

# KIC 011775709

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011775709-01	OBS	No	526.286771	516.206817	4532.4	15.000	27.1	-1.0	0.78	5278	5.12	0.30

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011775709-01	OBS	FP	0.00	1	0	0	0	<del>INDIV_TRANS</del> <del>MARSHALL</del> <del>LPP_DV</del> <del>LPP_ALT</del> <del>ALL_TRANS_CHASES</del> <del>INCONSISTENT_TRANS</del> <del>CENT_NOFITS</del>

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

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

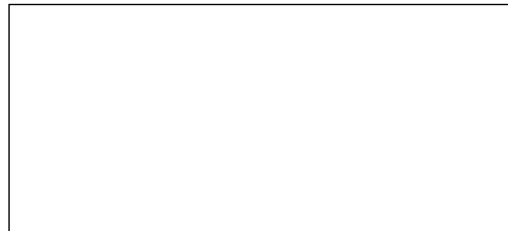
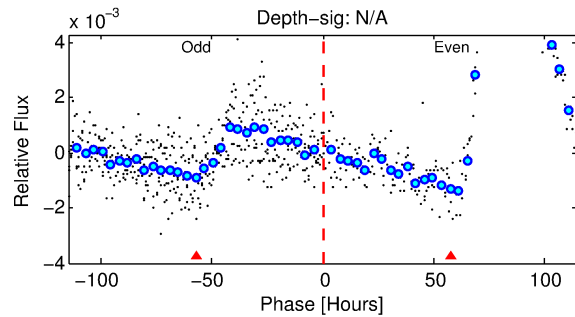
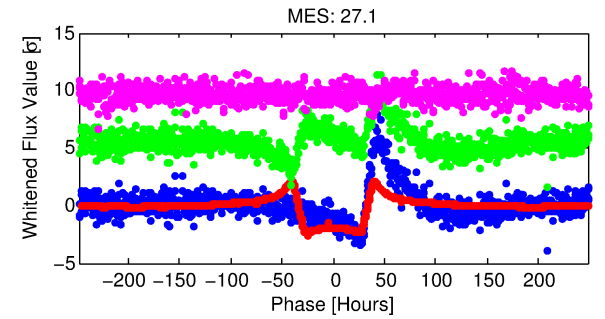
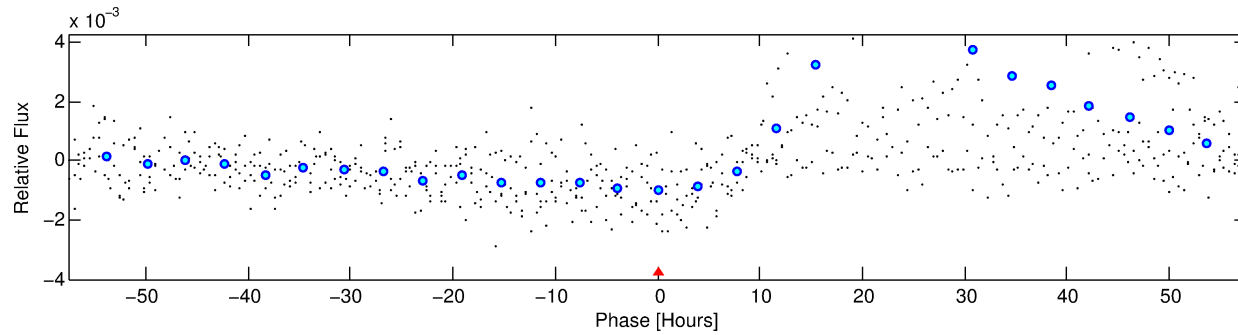
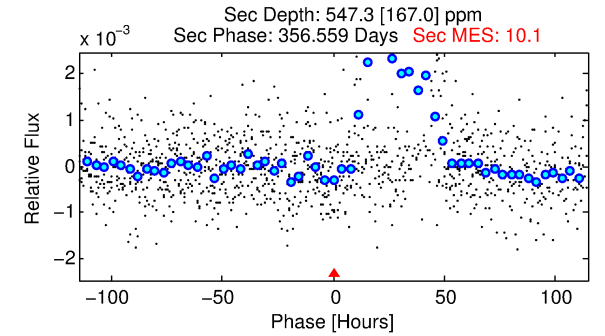
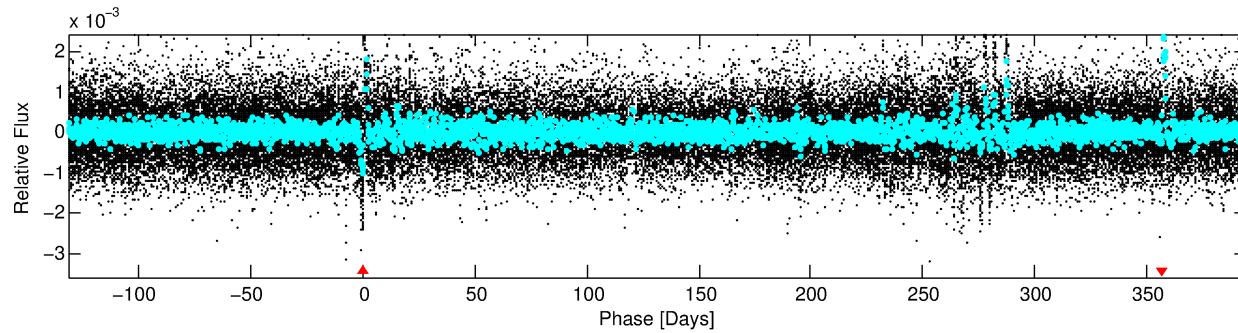
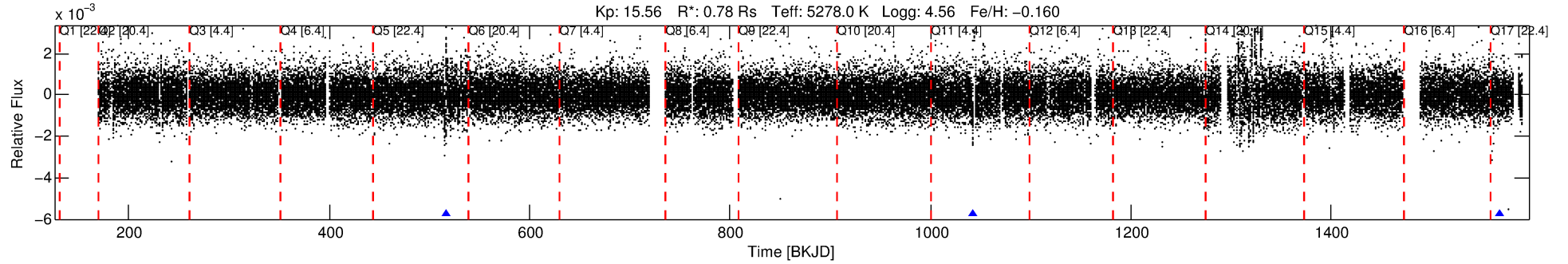
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011775709-01

No Significant Match Found

# DV One-Page Summary

KIC: 11775709 Candidate: 1 of 1 Period: 526.287 d



## TPS TCE Results:

Period = 526.28677 d  
Epoch = 516.2068 BKJD

DV fit results are unavailable

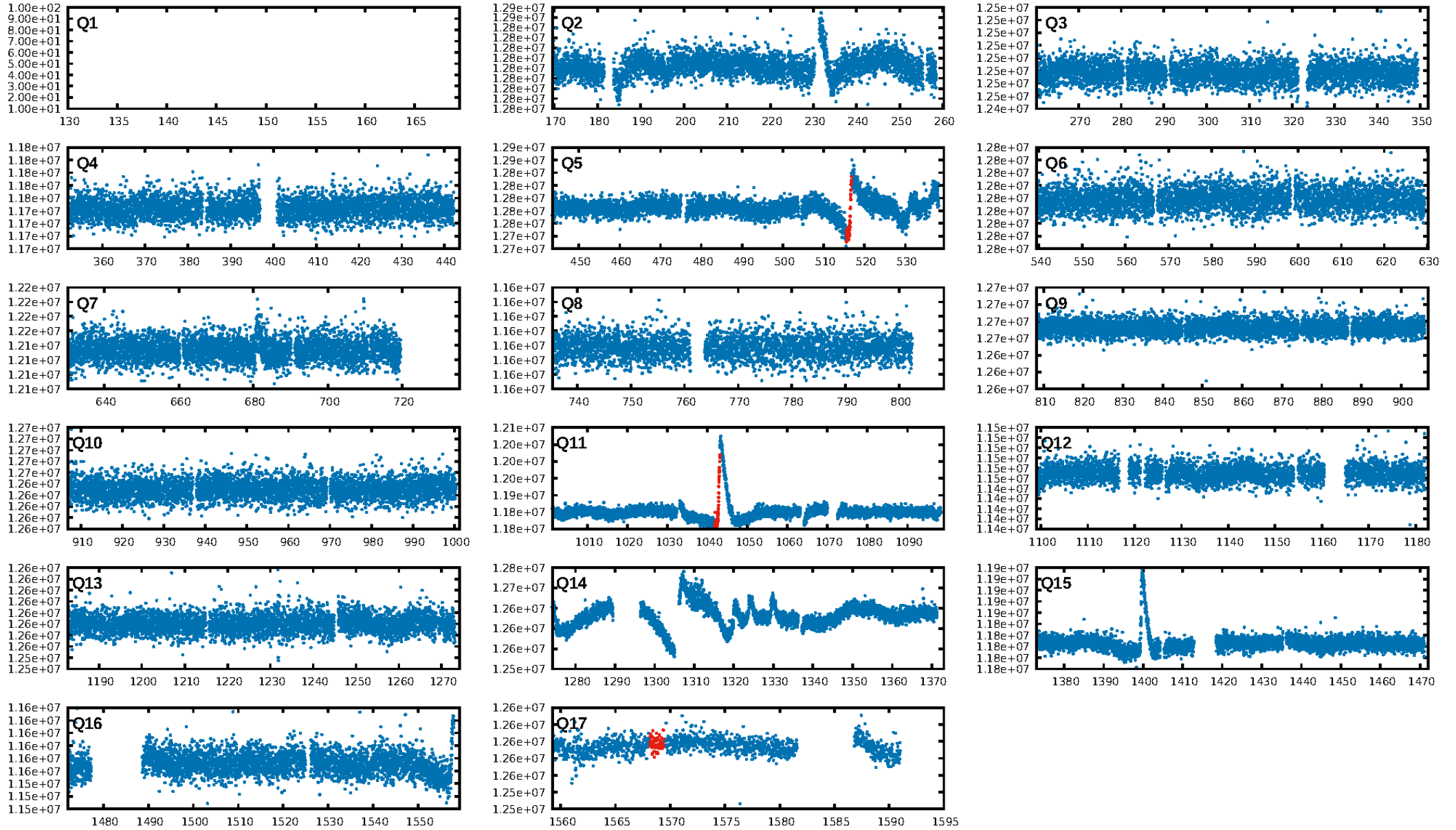
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 1.94e-77  
RollingBand-fgt: 1.00 [2/2]  
GhostDiagnostic-chr: 7.794  
Centroid-sig: 0.6%  
Centroid-so: 6.643 arcsec [3.41σ]  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0 [0]  
KicOffset-st: 0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fno: 1.00 [2/2]

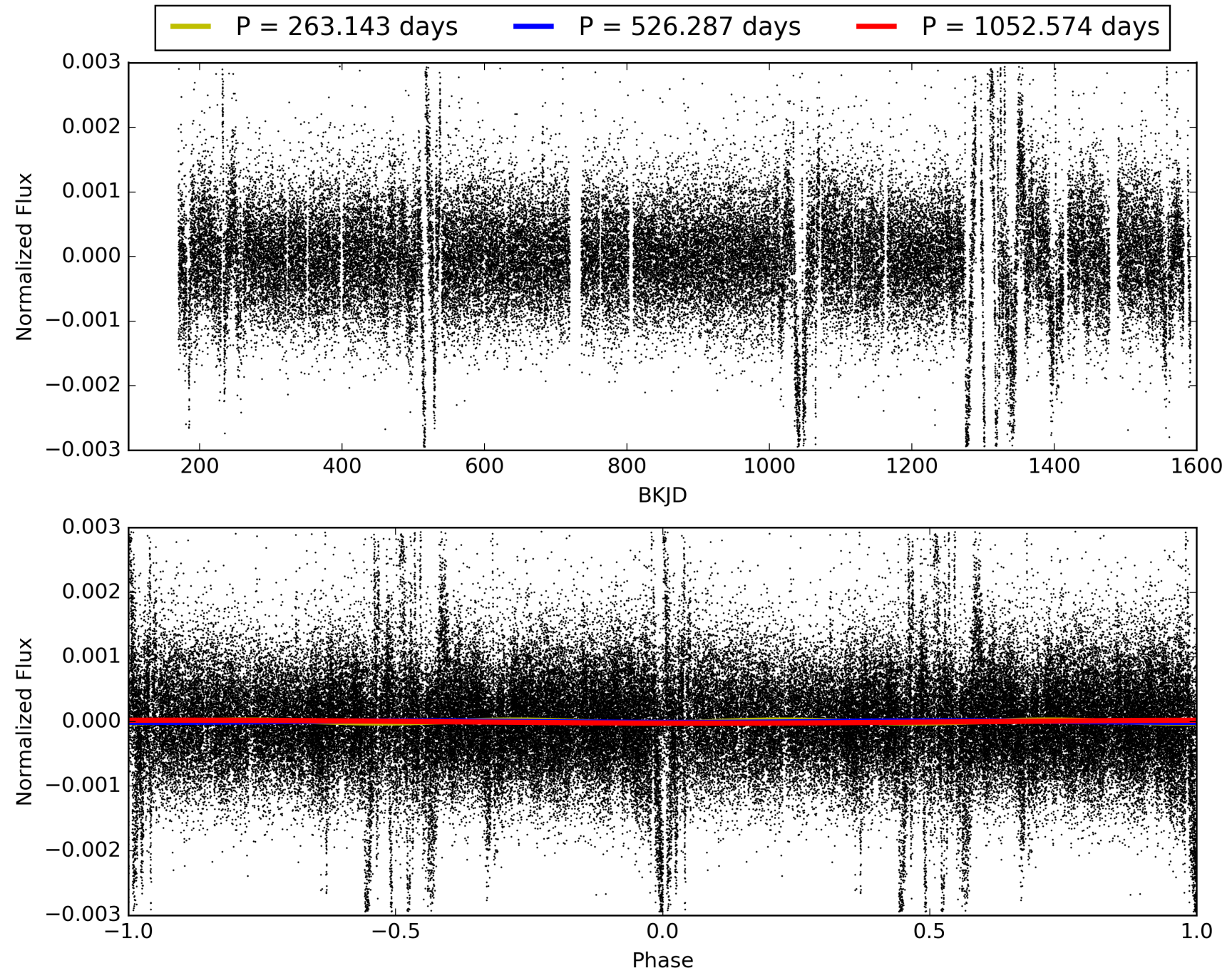
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:33:42 Z

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

# TCE 011775709-01, PDC Light Curves

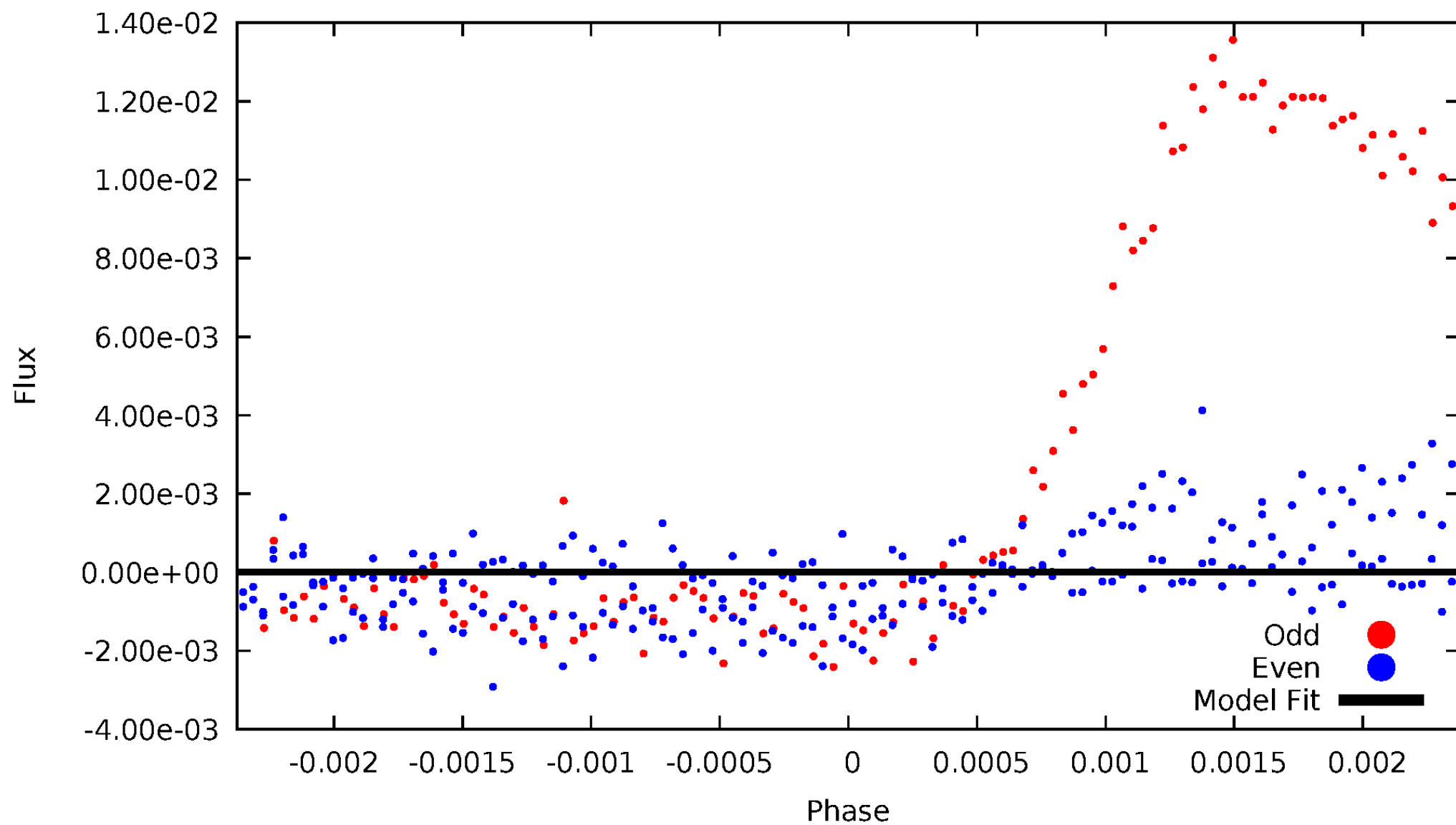


TCE 011775709-01



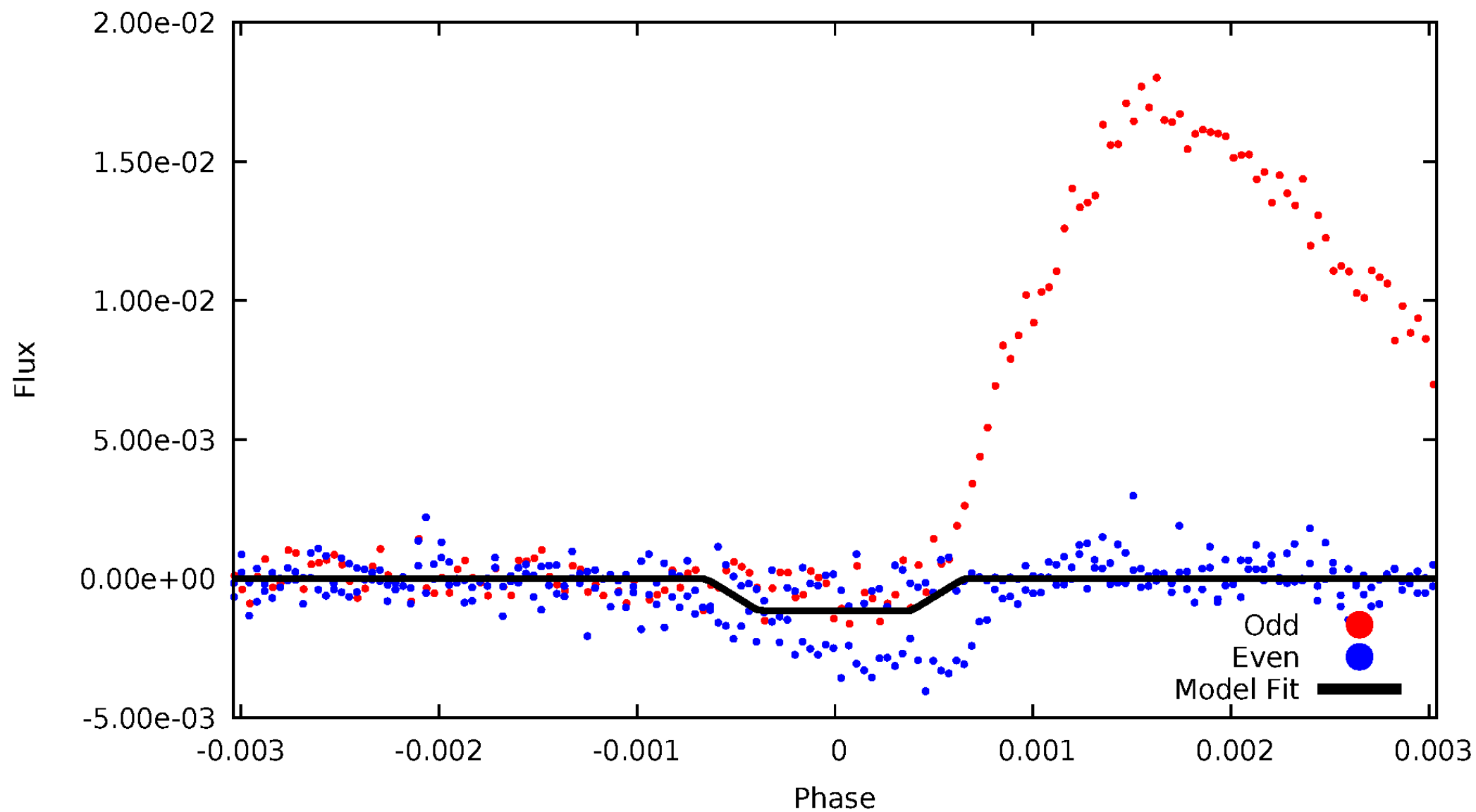
# DV Odd/Even

TCE 011775709-01

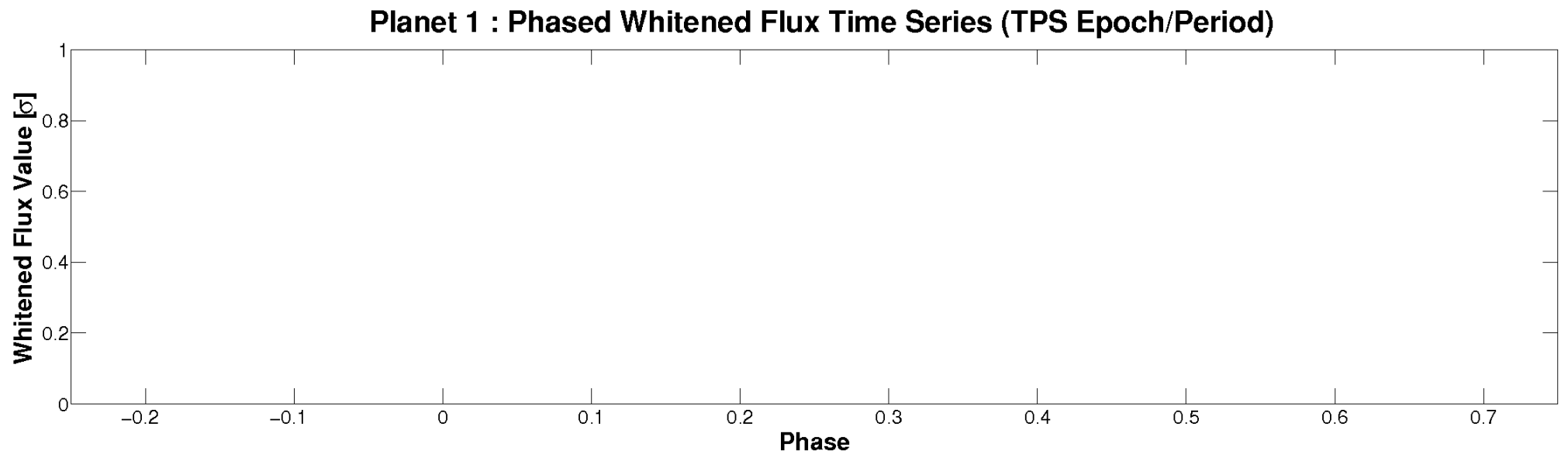
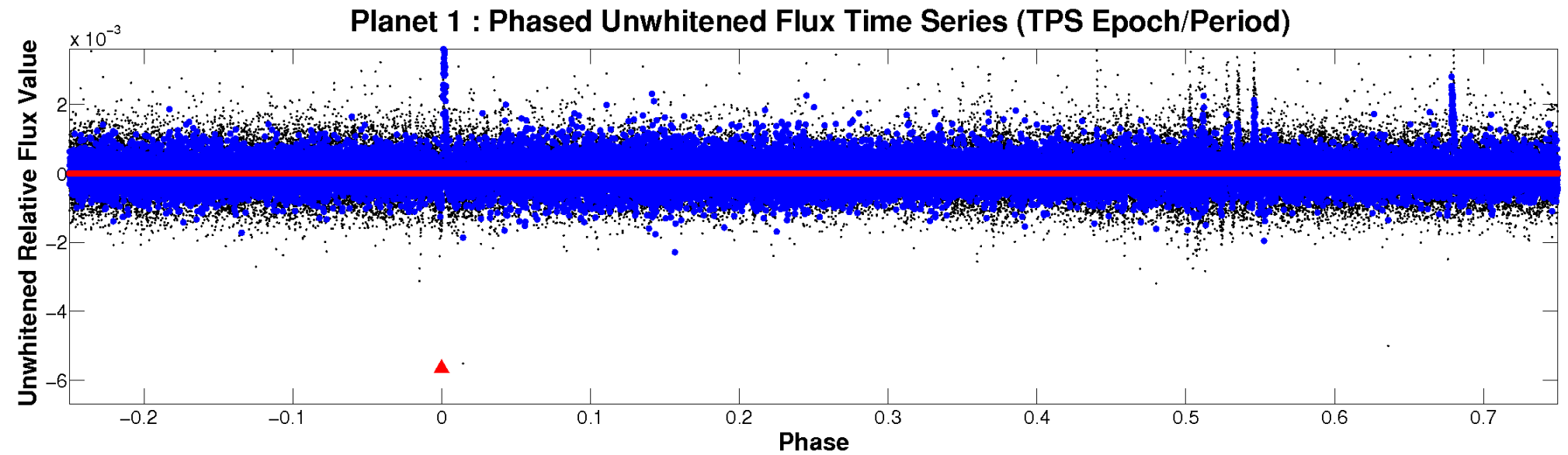


# ALT Odd/Even

TCE 011775709-01



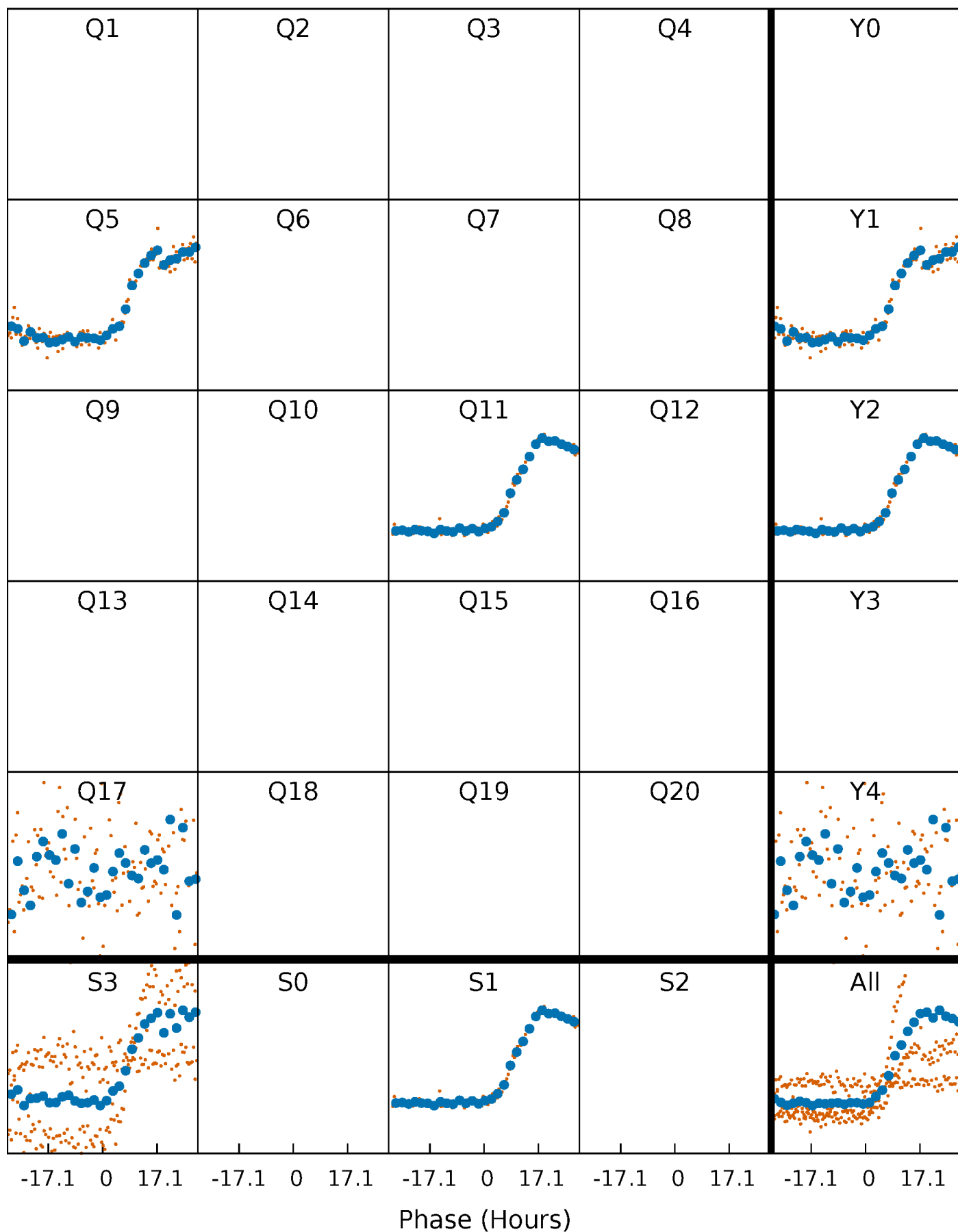
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

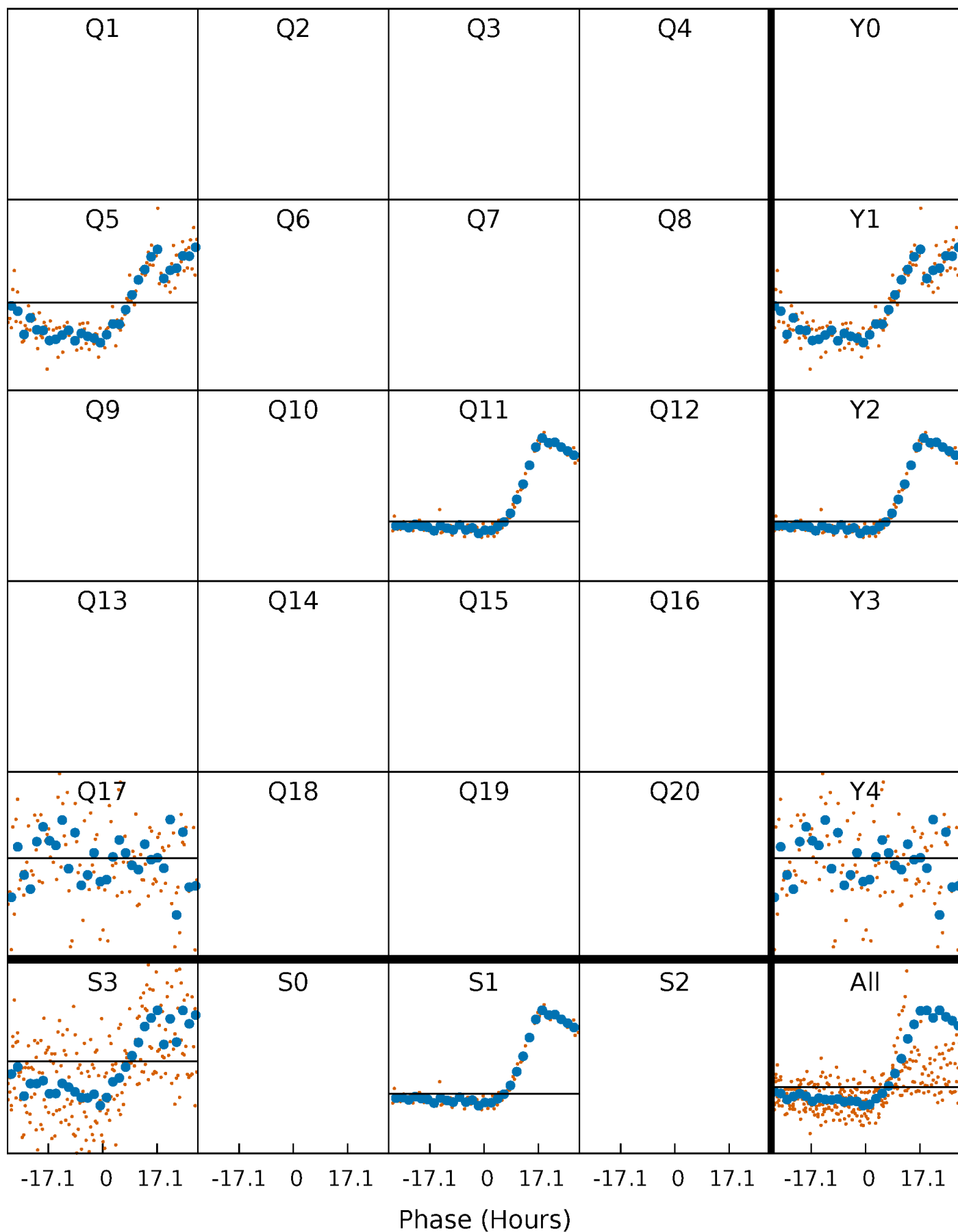
TCE 011775709-01 P=526.286771 Days  $T_0=516.206817$  (BKJD)





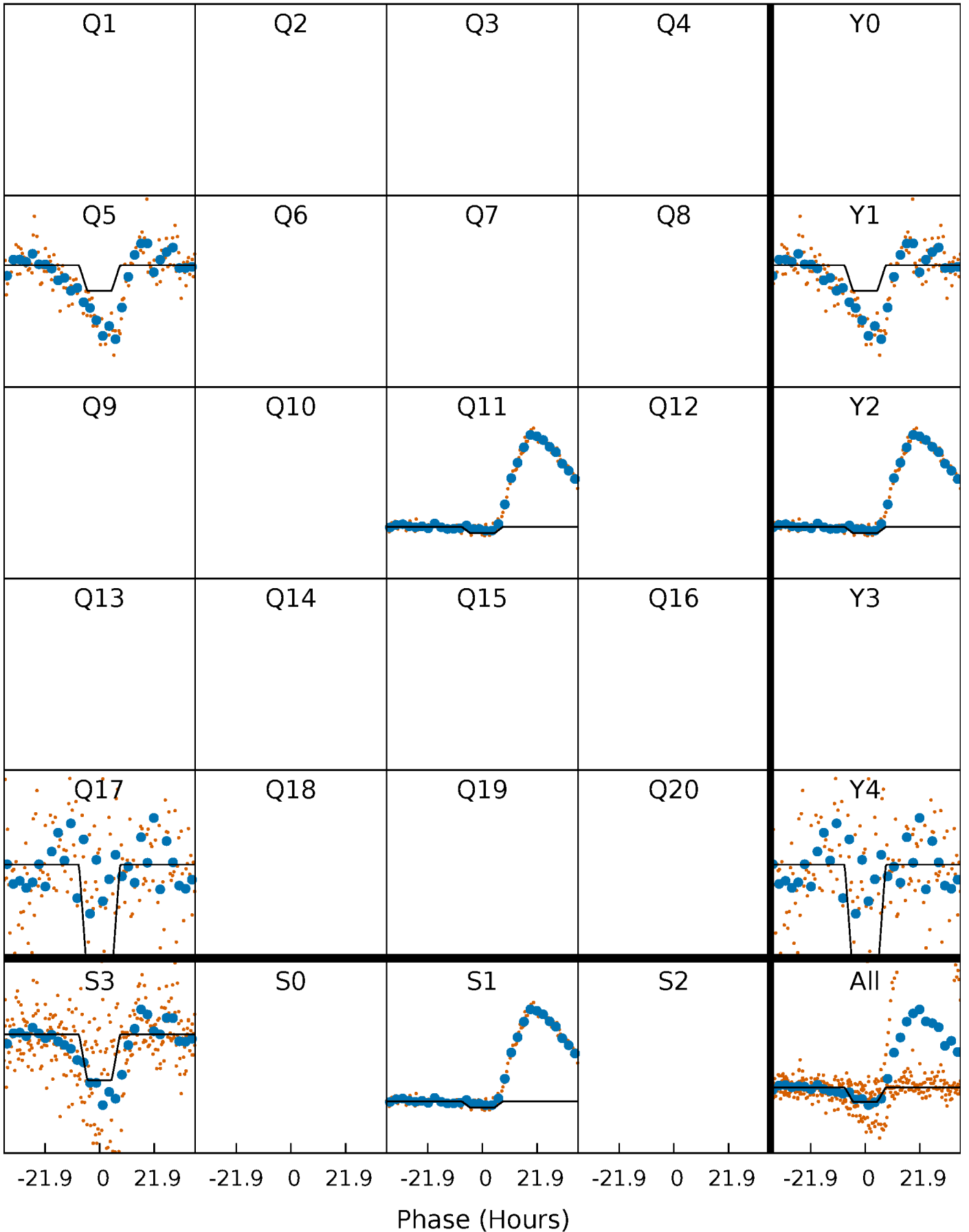
# DV Quarter-Phased Transit Curves

TCE 011775709-01 P=526.286771 Days  $T_0=516.206817$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

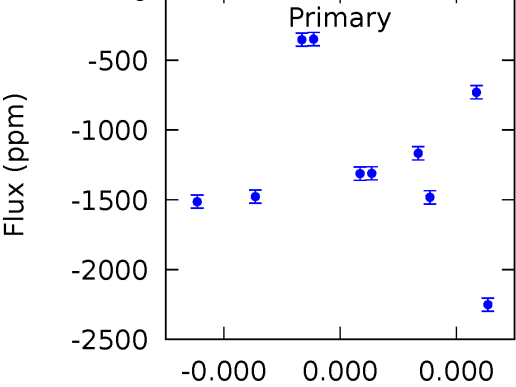
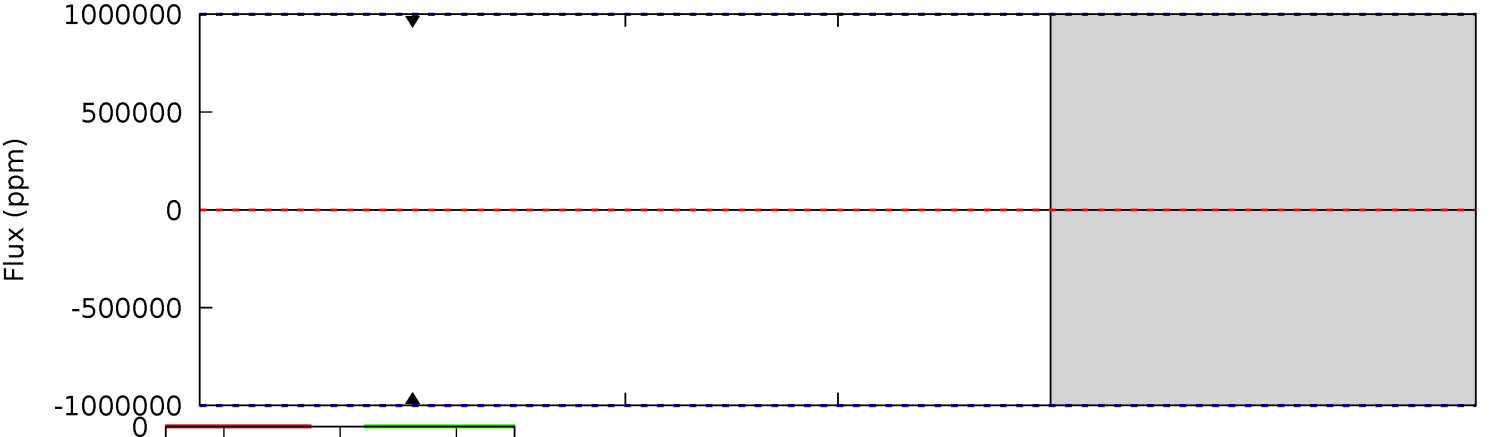
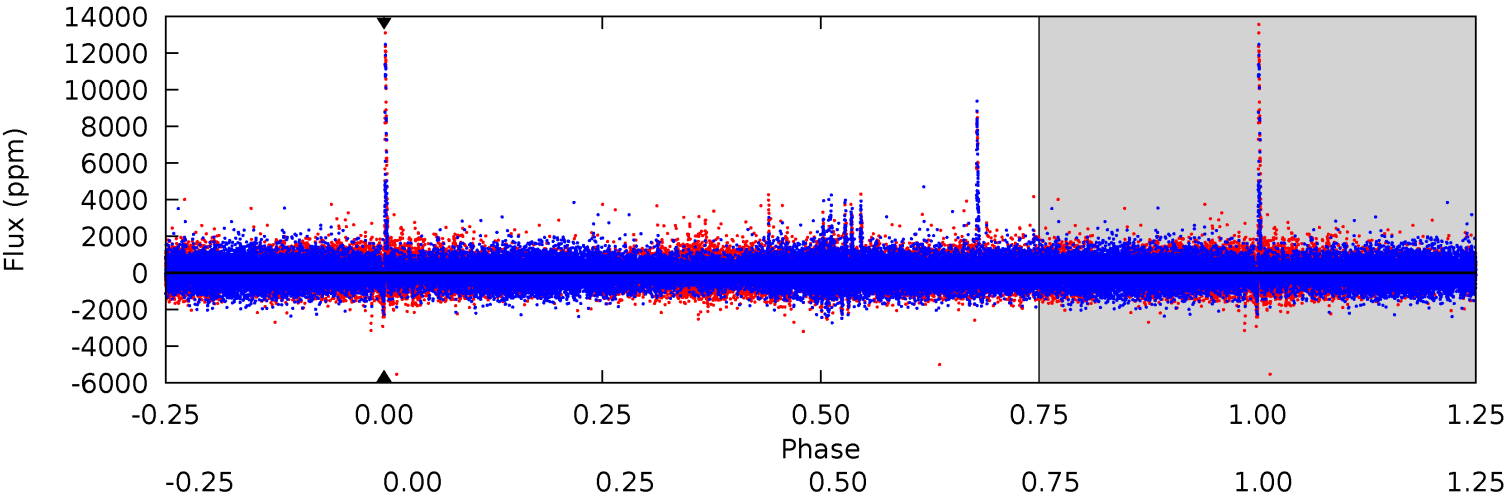
TCE 011775709-01     $P=526.286771$  Days     $T_0=516.137812$  (BKJD)



# DV Model-Shift Uniqueness Test

011775709-01, P = 526.286771 Days, E = 516.206817 Days

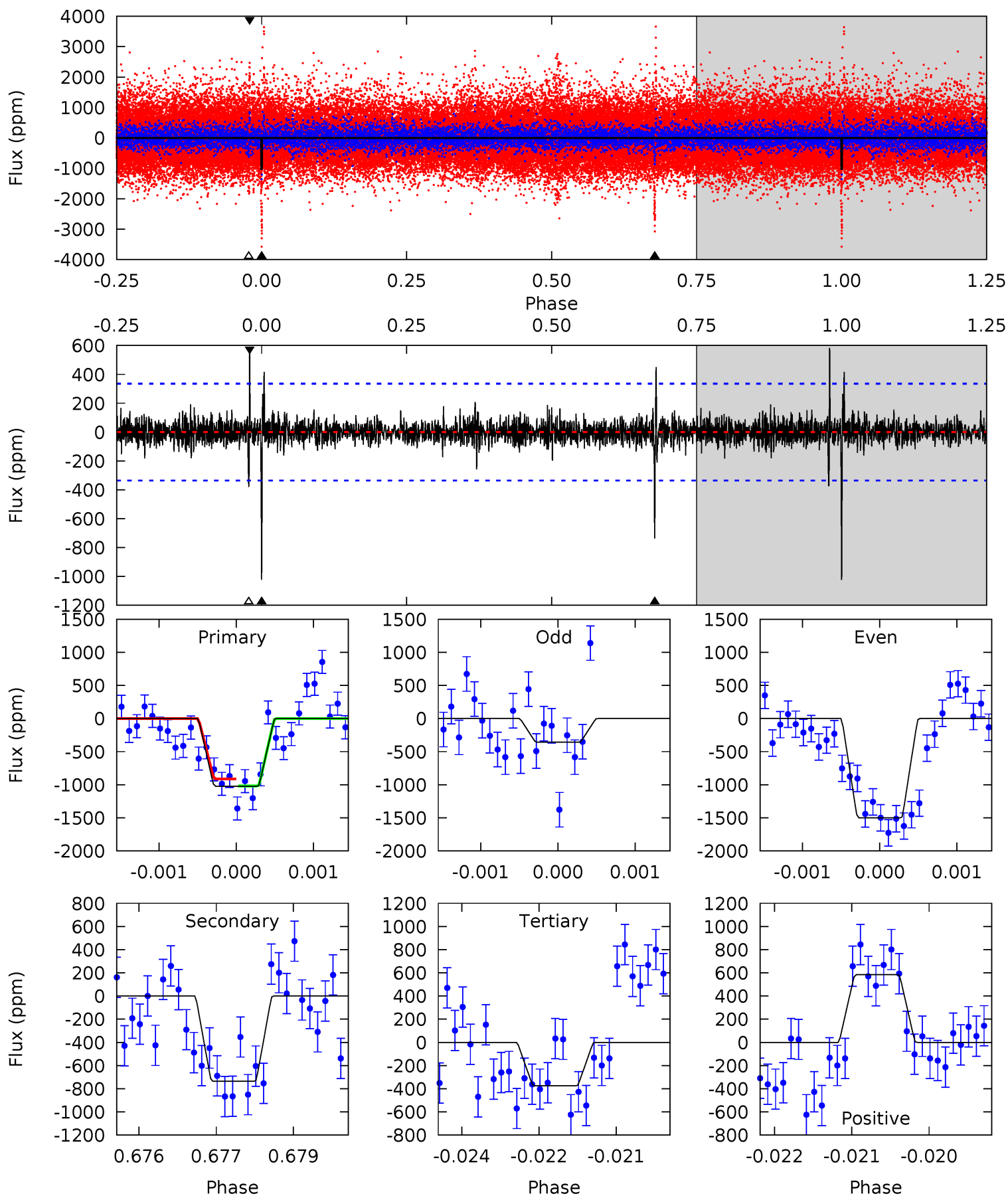
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

011775709-01, P = 526.286771 Days, E = 516.137812 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
16.4	11.8	6.03	9.39	5.40	3.21	0.95	10.4	7.06	5.80	2.45	6.87	3.13	0.36	0.84



### Stellar Parameters For KIC 011775709

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5278^{+158}_{-158}$	$4.564^{+0.049}_{-0.091}$	$-0.160^{+0.300}_{-0.300}$	$0.778^{+0.112}_{-0.075}$	$0.809^{+0.085}_{-0.078}$	$2.423^{+0.520}_{-0.687}$
	+3%/-3%	+1%/-2%	+188%/-188%	+14%/-10%	+11%/-10%	+21%/-28%
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 011775709-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 1000000$	$8.22^{+7.71}_{-5.57}$	$265^{+11}_{-10}$	$-3652^{+17059}_{-8777}$	$-16341.959^{+2074511.361}_{-1649040.929}$
Alt.	$-736 \pm 62$	$6.82^{+6.51}_{-4.75}$	$265^{+11}_{-11}$	$3527^{+2131}_{-645}$	$11990^{+121467}_{-8805}$

$T_{max}$  = 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

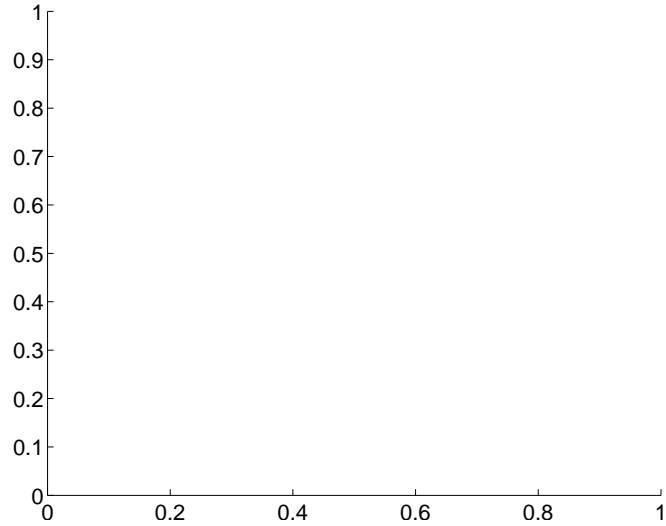
Supplemental centroid analysis for 011775709-01. Kepler magnitude: 15.56. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

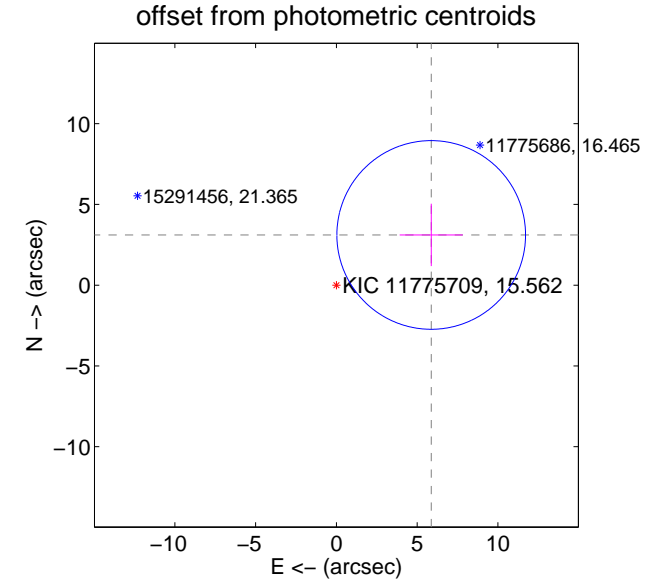
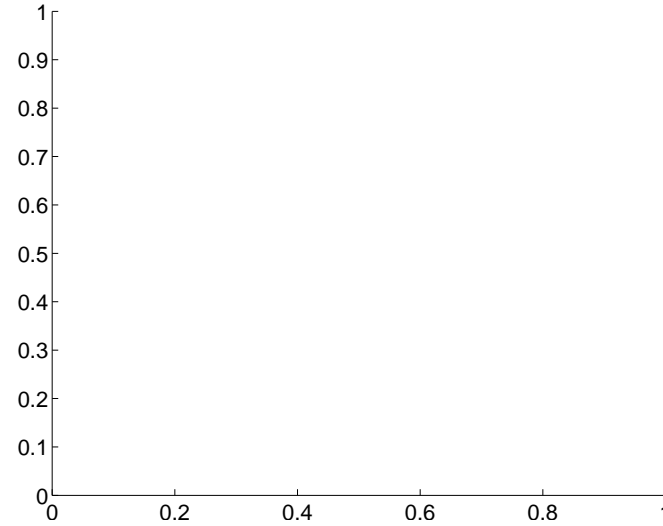
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	$6.64 \pm 1.95$	3.41	$-5.87 \pm 1.95$	$3.11 \pm 1.93$

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



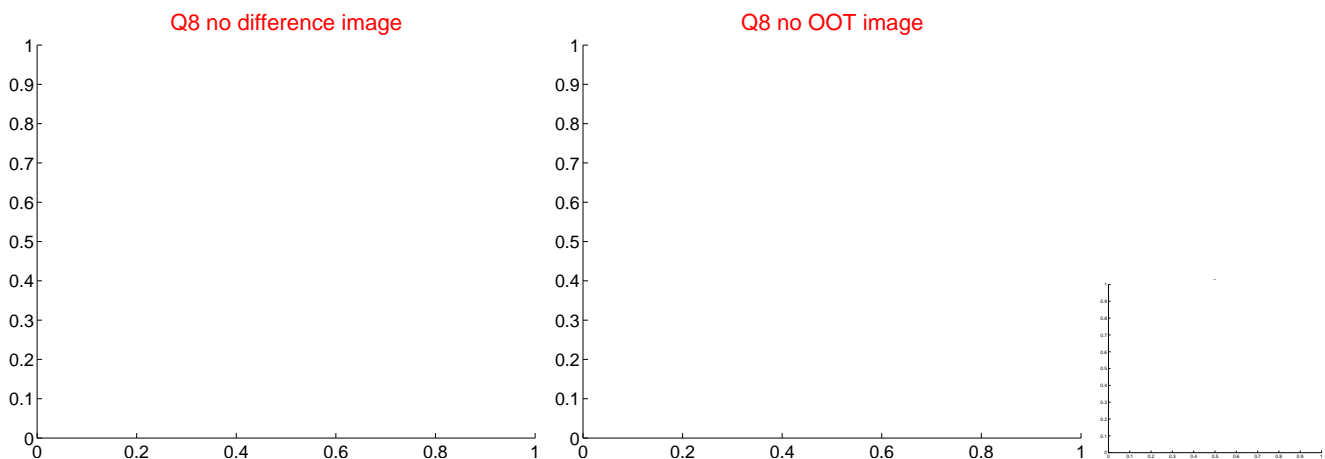
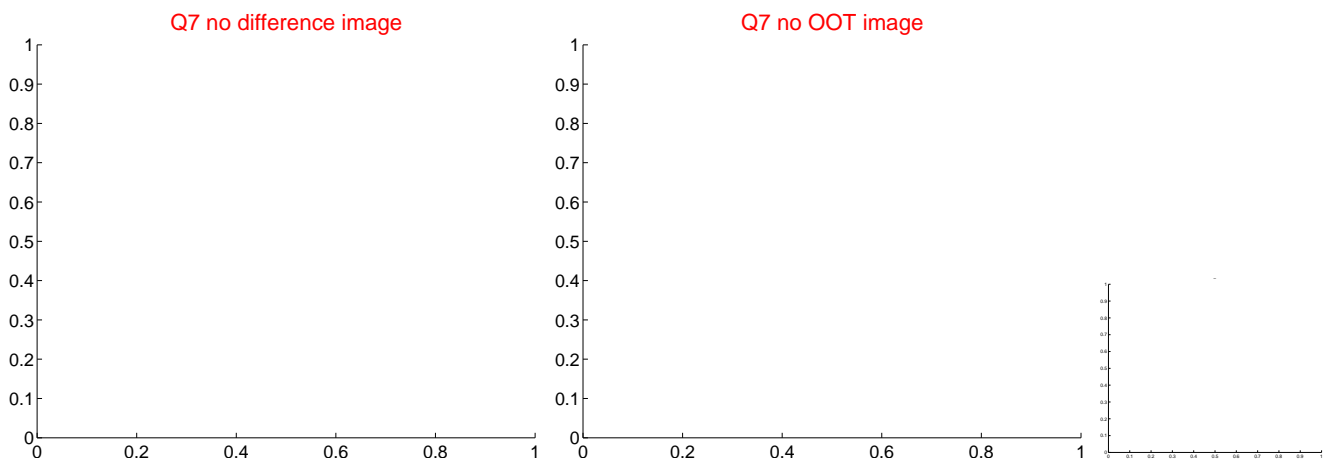
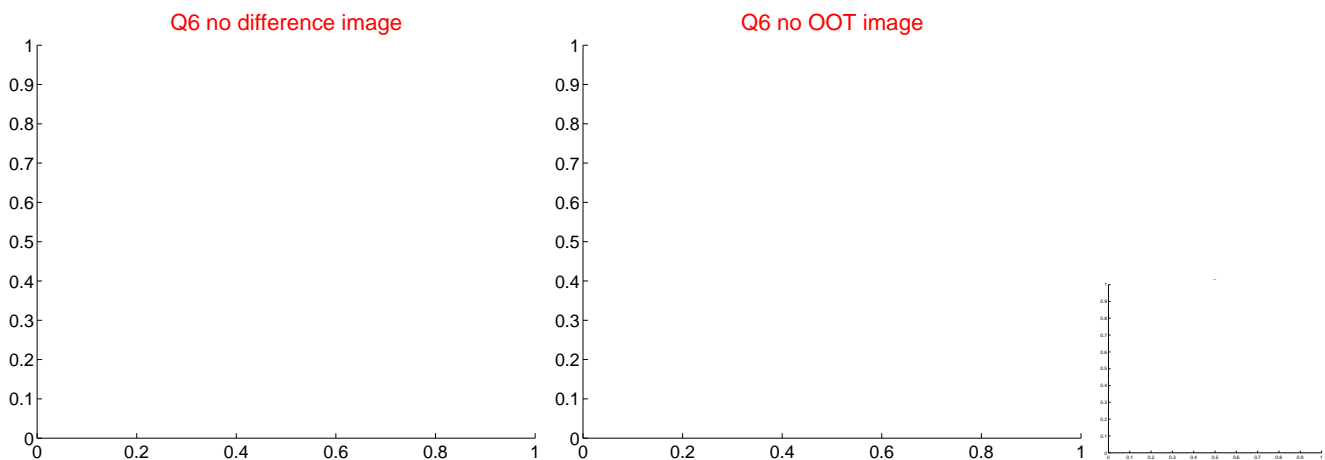
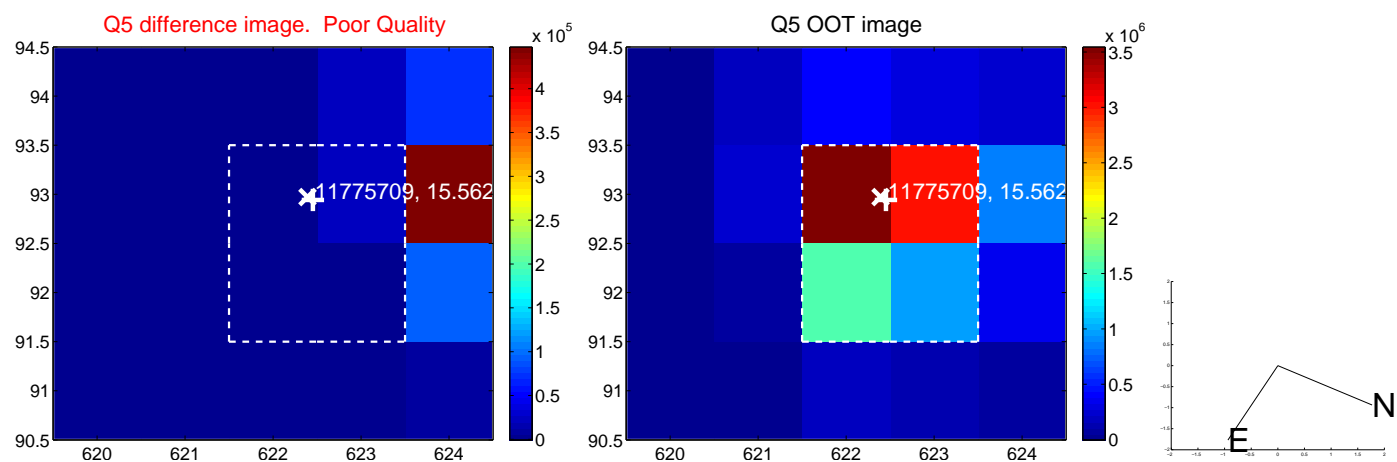
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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



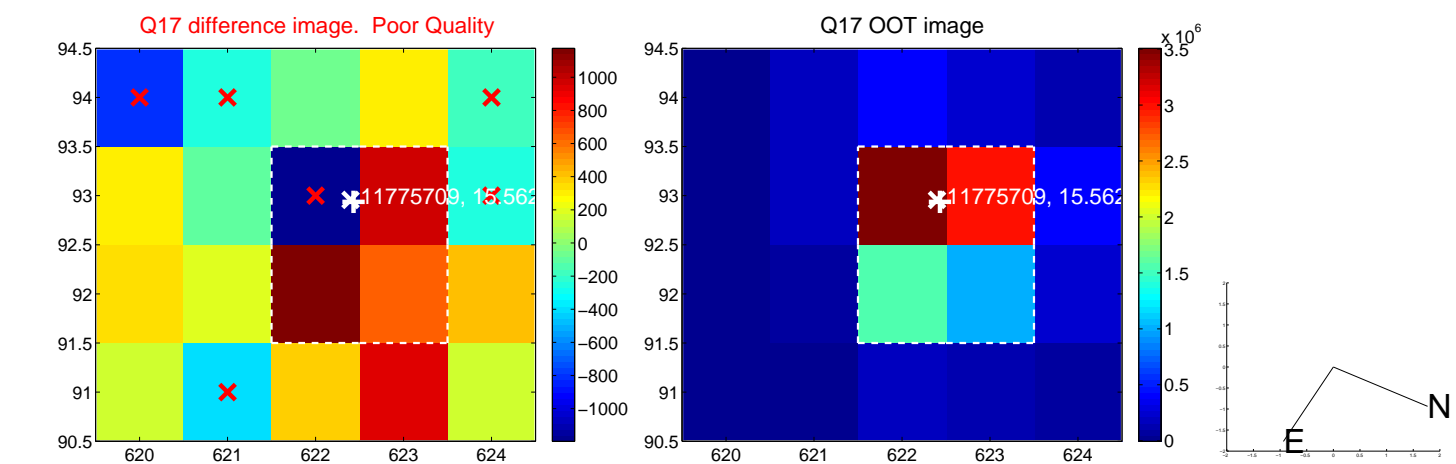
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



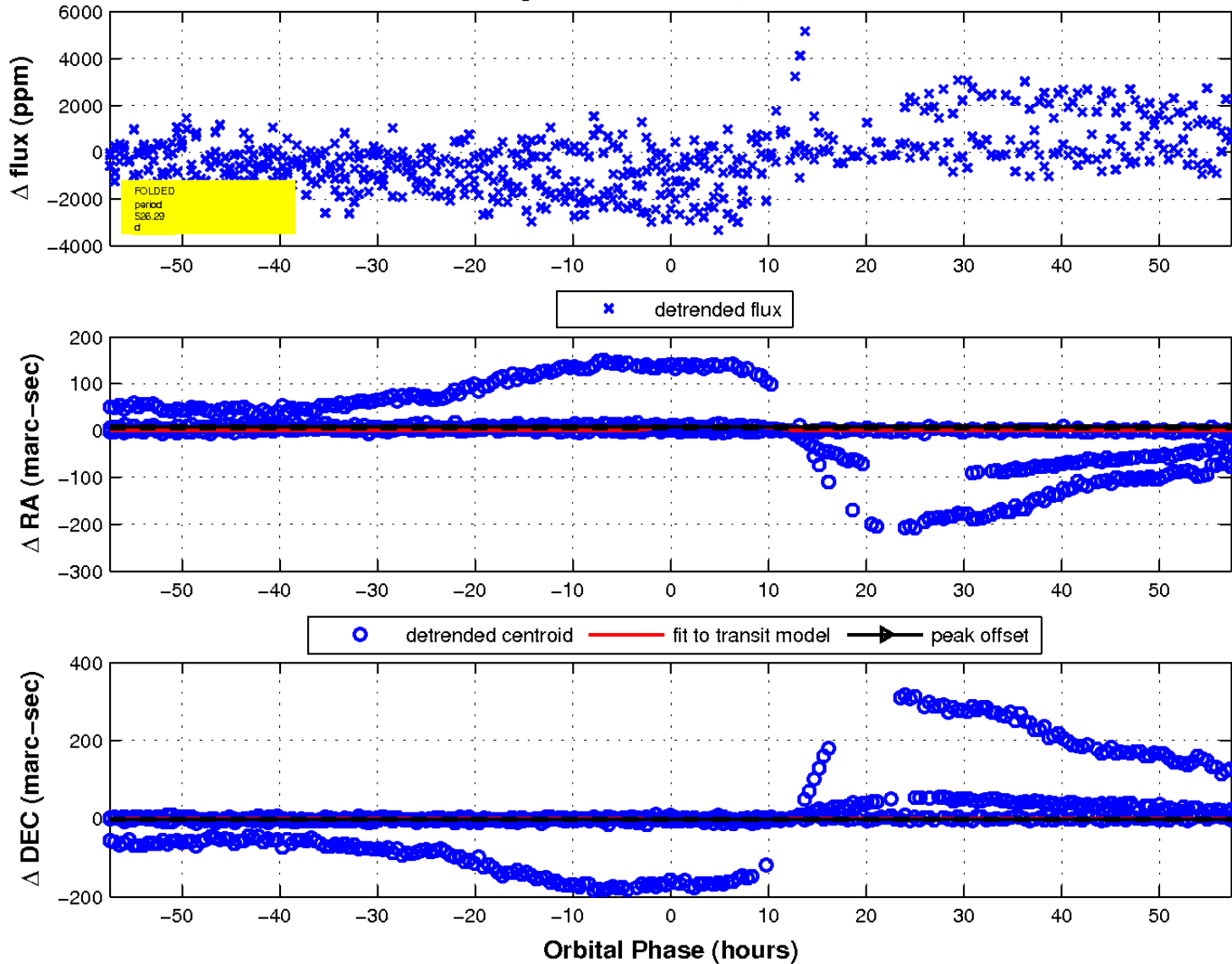
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



# UKIRT Image

Declination

