

KIC 005215700

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})
005215700-01	OBS	3740.01	0.656200	132.099536	289025.7	2.500	9778.9	-1.0	1.00	6025	54.51	5125.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005215700-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS

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.

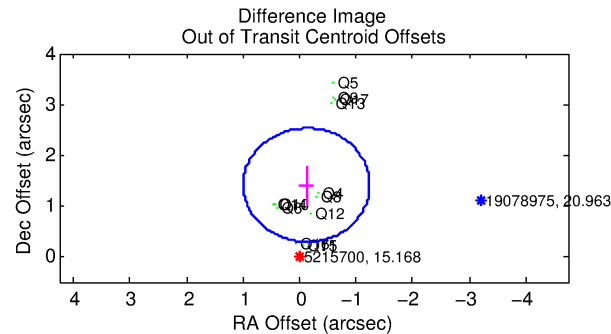
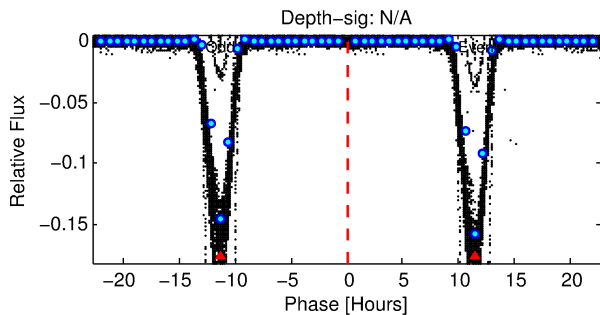
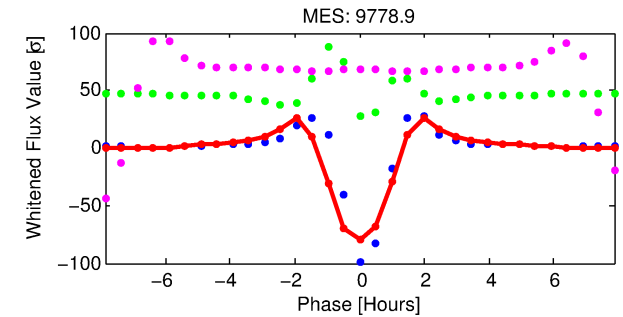
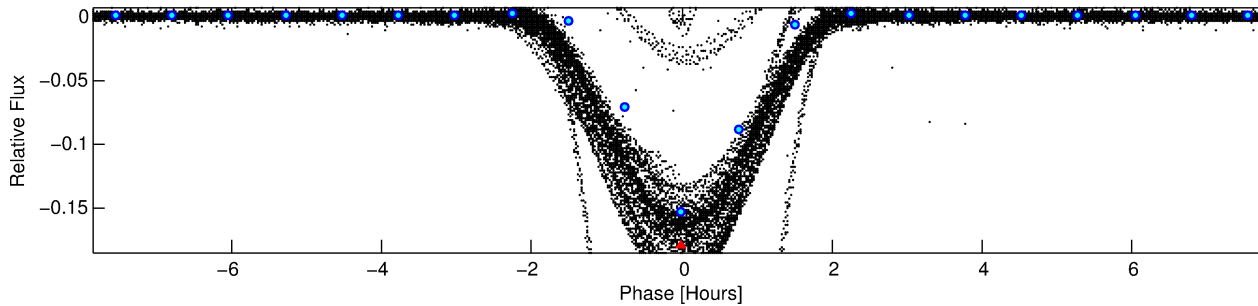
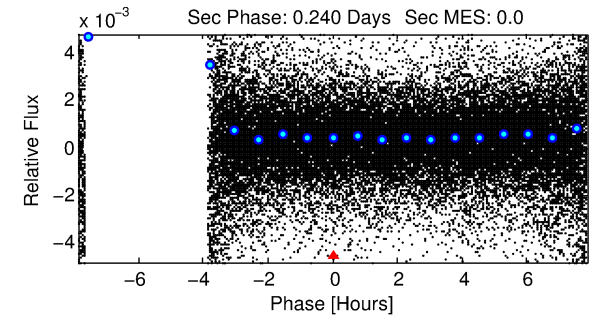
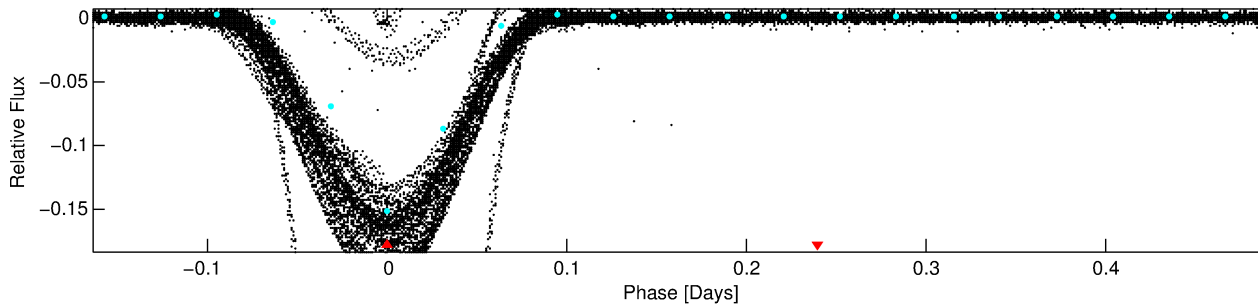
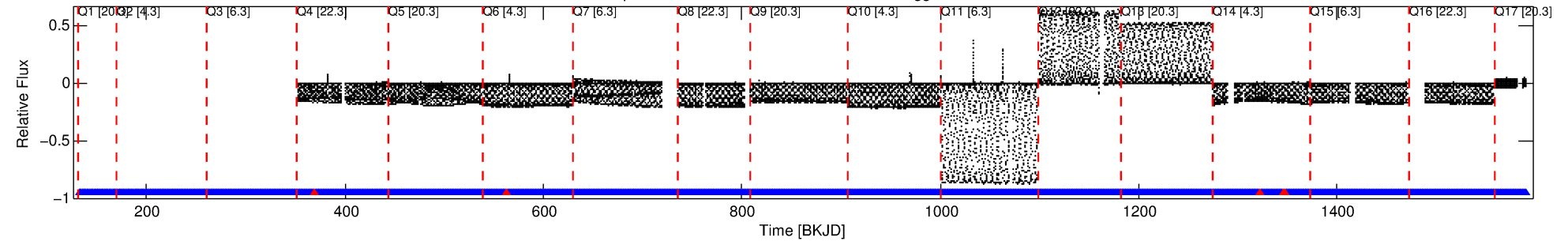
Ephemeris Match Information For 005215700-01

No Significant Match Found

DV One-Page Summary

KIC: 5215700 Candidate: 1 of 1 Period: 0.656 d
KOI: K03740.01 Corr: 0.776

Kp: 15.17 R*: 1.00 Rs Teff: 6025.0 K Logg: 4.47 Fe/H: 0.020



TPS TCE Results:

Period = 0.65620 d
Epoch = 132.0995 BKJD

DV fit results are unavailable

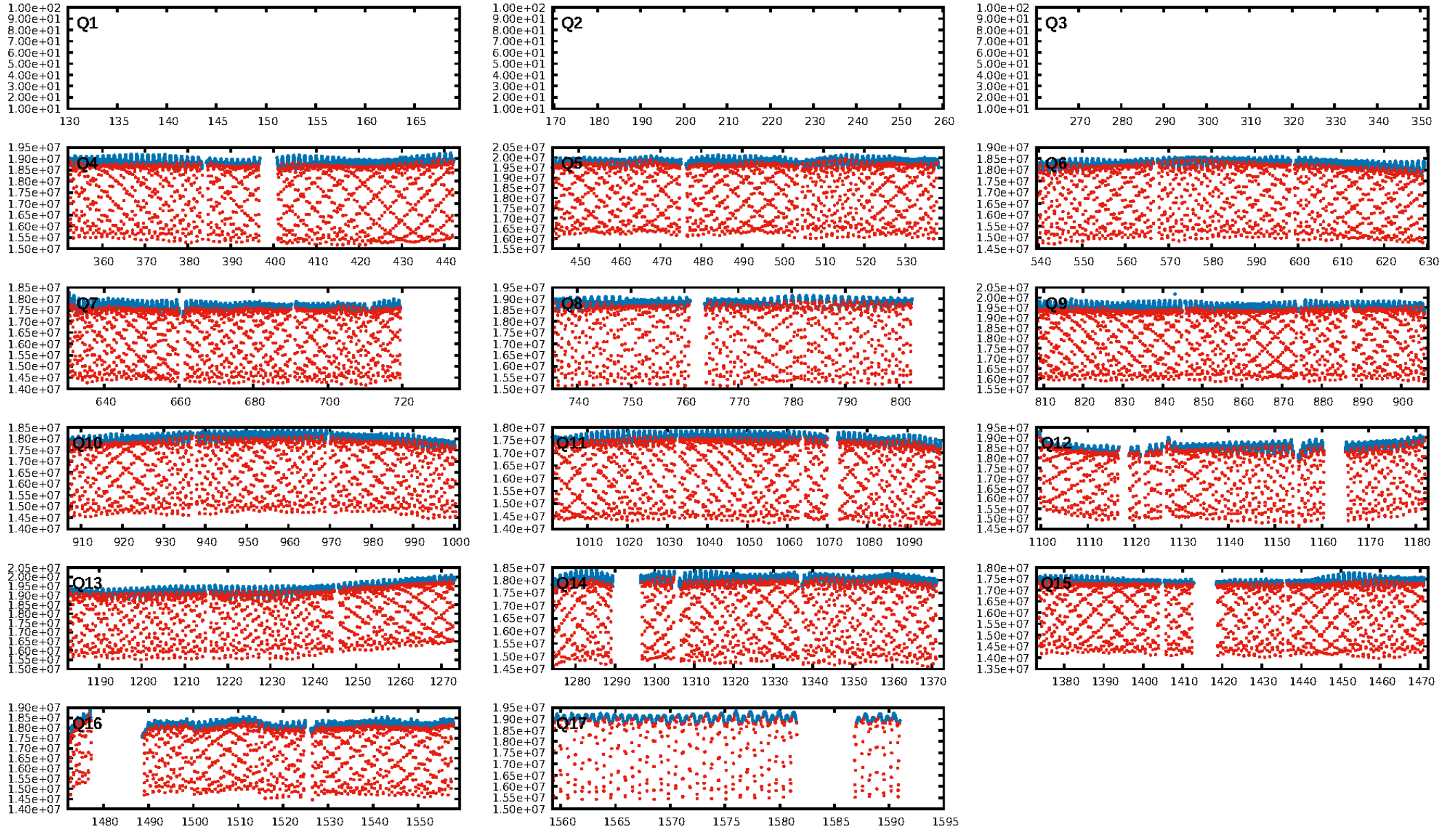
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1685/1690]
GhostDiagnostic-chr: 1.307
Centroid-sig: N/A
Centroid-so: 1.533 arcsec [1722.13σ]
OotOffset-rm: 1.415 arcsec [3.79σ]
KicOffset-rm: 0.106 arcsec [1.53σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

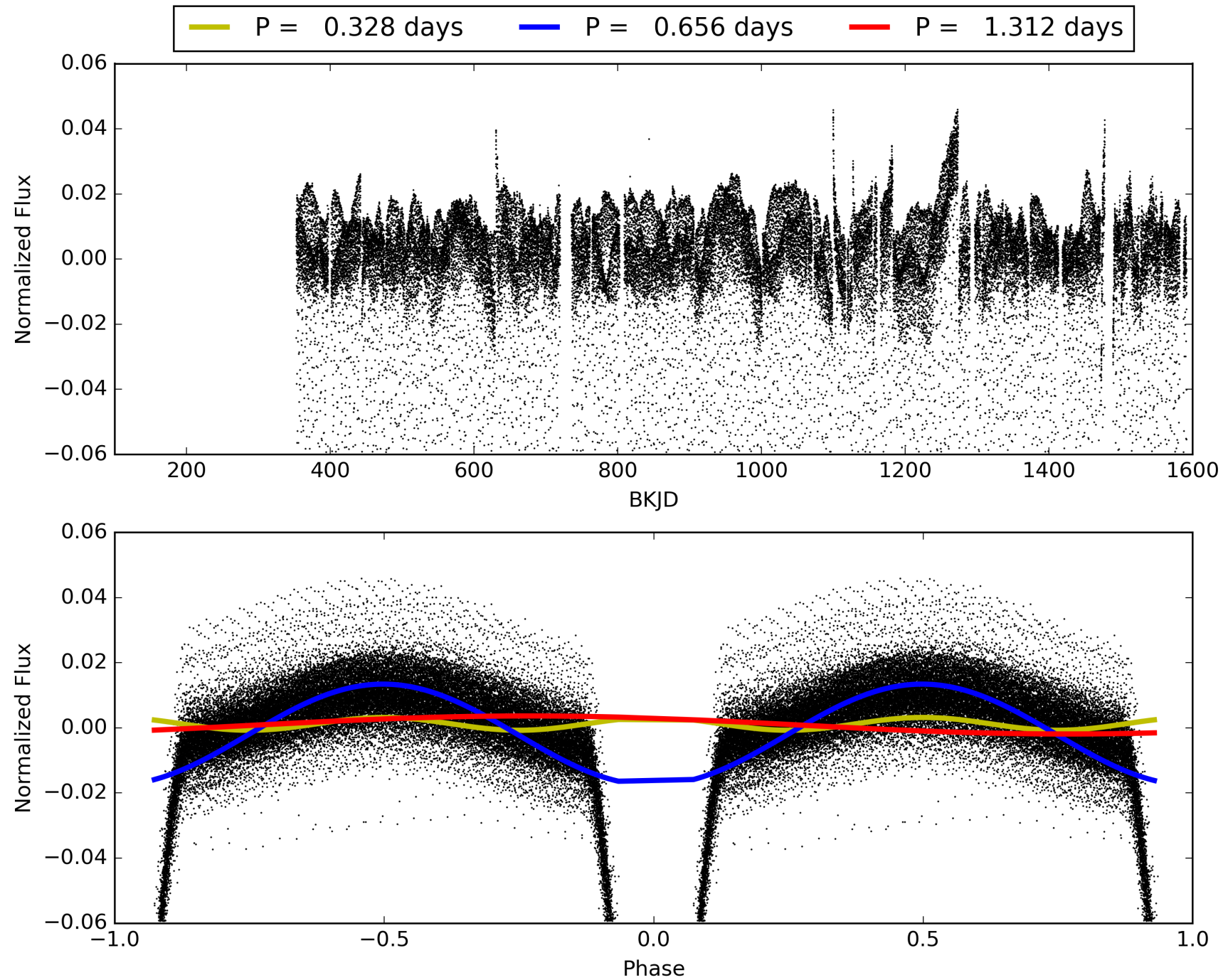
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:17:26 Z

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

TCE 005215700-01, PDC Light Curves

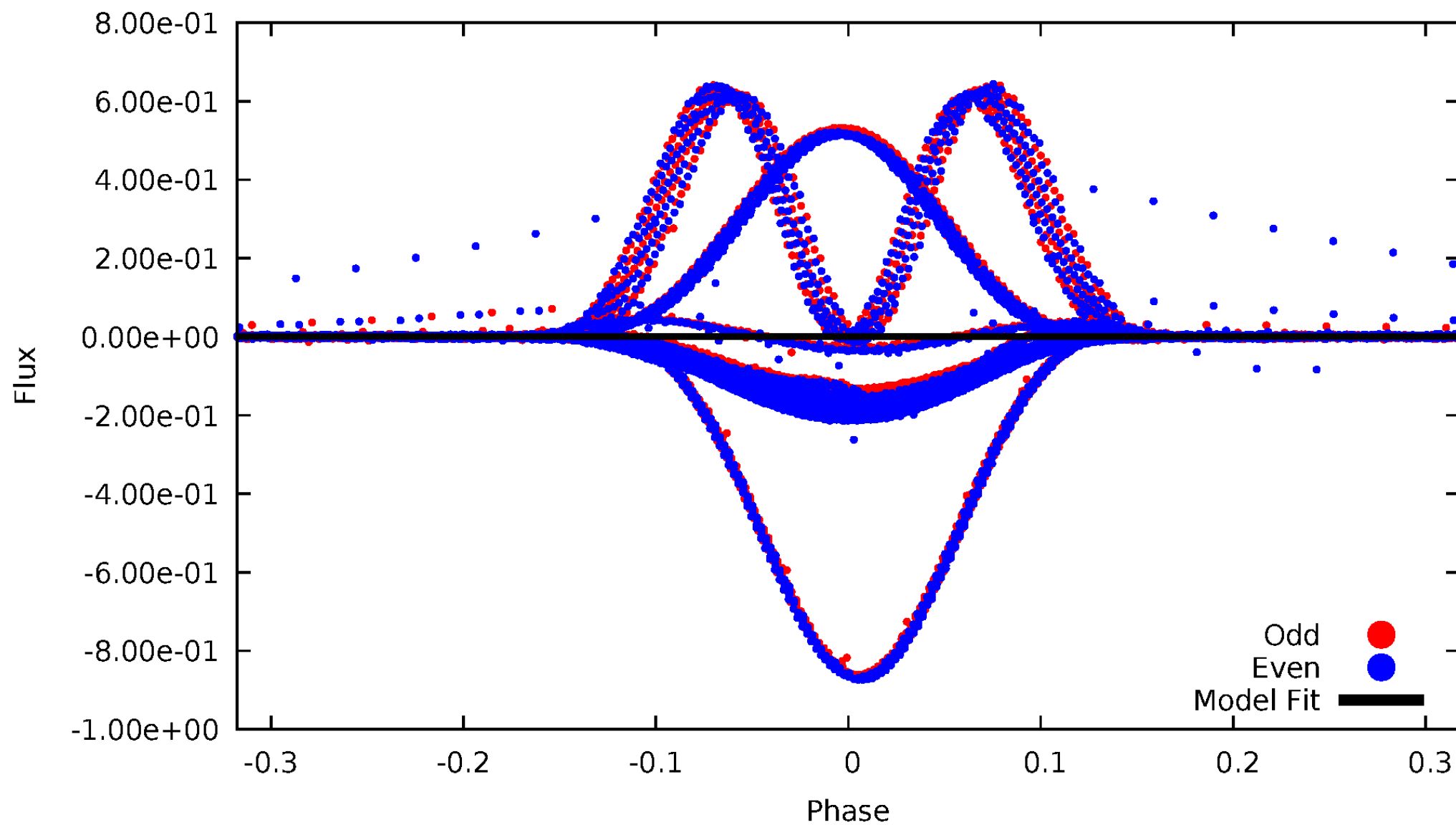


TCE 005215700-01



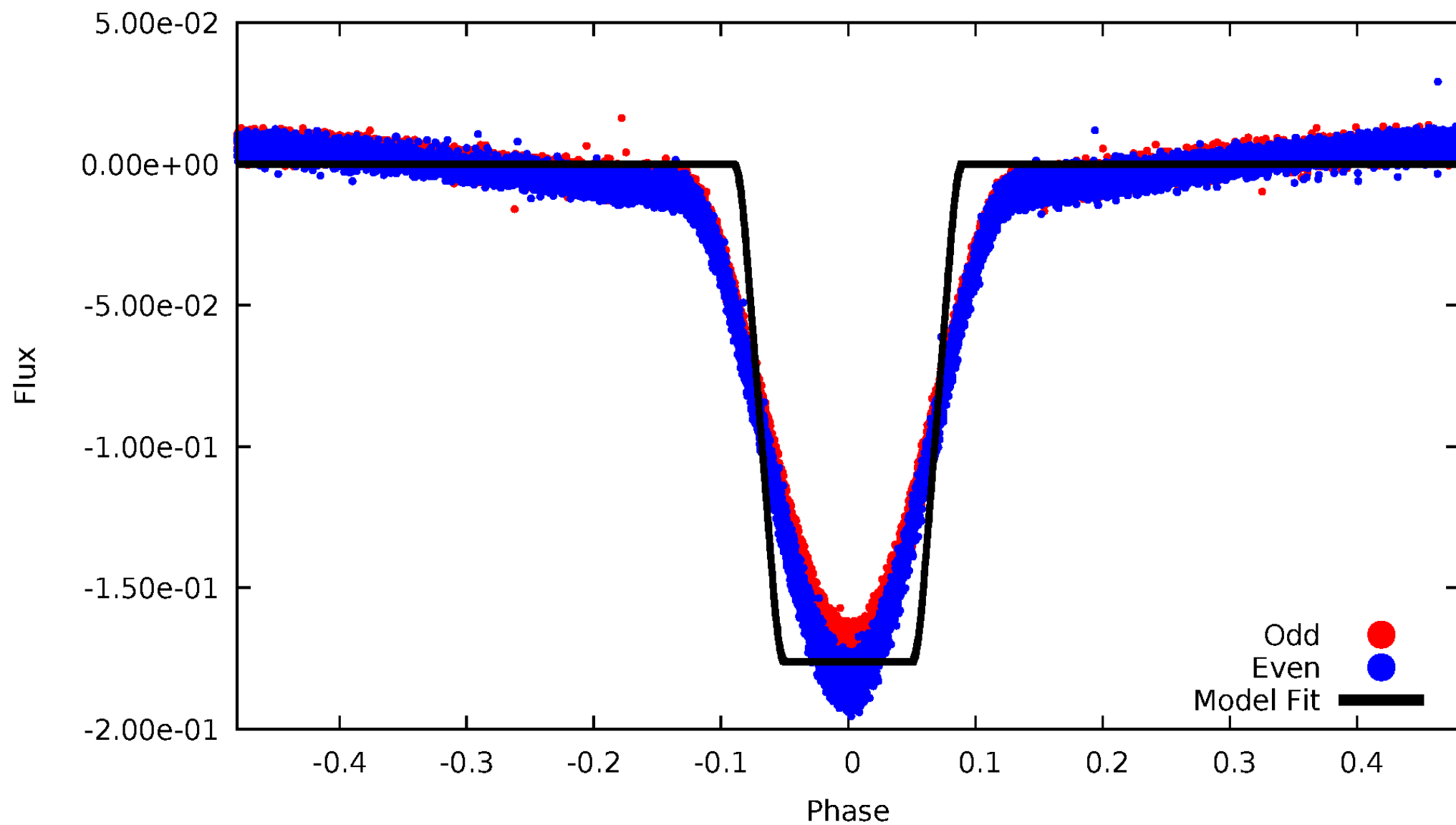
DV Odd/Even

TCE 005215700-01



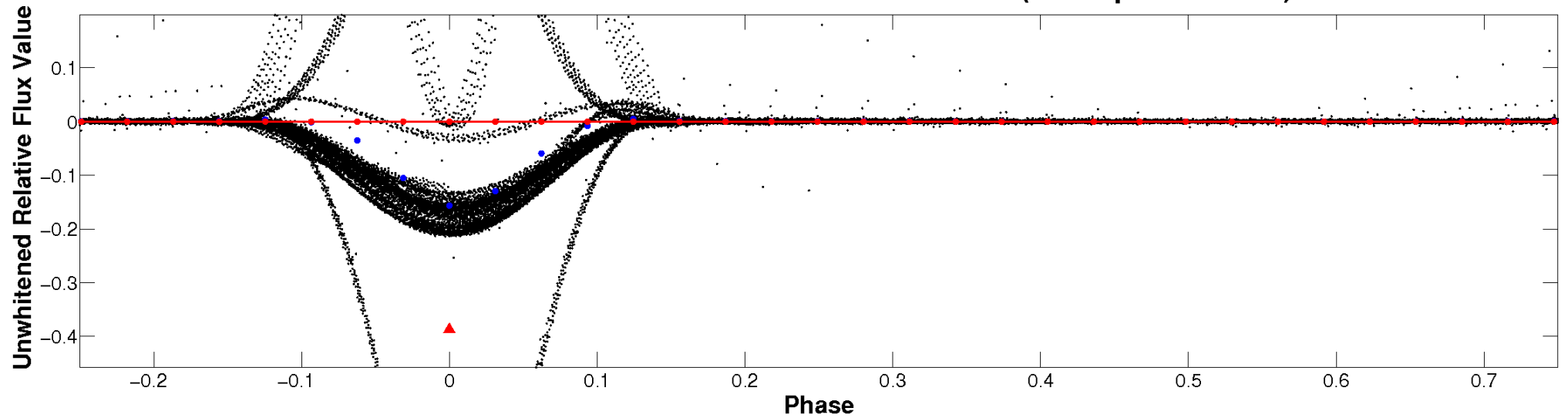
ALT Odd/Even

TCE 005215700-01



Non-Whitened Vs. Whitened Light Curve

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

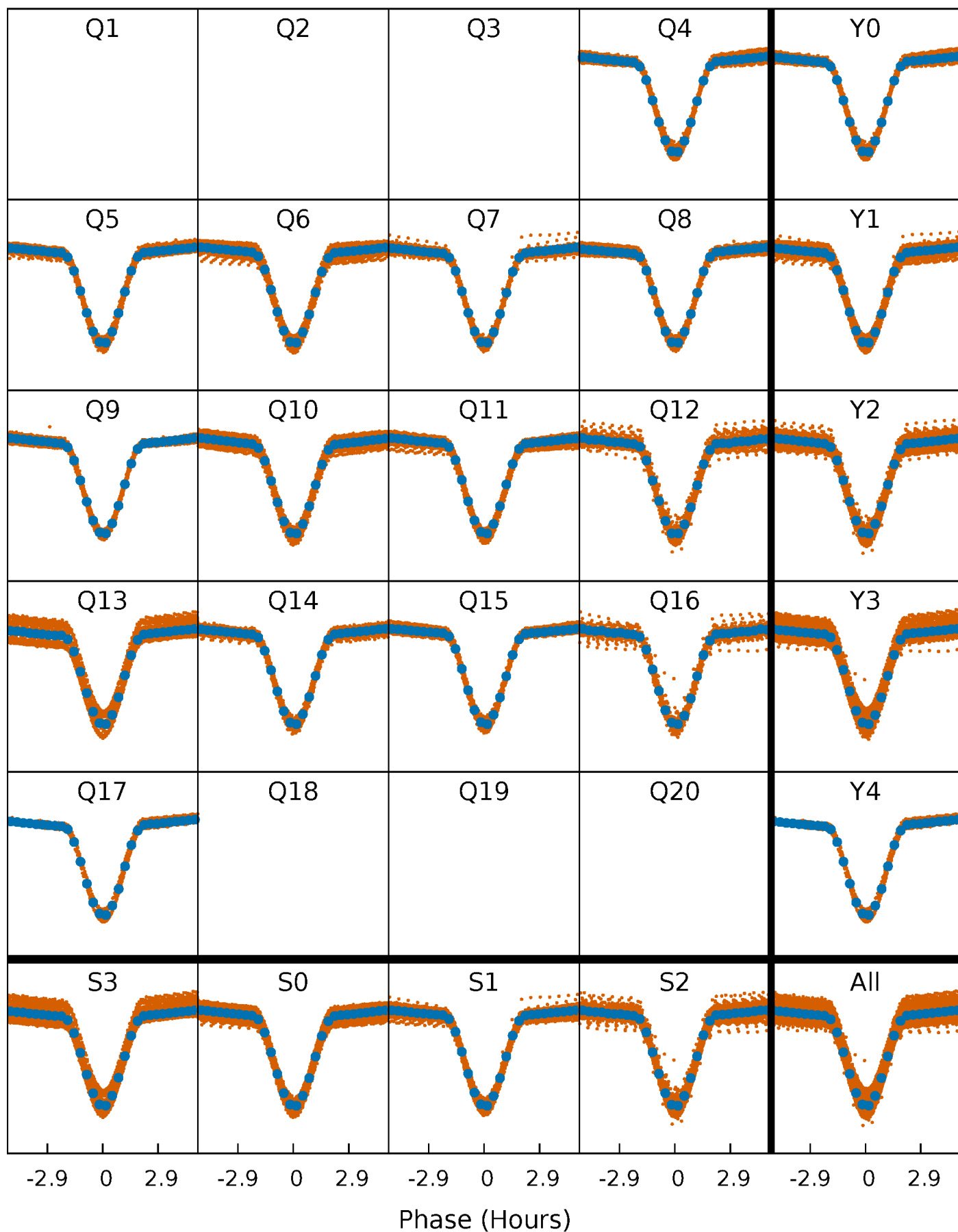


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



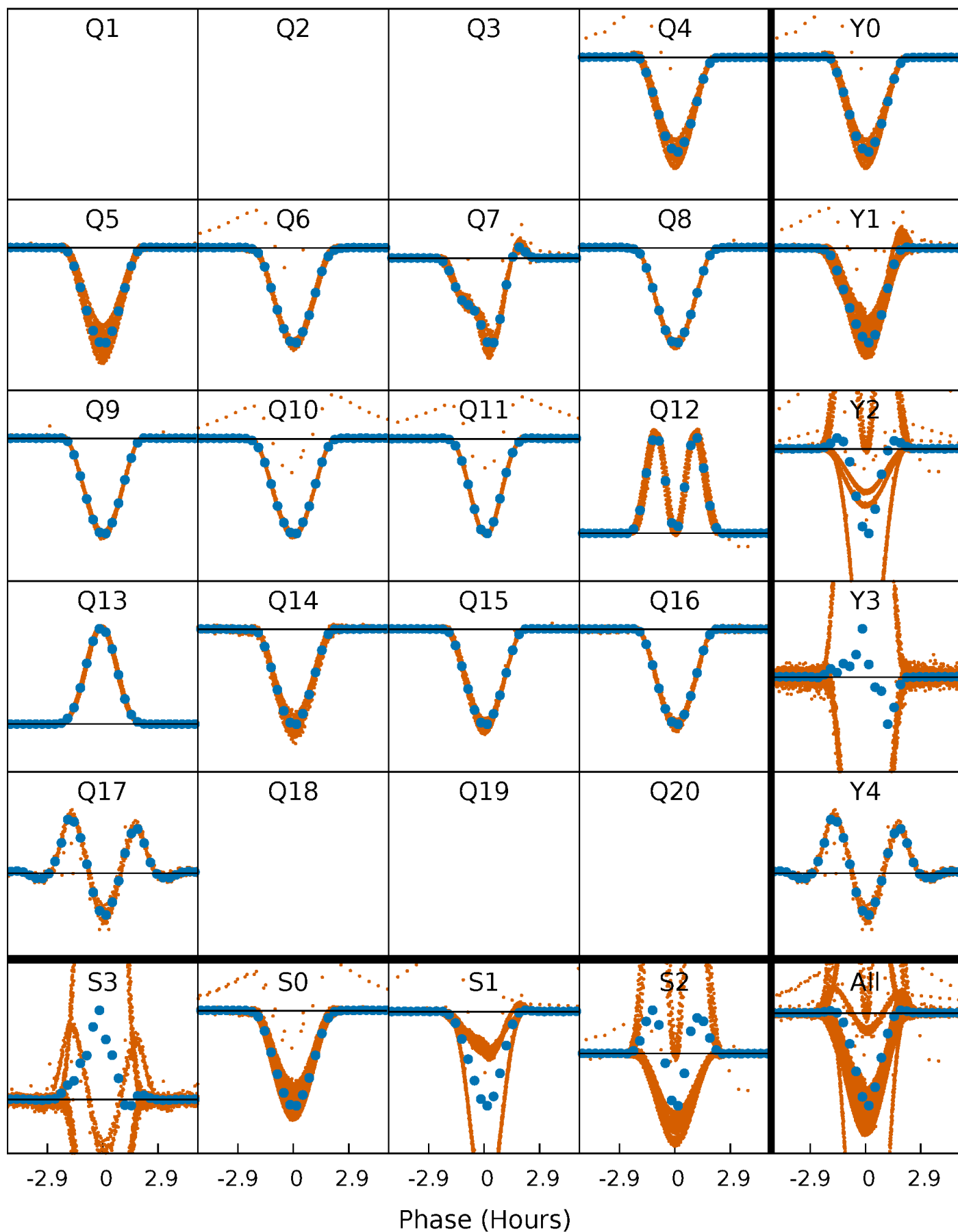
PDC Quarter-Phased Transit Curves

TCE 005215700-01 P= 0.656200 Days $T_0=132.099536$ (BKJD)



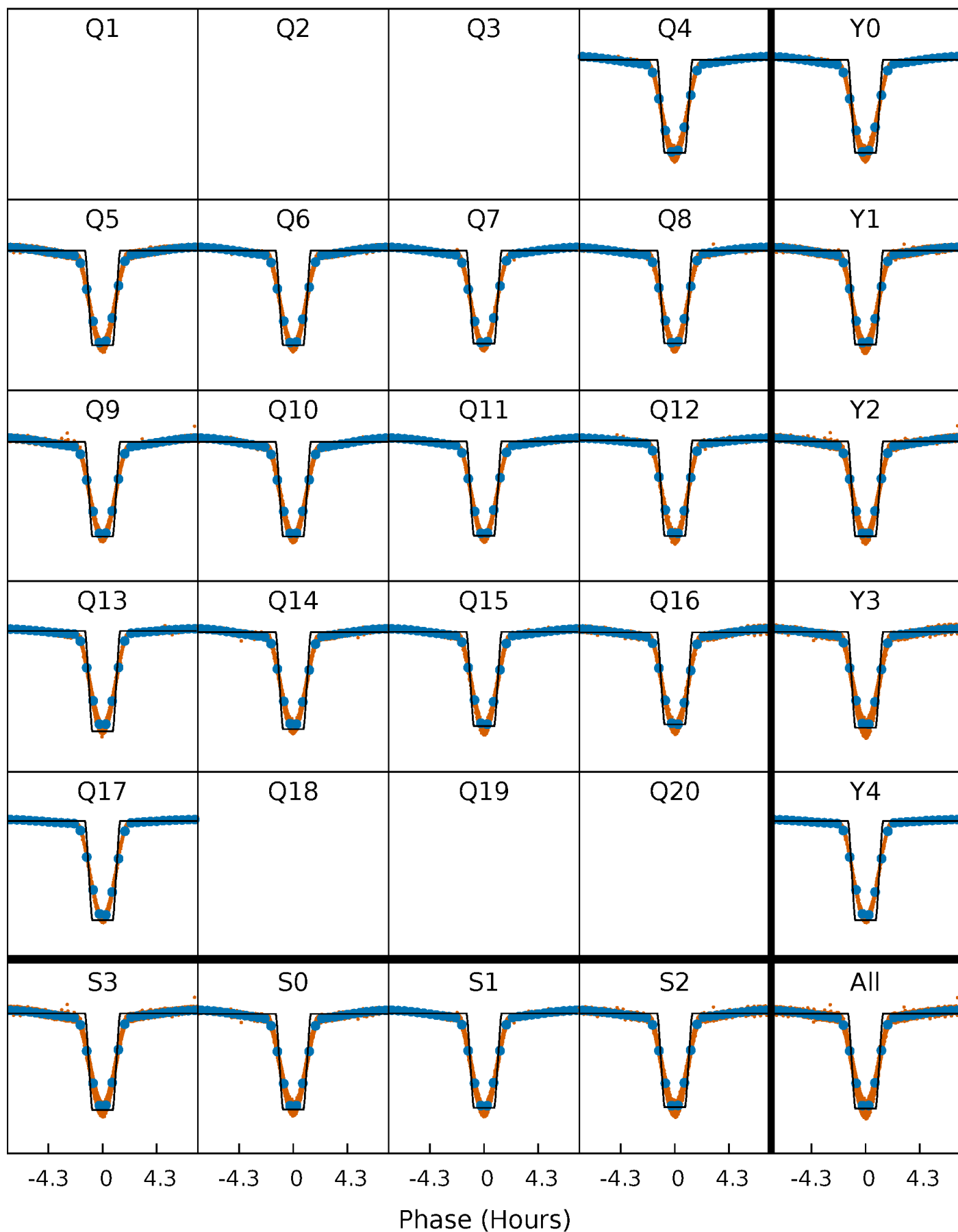
DV Quarter-Phased Transit Curves

TCE 005215700-01 P= 0.656200 Days $T_0=132.099536$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

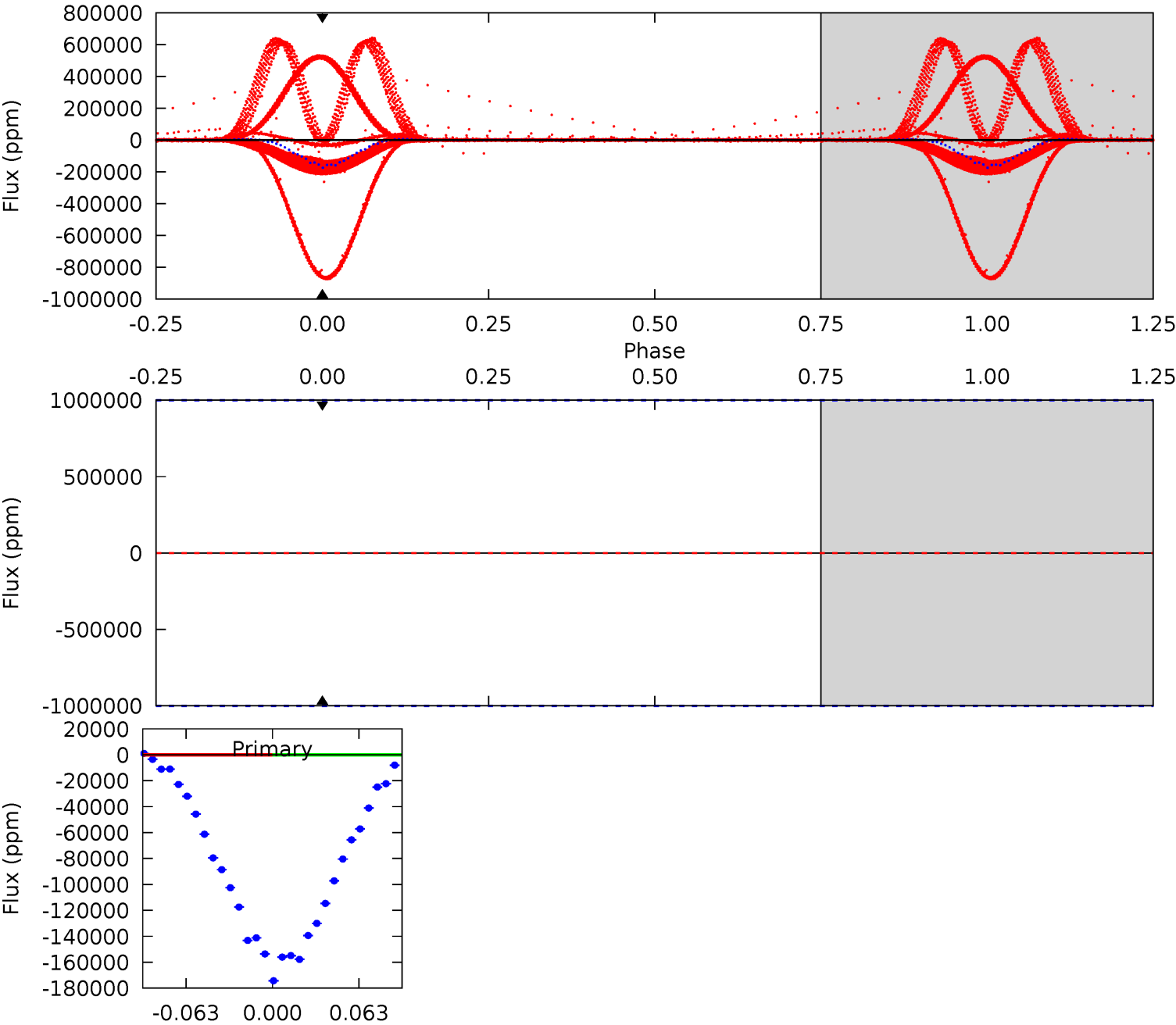
TCE 005215700-01 P= 0.656200 Days $T_0=132.101004$ (BKJD)



DV Model-Shift Uniqueness Test

005215700-01, P = 0.656200 Days, E = 132.099536 Days

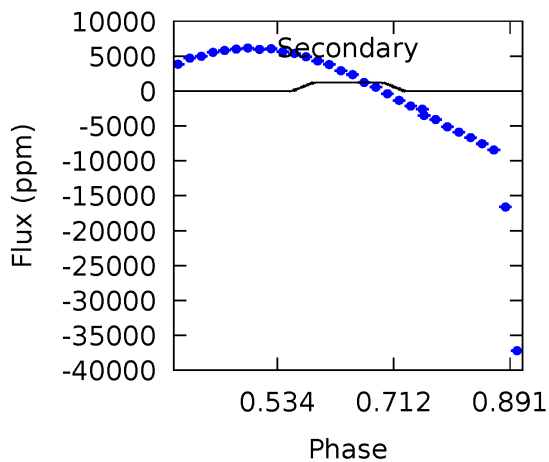
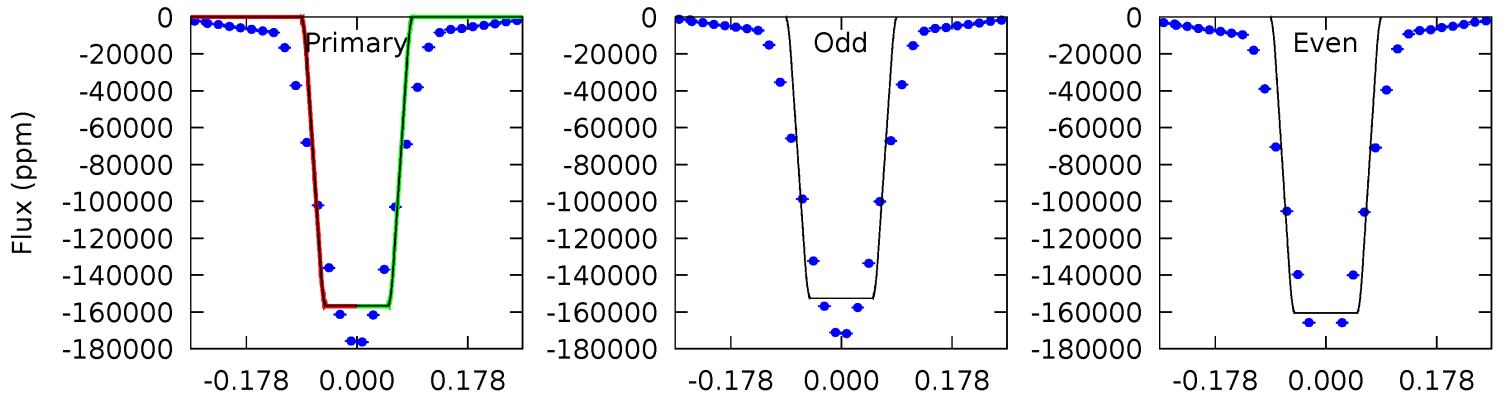
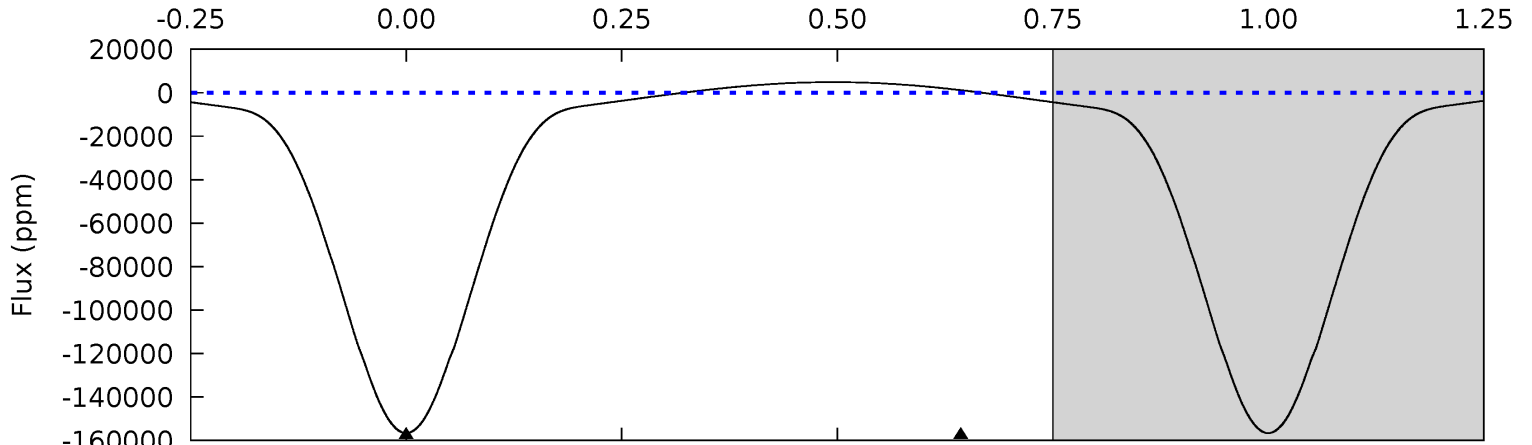
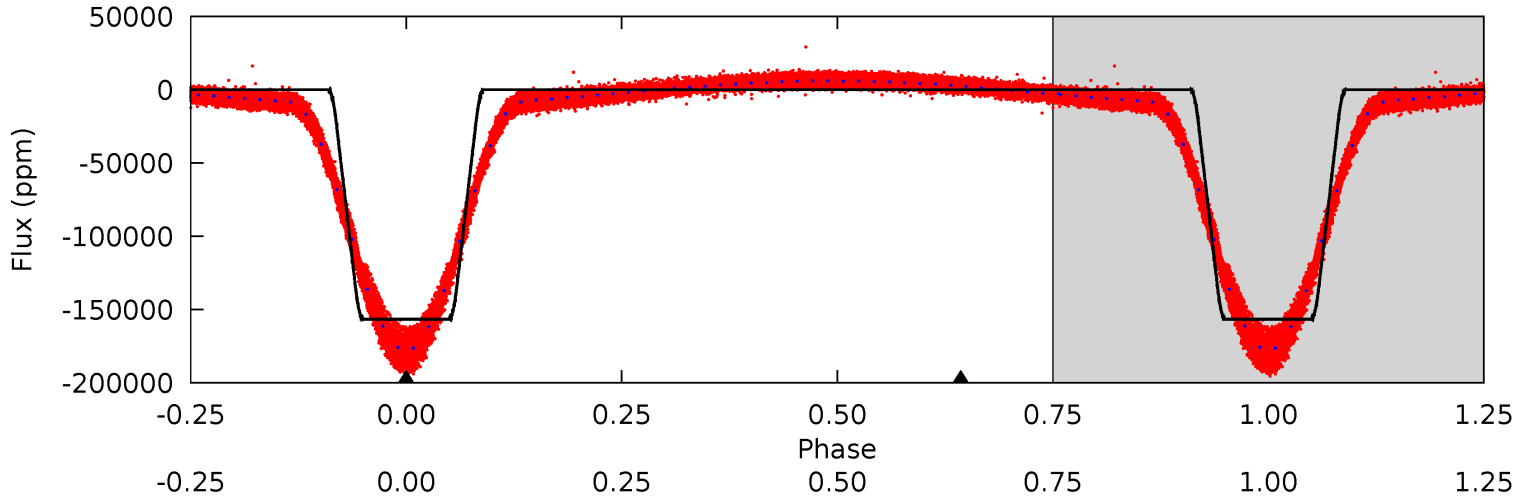
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005215700-01, P = 0.656200 Days, E = 132.101004 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3517	-26.8	0	0	4.44	1.35	86.5	3517	3517	-26.8	-26.8	86.0	1.00	0.03	0.59



Stellar Parameters For KIC 005215700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6025^{+190}_{-232}	$4.472^{+0.052}_{-0.208}$	$0.020^{+0.250}_{-0.350}$	$0.999^{+0.318}_{-0.106}$	$1.080^{+0.130}_{-0.159}$	$1.524^{+0.413}_{-0.778}$
	+3%/-4%	+1%/-5%	+1250%/-1750%	+32%/-11%	+12%/-15%	+27%/-51%
Source	KIC0	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 005215700-01 / KOI 3740.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$56.90^{+14.44}_{-12.44}$	3087^{+220}_{-166}	-3184^{+8163}_{-1780}	$0.022^{+4.499}_{-3.723}$
Alt.	1193 ± 45	$47.55^{+14.02}_{-12.10}$	3095^{+207}_{-174}	-3256^{+109}_{-133}	$-0.065^{+0.024}_{-0.052}$

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

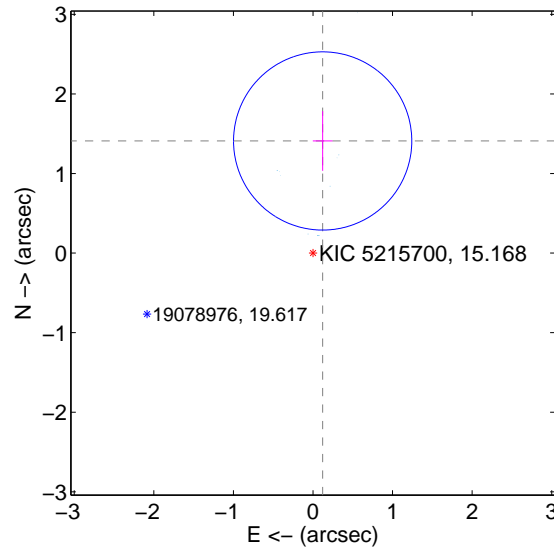
Supplemental centroid analysis for 005215700-01. Kepler magnitude: 15.17. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

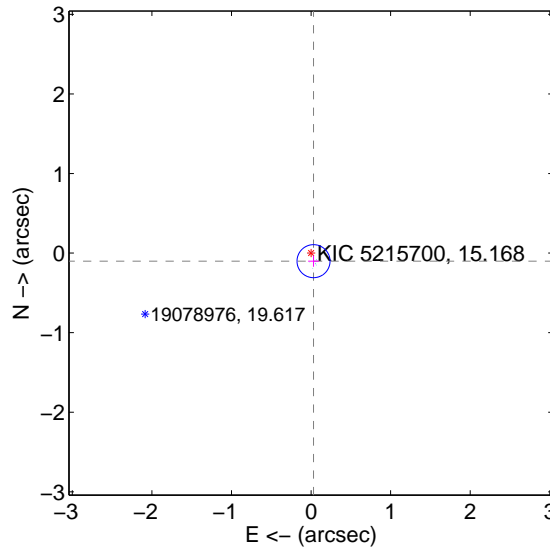
The OOT PRF centroid is offset from the target star catalog position by about 3.23 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.415 ± 0.373	3.79	-0.122 ± 0.124	1.409 ± 0.375
PRF-fit source offset from KIC position	0.106 ± 0.069	1.53	-0.031 ± 0.067	-0.101 ± 0.069
photometric centroid source offset	1.53 ± 0.00	1722.13	0.09 ± 0.00	-1.53 ± 0.00

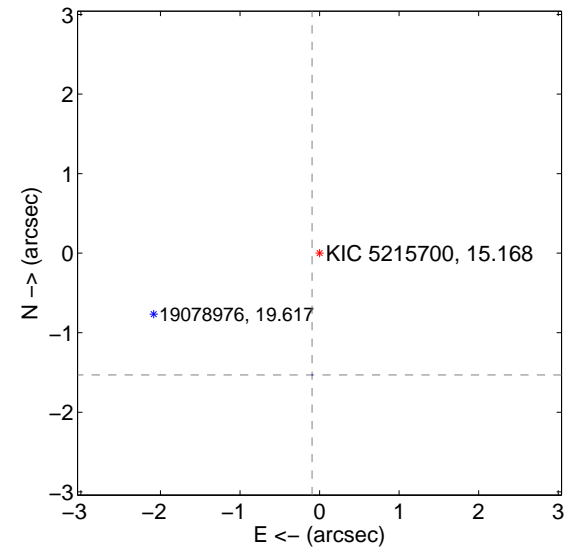
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

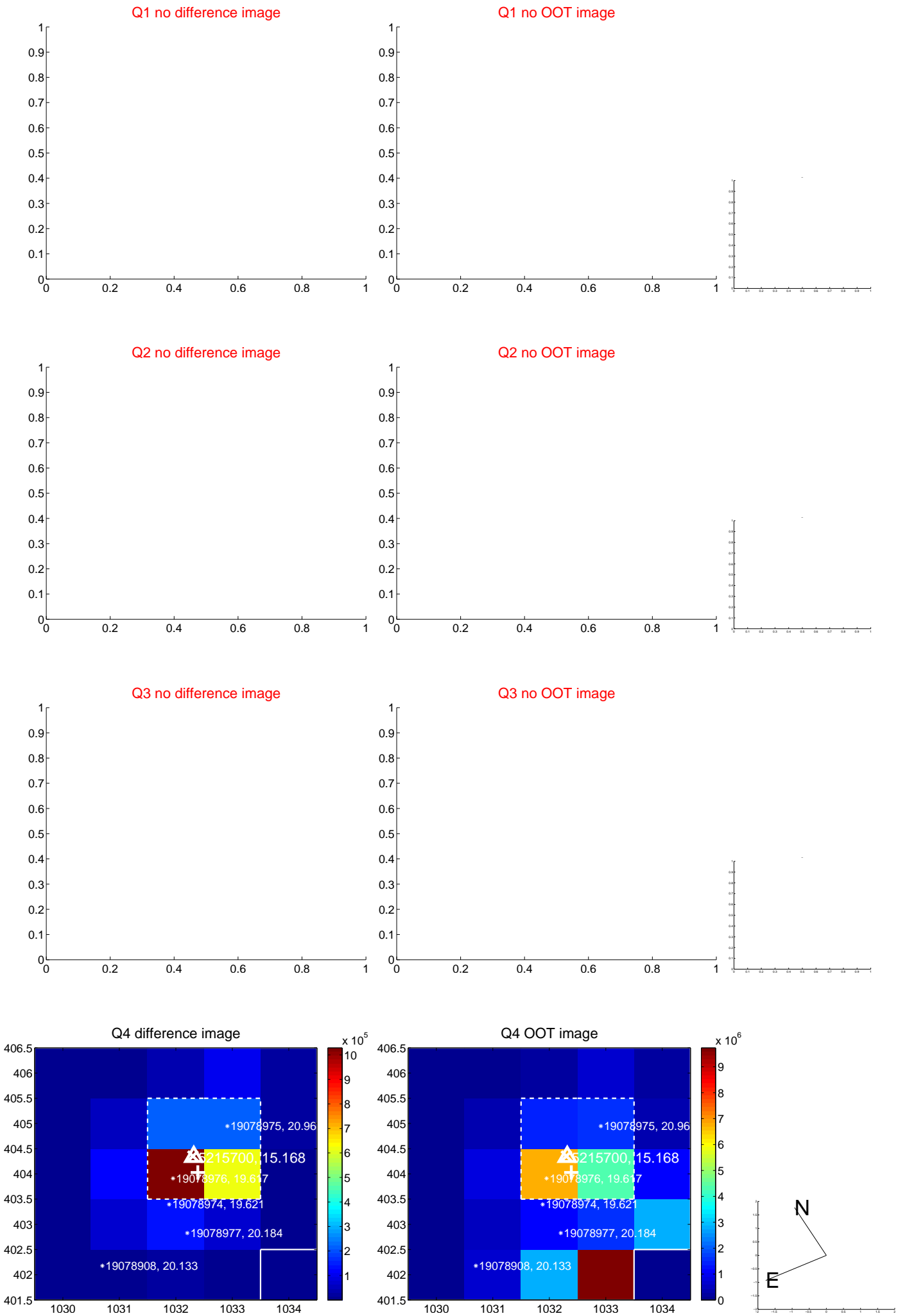


offset from photometric centroids

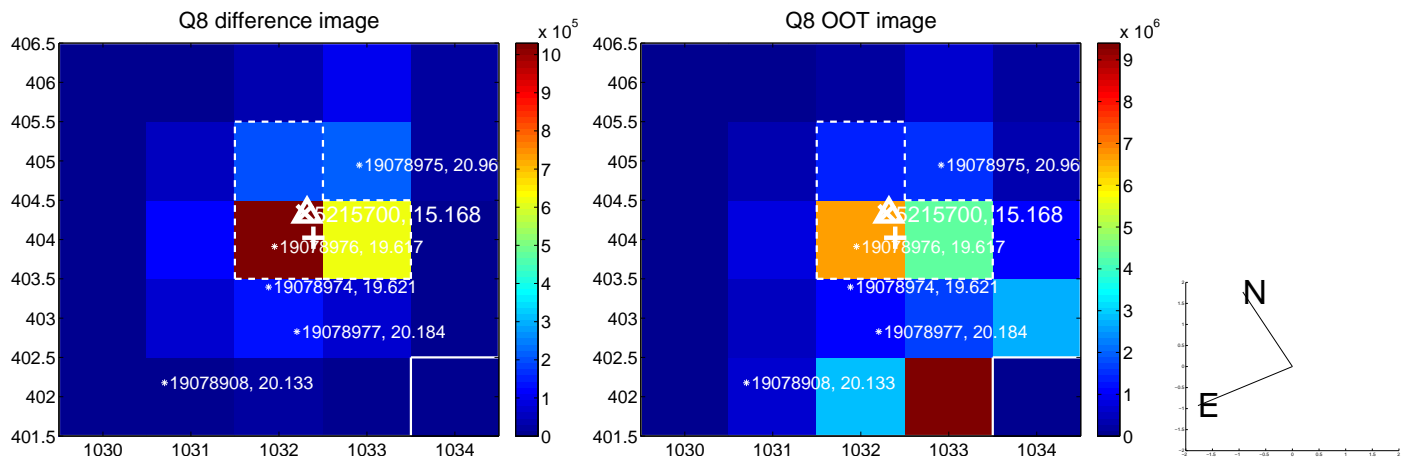
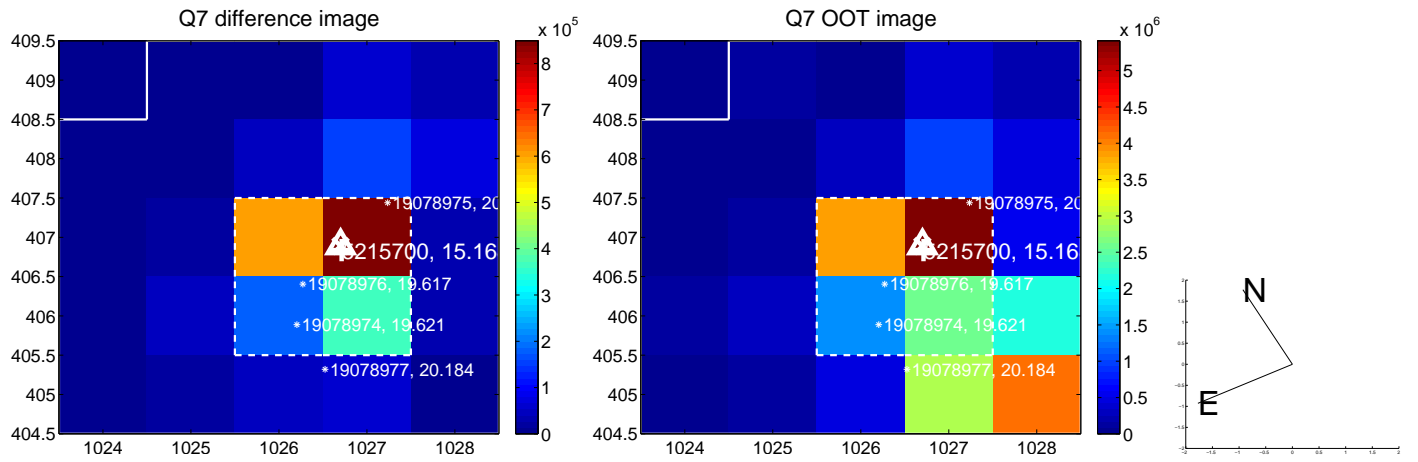
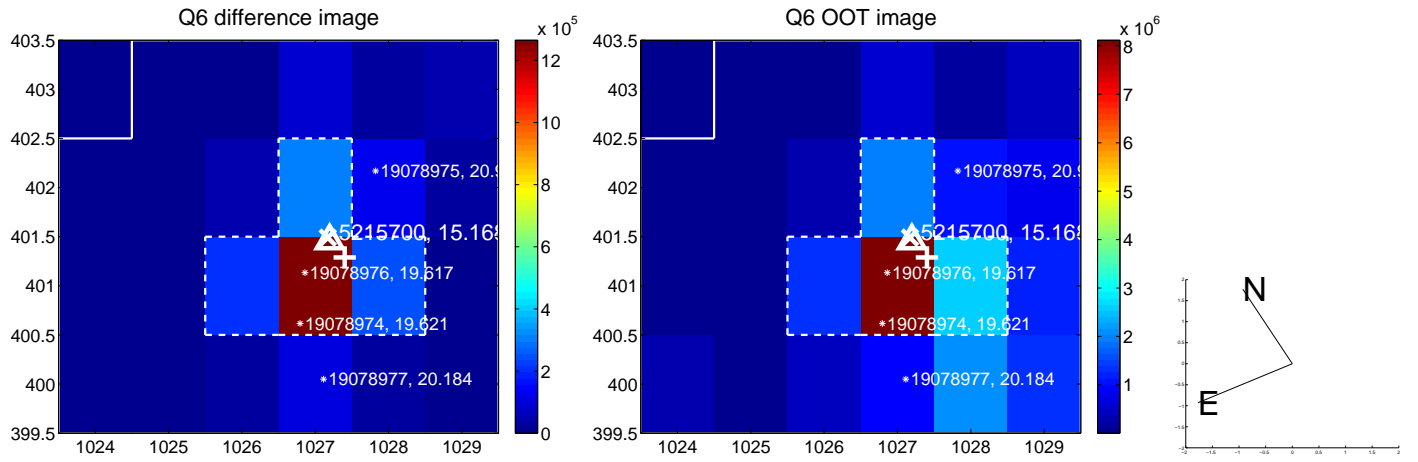
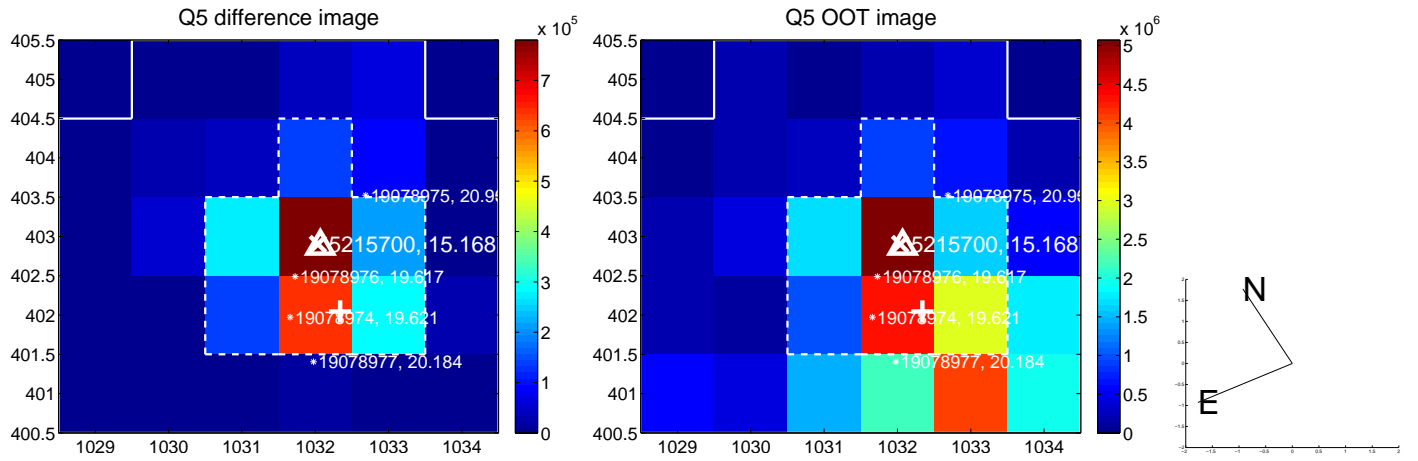


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

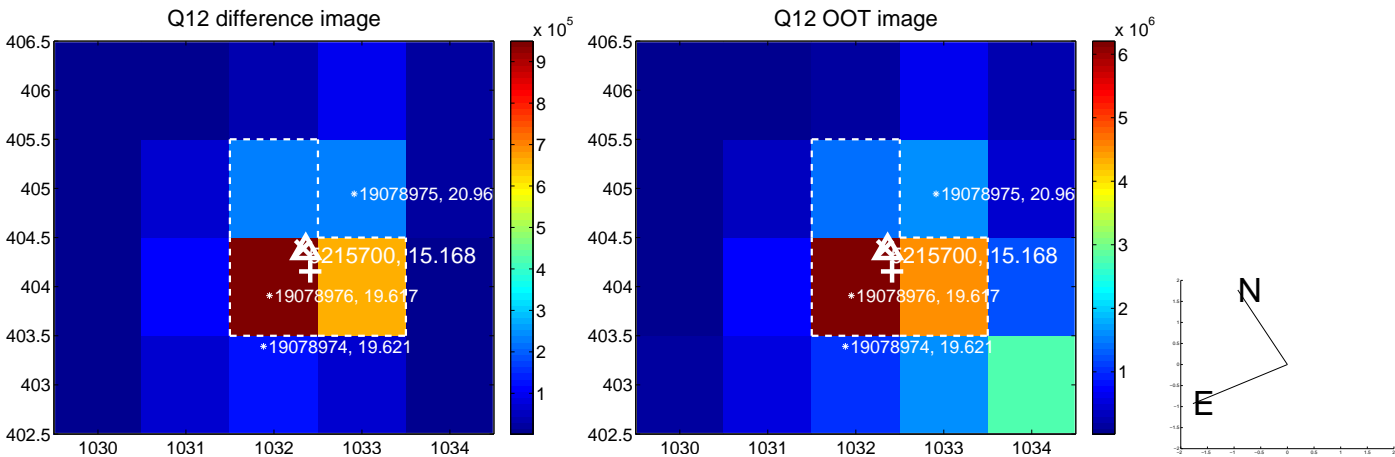
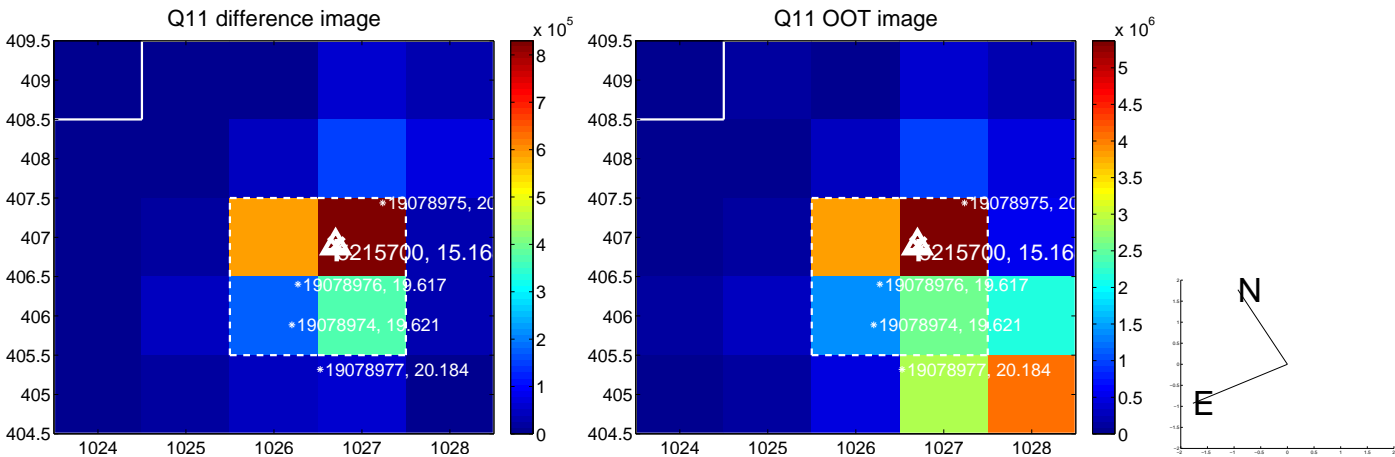
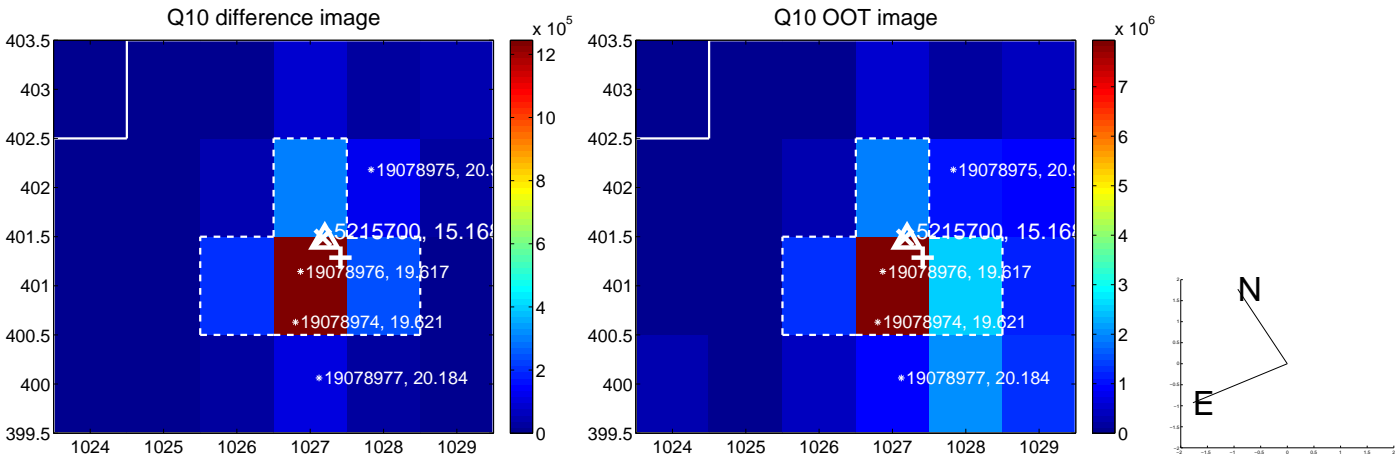
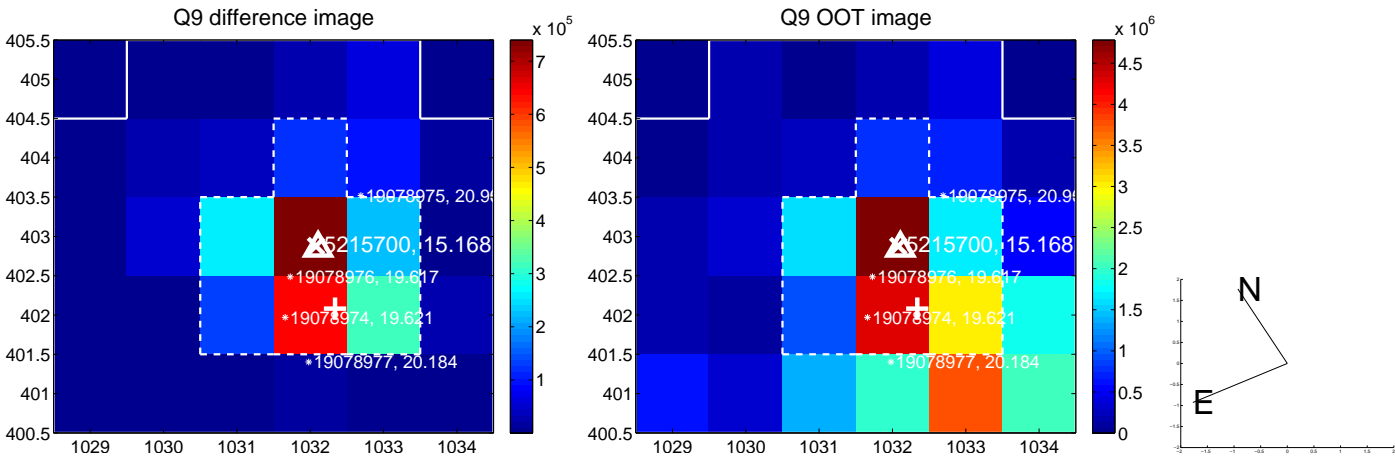
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



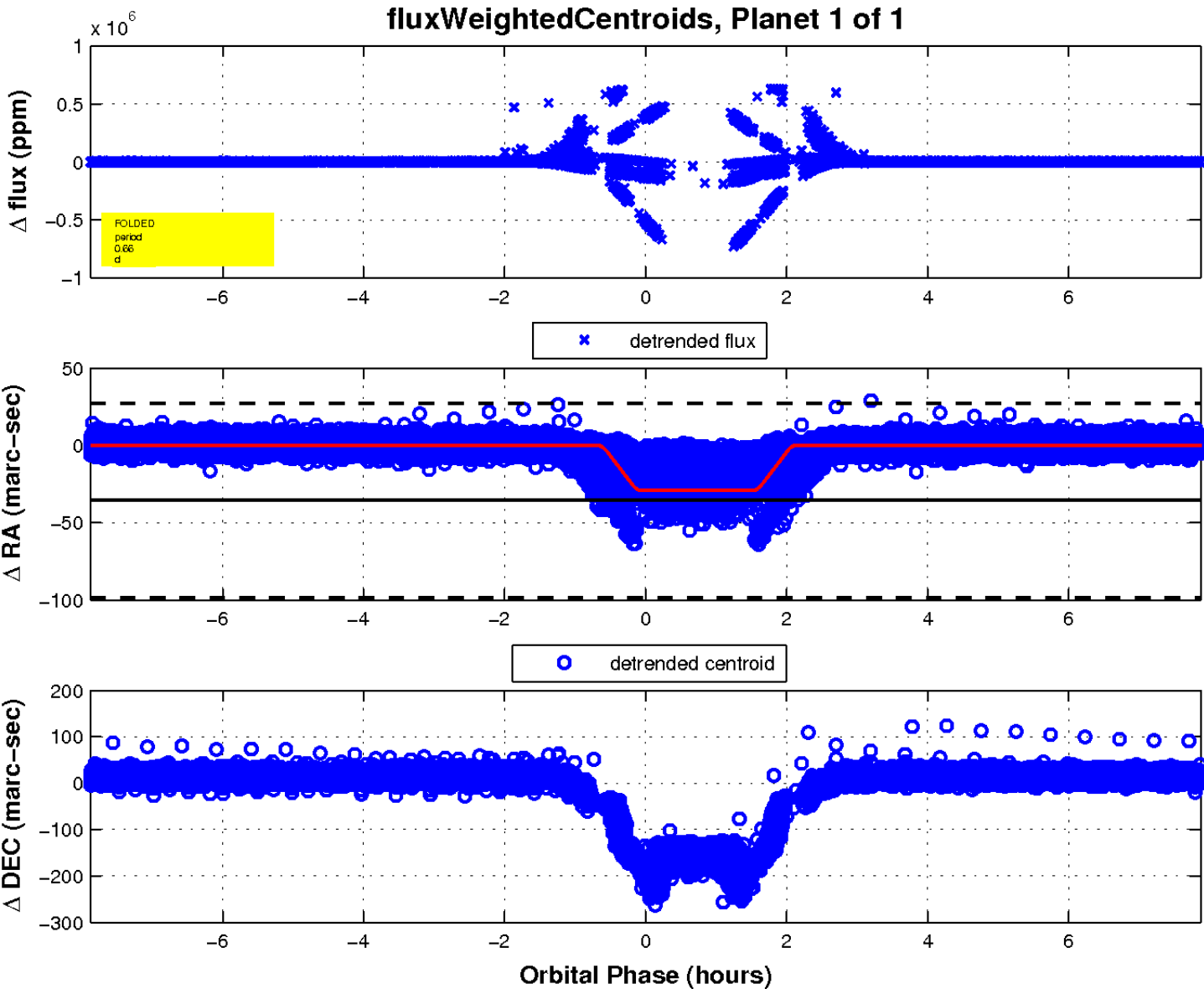
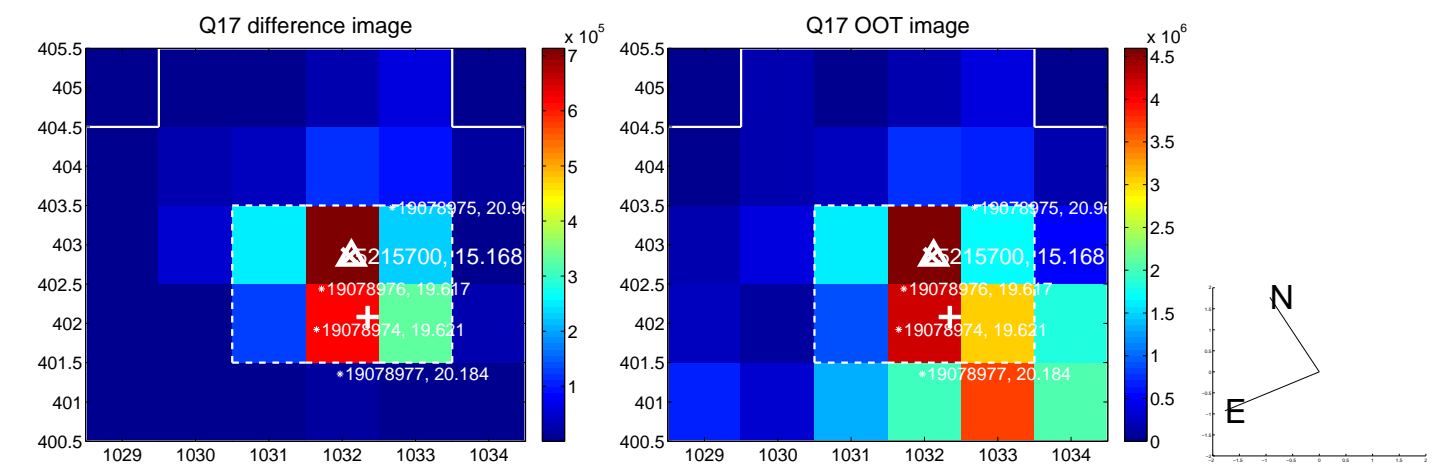
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

