

KIC 006664482

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})
006664482-01	OBS	No	468.708169	166.530375	134.4	4.142	11.3	10.4	101.45	3598	173.25	784.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006664482-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—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.

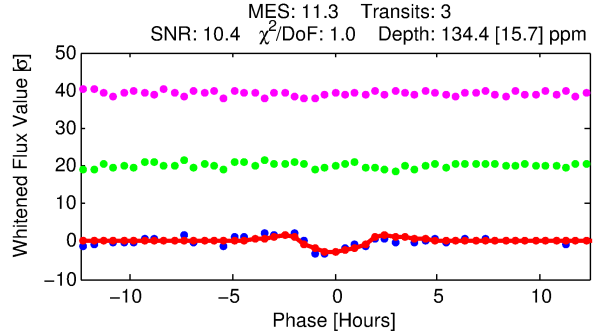
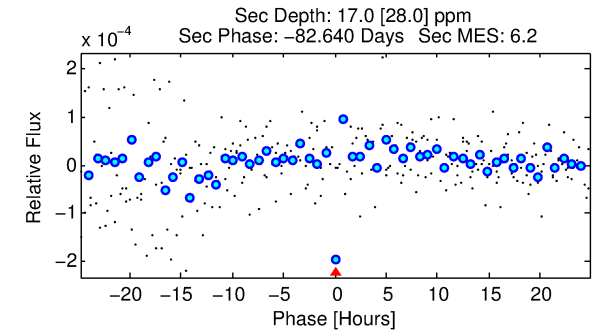
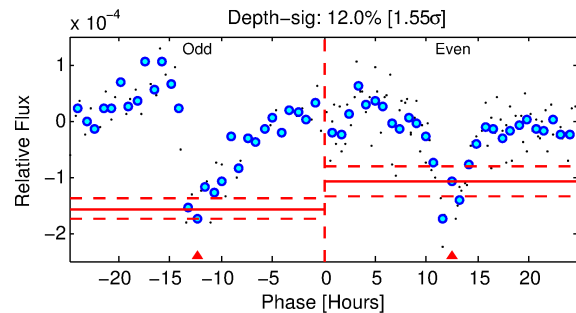
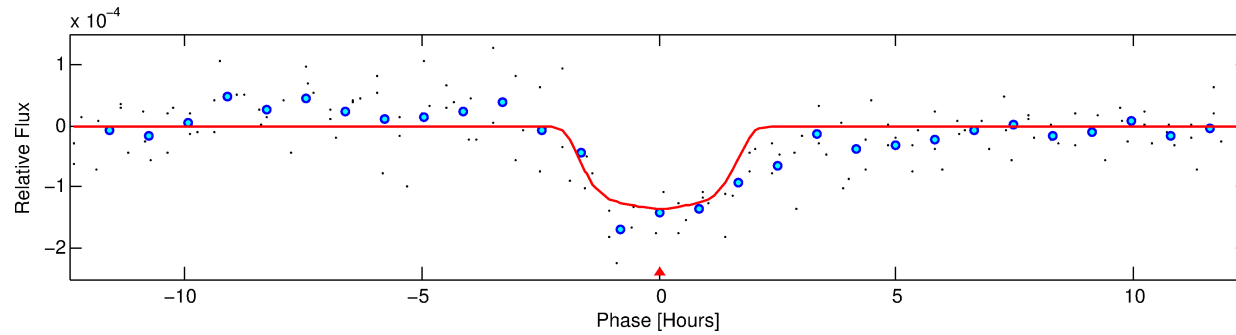
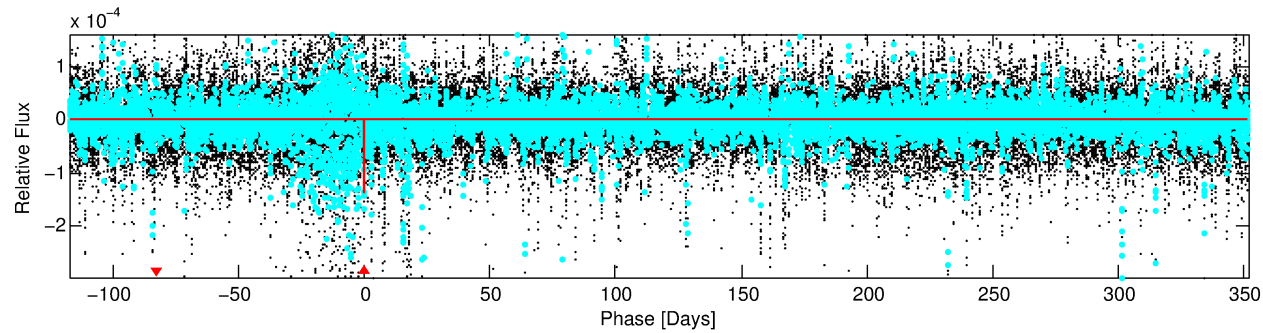
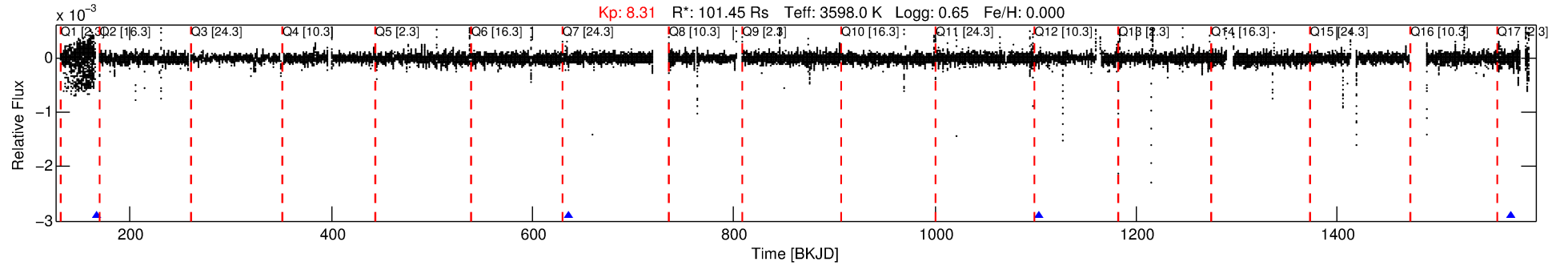
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006664482-01

No Significant Match Found

DV One-Page Summary

KIC: 6664482 Candidate: 1 of 1 Period: 468.708 d



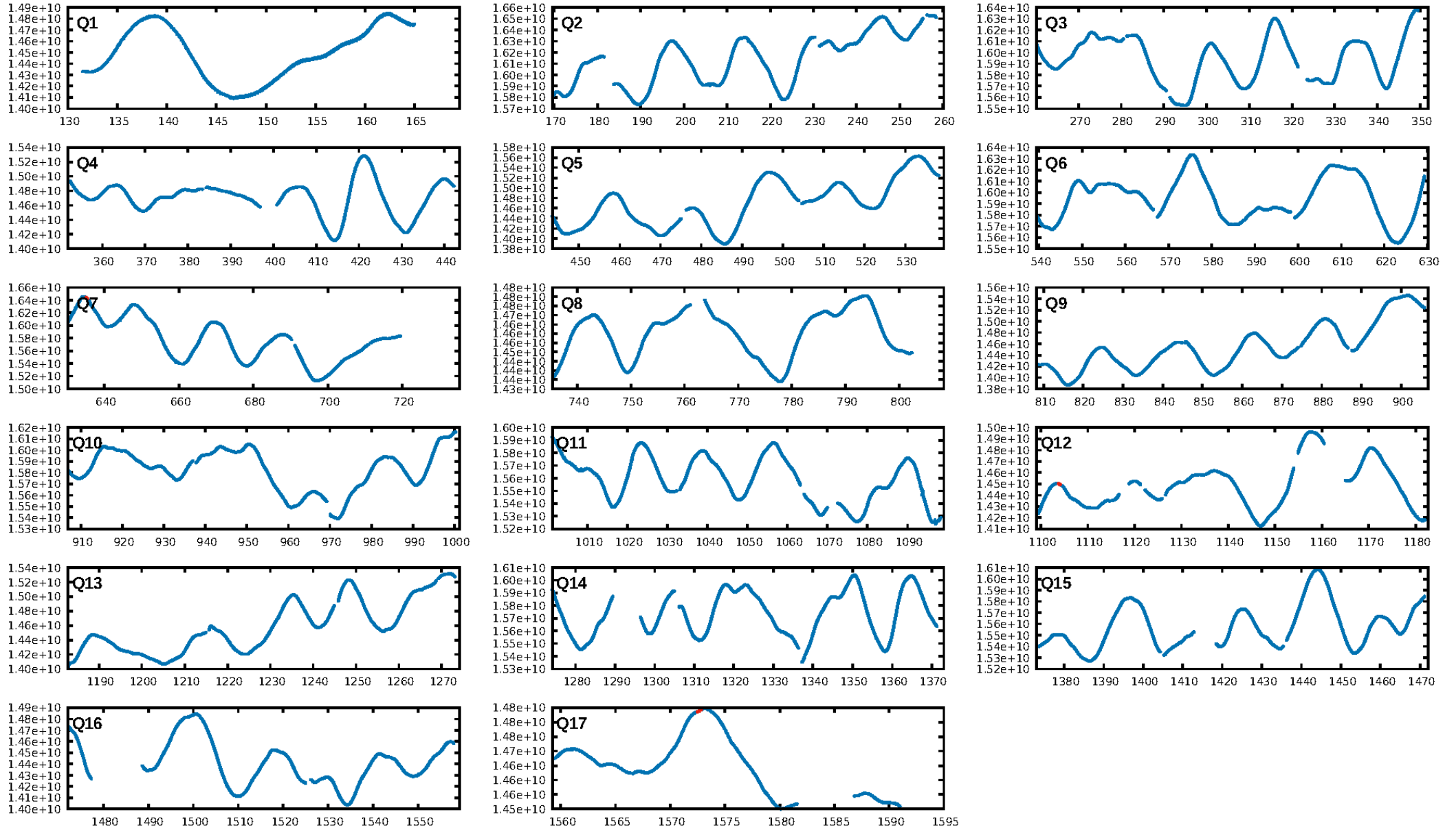
DV Fit Results:

Period = 468.70817 [0.00598] d
Epoch = 166.5304 [0.0137] BKJD
Rp/R* = 0.0156 [0.0020]
a/R* = 273.77 [111.84]
b = 0.97 [0.03]
Seff = 784.83 [385.02]
Teq = 1350 [166] K
Rp = 173.25 [60.02] Re
a = 1.4033 [0.4270] AU
Ag = 0.61 [1.07] [-0.36 σ]
Teffp = 1846 [773] K [0.63 σ]

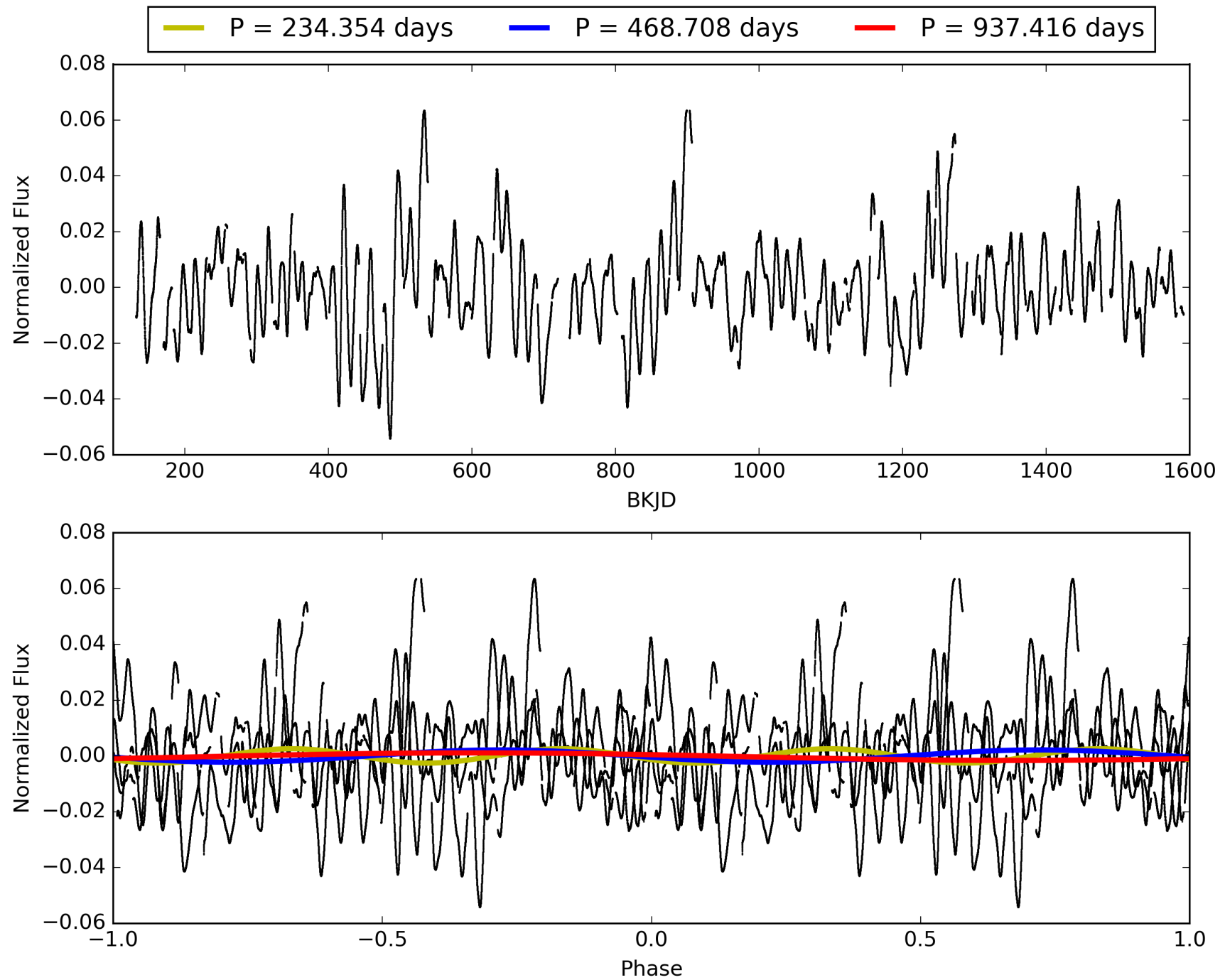
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 59.7%
ModelChiSquareGof-sig: 92.6%
Bootstrap-pfa: 3.05e-04
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: N/A
Centroid-sig: 9.5%
Centroid-so: 13.095 arcsec [1.27 σ]
OotOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-rm: N/A
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

TCE 006664482-01, PDC Light Curves

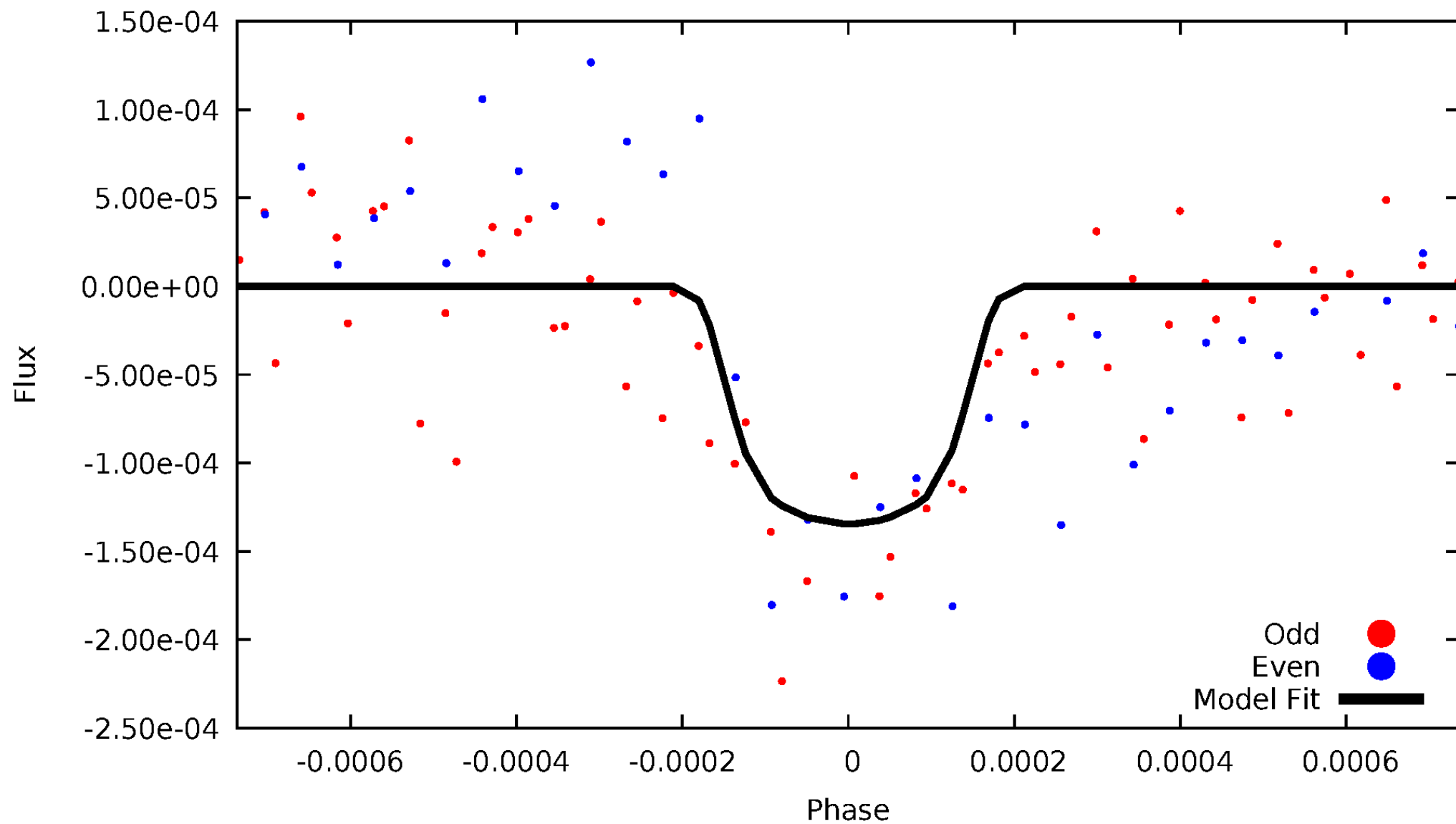


TCE 006664482-01



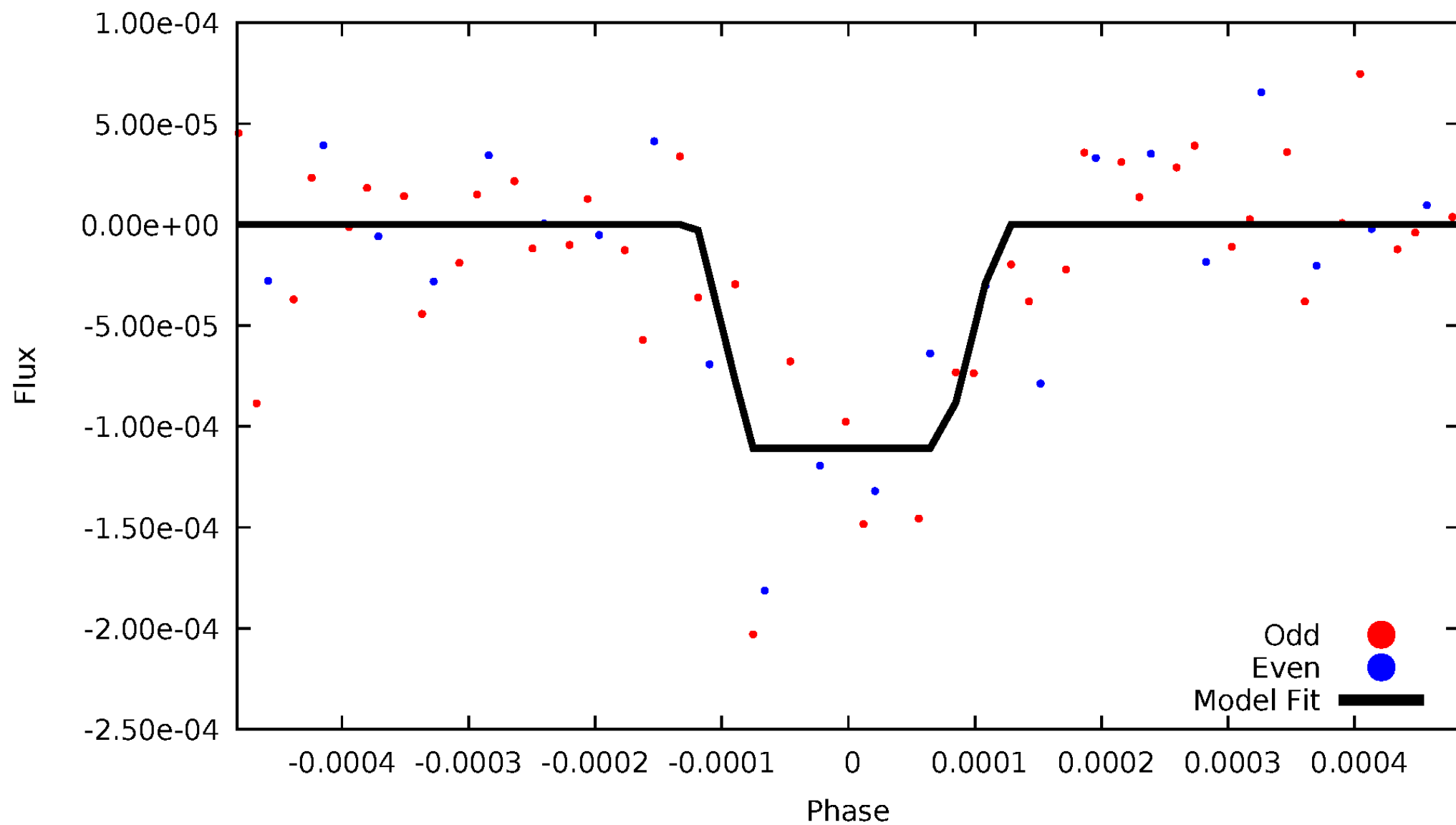
DV Odd/Even

TCE 006664482-01



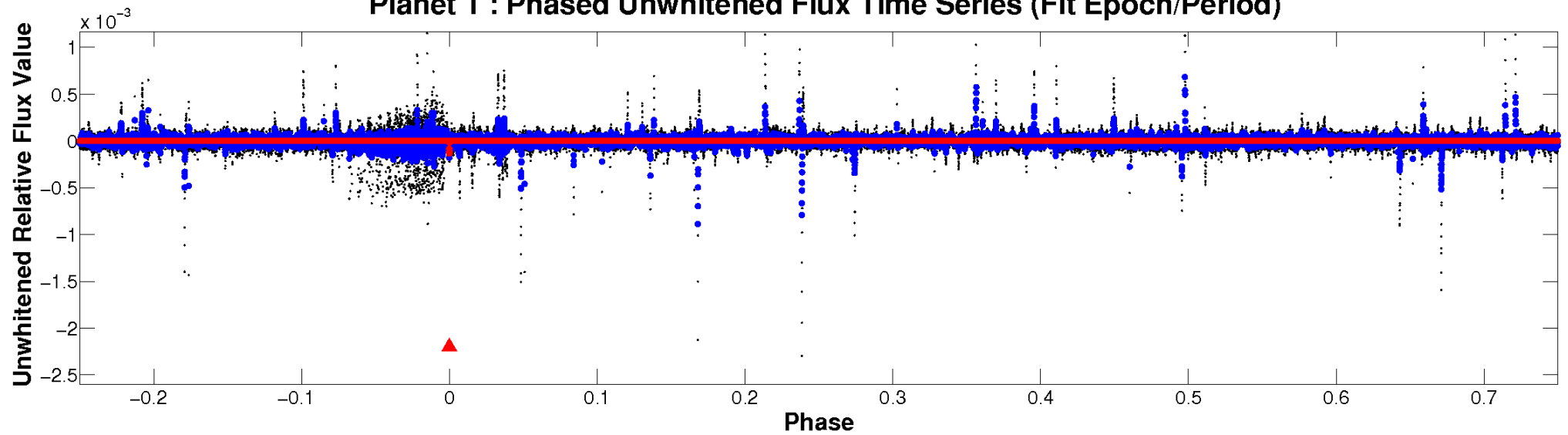
ALT Odd/Even

TCE 006664482-01

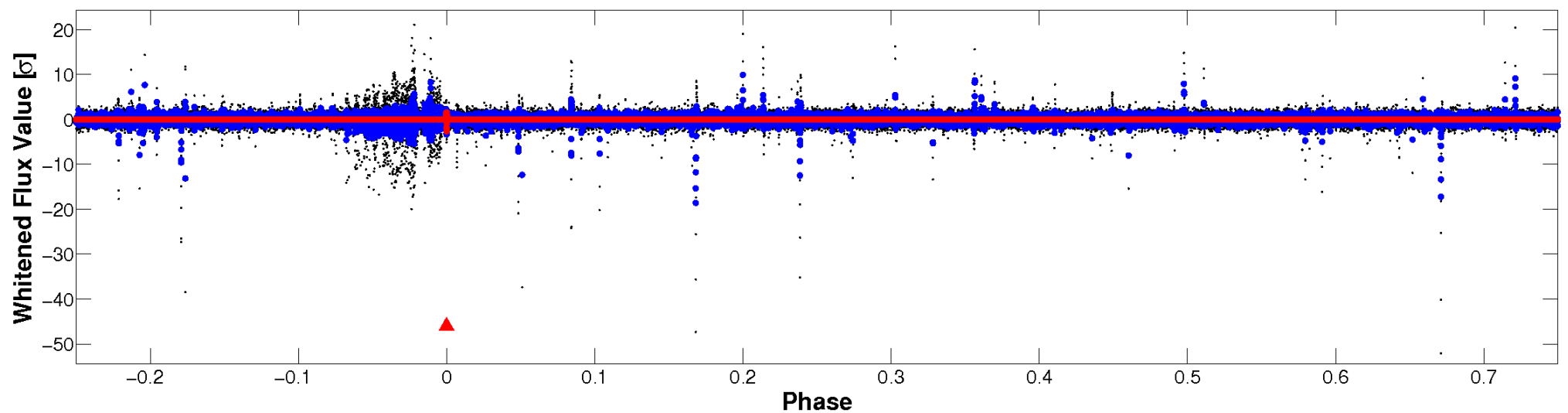


Non-Whitened Vs. Whitened Light Curve

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

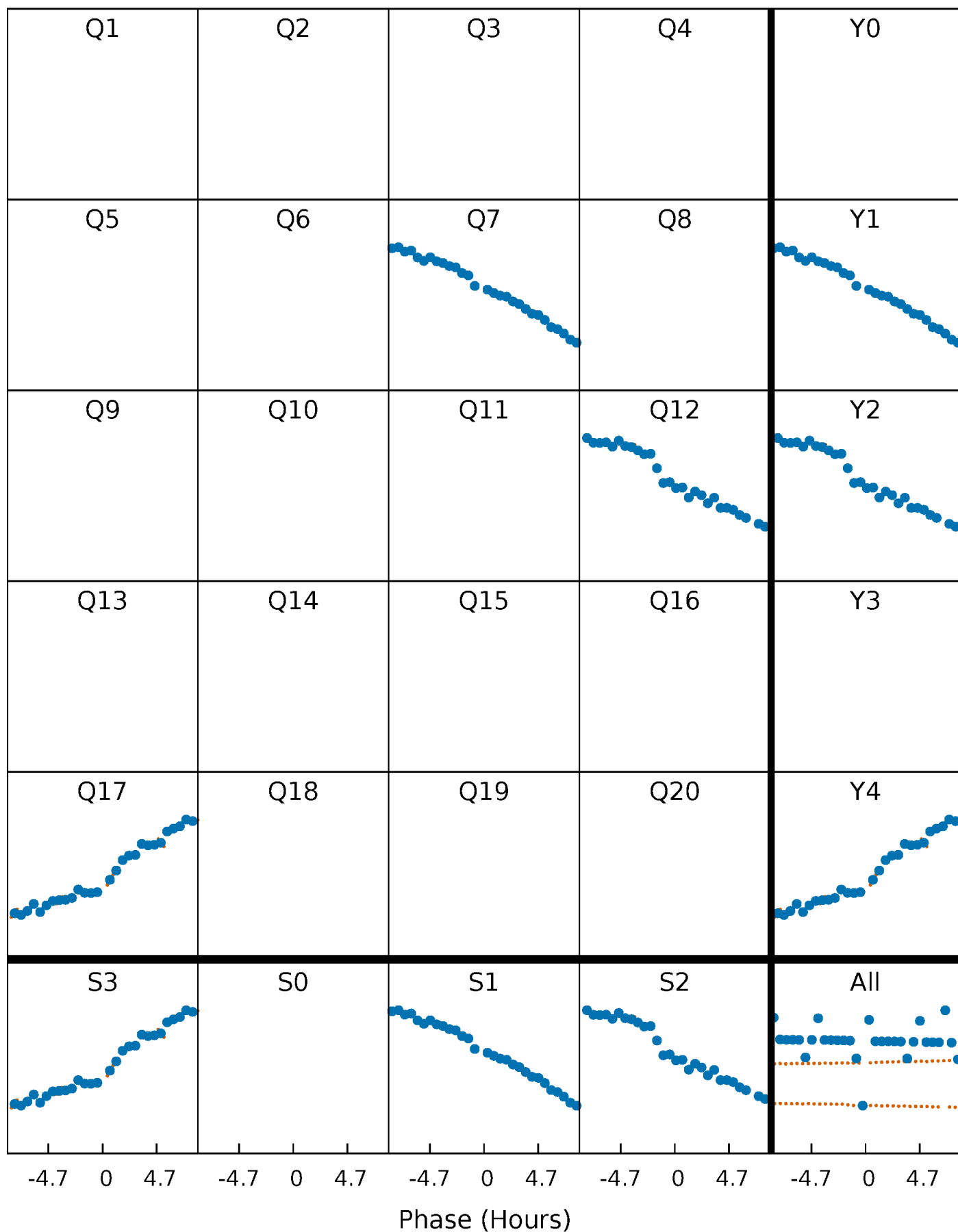


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



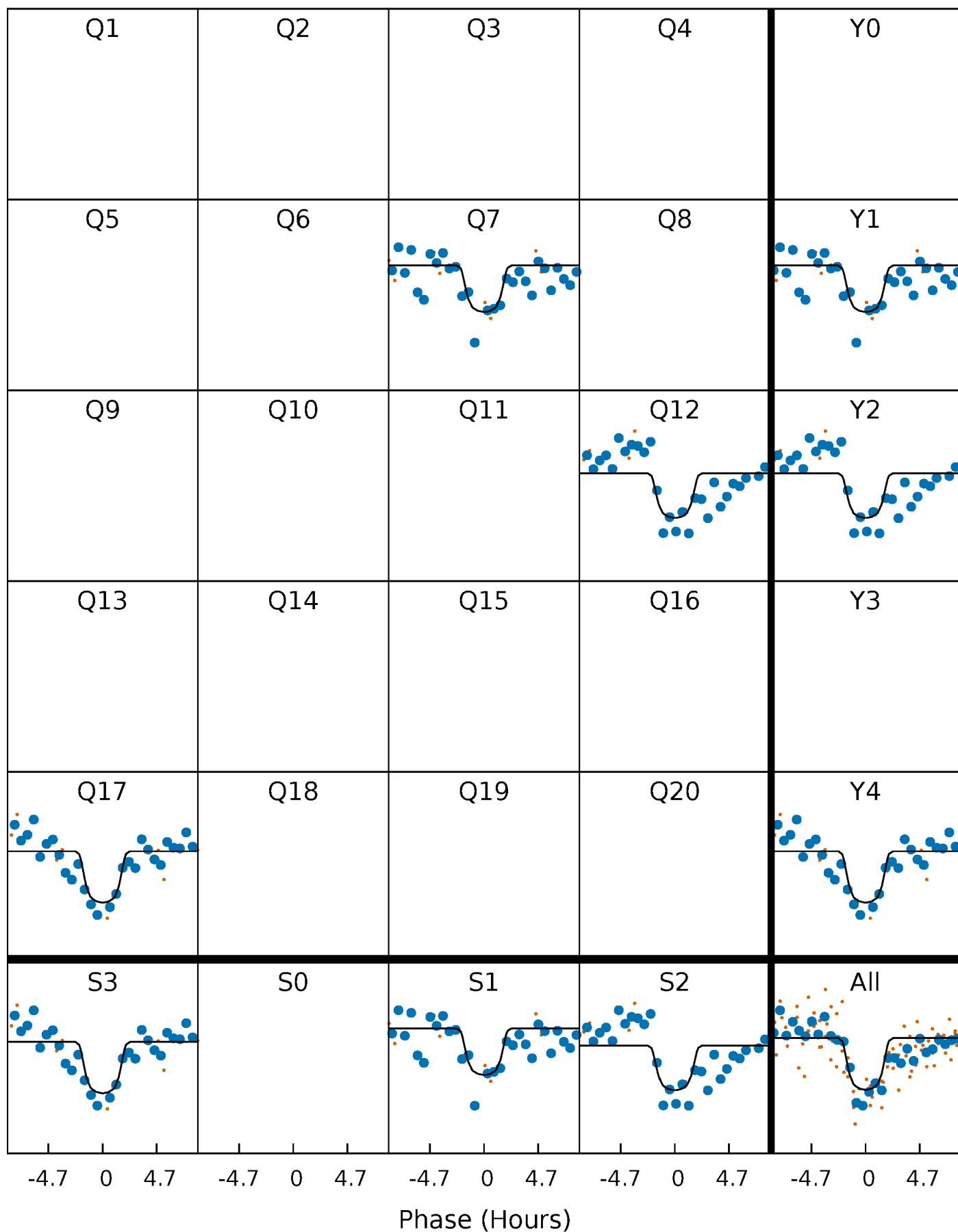
PDC Quarter-Phased Transit Curves

TCE 006664482-01 P=468.708169 Days $T_0=166.530375$ (BKJD)



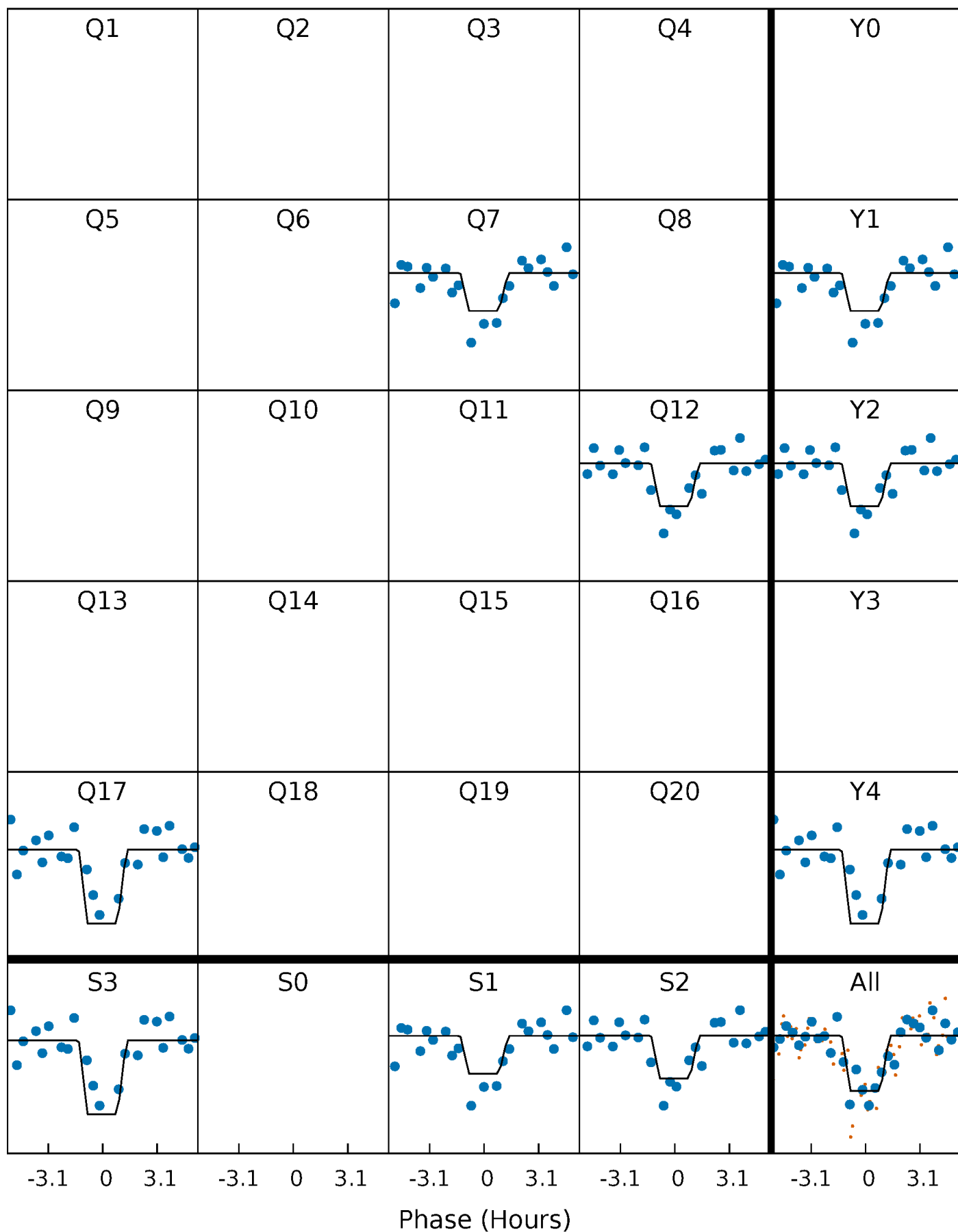
DV Quarter-Phased Transit Curves

TCE 006664482-01 P=468.708169 Days $T_0=166.530375$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

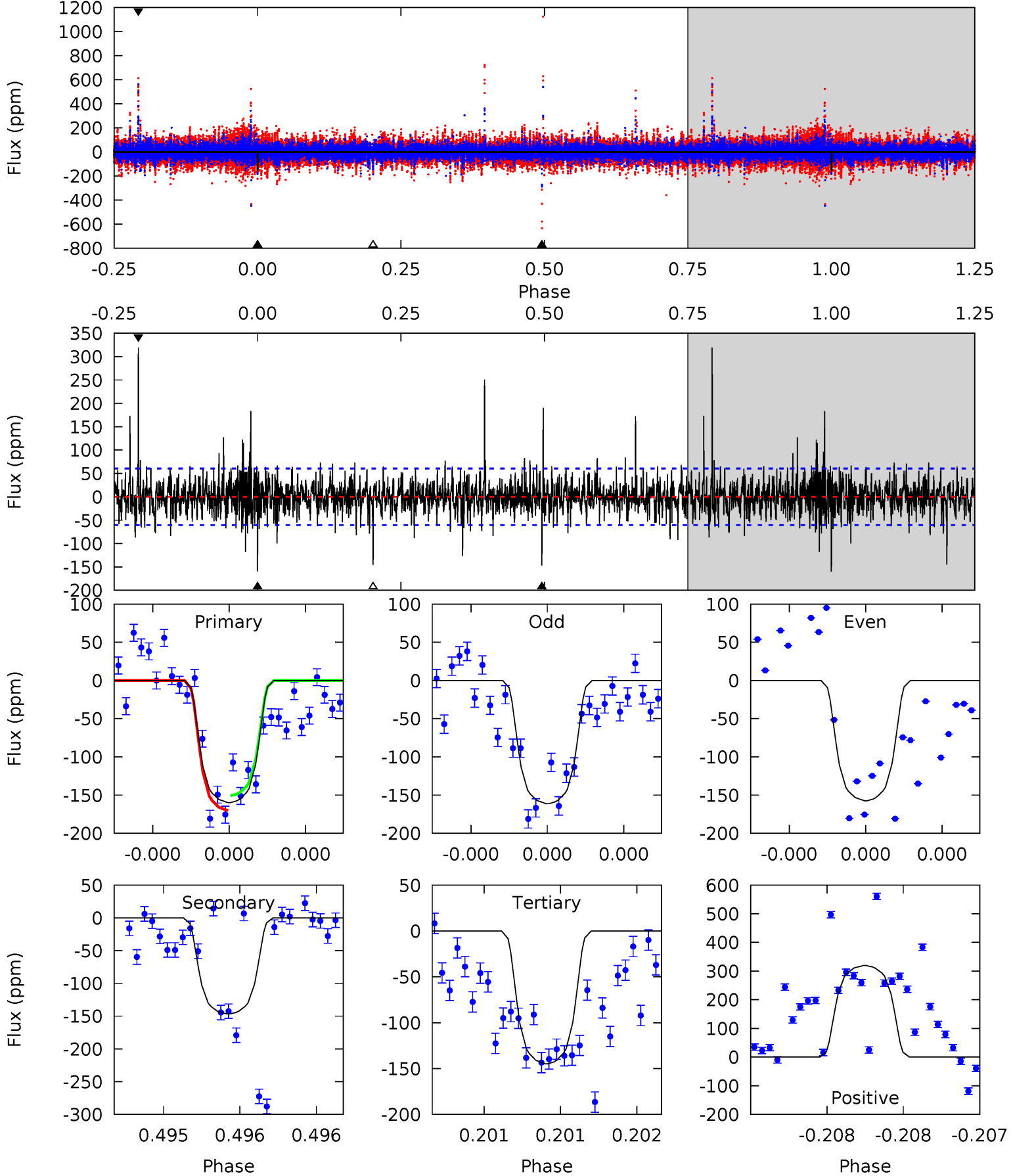
TCE 006664482-01 P=468.698188 Days $T_0=166.538088$ (BKJD)



DV Model-Shift Uniqueness Test

006664482-01, P = 468.708169 Days, E = 166.530375 Days

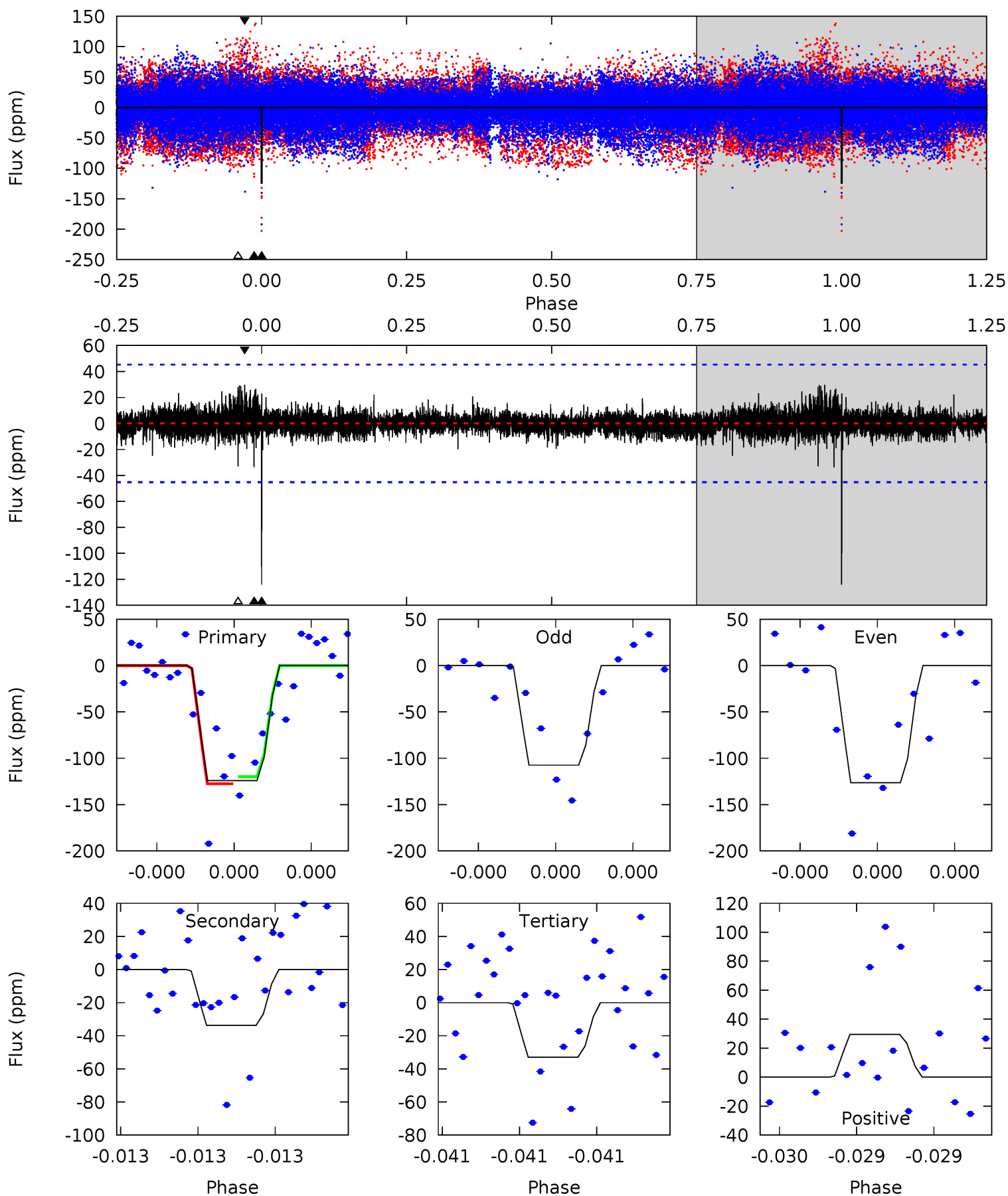
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	13.6	13.5	29.7	5.63	3.57	2.31	1.39	-14.8	0.17	-16.1	0.14	1.00	0.67	0.91



Alt Model-Shift Uniqueness Test

006664482-01, P = 468.698188 Days, E = 166.538088 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	4.26	4.18	3.73	5.72	3.70	0.59	11.5	11.9	0.08	0.52	1.10	0.98	0.19	0.49



Stellar Parameters For KIC 006664482

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3598^{+78}_{-78}	$0.650^{+0.282}_{-0.188}$	$0.000^{+0.250}_{-0.250}$	$101.451^{+18.988}_{-32.551}$	$1.679^{+0.094}_{-0.564}$	$0.000^{+0.000}_{-0.000}$
	+2%/-2%	+43%/-29%	+inf%/-inf%	+19%/-32%	+6%/-34%	+174%/-50%
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 006664482-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-147 ± 11	$164.32^{+37.41}_{-34.55}$	1884^{+130}_{-161}	3299^{+173}_{-150}	$5.625^{+2.914}_{-1.829}$
Alt.	-34 ± 8	$112.12^{+30.58}_{-29.71}$	1891^{+133}_{-169}	2963^{+243}_{-230}	$2.775^{+2.301}_{-1.209}$

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

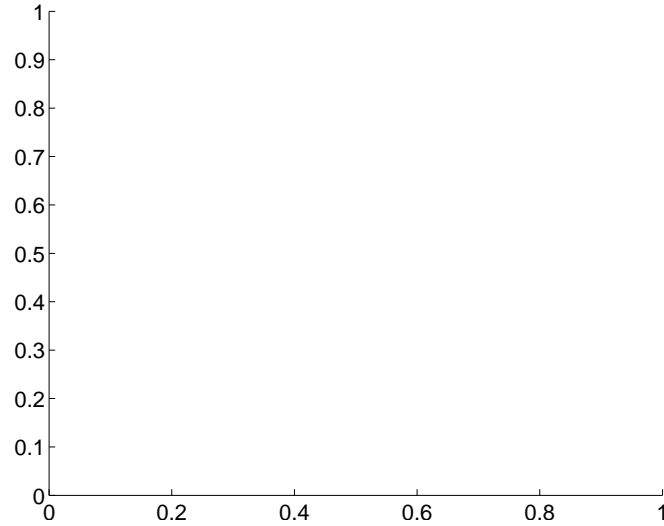
Supplemental centroid analysis for 006664482-01. **Kepler magnitude: 8.31.** Transit SNR 10.36

There are 0 quarters with good PRF difference image offsets

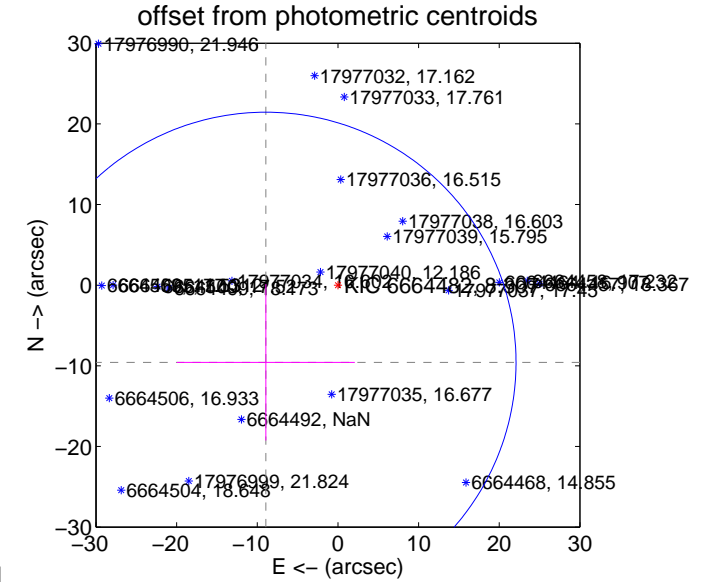
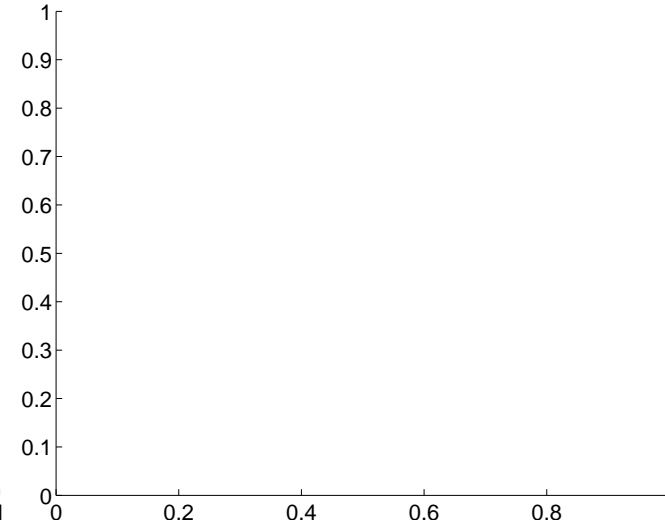
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	13.10 ± 10.34	1.27	8.94 ± 11.04	-9.57 ± 9.69

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



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.

Q5 no difference image



Q5 no OOT image



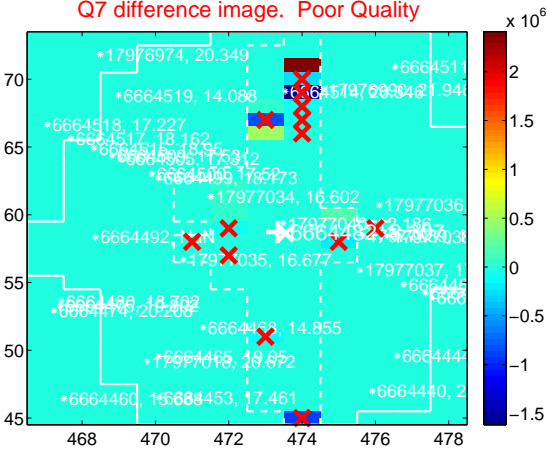
Q6 no difference image



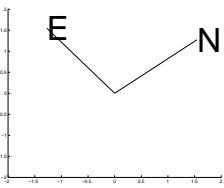
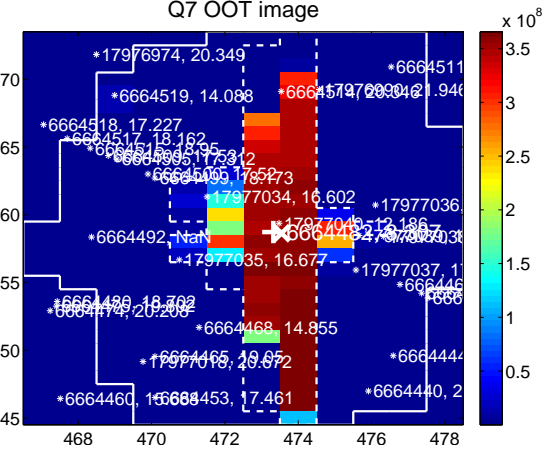
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



Q8 no difference image



Q8 no OOT image



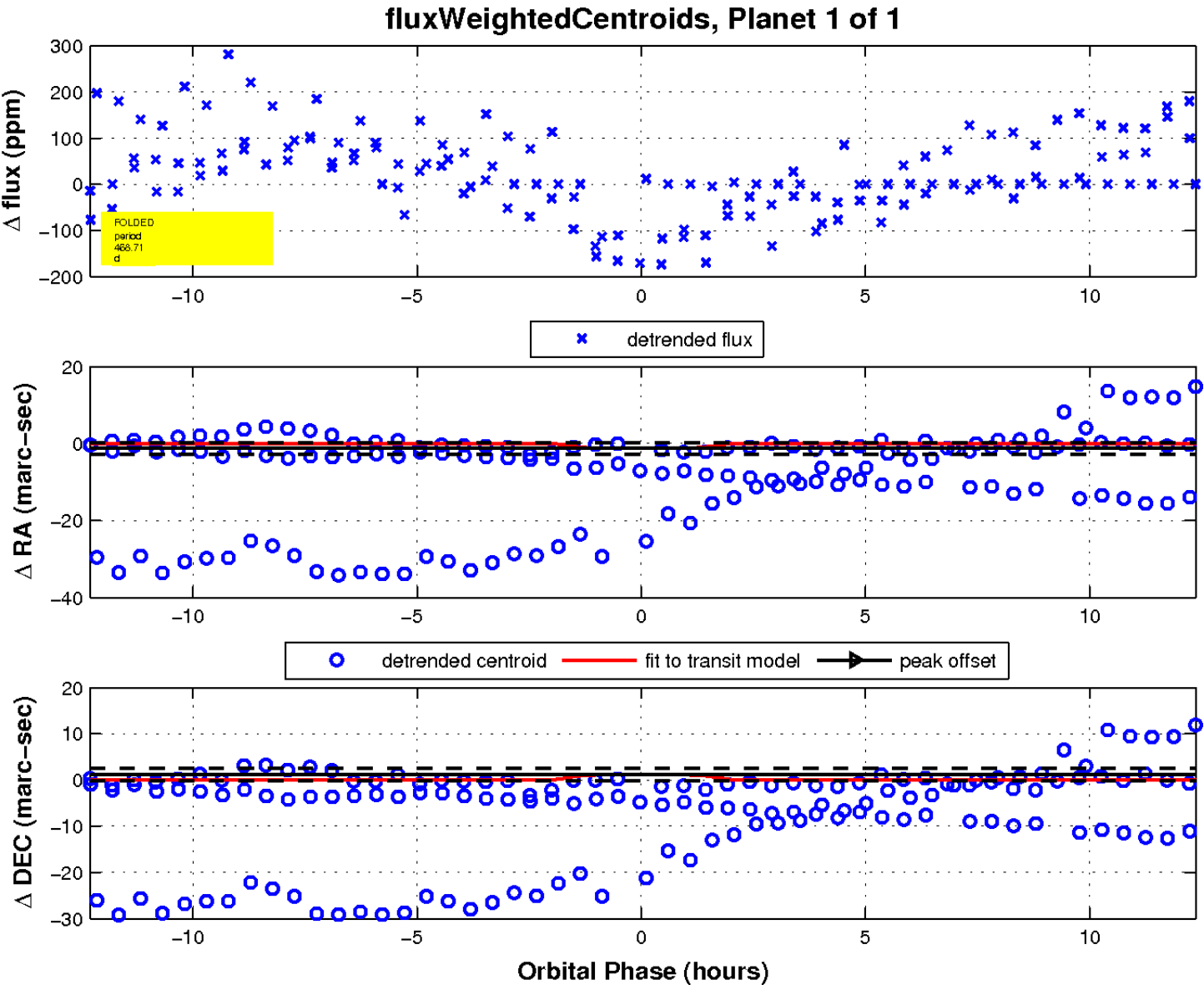
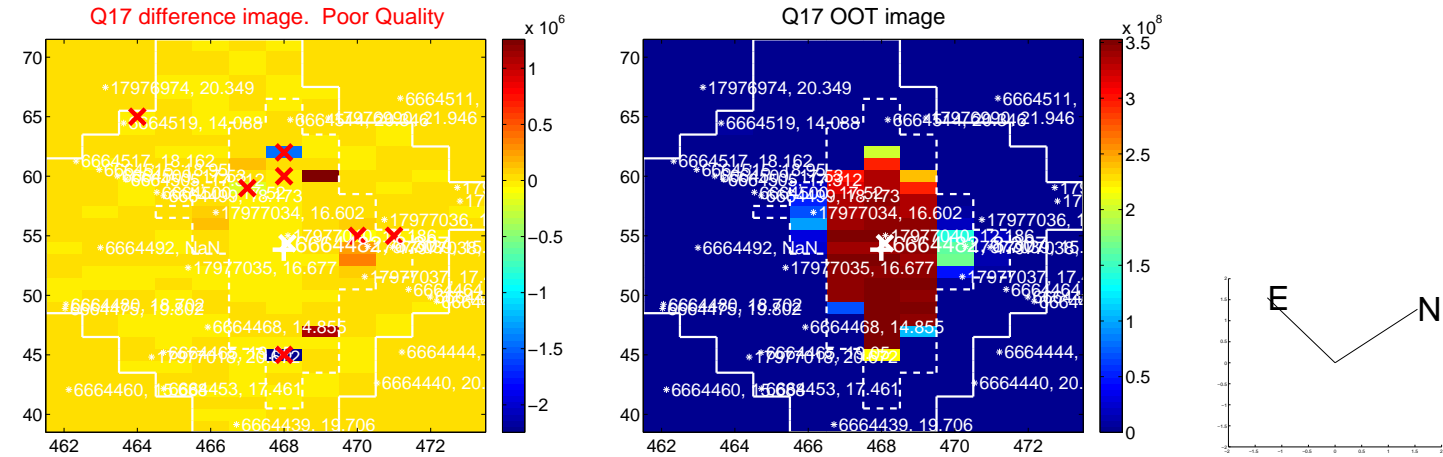
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

