

# KIC 005632781

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005632781-01	OBS	6609.01	11.025145	131.715329	135141.1	7.500	39695.5	-1.0	2.30	6047	85.32	664.29

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005632781-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_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](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

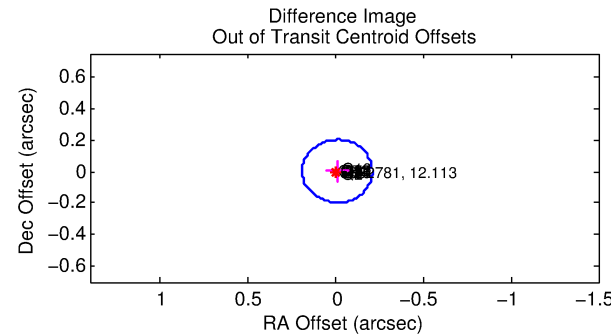
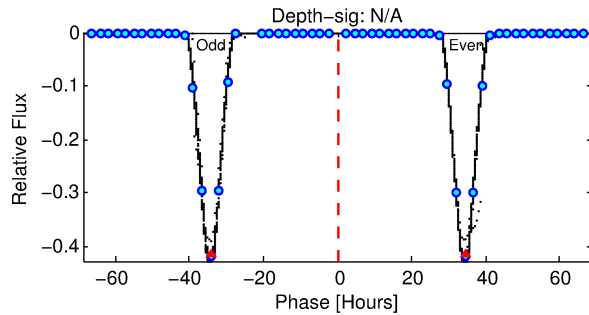
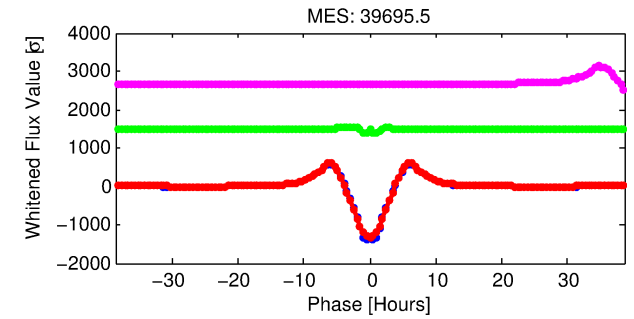
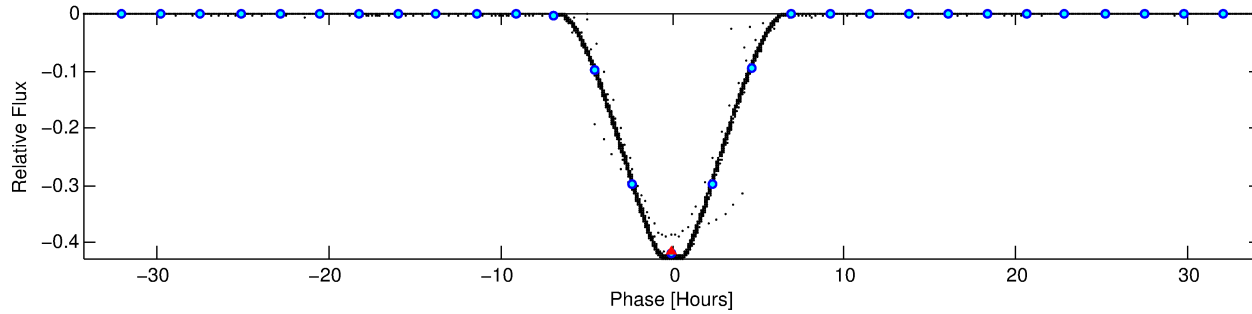
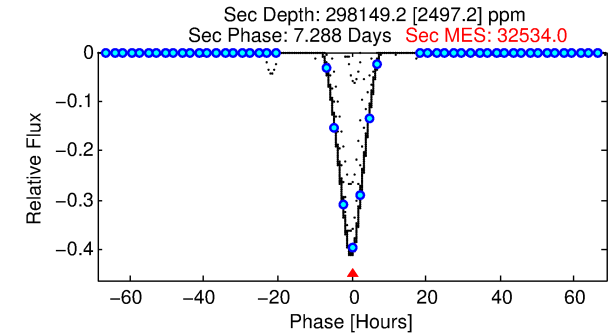
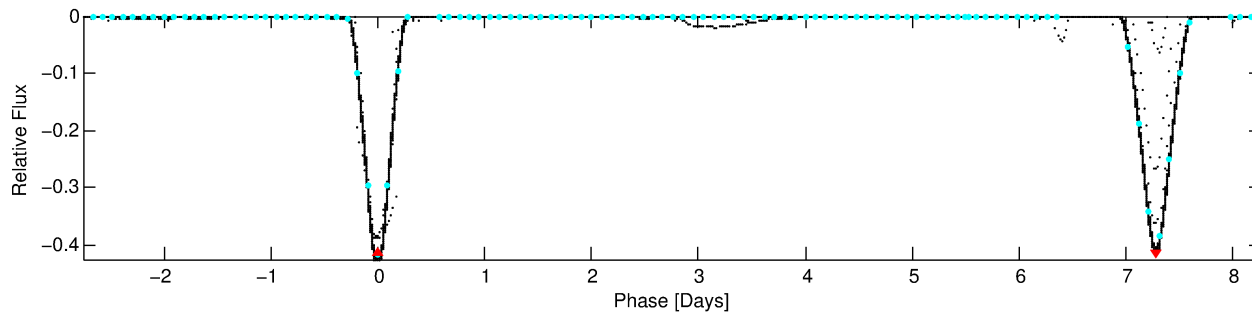
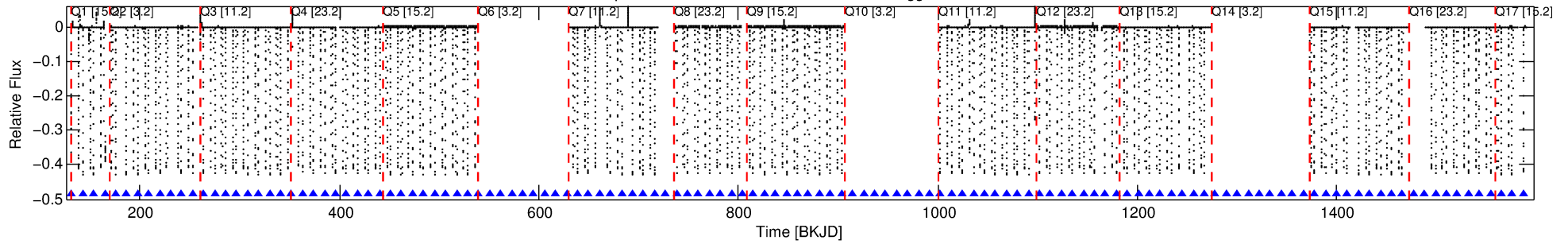
## Ephemeris Match Information For 005632781-01

No Significant Match Found

# DV One-Page Summary

KIC: 5632781 Candidate: 1 of 1 Period: 11.025 d  
KOI: K06609.01 Corr: 0.767

Kp: 12.11 R\*: 2.30 Rs Teff: 6047.0 K Logg: 3.72 Fe/H: -0.880



## TPS TCE Results:

Period = 11.02514 d  
Epoch = 131.7153 BKJD

DV fit results are unavailable

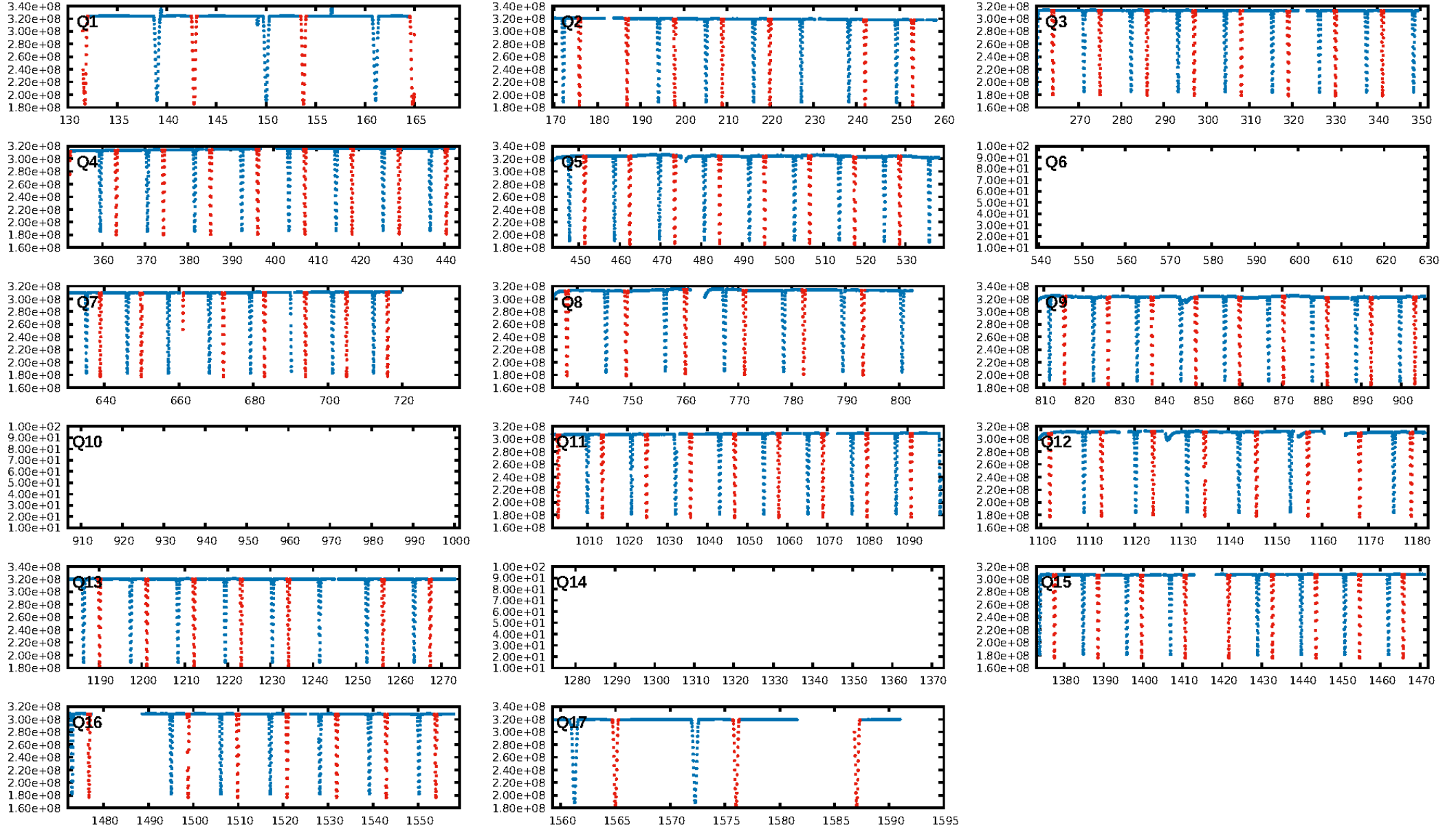
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [94/94]  
GhostDiagnostic-chr: 1.393  
Centroid-sig: N/A  
Centroid-so: 0.160 arcsec [854.46σ]  
OotOffset-rm: 0.011 arcsec [0.16σ]  
KicOffset-rm: 0.079 arcsec [1.16σ]  
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]

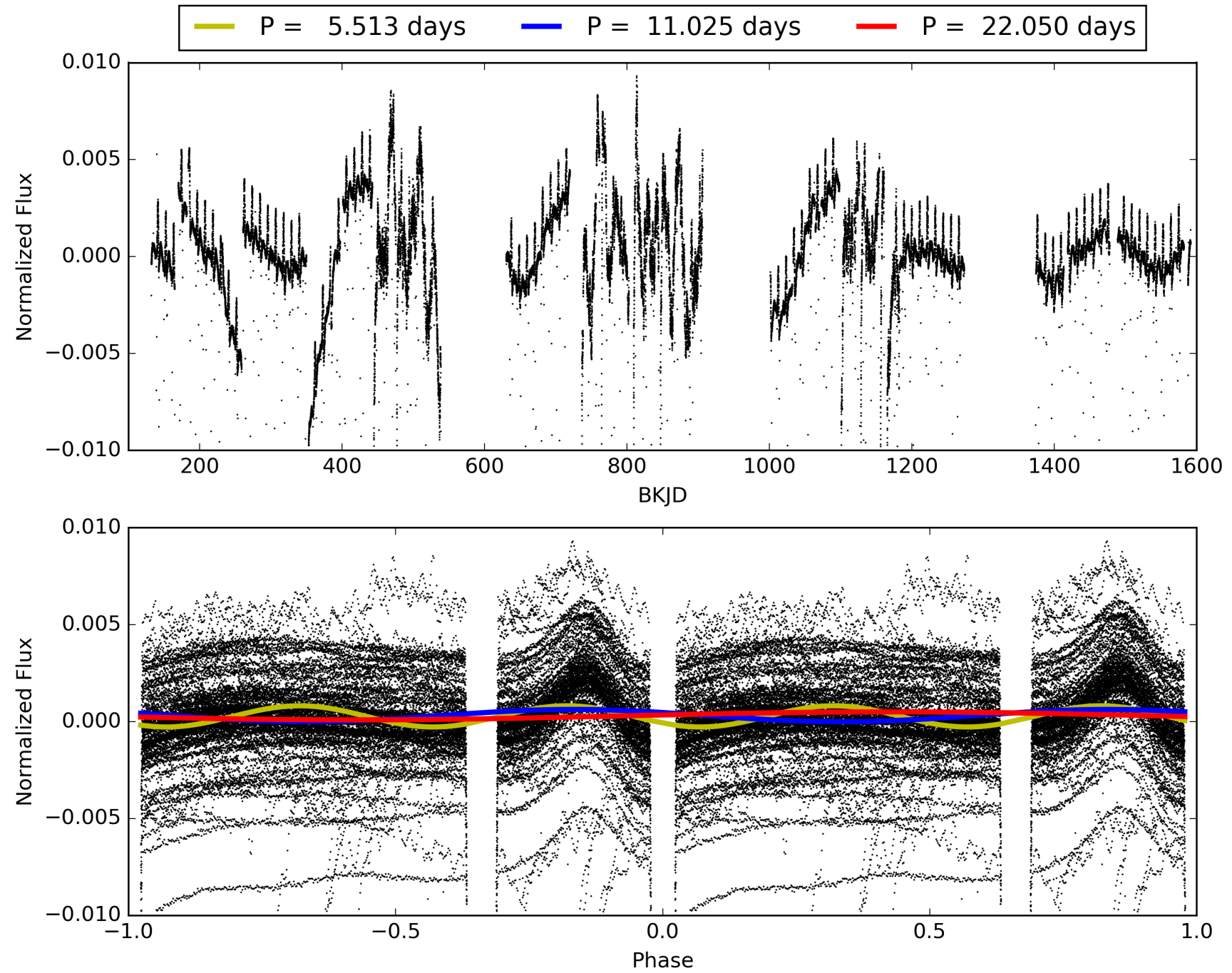
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:38:47 Z

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

# TCE 005632781-01, PDC Light Curves

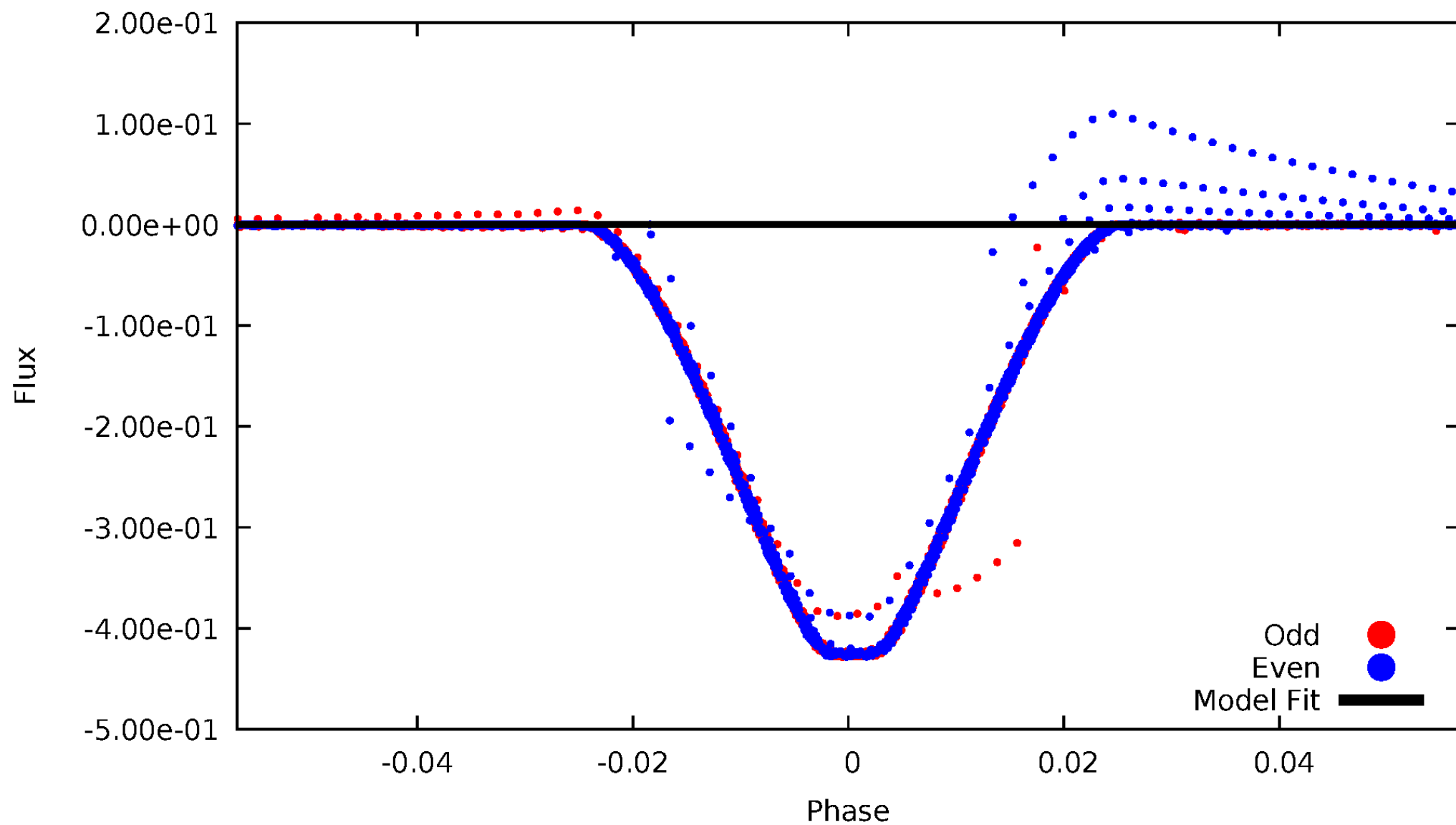


TCE 005632781-01



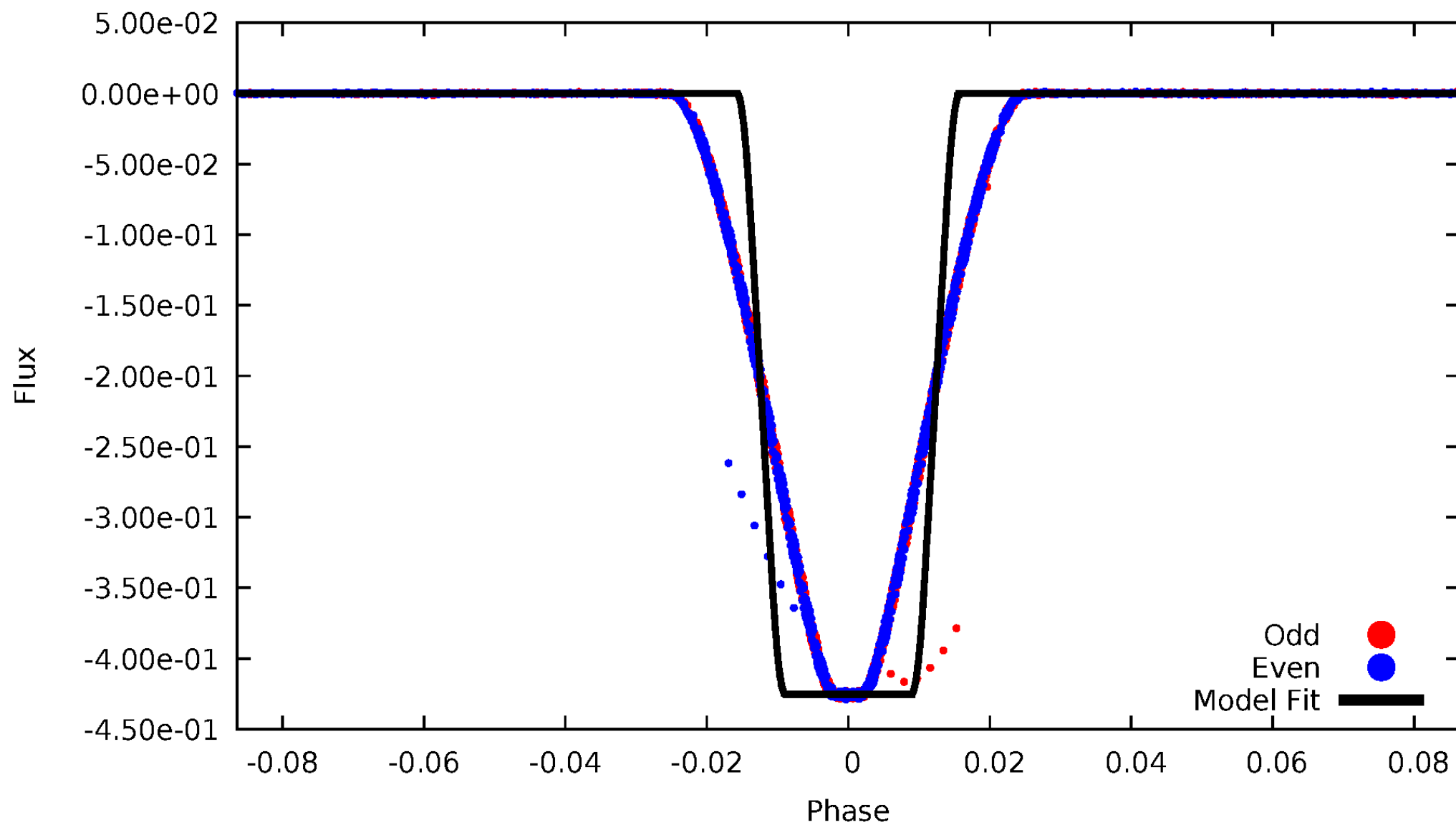
# DV Odd/Even

TCE 005632781-01



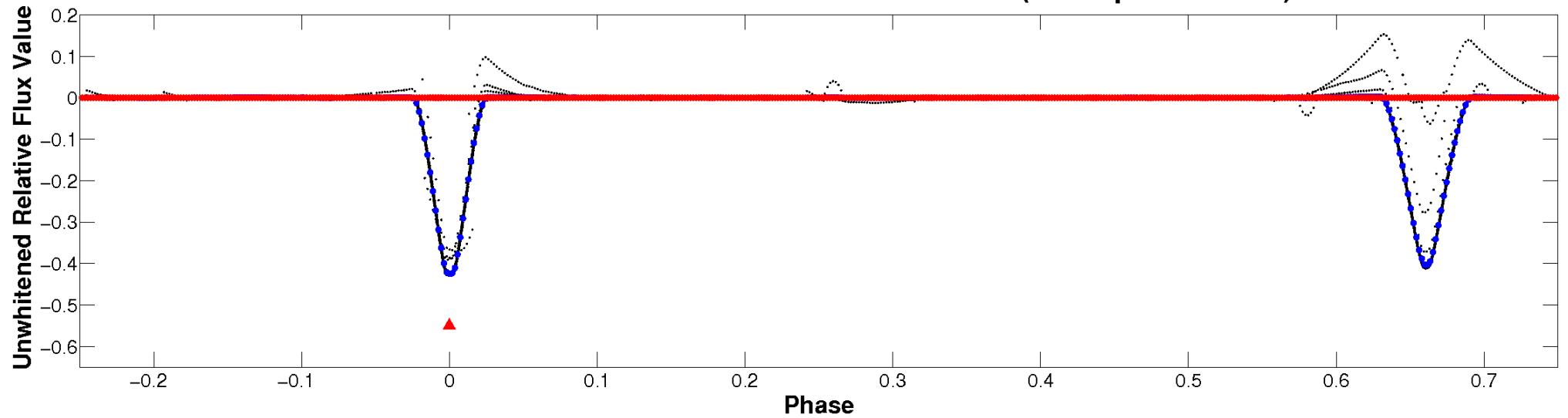
# ALT Odd/Even

TCE 005632781-01



# Non-Whitened Vs. Whitened Light Curve

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

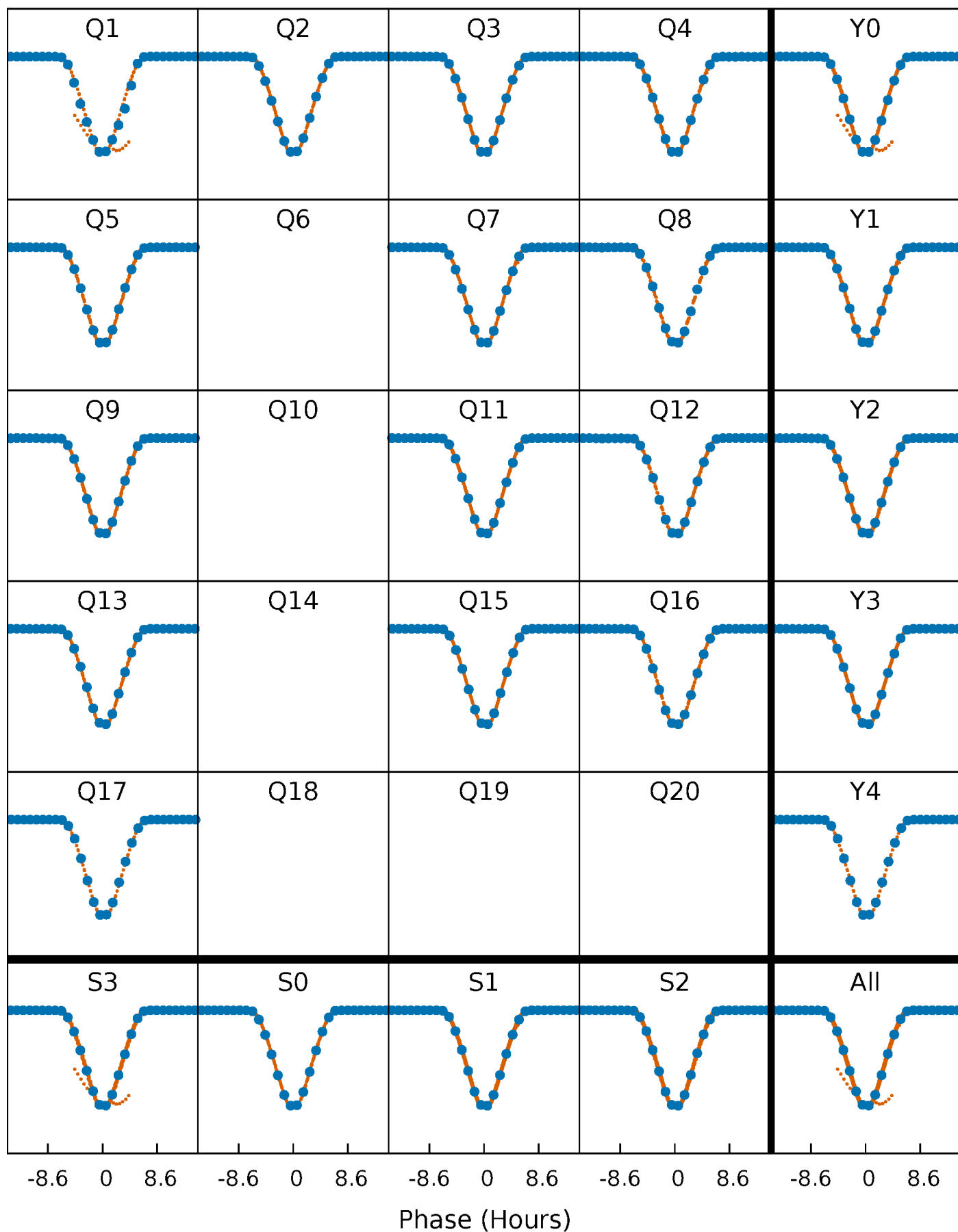


**Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



# PDC Quarter-Phased Transit Curves

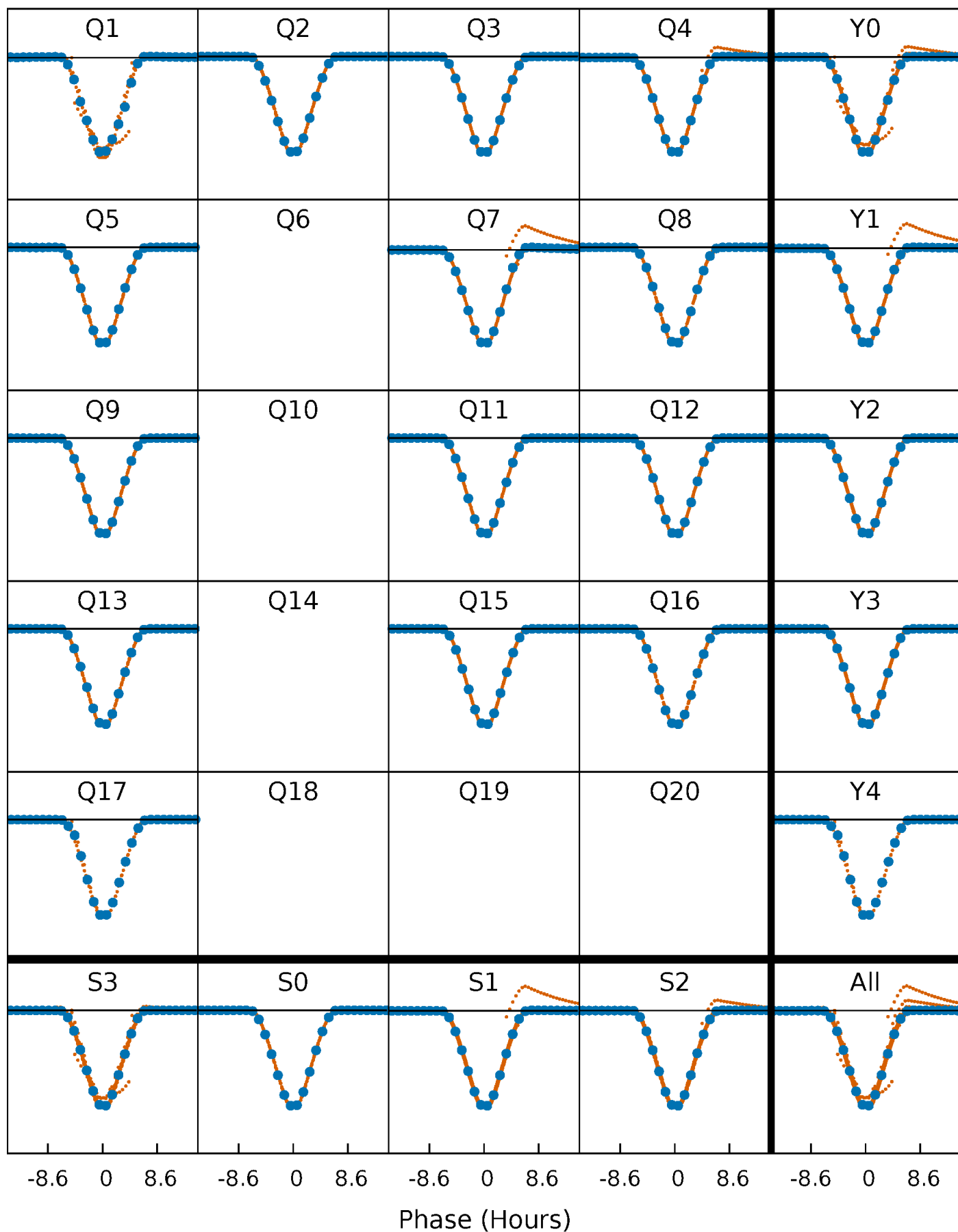
TCE 005632781-01 P= 11.025145 Days  $T_0=131.715329$  (BKJD)





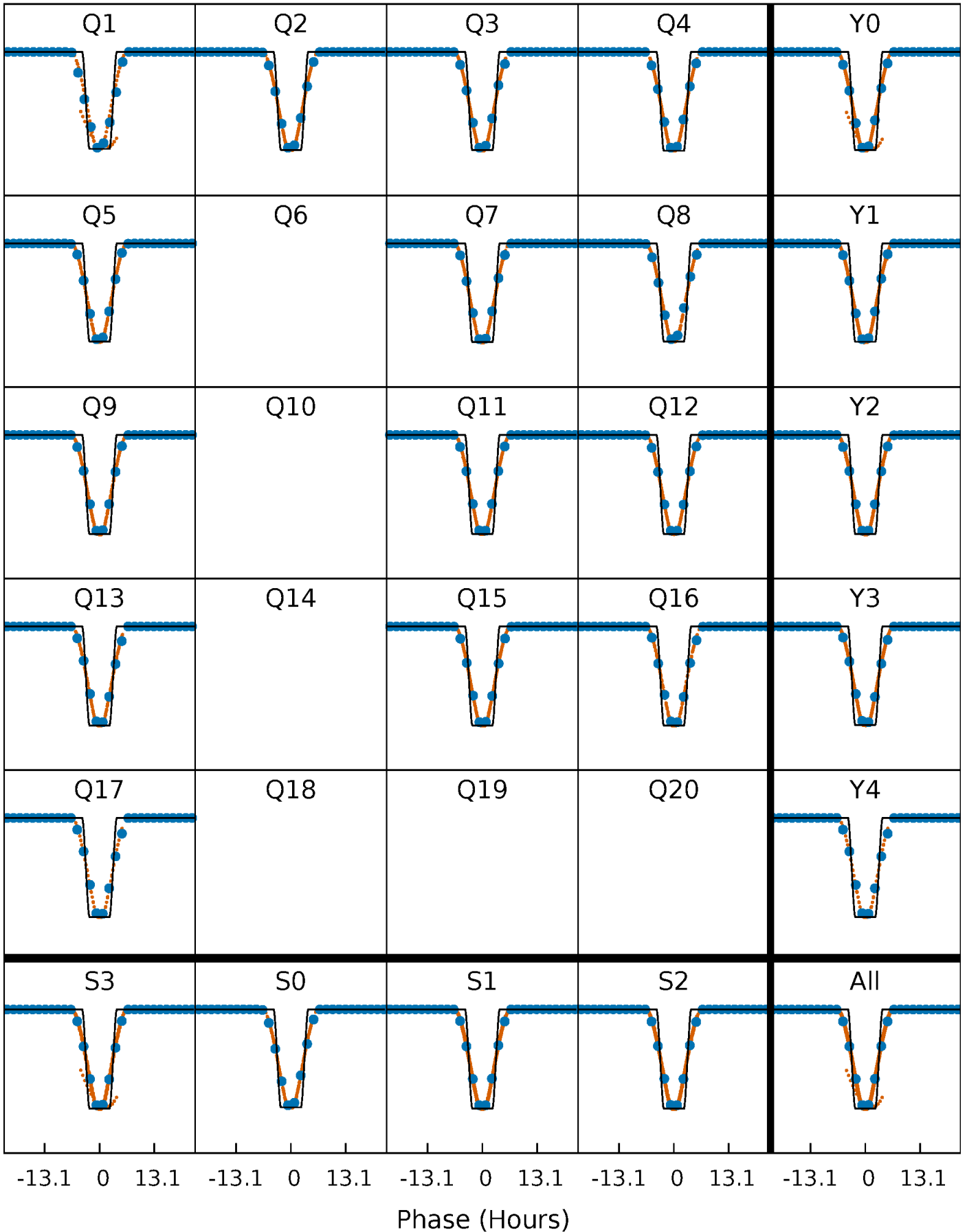
# DV Quarter-Phased Transit Curves

TCE 005632781-01 P= 11.025145 Days  $T_0=131.715329$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

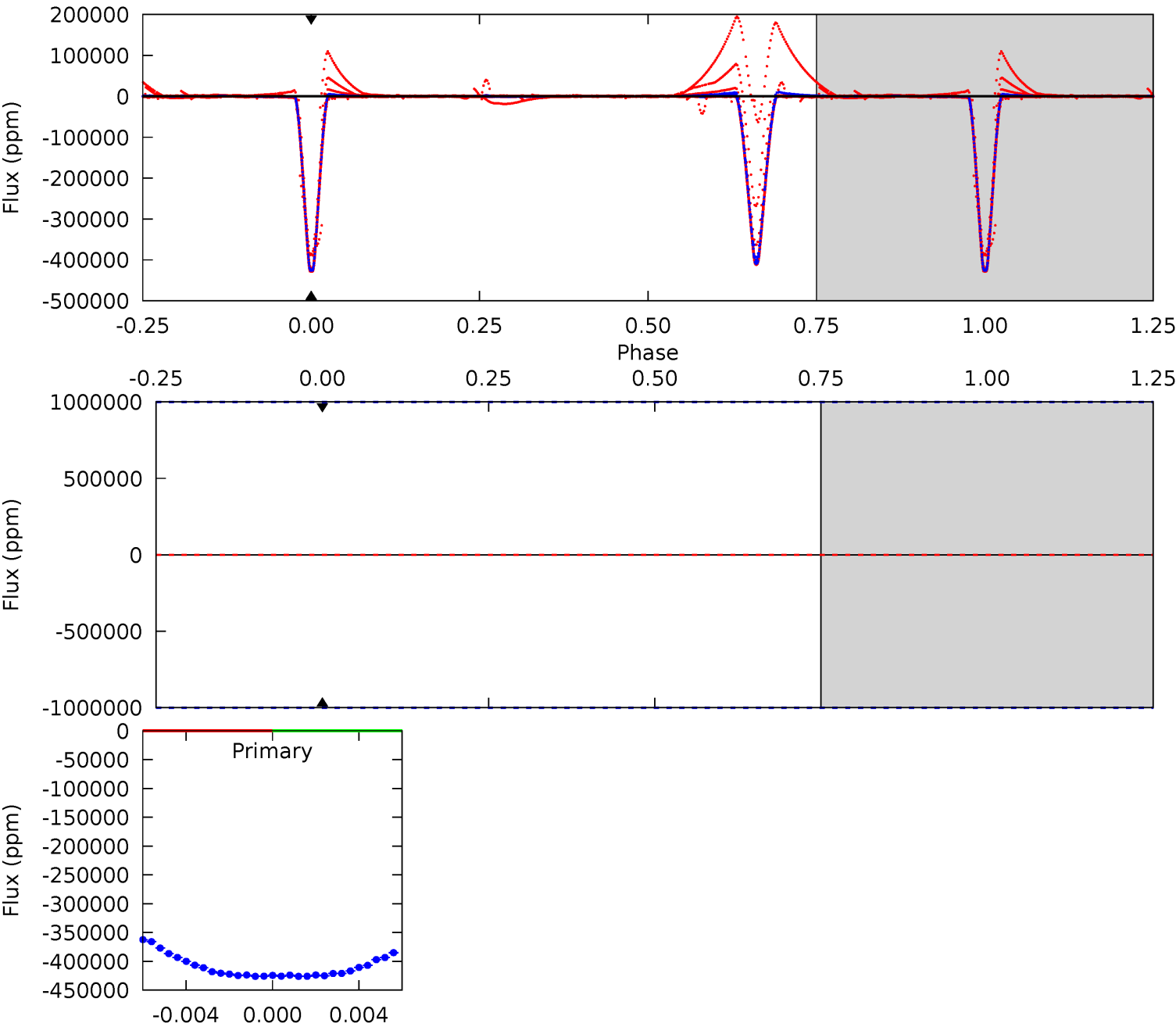
TCE 005632781-01 P= 11.025145 Days  $T_0=131.719547$  (BKJD)



# DV Model-Shift Uniqueness Test

005632781-01, P = 11.025145 Days, E = 120.690184 Days

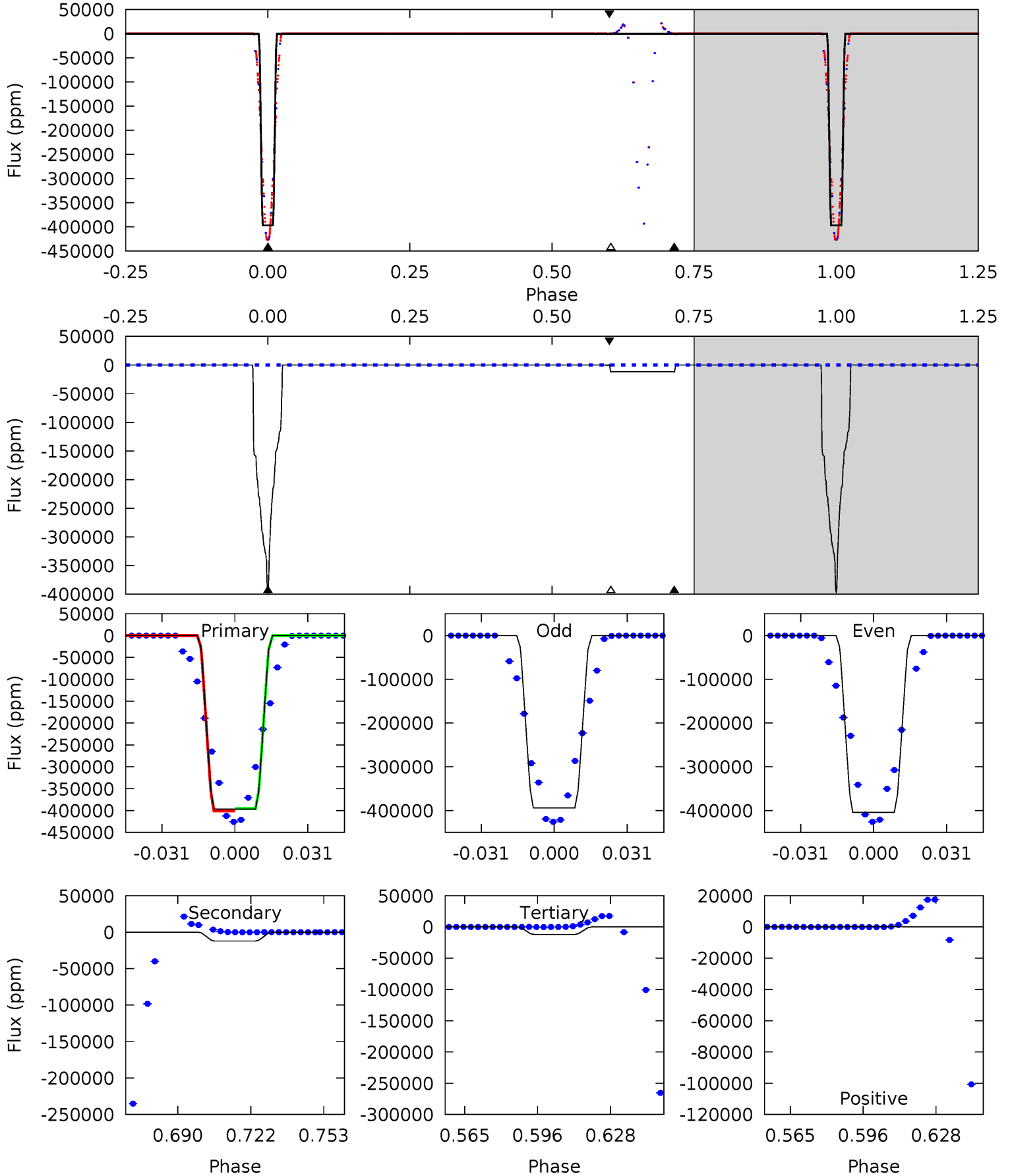
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

005632781-01, P = 11.025145 Days, E = 120.694402 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1394	42.5	41.9	0.83	4.80	2.15	1.88	1352	1393	0.59	41.7	13.8	1.01	0.00	8.64



### Stellar Parameters For KIC 005632781

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6047^{+200}_{-164}$	$3.724^{+0.720}_{-0.180}$	$-0.880^{+0.350}_{-0.250}$	$2.300^{+0.736}_{-1.472}$	$1.021^{+0.151}_{-0.227}$	$0.118^{+1.468}_{-0.055}$
	+3%/-3%	+19%/-5%	+40%/-28%	+32%/-64%	+15%/-22%	+1242%/-46%
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 005632781-01 / KOI 6609.01

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$0 \pm 1000000$	$76.31^{+33.37}_{-31.83}$	$1770^{+186}_{-321}$	$3541^{+2687}_{-9394}$	$6.701^{+117.875}_{-95.429}$
Alt.	$-12104 \pm 285$	$152.88^{+47.75}_{-52.85}$	$1771^{+181}_{-317}$	$3059^{+180}_{-155}$	$2.736^{+3.494}_{-1.138}$

$T_{max}$  = 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  $A_{obs} \gg 1.0$

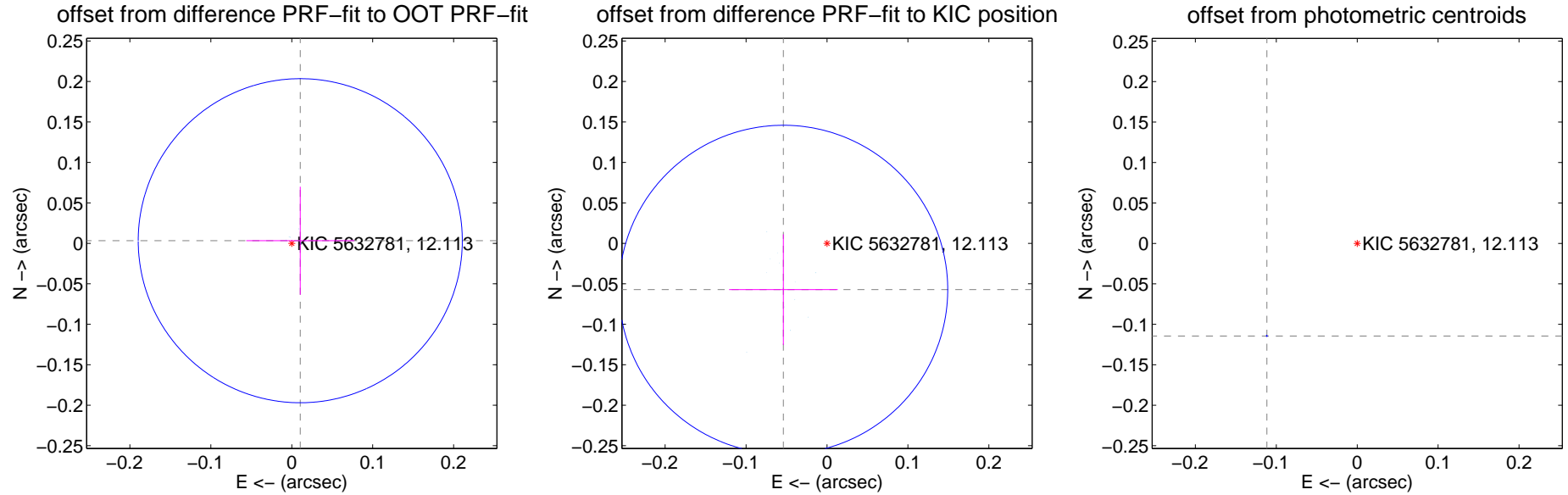
## DV Centroid Data

Supplemental centroid analysis for 005632781-01. Kepler magnitude: 12.11. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

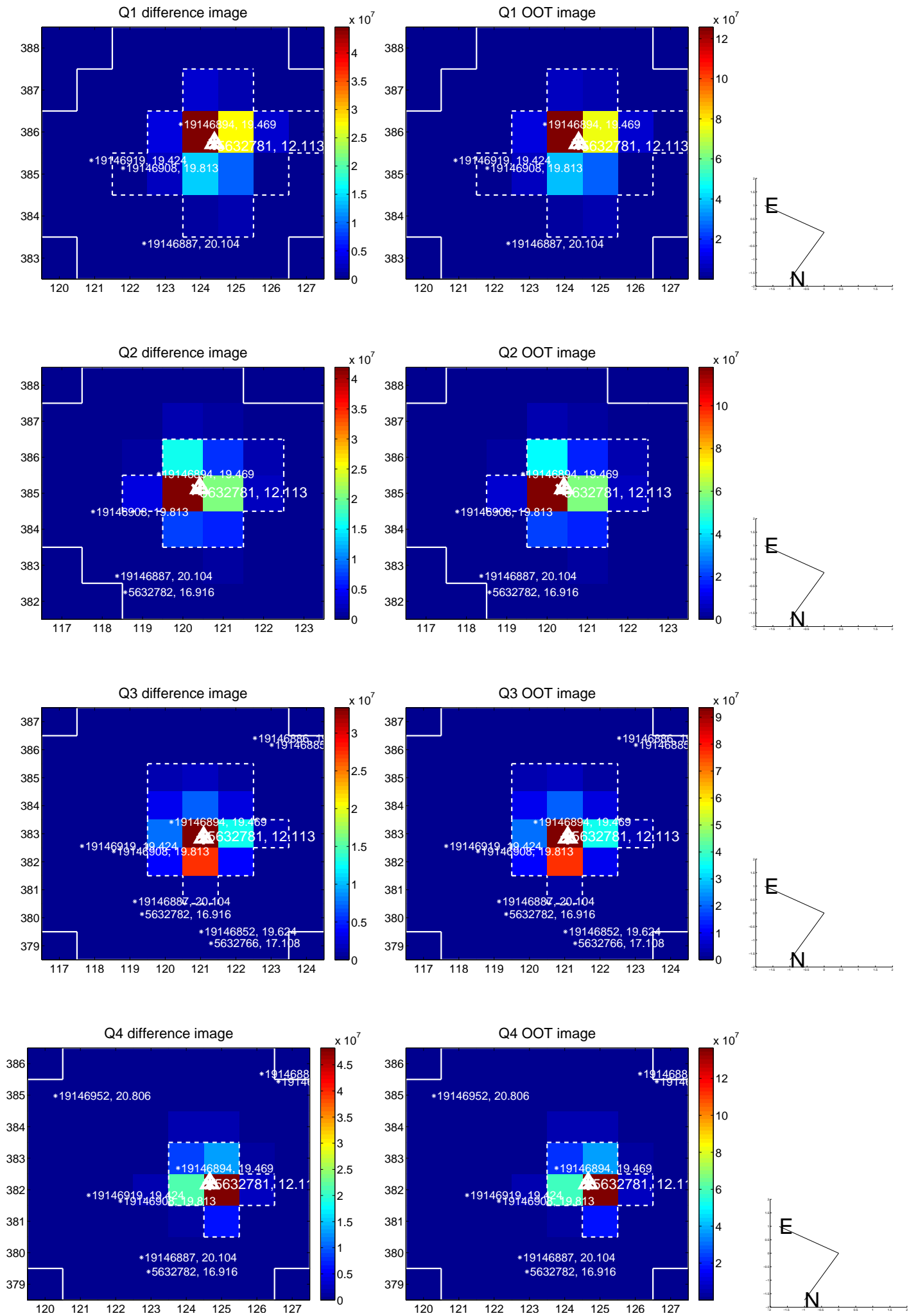
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.011 \pm 0.067$	0.16	$-0.011 \pm 0.067$	$0.003 \pm 0.067$
PRF-fit source offset from KIC position	$0.079 \pm 0.068$	1.16	$0.054 \pm 0.067$	$-0.057 \pm 0.068$
photometric centroid source offset	$0.16 \pm 0.00$	854.46	$0.11 \pm 0.00$	$-0.11 \pm 0.00$

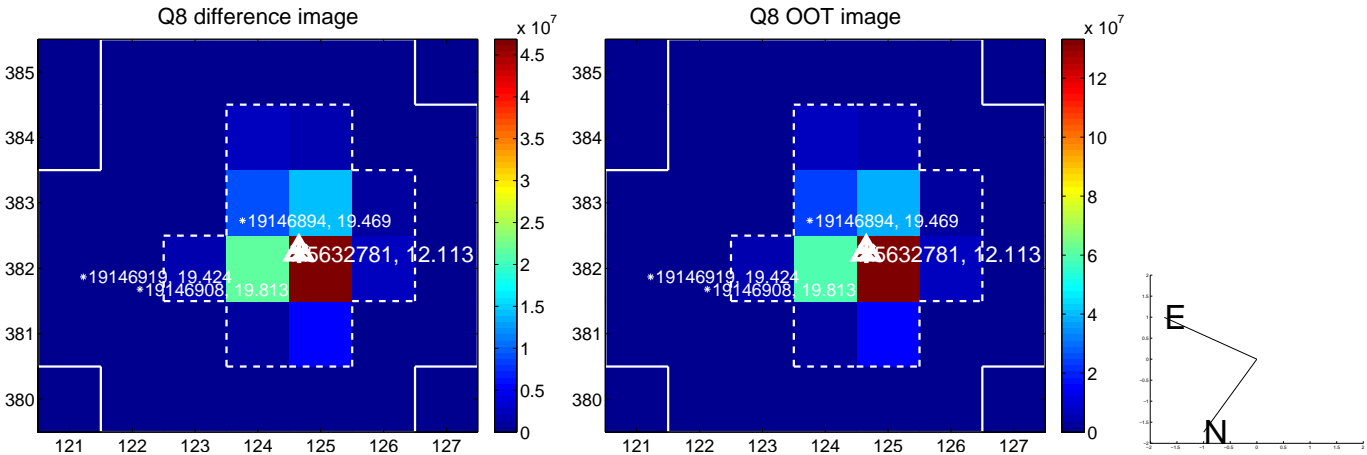
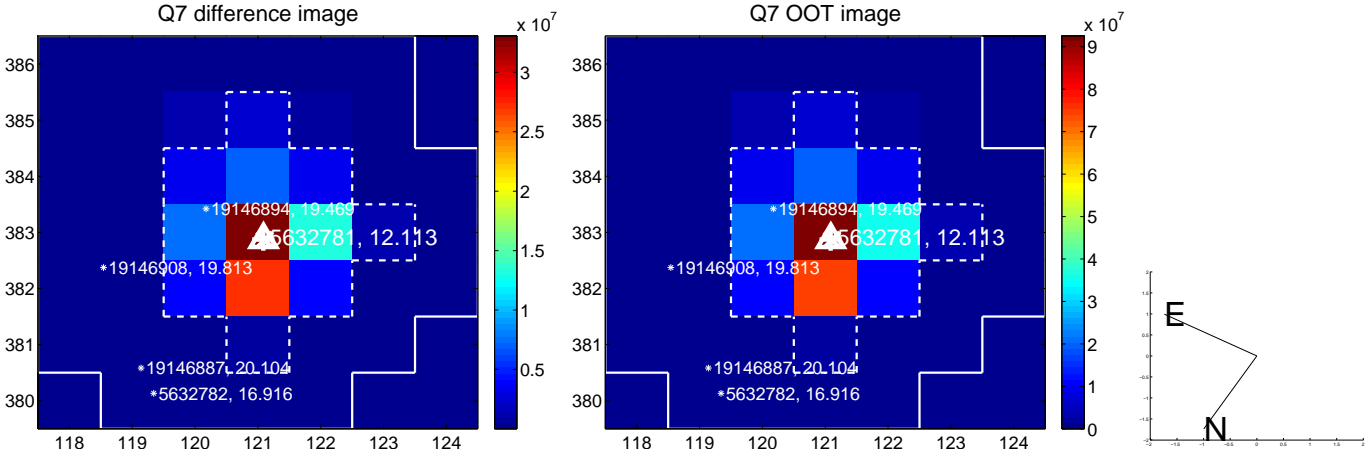
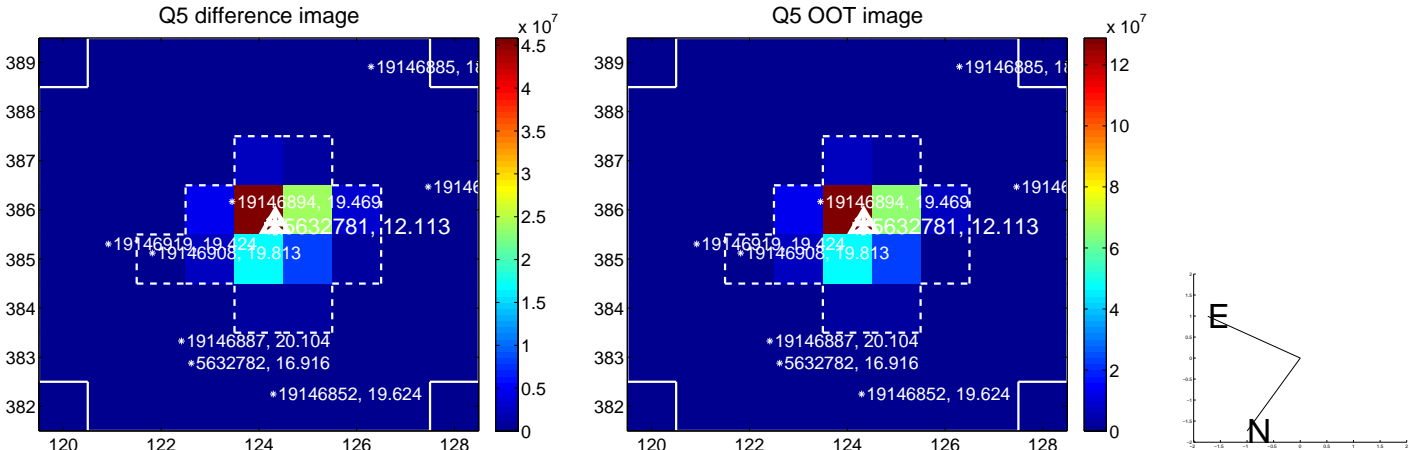


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

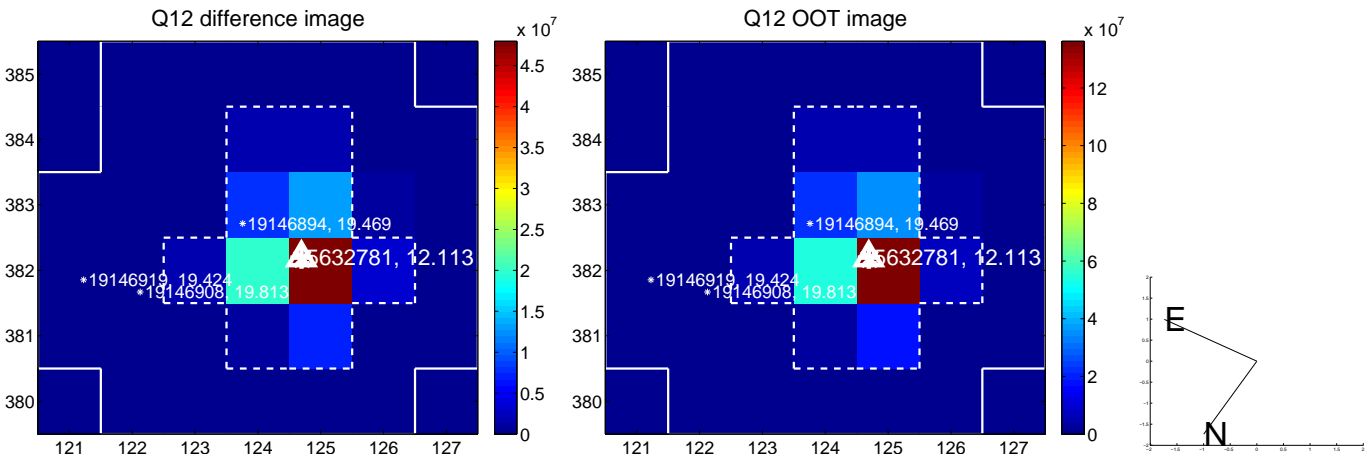
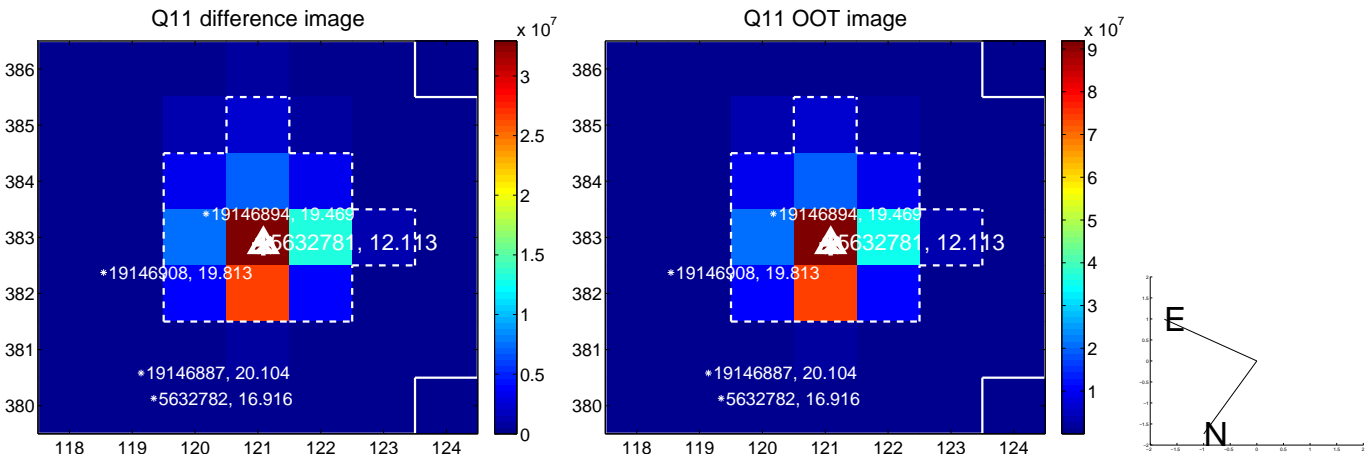
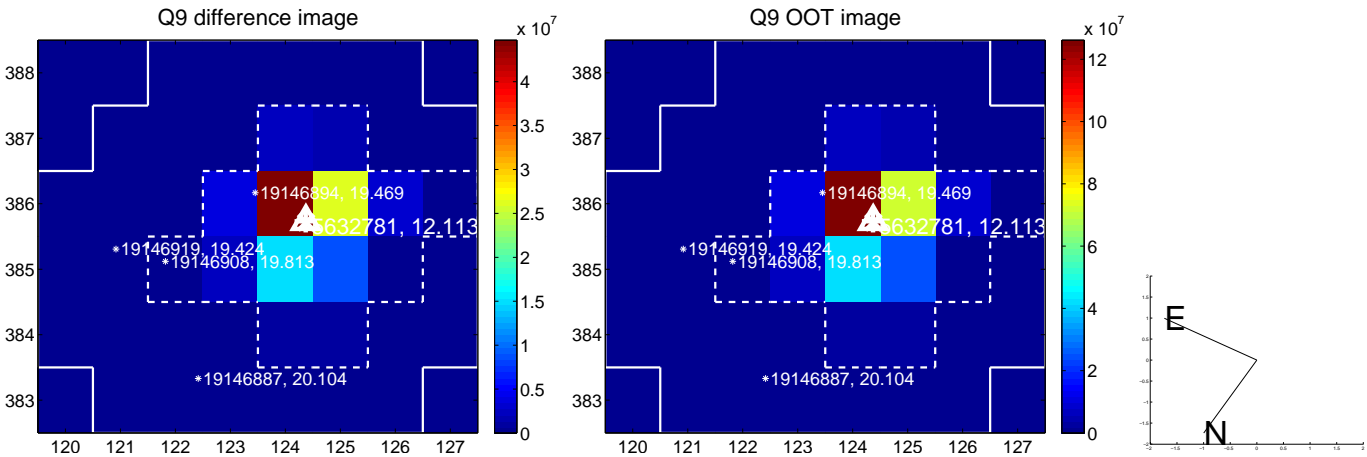


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

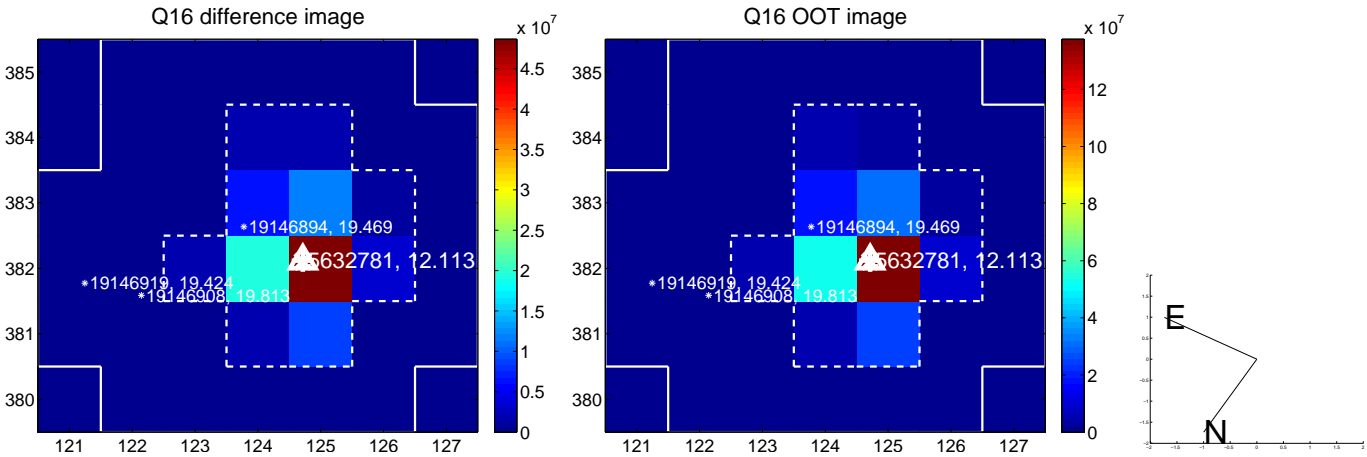
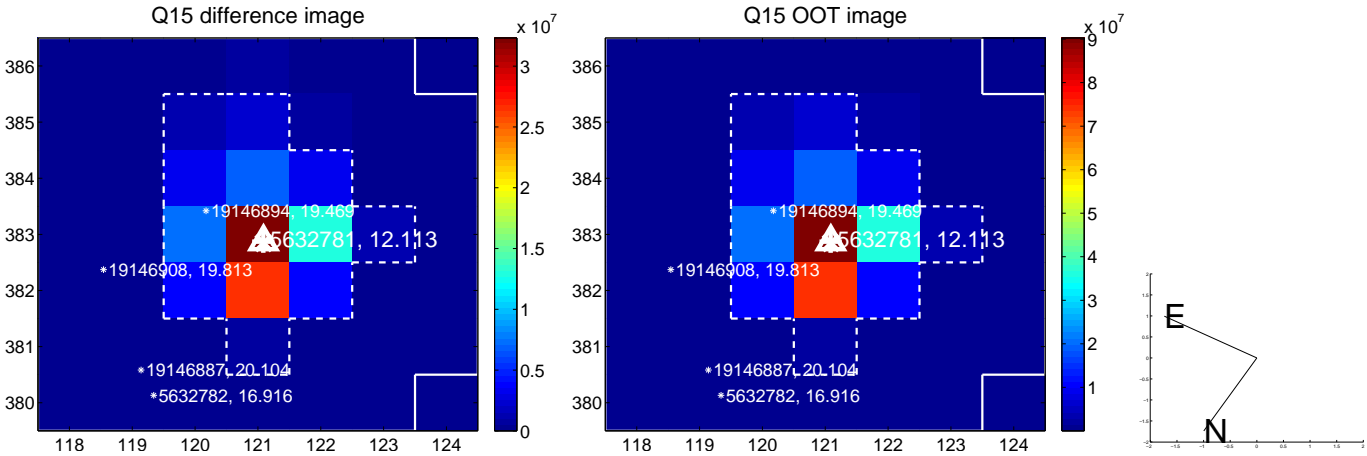
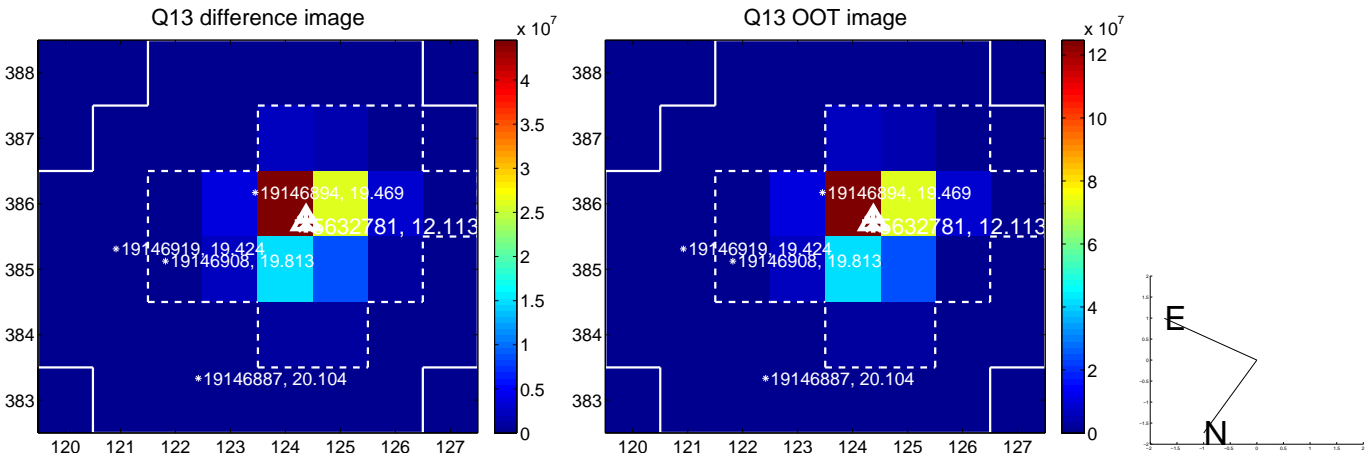




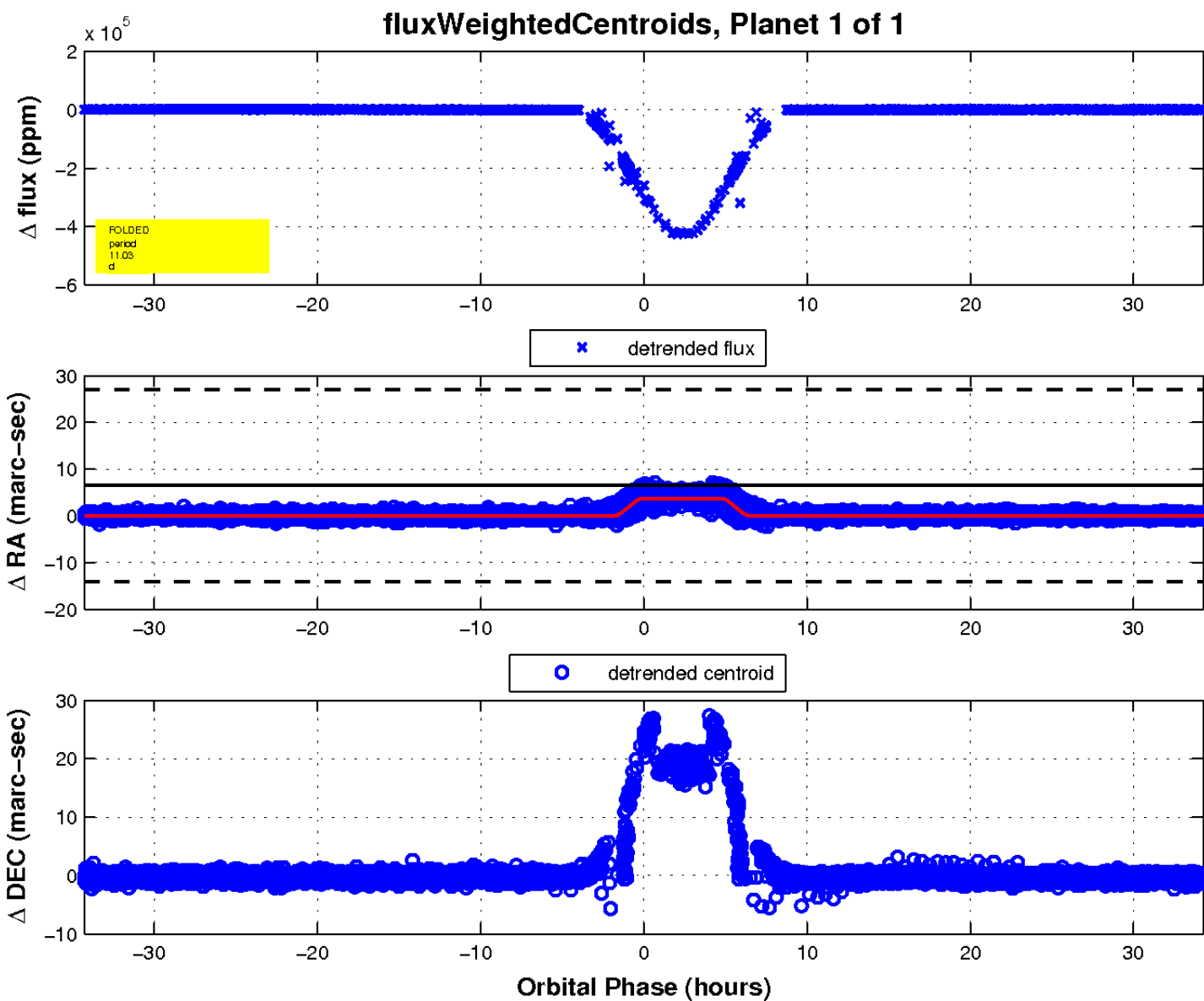
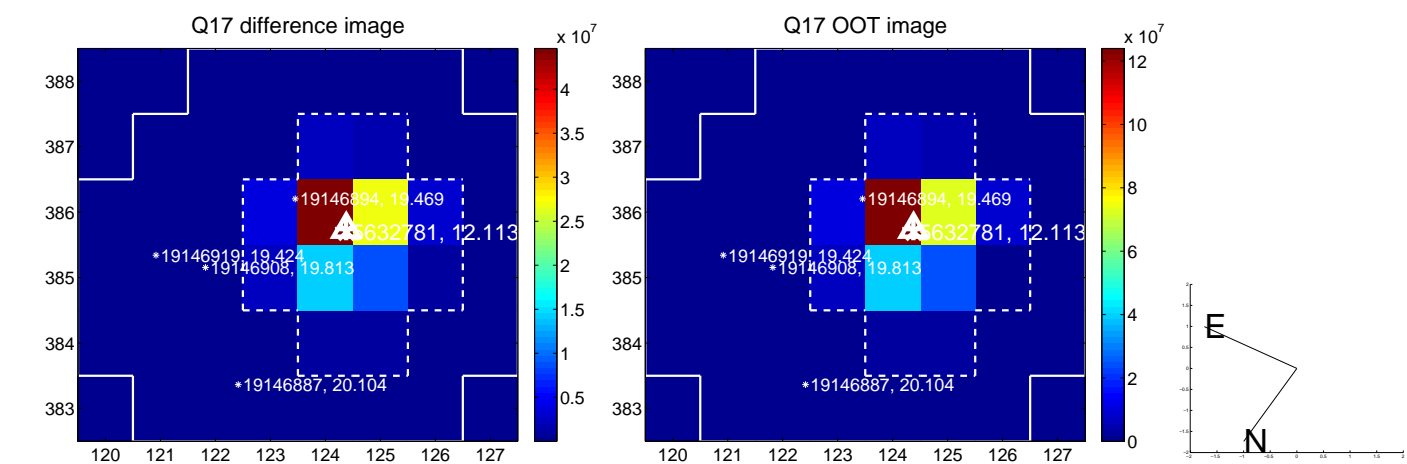
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# UKIRT Image

Declination

