

KIC 011957647

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})
011957647-01	OBS	No	84.762671	194.871423	3489.2	2.410	10.0	7.2	0.56	3683	3.40	0.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011957647-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS

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

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

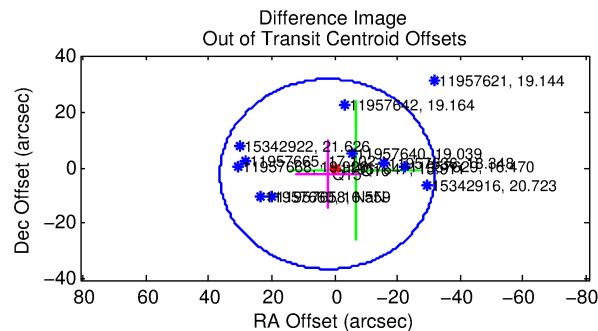
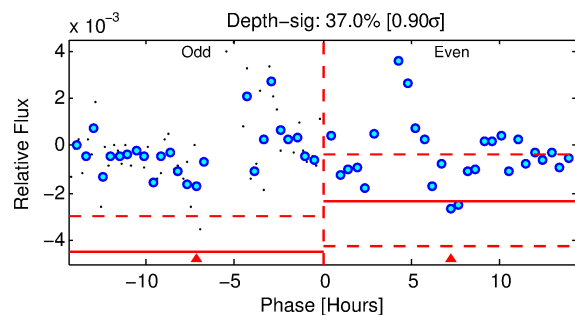
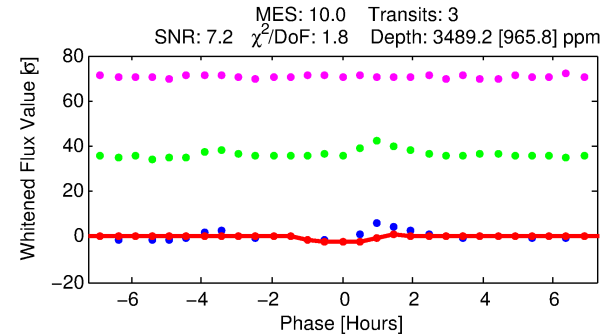
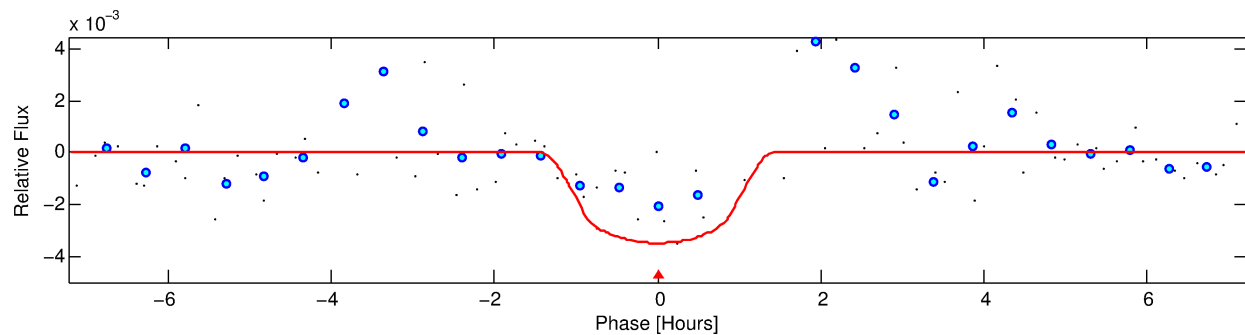
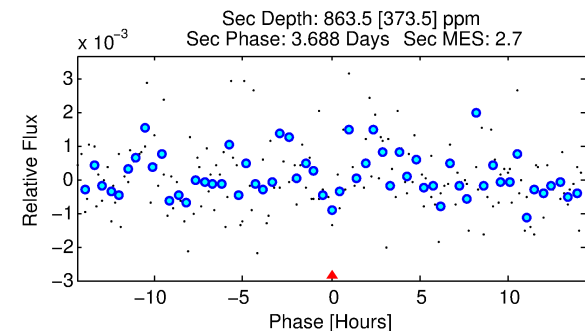
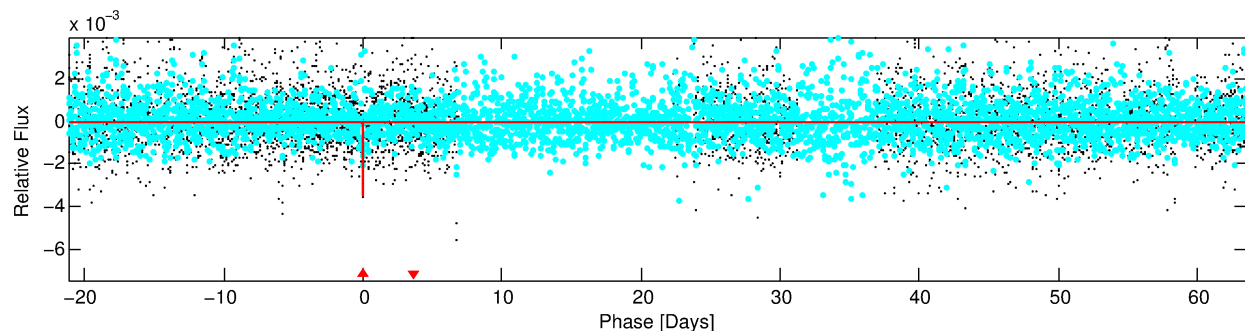
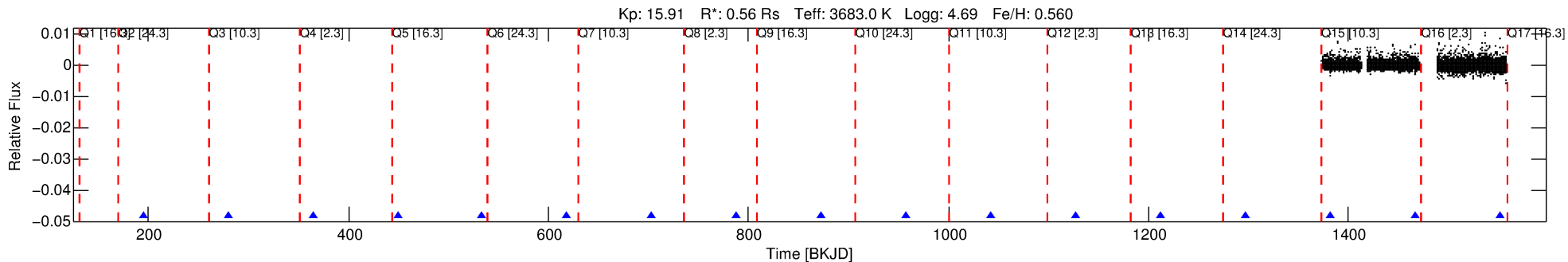
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011957647-01

No Significant Match Found

DV One-Page Summary

KIC: 11957647 Candidate: 1 of 1 Period: 84.763 d



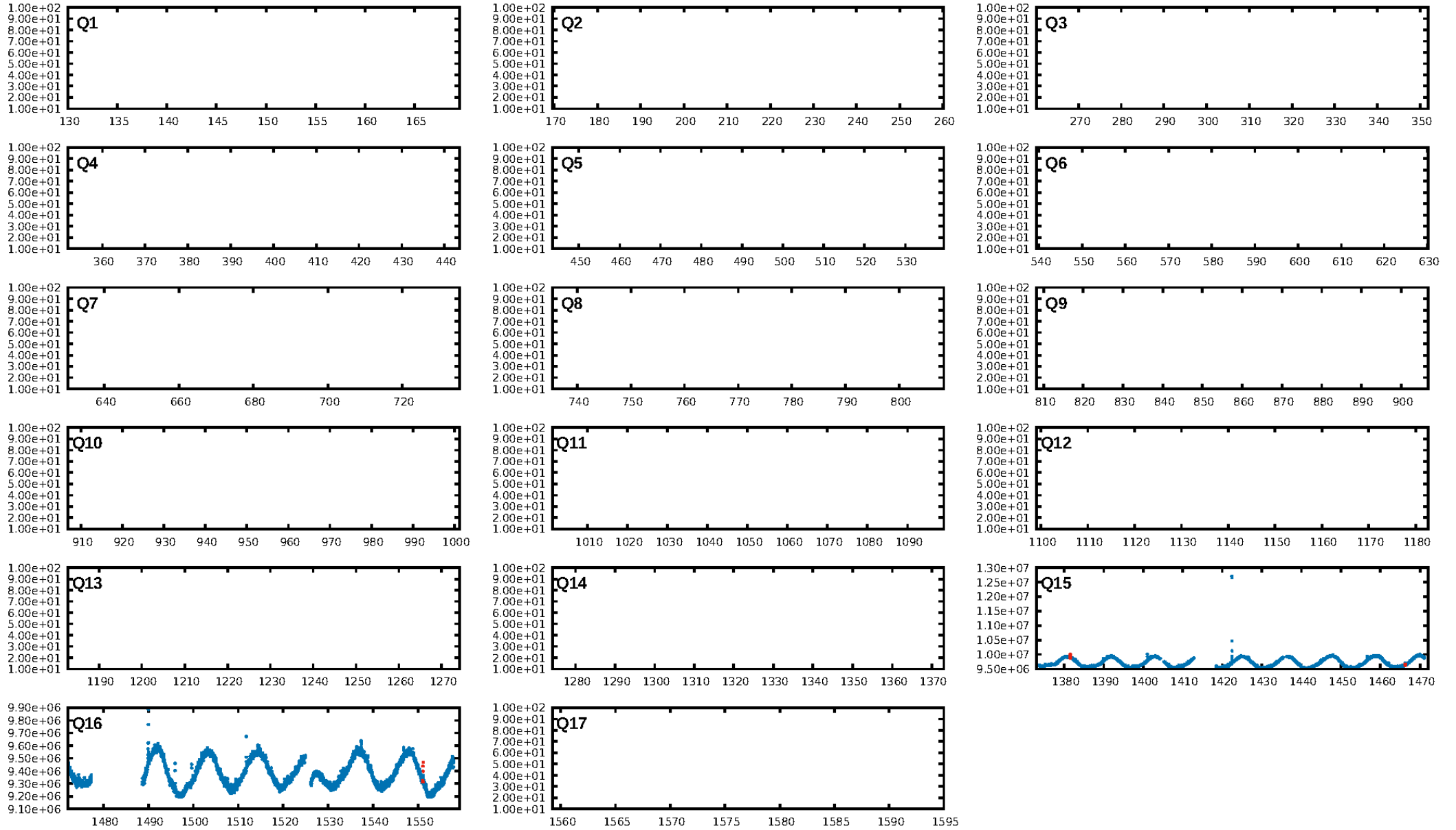
DV Fit Results:

Period = 84.76267 [0.00367] d
Epoch = 194.8714 [0.0562] BKJD
Rp/R* = 0.0553 [0.1896]
a/R* = 240.43 [2567.24]
b = 0.56 [13.51]
Seff = 0.54 [0.12]
Teq = 218 [12] K
Rp = 3.40 [11.66] Re
a = 0.3120 [0.0349] AU
Ag = 4004.82 [27519.63] [0.15σ]
Teffp = 2684 [4612] K [0.53σ]

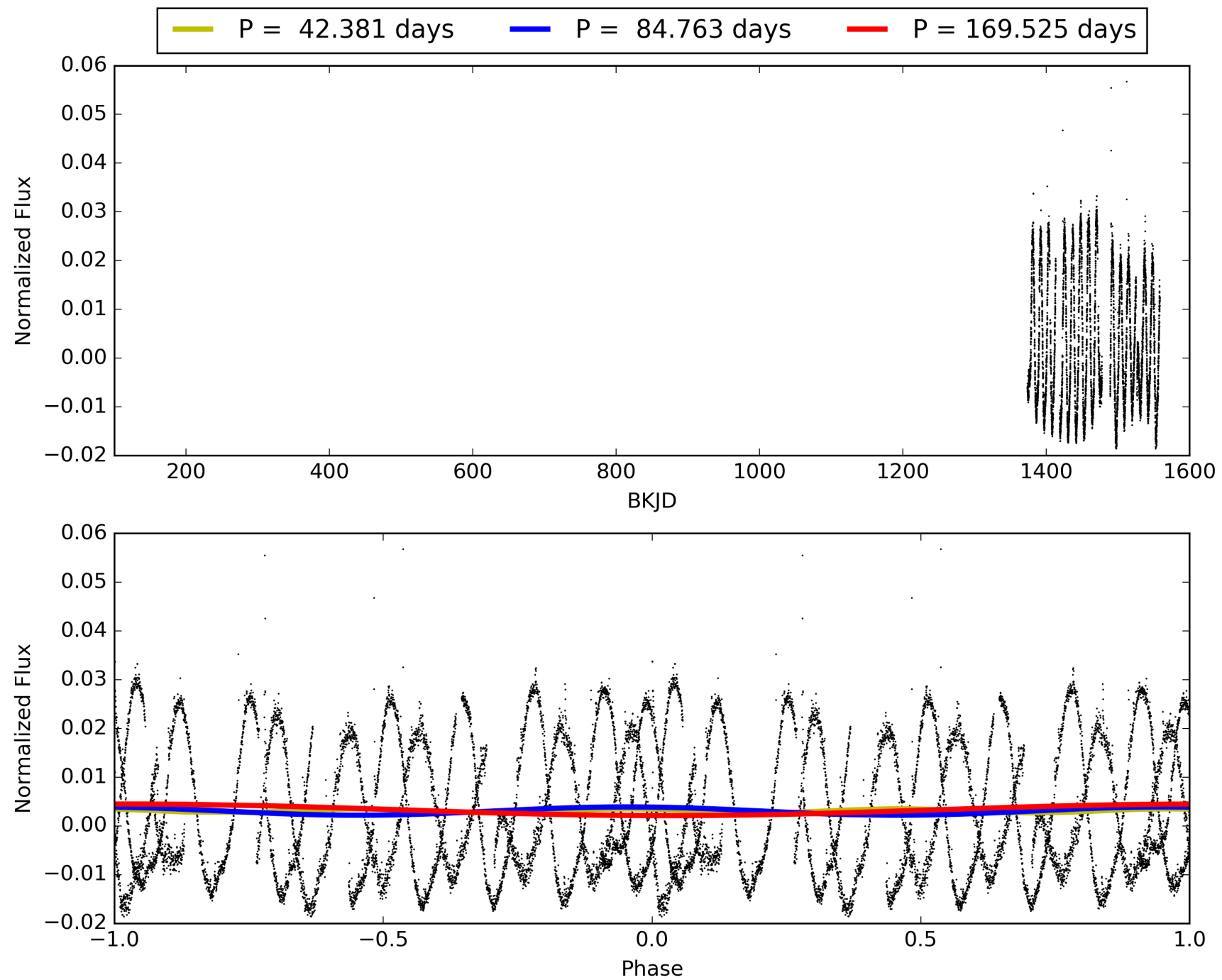
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.5%
ModelChiSquareGof-sig: 90.7%
Bootstrap-pfa: 6.15e-17
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -19.73
Centroid-sig: N/A
Centroid-so: 0.642 arcsec [0.82σ]
OotOffset-rm: 3.185 arcsec [0.28σ]
KicOffset-rm: 2.879 arcsec [0.26σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 011957647-01, PDC Light Curves

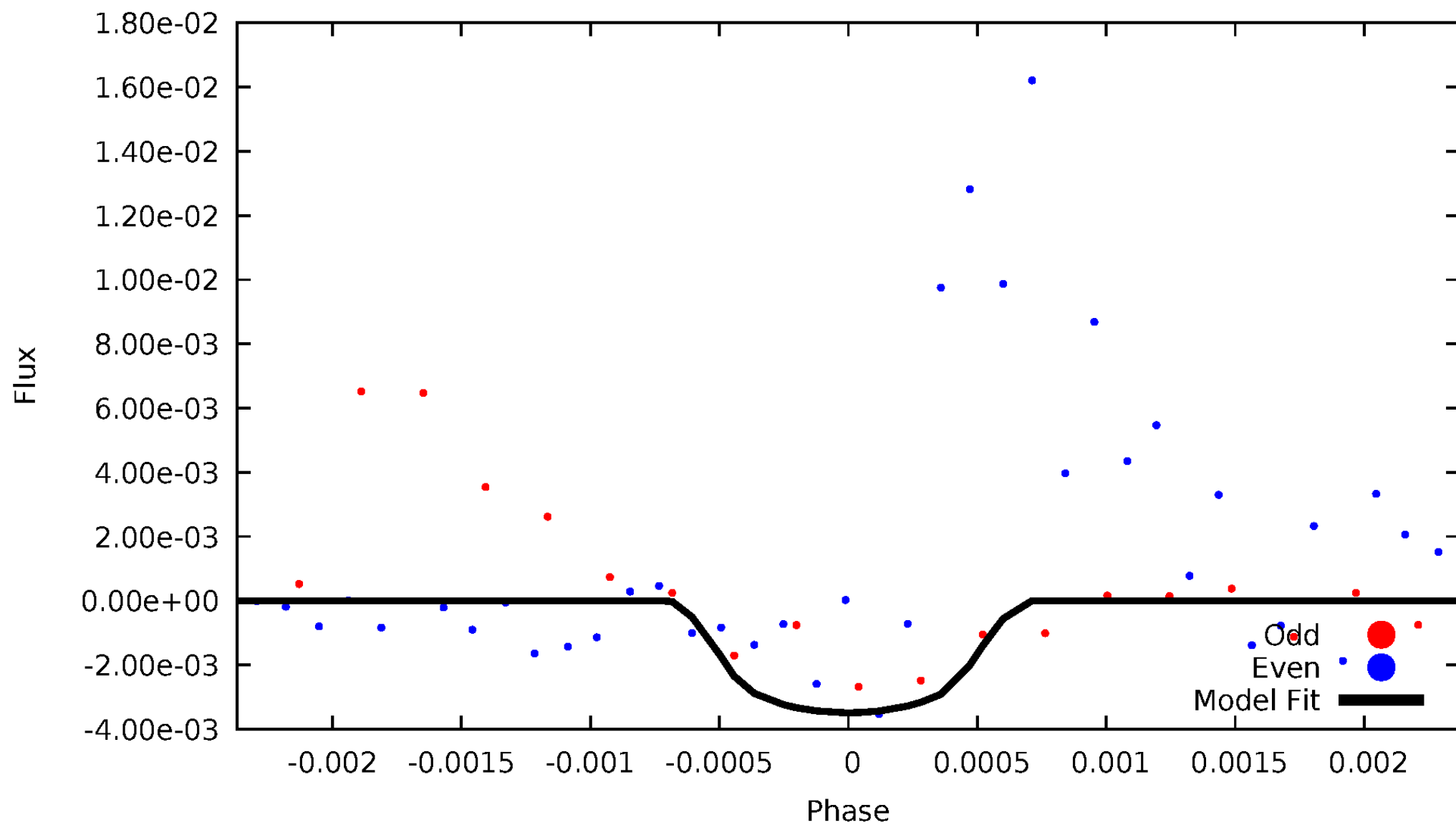


TCE 011957647-01



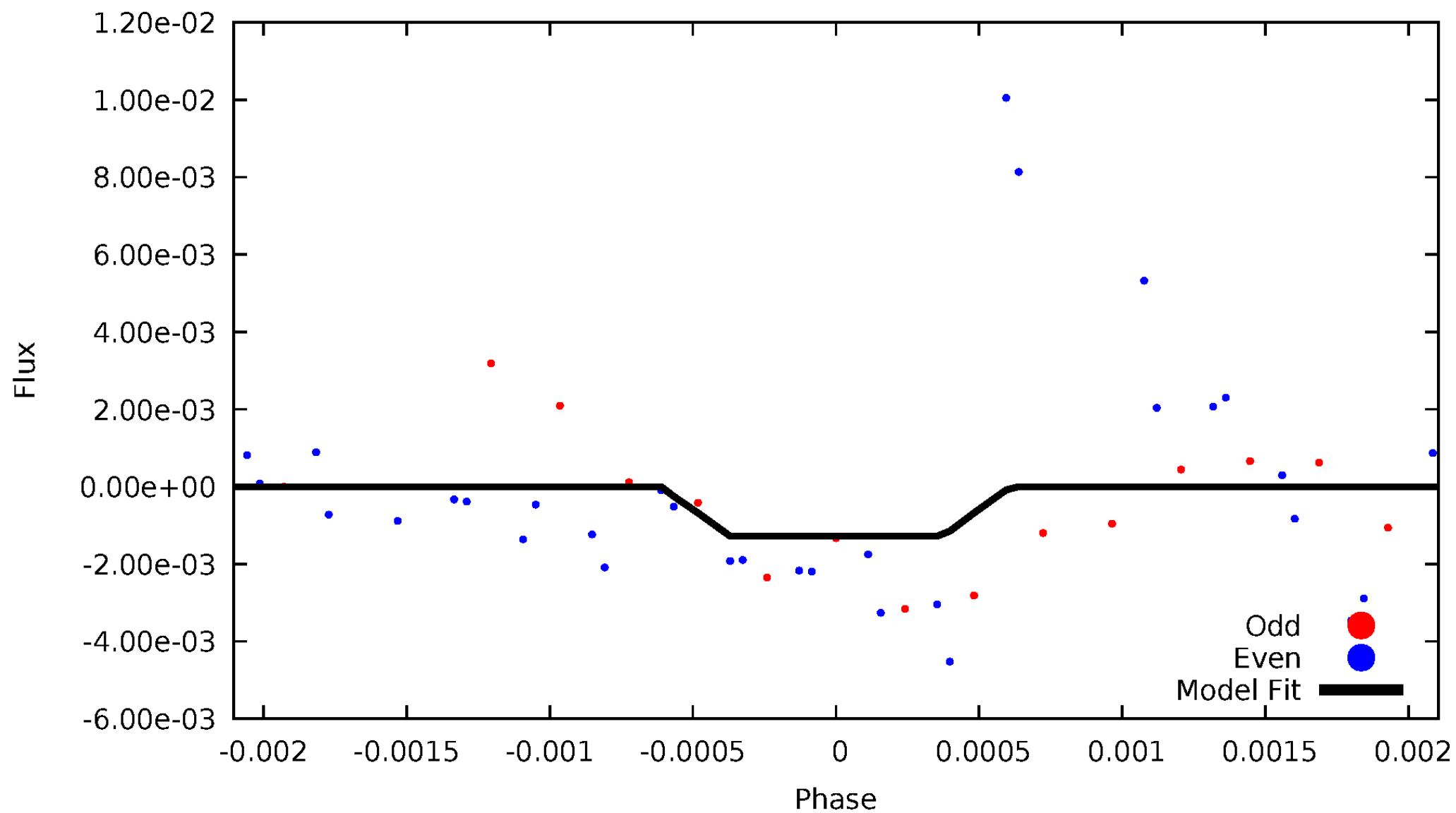
DV Odd/Even

TCE 011957647-01

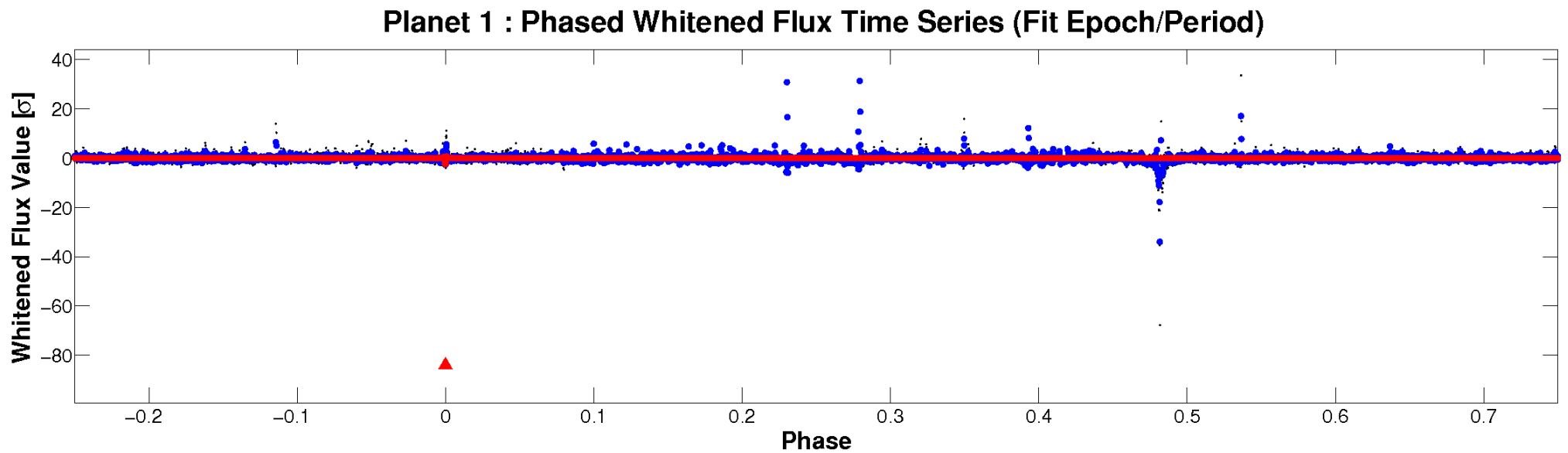
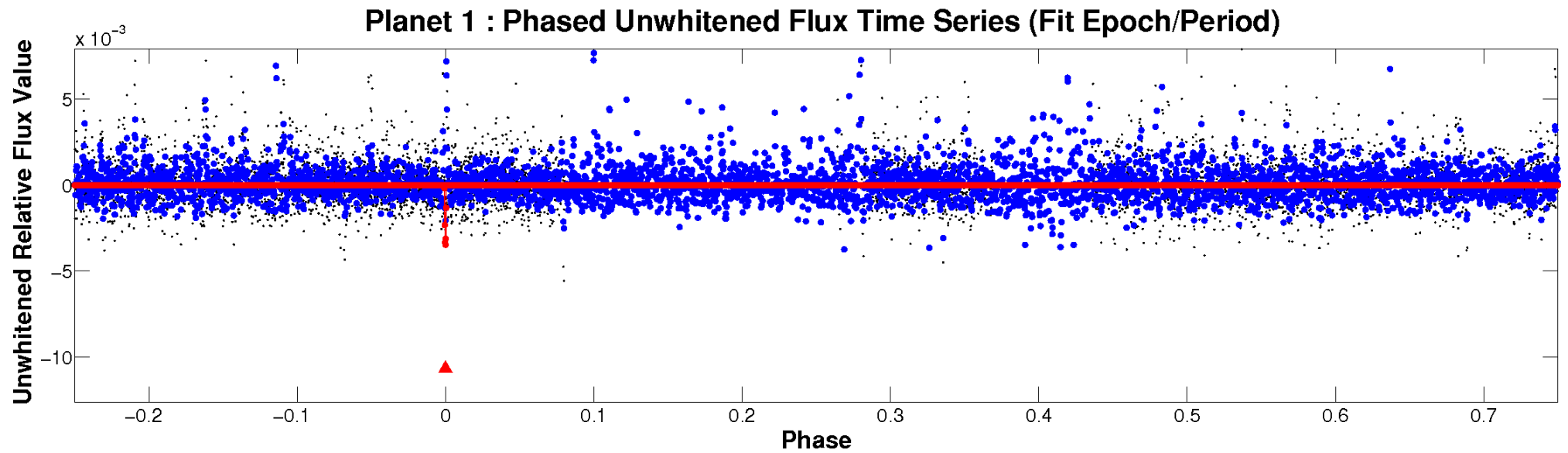


ALT Odd/Even

TCE 011957647-01

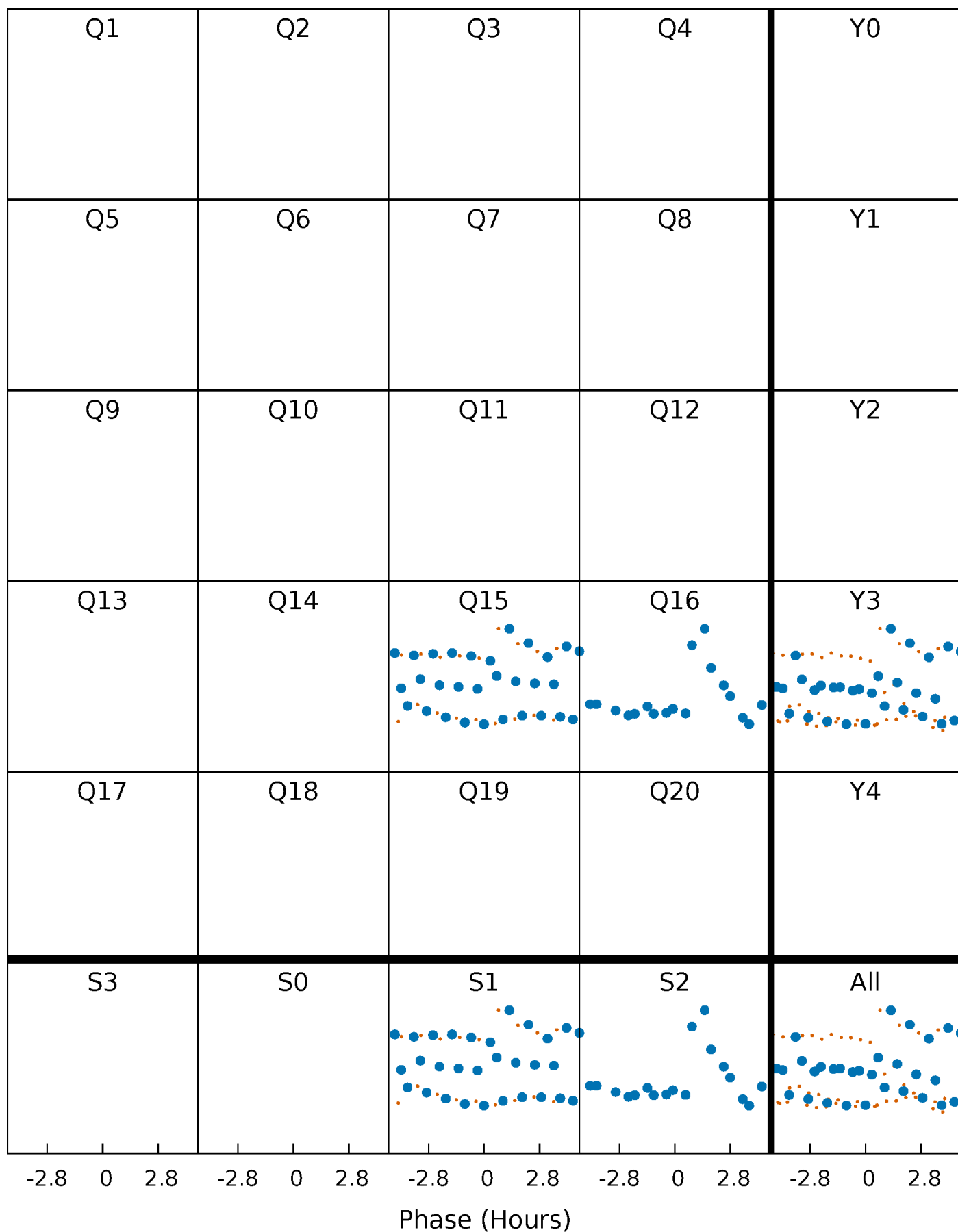


Non-Whitened Vs. Whitened Light Curve



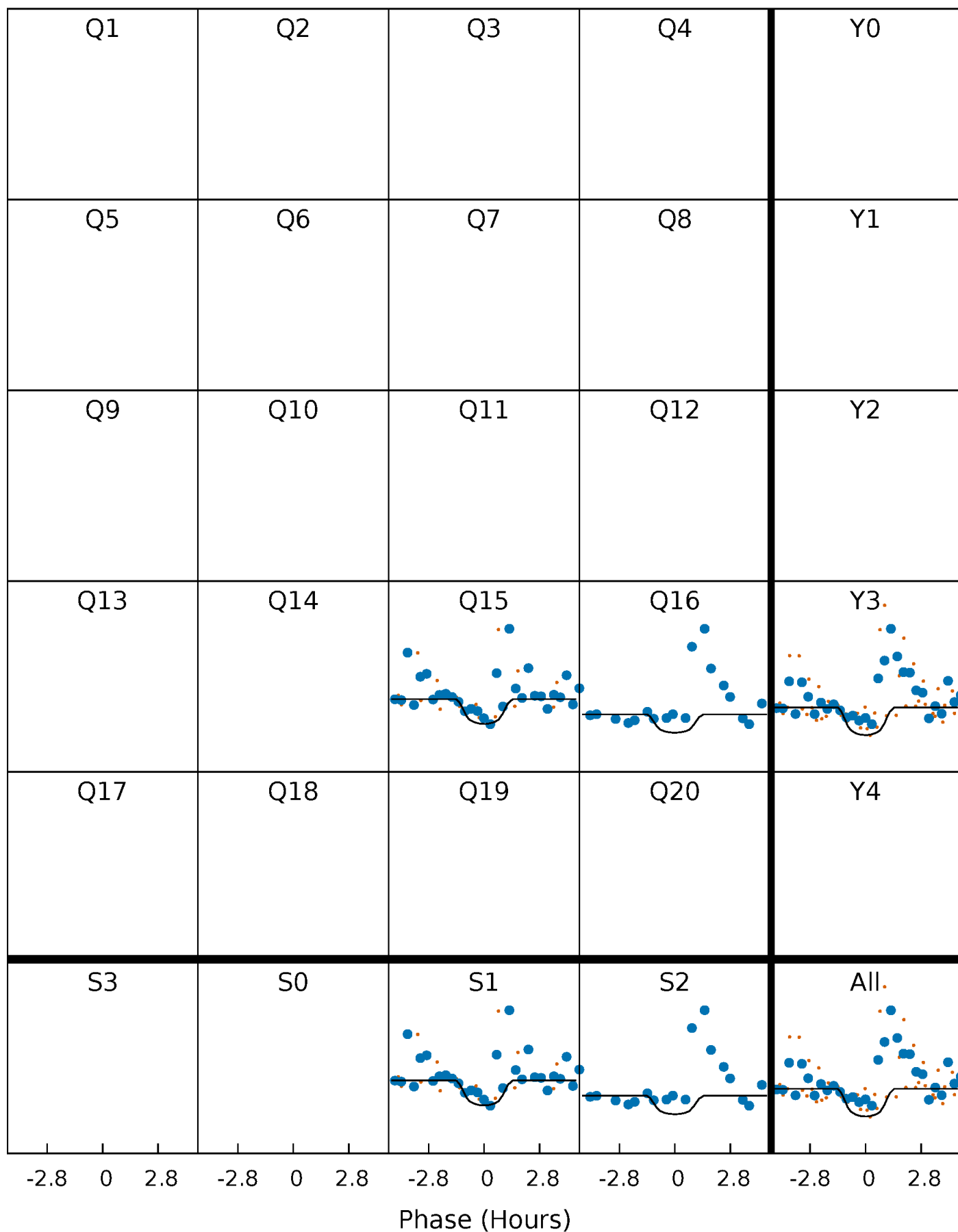
PDC Quarter-Phased Transit Curves

TCE 011957647-01 P= 84.762671 Days $T_0=194.871423$ (BKJD)



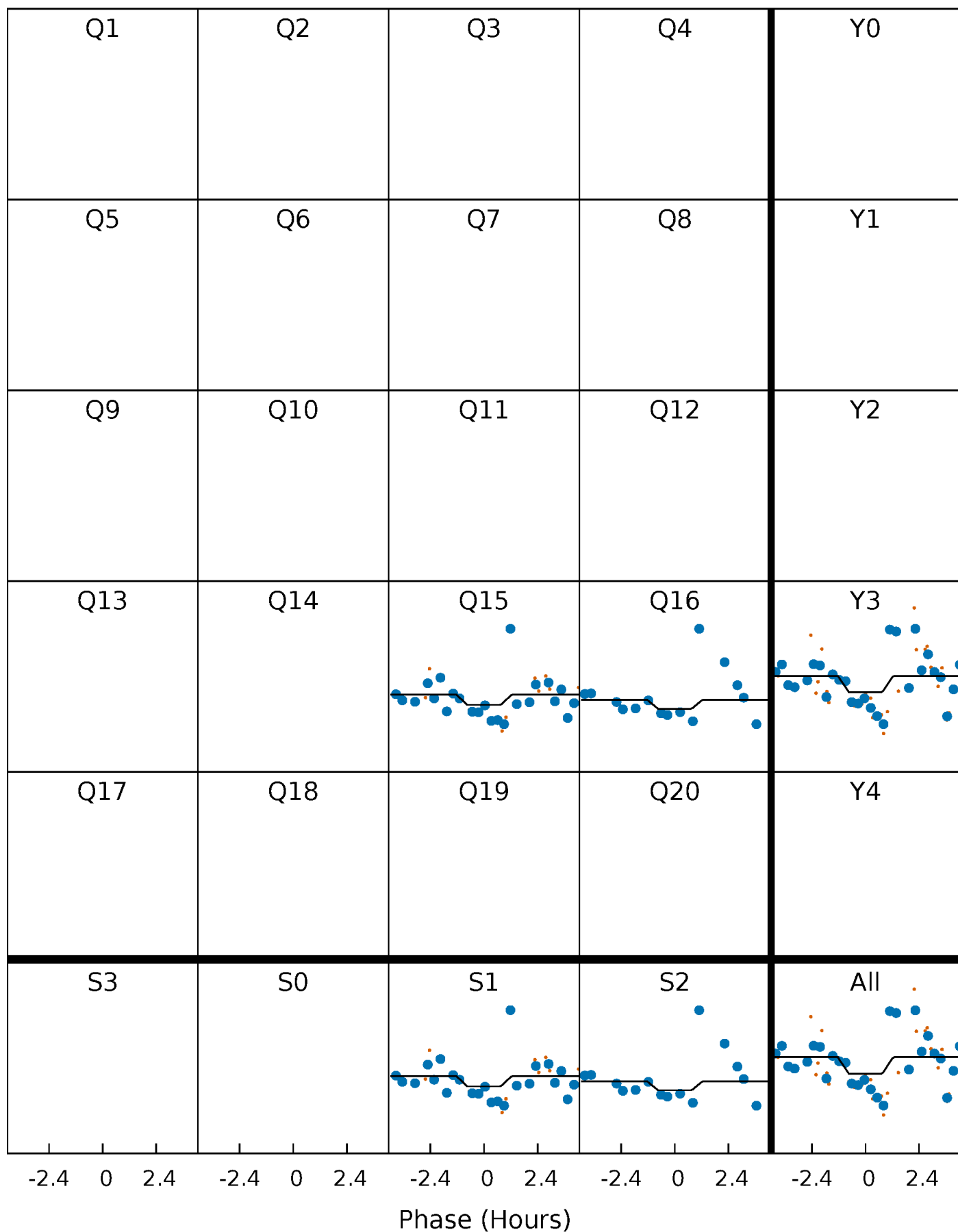
DV Quarter-Phased Transit Curves

TCE 011957647-01 P= 84.762671 Days $T_0=194.871423$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

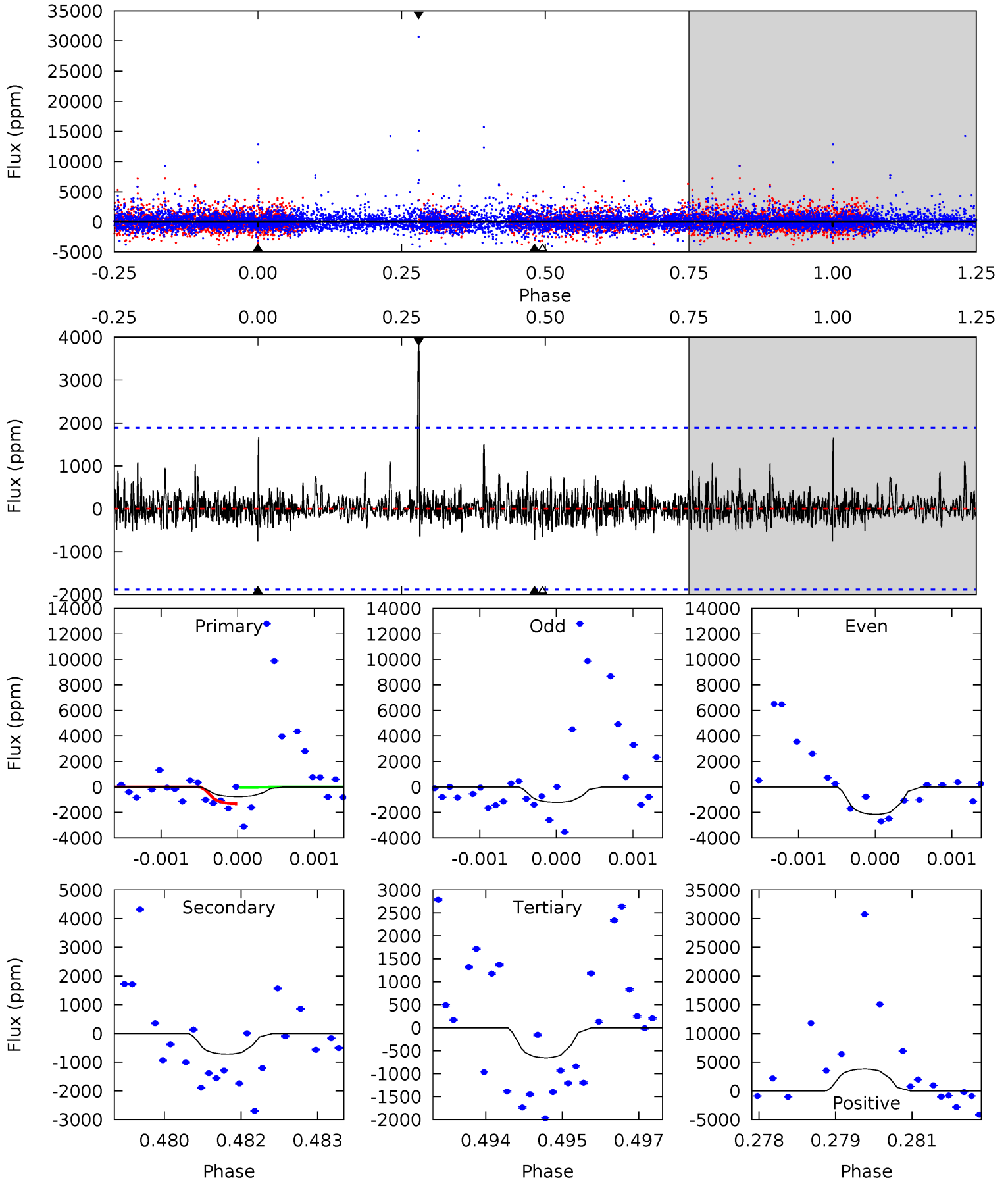
TCE 011957647-01 P= 84.769291 Days $T_0=194.755049$ (BKJD)



DV Model-Shift Uniqueness Test

011957647-01, P = 84.762671 Days, E = 194.871423 Days

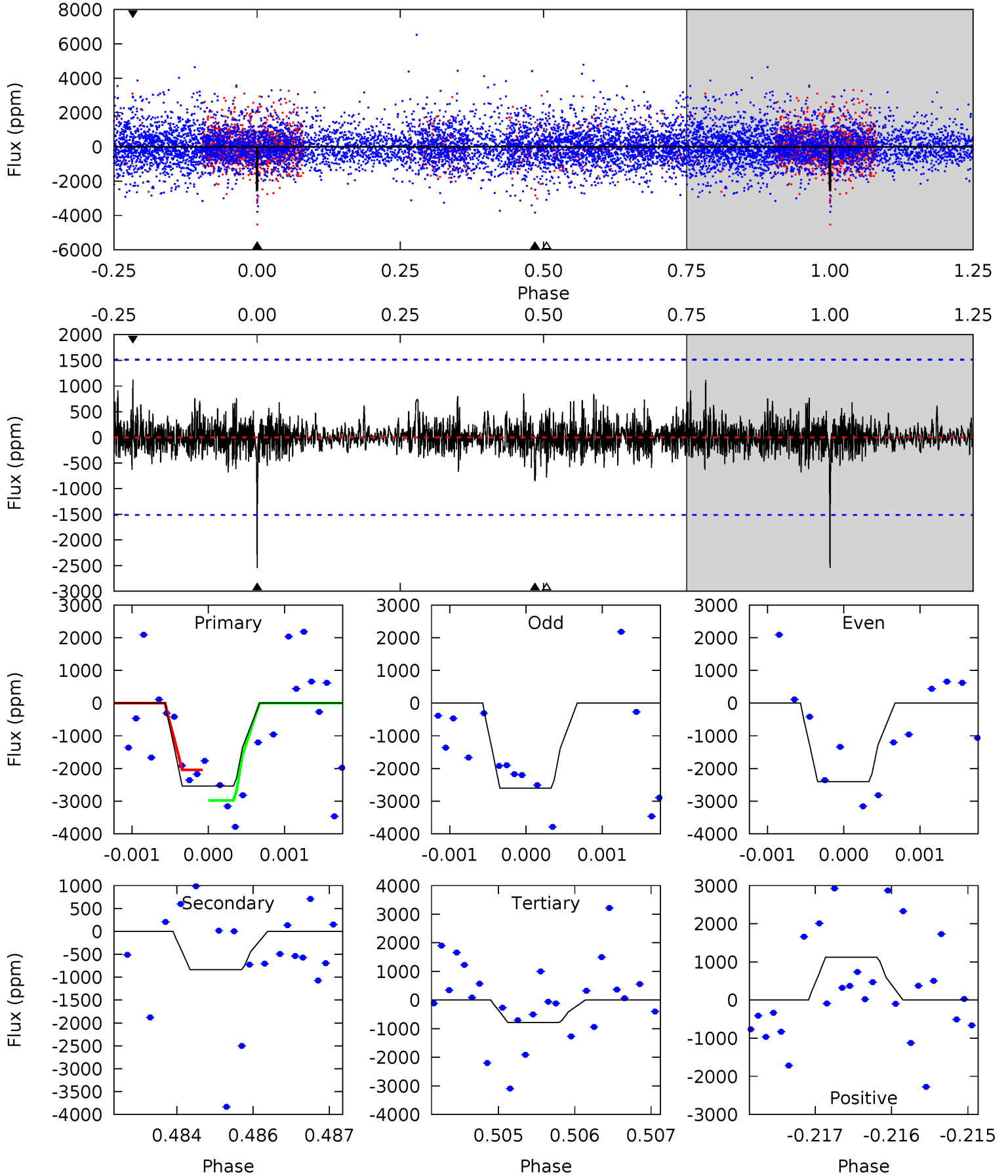
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.16	2.07	1.88	10.9	5.39	3.20	0.77	0.28	-8.76	0.19	-8.85	1.24	0.12	0.83	1.79



Alt Model-Shift Uniqueness Test

011957647-01, P = 84.769291 Days, E = 194.755049 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.13	3.01	2.80	4.03	5.44	3.27	0.80	6.33	5.10	0.21	-1.02	0.37	1.03	0.31	1.67



Stellar Parameters For KIC 011957647

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3683^{+117}_{-147}	$4.688^{+0.075}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.563^{+0.033}_{-0.081}$	$0.564^{+0.036}_{-0.072}$	$4.449^{+1.735}_{-0.434}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+6%/-13%	+39%/-10%
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 011957647-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-723 ± 349	$9.10^{+9.18}_{-6.23}$	301^{+13}_{-13}	2259^{+802}_{-338}	413^{+4096}_{-319}
Alt.	-837 ± 278	$8.05^{+8.00}_{-5.50}$	301^{+12}_{-14}	2397^{+896}_{-381}	684^{+6340}_{-531}

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

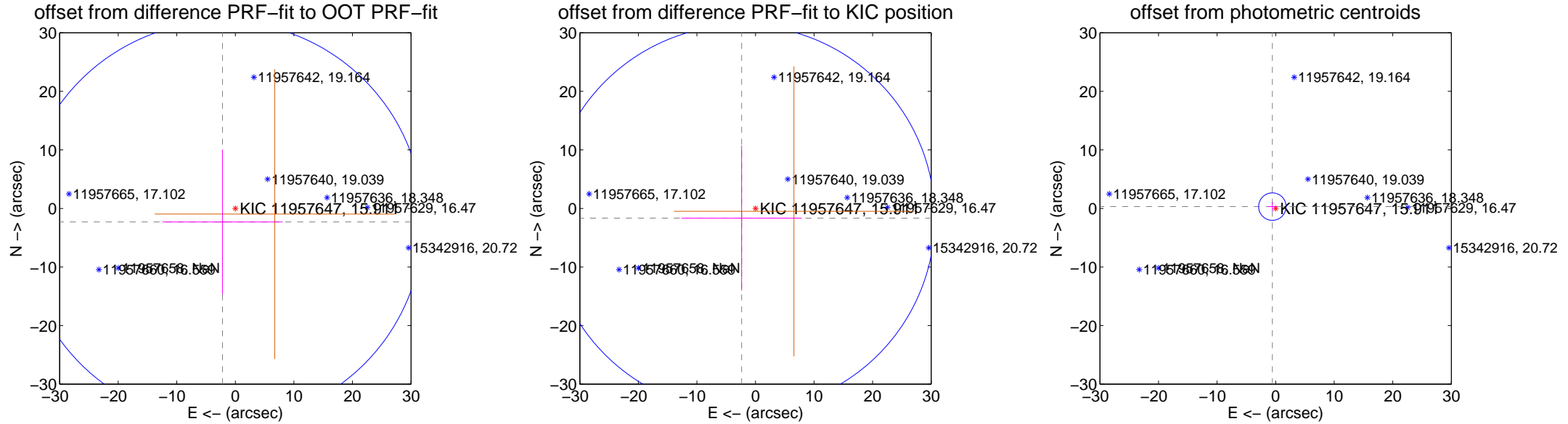
DV Centroid Data

Supplemental centroid analysis for 011957647-01. Kepler magnitude: 15.91. Transit SNR 7.15

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.49 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.185 ± 11.422	0.28	2.190 ± 10.251	-2.312 ± 12.378
PRF-fit source offset from KIC position	2.879 ± 10.994	0.26	2.360 ± 10.251	-1.648 ± 12.378
photometric centroid source offset	0.64 ± 0.78	0.82	0.56 ± 0.78	0.31 ± 0.78

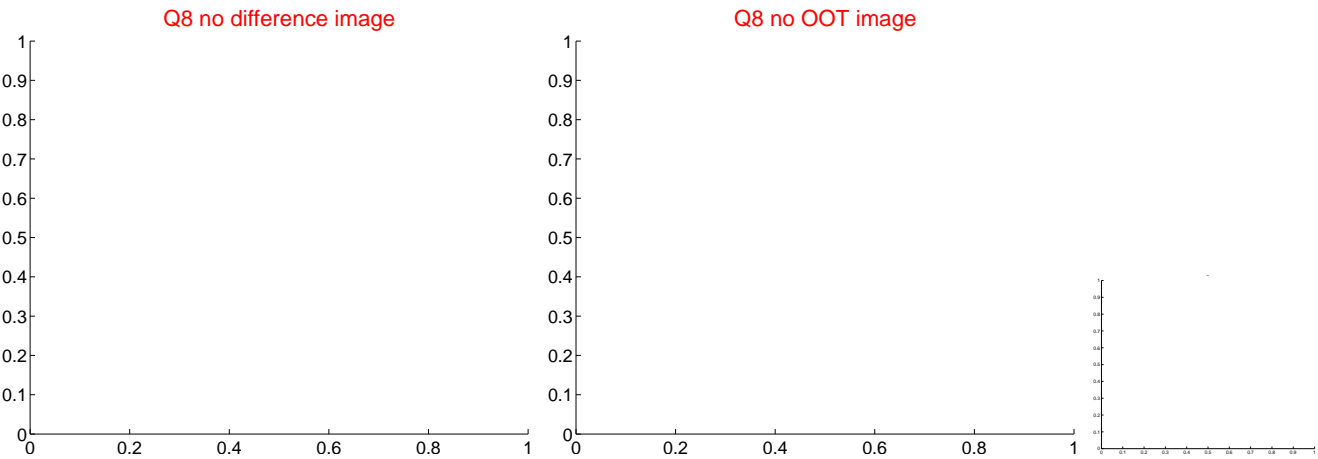
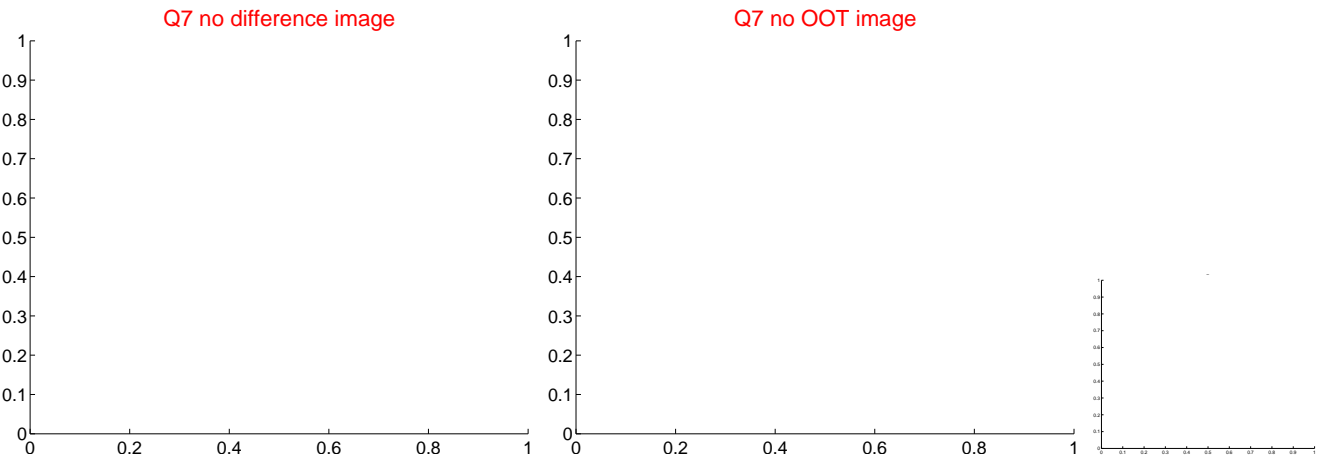
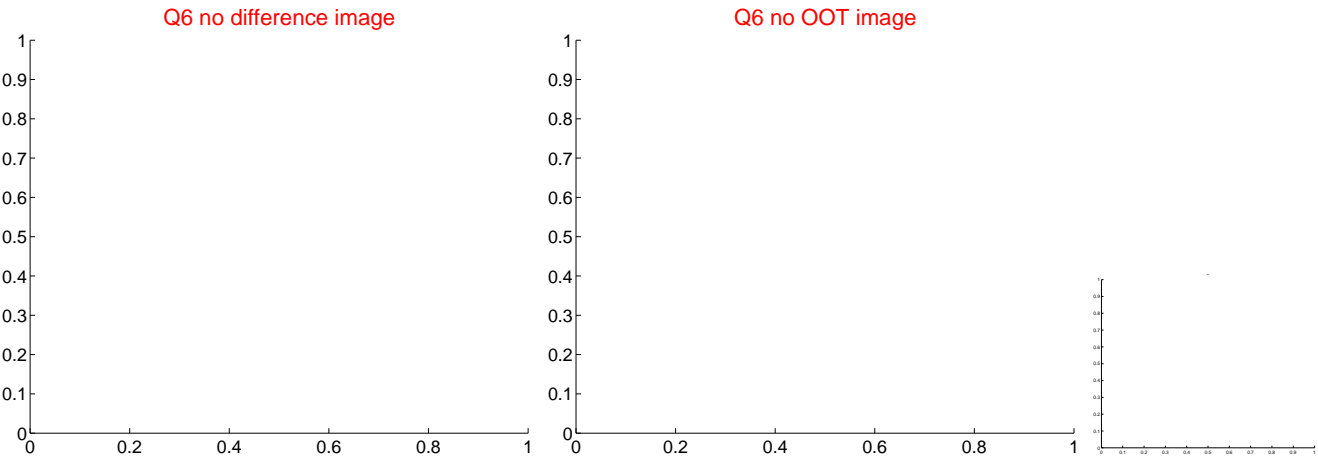
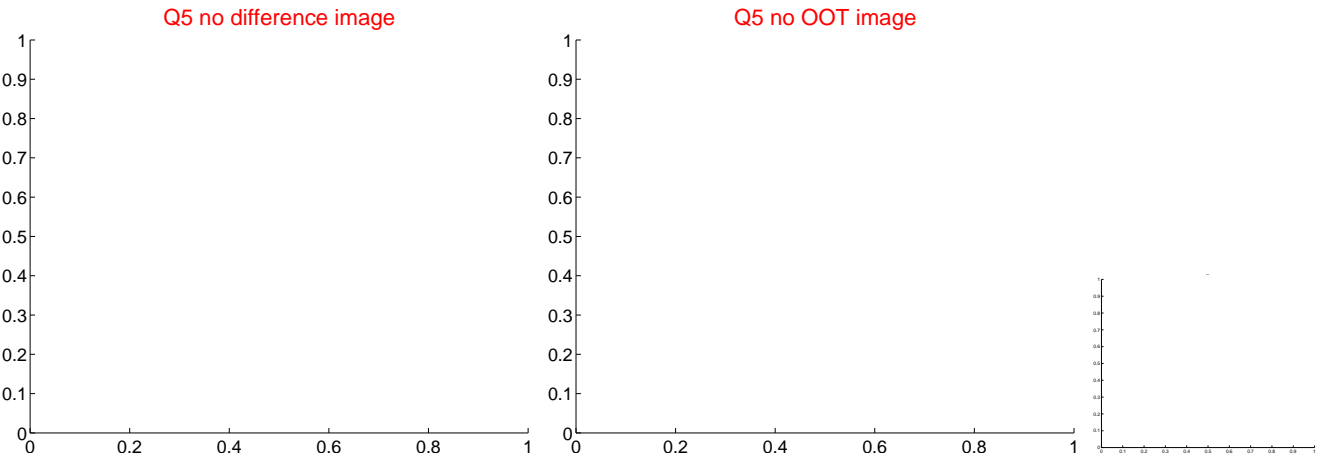


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



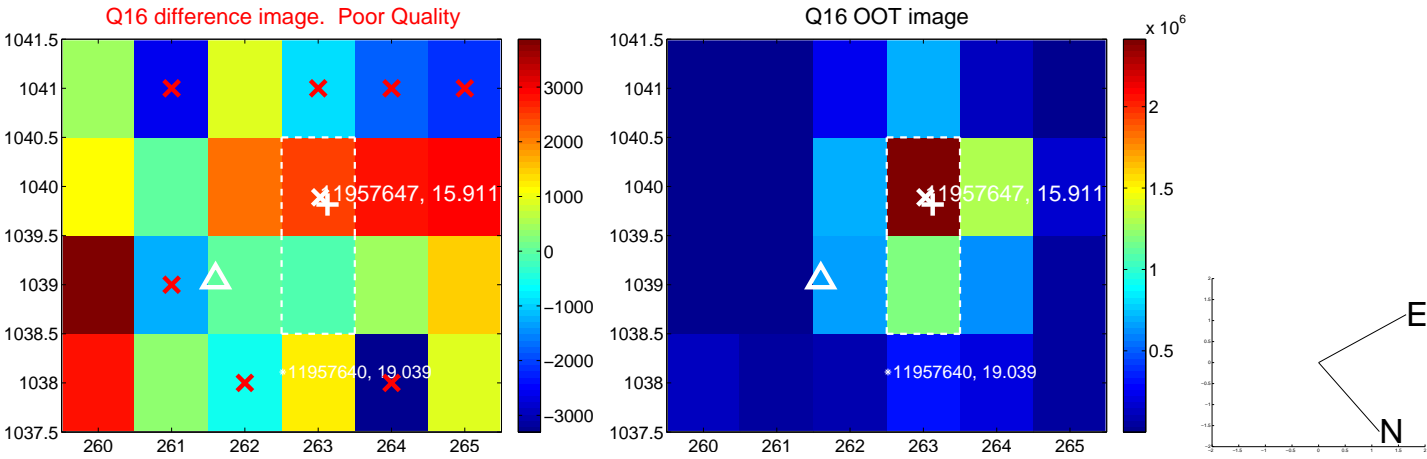
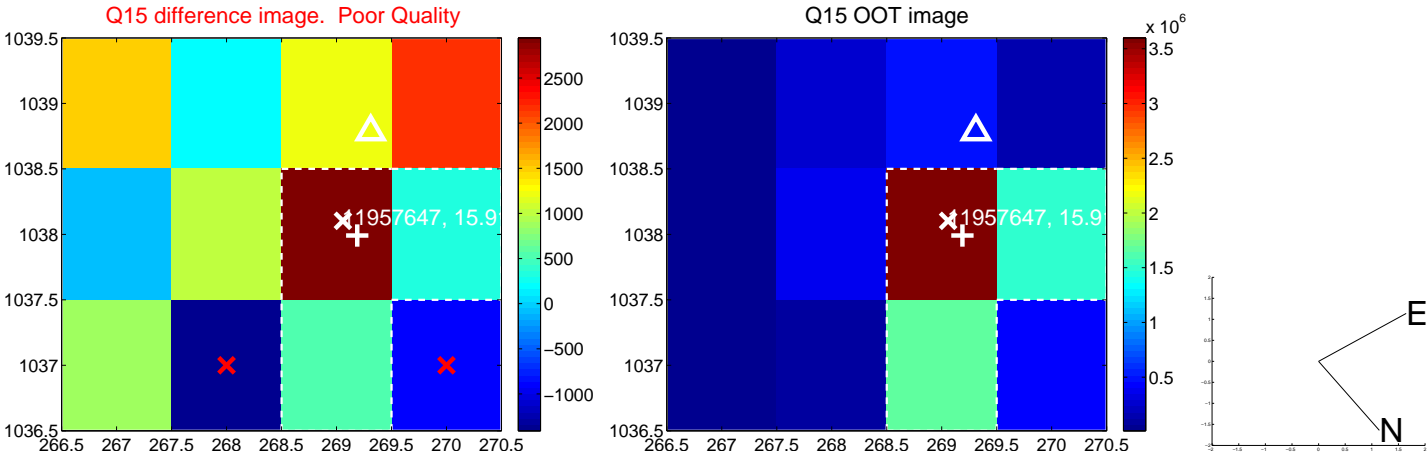
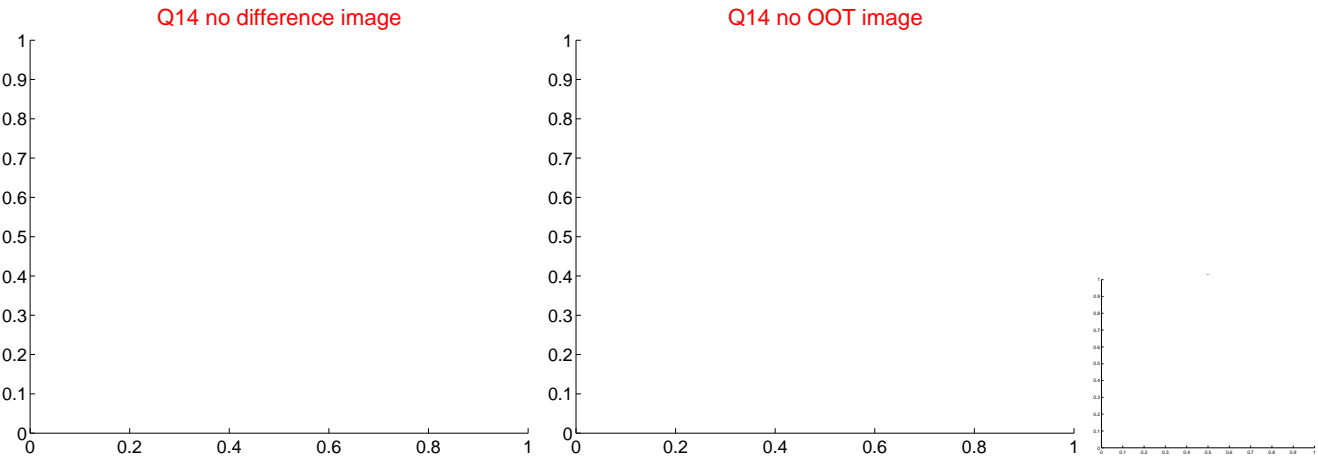
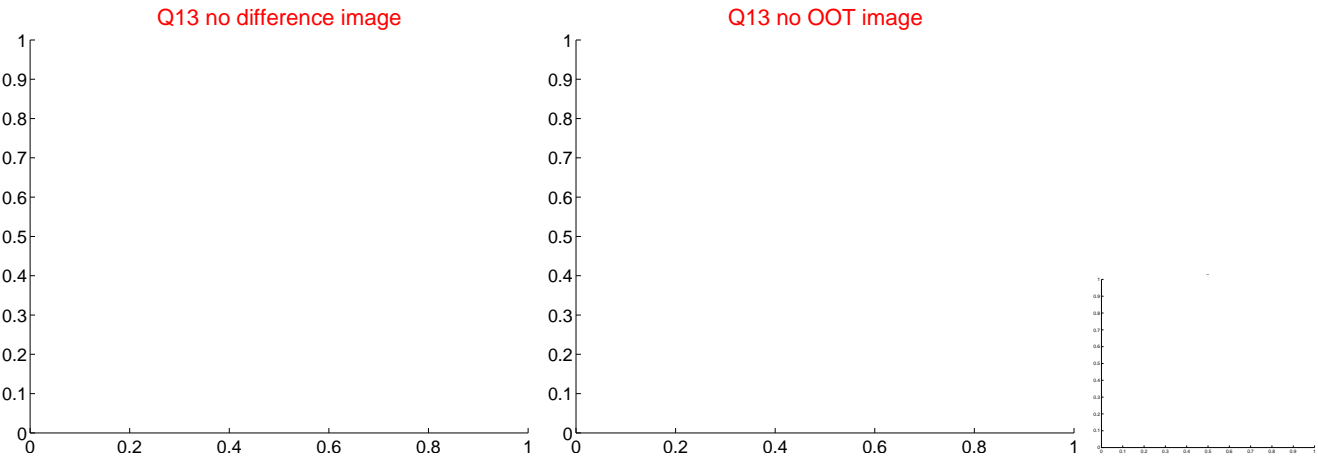
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



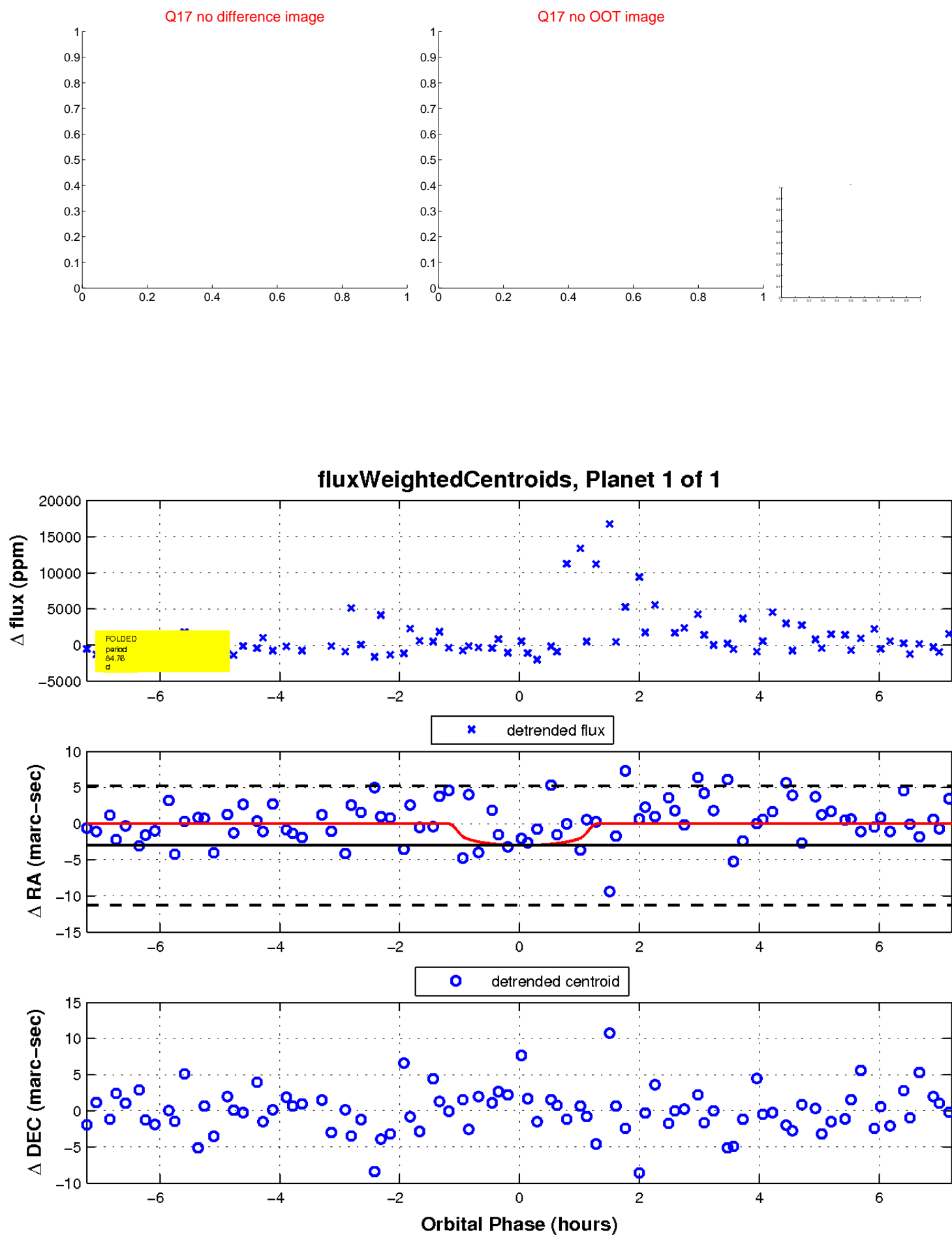
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UKIRT Image

Declination

