

# KIC 003128853

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
003128853-01	OBS	No	3.509120	133.230818	161.4	6.000	10.6	-1.0	1.53	6681	1.97	1932.27

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003128853-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_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.

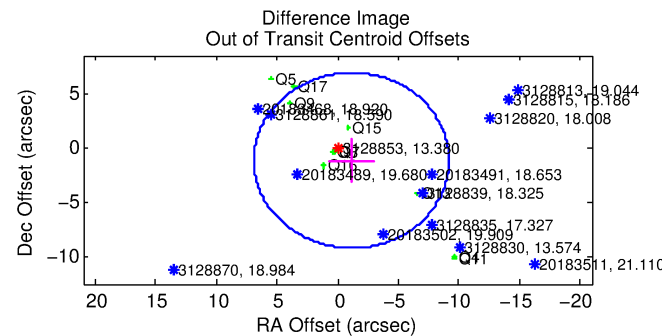
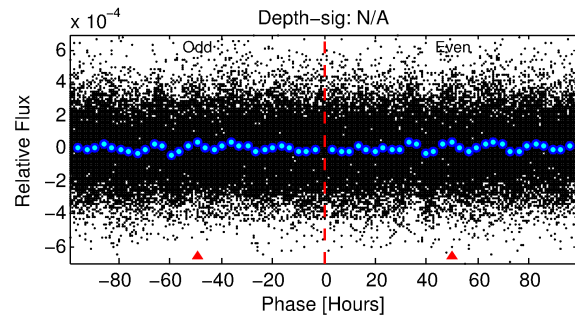
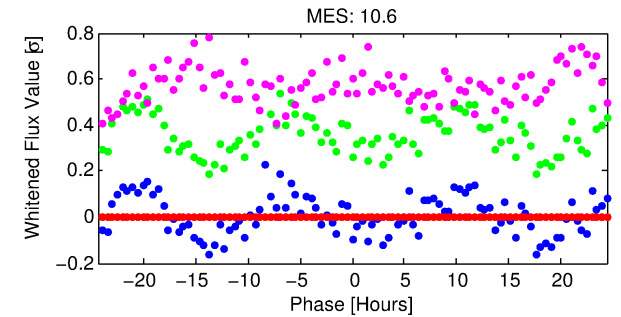
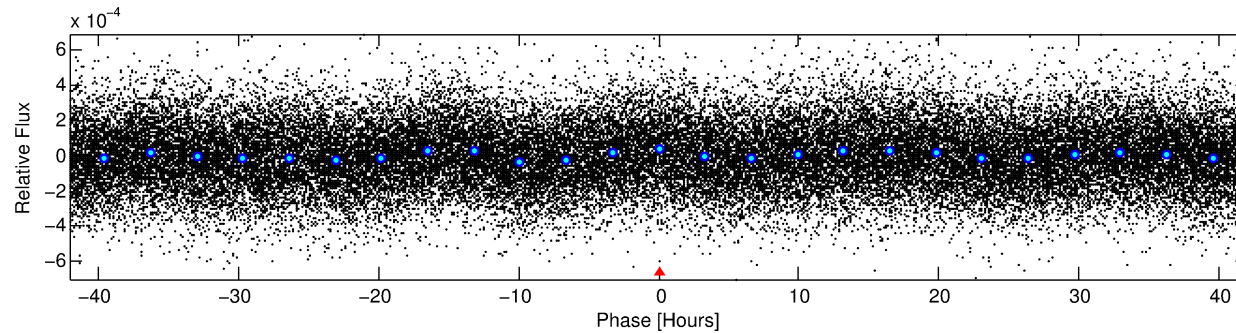
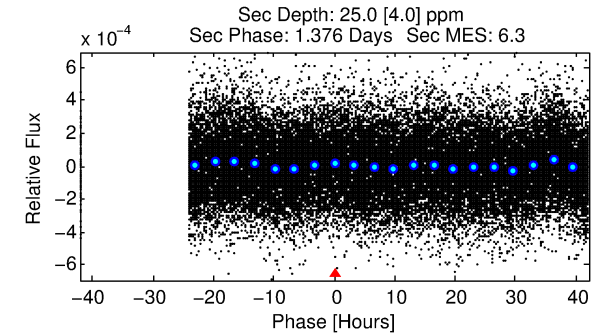
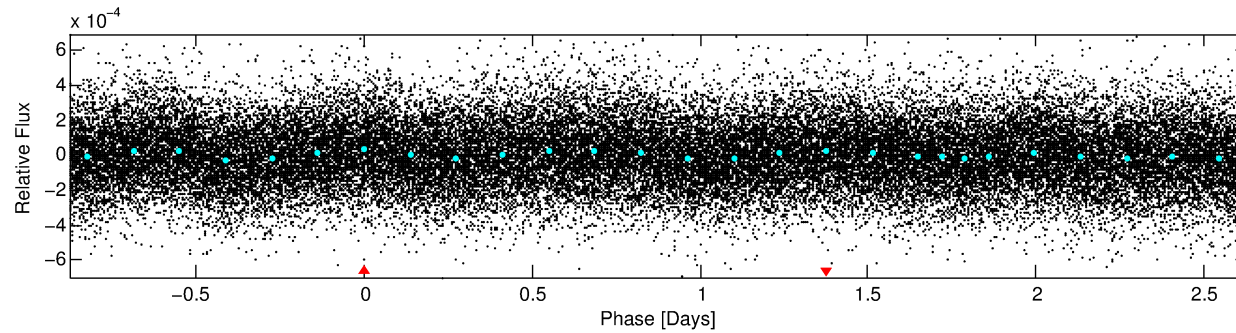
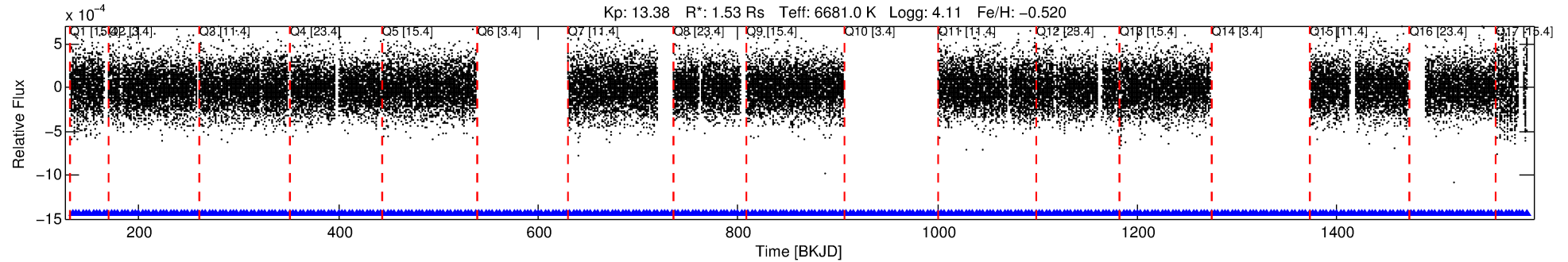
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 003128853-01

No Significant Match Found

# DV One-Page Summary

KIC: 3128853 Candidate: 1 of 1 Period: 3.509 d



## TPS TCE Results:

Period = 3.50912 d  
Epoch = 133.2308 BKJD

DV fit results are unavailable

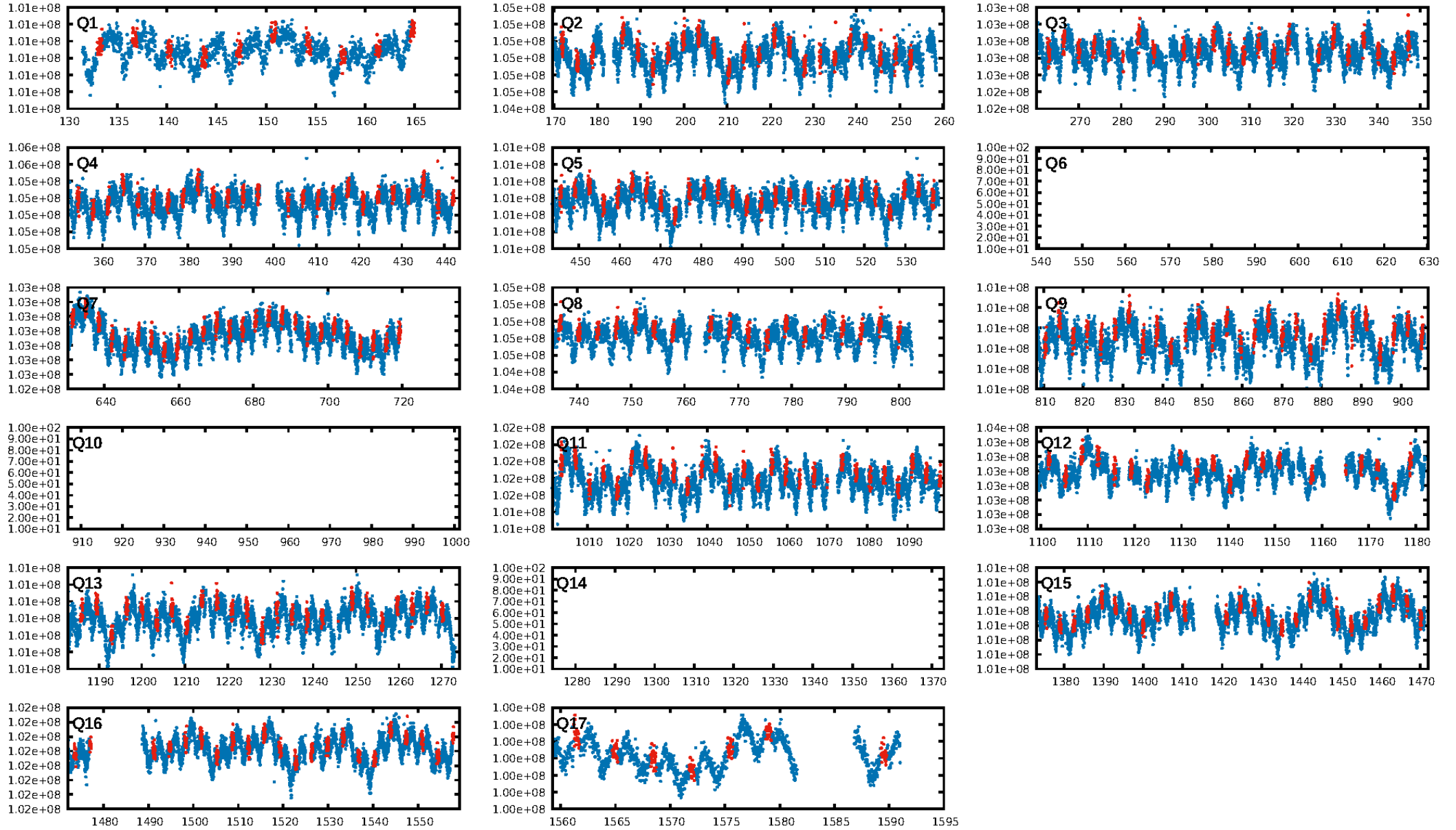
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 2.95e-23  
RollingBand-fgt: 1.00 [293/293]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 1.610 arcsec [0.60σ]  
KicOffset-rm: 3.387 arcsec [1.67σ]  
OotOffset-st: 0/3/3/4 [10]  
KicOffset-st: 0/3/3/4 [10]  
DiffImageQuality-fgm: 0.10 [1/10]  
DiffImageOverlap-fno: 1.00 [14/14]

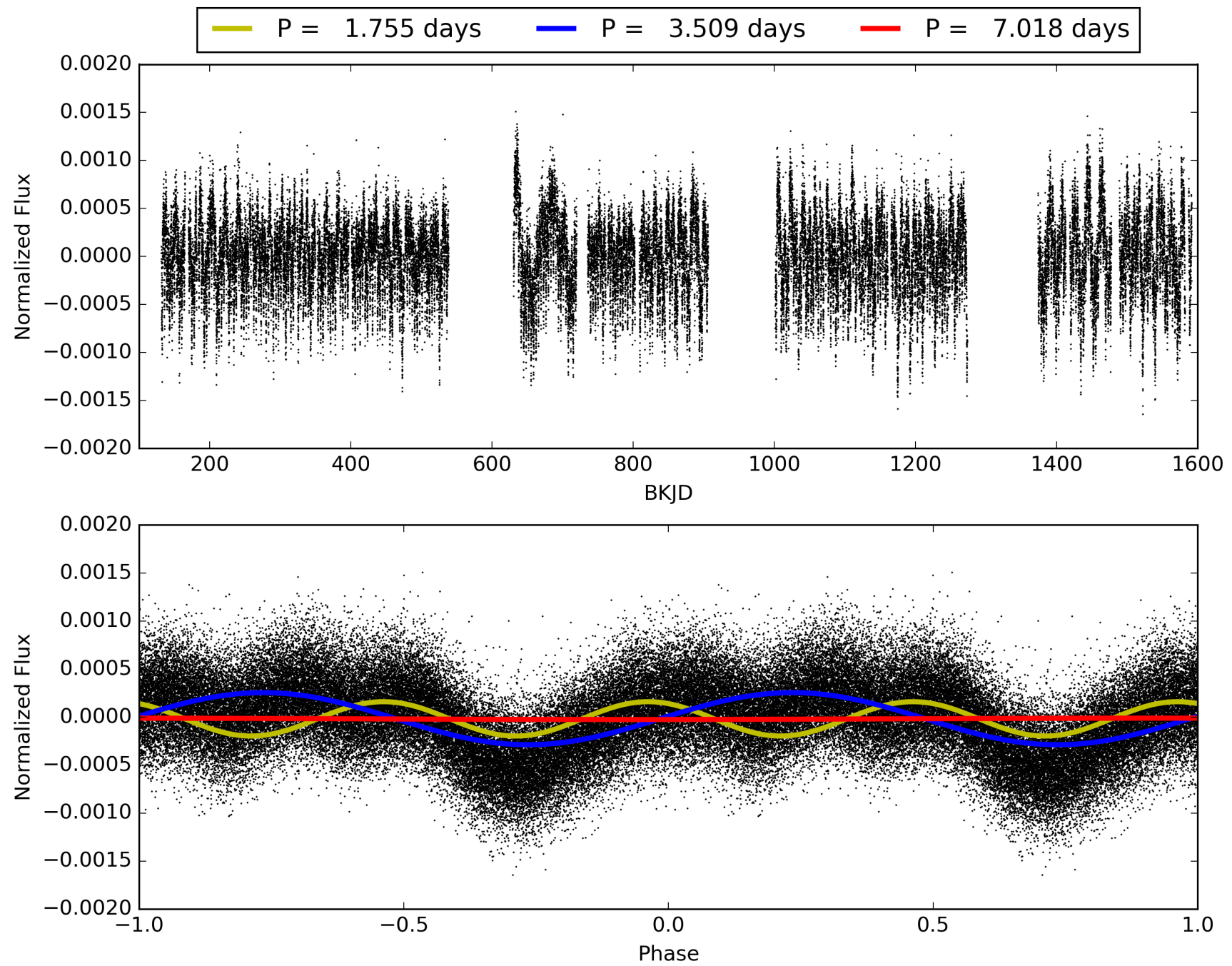
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:25:35 Z

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

# TCE 003128853-01, PDC Light Curves

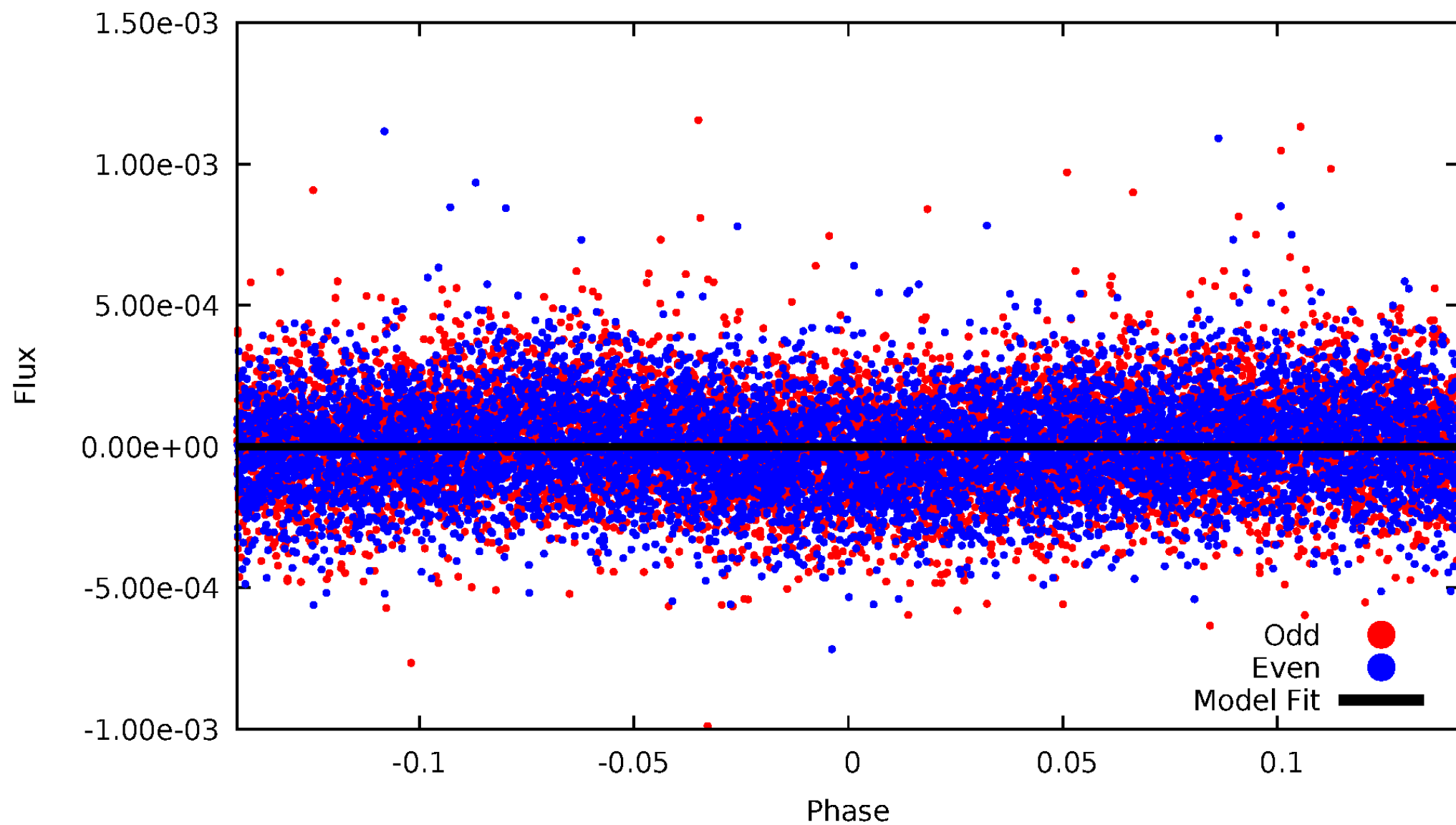


TCE 003128853-01



# DV Odd/Even

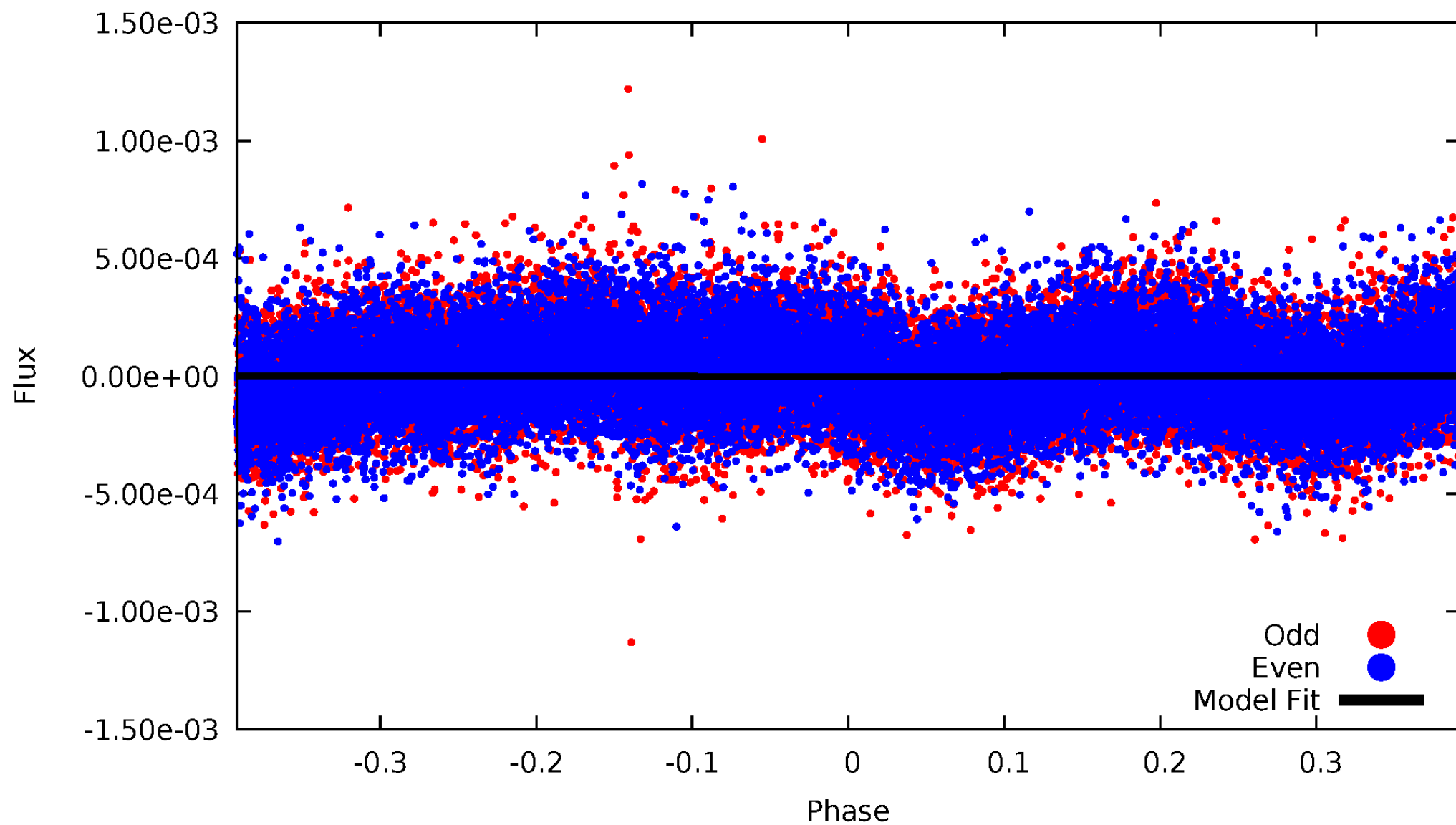
TCE 003128853-01



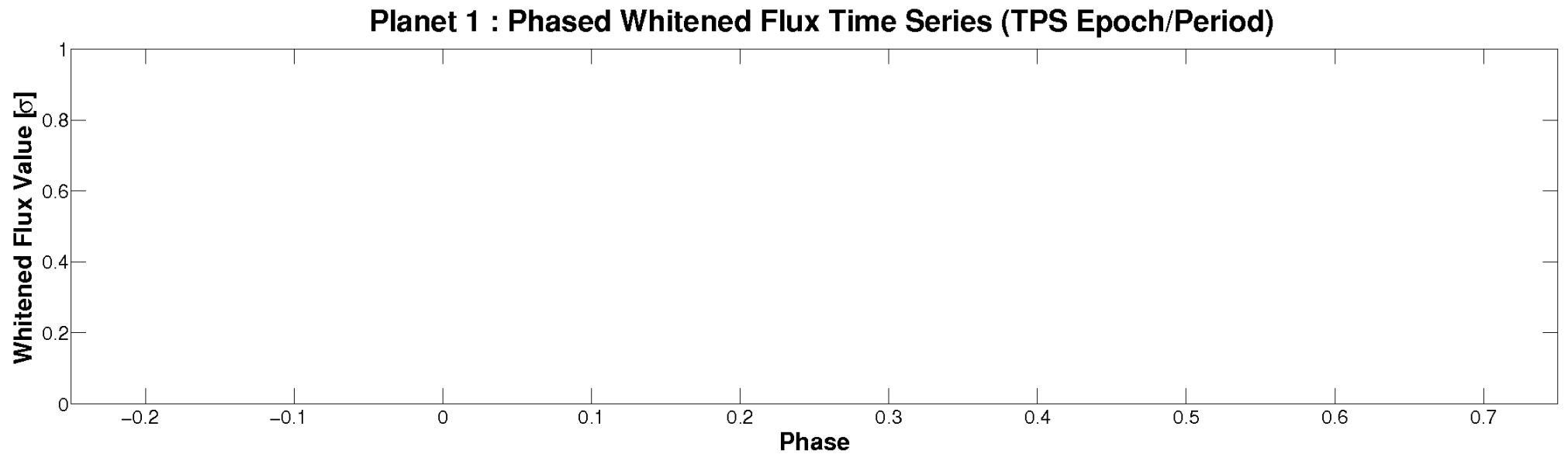
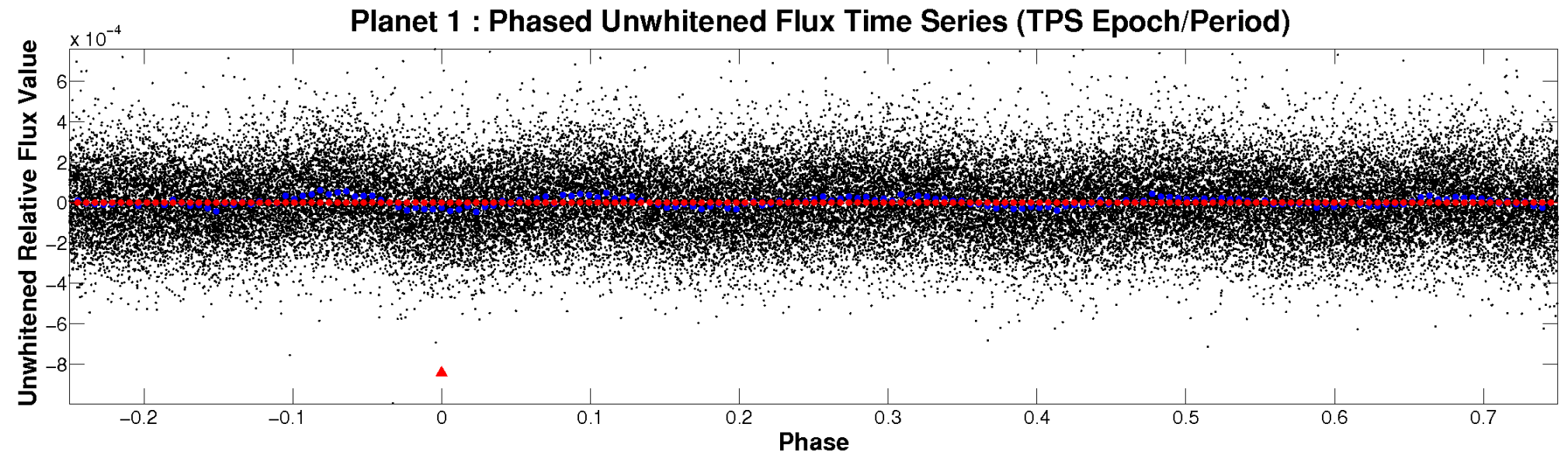


# ALT Odd/Even

TCE 003128853-01

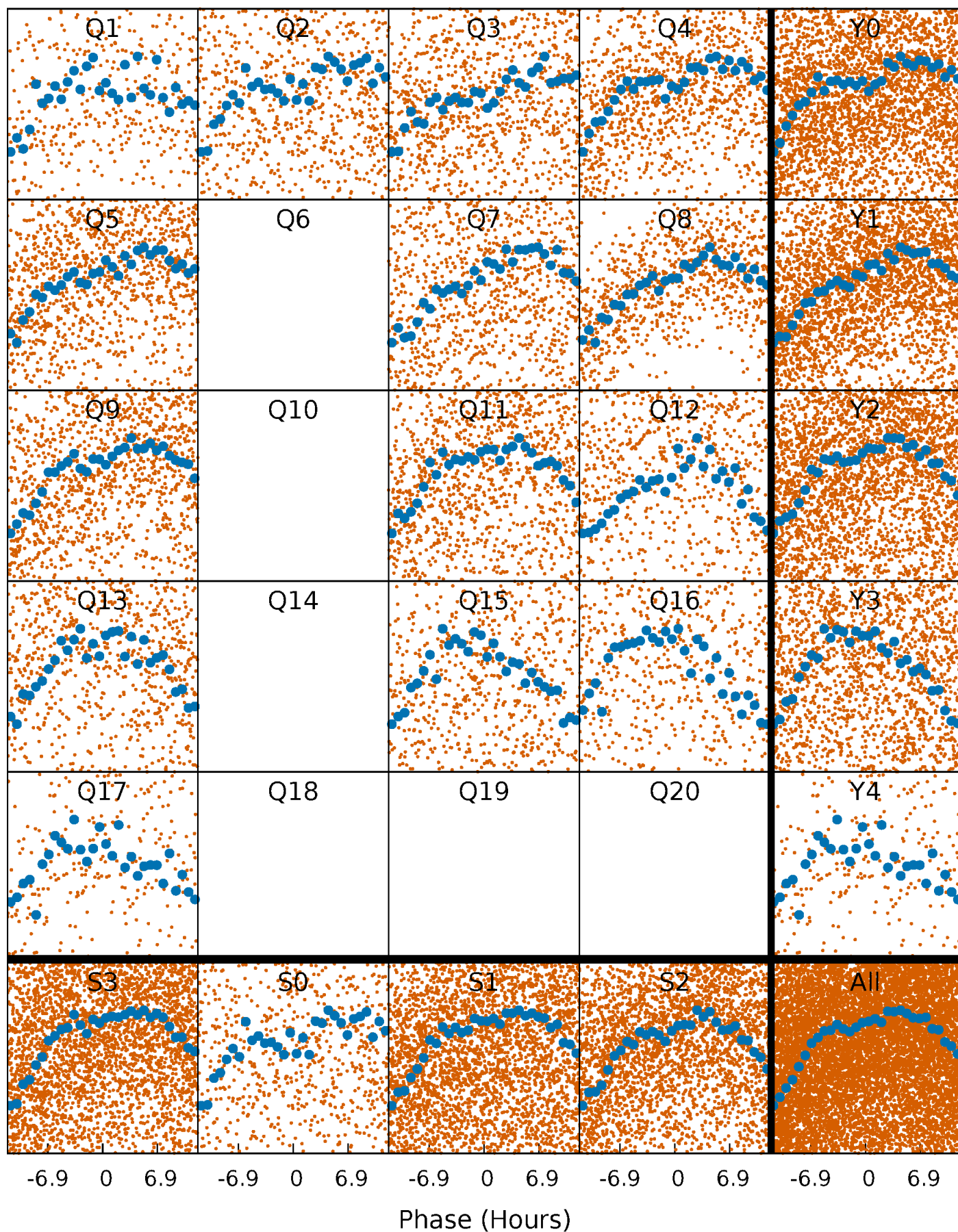


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

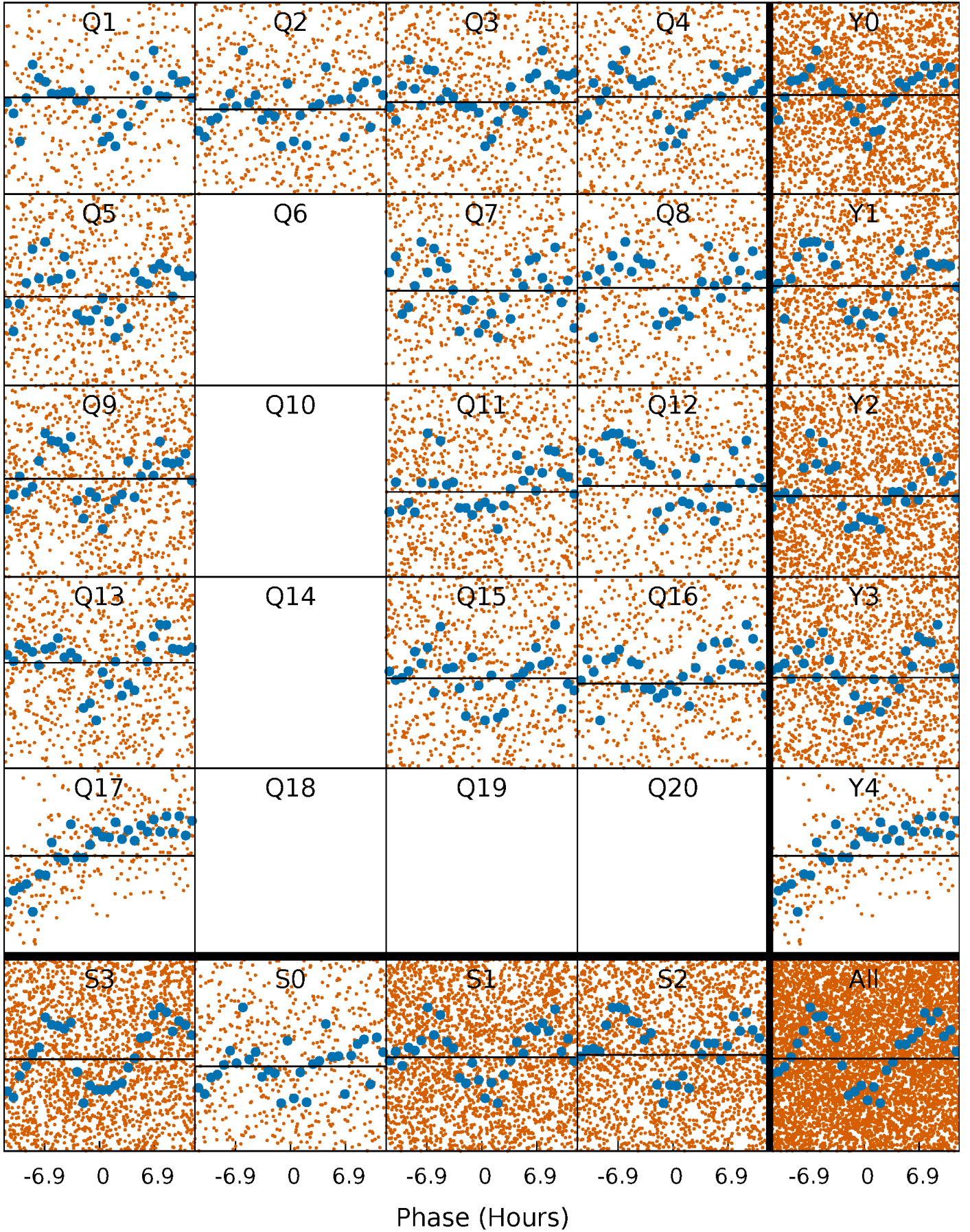
TCE 003128853-01 P= 3.509120 Days  $T_0=133.230818$  (BKJD)





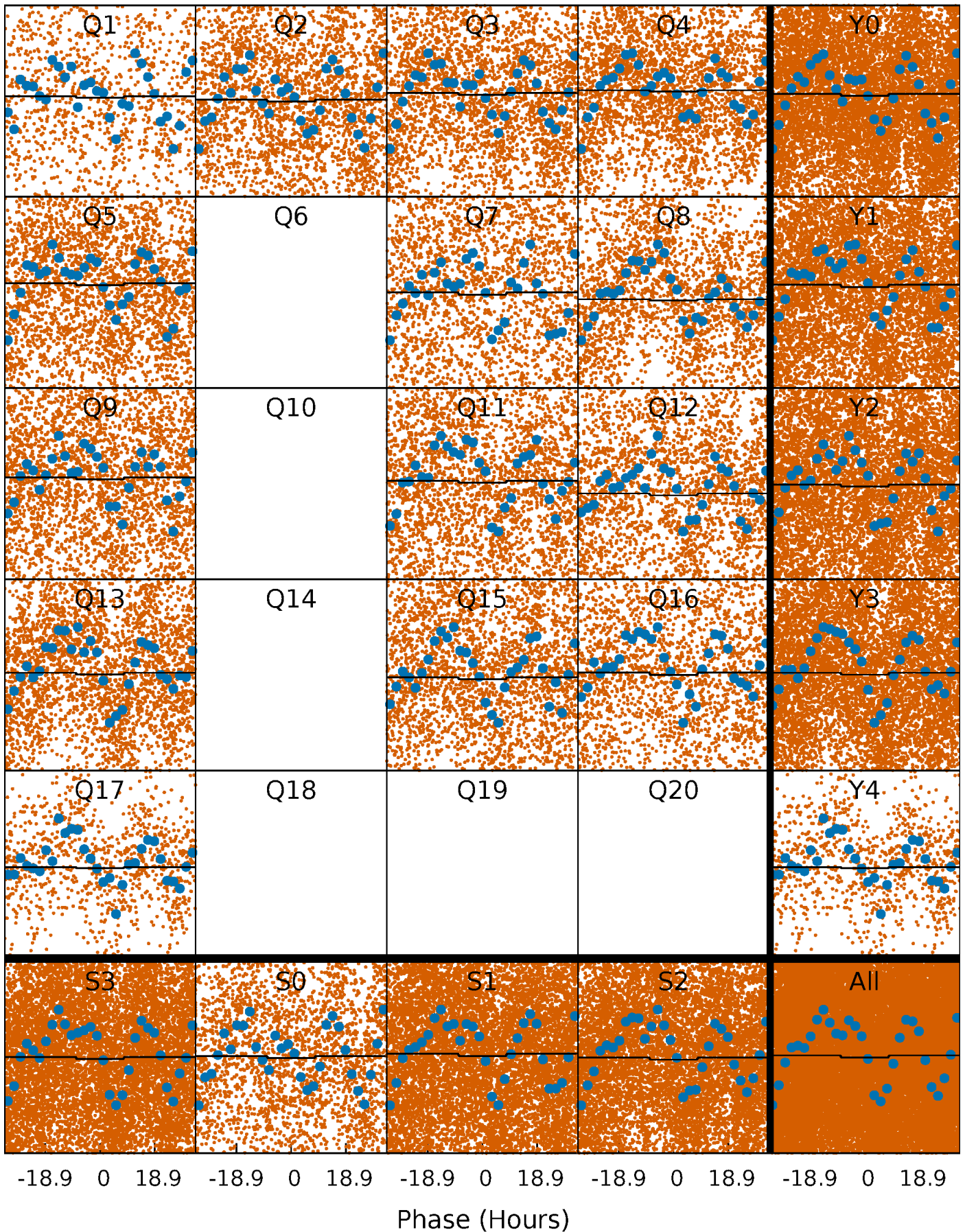
# DV Quarter-Phased Transit Curves

TCE 003128853-01 P= 3.509120 Days  $T_0=133.230818$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

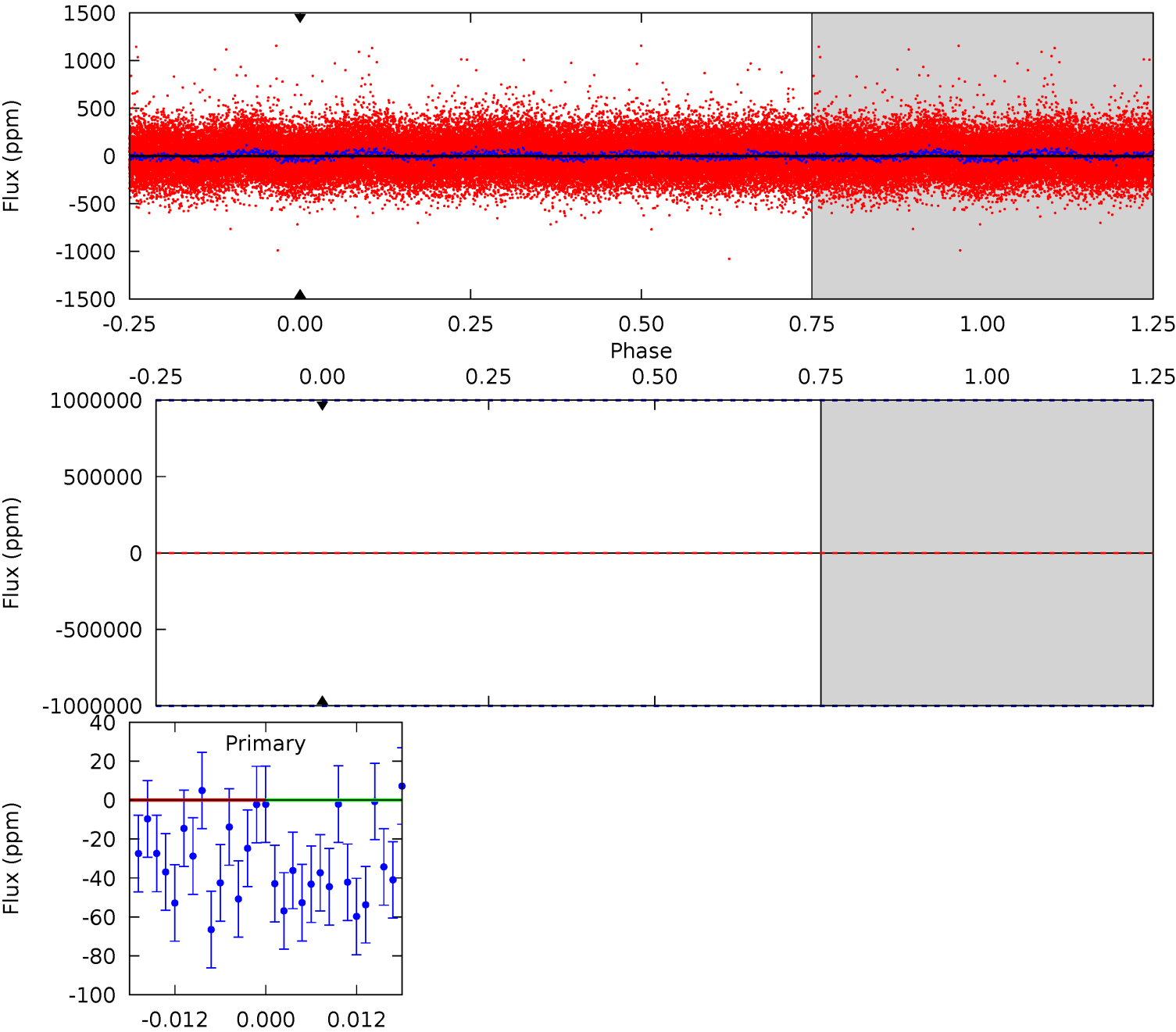
TCE 003128853-01 P= 3.509120 Days  $T_0=133.603924$  (BKJD)



DV Model-Shift Uniqueness Test

003128853-01, P = 3.509120 Days, E = 129.721698 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

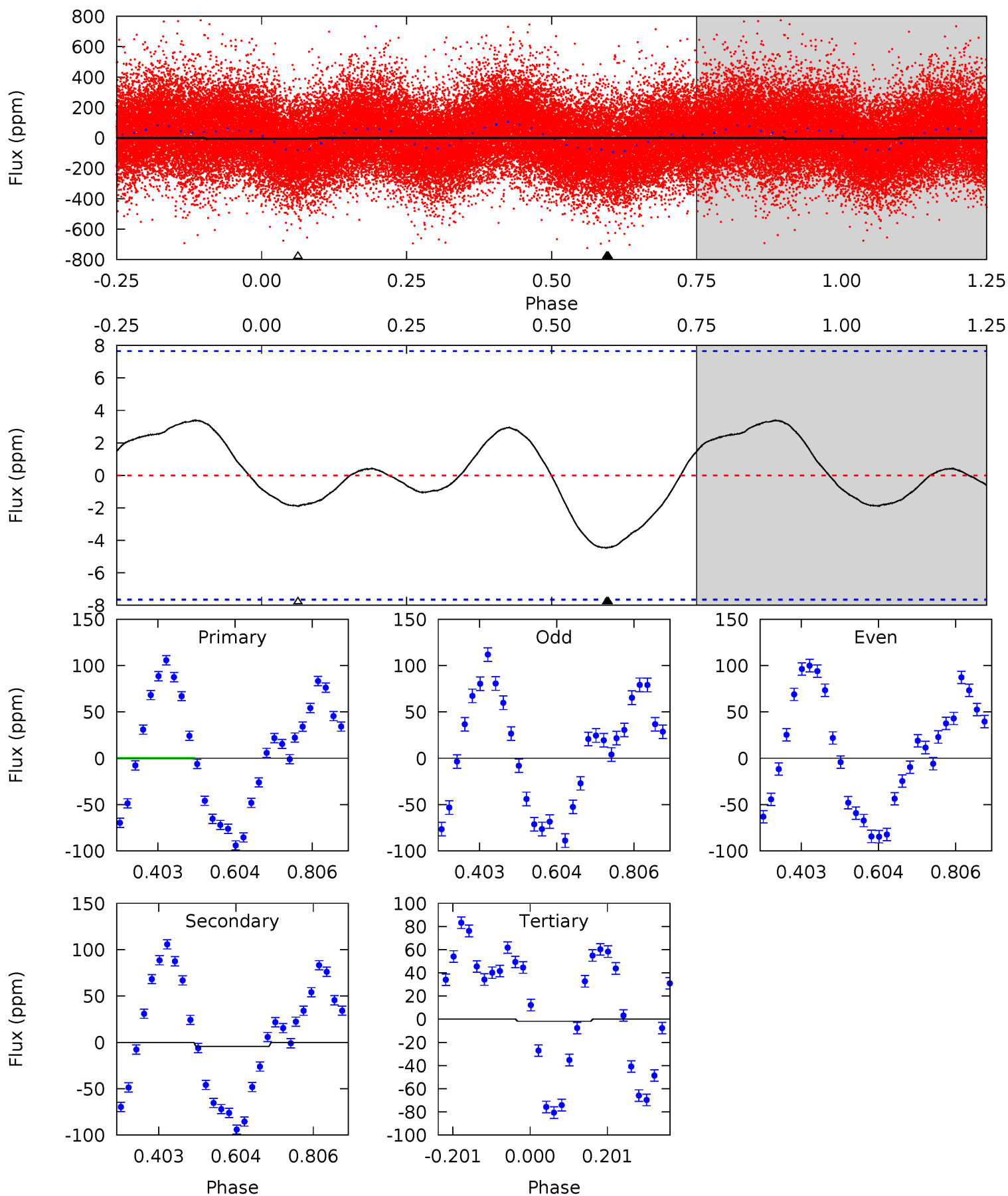




# Alt Model-Shift Uniqueness Test

003128853-01, P = 3.509120 Days, E = 130.094804 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
2.56	2.57	1.09	0	4.42	1.28	0.95	1.48	2.56	1.48	2.57	1.50	0.80	0.43	2.66



### Stellar Parameters For KIC 003128853

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6681^{+190}_{-238}$	$4.107^{+0.252}_{-0.168}$	$-0.520^{+0.300}_{-0.300}$	$1.535^{+0.425}_{-0.468}$	$1.099^{+0.178}_{-0.146}$	$0.428^{+0.661}_{-0.197}$
	+3%/-4%	+6%/-4%	+58%/-58%	+28%/-30%	+16%/-13%	+154%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 003128853-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$11.79^{+11.82}_{-8.34}$	$2334^{+187}_{-192}$	$4924^{+34841}_{-33643}$	$16^{+2159}_{-1493}$
Alt.	$-4 \pm 2$	$11.64^{+12.48}_{-8.25}$	$2352^{+186}_{-176}$	$-2624^{+5070}_{-140}$	$0.037^{+0.434}_{-0.028}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

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



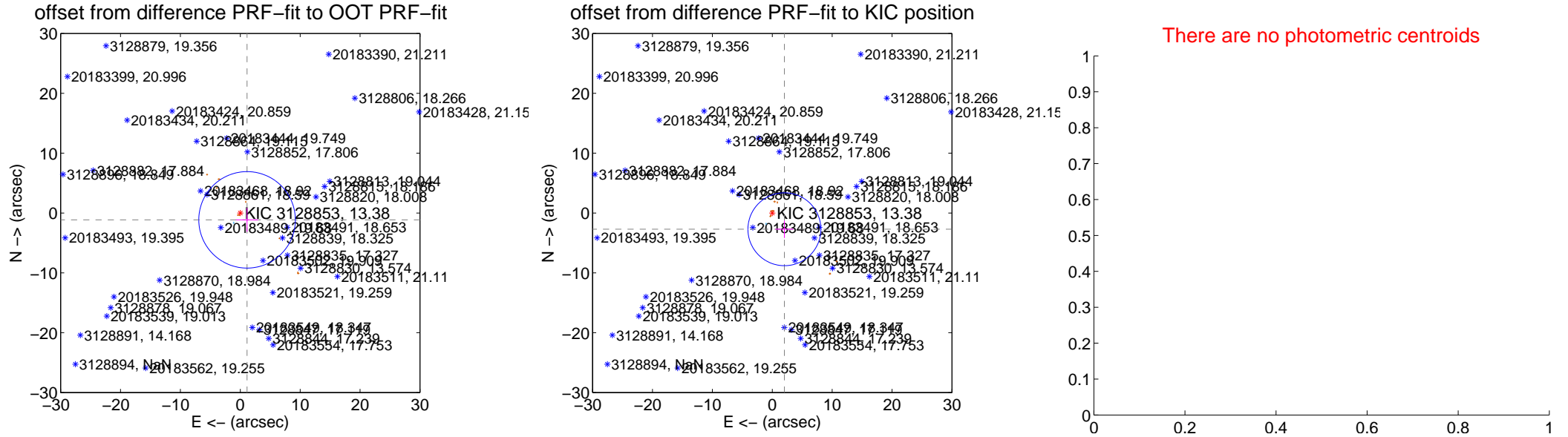
## DV Centroid Data

Supplemental centroid analysis for 003128853-01. Kepler magnitude: 13.38. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

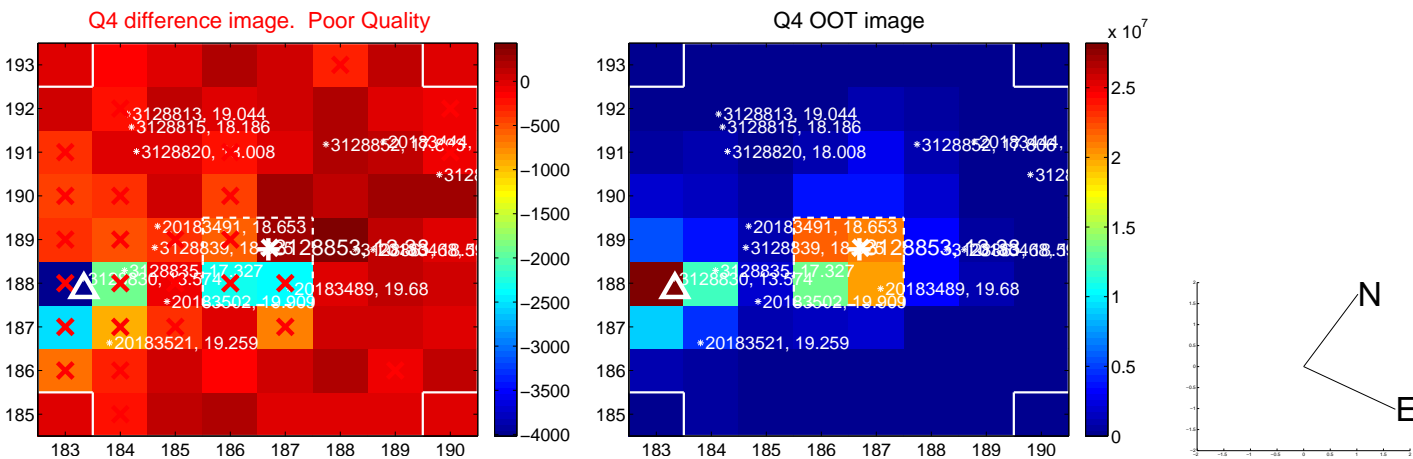
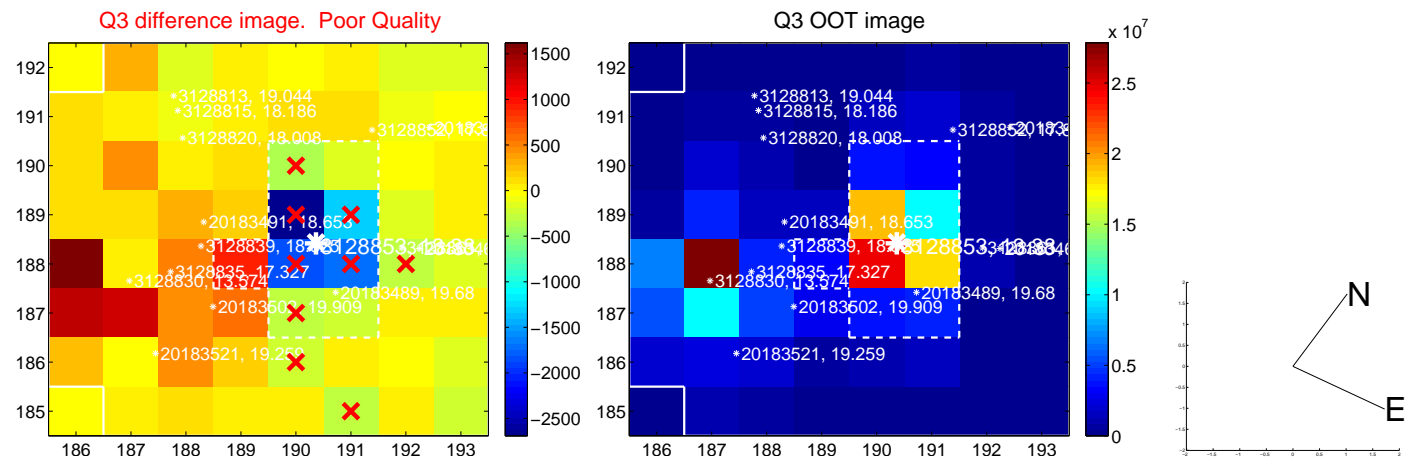
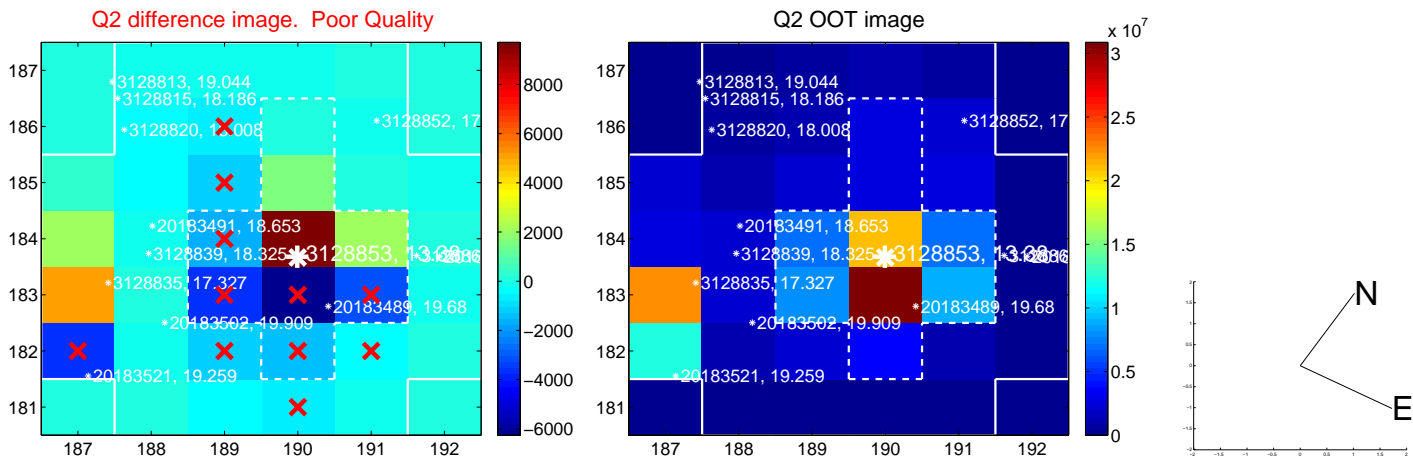
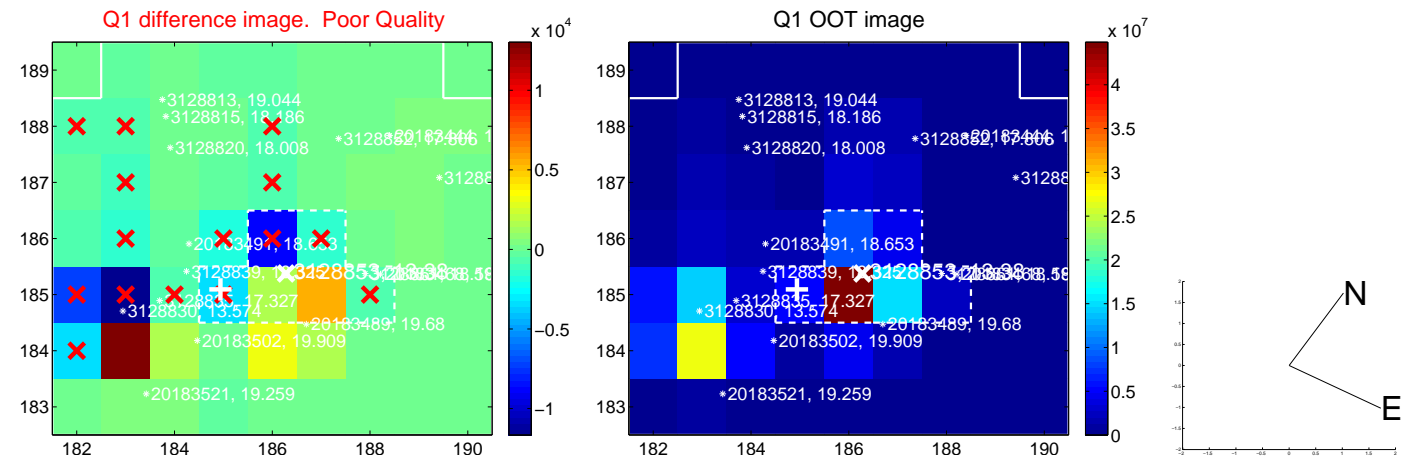
The OOT PRF centroid is offset from the target star catalog position by about 5.45 arcsec so the offset from difference PRF-fit to OOT-PRF-fit may be invalid.

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.610 \pm 2.687$	0.60	$-1.133 \pm 1.843$	$-1.143 \pm 1.989$
PRF-fit source offset from KIC position	$3.387 \pm 2.030$	1.67	$-2.029 \pm 1.509$	$-2.712 \pm 1.454$
photometric centroid source offset	—	—	—	—

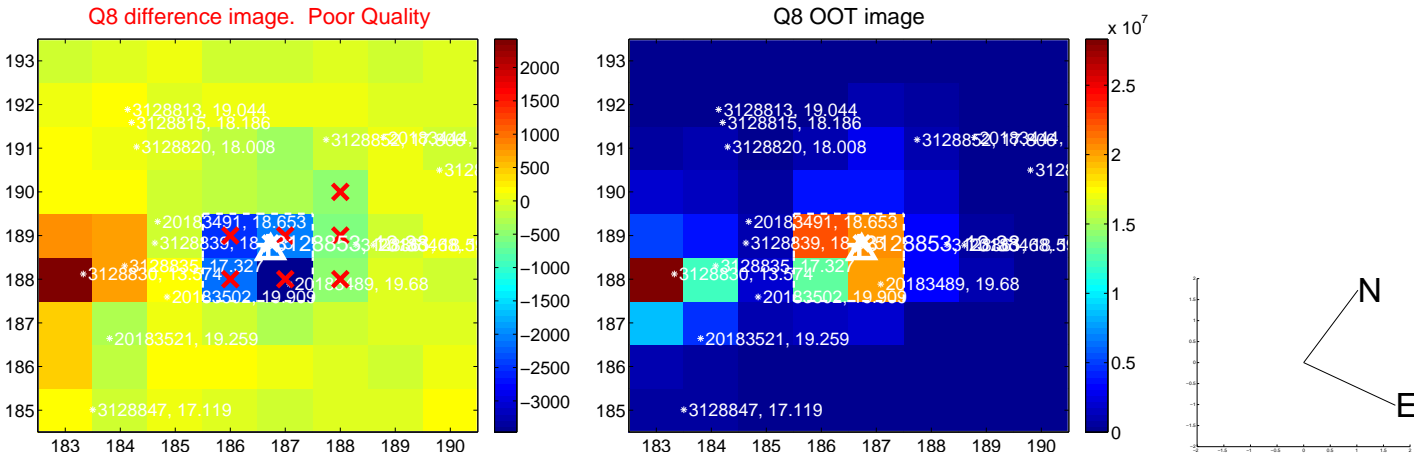
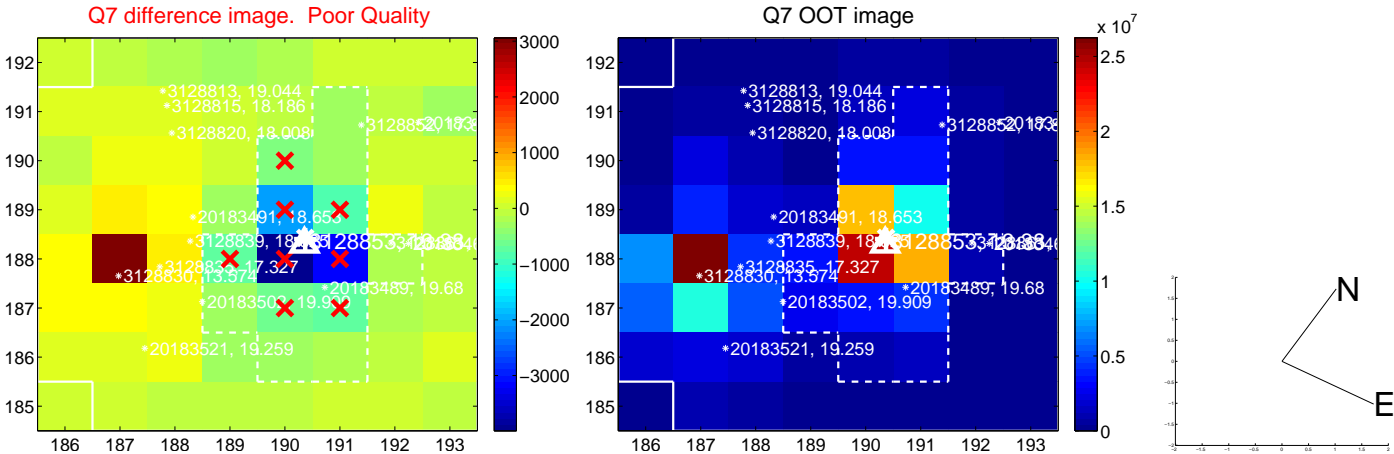
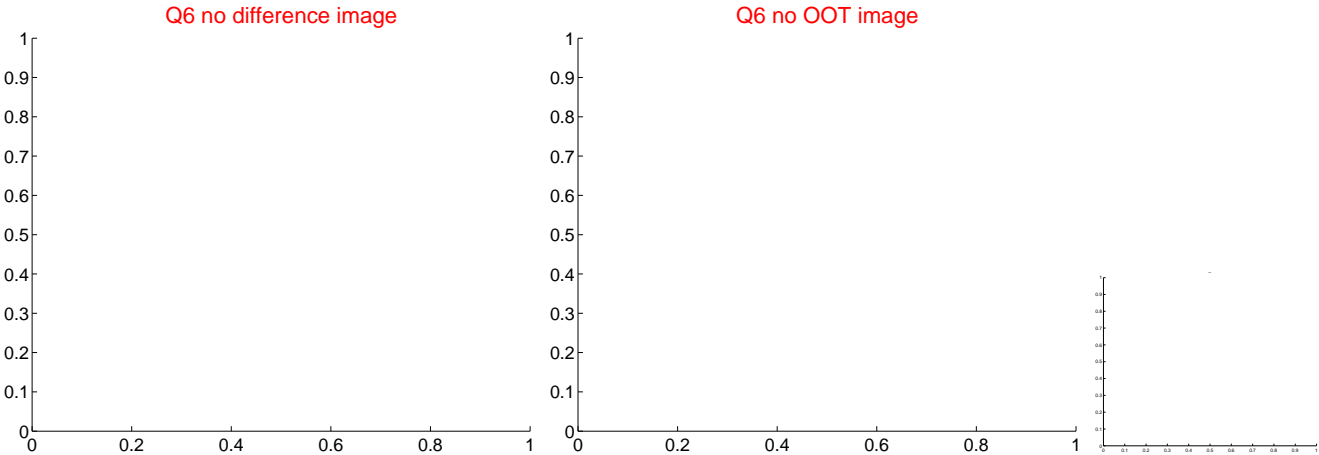
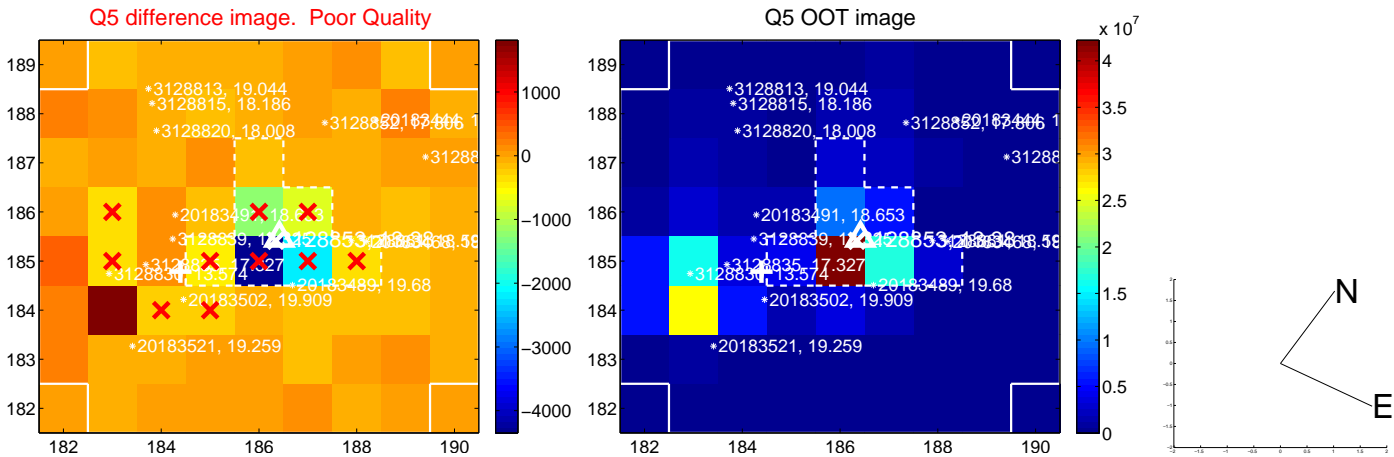


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

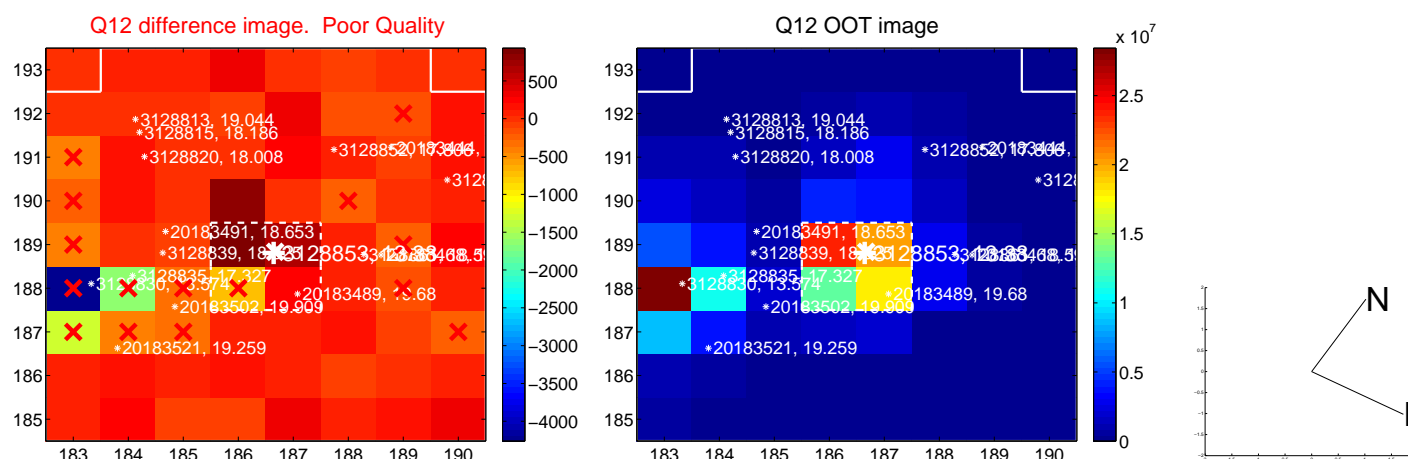
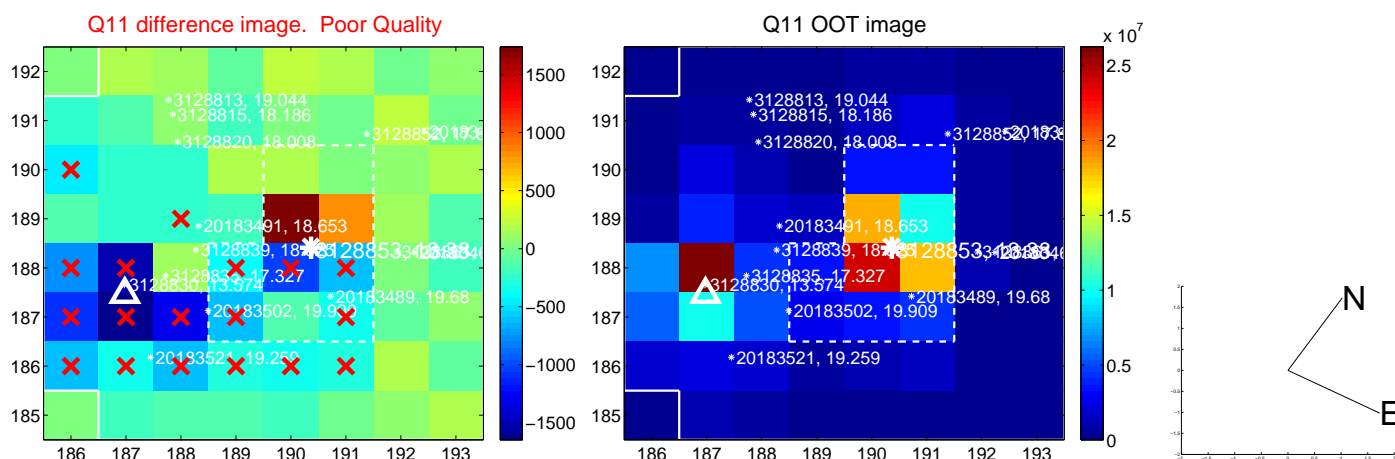
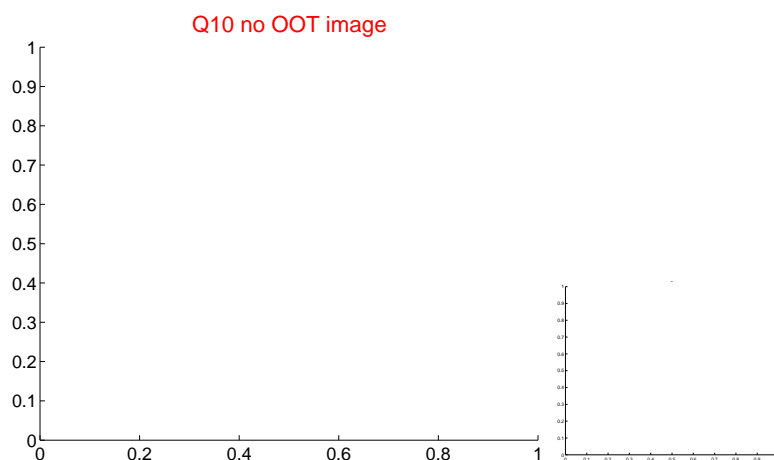
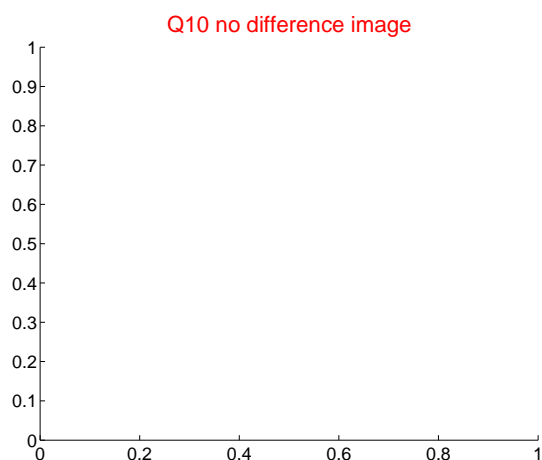
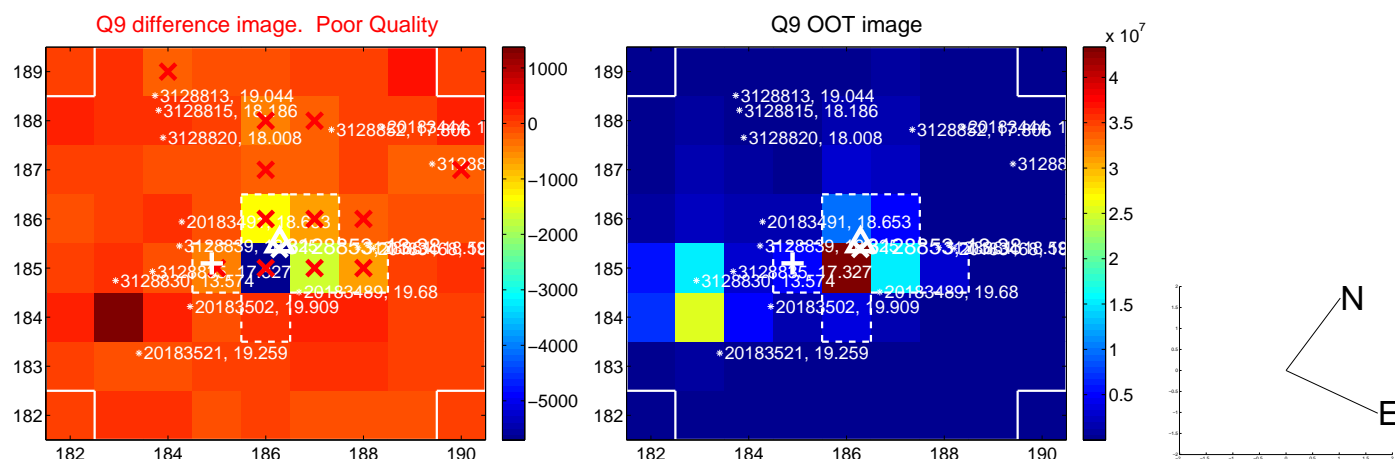
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



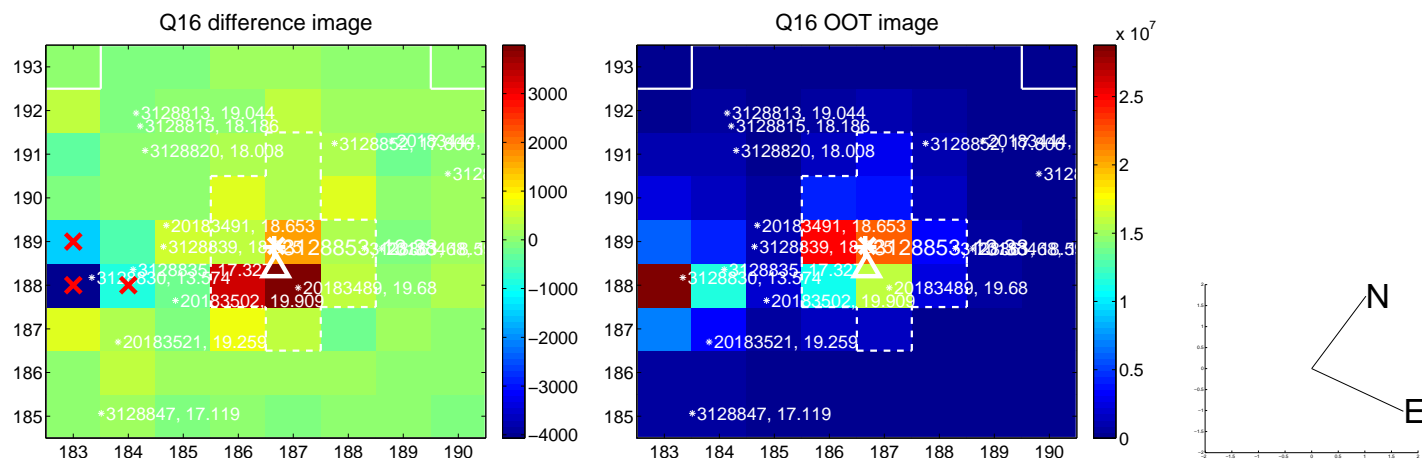
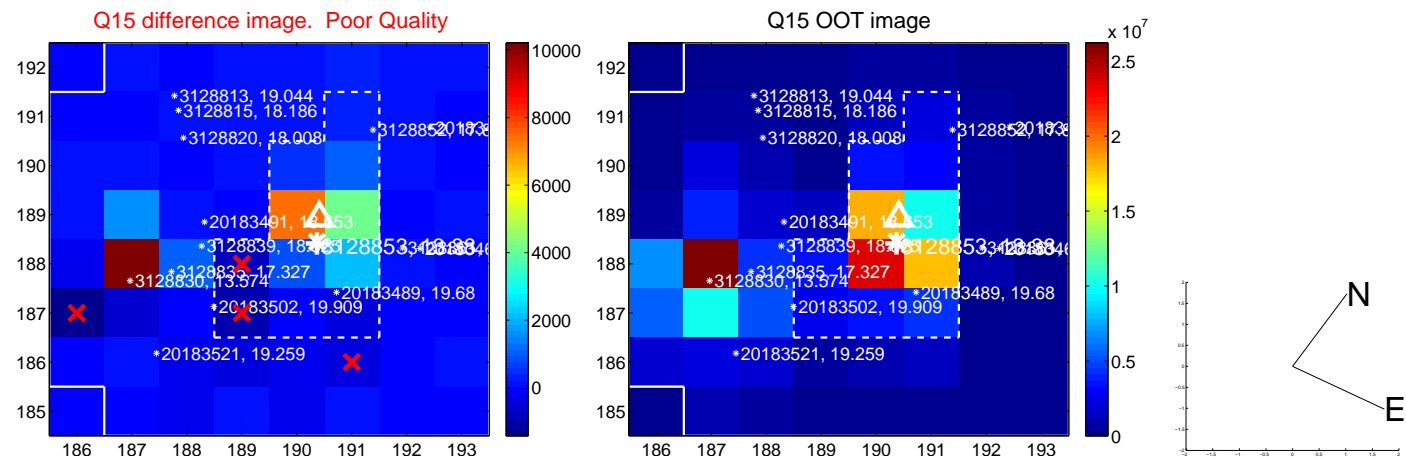
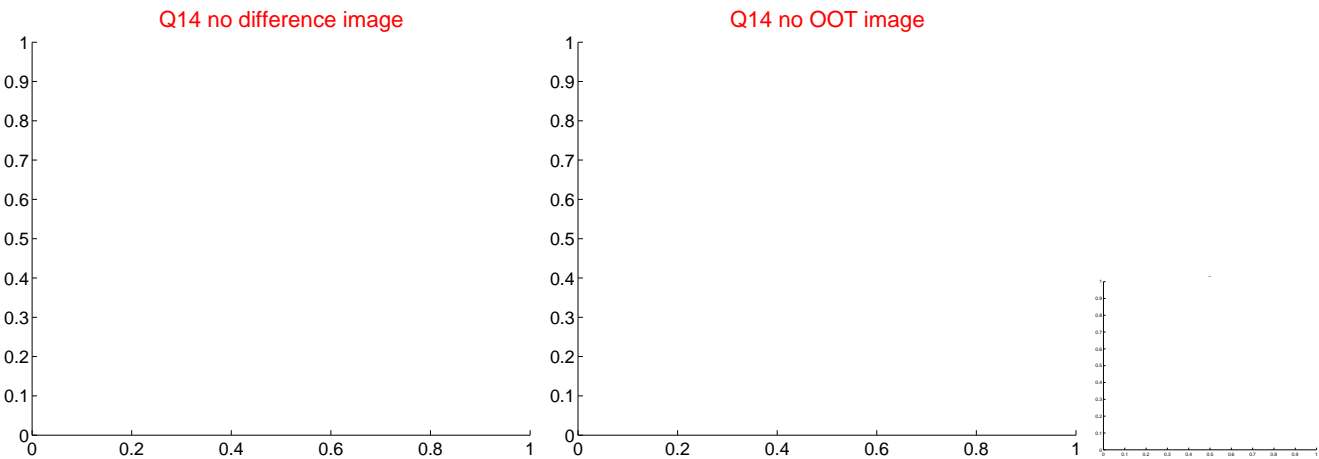
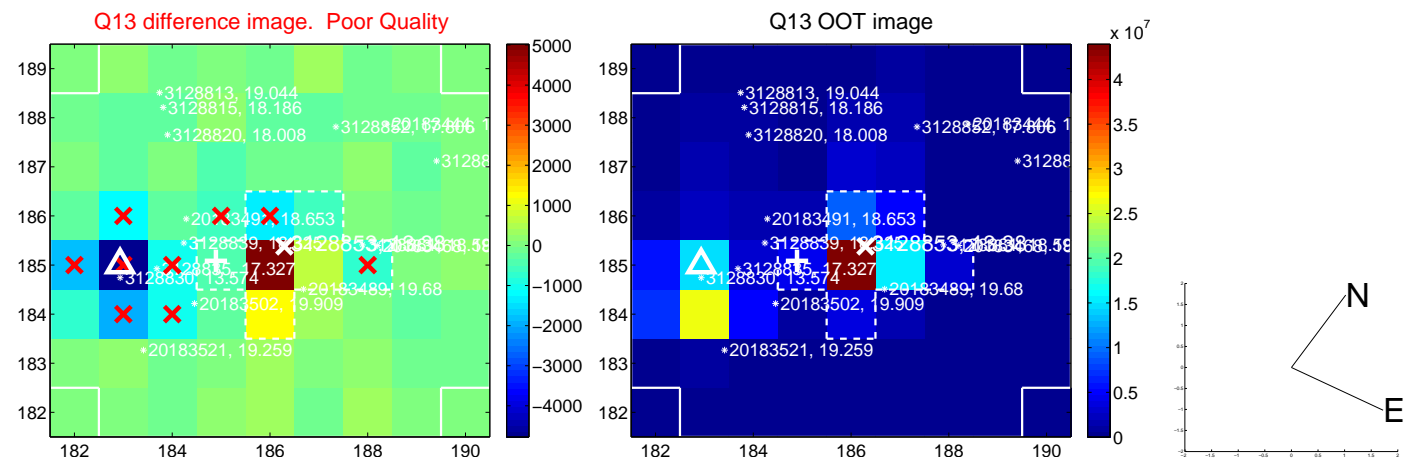
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

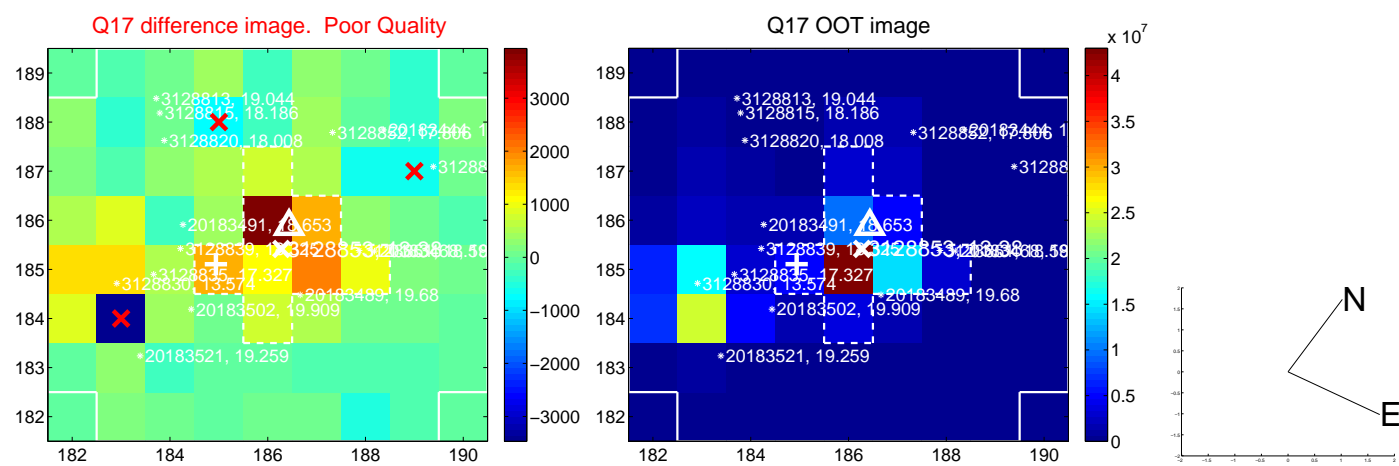


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





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



folded centroid time series figure for this object.

UKIRT Image

Declination

