

KIC 010583136

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})
010583136-01	OBS	No	511.781754	433.604244	425.3	5.065	7.5	4.7	0.88	5506	2.08	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583136-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—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.

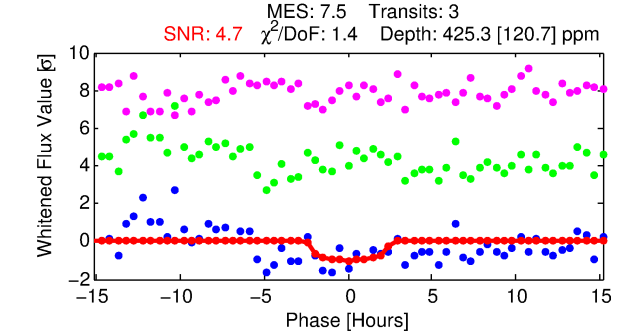
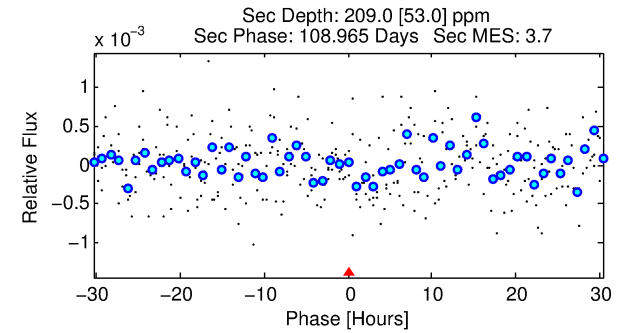
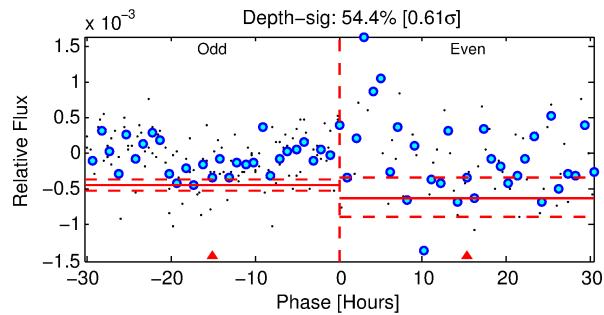
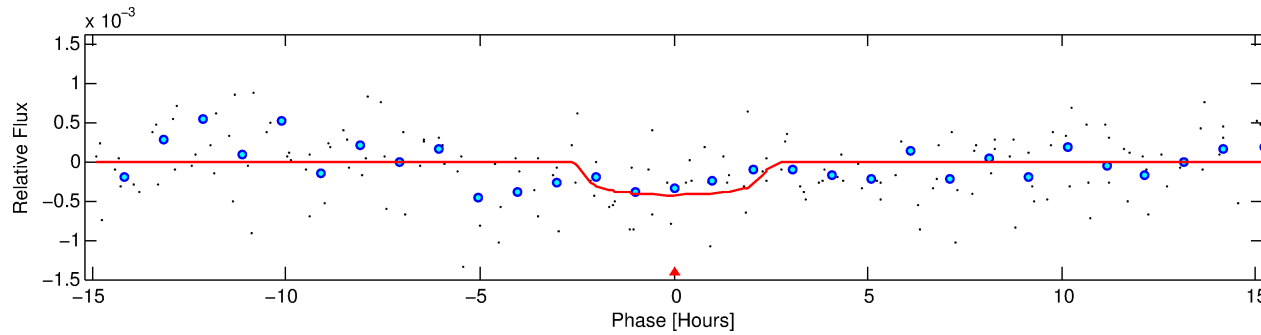
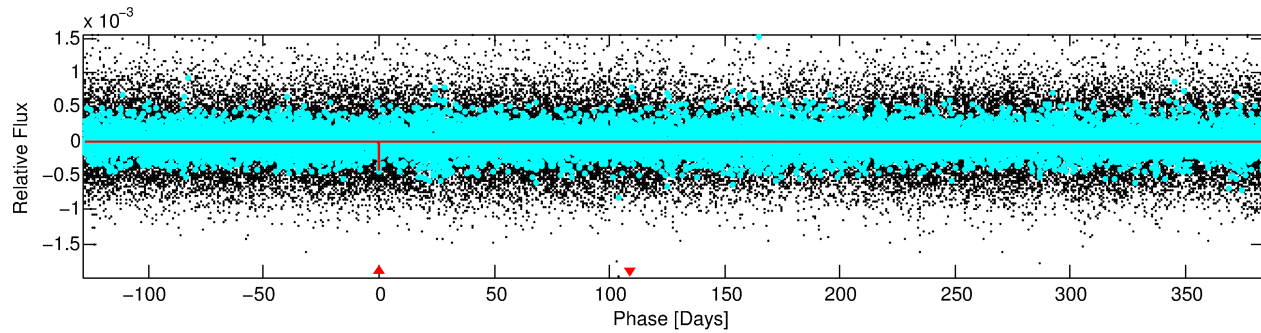
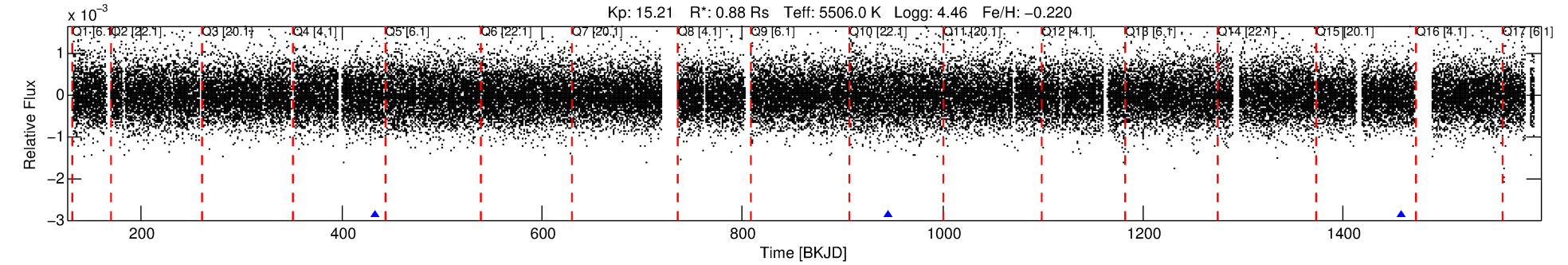
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583136-01

No Significant Match Found

DV One-Page Summary

KIC: 10583136 Candidate: 1 of 1 Period: 511.782 d



DV Fit Results:

Period = 511.78175 [0.01669] d
Epoch = 433.6042 [0.0248] BKJD
Rp/R* = 0.0218 [0.0227]
a/R* = 423.70 [1928.69]
b = 0.86 [1.37]
Seff = 0.46 [0.14]
Teq = 210 [16] K
Rp = 2.09 [2.21] Re
a = 1.1697 [0.2239] AU
Ag = 36182.96 [76372.75] [0.47σ]
Teffp = 4480 [2347] K [1.82σ]

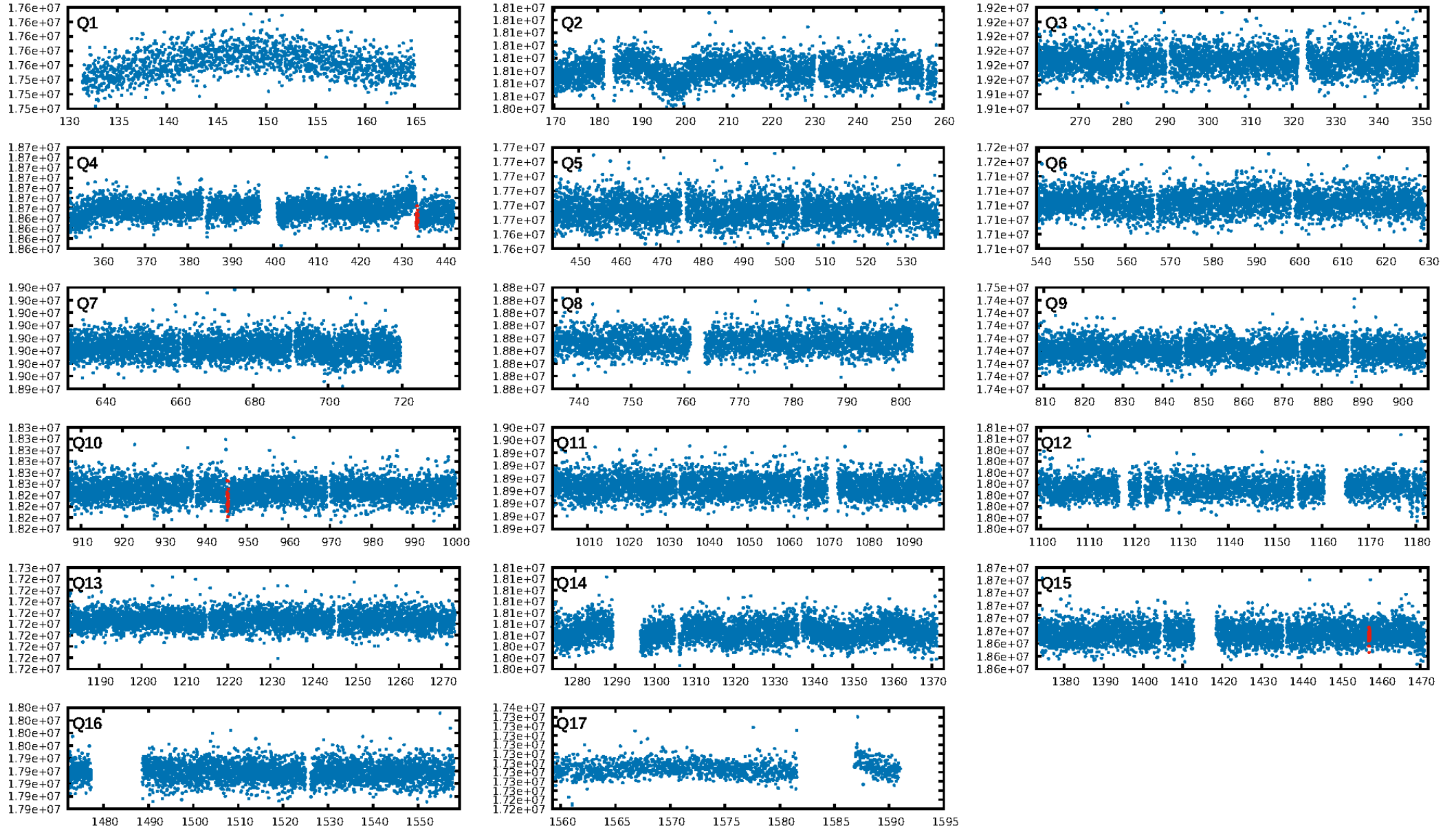
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 37.4%
ModelChiSquareGof-sig: 82.1%
Bootstrap-pfa: 2.30e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -35.89
Centroid-sig: 31.6%
Centroid-so: 2.278 arcsec [0.81σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

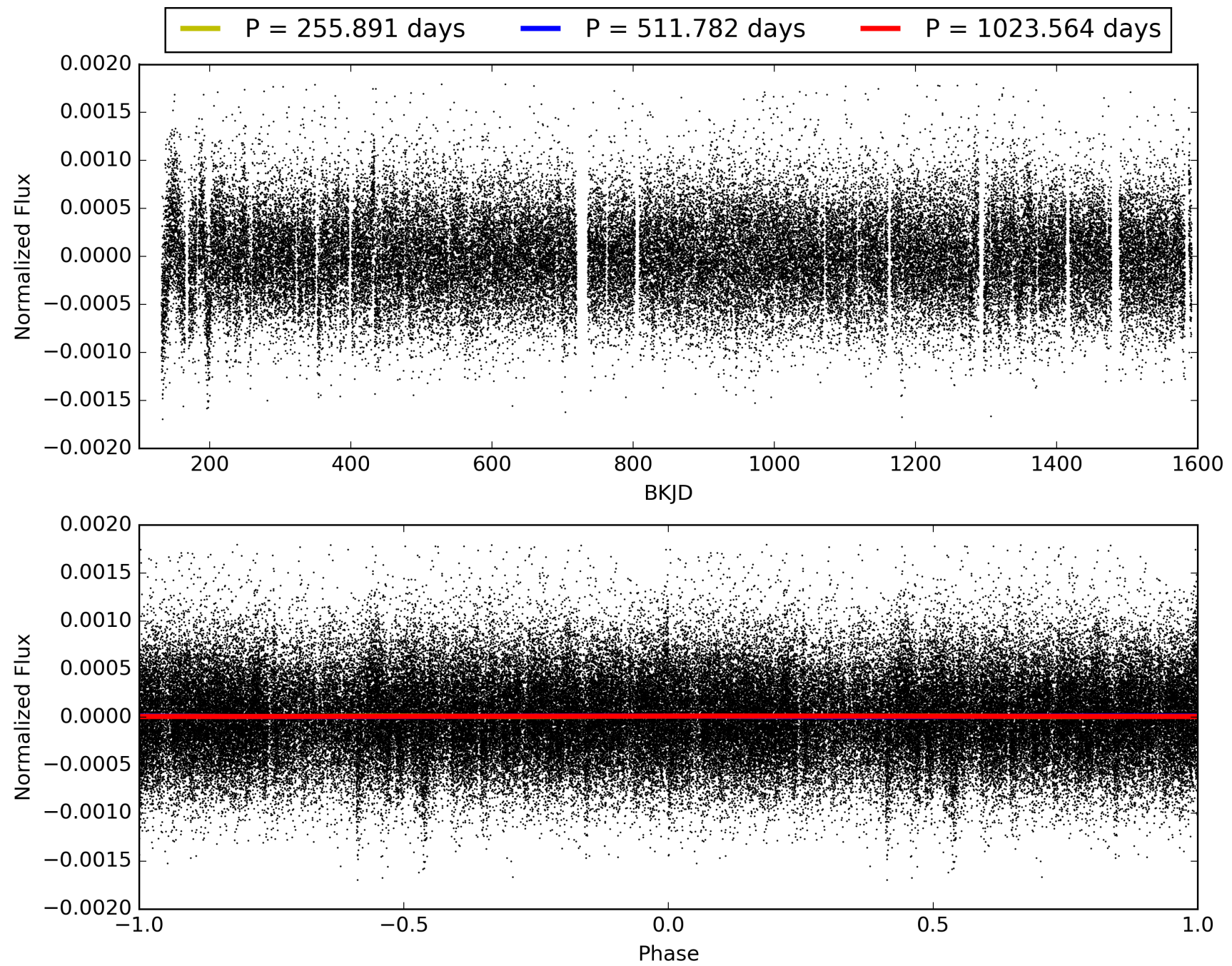
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:47:37 Z

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

TCE 010583136-01, PDC Light Curves

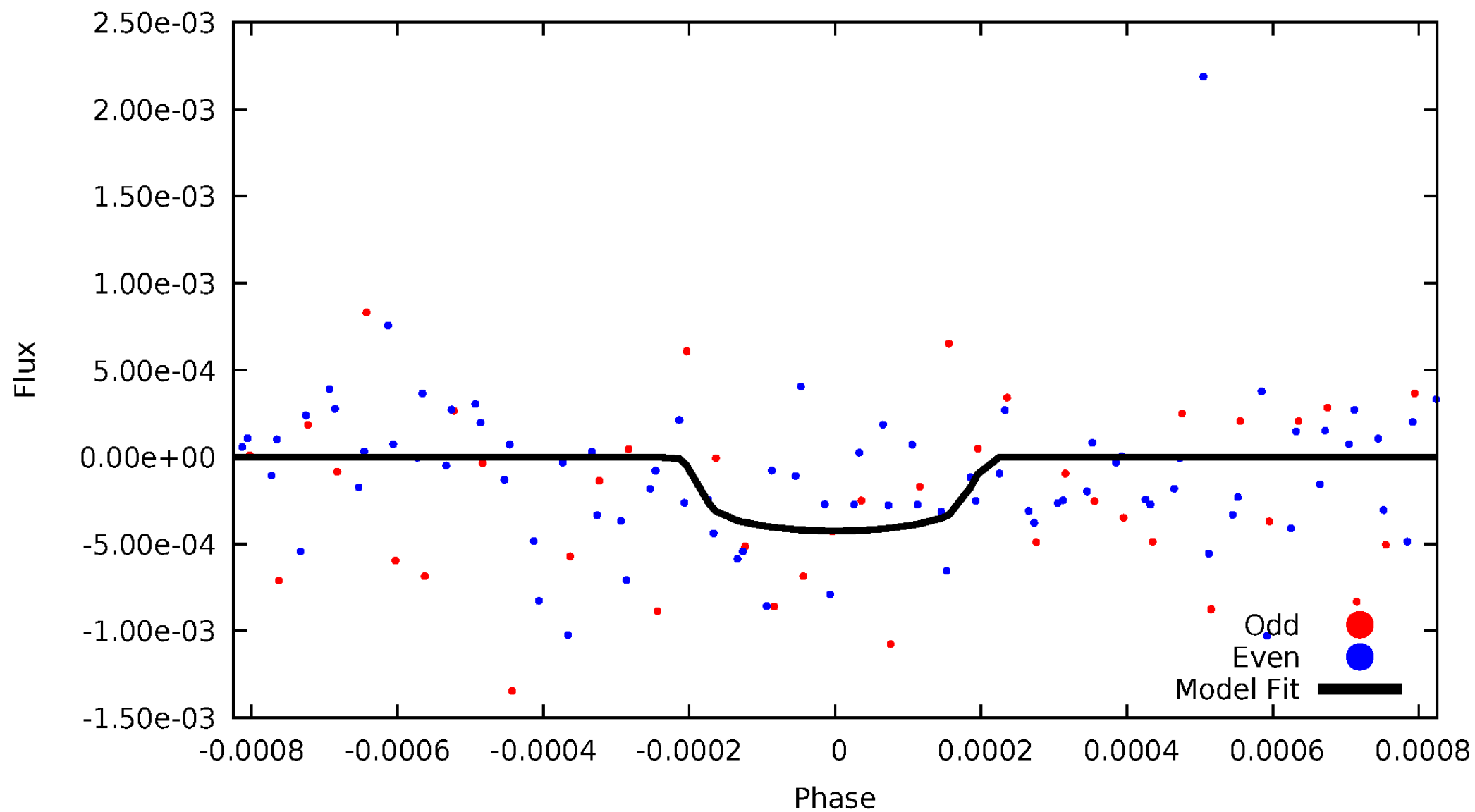


TCE 010583136-01



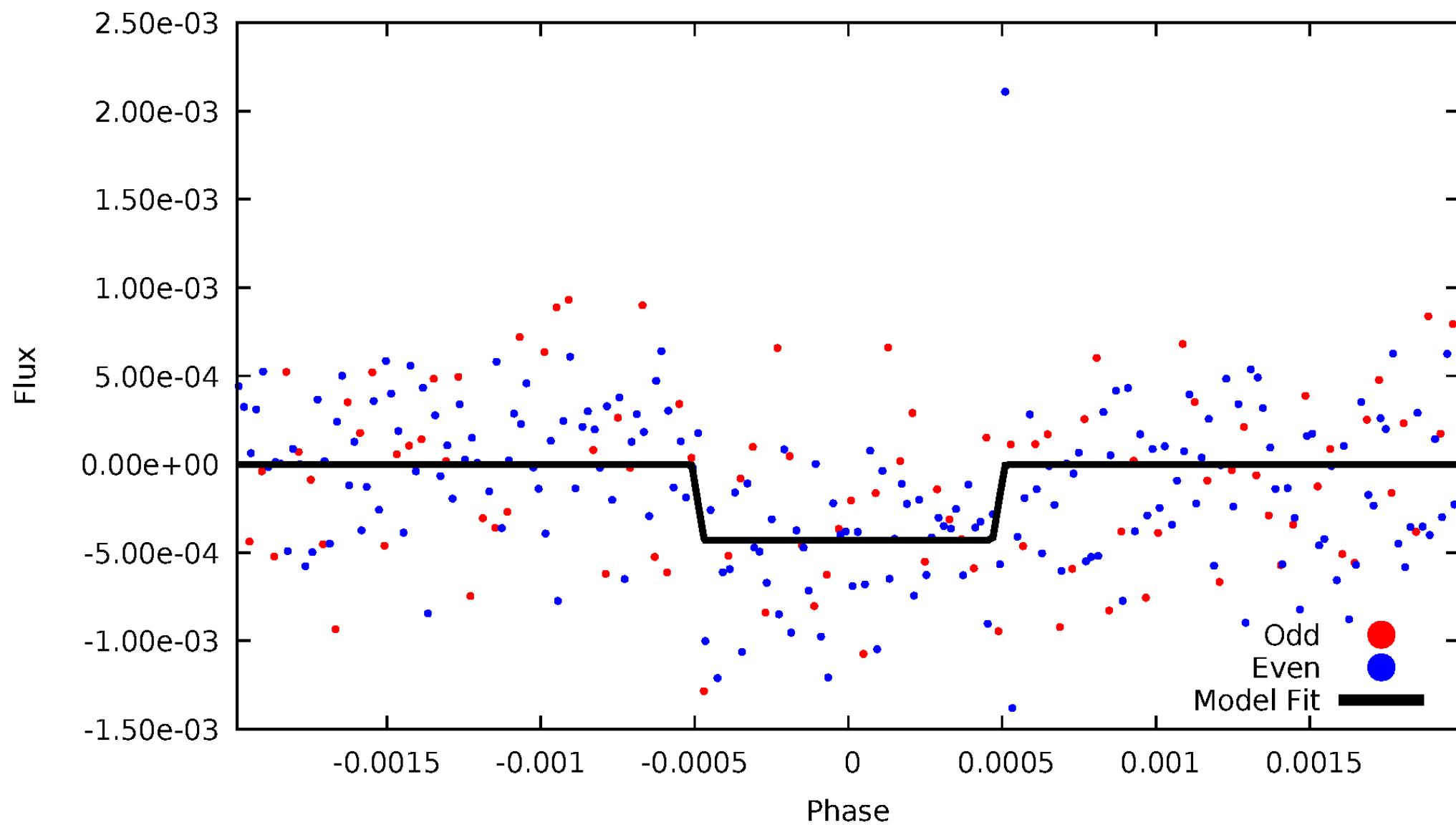
DV Odd/Even

TCE 010583136-01

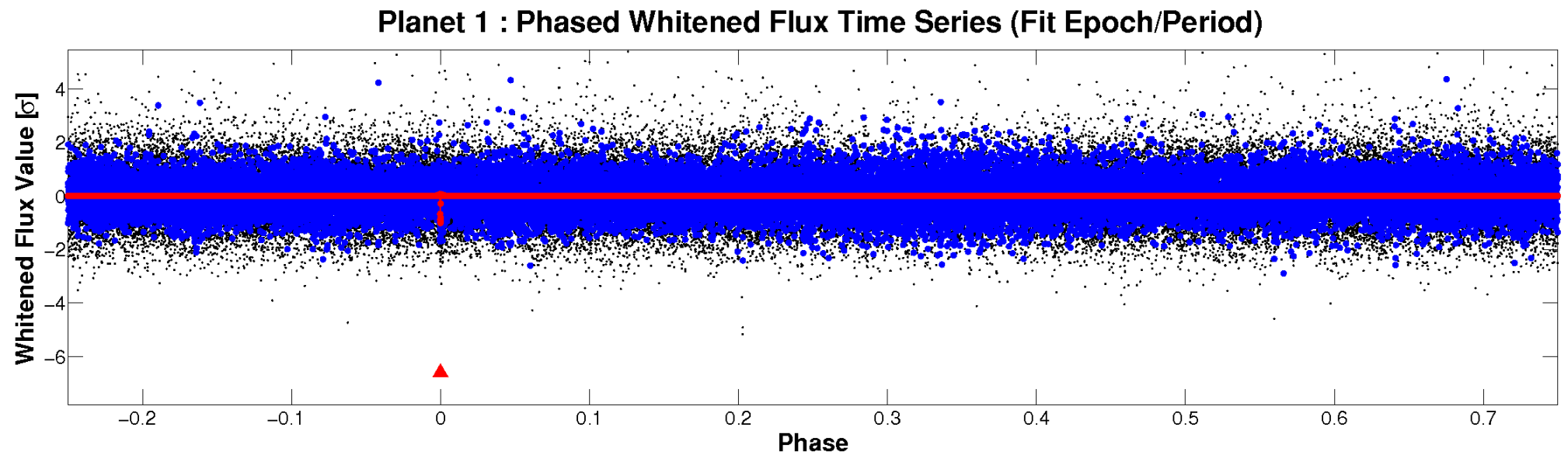
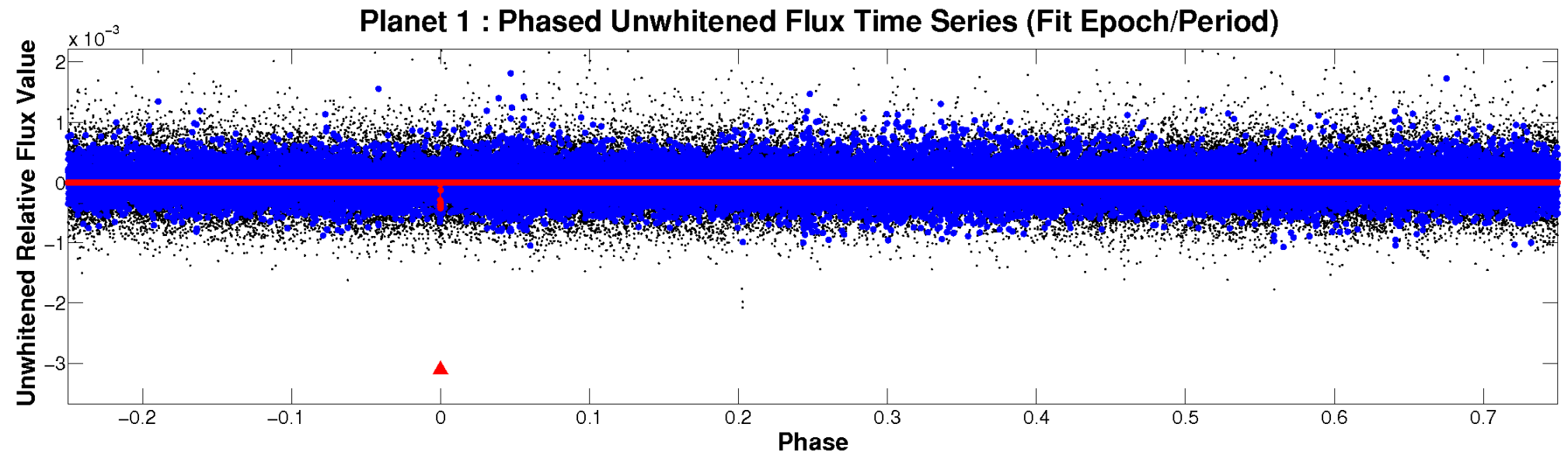


ALT Odd/Even

TCE 010583136-01

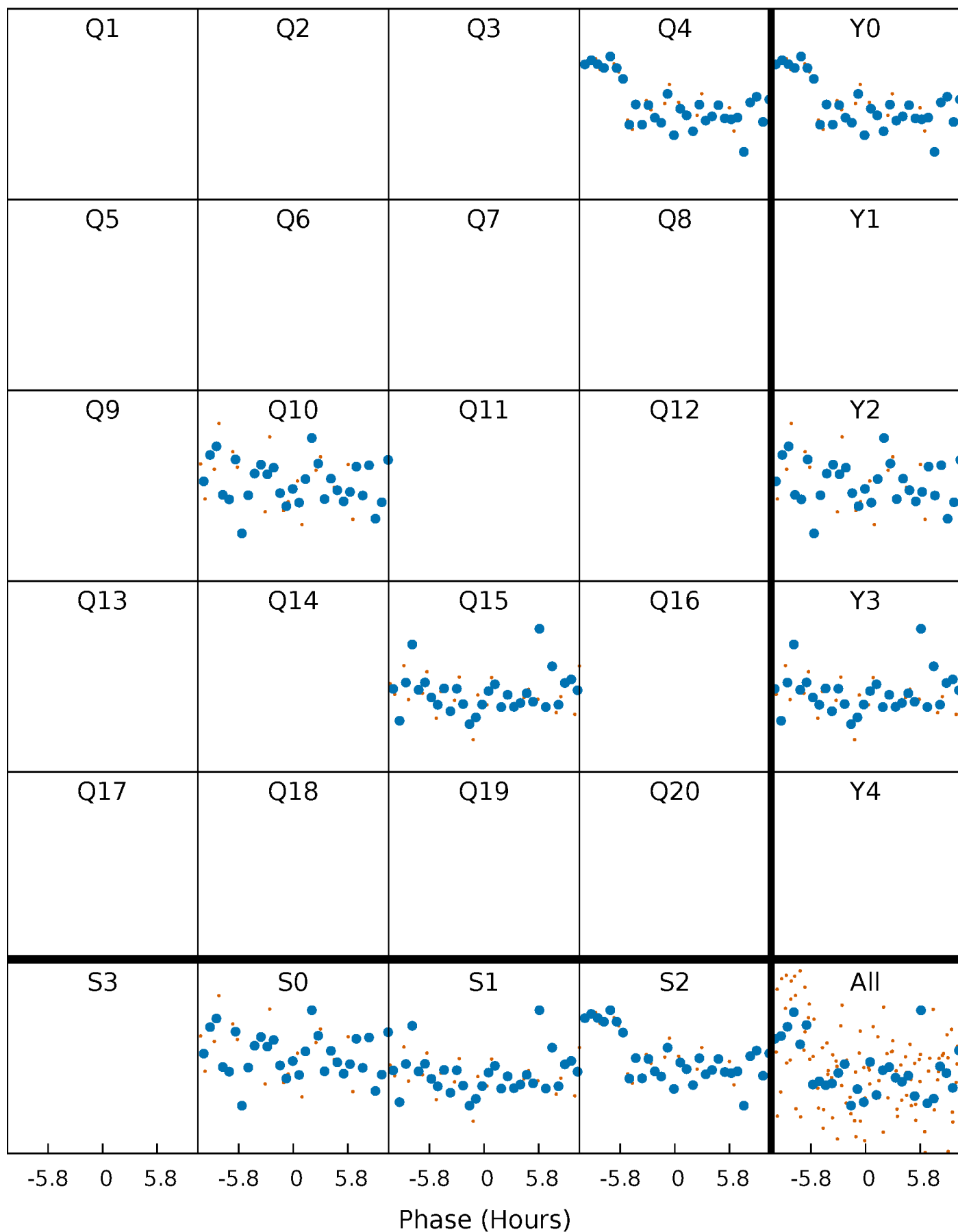


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 010583136-01 P=511.781754 Days $T_0=433.604244$ (BKJD)



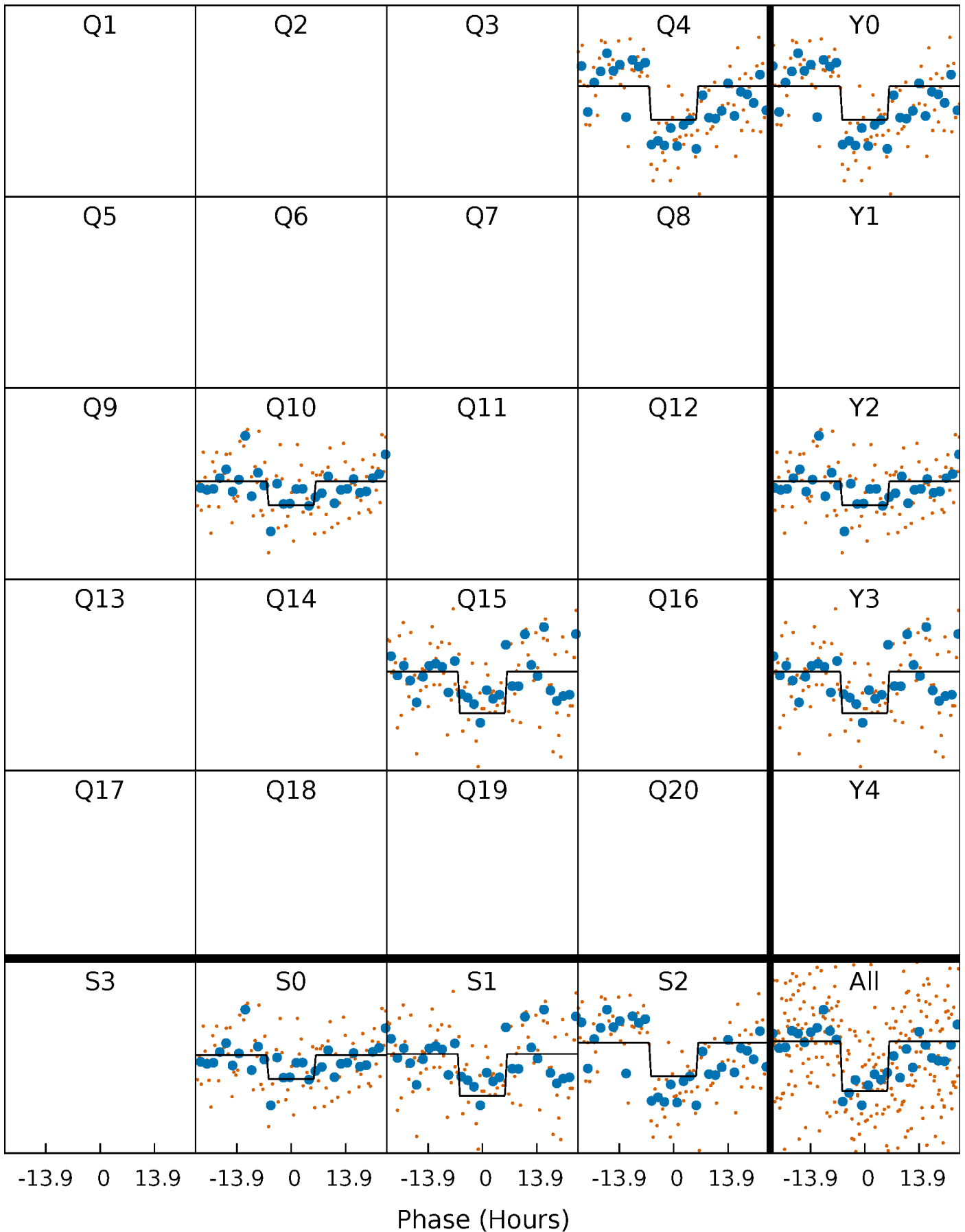
DV Quarter-Phased Transit Curves

TCE 010583136-01 P=511.781754 Days $T_0=433.604244$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

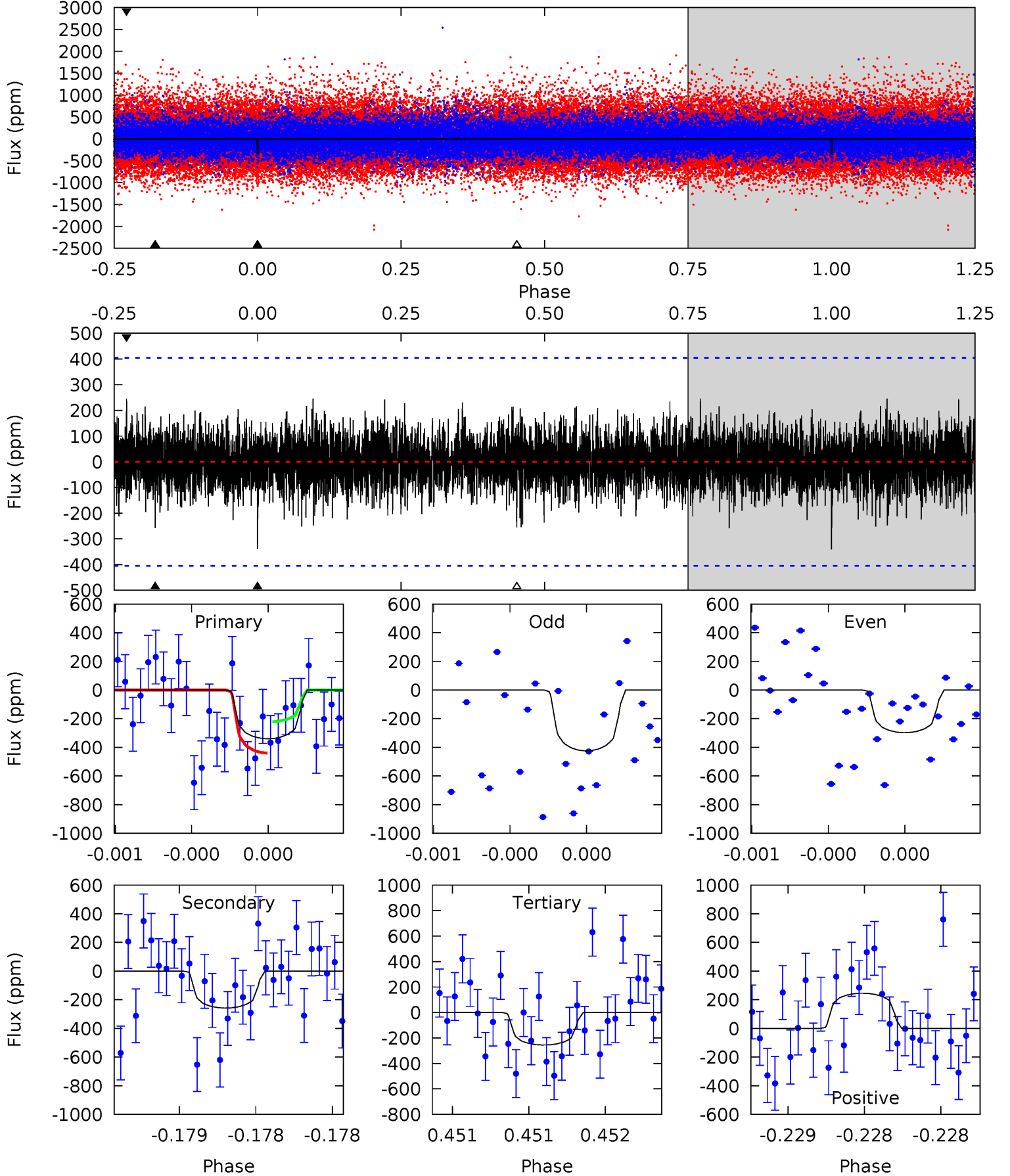
TCE 010583136-01 P=511.765321 Days $T_0=433.634455$ (BKJD)



DV Model-Shift Uniqueness Test

010583136-01, P = 511.781754 Days, E = 433.604244 Days

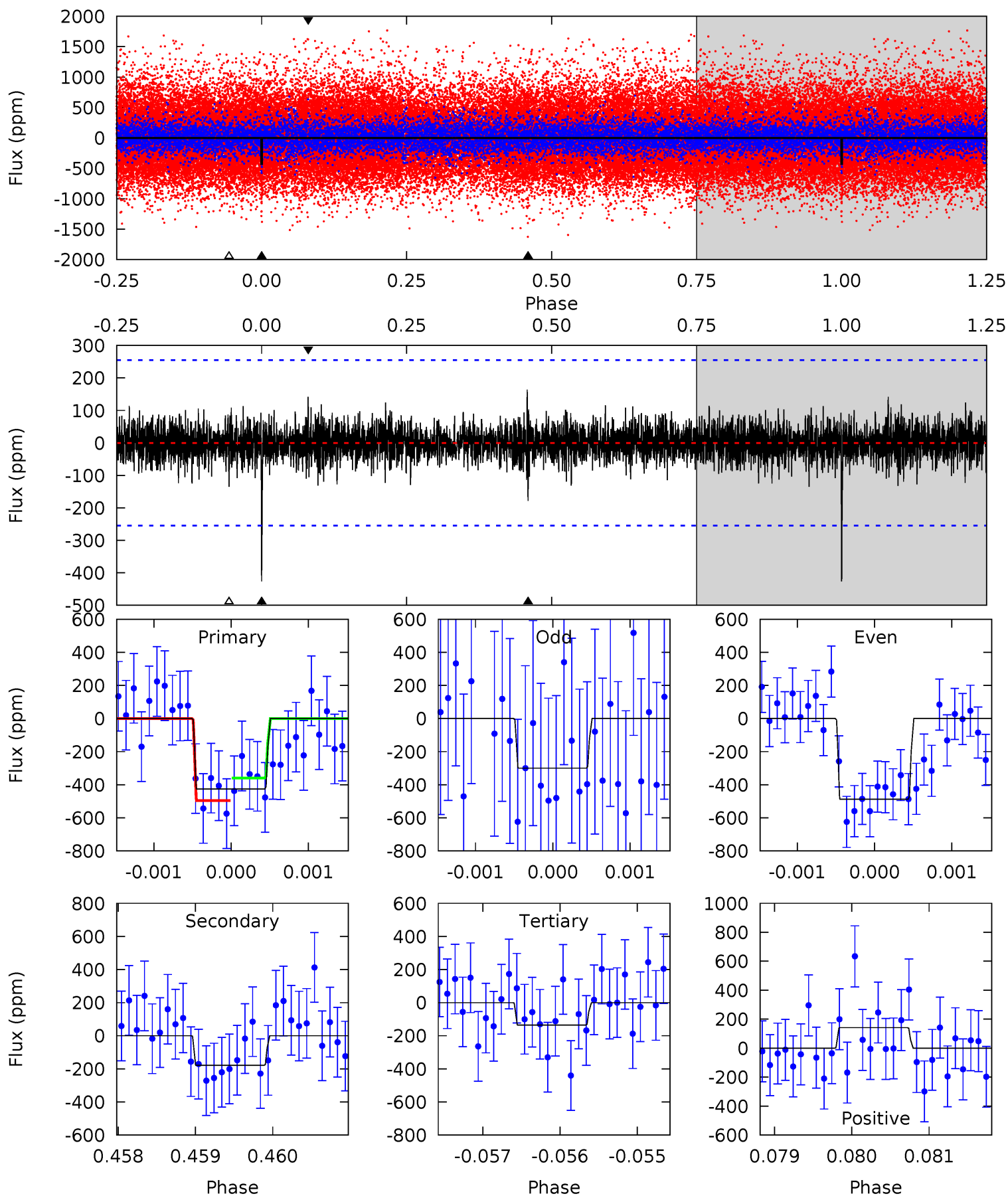
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.71	3.57	3.53	3.40	5.60	3.52	0.95	1.17	1.31	0.04	0.17	0.83	1.10	0.42	1.51



Alt Model-Shift Uniqueness Test

010583136-01, P = 511.765321 Days, E = 433.634455 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.12	3.82	2.89	3.03	5.44	3.28	0.76	6.23	6.08	0.93	0.78	1.87	1.40	0.28	1.45



Stellar Parameters For KIC 010583136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5506^{+166}_{-149}	$4.465^{+0.104}_{-0.156}$	$-0.220^{+0.300}_{-0.300}$	$0.875^{+0.196}_{-0.120}$	$0.814^{+0.111}_{-0.065}$	$1.714^{+0.776}_{-0.731}$
	+3%/-3%	+2%/-3%	+136%/-136%	+22%/-14%	+14%/-8%	+45%/-43%
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 010583136-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-258 ± 72	$2.45^{+2.07}_{-1.56}$	296^{+17}_{-15}	4552^{+2708}_{-929}	$31953^{+201233}_{-22860}$
Alt.	-179 ± 47	$2.46^{+2.30}_{-1.66}$	296^{+20}_{-15}	4194^{+2737}_{-787}	$20748^{+170860}_{-14638}$

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

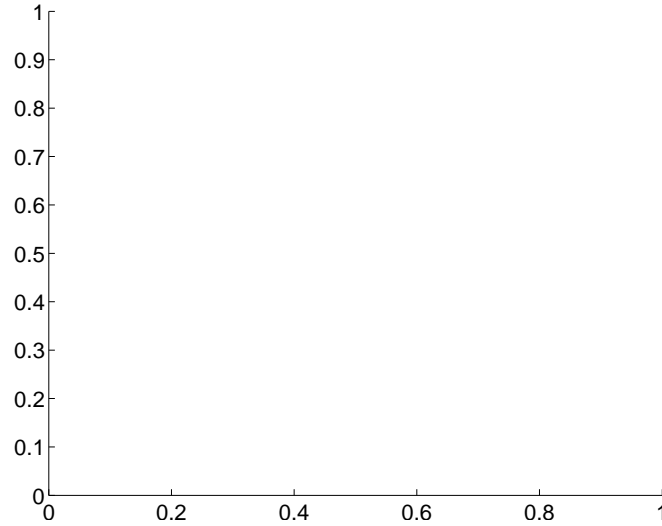
Supplemental centroid analysis for 010583136-01. Kepler magnitude: 15.21. Transit SNR 4.72

There are 0 quarters with good PRF difference image offsets

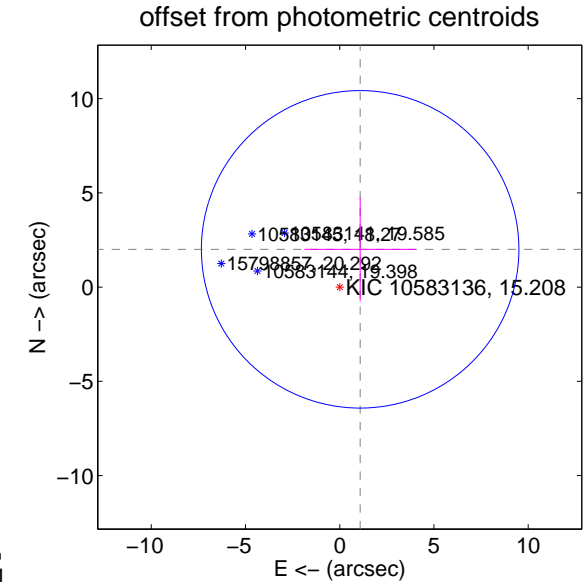
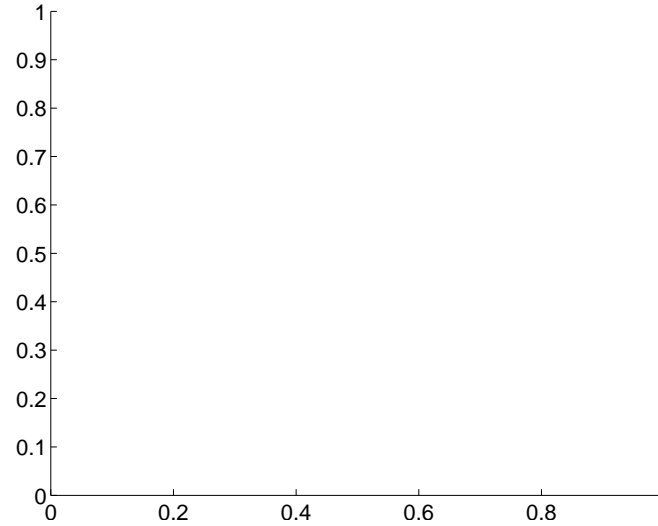
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	2.28 ± 2.81	0.81	-1.08 ± 2.96	2.00 ± 2.76

There is no PRF-fit offset from OOT-fit

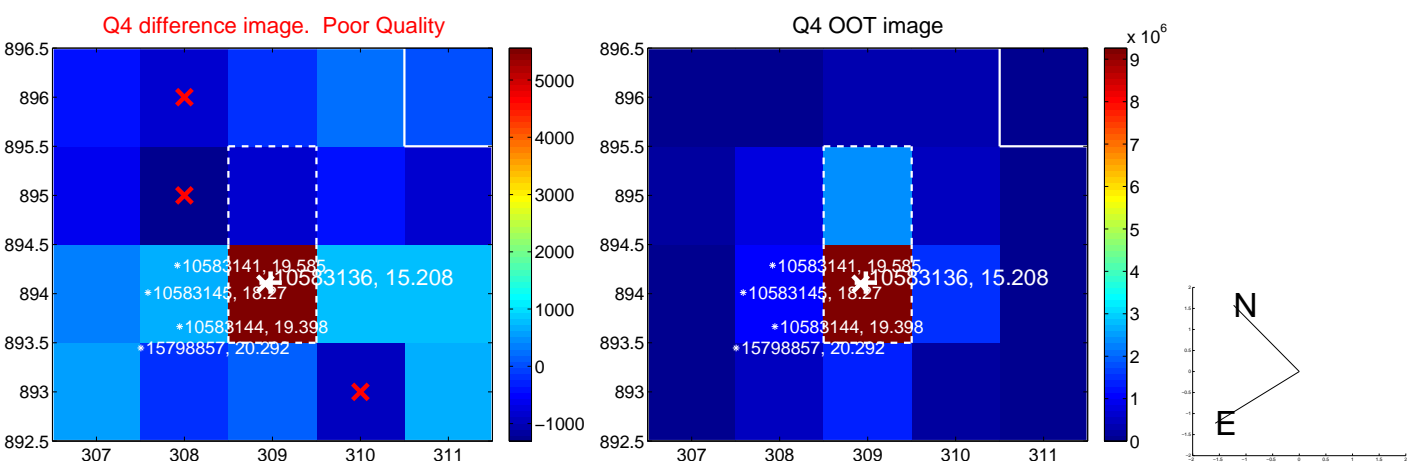
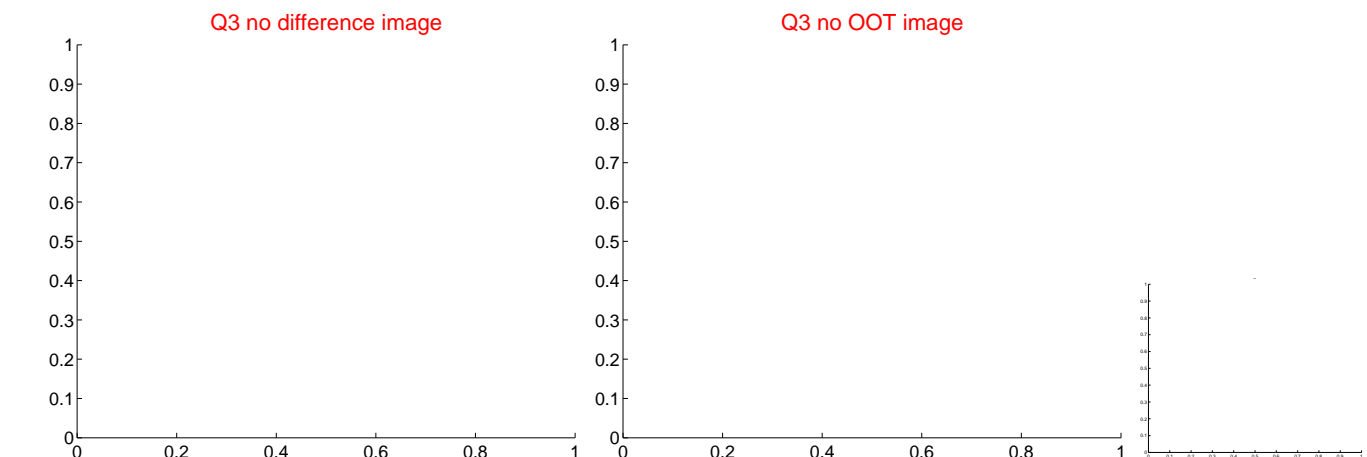
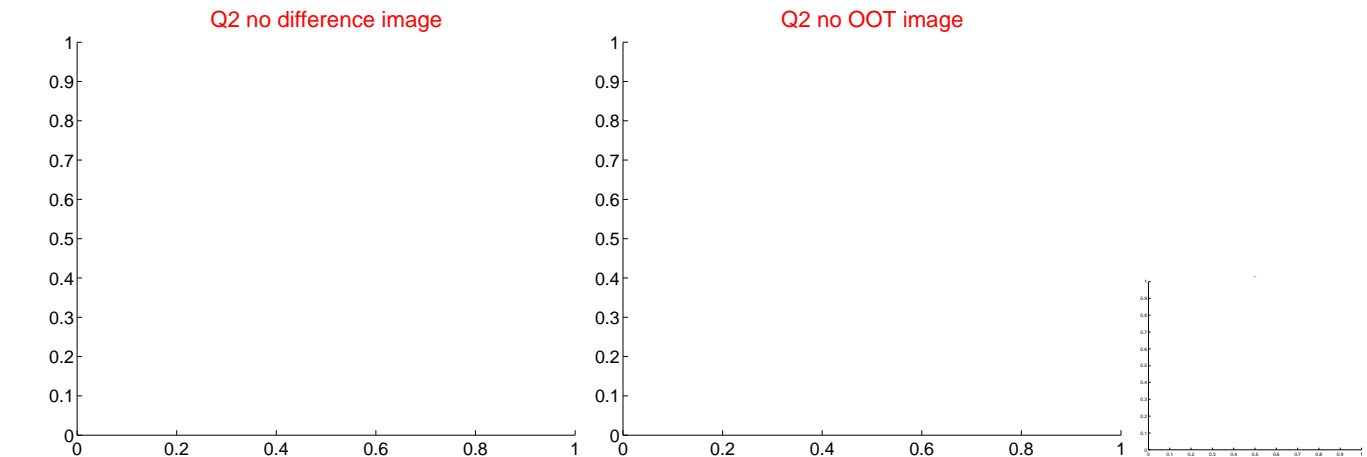
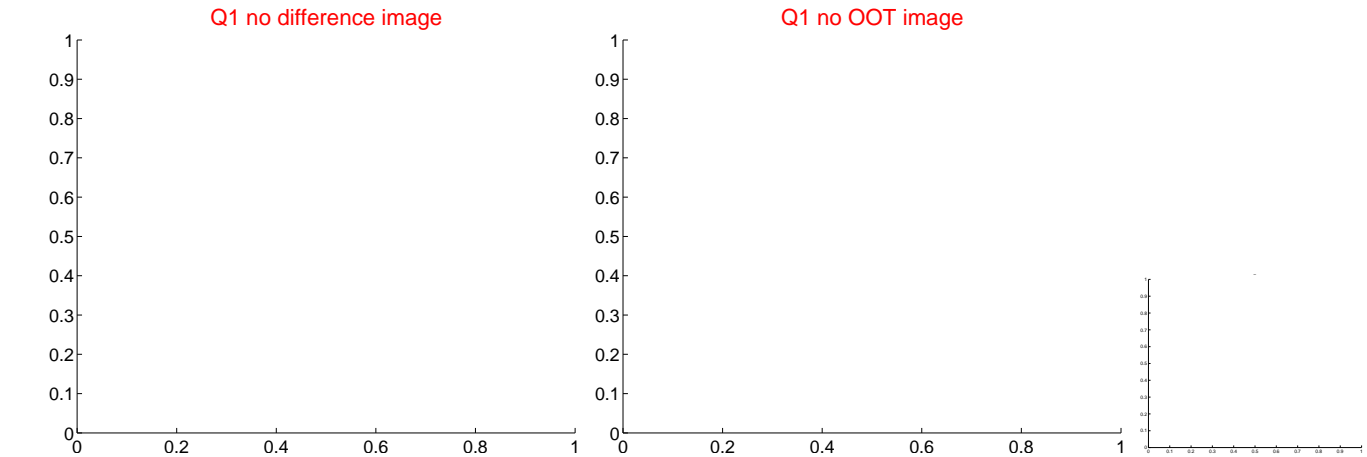


There is no PRF-fit offset from KIC



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- 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.

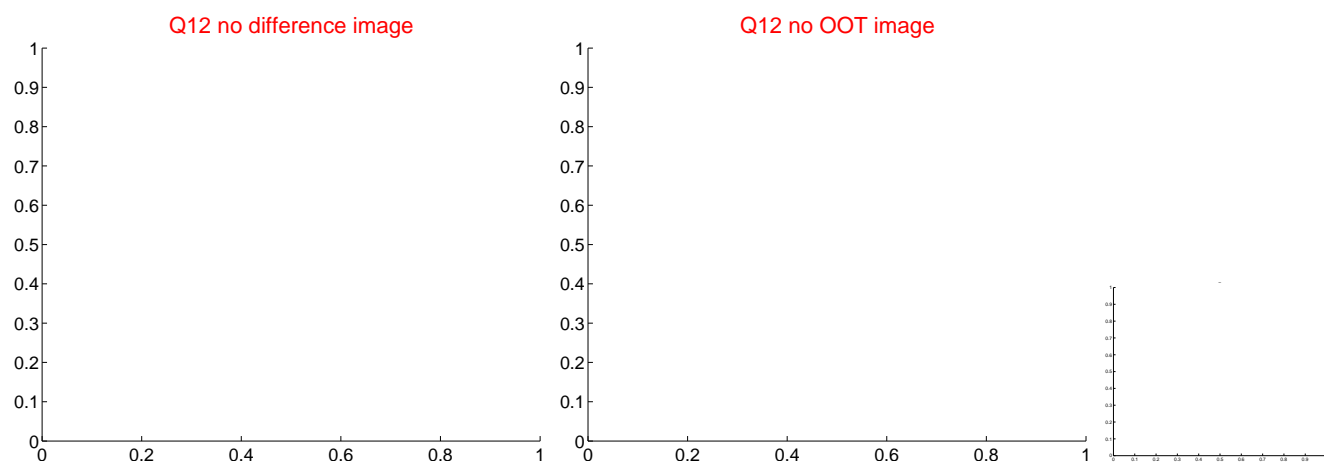
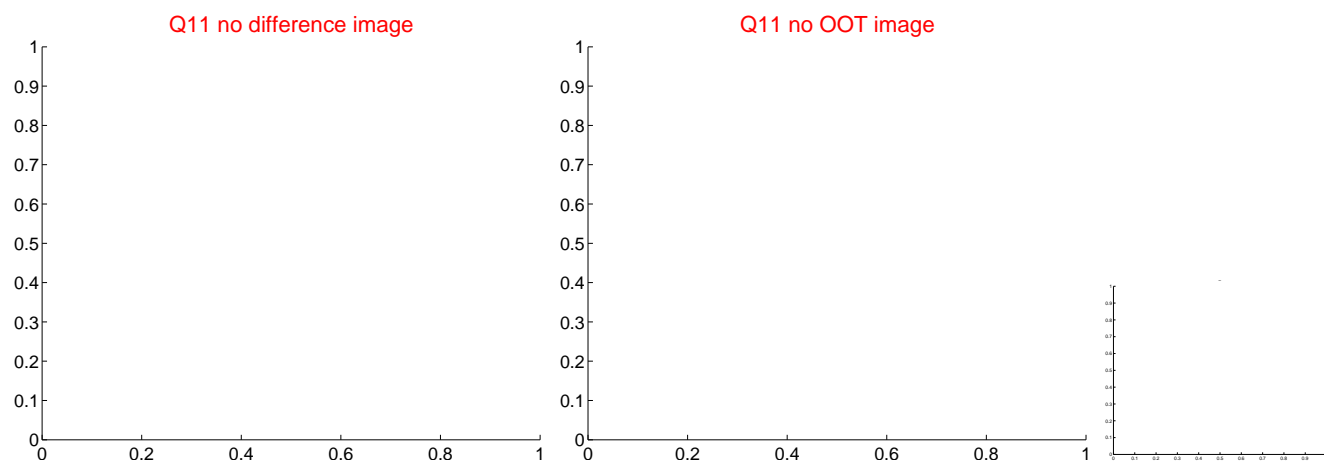
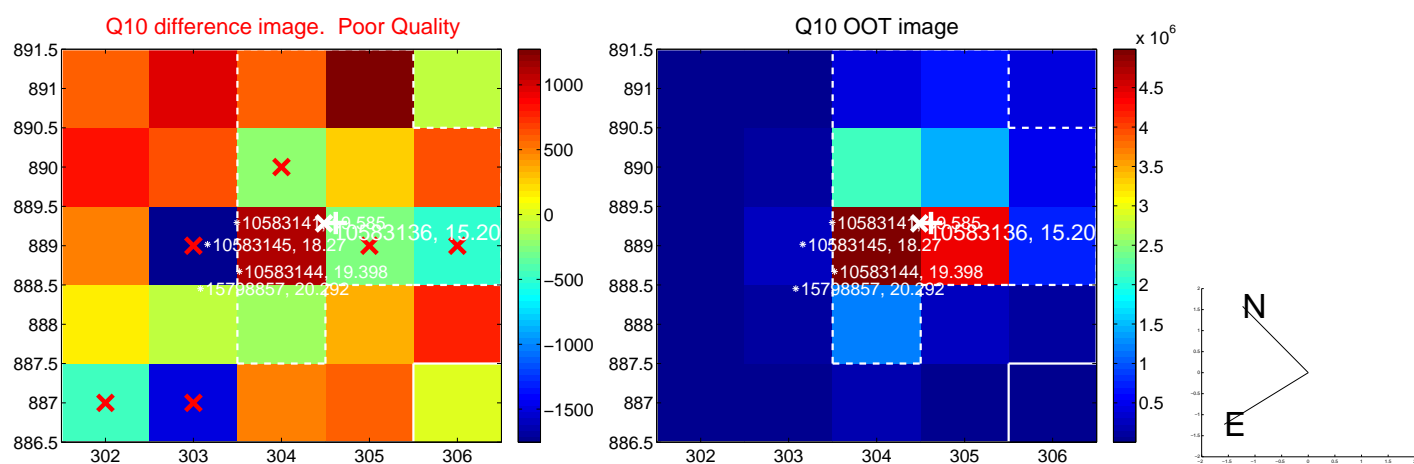
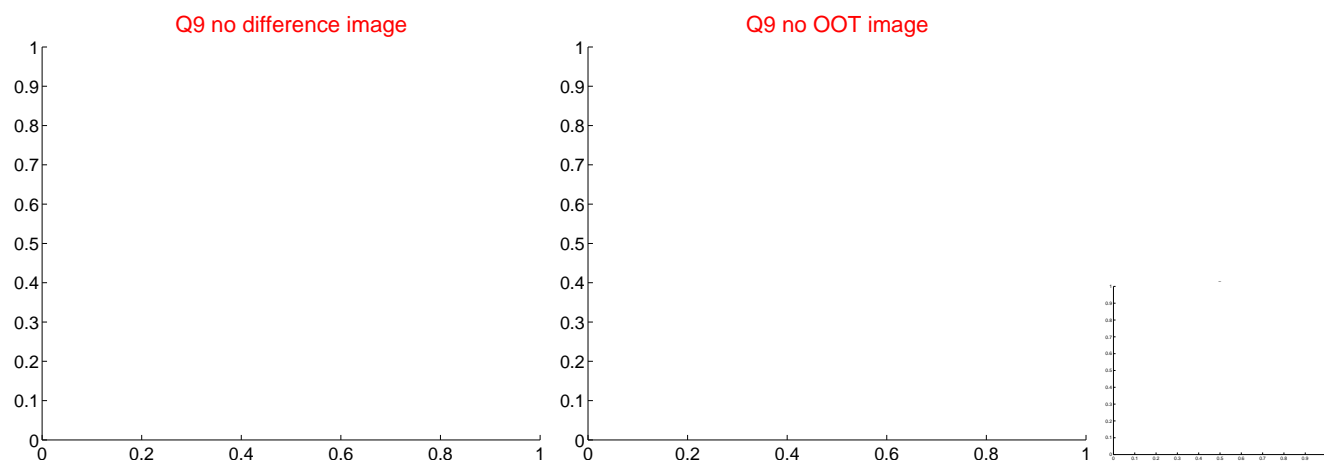
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



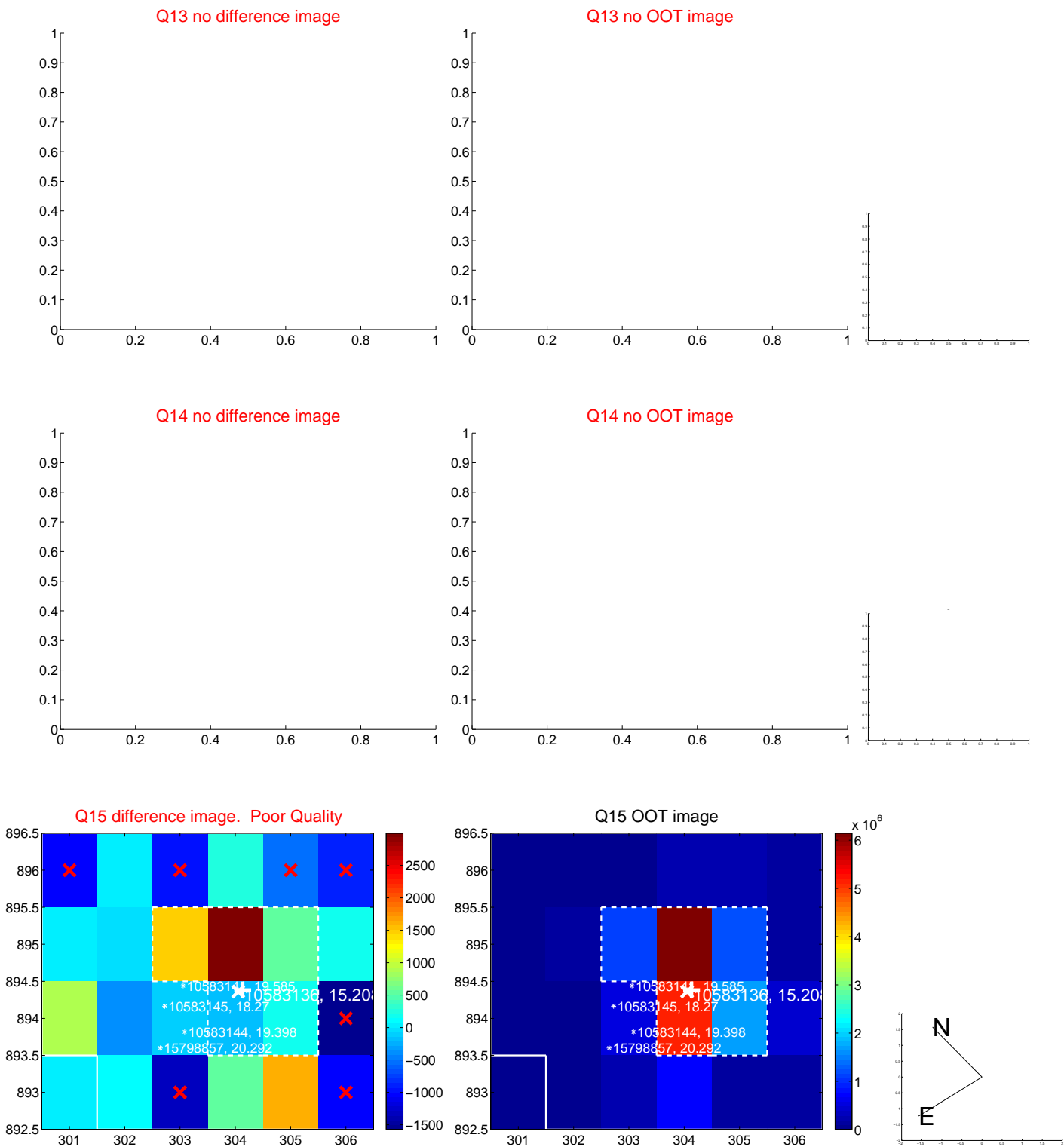
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



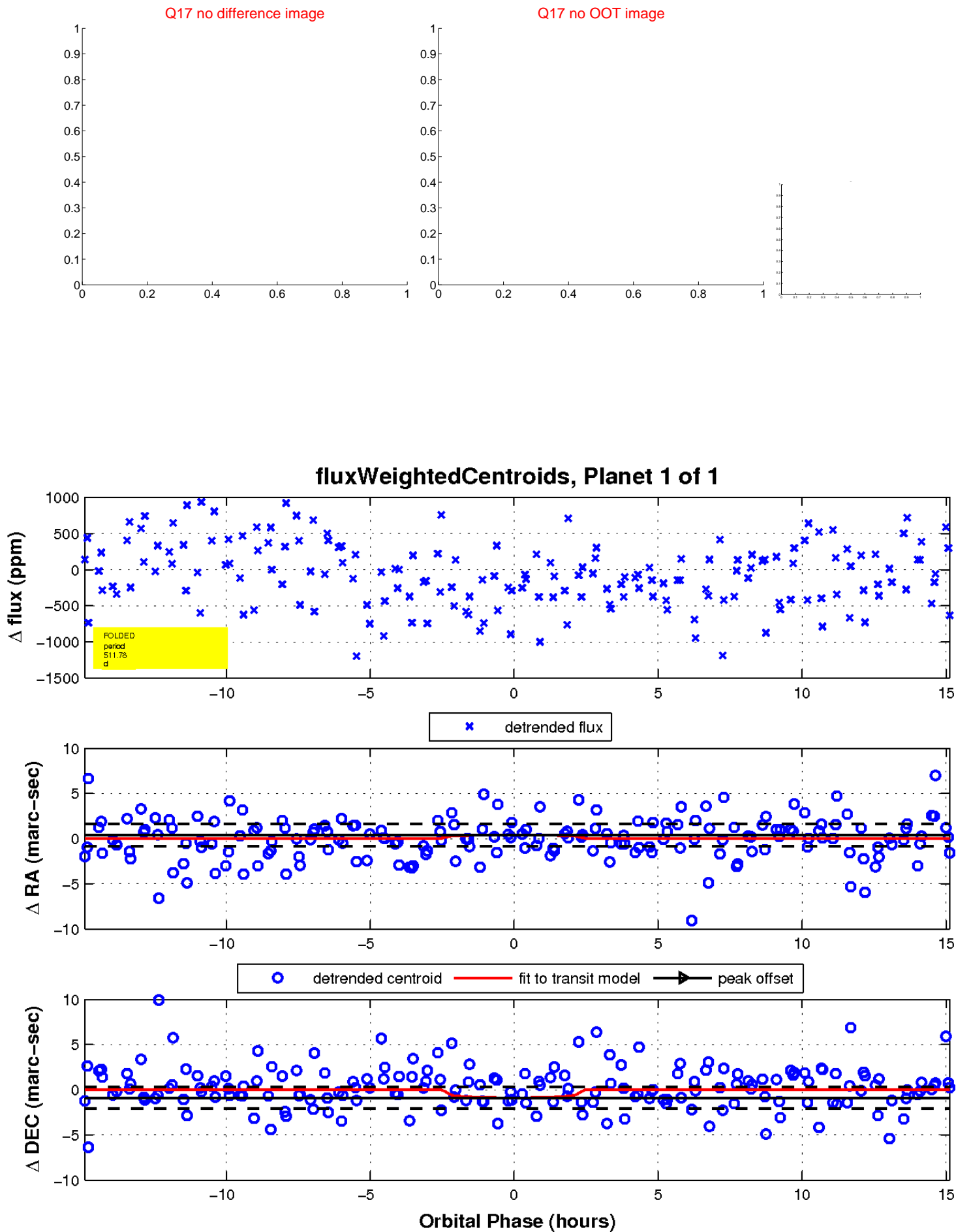
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



white ×: 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

Declination

