

KIC 011076279

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})
011076279-01	OBS	7407.01	1.472581	132.928189	212845.8	4.380	4280.2	2352.8	2.02	7360	130.94	12679.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011076279-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED

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.

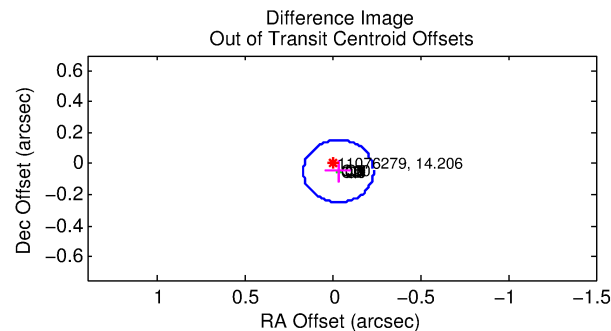
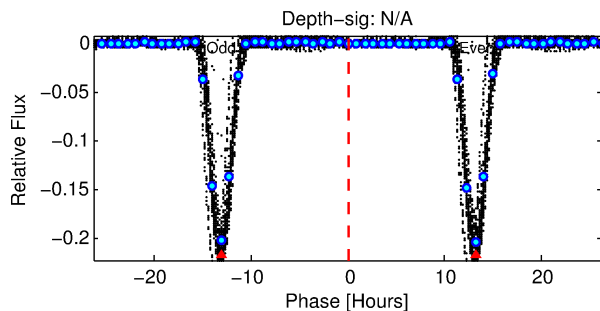
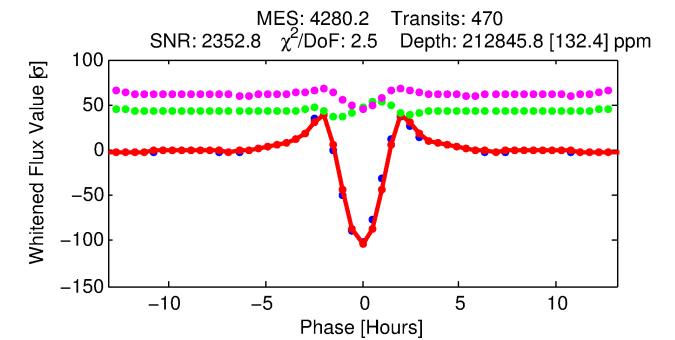
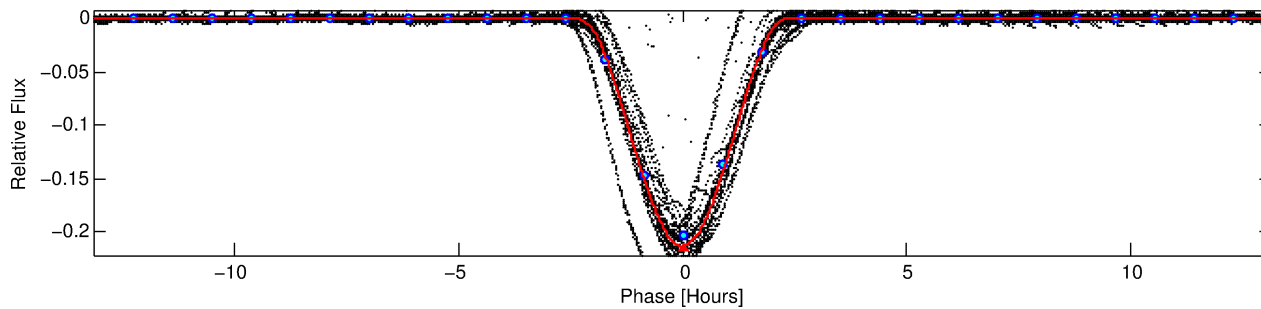
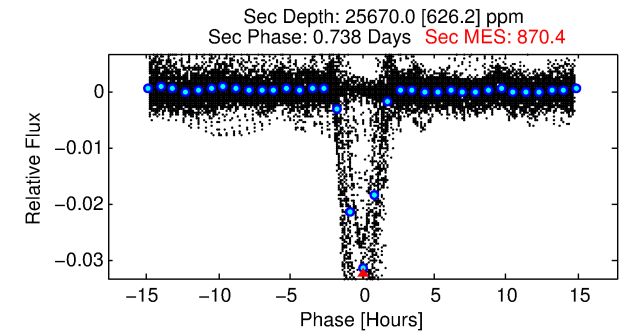
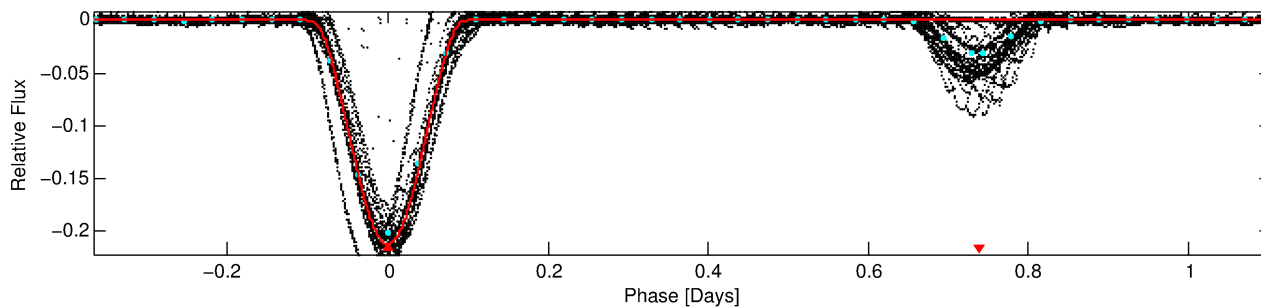
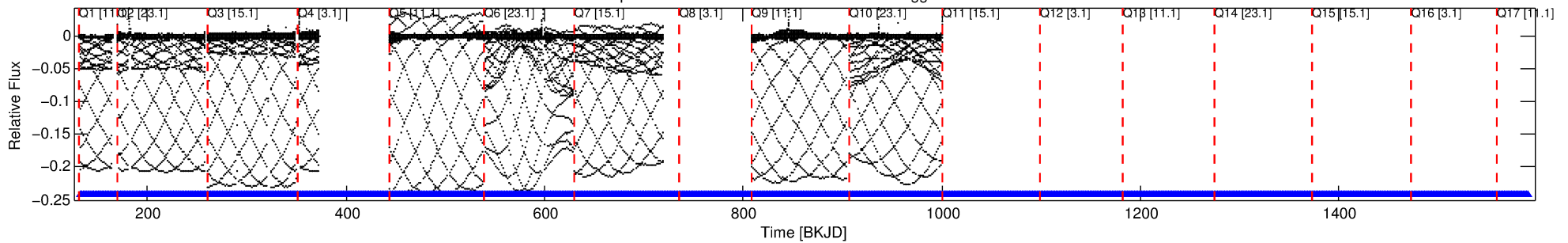
Ephemeris Match Information For 011076279-01

No Significant Match Found

DV One-Page Summary

KIC: 11076279 Candidate: 1 of 1 Period: 1.473 d
KOI: K07407.01 Corr: 0.959

Kp: 14.21 R*: 2.02 Rs Teff: 7360.0 K Logg: 4.01 Fe/H: -0.280



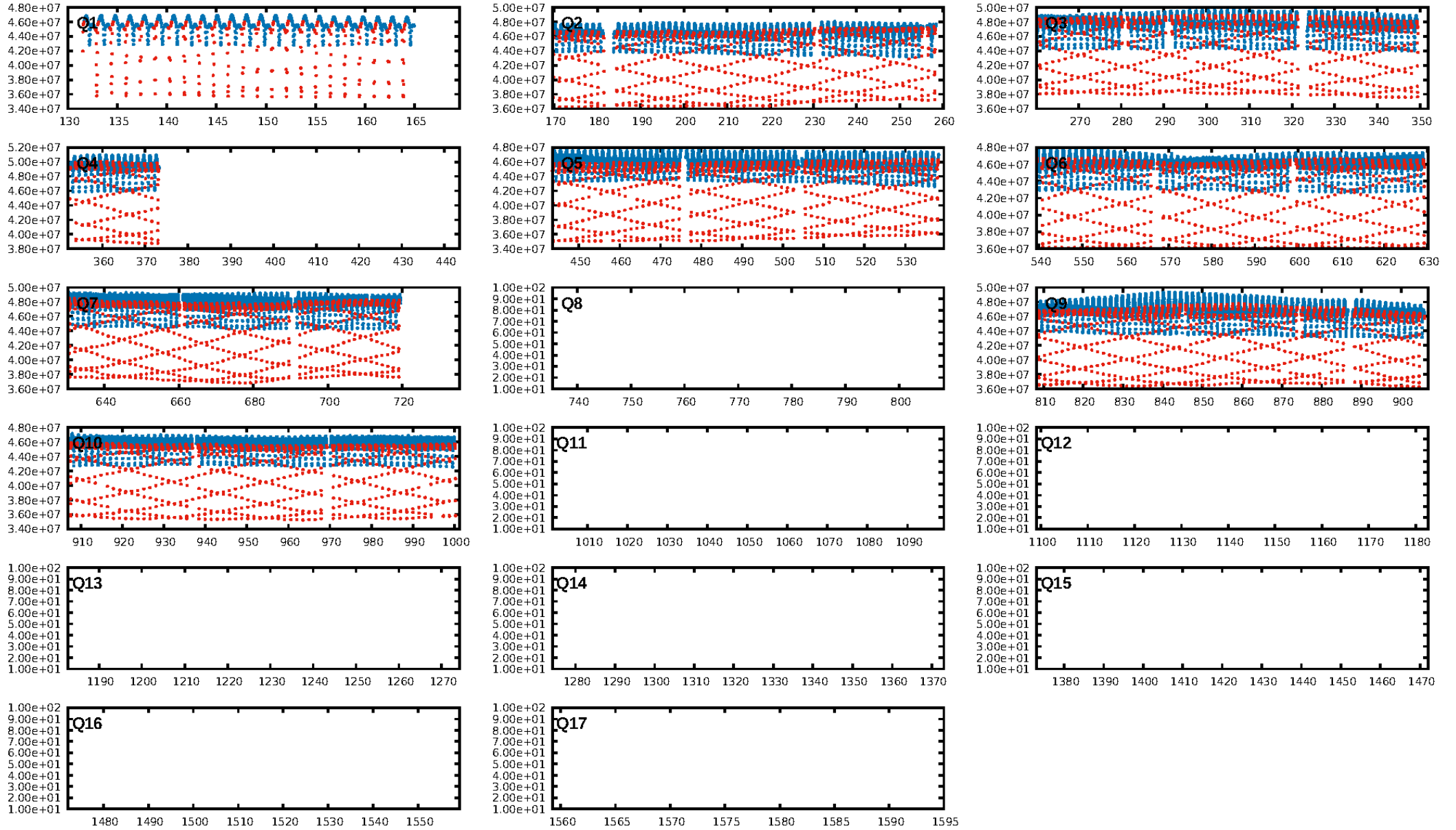
DV Fit Results:

Period = 1.47258 [0.00000] d
Epoch = 132.9282 [0.0000] BKJD
Rp/R* = 0.5929 [0.0150]
a/R* = 3.68 [0.02]
b = 0.83 [0.02]
Seff = 12679.64 [5796.26]
Teq = 2706 [309] K
Rp = 130.94 [41.73] Re
a = 0.0291 [0.0082] AU
Ag = 0.70 [0.30] [-1.00σ]
Teffp = 3826 [170] K [3.18σ]

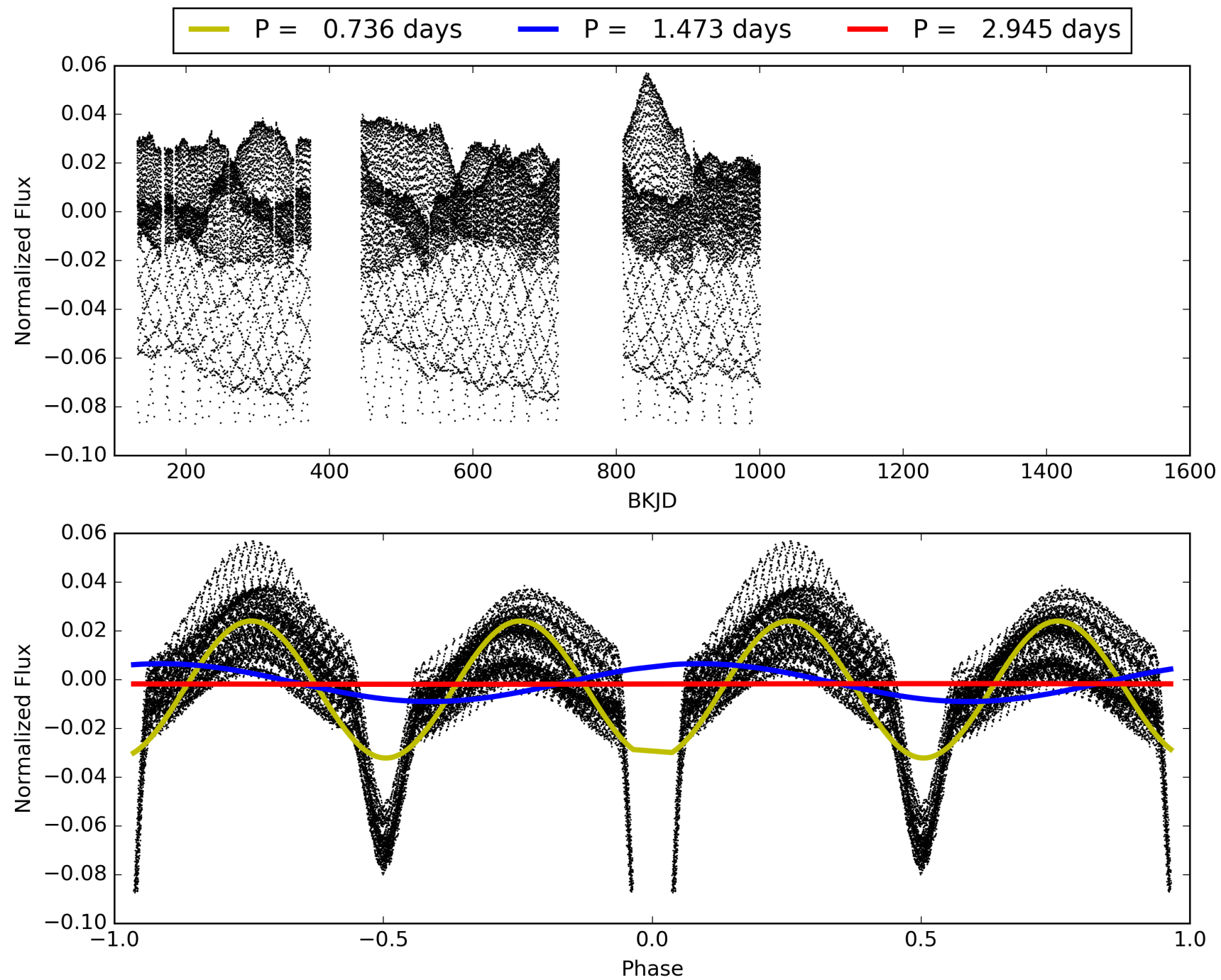
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [432/432]
GhostDiagnostic-chr: 1.065
Centroid-sig: 0.0%
Centroid-so: 0.063 arcsec [99.36σ]
OotOffset-rm: 0.057 arcsec [0.86σ]
OotOffset-st: 3/2/1/3 [9]
KicOffset-rm: 0.101 arcsec [1.49σ]
KicOffset-st: 3/2/1/3 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

TCE 011076279-01, PDC Light Curves

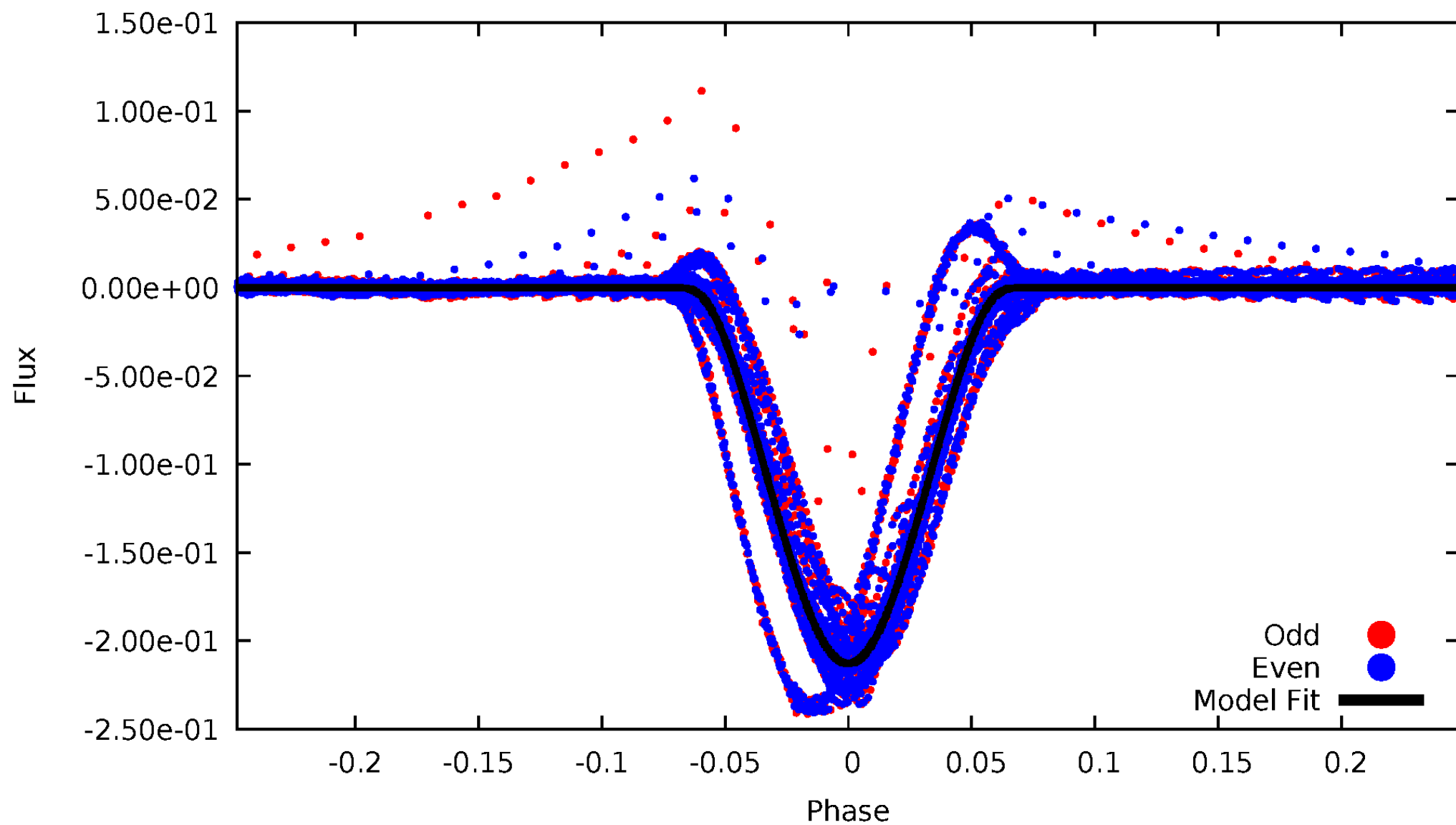


TCE 011076279-01



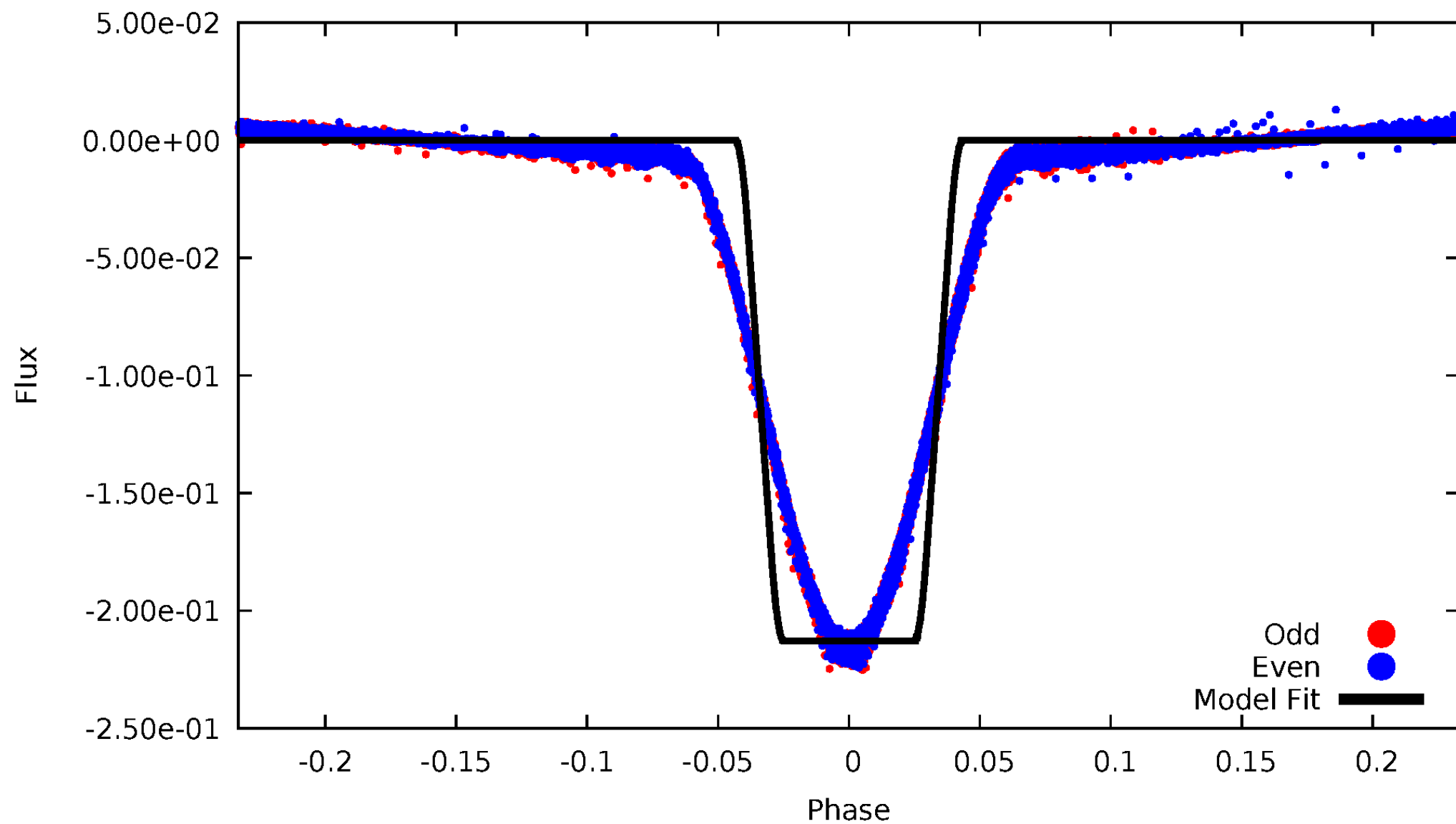
DV Odd/Even

TCE 011076279-01



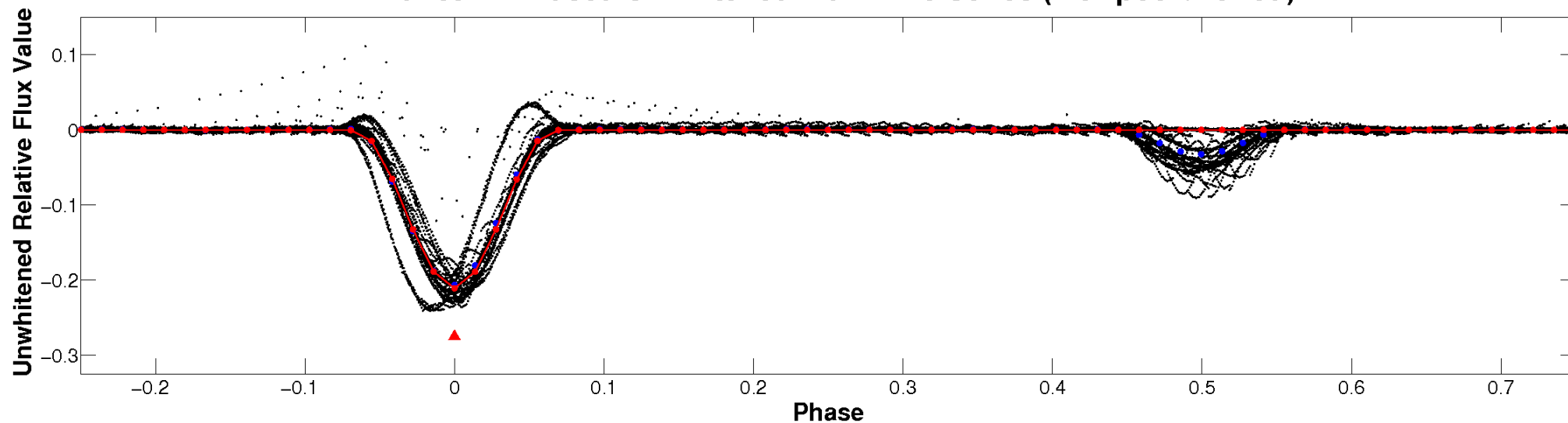
ALT Odd/Even

TCE 011076279-01

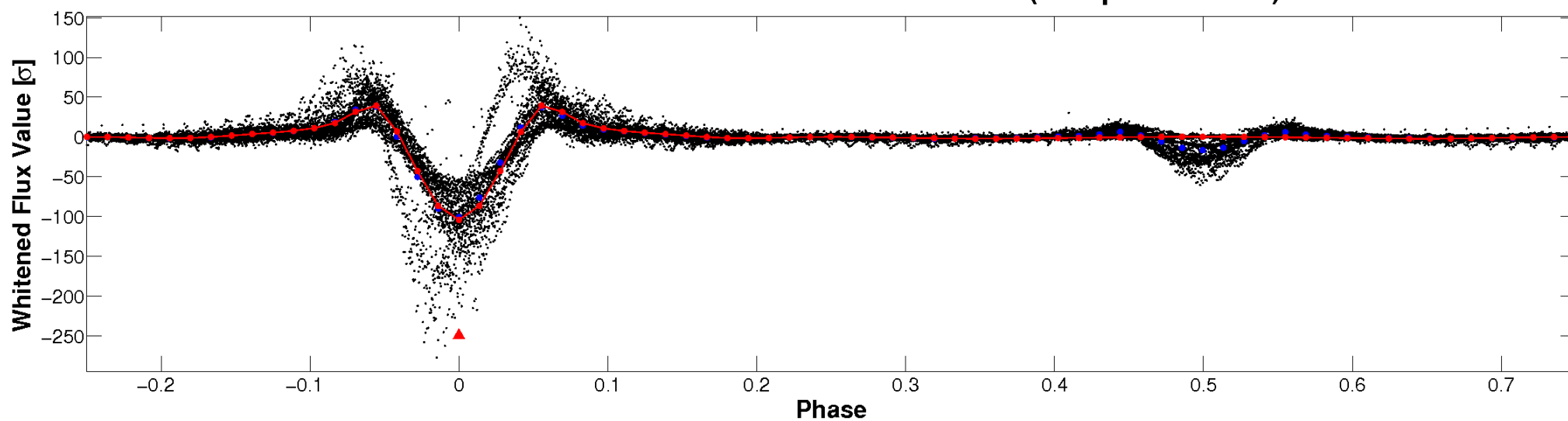


Non-Whitened Vs. Whitened Light Curve

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

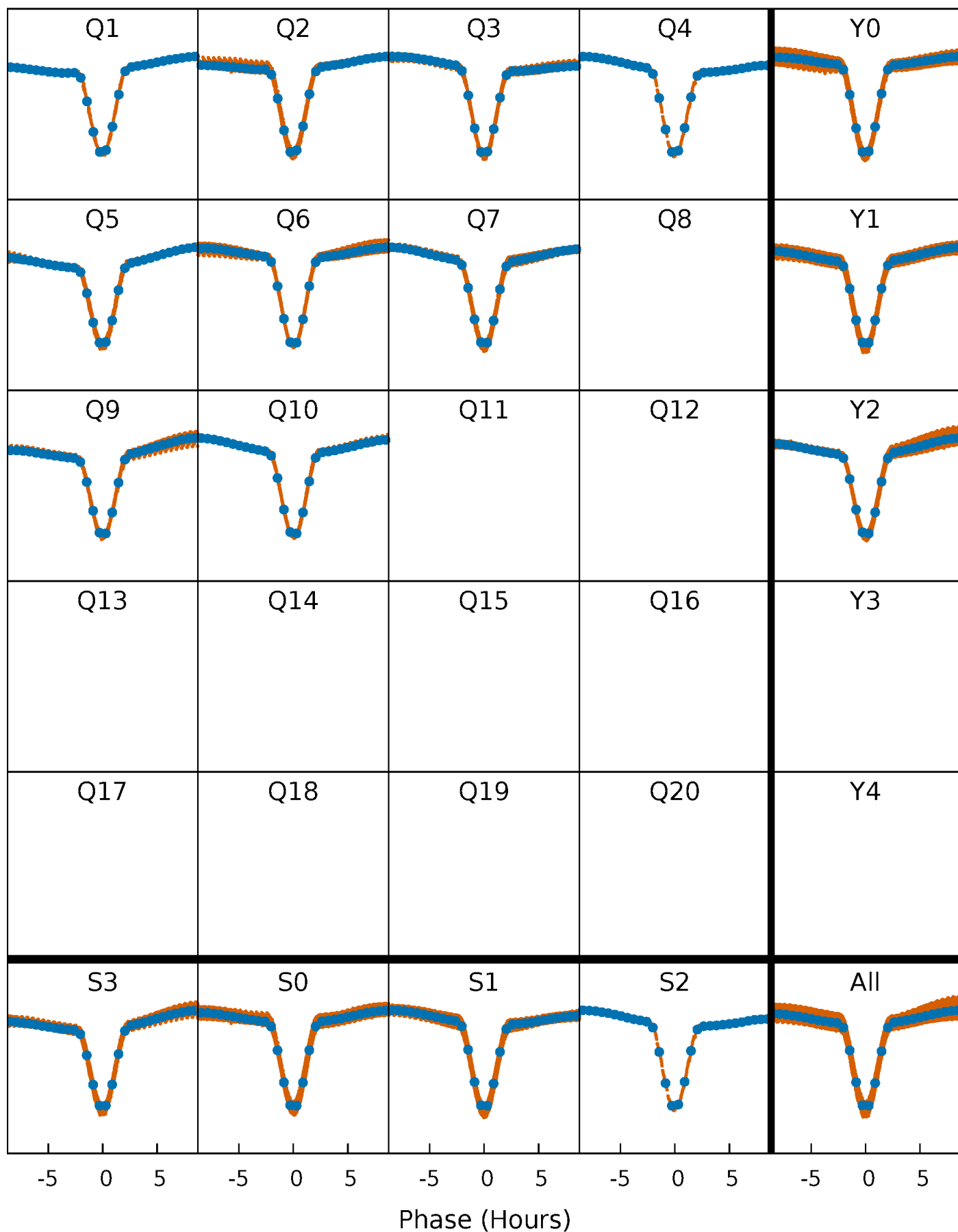


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



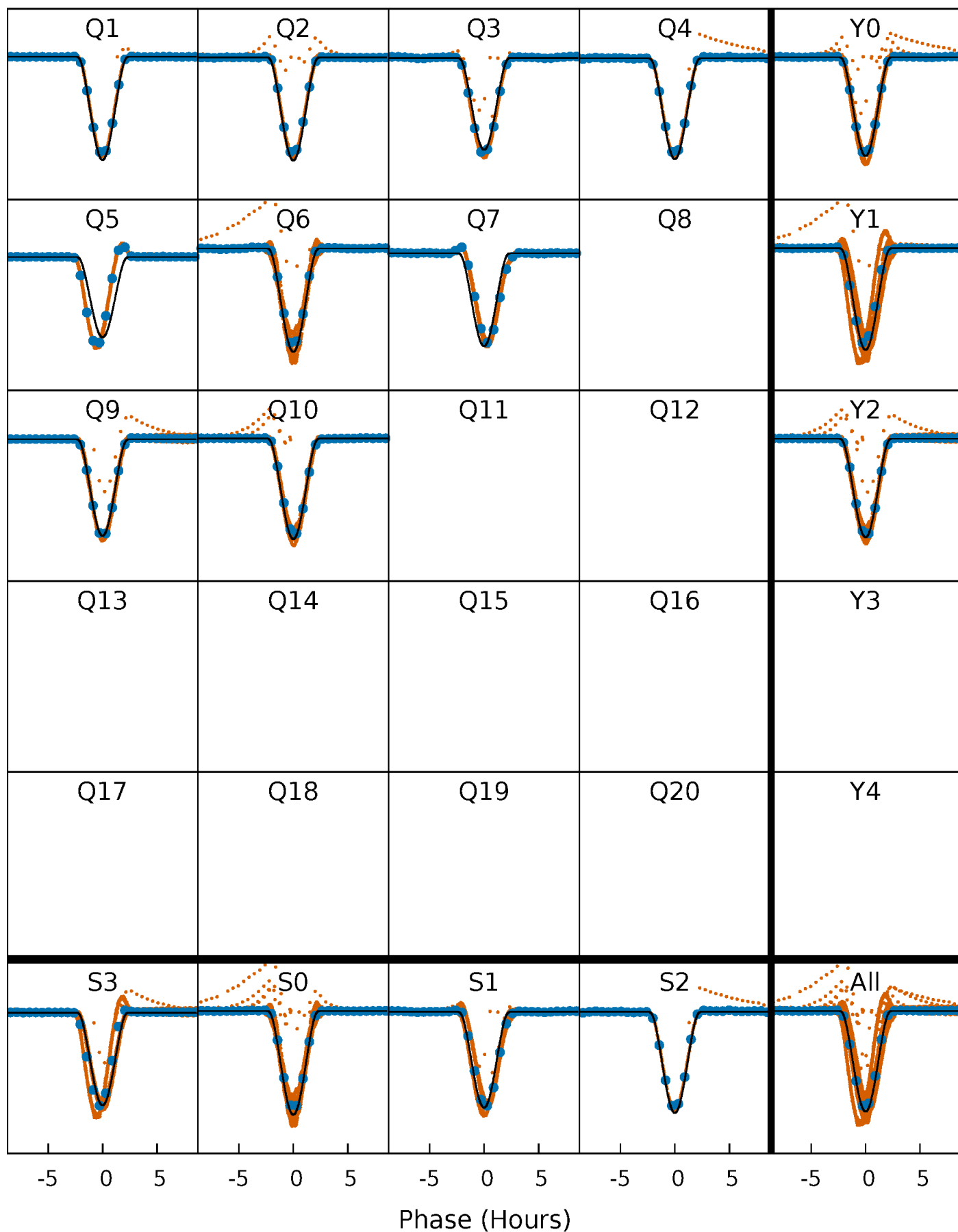
PDC Quarter-Phased Transit Curves

TCE 011076279-01 P= 1.472581 Days $T_0=132.928189$ (BKJD)



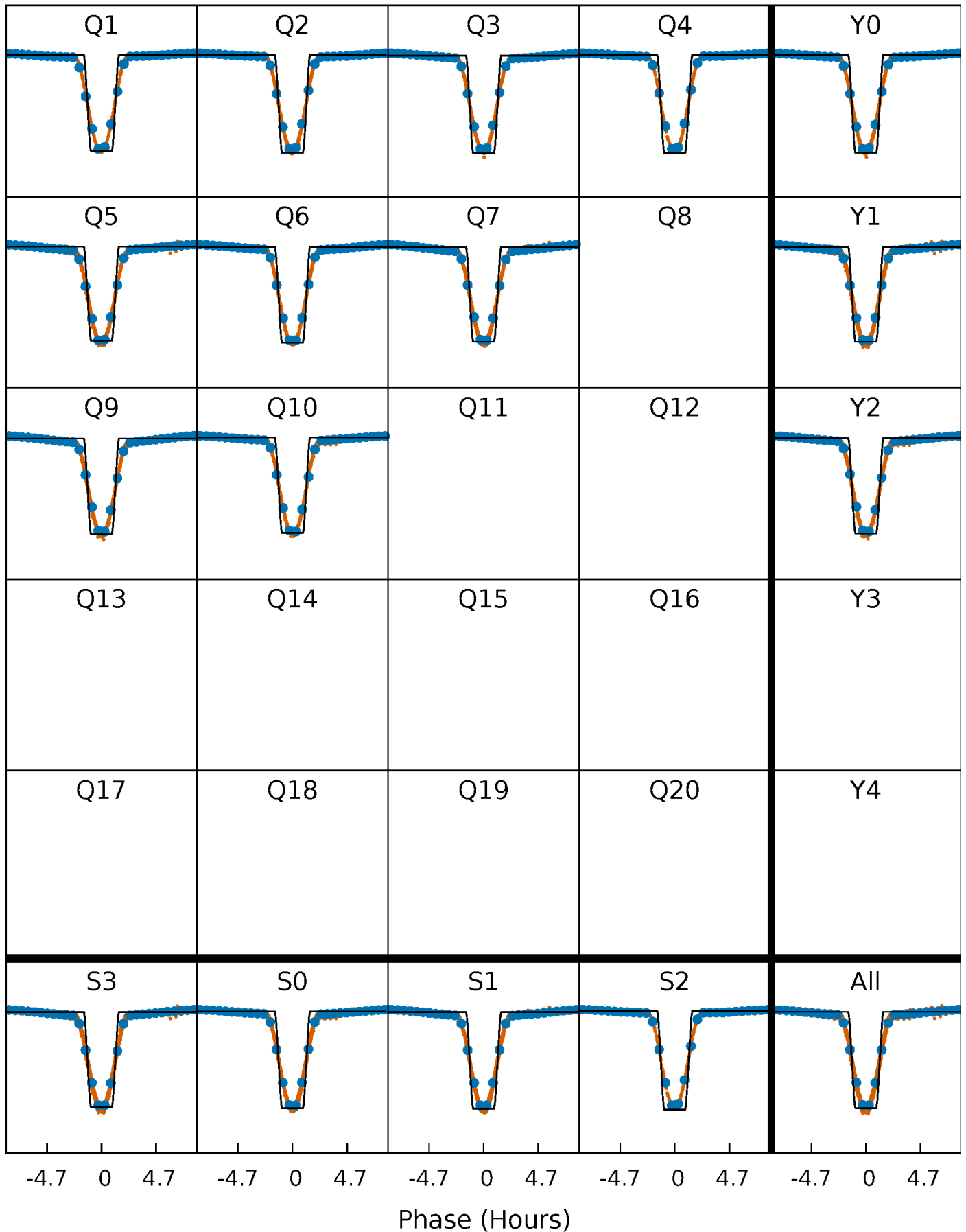
DV Quarter-Phased Transit Curves

TCE 011076279-01 P= 1.472581 Days $T_0=132.928189$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

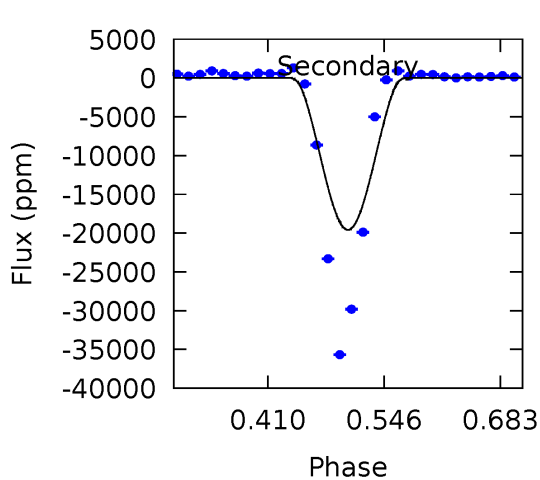
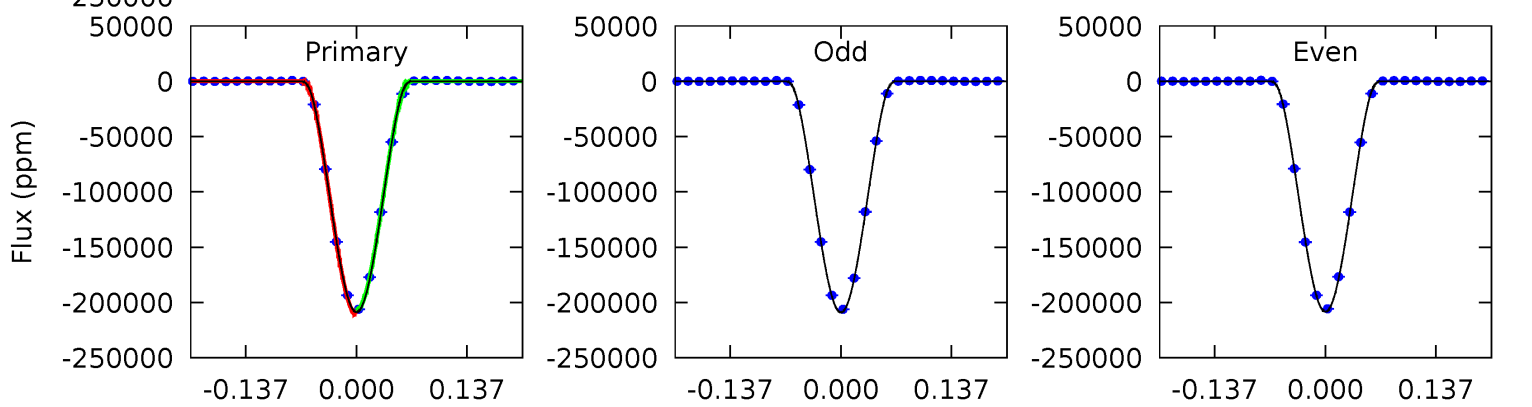
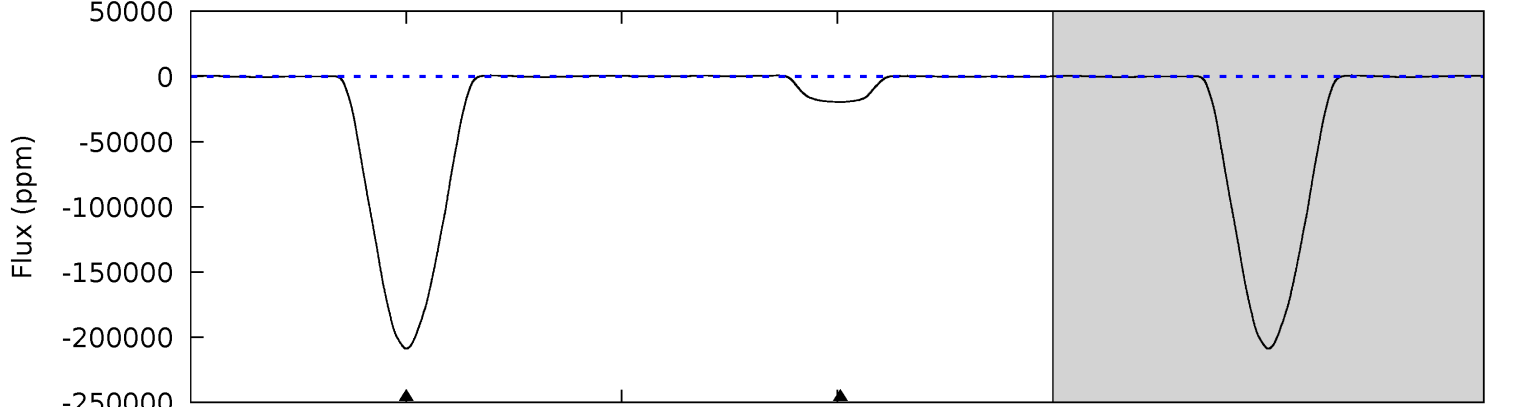
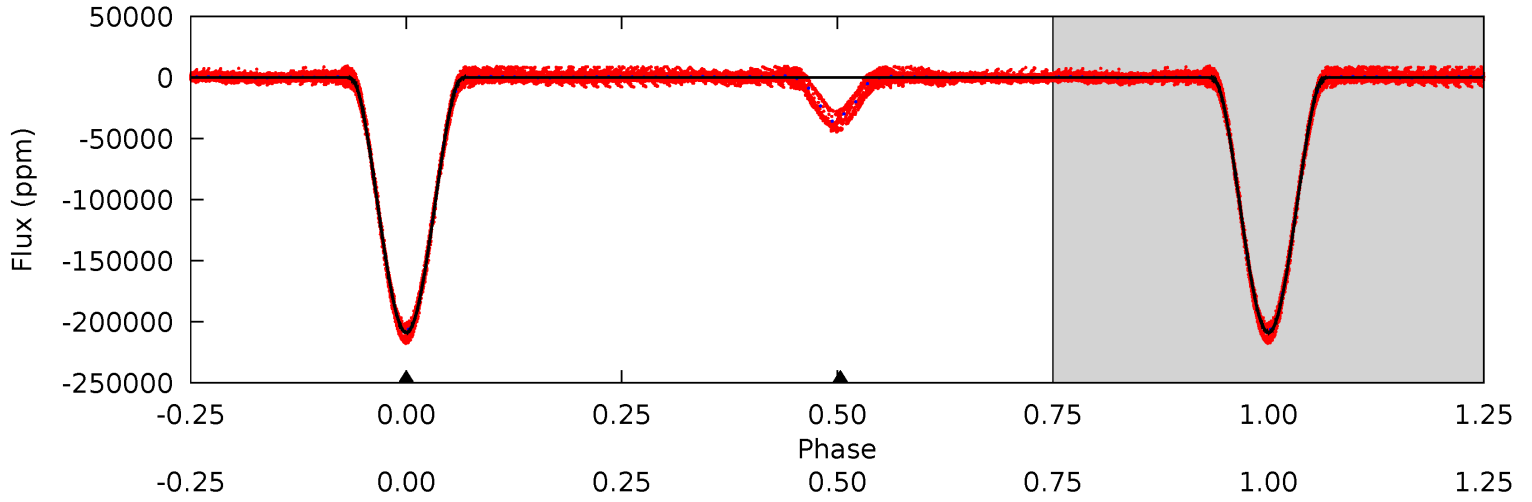
TCE 011076279-01 P= 1.472581 Days $T_0=132.928657$ (BKJD)



DV Model-Shift Uniqueness Test

011076279-01, P = 1.472581 Days, E = 131.455608 Days

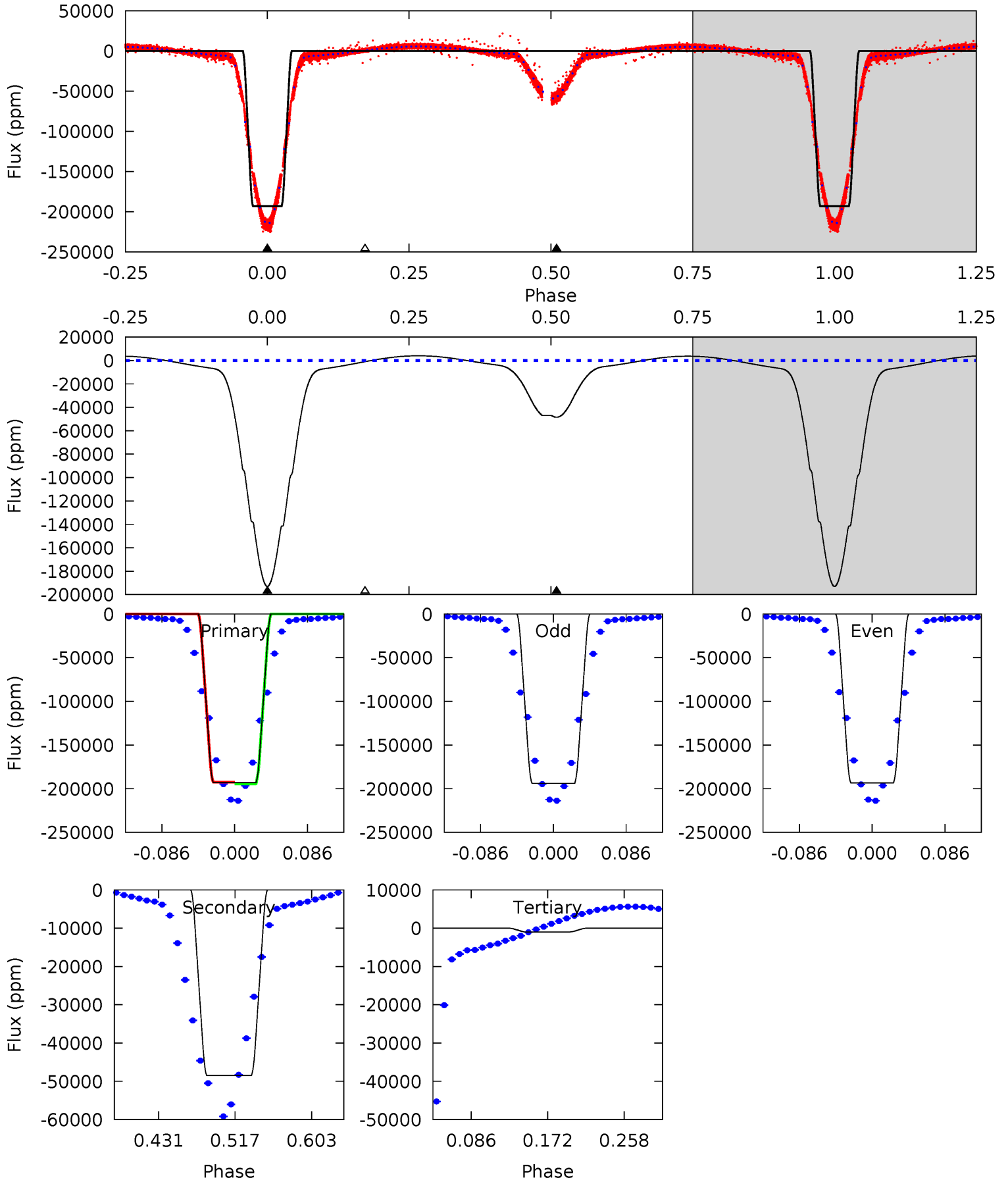
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5098	478.1	0	0	4.50	1.49	7.66	5098	5098	478.1	478.1	7.23	1.00	0.00	48.5



Alt Model-Shift Uniqueness Test

011076279-01, P = 1.472581 Days, E = 131.456076 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2514	631.1	12.5	0	4.60	1.72	45.5	2502	2514	618.6	631.1	3.22	1.00	0.02	12.0



Stellar Parameters For KIC 011076279

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7360^{+232}_{-310}	$4.008^{+0.240}_{-0.160}$	$-0.280^{+0.250}_{-0.350}$	$2.024^{+0.526}_{-0.643}$	$1.521^{+0.220}_{-0.294}$	$0.258^{+0.384}_{-0.117}$
	+3%/-4%	+6%/-4%	+89%/-125%	+26%/-32%	+14%/-19%	+148%/-45%
Source	KIC0	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 011076279-01 / KOI 7407.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-19577 ± 41	$130.94^{+20.49}_{-22.53}$	3760^{+268}_{-323}	3416^{+183}_{-253}	$0.551^{+0.210}_{-0.132}$
Alt.	-48460 ± 77	$100.71^{+15.53}_{-16.80}$	3742^{+271}_{-320}	4994^{+155}_{-171}	$2.336^{+0.905}_{-0.522}$

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 $A_{obs} \gg 1.0$

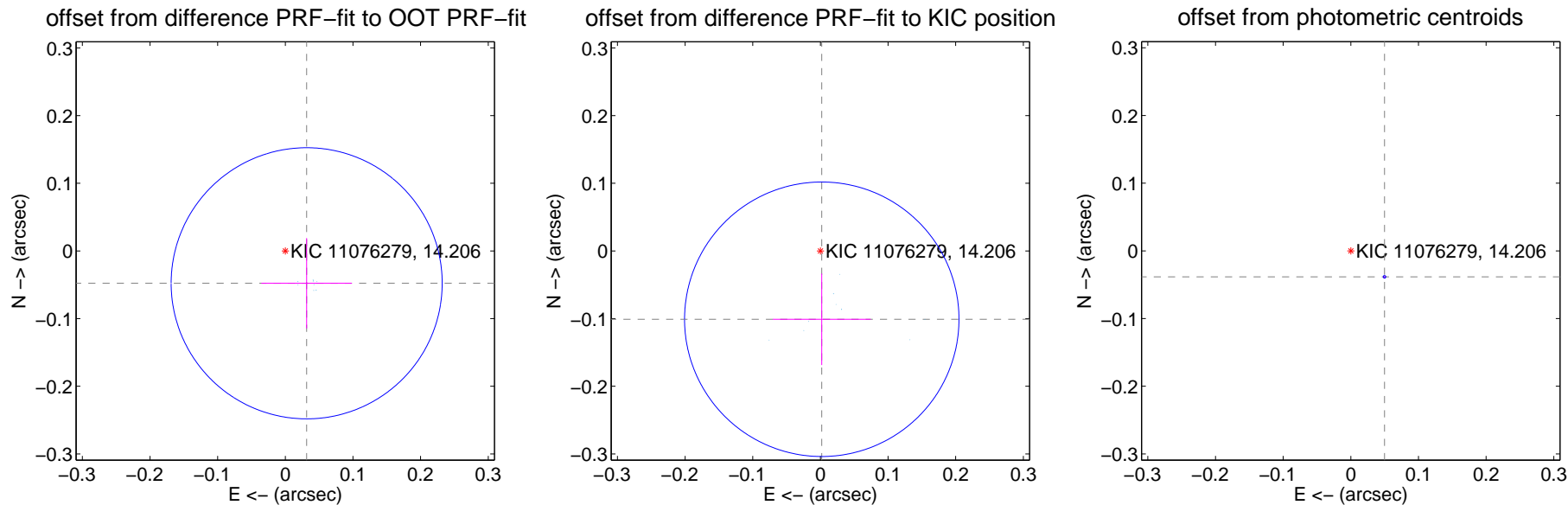
DV Centroid Data

Supplemental centroid analysis for 011076279-01. Kepler magnitude: 14.21. Transit SNR 2352.79

There are 9 quarters with good PRF difference image offsets

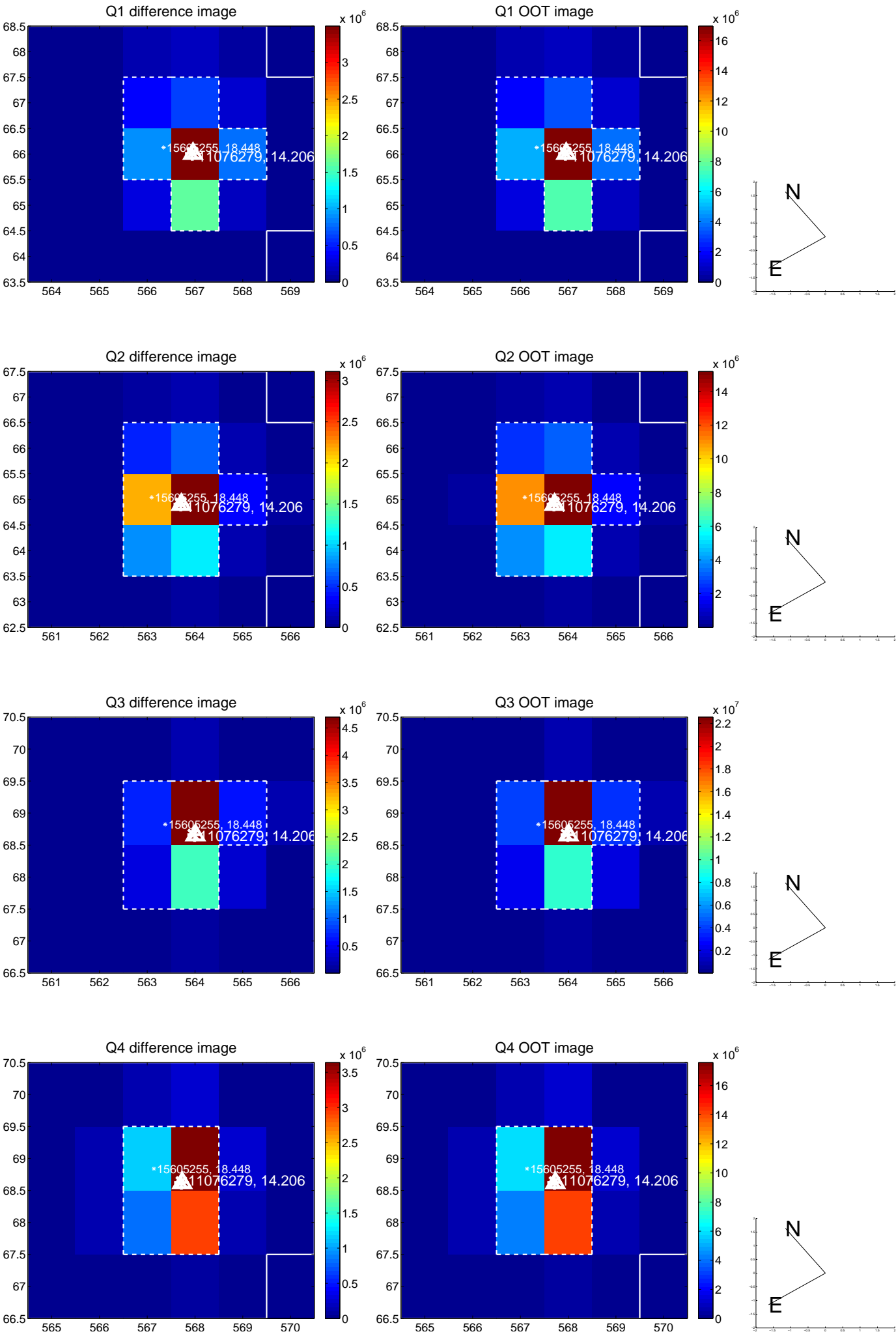
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.057 ± 0.067	0.86	-0.032 ± 0.067	-0.048 ± 0.067
PRF-fit source offset from KIC position	0.101 ± 0.068	1.49	-0.002 ± 0.072	-0.101 ± 0.068
photometric centroid source offset	0.06 ± 0.00	99.36	-0.05 ± 0.00	-0.04 ± 0.00

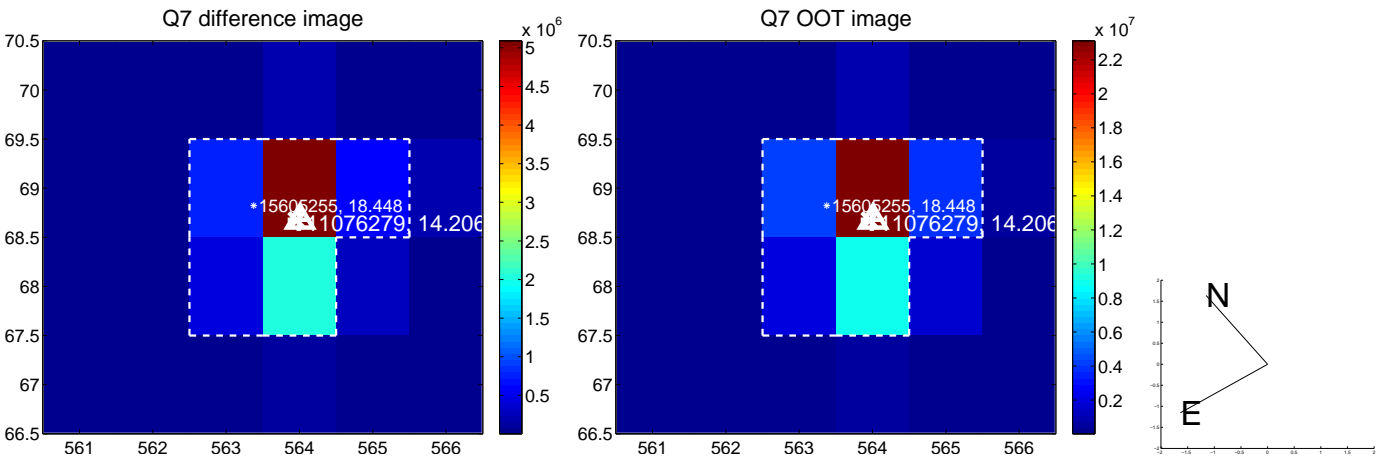
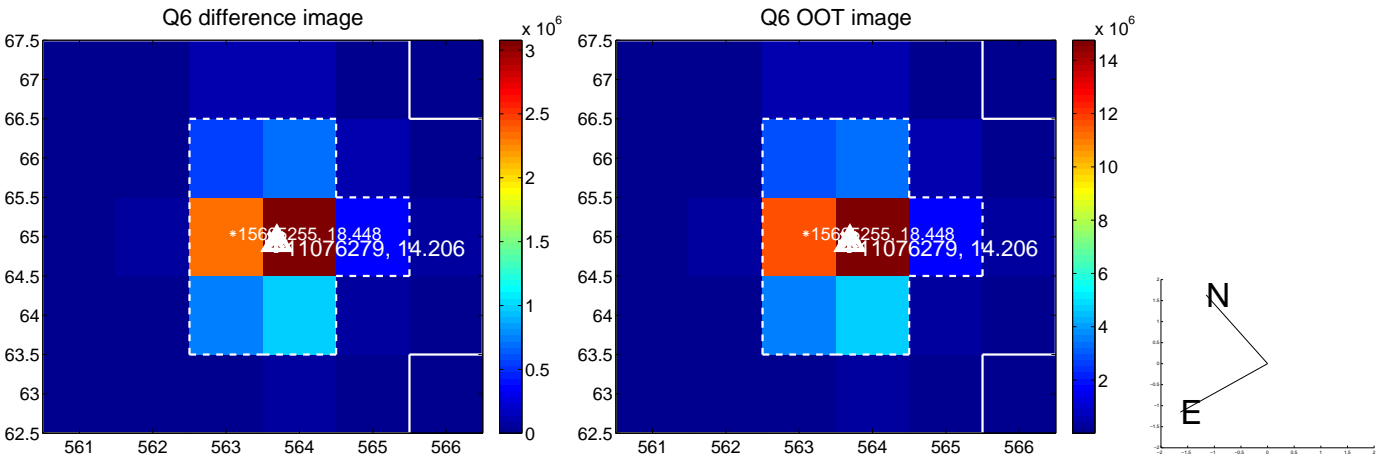
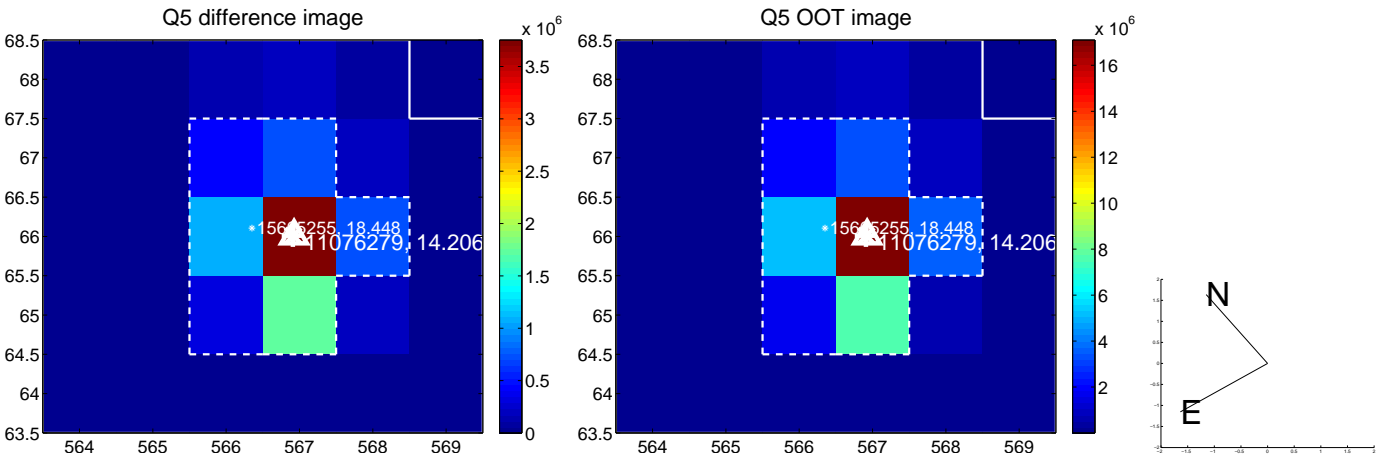


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

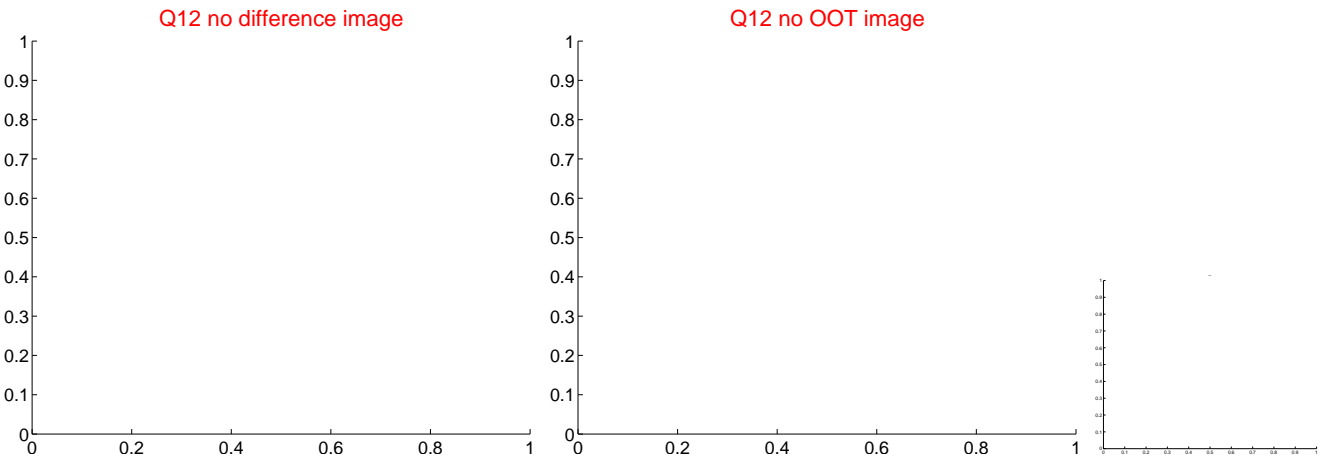
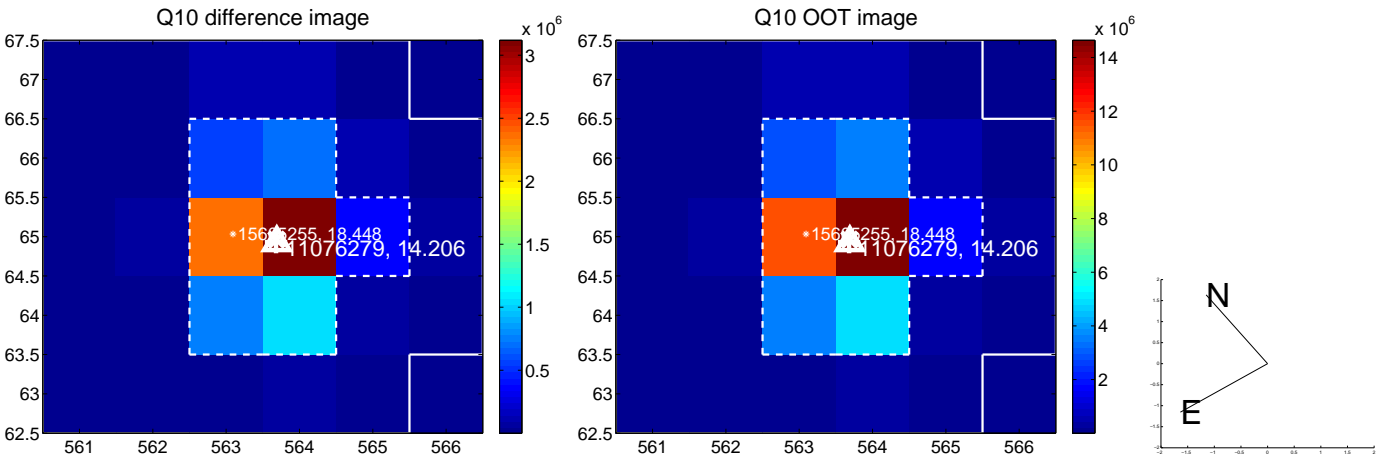
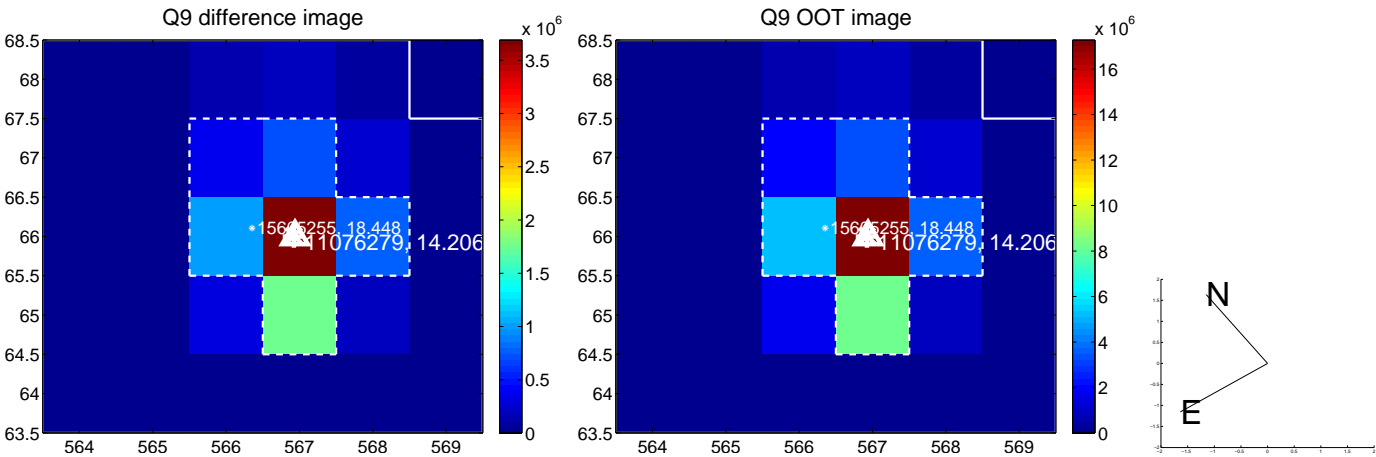
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



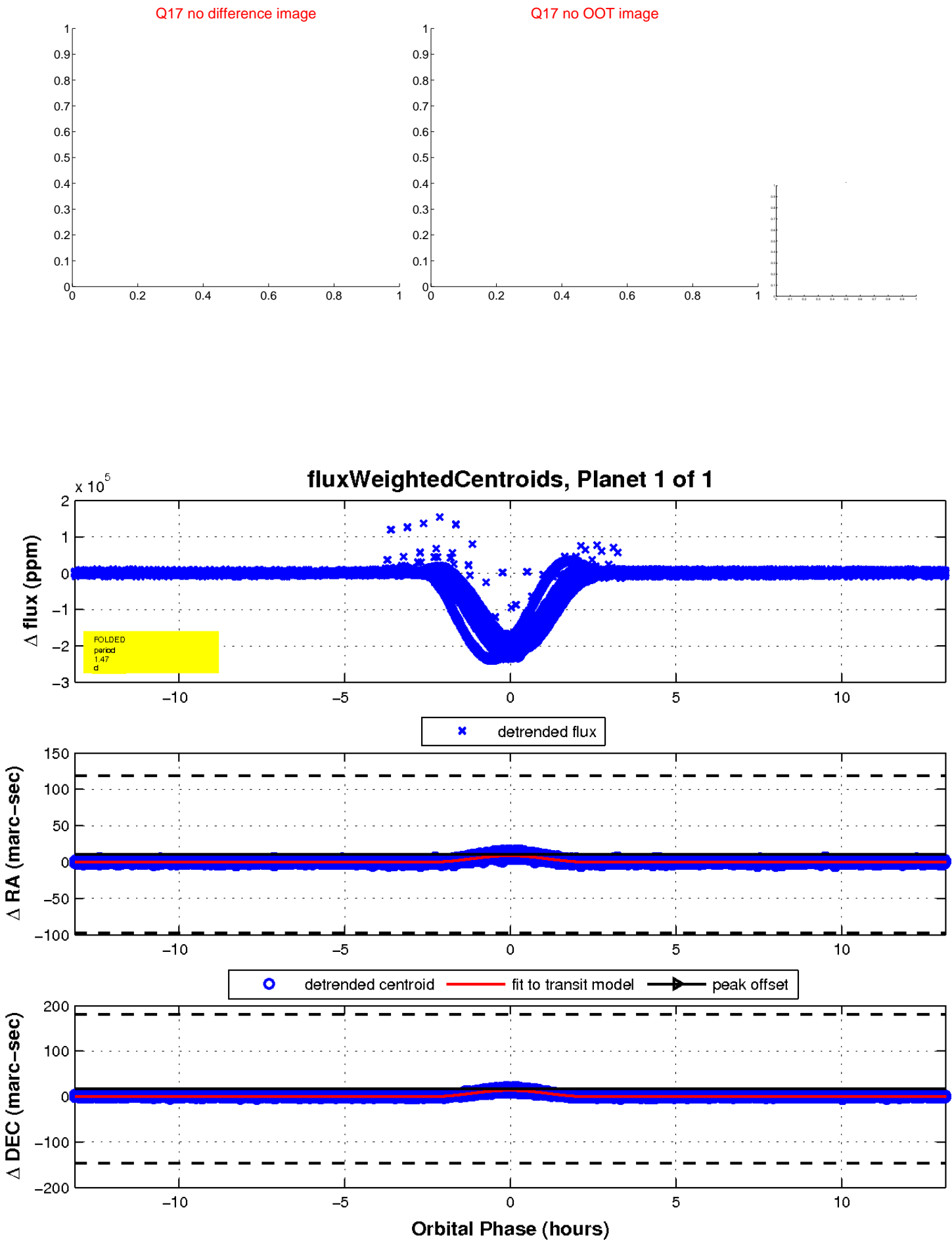
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

