

KIC 005793299

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})
005793299-01	OBS	No	533.659441	250.217535	1697.3	8.565	9.0	5.9	0.67	4254	3.37	0.10
005793299-02	OBS	No	508.489474	486.952034	2289.2	7.619	11.3	7.5	0.67	4254	4.00	0.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005793299-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
005793299-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—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.

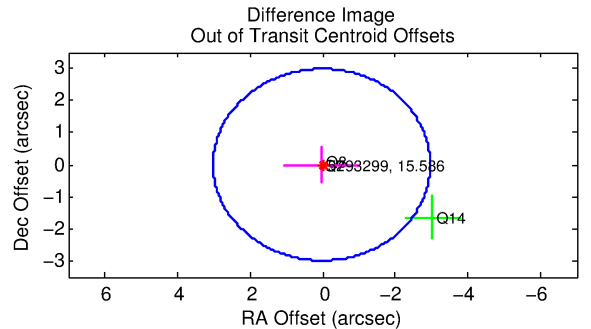
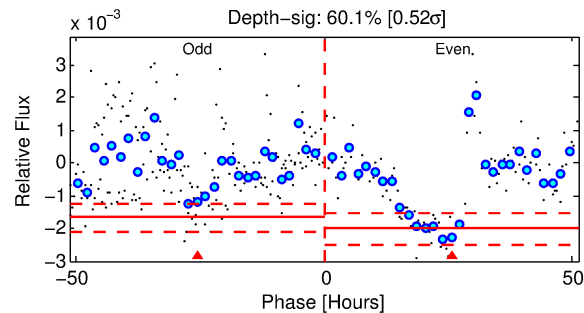
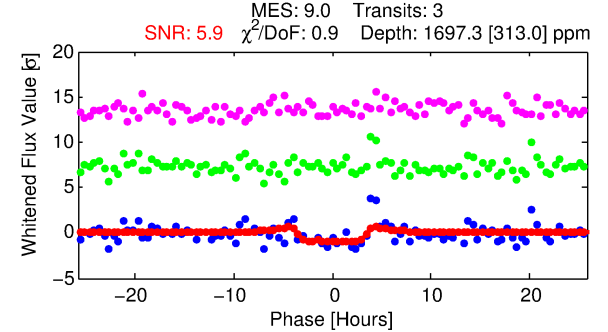
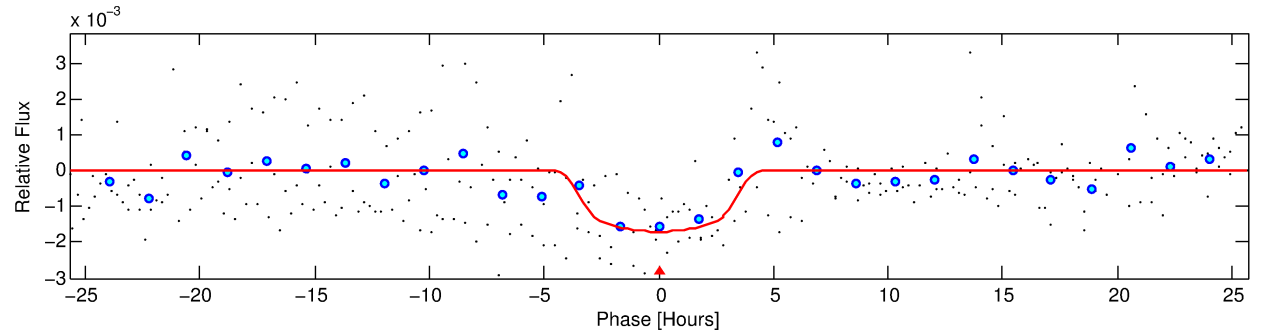
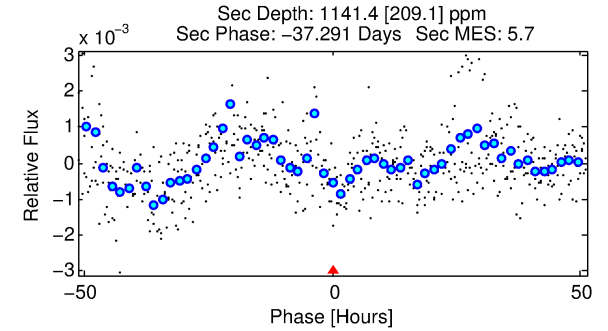
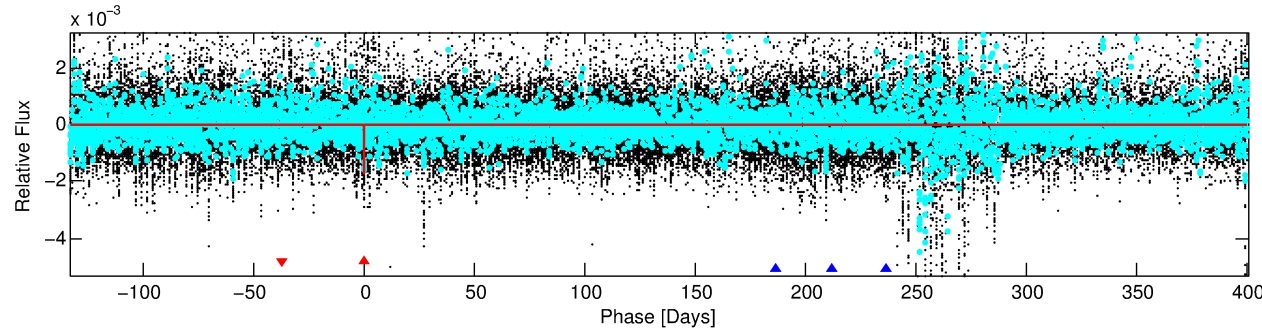
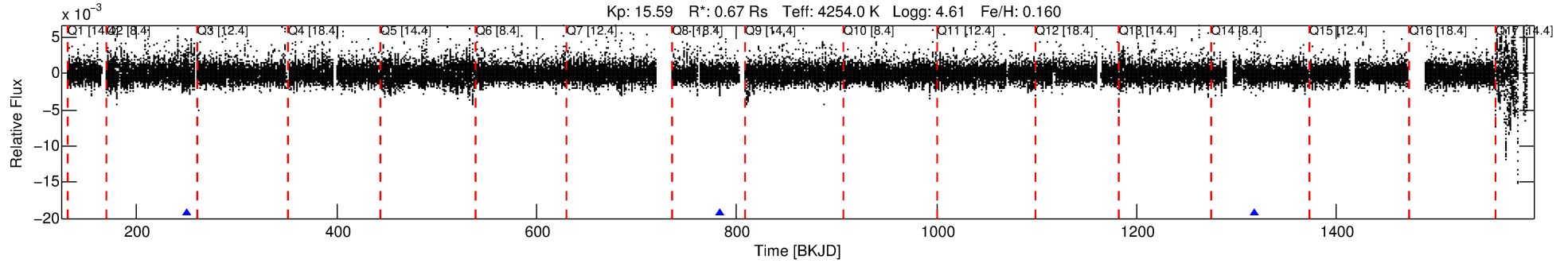
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005793299-01

No Significant Match Found

DV One-Page Summary

KIC: 5793299 Candidate: 1 of 2 Period: 533.659 d



DV Fit Results:

Period = 533.65944 [0.01189] d
Epoch = 250.2175 [0.0178] BKJD
Rp/R* = 0.0459 [0.0063]
a/R* = 265.24 [77.47]
b = 0.89 [0.07]
Seff = 0.10 [0.02]
Teq = 145 [6] K
Rp = 3.37 [0.54] Re
a = 1.1249 [0.0779] AU
Ag = 70096.56 [24053.72] [2.91 σ]
Teffp = 3649 [322] K [10.89 σ]

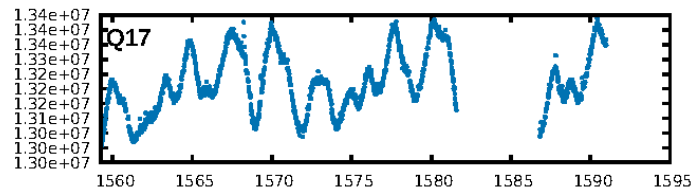
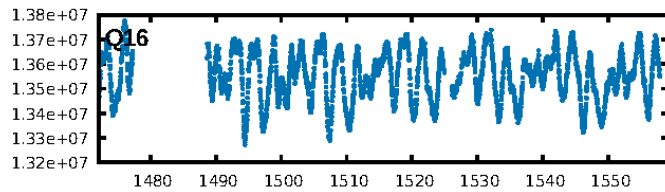
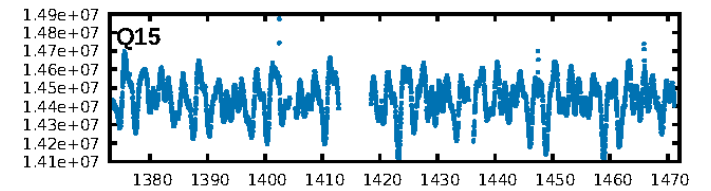
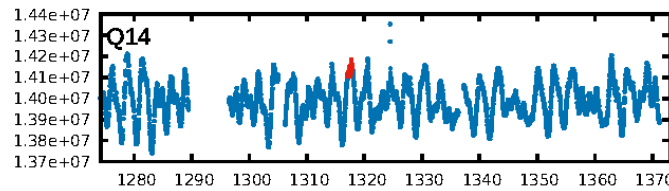
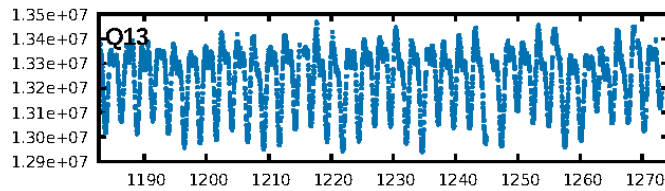
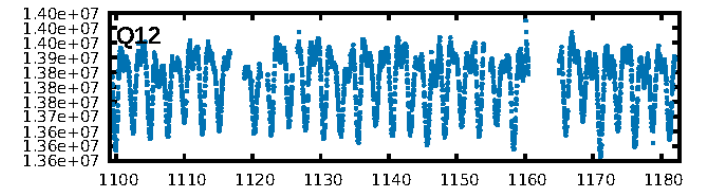
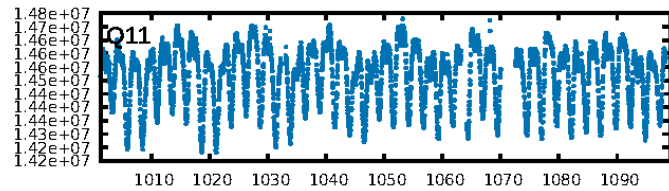
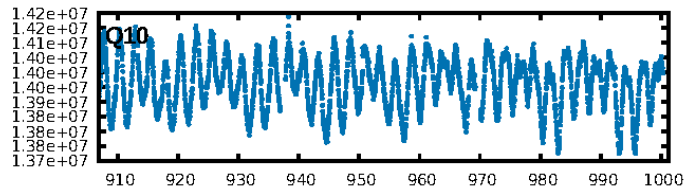
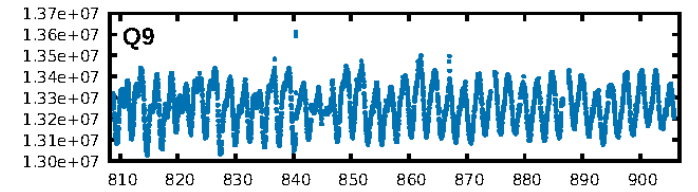
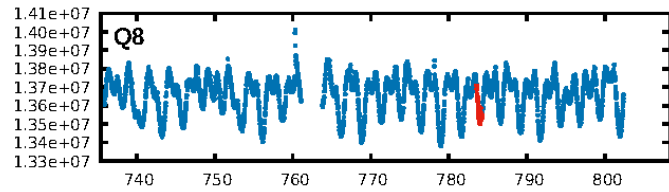
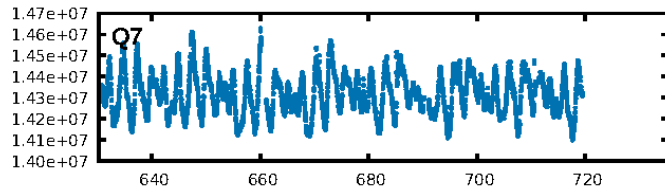
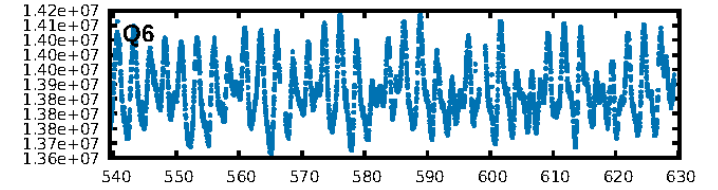
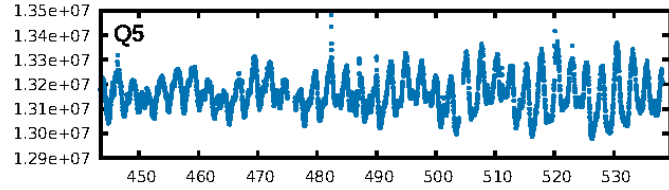
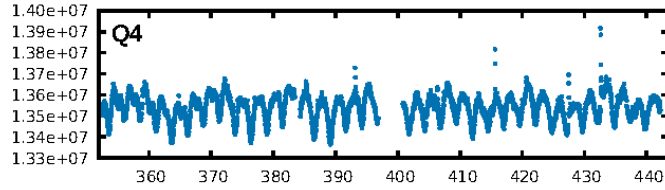
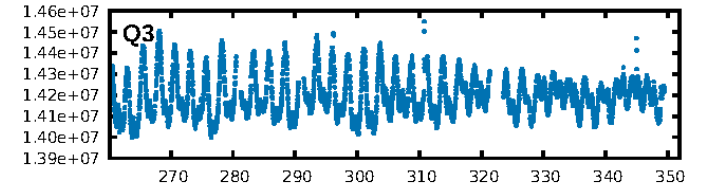
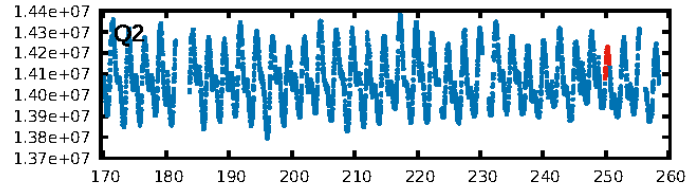
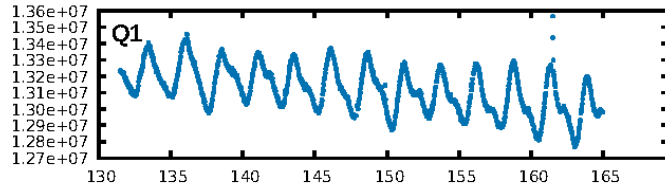
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [52.69 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 68.7%
ModelChiSquareGof-sig: 98.9%
Bootstrap-pfa: 4.81e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -3.081
Centroid-sig: 62.8%
Centroid-so: 0.379 arcsec [0.45 σ]
OotOffset-rm: 0.025 arcsec [0.03 σ]
OotOffset-st: 2/0/1/0 [3]
KicOffset-rm: 0.098 arcsec [0.22 σ]
KicOffset-st: 2/0/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

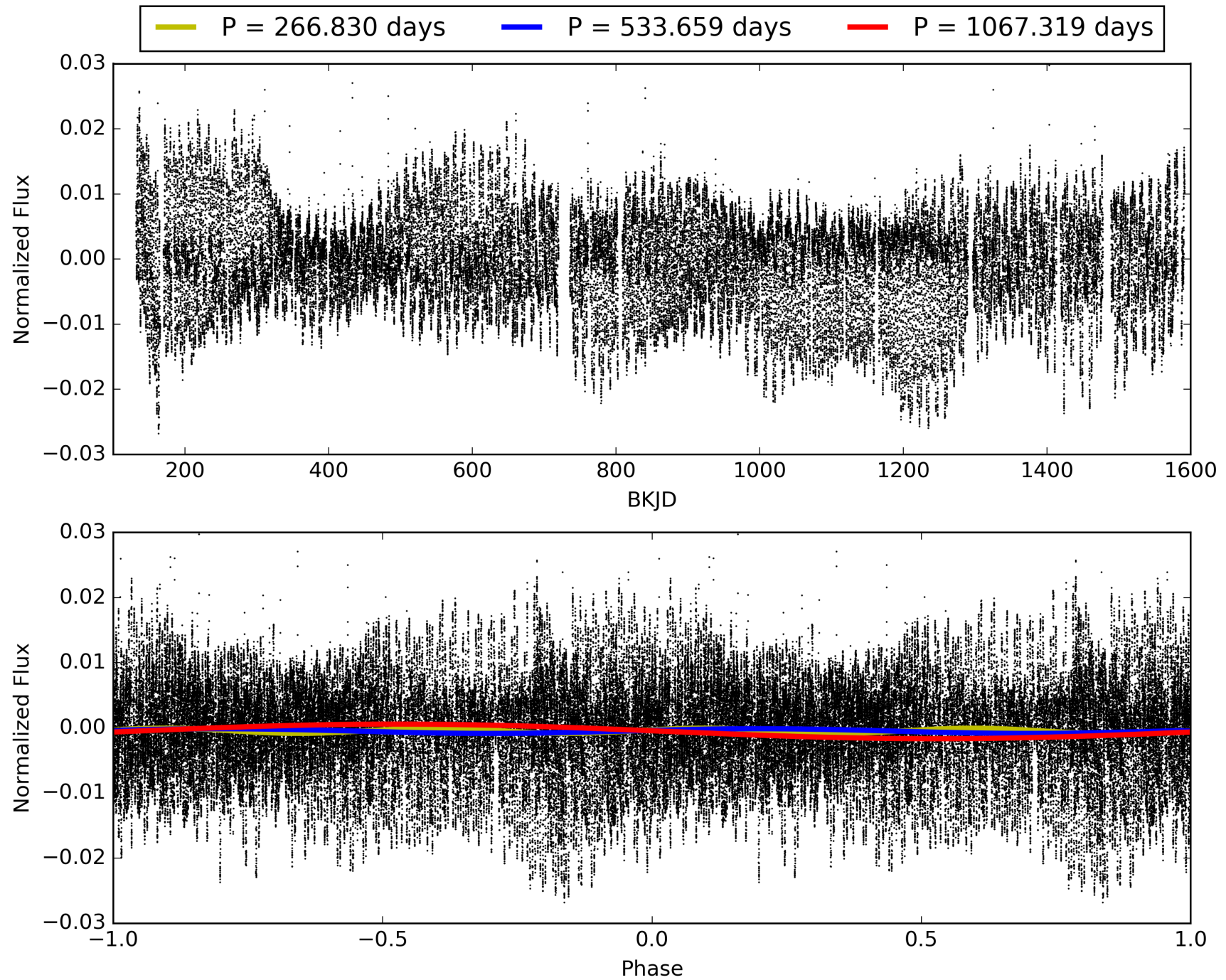
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:05:31 Z

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

TCE 005793299-01, PDC Light Curves

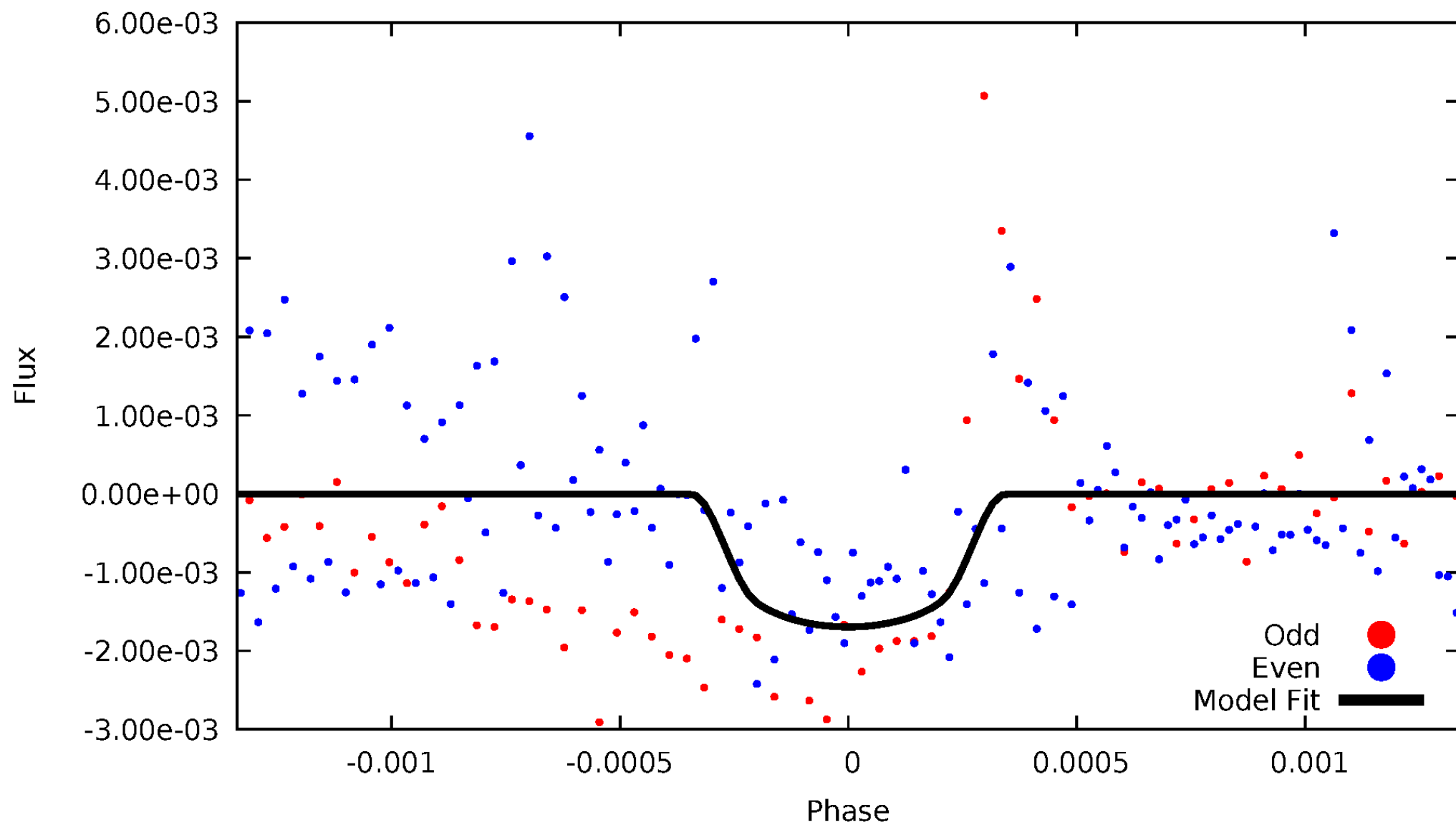


TCE 005793299-01



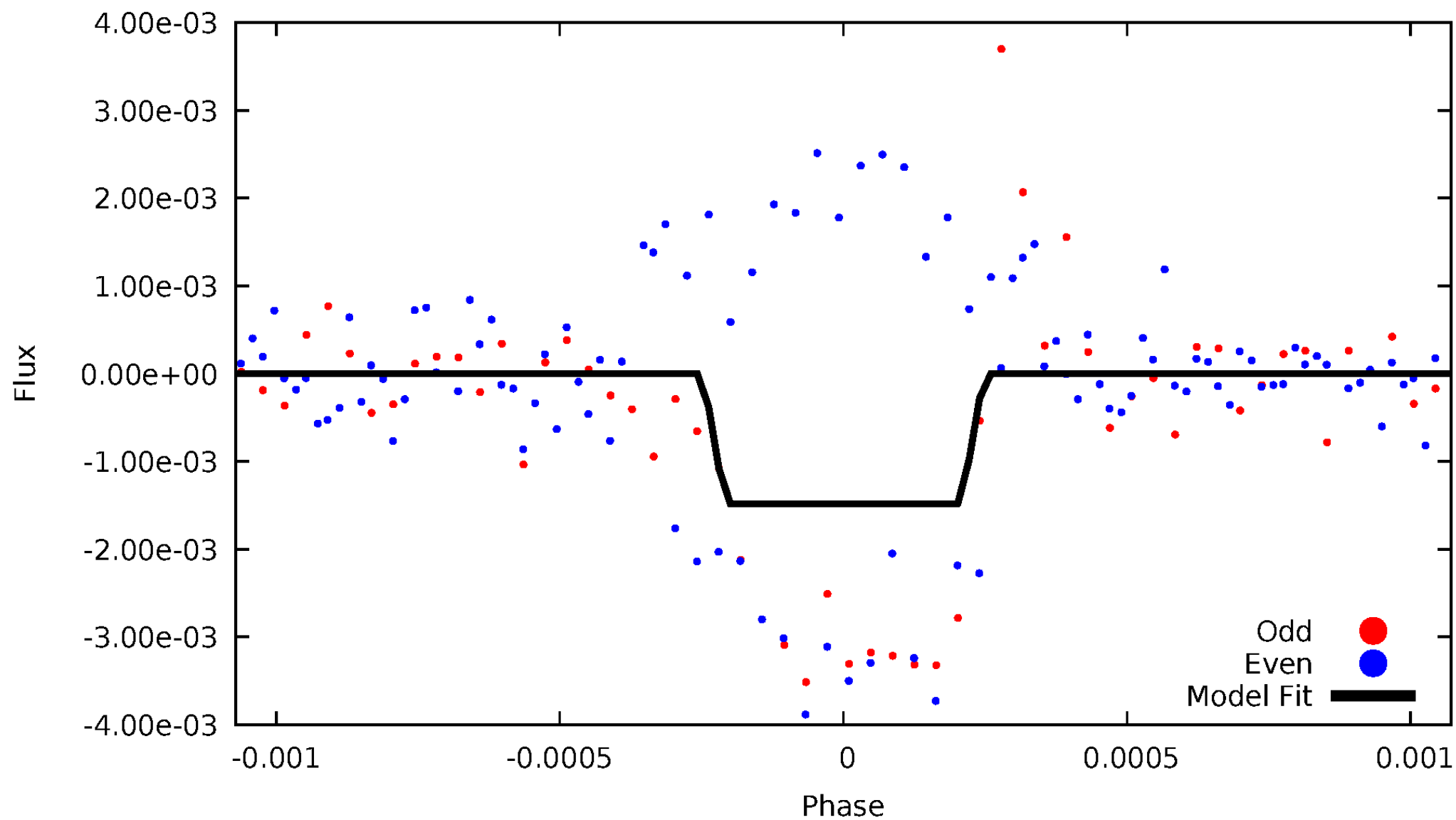
DV Odd/Even

TCE 005793299-01

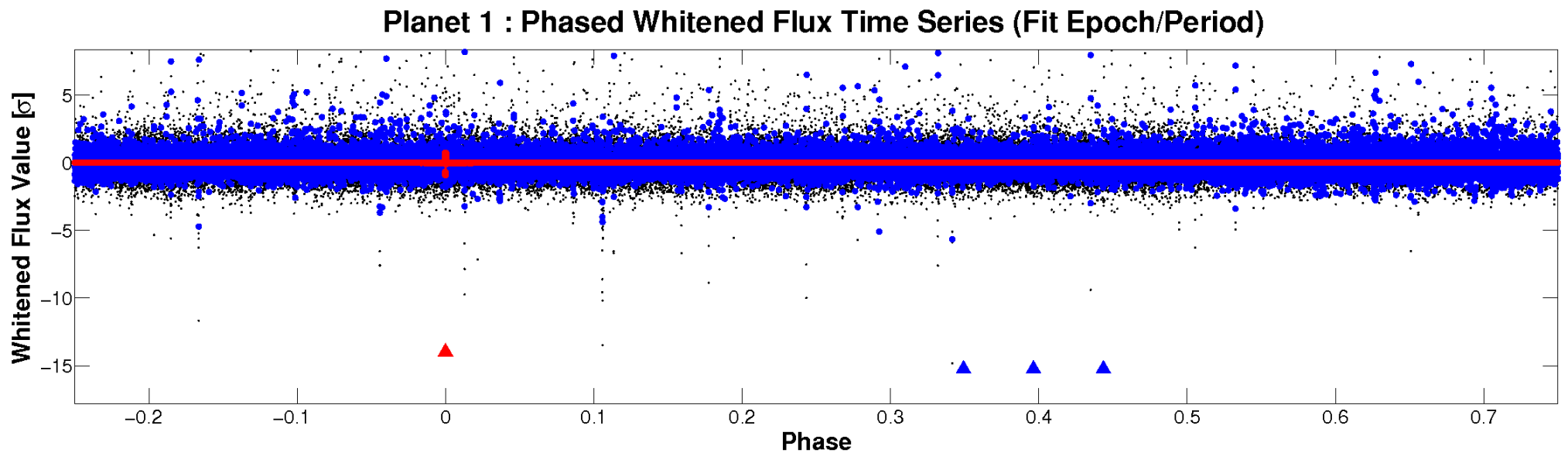
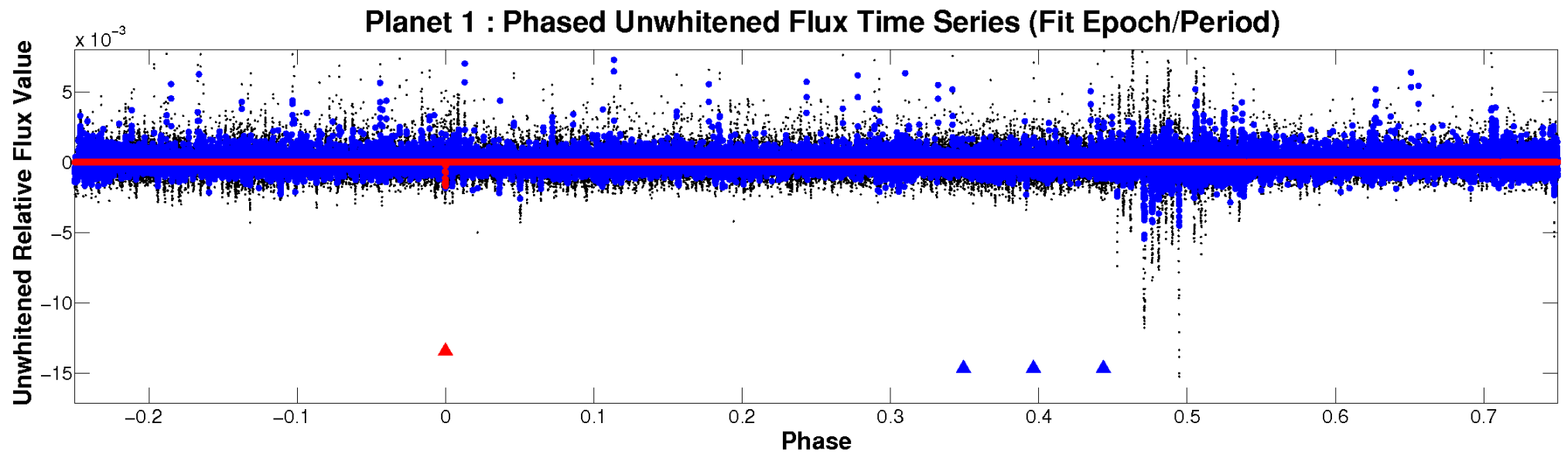


ALT Odd/Even

TCE 005793299-01

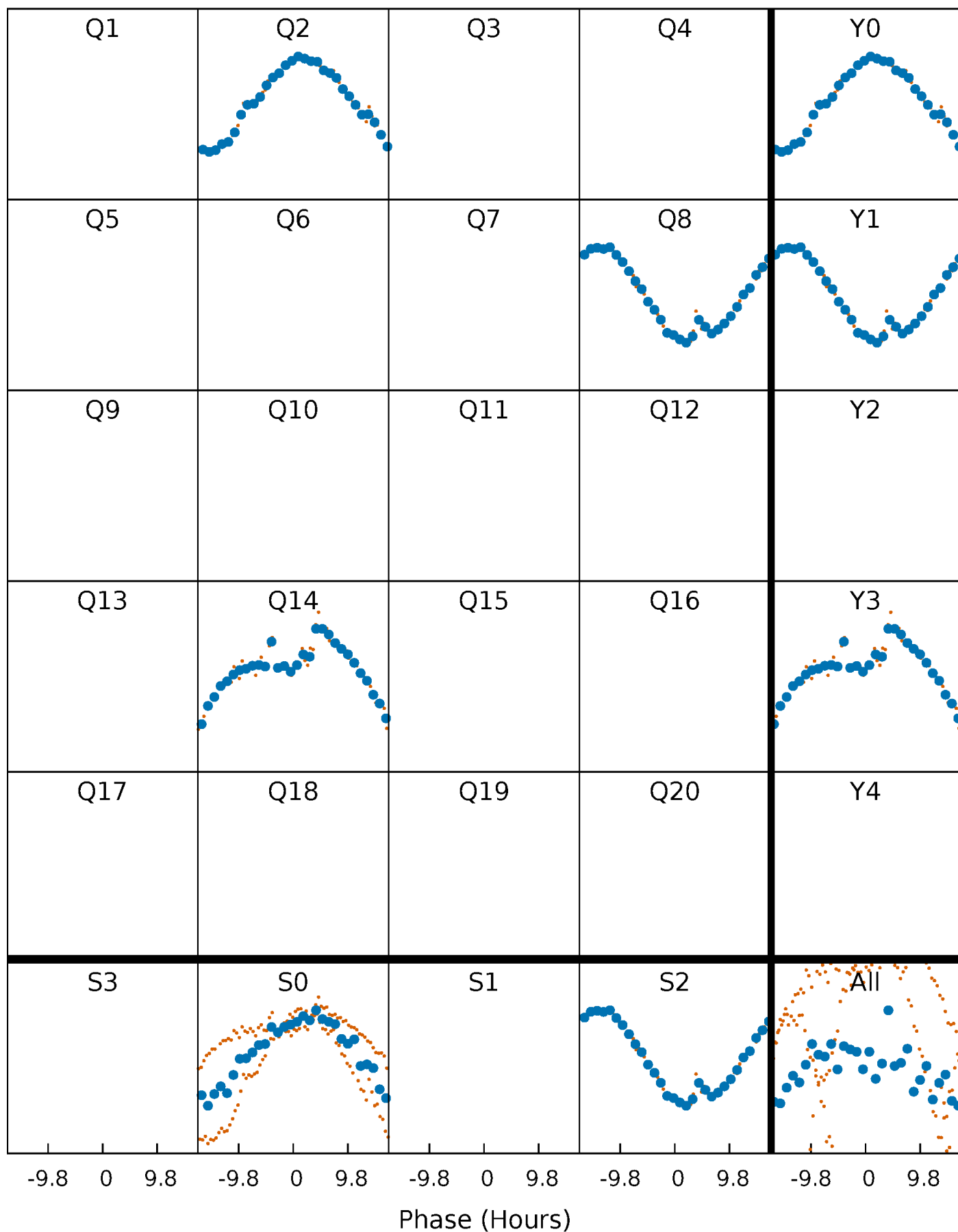


Non-Whitened Vs. Whitened Light Curve



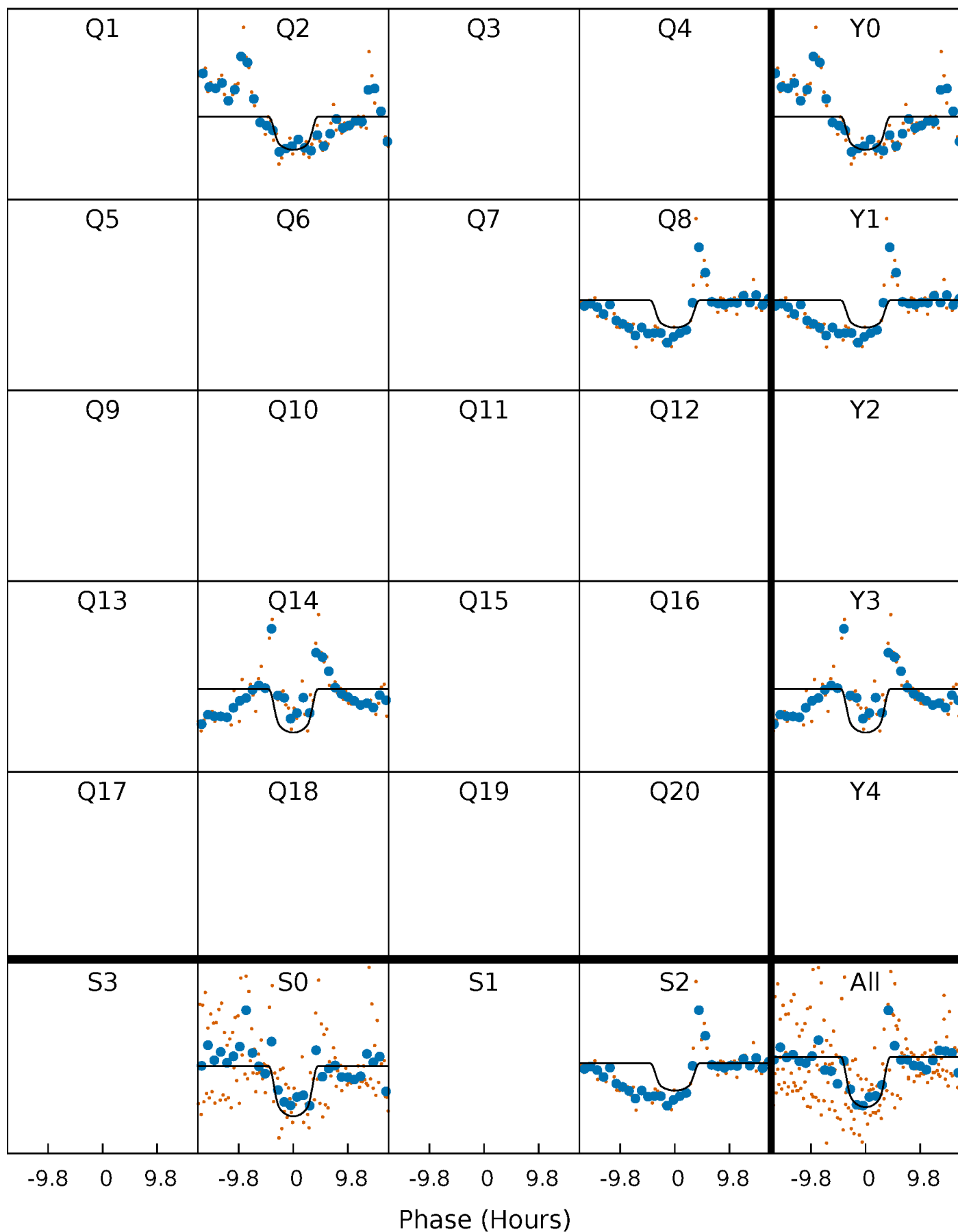
PDC Quarter-Phased Transit Curves

TCE 005793299-01 P=533.659441 Days $T_0=250.217535$ (BKJD)



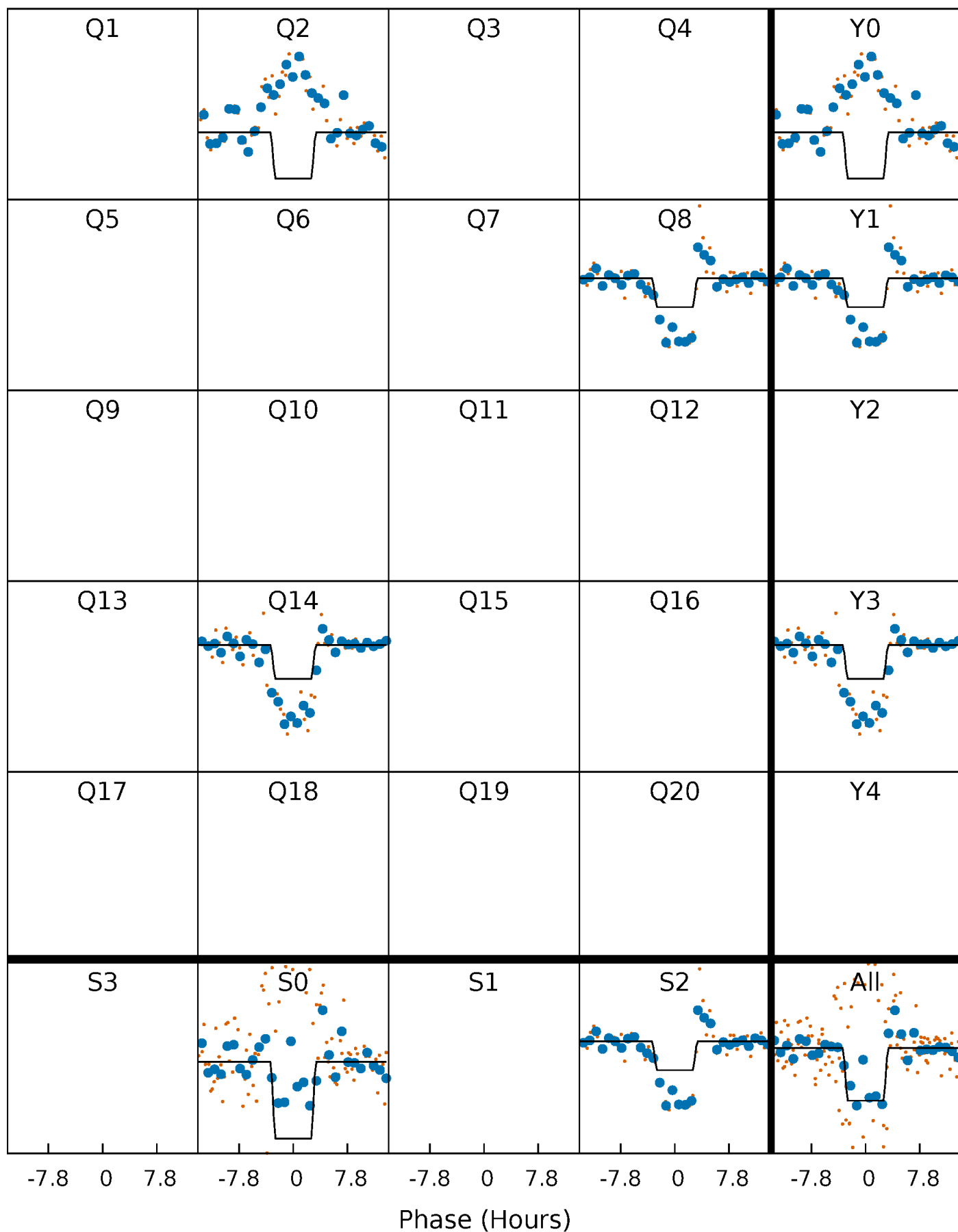
DV Quarter-Phased Transit Curves

TCE 005793299-01 P=533.659441 Days $T_0=250.217535$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

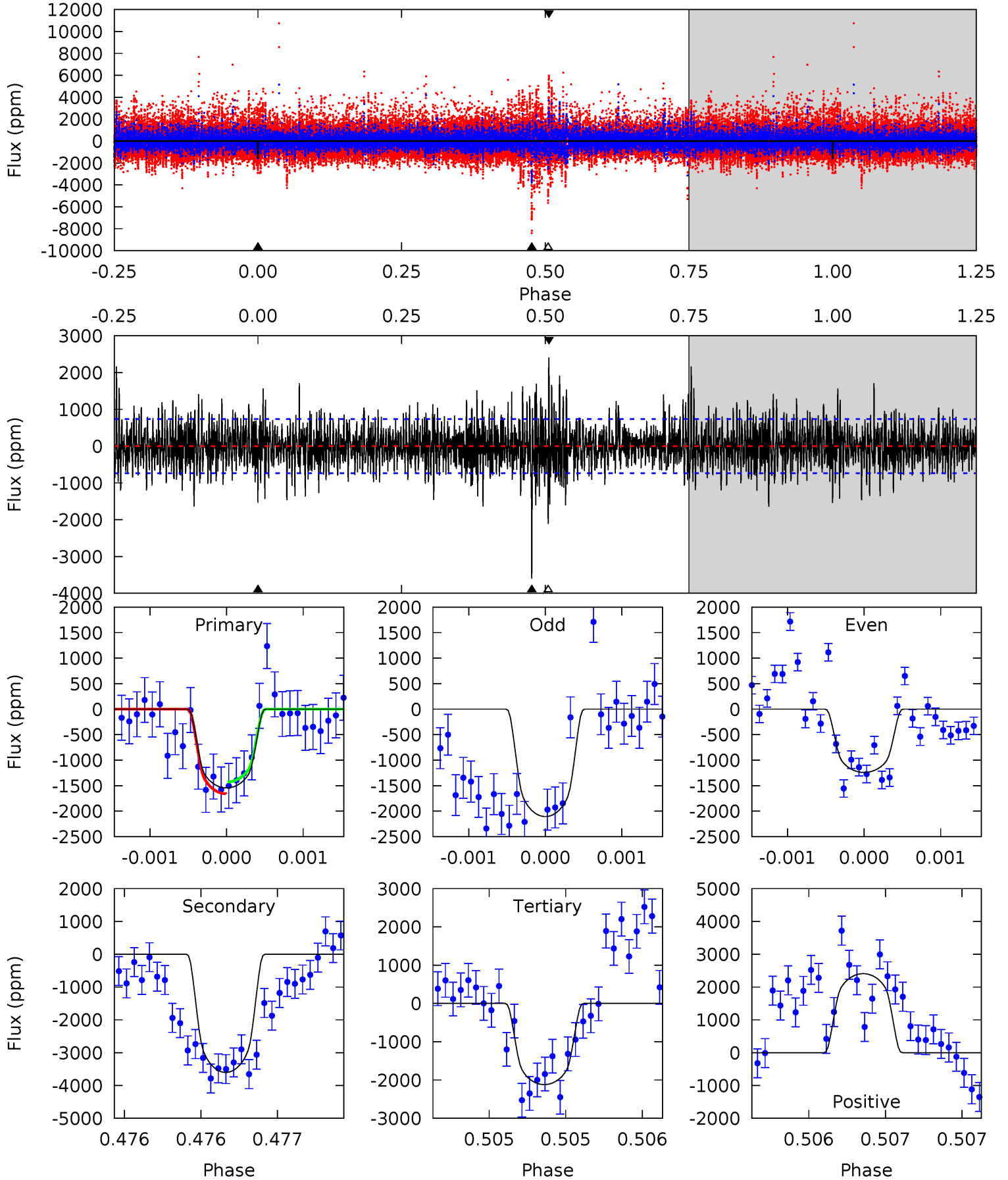
TCE 005793299-01 P=533.670098 Days $T_0=250.216945$ (BKJD)



DV Model-Shift Uniqueness Test

005793299-01, P = 533.659441 Days, E = 250.217535 Days

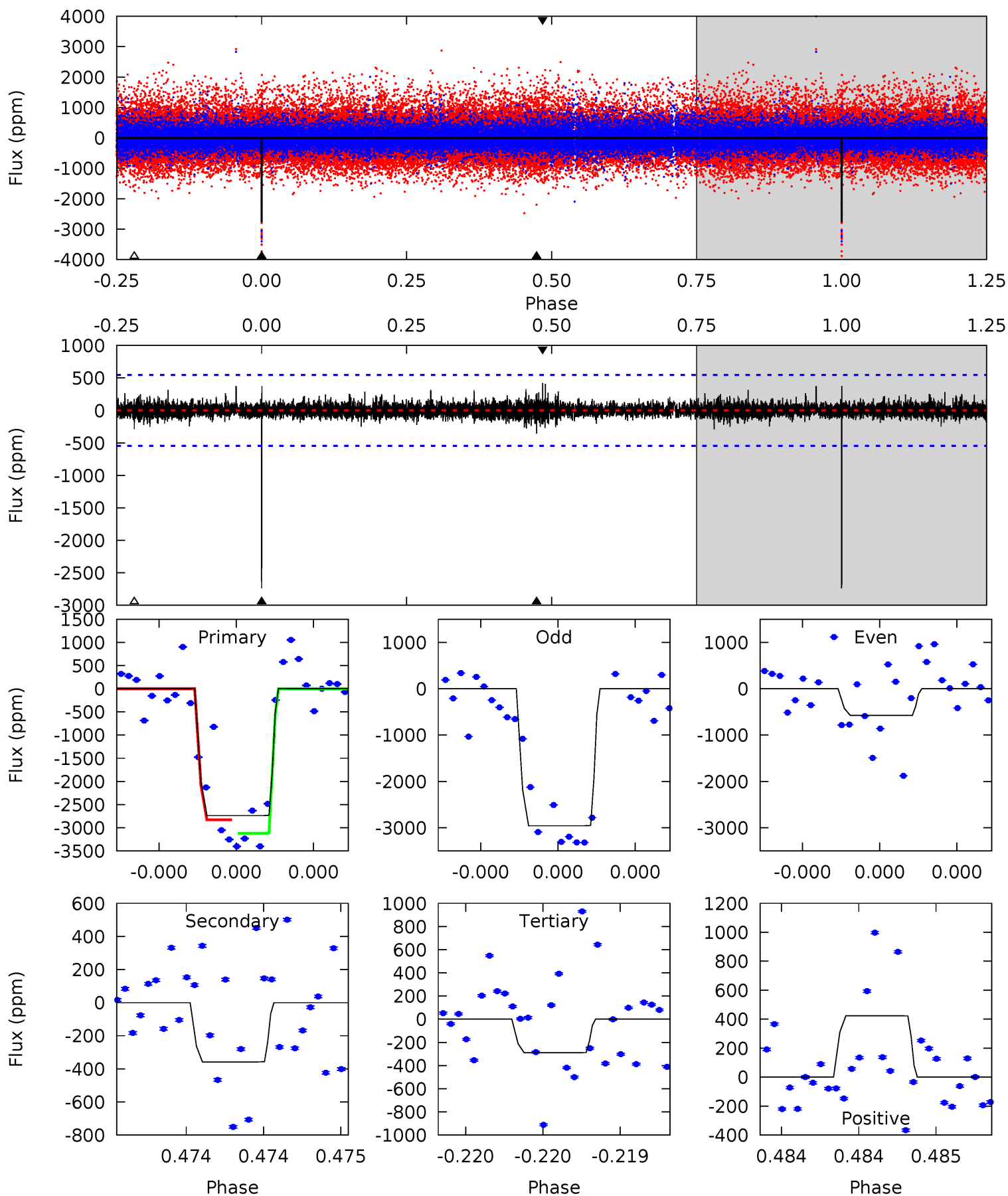
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	27.0	15.9	18.0	5.52	3.39	3.56	-4.31	-6.47	11.1	8.94	2.69	0.86	0.40	0.87



Alt Model-Shift Uniqueness Test

005793299-01, P = 533.670098 Days, E = 250.216945 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.0	3.66	2.95	4.33	5.58	3.49	0.63	25.1	23.7	0.71	-0.67	13.3	0.47	0.13	0



Stellar Parameters For KIC 005793299

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4254^{+135}_{-135}	$4.607^{+0.052}_{-0.017}$	$0.160^{+0.200}_{-0.300}$	$0.672^{+0.028}_{-0.057}$	$0.666^{+0.047}_{-0.052}$	$3.092^{+0.712}_{-0.246}$
	+3%/-3%	+1%/-0%	+125%/-188%	+4%/-8%	+7%/-8%	+23%/-8%
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 005793299-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3602 ± 134	$3.33^{+0.47}_{-0.49}$	201^{+7}_{-7}	4735^{+360}_{-281}	229037^{+82588}_{-50638}
Alt.	-358 ± 98	$2.78^{+0.50}_{-0.44}$	202^{+6}_{-7}	3349^{+250}_{-236}	32567^{+16384}_{-11855}

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 $A_{obs} \gg 1.0$

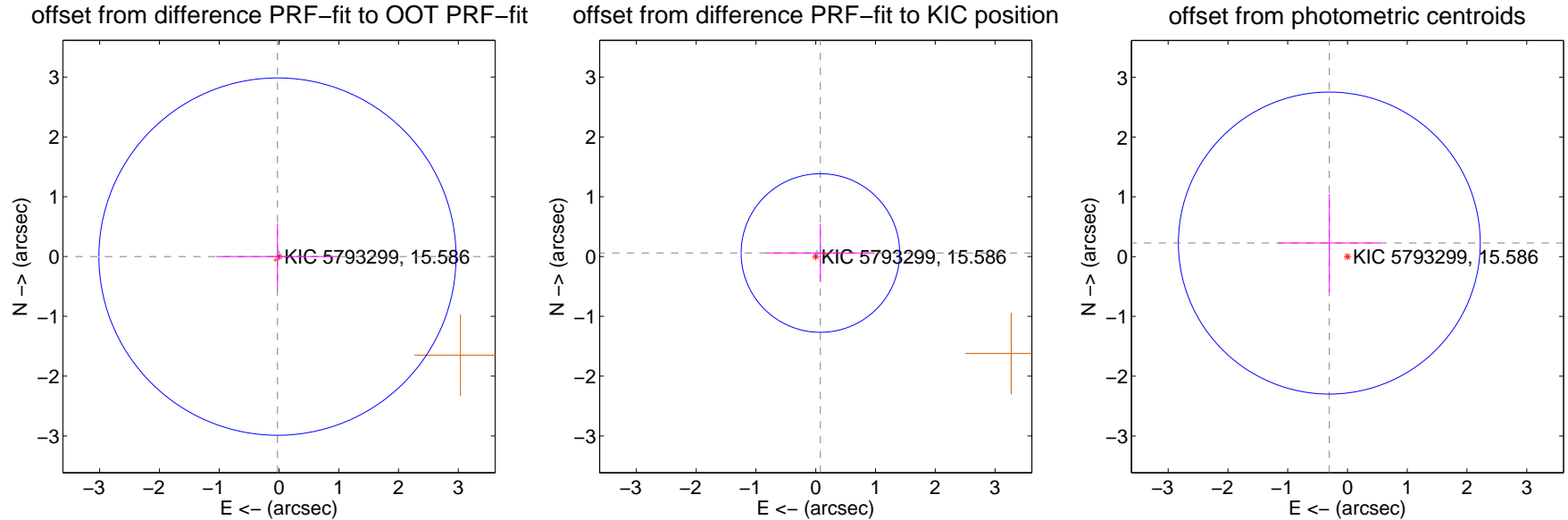
DV Centroid Data

Supplemental centroid analysis for 005793299-01. Kepler magnitude: 15.59. Transit SNR 5.92

There are 1 quarters with good PRF difference image offsets

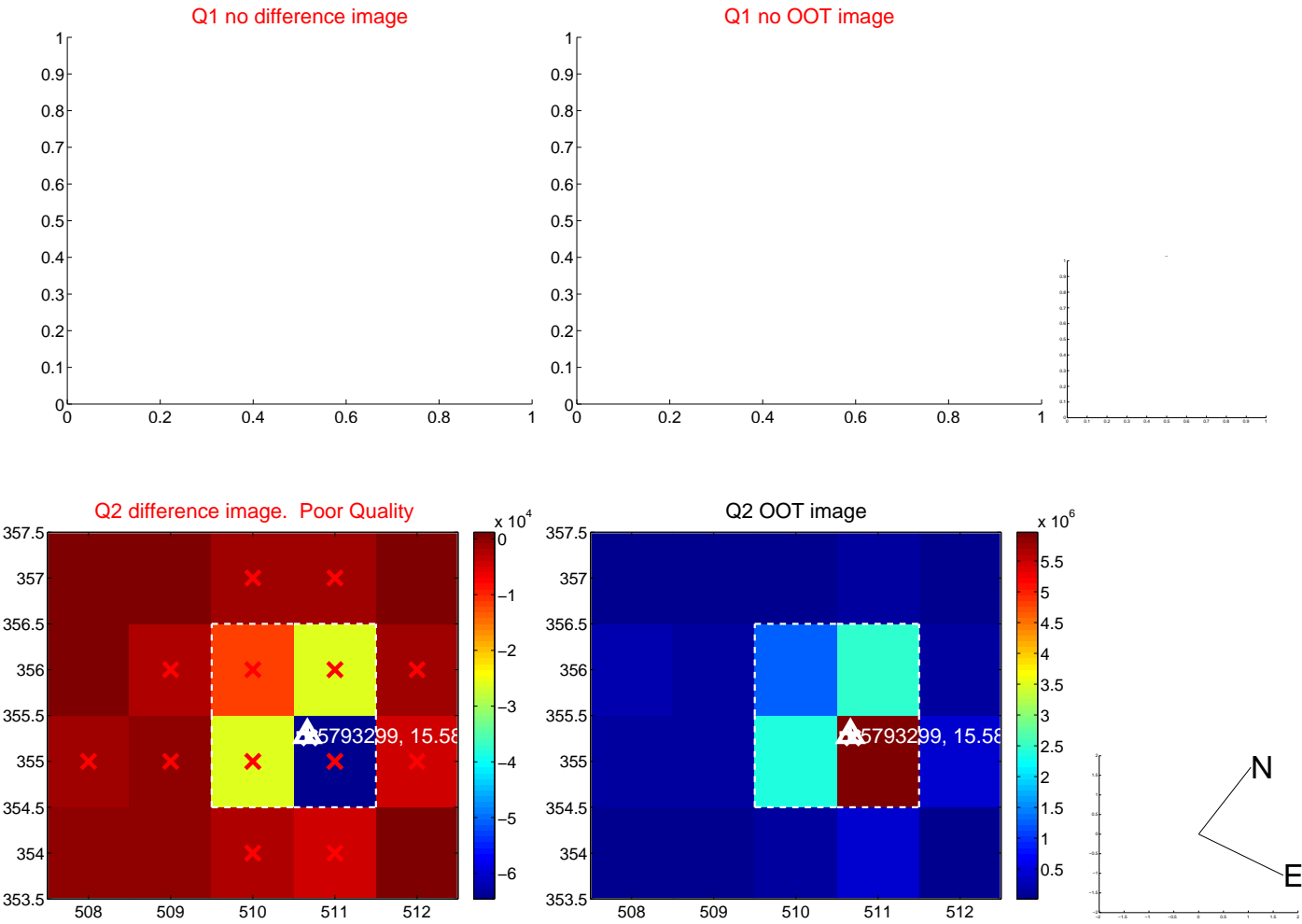
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.996	0.03	0.025 ± 1.025	-0.001 ± 0.556
PRF-fit source offset from KIC position	0.098 ± 0.442	0.22	-0.078 ± 0.909	0.059 ± 0.487
photometric centroid source offset	0.38 ± 0.84	0.45	0.30 ± 0.85	0.23 ± 0.82

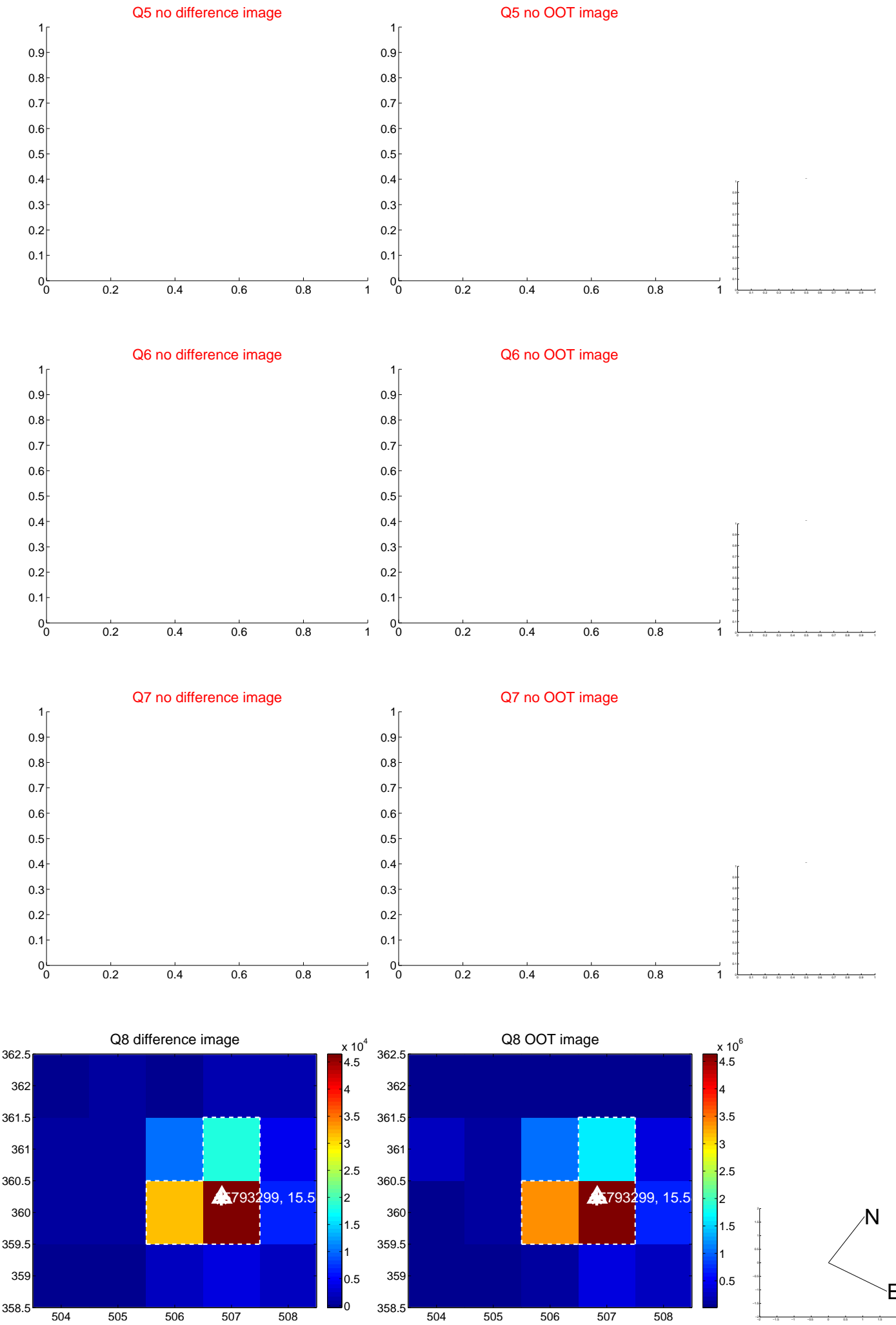


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



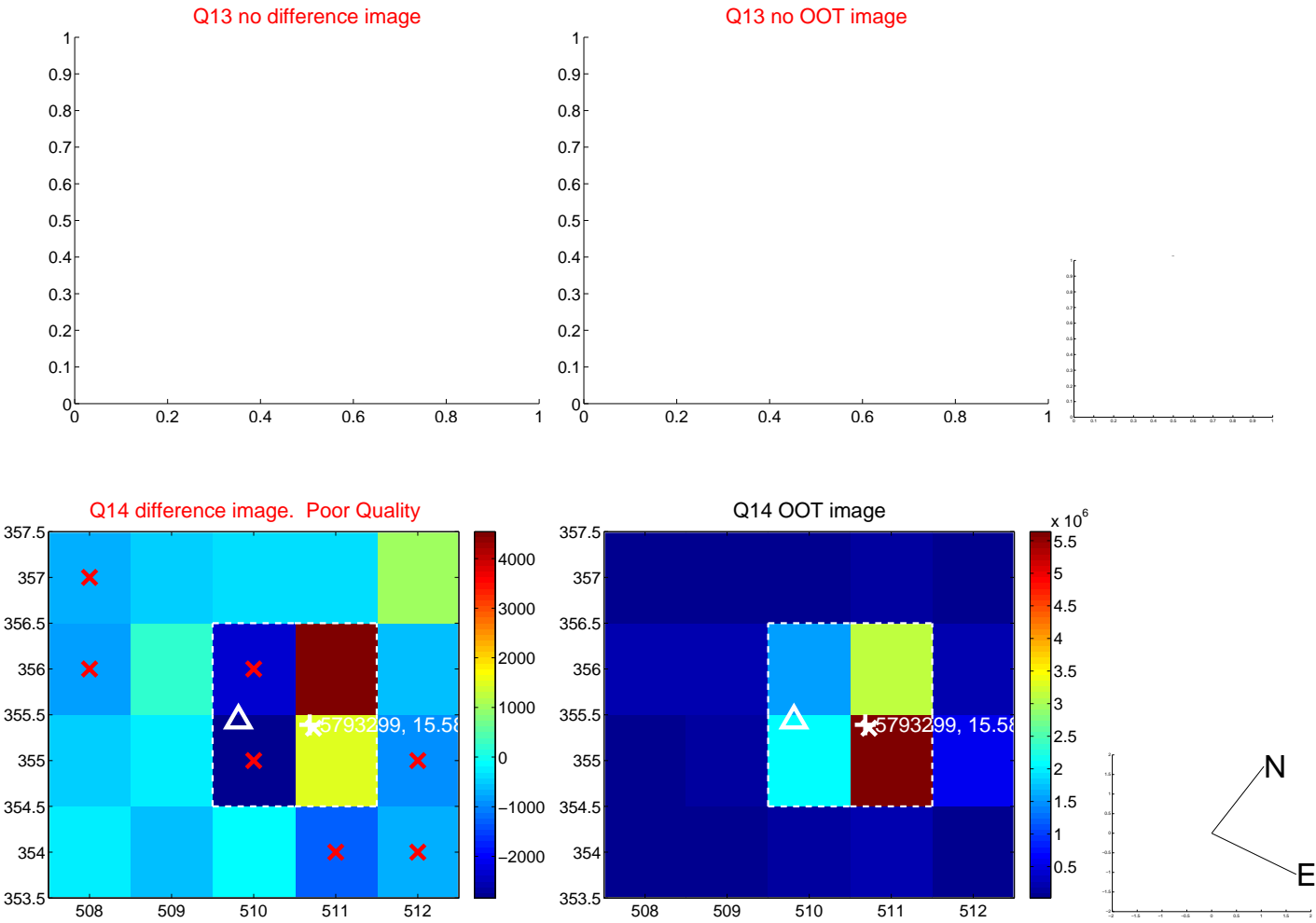
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



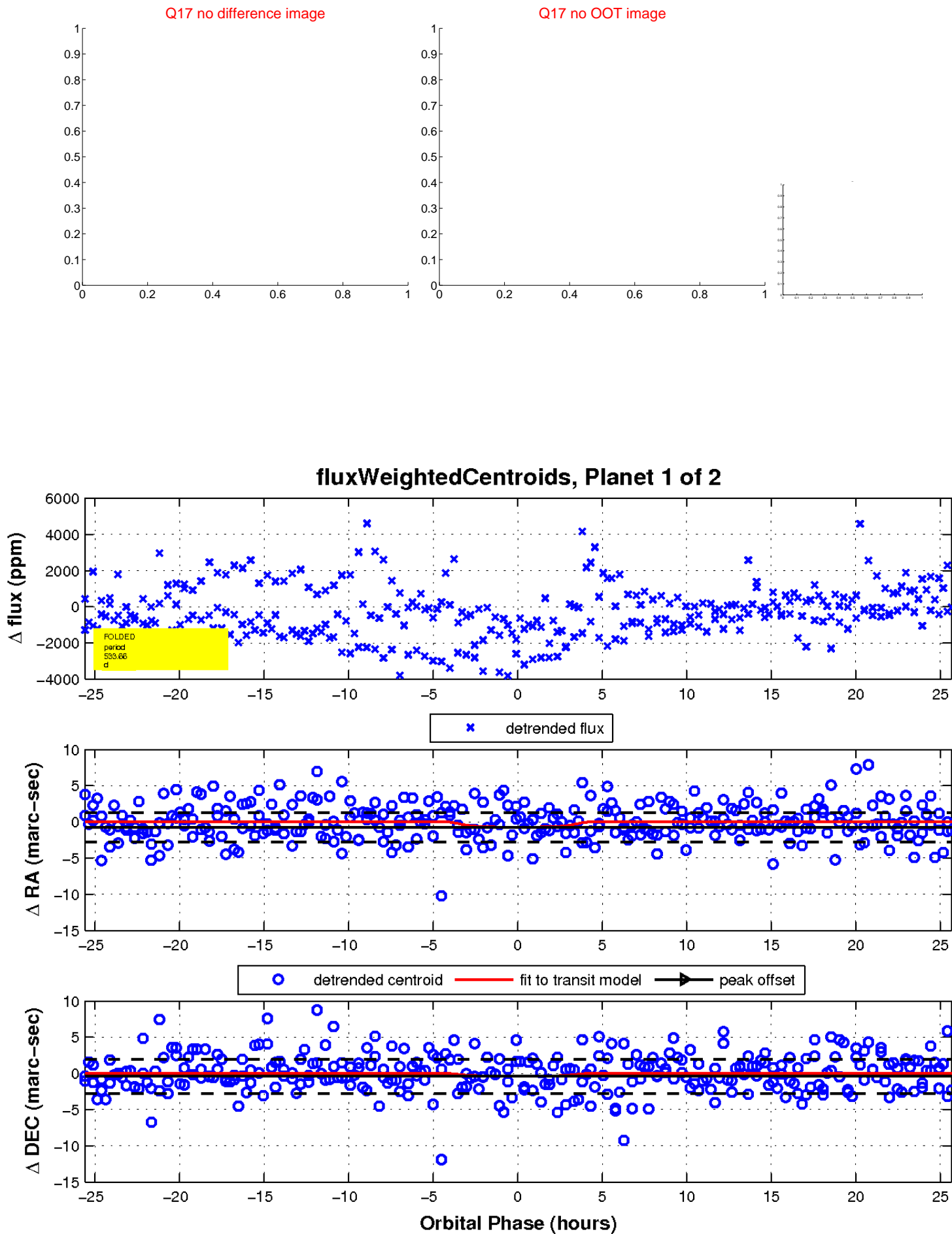
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

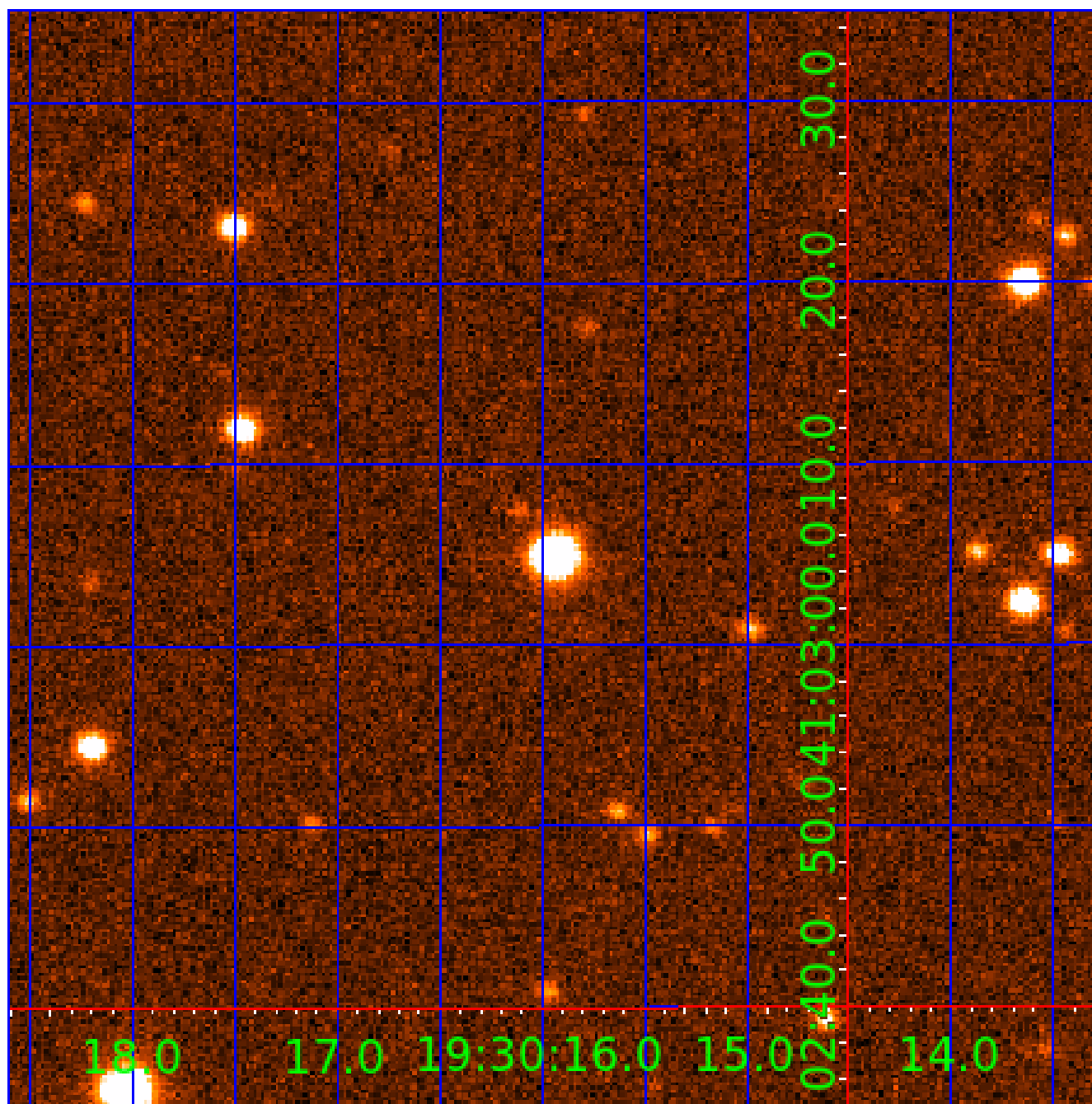


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005793299

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})
005793299-01	OBS	No	533.659441	250.217535	1697.3	8.565	9.0	5.9	0.67	4254	3.37	0.10
005793299-02	OBS	No	508.489474	486.952034	2289.2	7.619	11.3	7.5	0.67	4254	4.00	0.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005793299-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
005793299-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—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.

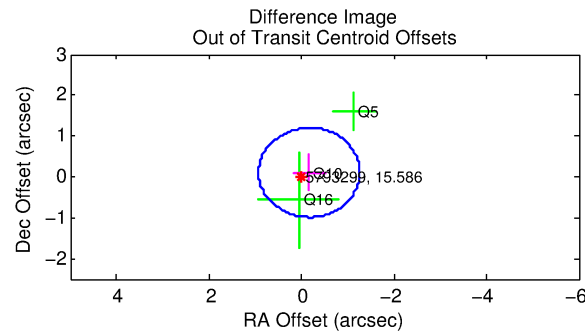
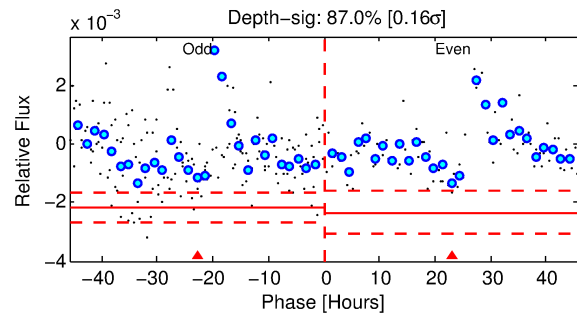
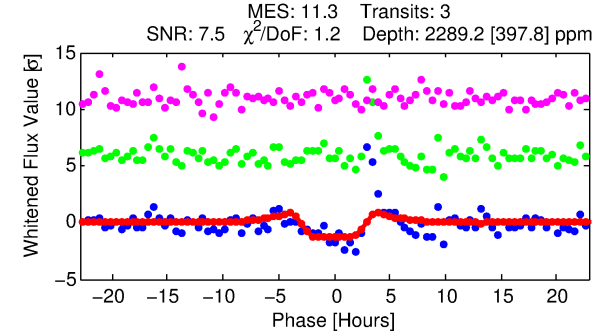
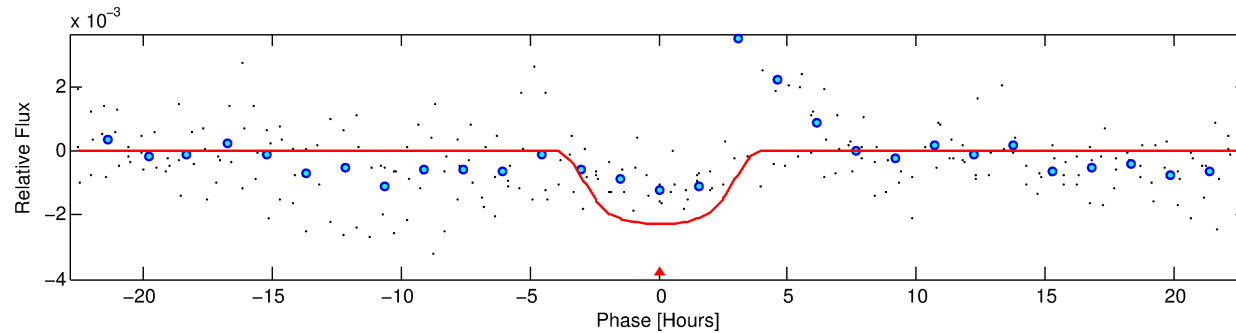
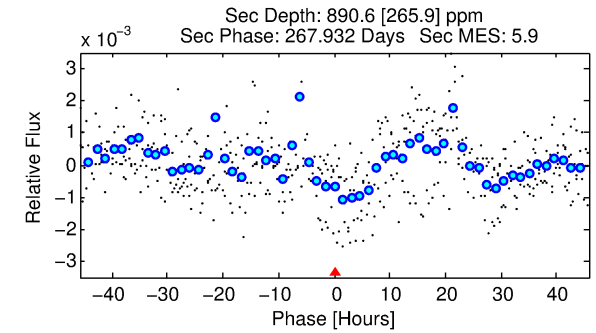
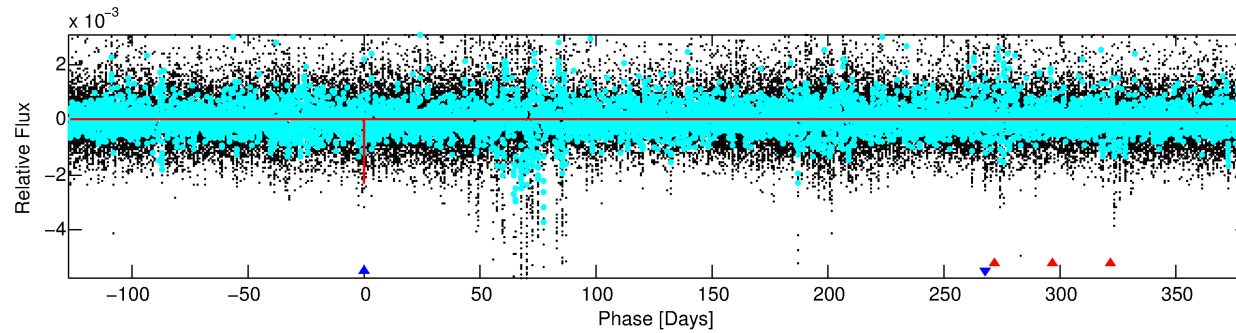
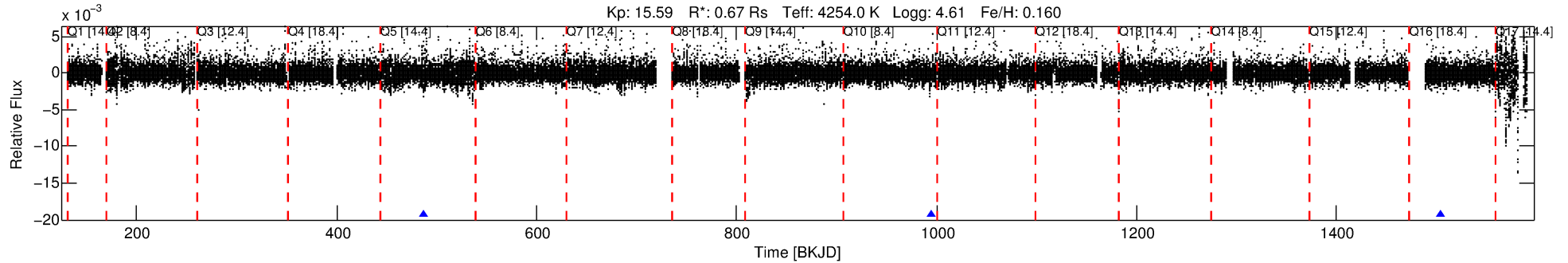
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005793299-02

No Significant Match Found

DV One-Page Summary

KIC: 5793299 Candidate: 2 of 2 Period: 508.489 d



DV Fit Results:

Period = 508.48947 [0.01248] d
Epoch = 486.9520 [0.0155] BKJD
Rp/R* = 0.0545 [0.0071]
a/R* = 278.47 [73.20]
b = 0.90 [0.06]
Seff = 0.11 [0.02]
Teq = 147 [6] K
Rp = 4.00 [0.62] Re
a = 1.0893 [0.0754] AU
Ag = 36378.66 [14860.14] [2.45σ]
Teffp = 3148 [328] K [9.15σ]

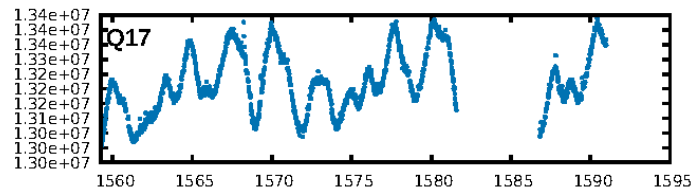
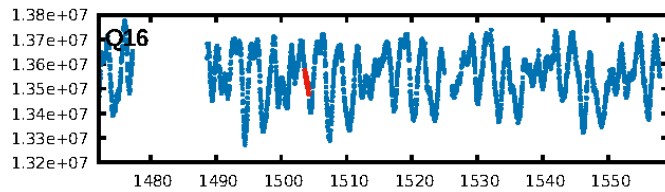
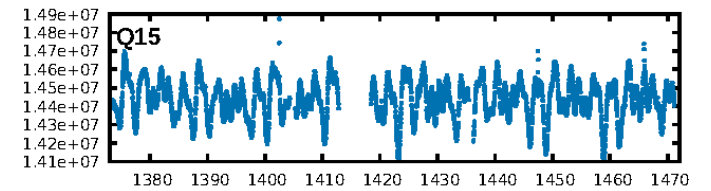
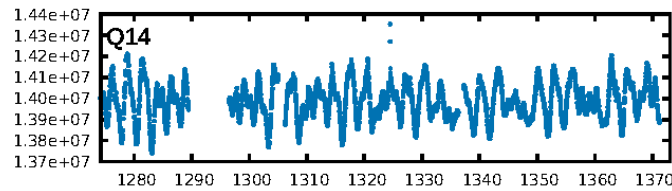
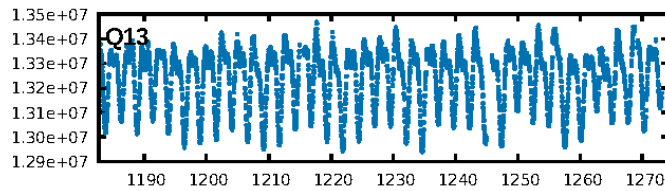
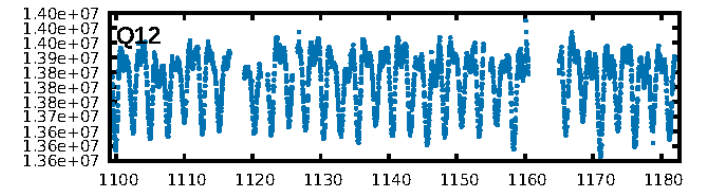
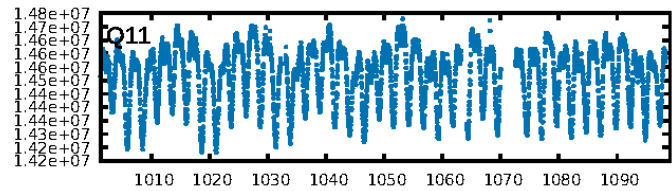
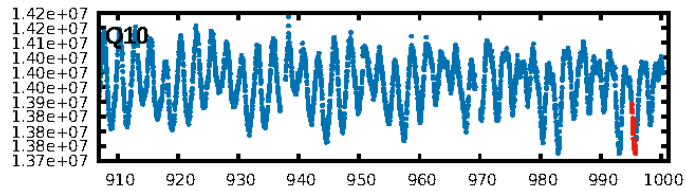
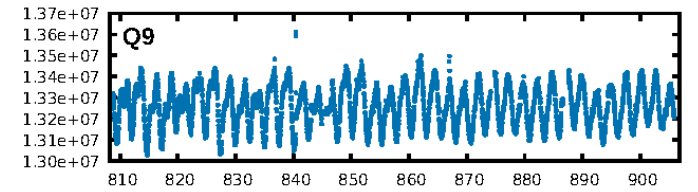
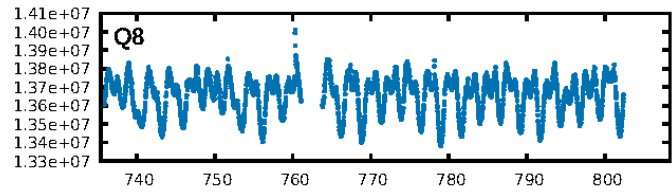
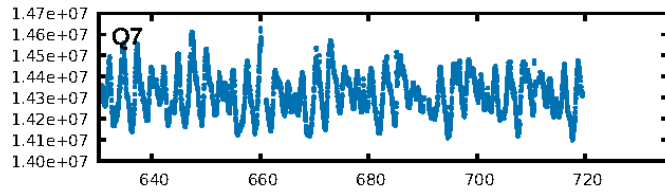
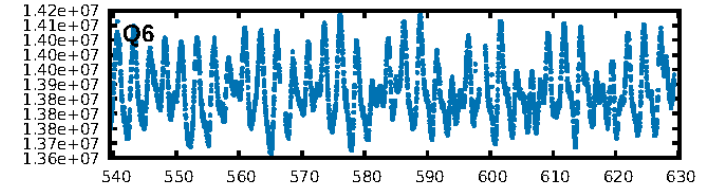
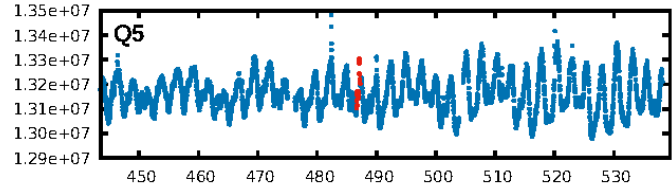
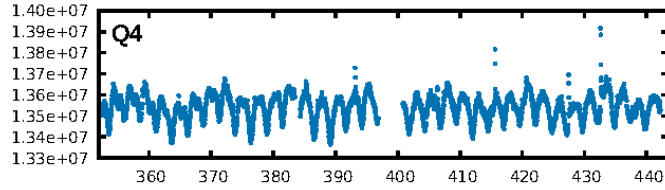
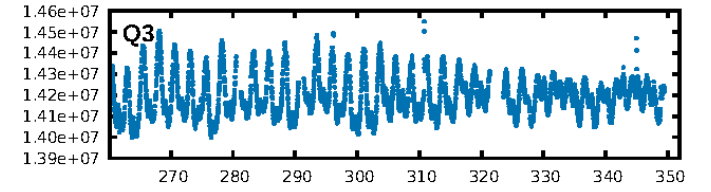
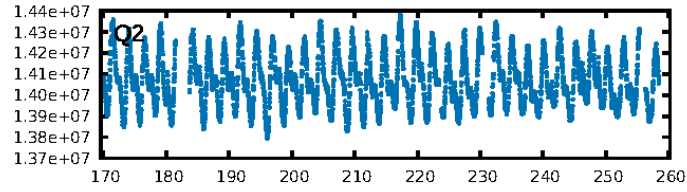
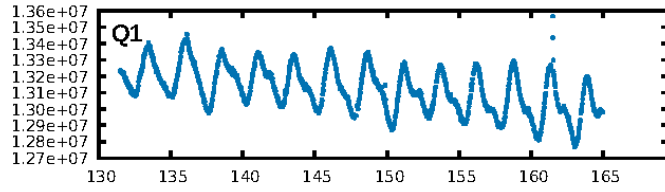
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [52.69σ]
ModelChiSquare2-sig: 5.7%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 4.51e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 37.56
Centroid-sig: 54.5%
Centroid-so: 0.393 arcsec [0.57σ]
OotOffset-rm: 0.197 arcsec [0.54σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-rm: 0.506 arcsec [1.11σ]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

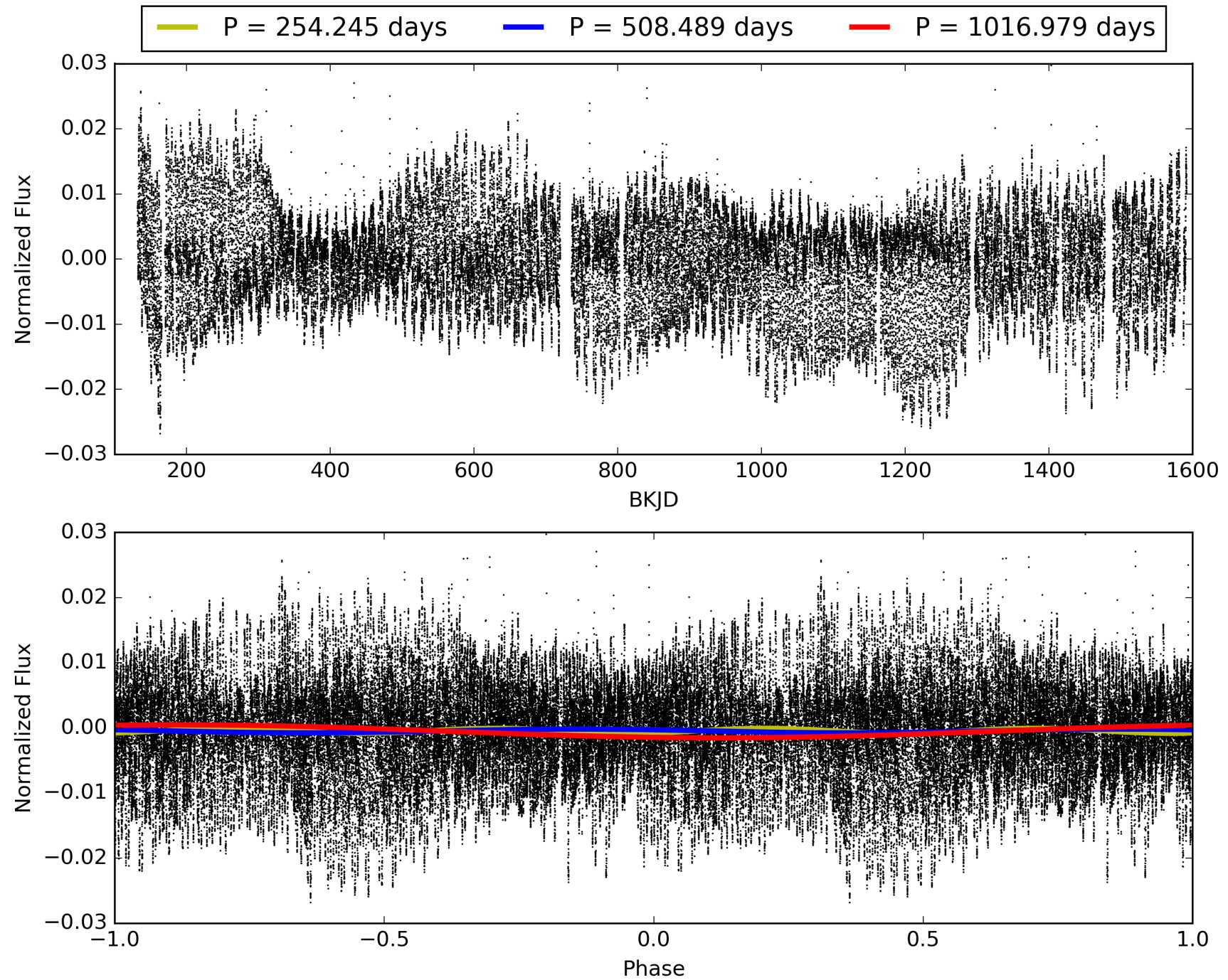
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:05:43 Z

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

TCE 005793299-02, PDC Light Curves

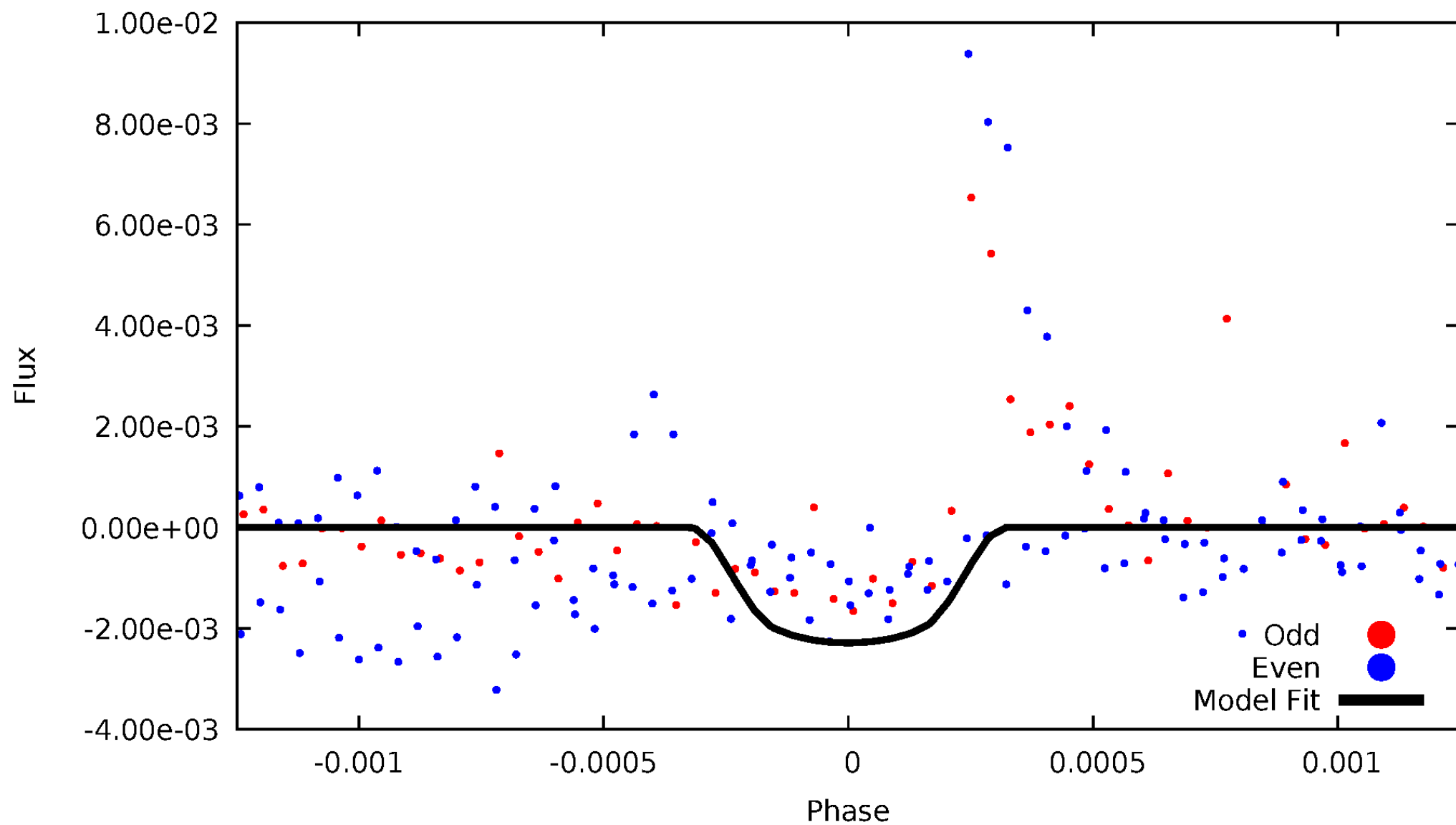


TCE 005793299-02



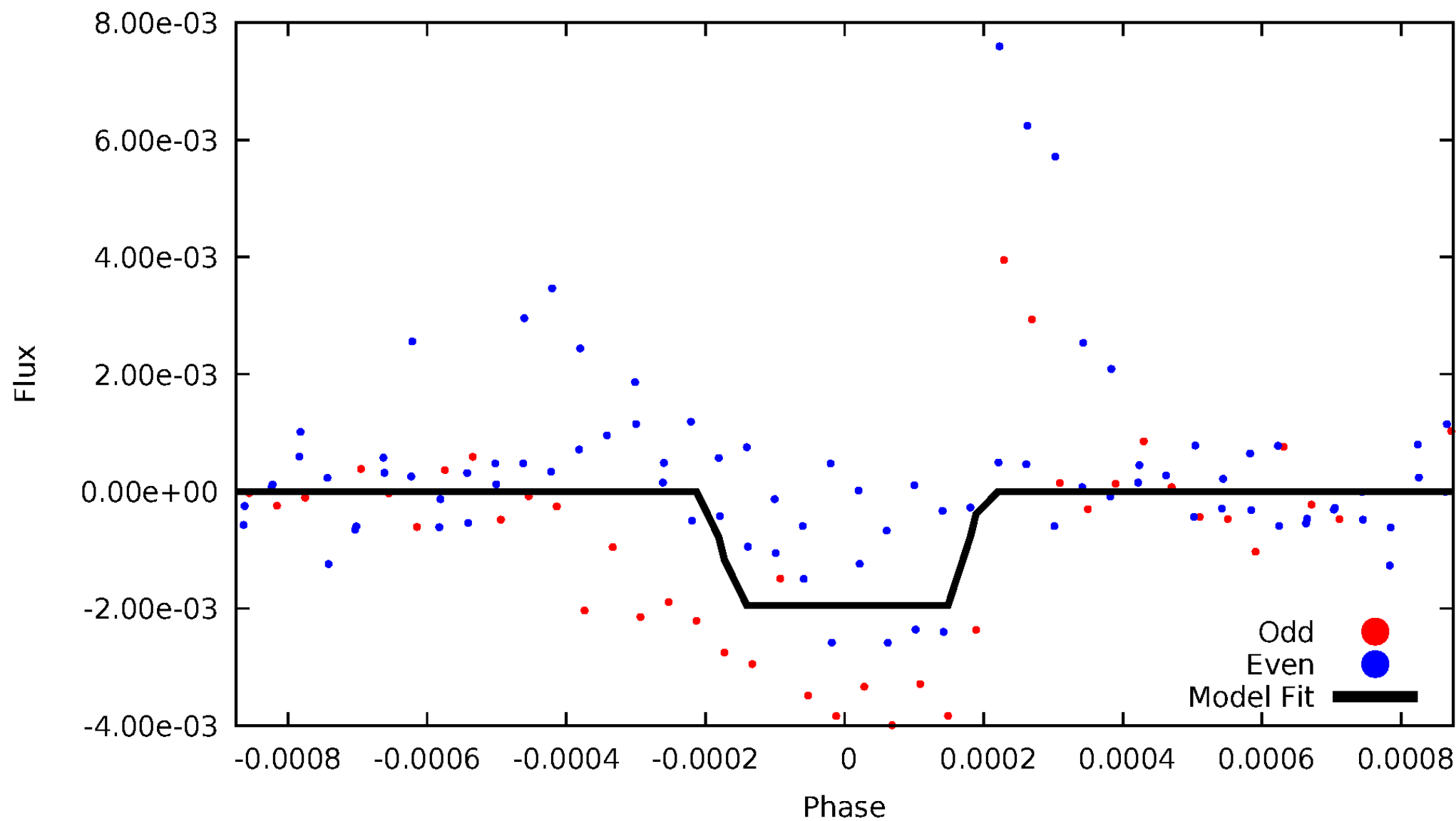
DV Odd/Even

TCE 005793299-02



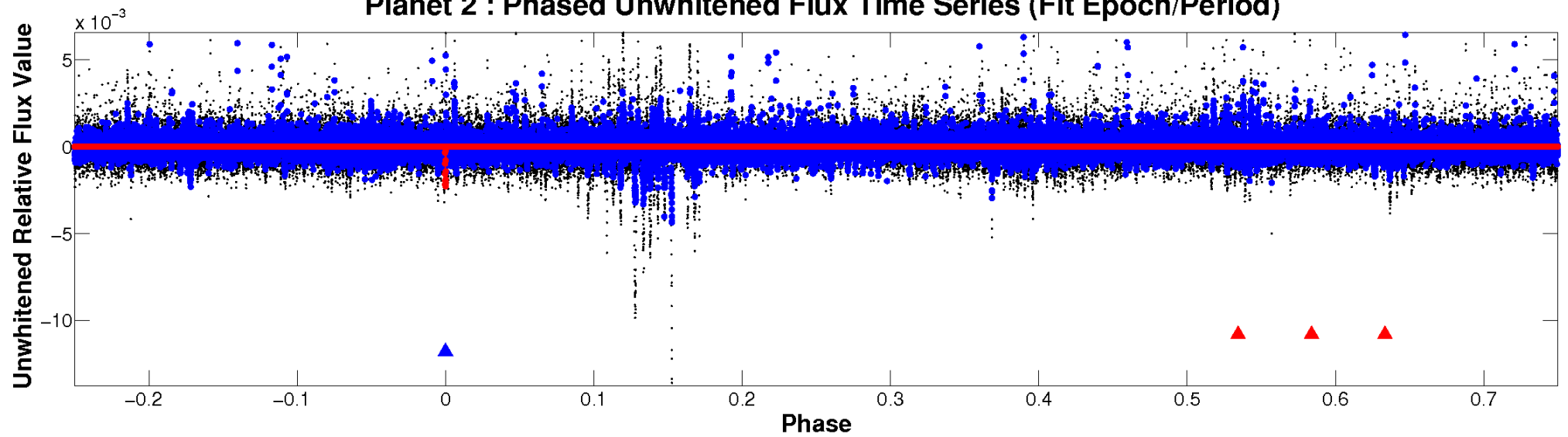
ALT Odd/Even

TCE 005793299-02

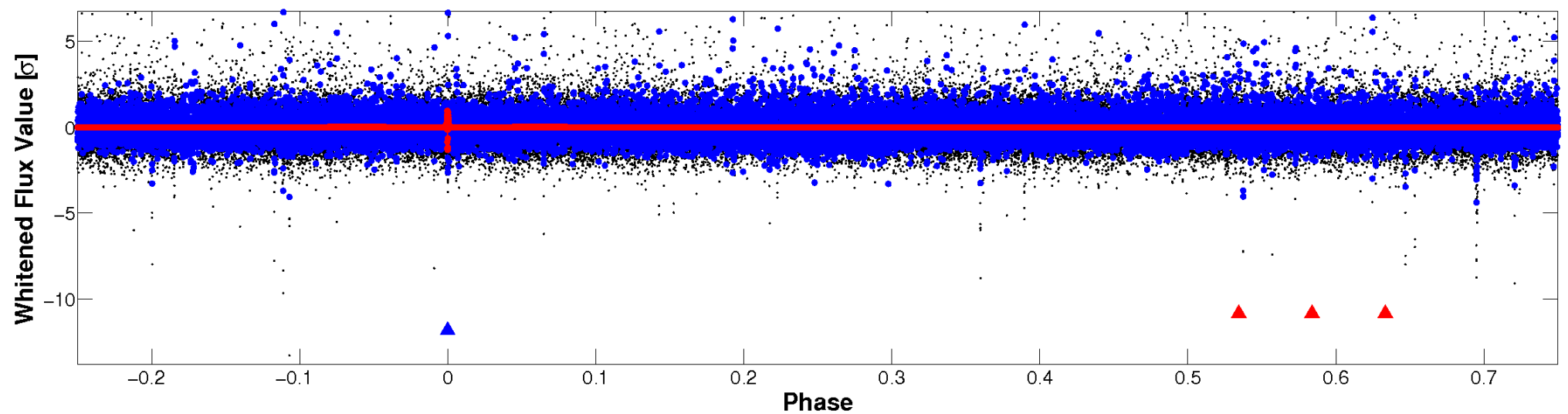


Non-Whitened Vs. Whitened Light Curve

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

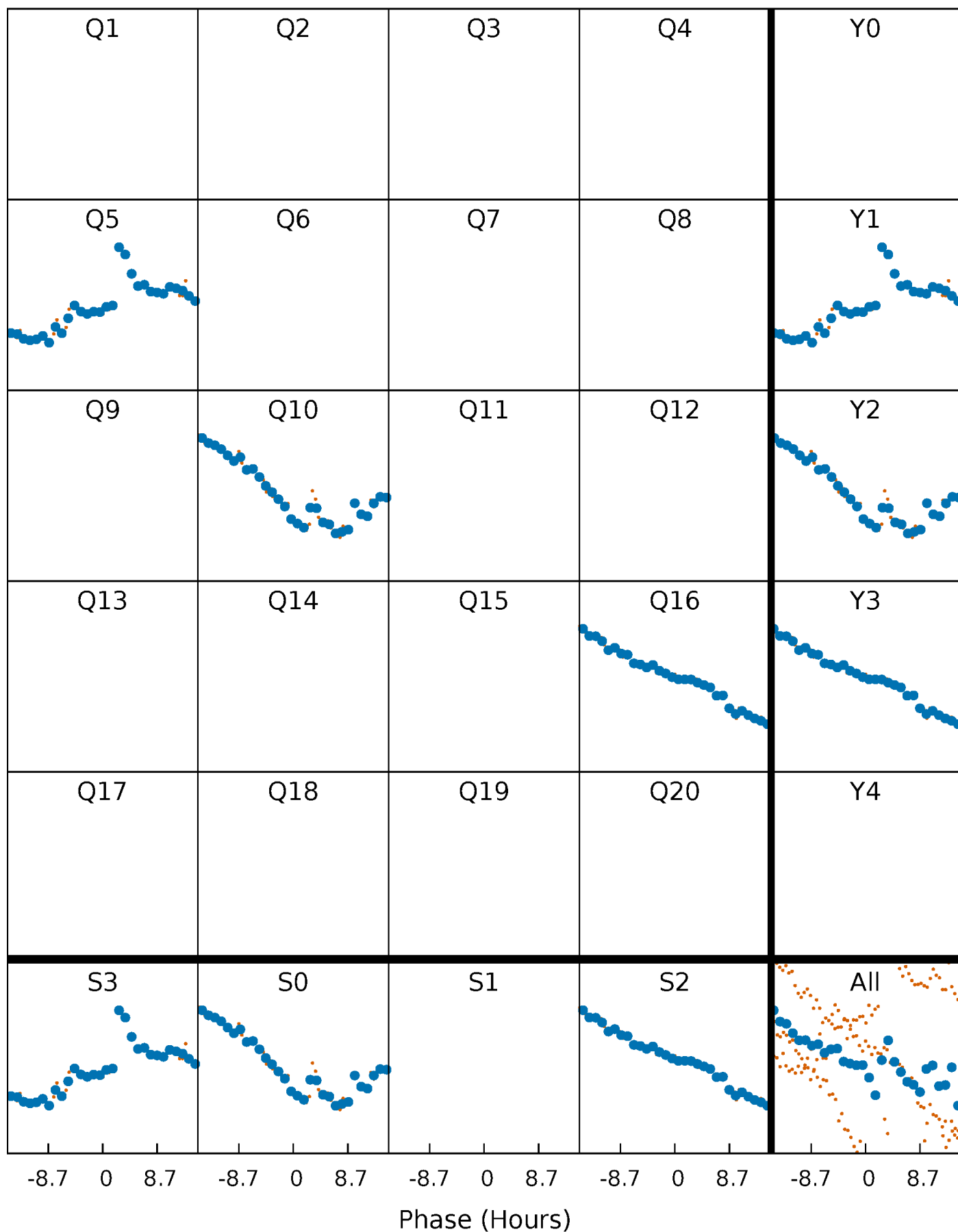


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



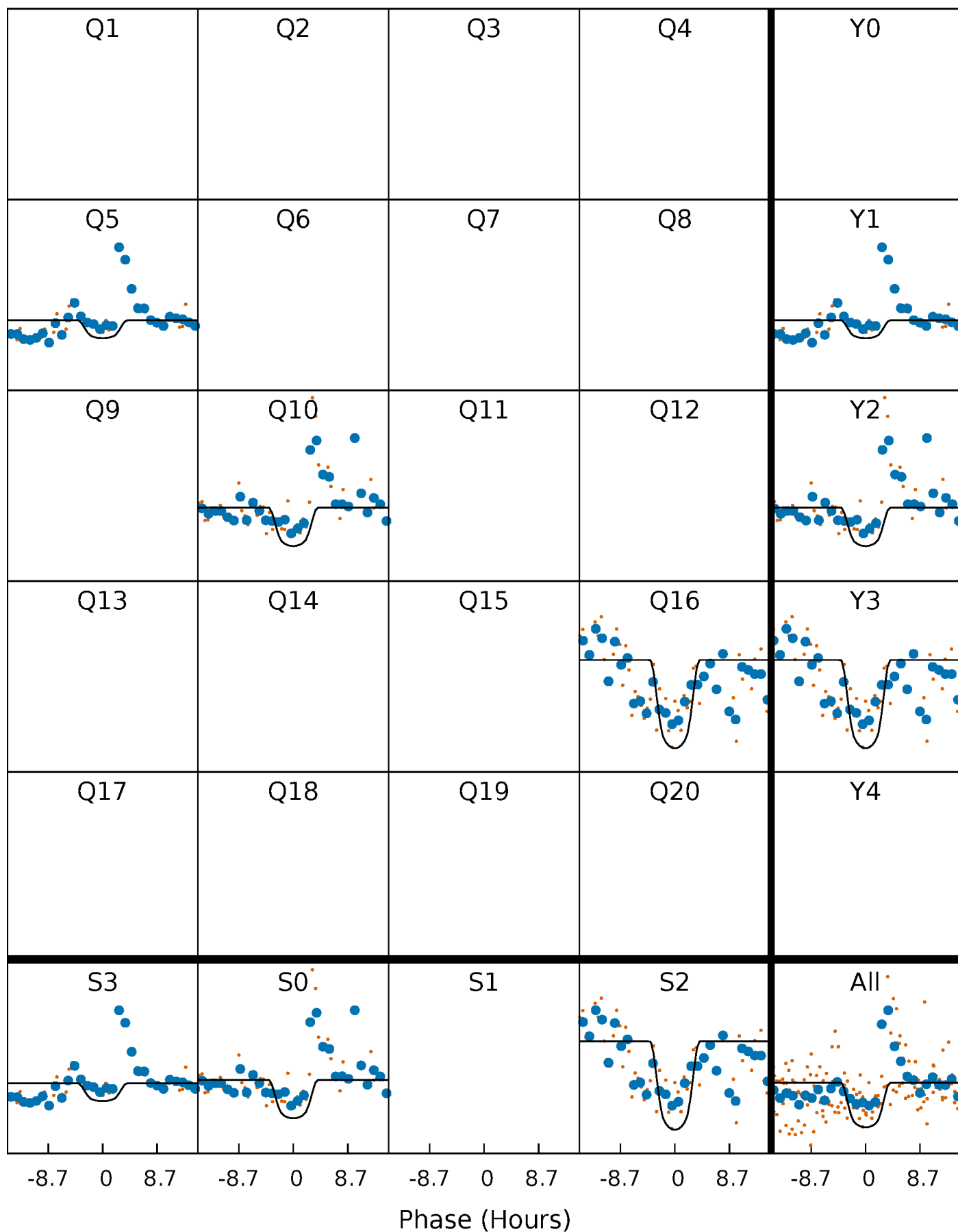
PDC Quarter-Phased Transit Curves

TCE 005793299-02 $P=508.489474$ Days $T_0=486.952034$ (BKJD)



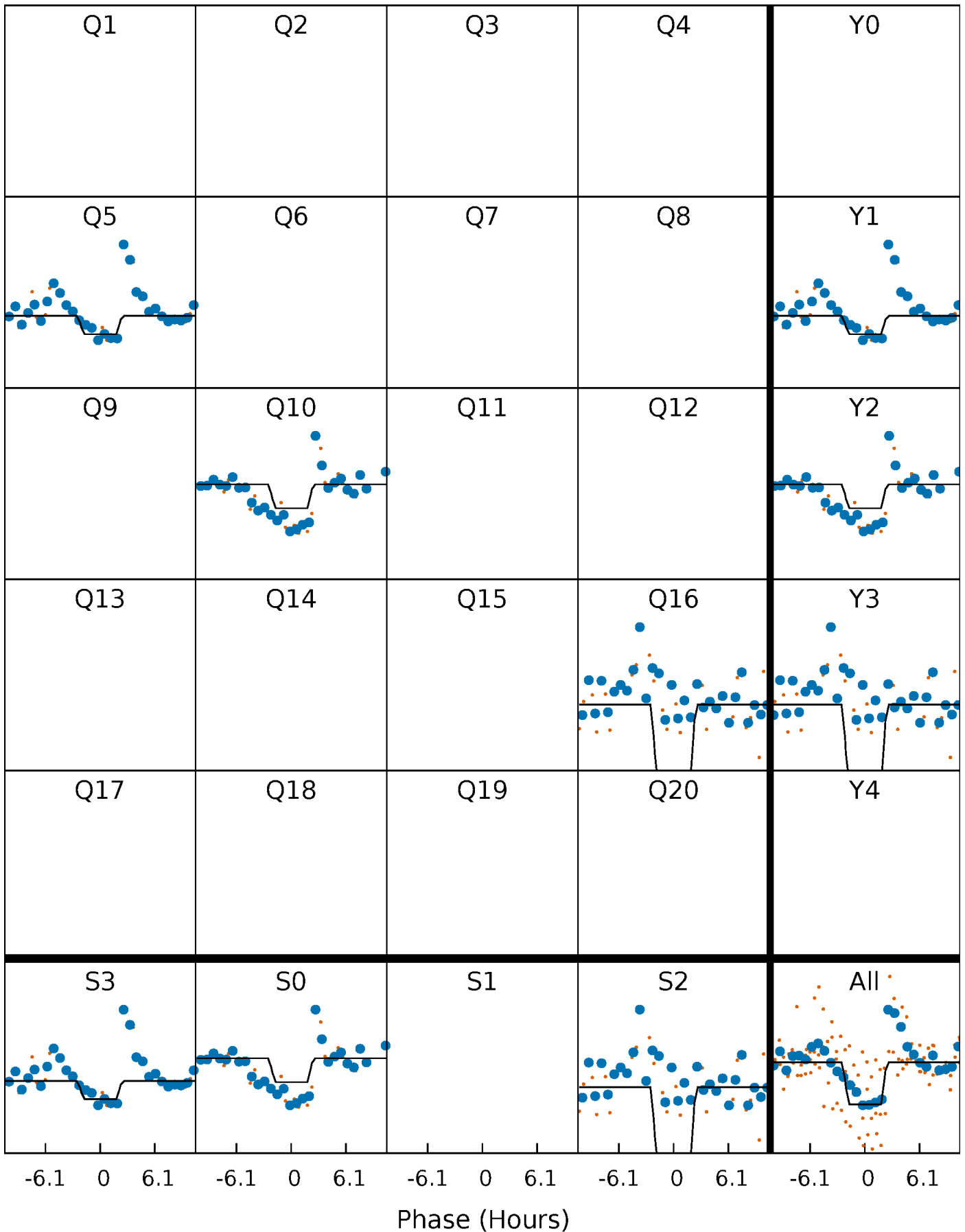
DV Quarter-Phased Transit Curves

TCE 005793299-02 $P=508.489474$ Days $T_0=486.952034$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

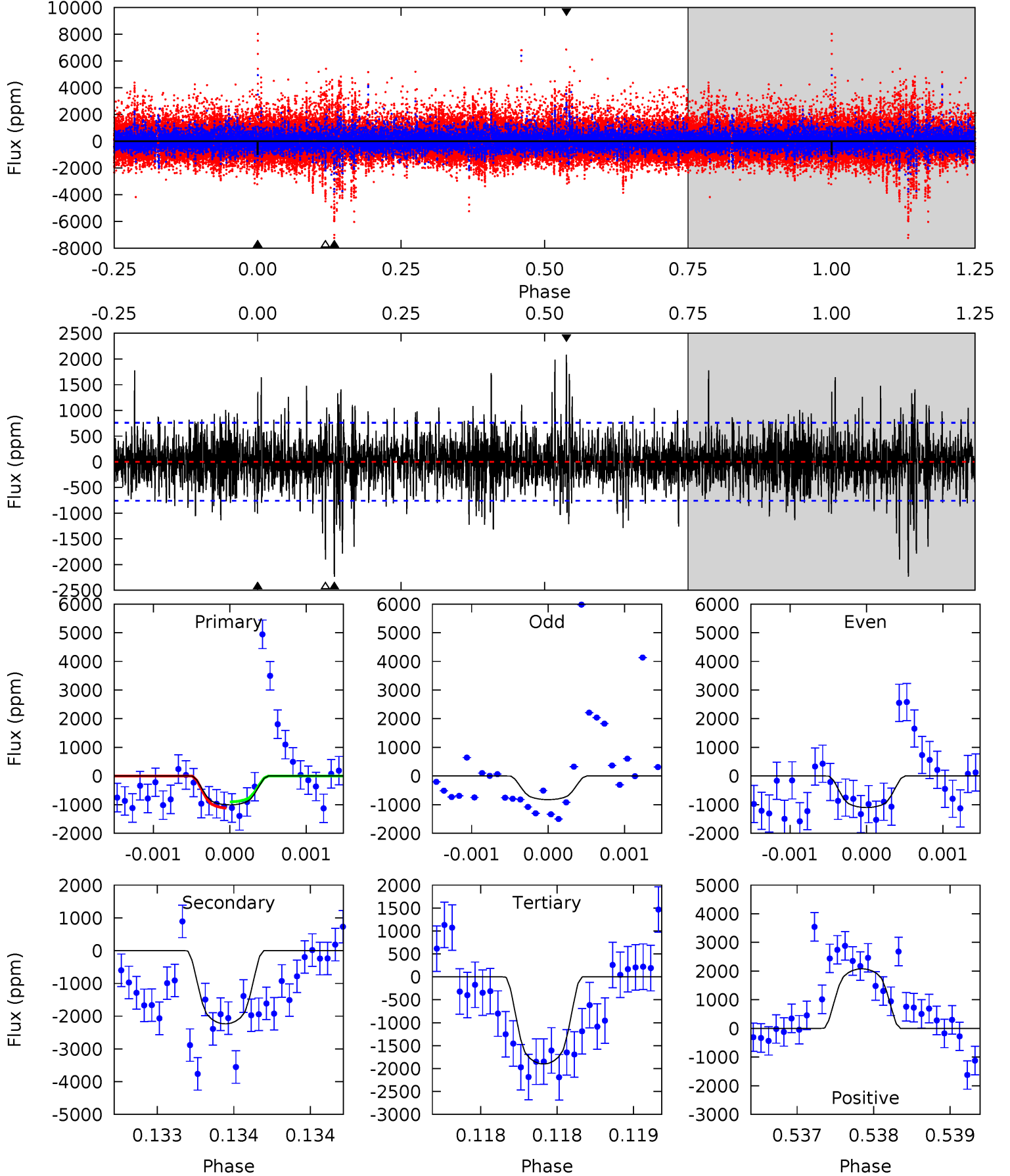
TCE 005793299-02 P=508.489141 Days $T_0=486.963573$ (BKJD)



DV Model-Shift Uniqueness Test

005793299-02, P = 508.489474 Days, E = 486.952034 Days

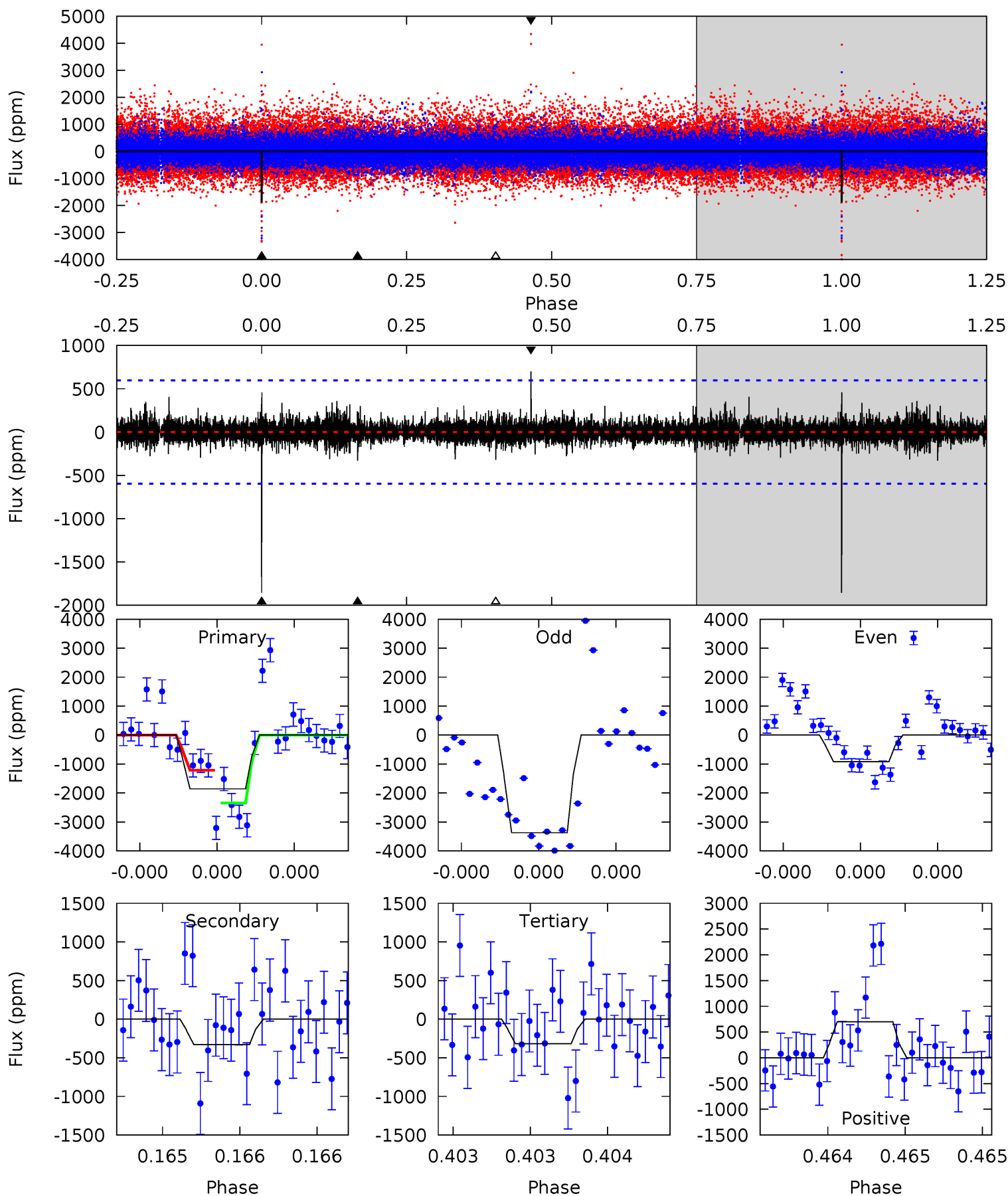
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.34	16.3	13.8	15.1	5.53	3.41	2.73	-6.49	-7.80	2.44	1.13	0.88	1.05	0.48	0.79



Alt Model-Shift Uniqueness Test

005793299-02, P = 508.489141 Days, E = 486.963573 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	3.09	3.00	6.58	5.61	3.54	0.67	14.5	10.9	0.09	-3.49	12.5	0.96	0.27	5.21



Stellar Parameters For KIC 005793299

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4254^{+135}_{-135}	$4.607^{+0.052}_{-0.017}$	$0.160^{+0.200}_{-0.300}$	$0.672^{+0.028}_{-0.057}$	$0.666^{+0.047}_{-0.052}$	$3.092^{+0.712}_{-0.246}$
	+3%/-3%	+1%/-0%	+125%/-188%	+4%/-8%	+7%/-8%	+23%/-8%
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 005793299-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2236 ± 137	$3.96^{+0.55}_{-0.51}$	205^{+7}_{-7}	4049^{+238}_{-217}	94375^{+31466}_{-21641}
Alt.	-328 ± 106	$3.18^{+0.59}_{-0.50}$	204^{+7}_{-7}	3162^{+242}_{-228}	20306^{+12560}_{-7749}

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 $A_{obs} \gg 1.0$

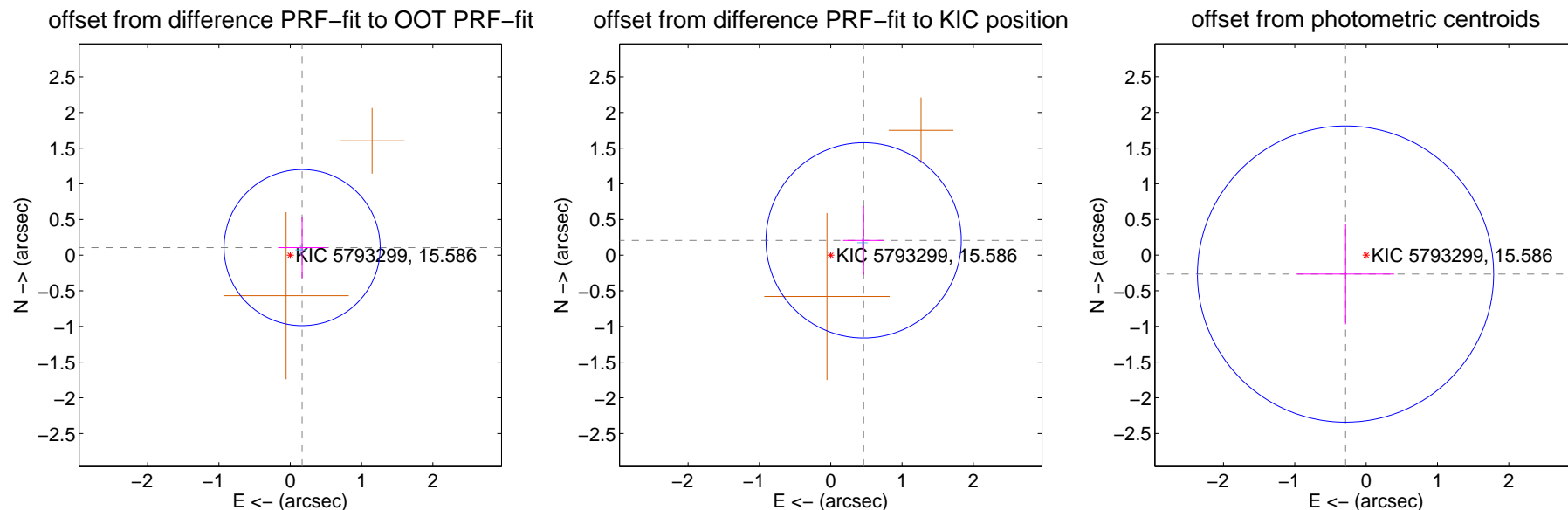
DV Centroid Data

Supplemental centroid analysis for 005793299-02. Kepler magnitude: 15.59. Transit SNR 7.55

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.197 ± 0.365	0.54	-0.166 ± 0.337	0.106 ± 0.425
PRF-fit source offset from KIC position	0.506 ± 0.456	1.11	-0.462 ± 0.289	0.207 ± 0.482
photometric centroid source offset	0.39 ± 0.69	0.57	0.29 ± 0.68	-0.27 ± 0.71

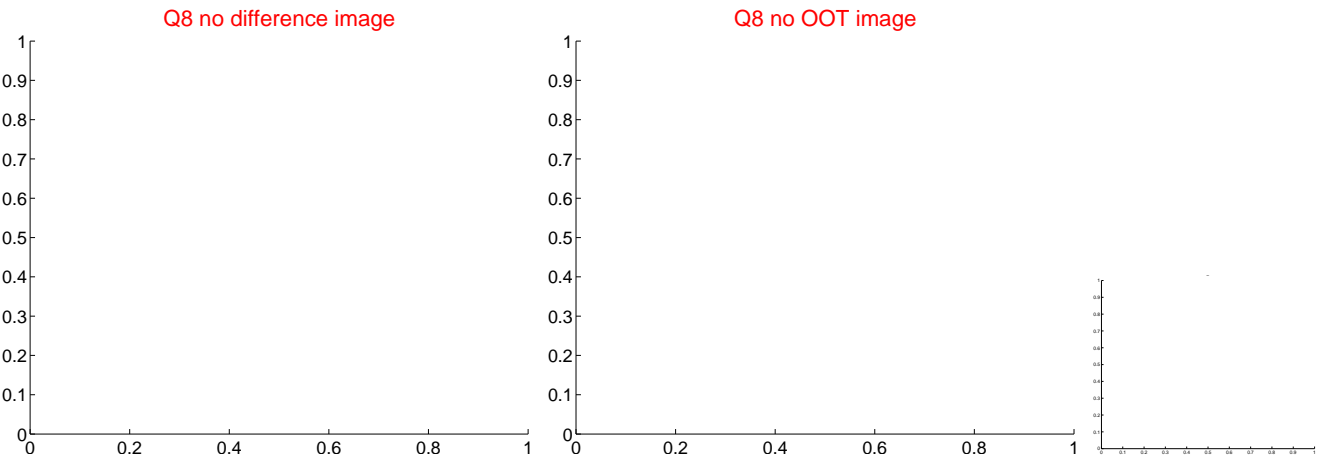
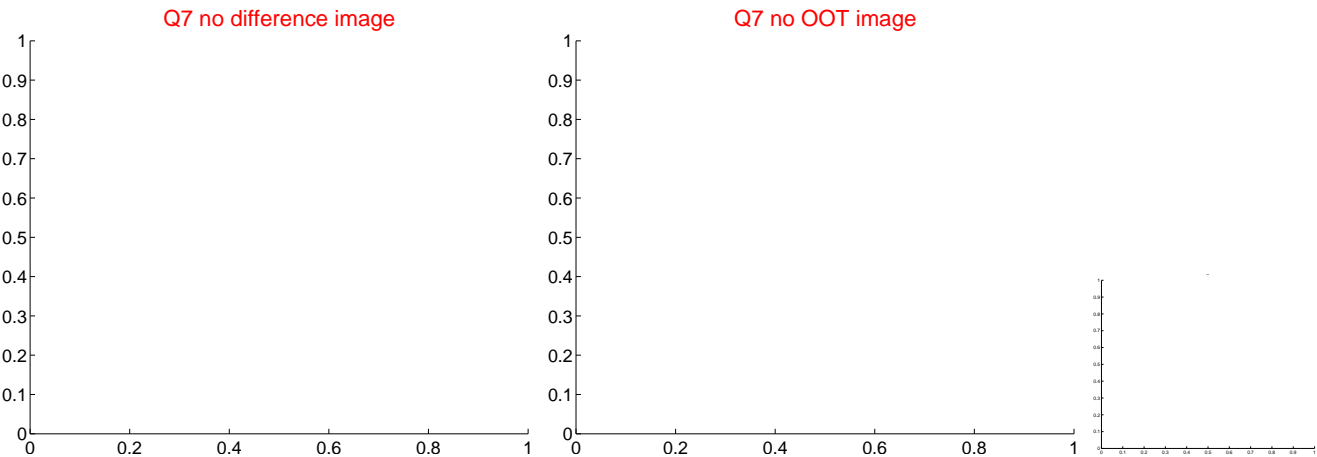
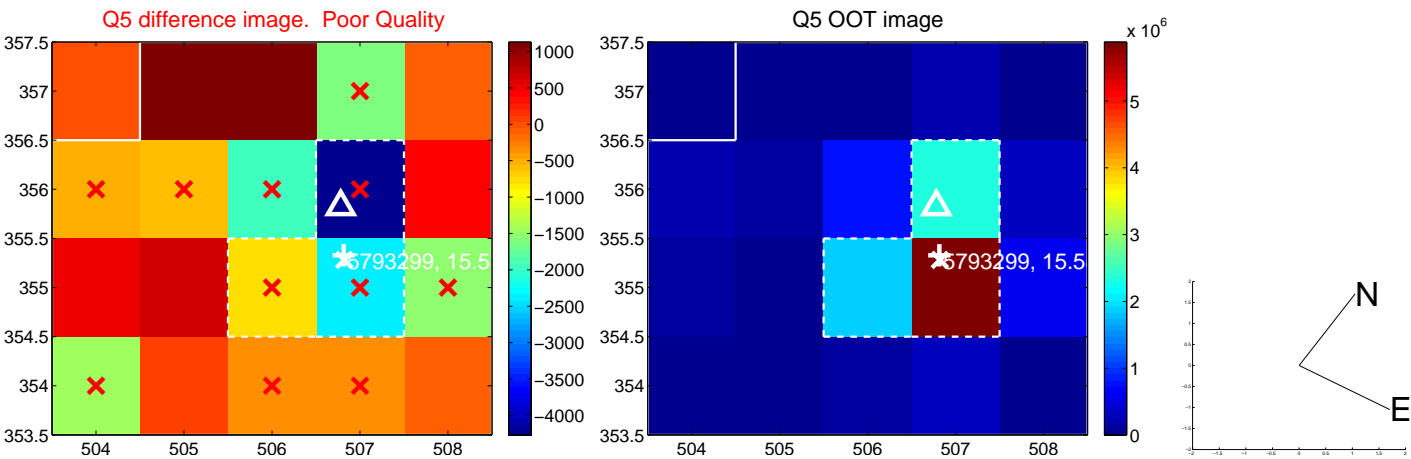


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

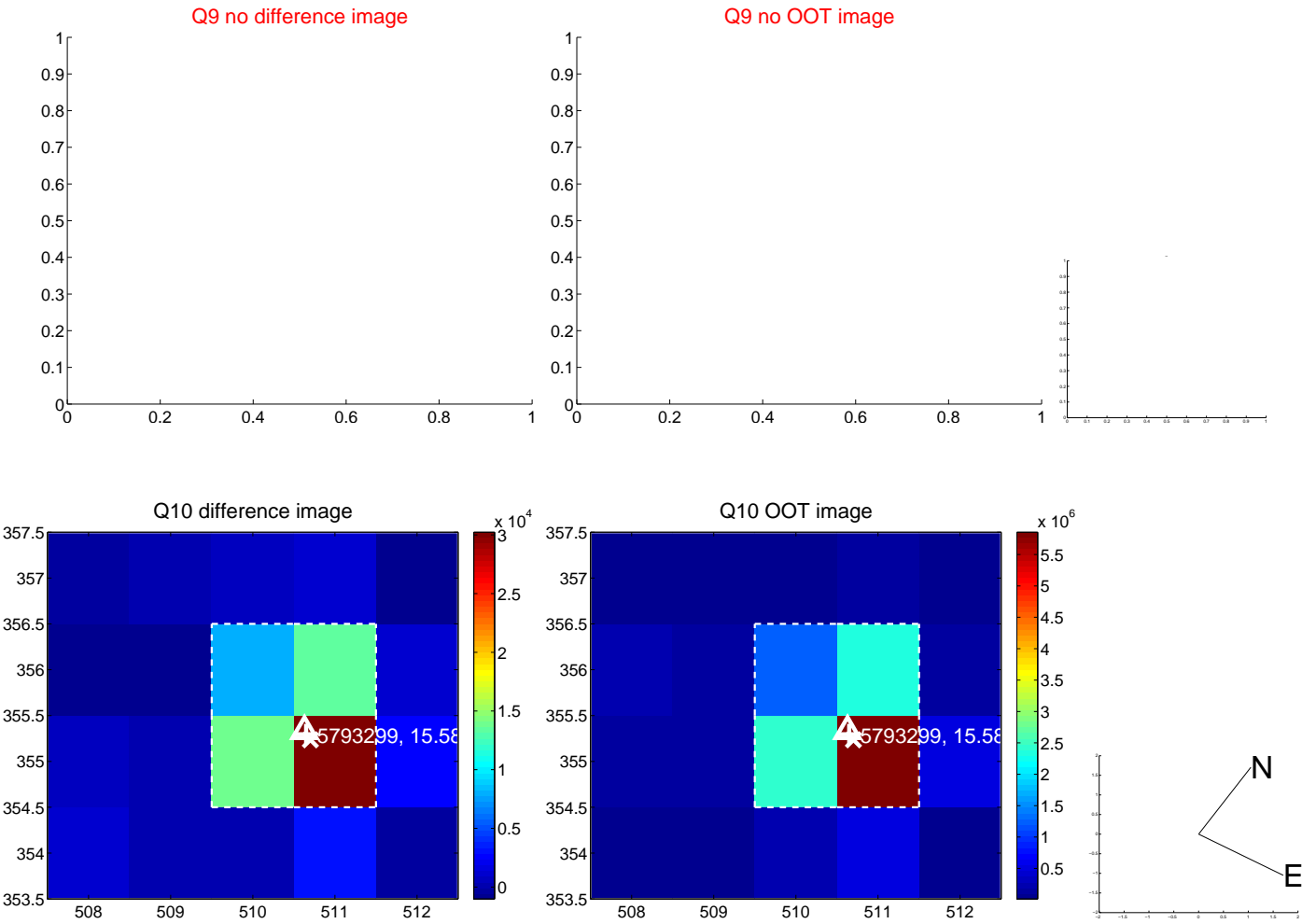
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



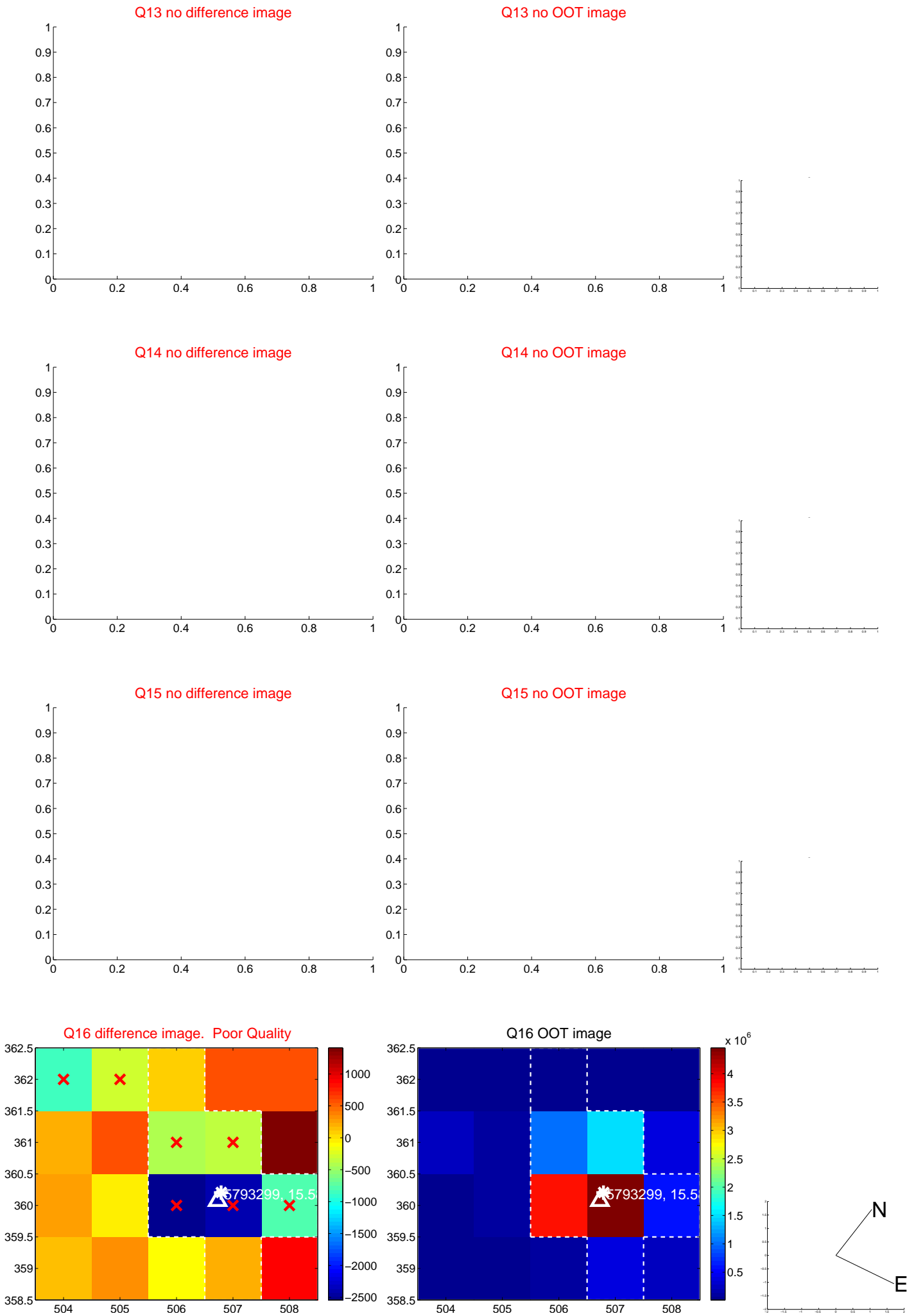
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



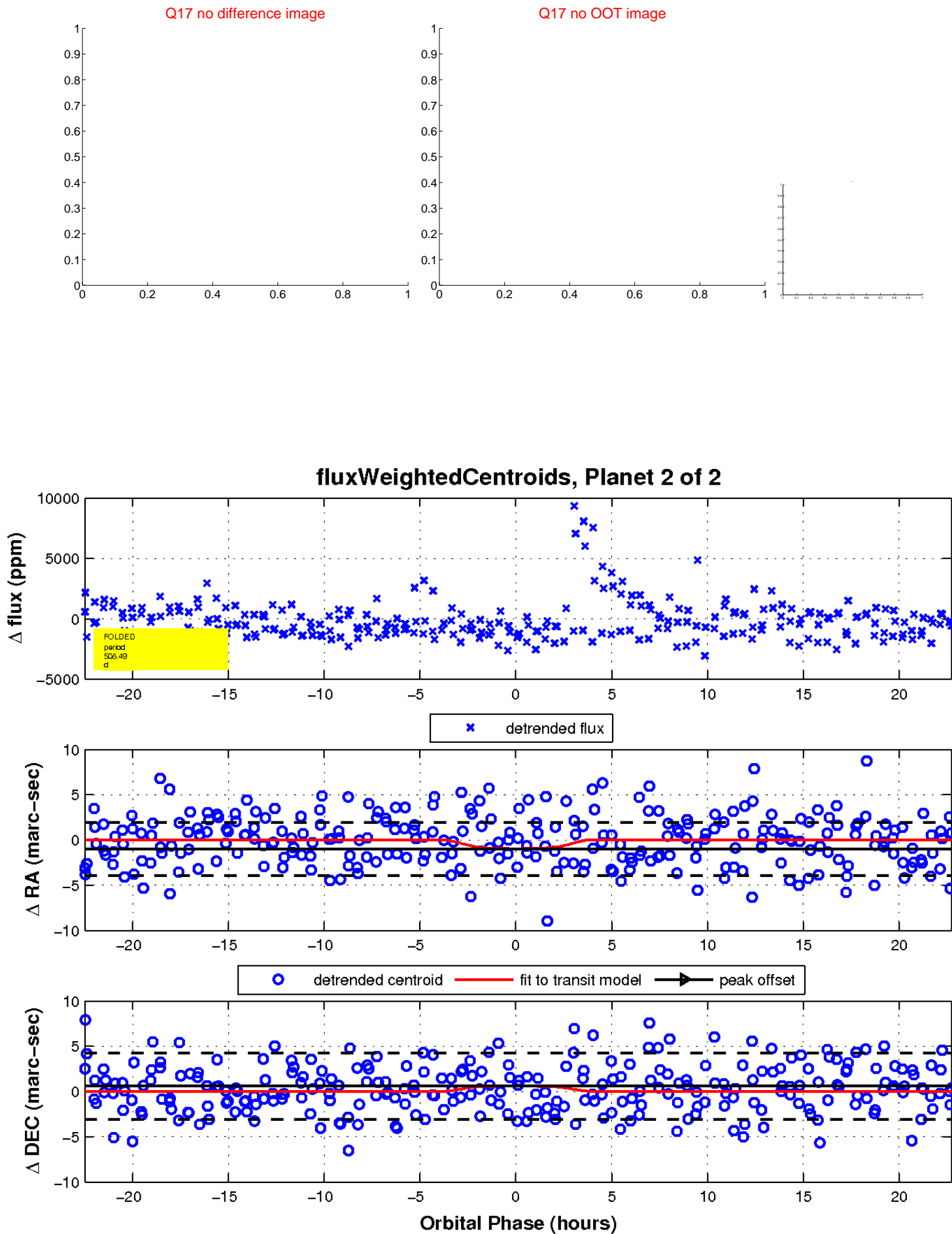
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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

Declination

