

KIC 007601633

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})
007601633-01	OBS	0136.01	15.663888	131.731777	5117.4	2.471	292.3	286.1	2.22	5996	25.52	299.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007601633-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

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 007601633-01

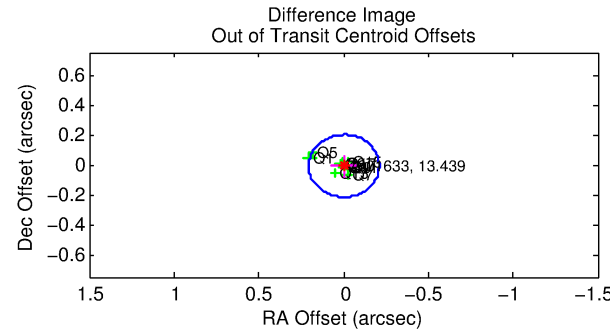
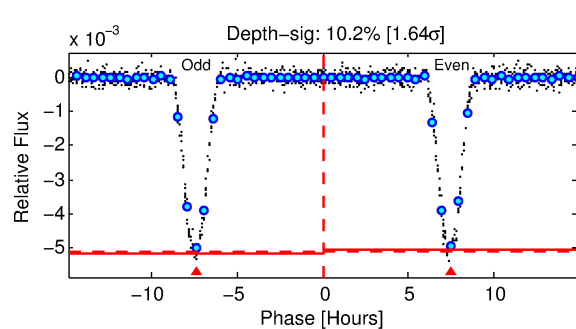
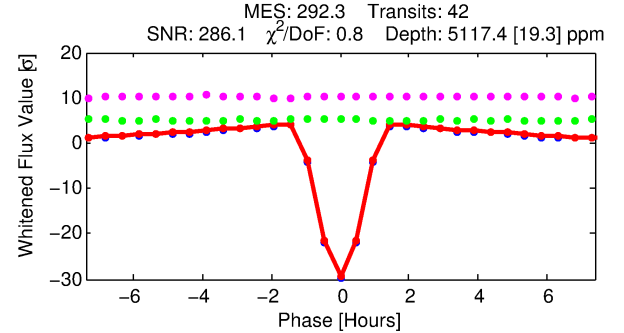
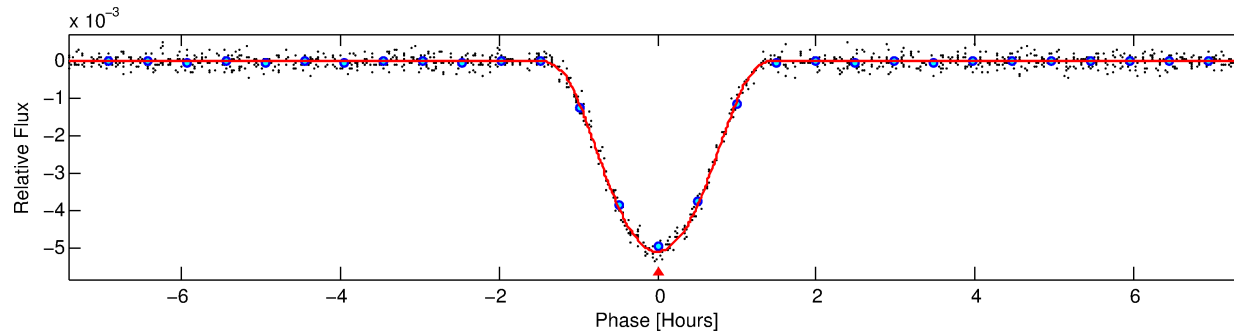
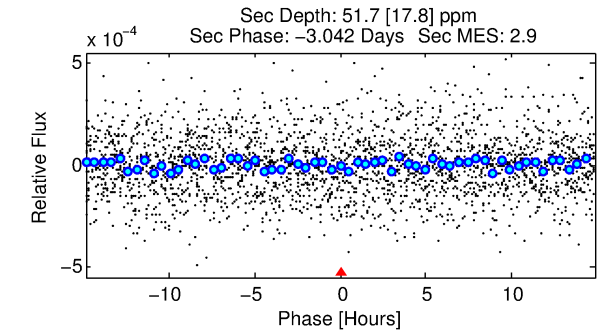
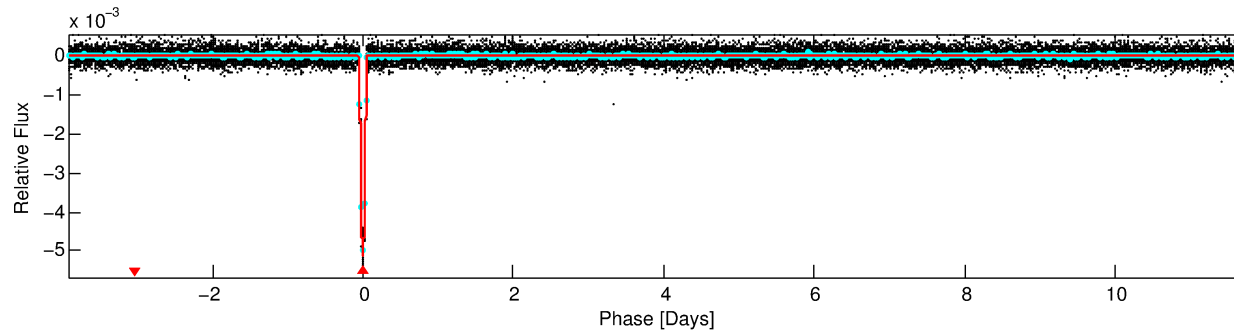
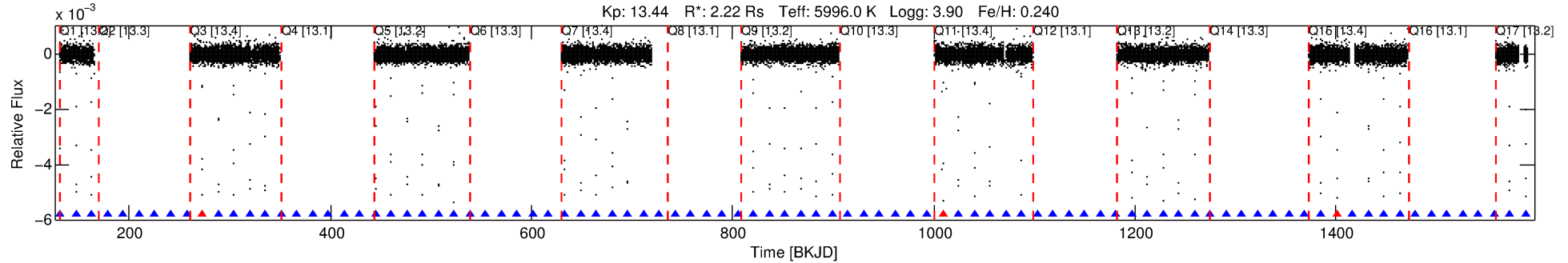
No Significant Match Found

DV One-Page Summary

KIC: 7601633 Candidate: 1 of 1 Period: 15.664 d

KOI: K00136.01 Corr: 0.993

Kp: 13.44 R*: 2.22 Rs Teff: 5996.0 K Logg: 3.90 Fe/H: 0.240



DV Fit Results:

Period = 15.66389 [0.00000] d
Epoch = 131.7318 [0.0002] BKJD
Rp/R* = 0.1053 [0.0125]
a/R* = 25.21 [0.74]
b = 0.98 [0.02]
Seff = 299.35 [106.30]
Teq = 1061 [94] K
Rp = 25.52 [7.22] Re
a = 0.1381 [0.0315] AU
Ag = 0.83 [0.45] [-0.37σ]
Teffp = 1567 [167] K [2.65σ]

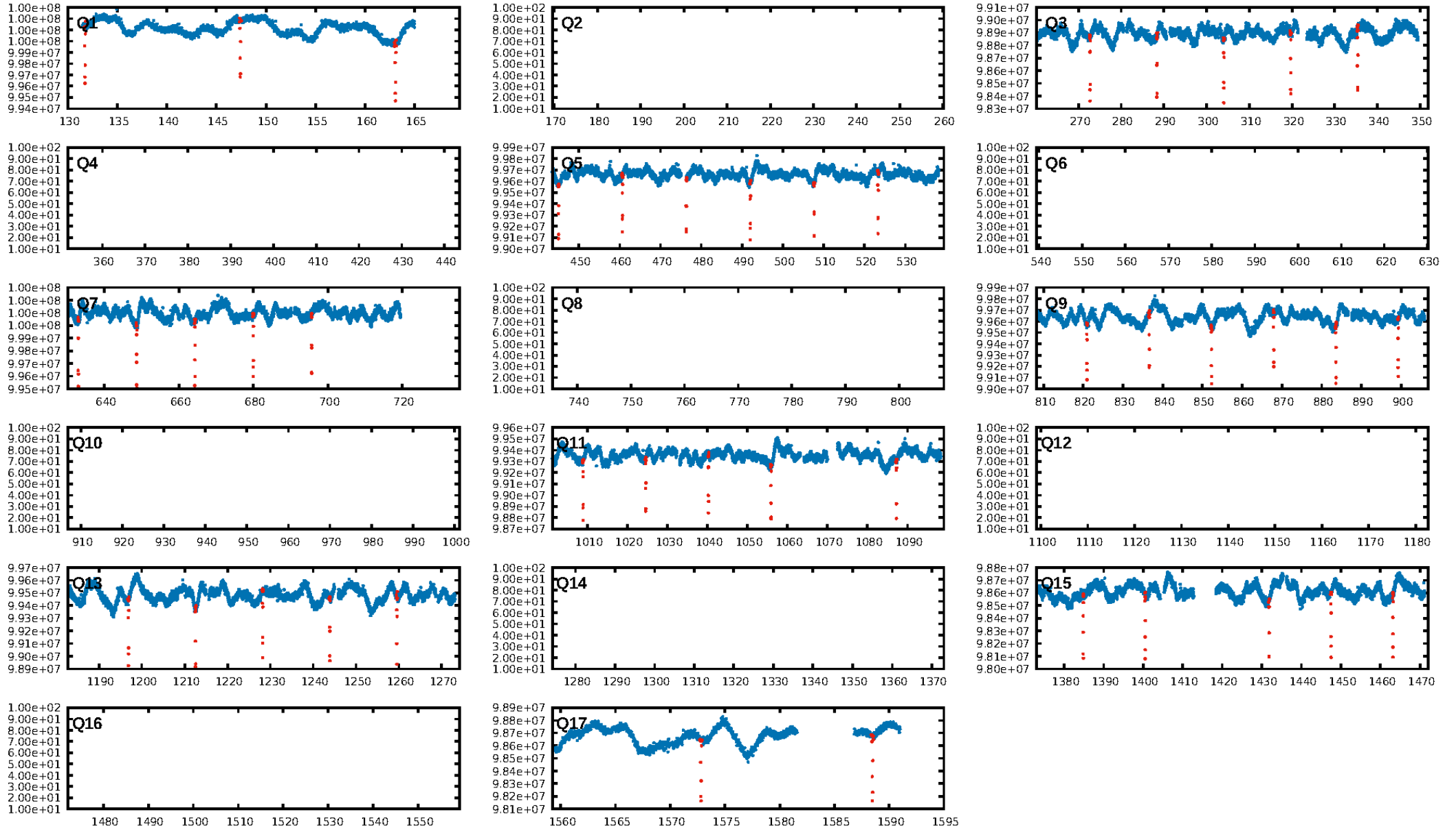
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.92 [34/37]
GhostDiagnostic-chr: 6.327
Centroid-sig: N/A
Centroid-so: 0.070 arcsec [1.79σ]
OotOffset-rm: 0.008 arcsec [0.12σ]
KicOffset-rm: 0.034 arcsec [0.44σ]
OotOffset-st: 0/4/0/5 [9]
KicOffset-st: 0/4/0/5 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

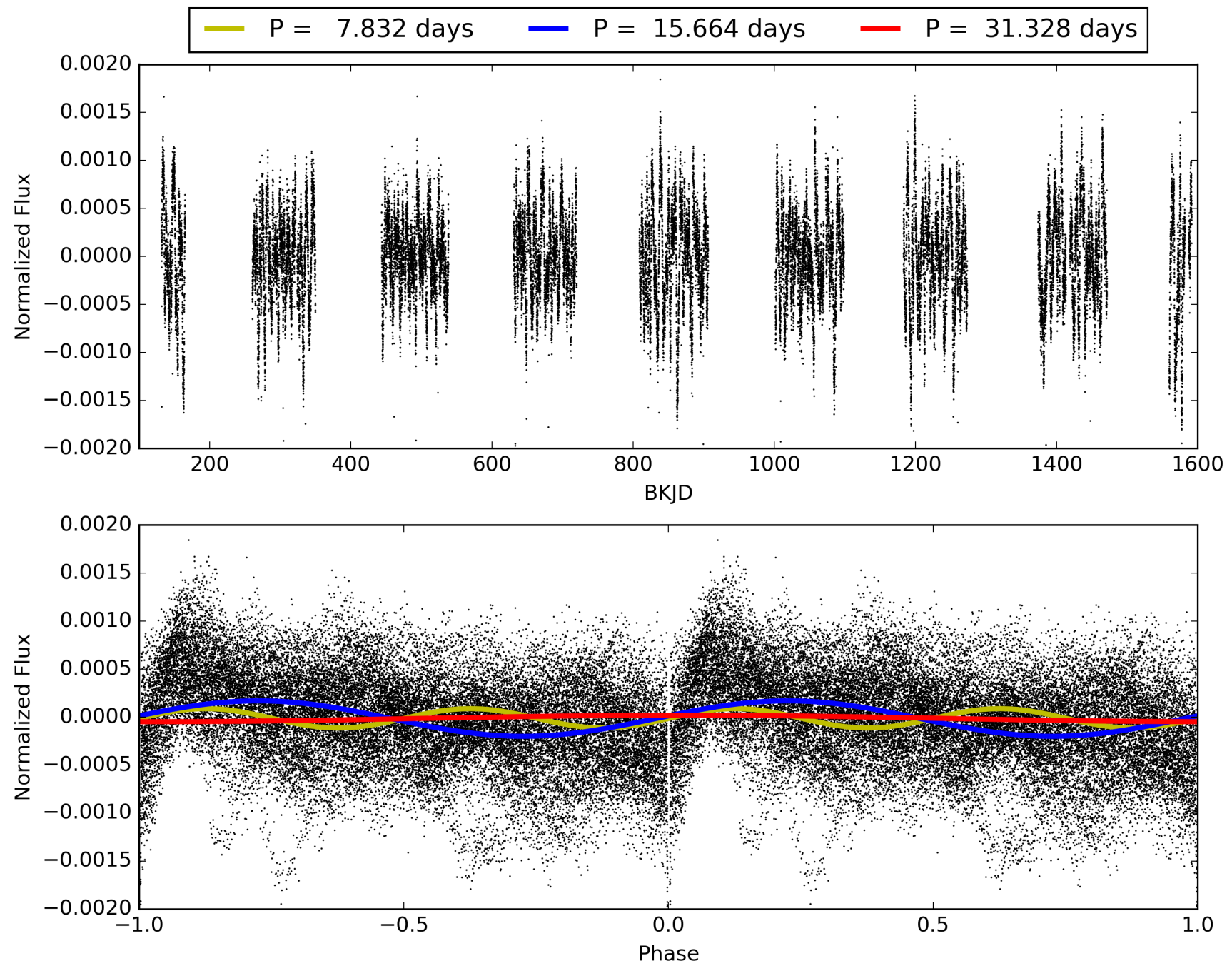
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:00:39 Z

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

TCE 007601633-01, PDC Light Curves

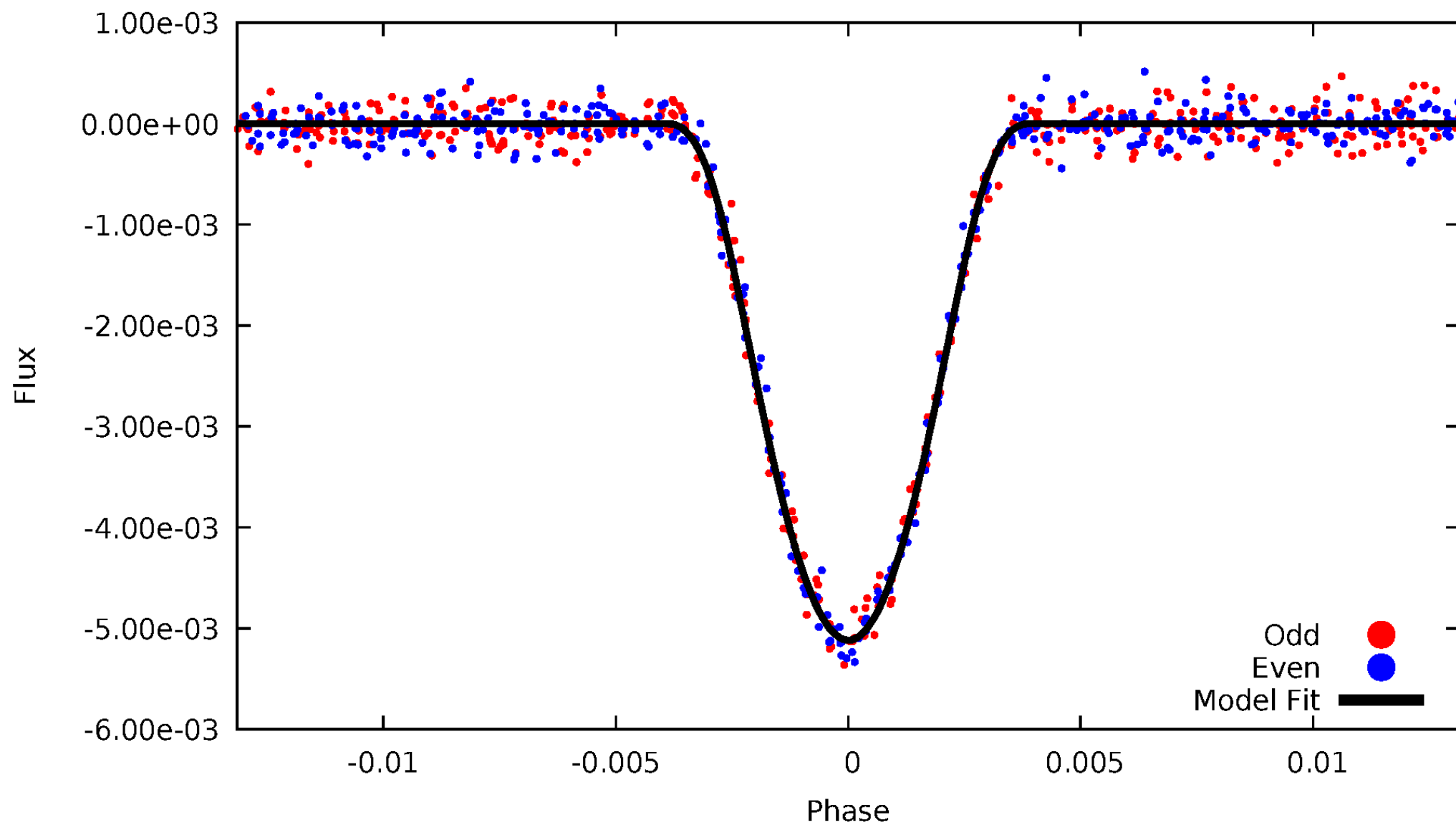


TCE 007601633-01



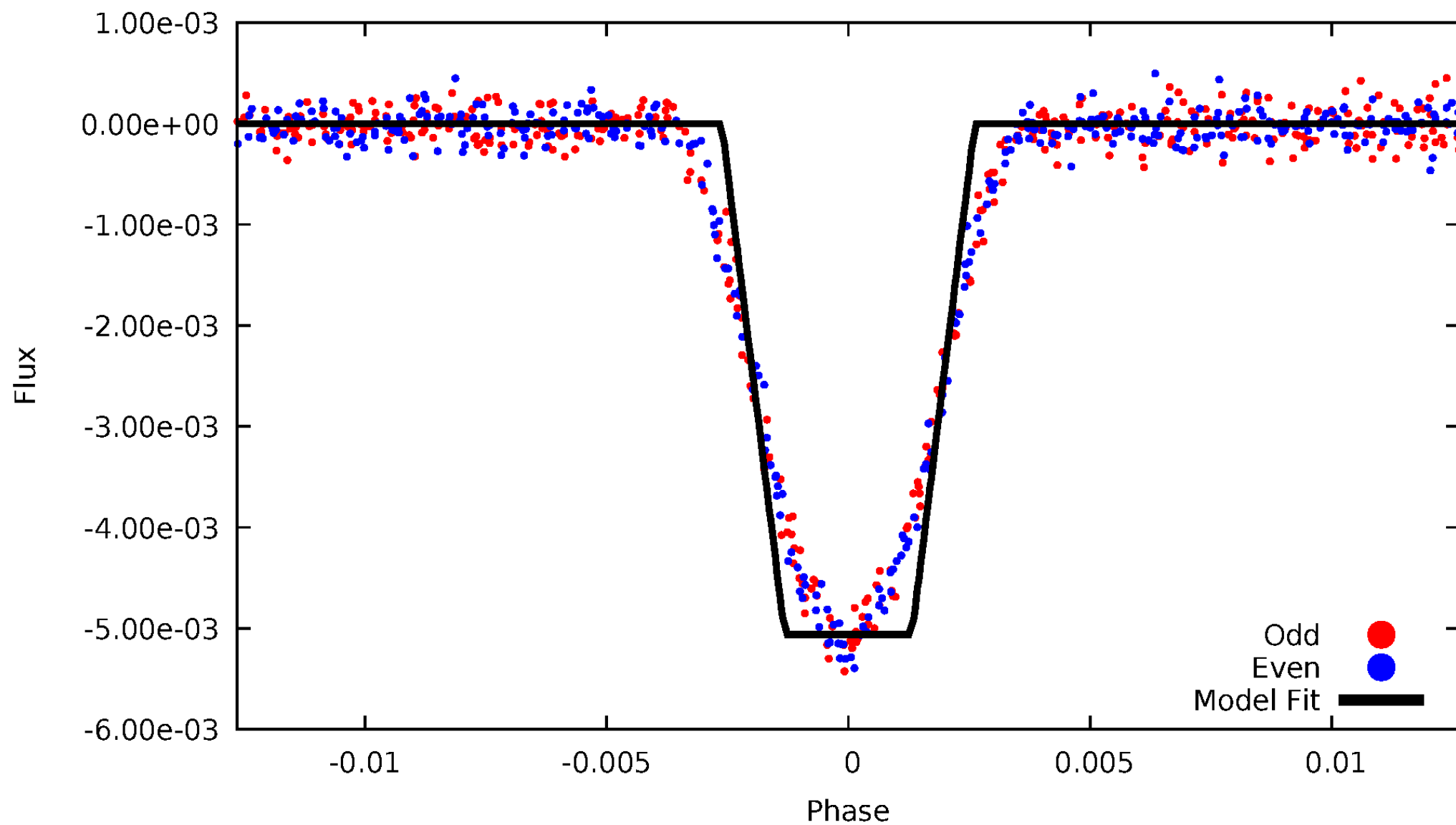
DV Odd/Even

TCE 007601633-01



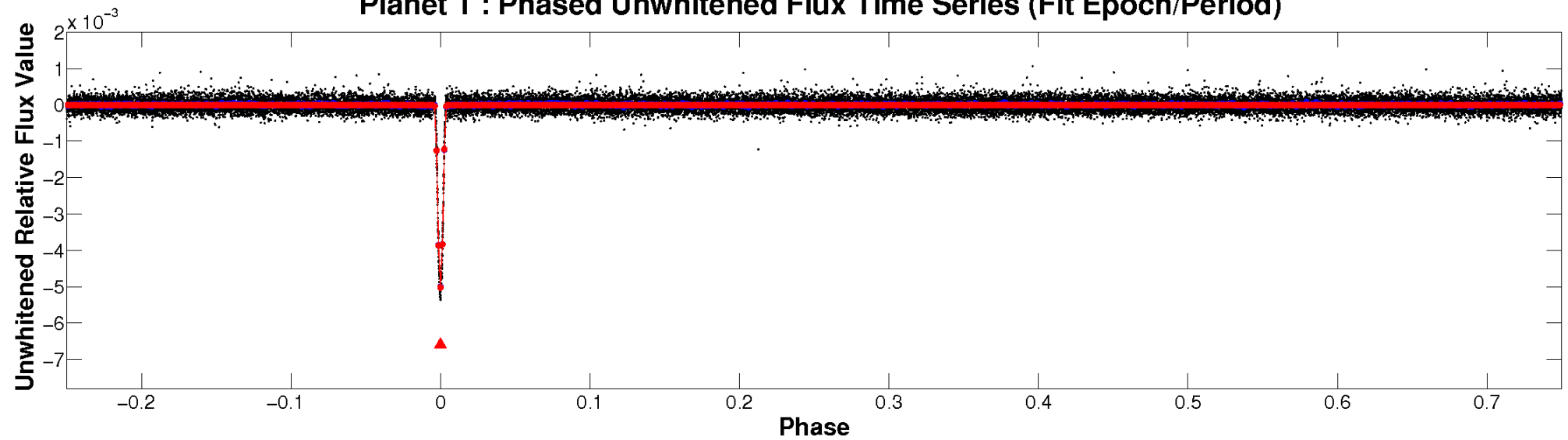
ALT Odd/Even

TCE 007601633-01

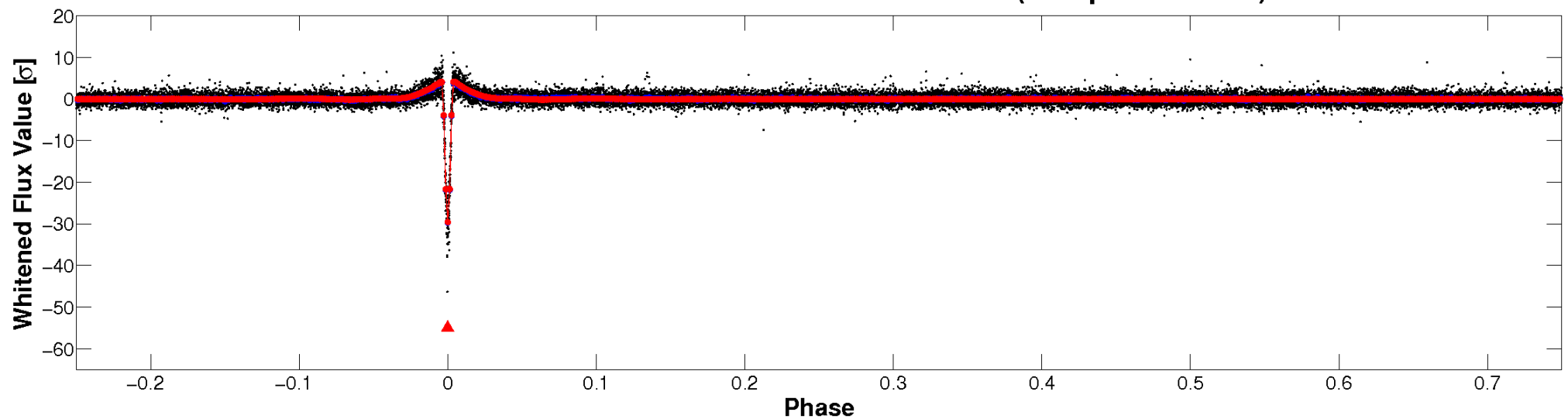


Non-Whitened Vs. Whitened Light Curve

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

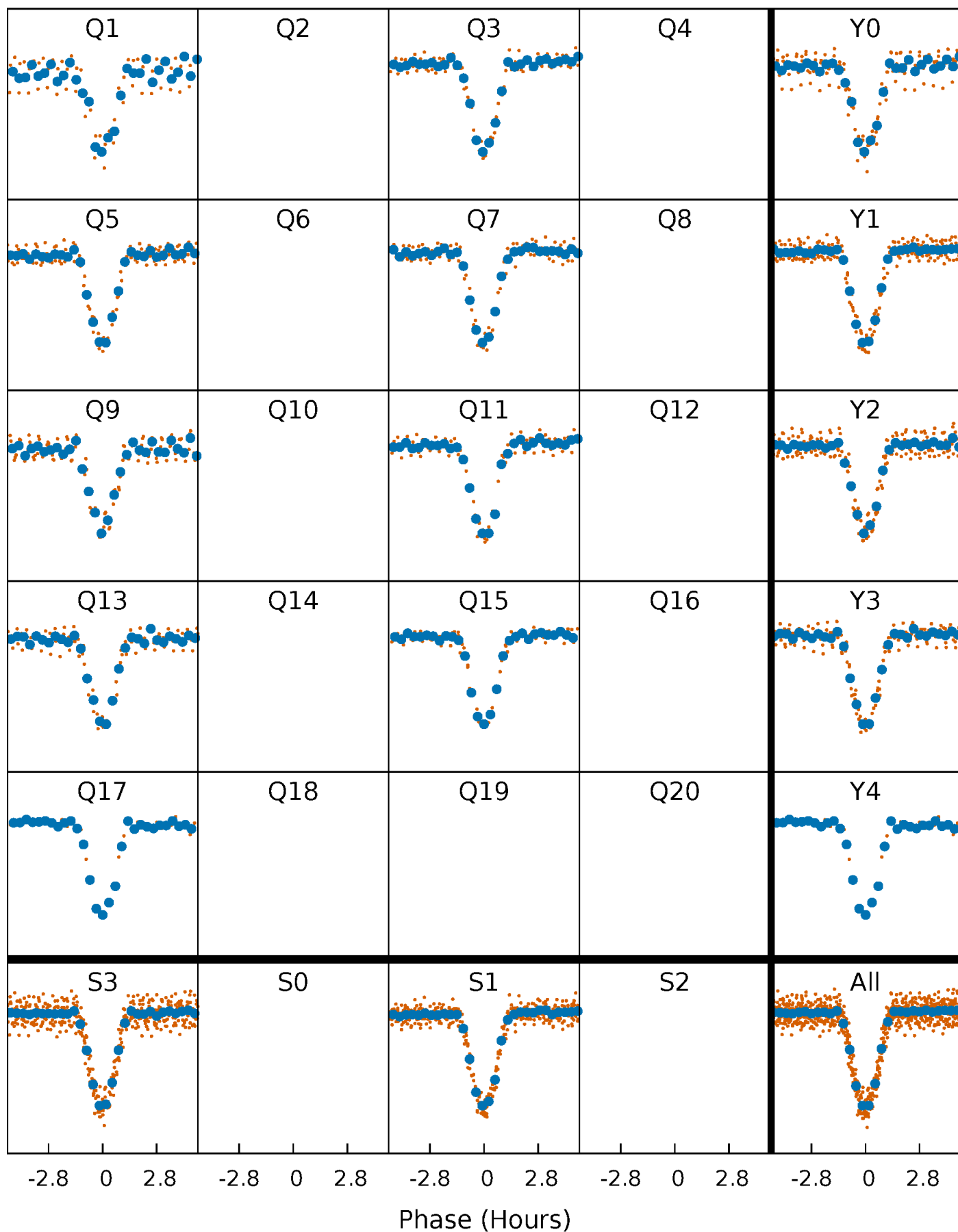


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



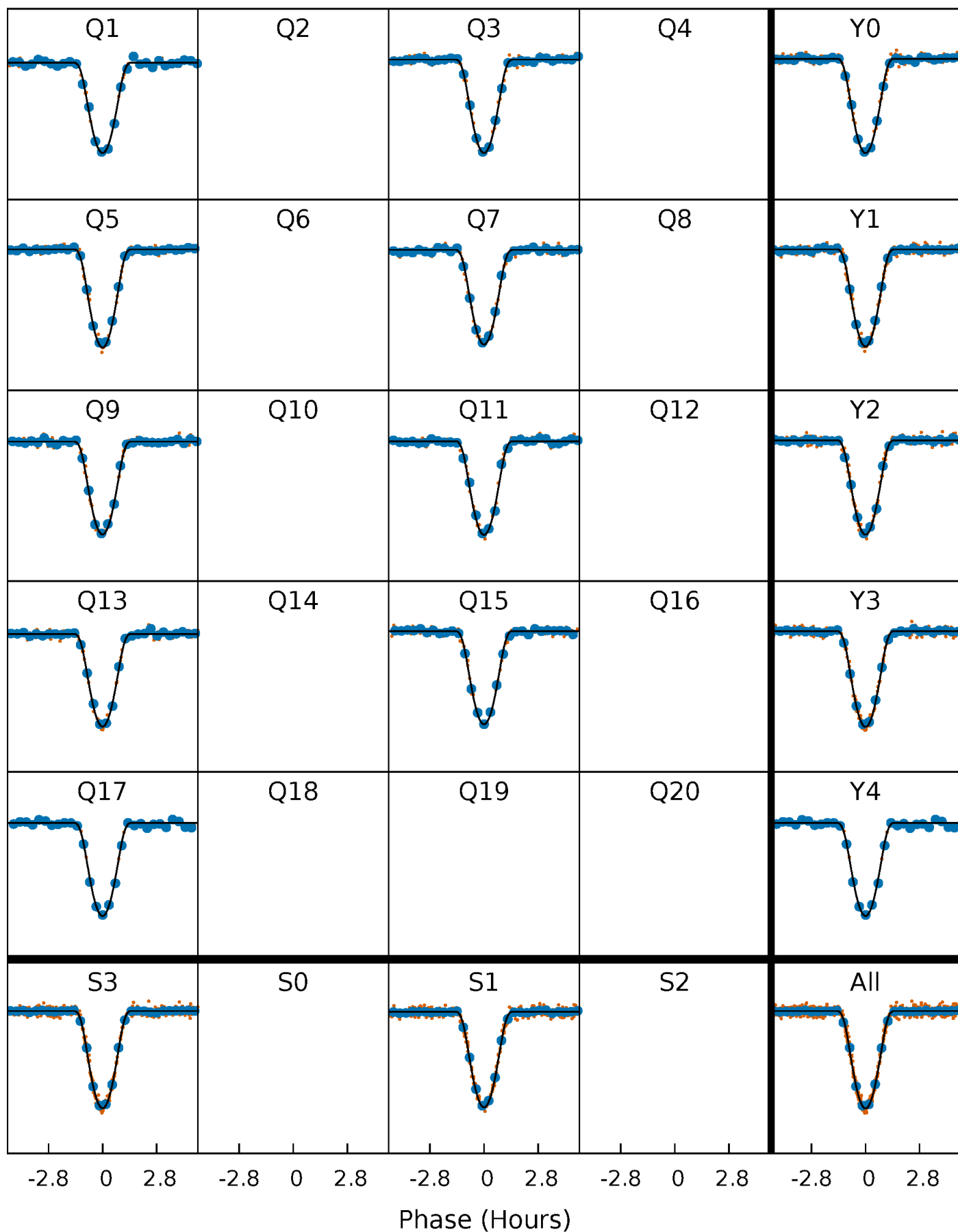
PDC Quarter-Phased Transit Curves

TCE 007601633-01 P= 15.663888 Days $T_0=131.731777$ (BKJD)



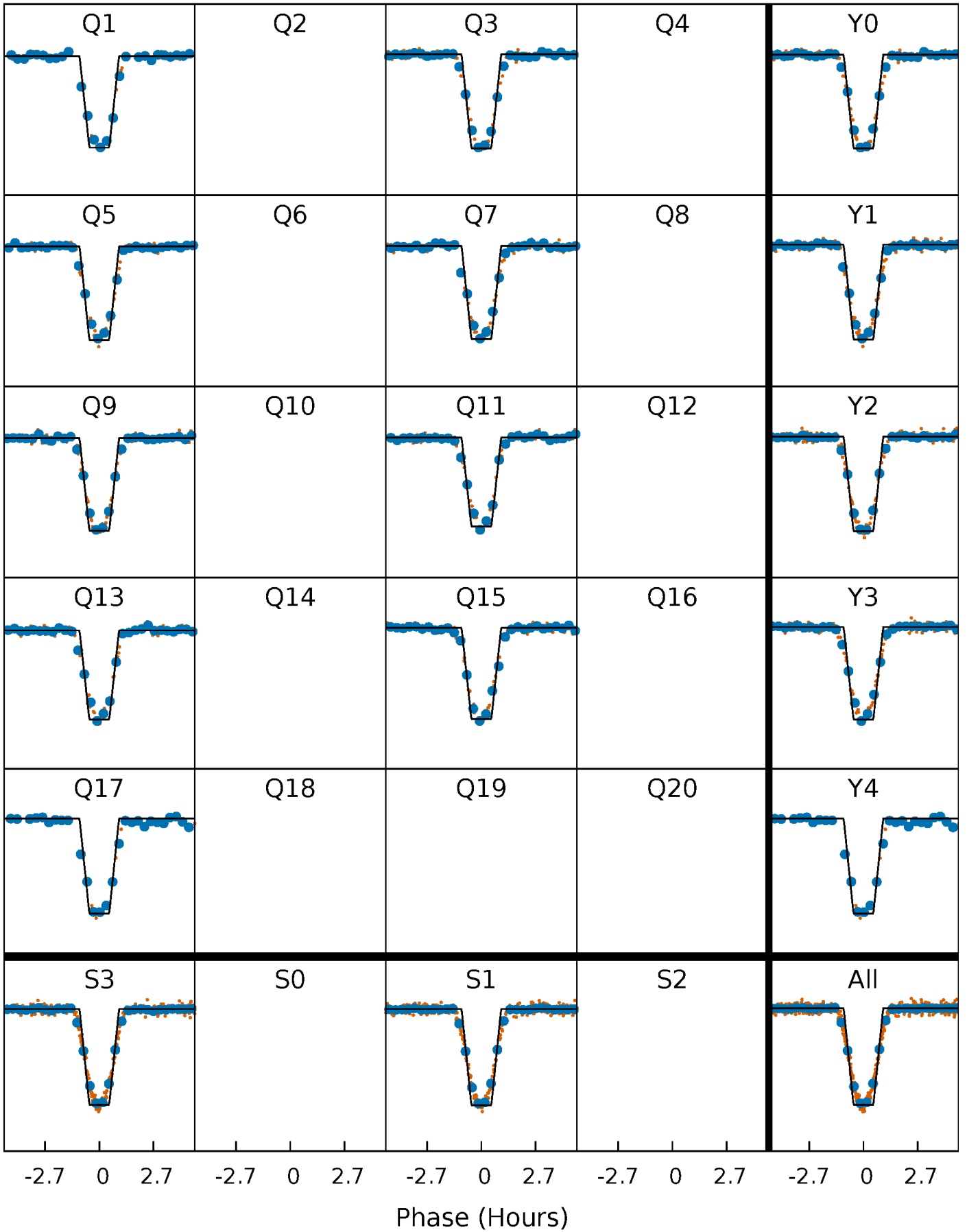
DV Quarter-Phased Transit Curves

TCE 007601633-01 P= 15.663888 Days $T_0=131.731777$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

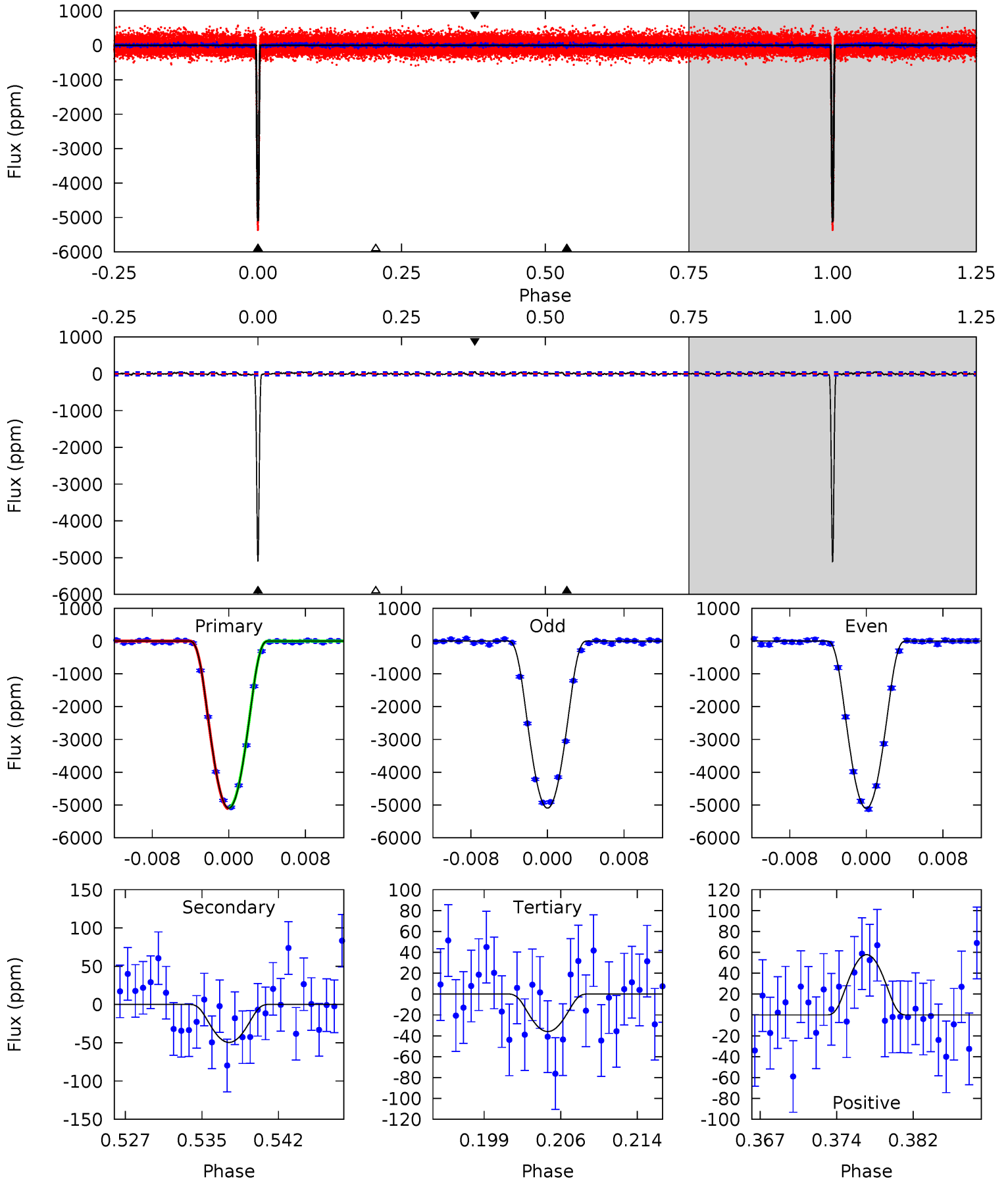
TCE 007601633-01 P= 15.663901 Days $T_0=131.731239$ (BKJD)



DV Model-Shift Uniqueness Test

007601633-01, P = 15.663888 Days, E = 116.067889 Days

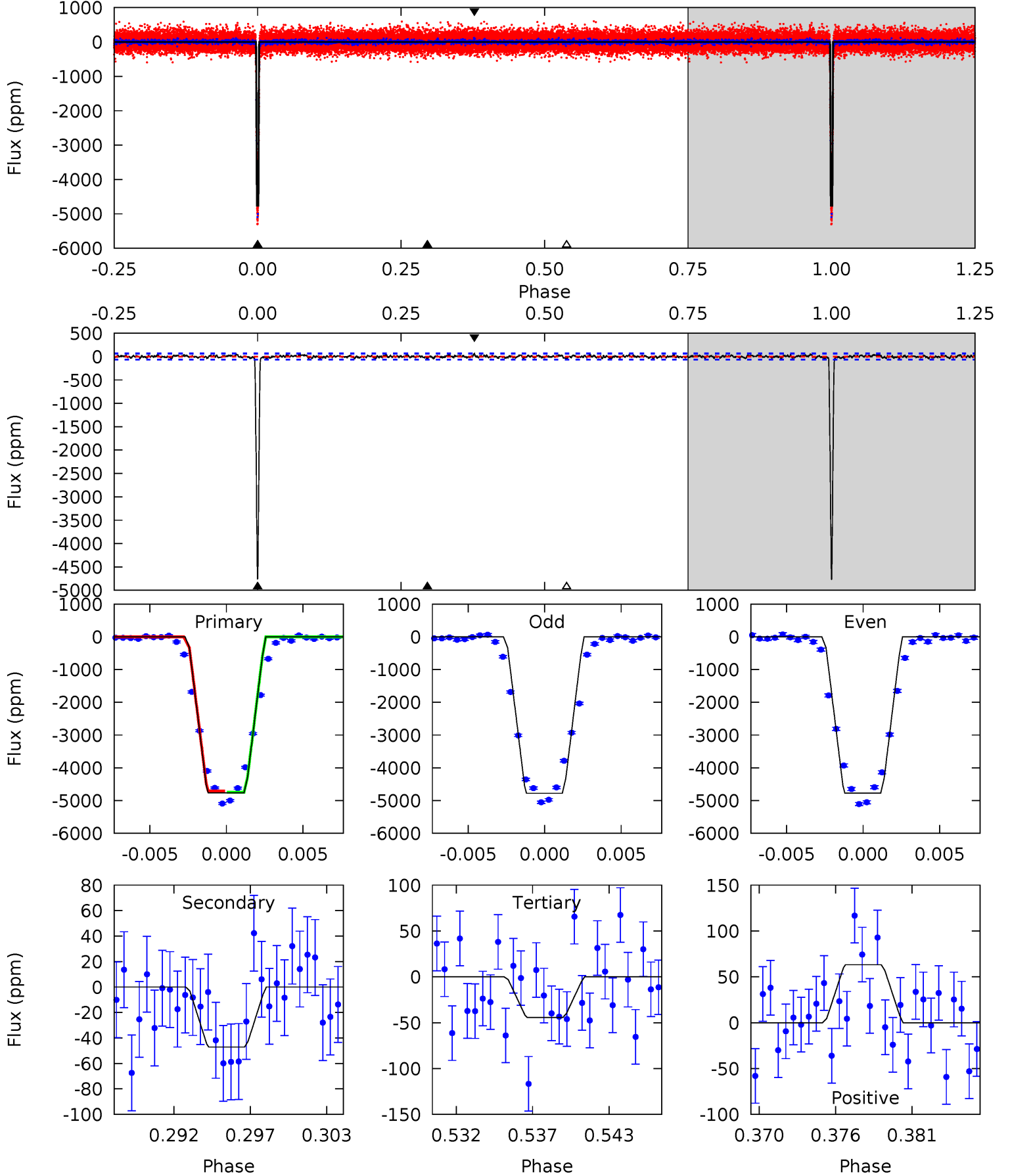
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
540.6	5.25	3.81	6.12	5.08	2.67	1.64	536.7	534.4	1.44	-0.87	0.42	1.00	0.01	1.64



Alt Model-Shift Uniqueness Test

007601633-01, P = 15.663901 Days, E = 116.067338 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
373.3	3.69	3.47	4.95	5.15	2.79	1.23	369.8	368.3	0.22	-1.26	0.12	1.00	0.01	0



Stellar Parameters For KIC 007601633

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5996^{+119}_{-119}	$3.901^{+0.196}_{-0.070}$	$0.240^{+0.150}_{-0.100}$	$2.221^{+0.307}_{-0.570}$	$1.430^{+0.124}_{-0.213}$	$0.184^{+0.207}_{-0.051}$
	+2%/-2%	+5%/-2%	+62%/-42%	+14%/-26%	+9%/-15%	+113%/-28%
Source	SPE18	SPE18	SPE18	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007601633-01 / KOI 0136.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-50 ± 9	$24.58^{+4.09}_{-3.87}$	1467^{+66}_{-93}	2313^{+119}_{-141}	$0.846^{+0.418}_{-0.249}$
Alt.	-47 ± 13	$16.54^{+3.42}_{-3.36}$	1465^{+60}_{-83}	2602^{+189}_{-197}	$1.756^{+1.219}_{-0.662}$

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

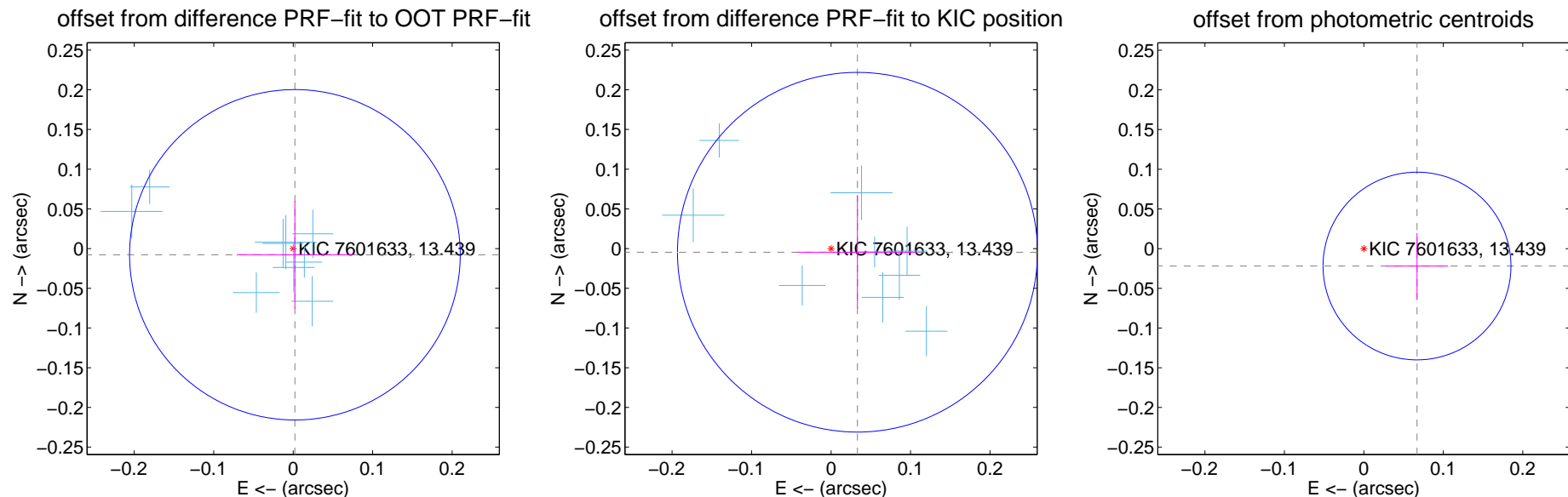
DV Centroid Data

Supplemental centroid analysis for 007601633-01. Kepler magnitude: 13.44. Transit SNR 286.09

There are 9 quarters with good PRF difference image offsets

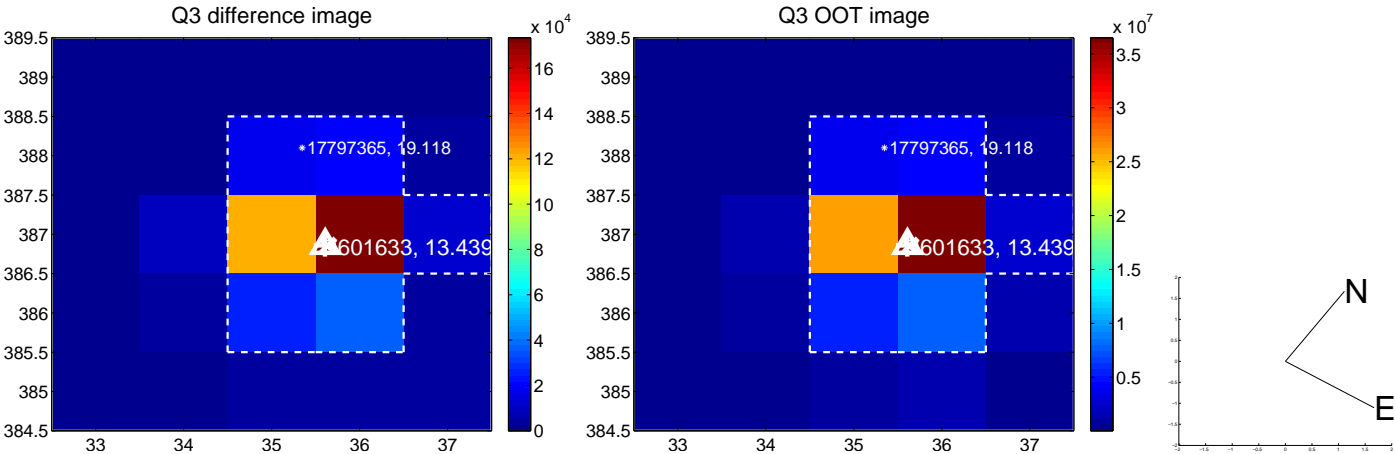
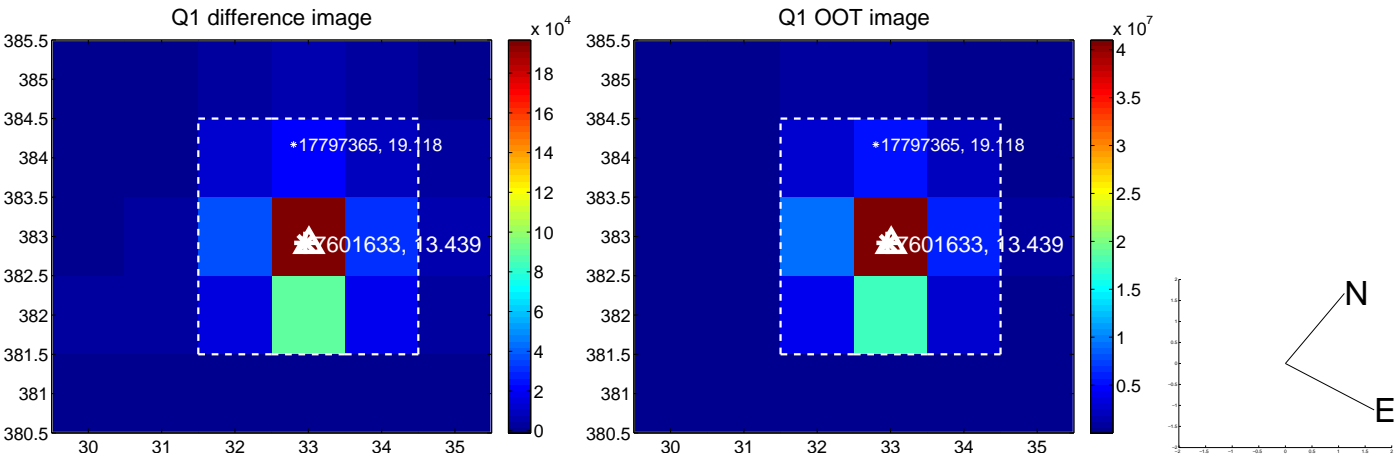
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.008 ± 0.069	0.12	-0.002 ± 0.073	-0.008 ± 0.068
PRF-fit source offset from KIC position	0.034 ± 0.075	0.44	-0.033 ± 0.076	-0.005 ± 0.071
photometric centroid source offset	0.07 ± 0.04	1.79	-0.07 ± 0.04	-0.02 ± 0.04

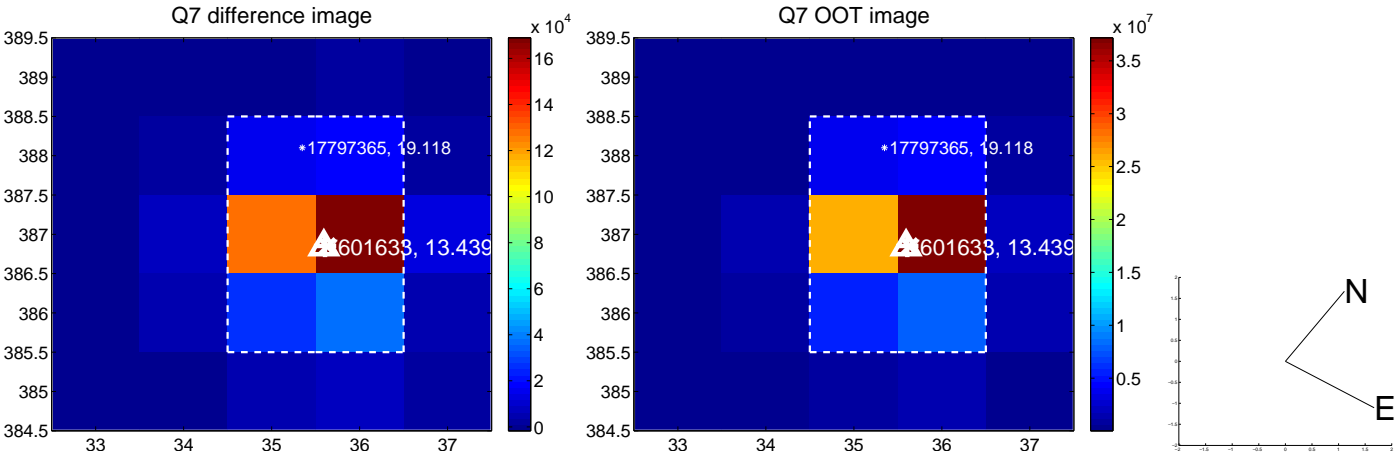
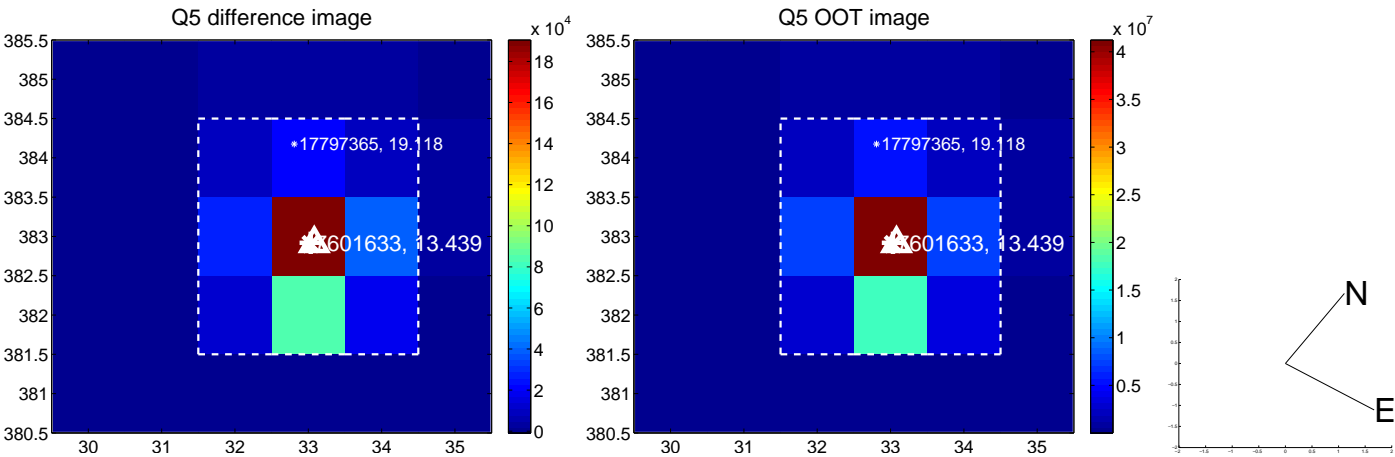


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

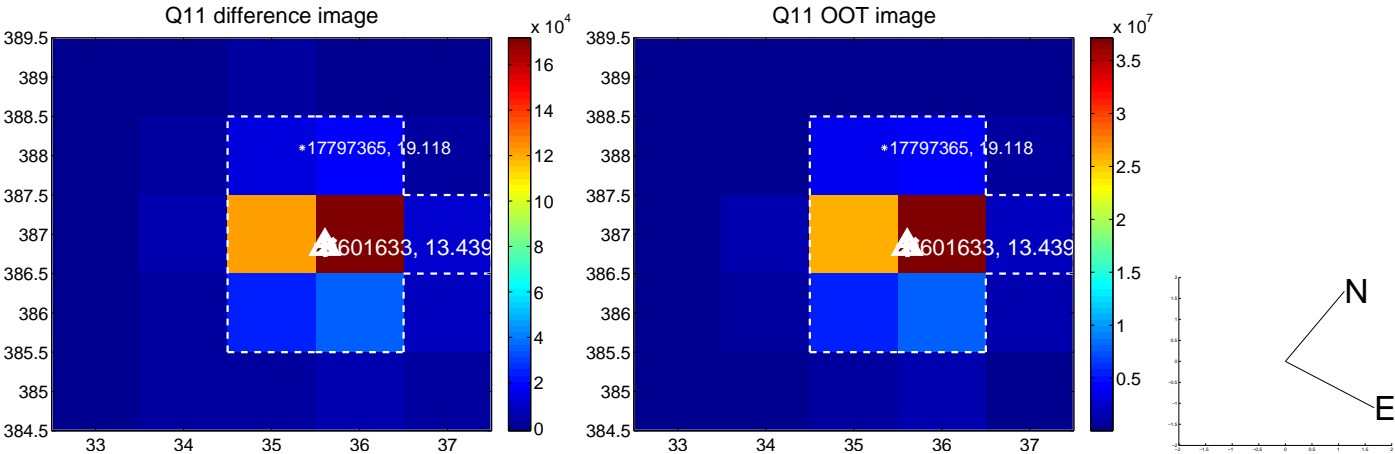
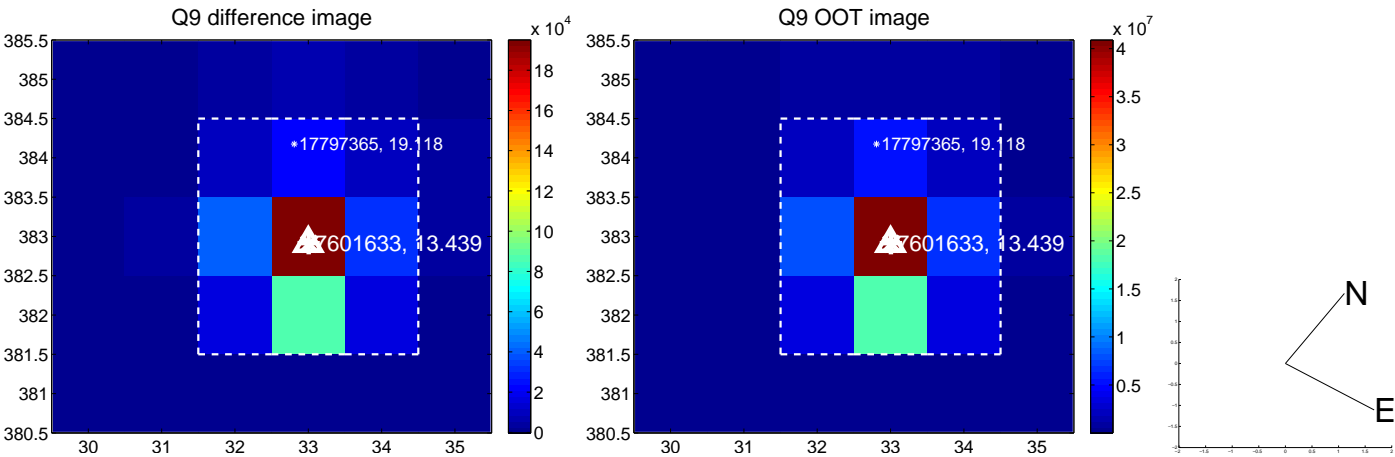
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



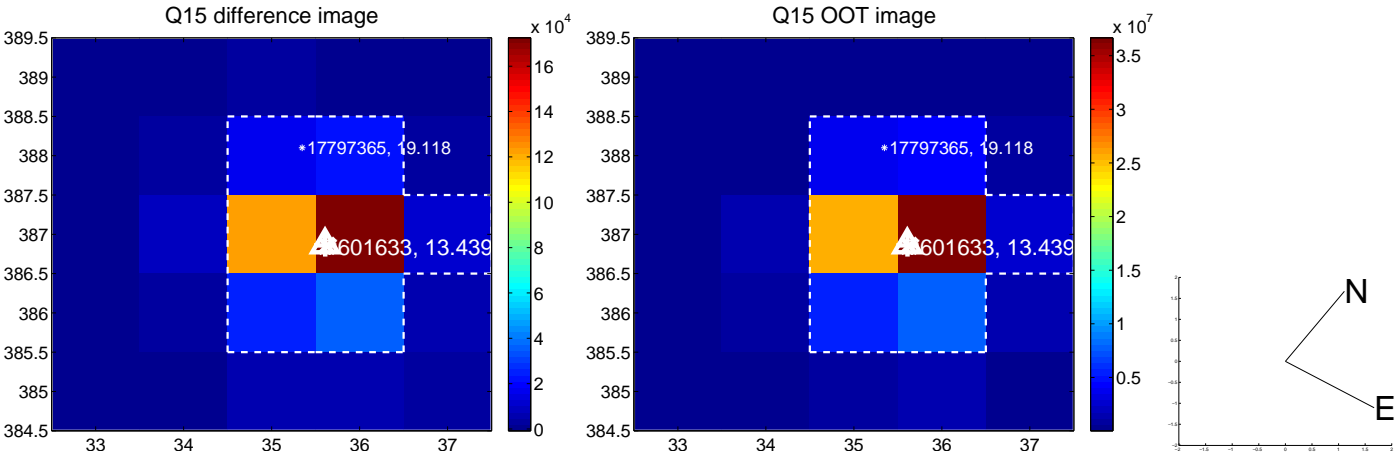
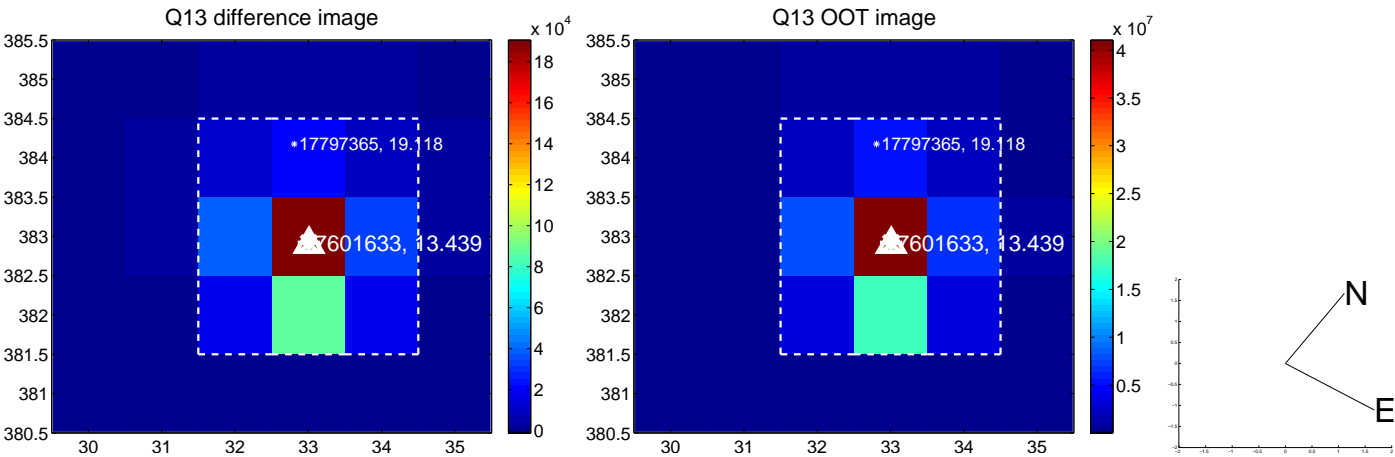
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



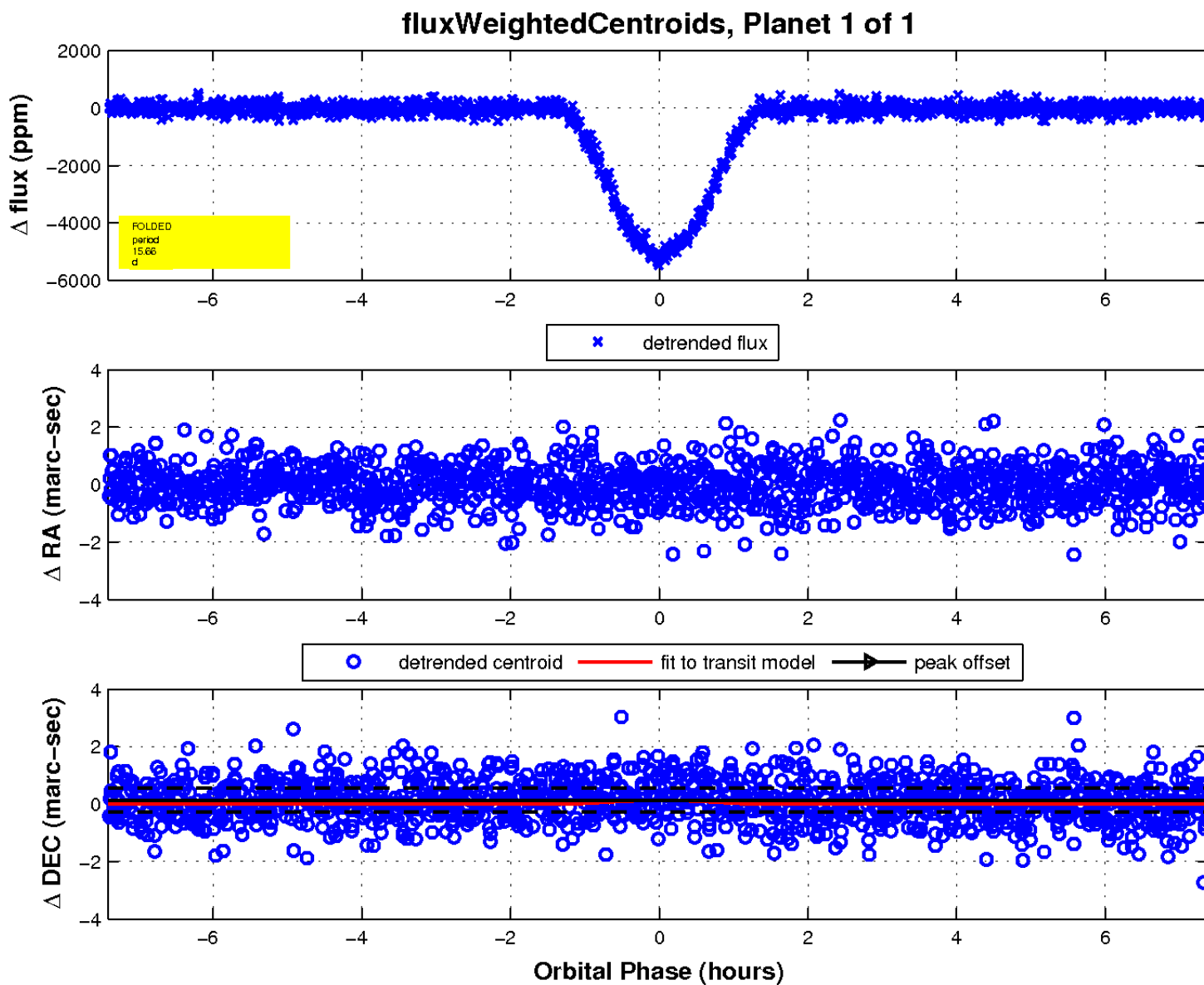
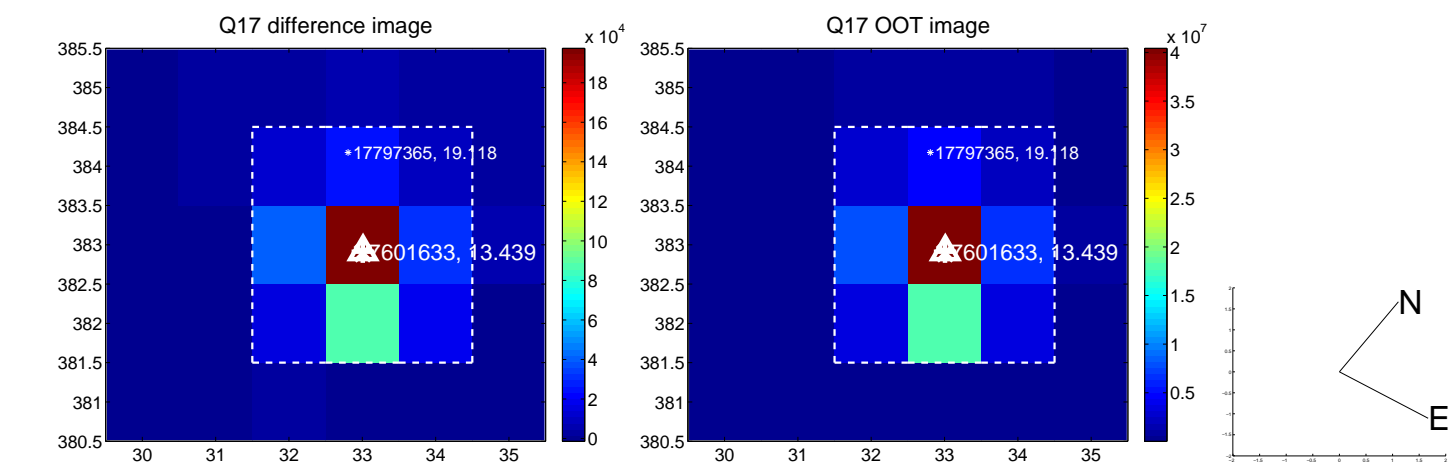
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UKIRT Image

Declination

