

KIC 009474485

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})
009474485-01	OBS	5683.01	0.512581	131.779744	152455.8	1.500	12698.2	-1.0	0.60	4612	23.25	1334.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009474485-01	OBS	FP	0.04	0	1	0	0	SWEET_EB—MOD_SEC_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.

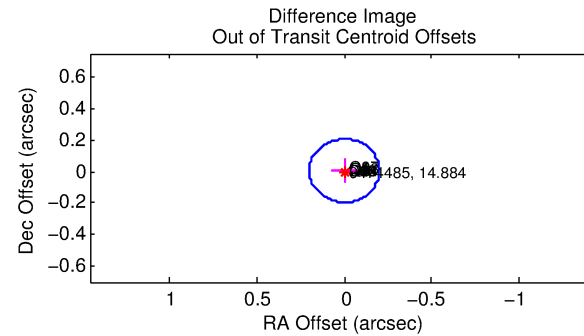
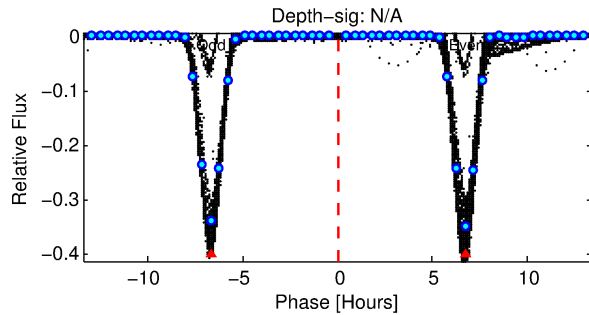
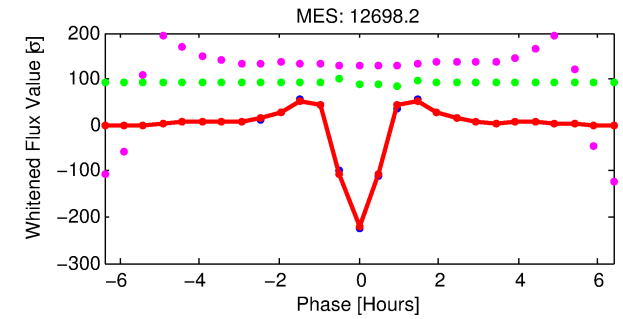
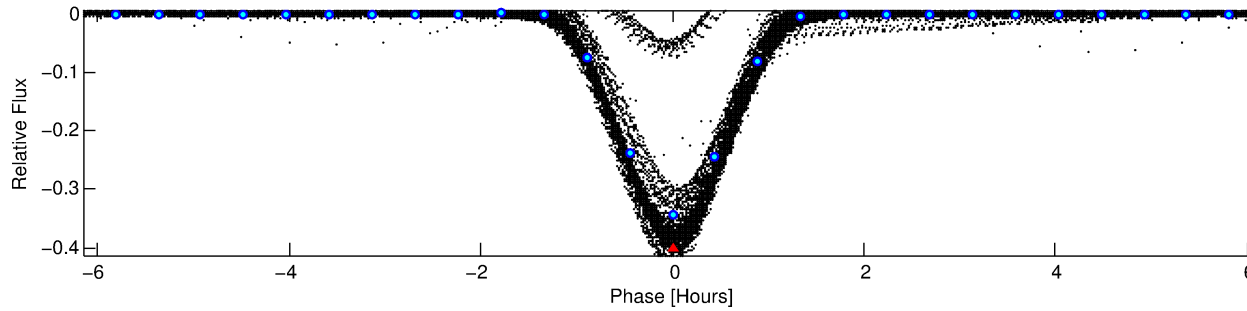
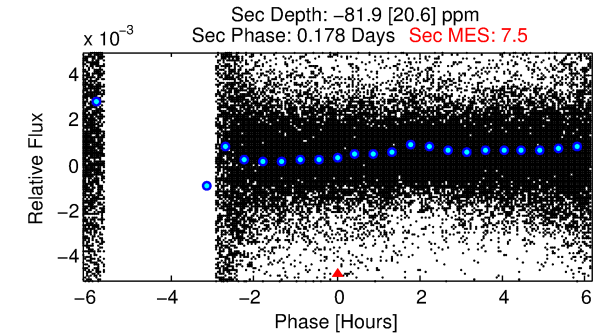
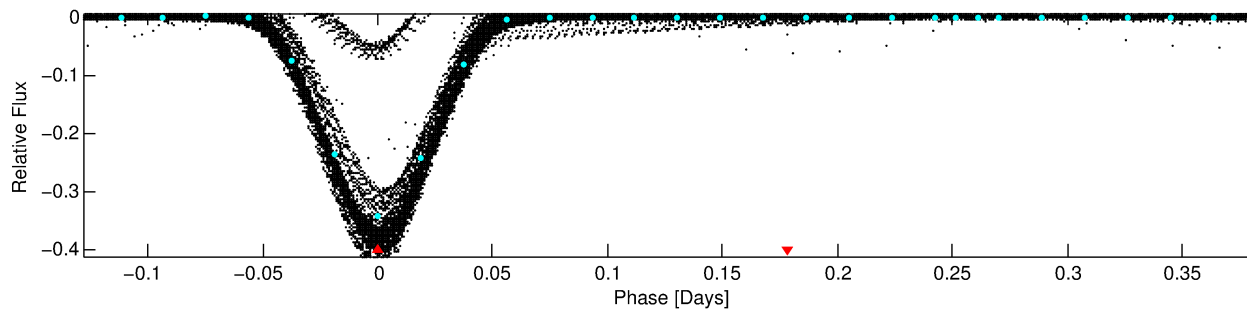
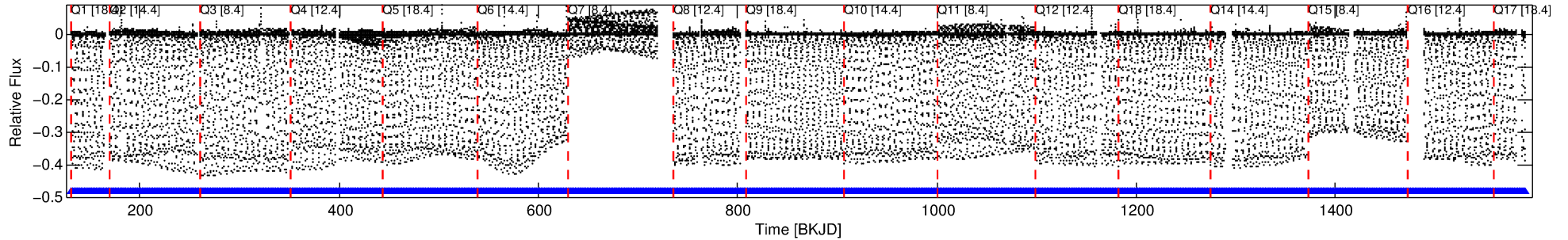
Ephemeris Match Information For 009474485-01

No Significant Match Found

DV One-Page Summary

KIC: 9474485 Candidate: 1 of 1 Period: 0.513 d
KOI: K05683.01 Corr: 0.764

Kp: 14.88 R*: 0.60 Rs Teff: 4612.0 K Logg: 4.65 Fe/H: -0.600



TPS TCE Results:

Period = 0.51258 d
Epoch = 131.7797 BKJD

DV fit results are unavailable

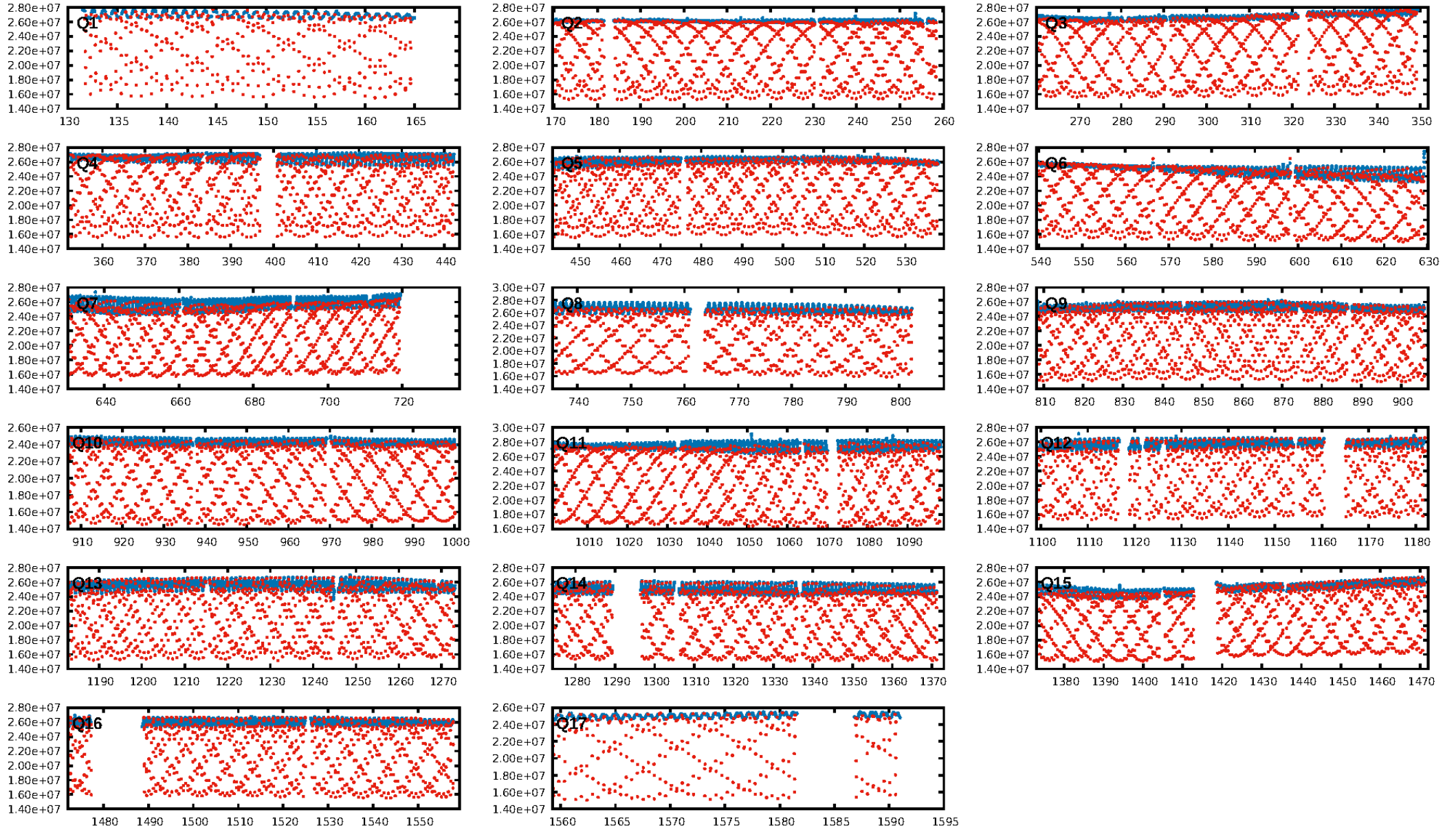
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2494/2494]
GhostDiagnostic-chr: 1.434
Centroid-sig: N/A
Centroid-so: 0.363 arcsec [823.37σ]
OotOffset-rm: 0.007 arcsec [0.10σ]
KicOffset-rm: 0.447 arcsec [6.49σ]
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]

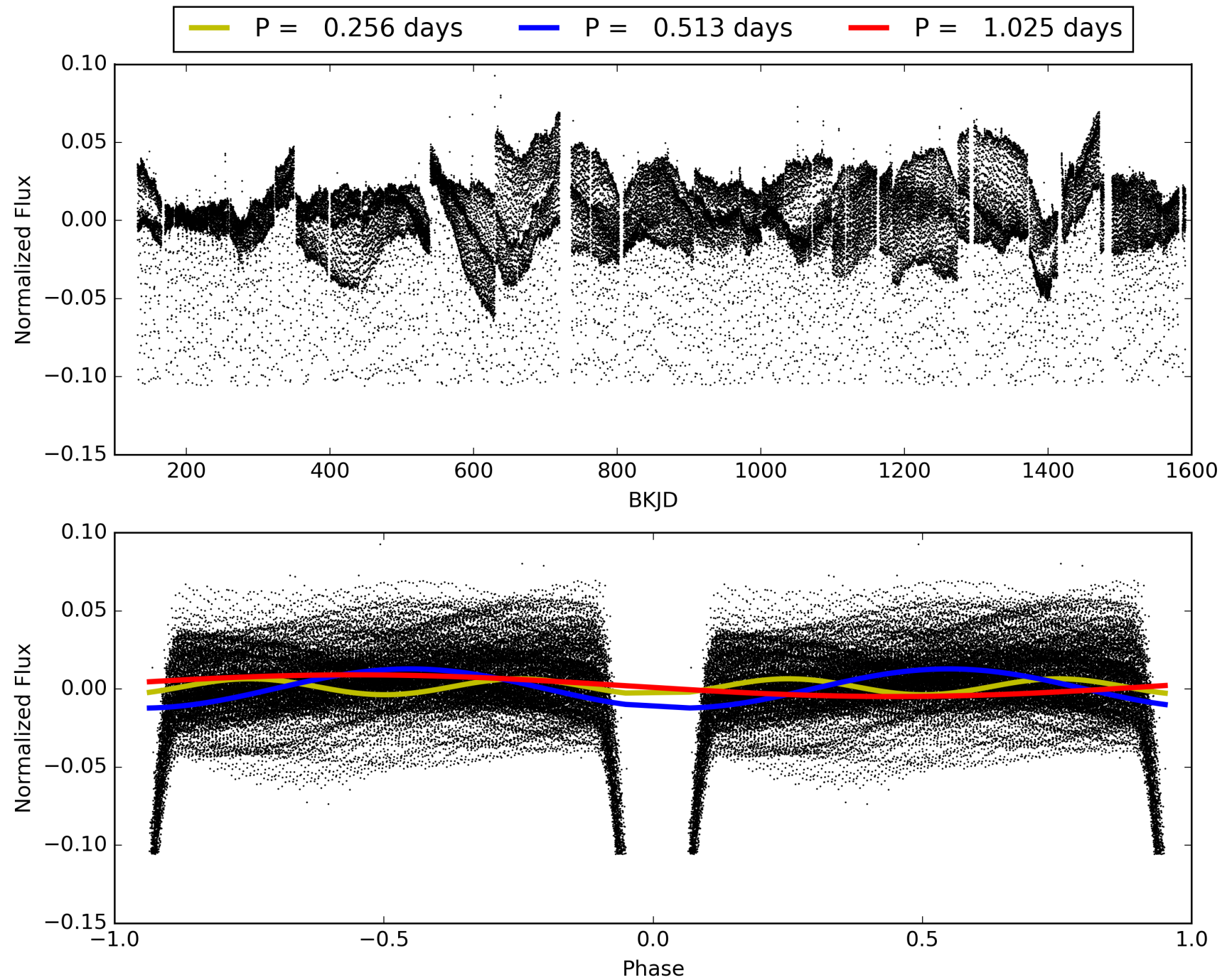
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:27:35 Z

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

TCE 009474485-01, PDC Light Curves

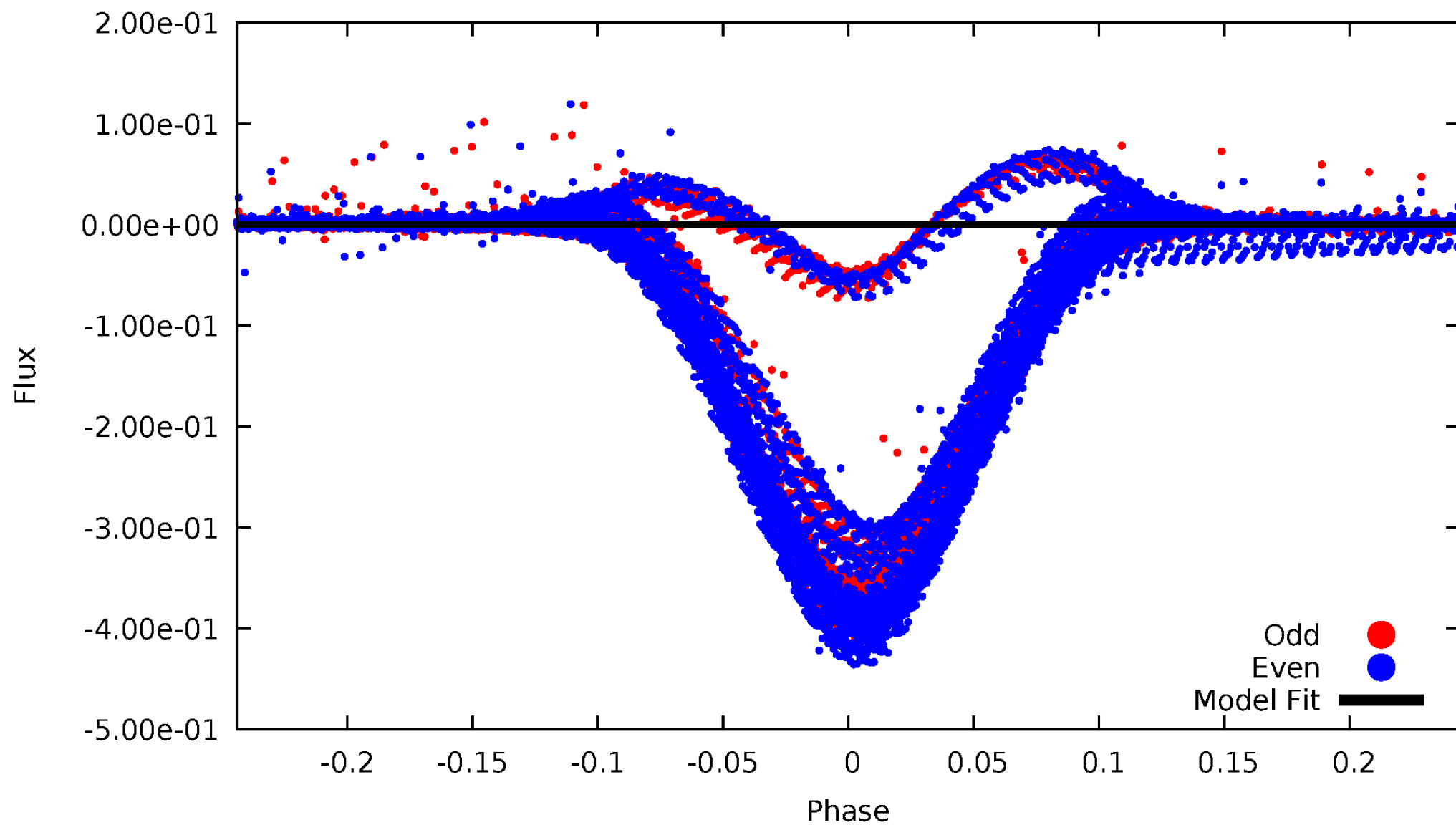


TCE 009474485-01



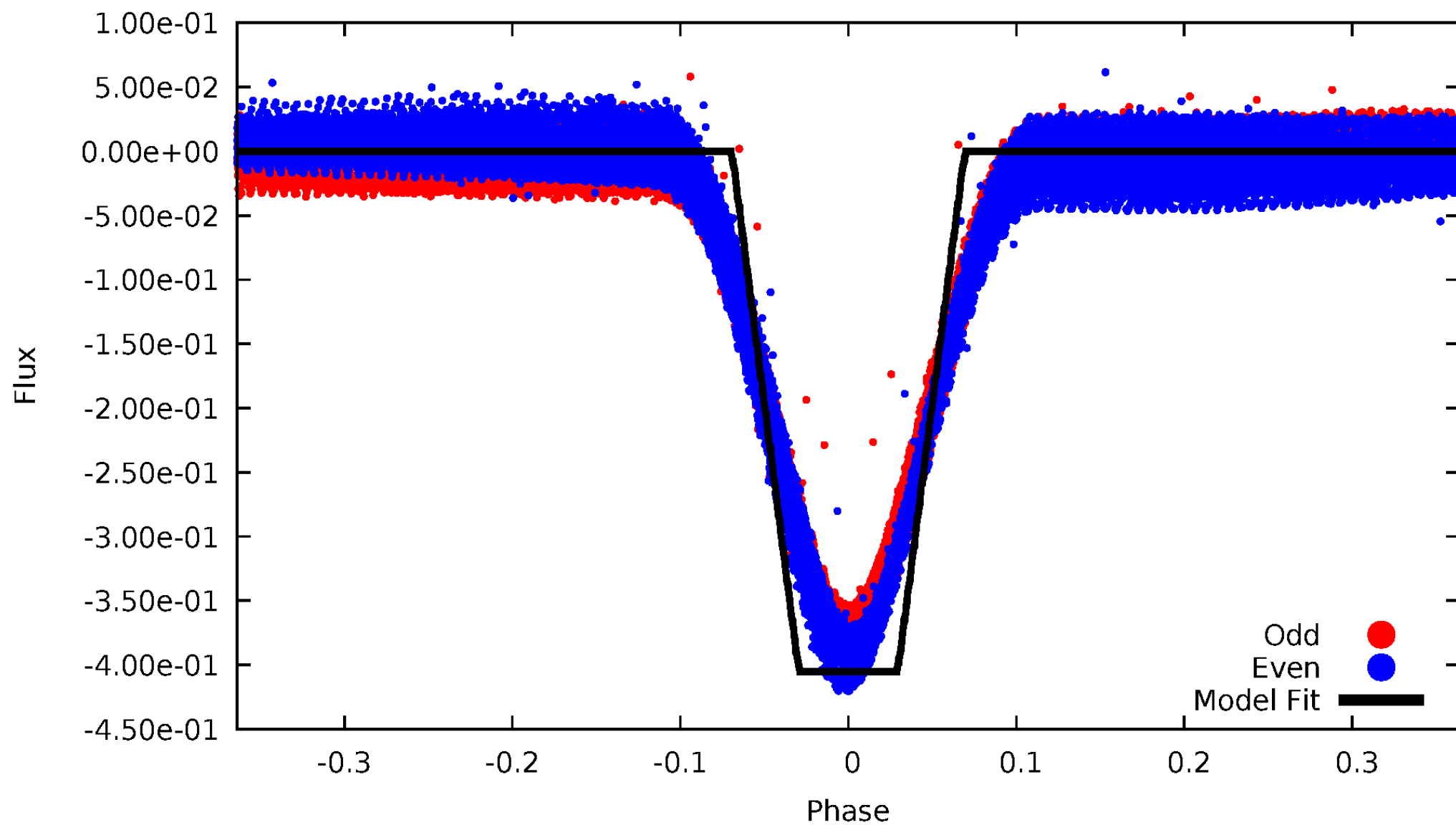
DV Odd/Even

TCE 009474485-01



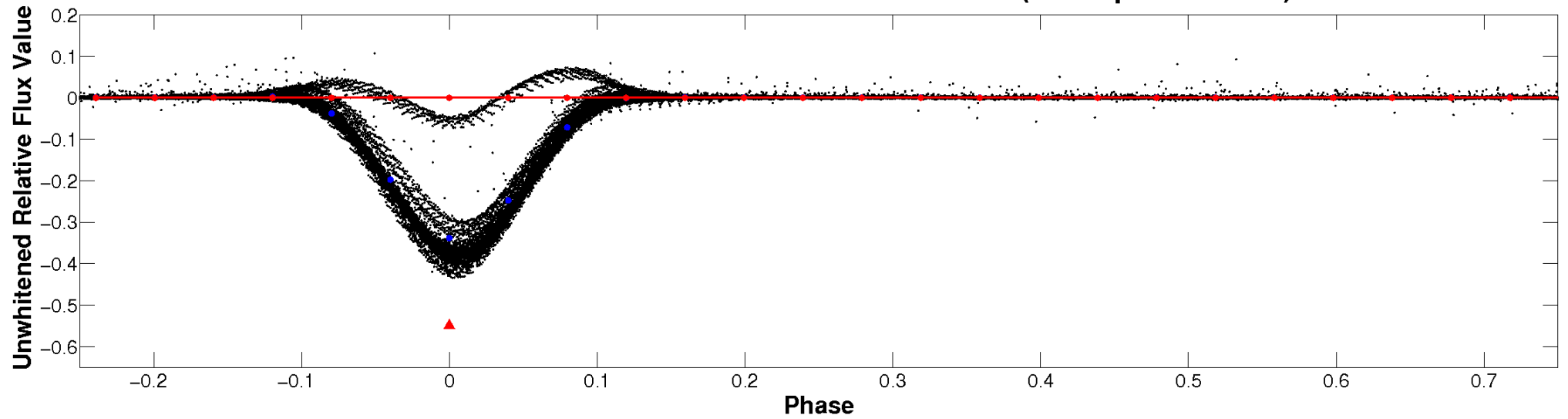
ALT Odd/Even

TCE 009474485-01



Non-Whitened Vs. Whitened Light Curve

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

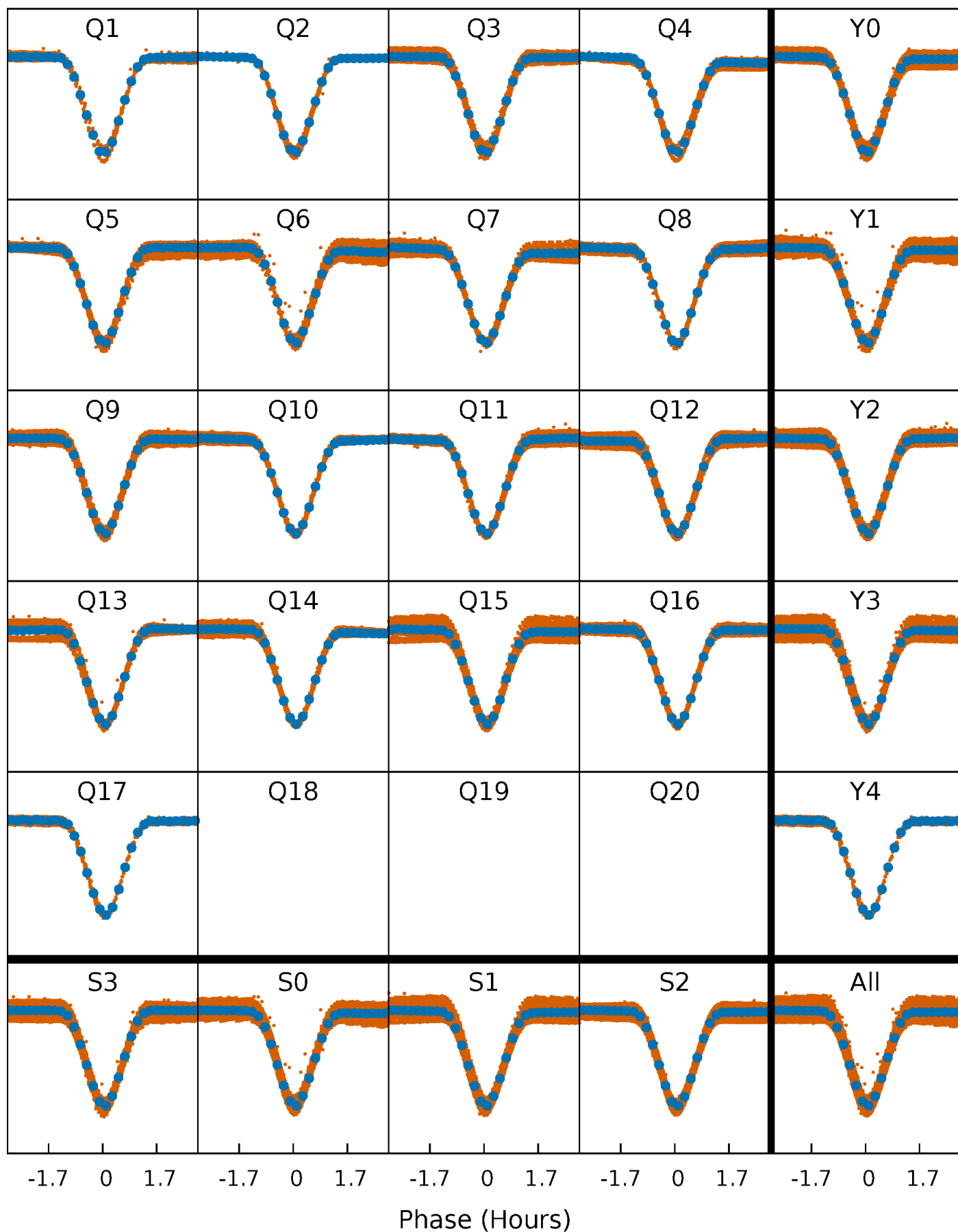


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



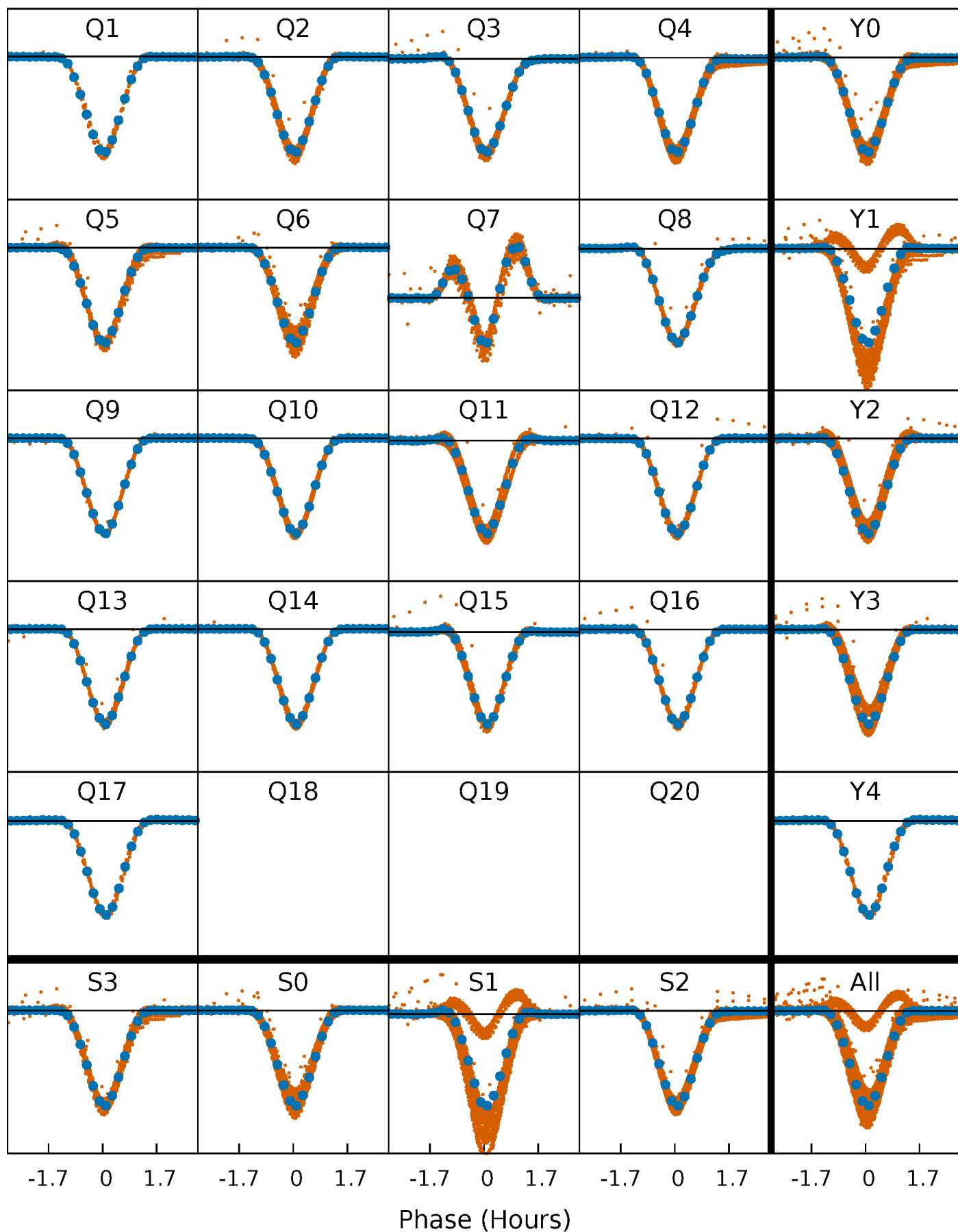
PDC Quarter-Phased Transit Curves

TCE 009474485-01 P= 0.512581 Days $T_0=131.779744$ (BKJD)



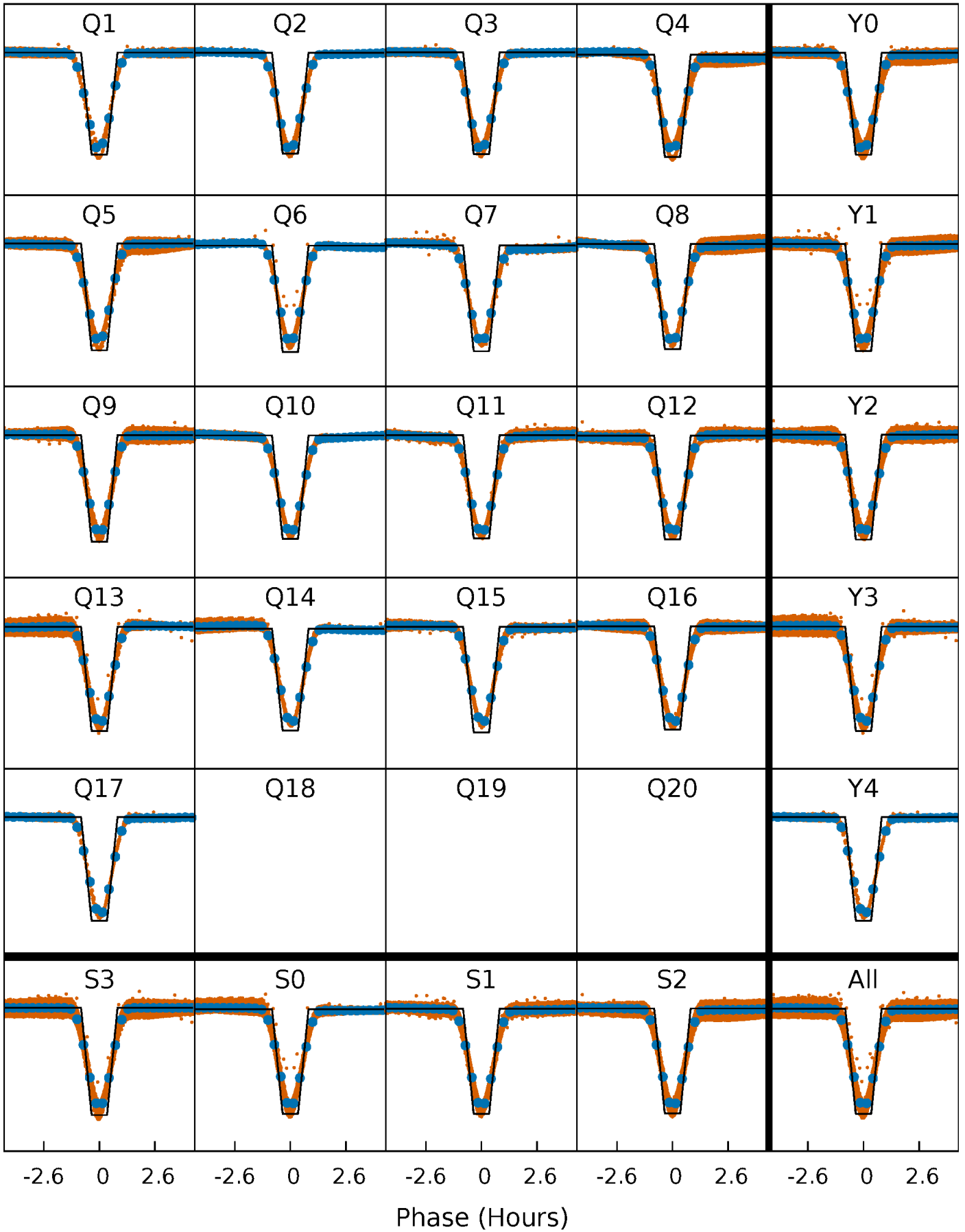
DV Quarter-Phased Transit Curves

TCE 009474485-01 P= 0.512581 Days $T_0=131.779744$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

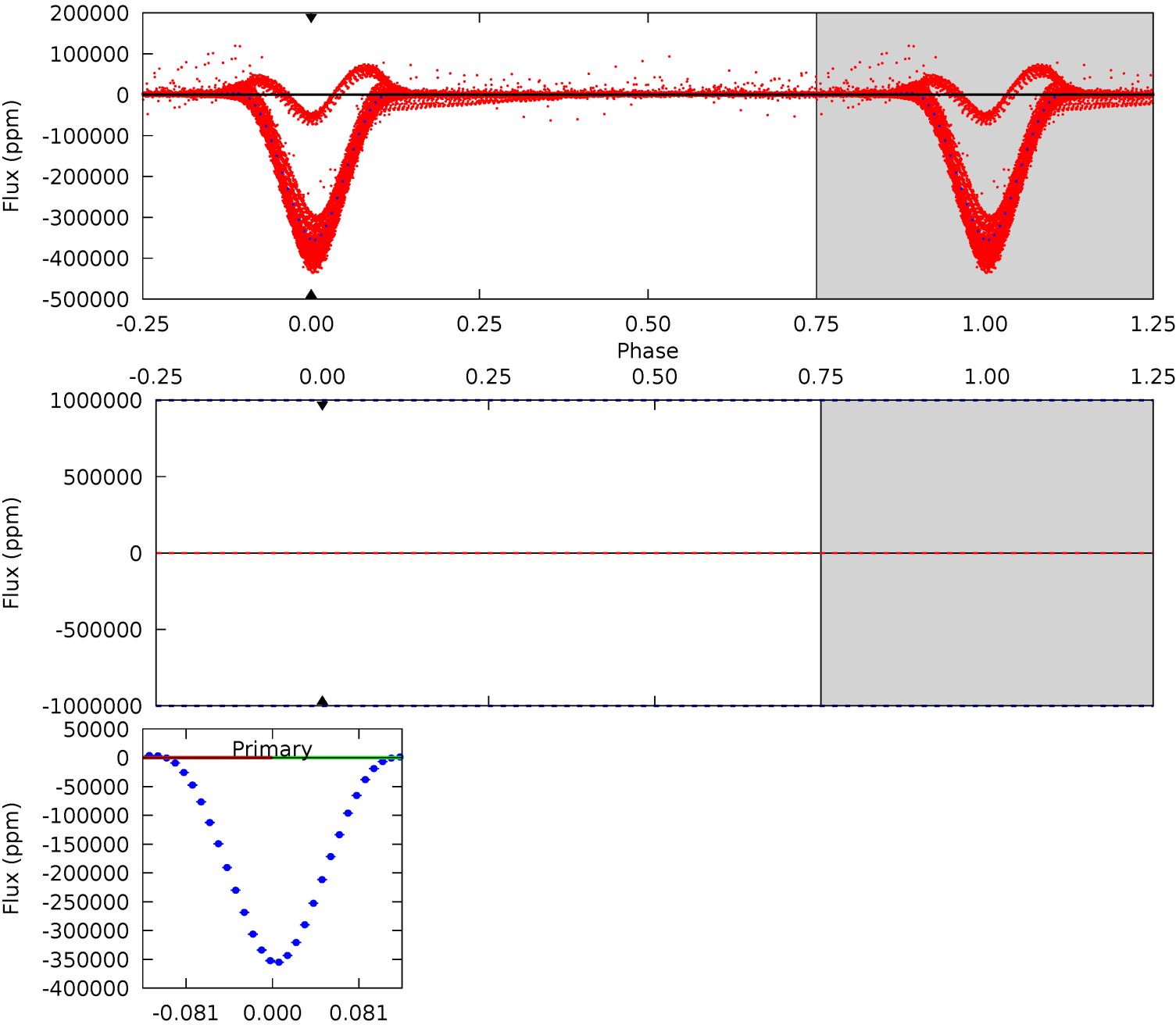
TCE 009474485-01 $P = 0.512581$ Days $T_0 = 131.782110$ (BKJD)



DV Model-Shift Uniqueness Test

009474485-01, P = 0.512581 Days, E = 131.267163 Days

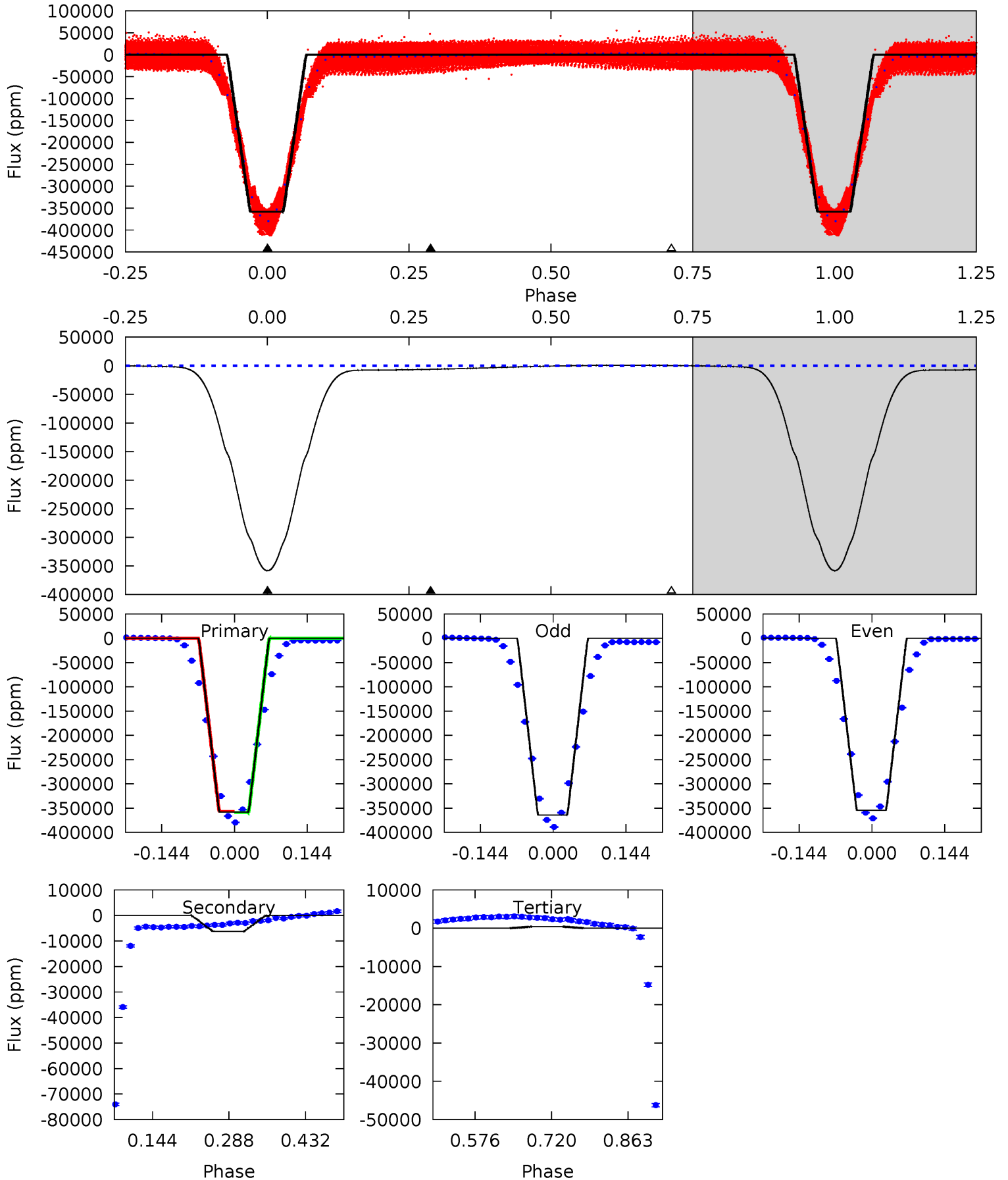
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009474485-01, P = 0.512581 Days, E = 131.269529 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2741	47.9	-3.15	0	4.49	1.46	8.40	2744	2741	51.1	47.9	37.9	1.01	0.00	8.41



Stellar Parameters For KIC 009474485

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4612^{+137}_{-137}	$4.648^{+0.052}_{-0.032}$	$-0.600^{+0.350}_{-0.300}$	$0.604^{+0.053}_{-0.048}$	$0.591^{+0.070}_{-0.032}$	$3.785^{+0.878}_{-0.549}$
	+3%/-3%	+1%/-1%	+58%/-50%	+9%/-8%	+12%/-5%	+23%/-15%
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 009474485-01 / KOI 5683.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$23.25^{+6.68}_{-6.86}$	2147^{+76}_{-79}	-2926^{+7458}_{-1517}	$-0.612^{+13.783}_{-10.798}$
Alt.	-6263 ± 131	$41.74^{+7.07}_{-7.10}$	2146^{+71}_{-73}	-2162^{+4070}_{-153}	$0.221^{+0.100}_{-0.056}$

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

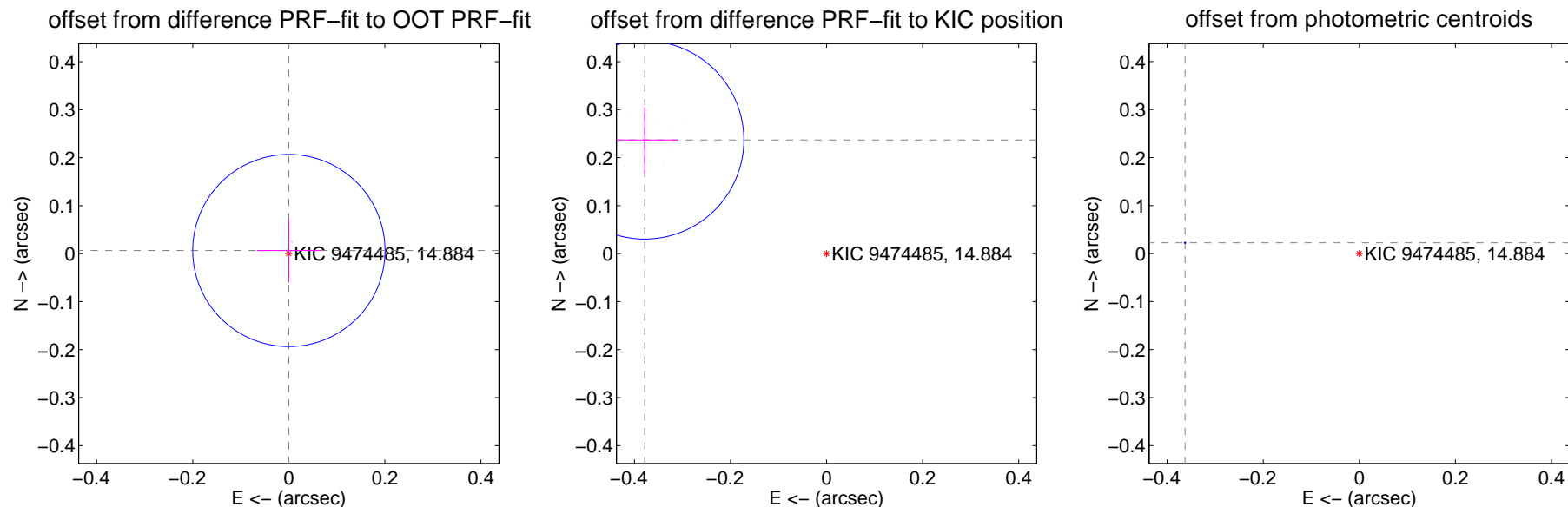
DV Centroid Data

Supplemental centroid analysis for 009474485-01. Kepler magnitude: 14.88. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

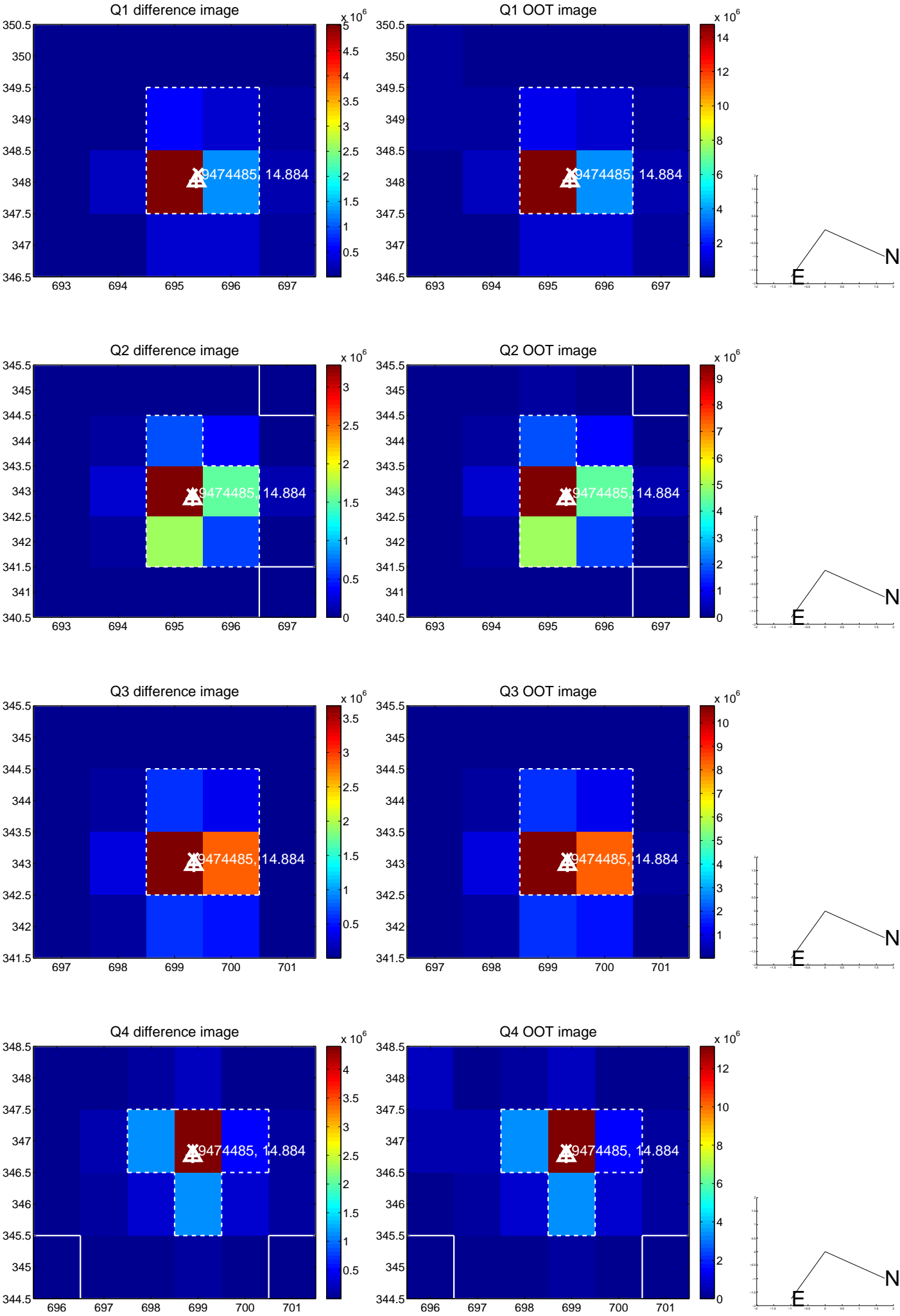
The direct PRF centroid is offset from the target star catalog position by about 0.53 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.067	0.10	-0.000 ± 0.067	0.007 ± 0.067
PRF-fit source offset from KIC position	0.447 ± 0.069	6.49	0.379 ± 0.069	0.237 ± 0.069
photometric centroid source offset	0.36 ± 0.00	823.37	0.36 ± 0.00	0.02 ± 0.00

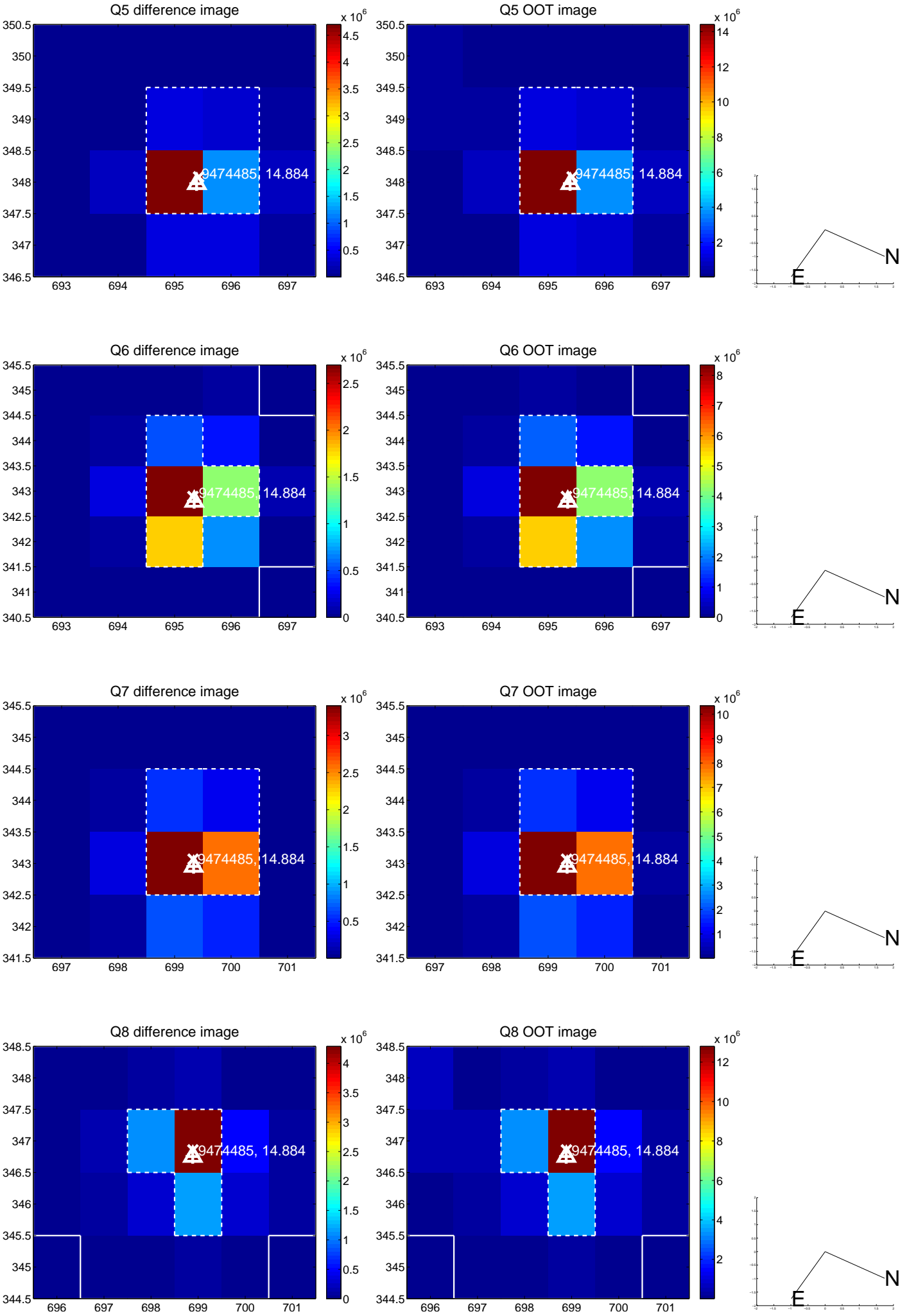


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

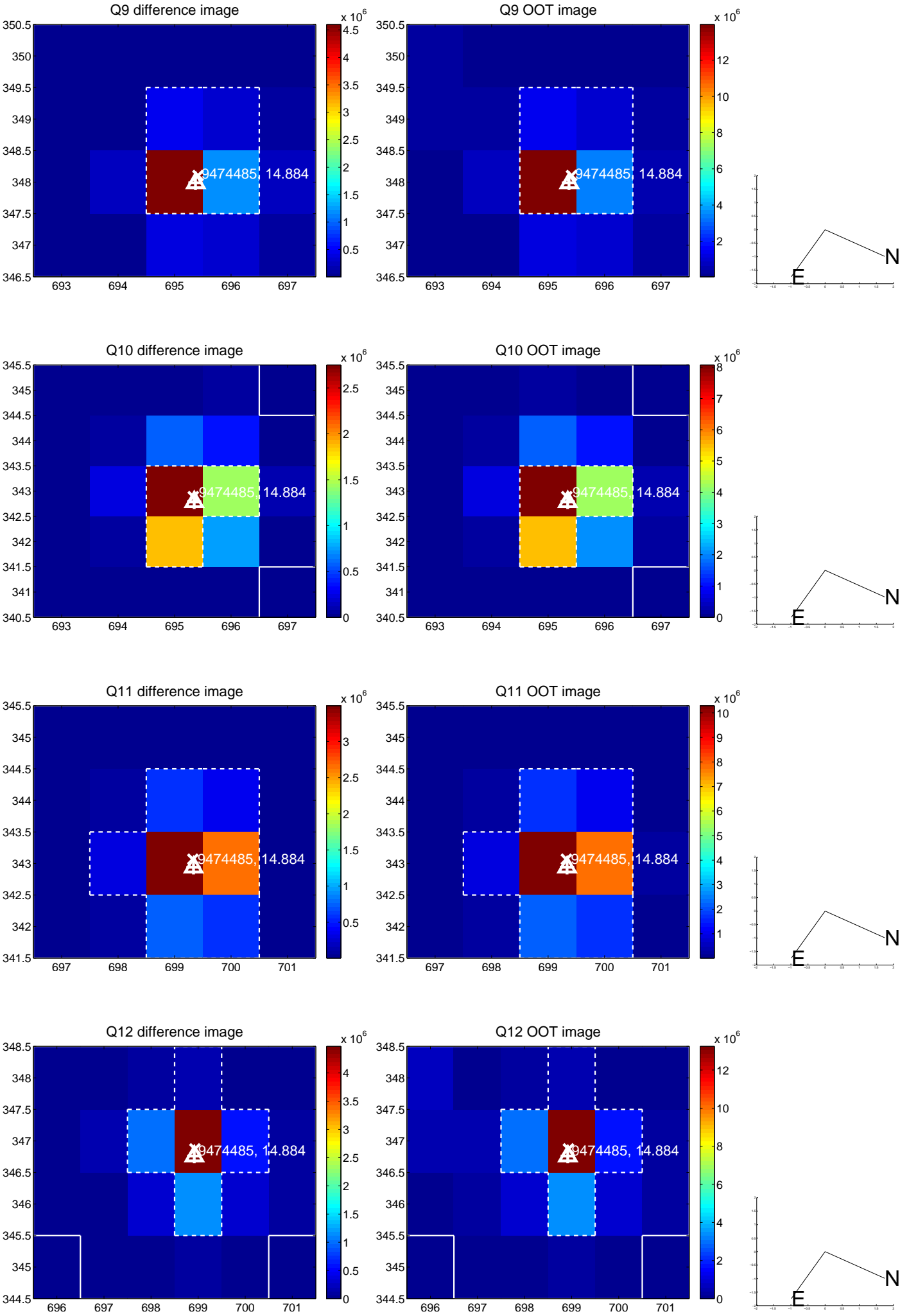
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



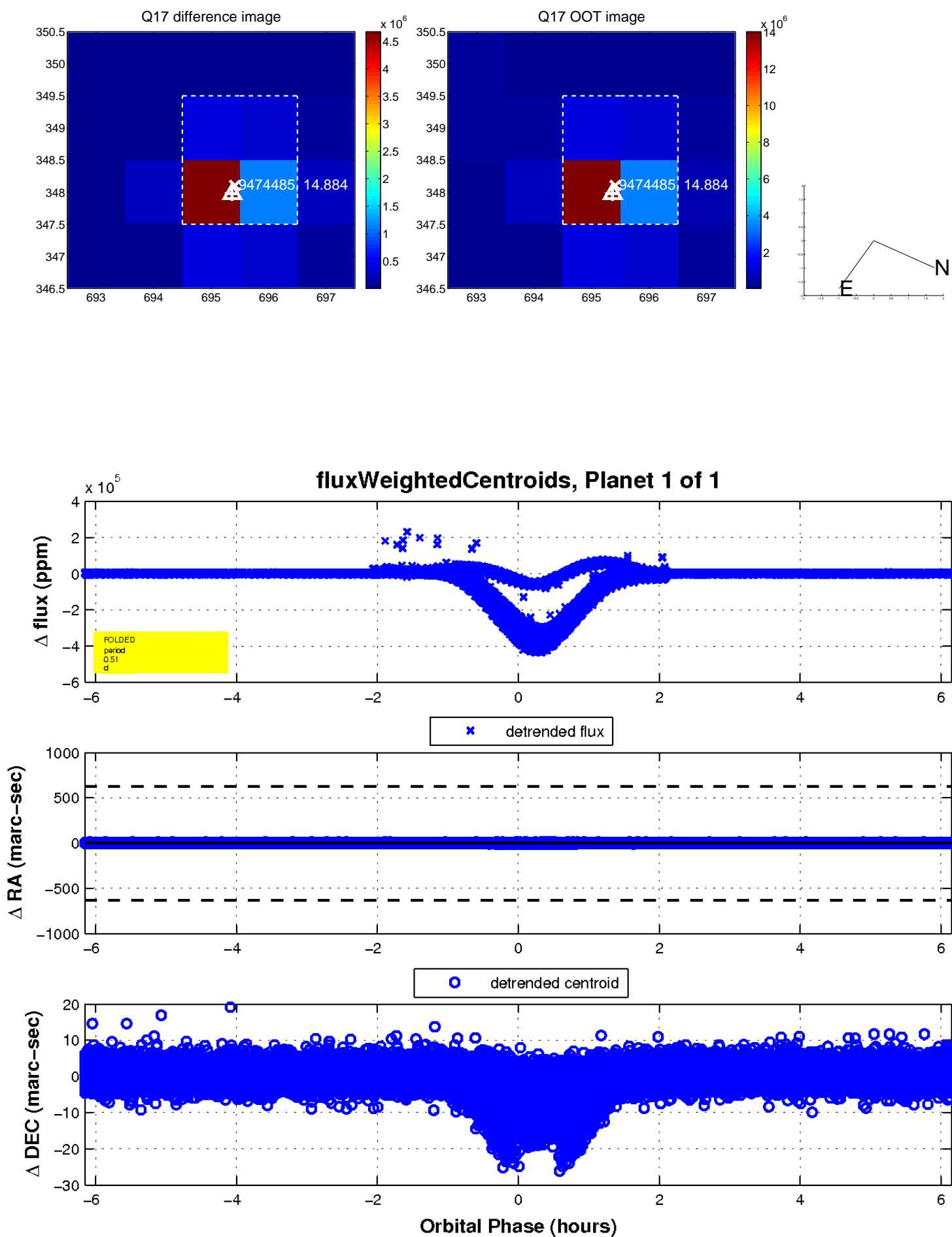
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

