

KIC 007548061

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})
007548061-01	OBS	No	258.531753	245.731503	15.0	3.004	92.5	0.9	16.49	5154	7.50	140.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007548061-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_ZUMA_TRACKER—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.

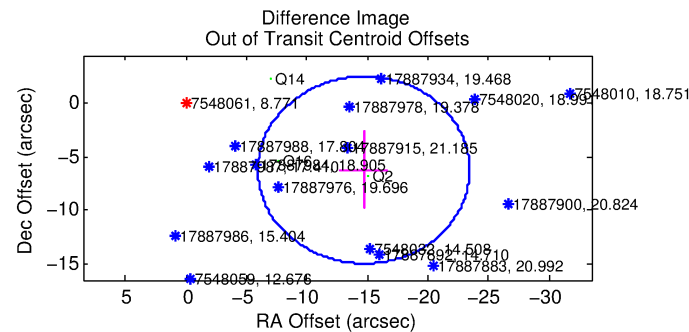
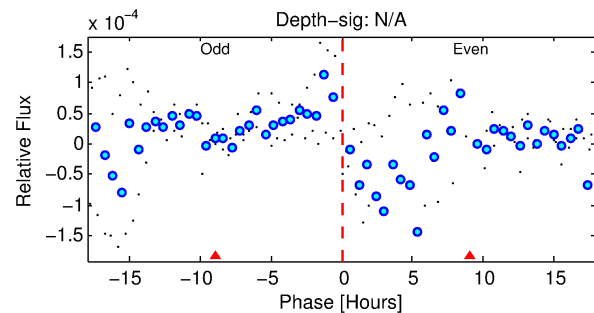
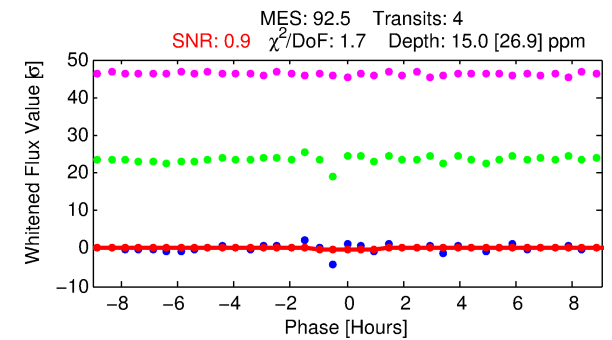
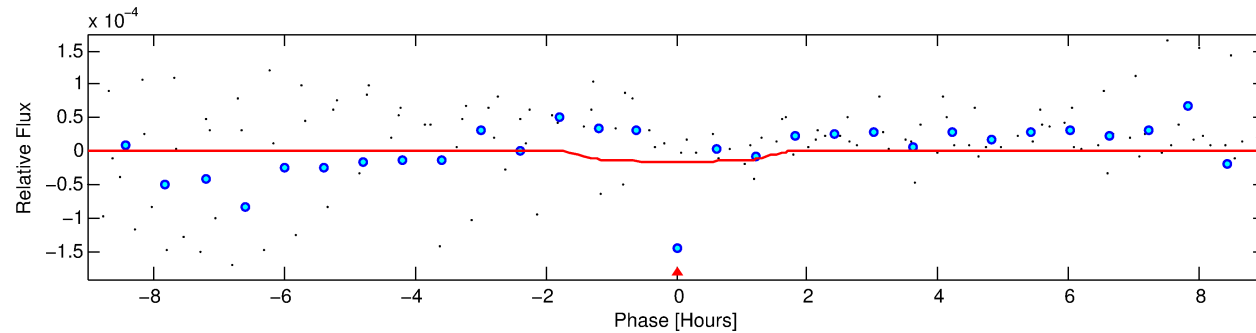
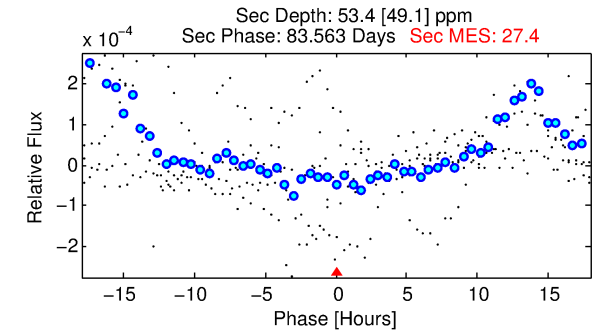
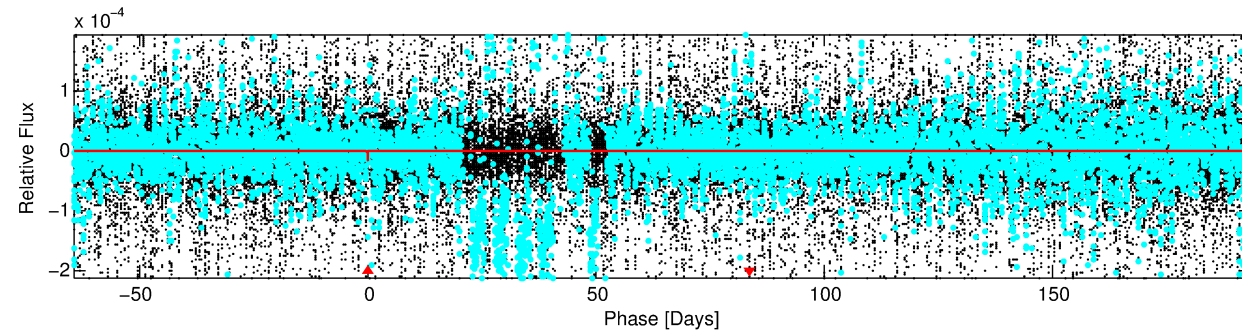
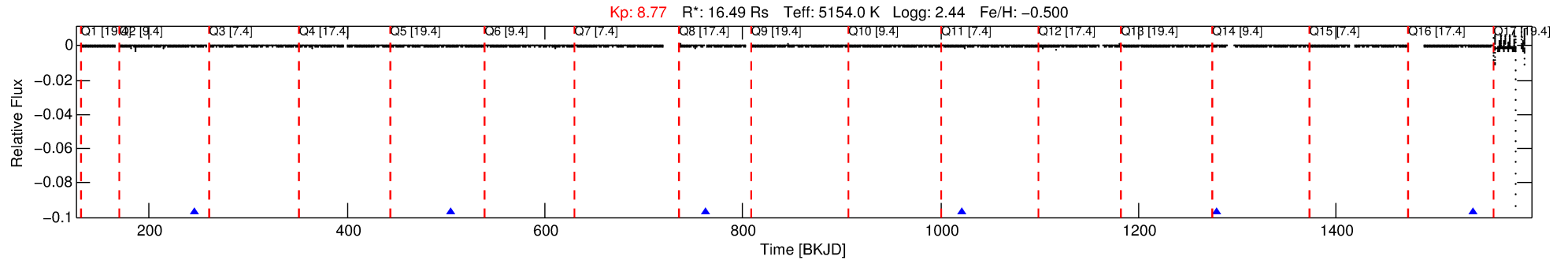
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007548061-01

No Significant Match Found

DV One-Page Summary

KIC: 7548061 Candidate: 1 of 1 Period: 258.532 d



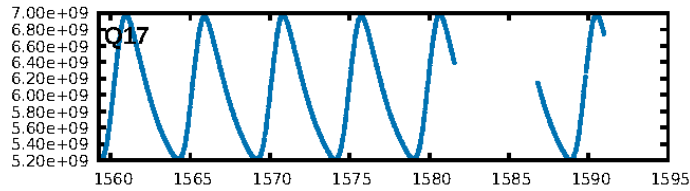
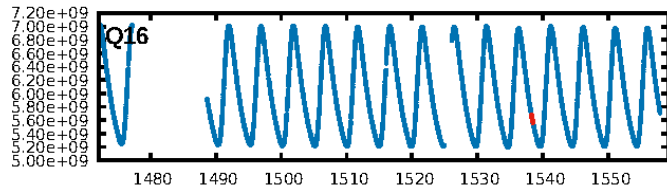
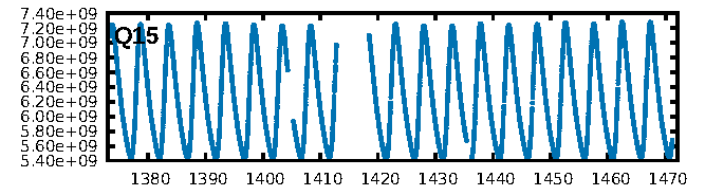
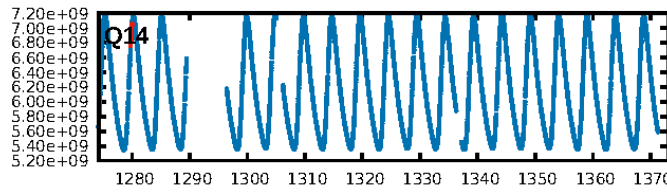
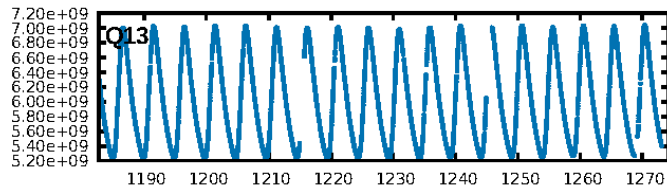
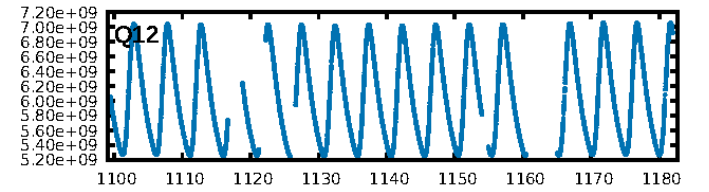
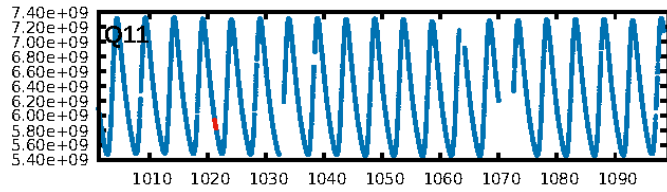
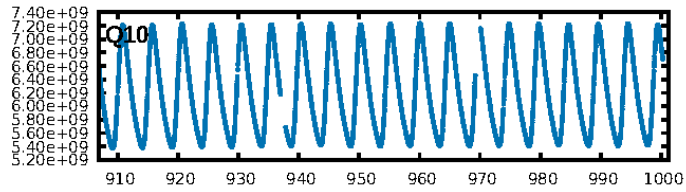
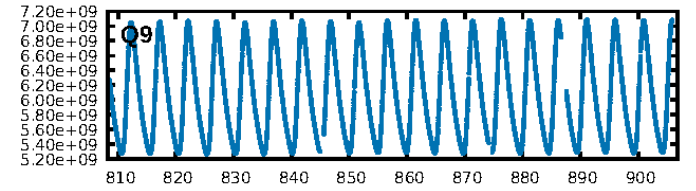
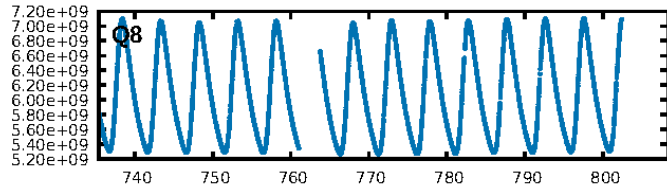
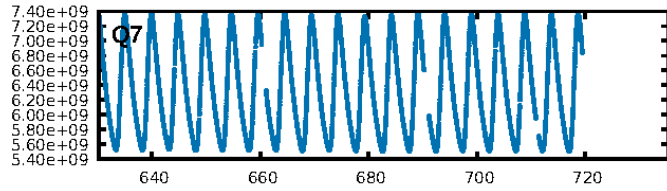
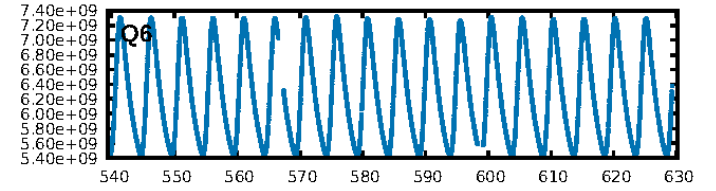
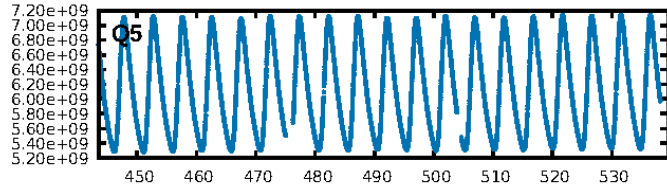
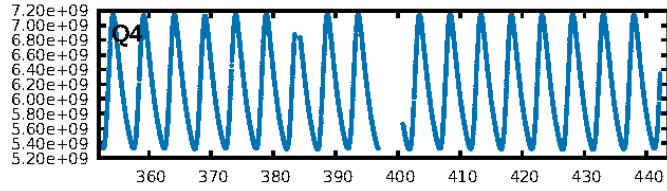
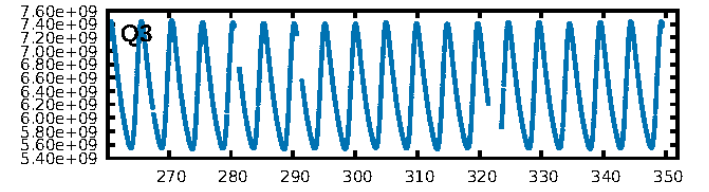
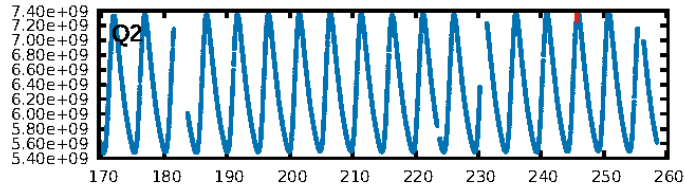
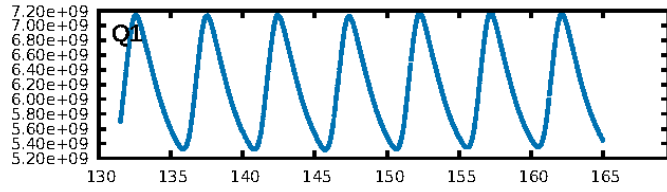
DV Fit Results:

Period = 258.53175 [0.01977] d
Epoch = 245.7315 [0.0741] BKJD
Rp/R* = 0.0042 [0.0303]
a/R* = 318.54 [10268.82]
b = 0.88 [8.53]
Seff = 140.45 [146.85]
Teff = 878 [229] K
Rp = 7.50 [54.82] Re
a = 1.1061 [0.7217] AU
Ag = 638.61 [9335.22] [0.07σ]
Teffp = 6823 [24871] K [0.24σ]

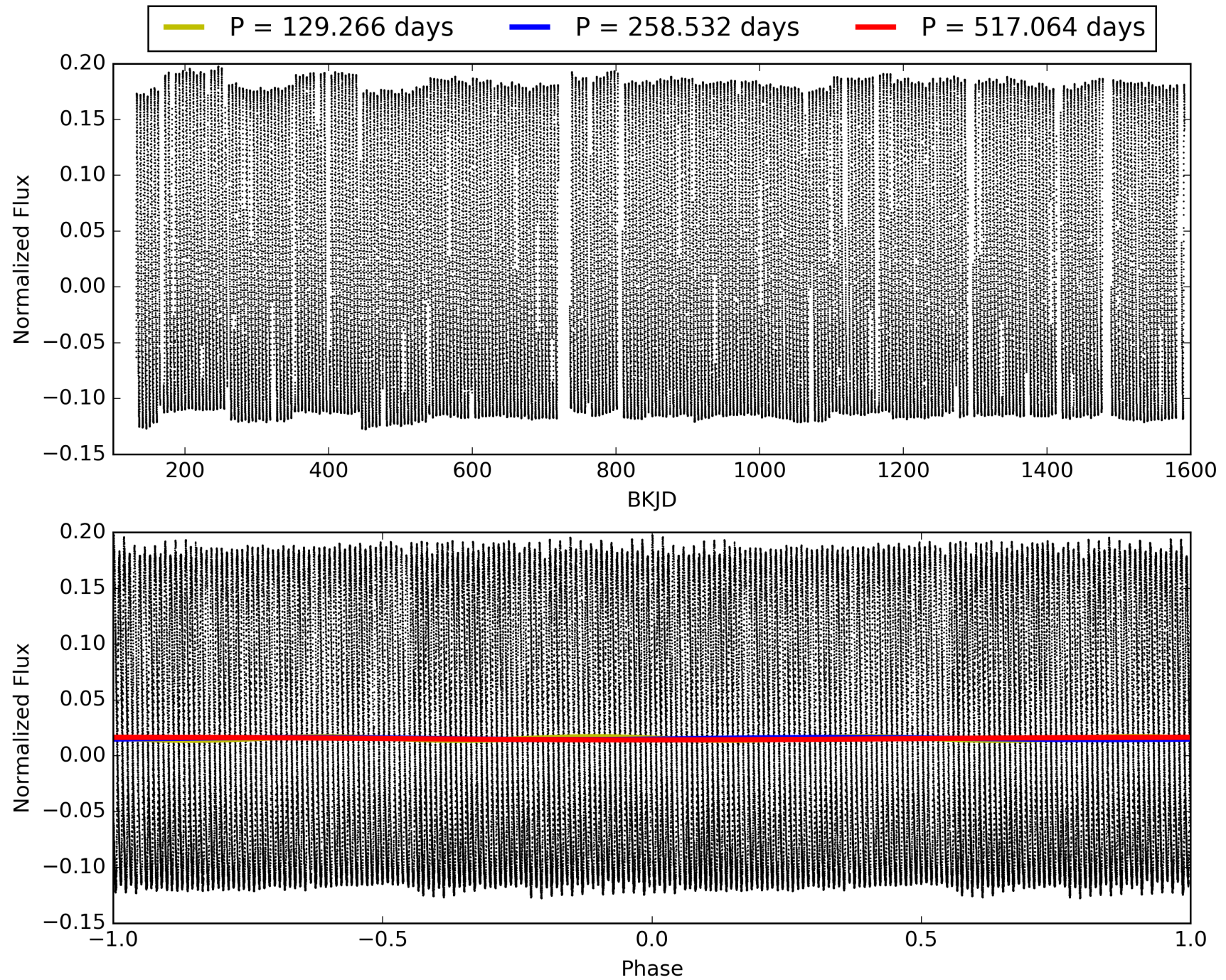
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.0%
ModelChiSquareGof-sig: 30.1%
Bootstrap-pfa: 2.17e-62
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 14.0%
Centroid-so: N/A
OotOffset-rm: 15.948 arcsec [5.47σ]
KicOffset-rm: 13.598 arcsec [3.83σ]
OotOffset-st: 2/0/1/0 [3]
KicOffset-st: 2/0/1/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 007548061-01, PDC Light Curves

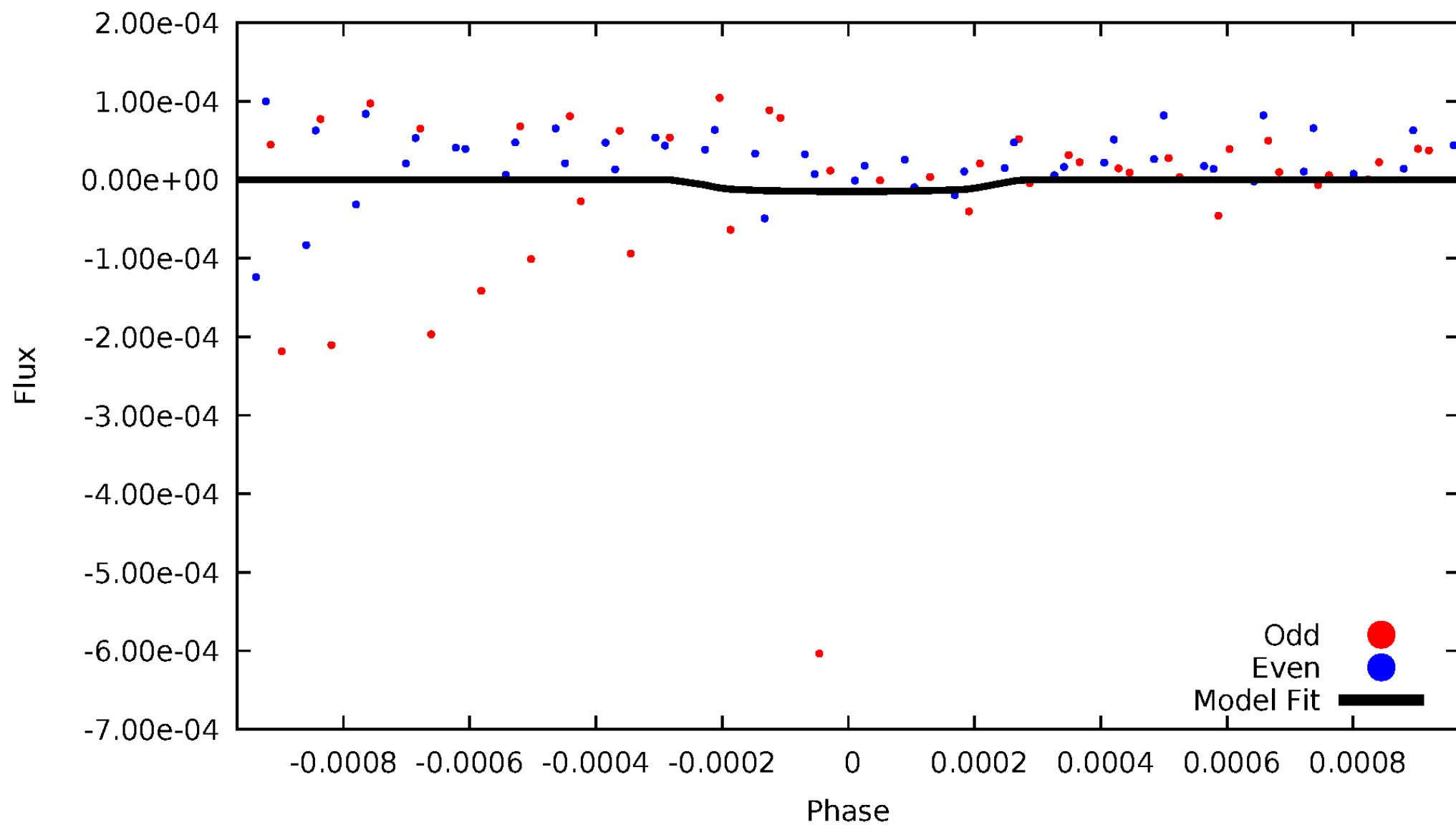


TCE 007548061-01



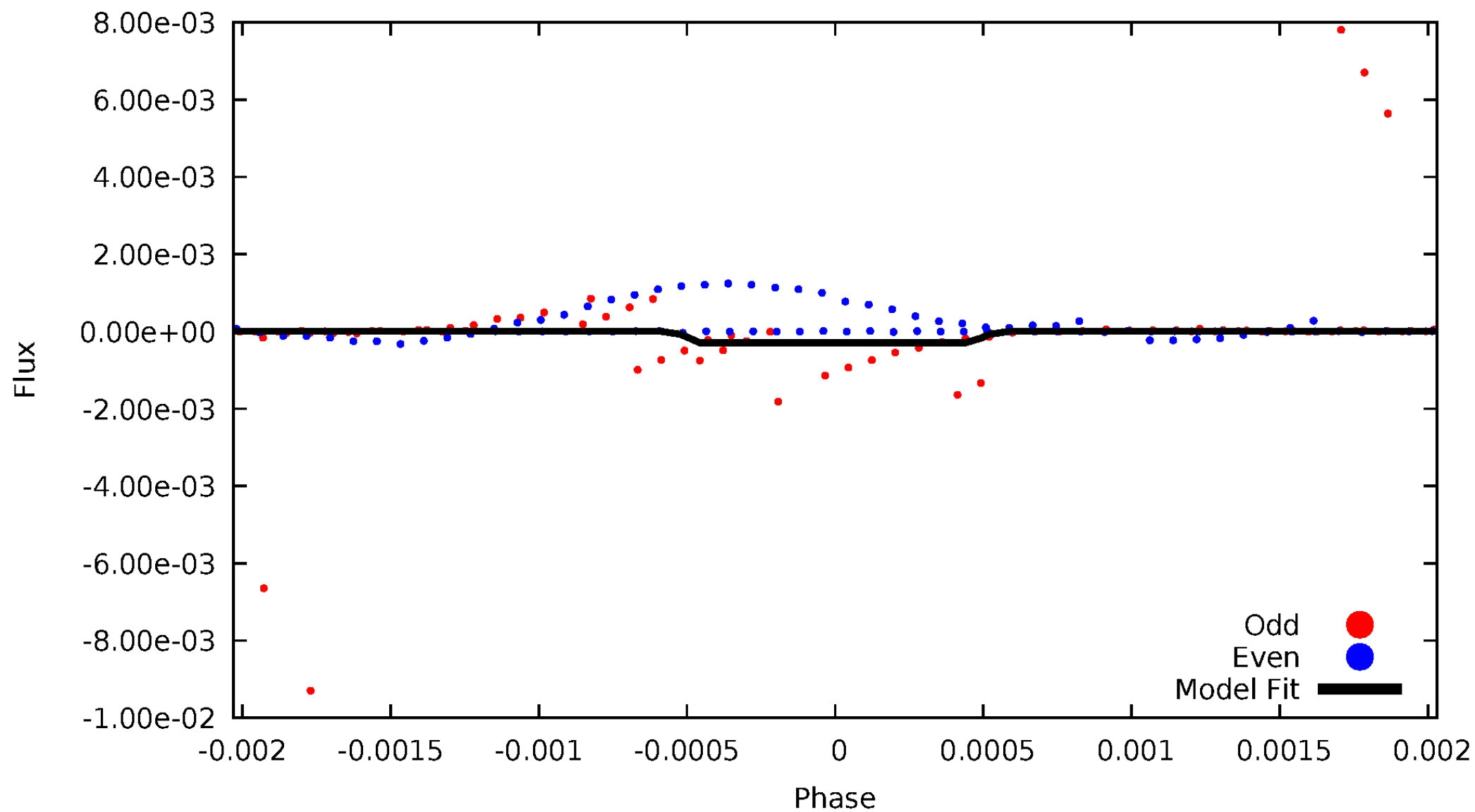
DV Odd/Even

TCE 007548061-01



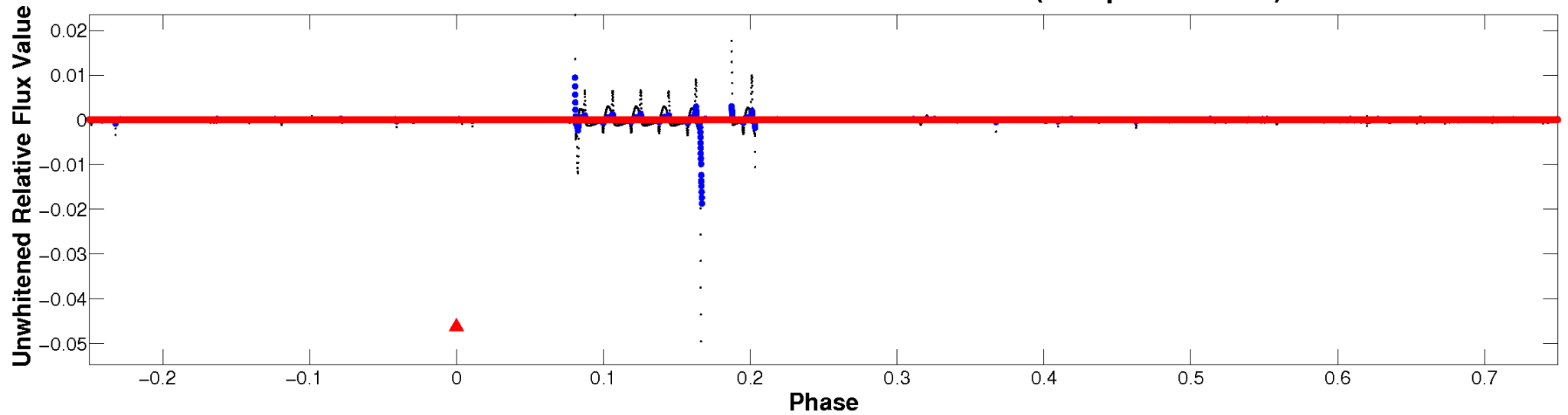
ALT Odd/Even

TCE 007548061-01

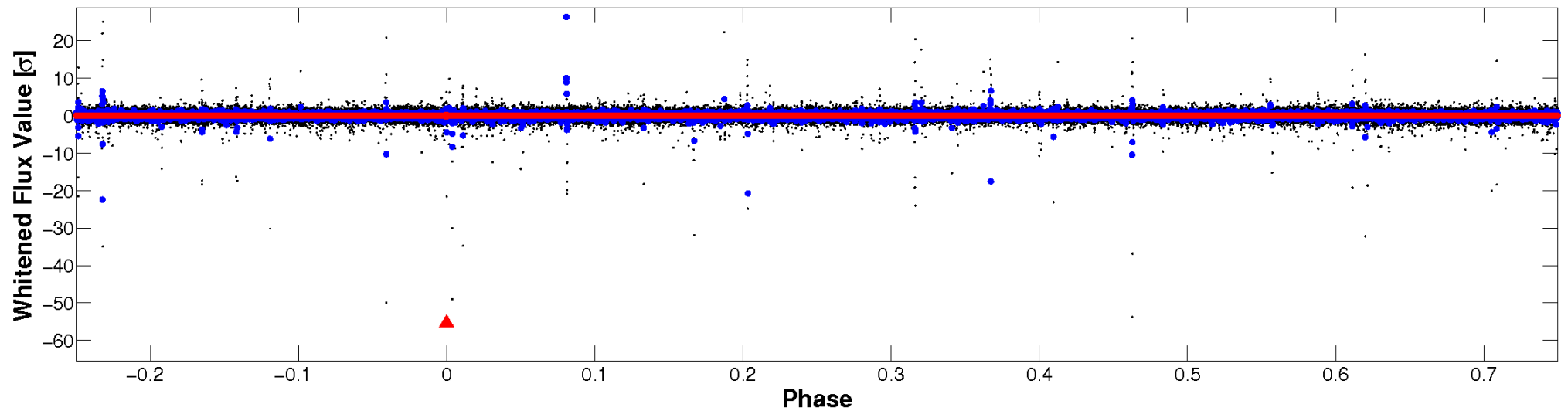


Non-Whitened Vs. Whitened Light Curve

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

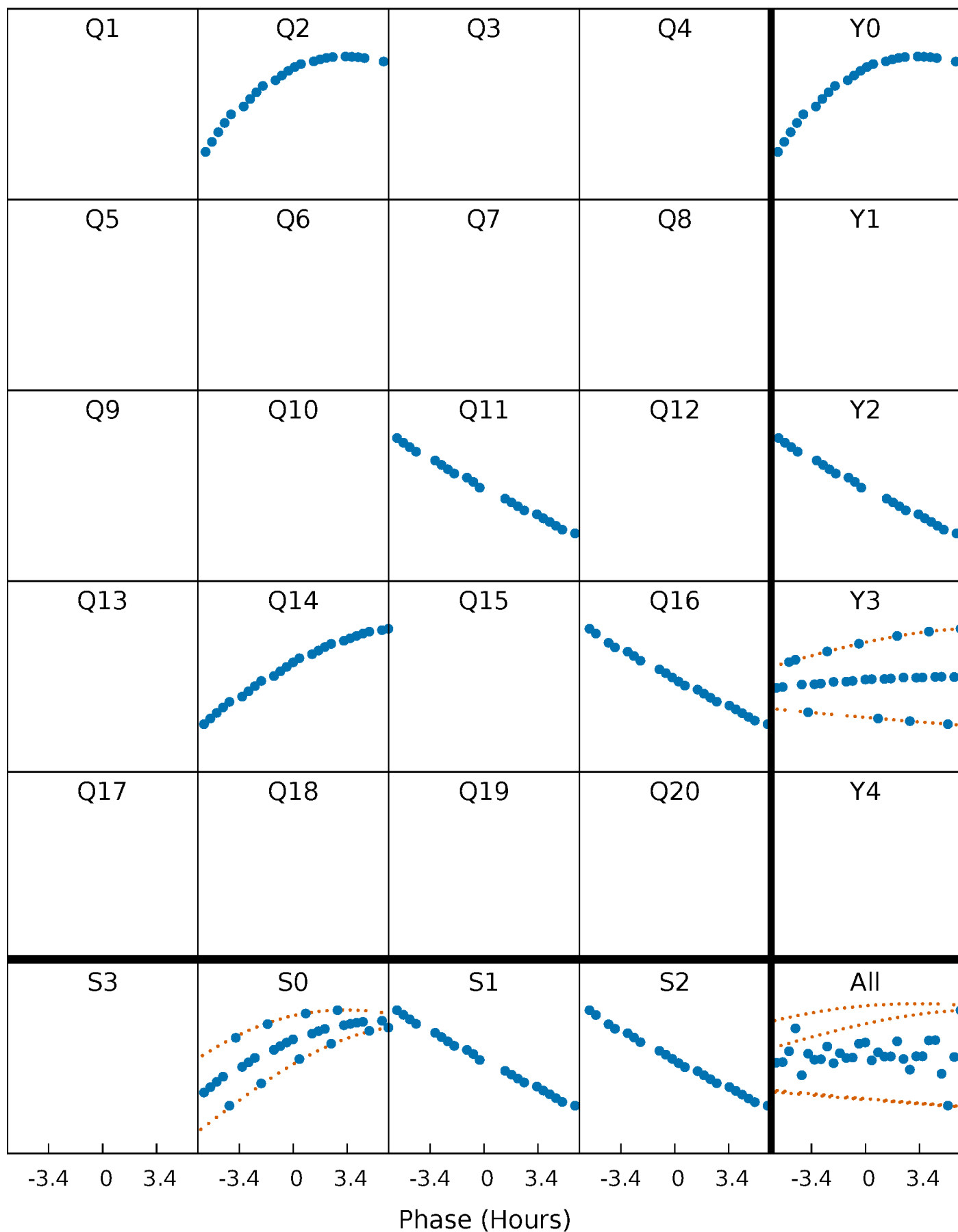


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



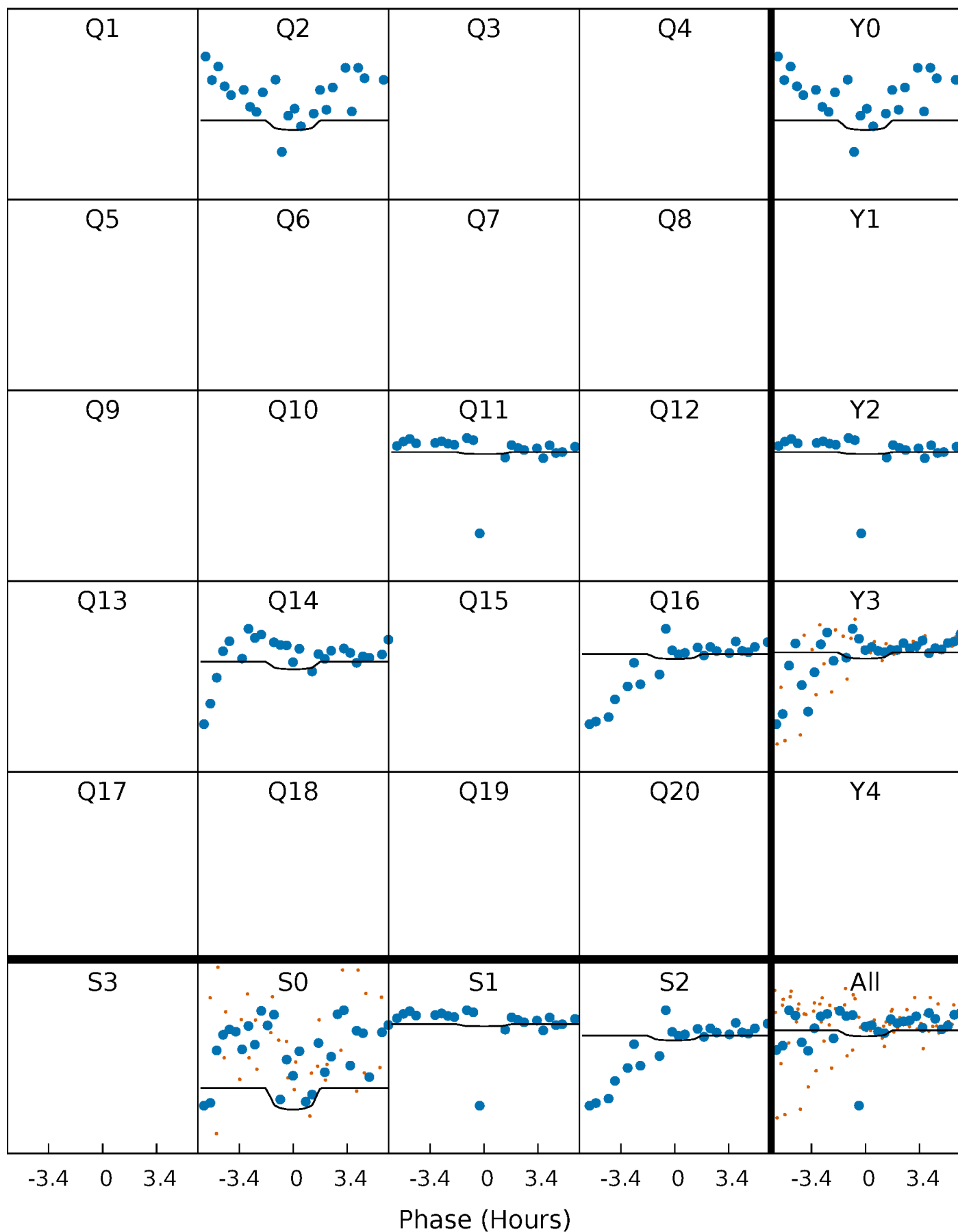
PDC Quarter-Phased Transit Curves

TCE 007548061-01 P=258.531753 Days $T_0=245.731503$ (BKJD)



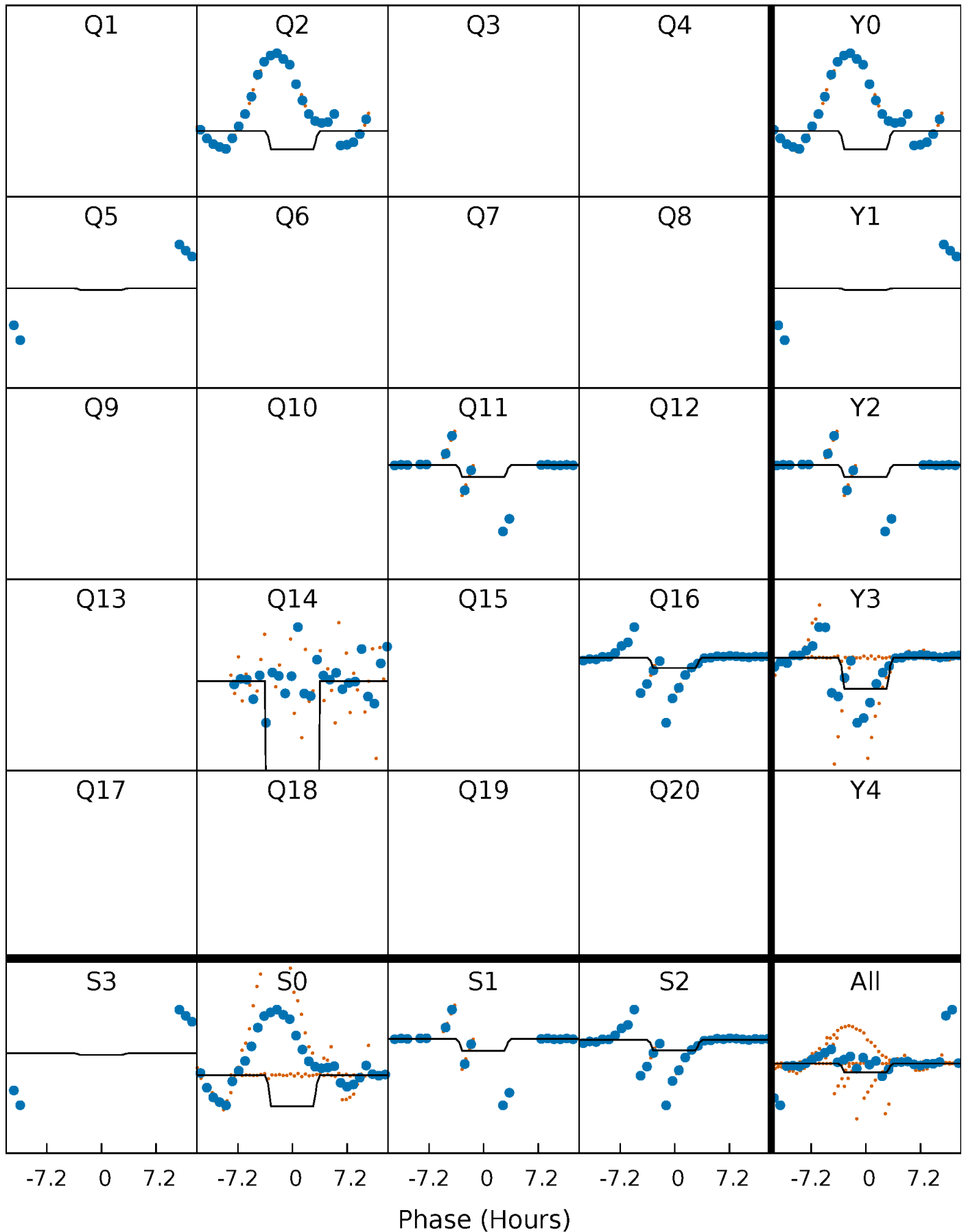
DV Quarter-Phased Transit Curves

TCE 007548061-01 P=258.531753 Days $T_0=245.731503$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

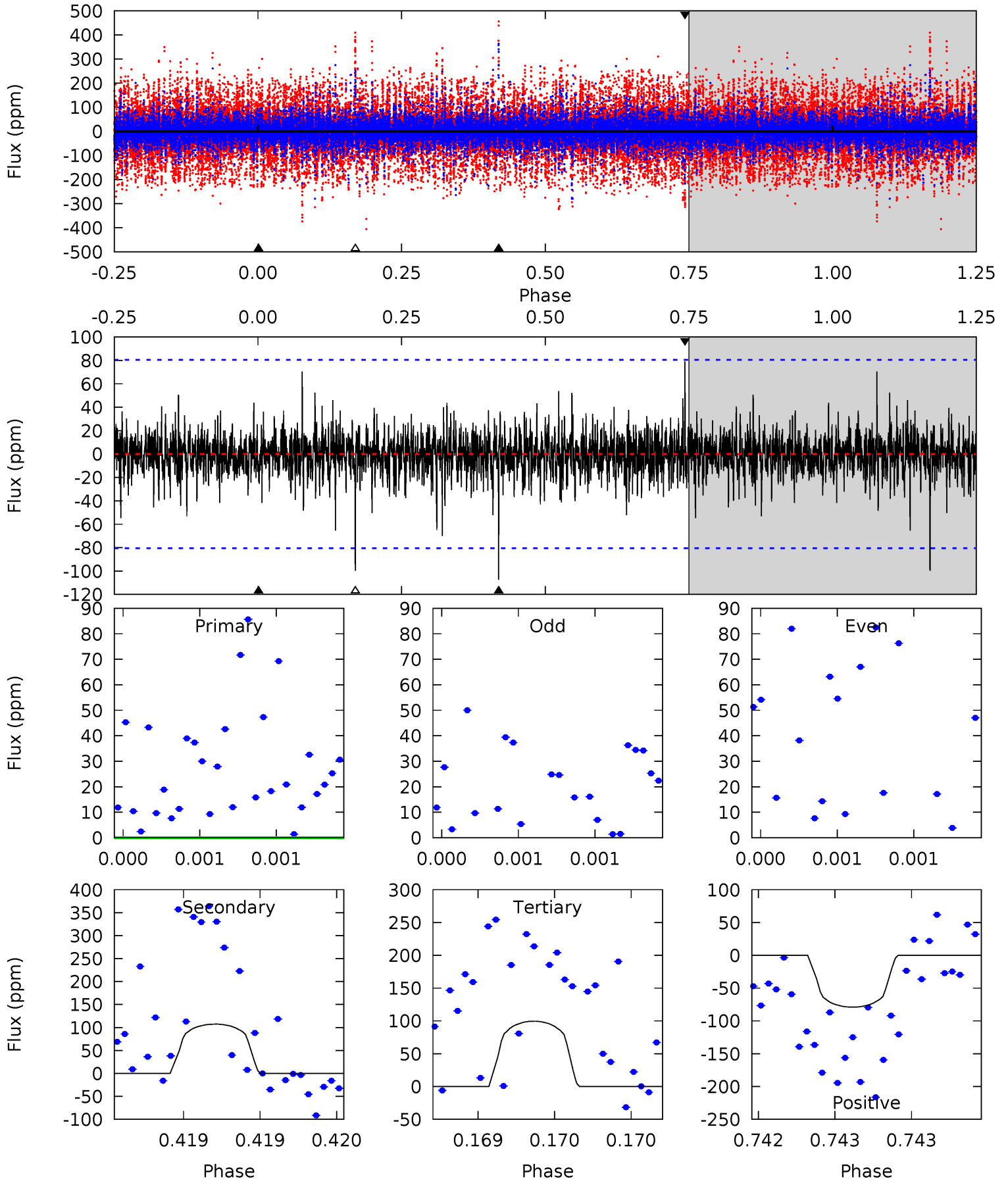
TCE 007548061-01 P=258.540661 Days $T_0=245.688405$ (BKJD)



DV Model-Shift Uniqueness Test

007548061-01, P = 258.531753 Days, E = 245.731503 Days

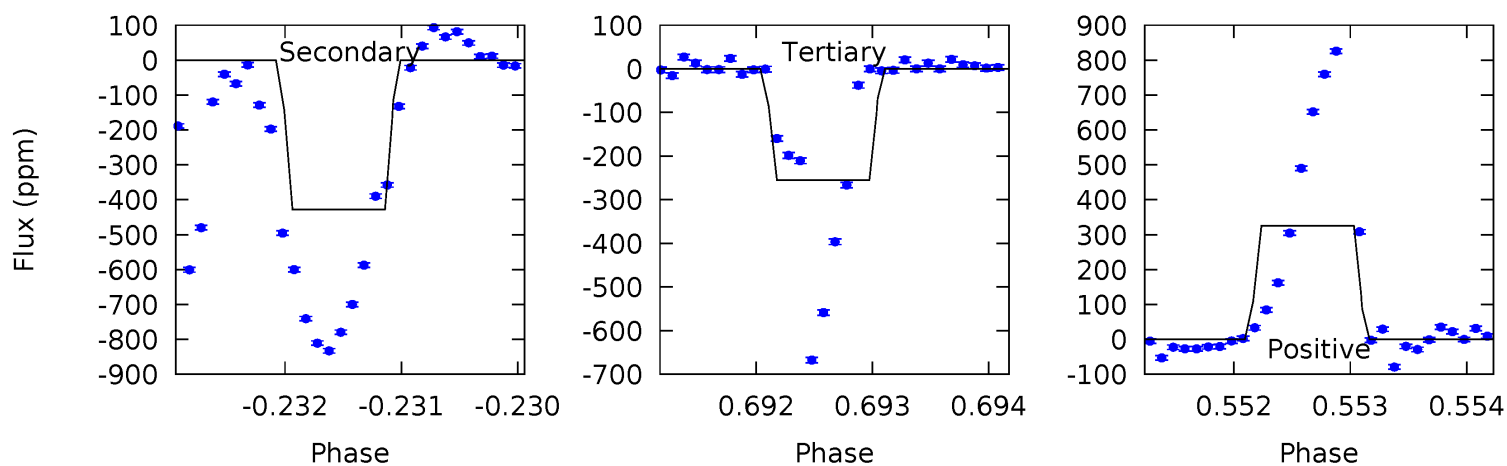
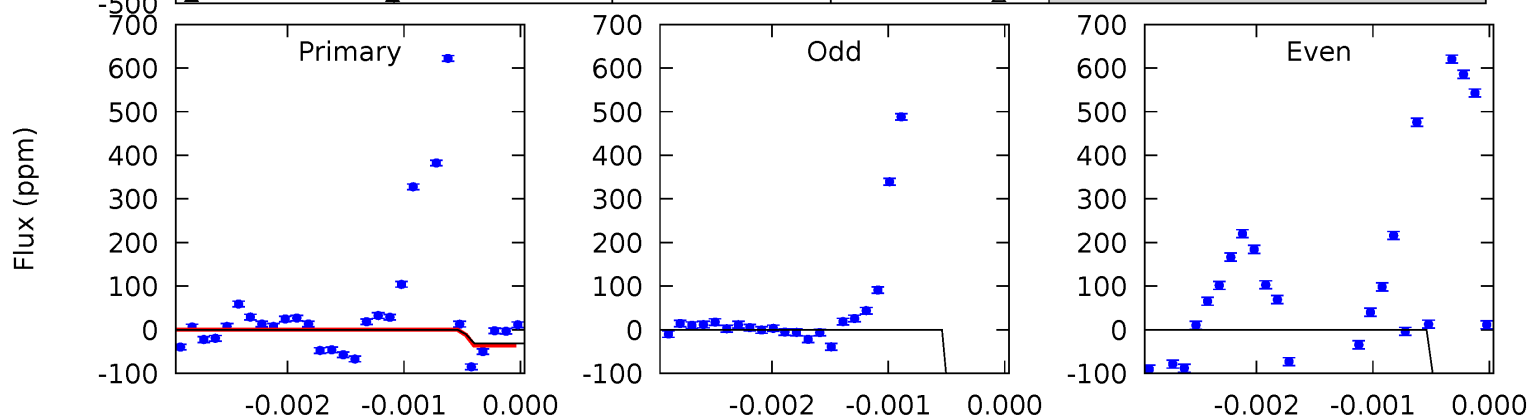
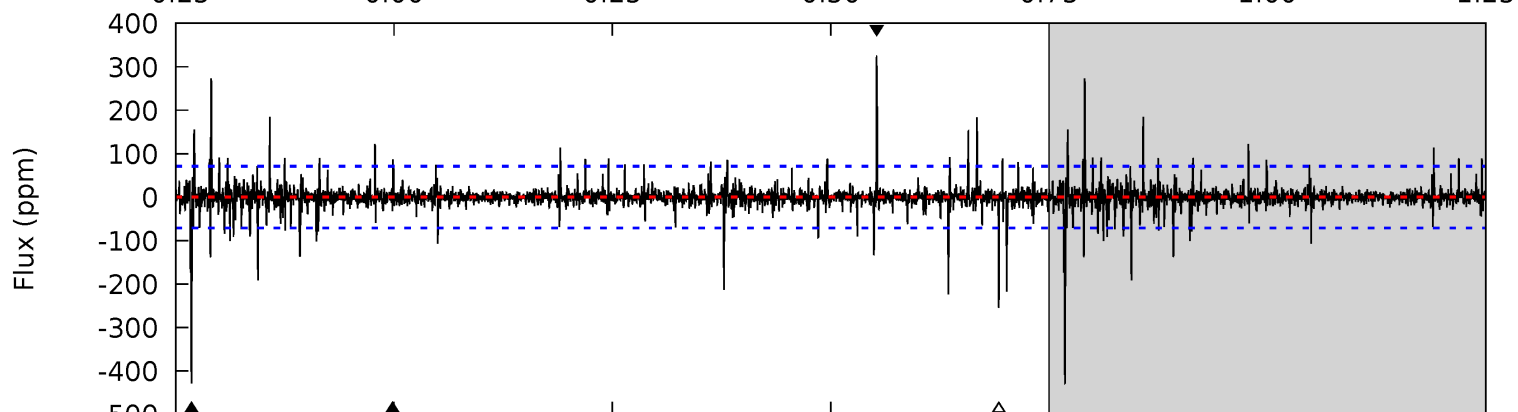
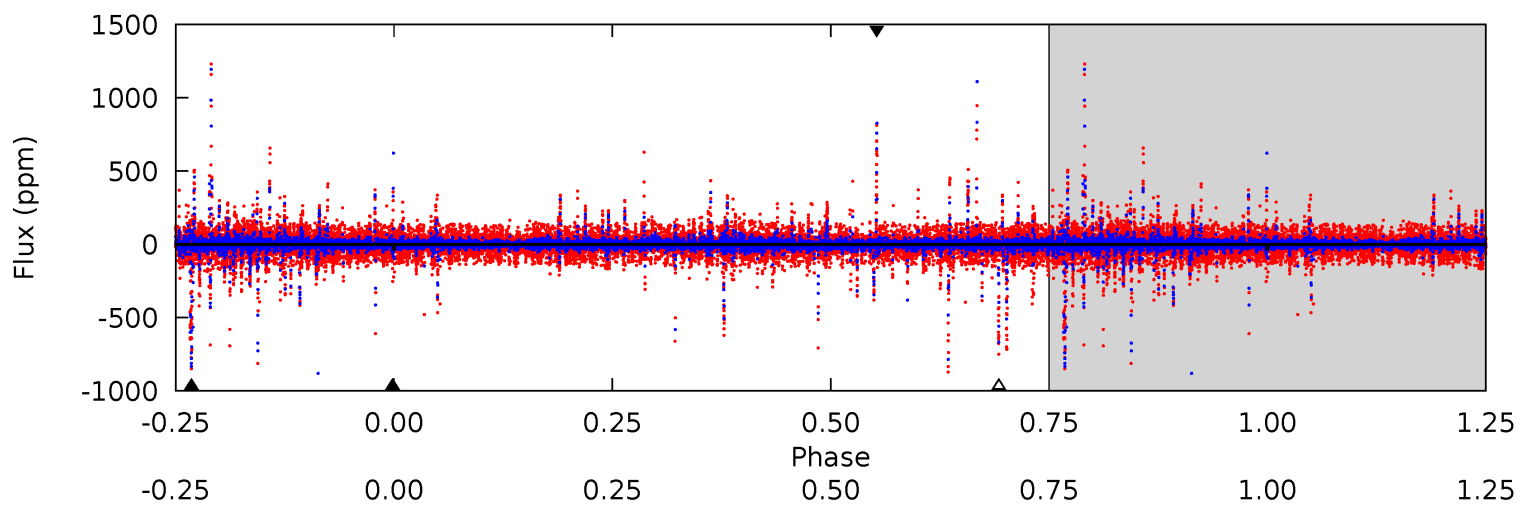
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.24	7.44	6.90	5.48	5.58	3.49	0.95	-5.67	-4.24	0.54	1.96	0.29	-4.05	0.42	1.08



Alt Model-Shift Uniqueness Test

007548061-01, P = 258.540661 Days, E = 245.688405 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.41	32.7	19.5	24.8	5.43	3.26	1.54	-17.0	-22.4	13.2	7.84	2.02	0.43	0.43	0



Stellar Parameters For KIC 007548061

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5154^{+91}_{-153}	$2.435^{+0.608}_{-0.152}$	$-0.500^{+0.200}_{-0.350}$	$16.486^{+3.759}_{-11.276}$	$2.700^{+0.404}_{-1.614}$	$0.001^{+0.009}_{-0.000}$
	+2%/-3%	+25%/-6%	+40%/-70%	+23%/-68%	+15%/-60%	+1091%/-48%
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 007548061-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-107 ± 14	$32.62^{+40.09}_{-23.01}$	1200^{+94}_{-198}	3918^{+2653}_{-868}	66^{+711}_{-53}
Alt.	-428 ± 13	$44.47^{+41.26}_{-30.38}$	1209^{+87}_{-174}	4515^{+3668}_{-890}	142^{+1289}_{-105}

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 $A_{obs} \gg 1.0$

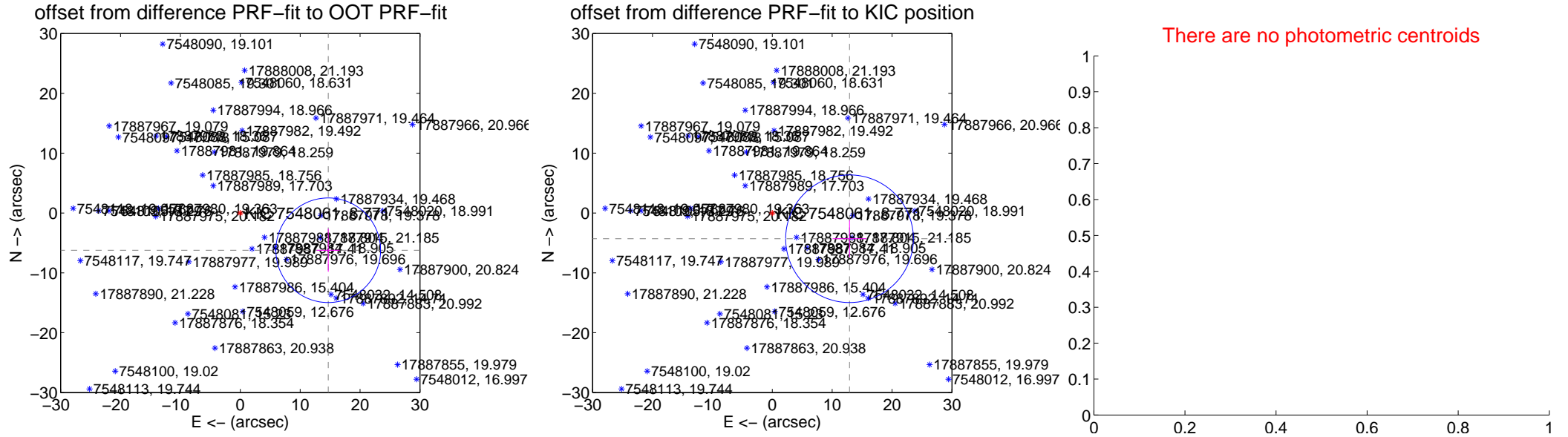
DV Centroid Data

Supplemental centroid analysis for 007548061-01. **Kepler magnitude: 8.77.** Transit SNR 0.91

There are 0 quarters with good PRF difference image offsets

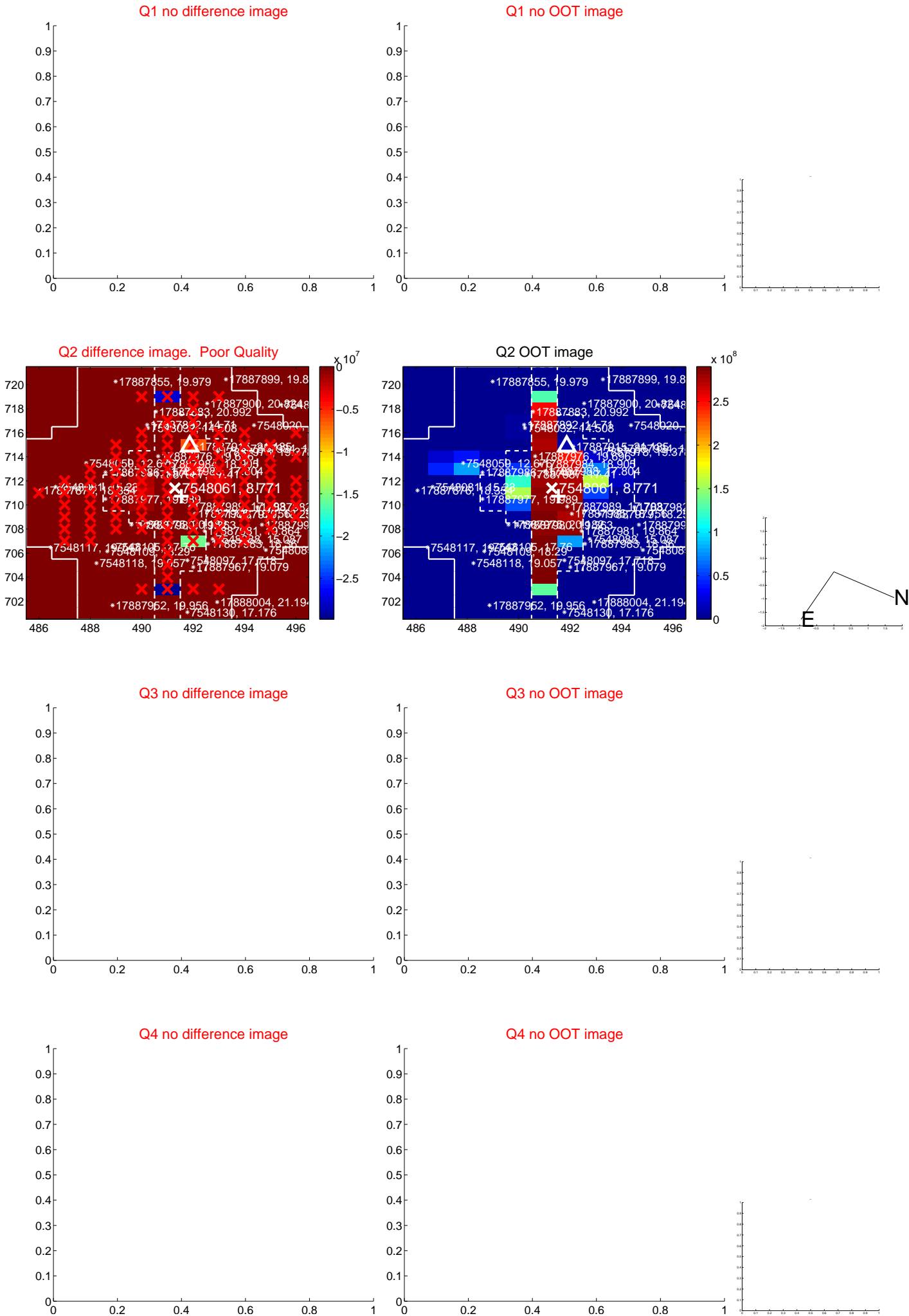
The direct PRF centroid is offset from the target star catalog position by about 1.71 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	15.948 ± 2.914	5.47	-14.684 ± 1.919	-6.221 ± 3.582
PRF-fit source offset from KIC position	13.598 ± 3.554	3.83	-12.901 ± 2.830	-4.298 ± 3.081
photometric centroid source offset	—	—	—	—



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.



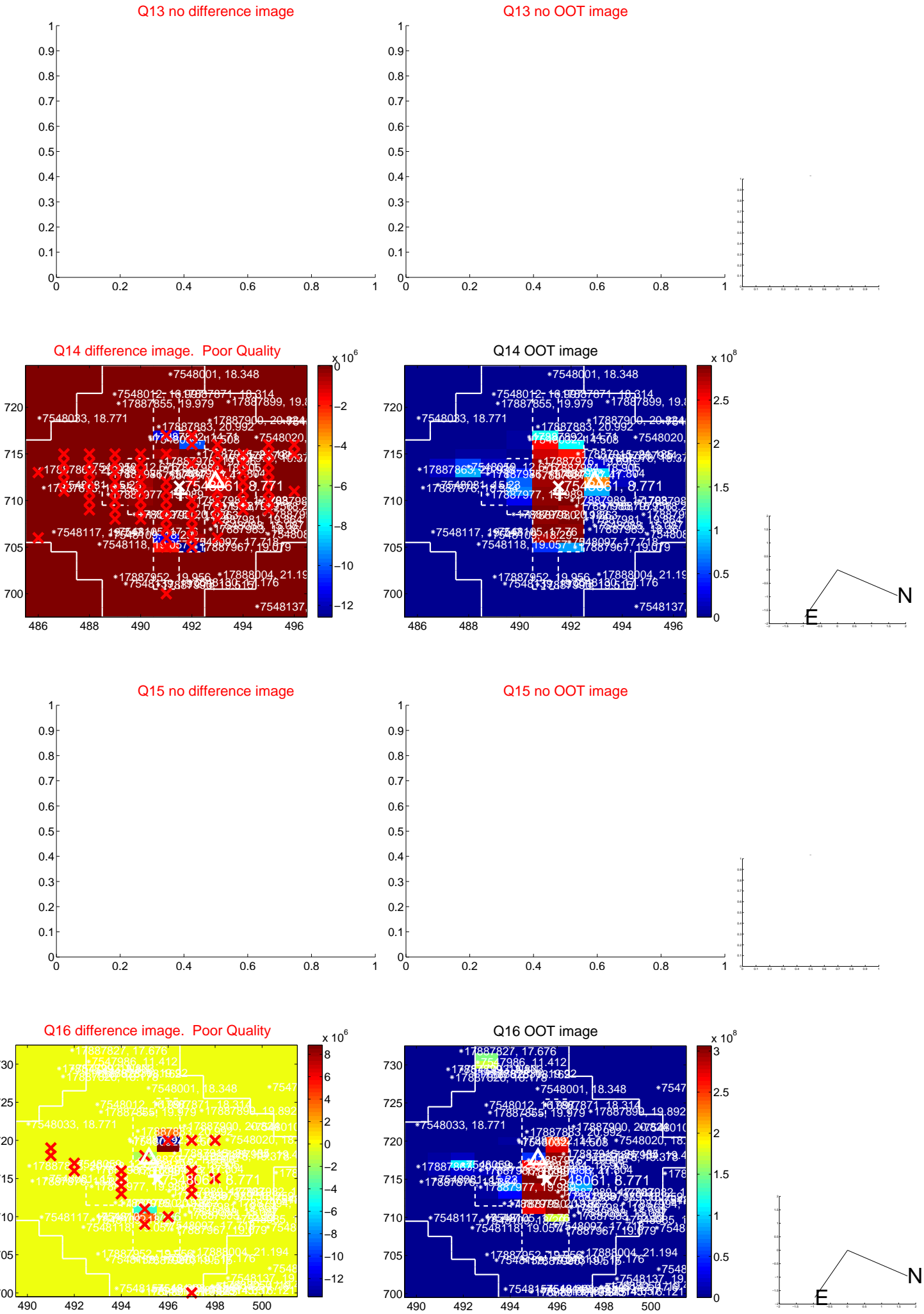
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



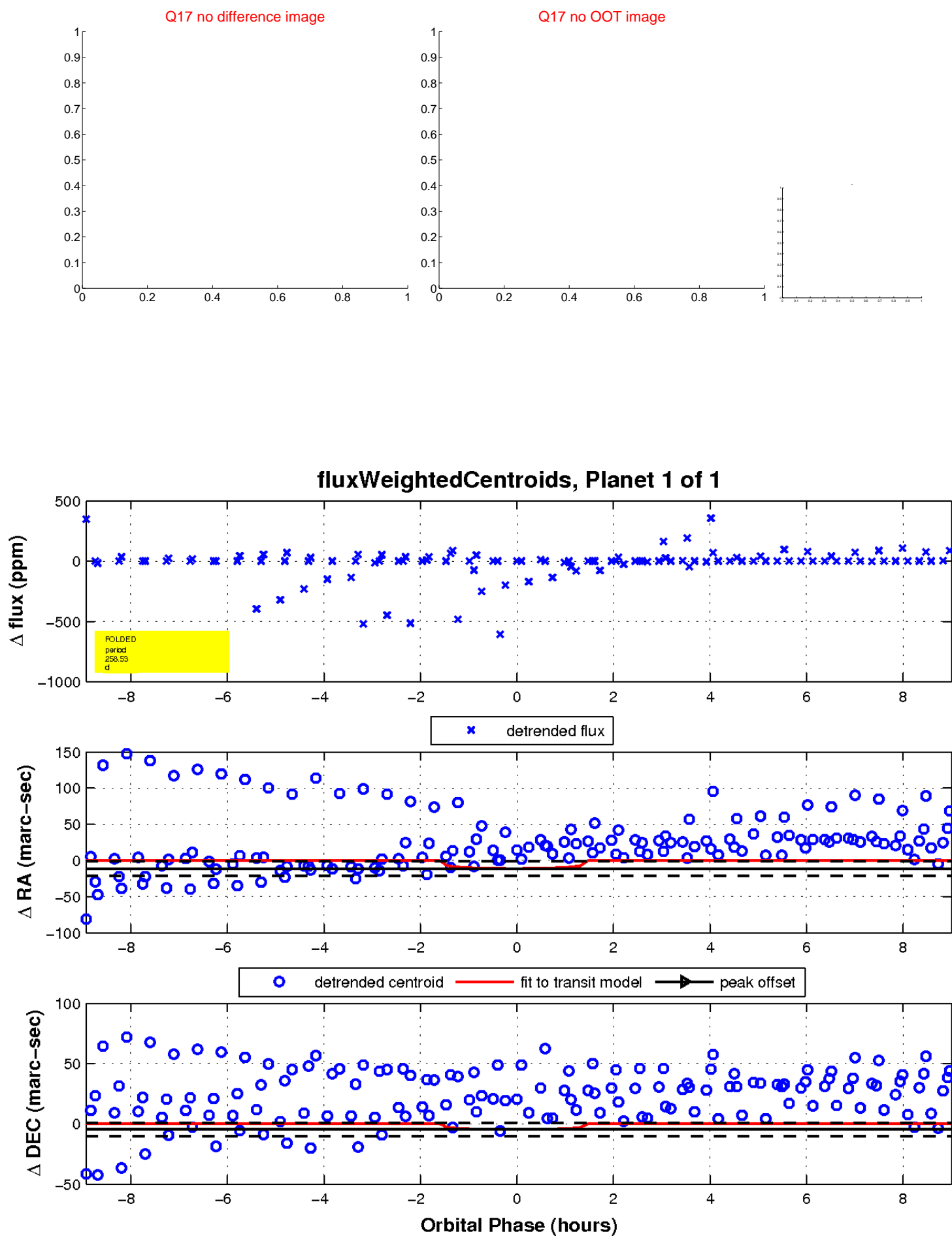
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UKIRT Image

