

KIC 011414511

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})
011414511-01	OBS	0767.01	2.816505	131.536589	16822.8	2.563	1328.3	1287.1	0.95	5532	12.48	522.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011414511-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

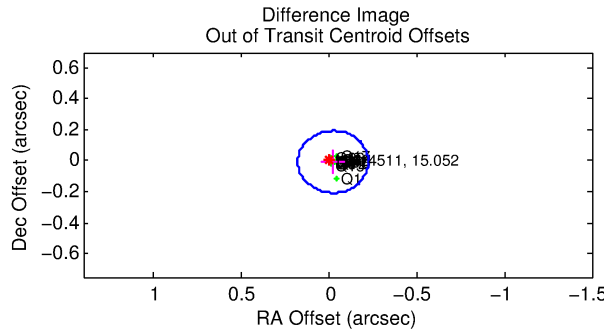
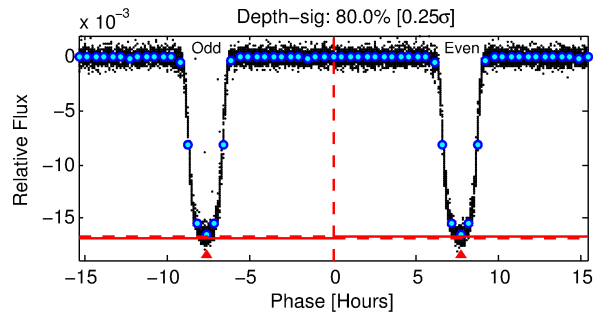
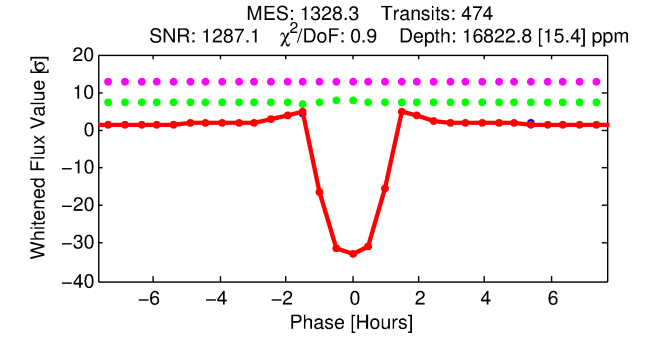
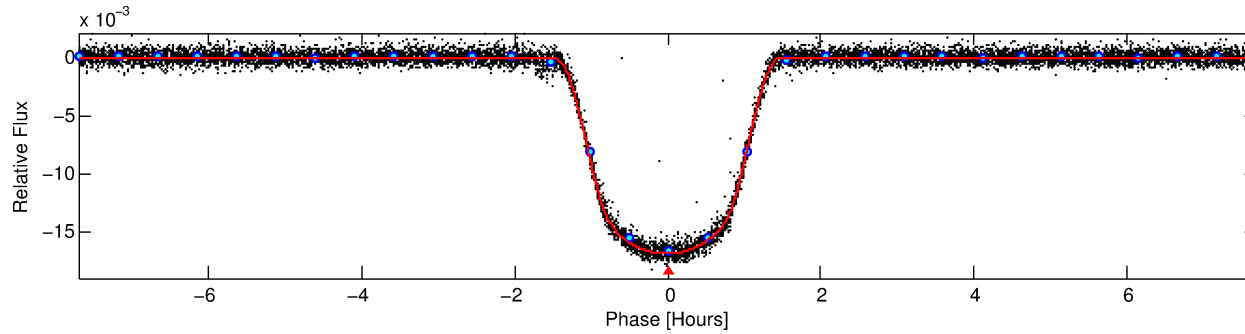
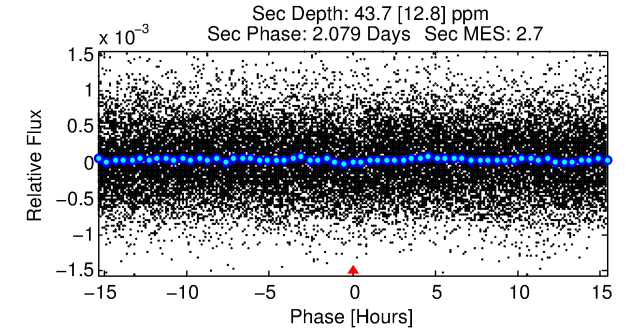
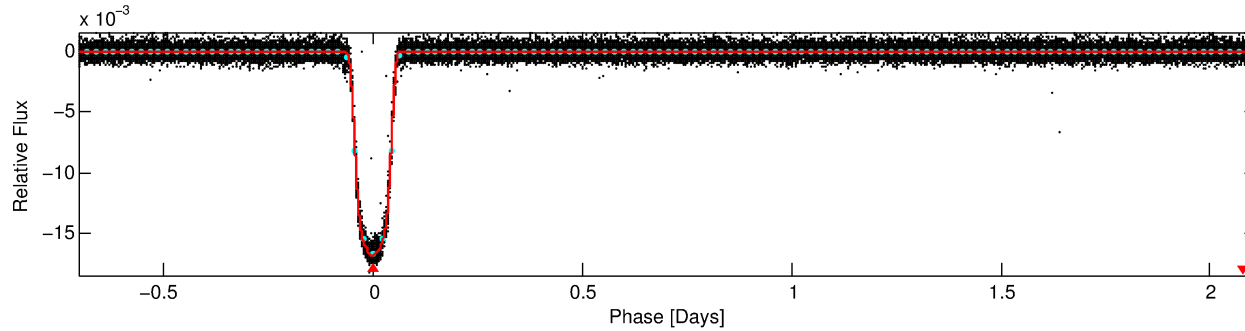
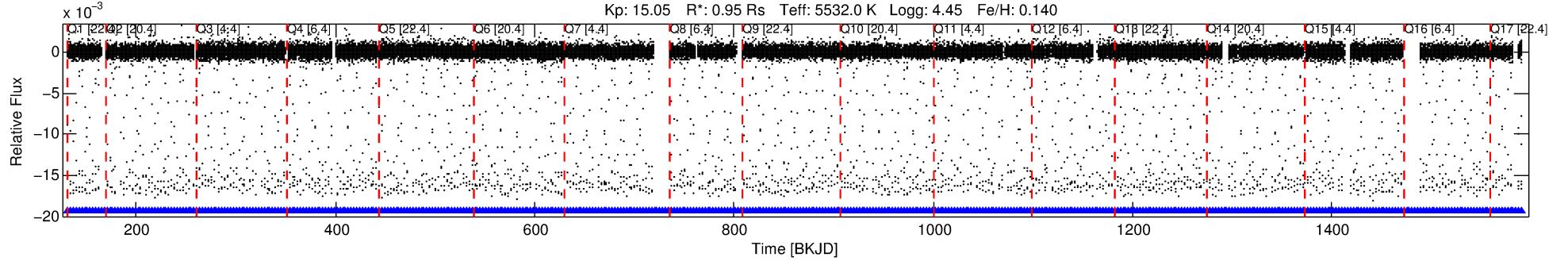
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011414511-01

No Significant Match Found

DV One-Page Summary

KIC: 11414511 Candidate: 1 of 1 Period: 2.817 d
KOI: K00767.01 Corr: 0.989



DV Fit Results:

Period = 2.81651 [0.00000] d
Epoch = 131.5366 [0.0000] BKJD
Rp/R* = 0.1198 [0.0003]
a/R* = 8.74 [0.09]
b = 0.42 [0.02]
Seff = 522.57 [103.13]
Teq = 1219 [60] K
Rp = 12.48 [1.66] Re
a = 0.0383 [0.0046] AU
Ag = 0.23 [0.08] [-9.86 σ]
Teffp = 1300 [97] K [0.71 σ]

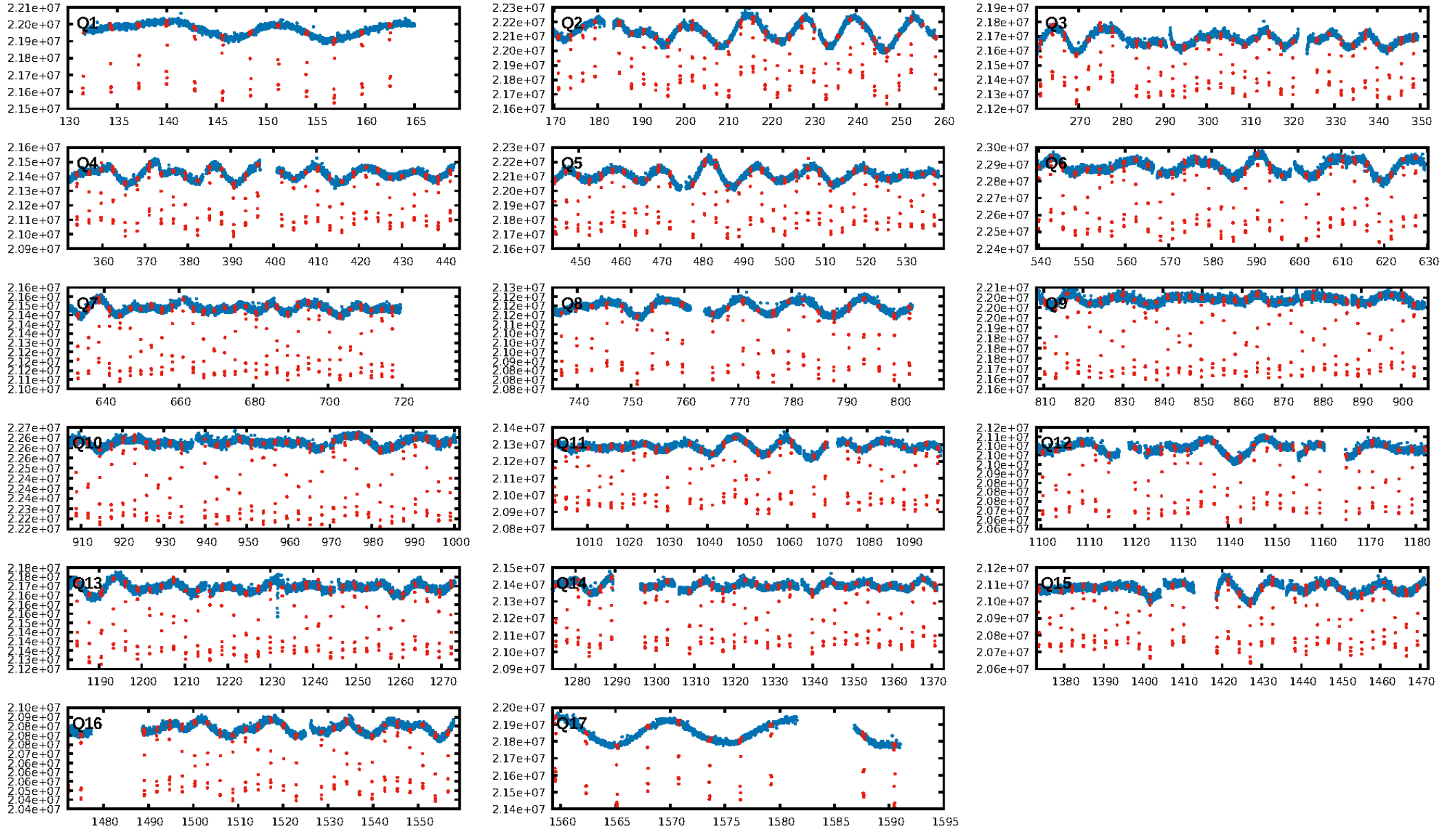
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [452/452]
GhostDiagnostic-chr: 3.815
Centroid-sig: 0.0%
Centroid-so: 0.464 arcsec [54.83 σ]
OotOffset-rm: 0.025 arcsec [0.37 σ]
KicOffset-rm: 0.162 arcsec [2.35 σ]
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]

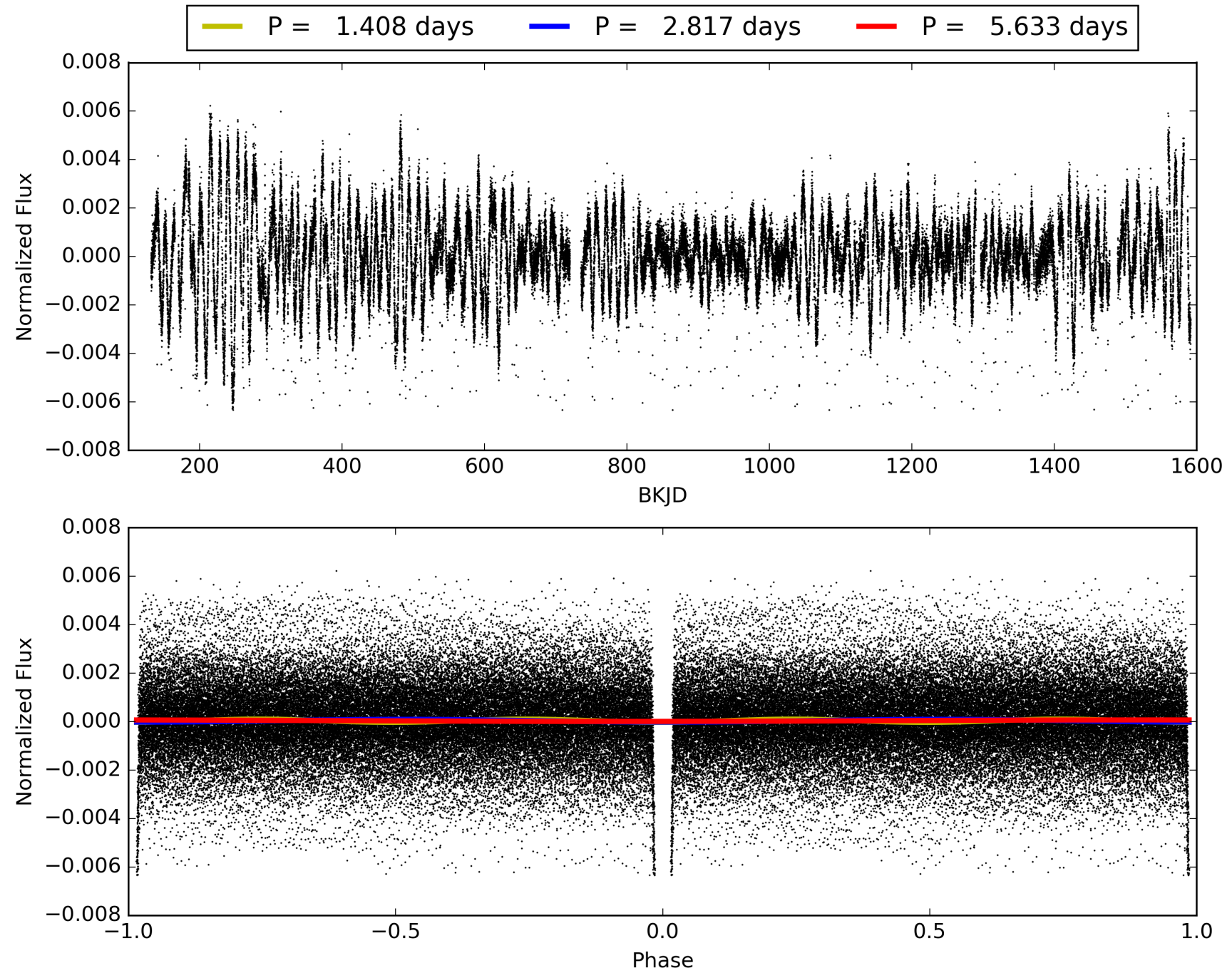
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:22:47 Z

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

TCE 011414511-01, PDC Light Curves

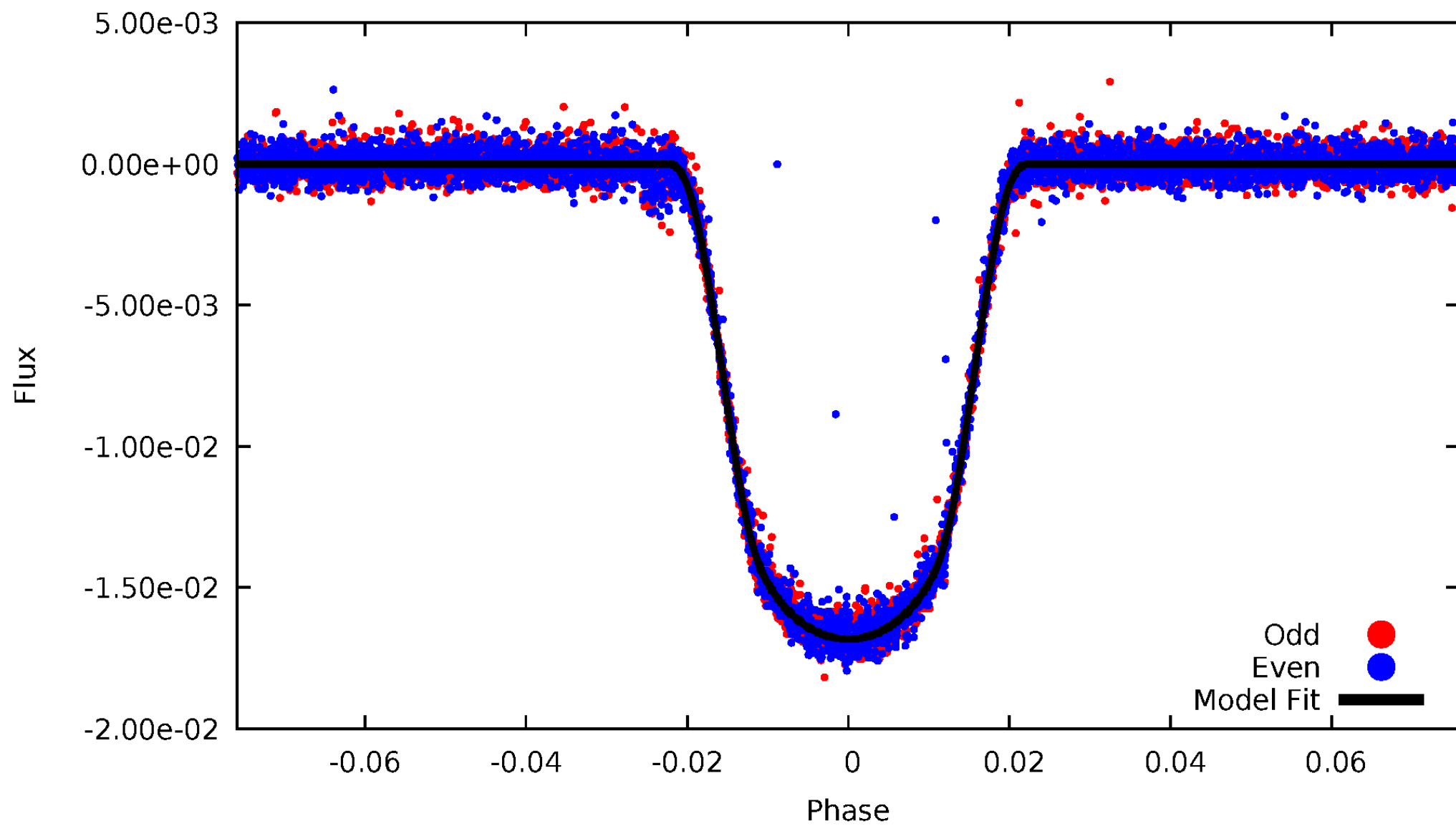


TCE 011414511-01



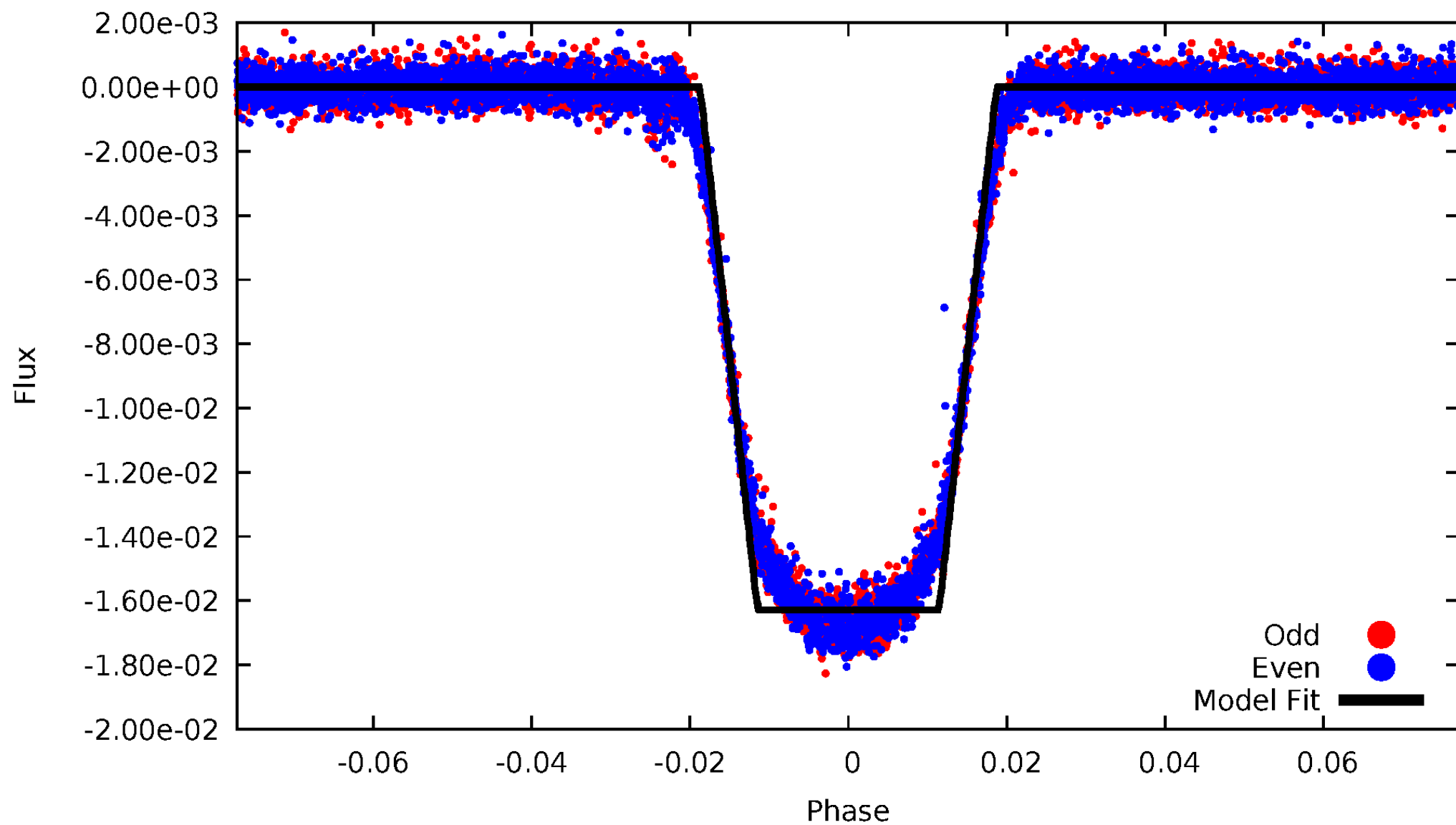
DV Odd/Even

TCE 011414511-01



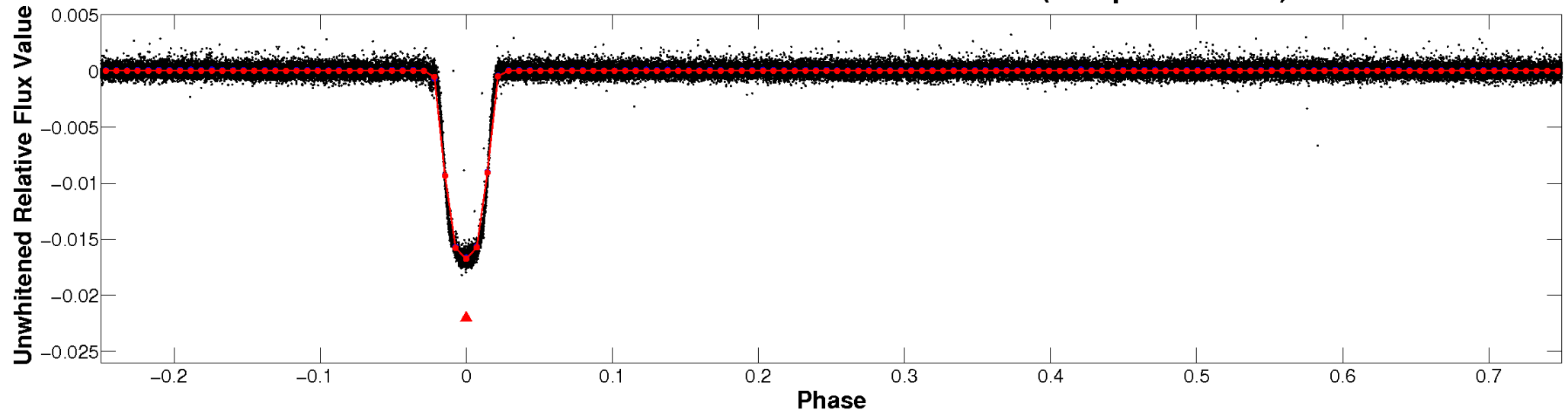
ALT Odd/Even

TCE 011414511-01

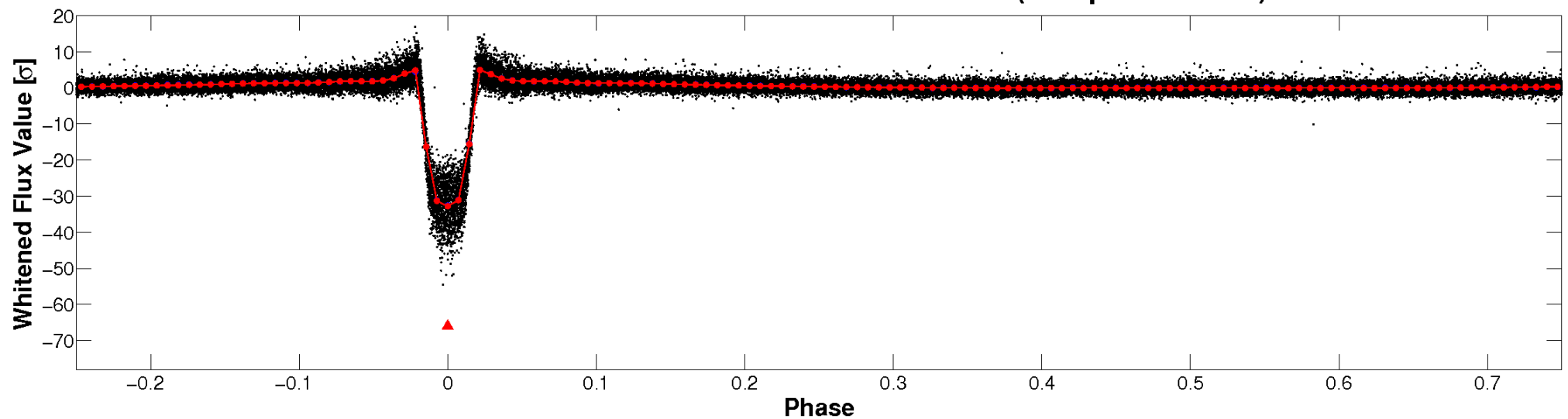


Non-Whitened Vs. Whitened Light Curve

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

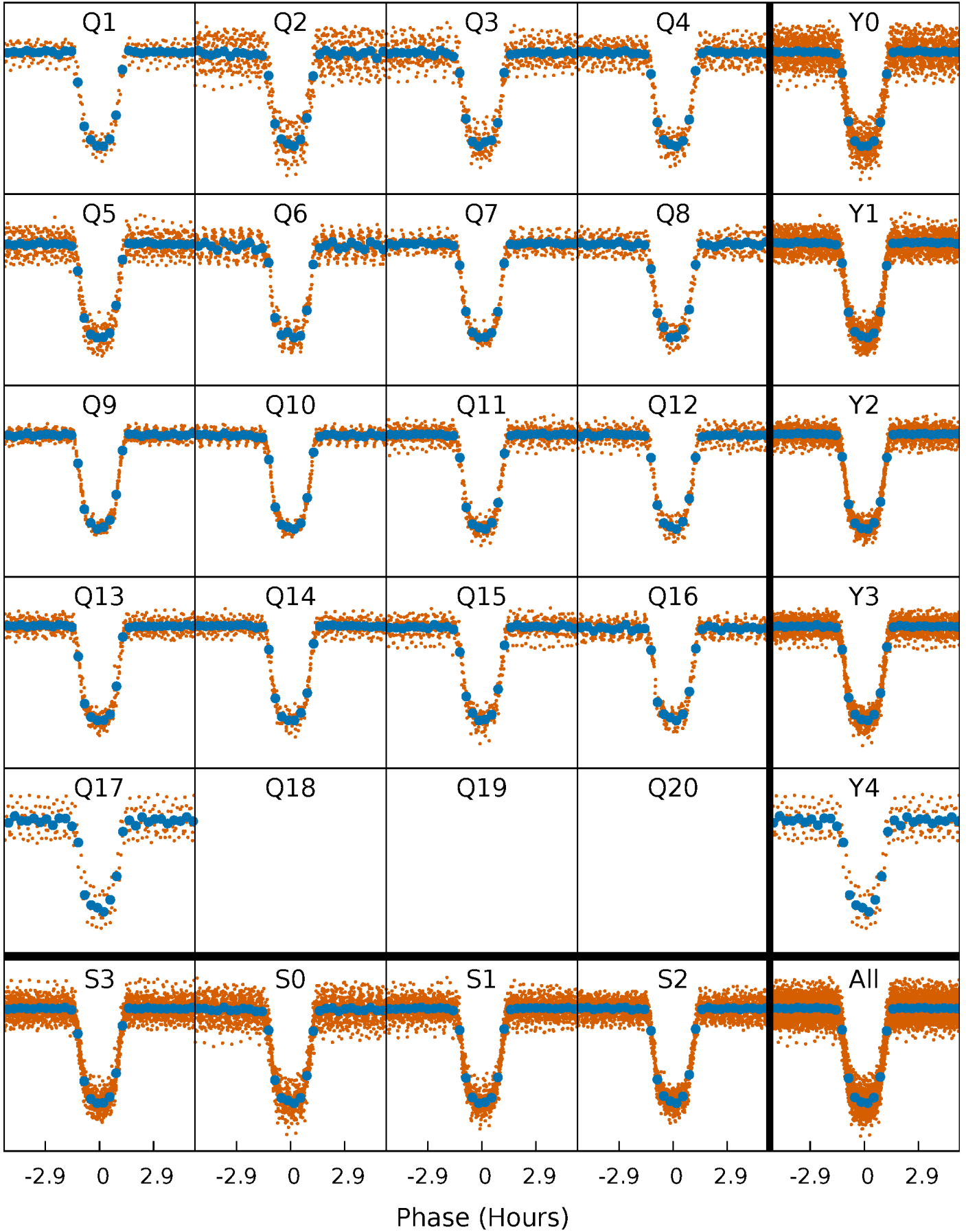


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



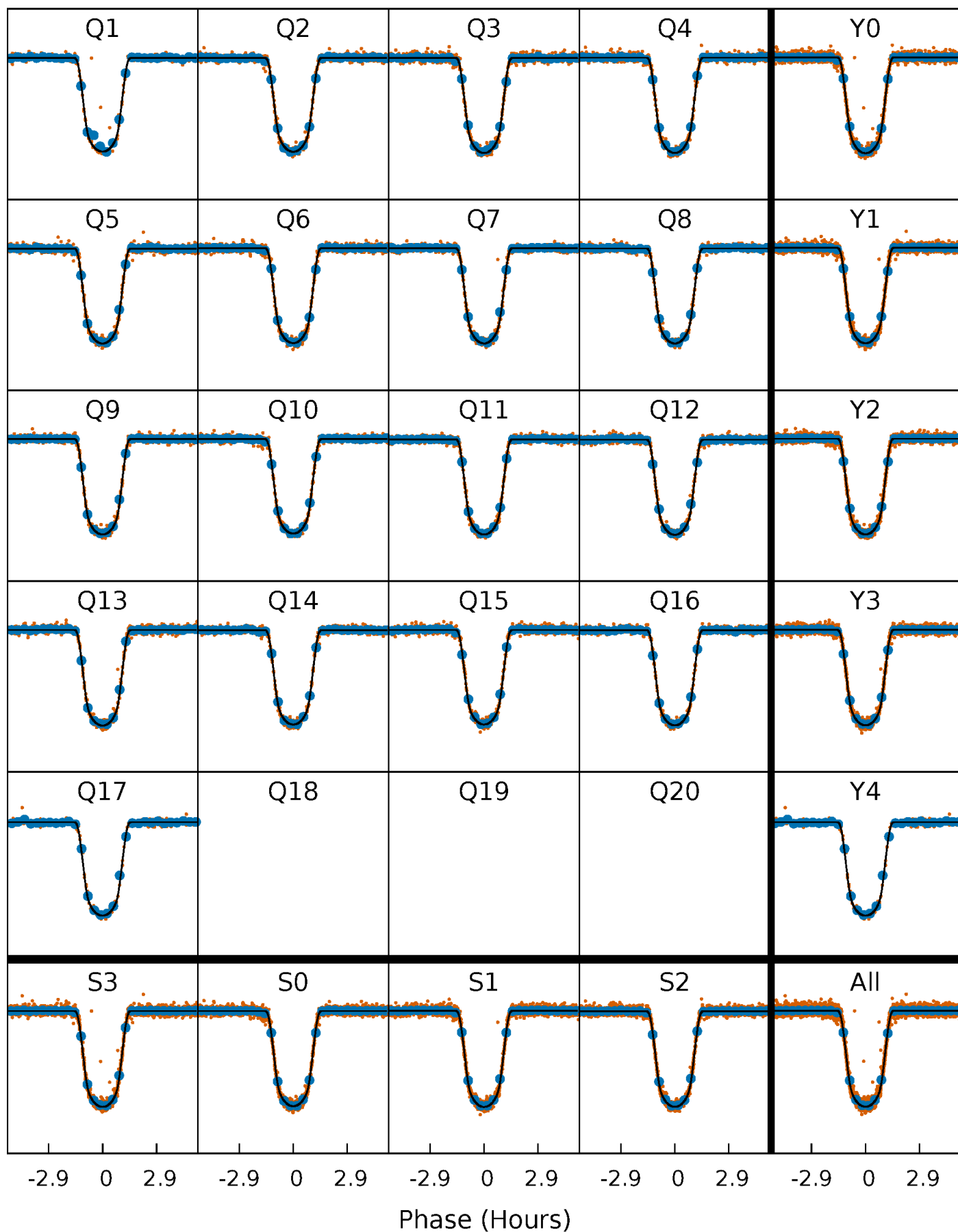
PDC Quarter-Phased Transit Curves

TCE 011414511-01 P= 2.816505 Days $T_0=131.536588$ (BKJD)



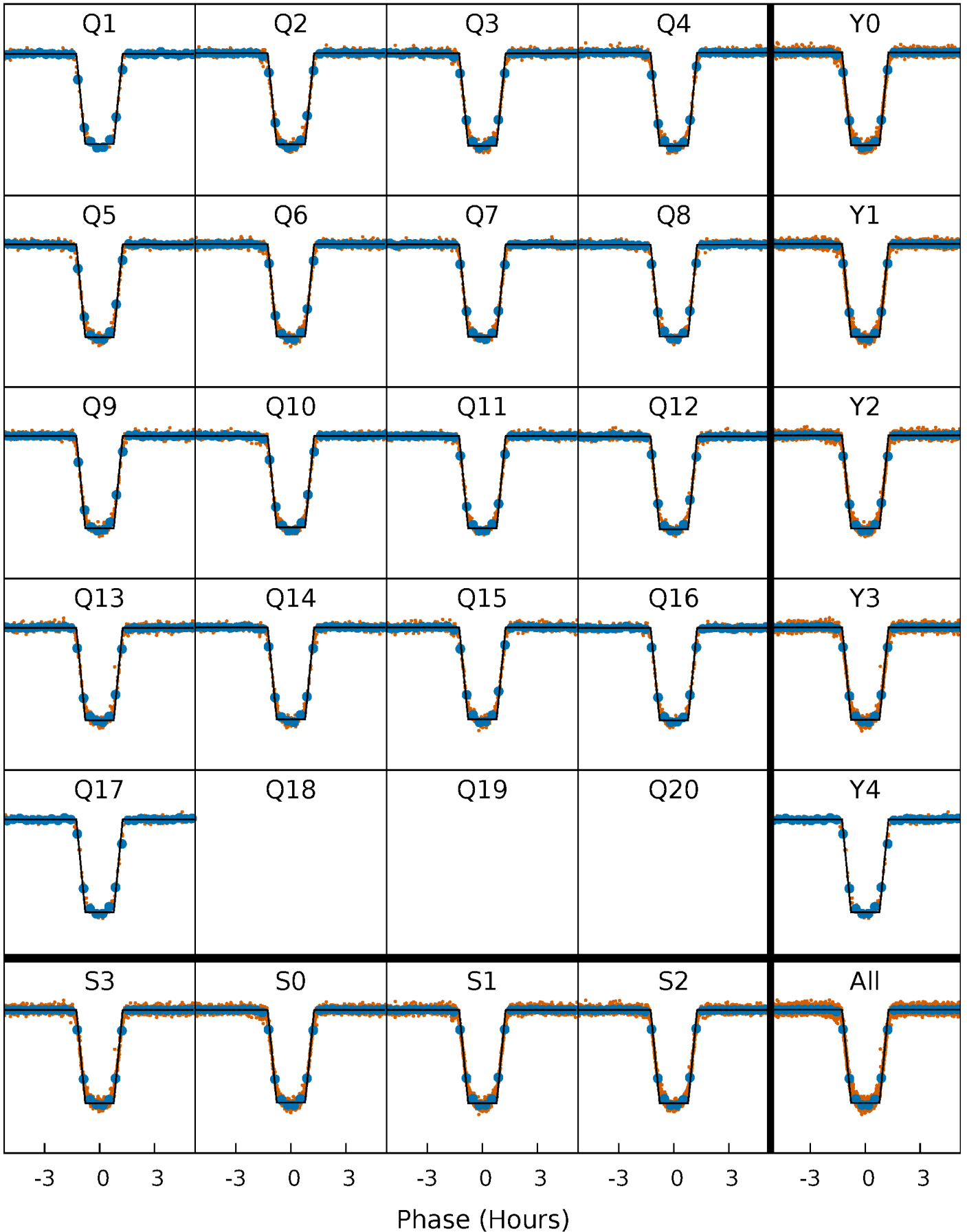
DV Quarter-Phased Transit Curves

TCE 011414511-01 P= 2.816505 Days $T_0=131.536588$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

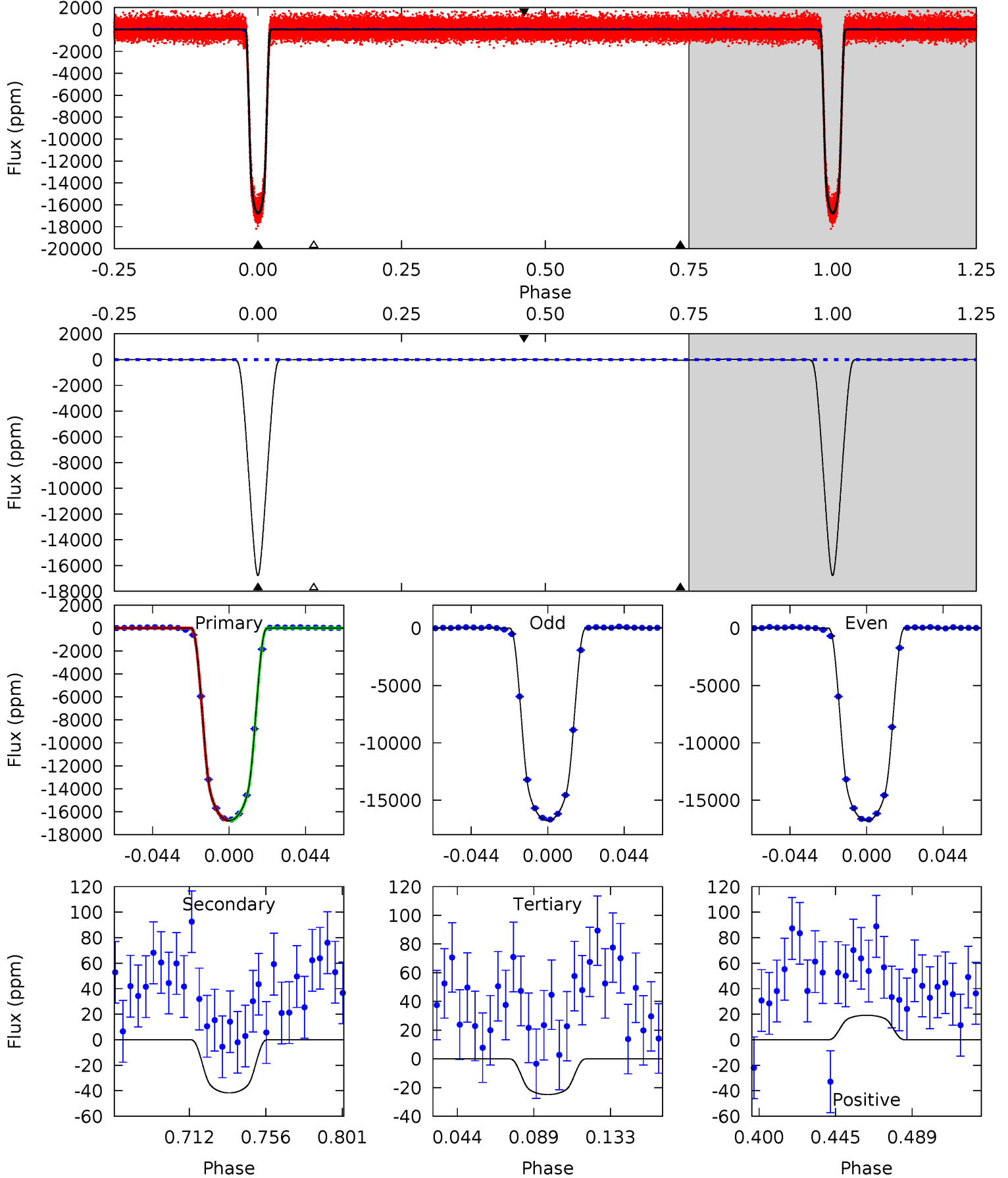
TCE 011414511-01 P= 2.816504 Days $T_0=131.536873$ (BKJD)



DV Model-Shift Uniqueness Test

011414511-01, P = 2.816505 Days, E = 128.720083 Days

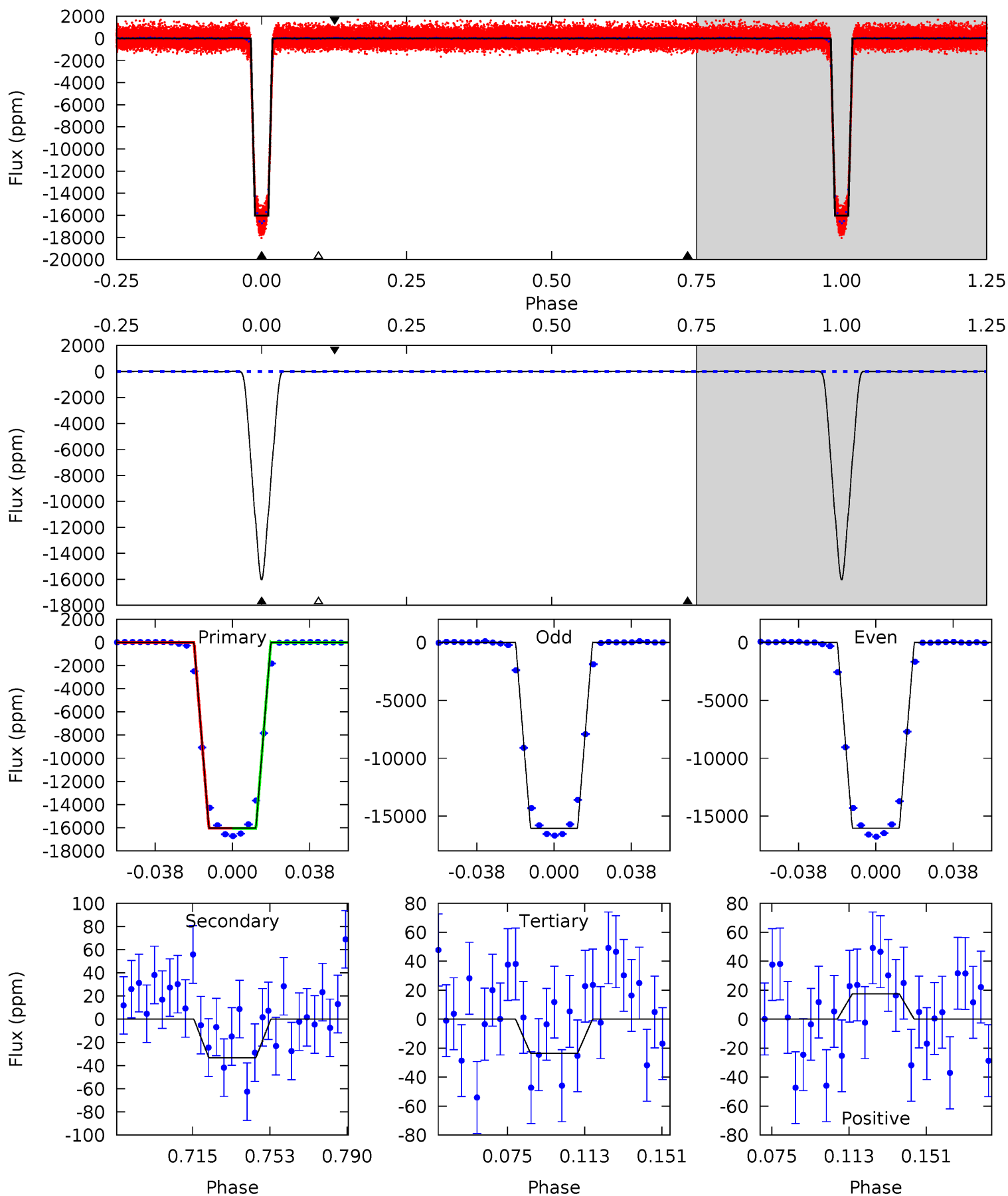
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2127	5.29	3.16	2.43	4.73	2.01	1.52	2124	2125	2.13	2.85	0.42	1.00	0.00	0.56



Alt Model-Shift Uniqueness Test

011414511-01, P = 2.816504 Days, E = 128.720369 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1906	3.97	2.81	2.08	4.77	2.08	1.22	1903	1904	1.16	1.89	0.97	1.00	0.00	1.28



Stellar Parameters For KIC 011414511

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5532^{+74}_{-83}	$4.452^{+0.063}_{-0.108}$	$0.140^{+0.150}_{-0.150}$	$0.955^{+0.127}_{-0.068}$	$0.941^{+0.053}_{-0.047}$	$1.523^{+0.358}_{-0.463}$
	+1%/-2%	+1%/-2%	+107%/-107%	+13%/-7%	+6%/-5%	+23%/-30%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 011414511-01 / KOI 0767.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-42 ± 8	$12.48^{+1.03}_{-0.53}$	1706^{+64}_{-44}	-2024^{+169}_{-117}	$0.211^{+0.050}_{-0.045}$
Alt.	-33 ± 8	$13.37^{+1.04}_{-0.64}$	1711^{+62}_{-55}	-2143^{+93}_{-76}	$0.149^{+0.043}_{-0.039}$

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 $A_{obs} \gg 1.0$

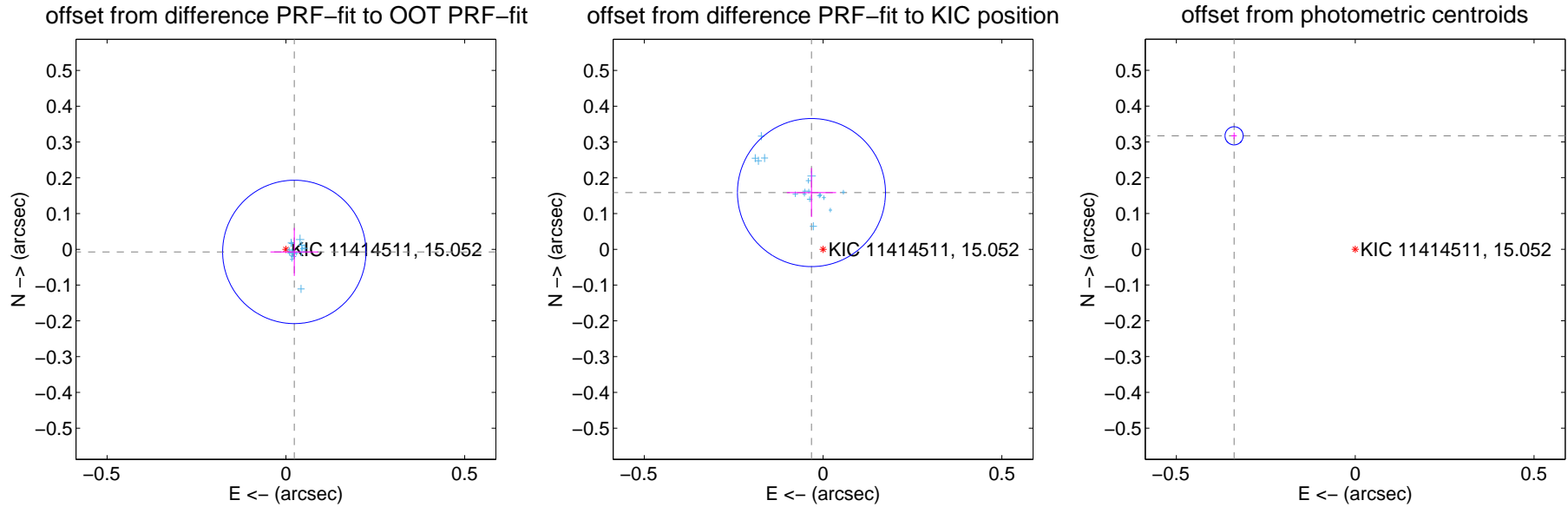
DV Centroid Data

Supplemental centroid analysis for 011414511-01. Kepler magnitude: 15.05. Transit SNR 1287.08

There are 17 quarters with good PRF difference image offsets

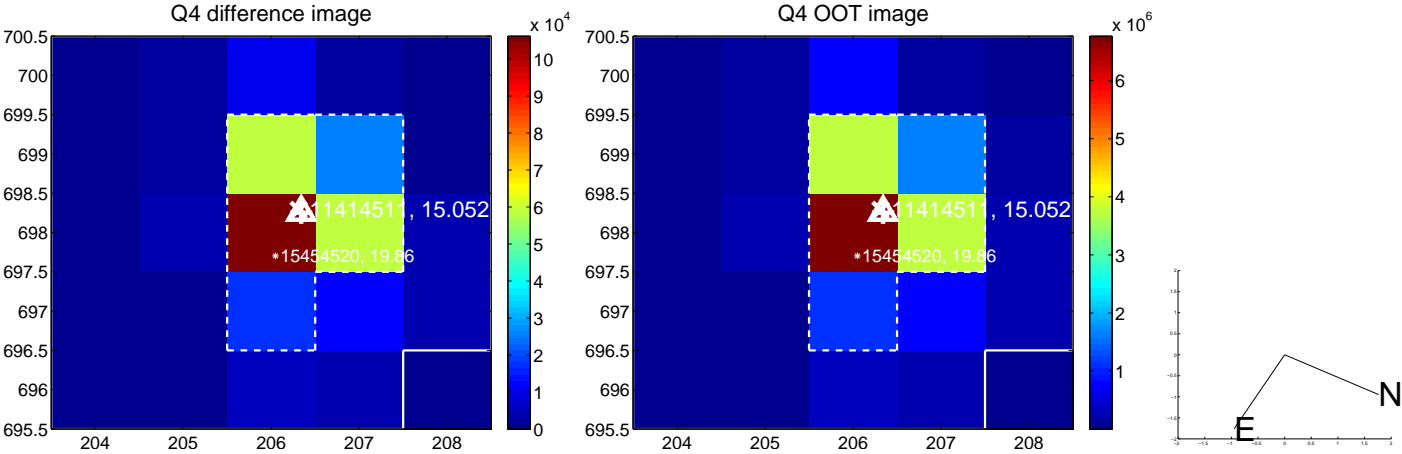
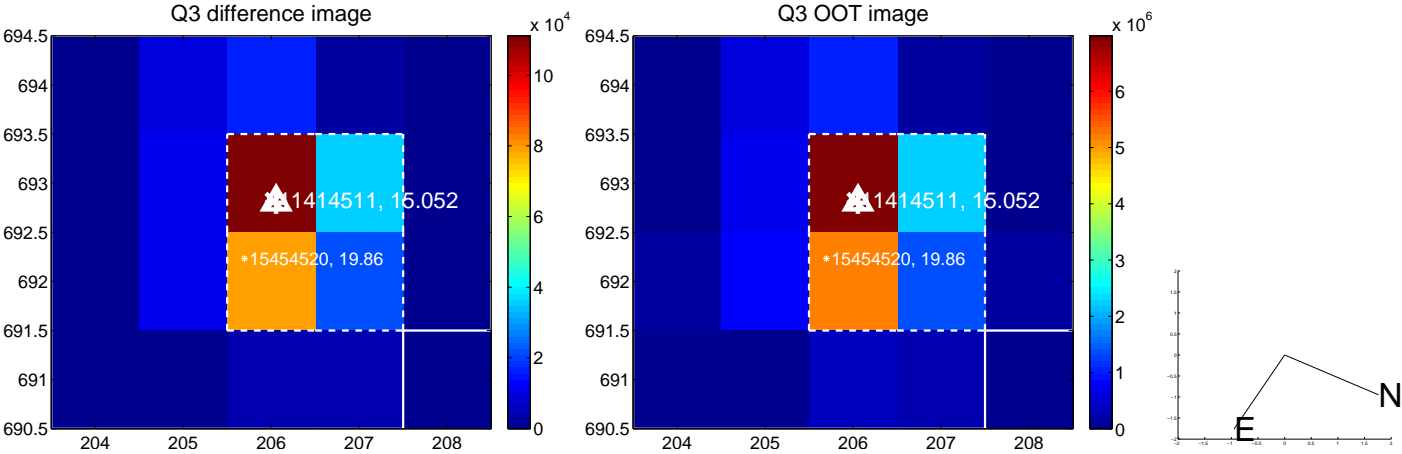
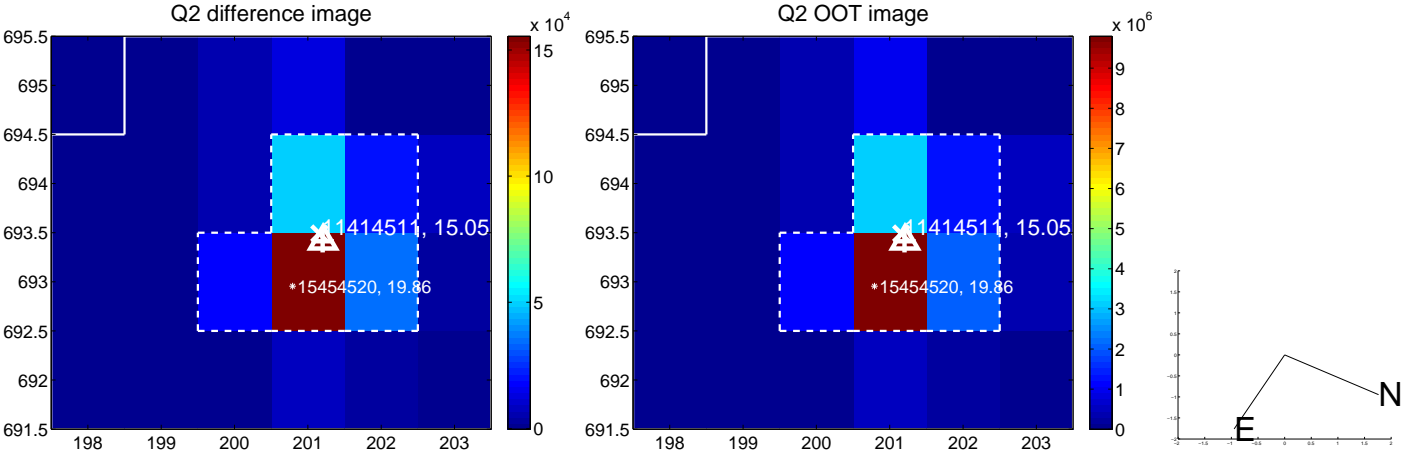
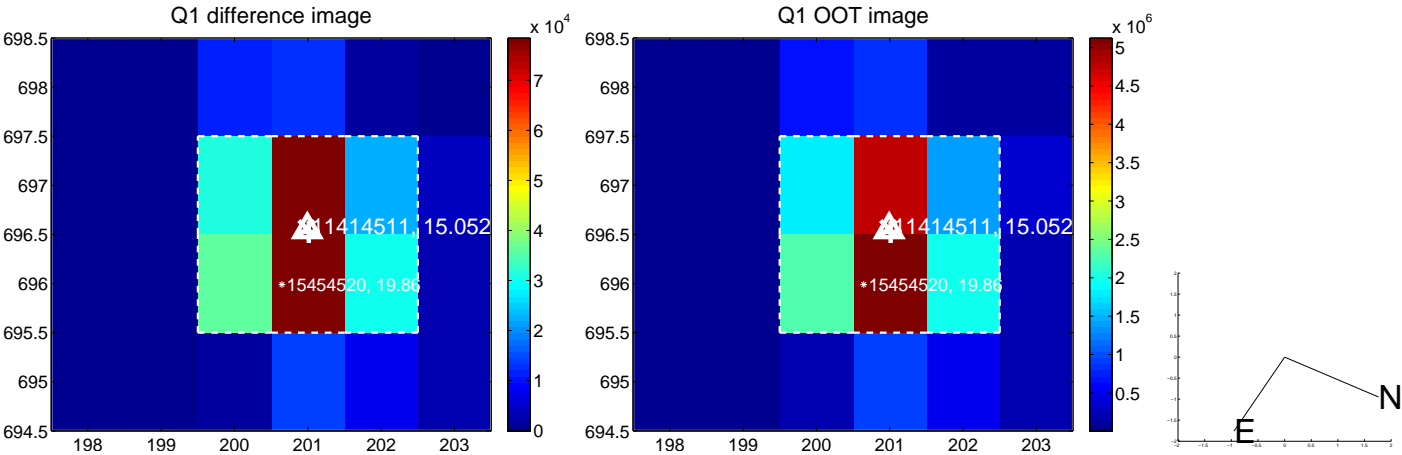
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.067	0.37	-0.024 ± 0.067	-0.007 ± 0.067
PRF-fit source offset from KIC position	0.162 ± 0.069	2.35	0.032 ± 0.069	0.159 ± 0.068
photometric centroid source offset	0.46 ± 0.01	54.83	0.34 ± 0.01	0.32 ± 0.01

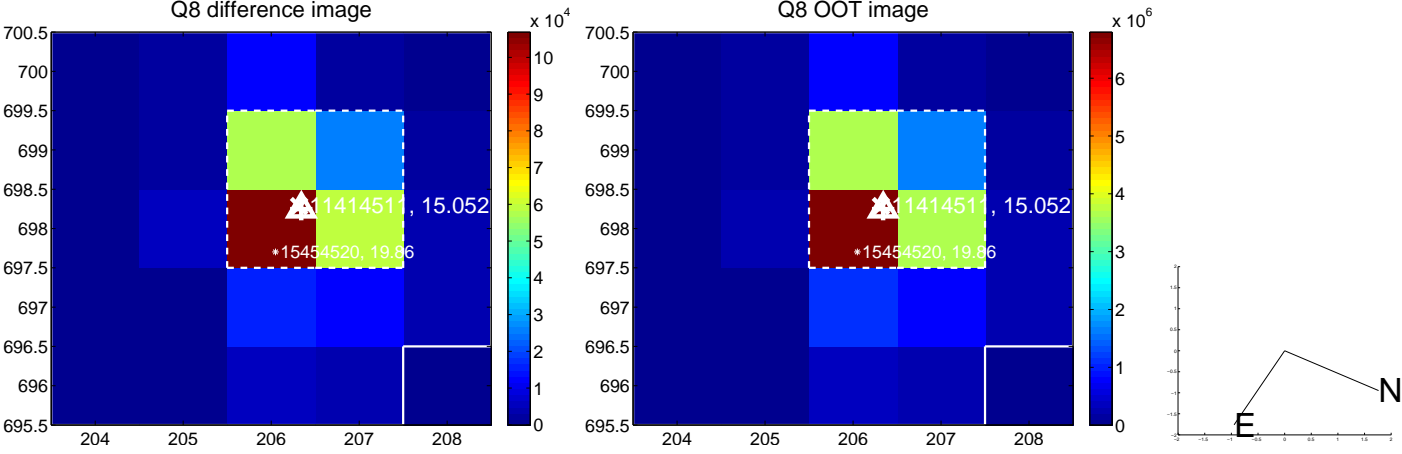
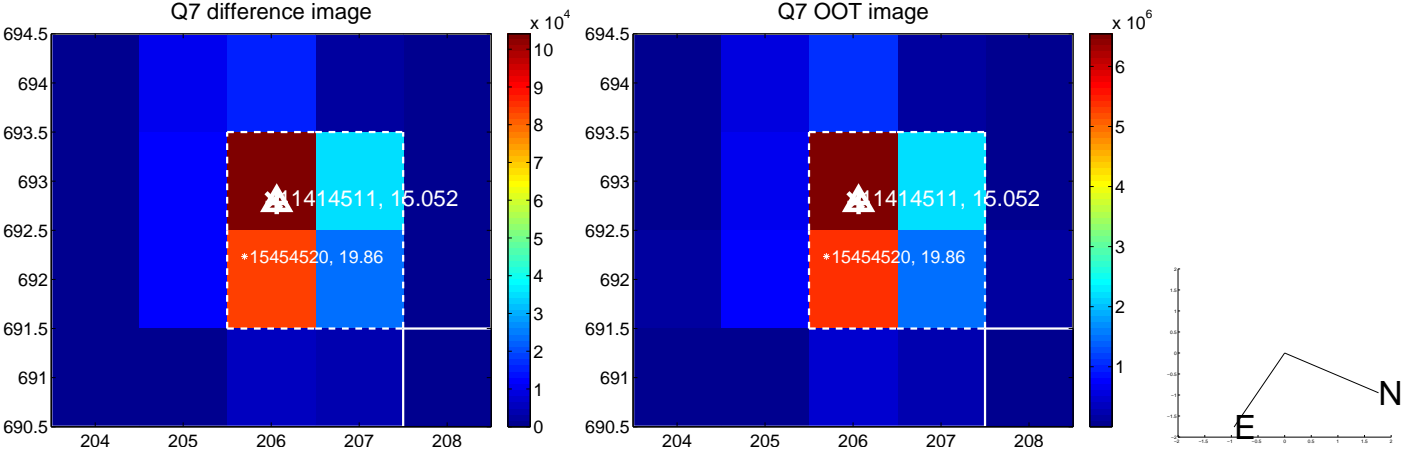
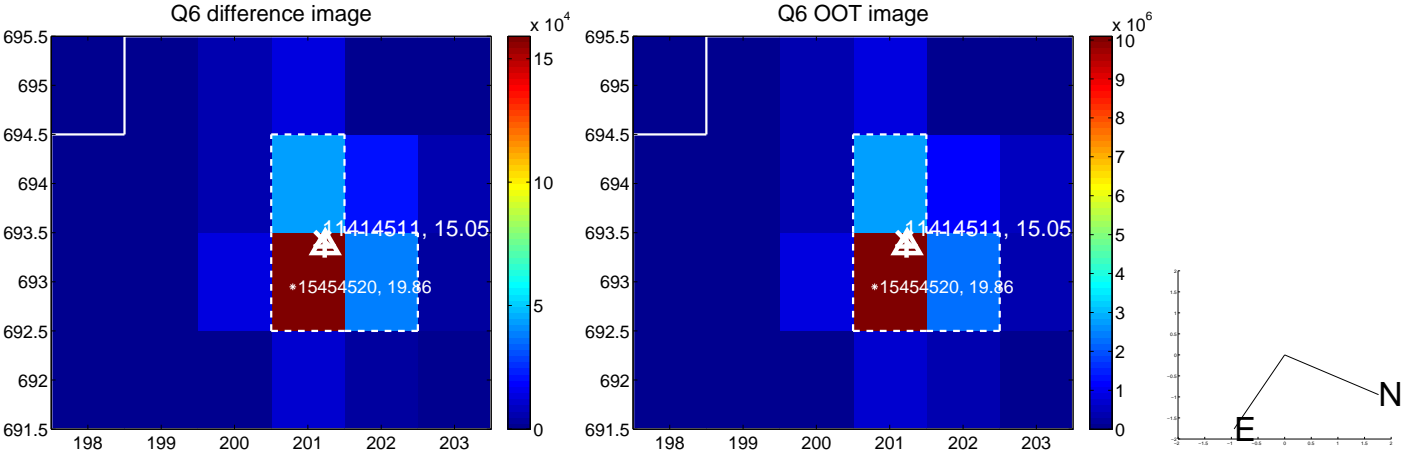
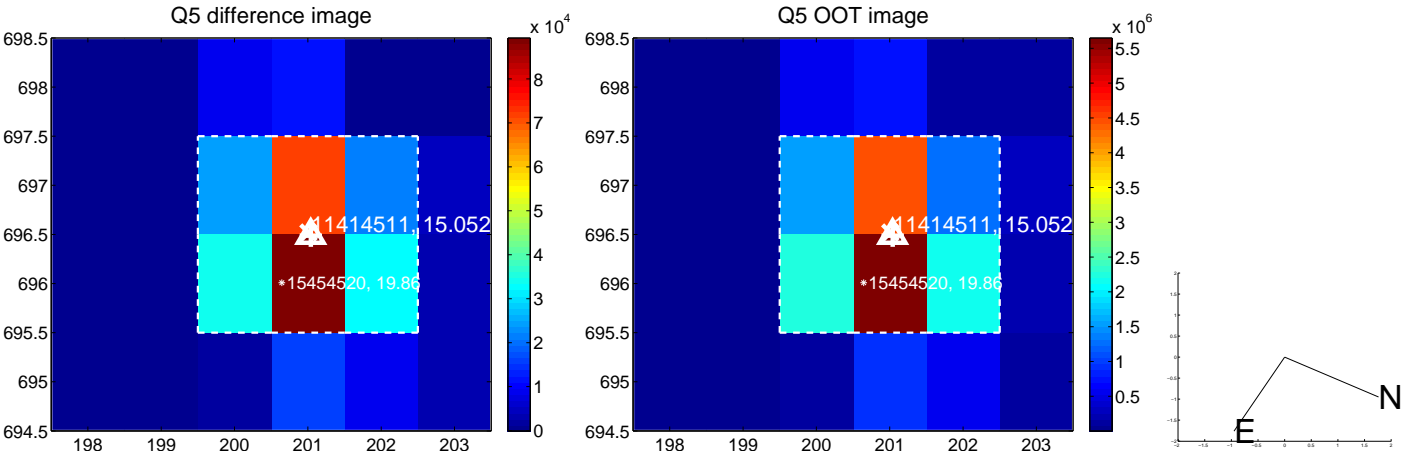


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

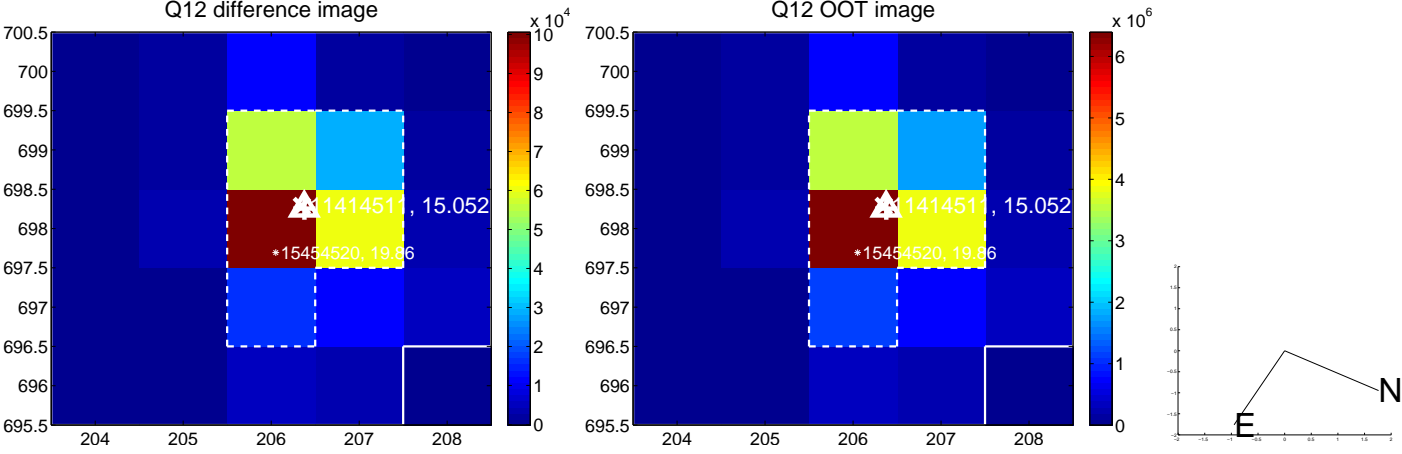
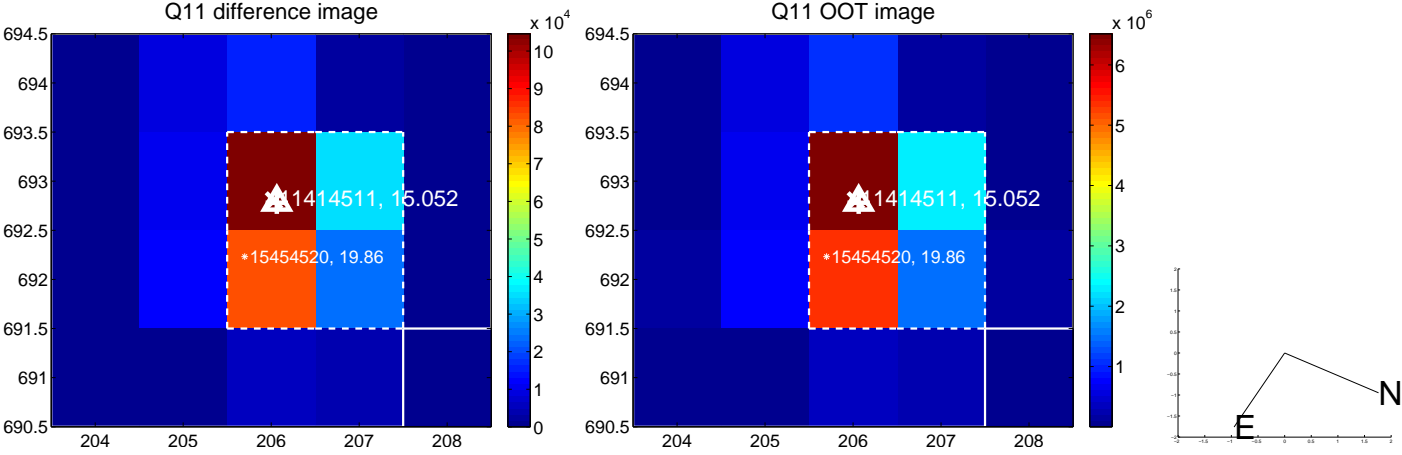
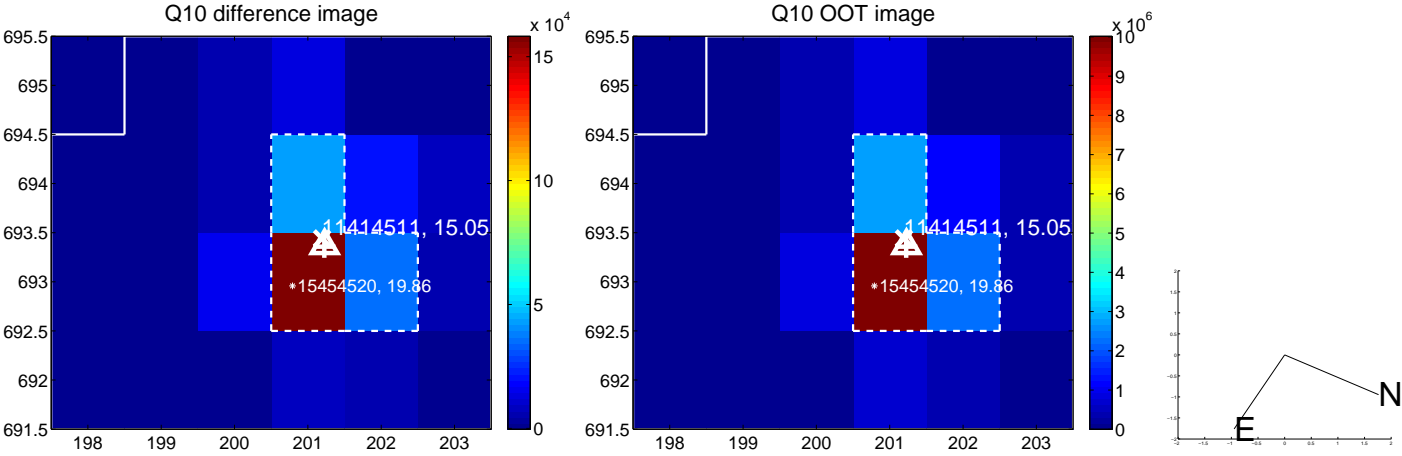
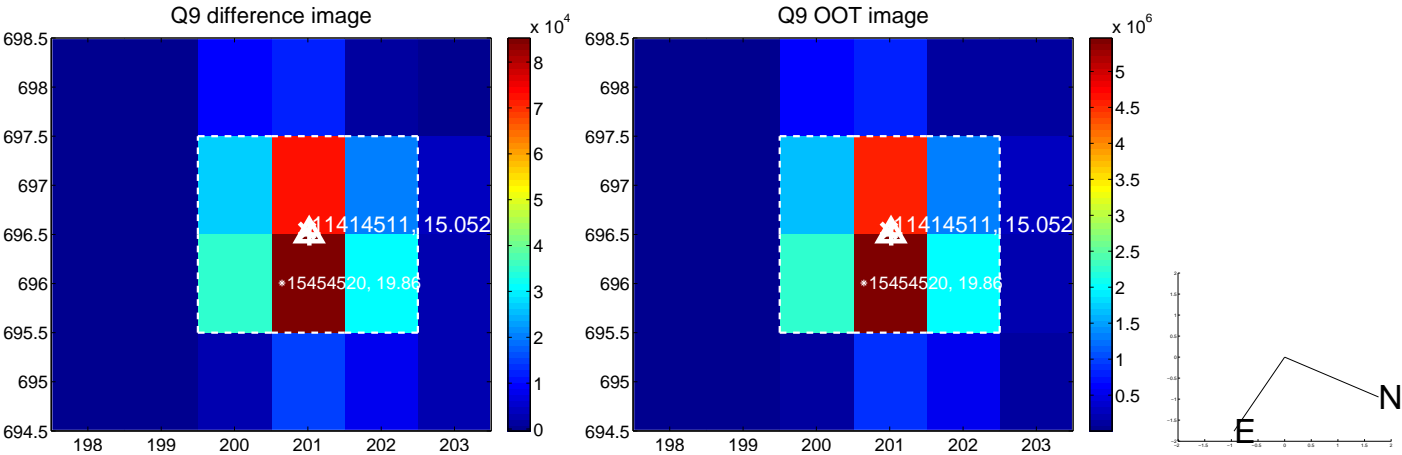
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



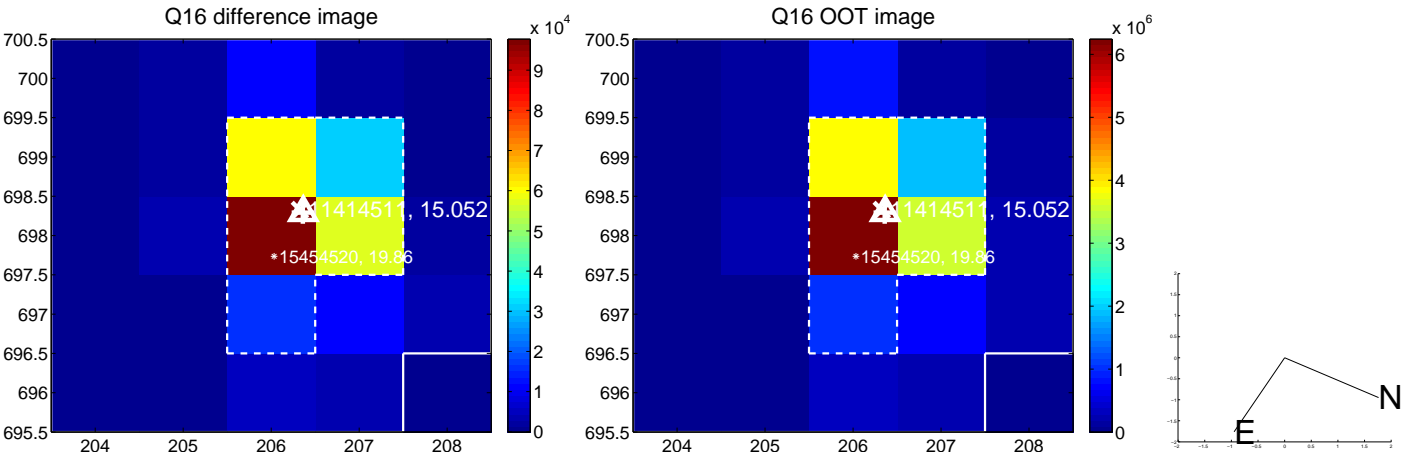
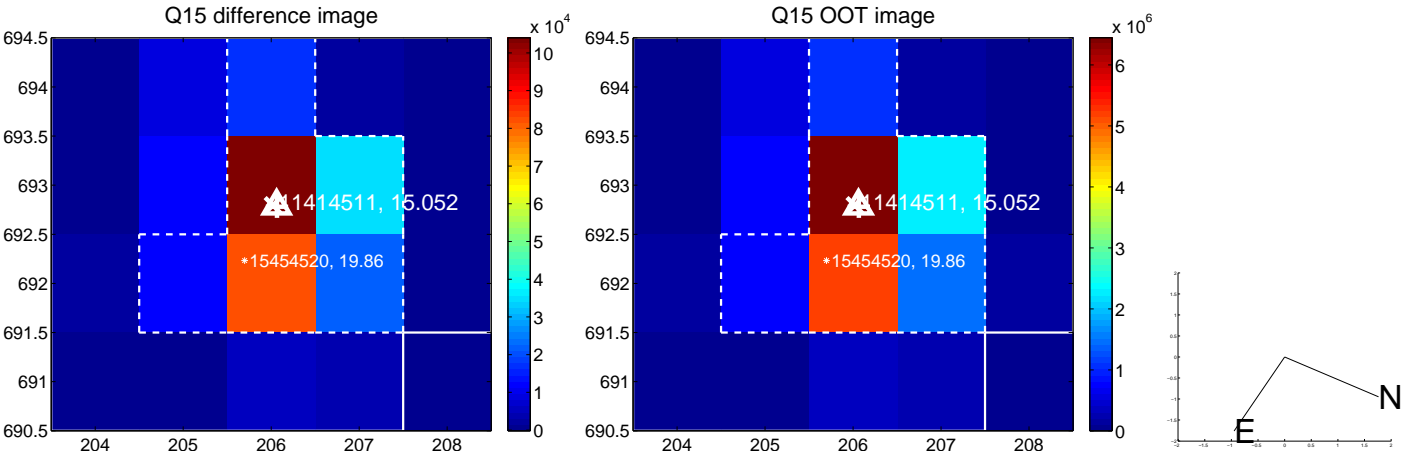
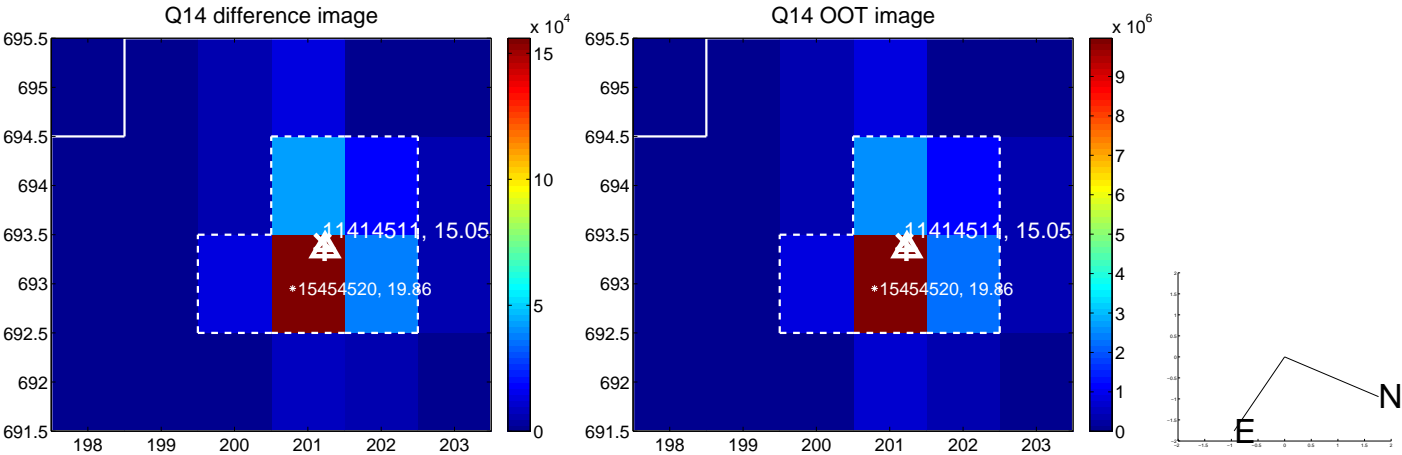
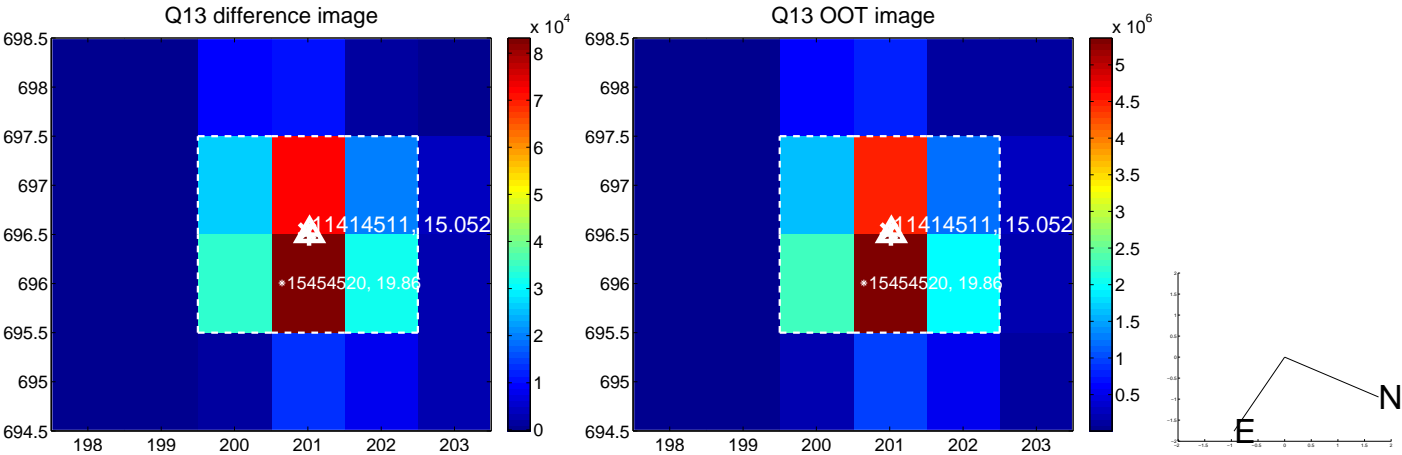
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



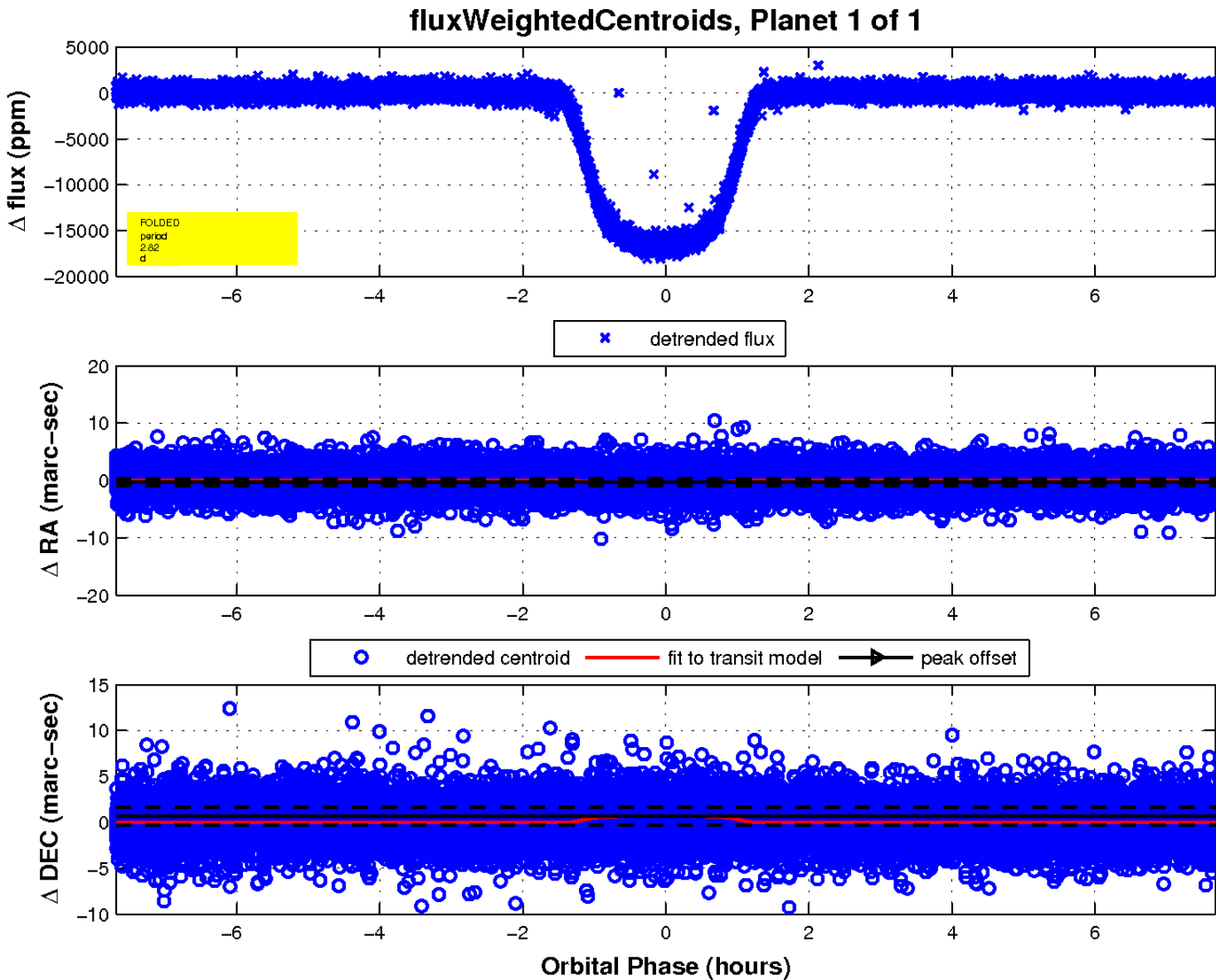
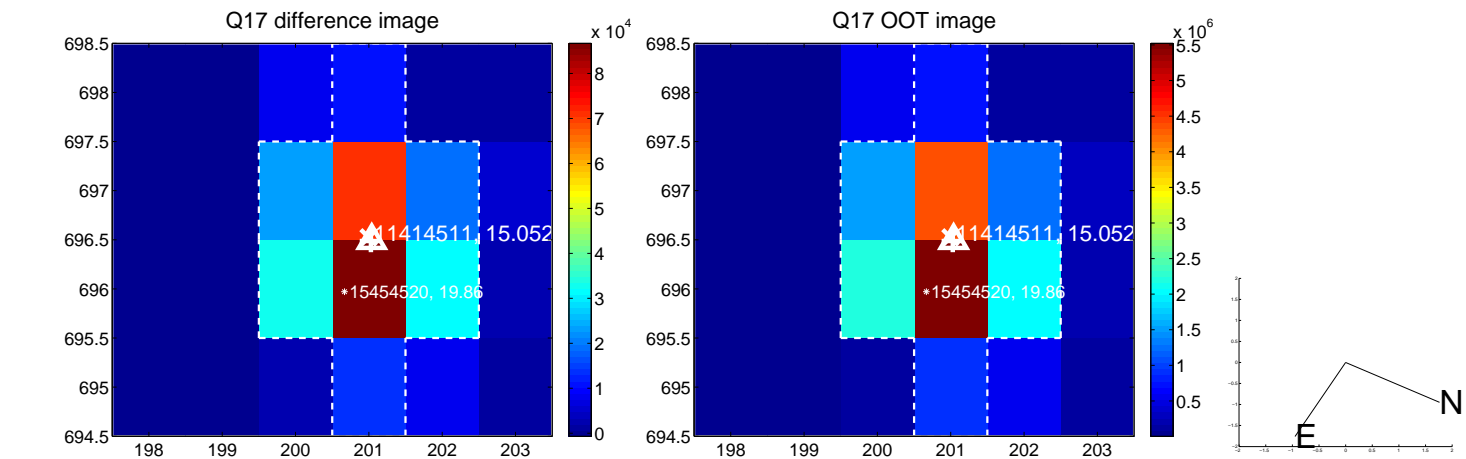
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UKIRT Image

Declination

