

KIC 008525265

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})
008525265-01	OBS	No	403.998228	415.814870	374.0	6.557	12.1	7.2	0.97	5611	2.13	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008525265-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

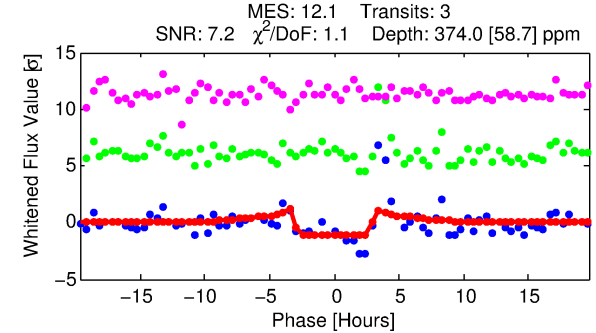
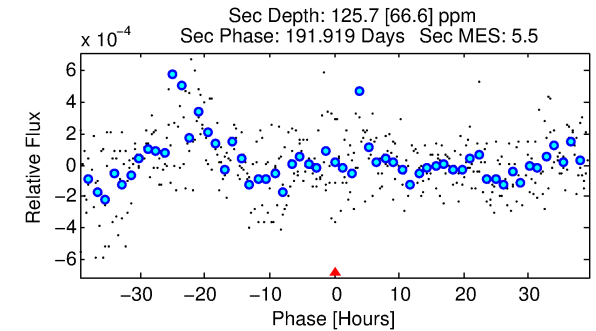
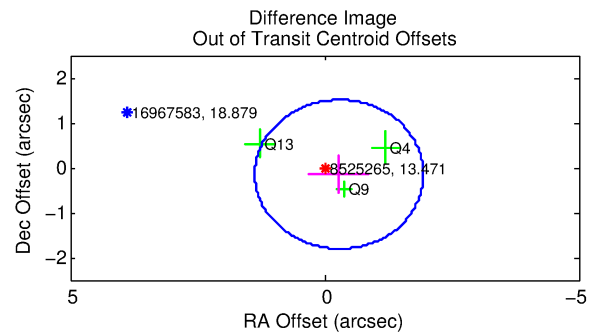
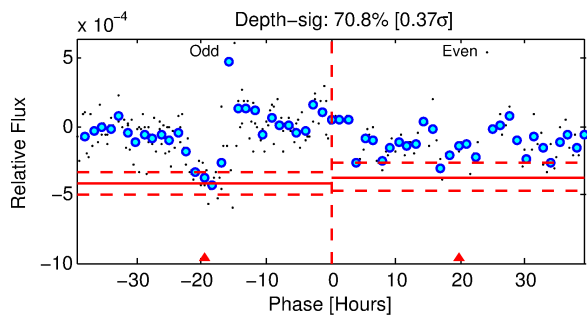
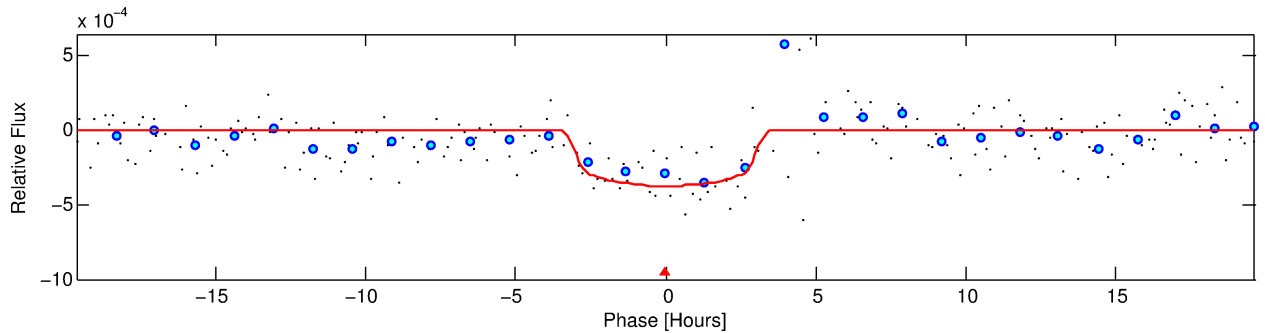
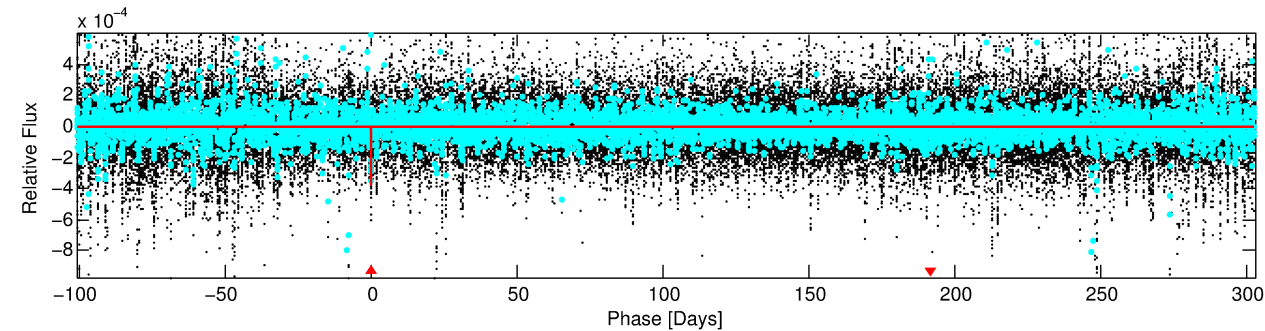
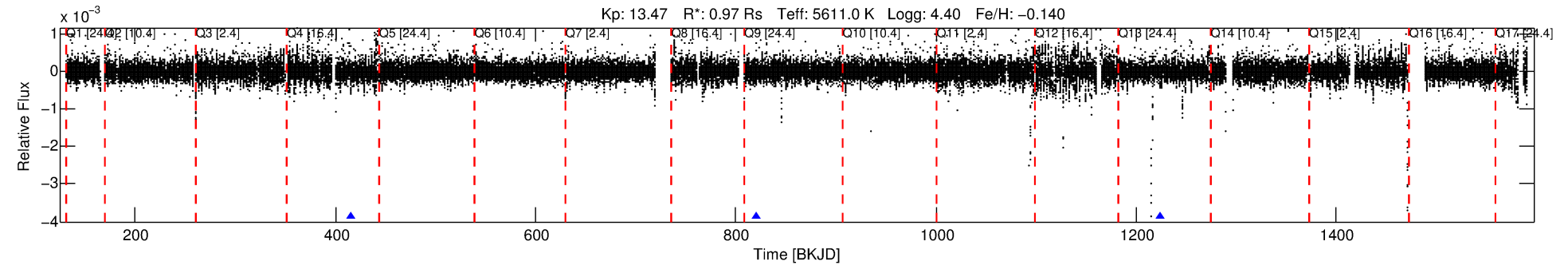
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008525265-01

No Significant Match Found

DV One-Page Summary

KIC: 8525265 Candidate: 1 of 1 Period: 403.998 d



DV Fit Results:

Period = 403.99823 [0.00680] d
Epoch = 415.8149 [0.0092] BKJD
Rp/R* = 0.0201 [0.0068]
a/R* = 275.47 [396.59]
b = 0.84 [0.52]
Seff = 0.81 [0.30]
Teq = 242 [23] K
Rp = 2.13 [0.93] Re
a = 1.0173 [0.2404] AU
Ag = 15805.48 [14717.48] [1.07σ]
Teffp = 4193 [916] K [4.31σ]

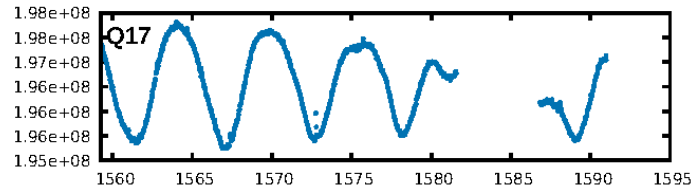
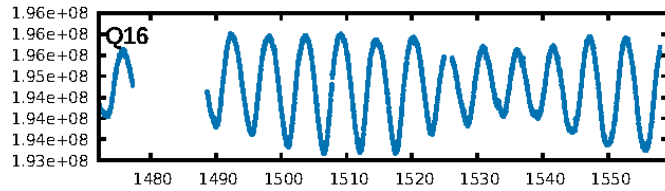
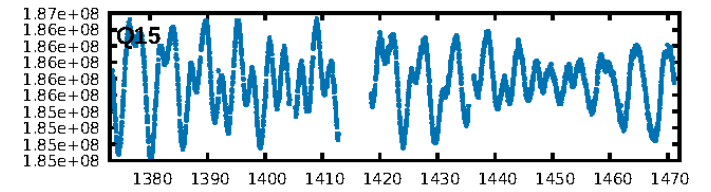
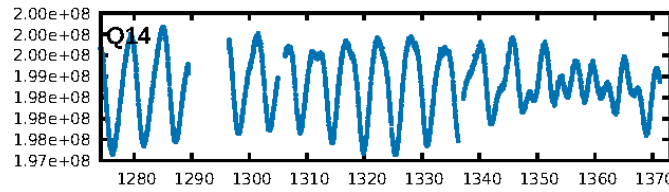
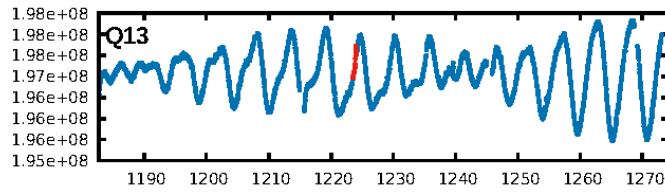
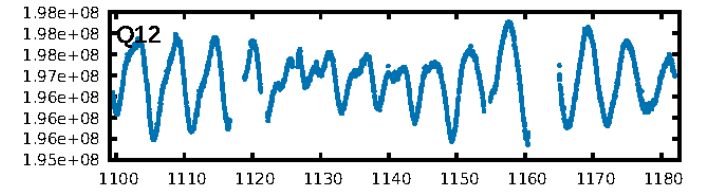
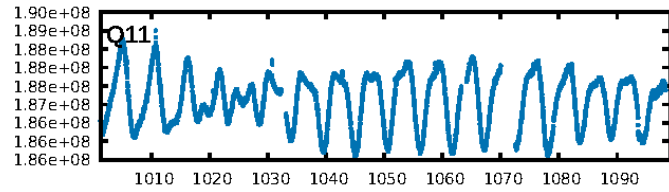
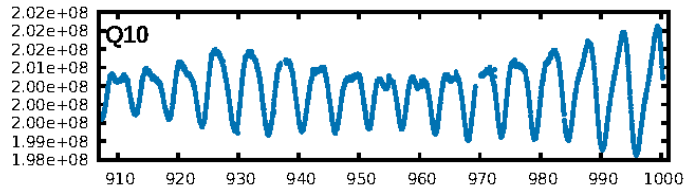
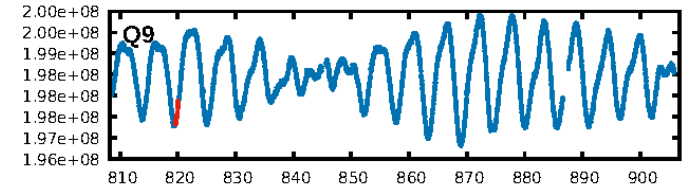
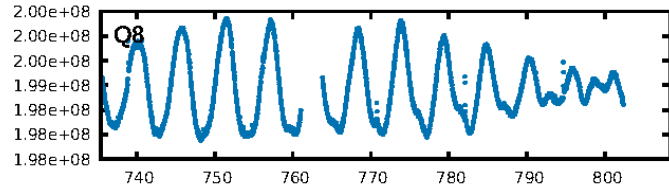
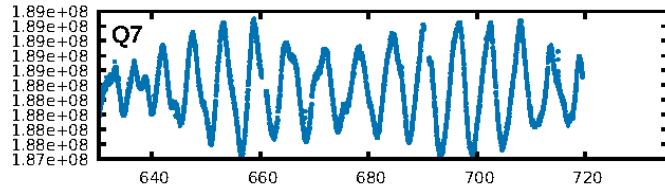
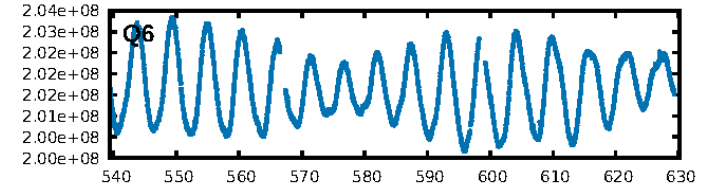
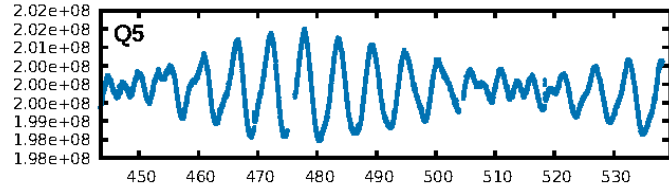
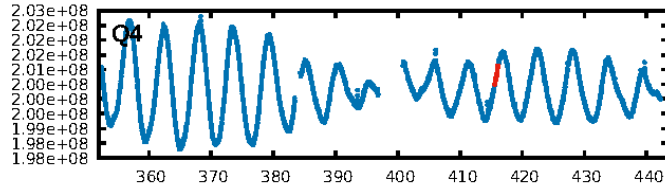
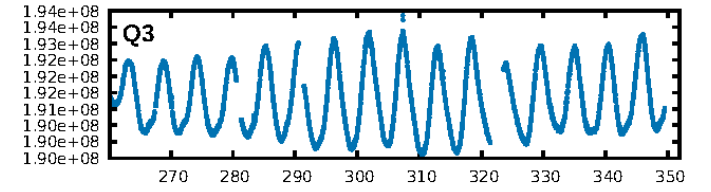
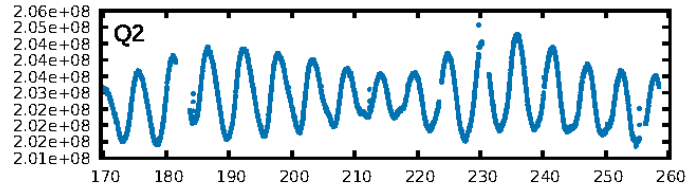
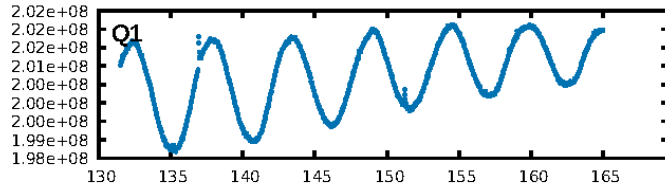
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.5%
ModelChiSquareGof-sig: 86.5%
Bootstrap-pfa: 1.92e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.1943
Centroid-sig: 77.0%
Centroid-so: 0.155 arcsec [0.17σ]
OotOffset-rm: 0.321 arcsec [0.58σ]
KicOffset-rm: 0.302 arcsec [0.46σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

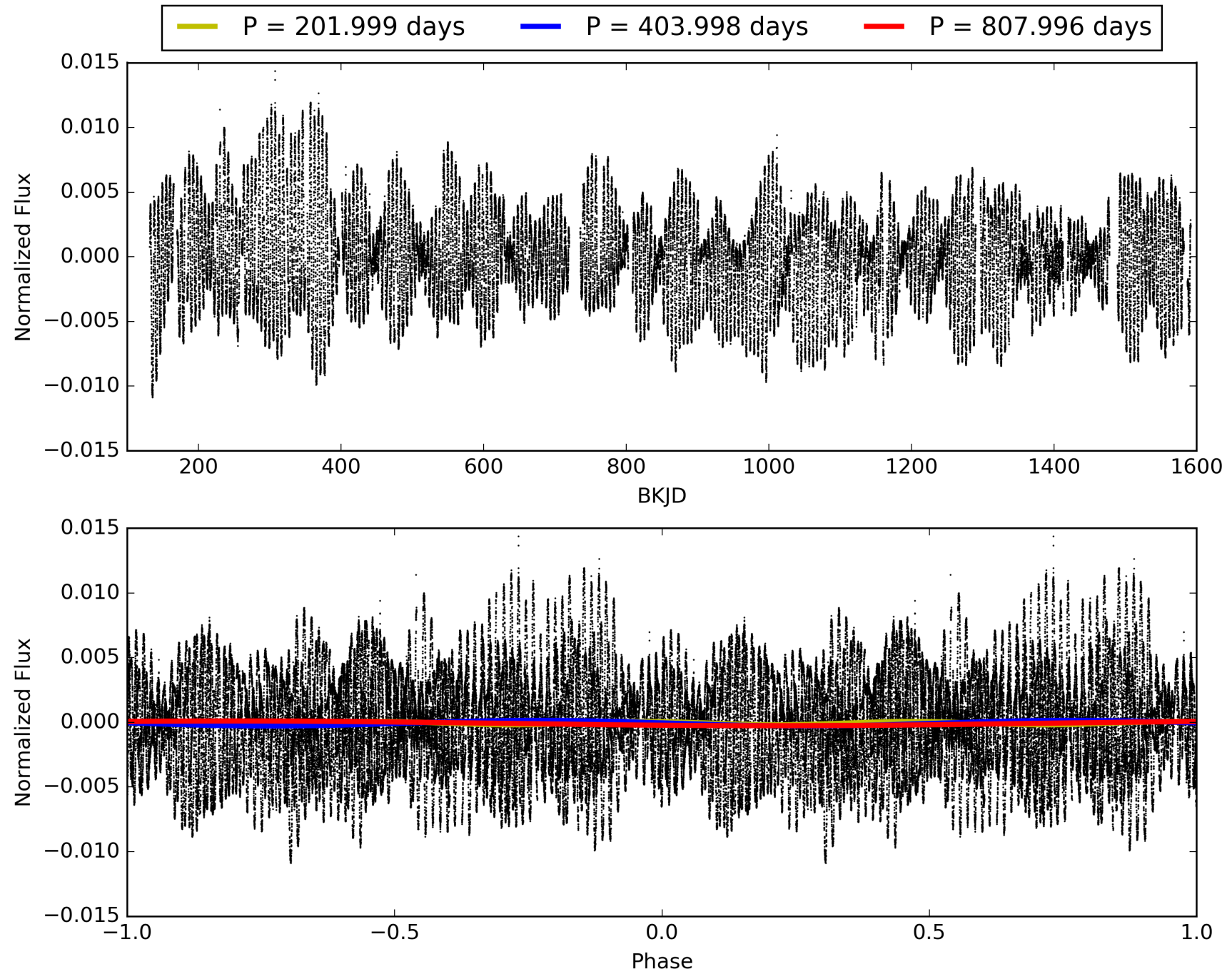
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:44:21 Z

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

TCE 008525265-01, PDC Light Curves

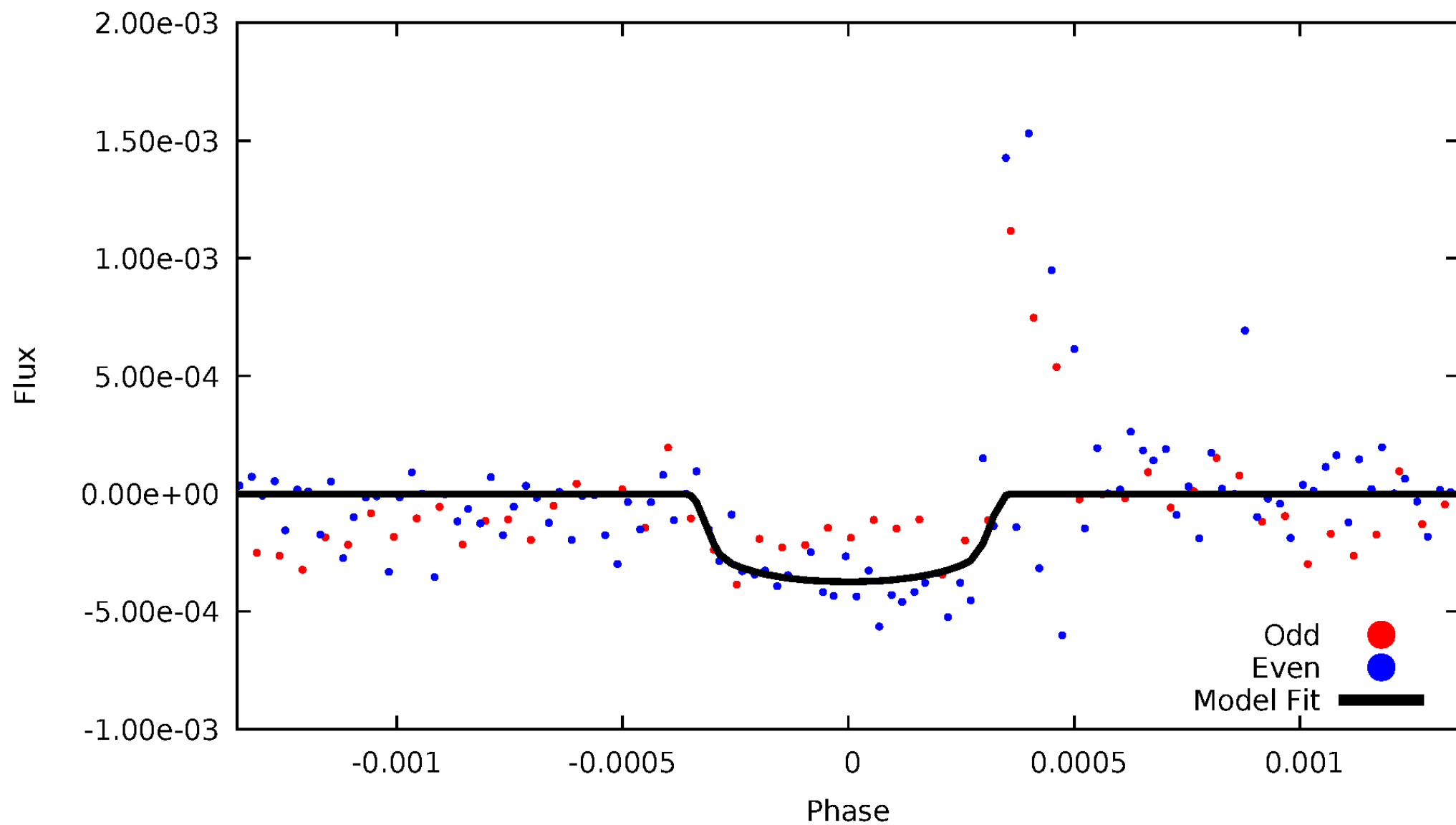


TCE 008525265-01



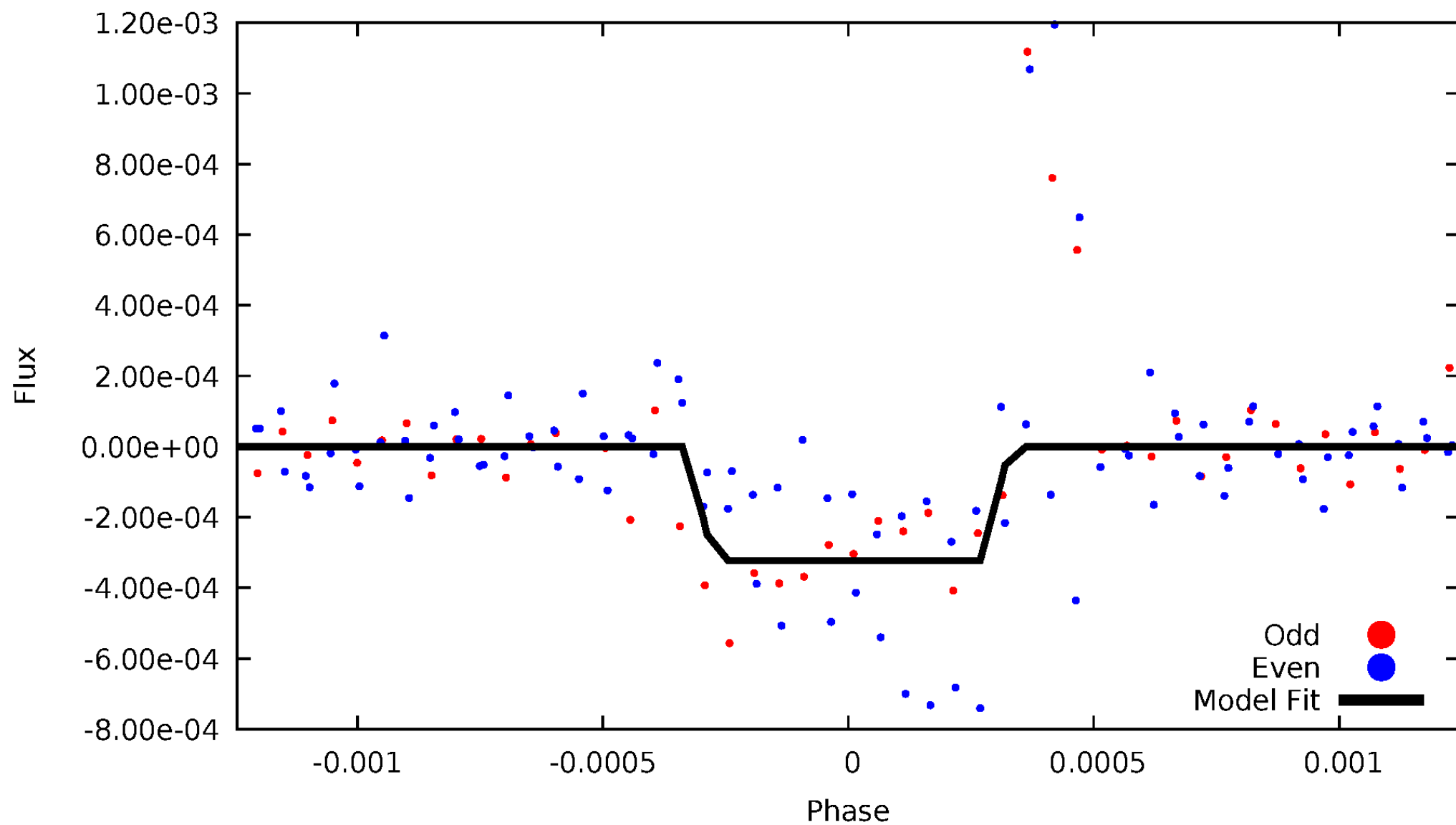
DV Odd/Even

TCE 008525265-01



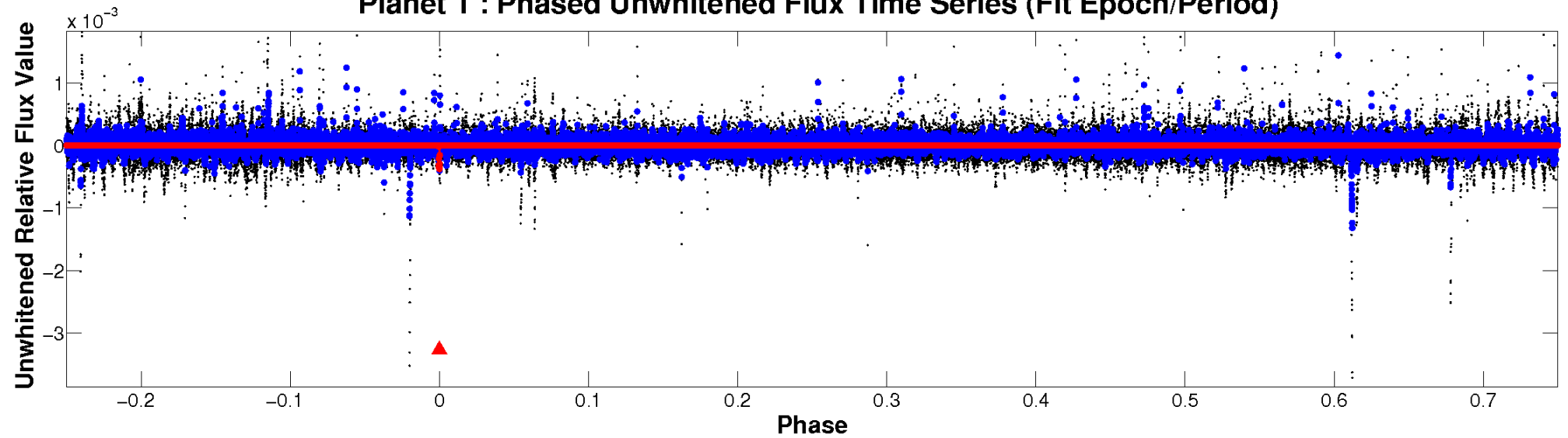
ALT Odd/Even

TCE 008525265-01

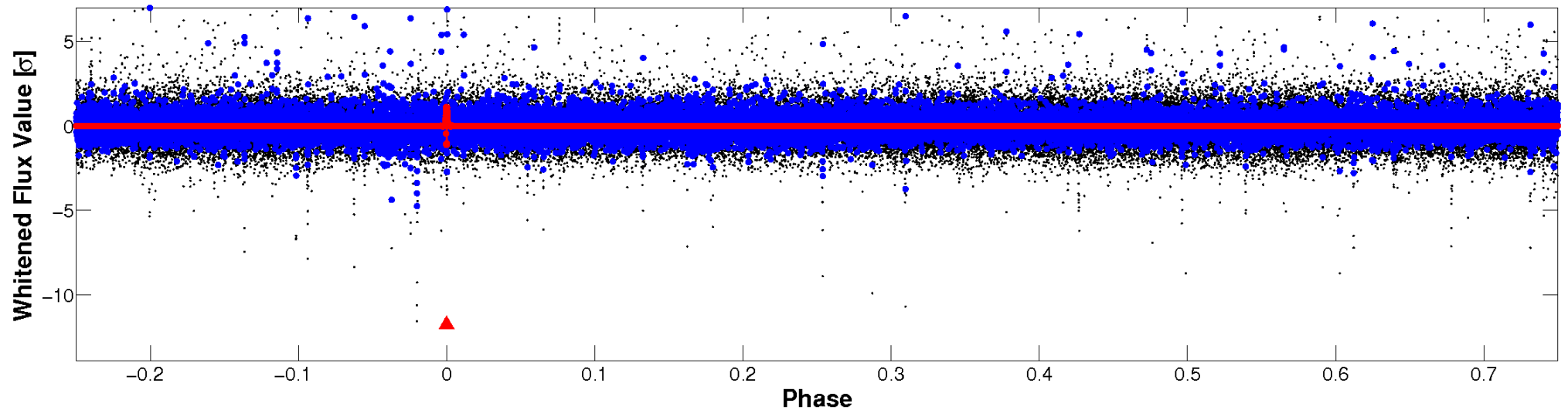


Non-Whitened Vs. Whitened Light Curve

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

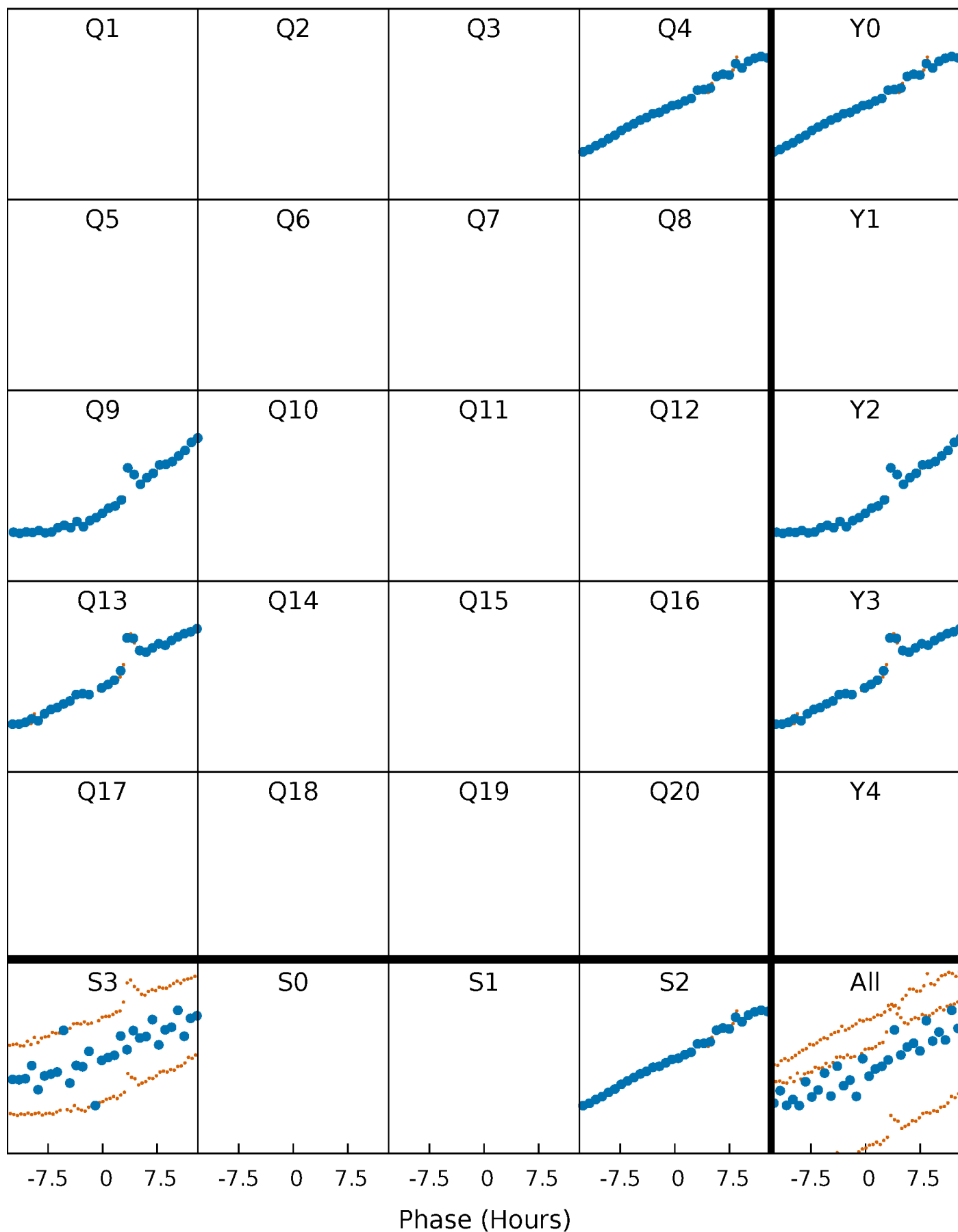


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



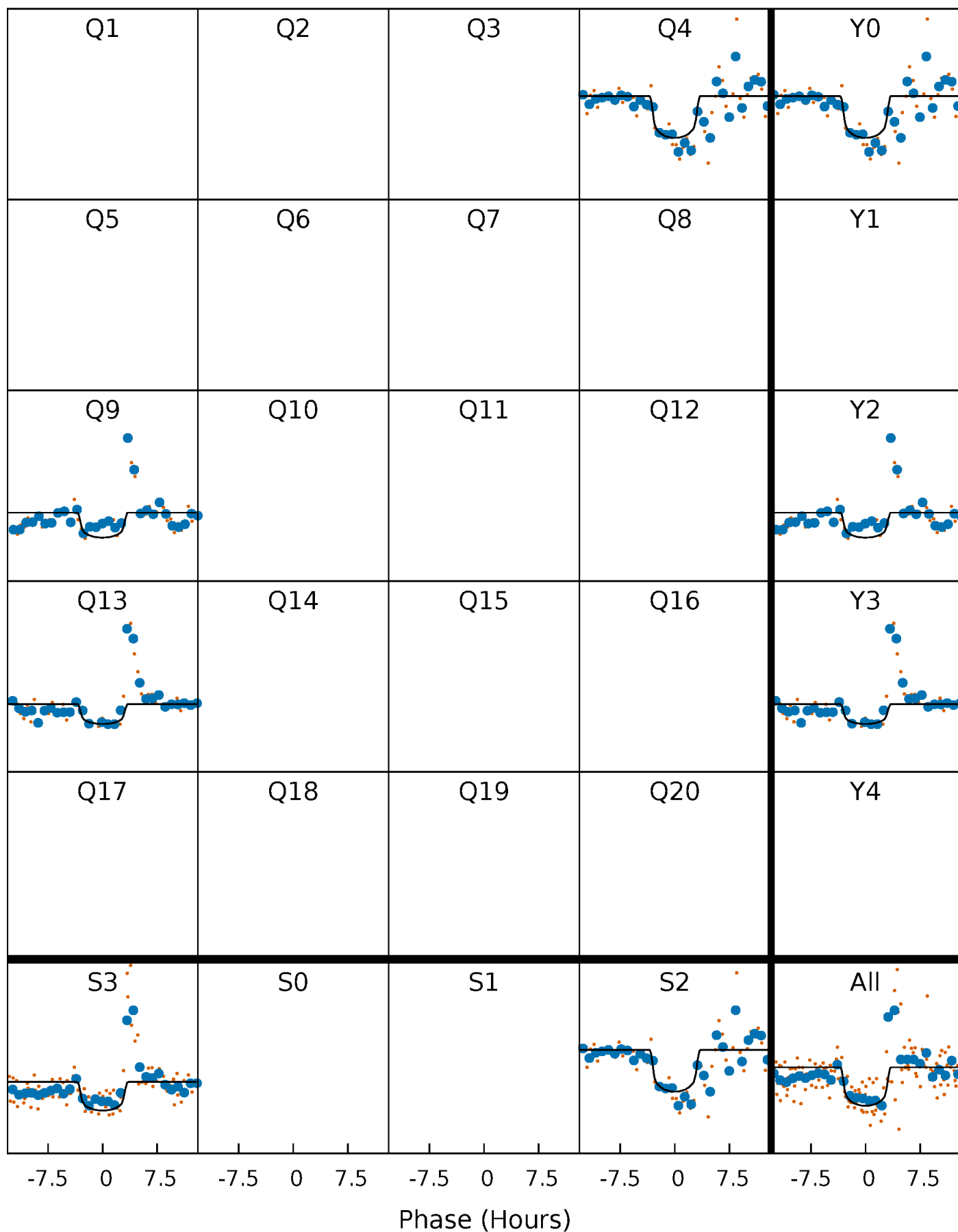
PDC Quarter-Phased Transit Curves

TCE 008525265-01 P=403.998228 Days $T_0=415.814870$ (BKJD)



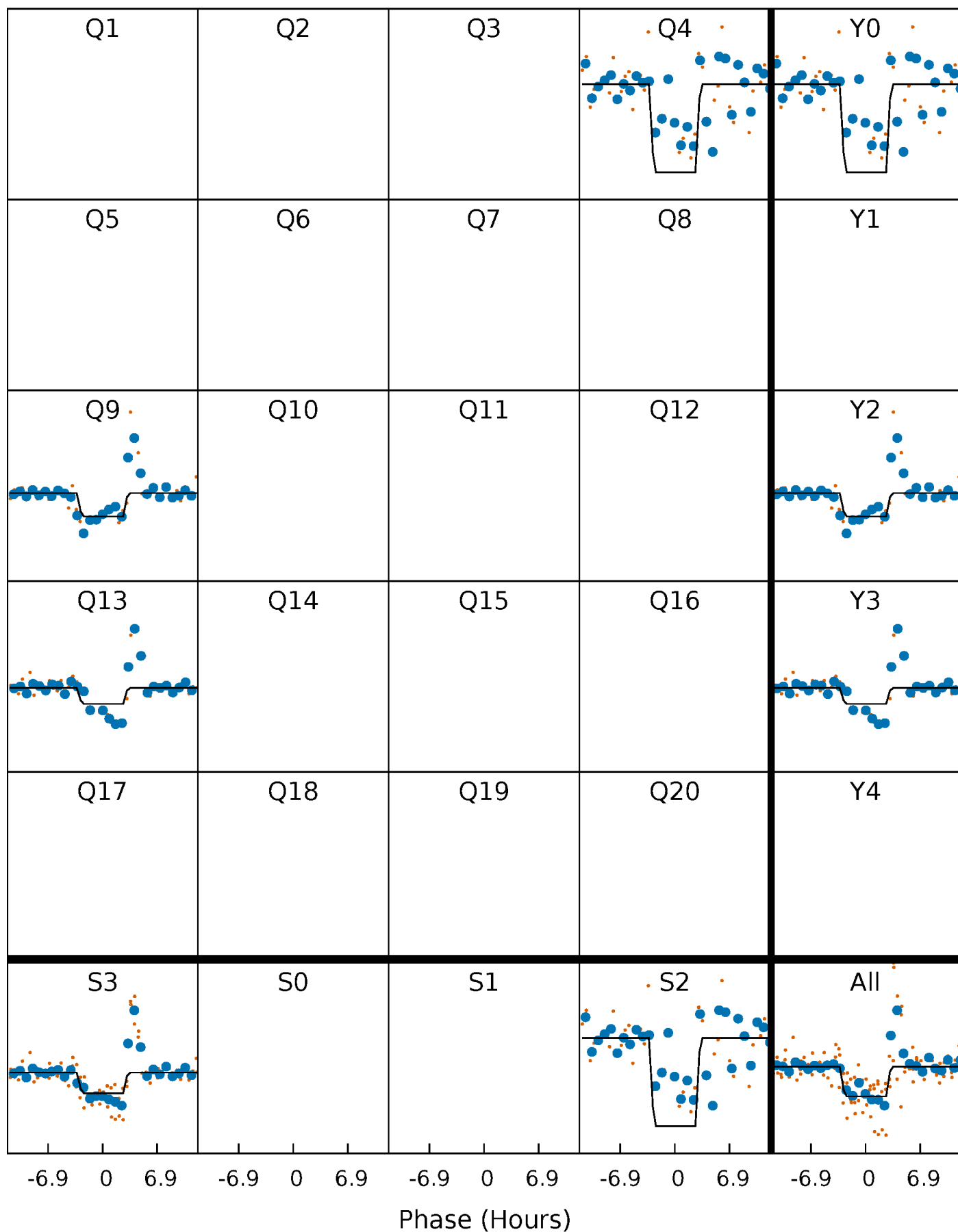
DV Quarter-Phased Transit Curves

TCE 008525265-01 P=403.998228 Days $T_0=415.814870$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

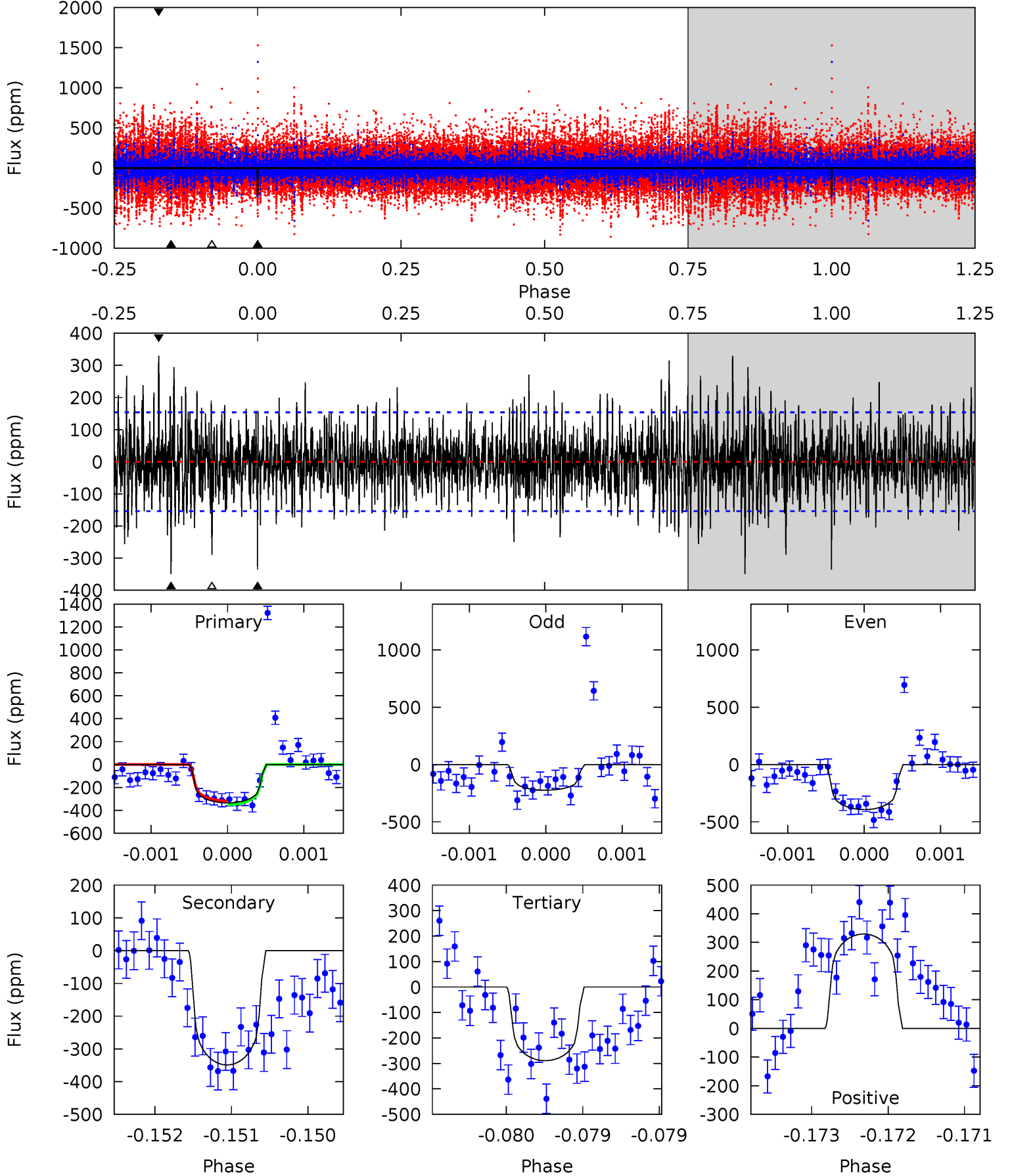
TCE 008525265-01 P=403.991915 Days $T_0=415.819050$ (BKJD)



DV Model-Shift Uniqueness Test

008525265-01, P = 403.998228 Days, E = 11.816642 Days

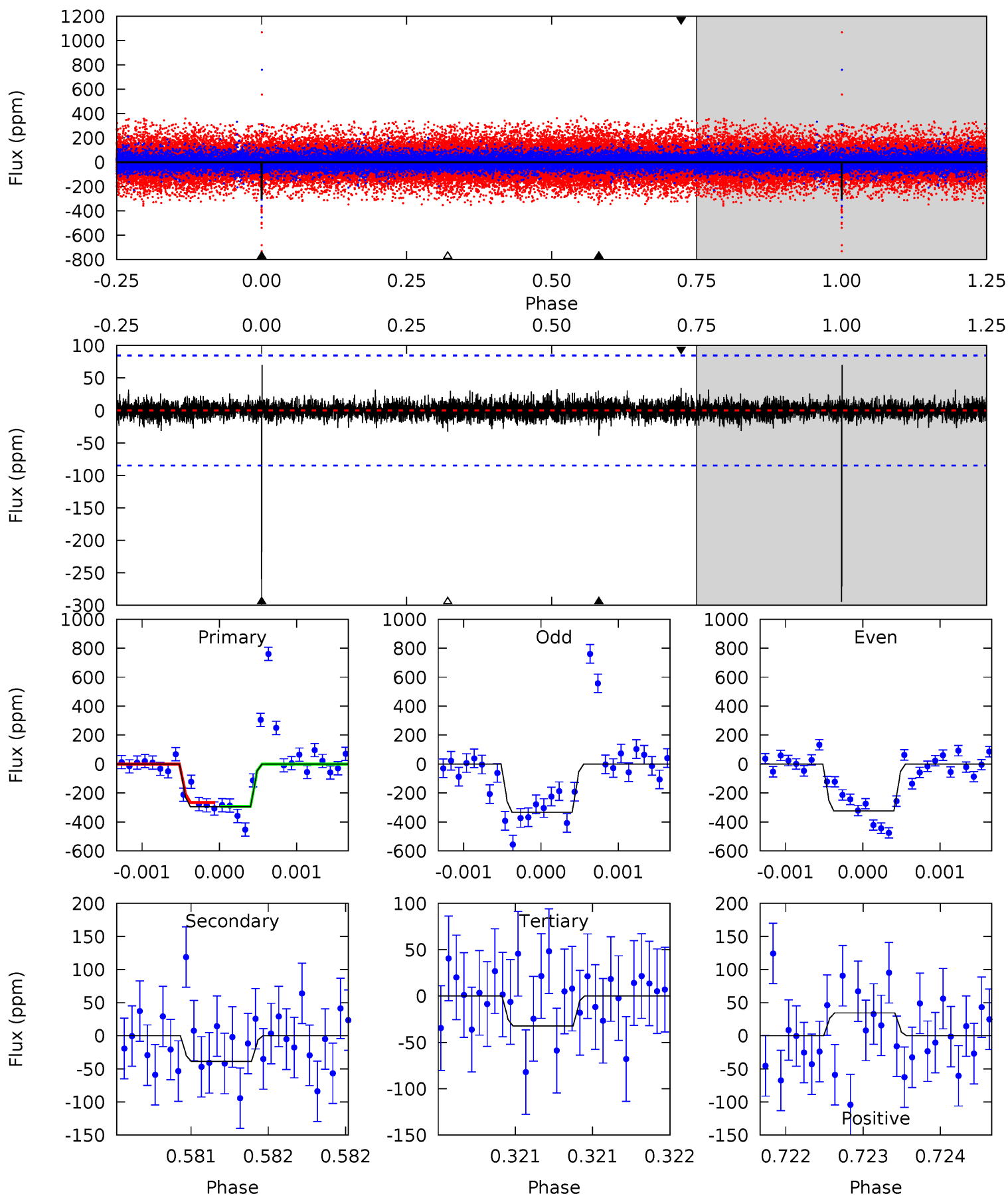
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	12.5	10.4	11.8	5.51	3.39	2.64	1.66	0.21	2.15	0.71	2.70	0.97	0.49	0.60



Alt Model-Shift Uniqueness Test

008525265-01, P = 403.991915 Days, E = 11.827135 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	2.54	2.11	2.25	5.53	3.41	0.49	17.1	17.0	0.42	0.29	0.29	1.00	0.19	0.88



Stellar Parameters For KIC 008525265

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5611^{+186}_{-186}	$4.398^{+0.128}_{-0.192}$	$-0.140^{+0.300}_{-0.300}$	$0.971^{+0.269}_{-0.166}$	$0.859^{+0.123}_{-0.076}$	$1.323^{+0.896}_{-0.658}$
	+3%/-3%	+3%/-4%	+214%/-214%	+28%/-17%	+14%/-9%	+68%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008525265-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-349 ± 28	$2.21^{+0.84}_{-0.76}$	341^{+27}_{-20}	5426^{+1227}_{-666}	41169^{+58043}_{-19514}
Alt.	-39 ± 15	$1.92^{+0.76}_{-0.73}$	340^{+25}_{-20}	3698^{+705}_{-420}	5831^{+10201}_{-3335}

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

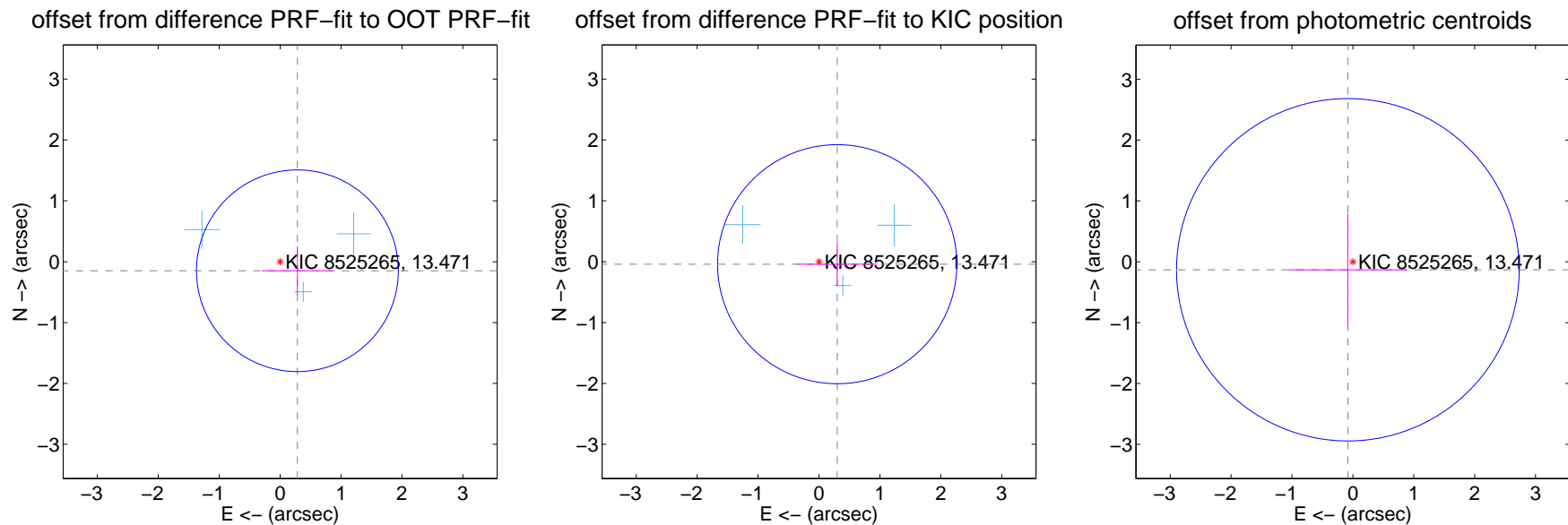
DV Centroid Data

Supplemental centroid analysis for 008525265-01. Kepler magnitude: 13.47. Transit SNR 7.20

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.321 ± 0.552	0.58	-0.284 ± 0.587	-0.149 ± 0.400
PRF-fit source offset from KIC position	0.302 ± 0.655	0.46	-0.299 ± 0.659	-0.041 ± 0.355
photometric centroid source offset	0.16 ± 0.94	0.17	0.08 ± 0.97	-0.13 ± 0.93



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

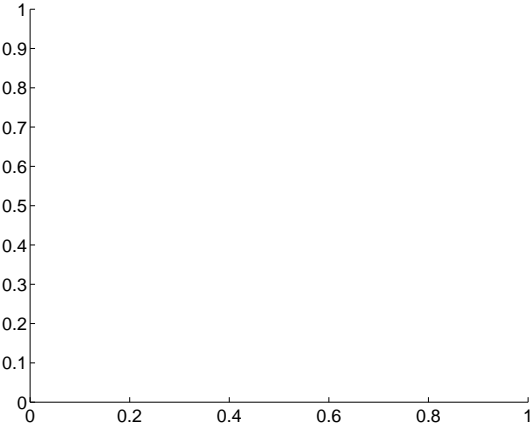
Q1 no difference image



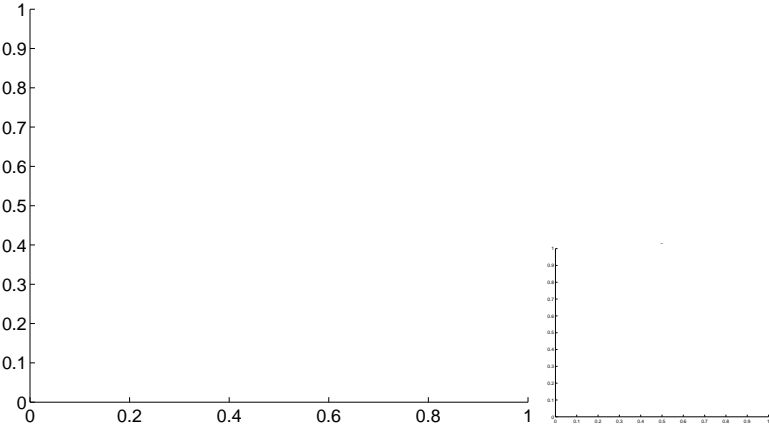
Q1 no OOT image



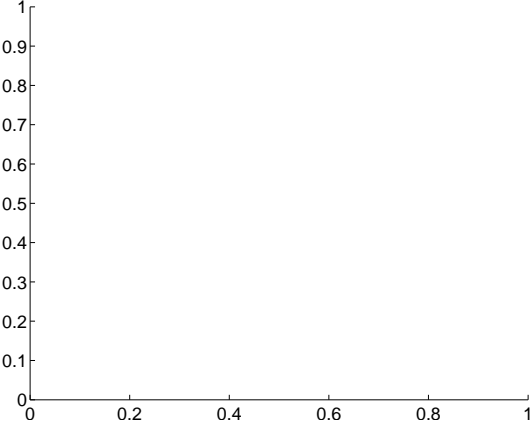
Q2 no difference image



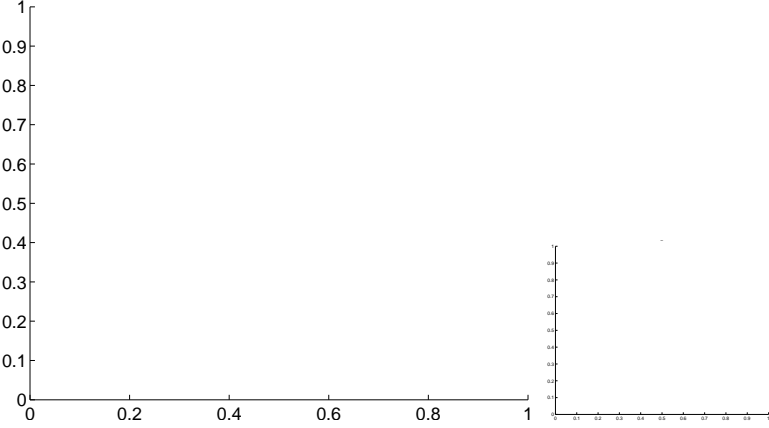
Q2 no OOT image



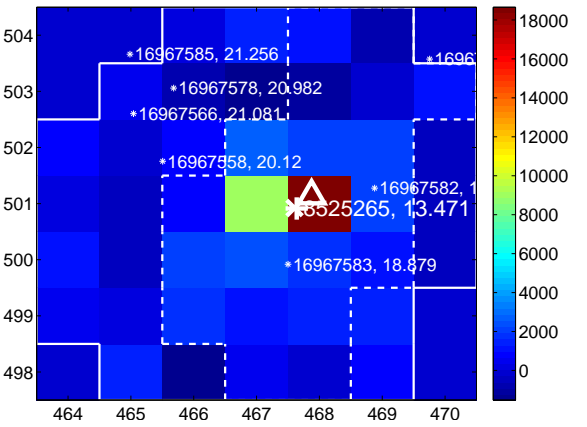
Q3 no difference image



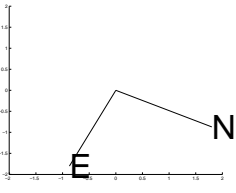
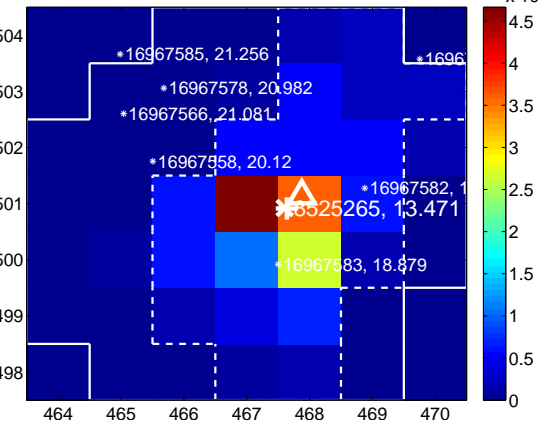
Q3 no OOT image



Q4 difference image



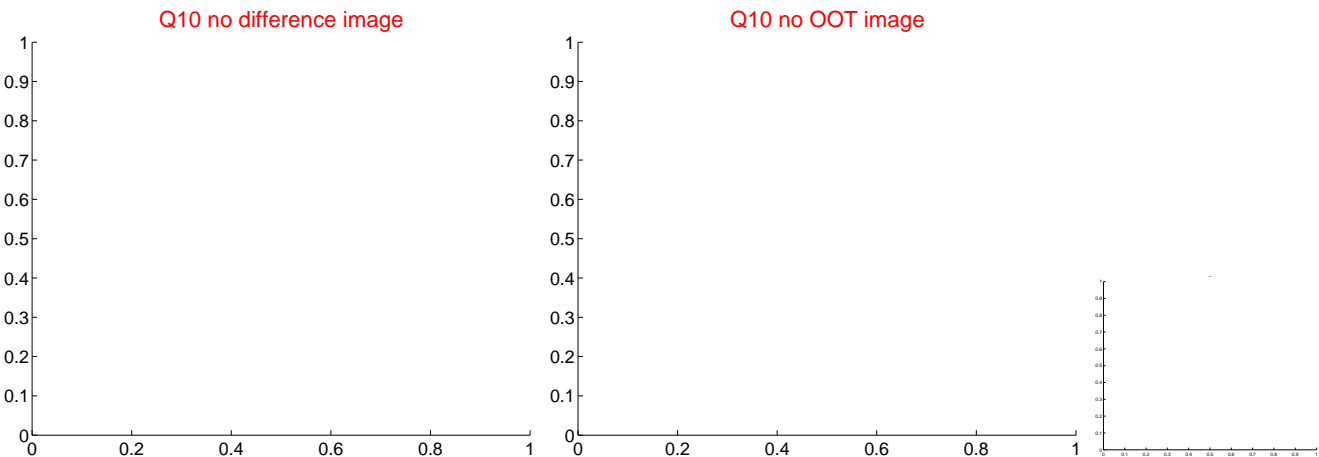
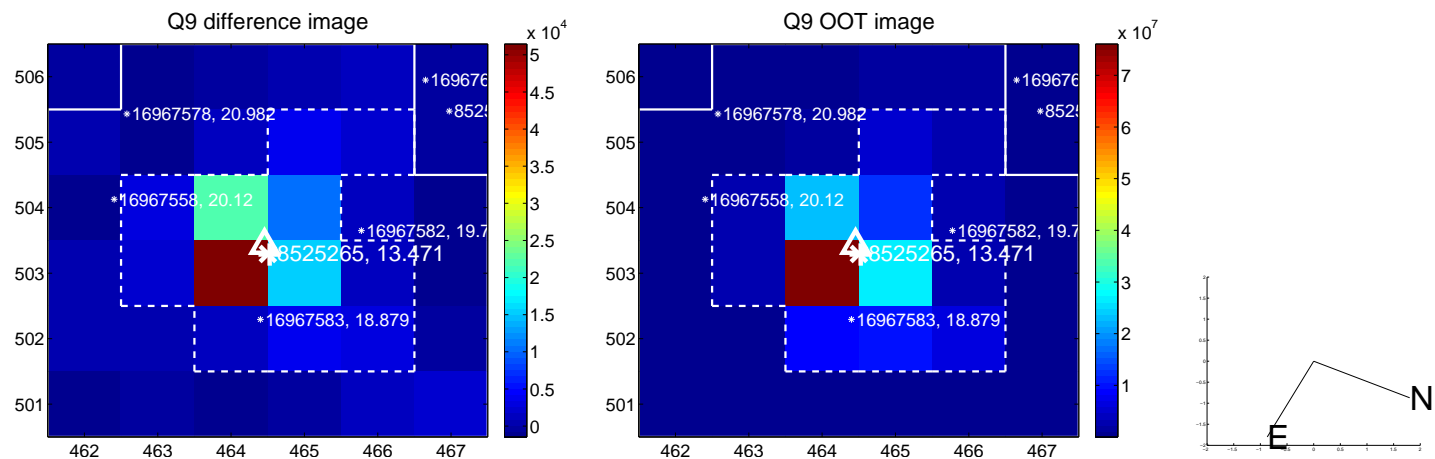
Q4 OOT image



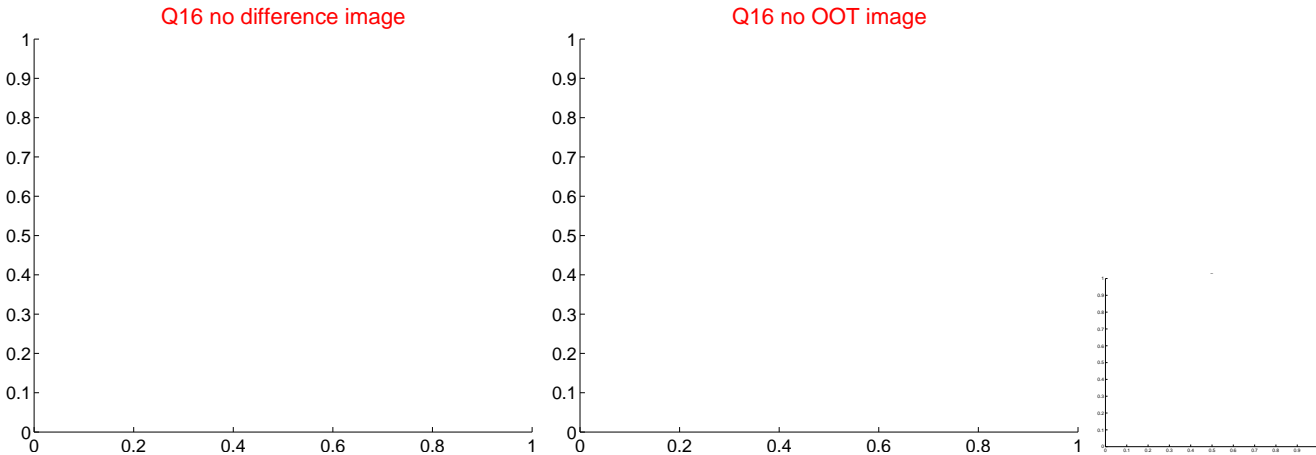
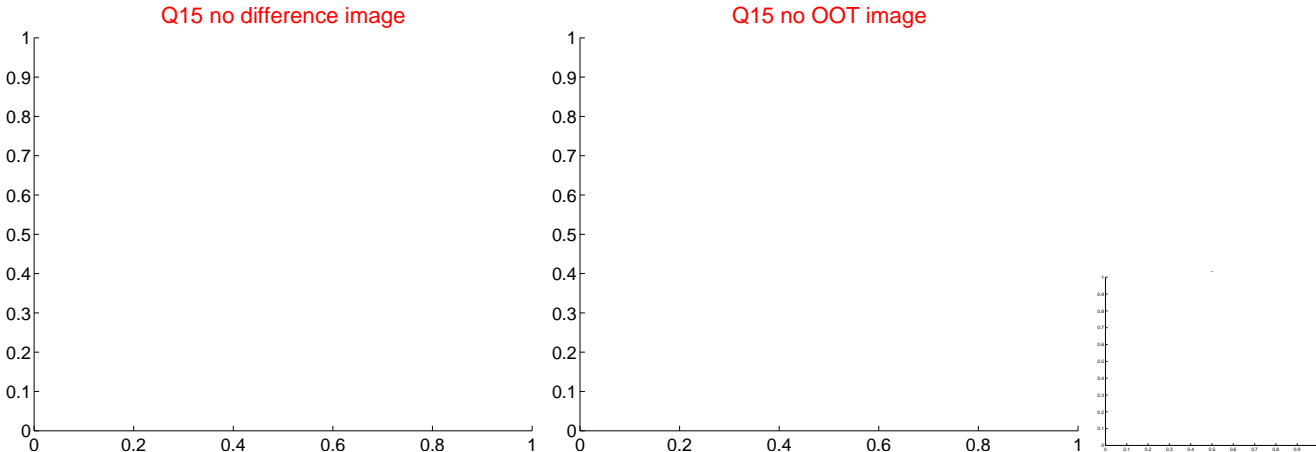
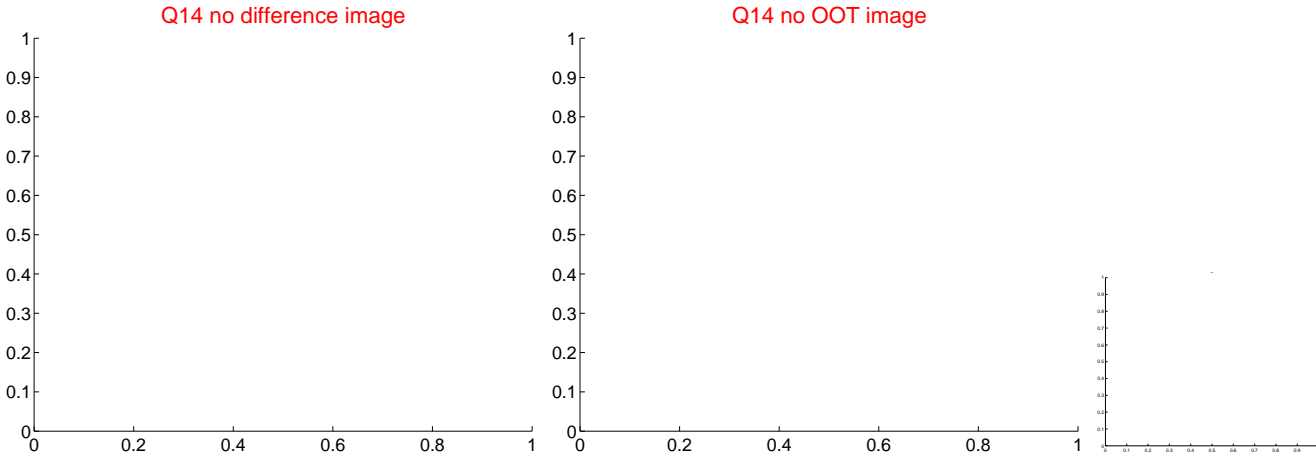
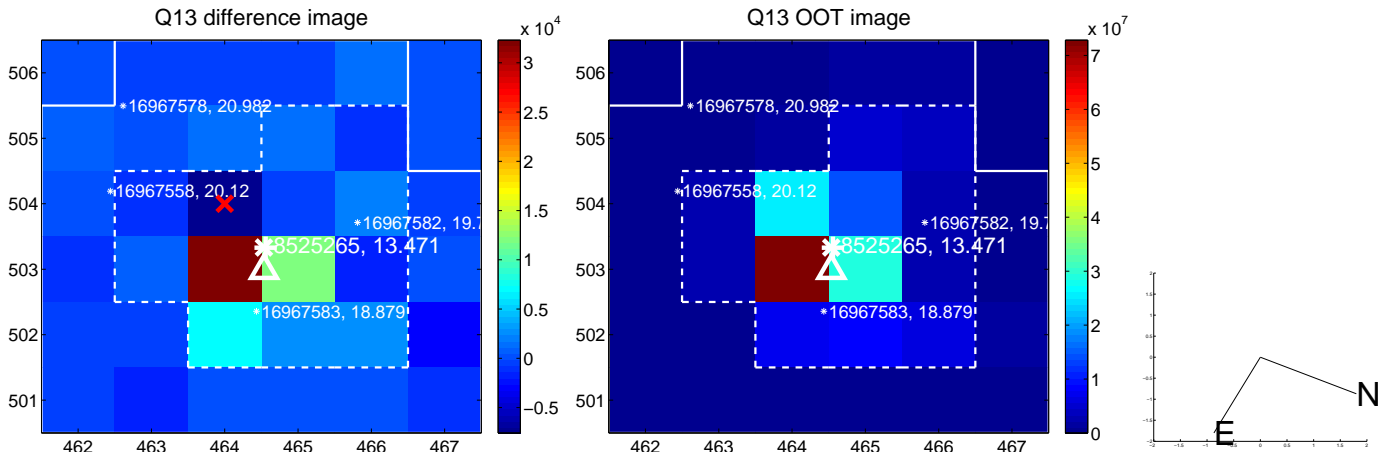
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



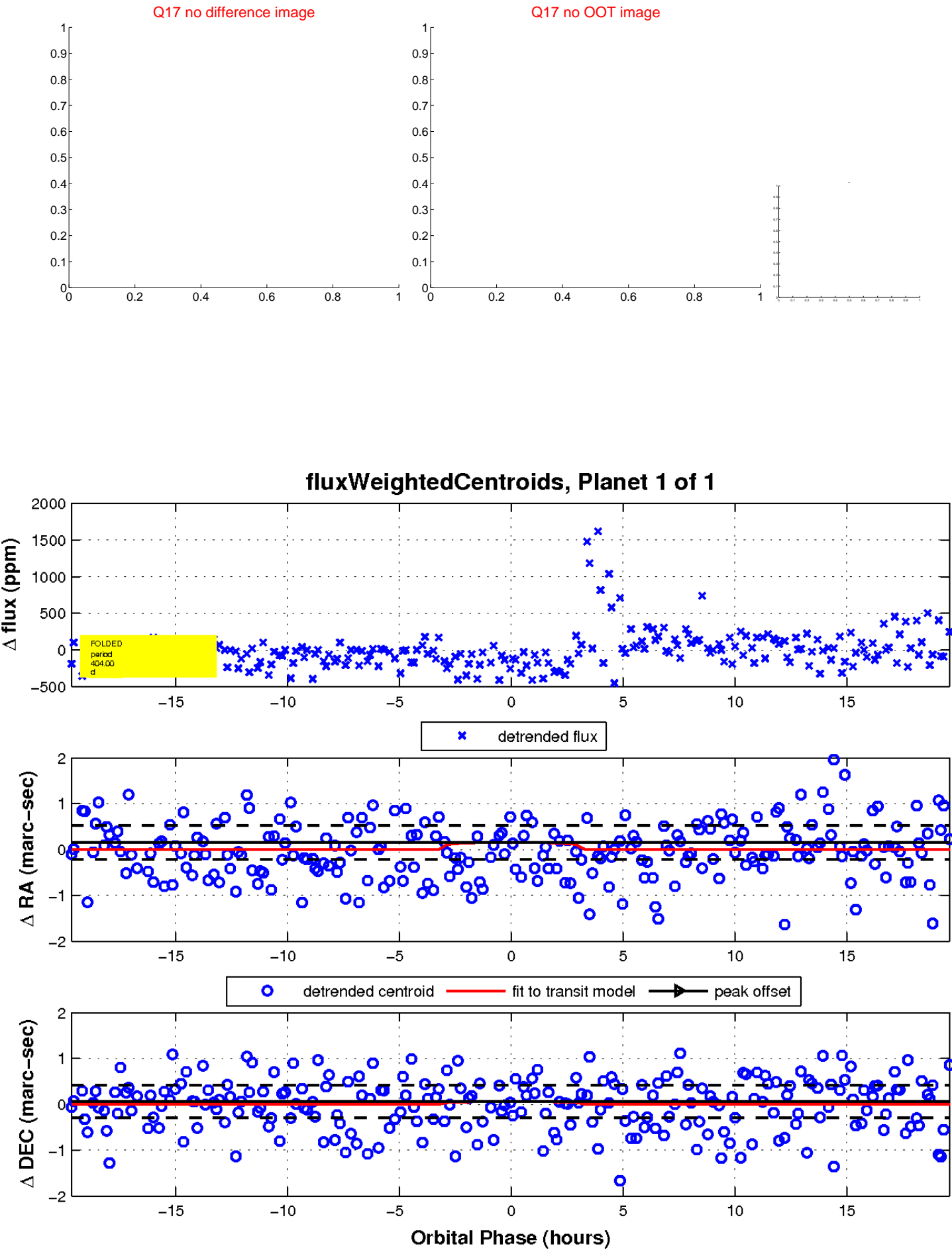
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

