

KIC 011909686

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})
011909686-01	OBS	1483.01	185.952602	288.874356	11005.6	3.571	127.2	150.5	1.16	5813	19.83	3.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011909686-01	OBS	FP	0.00	0	1	0	0	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.

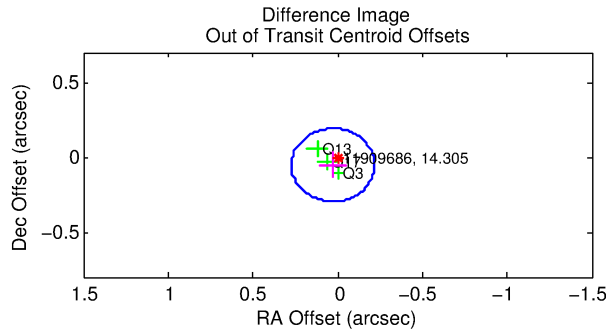
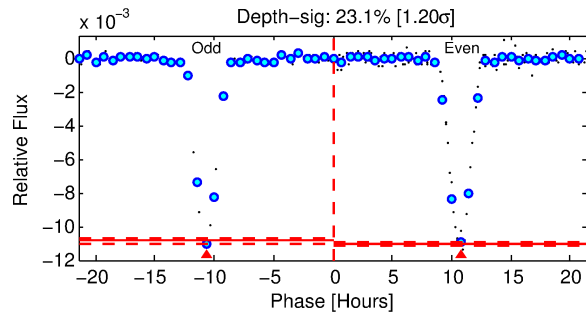
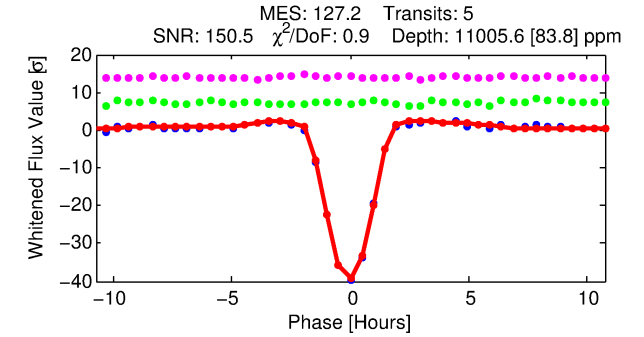
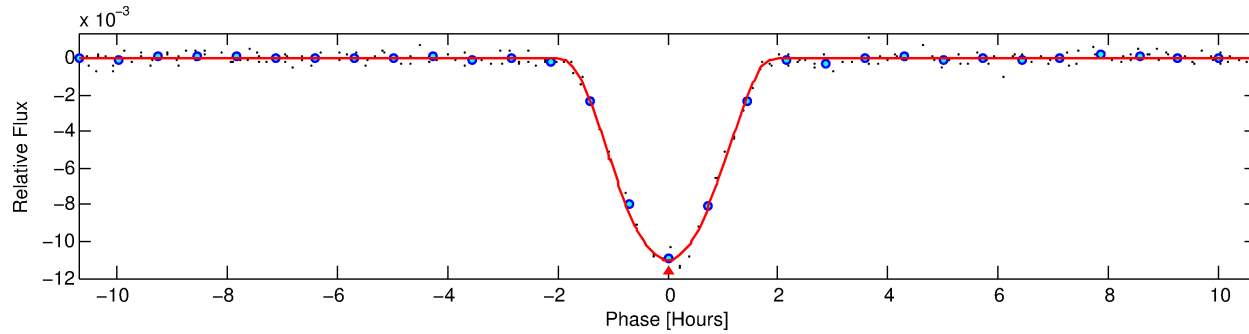
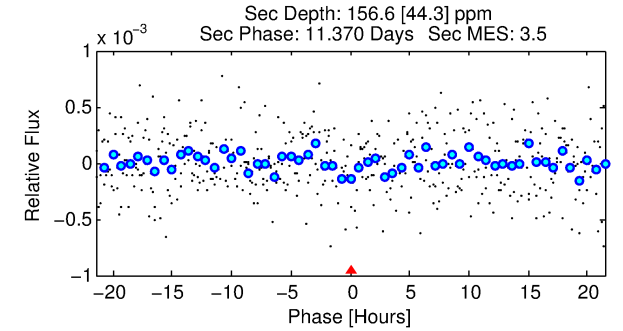
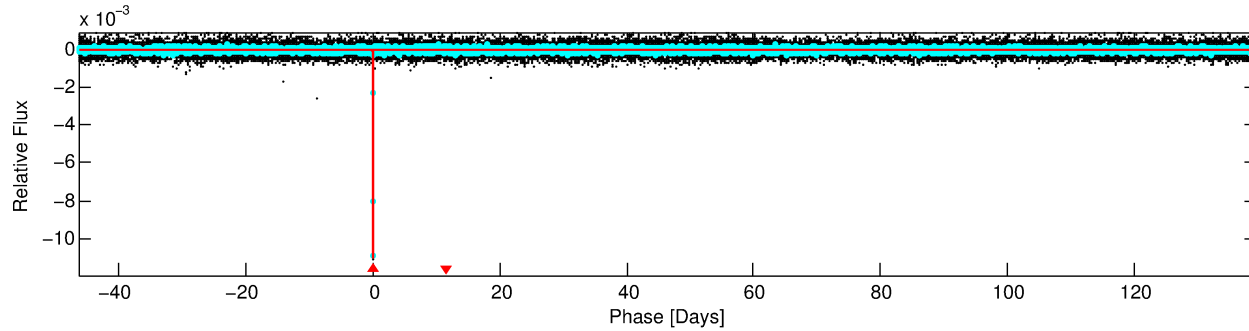
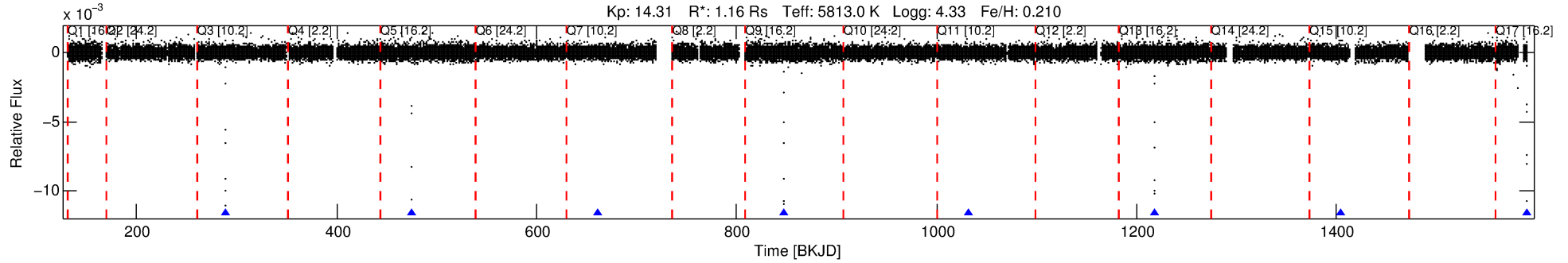
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011909686-01

No Significant Match Found

DV One-Page Summary

KIC: 11909686 Candidate: 1 of 1 Period: 185.953 d
KOI: K01483.01 Corr: 0.989



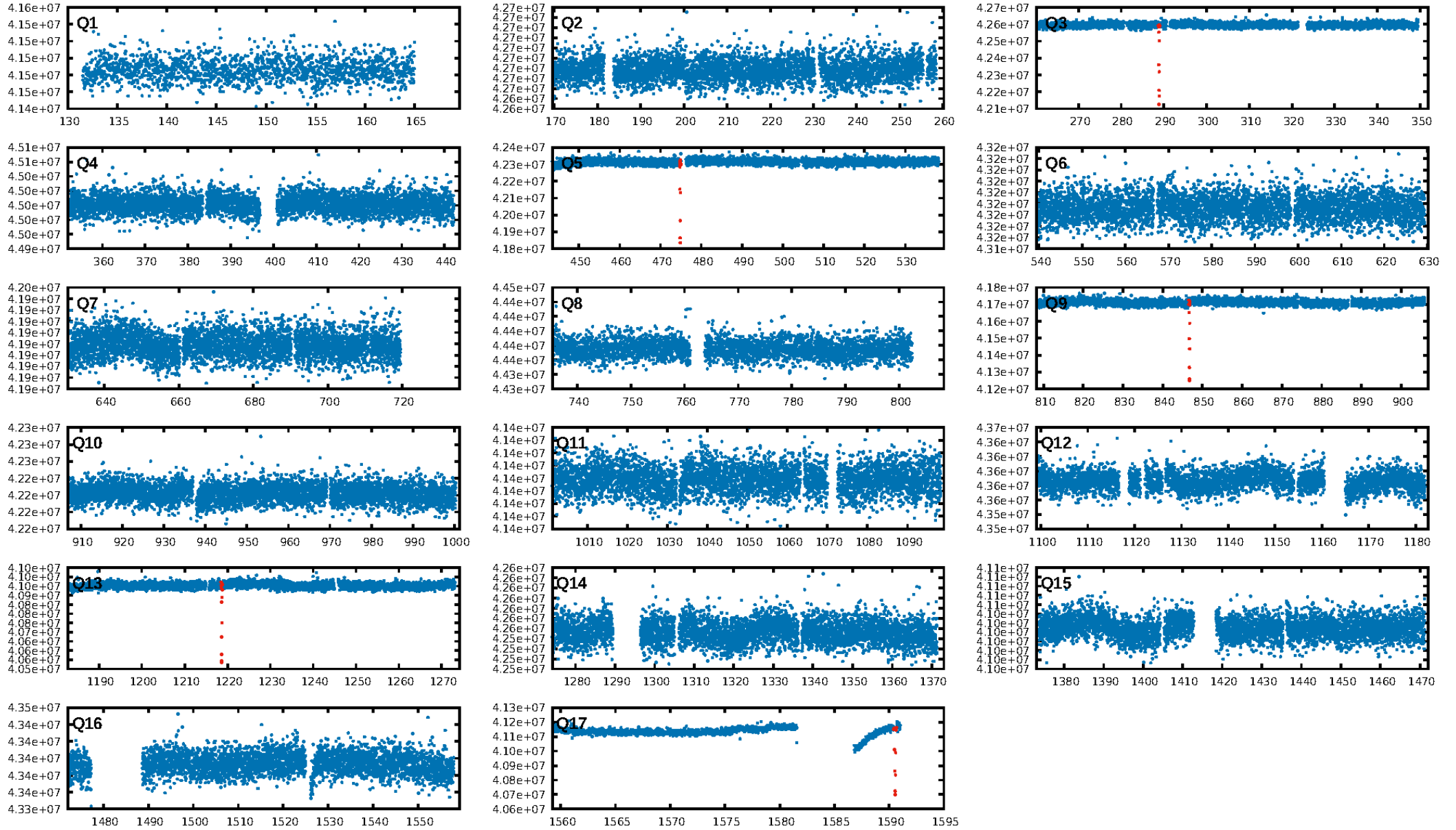
DV Fit Results:

Period = 185.95260 [0.00012] d
Epoch = 288.8744 [0.0004] BKJD
Rp/R* = 0.1561 [0.0444]
a/R* = 248.29 [12.85]
b = 0.97 [0.07]
Seff = 3.29 [0.73]
Teq = 343 [19] K
Rp = 19.83 [6.48] Re
a = 0.6495 [0.0921] AU
Ag = 92.43 [61.97] [1.48 σ]
Teffp = 1646 [263] K [4.95 σ]

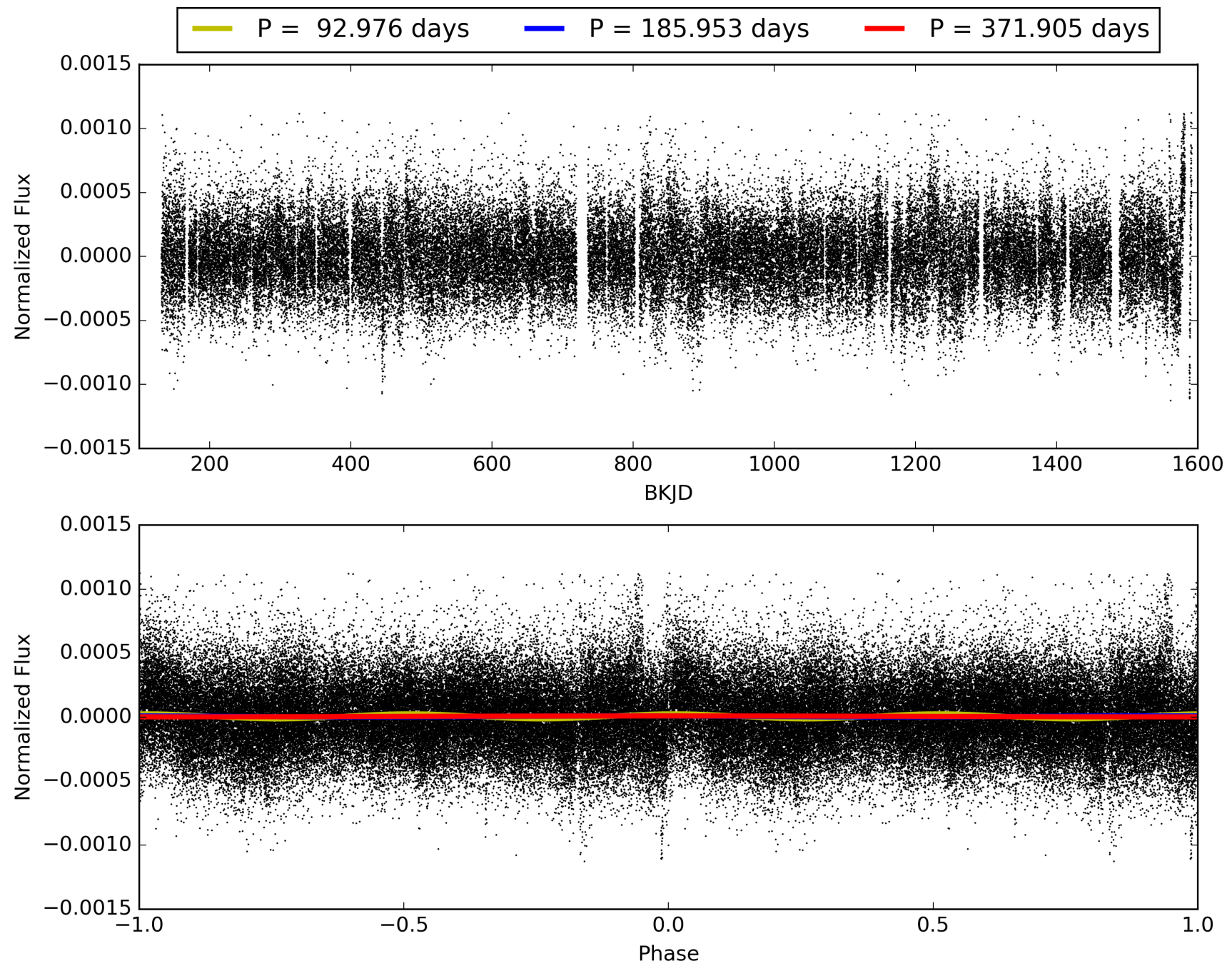
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 41.8%
ModelChiSquareGof-sig: 89.9%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 3.77
Centroid-sig: 37.6%
Centroid-so: 0.250 arcsec [2.72 σ]
OotOffset-rm: 0.060 arcsec [0.73 σ]
KicOffset-rm: 0.183 arcsec [2.11 σ]
OotOffset-st: 0/1/0/2 [3]
KicOffset-st: 0/1/0/2 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 011909686-01, PDC Light Curves

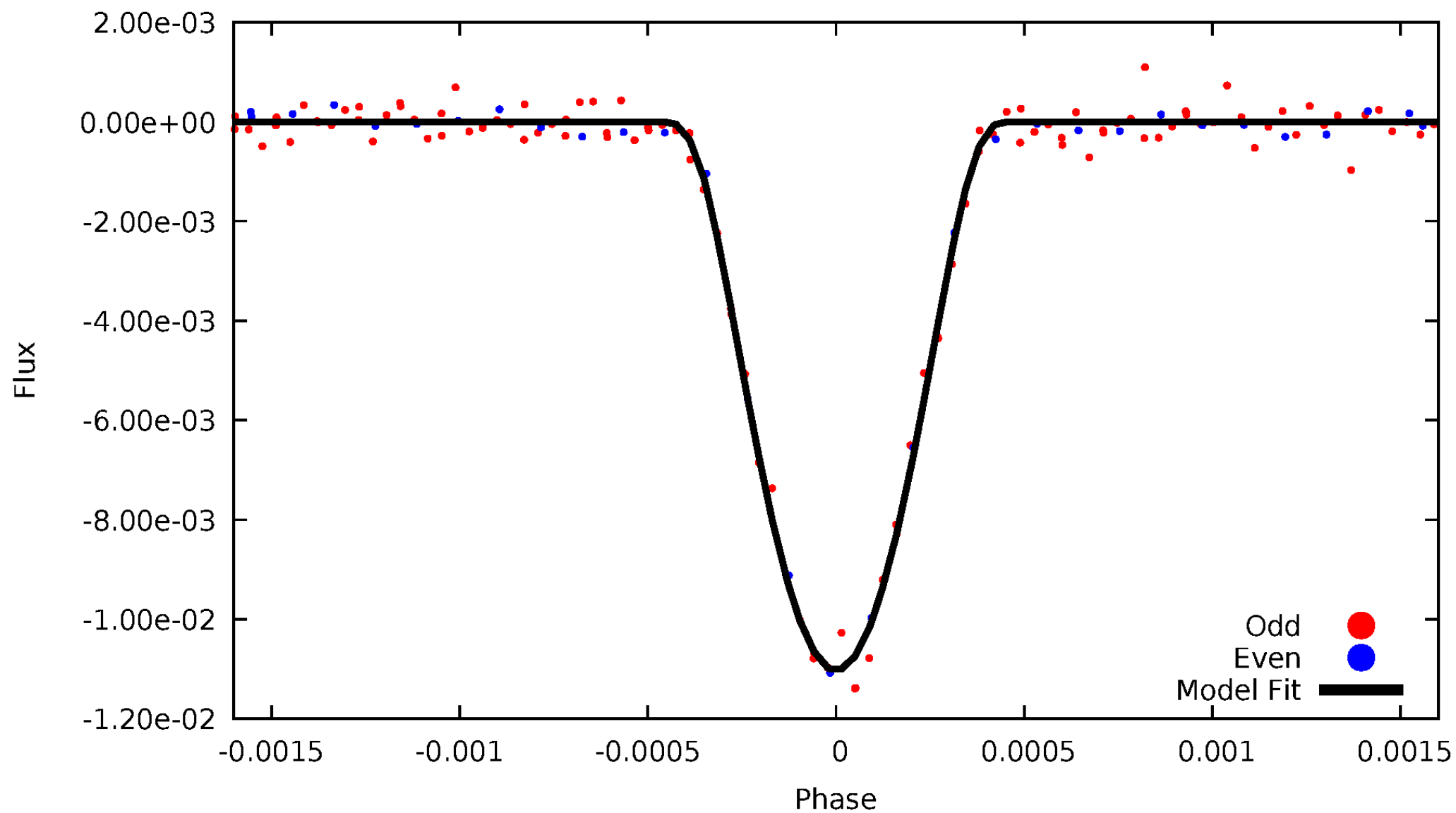


TCE 011909686-01



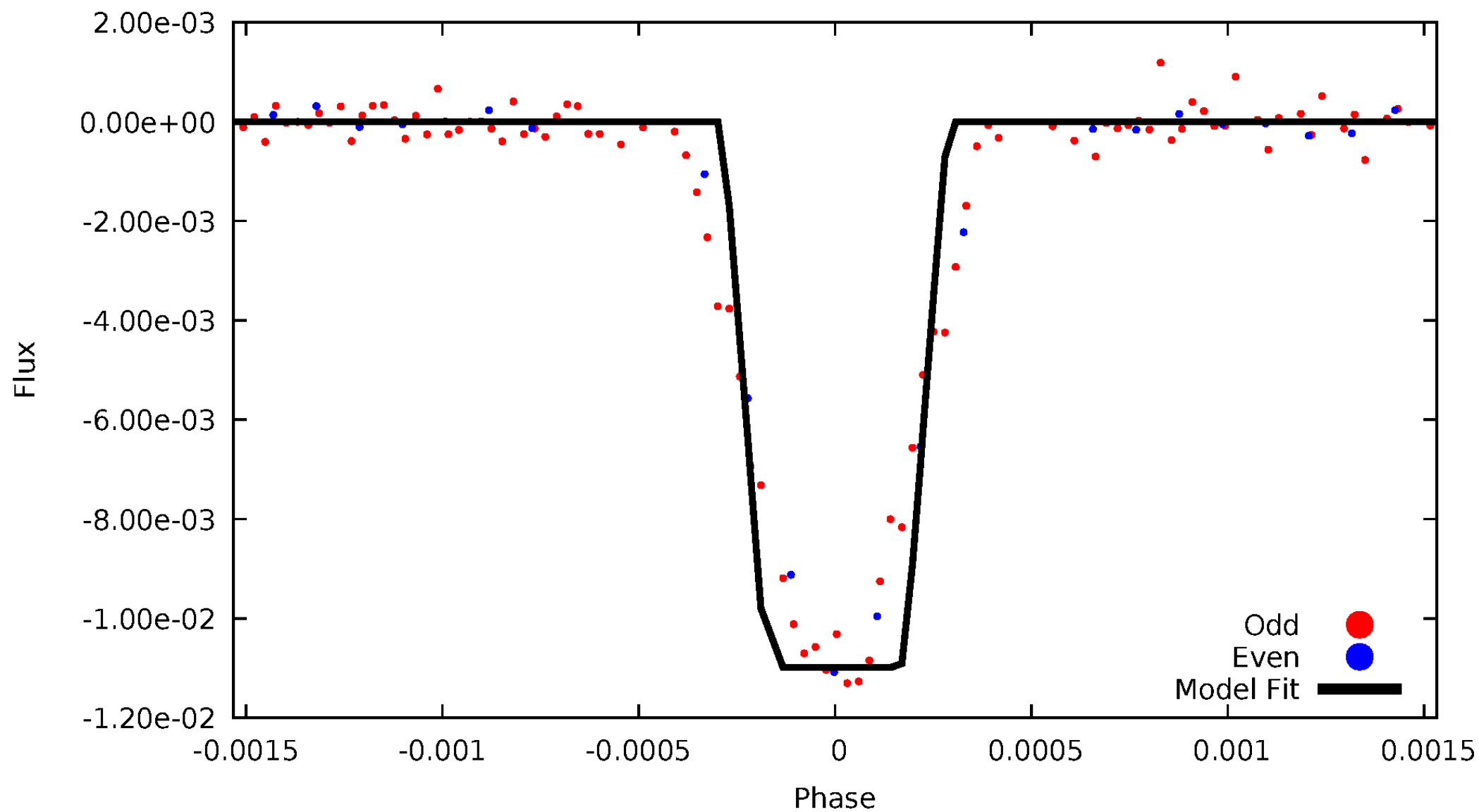
DV Odd/Even

TCE 011909686-01

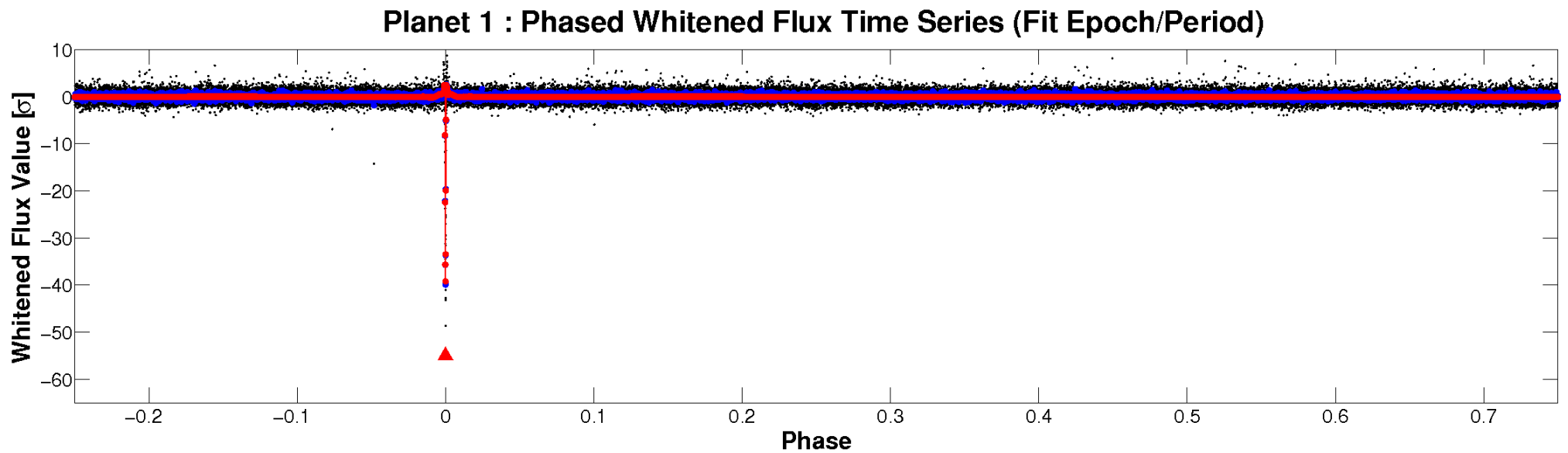
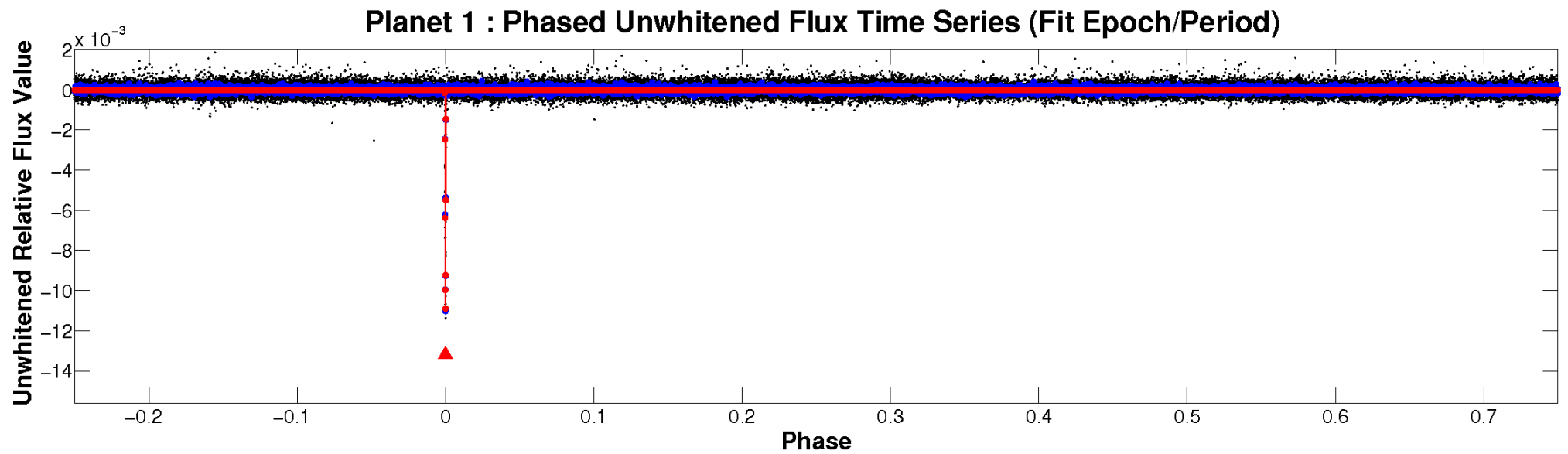


ALT Odd/Even

TCE 011909686-01

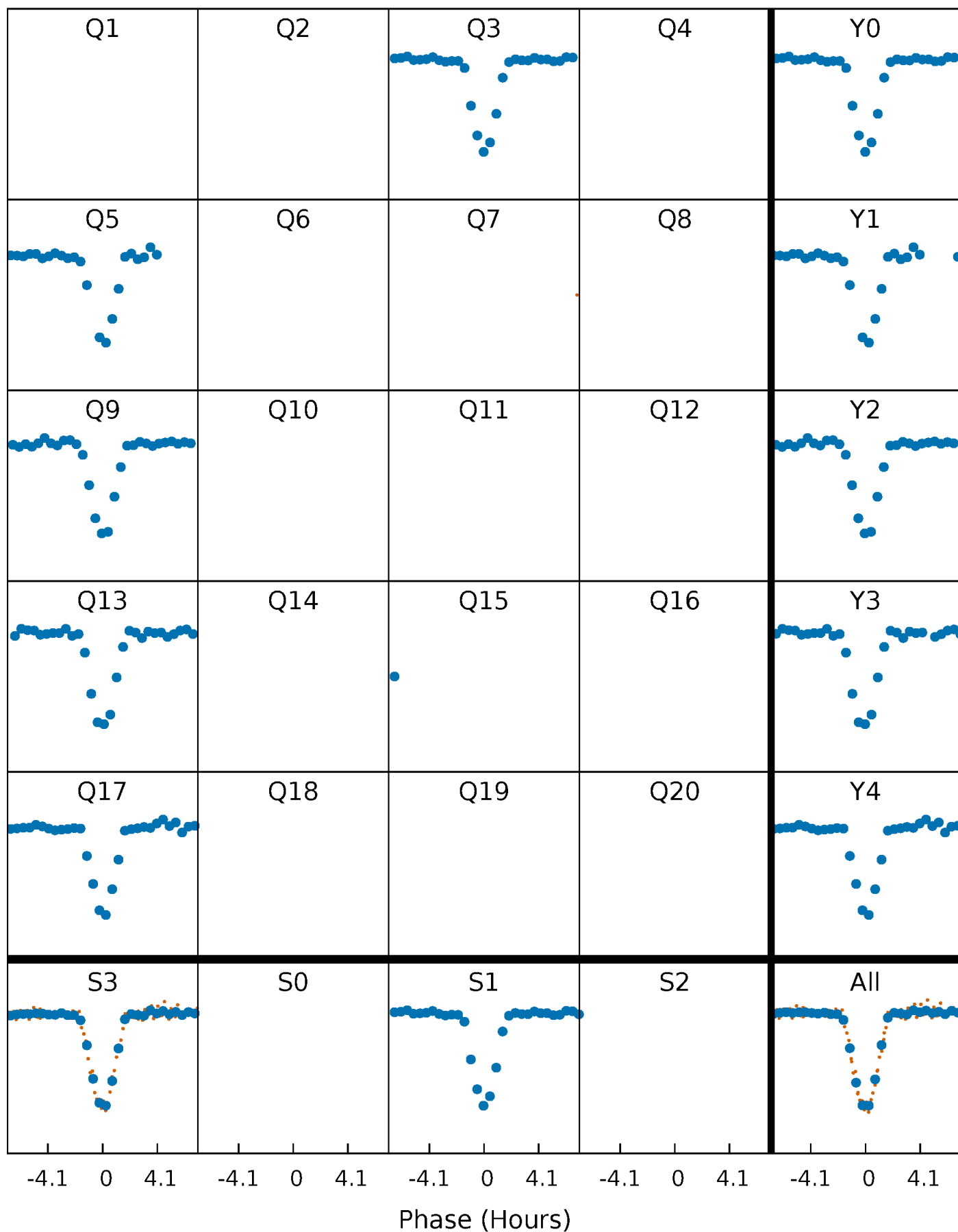


Non-Whitened Vs. Whitened Light Curve



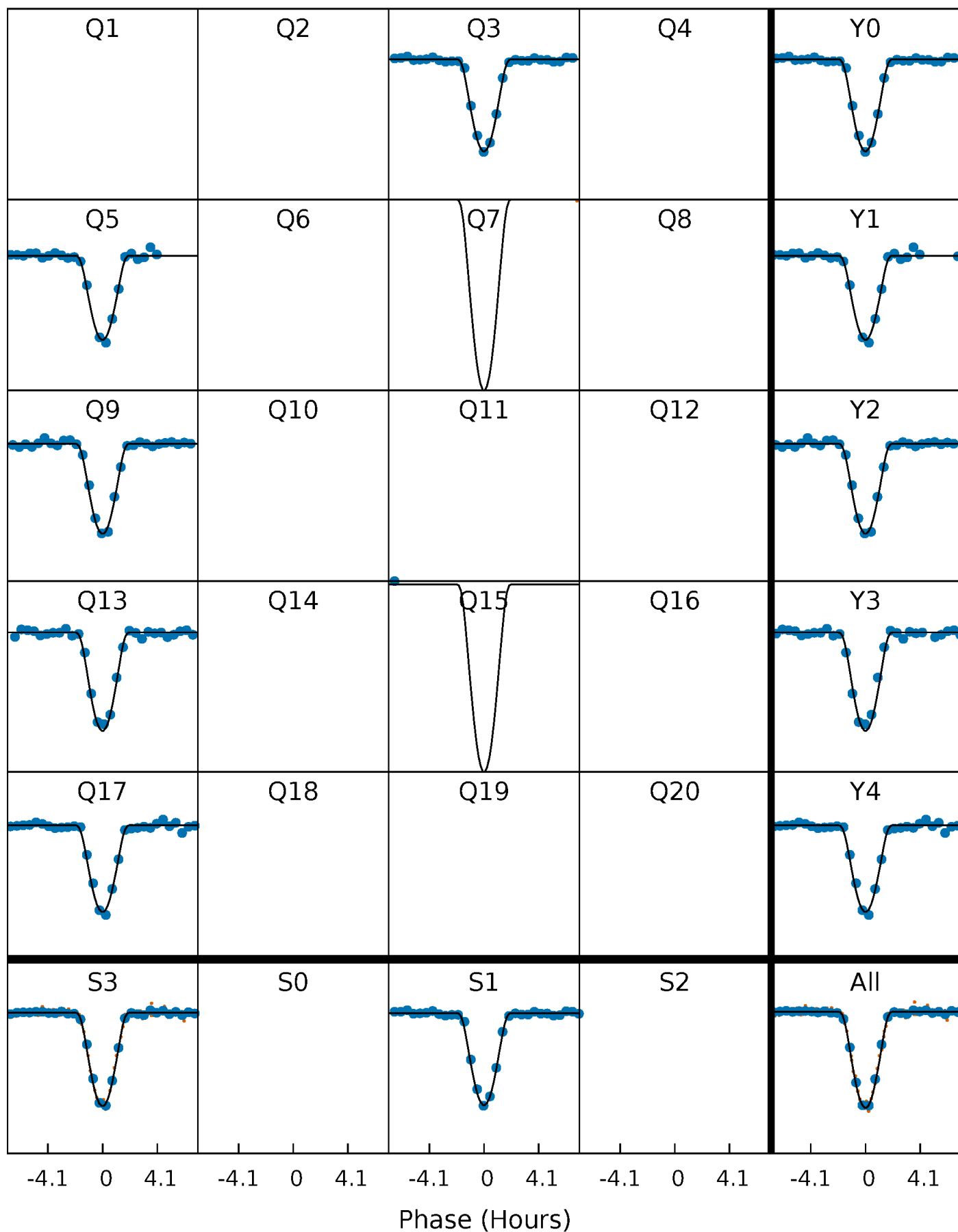
PDC Quarter-Phased Transit Curves

TCE 011909686-01 P=185.952602 Days $T_0=288.874356$ (BKJD)



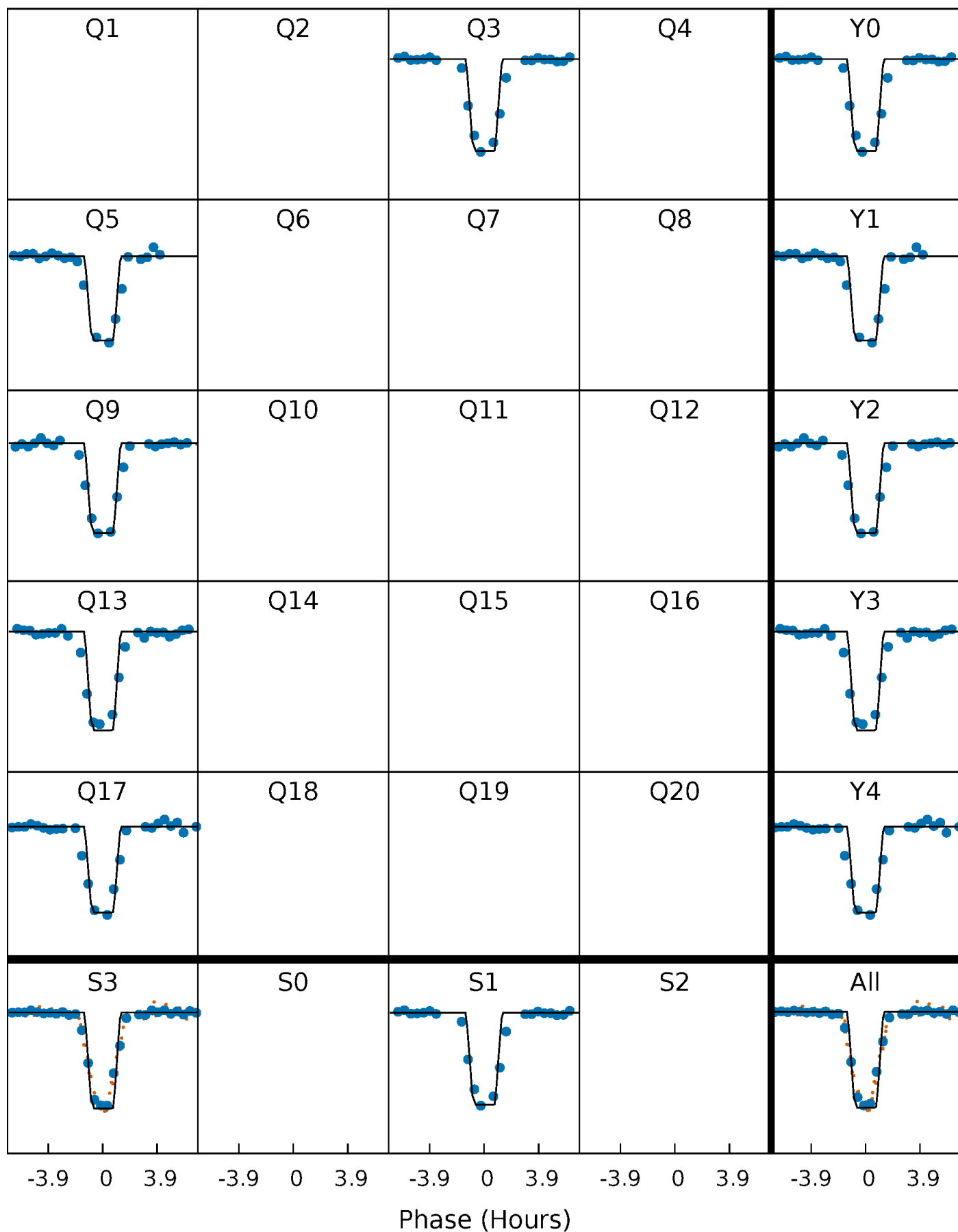
DV Quarter-Phased Transit Curves

TCE 011909686-01 P=185.952602 Days $T_0=288.874356$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

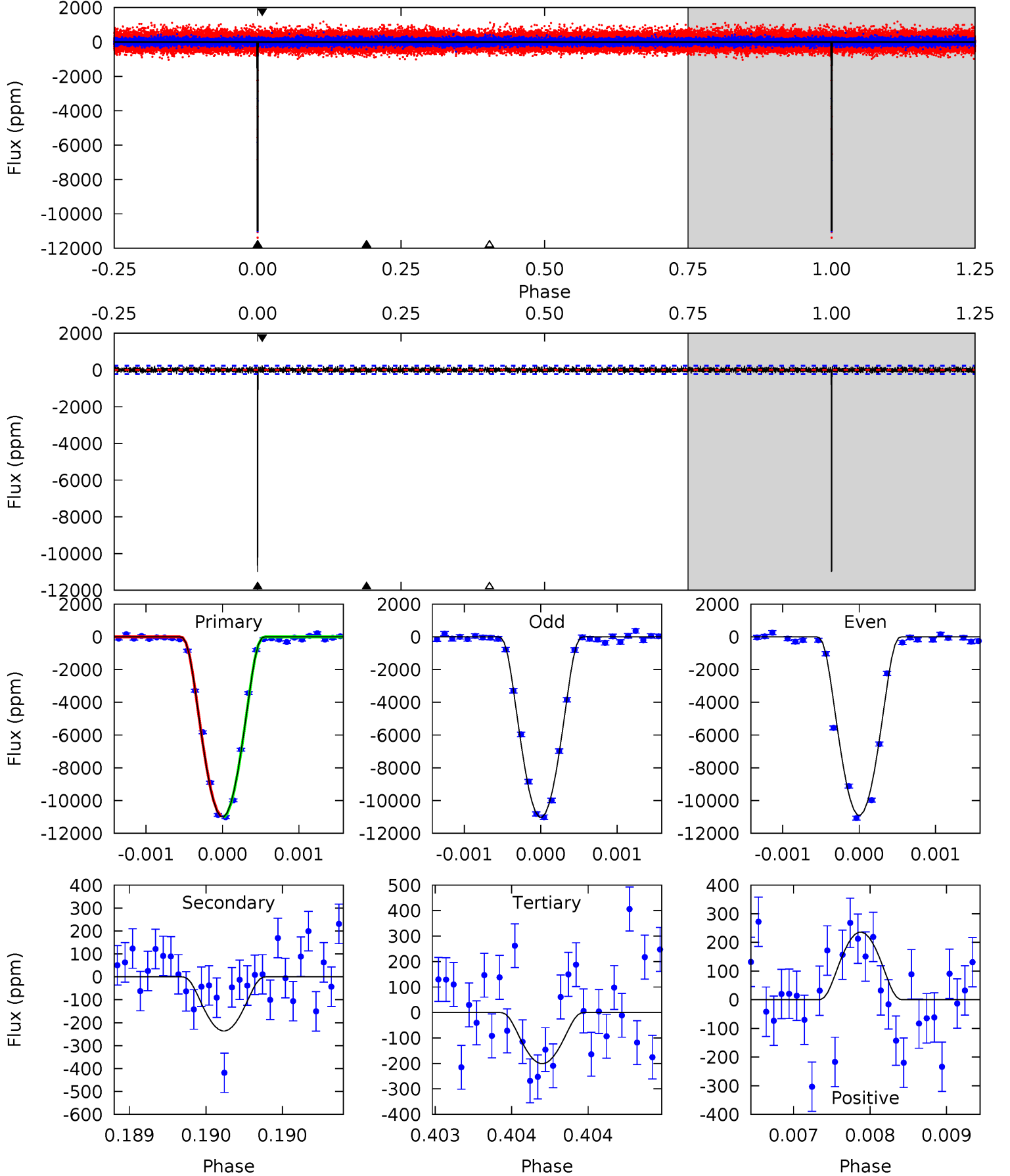
TCE 011909686-01 P=185.953447 Days $T_0=288.871962$ (BKJD)



DV Model-Shift Uniqueness Test

011909686-01, P = 185.952602 Days, E = 102.921754 Days

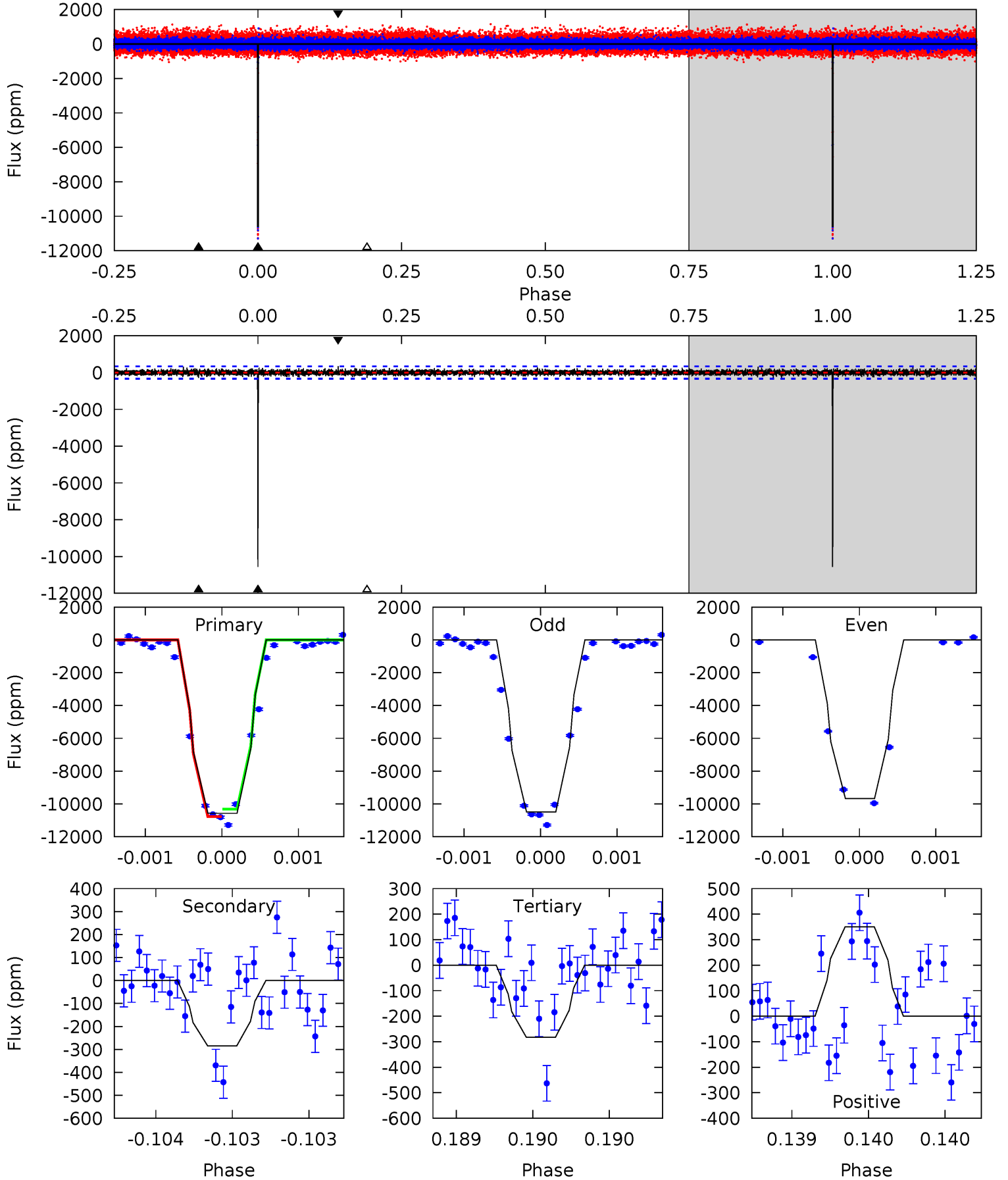
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
262.8	5.64	4.80	5.64	5.49	3.35	1.49	258.0	257.2	0.85	0.01	1.27	0.99	0.02	1.09



Alt Model-Shift Uniqueness Test

011909686-01, P = 185.953447 Days, E = 102.918515 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
174.0	4.68	4.65	5.76	5.55	3.44	1.16	169.3	168.2	0.02	-1.09	5.96	0.99	0.03	3.47



Stellar Parameters For KIC 011909686

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5813^{+69}_{-87}	$4.330^{+0.099}_{-0.121}$	$0.210^{+0.150}_{-0.150}$	$1.164^{+0.187}_{-0.136}$	$1.057^{+0.079}_{-0.063}$	$0.944^{+0.393}_{-0.326}$
	+1%/-1%	+2%/-3%	+71%/-71%	+16%/-12%	+7%/-6%	+42%/-35%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 011909686-01 / KOI 1483.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-236 ± 42	$20.03^{+6.57}_{-6.03}$	481^{+22}_{-18}	2623^{+281}_{-174}	133^{+147}_{-58}
Alt.	-284 ± 61	$13.77^{+5.53}_{-5.75}$	481^{+21}_{-19}	2969^{+517}_{-268}	341^{+691}_{-180}

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

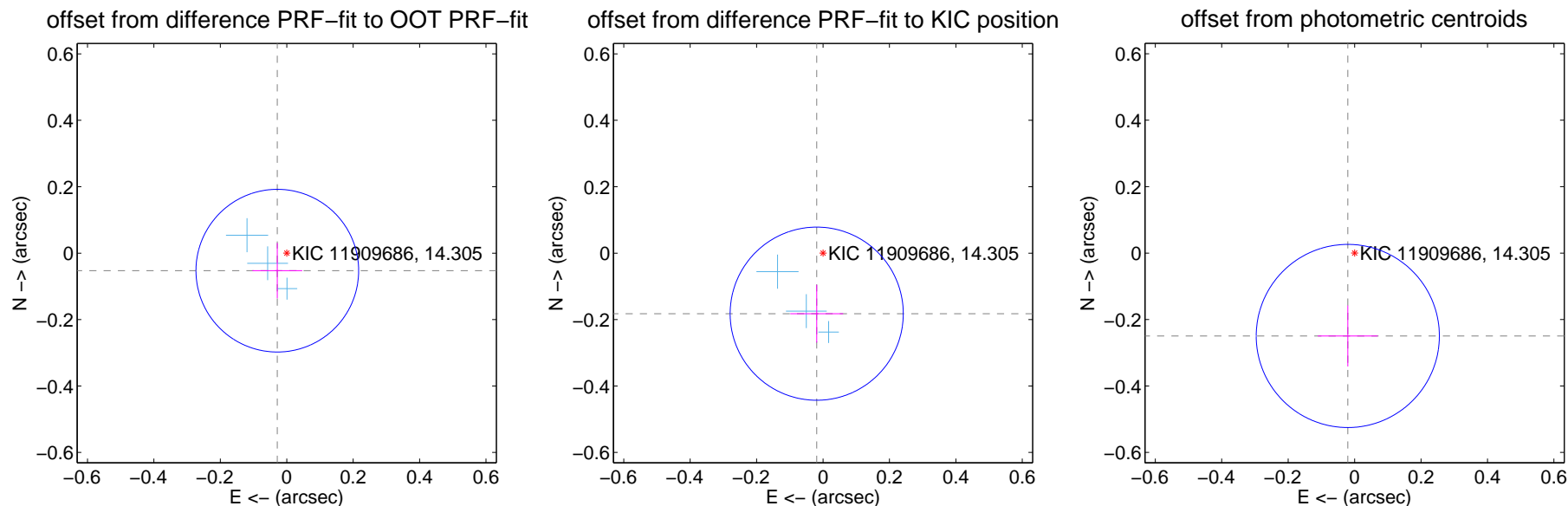
DV Centroid Data

Supplemental centroid analysis for 011909686-01. Kepler magnitude: 14.30. Transit SNR 150.51

There are 3 quarters with good PRF difference image offsets

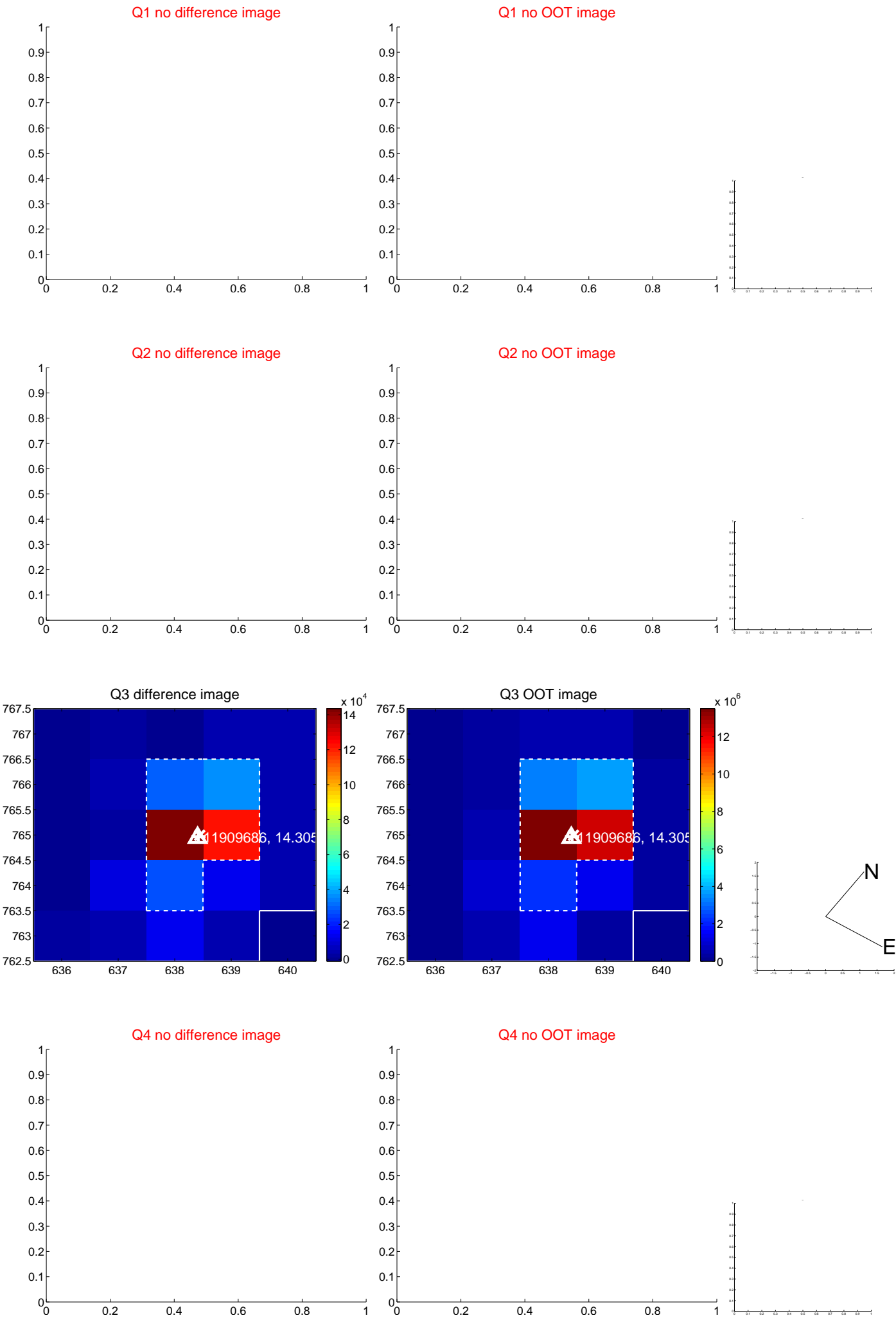
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.060 ± 0.082	0.73	0.028 ± 0.075	-0.053 ± 0.083
PRF-fit source offset from KIC position	0.183 ± 0.087	2.11	0.019 ± 0.080	-0.182 ± 0.087
photometric centroid source offset	0.25 ± 0.09	2.72	0.02 ± 0.09	-0.25 ± 0.09



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.



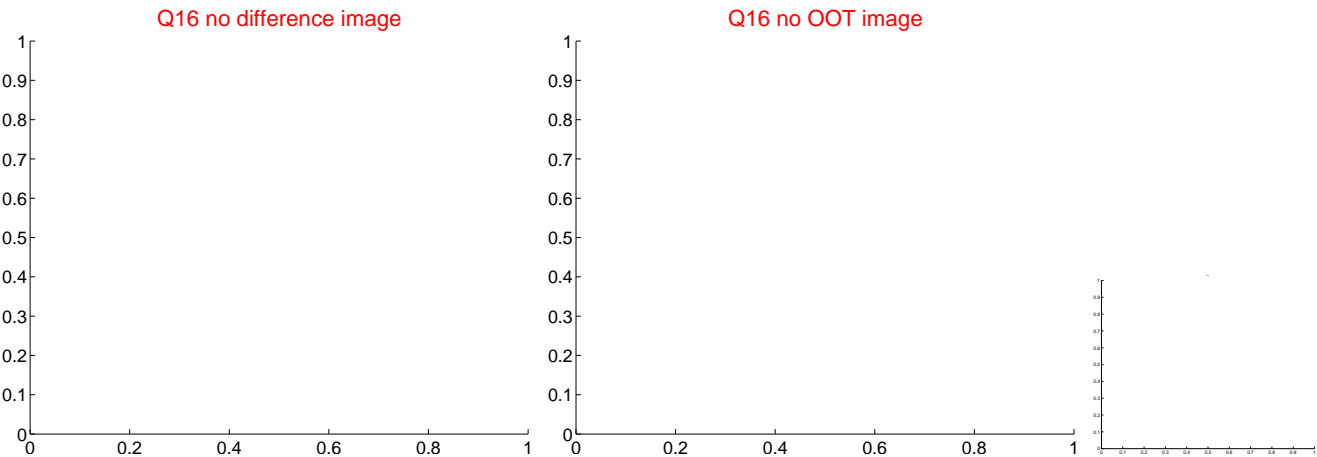
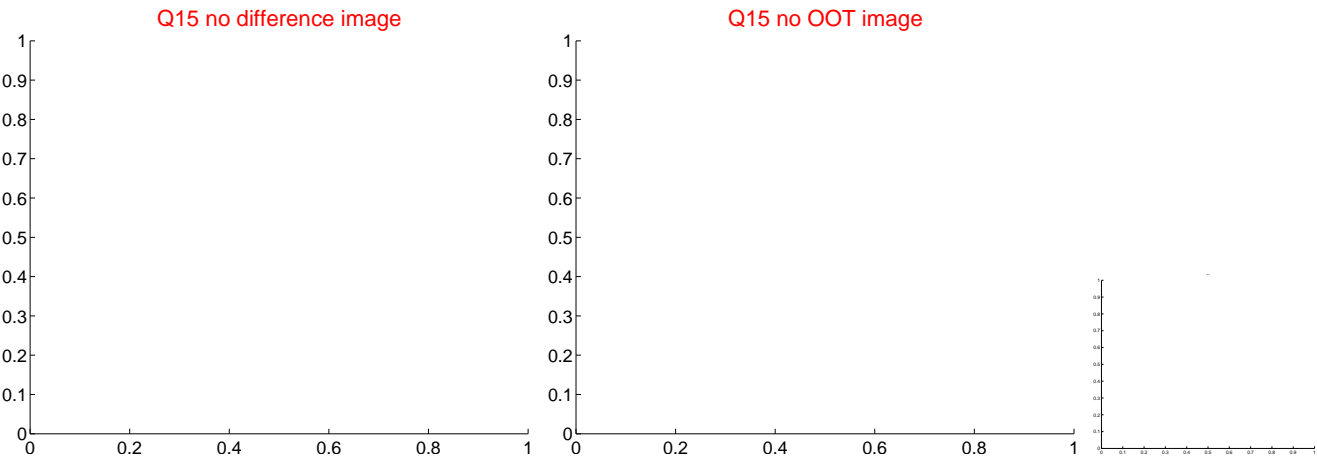
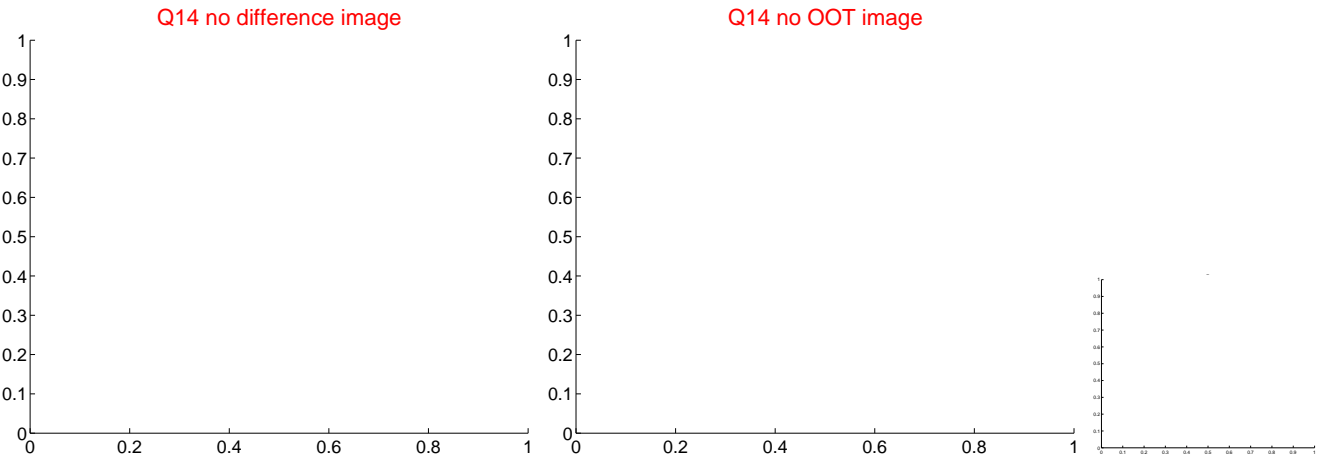
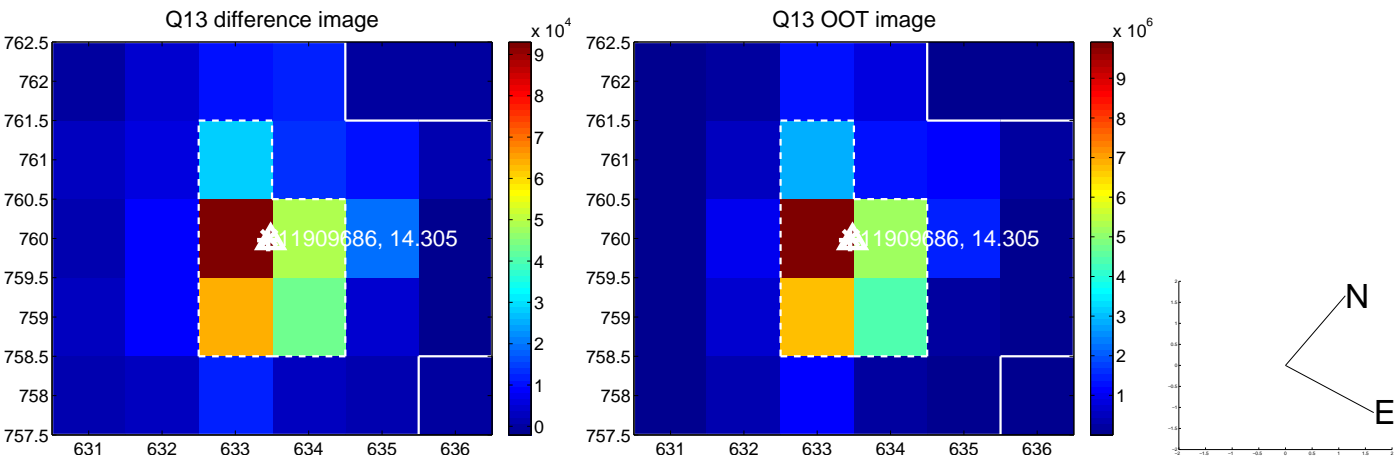
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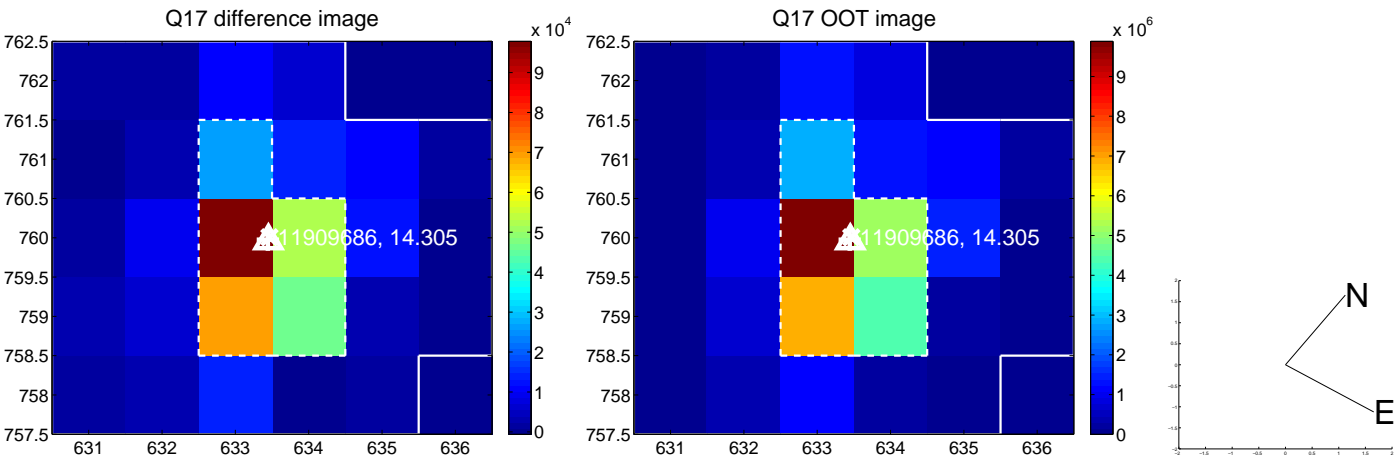
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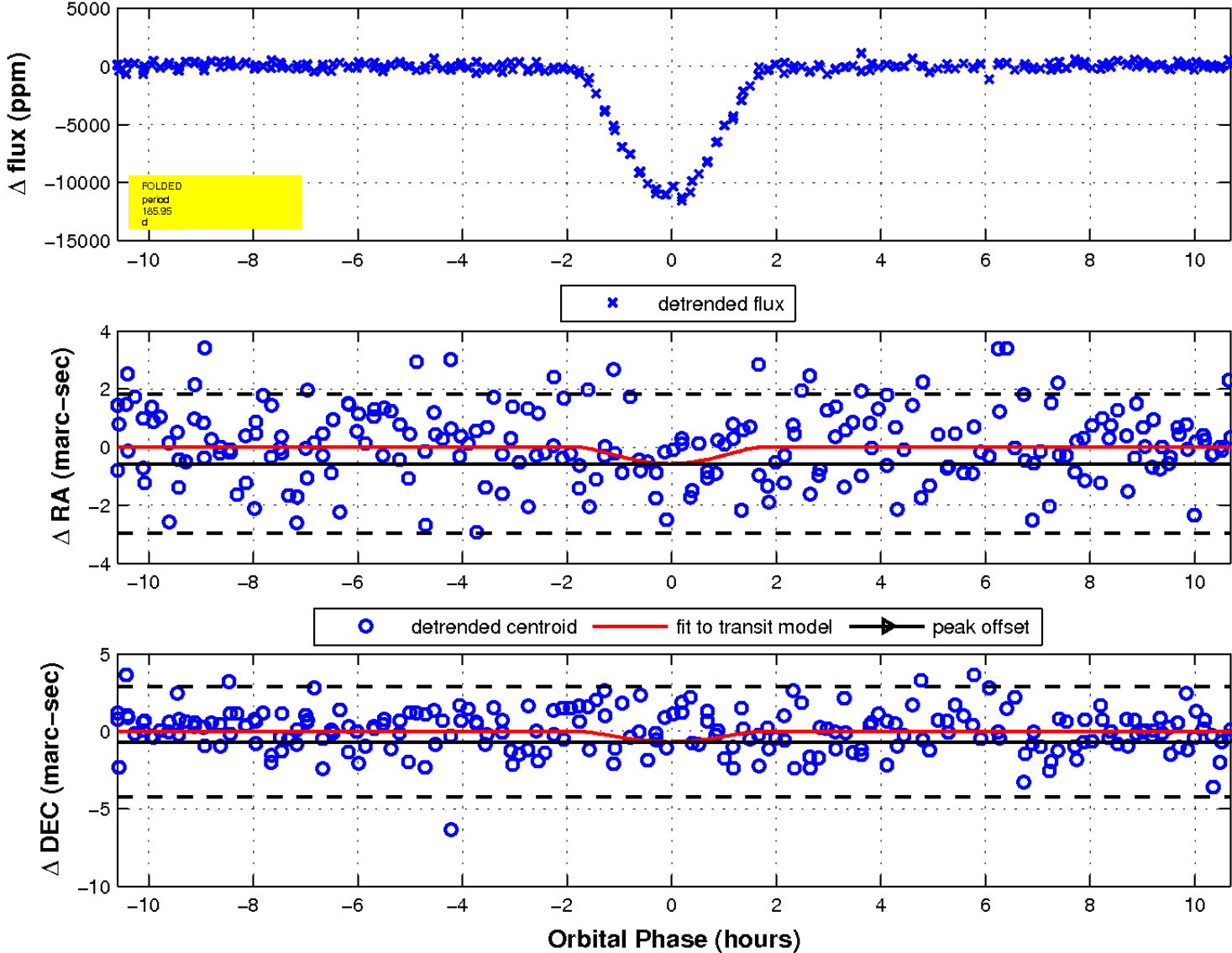
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

