

KIC 008805293

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})
008805293-01	OBS	No	367.828224	236.320126	1402.8	8.349	8.4	8.5	0.96	5949	4.03	0.99
008805293-03	OBS	No	371.447104	230.955257	2329.6	29.781	7.4	8.6	0.96	5949	8.67	0.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008805293-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
008805293-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—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.

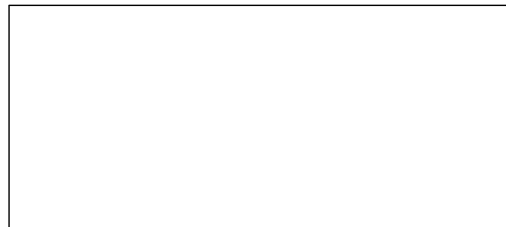
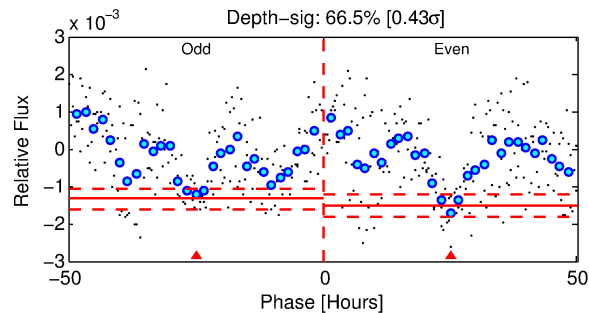
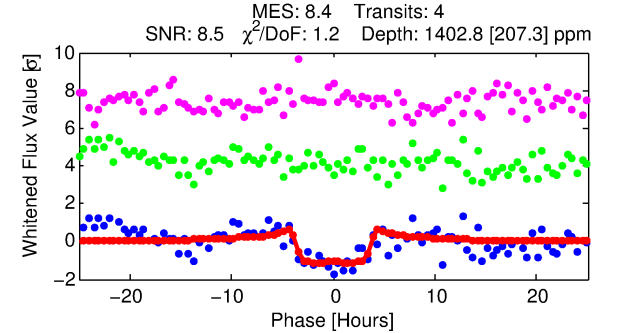
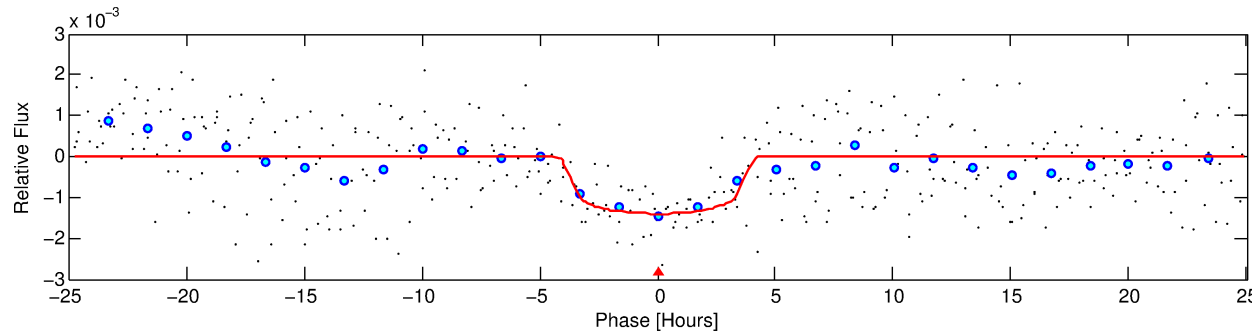
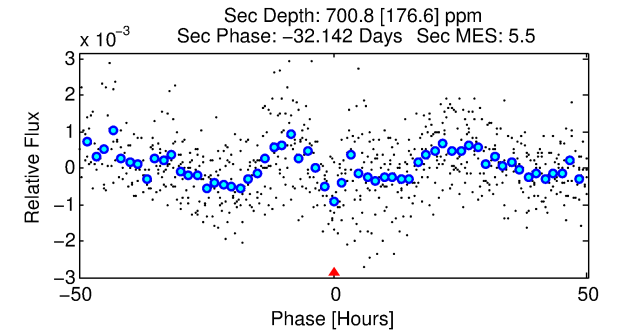
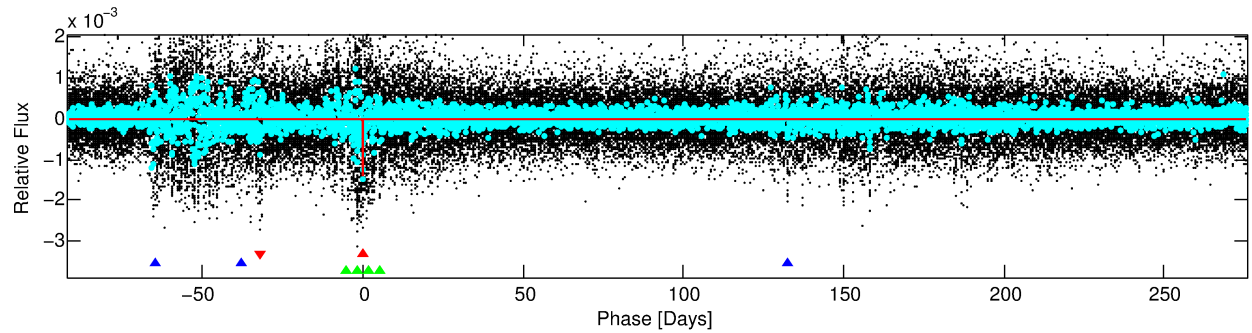
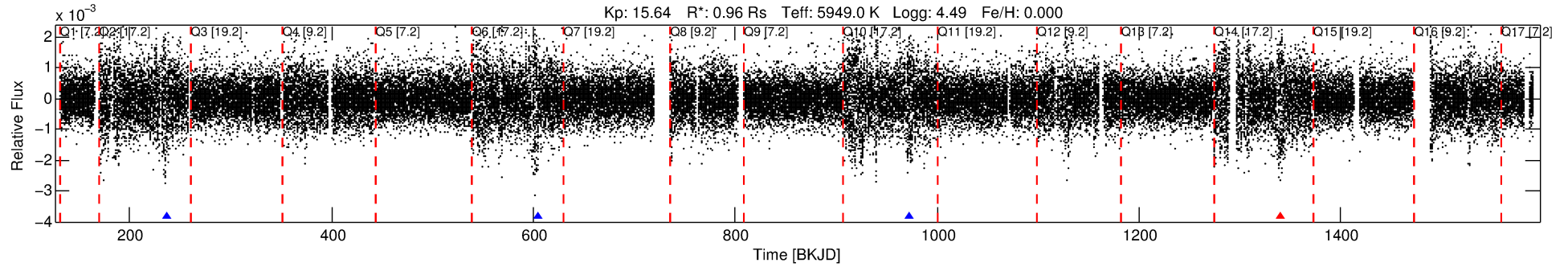
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008805293-01

No Significant Match Found

DV One-Page Summary

KIC: 8805293 Candidate: 1 of 3 Period: 367.828 d



DV Fit Results:

Period = 367.82822 [0.00656] d
Epoch = 236.3201 [0.0128] BKJD
Rp/R* = 0.0384 [0.0060]
a/R* = 215.58 [128.62]
b = 0.82 [0.24]
Seff = 1.00 [0.40]
Teq = 255 [26] K
Rp = 4.03 [1.40] Re
a = 1.0215 [0.2661] AU
Ag = 24781.55 [13710.89] [1.81σ]
Teffp = 4941 [527] K [8.88σ]

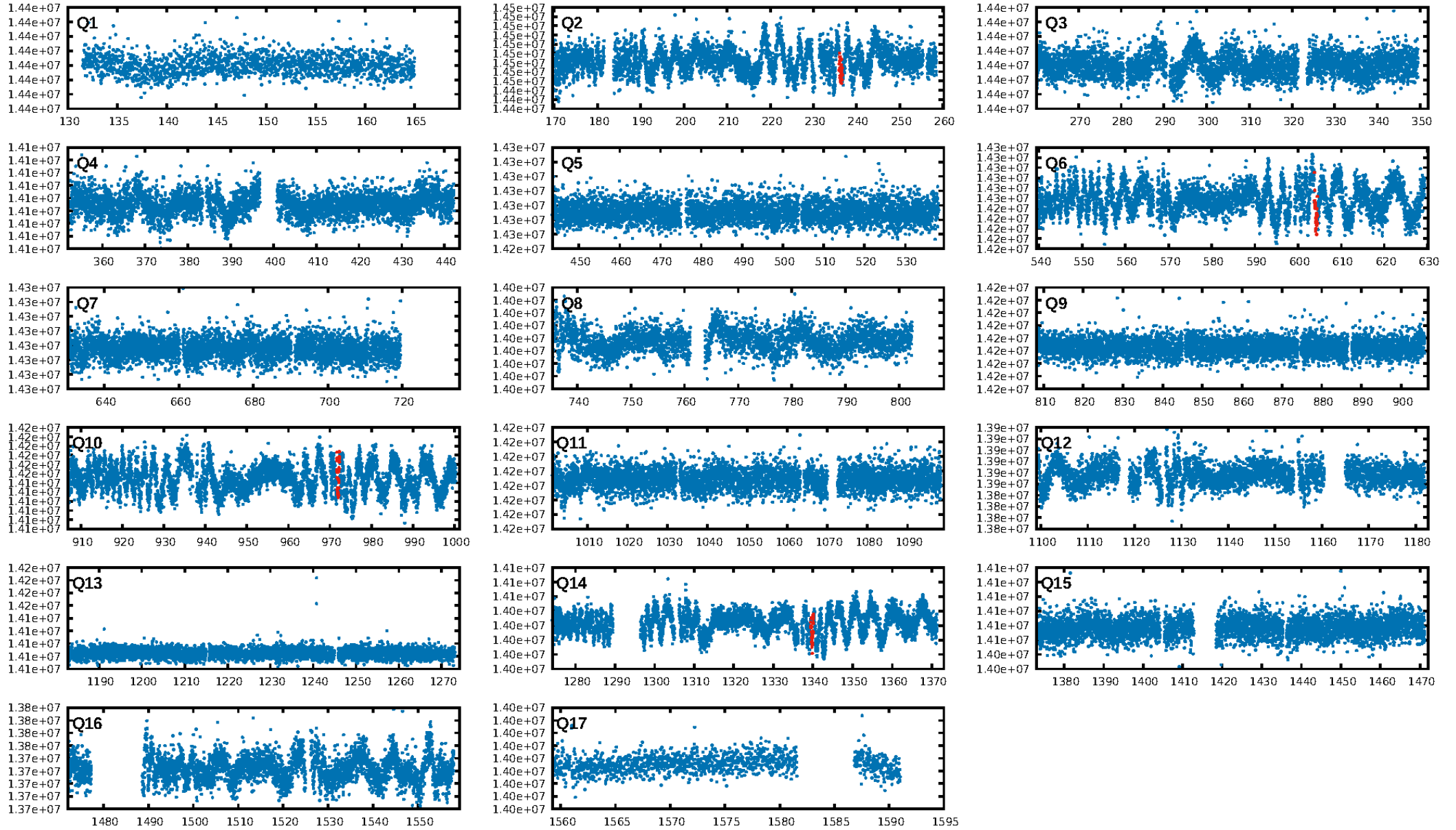
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 99.5% [2.81σ]
ModelChiSquare2-sig: 33.9%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 1.20e-09
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: -6.661
Centroid-sig: N/A
Centroid-so: 4.583 arcsec [1.86σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [4/4]

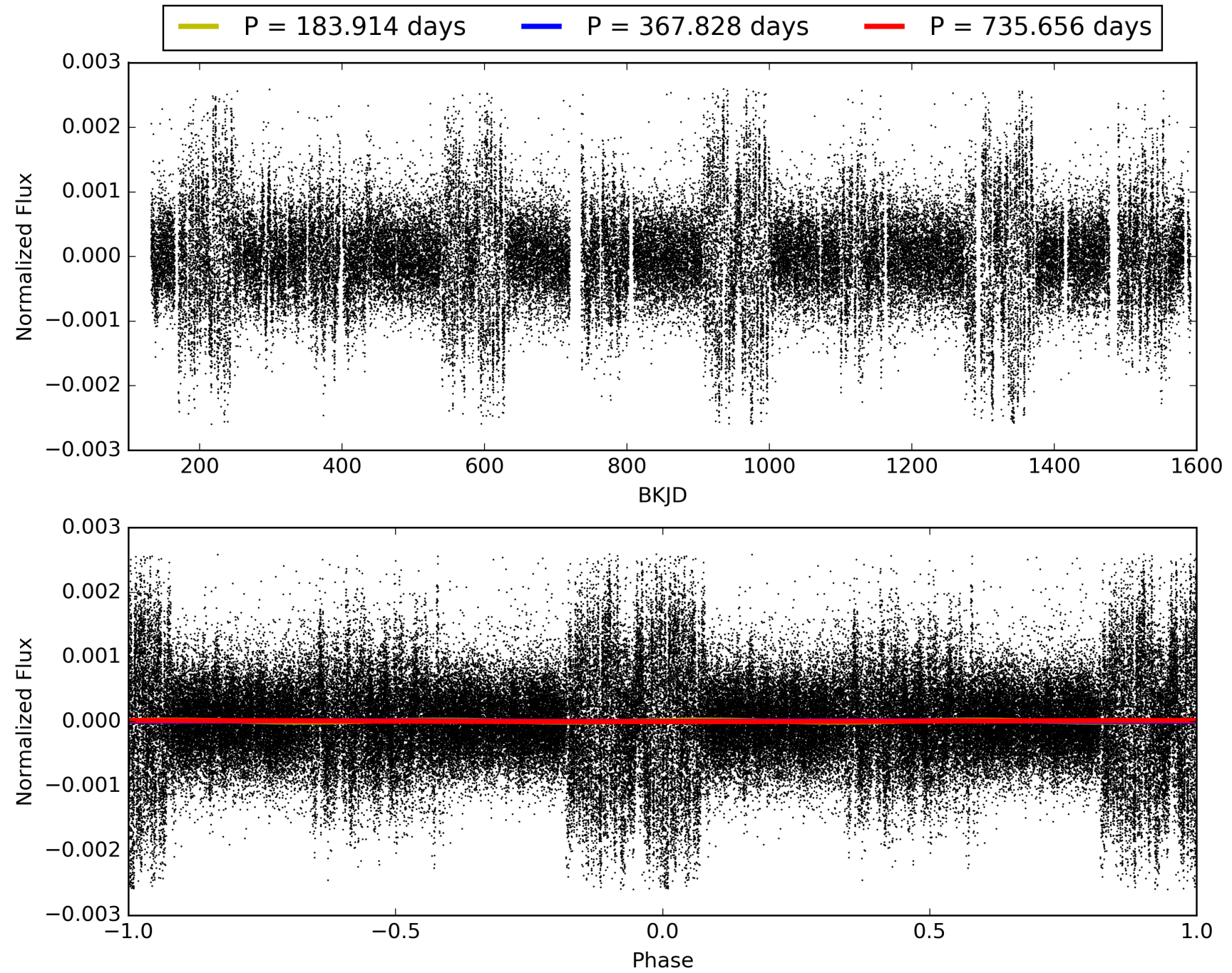
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:57:38 Z

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

TCE 008805293-01, PDC Light Curves

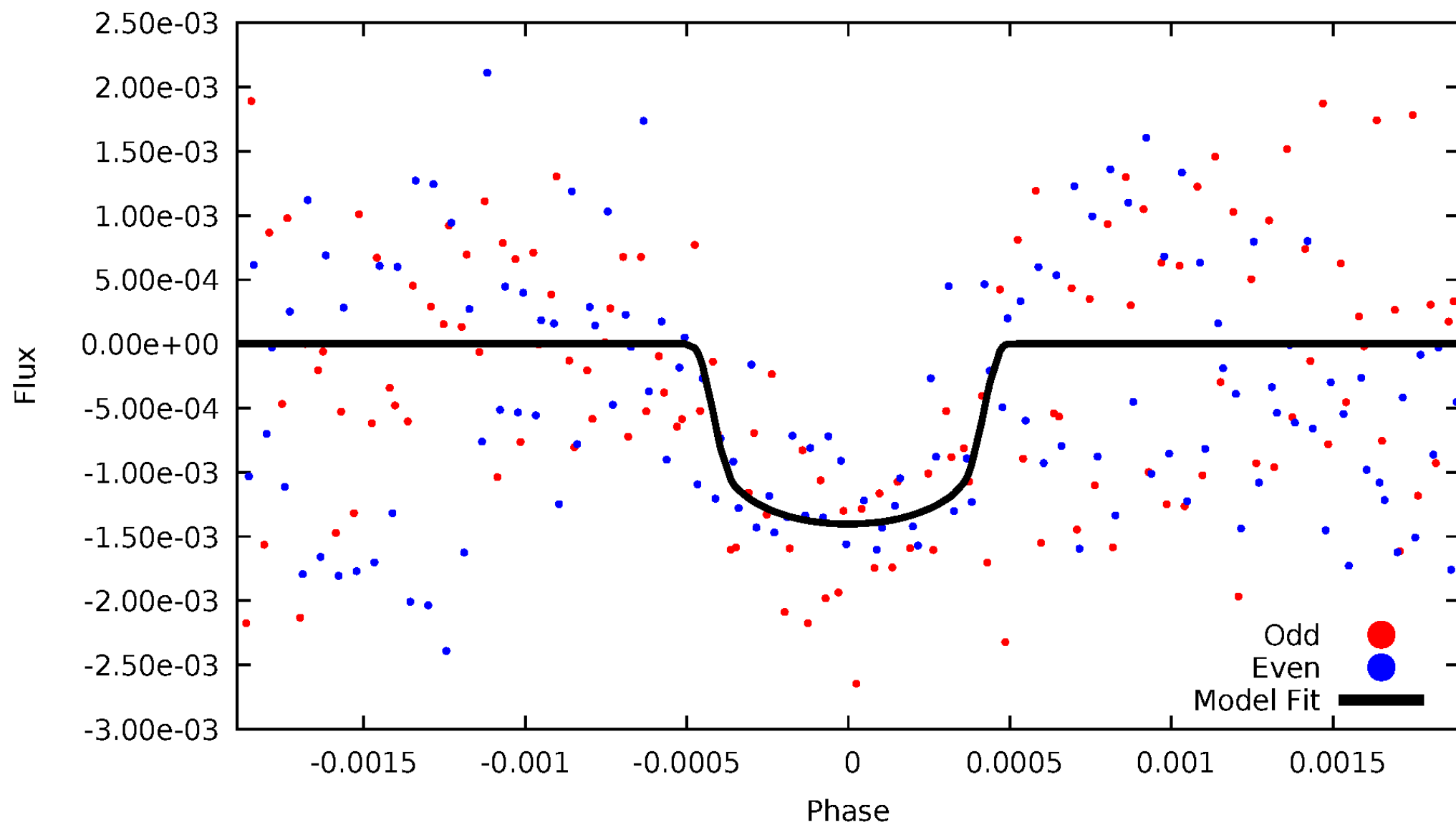


TCE 008805293-01



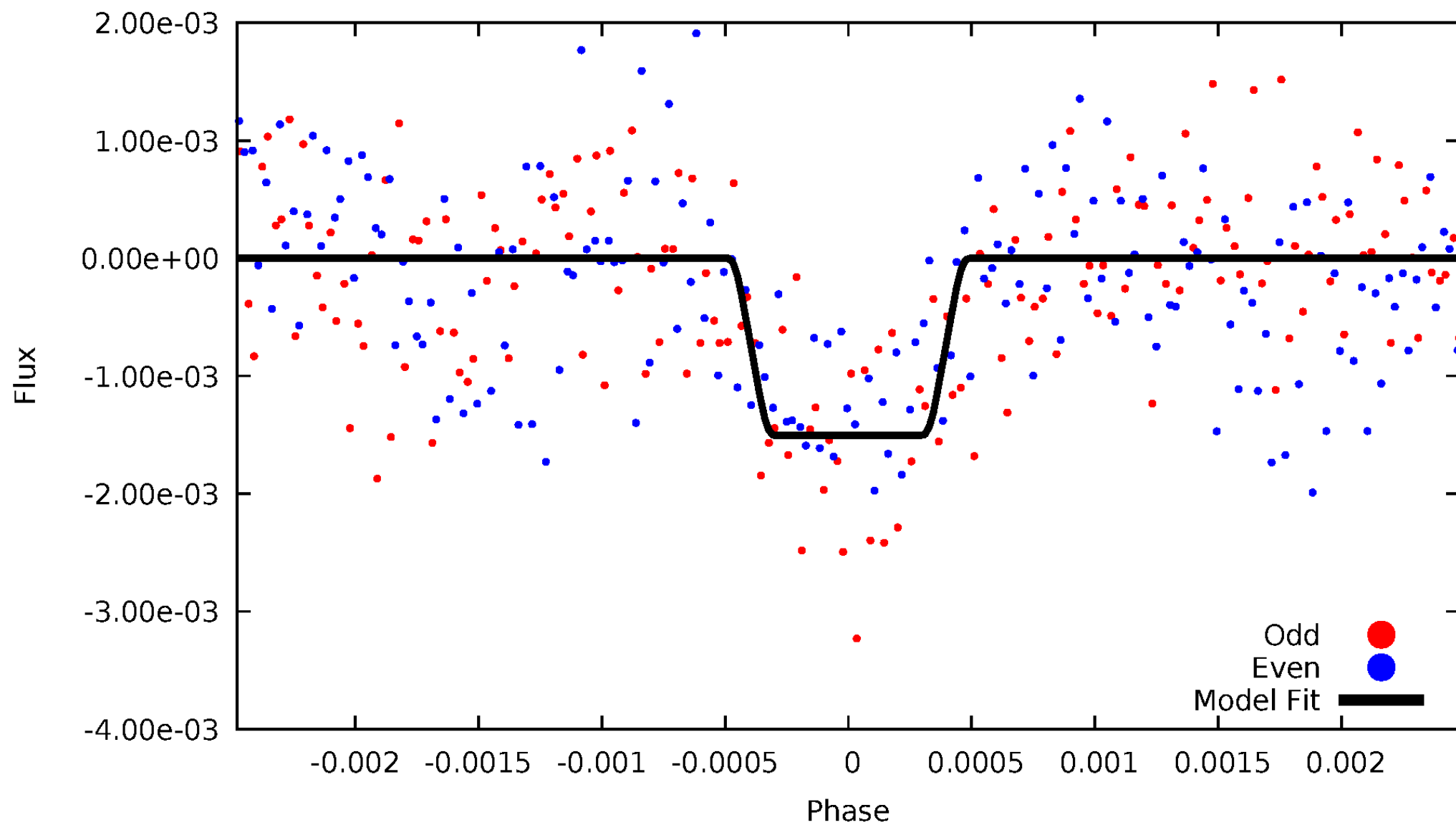
DV Odd/Even

TCE 008805293-01

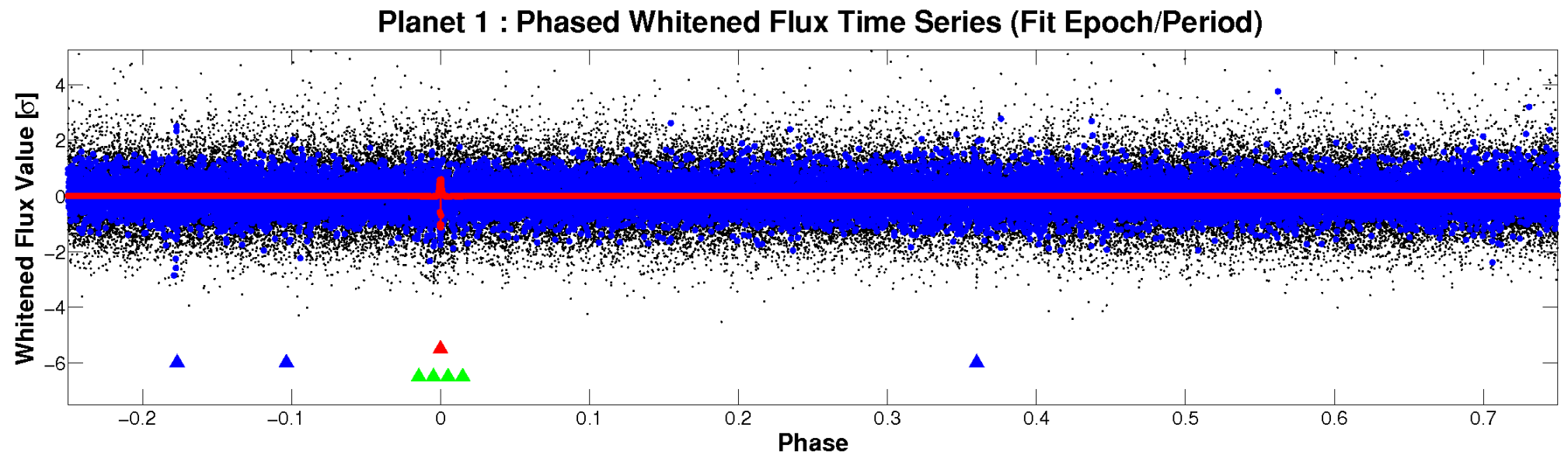
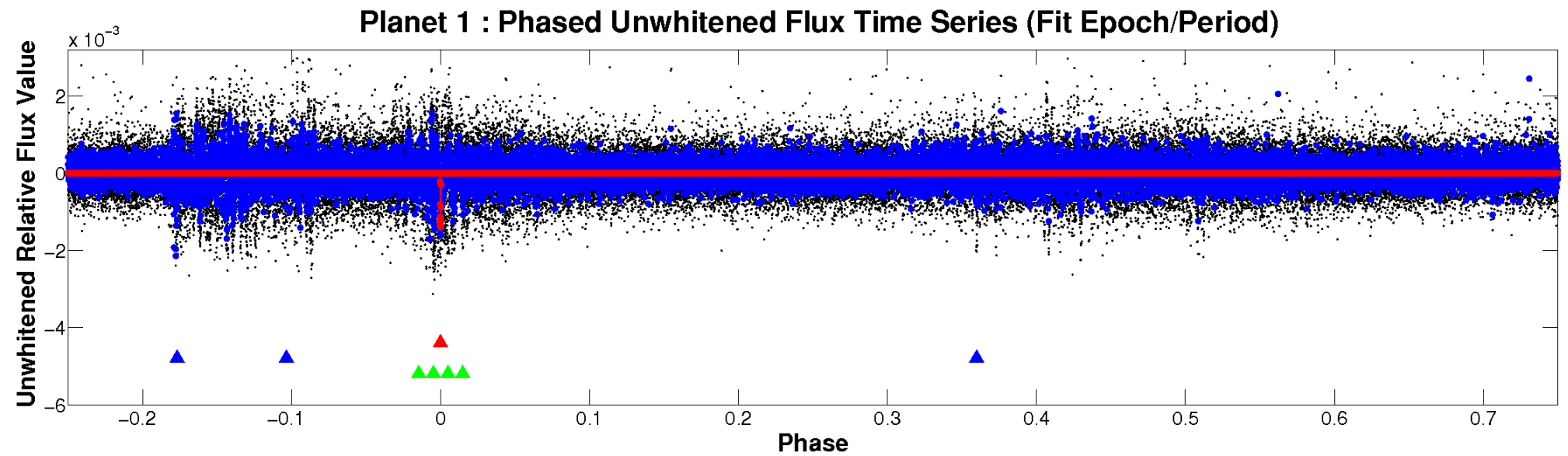


ALT Odd/Even

TCE 008805293-01

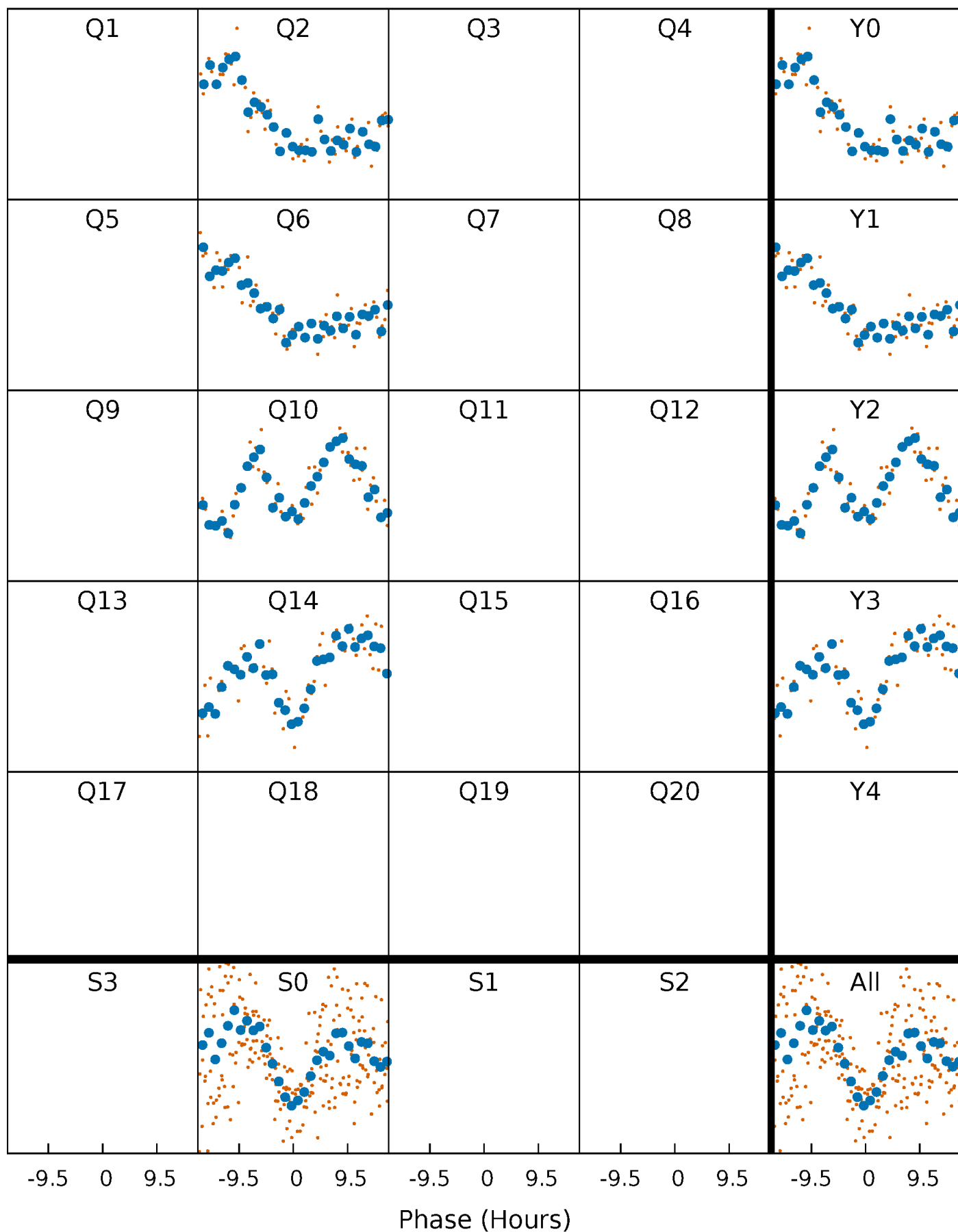


Non-Whitened Vs. Whitened Light Curve



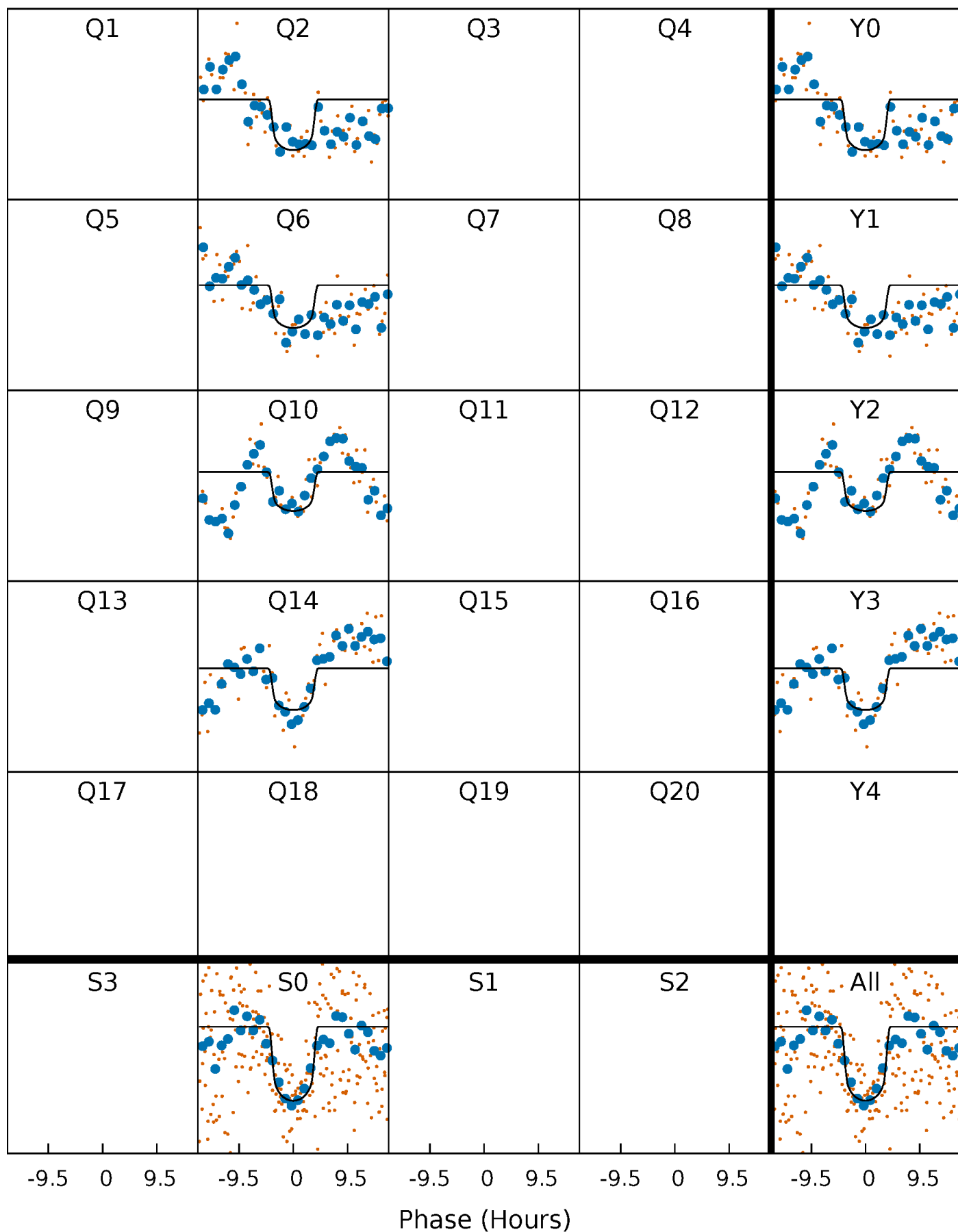
PDC Quarter-Phased Transit Curves

TCE 008805293-01 P=367.828224 Days $T_0=236.320126$ (BKJD)



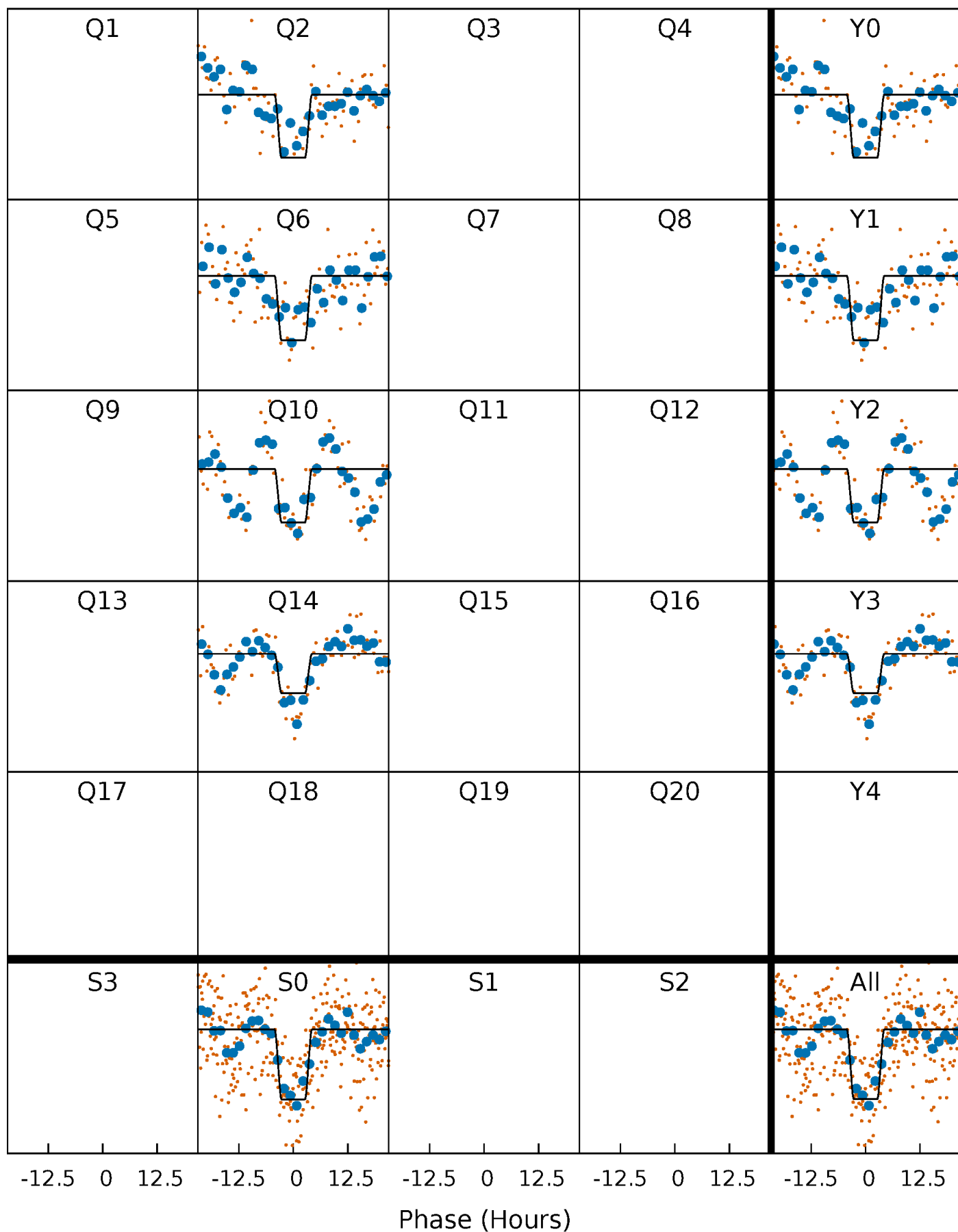
DV Quarter-Phased Transit Curves

TCE 008805293-01 P=367.828224 Days $T_0=236.320126$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

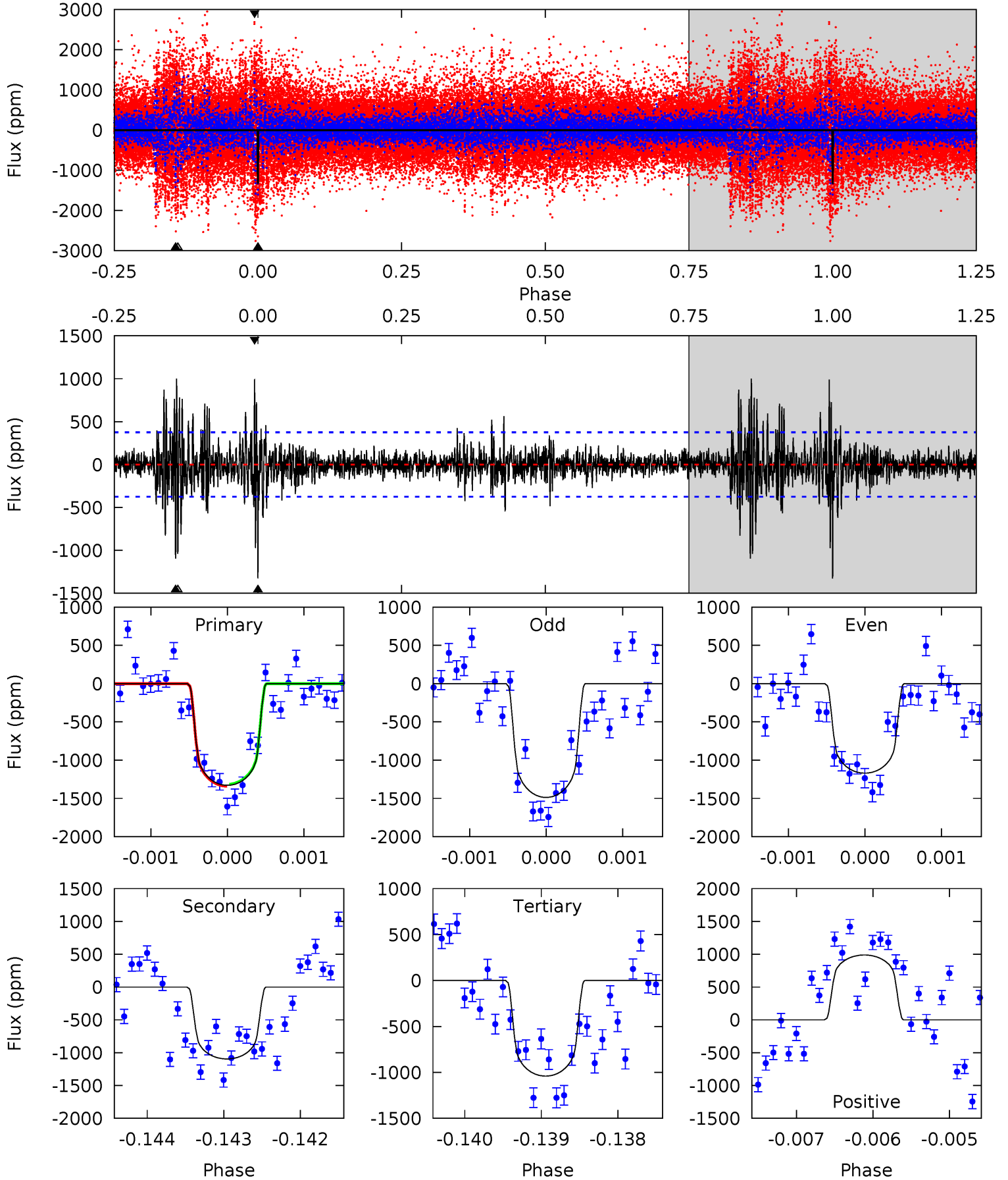
TCE 008805293-01 P=367.831325 Days $T_0=236.307548$ (BKJD)



DV Model-Shift Uniqueness Test

008805293-01, P = 367.828224 Days, E = 236.320126 Days

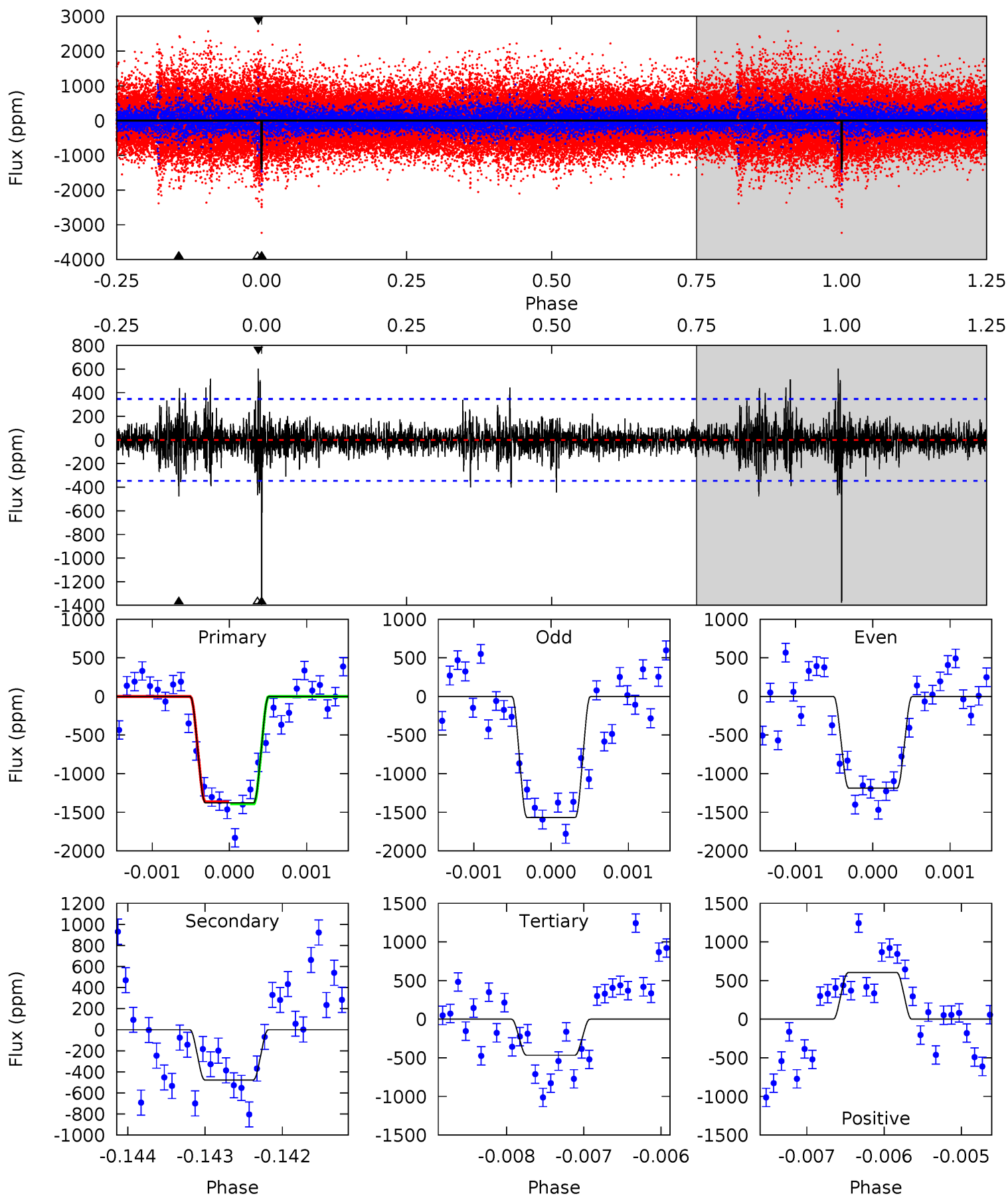
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.3	15.9	15.1	14.4	5.46	3.30	2.26	4.18	4.94	0.80	1.56	2.31	0.98	0.43	0.19



Alt Model-Shift Uniqueness Test

008805293-01, P = 367.831325 Days, E = 236.307548 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.7	7.52	7.35	9.52	5.46	3.30	1.39	14.3	12.1	0.17	-2.00	2.99	1.15	0.31	0.21



Stellar Parameters For KIC 008805293

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5949^{+176}_{-211}	$4.493^{+0.052}_{-0.208}$	$0.000^{+0.250}_{-0.300}$	$0.962^{+0.297}_{-0.099}$	$1.050^{+0.124}_{-0.152}$	$1.663^{+0.448}_{-0.845}$
	+3%/-4%	+1%/-5%	+inf%/-inf%	+31%/-10%	+12%/-14%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008805293-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1096 ± 69	$4.17^{+0.94}_{-0.79}$	362^{+28}_{-16}	5533^{+507}_{-388}	34611^{+17608}_{-10997}
Alt.	-478 ± 64	$4.25^{+0.90}_{-0.73}$	363^{+30}_{-17}	4605^{+371}_{-294}	14670^{+6585}_{-4715}

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

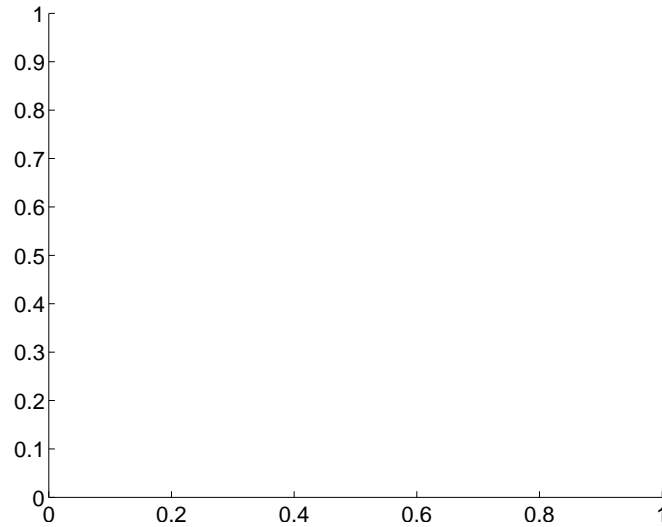
Supplemental centroid analysis for 008805293-01. Kepler magnitude: 15.64. Transit SNR 8.52

There are 0 quarters with good PRF difference image offsets

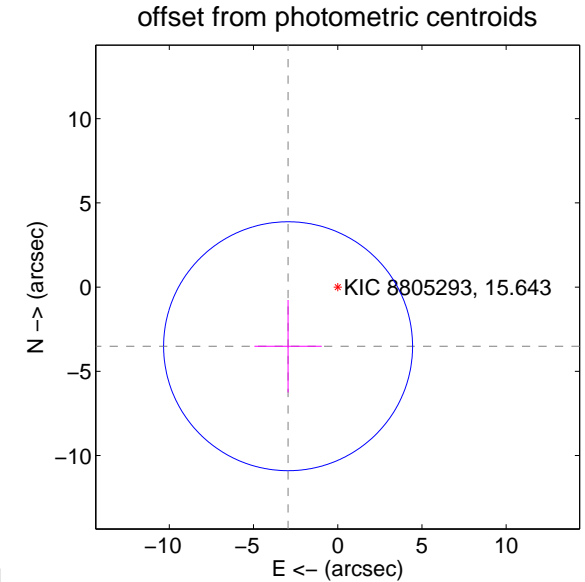
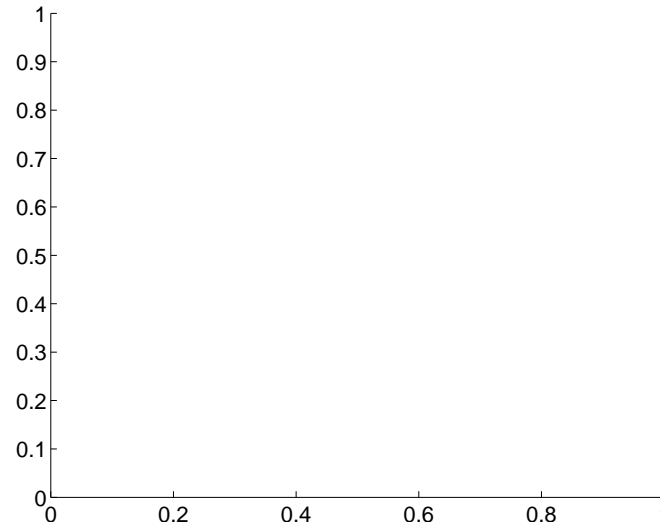
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	4.58 ± 2.46	1.86	2.95 ± 2.00	-3.51 ± 2.74

There is no PRF-fit offset from OOT-fit

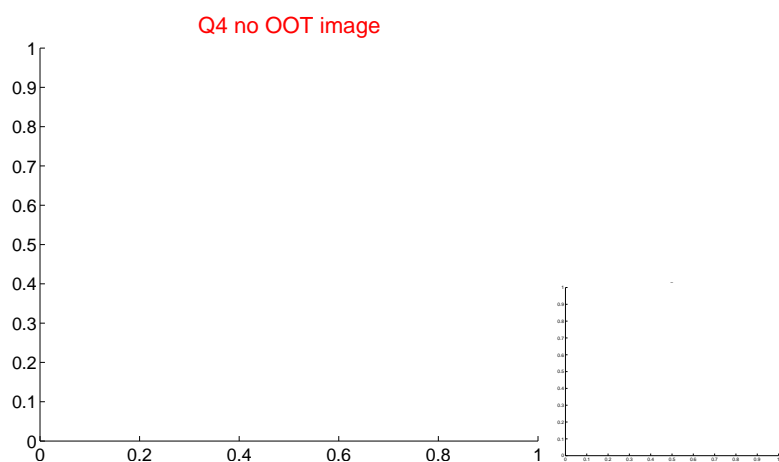
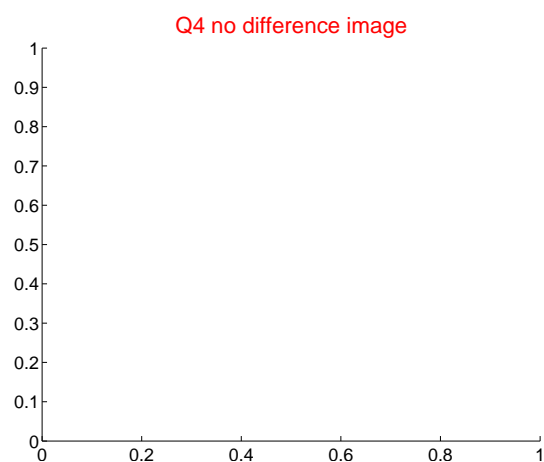
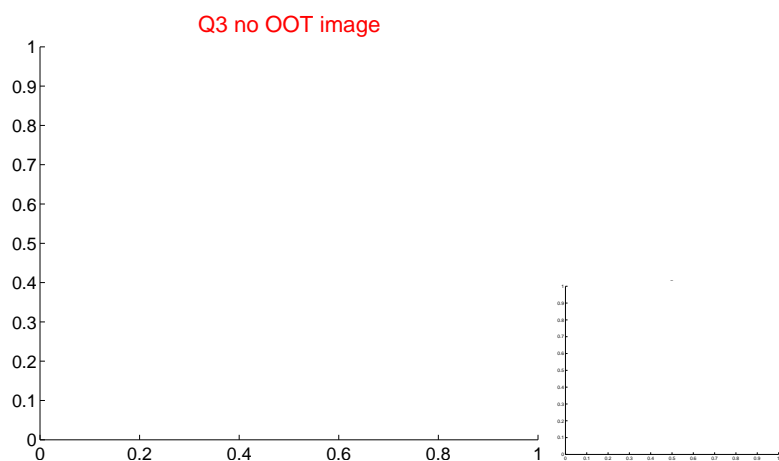
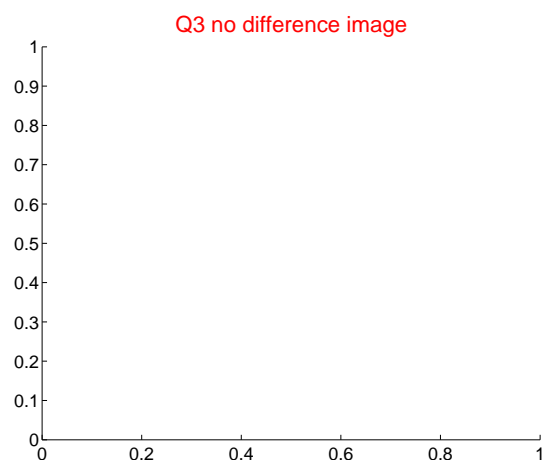
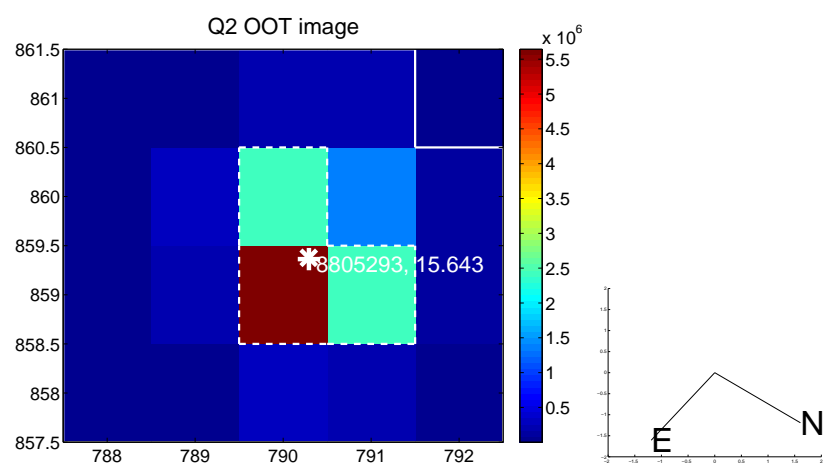
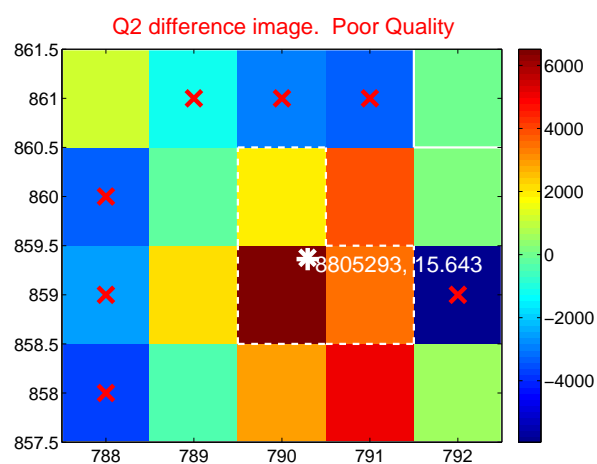
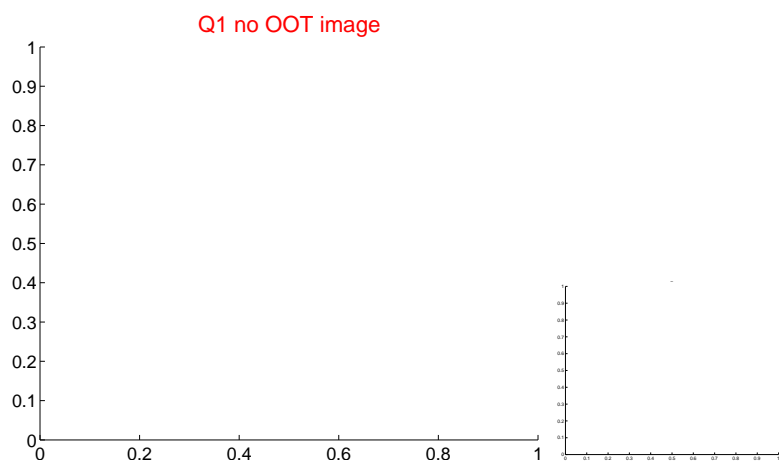
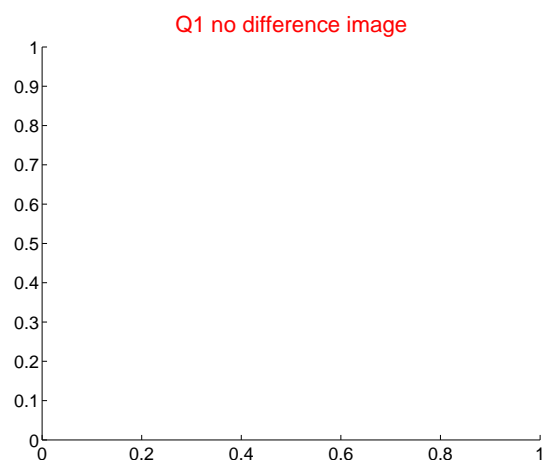


There is no PRF-fit offset from KIC

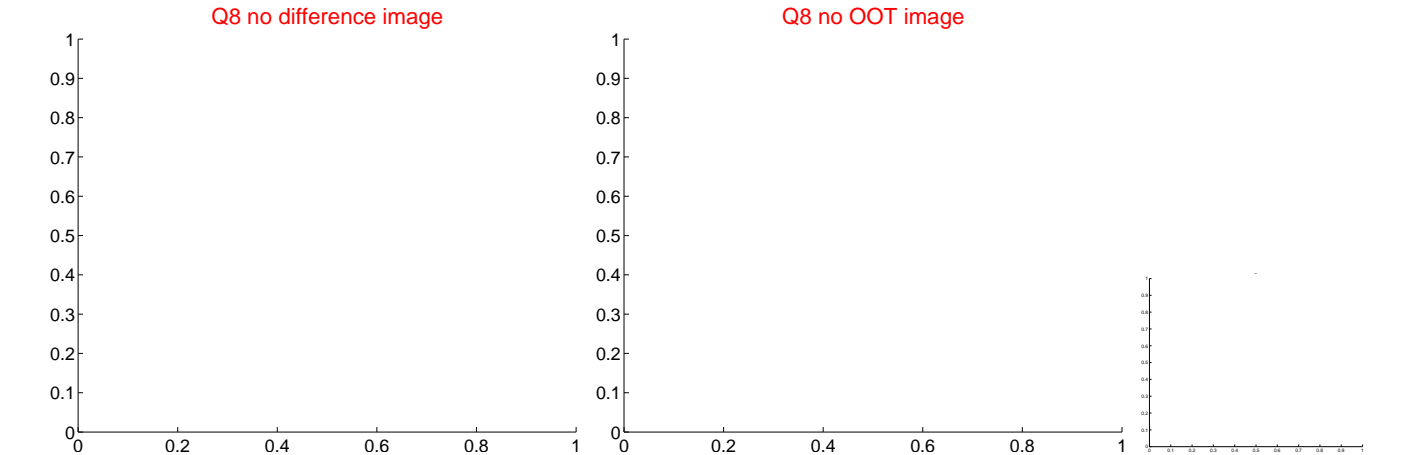
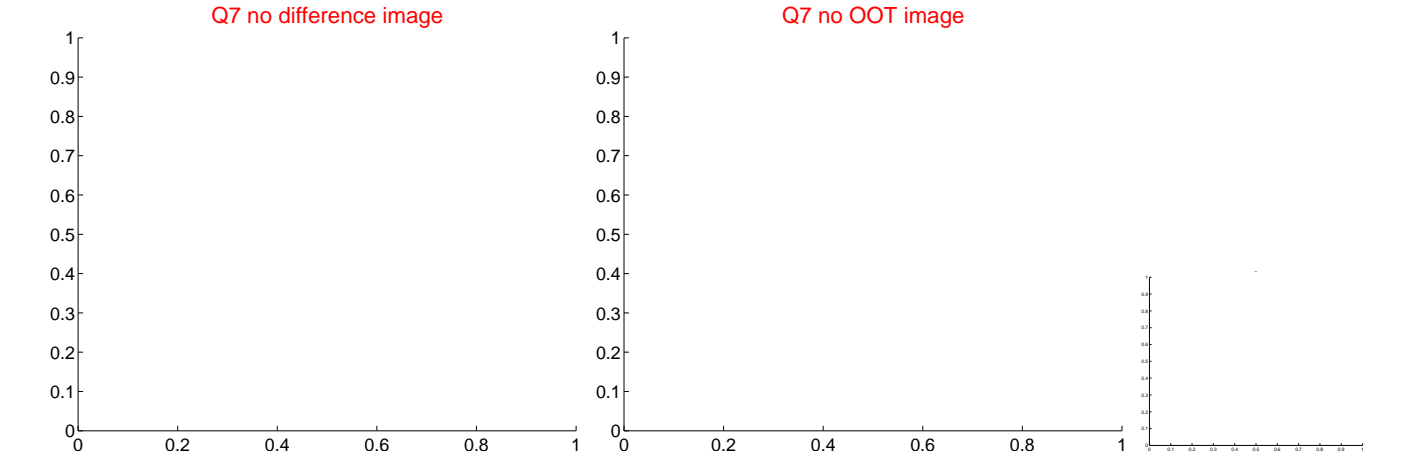
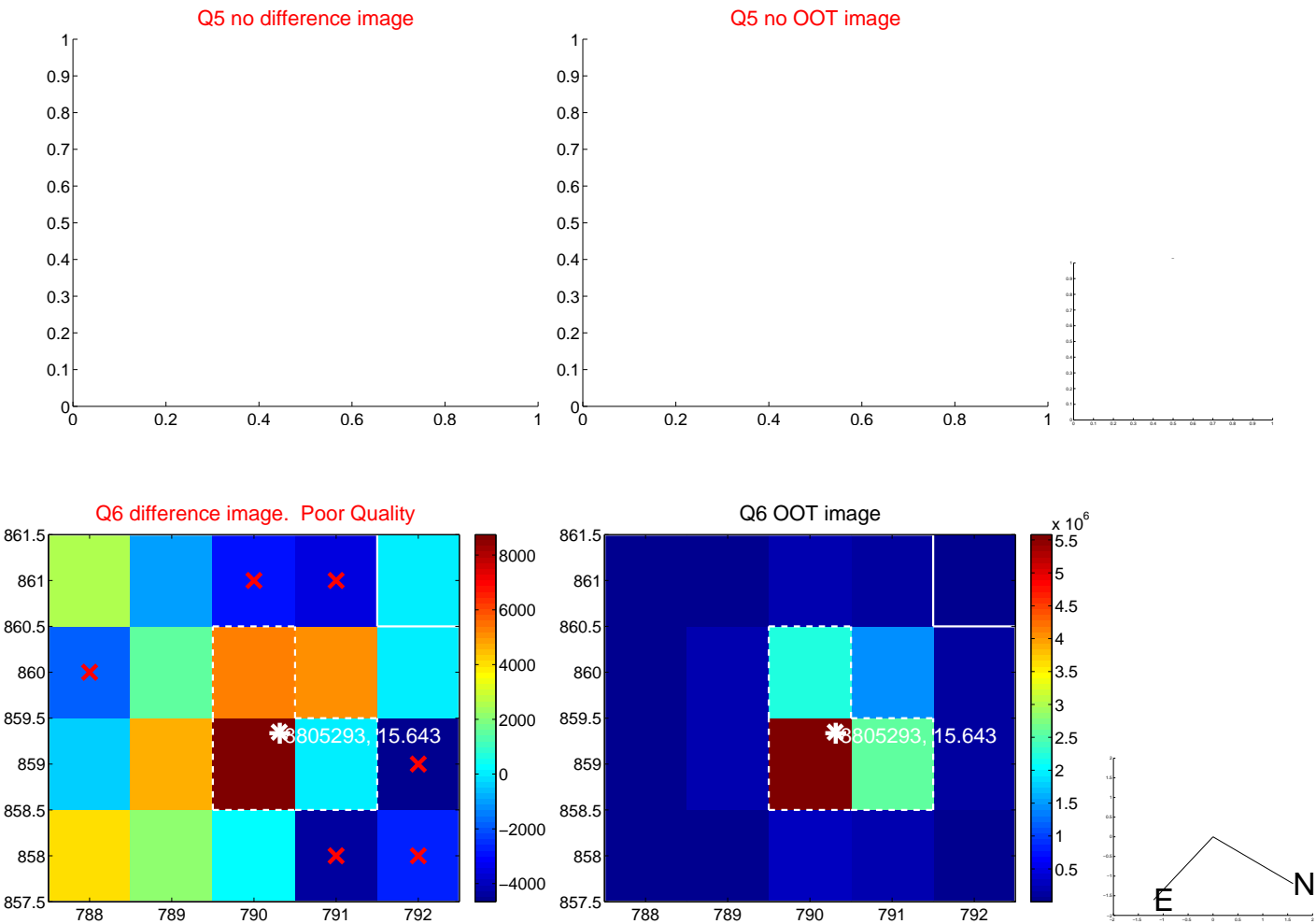


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

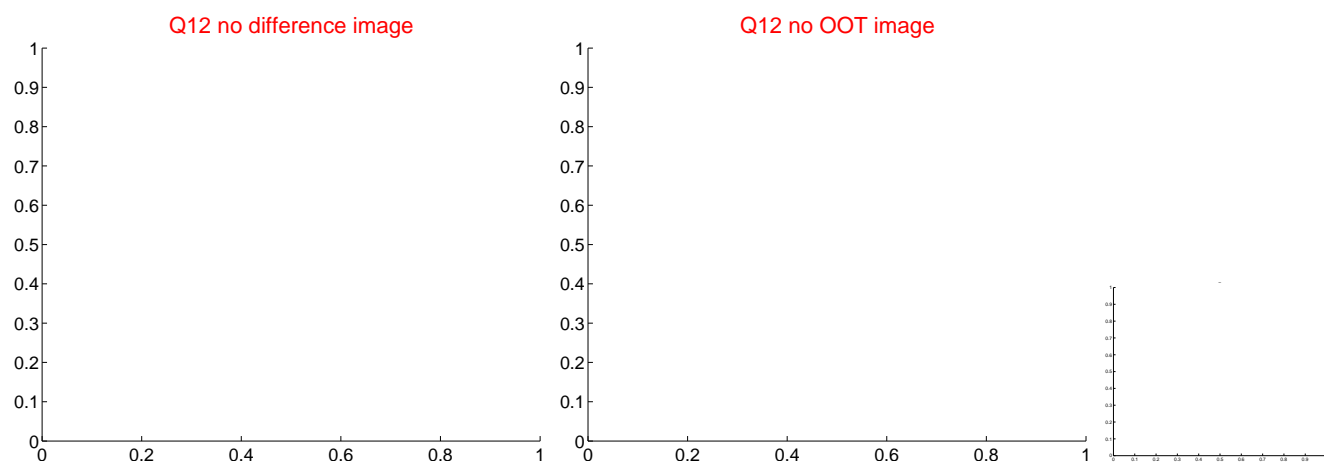
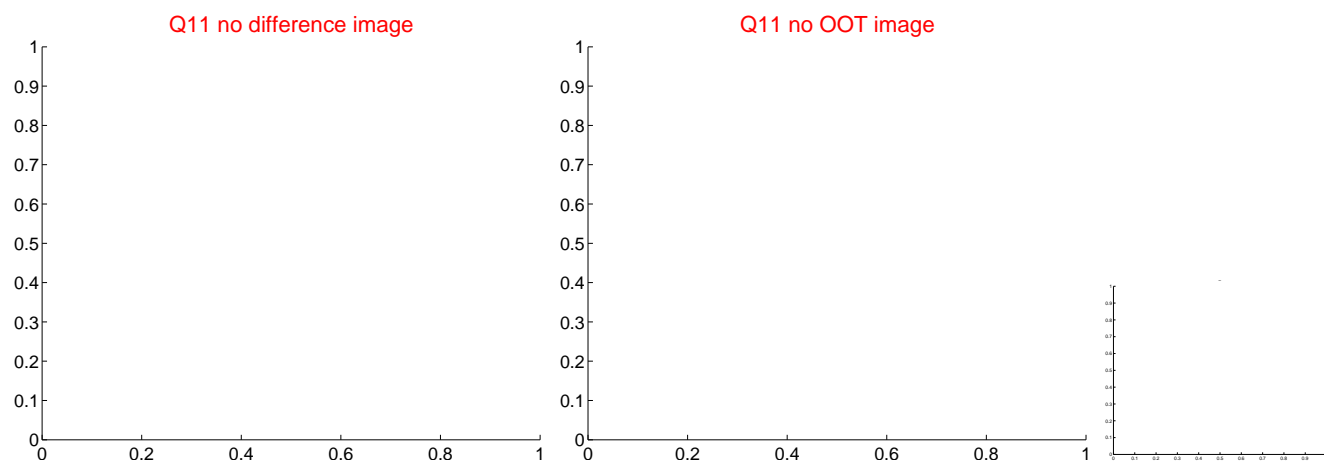
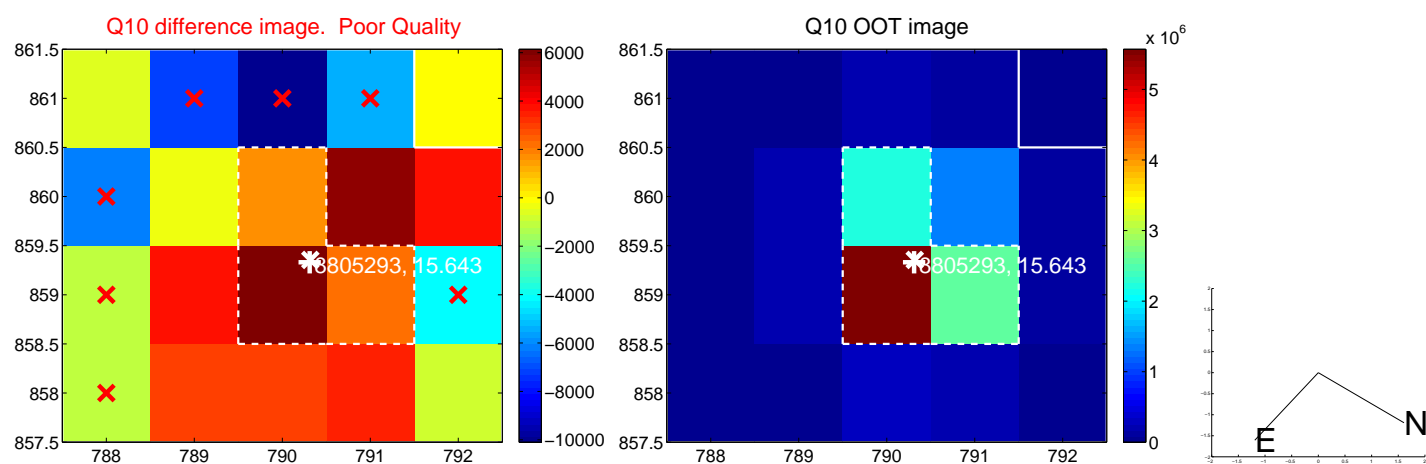
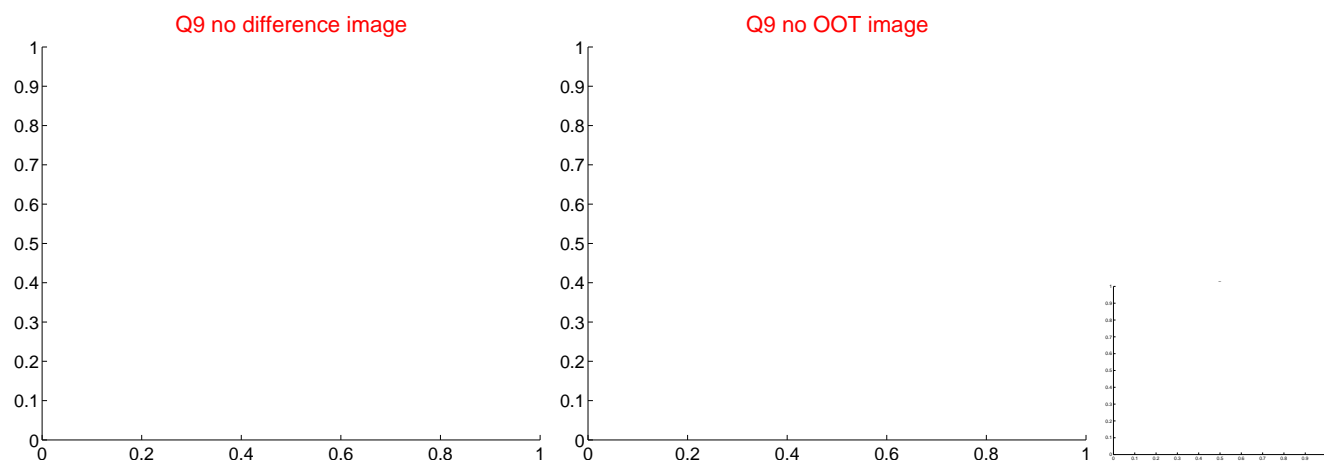
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



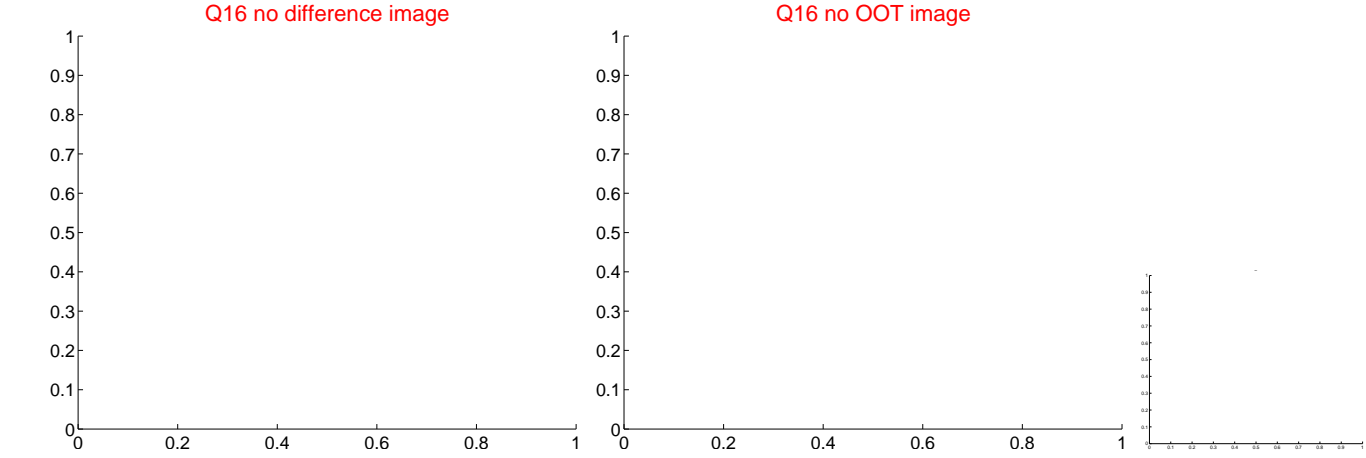
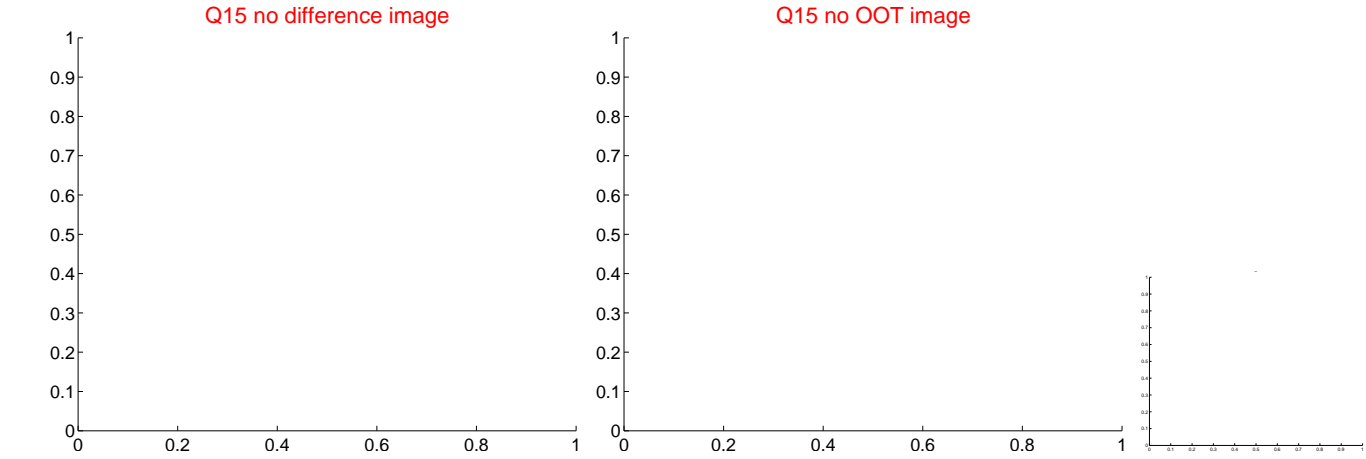
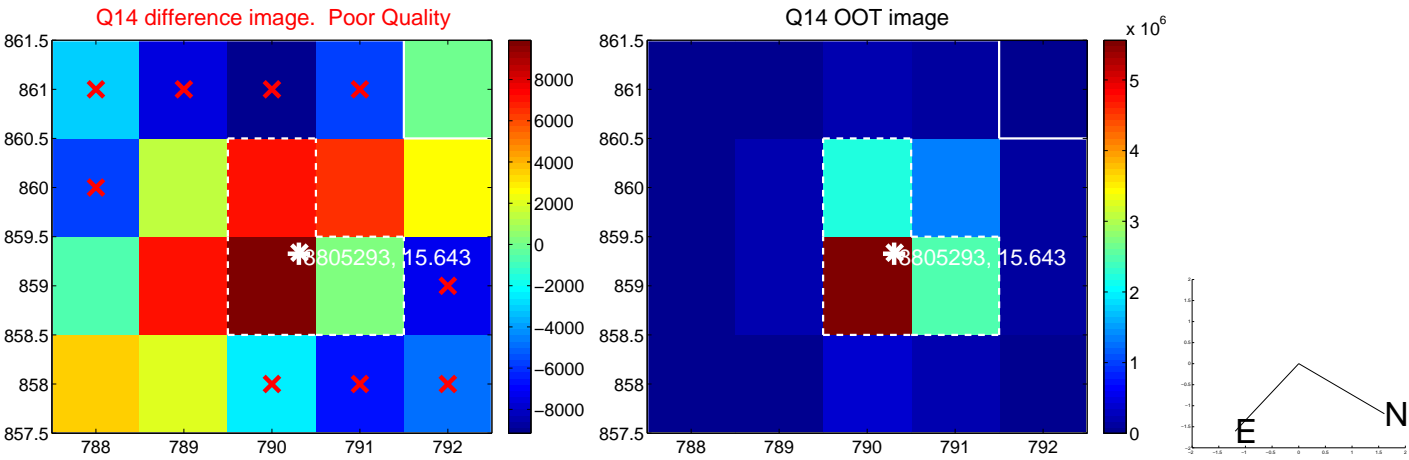
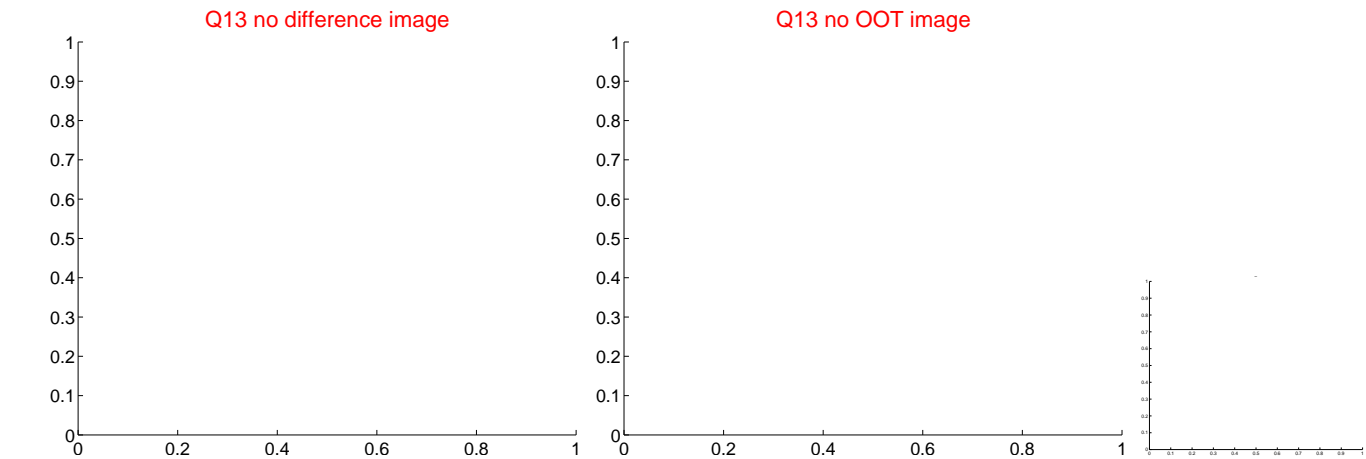
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



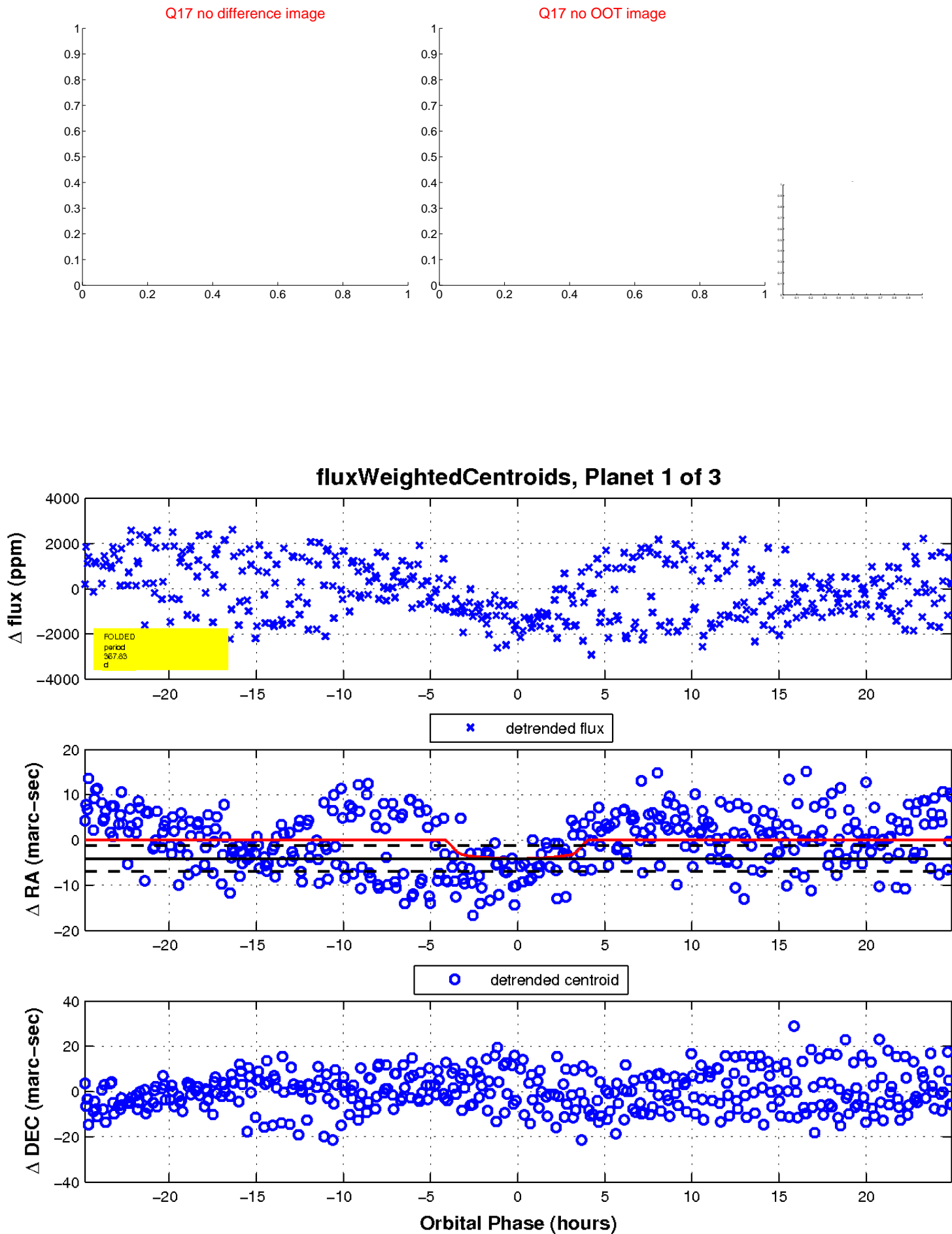
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



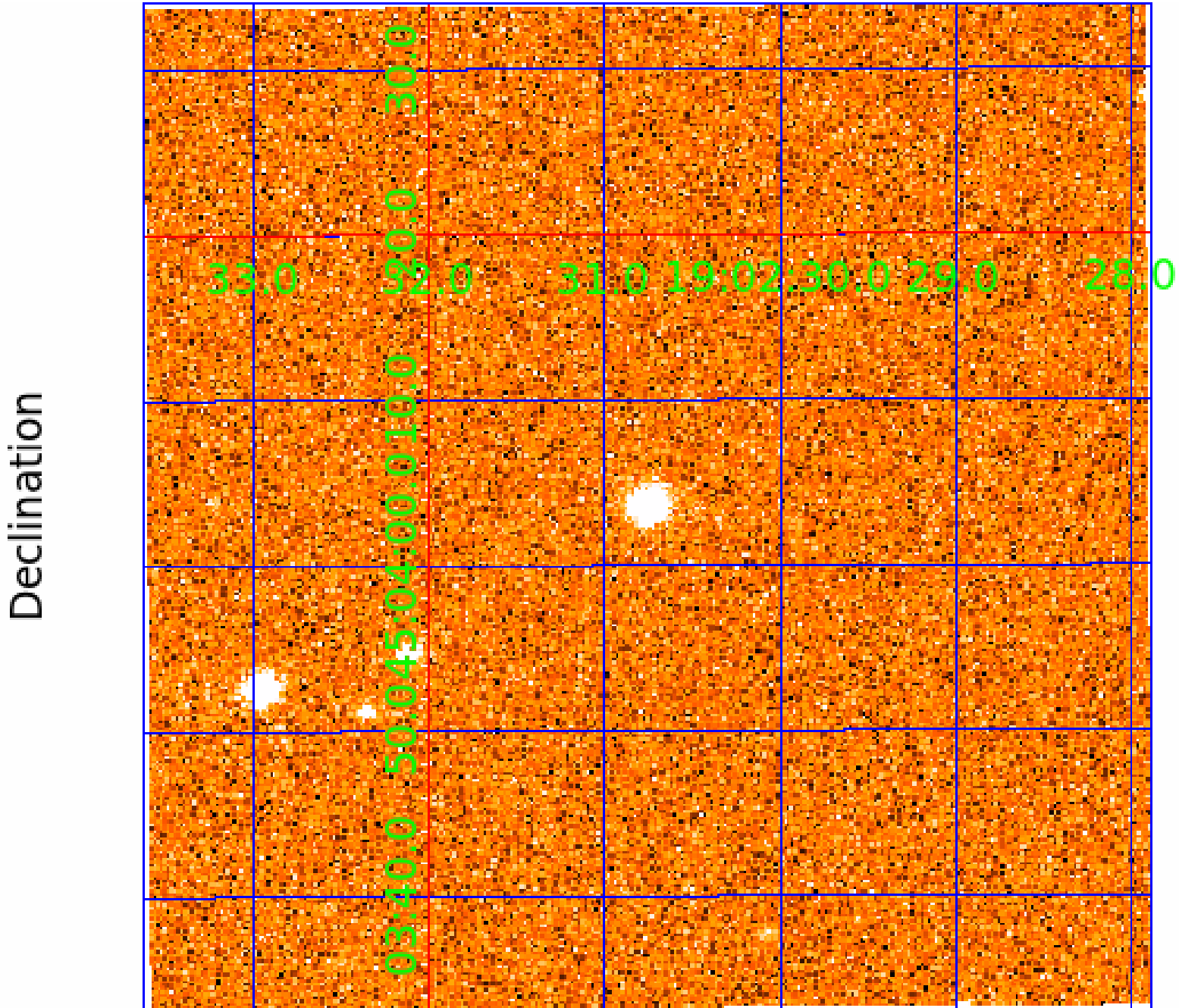
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image



KIC 008805293

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})
008805293-01	OBS	No	367.828224	236.320126	1402.8	8.349	8.4	8.5	0.96	5949	4.03	0.99
008805293-03	OBS	No	371.447104	230.955257	2329.6	29.781	7.4	8.6	0.96	5949	8.67	0.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008805293-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
008805293-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—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.

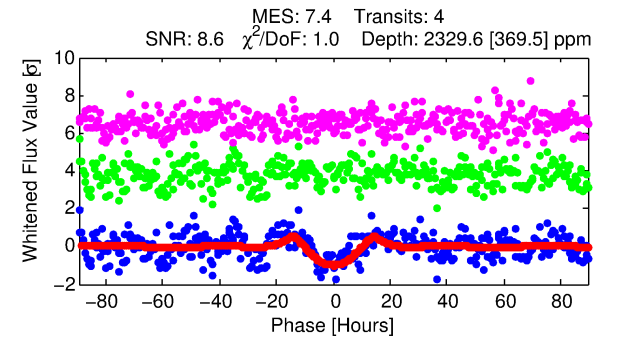
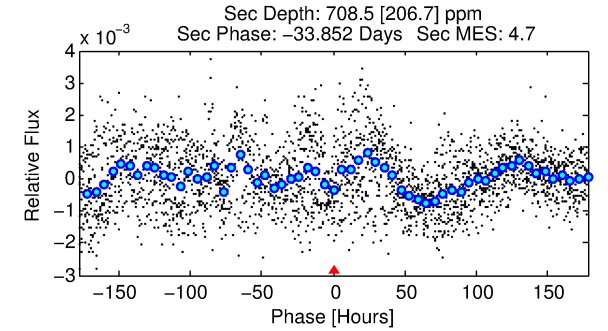
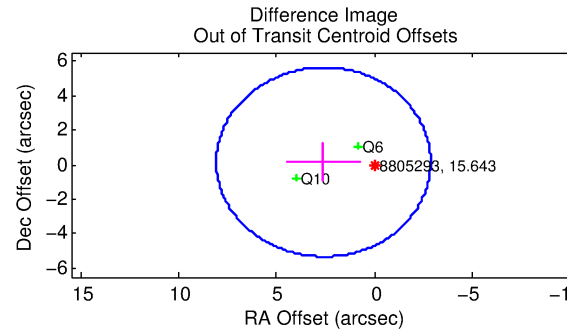
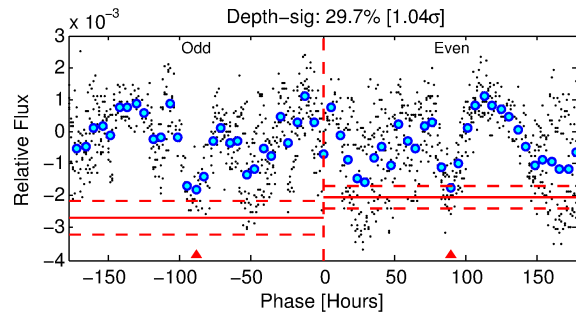
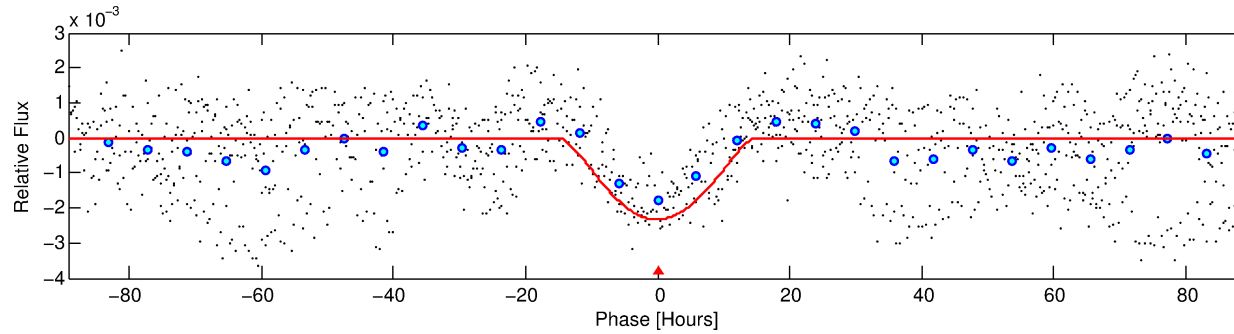
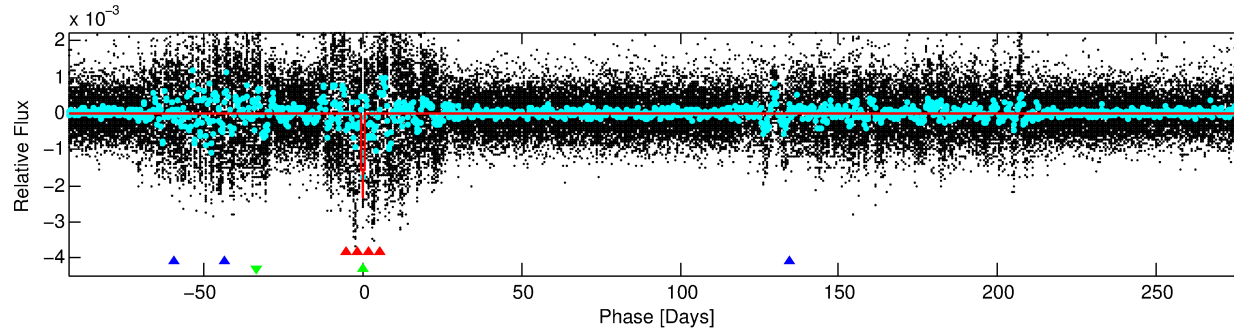
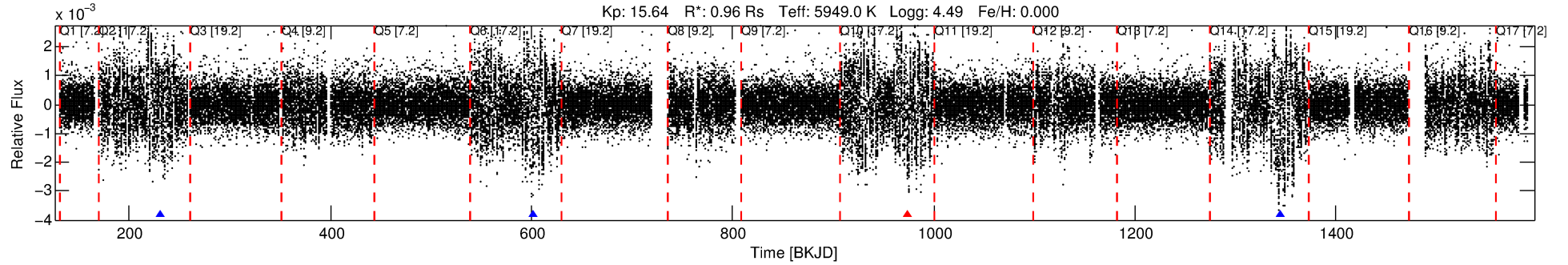
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008805293-03

No Significant Match Found

DV One-Page Summary

KIC: 8805293 Candidate: 3 of 3 Period: 371.447 d



DV Fit Results:

Period = 371.44710 [0.02871] d
Epoch = 230.9553 [0.0581] BKJD
Rp/R* = 0.0826 [0.1468]
a/R* = 39.76 [14.85]
b = 1.00 [0.22]
Seff = 0.98 [0.40]
Teq = 254 [26] K
Rp = 8.67 [15.64] Re
a = 1.0282 [0.2678] AU
Ag = 5485.03 [19683.64] [0.28 σ]
Teffp = 3378 [3016] K [1.04 σ]

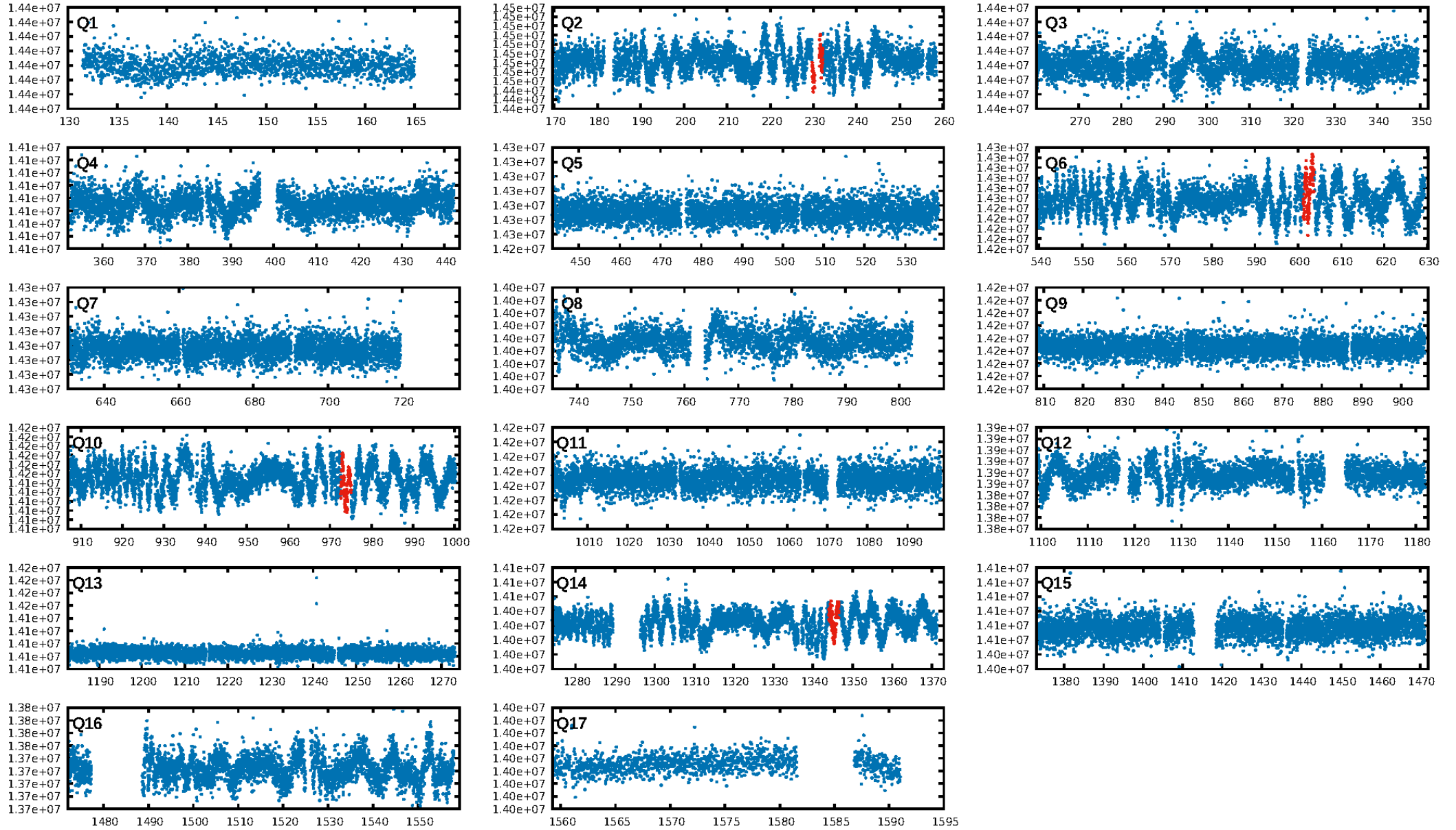
DV Diagnostic Results:

ShortPeriod-sig: 99.5% [2.81 σ]
LongPeriod-sig: 100.0% [150.73 σ]
ModelChiSquare2-sig: 90.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.87e-07
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: -7.574
Centroid-sig: N/A
Centroid-so: 3.165 arcsec [1.22 σ]
OotOffset-rm: 2.606 arcsec [1.43 σ]
KicOffset-rm: 2.671 arcsec [1.43 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.33 [1/3]

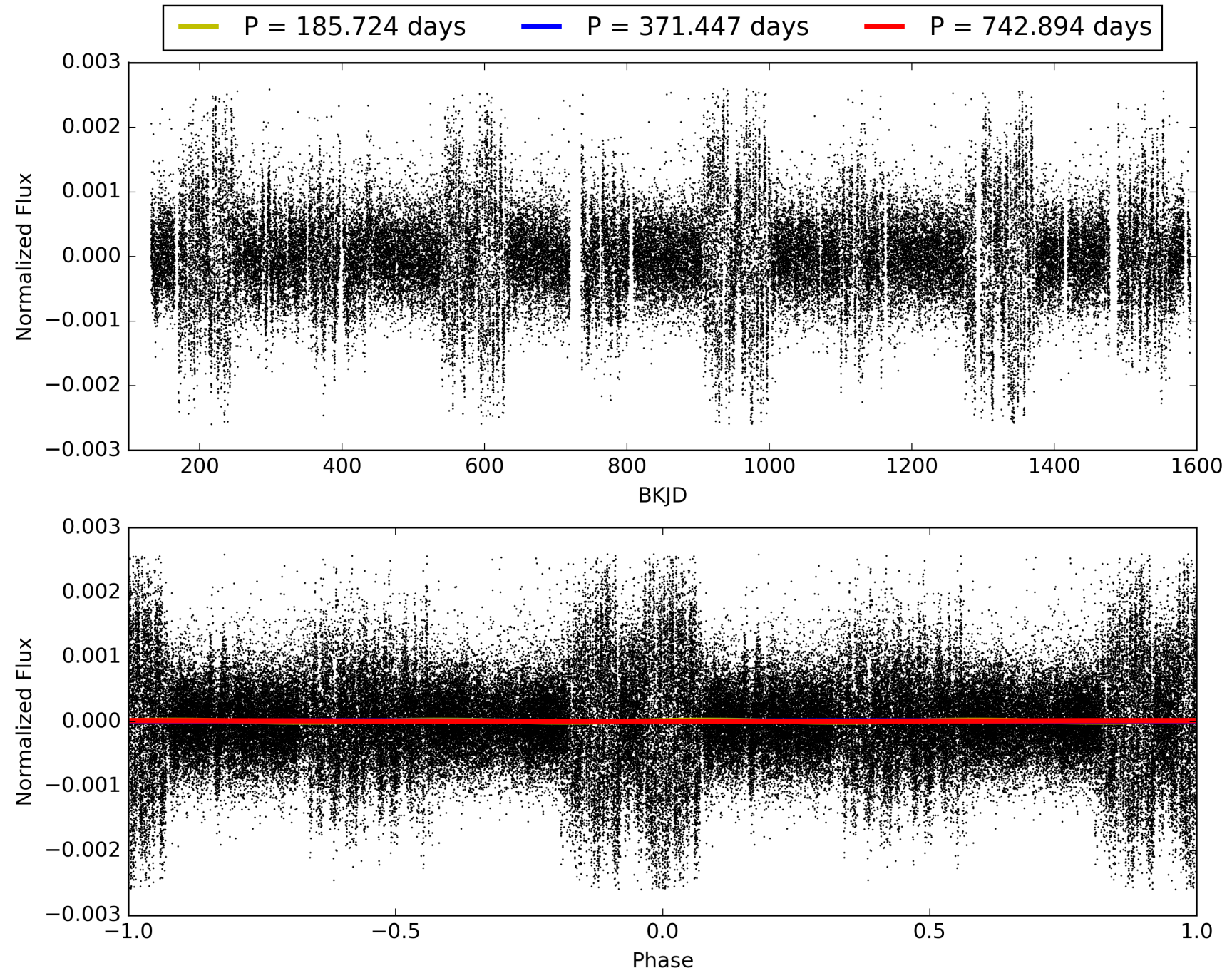
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:58:00 Z

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

TCE 008805293-03, PDC Light Curves

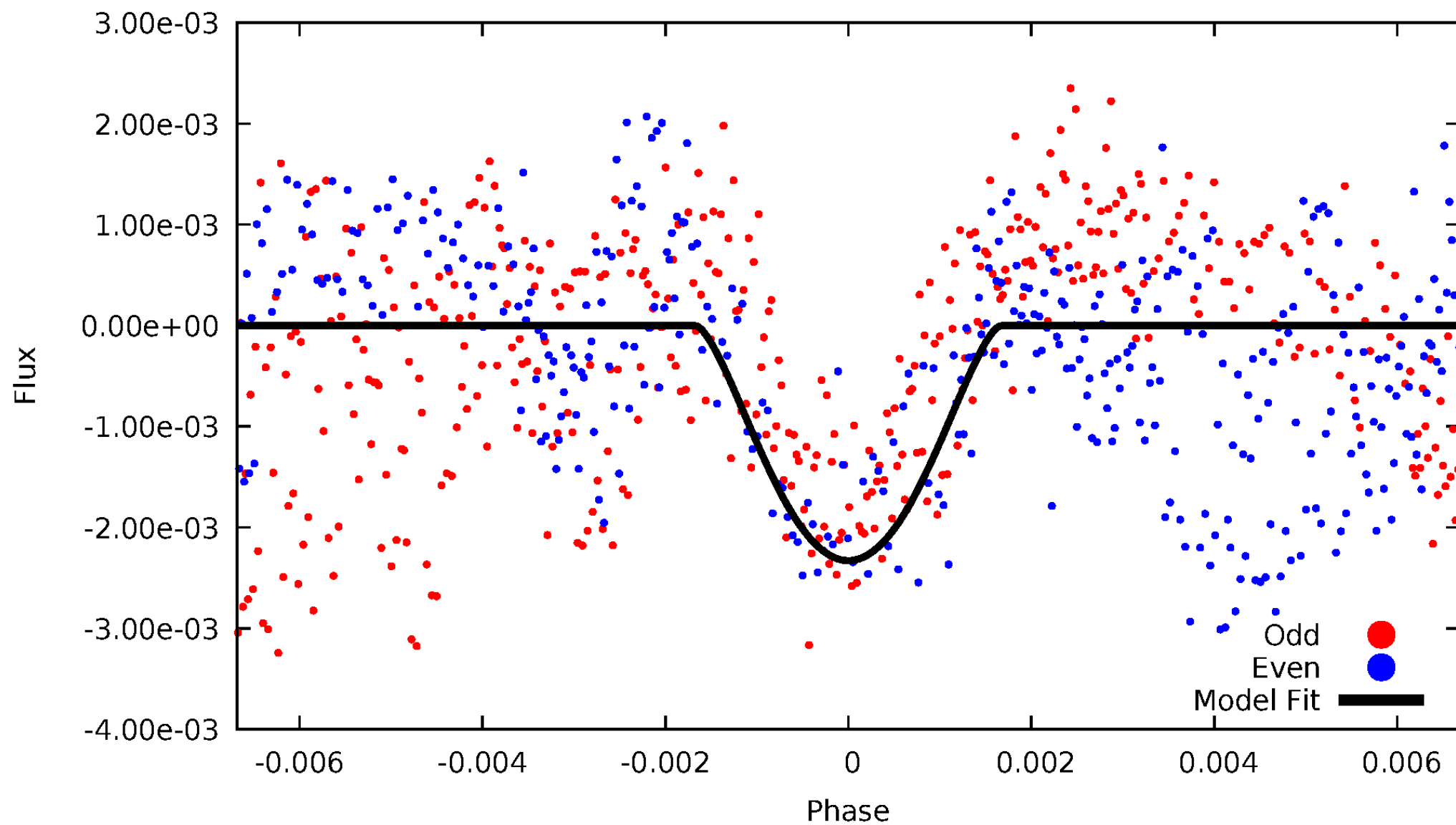


TCE 008805293-03



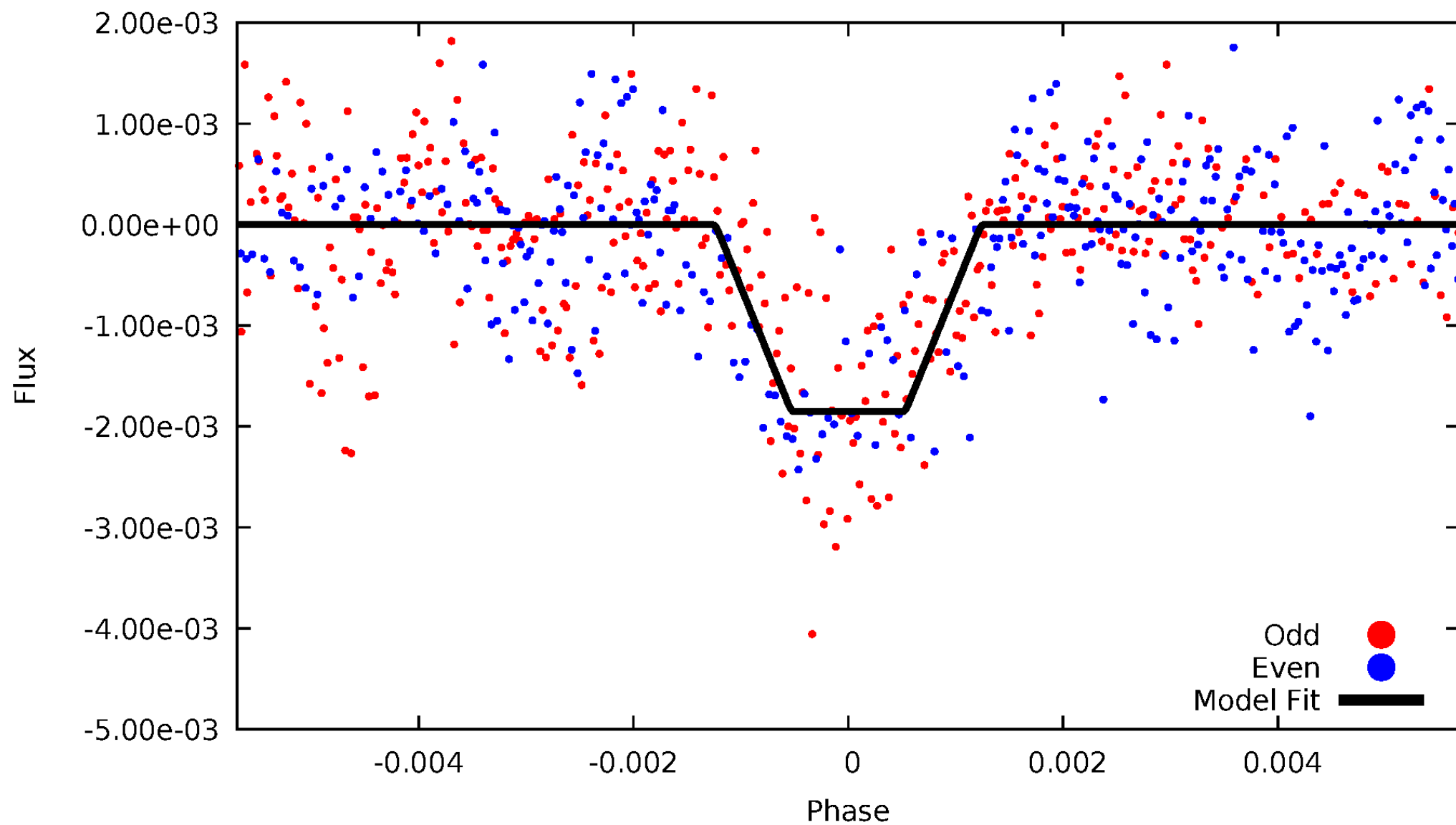
DV Odd/Even

TCE 008805293-03

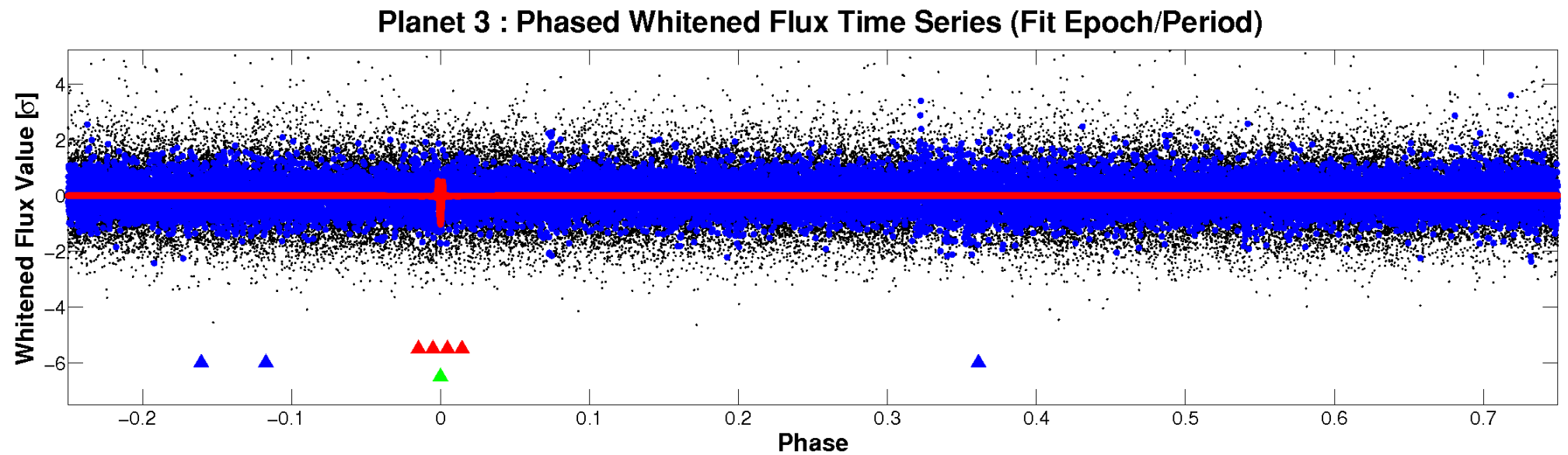
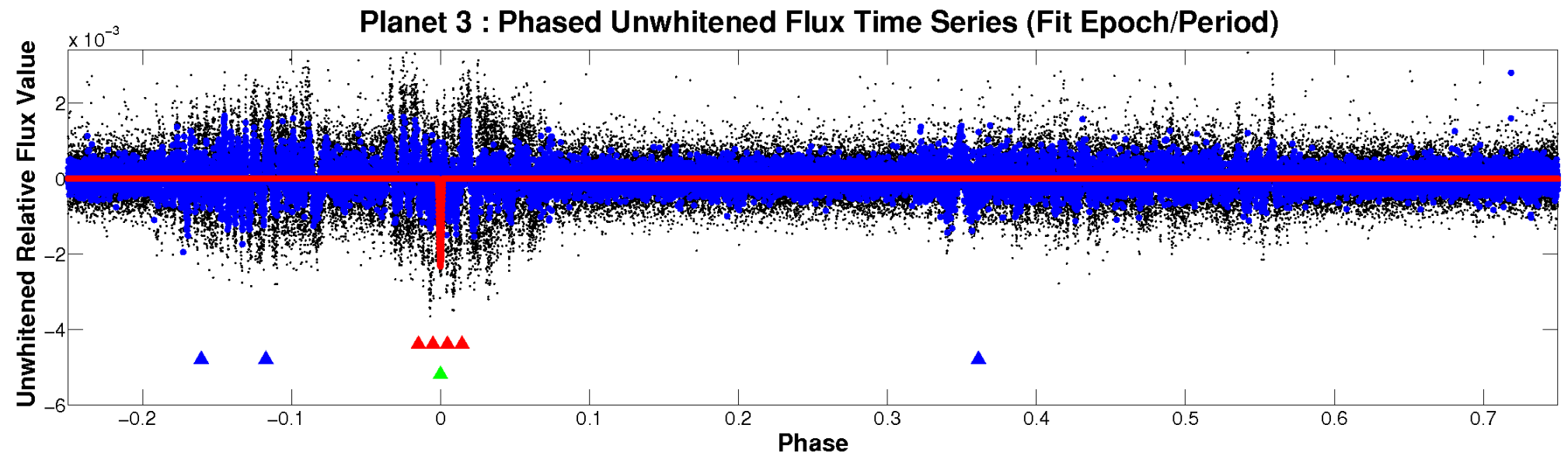


ALT Odd/Even

TCE 008805293-03

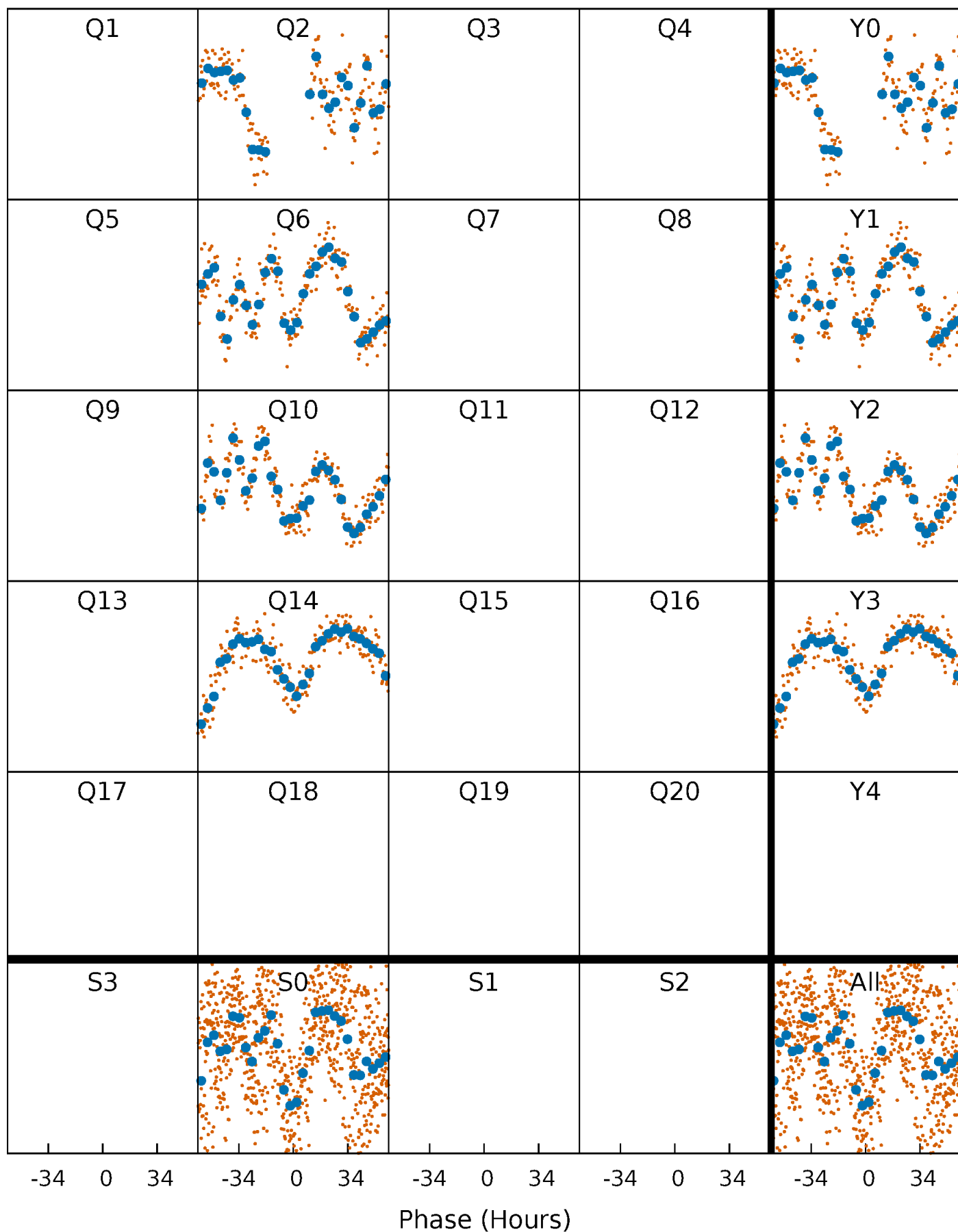


Non-Whitened Vs. Whitened Light Curve



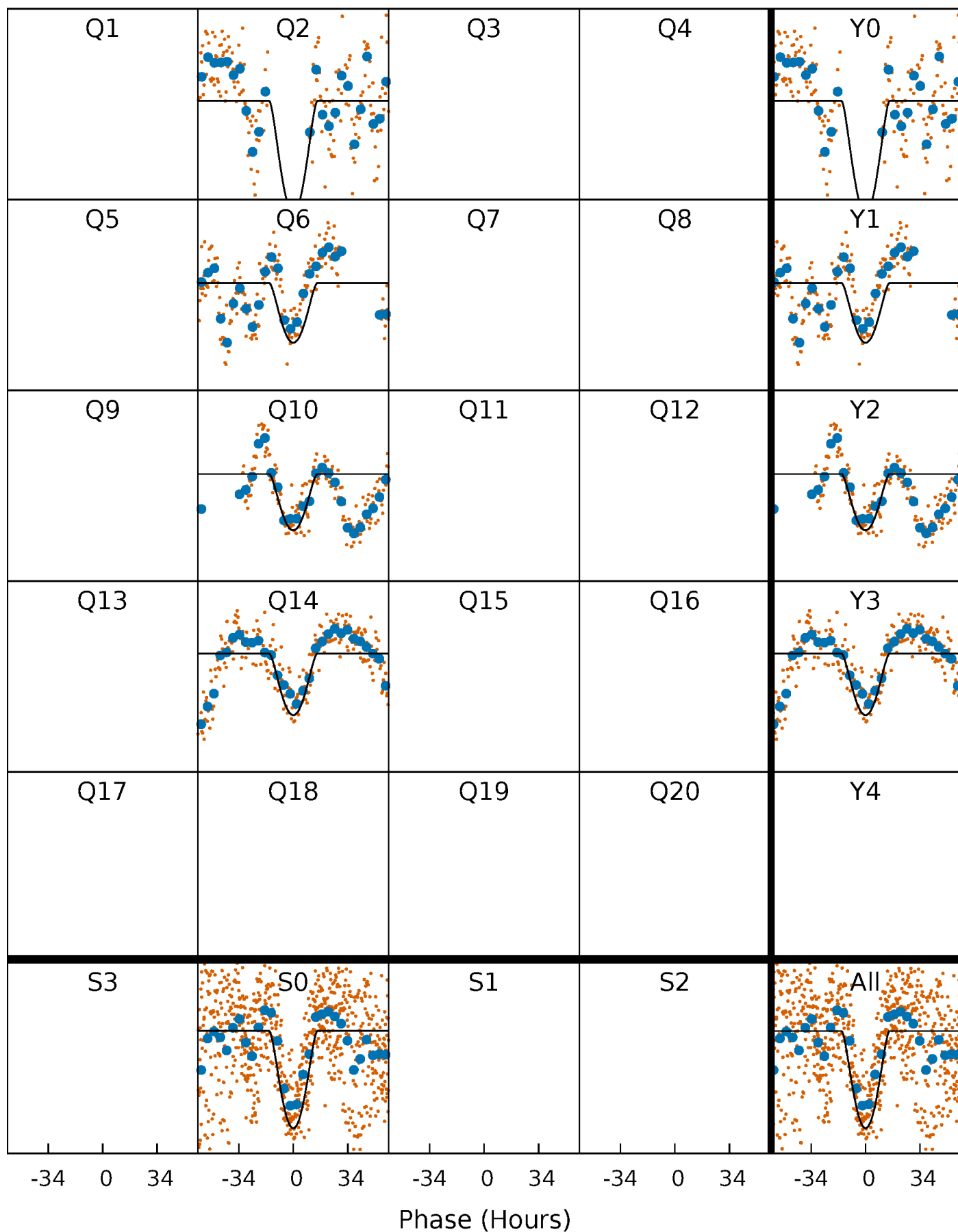
PDC Quarter-Phased Transit Curves

TCE 008805293-03 $P=371.447104$ Days $T_0=230.955257$ (BKJD)



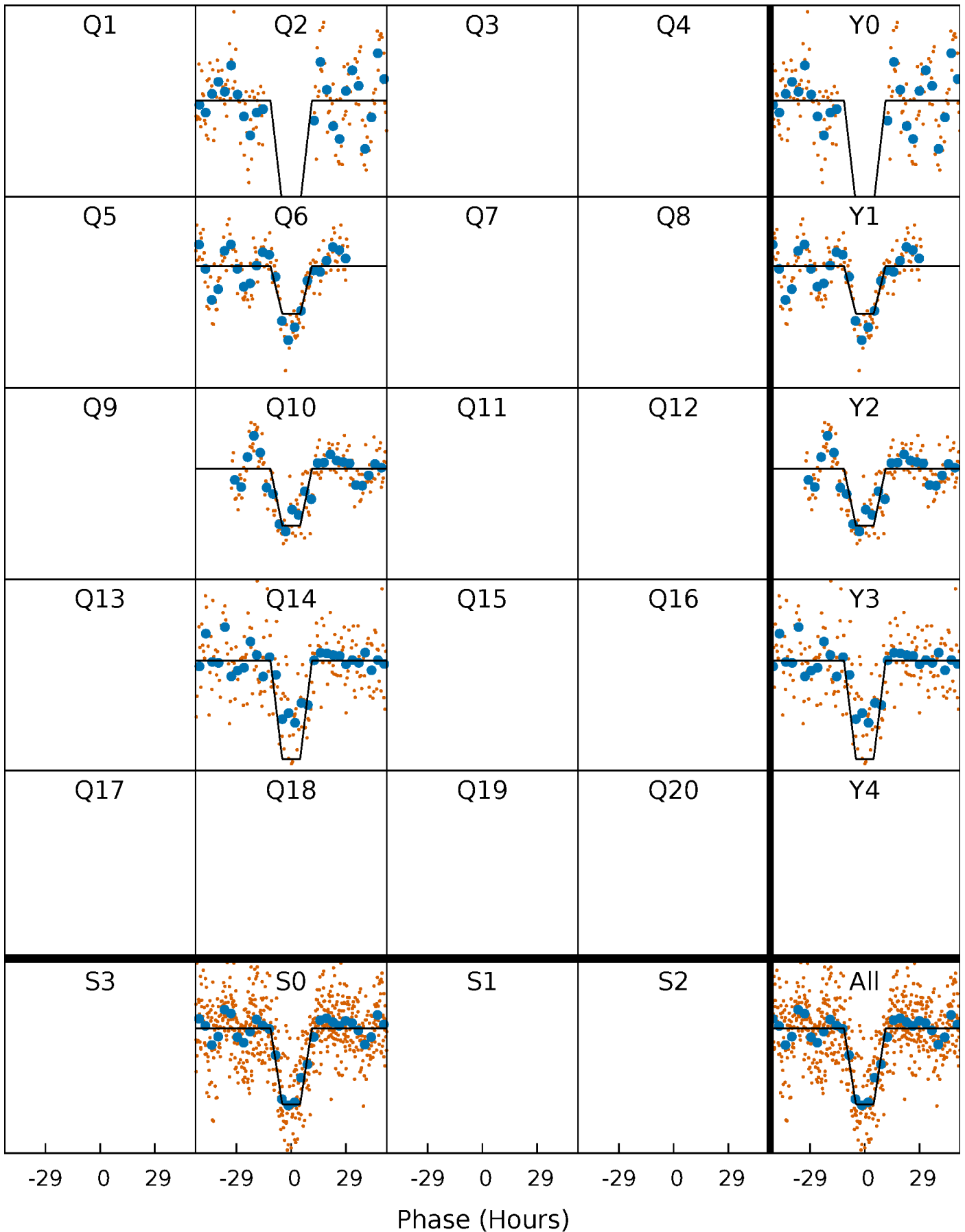
DV Quarter-Phased Transit Curves

TCE 008805293-03 P=371.447104 Days $T_0=230.955257$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

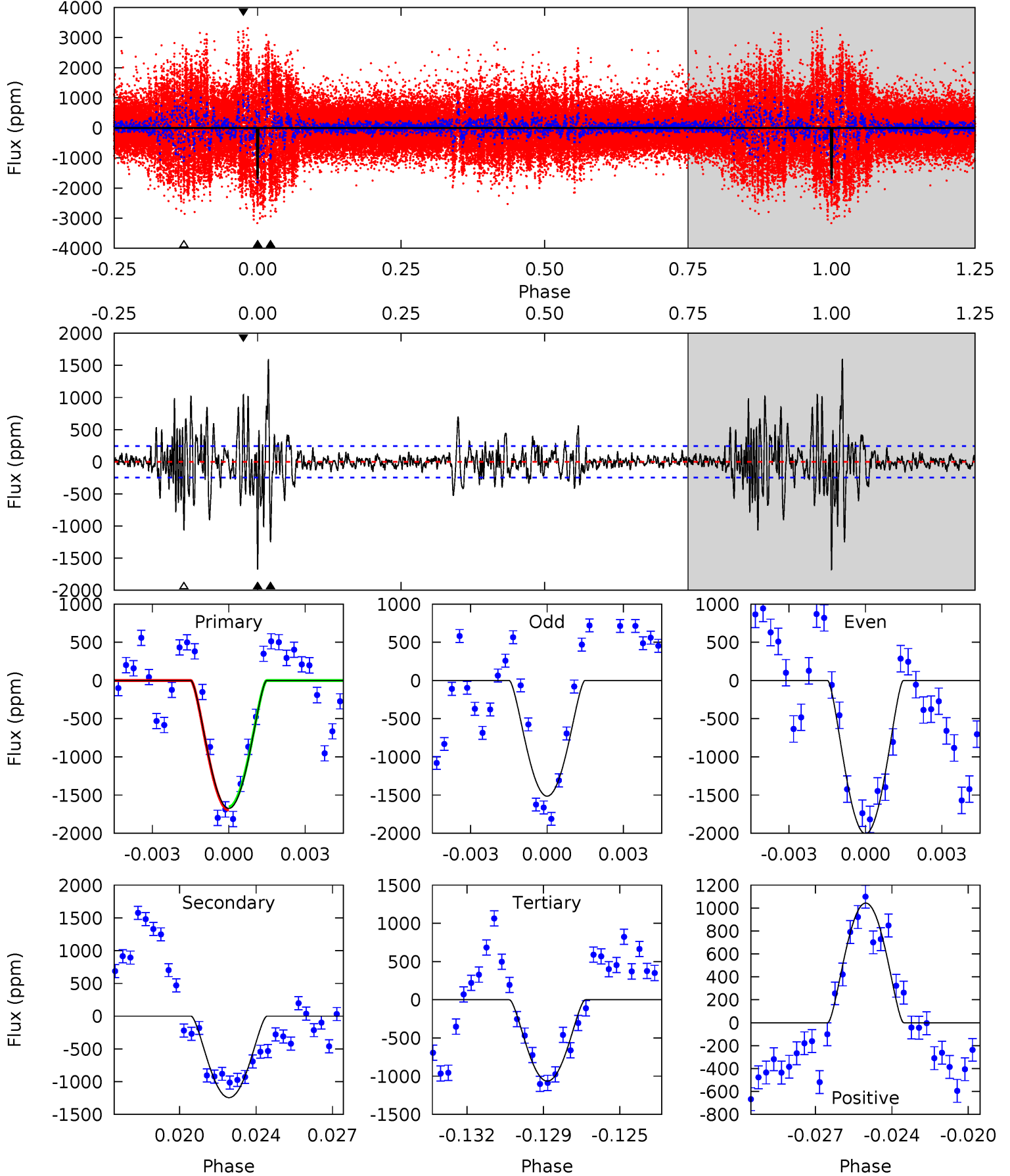
TCE 008805293-03 $P=371.468498$ Days $T_0=230.899437$ (BKJD)



DV Model-Shift Uniqueness Test

008805293-03, P = 371.447104 Days, E = 230.955257 Days

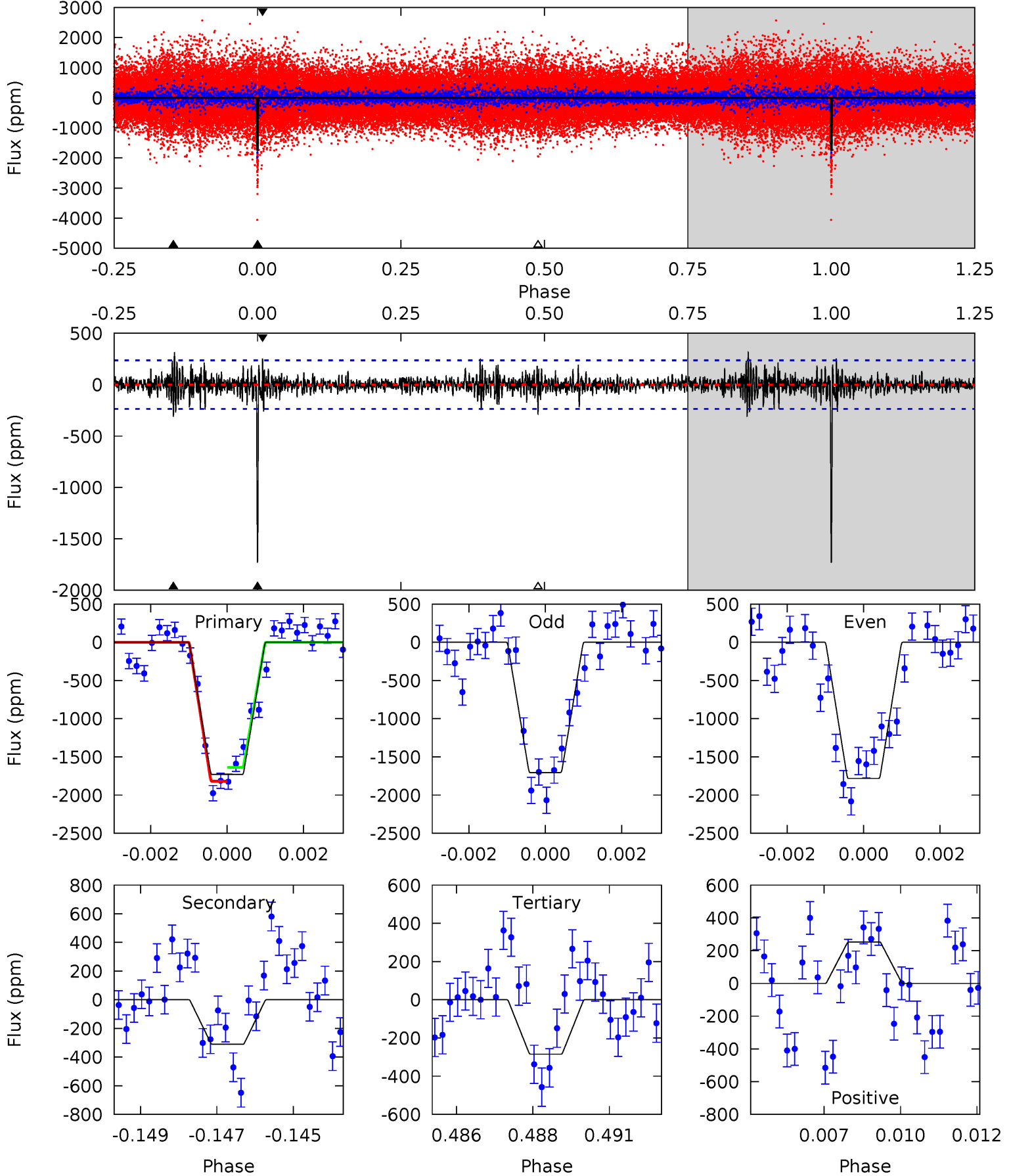
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.7	26.5	22.7	22.2	5.23	2.93	4.78	13.0	13.4	3.83	4.28	4.91	0.98	0.49	0.44



Alt Model-Shift Uniqueness Test

008805293-03, P = 371.468498 Days, E = 230.899437 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.7	6.94	6.37	5.67	5.29	3.02	1.27	32.3	33.0	0.57	1.28	0.80	0.97	0.15	2.02



Stellar Parameters For KIC 008805293

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5949^{+176}_{-211}	$4.493^{+0.052}_{-0.208}$	$0.000^{+0.250}_{-0.300}$	$0.962^{+0.297}_{-0.099}$	$1.050^{+0.124}_{-0.152}$	$1.663^{+0.448}_{-0.845}$
	+3%/-4%	+1%/-5%	+inf%/-inf%	+31%/-10%	+12%/-14%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008805293-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1244 ± 47	$15.09^{+13.95}_{-9.94}$	362^{+27}_{-18}	3496^{+1714}_{-594}	3047^{+22947}_{-2202}
Alt.	-311 ± 45	$13.38^{+14.61}_{-9.50}$	363^{+26}_{-19}	2960^{+1369}_{-501}	957^{+10310}_{-733}

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

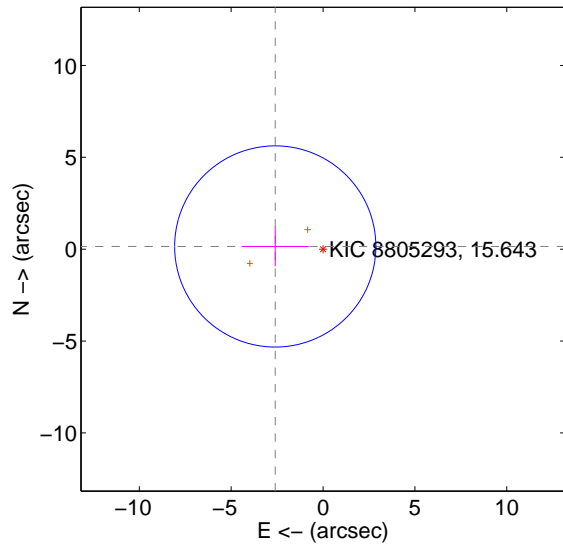
Supplemental centroid analysis for 008805293-03. Kepler magnitude: 15.64. Transit SNR 8.63

There are 0 quarters with good PRF difference image offsets

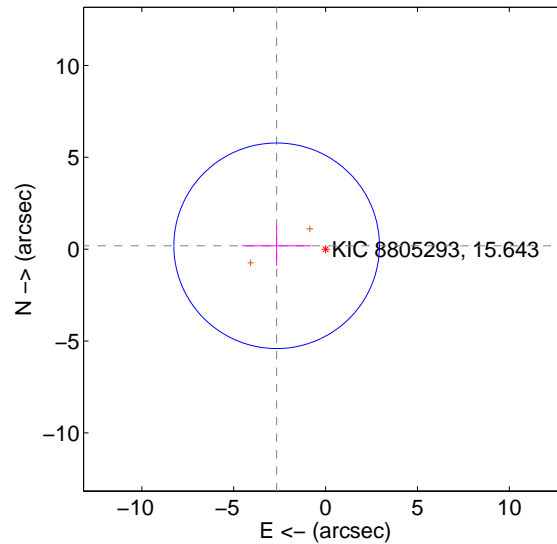
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.606 ± 1.825	1.43	2.602 ± 1.827	0.148 ± 1.074
PRF-fit source offset from KIC position	2.671 ± 1.865	1.43	2.665 ± 1.868	0.185 ± 1.082
photometric centroid source offset	3.16 ± 2.60	1.22	2.39 ± 1.95	2.08 ± 3.27

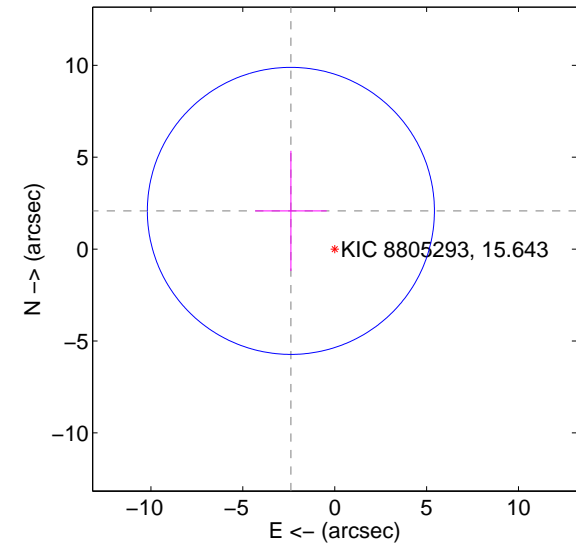
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

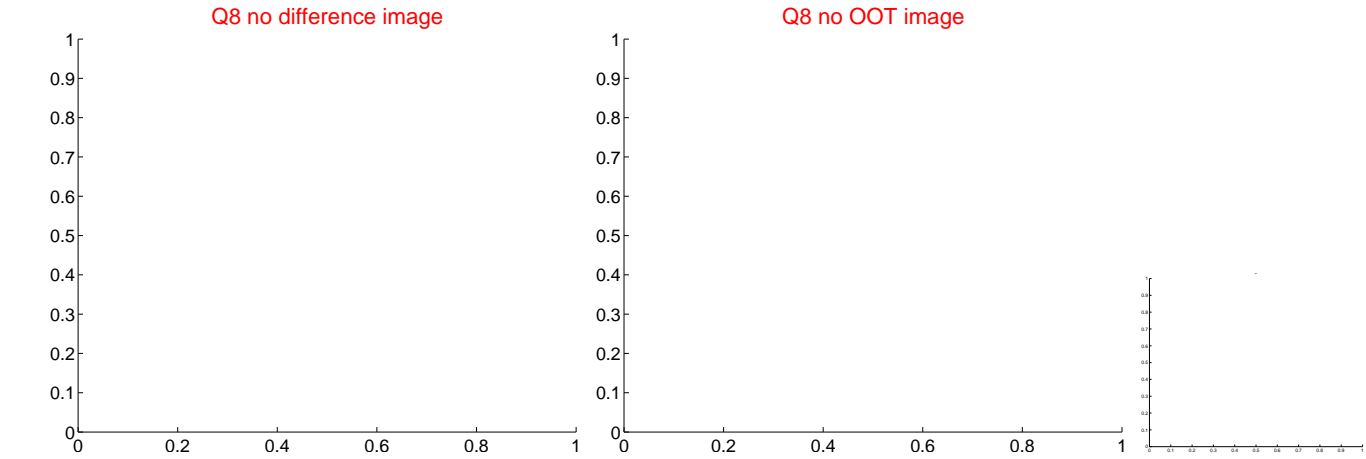
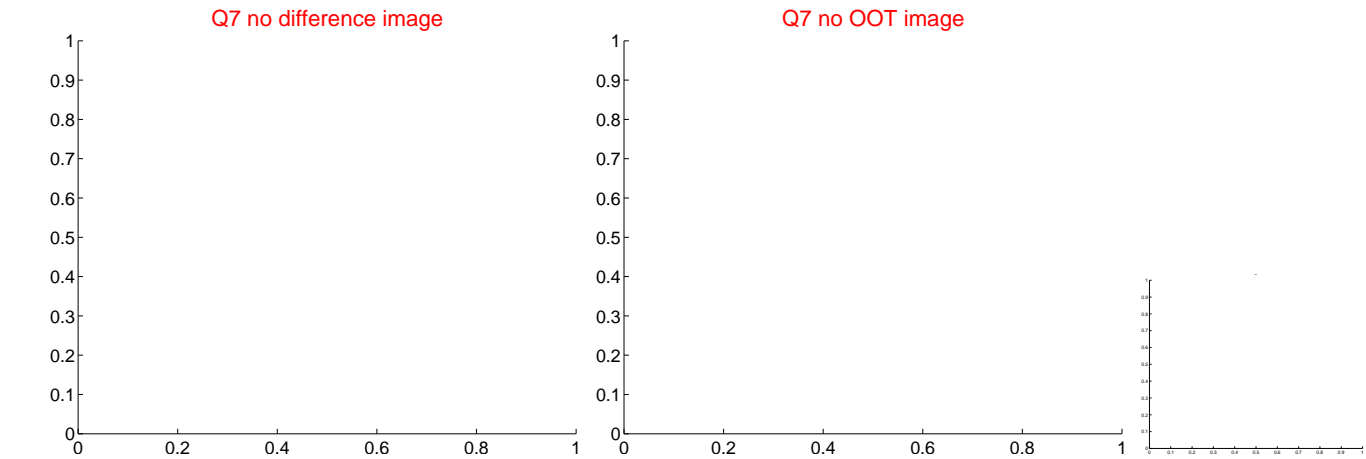
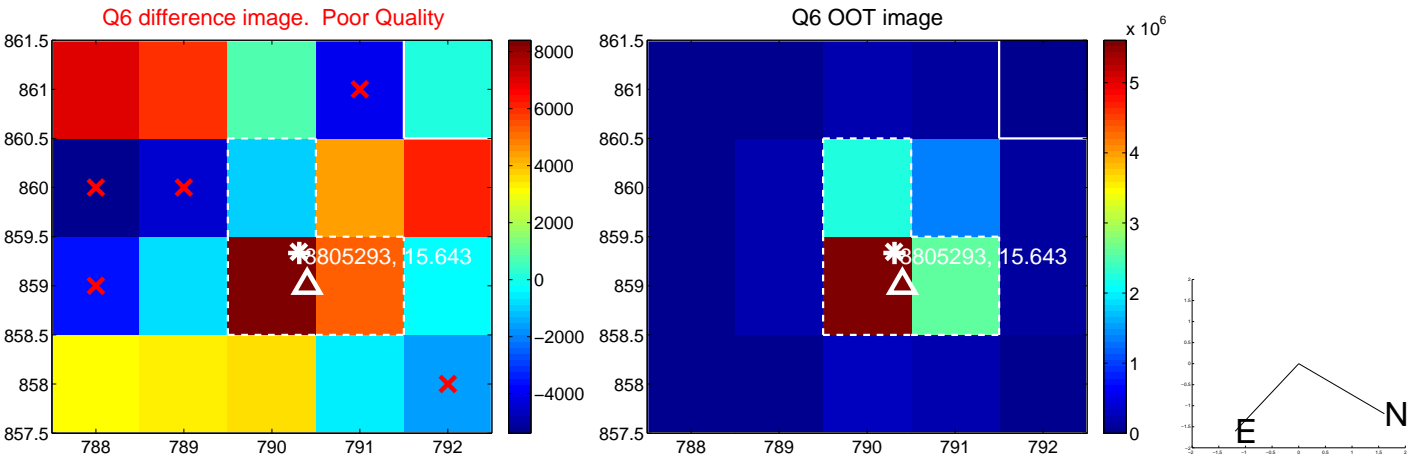
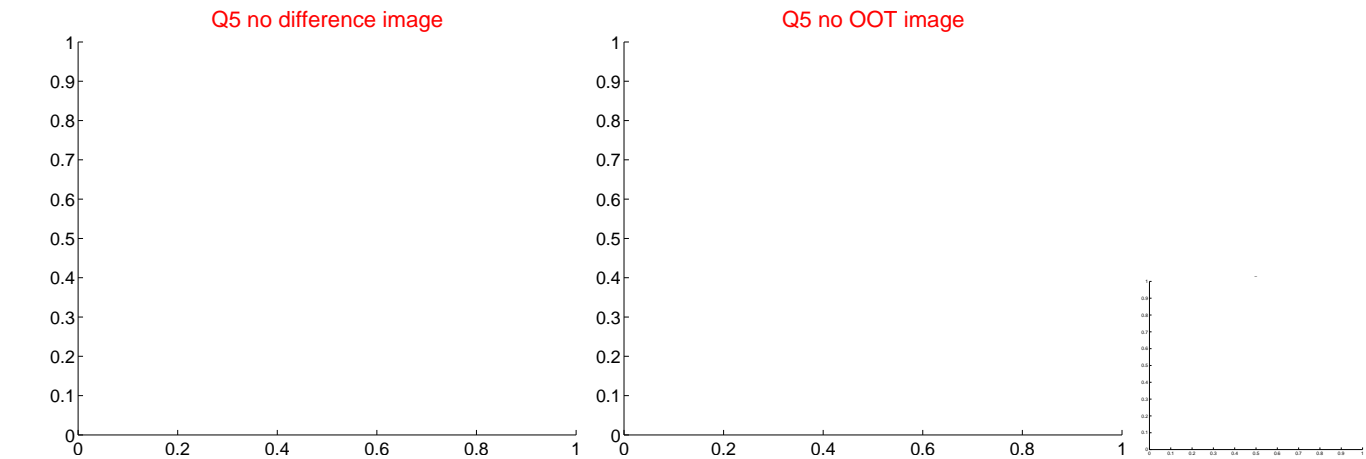


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

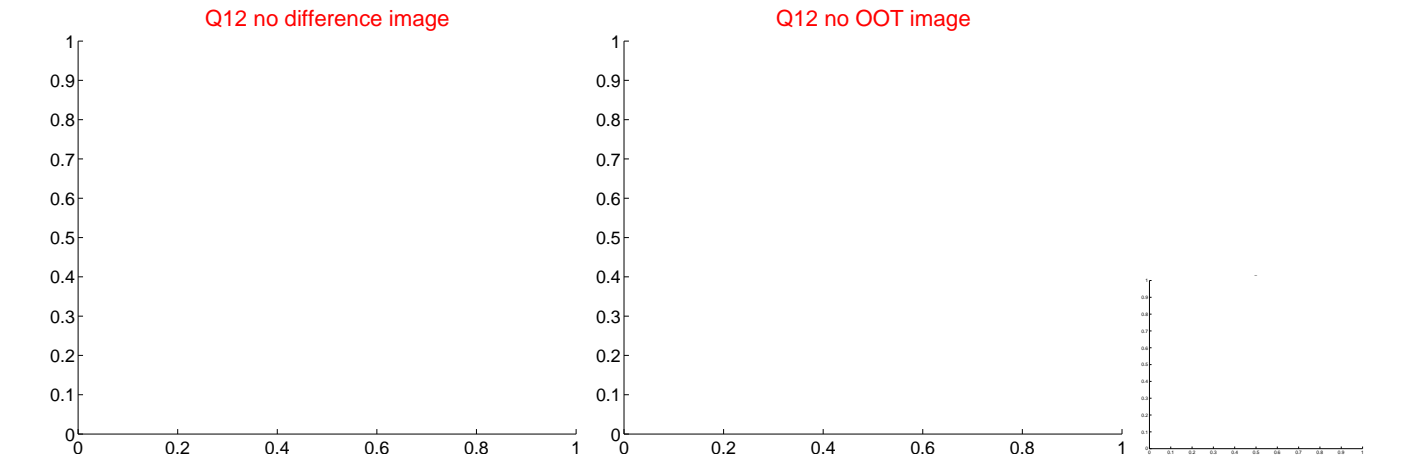
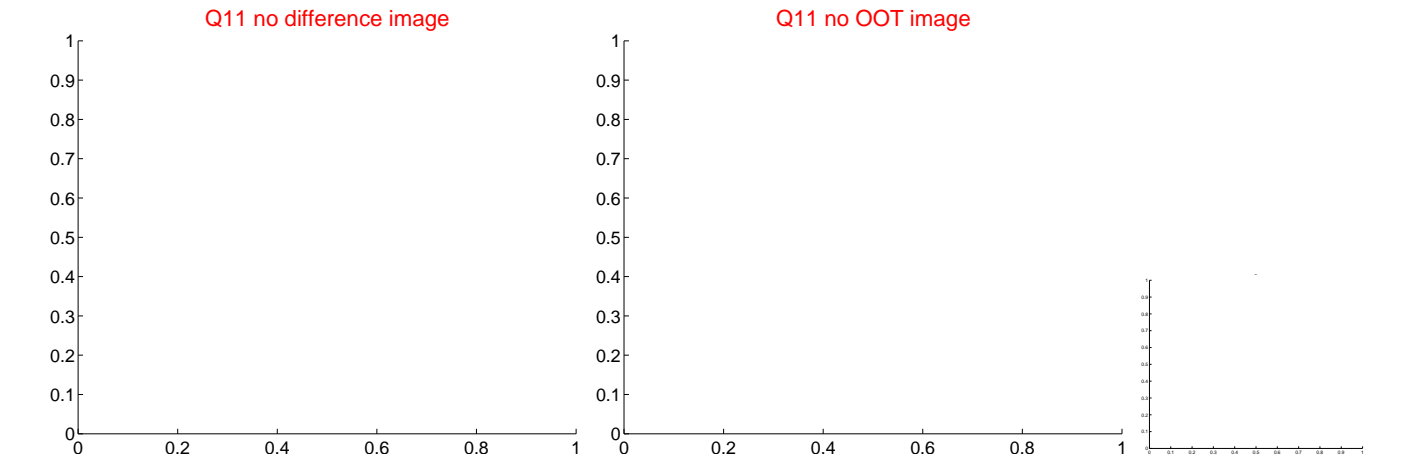
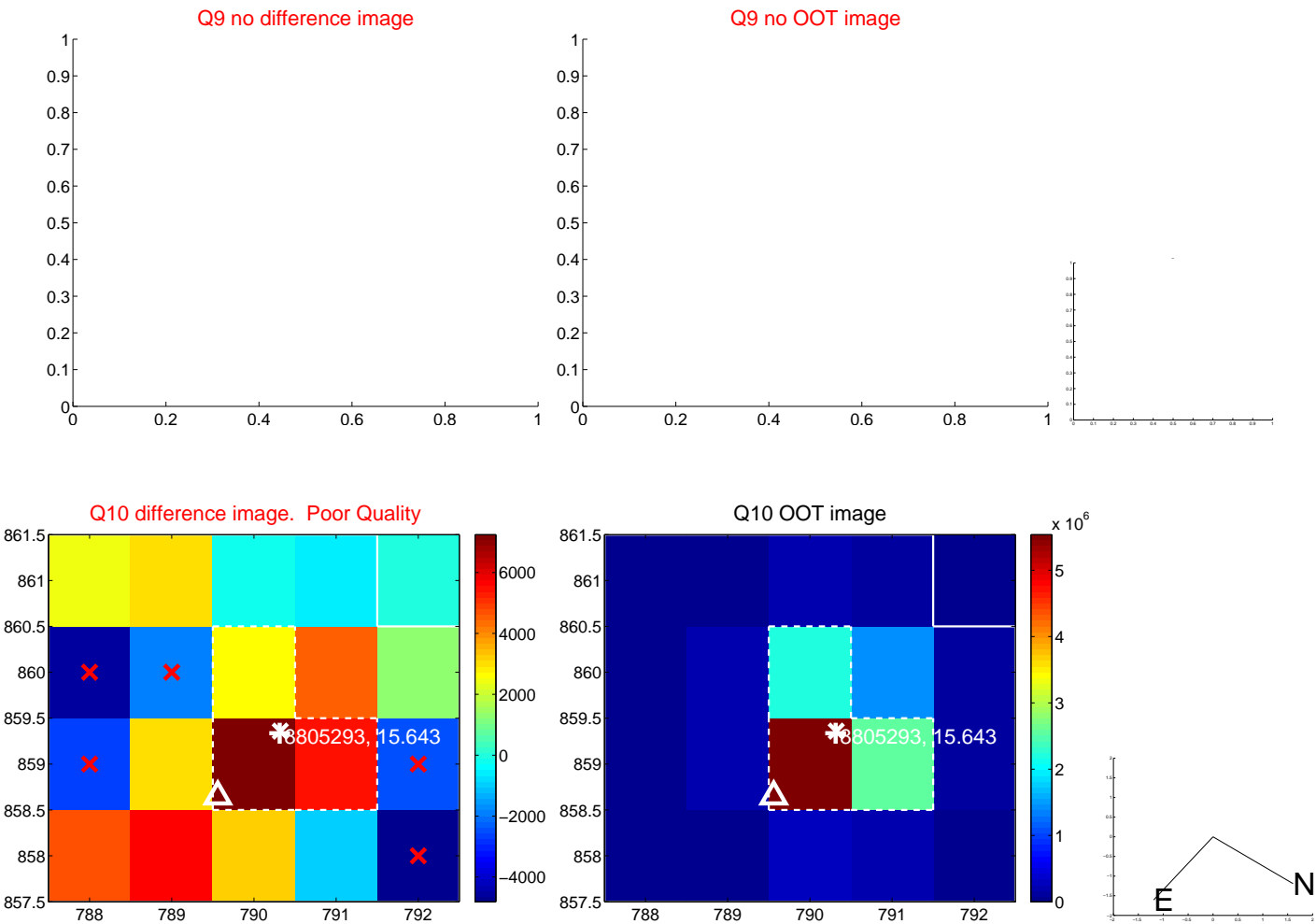
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



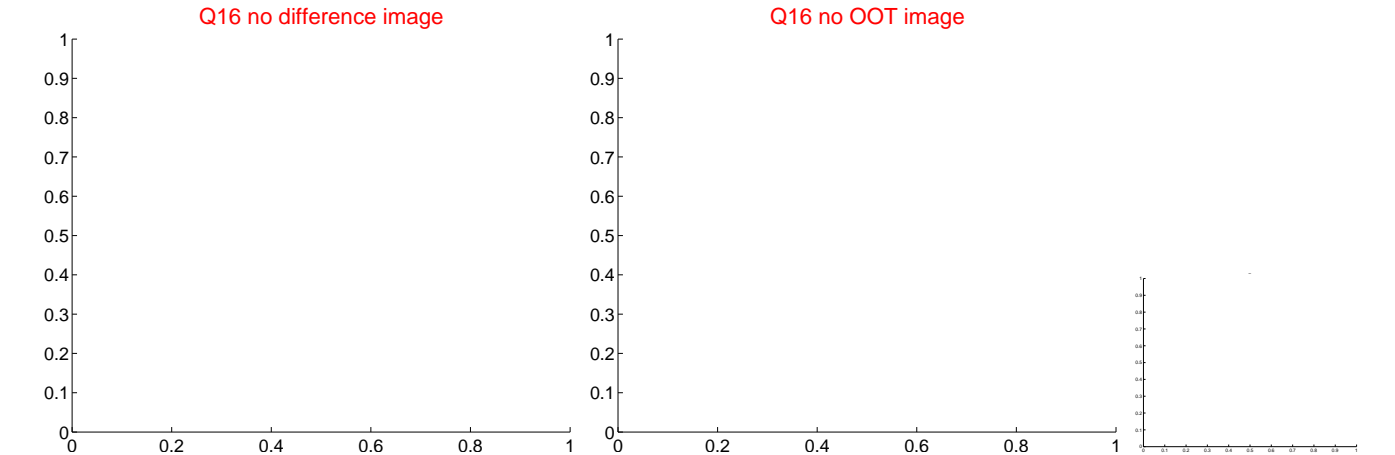
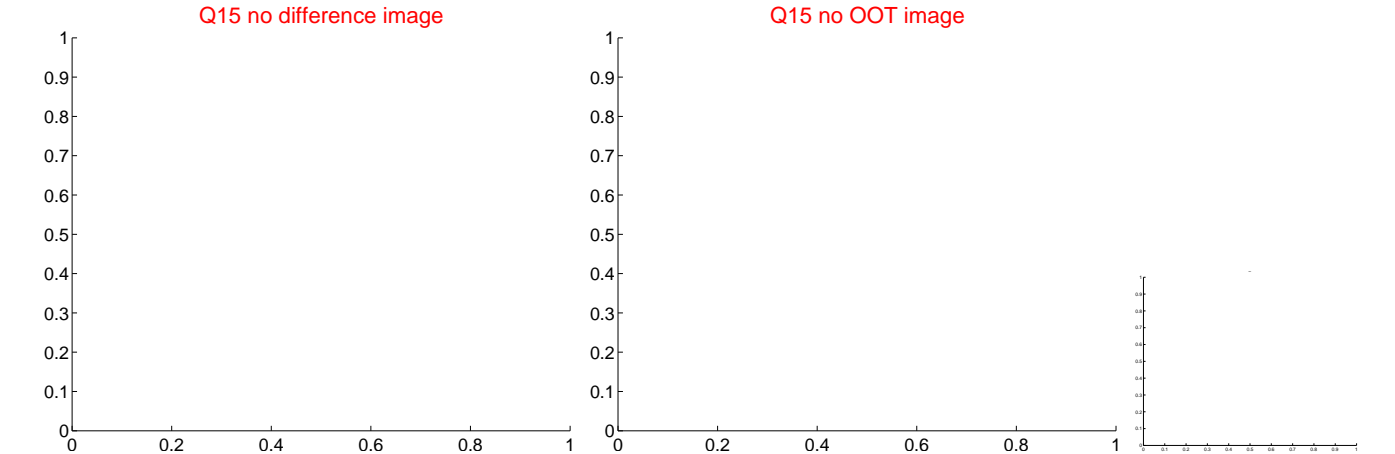
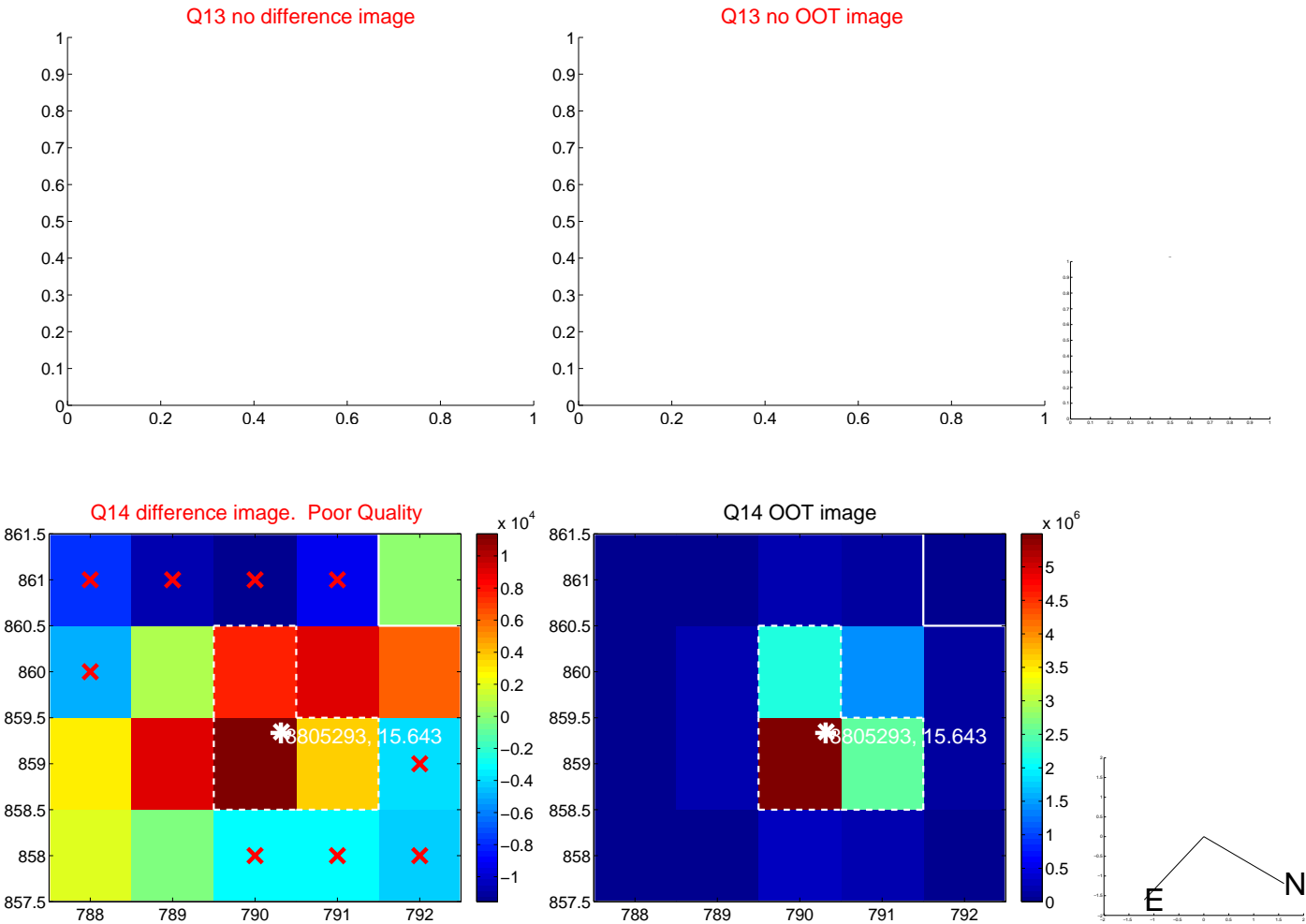
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



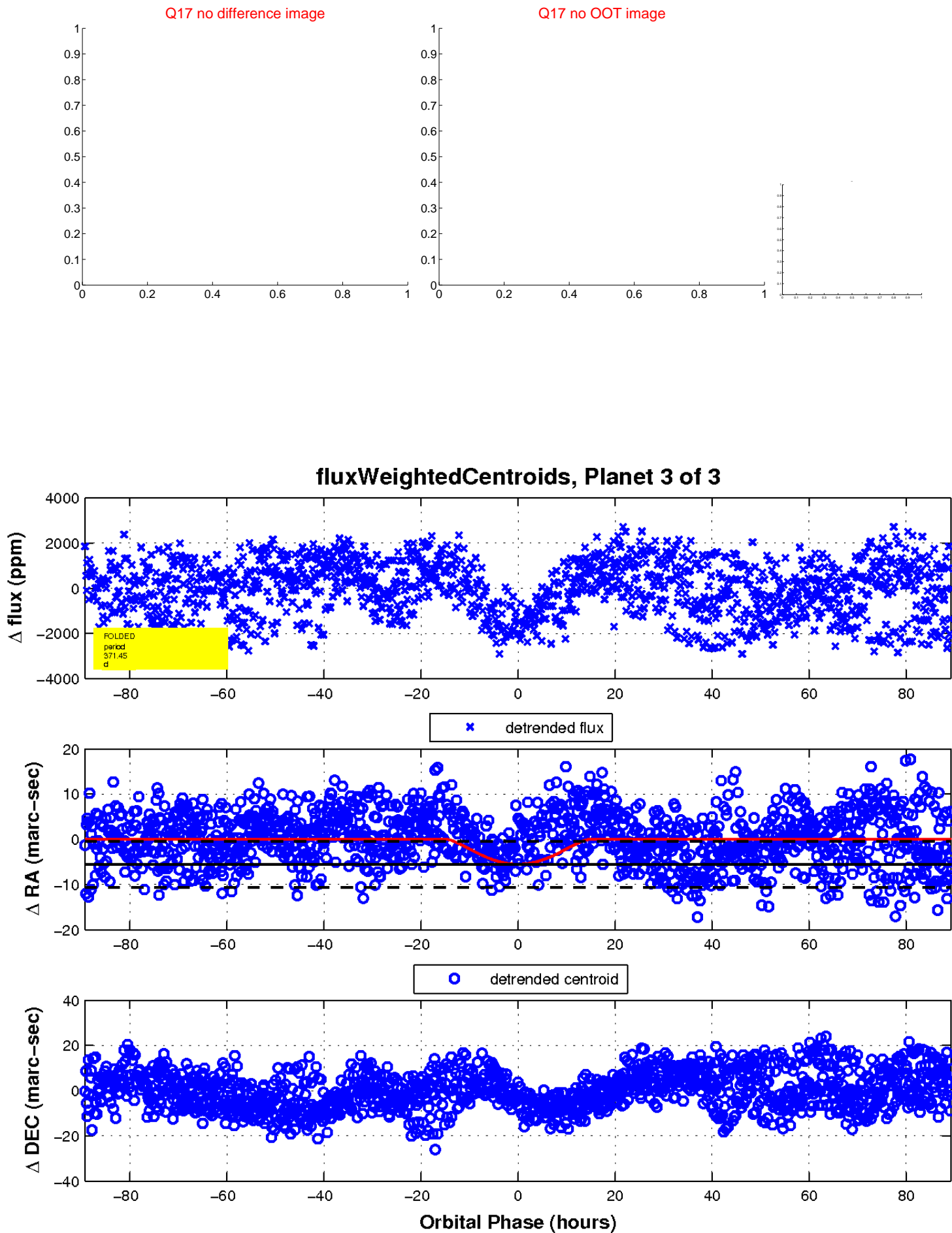
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

