

KIC 006530892

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})
006530892-01	OBS	No	330.709485	184.885837	514.4	20.398	8.4	7.7	1.22	5678	3.06	1.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006530892-01	OBS	FP	0.00	1	0	0	0	ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS

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

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

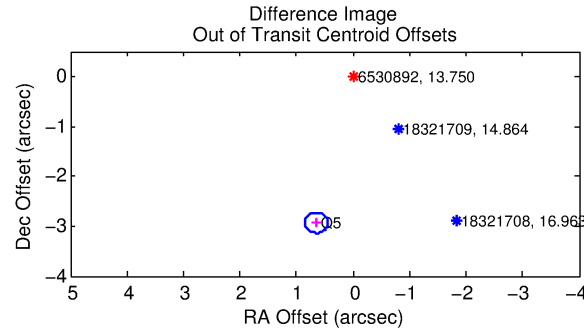
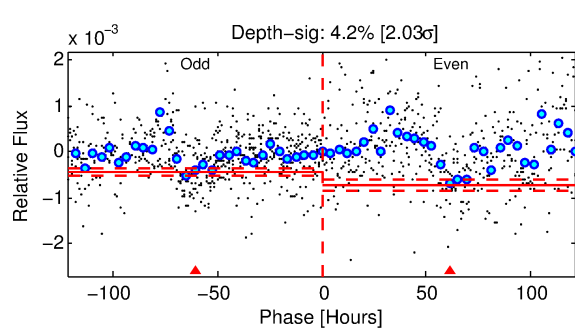
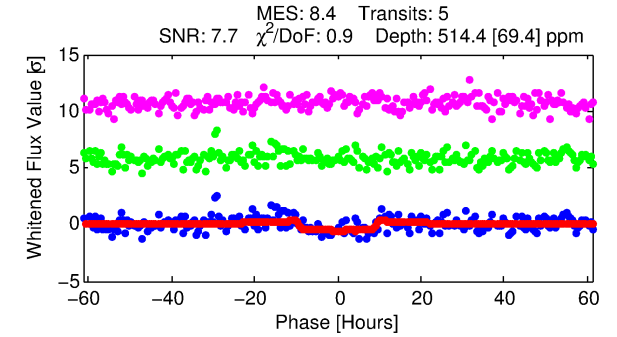
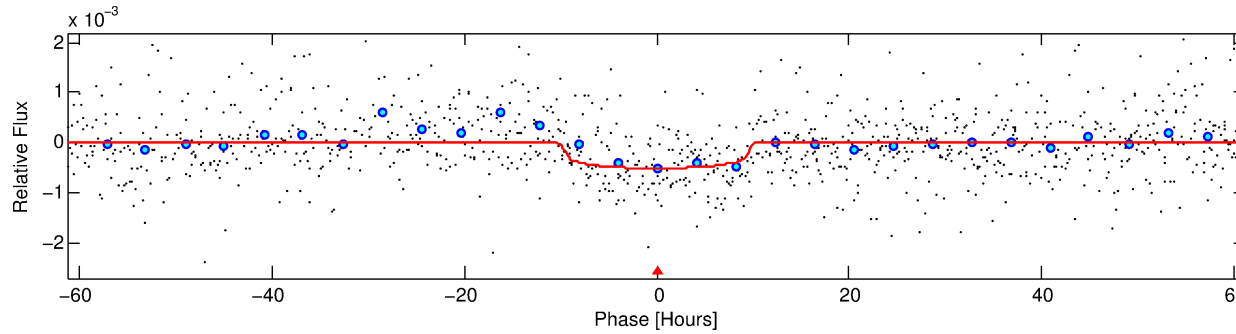
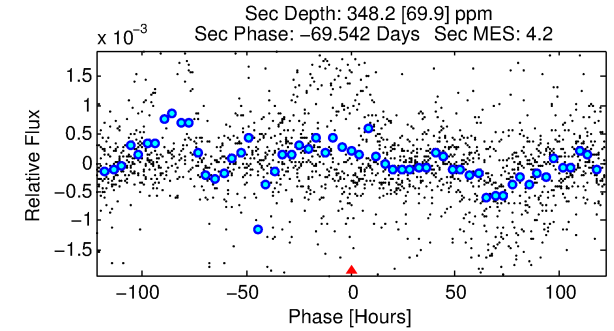
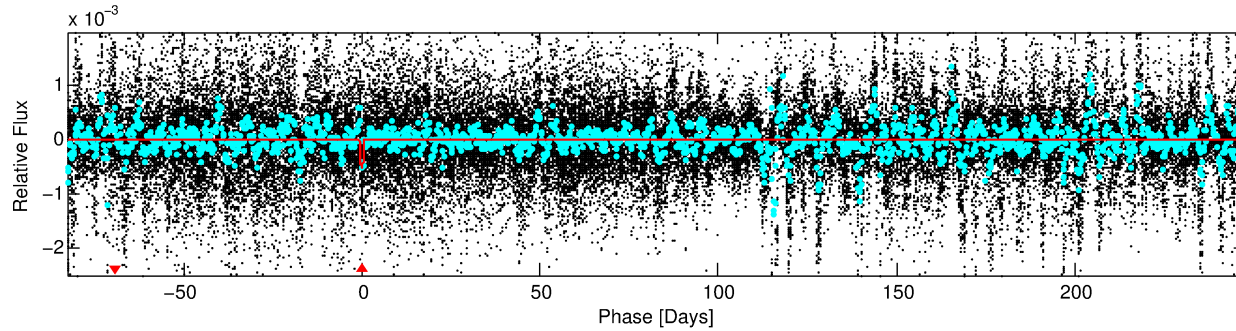
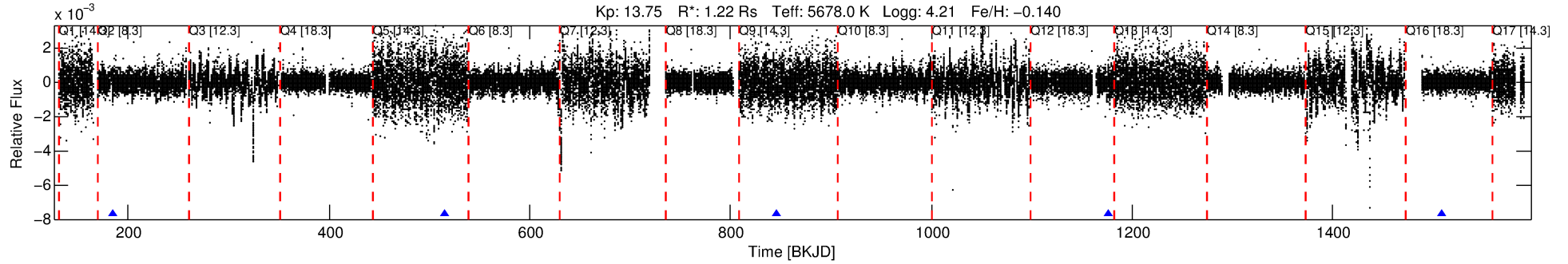
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006530892-01

No Significant Match Found

DV One-Page Summary

KIC: 6530892 Candidate: 1 of 1 Period: 330.709 d



DV Fit Results:

Period = 330.70948 [0.00878] d
Epoch = 184.8858 [0.0255] BKJD
Rp/R* = 0.0230 [0.0036]
a/R* = 79.41 [48.86]
b = 0.80 [0.28]
Seff = 1.70 [0.94]
Teq = 291 [40] K
Rp = 3.06 [1.07] Re
a = 0.8987 [0.2791] AU
Ag = 16557.75 [10402.69] [1.59σ]
Teff = 5110 [550] K [8.74σ]

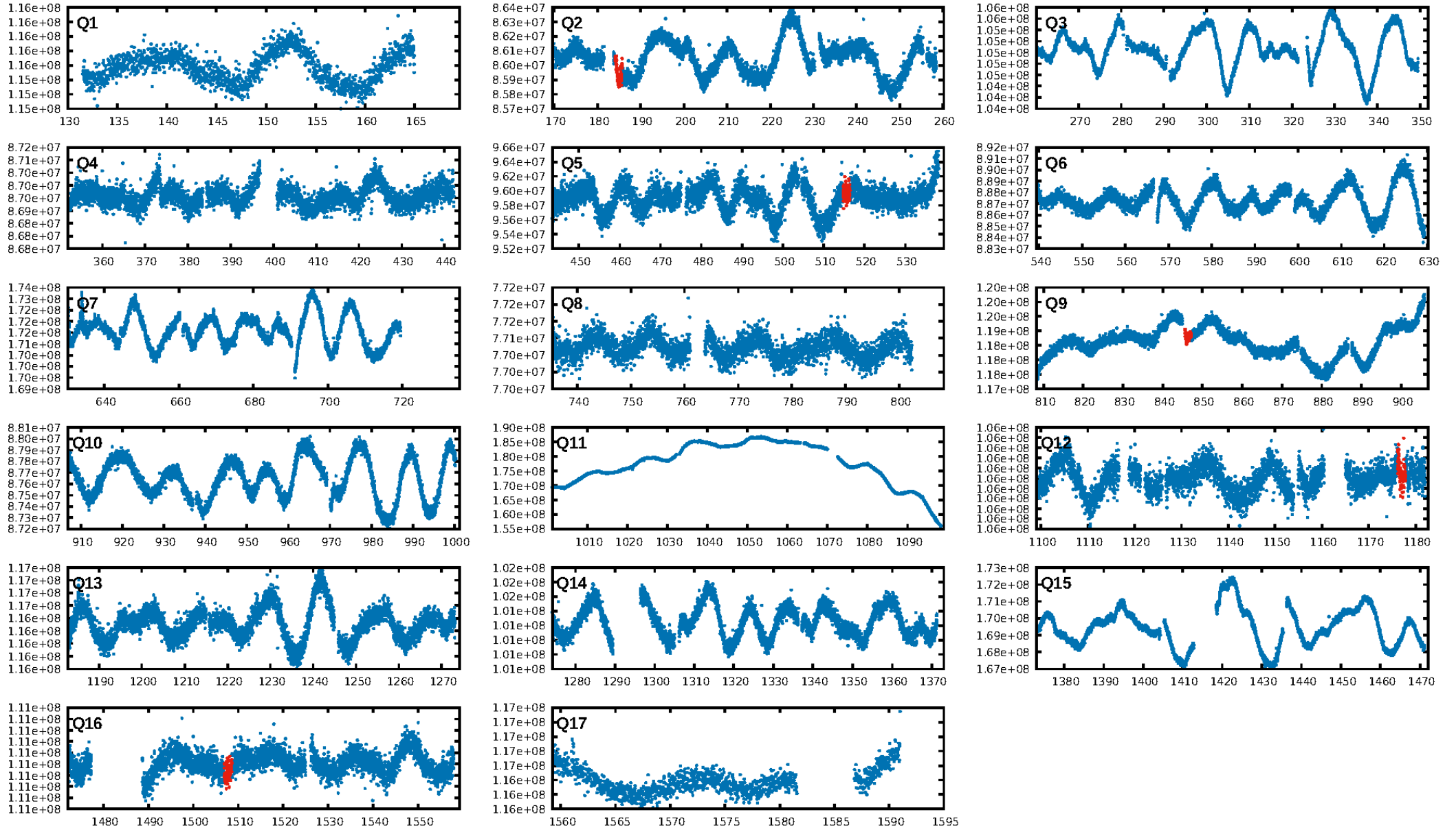
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.1%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 3.42e-12
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.302
Centroid-sig: 22.6%
Centroid-so: 0.752 arcsec [0.17σ]
OotOffset-rm: 3.009 arcsec [44.04σ]
KicOffset-rm: 2.964 arcsec [43.61σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

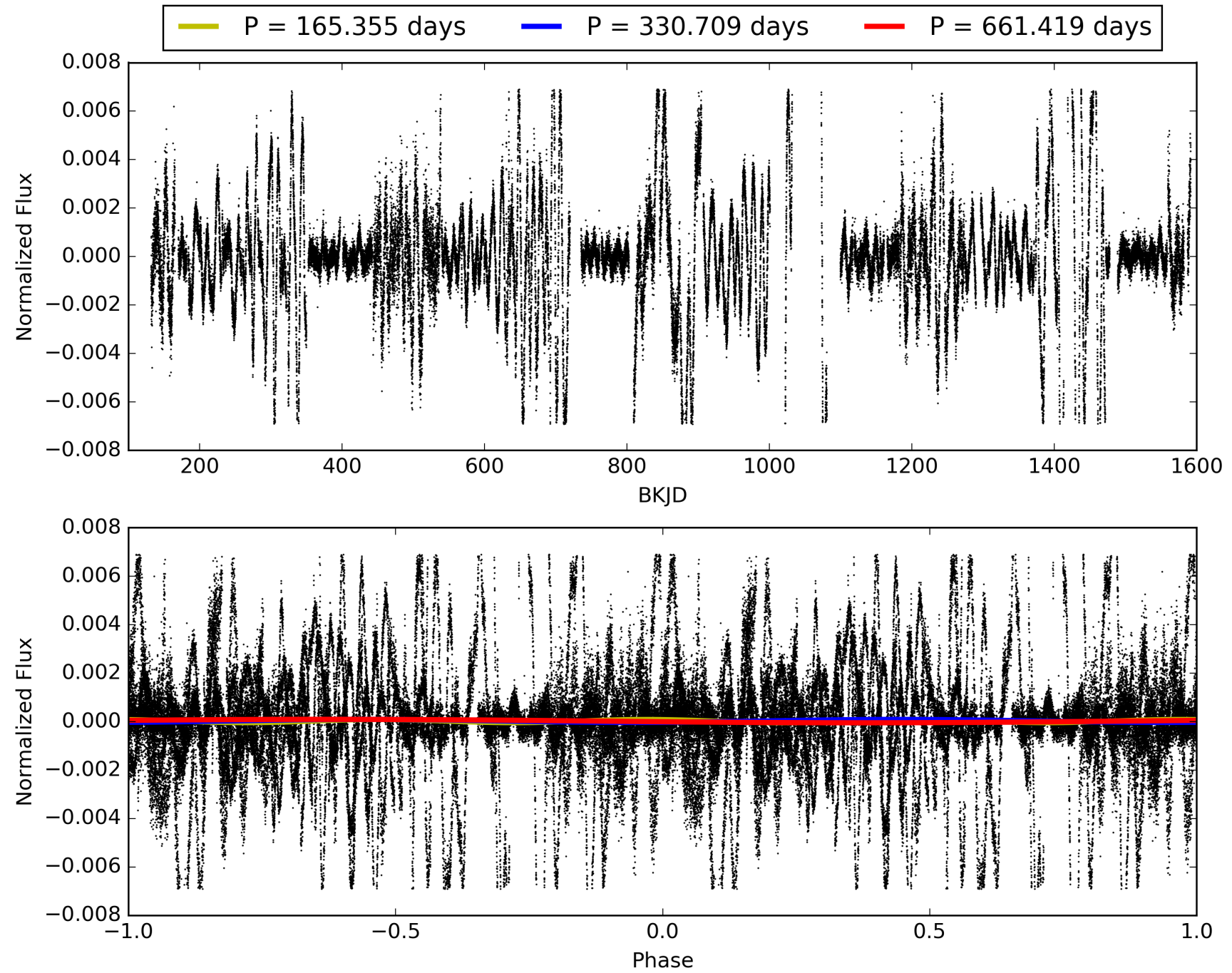
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:17:45 Z

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

TCE 006530892-01, PDC Light Curves

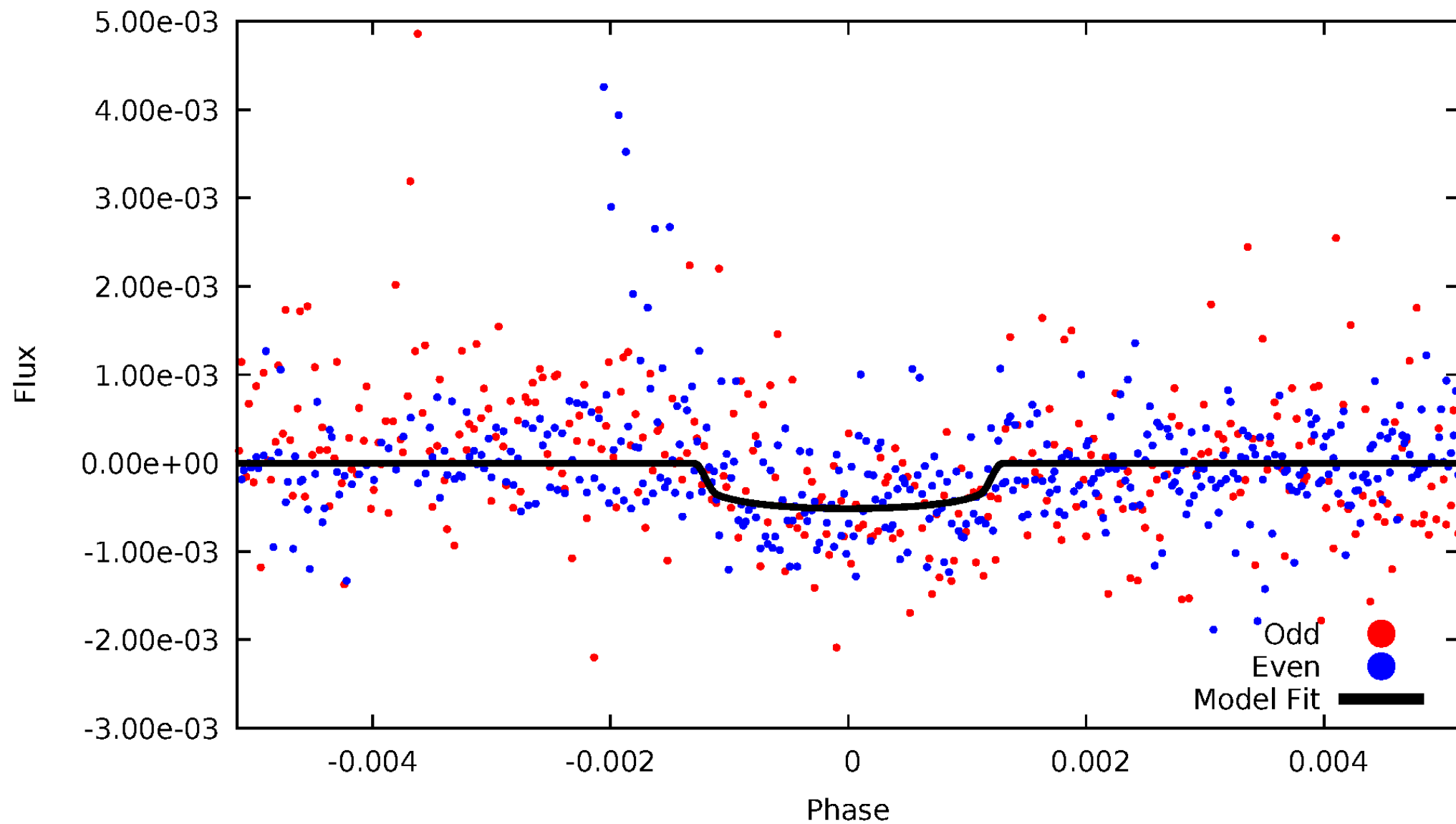


TCE 006530892-01



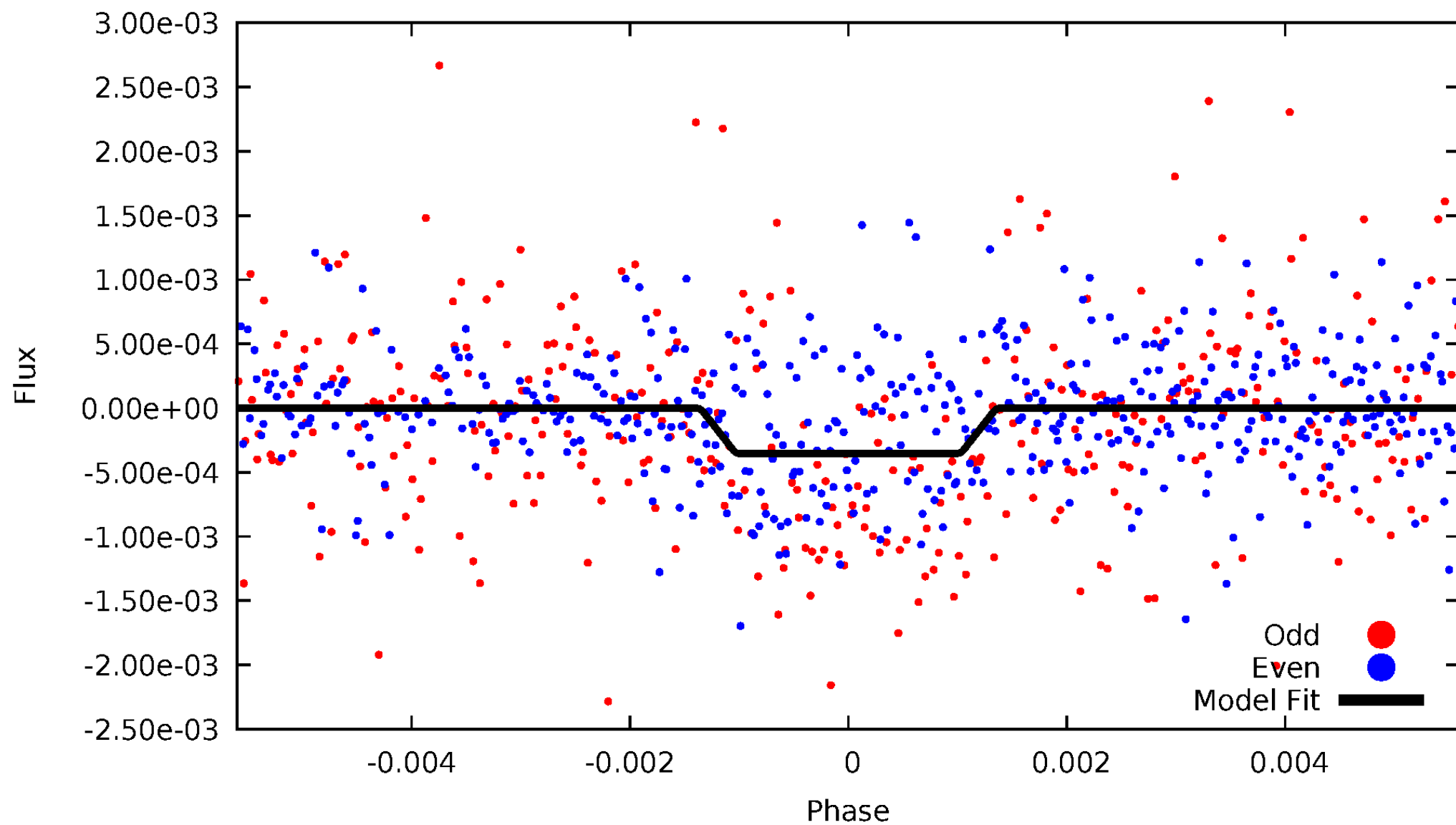
DV Odd/Even

TCE 006530892-01



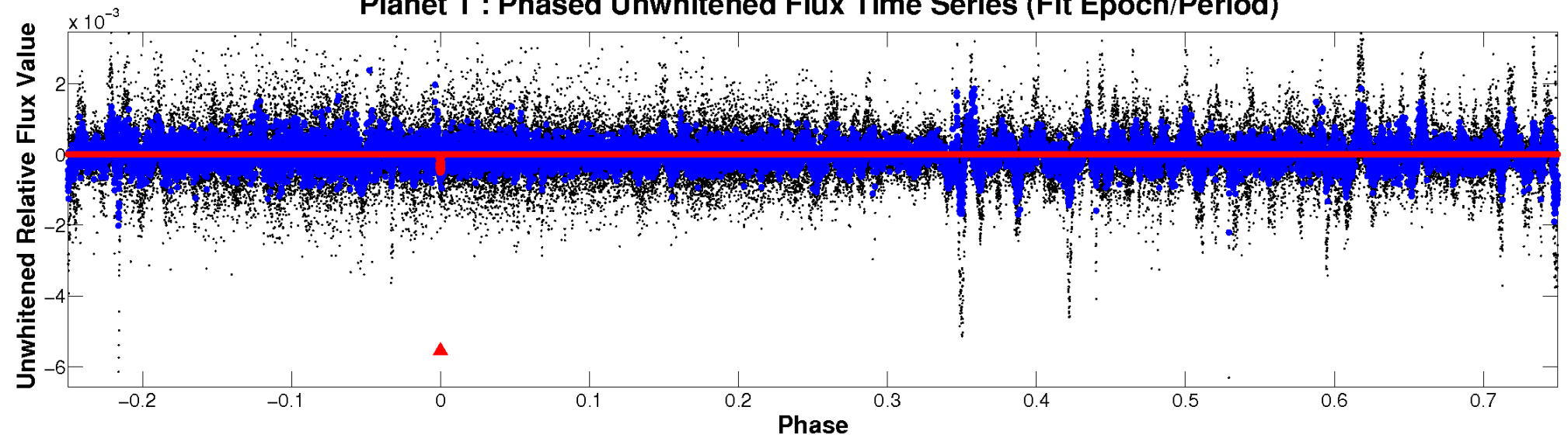
ALT Odd/Even

TCE 006530892-01

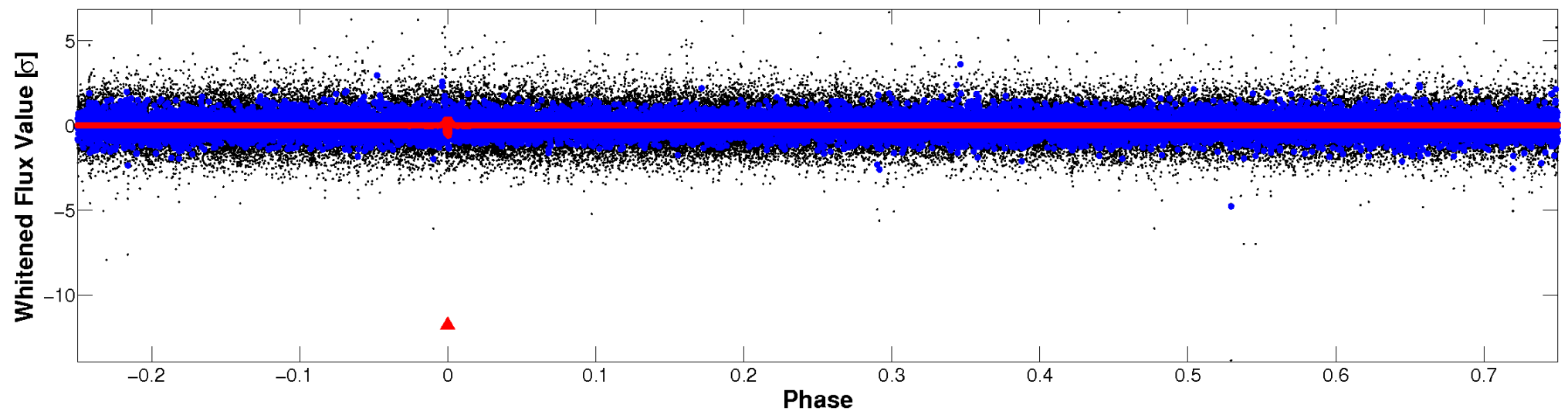


Non-Whitened Vs. Whitened Light Curve

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



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



PDC Quarter-Phased Transit Curves

TCE 006530892-01 $P=330.709485$ Days $T_0=184.885837$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006530892-01 $P=330.709485$ Days $T_0=184.885837$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

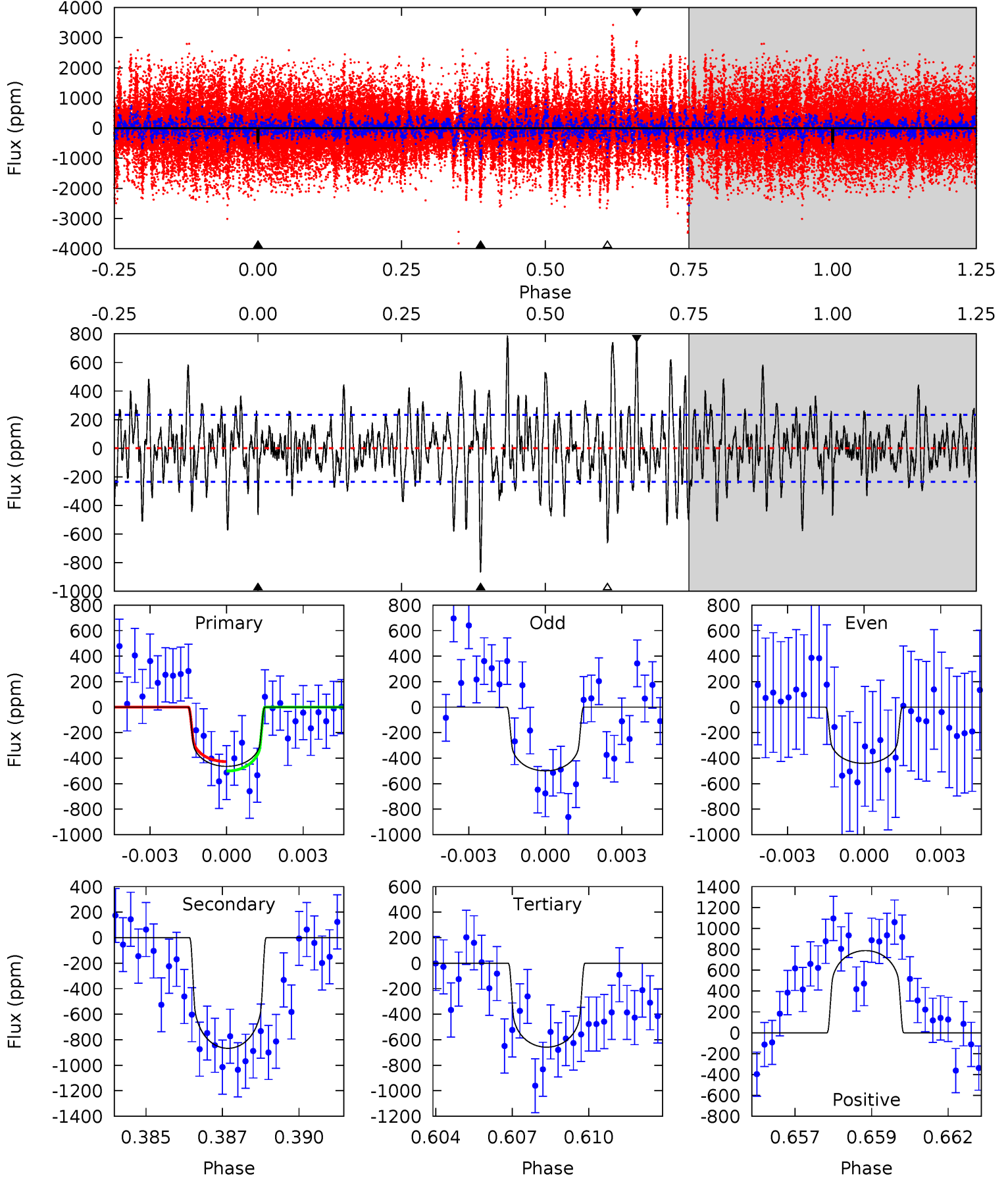
TCE 006530892-01 P=330.683113 Days $T_0=184.932228$ (BKJD)



DV Model-Shift Uniqueness Test

006530892-01, P = 330.709485 Days, E = 184.885837 Days

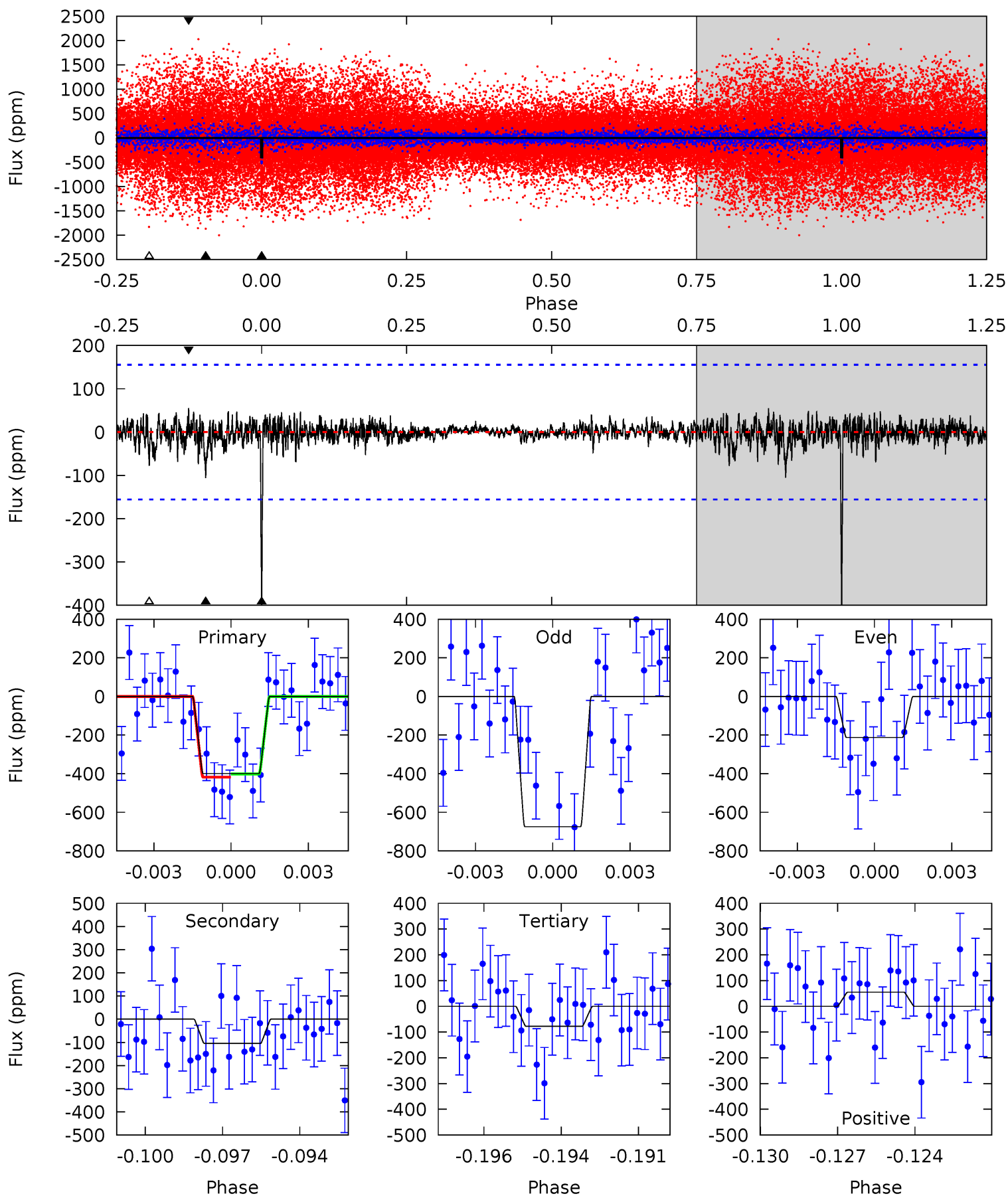
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	19.6	14.9	17.8	5.28	3.01	4.50	-4.38	-7.28	4.72	1.82	0.62	1.27	0.48	0.84



Alt Model-Shift Uniqueness Test

006530892-01, P = 330.683113 Days, E = 184.932228 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	3.55	2.63	1.86	5.27	2.99	0.54	10.9	11.7	0.92	1.69	7.46	1.01	0.12	0.28



Stellar Parameters For KIC 006530892

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5678^{+304}_{-304}	$4.215^{+0.300}_{-0.200}$	$-0.140^{+0.300}_{-0.300}$	$1.216^{+0.380}_{-0.380}$	$0.885^{+0.160}_{-0.099}$	$0.694^{+1.309}_{-0.350}$
	+5%/-5%	+7%/-5%	+214%/-214%	+31%/-31%	+18%/-11%	+189%/-50%
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 006530892-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-867 ± 44	$3.00^{+0.79}_{-0.65}$	404^{+40}_{-42}	6399^{+762}_{-573}	43880^{+27334}_{-17009}
Alt.	-105 ± 30	$2.46^{+0.70}_{-0.59}$	405^{+42}_{-43}	4392^{+490}_{-385}	7807^{+6074}_{-3309}

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

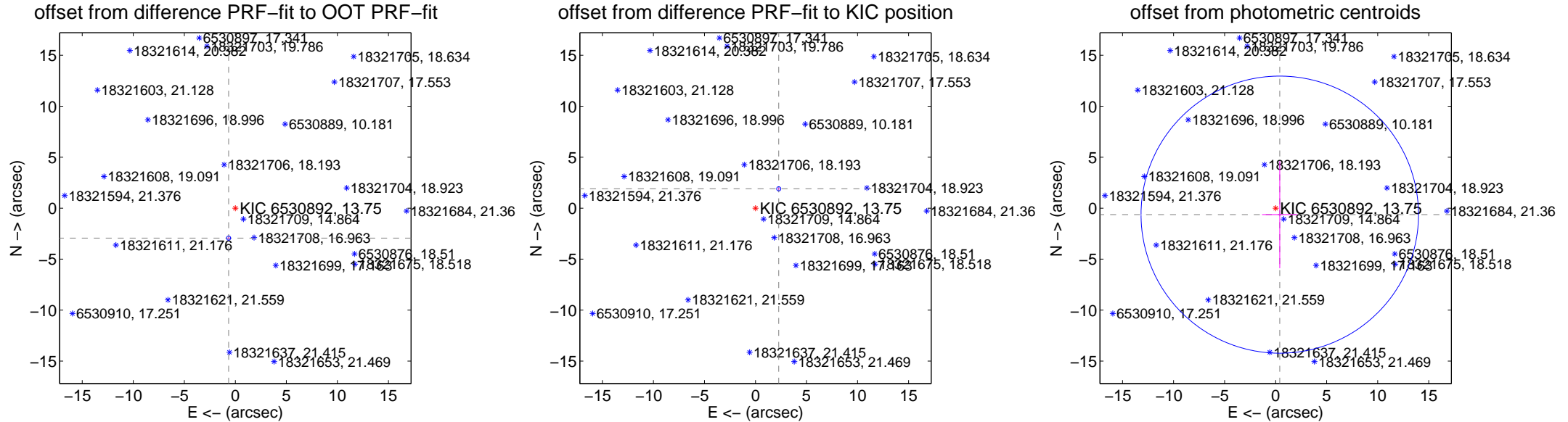
DV Centroid Data

Supplemental centroid analysis for 006530892-01. Kepler magnitude: 13.75. Transit SNR 7.74

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 5.66 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.009 ± 0.068	44.04	0.658 ± 0.068	-2.936 ± 0.068
PRF-fit source offset from KIC position	2.964 ± 0.068	43.61	-2.276 ± 0.068	1.899 ± 0.068
photometric centroid source offset	0.75 ± 4.53	0.17	-0.40 ± 1.73	-0.63 ± 5.26

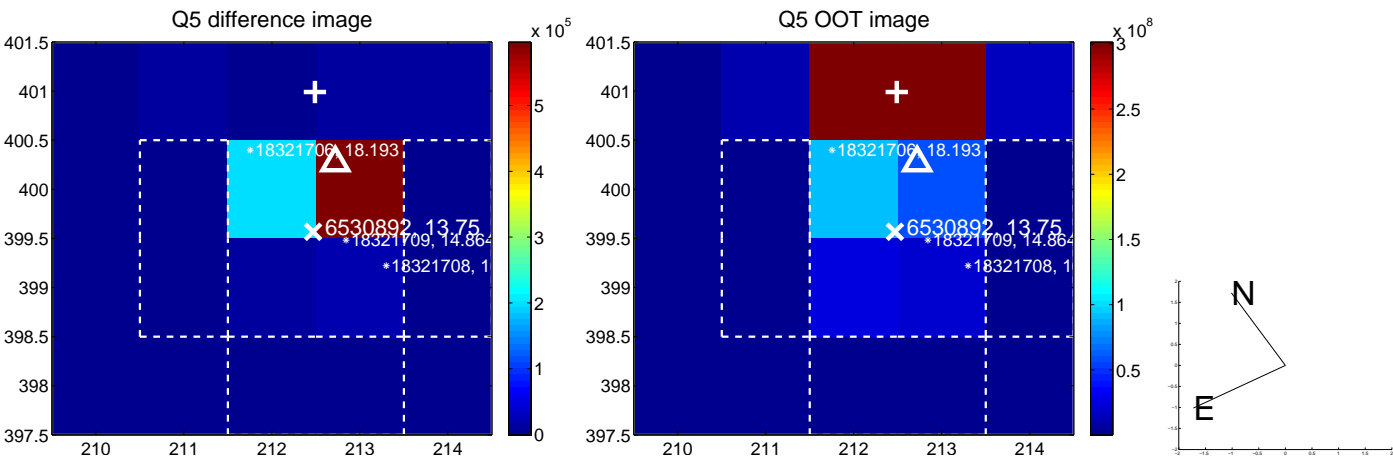


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



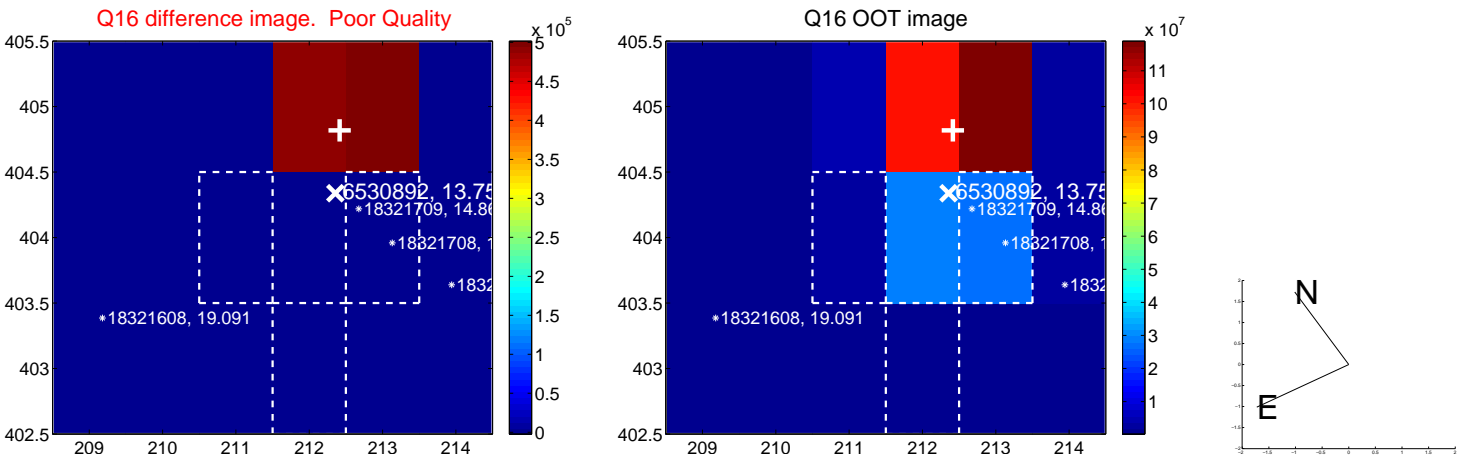
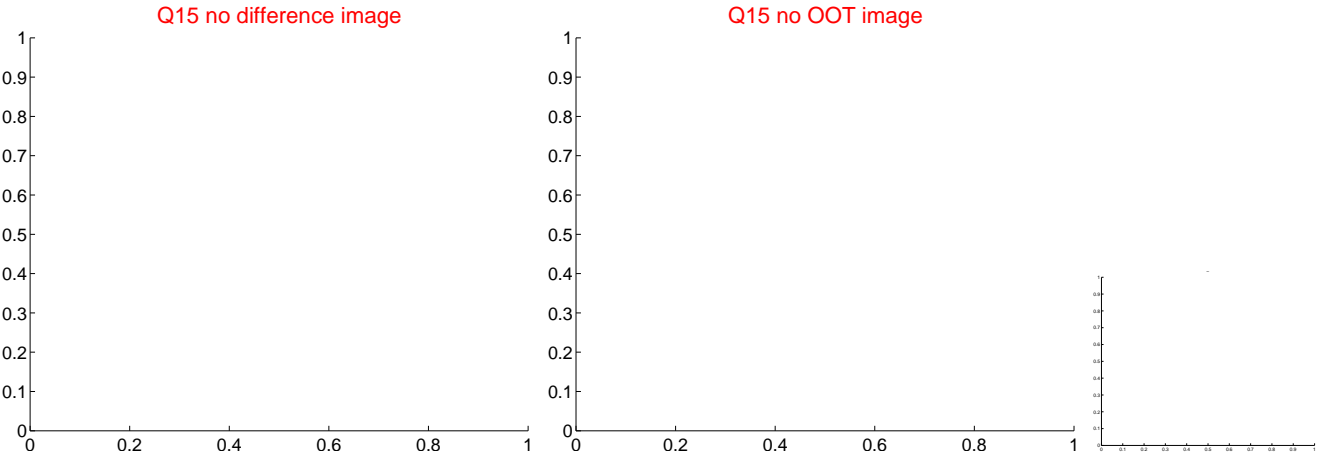
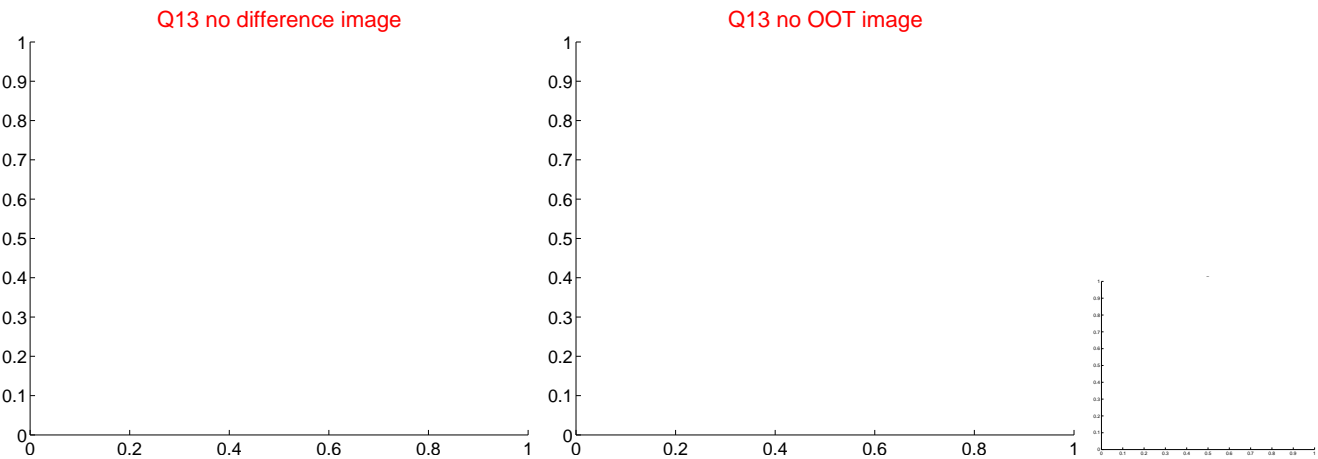
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



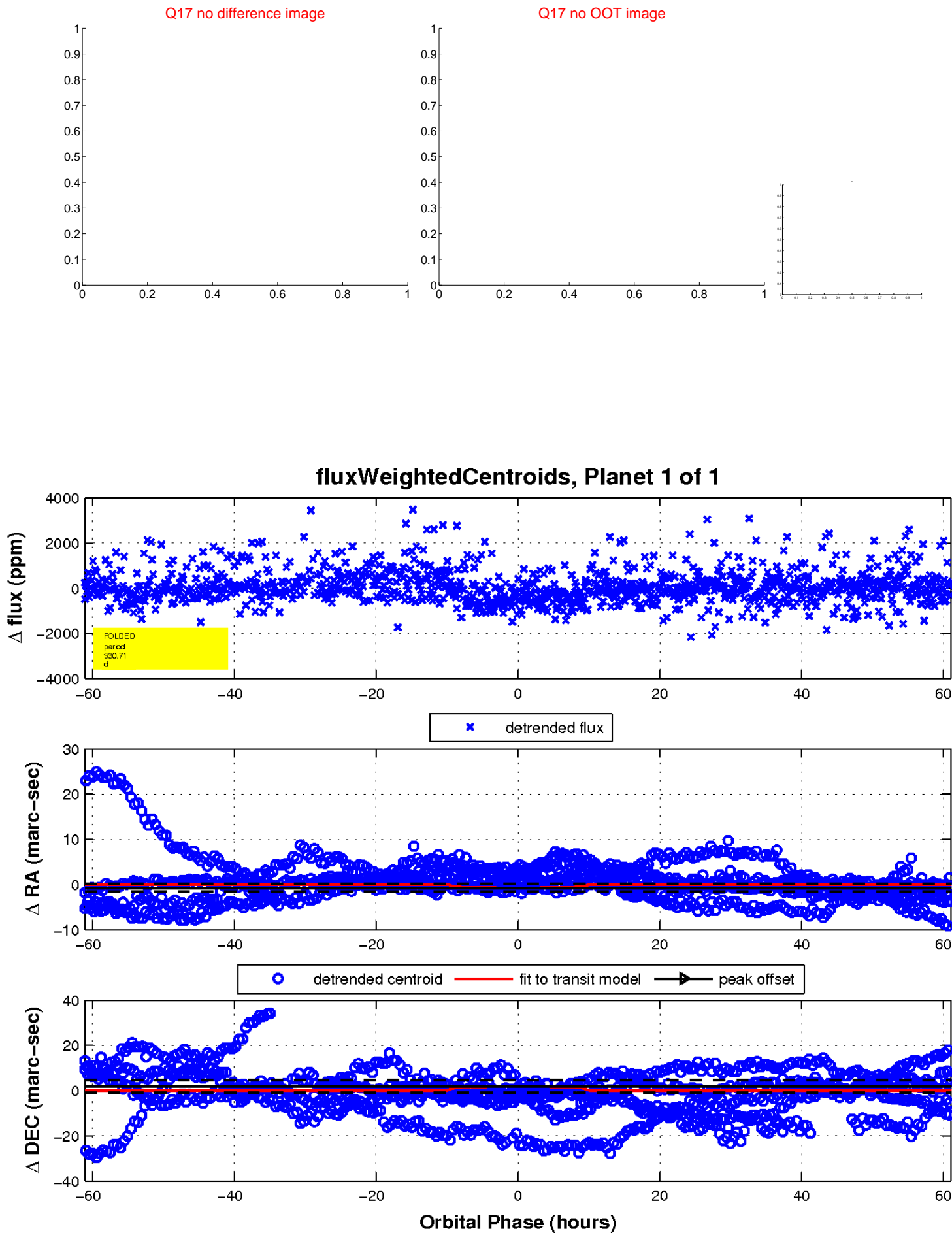
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white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

