

KIC 007740289

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})
007740289-01	OBS	No	410.169906	364.921702	635.5	4.313	7.3	6.6	0.71	5229	1.85	0.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007740289-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—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.

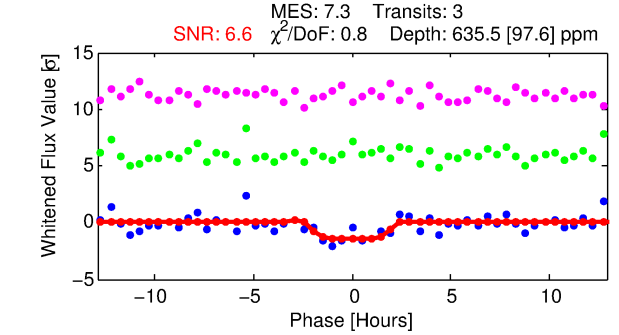
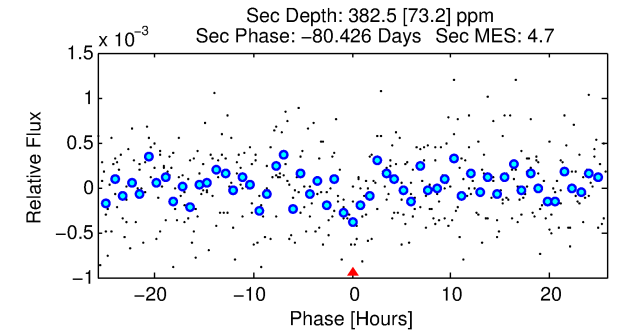
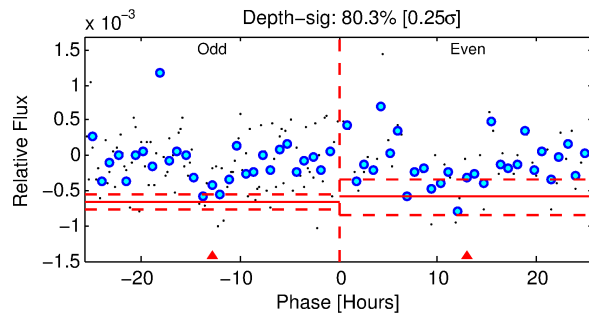
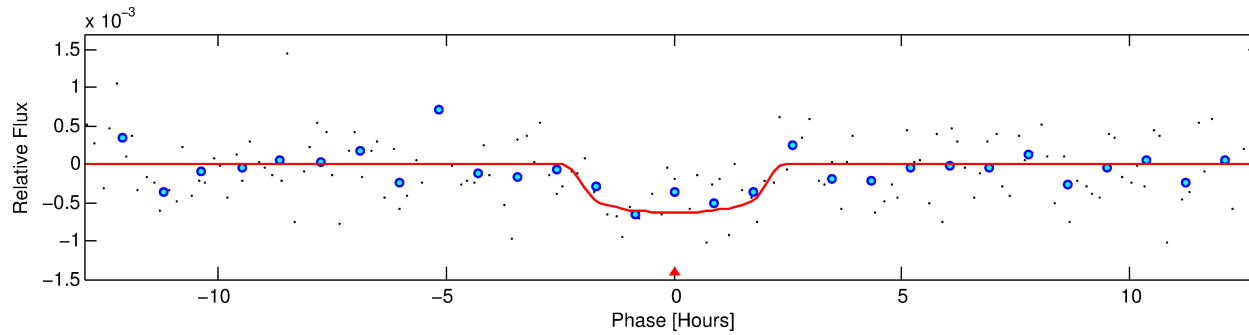
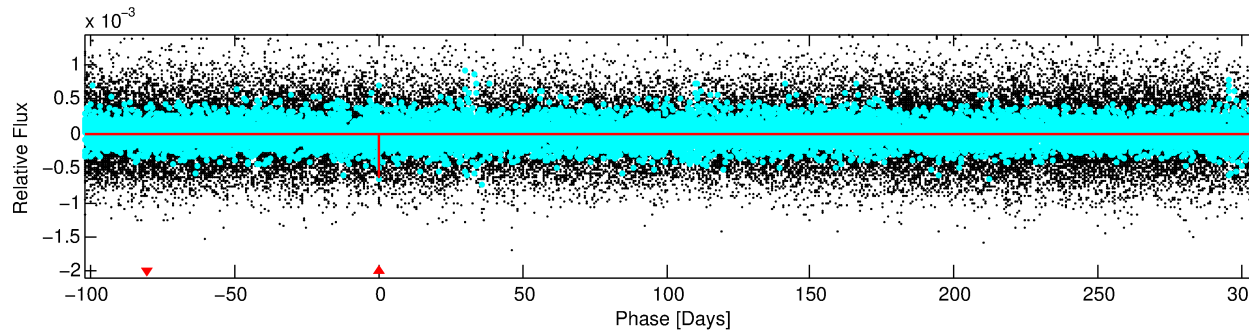
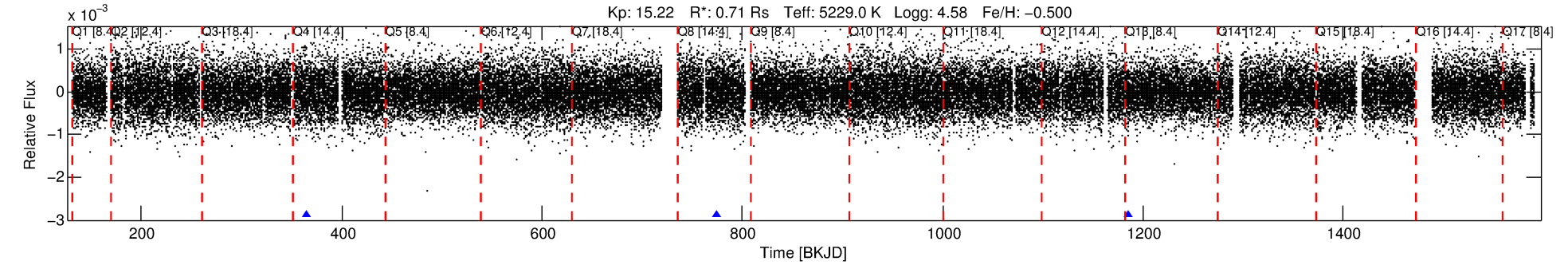
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007740289-01

No Significant Match Found

DV One-Page Summary

KIC: 7740289 Candidate: 1 of 1 Period: 410.170 d



DV Fit Results:

Period = 410.16991 [0.00798] d
Epoch = 364.9217 [0.0111] BKJD
Rp/R* = 0.0239 [0.0615]
a/R* = 609.40 [6229.55]
b = 0.59 [11.56]
Seff = 0.37 [0.06]
Teq = 198 [9] K
Rp = 1.85 [4.77] Re
a = 0.9613 [0.0894] AU
Ag = 56773.73 [292787.53] [0.19 σ]
Teffp = 4732 [6100] K [0.74 σ]

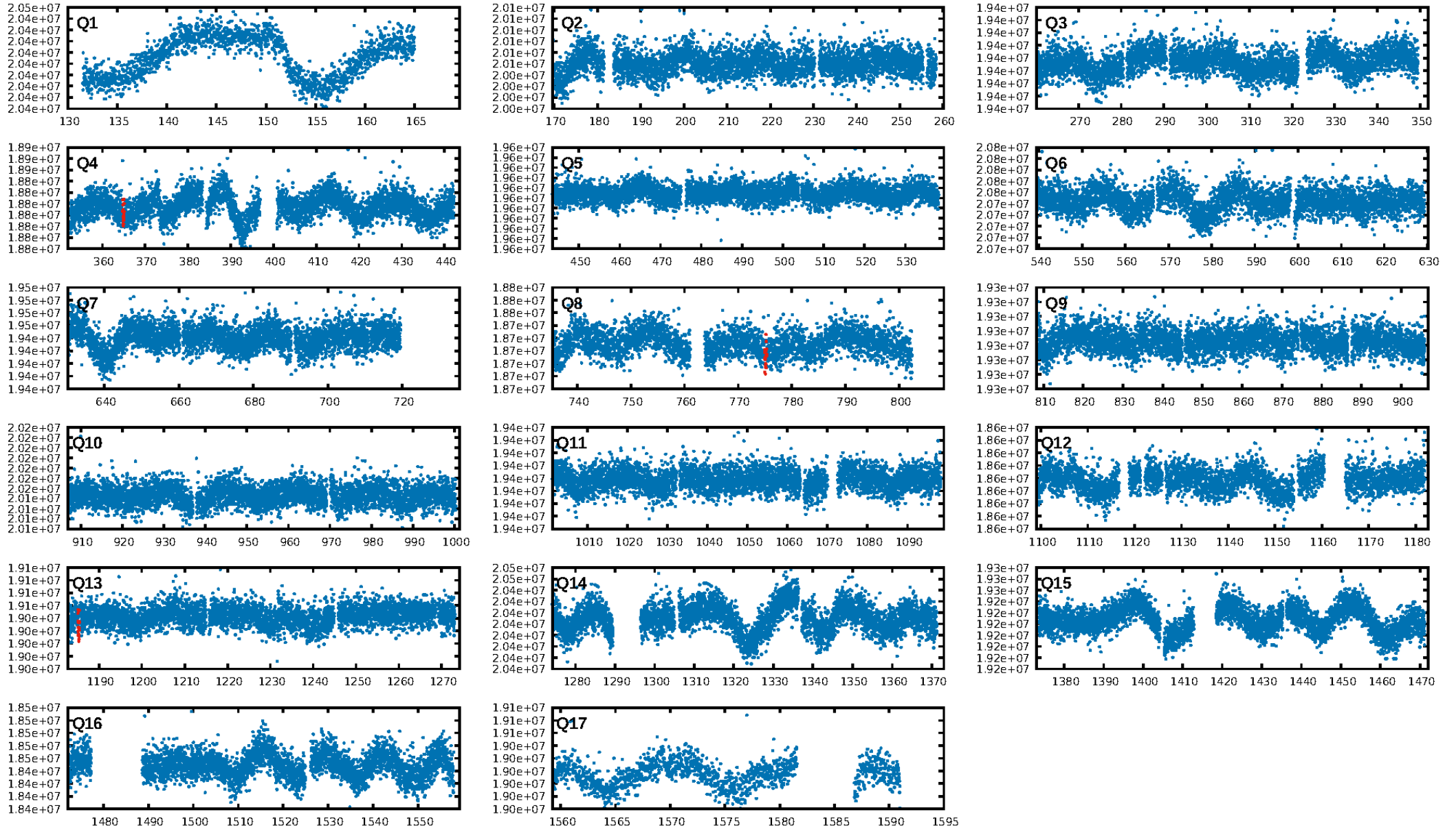
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.8%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 2.64e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -34.25
Centroid-sig: 34.4%
Centroid-so: 1.703 arcsec [0.79 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

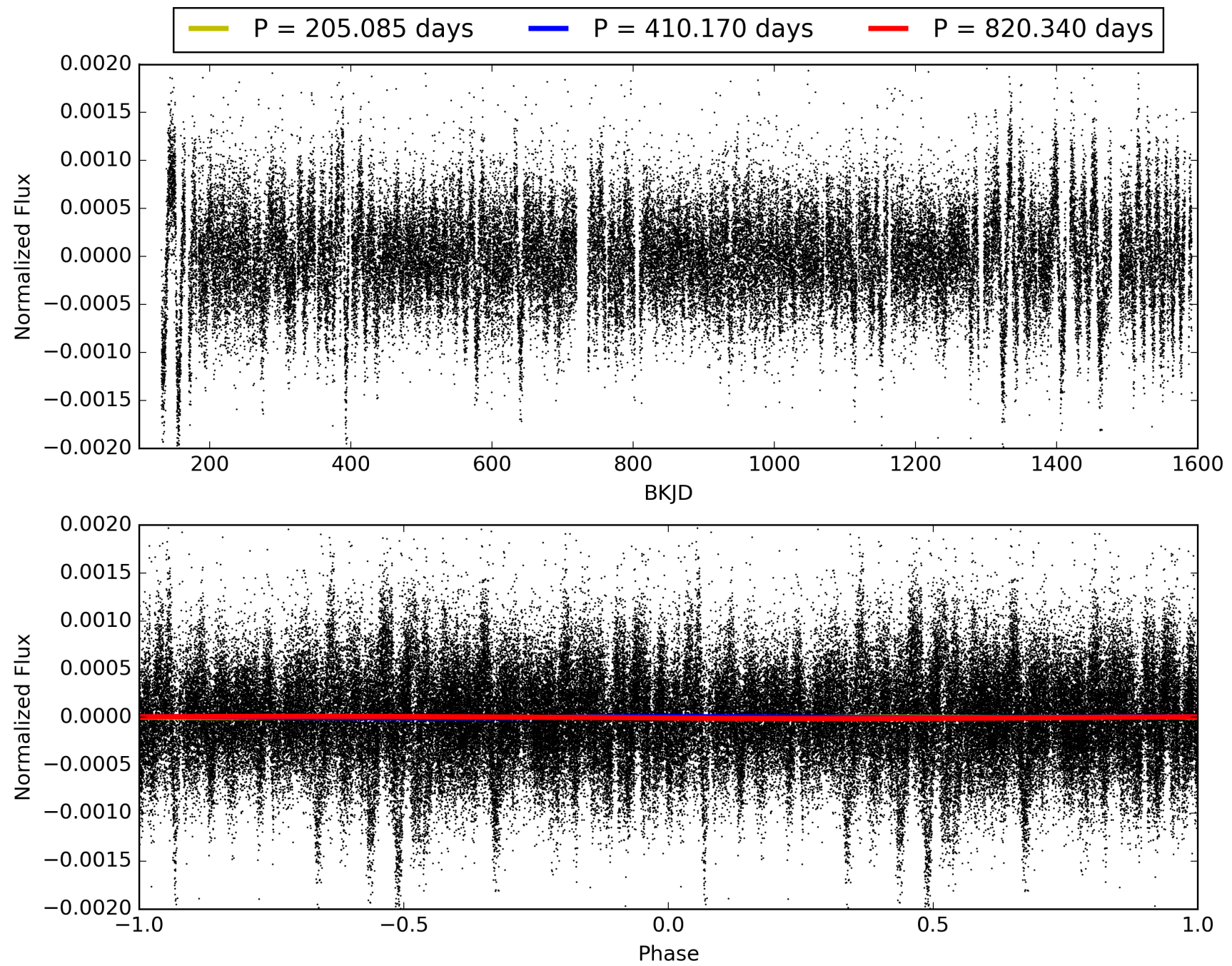
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:38:13 Z

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

TCE 007740289-01, PDC Light Curves

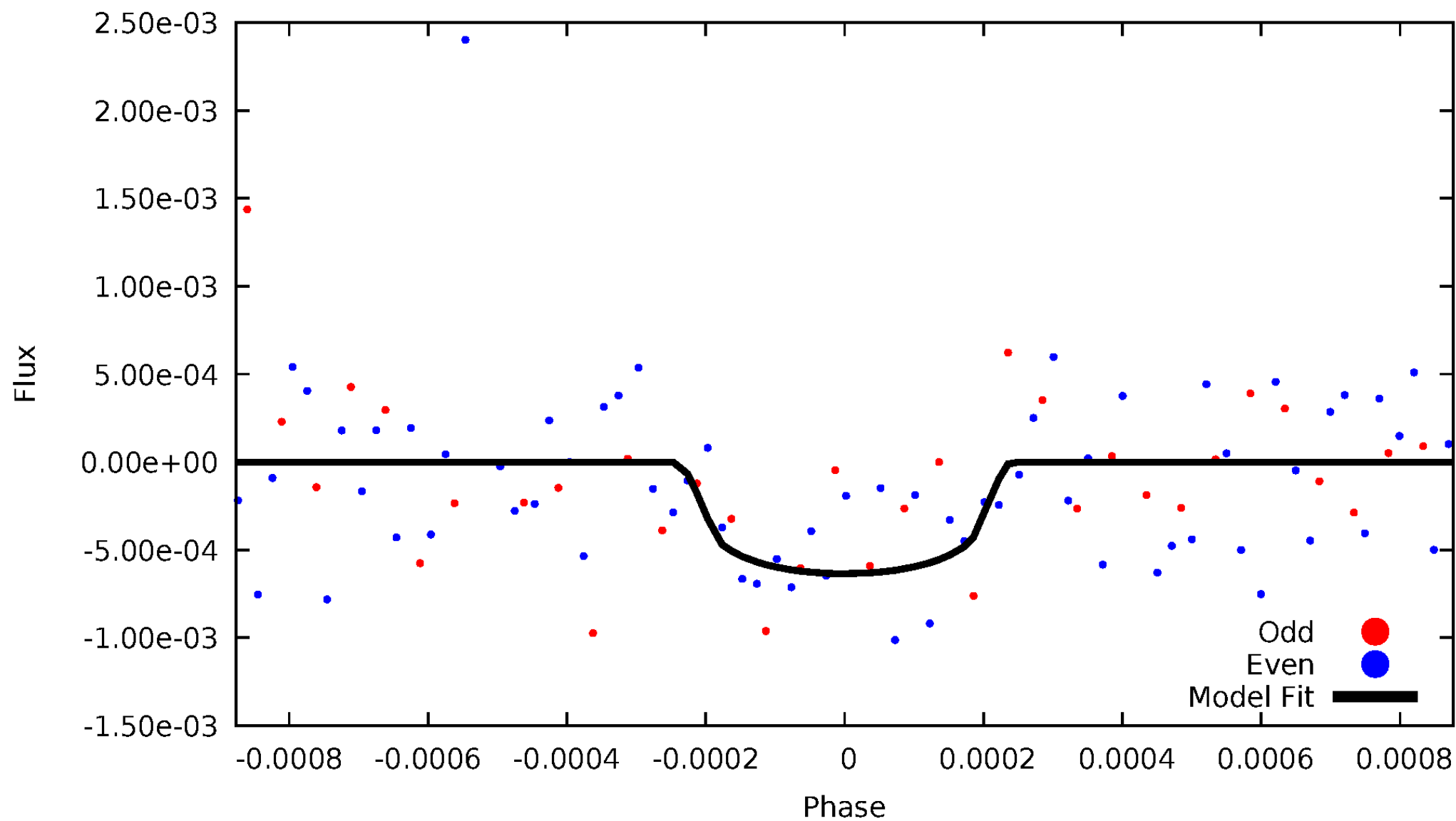


TCE 007740289-01



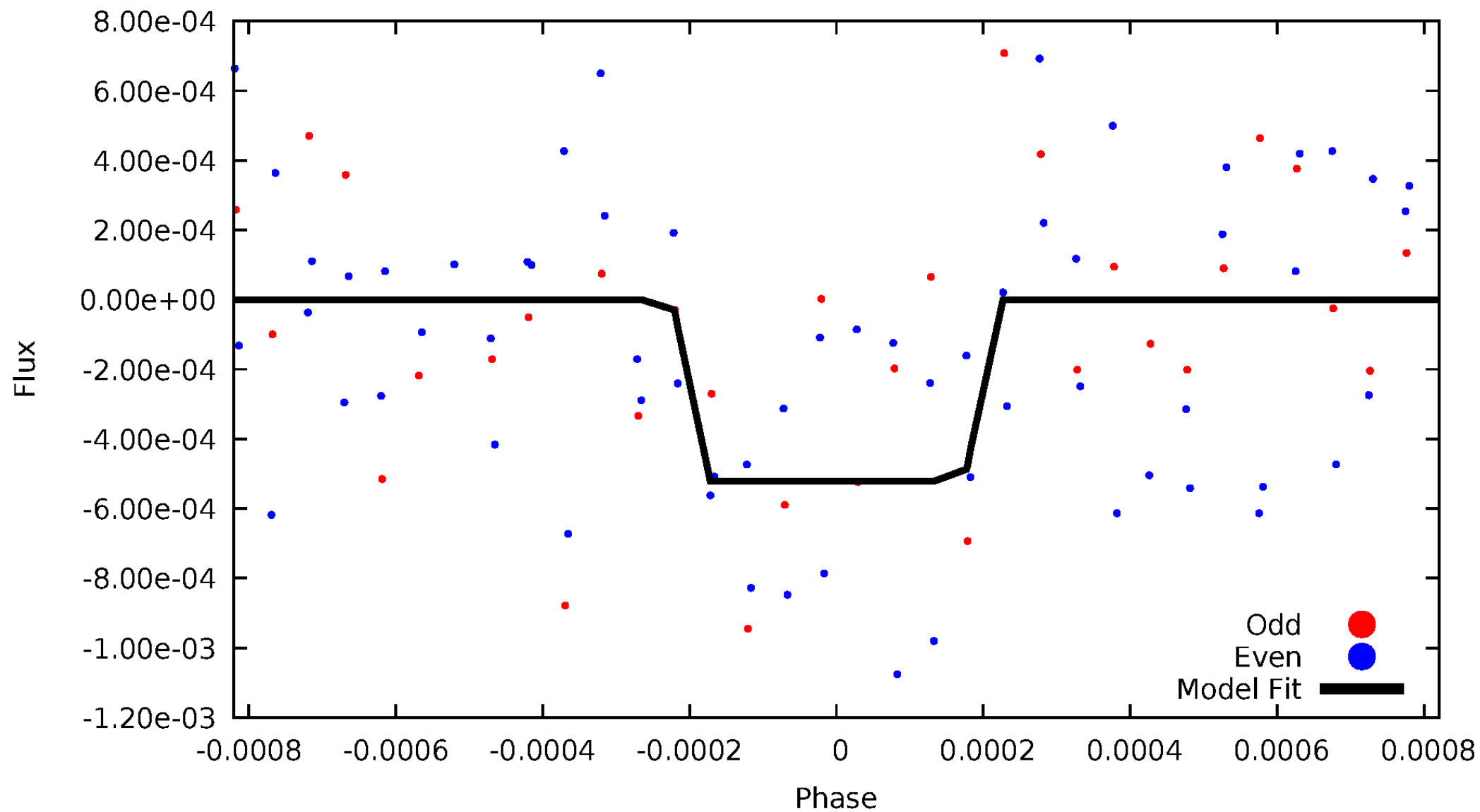
DV Odd/Even

TCE 007740289-01



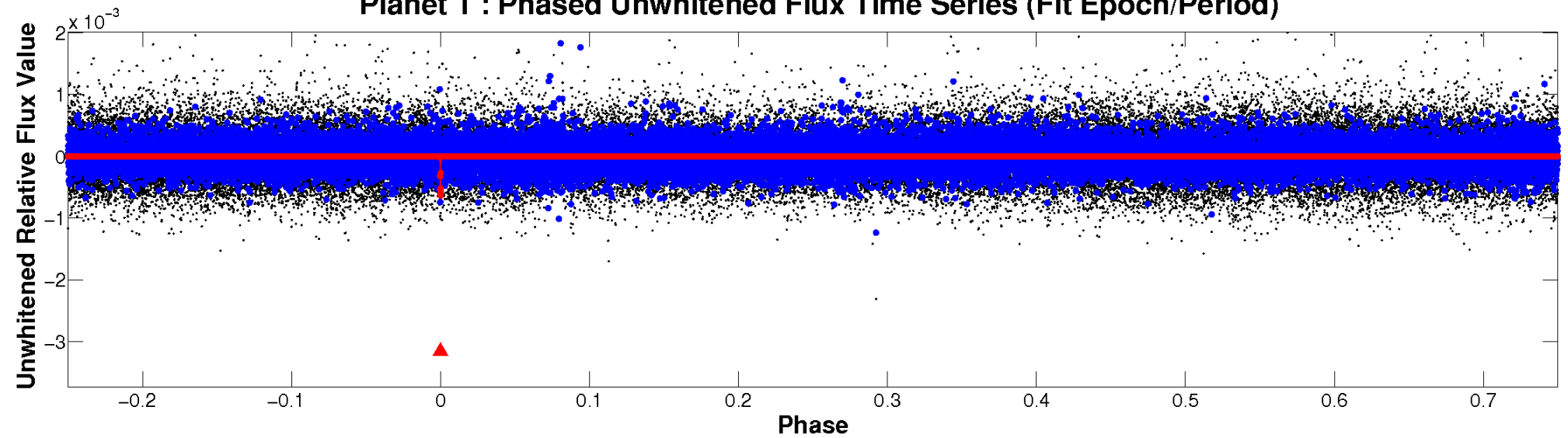
ALT Odd/Even

TCE 007740289-01

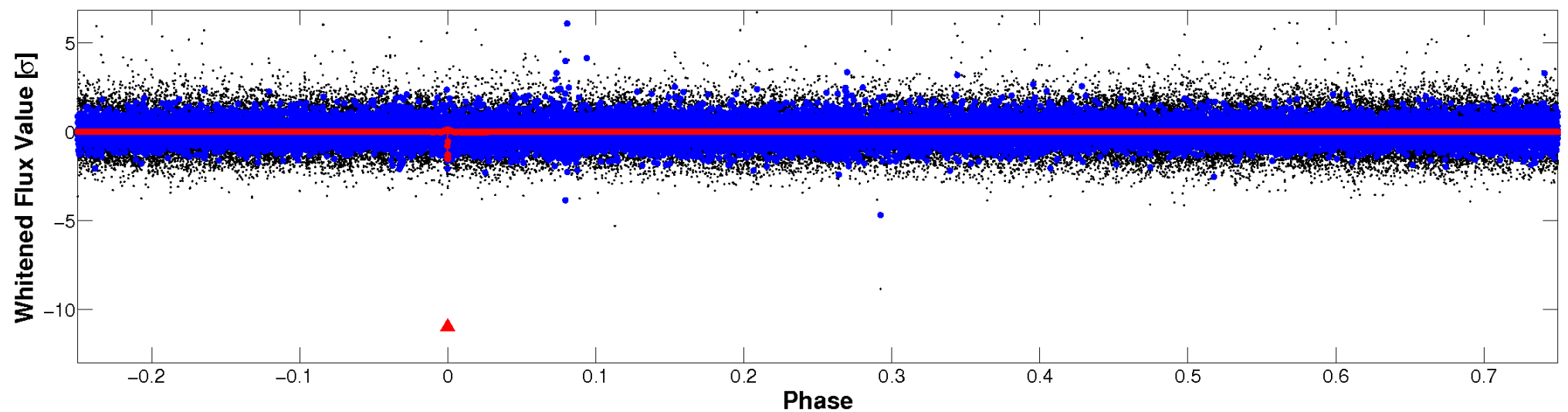


Non-Whitened Vs. Whitened Light Curve

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



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



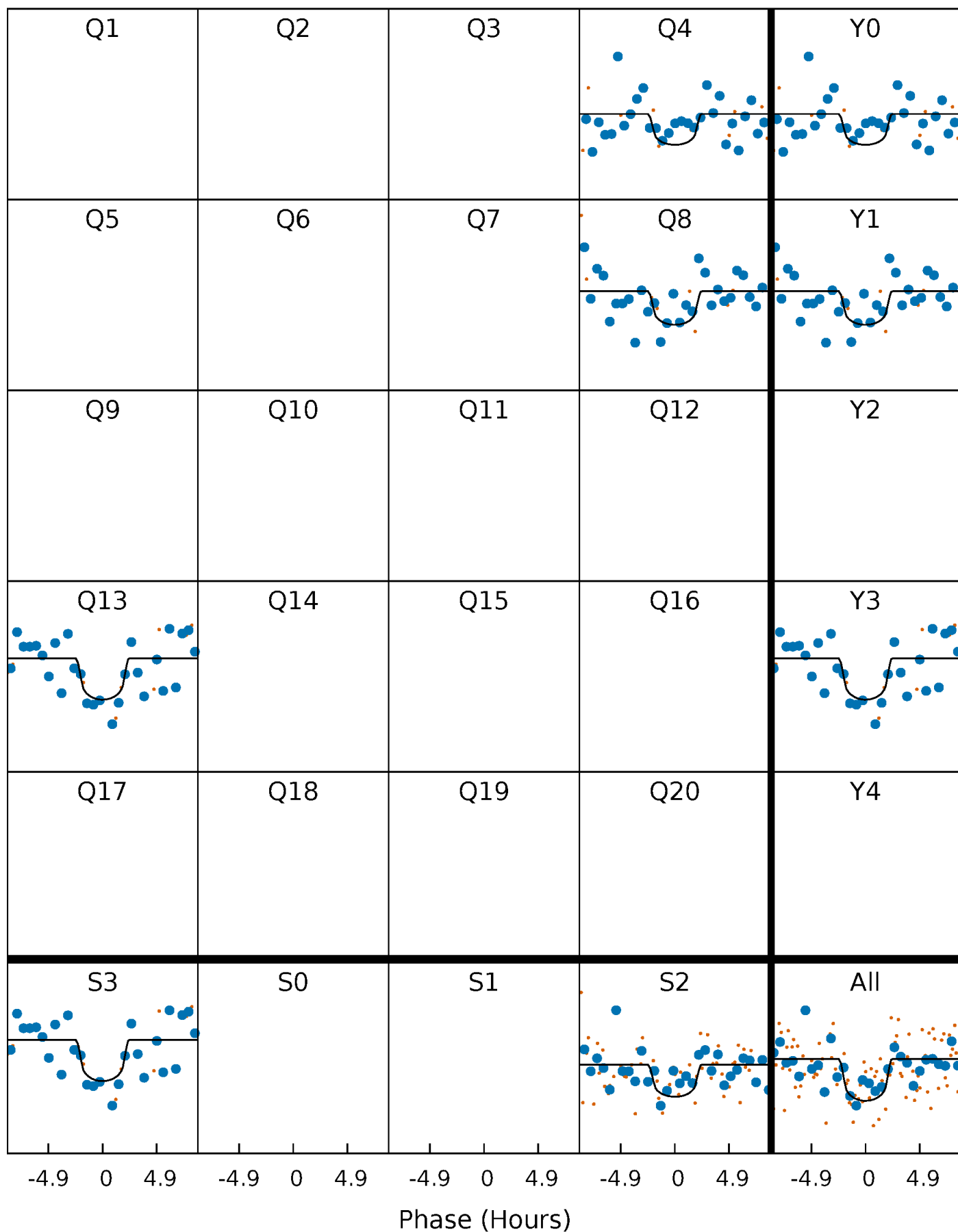
PDC Quarter-Phased Transit Curves

TCE 007740289-01 P=410.169906 Days $T_0=364.921702$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007740289-01 P=410.169906 Days $T_0=364.921702$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

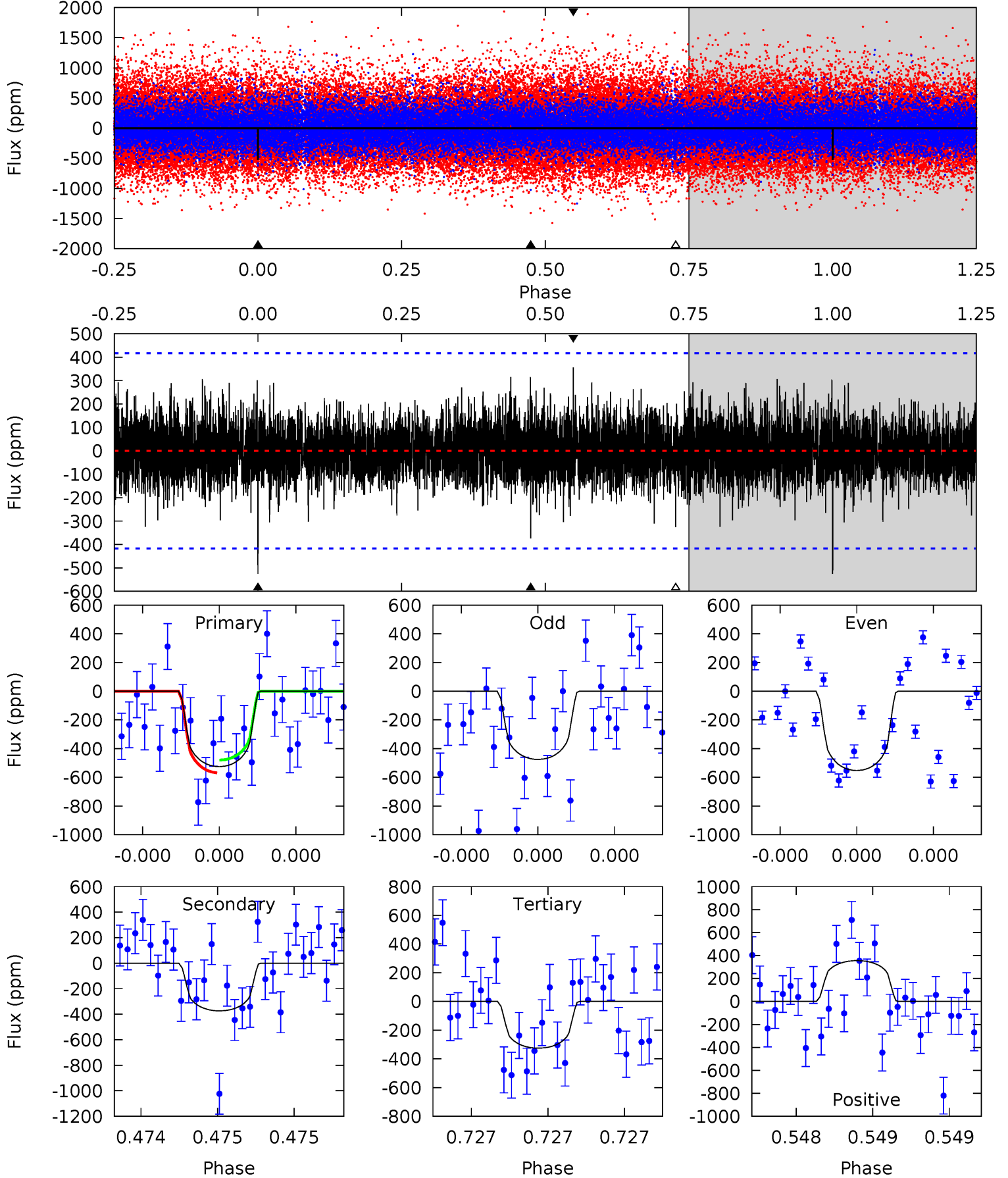
TCE 007740289-01 P=410.162850 Days $T_0=364.931642$ (BKJD)



DV Model-Shift Uniqueness Test

007740289-01, P = 410.169906 Days, E = 364.921702 Days

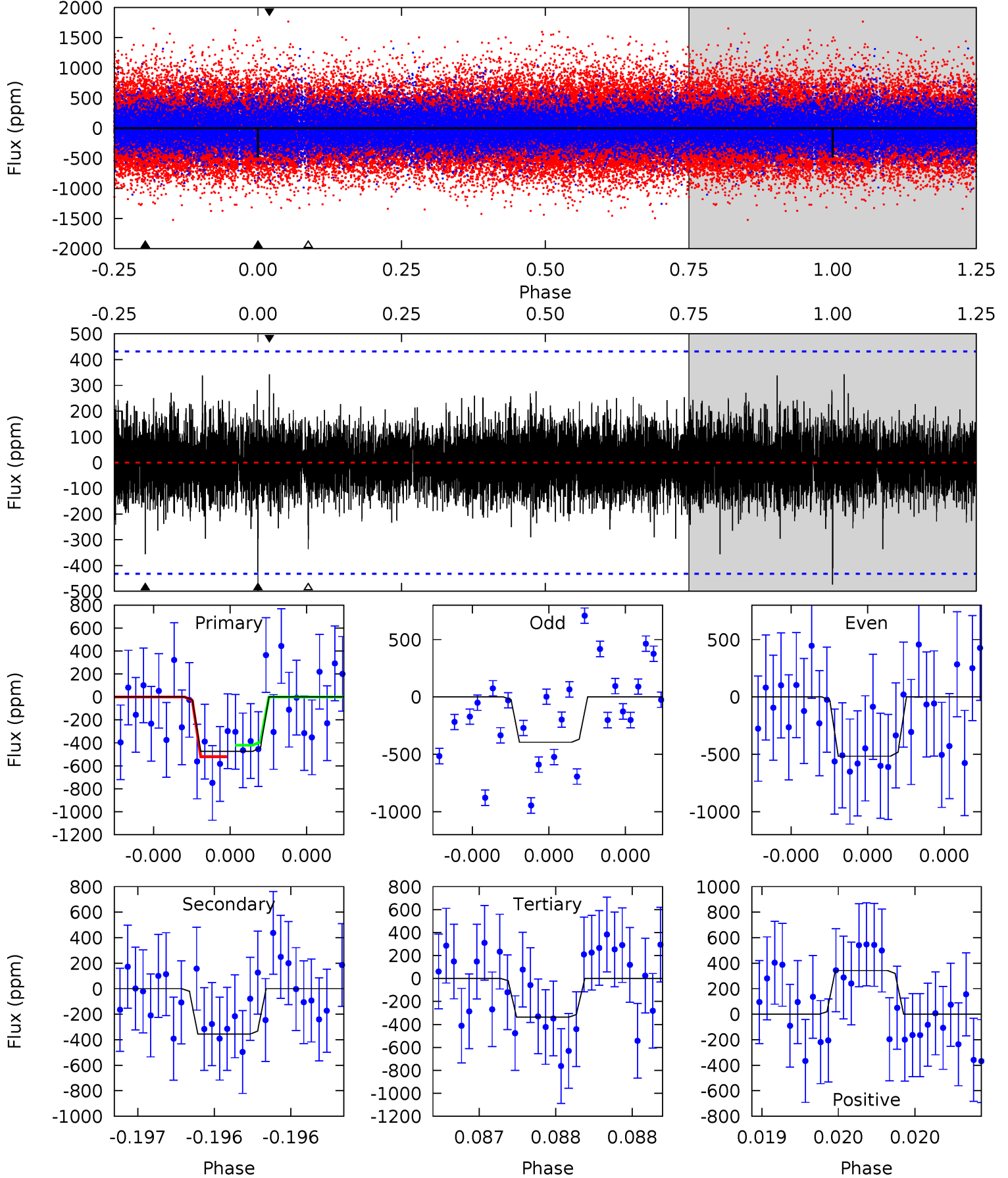
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.04	5.00	4.36	4.76	5.59	3.50	1.14	2.68	2.28	0.65	0.24	0.49	1.13	0.40	0.59



Alt Model-Shift Uniqueness Test

007740289-01, P = 410.162850 Days, E = 364.931642 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.14	4.61	4.36	4.44	5.59	3.51	0.98	1.78	1.70	0.25	0.17	0.74	1.24	0.42	0.65



Stellar Parameters For KIC 007740289

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5229^{+156}_{-140}	$4.583^{+0.066}_{-0.060}$	$-0.500^{+0.300}_{-0.300}$	$0.710^{+0.083}_{-0.068}$	$0.703^{+0.090}_{-0.045}$	$2.771^{+0.764}_{-0.600}$
	+3%/-3%	+1%/-1%	+60%/-60%	+12%/-10%	+13%/-6%	+28%/-22%
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 007740289-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-374 ± 75	$4.24^{+3.86}_{-2.88}$	277^{+11}_{-11}	3531^{+1940}_{-595}	10395^{+93962}_{-7448}
Alt.	-356 ± 77	$3.79^{+3.91}_{-2.63}$	277^{+11}_{-10}	3663^{+2101}_{-720}	$12651^{+120949}_{-9625}$

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 $A_{obs} \gg 1.0$

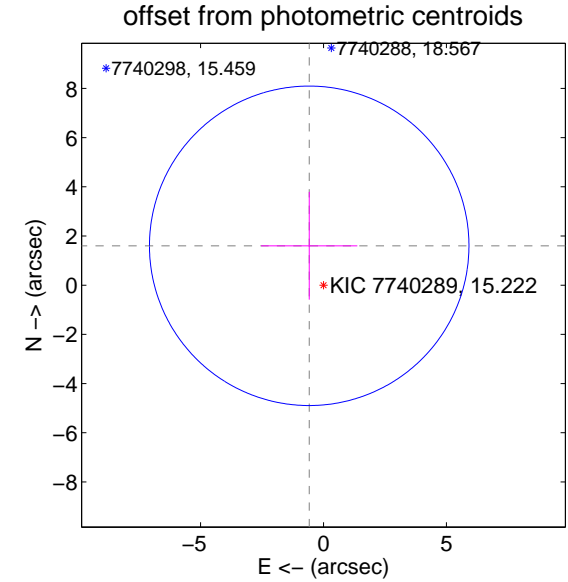
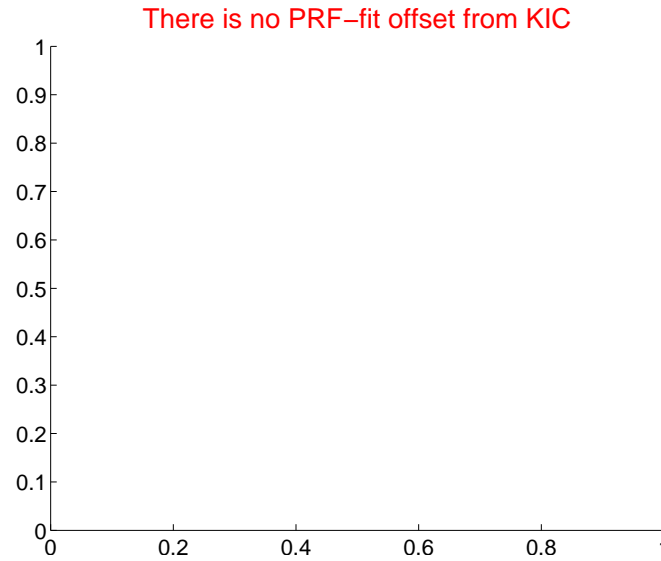
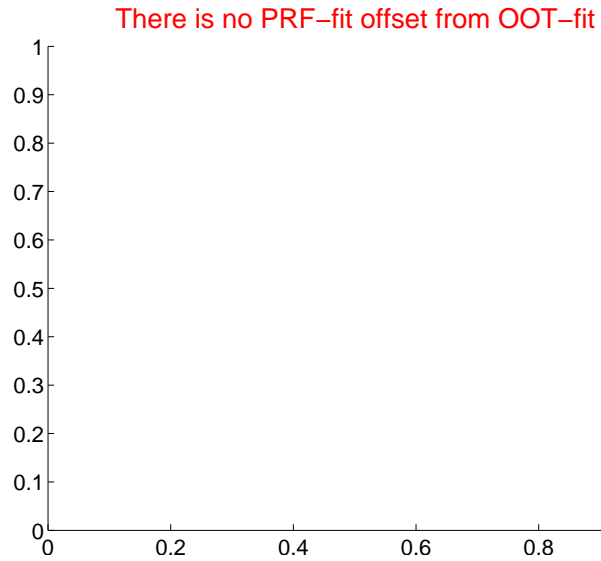
DV Centroid Data

Supplemental centroid analysis for 007740289-01. Kepler magnitude: 15.22. Transit SNR 6.61

There are 0 quarters with good PRF difference image offsets

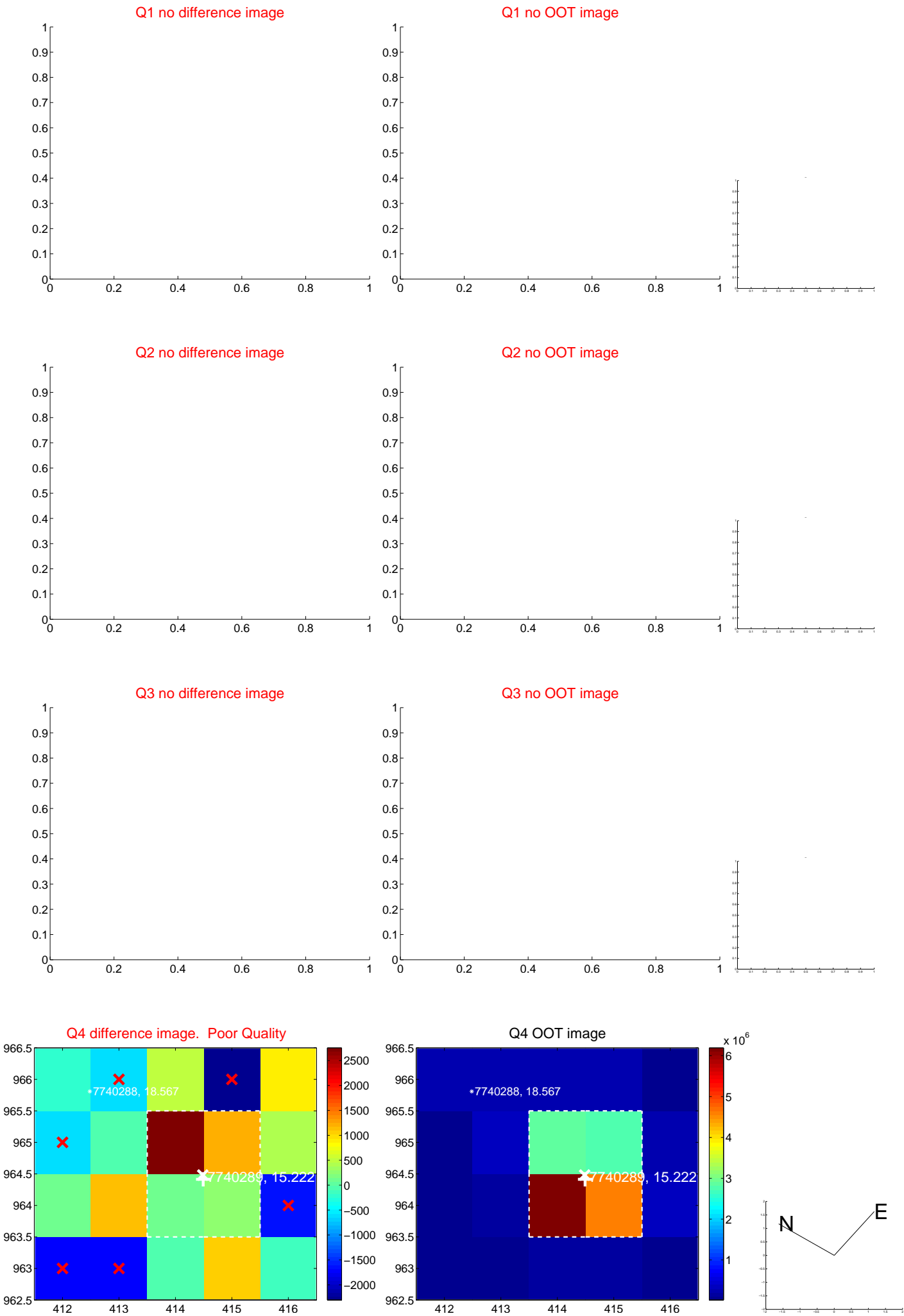
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	1.70 ± 2.16	0.79	0.58 ± 1.96	1.60 ± 2.19

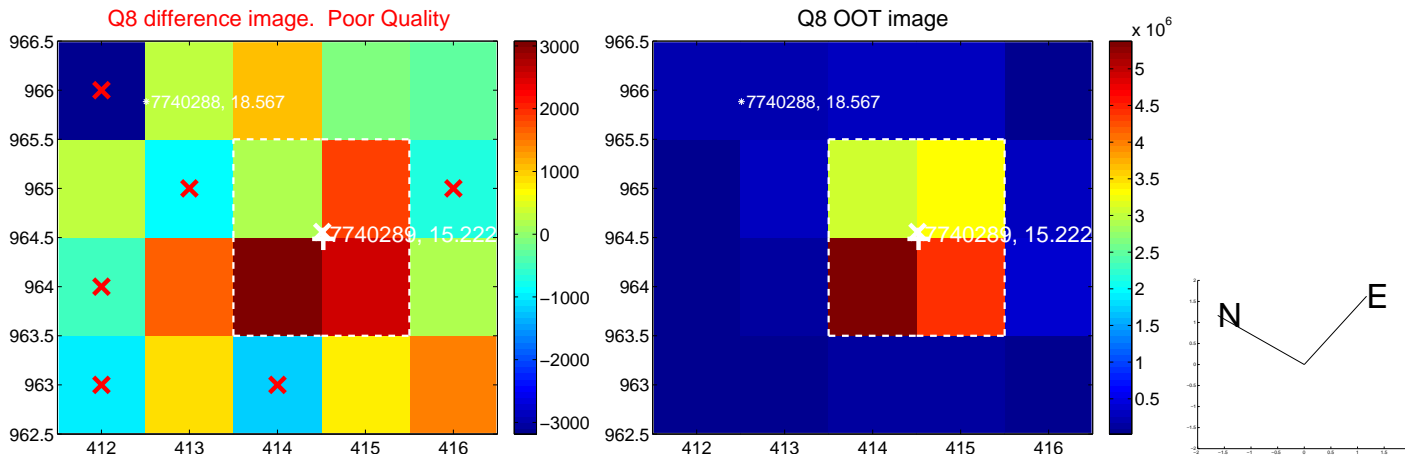
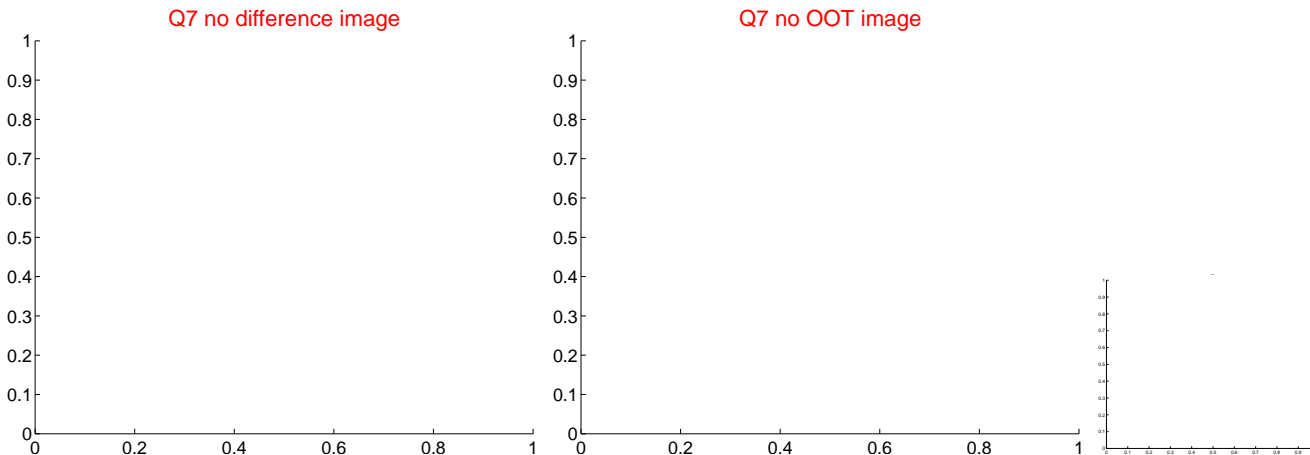
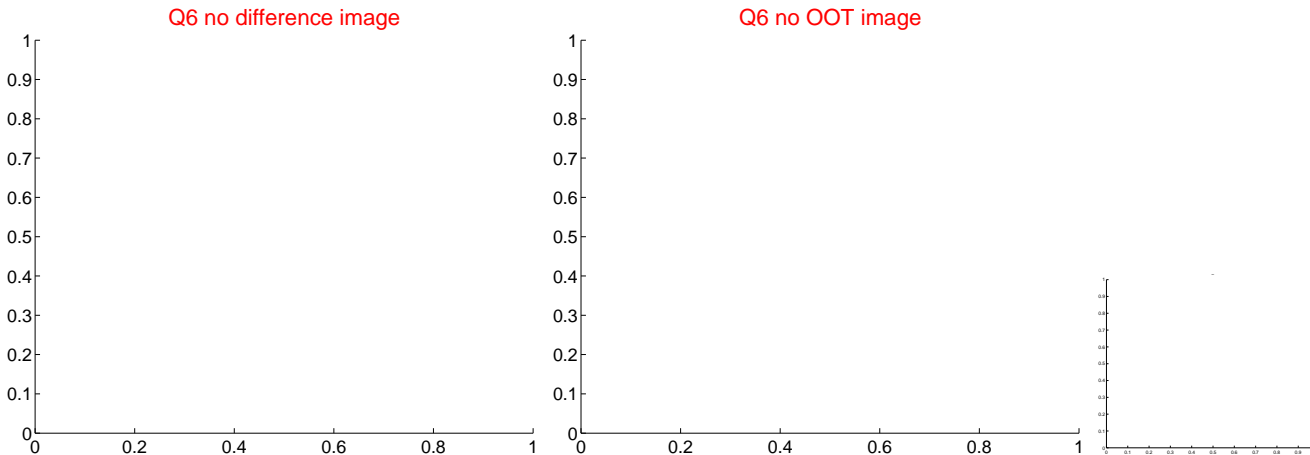
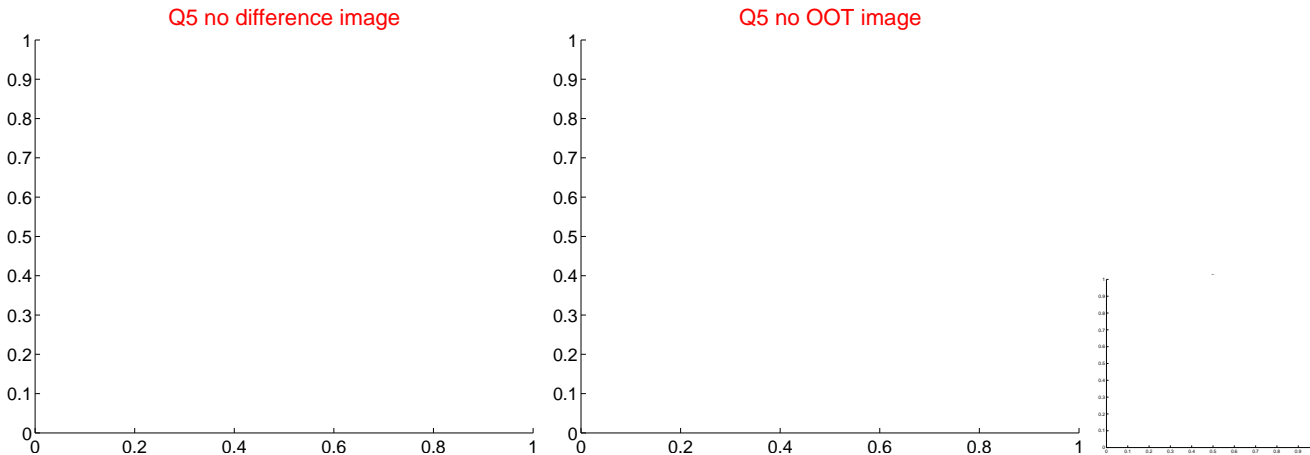


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



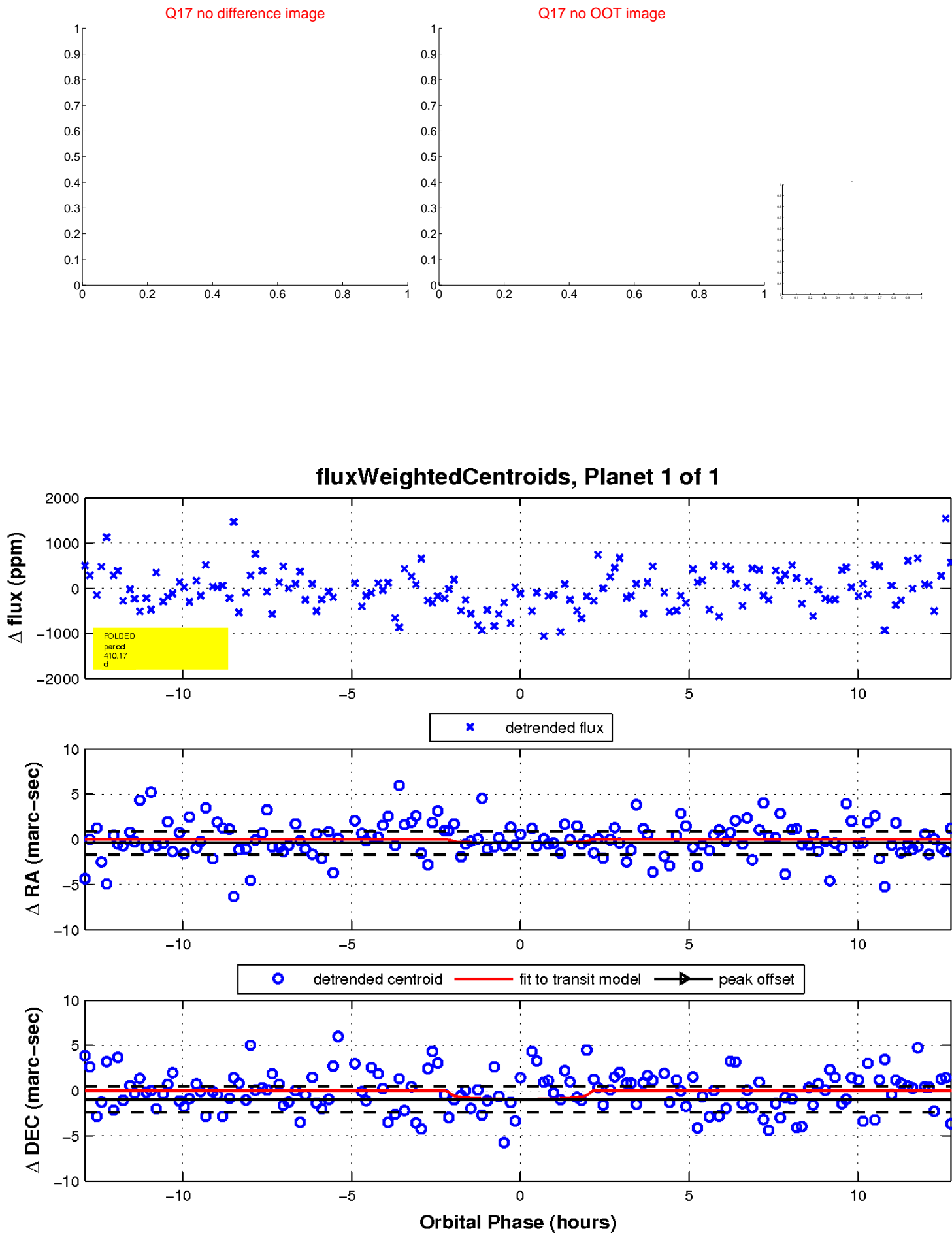
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

