

KIC 011702948

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})
011702948-01	OBS	1465.01	9.771461	135.585010	6864.1	1.783	269.4	279.9	0.85	5812	10.57	96.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011702948-01	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.

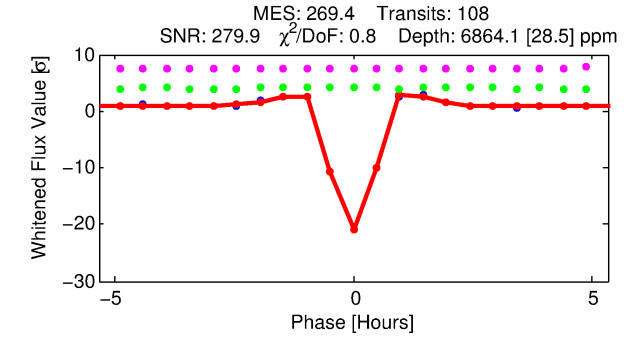
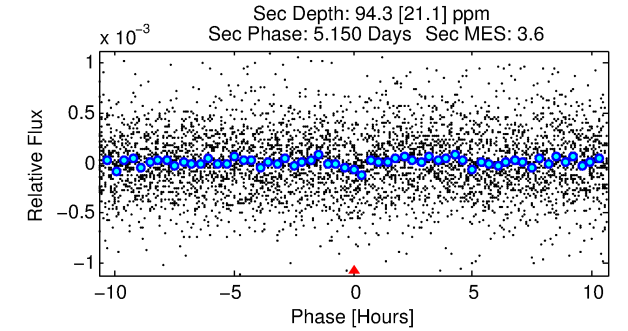
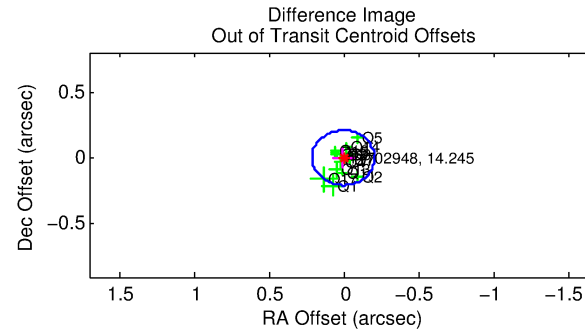
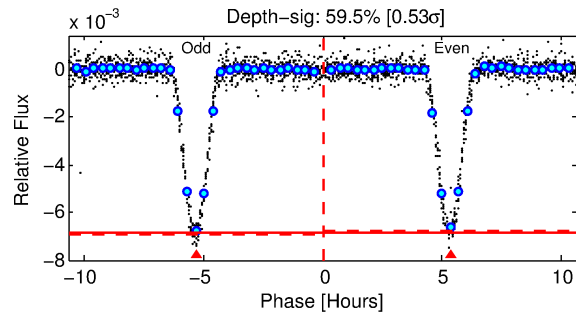
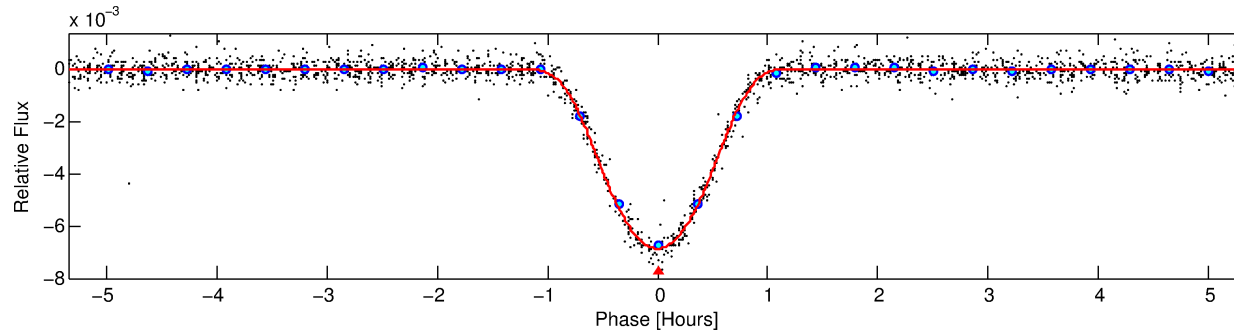
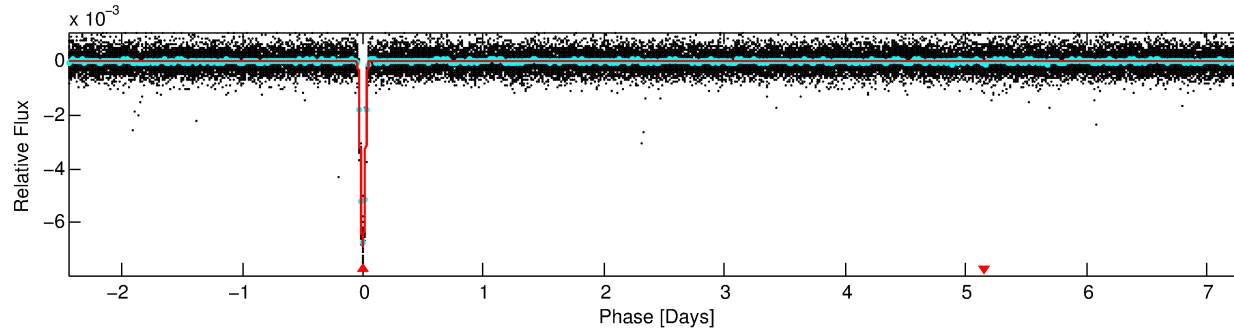
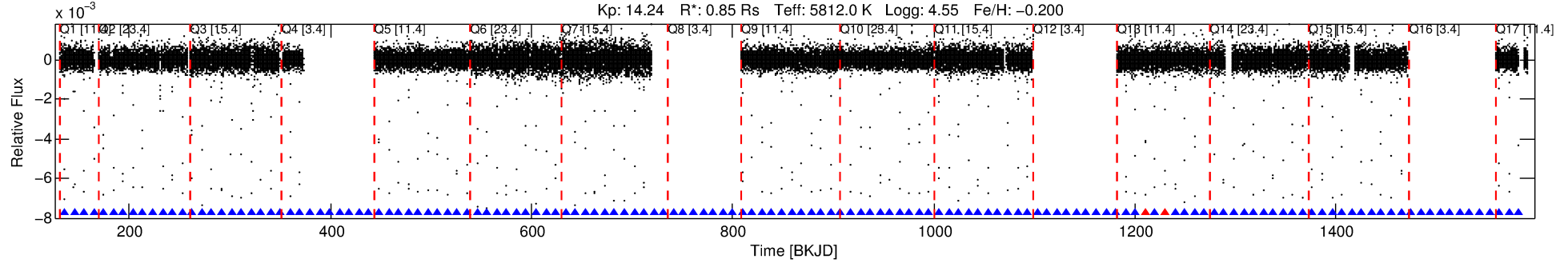
Ephemeris Match Information For 011702948-01

No Significant Match Found

DV One-Page Summary

KIC: 11702948 Candidate: 1 of 1 Period: 9.771 d
KOI: K01465.01 Corr: 0.996

Kp: 14.24 R*: 0.85 Rs Teff: 5812.0 K Logg: 4.55 Fe/H: -0.200



DV Fit Results:

Period = 9.77146 [0.00000] d
Epoch = 135.5850 [0.0001] BKJD
Rp/R* = 0.1135 [0.0117]
a/R* = 23.83 [0.70]
b = 0.96 [0.02]
Seff = 96.58 [31.43]
Teq = 799 [65] K
Rp = 10.57 [2.84] Re
a = 0.0878 [0.0184] AU
Ag = 3.58 [1.54] [1.67σ]
Teffp = 1700 [137] K [5.93σ]

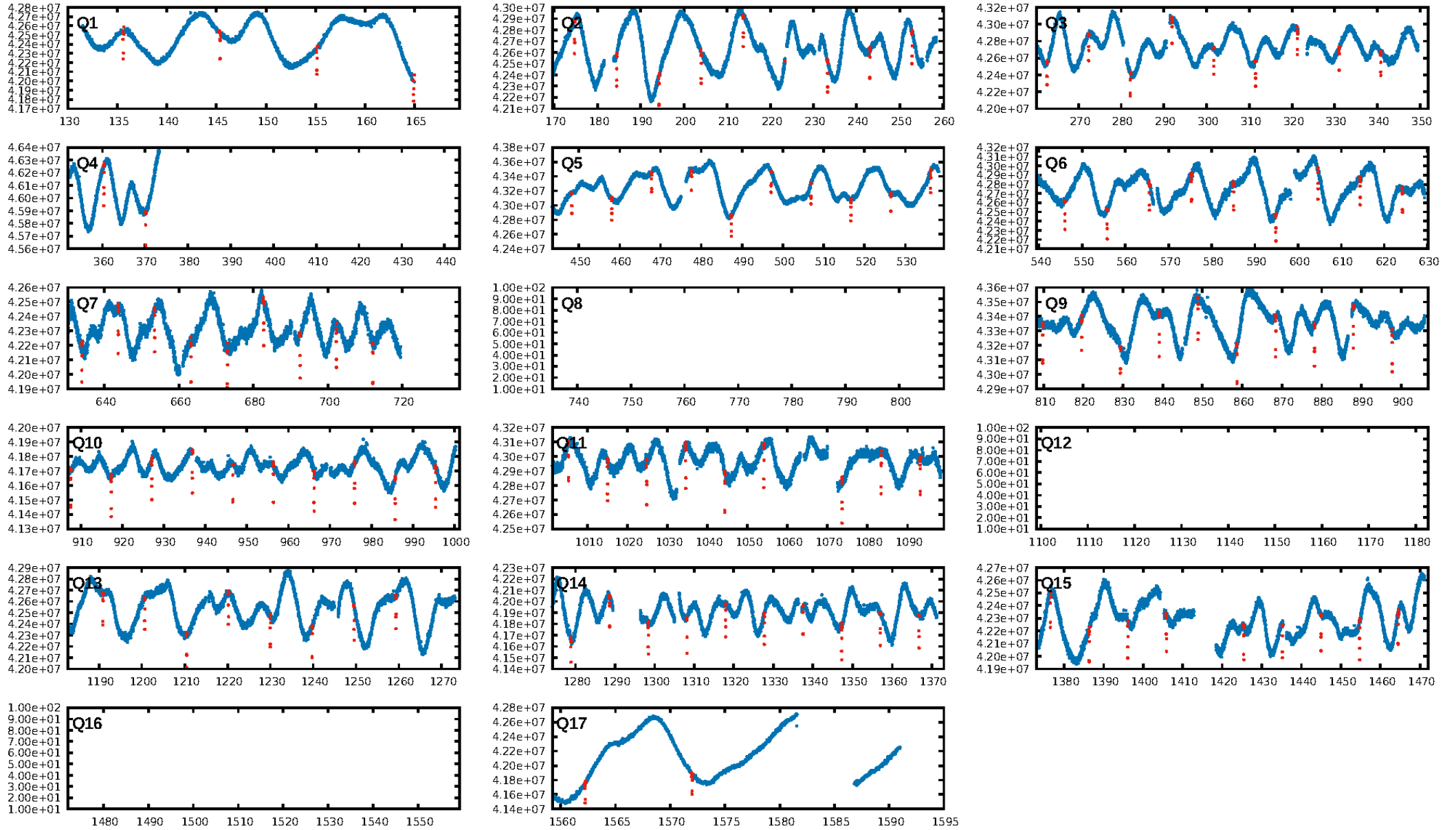
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [98/100]
GhostDiagnostic-chr: 3.528
Centroid-sig: 0.4%
Centroid-so: 0.067 arcsec [1.56σ]
OotOffset-rm: 0.003 arcsec [0.05σ]
KicOffset-rm: 0.027 arcsec [0.38σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

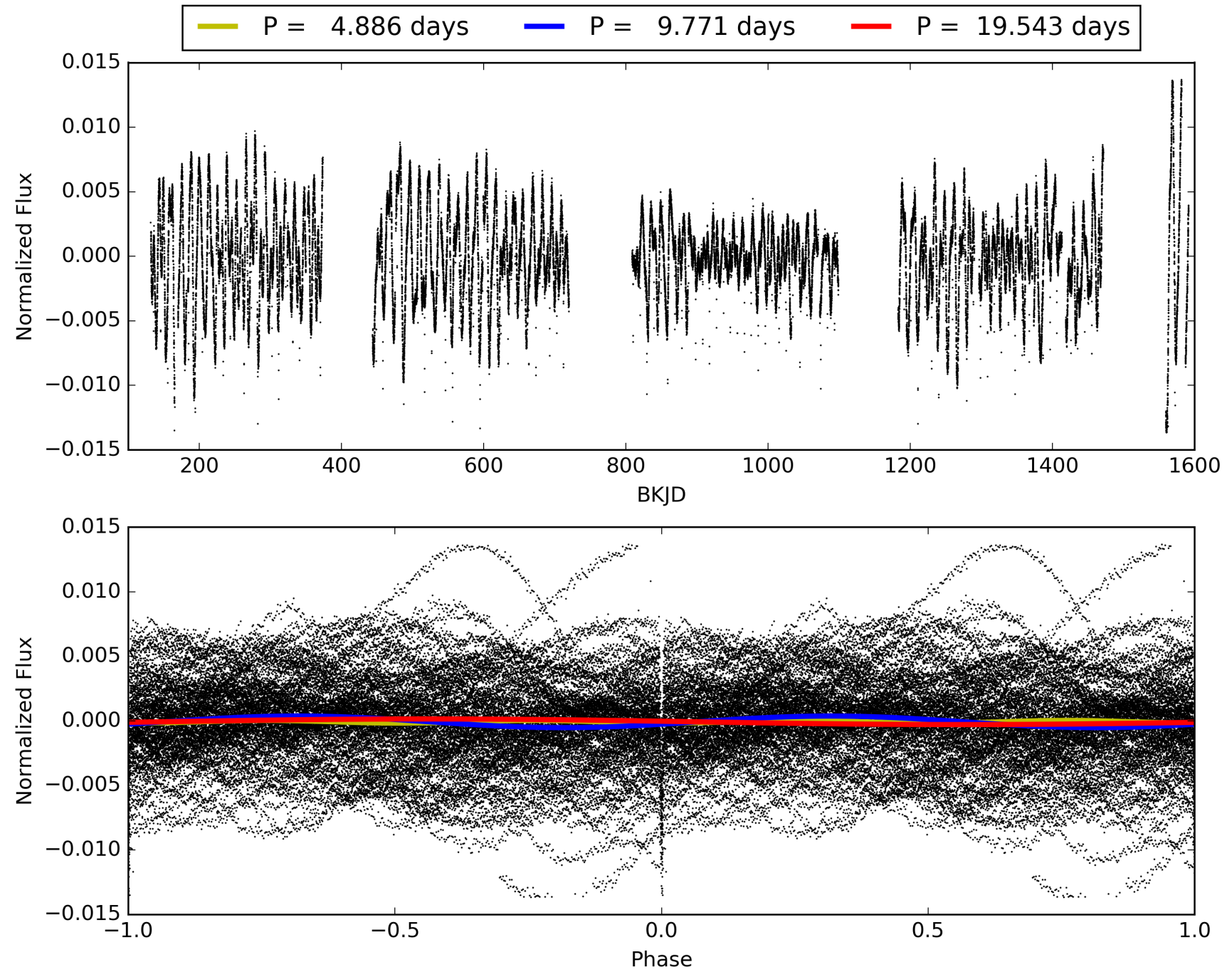
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:26:06 Z

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

TCE 011702948-01, PDC Light Curves

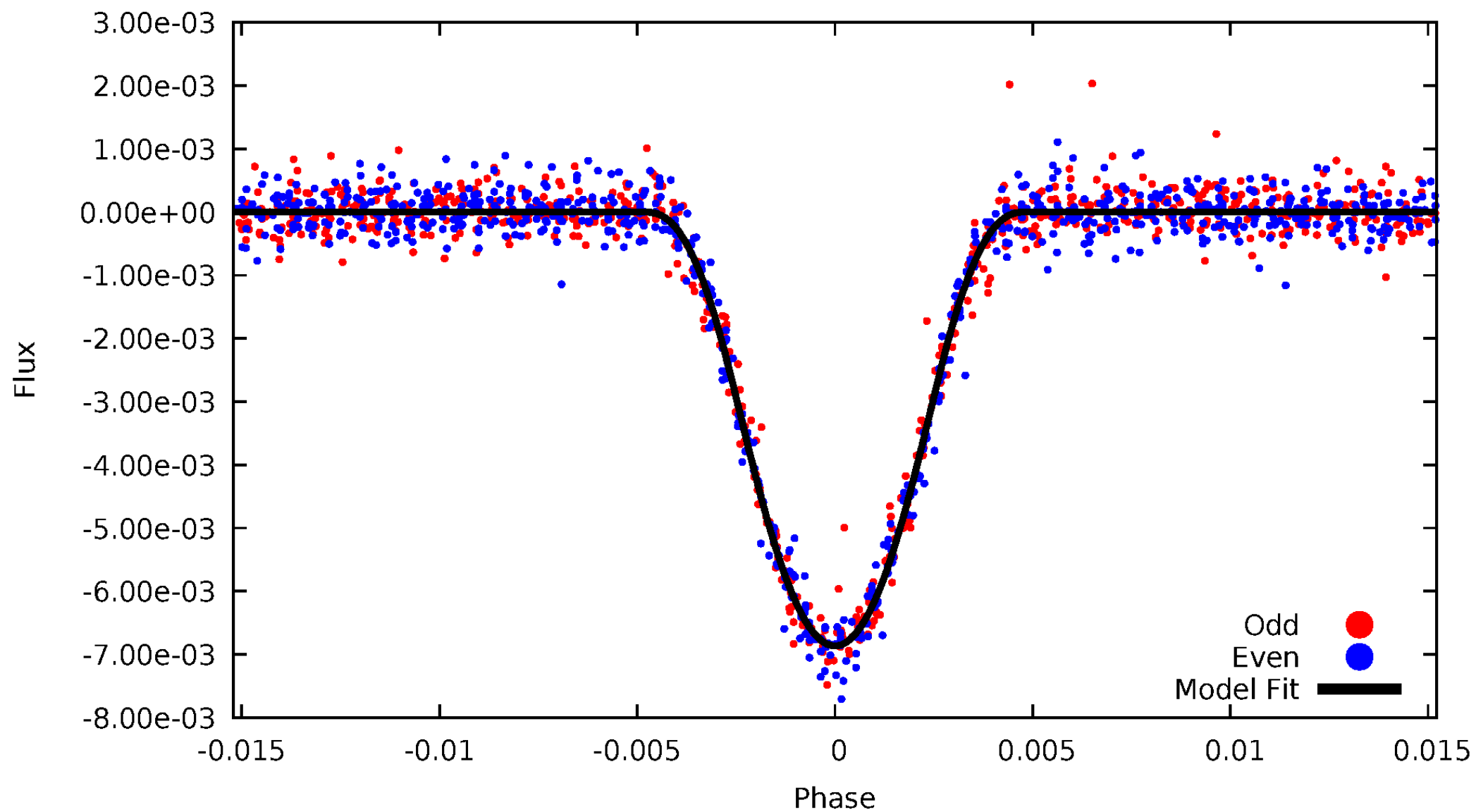


TCE 011702948-01



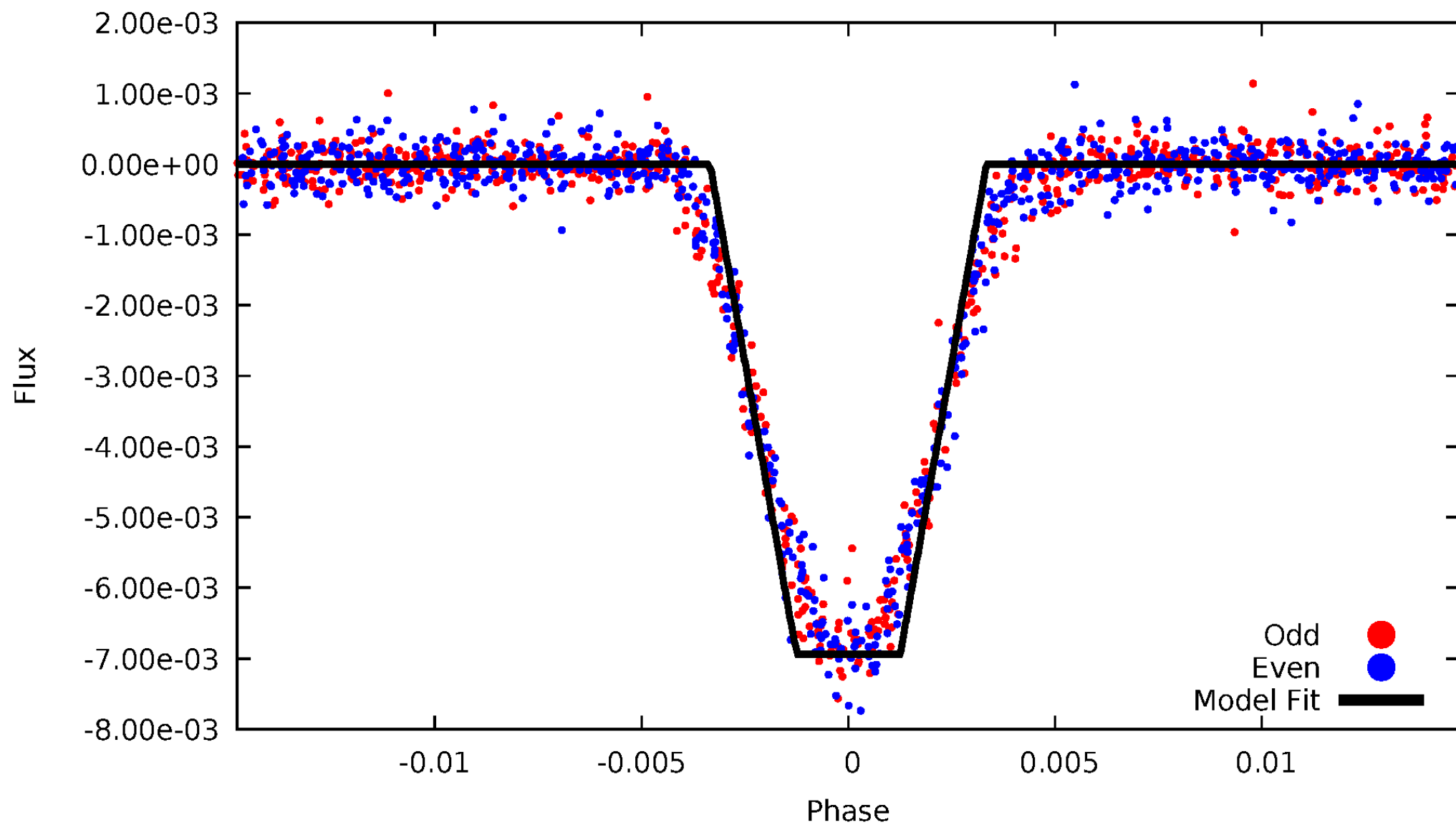
DV Odd/Even

TCE 011702948-01

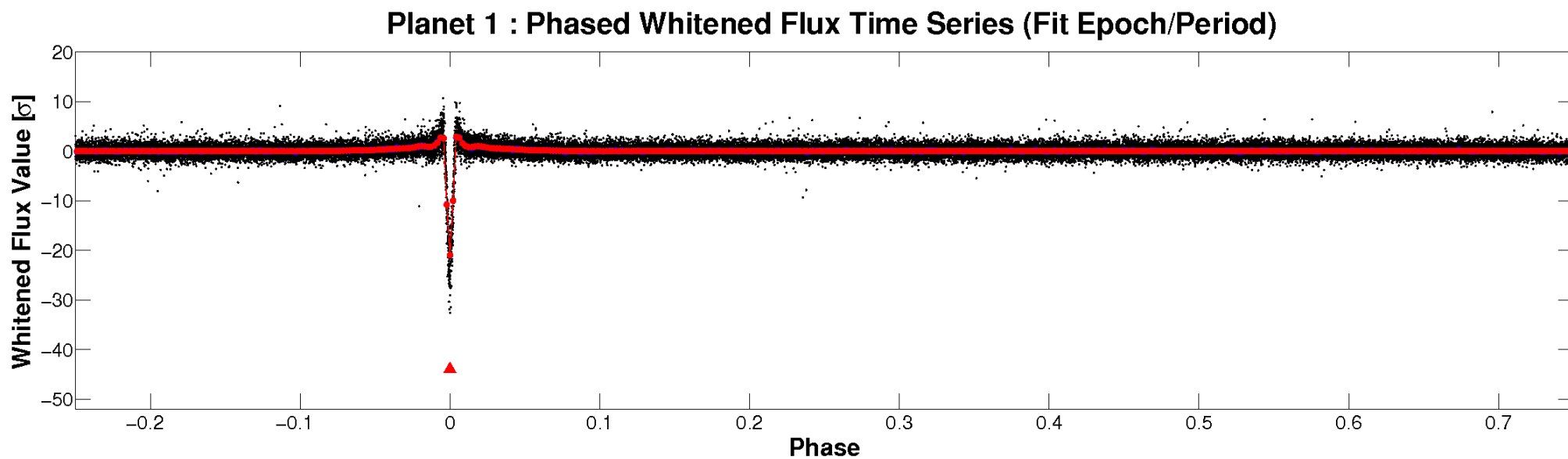
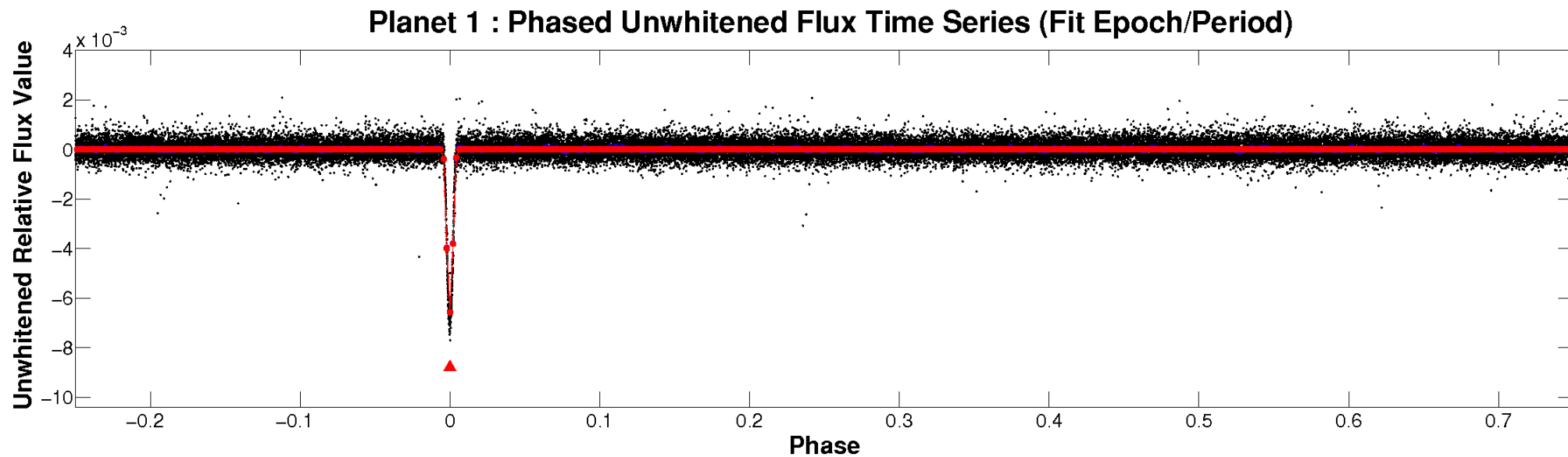


ALT Odd/Even

TCE 011702948-01

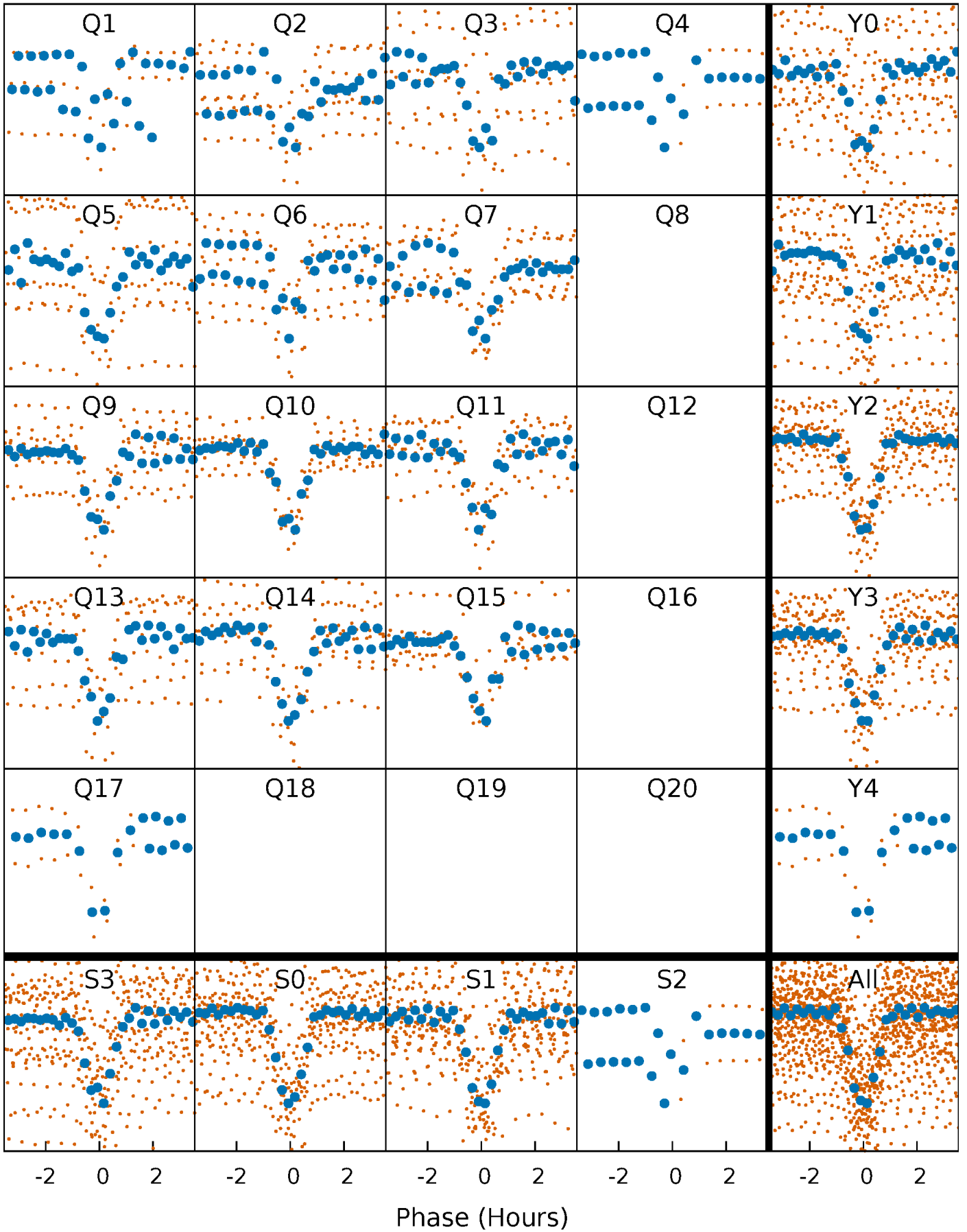


Non-Whitened Vs. Whitened Light Curve



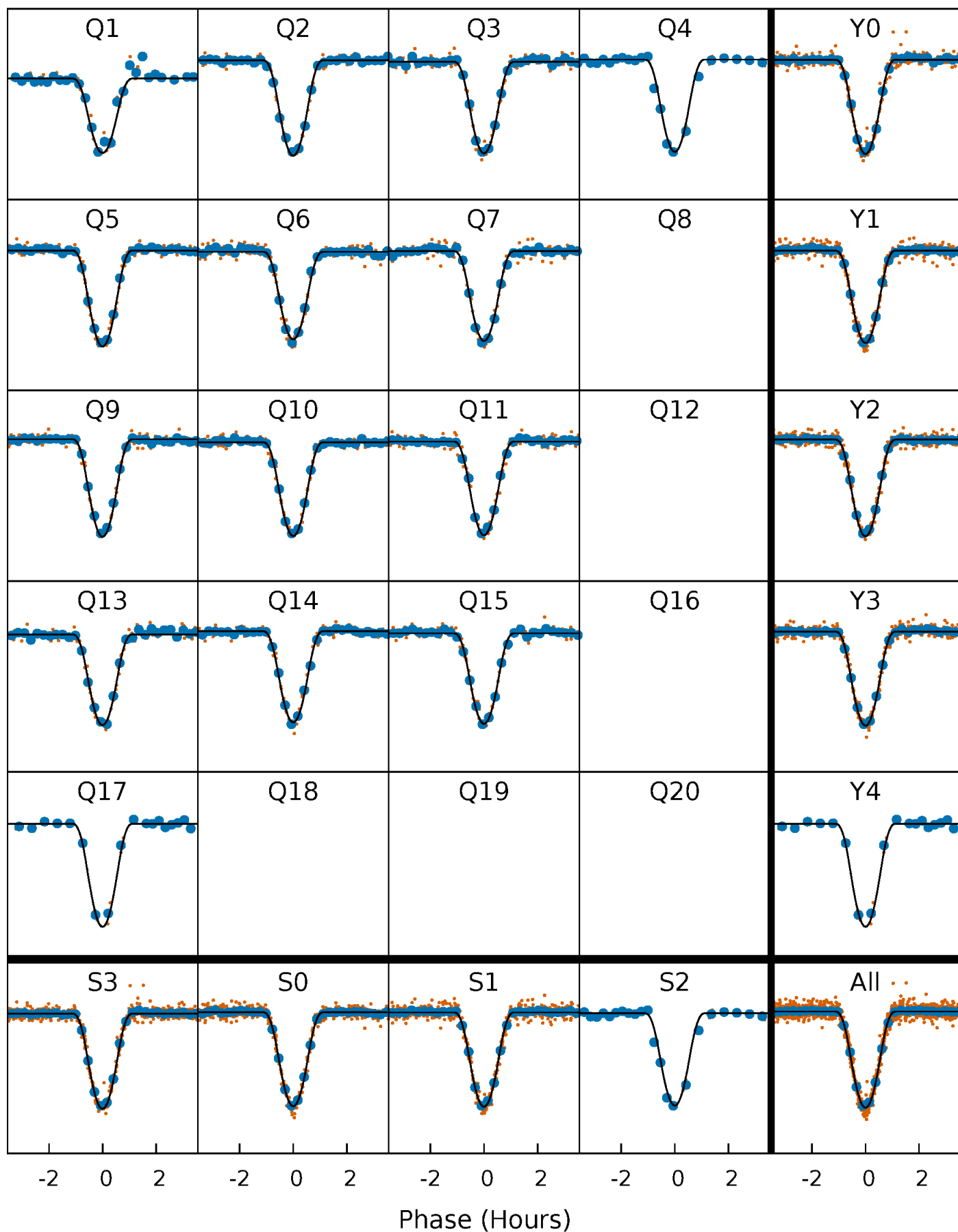
PDC Quarter-Phased Transit Curves

TCE 011702948-01 P= 9.771461 Days $T_0=135.585010$ (BKJD)



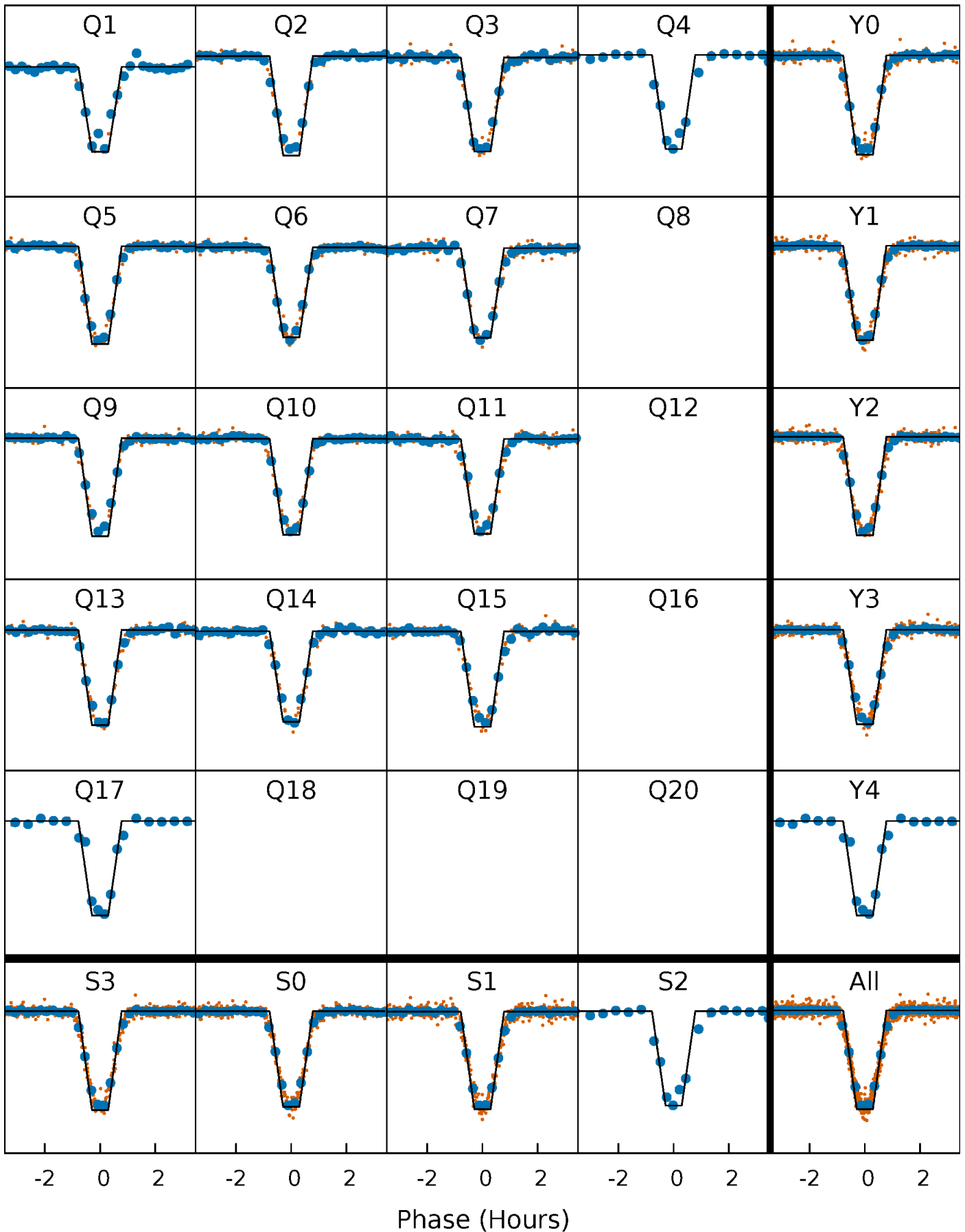
DV Quarter-Phased Transit Curves

TCE 011702948-01 P= 9.771461 Days $T_0=135.585010$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

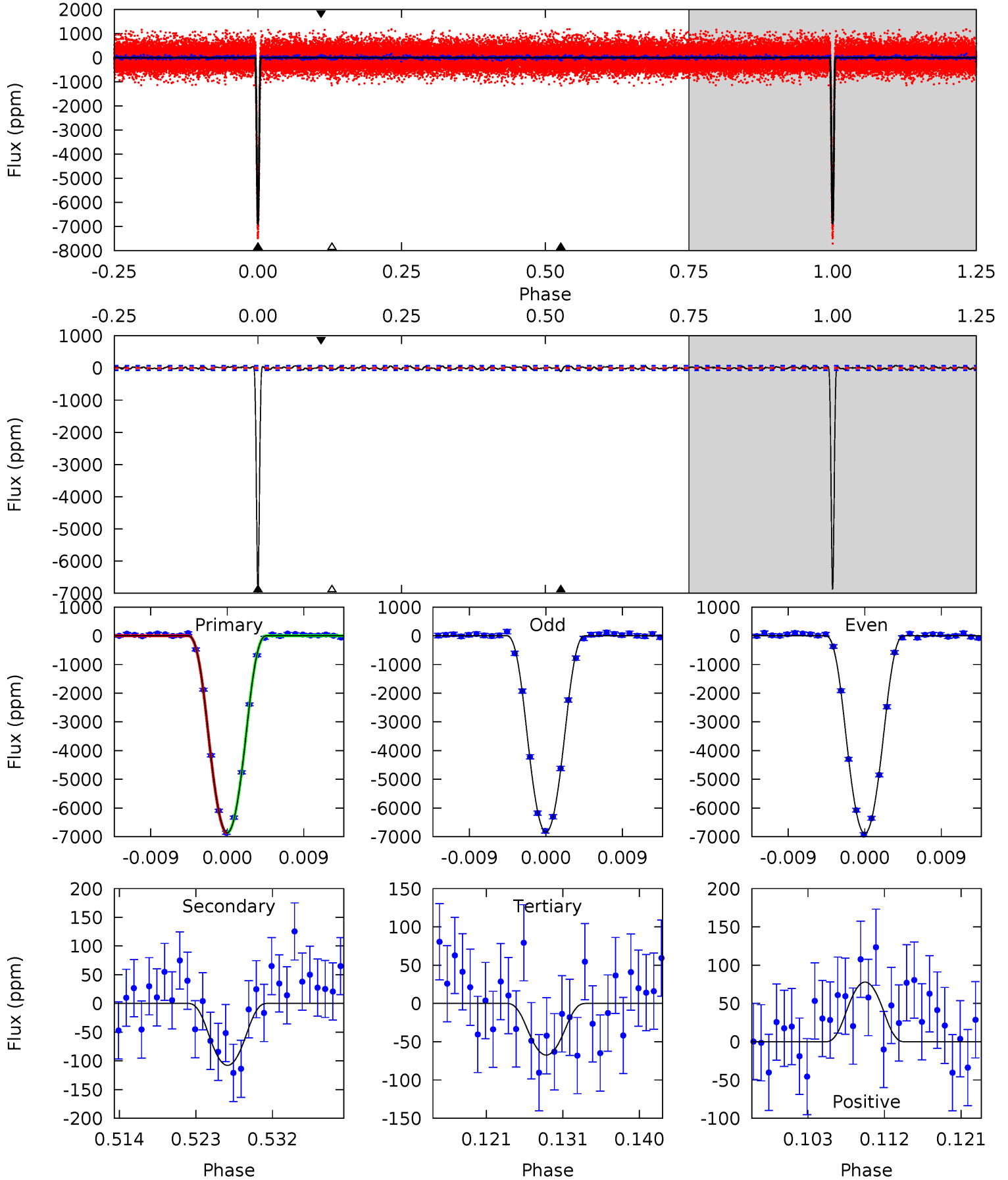
TCE 011702948-01 P= 9.771438 Days $T_0=135.586474$ (BKJD)



DV Model-Shift Uniqueness Test

011702948-01, P = 9.771461 Days, E = 125.813549 Days

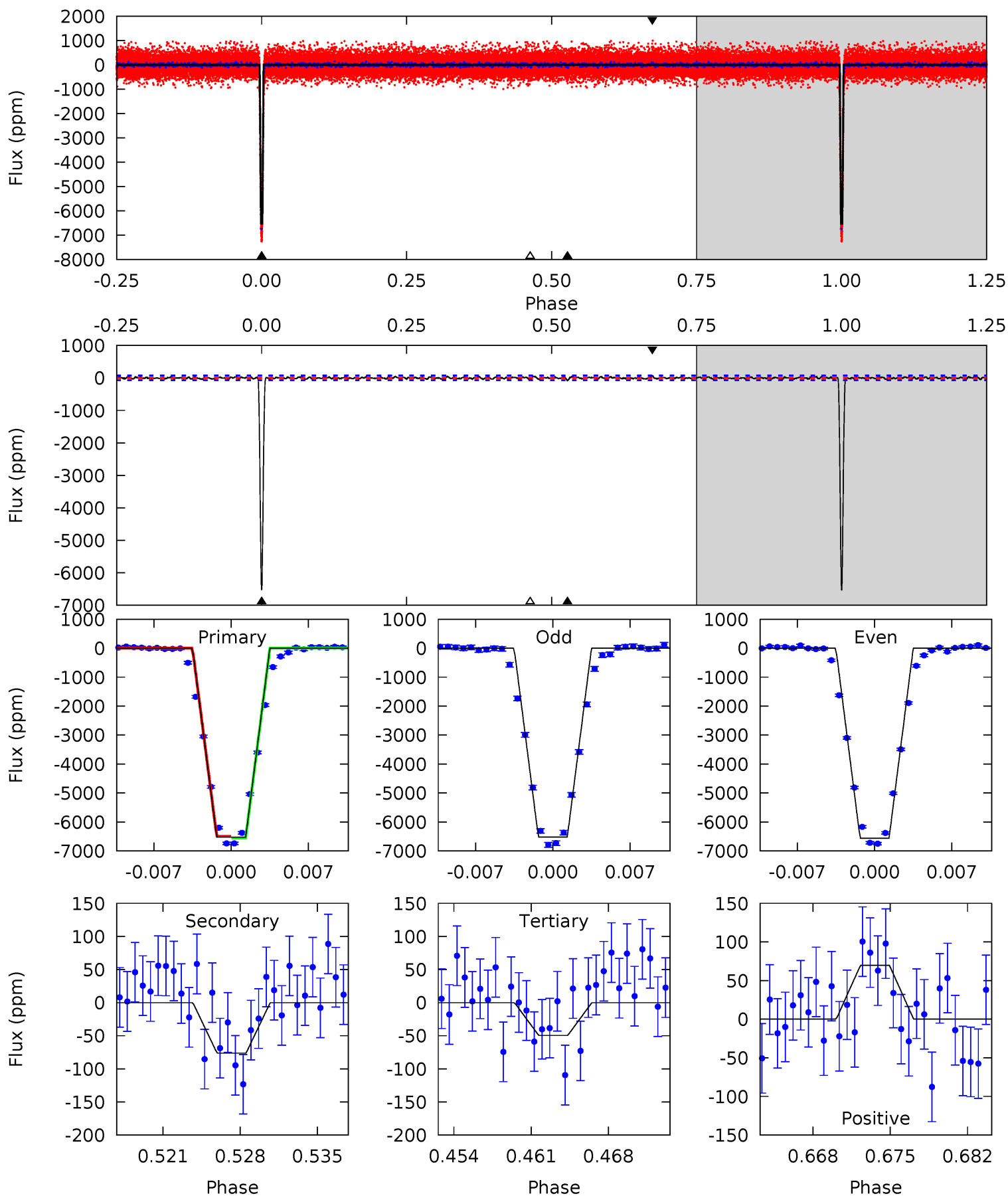
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
495.9	7.79	4.87	5.63	5.04	2.60	1.82	491.0	490.3	2.92	2.16	1.58	1.00	0.01	0.73



Alt Model-Shift Uniqueness Test

011702948-01, P = 9.771438 Days, E = 125.815036 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
463.8	5.42	3.52	4.96	5.10	2.71	1.24	460.3	458.9	1.90	0.47	1.56	0.99	0.01	2.17



Stellar Parameters For KIC 011702948

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5812^{+145}_{-159}	$4.551^{+0.042}_{-0.168}$	$-0.200^{+0.300}_{-0.300}$	$0.853^{+0.212}_{-0.076}$	$0.947^{+0.101}_{-0.111}$	$2.146^{+0.474}_{-0.964}$
	+2%/-3%	+1%/-4%	+150%/-150%	+25%/-9%	+11%/-12%	+22%/-45%
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 011702948-01 / KOI 1465.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-108 ± 14	$10.90^{+1.78}_{-1.48}$	1136^{+69}_{-48}	2559^{+96}_{-91}	$3.812^{+1.269}_{-1.072}$
Alt.	-76 ± 14	$8.05^{+1.43}_{-1.34}$	1141^{+65}_{-48}	2658^{+135}_{-120}	$4.880^{+2.259}_{-1.462}$

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 $A_{obs} \gg 1.0$

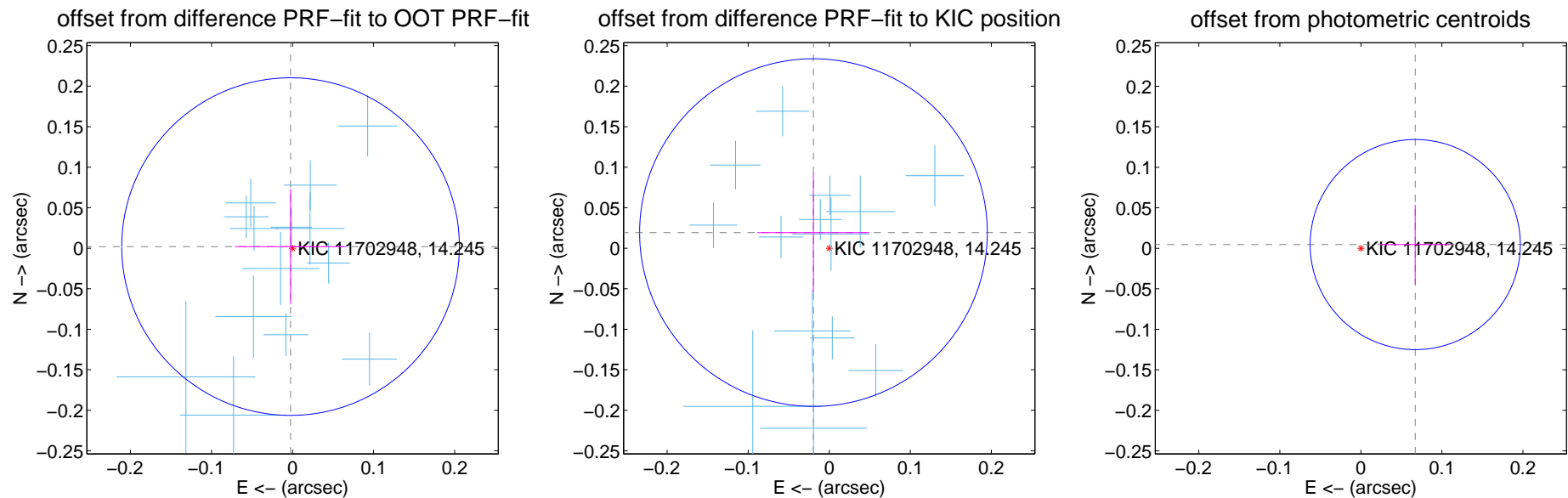
DV Centroid Data

Supplemental centroid analysis for 011702948-01. Kepler magnitude: 14.24. Transit SNR 279.95

There are 14 quarters with good PRF difference image offsets

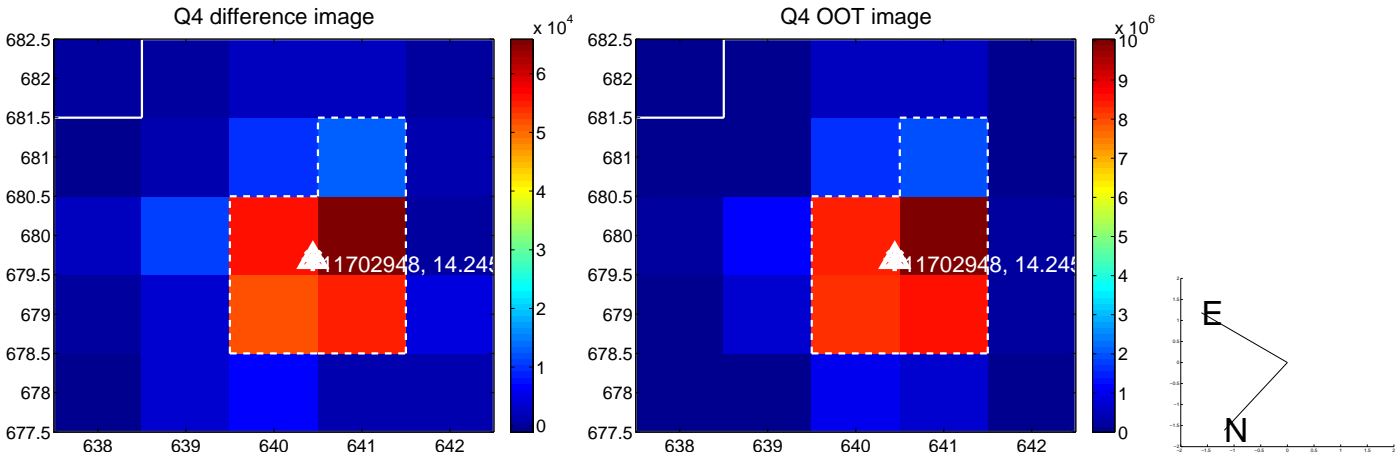
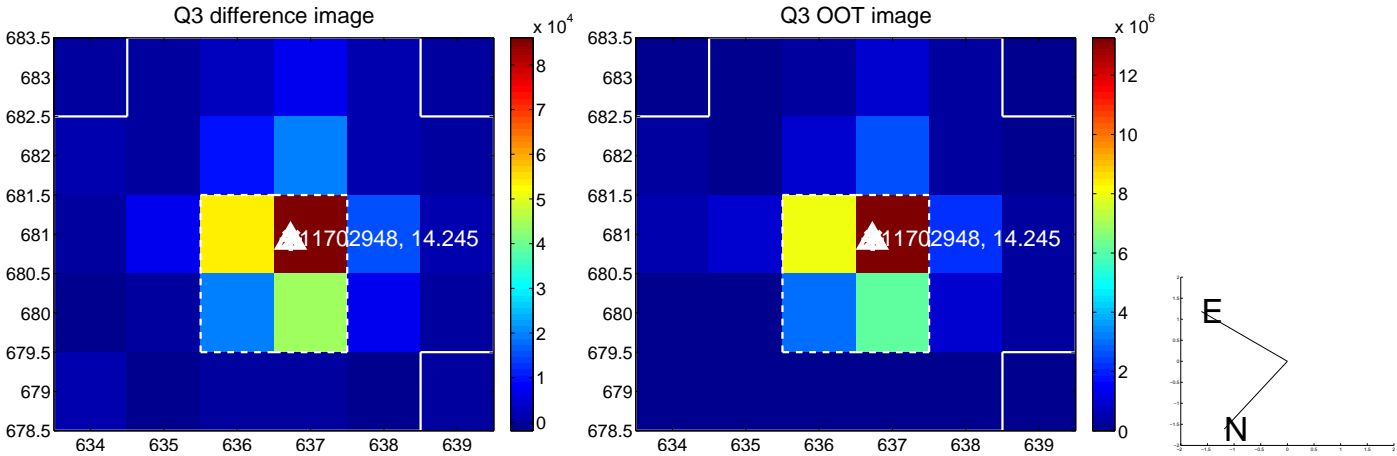
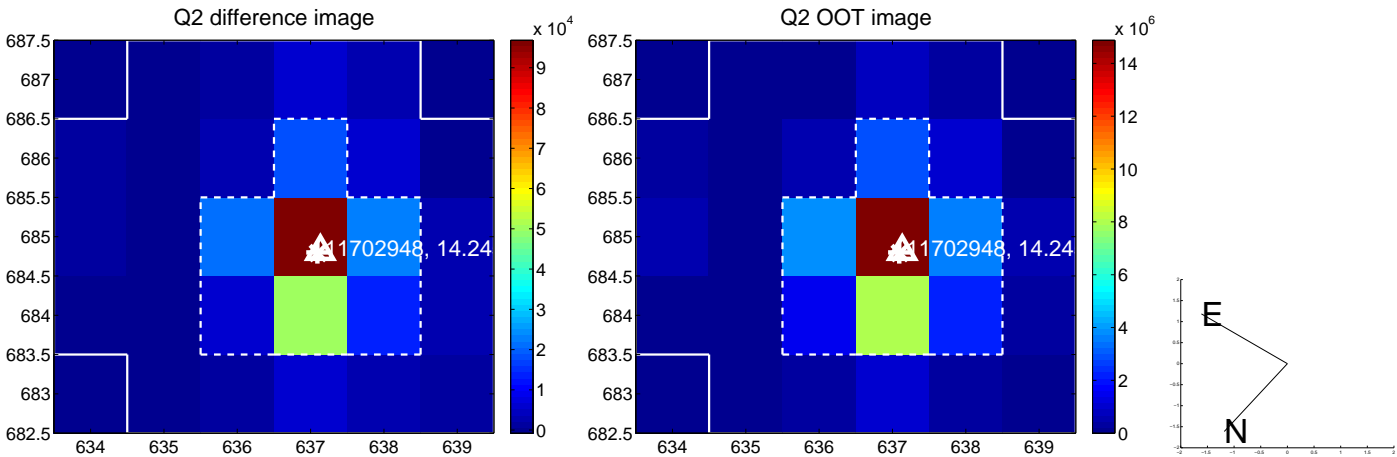
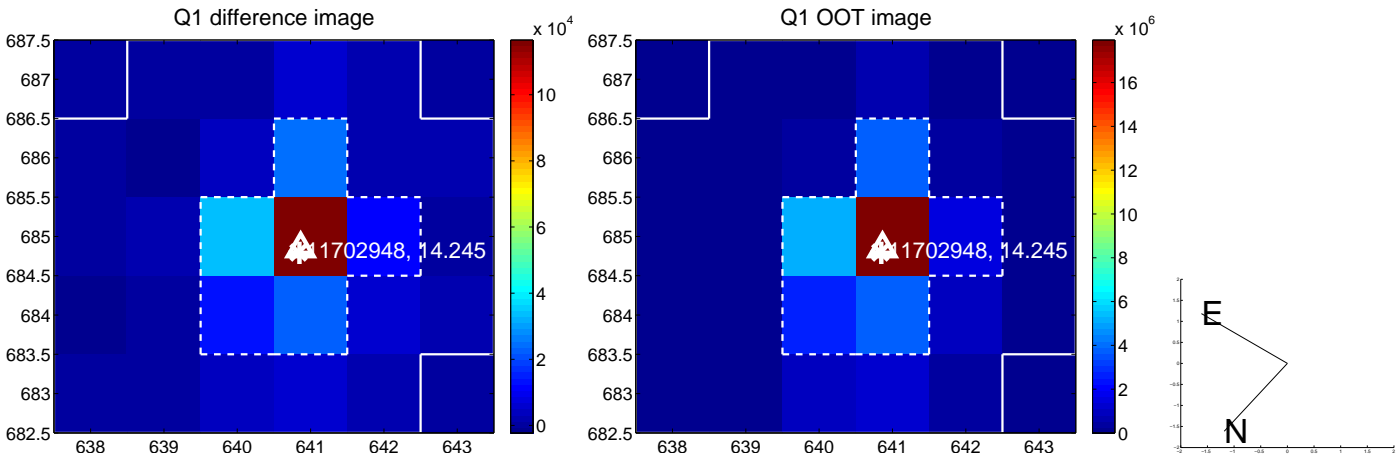
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.003 ± 0.069	0.05	0.002 ± 0.068	0.002 ± 0.071
PRF-fit source offset from KIC position	0.027 ± 0.072	0.38	0.019 ± 0.069	0.019 ± 0.074
photometric centroid source offset	0.07 ± 0.04	1.56	-0.07 ± 0.04	0.00 ± 0.05

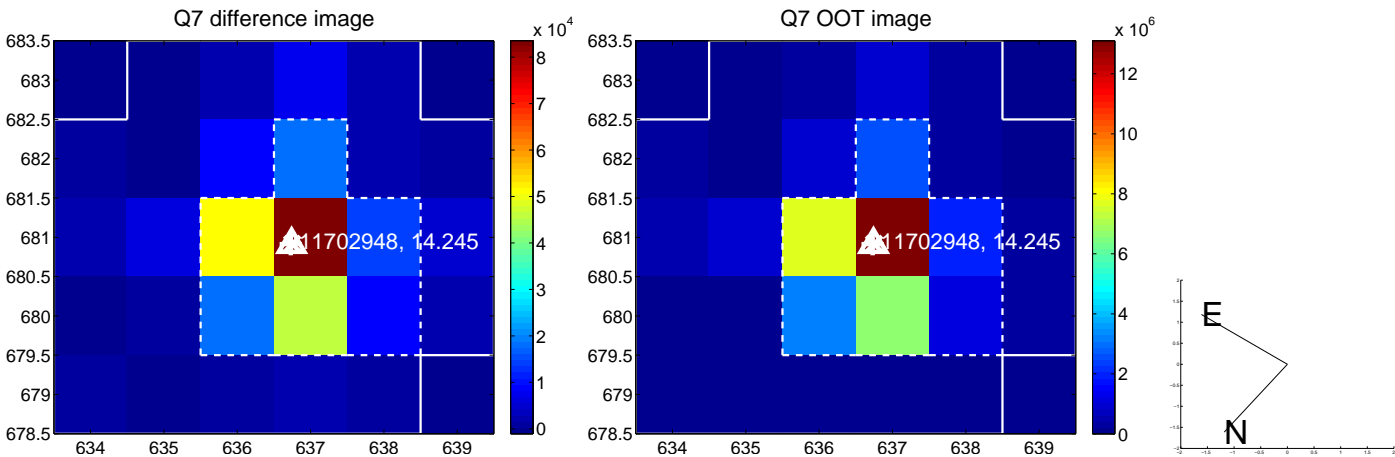
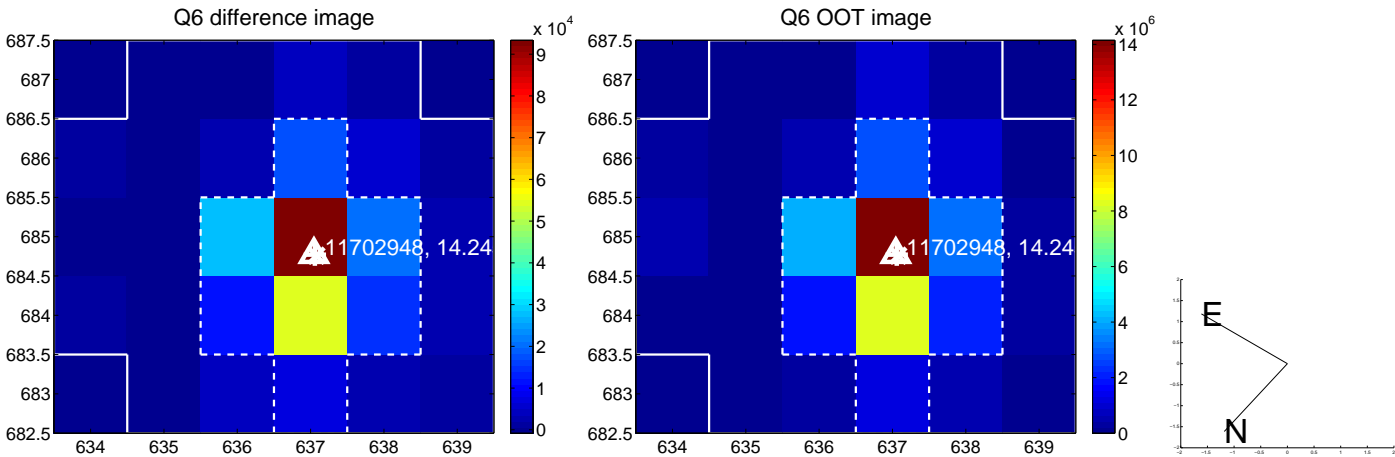
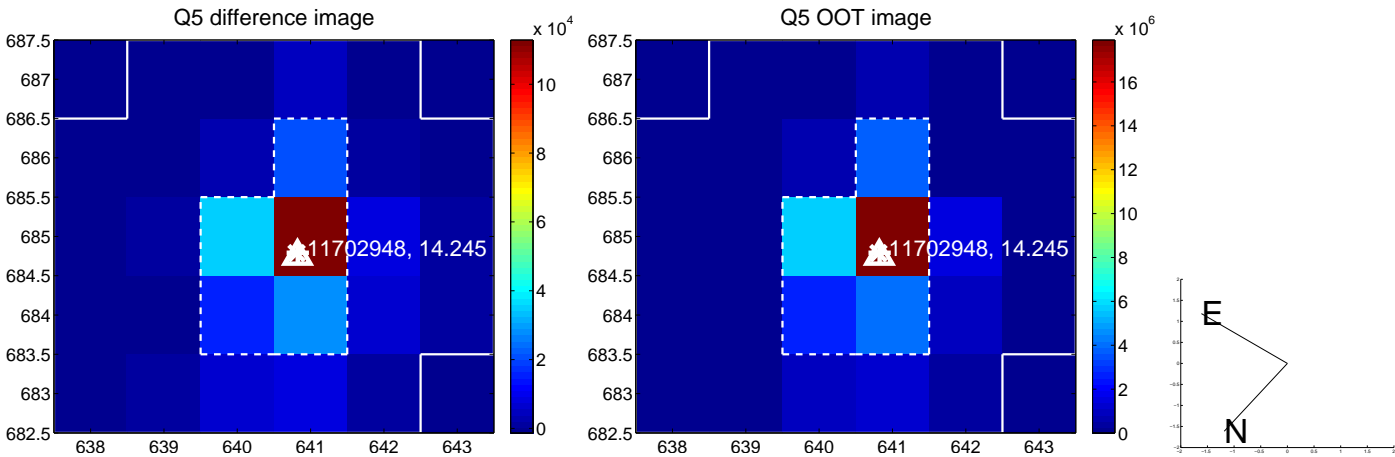


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

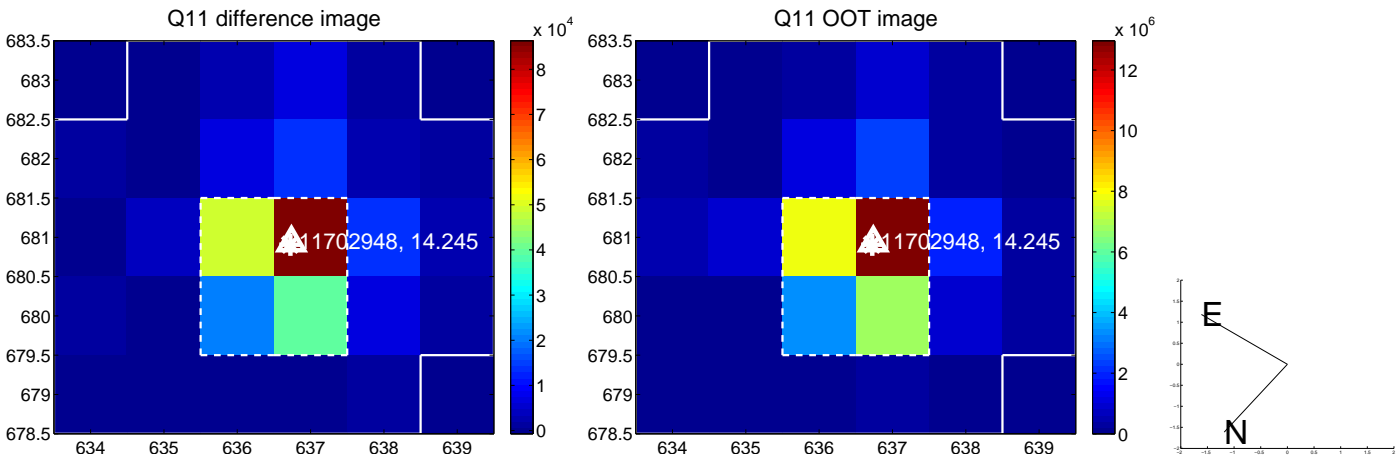
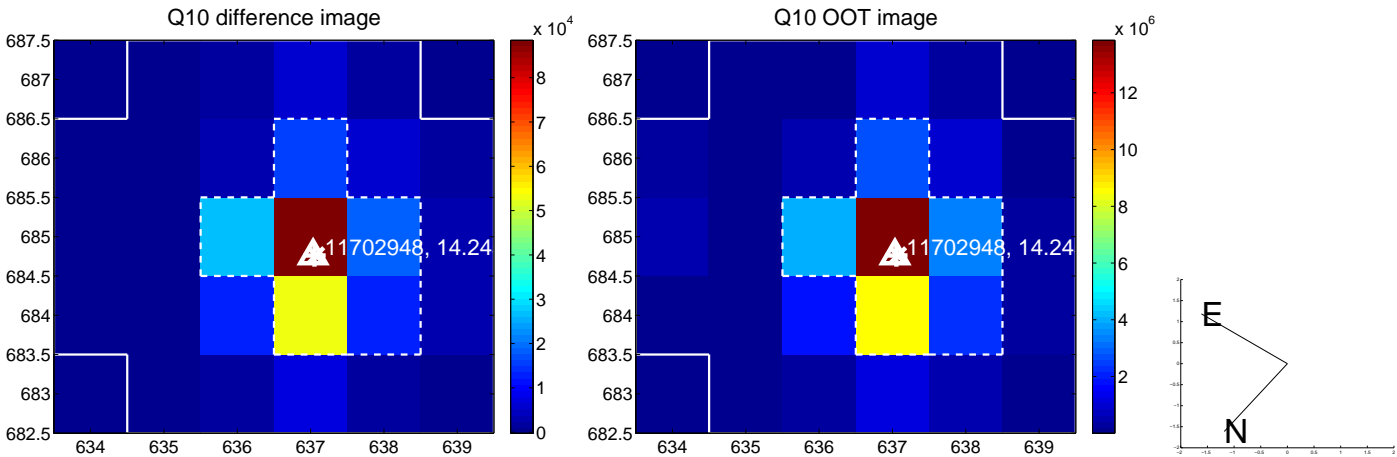
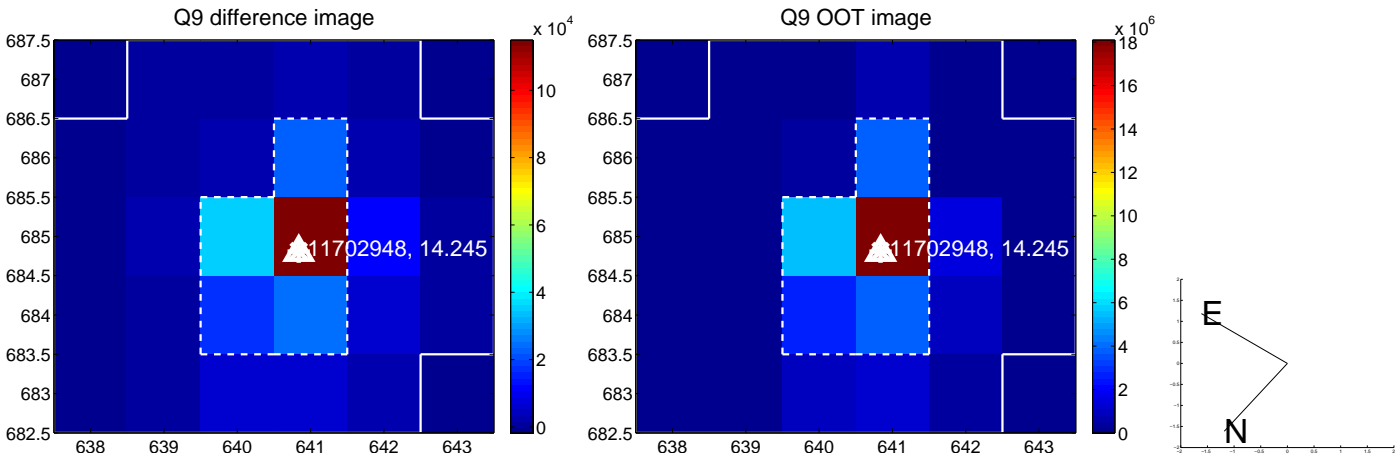
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



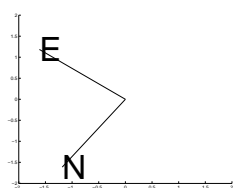
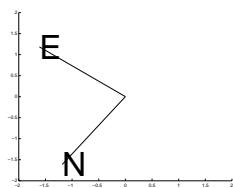
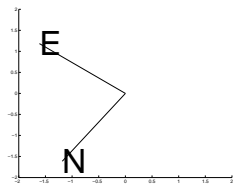
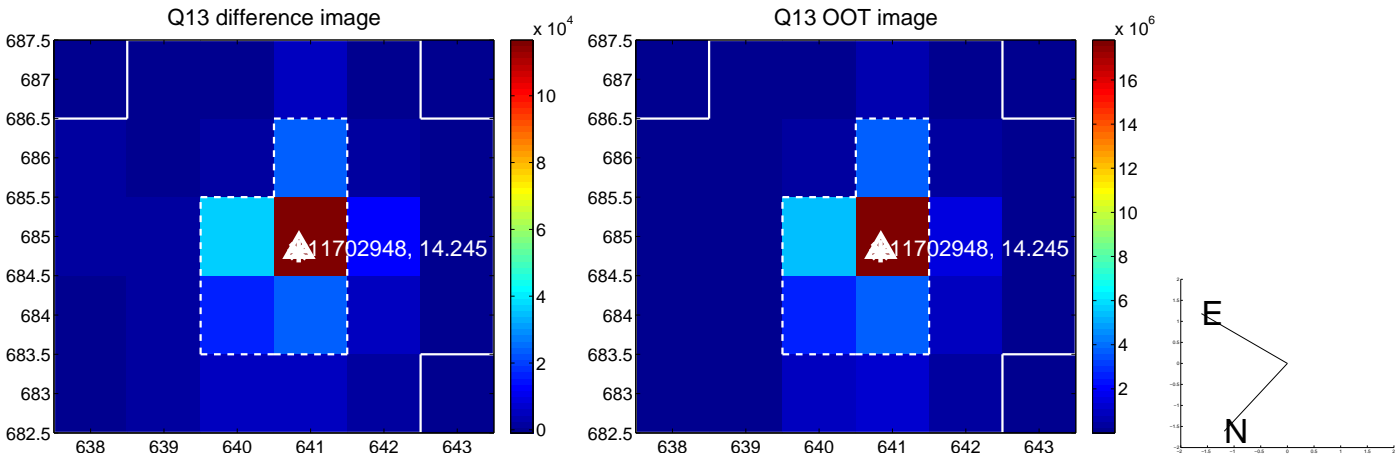
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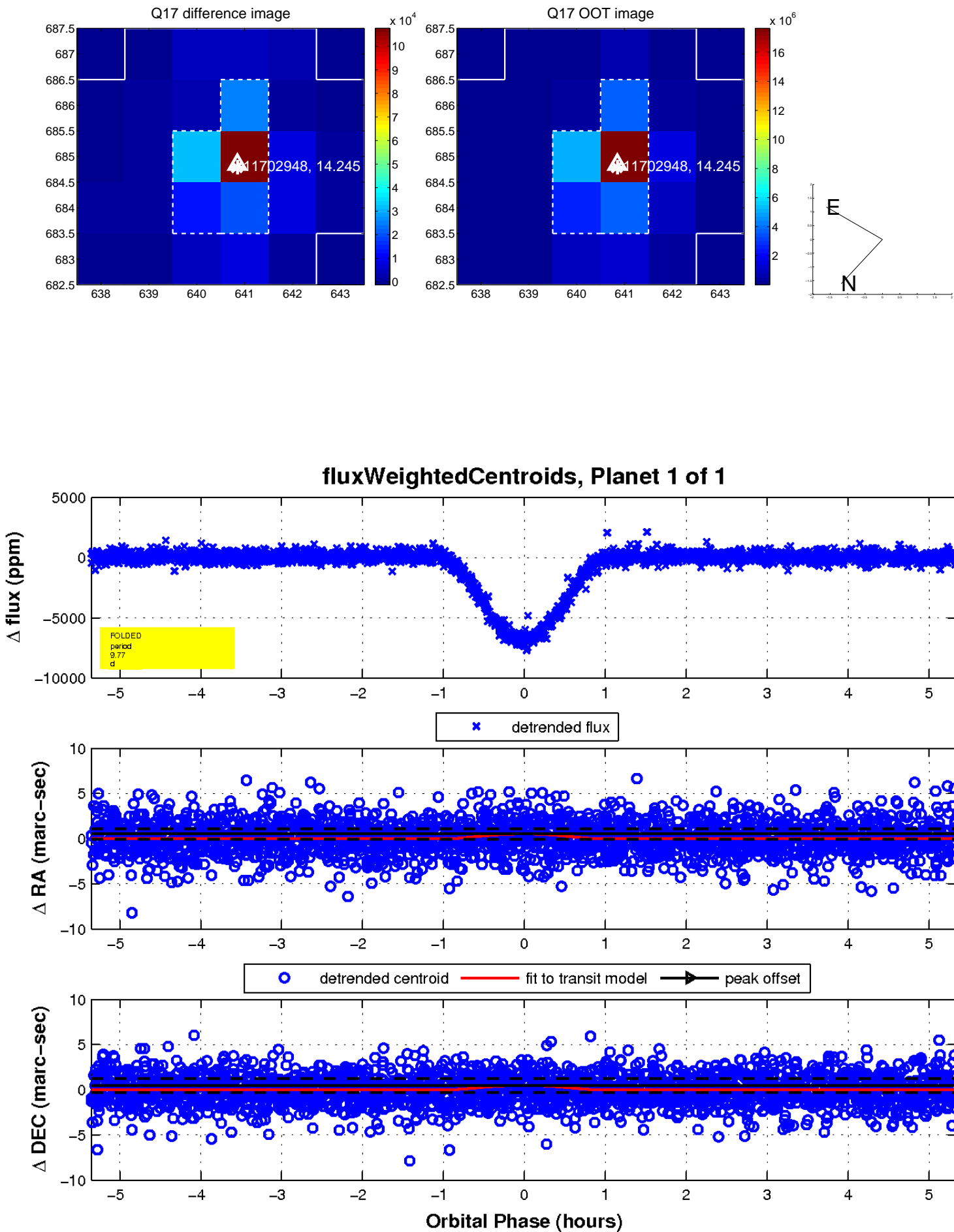
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

