

KIC 007365895

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})
007365895-01	OBS	No	446.483077	465.692092	616.6	28.496	11.2	12.9	0.84	5508	2.13	0.46
007365895-02	OBS	No	366.488945	175.267266	719.7	24.964	8.8	11.2	0.84	5508	4.52	0.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007365895-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007365895-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

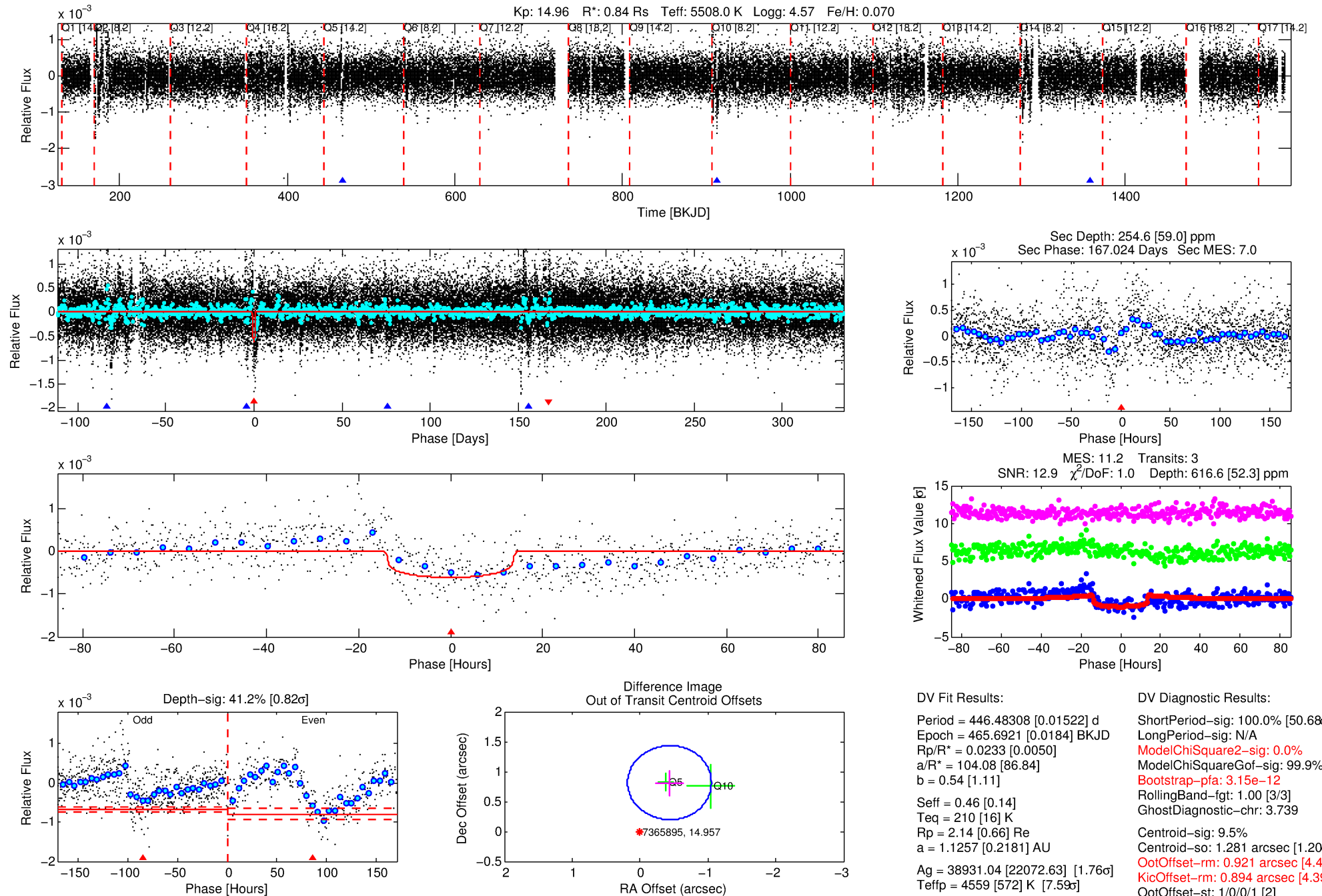
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007365895-01

No Significant Match Found

DV One-Page Summary

KIC: 7365895 Candidate: 1 of 2 Period: 446.483 d



DV Fit Results:

Period = 446.48308 [0.01522] d
Epoch = 465.6921 [0.0184] BKJD
Rp/R* = 0.0233 [0.0050]
a/R* = 104.08 [86.84]
b = 0.54 [1.11]
Seff = 0.46 [0.14]
Teq = 210 [16] K
Rp = 2.14 [0.66] Re
a = 1.1257 [0.2181] AU
Ag = 38931.04 [22072.63] [1.76 σ]
Teffp = 4559 [572] K [7.59 σ]

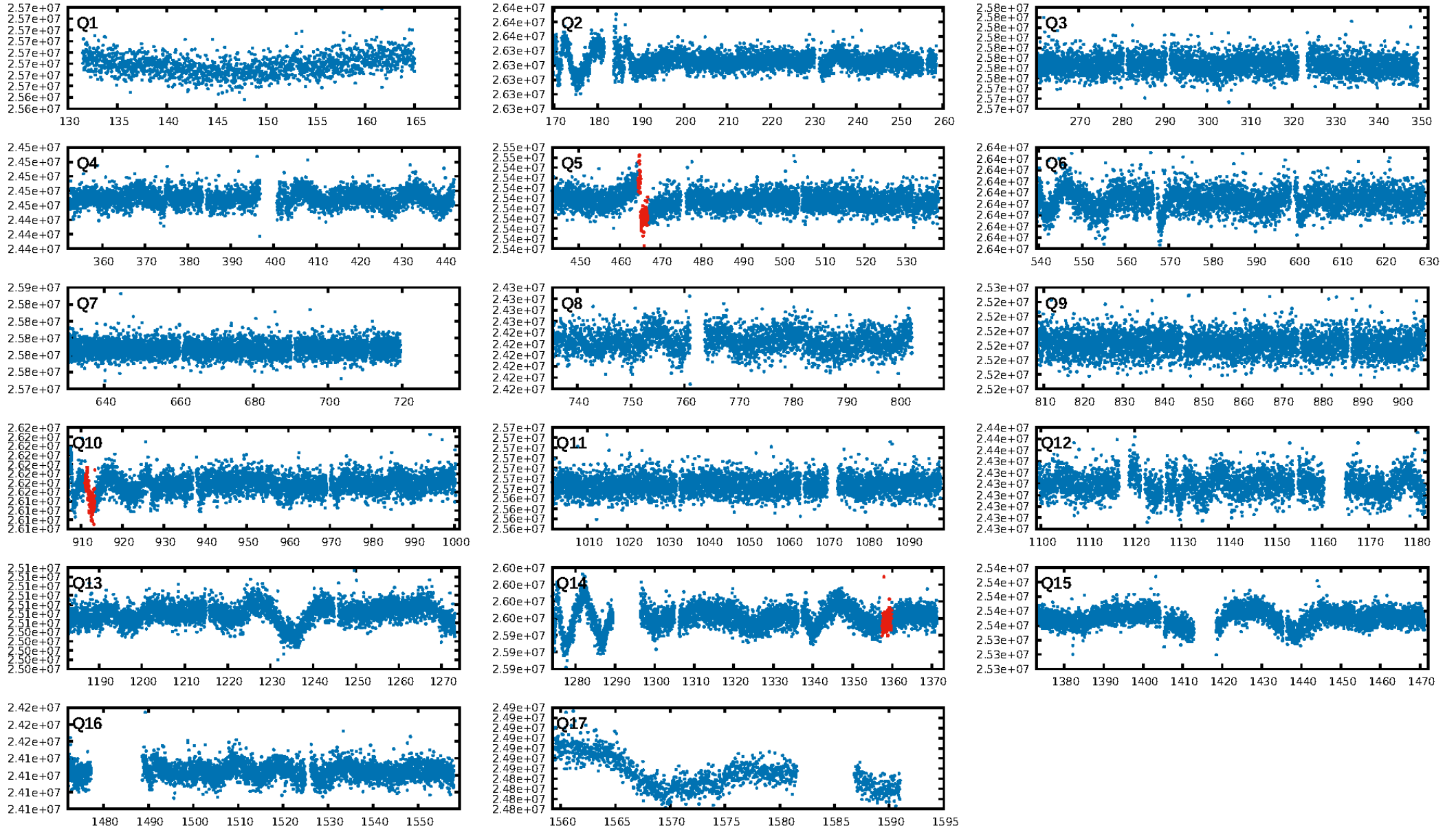
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [50.68 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 3.15e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.739
Centroid-sig: 9.5%
Centroid-so: 1.281 arcsec [1.20 σ]
OotOffset-rm: 0.921 arcsec [4.47 σ]
KicOffset-rm: 0.894 arcsec [4.39 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

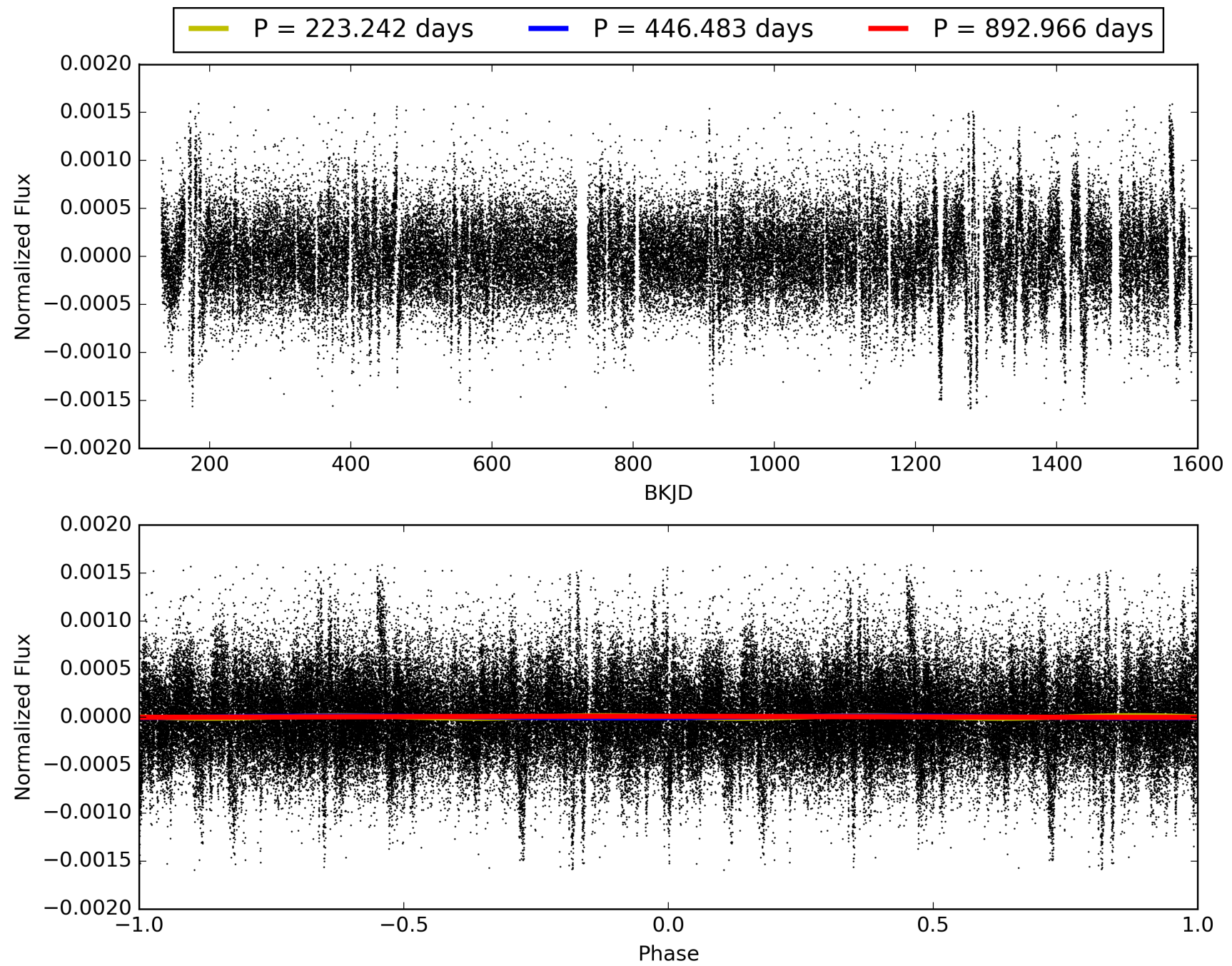
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:28:04 Z

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

TCE 007365895-01, PDC Light Curves

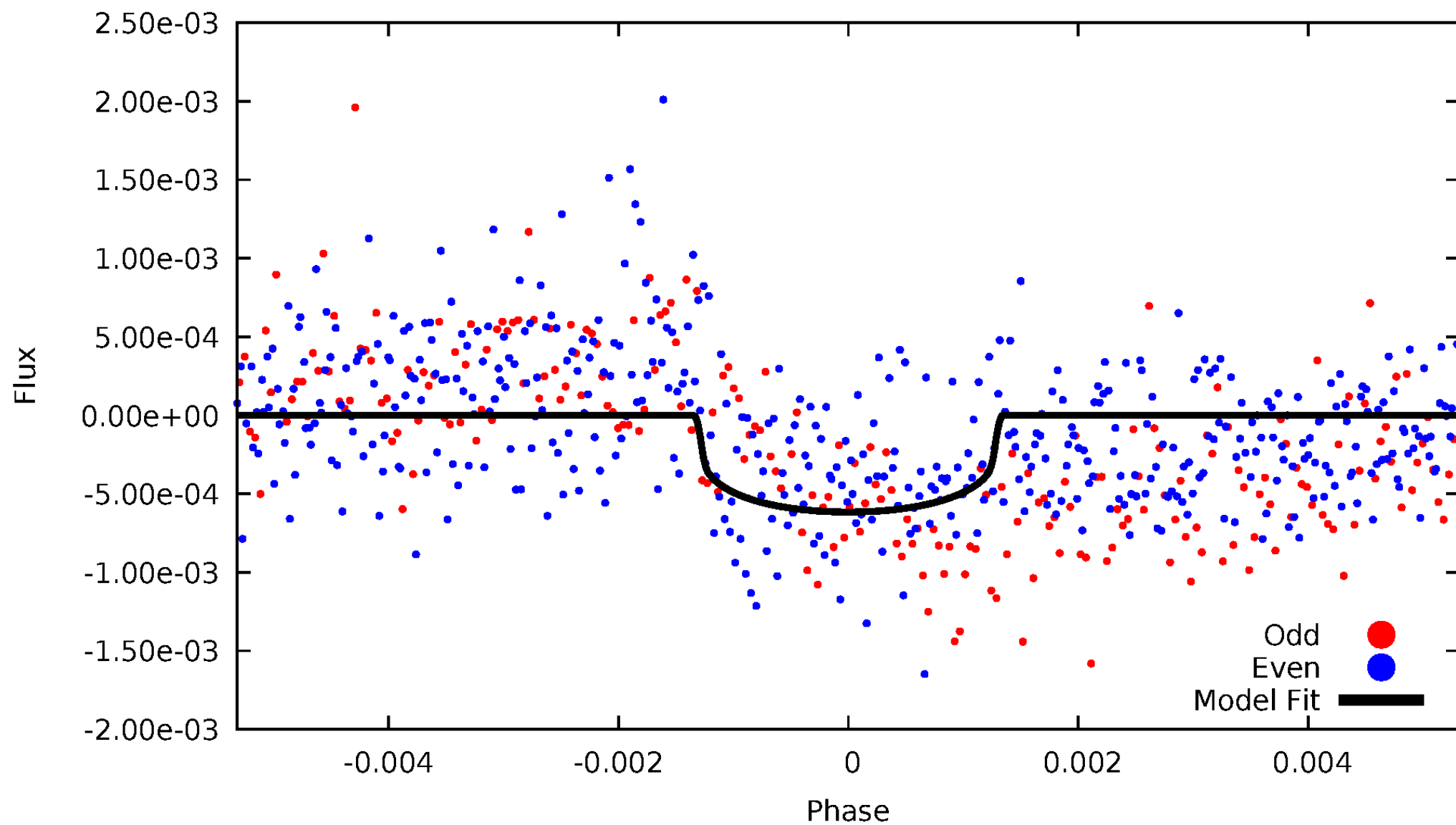


TCE 007365895-01



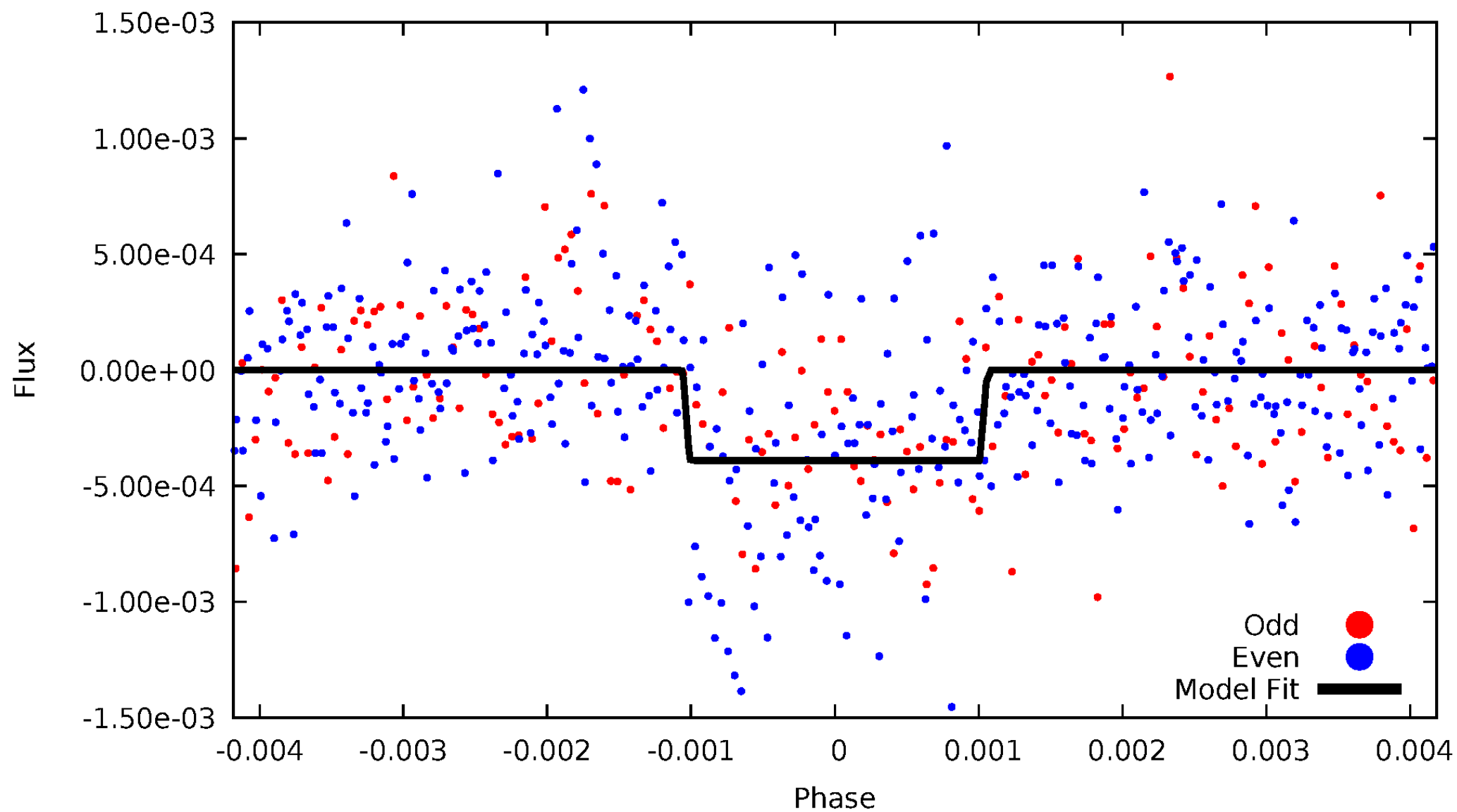
DV Odd/Even

TCE 007365895-01



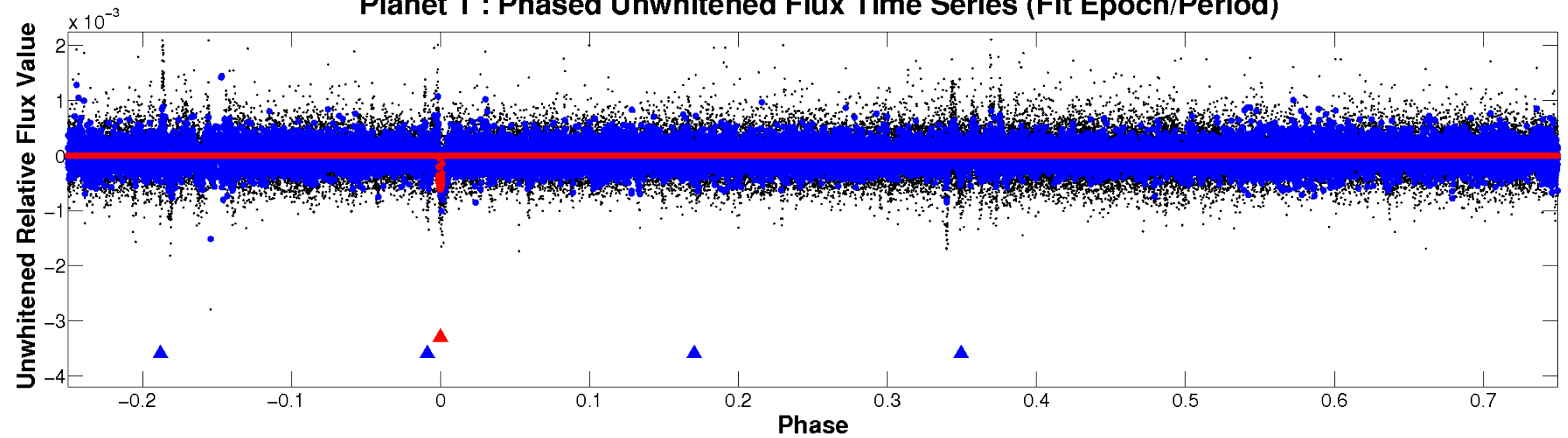
ALT Odd/Even

TCE 007365895-01

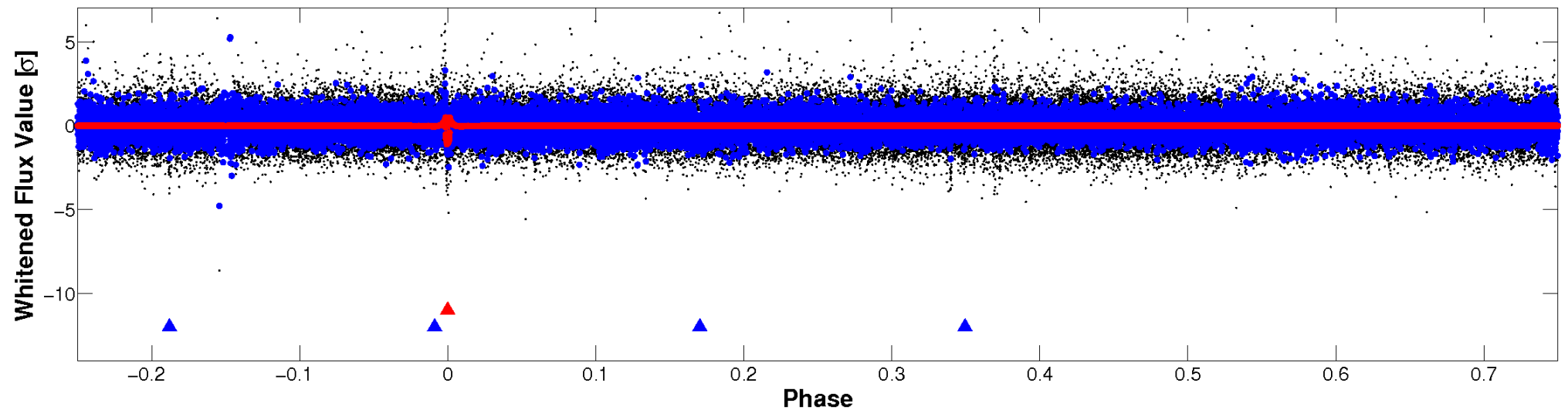


Non-Whitened Vs. Whitened Light Curve

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



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



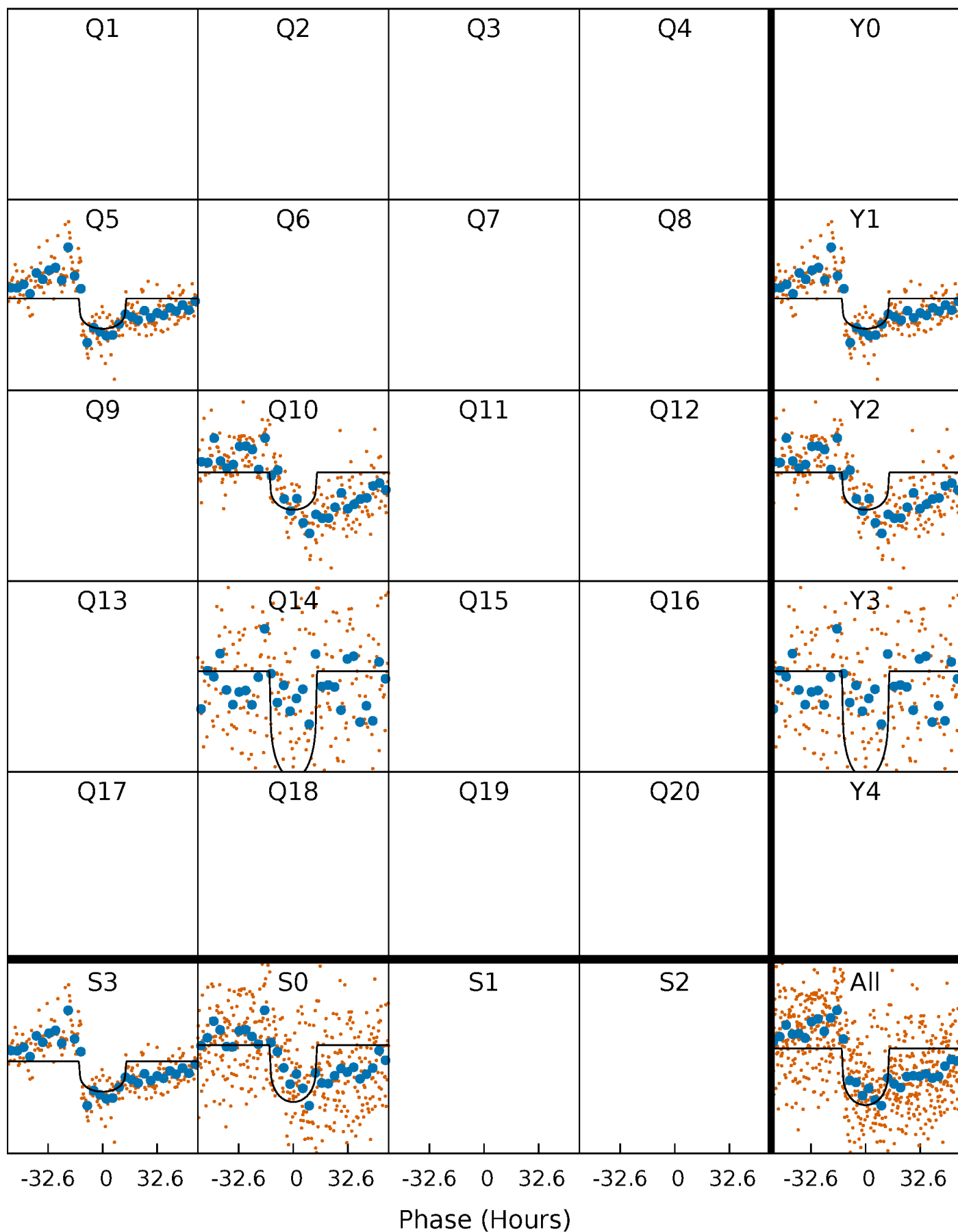
PDC Quarter-Phased Transit Curves

TCE 007365895-01 P=446.483077 Days $T_0=465.692092$ (BKJD)



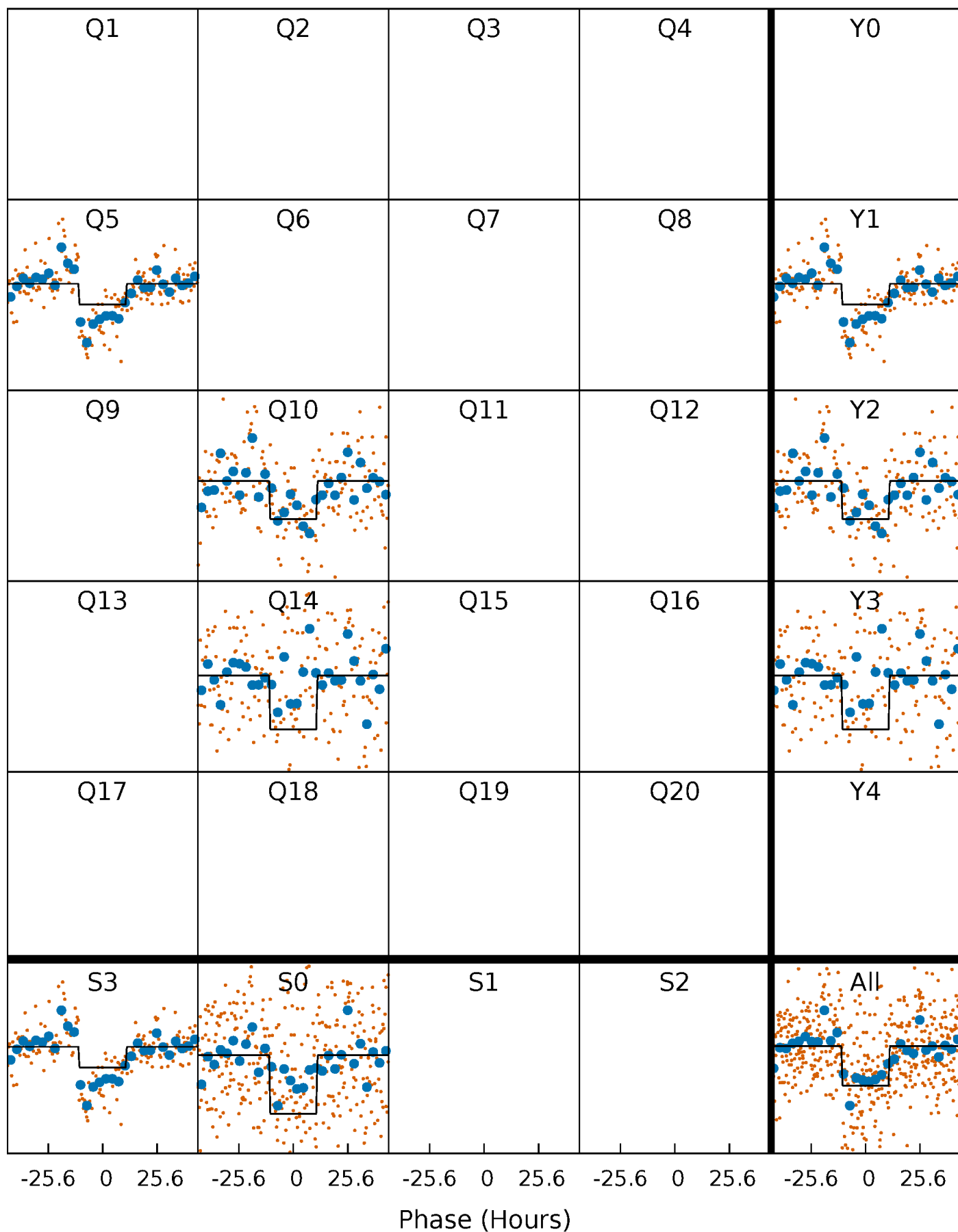
DV Quarter-Phased Transit Curves

TCE 007365895-01 P=446.483077 Days $T_0=465.692092$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

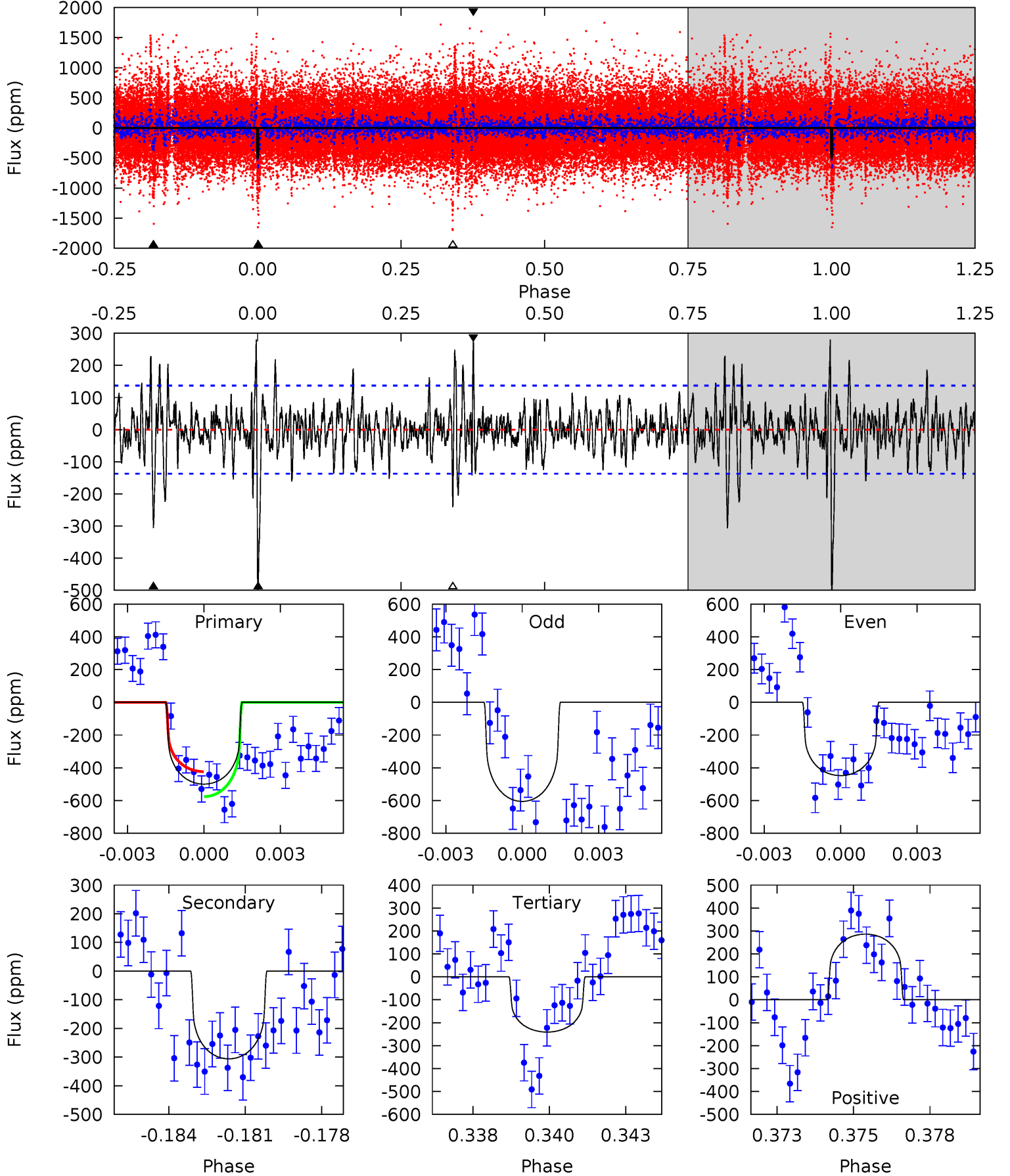
TCE 007365895-01 P=446.677622 Days $T_0=465.625698$ (BKJD)



DV Model-Shift Uniqueness Test

007365895-01, $P = 446.483077$ Days, $E = 19.209015$ Days

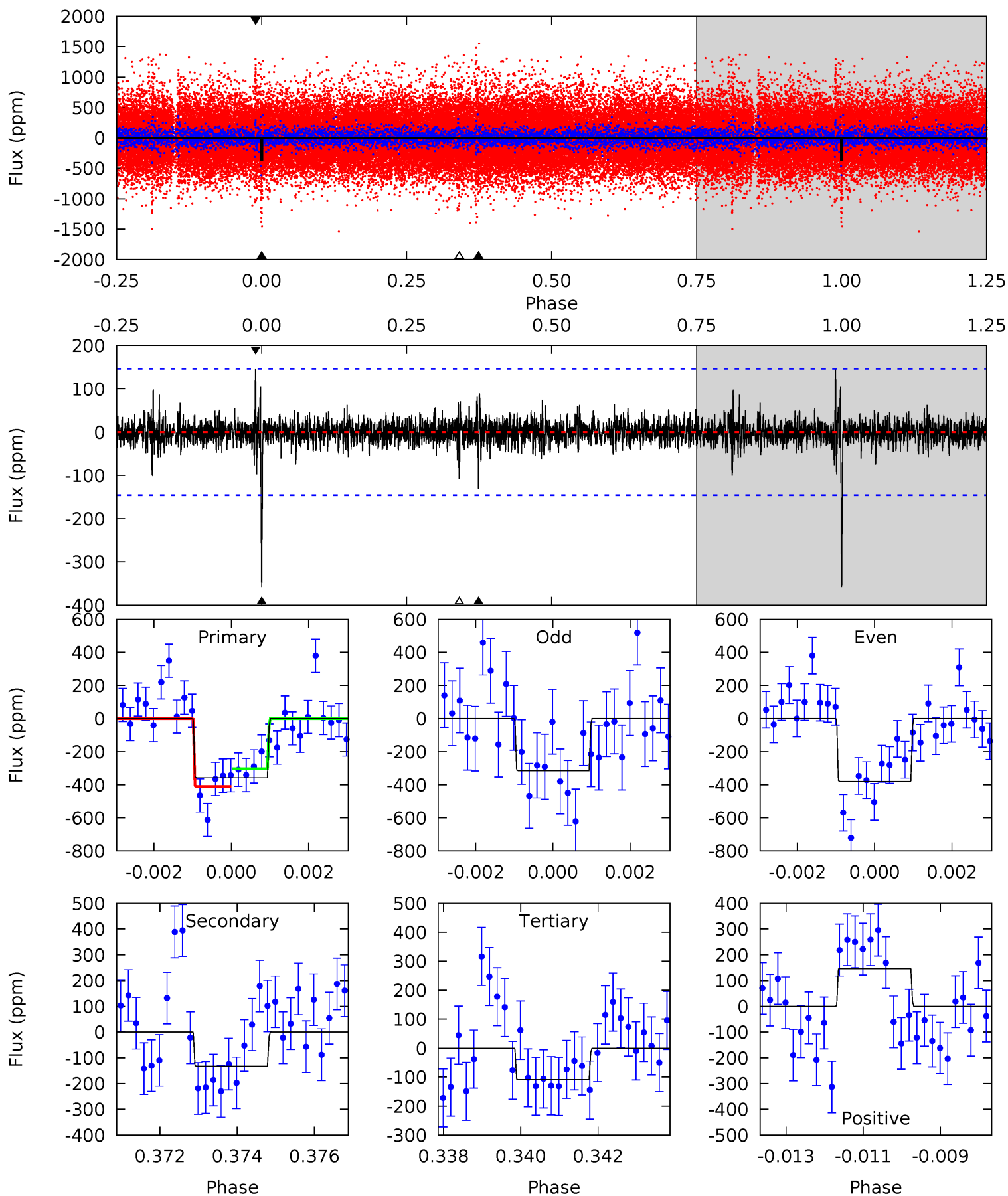
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	11.8	9.26	11.0	5.27	3.00	2.34	9.95	8.21	2.51	0.76	2.87	0.83	0.36	2.92



Alt Model-Shift Uniqueness Test

007365895-01, P = 446.677622 Days, E = 18.948076 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	4.81	3.97	5.34	5.31	3.07	0.74	9.07	7.69	0.84	-0.53	1.11	1.15	0.29	1.95



Stellar Parameters For KIC 007365895

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5508^{+164}_{-164}	$4.569^{+0.028}_{-0.161}$	$0.070^{+0.250}_{-0.300}$	$0.840^{+0.188}_{-0.063}$	$0.955^{+0.073}_{-0.110}$	$2.266^{+0.365}_{-1.024}$
	+3%/-3%	+1%/-4%	+357%/-429%	+22%/-8%	+8%/-12%	+16%/-45%
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 007365895-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-306 ± 26	$2.25^{+0.50}_{-0.53}$	301^{+16}_{-12}	4861^{+569}_{-394}	41427^{+27150}_{-14577}
Alt.	-132 ± 27	$1.87^{+0.53}_{-0.49}$	299^{+17}_{-12}	4406^{+628}_{-429}	25793^{+21925}_{-11240}

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

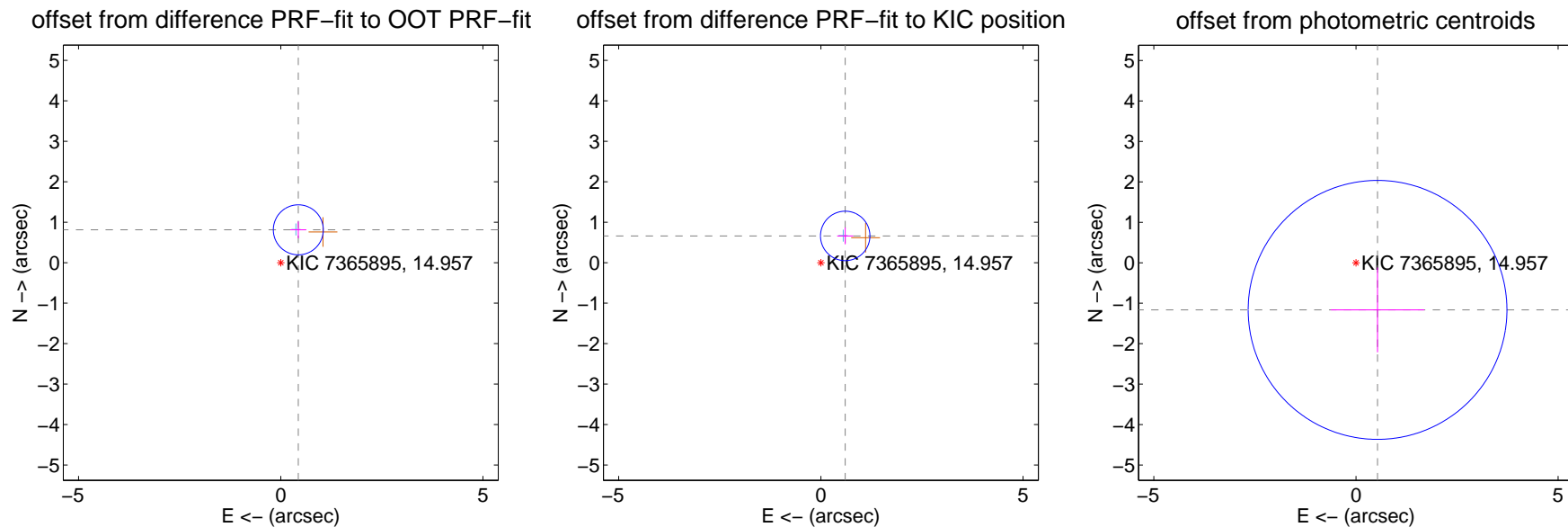
DV Centroid Data

Supplemental centroid analysis for 007365895-01. Kepler magnitude: 14.96. Transit SNR 12.86

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.921 ± 0.206	4.47	-0.435 ± 0.198	0.812 ± 0.208
PRF-fit source offset from KIC position	0.894 ± 0.204	4.39	-0.602 ± 0.198	0.662 ± 0.208
photometric centroid source offset	1.28 ± 1.07	1.20	-0.53 ± 1.15	-1.16 ± 1.05

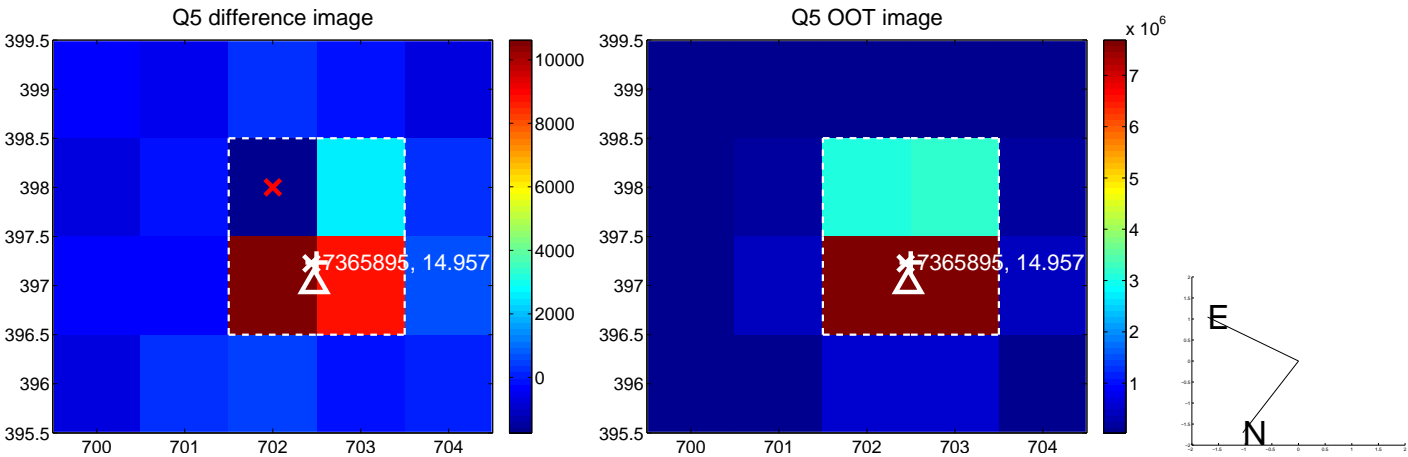


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

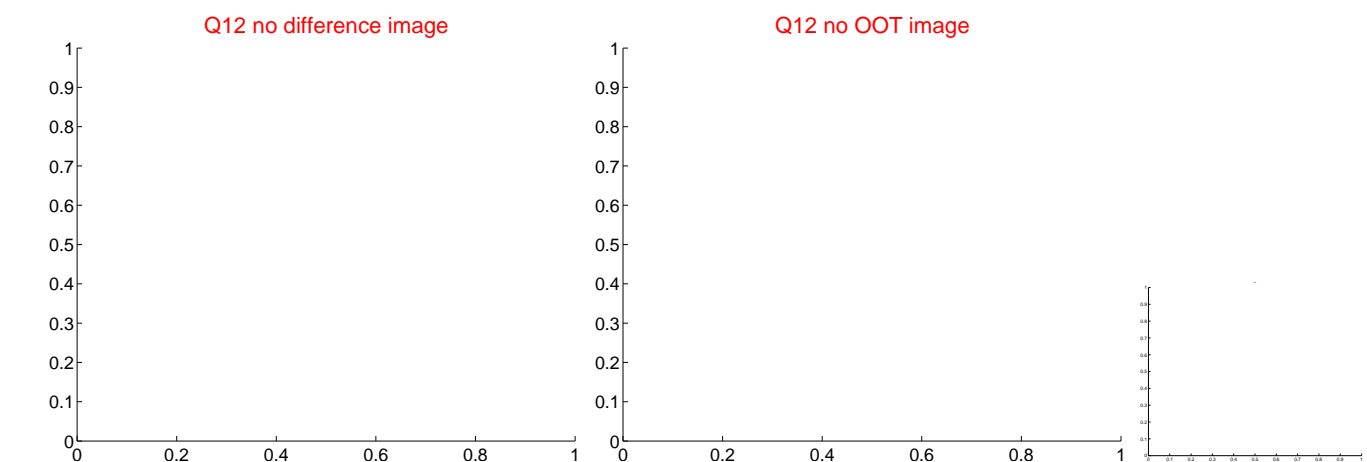
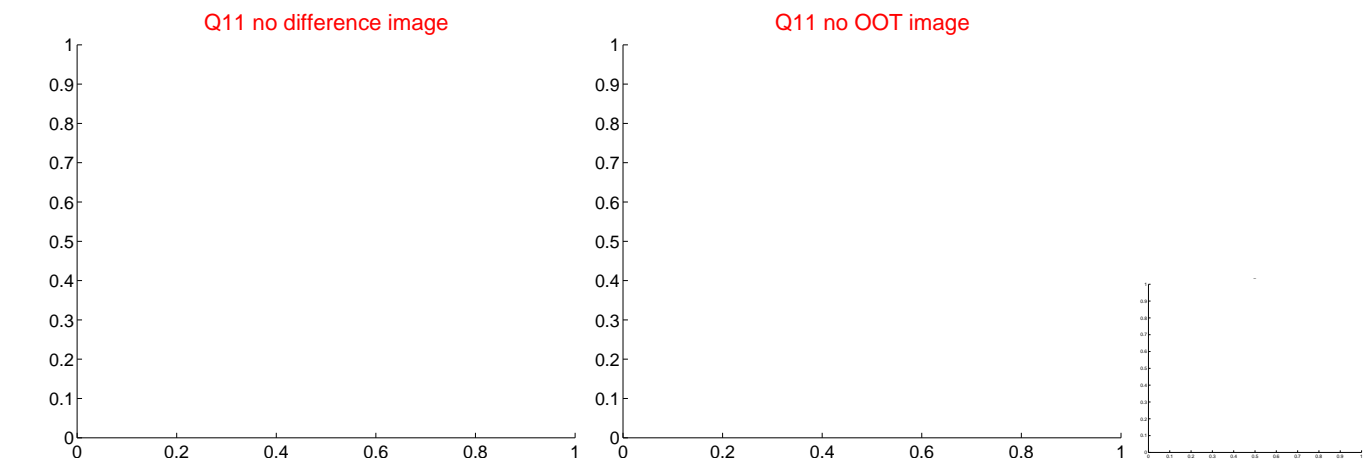
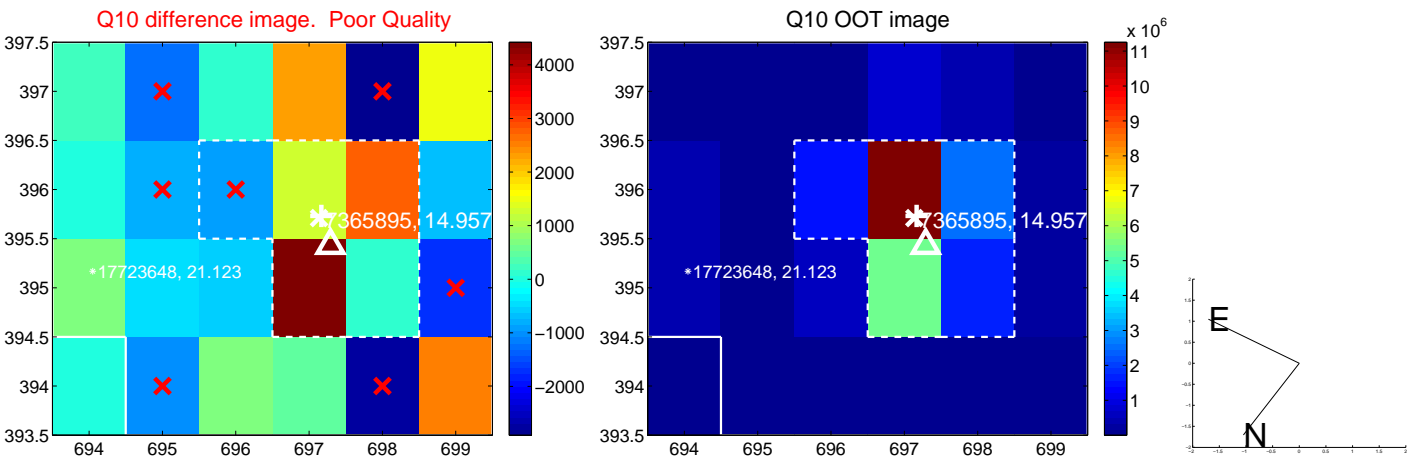
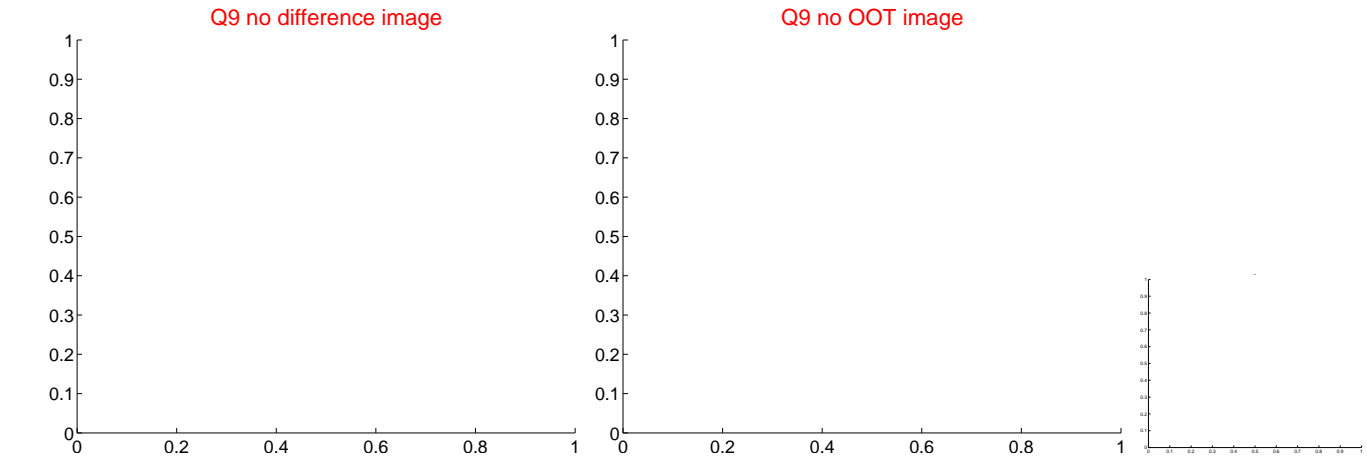
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



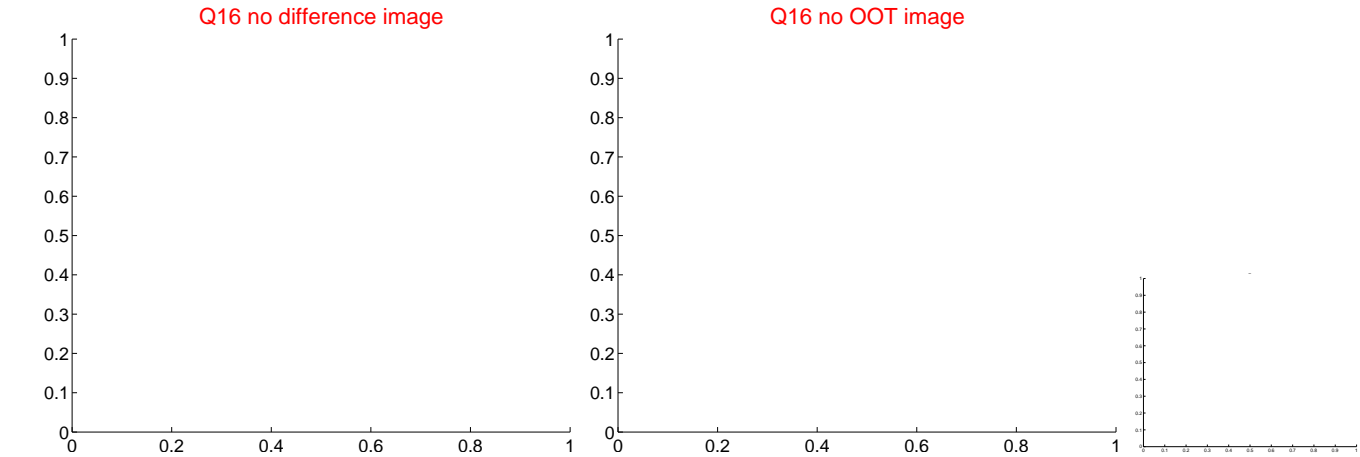
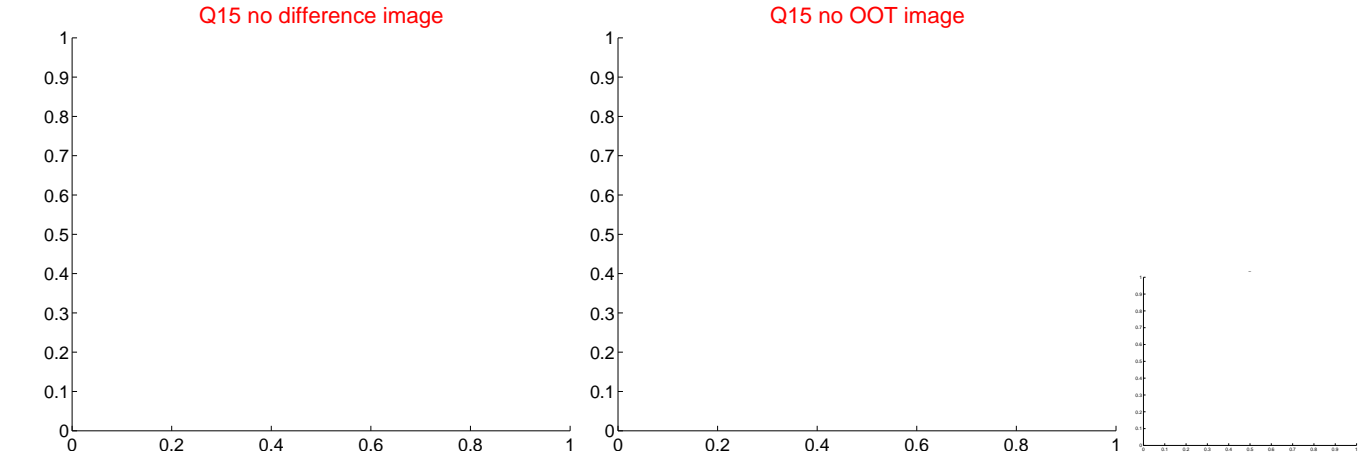
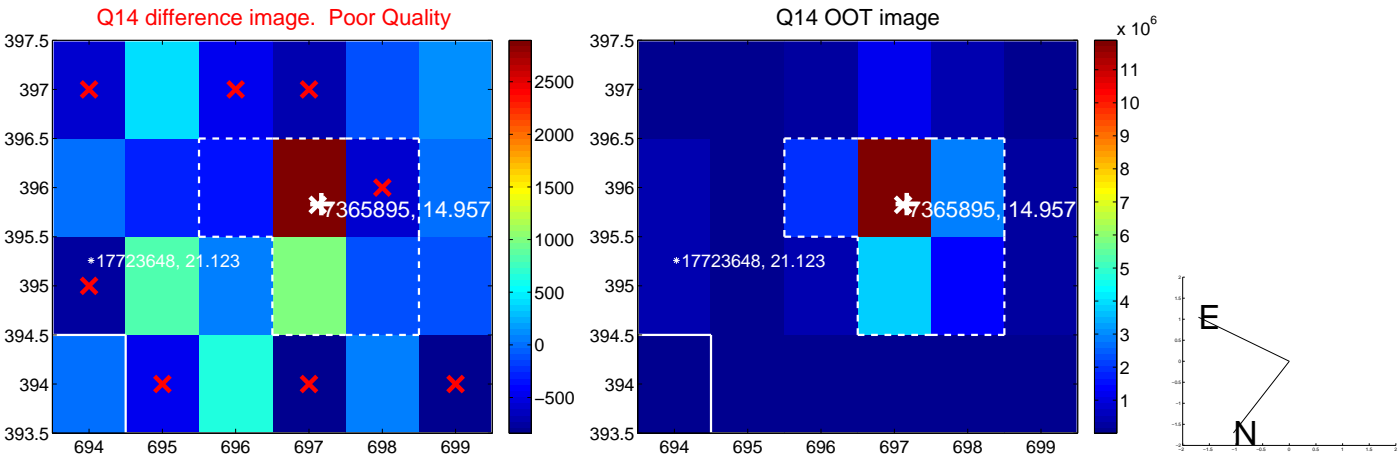
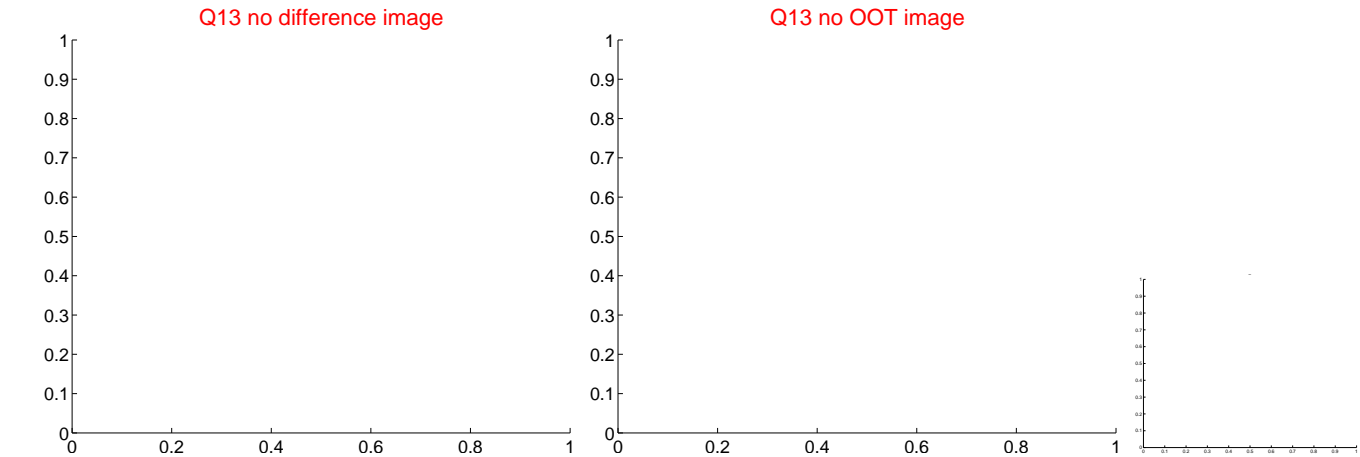
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



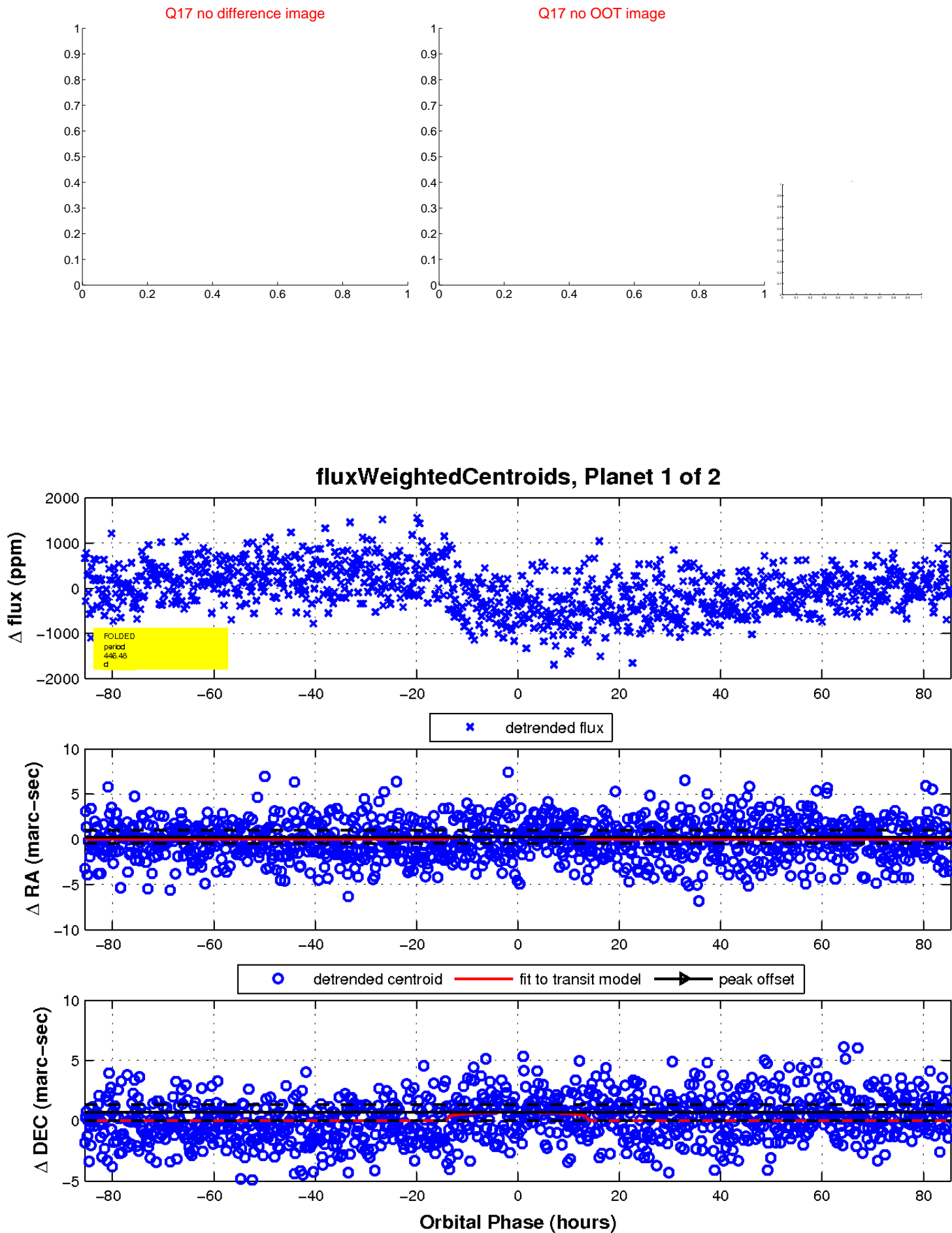
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

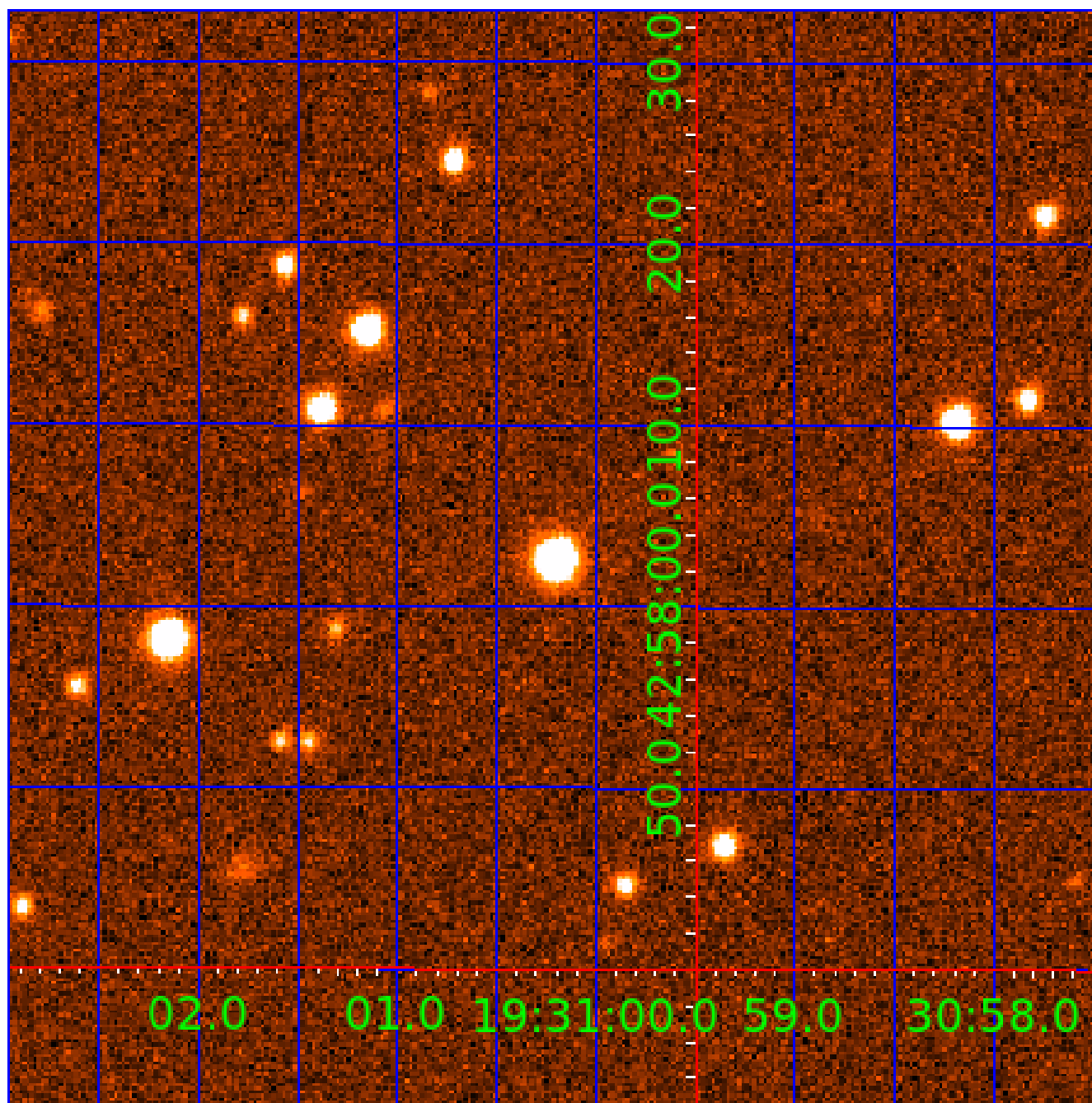


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007365895

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})
007365895-01	OBS	No	446.483077	465.692092	616.6	28.496	11.2	12.9	0.84	5508	2.13	0.46
007365895-02	OBS	No	366.488945	175.267266	719.7	24.964	8.8	11.2	0.84	5508	4.52	0.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007365895-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007365895-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

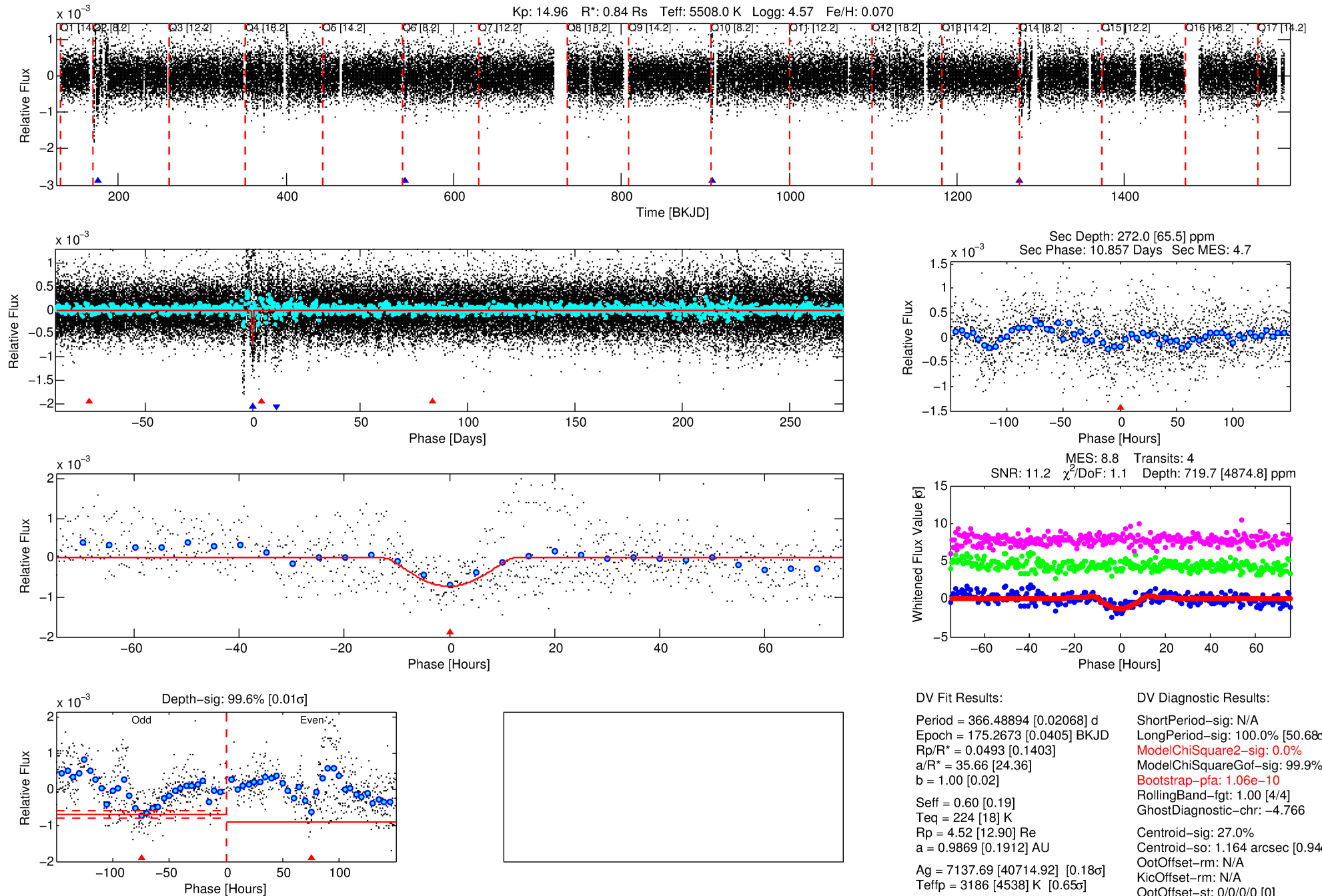
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007365895-02

No Significant Match Found

DV One-Page Summary

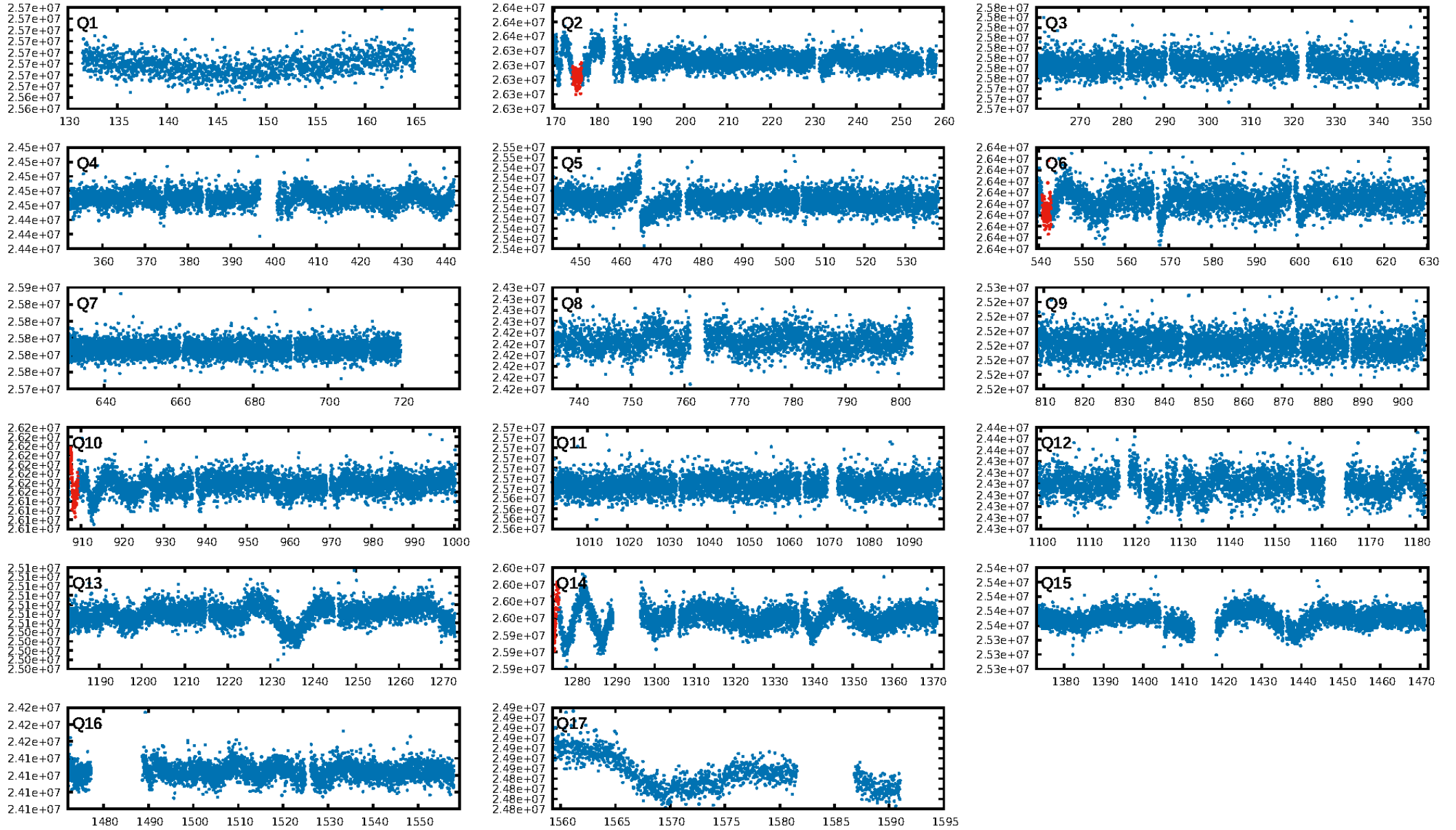
KIC: 7365895 Candidate: 2 of 2 Period: 366.489 d



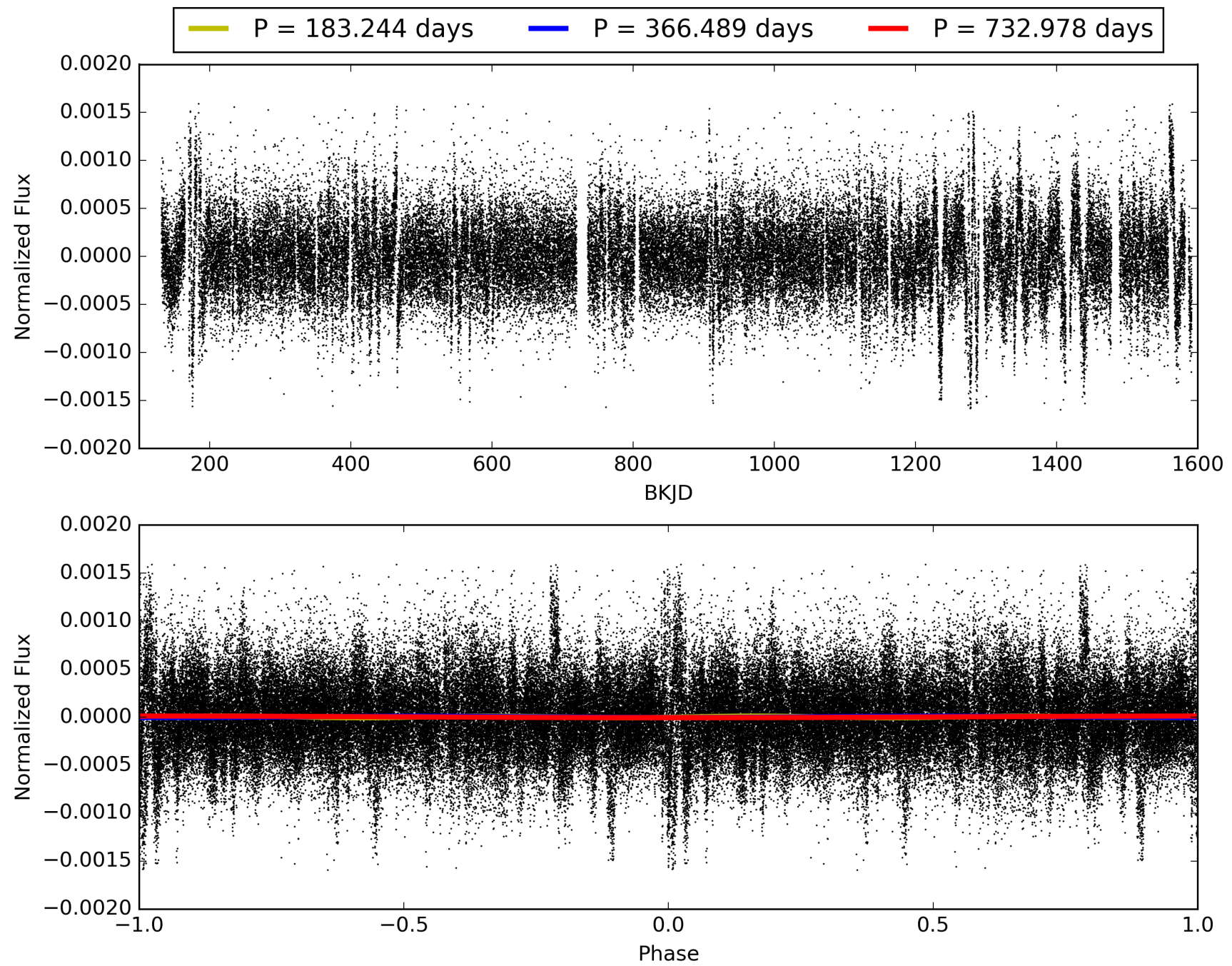
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:28:12 Z

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

TCE 007365895-02, PDC Light Curves

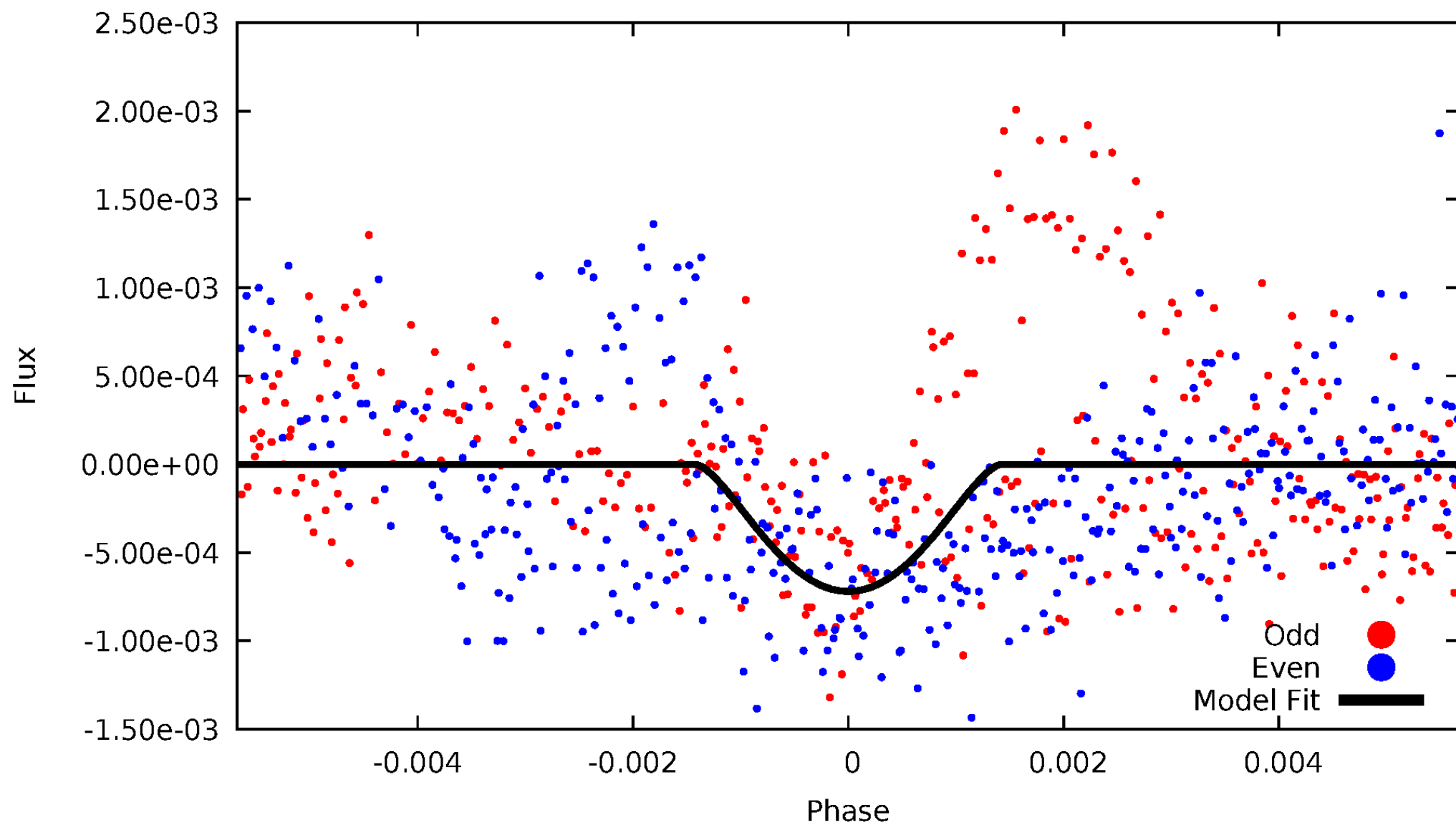


TCE 007365895-02



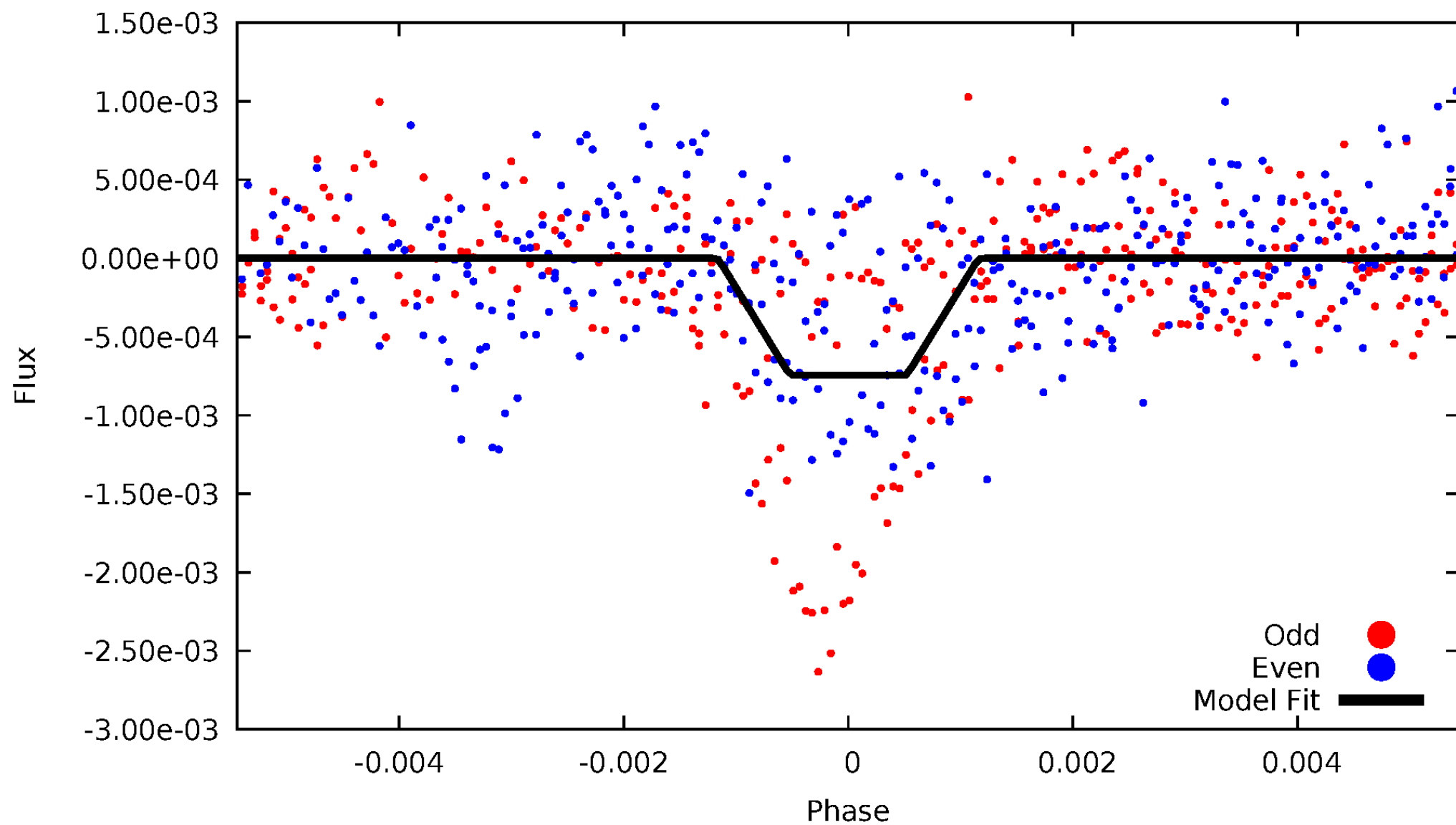
DV Odd/Even

TCE 007365895-02



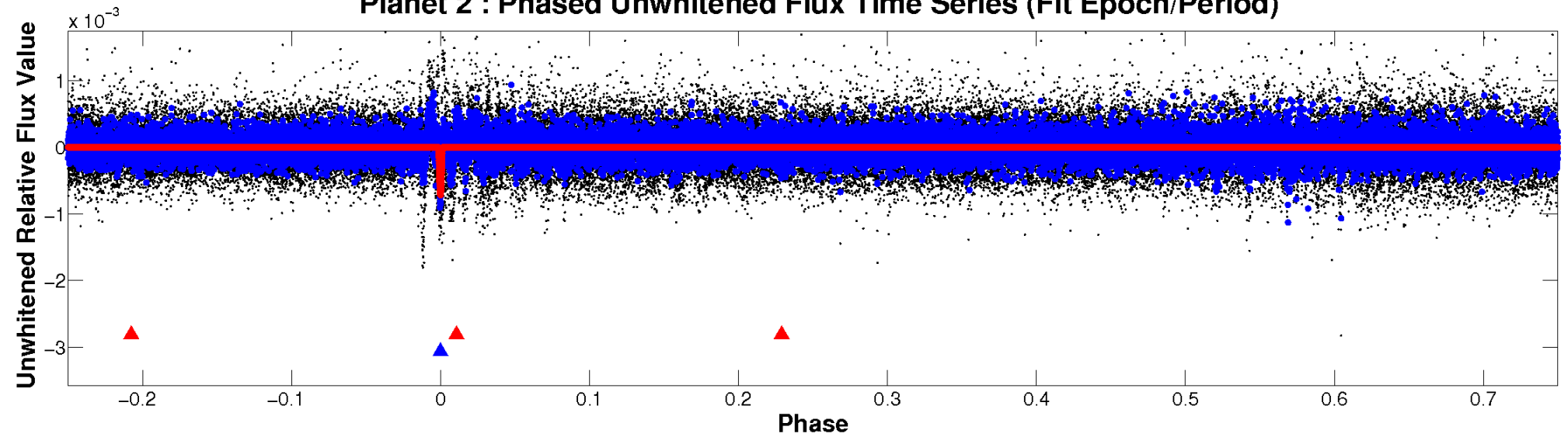
ALT Odd/Even

TCE 007365895-02

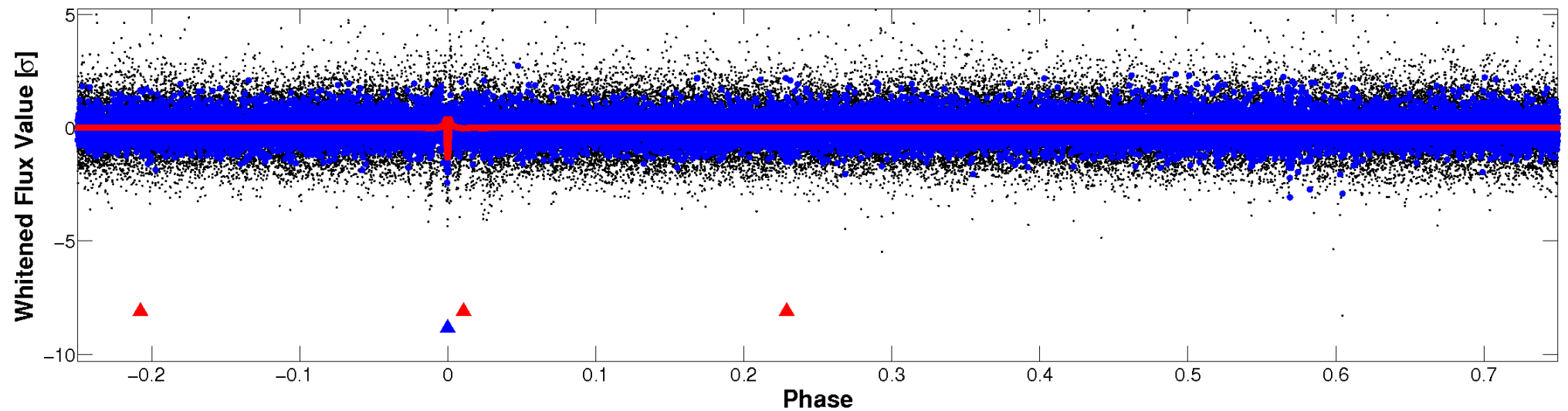


Non-Whitened Vs. Whitened Light Curve

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

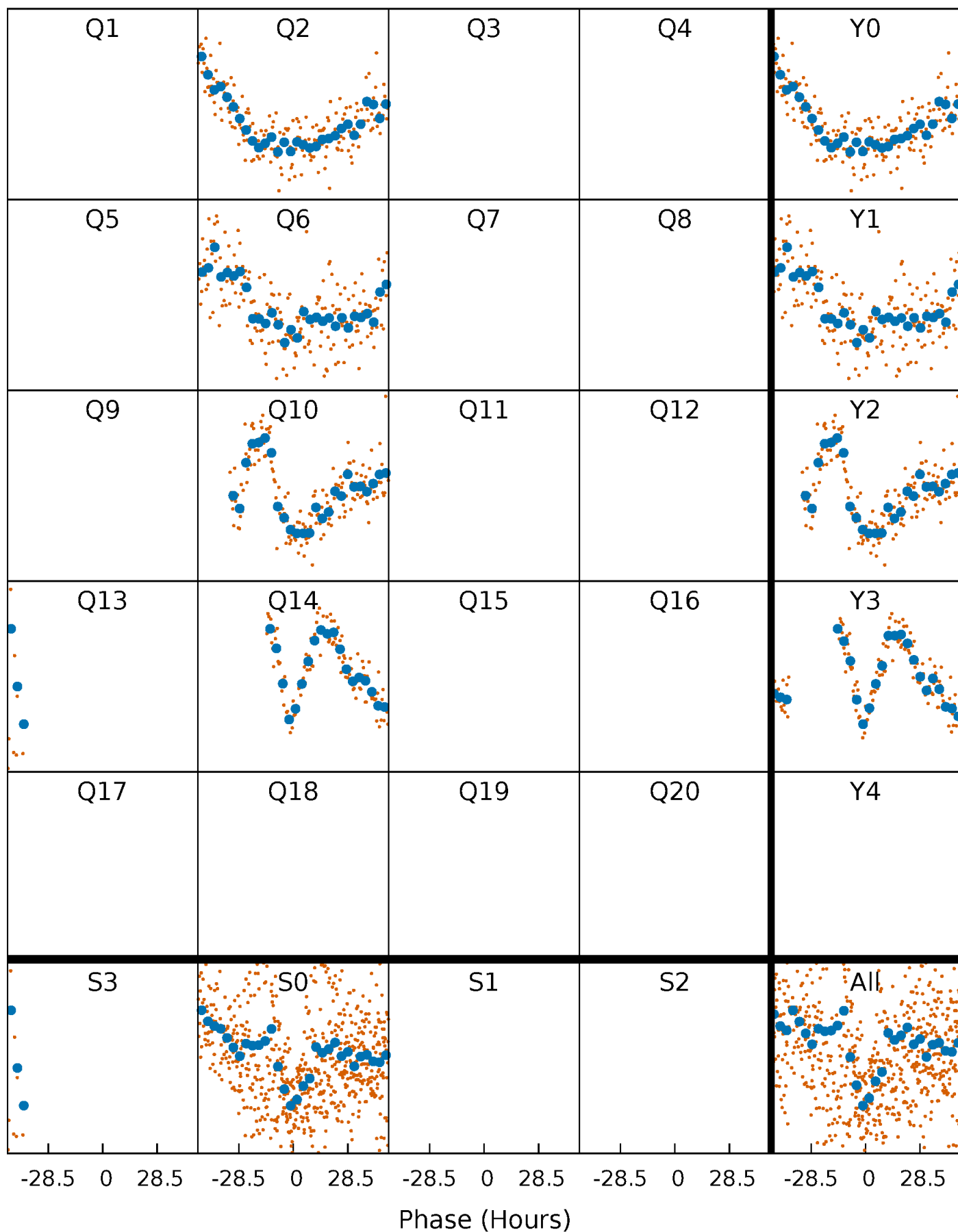


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



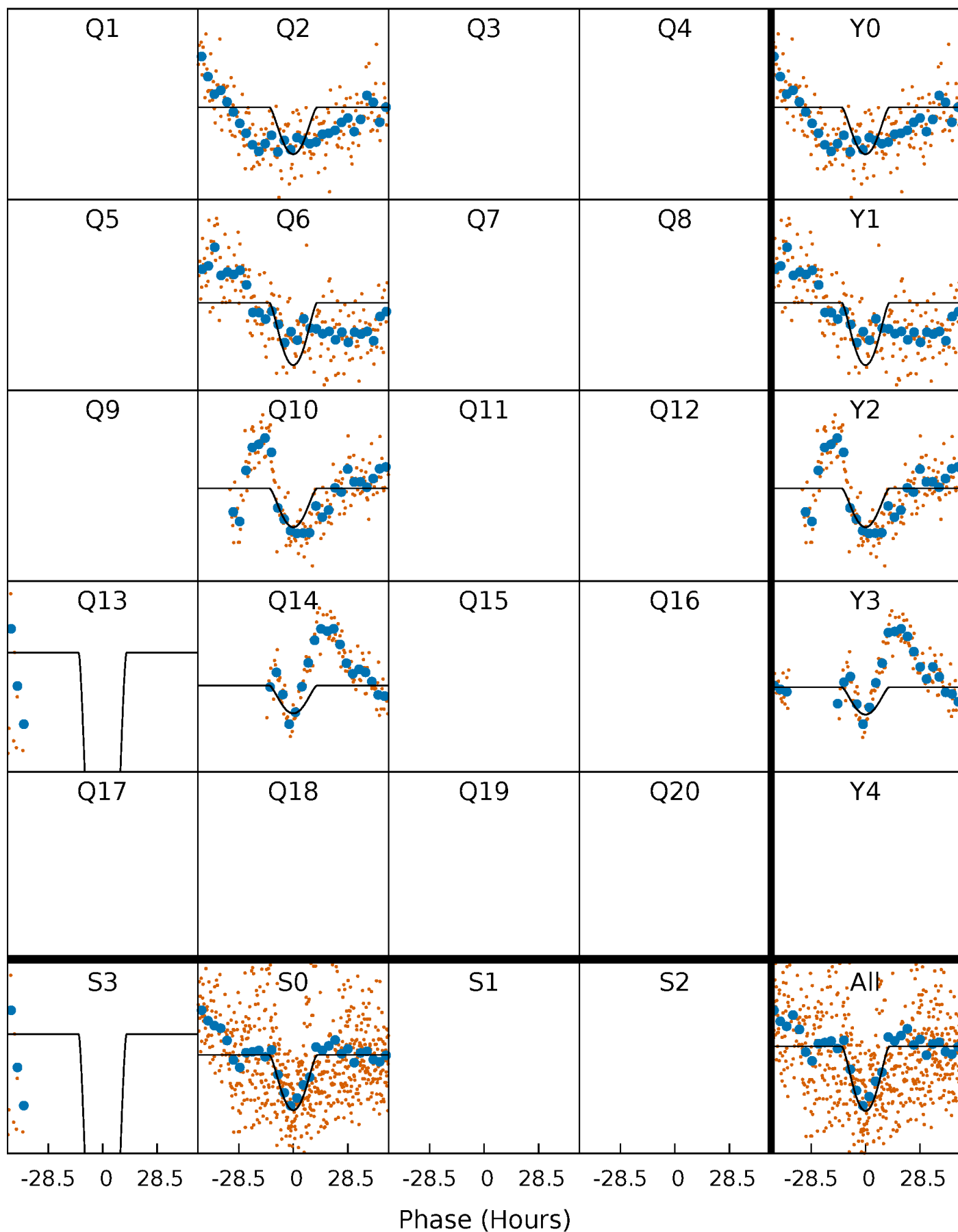
PDC Quarter-Phased Transit Curves

TCE 007365895-02 $P=366.488945$ Days $T_0=175.267266$ (BKJD)



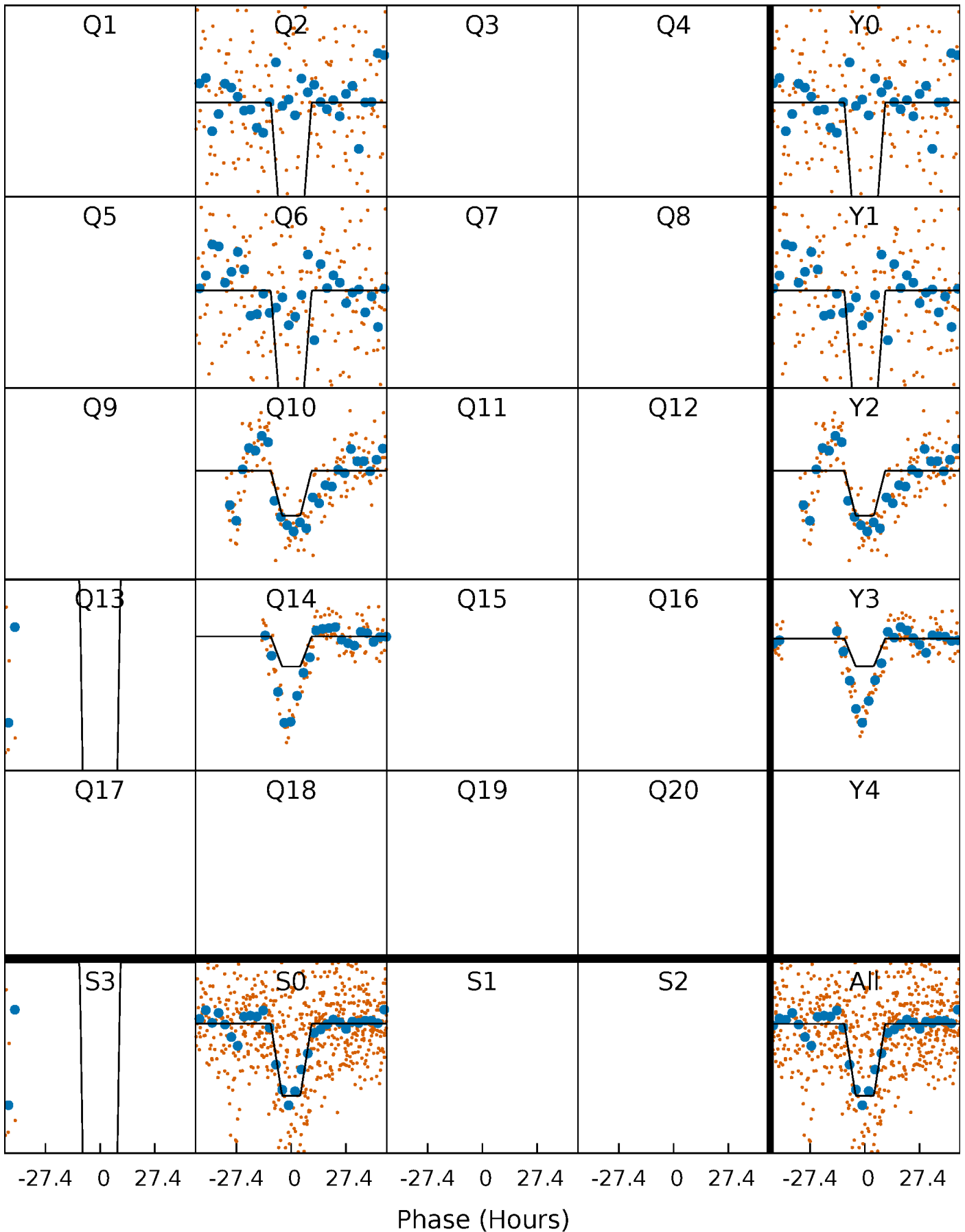
DV Quarter-Phased Transit Curves

TCE 007365895-02 $P=366.488945$ Days $T_0=175.267266$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

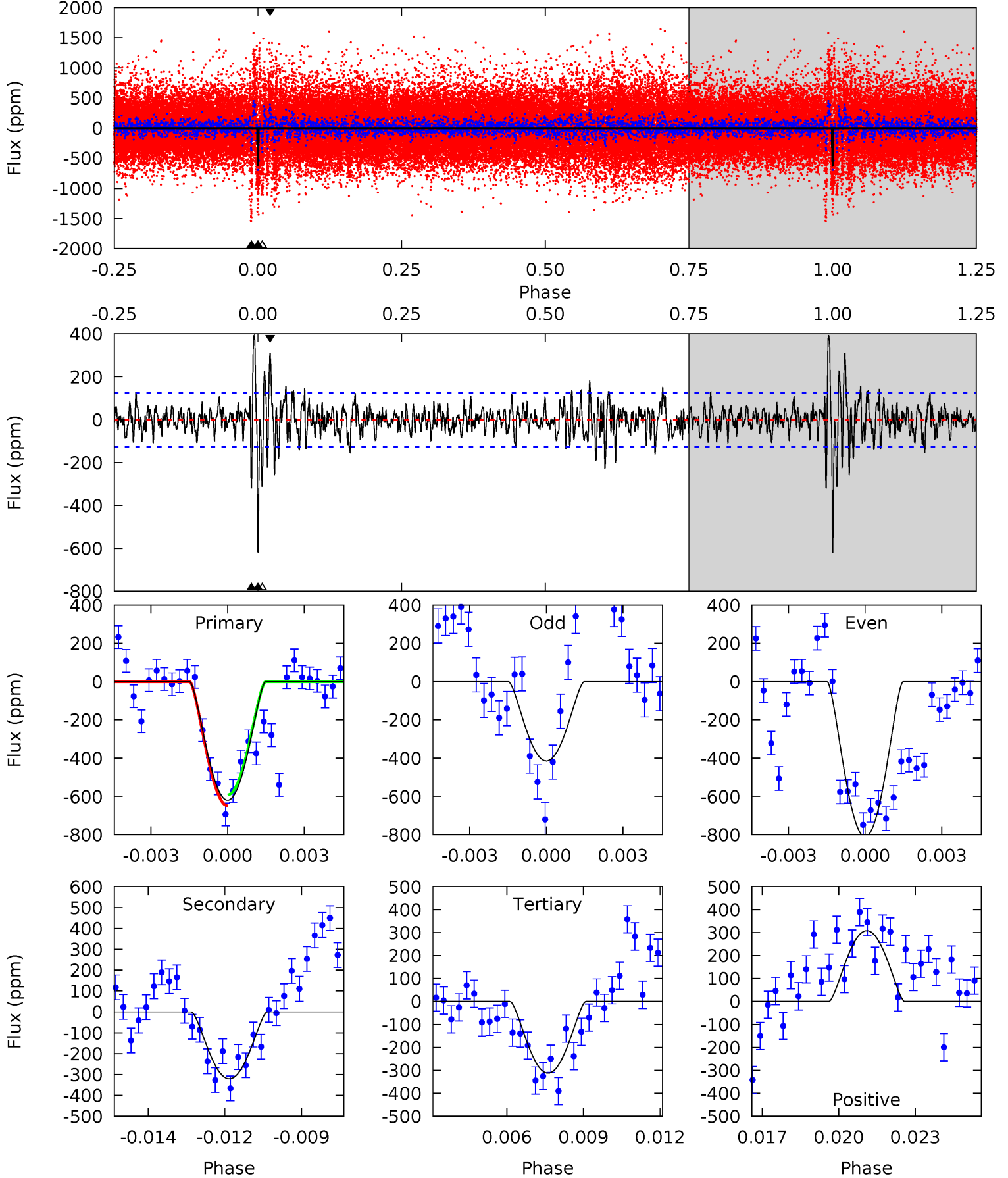
TCE 007365895-02 P=366.557633 Days $T_0=175.096242$ (BKJD)



DV Model-Shift Uniqueness Test

007365895-02, P = 366.488945 Days, E = 175.267266 Days

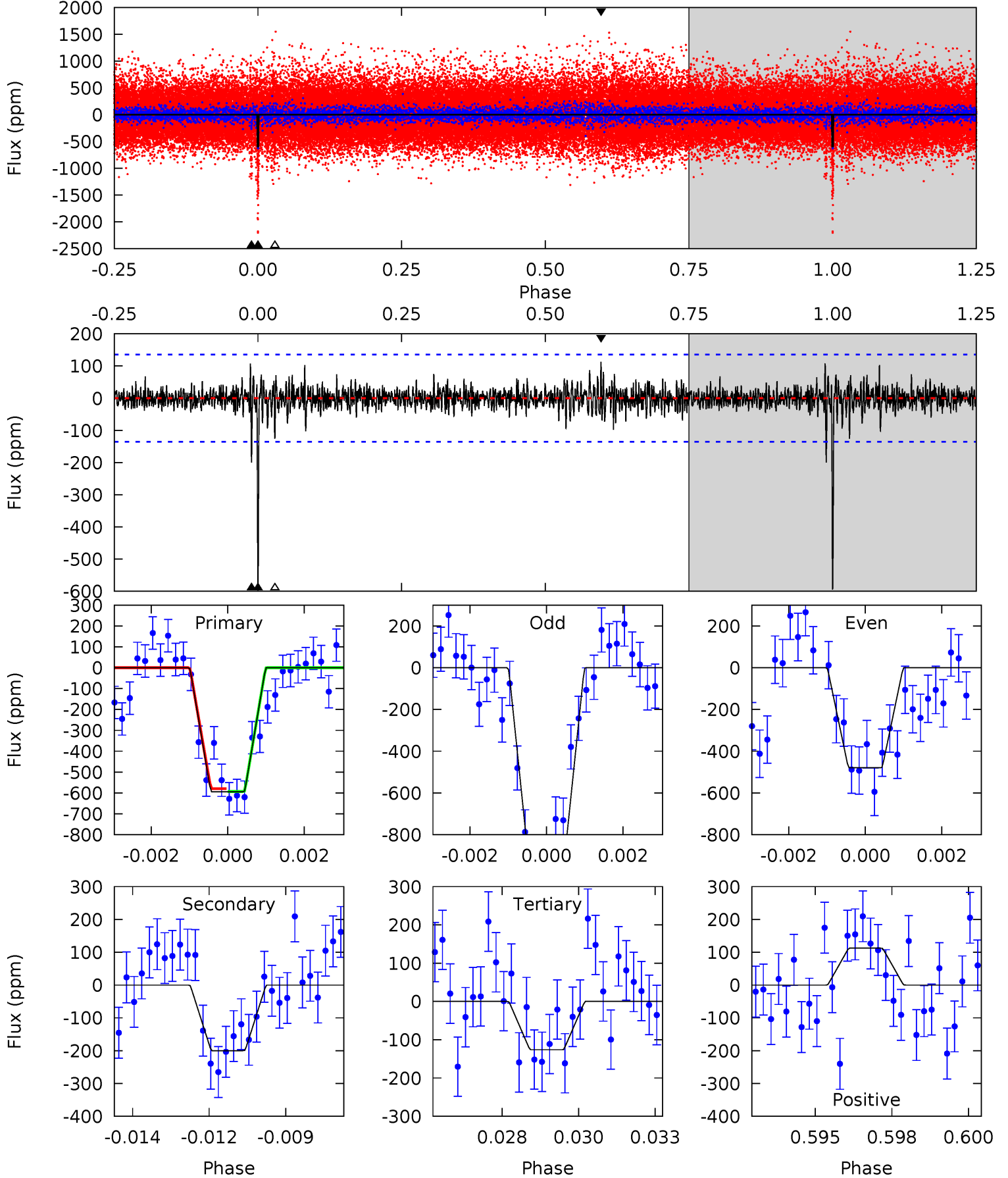
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	13.4	13.0	12.8	5.26	2.98	2.56	12.8	13.0	0.35	0.53	8.33	1.05	0.39	1.17



Alt Model-Shift Uniqueness Test

007365895-02, P = 366.557633 Days, E = 175.096242 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.2	7.81	4.93	4.40	5.30	3.04	0.98	18.3	18.8	2.89	3.42	9.77	1.33	0.16	0.27



Stellar Parameters For KIC 007365895

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5508^{+164}_{-164}	$4.569^{+0.028}_{-0.161}$	$0.070^{+0.250}_{-0.300}$	$0.840^{+0.188}_{-0.063}$	$0.955^{+0.073}_{-0.110}$	$2.266^{+0.365}_{-1.024}$
	+3%/-3%	+1%/-4%	+357%/-429%	+22%/-8%	+8%/-12%	+16%/-45%
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 007365895-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-320 ± 24	$11.79^{+10.85}_{-8.07}$	321^{+18}_{-14}	2831^{+1221}_{-431}	1203^{+10833}_{-885}
Alt.	-200 ± 26	$9.86^{+10.43}_{-7.01}$	320^{+18}_{-14}	2758^{+1290}_{-440}	1056^{+11672}_{-814}

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

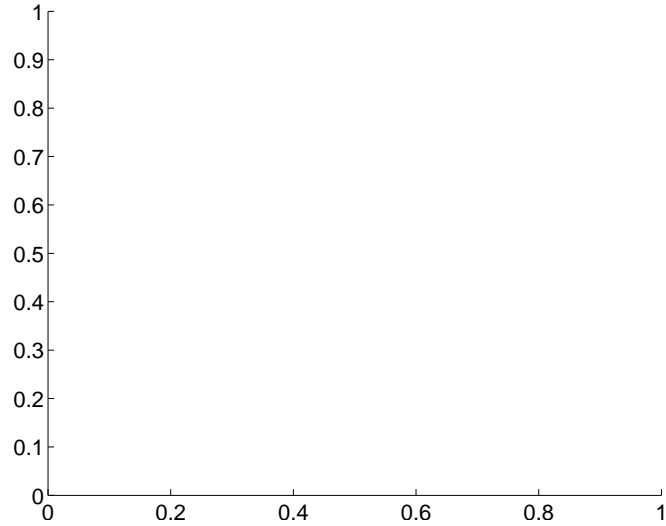
Supplemental centroid analysis for 007365895-02. Kepler magnitude: 14.96. Transit SNR 11.22

There are 0 quarters with good PRF difference image offsets

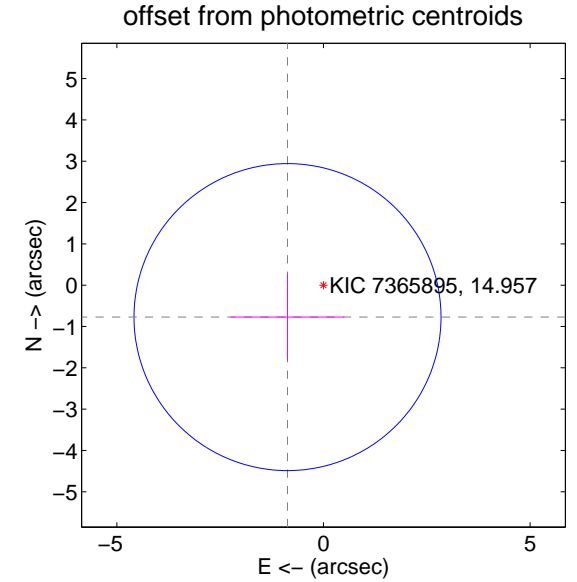
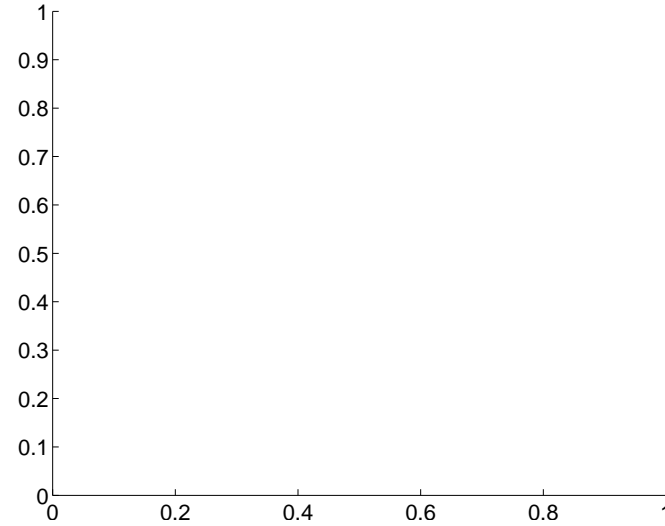
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.16 ± 1.24	0.94	0.87 ± 1.37	-0.77 ± 1.04

There is no PRF-fit offset from OOT-fit

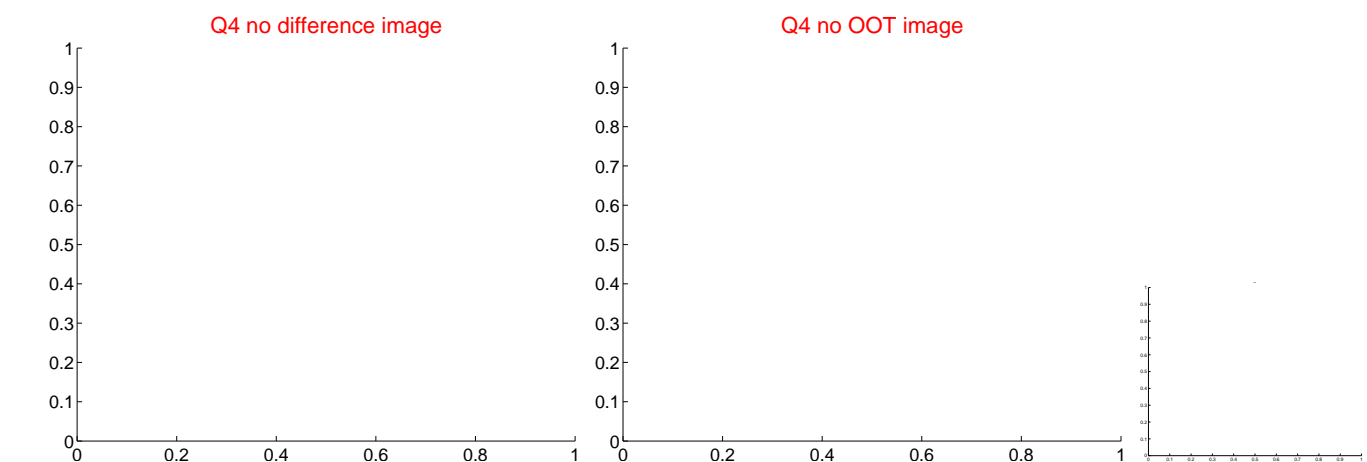
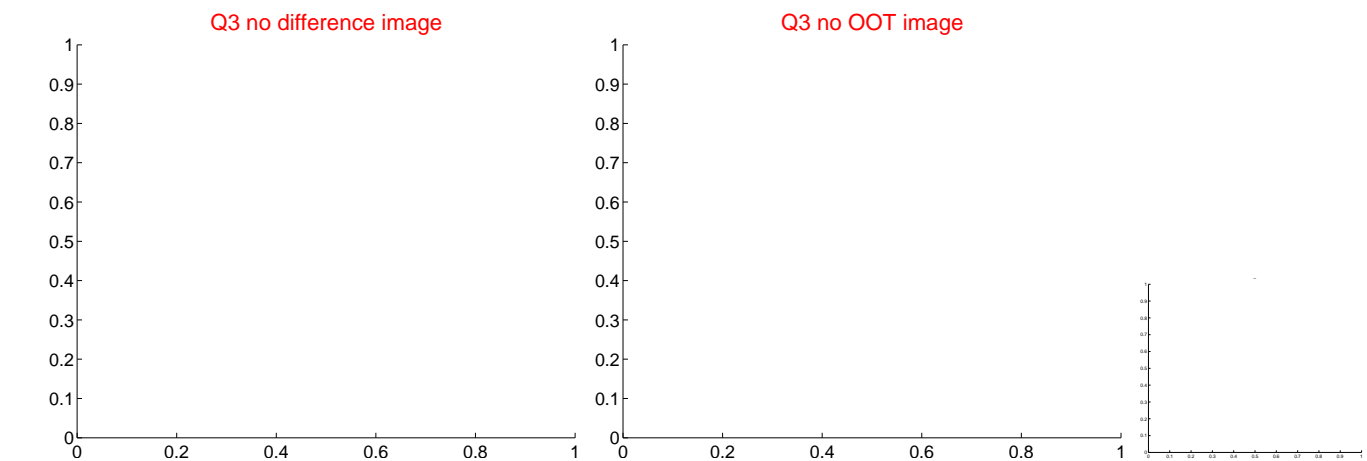
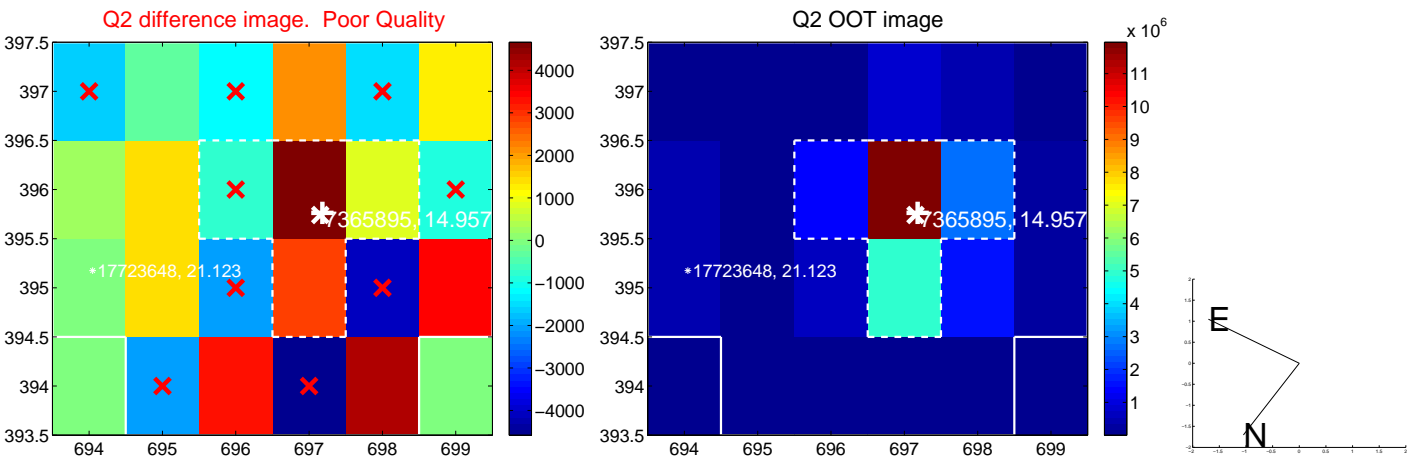
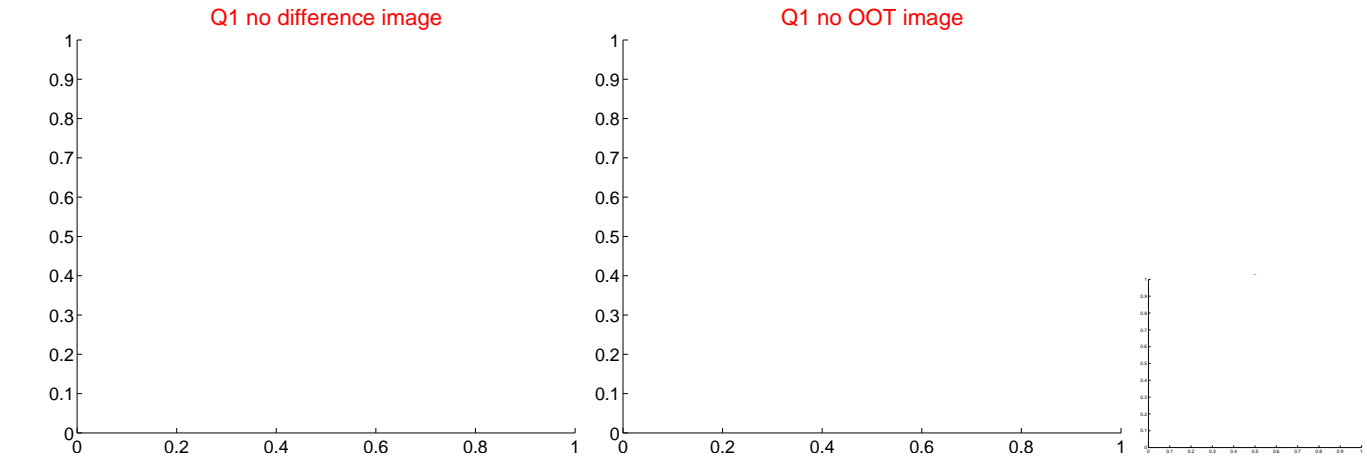


There is no PRF-fit offset from KIC



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

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



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



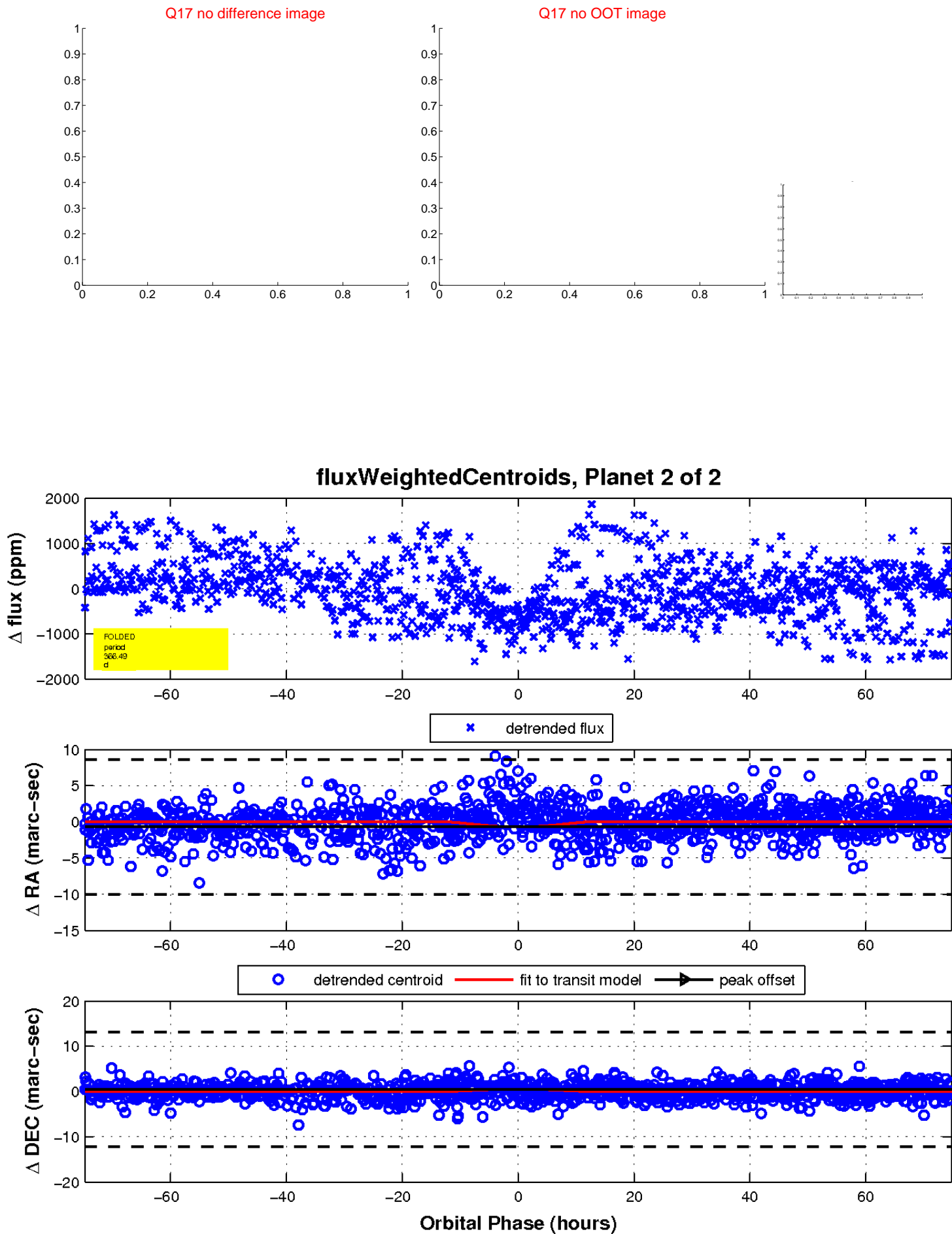
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

