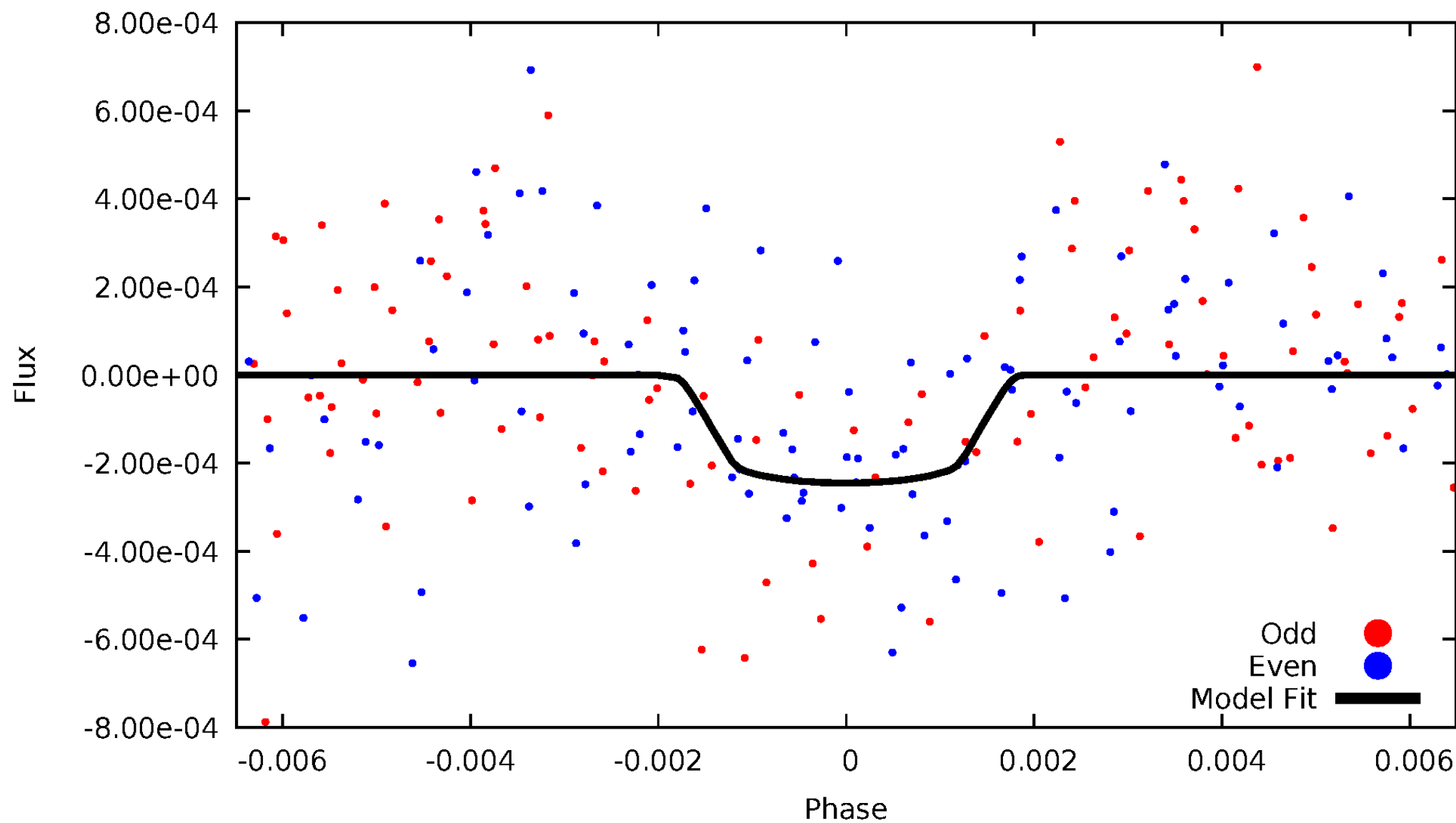


TCE 005297343-03



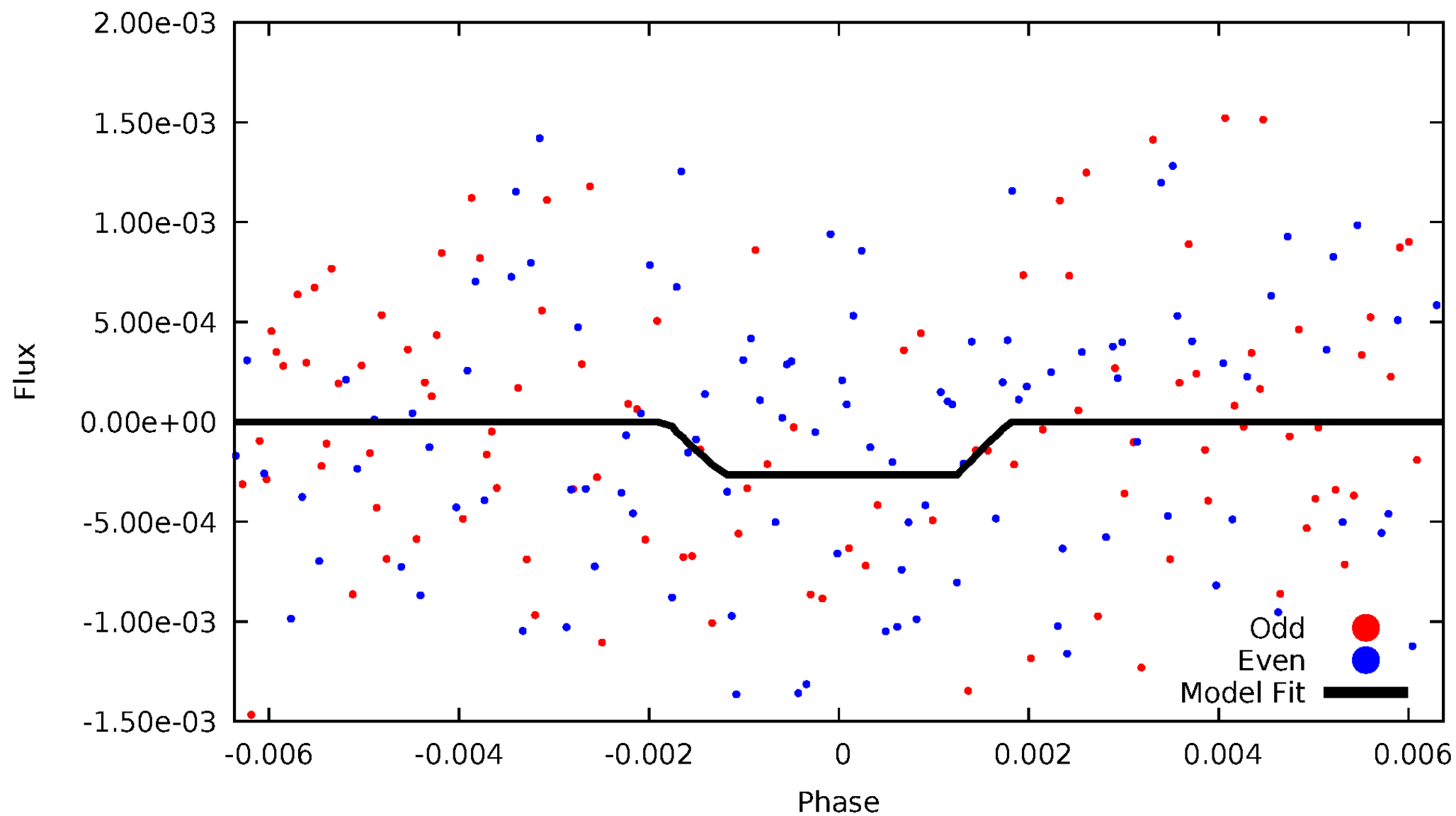
DV Odd/Even

TCE 005297343-03



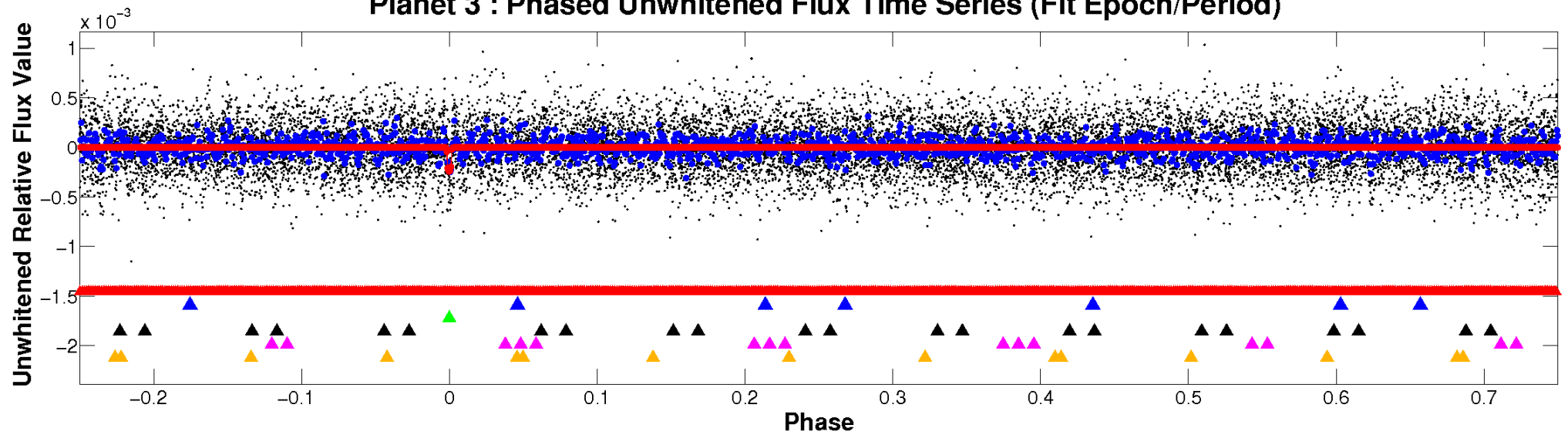
ALT Odd/Even

TCE 005297343-03

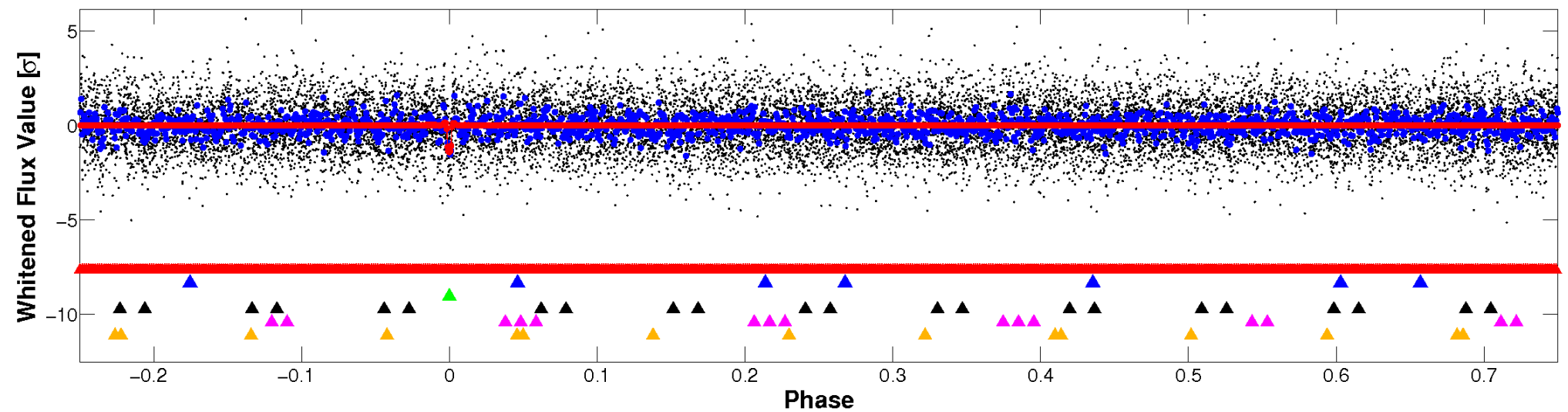


Non-Whitened Vs. Whitened Light Curve

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

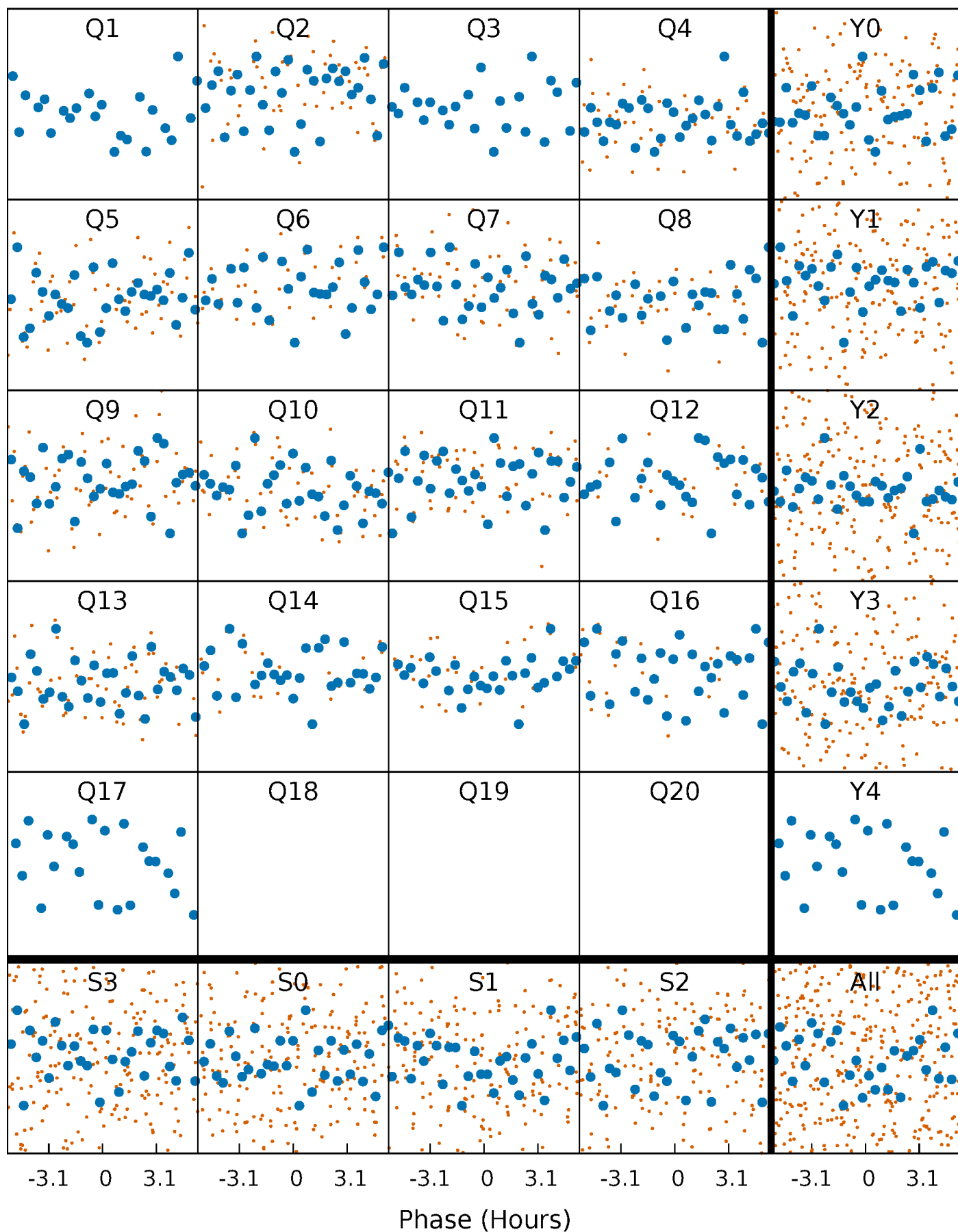


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



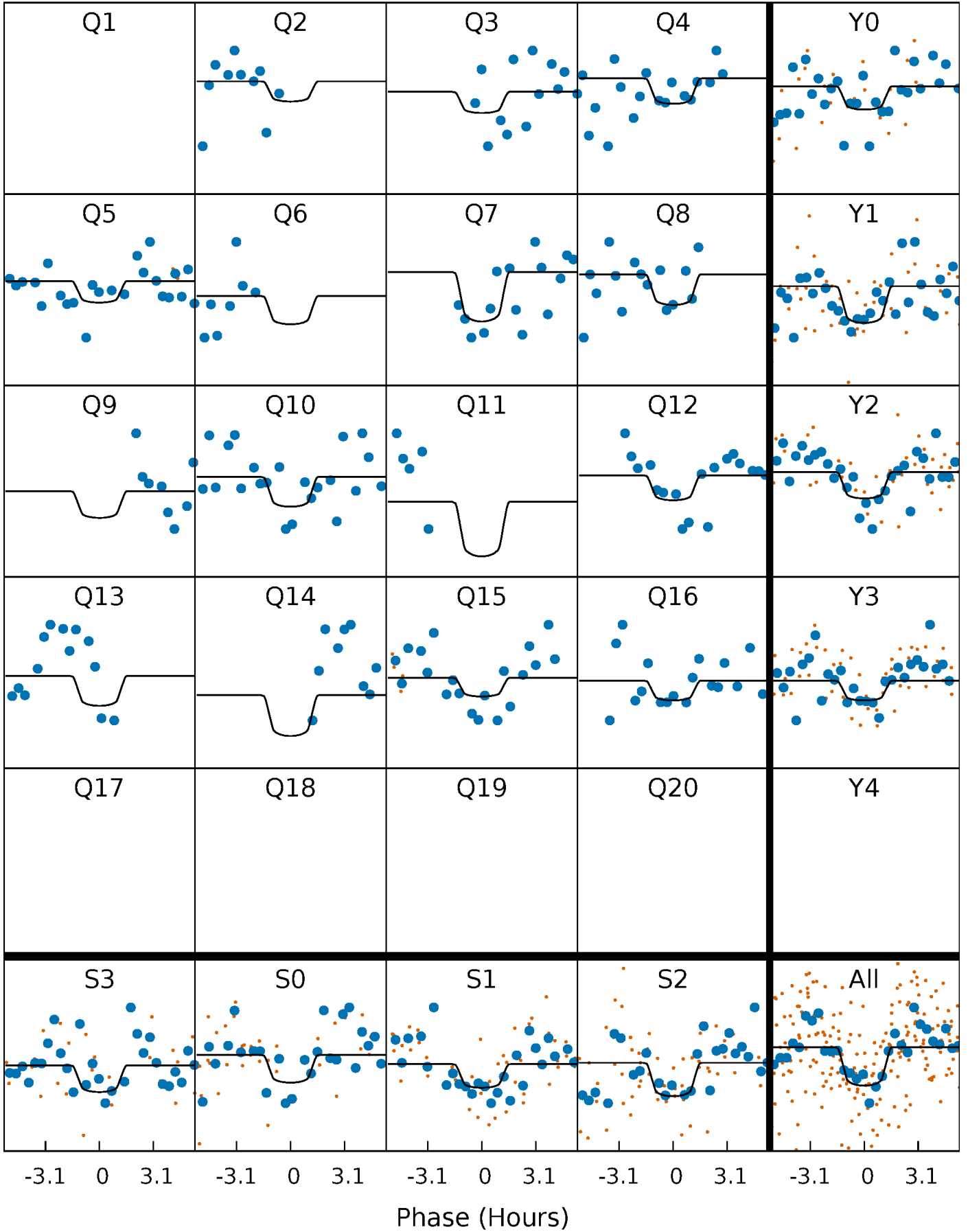
PDC Quarter-Phased Transit Curves

TCE 005297343-03 P= 35.203370 Days $T_0=145.793789$ (BKJD)



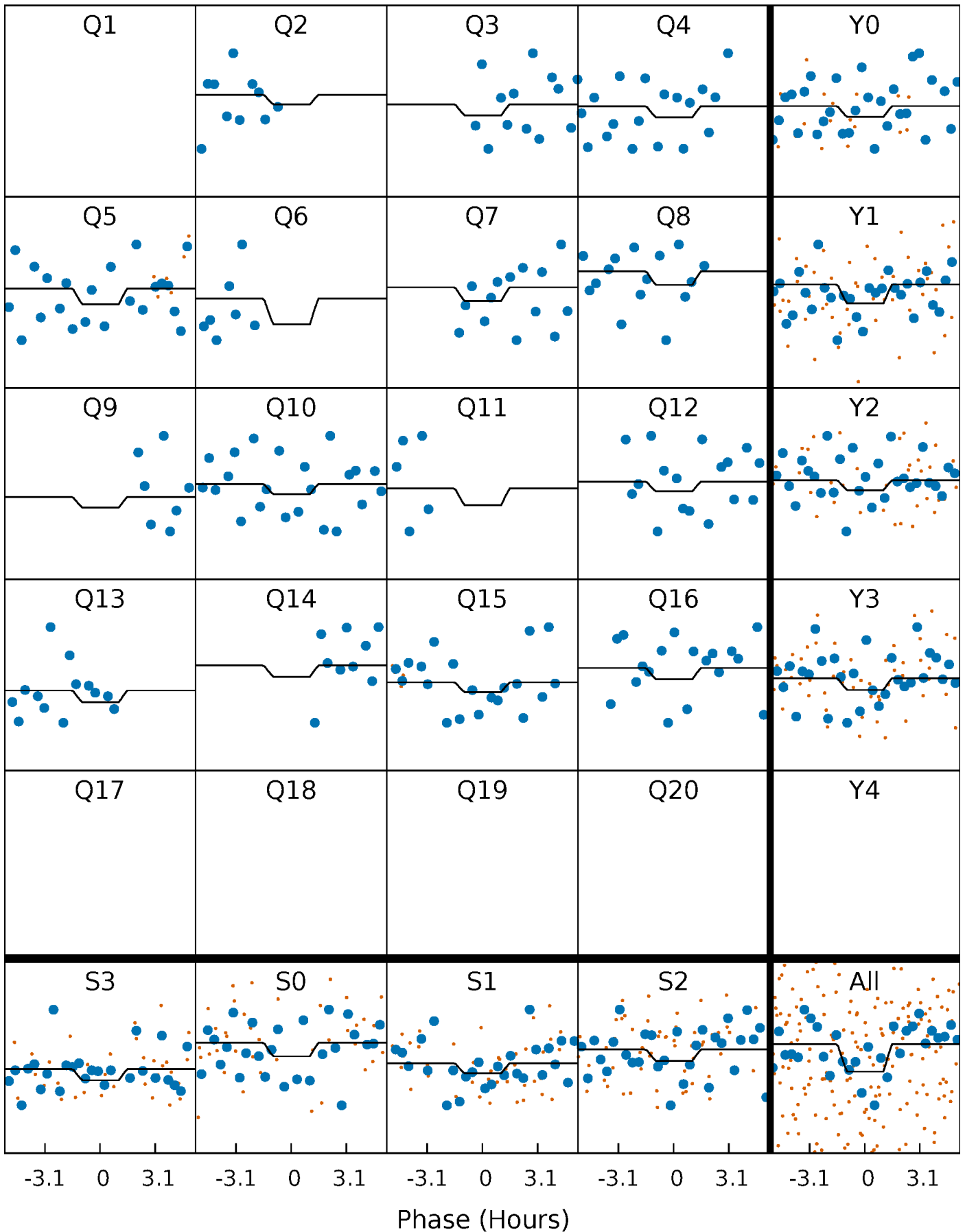
DV Quarter-Phased Transit Curves

TCE 005297343-03 P= 35.203370 Days $T_0=145.793789$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

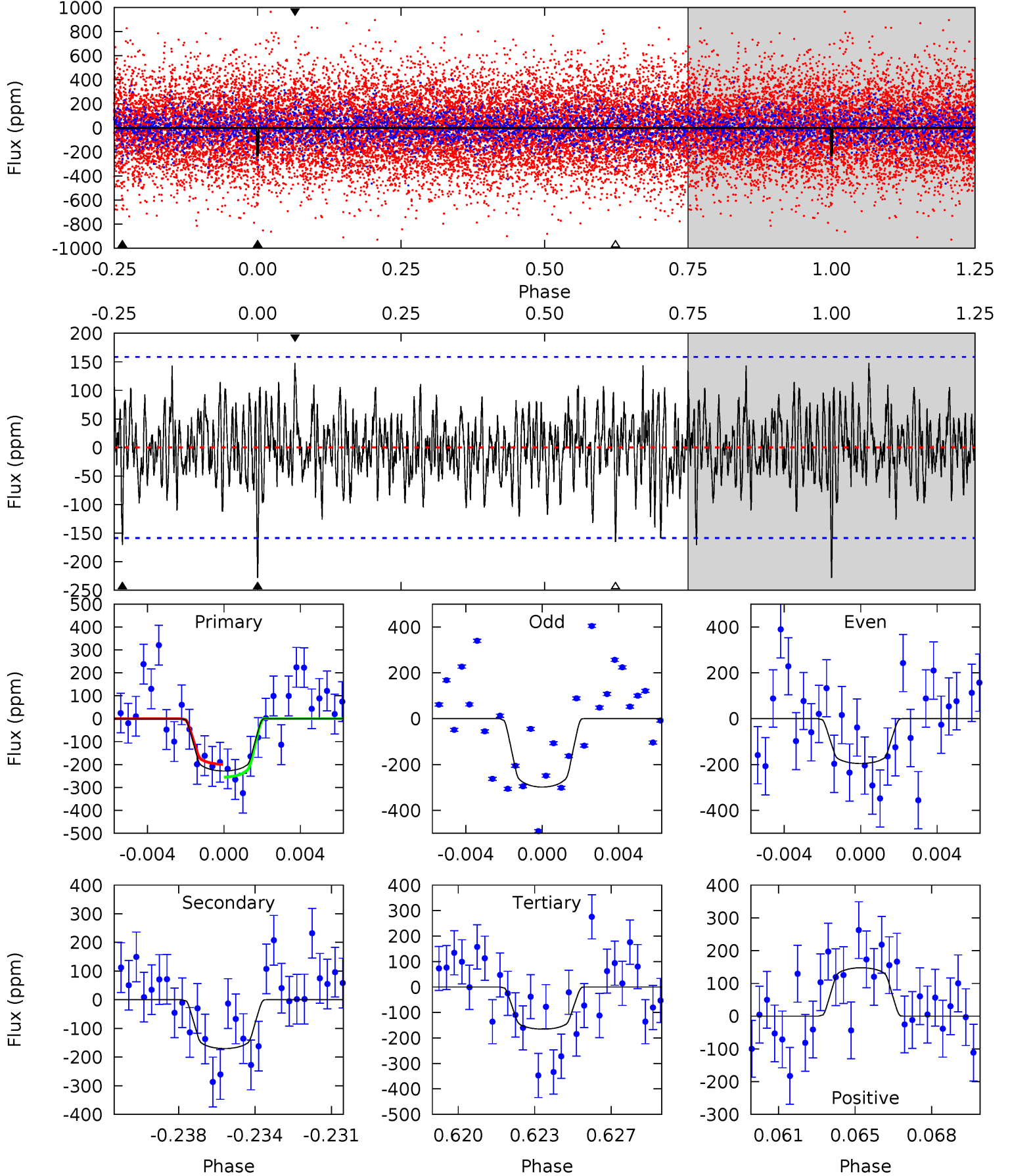
TCE 005297343-03 P= 35.203262 Days $T_0=145.794150$ (BKJD)



DV Model-Shift Uniqueness Test

005297343-03, P = 35.203370 Days, E = 110.590419 Days

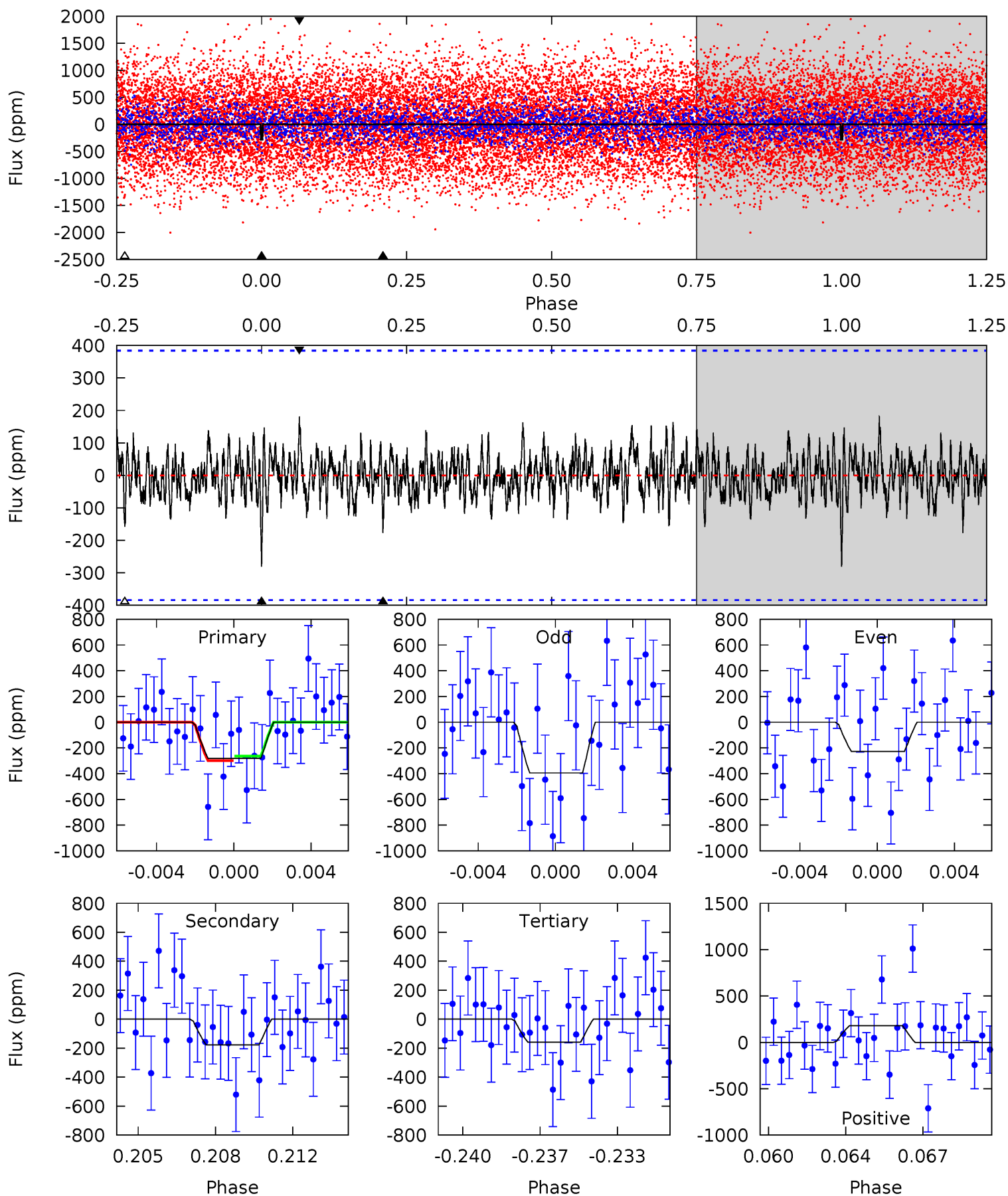
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.52	5.61	5.45	4.87	5.22	2.91	1.57	2.07	2.65	0.16	0.74	1.62	1.06	0.39	0.91



Alt Model-Shift Uniqueness Test

005297343-03, P = 35.203262 Days, E = 110.590888 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.82	2.41	2.15	2.46	5.22	2.92	0.75	1.66	1.36	0.26	-0.05	1.06	1.11	0.39	0.23



Stellar Parameters For KIC 005297343

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8317^{+229}_{-373}	$4.091^{+0.130}_{-0.145}$	$0.070^{+0.250}_{-0.500}$	$2.074^{+0.476}_{-0.476}$	$1.935^{+0.315}_{-0.386}$	$0.306^{+0.230}_{-0.132}$
	+3%/-4%	+3%/-4%	+357%/-714%	+23%/-23%	+16%/-20%	+75%/-43%
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 005297343-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-170 ± 30	$3.93^{+2.31}_{-2.09}$	1447^{+93}_{-95}	6963^{+4435}_{-1428}	406^{+1417}_{-243}
Alt.	-177 ± 74	$3.78^{+2.29}_{-2.09}$	1442^{+105}_{-91}	6980^{+5622}_{-1635}	409^{+1869}_{-265}

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 $A_{obs} \gg 1.0$

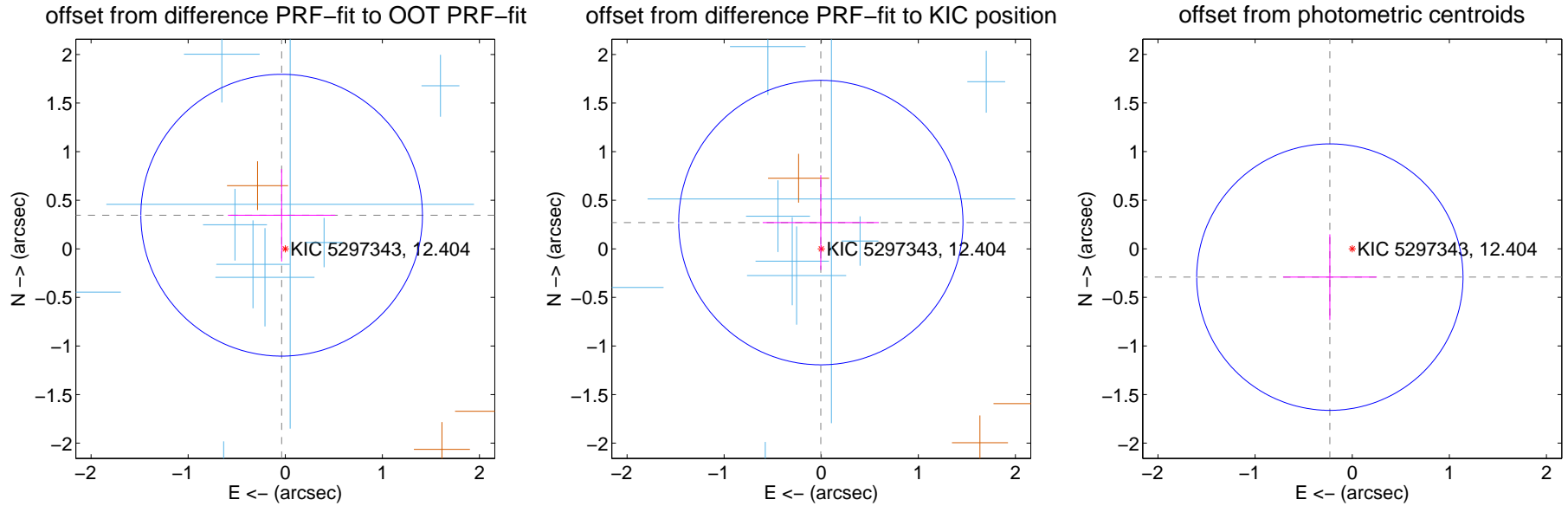
DV Centroid Data

Supplemental centroid analysis for 005297343-03. Kepler magnitude: 12.40. Transit SNR 8.92

There are 9 quarters with good PRF difference image offsets

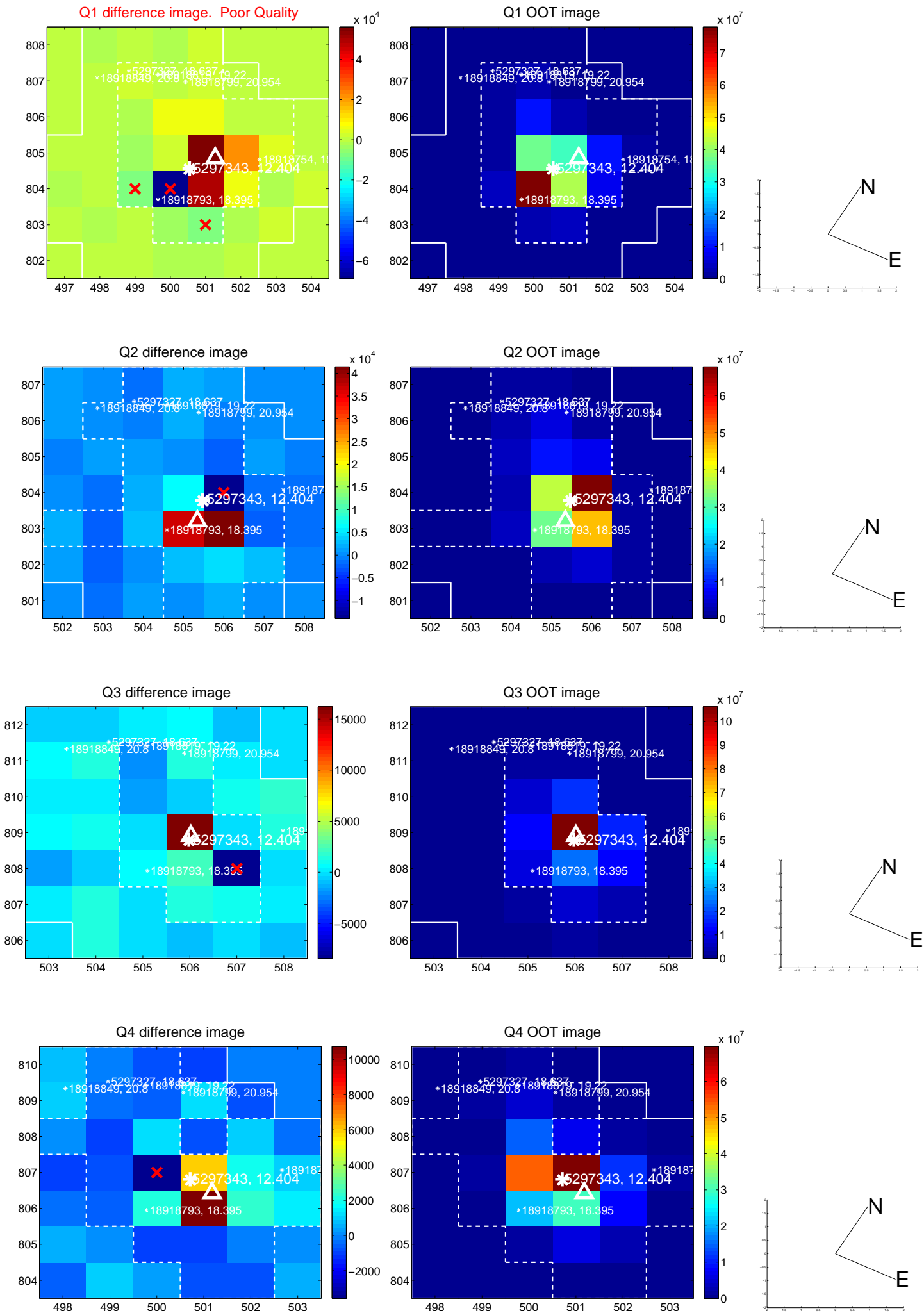
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.348 ± 0.483	0.72	0.037 ± 0.553	0.346 ± 0.476
PRF-fit source offset from KIC position	0.270 ± 0.488	0.55	0.004 ± 0.598	0.270 ± 0.488
photometric centroid source offset	0.37 ± 0.46	0.81	0.23 ± 0.48	-0.29 ± 0.44

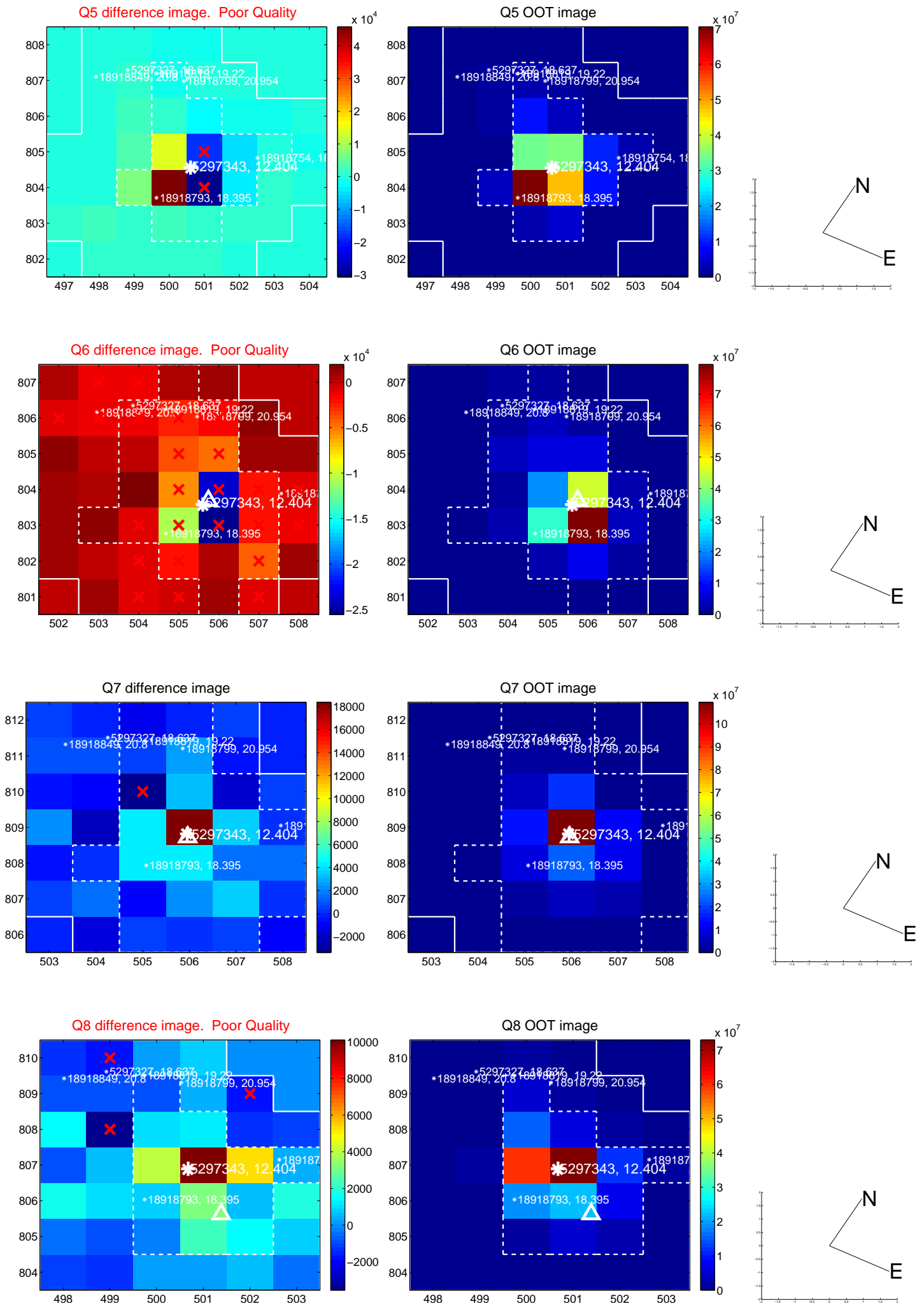


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

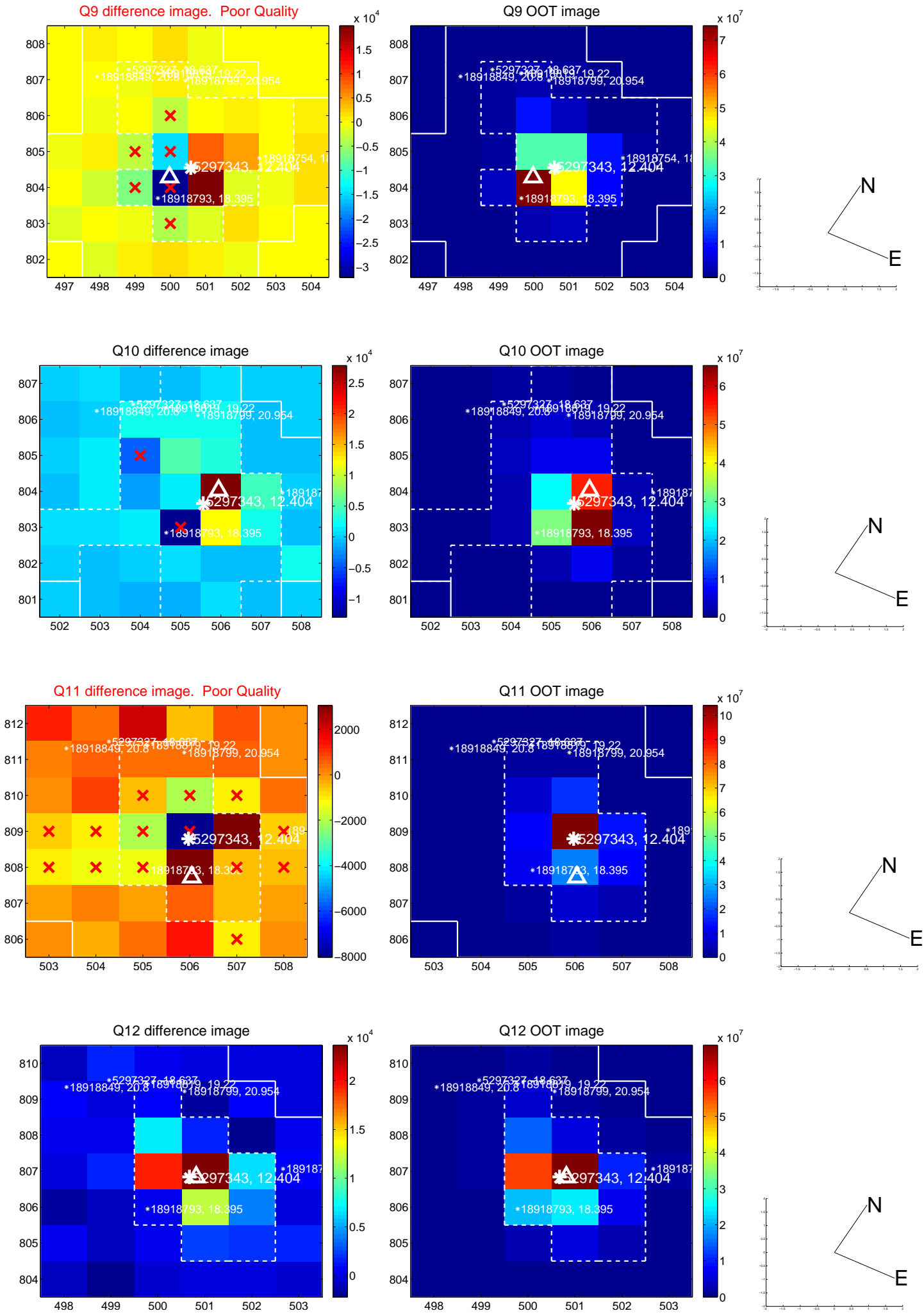
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



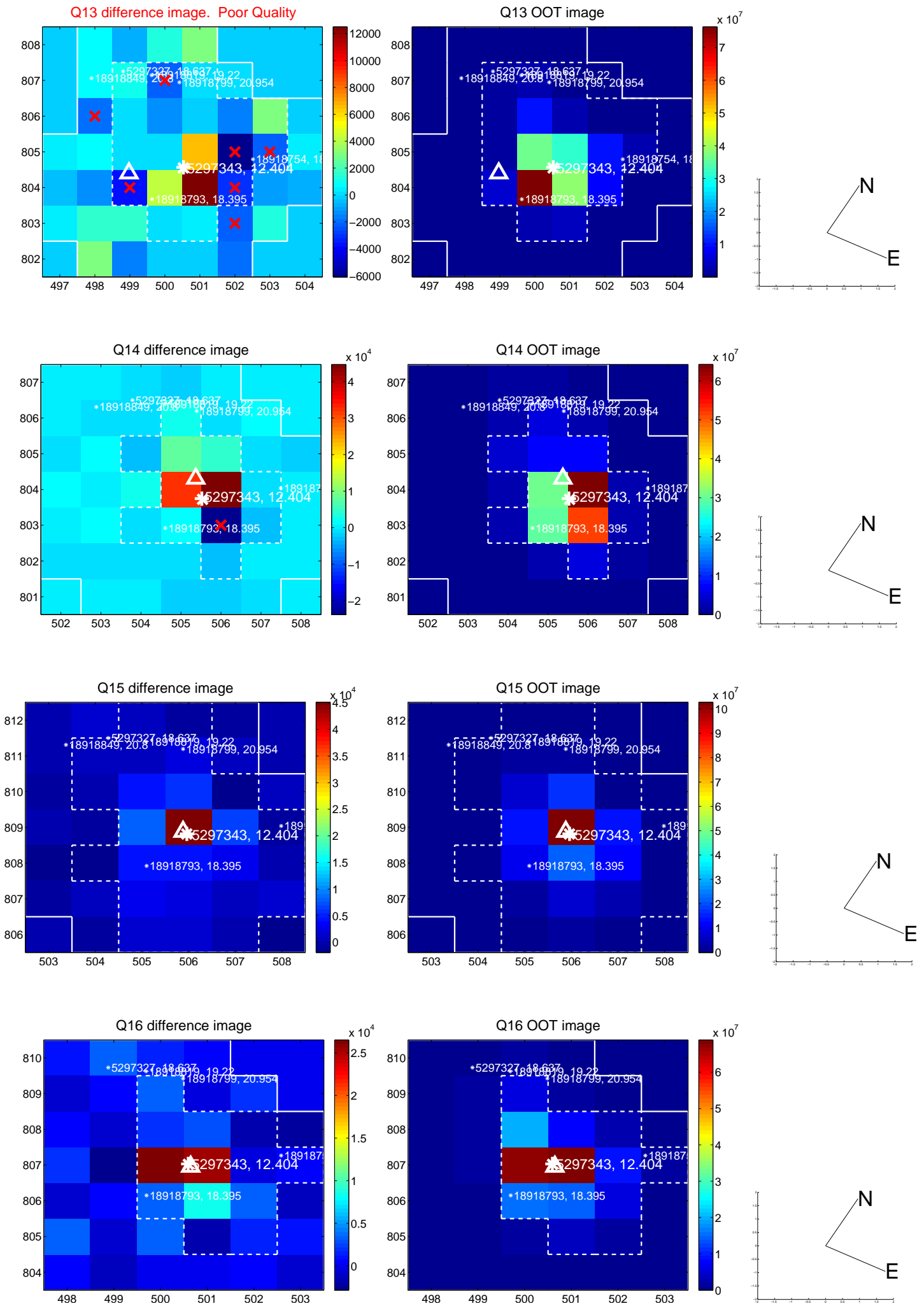
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



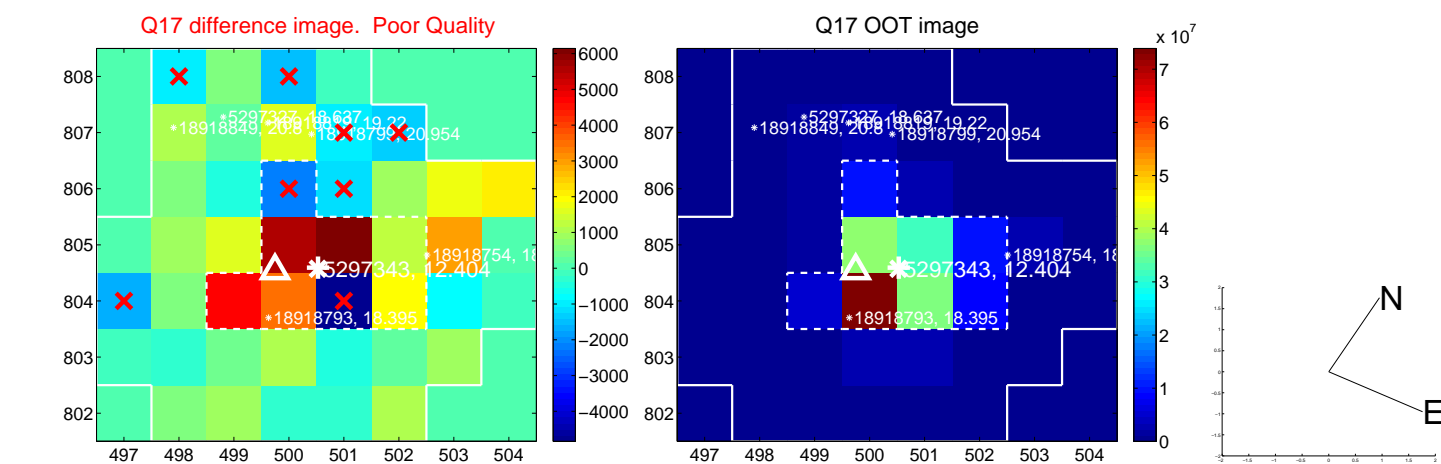
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



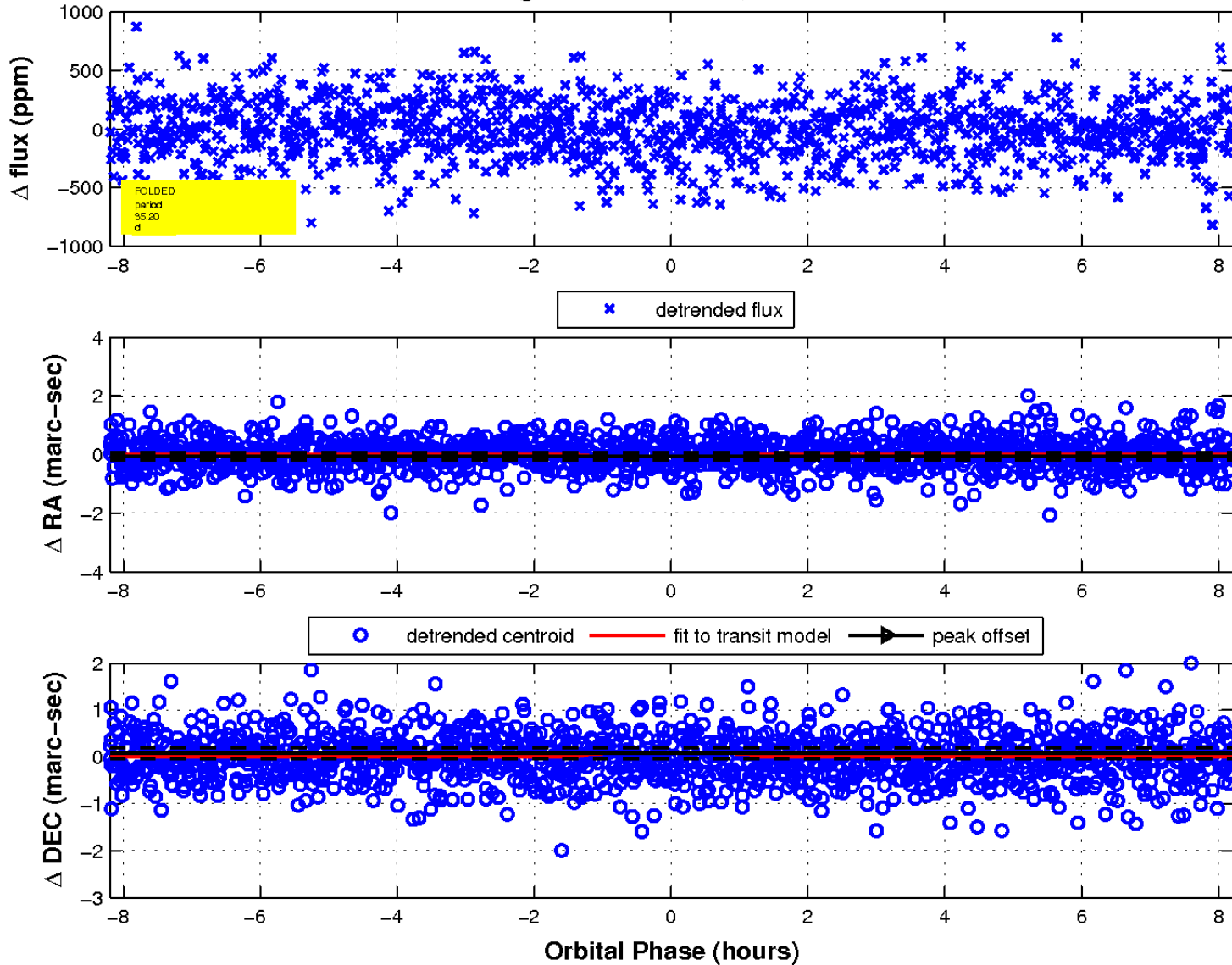
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

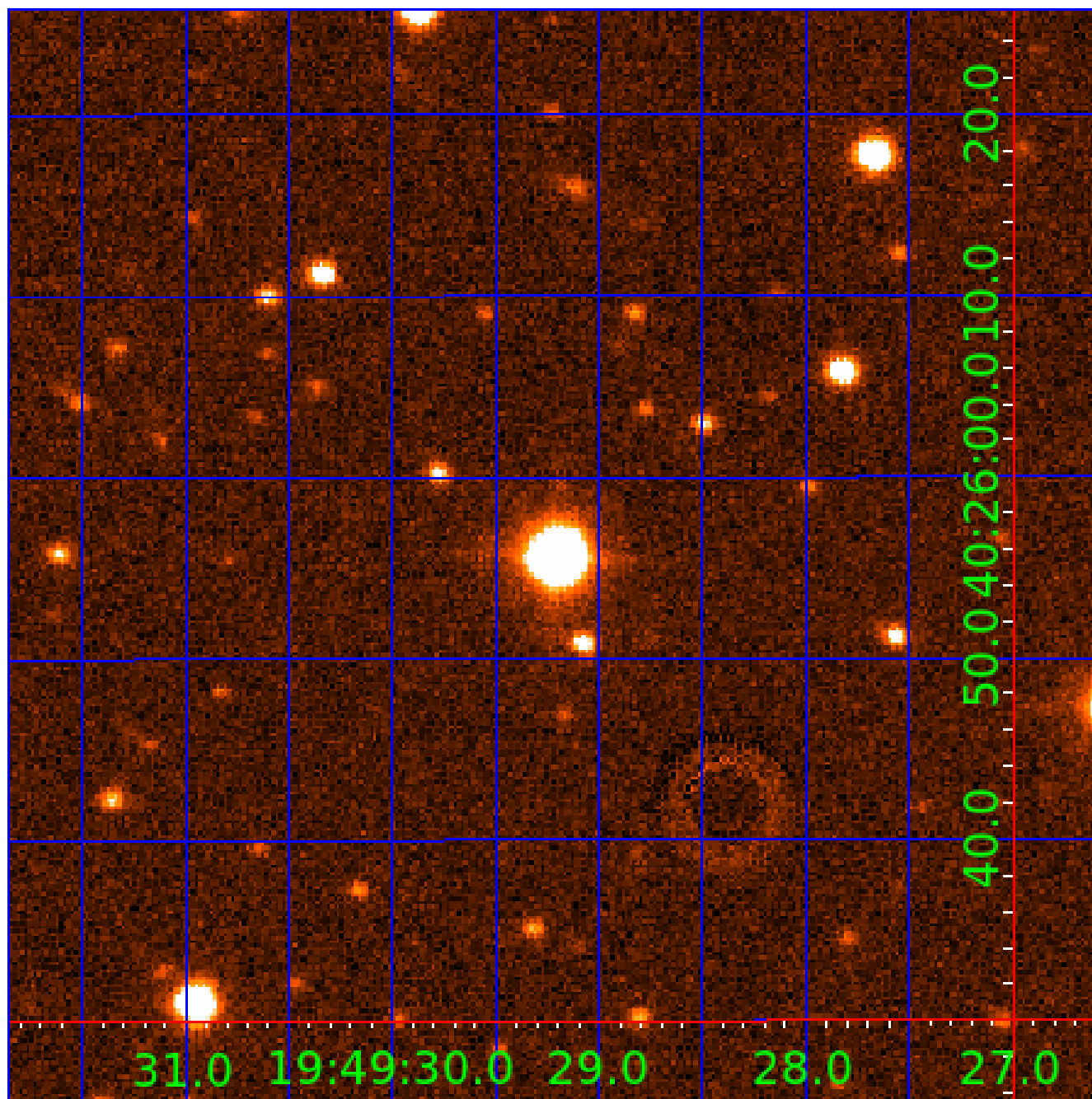


fluxWeightedCentroids, Planet 3 of 6



UKIRT Image

Declination



KIC 005297343

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})
005297343-01	OBS	No	2.122565	132.956331	29.6	12.637	10.7	11.0	2.07	8317	1.14	11362.81
005297343-02	OBS	No	197.518793	237.427762	499.1	2.061	9.1	9.4	2.07	8317	5.26	26.95
005297343-03	OBS	No	35.203370	145.793789	245.0	2.741	8.6	8.9	2.07	8317	3.76	268.65
005297343-04	OBS	No	67.260287	144.241770	387.6	1.954	8.6	7.8	2.07	8317	4.42	113.31
005297343-05	OBS	No	99.681871	159.715751	259.5	5.511	7.6	9.1	2.07	8317	3.75	67.06
005297343-06	OBS	No	92.795848	208.381520	273.4	3.206	8.5	7.6	2.07	8317	3.68	73.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005297343-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
005297343-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

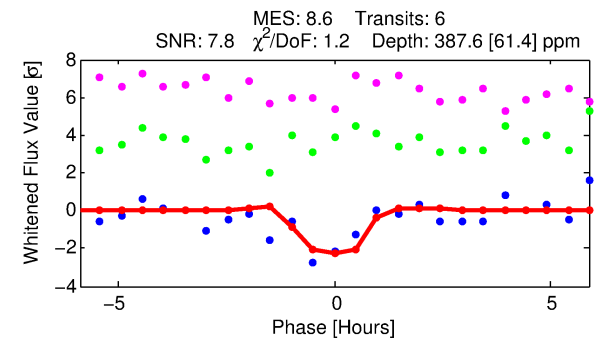
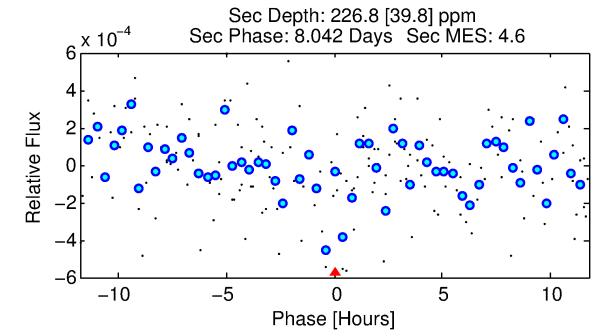
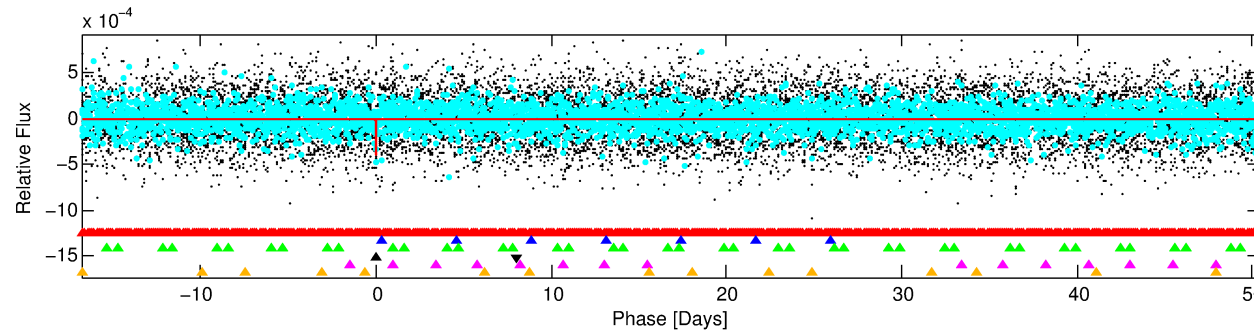
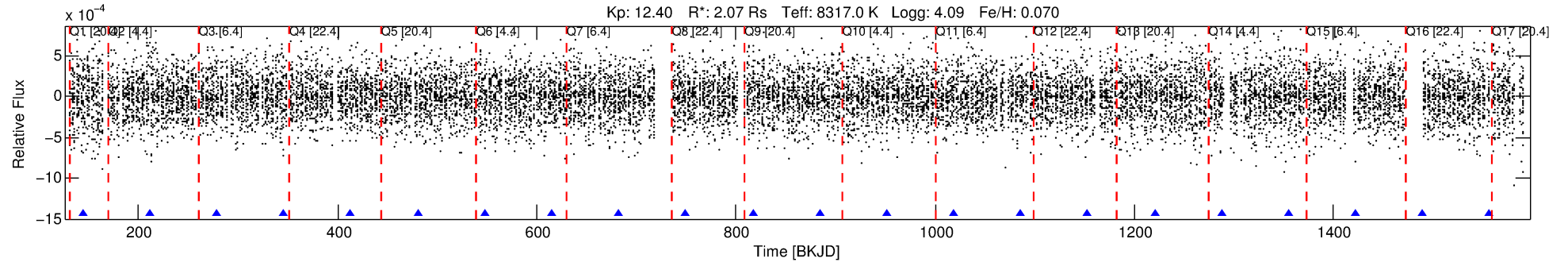
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005297343-04

No Significant Match Found

DV One-Page Summary

KIC: 5297343 Candidate: 4 of 6 Period: 67.260 d

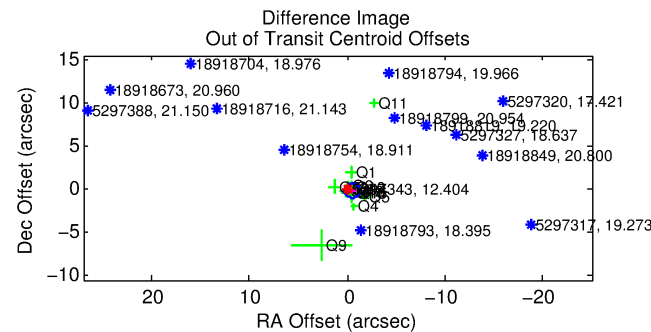
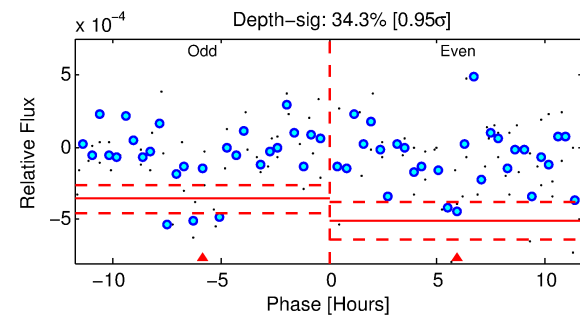
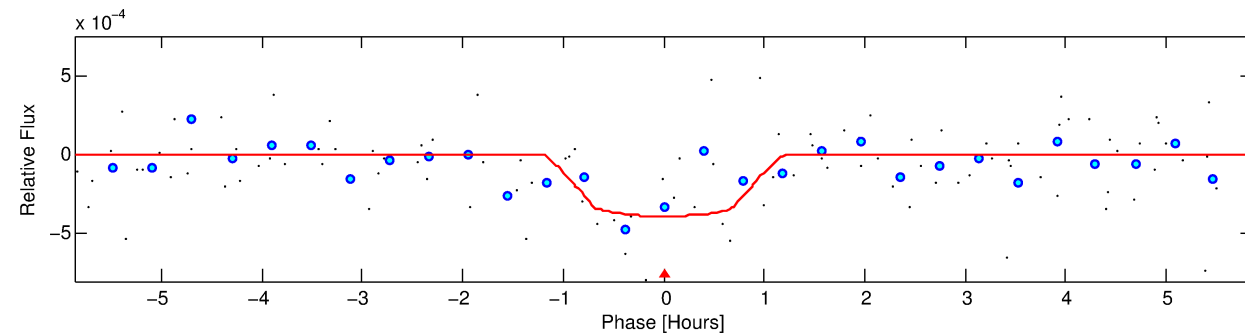


DV Fit Results:

Period = 67.26029 [0.00119] d
Epoch = 144.2418 [0.0127] BKJD
Rp/R* = 0.0195 [0.0328]
a/R* = 185.05 [1859.91]
b = 0.74 [6.30]
Seff = 113.32 [36.74]
Teq = 832 [67] K
Rp = 4.42 [7.50] Re
a = 0.4034 [0.0763] AU
Ag = 1037.19 [3500.60] [0.30σ]
Teffp = 7300 [6148] K [1.05σ]

DV Diagnostic Results:

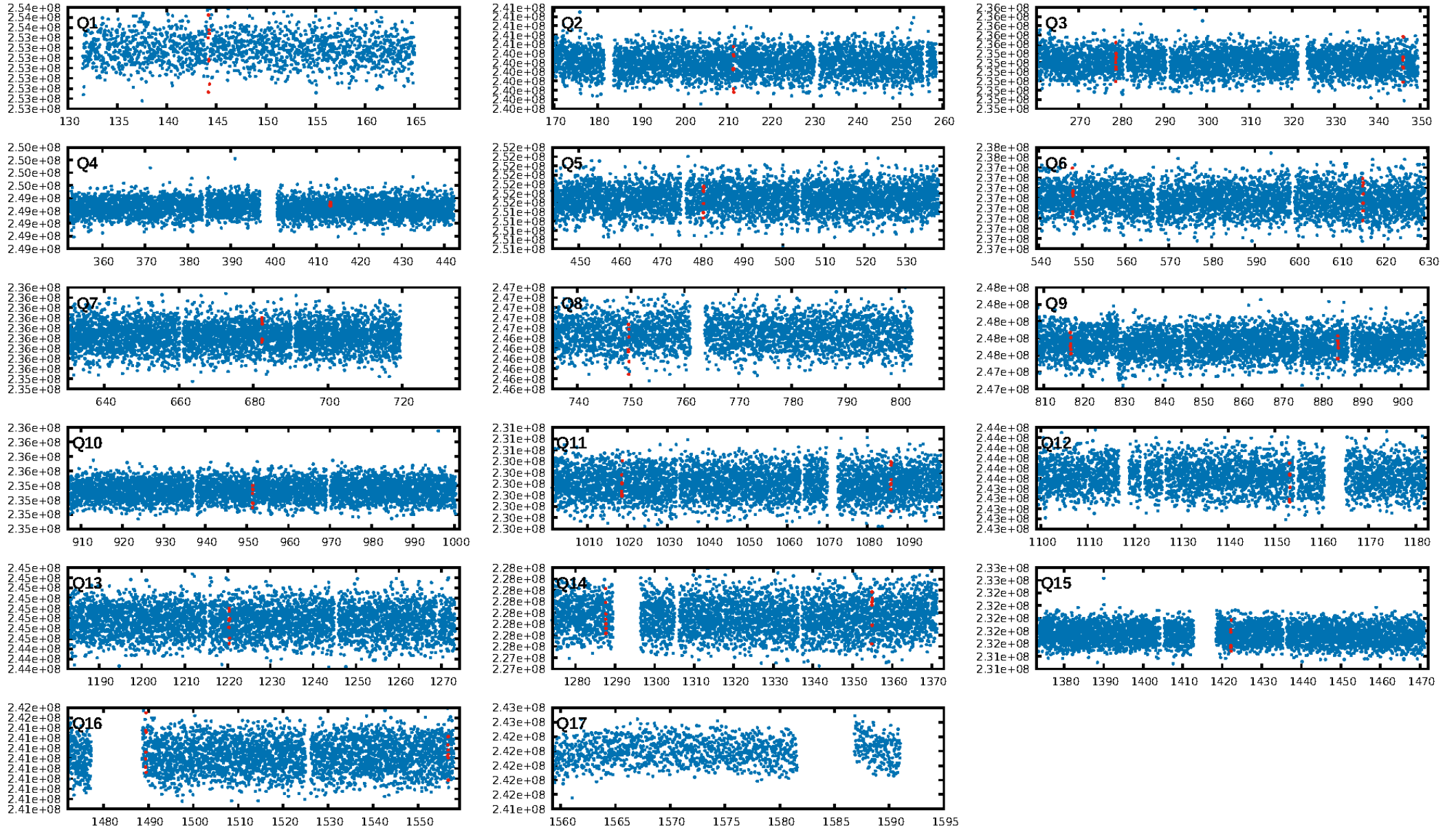
ShortPeriod-sig: 100.0% [228.55σ]
LongPeriod-sig: 100.0% [163.23σ]
ModelChiSquare2-sig: 48.9%
ModelChiSquareGof-sig: 98.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.3902
Centroid-sig: 23.4%
Centroid-so: 0.616 arcsec [1.31σ]
OotOffset-rm: 0.528 arcsec [1.94σ]
KicOffset-rm: 0.543 arcsec [1.97σ]
OotOffset-st: 3/4/3/3 [13]
KicOffset-st: 3/4/3/3 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 0.67 [10/15]



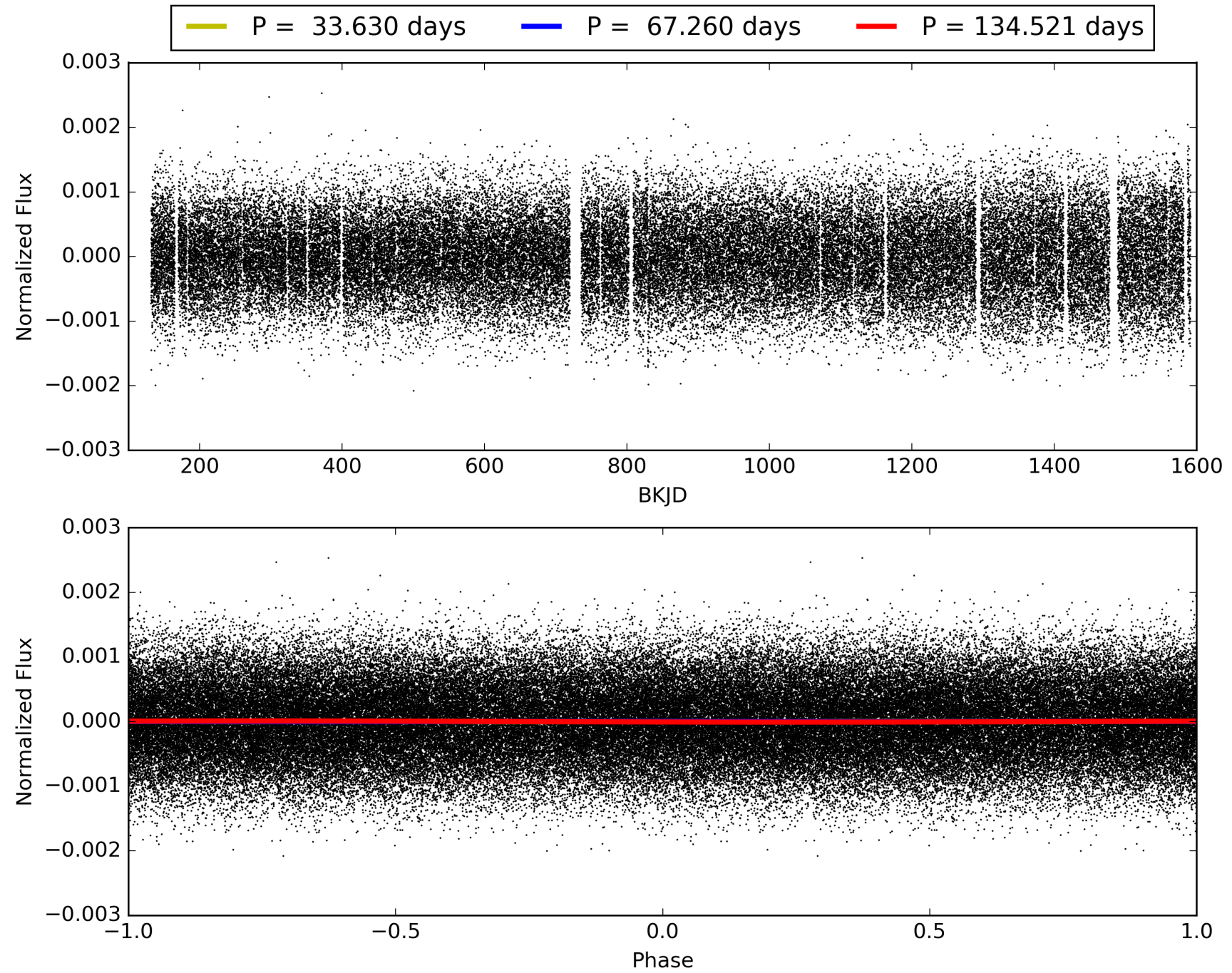
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:23:49 Z

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

TCE 005297343-04, PDC Light Curves

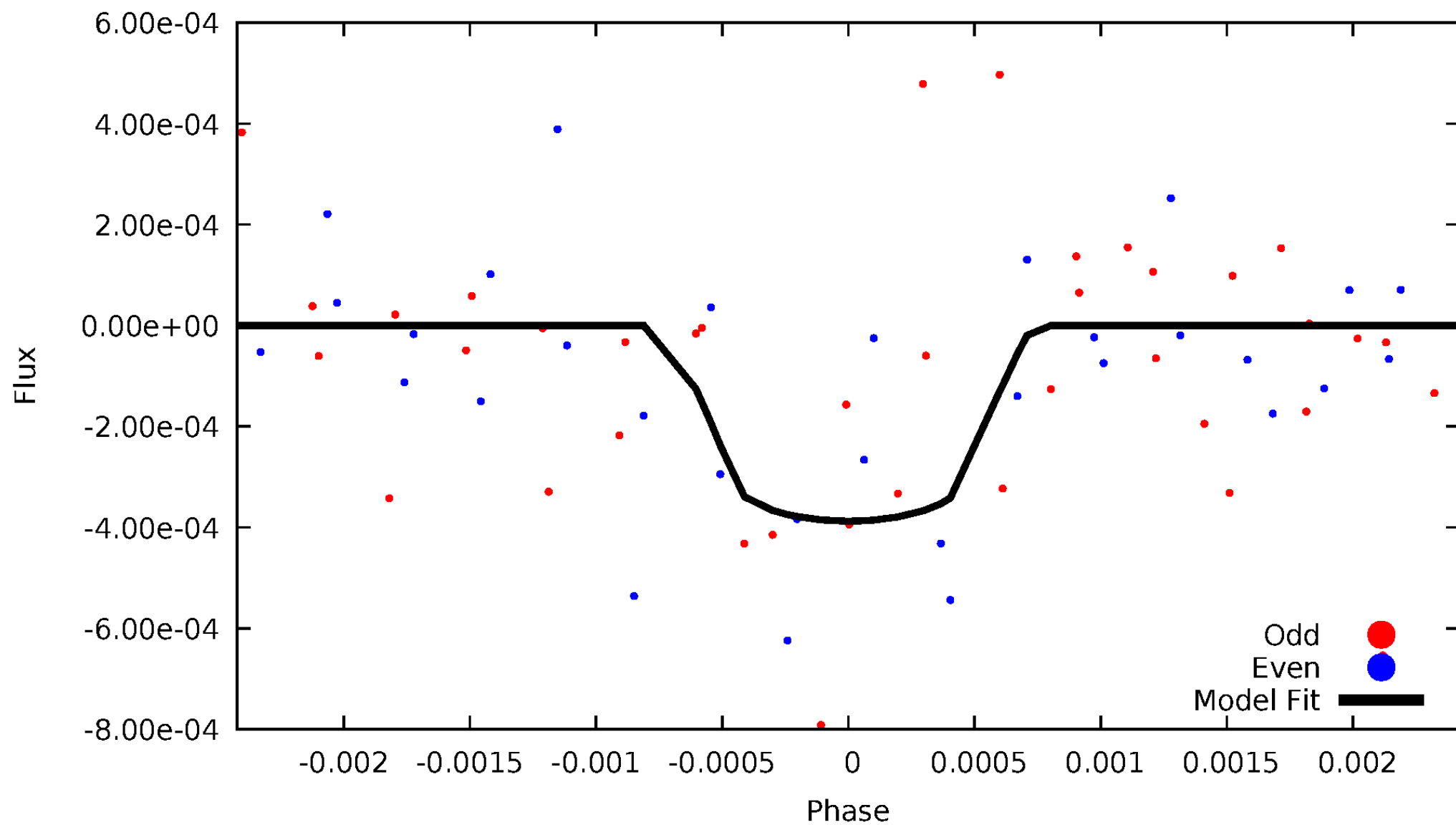


TCE 005297343-04



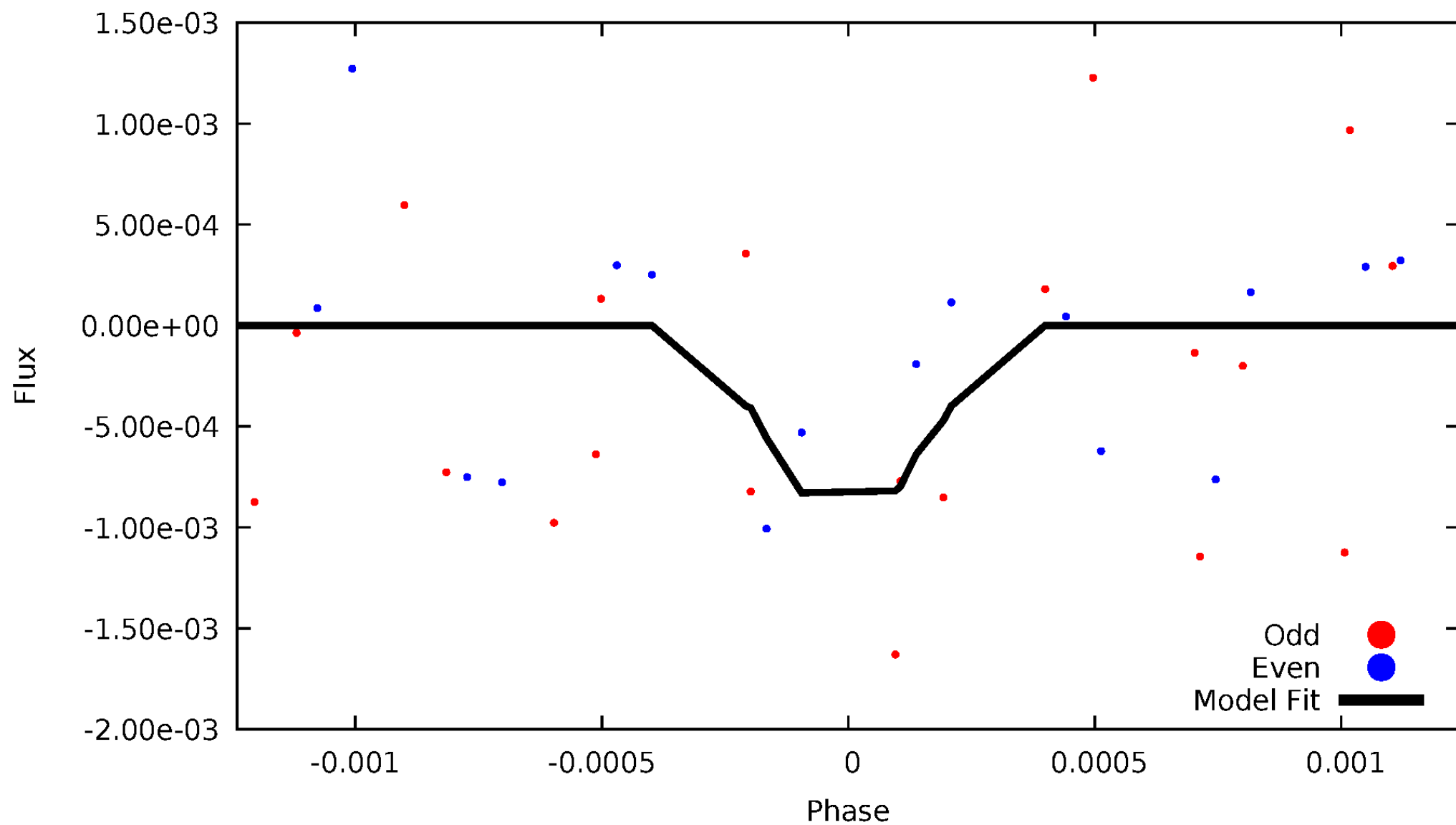
DV Odd/Even

TCE 005297343-04



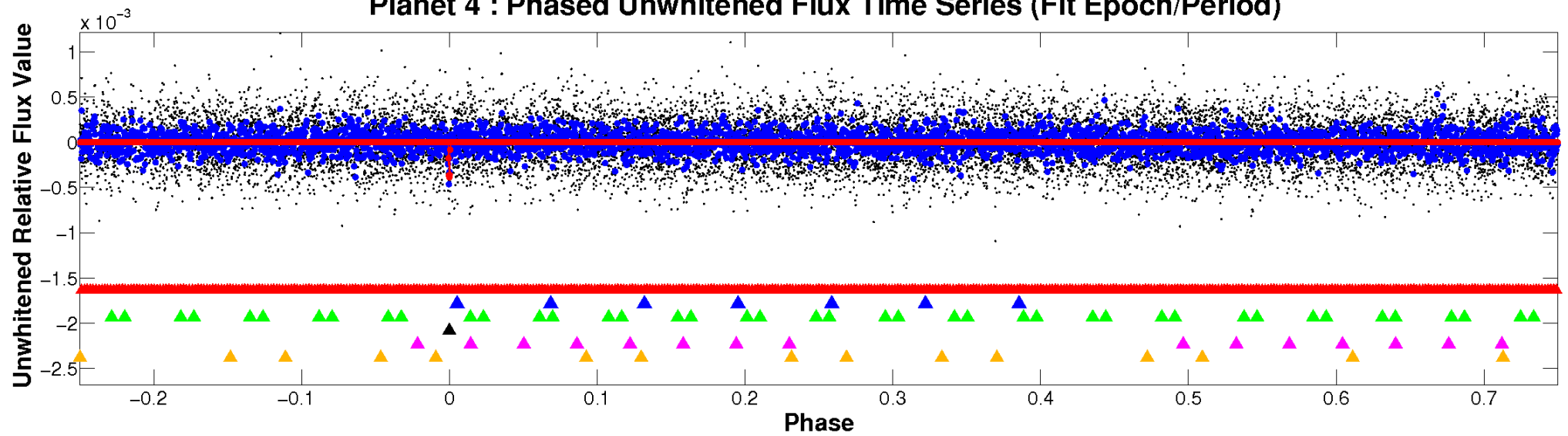
ALT Odd/Even

TCE 005297343-04

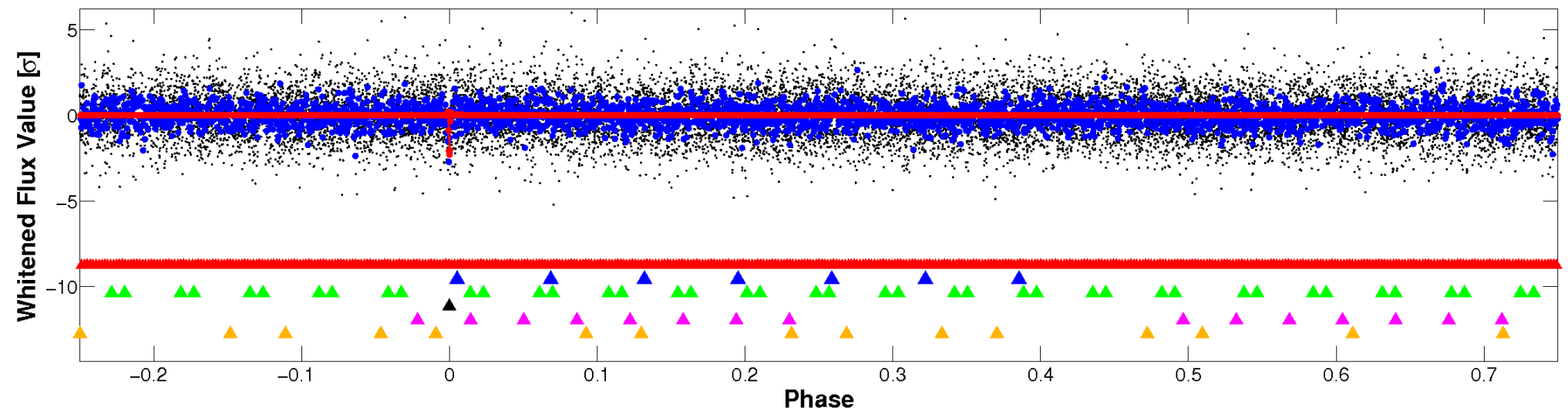


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

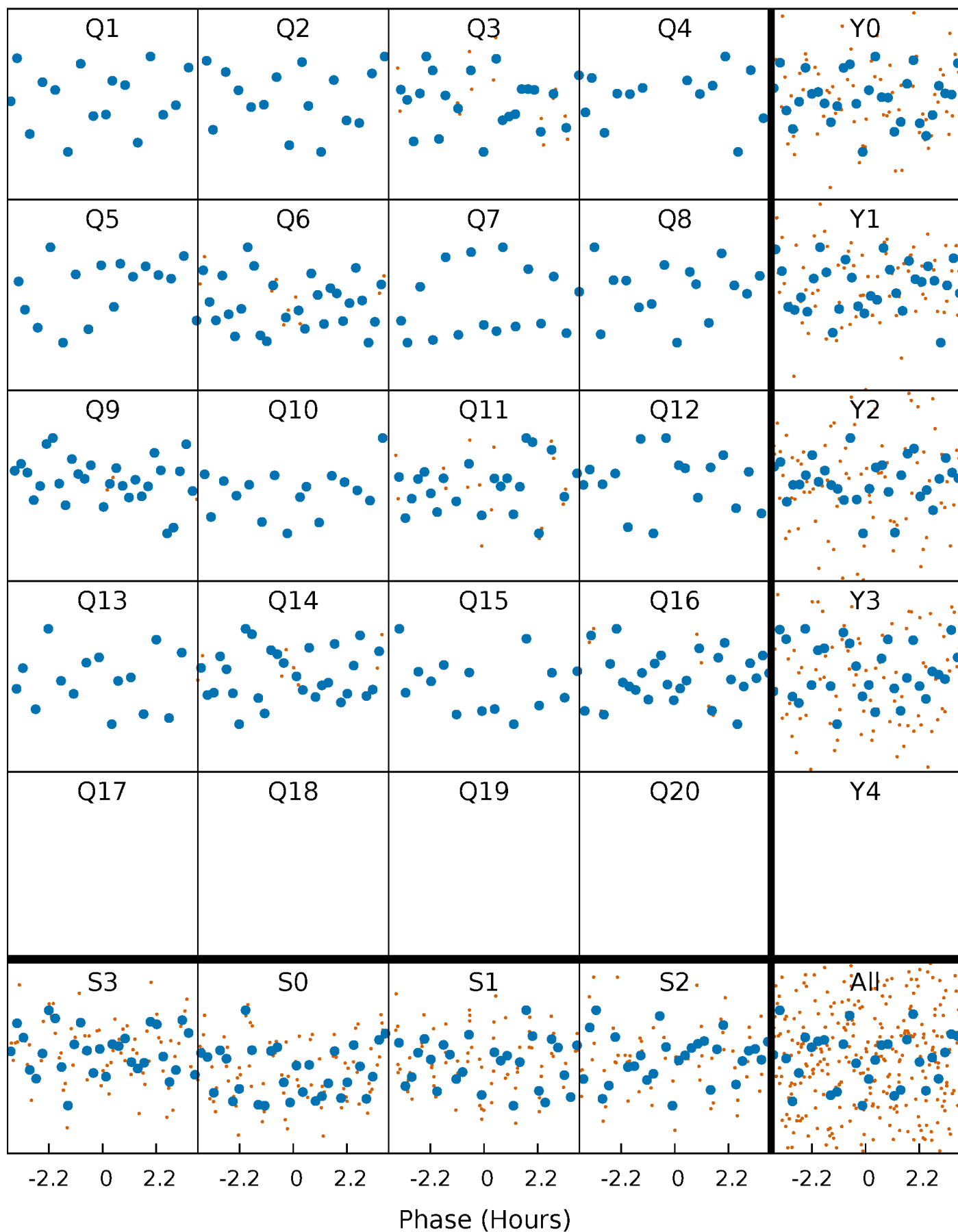


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



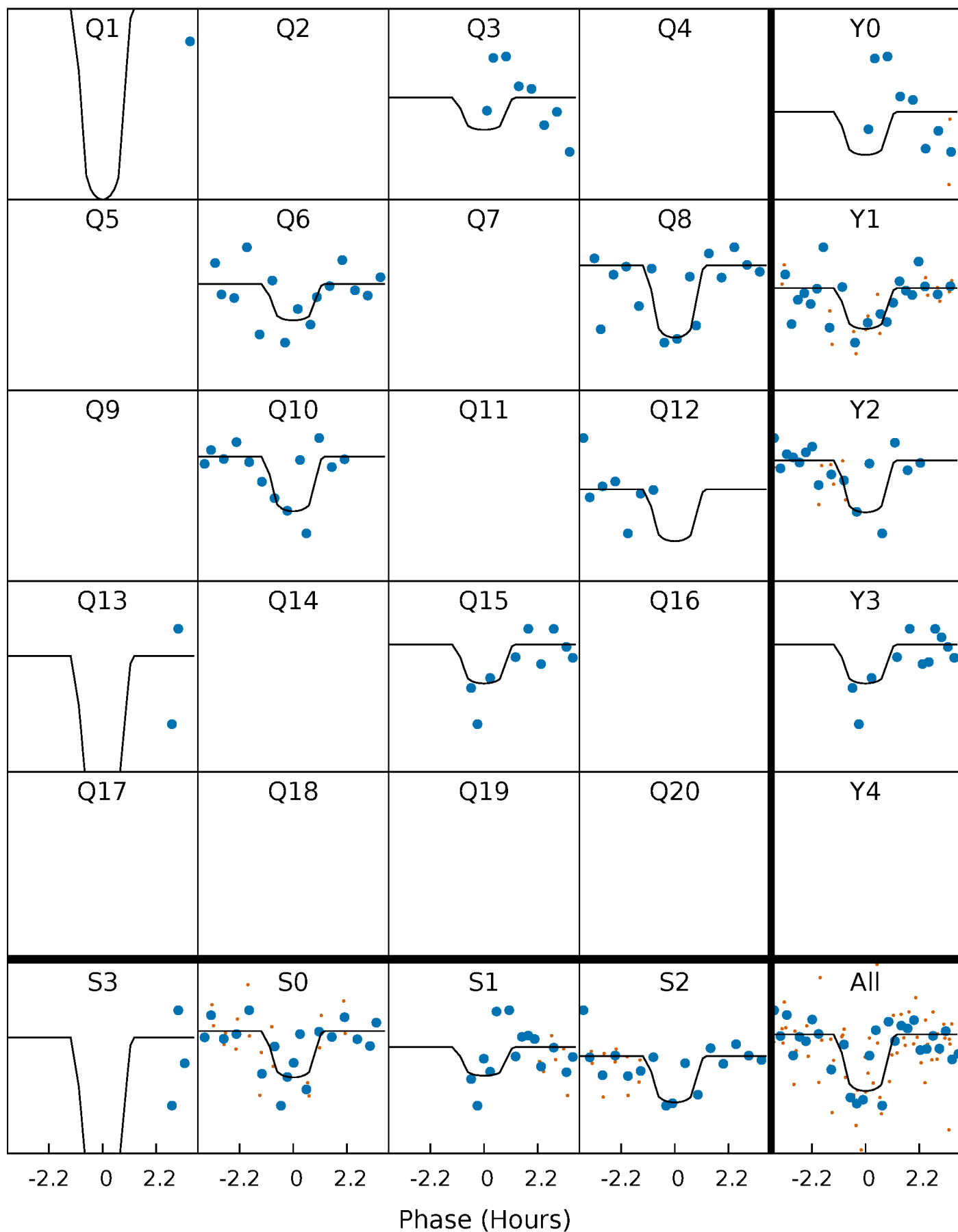
PDC Quarter-Phased Transit Curves

TCE 005297343-04 P= 67.260287 Days $T_0=144.241770$ (BKJD)



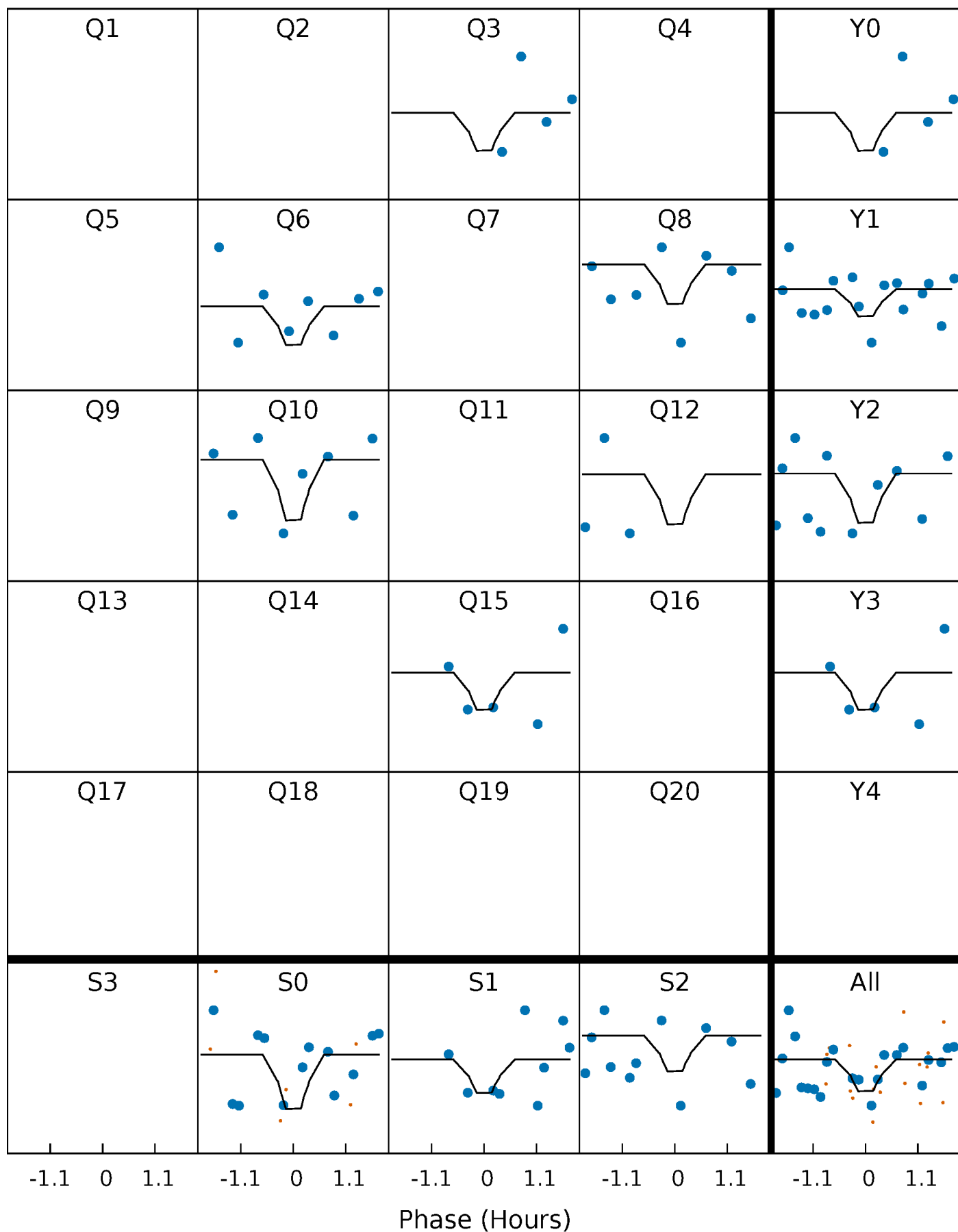
DV Quarter-Phased Transit Curves

TCE 005297343-04 P= 67.260287 Days $T_0=144.241770$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

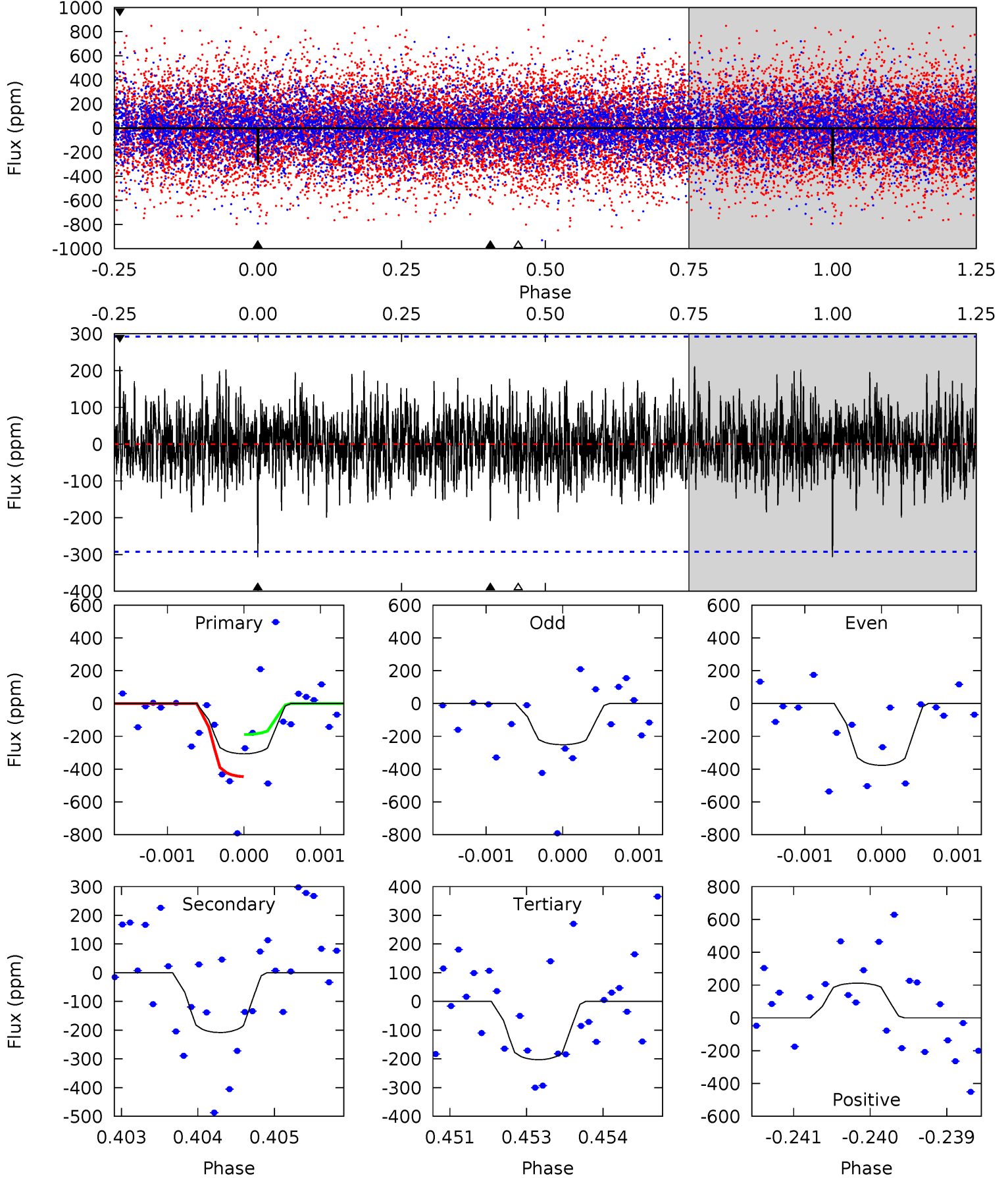
TCE 005297343-04 P= 67.261509 Days $T_0=144.224597$ (BKJD)



DV Model-Shift Uniqueness Test

005297343-04, P = 67.260287 Days, E = 76.981483 Days

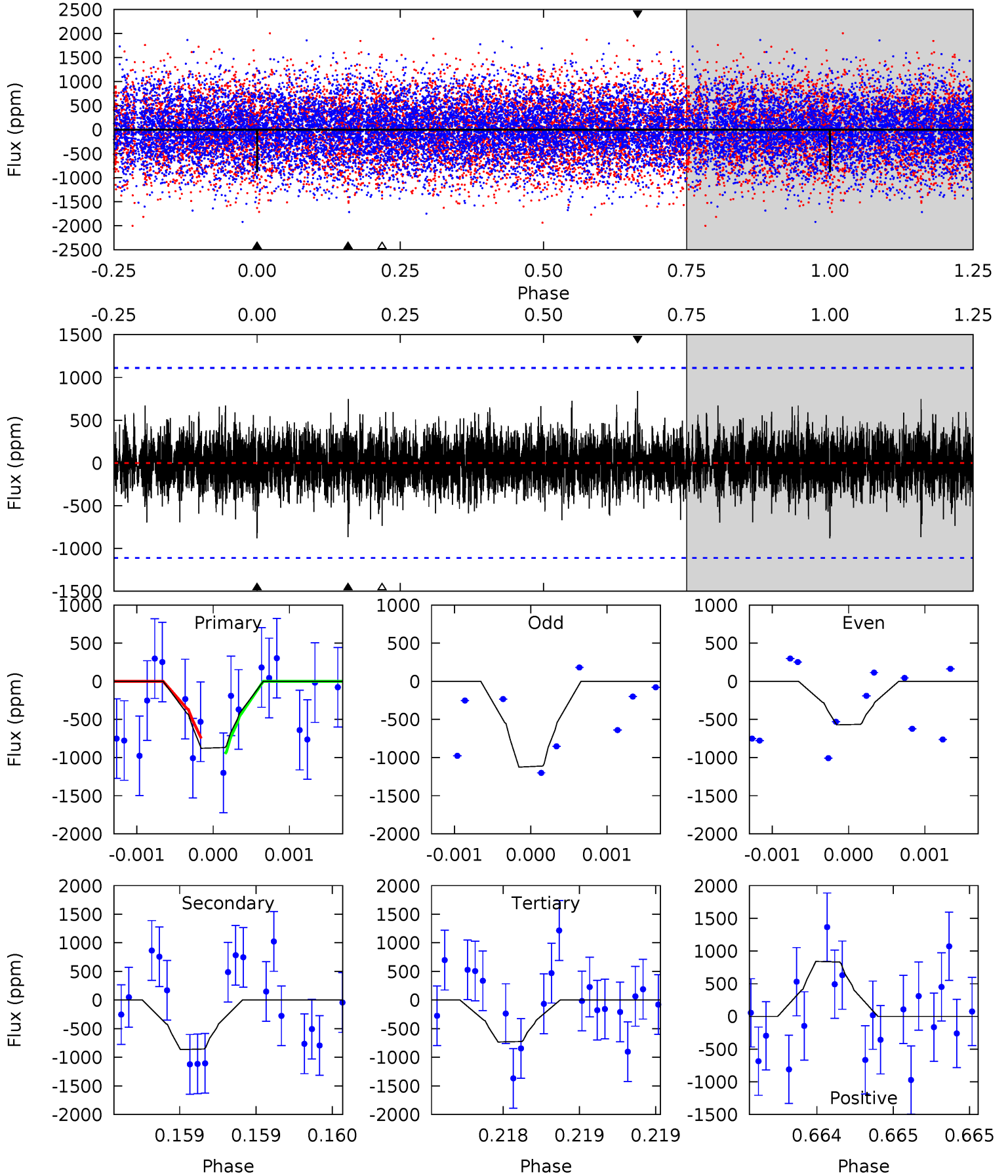
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.67	3.85	3.75	3.92	5.40	3.21	1.16	1.92	1.76	0.10	-0.07	1.16	0.82	0.41	2.36



Alt Model-Shift Uniqueness Test

005297343-04, P = 67.261509 Days, E = 76.963088 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.38	4.32	3.66	4.20	5.54	3.43	0.97	0.73	0.19	0.66	0.12	1.38	0.95	0.49	0.49



Stellar Parameters For KIC 005297343

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8317^{+229}_{-373}	$4.091^{+0.130}_{-0.145}$	$0.070^{+0.250}_{-0.500}$	$2.074^{+0.476}_{-0.476}$	$1.935^{+0.315}_{-0.386}$	$0.306^{+0.230}_{-0.132}$
	+3%/-4%	+3%/-4%	+357%/-714%	+23%/-23%	+16%/-20%	+75%/-43%
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 005297343-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-208 ± 54	$7.05^{+5.90}_{-4.68}$	1161^{+73}_{-70}	5369^{+4861}_{-1152}	353^{+2882}_{-244}
Alt.	-866 ± 200	$9.32^{+6.77}_{-5.80}$	1166^{+75}_{-78}	6834^{+6185}_{-1683}	874^{+5267}_{-601}

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 $A_{obs} \gg 1.0$

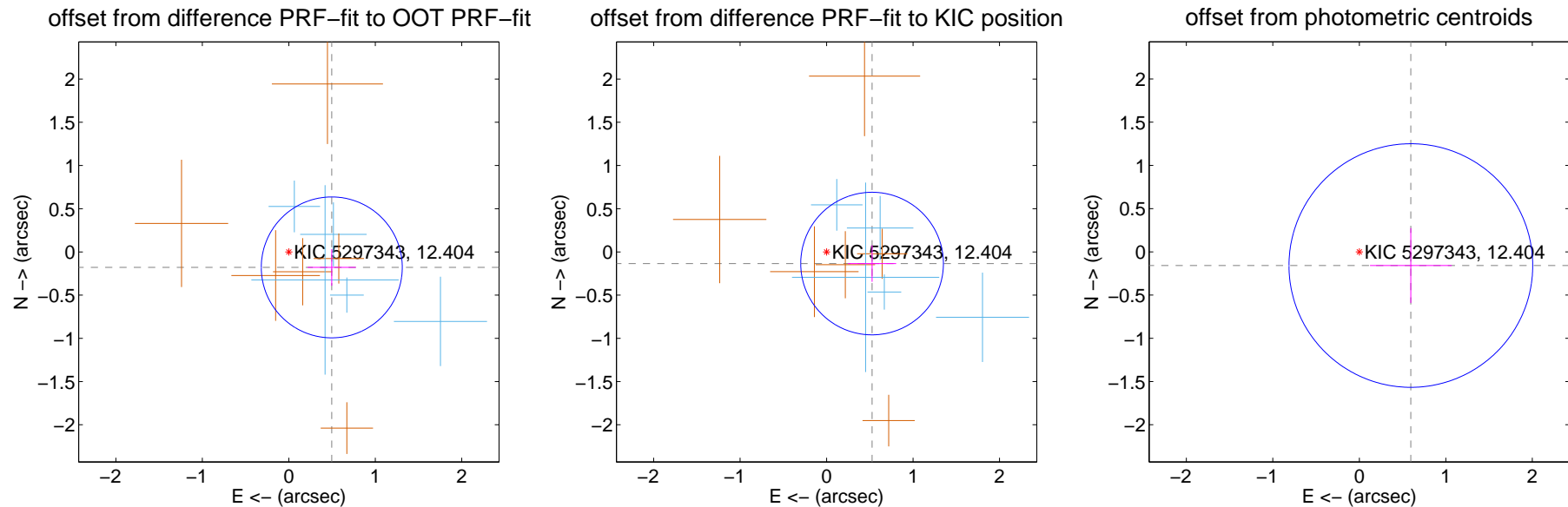
DV Centroid Data

Supplemental centroid analysis for 005297343-04. Kepler magnitude: 12.40. Transit SNR 7.85

There are 5 quarters with good PRF difference image offsets

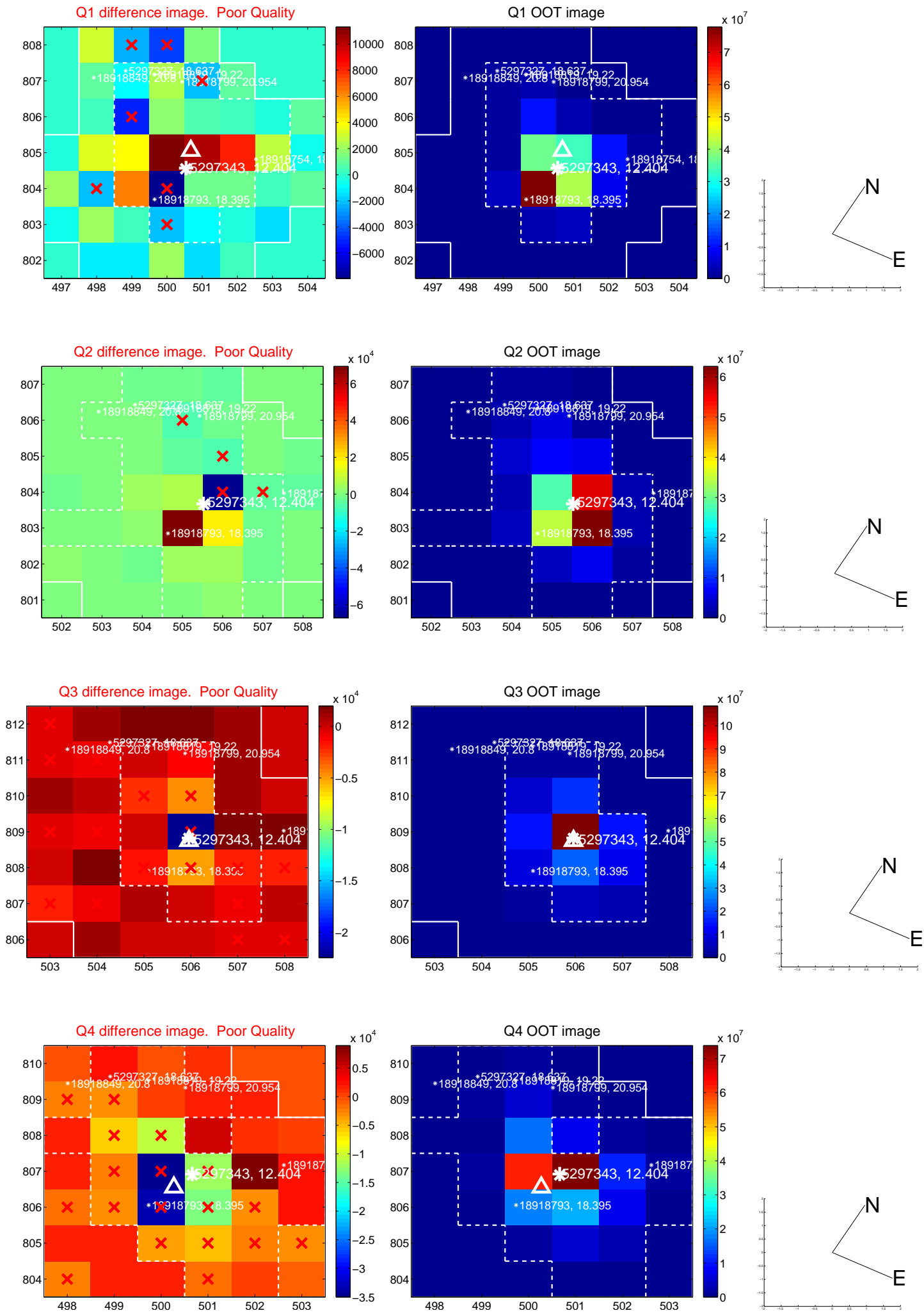
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.528 ± 0.272	1.94	-0.497 ± 0.279	-0.179 ± 0.211
PRF-fit source offset from KIC position	0.543 ± 0.275	1.97	-0.526 ± 0.279	-0.135 ± 0.211
photometric centroid source offset	0.62 ± 0.47	1.31	-0.60 ± 0.47	-0.16 ± 0.43

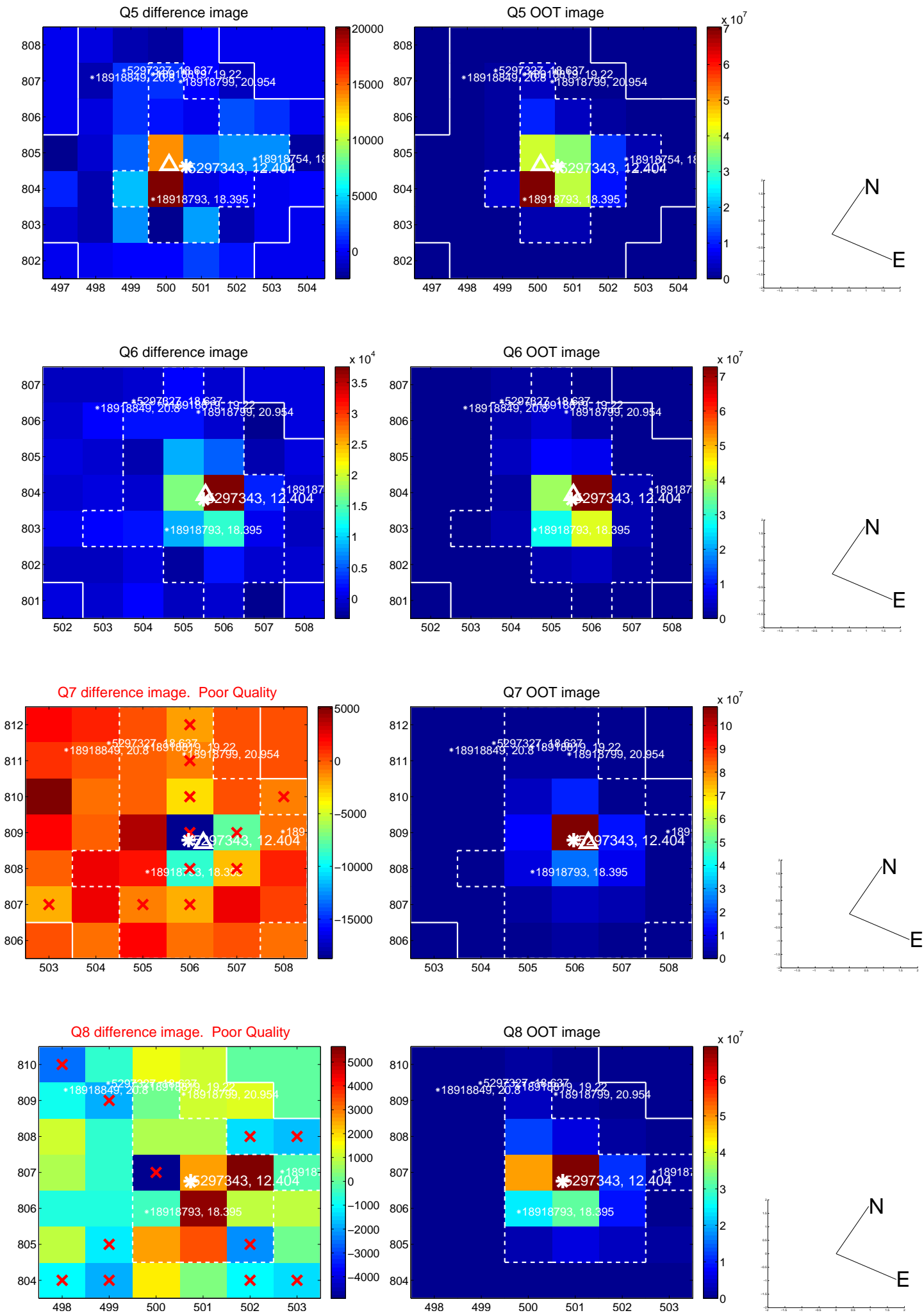


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

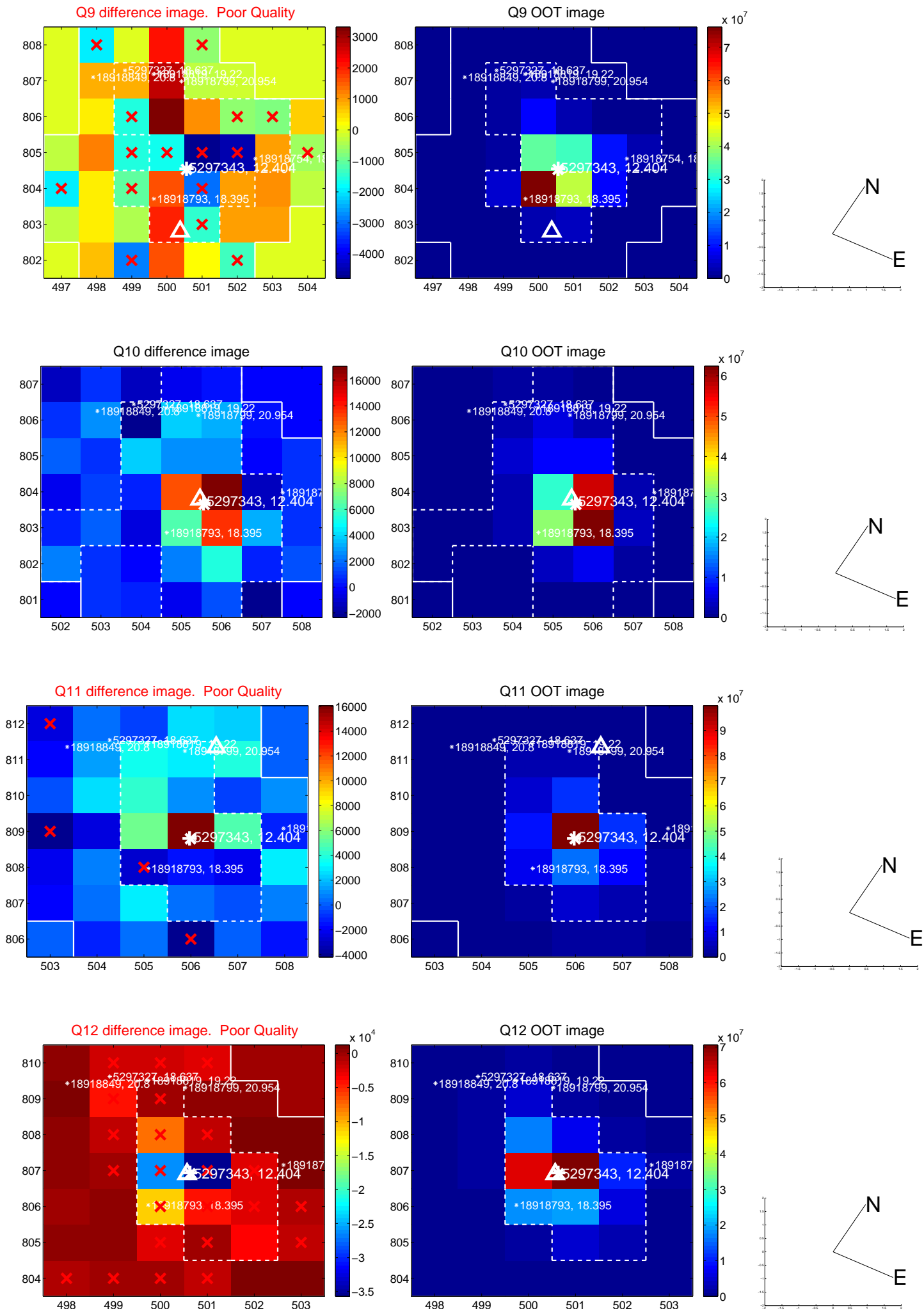
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

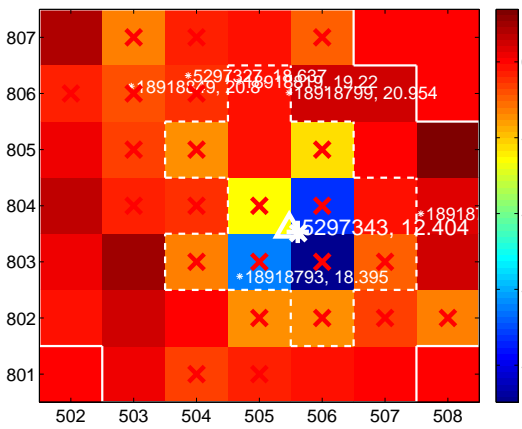
Q13 no difference image



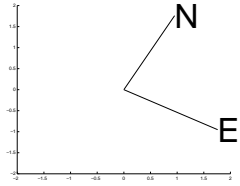
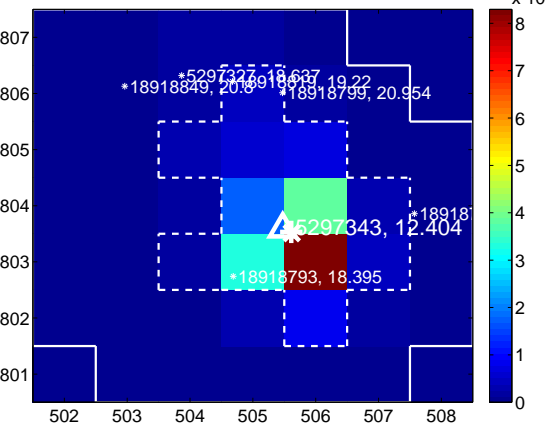
Q13 no OOT image



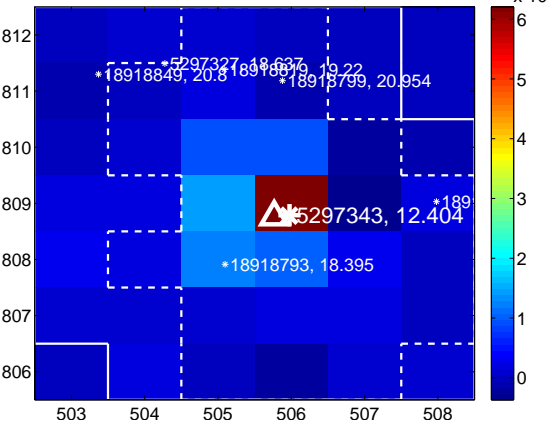
Q14 difference image. Poor Quality



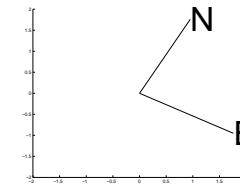
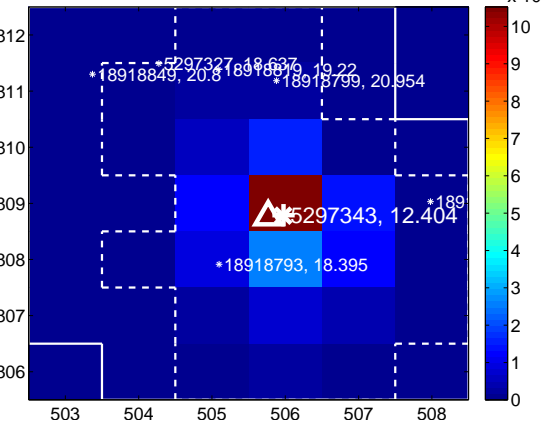
Q14 OOT image



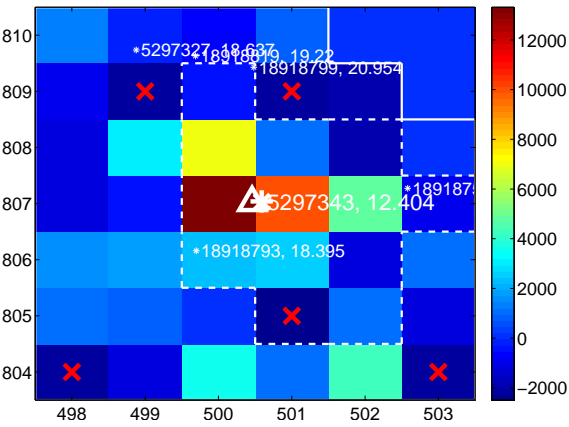
Q15 difference image



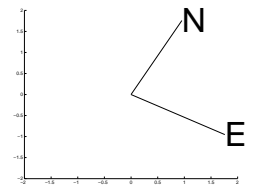
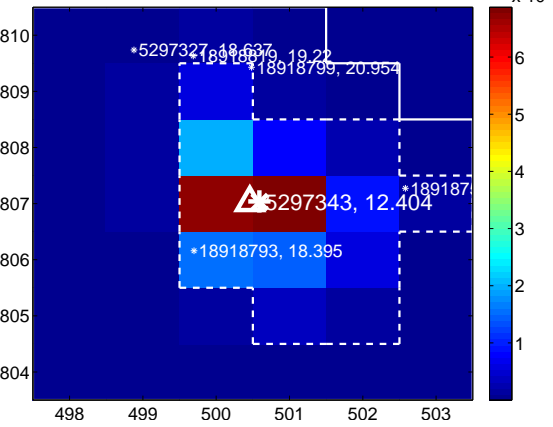
Q15 OOT image



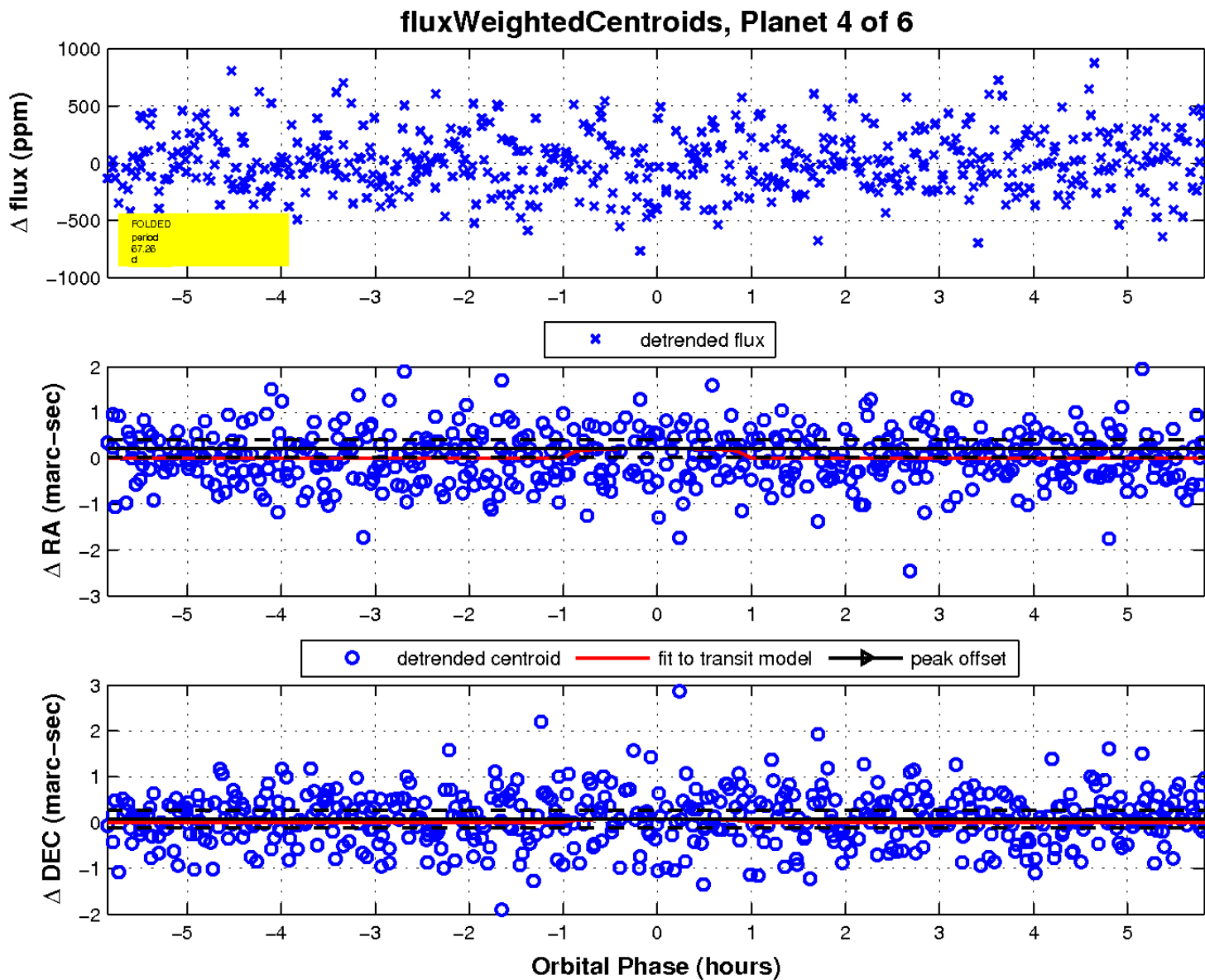
Q16 difference image



Q16 OOT image

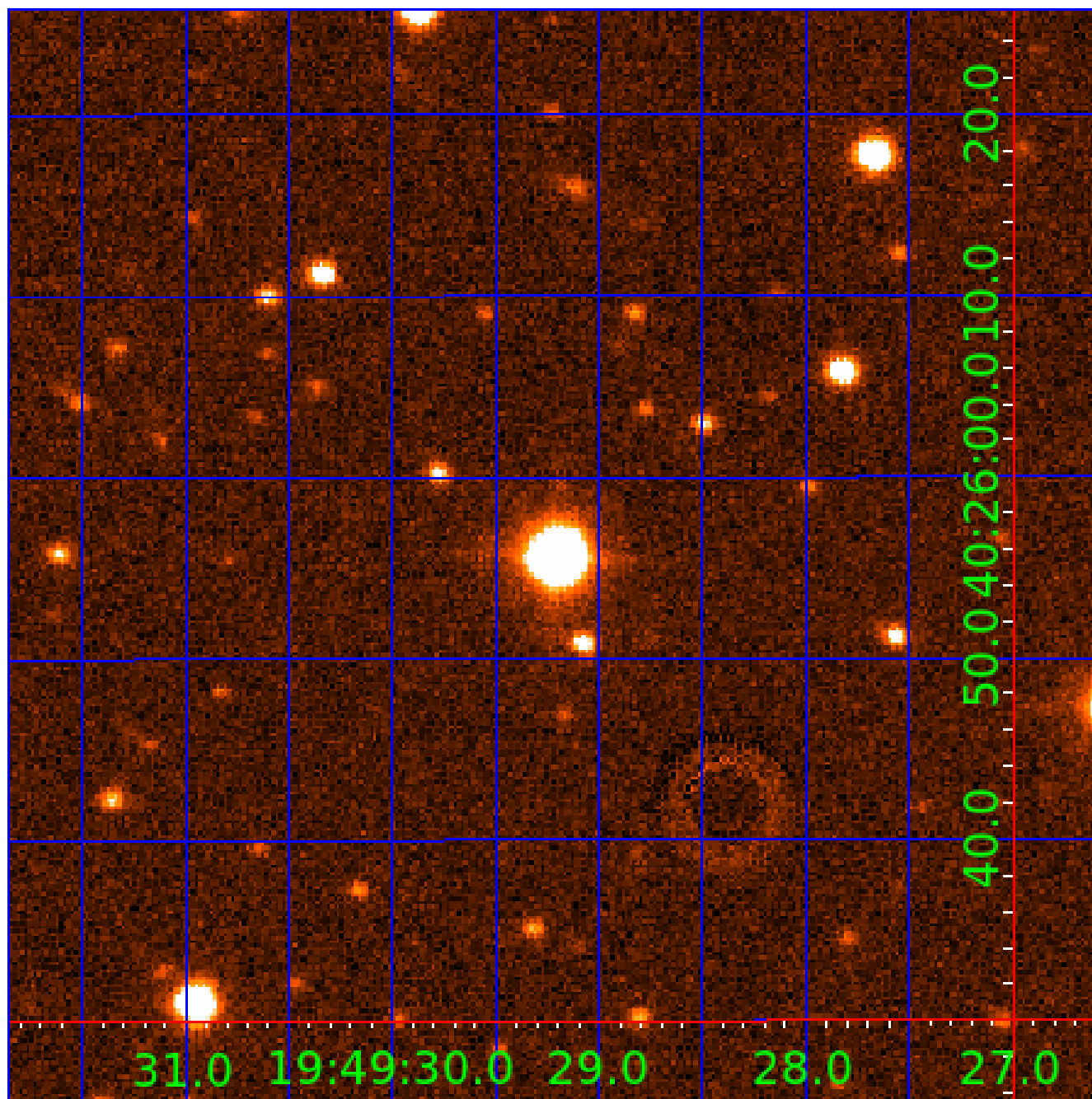


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005297343

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})
005297343-01	OBS	No	2.122565	132.956331	29.6	12.637	10.7	11.0	2.07	8317	1.14	11362.81
005297343-02	OBS	No	197.518793	237.427762	499.1	2.061	9.1	9.4	2.07	8317	5.26	26.95
005297343-03	OBS	No	35.203370	145.793789	245.0	2.741	8.6	8.9	2.07	8317	3.76	268.65
005297343-04	OBS	No	67.260287	144.241770	387.6	1.954	8.6	7.8	2.07	8317	4.42	113.31
005297343-05	OBS	No	99.681871	159.715751	259.5	5.511	7.6	9.1	2.07	8317	3.75	67.06
005297343-06	OBS	No	92.795848	208.381520	273.4	3.206	8.5	7.6	2.07	8317	3.68	73.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005297343-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
005297343-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

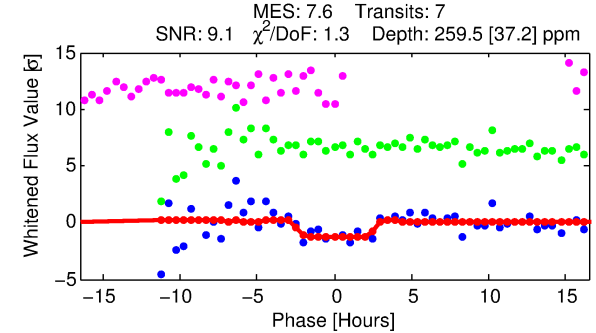
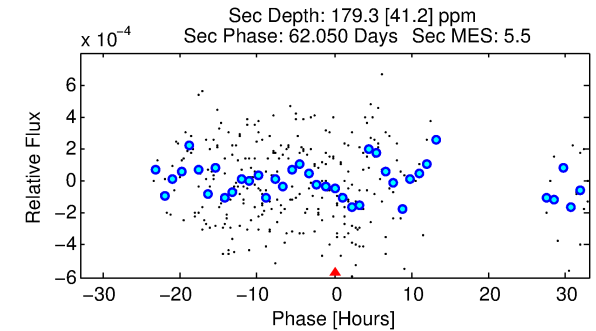
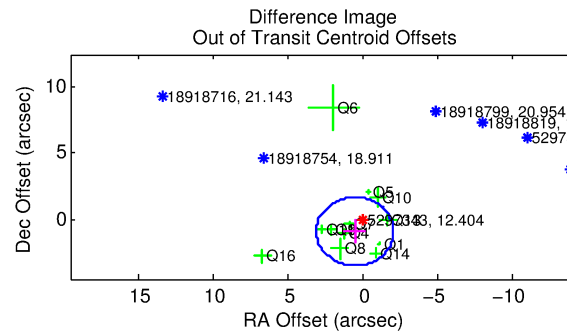
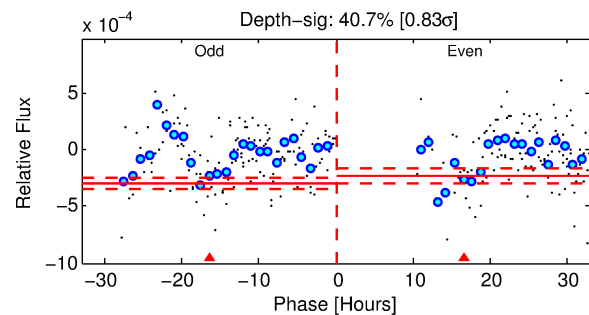
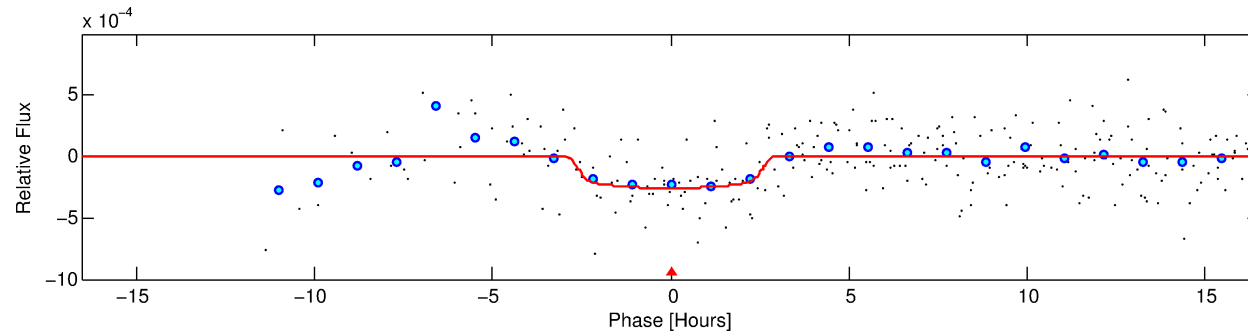
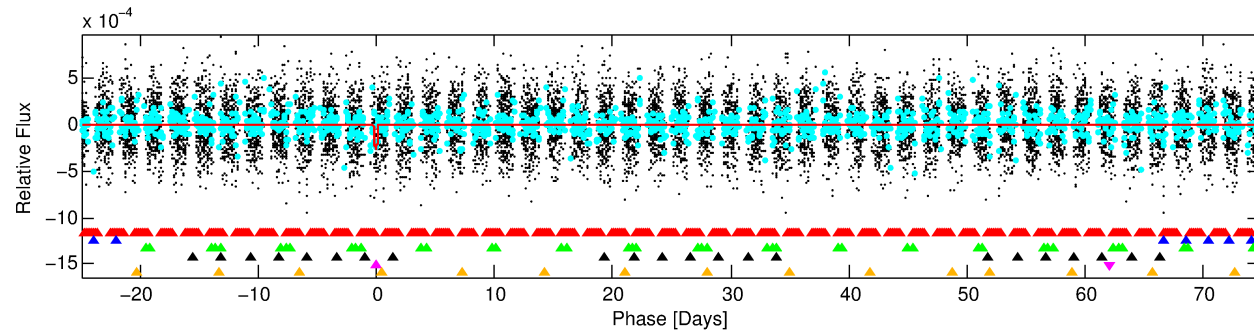
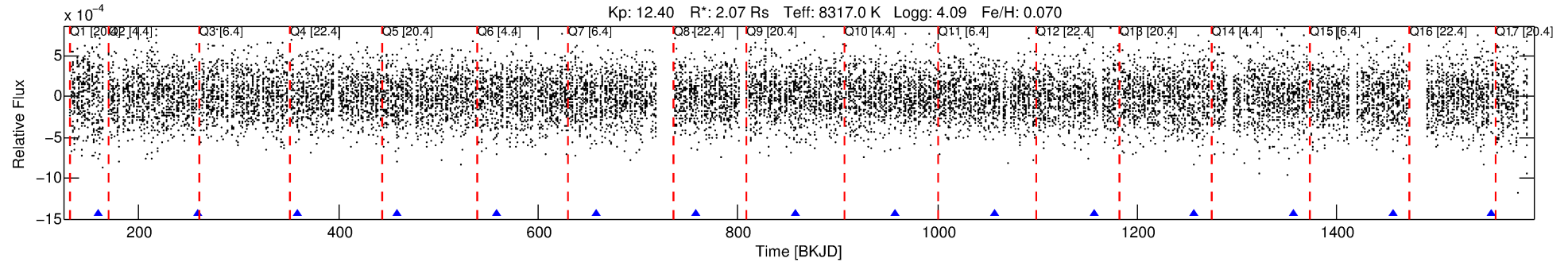
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005297343-05

No Significant Match Found

DV One-Page Summary

KIC: 5297343 Candidate: 5 of 6 Period: 99.682 d



DV Fit Results:

Period = 99.68187 [0.00458] d
Epoch = 159.7158 [0.0169] BKJD
Rp/R* = 0.0165 [0.0135]
a/R* = 79.32 [400.16]
b = 0.84 [1.79]
Seff = 67.06 [21.74]
Teff = 730 [59] K
Rp = 3.74 [3.17] Re
a = 0.5244 [0.0992] AU
Ag = 1934.03 [3226.72] [0.60 σ]
Teffp = 7482 [3098] K [2.18 σ]

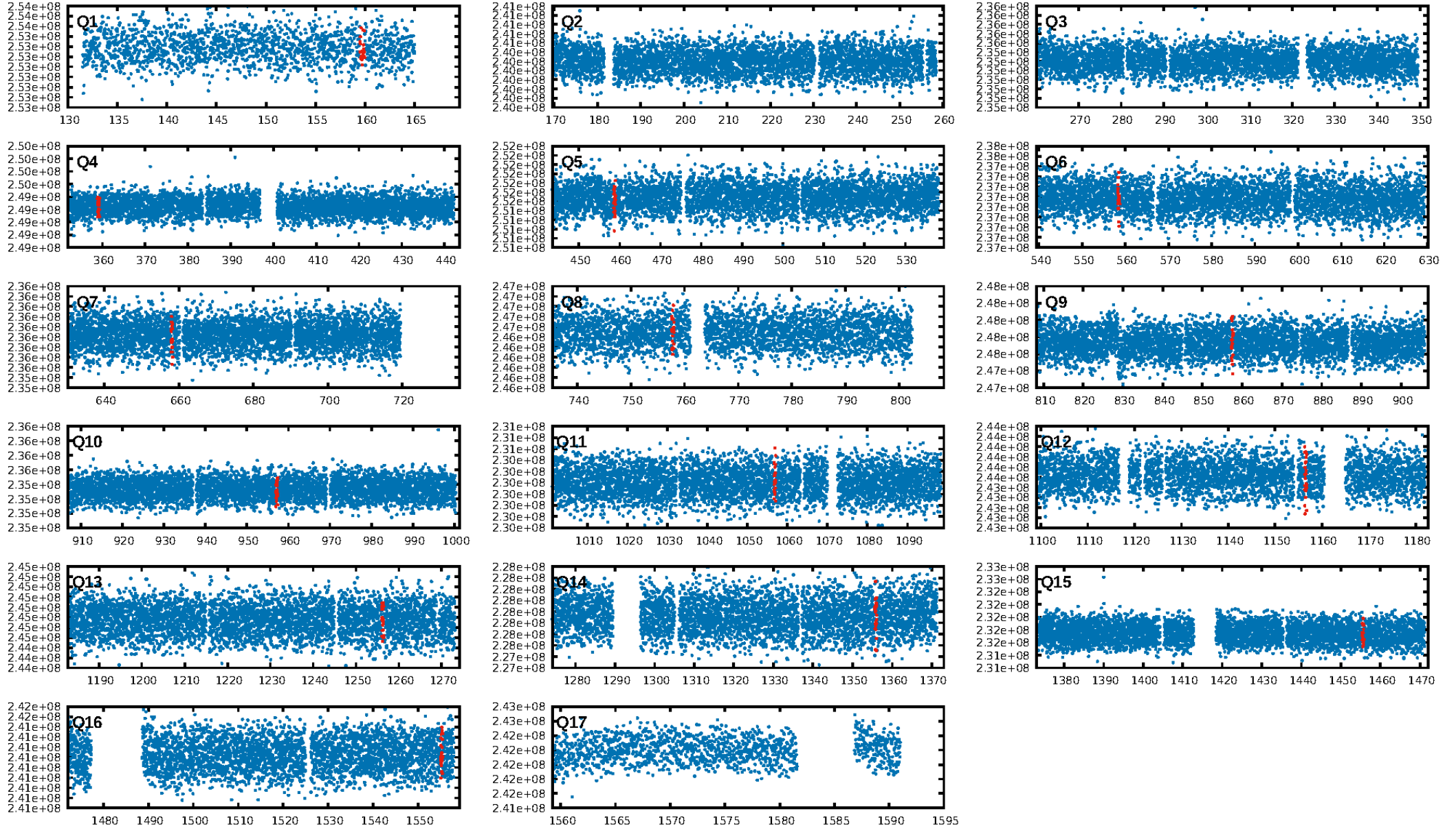
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.92 σ]
LongPeriod-sig: 100.0% [399.09 σ]
ModelChiSquare2-sig: 50.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 1.644
Centroid-sig: 73.1%
Centroid-so: 0.362 arcsec [0.67 σ]
OotOffset-rm: 1.029 arcsec [1.20 σ]
OotOffset-st: 3/2/3/4 [12]
KicOffset-rm: 0.964 arcsec [1.24 σ]
KicOffset-st: 3/2/3/4 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 0.43 [6/14]

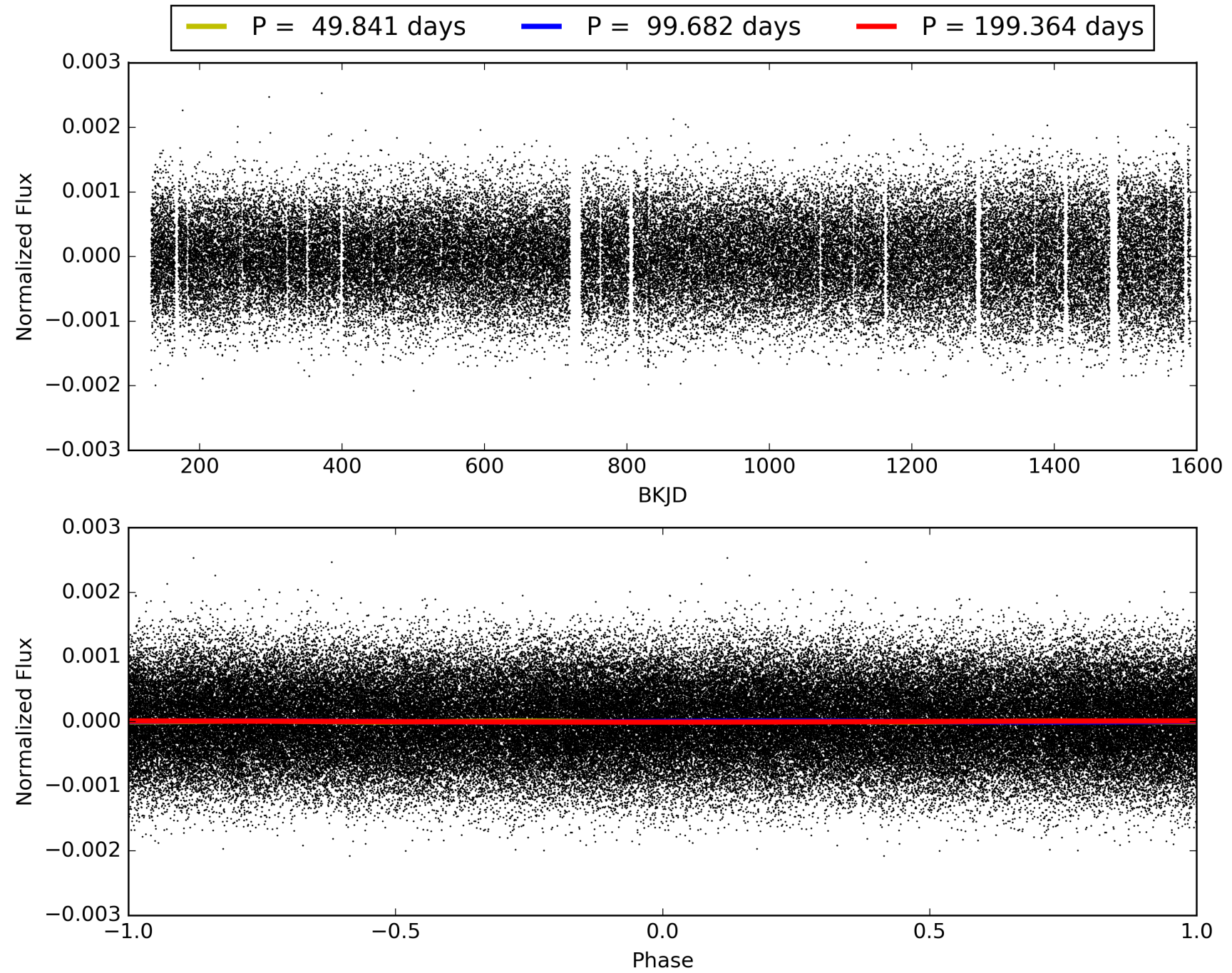
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:23:54 Z

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

TCE 005297343-05, PDC Light Curves

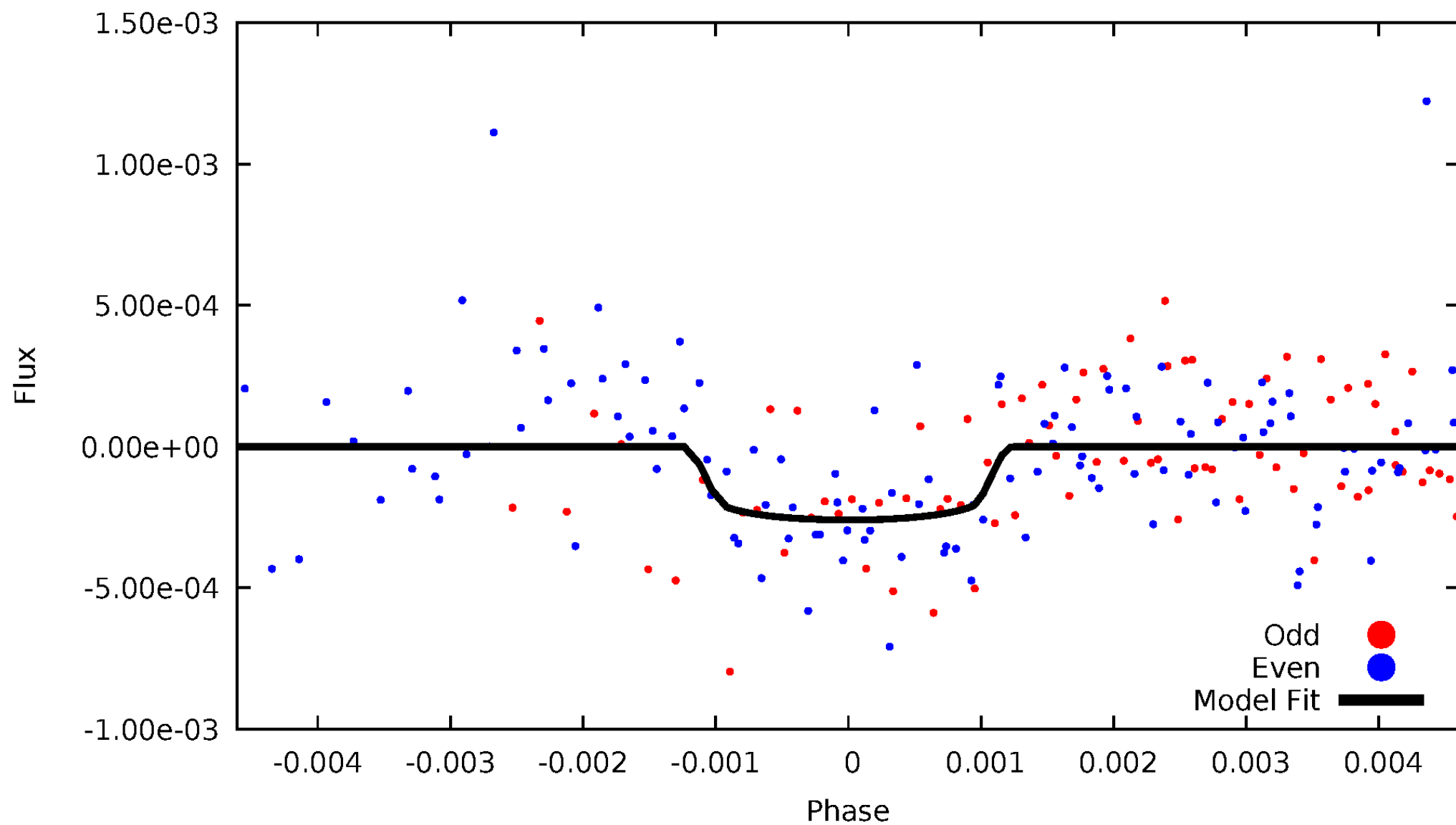


TCE 005297343-05



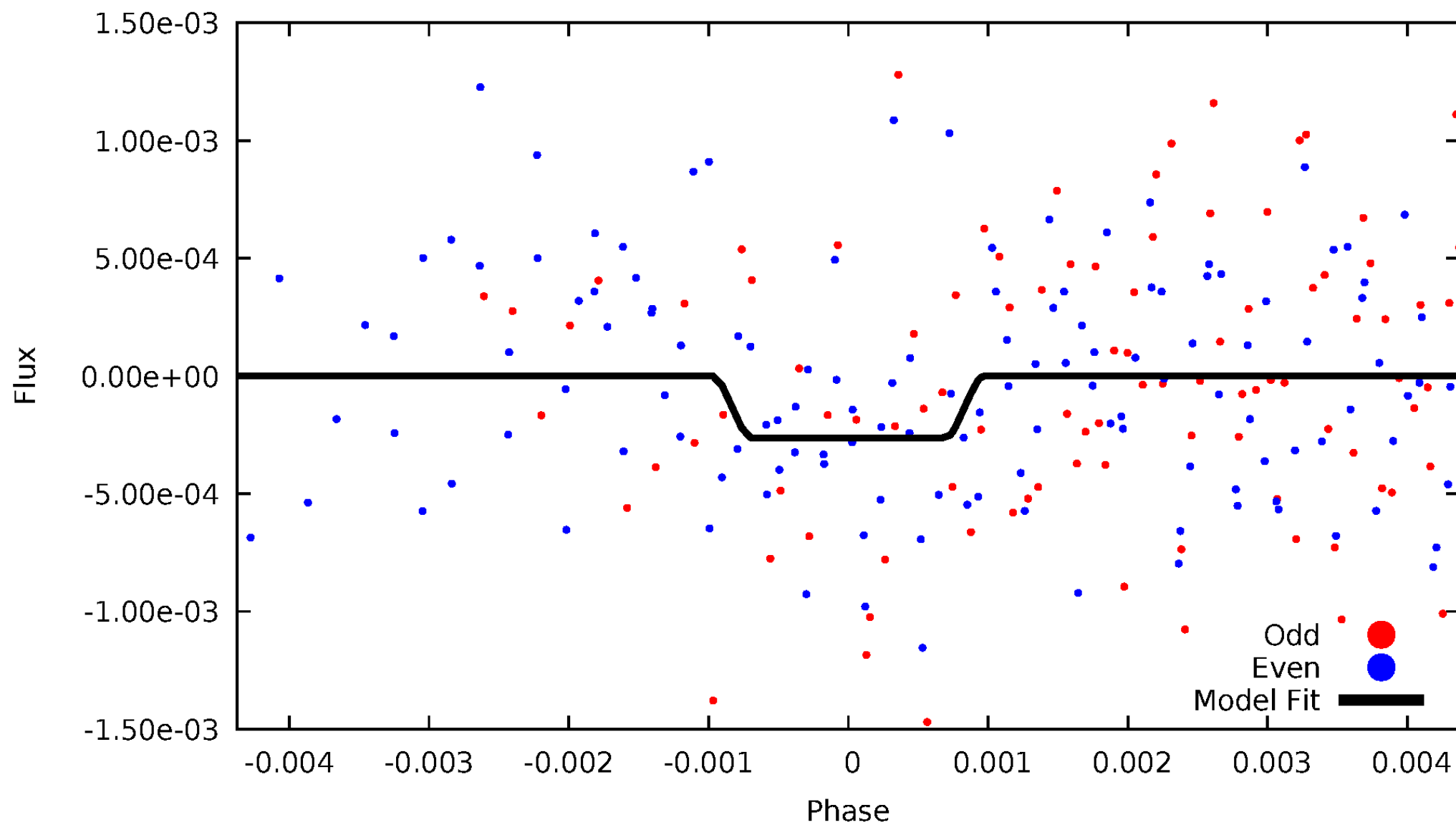
DV Odd/Even

TCE 005297343-05



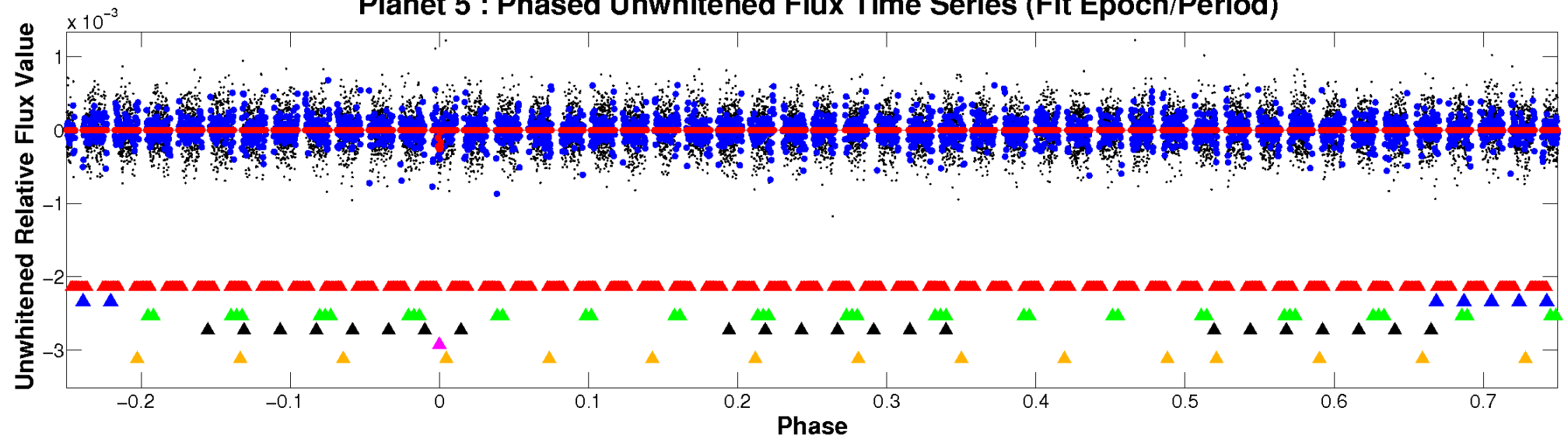
ALT Odd/Even

TCE 005297343-05

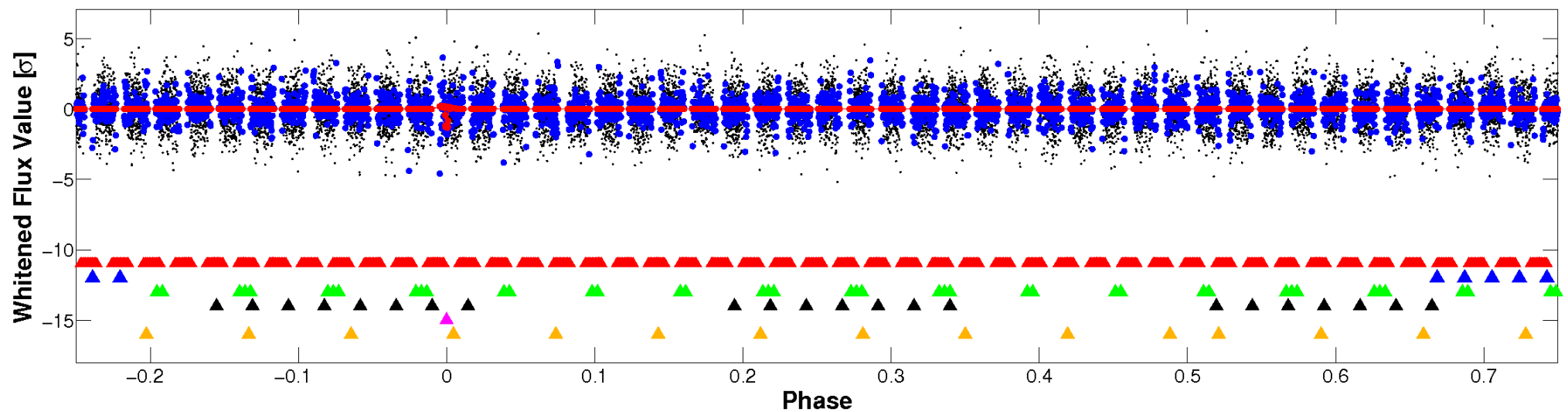


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

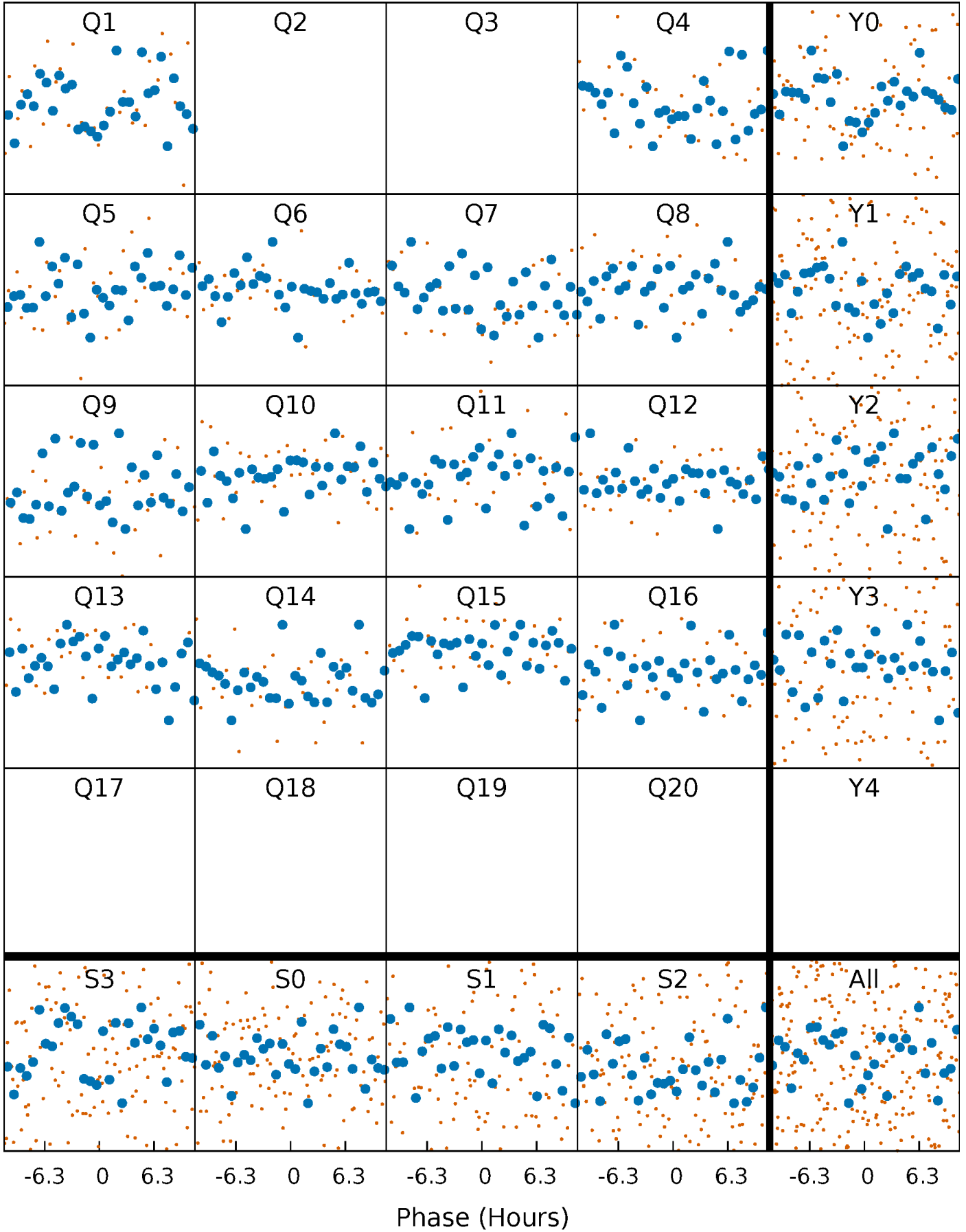


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



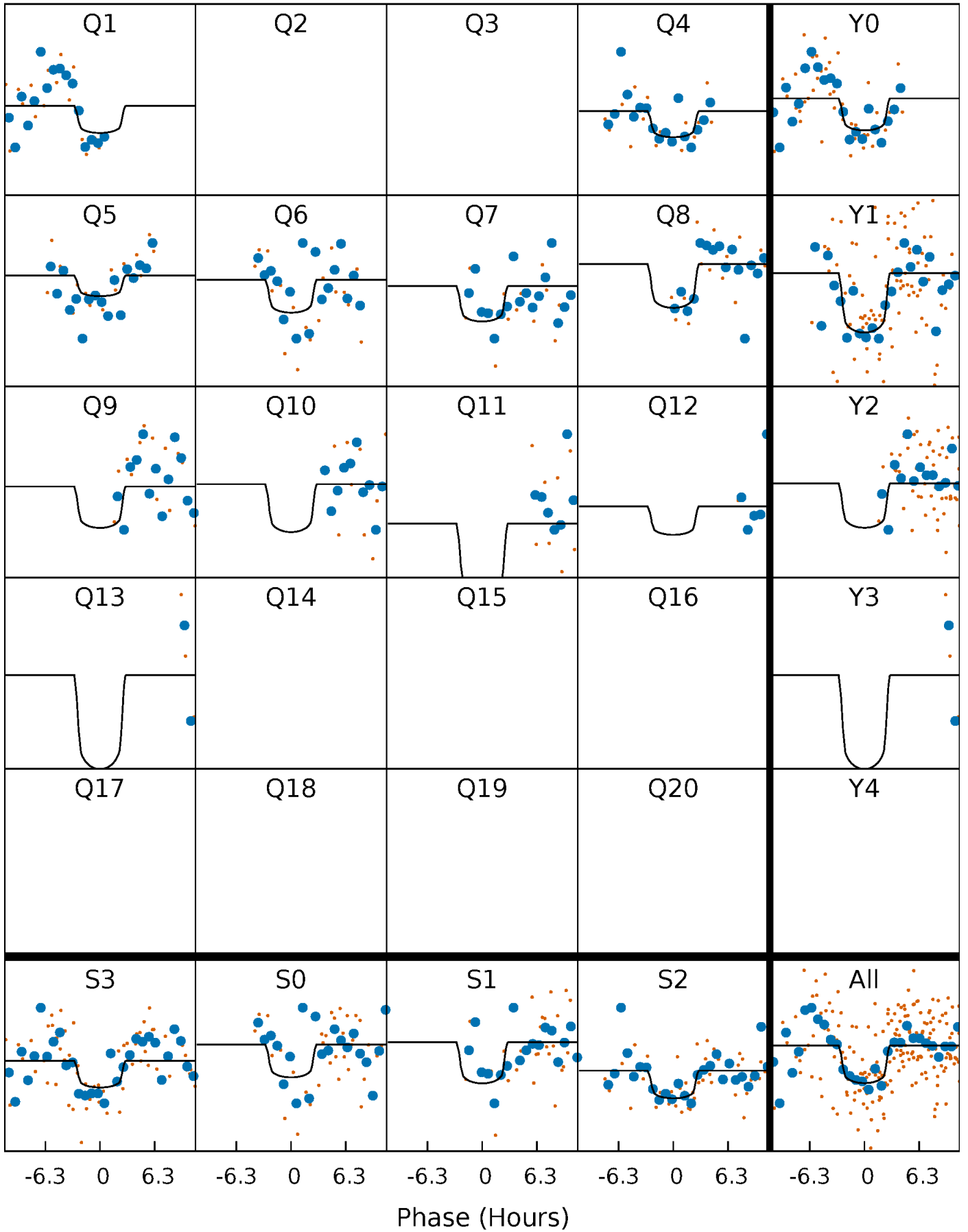
PDC Quarter-Phased Transit Curves

TCE 005297343-05 P= 99.681871 Days $T_0=159.715751$ (BKJD)



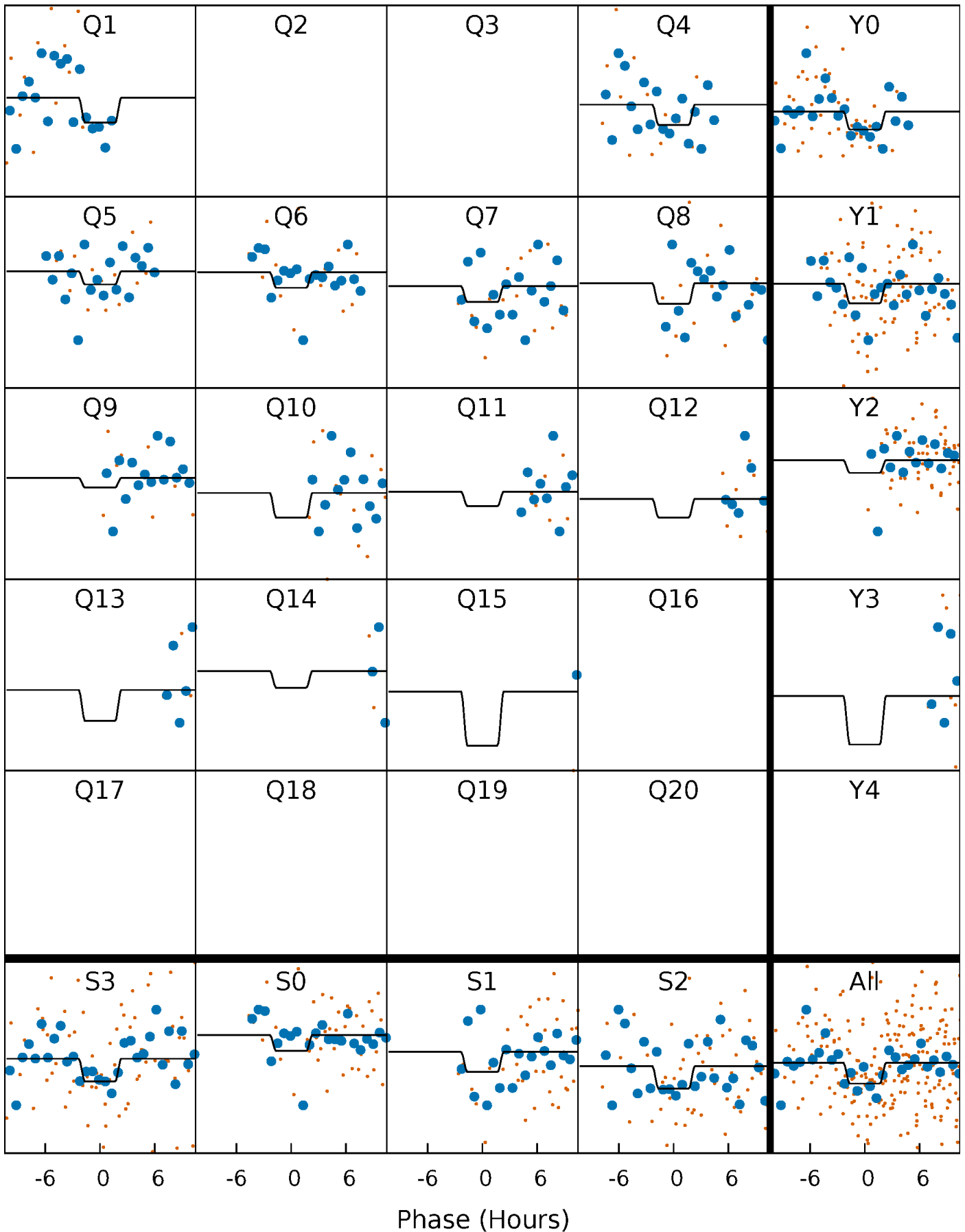
DV Quarter-Phased Transit Curves

TCE 005297343-05 P= 99.681871 Days $T_0=159.715751$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

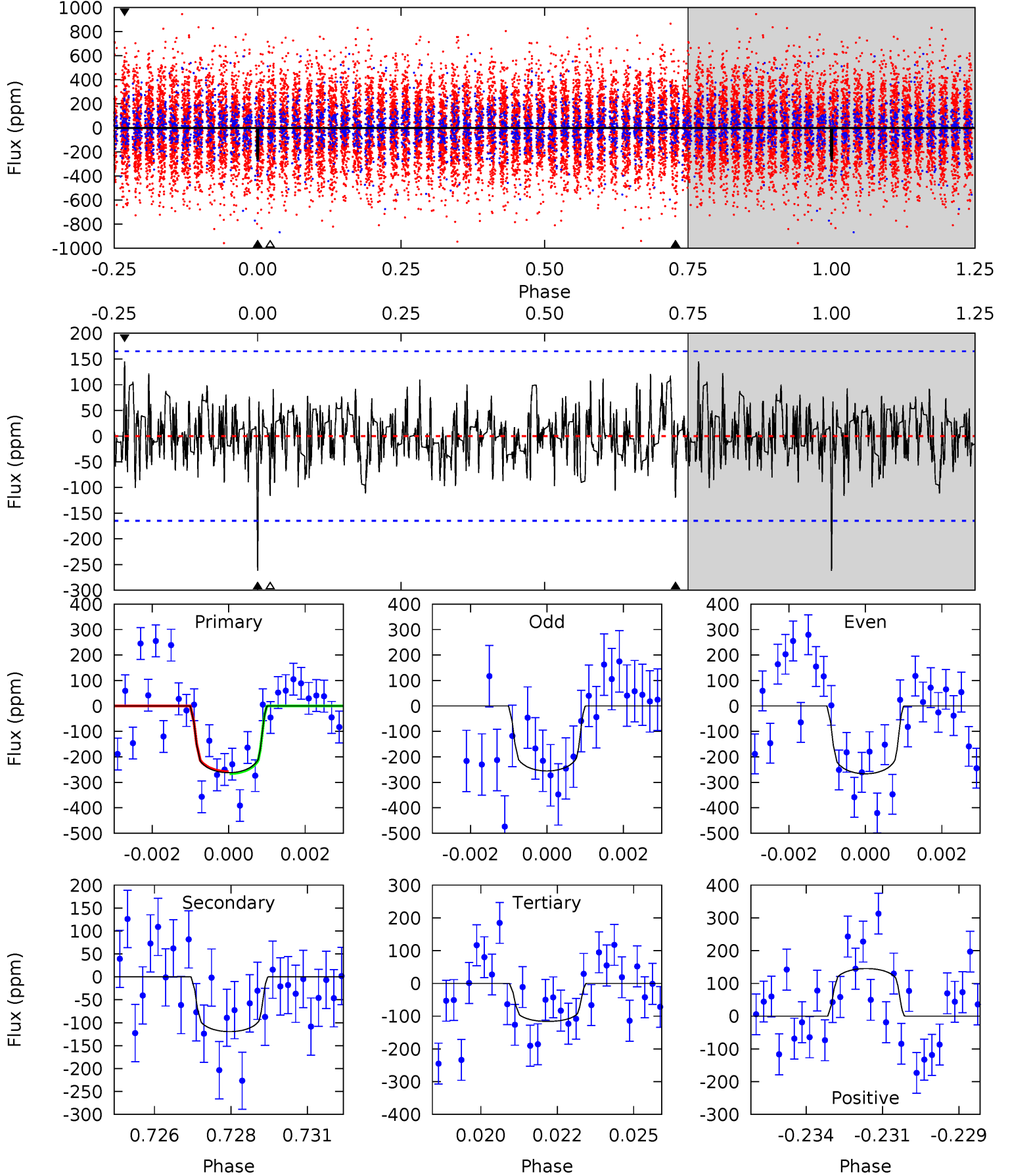
TCE 005297343-05 P= 99.693431 Days $T_0=159.688594$ (BKJD)



DV Model-Shift Uniqueness Test

005297343-05, P = 99.681871 Days, E = 60.033880 Days

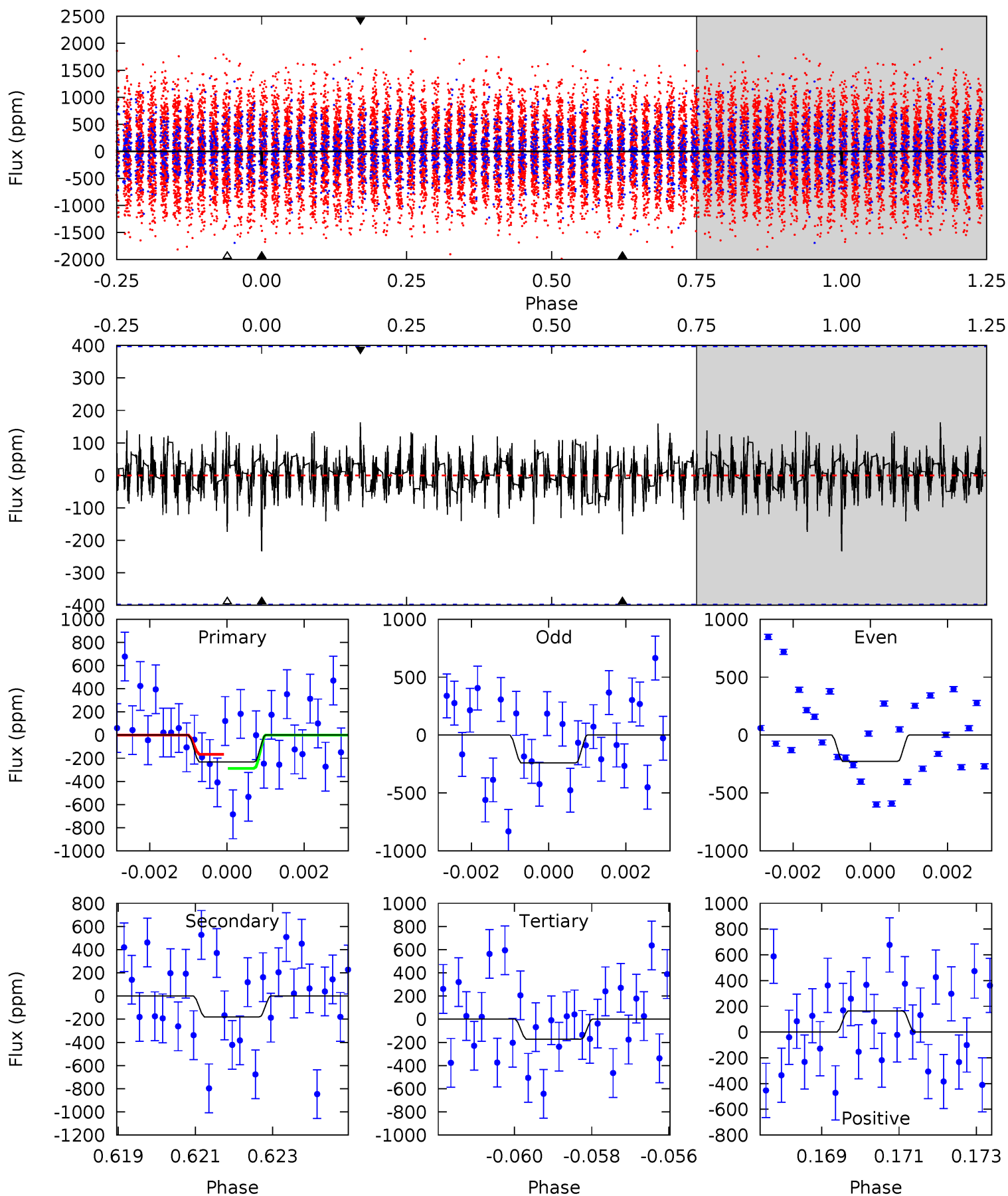
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.41	3.83	3.73	4.66	5.29	3.03	1.28	4.68	3.75	0.11	-0.83	0.18	1.01	0.36	0.12



Alt Model-Shift Uniqueness Test

005297343-05, P = 99.693431 Days, E = 59.995163 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.12	2.42	2.32	2.19	5.33	3.10	0.64	0.81	0.94	0.11	0.24	0.08	0.95	0.41	0.80



Stellar Parameters For KIC 005297343

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8317^{+229}_{-373}	$4.091^{+0.130}_{-0.145}$	$0.070^{+0.250}_{-0.500}$	$2.074^{+0.476}_{-0.476}$	$1.935^{+0.315}_{-0.386}$	$0.306^{+0.230}_{-0.132}$
	+3%/-4%	+3%/-4%	+357%/-714%	+23%/-23%	+16%/-20%	+75%/-43%
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 005297343-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-119 ± 31	$4.16^{+2.91}_{-2.48}$	1020^{+68}_{-63}	6201^{+4406}_{-1363}	1015^{+4764}_{-659}
Alt.	-181 ± 75	$4.14^{+2.93}_{-2.57}$	1022^{+72}_{-67}	6775^{+6713}_{-1676}	1436^{+9533}_{-998}

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

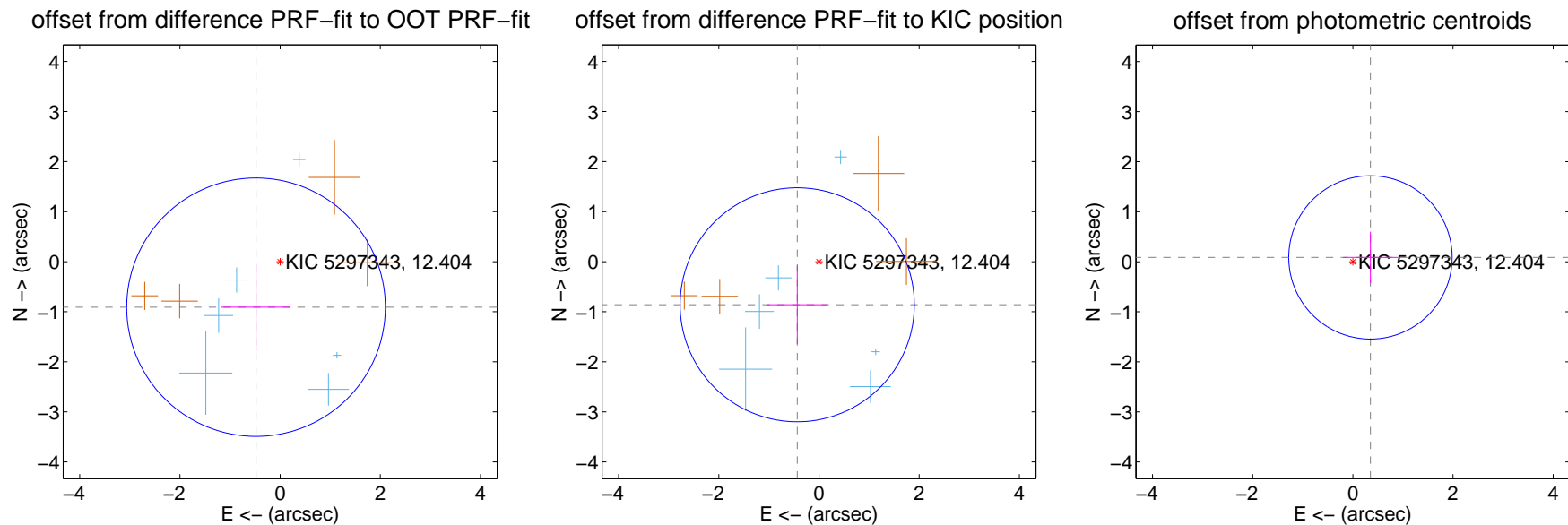
DV Centroid Data

Supplemental centroid analysis for 005297343-05. Kepler magnitude: 12.40. Transit SNR 9.14

There are 6 quarters with good PRF difference image offsets

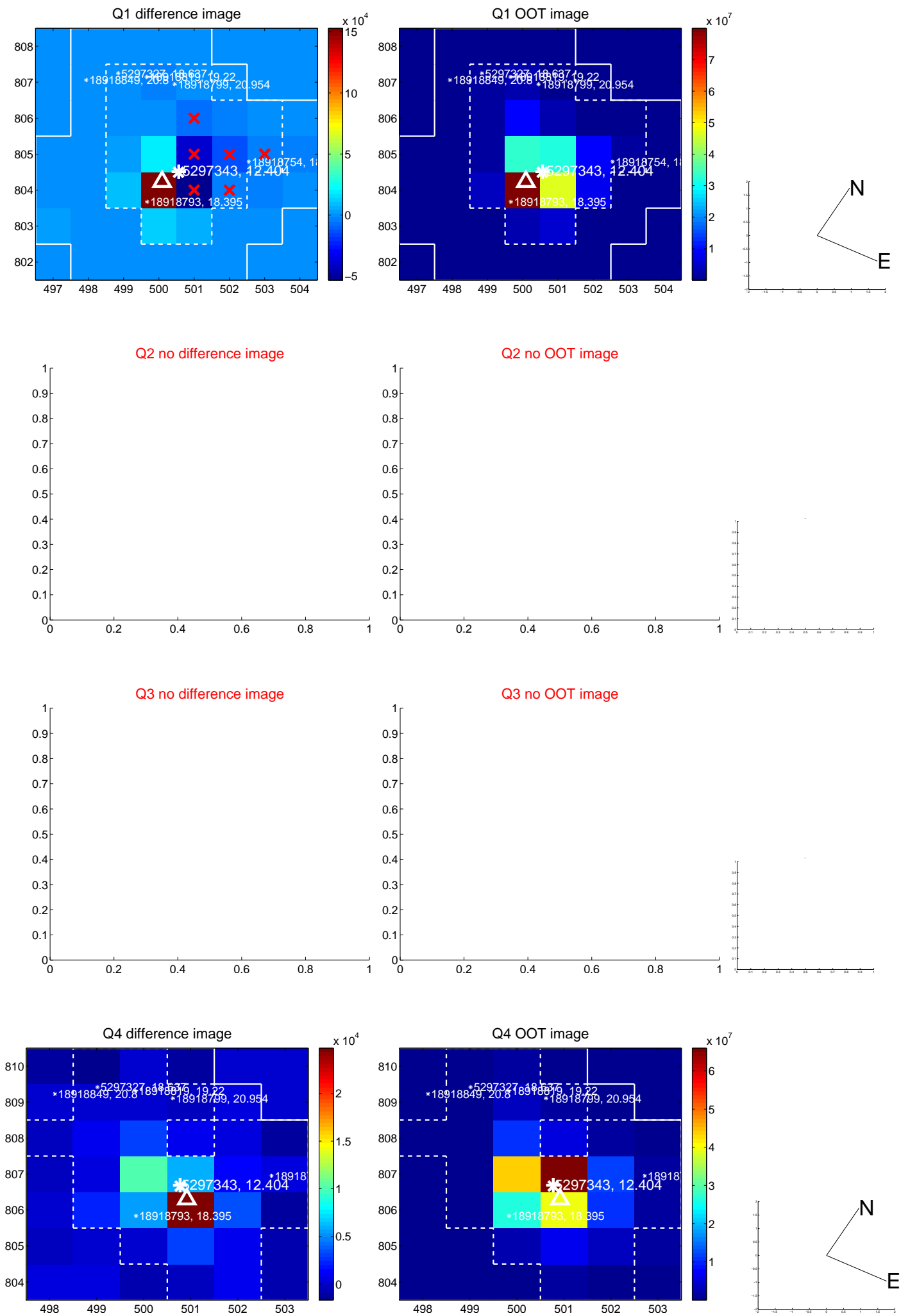
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.029 ± 0.860	1.20	0.481 ± 0.692	-0.909 ± 0.880
PRF-fit source offset from KIC position	0.964 ± 0.779	1.24	0.435 ± 0.608	-0.861 ± 0.783
photometric centroid source offset	0.36 ± 0.54	0.67	-0.35 ± 0.55	0.09 ± 0.51

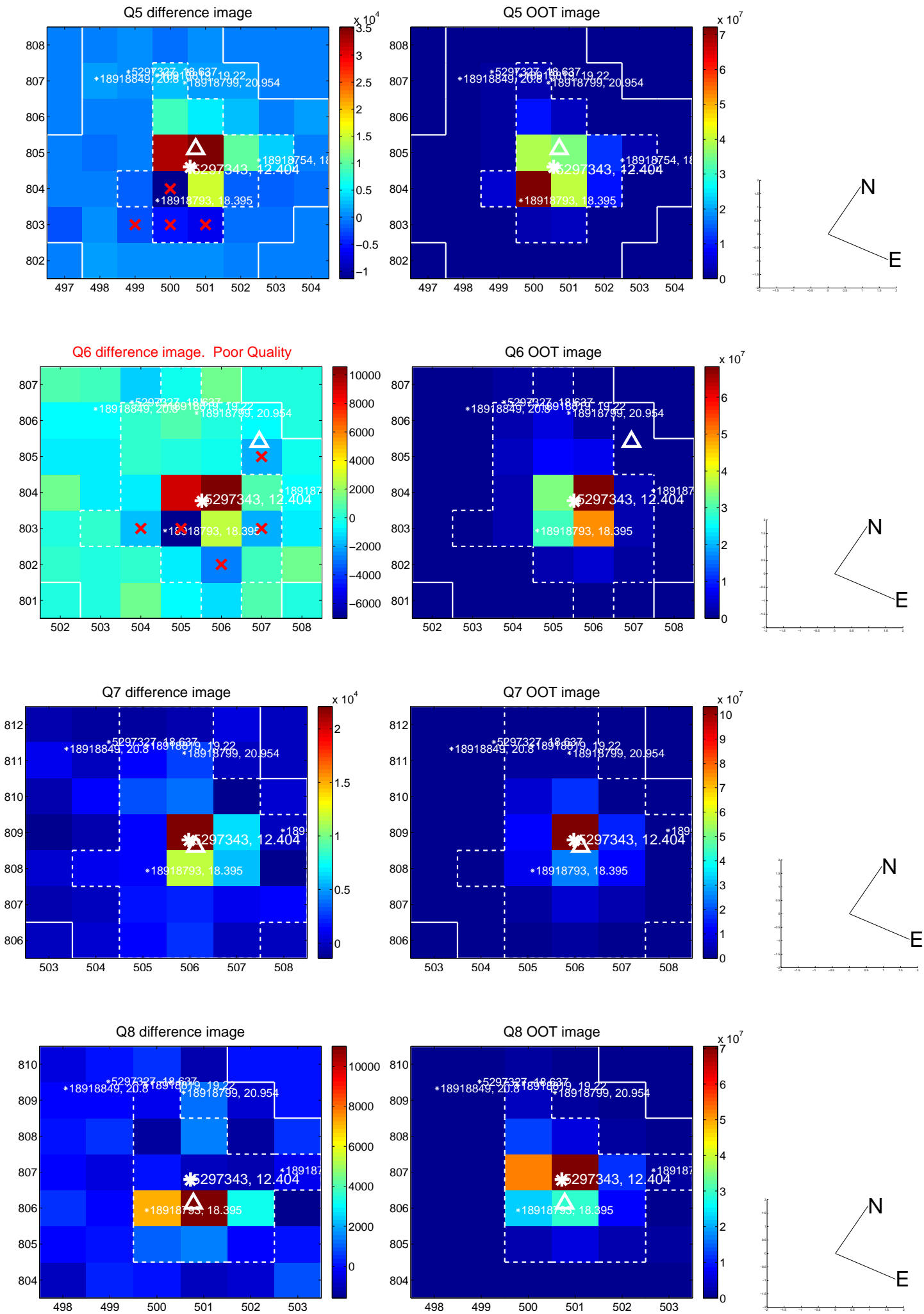


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

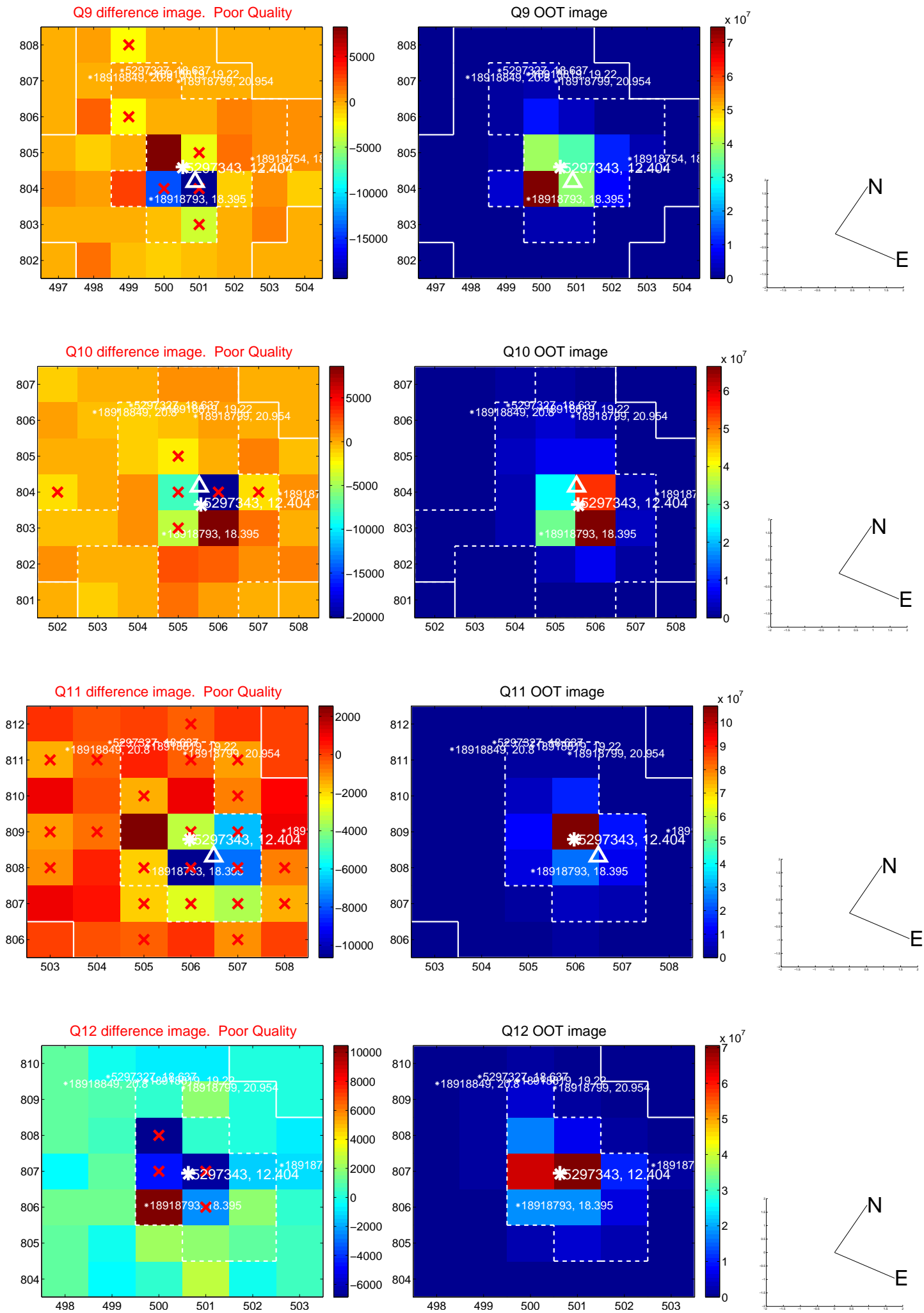
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



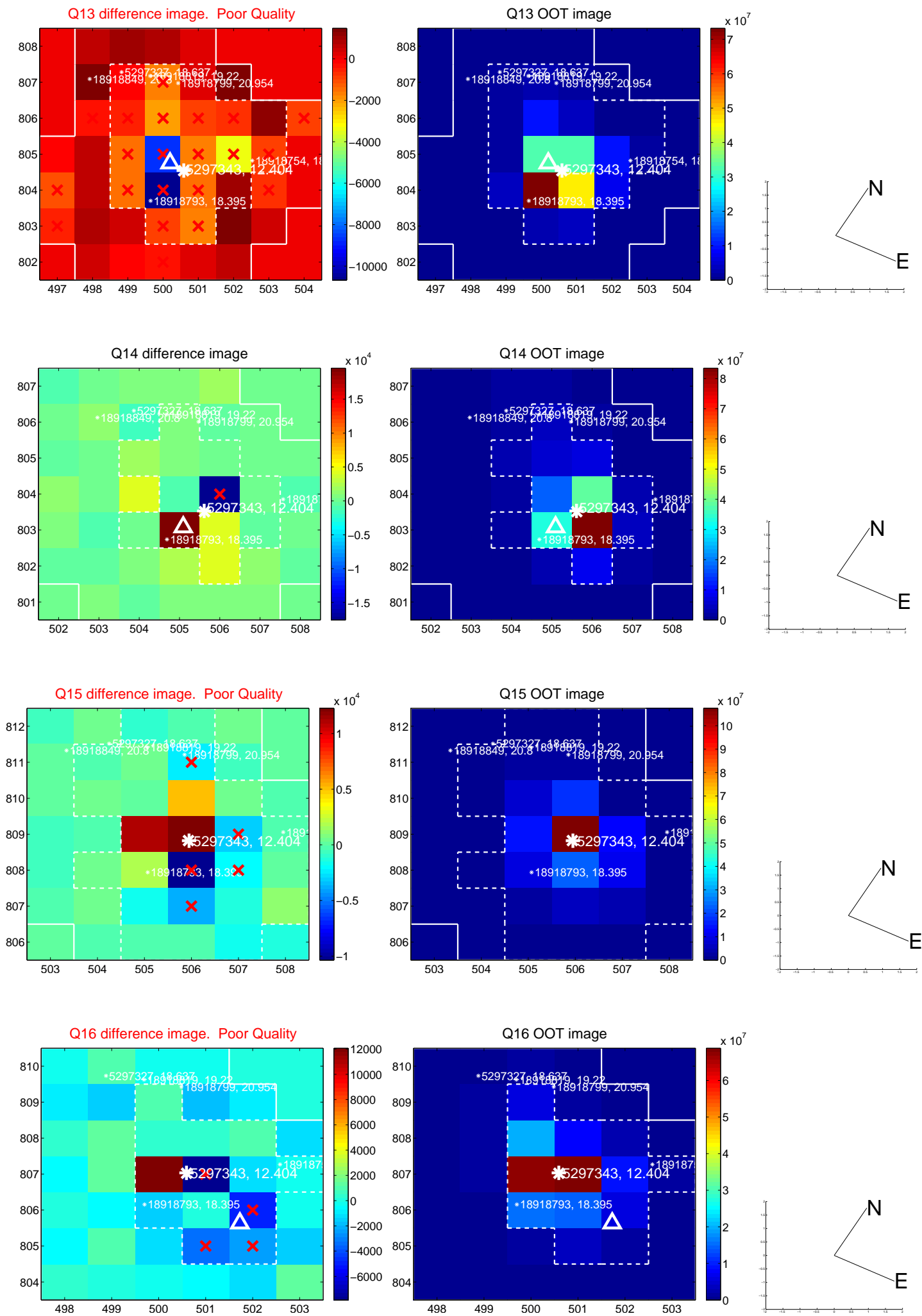
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



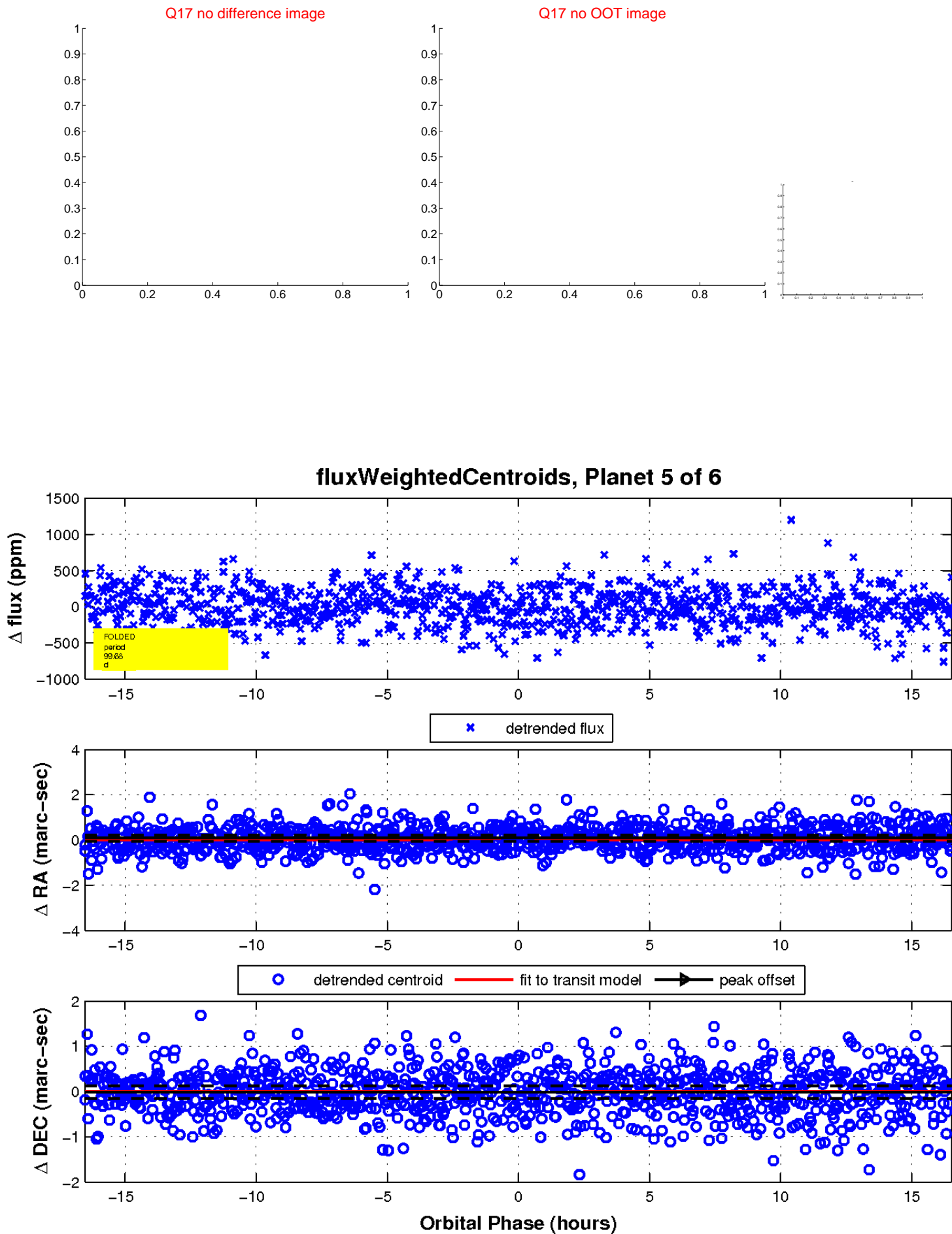
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

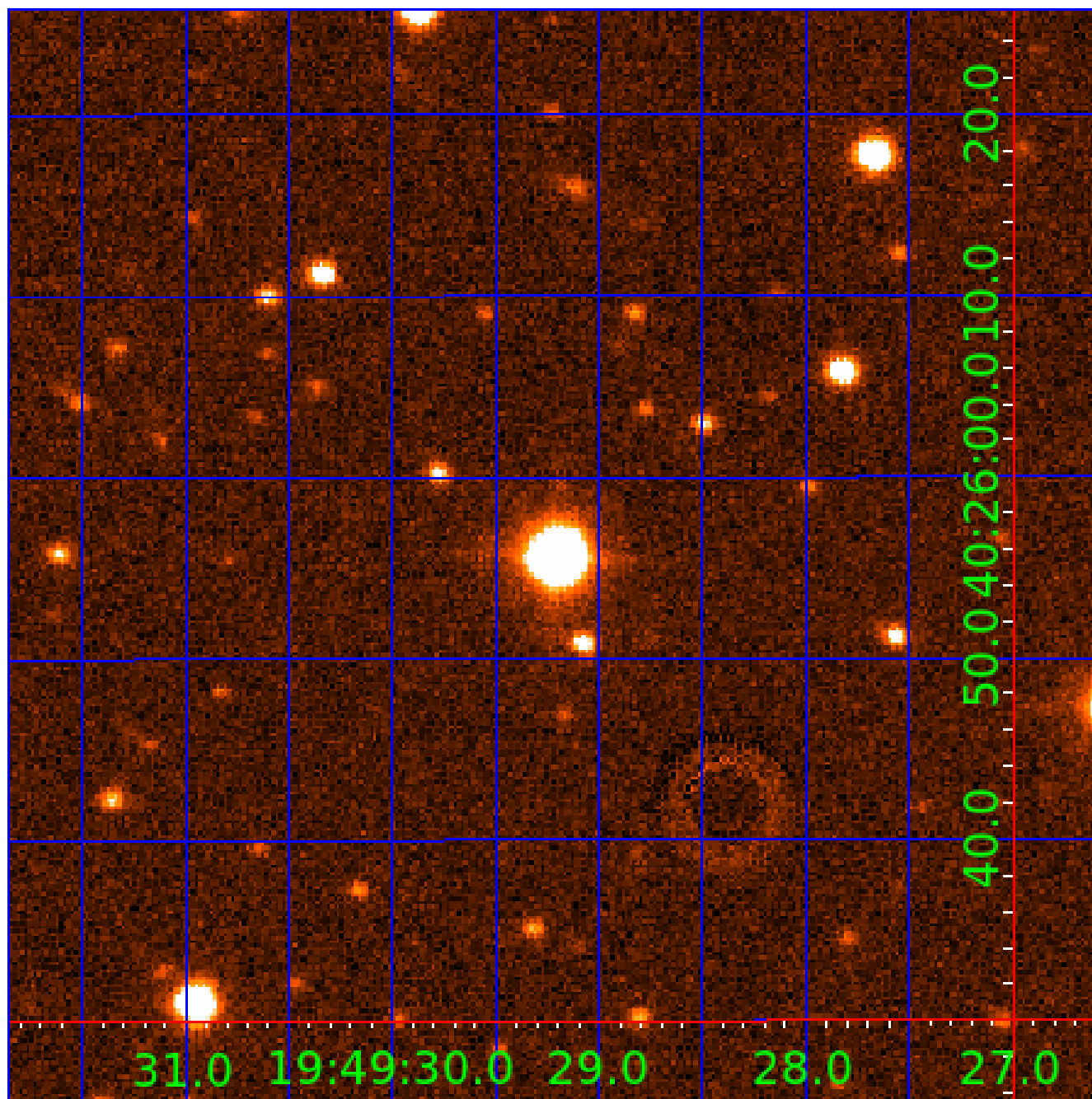


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005297343

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})
005297343-01	OBS	No	2.122565	132.956331	29.6	12.637	10.7	11.0	2.07	8317	1.14	11362.81
005297343-02	OBS	No	197.518793	237.427762	499.1	2.061	9.1	9.4	2.07	8317	5.26	26.95
005297343-03	OBS	No	35.203370	145.793789	245.0	2.741	8.6	8.9	2.07	8317	3.76	268.65
005297343-04	OBS	No	67.260287	144.241770	387.6	1.954	8.6	7.8	2.07	8317	4.42	113.31
005297343-05	OBS	No	99.681871	159.715751	259.5	5.511	7.6	9.1	2.07	8317	3.75	67.06
005297343-06	OBS	No	92.795848	208.381520	273.4	3.206	8.5	7.6	2.07	8317	3.68	73.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005297343-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
005297343-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005297343-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

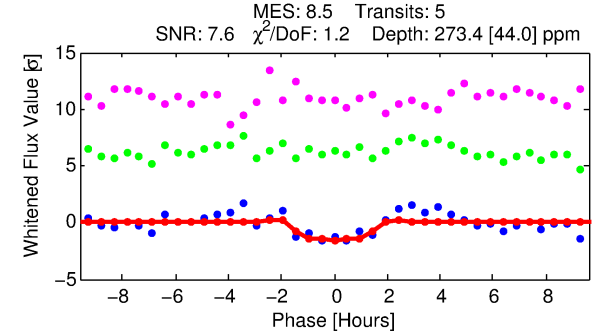
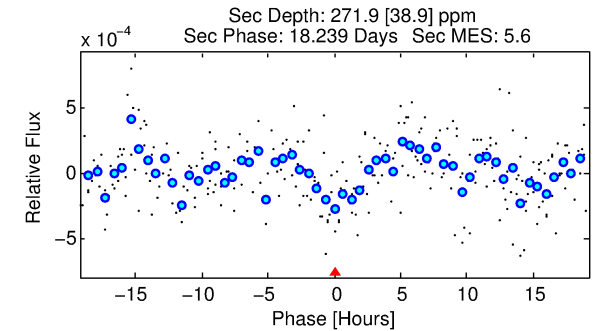
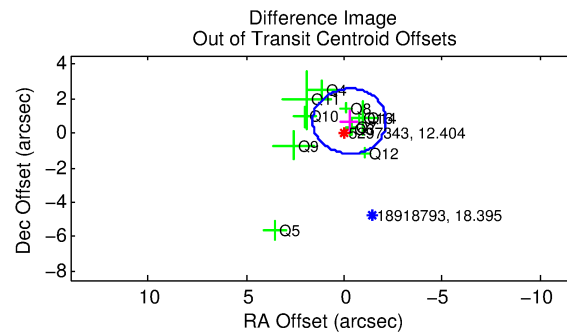
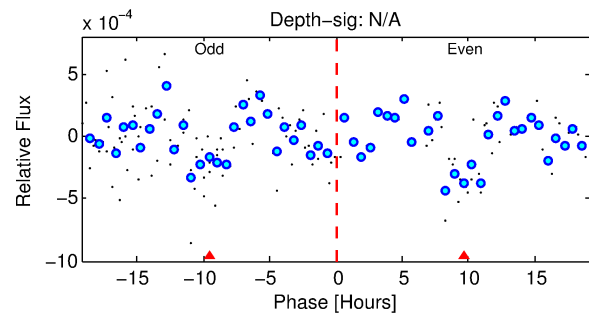
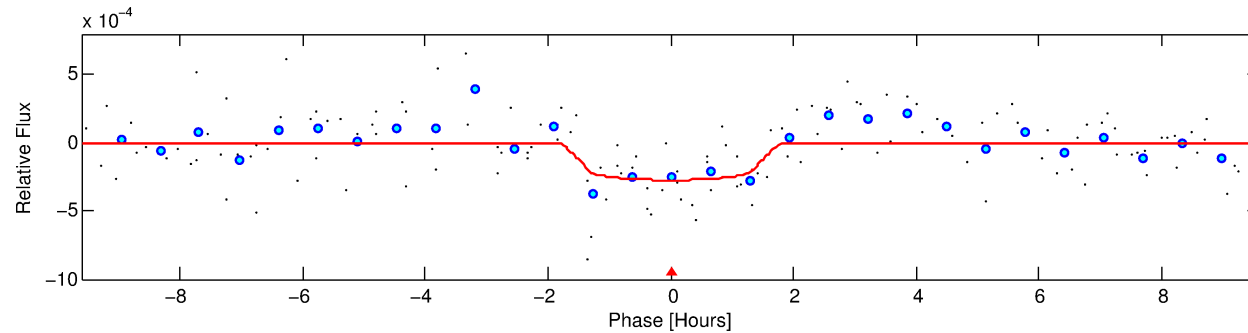
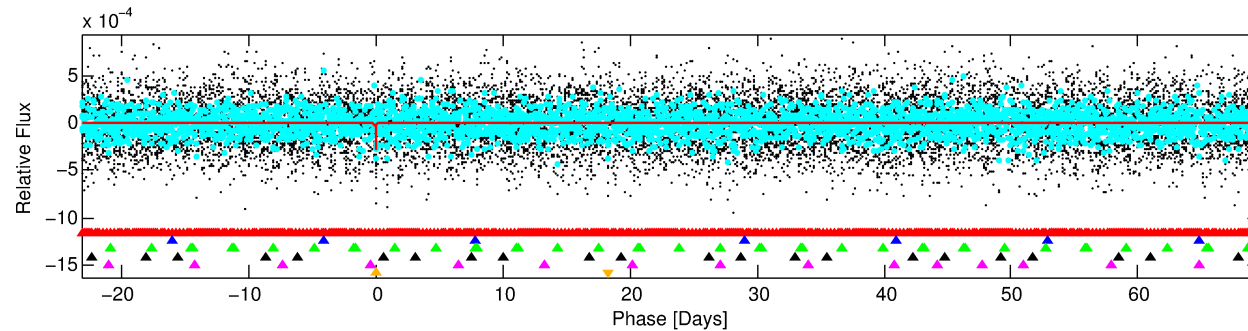
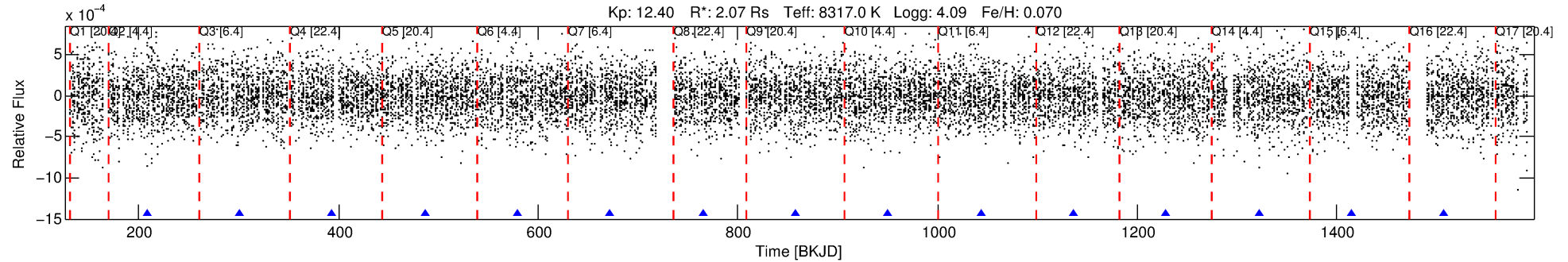
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005297343-06

No Significant Match Found

DV One-Page Summary

KIC: 5297343 Candidate: 6 of 6 Period: 92.796 d



DV Fit Results:

Period = 92.79585 [0.00146] d
Epoch = 208.3815 [0.0122] BKJD
Rp/R* = 0.0163 [0.0297]
a/R* = 161.87 [1756.58]
b = 0.70 [7.86]
Seff = 73.78 [23.92]
Teq = 747 [61] K
Rp = 3.68 [6.79] Re
a = 0.4999 [0.0946] AU
Ag = 2758.51 [10125.68] [0.27σ]
Teffp = 8374 [7673] K [0.99σ]

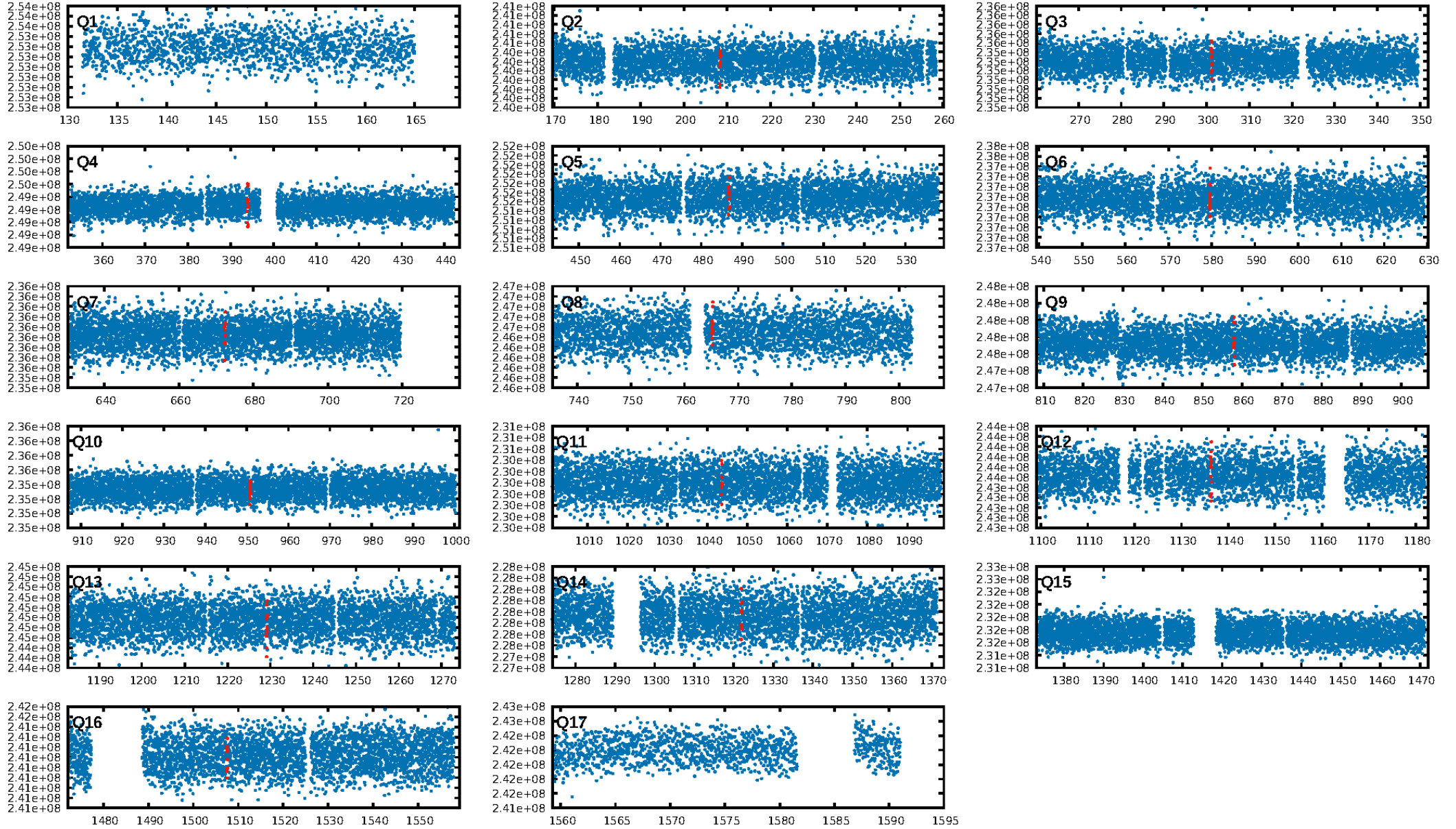
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [163.23σ]
LongPeriod-sig: 100.0% [25.92σ]
ModelChiSquare2-sig: 46.9%
ModelChiSquareGof-sig: 87.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.298
Centroid-sig: 37.9%
Centroid-so: 0.489 arcsec [0.76σ]
OotOffset-rm: 0.740 arcsec [1.18σ]
OotOffset-st: 2/3/4/2 [11]
KicOffset-rm: 0.813 arcsec [1.38σ]
KicOffset-st: 2/3/4/2 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 0.46 [6/13]

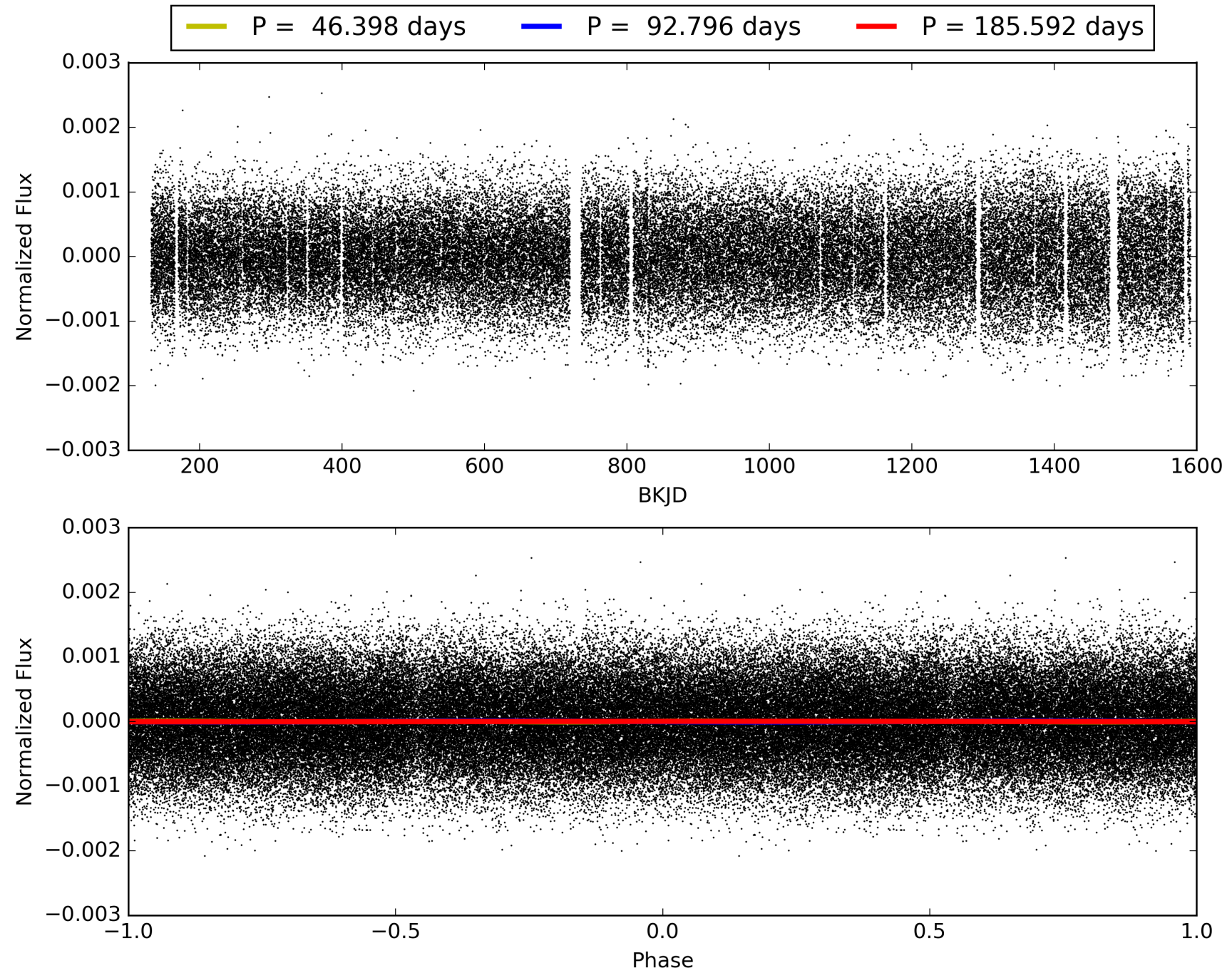
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:23:58 Z

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

TCE 005297343-06, PDC Light Curves

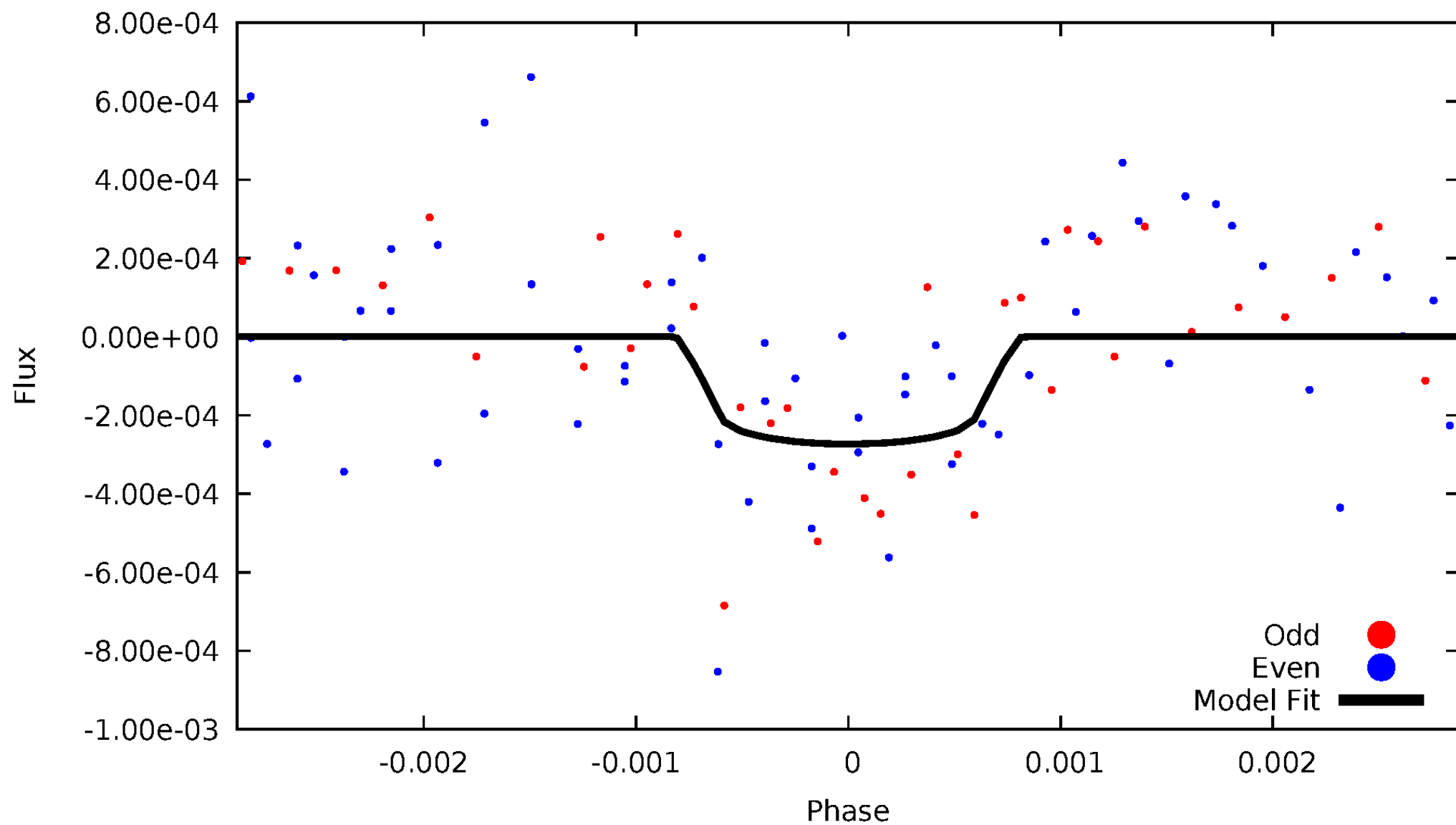


TCE 005297343-06



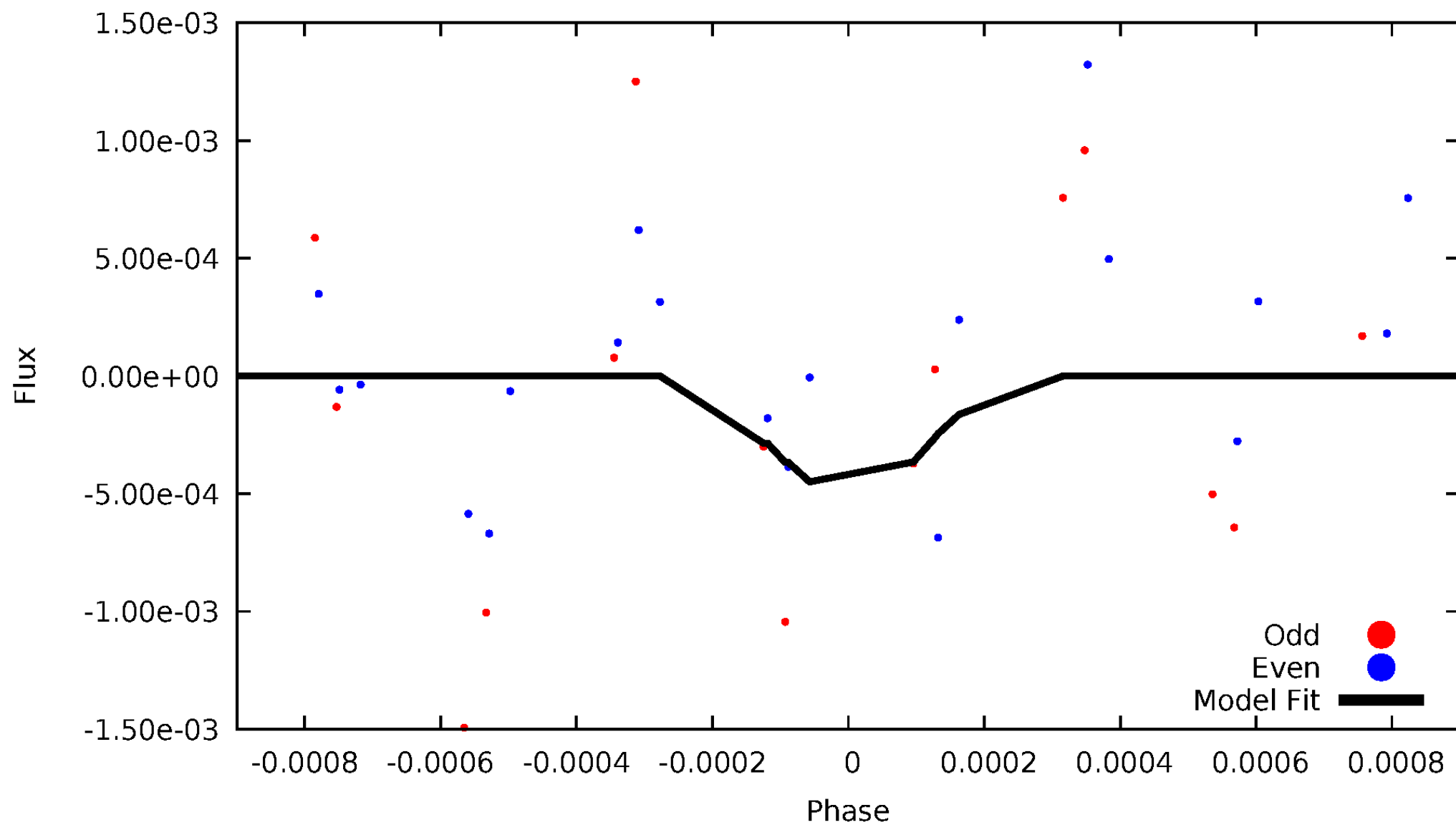
DV Odd/Even

TCE 005297343-06



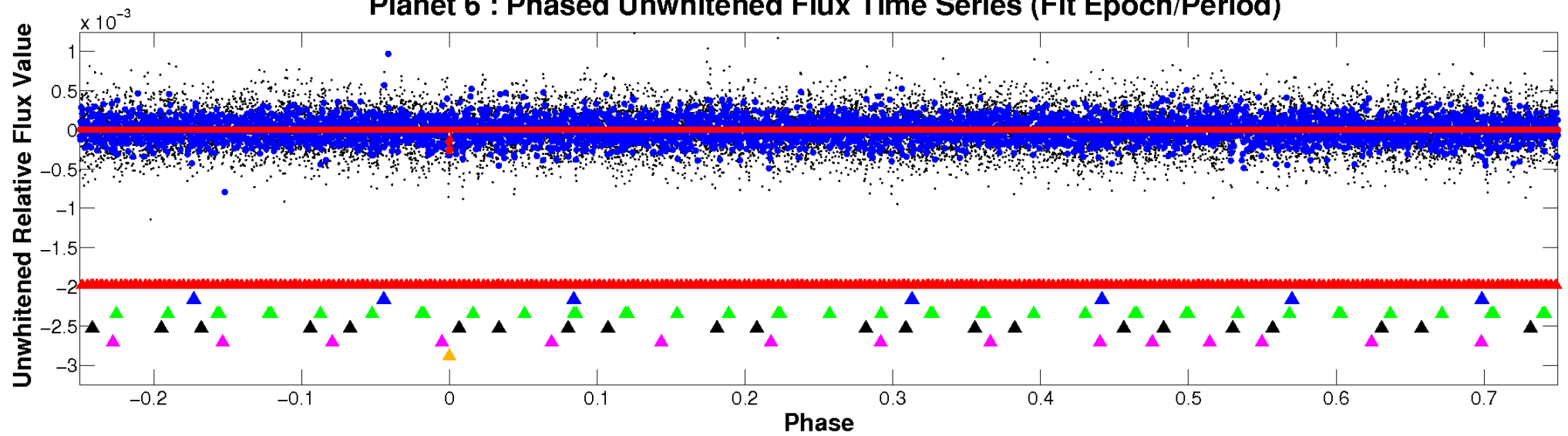
ALT Odd/Even

TCE 005297343-06

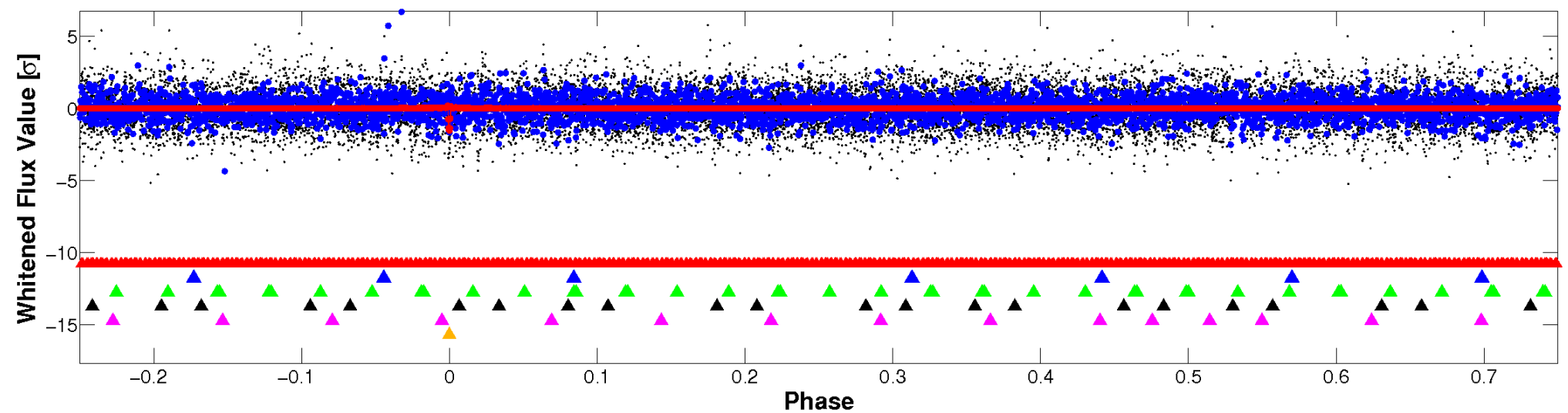


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

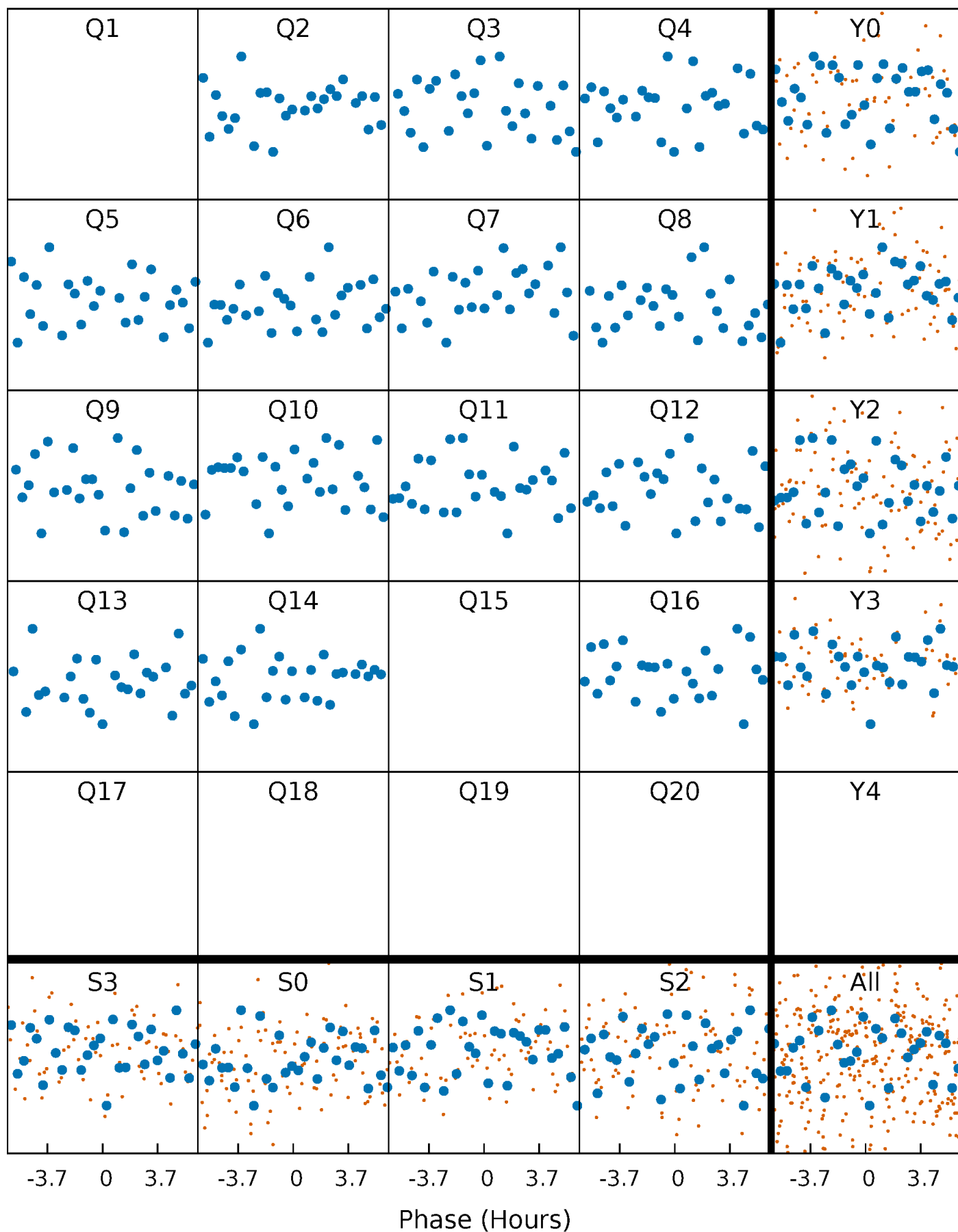


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



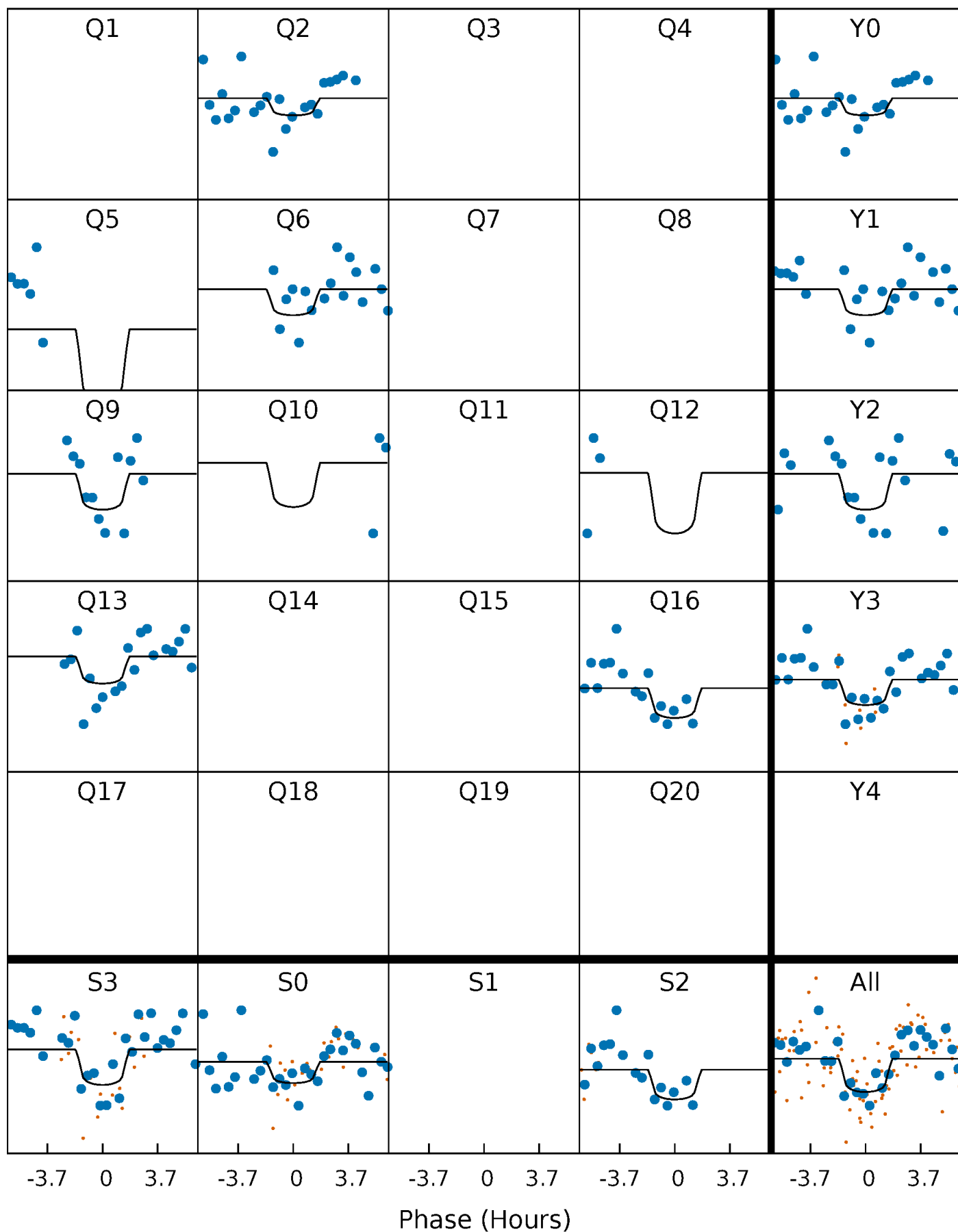
PDC Quarter-Phased Transit Curves

TCE 005297343-06 P= 92.795848 Days $T_0=208.381520$ (BKJD)



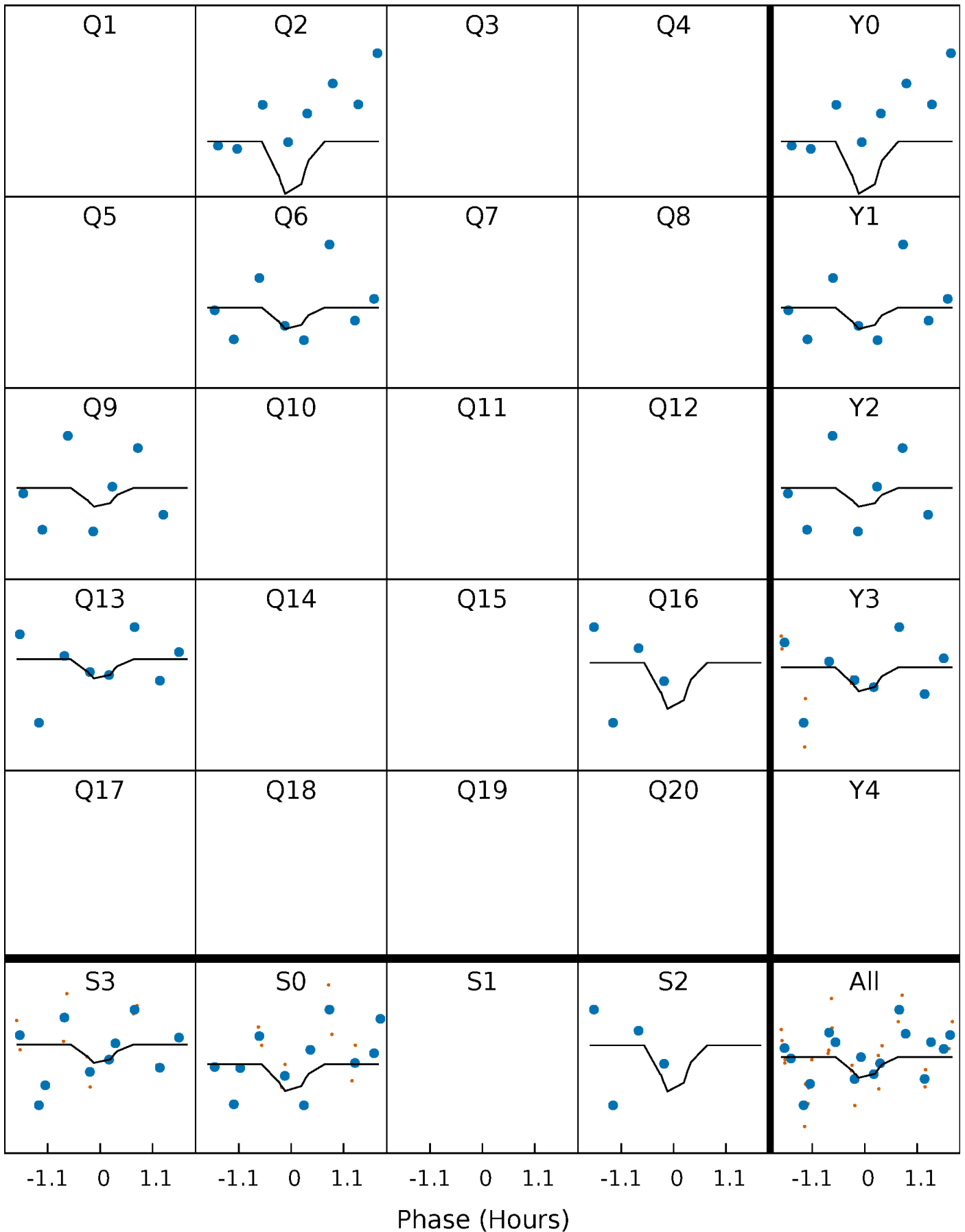
DV Quarter-Phased Transit Curves

TCE 005297343-06 P= 92.795848 Days $T_0=208.381520$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

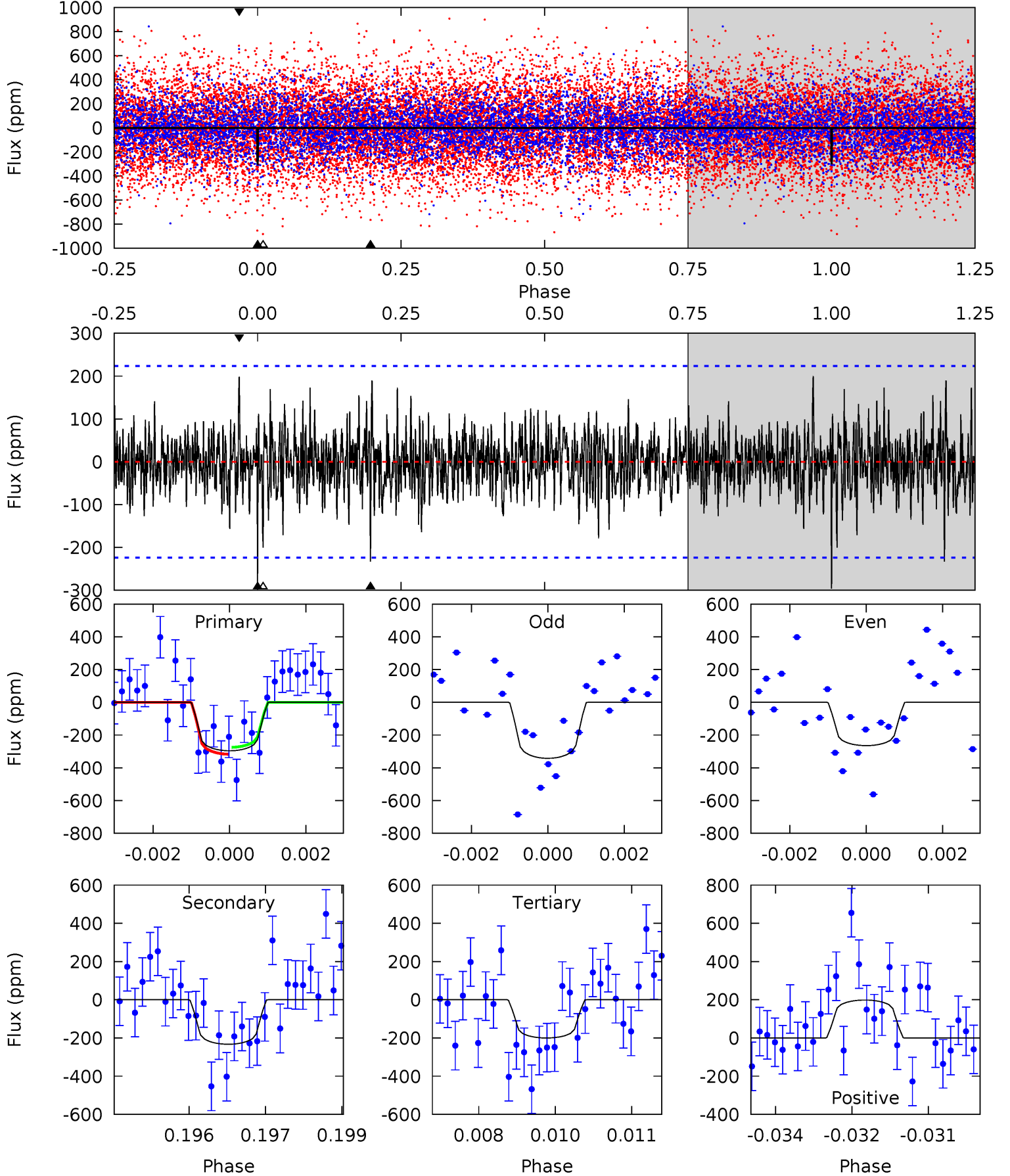
TCE 005297343-06 P= 92.794806 Days $T_0=208.452461$ (BKJD)



DV Model-Shift Uniqueness Test

005297343-06, $P = 92.795848$ Days, $E = 115.585672$ Days

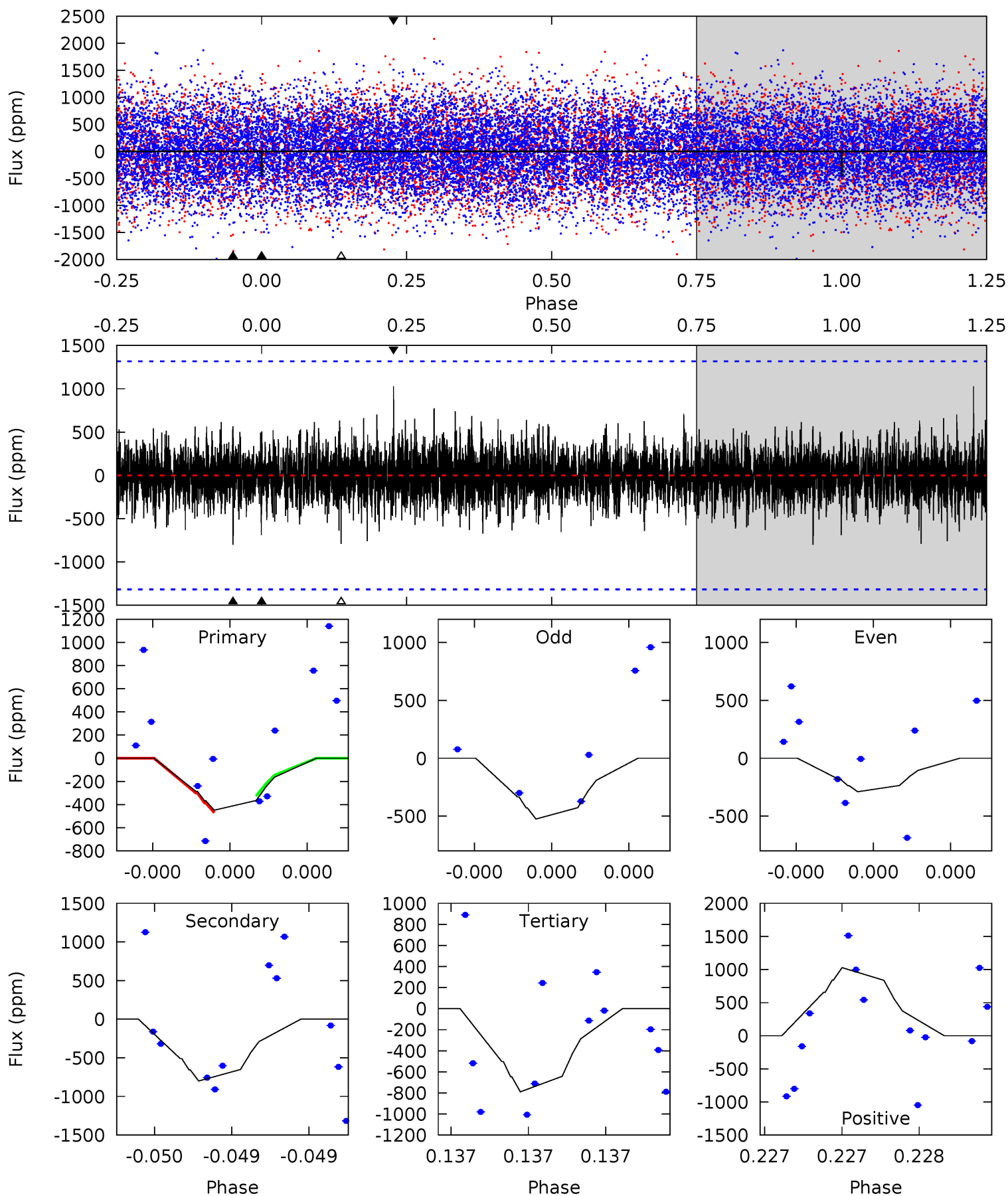
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.11	5.59	4.80	4.76	5.37	3.15	1.29	2.30	2.34	0.78	0.82	0.92	1.16	0.40	0.50



Alt Model-Shift Uniqueness Test

005297343-06, P = 92.794806 Days, E = 115.657655 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.93	3.45	3.40	4.43	5.67	3.63	0.84	-1.47	-2.50	0.05	-0.99	0.54	0.82	0.56	0.31



Stellar Parameters For KIC 005297343

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8317^{+229}_{-373}	$4.091^{+0.130}_{-0.145}$	$0.070^{+0.250}_{-0.500}$	$2.074^{+0.476}_{-0.476}$	$1.935^{+0.315}_{-0.386}$	$0.306^{+0.230}_{-0.132}$
	+3%/-4%	+3%/-4%	+357%/-714%	+23%/-23%	+16%/-20%	+75%/-43%
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 005297343-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-233 ± 42	$6.24^{+5.85}_{-4.17}$	1042^{+69}_{-66}	5895^{+5977}_{-1407}	770^{+6425}_{-556}
Alt.	-800 ± 232	$7.49^{+6.34}_{-4.68}$	1041^{+60}_{-64}	7378^{+8749}_{-2026}	1878^{+12802}_{-1334}

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 $A_{obs} \gg 1.0$

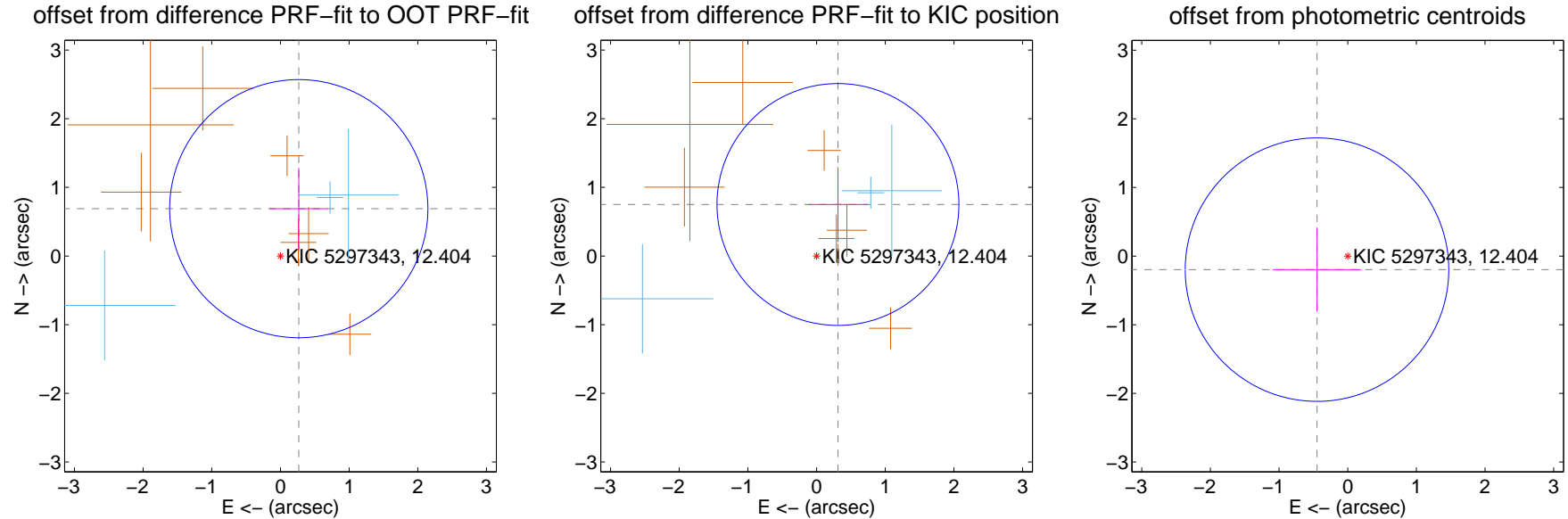
DV Centroid Data

Supplemental centroid analysis for 005297343-06. Kepler magnitude: 12.40. Transit SNR 7.60

There are 3 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.740 ± 0.627	1.18	-0.267 ± 0.424	0.690 ± 0.592
PRF-fit source offset from KIC position	0.813 ± 0.587	1.38	-0.311 ± 0.430	0.751 ± 0.544
photometric centroid source offset	0.49 ± 0.64	0.76	0.45 ± 0.65	-0.20 ± 0.61



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.

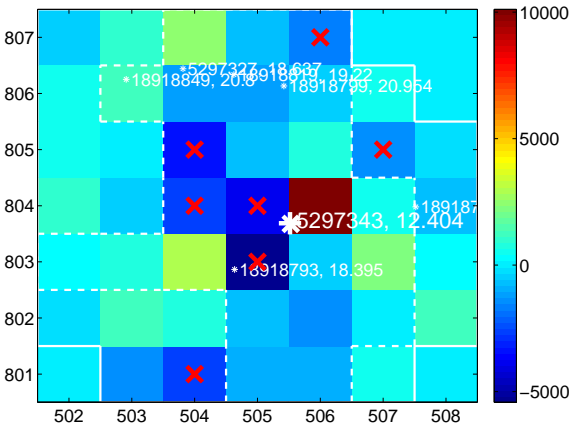
Q1 no difference image



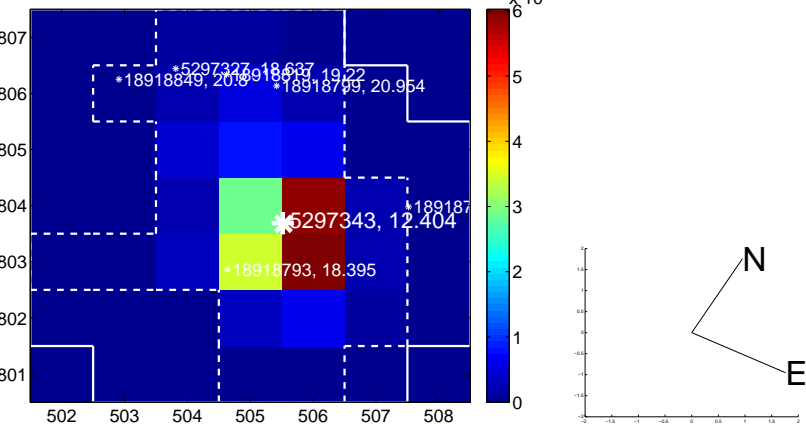
Q1 no OOT image



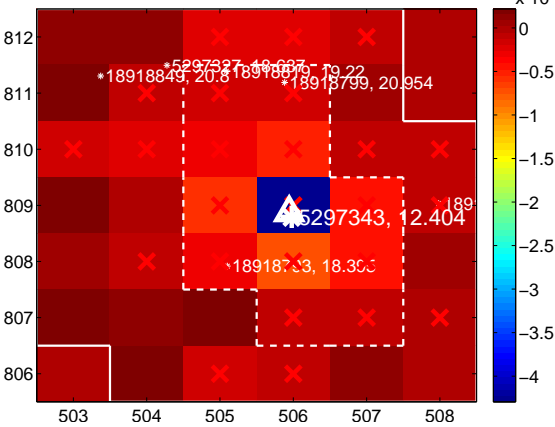
Q2 difference image. Poor Quality



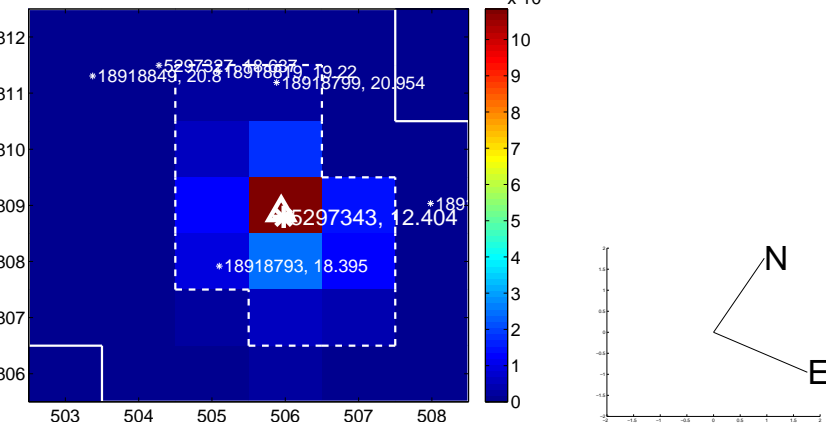
Q2 OOT image



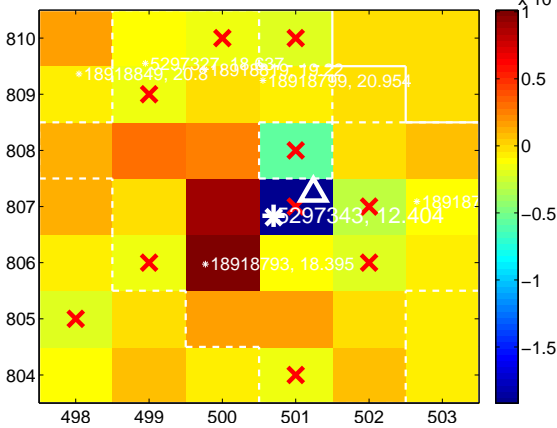
Q3 difference image. Poor Quality



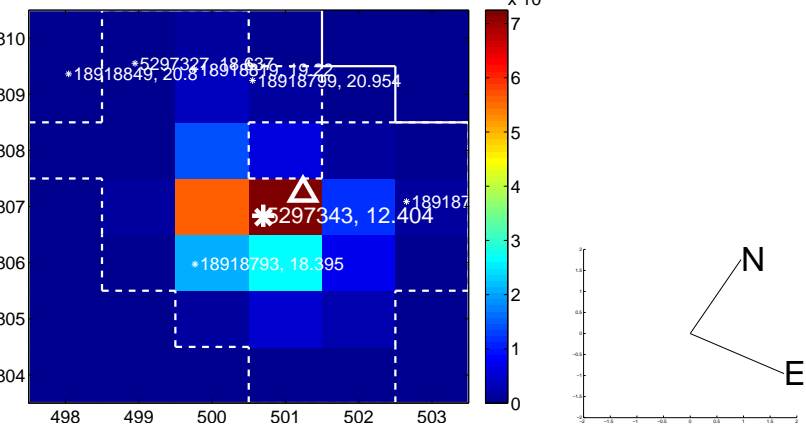
Q3 OOT image



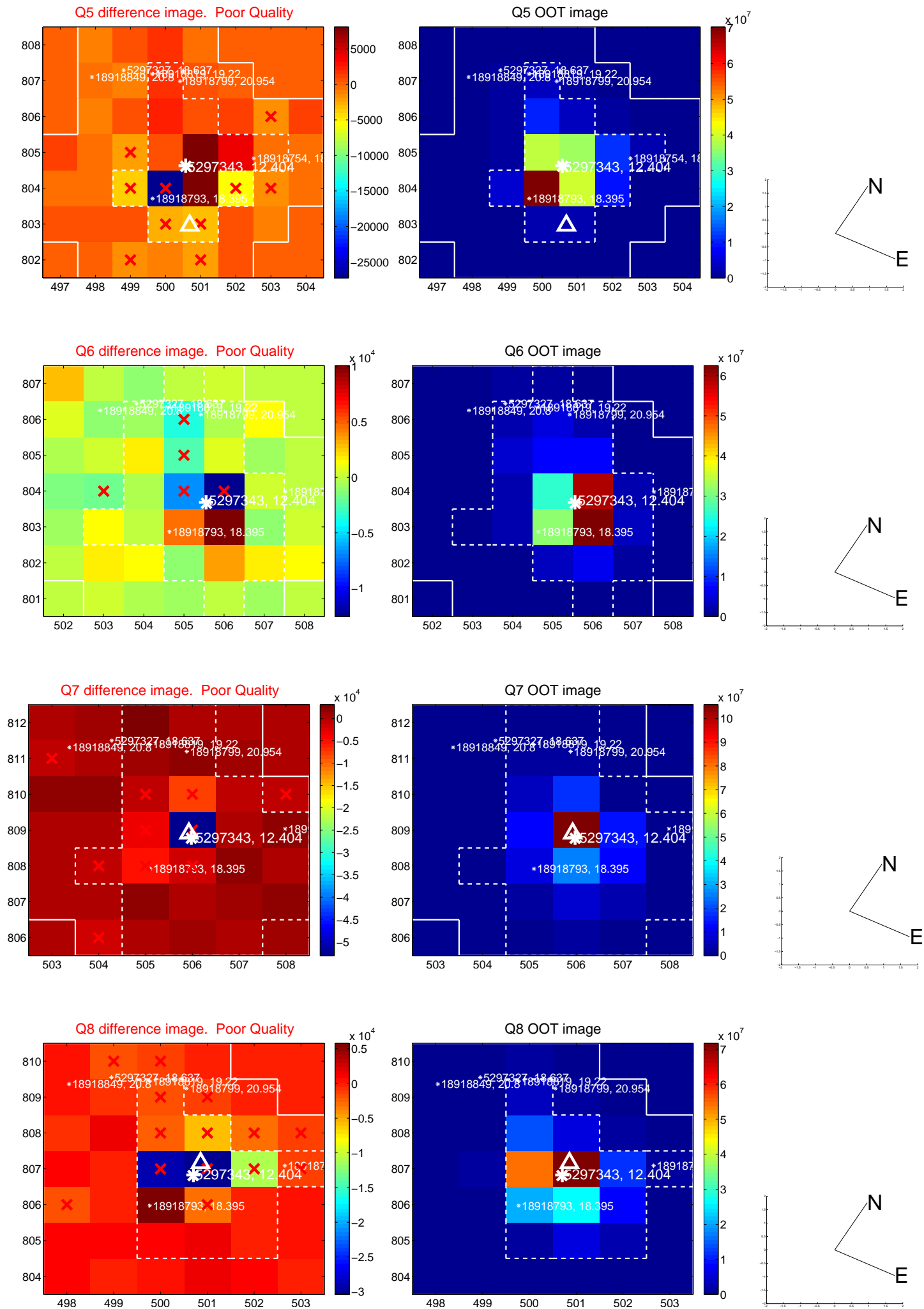
Q4 difference image. Poor Quality



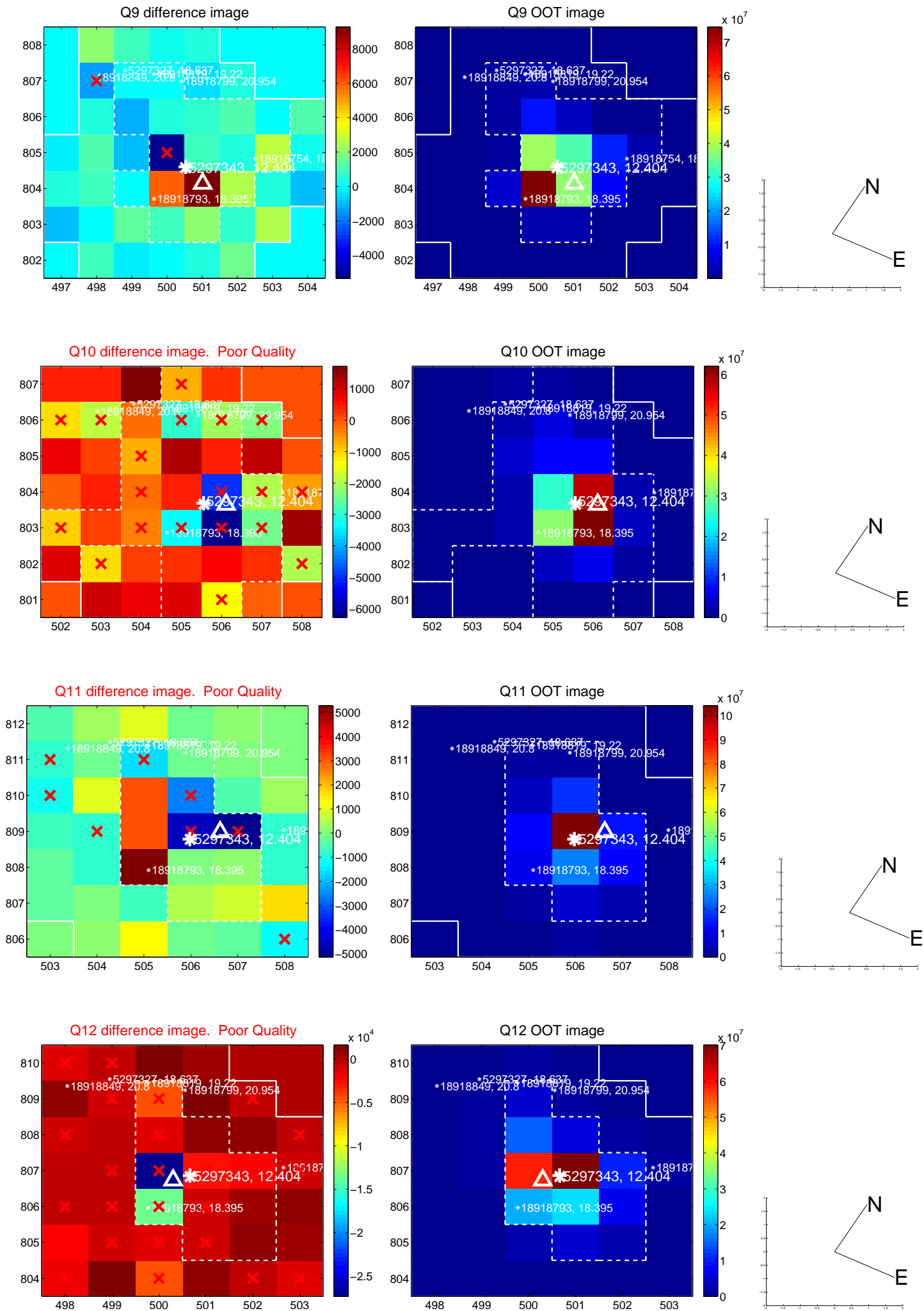
Q4 OOT image



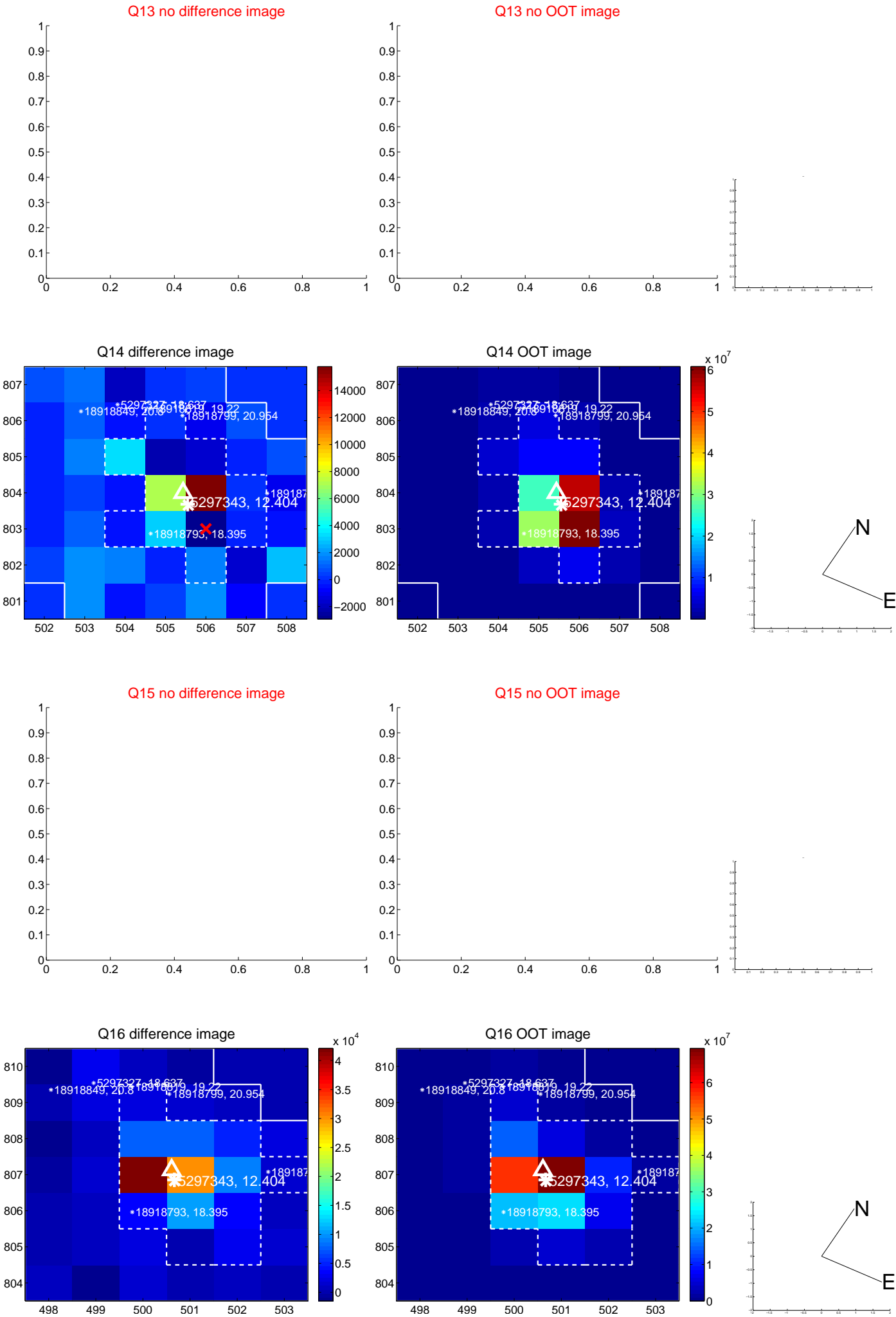
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



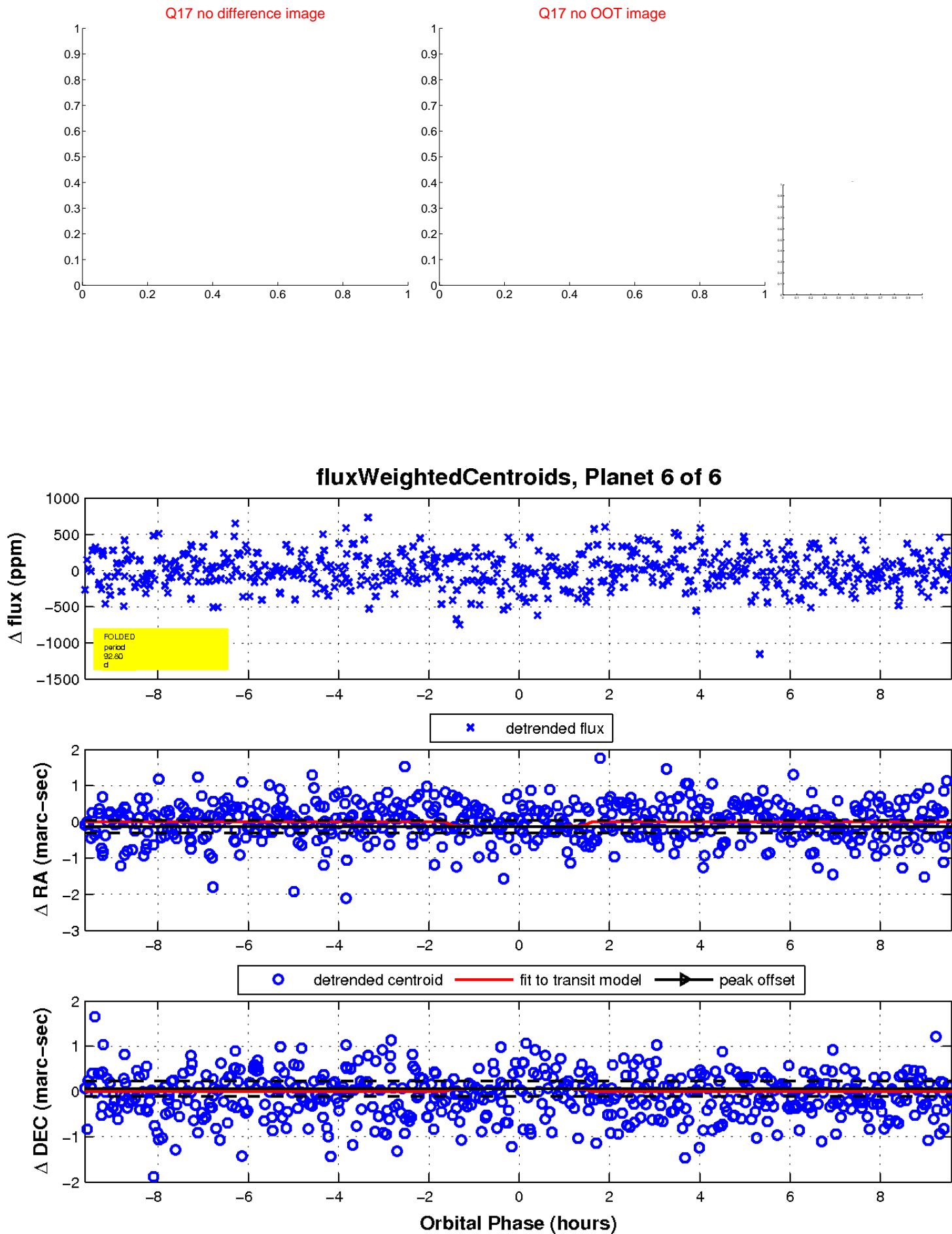
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

