

KIC 007592133

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})
007592133-01	OBS	No	402.993976	418.092557	1565.4	11.543	12.9	7.1	0.24	3324	0.94	0.01
007592133-02	OBS	No	442.412311	335.468093	1576.2	2.843	15.4	7.6	0.24	3324	0.98	0.01
007592133-03	OBS	No	474.995256	196.060482	1235.6	5.003	11.7	6.0	0.24	3324	0.84	0.01
007592133-04	OBS	No	231.251386	254.013531	1075.5	2.178	14.1	6.7	0.24	3324	0.82	0.03
007592133-05	OBS	No	559.848046	287.813572	1442.5	9.607	12.9	7.1	0.24	3324	0.94	0.01
007592133-06	OBS	No	257.539439	264.311590	1068.3	5.998	13.7	6.4	0.24	3324	0.82	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007592133-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_KIC_POS—HALO_GHOST
007592133-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
007592133-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
007592133-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

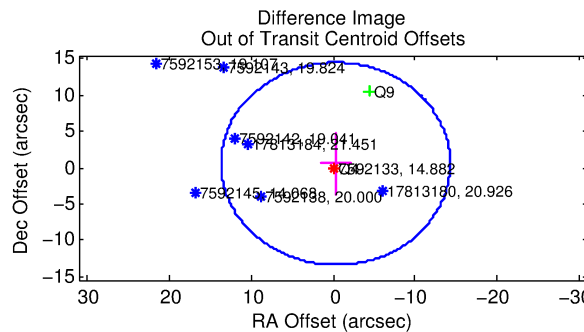
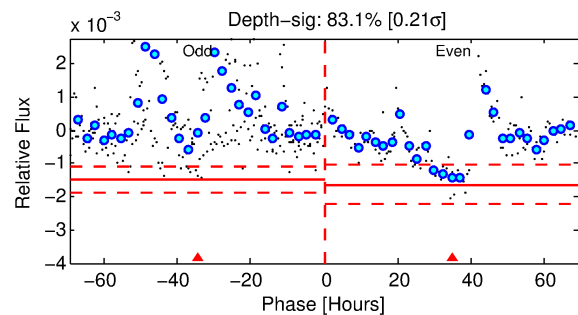
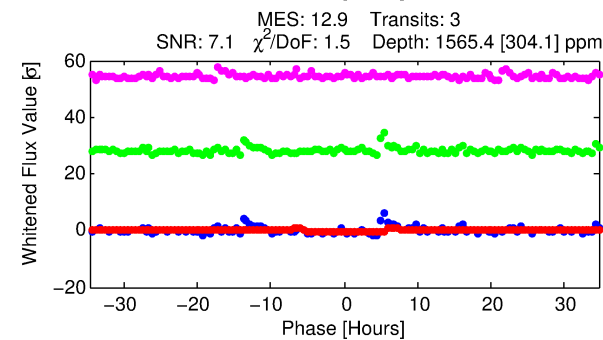
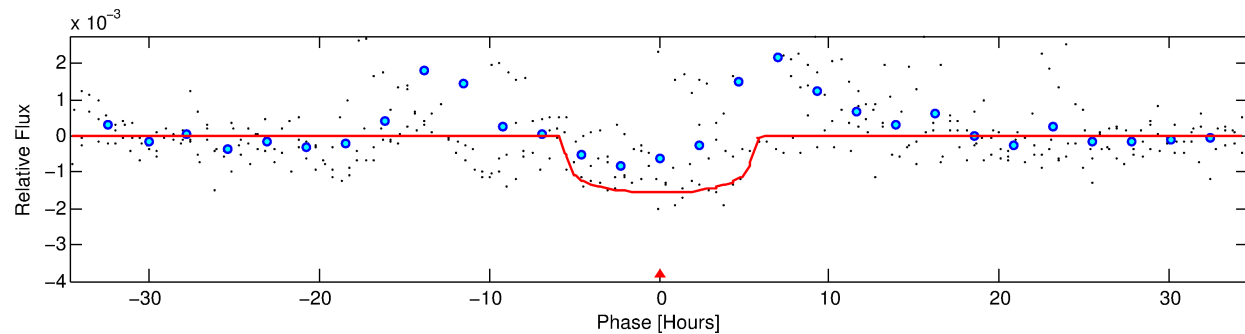
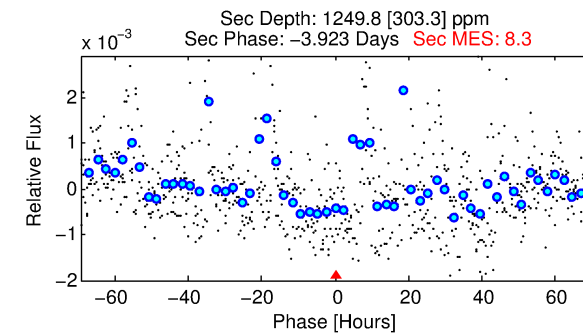
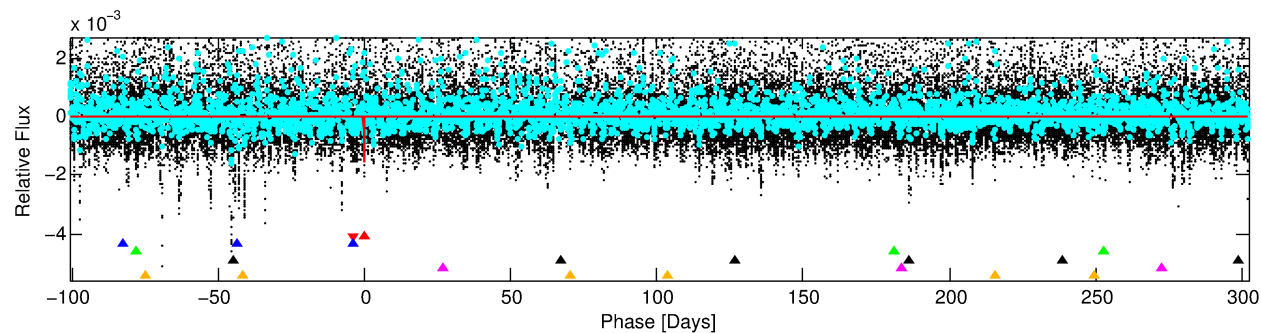
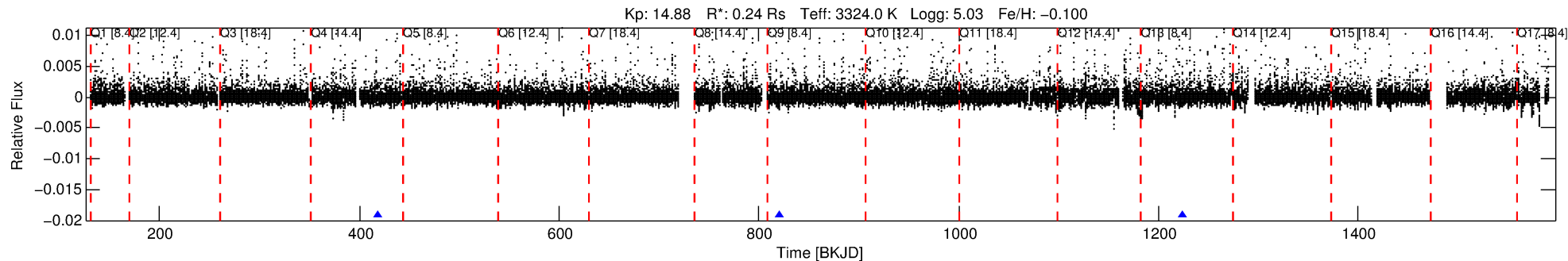
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007592133-01

No Significant Match Found

DV One-Page Summary

KIC: 7592133 Candidate: 1 of 6 Period: 402.994 d



DV Fit Results:

Period = 402.99398 [0.00910] d
Epoch = 418.0926 [0.0114] BKJD
Rp/R* = 0.0364 [0.0128]
a/R* = 258.62 [368.02]
b = 0.37 [3.35]
Seff = 0.01 [0.00]
Teq = 89 [3] K
Rp = 0.94 [0.35] Re
a = 0.6434 [0.0621] AU
Ag = 323866.55 [242866.65] [1.33σ]
Teff = 3276 [609] K [5.24σ]

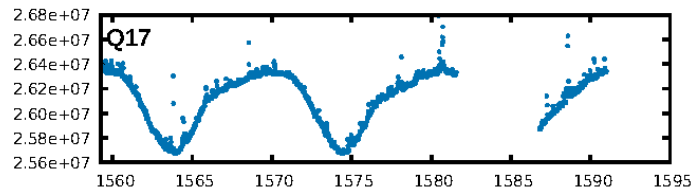
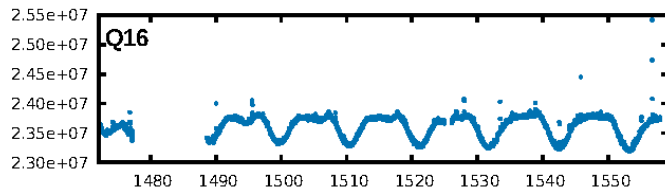
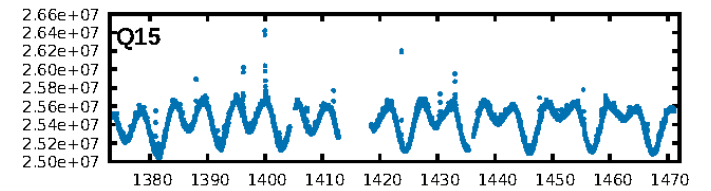
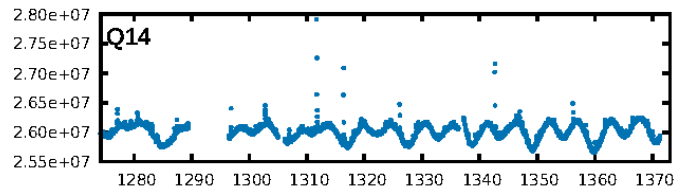
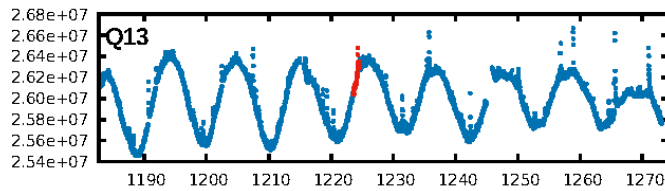
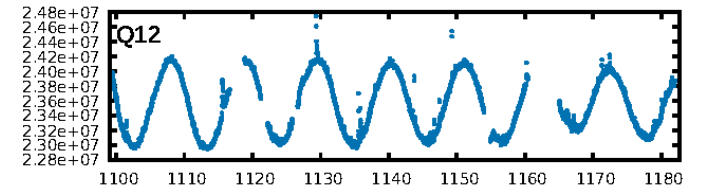
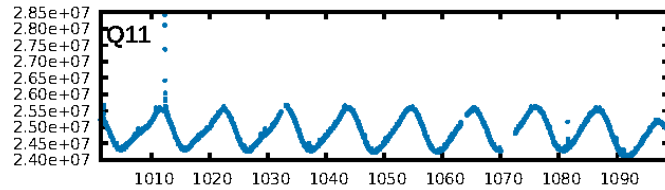
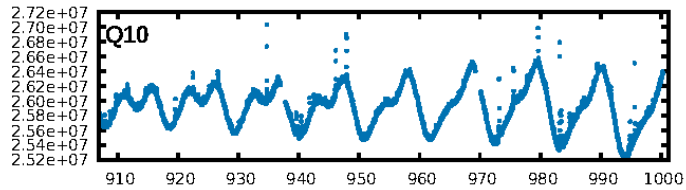
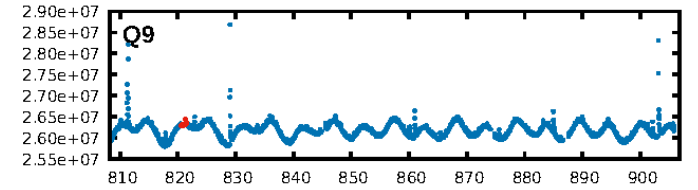
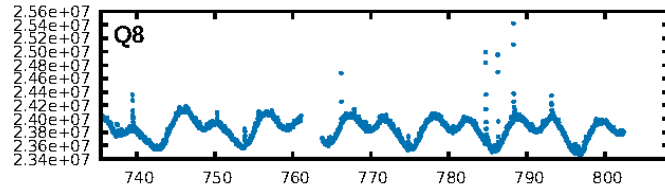
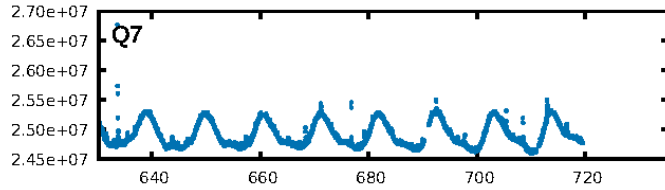
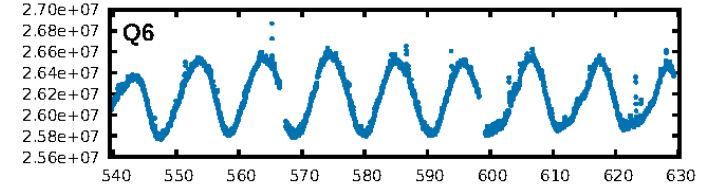
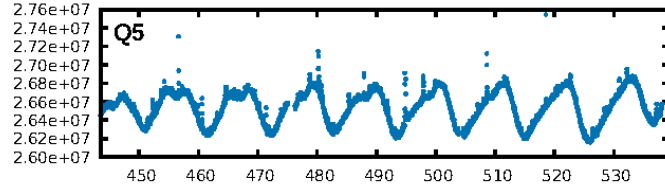
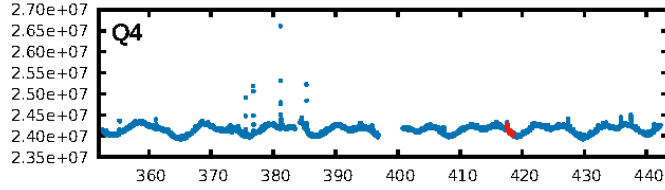
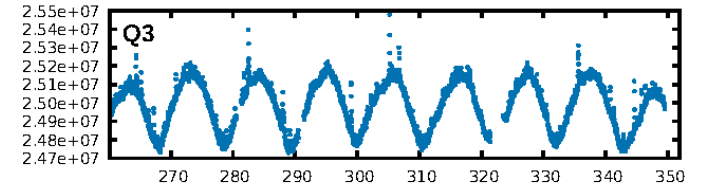
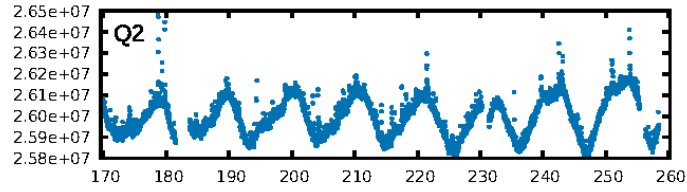
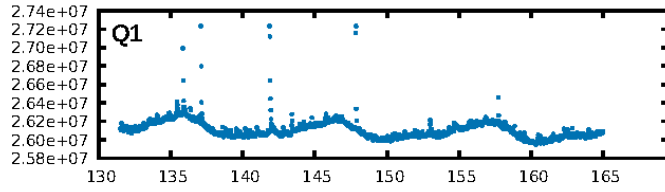
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [268.35σ]
LongPeriod-sig: 100.0% [79.58σ]
ModelChiSquare2-sig: 1.8%
ModelChiSquareGof-sig: 86.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.706
Centroid-sig: 92.3%
Centroid-so: 0.492 arcsec [1.18σ]
OotOffset-rm: 0.618 arcsec [0.13σ]
KicOffset-rm: 0.352 arcsec [0.31σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

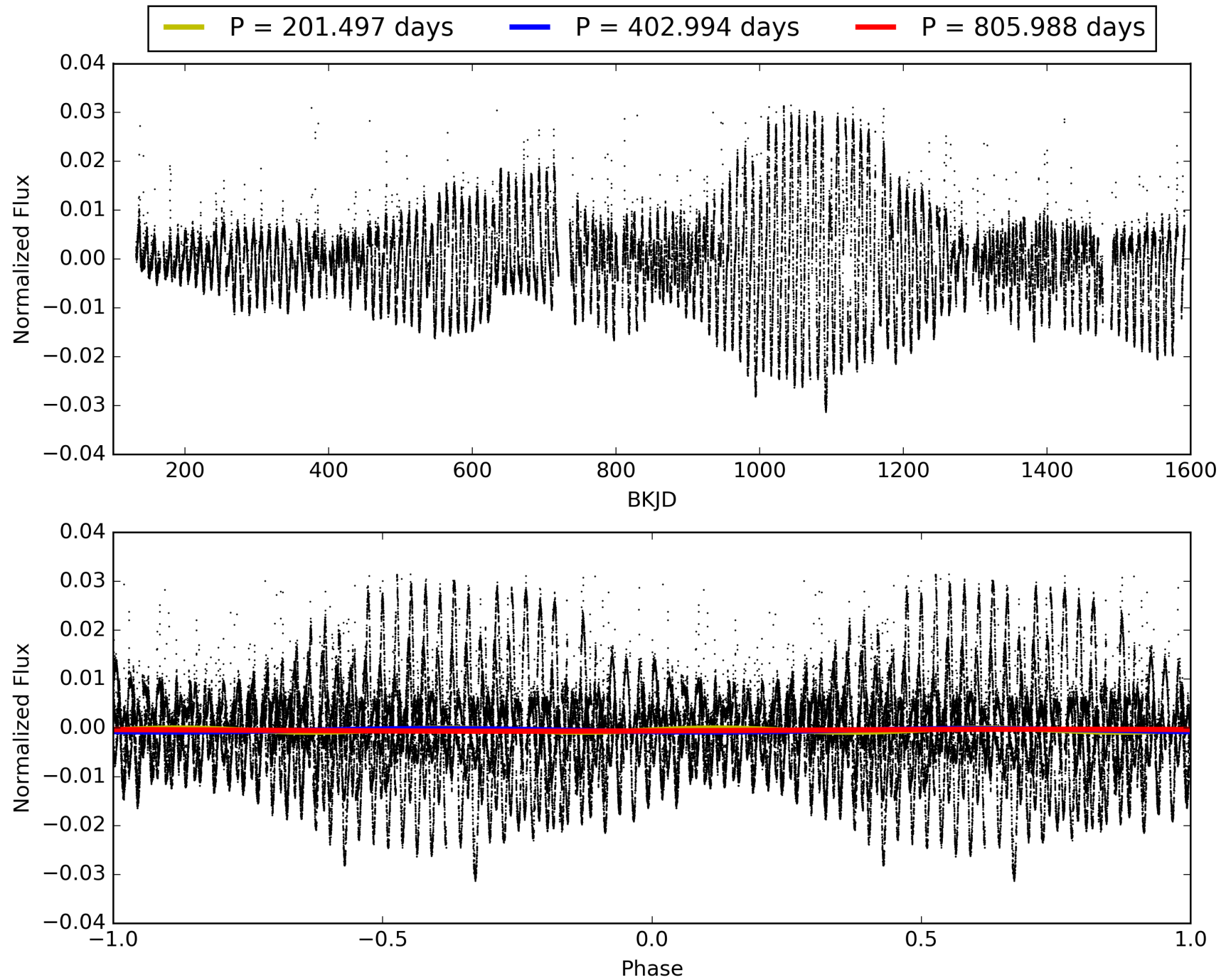
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:36:38 Z

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

TCE 007592133-01, PDC Light Curves

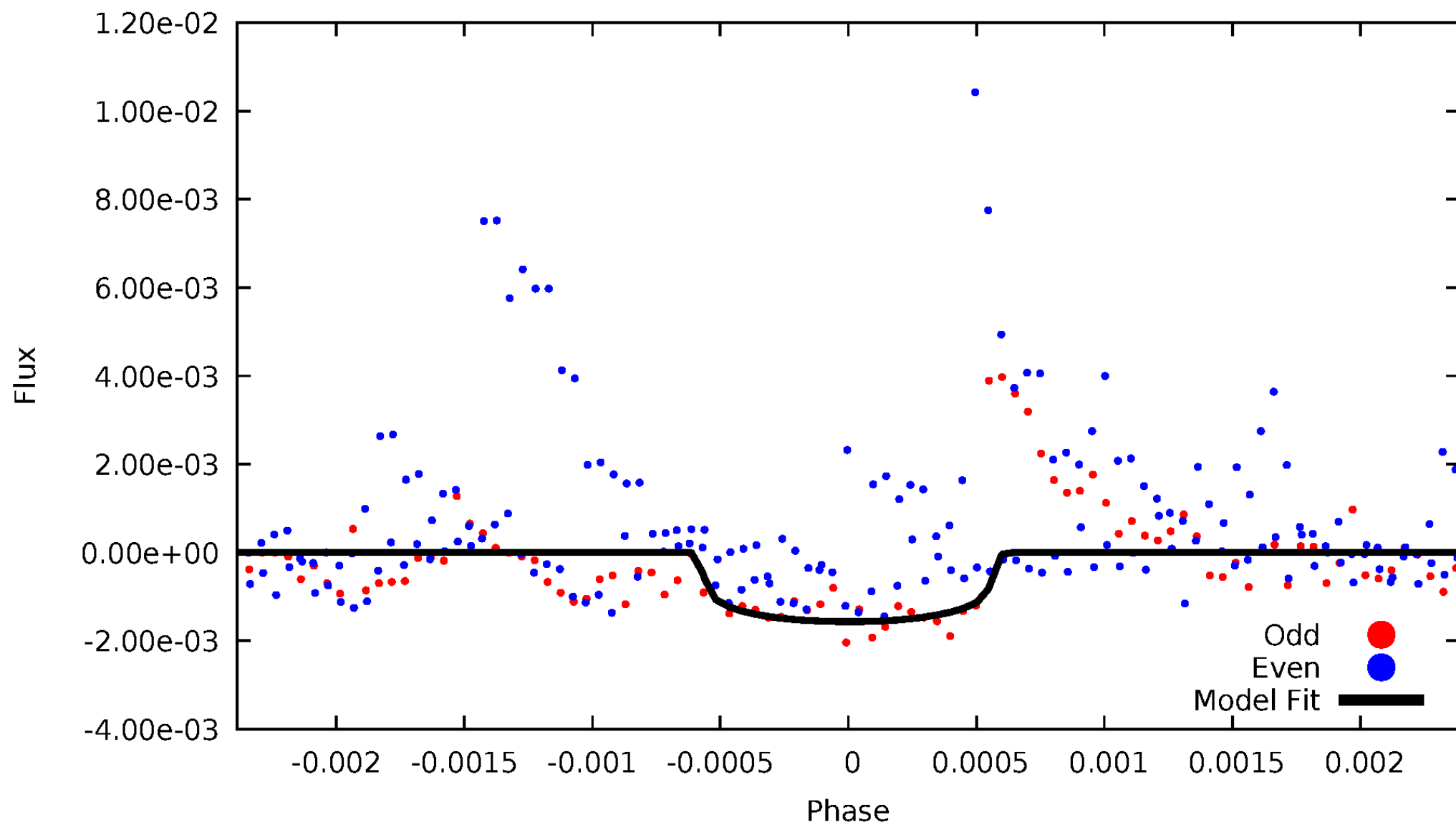


TCE 007592133-01



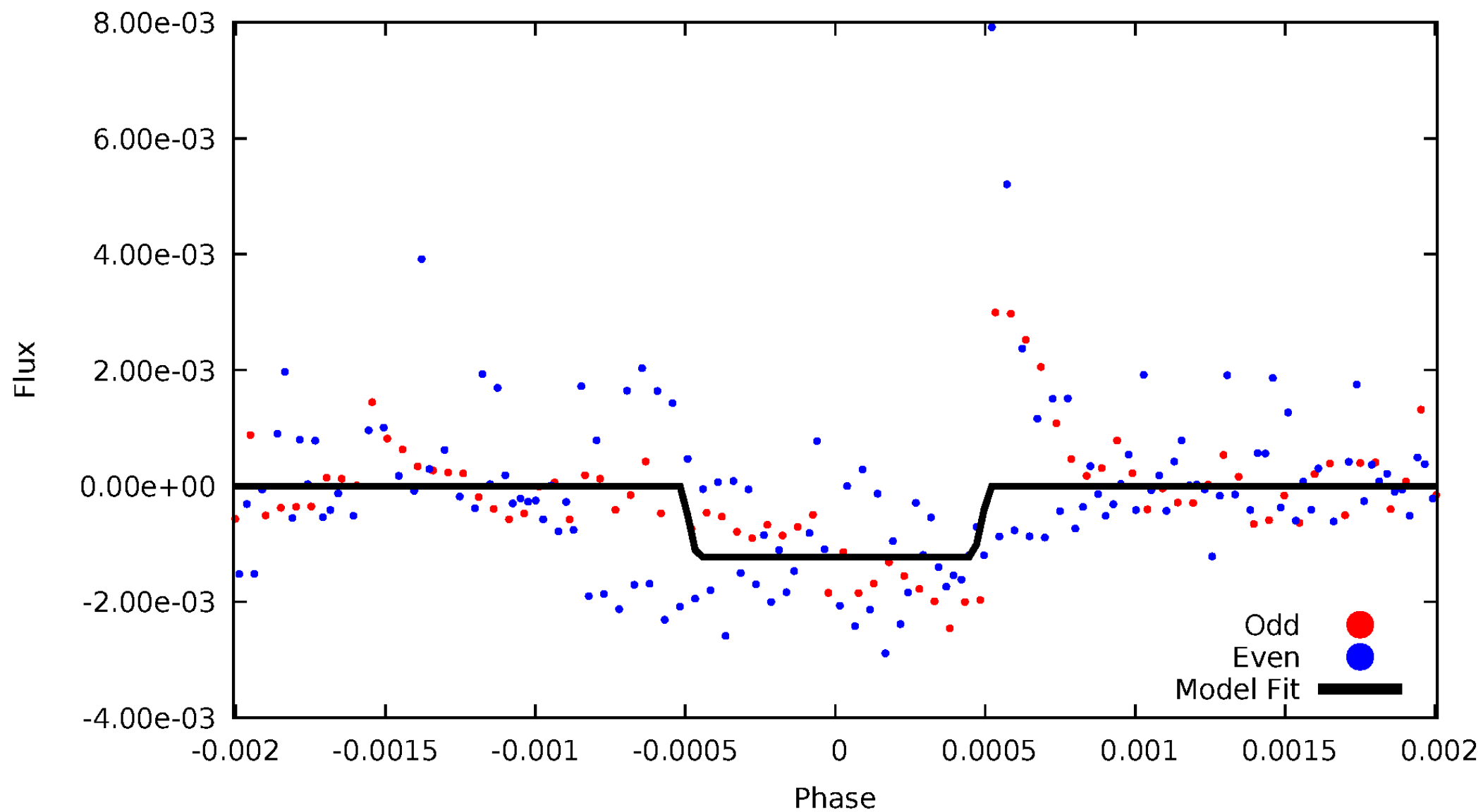
DV Odd/Even

TCE 007592133-01



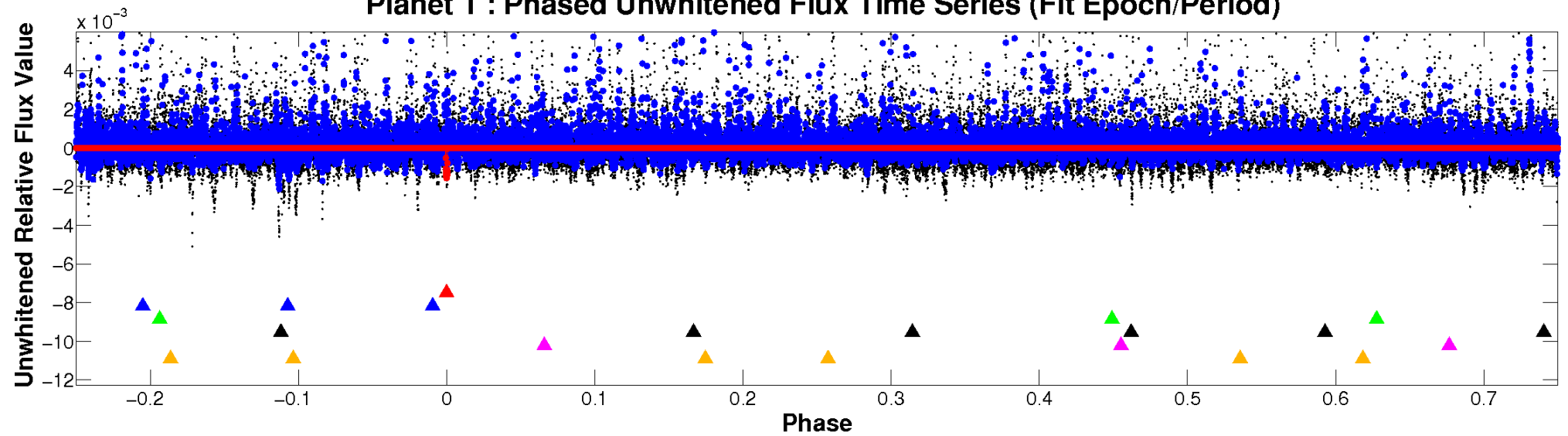
ALT Odd/Even

TCE 007592133-01

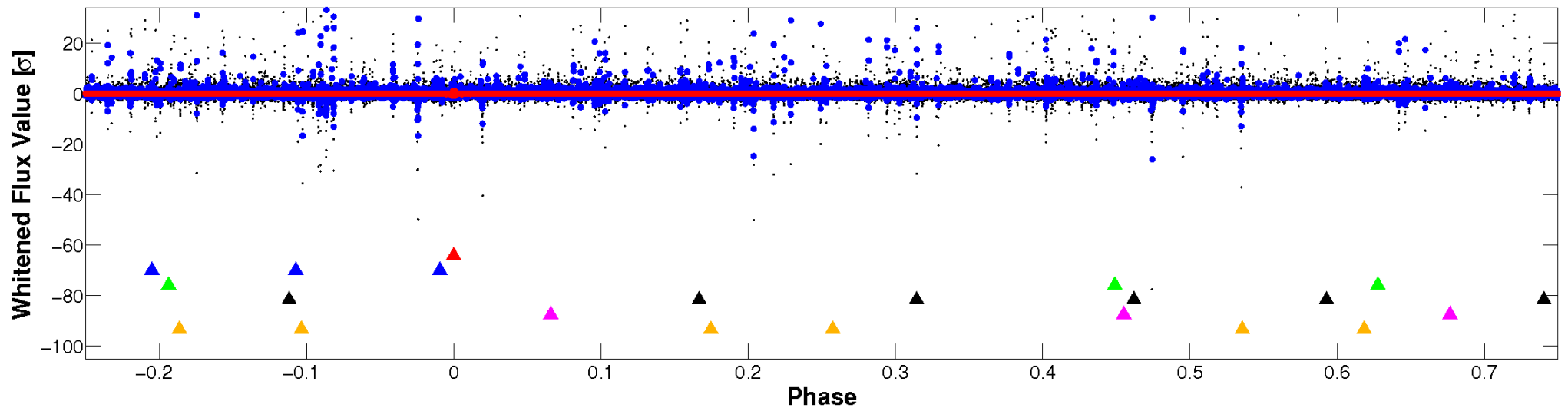


Non-Whitened Vs. Whitened Light Curve

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

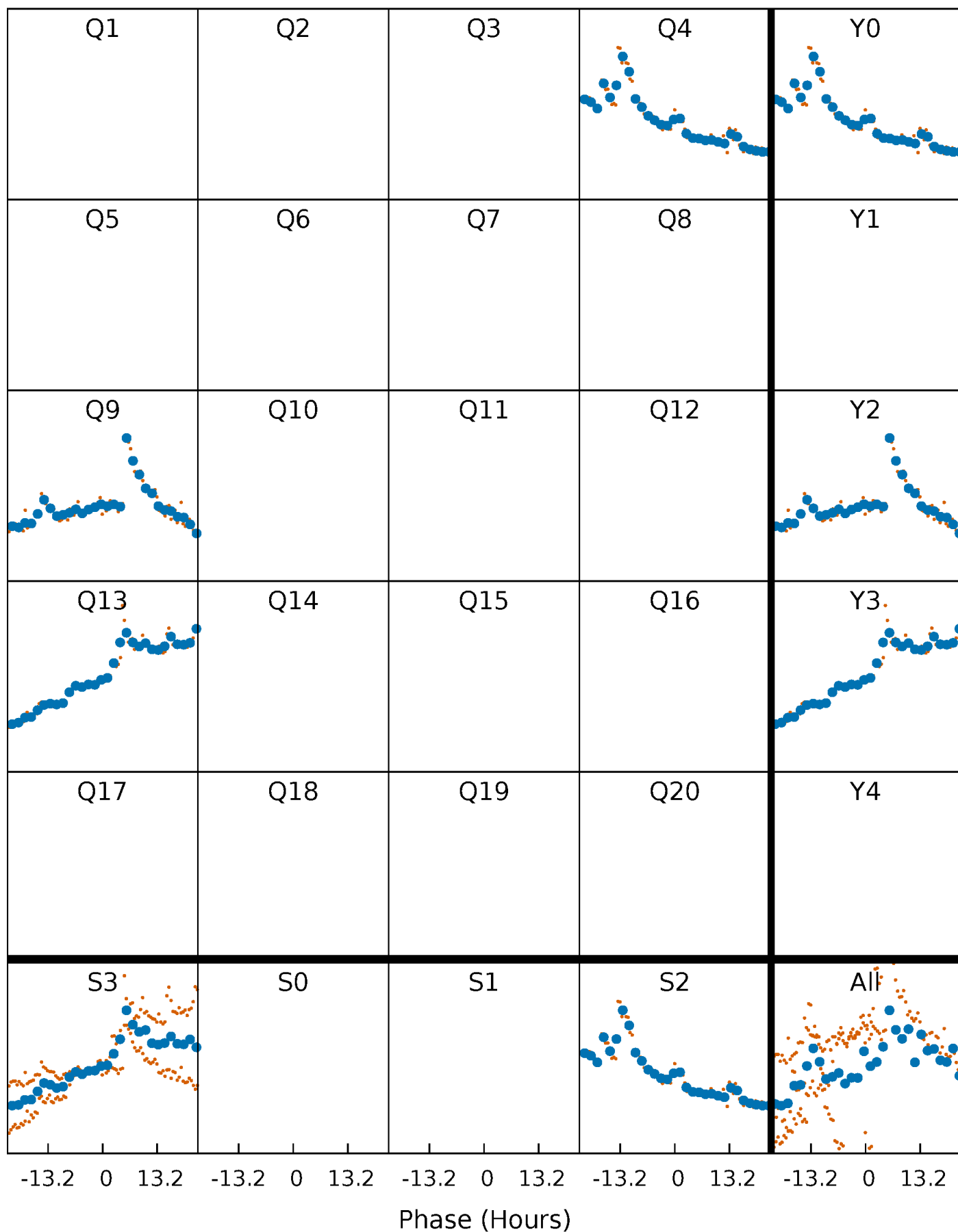


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



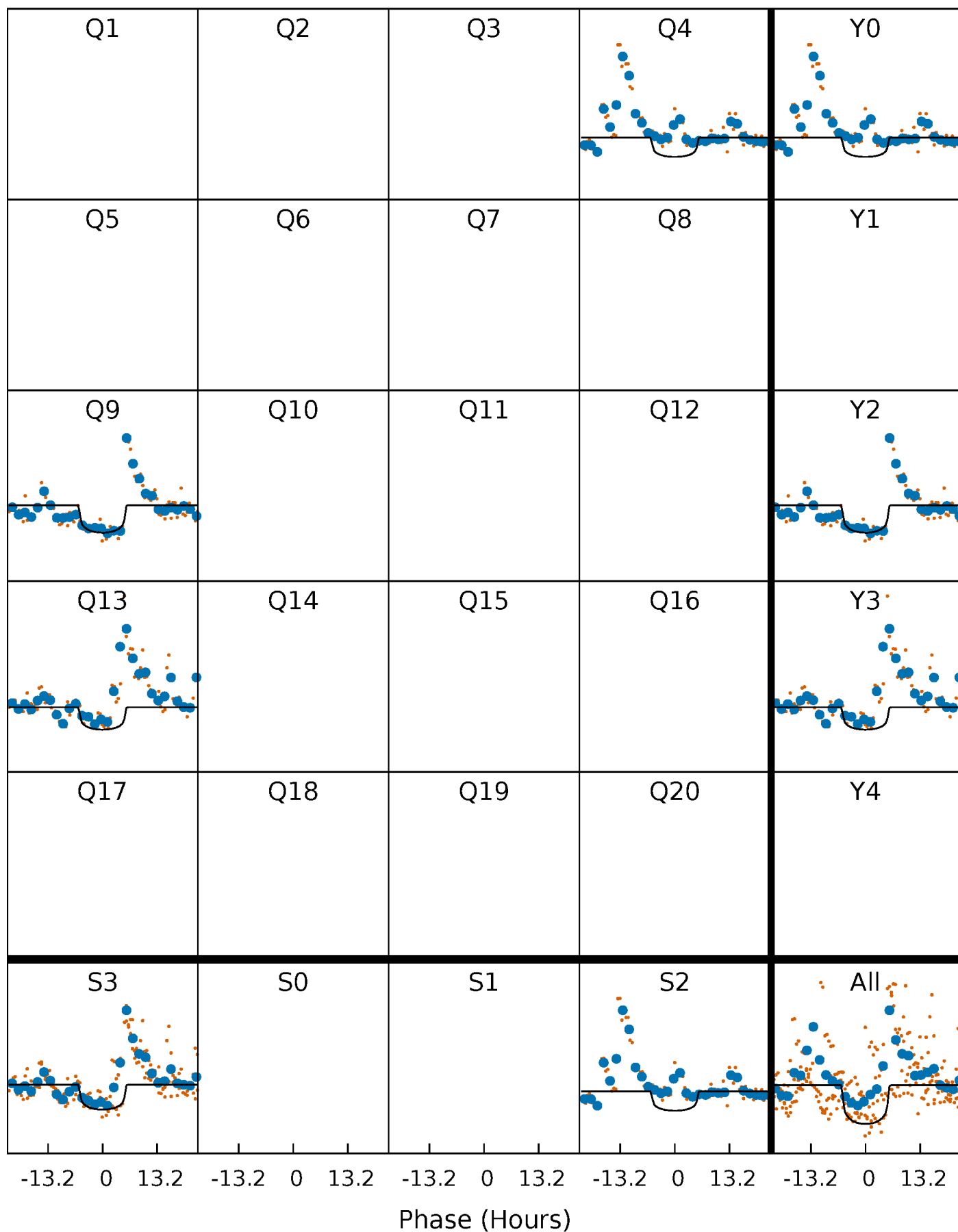
PDC Quarter-Phased Transit Curves

TCE 007592133-01 P=402.993976 Days $T_0=418.092557$ (BKJD)



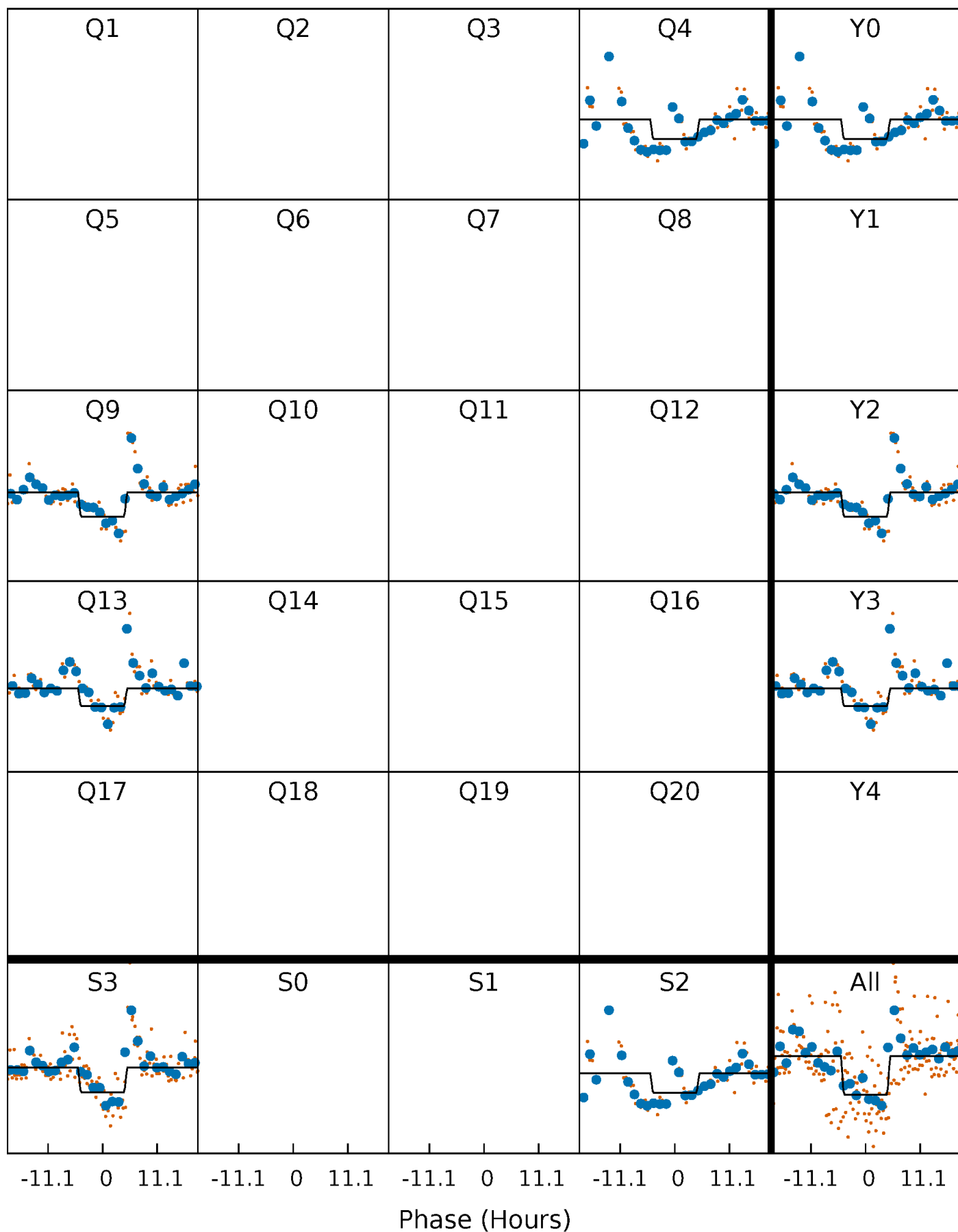
DV Quarter-Phased Transit Curves

TCE 007592133-01 P=402.993976 Days $T_0=418.092557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

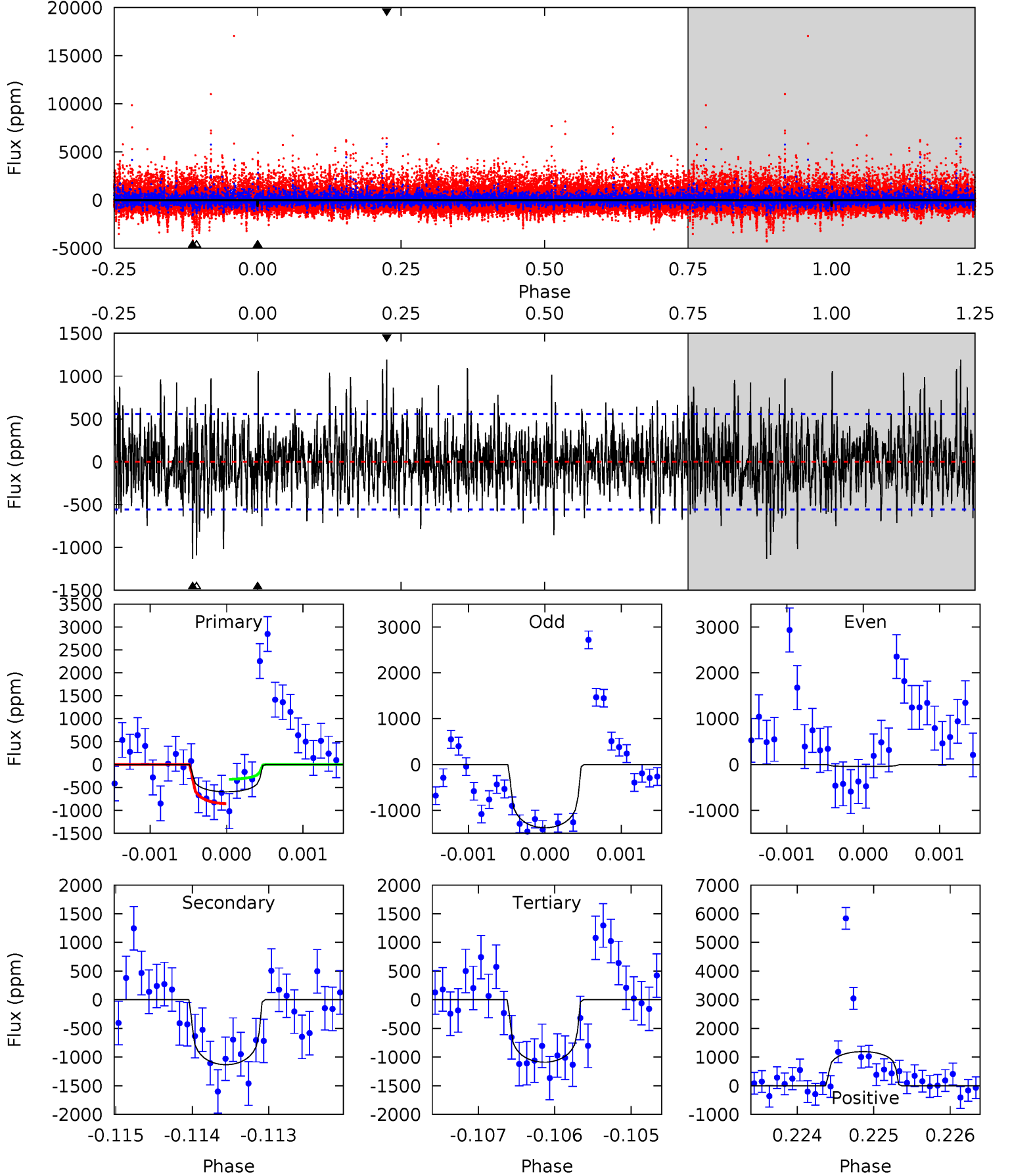
TCE 007592133-01 P=402.977048 Days $T_0=418.115791$ (BKJD)



DV Model-Shift Uniqueness Test

007592133-01, $P = 402.993976$ Days, $E = 15.098581$ Days

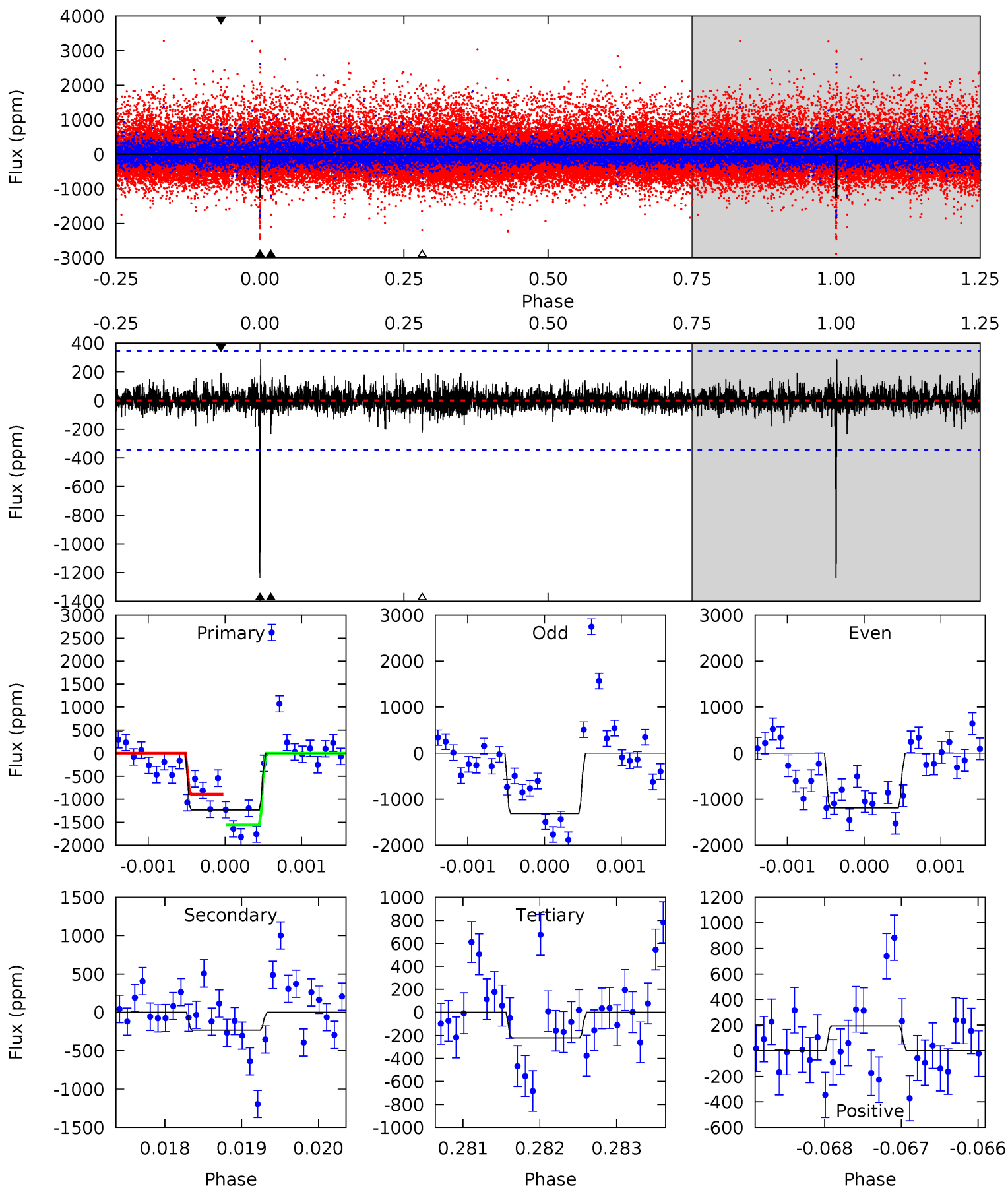
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.78	11.0	10.6	11.5	5.41	3.22	2.70	-4.79	-5.77	0.42	-0.56	4.10	-1.30	0.51	0



Alt Model-Shift Uniqueness Test

007592133-01, $P = 402.977048$ Days, $E = 15.138743$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.5	3.66	3.51	3.06	5.45	3.29	0.69	16.0	16.4	0.16	0.60	0.86	1.00	0.19	5.27



Stellar Parameters For KIC 007592133

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3324^{+43}_{-36}	$5.032^{+0.044}_{-0.040}$	$-0.100^{+0.100}_{-0.100}$	$0.236^{+0.032}_{-0.026}$	$0.218^{+0.042}_{-0.028}$	$23.450^{+5.770}_{-4.637}$
	+1%/-1%	+1%/-1%	+100%/-100%	+14%/-11%	+19%/-13%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 007592133-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1132 ± 103	$0.94^{+0.32}_{-0.33}$	124^{+3}_{-3}	3231^{+477}_{-265}	$285929^{+393549}_{-130188}$
Alt.	-232 ± 63	$0.88^{+0.36}_{-0.31}$	124^{+3}_{-3}	2648^{+330}_{-234}	66353^{+97890}_{-33695}

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

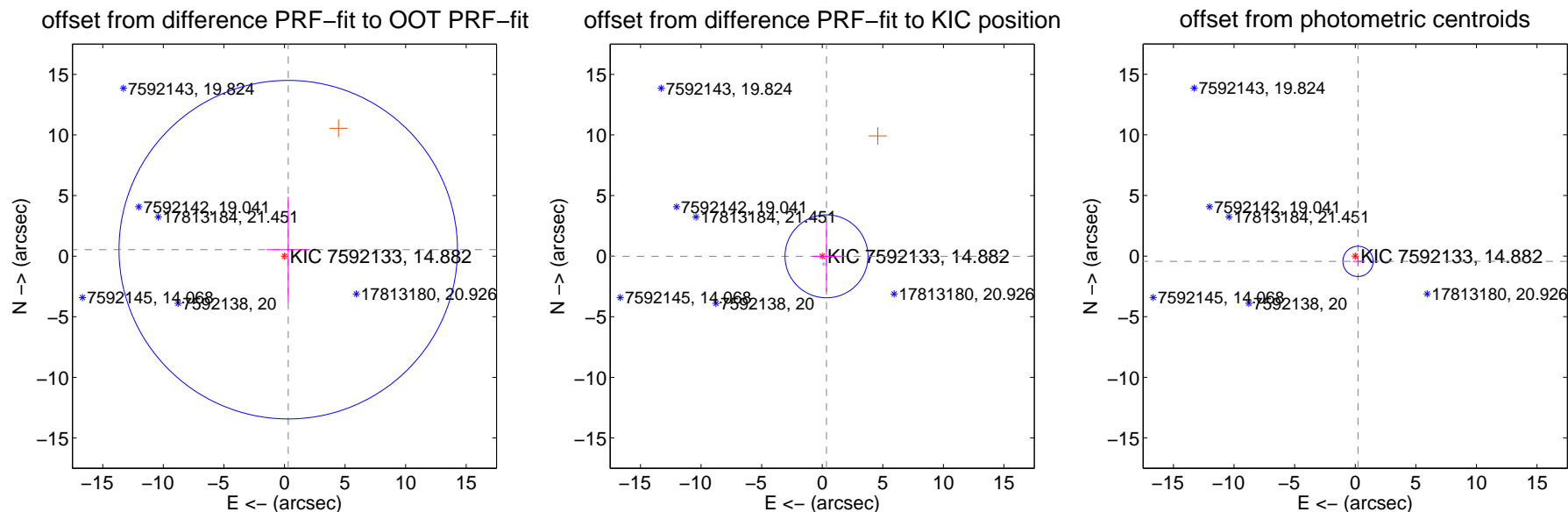
DV Centroid Data

Supplemental centroid analysis for 007592133-01. Kepler magnitude: 14.88. Transit SNR 7.14

There are 1 quarters with good PRF difference image offsets

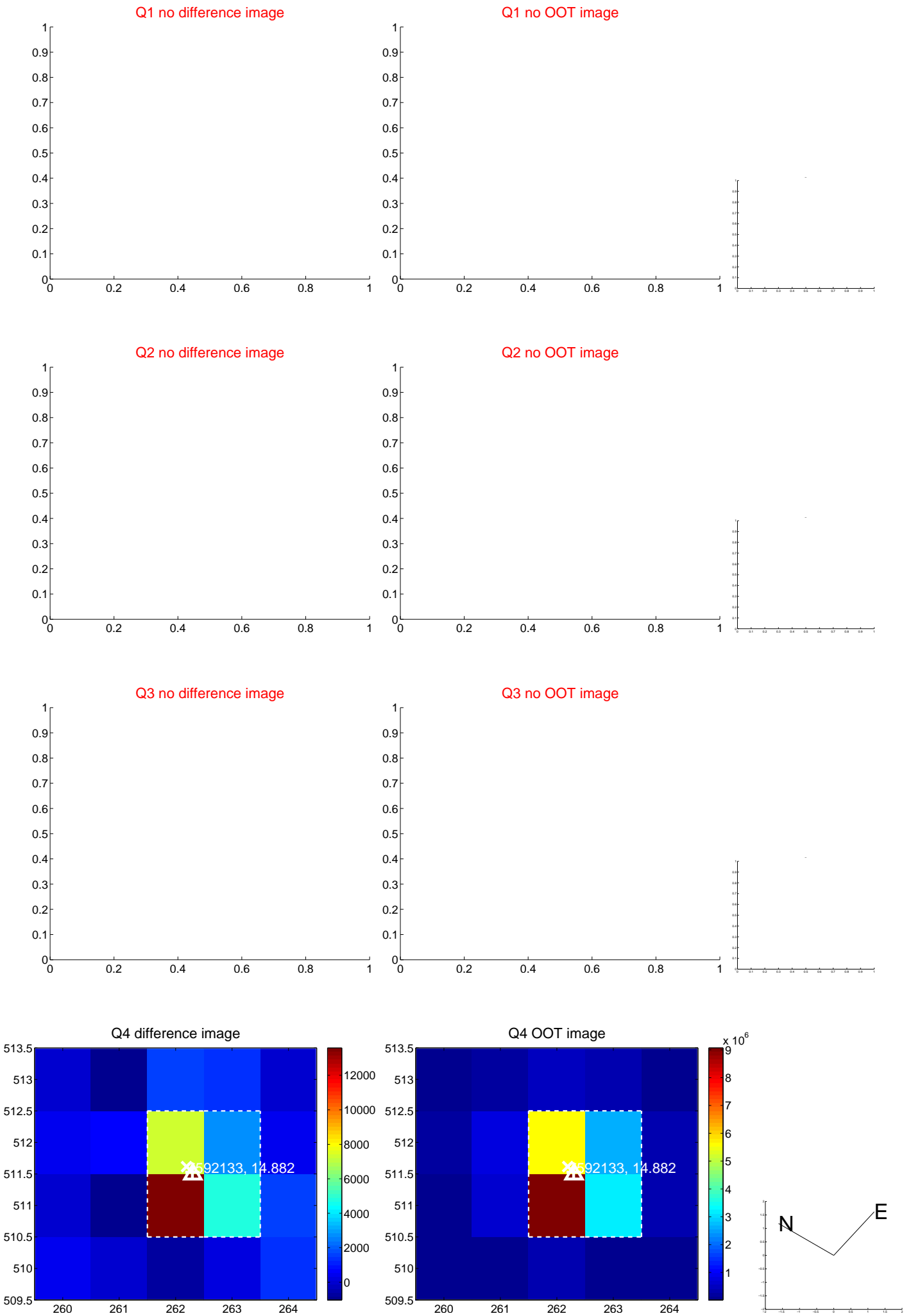
The direct PRF centroid is offset from the target star catalog position by about 0.64 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.618 ± 4.656	0.13	-0.310 ± 1.784	0.535 ± 4.348
PRF-fit source offset from KIC position	0.352 ± 1.141	0.31	-0.352 ± 1.138	-0.012 ± 2.926
photometric centroid source offset	0.49 ± 0.42	1.18	-0.23 ± 0.41	-0.44 ± 0.42



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.

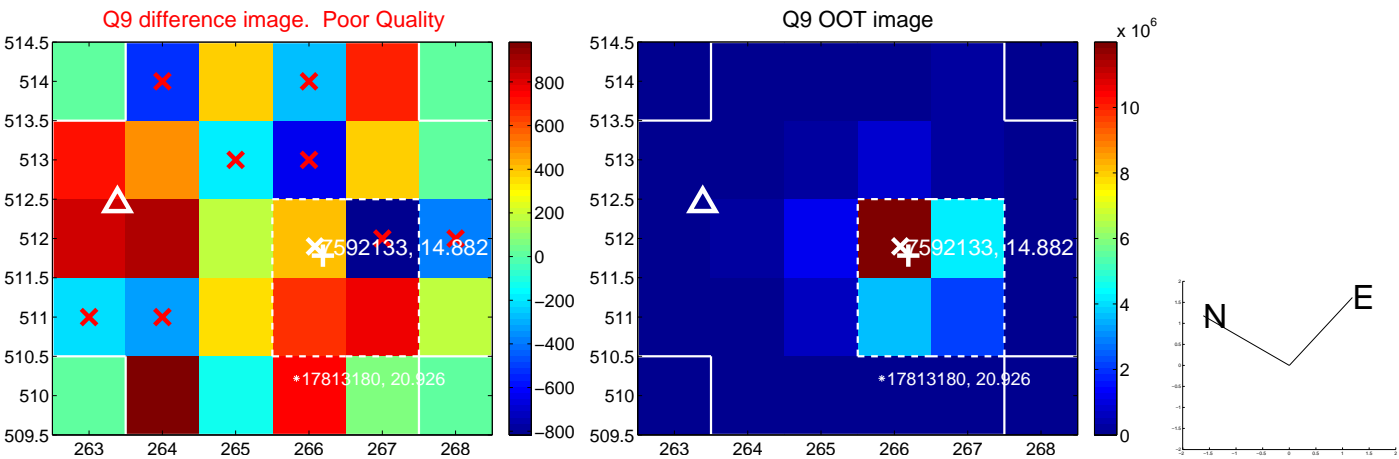
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



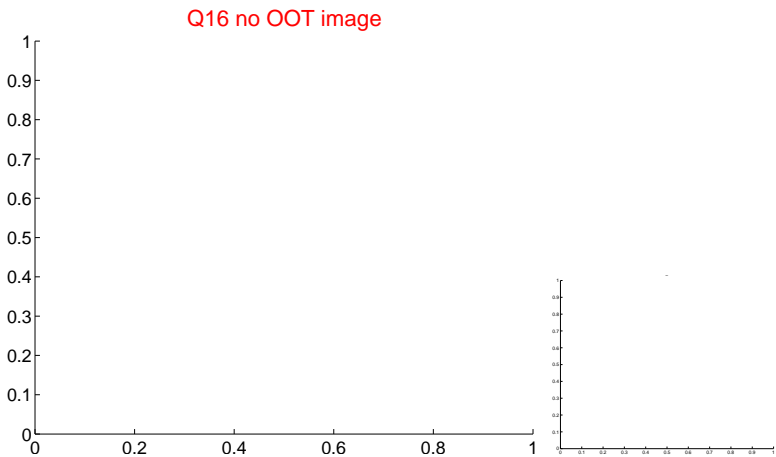
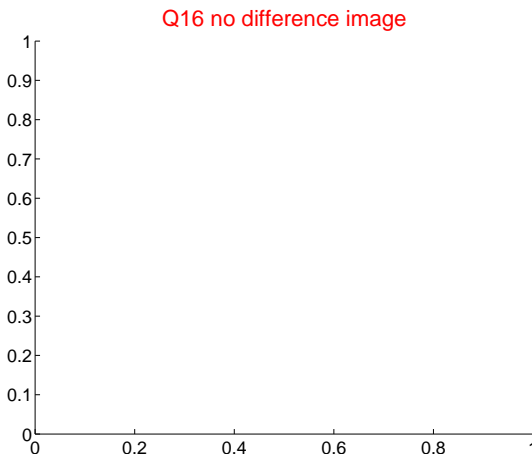
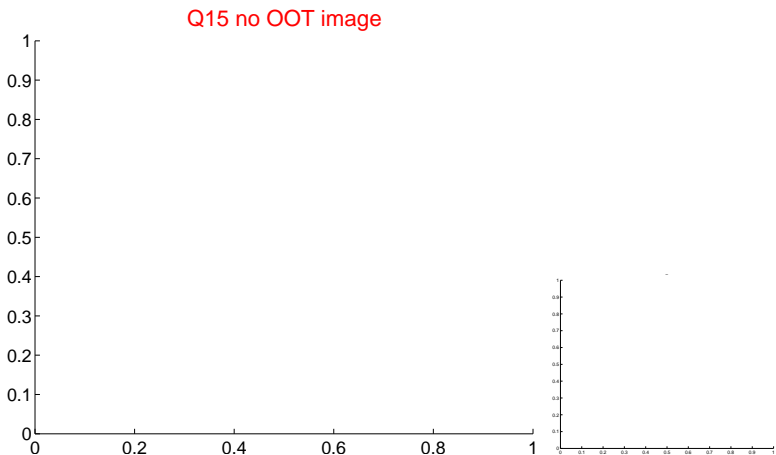
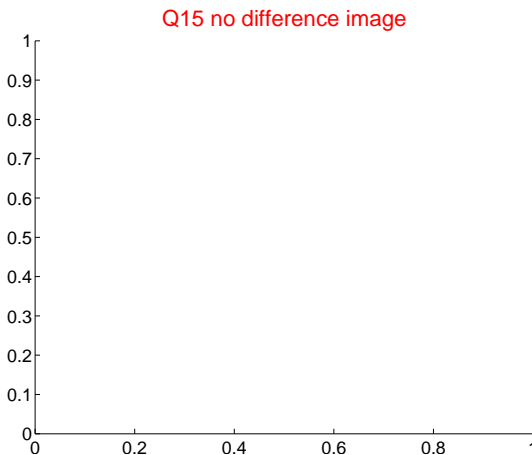
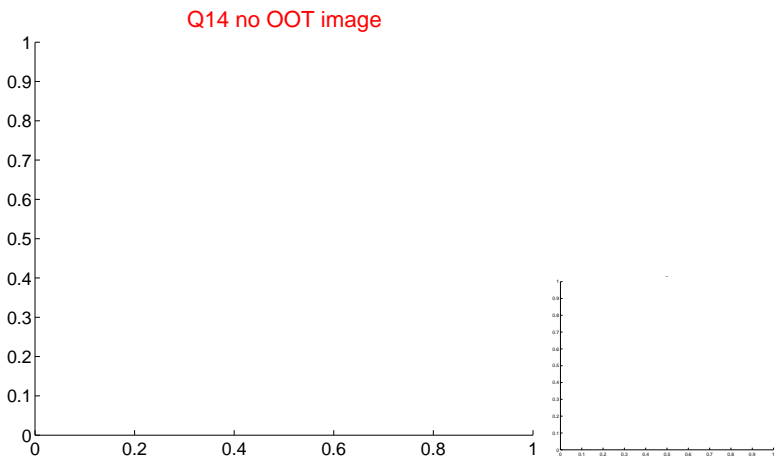
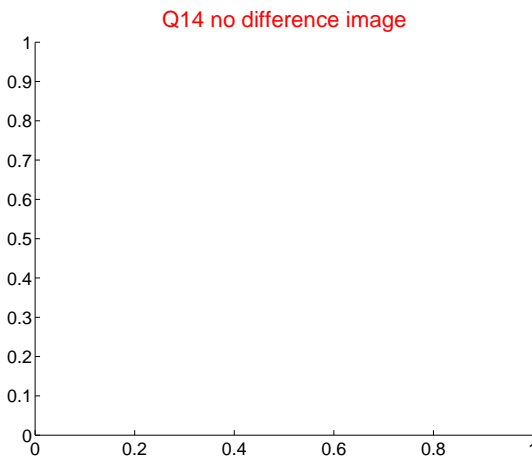
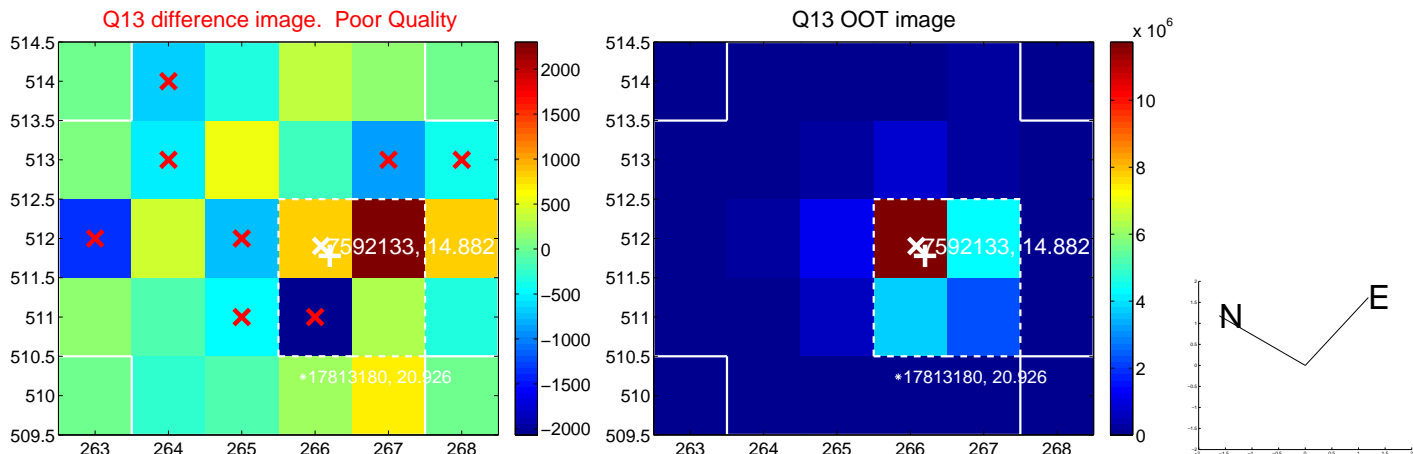
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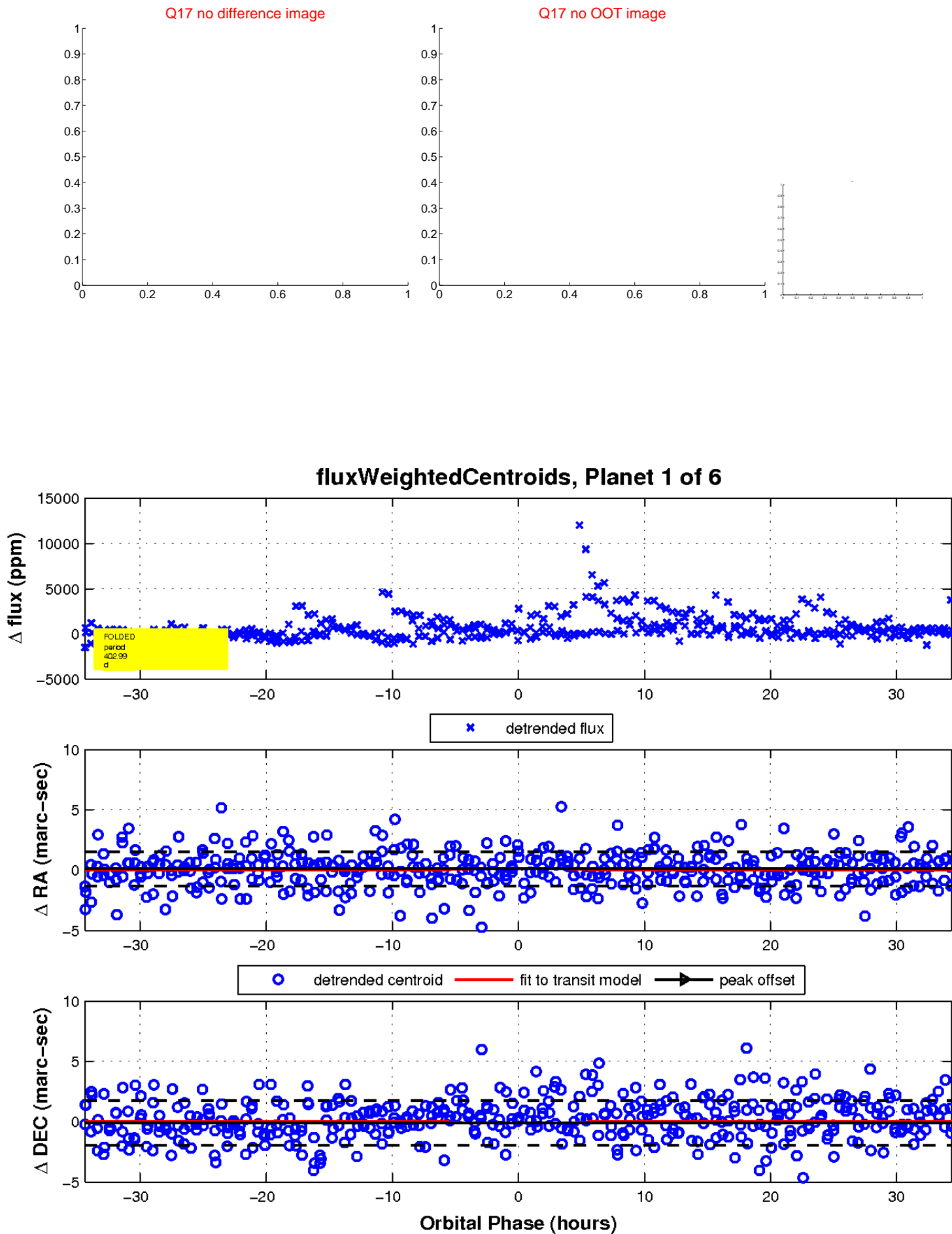
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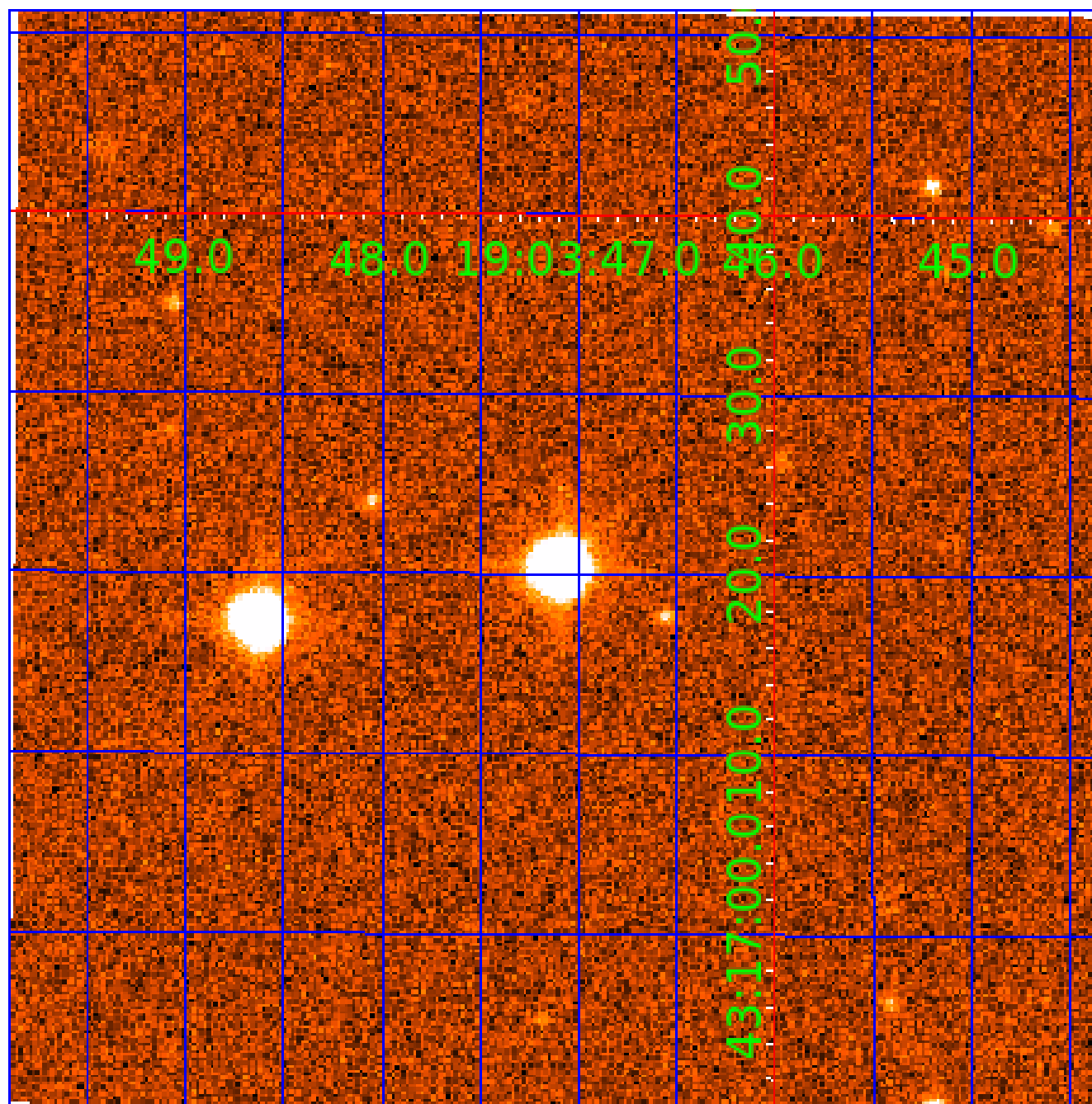


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UKIRT Image

Declination



KIC 007592133

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007592133-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_KIC_POS—HALO_GHOST
007592133-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
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N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

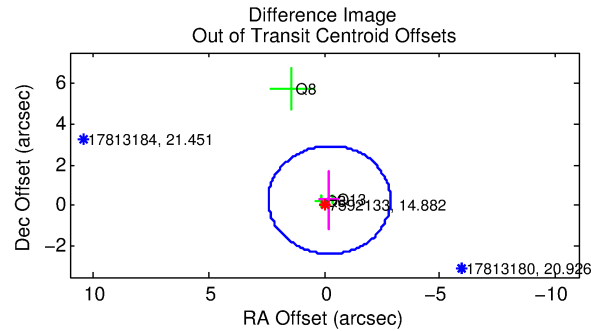
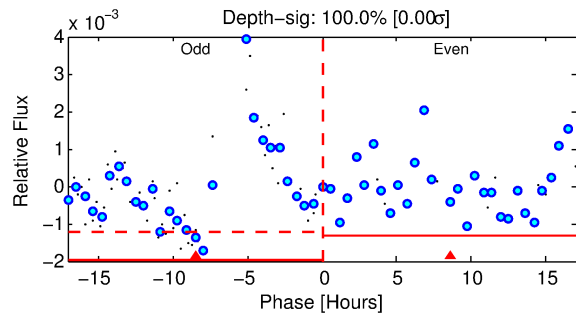
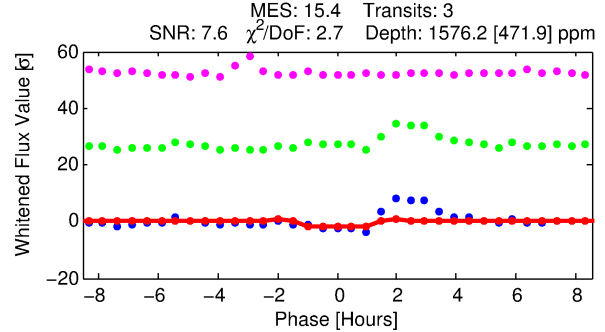
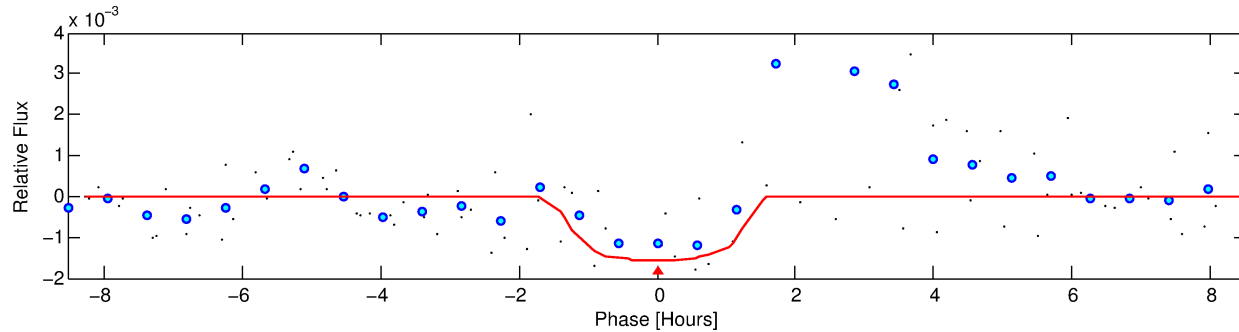
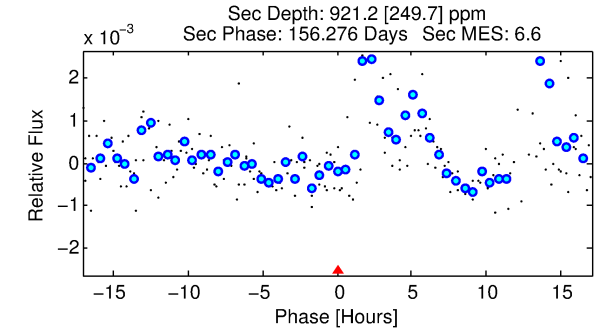
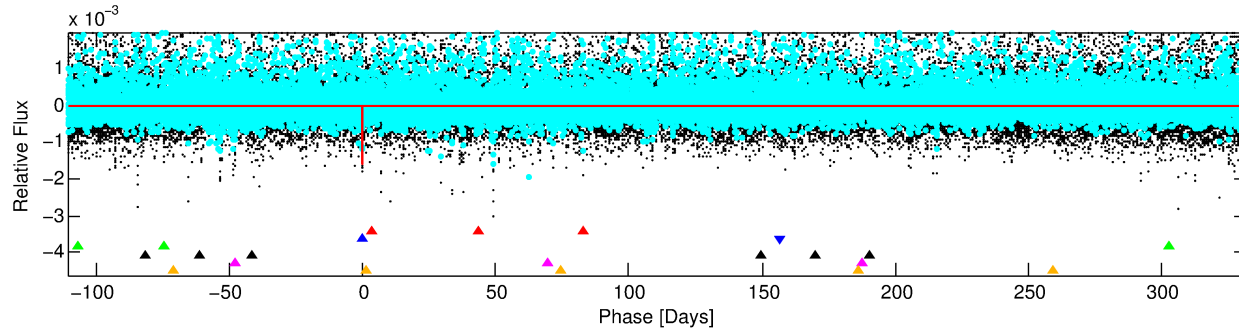
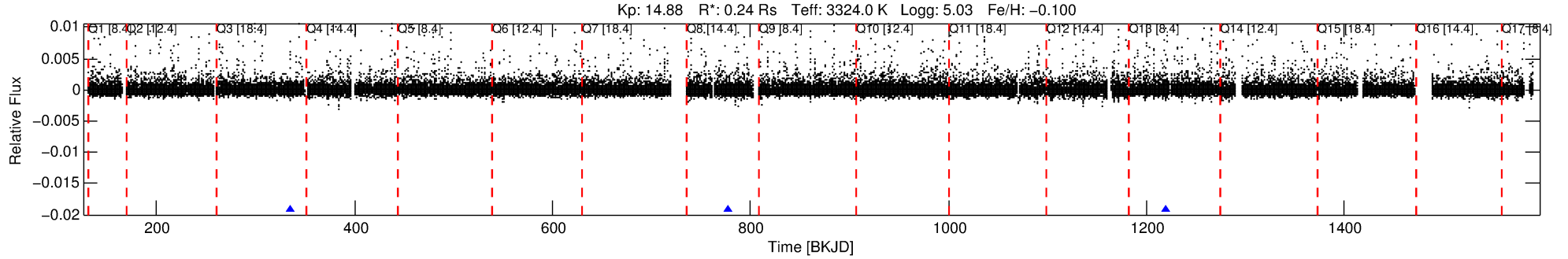
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007592133-02

No Significant Match Found

DV One-Page Summary

KIC: 7592133 Candidate: 2 of 6 Period: 442.412 d



DV Fit Results:

Period = 442.41231 [0.00890] d
Epoch = 335.4681 [0.0104] BKJD
Rp/R* = 0.0381 [0.0557]
a/R* = 979.63 [6184.78]
b = 0.63 [6.03]
Seff = 0.01 [0.00]
Teq = 86 [3] K
Rp = 0.98 [1.44] Re
a = 0.6847 [0.0661] AU
Ag = 246832.91 [725695.25] [0.34σ]
Teff = 2967 [2179] K [1.32σ]

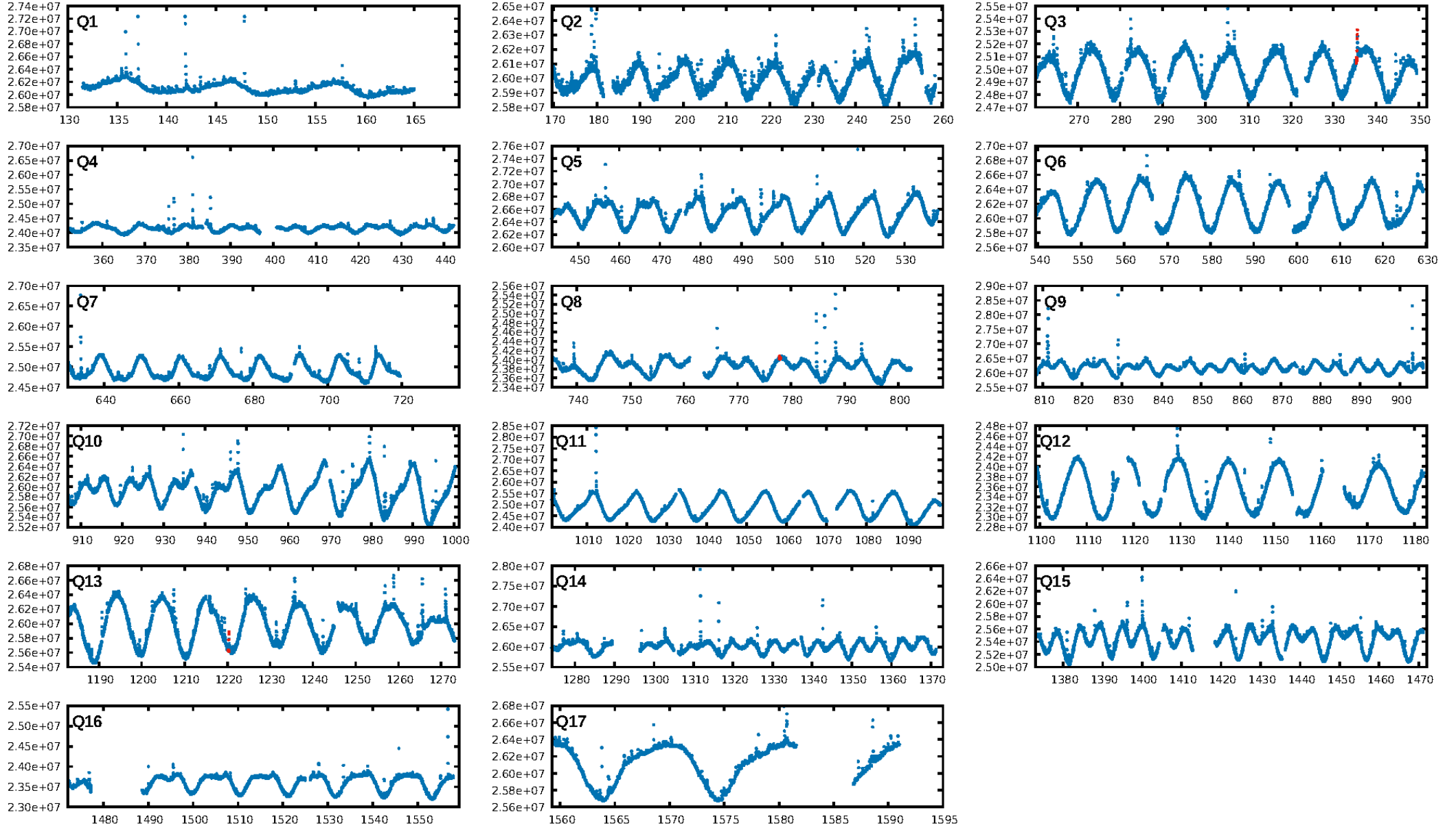
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [79.58σ]
LongPeriod-sig: 100.0% [135.90σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 3.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -18.92
Centroid-sig: 96.1%
Centroid-so: 0.608 arcsec [0.67σ]
OotOffset-rm: 0.350 arcsec [0.40σ]
KicOffset-rm: 0.458 arcsec [0.42σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

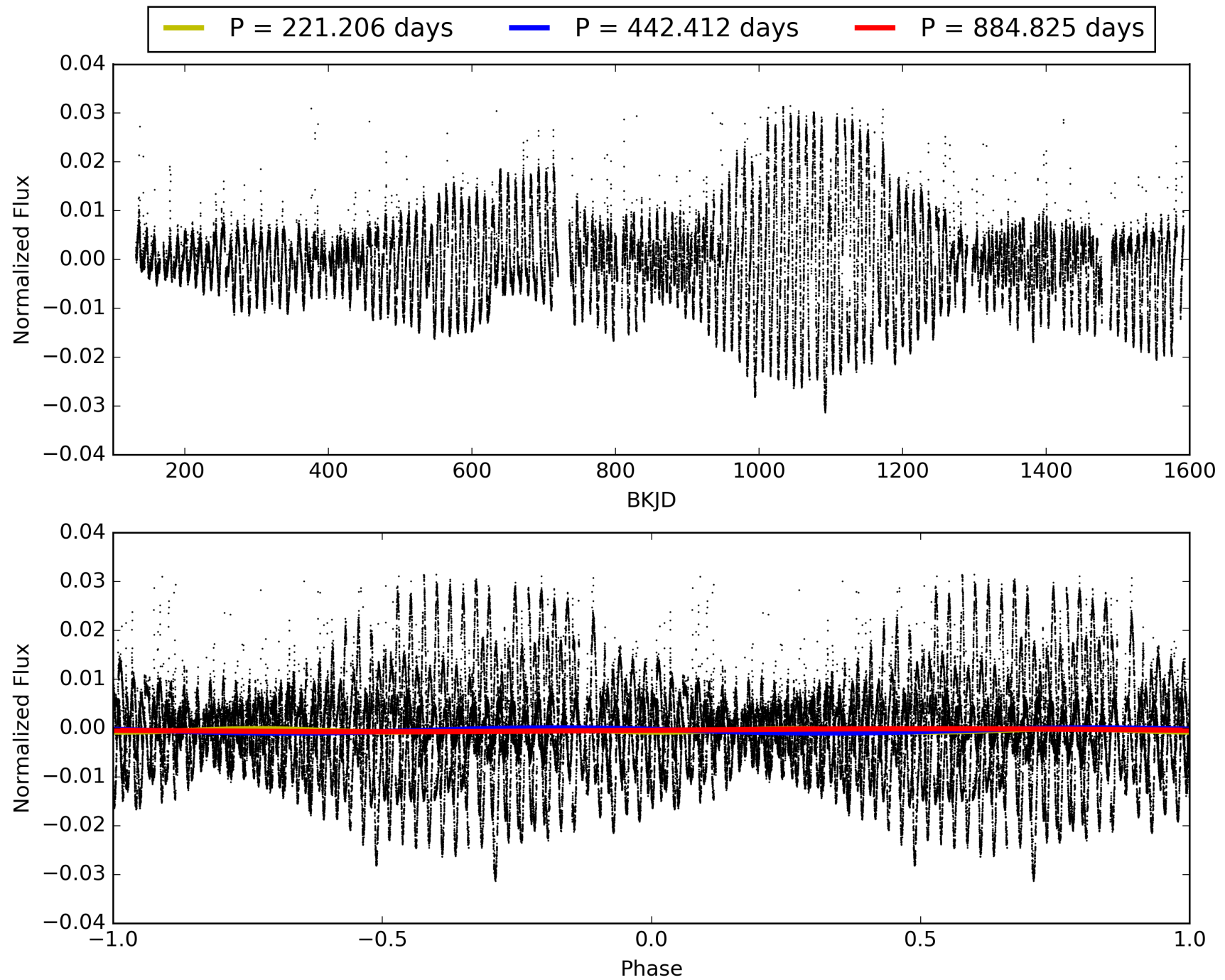
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:36:58 Z

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

TCE 007592133-02, PDC Light Curves

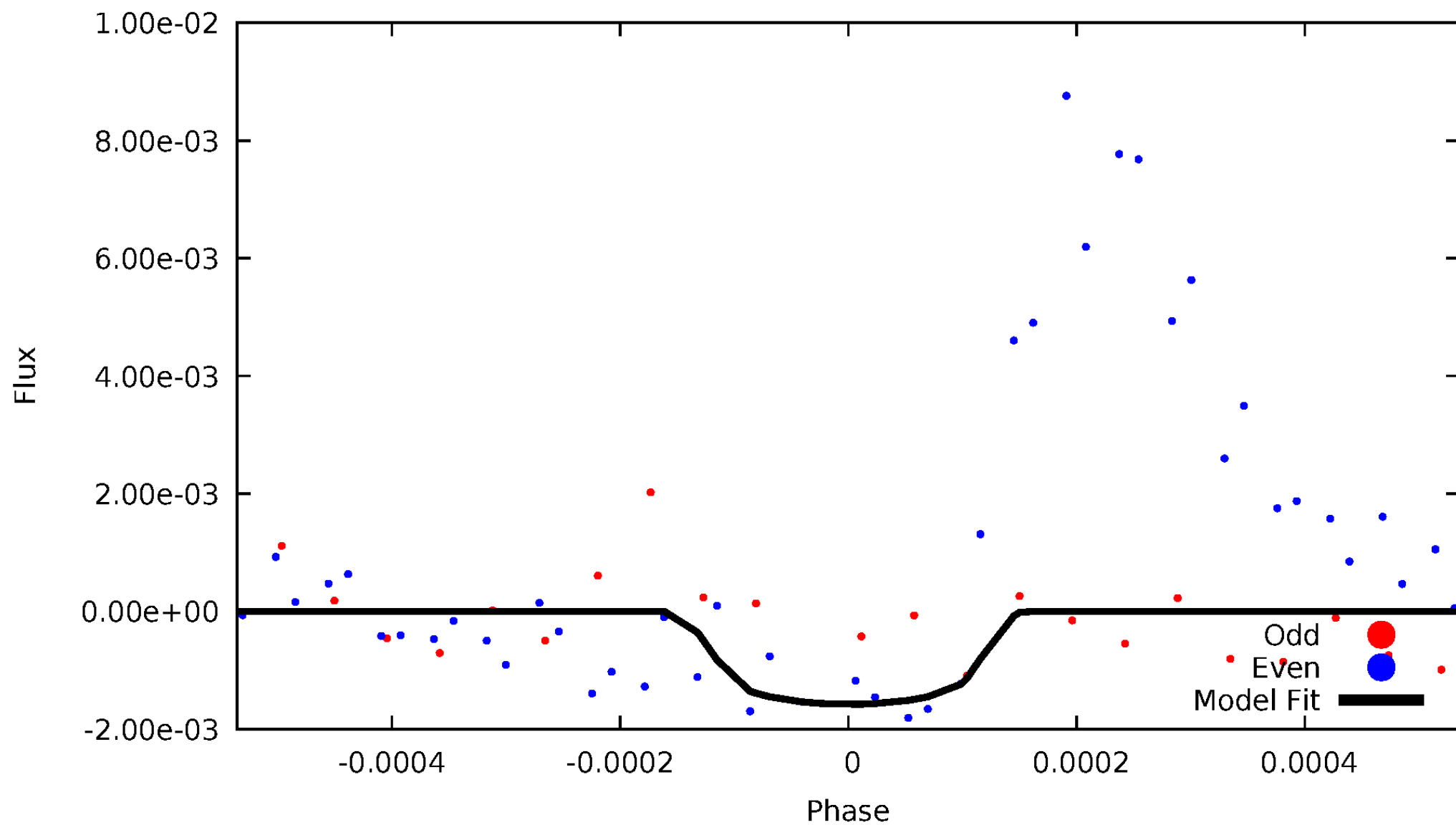


TCE 007592133-02



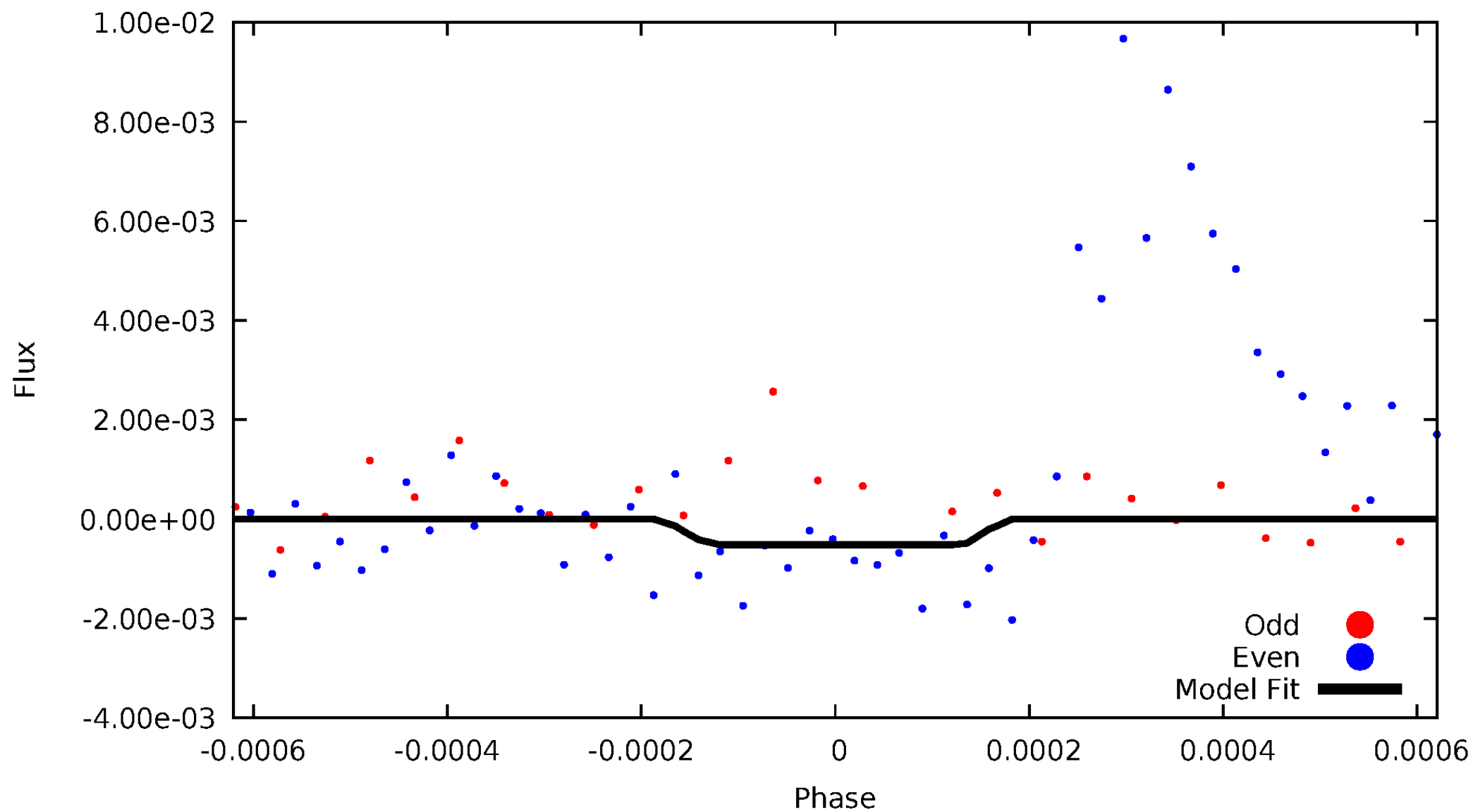
DV Odd/Even

TCE 007592133-02



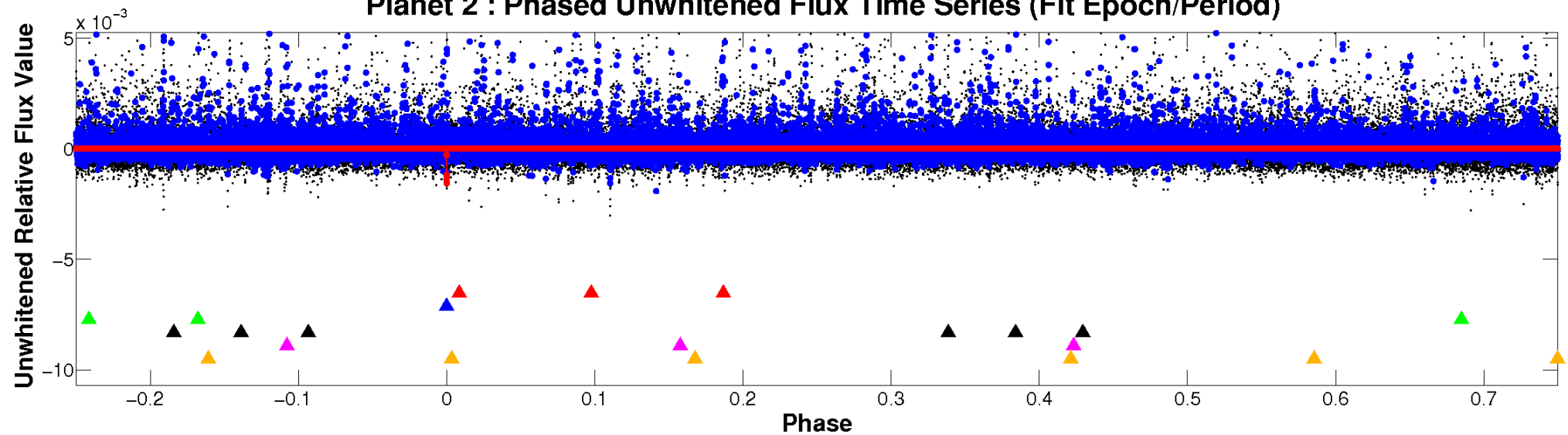
ALT Odd/Even

TCE 007592133-02

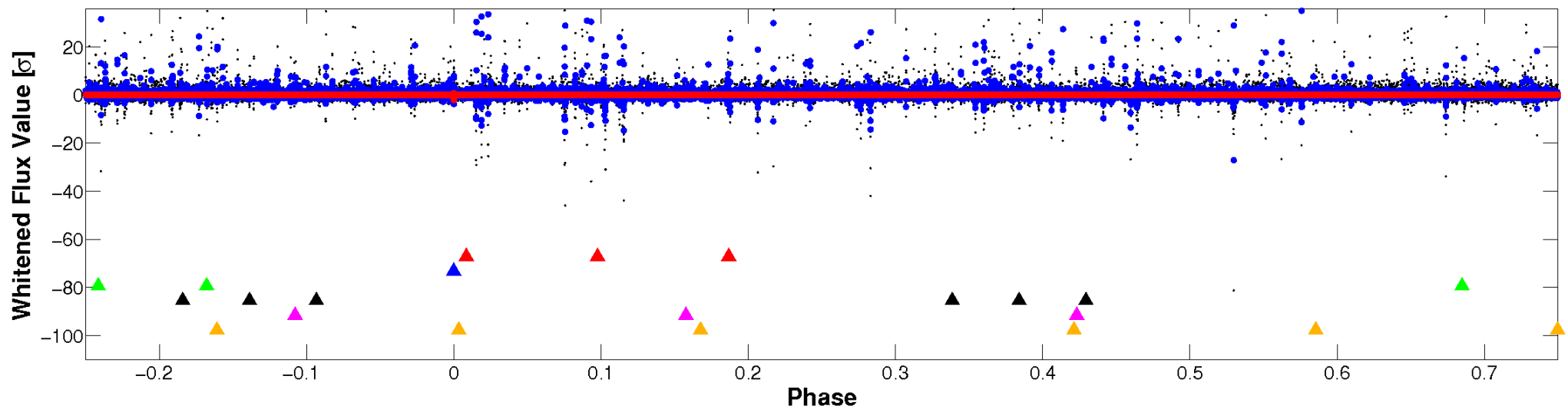


Non-Whitened Vs. Whitened Light Curve

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

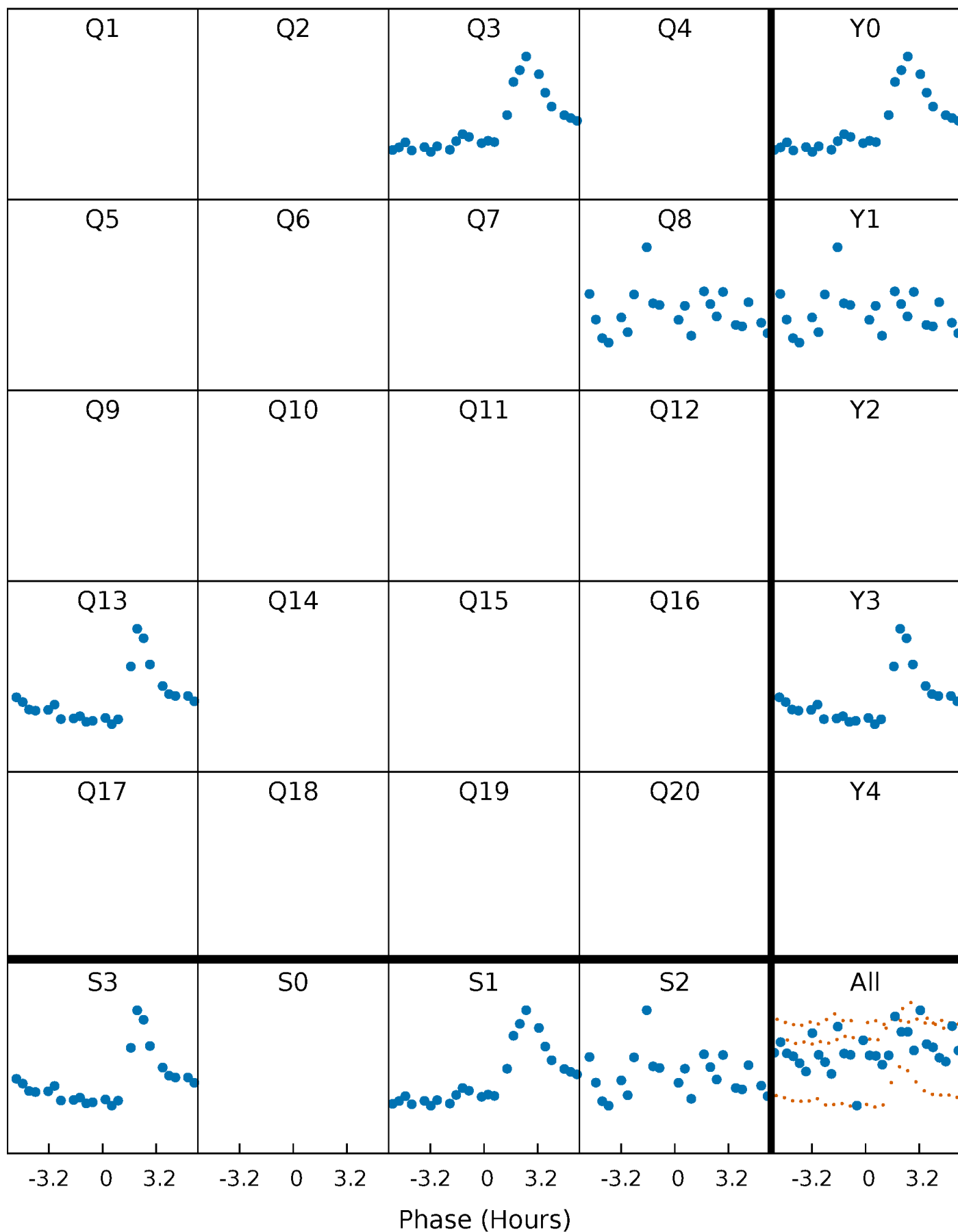


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



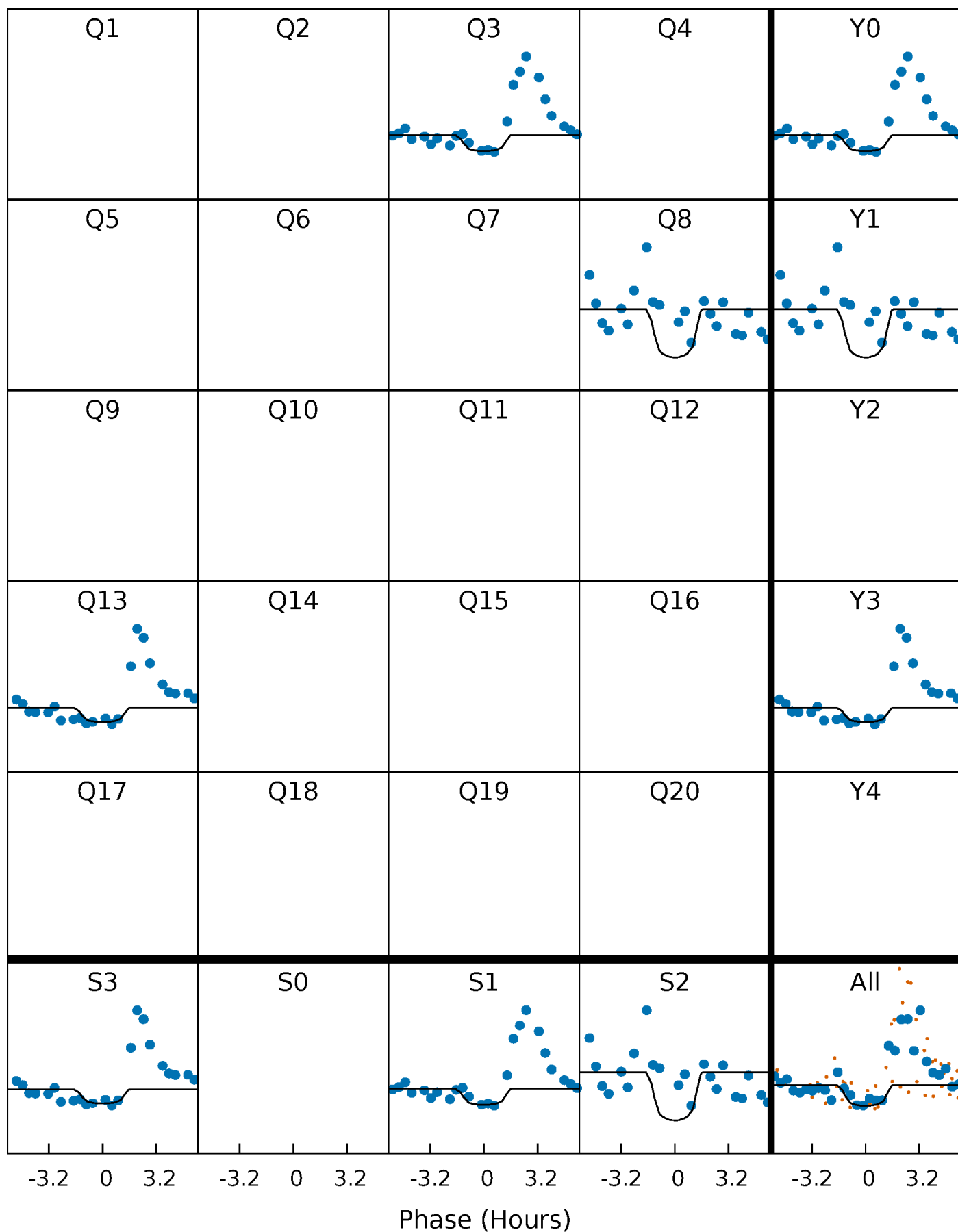
PDC Quarter-Phased Transit Curves

TCE 007592133-02 $P=442.412311$ Days $T_0=335.468093$ (BKJD)



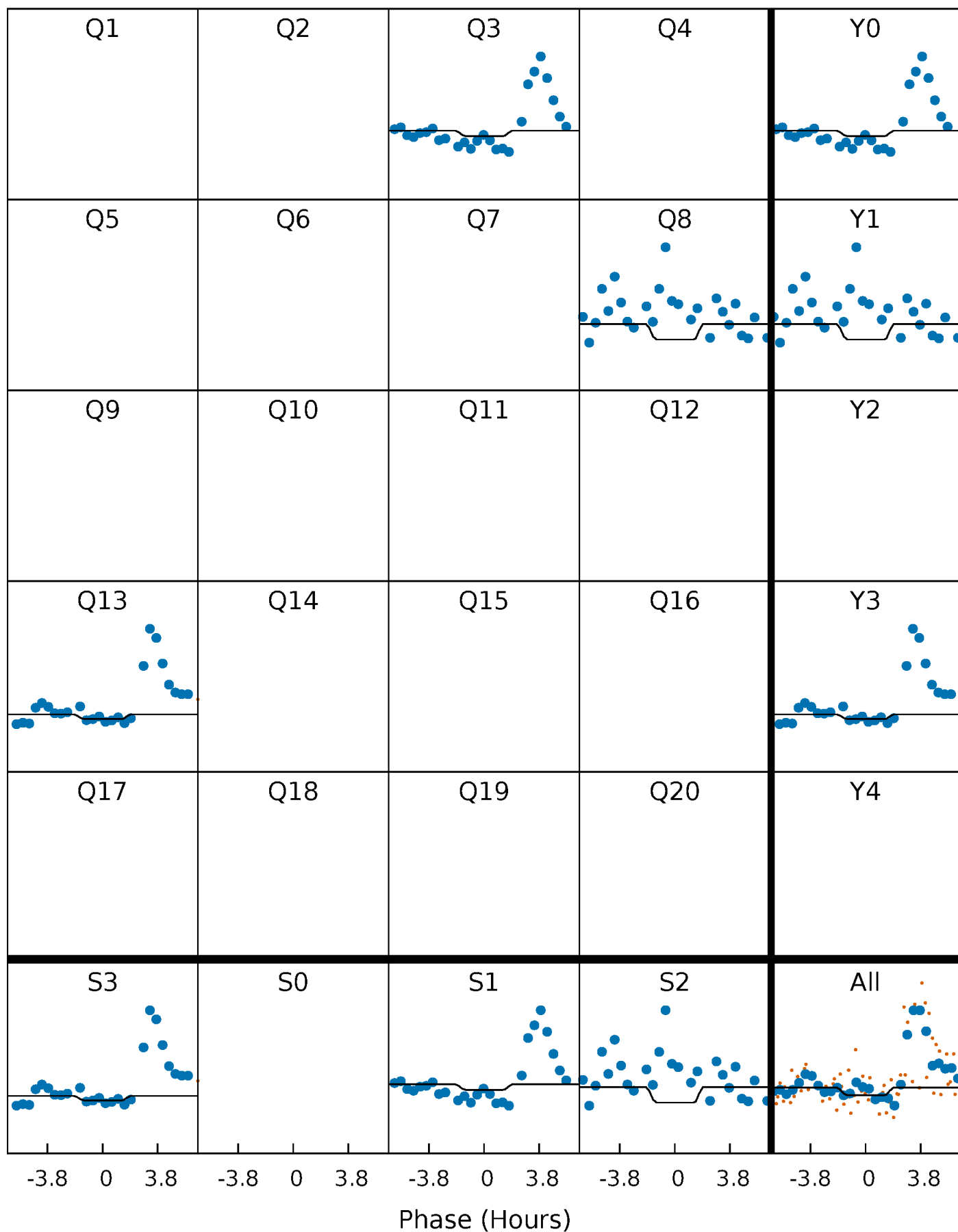
DV Quarter-Phased Transit Curves

TCE 007592133-02 $P=442.412311$ Days $T_0=335.468093$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

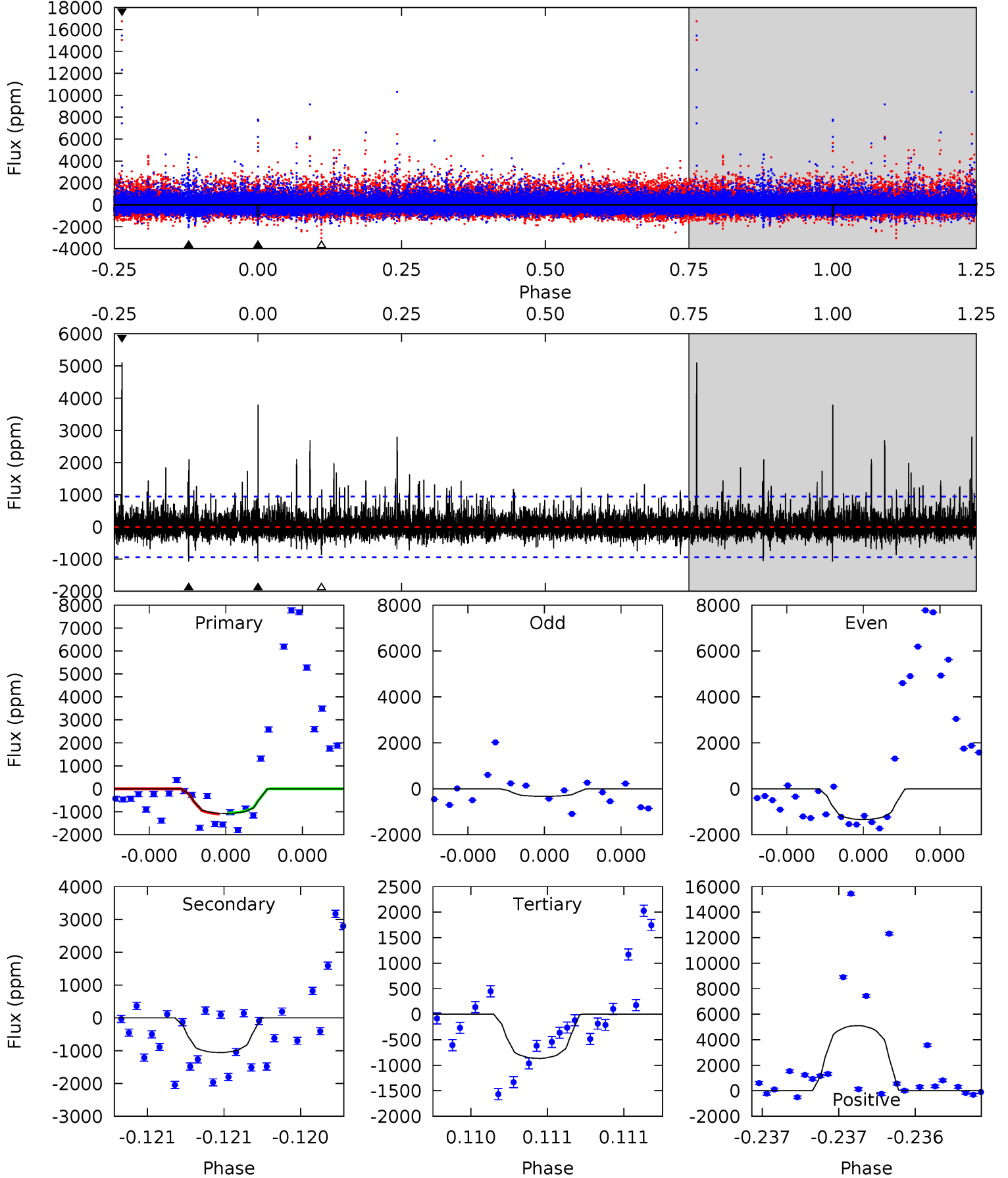
TCE 007592133-02 P=442.413819 Days $T_0=335.418273$ (BKJD)



DV Model-Shift Uniqueness Test

007592133-02, P = 442.412311 Days, E = 335.468093 Days

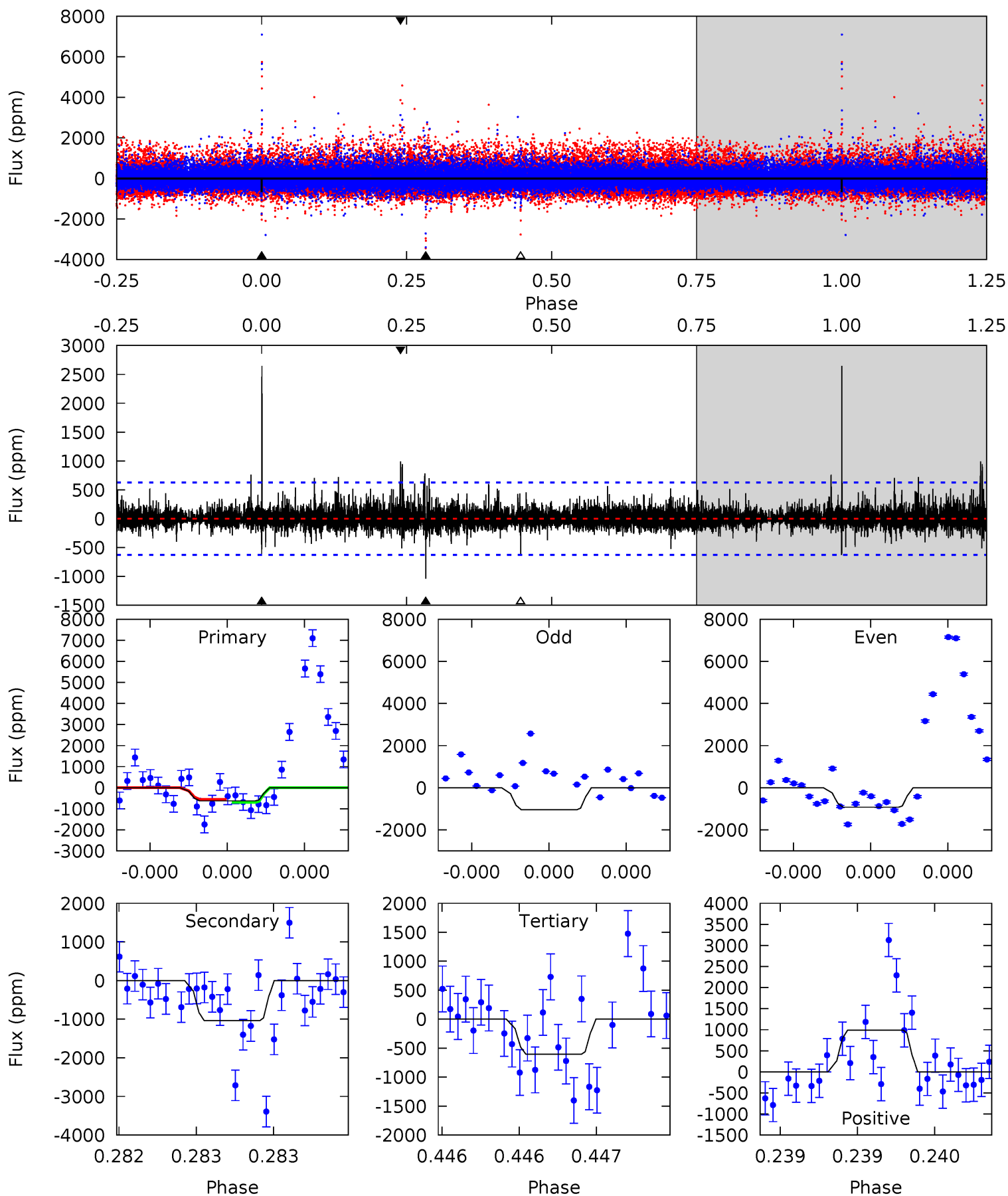
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.48	6.36	5.21	30.7	5.68	3.64	1.65	1.27	-24.3	1.16	-24.4	1.33	0.93	0.83	0.12



Alt Model-Shift Uniqueness Test

007592133-02, P = 442.413819 Days, E = 335.418273 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.64	9.35	5.44	8.93	5.64	3.59	1.10	0.19	-3.29	3.90	0.42	0.46	0.48	0.72	0.62



Stellar Parameters For KIC 007592133

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3324^{+43}_{-36}	$5.032^{+0.044}_{-0.040}$	$-0.100^{+0.100}_{-0.100}$	$0.236^{+0.032}_{-0.026}$	$0.218^{+0.042}_{-0.028}$	$23.450^{+5.770}_{-4.637}$
	+1%/-1%	+1%/-1%	+100%/-100%	+14%/-11%	+19%/-13%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 007592133-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1058 ± 166	$1.43^{+1.31}_{-0.98}$	120^{+3}_{-3}	2859^{+1208}_{-428}	$136227^{+1245475}_{-99323}$
Alt.	-1036 ± 111	$1.18^{+1.22}_{-0.77}$	120^{+3}_{-3}	2999^{+1245}_{-516}	$187532^{+1463140}_{-140751}$

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

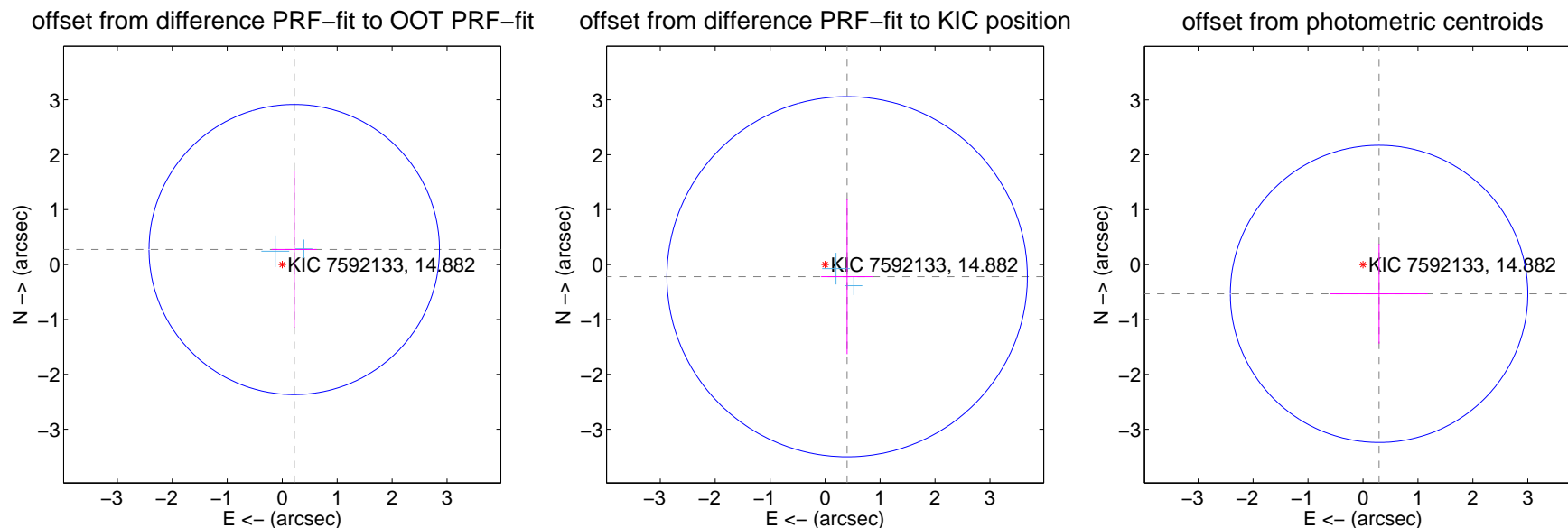
DV Centroid Data

Supplemental centroid analysis for 007592133-02. Kepler magnitude: 14.88. Transit SNR 7.58

There are 2 quarters with good PRF difference image offsets

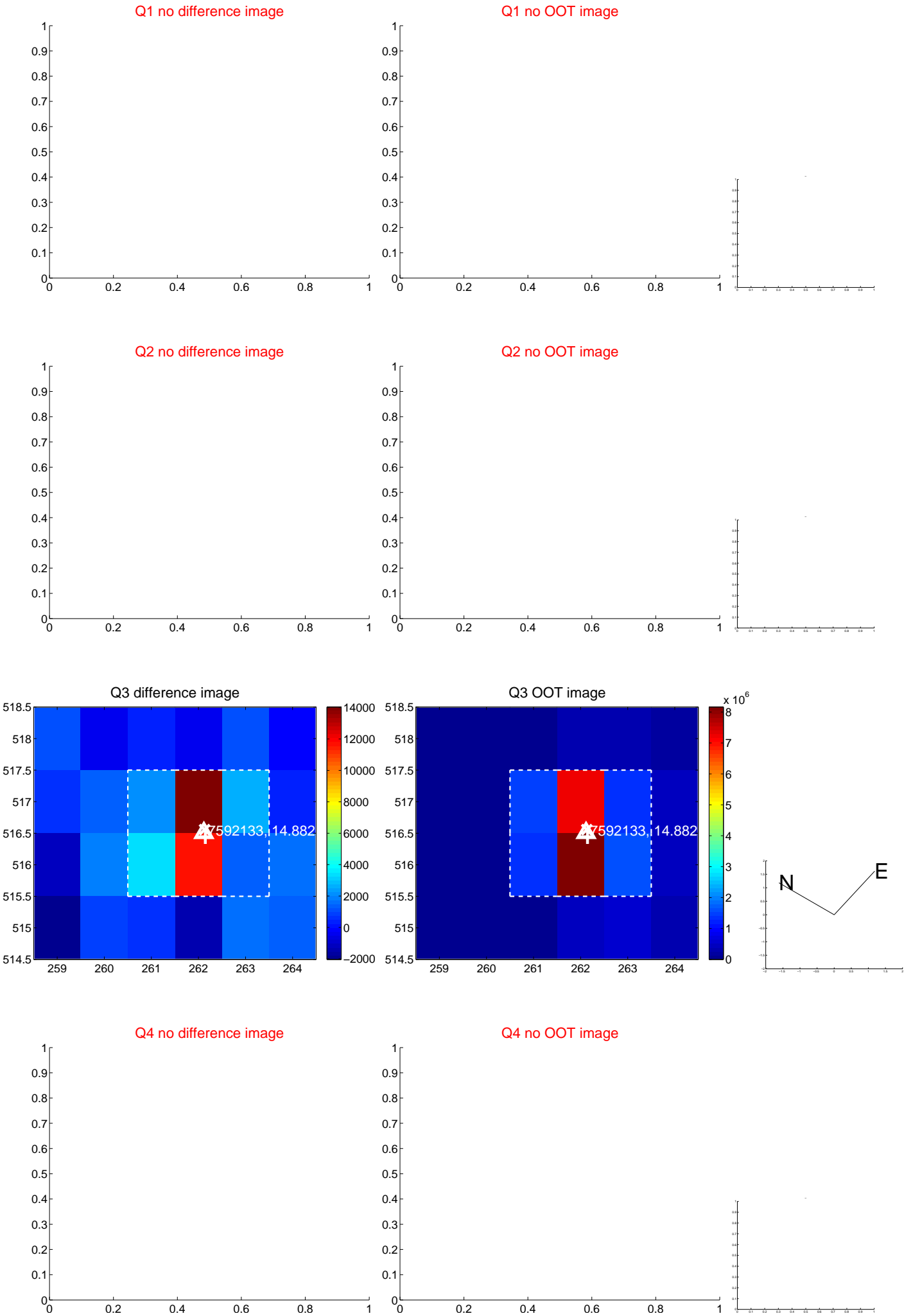
The direct PRF centroid is offset from the target star catalog position by about 0.68 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.350 ± 0.881	0.40	-0.219 ± 0.409	0.274 ± 1.424
PRF-fit source offset from KIC position	0.458 ± 1.093	0.42	-0.401 ± 0.474	-0.221 ± 1.410
photometric centroid source offset	0.61 ± 0.90	0.67	-0.29 ± 0.89	-0.53 ± 0.91

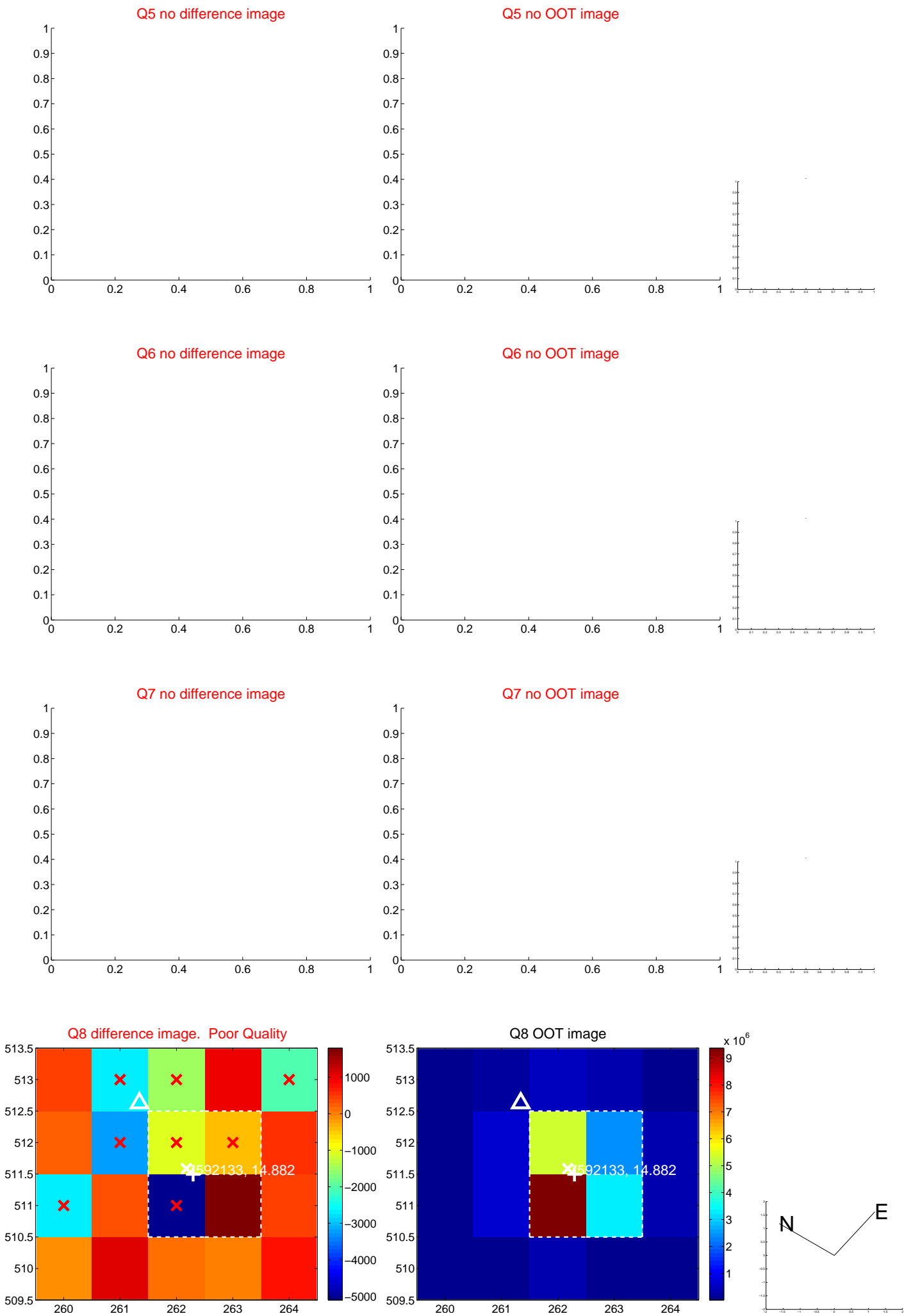


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



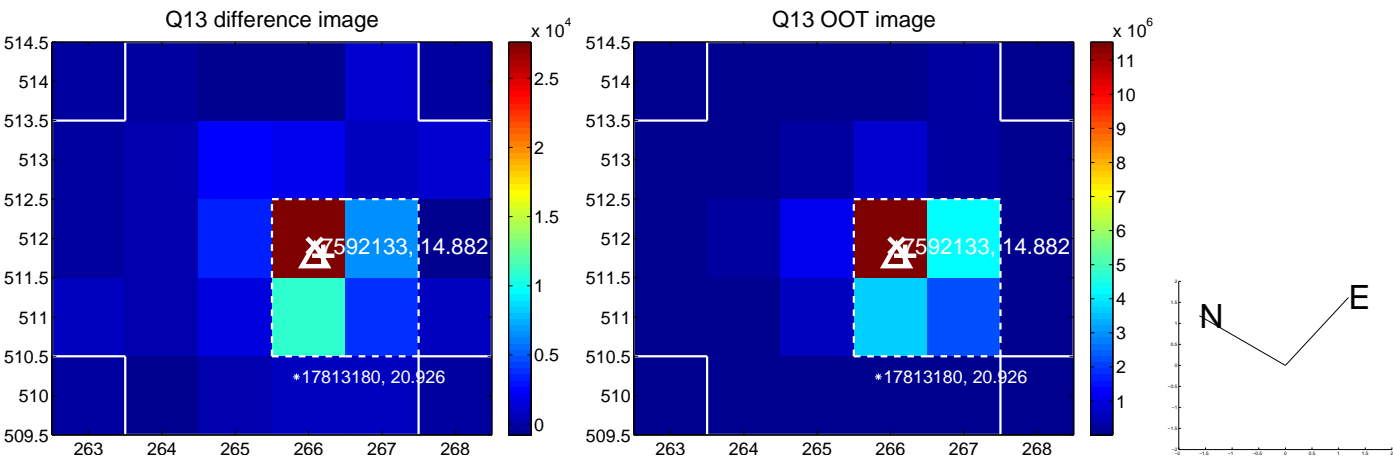
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



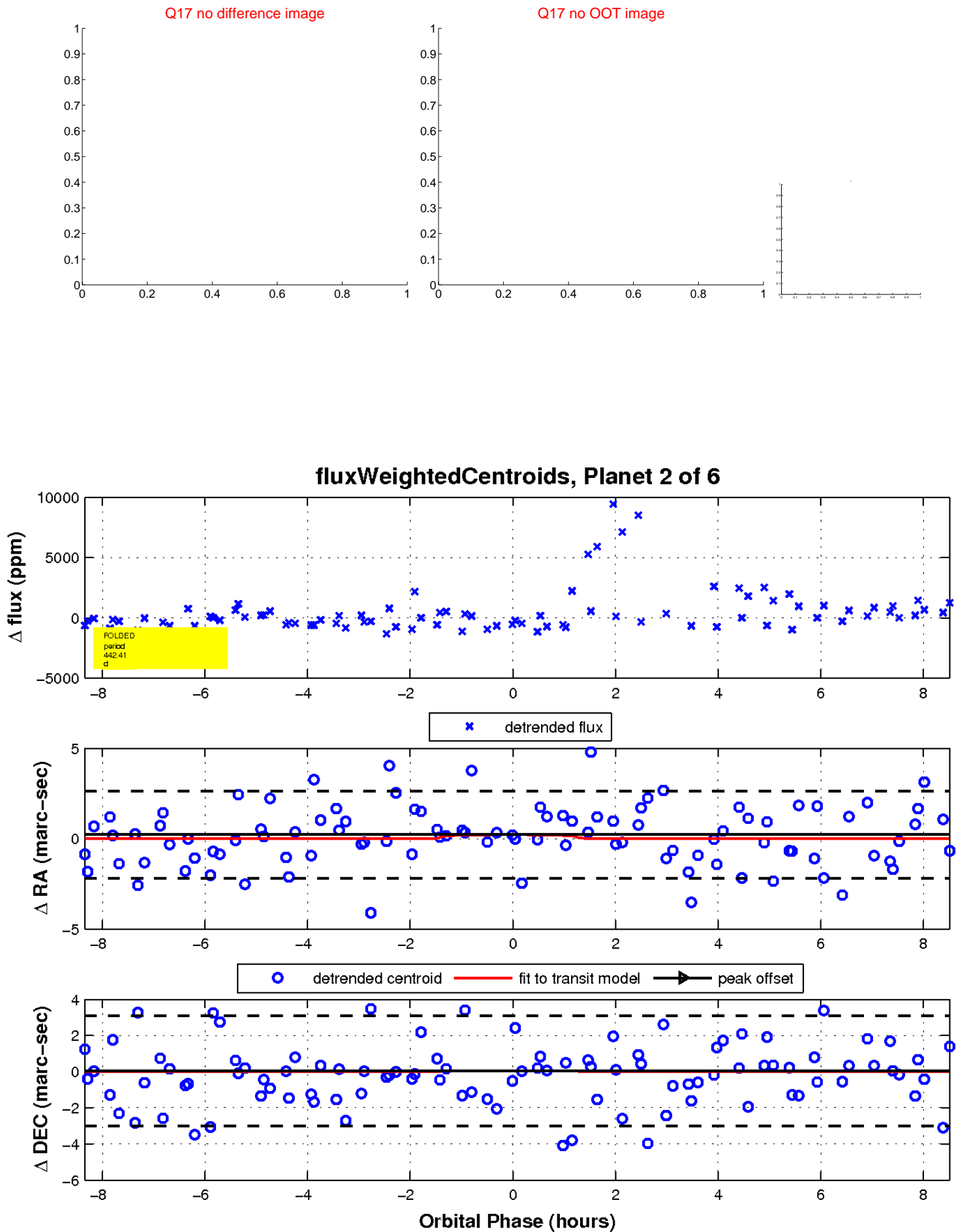
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

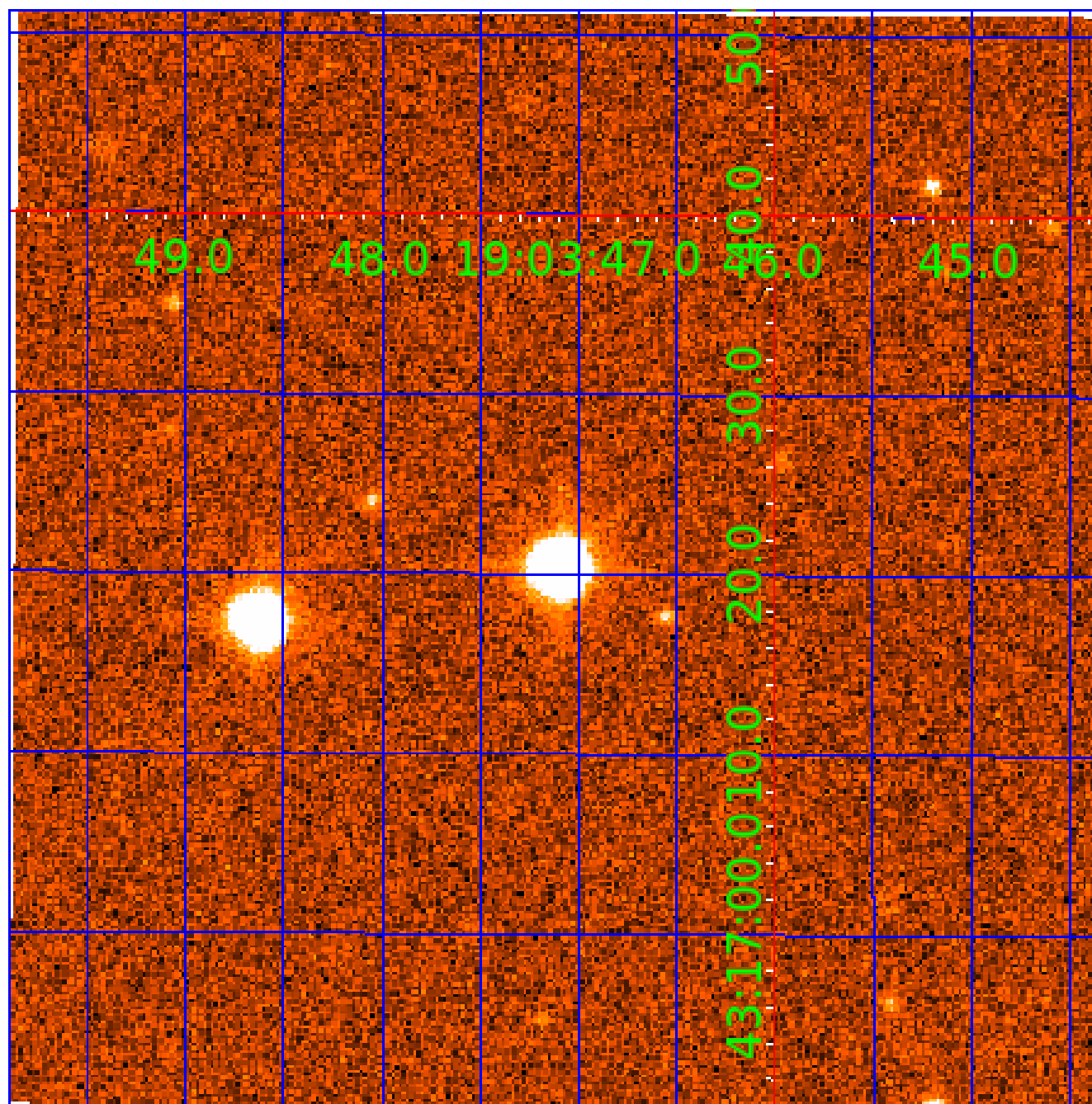


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007592133

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})
007592133-01	OBS	No	402.993976	418.092557	1565.4	11.543	12.9	7.1	0.24	3324	0.94	0.01
007592133-02	OBS	No	442.412311	335.468093	1576.2	2.843	15.4	7.6	0.24	3324	0.98	0.01
007592133-03	OBS	No	474.995256	196.060482	1235.6	5.003	11.7	6.0	0.24	3324	0.84	0.01
007592133-04	OBS	No	231.251386	254.013531	1075.5	2.178	14.1	6.7	0.24	3324	0.82	0.03
007592133-05	OBS	No	559.848046	287.813572	1442.5	9.607	12.9	7.1	0.24	3324	0.94	0.01
007592133-06	OBS	No	257.539439	264.311590	1068.3	5.998	13.7	6.4	0.24	3324	0.82	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007592133-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_KIC_POS—HALO_GHOST
007592133-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
007592133-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
007592133-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

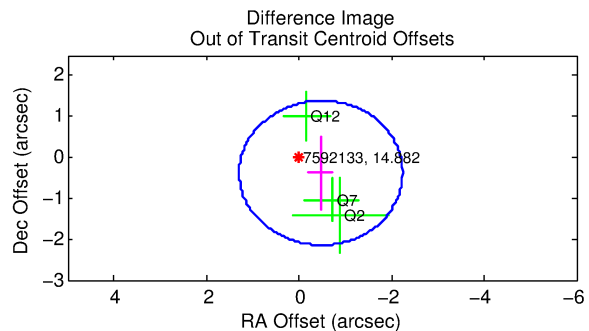
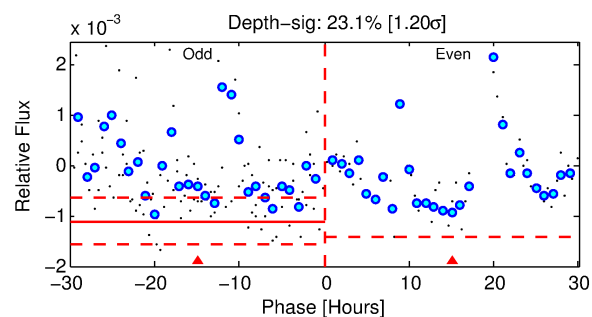
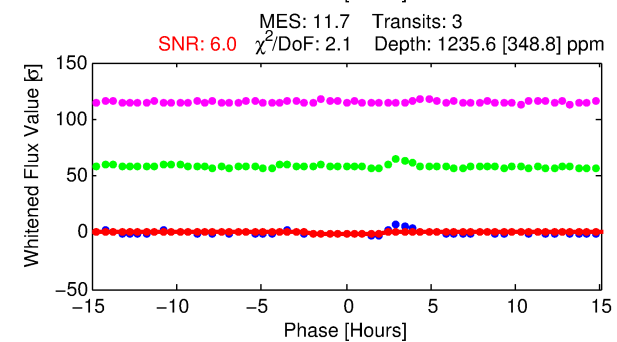
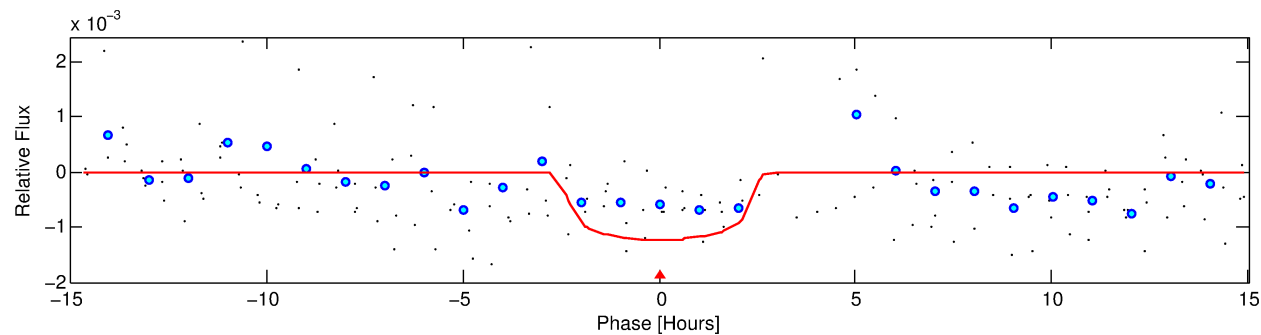
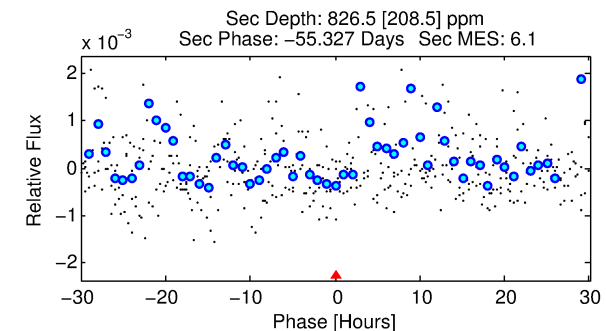
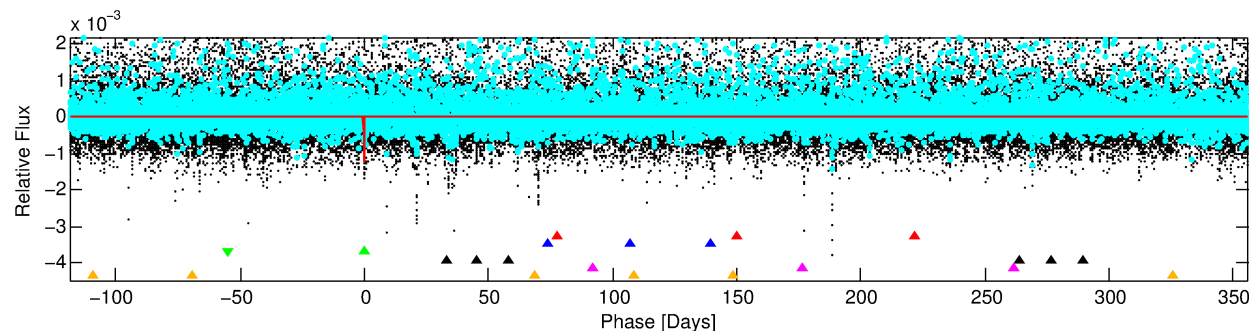
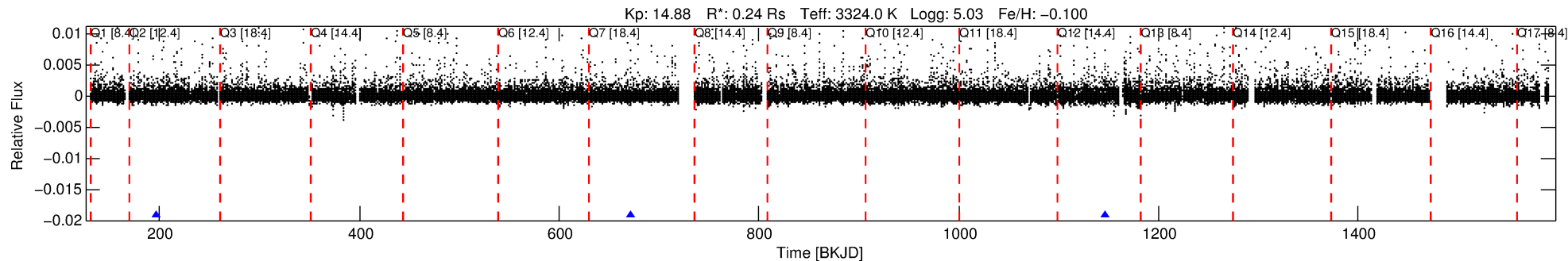
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007592133-03

No Significant Match Found

DV One-Page Summary

KIC: 7592133 Candidate: 3 of 6 Period: 474.995 d



DV Fit Results:

Period = 474.99526 [0.01054] d
Epoch = 196.0605 [0.0146] BKJD
Rp/R* = 0.0325 [0.0742]
a/R* = 688.71 [6923.69]
b = 0.41 [20.79]
Seff = 0.01 [0.00]
Teq = 84 [3] K
Rp = 0.84 [1.91] Re
a = 0.7180 [0.0693] AU
Ag = 334888.64 [1532765.14] [0.22σ]
Teffp = 3127 [3577] K [0.85σ]

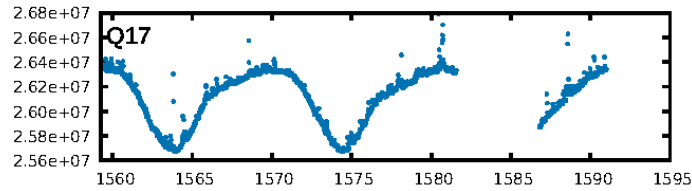
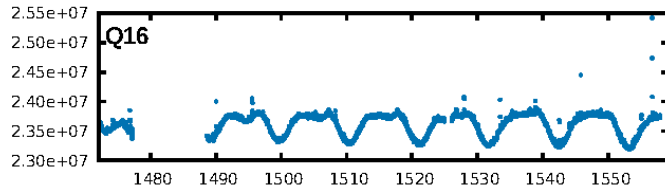
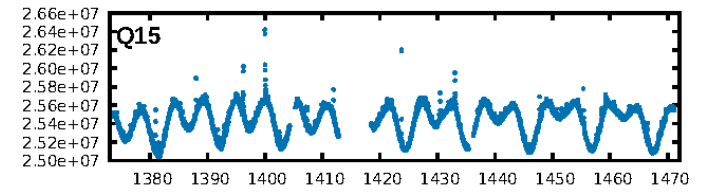
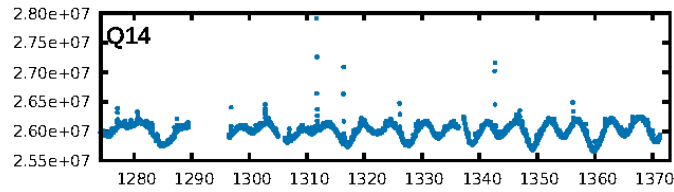
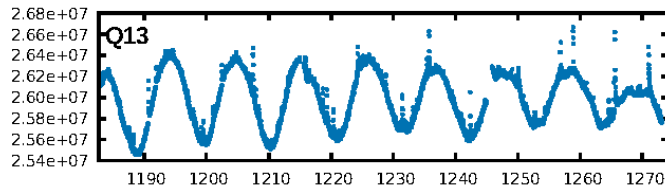
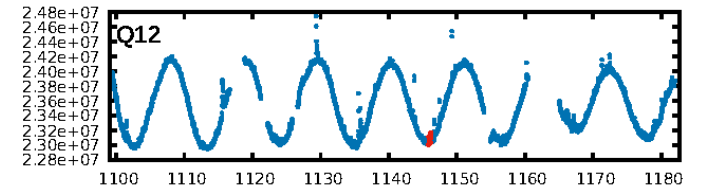
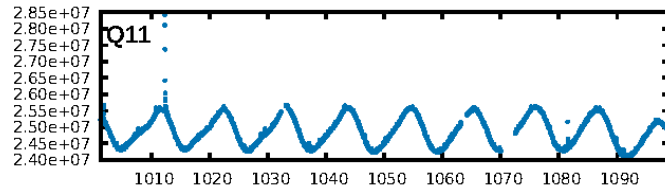
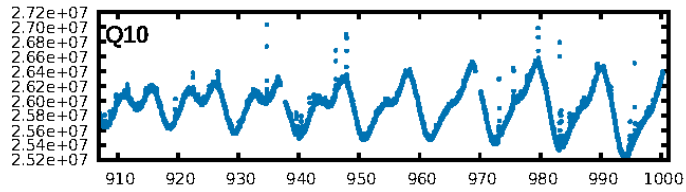
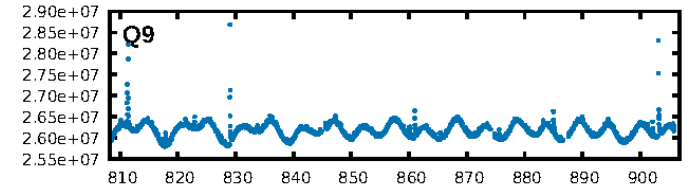
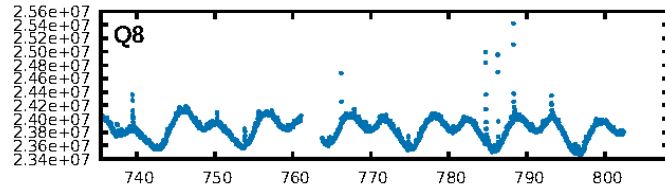
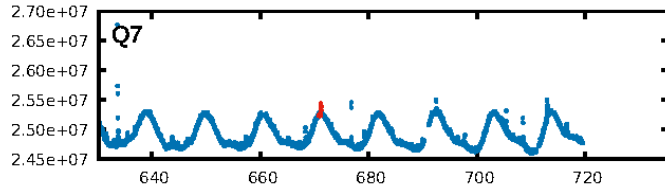
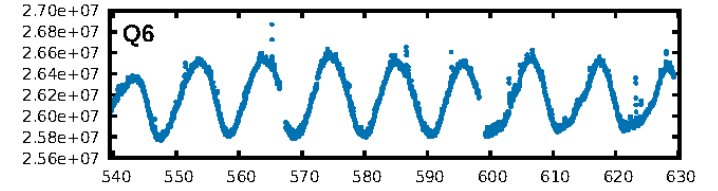
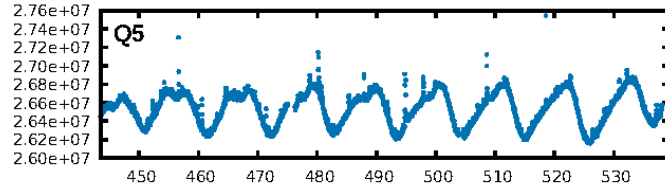
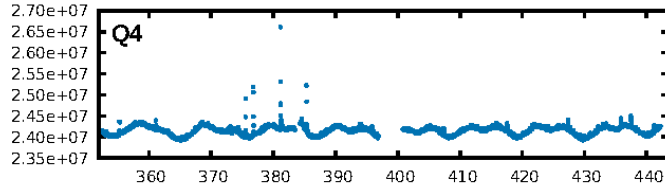
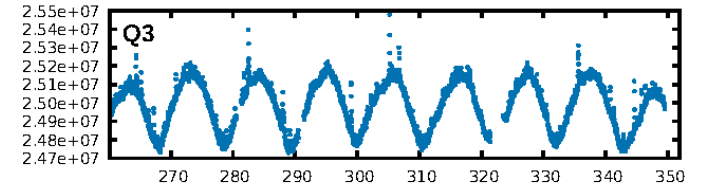
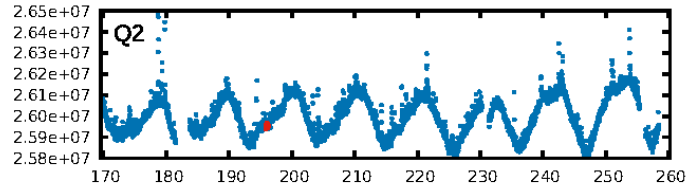
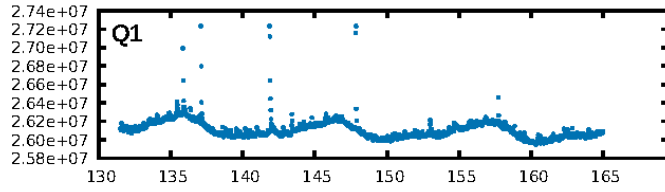
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [135.90σ]
LongPeriod-sig: 100.0% [188.00σ]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 24.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.08604
Centroid-sig: 40.7%
Centroid-so: 0.804 arcsec [0.87σ]
OotOffset-rm: 0.607 arcsec [1.03σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-rm: 1.010 arcsec [1.51σ]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

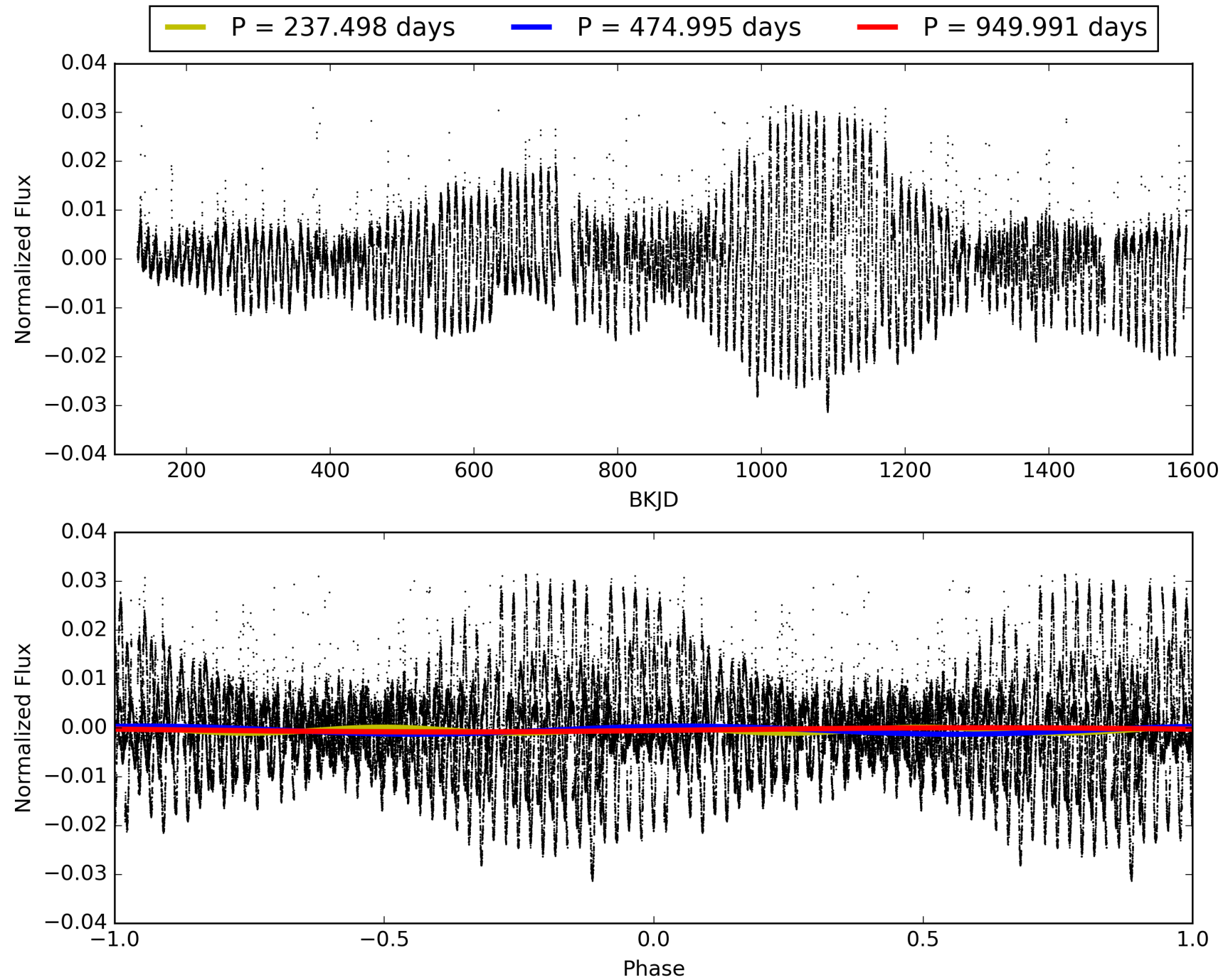
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:37:14 Z

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

TCE 007592133-03, PDC Light Curves

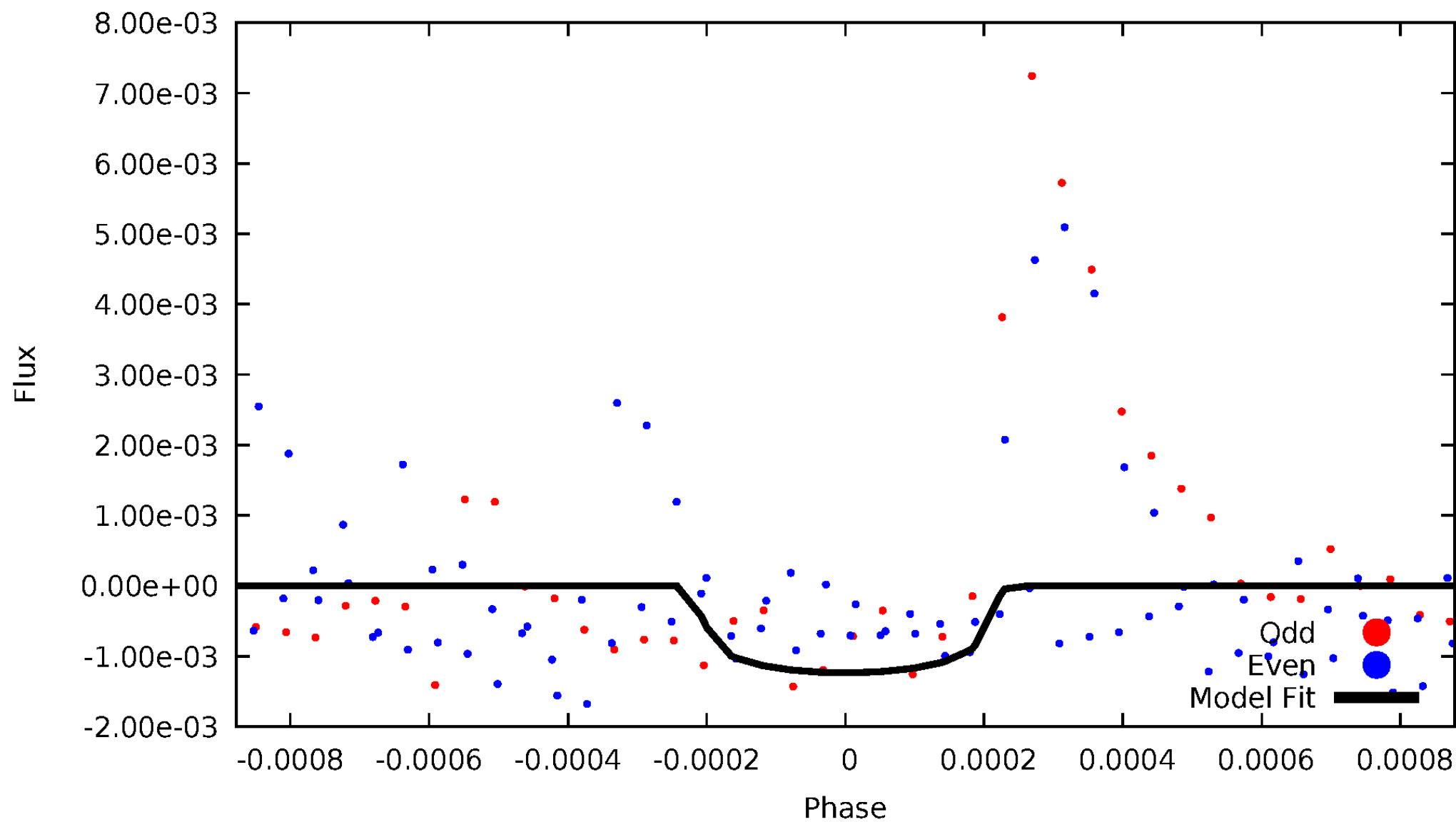


TCE 007592133-03



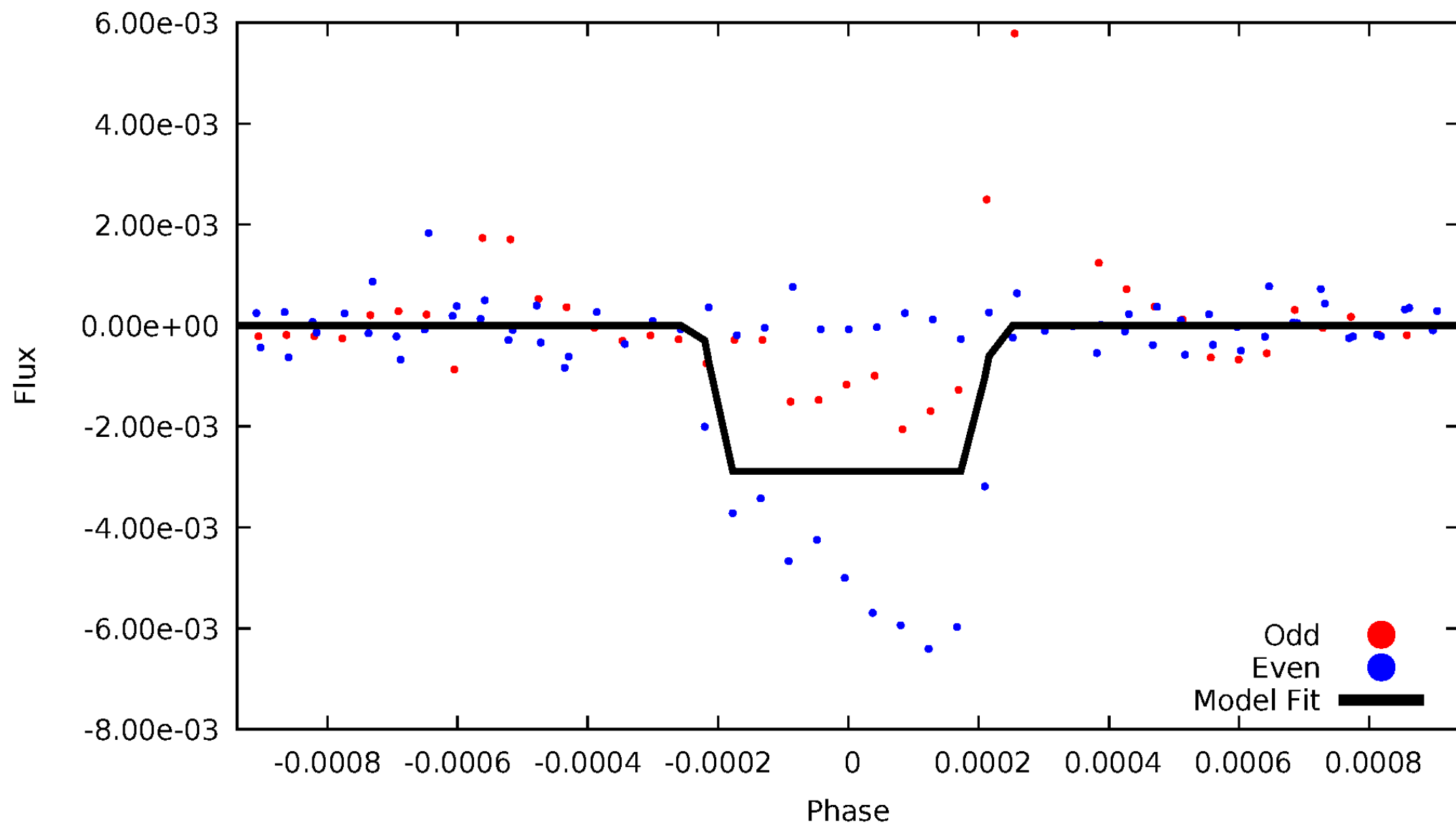
DV Odd/Even

TCE 007592133-03



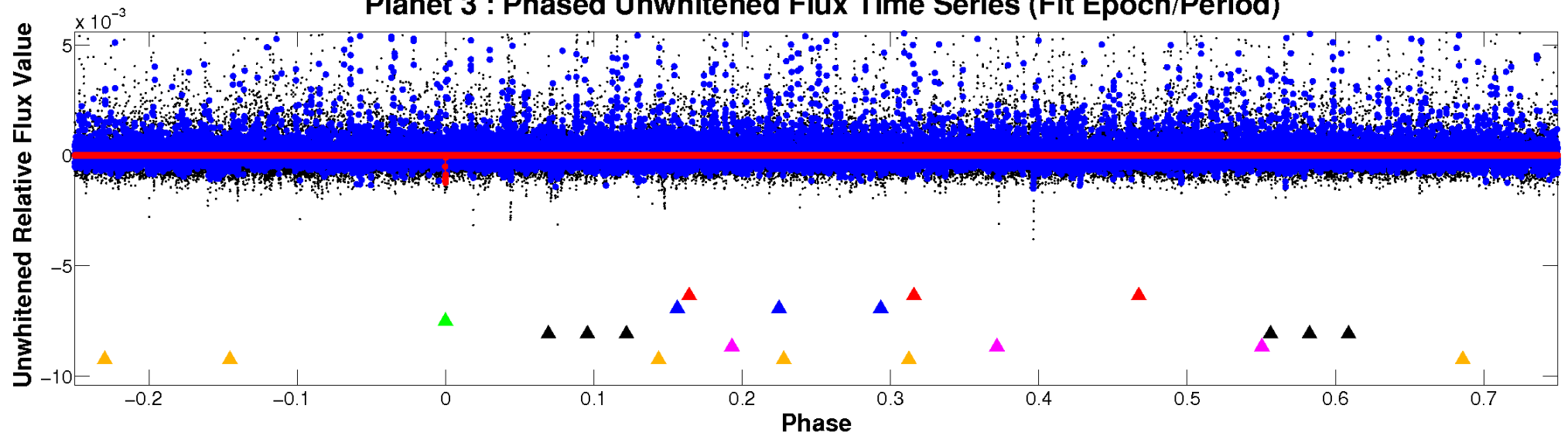
ALT Odd/Even

TCE 007592133-03

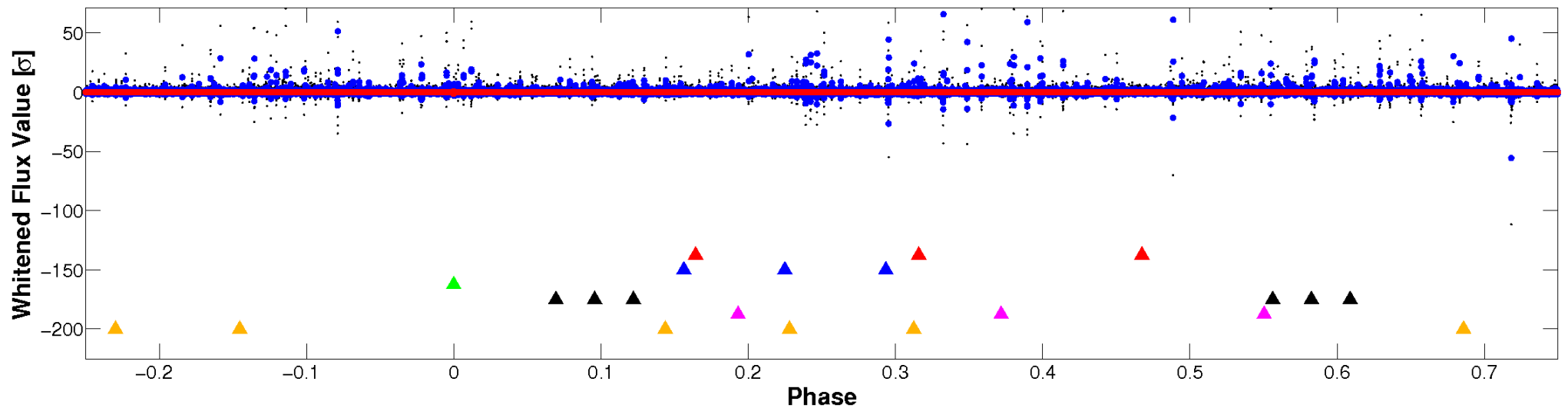


Non-Whitened Vs. Whitened Light Curve

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

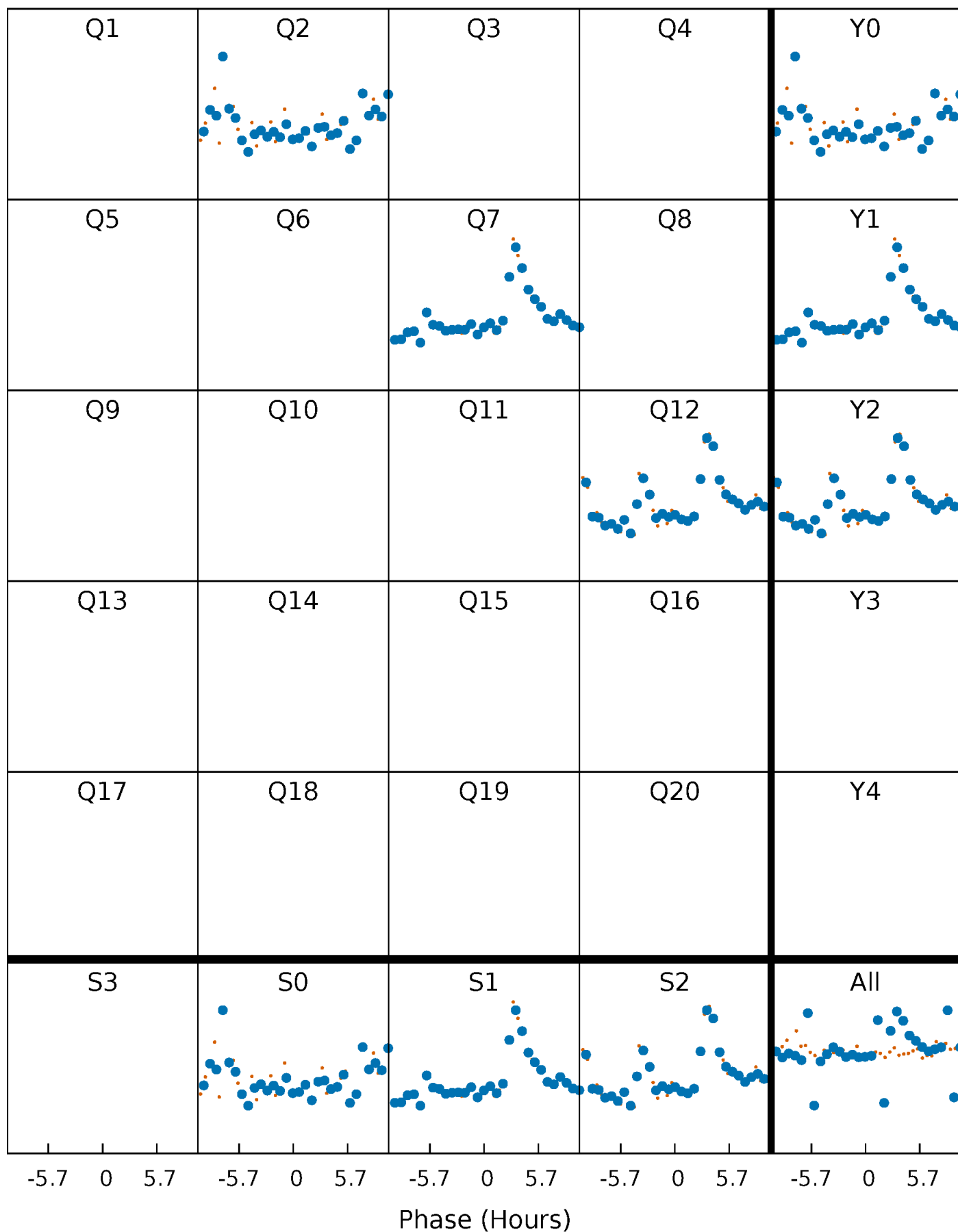


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



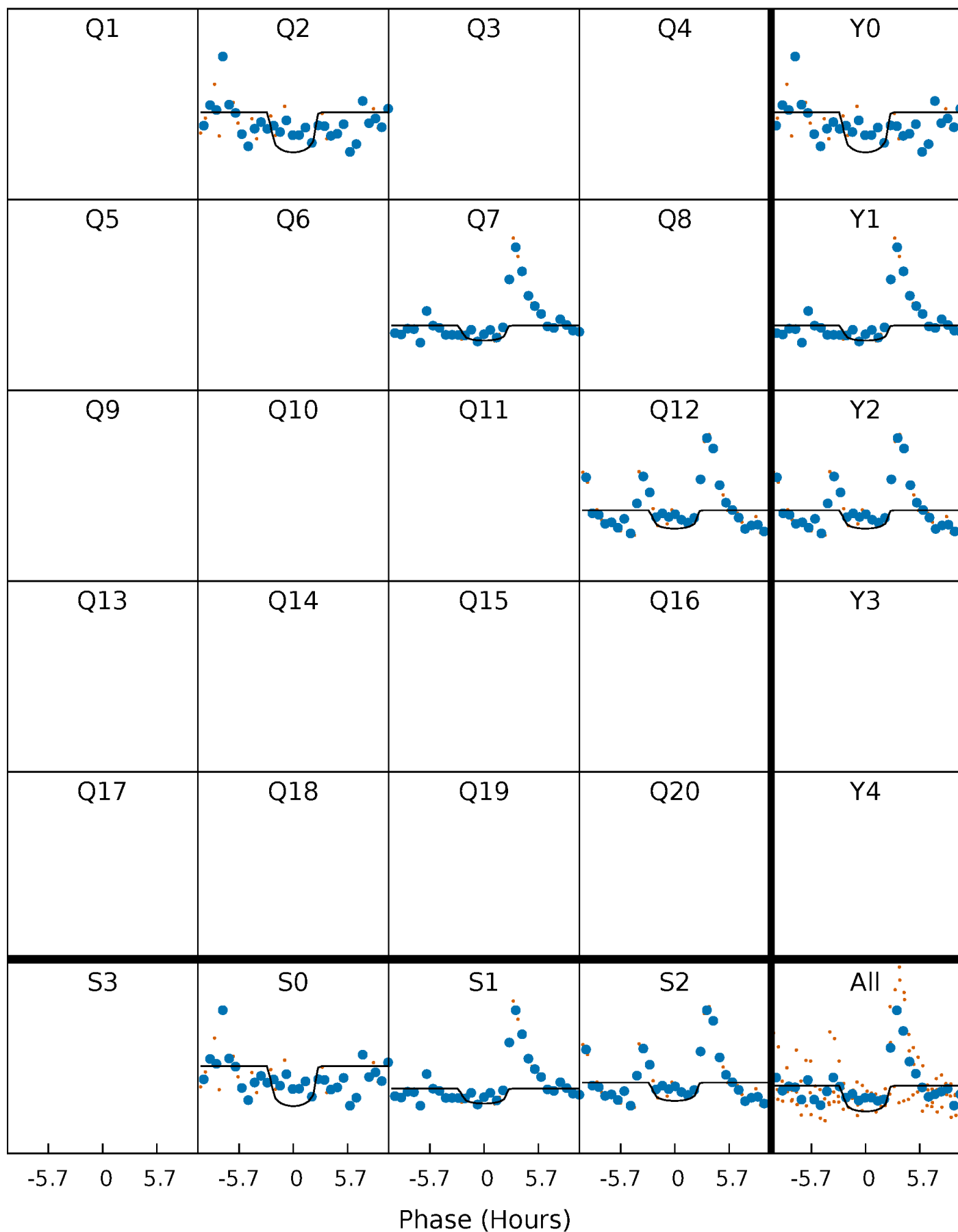
PDC Quarter-Phased Transit Curves

TCE 007592133-03 P=474.995256 Days $T_0=196.060482$ (BKJD)



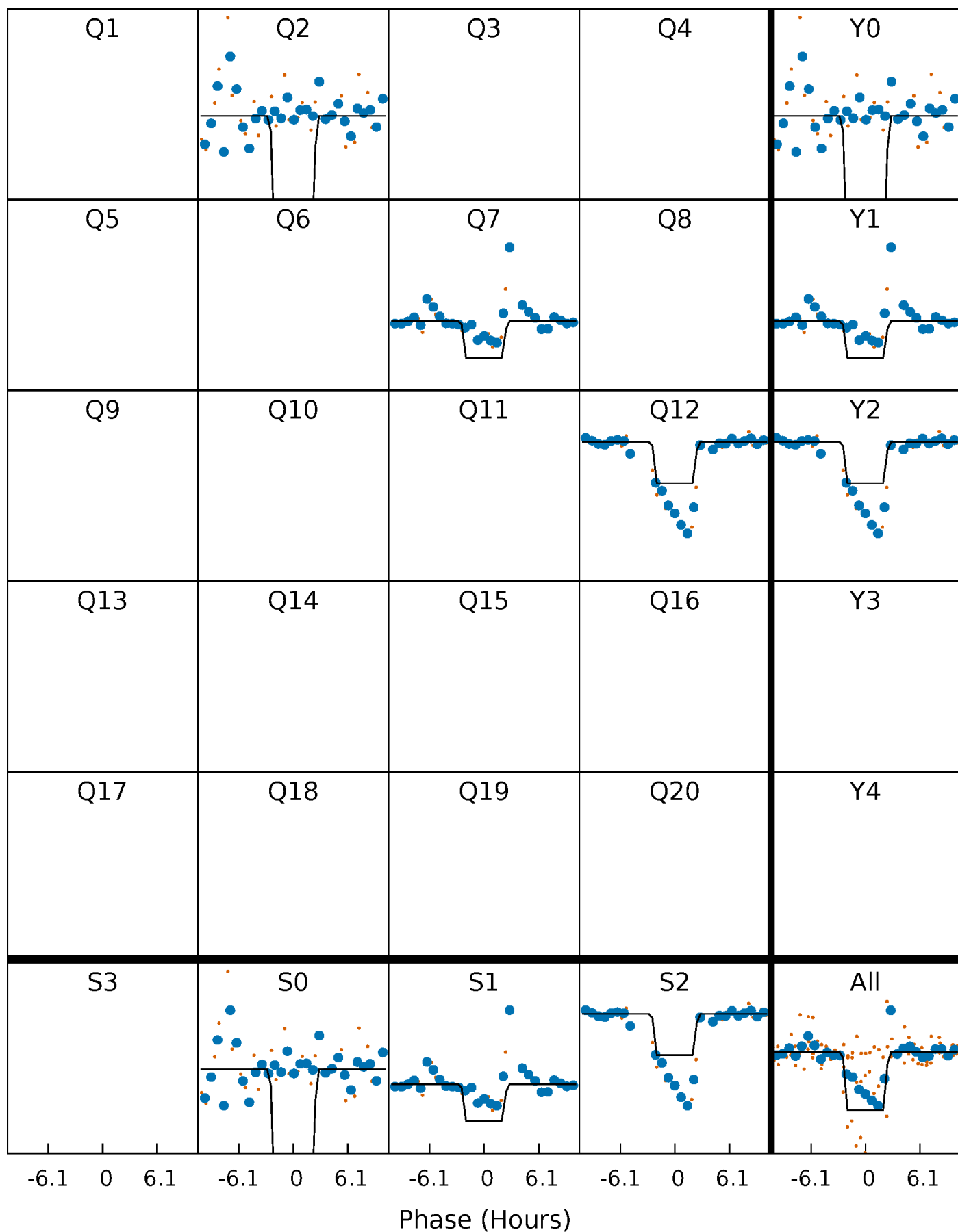
DV Quarter-Phased Transit Curves

TCE 007592133-03 $P=474.995256$ Days $T_0=196.060482$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

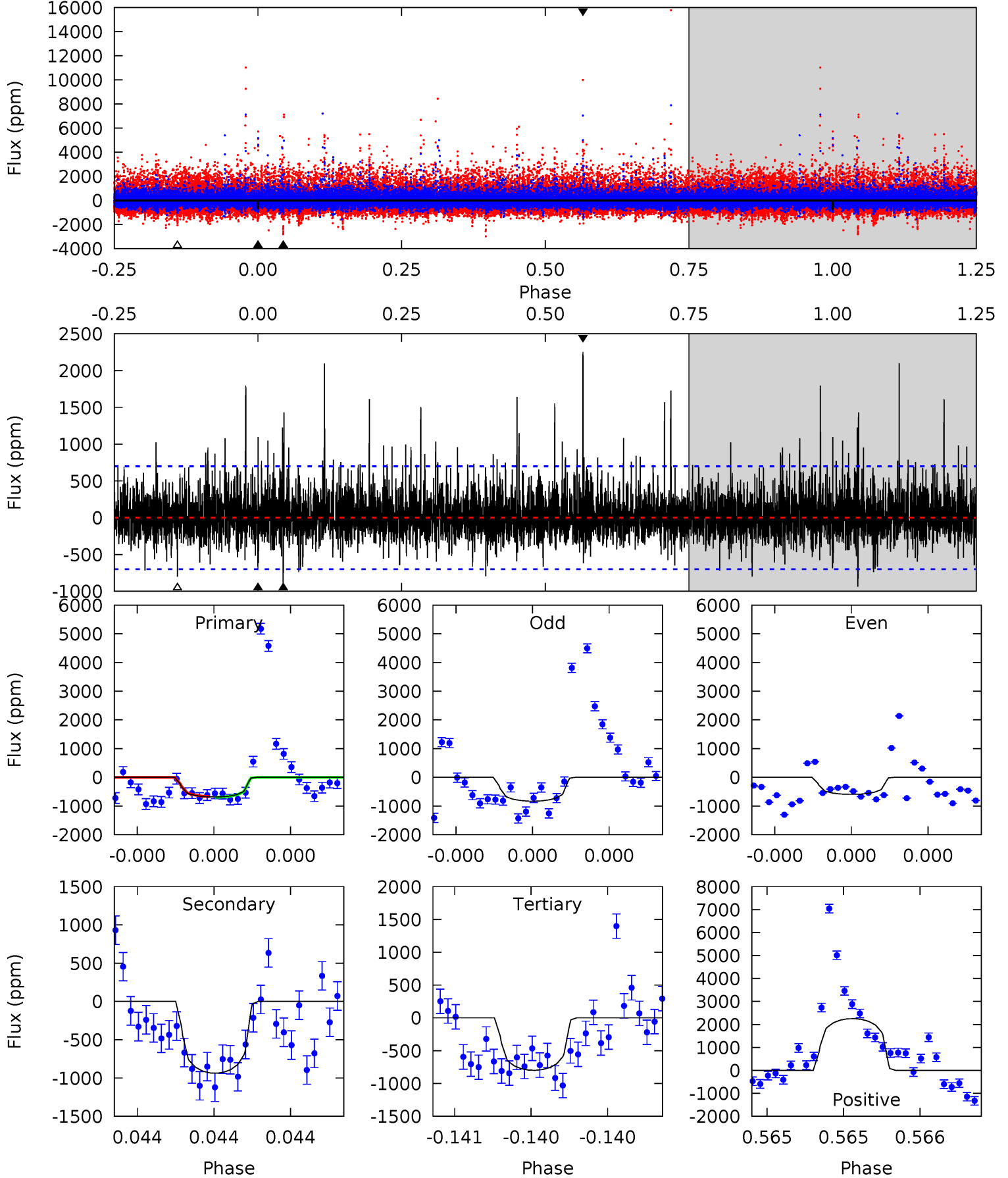
TCE 007592133-03 P=474.998536 Days $T_0=196.063587$ (BKJD)



DV Model-Shift Uniqueness Test

007592133-03, P = 474.995256 Days, E = 196.060482 Days

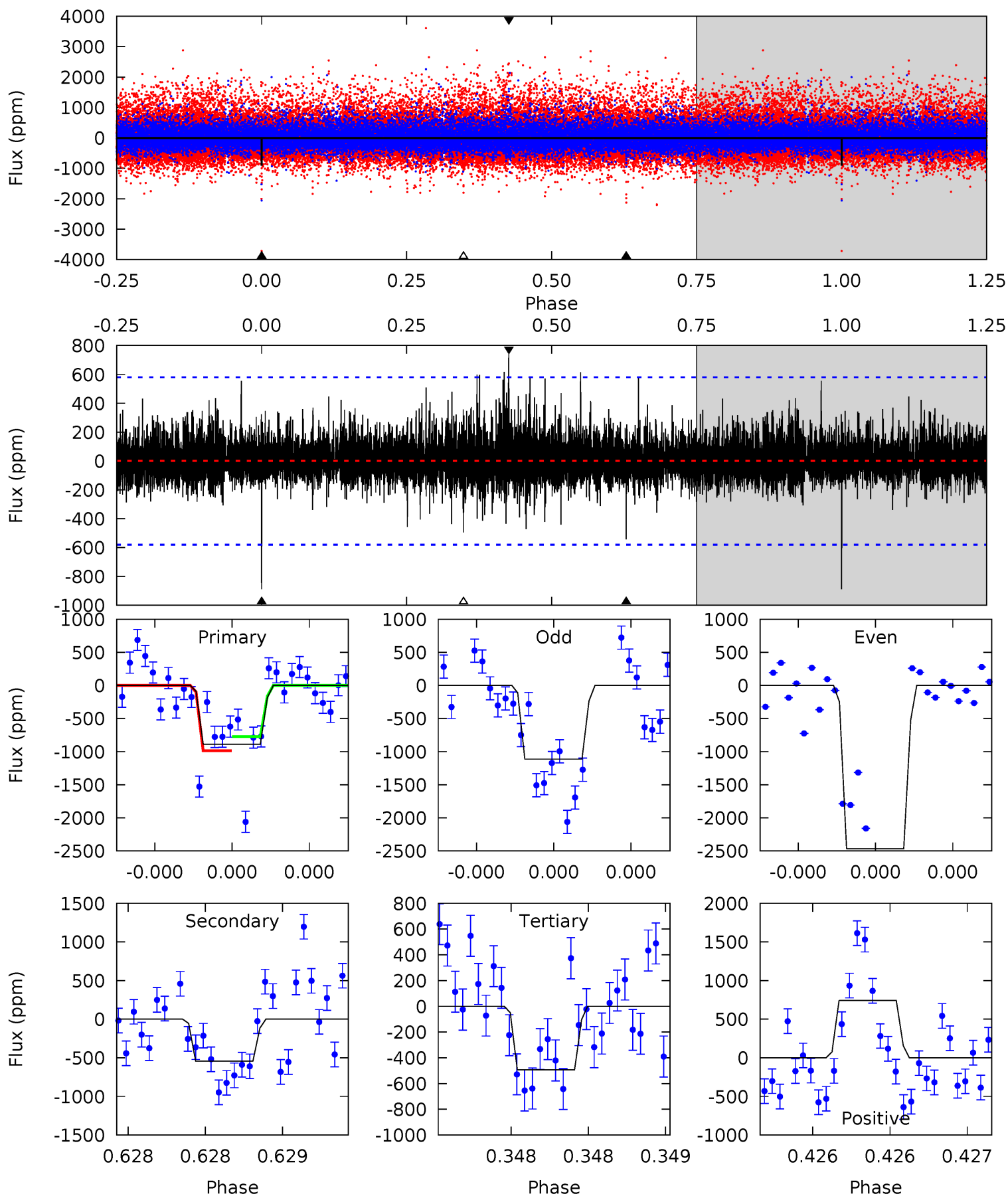
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.48	7.48	6.37	18.0	5.58	3.50	2.02	-0.90	-12.5	1.10	-10.5	0.51	1.12	0.71	0.10



Alt Model-Shift Uniqueness Test

007592133-03, P = 474.998536 Days, E = 196.063587 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.54	5.23	4.76	7.14	5.58	3.50	1.02	3.79	1.40	0.47	-1.91	7.27	1.84	0.46	1.03



Stellar Parameters For KIC 007592133

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3324^{+43}_{-36}	$5.032^{+0.044}_{-0.040}$	$-0.100^{+0.100}_{-0.100}$	$0.236^{+0.032}_{-0.026}$	$0.218^{+0.042}_{-0.028}$	$23.450^{+5.770}_{-4.637}$
	+1%/-1%	+1%/-1%	+100%/-100%	+14%/-11%	+19%/-13%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 007592133-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-937 ± 125	$1.65^{+1.65}_{-1.10}$	118^{+3}_{-3}	2709^{+965}_{-429}	$98477^{+727587}_{-74719}$
Alt.	-543 ± 104	$1.97^{+1.53}_{-1.27}$	117^{+3}_{-3}	2412^{+772}_{-298}	$39123^{+274708}_{-26940}$

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

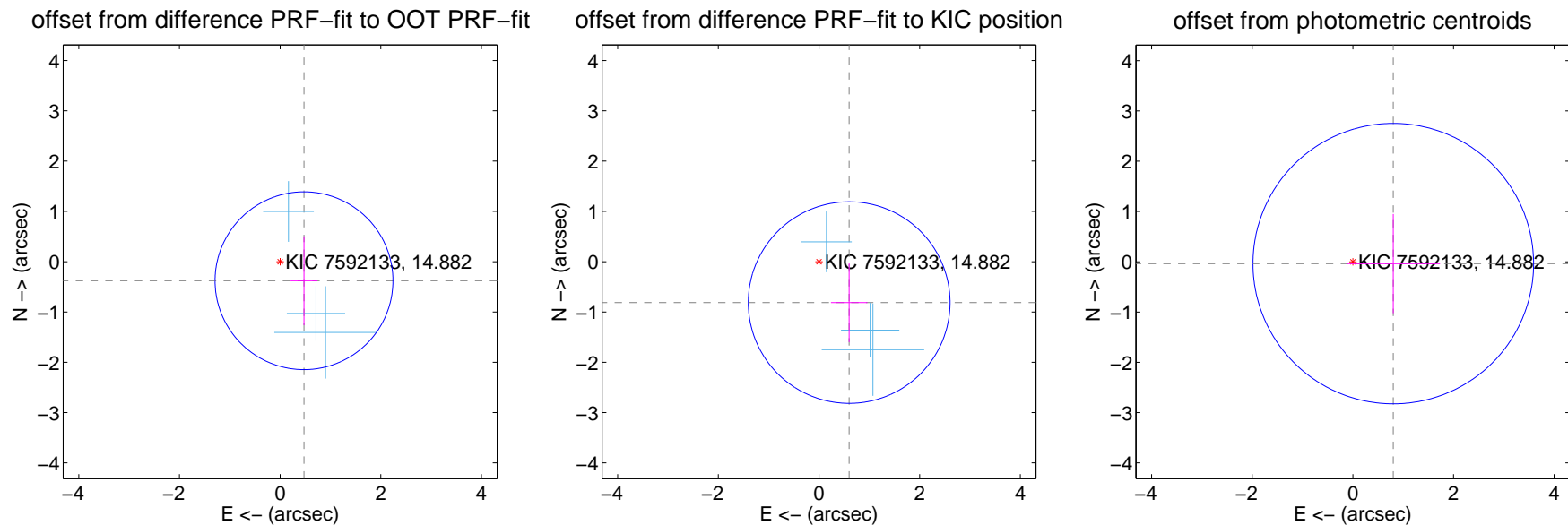
DV Centroid Data

Supplemental centroid analysis for 007592133-03. Kepler magnitude: 14.88. Transit SNR 5.97

There are 3 quarters with good PRF difference image offsets

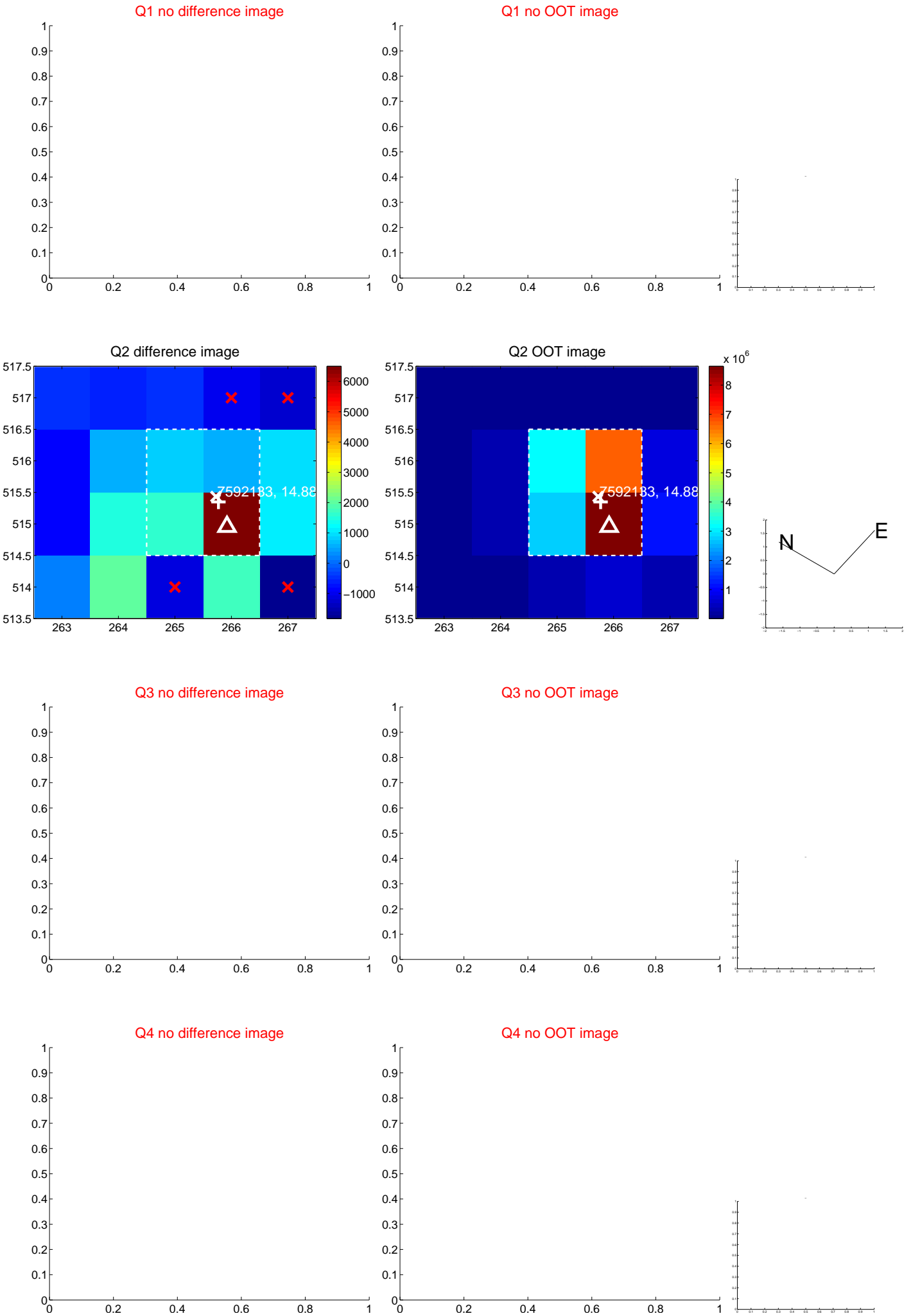
The direct PRF centroid is offset from the target star catalog position by about 0.60 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.607 ± 0.589	1.03	-0.475 ± 0.268	-0.379 ± 0.884
PRF-fit source offset from KIC position	1.010 ± 0.668	1.51	-0.600 ± 0.362	-0.813 ± 0.786
photometric centroid source offset	0.80 ± 0.93	0.87	-0.80 ± 0.93	-0.04 ± 0.99

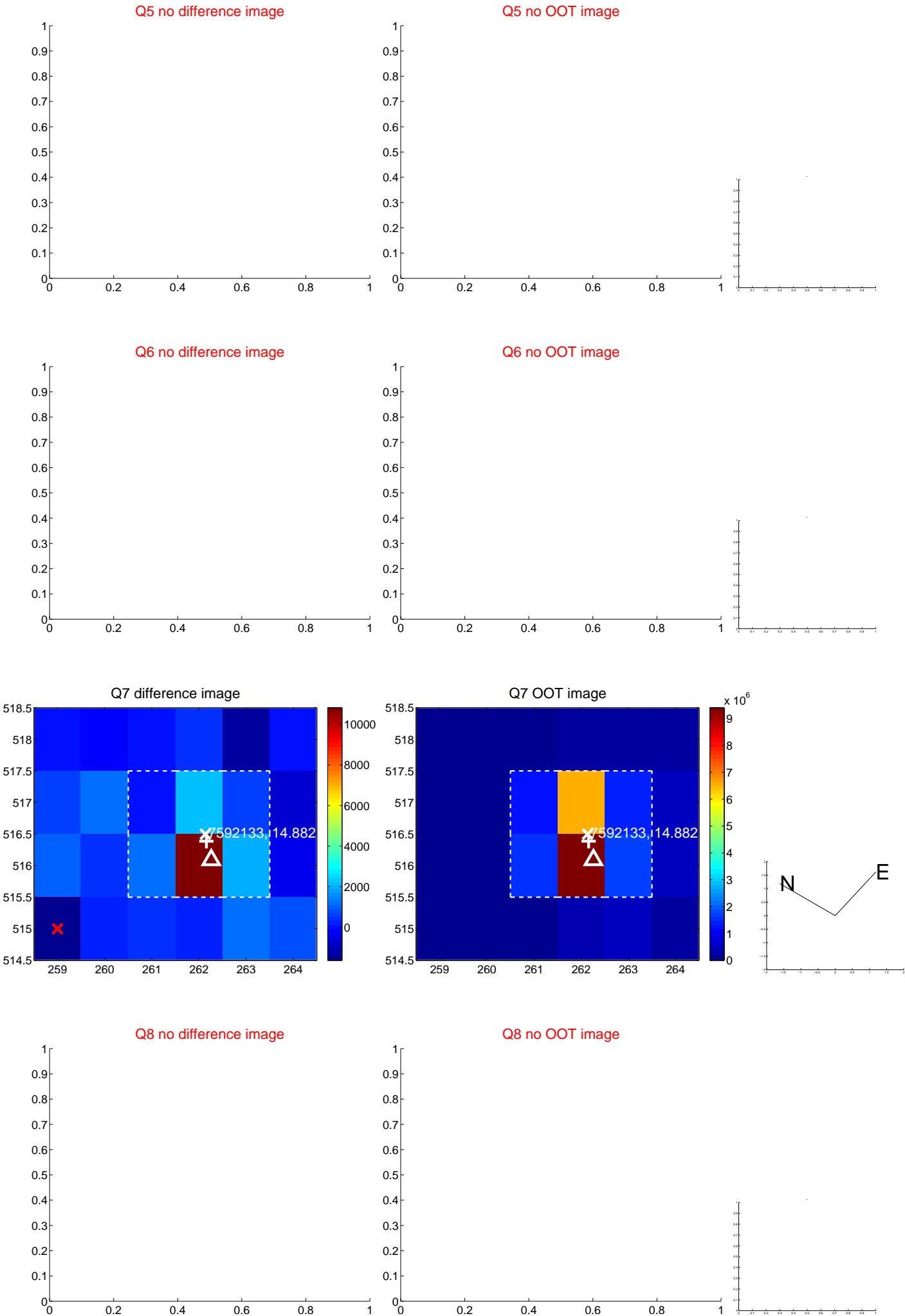


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

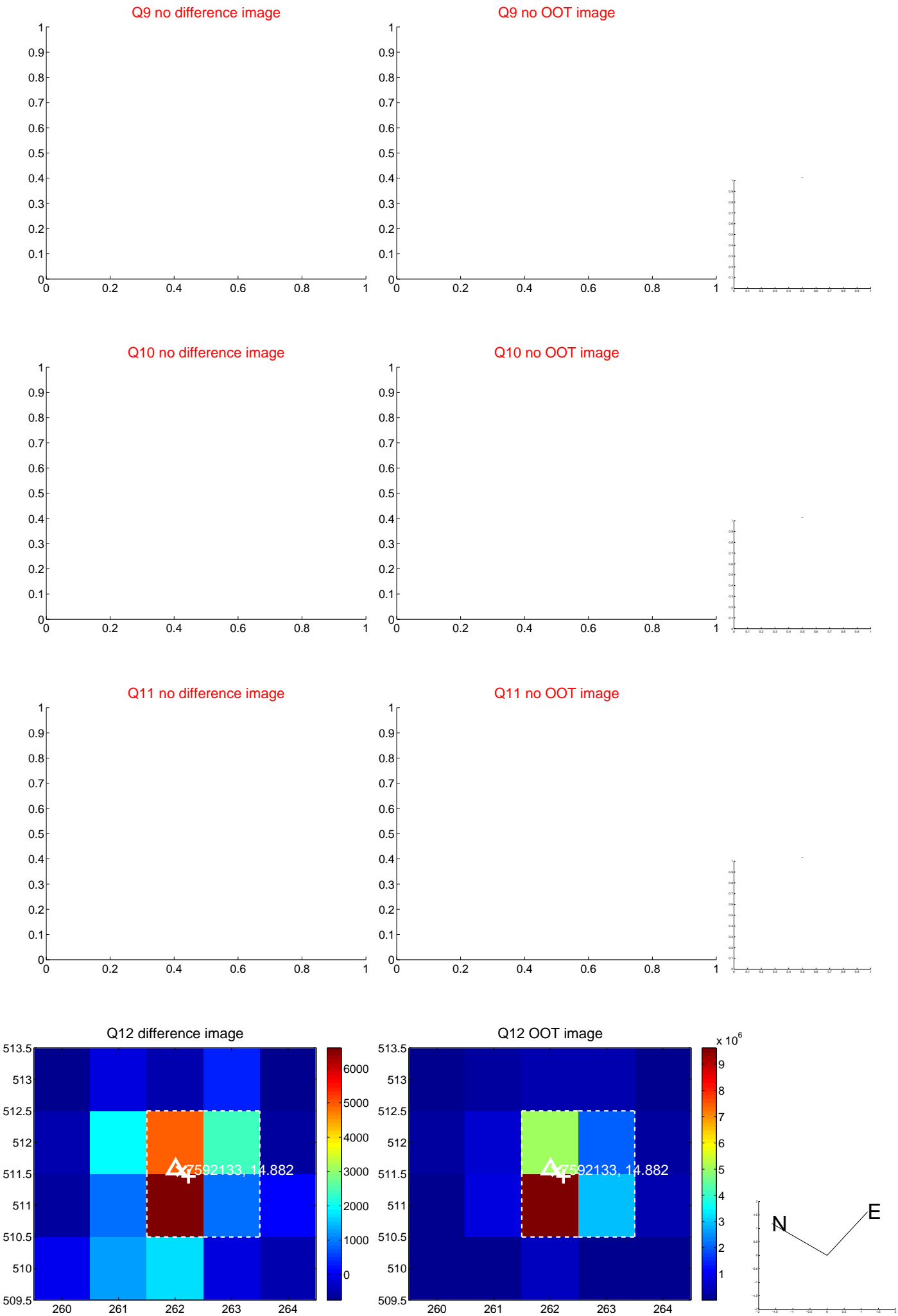
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



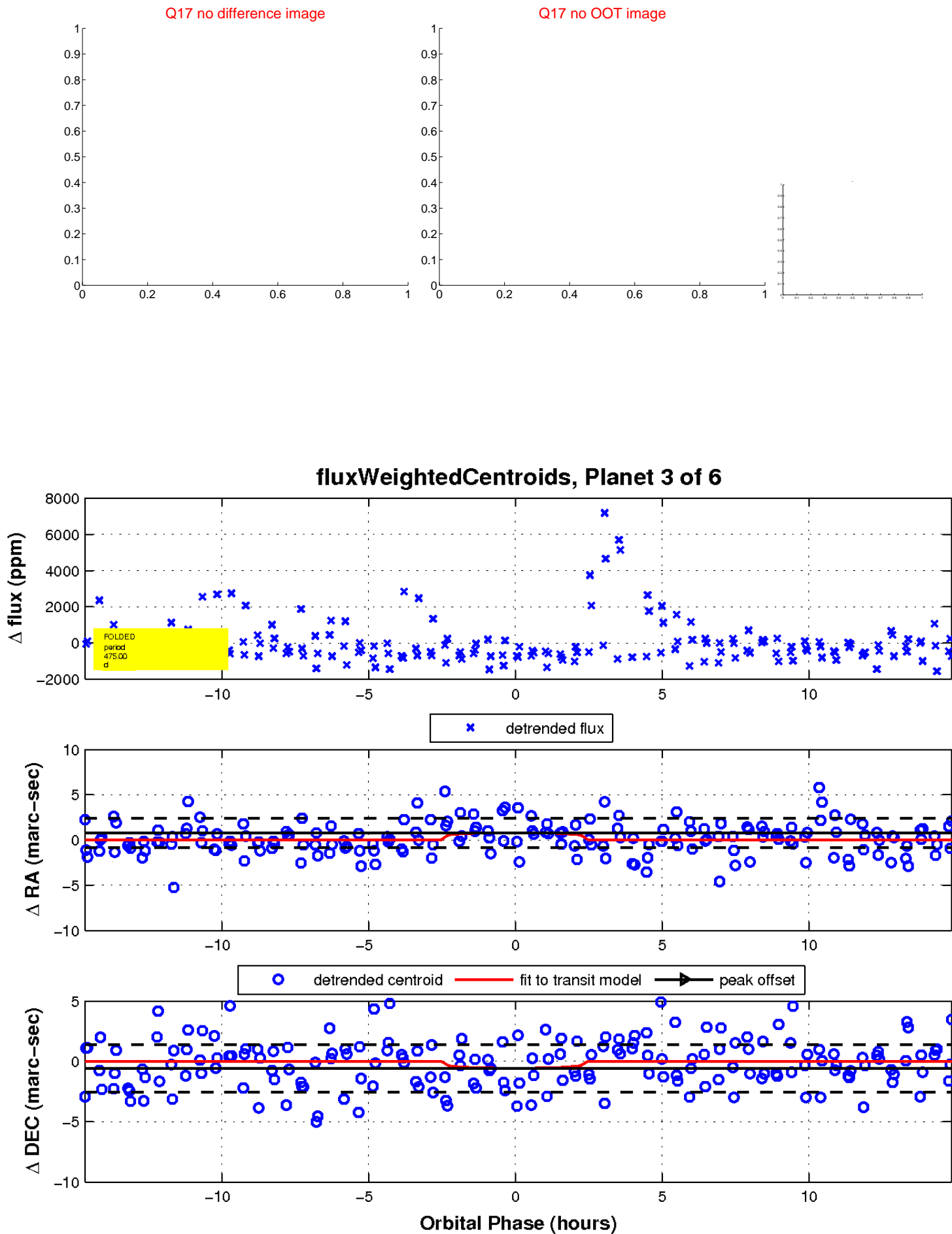
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

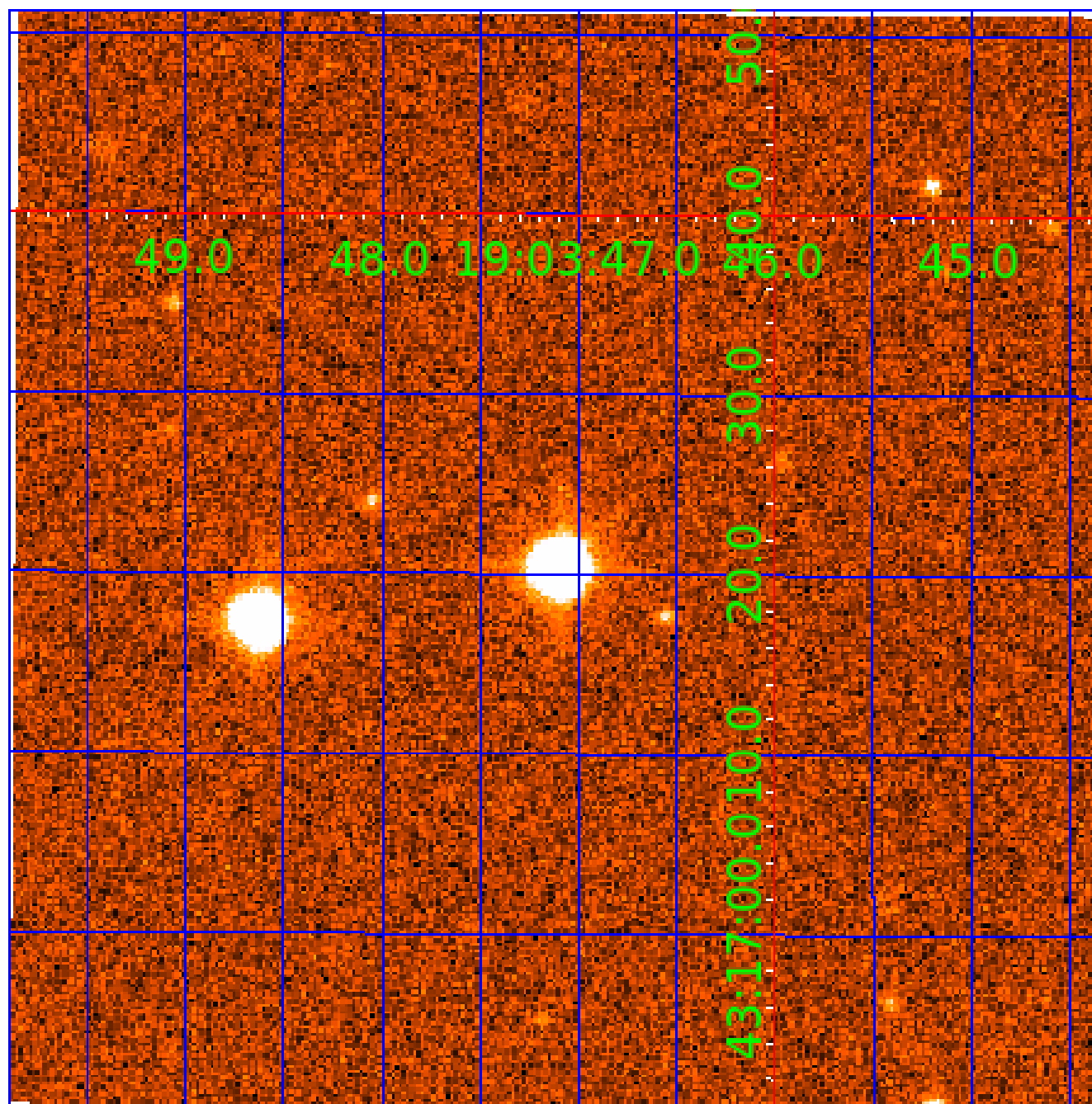


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007592133

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})
007592133-01	OBS	No	402.993976	418.092557	1565.4	11.543	12.9	7.1	0.24	3324	0.94	0.01
007592133-02	OBS	No	442.412311	335.468093	1576.2	2.843	15.4	7.6	0.24	3324	0.98	0.01
007592133-03	OBS	No	474.995256	196.060482	1235.6	5.003	11.7	6.0	0.24	3324	0.84	0.01
007592133-04	OBS	No	231.251386	254.013531	1075.5	2.178	14.1	6.7	0.24	3324	0.82	0.03
007592133-05	OBS	No	559.848046	287.813572	1442.5	9.607	12.9	7.1	0.24	3324	0.94	0.01
007592133-06	OBS	No	257.539439	264.311590	1068.3	5.998	13.7	6.4	0.24	3324	0.82	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007592133-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_KIC_POS—HALO_GHOST
007592133-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
007592133-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
007592133-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

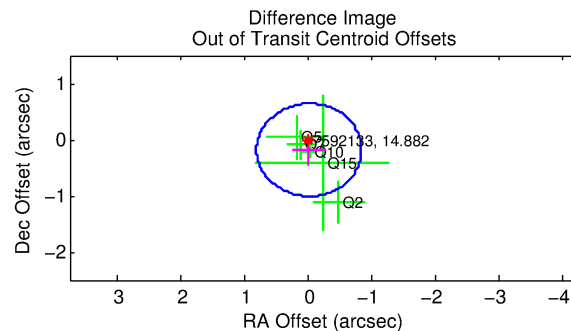
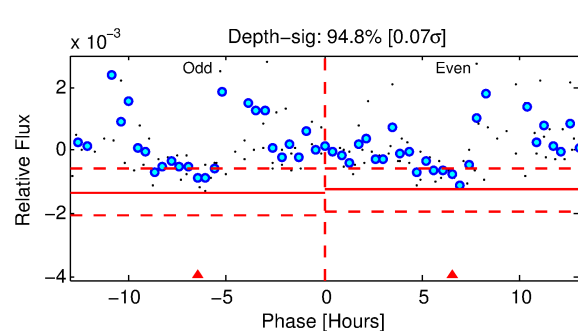
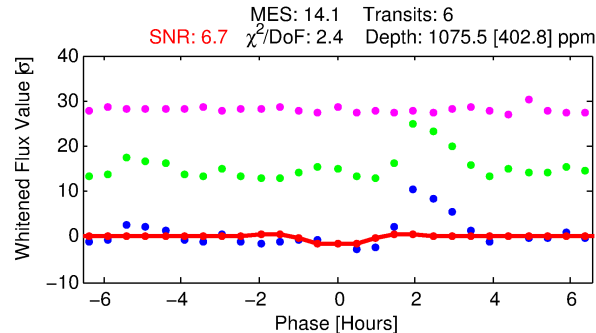
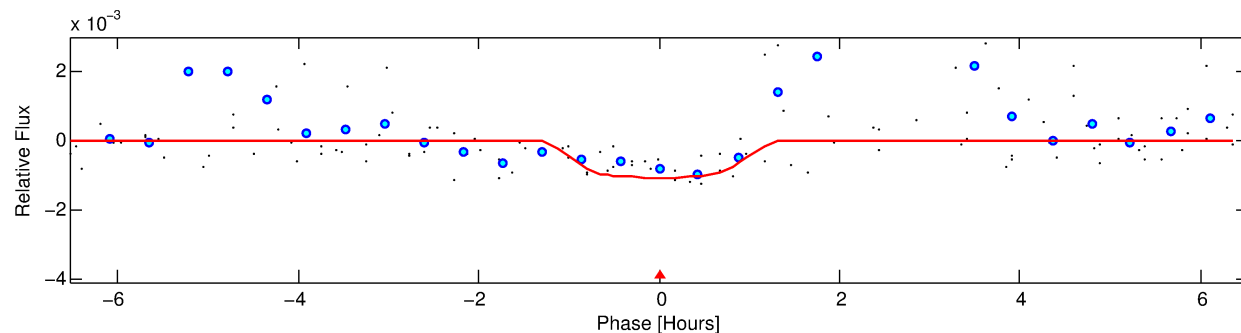
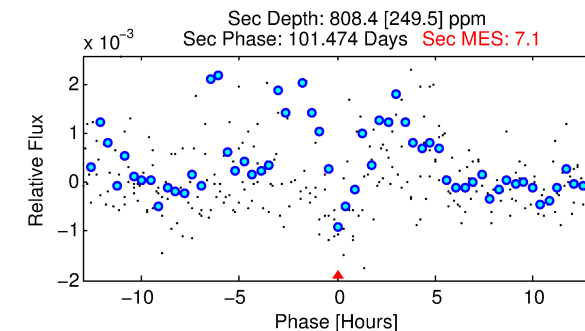
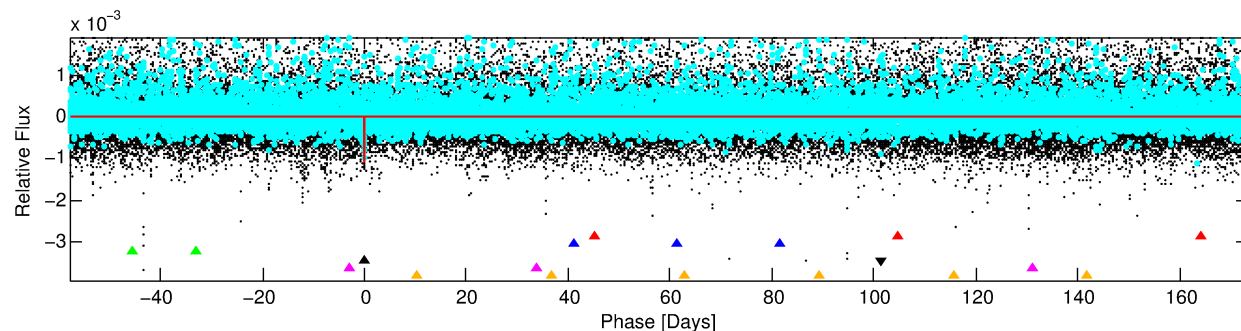
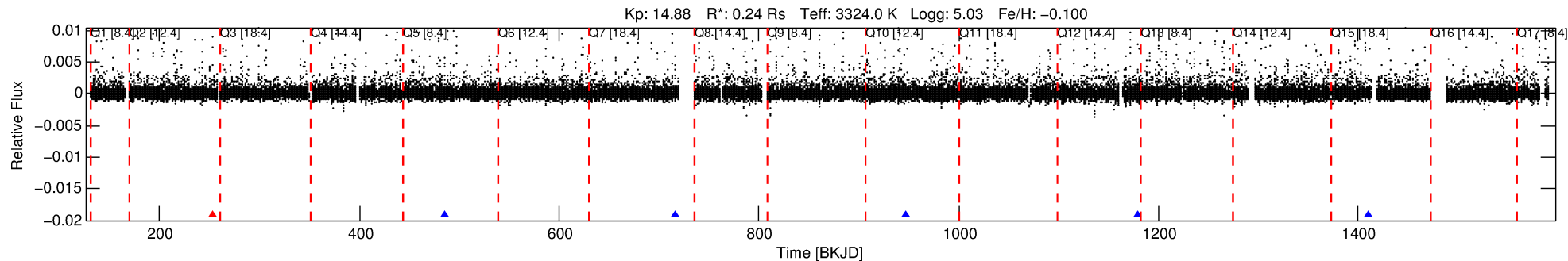
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007592133-04

No Significant Match Found

DV One-Page Summary

KIC: 7592133 Candidate: 4 of 6 Period: 231.251 d



DV Fit Results:

Period = 231.25139 [0.00369] d
Epoch = 254.0135 [0.0128] BKJD
Rp/R* = 0.0320 [0.1103]
a/R* = 619.07 [9341.87]
b = 0.69 [11.29]
Seff = 0.03 [0.00]
Teq = 107 [3] K
Rp = 0.82 [2.84] Re
a = 0.4443 [0.0429] AU
Ag = 129113.80 [890649.53] [0.14σ]
Teffp = 3132 [5401] K [0.56σ]

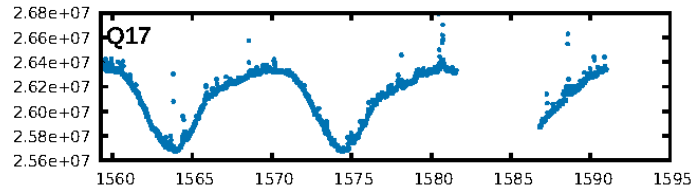
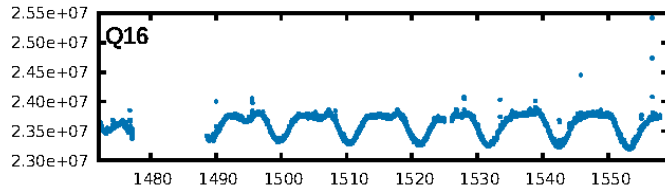
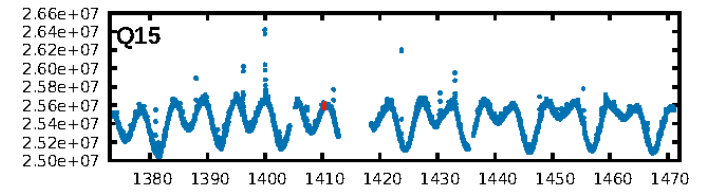
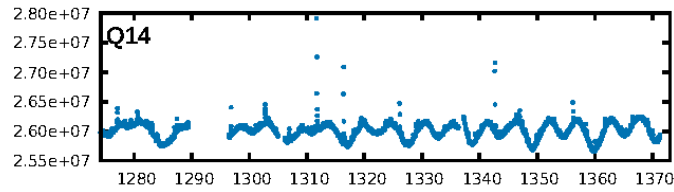
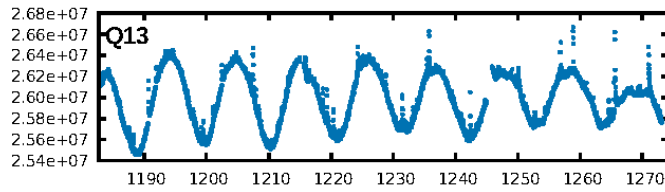
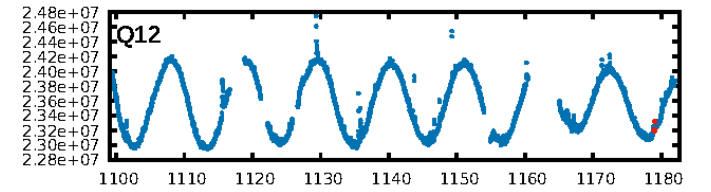
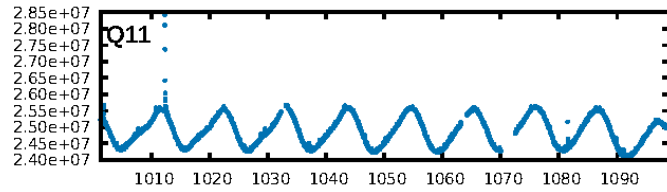
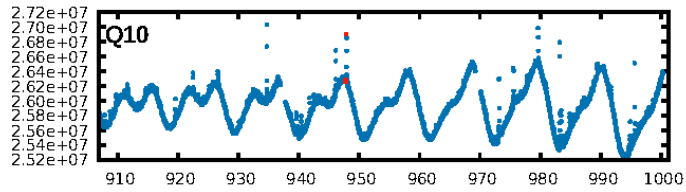
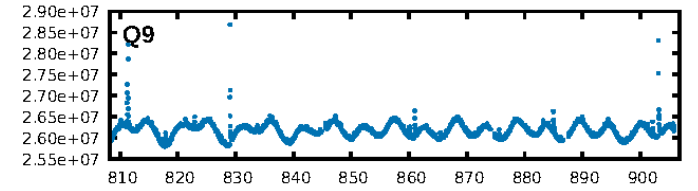
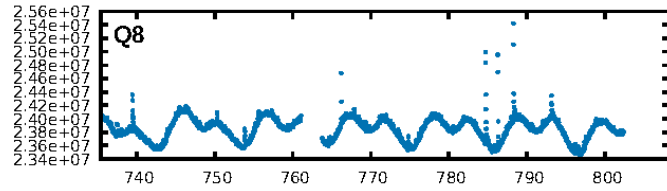
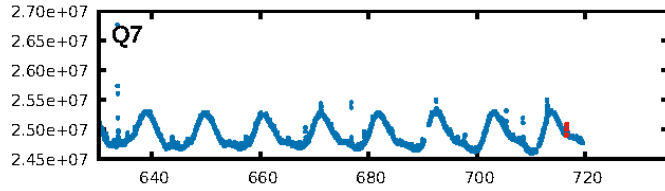
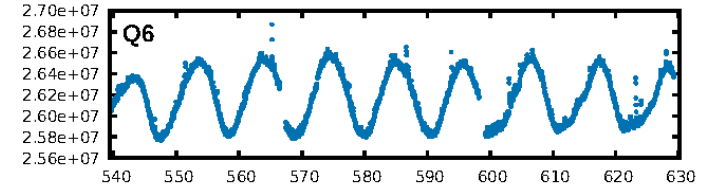
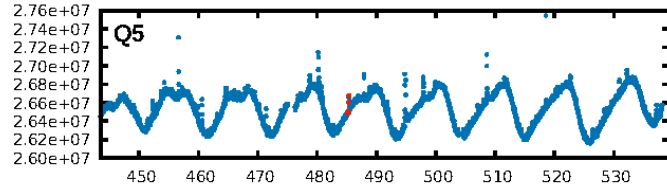
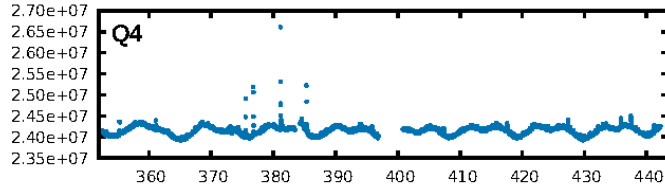
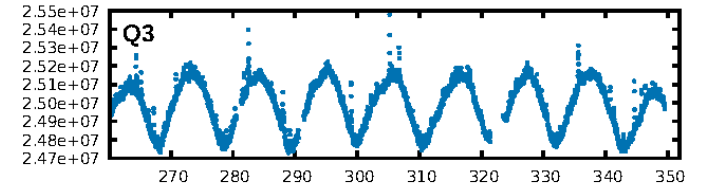
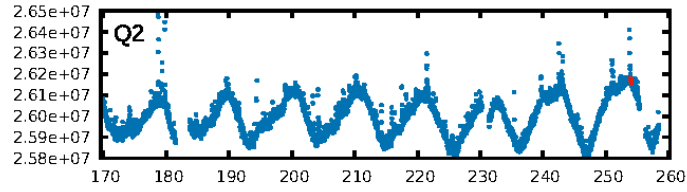
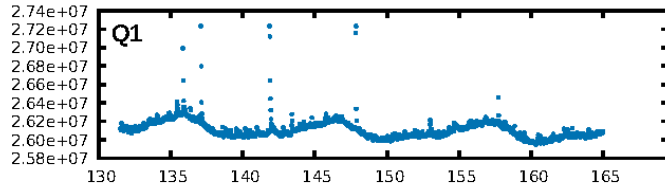
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [98.87σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.83 [5/6]
GhostDiagnostic-chr: 0.8936
Centroid-sig: 3.4%
Centroid-so: 1.527 arcsec [1.43σ]
OotOffset-rm: 0.184 arcsec [0.67σ]
KicOffset-rm: 0.655 arcsec [2.40σ]
OotOffset-st: 2/2/0/1 [5]
KicOffset-st: 2/2/0/1 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [5/5]

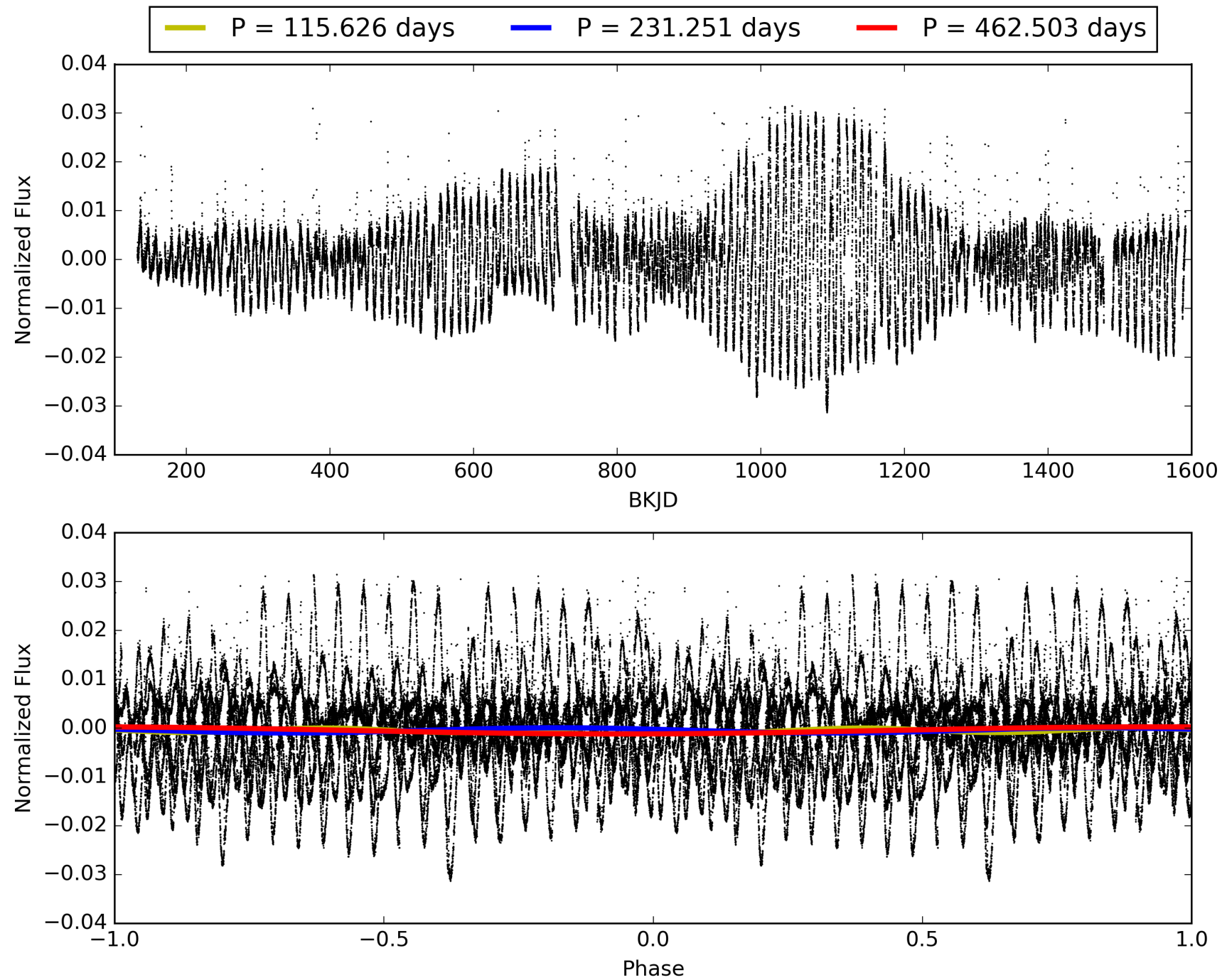
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:37:31 Z

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

TCE 007592133-04, PDC Light Curves

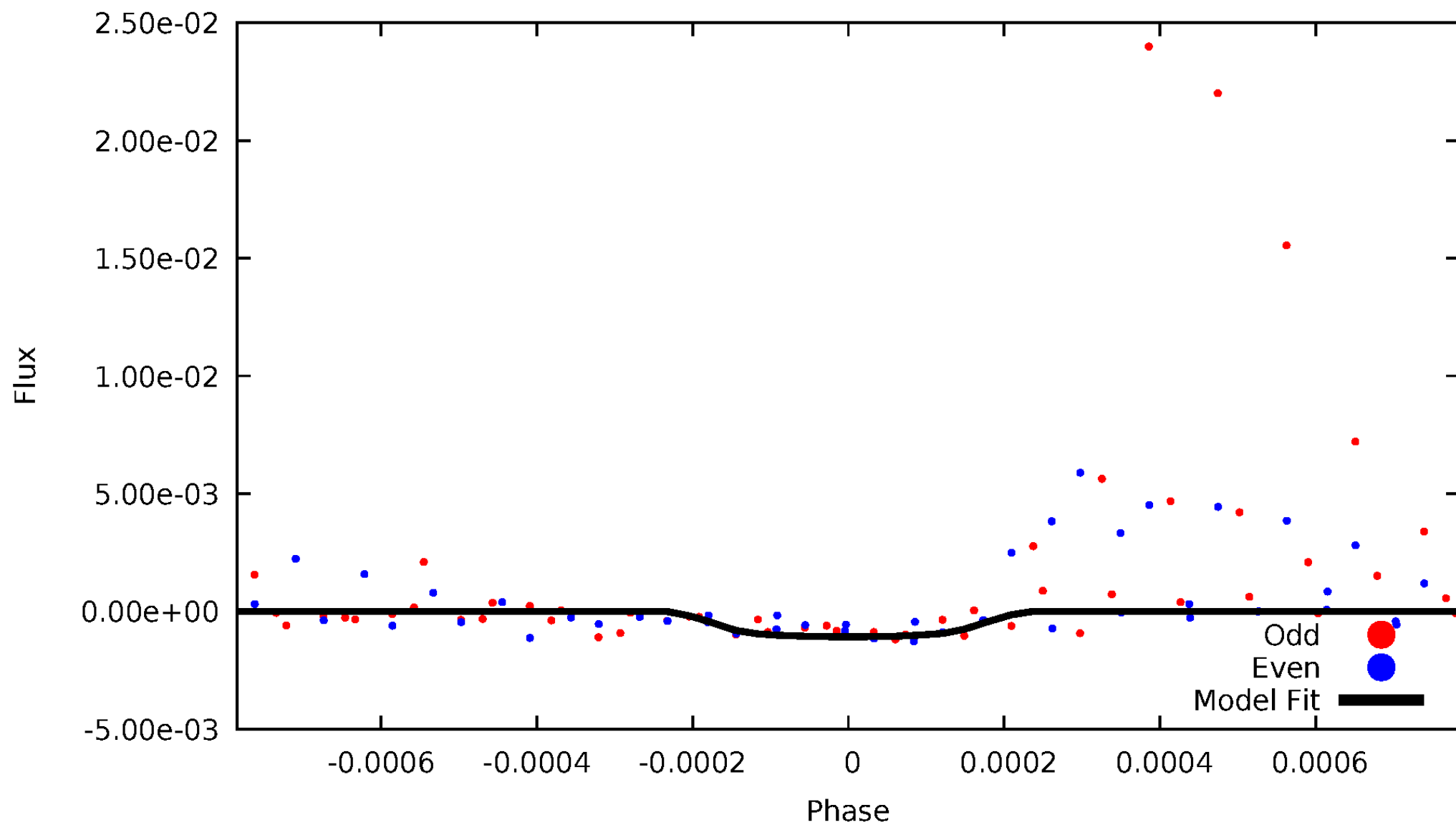


TCE 007592133-04



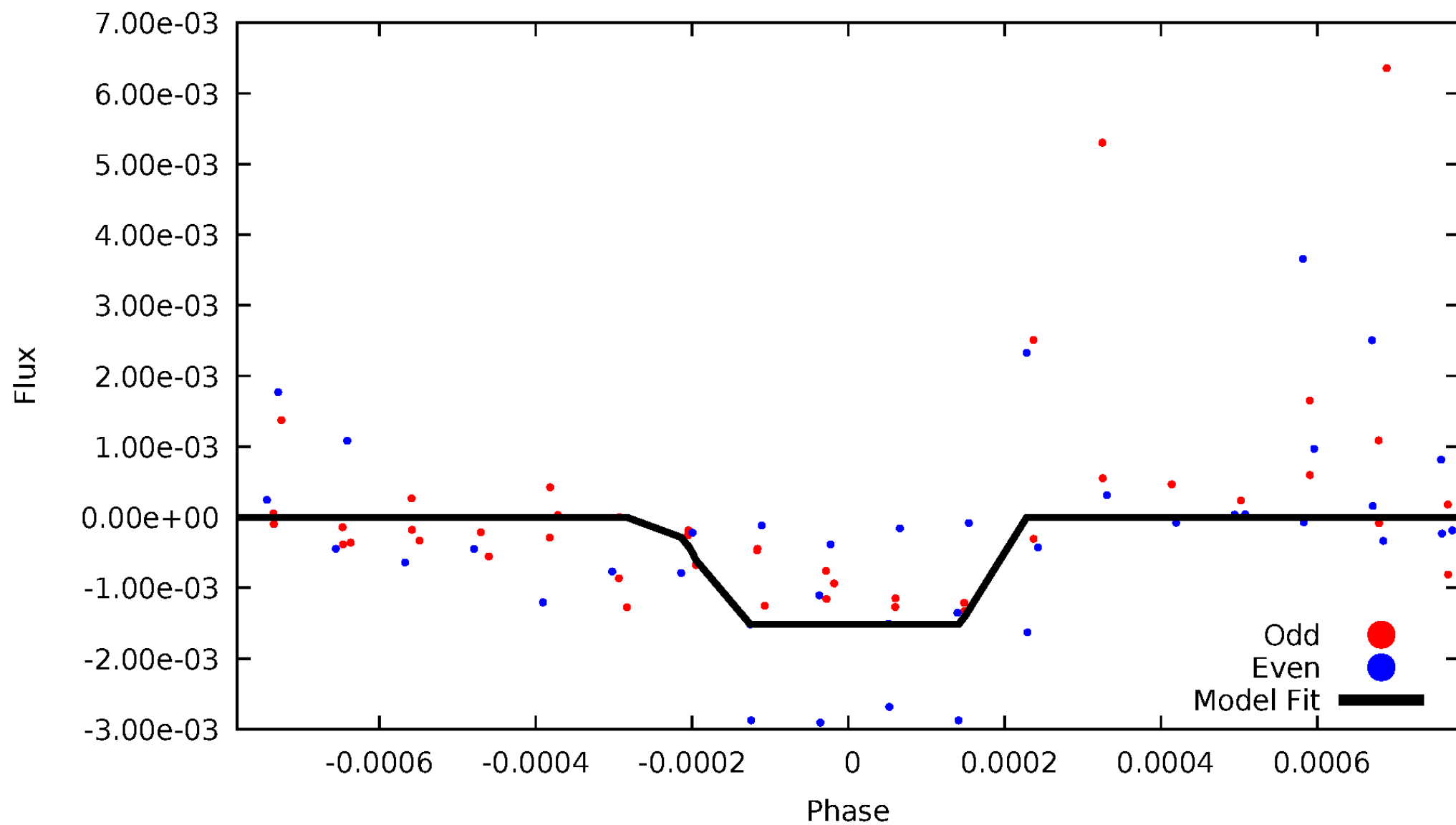
DV Odd/Even

TCE 007592133-04



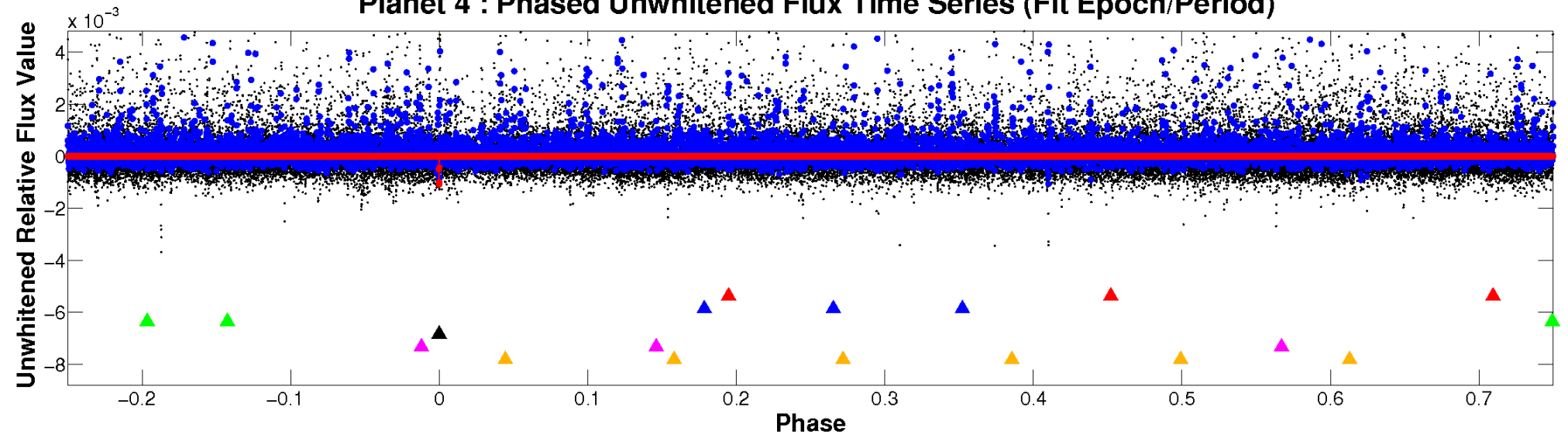
ALT Odd/Even

TCE 007592133-04

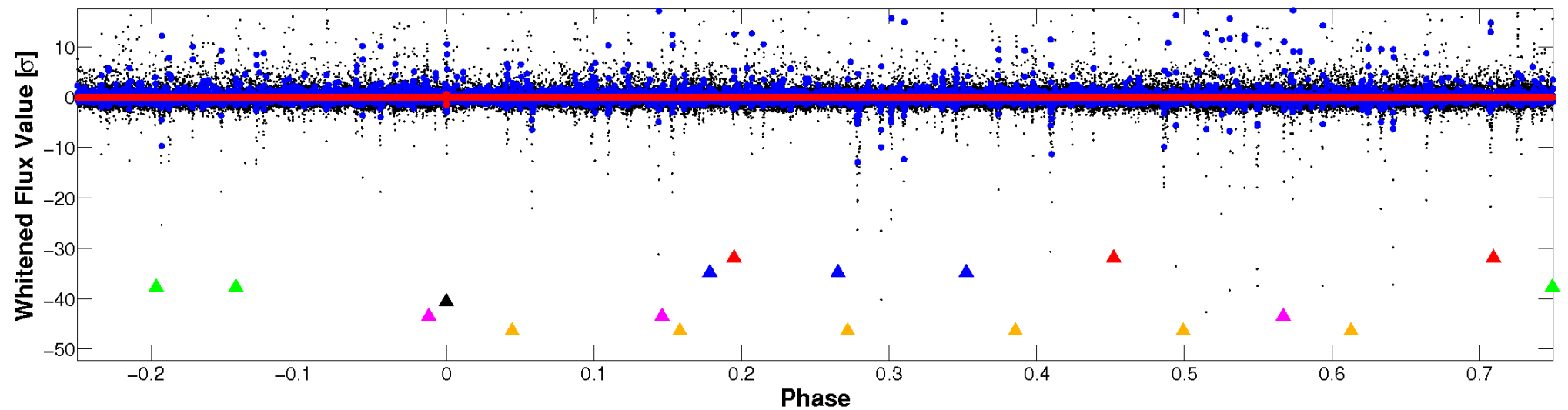


Non-Whitened Vs. Whitened Light Curve

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

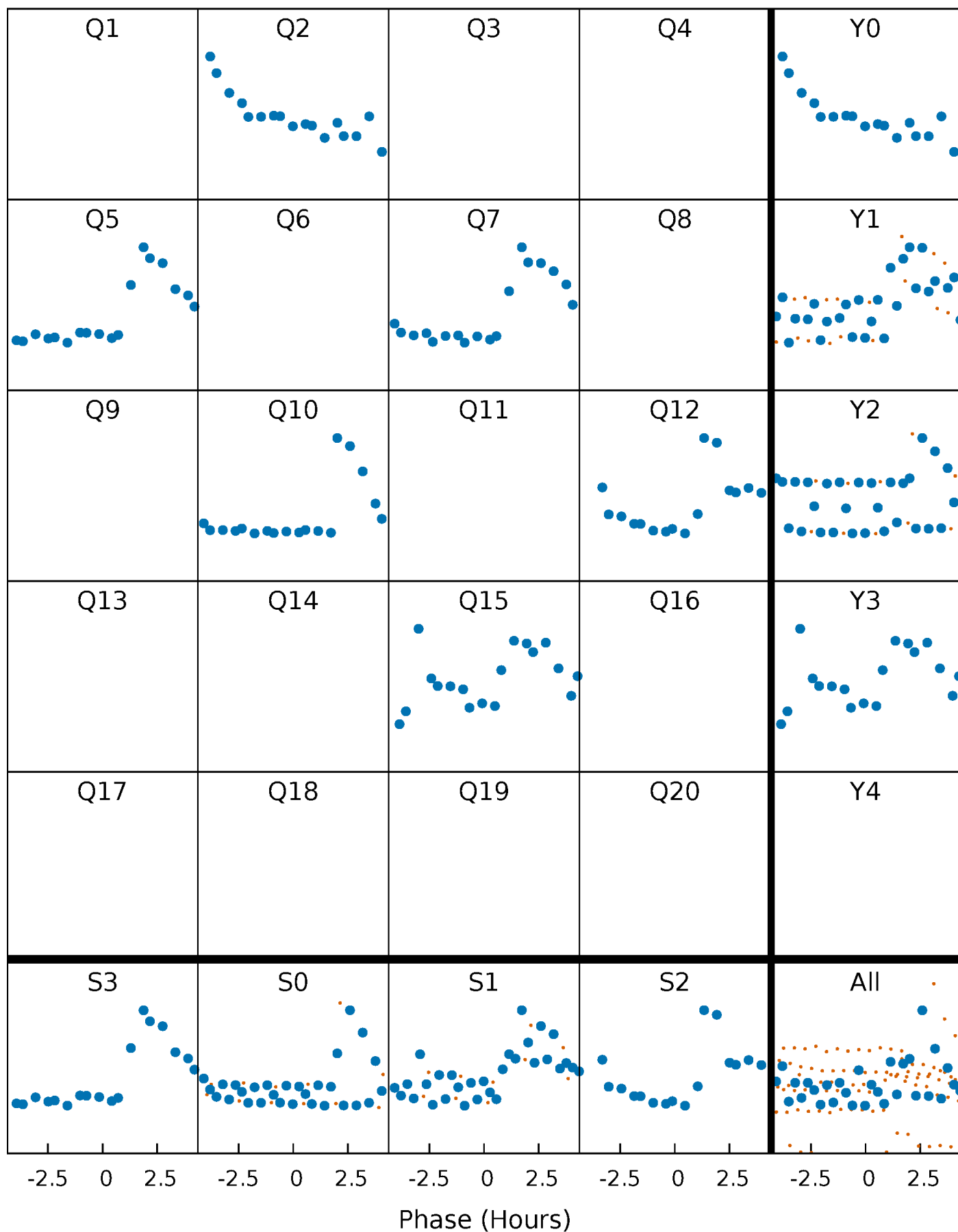


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



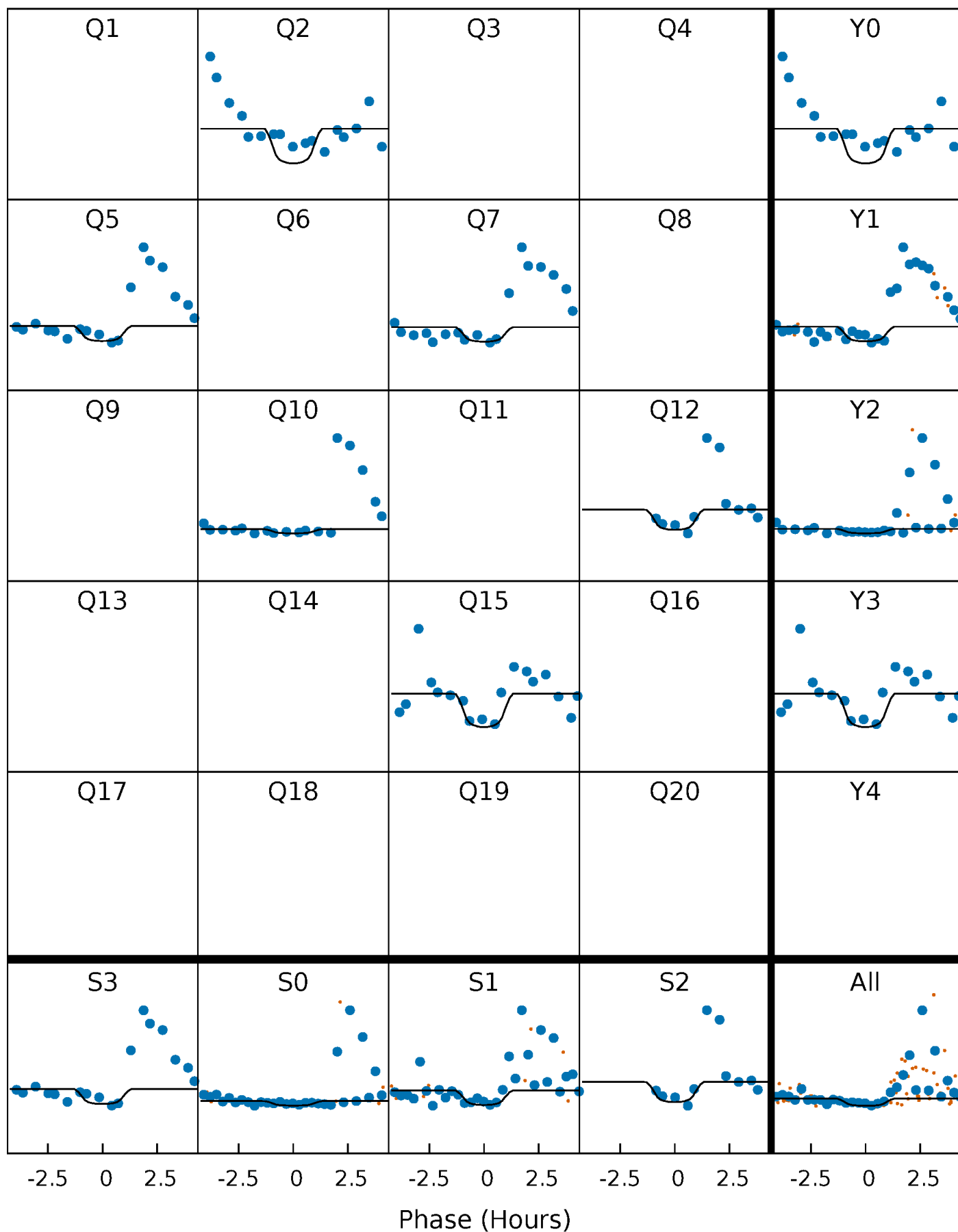
PDC Quarter-Phased Transit Curves

TCE 007592133-04 P=231.251386 Days $T_0=254.013531$ (BKJD)



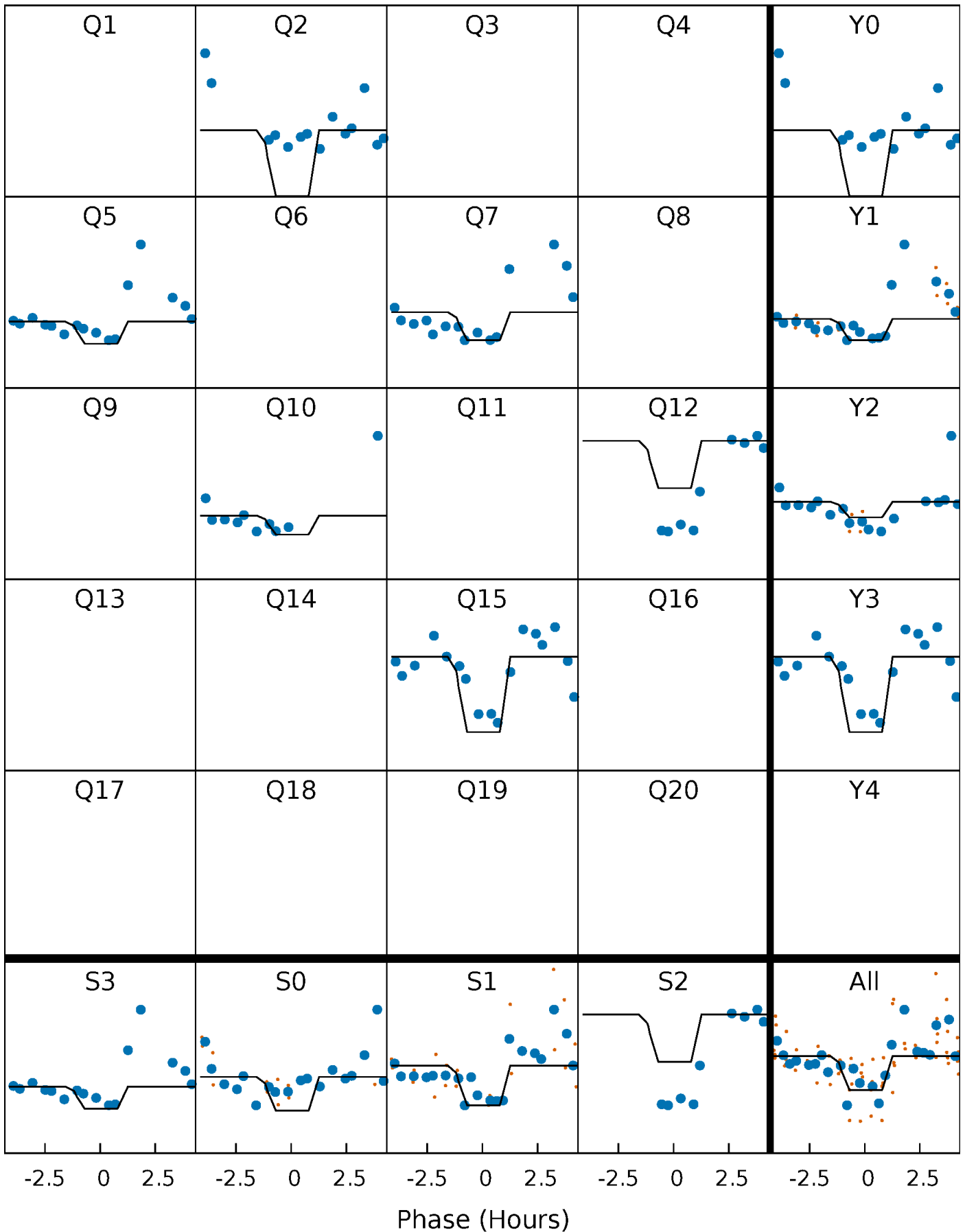
DV Quarter-Phased Transit Curves

TCE 007592133-04 P=231.251386 Days $T_0=254.013531$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

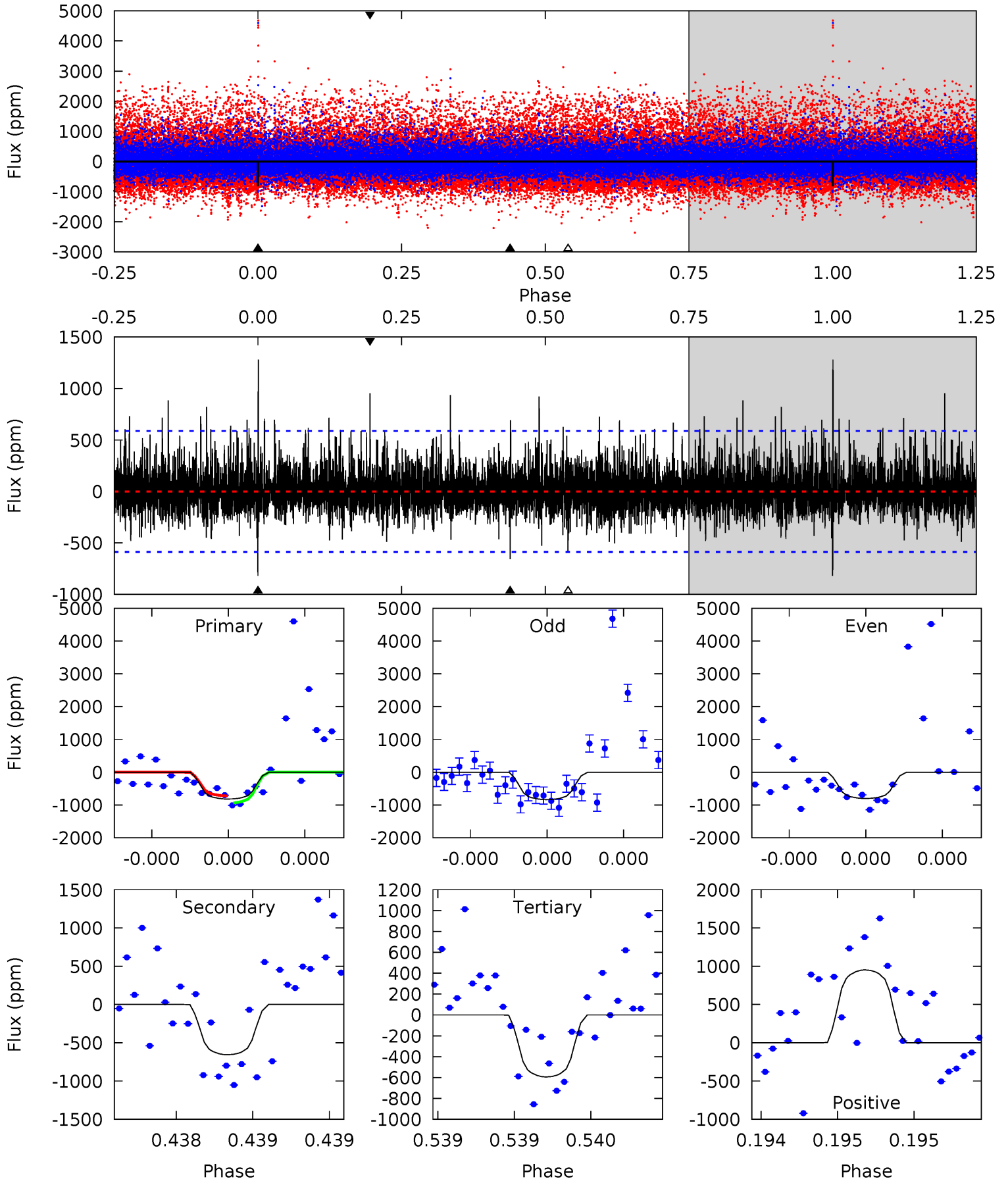
TCE 007592133-04 P=231.246984 Days $T_0=254.018078$ (BKJD)



DV Model-Shift Uniqueness Test

007592133-04, P = 231.251386 Days, E = 22.762145 Days

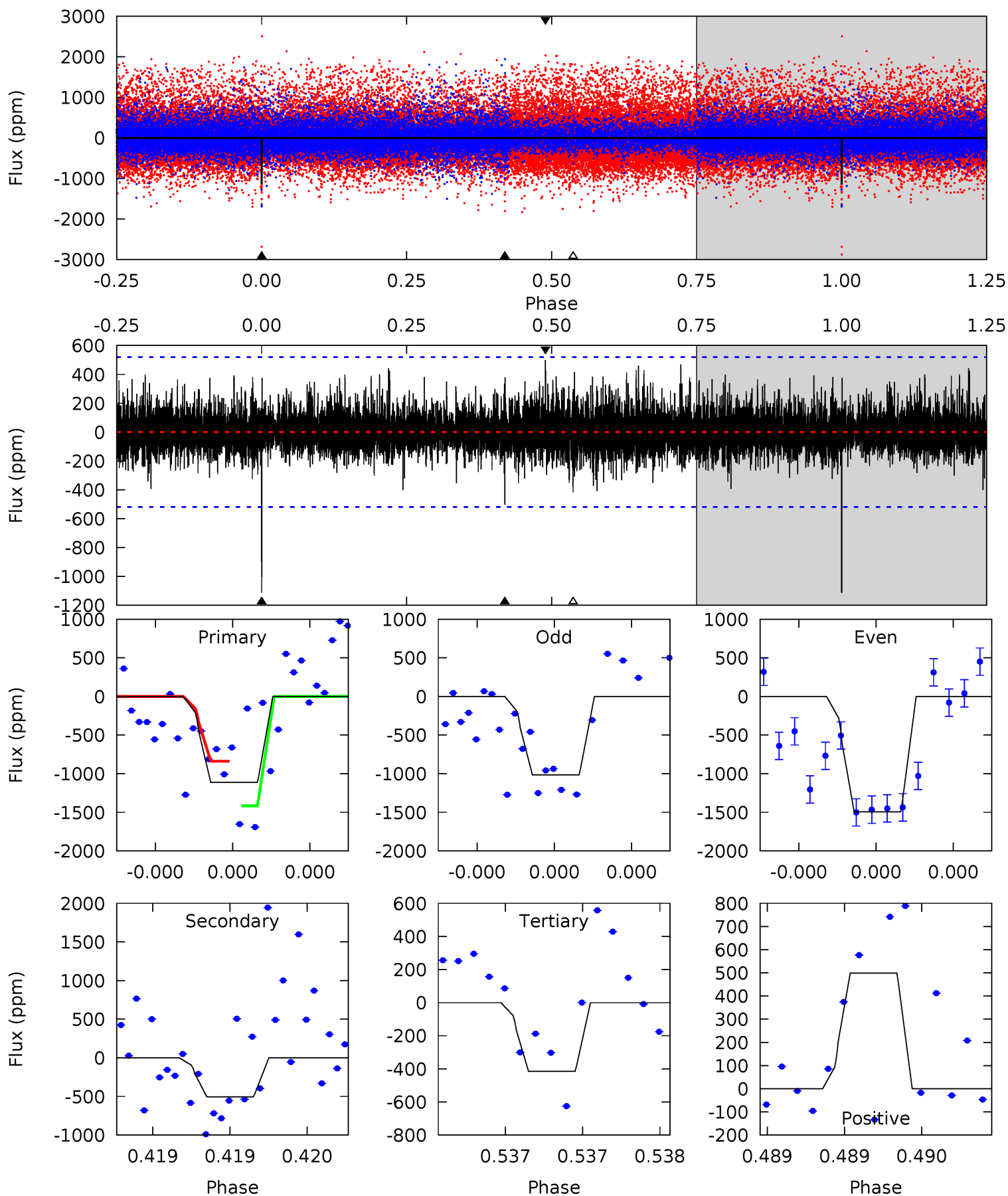
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.78	6.24	5.65	9.05	5.58	3.50	1.64	2.14	-1.27	0.59	-2.81	0.15	0.95	0.61	1.03



Alt Model-Shift Uniqueness Test

007592133-04, P = 231.246984 Days, E = 22.771094 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	5.43	4.47	5.38	5.59	3.51	1.15	7.53	6.62	0.96	0.06	2.69	1.16	0.31	3.12



Stellar Parameters For KIC 007592133

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3324^{+43}_{-36}	$5.032^{+0.044}_{-0.040}$	$-0.100^{+0.100}_{-0.100}$	$0.236^{+0.032}_{-0.026}$	$0.218^{+0.042}_{-0.028}$	$23.450^{+5.770}_{-4.637}$
	+1%/-1%	+1%/-1%	+100%/-100%	+14%/-11%	+19%/-13%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 007592133-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-656 ± 105	$2.27^{+2.16}_{-1.53}$	149^{+4}_{-3}	2387^{+811}_{-337}	$13604^{+114149}_{-10218}$
Alt.	-504 ± 93	$2.38^{+2.13}_{-1.71}$	149^{+4}_{-3}	2311^{+842}_{-312}	$9917^{+103168}_{-7214}$

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

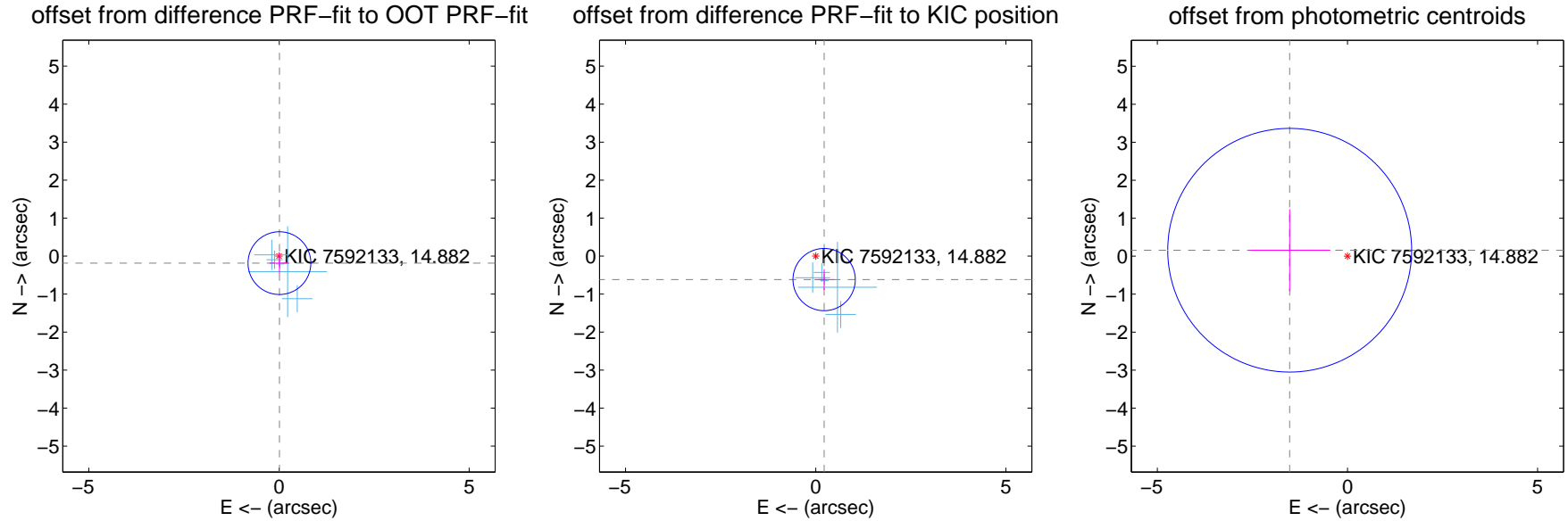
DV Centroid Data

Supplemental centroid analysis for 007592133-04. Kepler magnitude: 14.88. Transit SNR 6.74

There are 5 quarters with good PRF difference image offsets

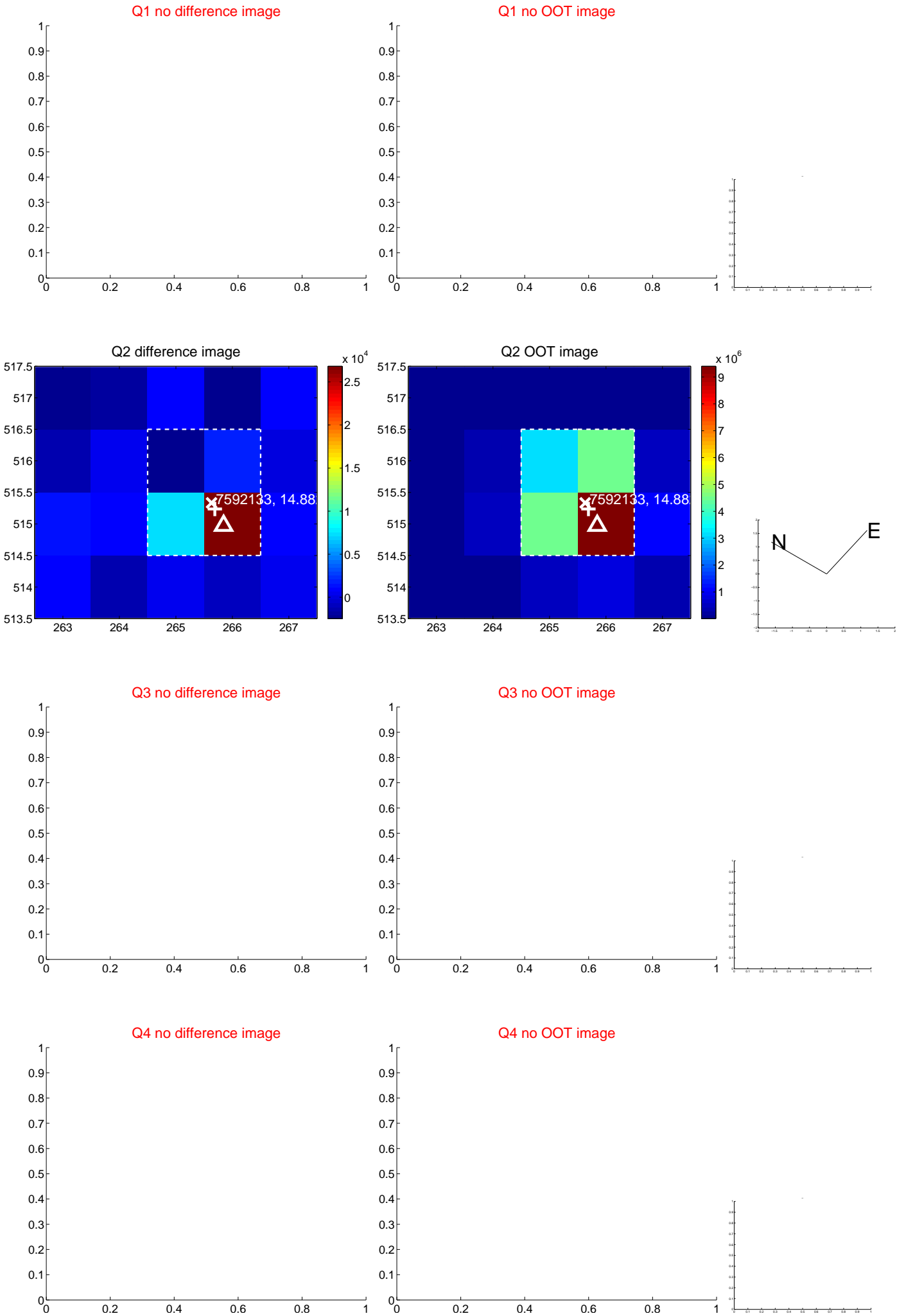
The direct PRF centroid is offset from the target star catalog position by about 0.53 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.184 ± 0.275	0.67	-0.011 ± 0.254	-0.184 ± 0.275
PRF-fit source offset from KIC position	0.655 ± 0.273	2.40	-0.221 ± 0.254	-0.617 ± 0.275
photometric centroid source offset	1.53 ± 1.07	1.43	1.52 ± 1.07	0.16 ± 1.08

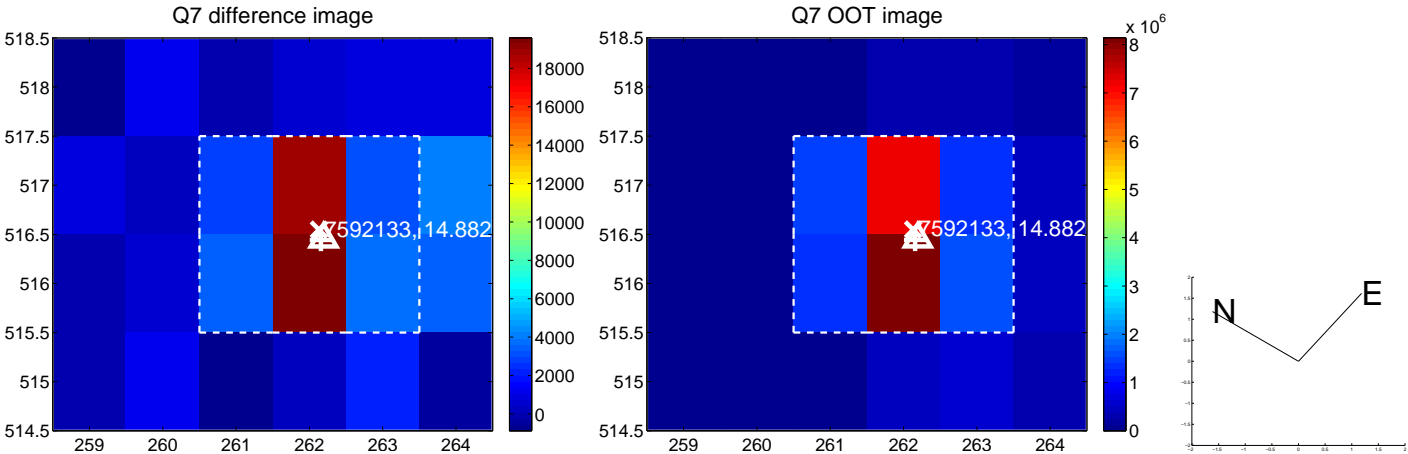
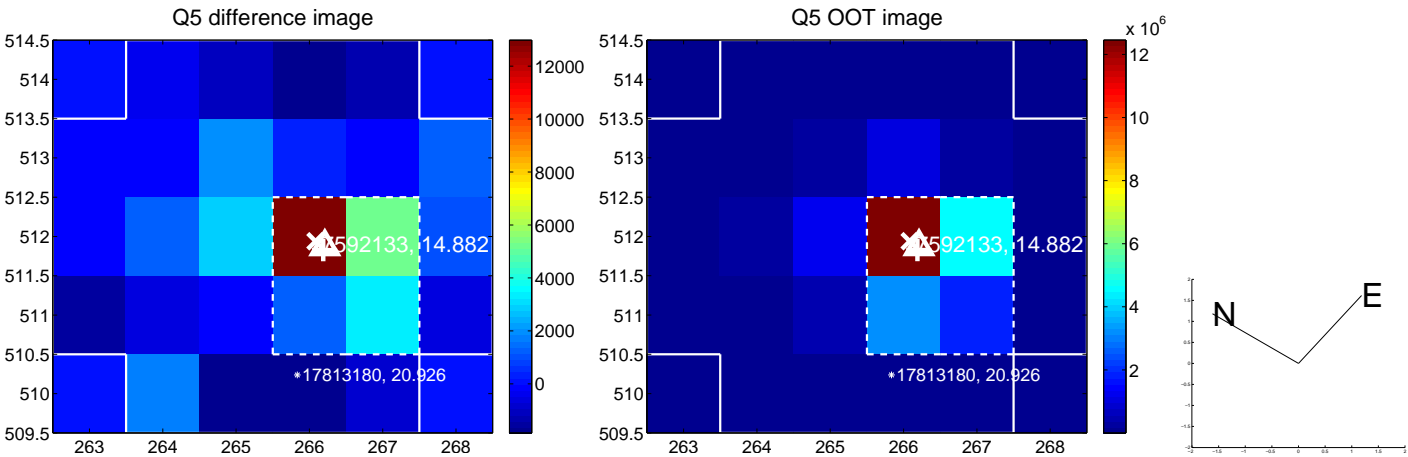


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

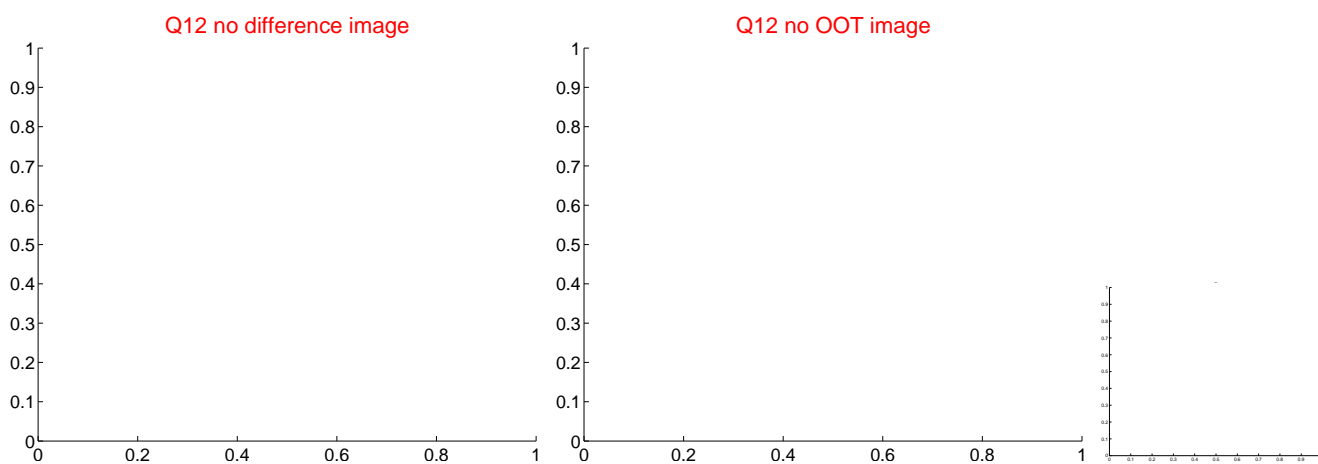
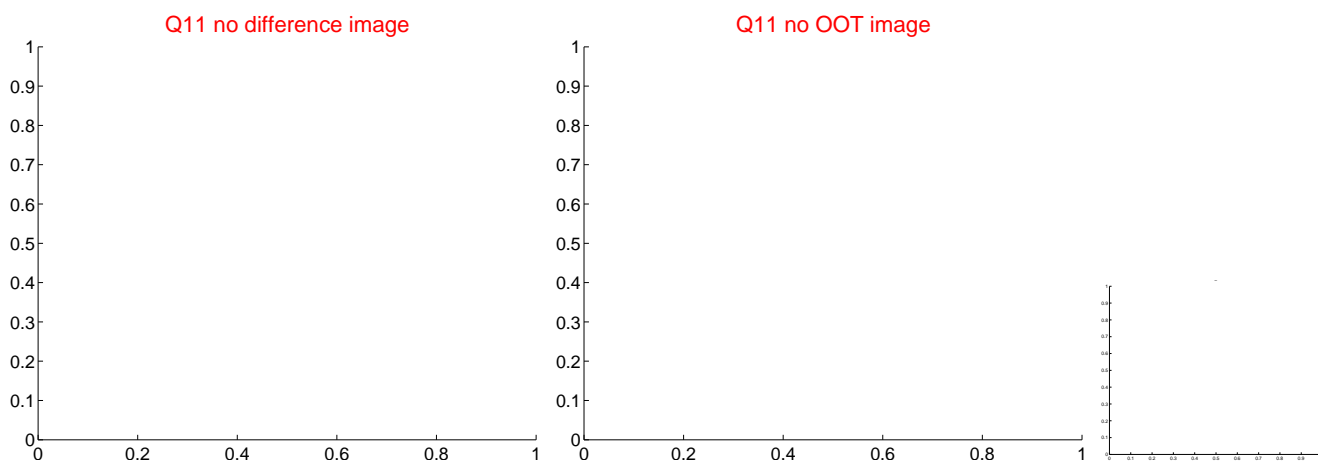
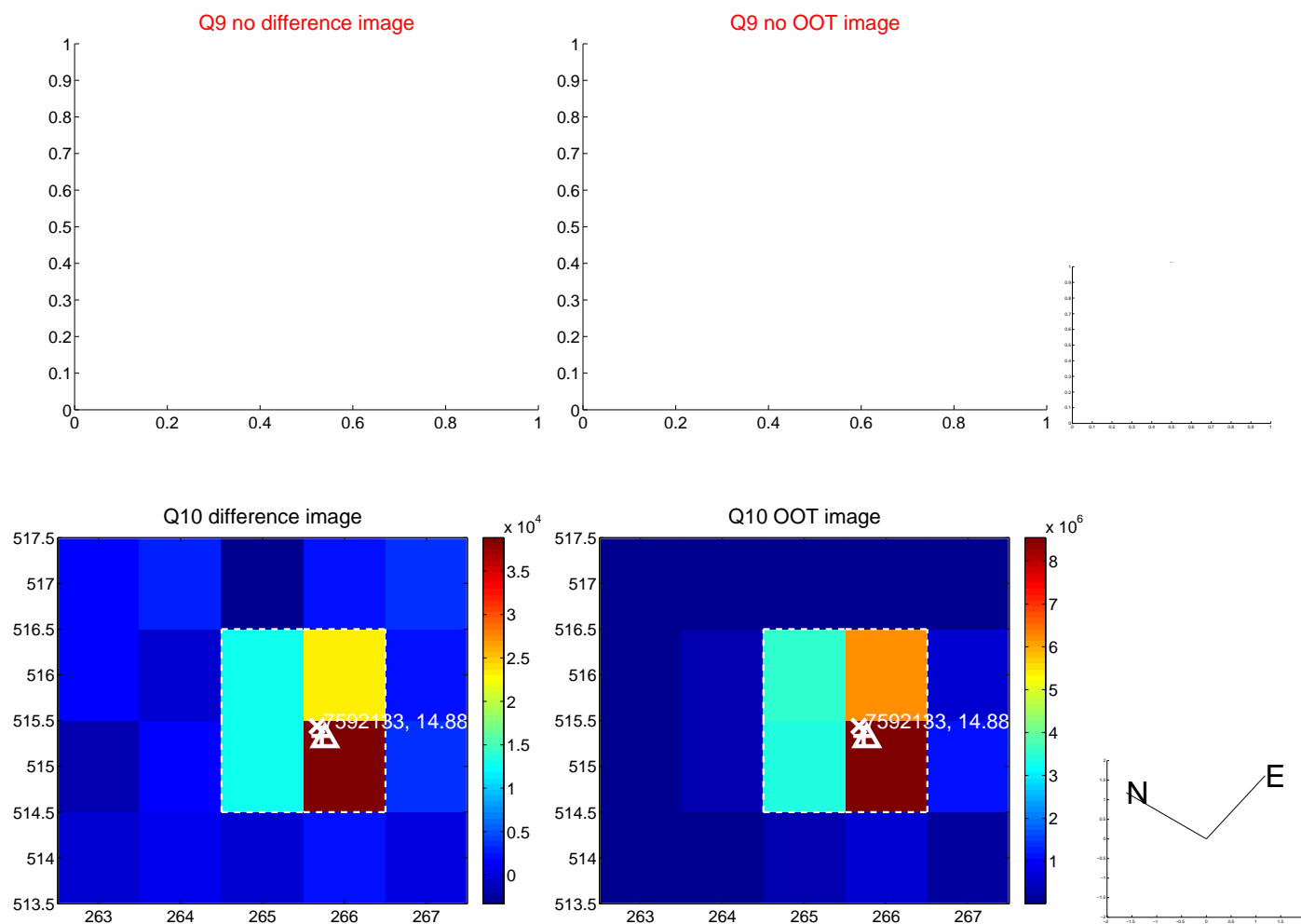
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



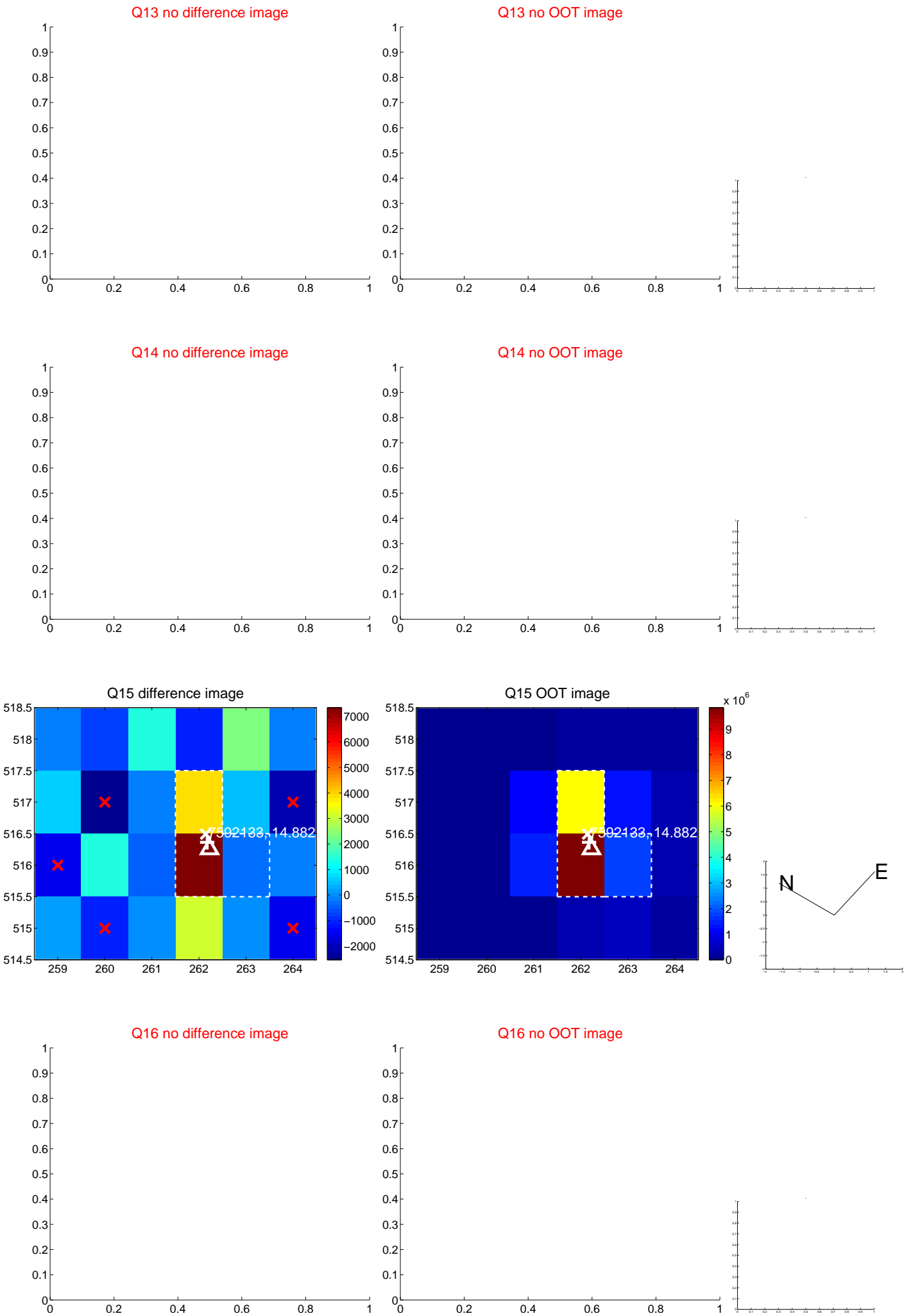
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



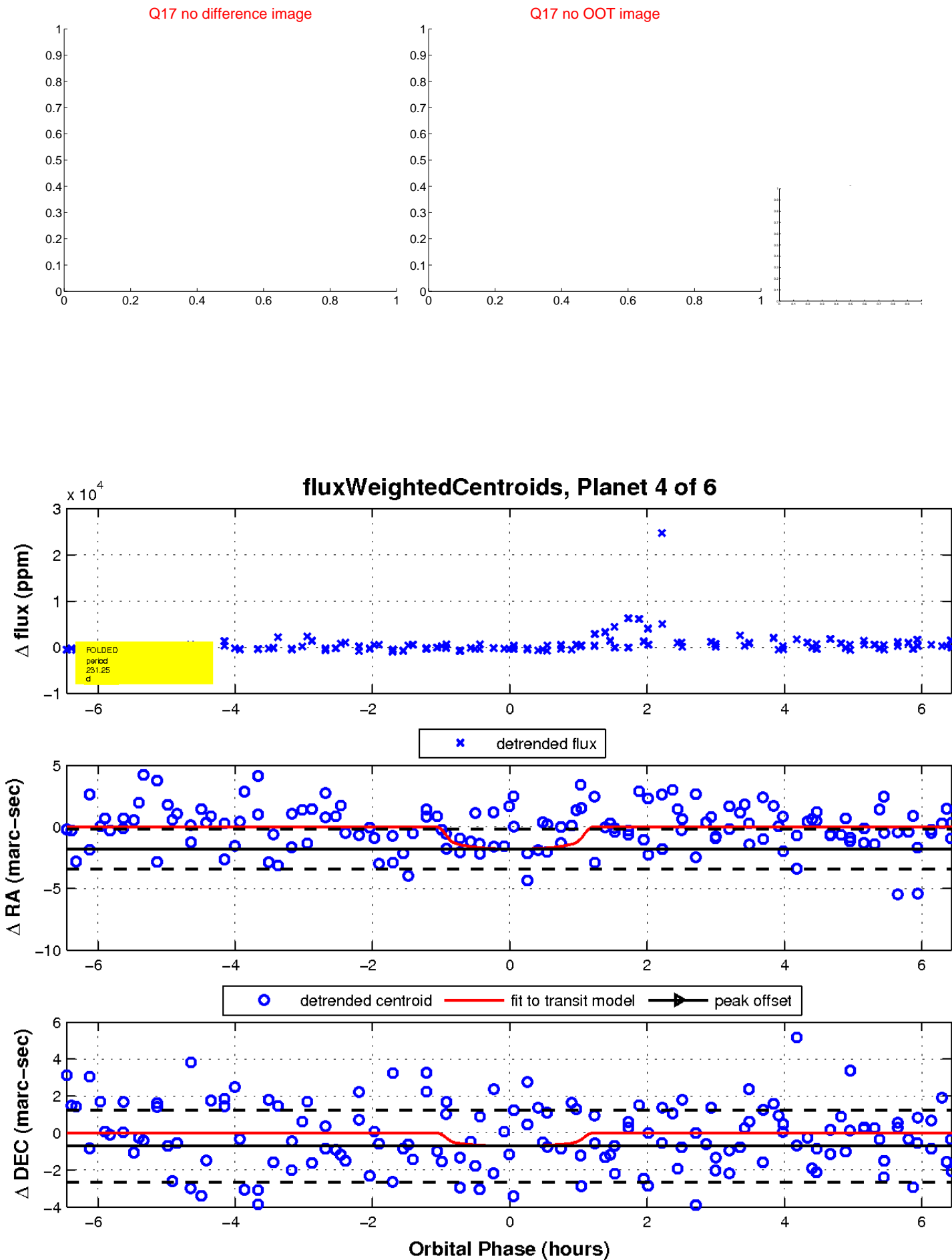
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

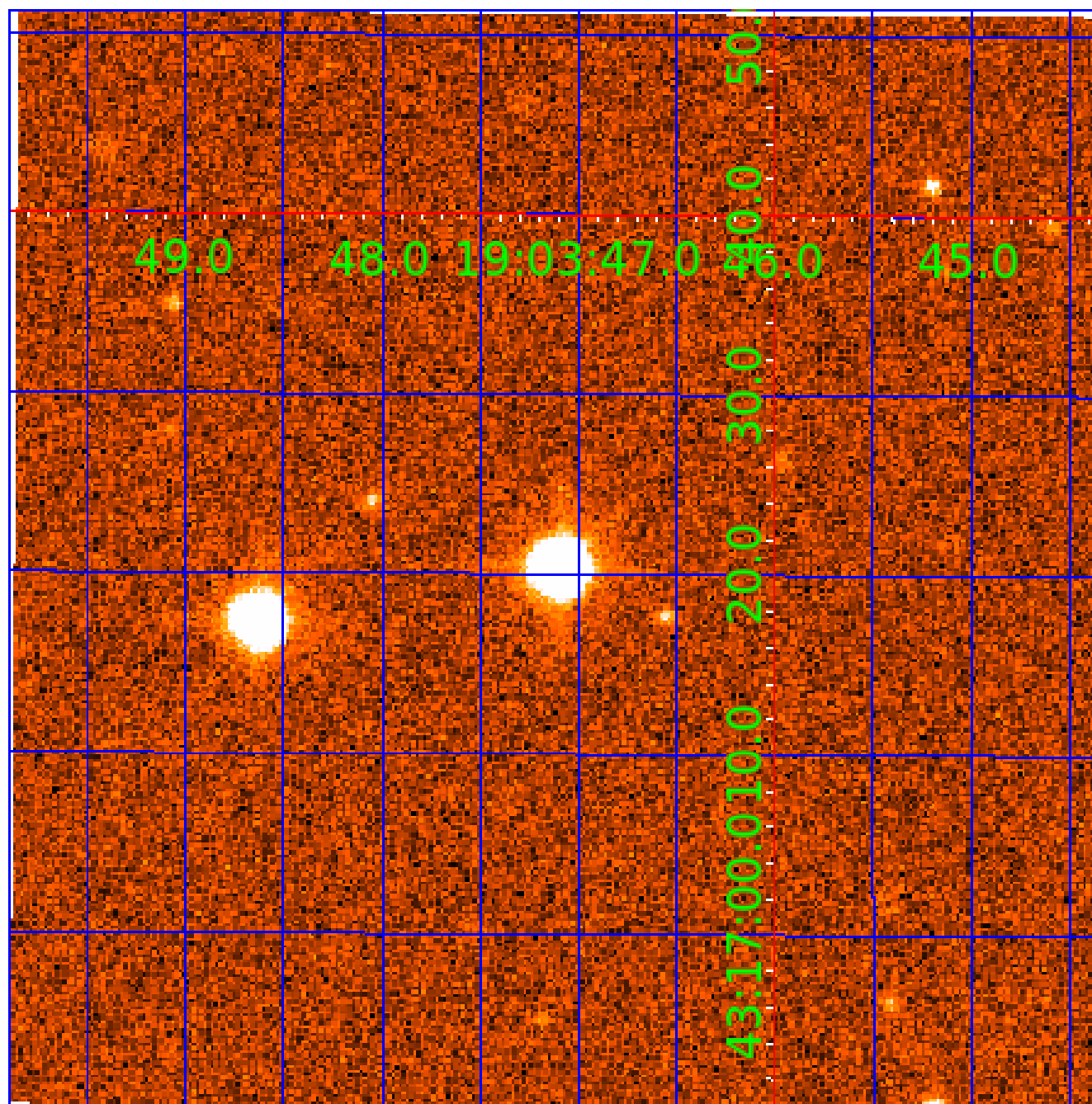


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007592133

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})
007592133-01	OBS	No	402.993976	418.092557	1565.4	11.543	12.9	7.1	0.24	3324	0.94	0.01
007592133-02	OBS	No	442.412311	335.468093	1576.2	2.843	15.4	7.6	0.24	3324	0.98	0.01
007592133-03	OBS	No	474.995256	196.060482	1235.6	5.003	11.7	6.0	0.24	3324	0.84	0.01
007592133-04	OBS	No	231.251386	254.013531	1075.5	2.178	14.1	6.7	0.24	3324	0.82	0.03
007592133-05	OBS	No	559.848046	287.813572	1442.5	9.607	12.9	7.1	0.24	3324	0.94	0.01
007592133-06	OBS	No	257.539439	264.311590	1068.3	5.998	13.7	6.4	0.24	3324	0.82	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007592133-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_KIC_POS—HALO_GHOST
007592133-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
007592133-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
007592133-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

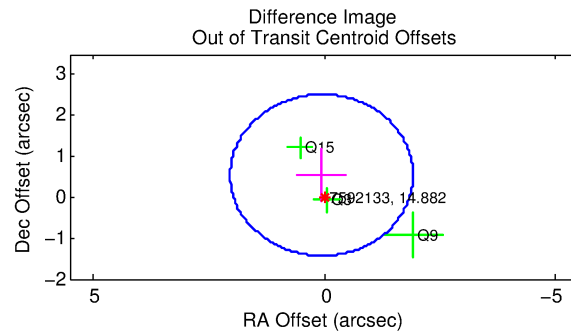
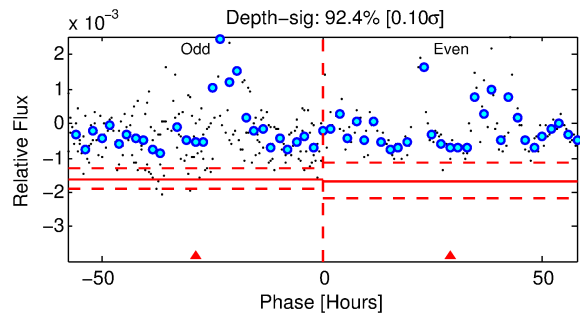
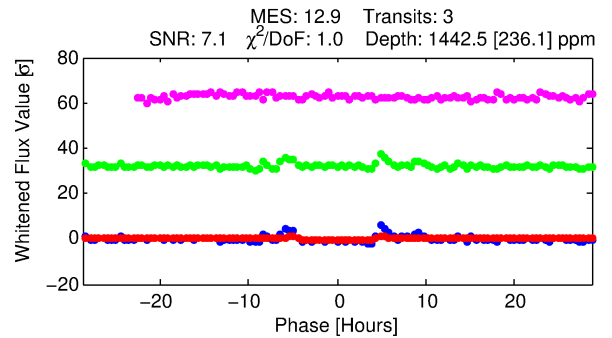
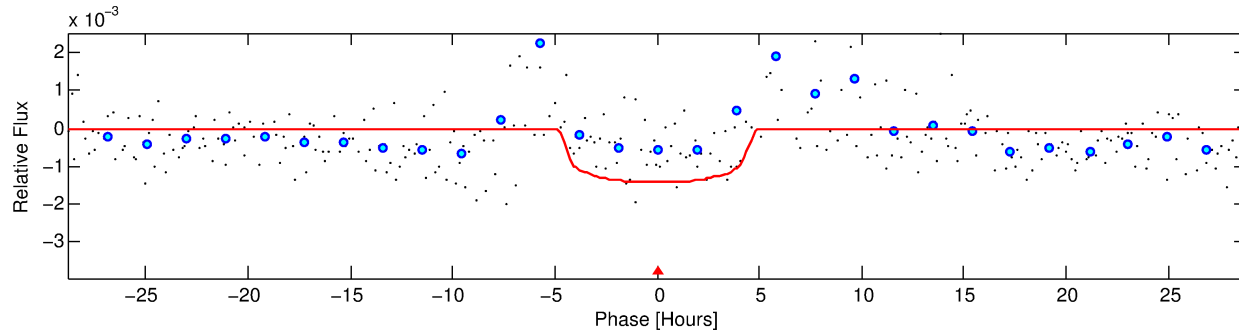
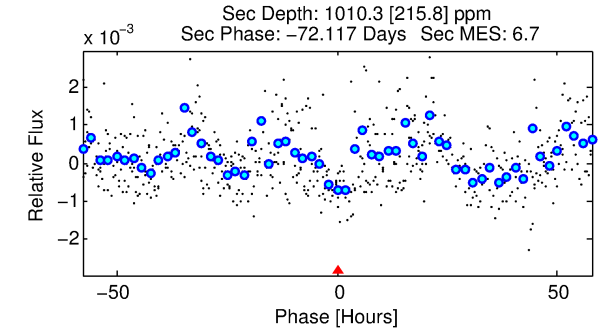
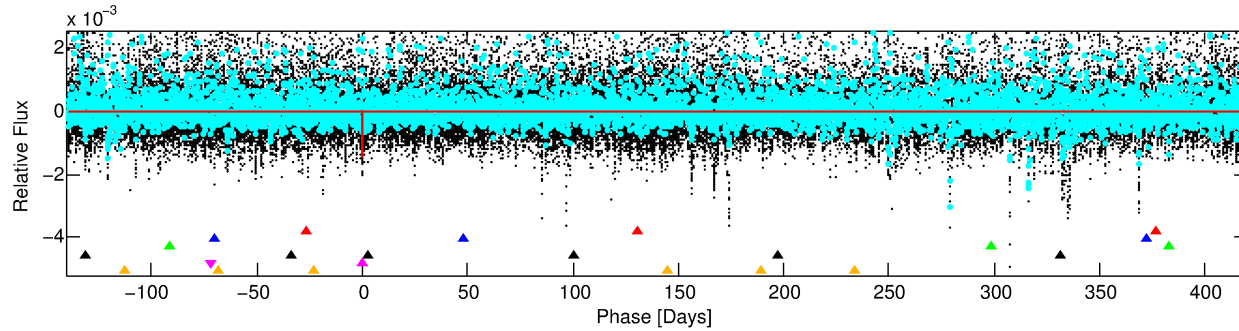
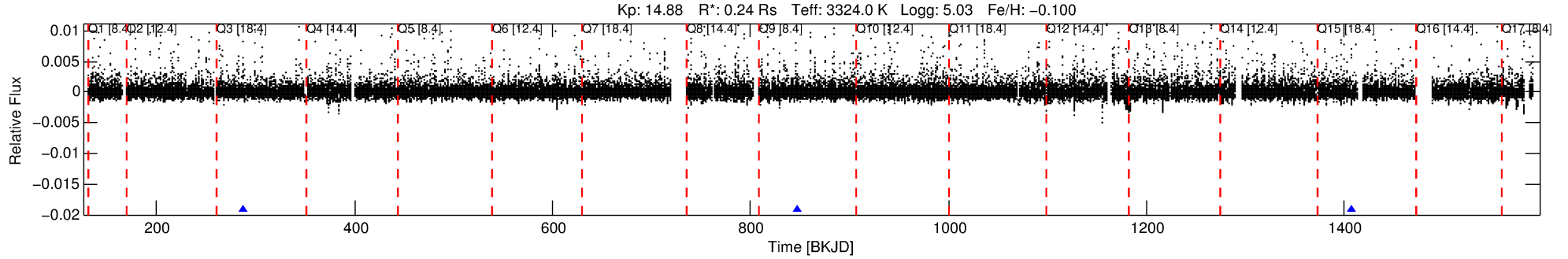
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007592133-05

No Significant Match Found

DV One-Page Summary

KIC: 7592133 Candidate: 5 of 6 Period: 559.848 d



DV Fit Results:

Period = 559.84805 [0.00830] d
Epoch = 287.8136 [0.0107] BKJD
Rp/R* = 0.0364 [0.0097]
a/R* = 364.60 [385.28]
b = 0.64 [0.99]
Seff = 0.01 [0.00]
Teq = 80 [2] K
Rp = 0.94 [0.28] Re
a = 0.8011 [0.0773] AU
Ag = 405363.95 [236966.01] [1.71σ]
Teff = 3105 [447] K [6.77σ]

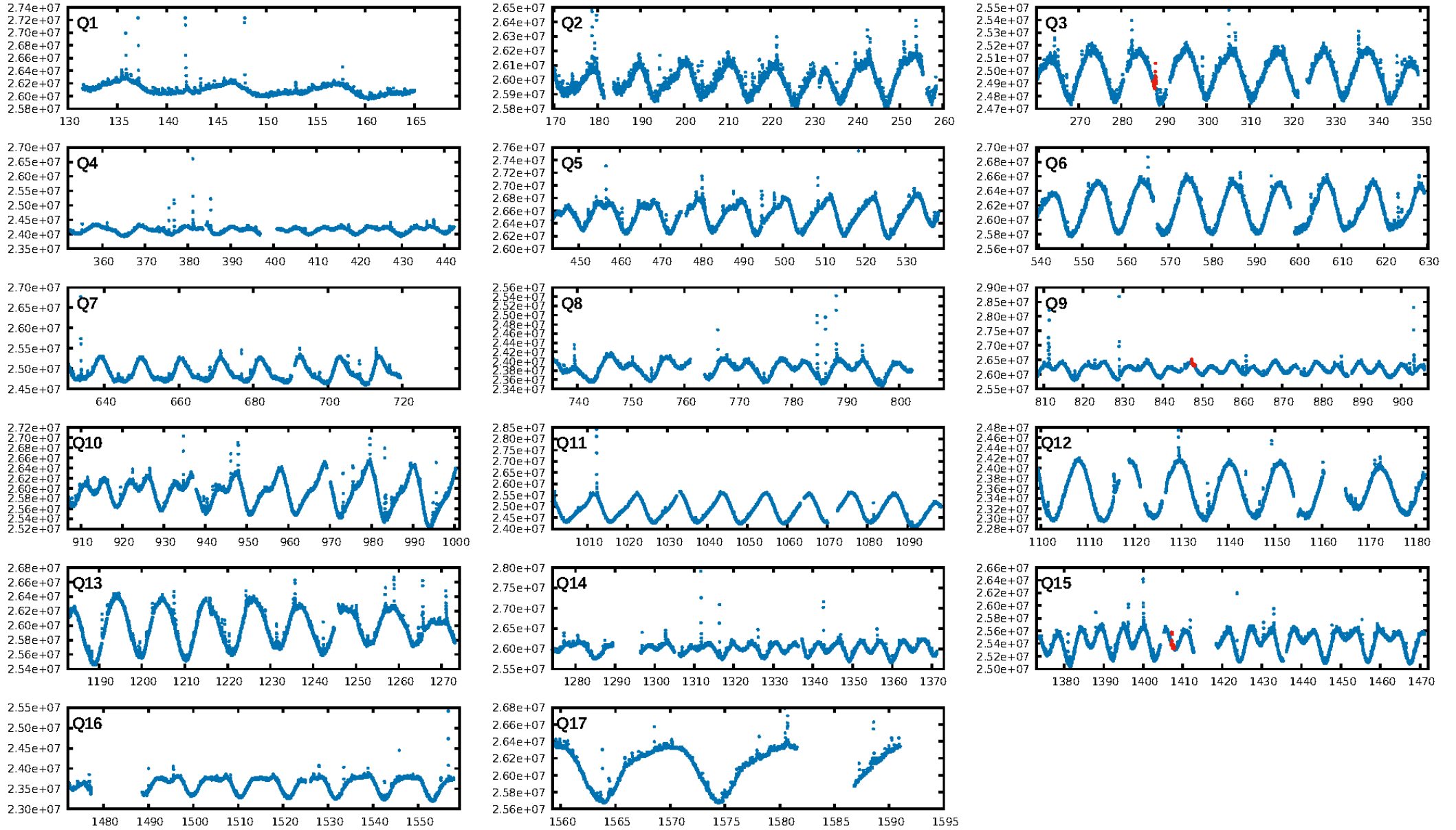
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [188.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 33.2%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.5118
Centroid-sig: 97.2%
Centroid-so: 0.506 arcsec [0.99σ]
OotOffset-rm: 0.545 arcsec [0.83σ]
OotOffset-st: 0.2/0/1 [3]
KicOffset-rm: 0.316 arcsec [0.60σ]
KicOffset-st: 0.2/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

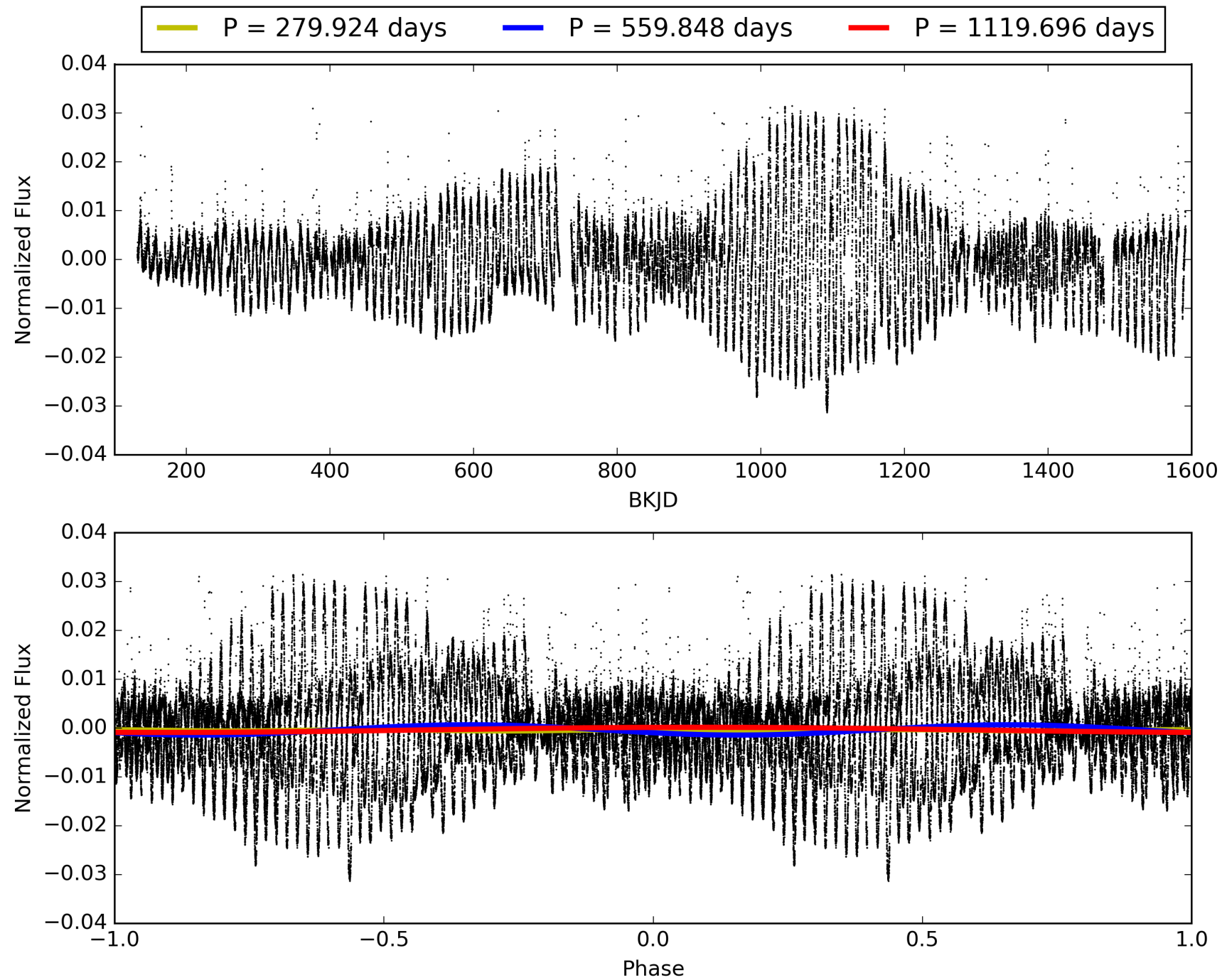
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:37:42 Z

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

TCE 007592133-05, PDC Light Curves

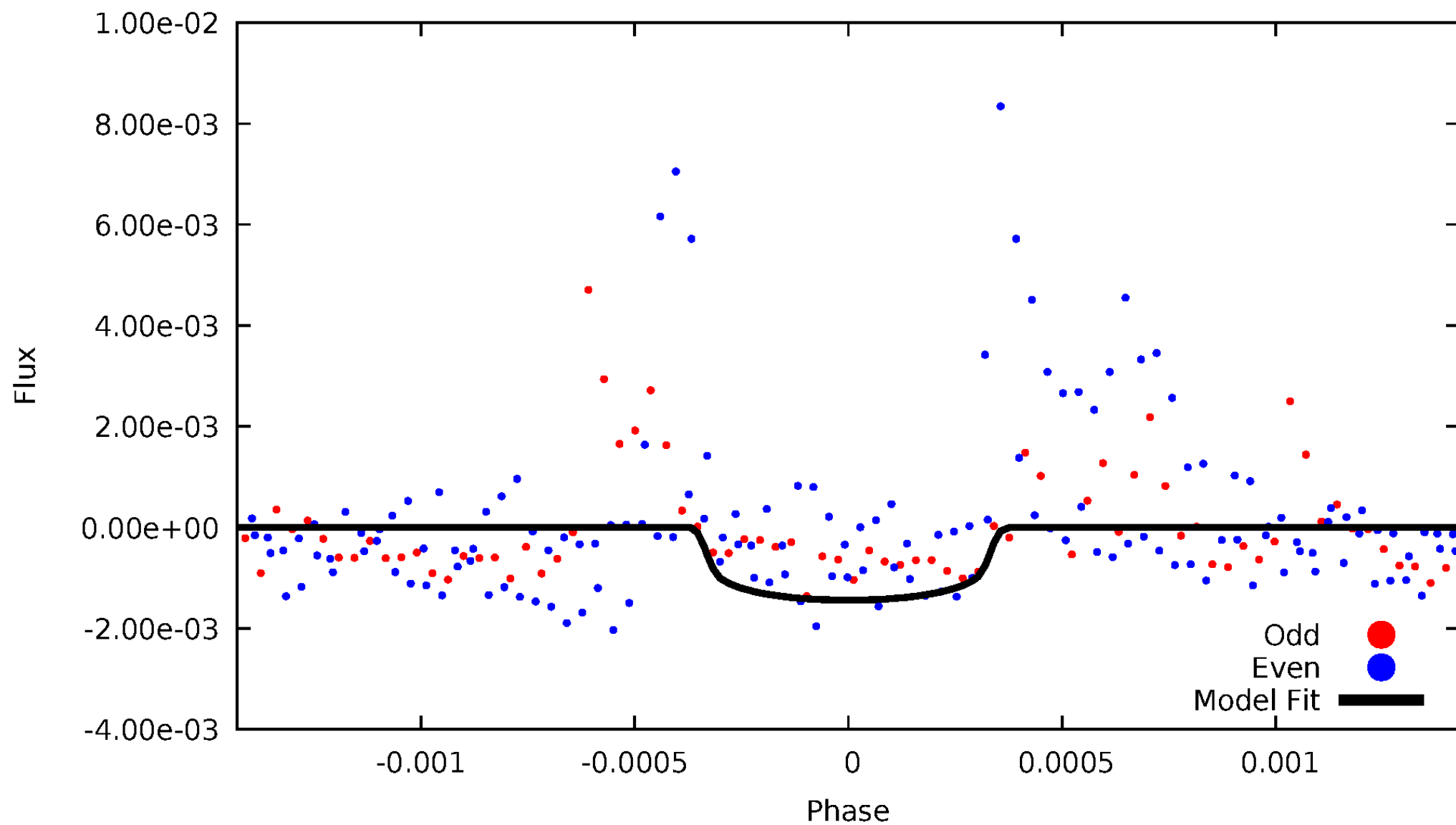


TCE 007592133-05



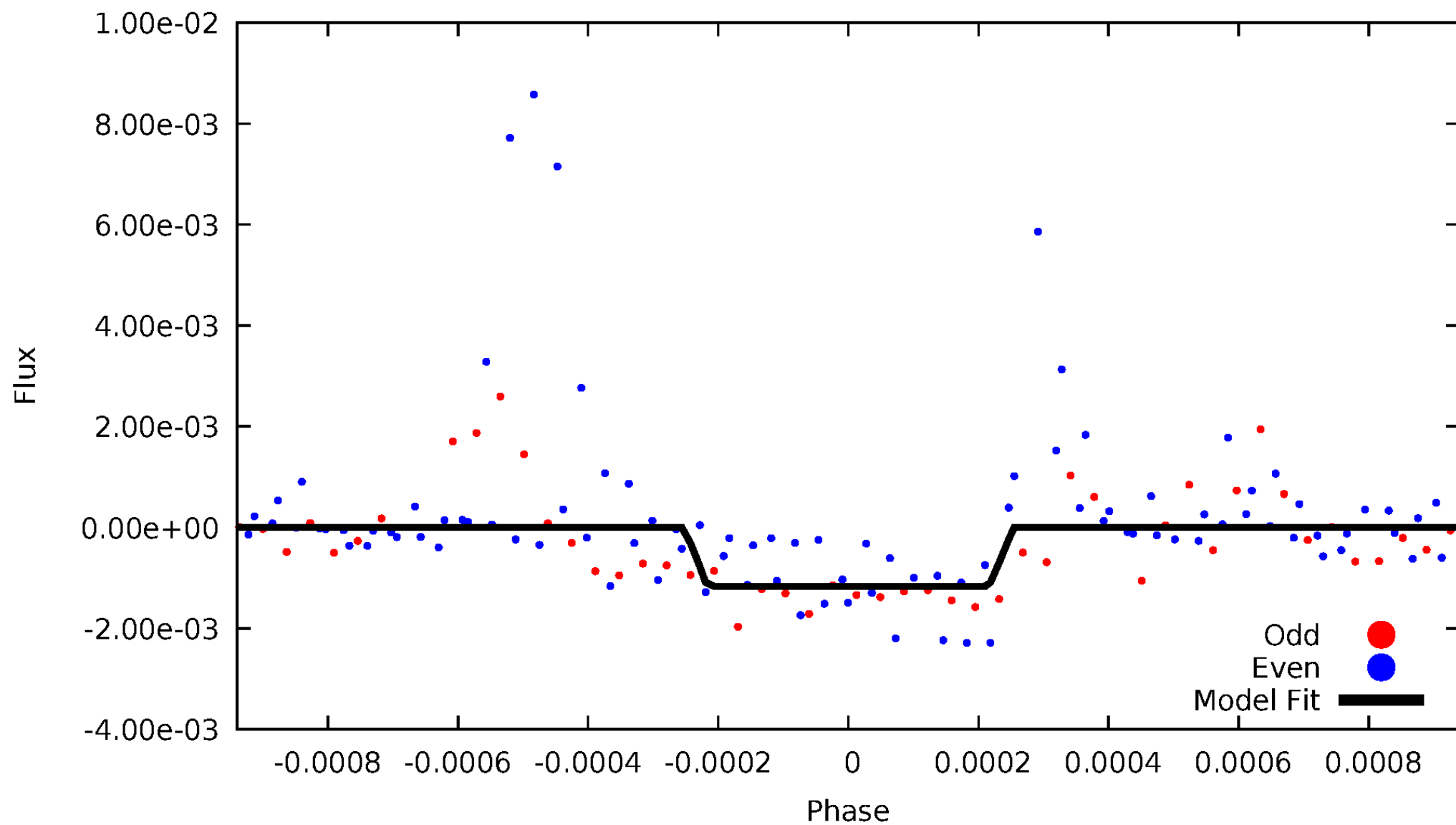
DV Odd/Even

TCE 007592133-05



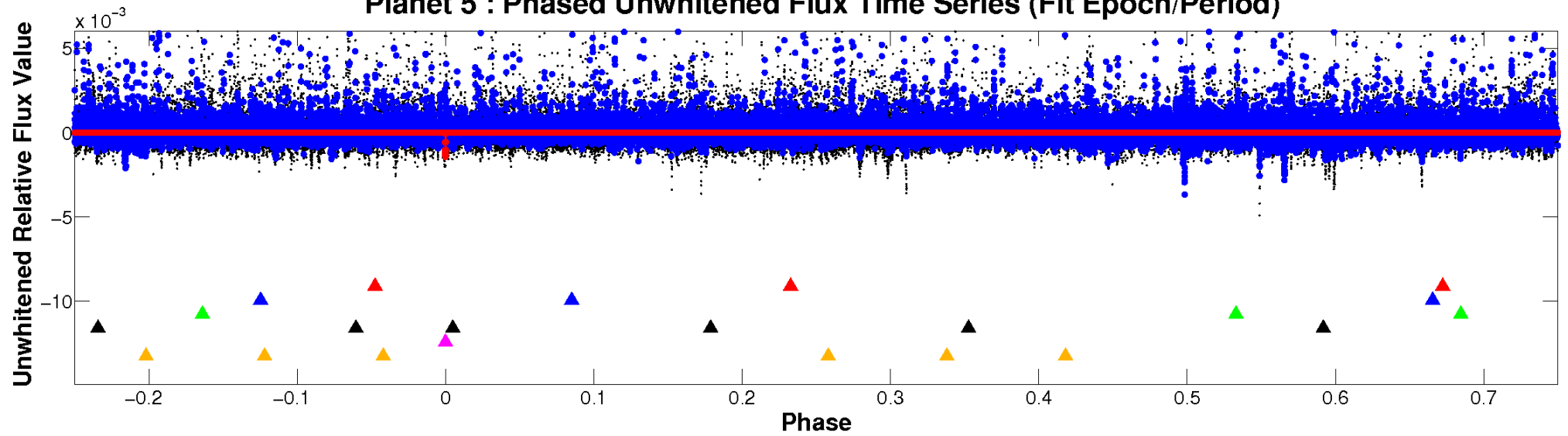
ALT Odd/Even

TCE 007592133-05

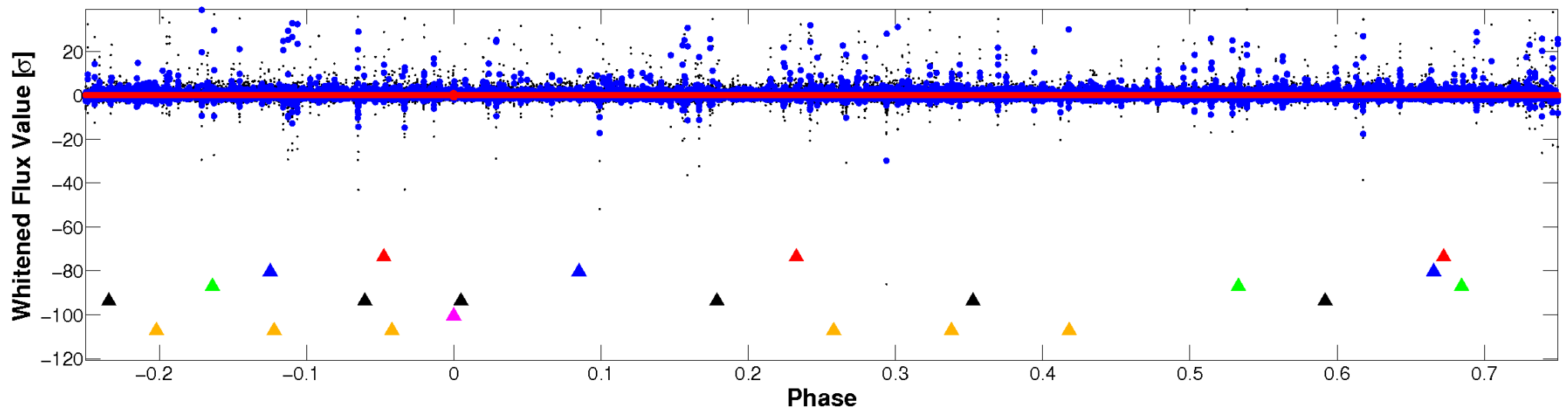


Non-Whitened Vs. Whitened Light Curve

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

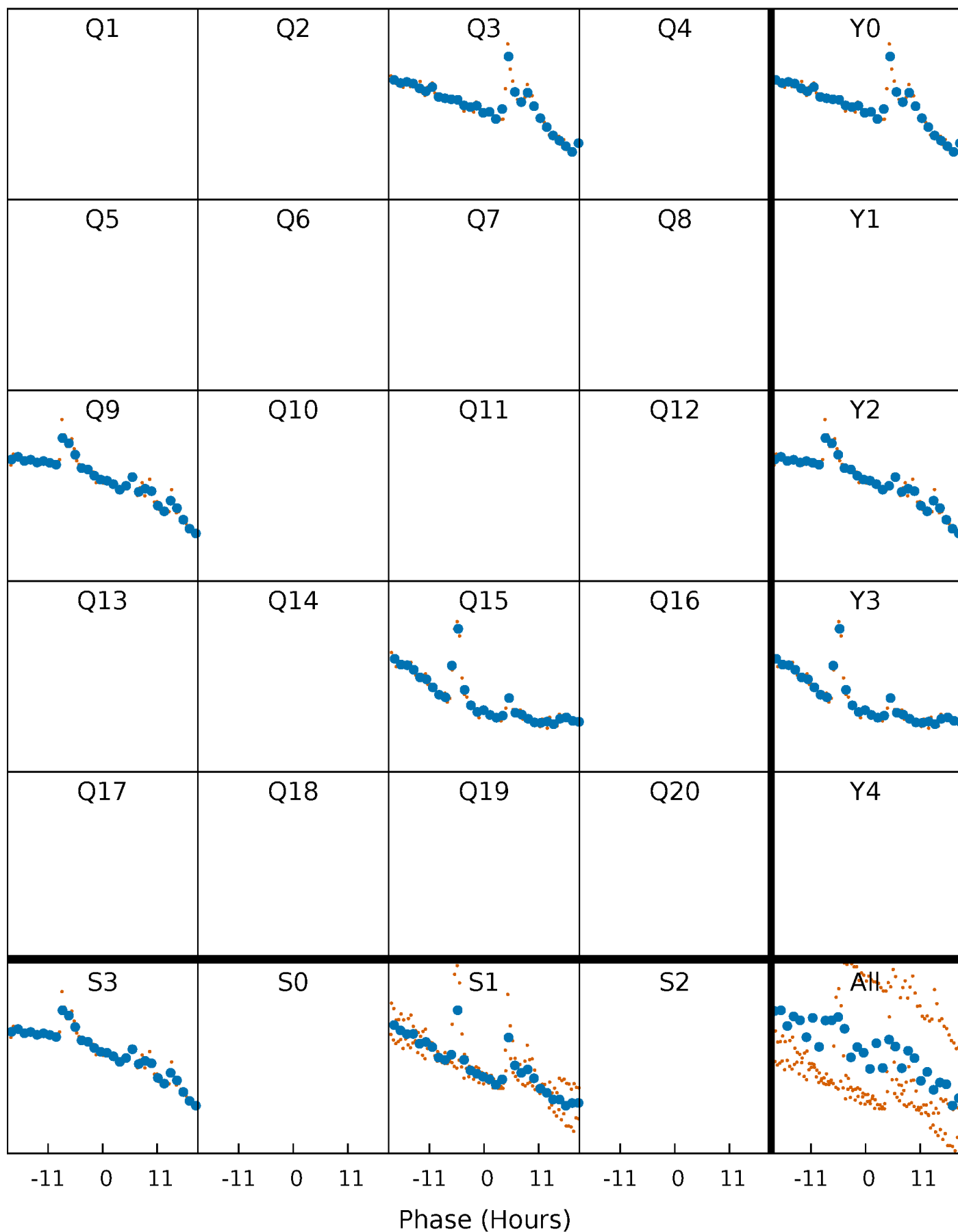


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007592133-05 $P=559.848046$ Days $T_0=287.813572$ (BKJD)



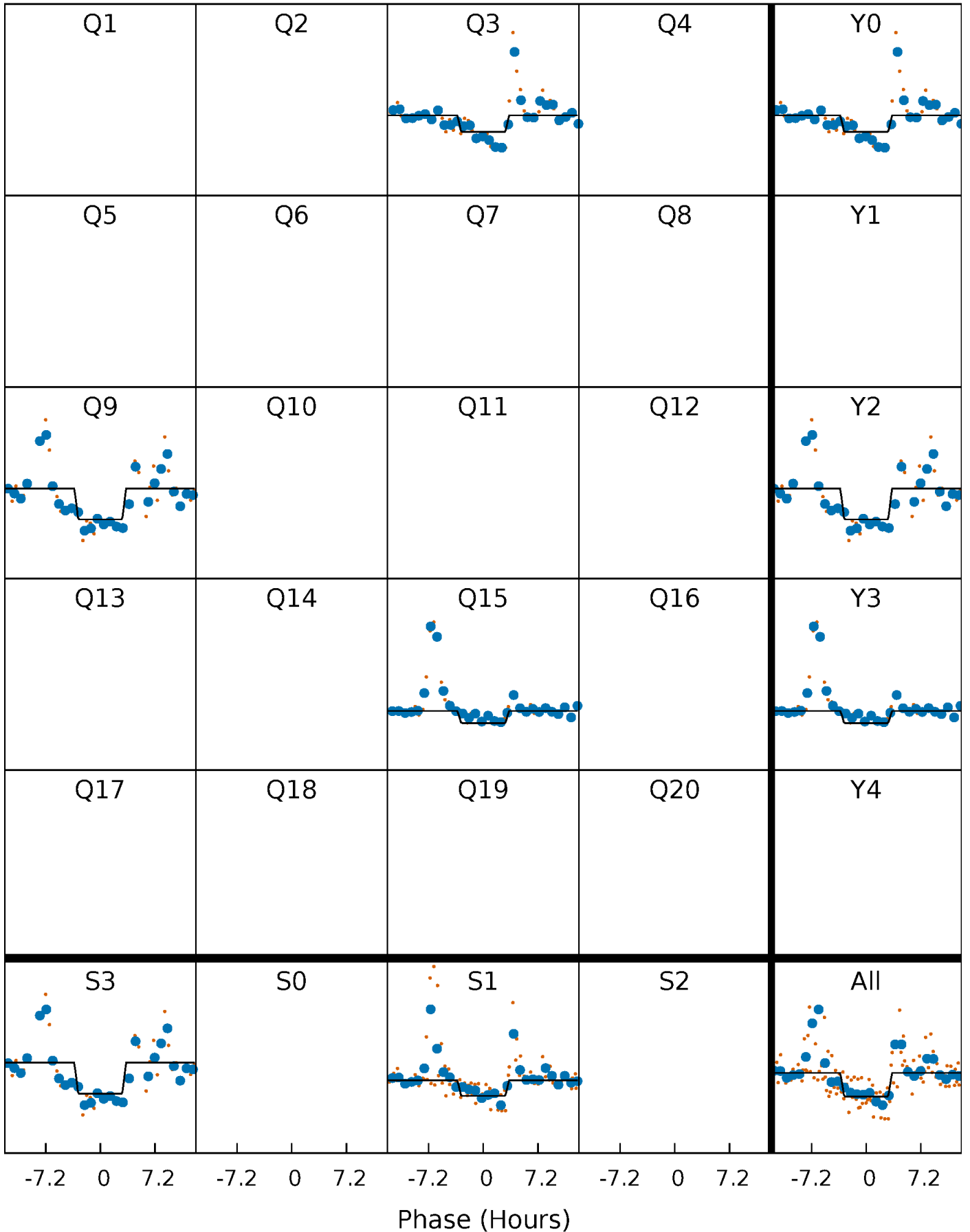
DV Quarter-Phased Transit Curves

TCE 007592133-05 $P=559.848046$ Days $T_0=287.813572$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

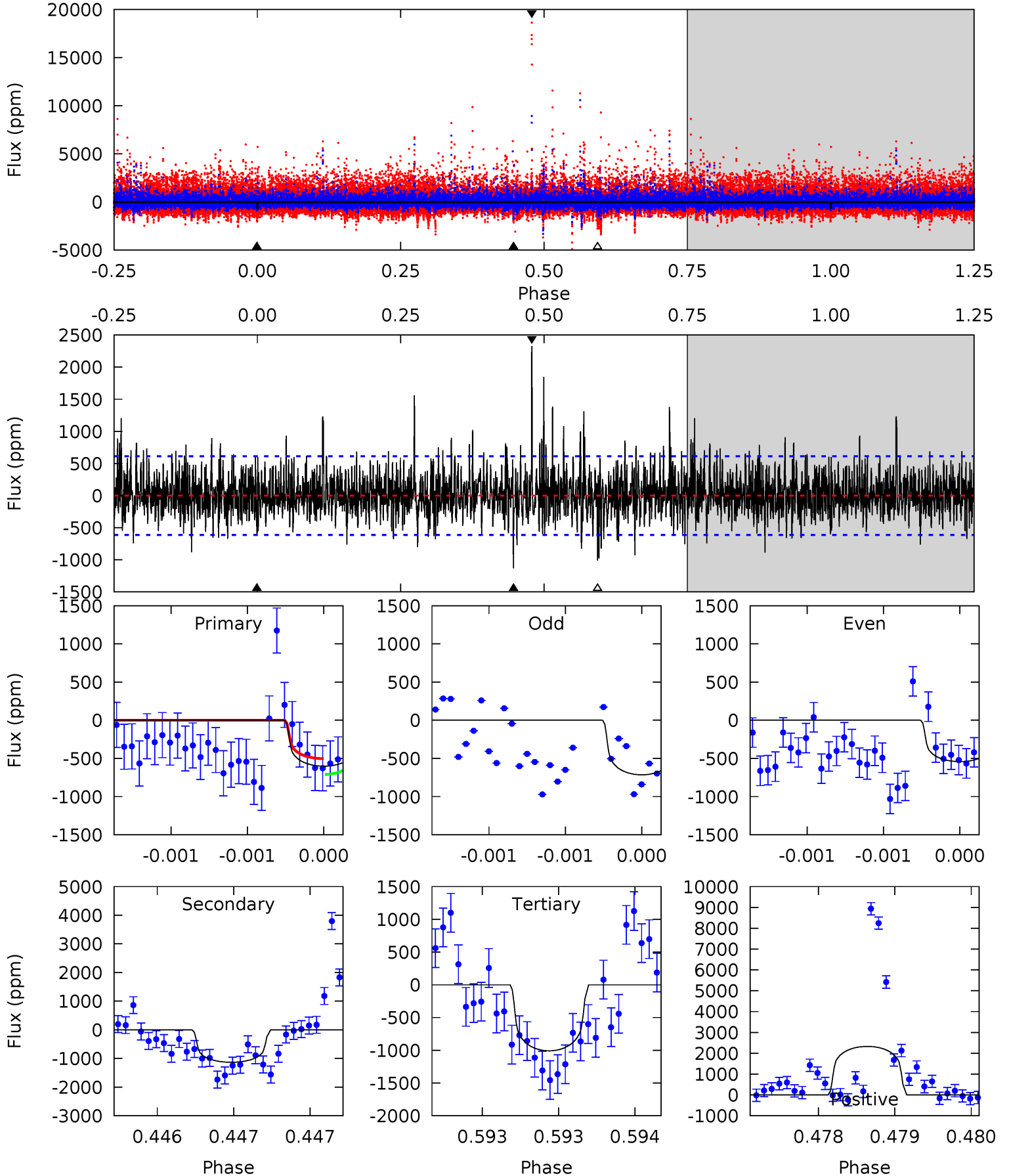
TCE 007592133-05 $P=559.852299$ Days $T_0=287.849870$ (BKJD)



DV Model-Shift Uniqueness Test

007592133-05, P = 559.848046 Days, E = 287.813572 Days

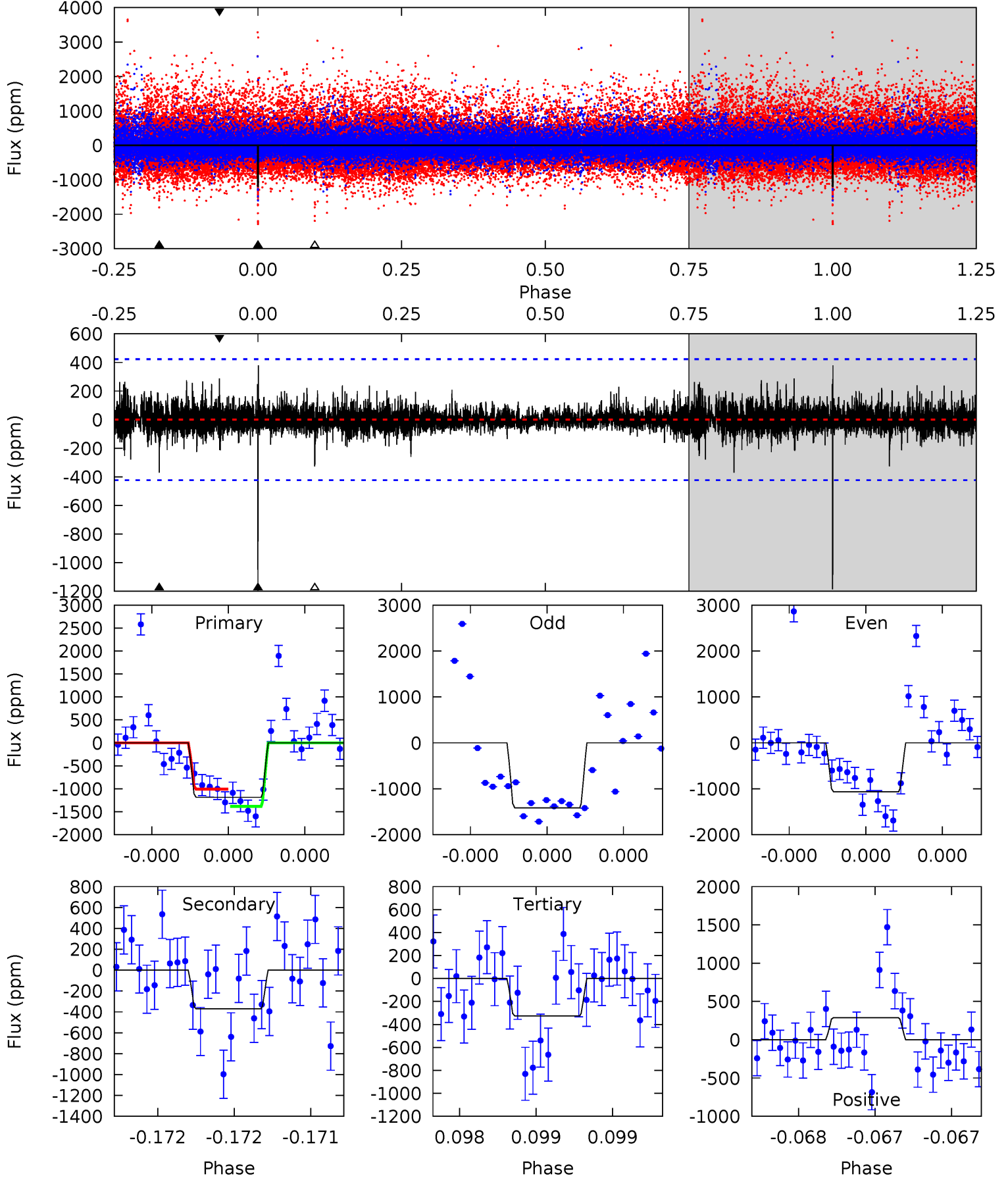
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.40	10.2	9.06	20.9	5.51	3.38	2.55	-3.66	-15.5	1.12	-10.8	0.39	0.74	0.67	0.94



Alt Model-Shift Uniqueness Test

007592133-05, P = 559.852299 Days, E = 287.849870 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	4.87	4.29	3.80	5.58	3.49	0.73	11.3	11.8	0.58	1.07	1.99	0.84	0.24	2.50



Stellar Parameters For KIC 007592133

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3324^{+43}_{-36}	$5.032^{+0.044}_{-0.040}$	$-0.100^{+0.100}_{-0.100}$	$0.236^{+0.032}_{-0.026}$	$0.218^{+0.042}_{-0.028}$	$23.450^{+5.770}_{-4.637}$
	+1%/-1%	+1%/-1%	+100%/-100%	+14%/-11%	+19%/-13%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 007592133-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1133 ± 111	$0.96^{+0.26}_{-0.26}$	111^{+2}_{-2}	3237^{+322}_{-225}	$437622^{+383514}_{-160852}$
Alt.	-369 ± 76	$0.87^{+0.25}_{-0.26}$	111^{+3}_{-2}	2824^{+308}_{-192}	$168007^{+167050}_{-66875}$

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

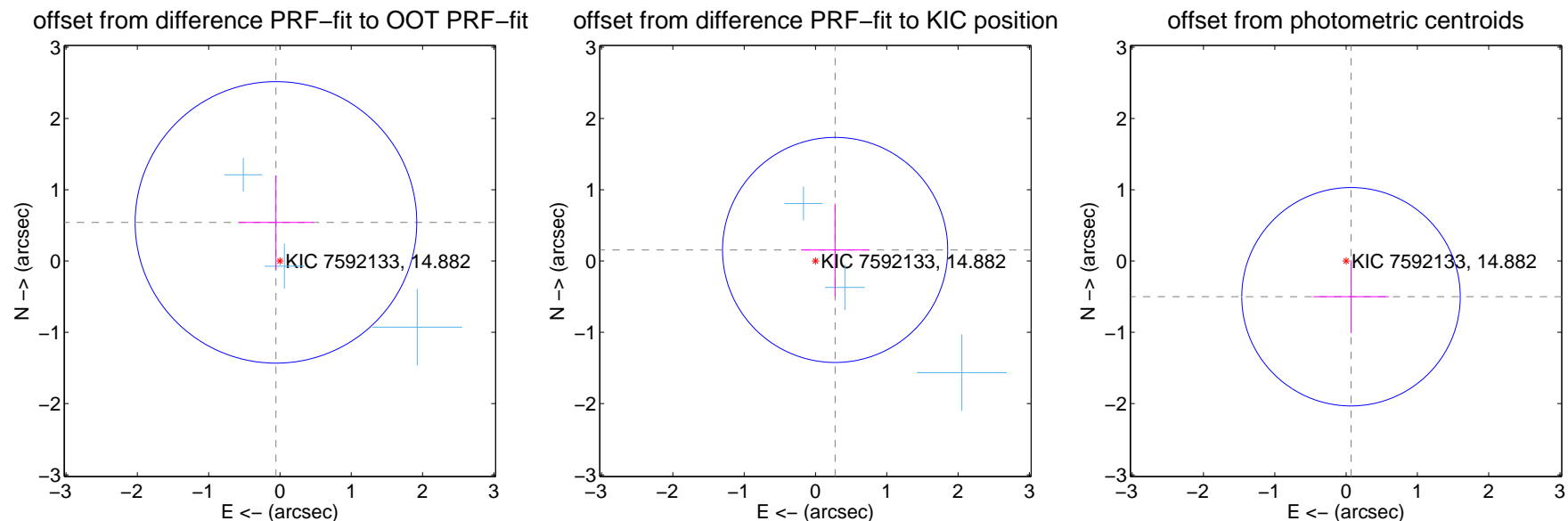
DV Centroid Data

Supplemental centroid analysis for 007592133-05. Kepler magnitude: 14.88. Transit SNR 7.12

There are 3 quarters with good PRF difference image offsets

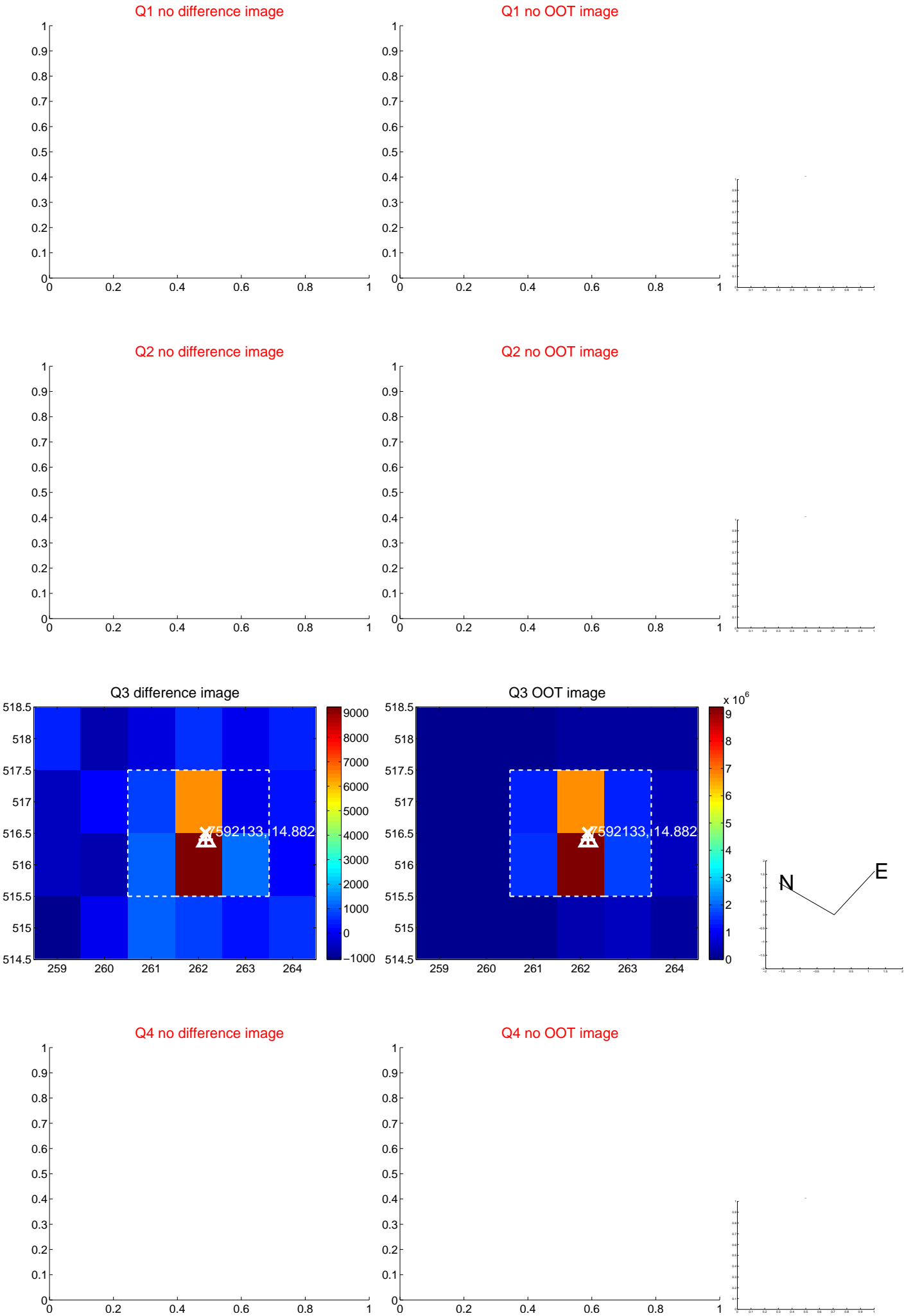
The direct PRF centroid is offset from the target star catalog position by about 0.53 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.545 ± 0.658	0.83	0.056 ± 0.525	0.542 ± 0.659
PRF-fit source offset from KIC position	0.316 ± 0.526	0.60	-0.276 ± 0.480	0.156 ± 0.651
photometric centroid source offset	0.51 ± 0.51	0.99	-0.07 ± 0.53	-0.50 ± 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.

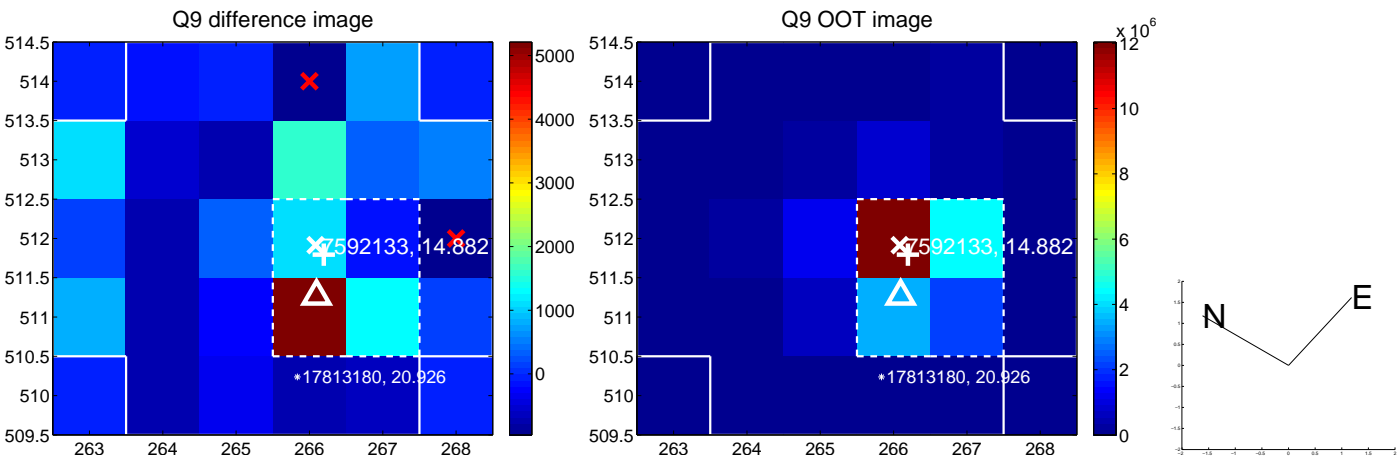
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



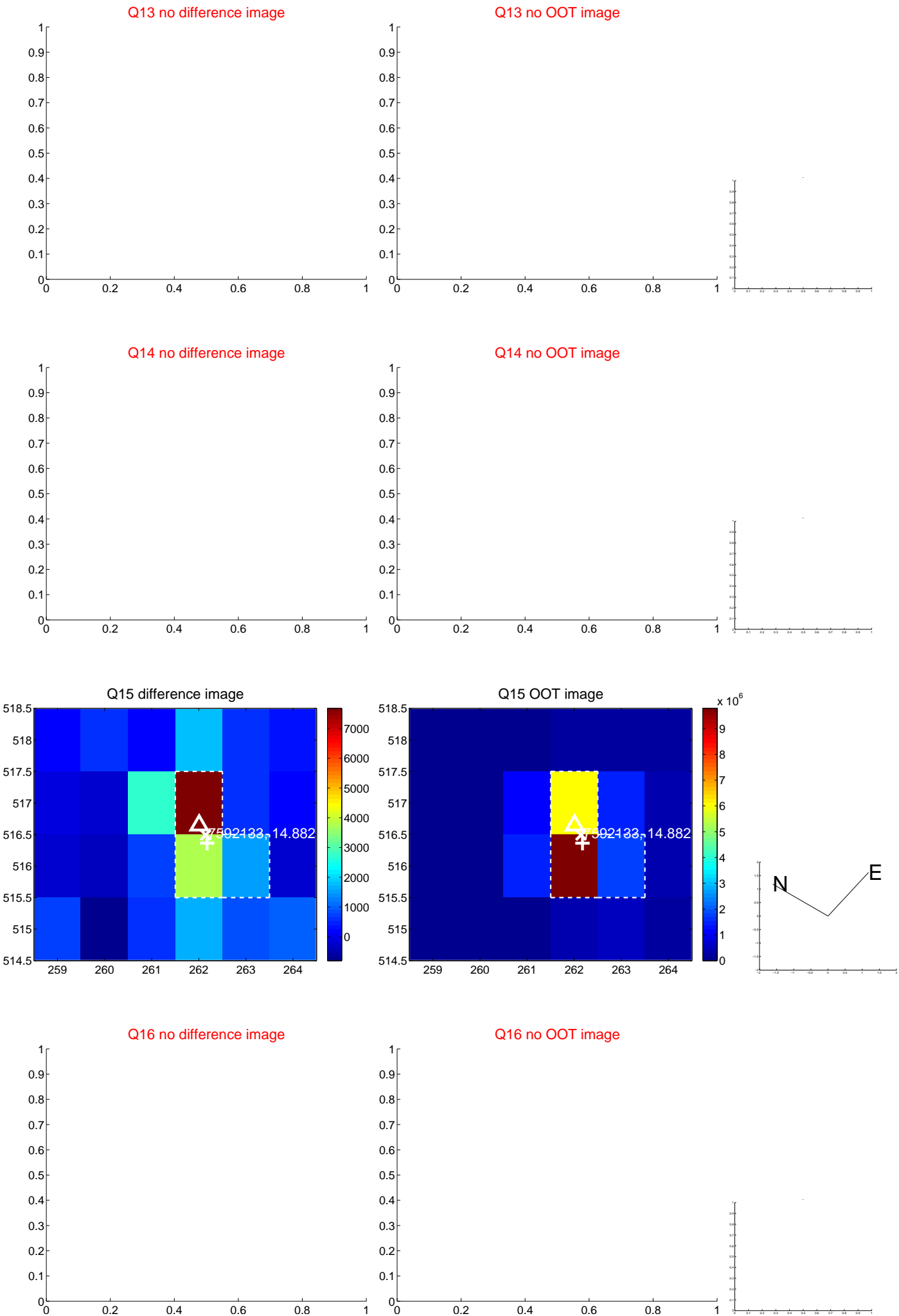
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



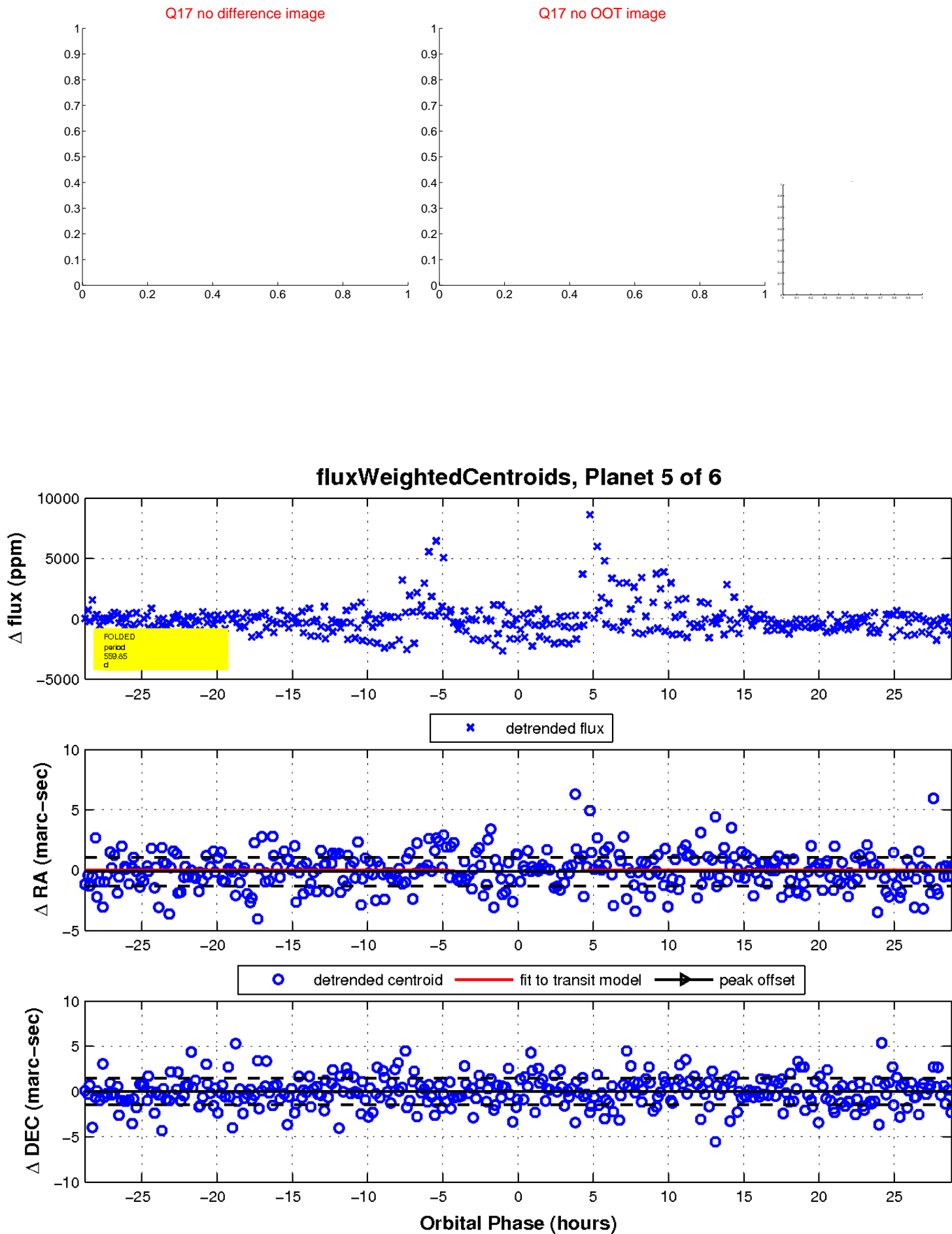
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

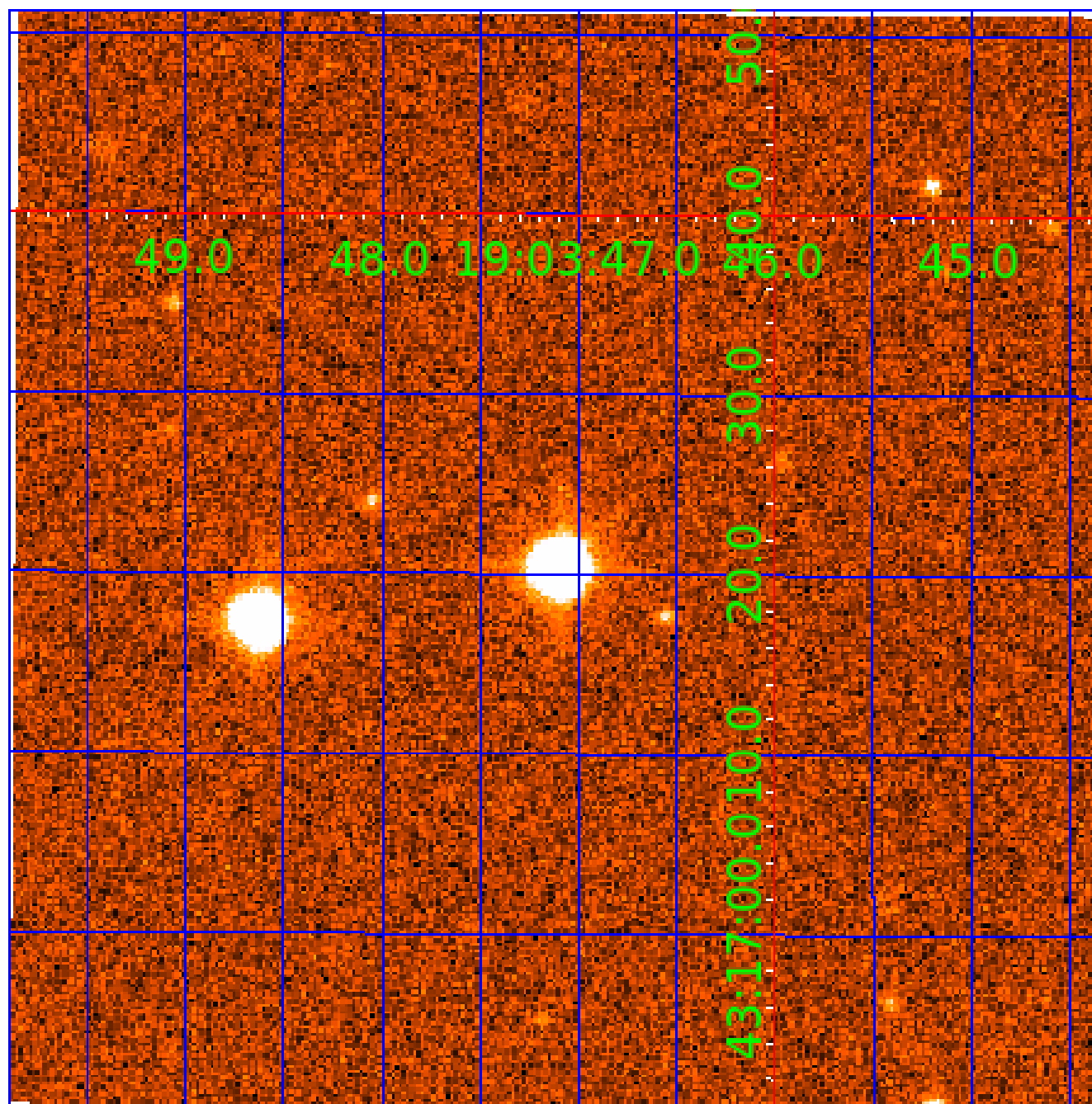


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007592133

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})
007592133-01	OBS	No	402.993976	418.092557	1565.4	11.543	12.9	7.1	0.24	3324	0.94	0.01
007592133-02	OBS	No	442.412311	335.468093	1576.2	2.843	15.4	7.6	0.24	3324	0.98	0.01
007592133-03	OBS	No	474.995256	196.060482	1235.6	5.003	11.7	6.0	0.24	3324	0.84	0.01
007592133-04	OBS	No	231.251386	254.013531	1075.5	2.178	14.1	6.7	0.24	3324	0.82	0.03
007592133-05	OBS	No	559.848046	287.813572	1442.5	9.607	12.9	7.1	0.24	3324	0.94	0.01
007592133-06	OBS	No	257.539439	264.311590	1068.3	5.998	13.7	6.4	0.24	3324	0.82	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007592133-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007592133-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_KIC_POS—HALO_GHOST
007592133-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
007592133-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
007592133-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

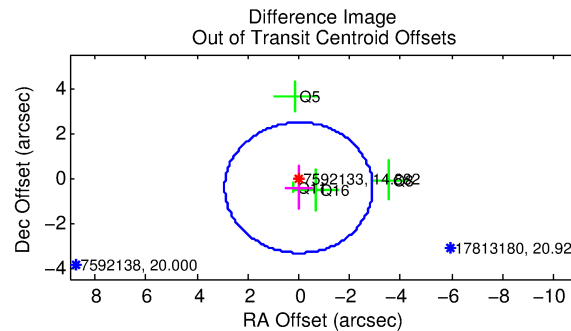
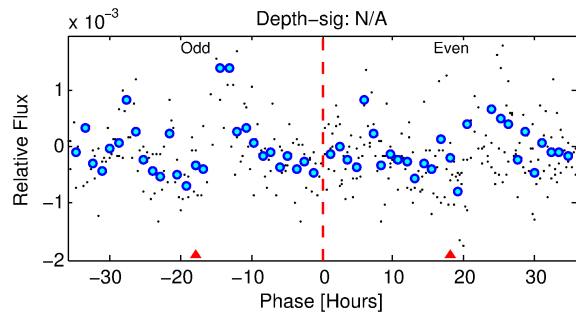
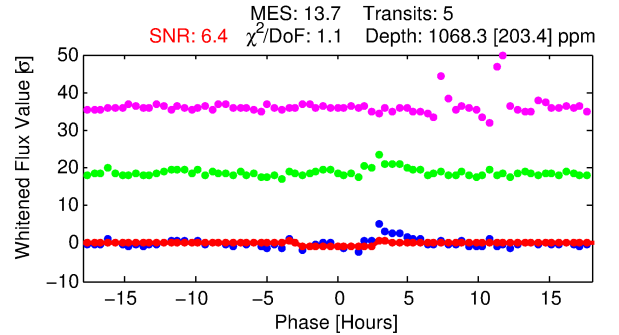
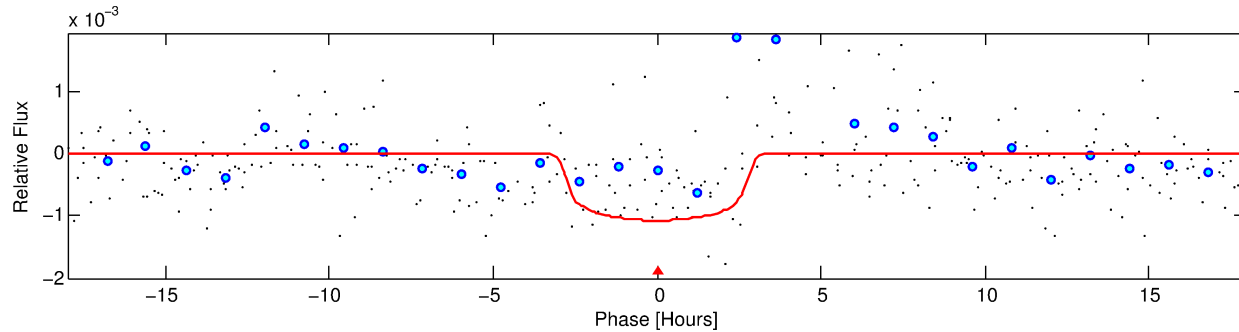
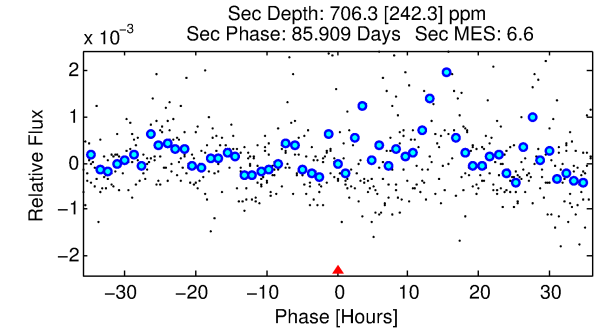
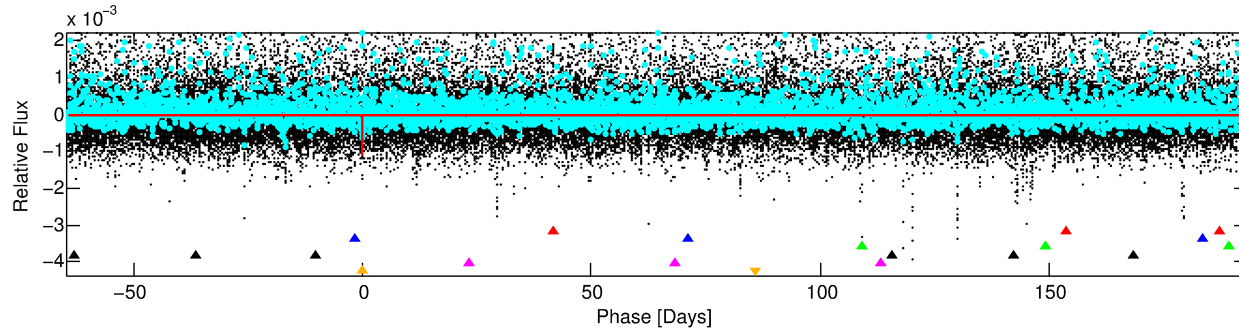
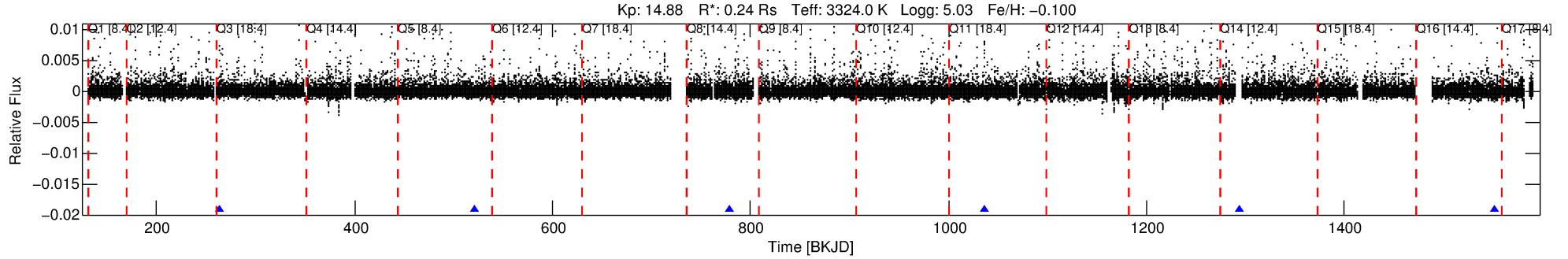
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007592133-06

No Significant Match Found

DV One-Page Summary

KIC: 7592133 Candidate: 6 of 6 Period: 257.539 d



DV Fit Results:

Period = 257.53944 [0.00392] d
Epoch = 264.3116 [0.0103] BKJD
Rp/R* = 0.0318 [0.0132]
a/R* = 250.94 [425.54]
b = 0.69 [1.28]
Seff = 0.03 [0.00]
Teq = 103 [3] K
Rp = 0.82 [0.36] Re
a = 0.4774 [0.0461] AU
Ag = 131768.21 [119115.68] [1.11σ]
Teff = 3037 [682] K [4.30σ]

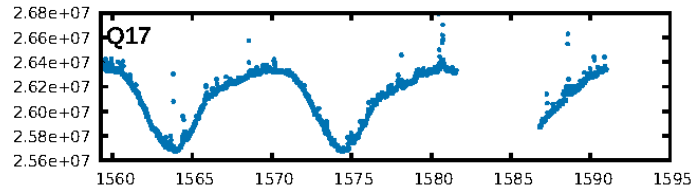
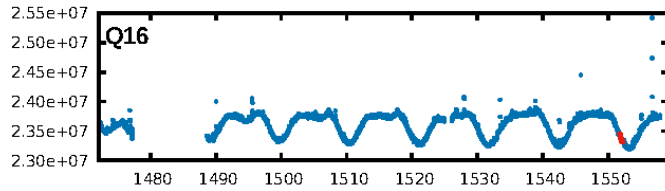
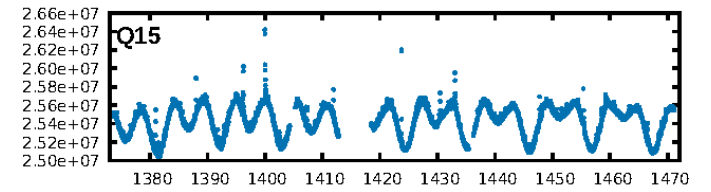
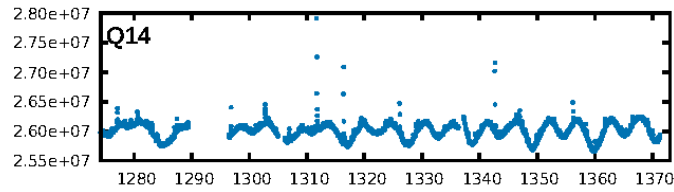
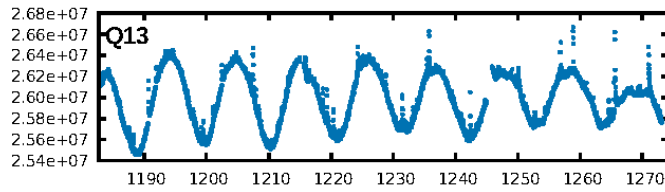
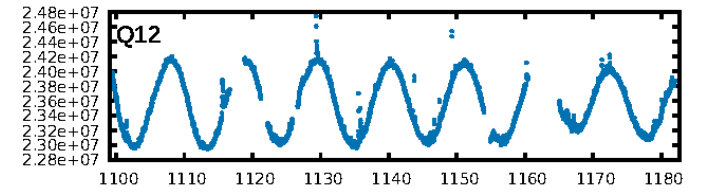
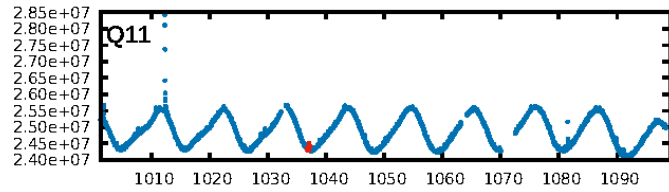
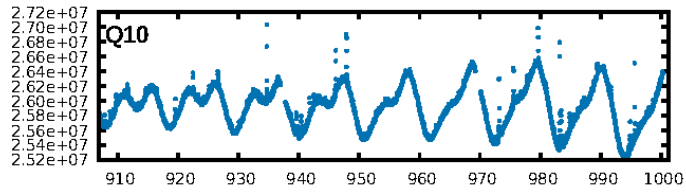
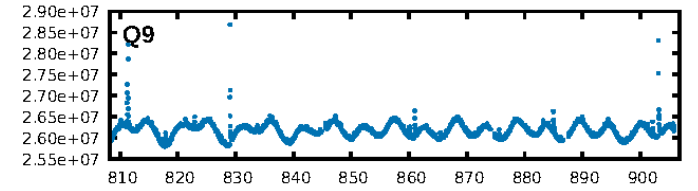
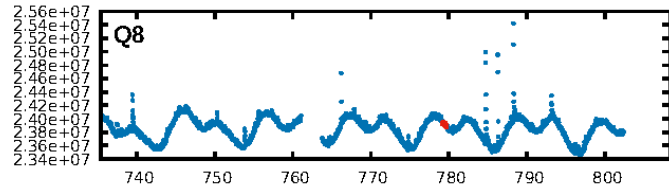
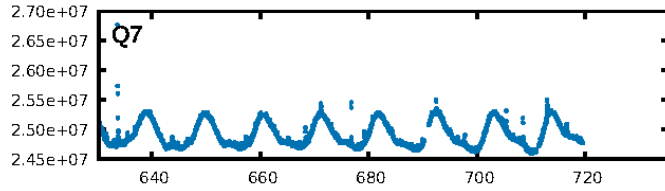
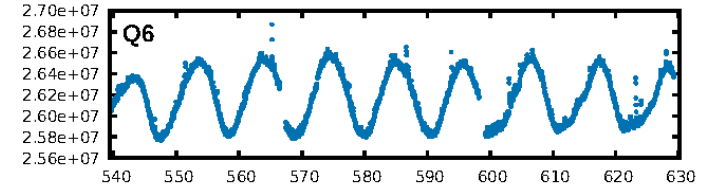
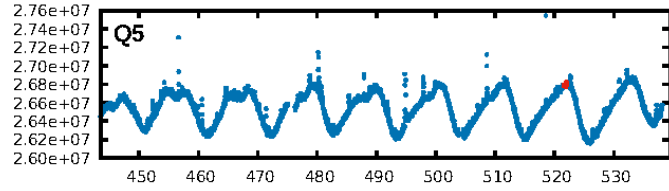
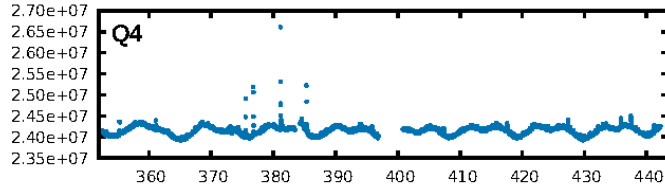
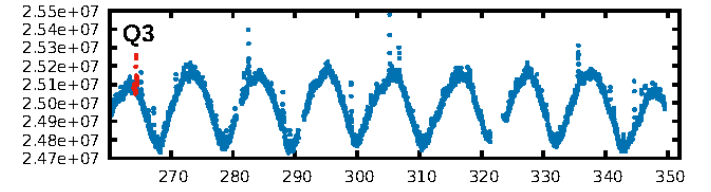
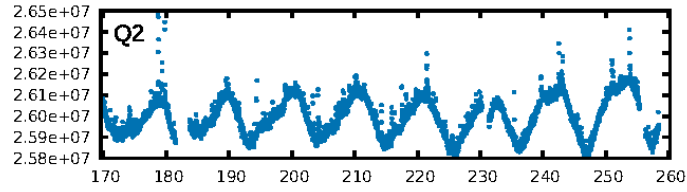
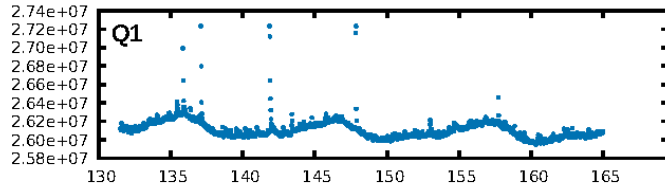
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [98.87σ]
LongPeriod-sig: 100.0% [268.35σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 88.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 7.616
Centroid-sig: 0.0%
Centroid-so: 2.209 arcsec [3.02σ]
OotOffset-rm: 0.439 arcsec [0.45σ]
KicOffset-rm: 0.874 arcsec [0.95σ]
OotOffset-st: 0/1/2/1 [4]
KicOffset-st: 0/1/2/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [5/5]

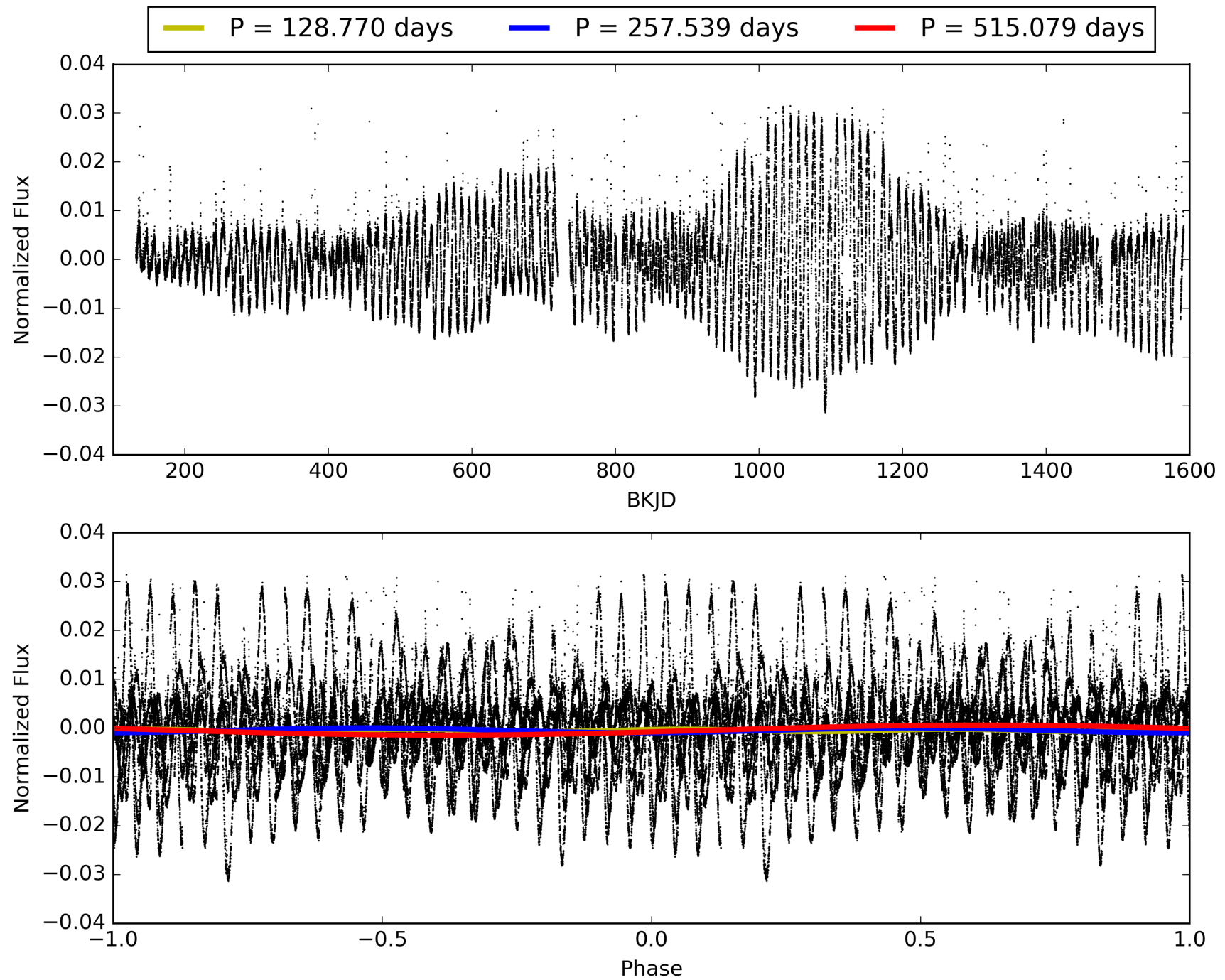
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:37:52 Z

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

TCE 007592133-06, PDC Light Curves

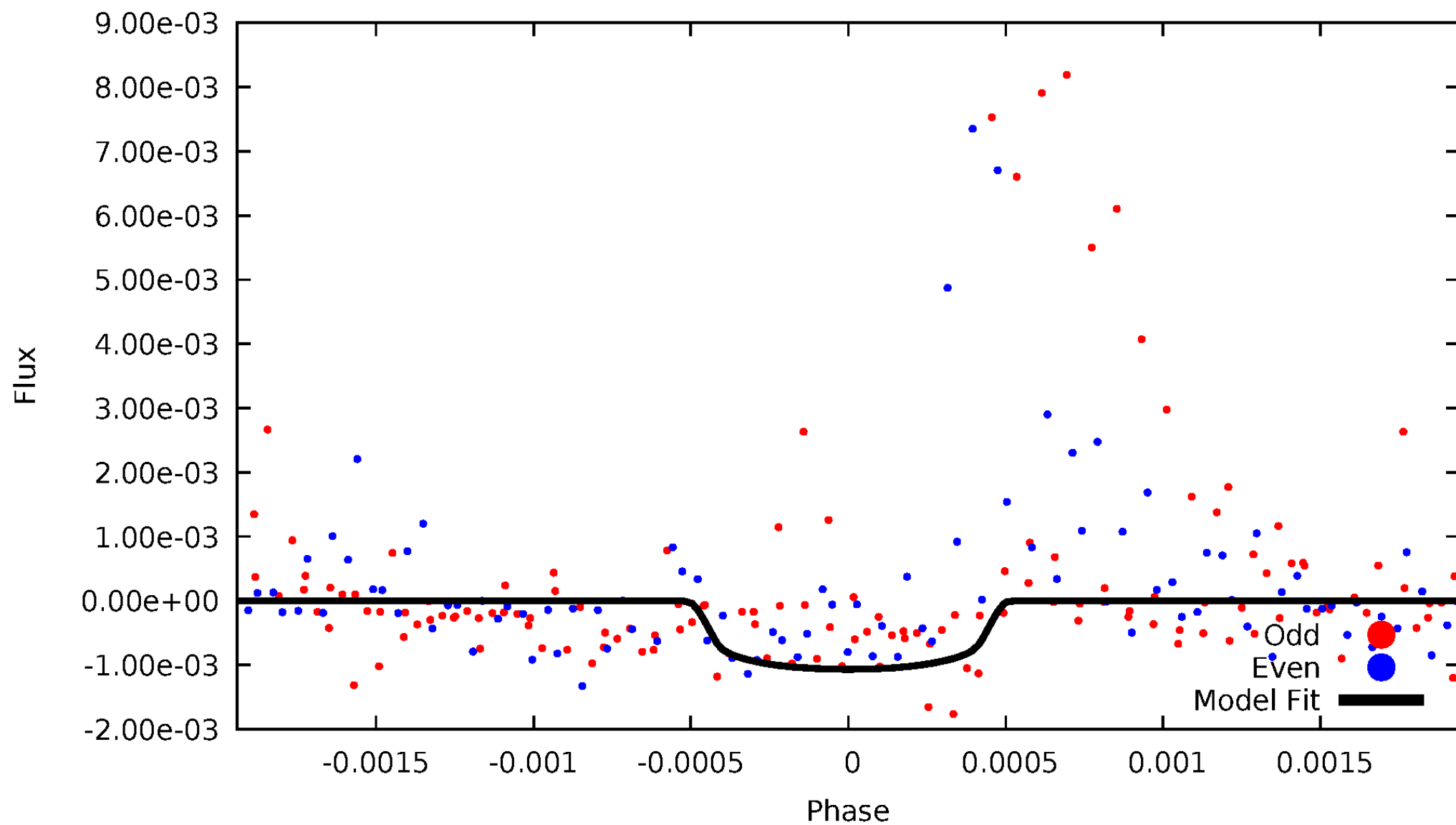


TCE 007592133-06



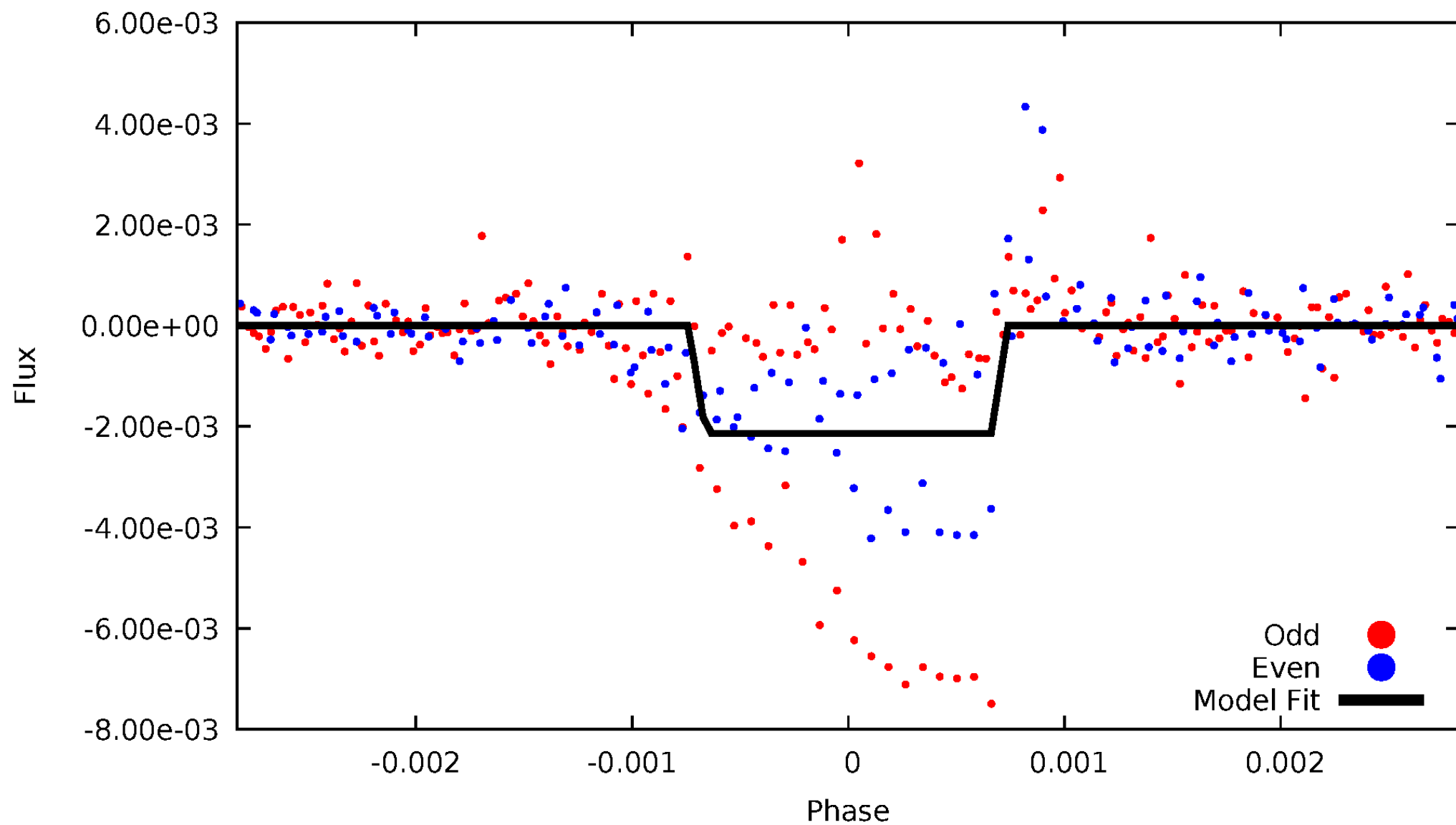
DV Odd/Even

TCE 007592133-06



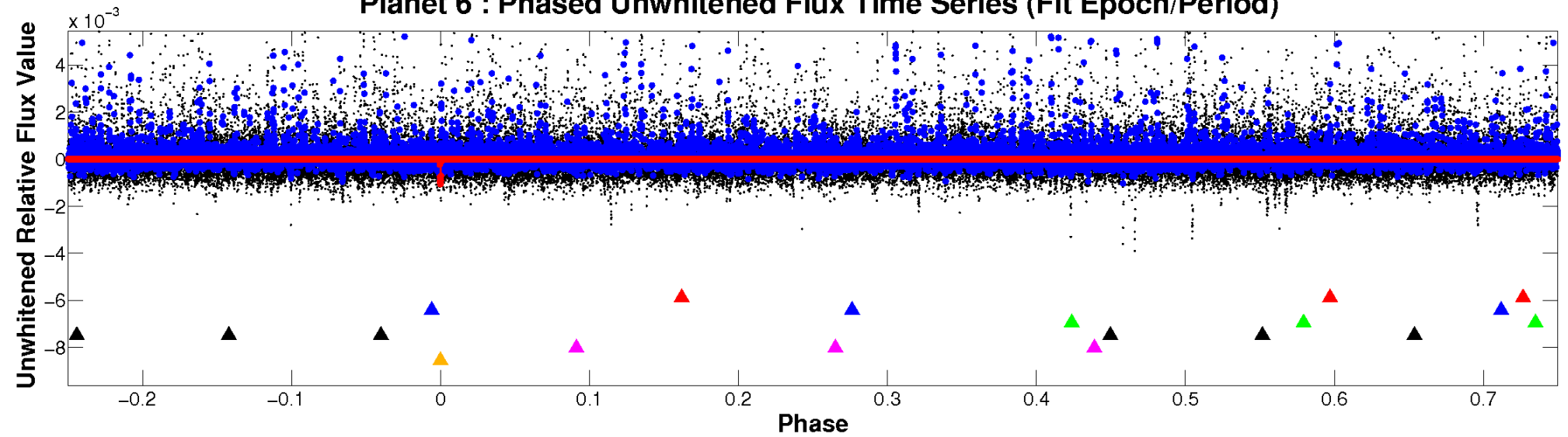
ALT Odd/Even

TCE 007592133-06

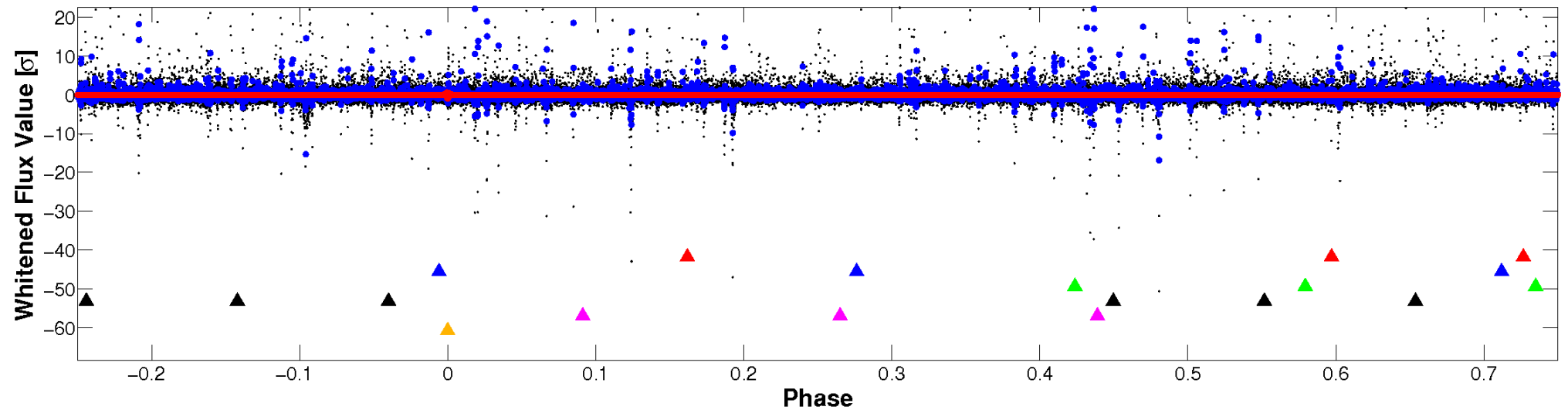


Non-Whitened Vs. Whitened Light Curve

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

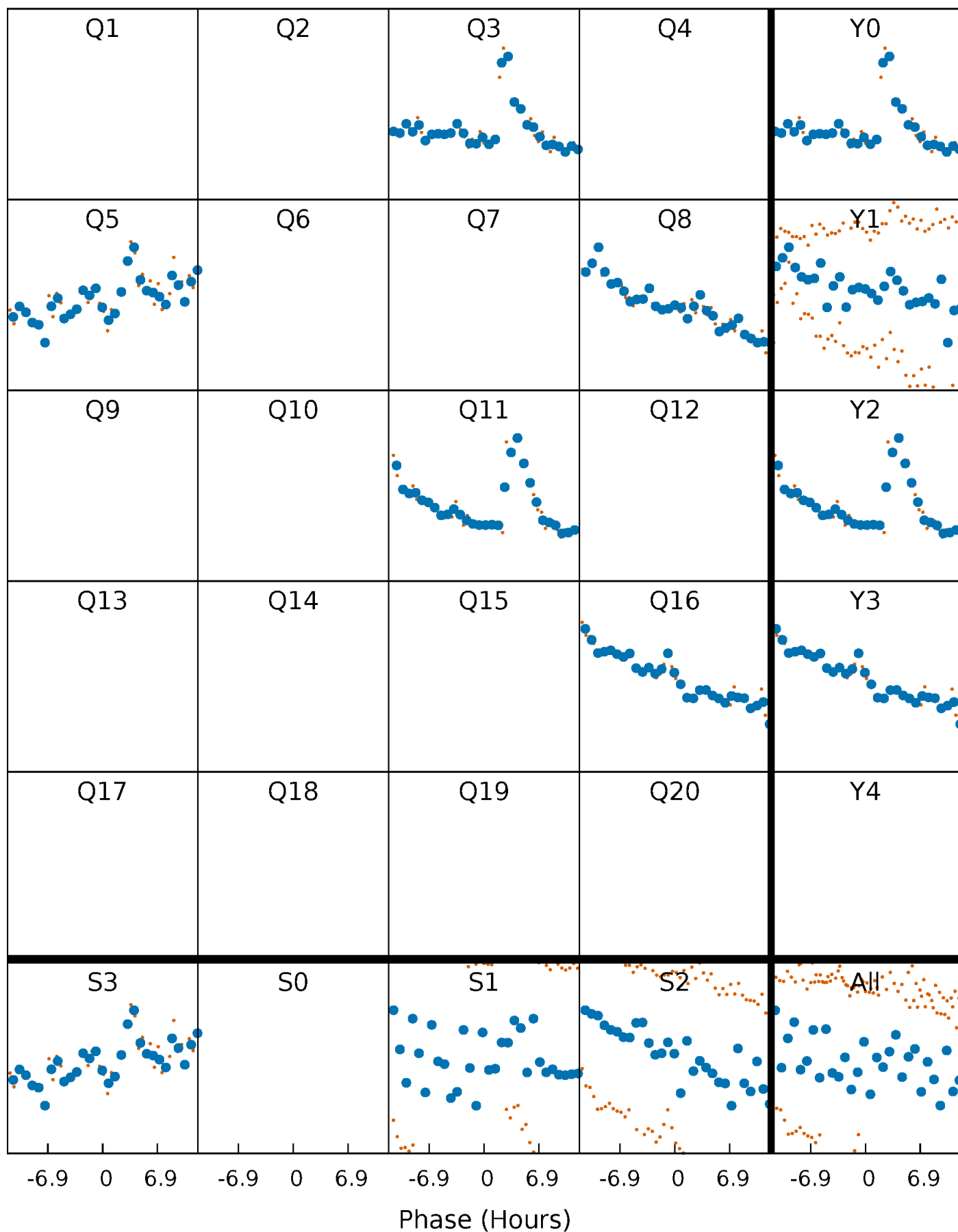


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



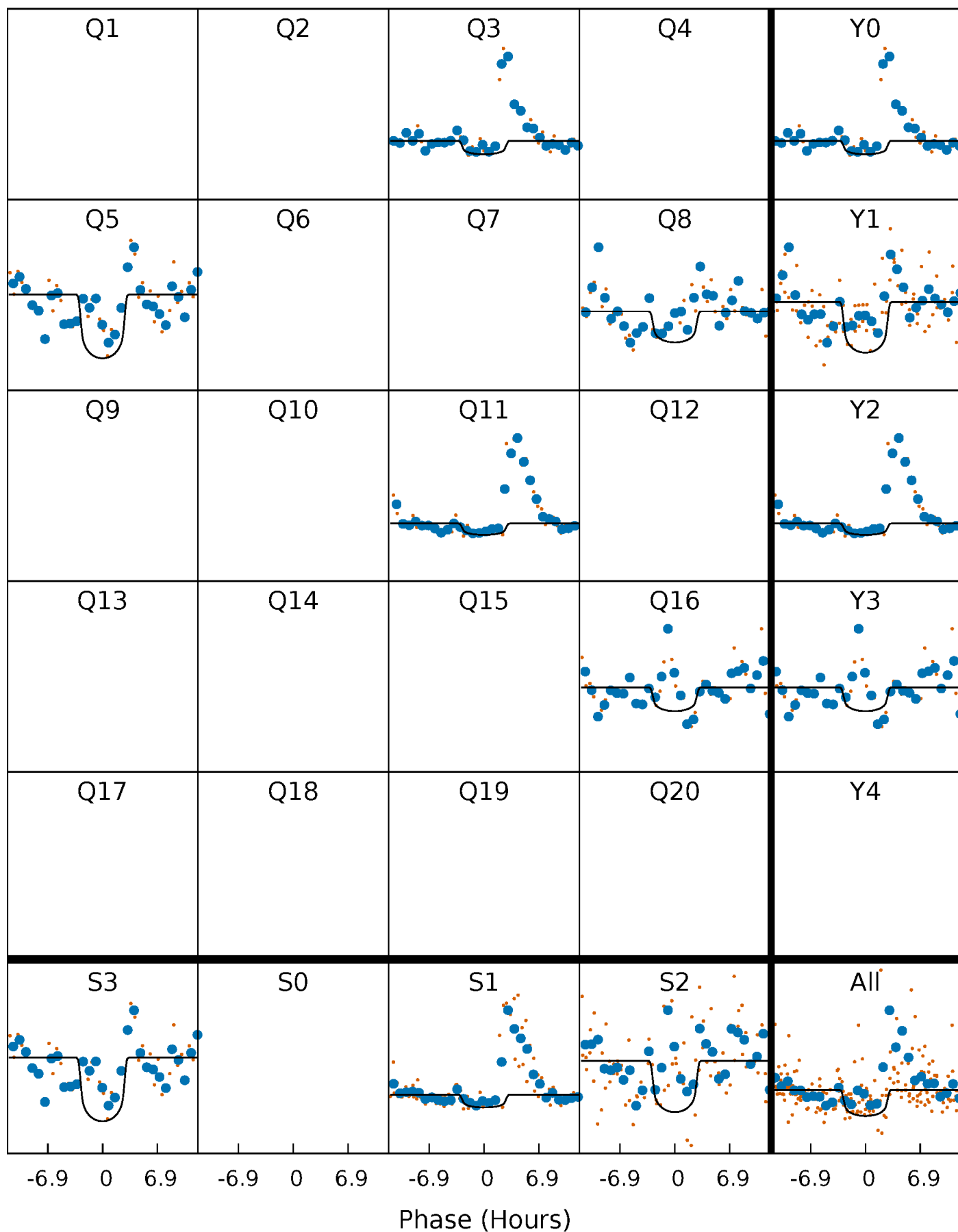
PDC Quarter-Phased Transit Curves

TCE 007592133-06 P=257.539439 Days $T_0=264.311590$ (BKJD)



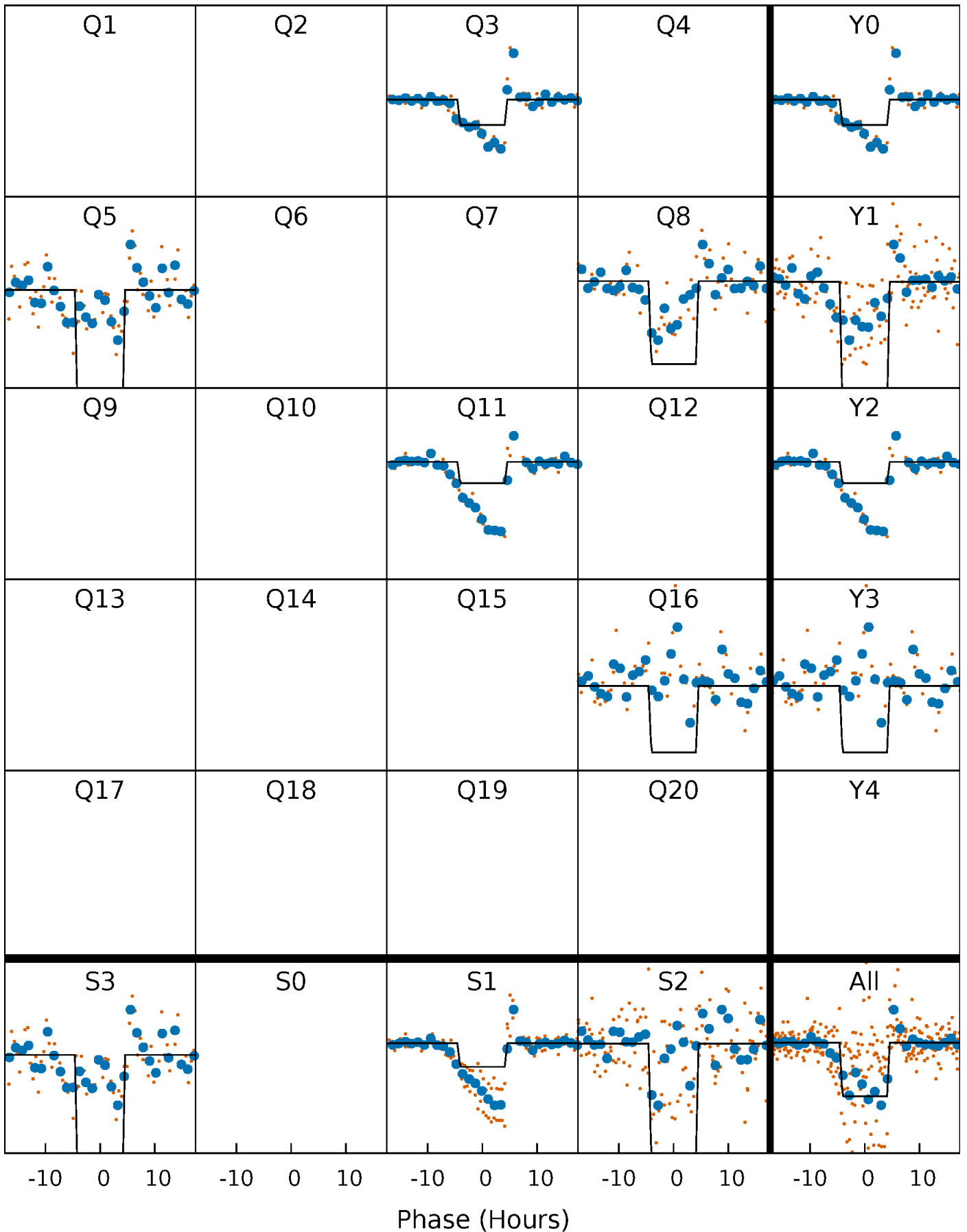
DV Quarter-Phased Transit Curves

TCE 007592133-06 P=257.539439 Days $T_0=264.311590$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

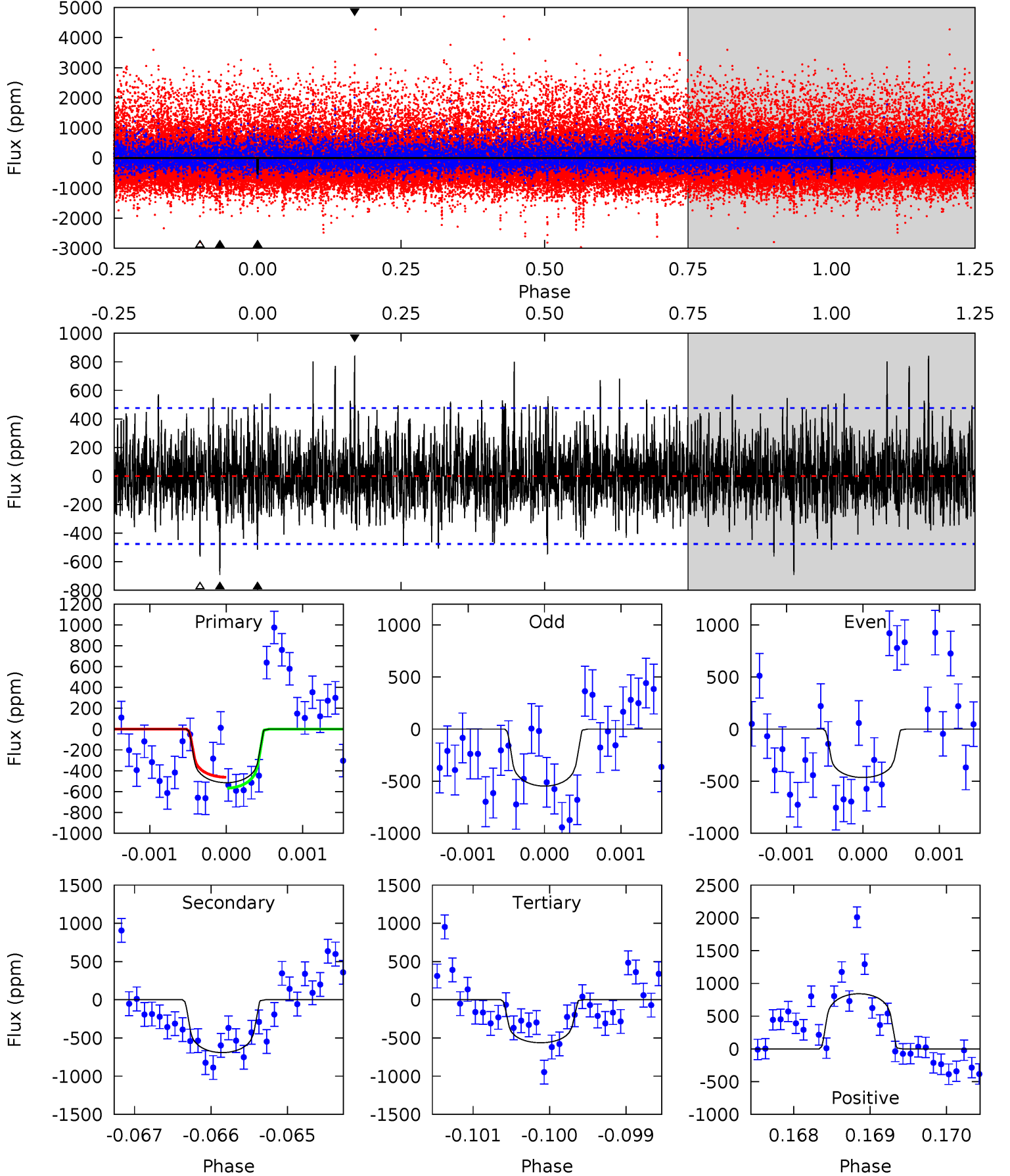
TCE 007592133-06 P=257.551401 Days $T_0=264.202323$ (BKJD)



DV Model-Shift Uniqueness Test

007592133-06, P = 257.539439 Days, E = 6.772151 Days

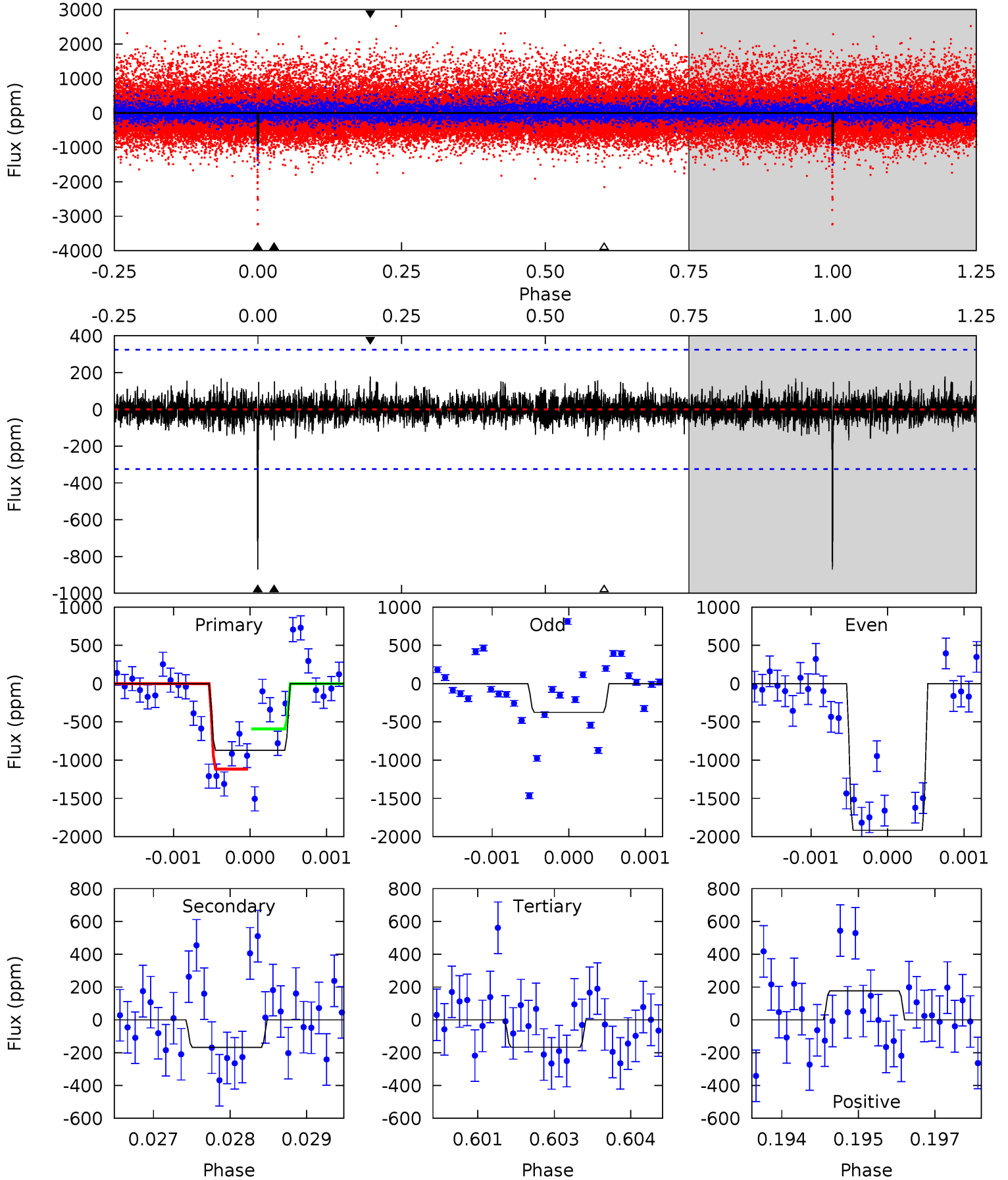
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.88	7.90	6.43	9.63	5.45	3.29	2.00	-0.55	-3.74	1.47	-1.72	0.41	0.50	0.55	0.61



Alt Model-Shift Uniqueness Test

007592133-06, P = 257.551401 Days, E = 6.650922 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	2.79	2.77	2.94	5.39	3.19	0.69	11.7	11.5	0.02	-0.15	13.6	2.17	0.17	0



Stellar Parameters For KIC 007592133

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3324^{+43}_{-36}	$5.032^{+0.044}_{-0.040}$	$-0.100^{+0.100}_{-0.100}$	$0.236^{+0.032}_{-0.026}$	$0.218^{+0.042}_{-0.028}$	$23.450^{+5.770}_{-4.637}$
	+1%/-1%	+1%/-1%	+100%/-100%	+14%/-11%	+19%/-13%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 007592133-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-691 ± 87	$0.84^{+0.35}_{-0.35}$	144^{+3}_{-3}	3118^{+565}_{-270}	$123497^{+227155}_{-60165}$
Alt.	-168 ± 60	$1.18^{+0.34}_{-0.34}$	144^{+3}_{-3}	2378^{+202}_{-173}	15204^{+15421}_{-7227}

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

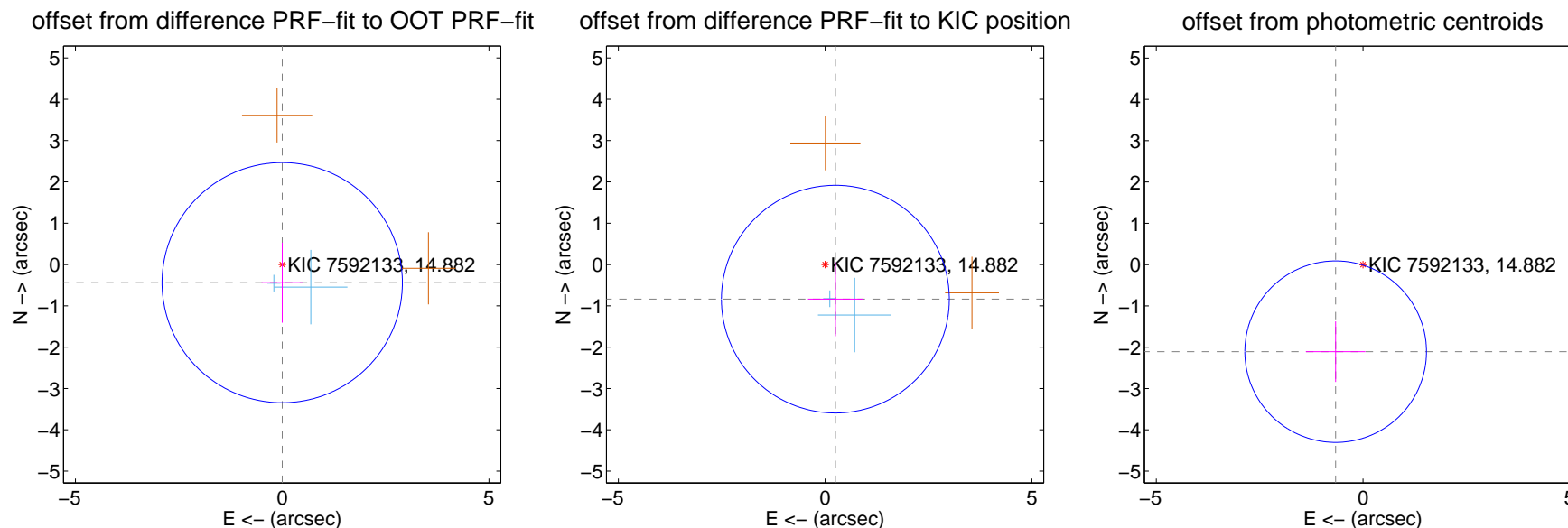
DV Centroid Data

Supplemental centroid analysis for 007592133-06. Kepler magnitude: 14.88. Transit SNR 6.41

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.68 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.439 ± 0.969	0.45	-0.000 ± 0.500	-0.439 ± 0.969
PRF-fit source offset from KIC position	0.874 ± 0.918	0.95	-0.248 ± 0.661	-0.838 ± 0.897
photometric centroid source offset	2.21 ± 0.73	3.02	0.66 ± 0.72	-2.11 ± 0.73



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



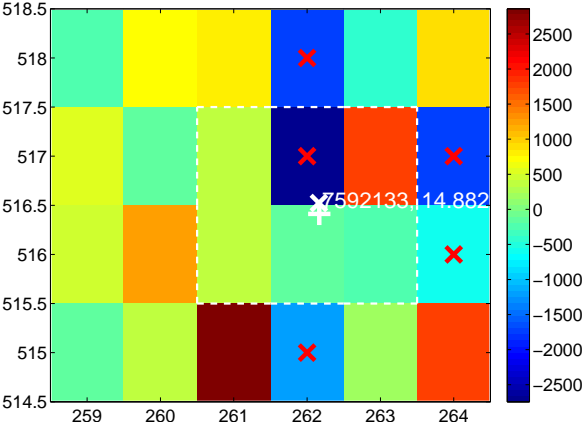
Q2 no difference image



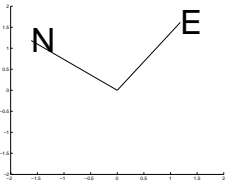
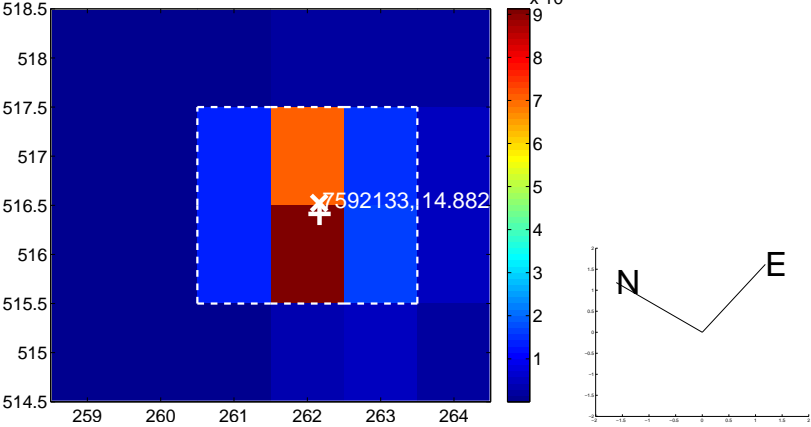
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



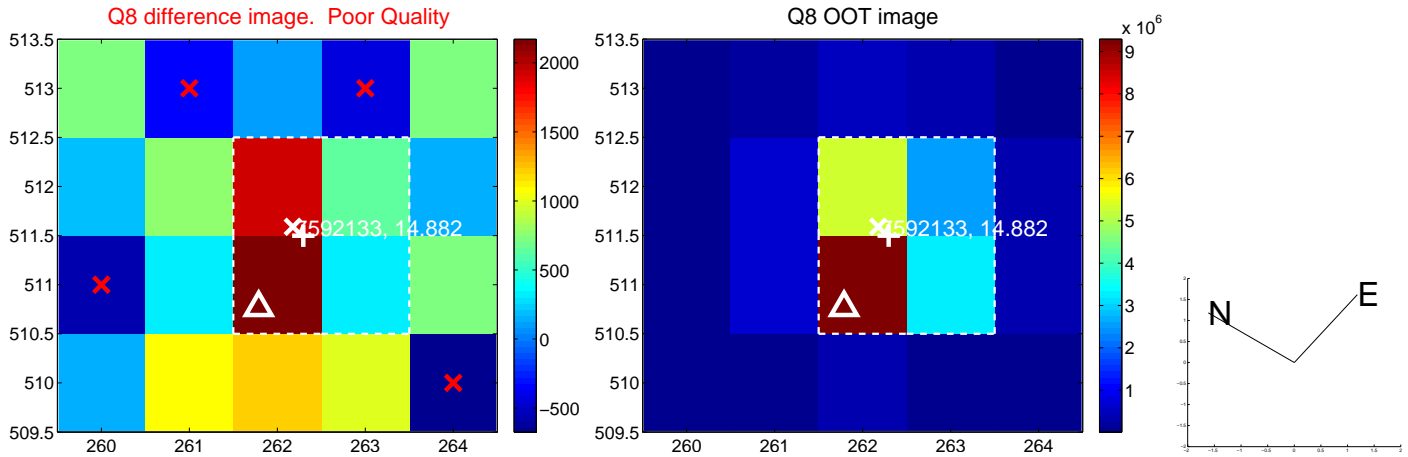
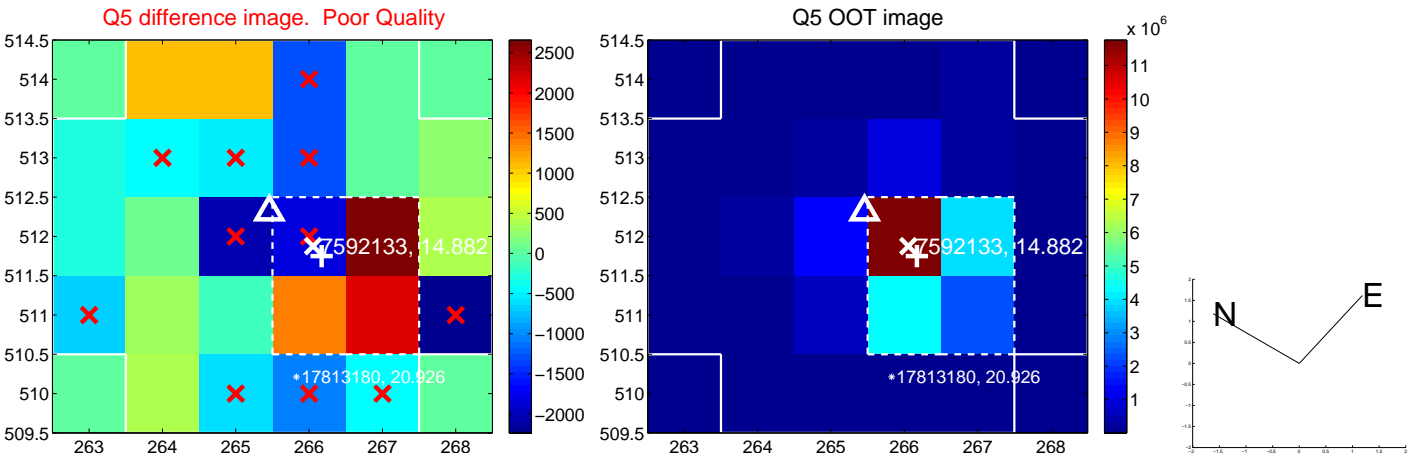
Q4 no difference image



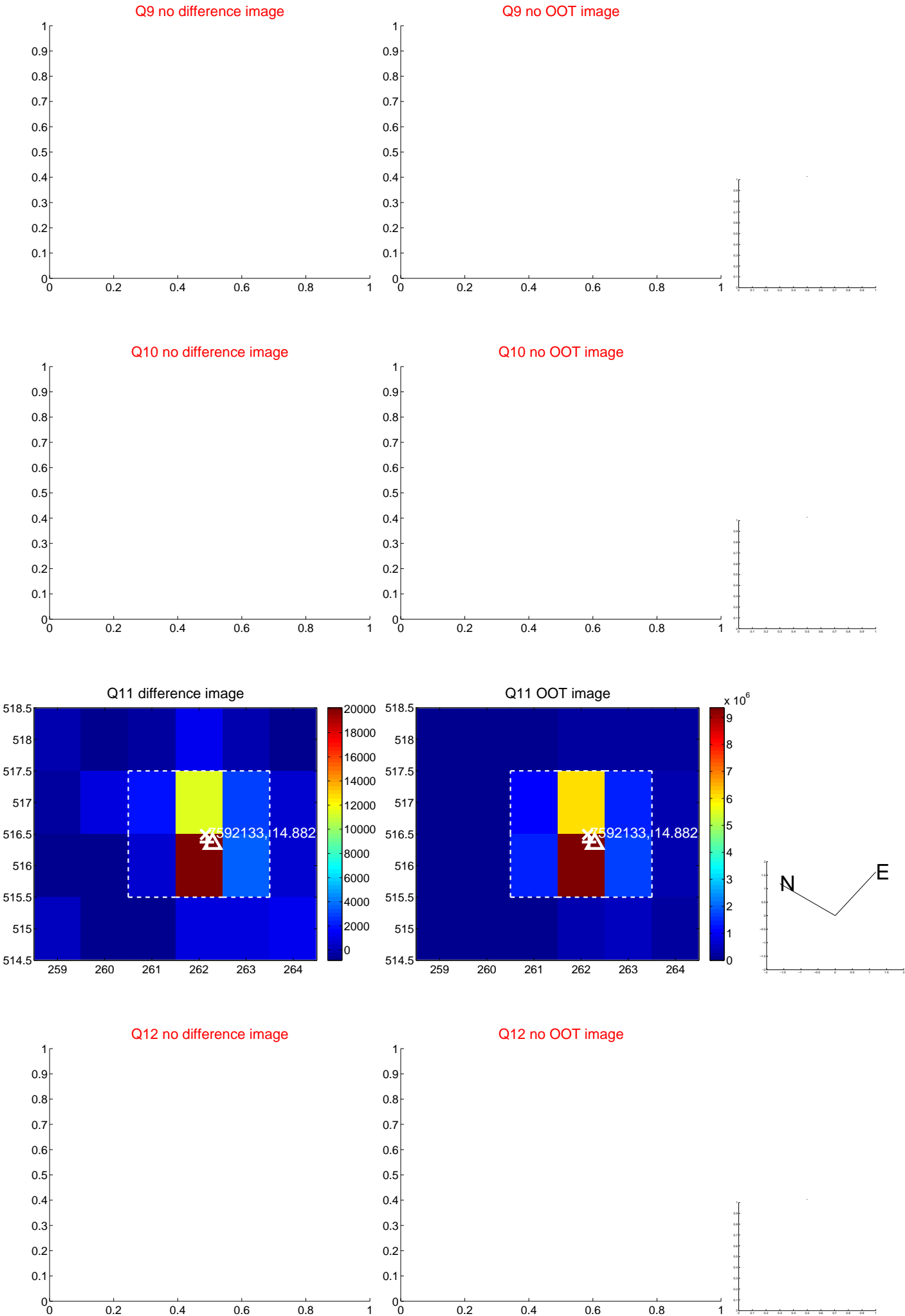
Q4 no OOT image



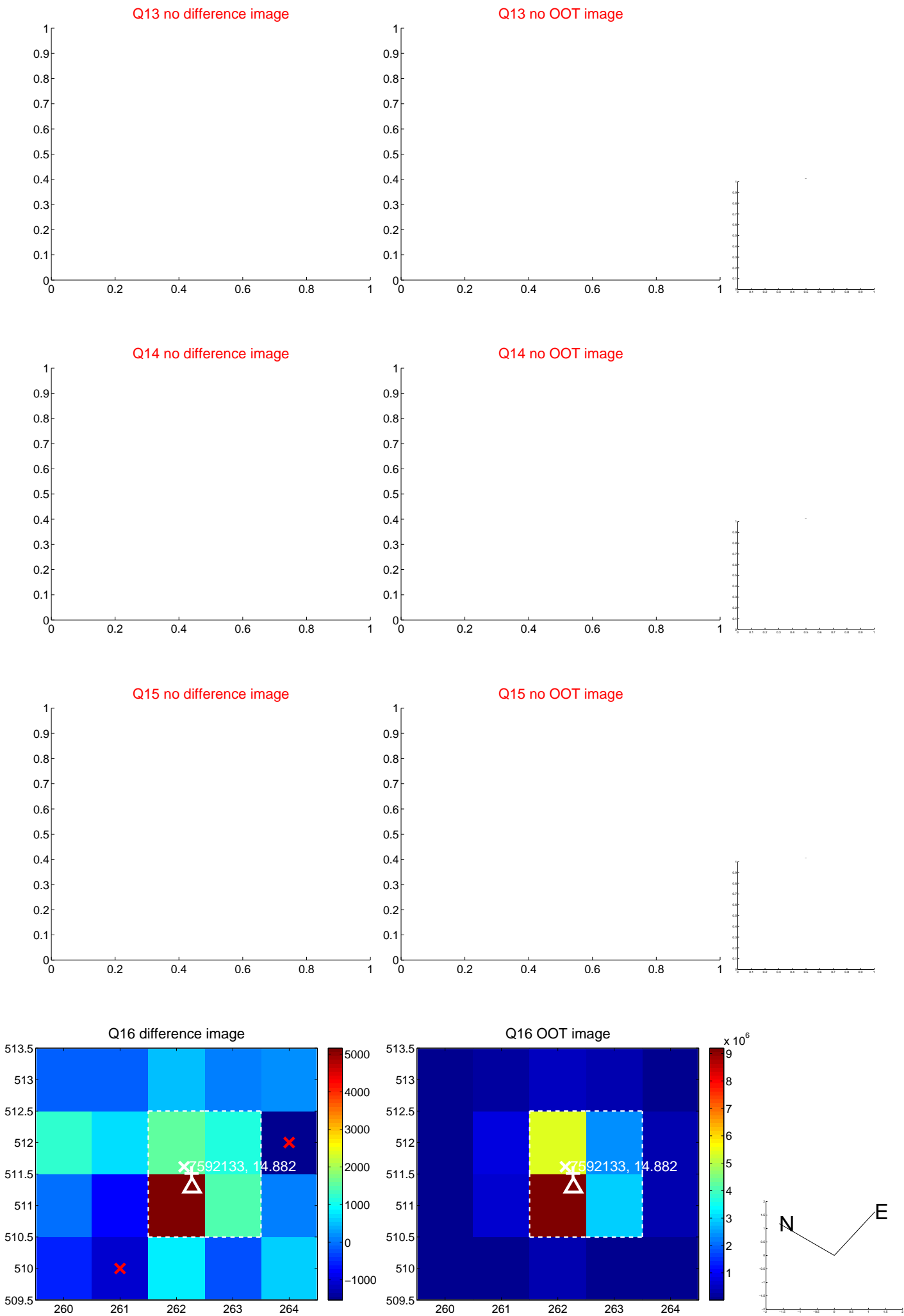
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



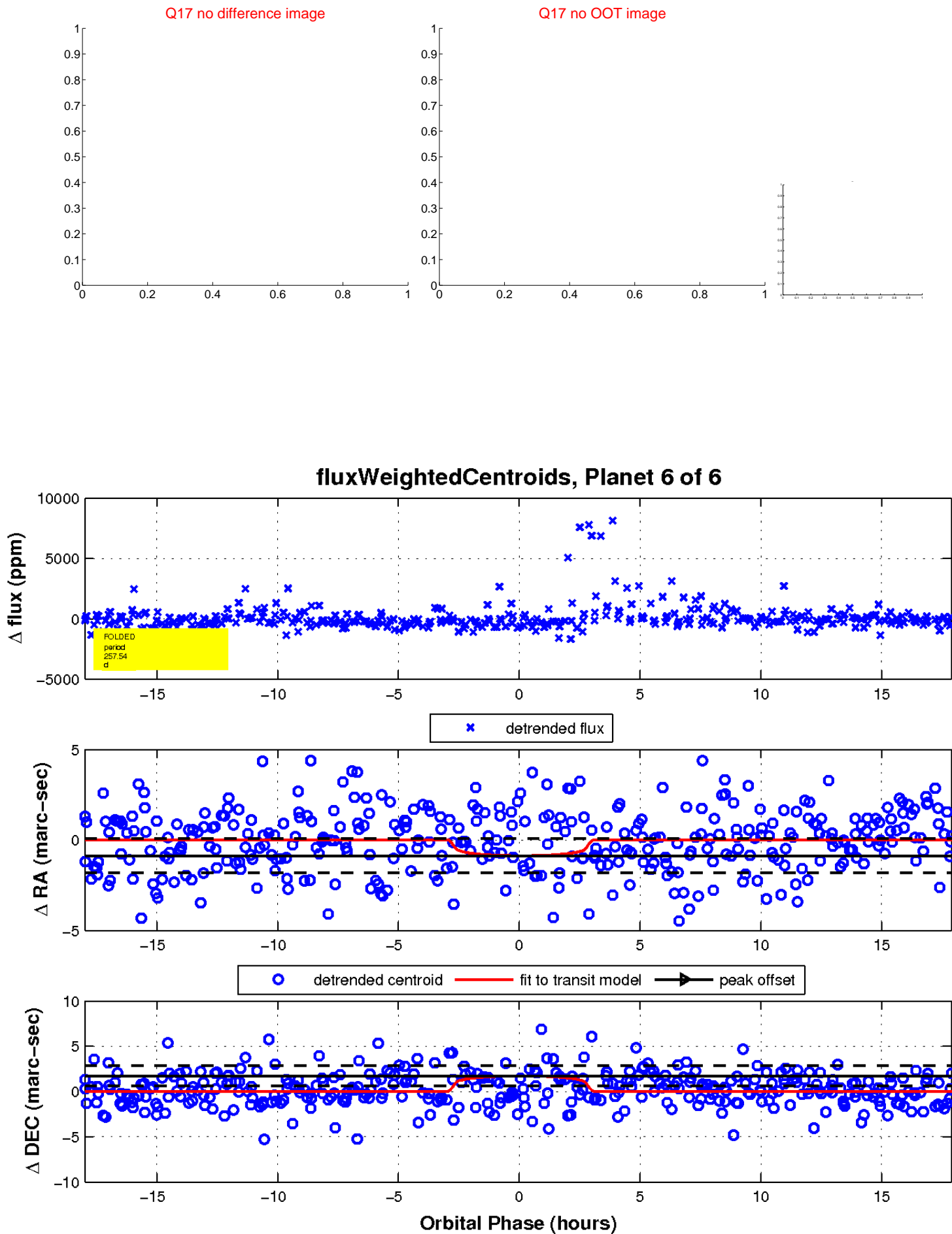
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

