

KIC 011769853

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})
011769853-01	OBS	No	438.160345	311.244803	895.1	6.415	7.5	6.5	0.76	4994	2.47	0.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011769853-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

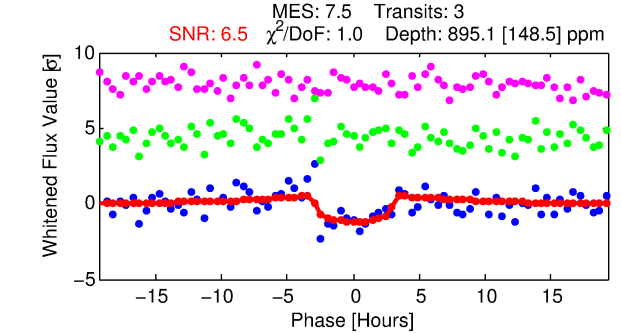
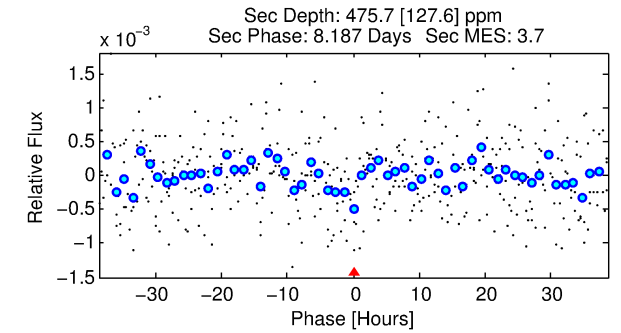
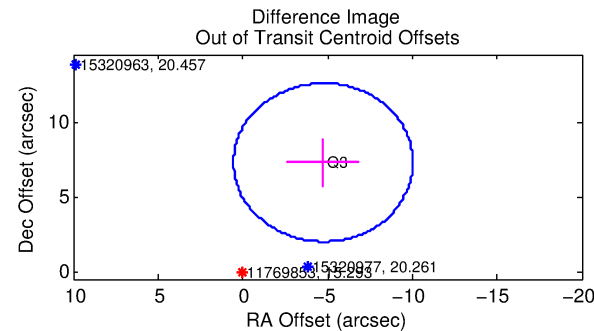
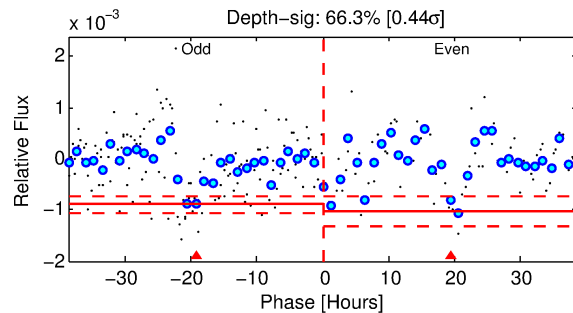
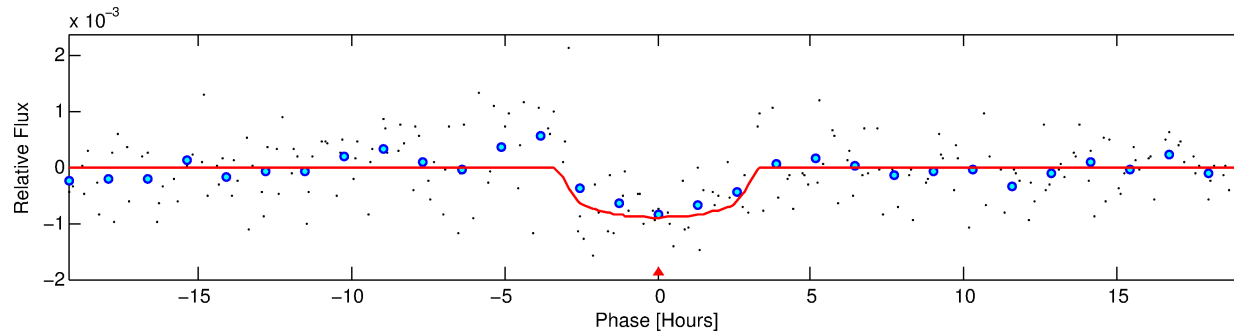
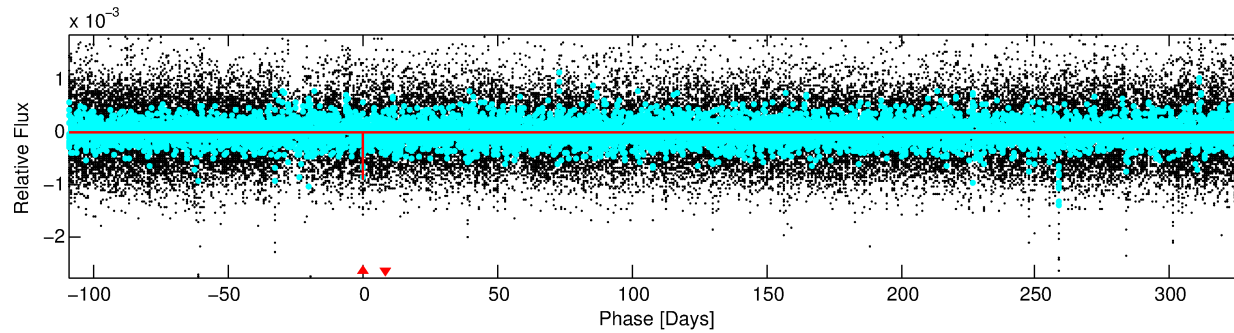
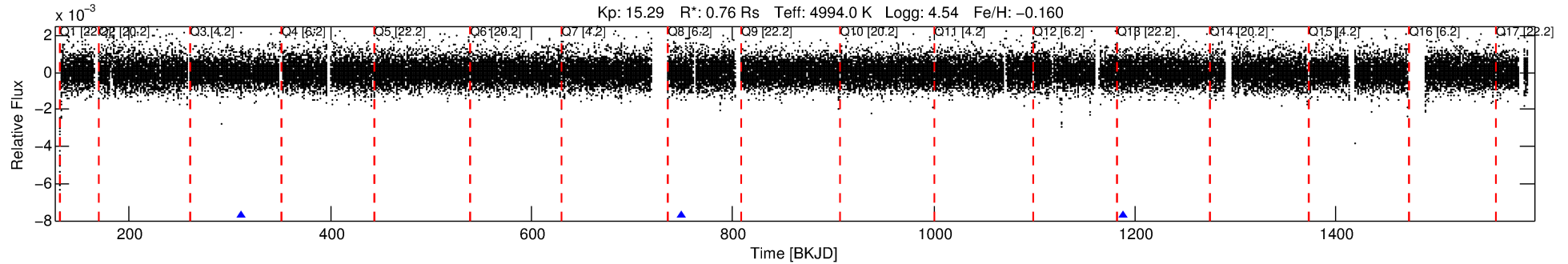
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011769853-01

No Significant Match Found

DV One-Page Summary

KIC: 11769853 Candidate: 1 of 1 Period: 438.160 d



DV Fit Results:

Period = 438.16034 [0.00971] d
Epoch = 311.2448 [0.0100] BKJD
Rp/R* = 0.0299 [0.0314]
a/R* = 365.66 [1368.62]
b = 0.75 [2.17]
Seff = 0.31 [0.06]
Teq = 190 [9] K
Rp = 2.47 [2.60] Re
a = 1.0150 [0.0932] AU
Ag = 44195.10 [93543.31] [0.47 σ]
Teffp = 4262 [2254] K [1.81 σ]

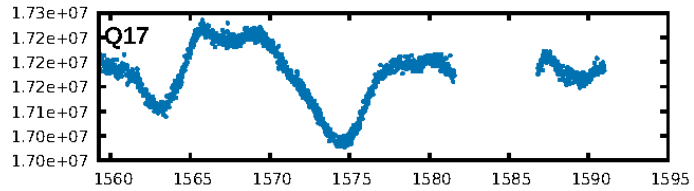
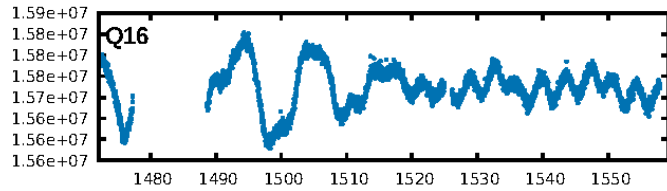
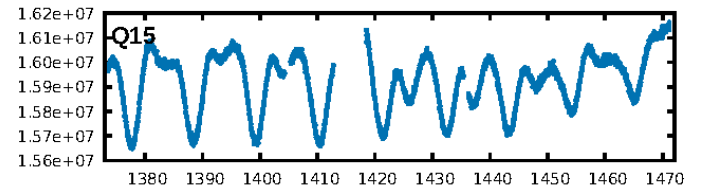
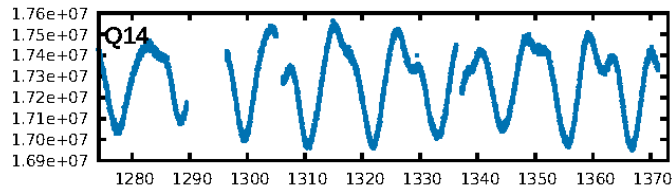
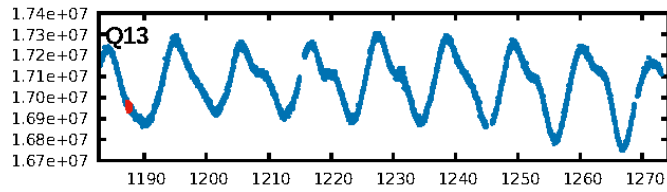
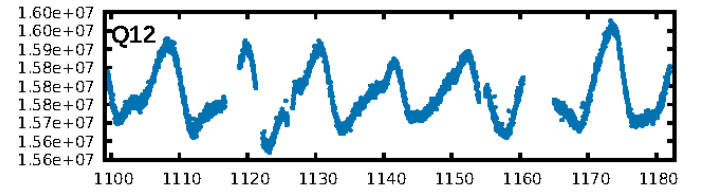
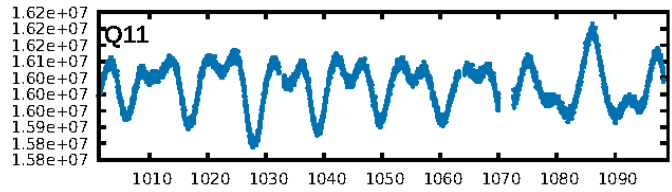
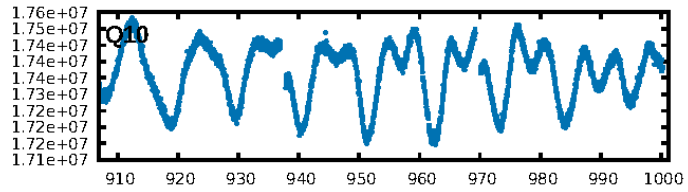
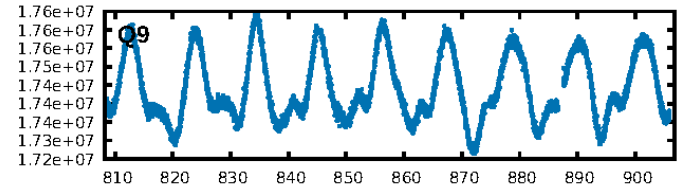
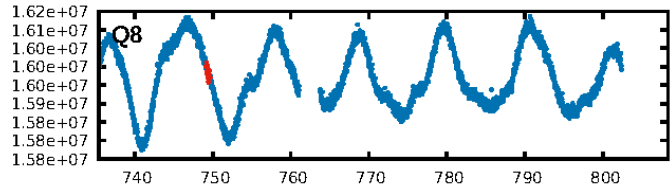
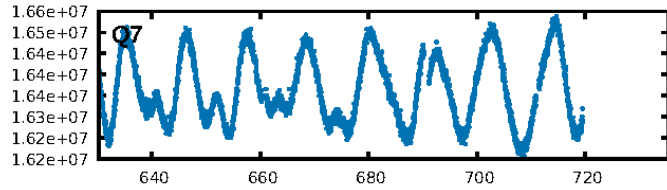
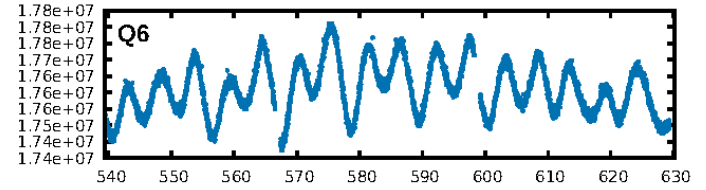
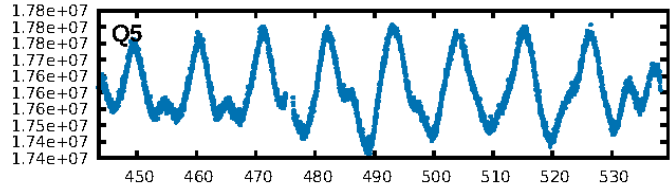
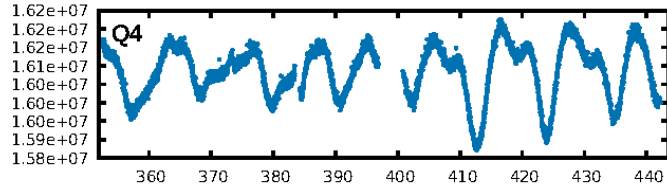
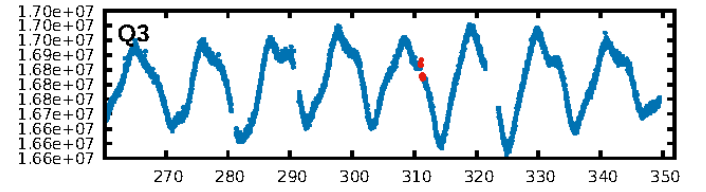
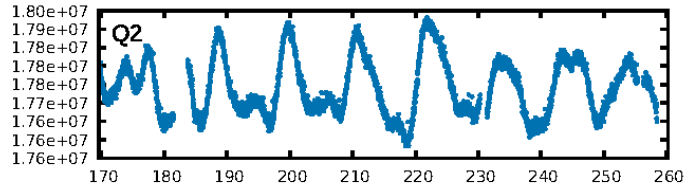
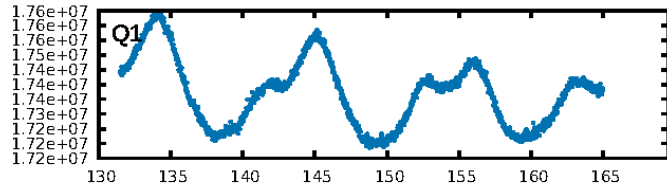
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 38.0%
ModelChiSquareGof-sig: 97.3%
Bootstrap-pfa: 2.00e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.8618
Centroid-sig: 0.1%
Centroid-so: 3.702 arcsec [2.48 σ]
OotOffset-rm: 8.686 arcsec [4.93 σ]
KicOffset-rm: 8.621 arcsec [4.91 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

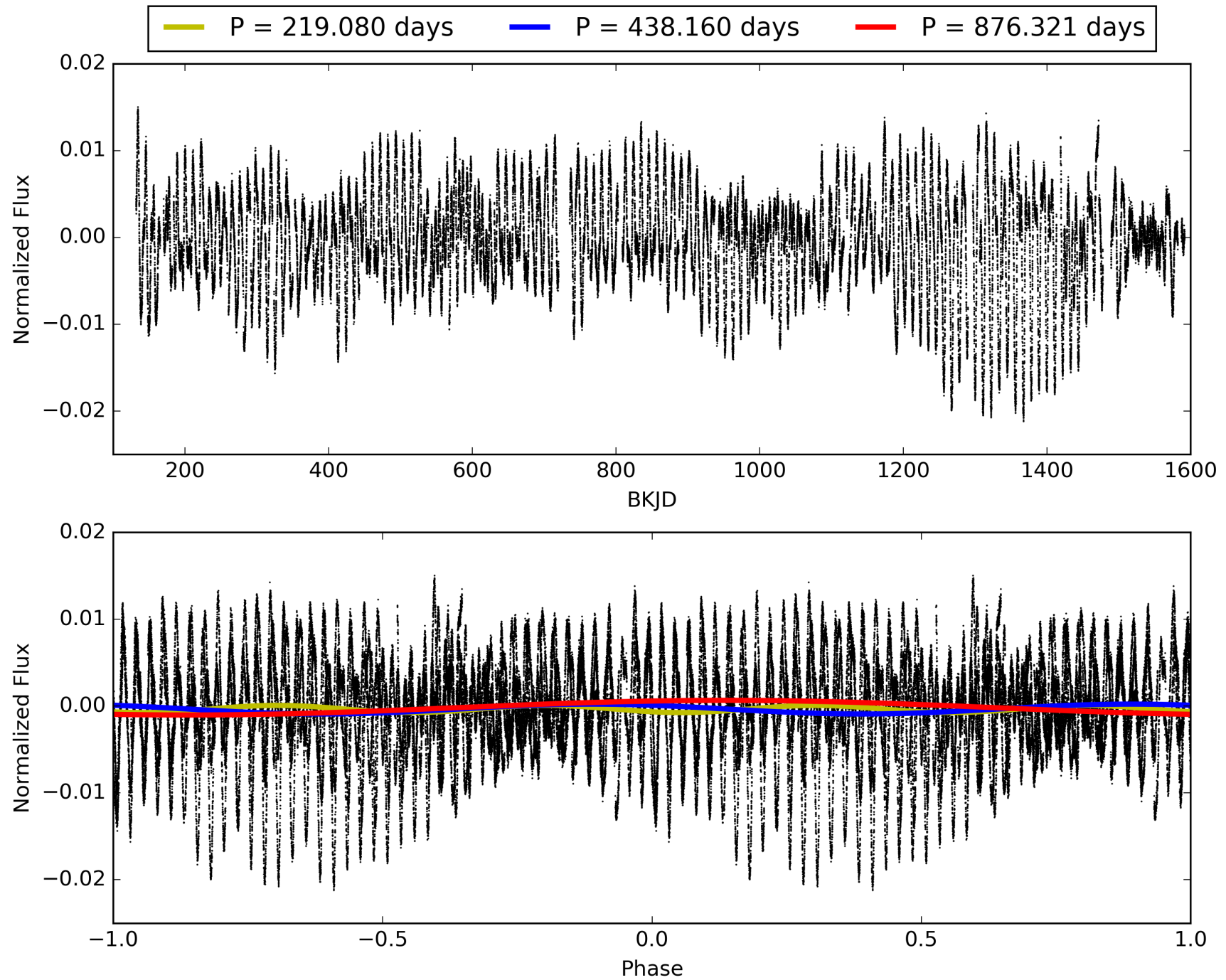
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:11:18 Z

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

TCE 011769853-01, PDC Light Curves

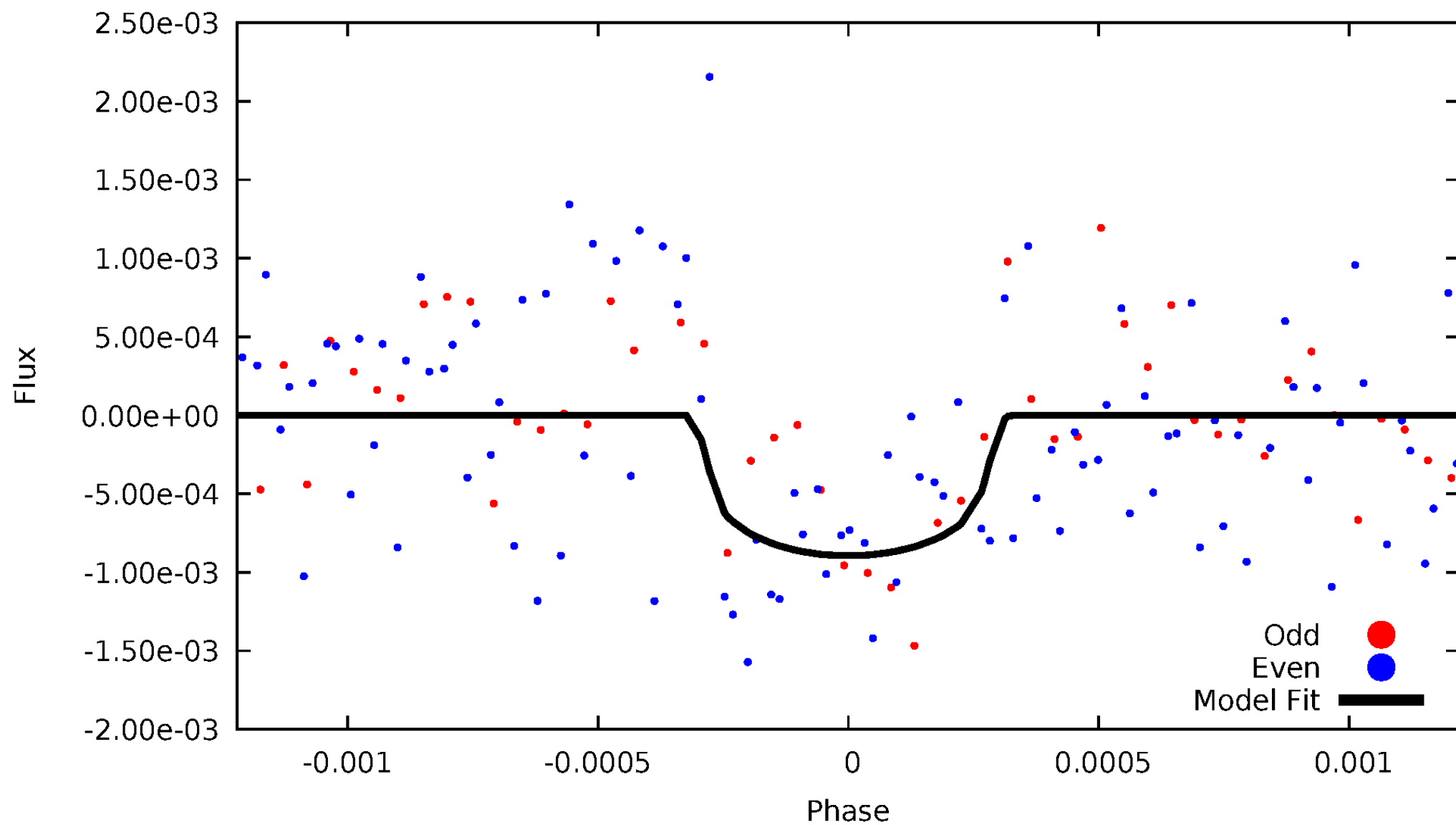


TCE 011769853-01



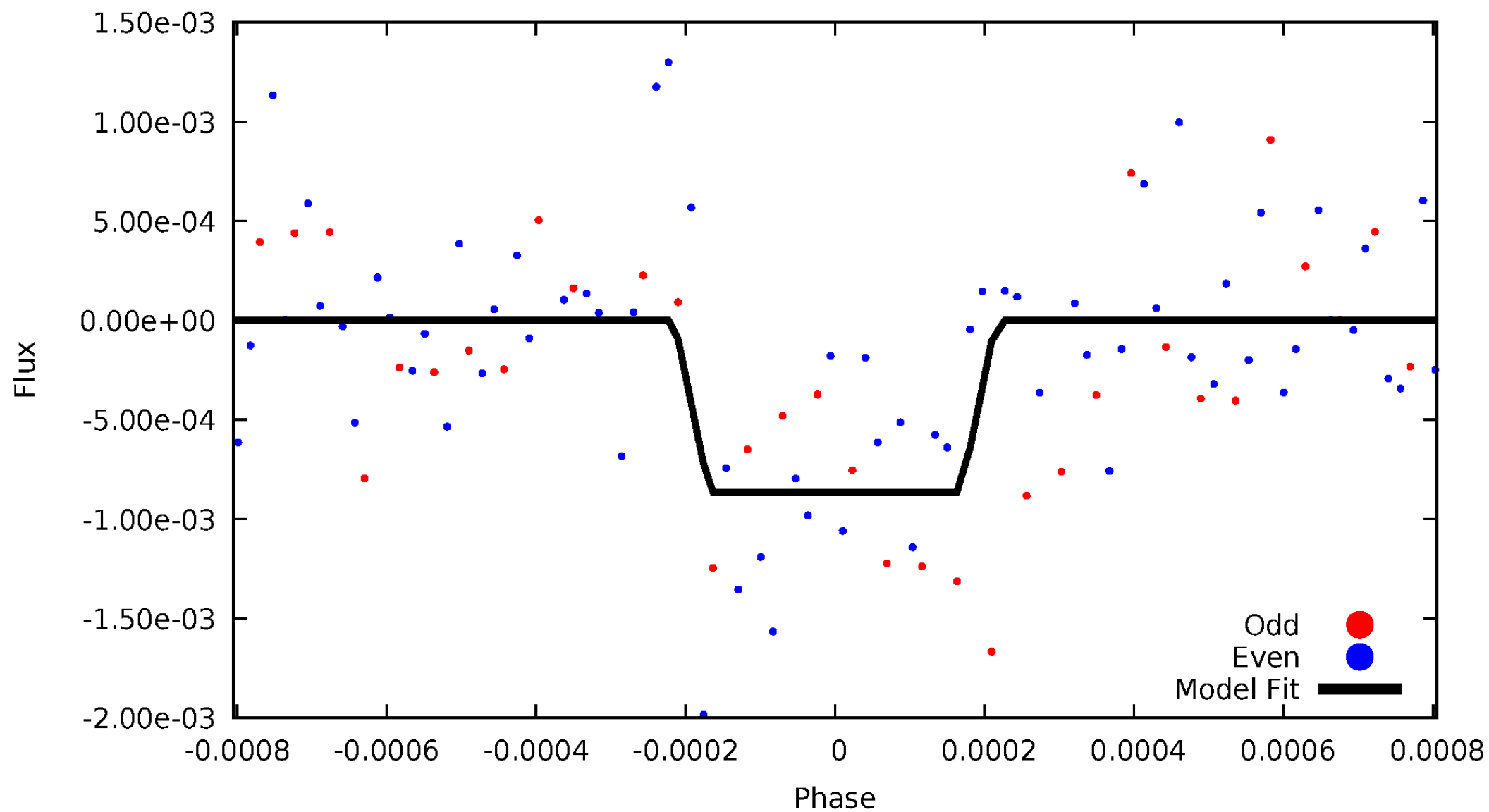
DV Odd/Even

TCE 011769853-01

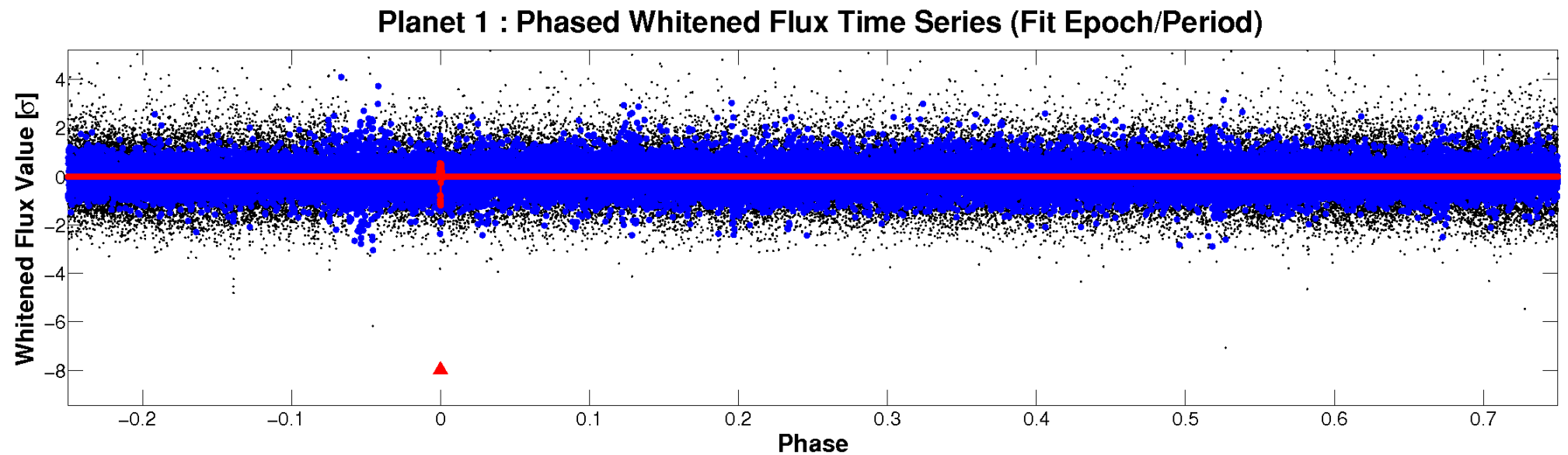
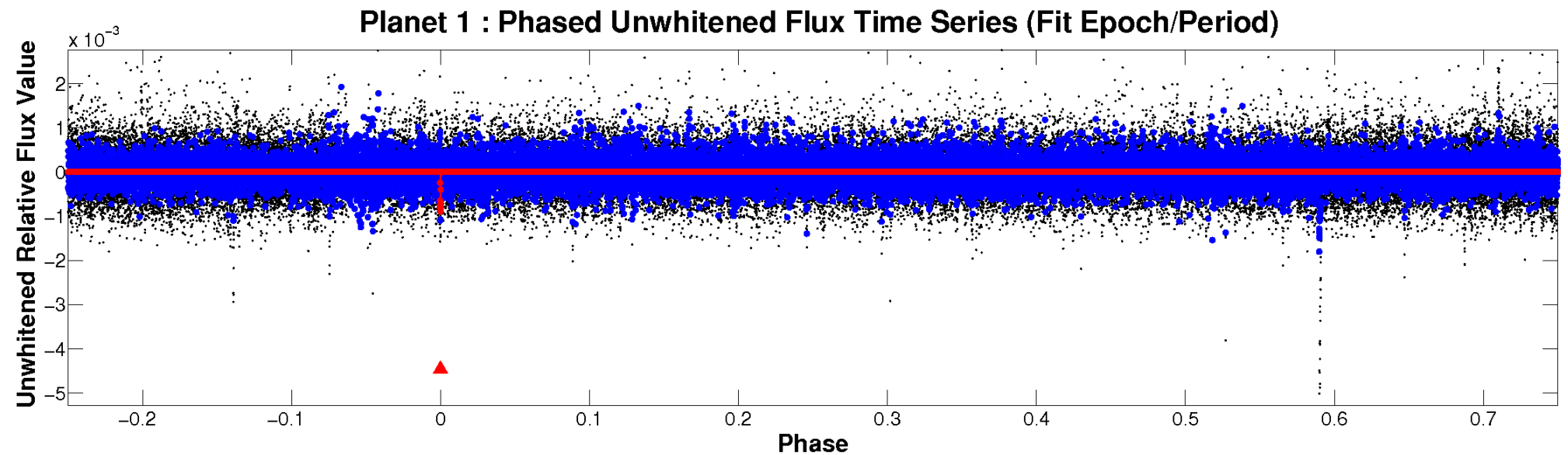


ALT Odd/Even

TCE 011769853-01

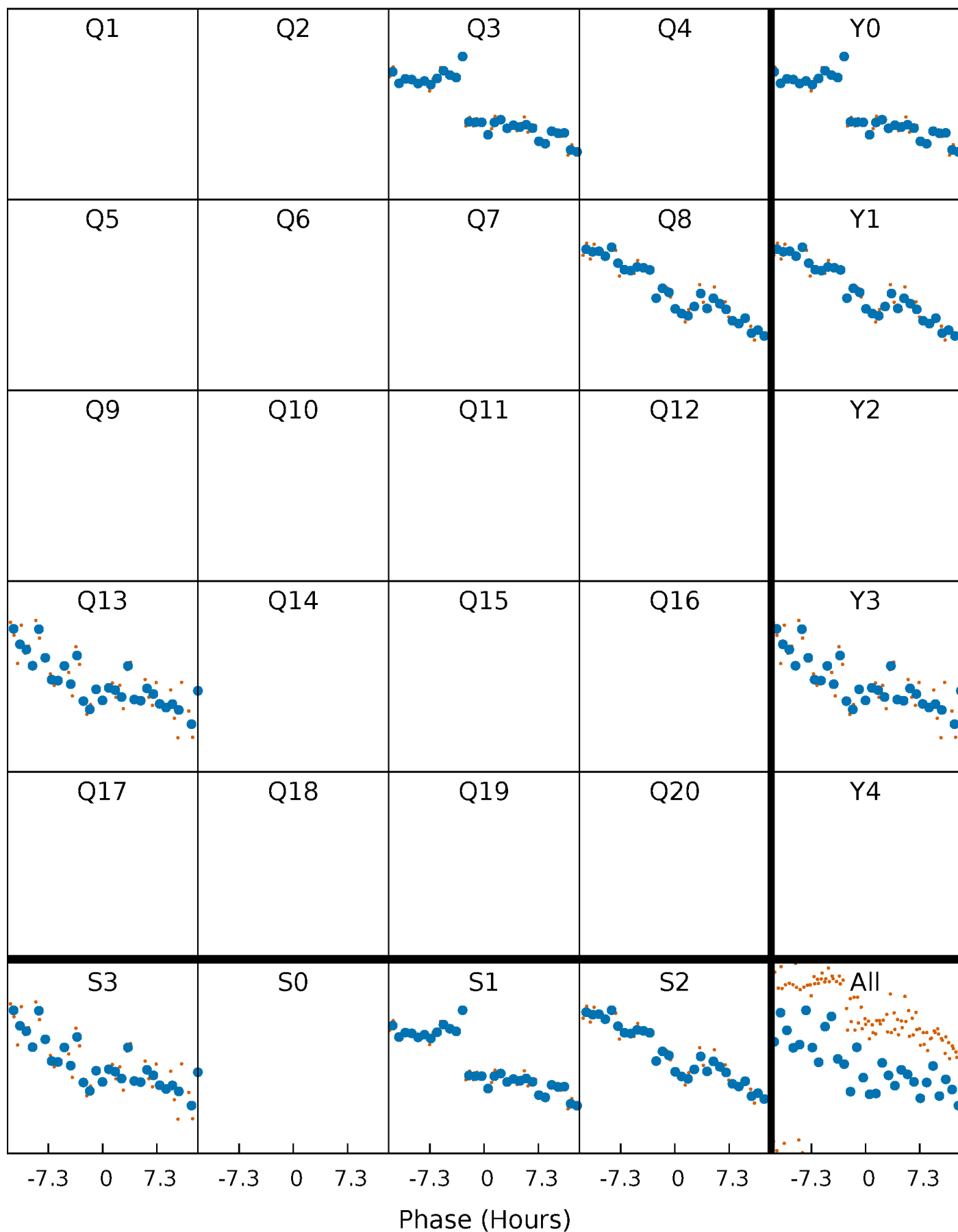


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 011769853-01 P=438.160345 Days $T_0=311.244803$ (BKJD)



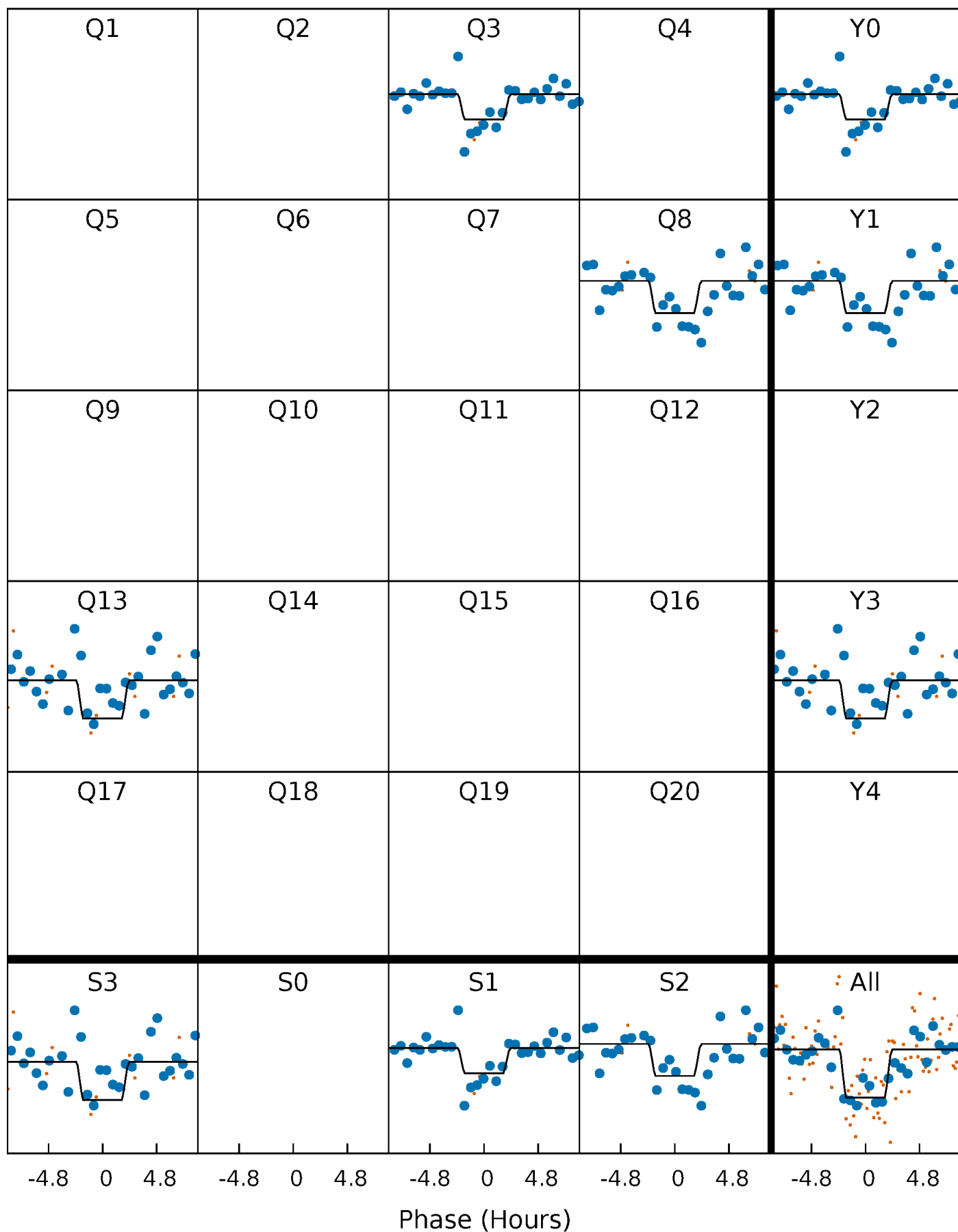
DV Quarter-Phased Transit Curves

TCE 011769853-01 P=438.160345 Days $T_0=311.244803$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

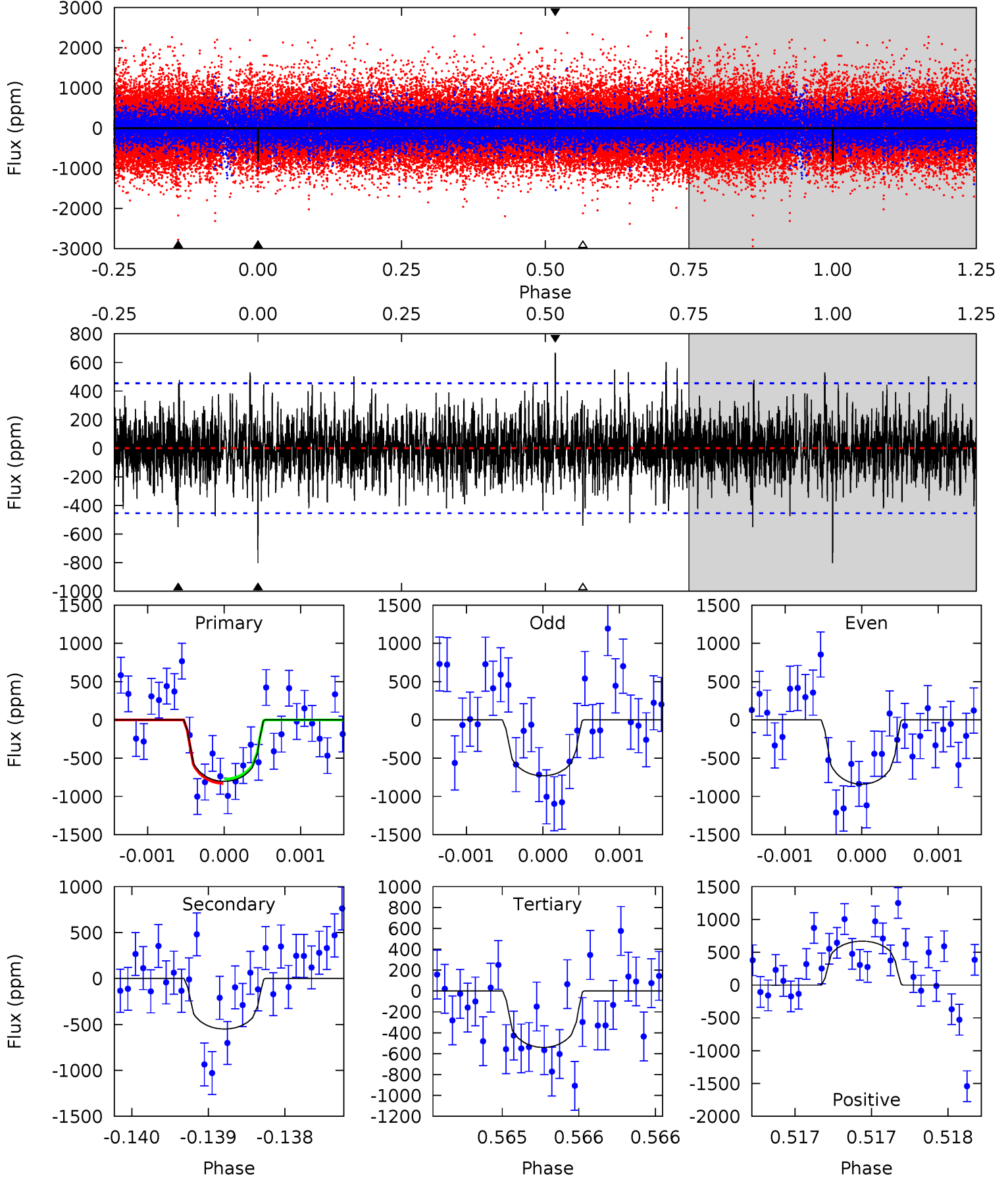
TCE 011769853-01 P=438.150016 Days $T_0=311.221015$ (BKJD)



DV Model-Shift Uniqueness Test

011769853-01, P = 438.160345 Days, E = 311.244803 Days

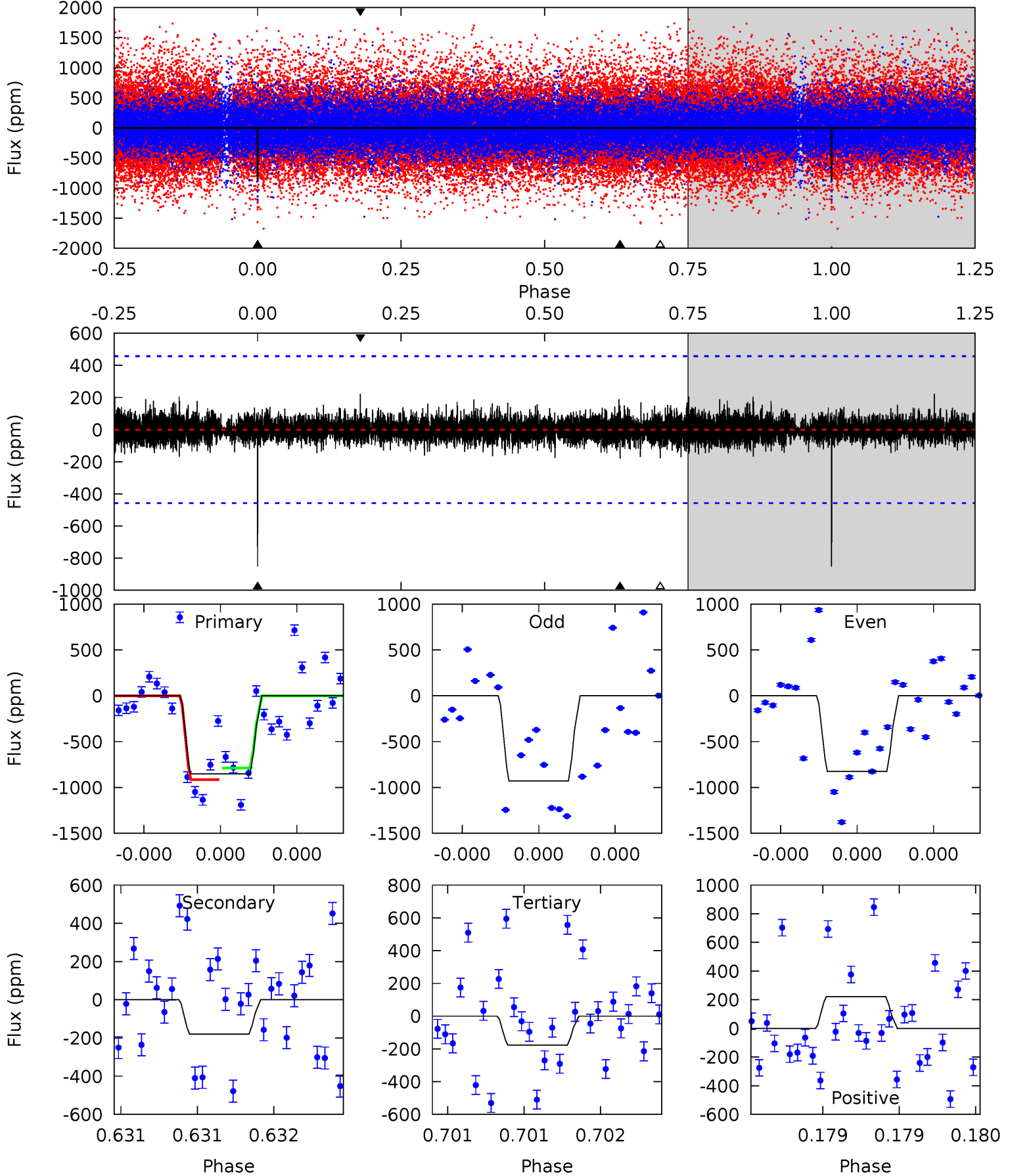
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.80	6.71	6.59	8.16	5.54	3.43	1.65	3.20	1.64	0.12	-1.45	0.64	1.05	0.45	0.34



Alt Model-Shift Uniqueness Test

011769853-01, P = 438.150016 Days, E = 311.221015 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	2.20	2.17	2.72	5.60	3.53	0.55	8.28	7.73	0.03	-0.52	0.63	0.92	0.21	0.78



Stellar Parameters For KIC 011769853

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4994^{+151}_{-136}	$4.542^{+0.078}_{-0.048}$	$-0.160^{+0.300}_{-0.300}$	$0.756^{+0.071}_{-0.079}$	$0.726^{+0.095}_{-0.055}$	$2.365^{+0.761}_{-0.402}$
	+3%/-3%	+2%/-1%	+188%/-188%	+9%/-10%	+13%/-8%	+32%/-17%
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 011769853-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-550 ± 82	$2.97^{+2.23}_{-1.95}$	264^{+9}_{-10}	4220^{+2640}_{-762}	$35943^{+285190}_{-24412}$
Alt.	-179 ± 82	$2.89^{+2.35}_{-1.77}$	264^{+10}_{-10}	3447^{+1500}_{-582}	11114^{+65858}_{-8031}

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

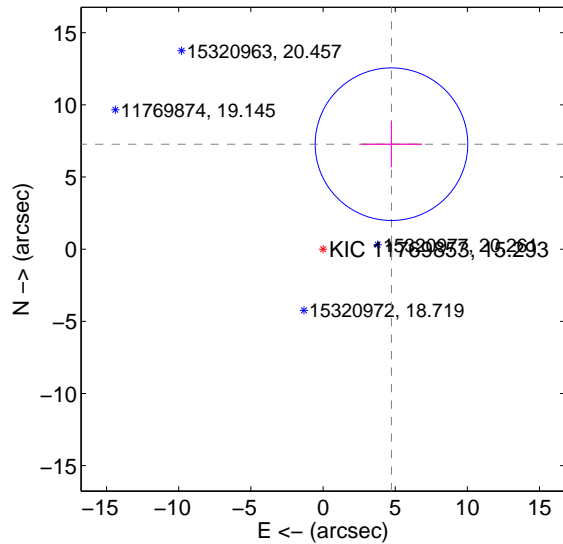
Supplemental centroid analysis for 011769853-01. Kepler magnitude: 15.29. Transit SNR 6.55

There are 0 quarters with good PRF difference image offsets

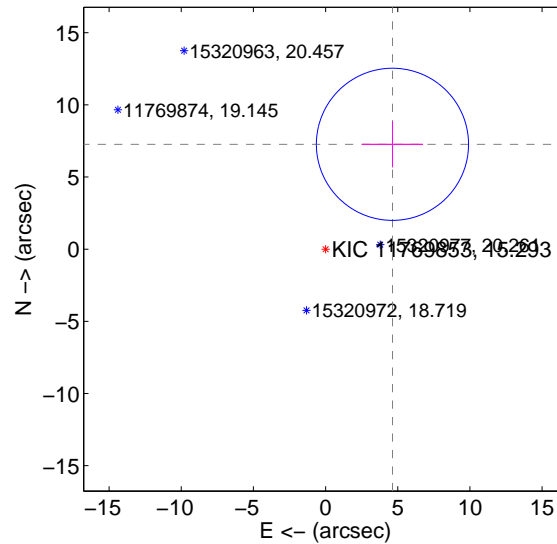
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.686 ± 1.763	4.93	-4.744 ± 2.118	7.276 ± 1.588
PRF-fit source offset from KIC position	8.621 ± 1.758	4.91	-4.635 ± 2.118	7.269 ± 1.588
photometric centroid source offset	3.70 ± 1.49	2.48	-2.18 ± 1.41	2.99 ± 1.54

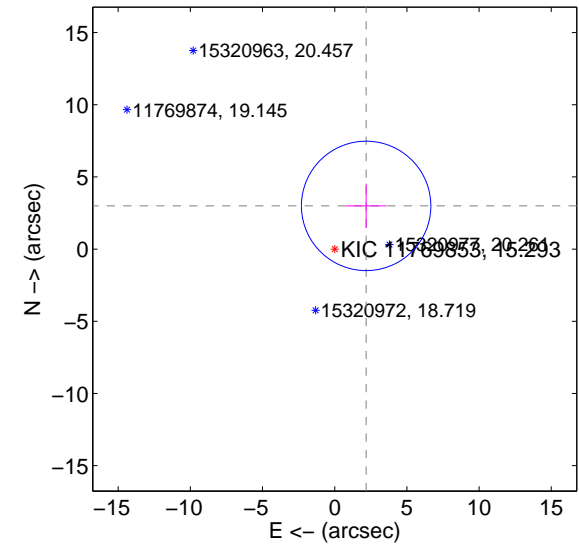
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

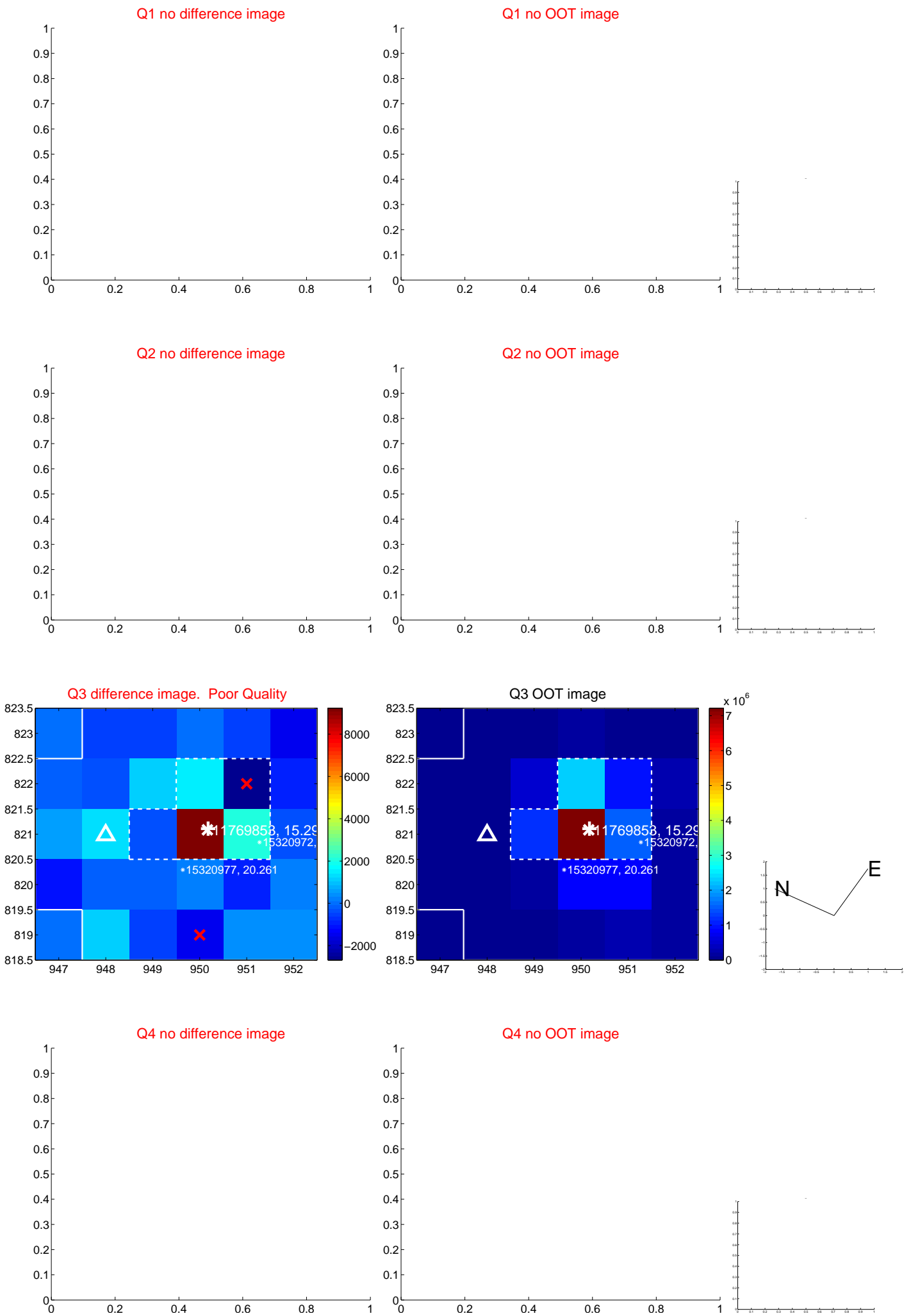


offset from photometric centroids

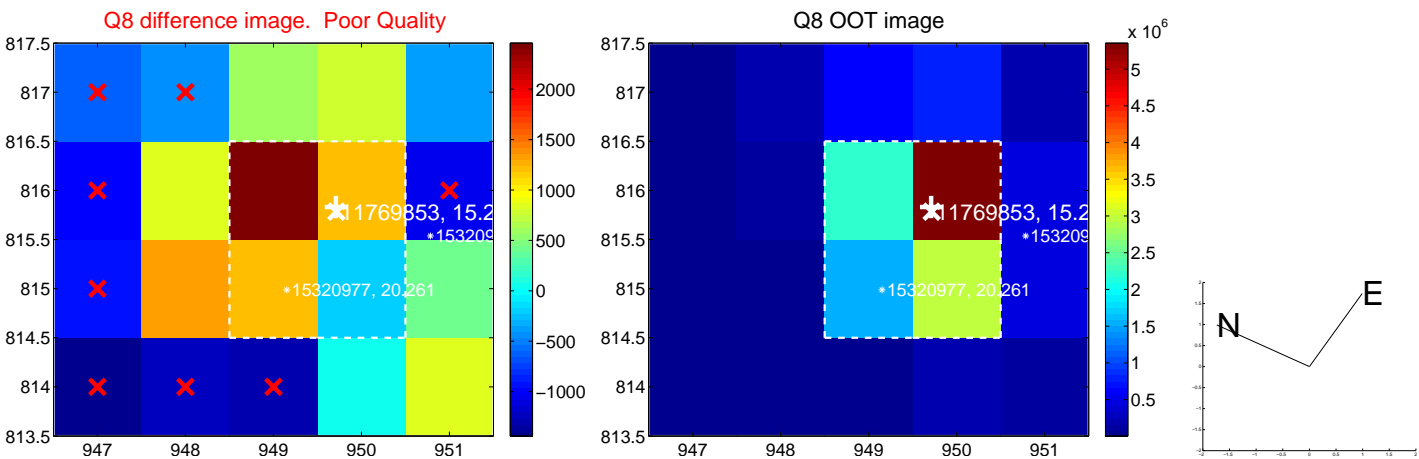
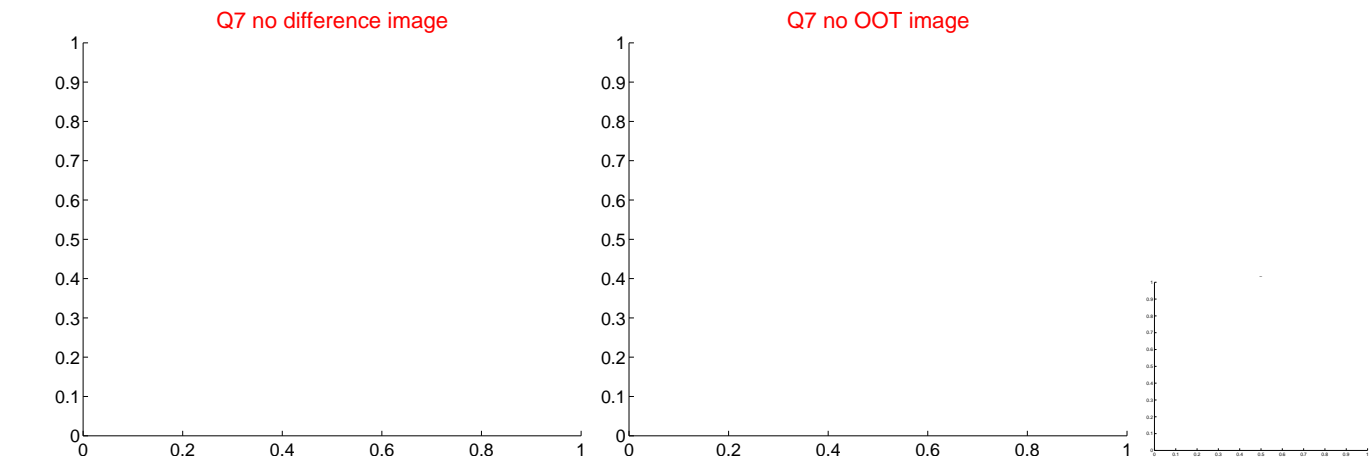
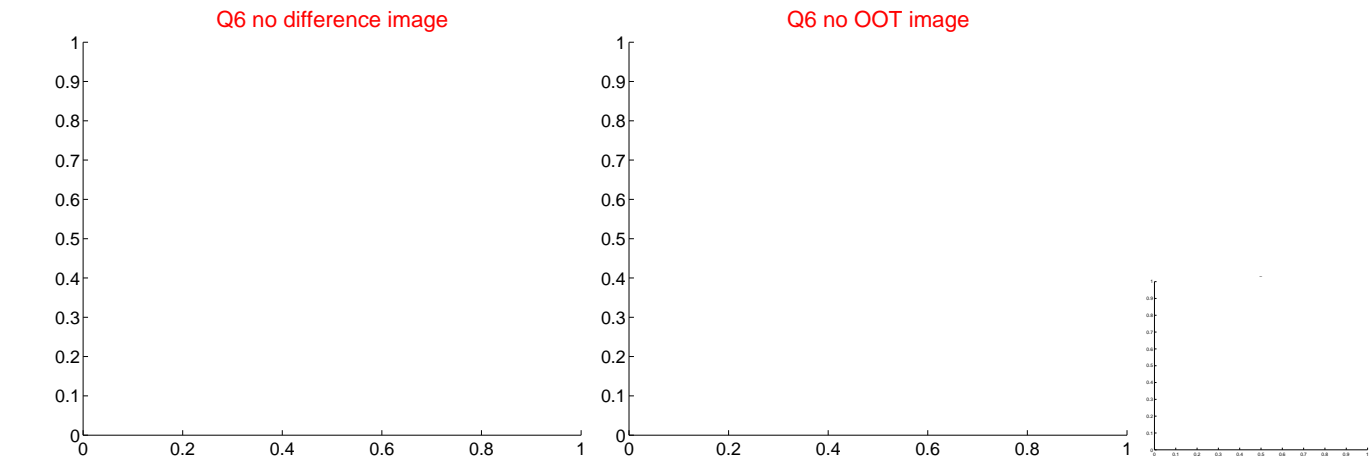
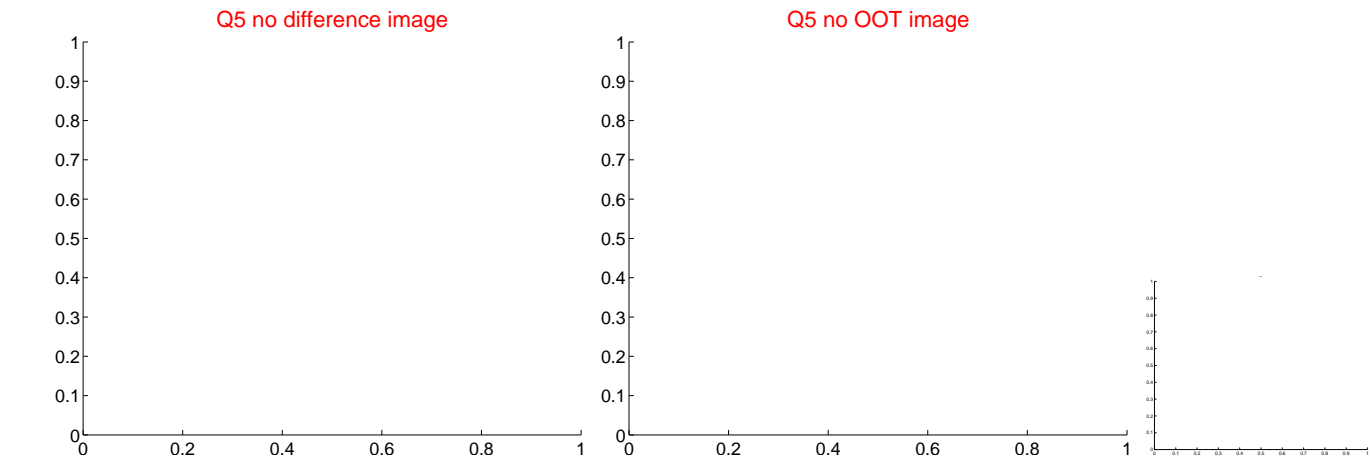


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

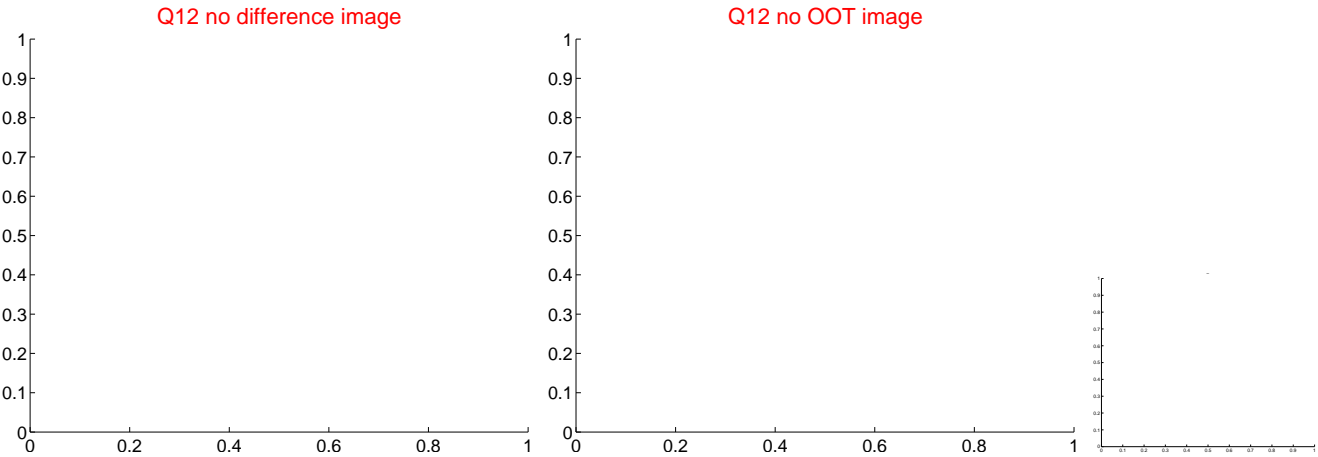
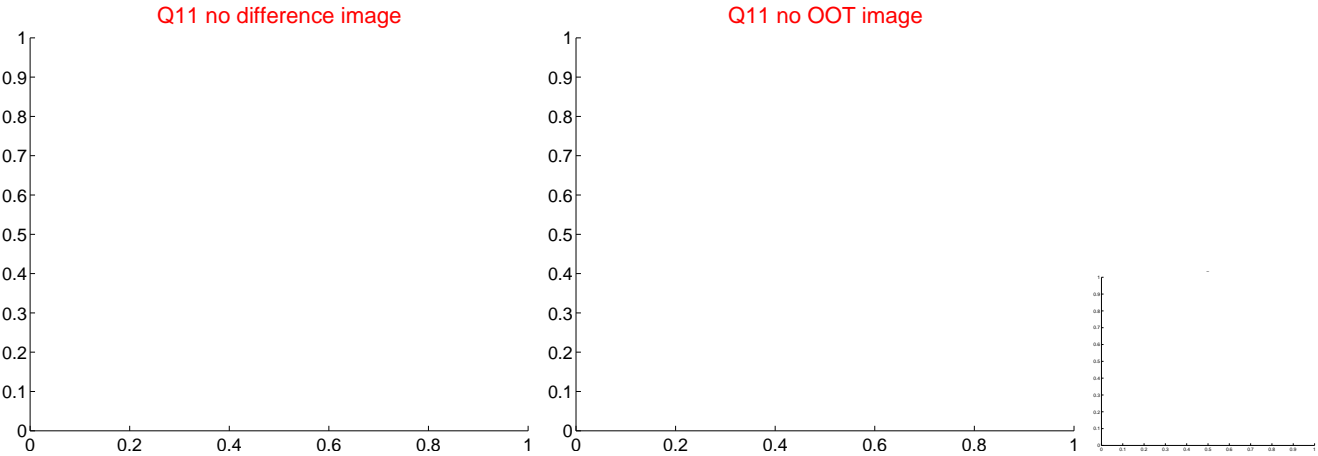
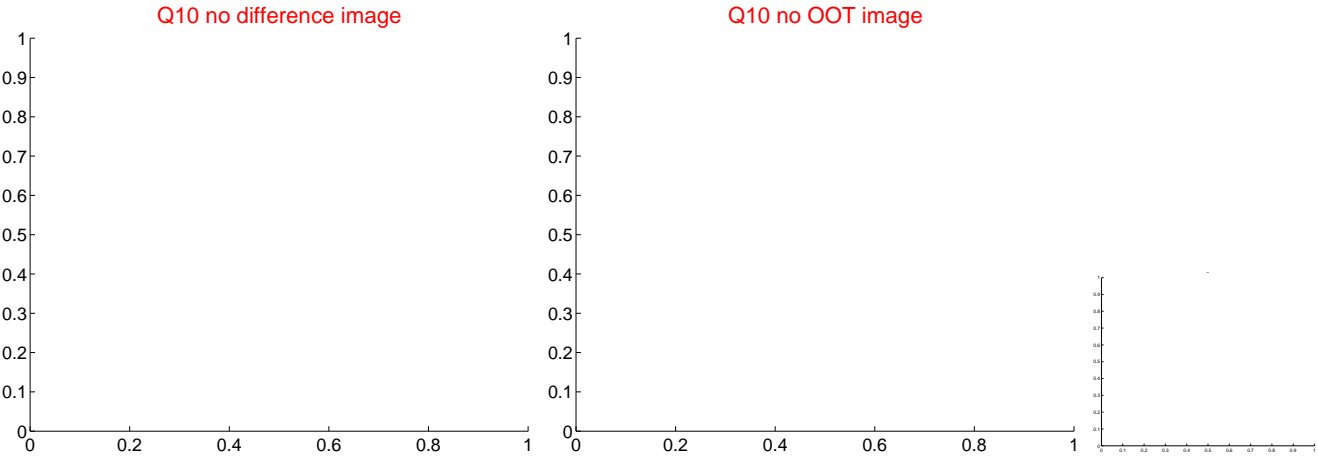
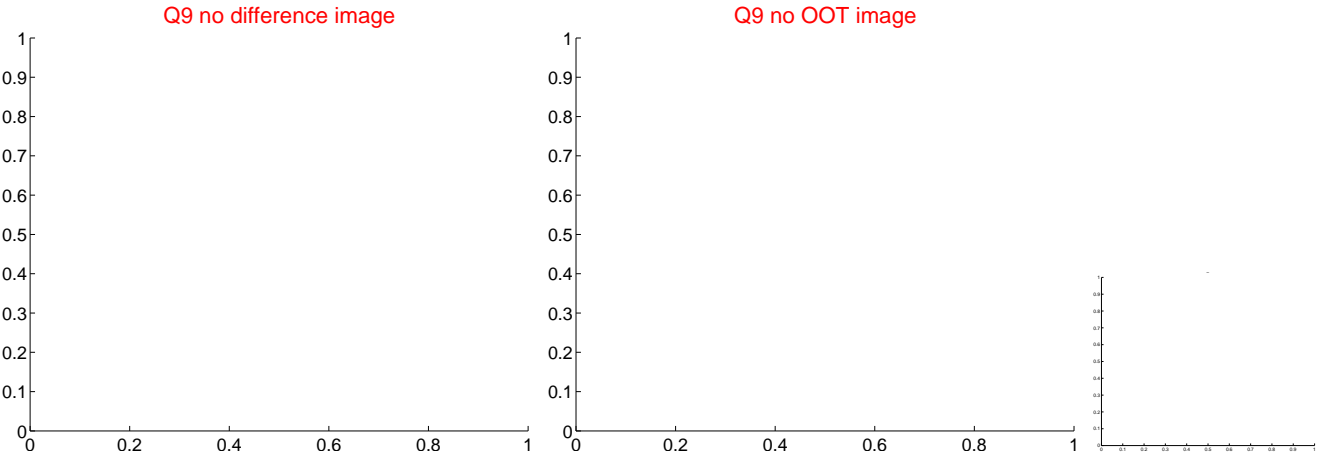
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



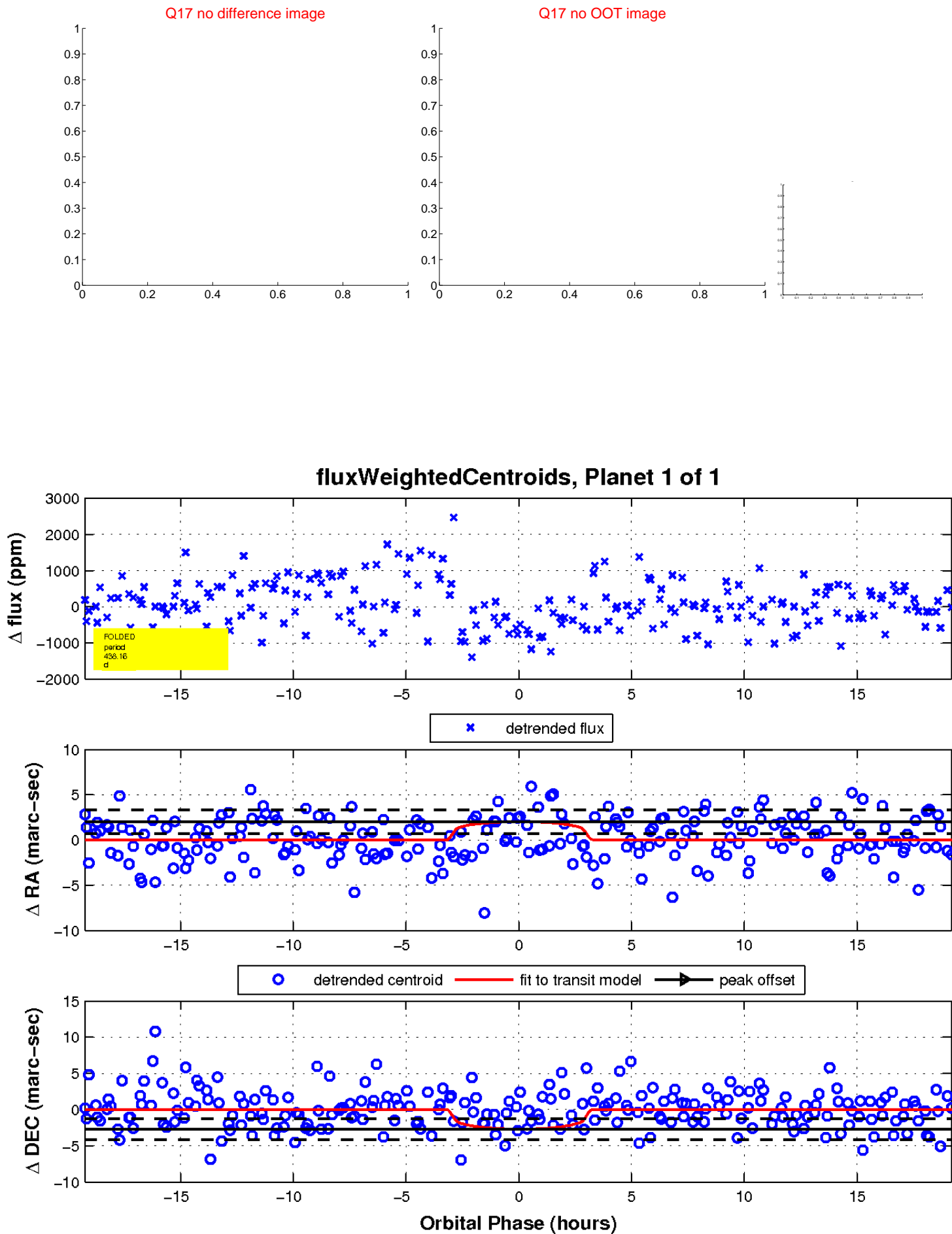
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

