

KIC 003656322

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})
003656322-01	OBS	6349.01	1.831824	132.542146	31058.8	6.609	1502.0	993.4	2.18	5269	42.41	4419.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003656322-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—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 003656322-01

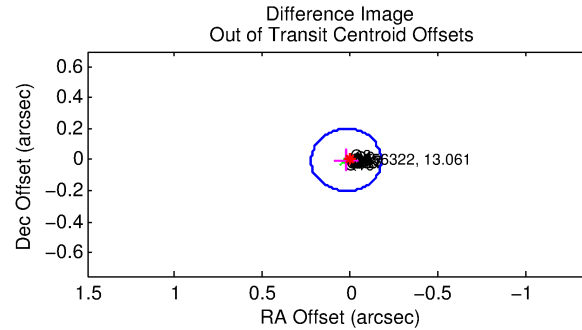
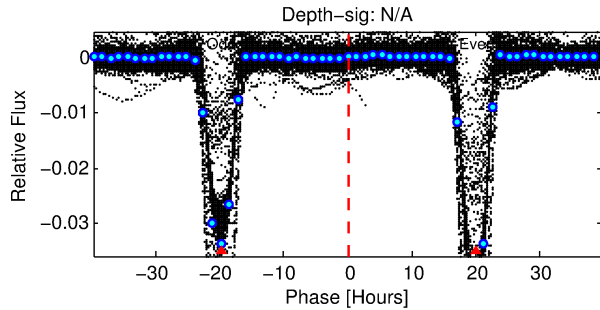
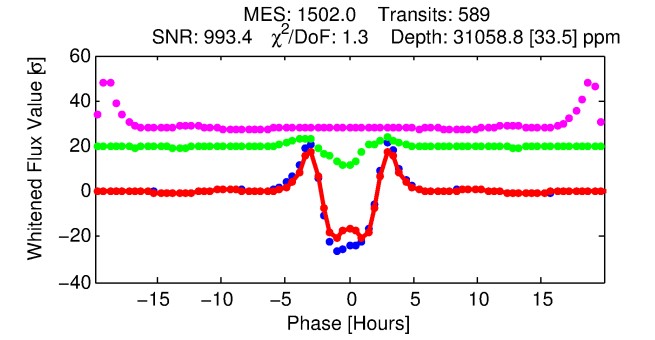
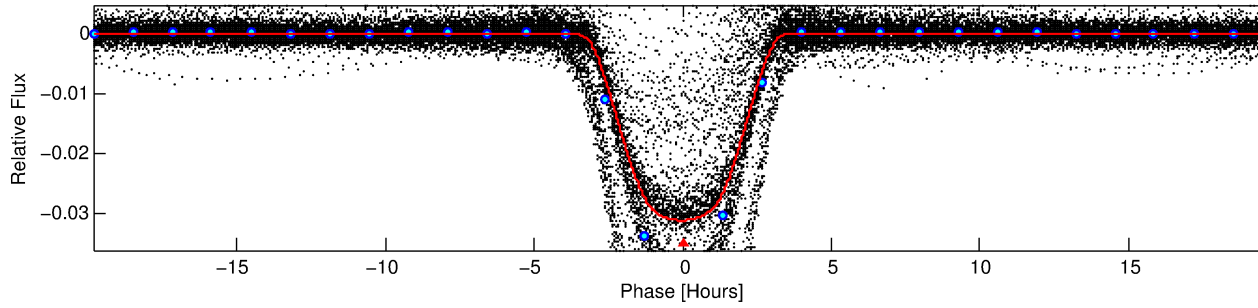
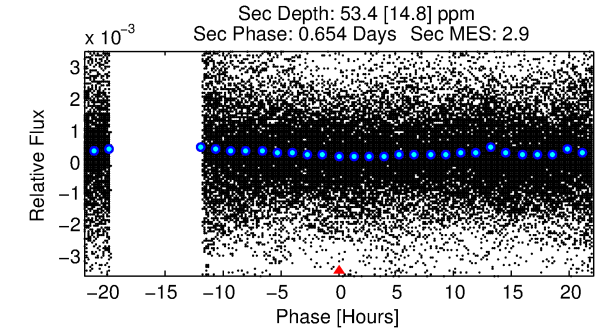
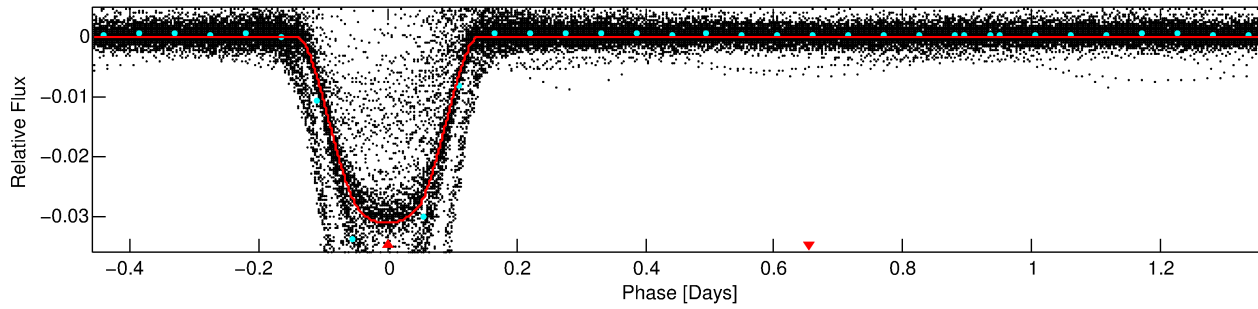
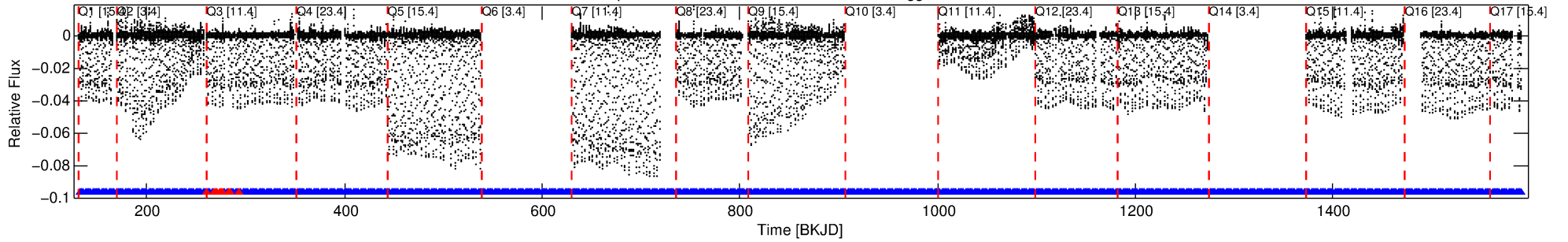
No Significant Match Found

DV One-Page Summary

KIC: 3656322 Candidate: 1 of 1 Period: 1.832 d

KOI: K06349.01 Corr: 0.938

Kp: 13.06 R*: 2.18 Rs Teff: 5269.0 K Logg: 3.67 Fe/H: -0.740



DV Fit Results:

Period = 1.83182 [0.00000] d
Epoch = 132.5421 [0.0000] BKJD
Rp/R* = 0.1780 [0.0001]
a/R* = 2.12 [0.00]
b = 0.76 [0.00]
Seff = 4419.07 [7042.05]
Teff = 2079 [828] K
Rp = 42.41 [29.66] Re
a = 0.0273 [0.0243] AU
Ag = 0.01 [0.02] [-50.35σ]
Teffp = 1067 [80] K [-1.22σ]

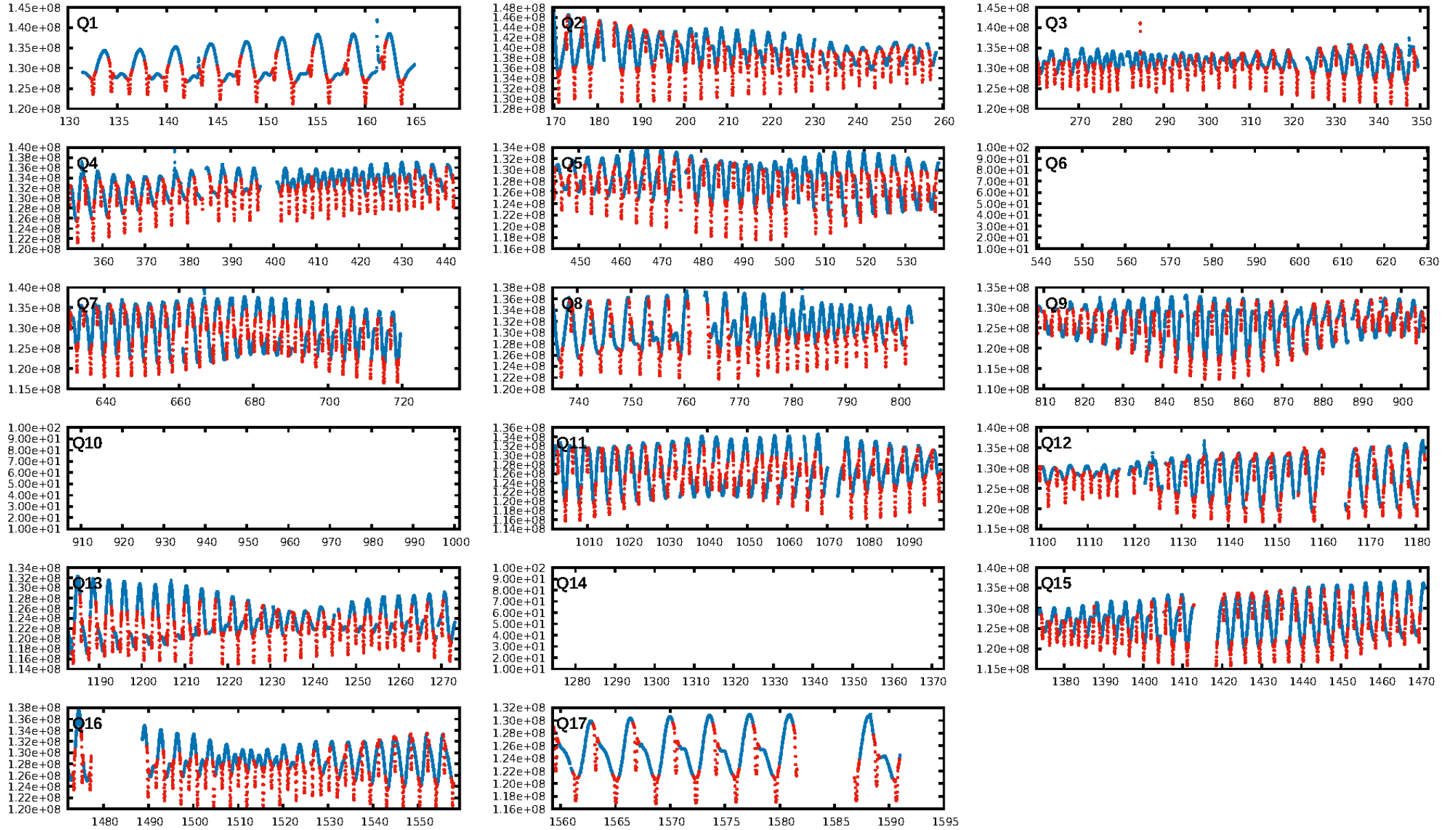
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [545/555]
GhostDiagnostic-chr: 1.209
Centroid-sig: 0.0%
Centroid-so: 0.051 arcsec [40.48σ]
OotOffset-rm: 0.023 arcsec [0.35σ]
KicOffset-rm: 0.108 arcsec [1.58σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

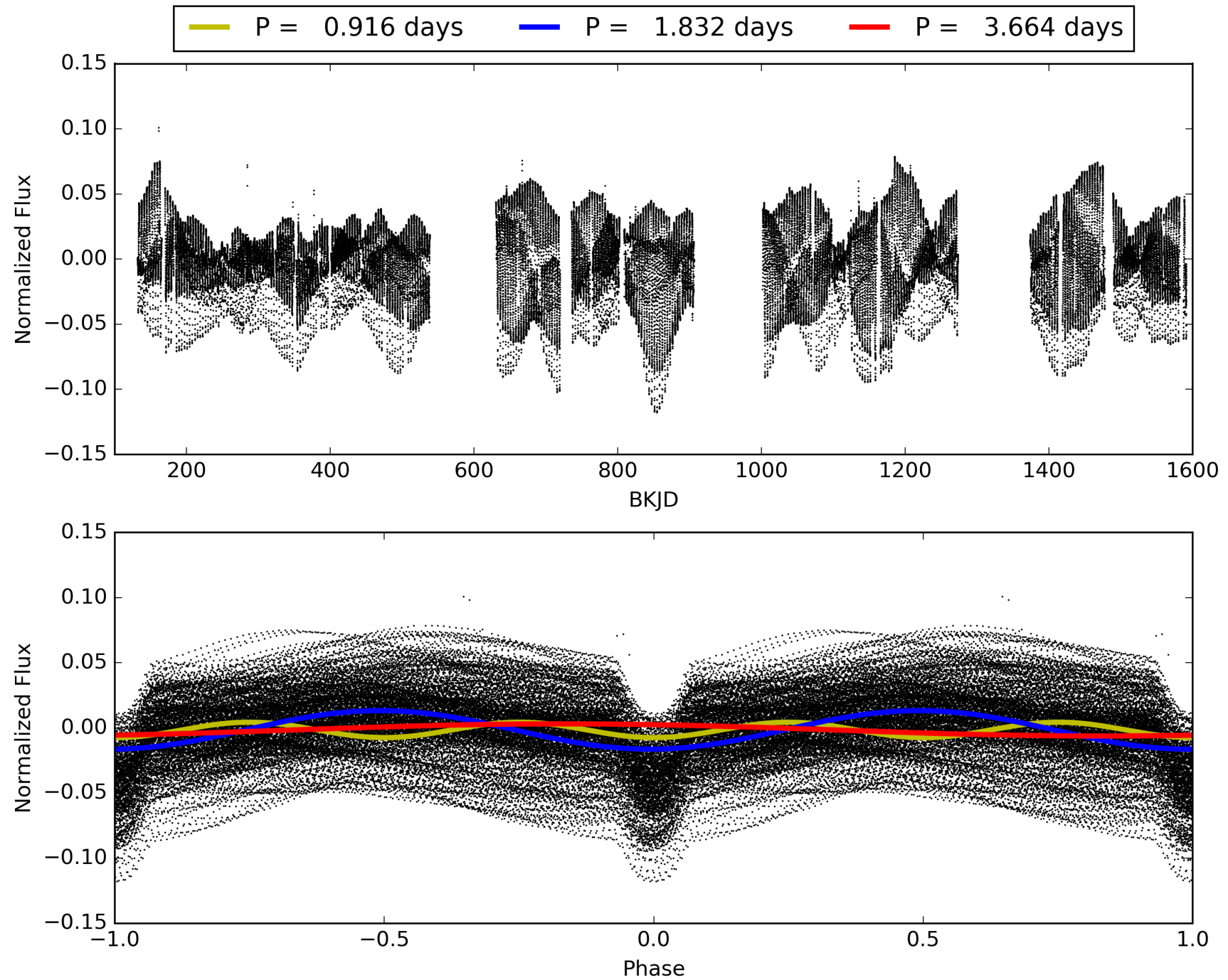
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:40:30 Z

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

TCE 003656322-01, PDC Light Curves

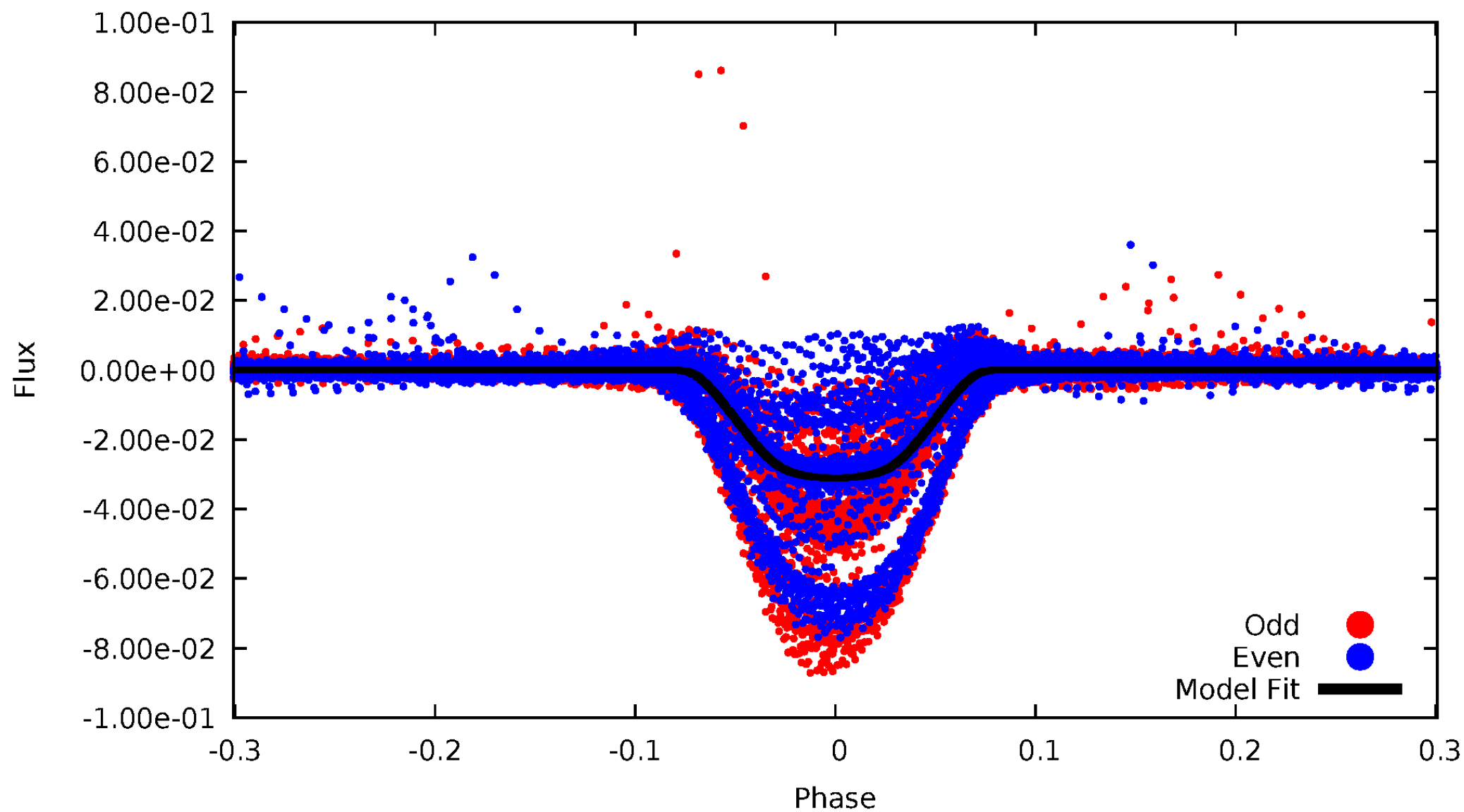


TCE 003656322-01



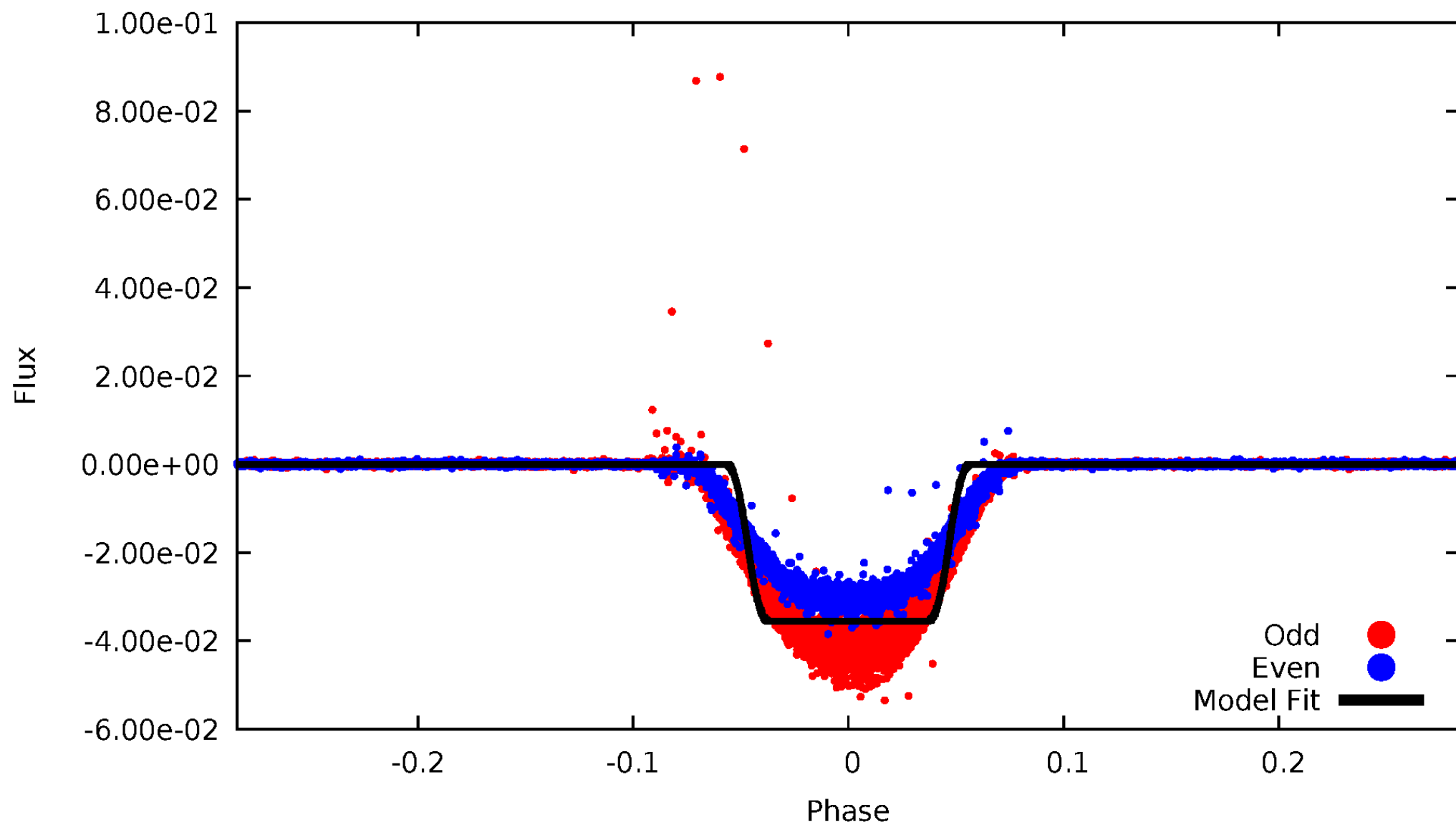
DV Odd/Even

TCE 003656322-01



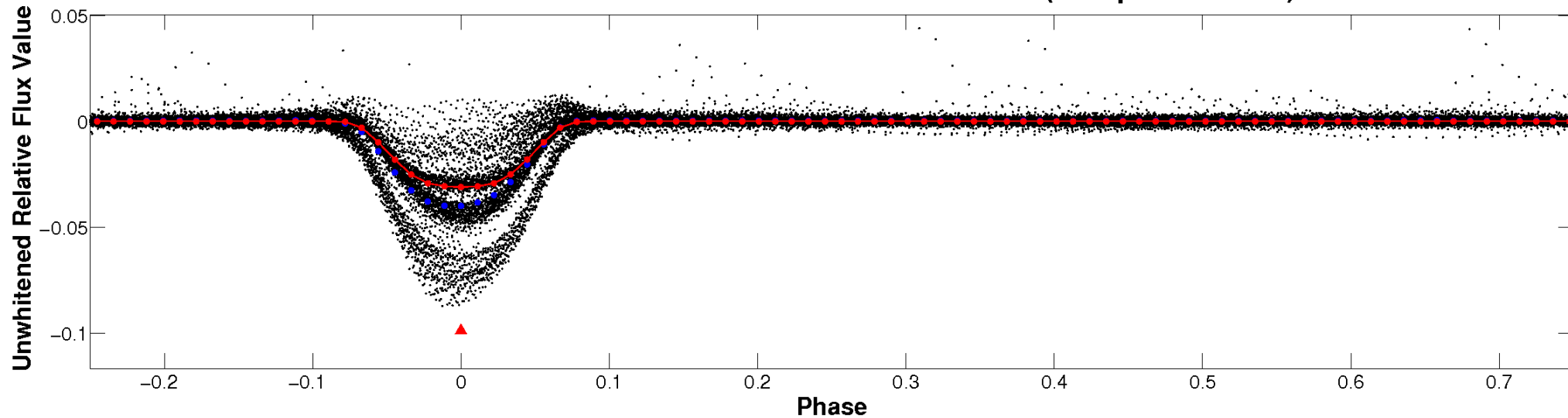
ALT Odd/Even

TCE 003656322-01

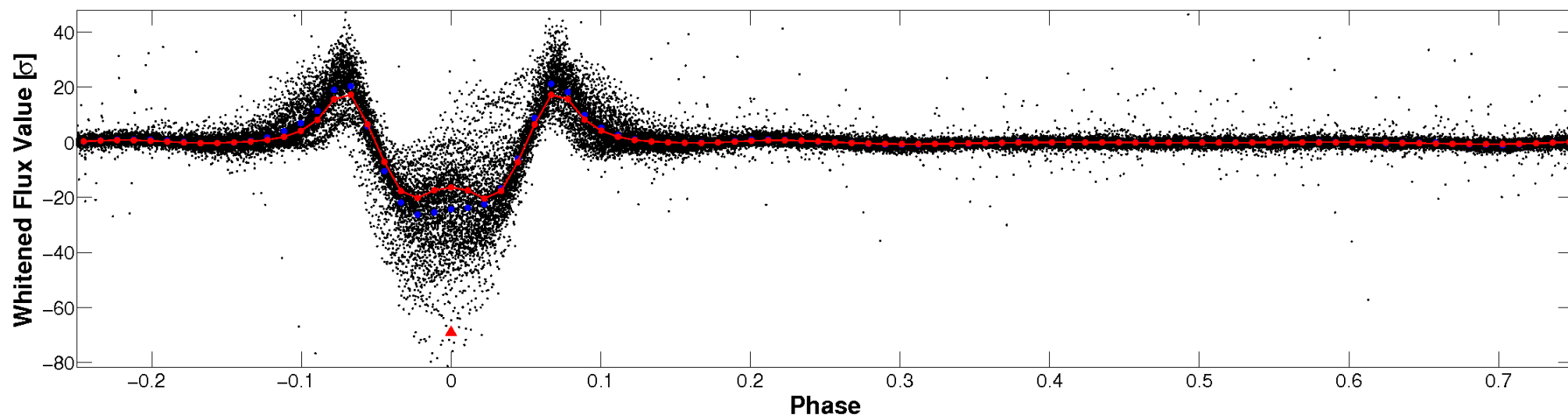


Non-Whitened Vs. Whitened Light Curve

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

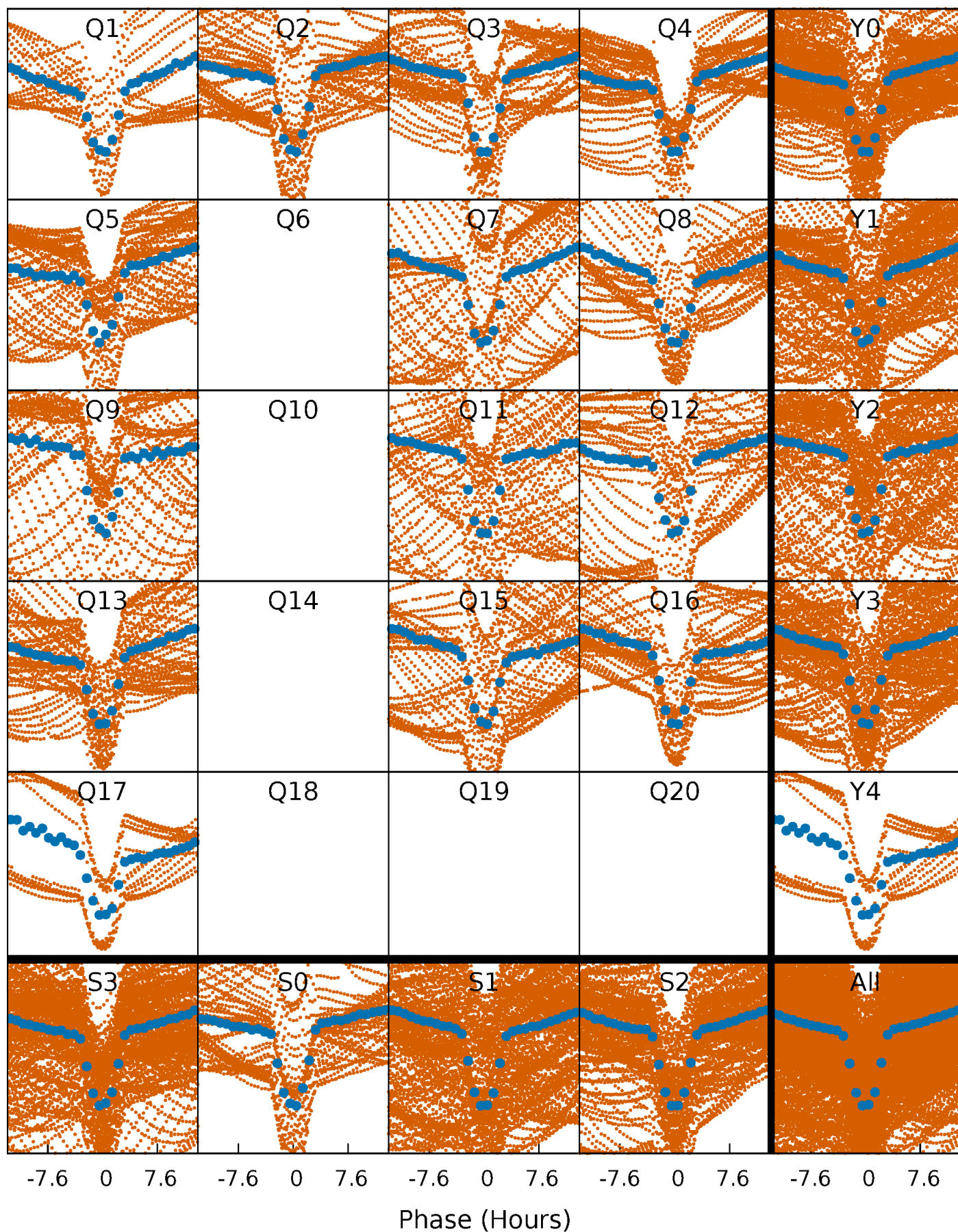


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



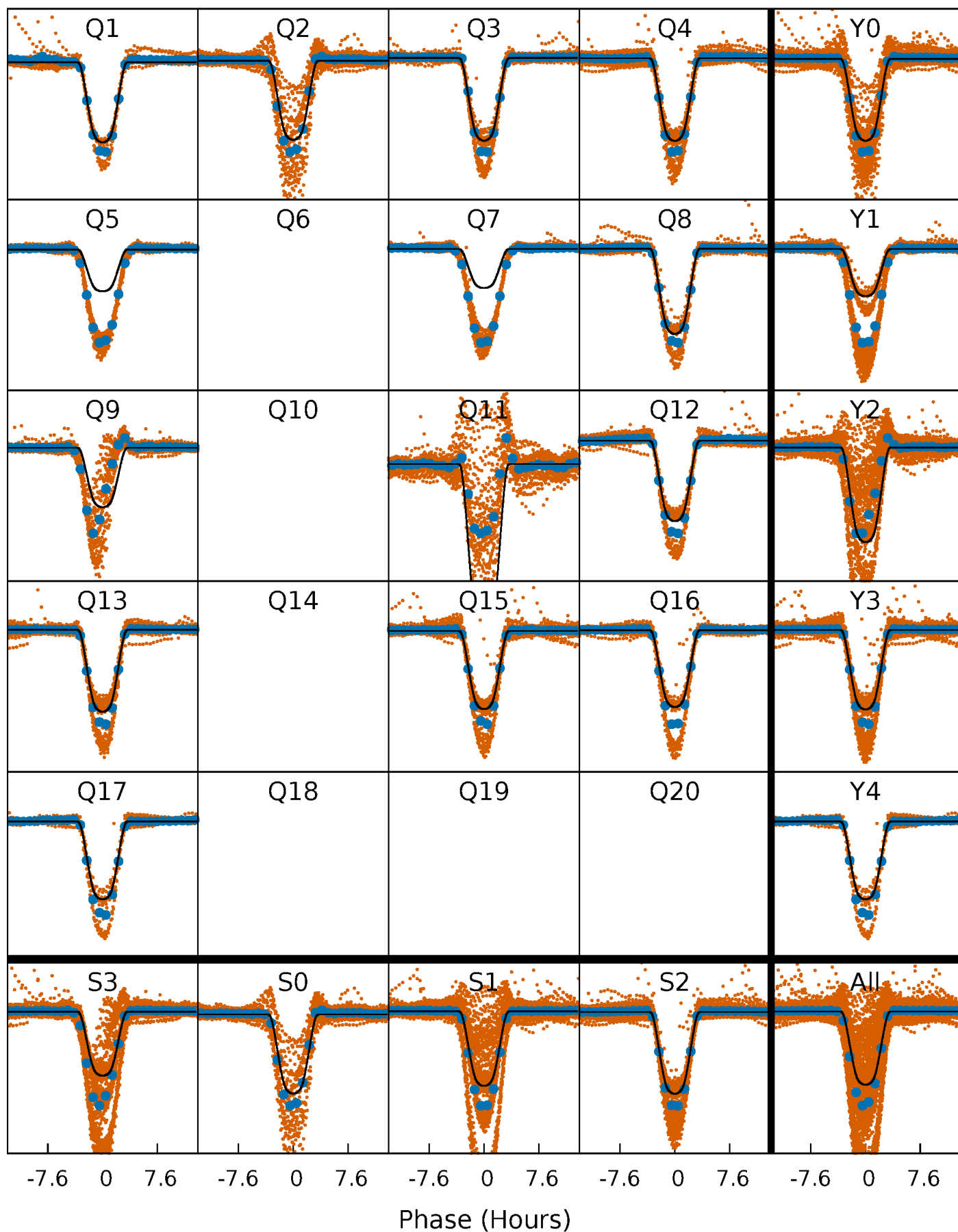
PDC Quarter-Phased Transit Curves

TCE 003656322-01 P= 1.831824 Days $T_0=132.542146$ (BKJD)



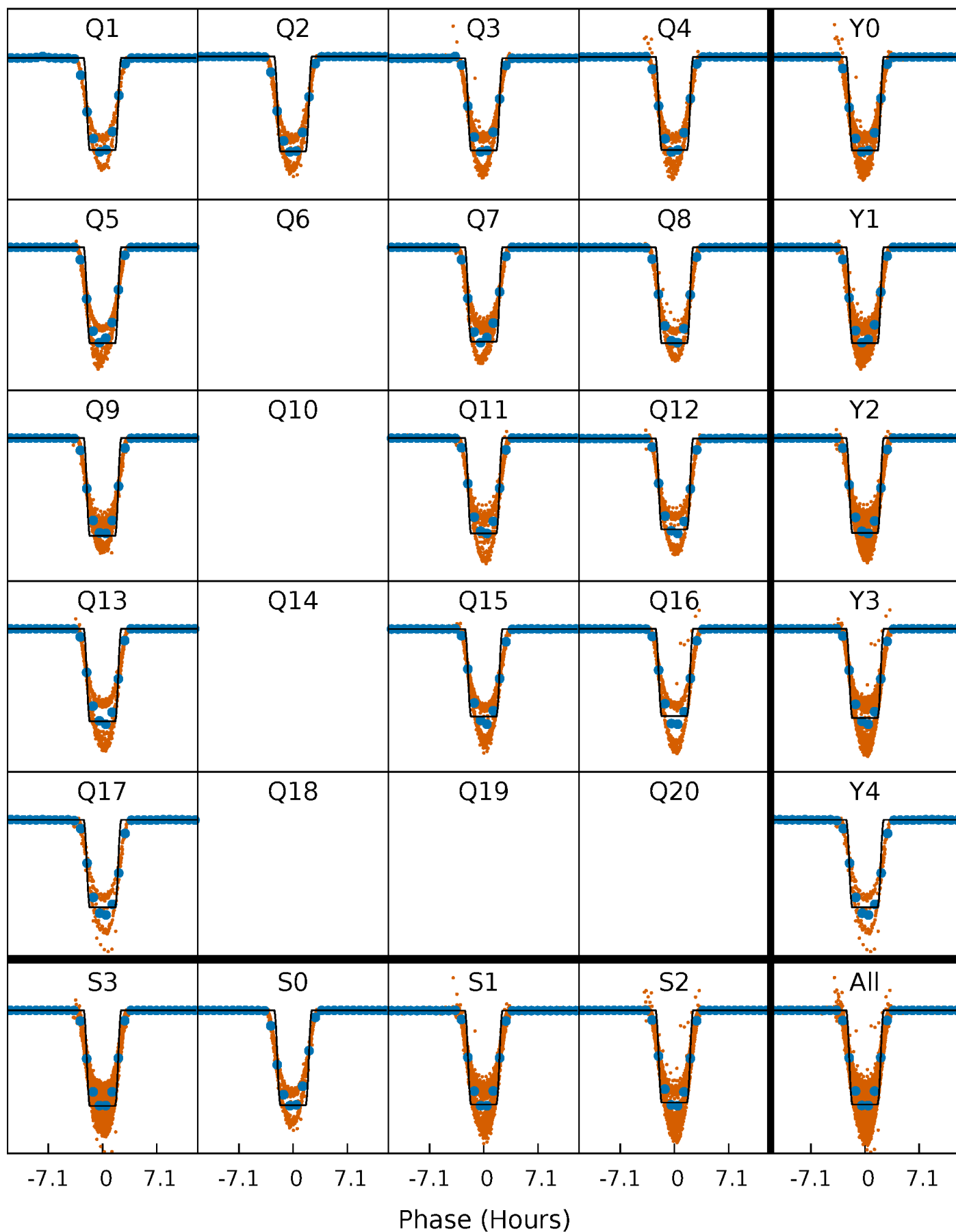
DV Quarter-Phased Transit Curves

TCE 003656322-01 P= 1.831824 Days $T_0=132.542146$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

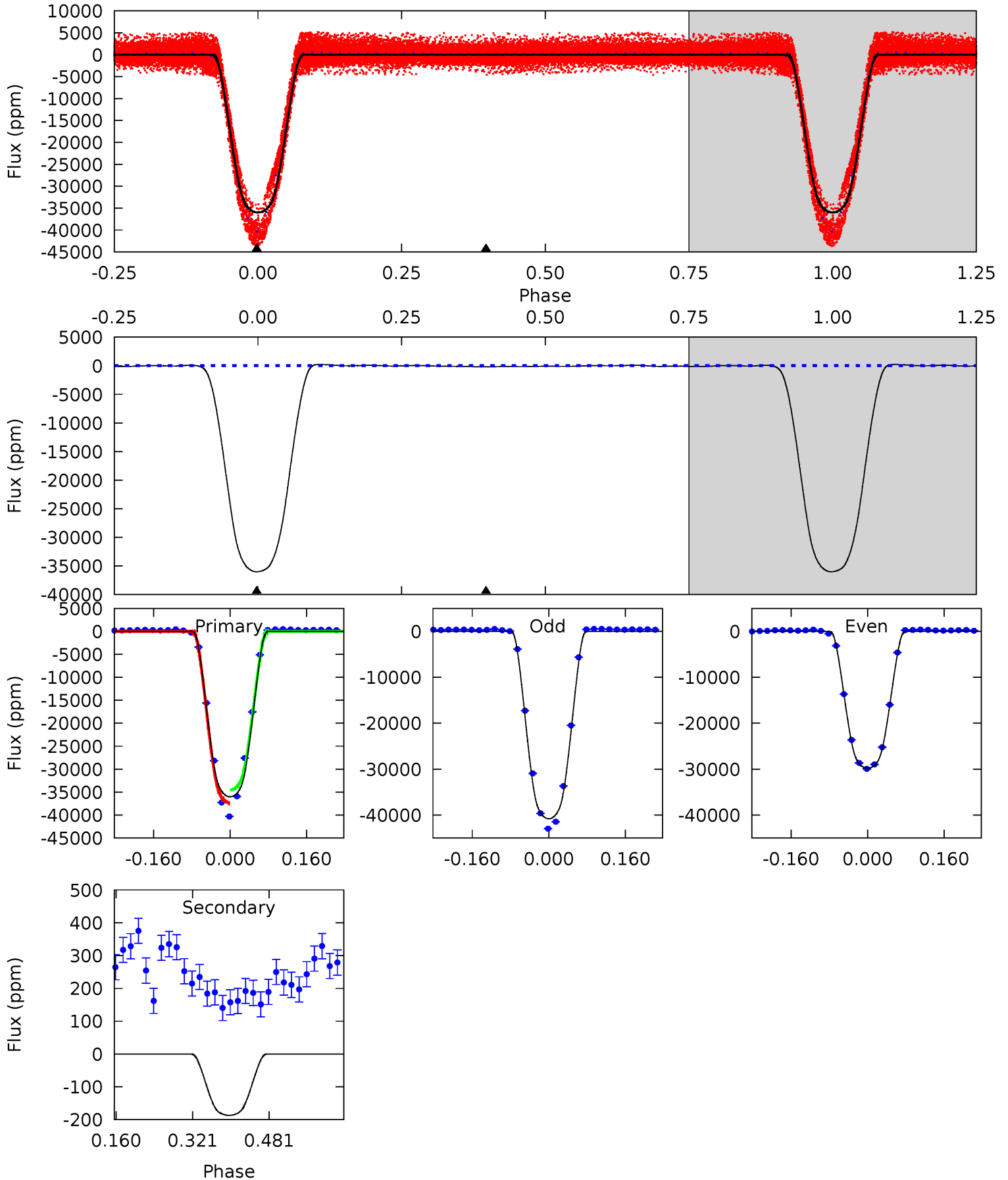
TCE 003656322-01 P= 1.831809 Days $T_0=132.547895$ (BKJD)



DV Model-Shift Uniqueness Test

003656322-01, P = 1.831824 Days, E = 130.710322 Days

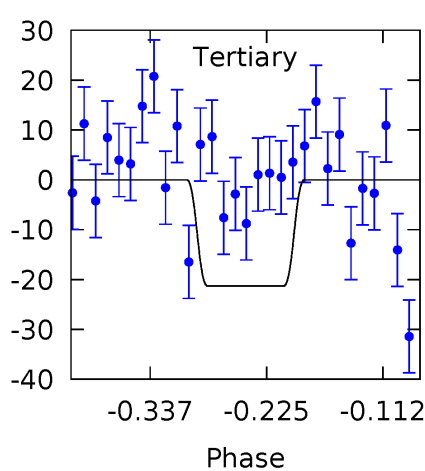
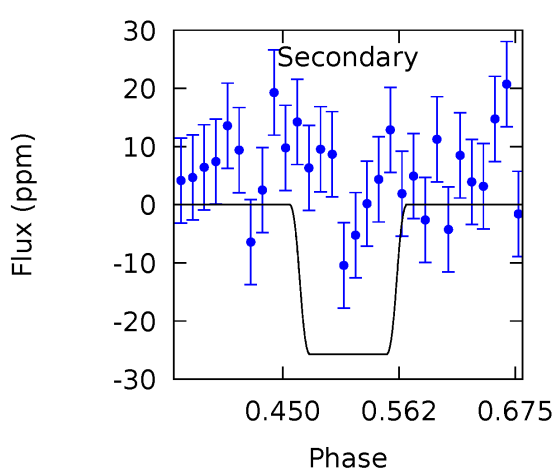
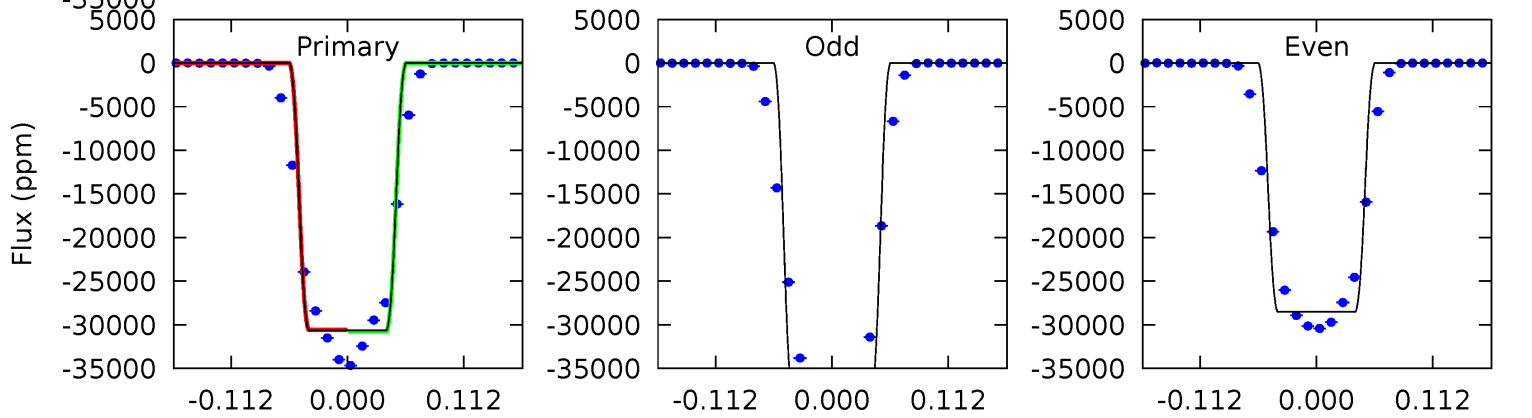
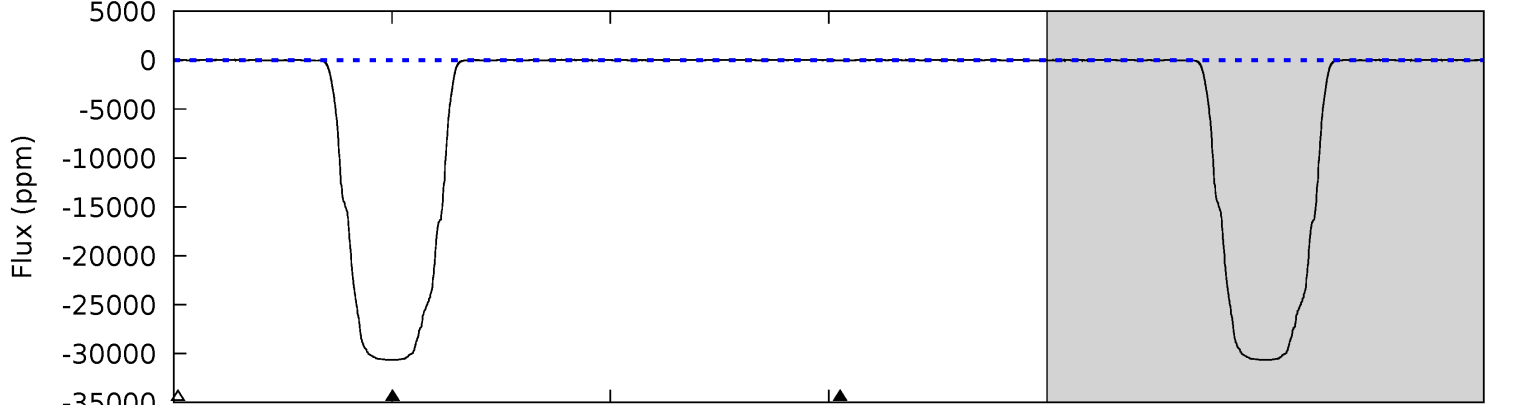
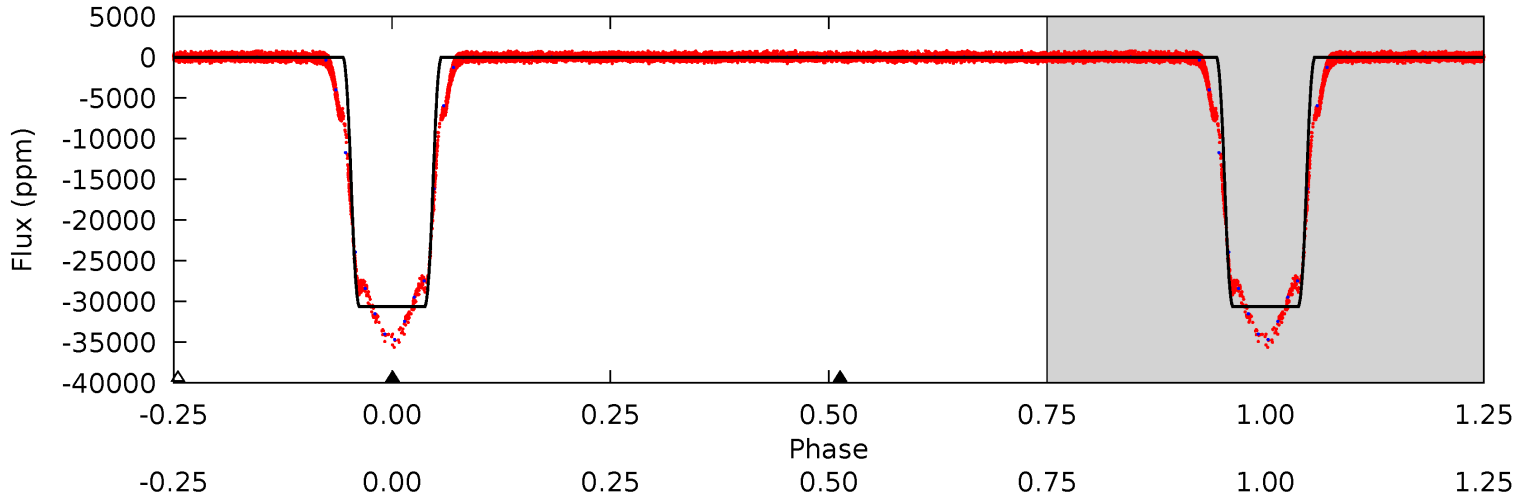
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1902	9.87	0	0	4.46	1.40	3.26	1902	1902	9.87	9.87	346.3	1.05	0.01	0



Alt Model-Shift Uniqueness Test

003656322-01, P = 1.831809 Days, E = 130.716086 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3508	2.94	2.44	0	4.54	1.59	1.17	3506	3508	0.51	2.94	1017	1.01	0.00	0



Stellar Parameters For KIC 003656322

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5269^{+147}_{-133}	$3.667^{+0.990}_{-0.330}$	$-0.740^{+0.300}_{-0.250}$	$2.183^{+1.527}_{-1.527}$	$0.806^{+0.285}_{-0.122}$	$0.109^{+2.915}_{-0.082}$
	+3%/-3%	+27%/-9%	+41%/-34%	+70%/-70%	+35%/-15%	+2669%/-75%
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 003656322-01 / KOI 6349.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-187 ± 19	$40.13^{+16.79}_{-14.61}$	2812^{+497}_{-606}	-2896^{+454}_{-322}	$0.049^{+0.073}_{-0.024}$
Alt.	-26 ± 9	$43.47^{+16.76}_{-16.75}$	2832^{+462}_{-612}	-2966^{+373}_{-281}	$0.006^{+0.009}_{-0.003}$

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 $A_{obs} \gg 1.0$

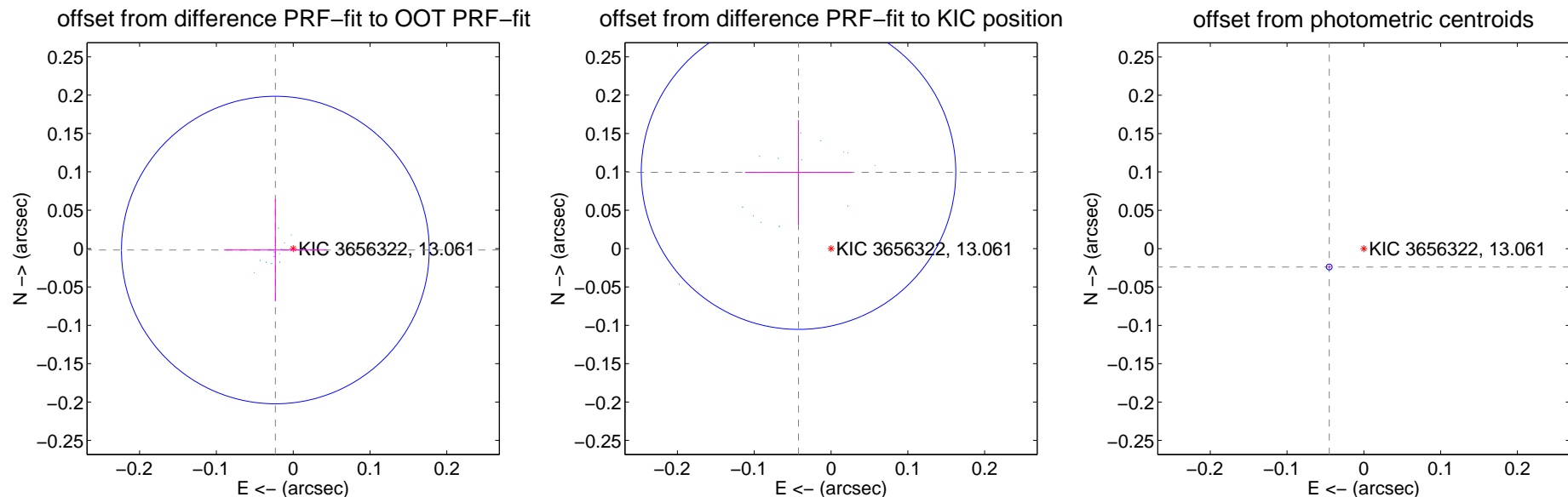
DV Centroid Data

Supplemental centroid analysis for 003656322-01. Kepler magnitude: 13.06. Transit SNR 993.45

There are 14 quarters with good PRF difference image offsets

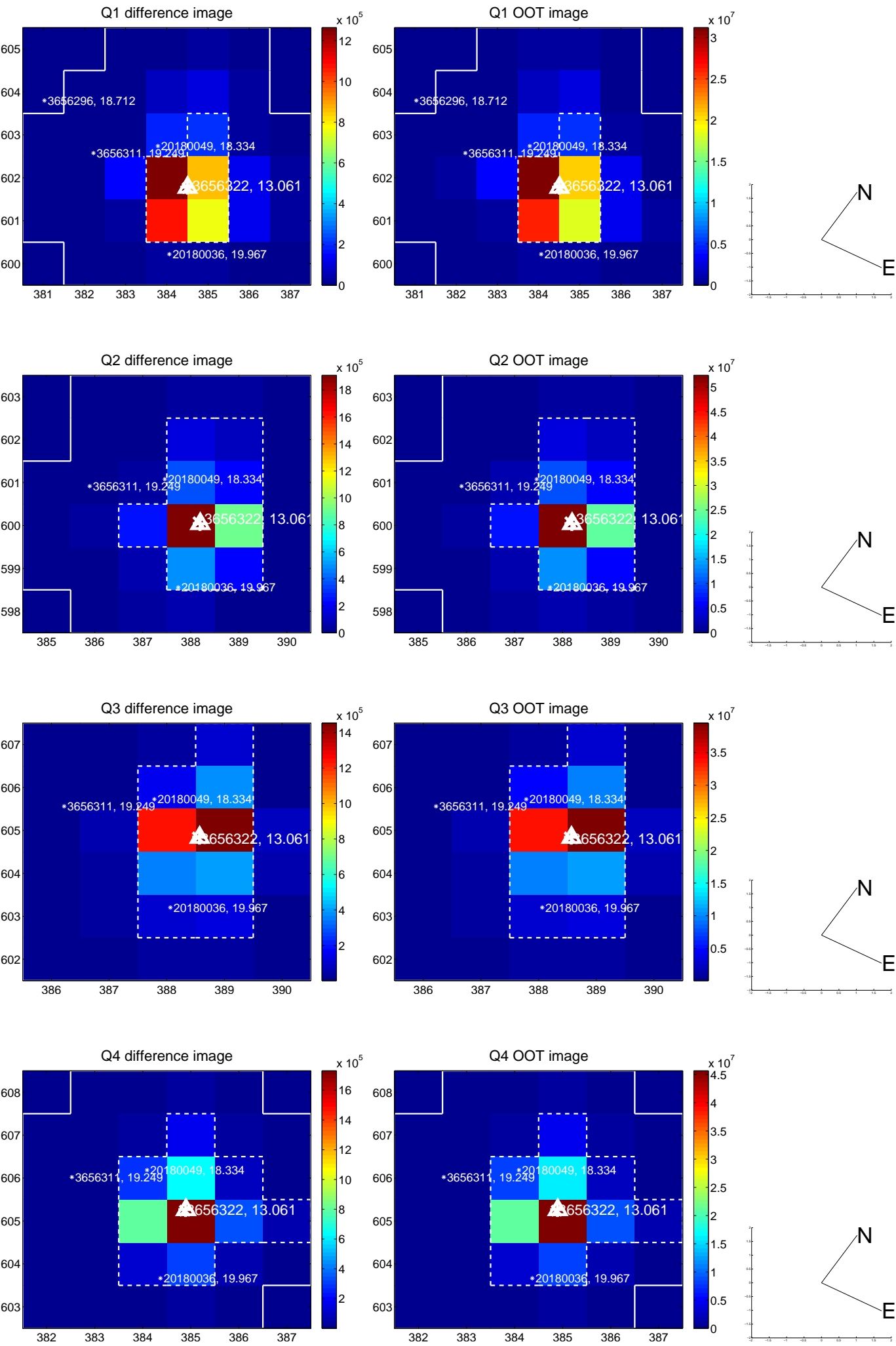
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.023 ± 0.067	0.35	0.023 ± 0.067	-0.002 ± 0.067
PRF-fit source offset from KIC position	0.108 ± 0.068	1.58	0.042 ± 0.070	0.099 ± 0.068
photometric centroid source offset	0.05 ± 0.00	40.48	0.05 ± 0.00	-0.02 ± 0.00

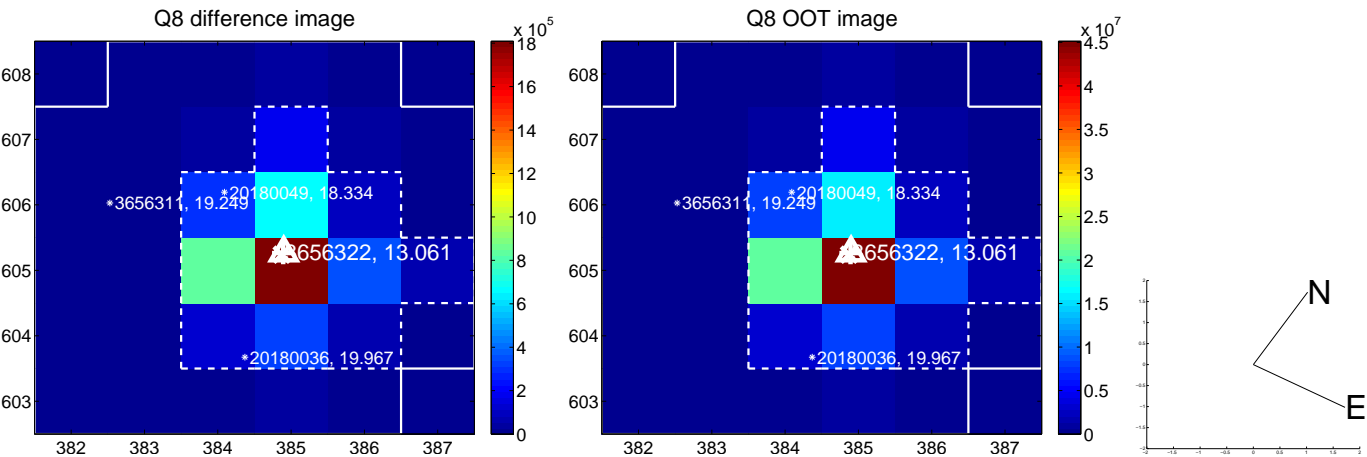
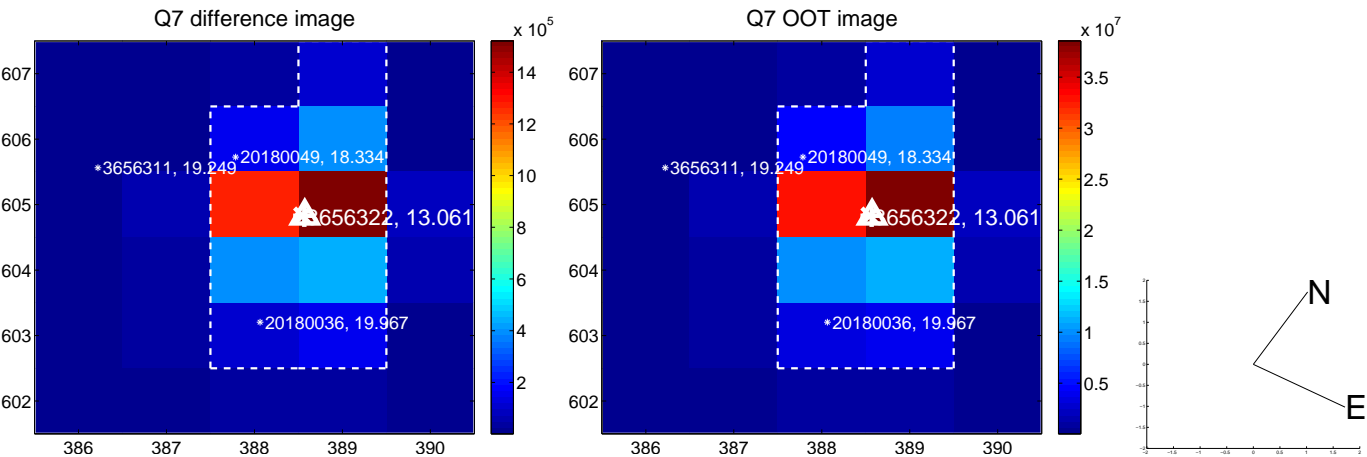
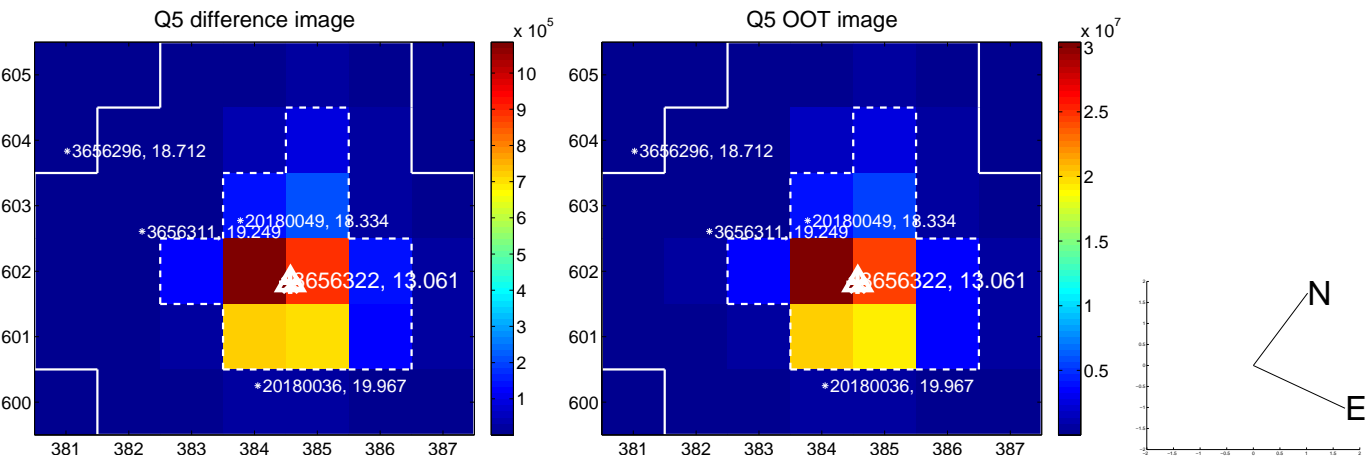


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

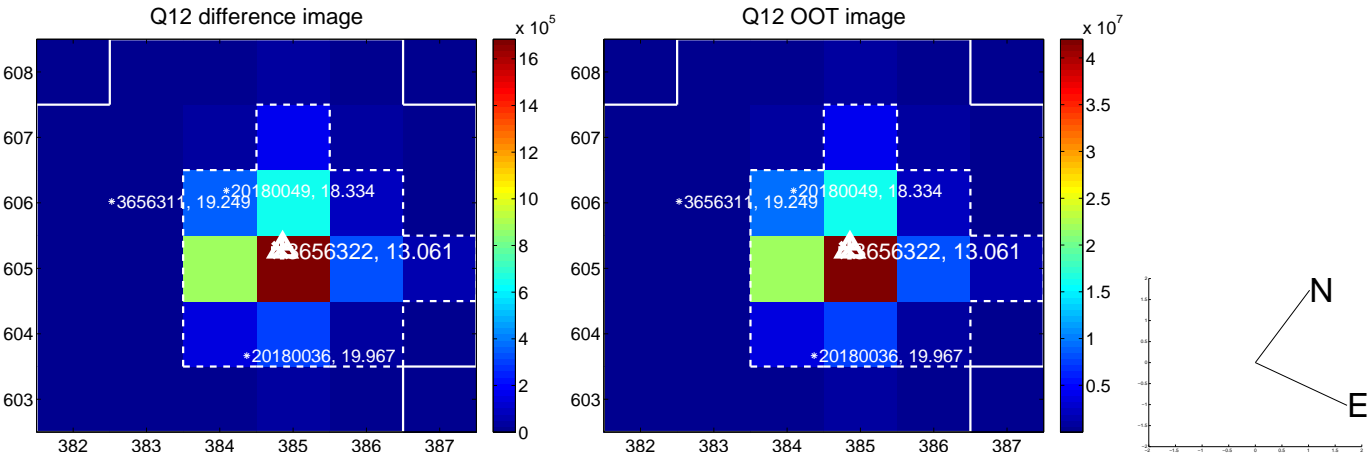
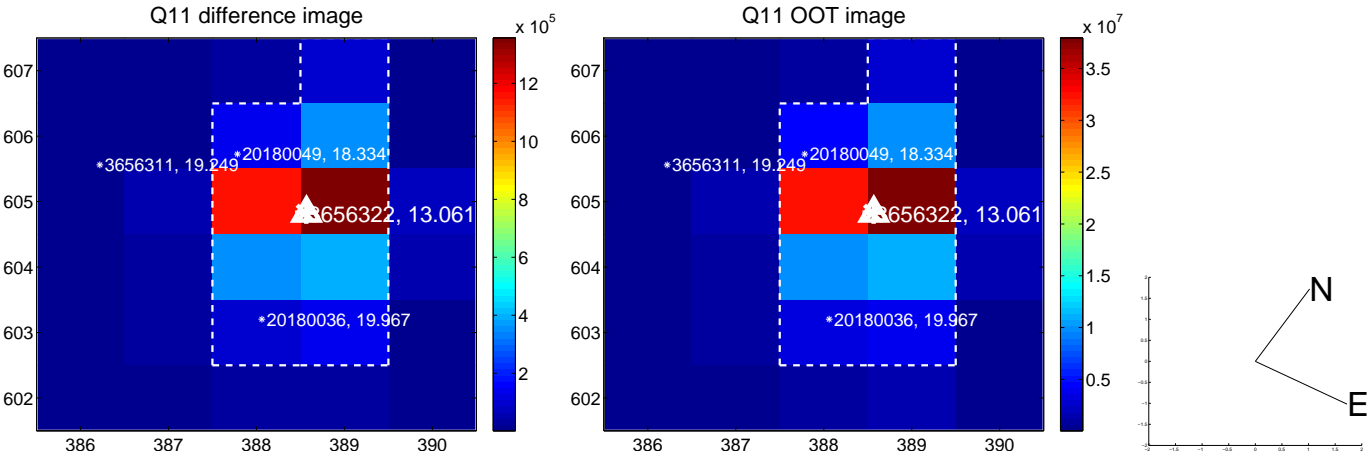
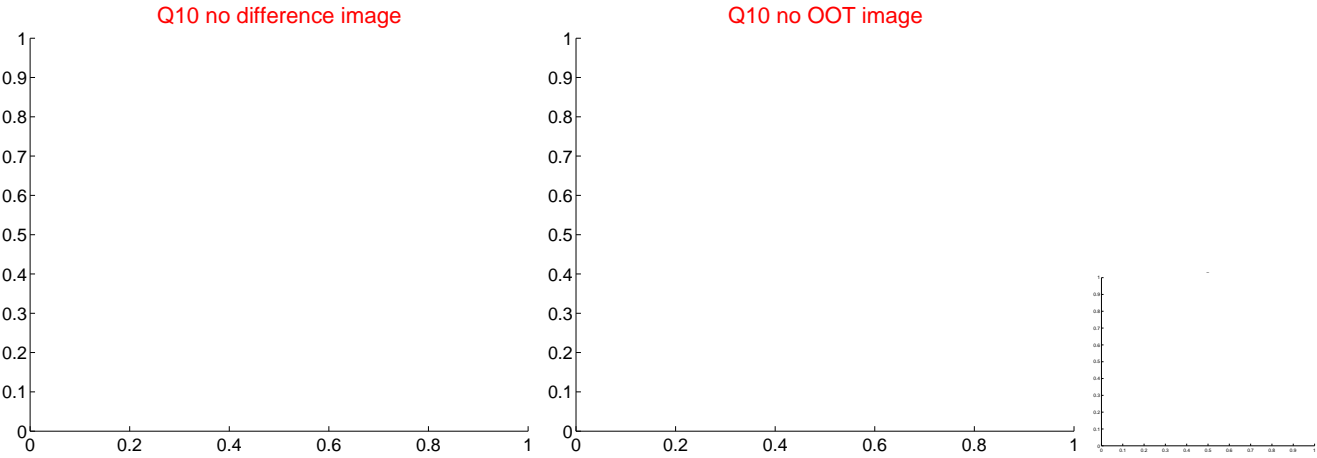
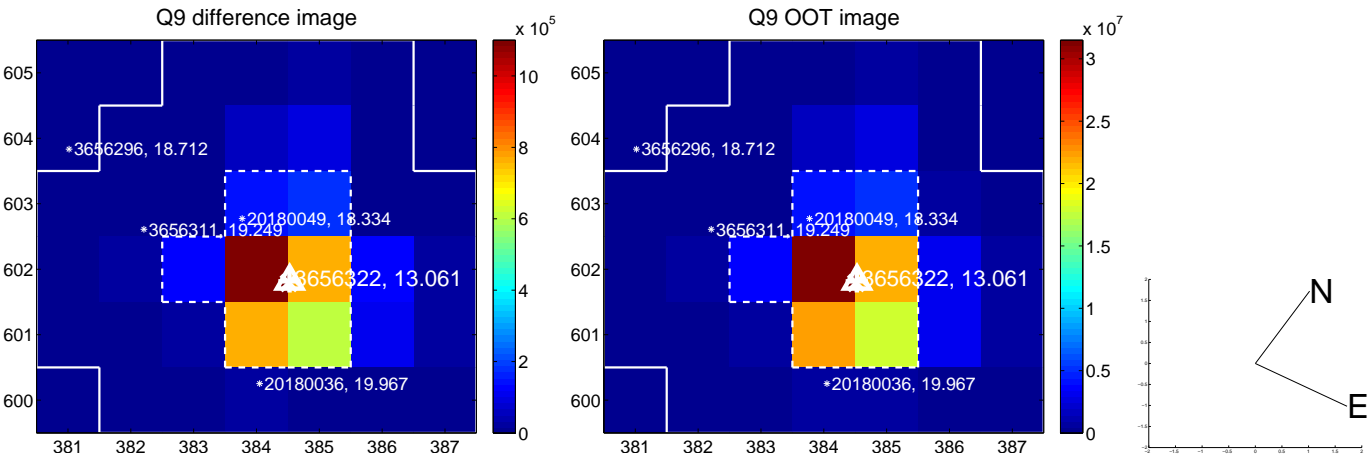
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



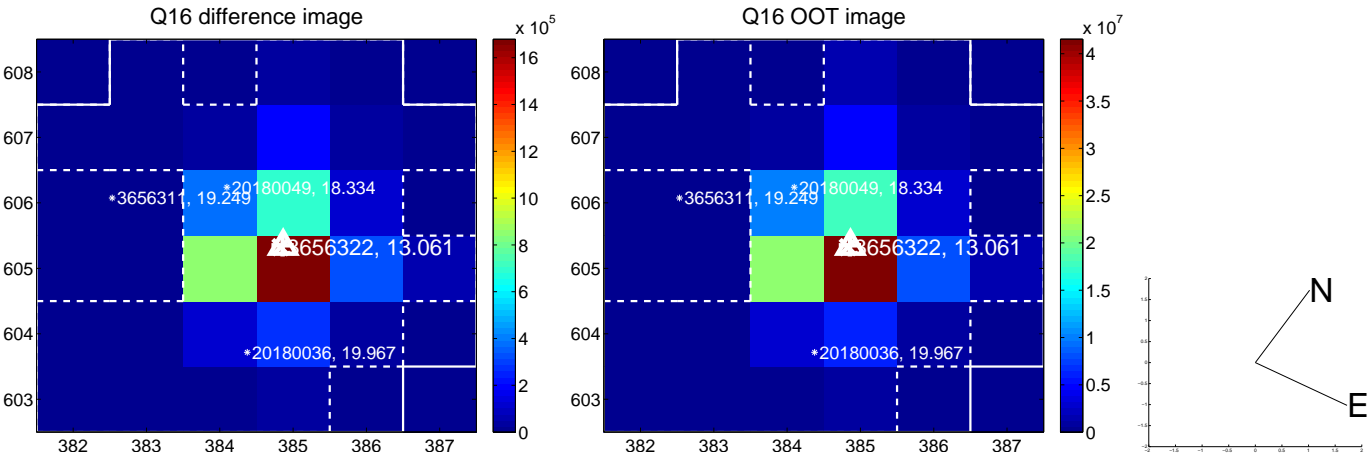
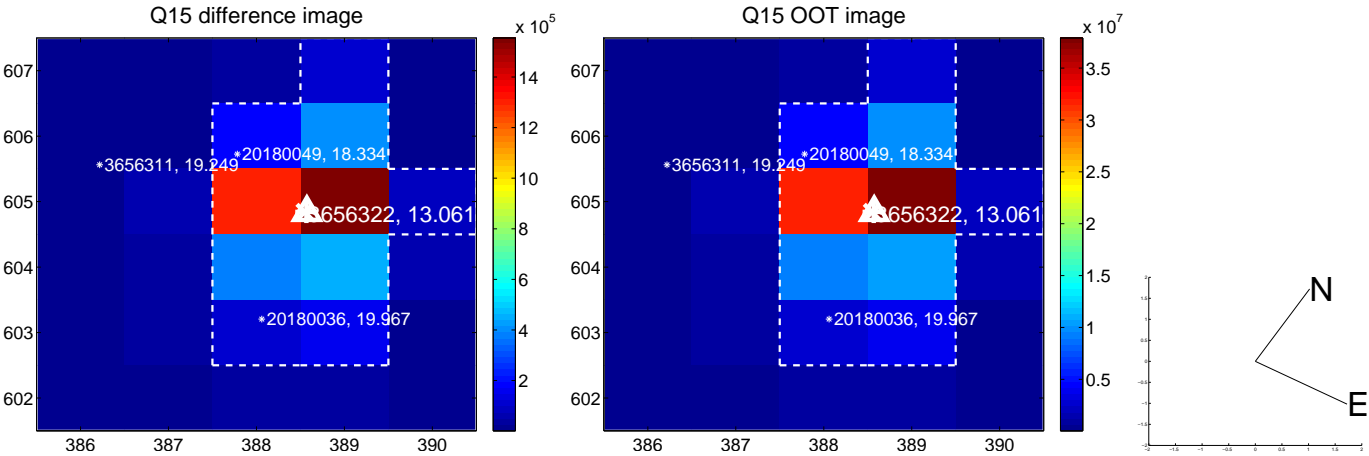
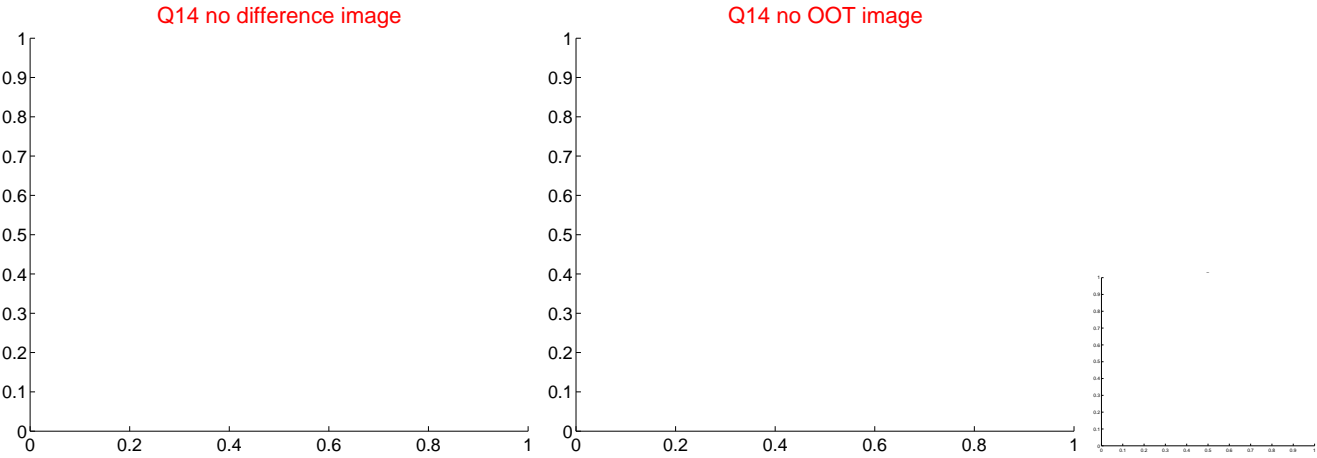
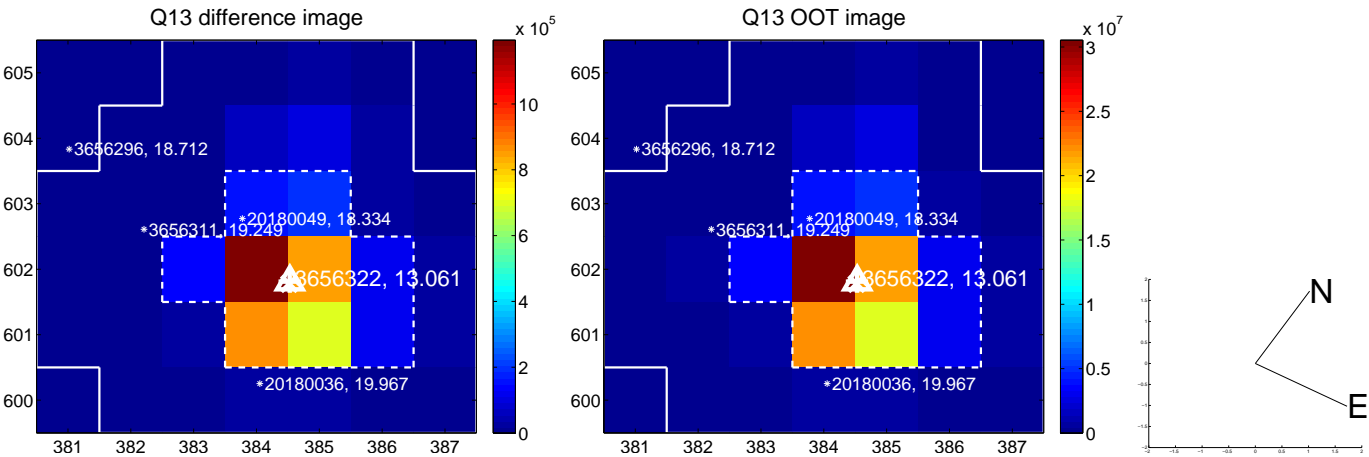
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



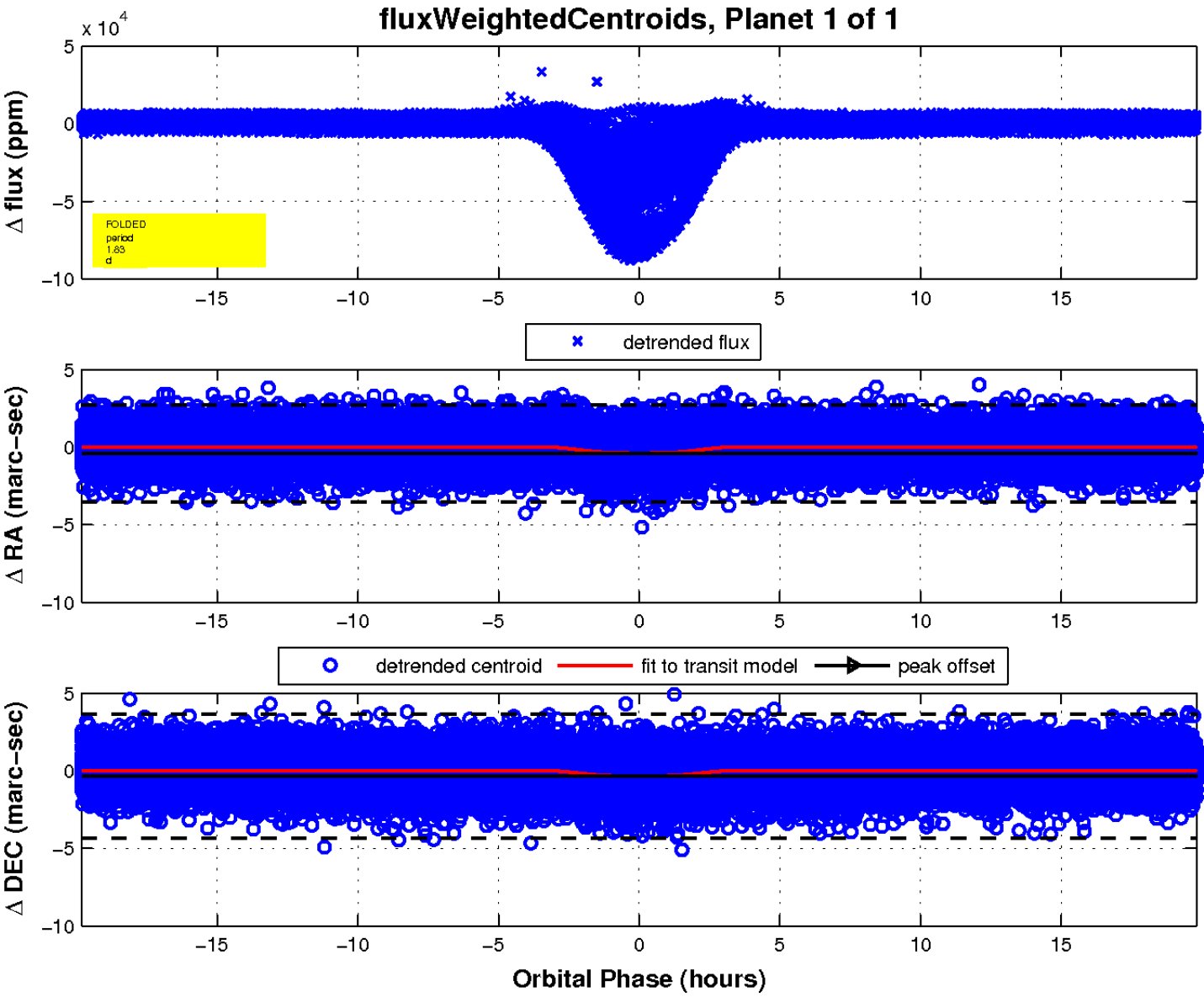
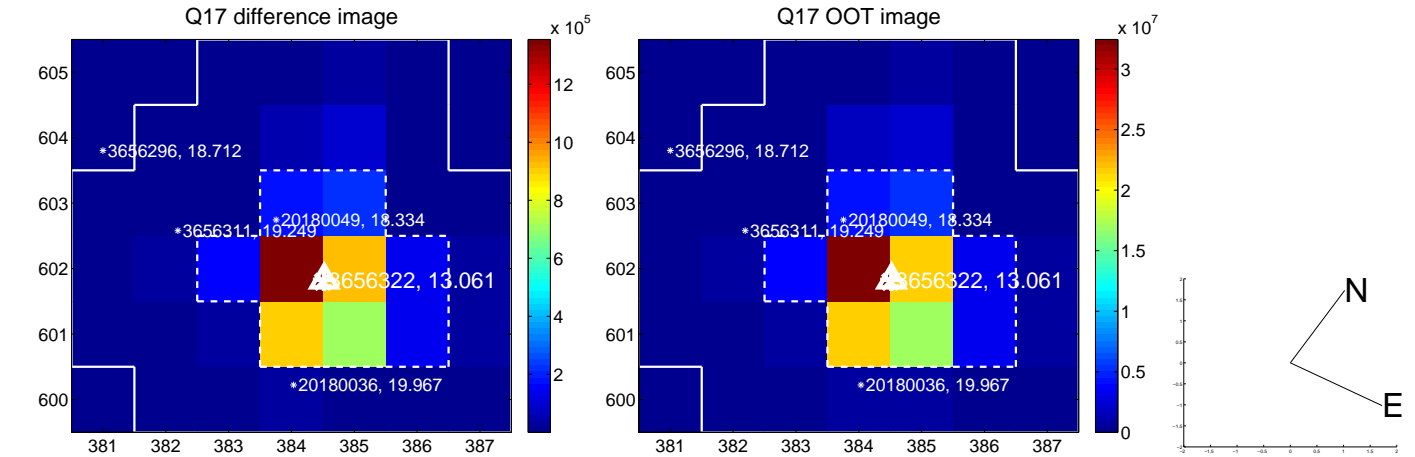
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UKIRT Image

