

KIC 010487119

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})
010487119-01	OBS	1635.01	3.374686	131.769692	70335.7	4.546	2088.4	1360.8	0.94	5754	28.51	433.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010487119-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_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.

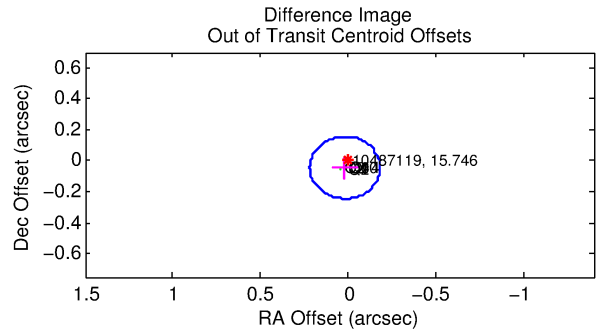
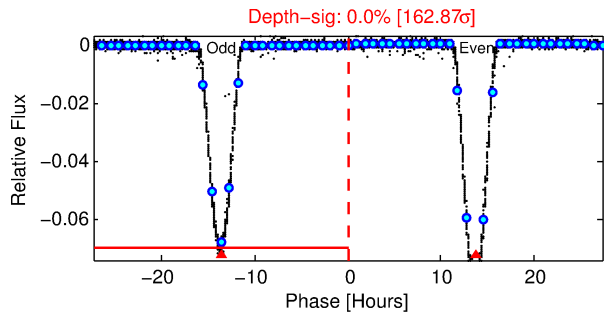
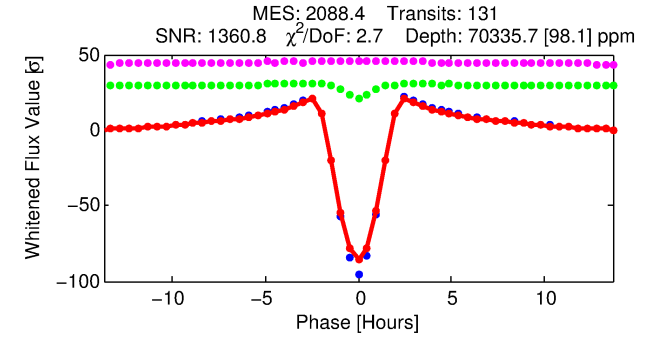
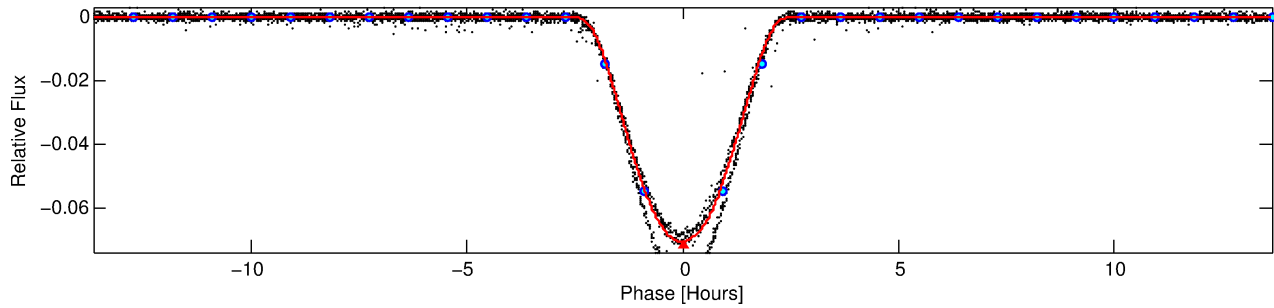
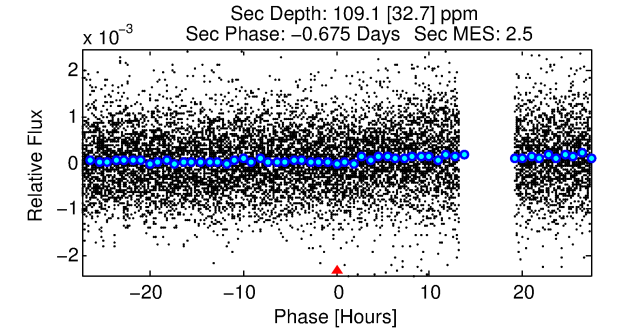
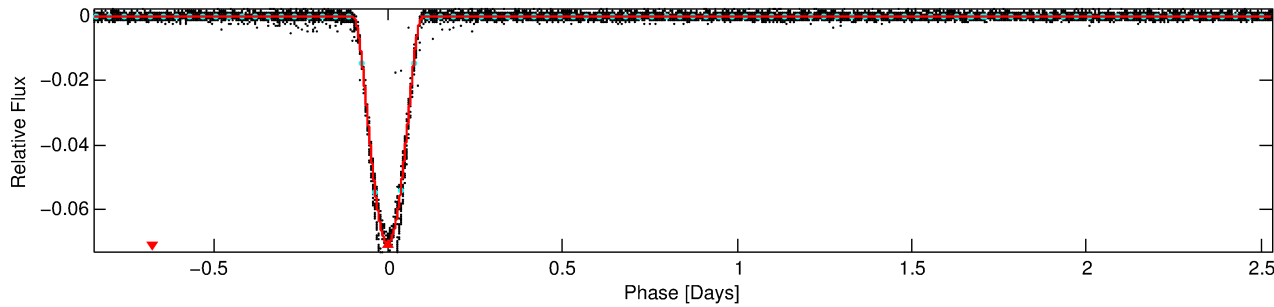
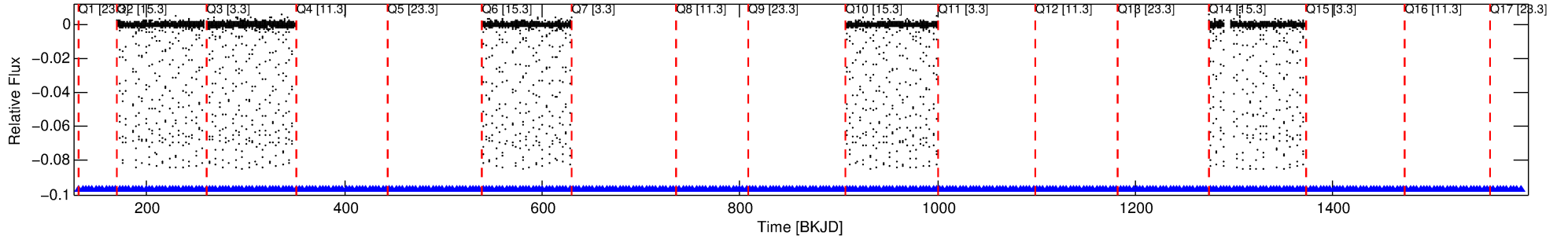
Ephemeris Match Information For 010487119-01

No Significant Match Found

DV One-Page Summary

KIC: 10487119 Candidate: 1 of 1 Period: 3.375 d
KOI: K01635.01 Corr: 0.996

Kp: 15.75 R*: 0.94 Rs Teff: 5754.0 K Logg: 4.51 Fe/H: 0.210



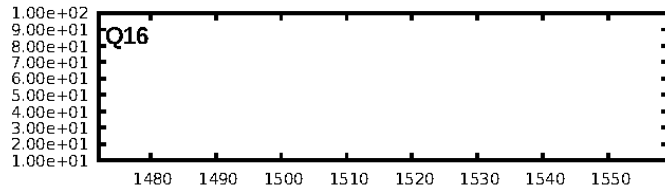
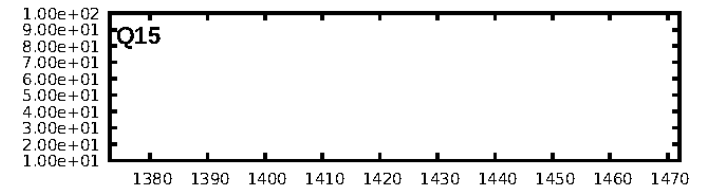
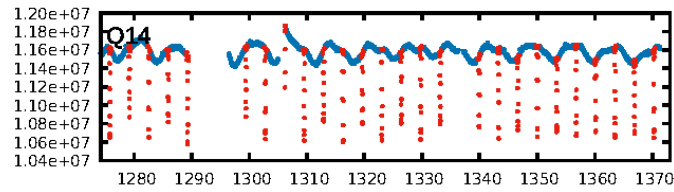
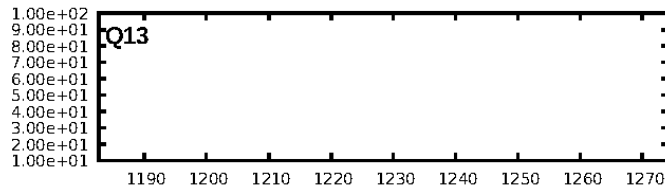
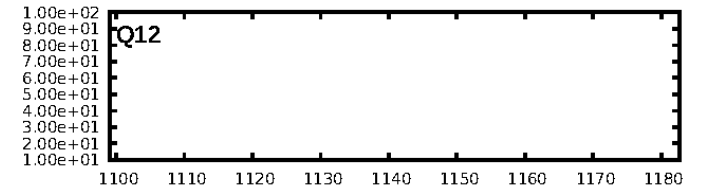
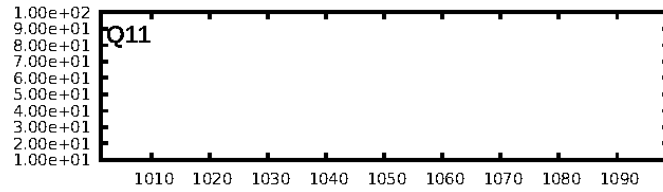
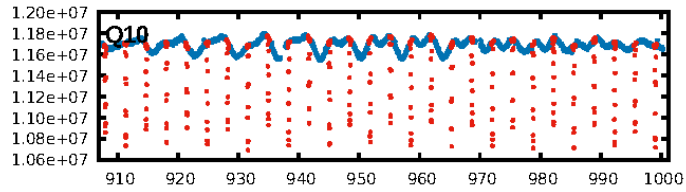
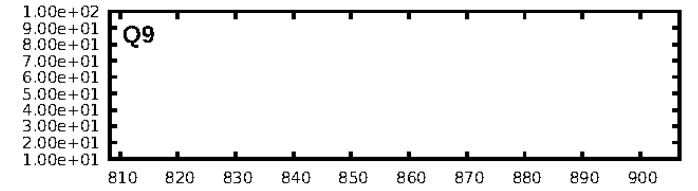
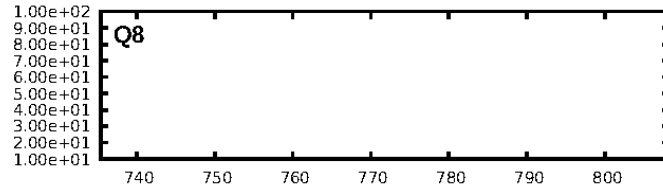
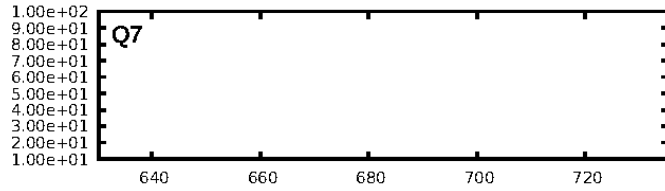
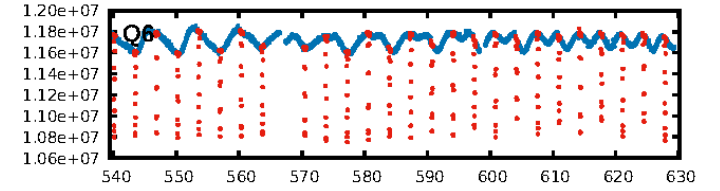
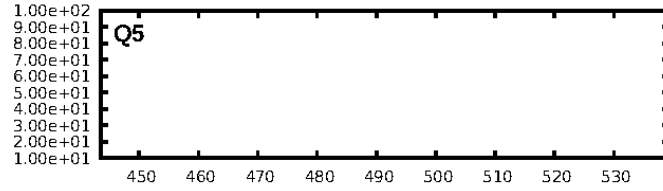
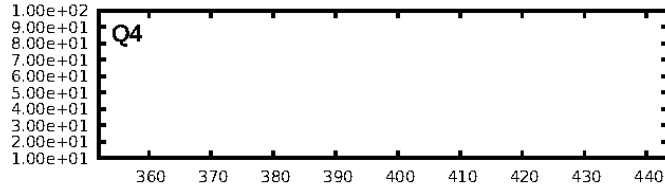
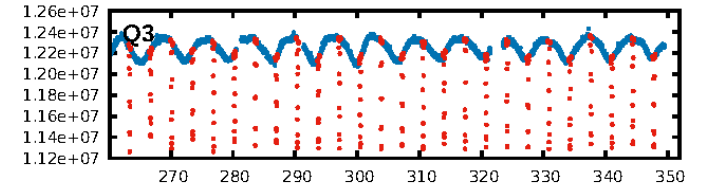
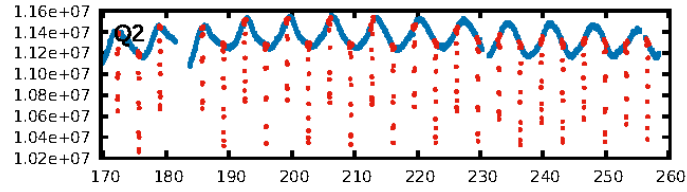
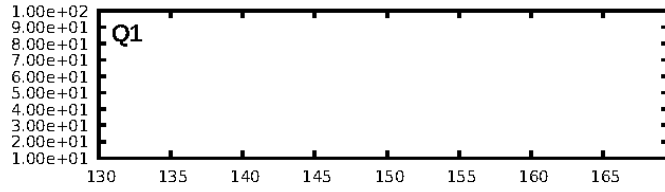
DV Fit Results:

Period = 3.37469 [0.00000] d
Epoch = 131.7697 [0.0001] BKJD
Rp/R* = 0.2770 [0.0013]
a/R* = 5.89 [0.01]
b = 0.76 [0.00]
Seff = 433.31 [165.05]
Teq = 1163 [111] K
Rp = 28.51 [7.98] Re
a = 0.0449 [0.0107] AU
Ag = 0.15 [0.07] [-12.43σ]
Teffp = 1117 [94] K [-0.32σ]

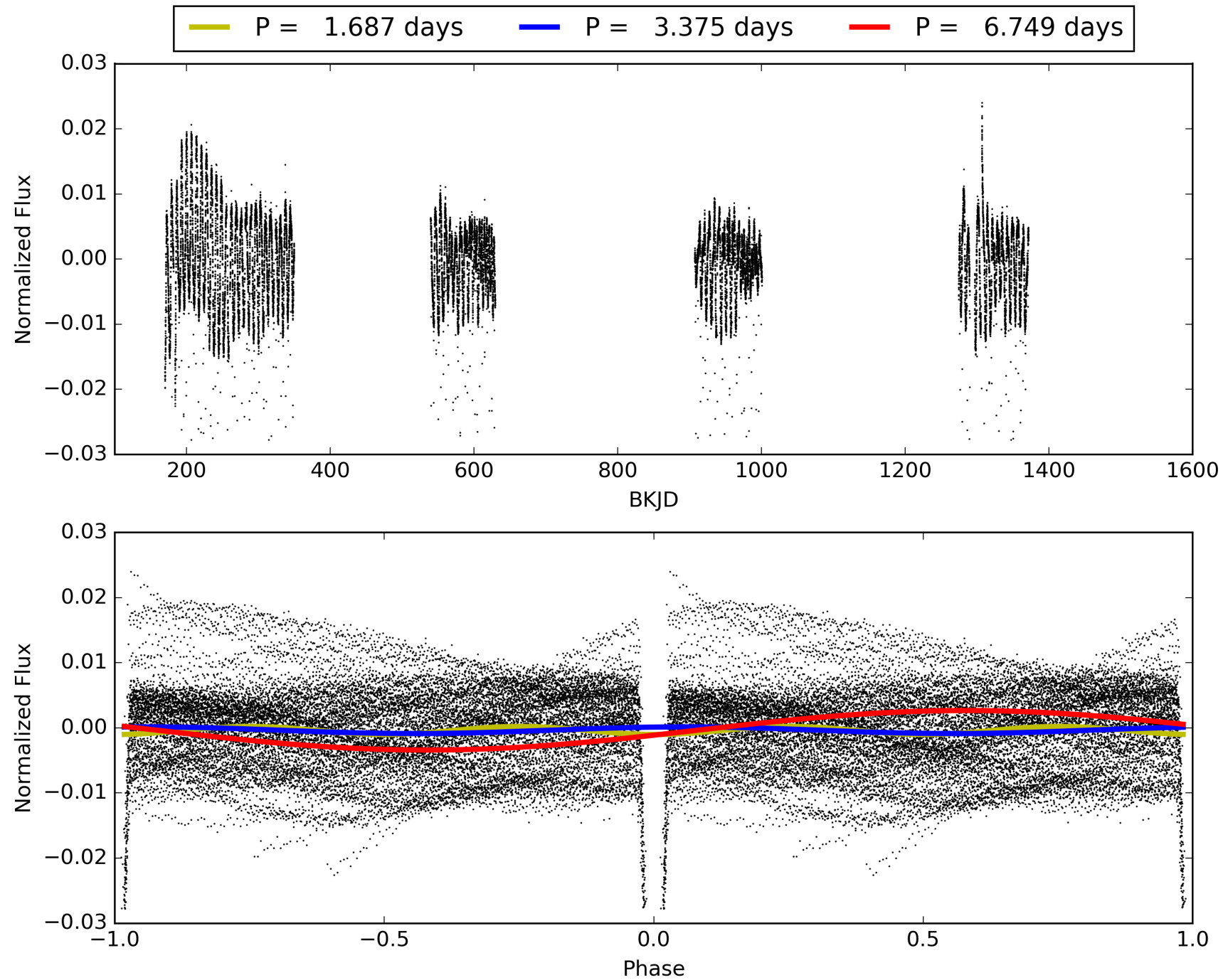
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [131/131]
GhostDiagnostic-chr: 1.667
Centroid-sig: 0.0%
Centroid-so: 0.177 arcsec [30.07σ]
OotOffset-rm: 0.049 arcsec [0.73σ]
OotOffset-st: 4/1/0/0 [5]
KicOffset-rm: 0.184 arcsec [2.42σ]
KicOffset-st: 4/1/0/0 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [5/5]

TCE 010487119-01, PDC Light Curves

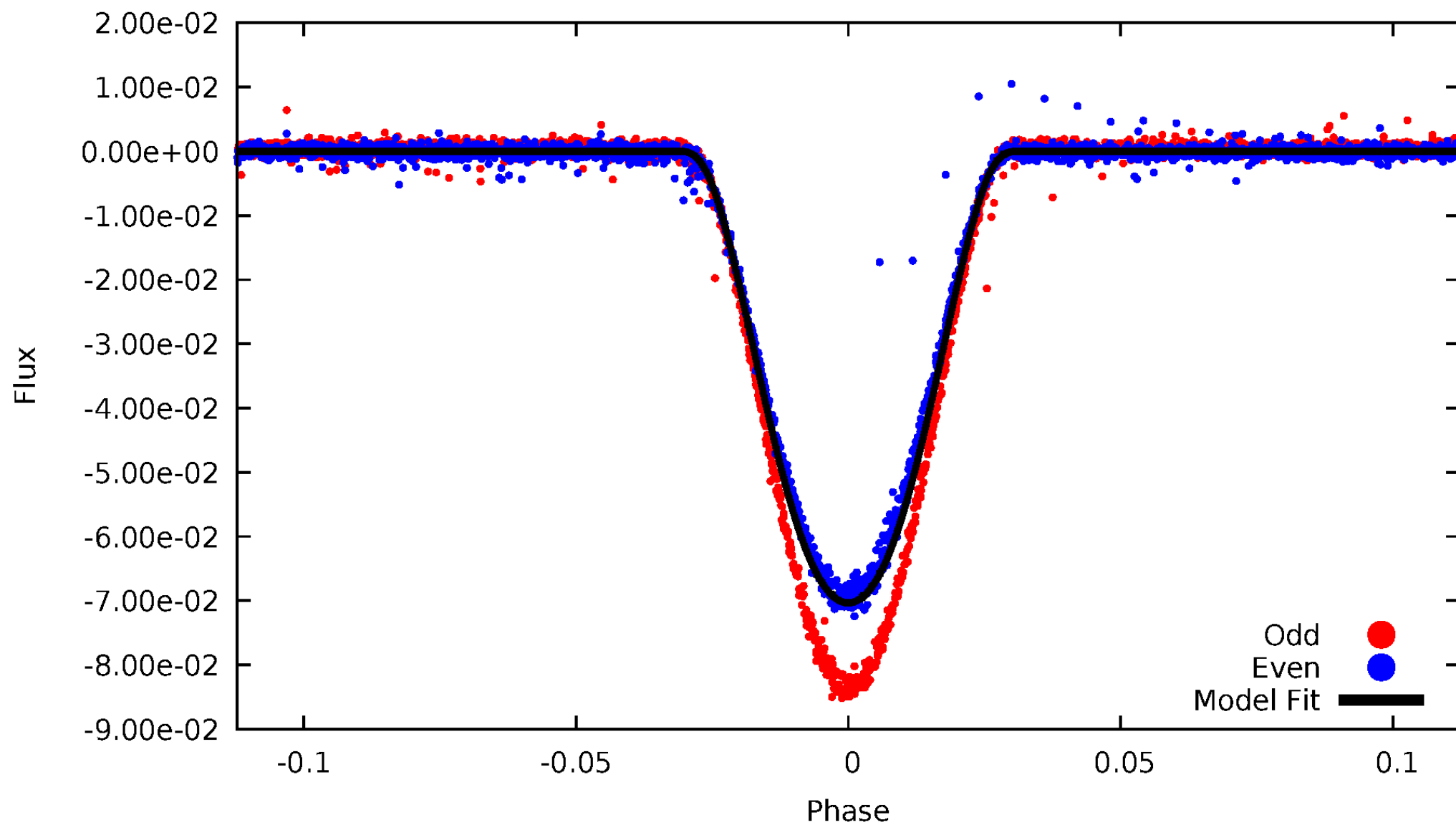


TCE 010487119-01



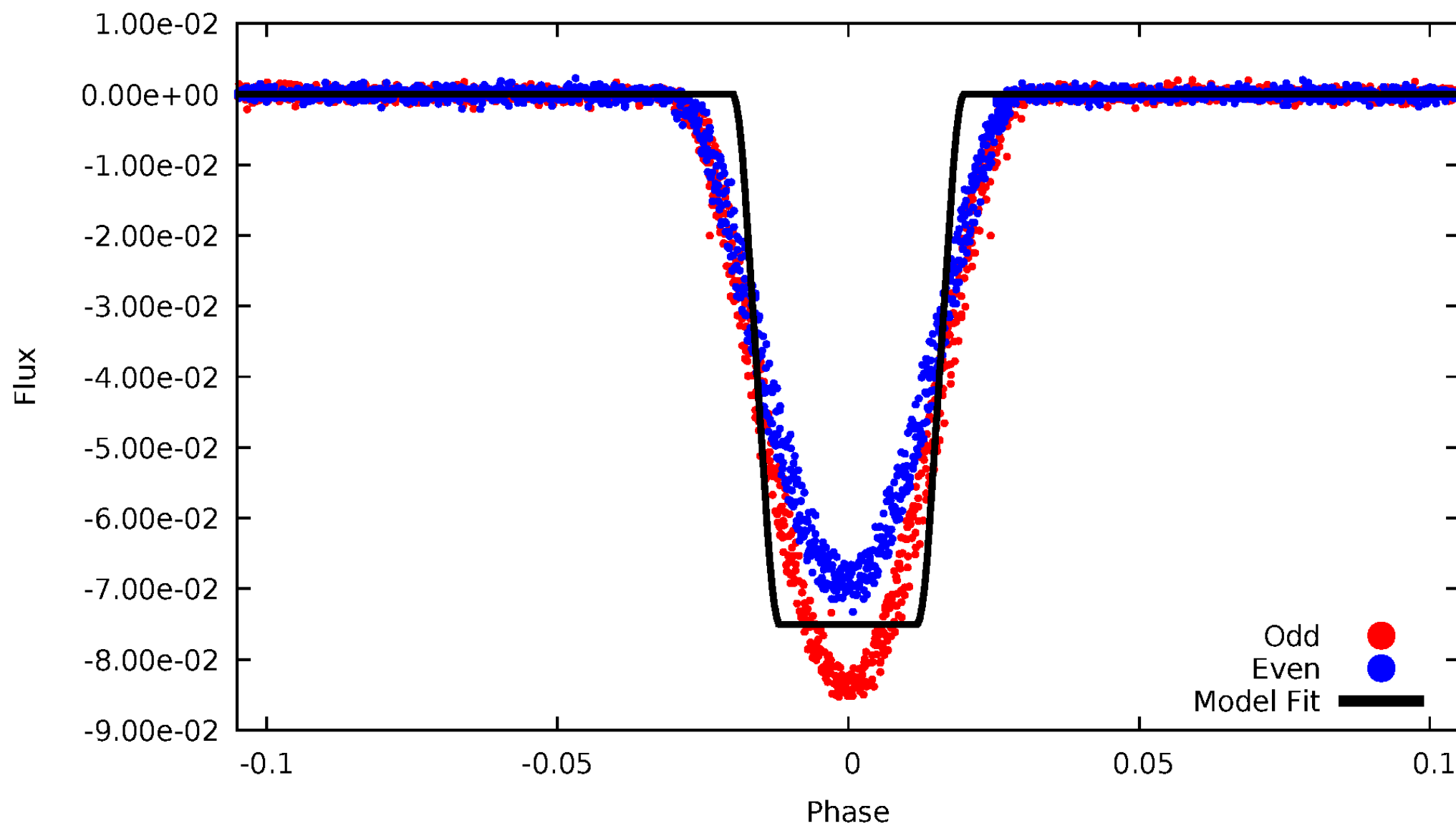
DV Odd/Even

TCE 010487119-01



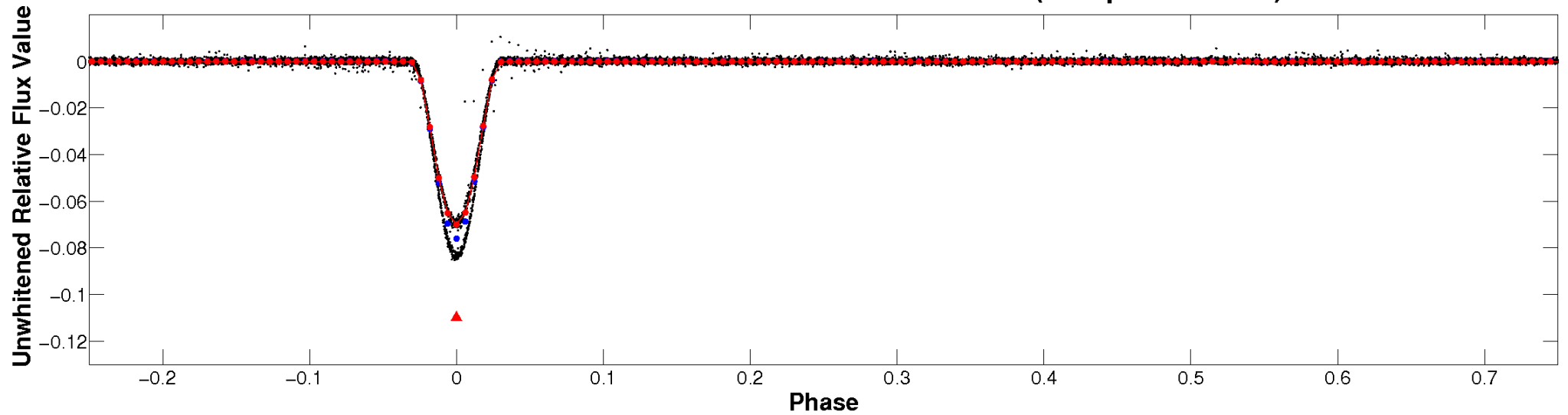
ALT Odd/Even

TCE 010487119-01

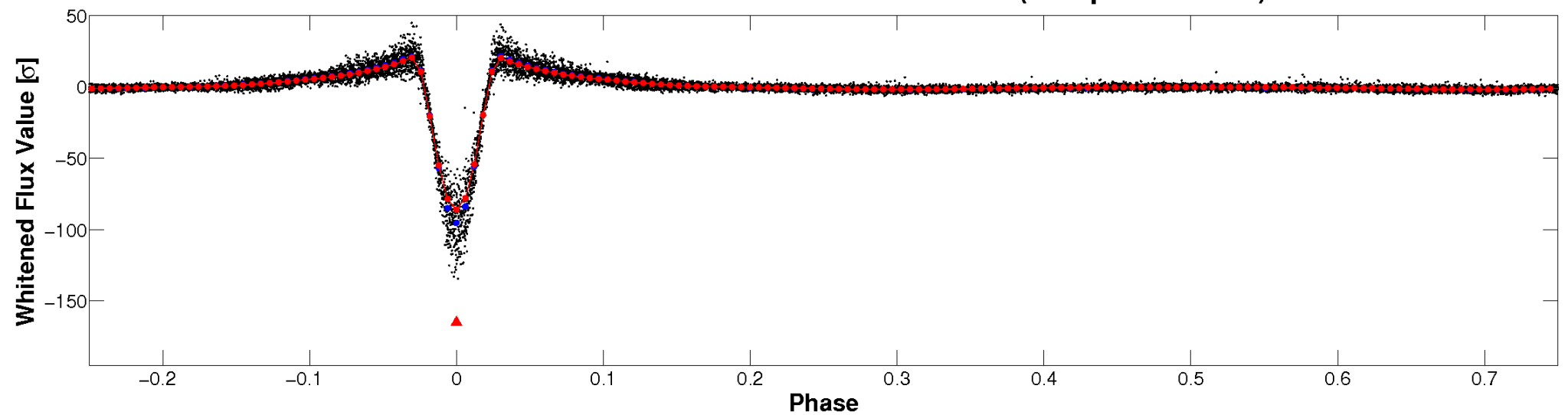


Non-Whitened Vs. Whitened Light Curve

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

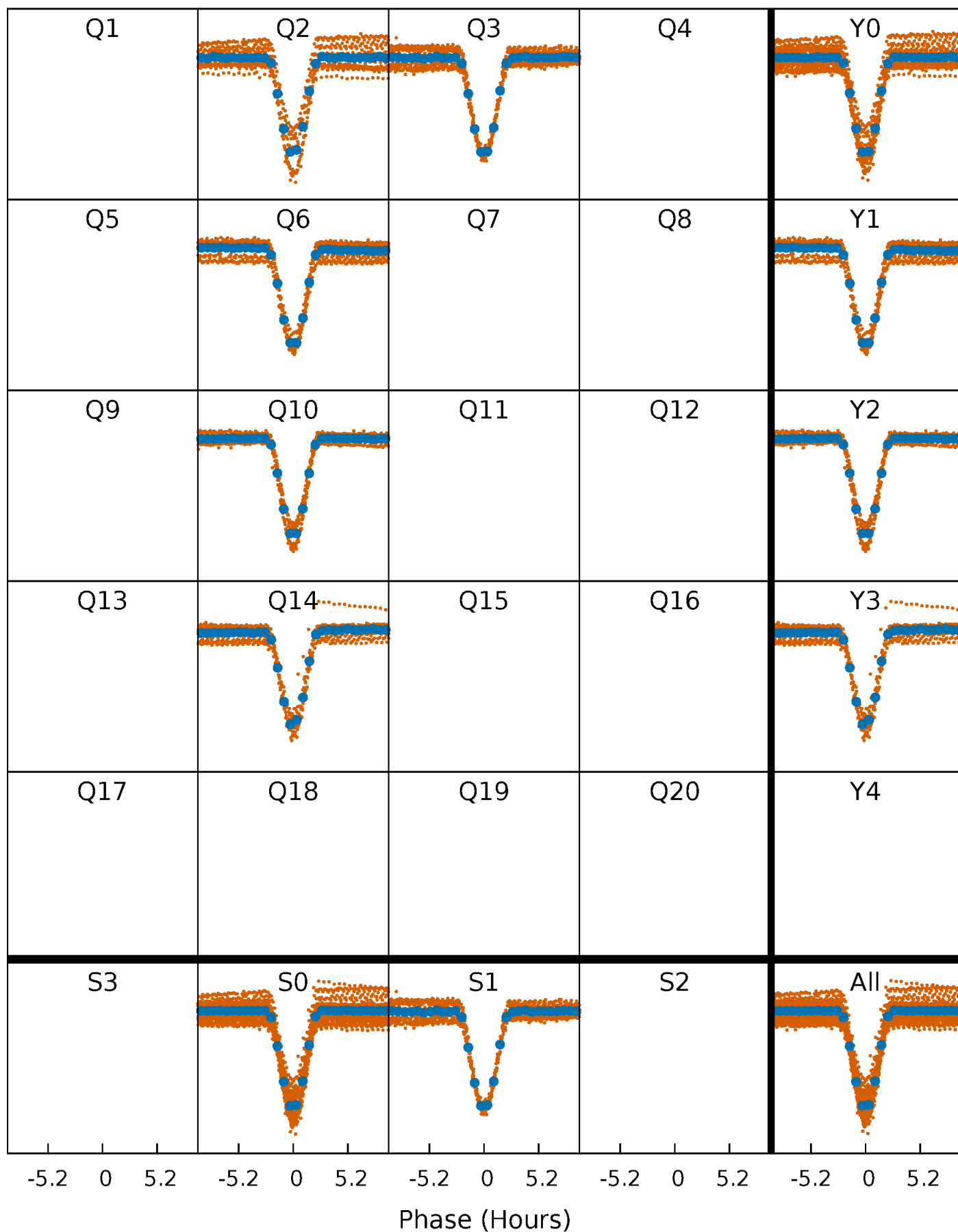


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



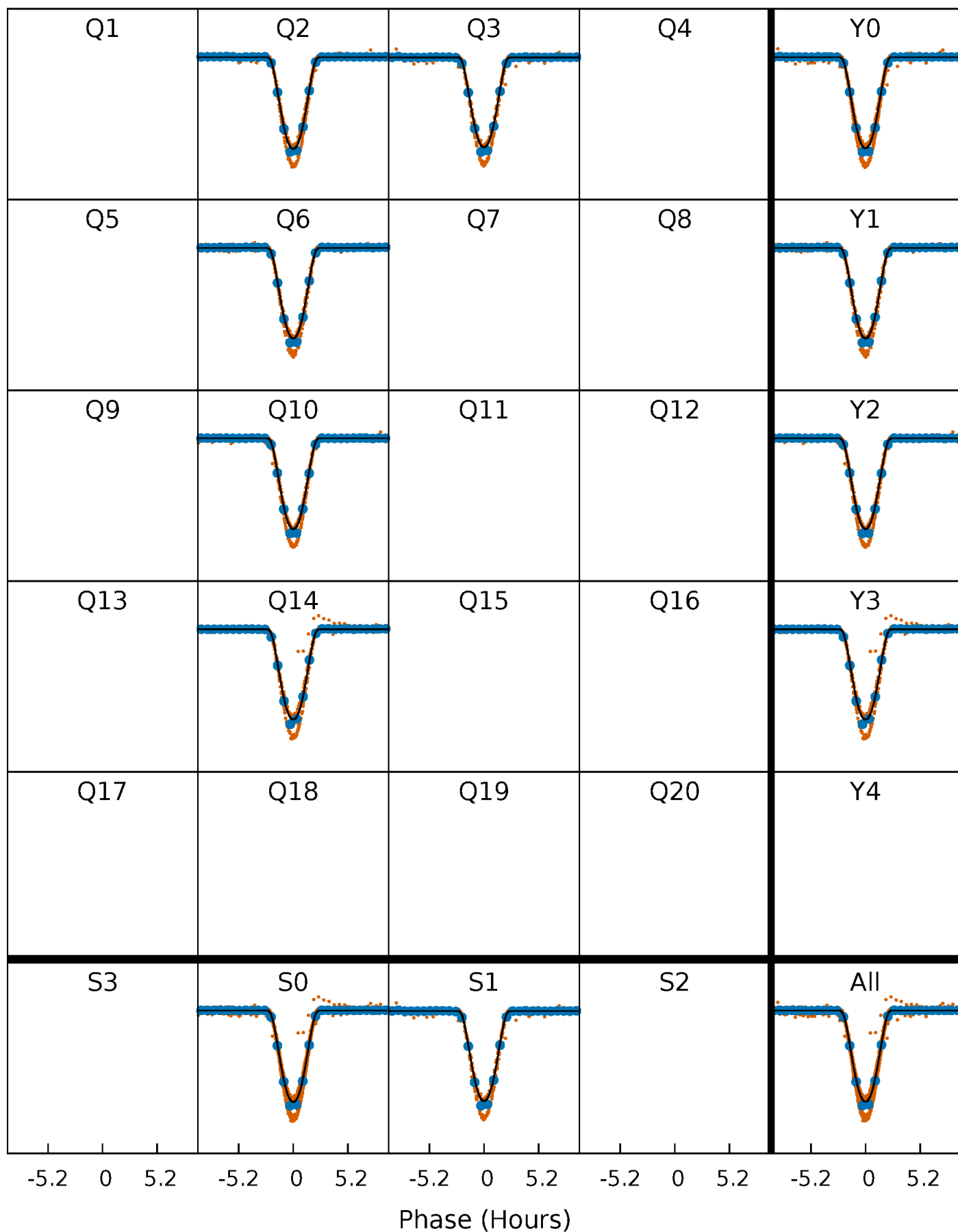
PDC Quarter-Phased Transit Curves

TCE 010487119-01 P= 3.374686 Days $T_0=131.769692$ (BKJD)



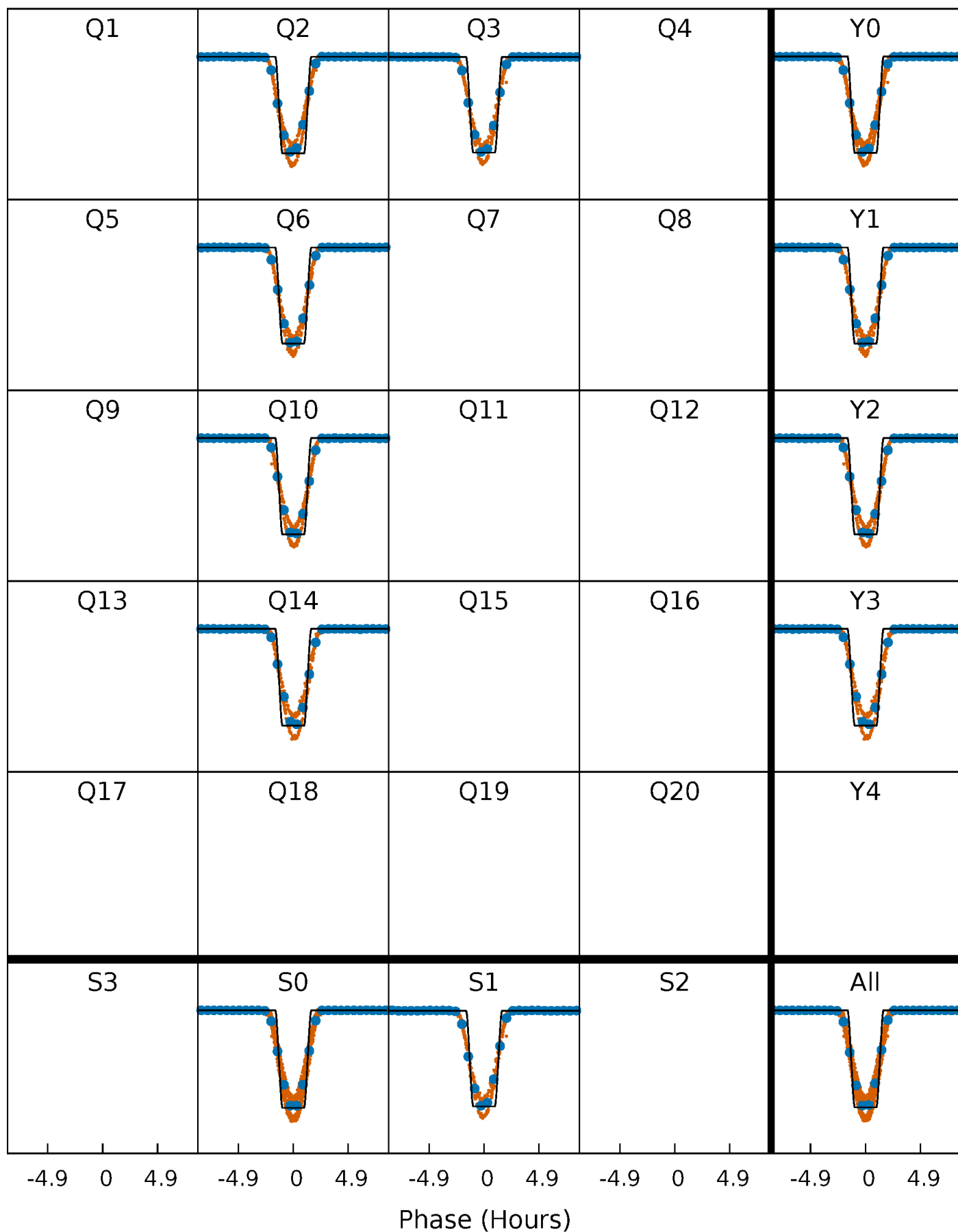
DV Quarter-Phased Transit Curves

TCE 010487119-01 P= 3.374686 Days $T_0=131.769692$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

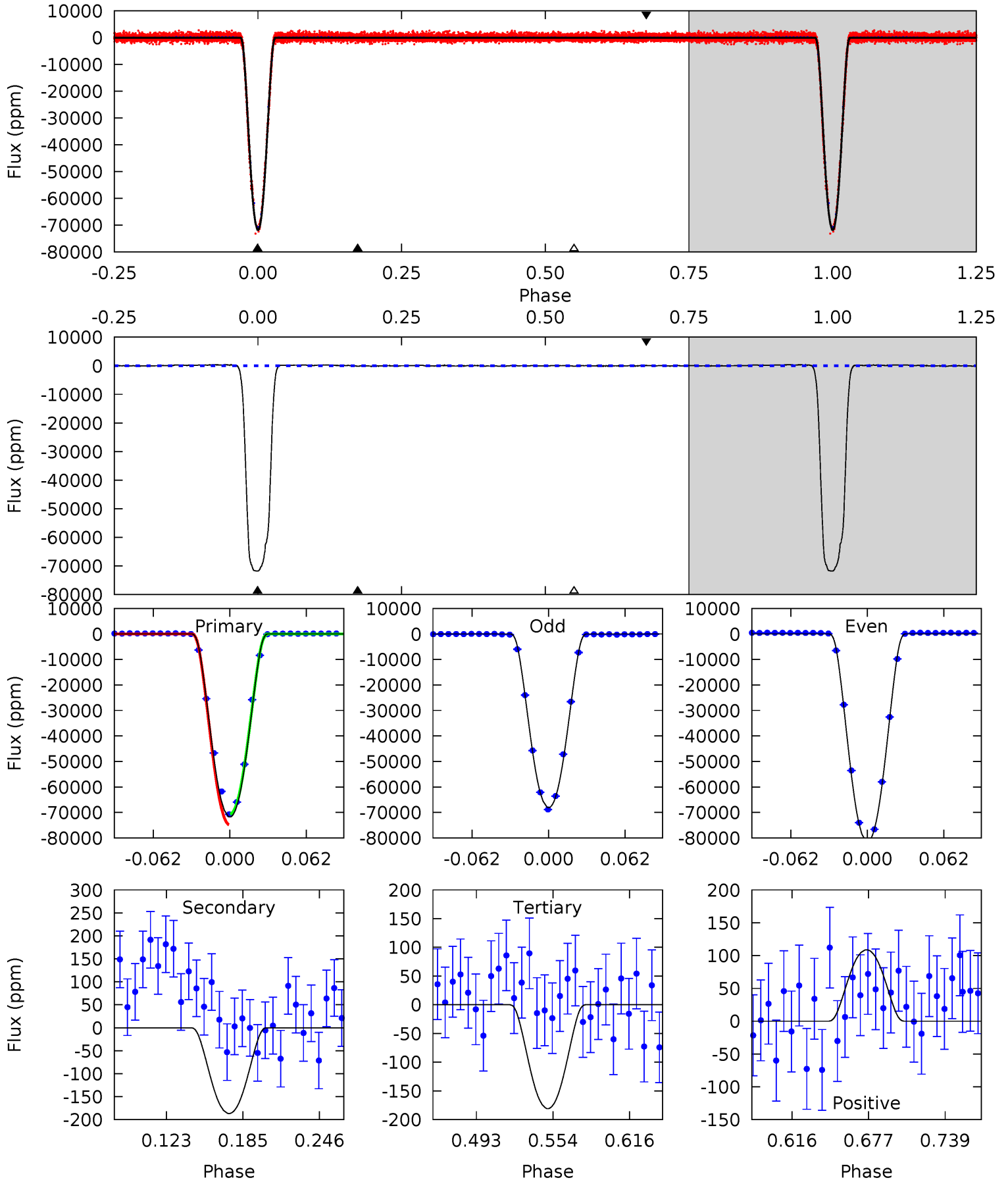
TCE 010487119-01 P= 3.374660 Days $T_0=131.774194$ (BKJD)



DV Model-Shift Uniqueness Test

010487119-01, P = 3.374686 Days, E = 131.769692 Days

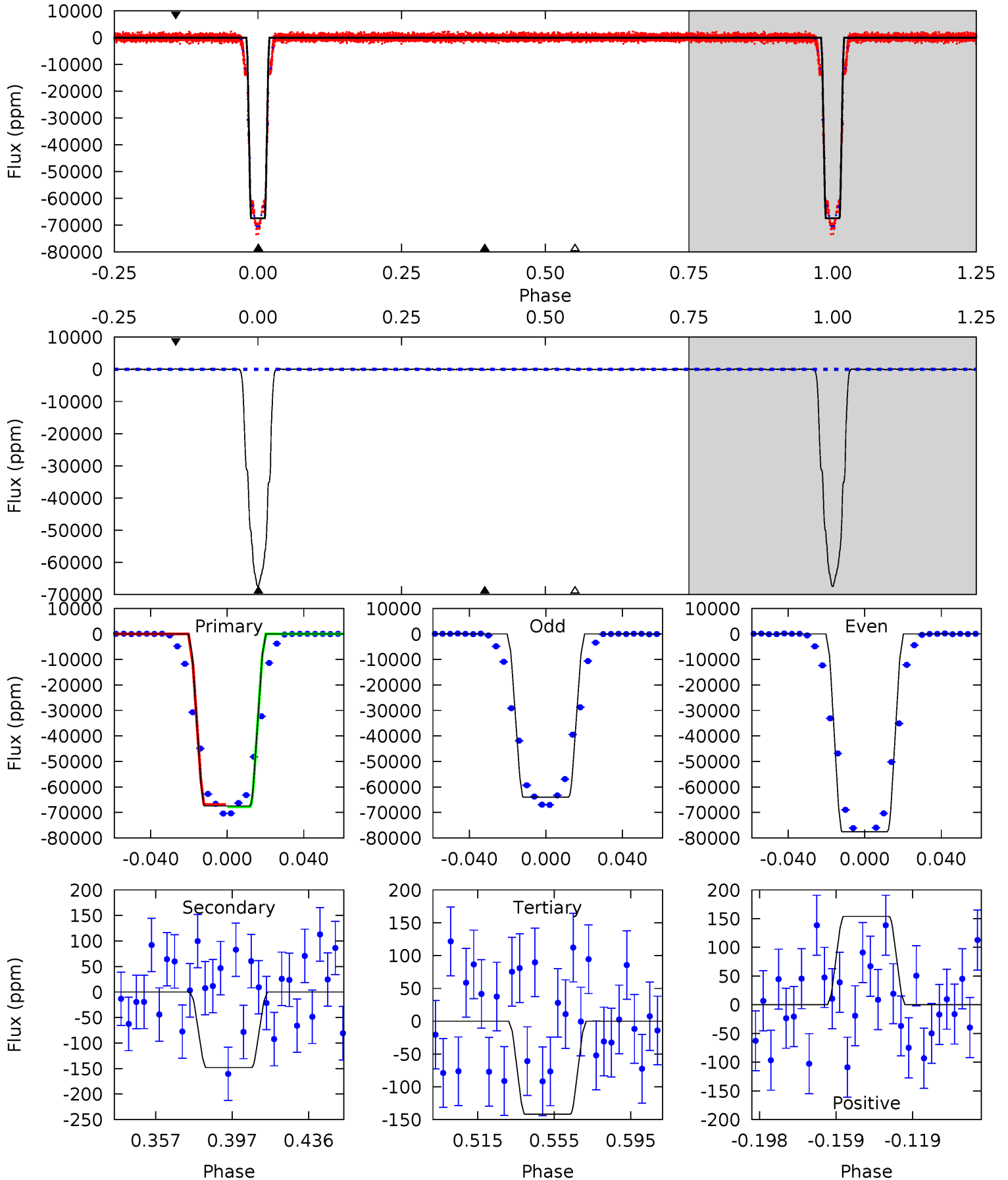
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2776	7.22	7.00	4.21	4.67	1.87	4.17	2769	2772	0.23	3.02	369.0	1.04	0.00	0



Alt Model-Shift Uniqueness Test

010487119-01, P = 3.374660 Days, E = 131.774194 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1437	3.15	3.02	3.28	4.76	2.06	1.16	1434	1434	0.13	-0.12	210.4	1.03	0.00	0



Stellar Parameters For KIC 010487119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5754^{+180}_{-220}	$4.514^{+0.036}_{-0.192}$	$0.210^{+0.150}_{-0.300}$	$0.943^{+0.264}_{-0.088}$	$1.061^{+0.097}_{-0.134}$	$1.780^{+0.339}_{-0.892}$
	+3%/-4%	+1%/-4%	+71%/-143%	+28%/-9%	+9%/-13%	+19%/-50%
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 010487119-01 / KOI 1635.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-187 ± 26	$29.49^{+4.33}_{-2.23}$	1668^{+120}_{-86}	-1957^{+215}_{-182}	$0.228^{+0.049}_{-0.060}$
Alt.	-148 ± 47	$29.03^{+4.29}_{-2.12}$	1667^{+106}_{-85}	-2069^{+183}_{-133}	$0.180^{+0.067}_{-0.063}$

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 $A_{obs} \gg 1.0$

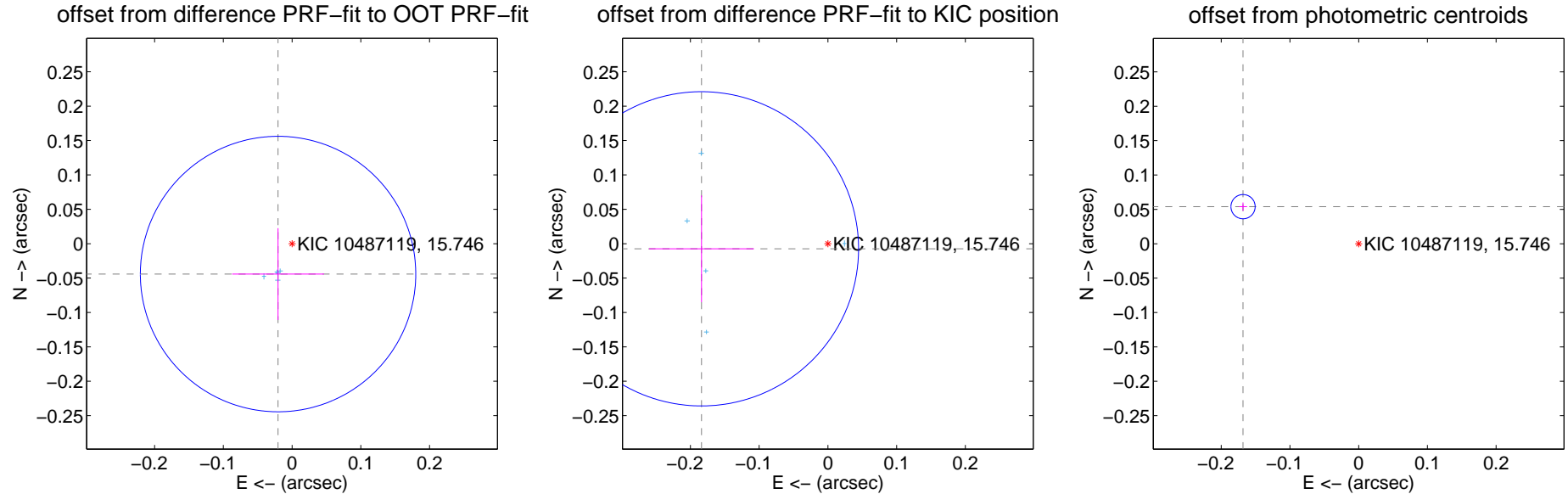
DV Centroid Data

Supplemental centroid analysis for 010487119-01. Kepler magnitude: 15.75. Transit SNR 1360.79

There are 5 quarters with good PRF difference image offsets

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

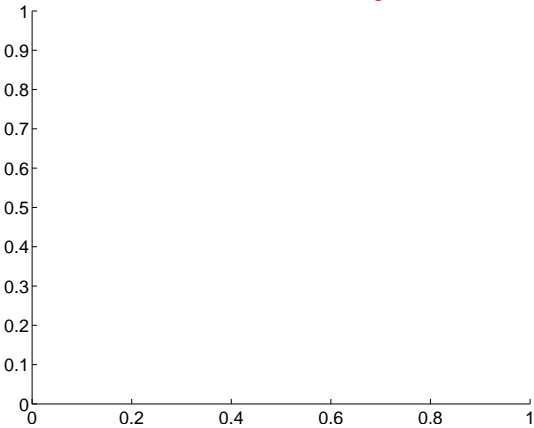
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.049 ± 0.067	0.73	0.020 ± 0.067	-0.044 ± 0.067
PRF-fit source offset from KIC position	0.184 ± 0.076	2.42	0.184 ± 0.076	-0.007 ± 0.078
photometric centroid source offset	0.18 ± 0.01	30.07	0.17 ± 0.01	0.05 ± 0.01



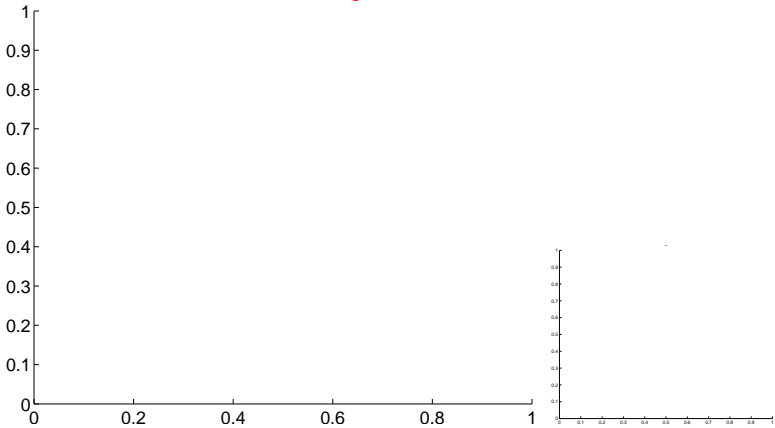
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

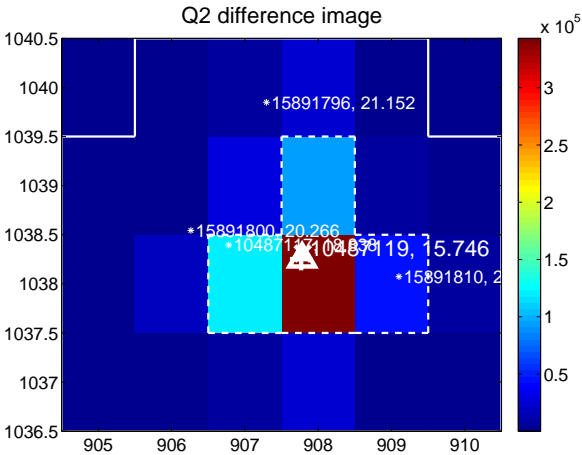
Q1 no difference image



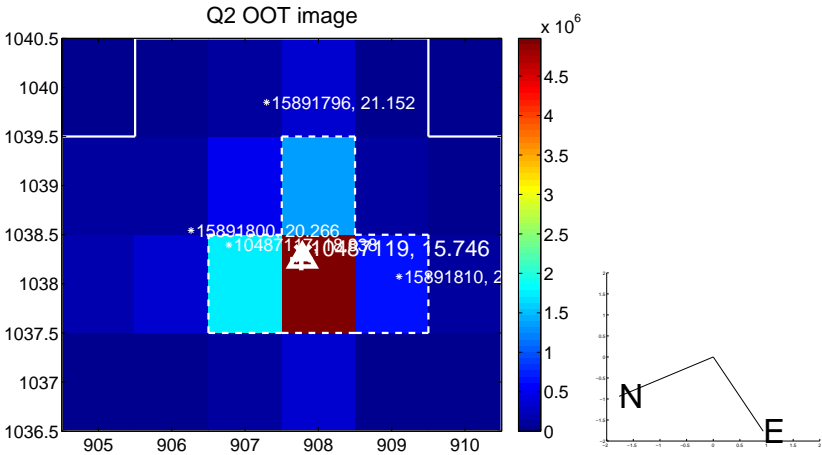
Q1 no OOT image



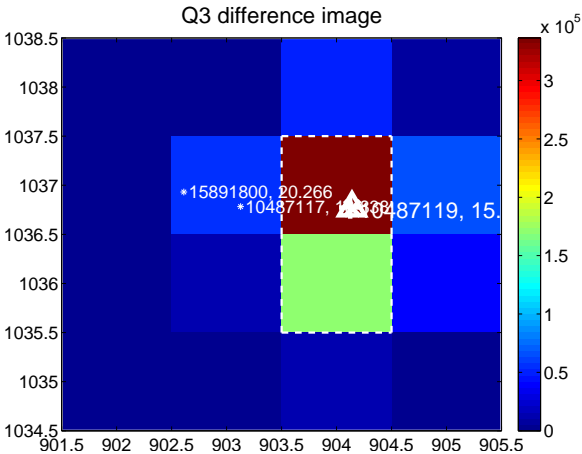
Q2 difference image



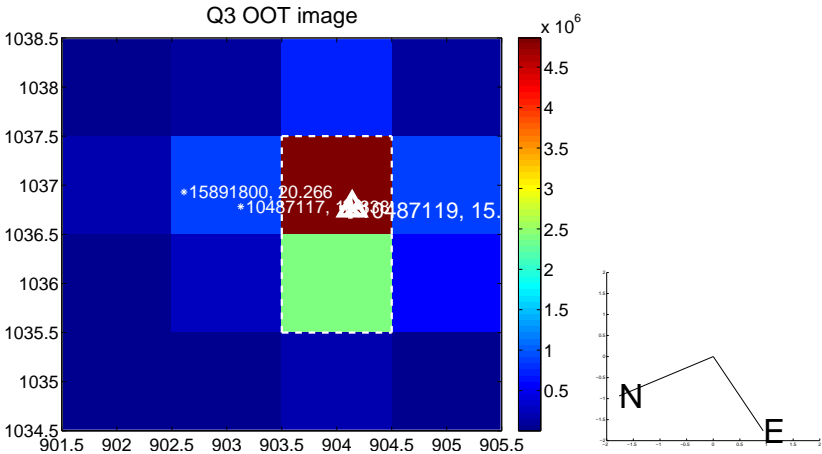
Q2 OOT image



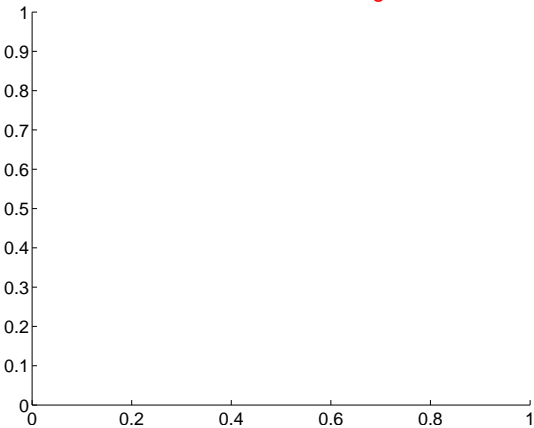
Q3 difference image



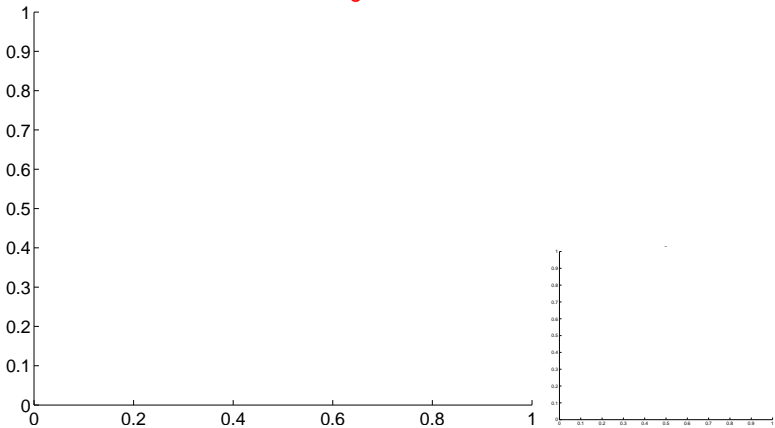
Q3 OOT image



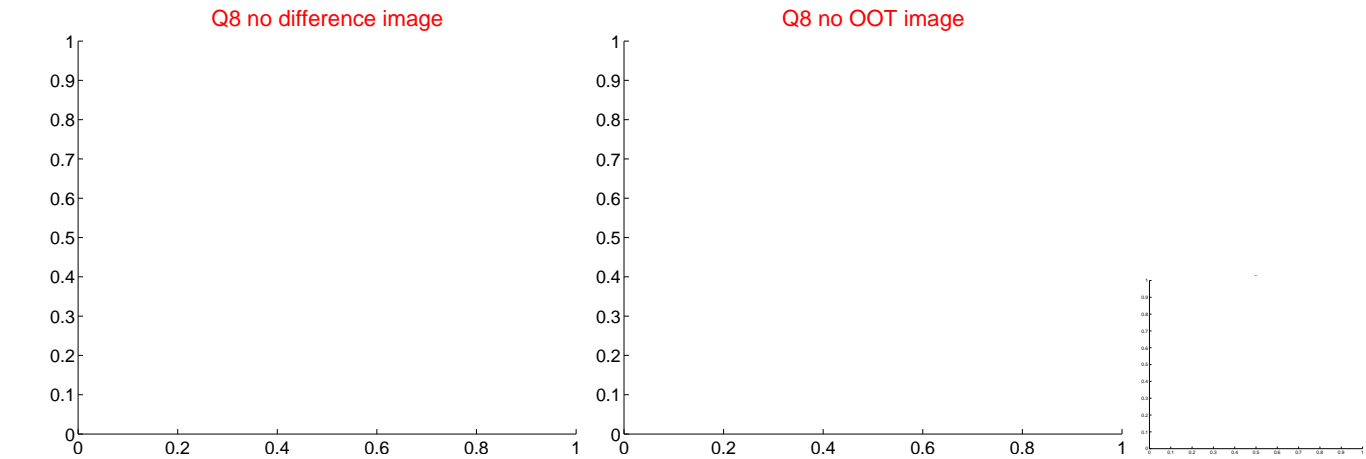
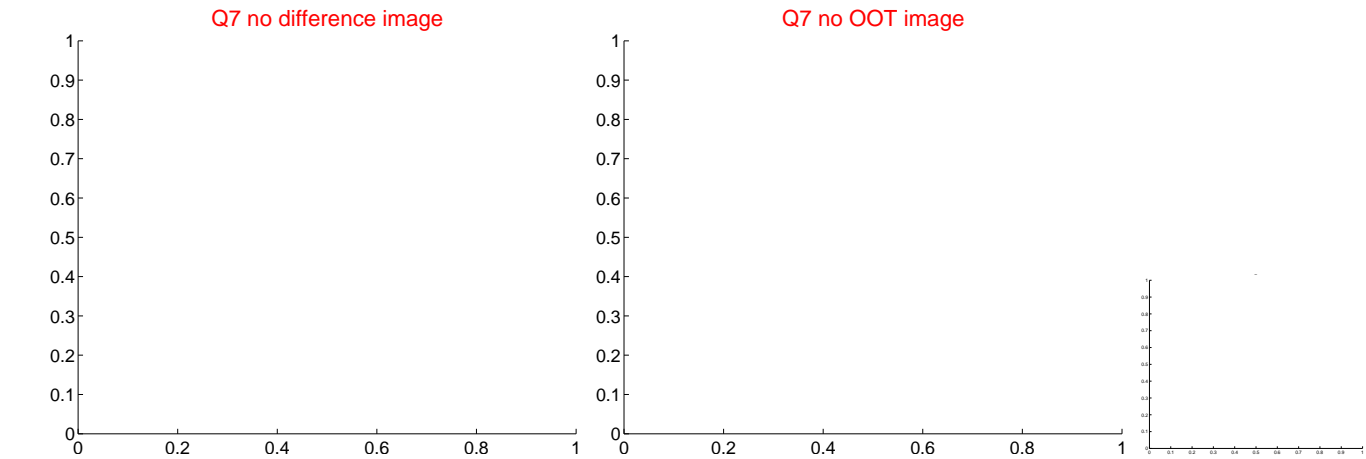
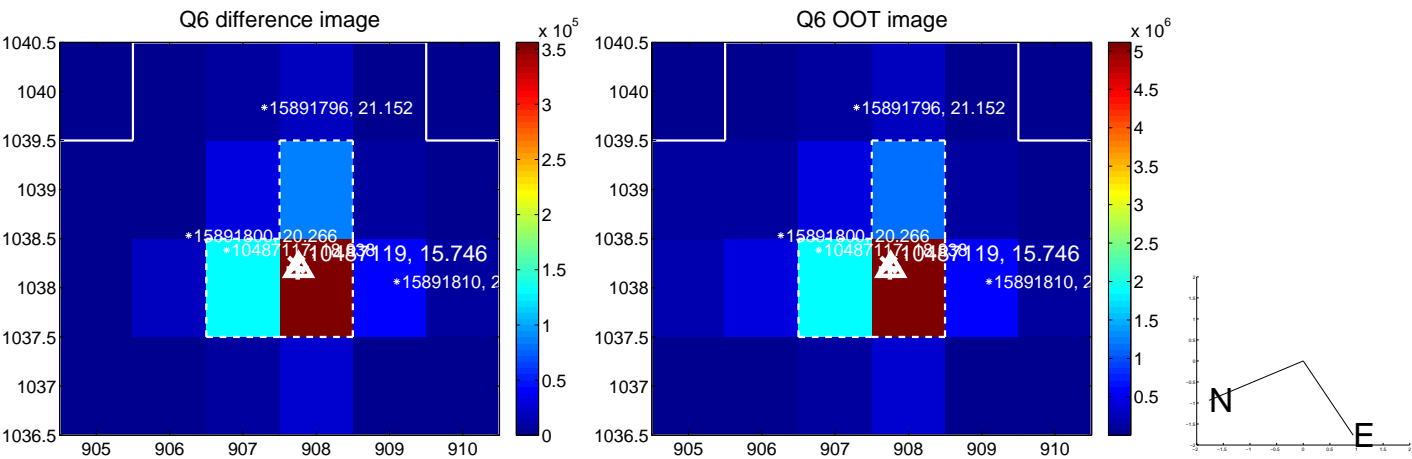
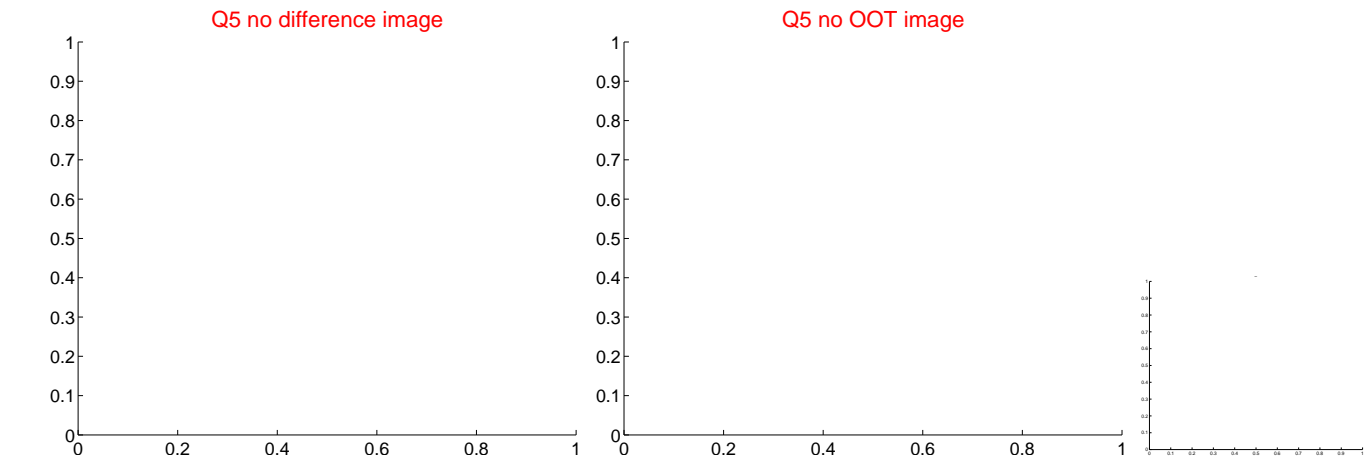
Q4 no difference image



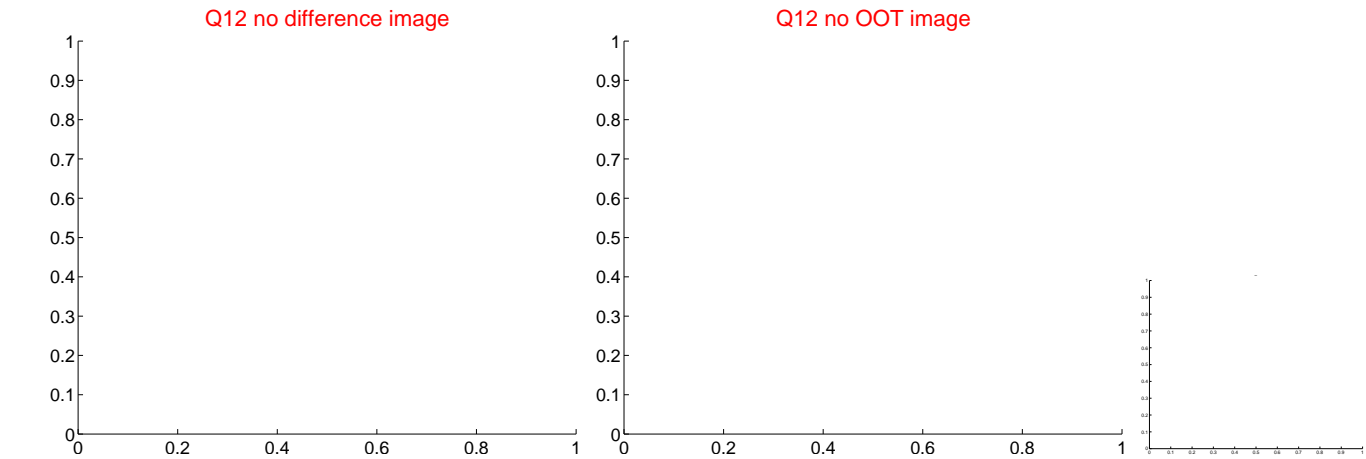
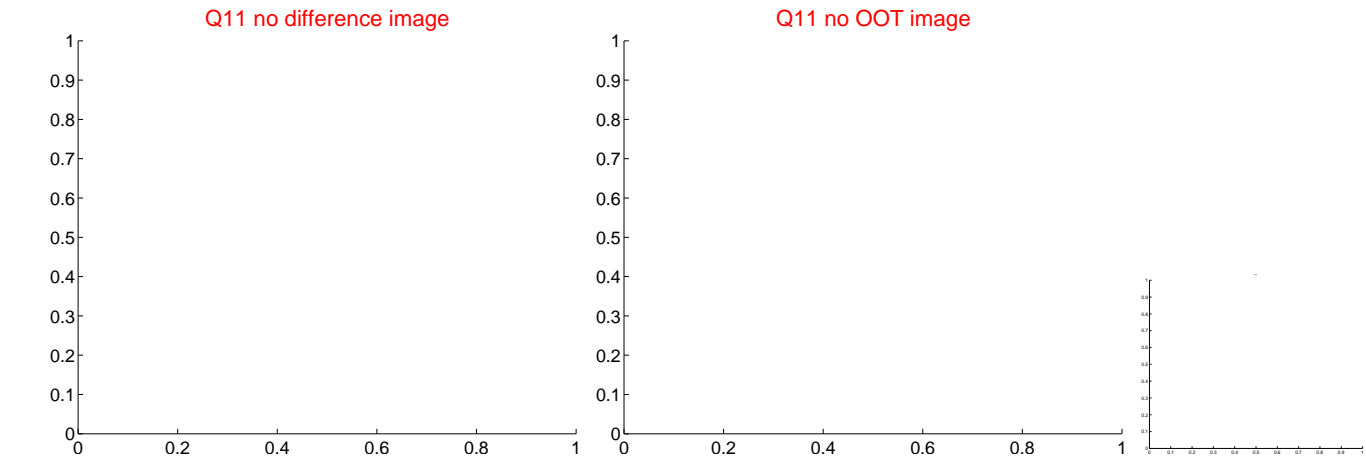
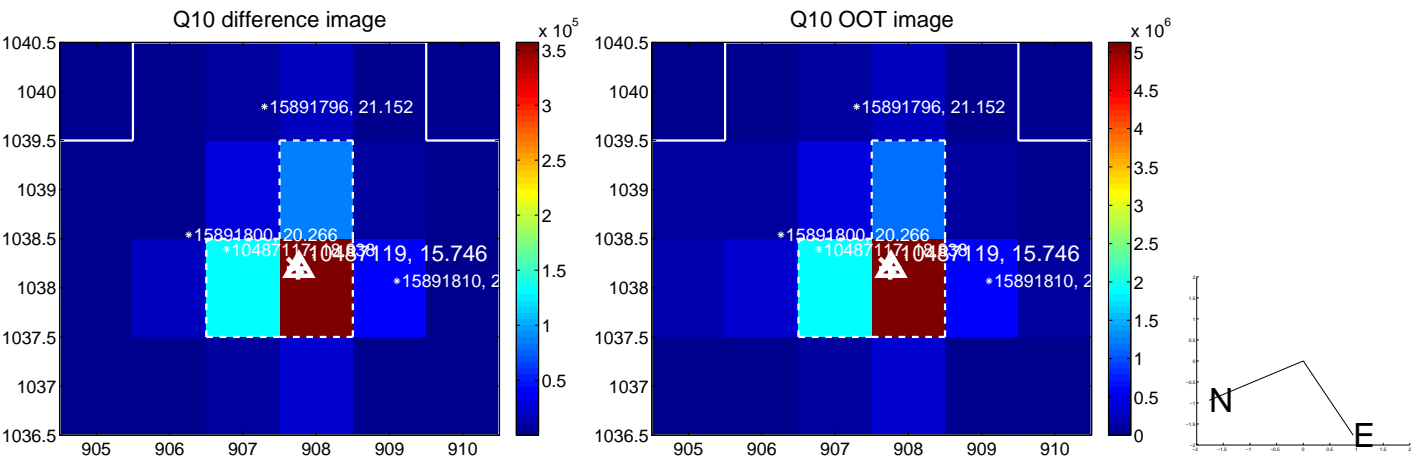
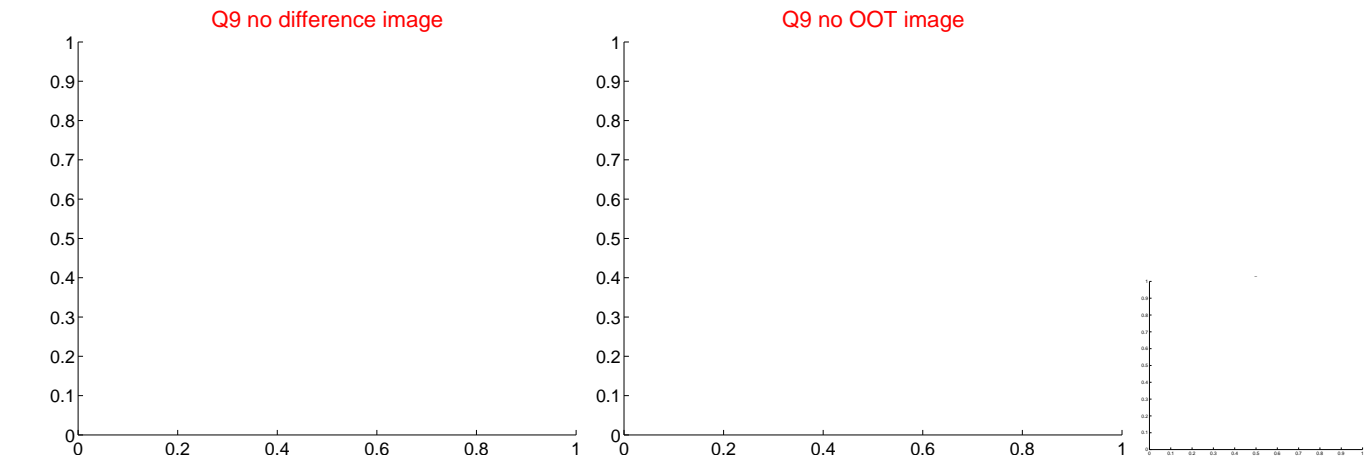
Q4 no OOT image



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

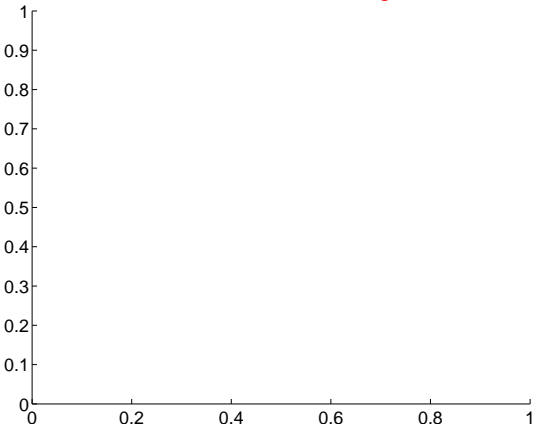


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

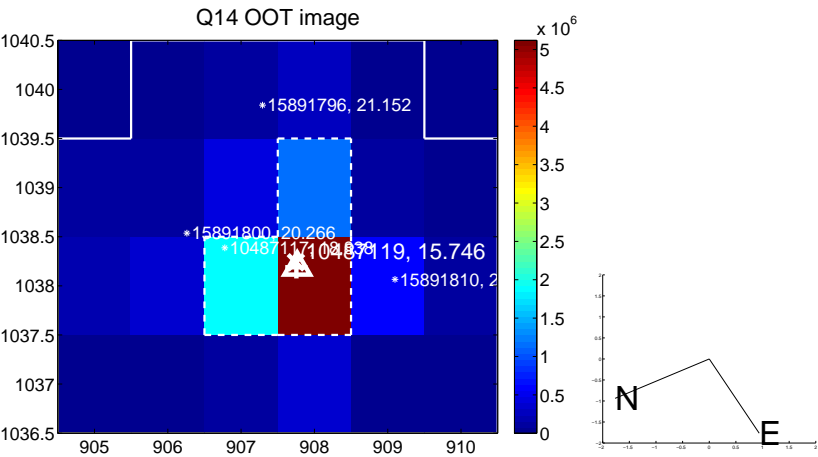
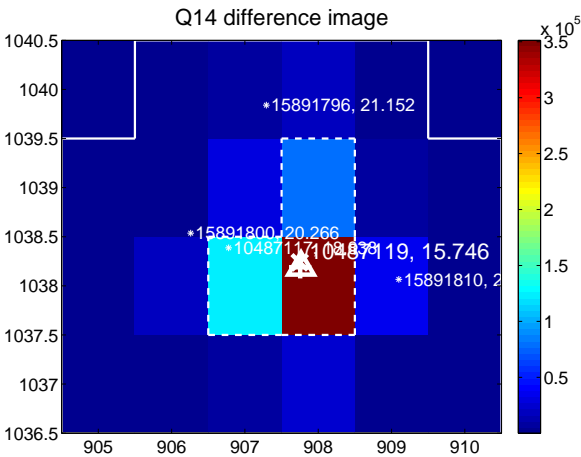
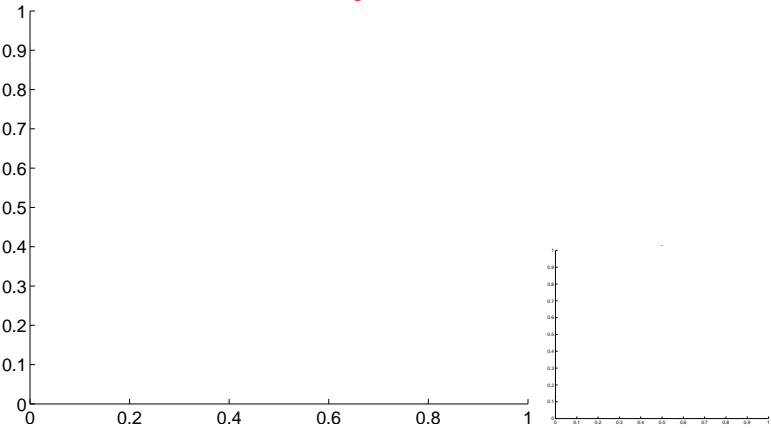


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

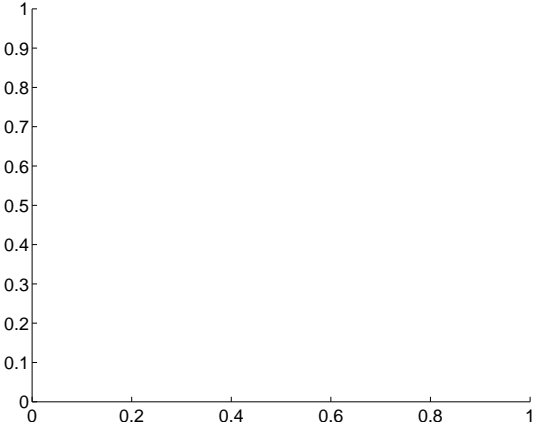
Q13 no difference image



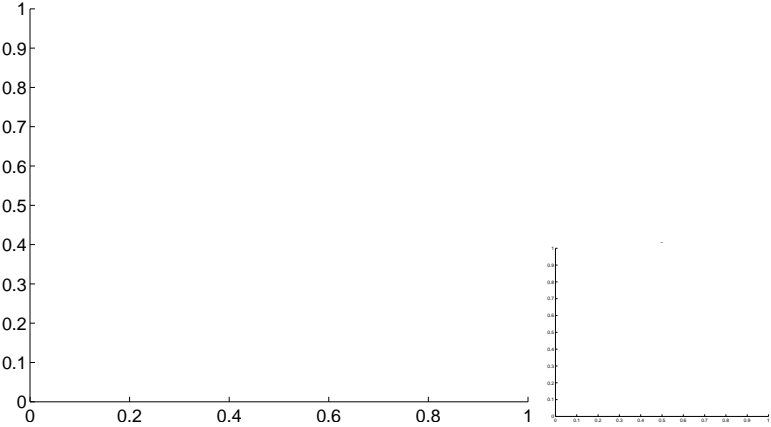
Q13 no OOT image



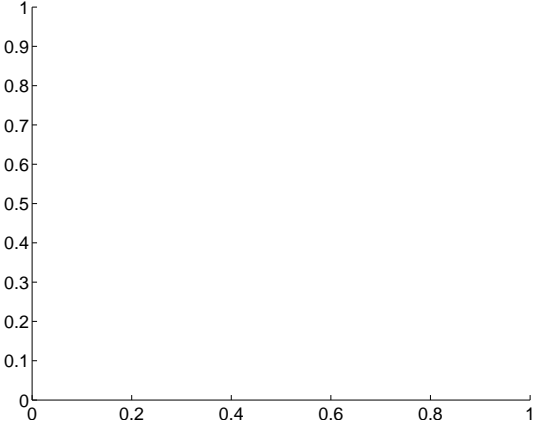
Q15 no difference image



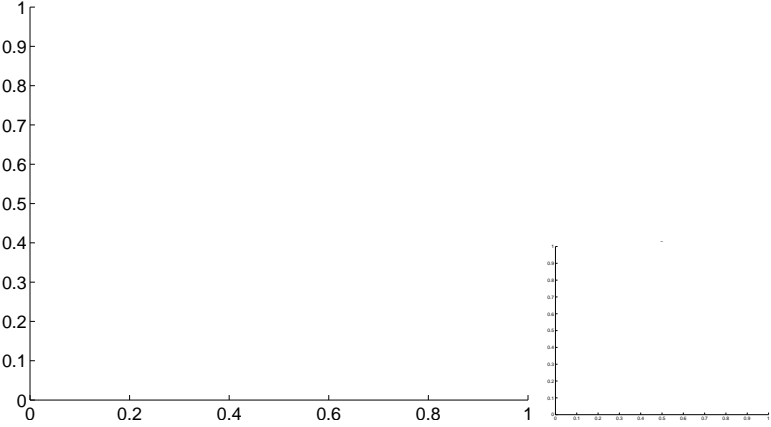
Q15 no OOT image



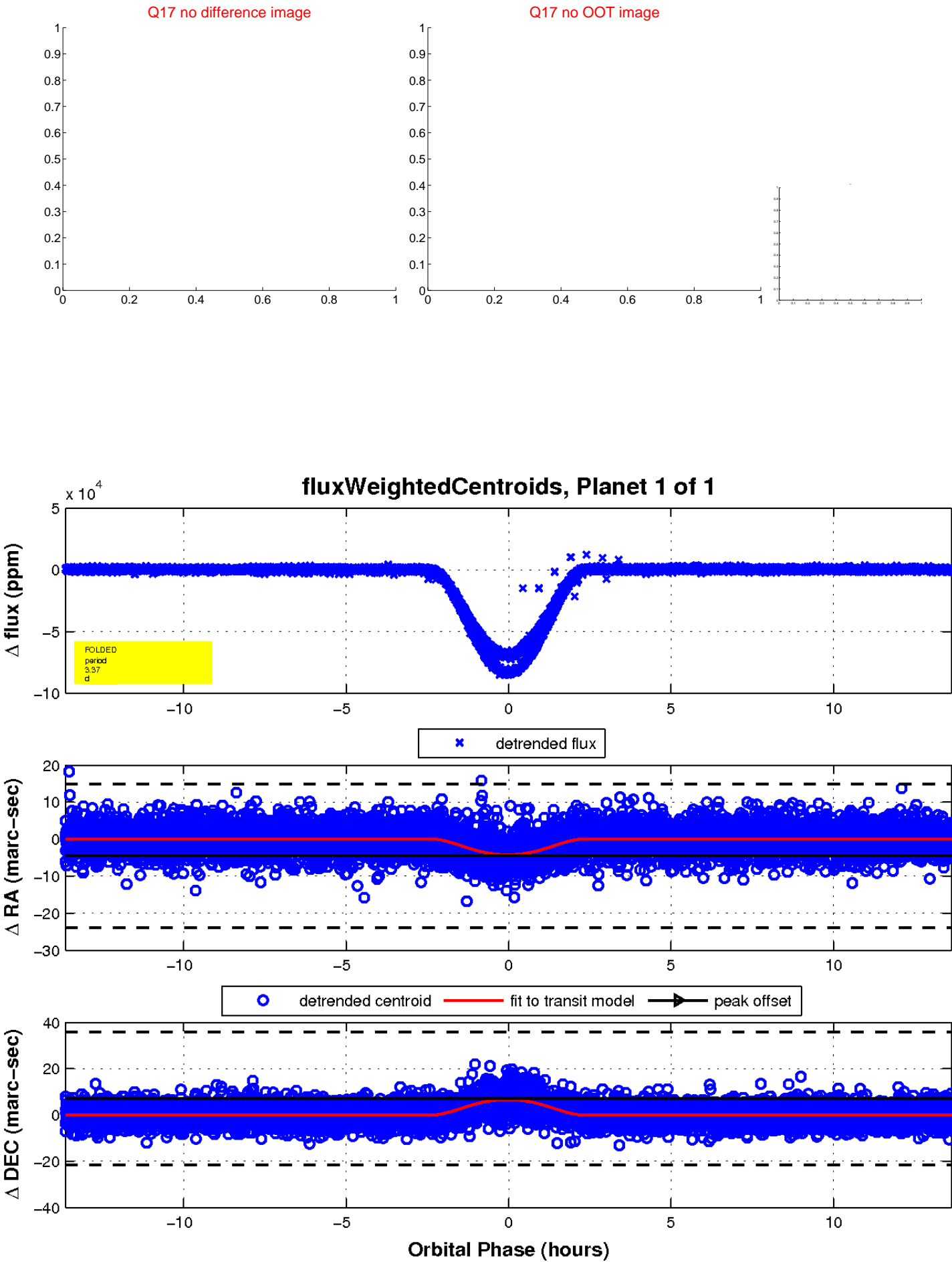
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

