

KIC 007050270

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})
007050270-01	OBS	No	494.187763	246.875214	11.8	29.995	19.1	1.7	2.23	9516	0.79	14.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007050270-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

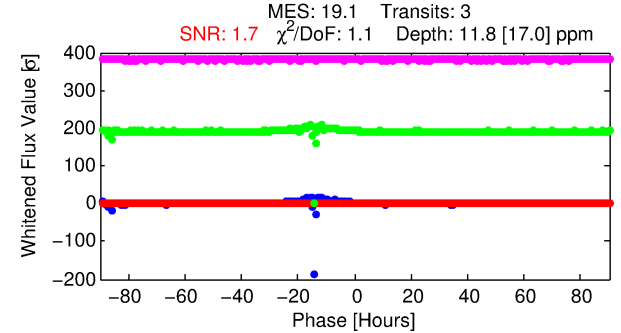
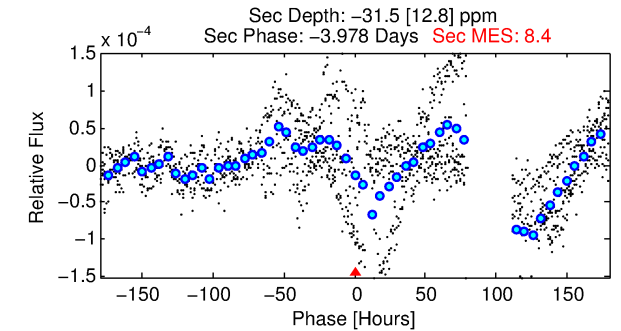
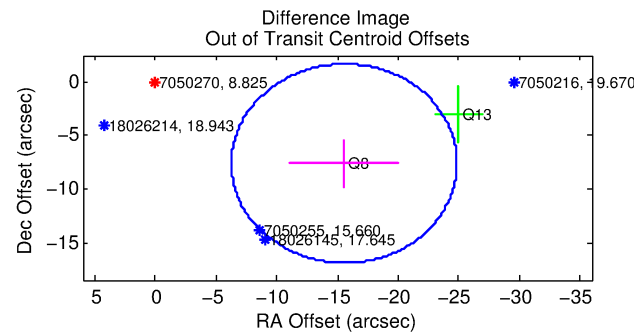
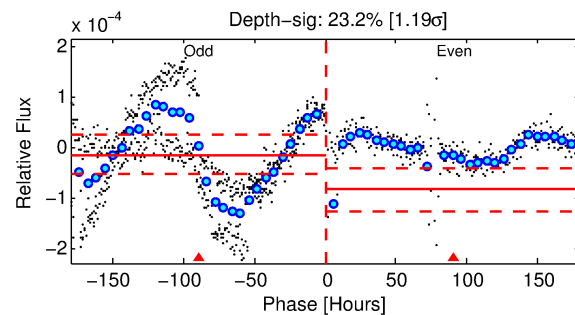
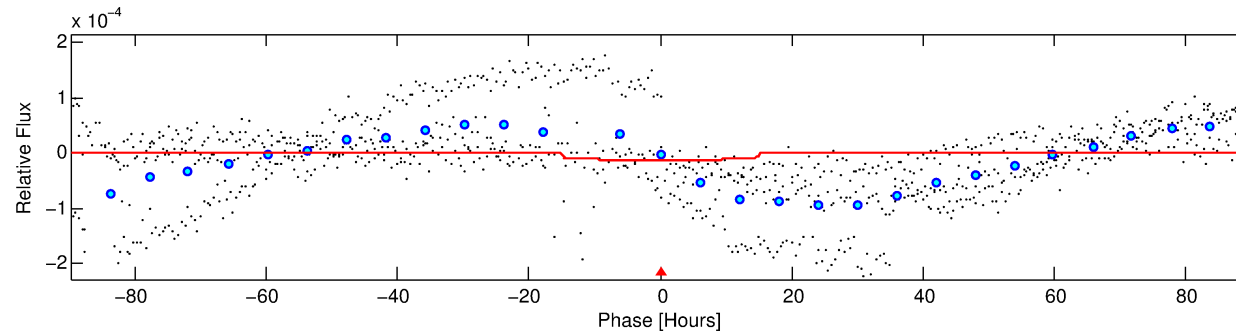
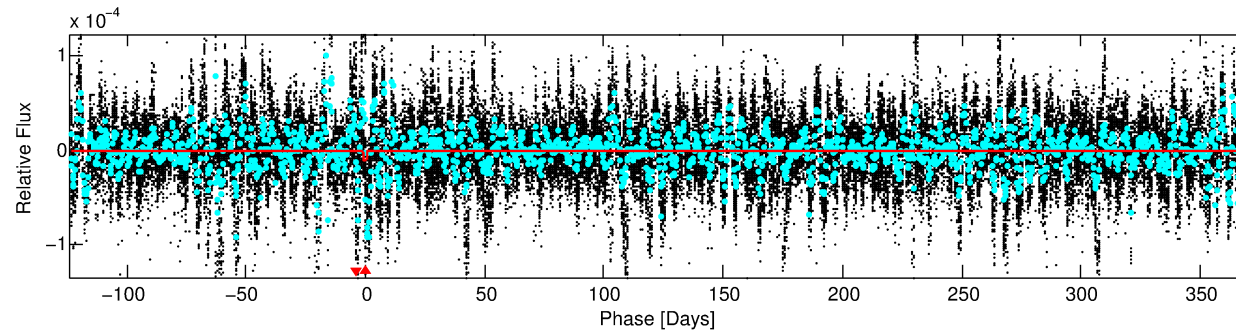
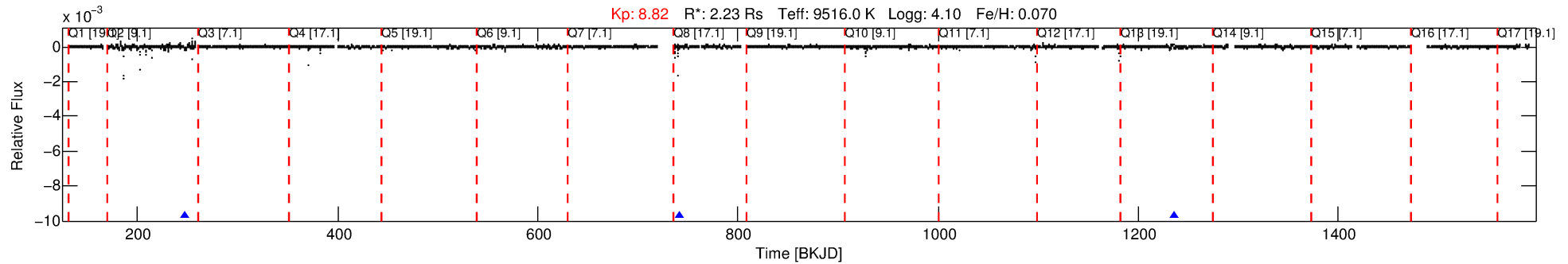
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007050270-01

No Significant Match Found

DV One-Page Summary

KIC: 7050270 Candidate: 1 of 1 Period: 494.188 d



DV Fit Results:

Period = 494.18776 [0.05640] d
Epoch = 246.8752 [0.0828] BKJD
Rp/R* = 0.0033 [0.0030]
a/R* = 116.67 [398.71]
b = 0.38 [7.58]
Seff = 14.04 [6.09]
Teq = 494 [54] K
Rp = 0.79 [0.79] Re
a = 1.6152 [0.4682] AU
Ag = N/A
Teffp = N/A

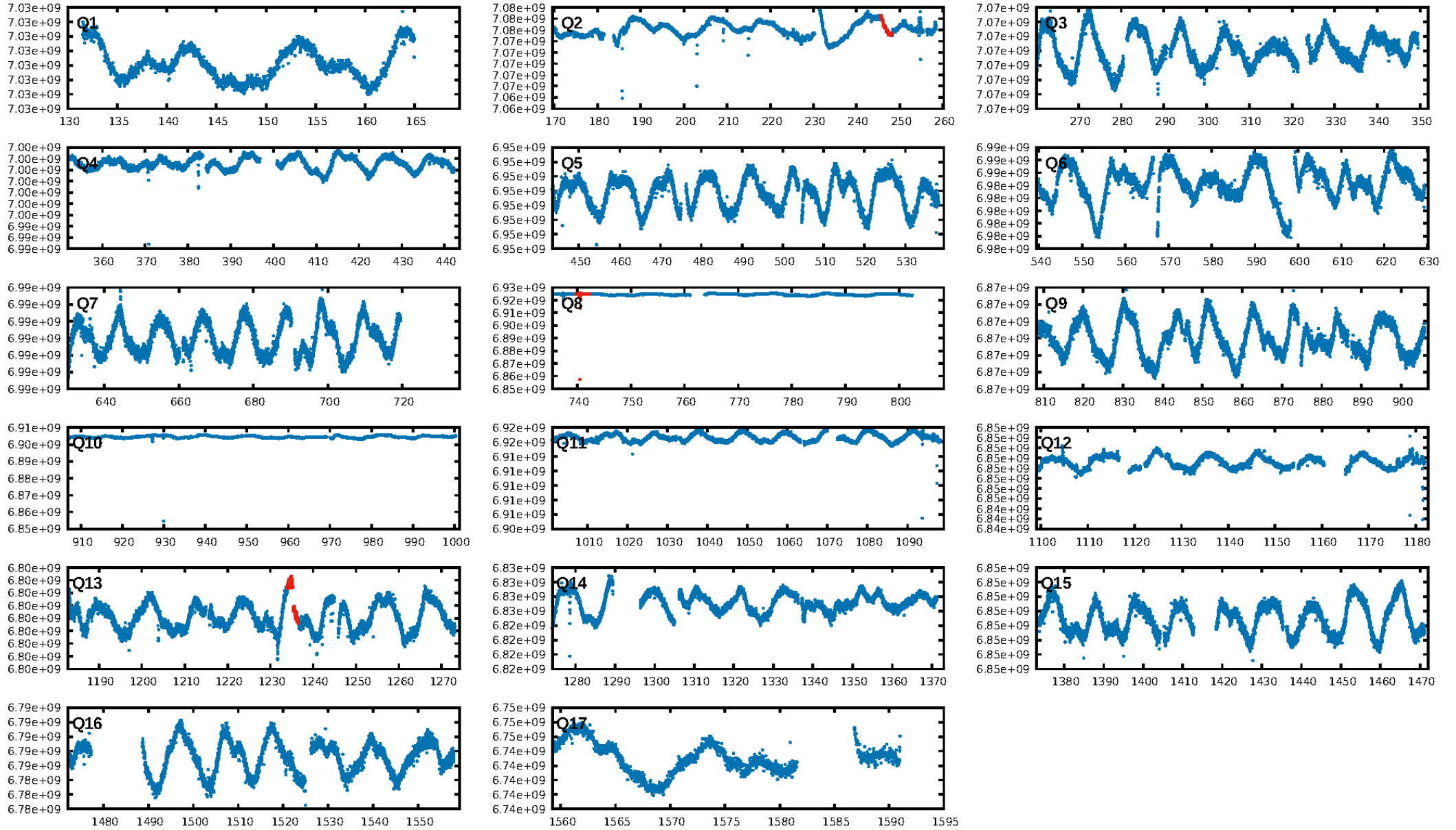
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.56e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.1%
Centroid-so: 136.071 arcsec [3.36 σ]
OotOffset-rm: 17.326 arcsec [5.59 σ]
KicOffset-rm: 18.628 arcsec [4.30 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

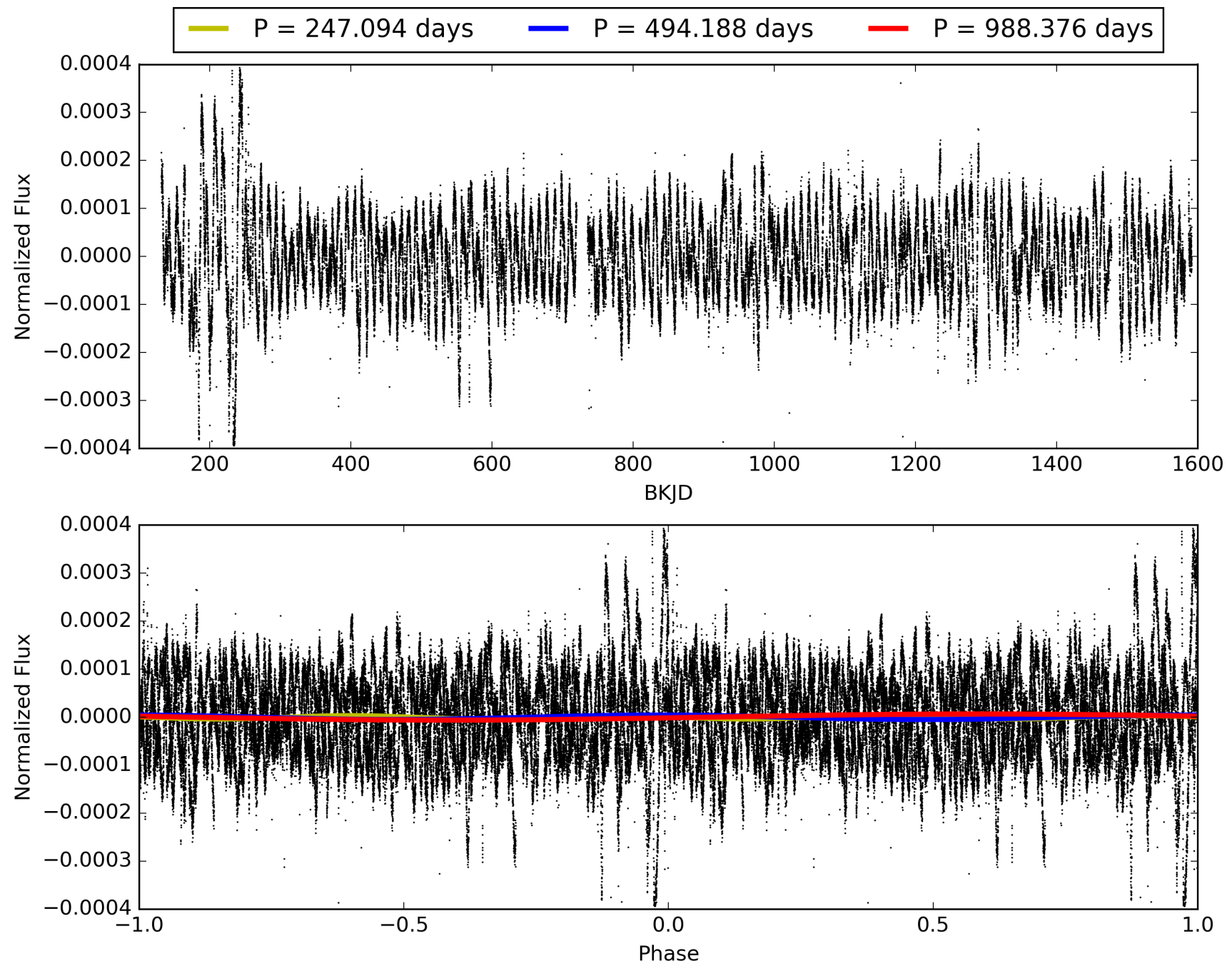
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:57:32 Z

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

TCE 007050270-01, PDC Light Curves

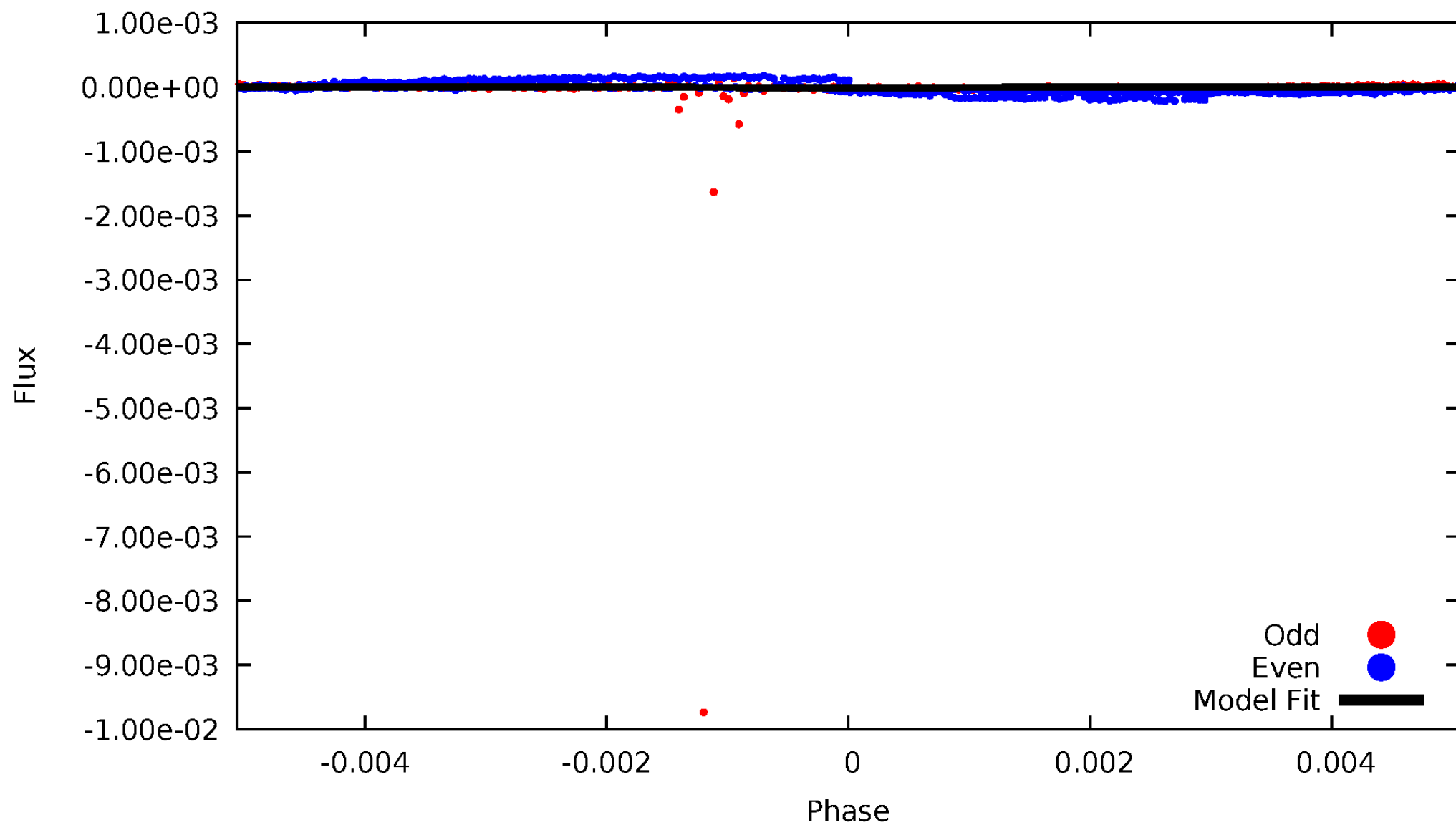


TCE 007050270-01



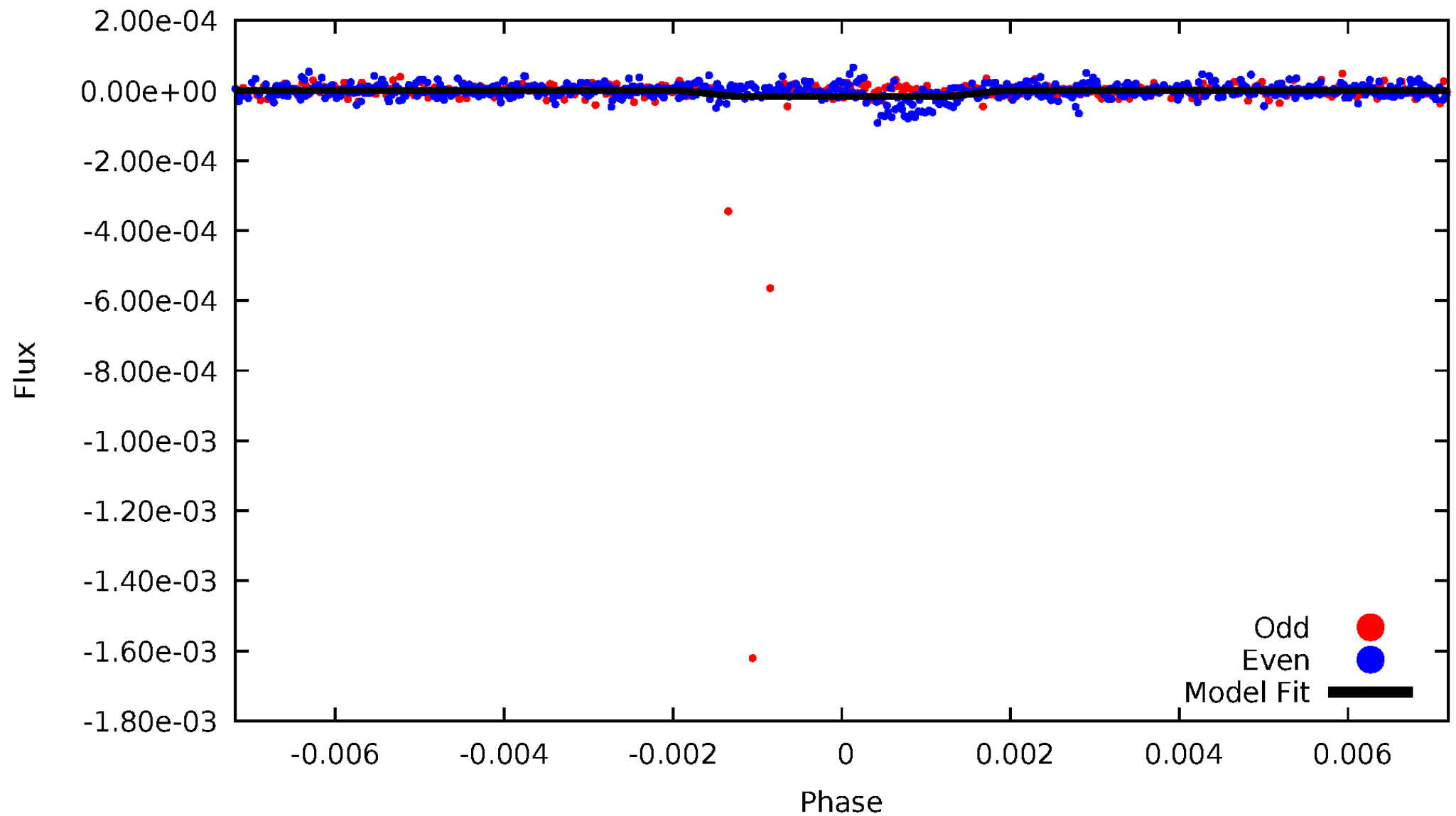
DV Odd/Even

TCE 007050270-01



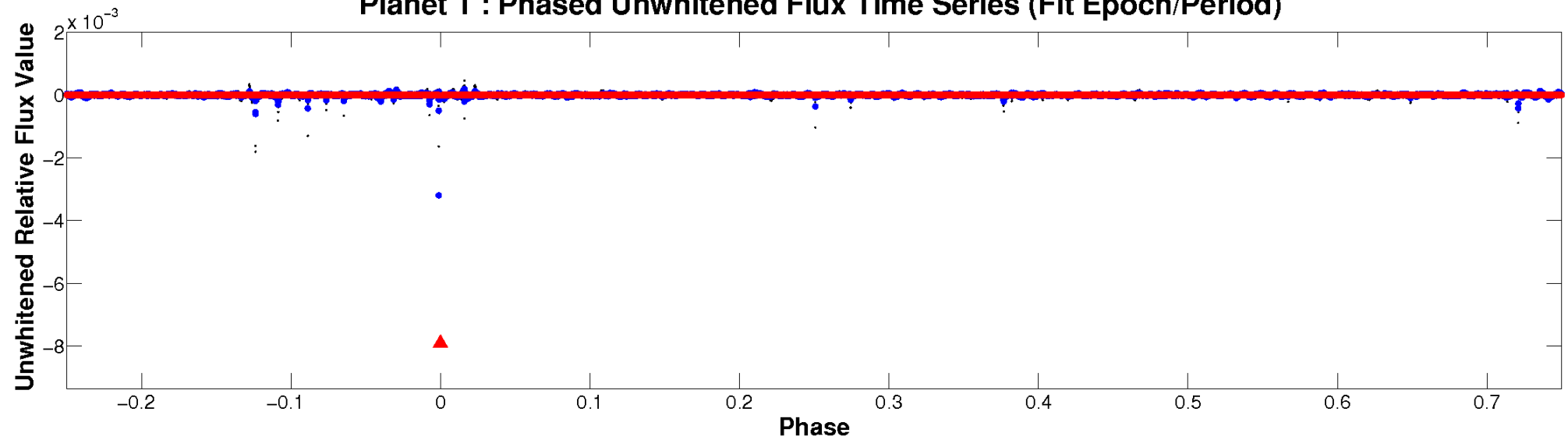
ALT Odd/Even

TCE 007050270-01

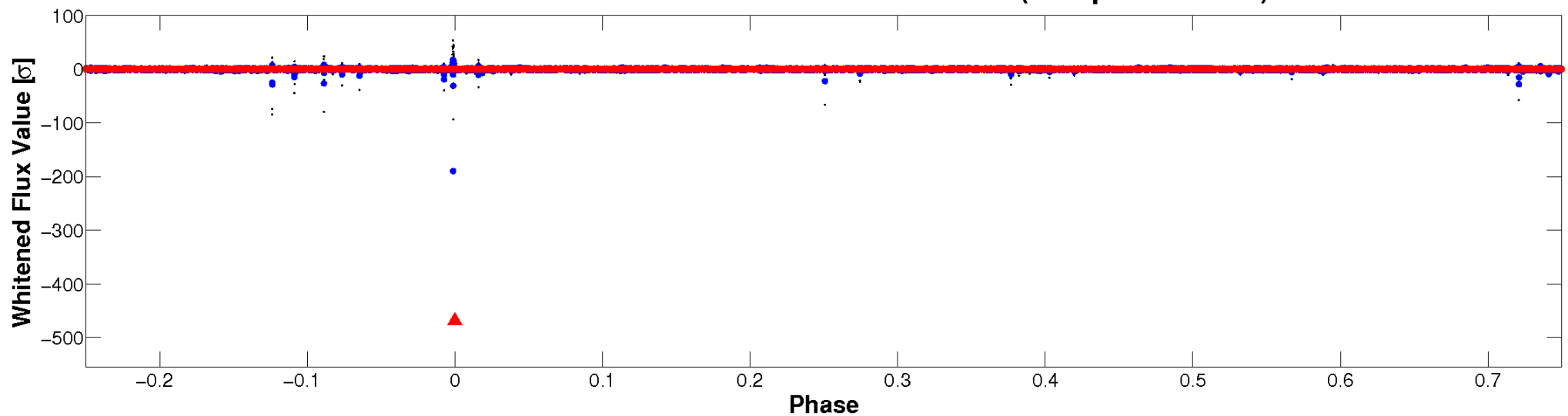


Non-Whitened Vs. Whitened Light Curve

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

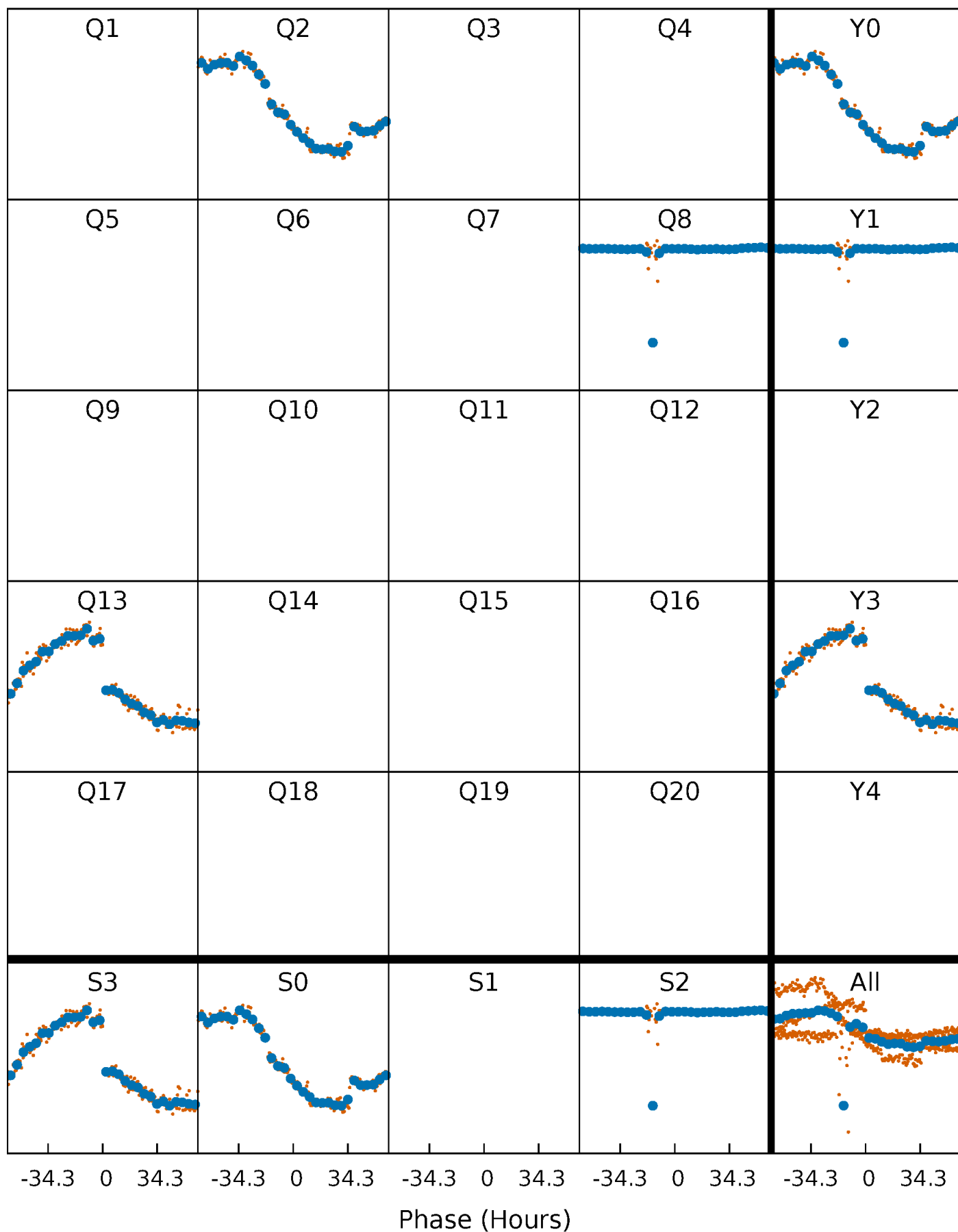


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007050270-01 P=494.187763 Days $T_0=246.875214$ (BKJD)



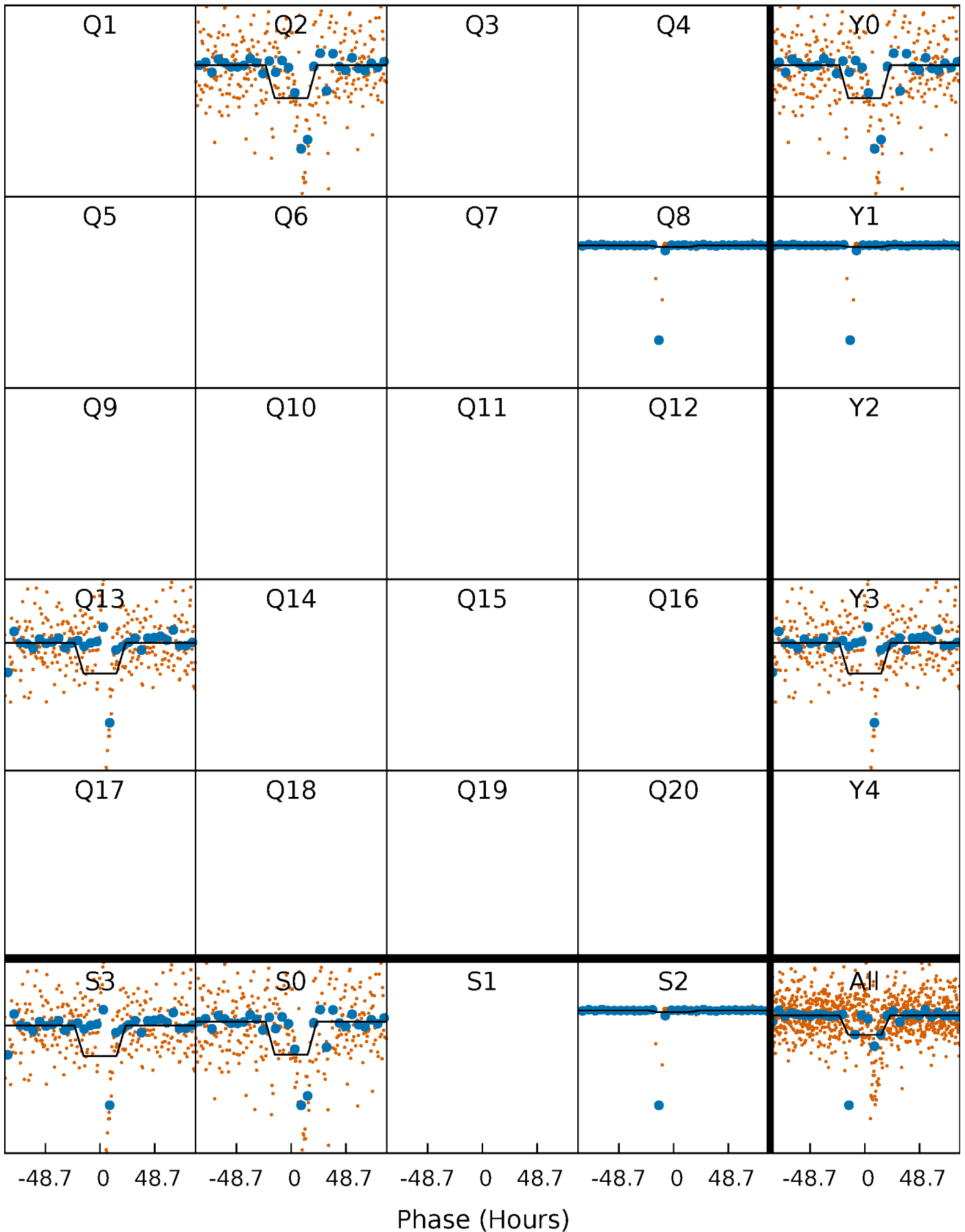
DV Quarter-Phased Transit Curves

TCE 007050270-01 P=494.187763 Days $T_0=246.875214$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

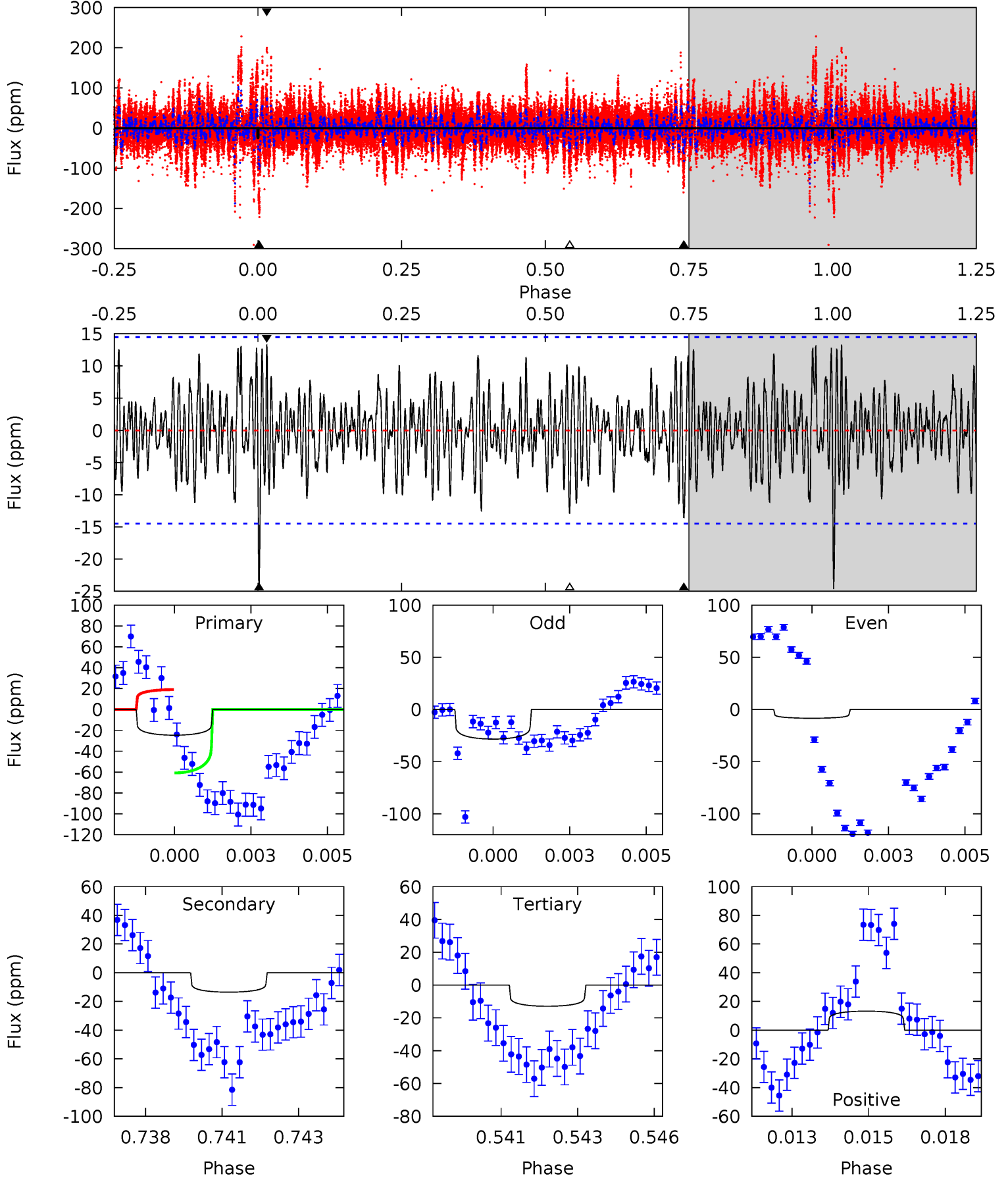
TCE 007050270-01 P=494.090292 Days $T_0=246.943808$ (BKJD)



DV Model-Shift Uniqueness Test

007050270-01, P = 494.187763 Days, E = 246.875214 Days

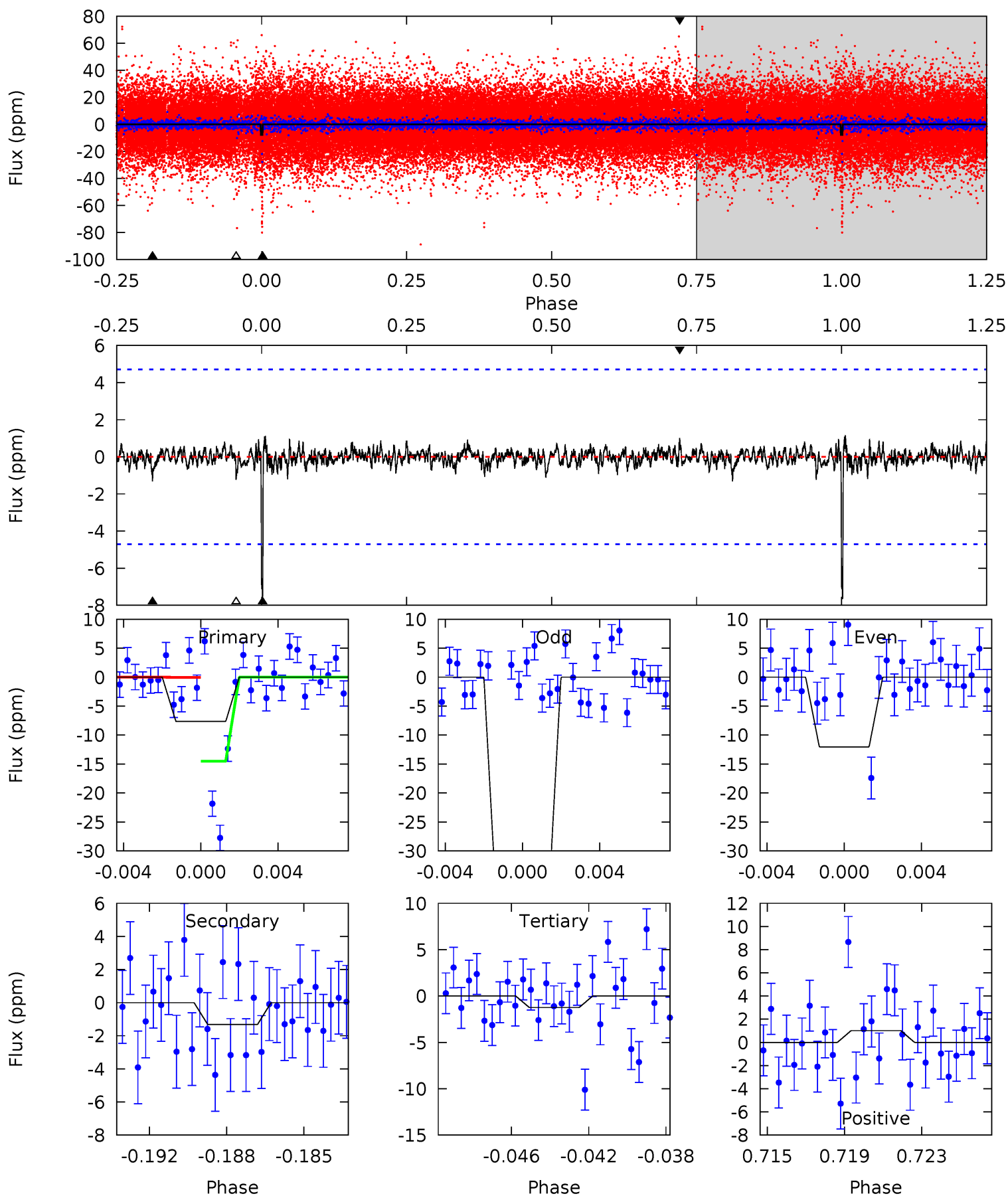
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.98	4.93	4.71	4.84	5.28	3.02	1.67	4.27	4.14	0.22	0.09	3.47	0.95	0.35	7.56



Alt Model-Shift Uniqueness Test

007050270-01, P = 494.090292 Days, E = 246.943808 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.47	1.46	1.37	1.12	5.21	2.89	0.35	7.10	7.35	0.09	0.34	15.8	1.35	0.13	8.03



Stellar Parameters For KIC 007050270

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9516^{+302}_{-416}	$4.102^{+0.167}_{-0.204}$	$0.070^{+0.150}_{-0.600}$	$2.233^{+0.817}_{-0.594}$	$2.303^{+0.418}_{-0.627}$	$0.291^{+0.294}_{-0.170}$
	+3%/-4%	+4%/-5%	+214%/-857%	+37%/-27%	+18%/-27%	+101%/-58%
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 007050270-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-14 ± 3	$0.96^{+0.67}_{-0.61}$	693^{+65}_{-54}	9238^{+14764}_{-2584}	$21406^{+147166}_{-14652}$
Alt.	-1 ± 1	$1.10^{+0.70}_{-0.62}$	689^{+59}_{-50}	4563^{+2151}_{-1104}	1406^{+5775}_{-1134}

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

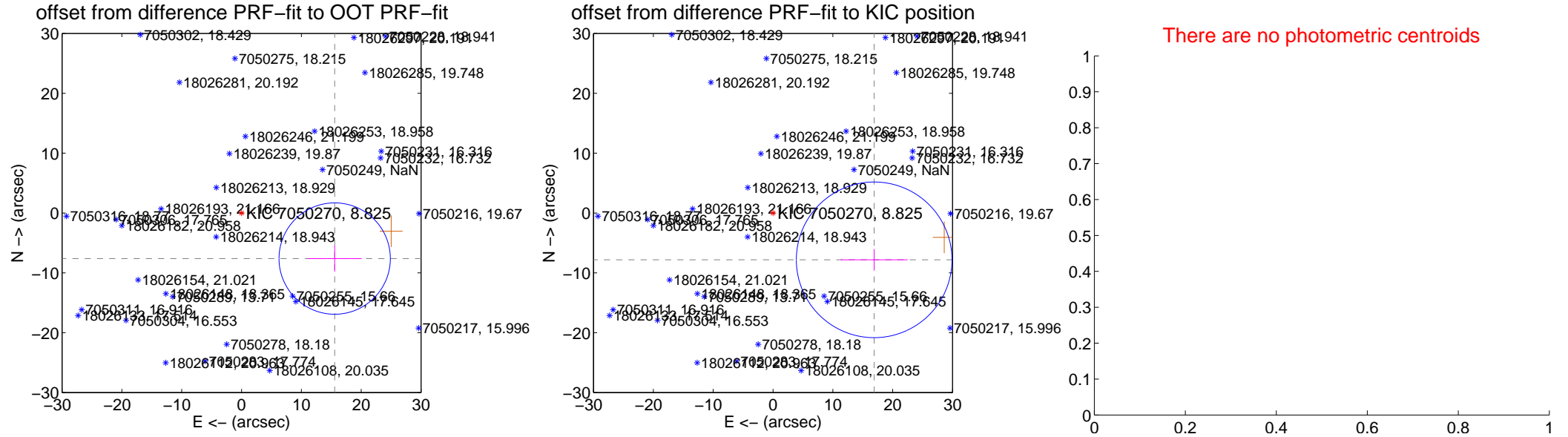
DV Centroid Data

Supplemental centroid analysis for 007050270-01. **Kepler magnitude: 8.82.** Transit SNR 1.70

There are 0 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 3.76 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	17.326 ± 3.101	5.59	-15.565 ± 4.521	-7.611 ± 2.188
PRF-fit source offset from KIC position	18.628 ± 4.335	4.30	-16.905 ± 5.608	-7.823 ± 1.799
photometric centroid source offset	—	—	—	—

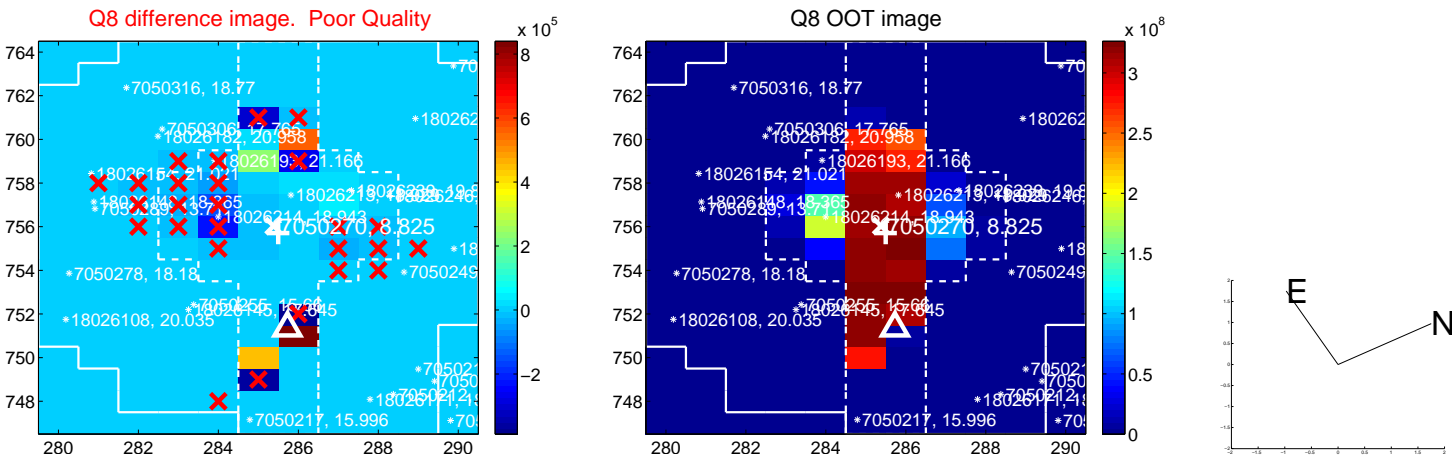
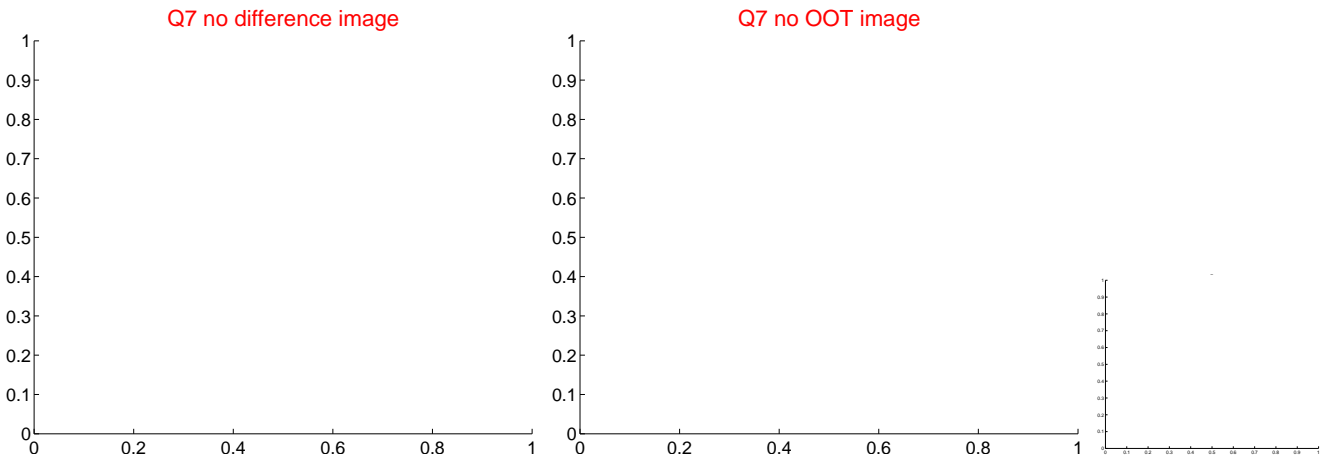
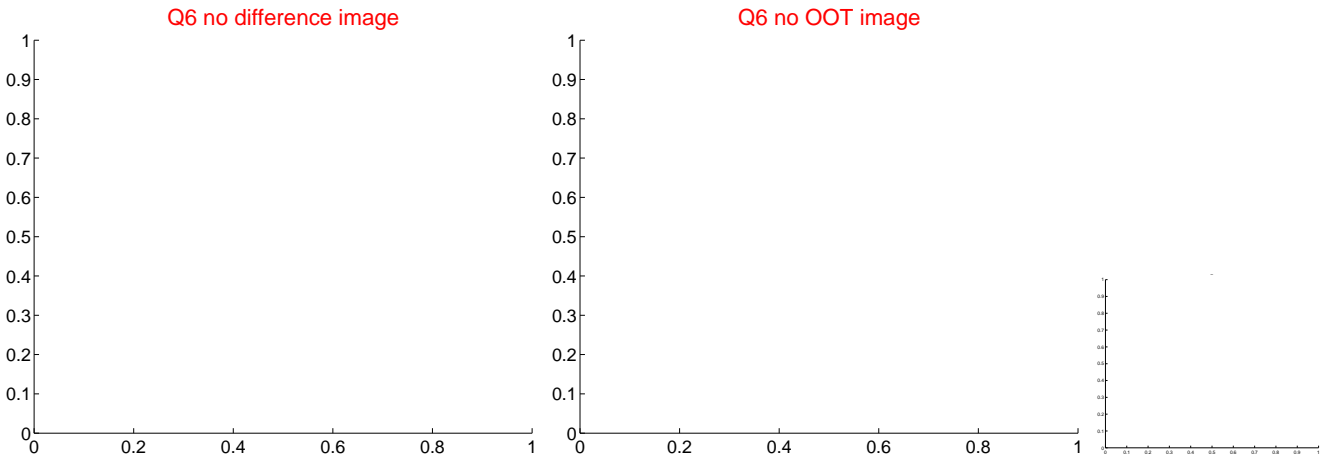
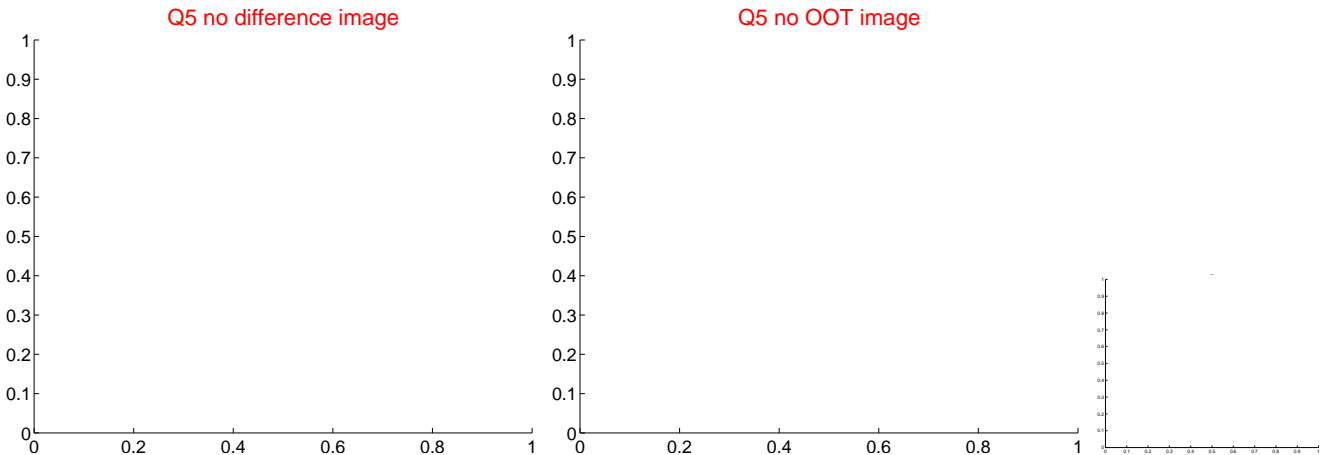


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



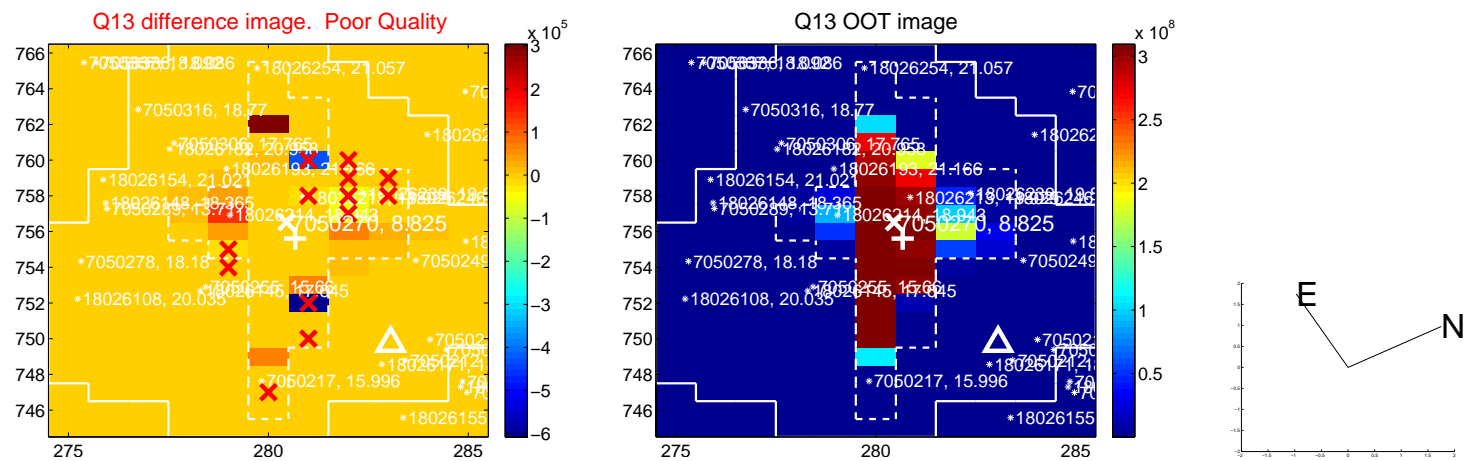
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



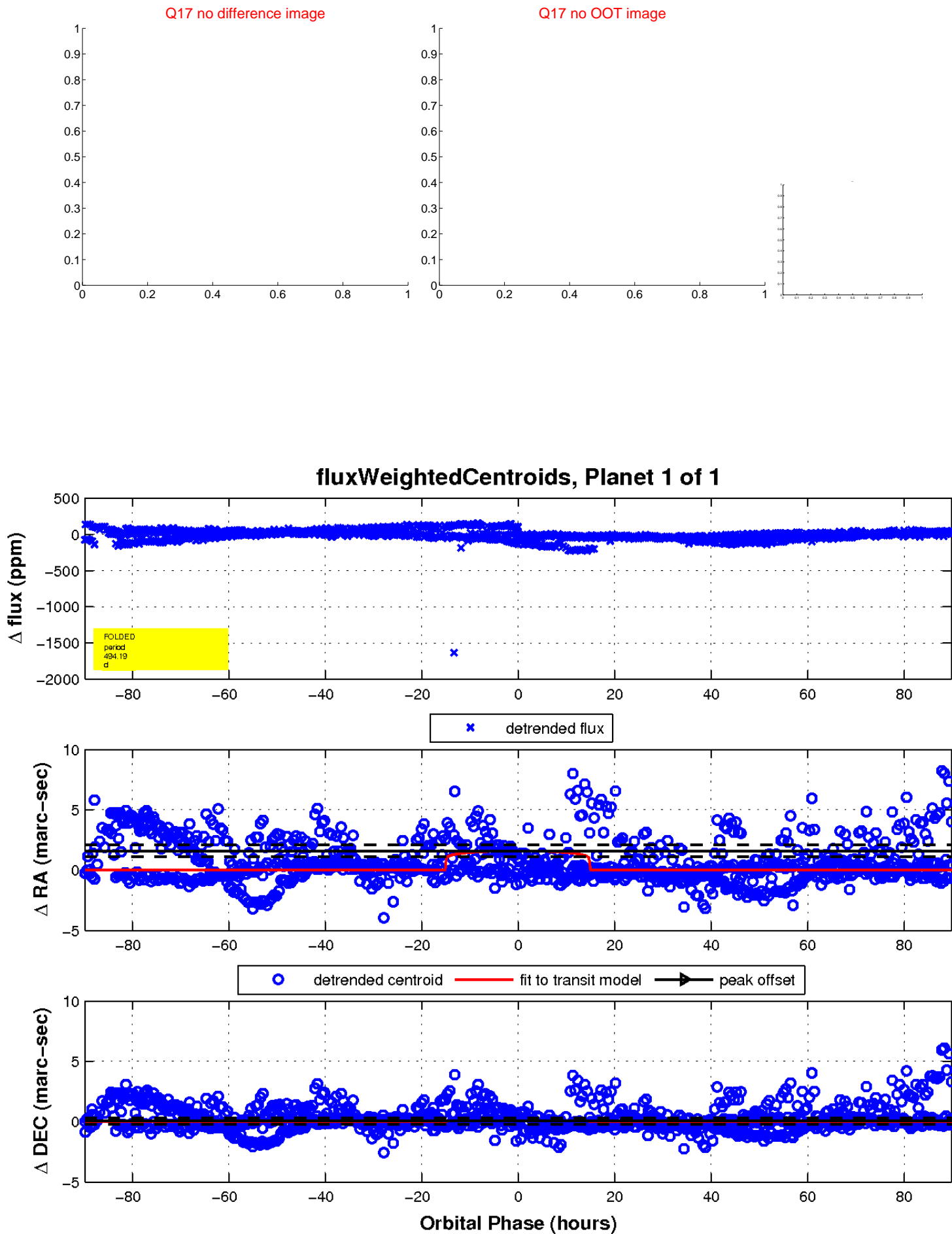
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

