

KIC 007377489

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})
007377489-01	OBS	No	617.520780	206.043971	4374.3	16.191	20.8	6.0	1.28	6927	9.28	1.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007377489-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV

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.

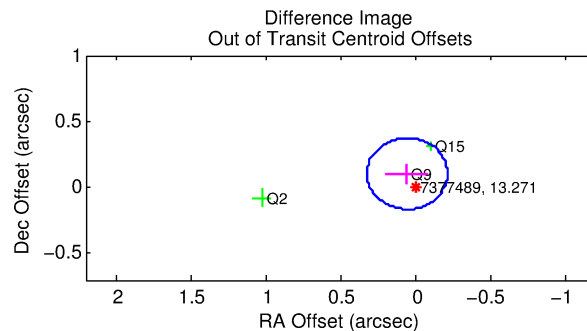
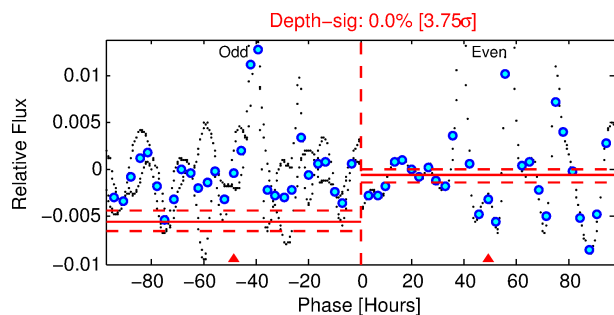
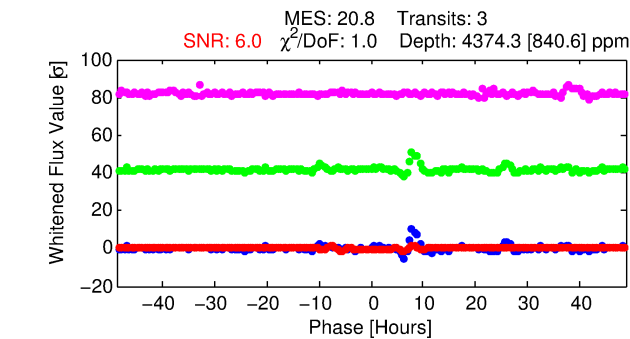
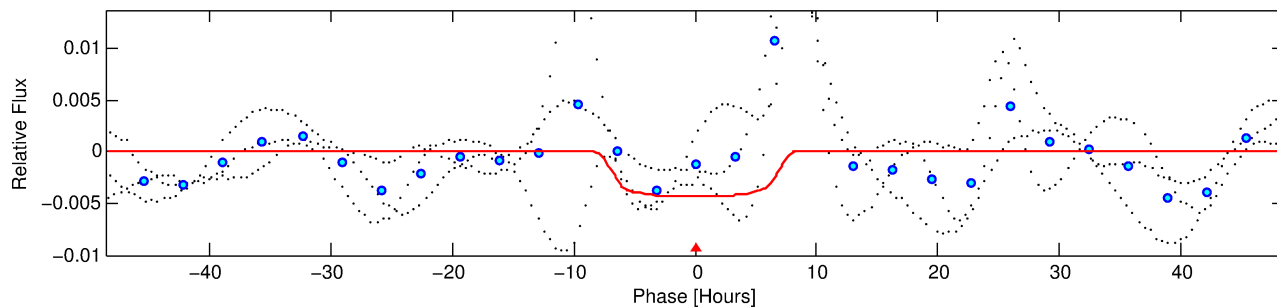
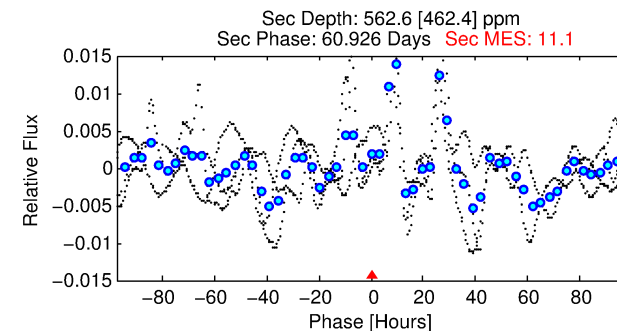
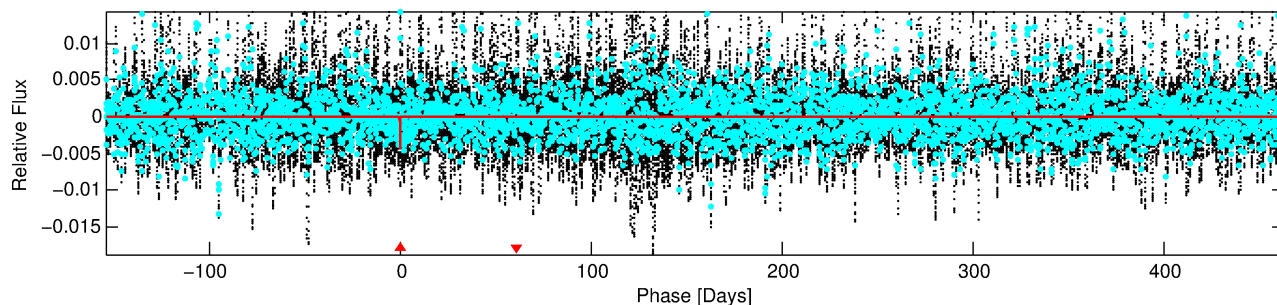
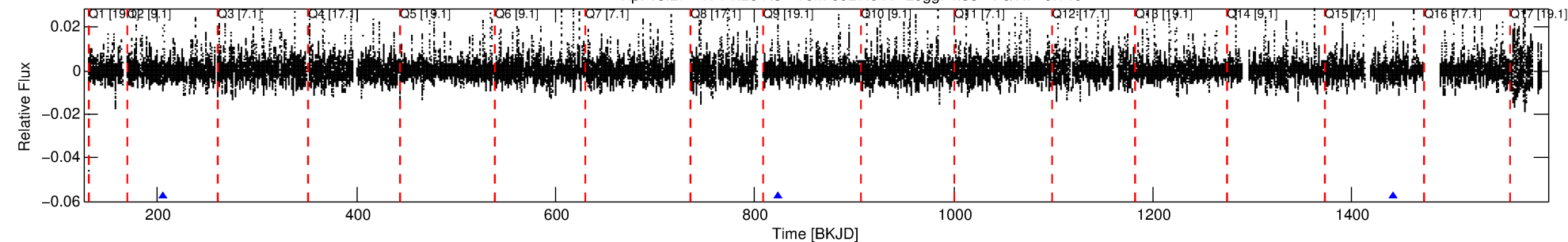
Ephemeris Match Information For 007377489-01

No Significant Match Found

DV One-Page Summary

KIC: 7377489 Candidate: 1 of 1 Period: 617.521 d

Kp: 13.27 R*: 1.28 Rs Teff: 6927.0 K Logg: 4.33 Fe/H: -0.140



DV Fit Results:

Period = 617.52078 [0.00436] d
Epoch = 206.0440 [0.0060] BKJD
Rp/R* = 0.0662 [0.0062]
a/R* = 215.15 [9.41]
b = 0.77 [0.02]
Seff = 1.43 [0.59]
Teq = 279 [29] K
Rp = 9.28 [3.26] Re
a = 1.5431 [0.4225] AU
Ag = 8553.52 [7923.01] [1.08σ]
Teff = 4146 [888] K [4.35σ]

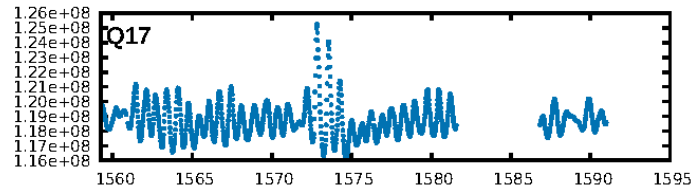
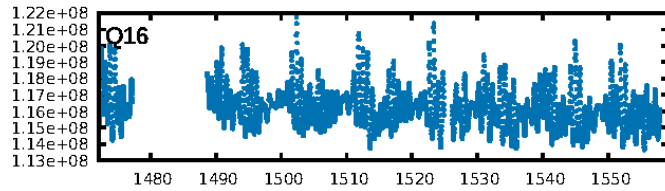
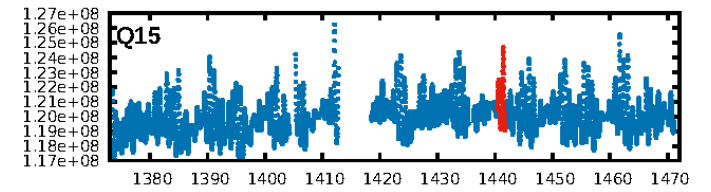
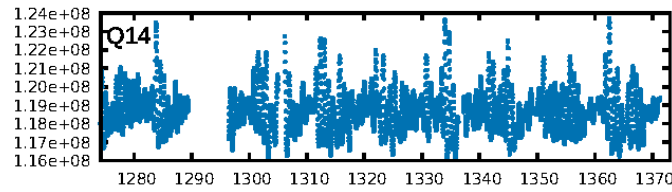
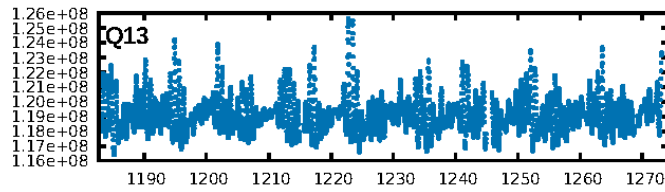
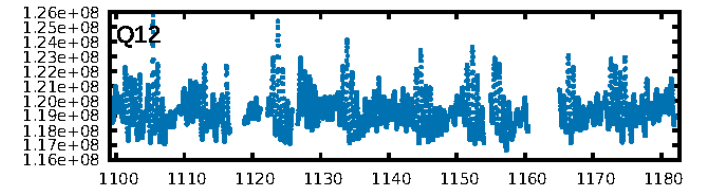
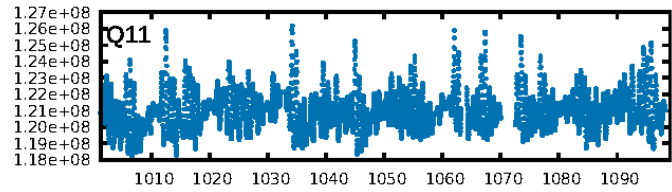
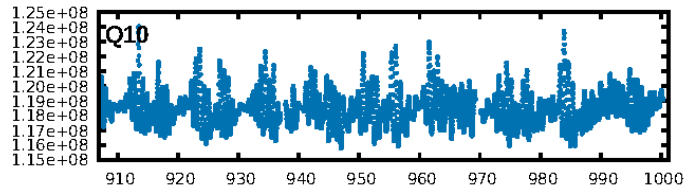
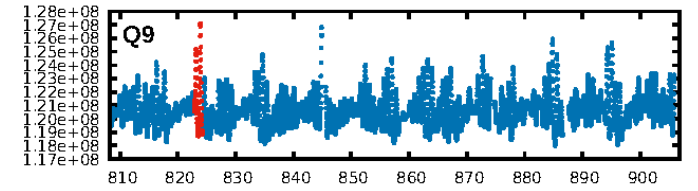
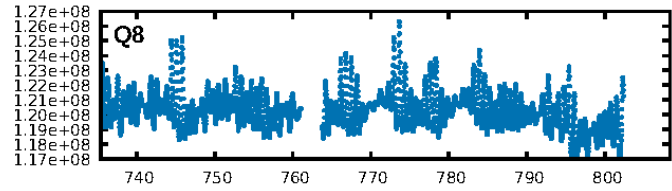
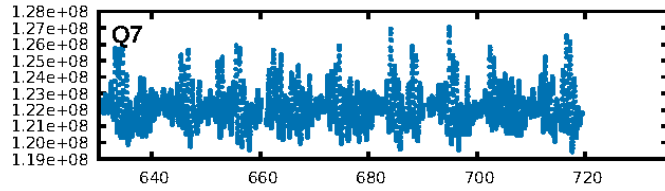
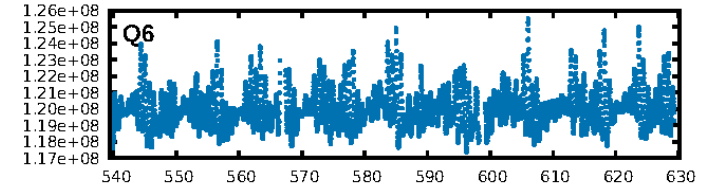
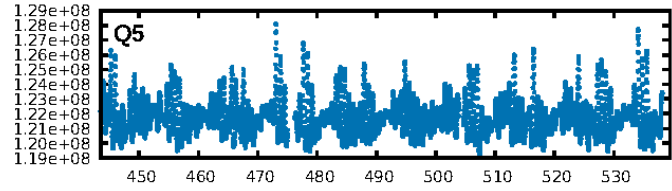
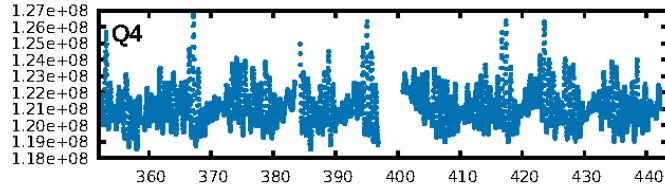
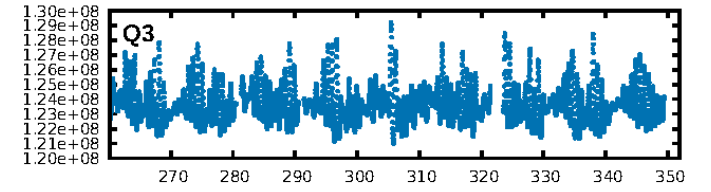
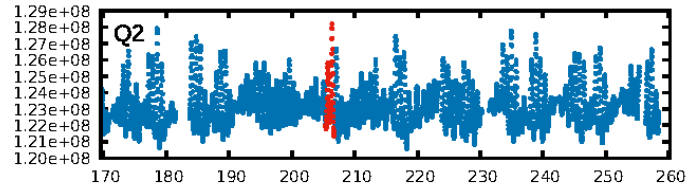
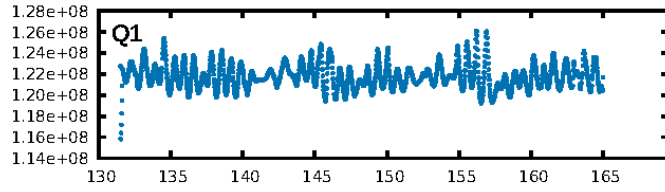
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.23e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.62
Centroid-sig: 1.5%
Centroid-so: 0.195 arcsec [2.55σ]
OotOffset-rm: 0.117 arcsec [1.30σ]
KicOffset-rm: 0.076 arcsec [0.21σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

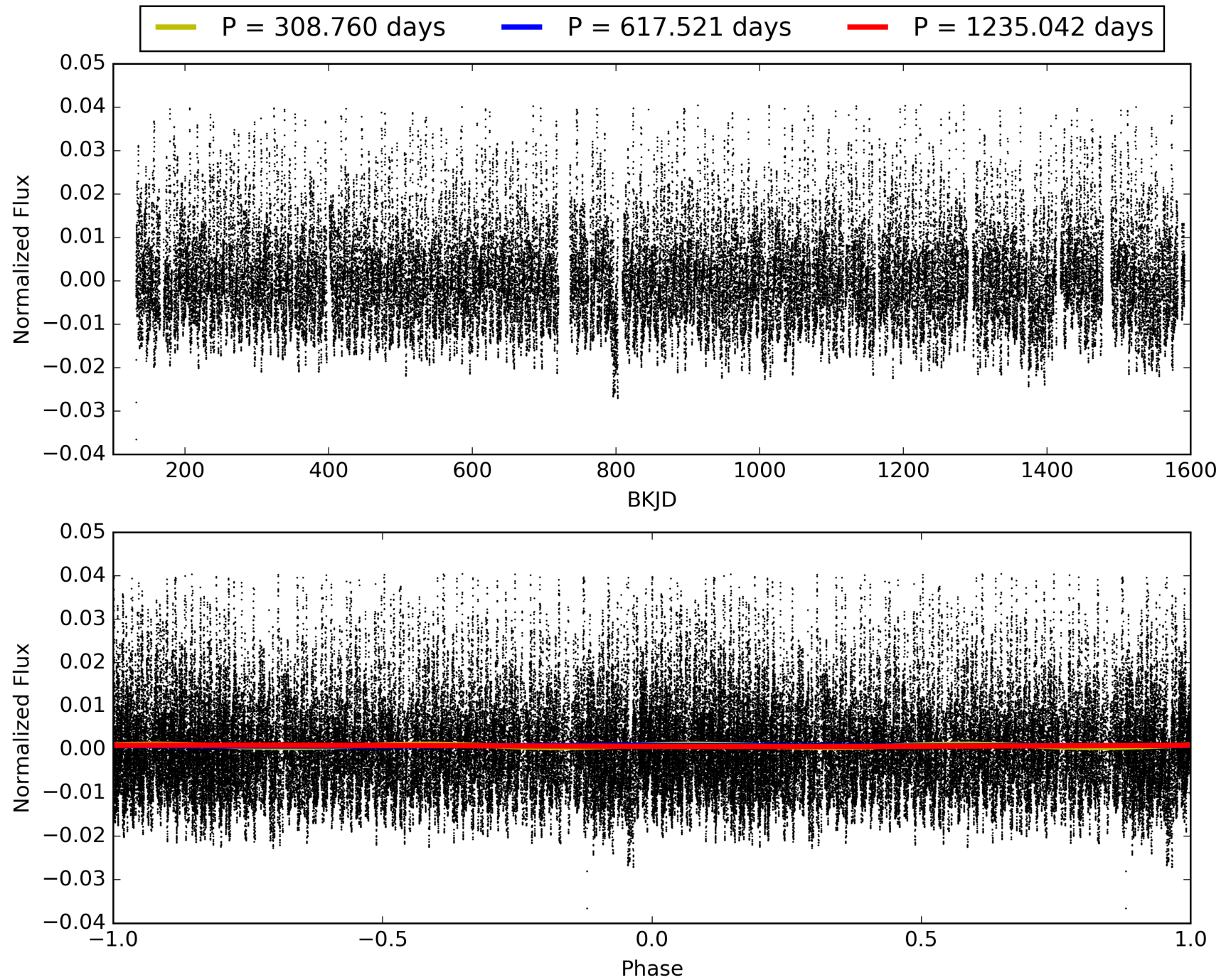
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:38:31 Z

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

TCE 007377489-01, PDC Light Curves

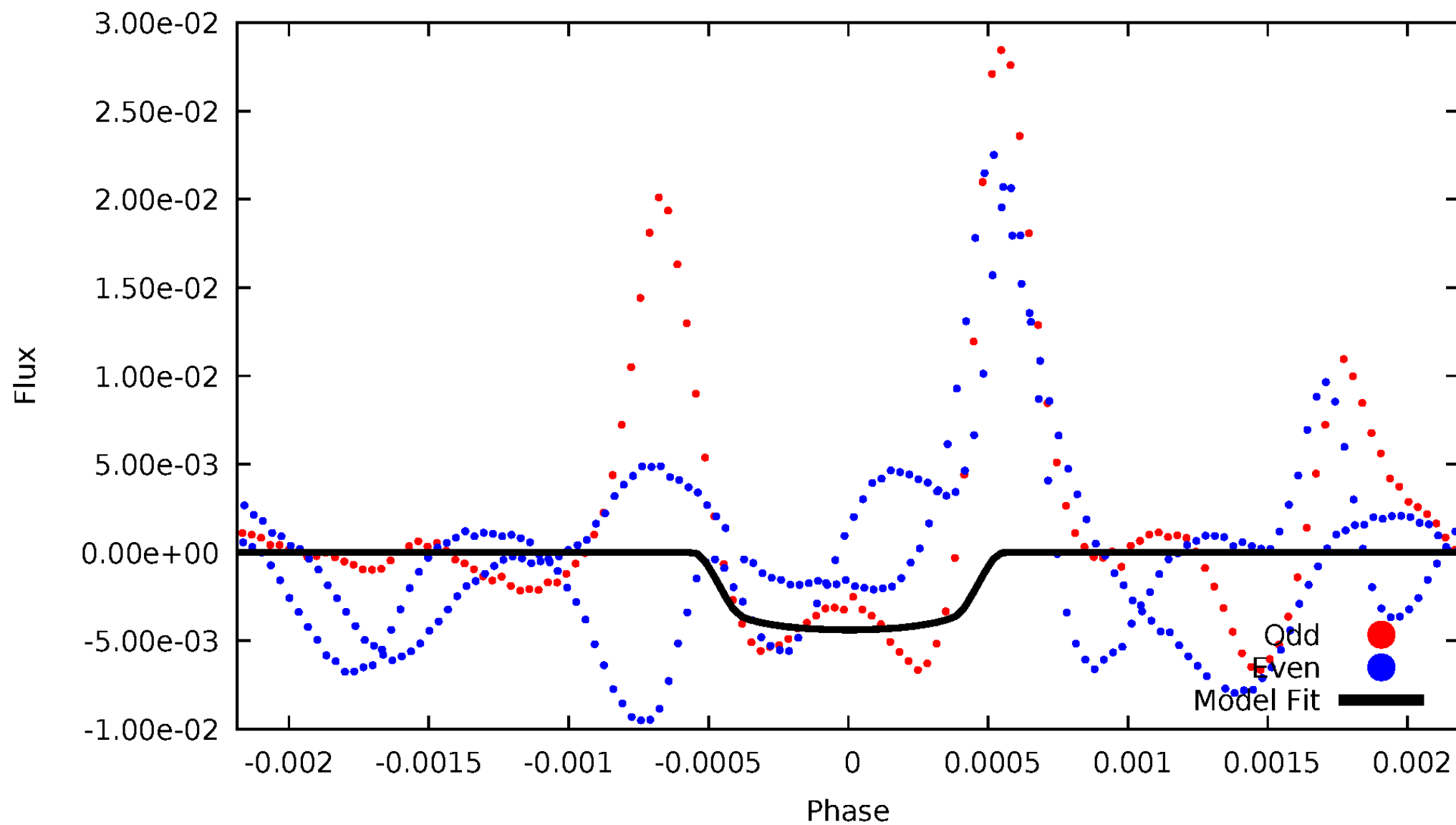


TCE 007377489-01



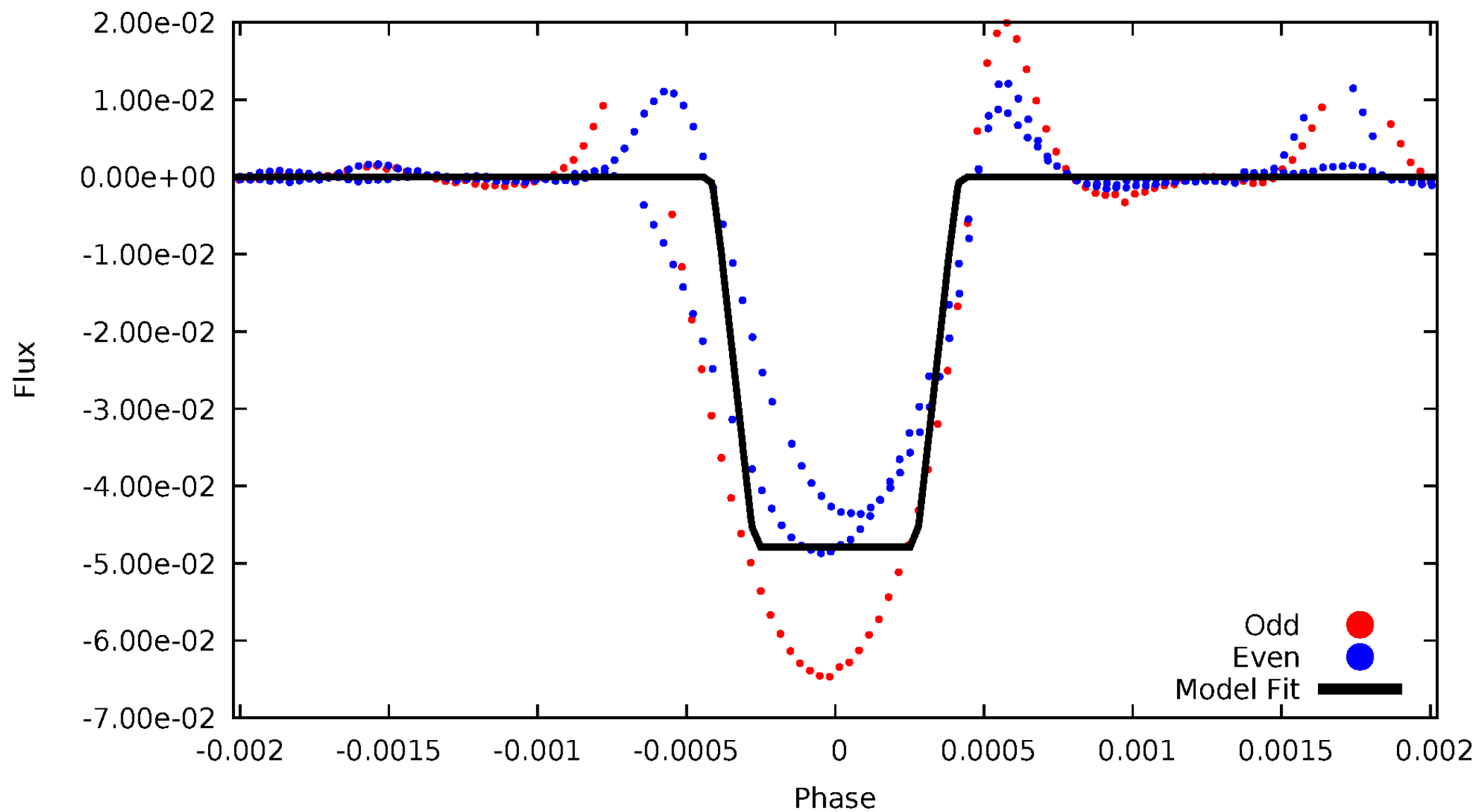
DV Odd/Even

TCE 007377489-01



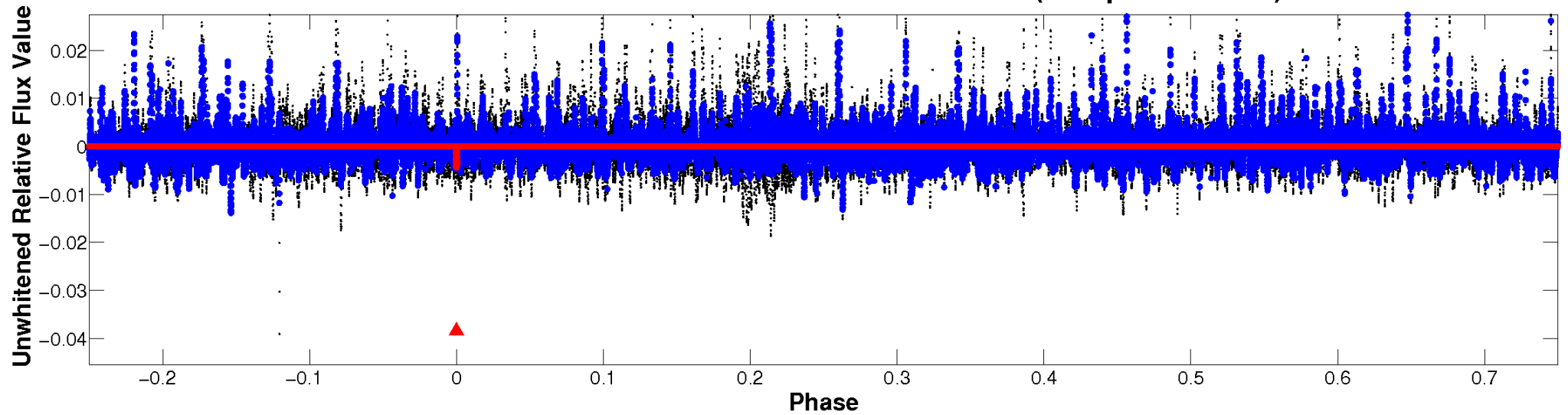
ALT Odd/Even

TCE 007377489-01

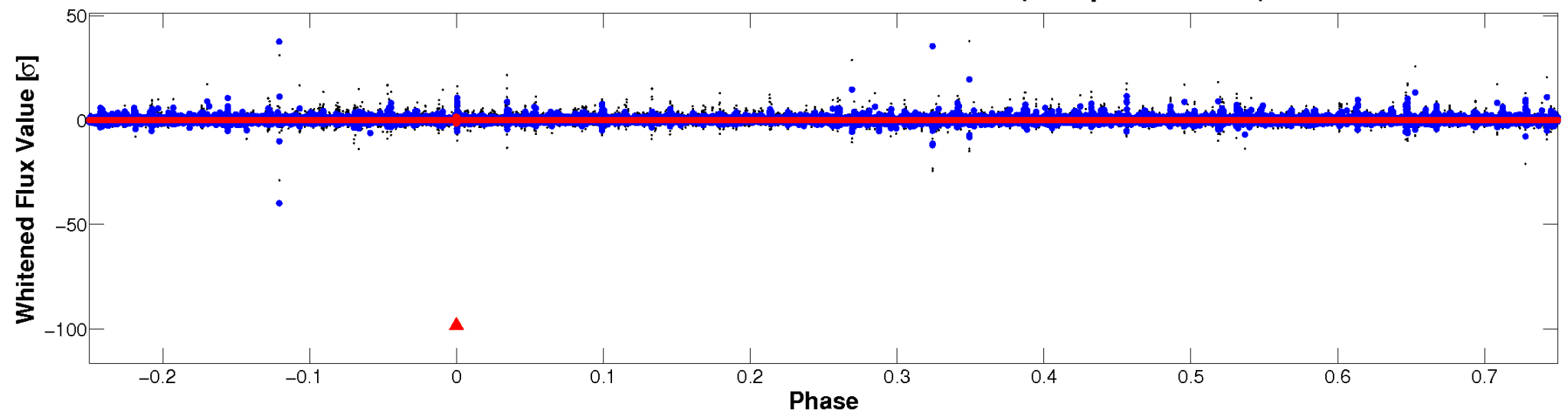


Non-Whitened Vs. Whitened Light Curve

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

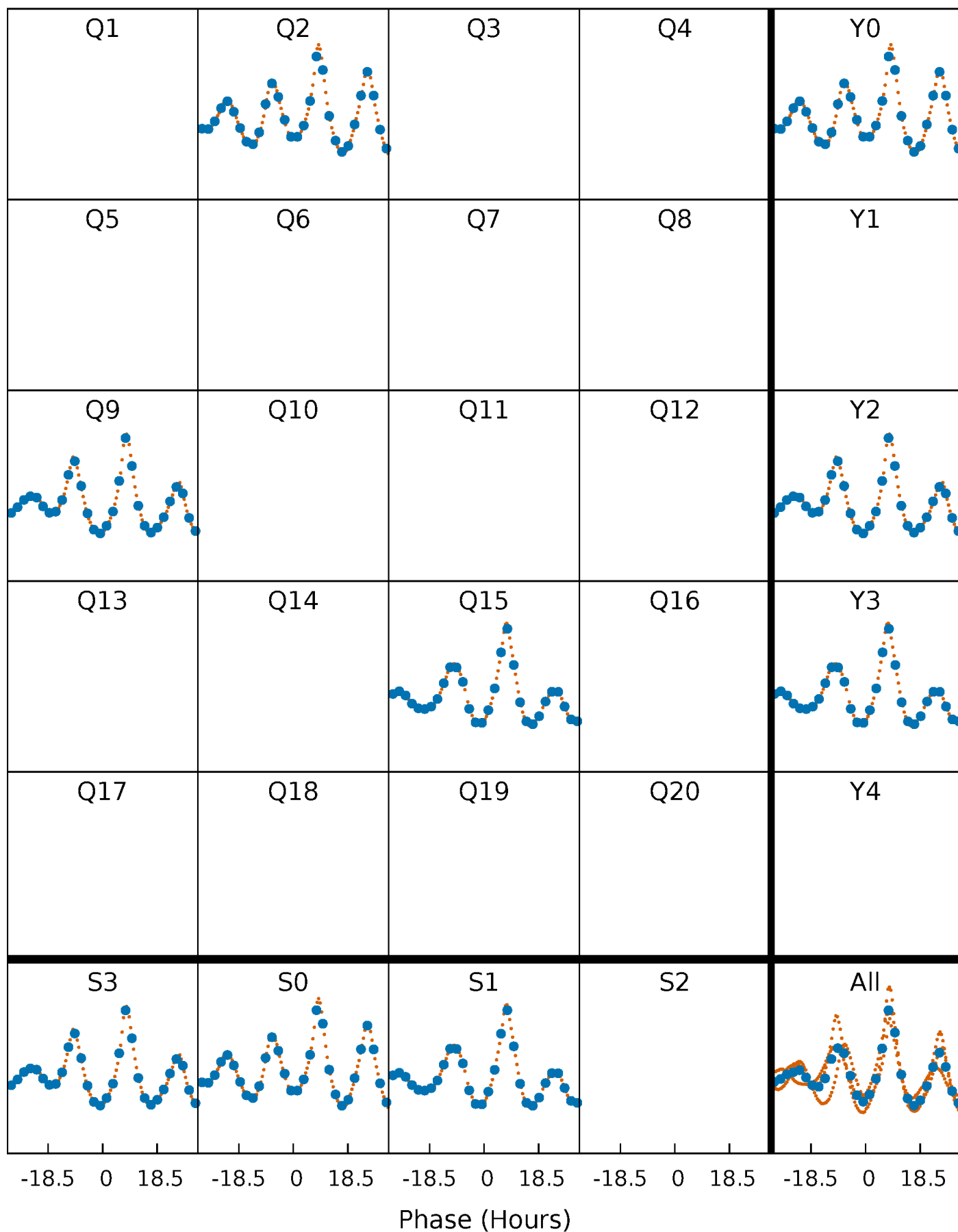


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



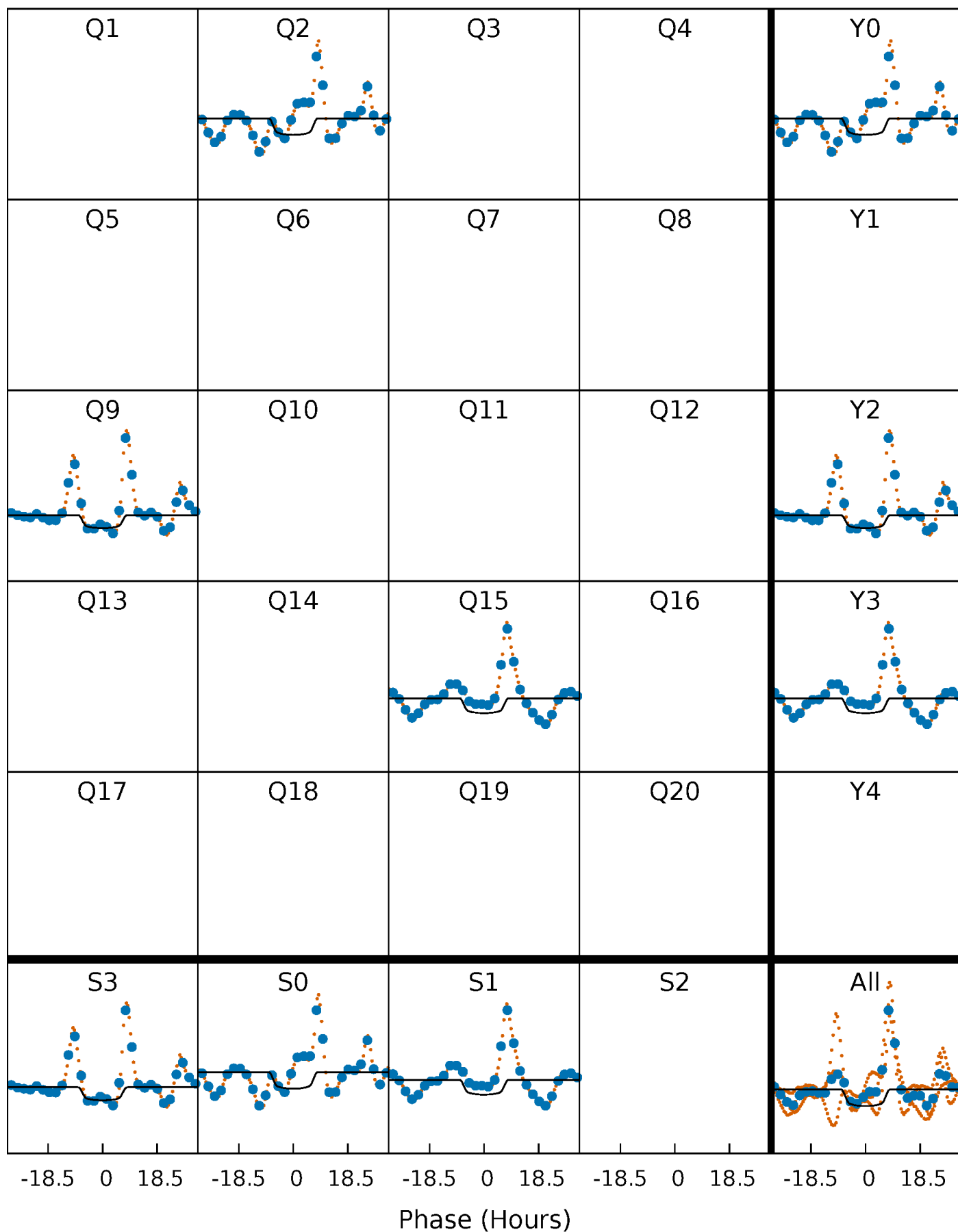
PDC Quarter-Phased Transit Curves

TCE 007377489-01 P=617.520780 Days $T_0=206.043971$ (BKJD)



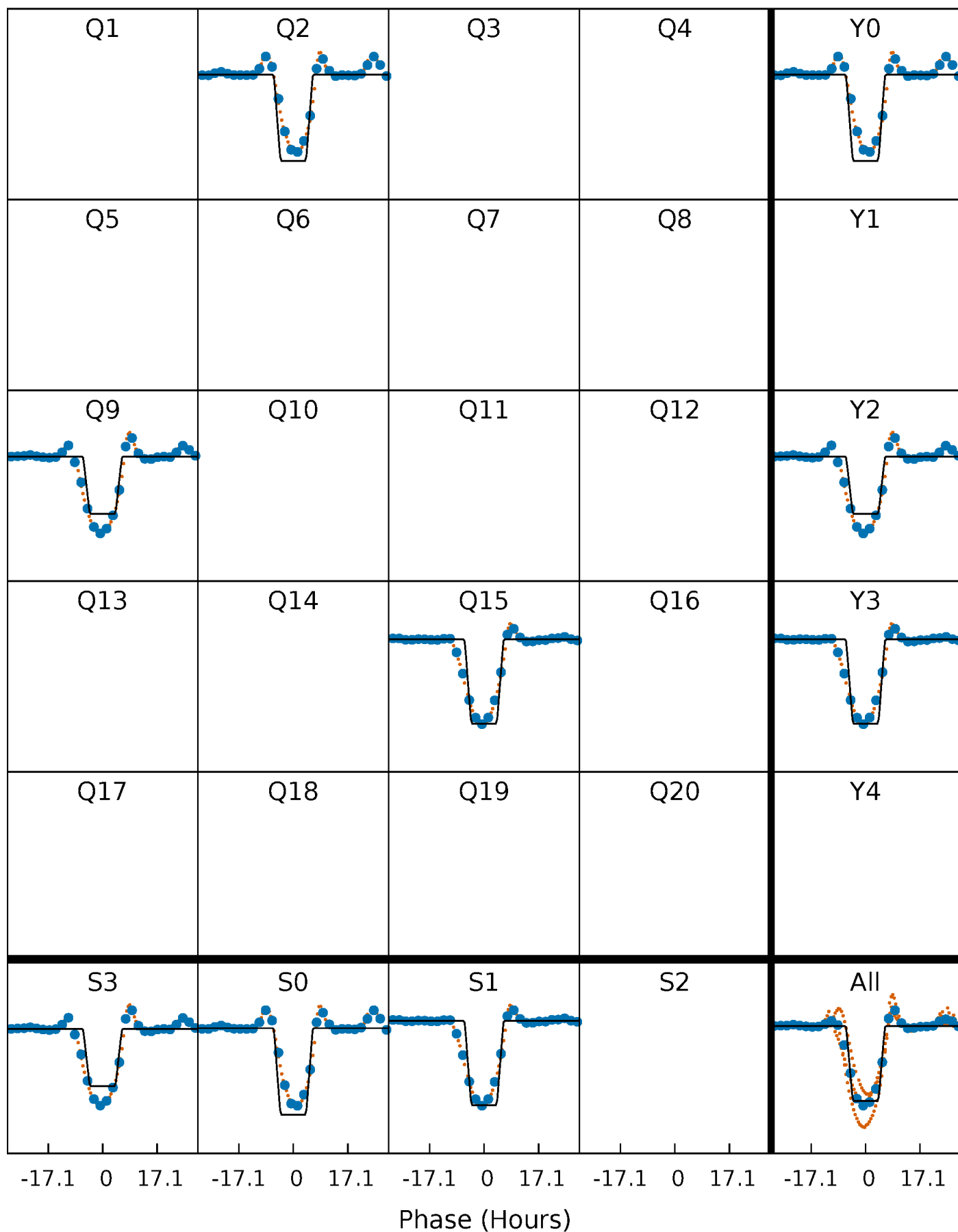
DV Quarter-Phased Transit Curves

TCE 007377489-01 P=617.520780 Days $T_0=206.043971$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

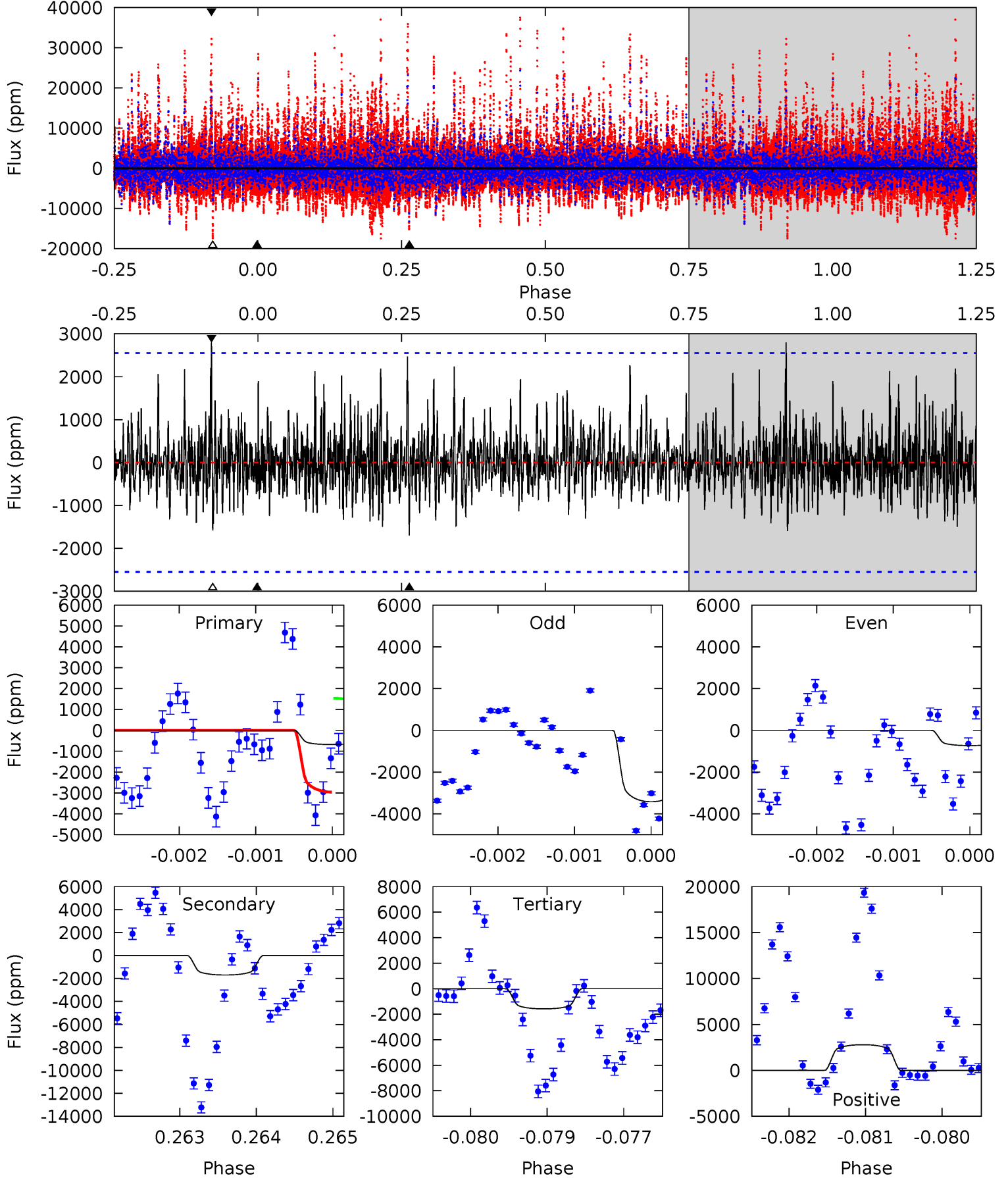
TCE 007377489-01 P=617.502183 Days $T_0=206.064572$ (BKJD)



DV Model-Shift Uniqueness Test

007377489-01, P = 617.520780 Days, E = 206.043971 Days

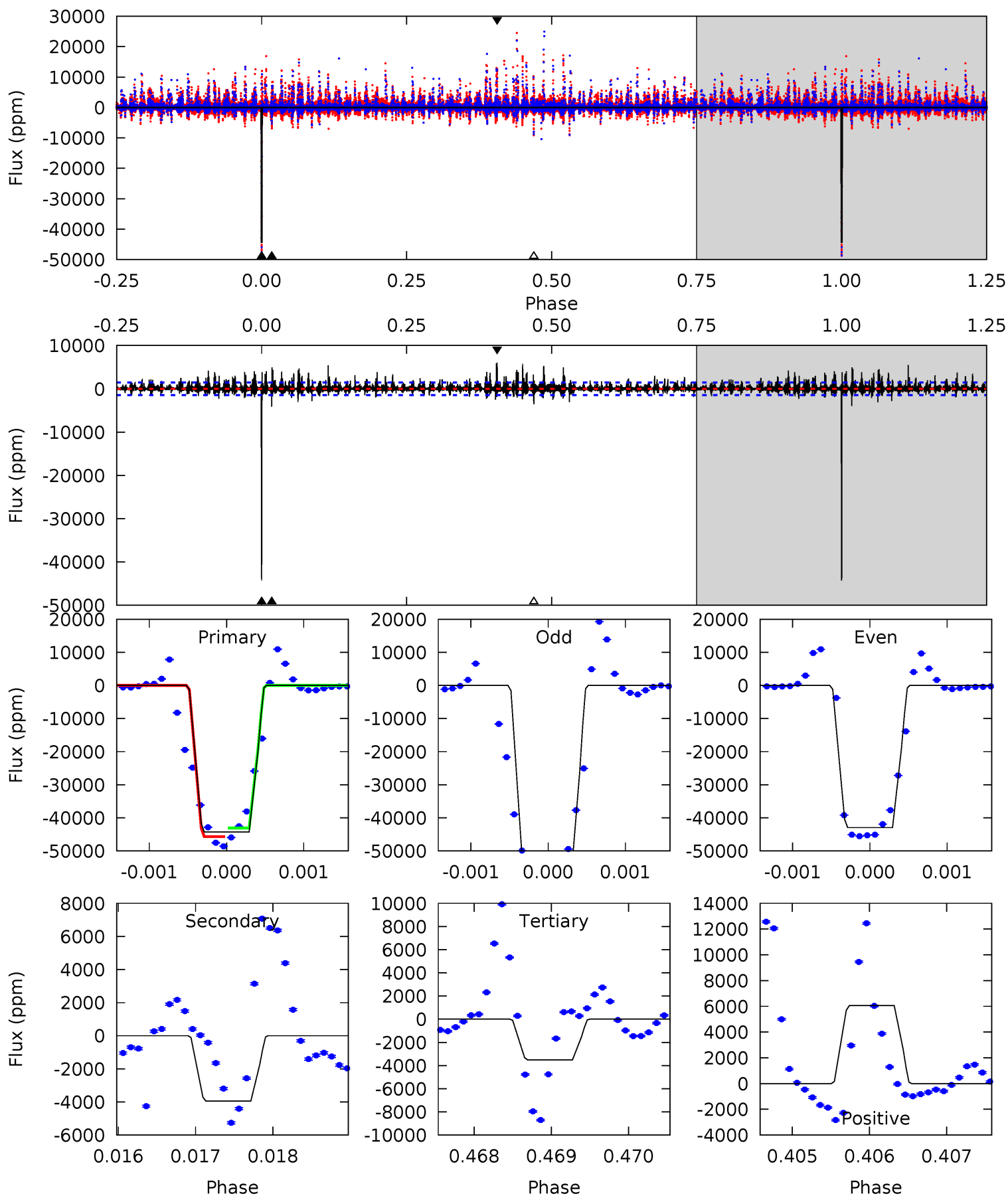
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.45	3.61	3.37	5.95	5.43	3.26	1.19	-1.91	-4.50	0.24	-2.34	2.67	-0.94	0.62	1.53



Alt Model-Shift Uniqueness Test

007377489-01, P = 617.502183 Days, E = 206.064572 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
166.7	14.9	13.2	22.8	5.48	3.33	2.58	153.5	143.9	1.63	-7.93	40.0	1.07	0.12	0



Stellar Parameters For KIC 007377489

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6927^{+168}_{-264}	$4.329^{+0.067}_{-0.202}$	$-0.140^{+0.250}_{-0.350}$	$1.285^{+0.435}_{-0.145}$	$1.299^{+0.206}_{-0.187}$	$0.861^{+0.256}_{-0.469}$
	+2%/-4%	+2%/-5%	+179%/-250%	+34%/-11%	+16%/-14%	+30%/-54%
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 007377489-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1697 ± 470	$9.63^{+1.67}_{-1.29}$	395^{+28}_{-20}	5473^{+405}_{-475}	23582^{+10916}_{-8451}
Alt.	-3948 ± 266	$31.16^{+5.05}_{-2.43}$	394^{+27}_{-21}	3996^{+98}_{-101}	5180^{+957}_{-1173}

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

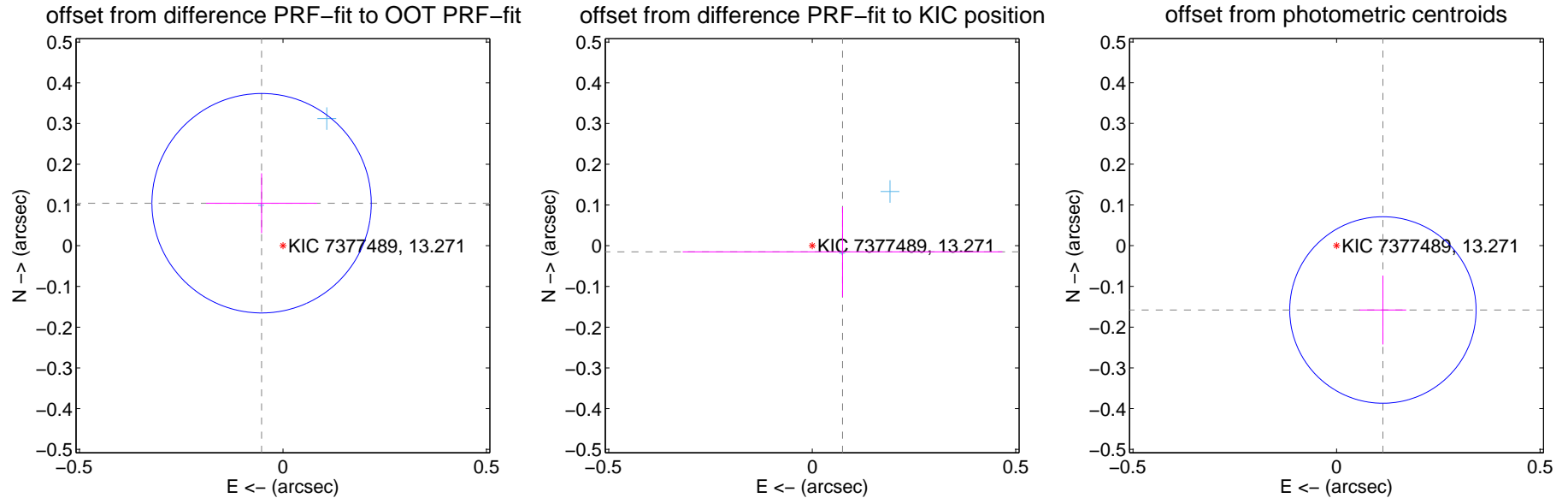
DV Centroid Data

Supplemental centroid analysis for 007377489-01. Kepler magnitude: 13.27. Transit SNR 5.98

There are 3 quarters with good PRF difference image offsets

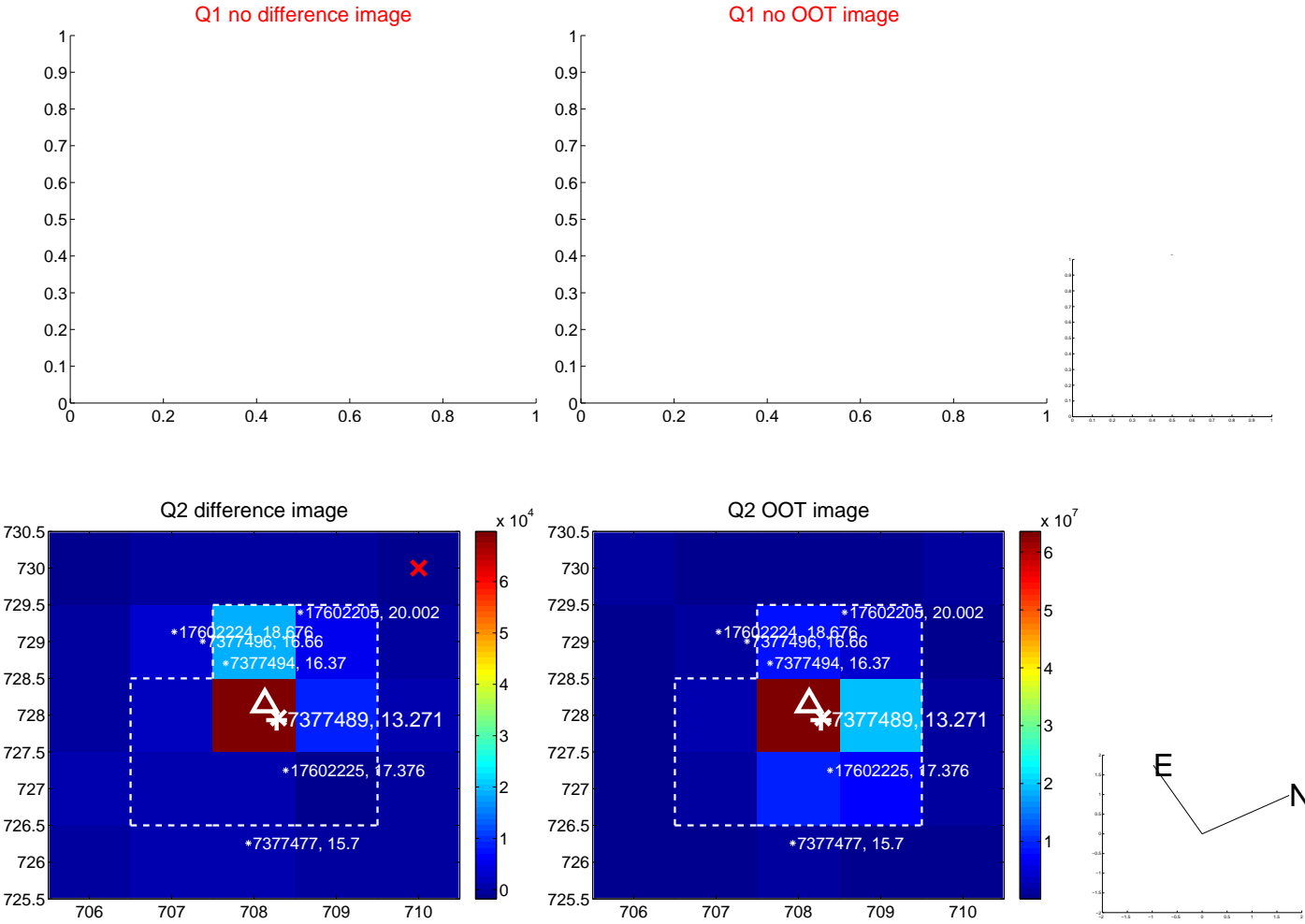
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.117 ± 0.090	1.30	0.053 ± 0.136	0.104 ± 0.073
PRF-fit source offset from KIC position	0.076 ± 0.369	0.21	-0.075 ± 0.393	-0.015 ± 0.110
photometric centroid source offset	0.19 ± 0.08	2.55	-0.11 ± 0.06	-0.16 ± 0.08



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.

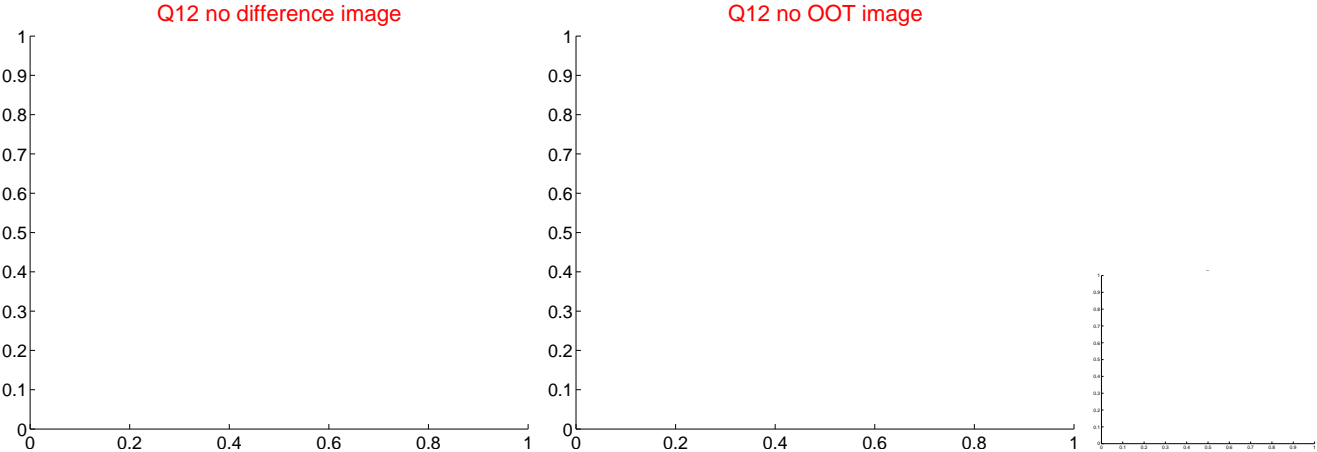
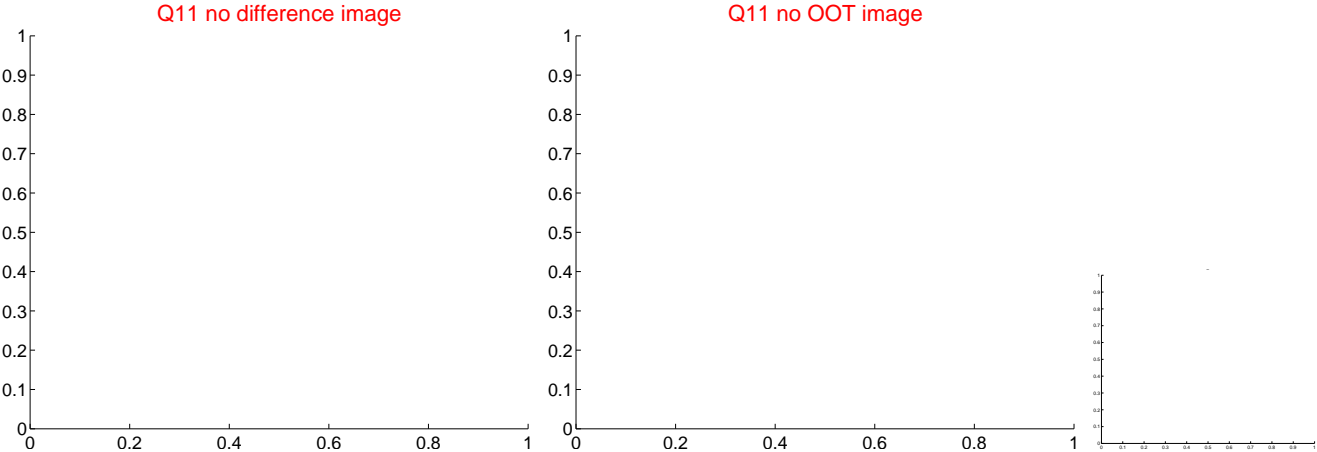
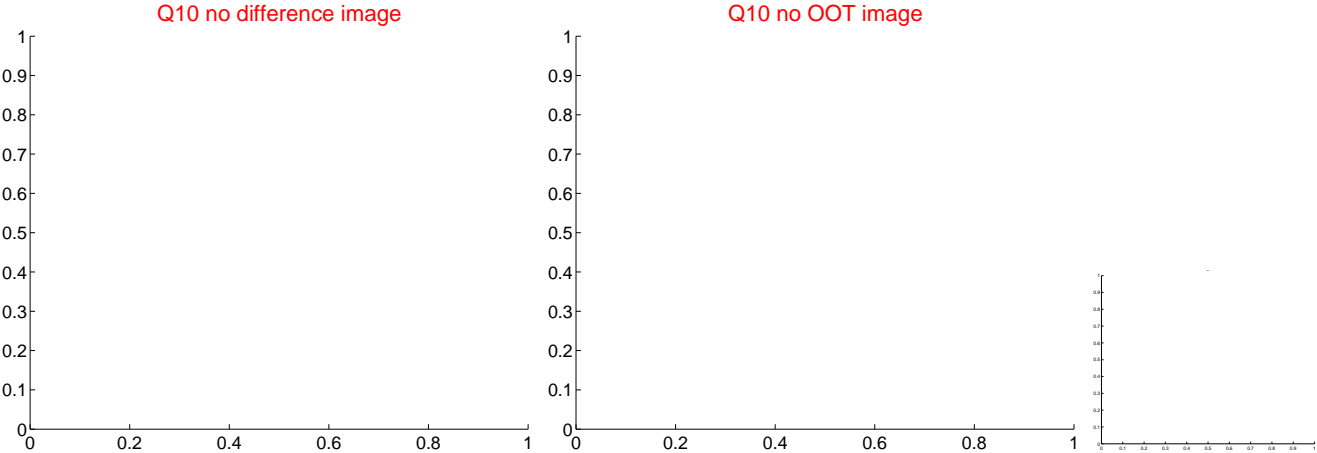
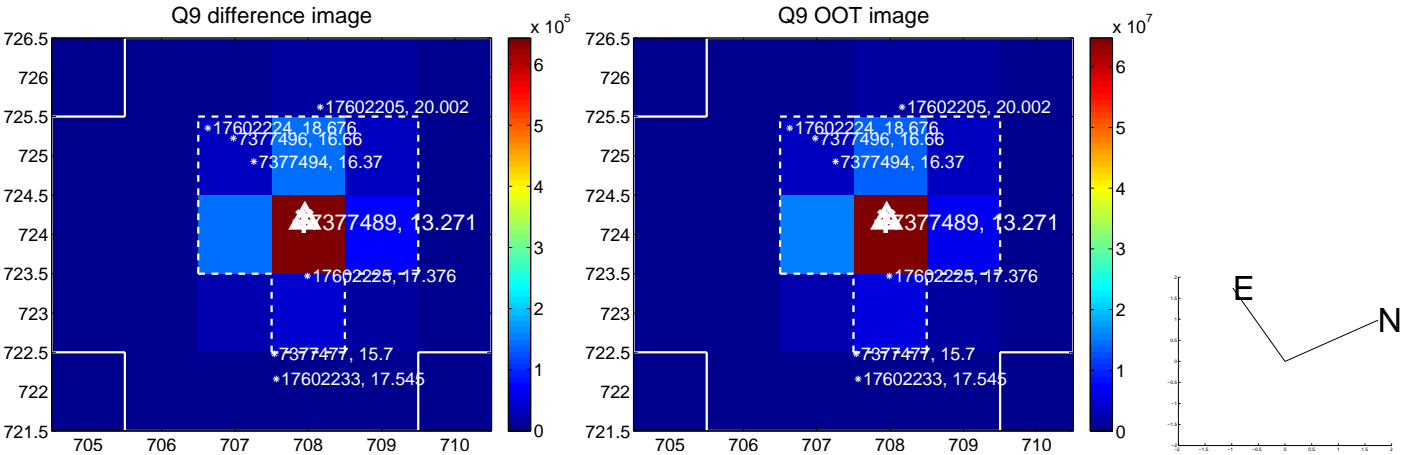
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



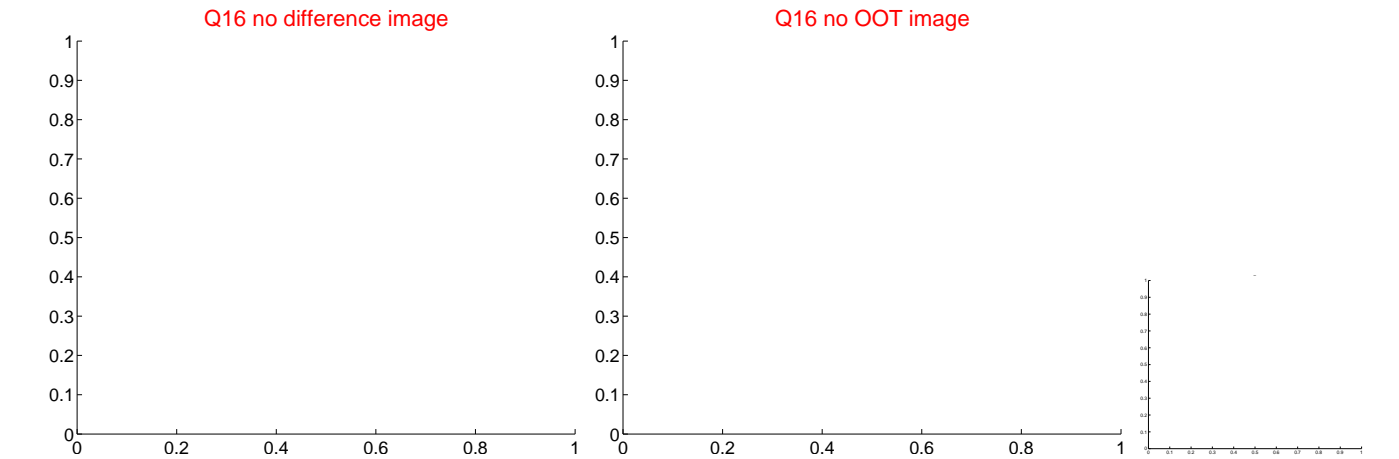
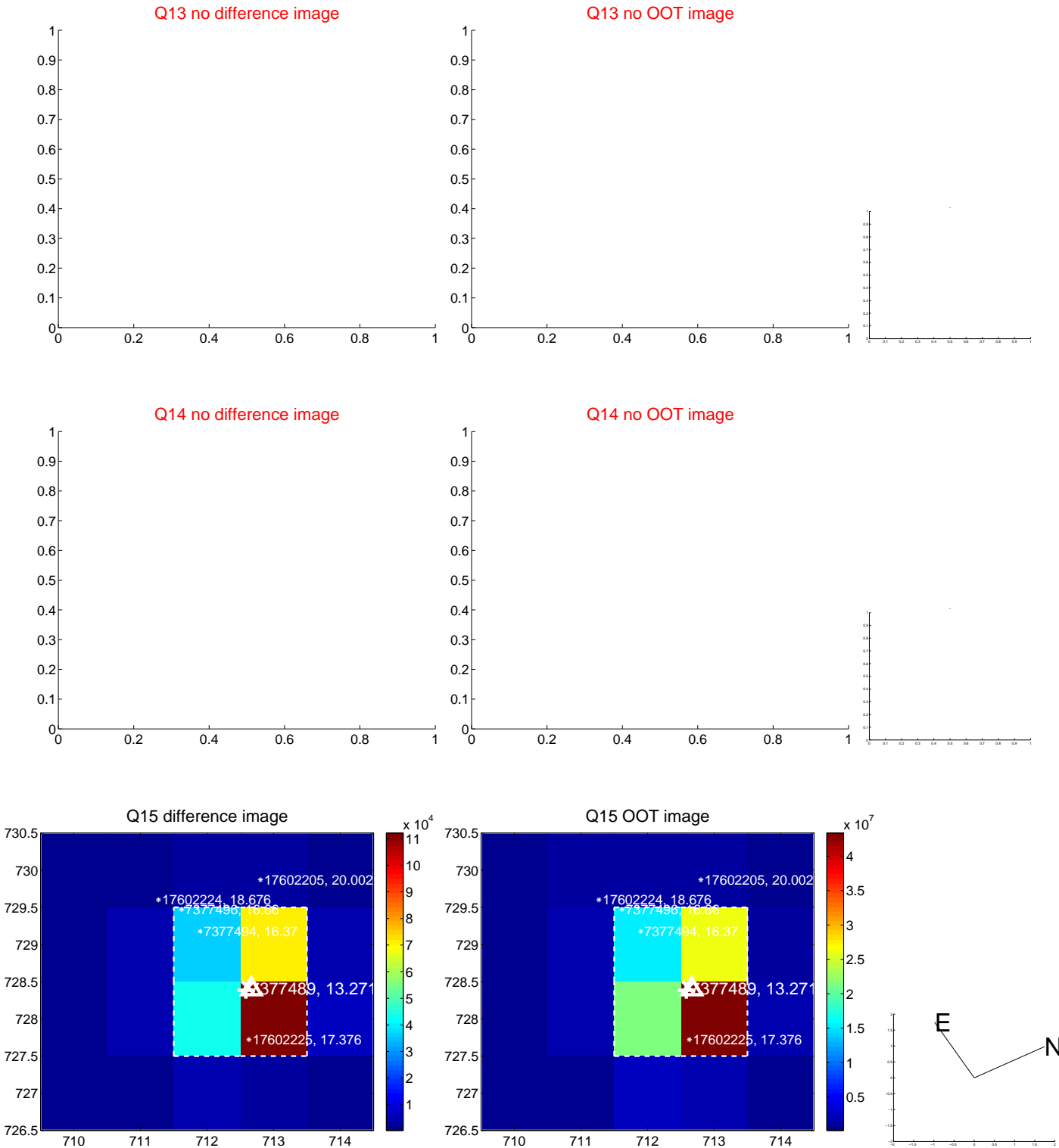
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



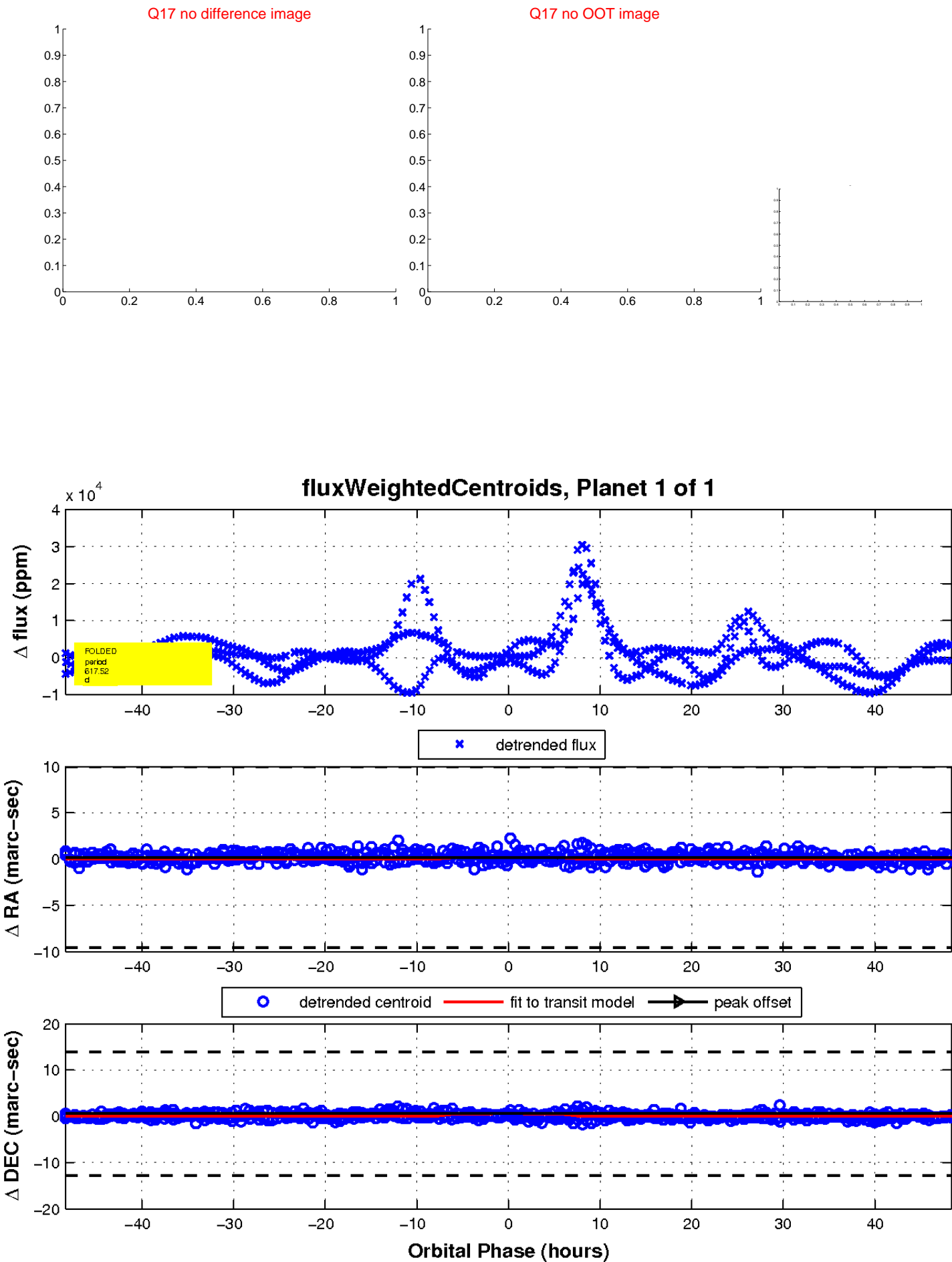
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

