

# KIC 011282568

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011282568-01	OBS	7430.01	1.320493	132.616954	180.8	1.121	23.6	33.4	13.45	5172	22.11	0.00

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011282568-01	OBS	PC	1.00	0	0	0	0	PLANET_IN_STAR—CENT_SATURATED

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

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

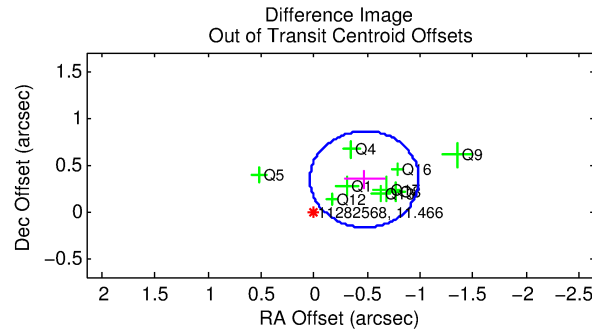
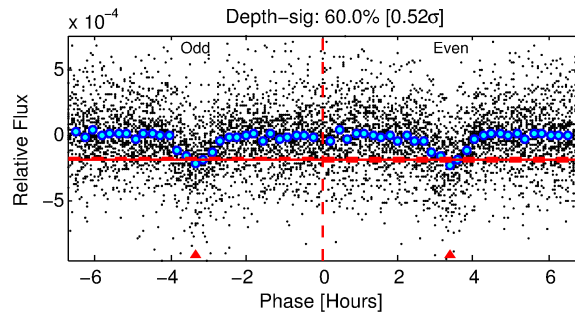
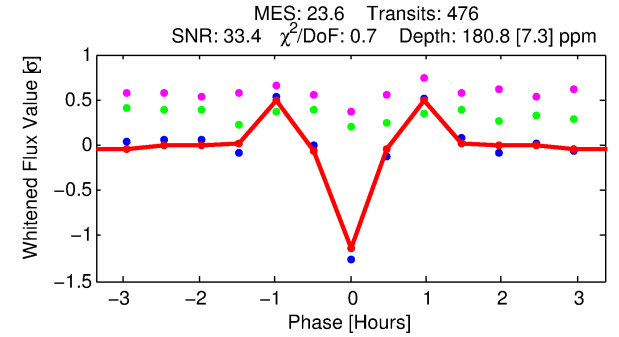
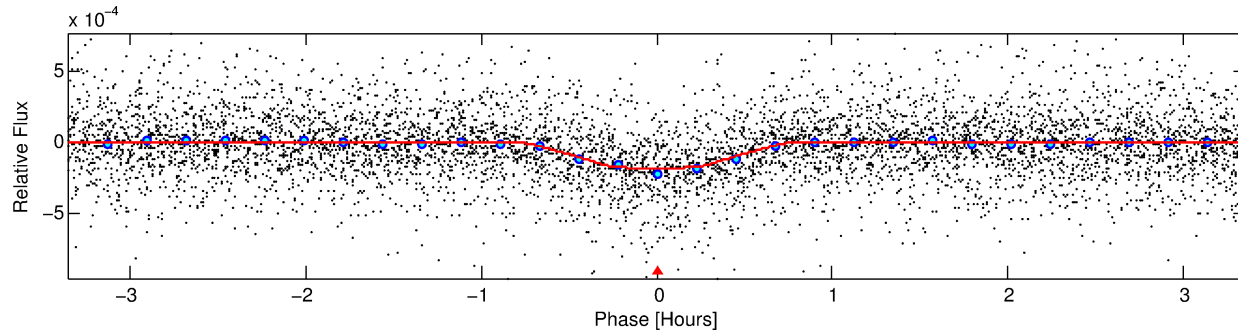
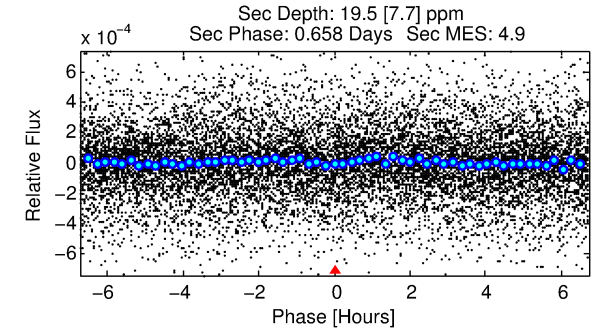
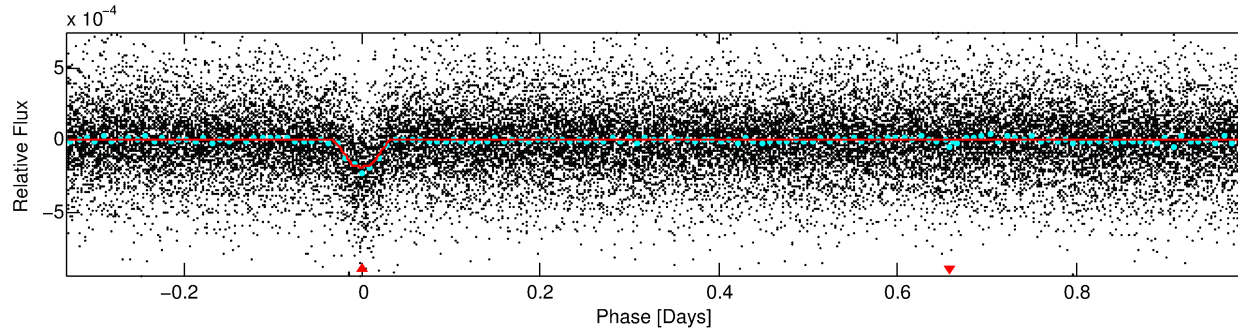
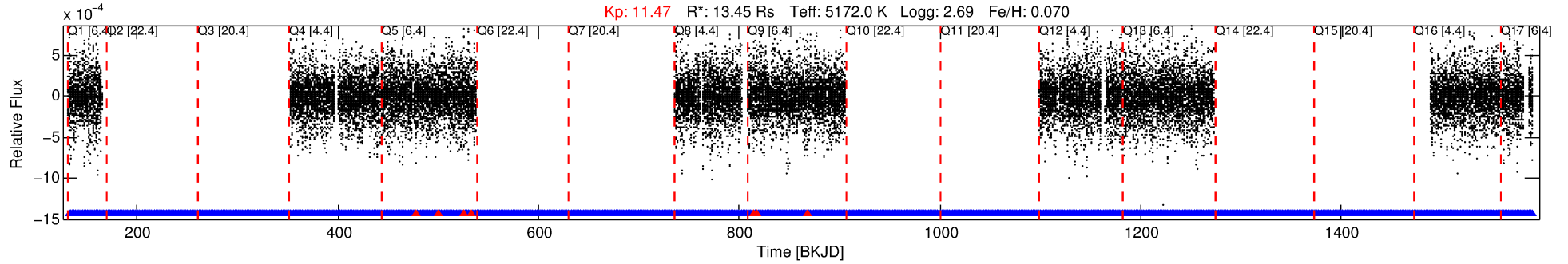
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011282568-01

No Significant Match Found

# DV One-Page Summary

KIC: 11282568 Candidate: 1 of 1 Period: 1.320 d  
KOI: K07430.01 Corr: 0.973



## DV Fit Results:

Period = 1.32049 [0.00000] d  
Epoch = 132.6170 [0.0003] BKJD  
Rp/R\* = 0.0151 [0.0021]  
a/R\* = 4.29 [2.35]  
b = 0.90 [0.12]  
Seff = N/A  
Teq = N/A  
Rp = 22.11 [12.05] Re  
a = N/A  
Ag = N/A  
Teffp = N/A

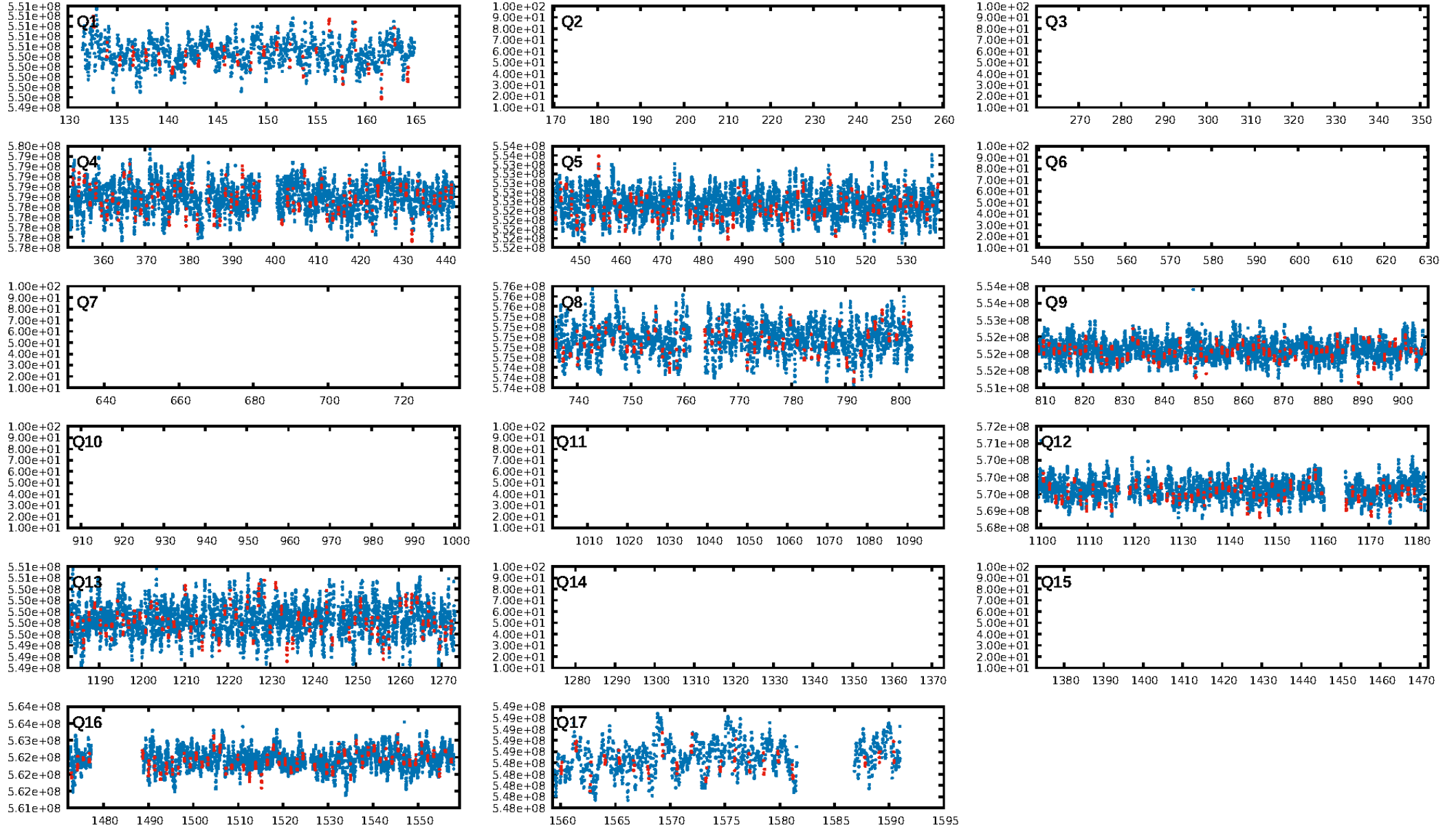
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 4.58e-167  
RollingBand-fgt: 0.98 [424/431]  
GhostDiagnostic-chr: 6.907  
Centroid-sig: N/A  
Centroid-so: 0.382 arcsec [2.01σ]  
OotOffset-rm: 0.585 arcsec [3.41σ]  
KicOffset-rm: 0.670 arcsec [4.47σ]  
OotOffset-st: 0/0/4/5 [9]  
KicOffset-st: 0/0/4/5 [9]  
DiffImageQuality-fgm: 1.00 [9/9]  
DiffImageOverlap-fno: 1.00 [9/9]

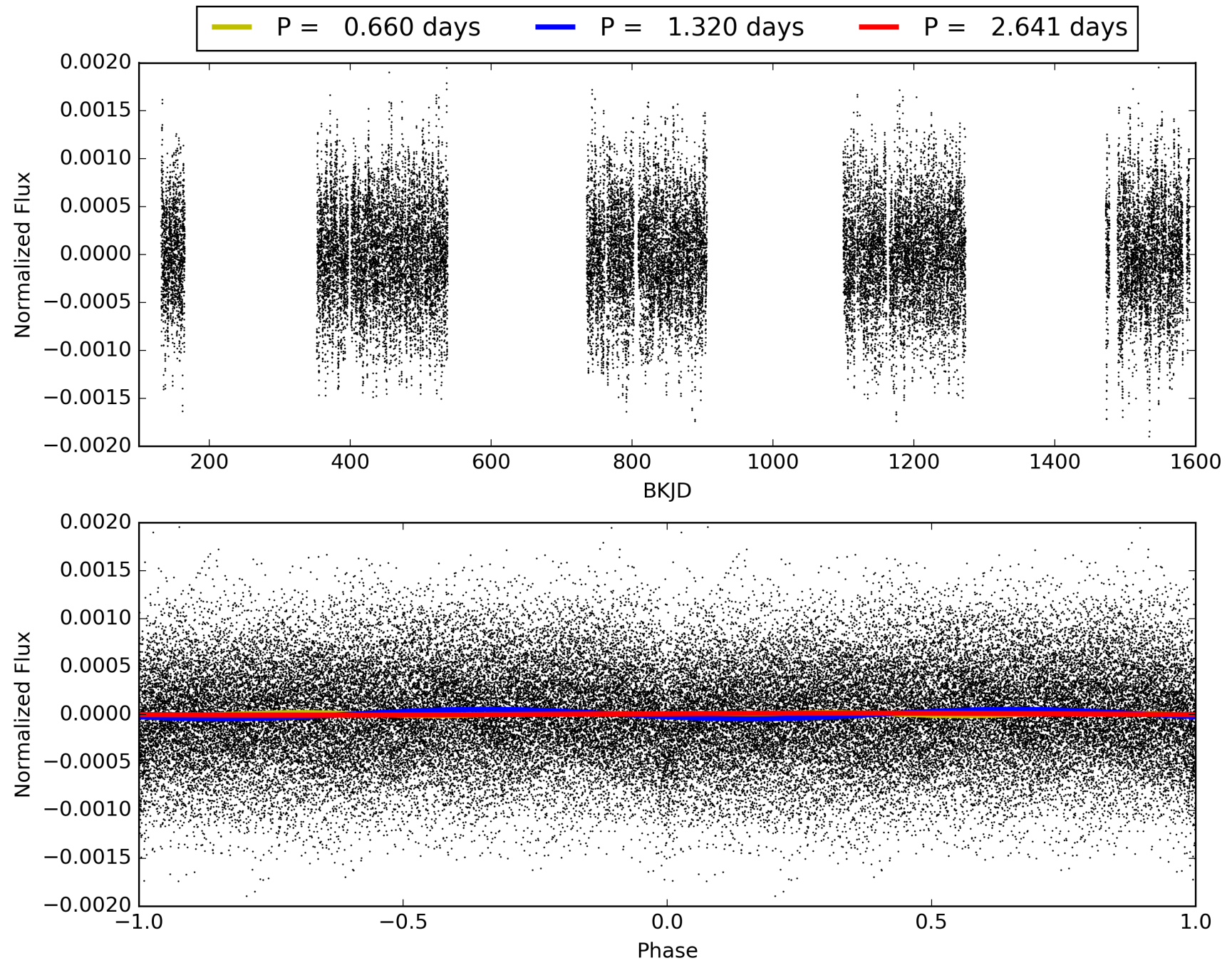
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:05:30 Z

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

# TCE 011282568-01, PDC Light Curves

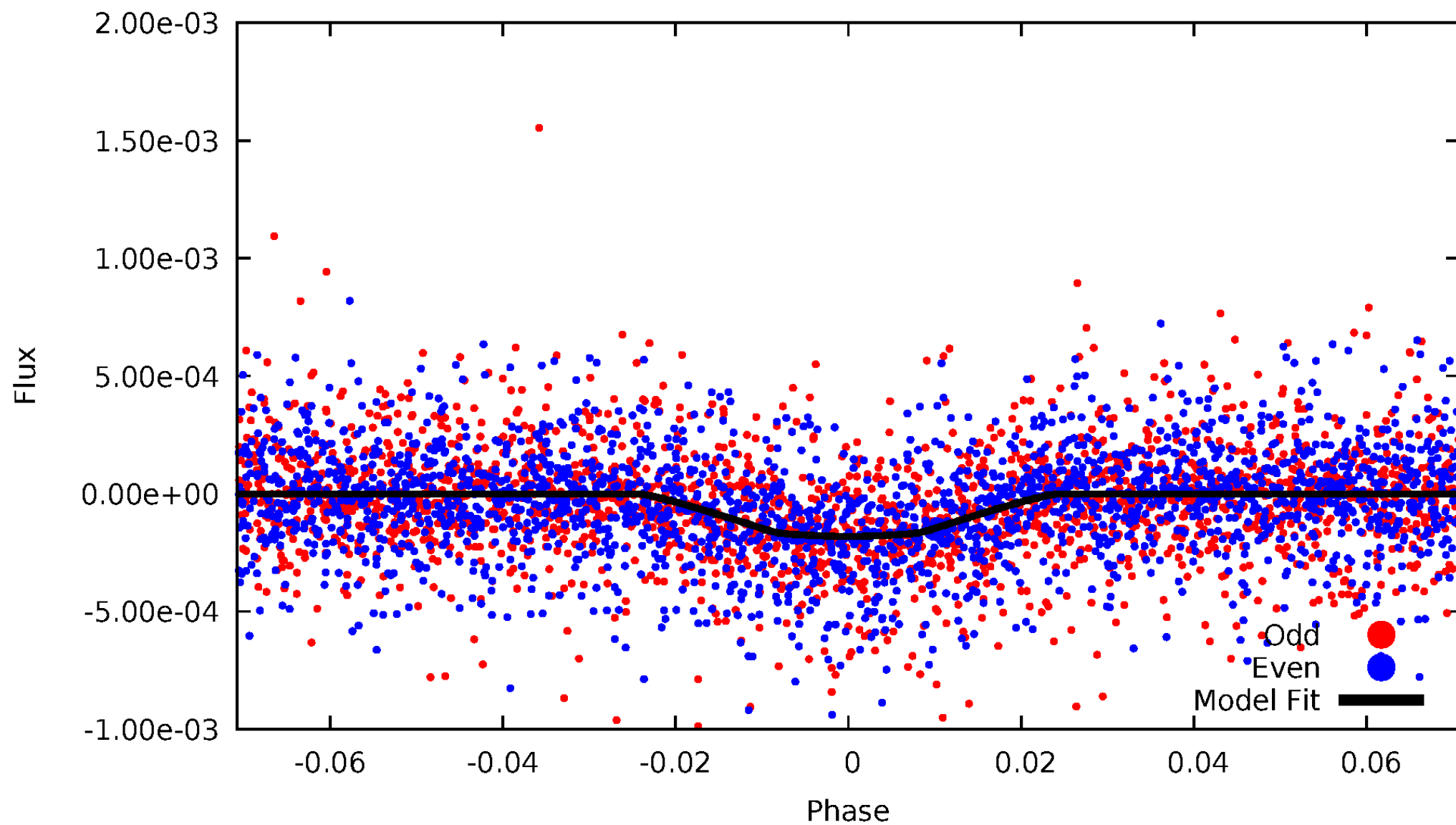


# TCE 011282568-01



# DV Odd/Even

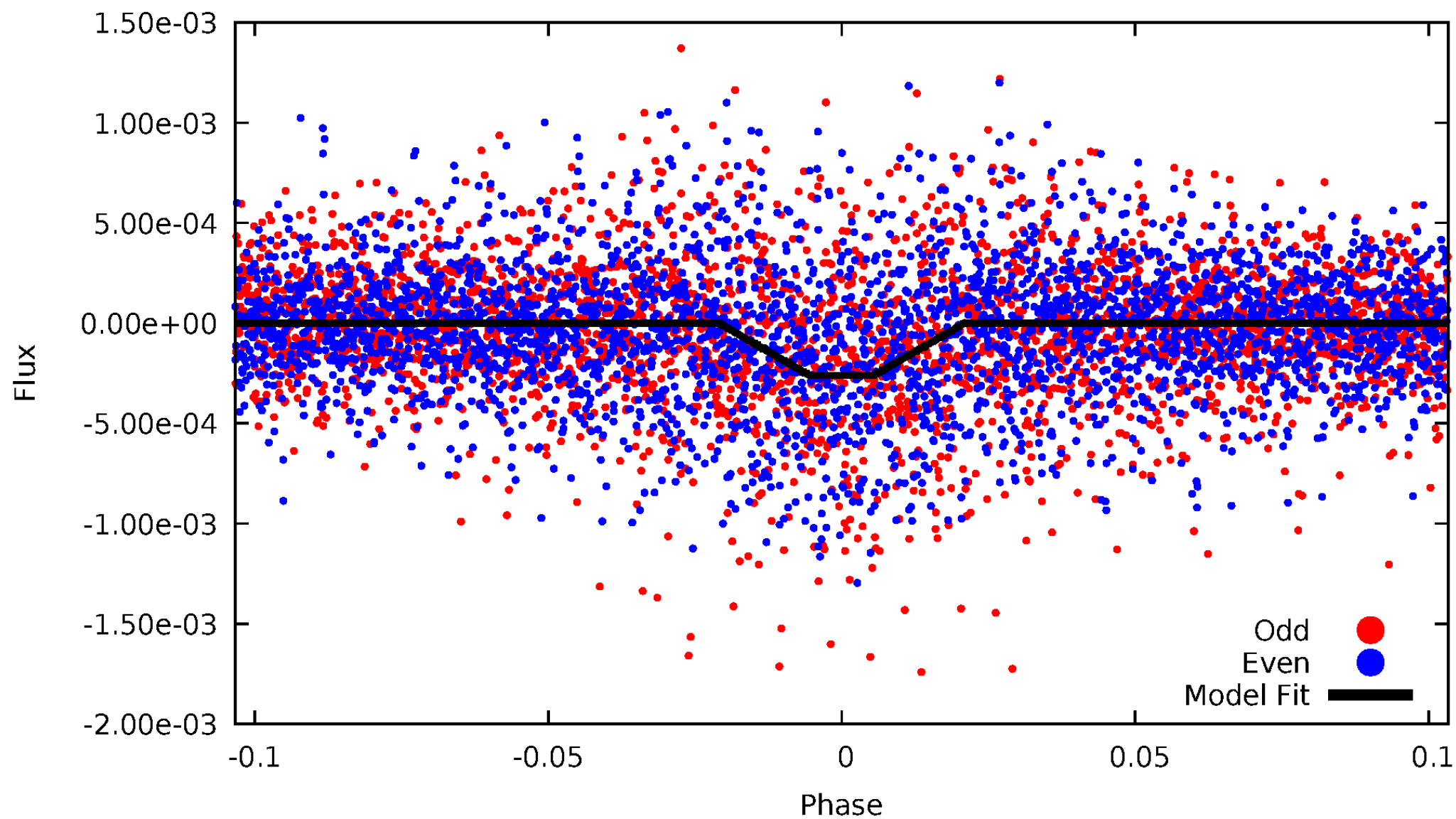
TCE 011282568-01



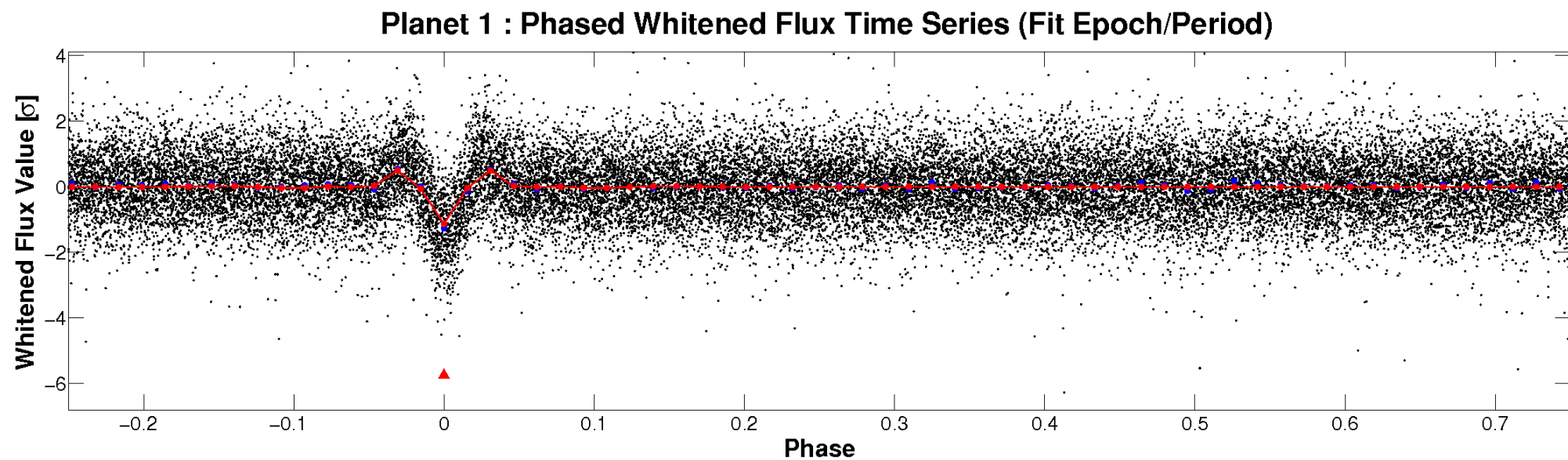
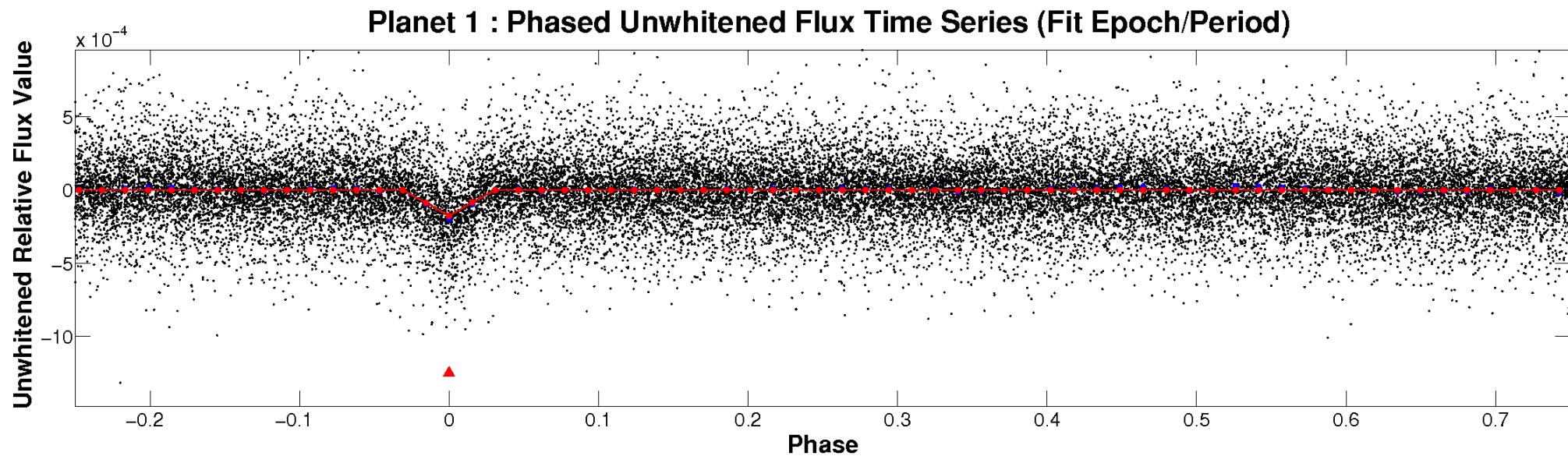


# ALT Odd/Even

TCE 011282568-01

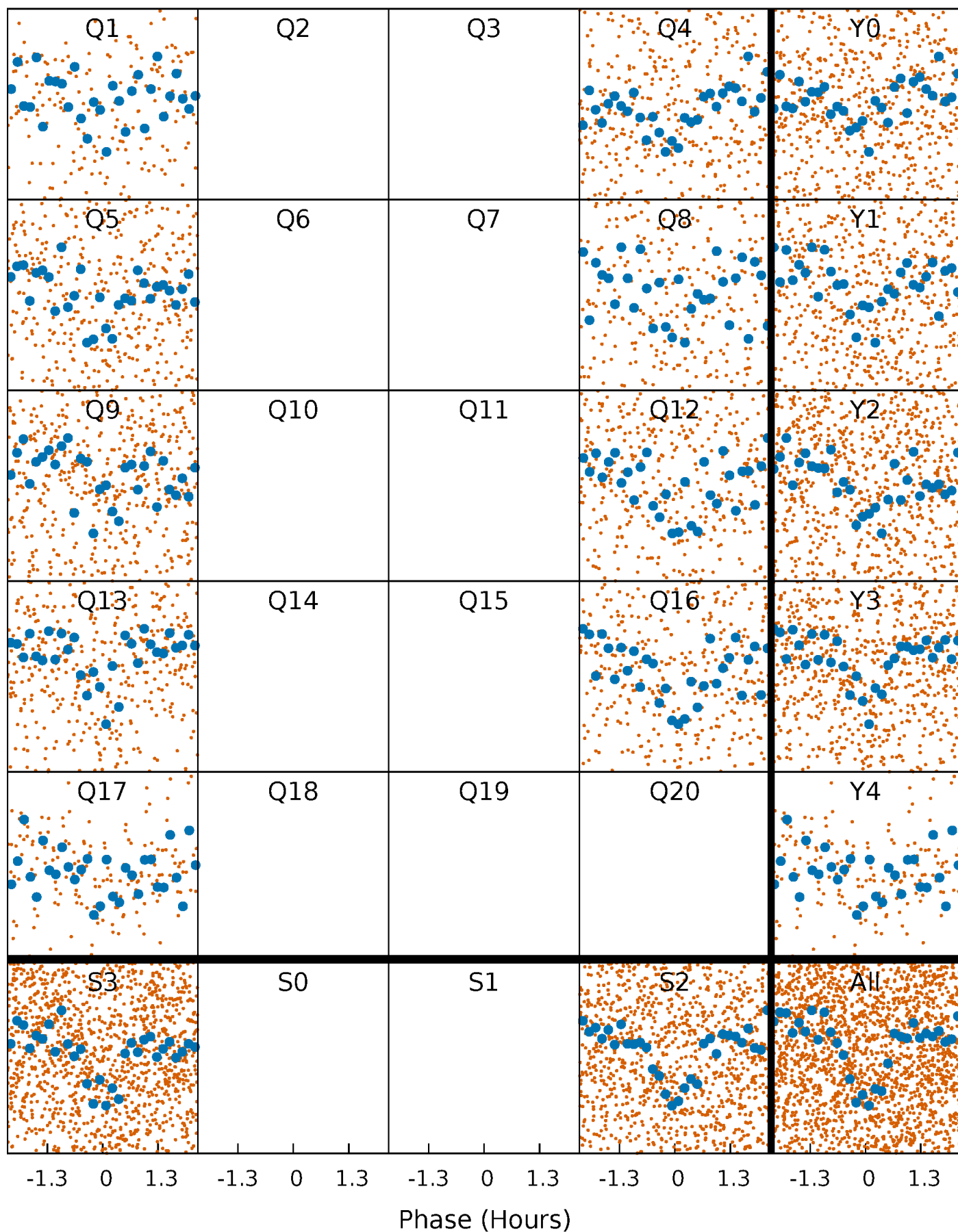


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

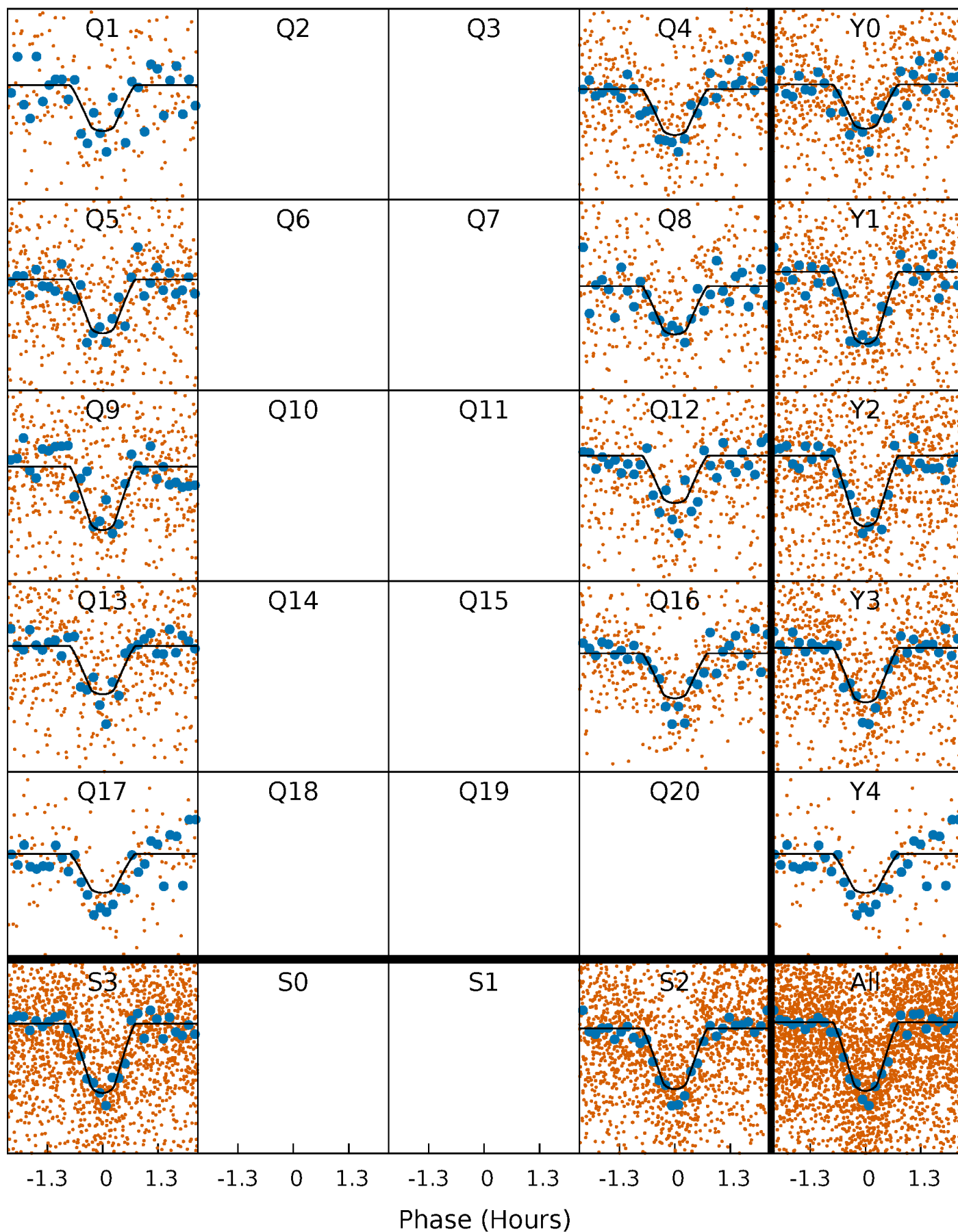
TCE 011282568-01 P= 1.320493 Days  $T_0=132.616954$  (BKJD)





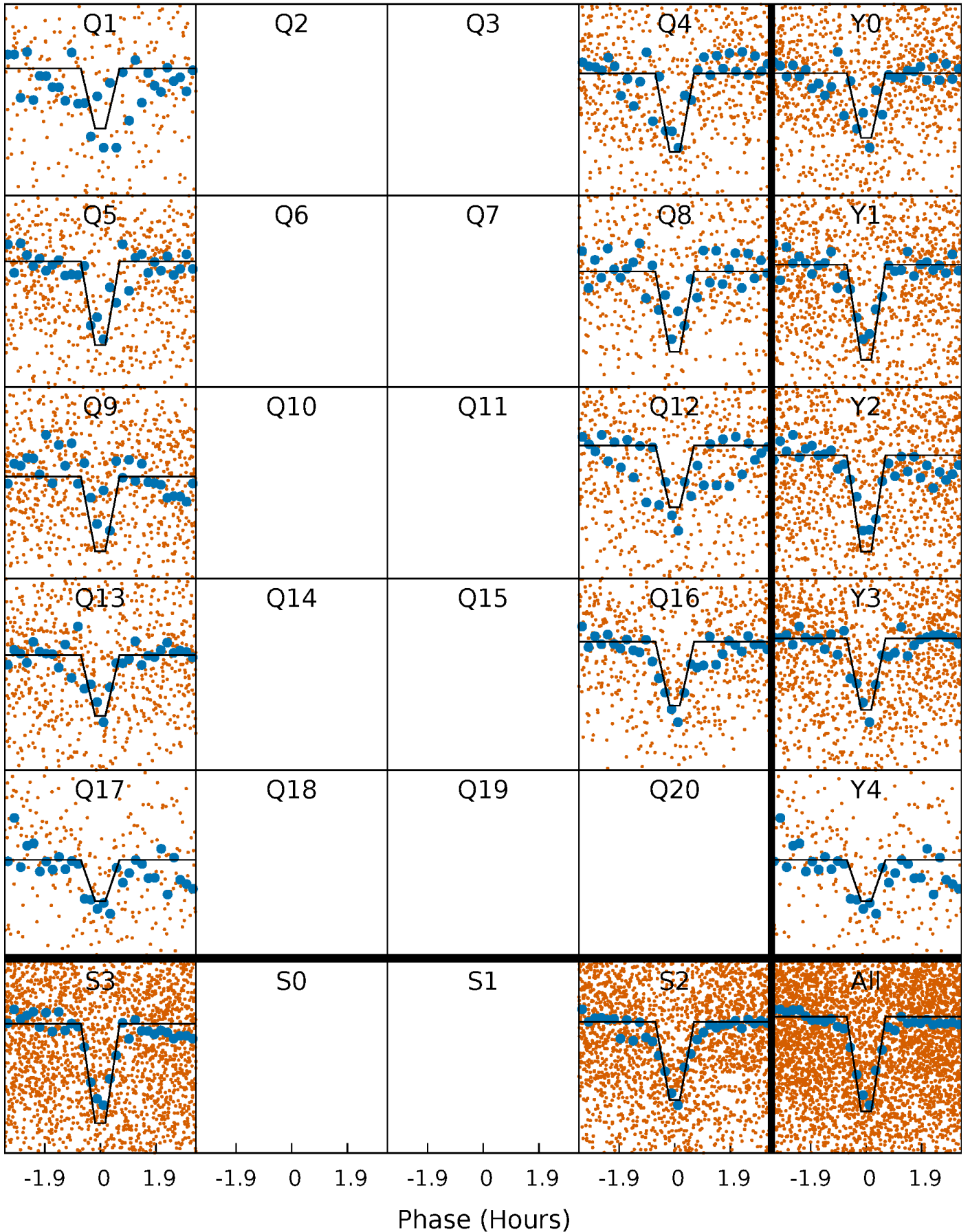
# DV Quarter-Phased Transit Curves

TCE 011282568-01   P= 1.320493 Days    $T_0=132.616954$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

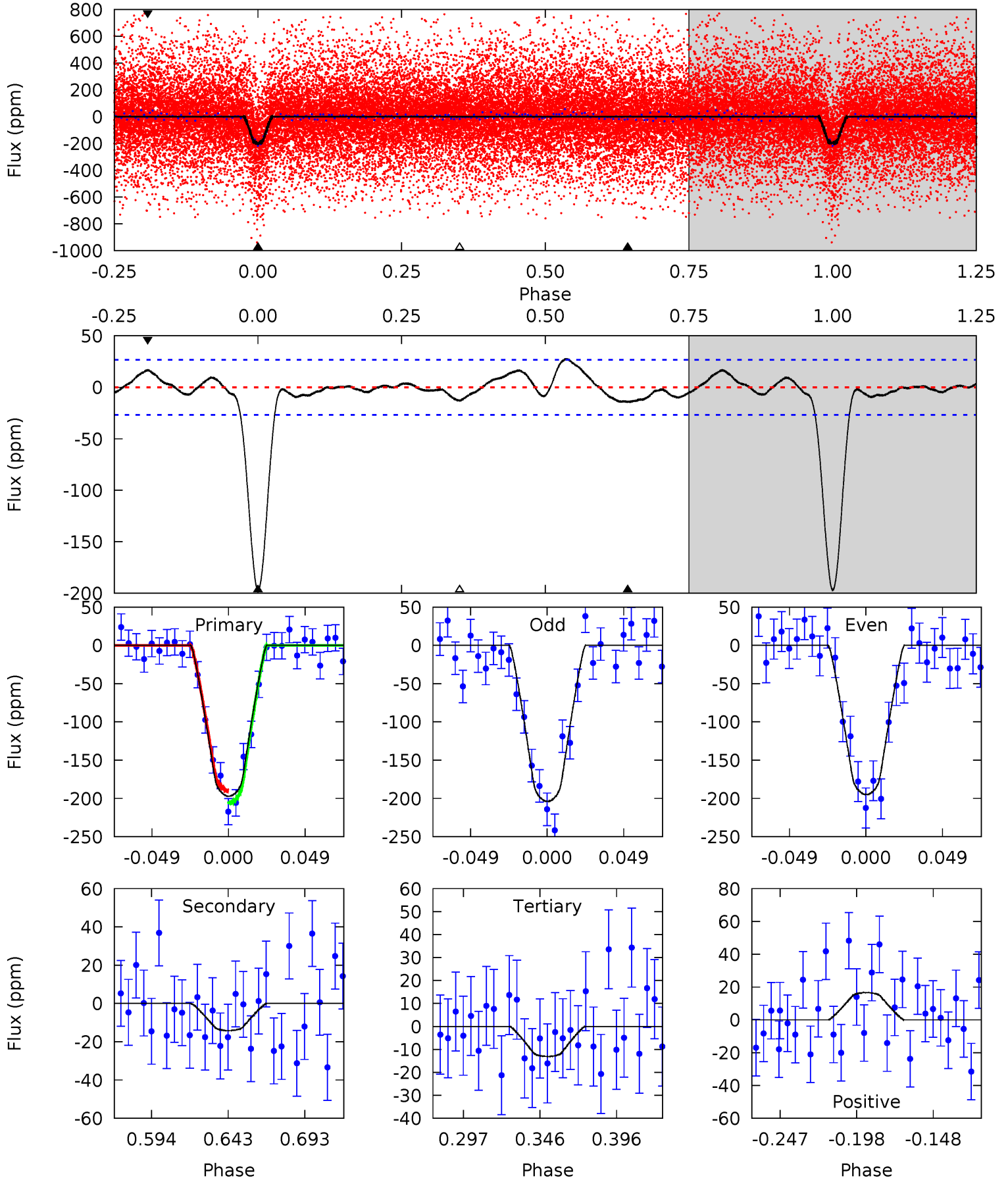
TCE 011282568-01 P= 1.320497 Days  $T_0=132.615456$  (BKJD)



# DV Model-Shift Uniqueness Test

011282568-01, P = 1.320493 Days, E = 131.296461 Days

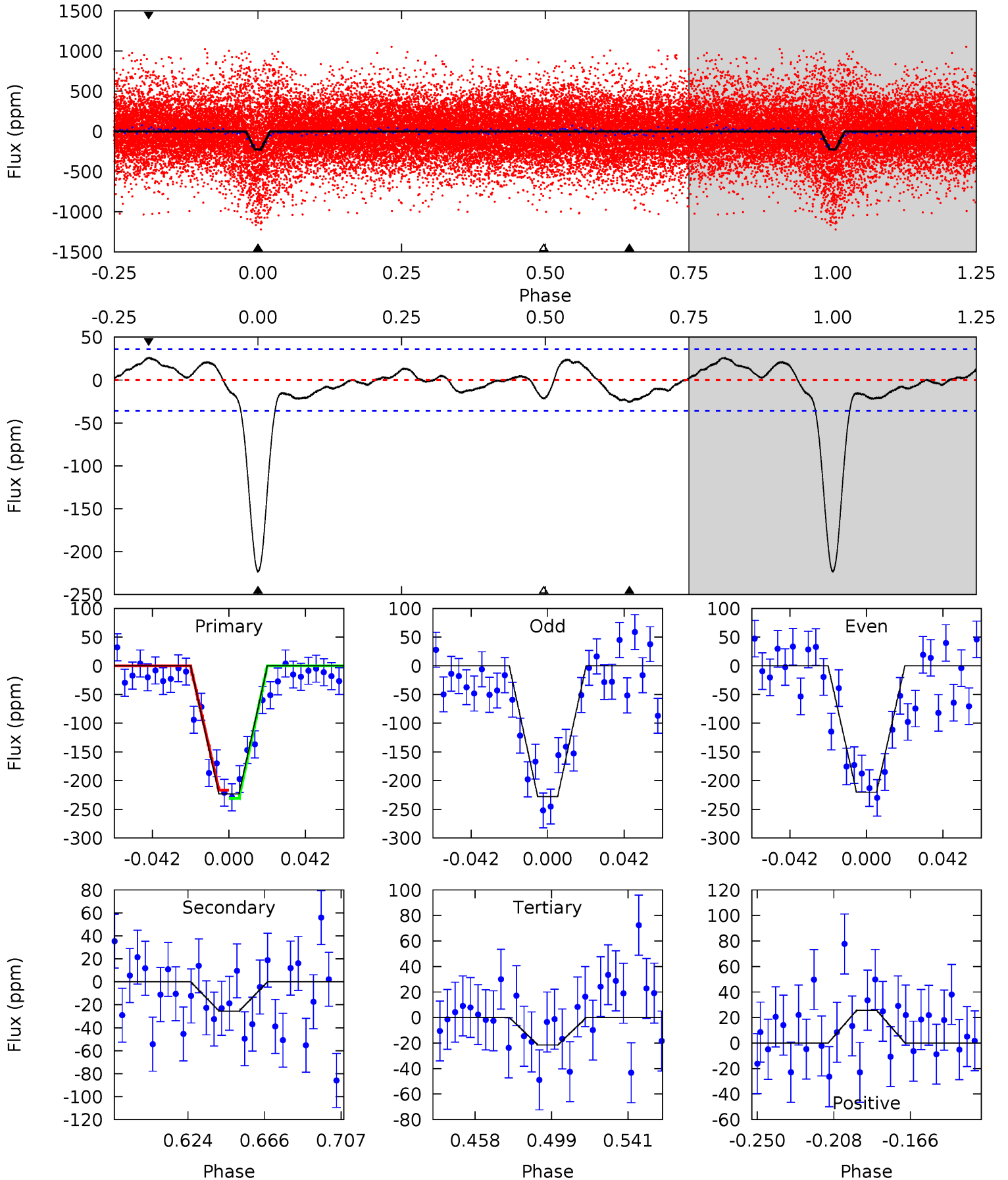
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.7	2.50	2.31	2.92	4.71	1.96	1.51	32.4	31.8	0.19	-0.42	0.79	1.05	0.12	1.43



# Alt Model-Shift Uniqueness Test

011282568-01, P = 1.320497 Days, E = 131.294959 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
29.5	3.37	2.85	3.40	4.75	2.04	1.60	26.7	26.1	0.53	-0.03	0.48	1.12	0.10	0.93



### Stellar Parameters For KIC 011282568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5172^{+113}_{-296}$	$2.693^{+0.252}_{-0.147}$	$0.070^{+0.100}_{-0.550}$	$13.454^{+2.835}_{-7.088}$	$3.257^{+0.222}_{-1.999}$	$0.002^{+0.005}_{-0.001}$
	+2%/-6%	+9%/-5%	+143%/-786%	+21%/-53%	+7%/-61%	+274%/-35%
Source	KIC0	FLK73	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 011282568-01 / KOI 7430.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-14 \pm 6$	$21.59^{+4.64}_{-4.47}$	$6146^{+471}_{-557}$	$-4973^{+412}_{-358}$	$0.020^{+0.014}_{-0.009}$
Alt.	$-26 \pm 8$	$23.20^{+4.92}_{-5.27}$	$6177^{+449}_{-564}$	$-4938^{+433}_{-349}$	$0.031^{+0.020}_{-0.012}$

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



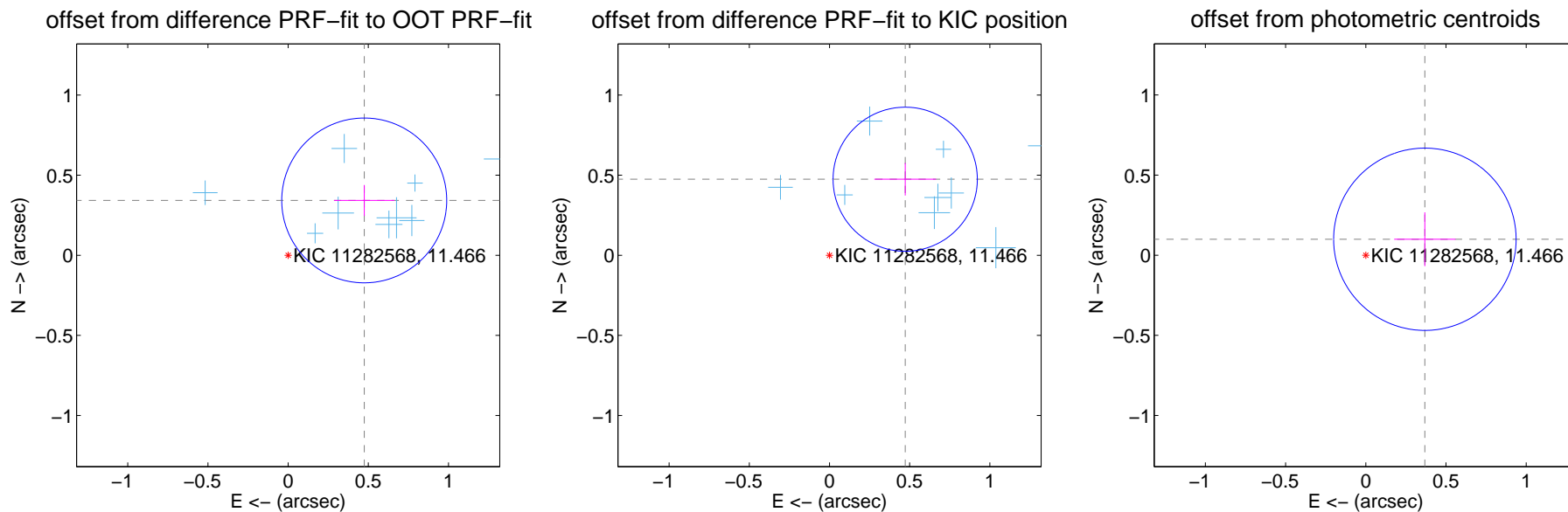
## DV Centroid Data

Supplemental centroid analysis for 011282568-01. **Kepler magnitude: 11.47.** Transit SNR 33.45

There are 9 quarters with good PRF difference image offsets

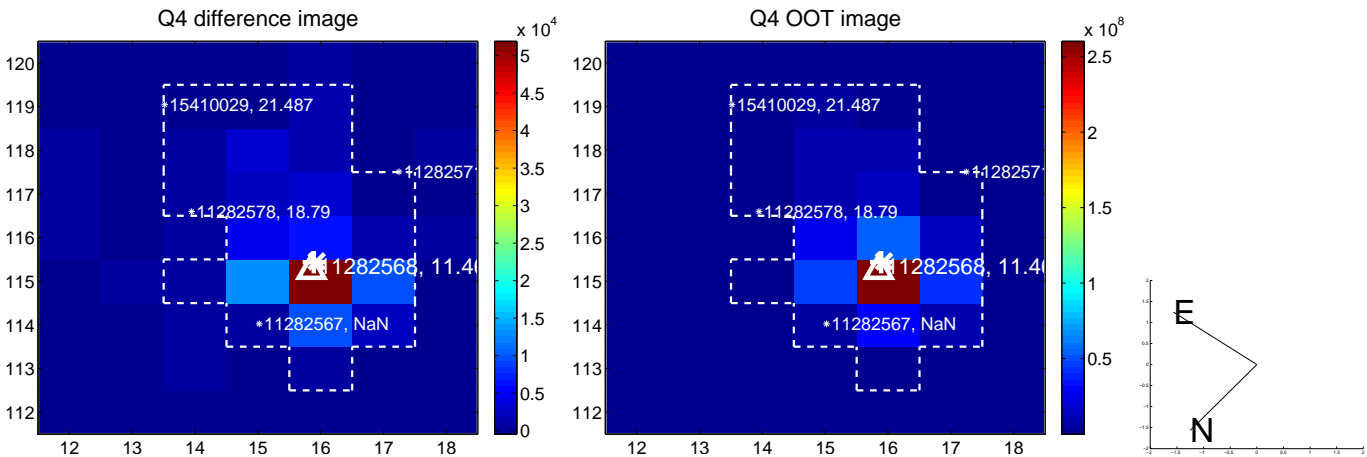
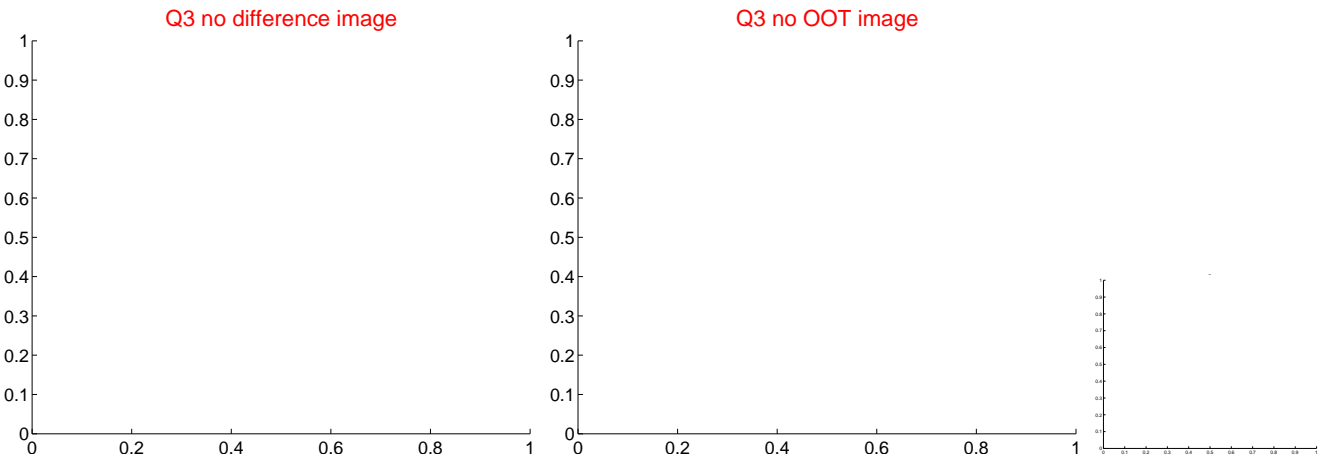
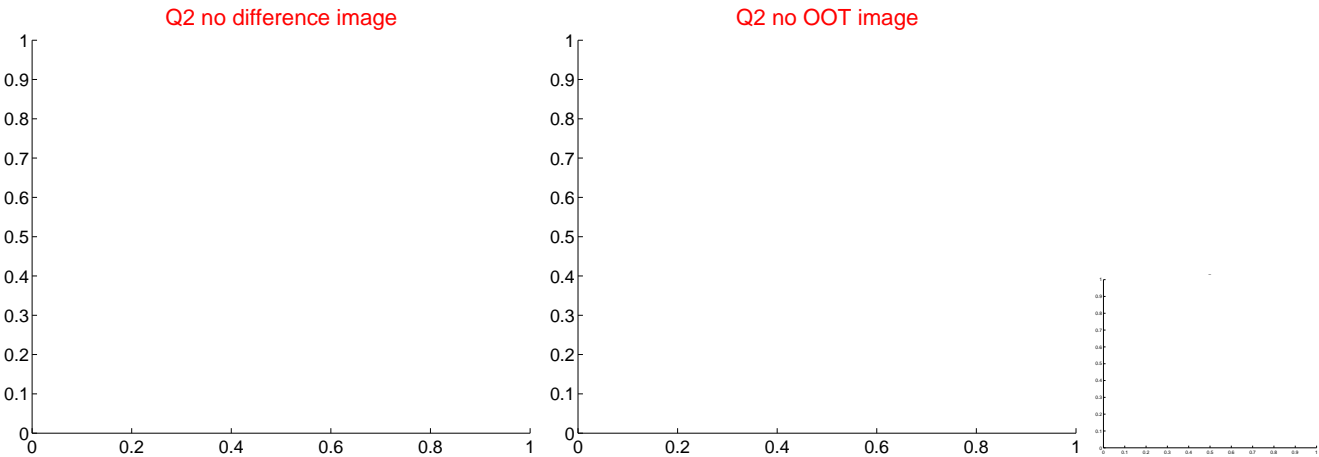
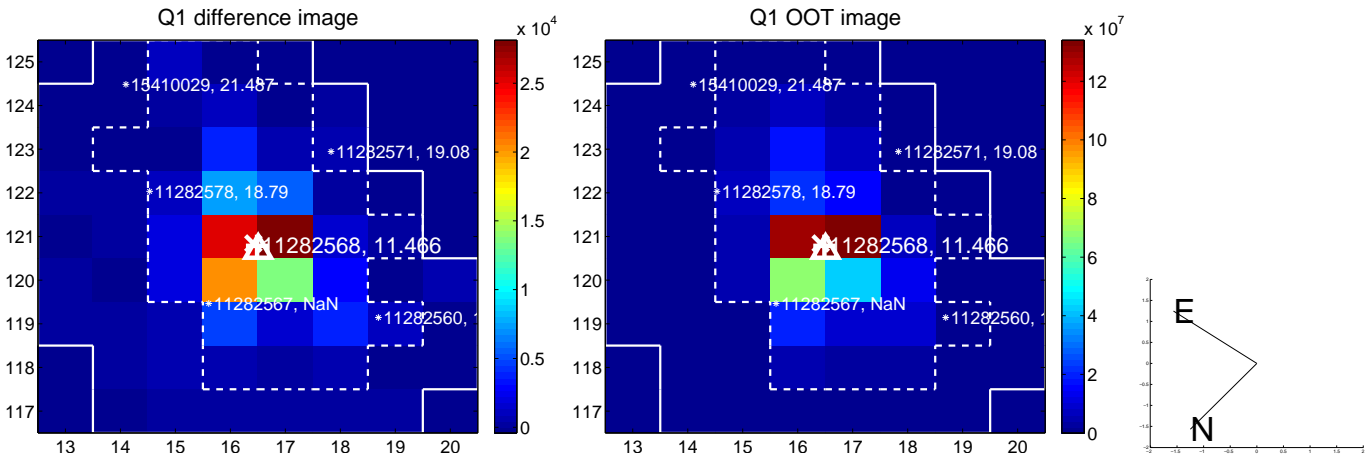
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b><math>0.585 \pm 0.171</math></b>	<b>3.41</b>	$-0.475 \pm 0.188$	$0.342 \pm 0.096$
PRF-fit source offset from KIC position	<b><math>0.670 \pm 0.150</math></b>	<b>4.47</b>	$-0.472 \pm 0.193$	$0.475 \pm 0.101$
photometric centroid source offset	$0.38 \pm 0.19$	2.01	$-0.37 \pm 0.19$	$0.10 \pm 0.17$

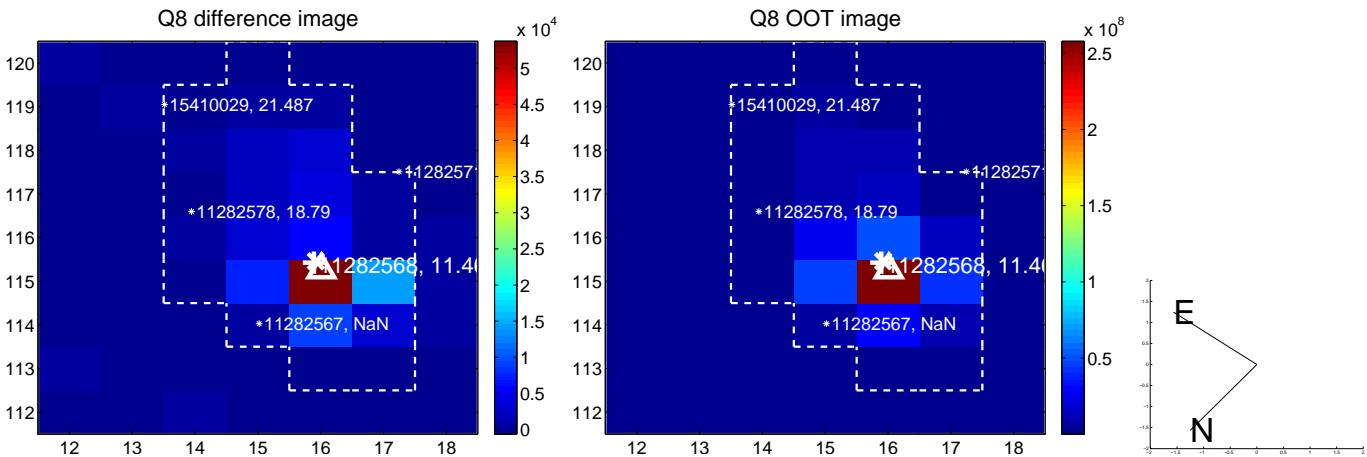
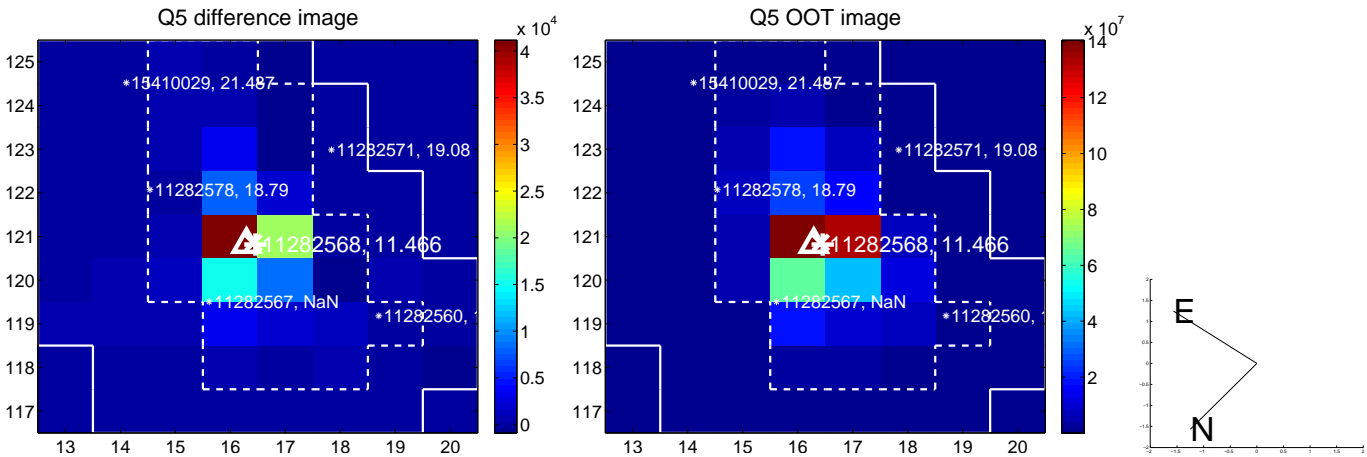


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

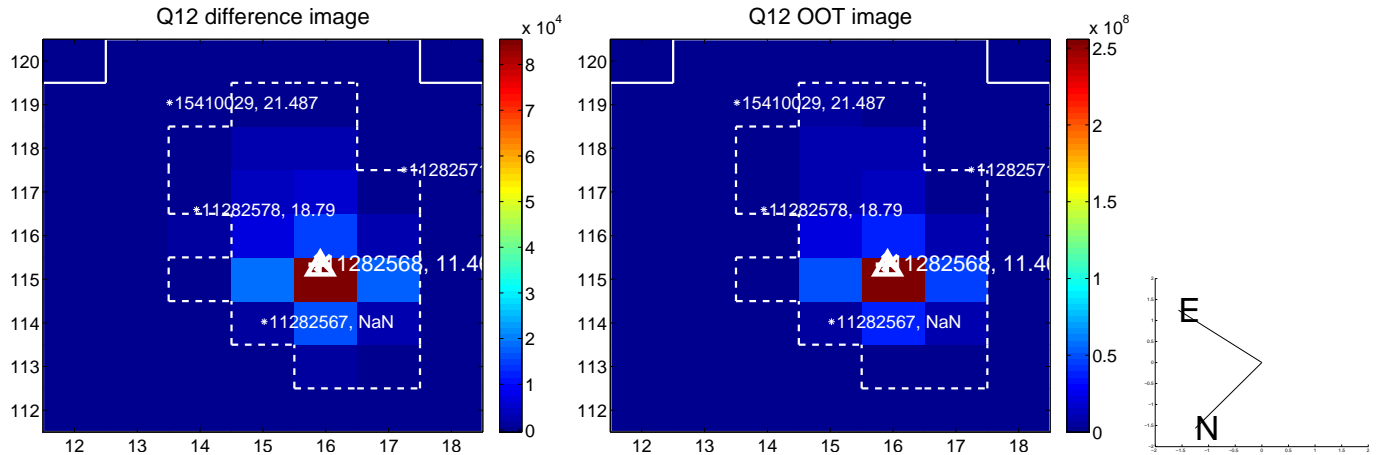
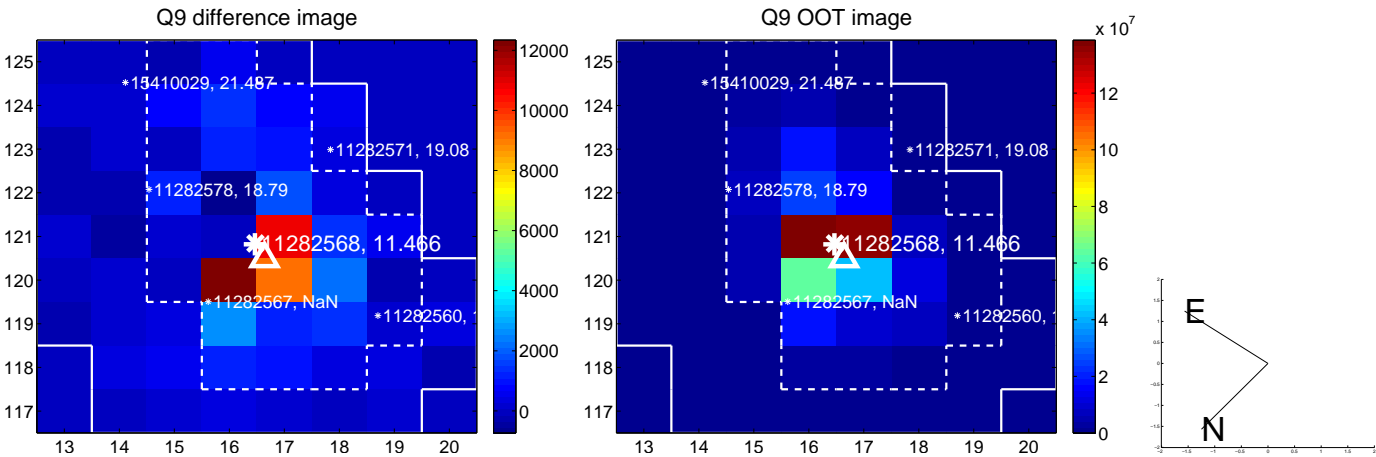
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



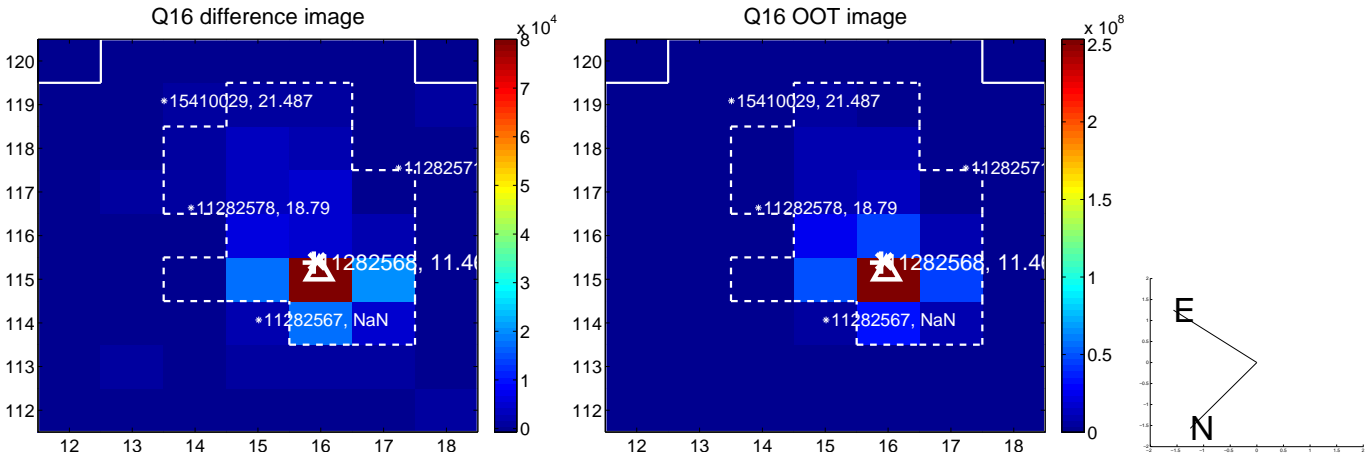
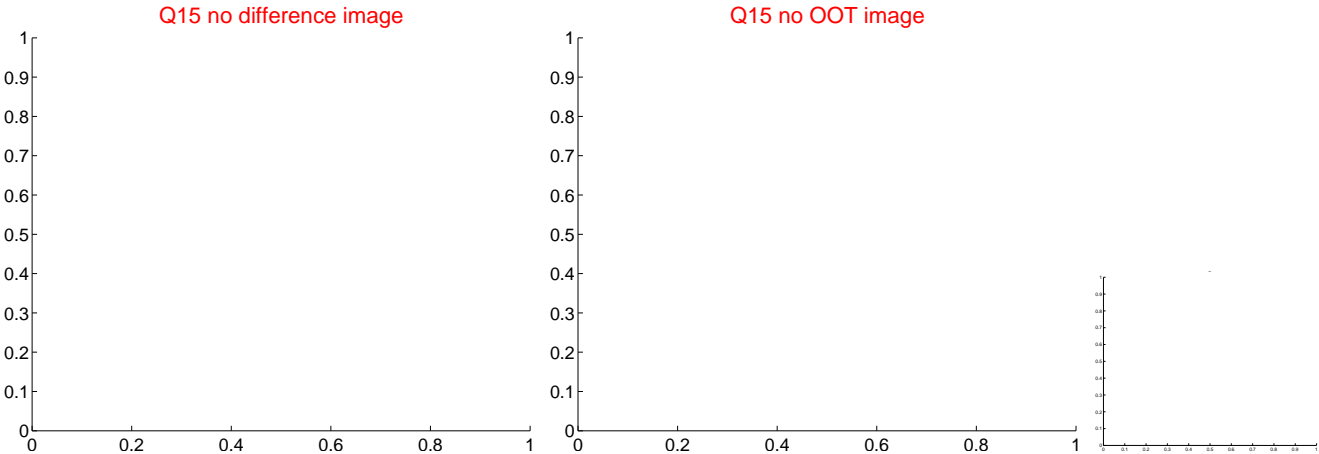
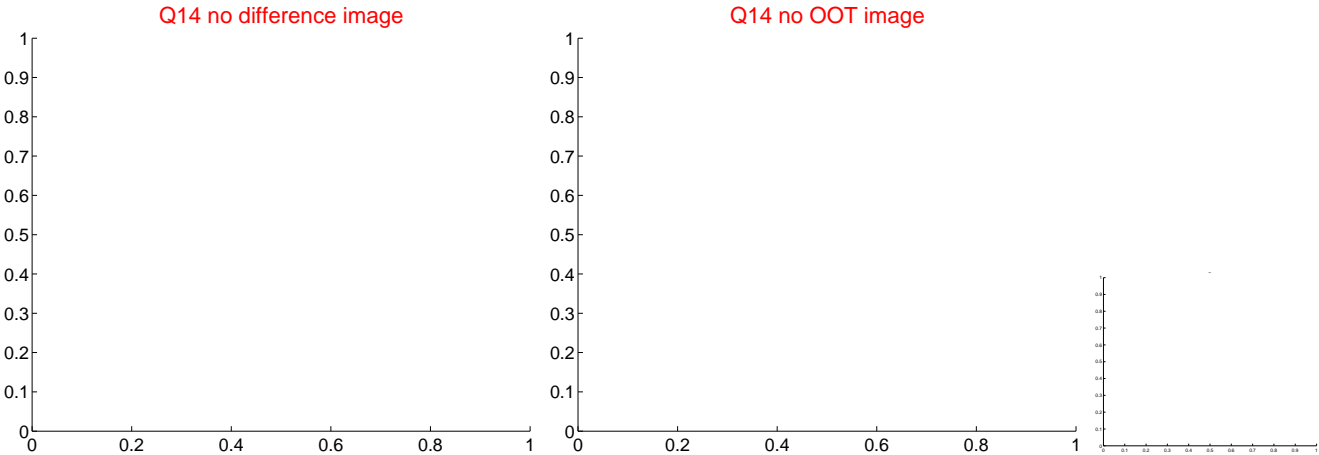
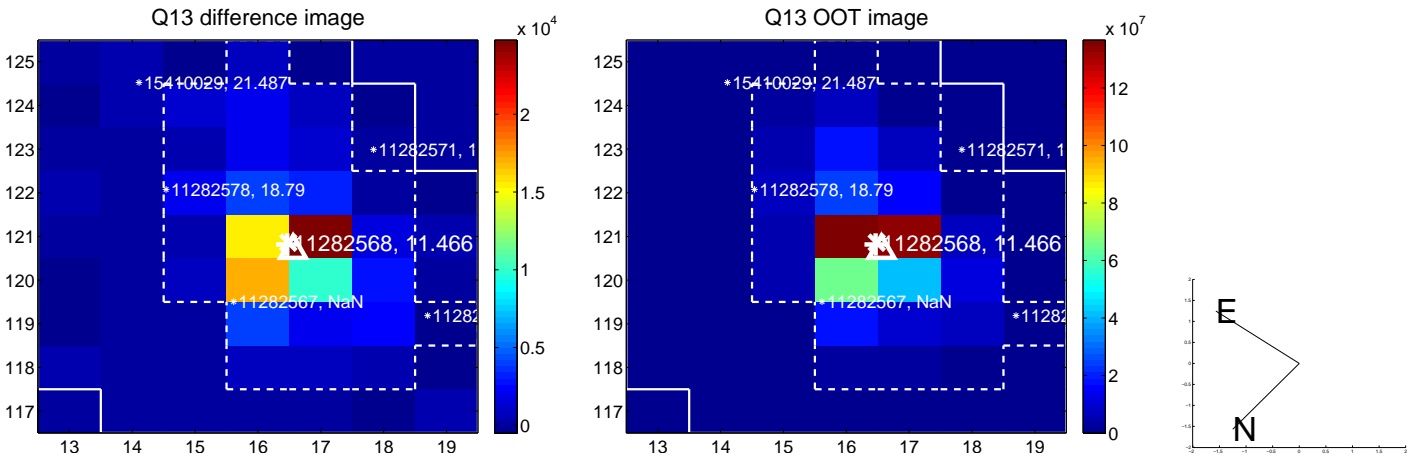
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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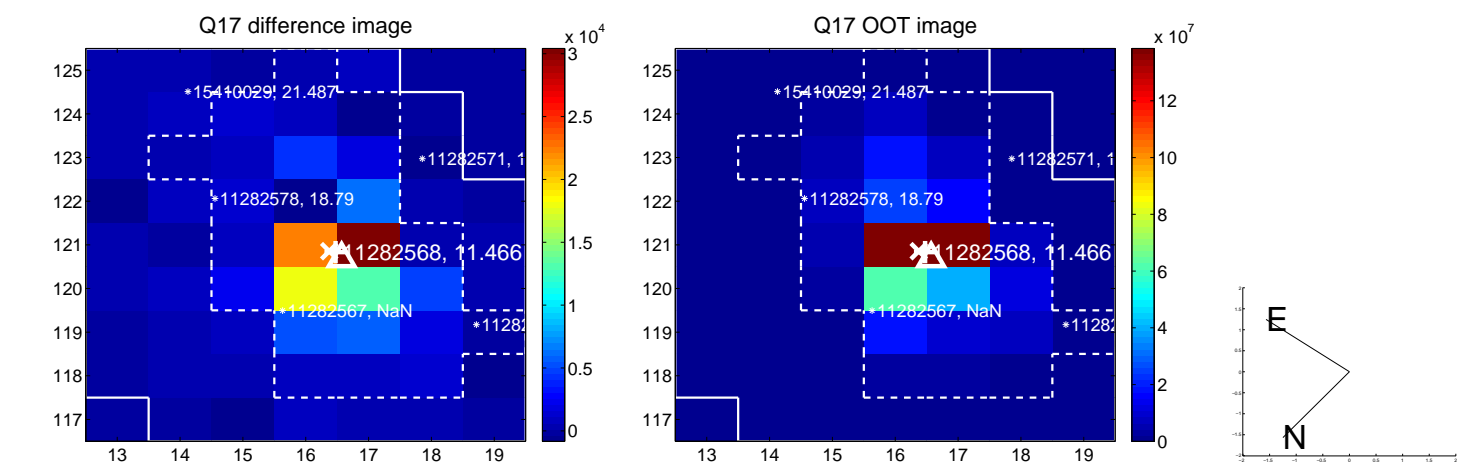


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

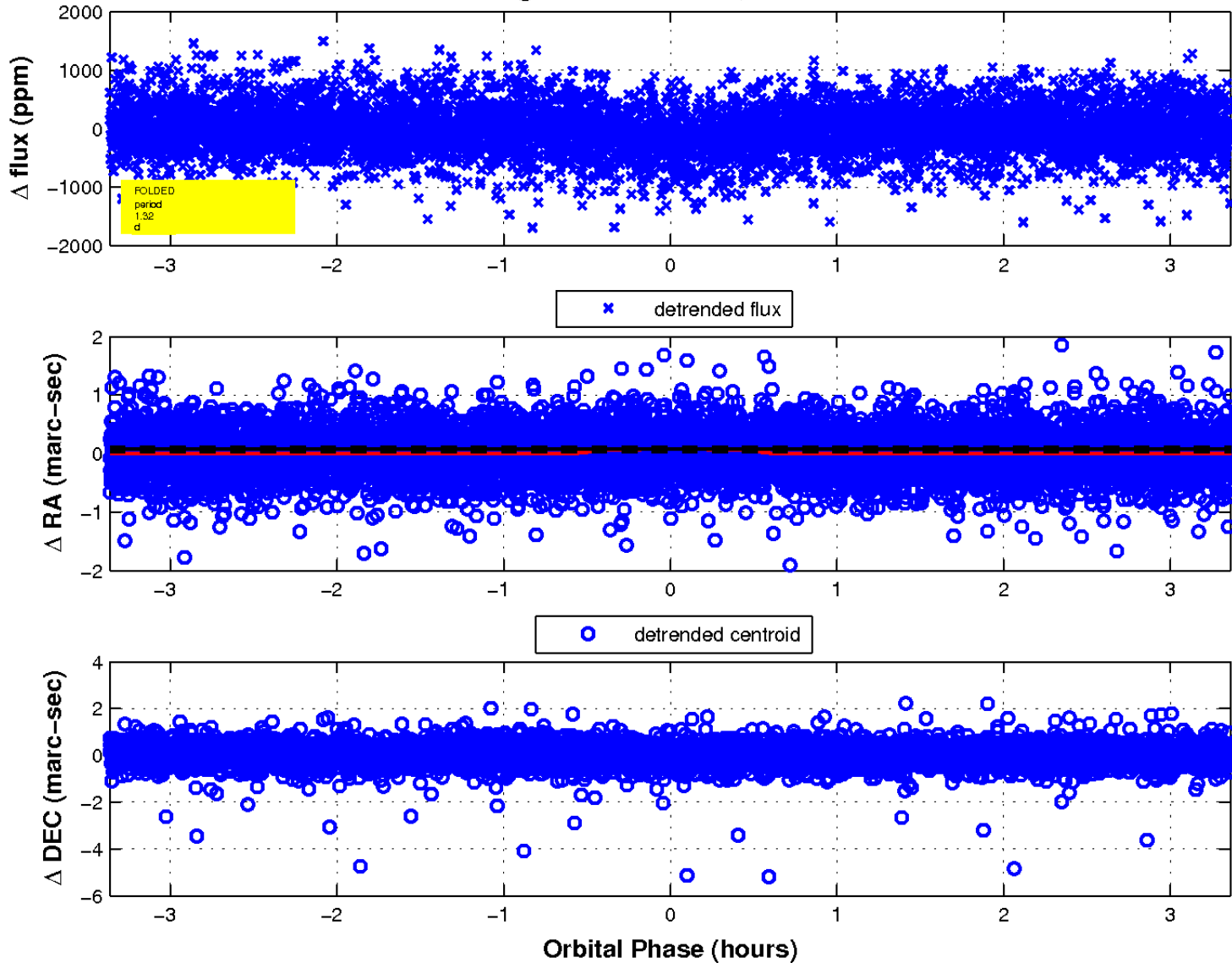




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

