

KIC 008618226

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})
008618226-01	OBS	7070.01	5.882036	131.768674	237163.6	5.210	15644.8	9643.5	1.19	5837	61.68	364.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008618226-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT

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.

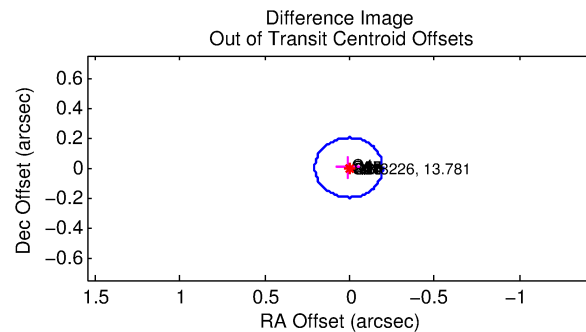
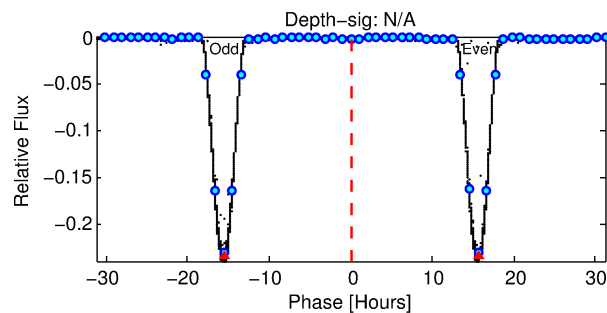
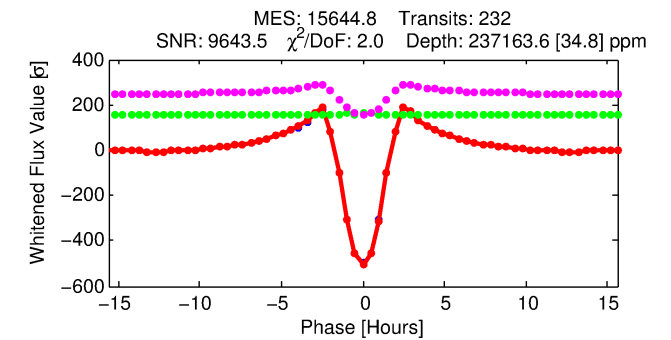
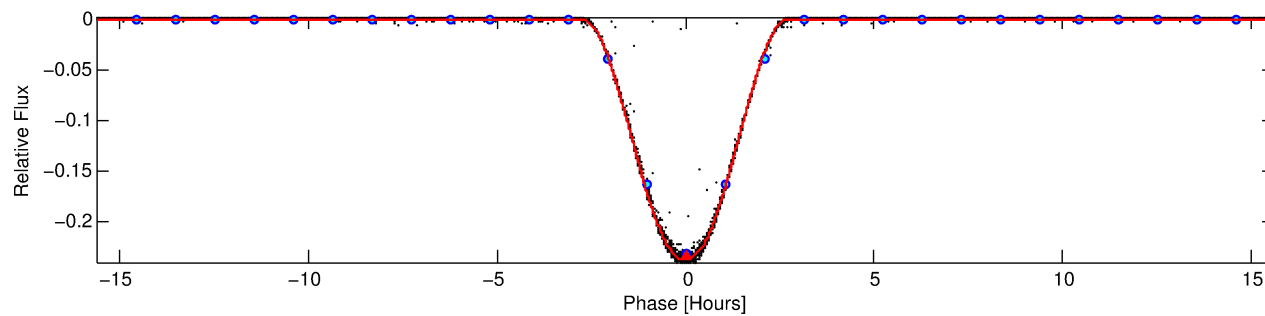
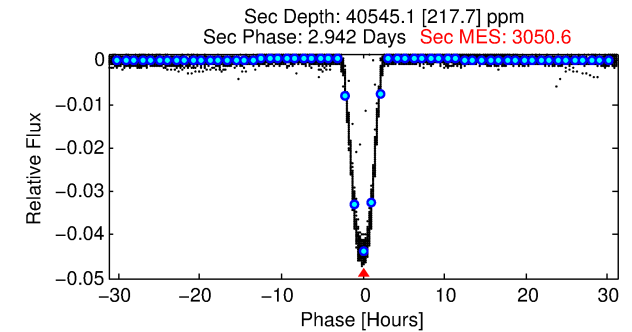
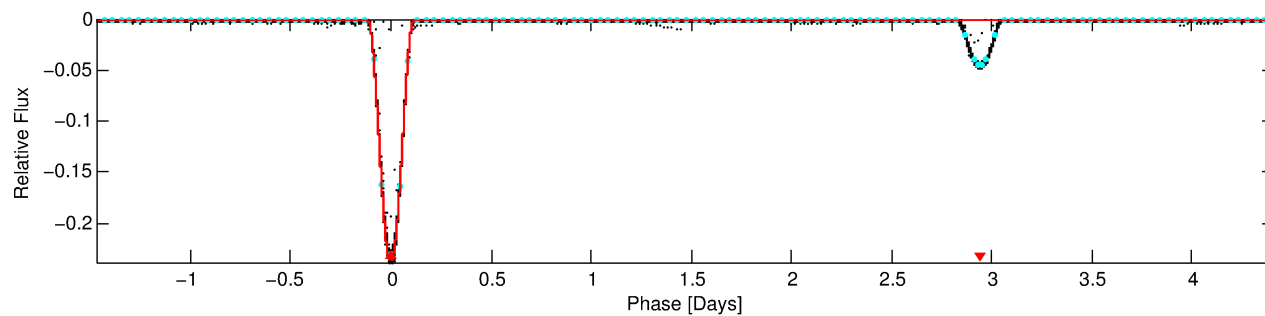
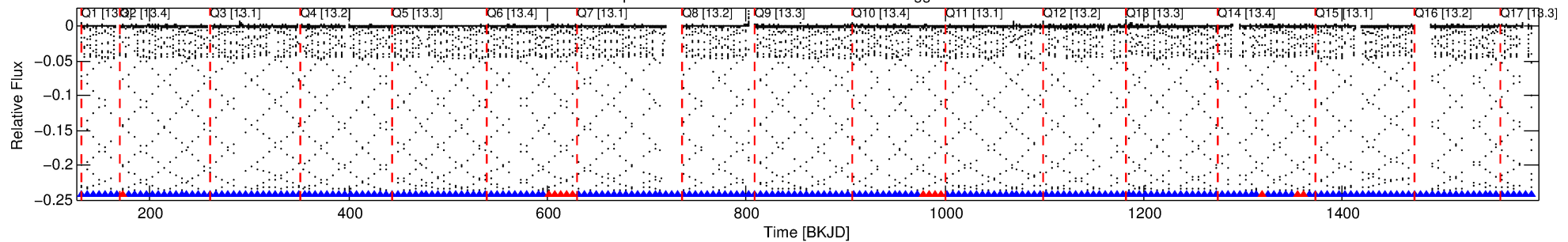
Ephemeris Match Information For 008618226-01

No Significant Match Found

DV One-Page Summary

KIC: 8618226 Candidate: 1 of 1 Period: 5.882 d
KOI: K07070.01 Corr: 0.995

Kp: 13.78 R*: 1.19 Rs Teff: 5837.0 K Logg: 4.28 Fe/H: -0.020



DV Fit Results:

Period = 5.88204 [0.00000] d
Epoch = 131.7687 [0.0000] BKJD
Rp/R* = 0.4762 [0.0001]
a/R* = 11.88 [0.00]
b = 0.54 [0.00]
Seff = 364.12 [90.69]
Teq = 1114 [69] K
Rp = 61.68 [9.66] Re
a = 0.0634 [0.0096] AU
Ag = 23.60 [5.74] [3.94σ]
Teffp = 3796 [52] K [31.02σ]

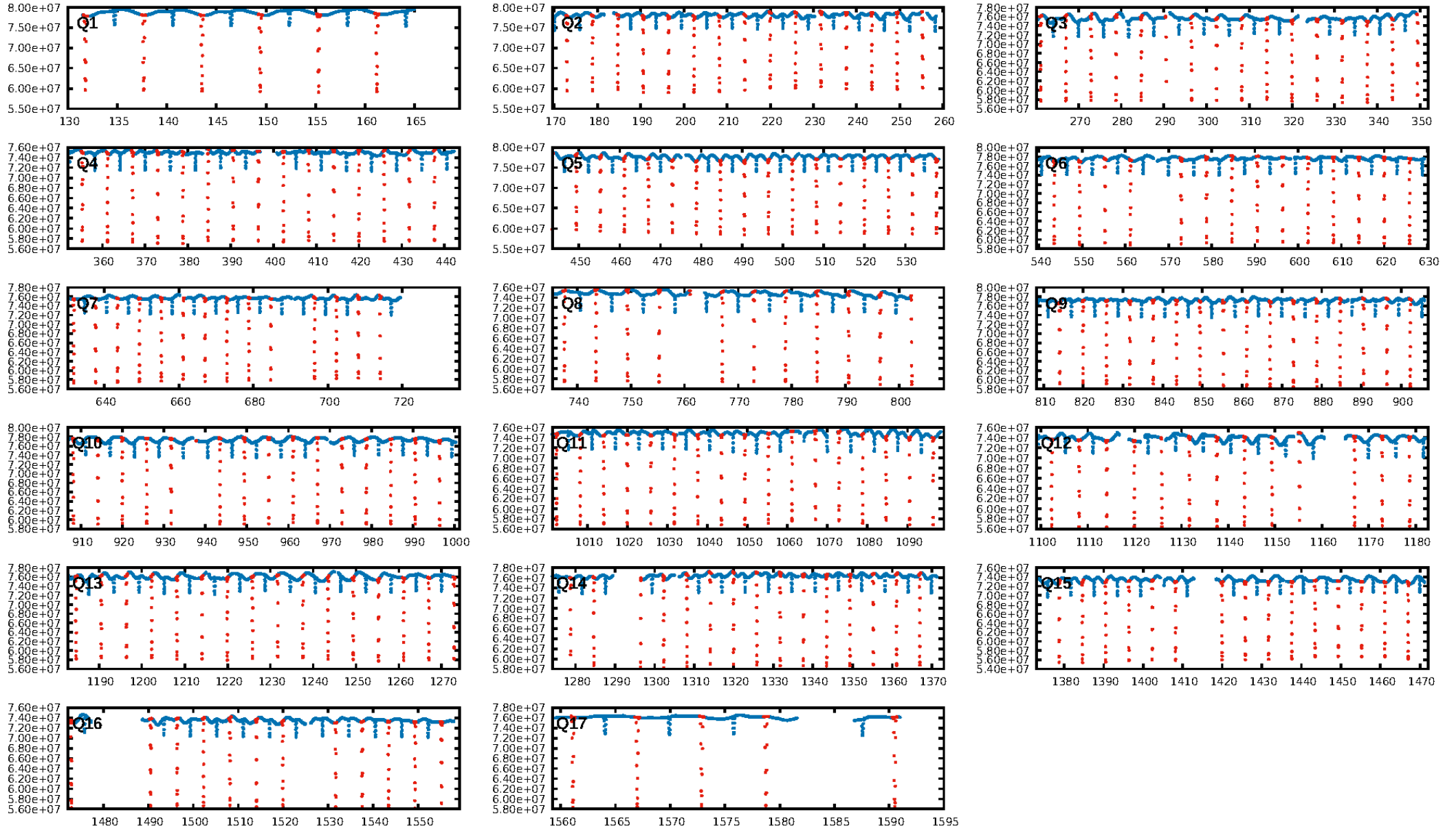
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.94 [208/221]
GhostDiagnostic-chr: 2.163
Centroid-sig: 0.0%
Centroid-so: 0.047 arcsec [106.93σ]
OotOffset-rm: 0.007 arcsec [0.10σ]
KicOffset-rm: 0.078 arcsec [1.16σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

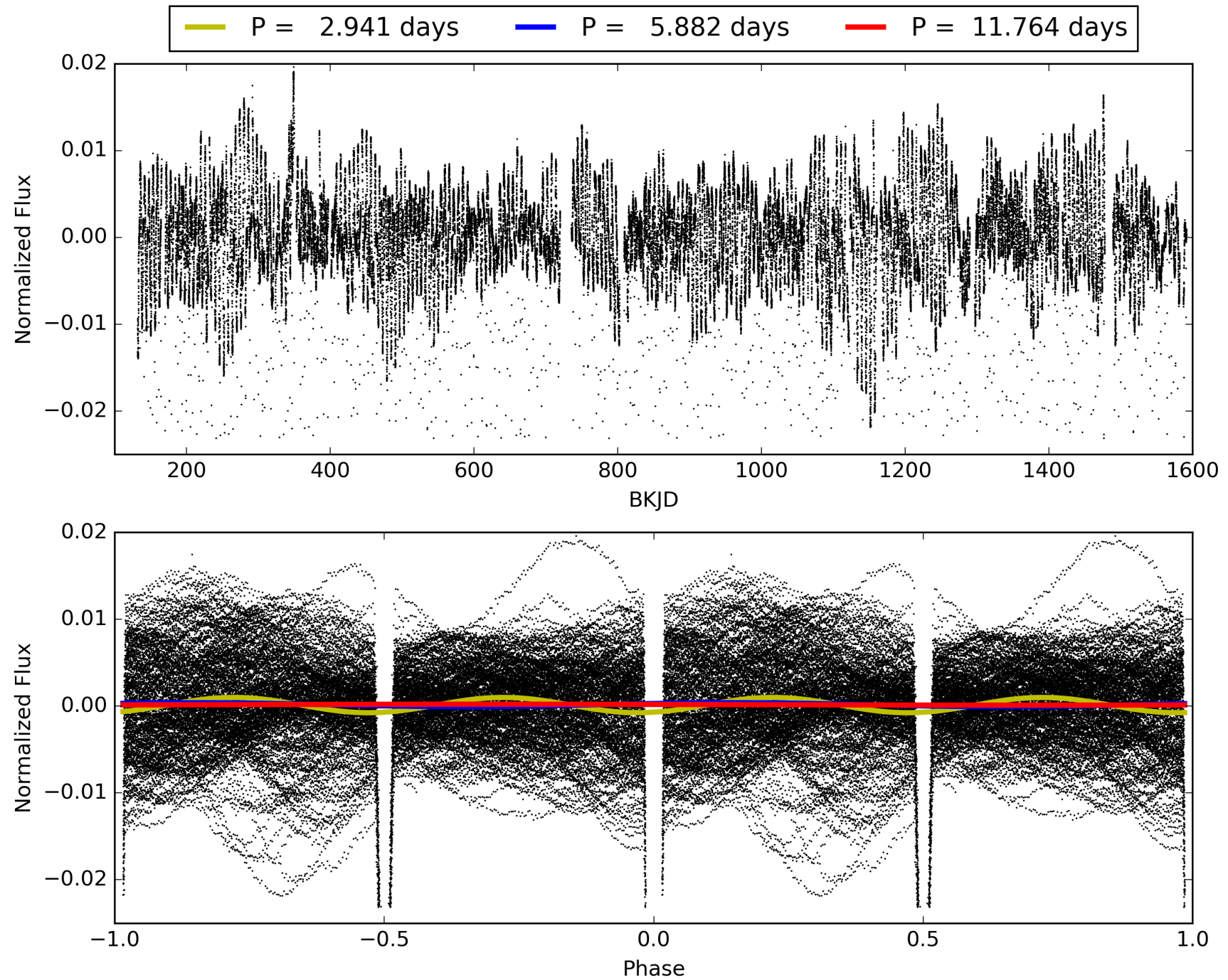
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:30:05 Z

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

TCE 008618226-01, PDC Light Curves

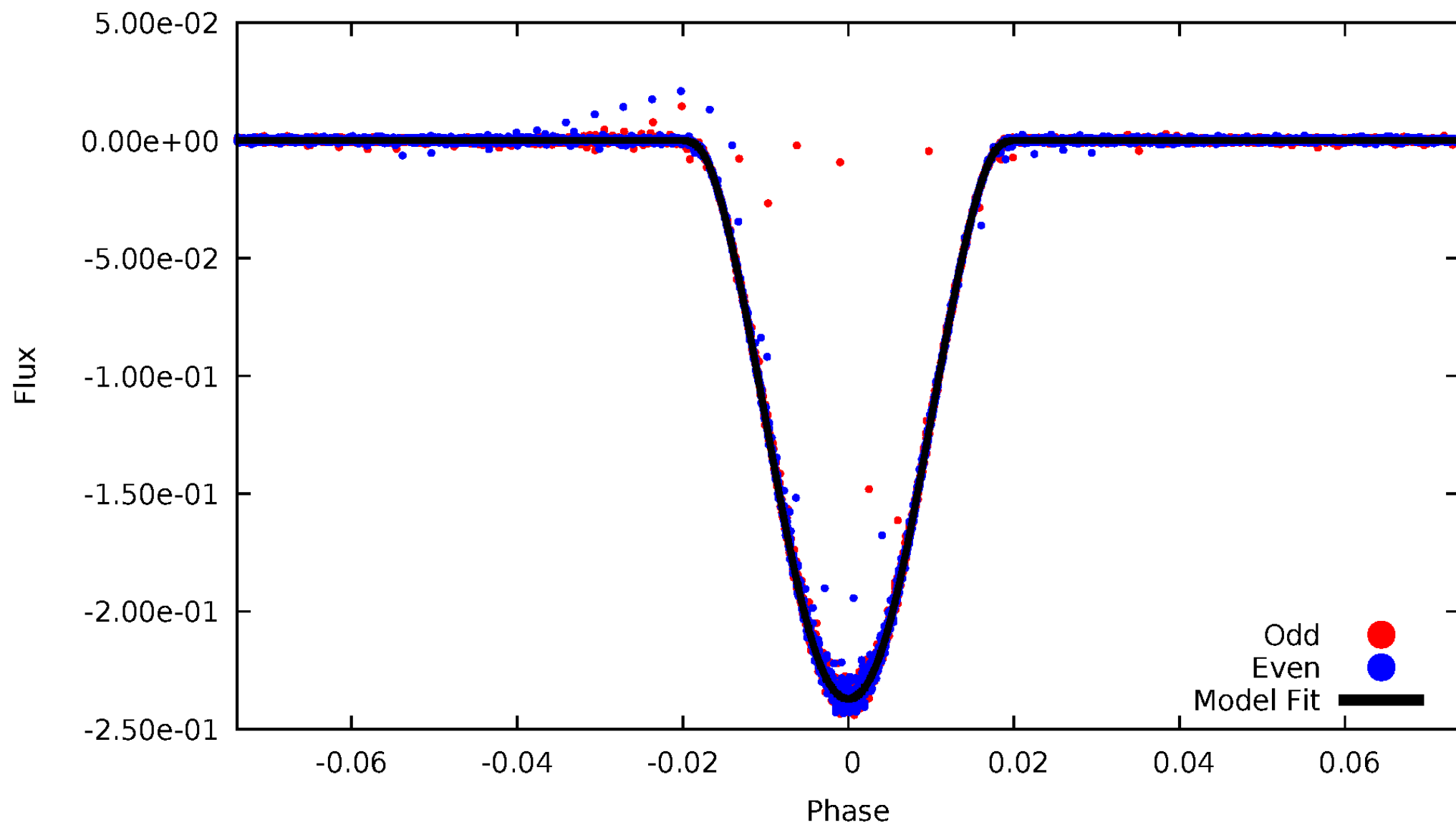


TCE 008618226-01



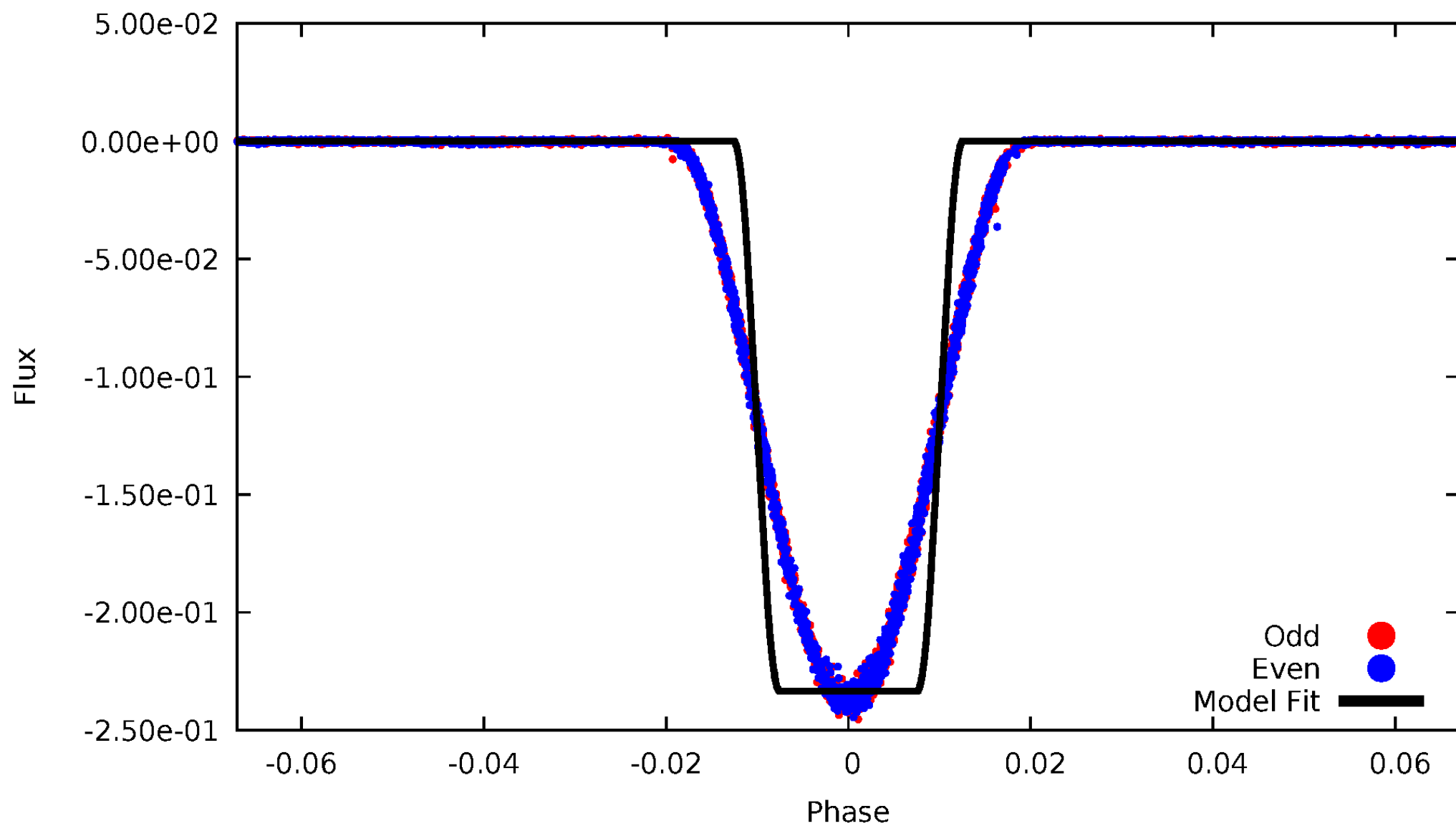
DV Odd/Even

TCE 008618226-01



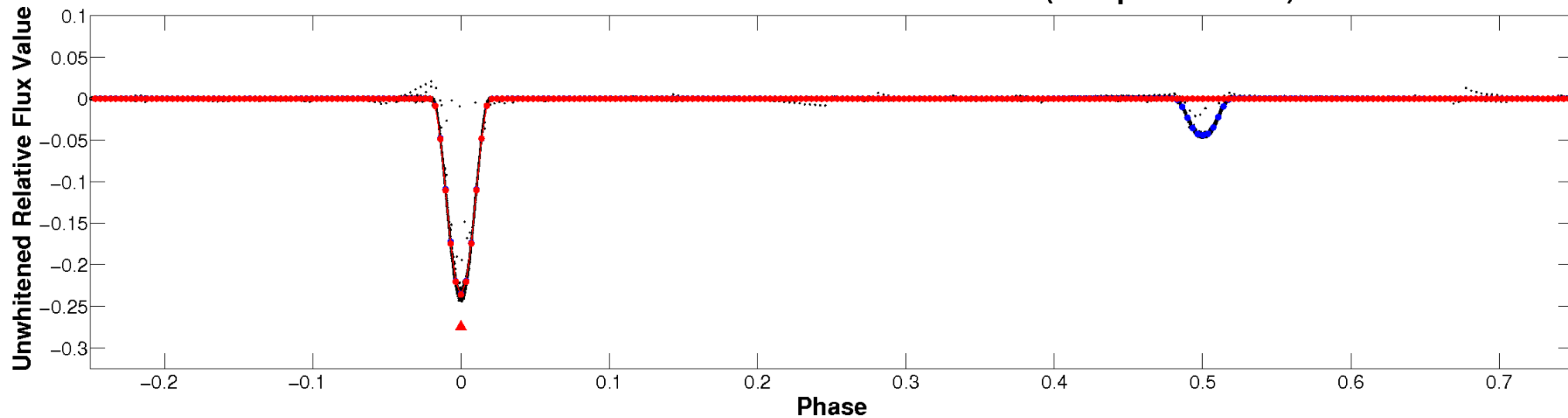
ALT Odd/Even

TCE 008618226-01

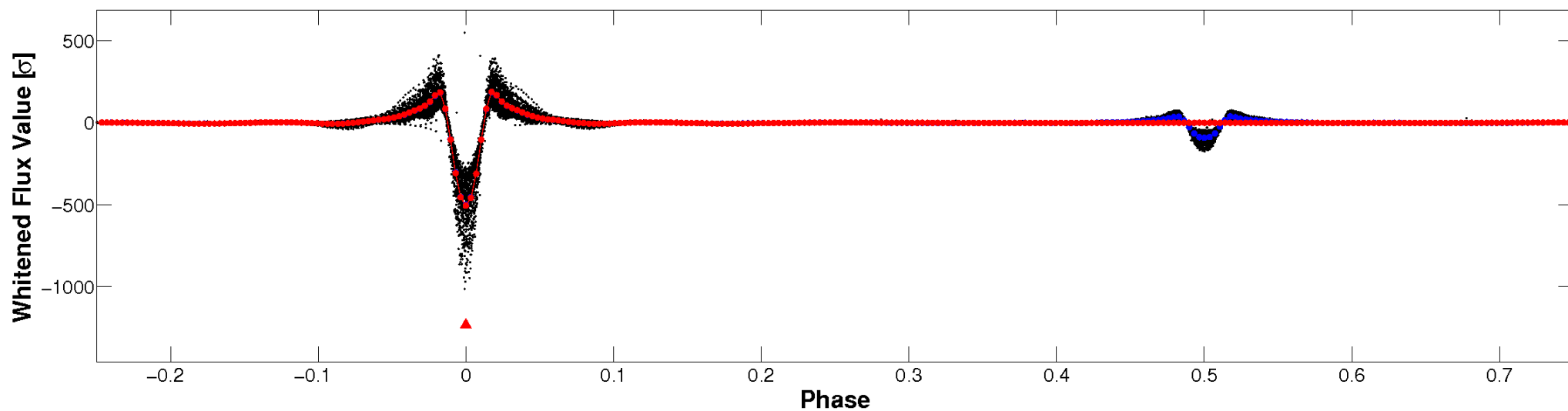


Non-Whitened Vs. Whitened Light Curve

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

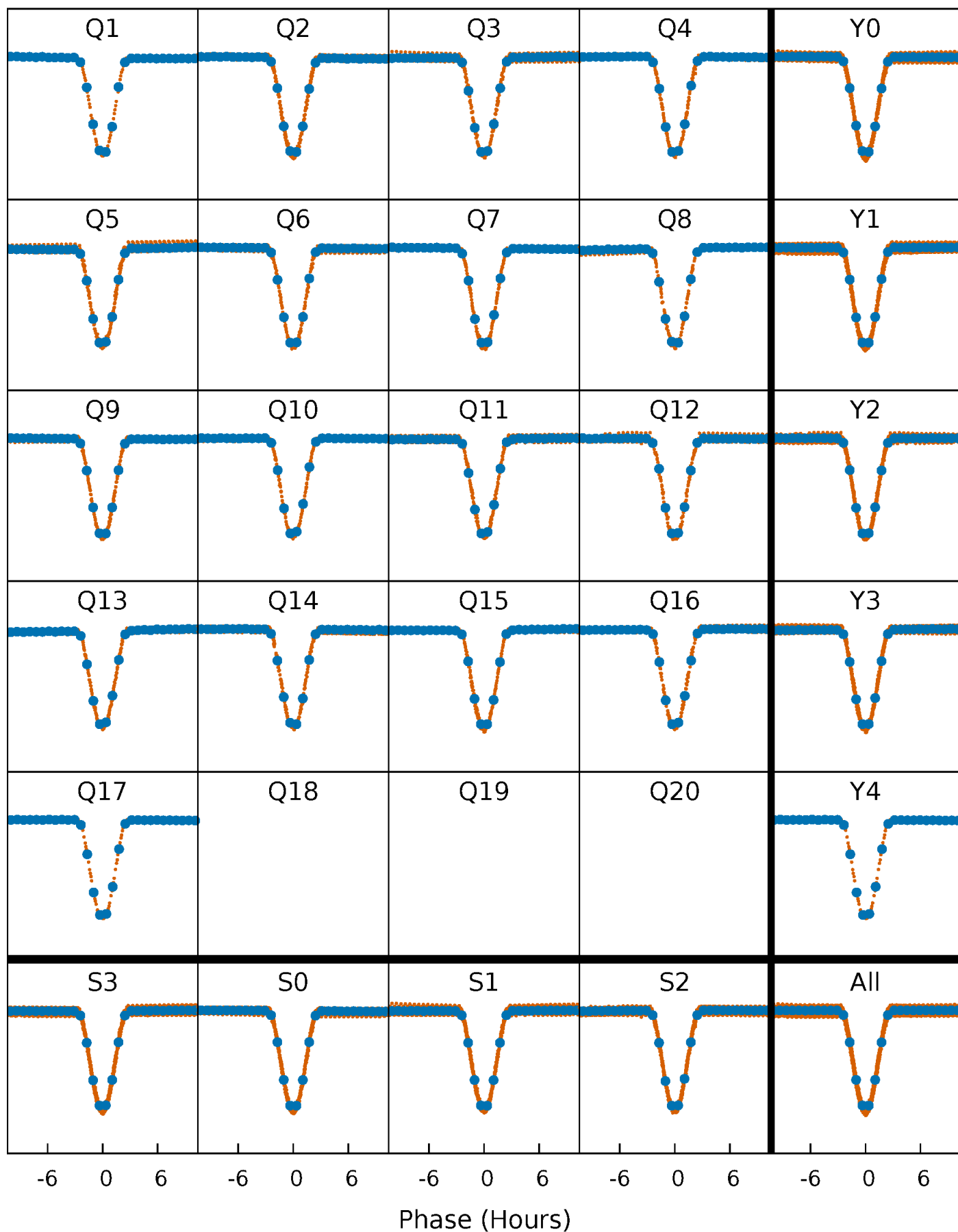


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



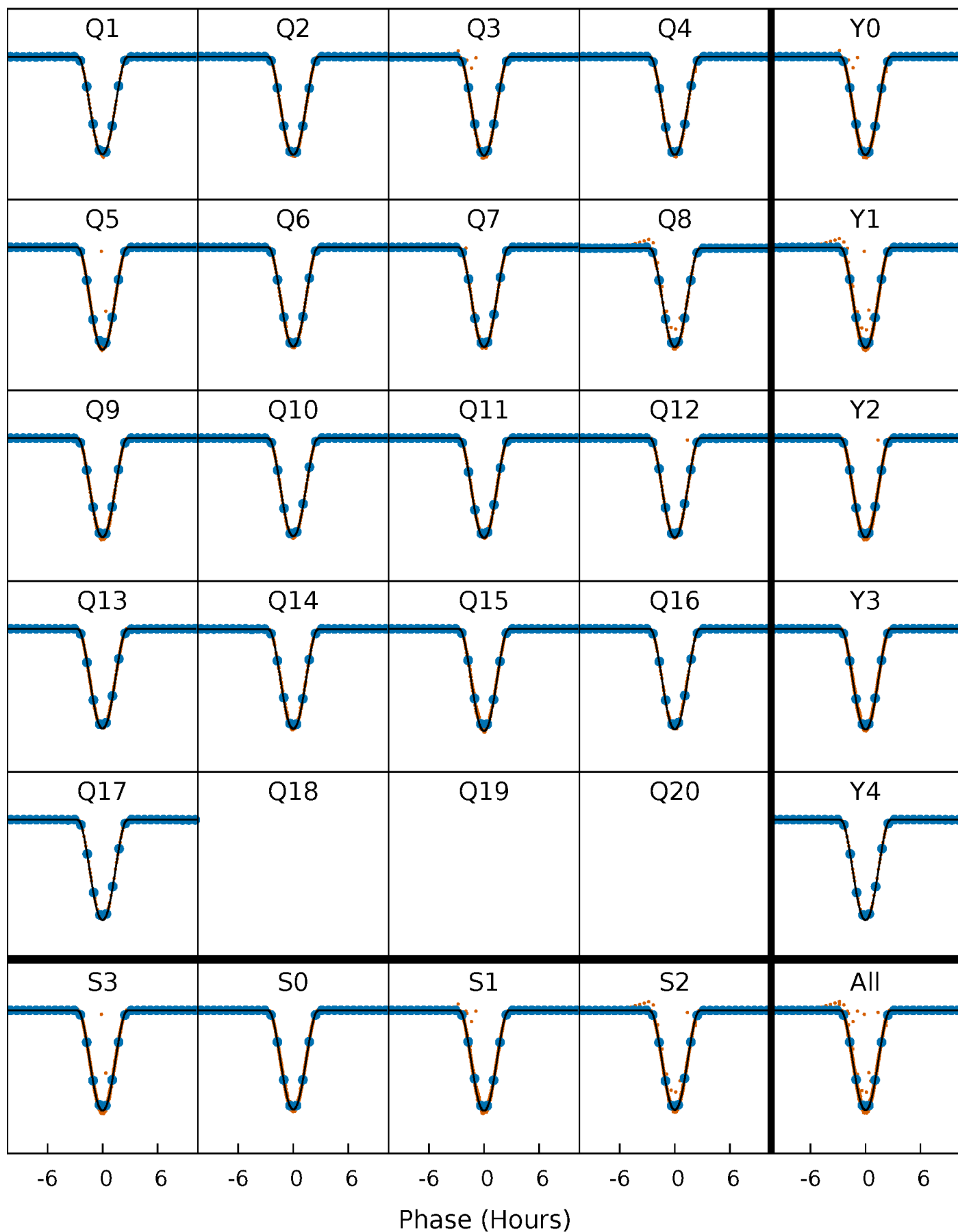
PDC Quarter-Phased Transit Curves

TCE 008618226-01 P= 5.882036 Days $T_0=131.768674$ (BKJD)



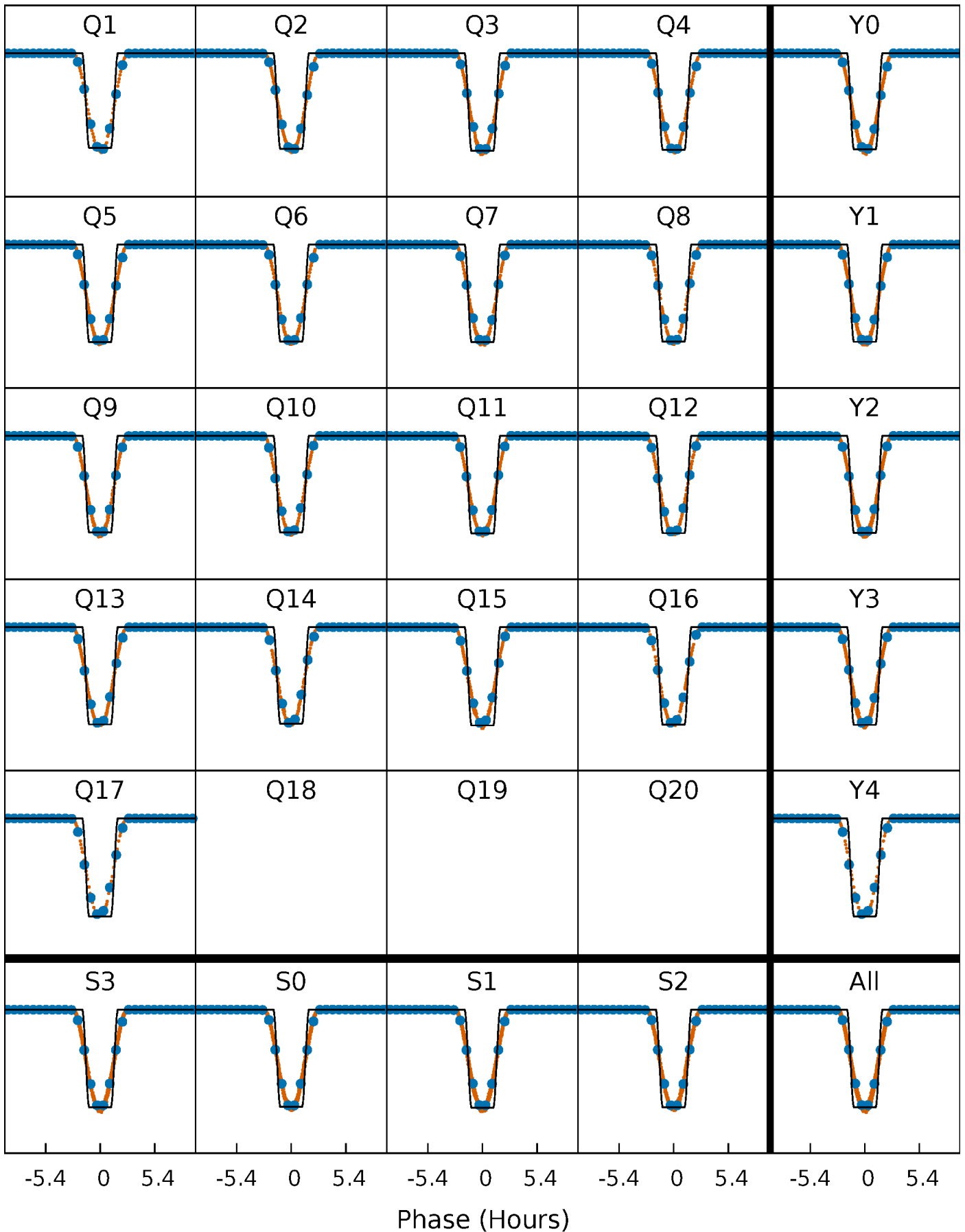
DV Quarter-Phased Transit Curves

TCE 008618226-01 P= 5.882036 Days $T_0=131.768674$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

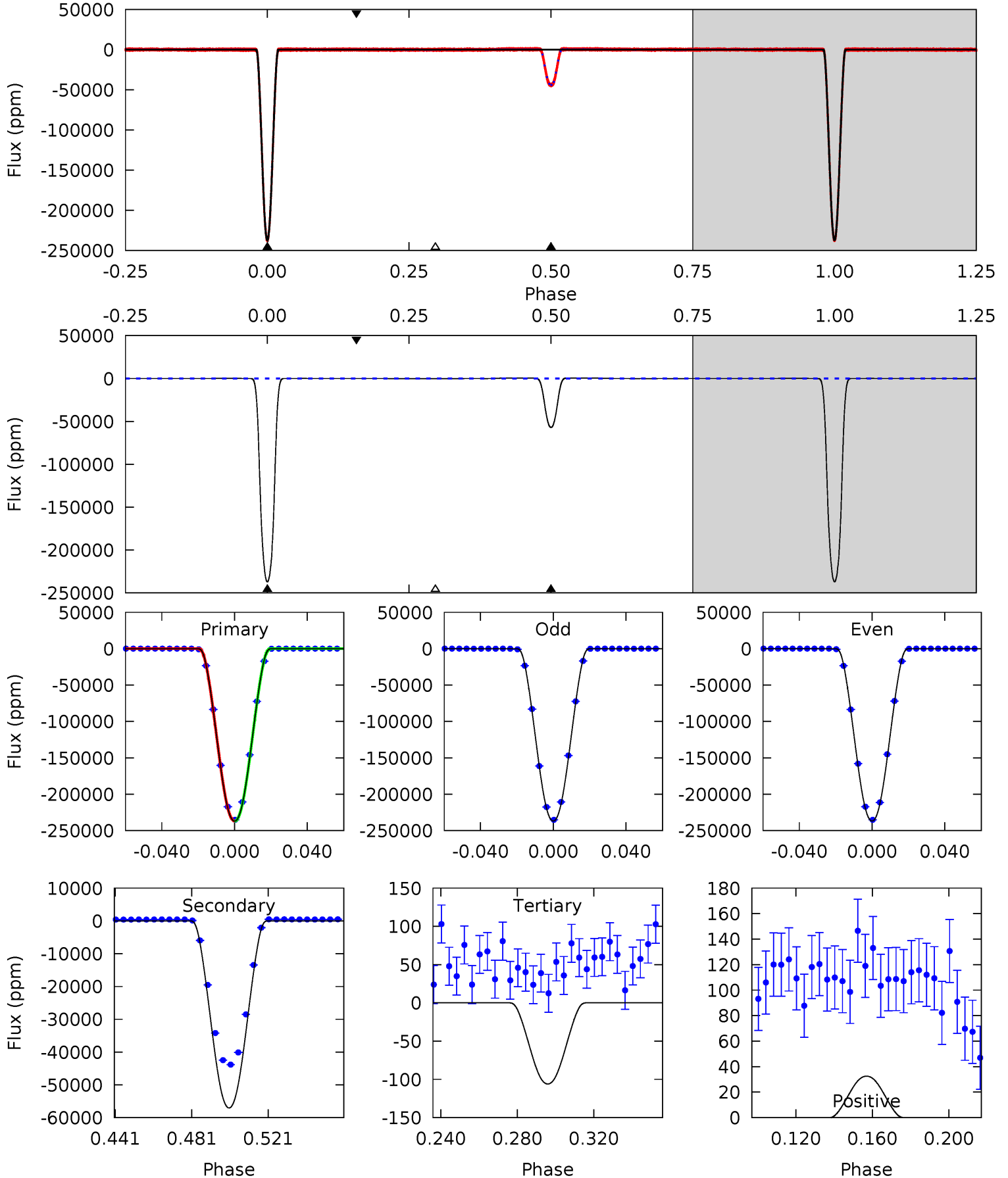
TCE 008618226-01 P= 5.882055 Days $T_0=131.766300$ (BKJD)



DV Model-Shift Uniqueness Test

008618226-01, P = 5.882036 Days, E = 125.886638 Days

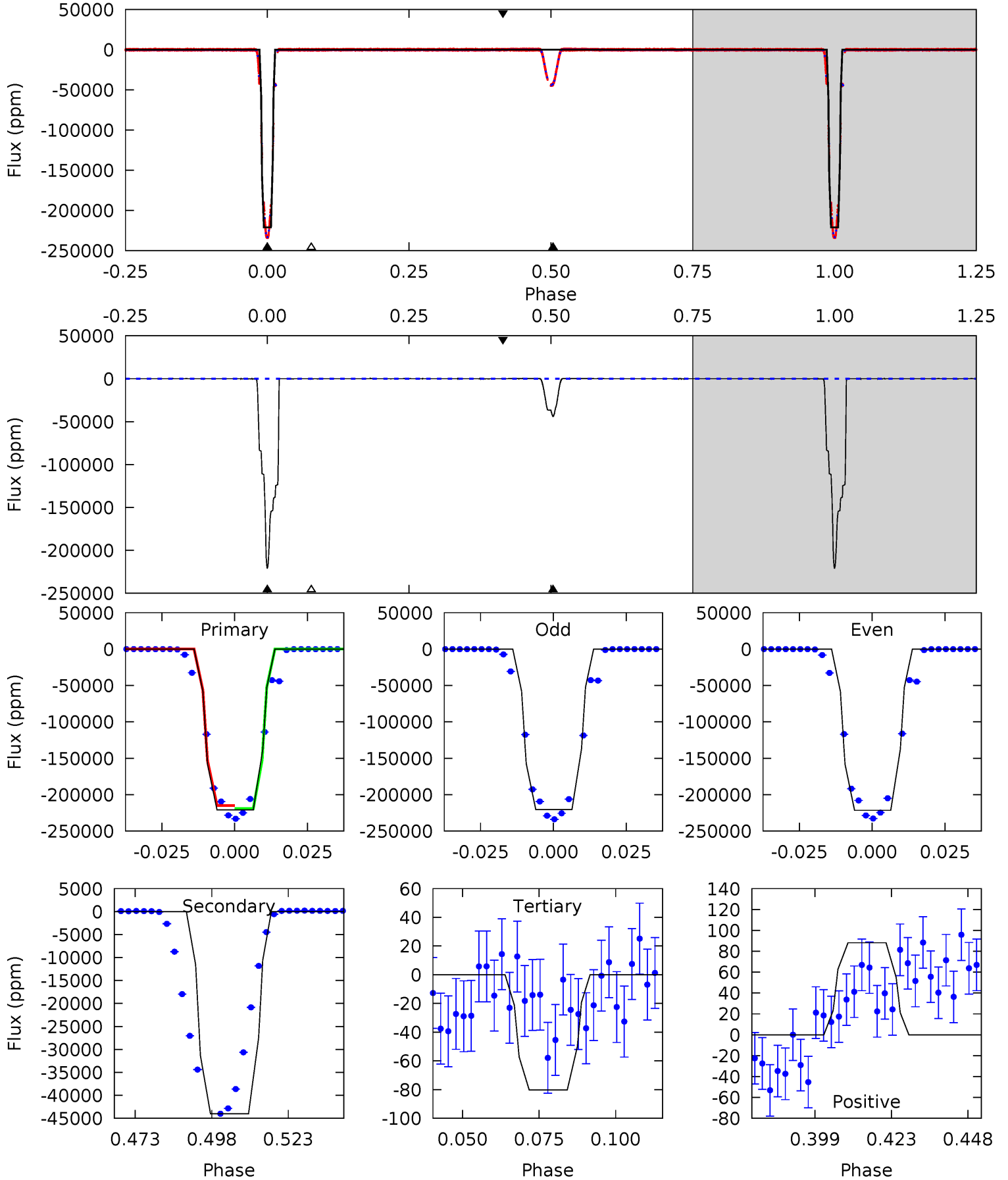
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21801	5247	9.76	2.99	4.75	2.05	14.9	21791	21798	5237	5244	0.17	0.99	0.00	0



Alt Model-Shift Uniqueness Test

008618226-01, P = 5.882055 Days, E = 125.884245 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10567	2104	3.84	4.21	4.85	2.24	1.94	10563	10563	2100	2100	28.6	1.00	0.00	84.4



Stellar Parameters For KIC 008618226

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5837^{+79}_{-79}	$4.282^{+0.143}_{-0.104}$	$-0.020^{+0.150}_{-0.150}$	$1.187^{+0.186}_{-0.186}$	$0.983^{+0.071}_{-0.064}$	$0.828^{+0.581}_{-0.246}$
	+1%/-1%	+3%/-2%	+750%/-750%	+16%/-16%	+7%/-7%	+70%/-30%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 008618226-01 / KOI 7070.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-57040 ± 11	$61.43^{+5.26}_{-5.38}$	1552^{+65}_{-73}	4393^{+46}_{-46}	36^{+7}_{-5}
Alt.	-44019 ± 21	$62.28^{+5.54}_{-5.30}$	1552^{+66}_{-67}	4150^{+45}_{-44}	26^{+5}_{-4}

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

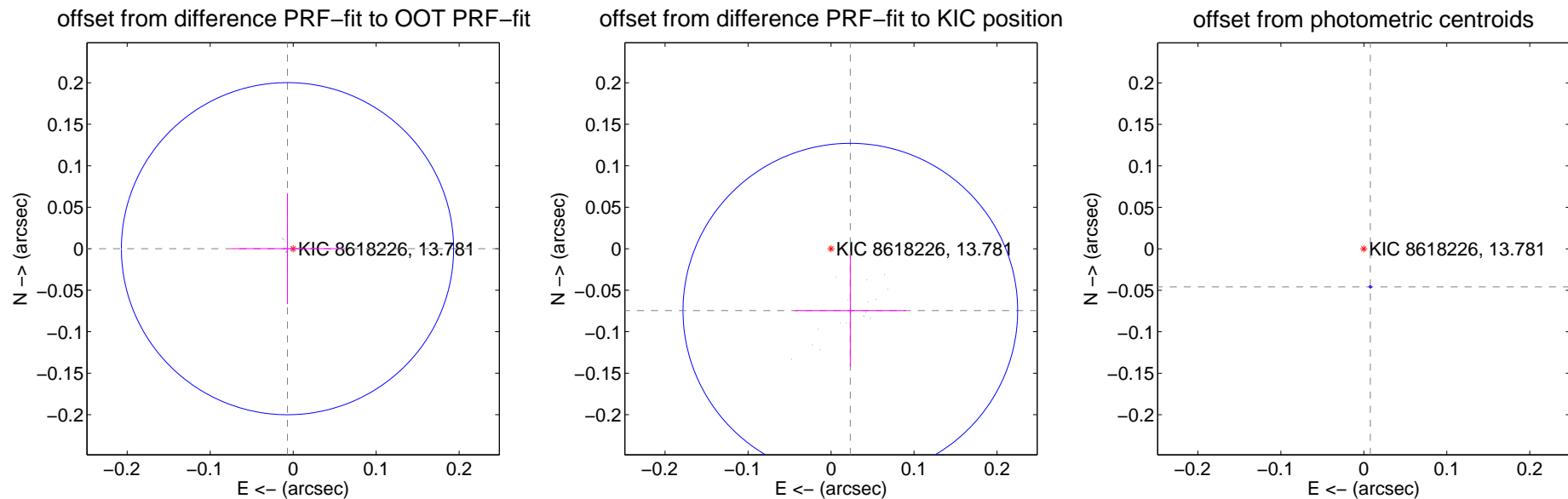
DV Centroid Data

Supplemental centroid analysis for 008618226-01. Kepler magnitude: 13.78. Transit SNR 9643.49

There are 17 quarters with good PRF difference image offsets

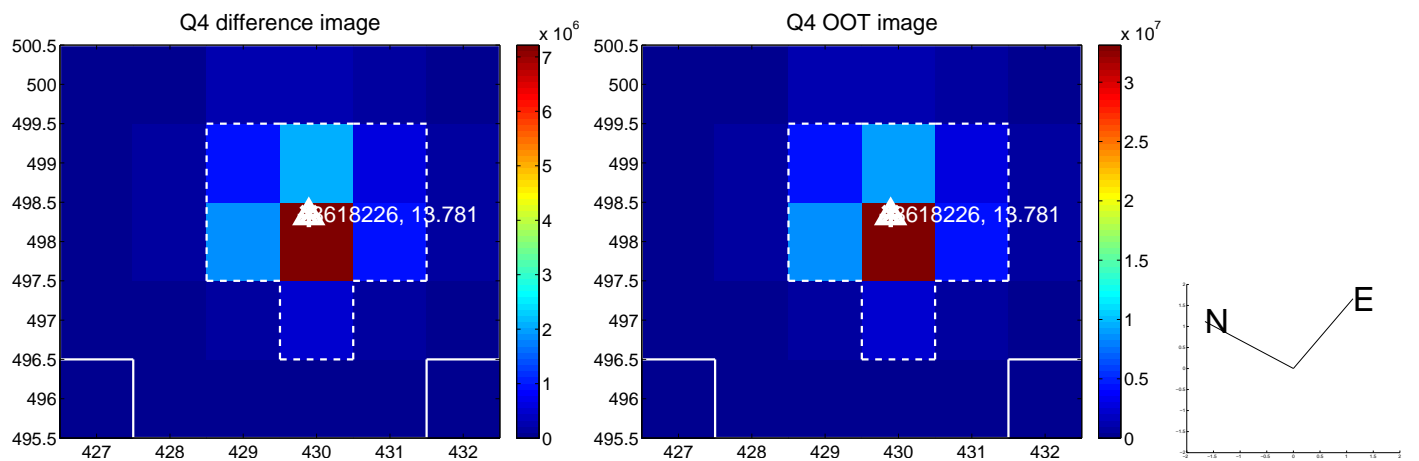
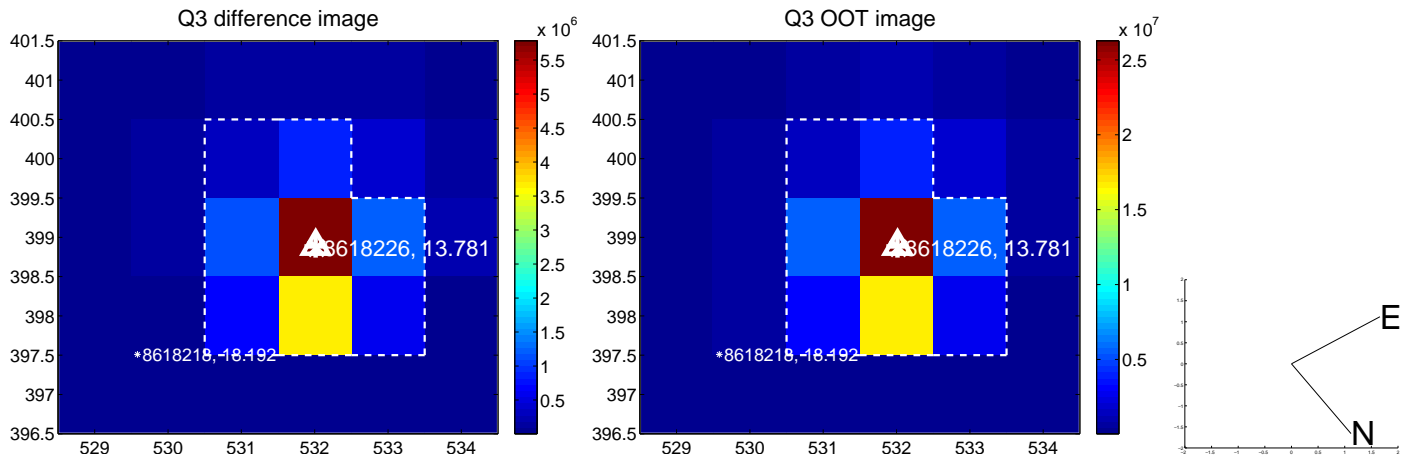
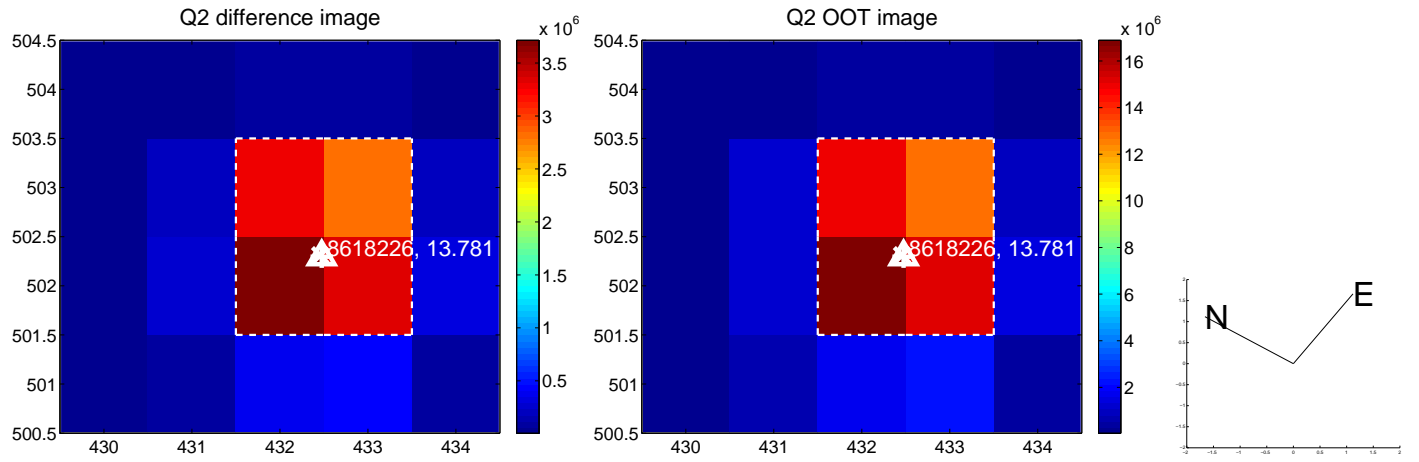
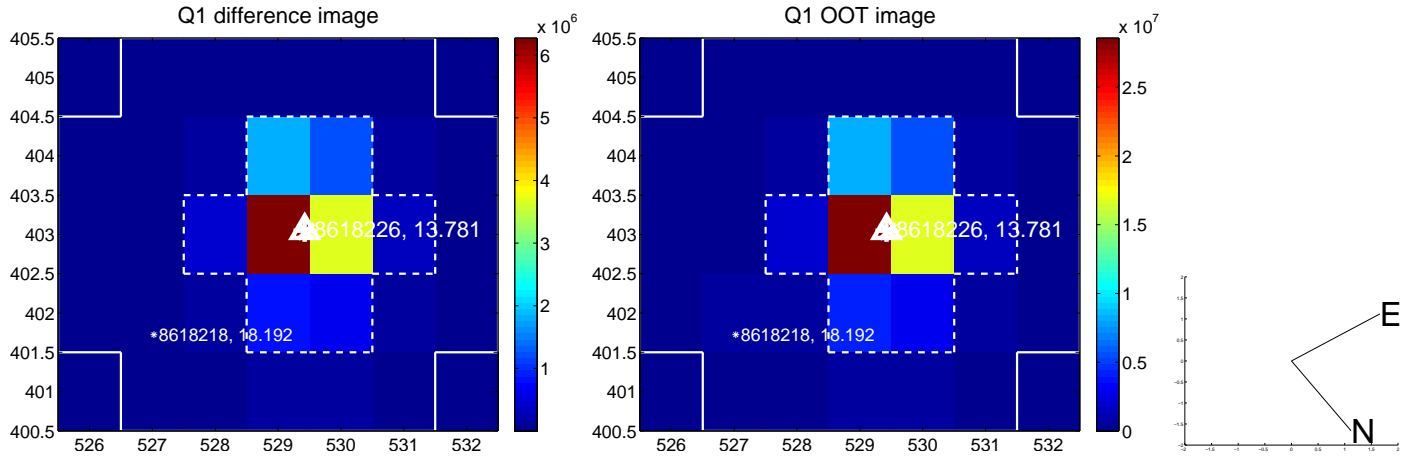
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.067	0.10	0.007 ± 0.067	0.000 ± 0.067
PRF-fit source offset from KIC position	0.078 ± 0.067	1.16	-0.023 ± 0.067	-0.075 ± 0.067
photometric centroid source offset	0.05 ± 0.00	106.93	-0.01 ± 0.00	-0.05 ± 0.00

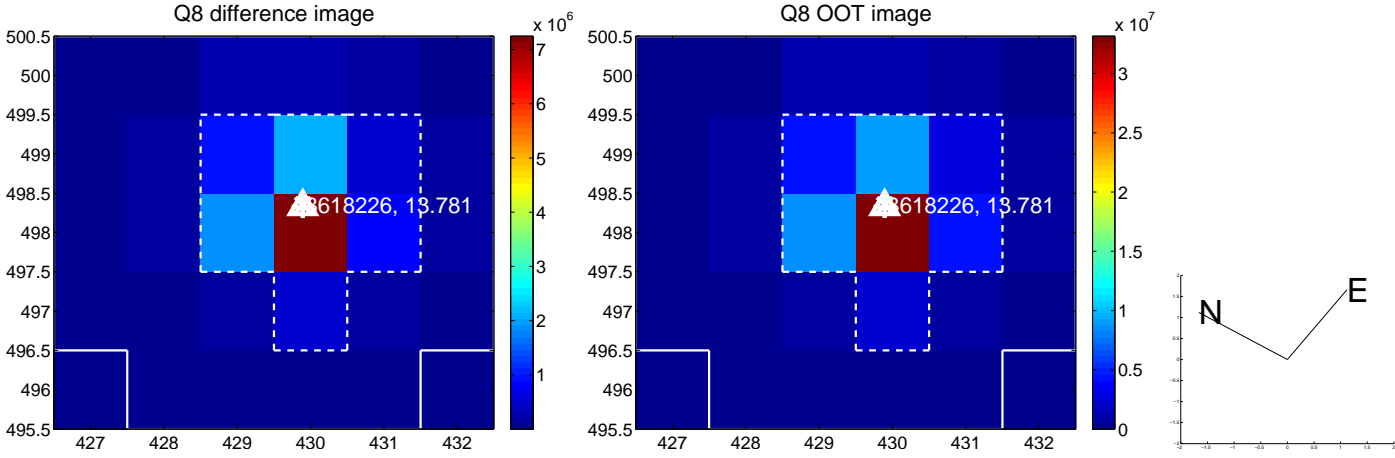
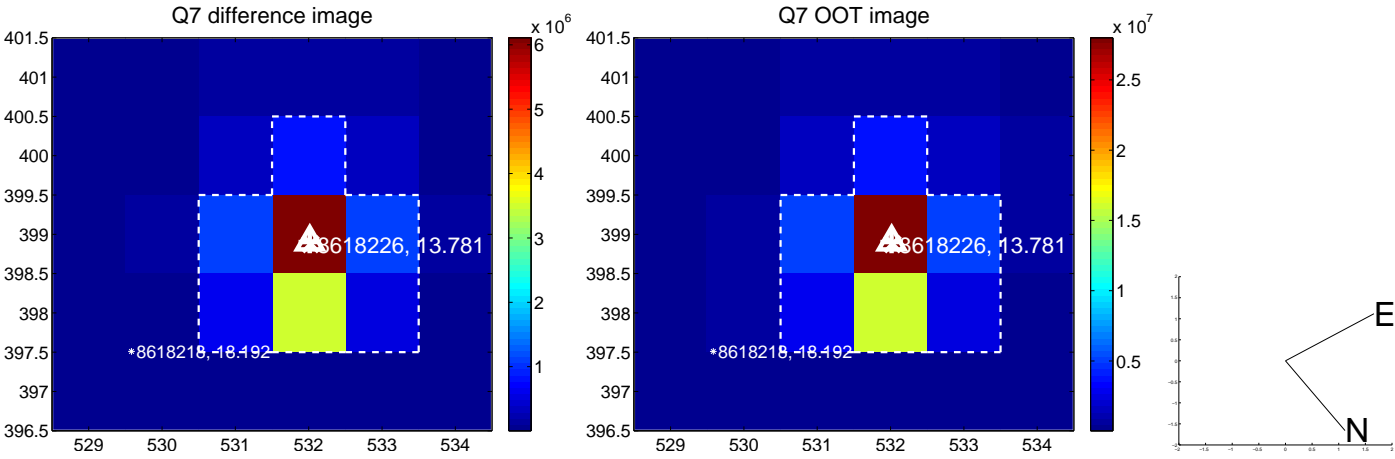
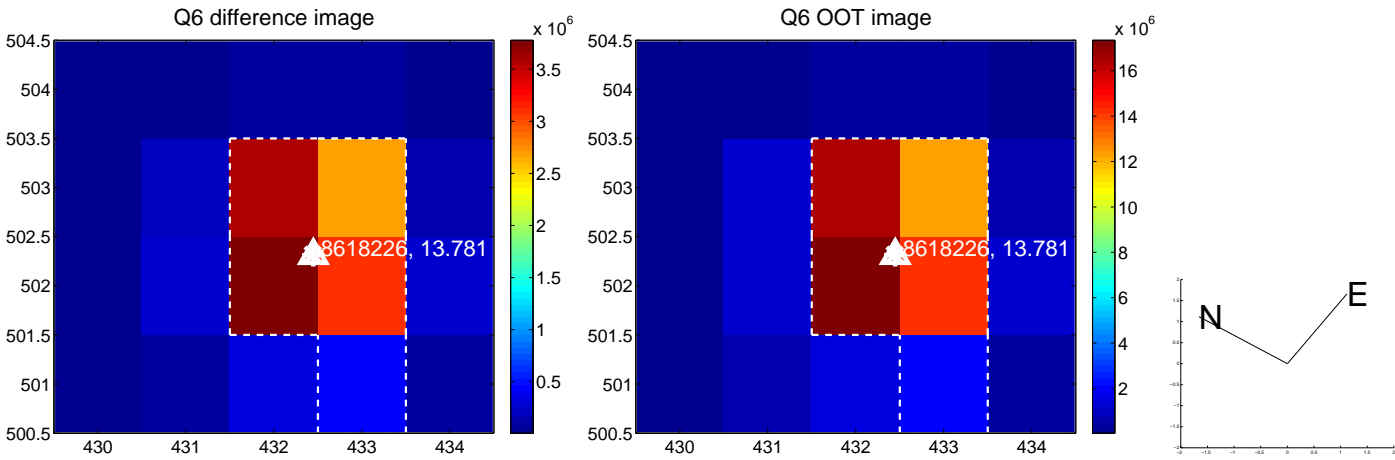
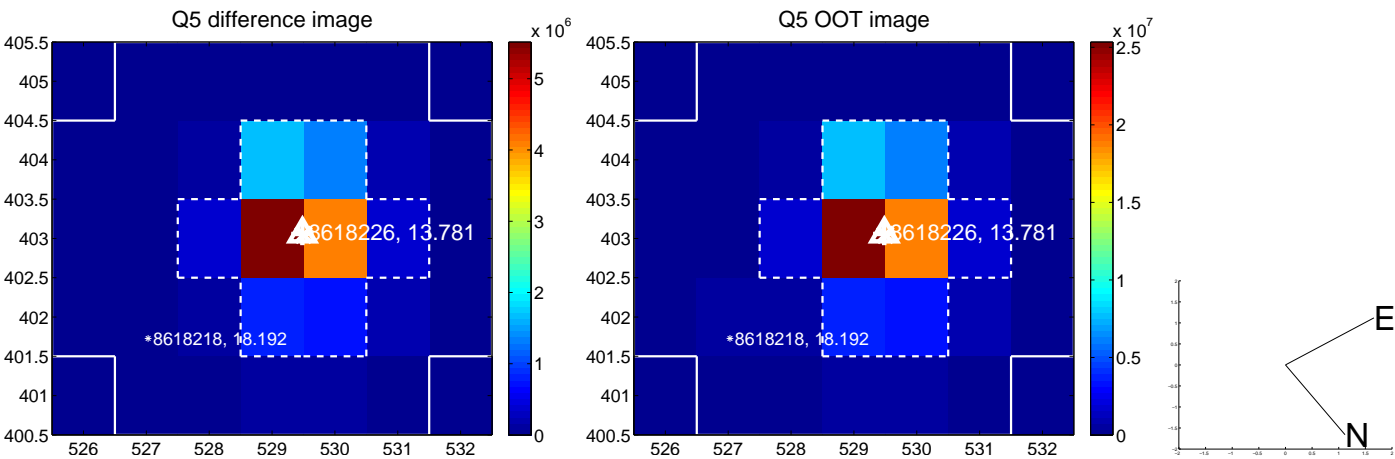


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

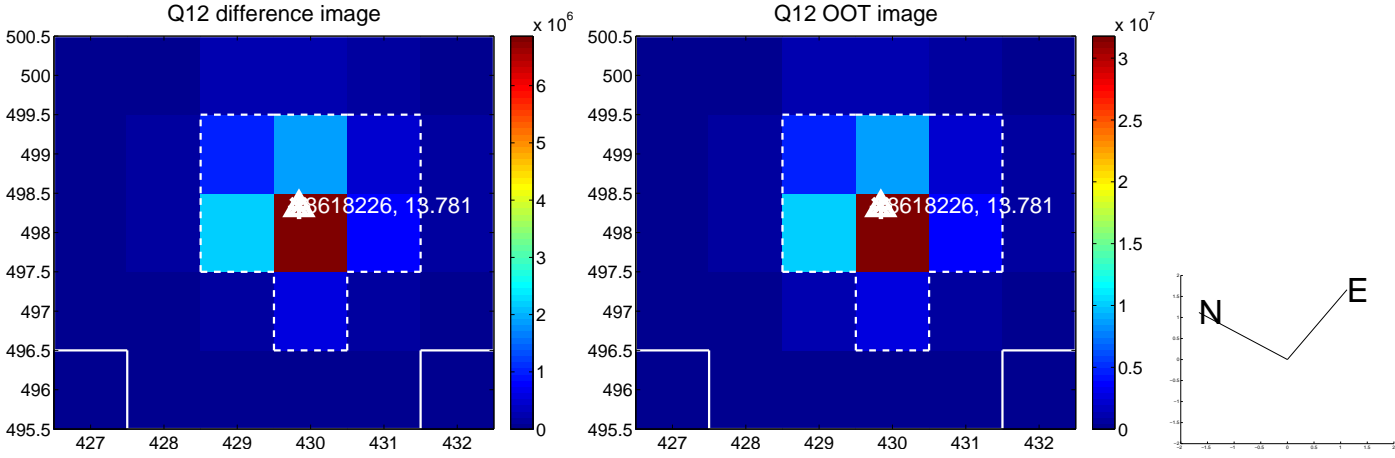
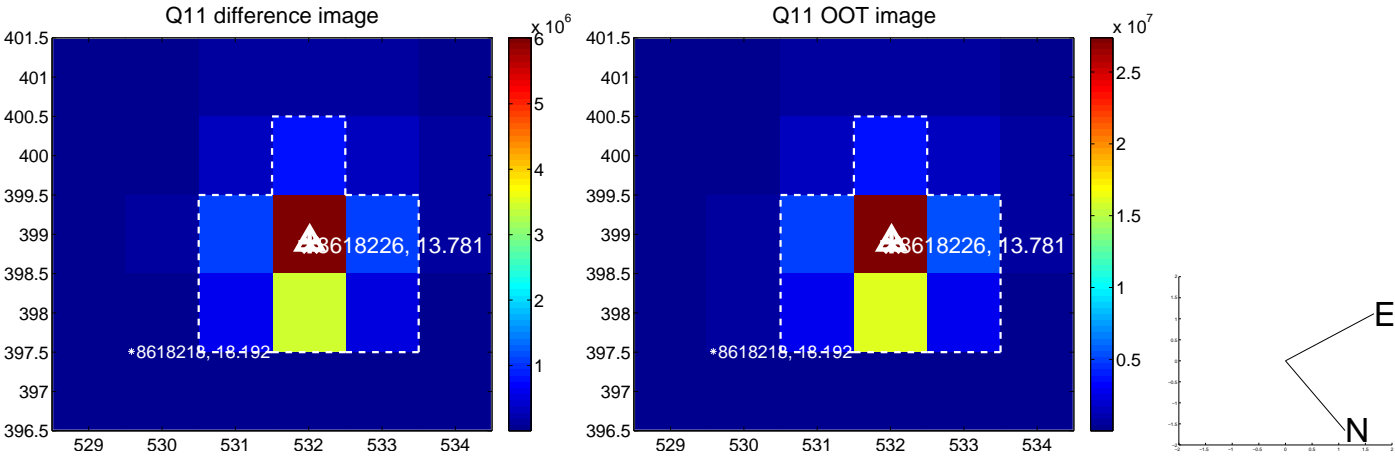
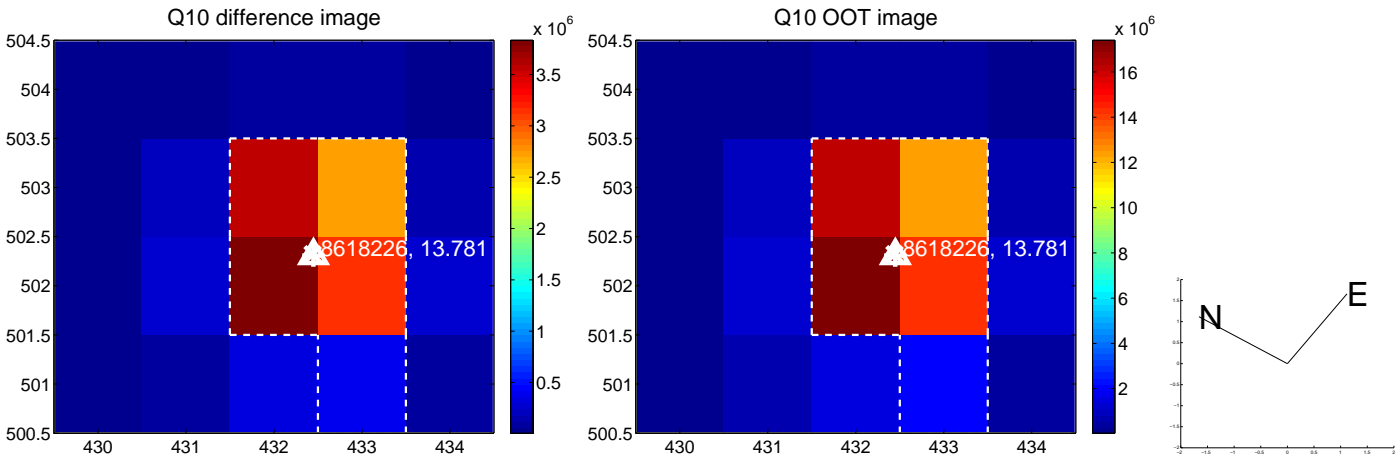
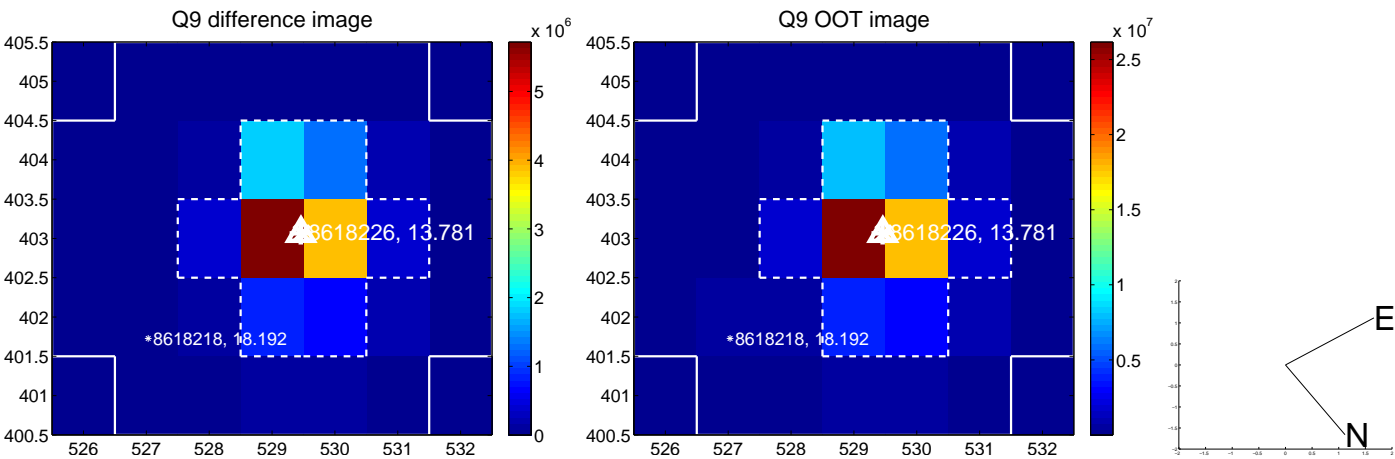
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



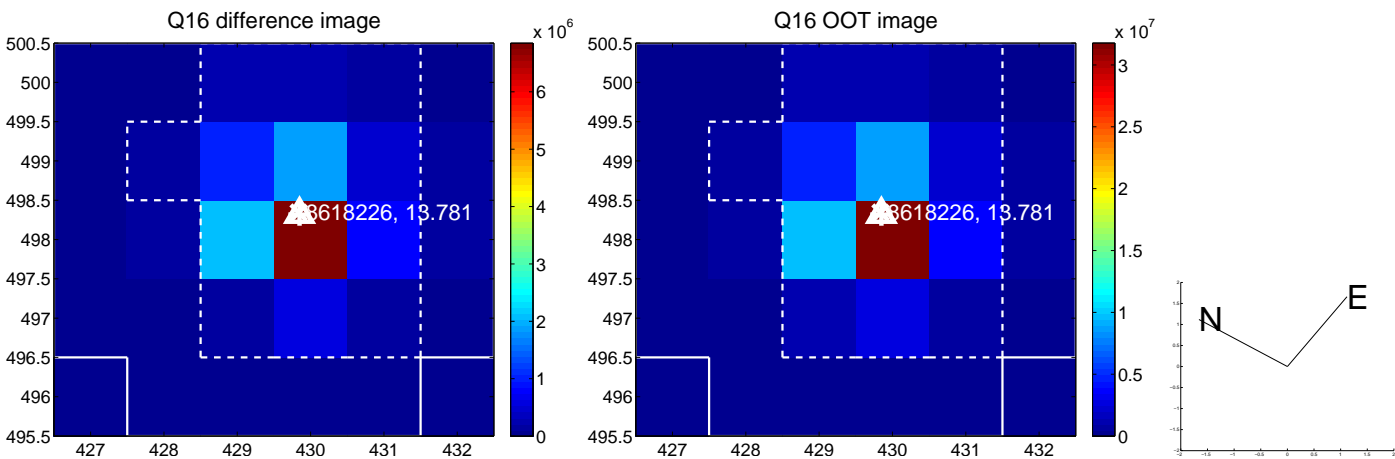
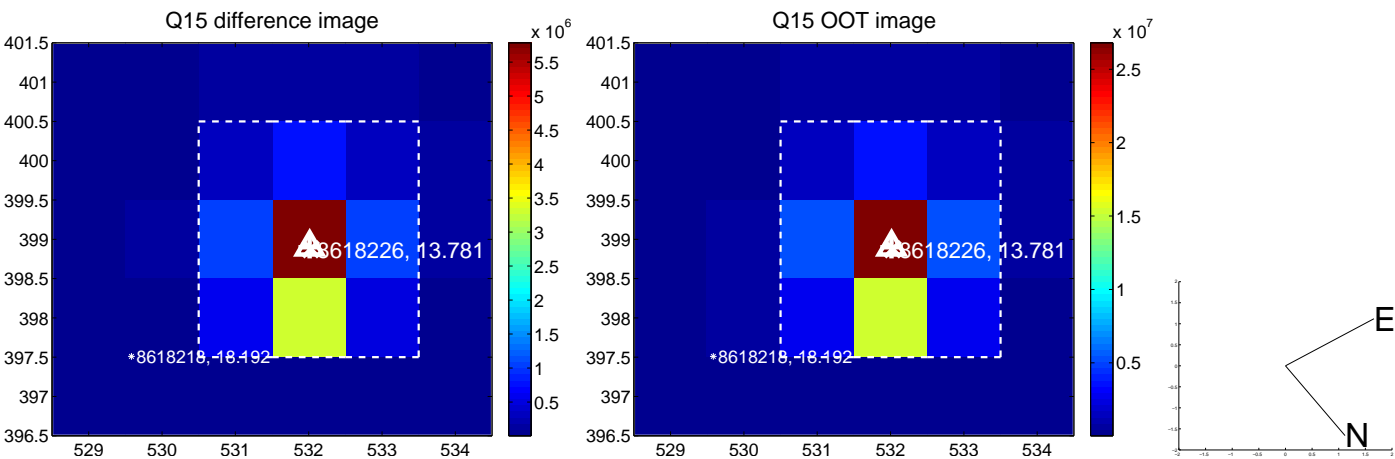
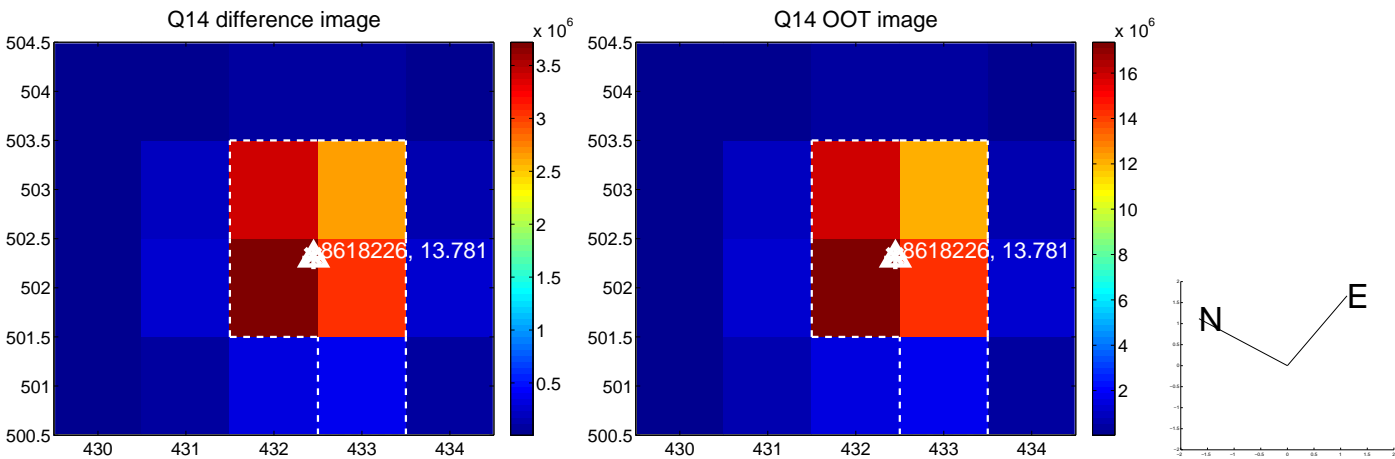
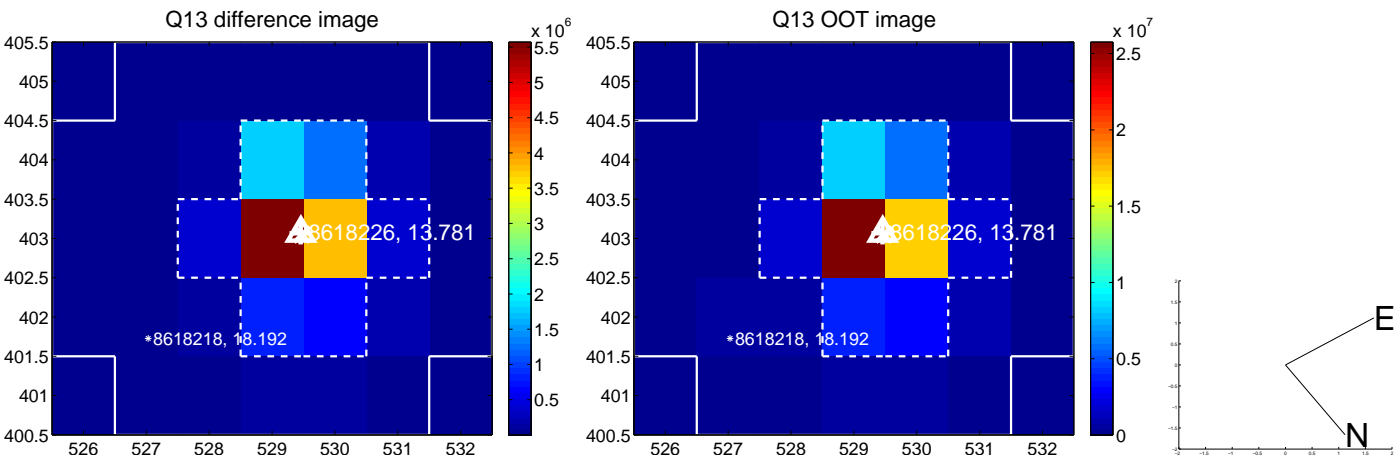
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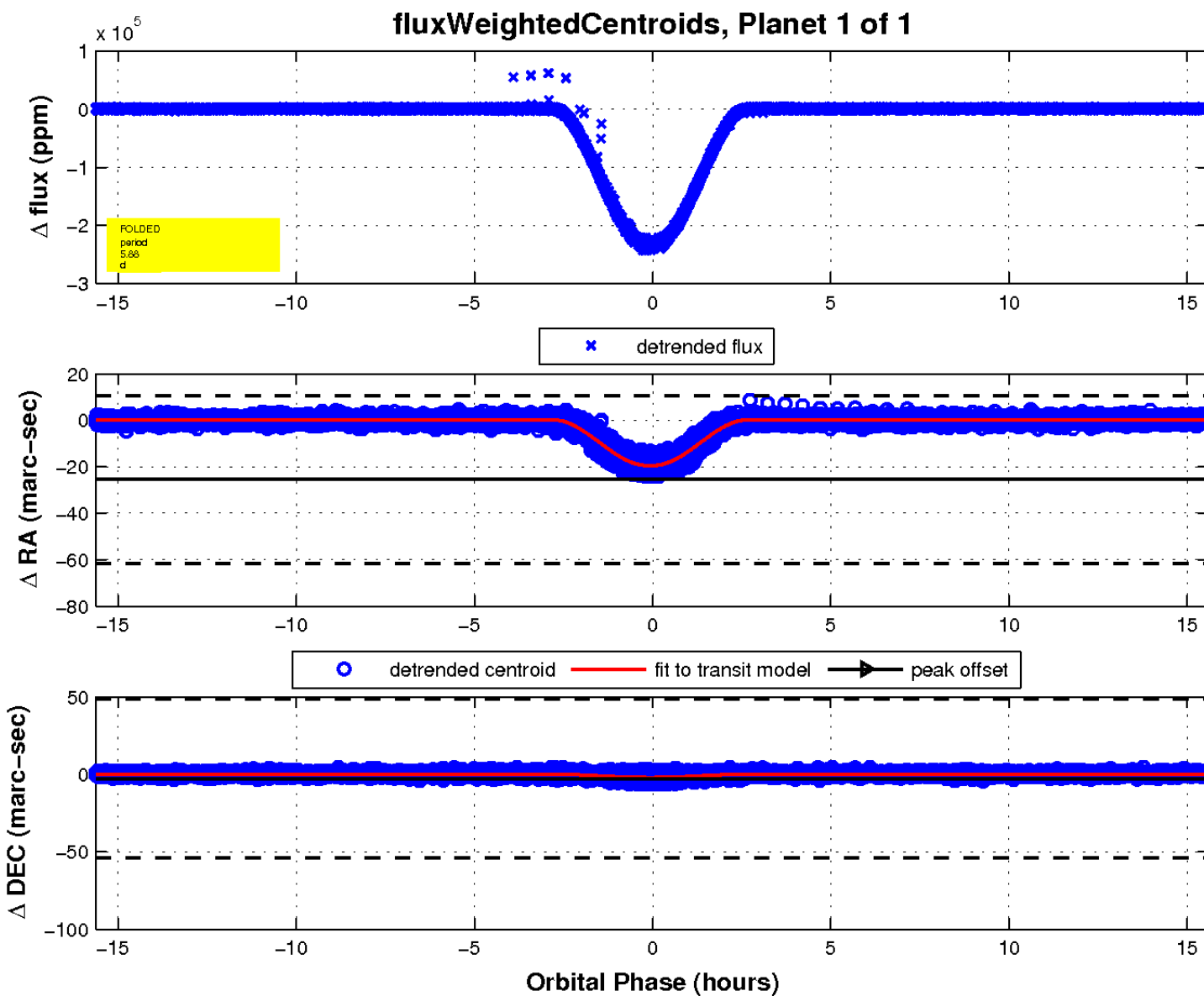
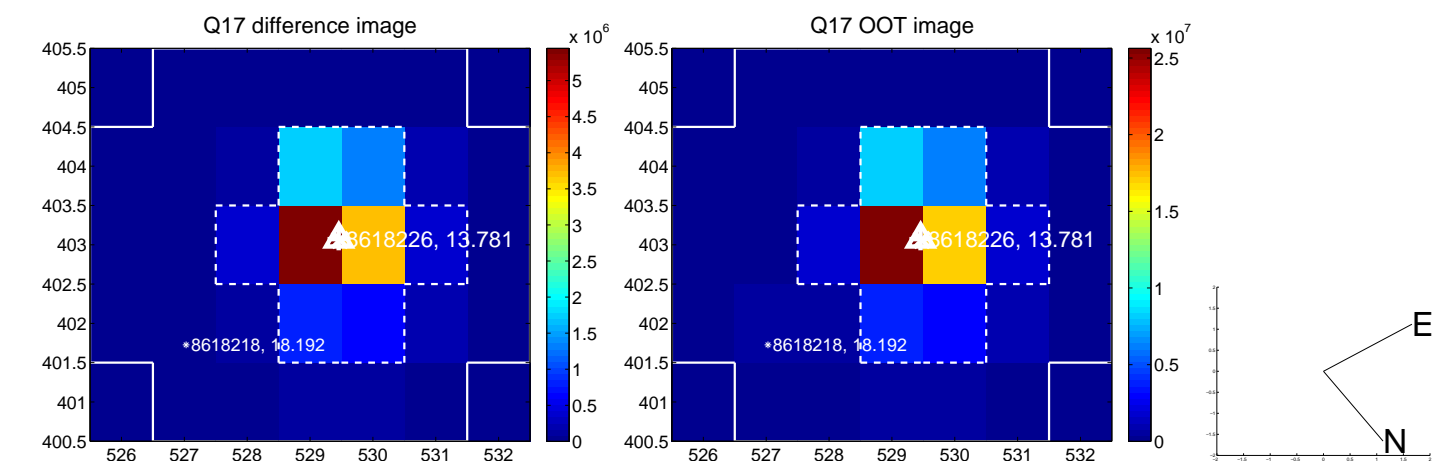
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UKIRT Image

