

KIC 008483285

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})
008483285-01	OBS	No	433.062348	555.097666	1579.7	18.376	8.6	8.4	0.61	4199	2.95	0.12
008483285-02	OBS	No	366.176078	203.006067	2108.4	18.443	8.4	8.9	0.61	4199	3.13	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008483285-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008483285-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

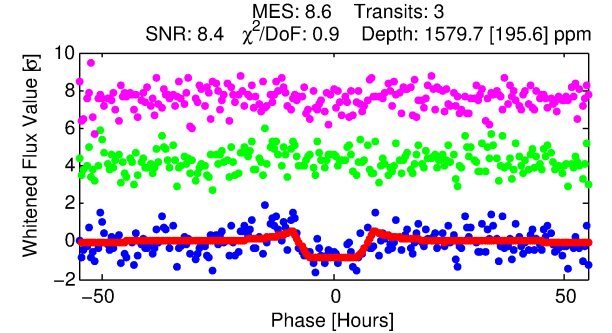
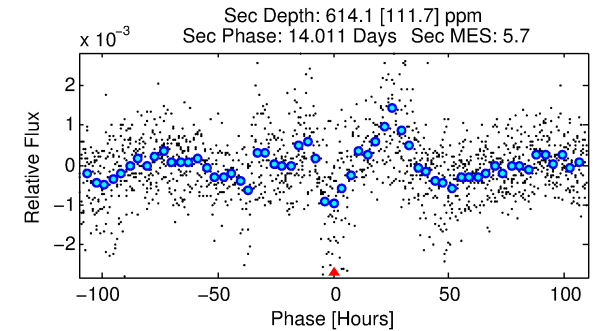
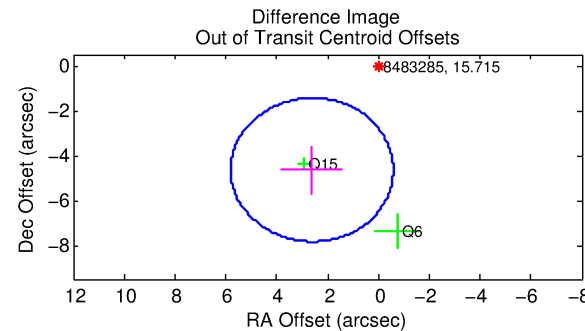
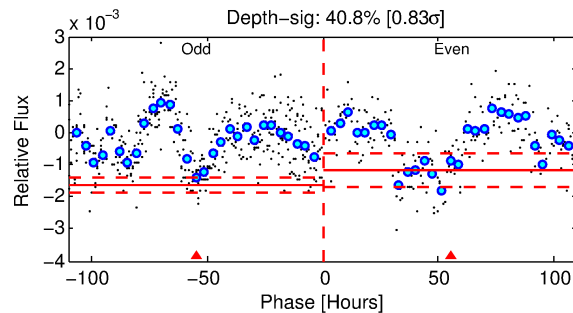
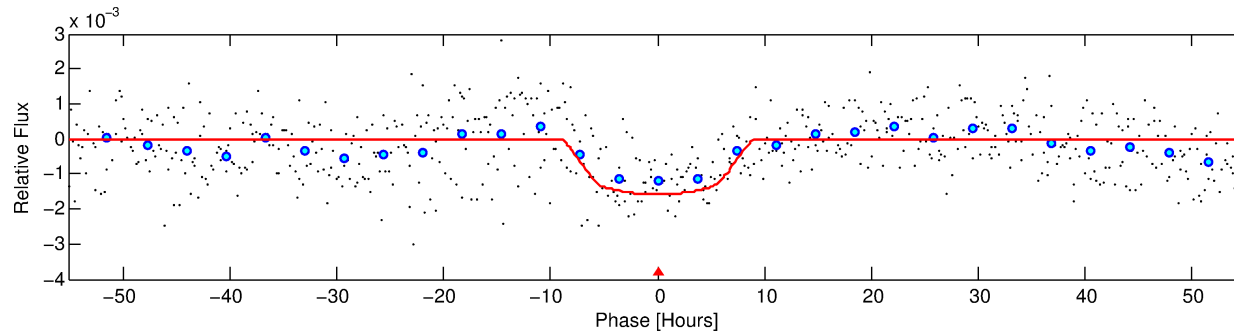
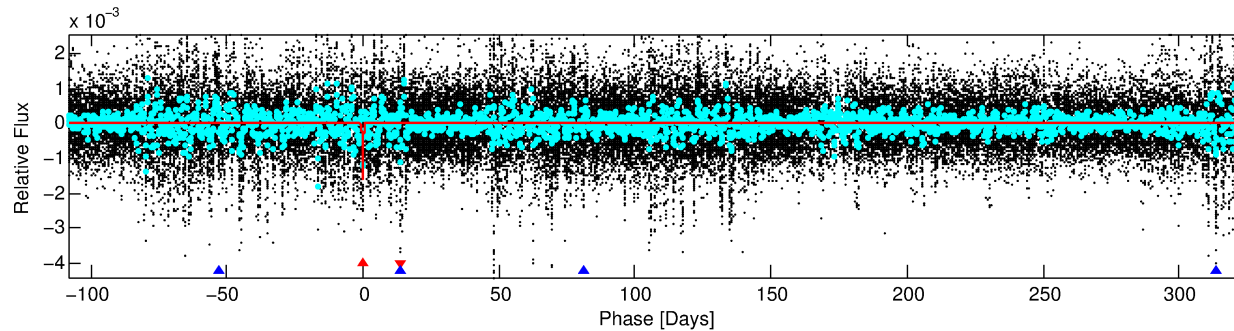
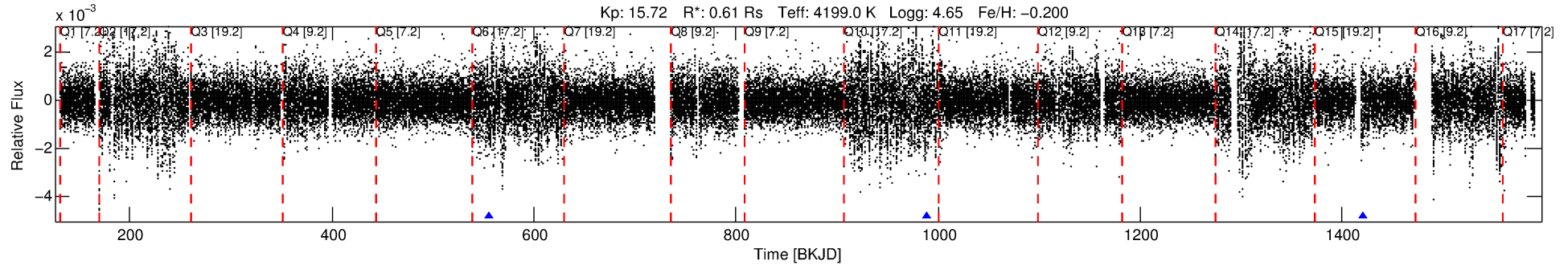
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008483285-01

No Significant Match Found

DV One-Page Summary

KIC: 8483285 Candidate: 1 of 2 Period: 433.062 d



DV Fit Results:

Period = 433.06235 [0.01880] d
Epoch = 555.0977 [0.0286] BKJD
Rp/R* = 0.0446 [0.0039]
a/R* = 93.98 [18.76]
b = 0.90 [0.04]
Seff = 0.12 [0.02]
Teq = 149 [6] K
Rp = 2.95 [0.40] Re
a = 0.9423 [0.0756] AU
Ag = 34417.27 [9439.74] [3.65 σ]
Teffp = 3131 [223] K [13.37 σ]

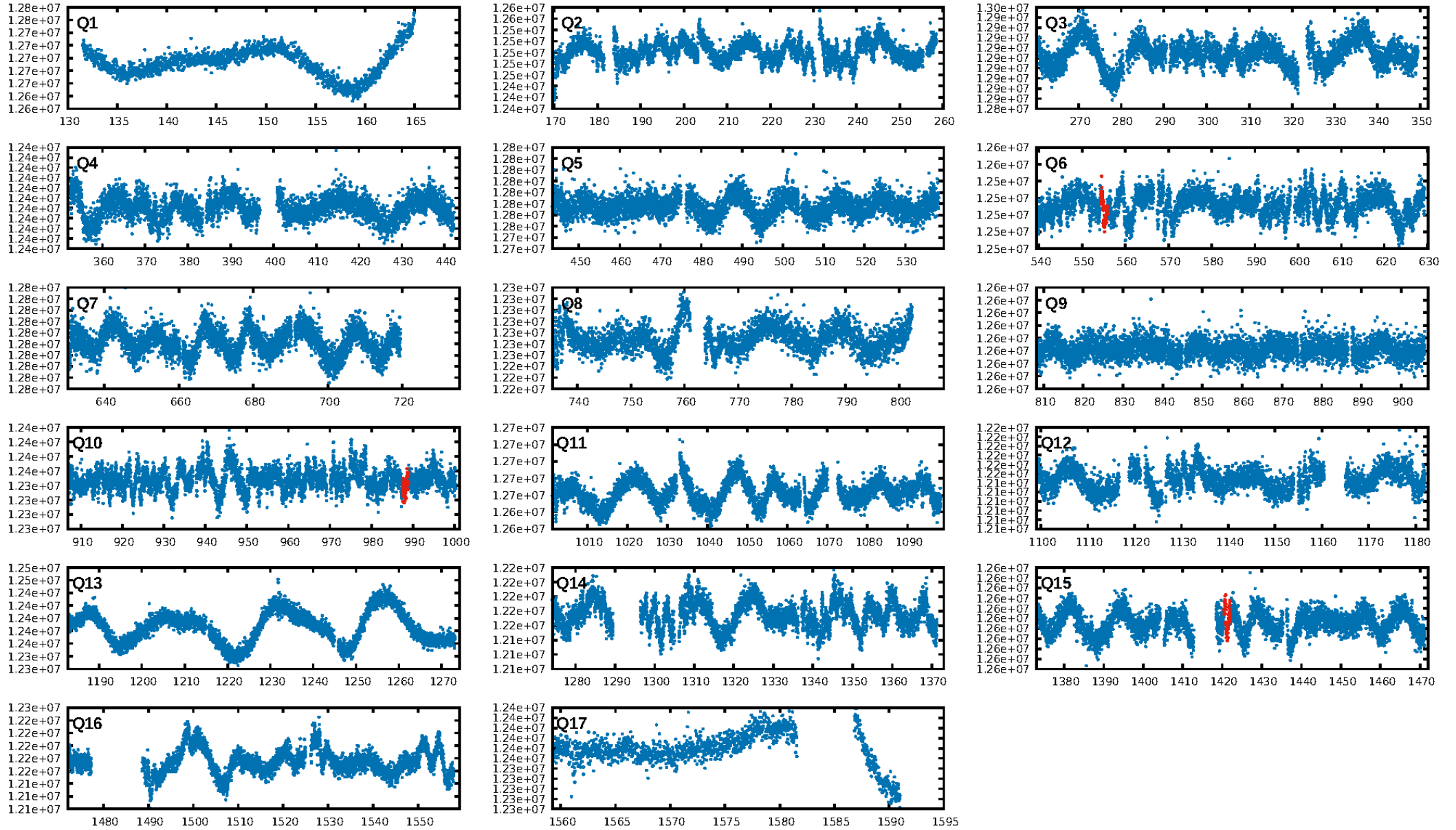
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [61.66 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.94e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.32
Centroid-sig: 0.6%
Centroid-so: 4.271 arcsec [2.45 σ]
OotOffset-rm: 5.328 arcsec [5.00 σ]
KicOffset-rm: 5.634 arcsec [5.56 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

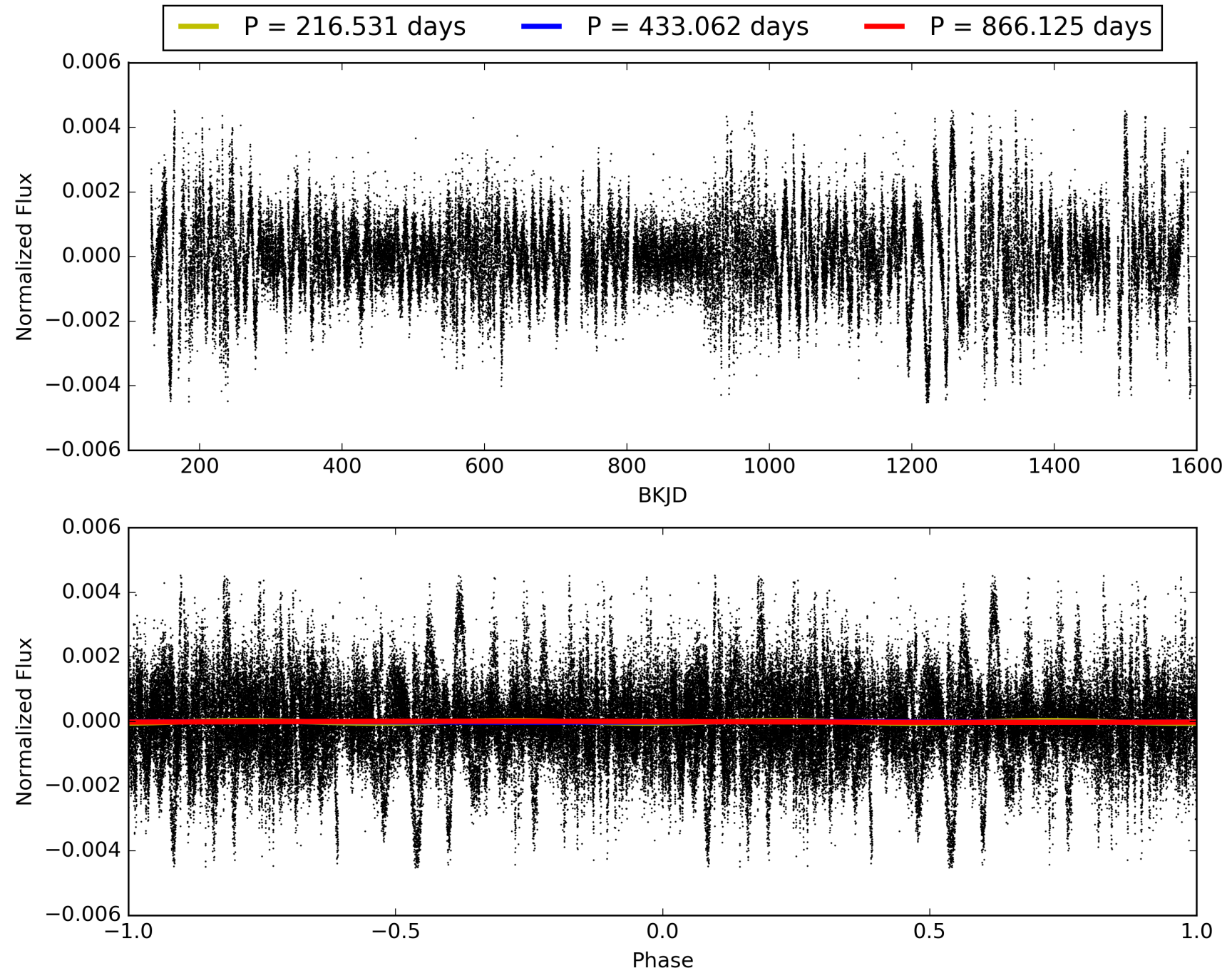
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:50:50 Z

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

TCE 008483285-01, PDC Light Curves

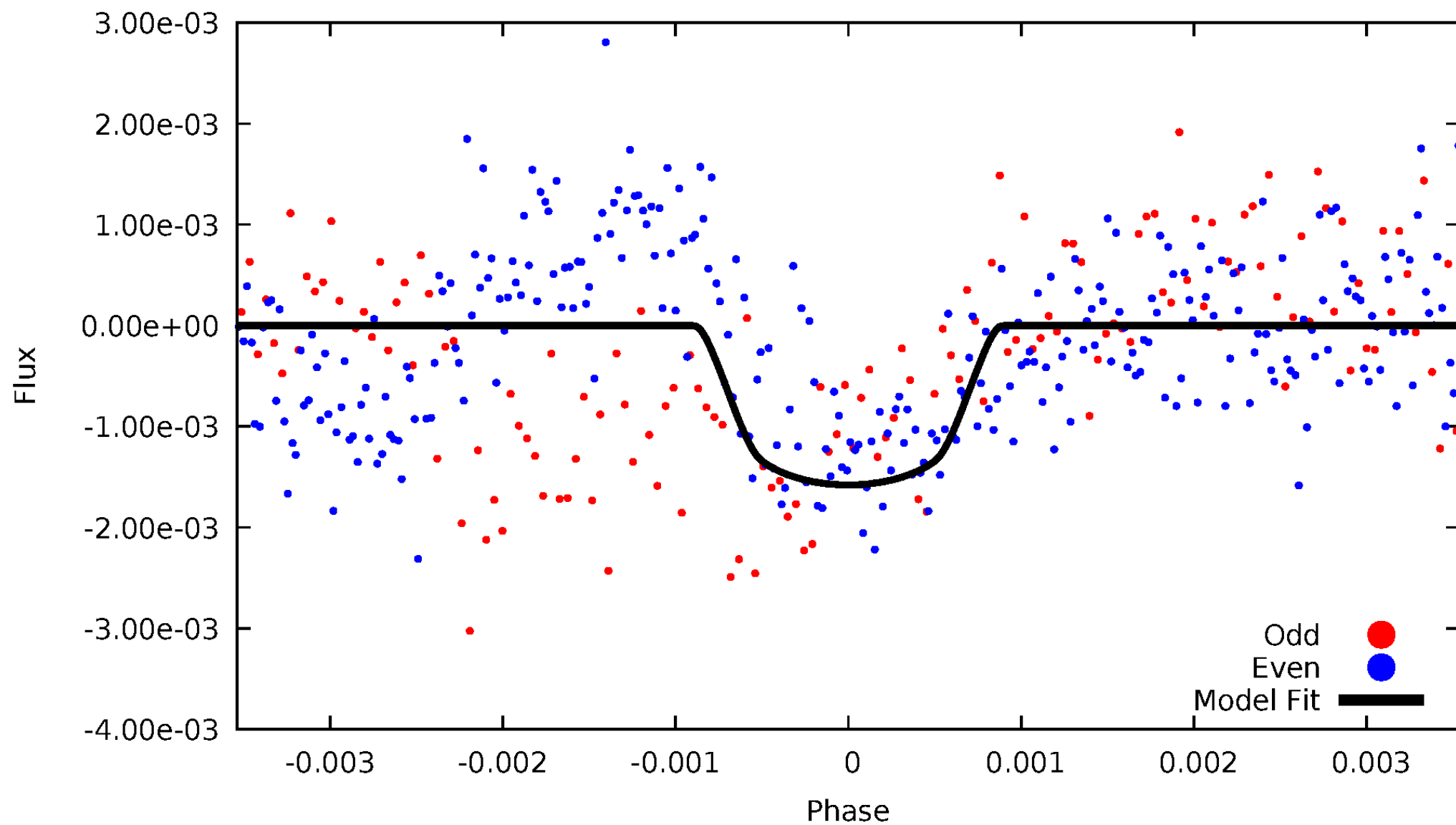


TCE 008483285-01



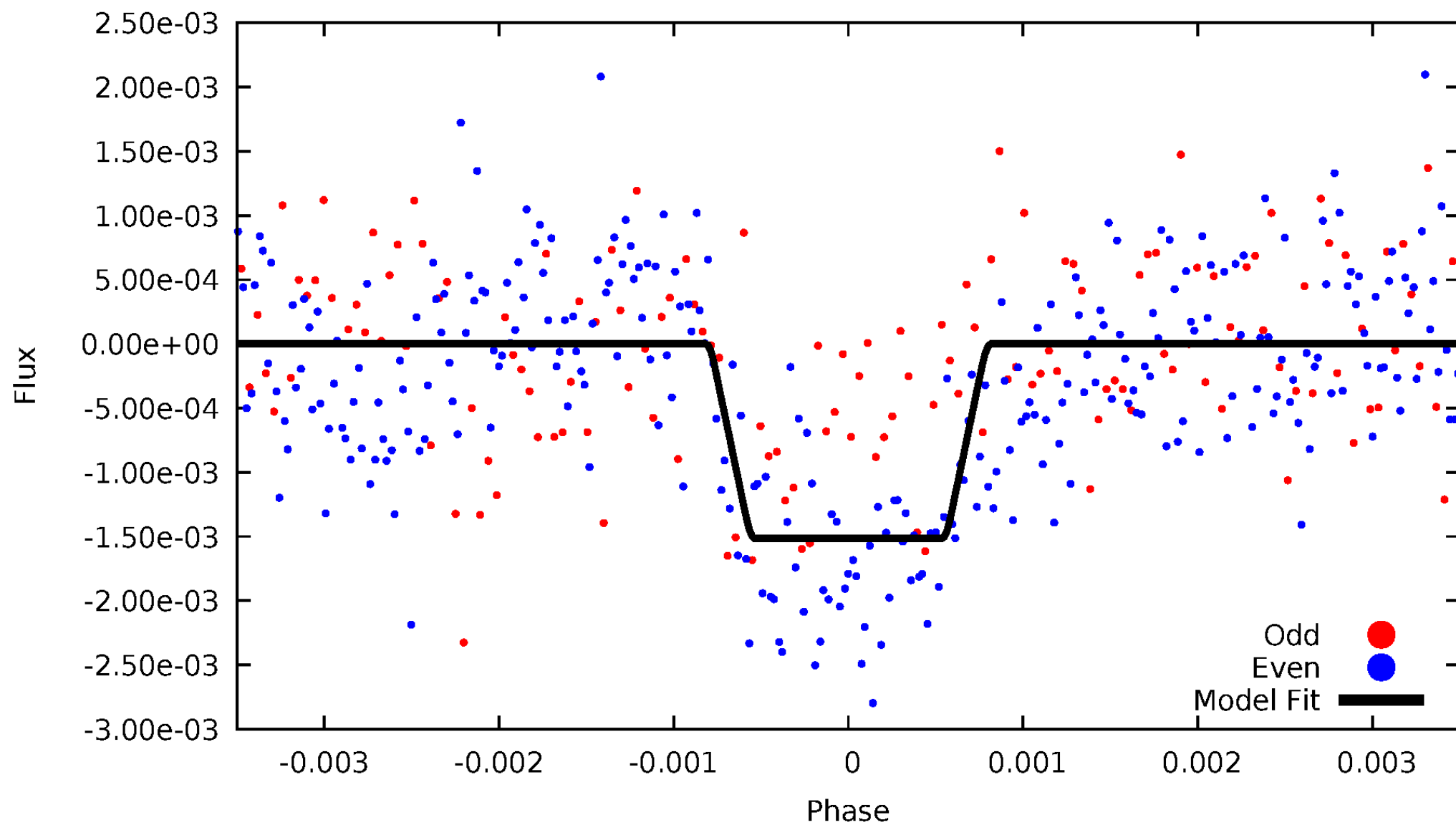
DV Odd/Even

TCE 008483285-01

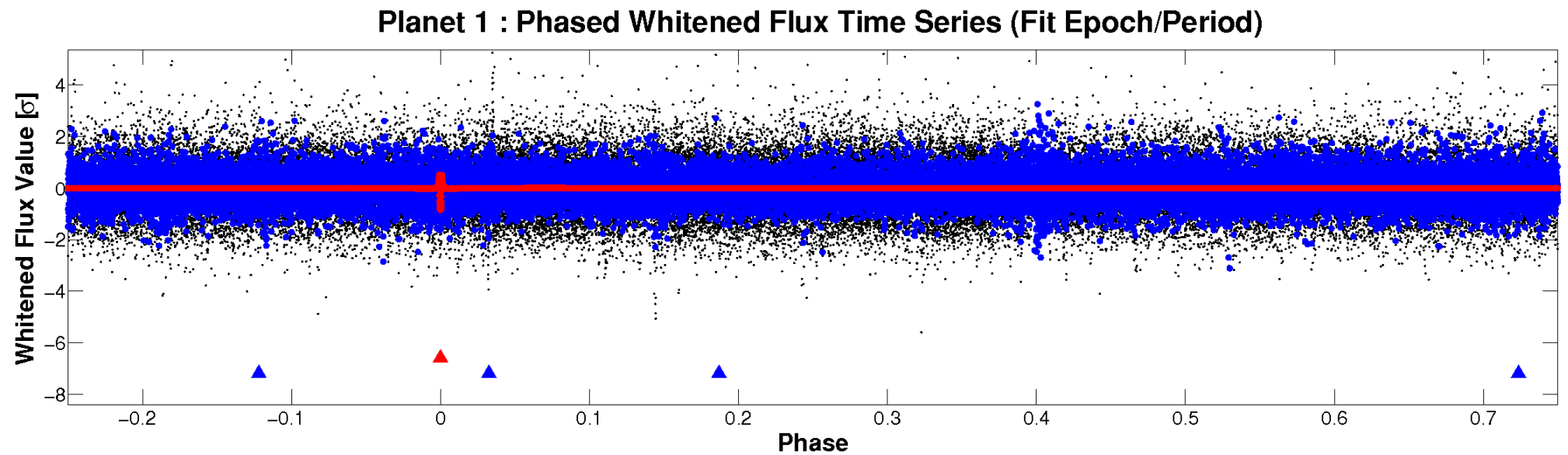
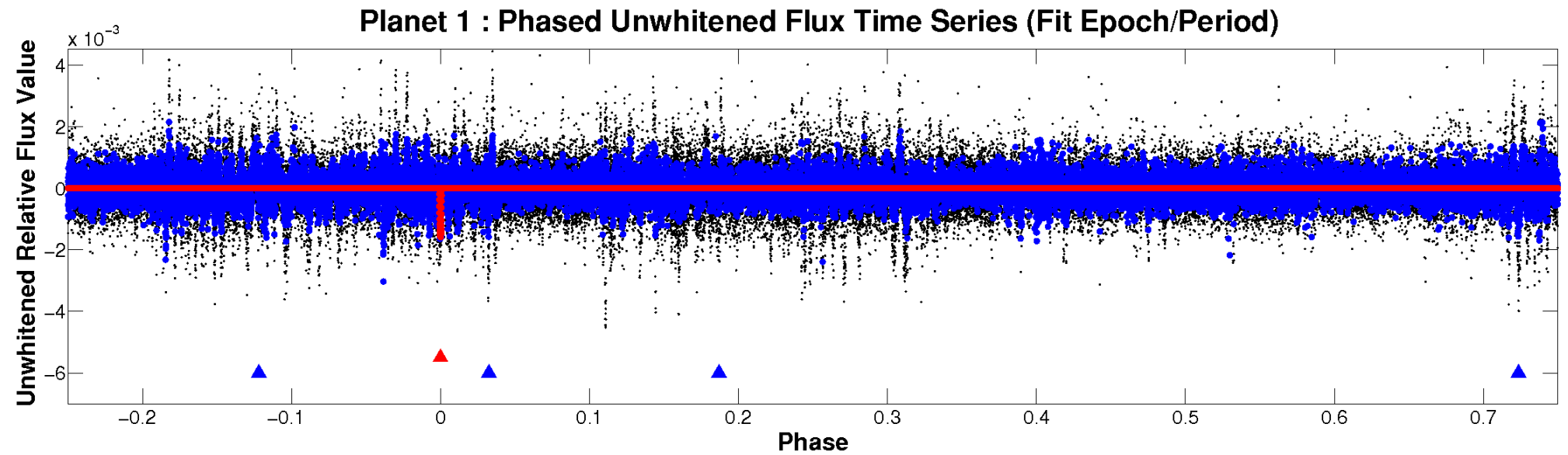


ALT Odd/Even

TCE 008483285-01



Non-Whitened Vs. Whitened Light Curve



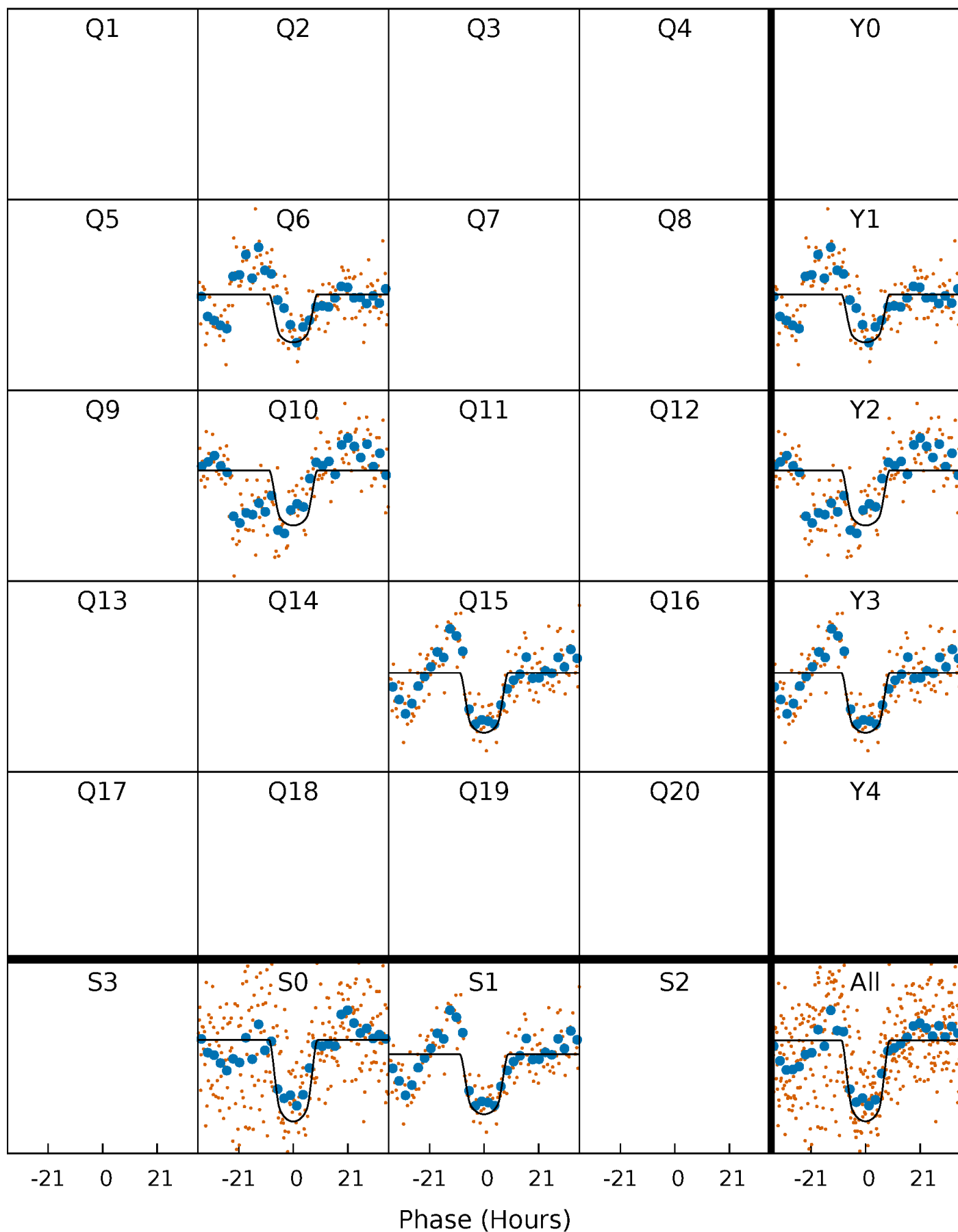
PDC Quarter-Phased Transit Curves

TCE 008483285-01 $P=433.062348$ Days $T_0=555.097666$ (BKJD)



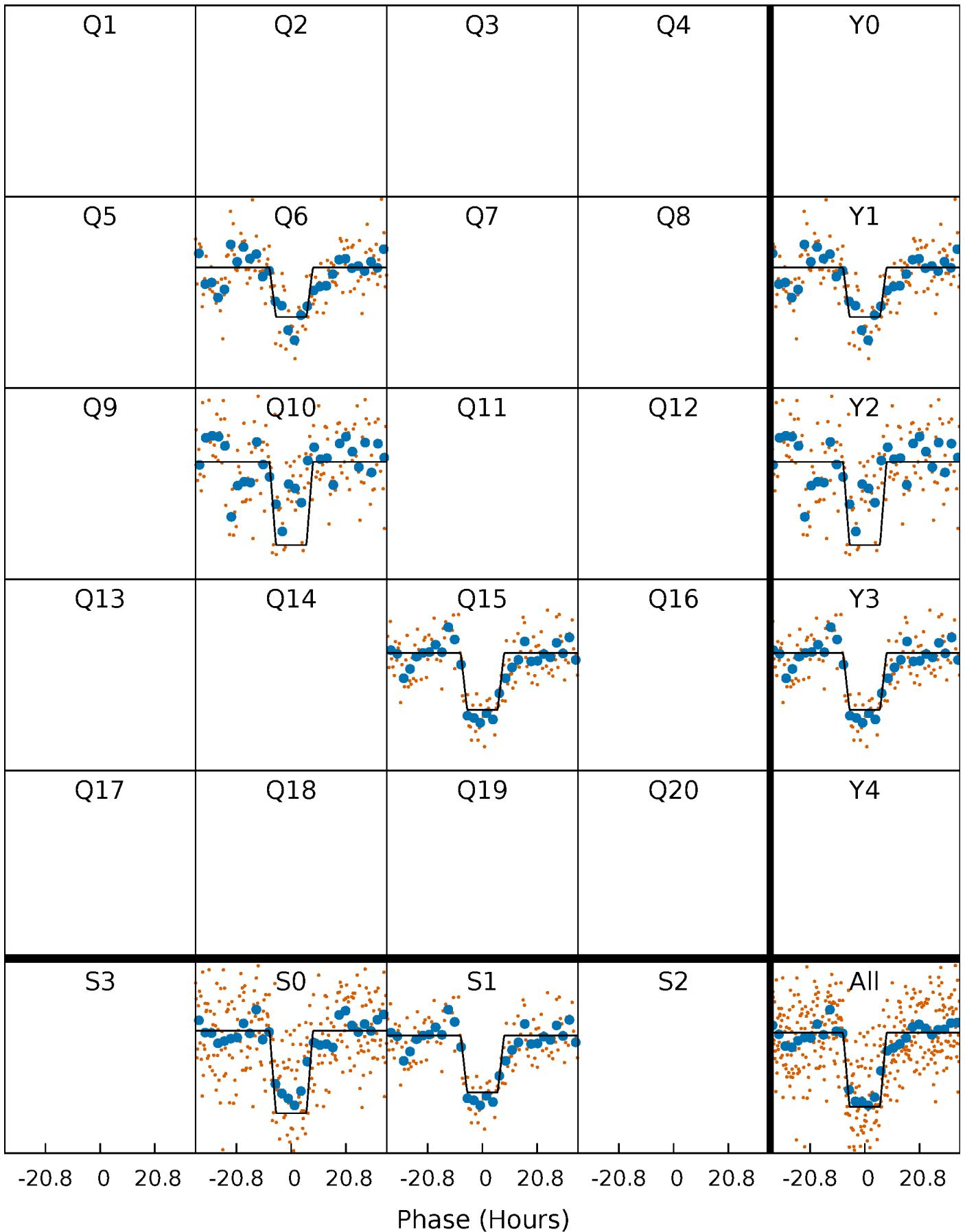
DV Quarter-Phased Transit Curves

TCE 008483285-01 $P=433.062348$ Days $T_0=555.097666$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

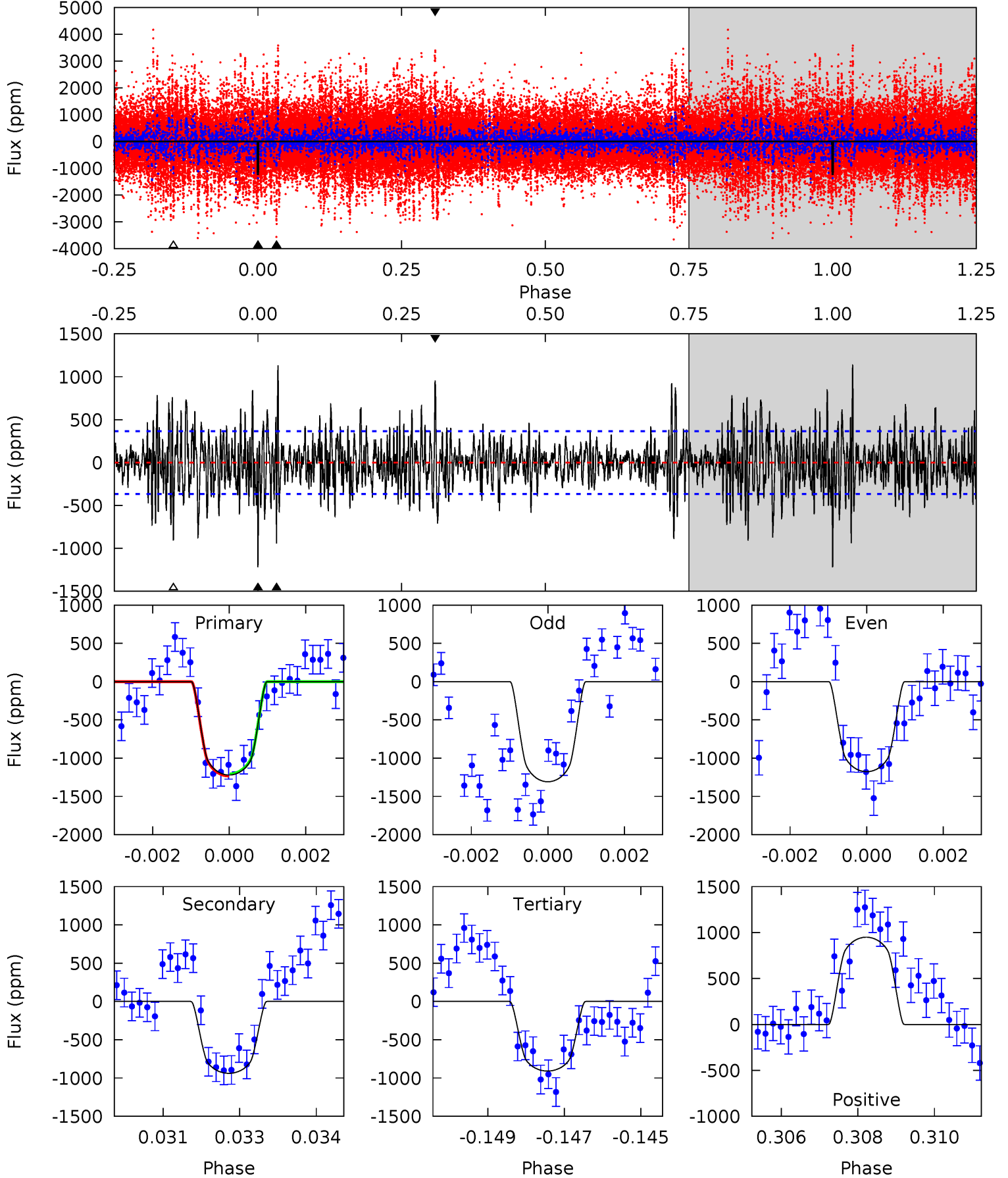
TCE 008483285-01 P=433.062059 Days $T_0=555.103050$ (BKJD)



DV Model-Shift Uniqueness Test

008483285-01, P = 433.062348 Days, E = 122.035318 Days

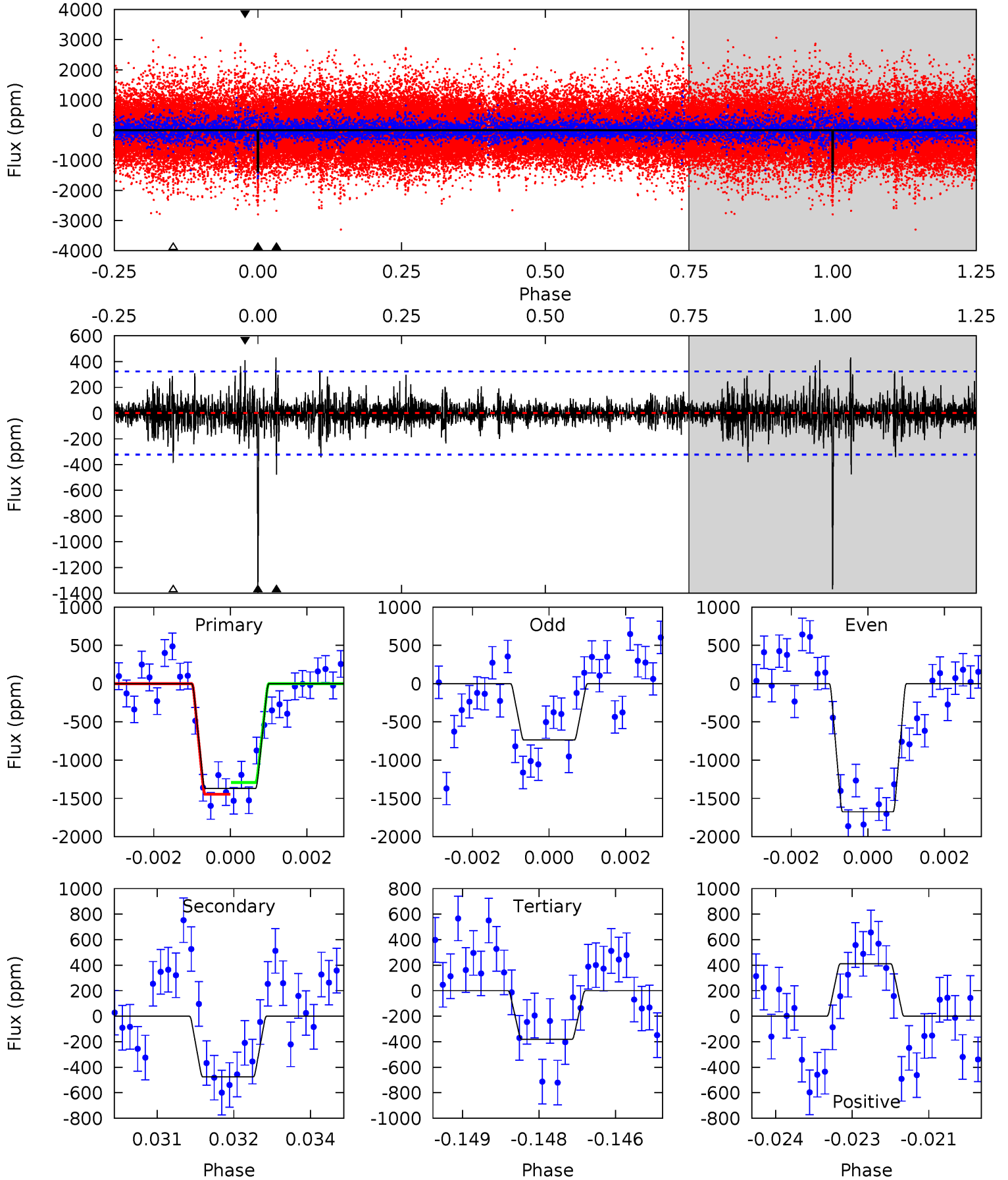
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.8	13.7	13.3	13.9	5.34	3.12	3.52	4.55	3.96	0.43	-0.15	0.89	0.93	0.48	0.20



Alt Model-Shift Uniqueness Test

008483285-01, P = 433.062059 Days, E = 122.040991 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.7	7.90	6.32	6.81	5.36	3.15	1.18	16.4	15.9	1.58	1.08	7.24	0.84	0.24	1.27



Stellar Parameters For KIC 008483285

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4199^{+113}_{-138}	$4.646^{+0.053}_{-0.021}$	$-0.200^{+0.300}_{-0.300}$	$0.607^{+0.044}_{-0.063}$	$0.596^{+0.066}_{-0.054}$	$3.745^{+0.946}_{-0.428}$
	+3%/-3%	+1%/-0%	+150%/-150%	+7%/-10%	+11%/-9%	+25%/-11%
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 008483285-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-939 ± 69	$2.93^{+0.30}_{-0.28}$	206^{+7}_{-8}	3675^{+160}_{-146}	53895^{+12972}_{-8933}
Alt.	-476 ± 60	$2.54^{+0.29}_{-0.27}$	206^{+7}_{-8}	3455^{+167}_{-153}	36613^{+10639}_{-8145}

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

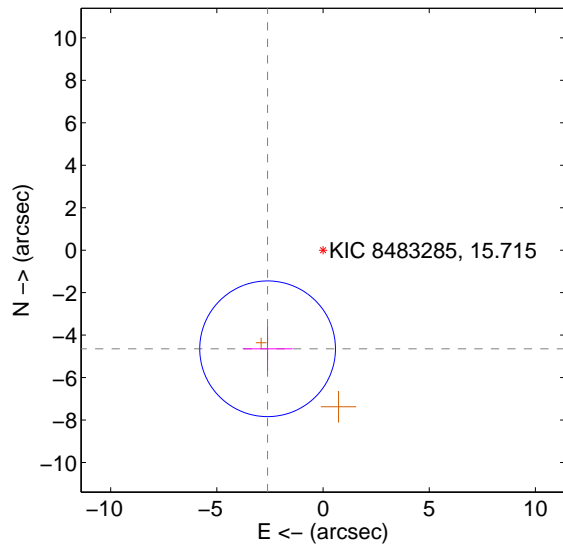
Supplemental centroid analysis for 008483285-01. Kepler magnitude: 15.71. Transit SNR 8.44

There are 0 quarters with good PRF difference image offsets

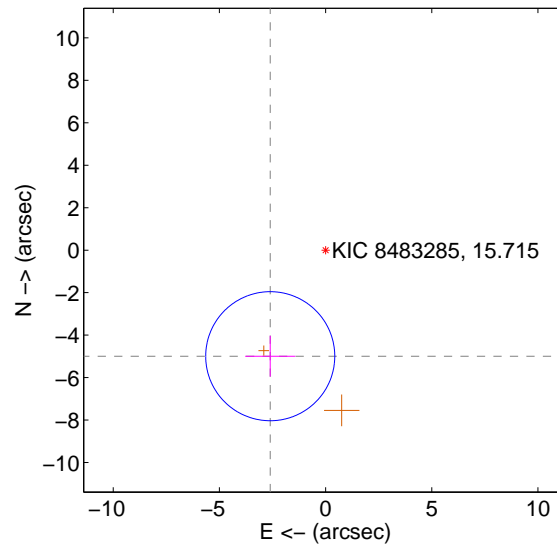
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.328 ± 1.065	5.00	2.611 ± 1.174	-4.644 ± 1.029
PRF-fit source offset from KIC position	5.634 ± 1.013	5.56	2.607 ± 1.183	-4.995 ± 0.962
photometric centroid source offset	4.27 ± 1.74	2.45	4.26 ± 1.74	0.34 ± 2.60

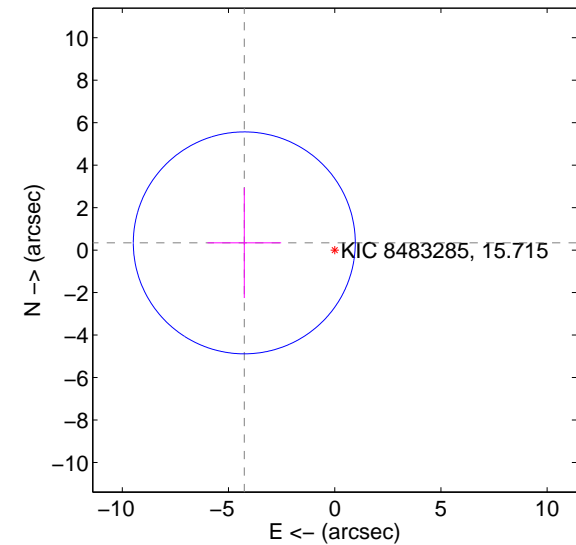
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

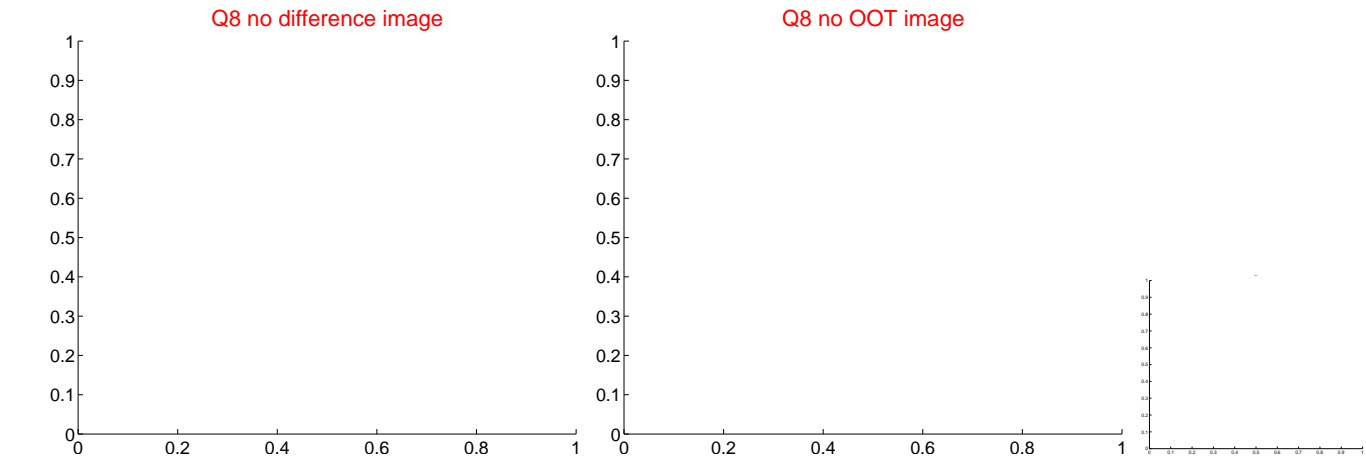
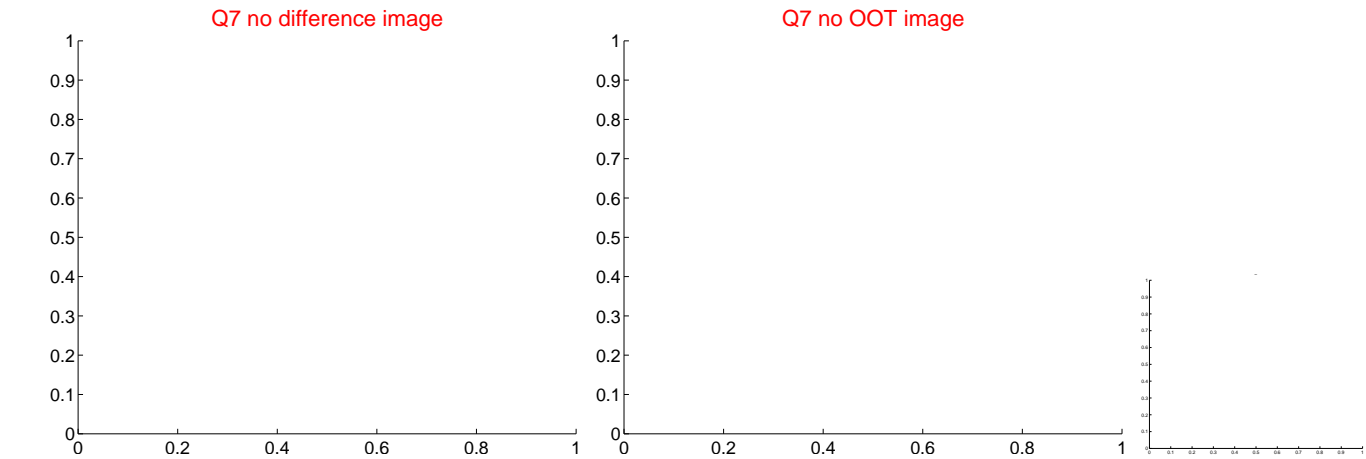
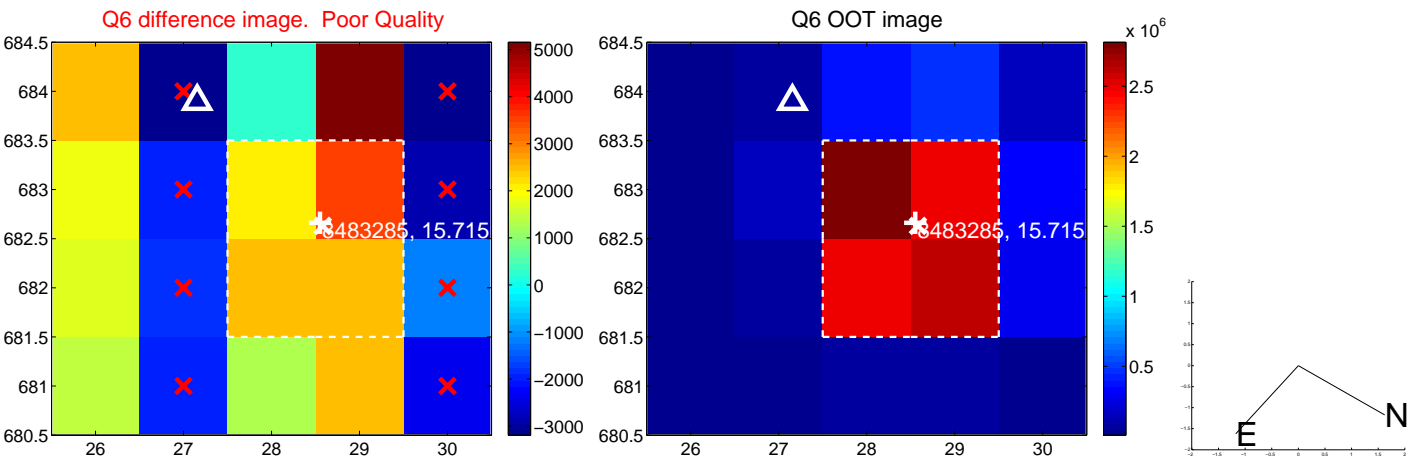
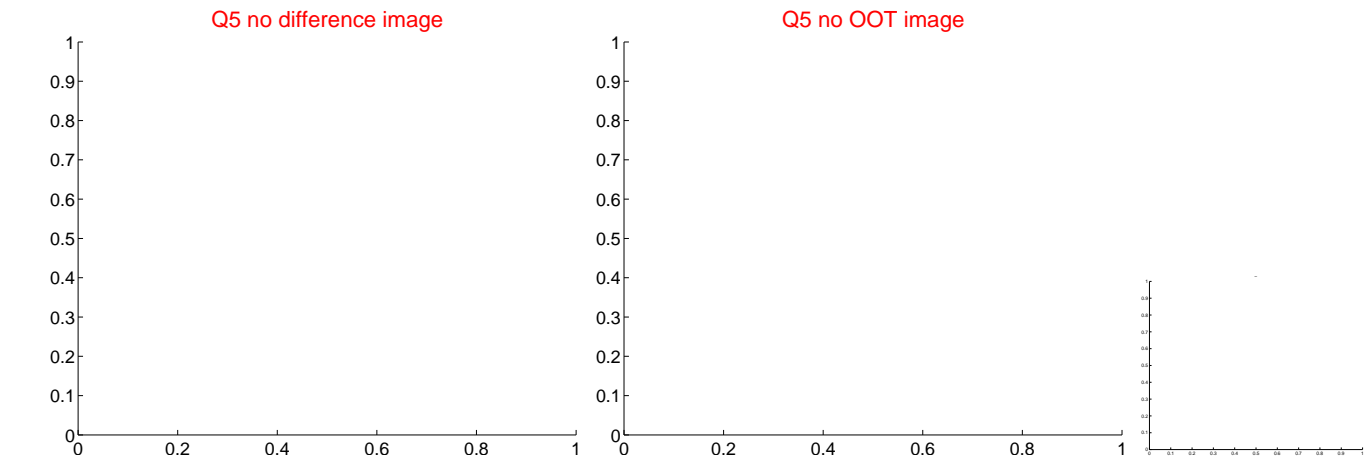


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

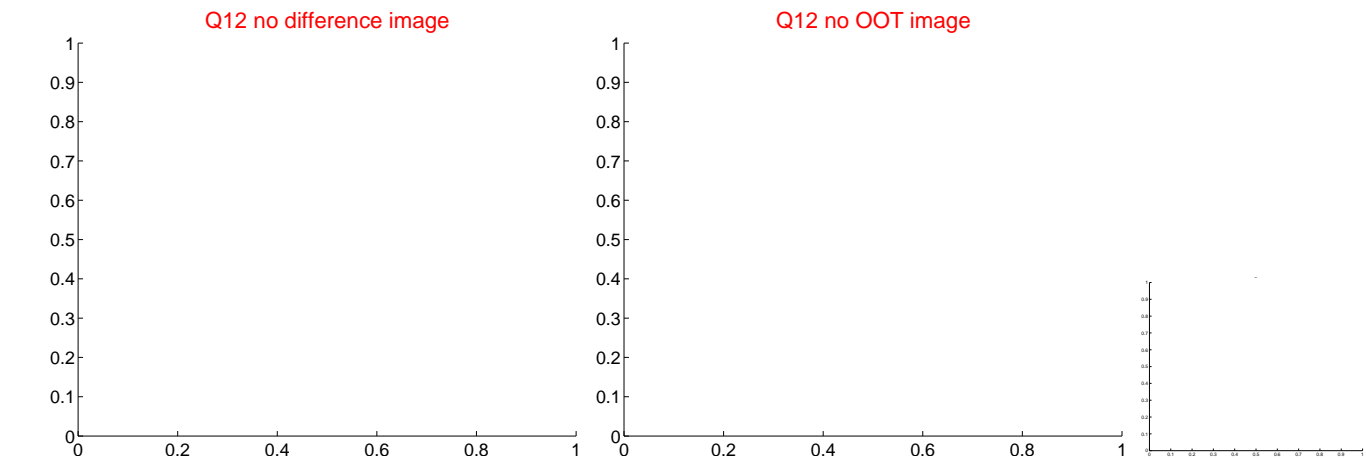
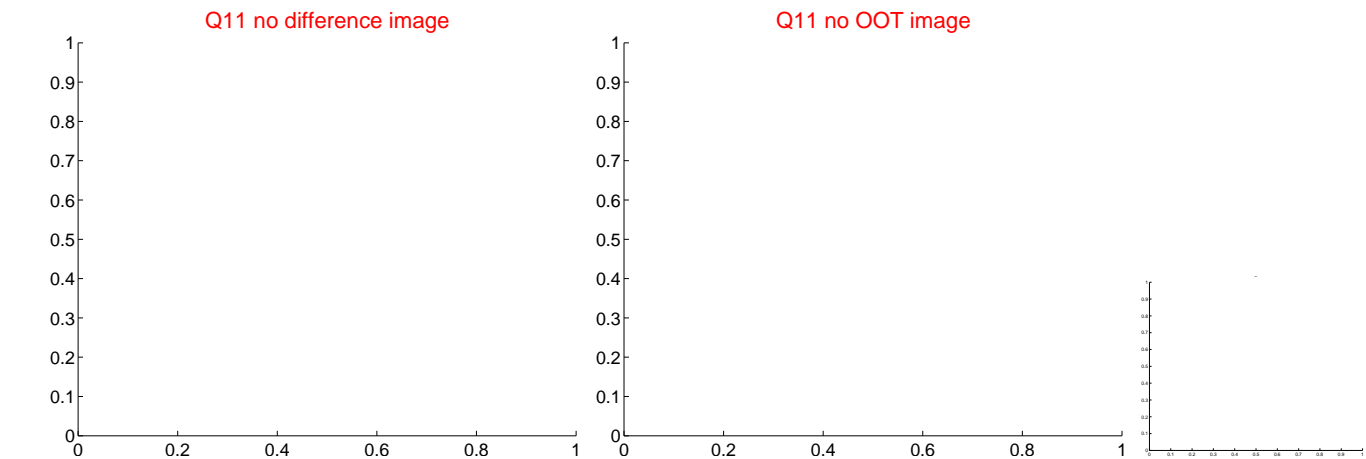
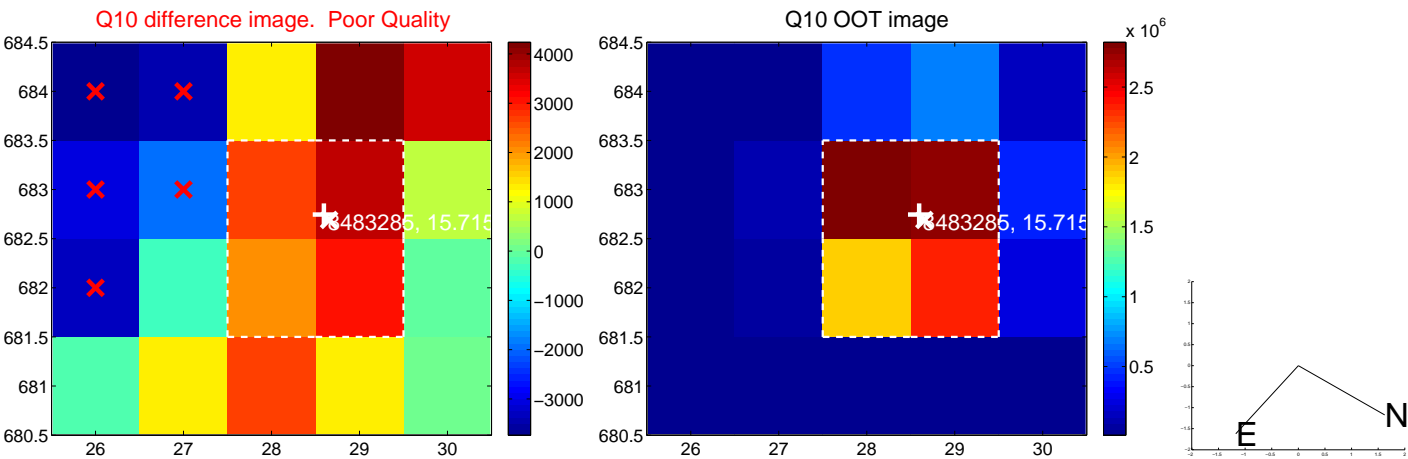
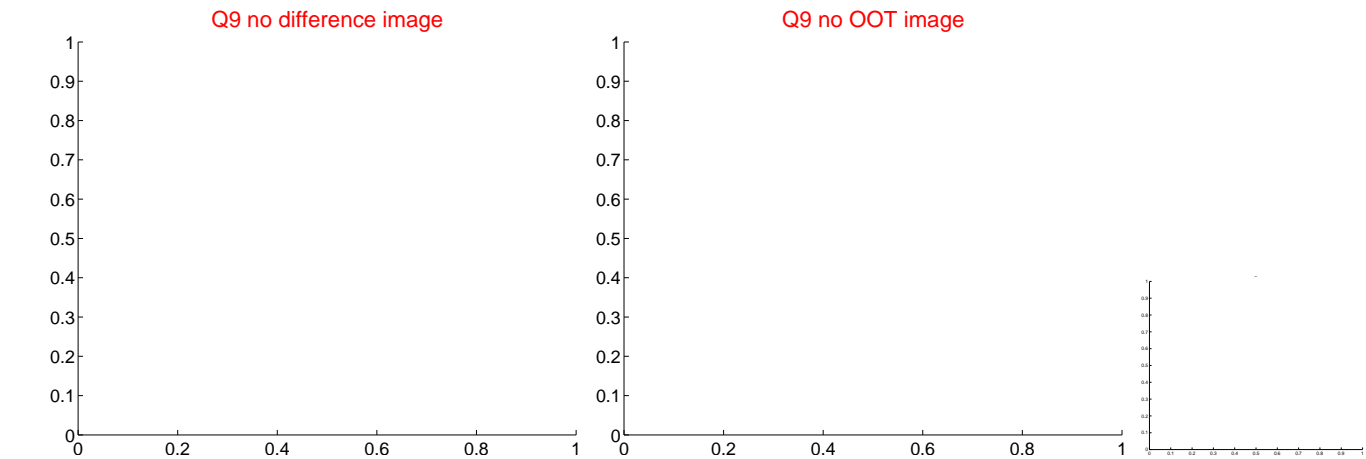
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



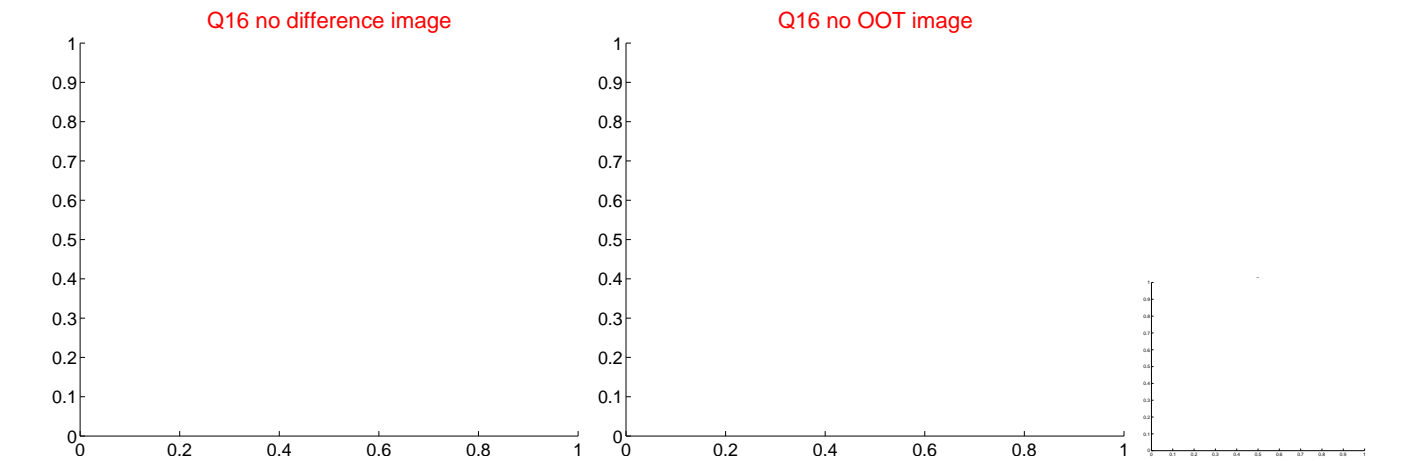
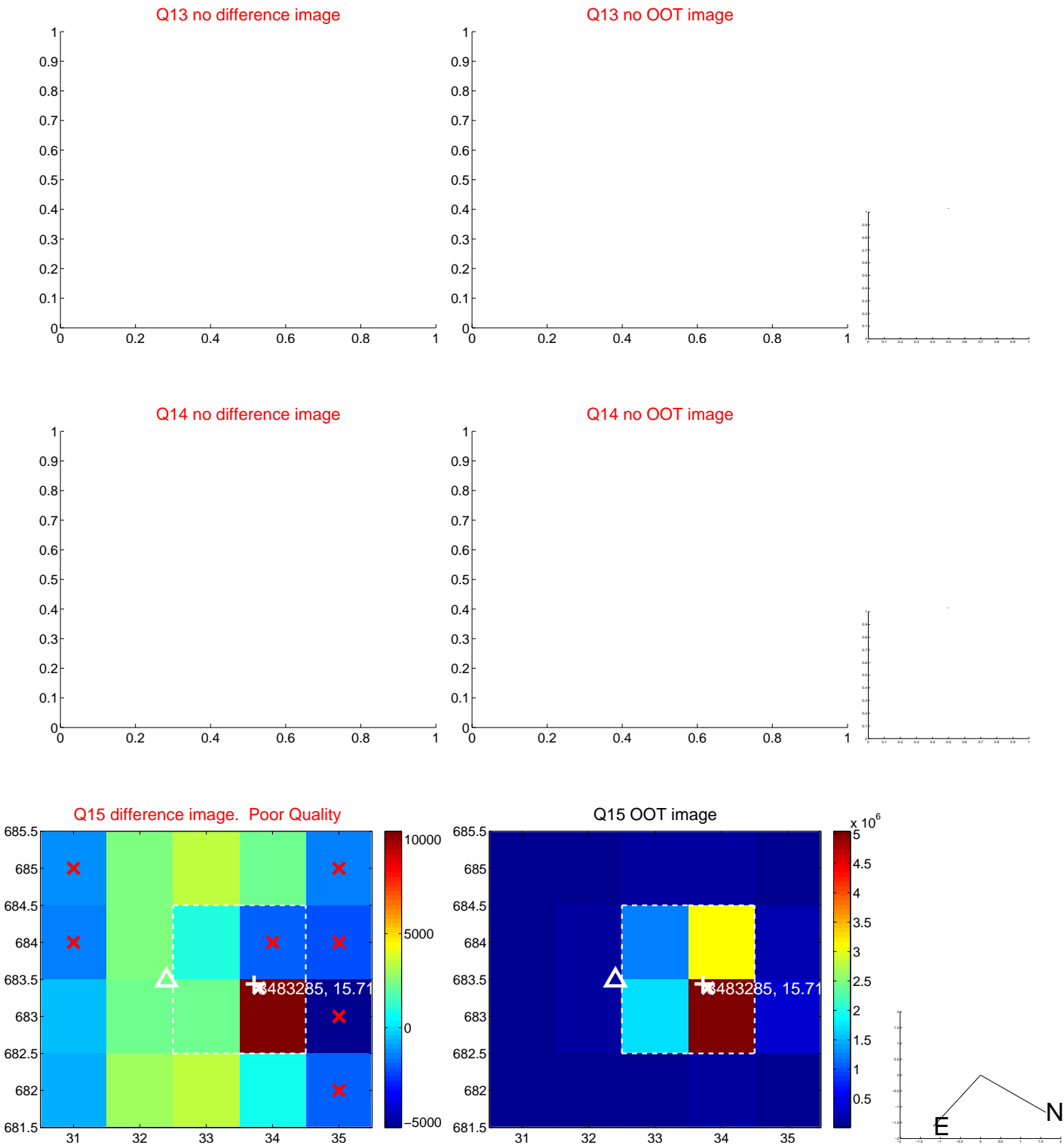
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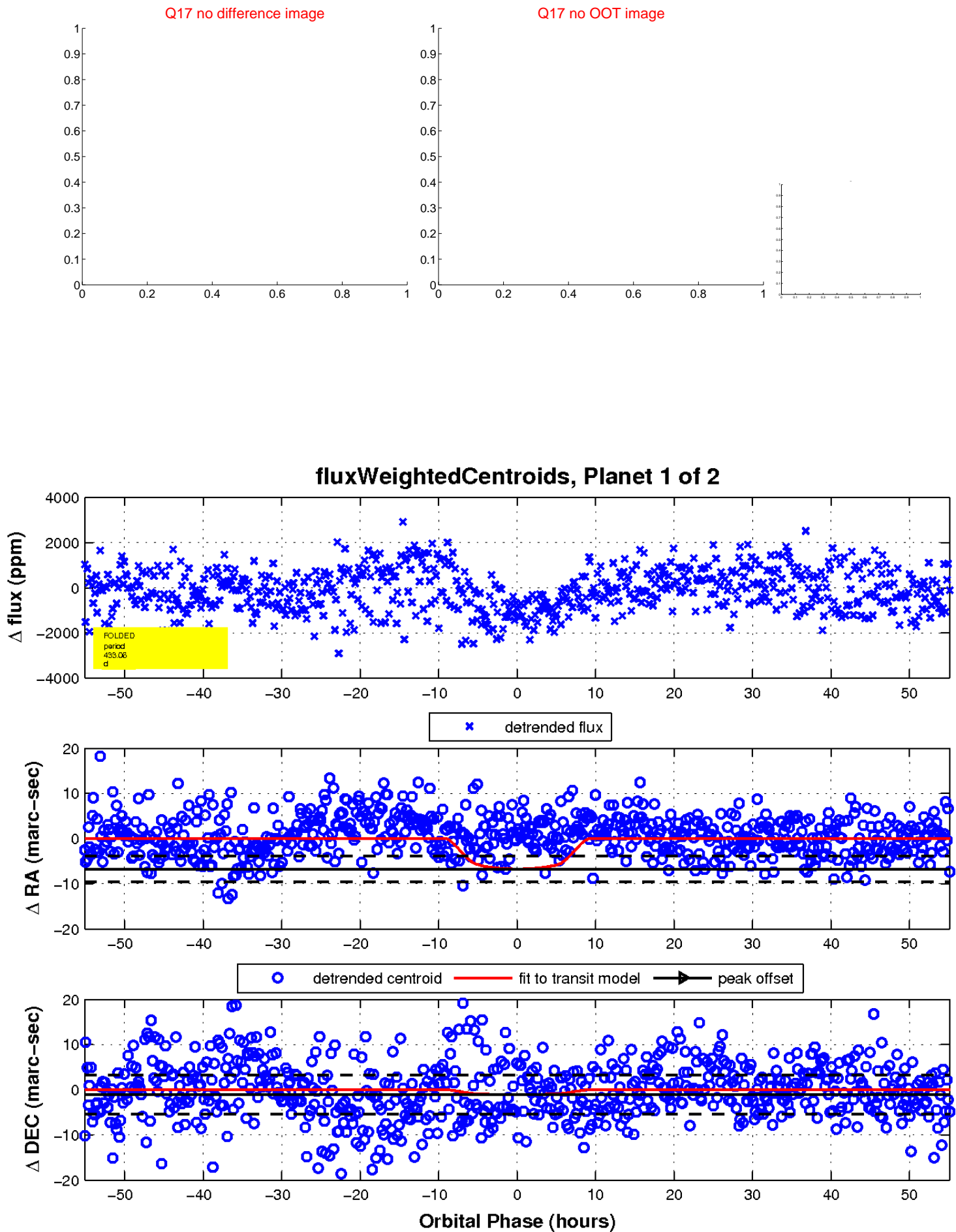
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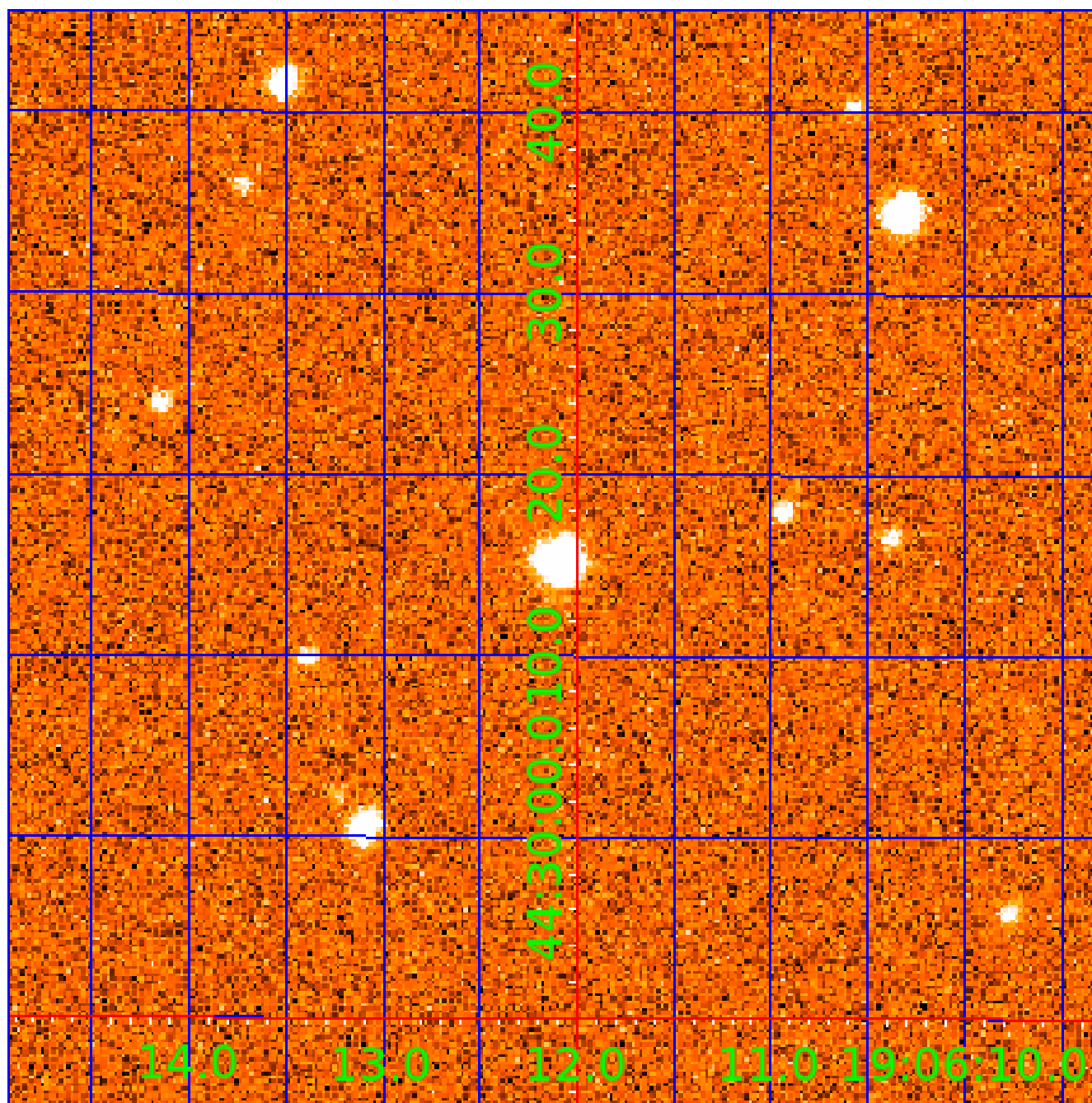


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008483285

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})
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008483285-02	OBS	No	366.176078	203.006067	2108.4	18.443	8.4	8.9	0.61	4199	3.13	0.14

Robovetter Results

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008483285-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

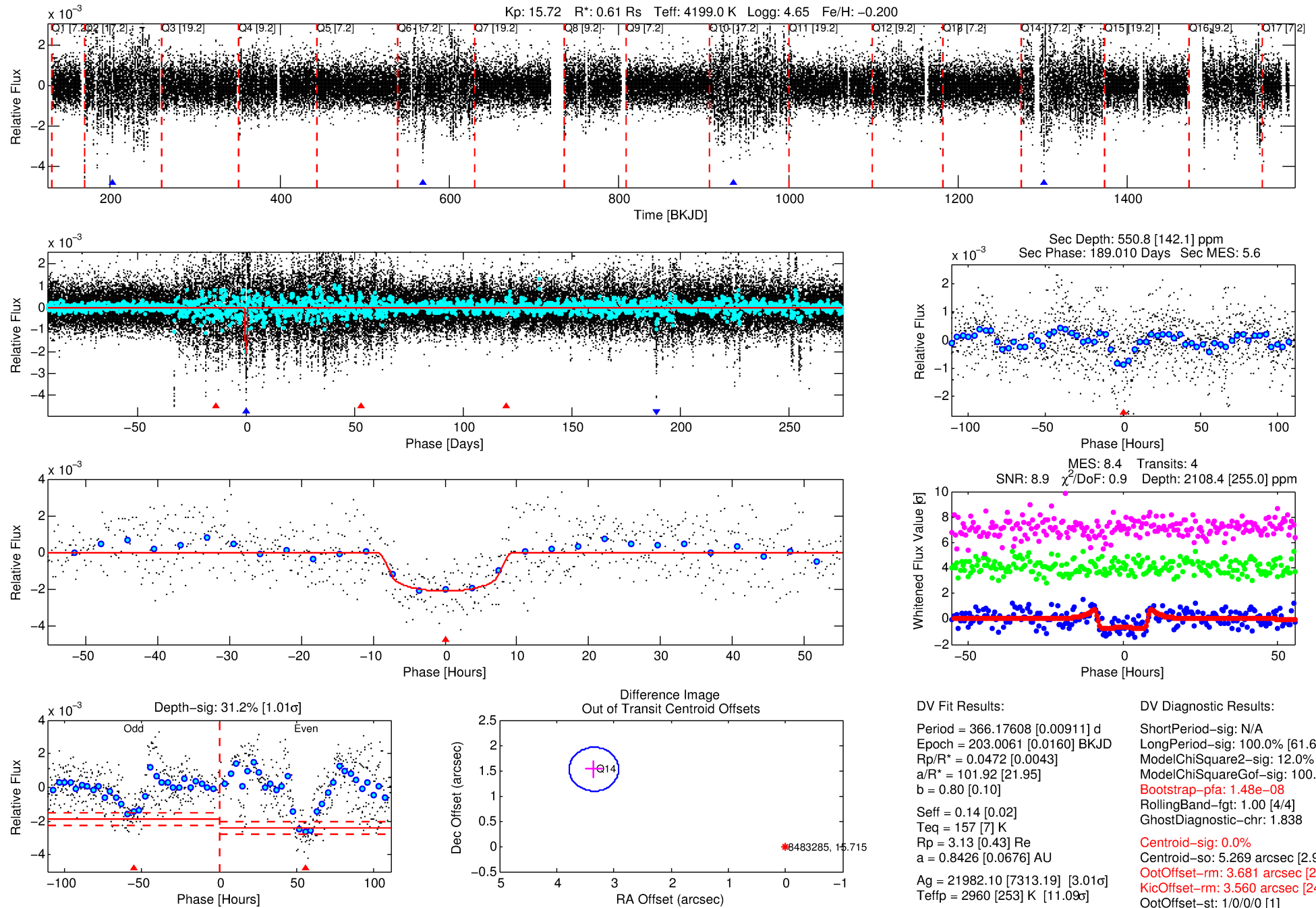
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008483285-02

No Significant Match Found

DV One-Page Summary

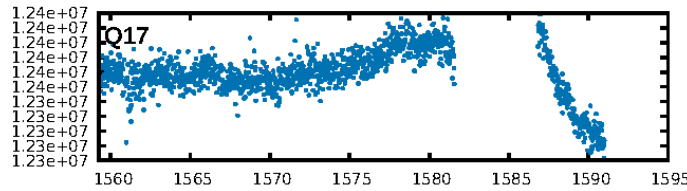
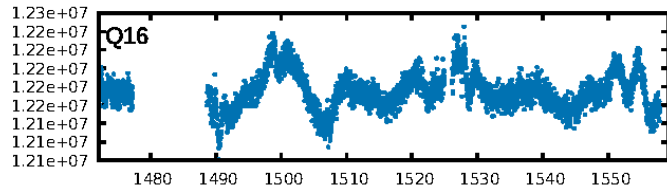
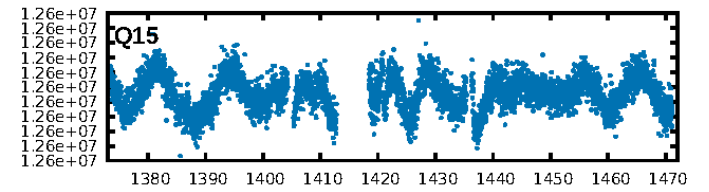
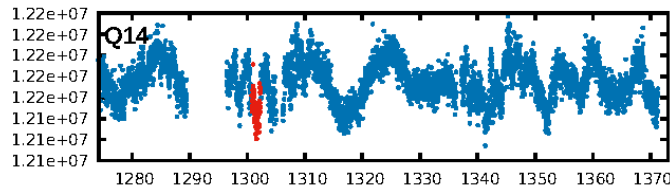
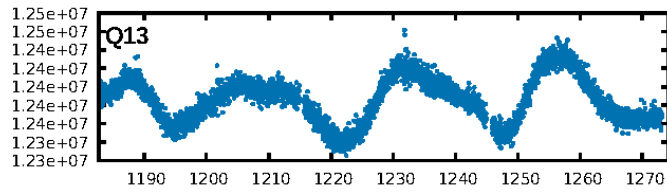
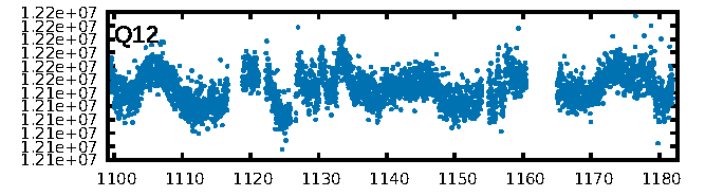
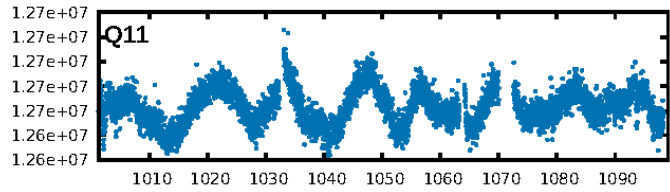
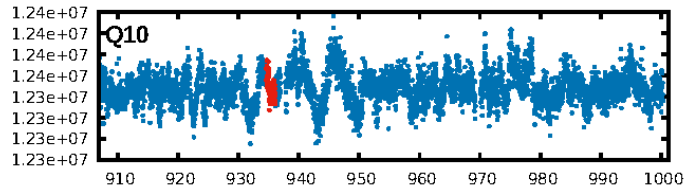
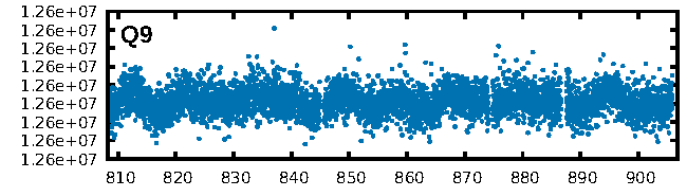
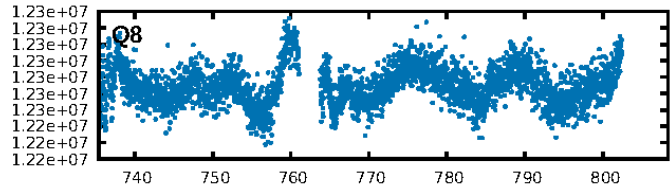
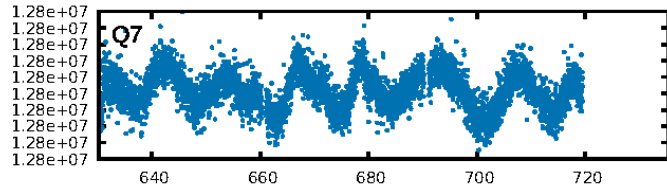
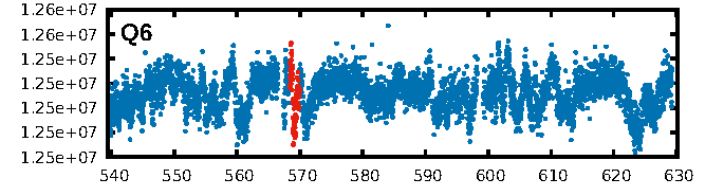
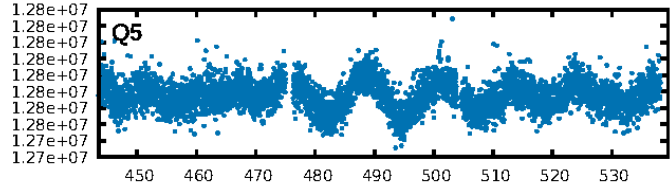
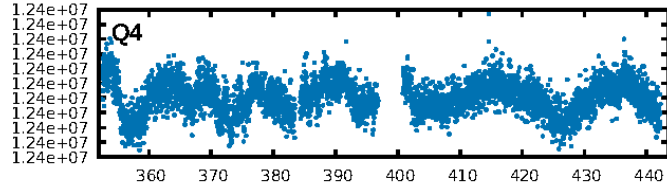
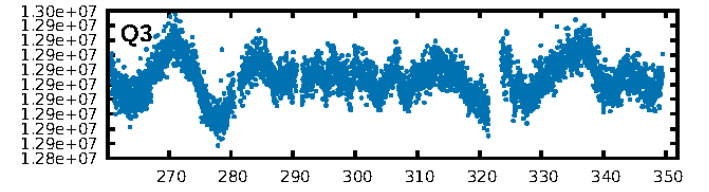
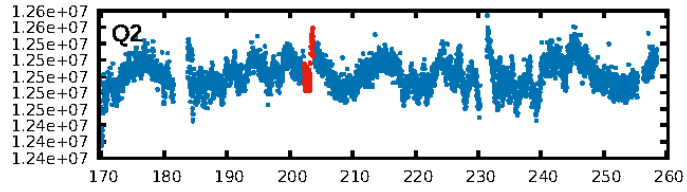
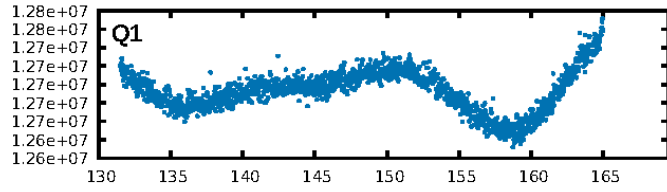
KIC: 8483285 Candidate: 2 of 2 Period: 366.176 d



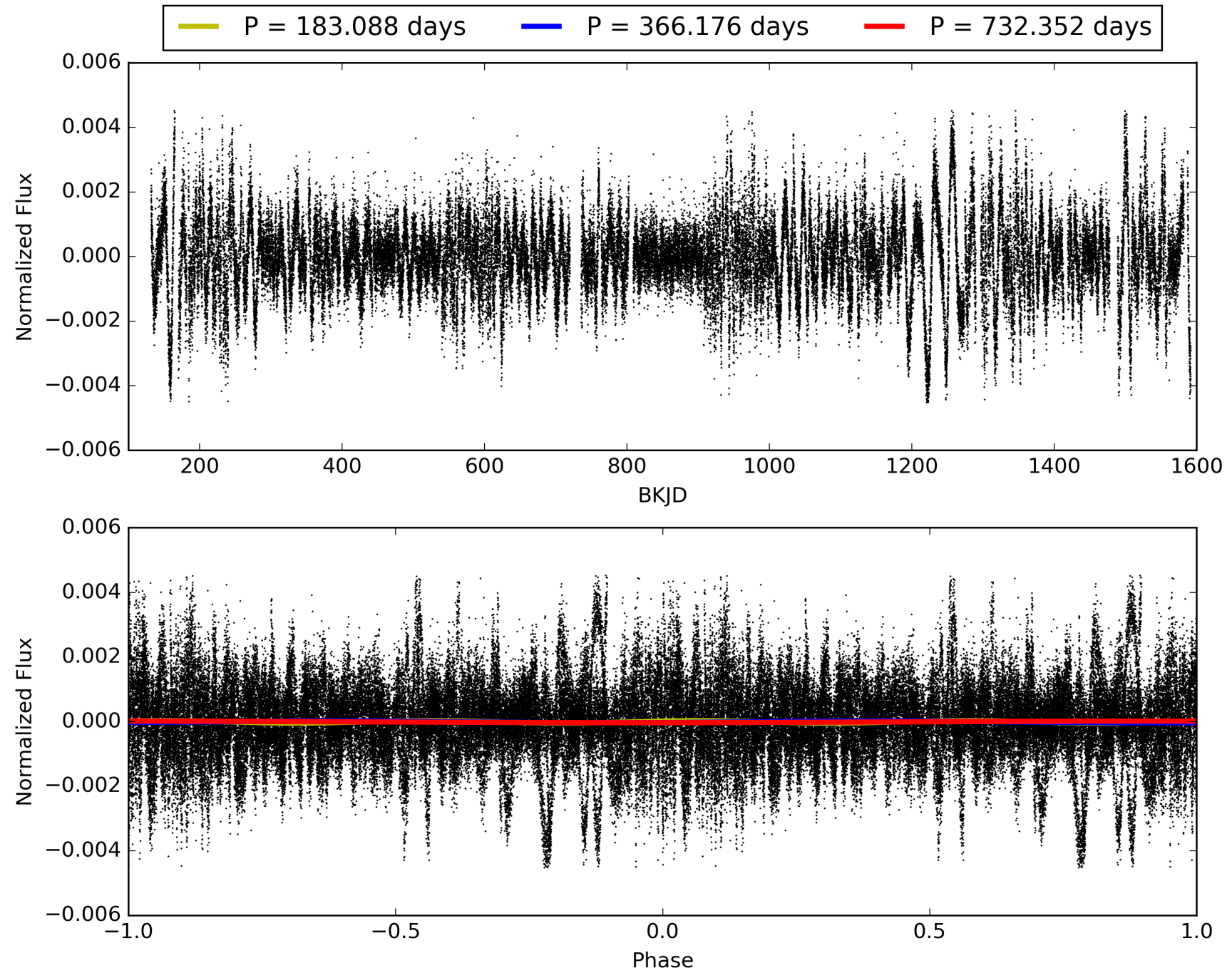
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:50:58 Z

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

TCE 008483285-02, PDC Light Curves

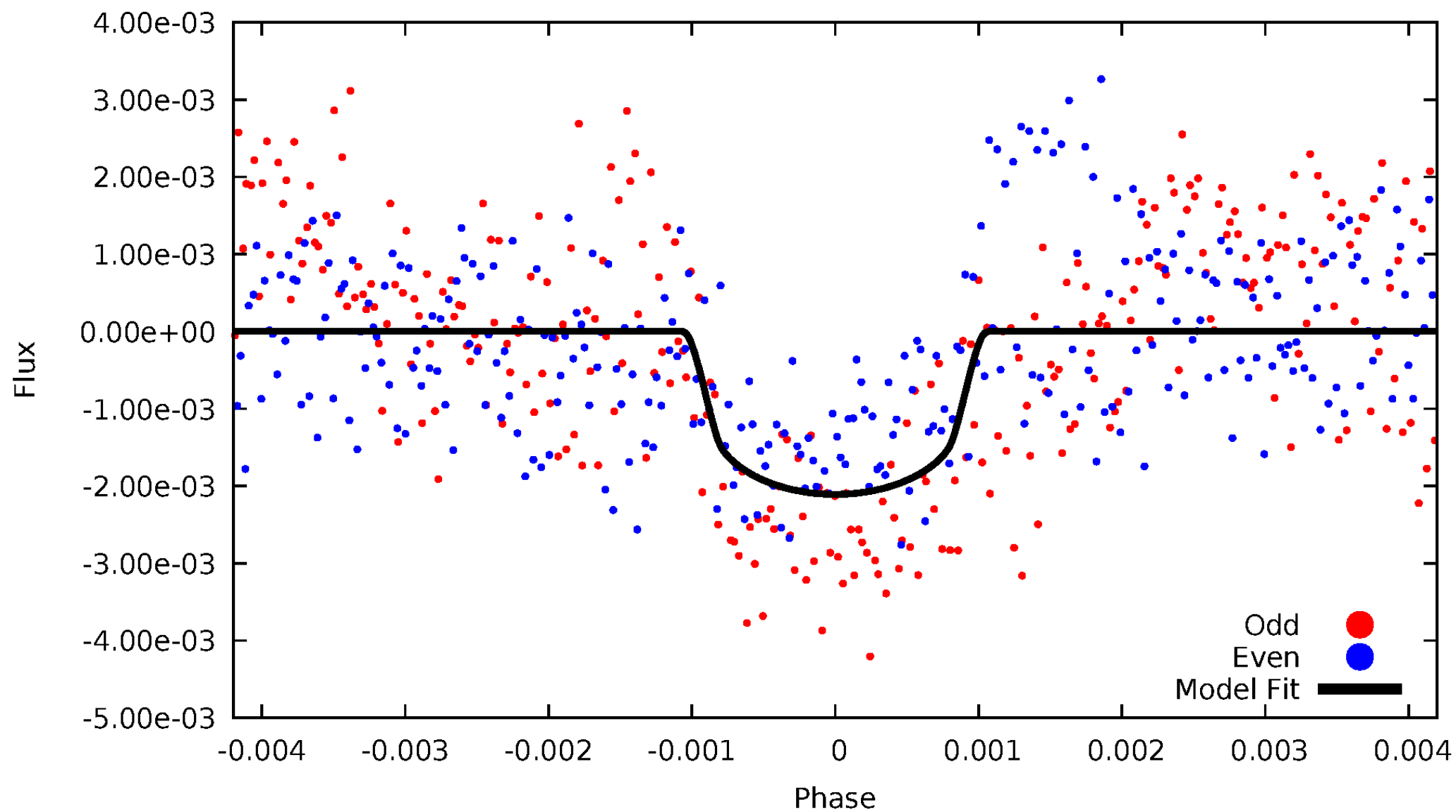


TCE 008483285-02



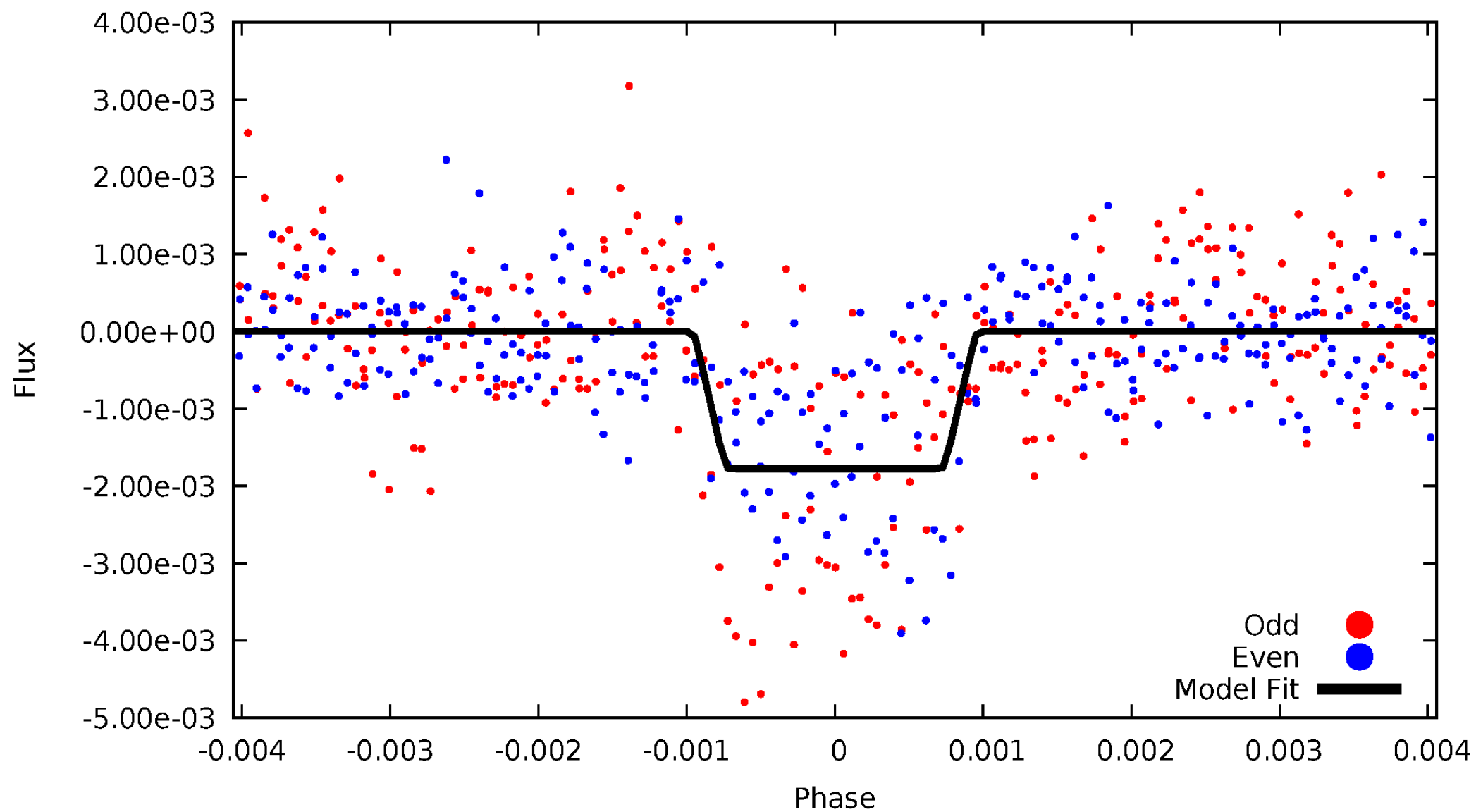
DV Odd/Even

TCE 008483285-02



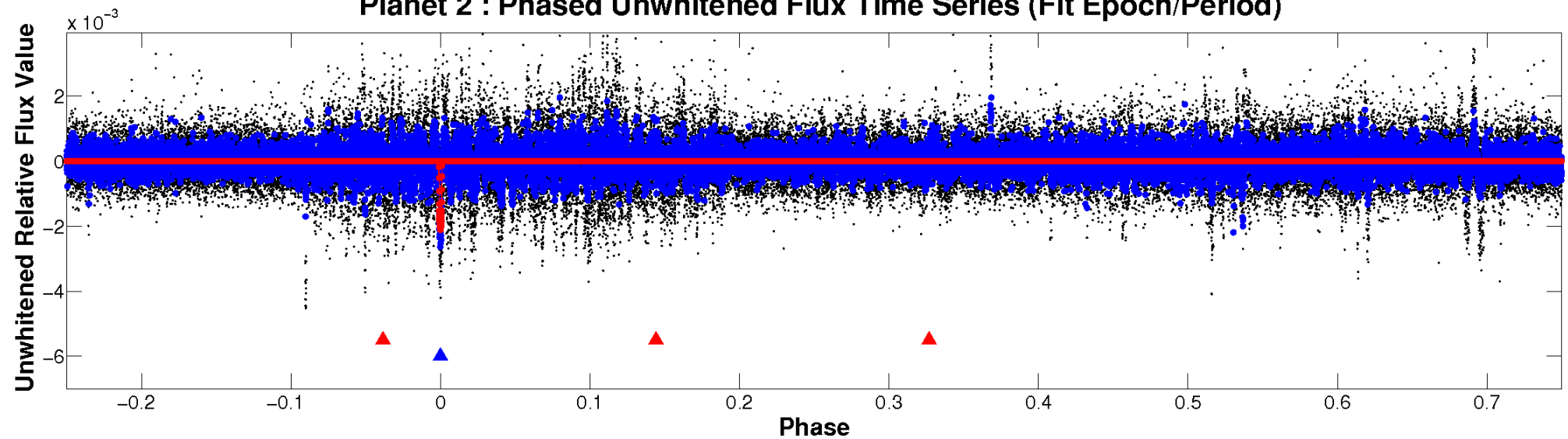
ALT Odd/Even

TCE 008483285-02

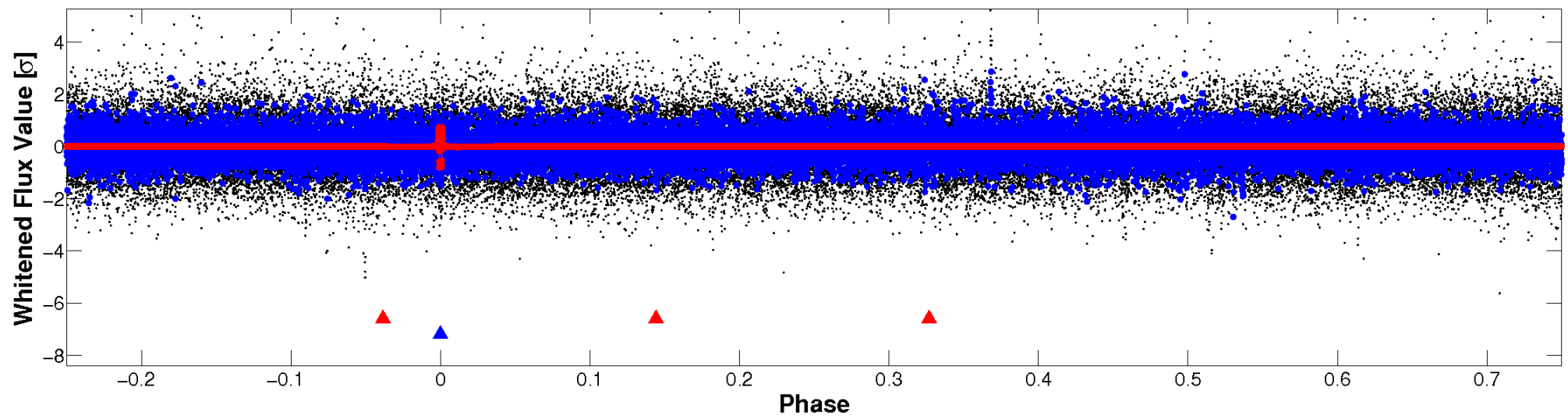


Non-Whitened Vs. Whitened Light Curve

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

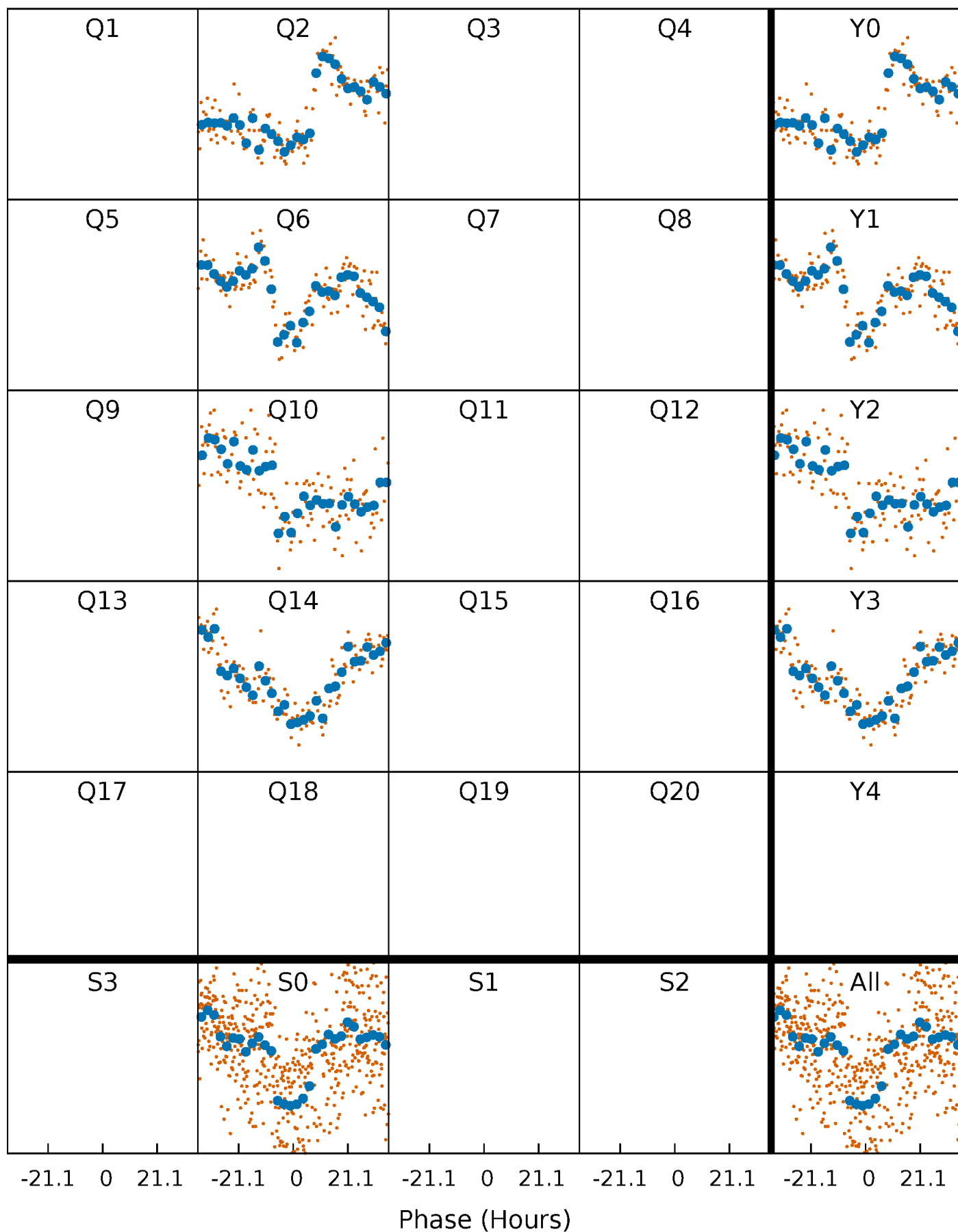


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



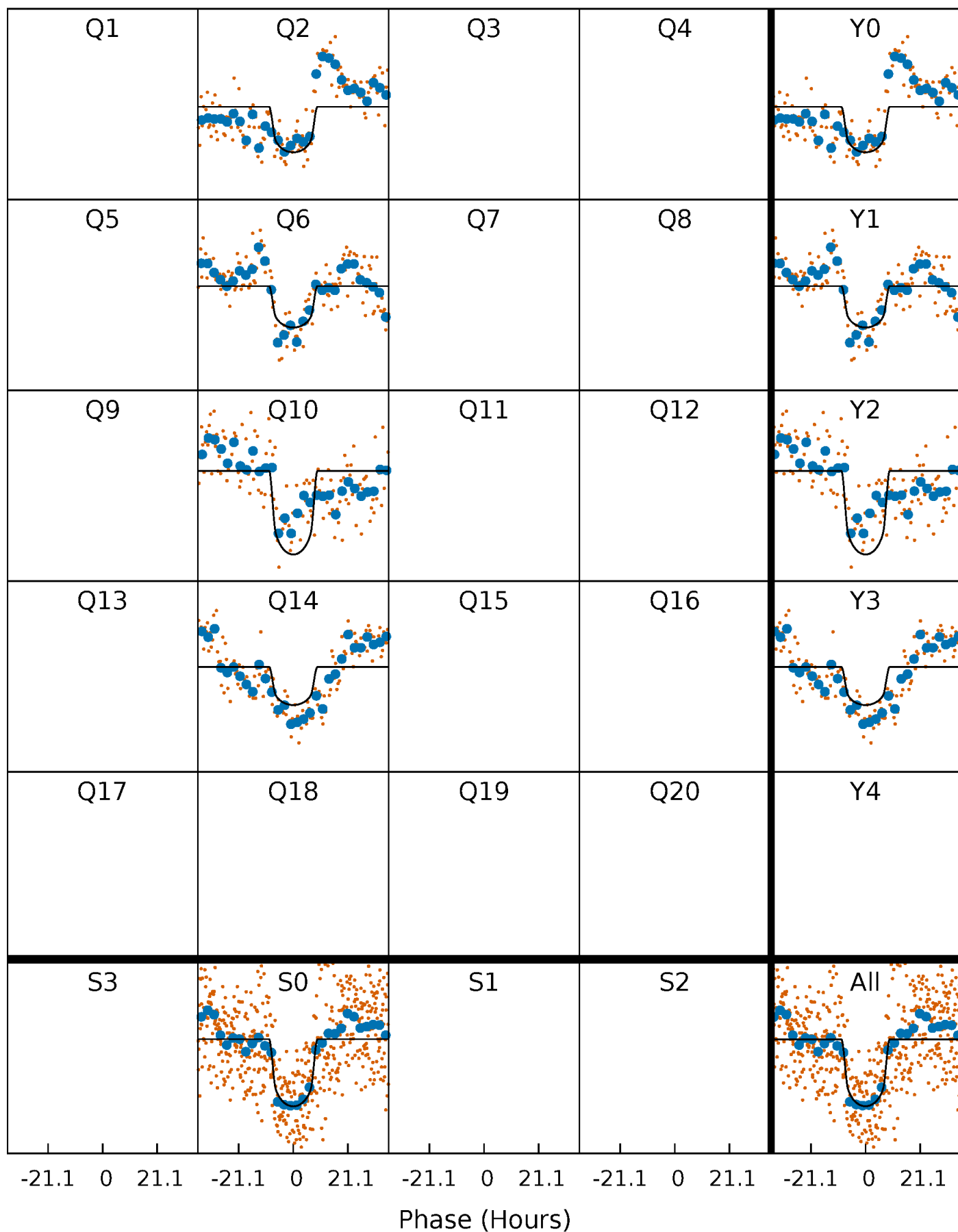
PDC Quarter-Phased Transit Curves

TCE 008483285-02 $P=366.176078$ Days $T_0=203.006067$ (BKJD)



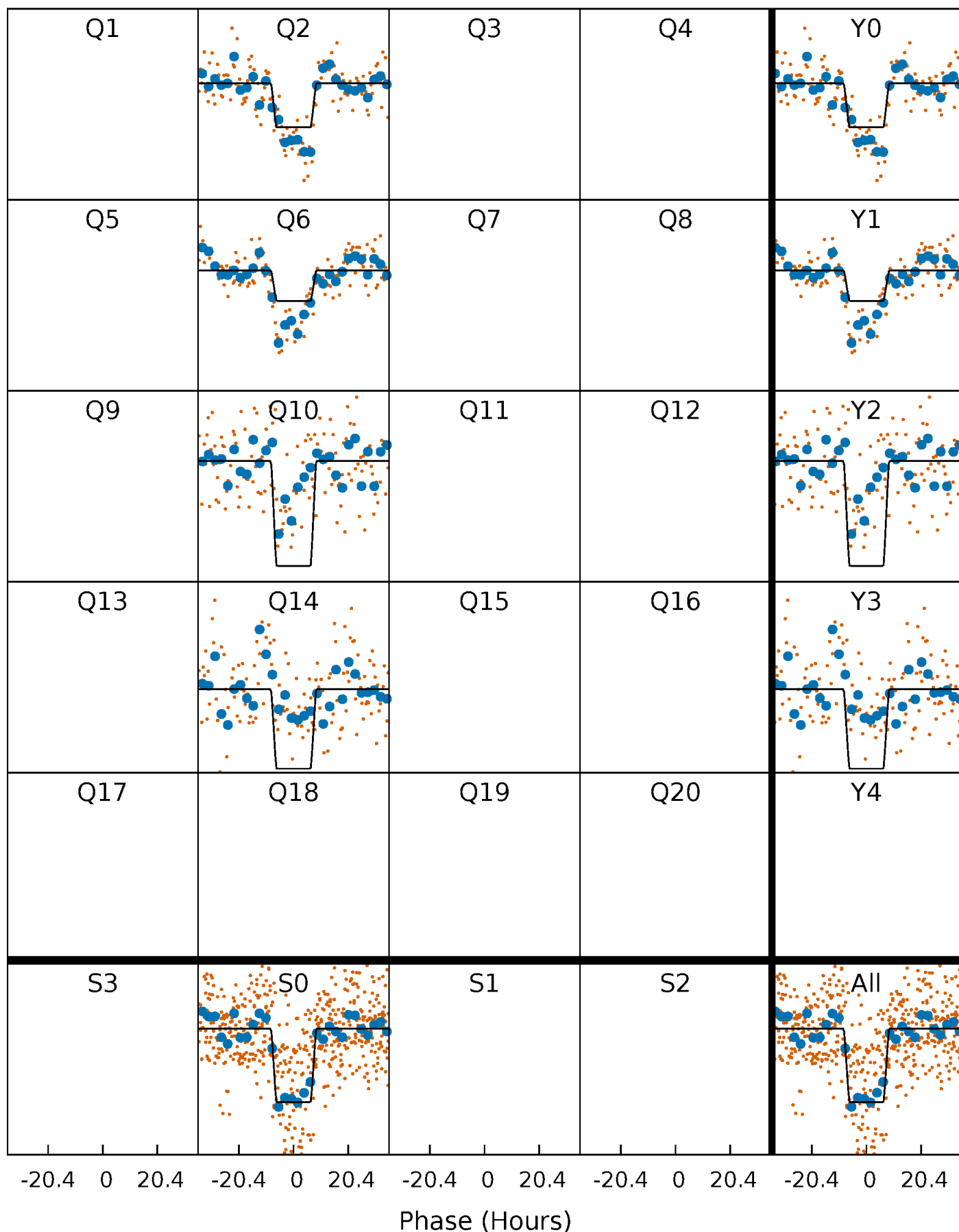
DV Quarter-Phased Transit Curves

TCE 008483285-02 $P=366.176078$ Days $T_0=203.006067$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

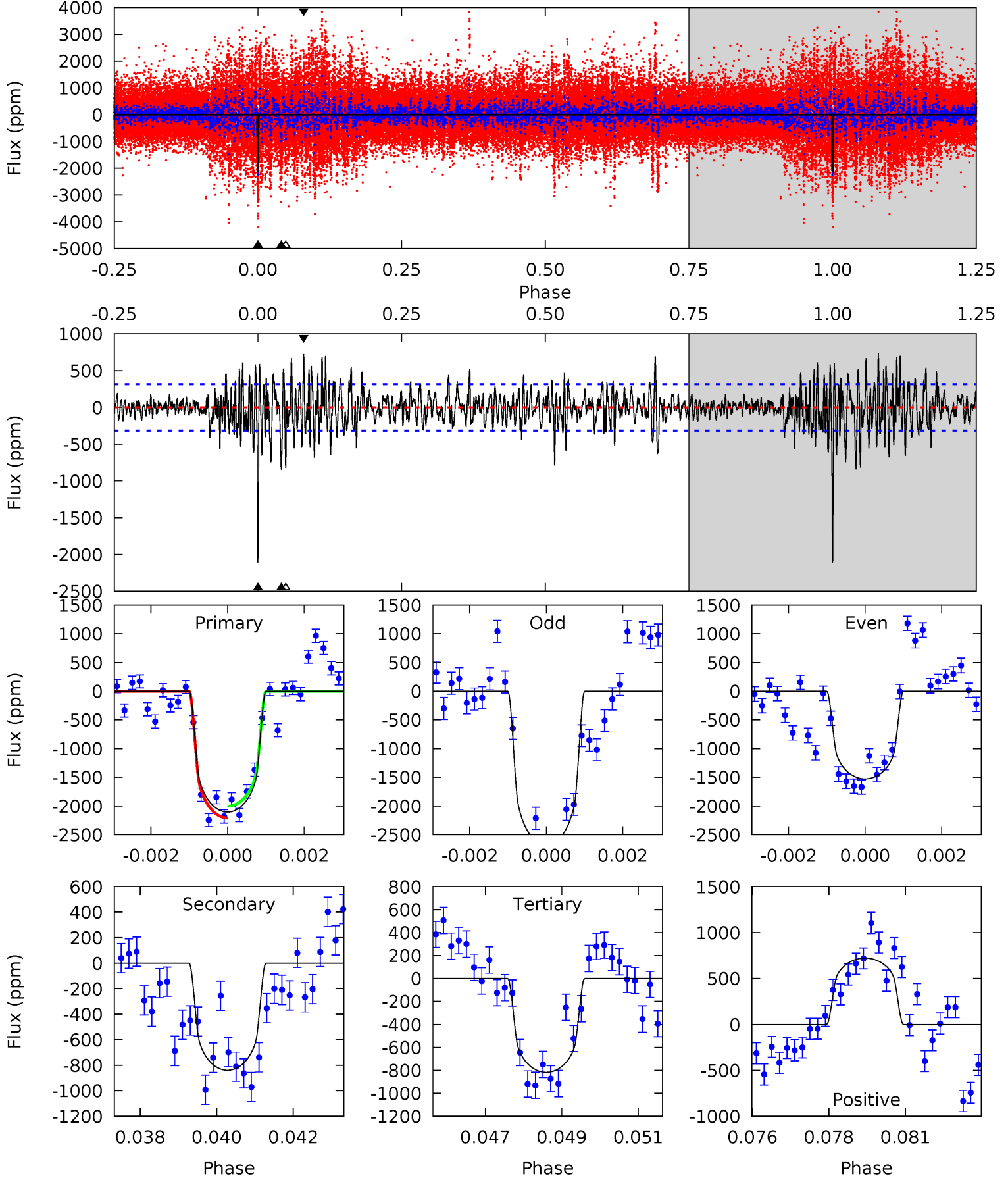
TCE 008483285-02 $P=366.169395$ Days $T_0=203.011066$ (BKJD)



DV Model-Shift Uniqueness Test

008483285-02, P = 366.176078 Days, E = 203.006067 Days

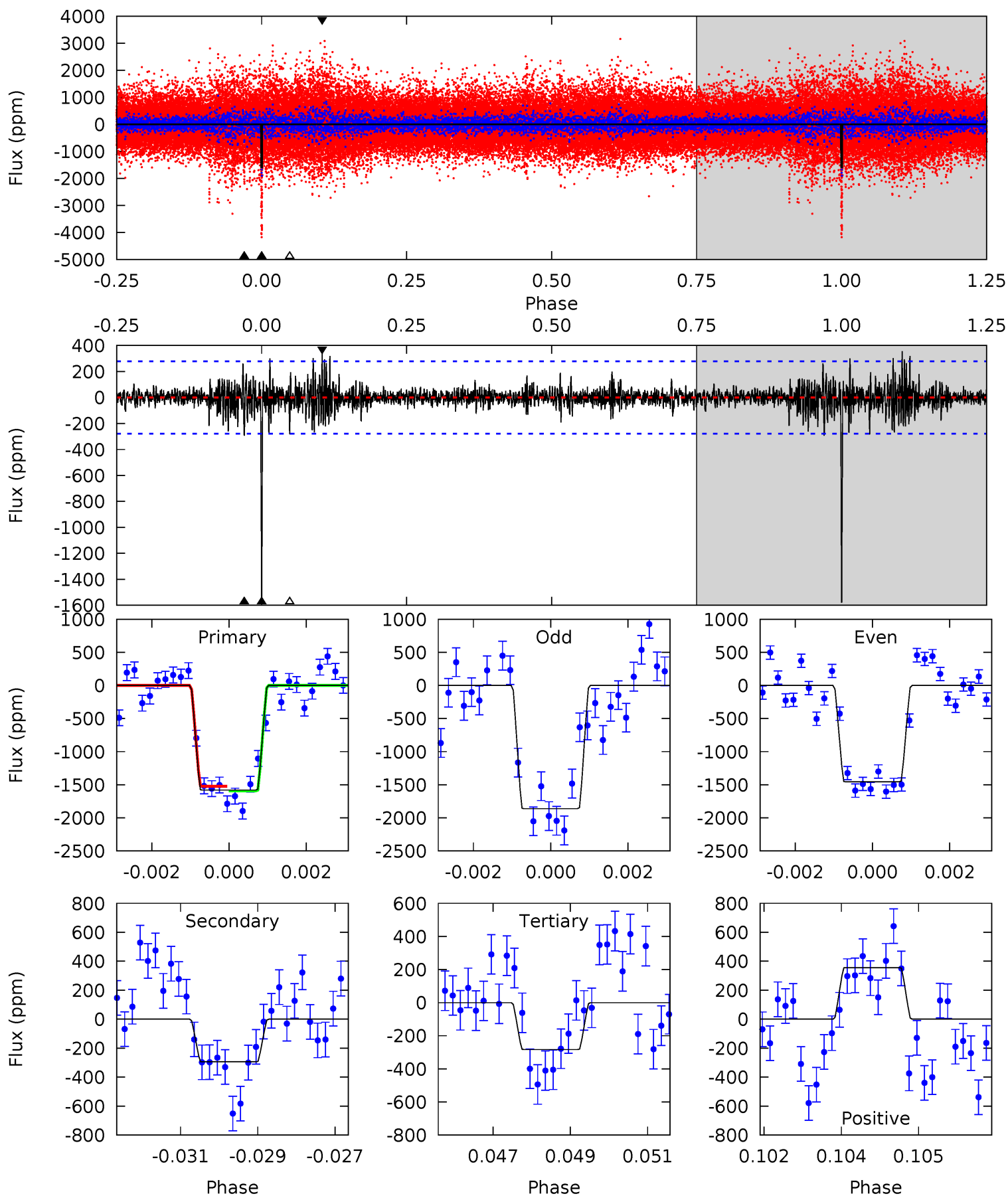
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.4	14.1	13.8	12.1	5.32	3.07	3.32	21.7	23.3	0.37	1.98	9.62	1.00	0.26	1.73



Alt Model-Shift Uniqueness Test

008483285-02, P = 366.169395 Days, E = 203.011066 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.2	5.63	5.42	6.80	5.33	3.10	1.13	24.8	23.4	0.21	-1.17	3.91	1.13	0.18	0.68



Stellar Parameters For KIC 008483285

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4199^{+113}_{-138}	$4.646^{+0.053}_{-0.021}$	$-0.200^{+0.300}_{-0.300}$	$0.607^{+0.044}_{-0.063}$	$0.596^{+0.066}_{-0.054}$	$3.745^{+0.946}_{-0.428}$
	+3%/-3%	+1%/-0%	+150%/-150%	+7%/-10%	+11%/-9%	+25%/-11%
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 008483285-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-839 ± 59	$3.11^{+0.32}_{-0.33}$	218^{+7}_{-7}	3544^{+152}_{-149}	34580^{+7989}_{-6392}
Alt.	-295 ± 52	$2.77^{+0.30}_{-0.30}$	218^{+7}_{-9}	3126^{+148}_{-152}	15088^{+5020}_{-3599}

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

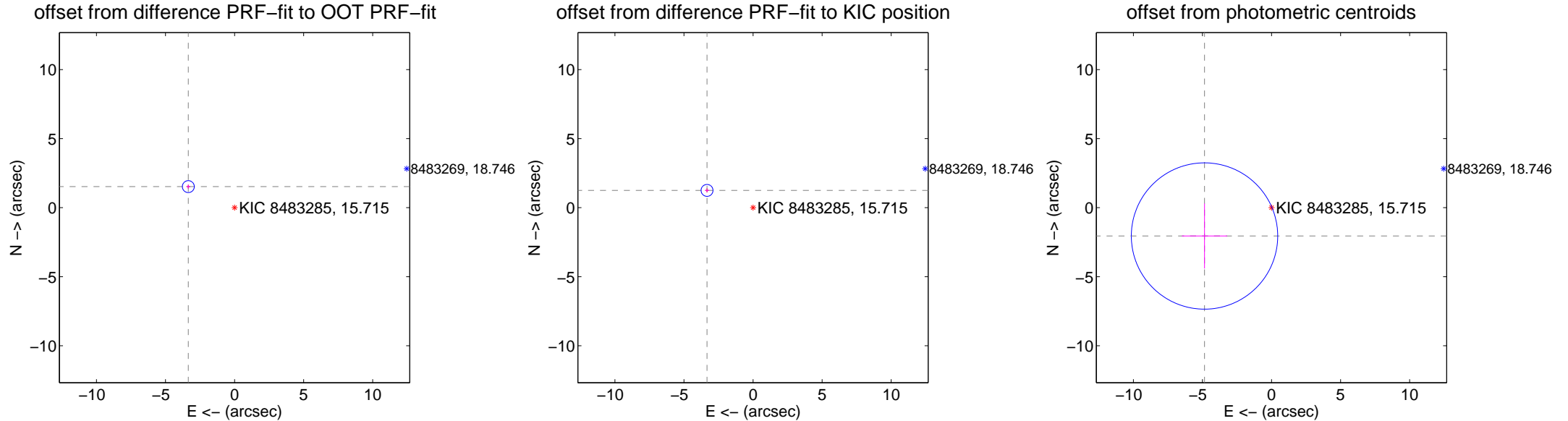
DV Centroid Data

Supplemental centroid analysis for 008483285-02. Kepler magnitude: 15.71. Transit SNR 8.86

There are 0 quarters with good PRF difference image offsets

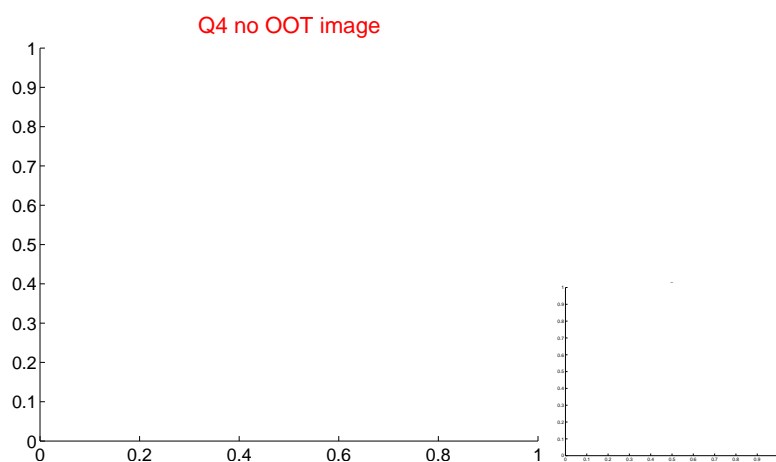
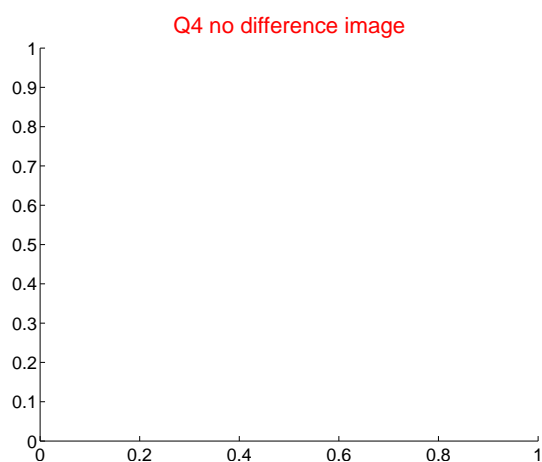
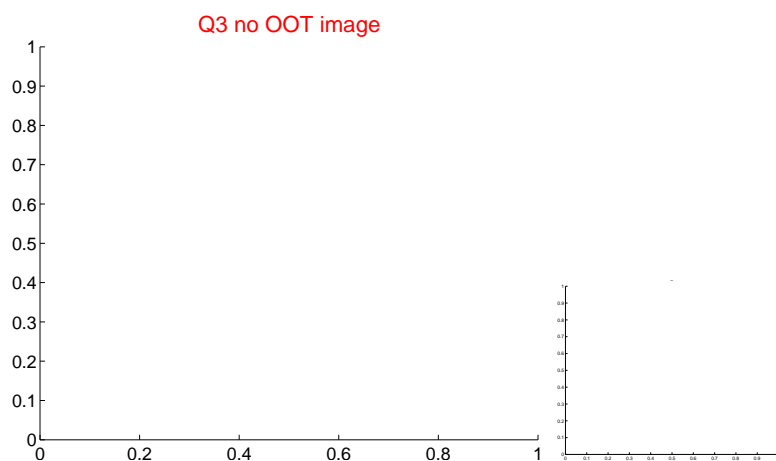
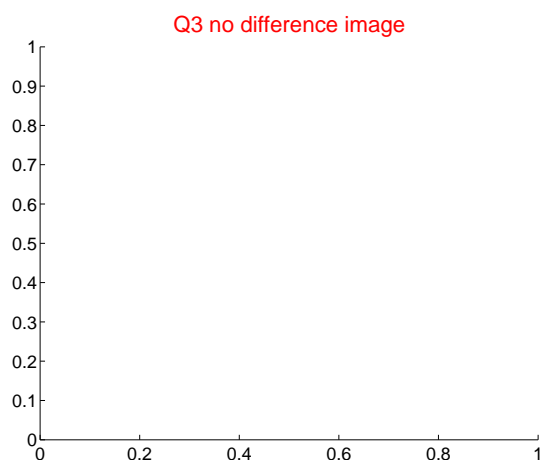
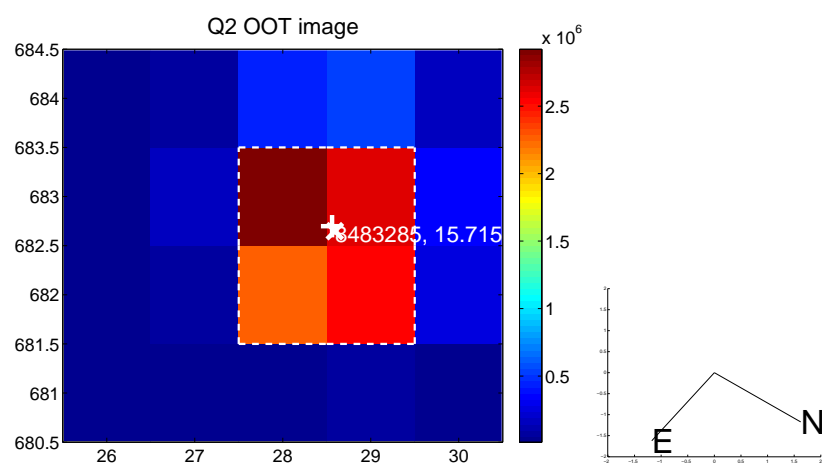
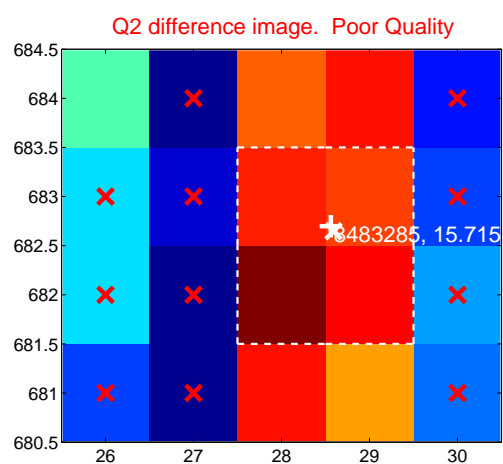
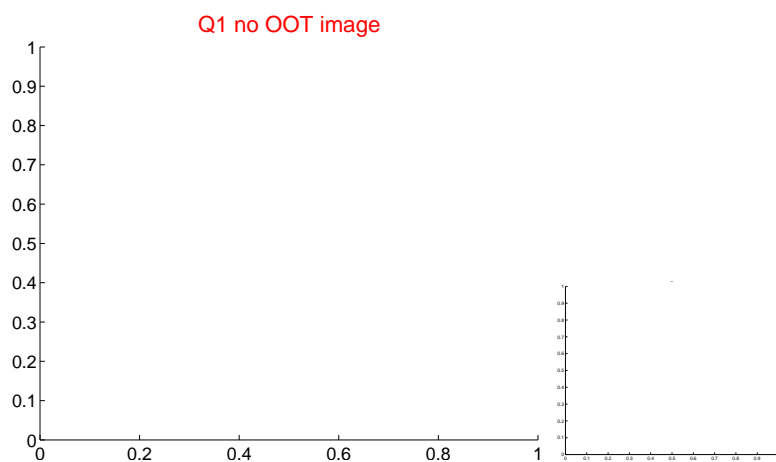
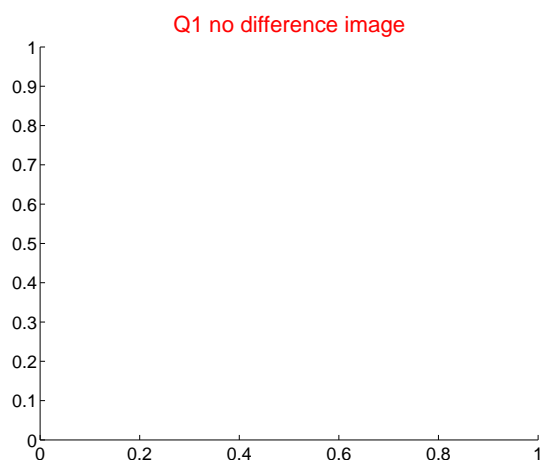
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.681 ± 0.144	25.53	3.350 ± 0.143	1.526 ± 0.151
PRF-fit source offset from KIC position	3.560 ± 0.144	24.76	3.333 ± 0.143	1.251 ± 0.151
photometric centroid source offset	5.27 ± 1.77	2.98	4.85 ± 1.64	-2.05 ± 2.36



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.

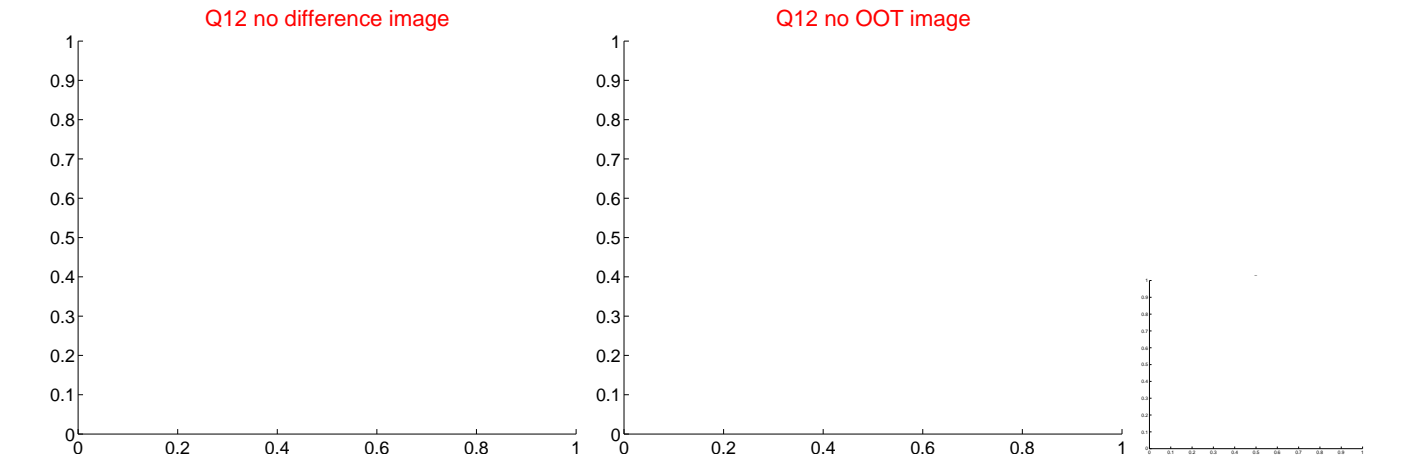
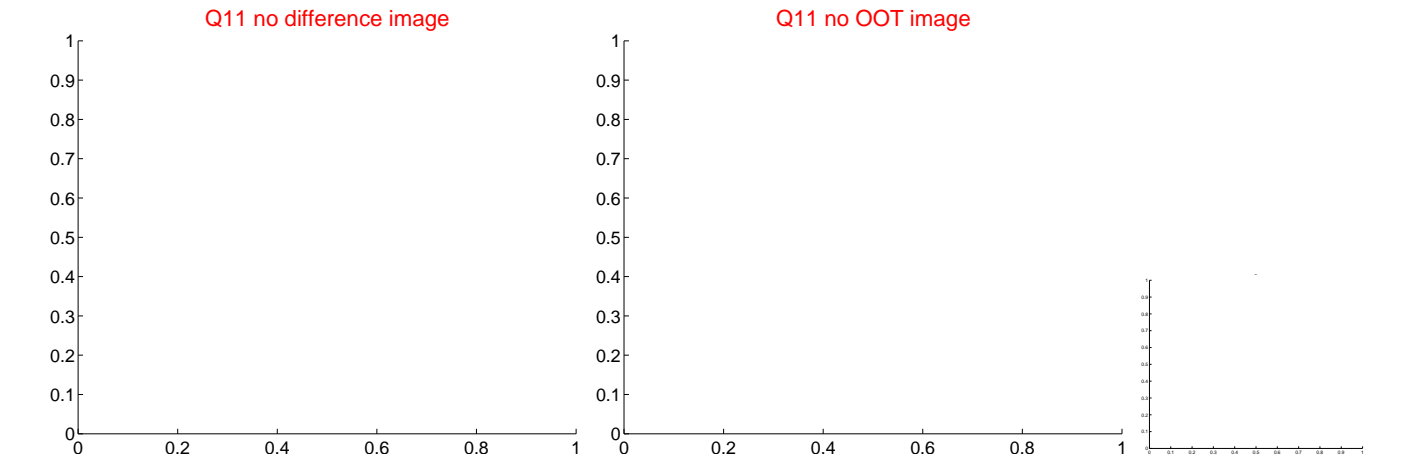
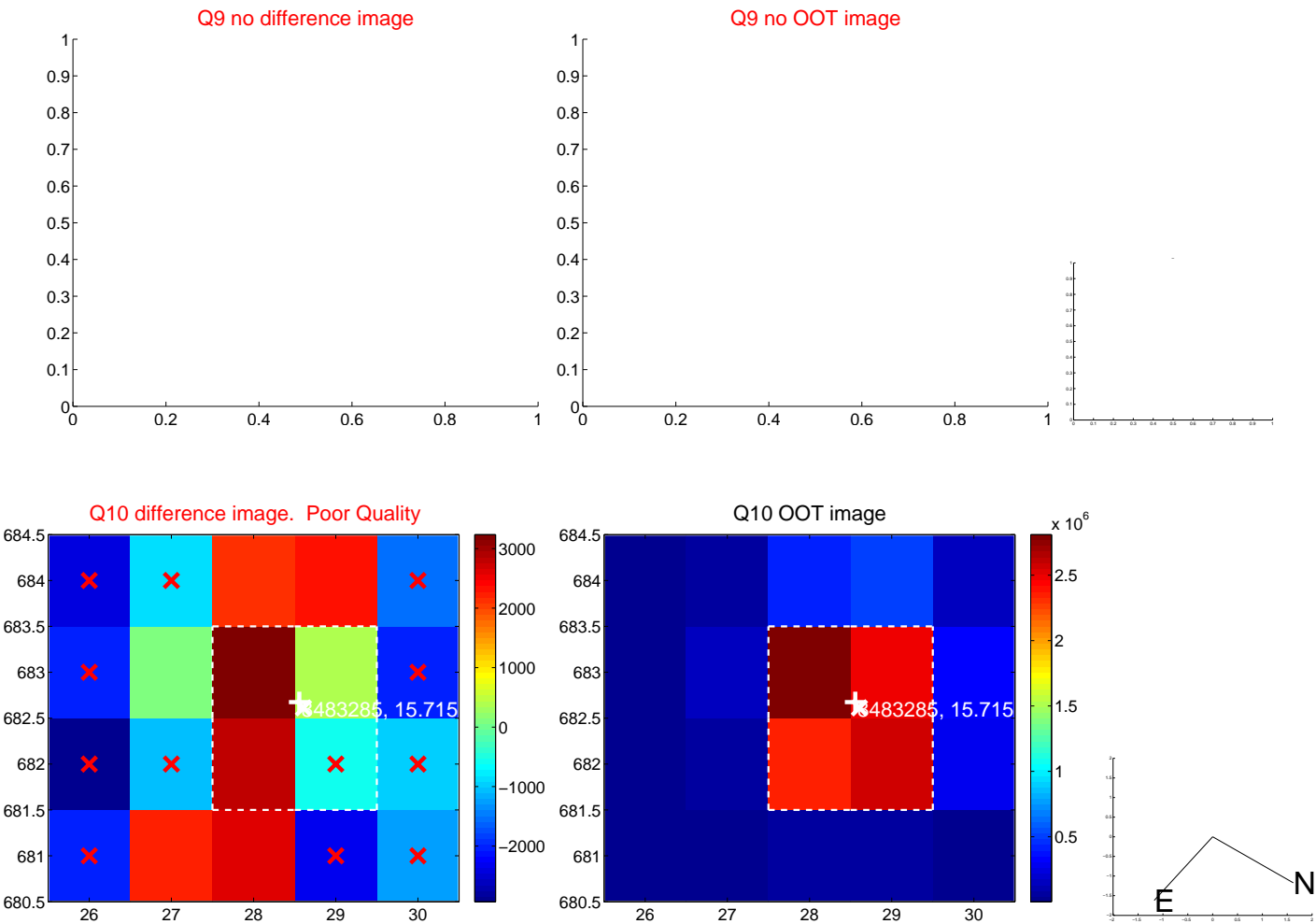
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



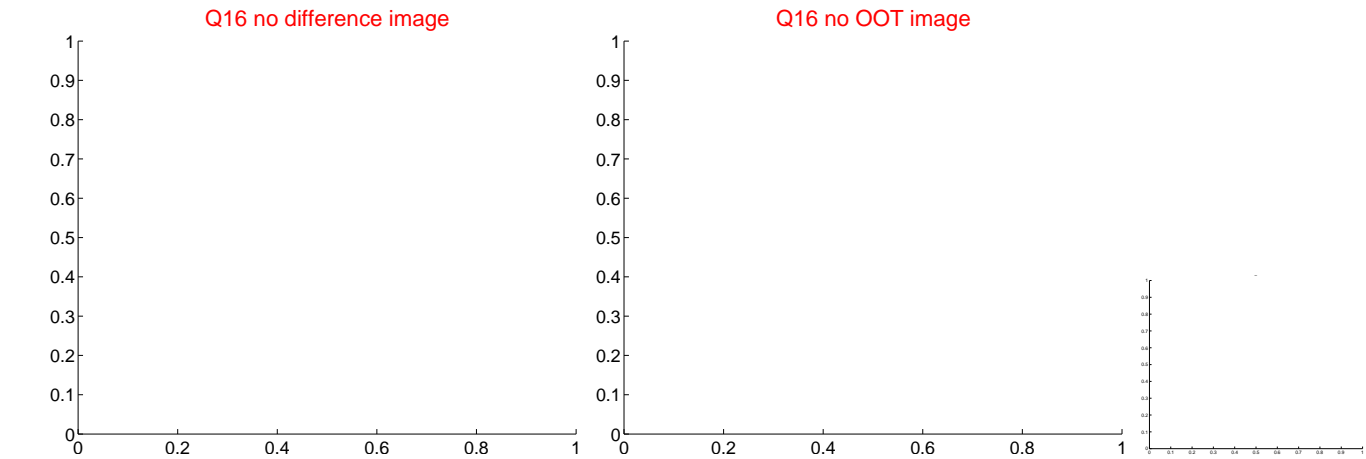
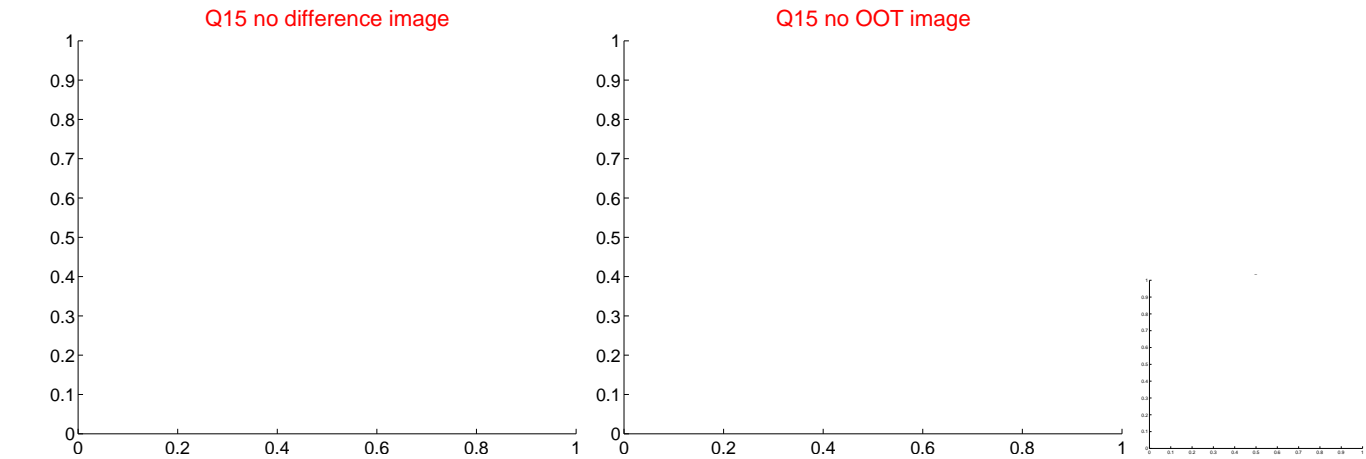
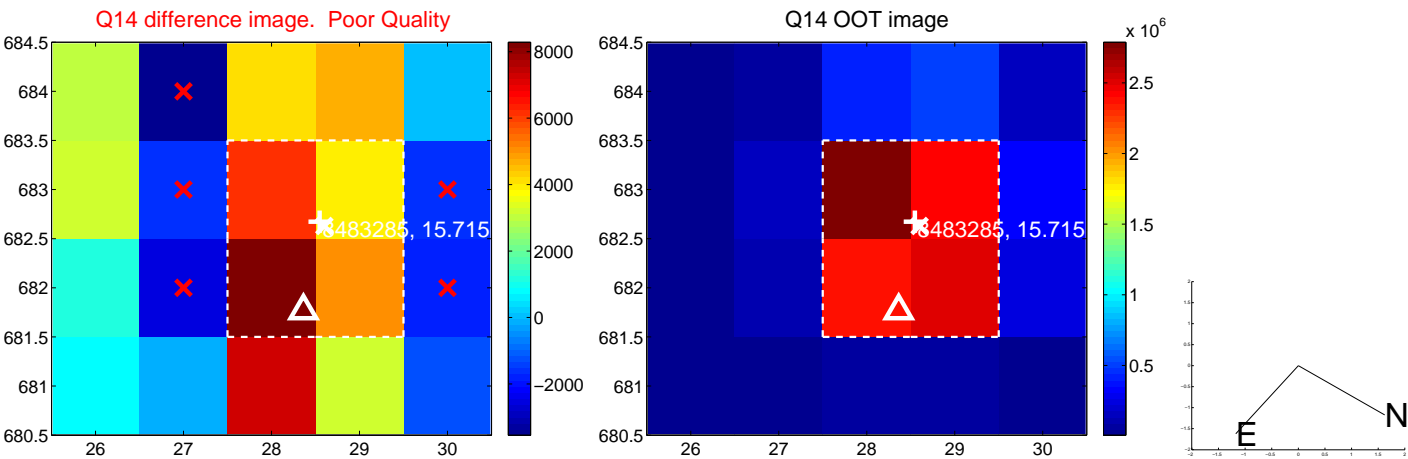
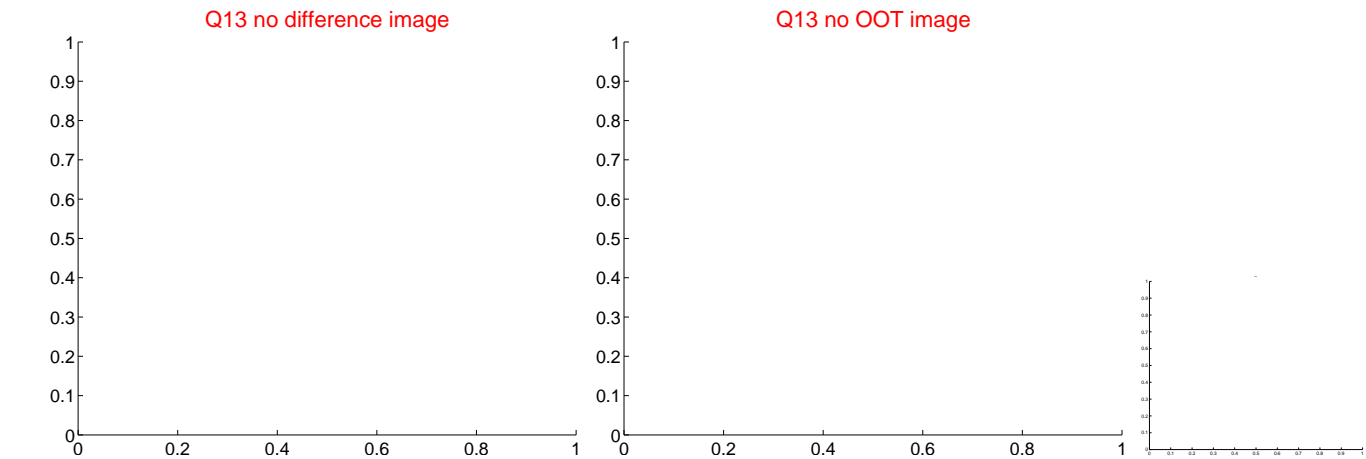
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



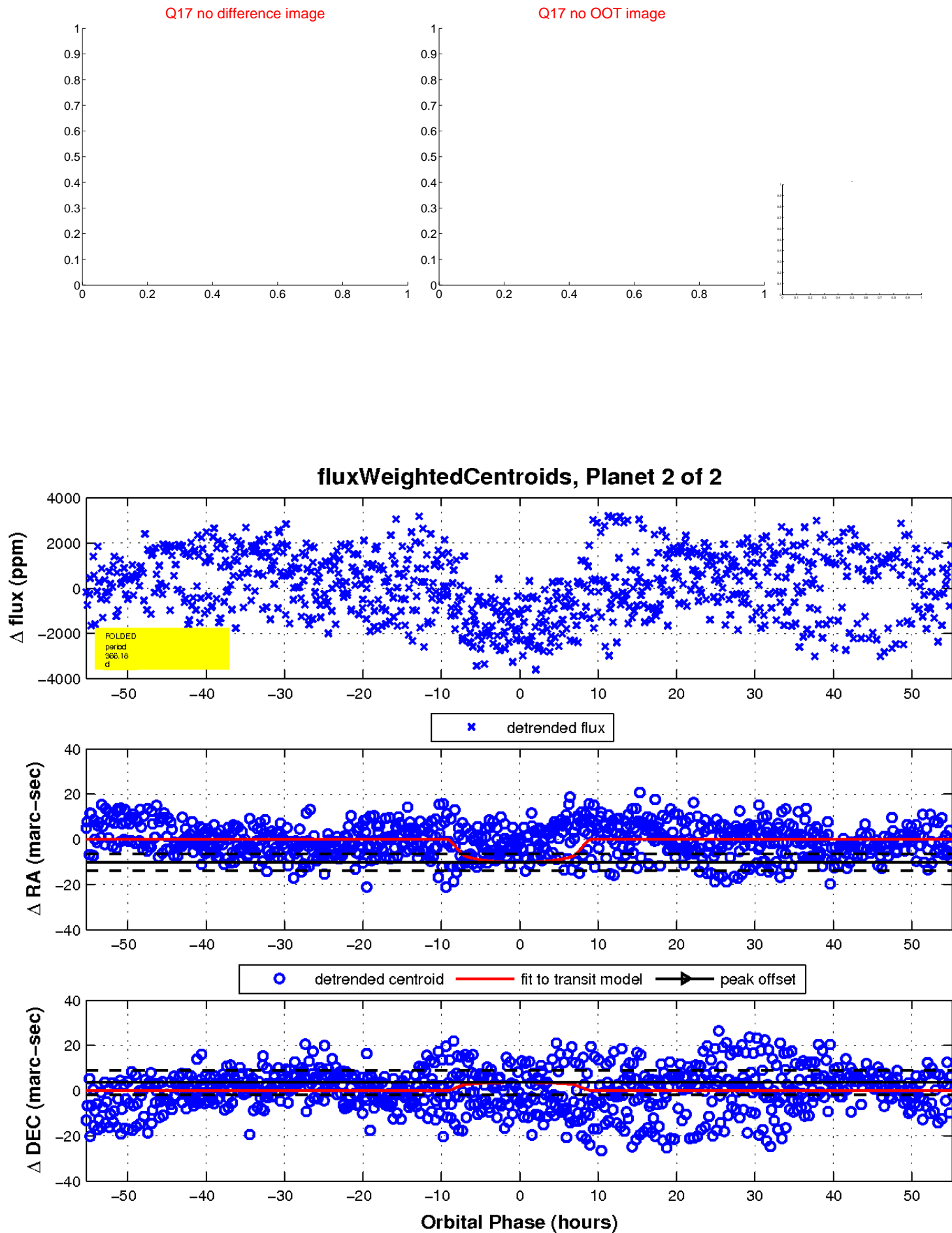
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

