

KIC 010187563

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})
010187563-01	OBS	4843.01	373.624878	246.560362	503.3	7.835	7.3	7.1	1.04	6184	2.46	1.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010187563-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

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

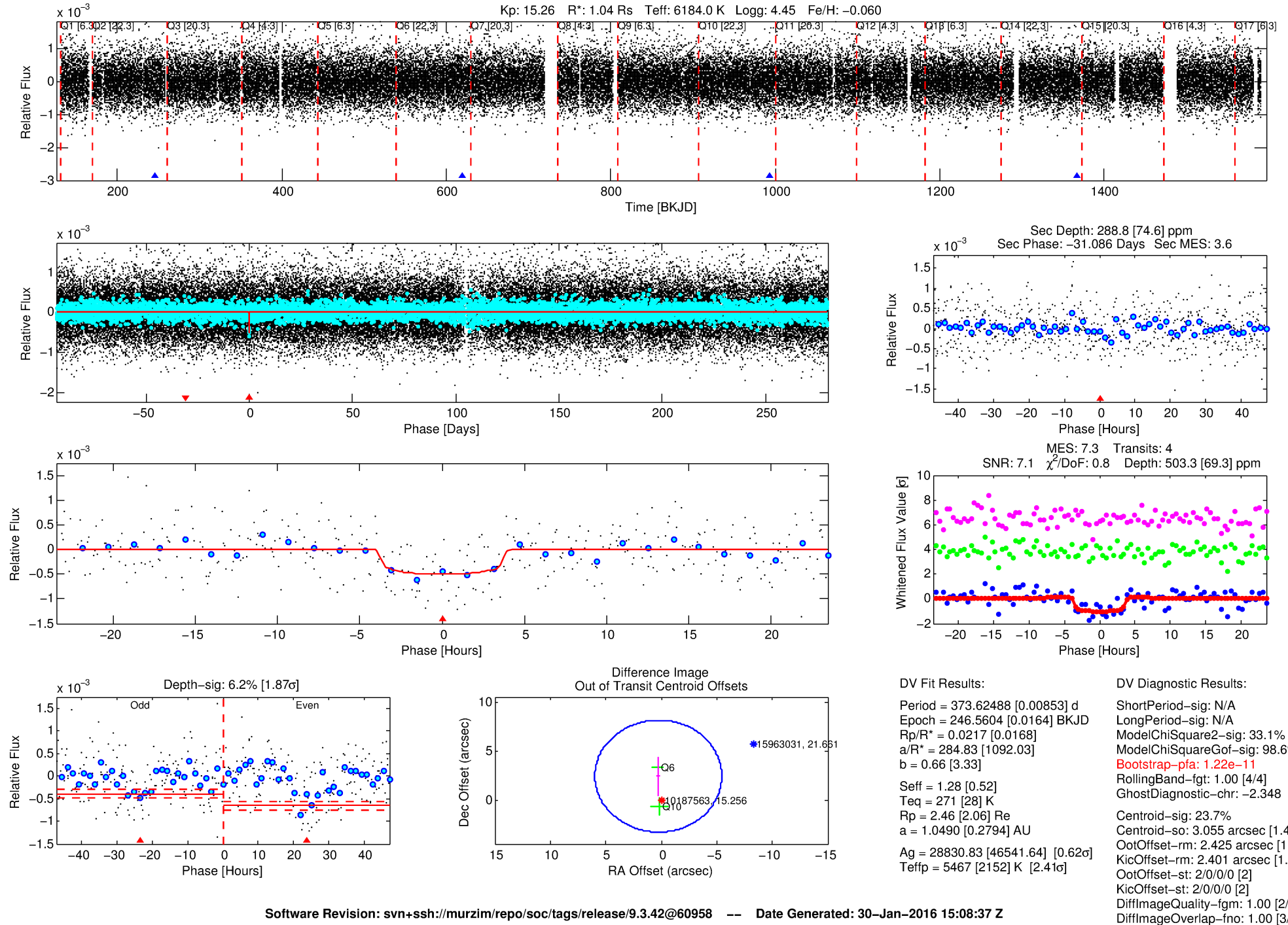
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010187563-01

No Significant Match Found

DV One-Page Summary

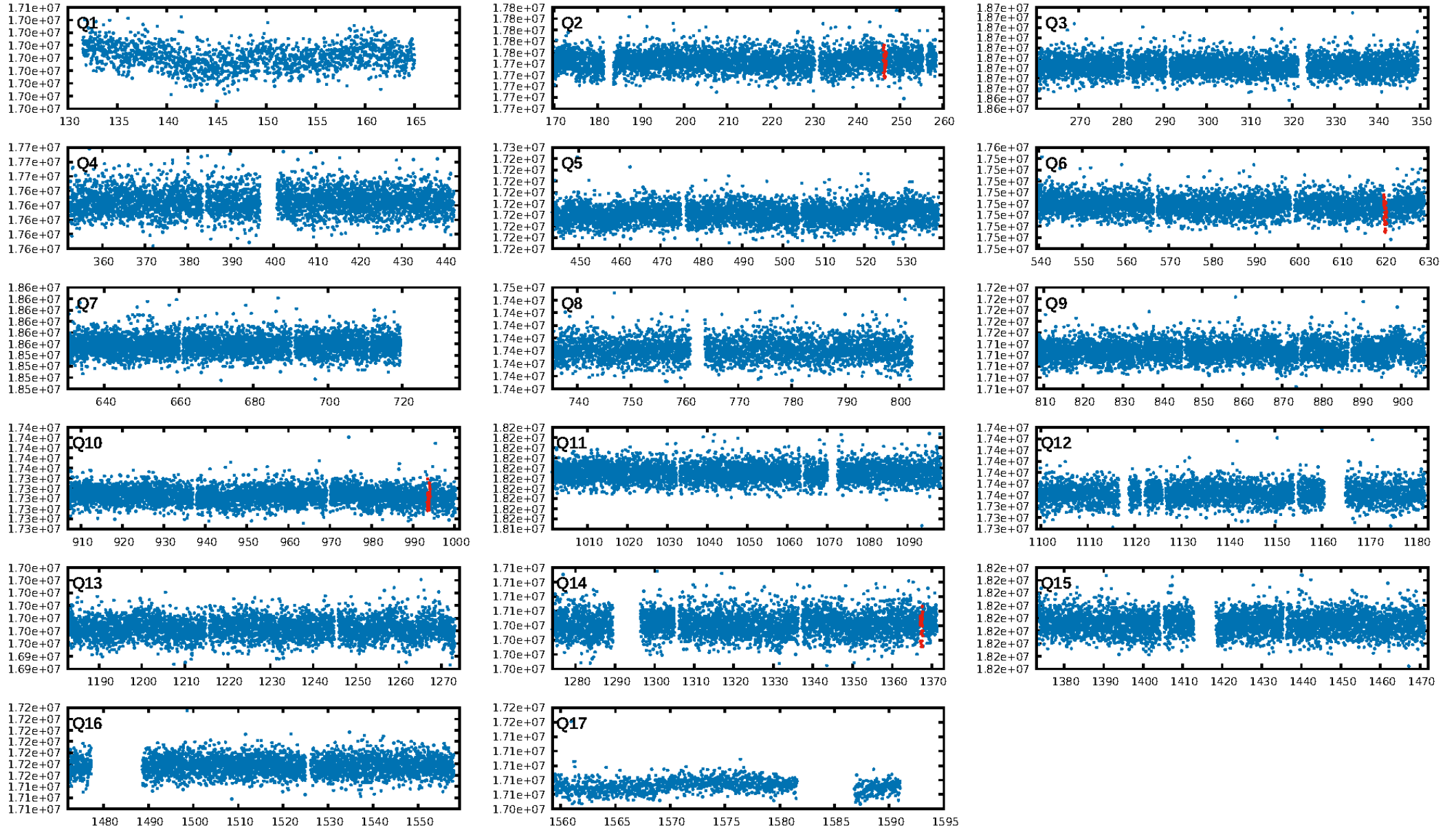
KIC: 10187563 Candidate: 1 of 1 Period: 373.625 d
KOI: K04843.01 Corr: 0.879



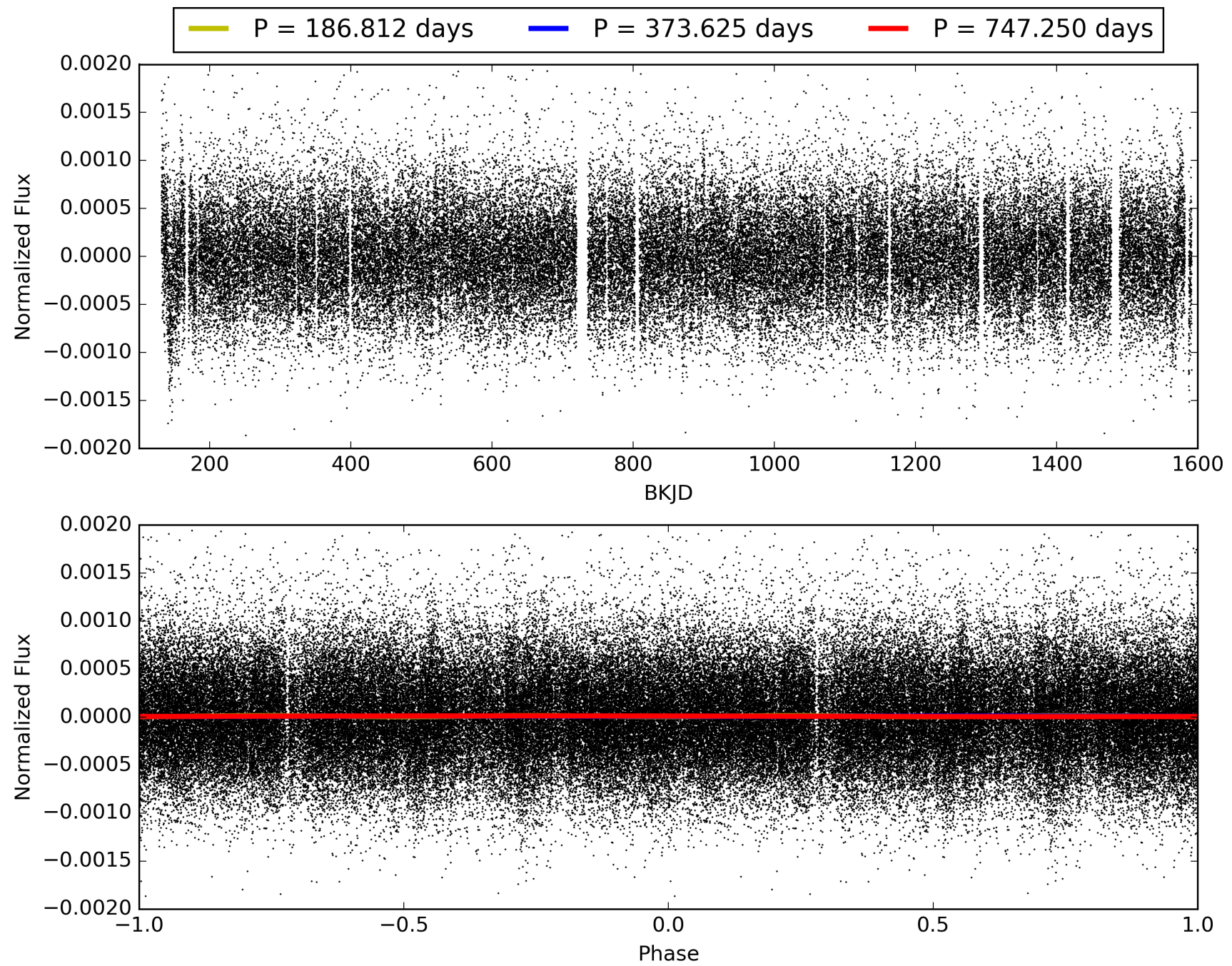
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:08:37 Z

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

TCE 010187563-01, PDC Light Curves

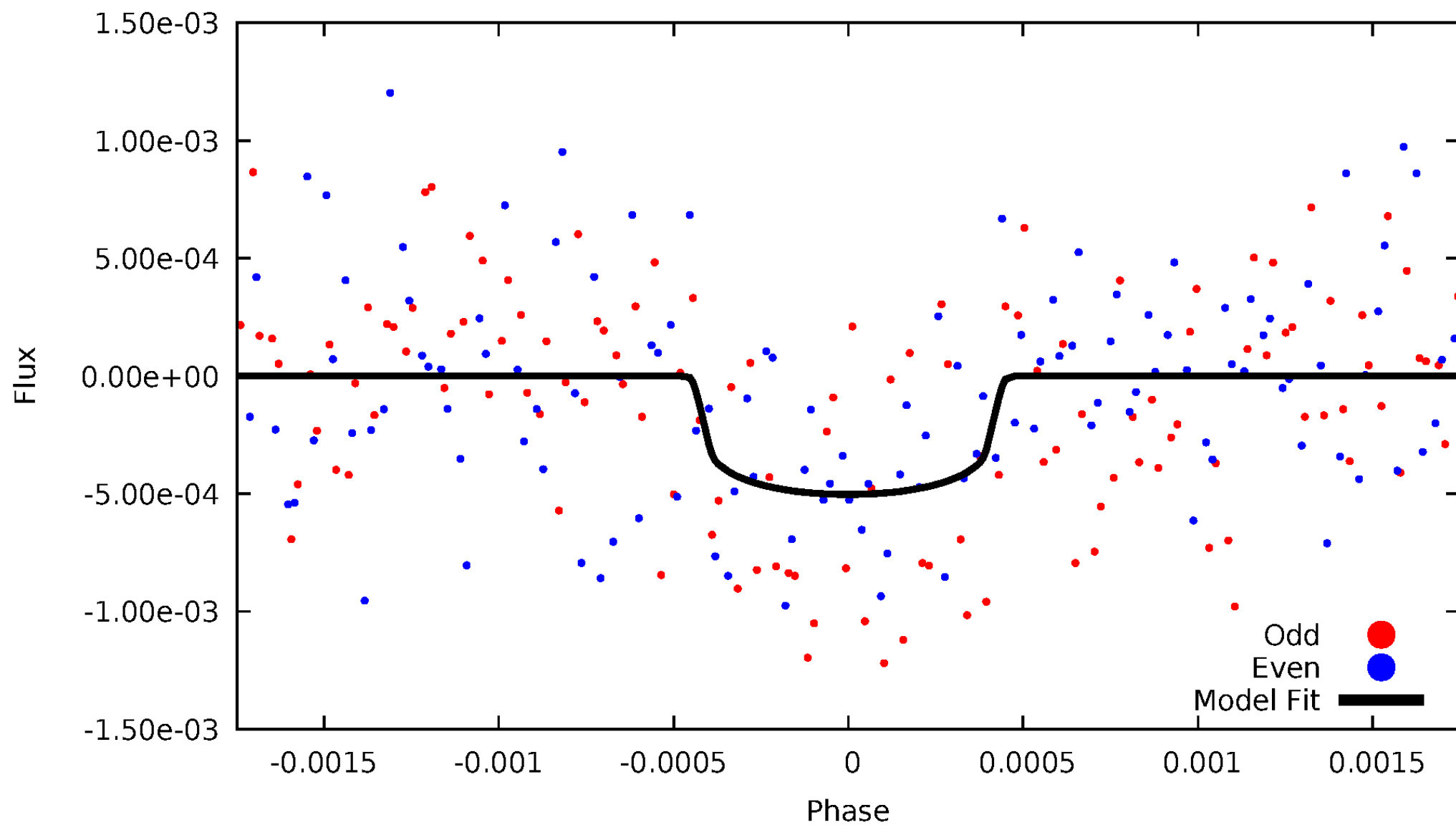


TCE 010187563-01



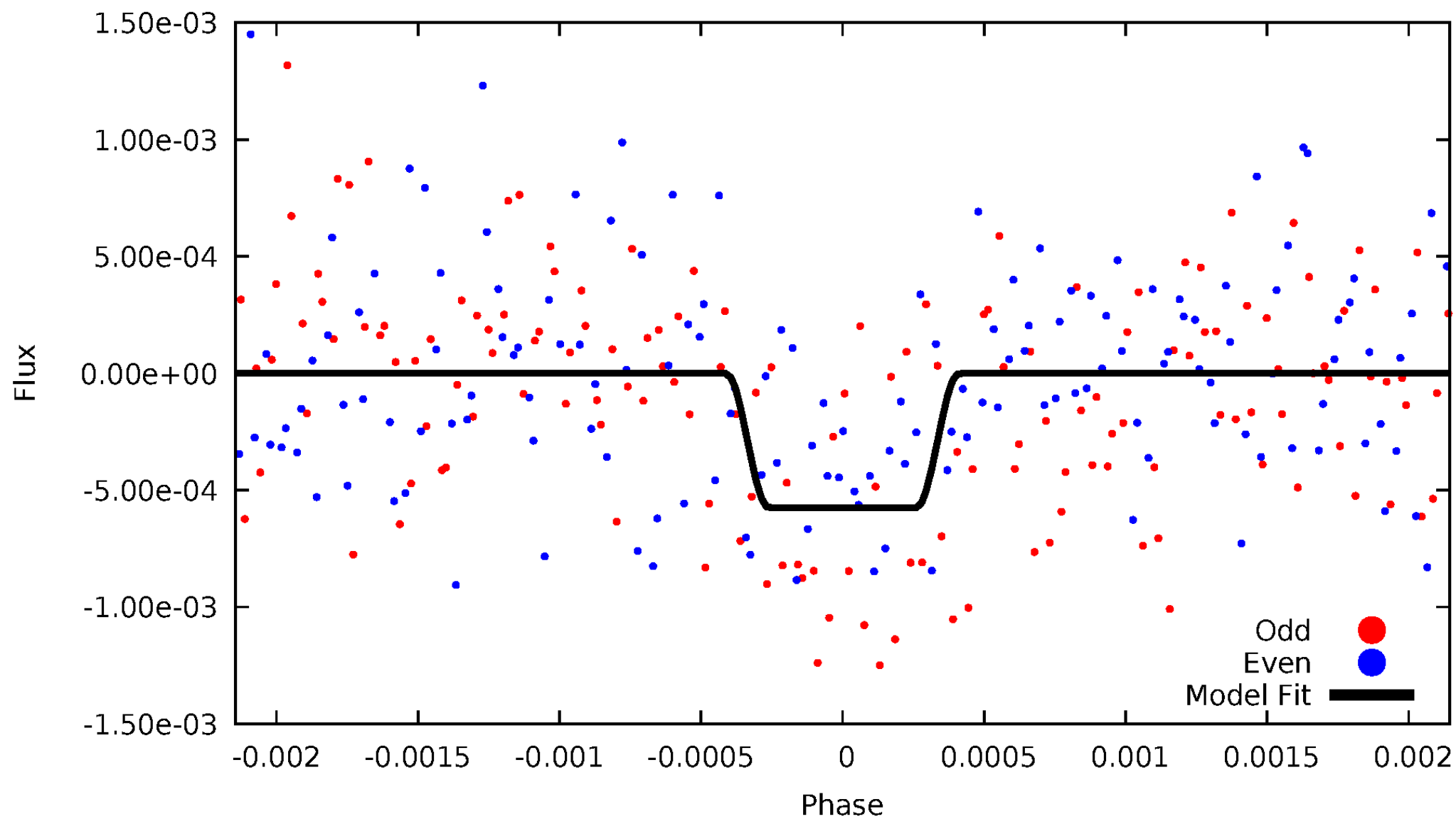
DV Odd/Even

TCE 010187563-01

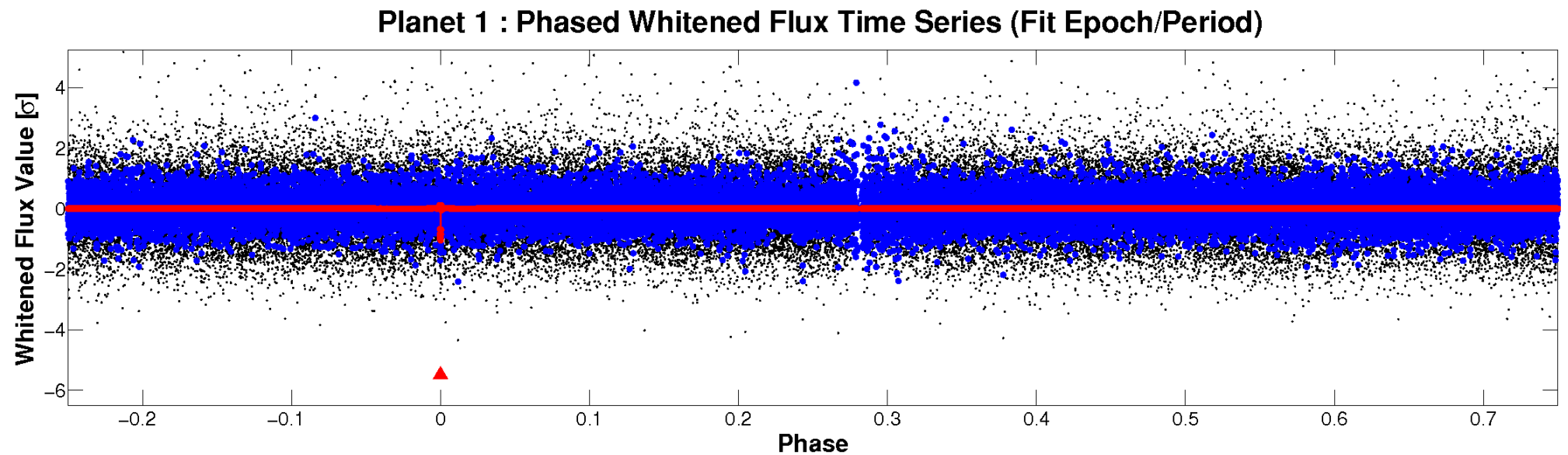
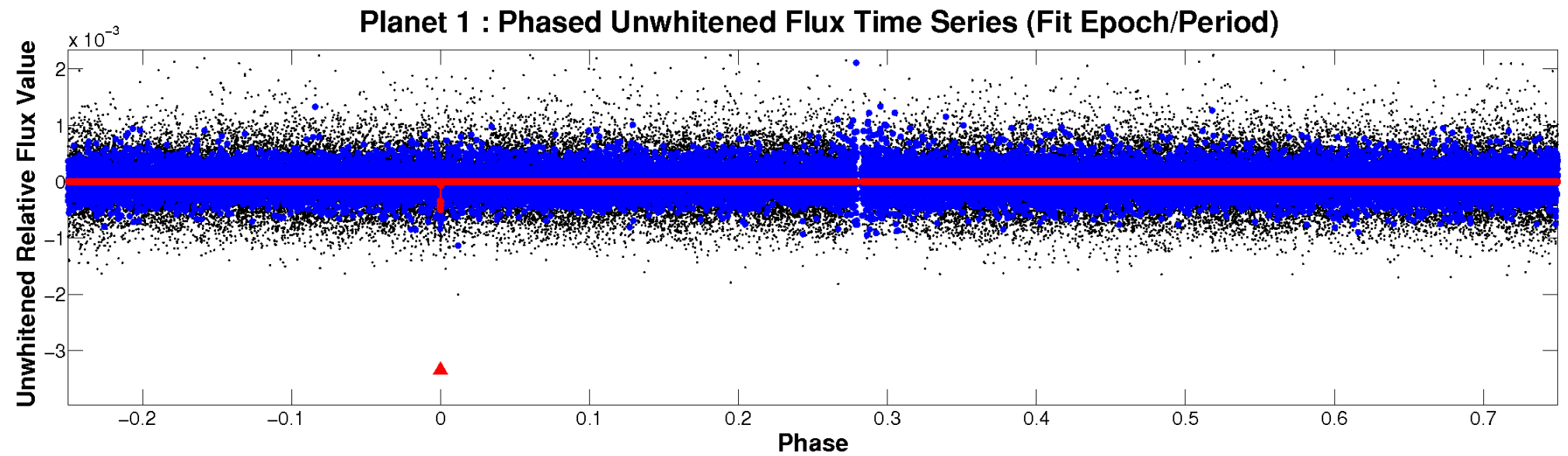


ALT Odd/Even

TCE 010187563-01

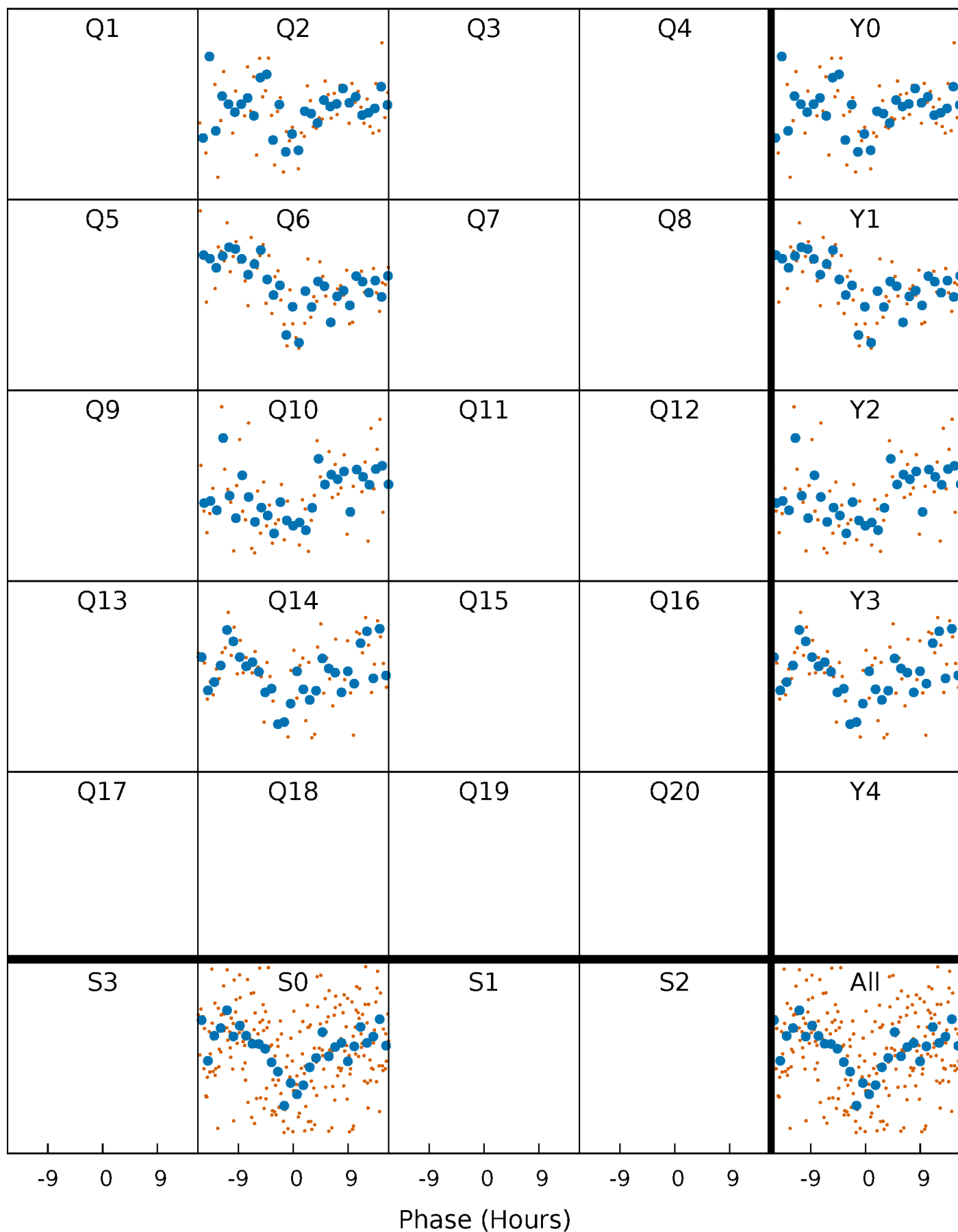


Non-Whitened Vs. Whitened Light Curve



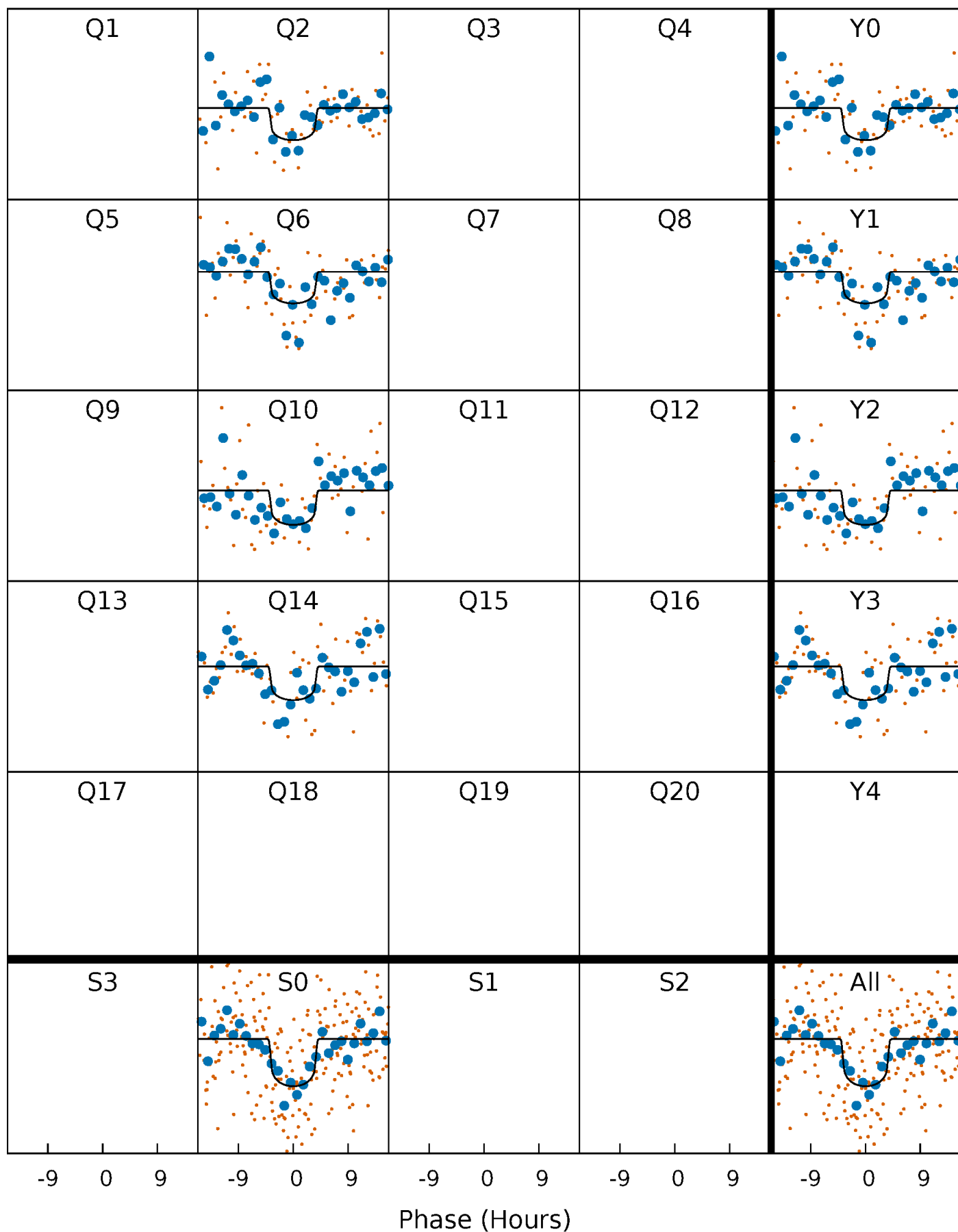
PDC Quarter-Phased Transit Curves

TCE 010187563-01 P=373.624878 Days $T_0=246.560362$ (BKJD)



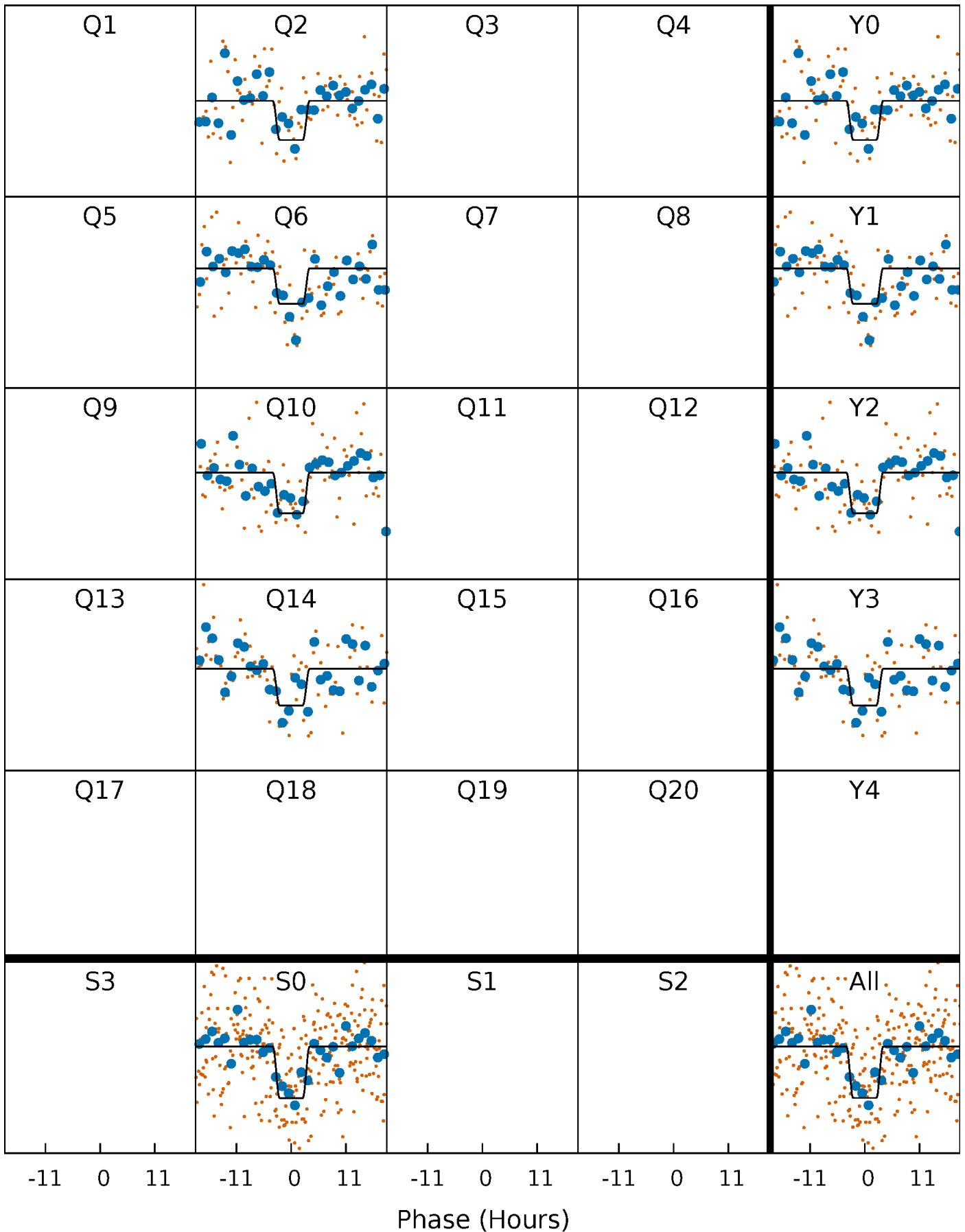
DV Quarter-Phased Transit Curves

TCE 010187563-01 P=373.624878 Days $T_0=246.560362$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

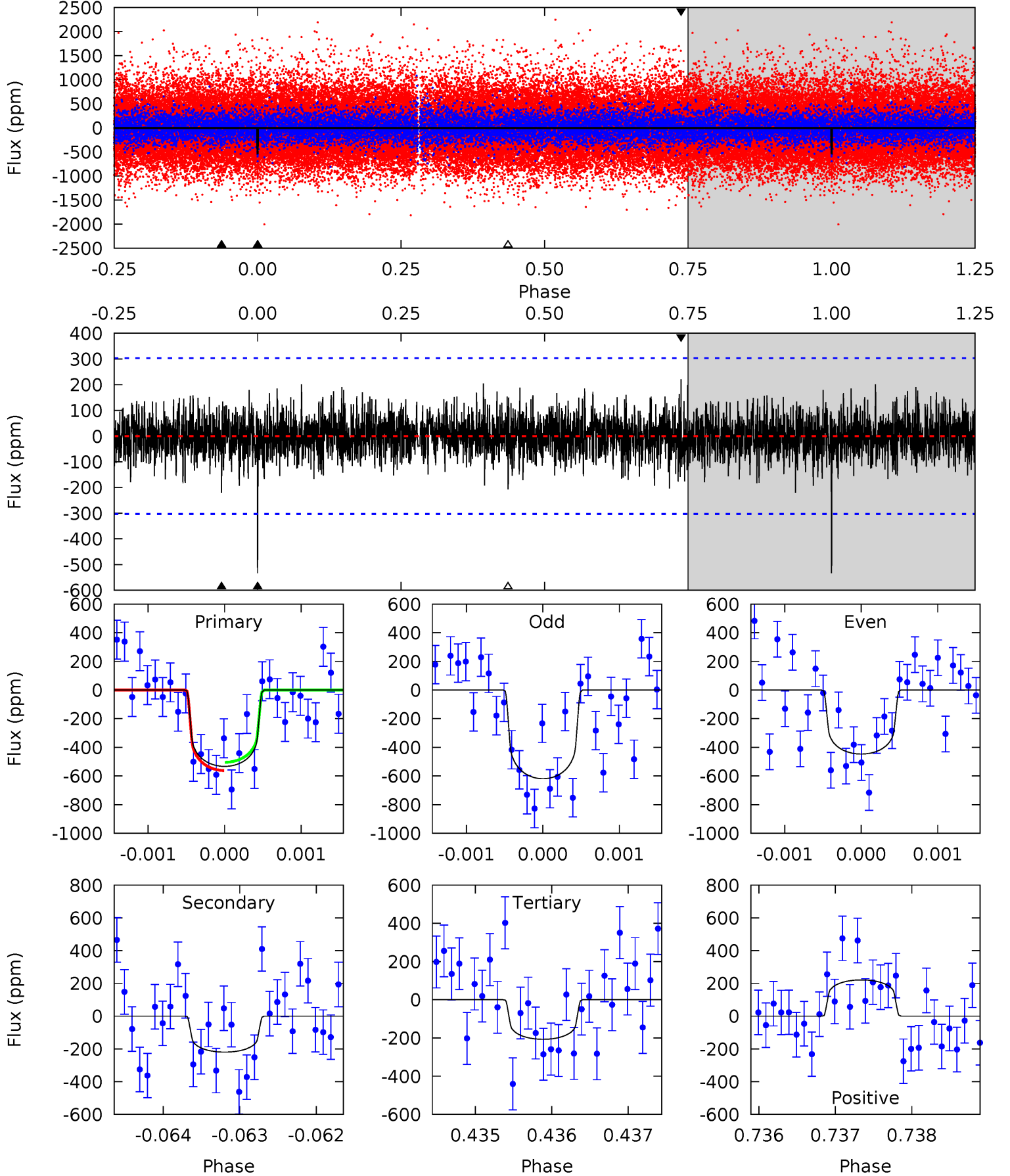
TCE 010187563-01 P=373.620833 Days $T_0=246.553673$ (BKJD)



DV Model-Shift Uniqueness Test

010187563-01, $P = 373.624878$ Days, $E = 246.560362$ Days

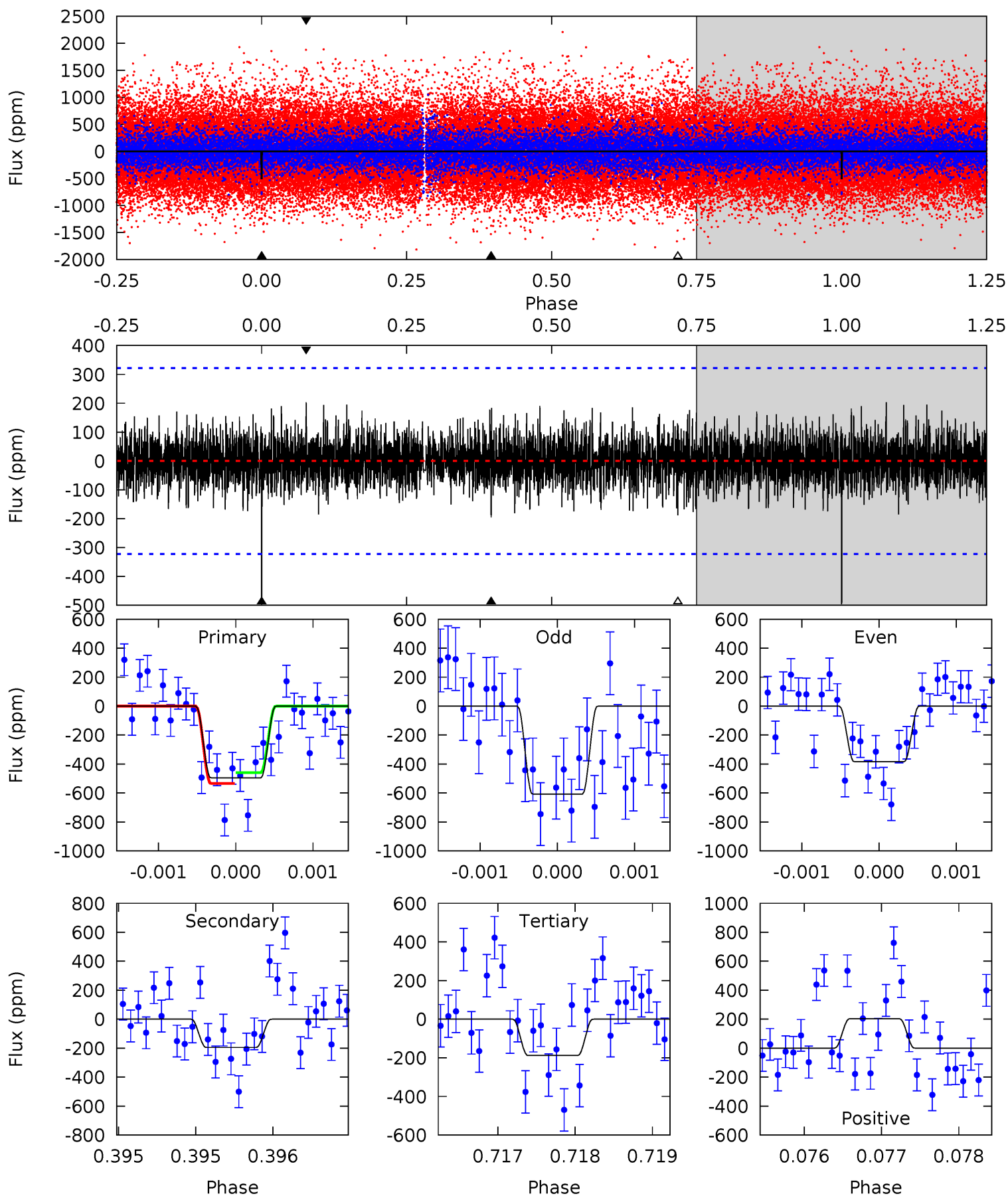
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.60	3.96	3.73	3.98	5.47	3.31	1.06	5.88	5.62	0.23	-0.02	1.57	1.05	0.29	0.52



Alt Model-Shift Uniqueness Test

010187563-01, $P = 373.620833$ Days, $E = 246.553673$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.45	3.33	3.20	3.46	5.49	3.35	0.97	5.25	4.99	0.13	-0.13	1.91	1.06	0.29	0.64



Stellar Parameters For KIC 010187563

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6184^{+172}_{-216}	$4.448^{+0.052}_{-0.208}$	$-0.060^{+0.250}_{-0.300}$	$1.038^{+0.332}_{-0.111}$	$1.100^{+0.155}_{-0.141}$	$1.387^{+0.392}_{-0.732}$
	+3%/-3%	+1%/-5%	+417%/-500%	+32%/-11%	+14%/-13%	+28%/-53%
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 010187563-01 / KOI 4843.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-220 ± 56	$2.82^{+1.93}_{-1.69}$	387^{+27}_{-19}	4982^{+2857}_{-938}	16454^{+85055}_{-10841}
Alt.	-195 ± 59	$3.00^{+1.96}_{-1.72}$	387^{+27}_{-19}	4683^{+2424}_{-805}	12431^{+59939}_{-7934}

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

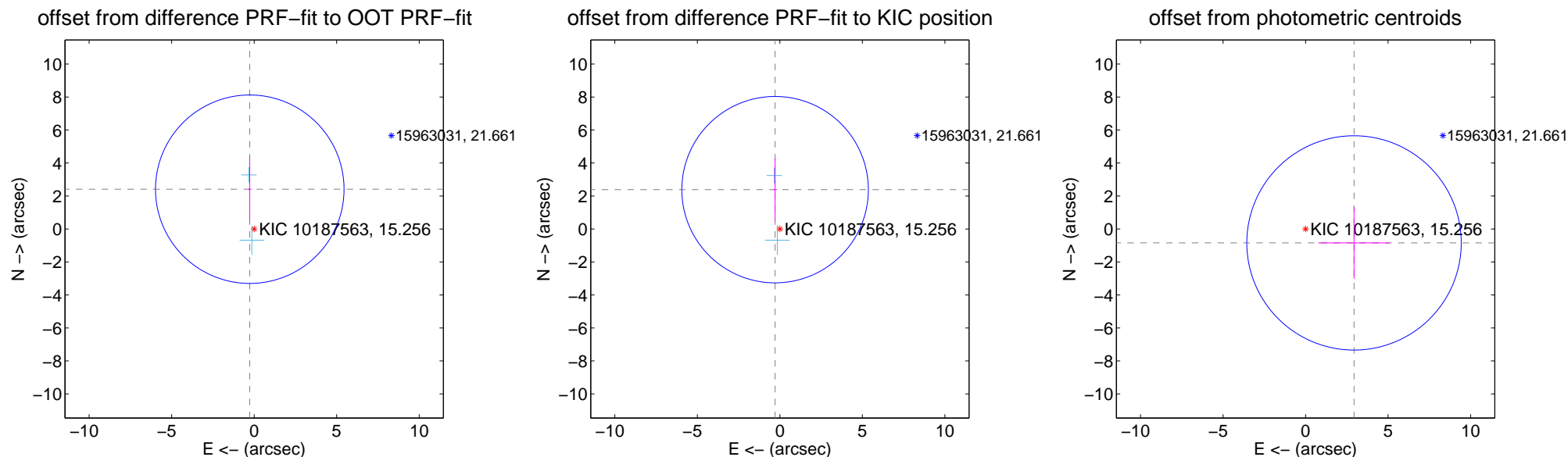
DV Centroid Data

Supplemental centroid analysis for 010187563-01. Kepler magnitude: 15.26. Transit SNR 7.11

There are 2 quarters with good PRF difference image offsets

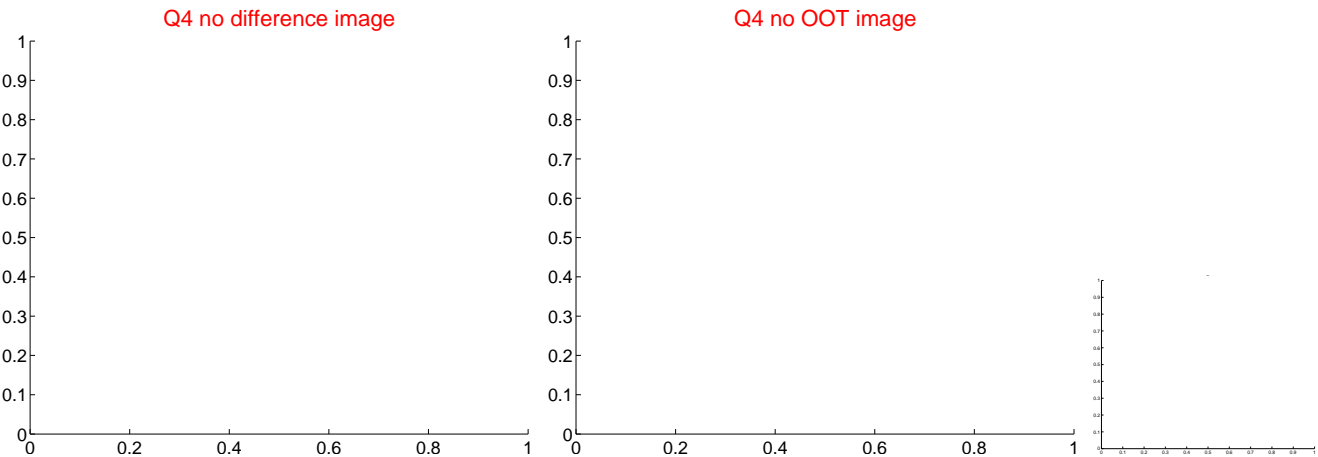
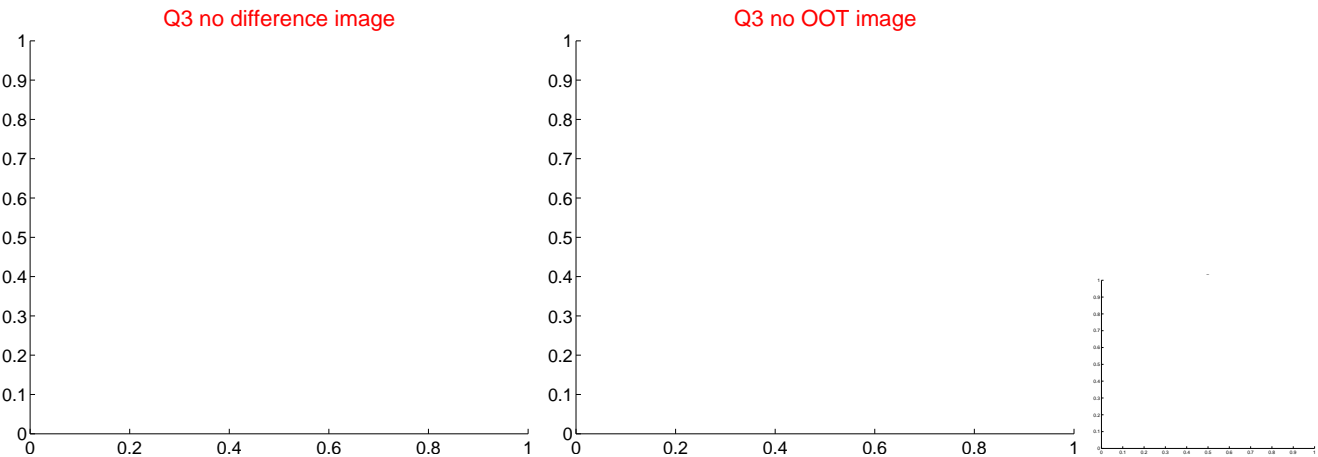
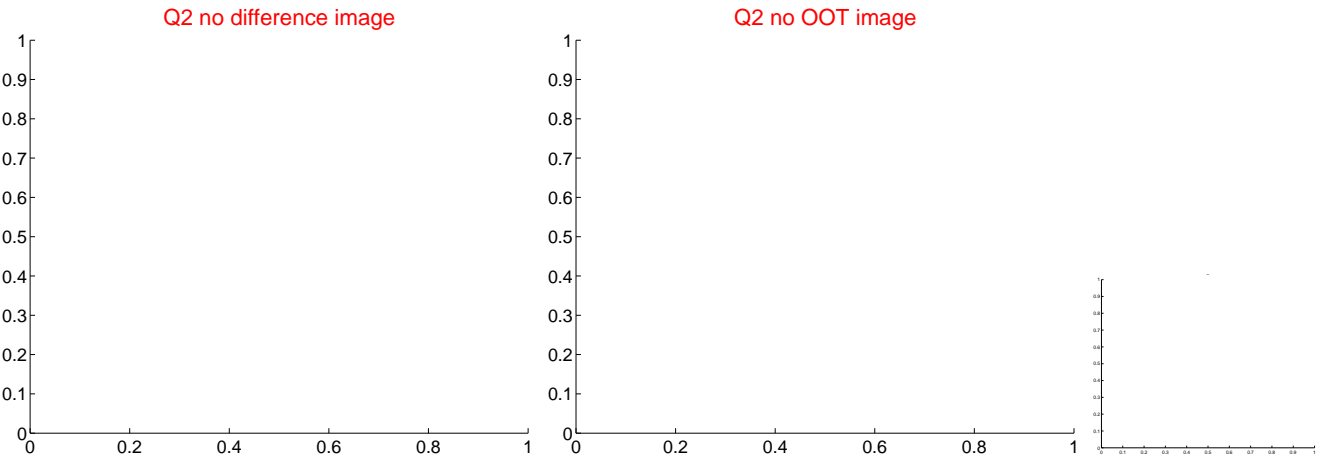
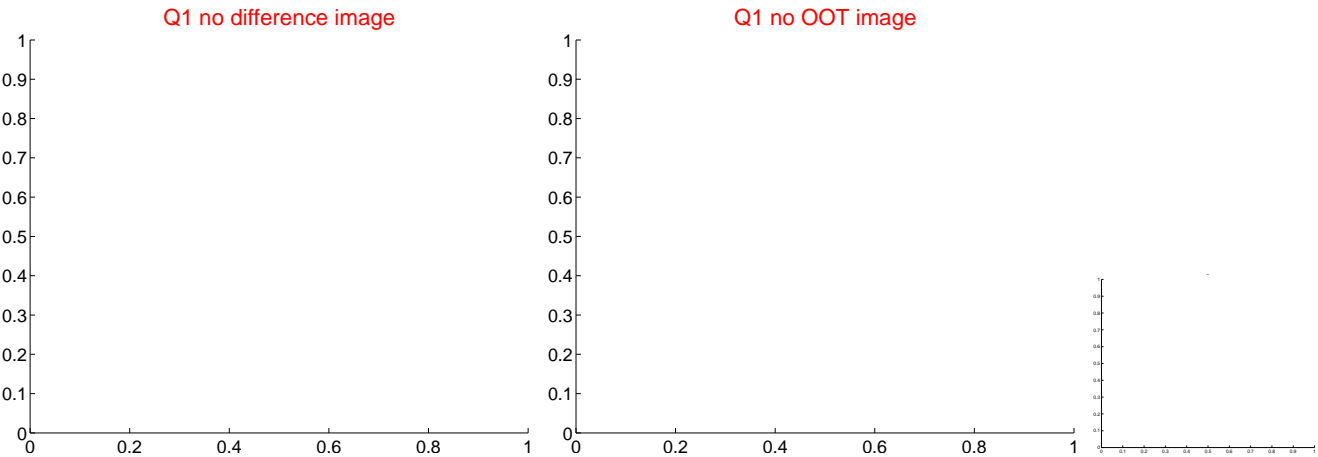
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.425 ± 1.904	1.27	0.266 ± 0.114	2.411 ± 1.916
PRF-fit source offset from KIC position	2.401 ± 1.884	1.27	0.290 ± 0.117	2.383 ± 1.897
photometric centroid source offset	3.06 ± 2.17	1.41	-2.94 ± 2.16	-0.84 ± 2.17



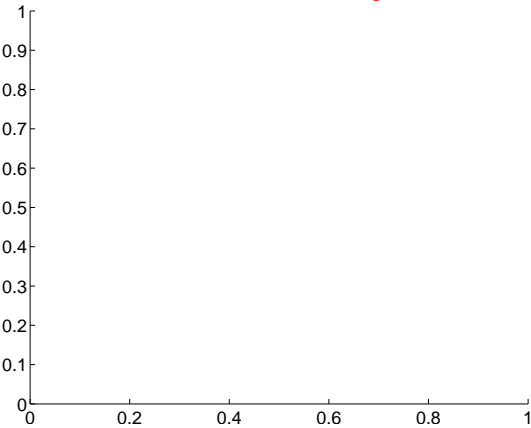
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

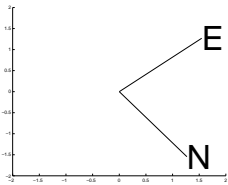
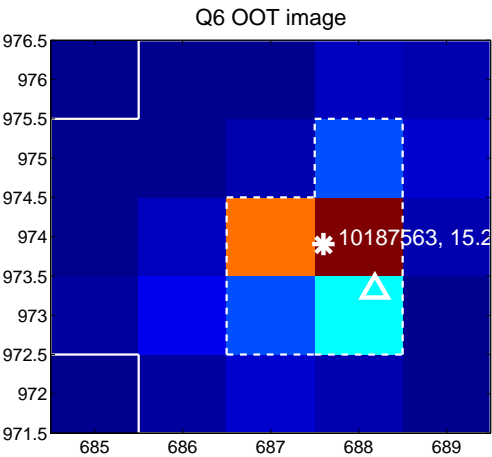
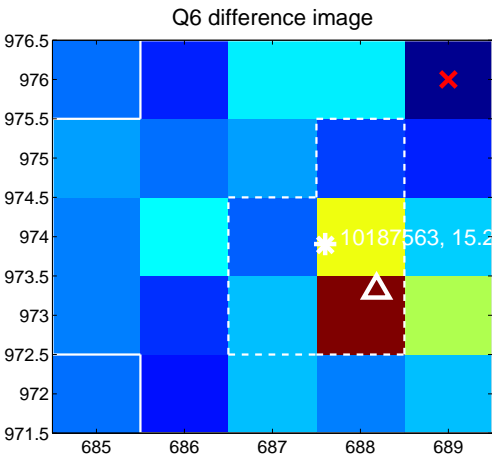
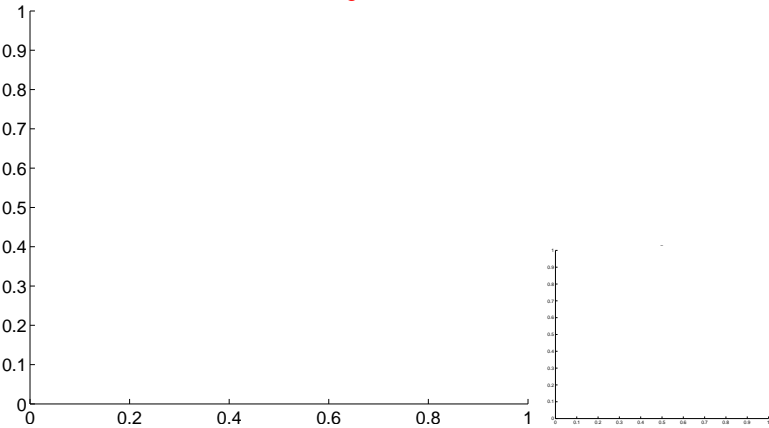


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

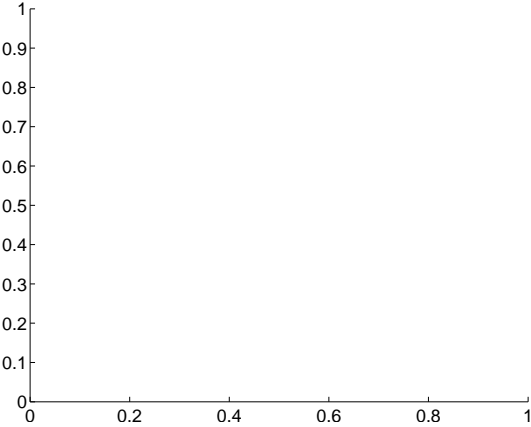
Q5 no difference image



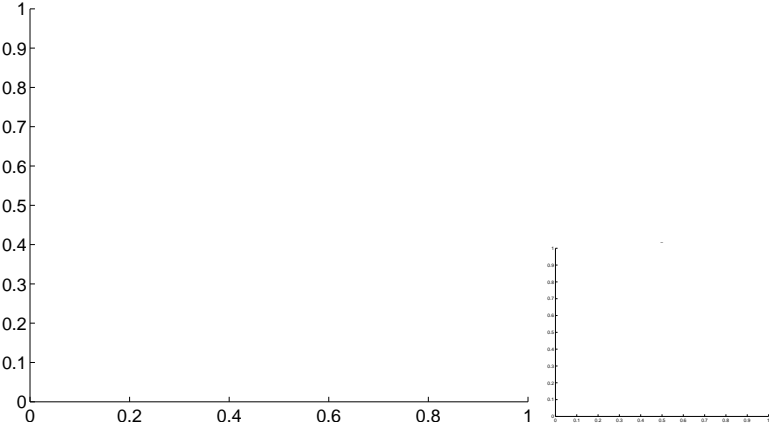
Q5 no OOT image



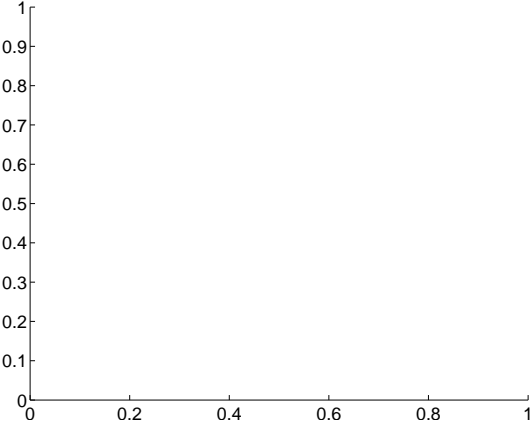
Q7 no difference image



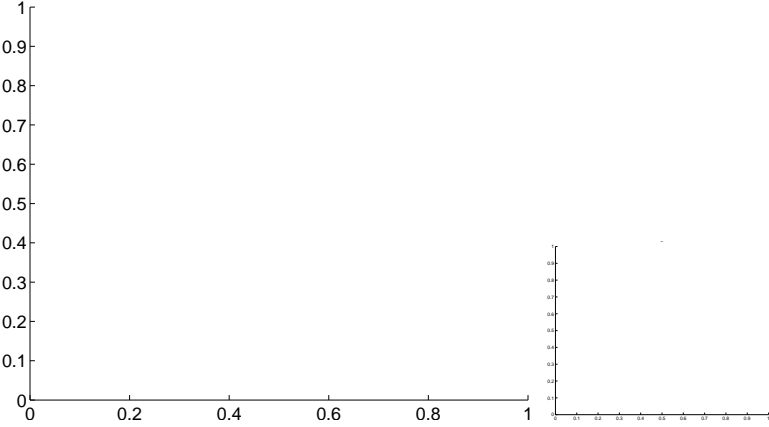
Q7 no OOT image



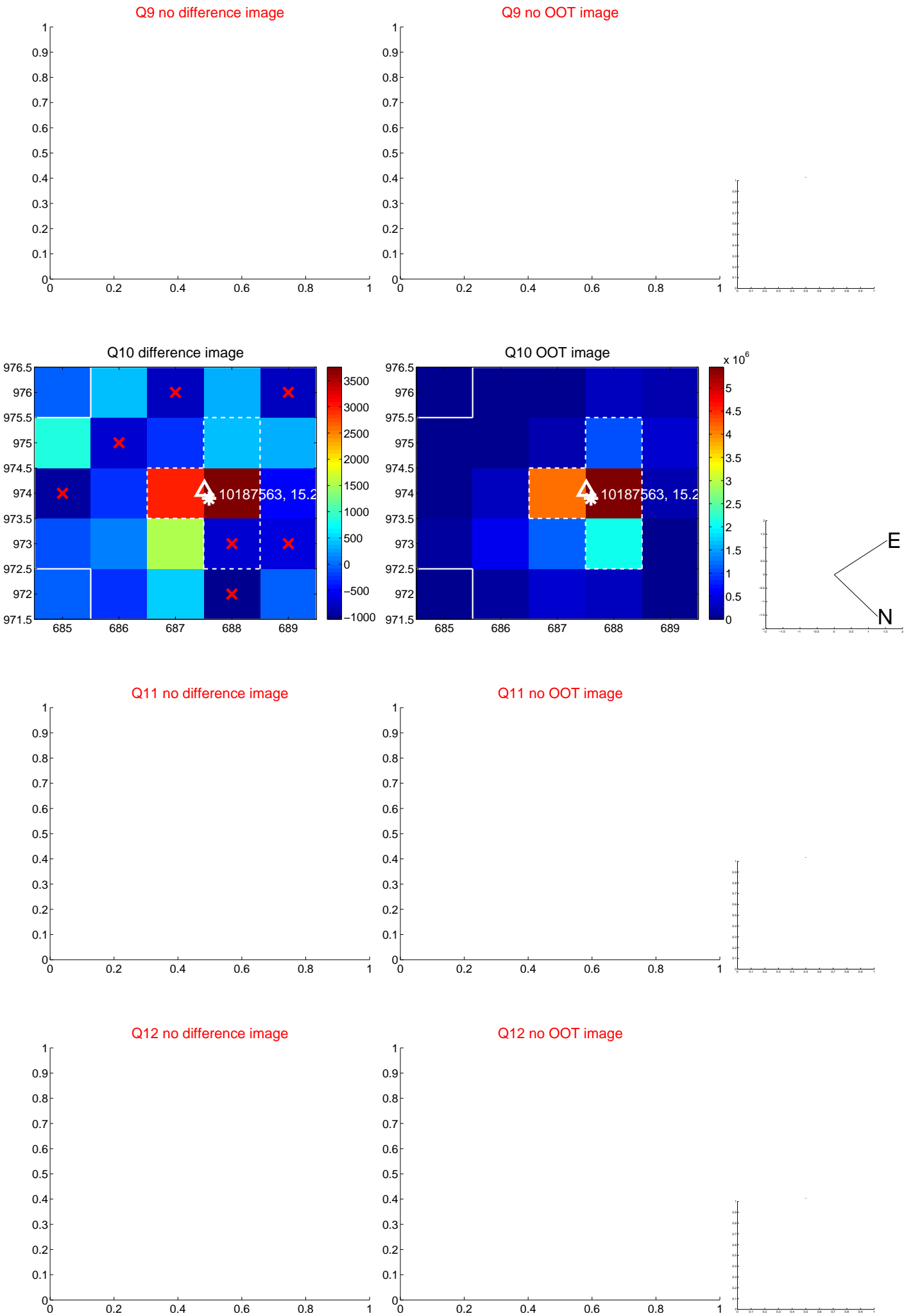
Q8 no difference image



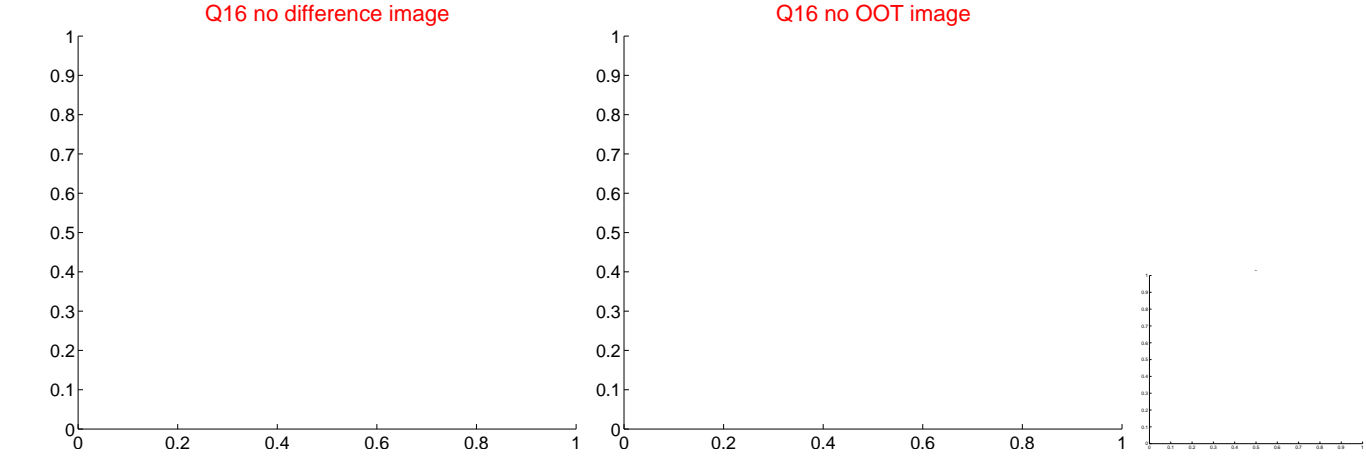
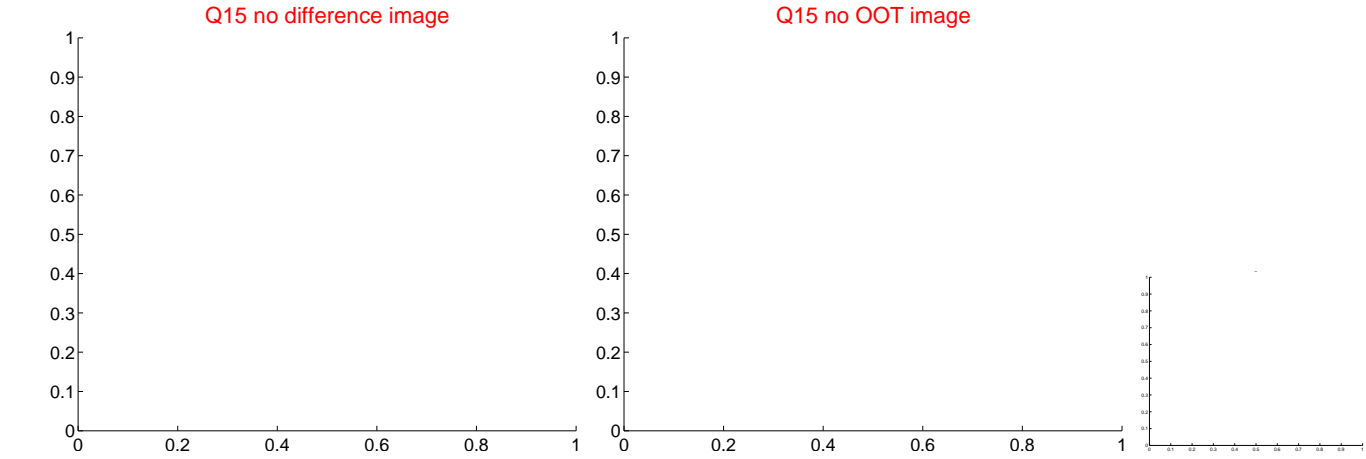
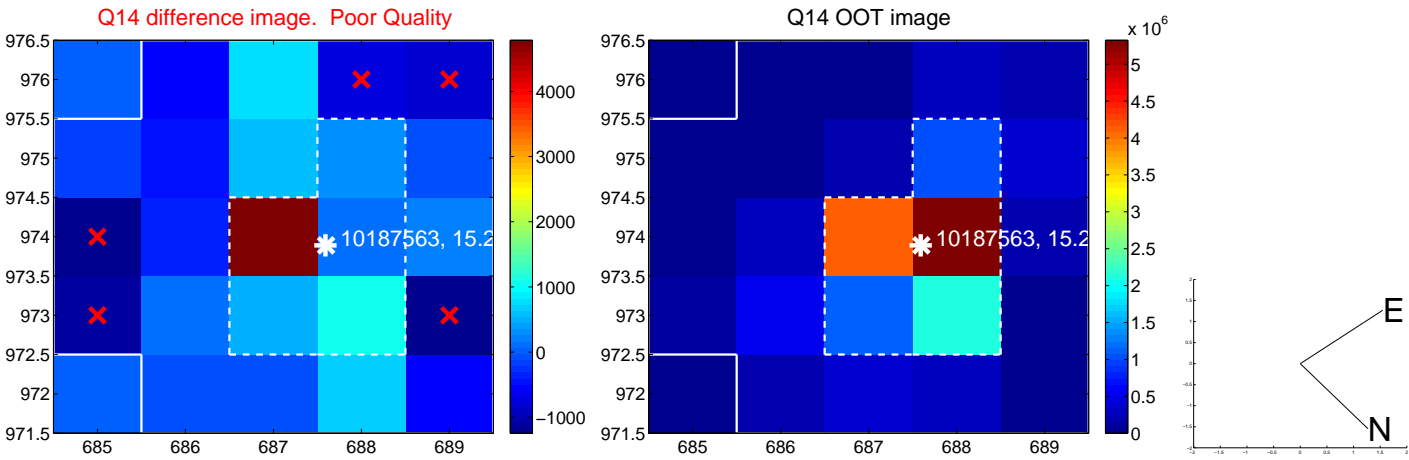
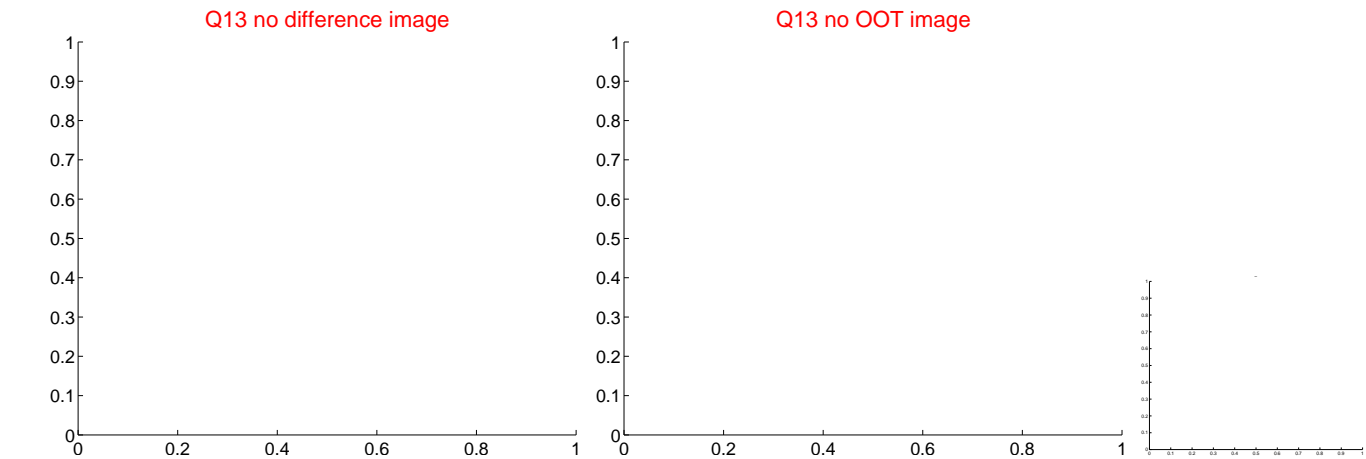
Q8 no OOT image



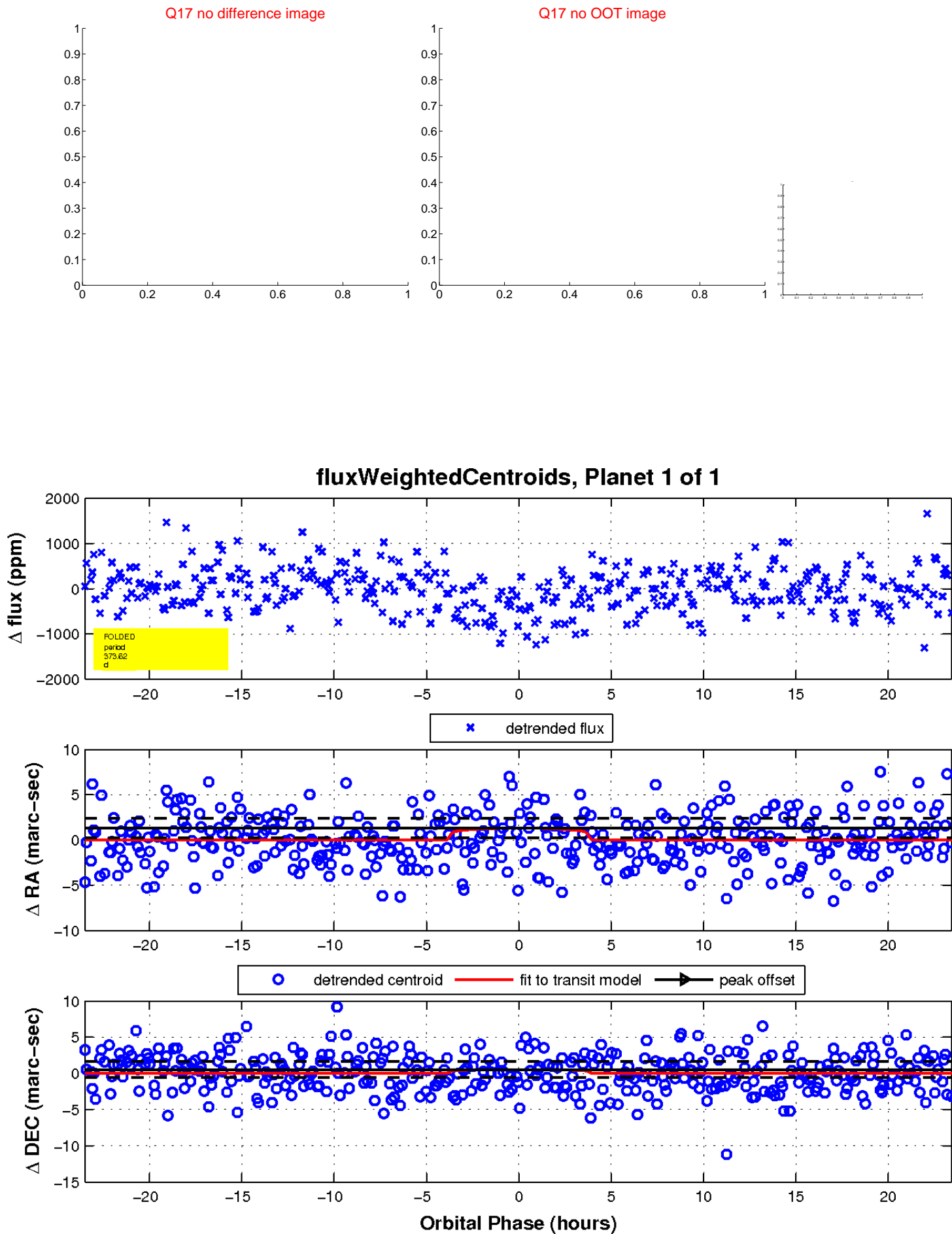
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

