

KIC 007761690

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})
007761690-01	OBS	No	519.494985	269.920362	825.8	20.107	7.6	8.1	1.25	6468	3.66	1.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007761690-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

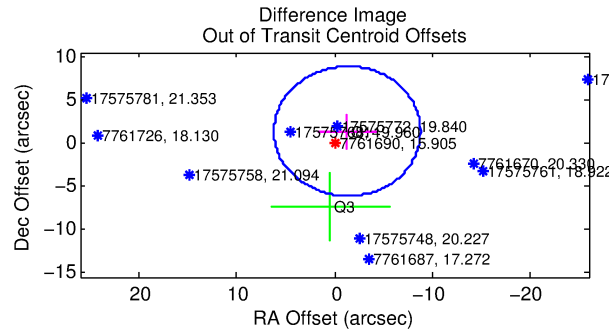
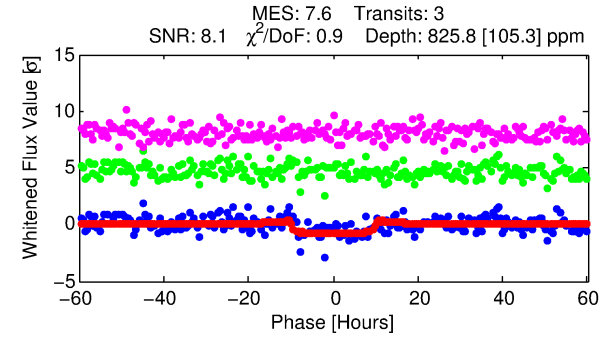
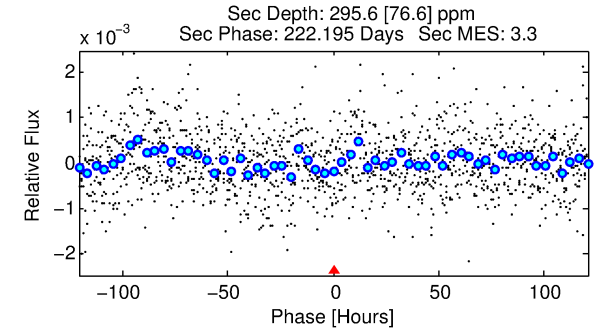
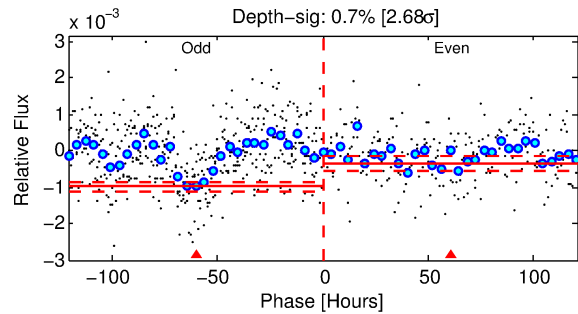
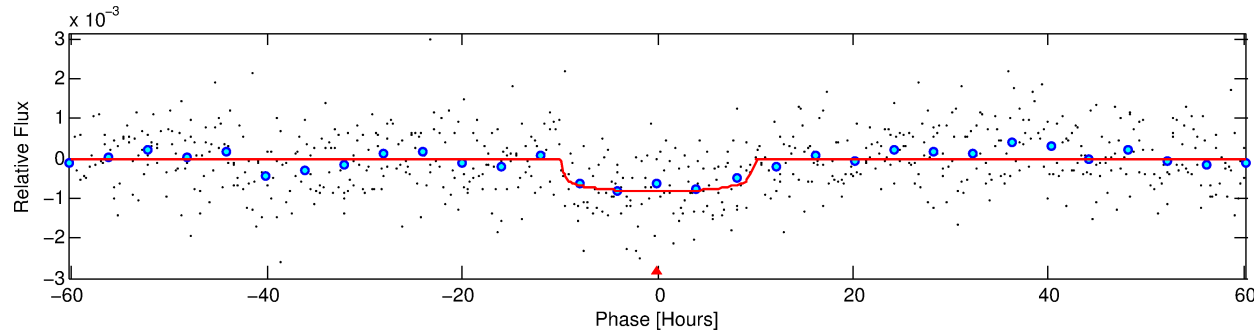
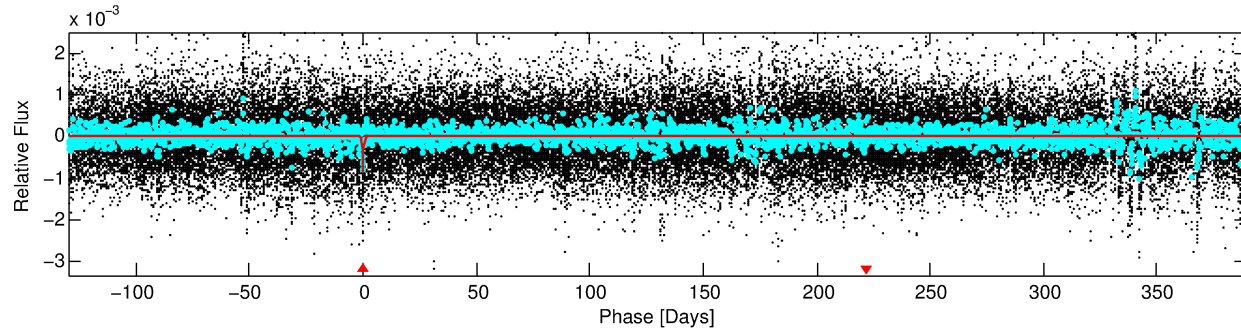
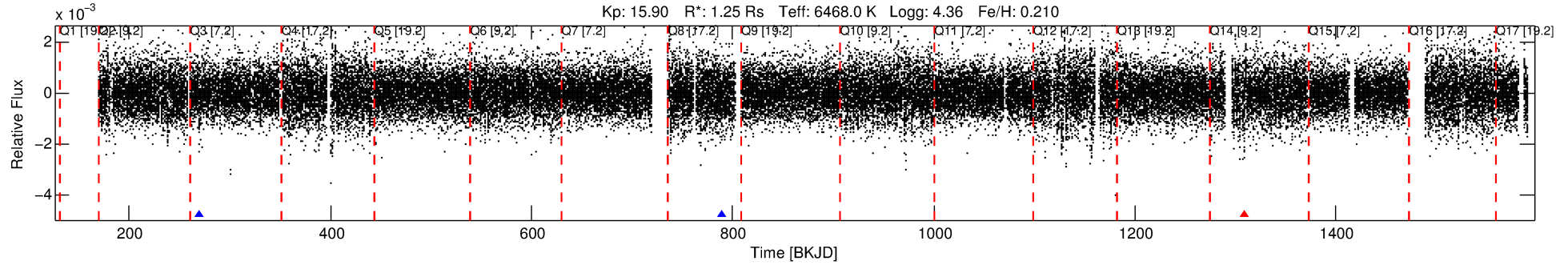
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007761690-01

No Significant Match Found

DV One-Page Summary

KIC: 7761690 Candidate: 1 of 1 Period: 519.495 d



DV Fit Results:

Period = 519.49499 [0.01731] d
Epoch = 269.9204 [0.0214] BKJD
Rp/R* = 0.0268 [0.0099]
a/R* = 187.30 [346.33]
b = 0.39 [3.99]
Seff = 1.28 [0.51]
Teq = 271 [27] K
Rp = 3.66 [1.77] Re
a = 1.3858 [0.3569] AU
Ag = 23354.36 [20113.97] [1.16 σ]
Teffp = 5180 [1029] K [4.77 σ]

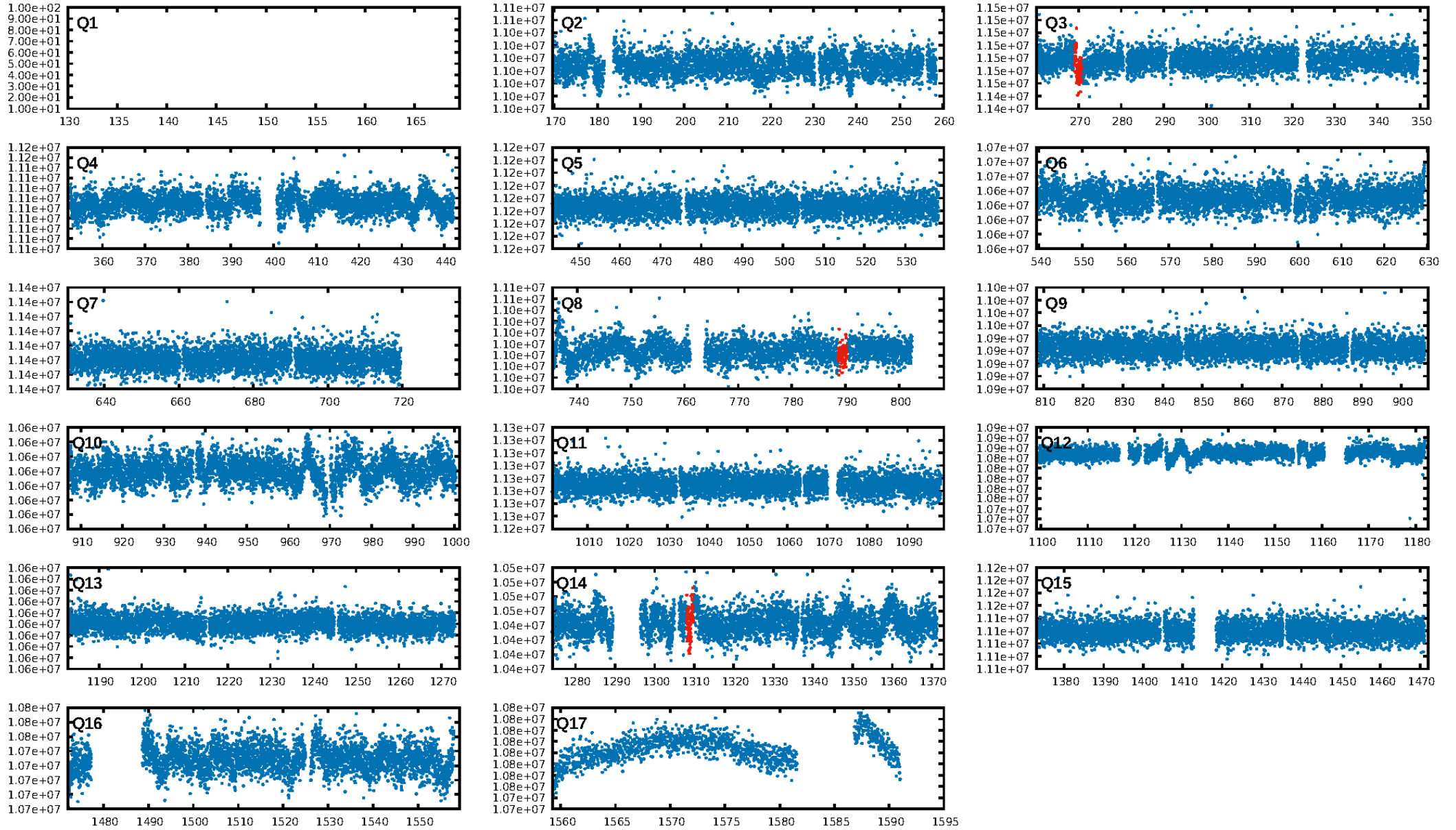
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.42e-08
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: -1.202
Centroid-sig: 5.5%
Centroid-so: 2.703 arcsec [1.38 σ]
OotOffset-rm: 1.891 arcsec [0.76 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 1.637 arcsec [0.52 σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

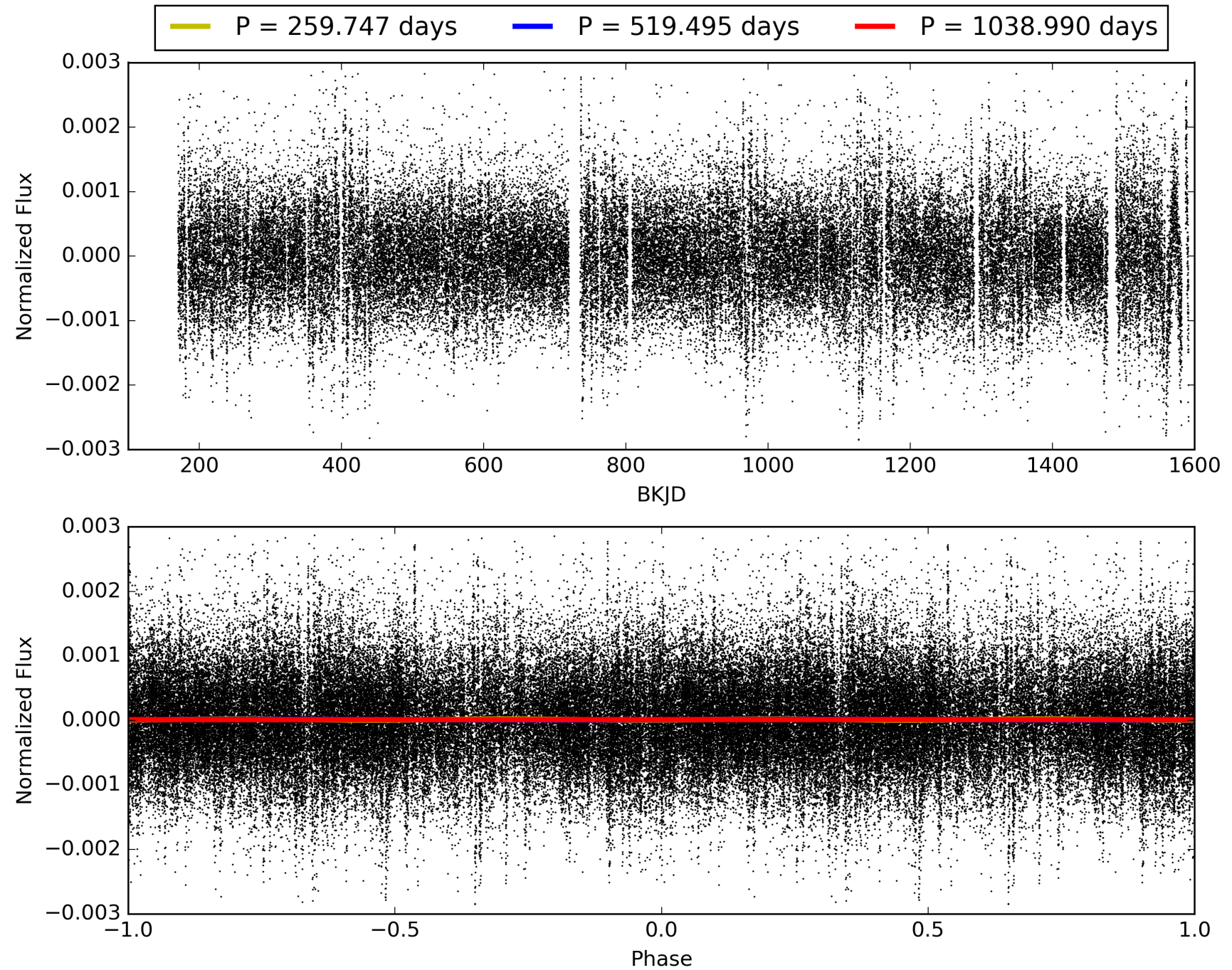
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:26:52 Z

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

TCE 007761690-01, PDC Light Curves

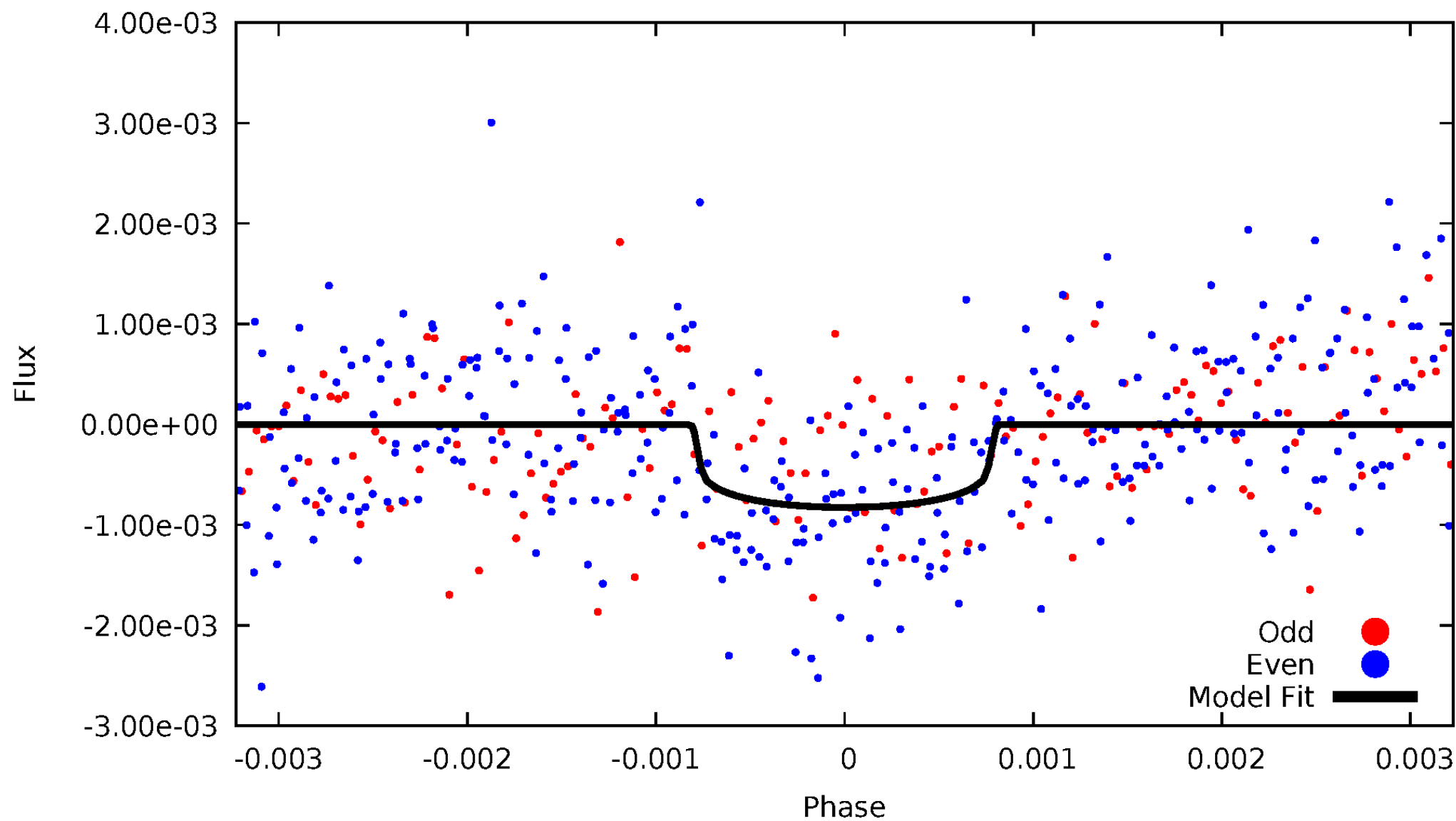


TCE 007761690-01



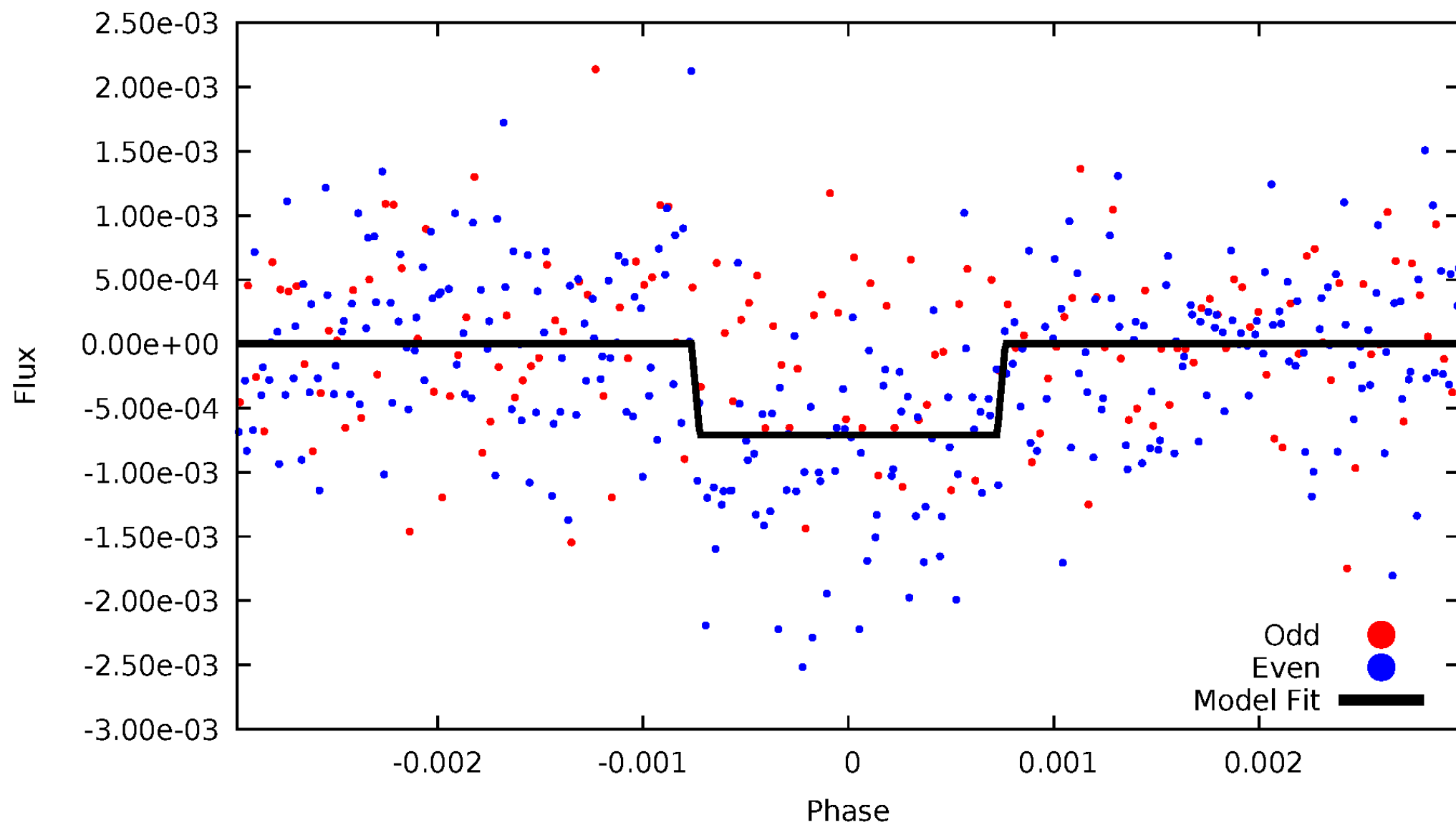
DV Odd/Even

TCE 007761690-01



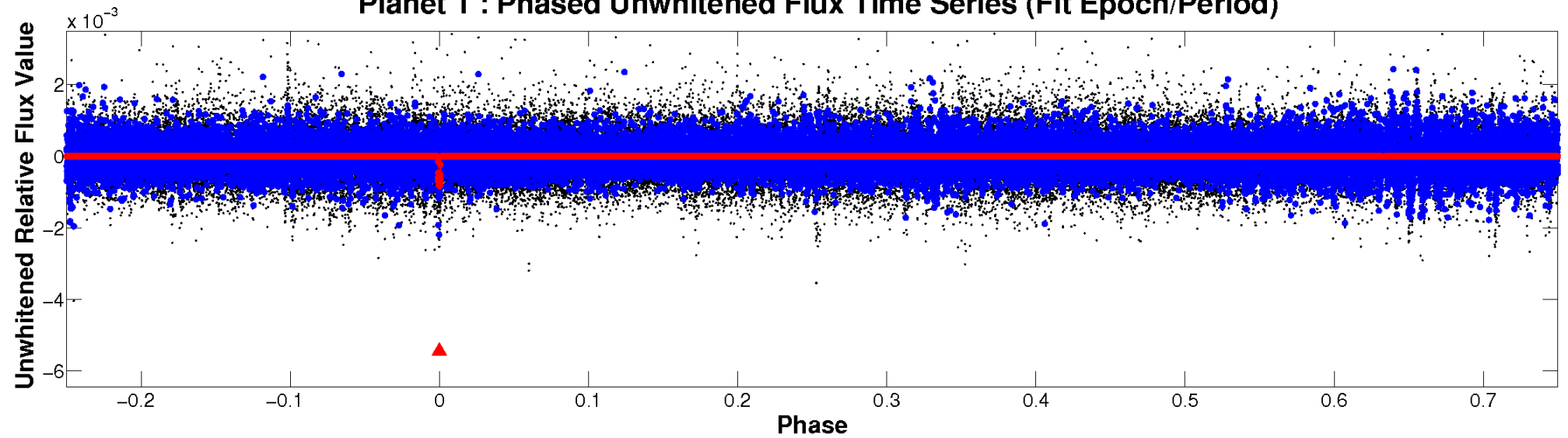
ALT Odd/Even

TCE 007761690-01

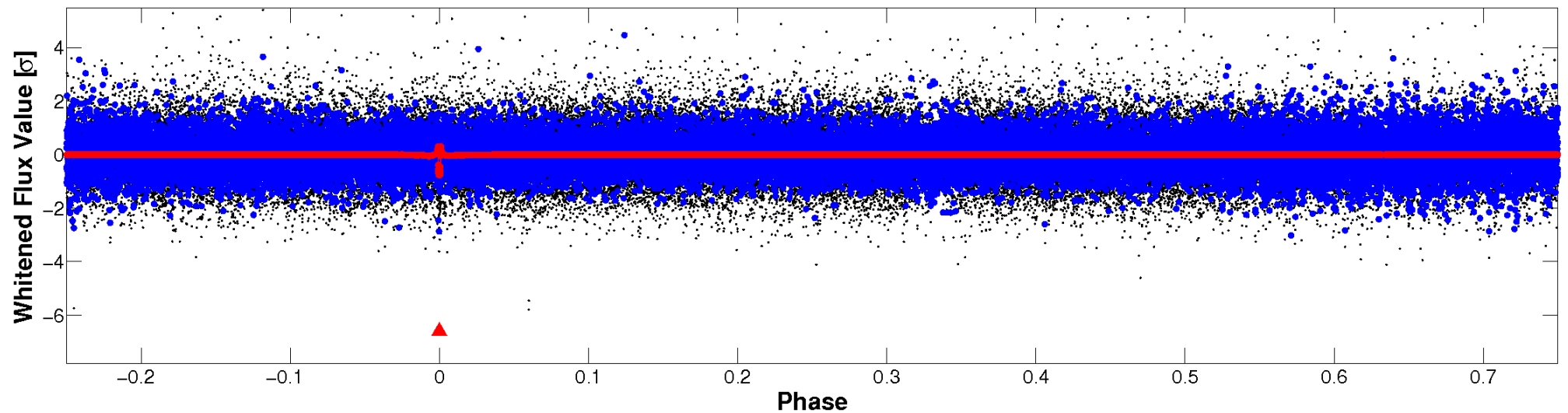


Non-Whitened Vs. Whitened Light Curve

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

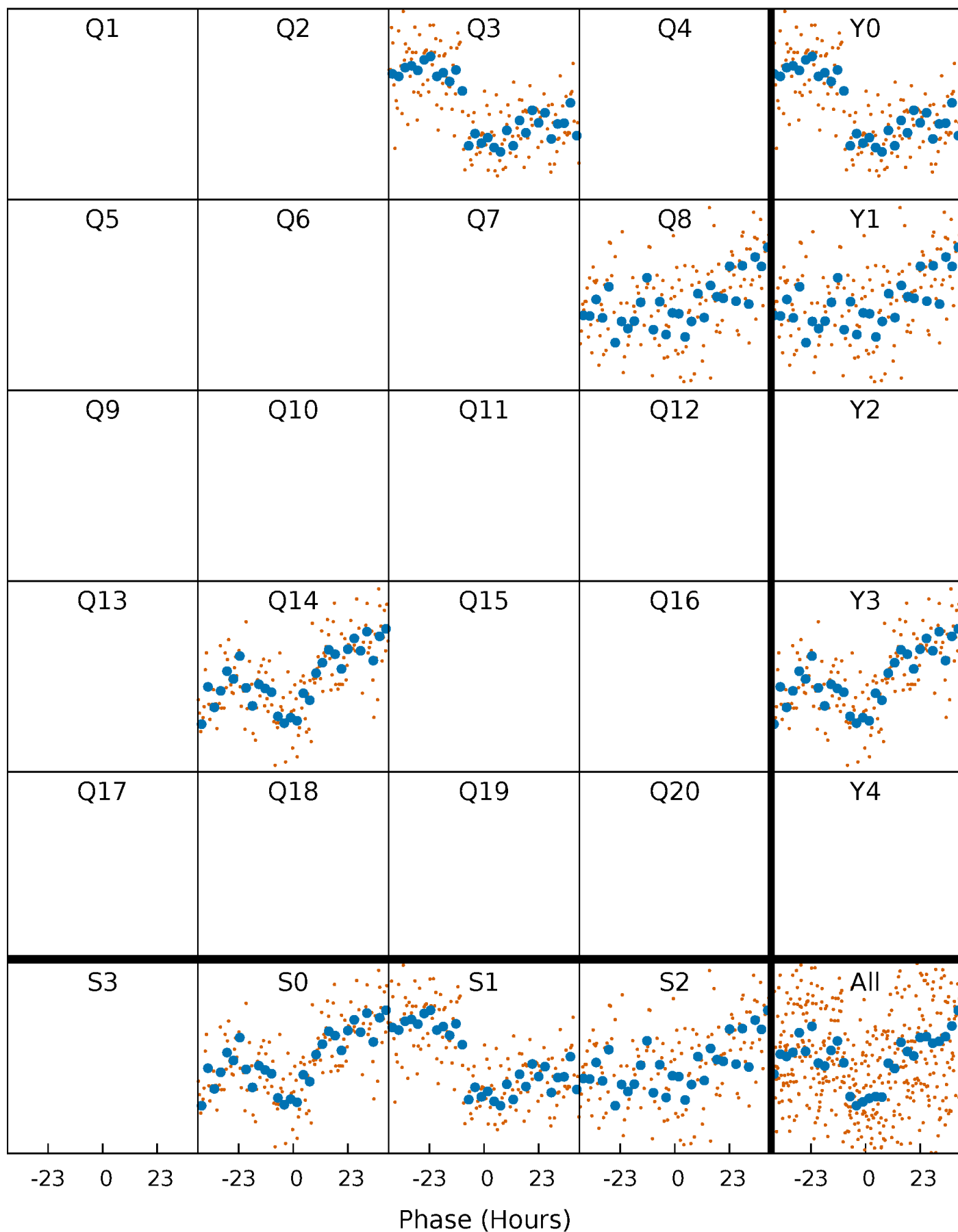


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



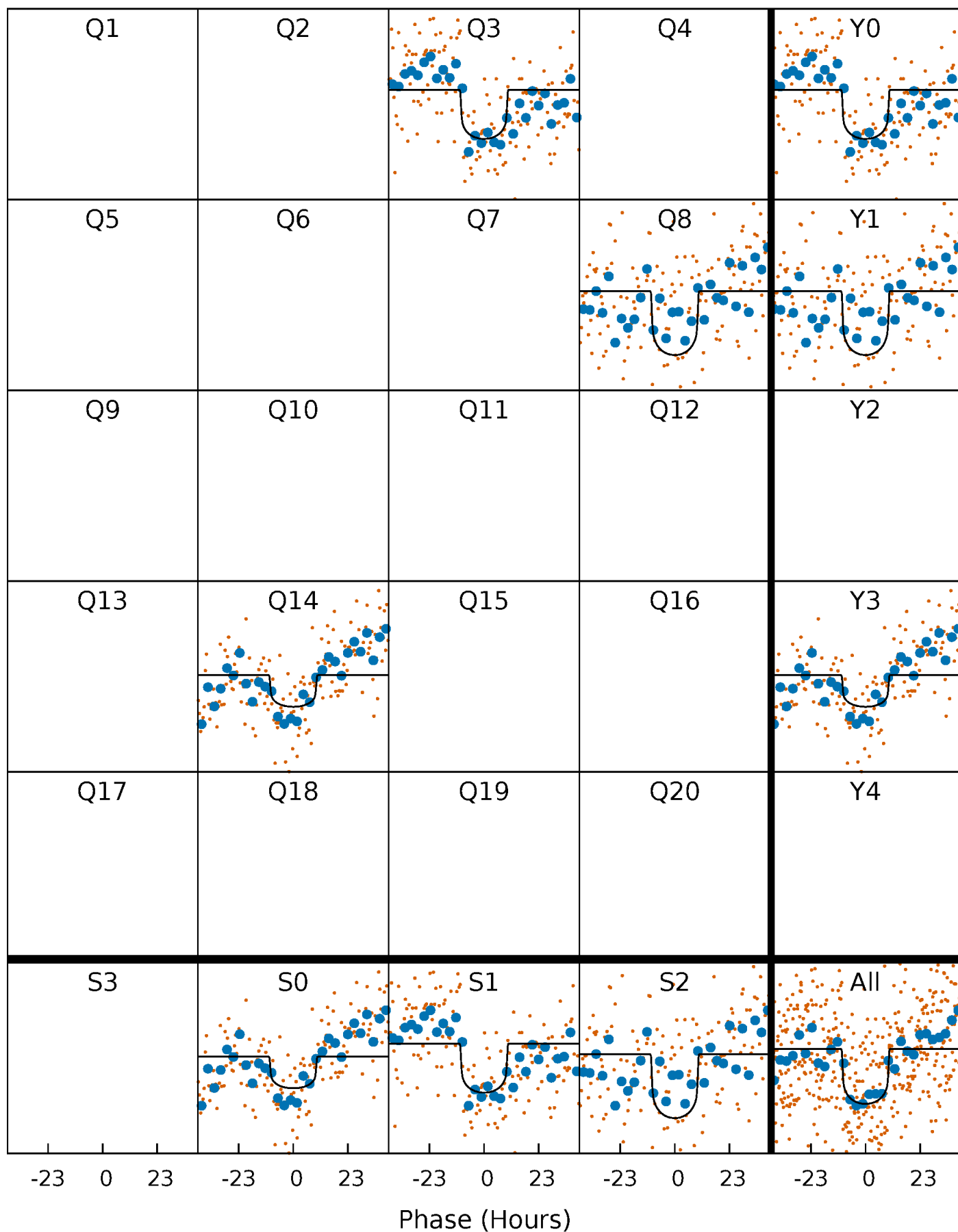
PDC Quarter-Phased Transit Curves

TCE 007761690-01 P=519.494985 Days $T_0=269.920362$ (BKJD)



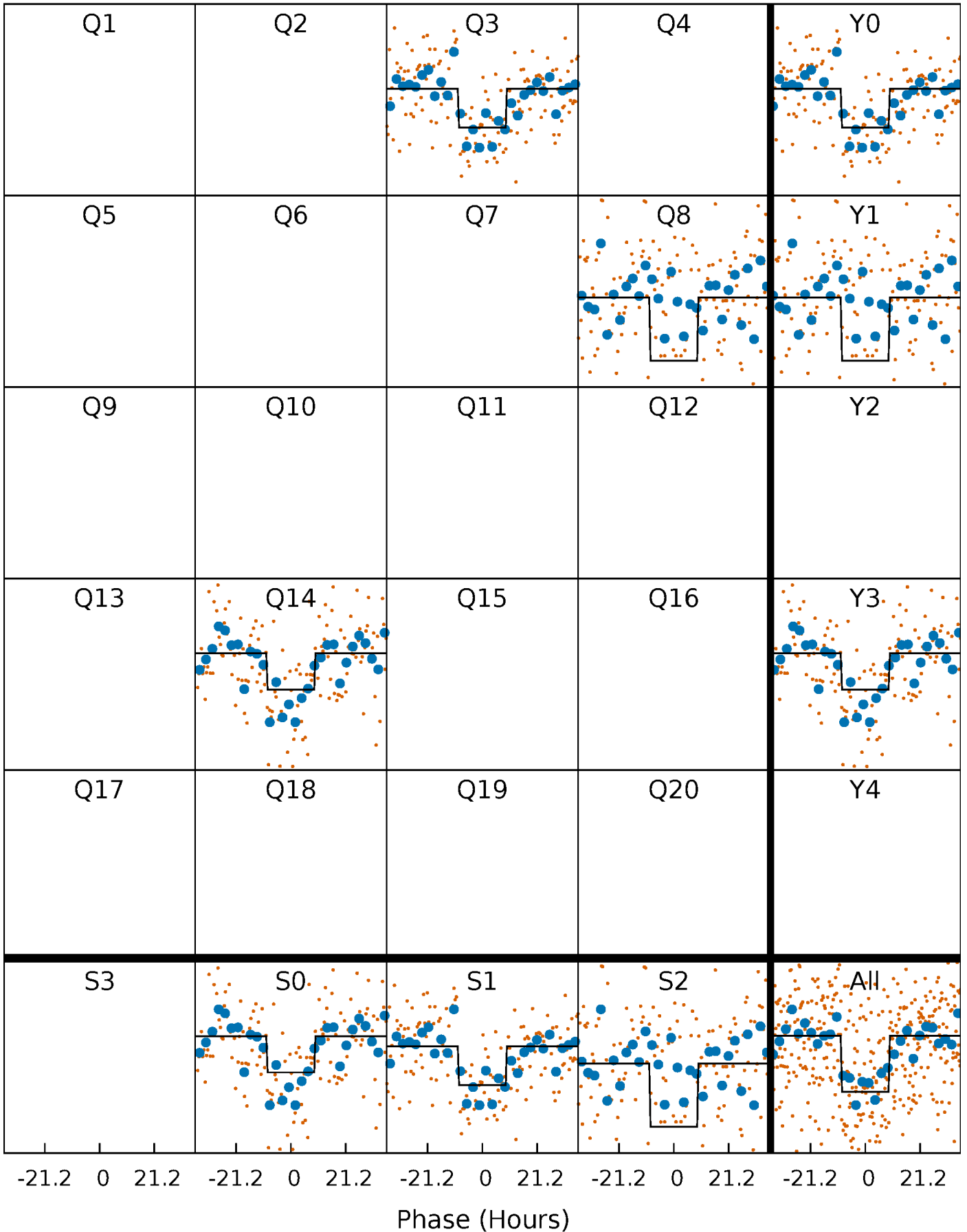
DV Quarter-Phased Transit Curves

TCE 007761690-01 P=519.494985 Days $T_0=269.920362$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

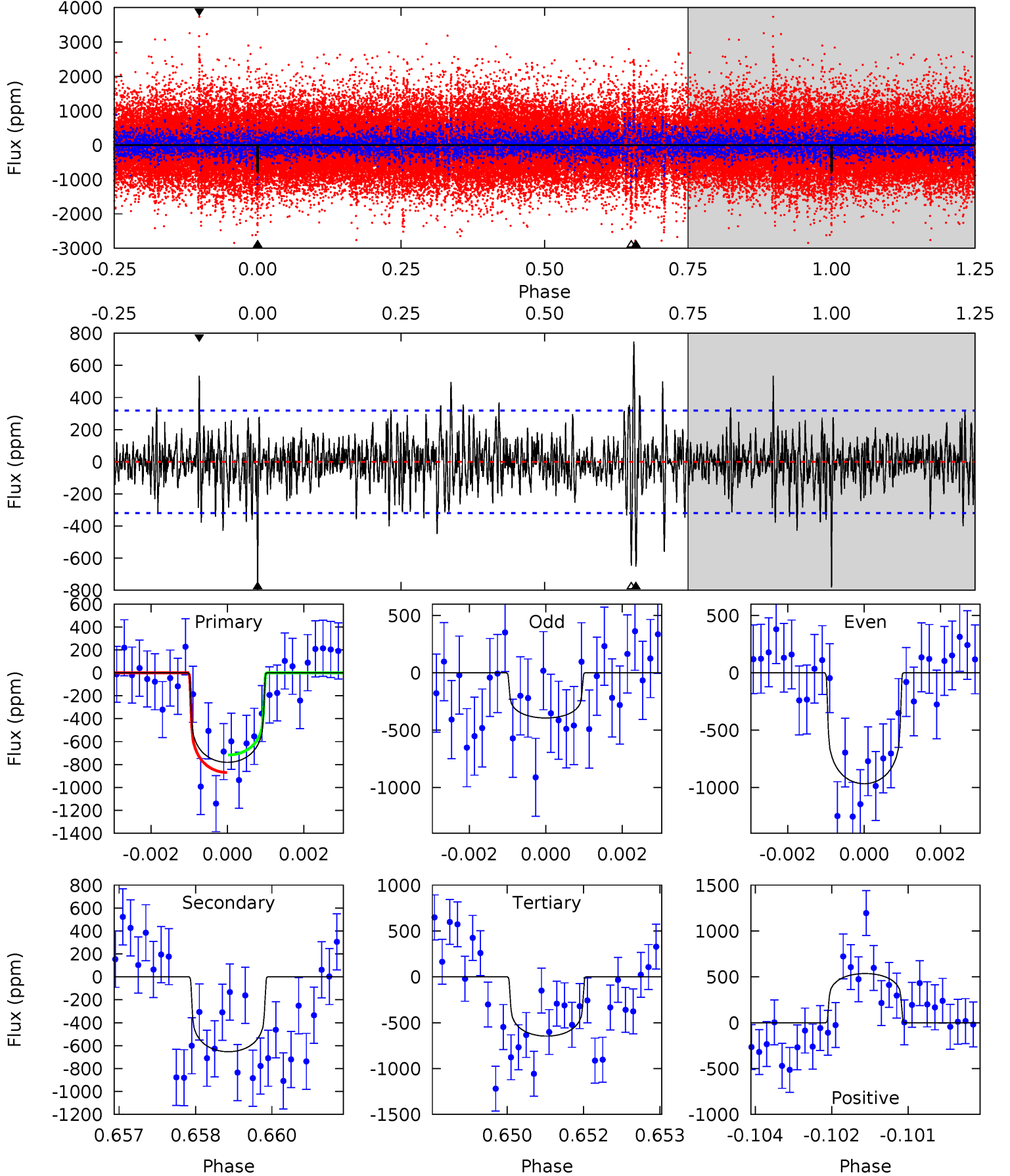
TCE 007761690-01 P=519.516452 Days $T_0=269.919453$ (BKJD)



DV Model-Shift Uniqueness Test

007761690-01, P = 519.494985 Days, E = 269.920362 Days

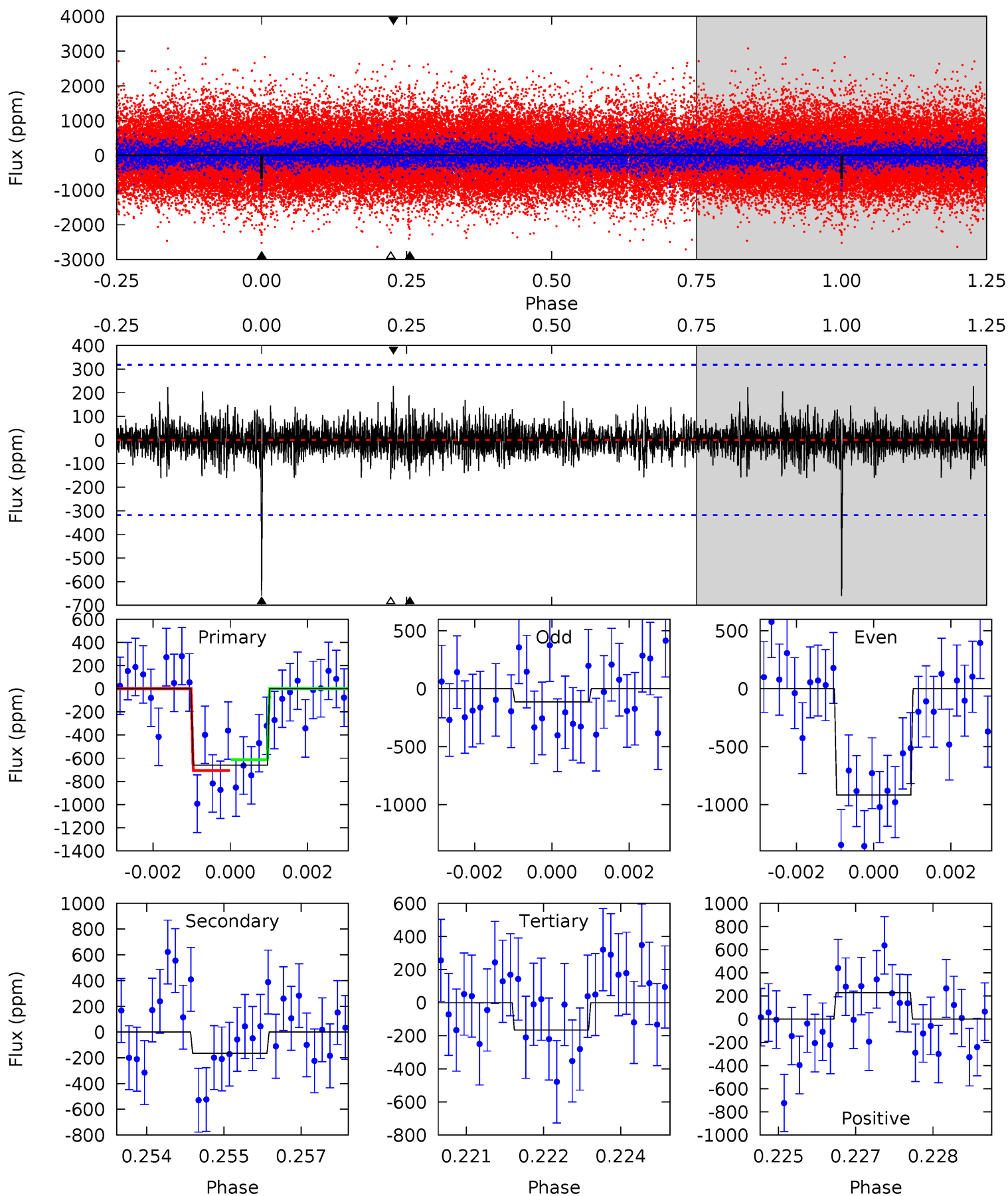
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	11.0	10.9	9.00	5.36	3.15	2.08	2.27	4.13	0.12	1.98	4.58	0.84	0.49	1.28



Alt Model-Shift Uniqueness Test

007761690-01, P = 519.516452 Days, E = 269.919453 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	2.80	2.80	3.85	5.38	3.17	0.78	8.36	7.30	0.00	-1.05	6.45	0.75	0.26	0.79



Stellar Parameters For KIC 007761690

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6468^{+180}_{-248}	$4.363^{+0.065}_{-0.195}$	$0.210^{+0.200}_{-0.350}$	$1.250^{+0.393}_{-0.157}$	$1.313^{+0.154}_{-0.205}$	$0.948^{+0.272}_{-0.507}$
	+3%/-4%	+1%/-4%	+95%/-167%	+31%/-13%	+12%/-16%	+29%/-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 007761690-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-653 ± 59	$3.89^{+1.47}_{-1.45}$	385^{+29}_{-20}	6223^{+1811}_{-894}	44611^{+66659}_{-21059}
Alt.	-166 ± 59	$3.73^{+1.49}_{-1.31}$	384^{+30}_{-21}	4595^{+999}_{-602}	11680^{+17842}_{-6299}

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

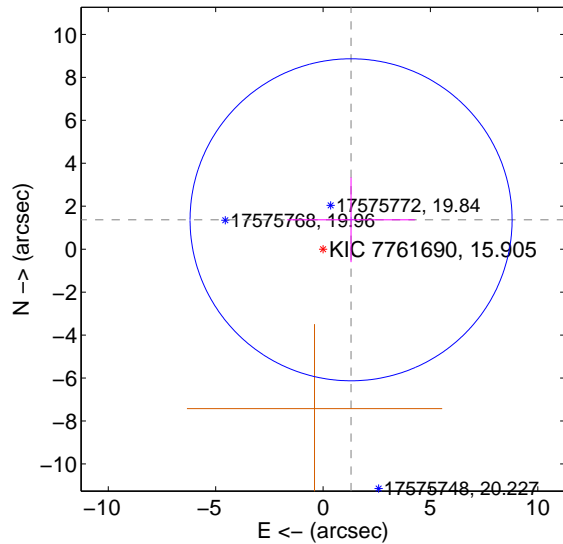
Supplemental centroid analysis for 007761690-01. Kepler magnitude: 15.90. Transit SNR 8.11

There are 1 quarters with good PRF difference image offsets

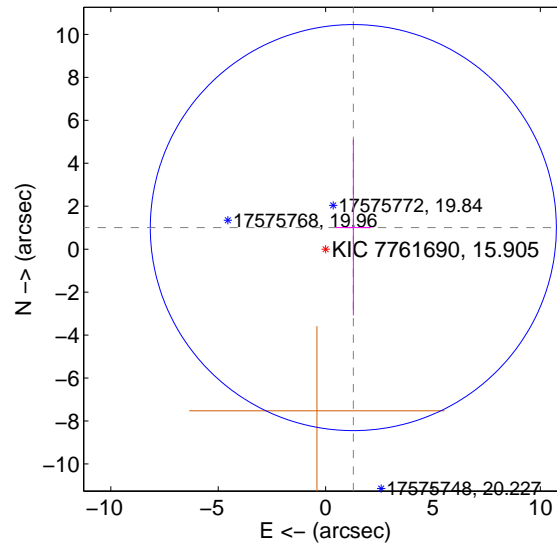
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.891 ± 2.499	0.76	-1.306 ± 2.972	1.368 ± 1.971
PRF-fit source offset from KIC position	1.637 ± 3.151	0.52	-1.292 ± 0.815	1.005 ± 4.087
photometric centroid source offset	2.70 ± 1.96	1.38	-0.46 ± 1.84	-2.66 ± 1.96

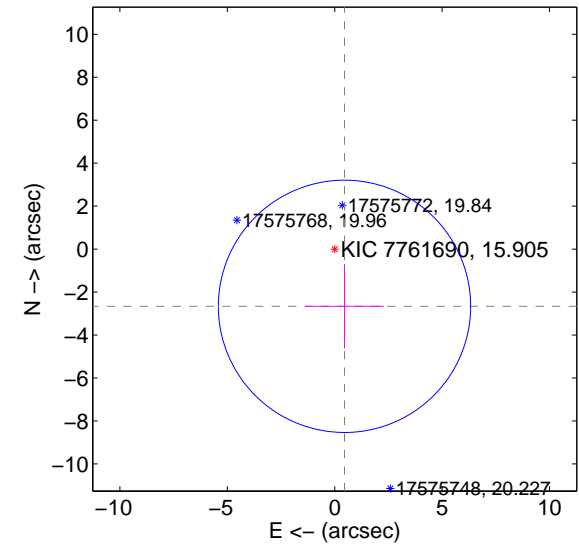
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

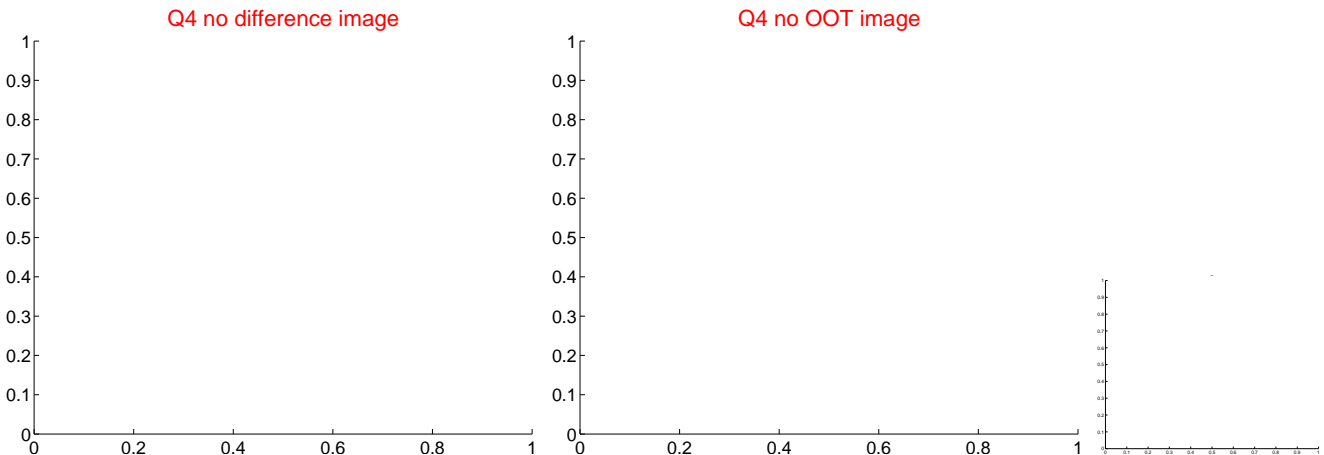
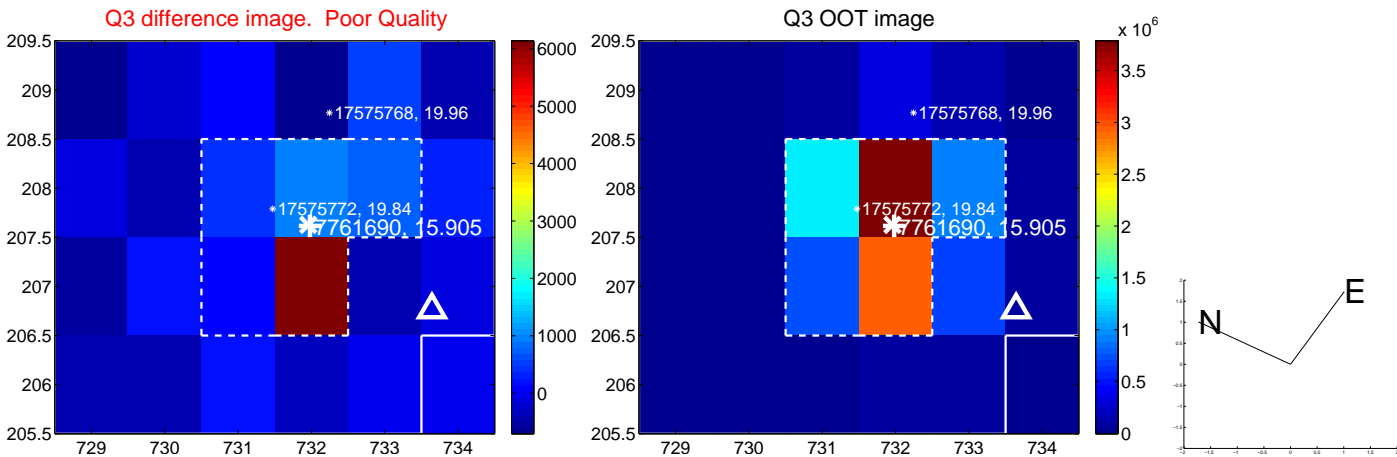
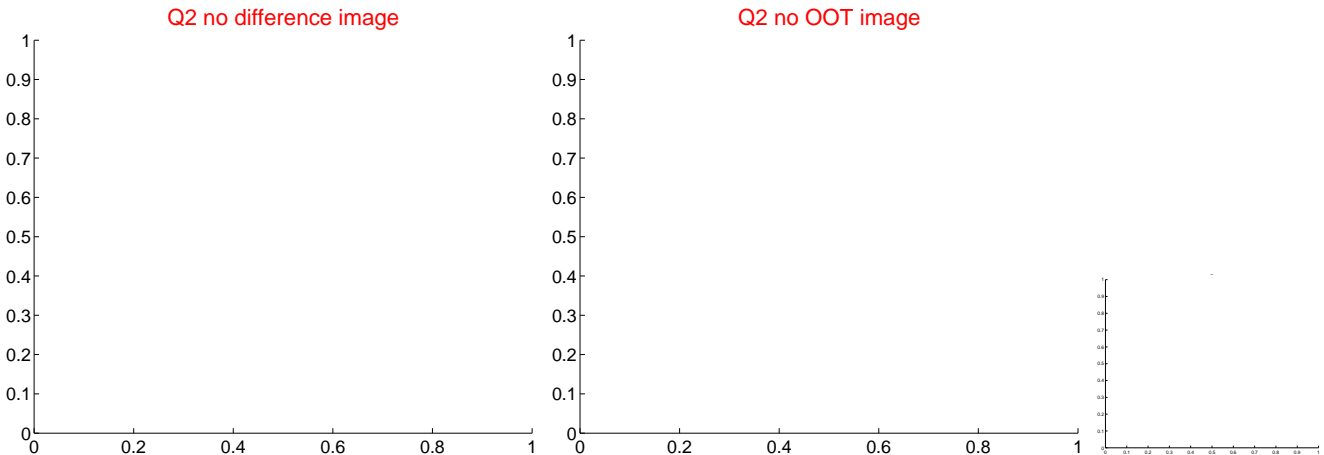
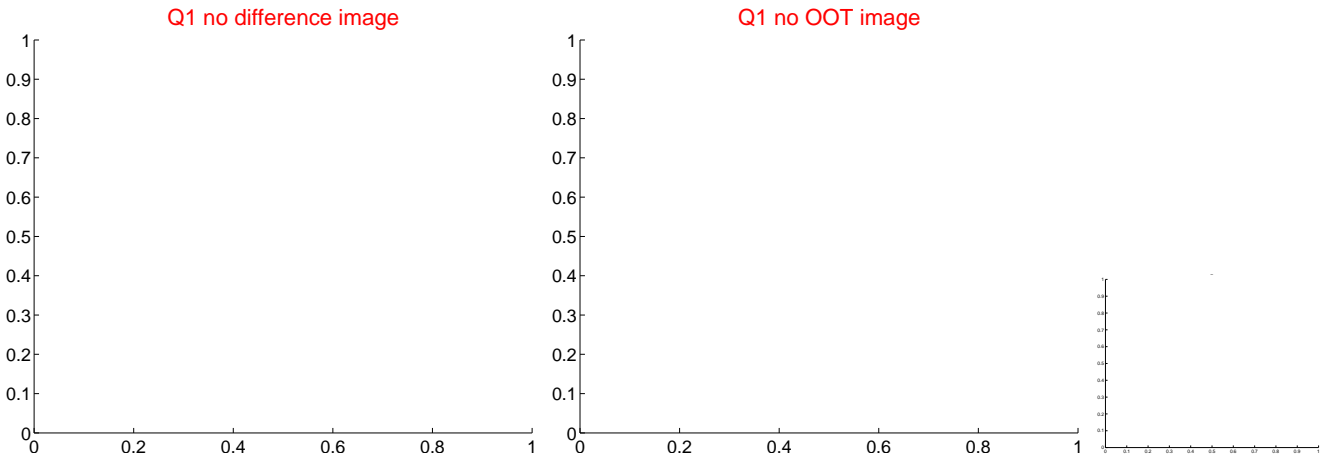


offset from photometric centroids

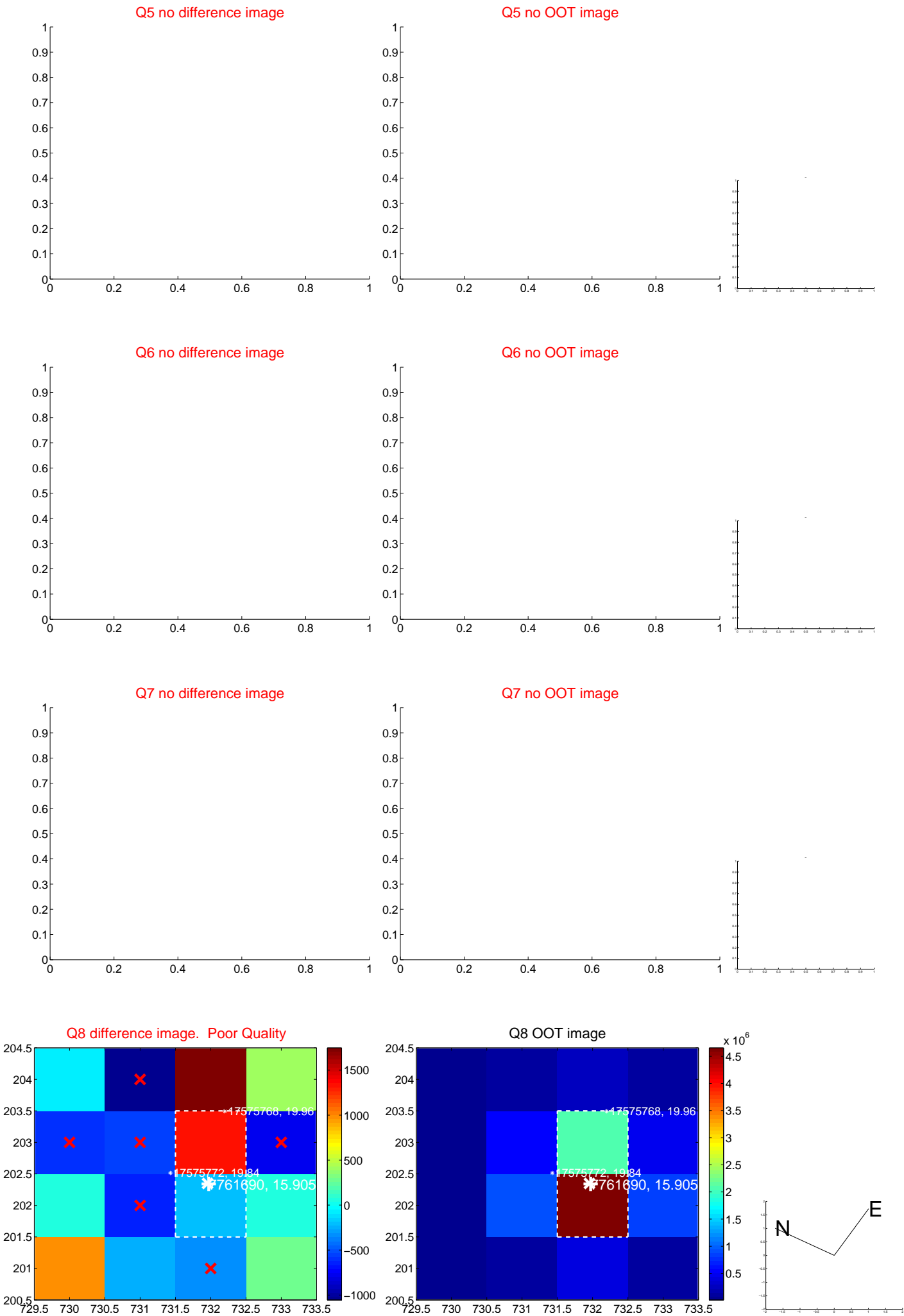


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



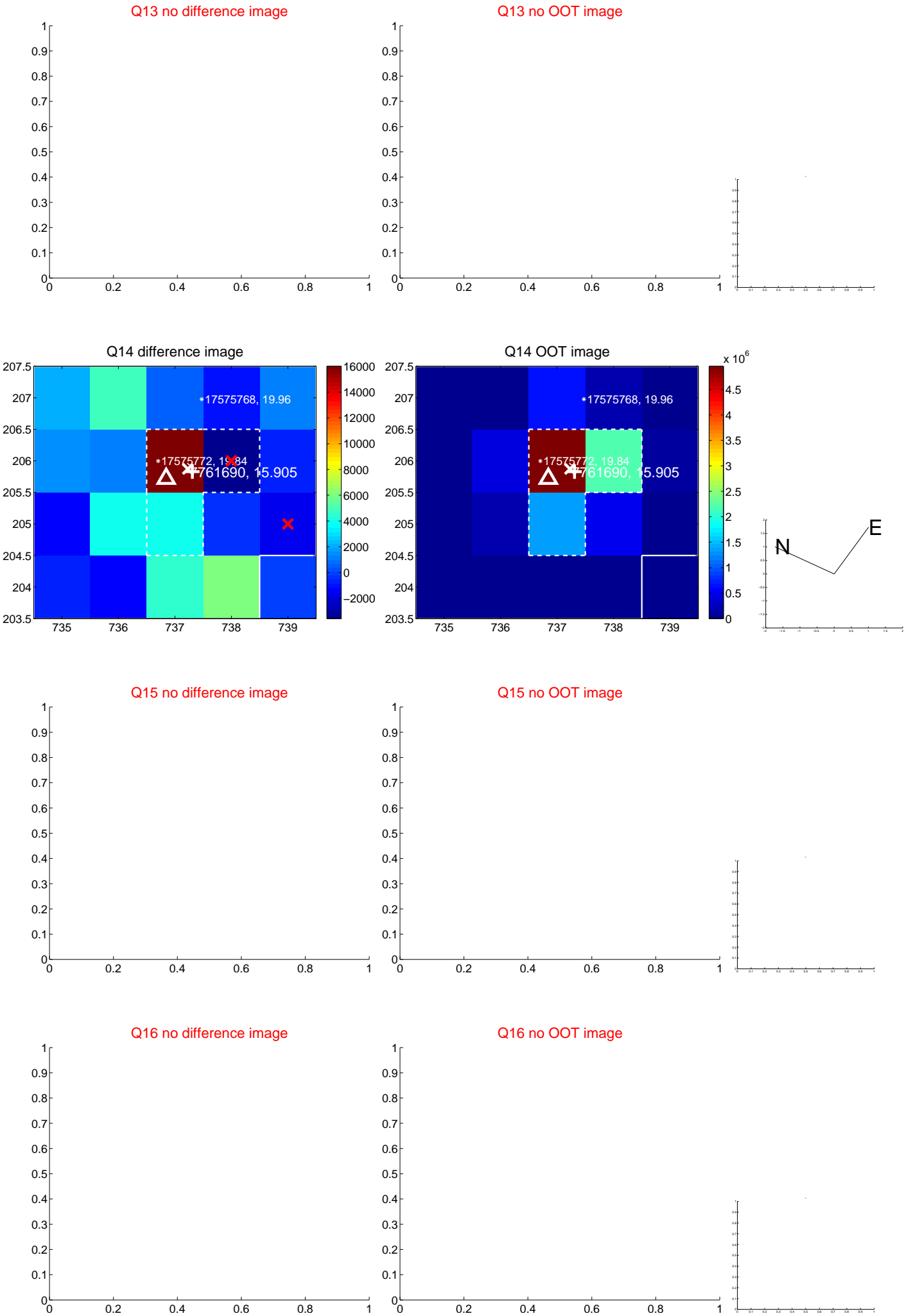
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



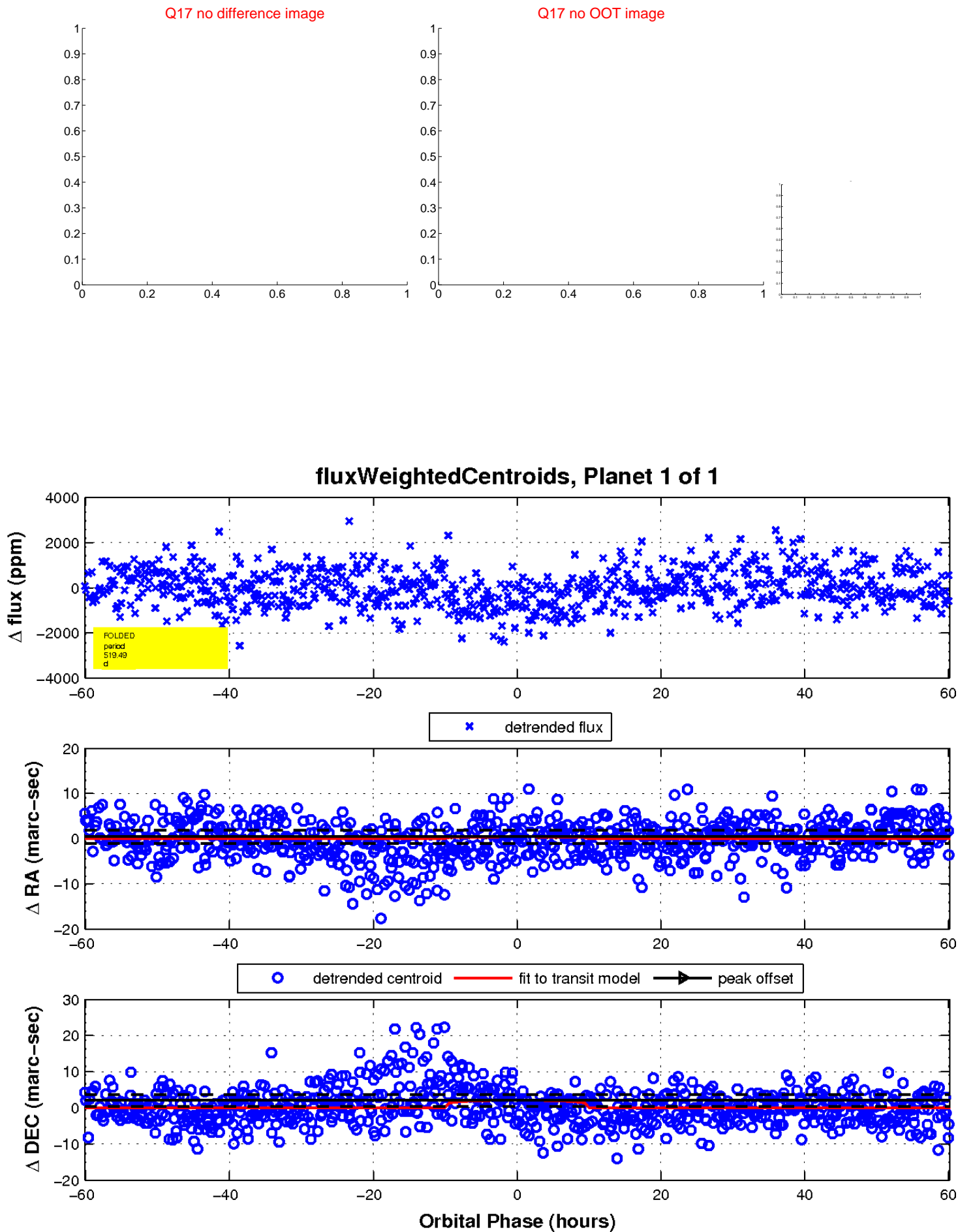
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

