

KIC 005772756

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})
005772756-01	OBS	No	231.901920	169.581357	279.0	12.807	9.2	9.5	4.31	5177	7.46	14.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005772756-01	OBS	FP	0.01	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—CENT_SATURATED

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

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

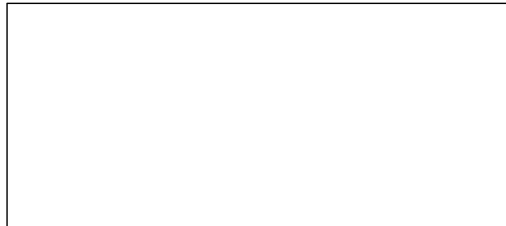
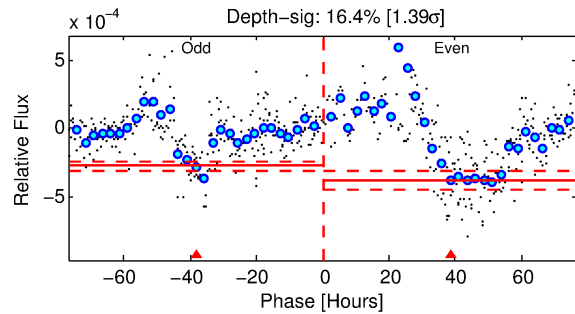
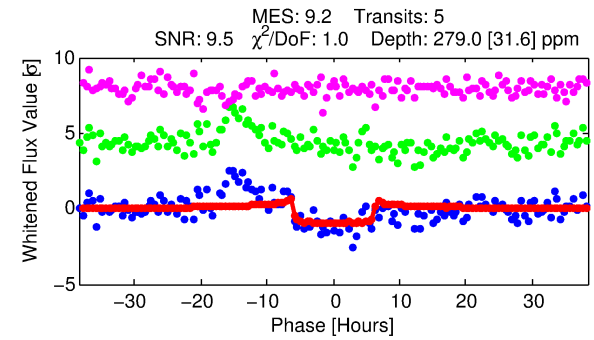
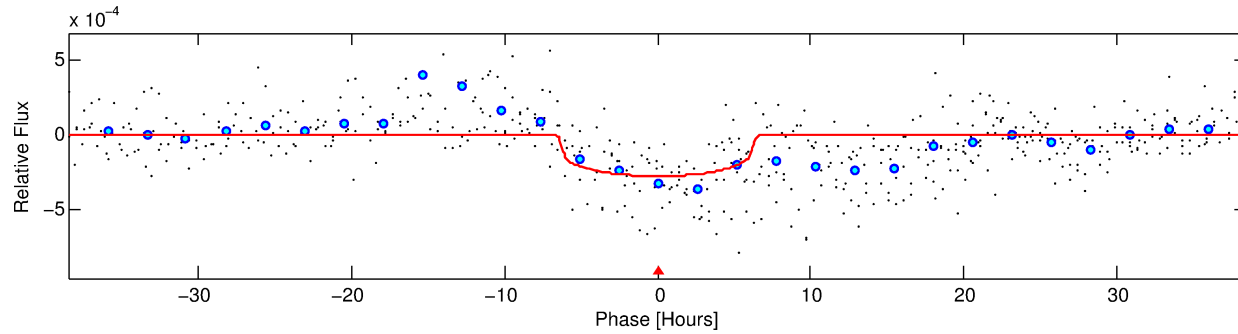
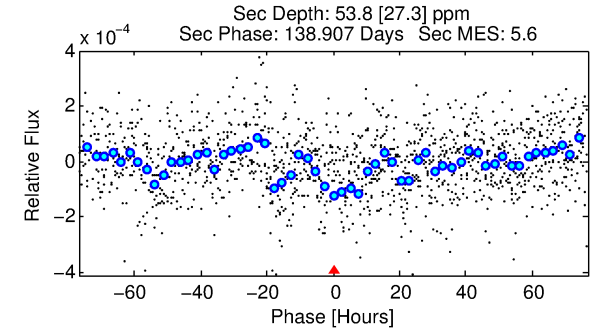
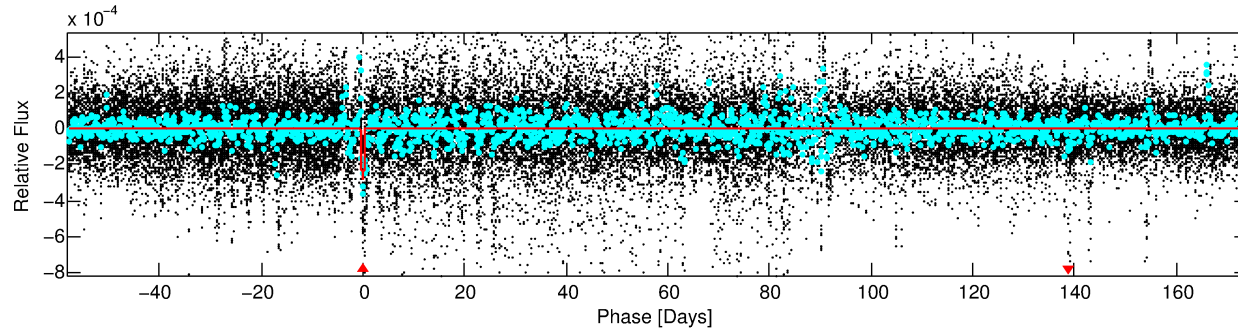
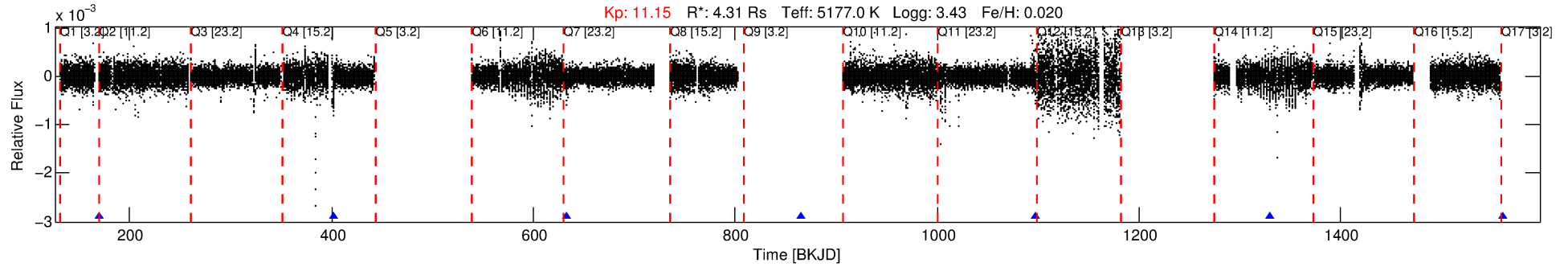
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005772756-01

No Significant Match Found

DV One-Page Summary

KIC: 5772756 Candidate: 1 of 1 Period: 231.902 d



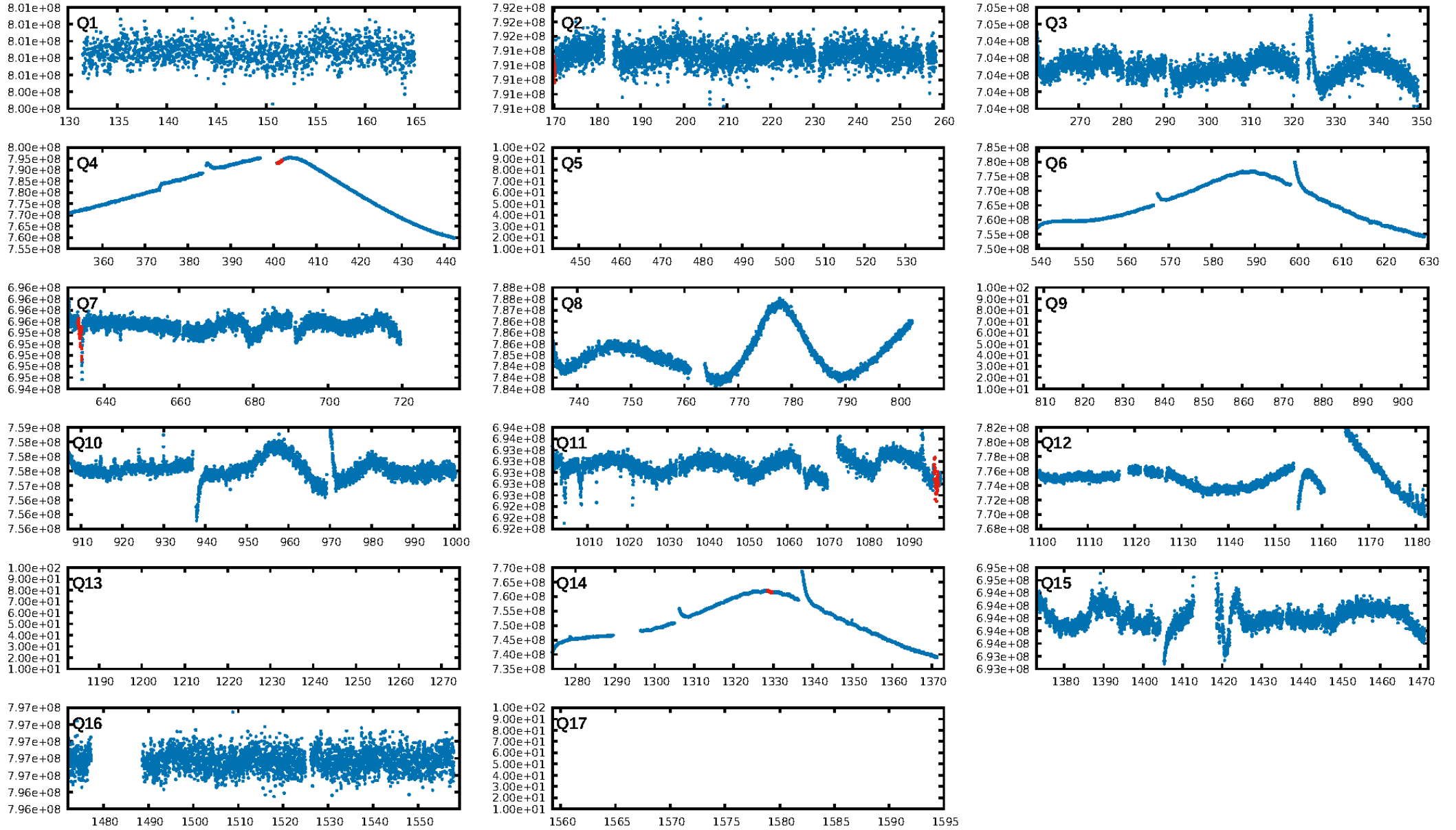
DV Fit Results:

Period = 231.90192 [0.00453] d
Epoch = 169.5814 [0.0127] BKJD
Rp/R* = 0.0158 [0.0076]
a/R* = 112.80 [200.62]
b = 0.61 [1.87]
Seff = 14.72 [6.53]
Teq = 499 [55] K
Rp = 7.46 [4.52] Re
a = 0.9018 [0.2696] AU
Ag = 432.56 [503.91] [0.86σ]
Teffp = 3522 [965] K [3.13σ]

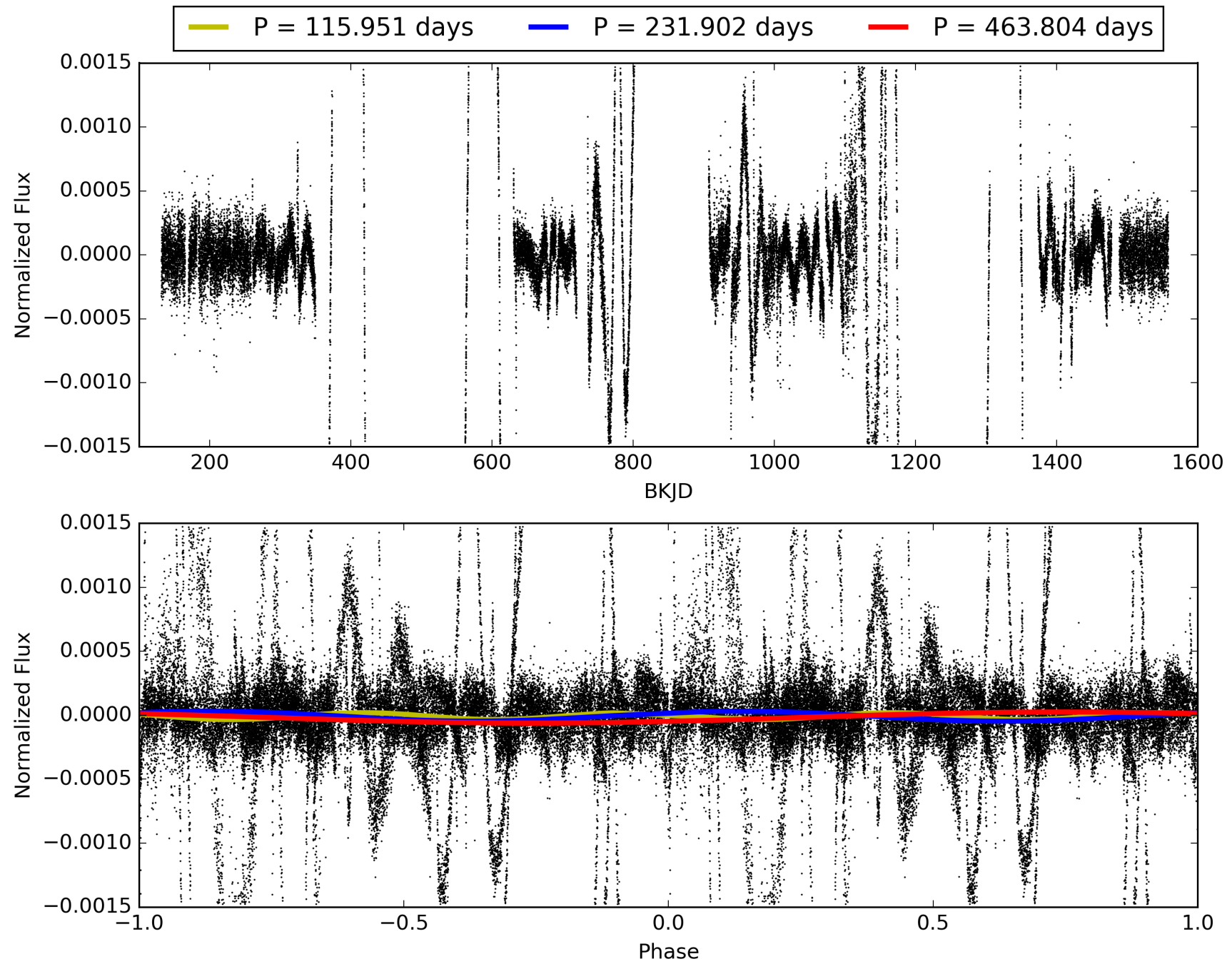
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: 5.59e-08
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 15.73
Centroid-sig: 0.2%
Centroid-so: 1.742 arcsec [2.52σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [1/1]

TCE 005772756-01, PDC Light Curves

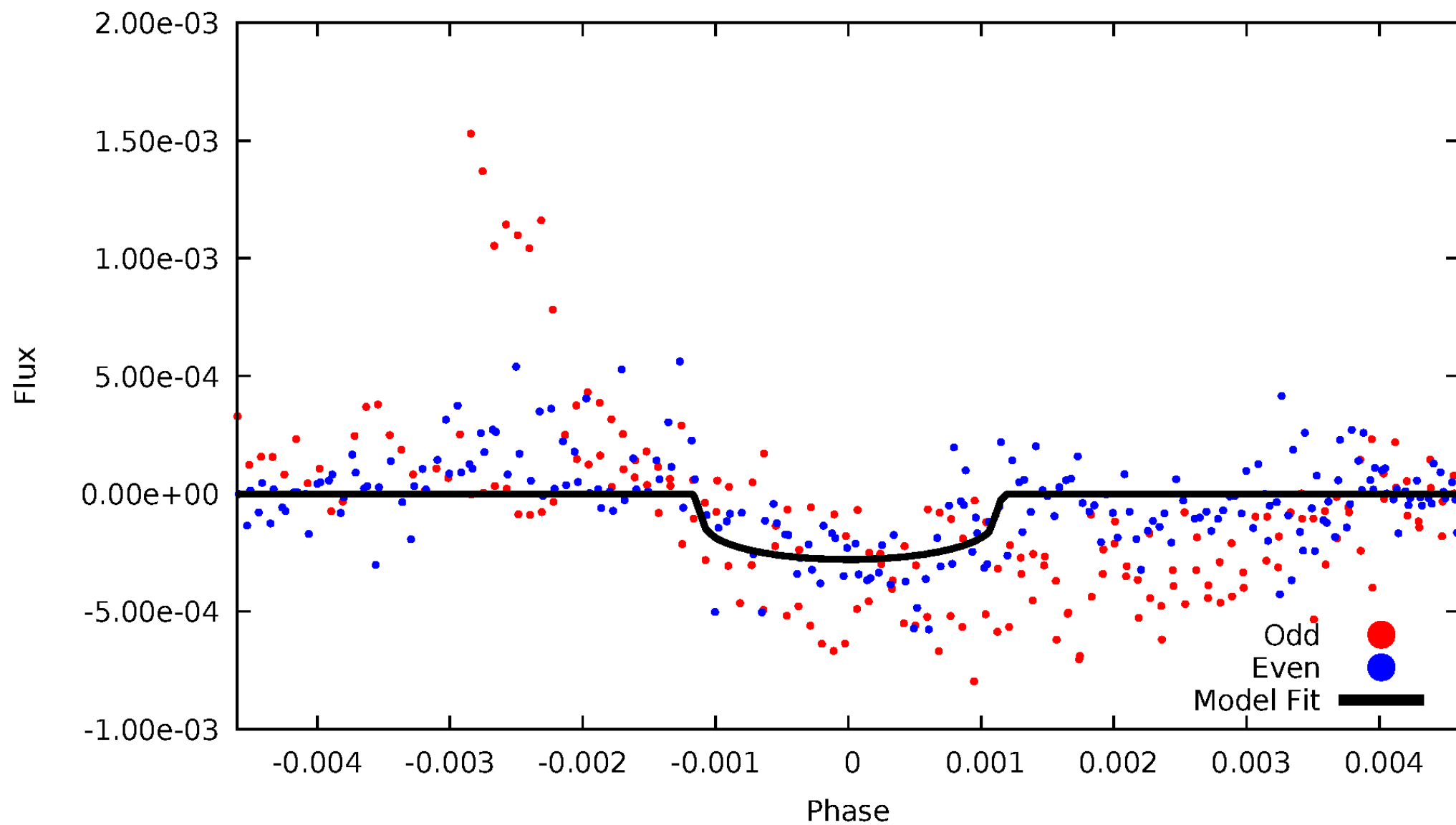


TCE 005772756-01



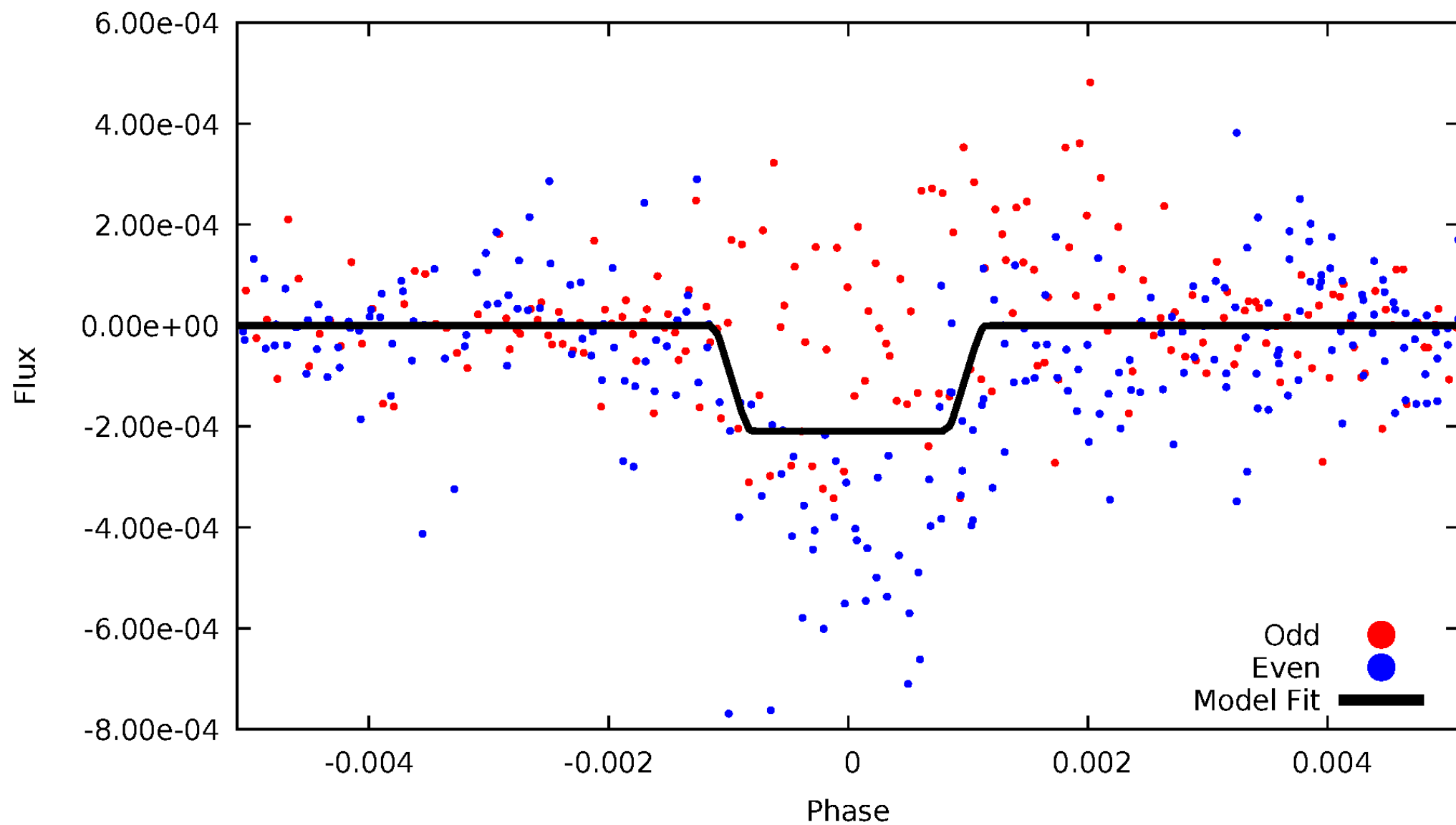
DV Odd/Even

TCE 005772756-01



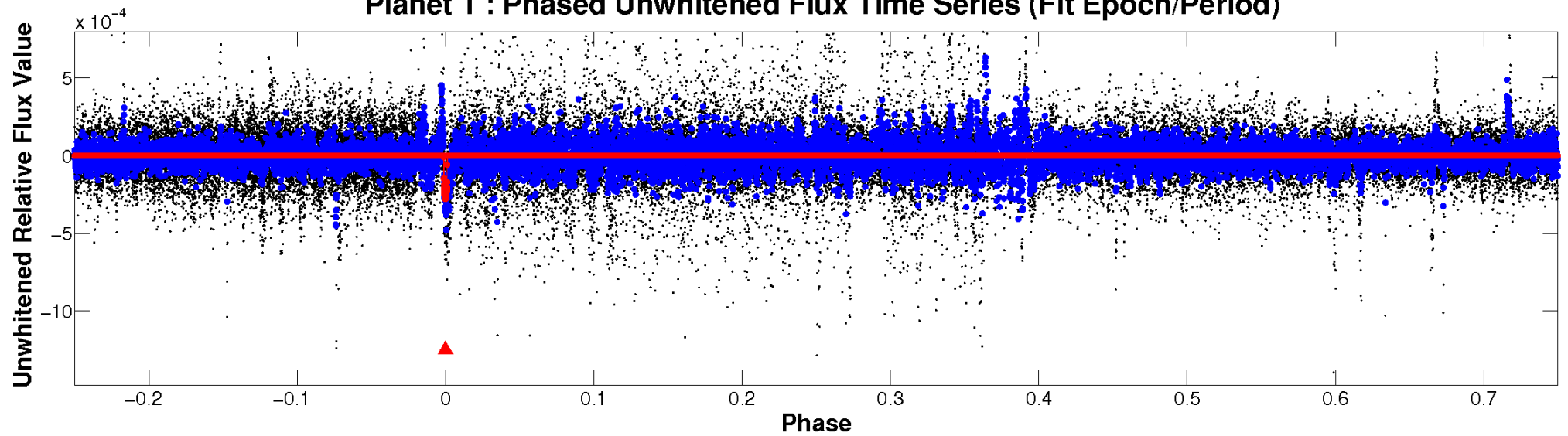
ALT Odd/Even

TCE 005772756-01

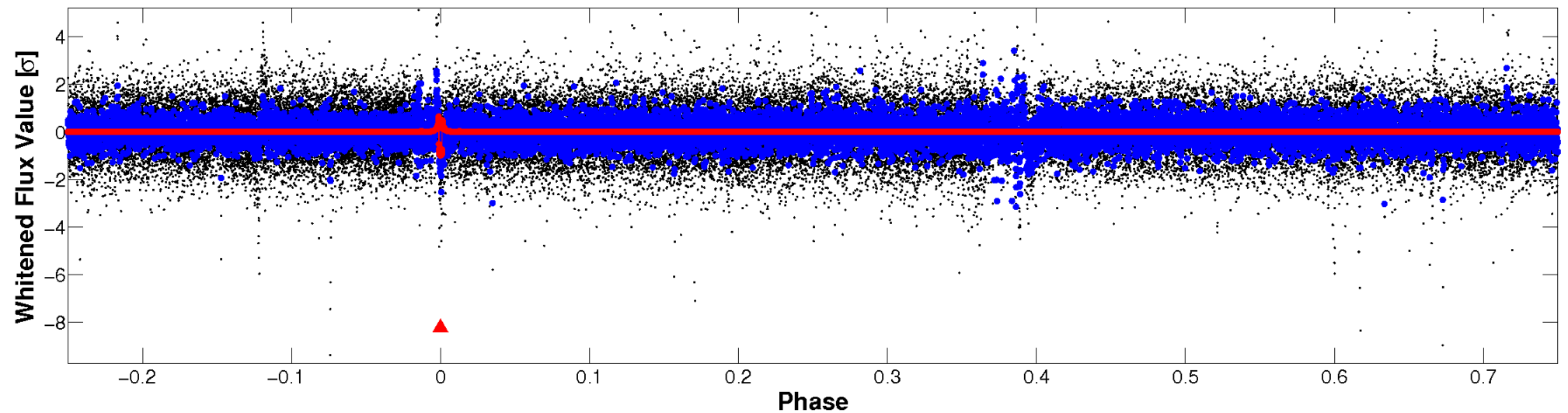


Non-Whitened Vs. Whitened Light Curve

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

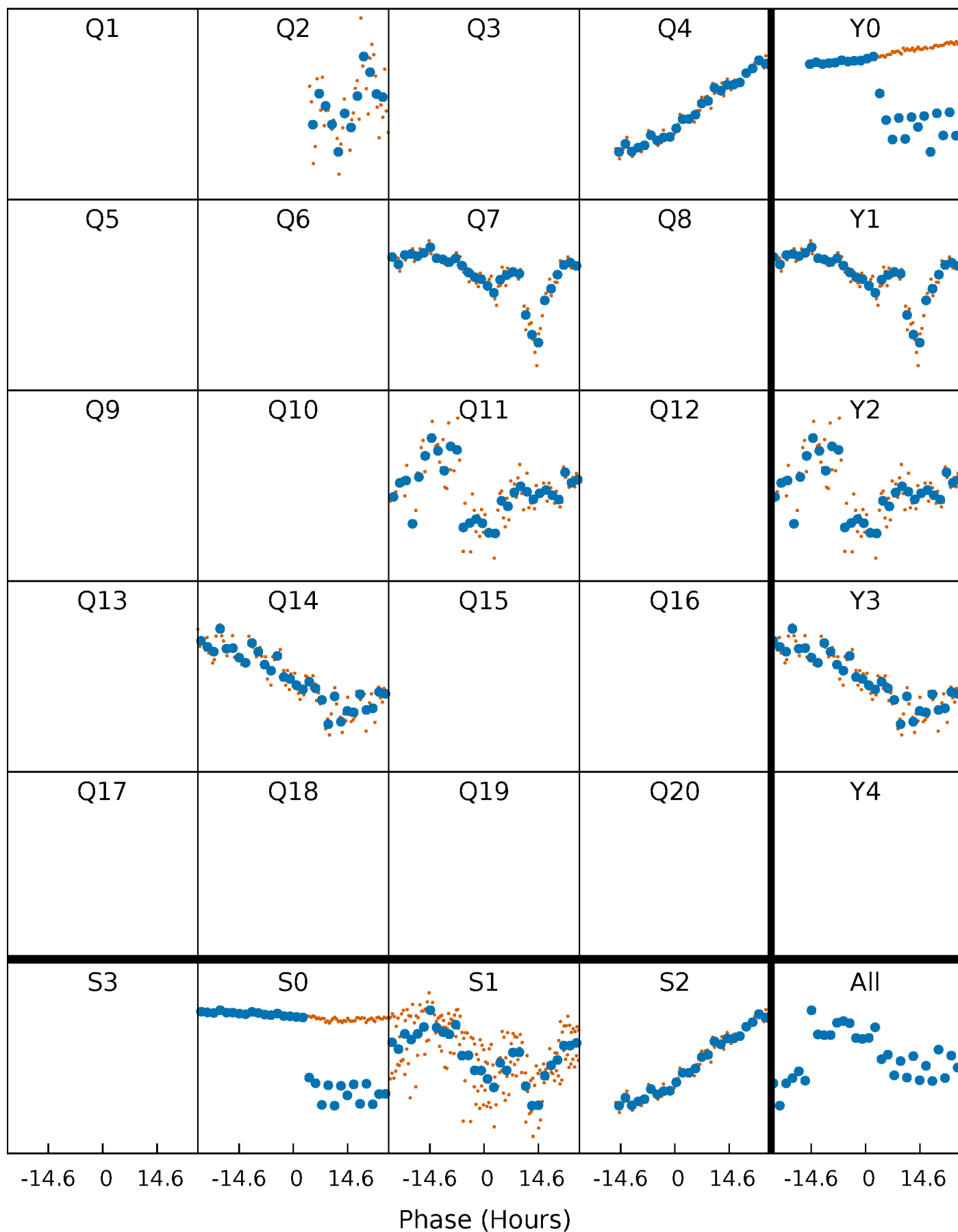


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



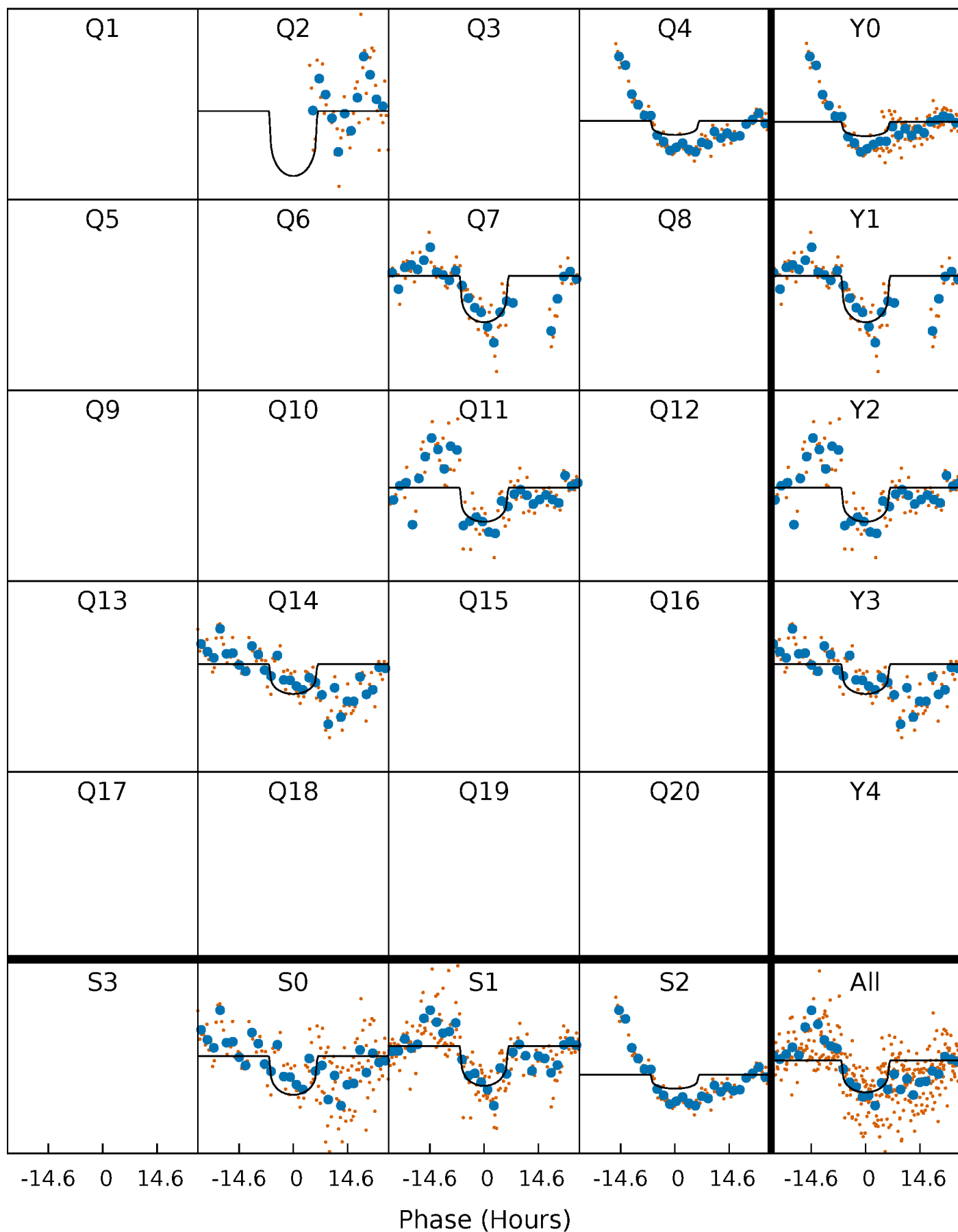
PDC Quarter-Phased Transit Curves

TCE 005772756-01 P=231.901920 Days $T_0=169.581357$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005772756-01 P=231.901920 Days $T_0=169.581357$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

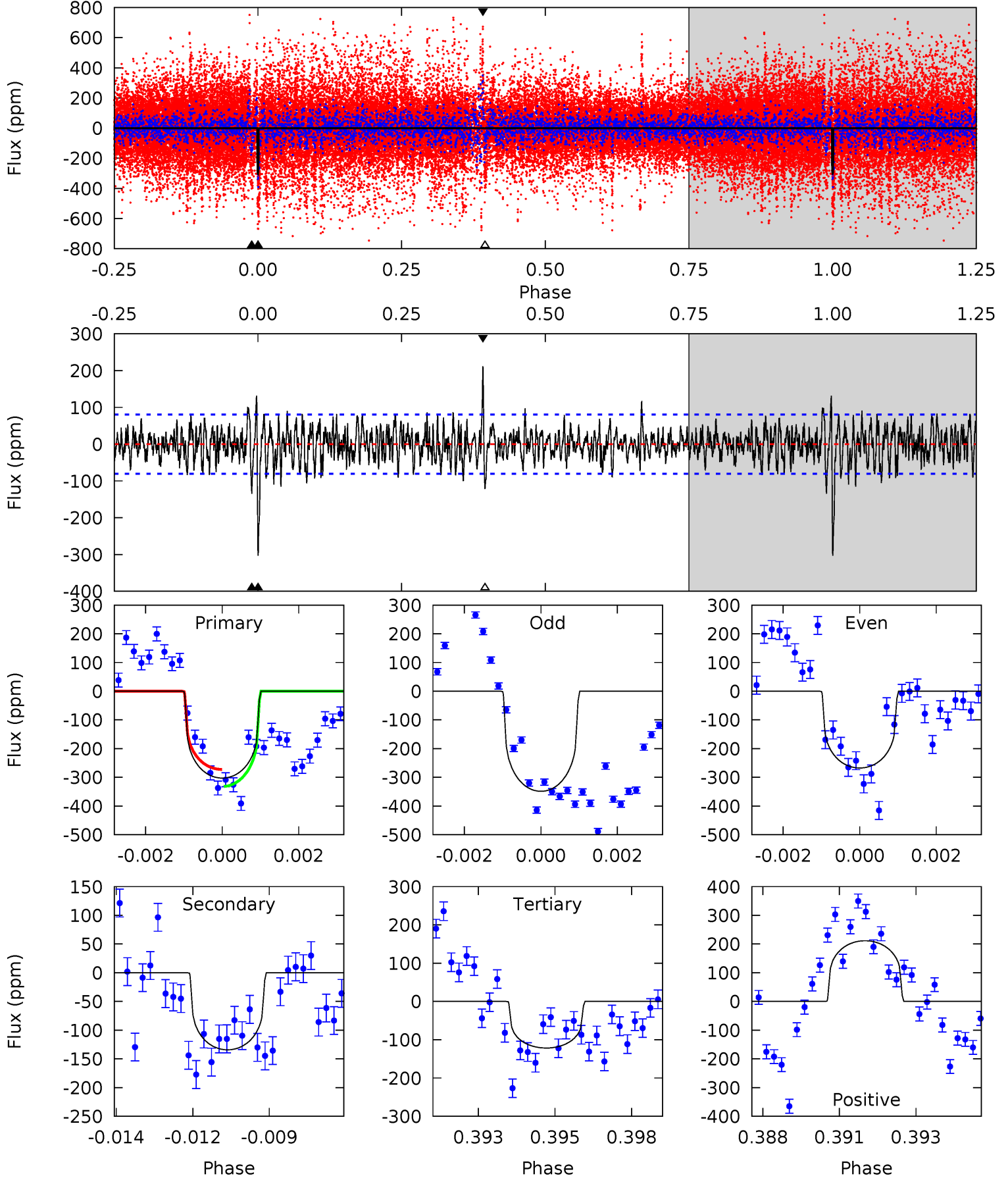
TCE 005772756-01 P=231.900472 Days $T_0=169.586021$ (BKJD)



DV Model-Shift Uniqueness Test

005772756-01, P = 231.901920 Days, E = 169.581357 Days

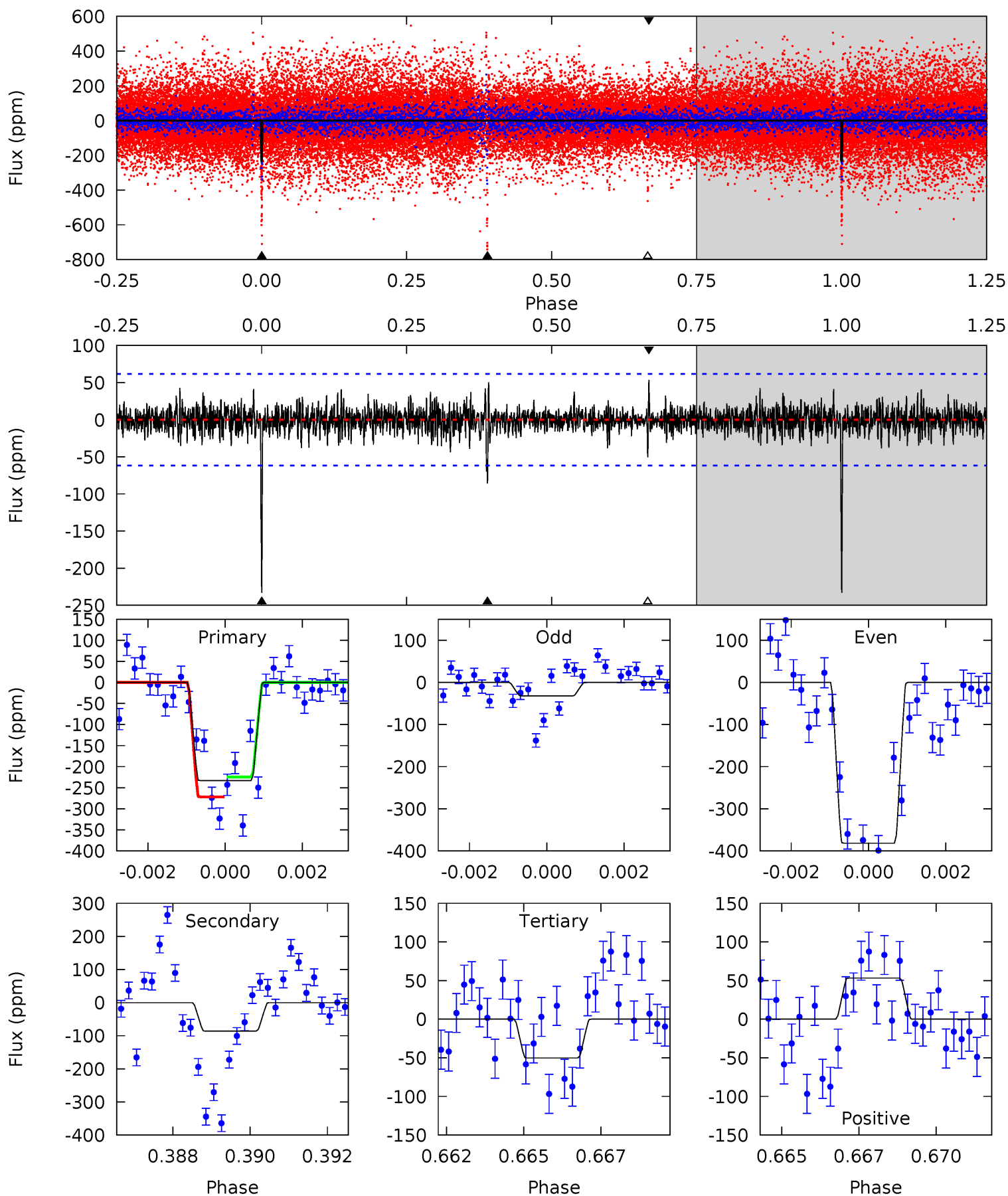
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	8.85	8.02	13.9	5.30	3.04	2.37	11.9	6.02	0.83	-5.09	2.67	0.93	0.41	1.95



Alt Model-Shift Uniqueness Test

005772756-01, P = 231.900472 Days, E = 169.586021 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	7.37	4.32	4.57	5.30	3.04	1.00	15.7	15.5	3.06	2.80	15.7	1.00	0.19	0



Stellar Parameters For KIC 005772756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5177^{+106}_{-183}	$3.428^{+0.222}_{-0.148}$	$0.020^{+0.200}_{-0.350}$	$4.313^{+0.681}_{-1.589}$	$1.818^{+0.187}_{-0.747}$	$0.032^{+0.048}_{-0.012}$
	+2%/-4%	+6%/-4%	+1000%/-1750%	+16%/-37%	+10%/-41%	+150%/-39%
Source	PHO1	FLK73	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 005772756-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-134 ± 15	$7.36^{+3.80}_{-3.61}$	696^{+40}_{-57}	4481^{+1360}_{-592}	1100^{+2781}_{-631}
Alt.	-86 ± 12	$6.70^{+3.63}_{-3.39}$	694^{+43}_{-56}	4290^{+1350}_{-609}	826^{+2472}_{-490}

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

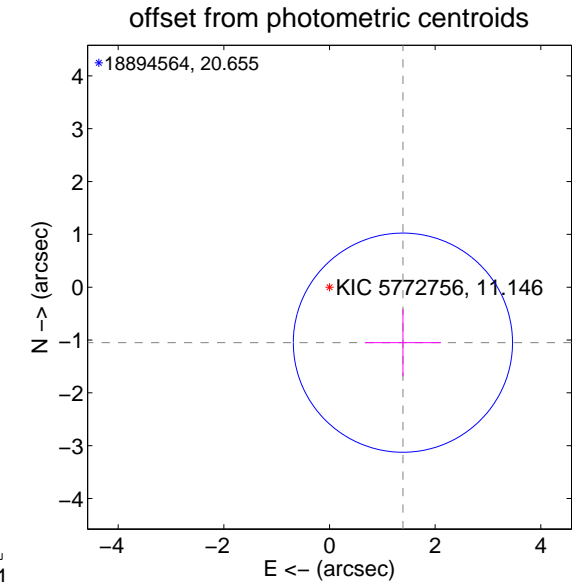
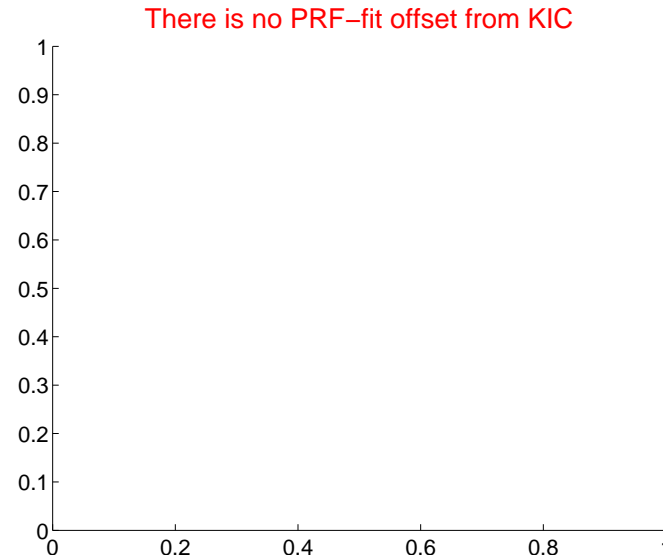
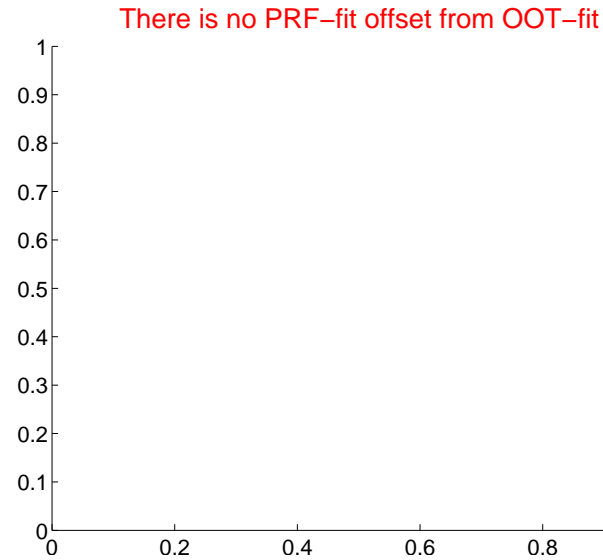
DV Centroid Data

Supplemental centroid analysis for 005772756-01. **Kepler magnitude: 11.15.** Transit SNR 9.48

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.74 ± 0.69	2.52	-1.39 ± 0.72	-1.05 ± 0.64



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.



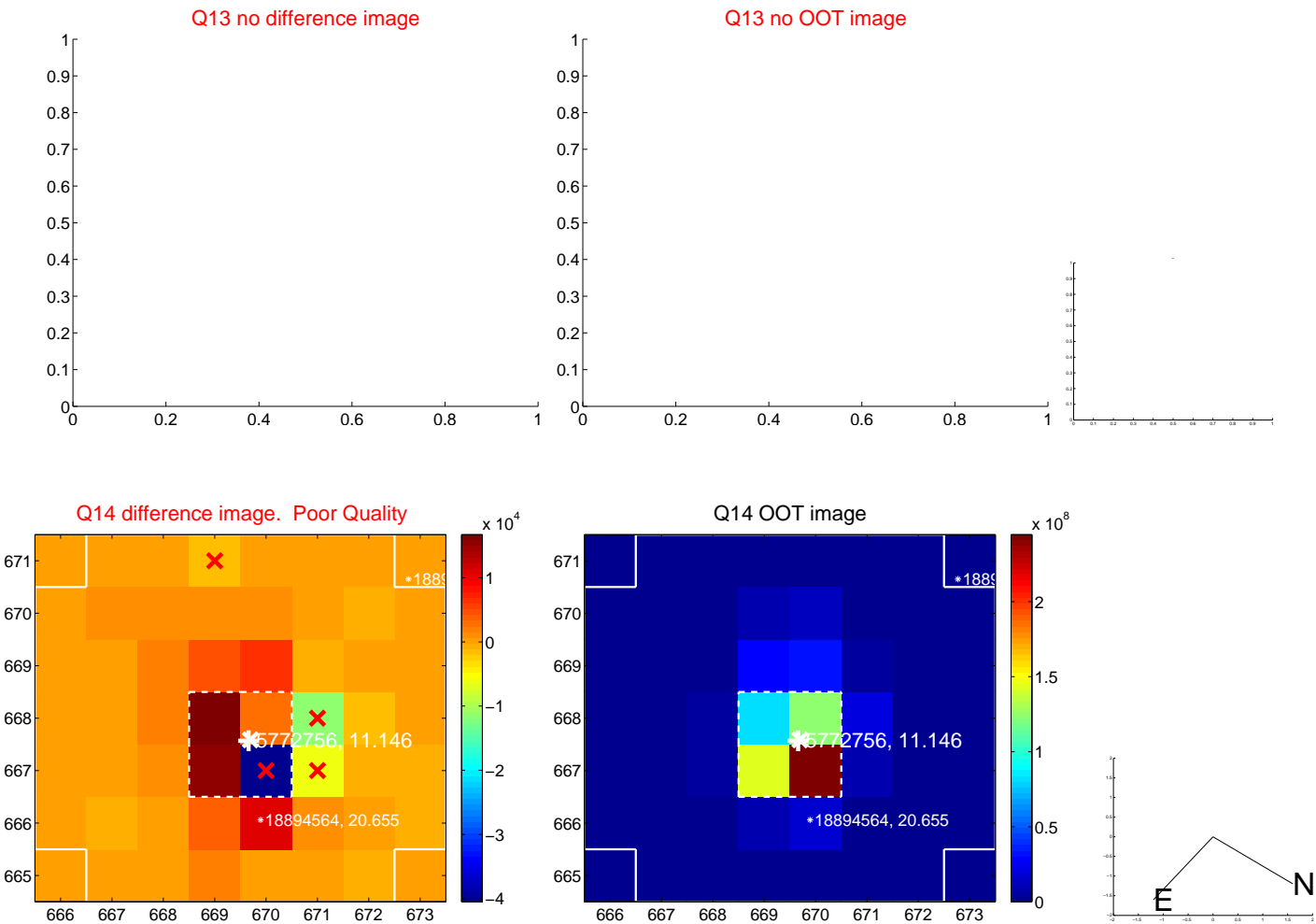
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



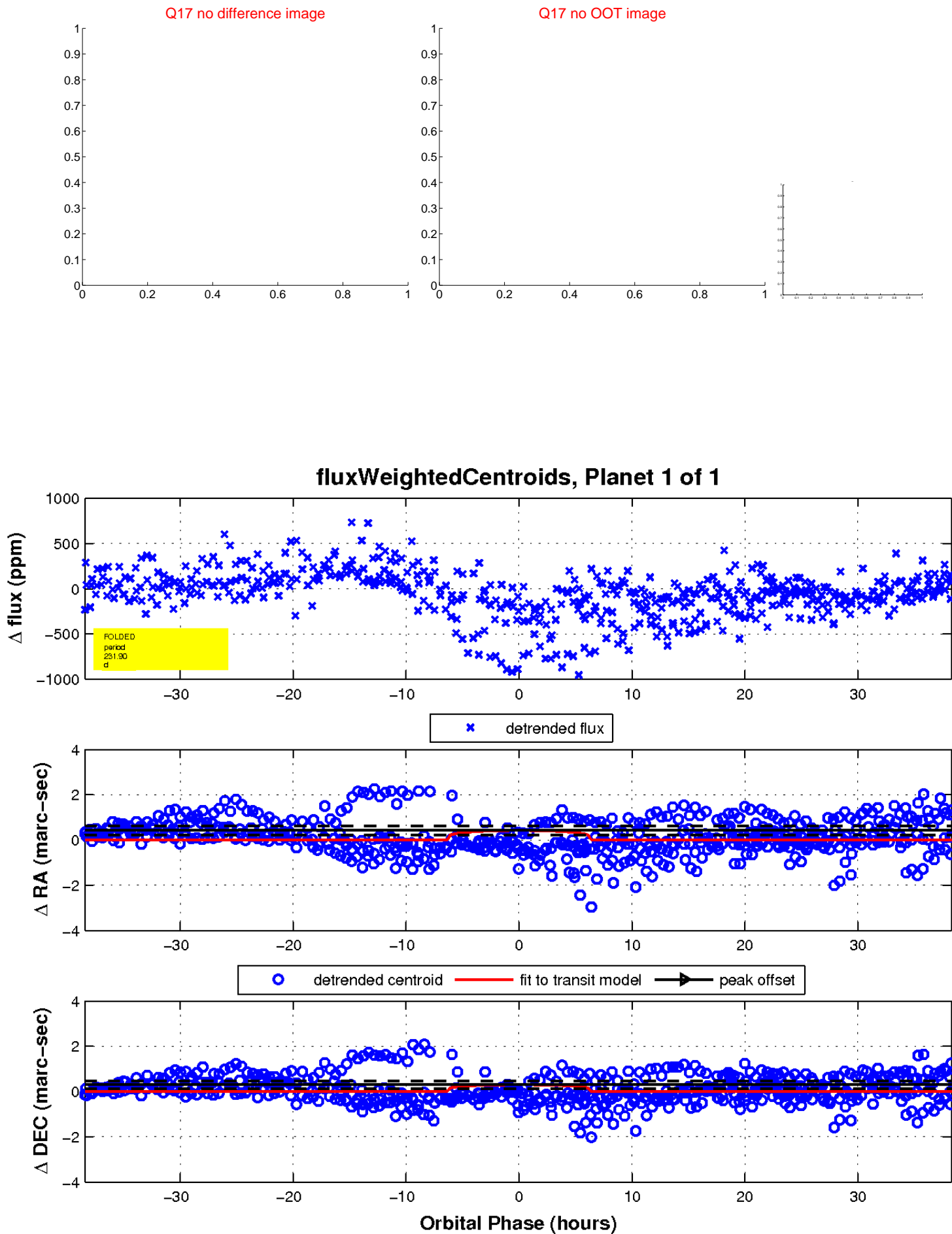
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UKIRT Image

Declination

