

KIC 011242734

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})
011242734-01	OBS	No	434.959489	365.299724	110.3	4.832	10.8	3.3	13.49	4181	13.57	40.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011242734-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

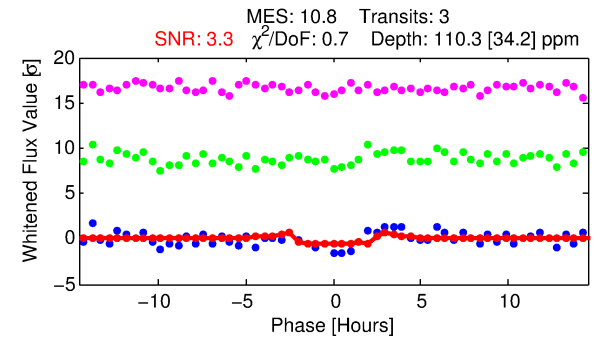
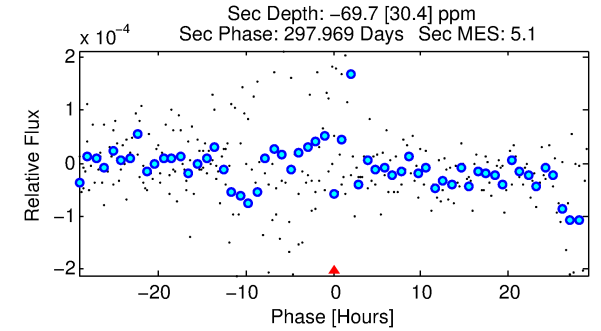
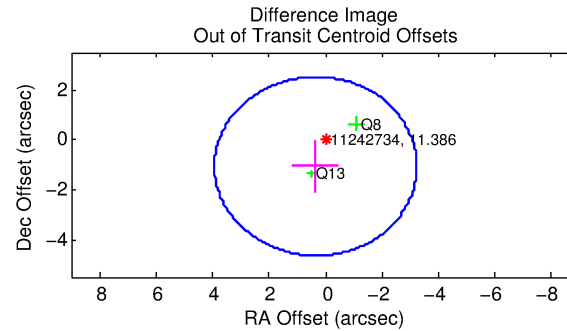
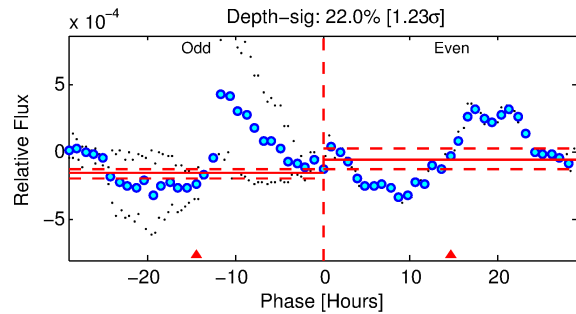
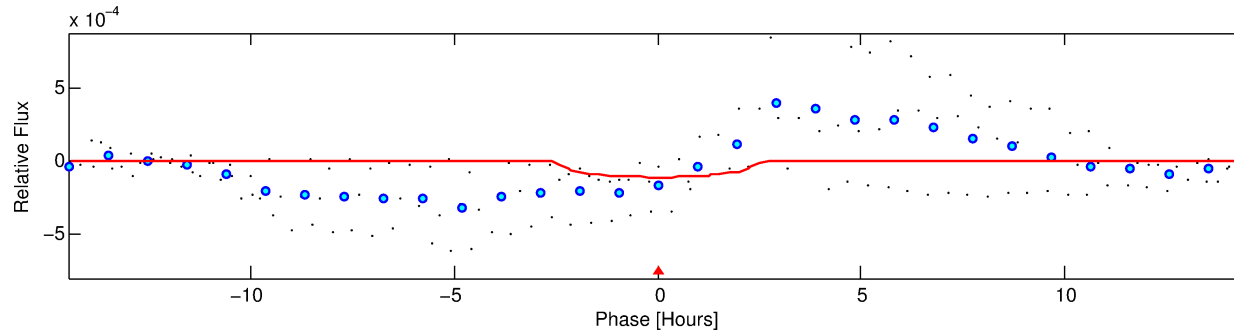
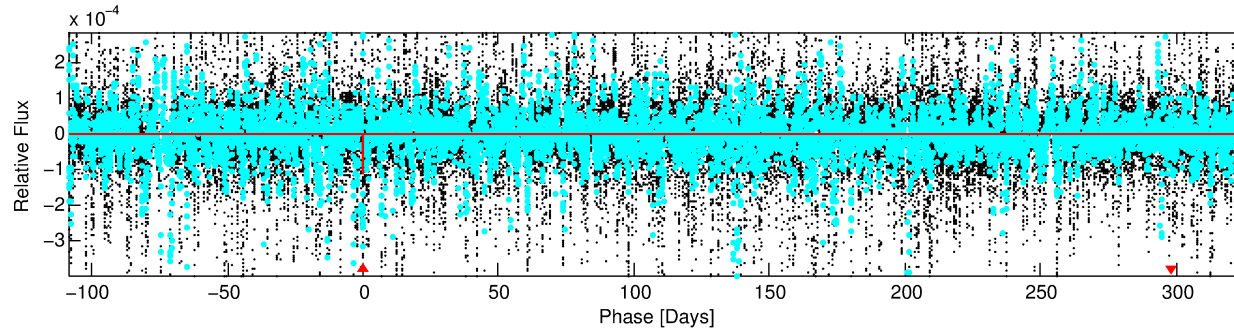
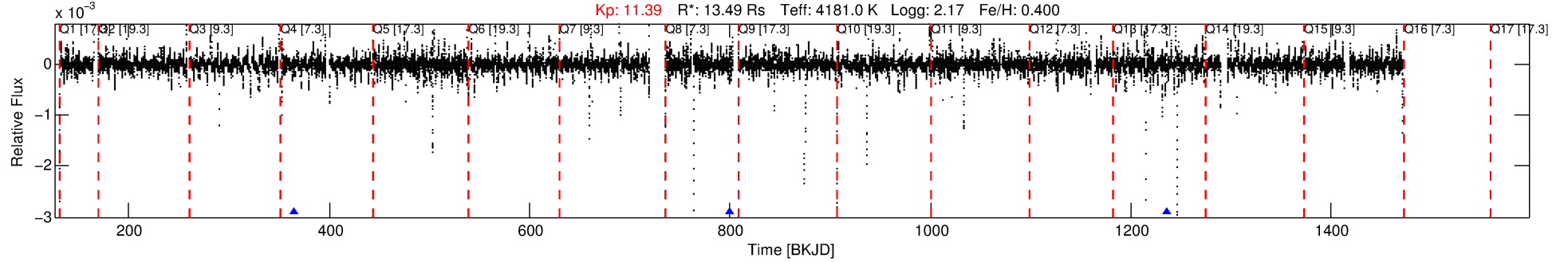
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011242734-01

No Significant Match Found

DV One-Page Summary

KIC: 11242734 Candidate: 1 of 1 Period: 434.959 d



DV Fit Results:

Period = 434.95949 [0.01231] d
Epoch = 365.2997 [0.0077] BKJD
Rp/R* = 0.0092 [0.0135]
a/R* = 658.67 [2460.50]
b = 0.32 [10.87]
Seff = 40.19 [23.23]
Teq = 642 [93] K
Rp = 13.57 [21.36] Re
a = 1.1135 [0.4798] AU
Ag = N/A
Teffp = N/A

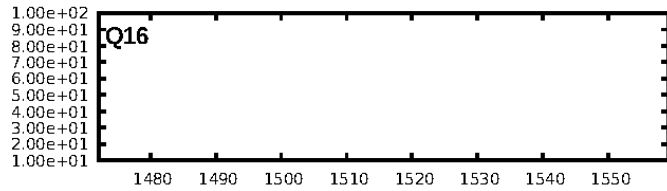
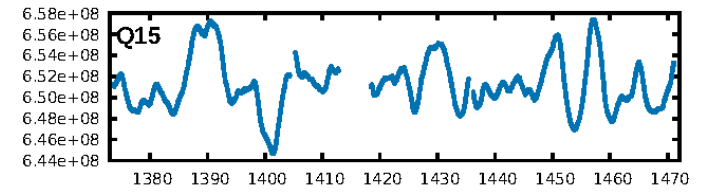
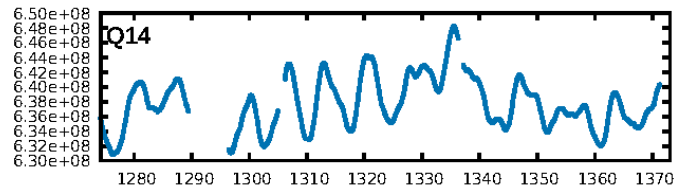
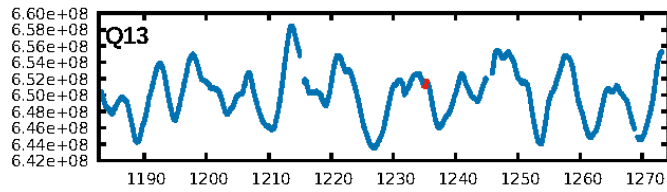
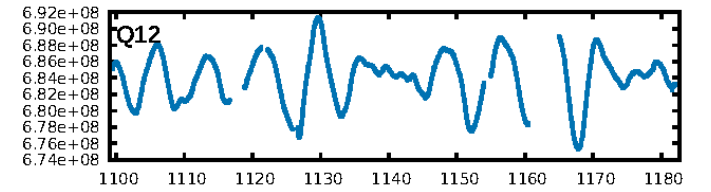
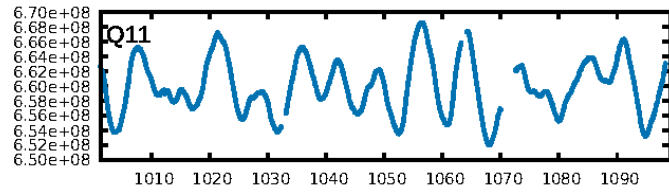
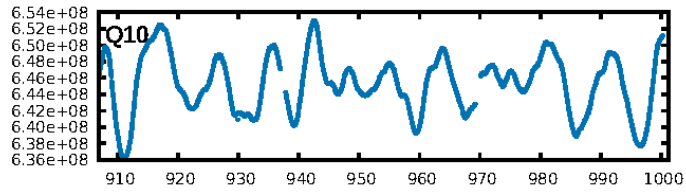
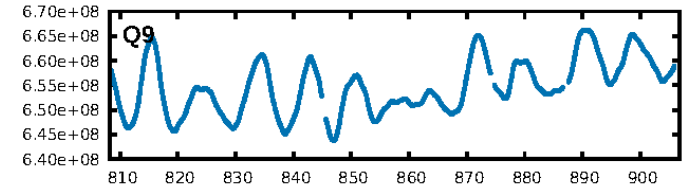
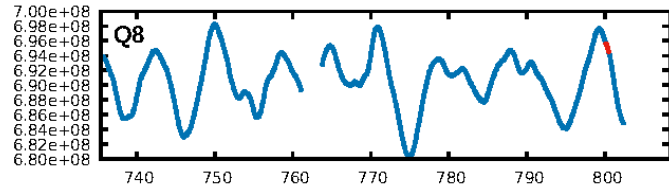
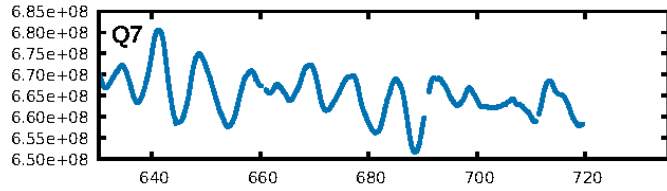
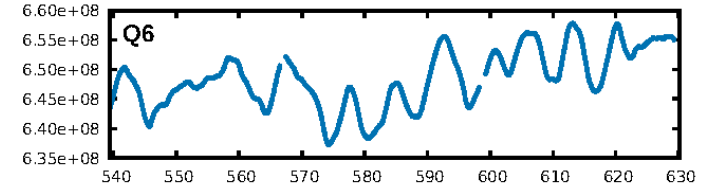
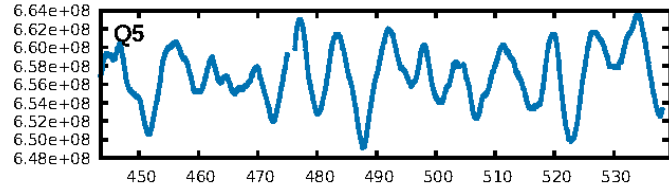
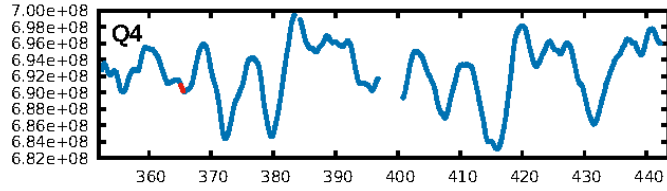
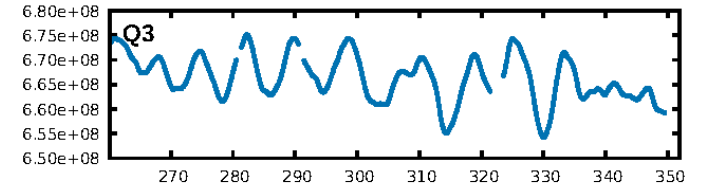
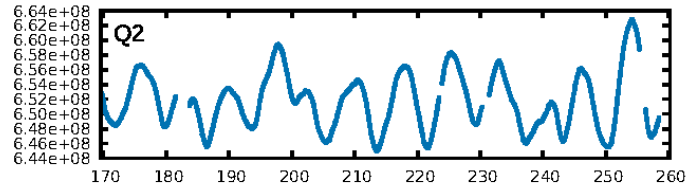
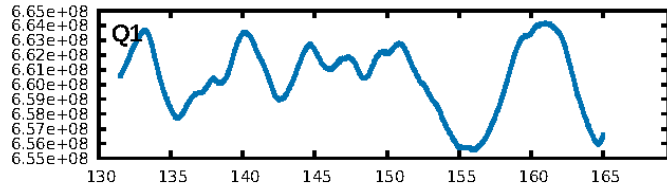
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 13.1%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 1.55e-06
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.3694
Centroid-sig: N/A
Centroid-so: 1.876 arcsec [0.66 σ]
OotOffset-rm: 1.121 arcsec [0.94 σ]
KicOffset-rm: 1.184 arcsec [1.49 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

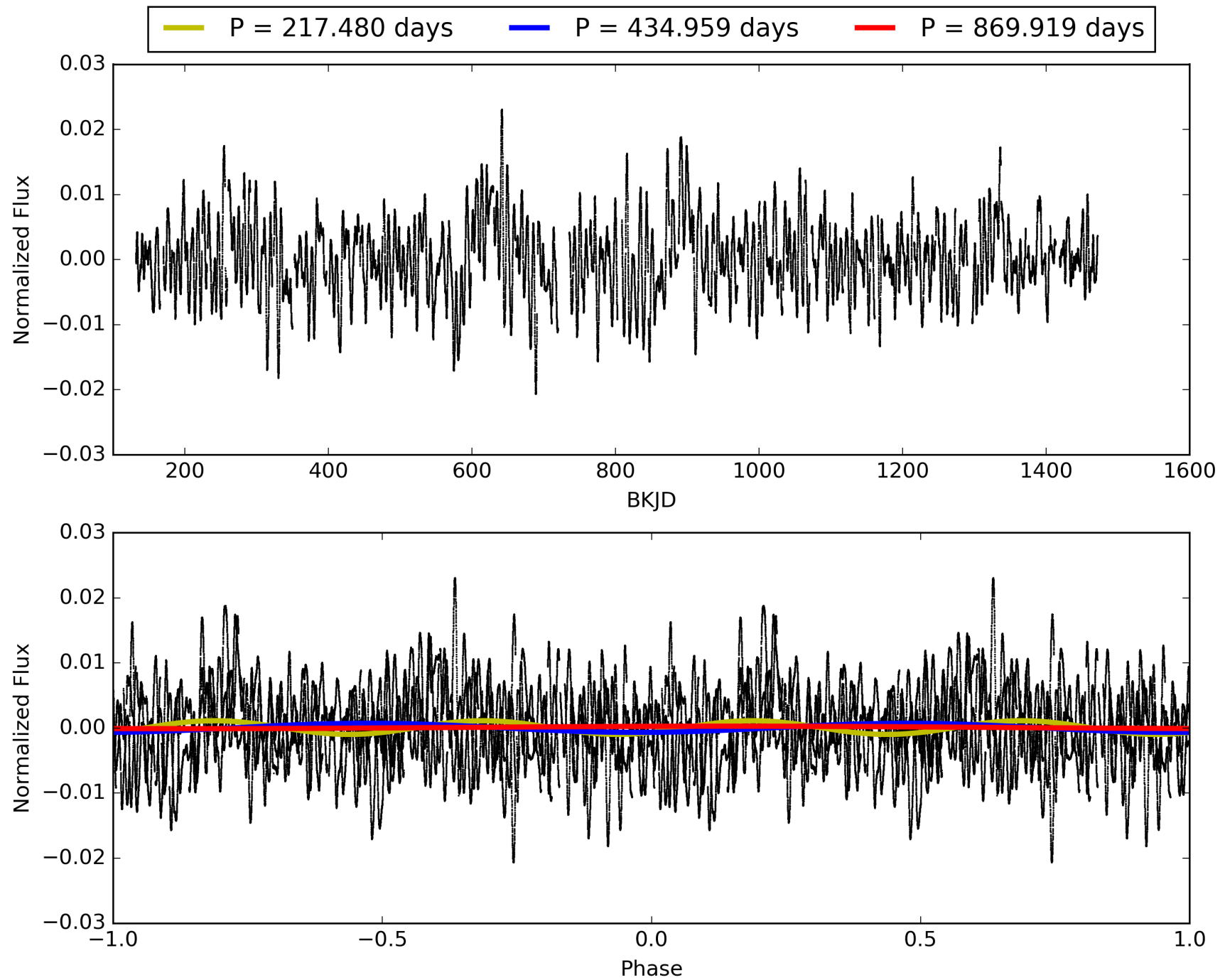
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:19:44 Z

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

TCE 011242734-01, PDC Light Curves

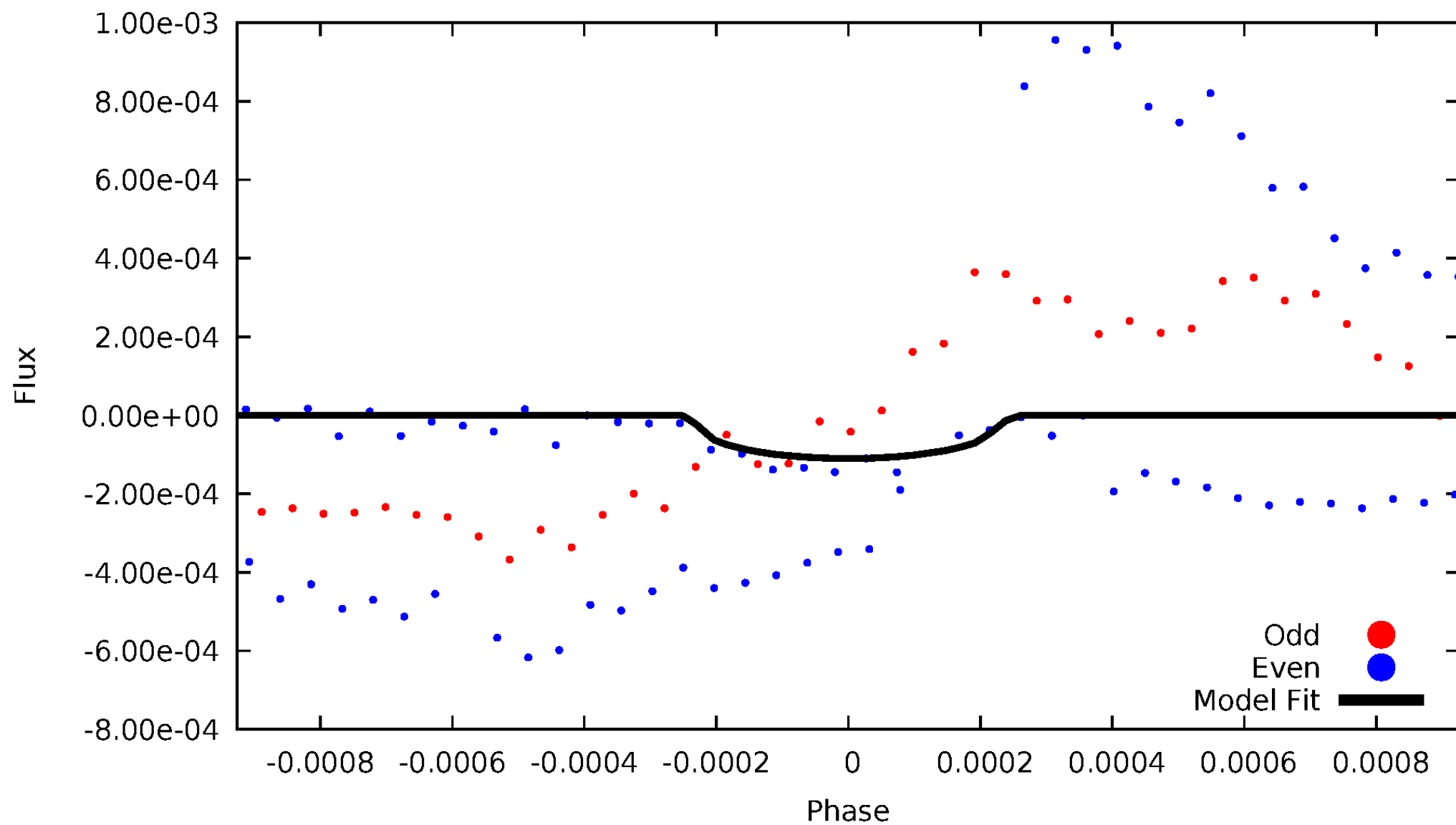


TCE 011242734-01



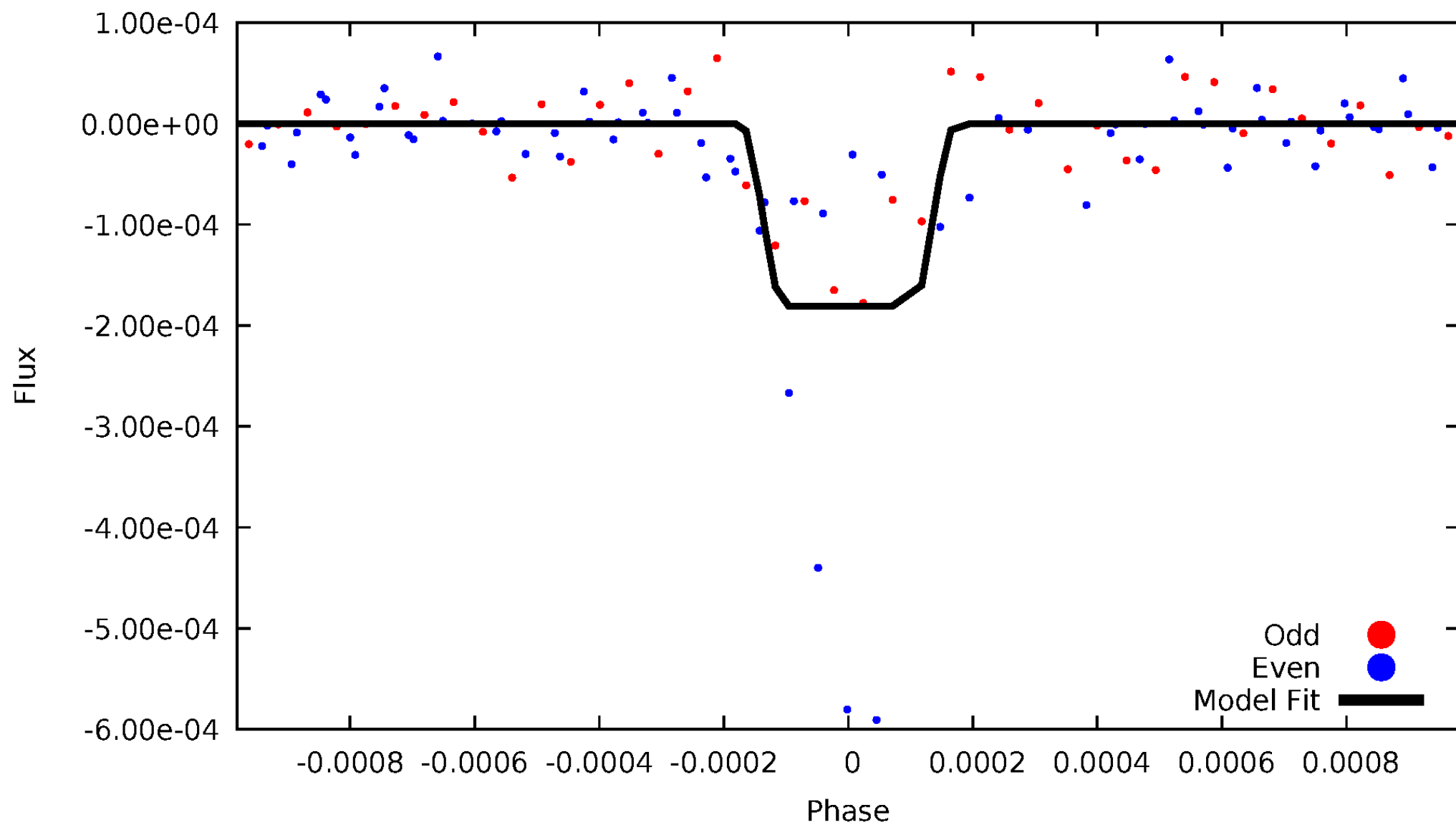
DV Odd/Even

TCE 011242734-01



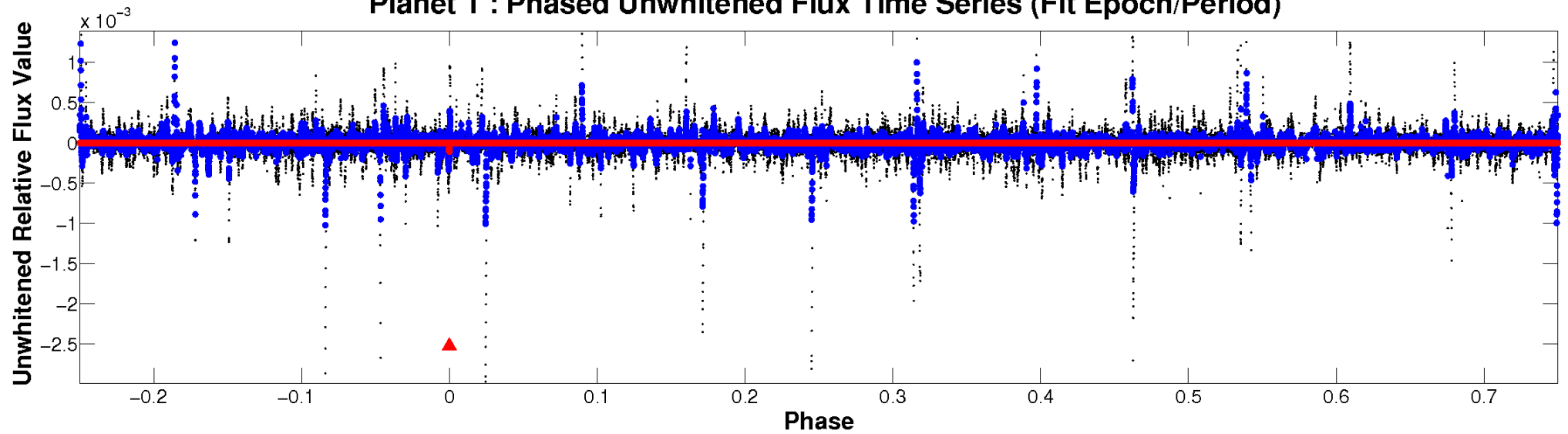
ALT Odd/Even

TCE 011242734-01

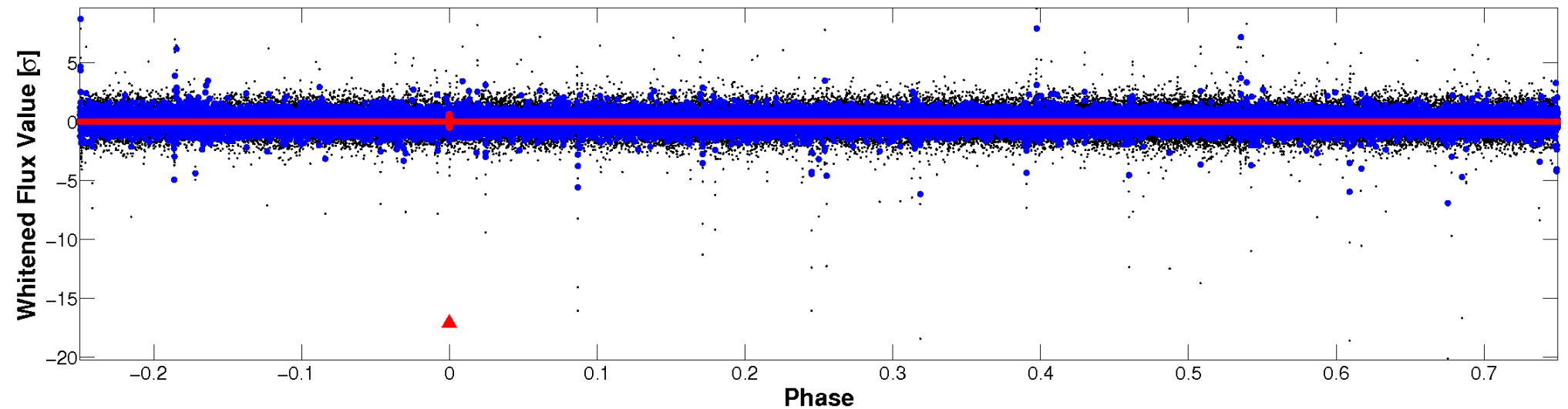


Non-Whitened Vs. Whitened Light Curve

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

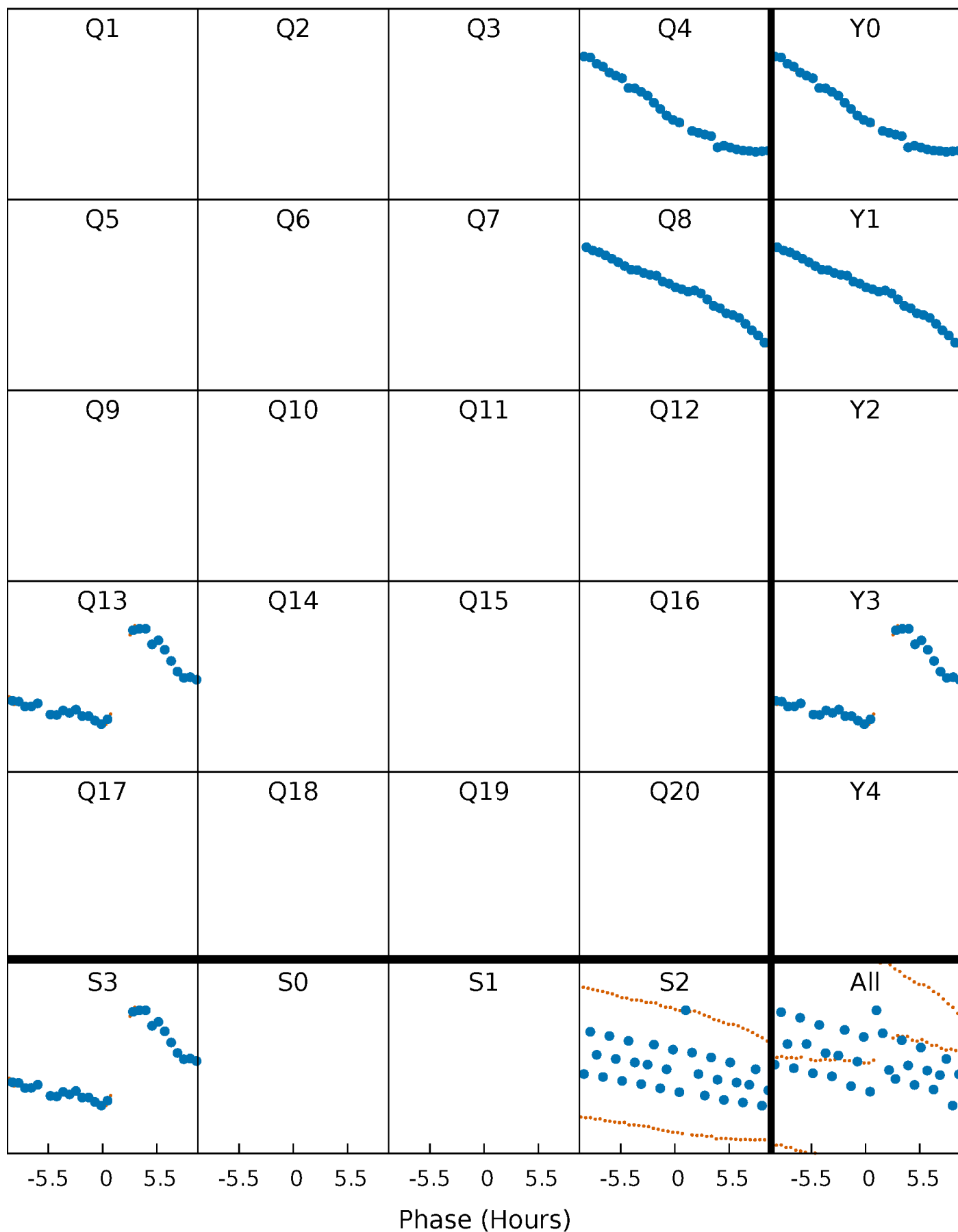


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



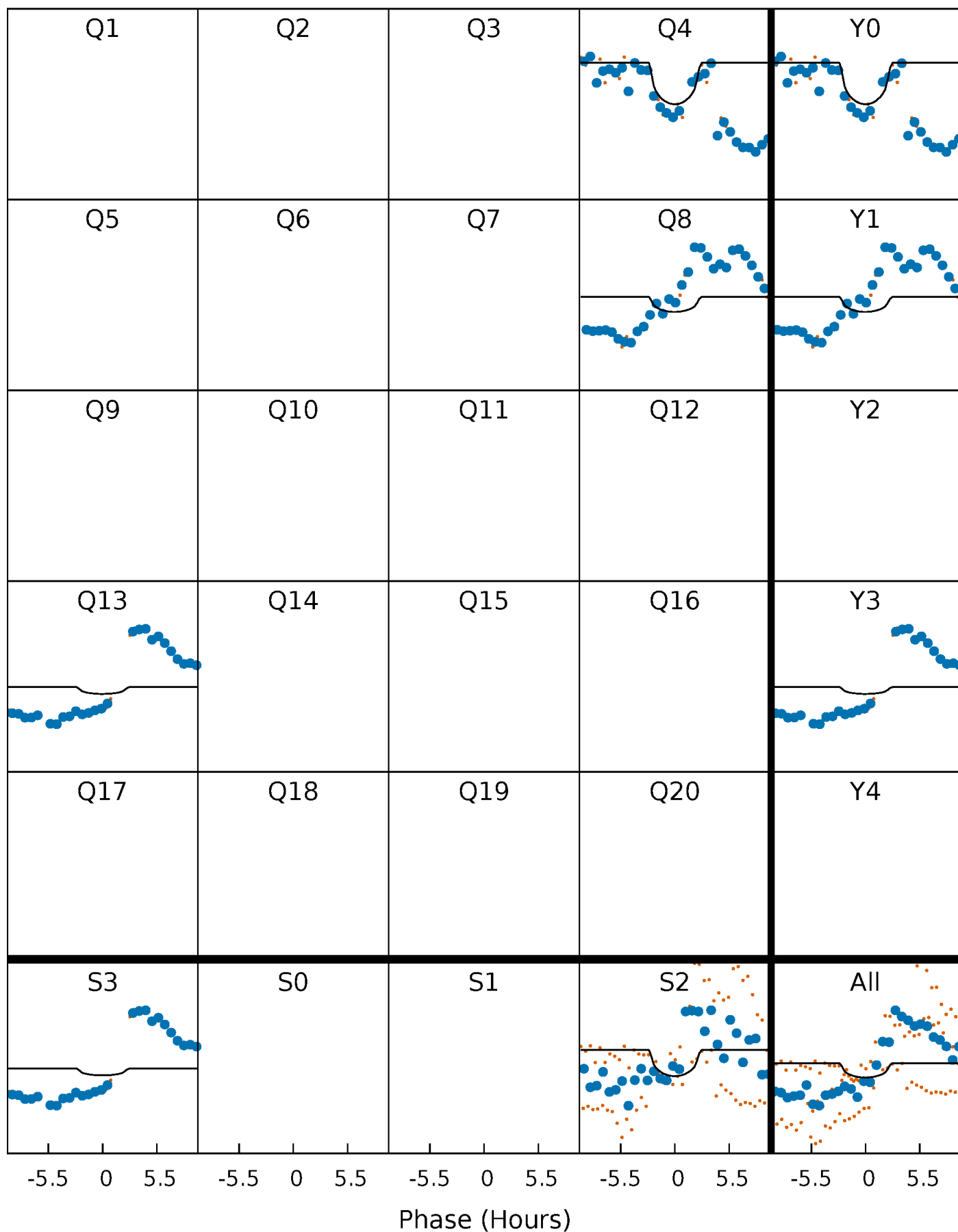
PDC Quarter-Phased Transit Curves

TCE 011242734-01 P=434.959489 Days $T_0=365.299725$ (BKJD)



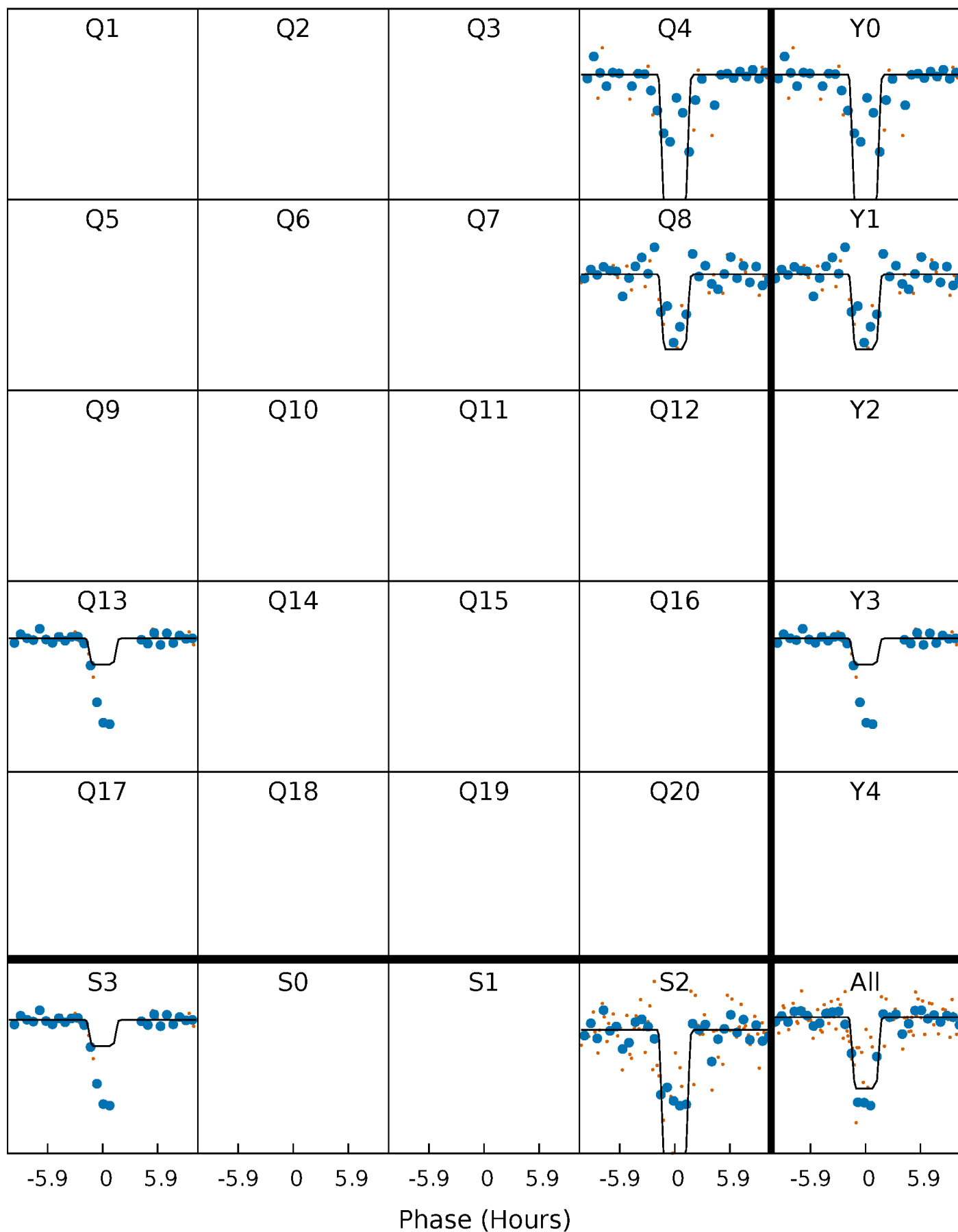
DV Quarter-Phased Transit Curves

TCE 011242734-01 P=434.959489 Days $T_0=365.299725$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

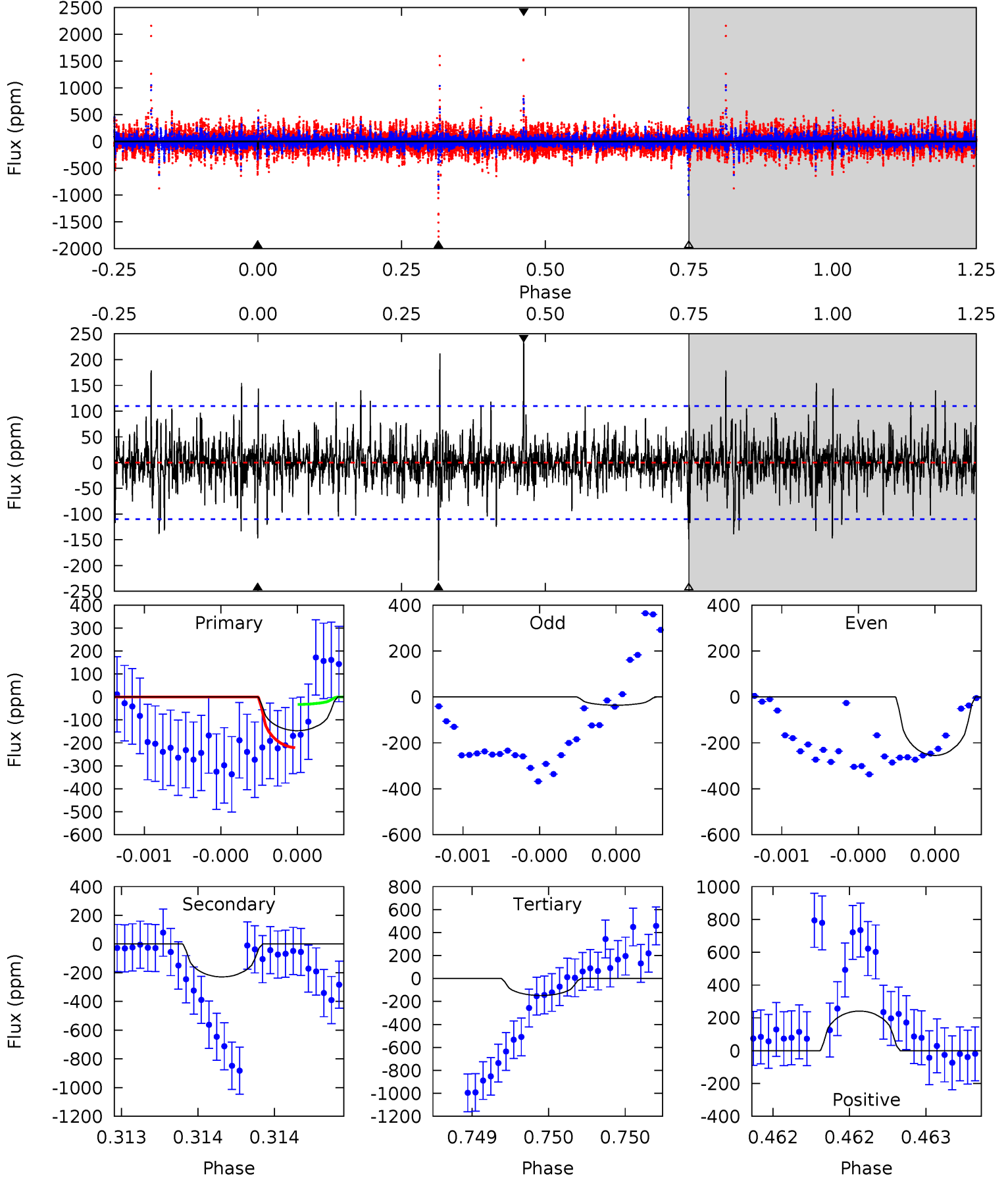
TCE 011242734-01 P=434.962380 Days $T_0=365.308444$ (BKJD)



DV Model-Shift Uniqueness Test

011242734-01, P = 434.959489 Days, E = 365.299725 Days

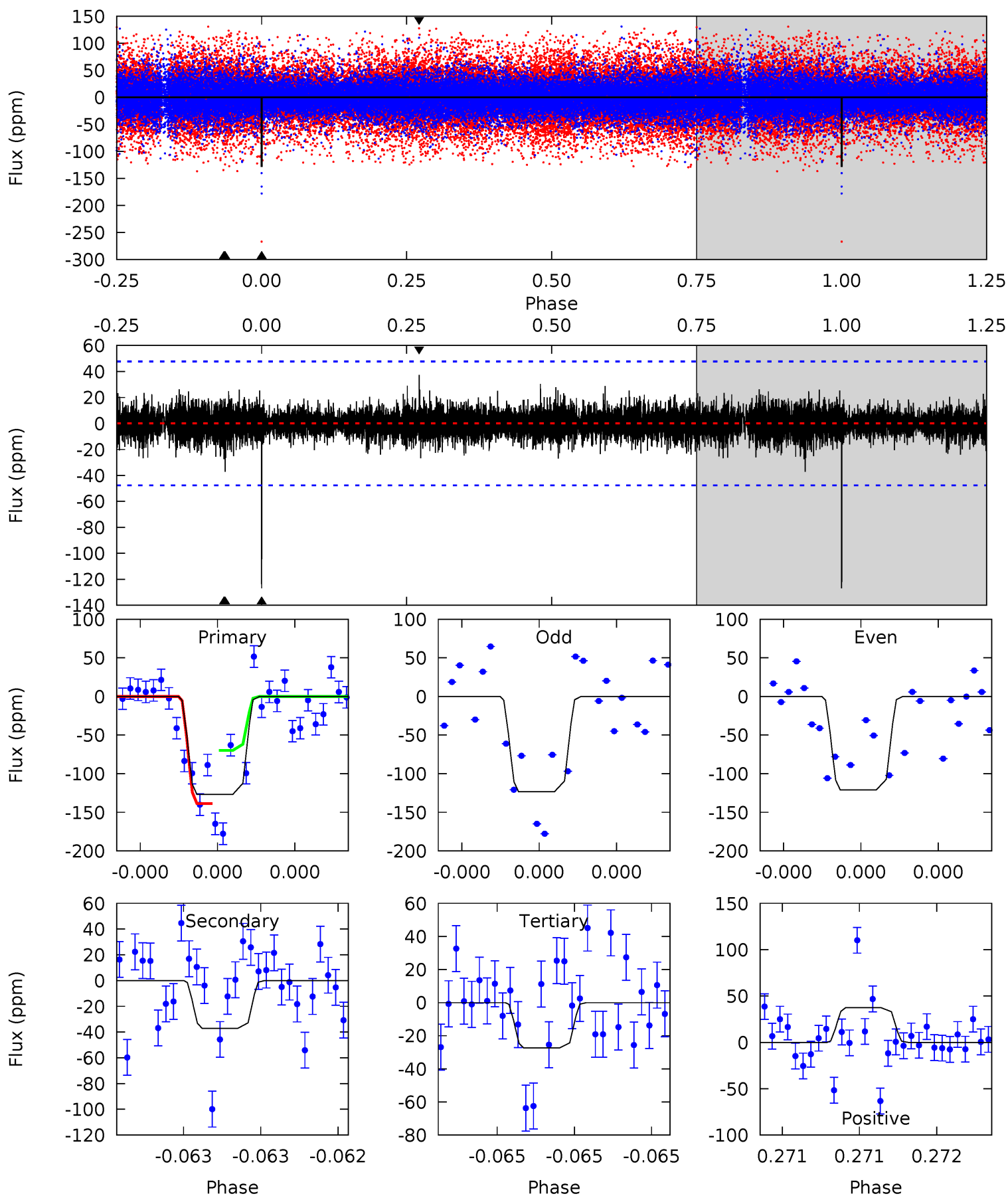
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.47	11.6	7.53	12.3	5.58	3.48	1.41	-0.07	-4.80	4.10	-0.63	3.86	1.23	0.51	4.76



Alt Model-Shift Uniqueness Test

011242734-01, P = 434.962380 Days, E = 365.308444 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	4.37	3.24	4.40	5.63	3.57	0.75	11.7	10.6	1.14	-0.03	0.13	1.78	0.23	0



Stellar Parameters For KIC 011242734

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4181^{+163}_{-88}	$2.166^{+0.265}_{-0.265}$	$0.400^{+0.050}_{-0.250}$	$13.490^{+7.687}_{-3.294}$	$0.974^{+0.492}_{-0.026}$	$0.001^{+0.001}_{-0.000}$
	+4%/-2%	+12%/-12%	+12%/-62%	+57%/-24%	+51%/-3%	+140%/-65%
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 011242734-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-229 ± 20	$18.85^{+19.64}_{-12.80}$	893^{+107}_{-77}	4461^{+3394}_{-939}	475^{+3919}_{-362}
Alt.	-37 ± 8	$24.66^{+20.48}_{-14.94}$	895^{+113}_{-86}	3062^{+1012}_{-458}	44^{+249}_{-32}

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

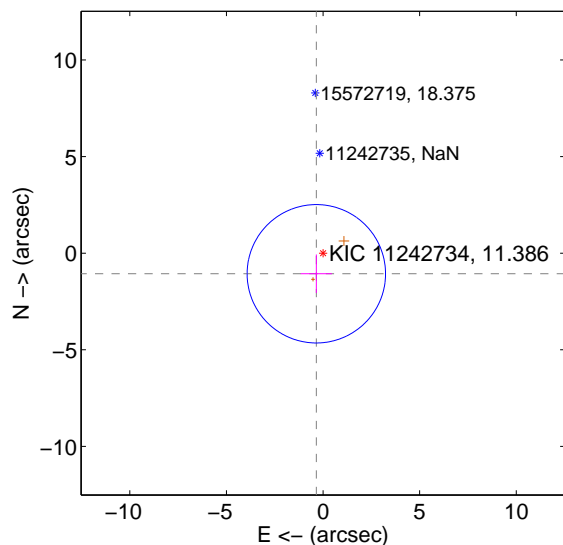
Supplemental centroid analysis for 011242734-01. **Kepler magnitude: 11.39.** Transit SNR 3.33

There are 0 quarters with good PRF difference image offsets

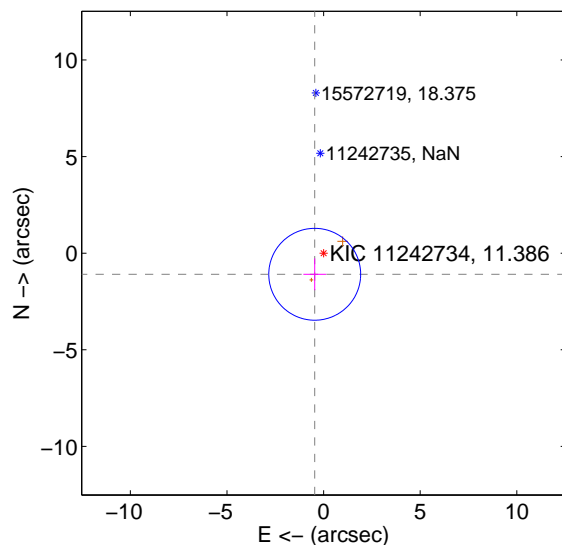
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.121 ± 1.194	0.94	0.347 ± 0.803	-1.066 ± 0.995
PRF-fit source offset from KIC position	1.184 ± 0.792	1.49	0.458 ± 0.589	-1.092 ± 0.823
photometric centroid source offset	1.88 ± 2.85	0.66	-0.70 ± 2.02	1.74 ± 2.97

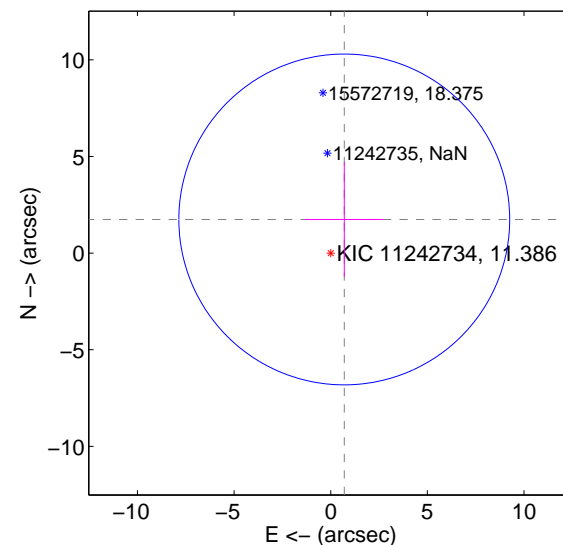
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

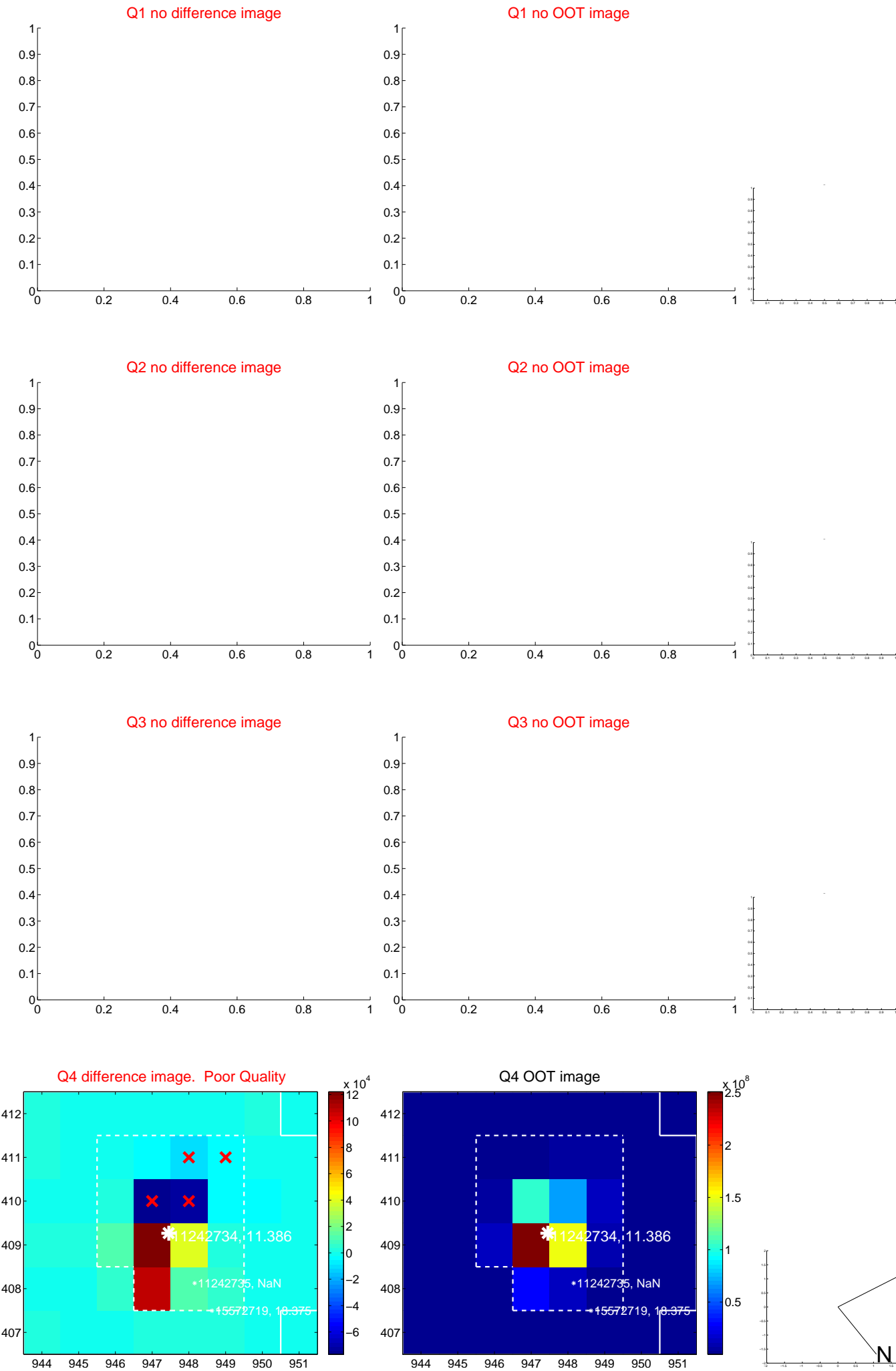


offset from photometric centroids

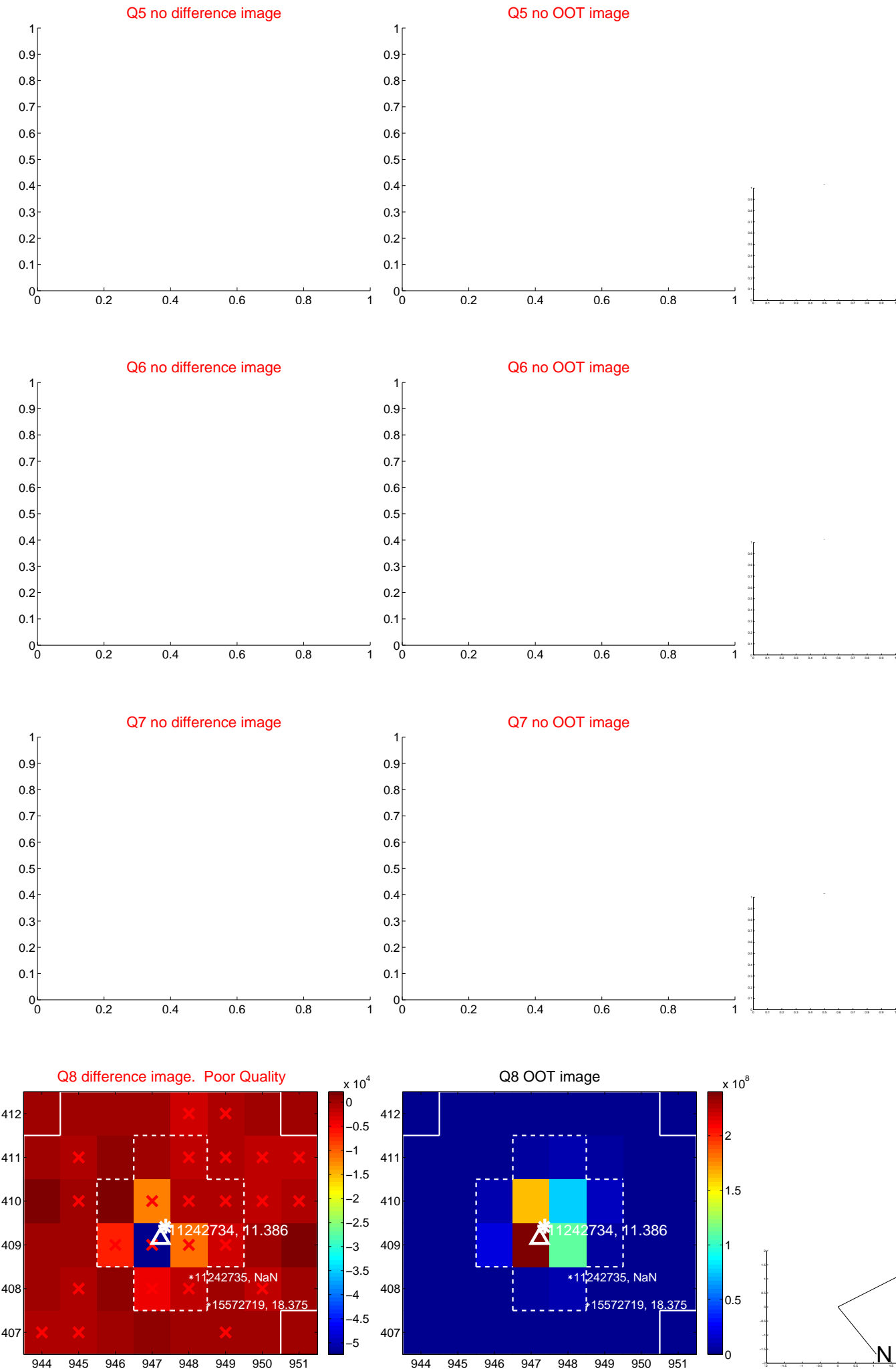


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



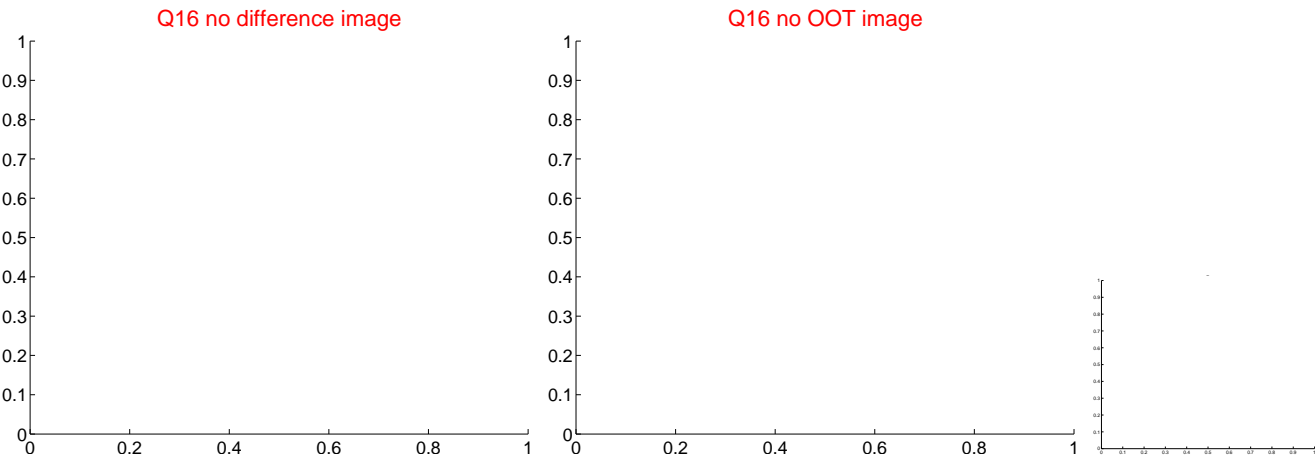
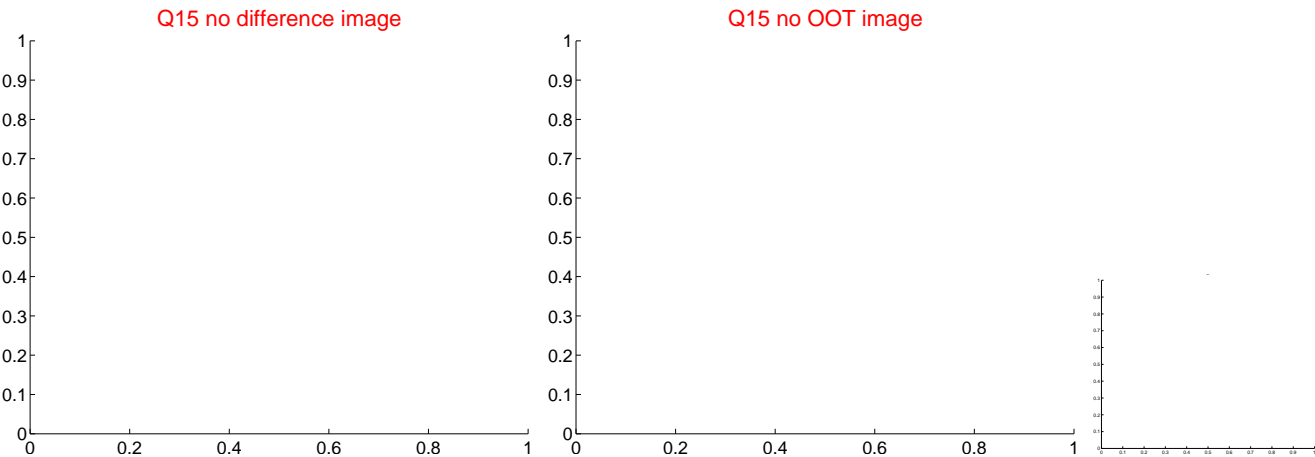
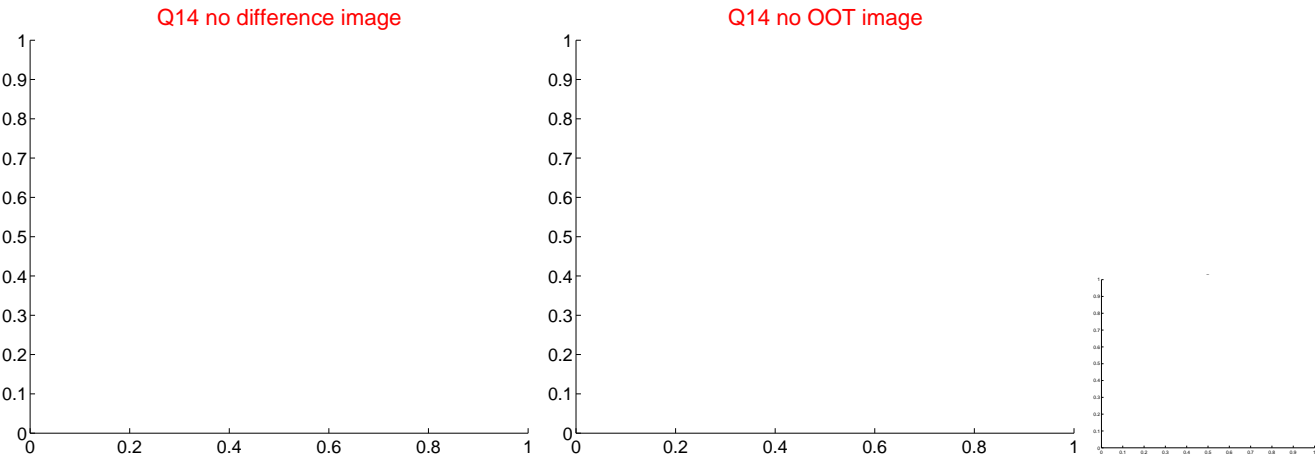
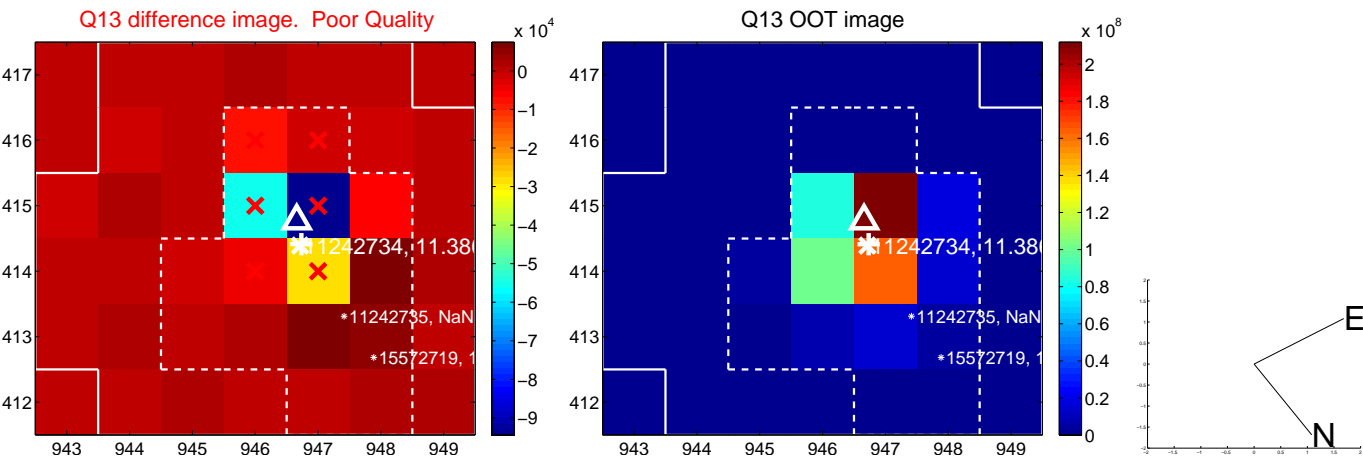
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



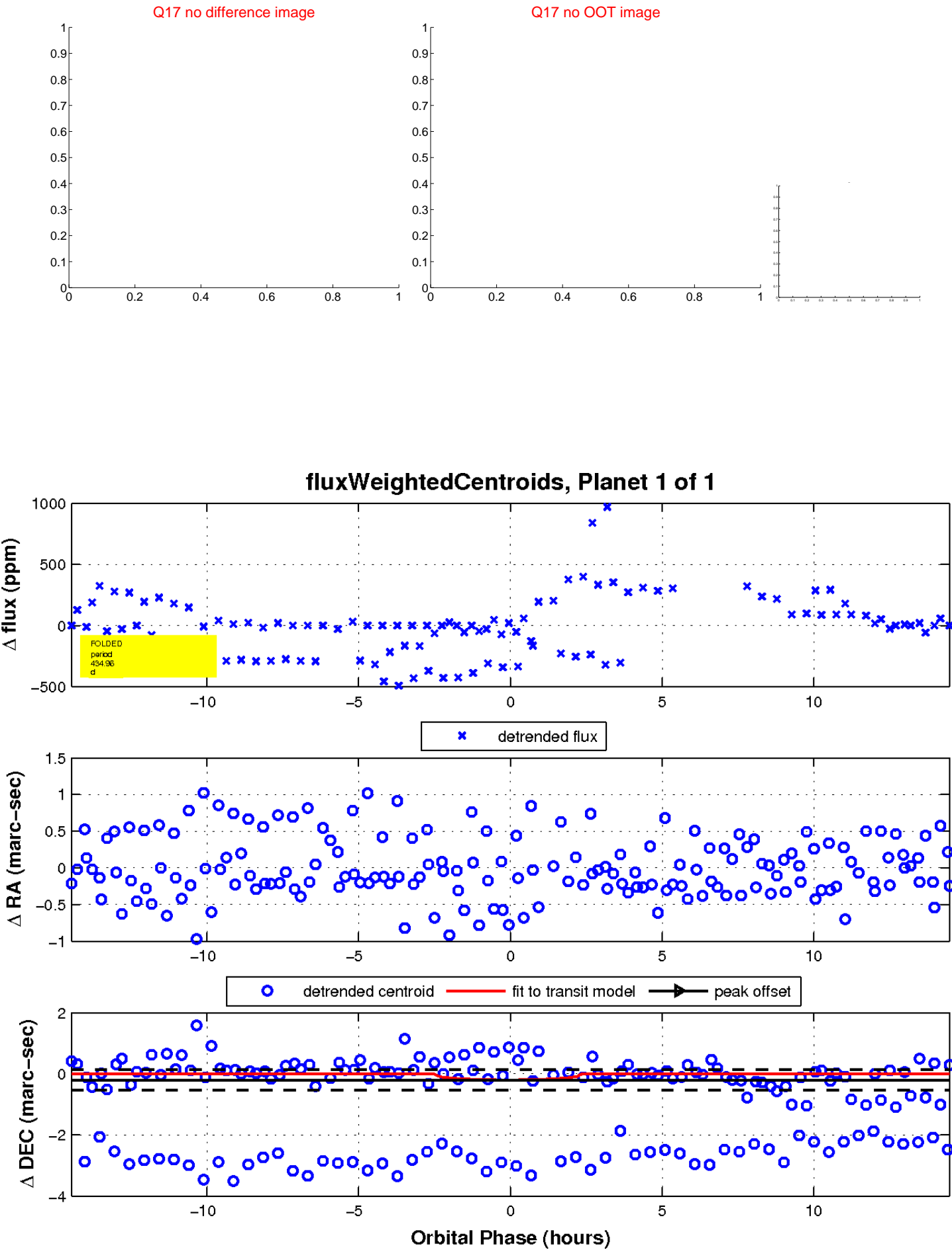
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white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

