

KIC 004927048

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})
004927048-01	OBS	No	160.817907	161.550411	12.0	1.274	14.2	1.4	128.68	3794	53.66	3841.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004927048-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

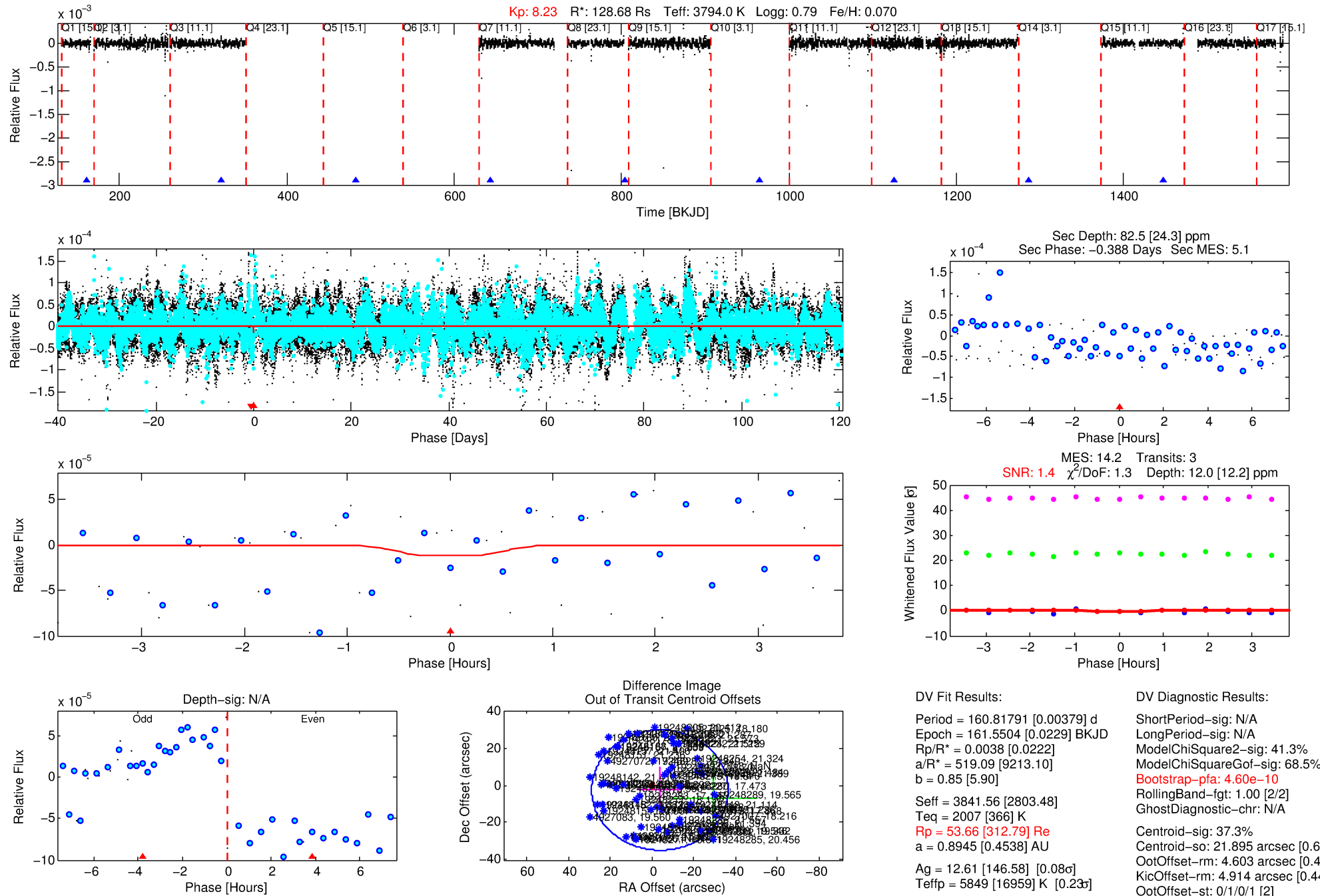
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004927048-01

No Significant Match Found

DV One-Page Summary

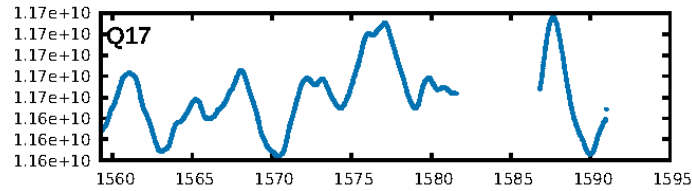
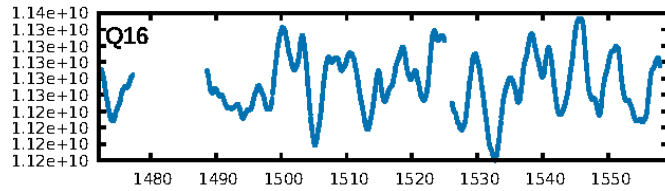
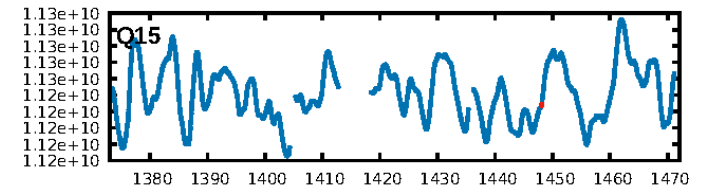
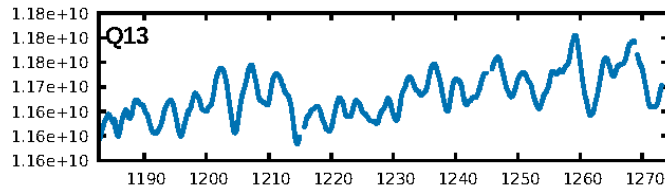
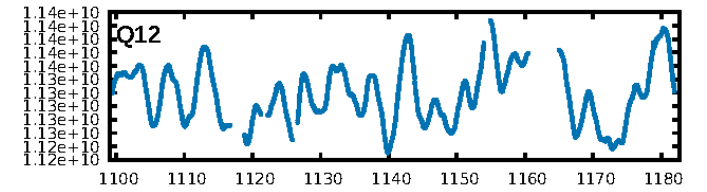
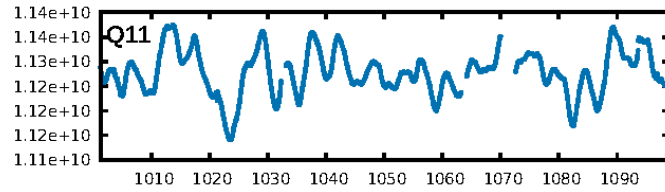
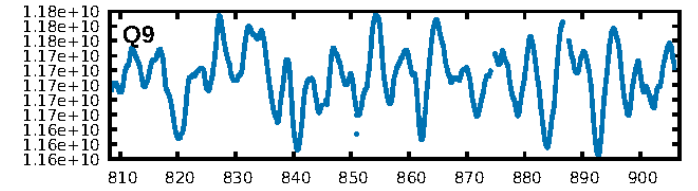
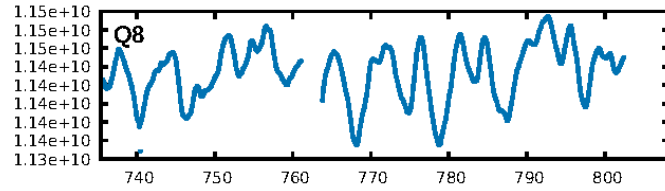
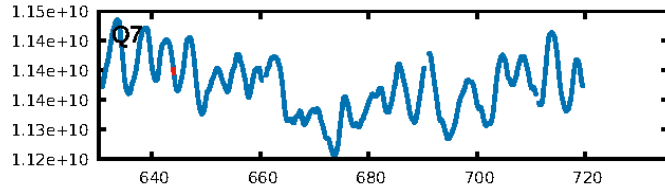
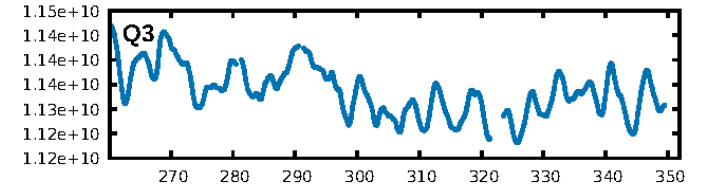
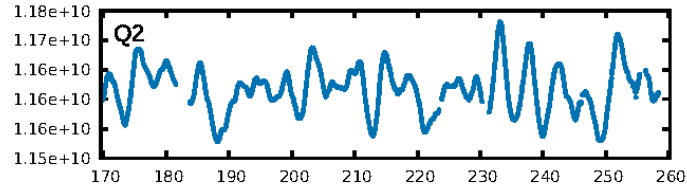
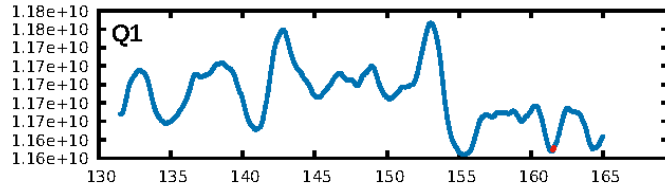
KIC: 4927048 Candidate: 1 of 1 Period: 160.818 d



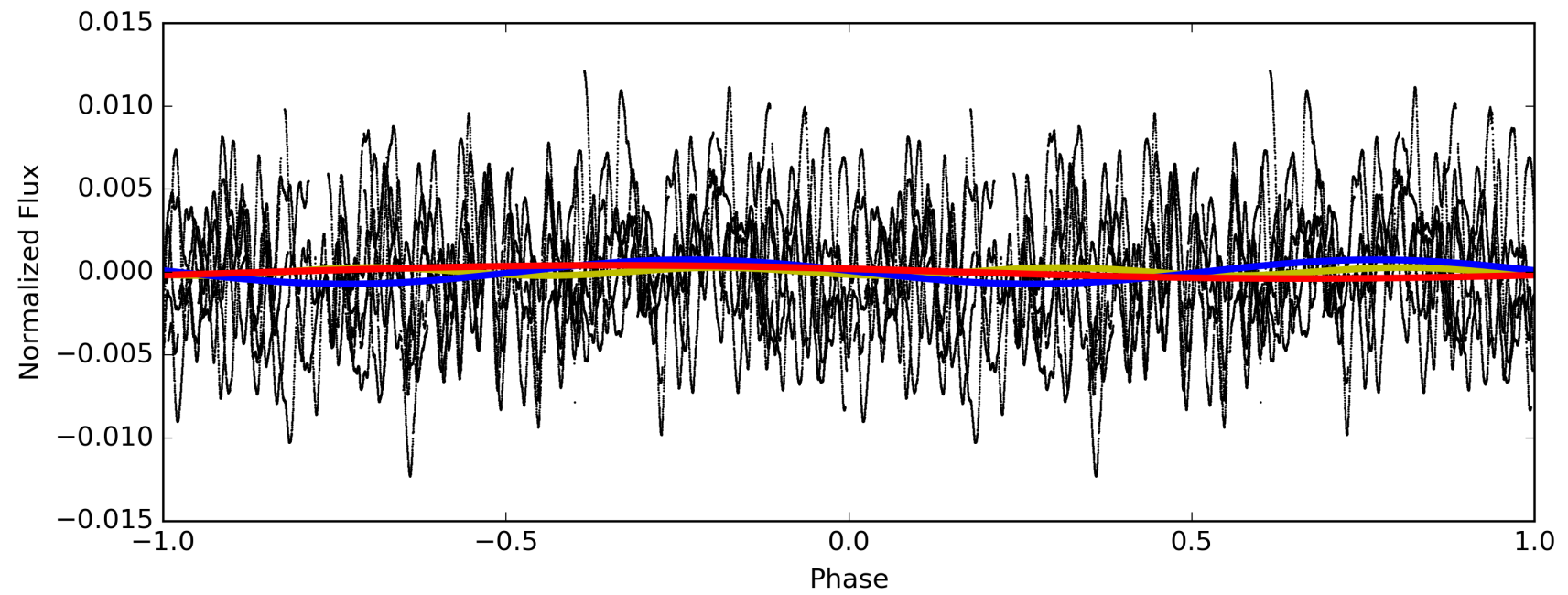
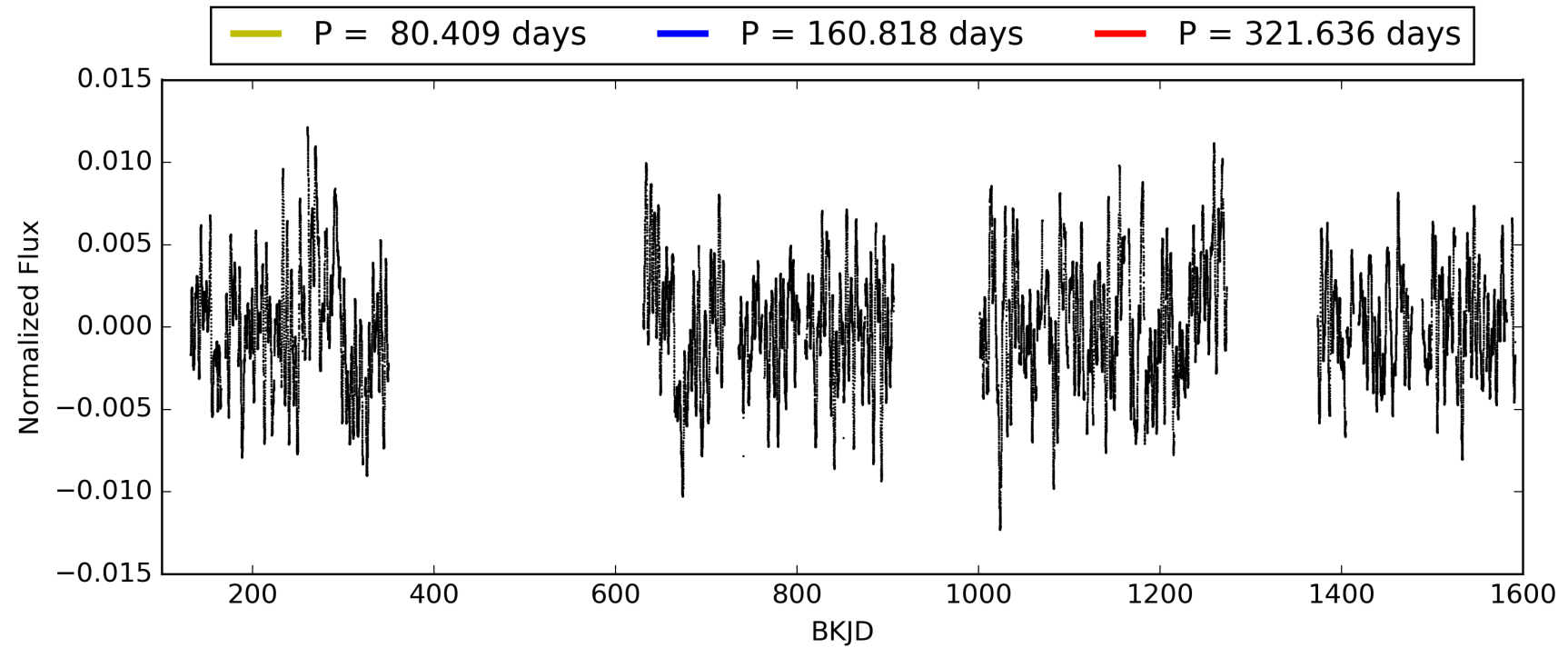
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:44:32 Z

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

TCE 004927048-01, PDC Light Curves

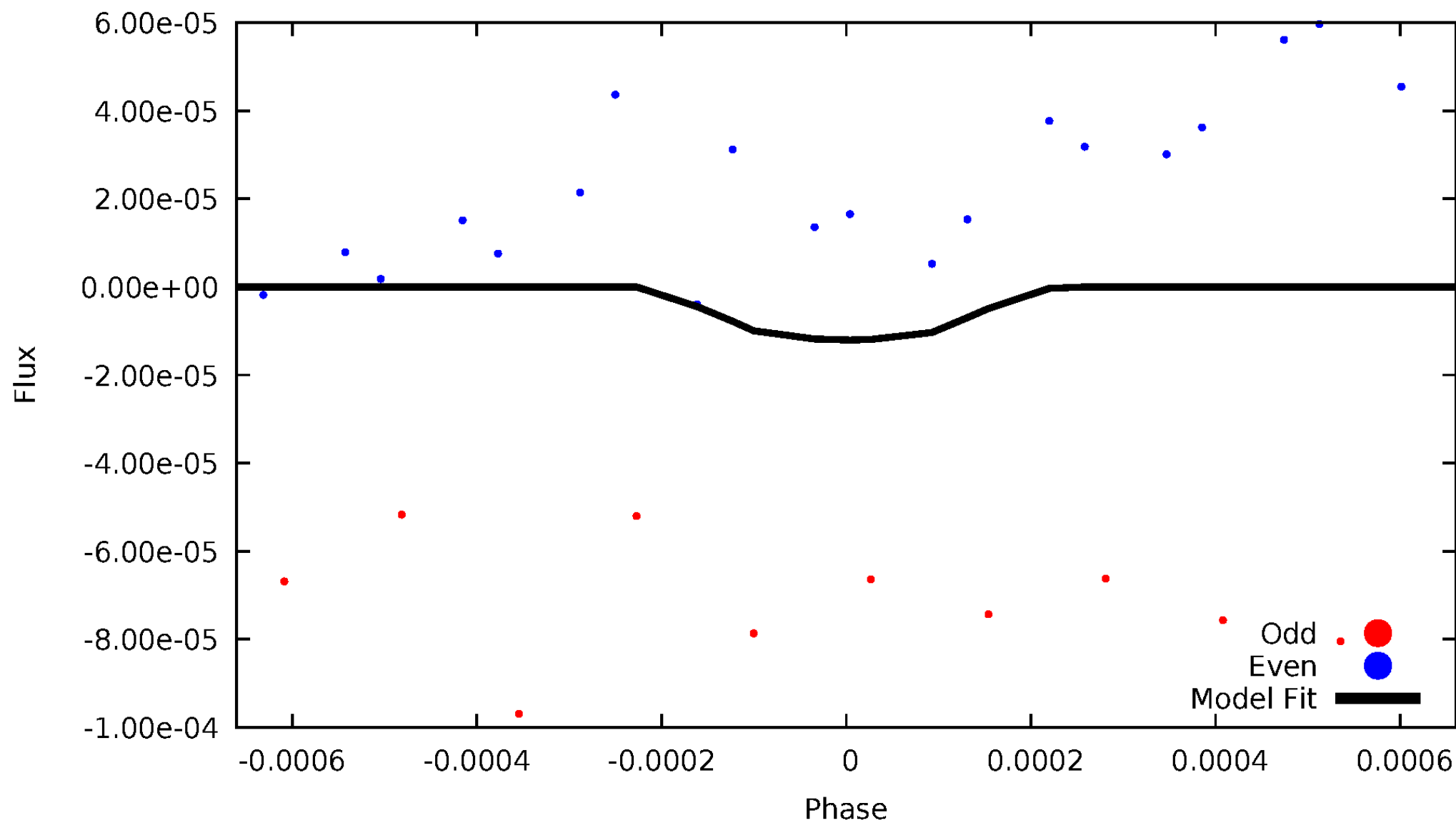


TCE 004927048-01



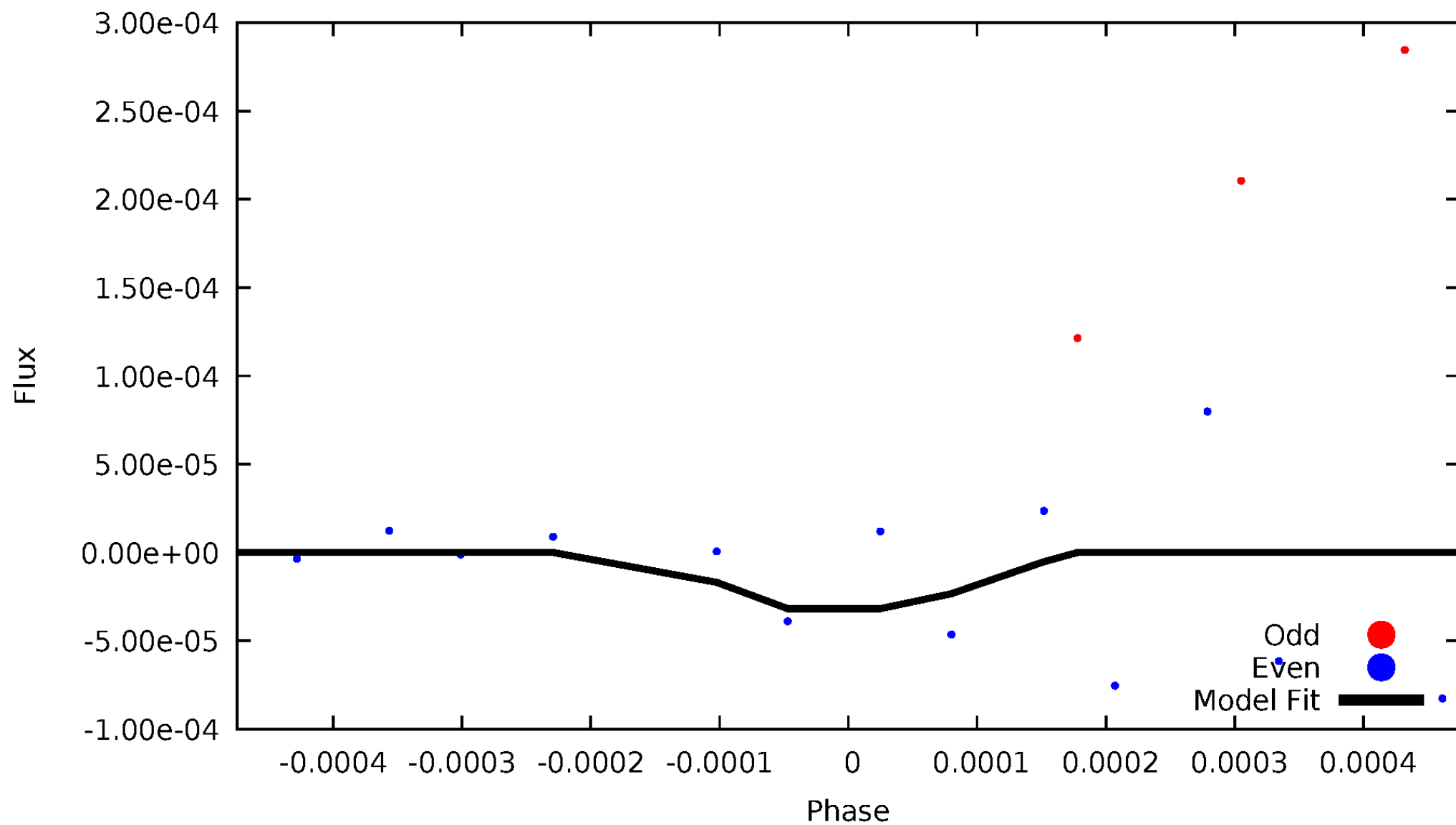
DV Odd/Even

TCE 004927048-01



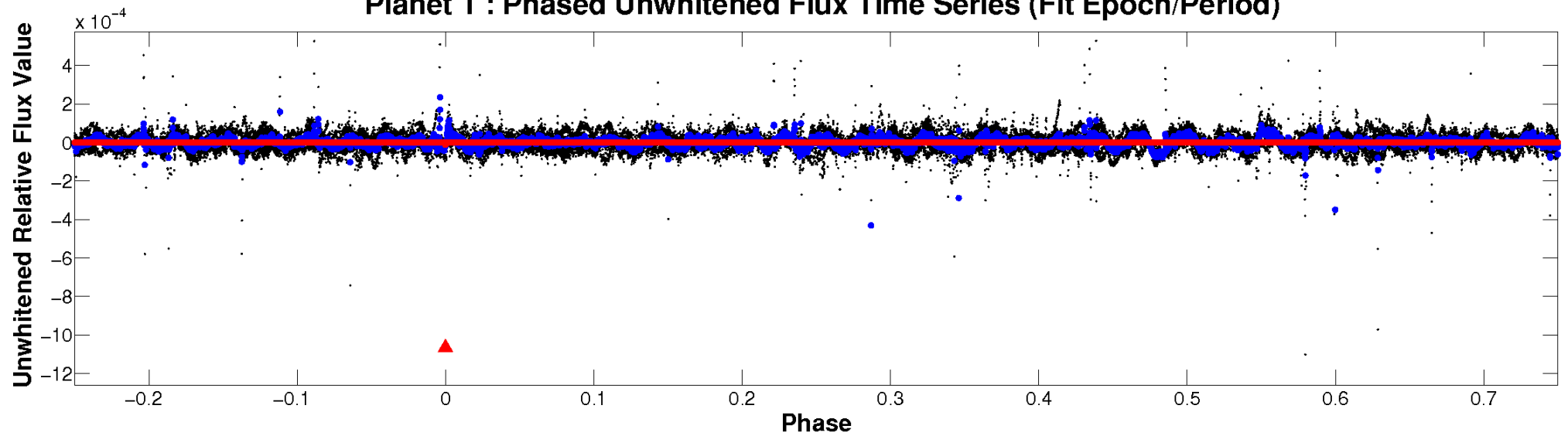
ALT Odd/Even

TCE 004927048-01

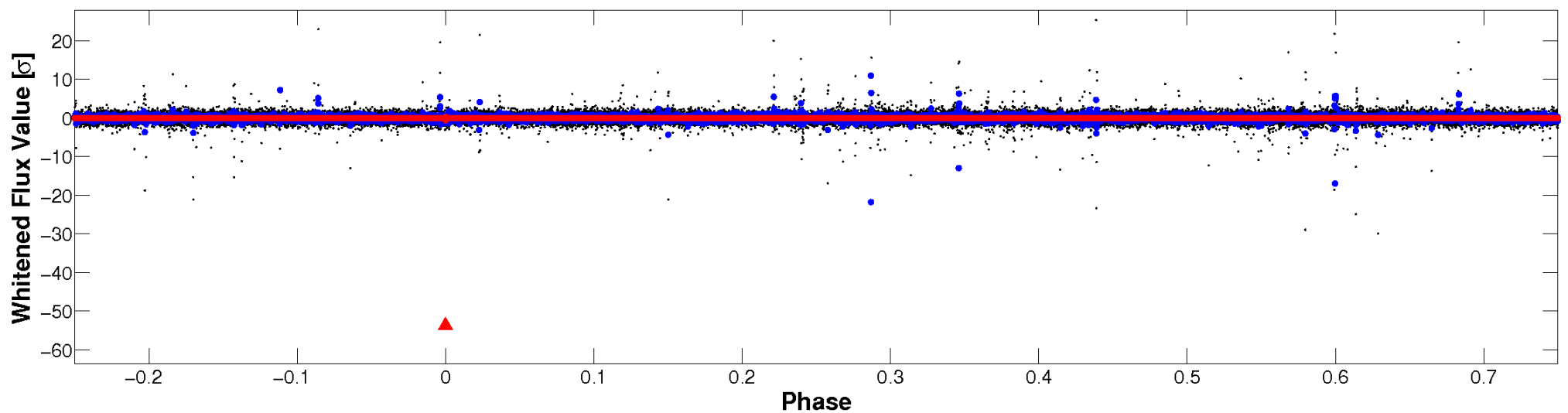


Non-Whitened Vs. Whitened Light Curve

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

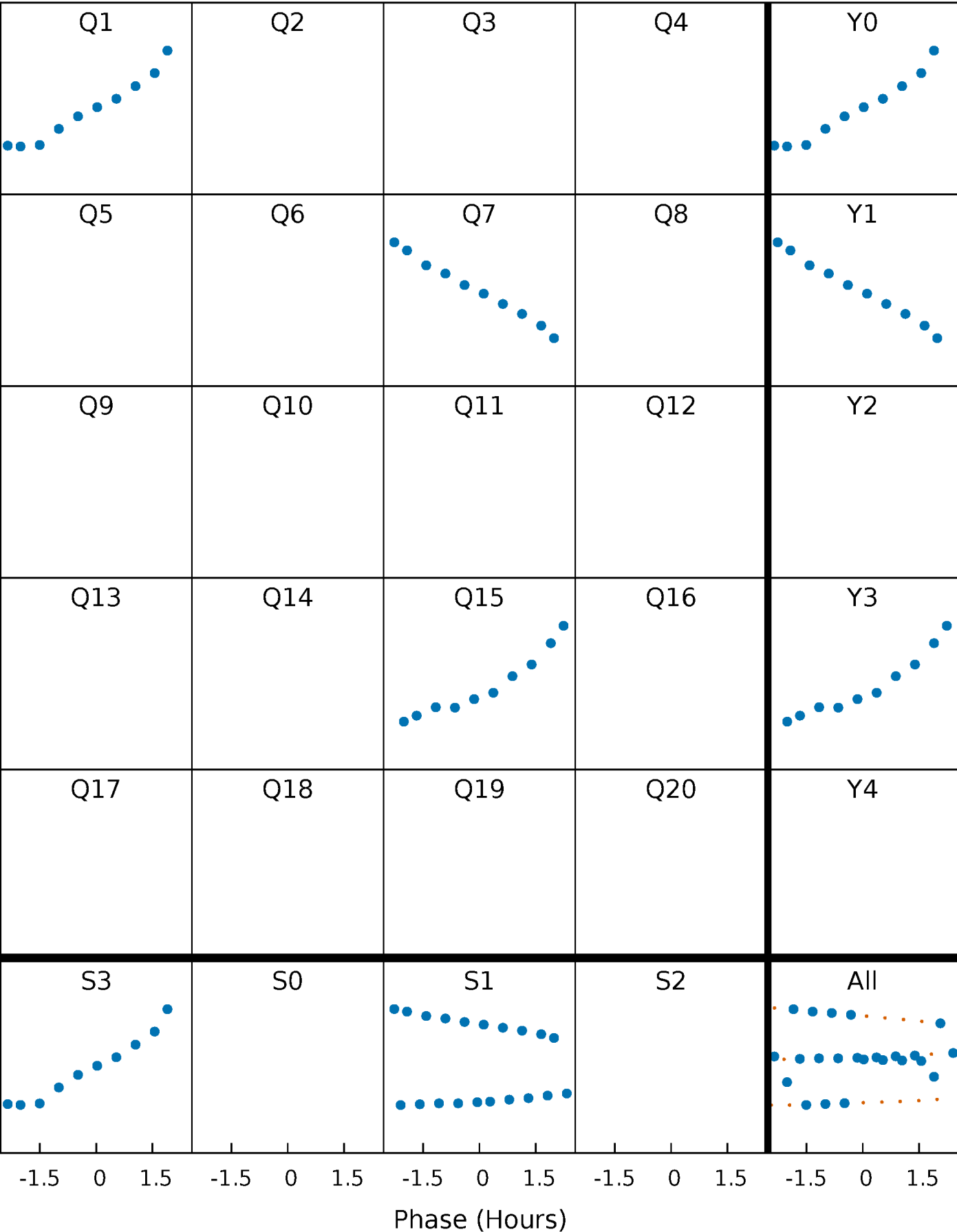


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



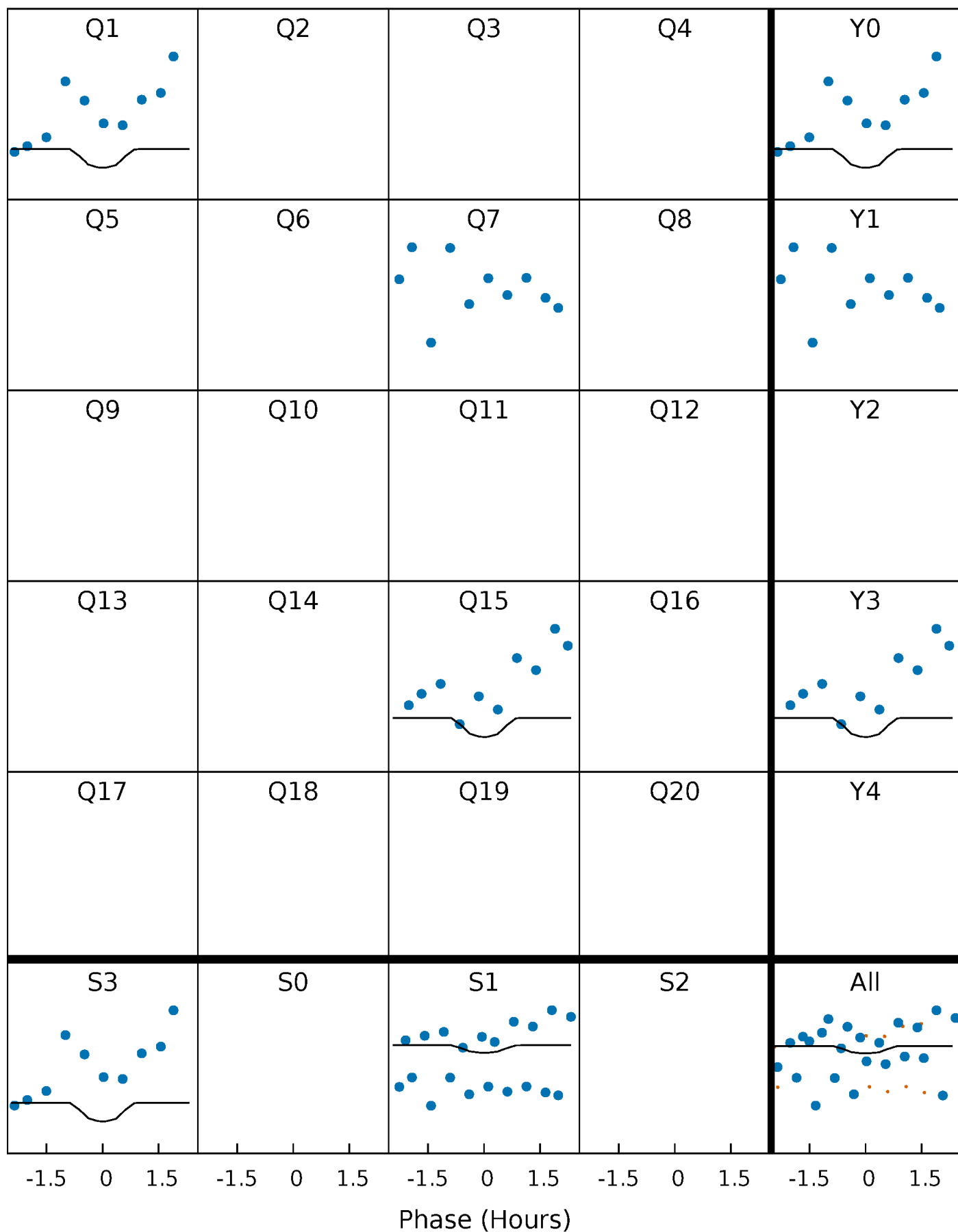
PDC Quarter-Phased Transit Curves

TCE 004927048-01 P=160.817907 Days T₀=161.550411 (BKJD)



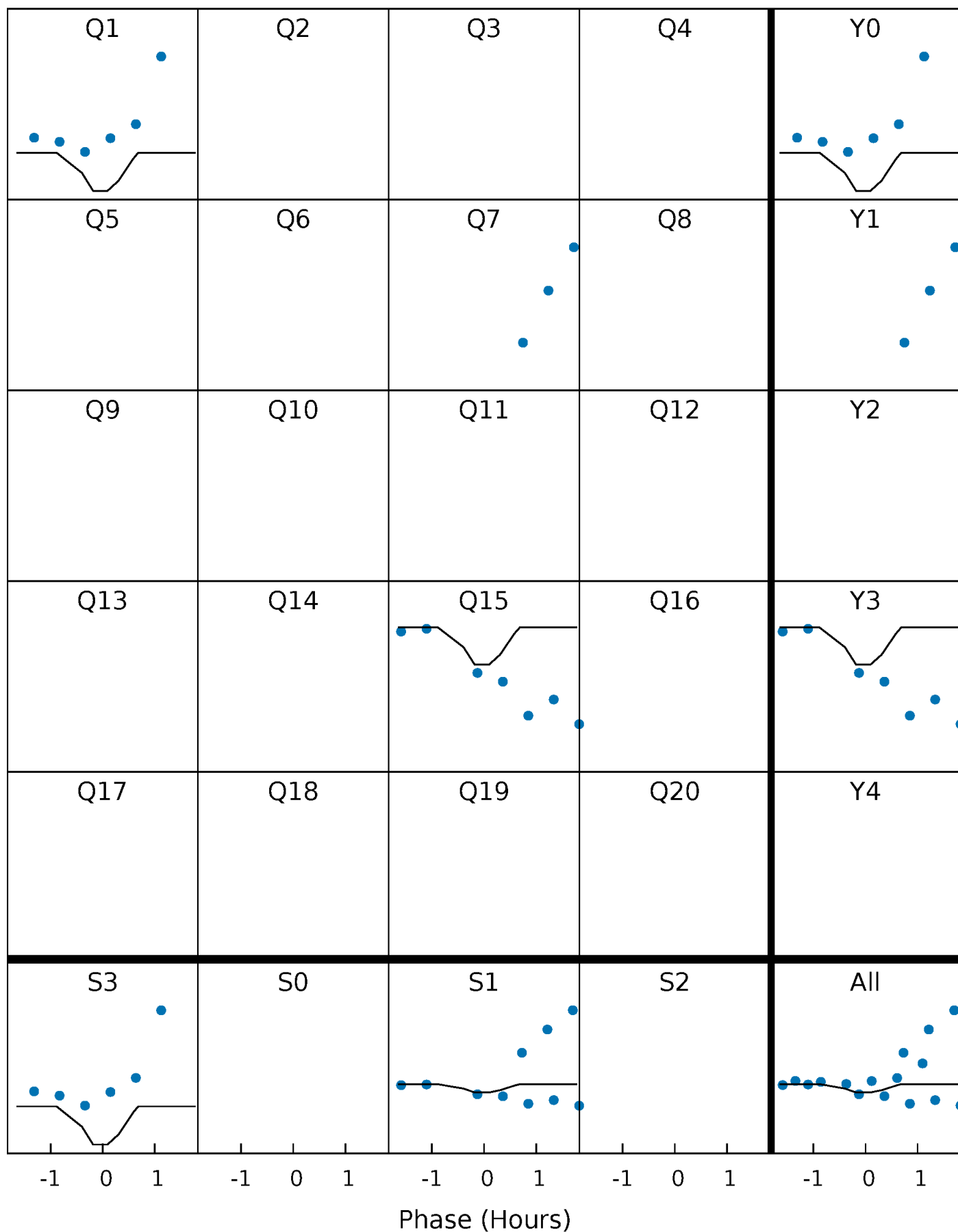
DV Quarter-Phased Transit Curves

TCE 004927048-01 P=160.817907 Days $T_0=161.550411$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

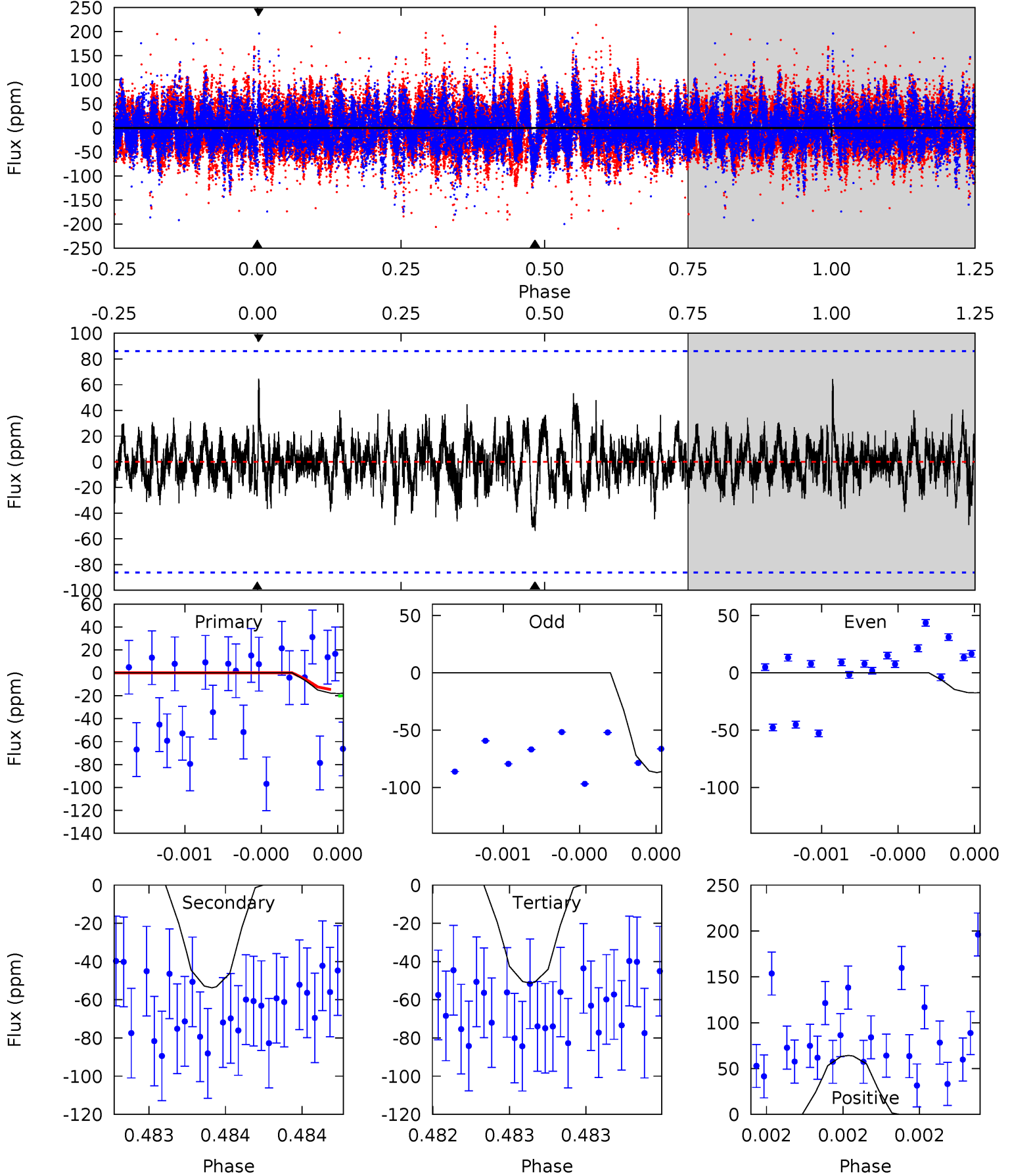
TCE 004927048-01 P=160.810916 Days $T_0=161.587957$ (BKJD)



DV Model-Shift Uniqueness Test

004927048-01, P = 160.817907 Days, E = 0.732504 Days

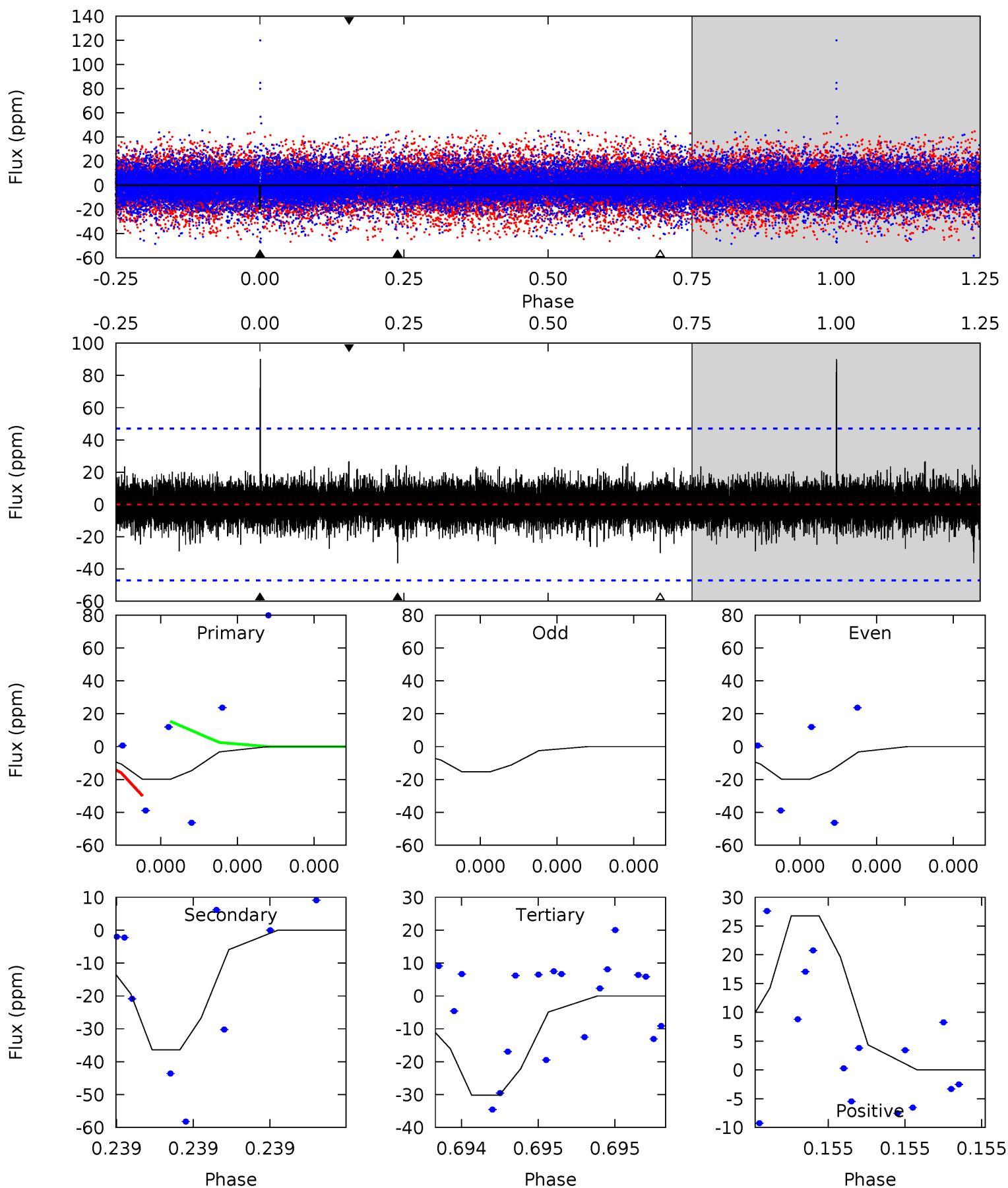
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.18	3.51	3.35	4.20	5.62	3.55	0.93	-2.17	-3.02	0.16	-0.69	2.23	-1.86	0.54	0.18



Alt Model-Shift Uniqueness Test

004927048-01, P = 160.810916 Days, E = 0.777041 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.43	4.43	3.68	3.26	5.73	3.72	0.80	-1.25	-0.83	0.75	1.17	0.35	1.00	0.71	0.00



Stellar Parameters For KIC 004927048

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3794^{+76}_{-76}	$0.786^{+0.390}_{-0.130}$	$0.070^{+0.200}_{-0.300}$	$128.678^{+19.763}_{-79.054}$	$3.685^{+0.074}_{-2.549}$	$0.000^{+0.000}_{-0.000}$
	+2%/-2%	+50%/-17%	+286%/-429%	+15%/-61%	+2%/-69%	+472%/-29%
Source	SPE14	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 004927048-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-54 ± 15	$203.90^{+242.90}_{-147.28}$	2803^{+163}_{-336}	2641^{+1781}_{-5278}	$0.517^{+6.213}_{-0.411}$
Alt.	-36 ± 8	$224.34^{+255.00}_{-154.29}$	2788^{+159}_{-316}	-2009^{+5806}_{-716}	$0.281^{+2.742}_{-0.214}$

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 $A_{obs} \gg 1.0$

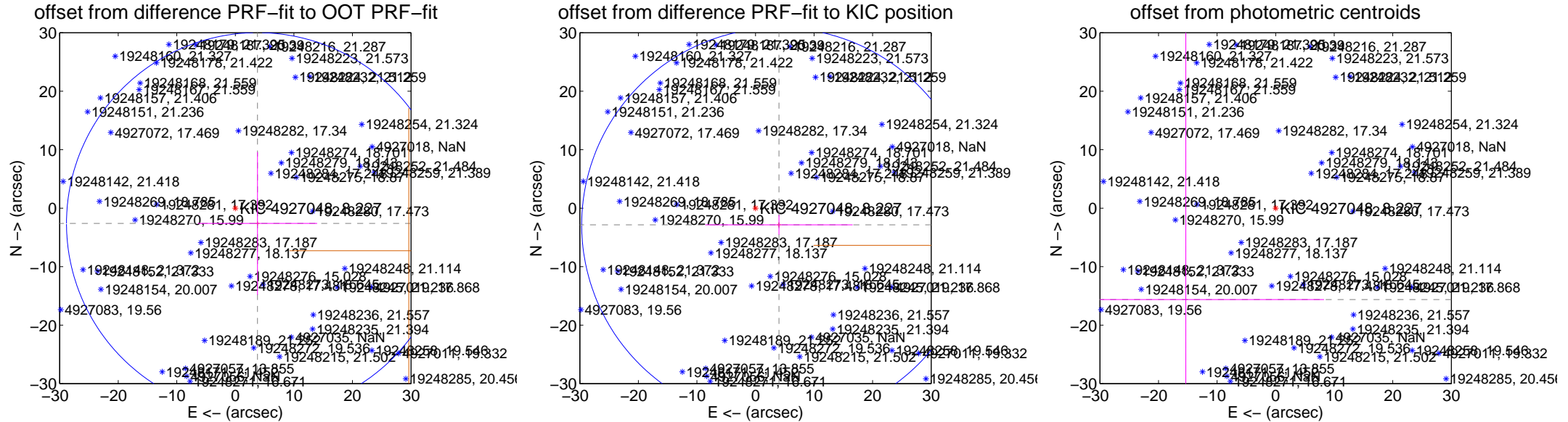
DV Centroid Data

Supplemental centroid analysis for 004927048-01. **Kepler magnitude: 8.23.** Transit SNR 1.44

There are 0 quarters with good PRF difference image offsets

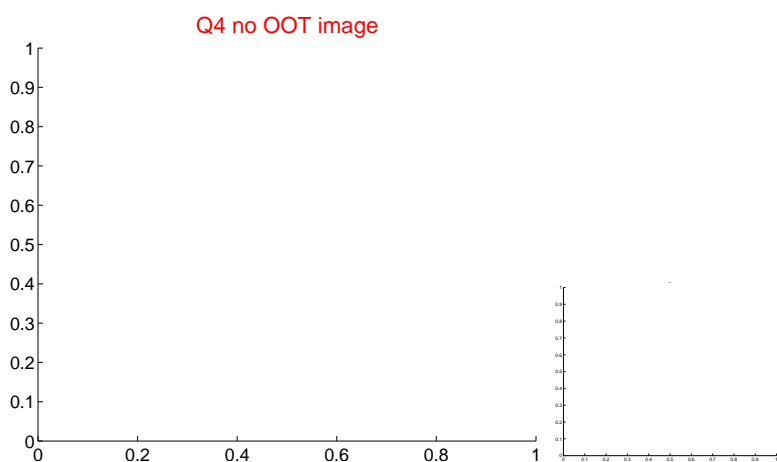
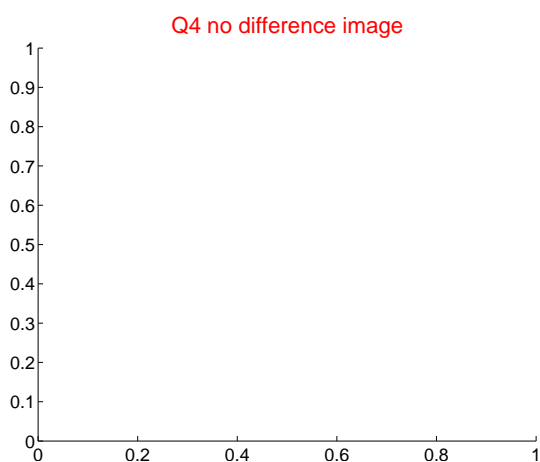
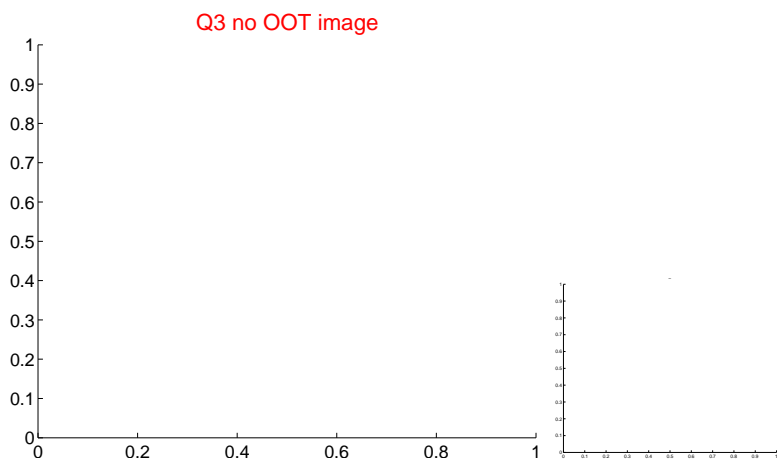
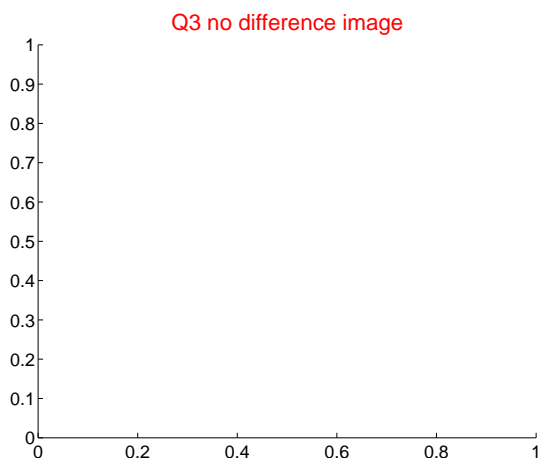
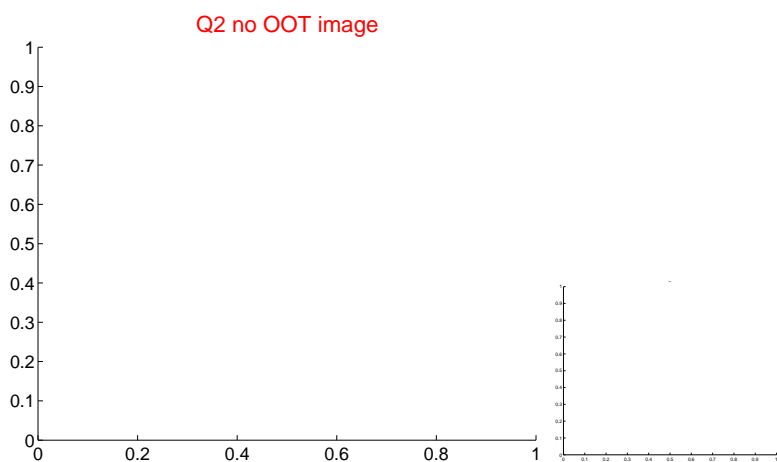
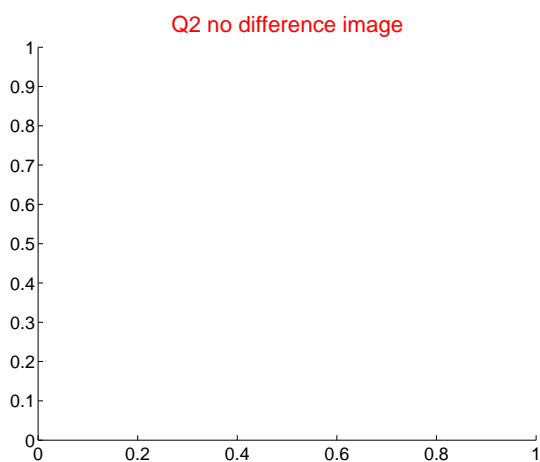
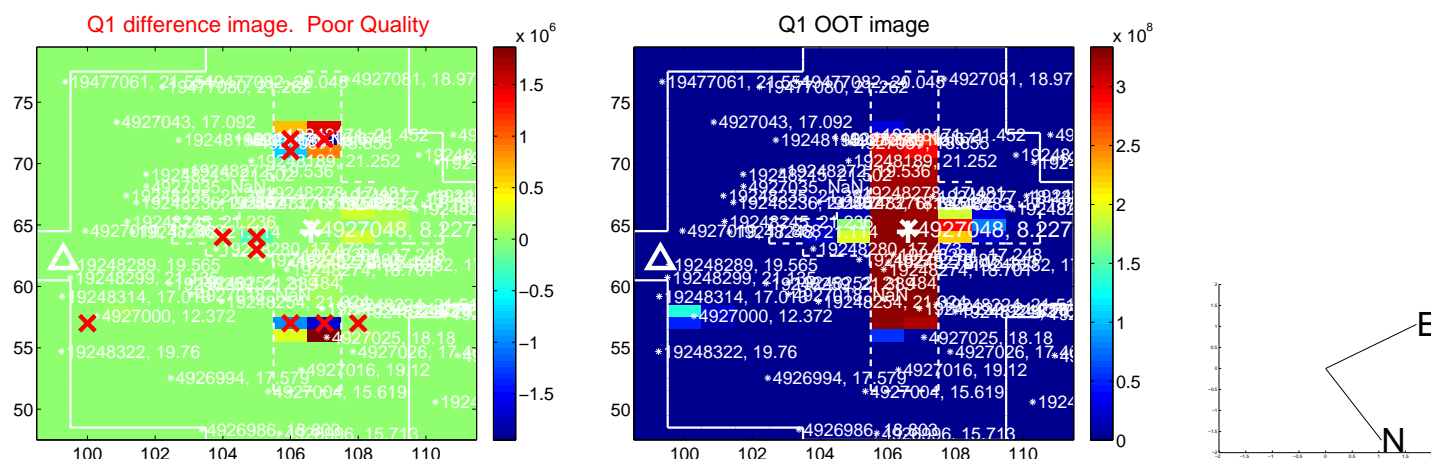
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.603 ± 10.873	0.42	-3.791 ± 10.184	-2.611 ± 12.200
PRF-fit source offset from KIC position	4.914 ± 11.228	0.44	-4.005 ± 12.585	-2.848 ± 1.678
photometric centroid source offset	21.90 ± 36.61	0.60	15.35 ± 23.62	-15.62 ± 45.78

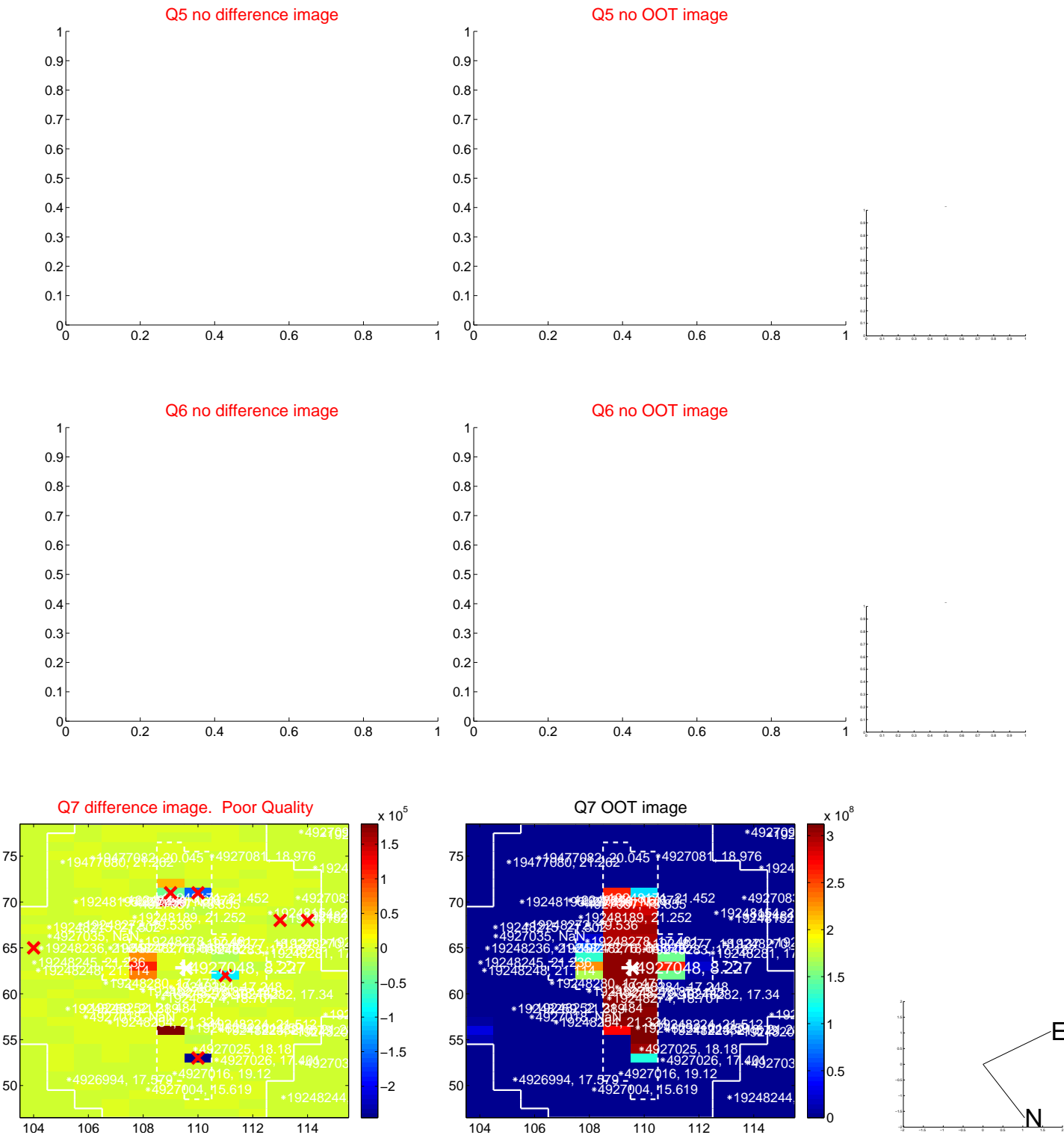


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



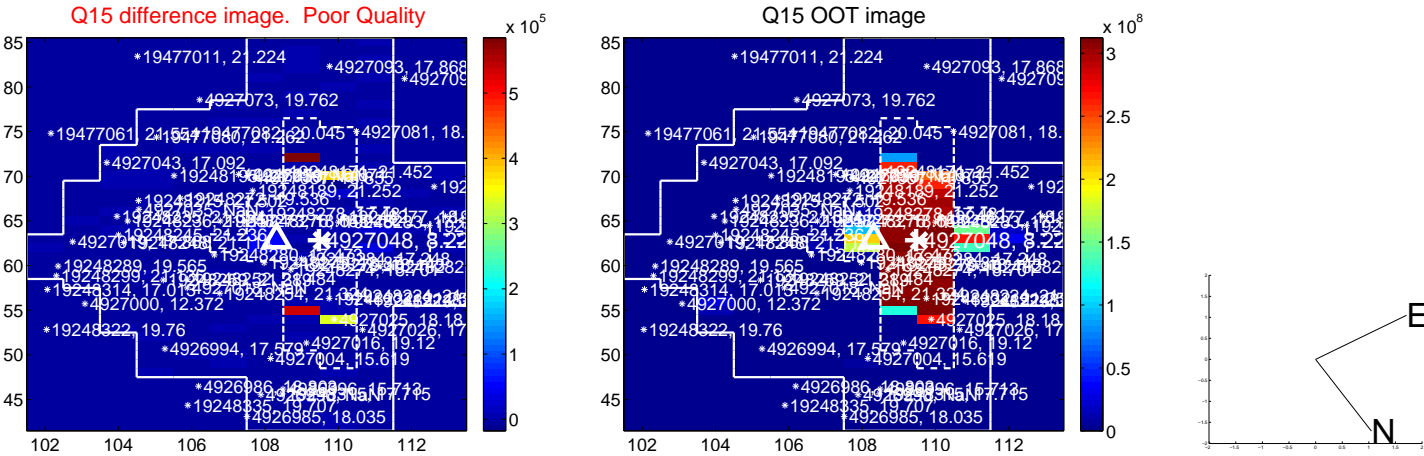
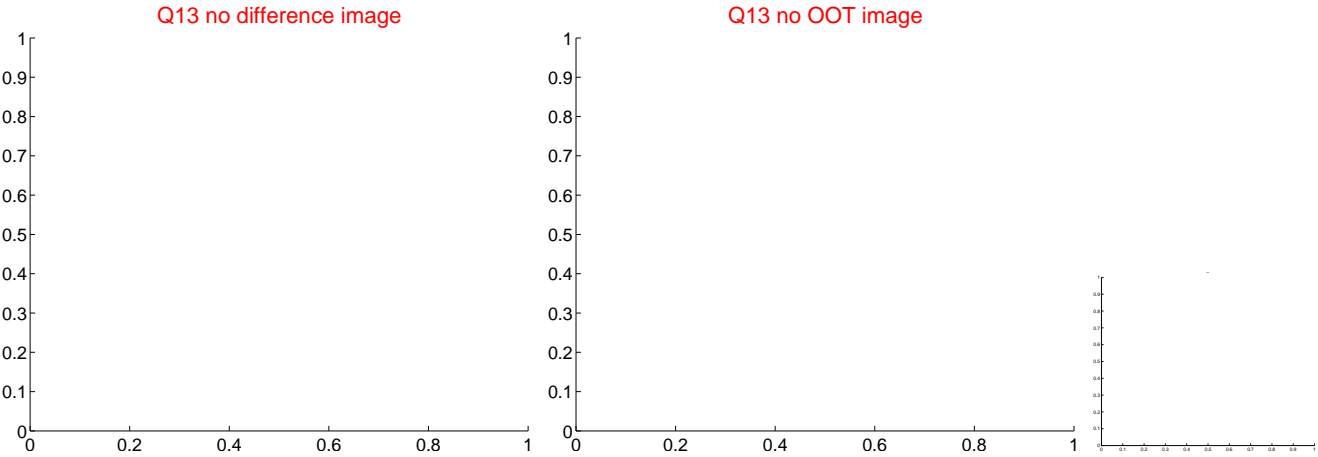
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



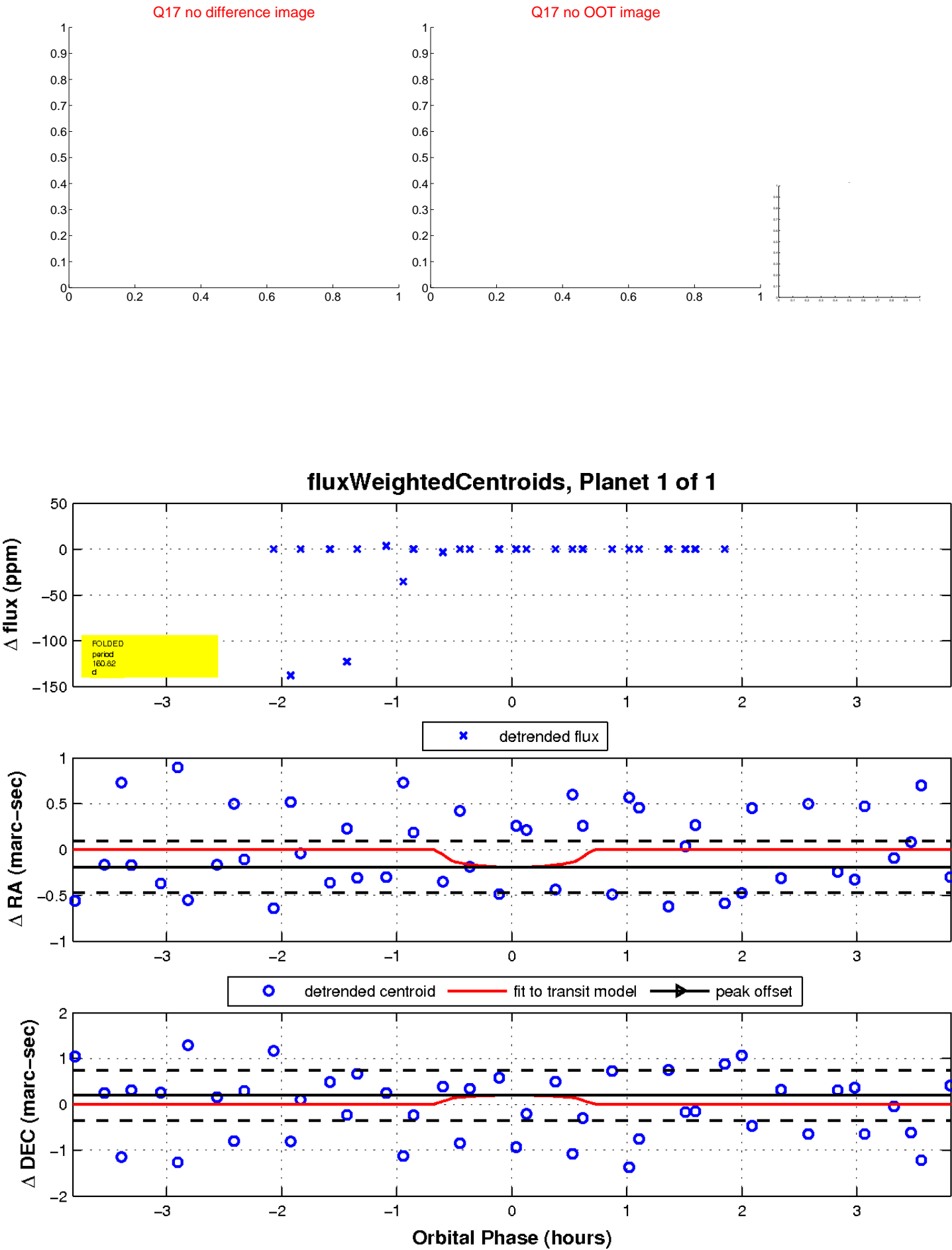
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UKIRT Image

Declination

