

KIC 006755882

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})
006755882-01	OBS	No	253.997852	331.768070	3813.0	2.635	14.0	11.7	0.94	5260	5.78	1.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006755882-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV— MOD_NONUNIQ_ALT—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.

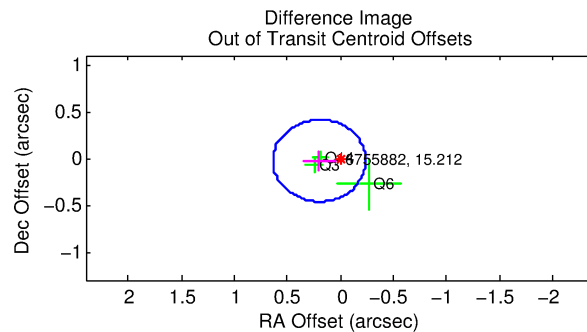
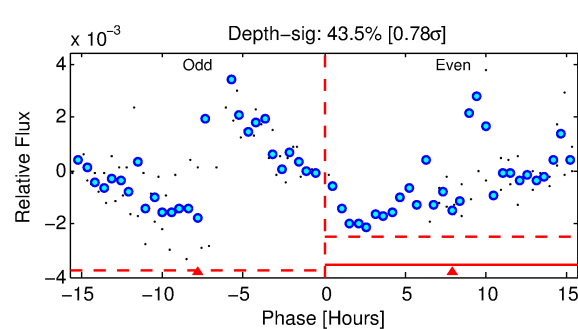
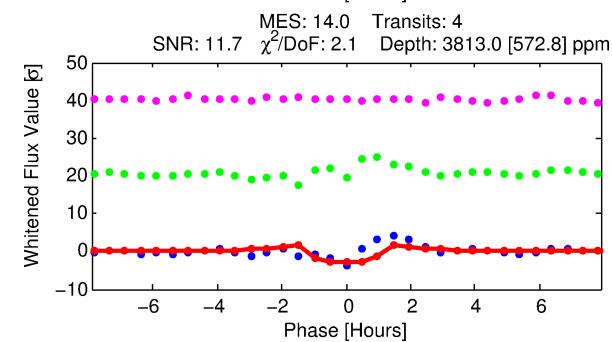
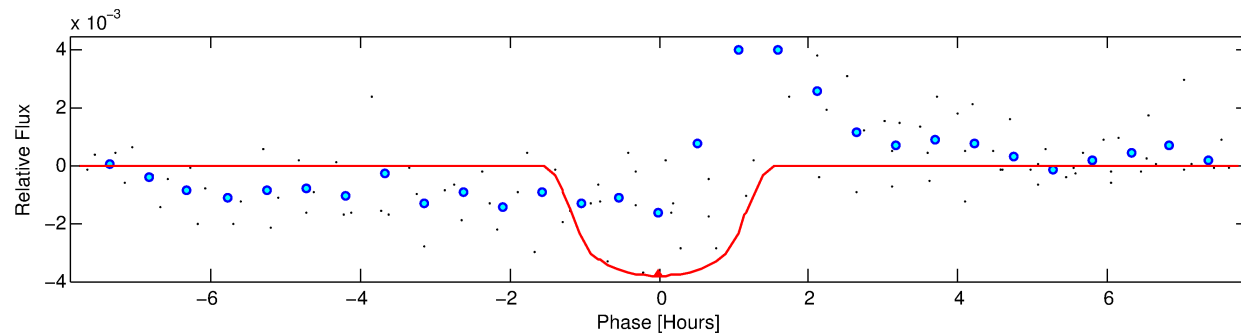
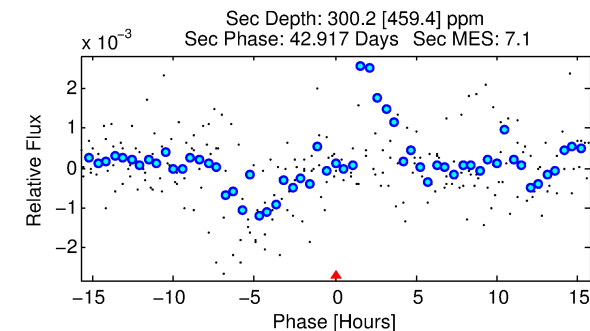
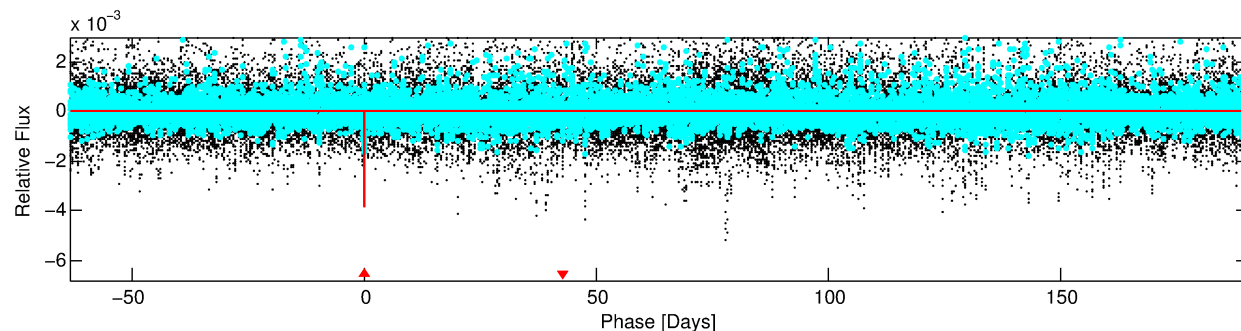
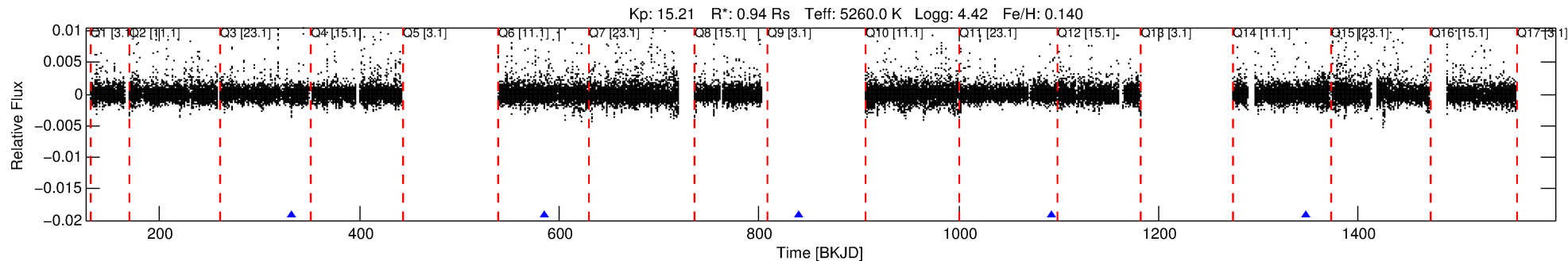
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006755882-01

No Significant Match Found

DV One-Page Summary

KIC: 6755882 Candidate: 1 of 1 Period: 253.998 d



DV Fit Results:

Period = 253.99785 [0.00185] d
Epoch = 331.7681 [0.0038] BKJD
Rp/R* = 0.0562 [0.3864]
a/R* = 732.13 [17954.22]
b = 0.36 [61.13]
Seff = 1.11 [0.39]
Teq = 261 [23] K
Rp = 5.78 [39.74] Re
a = 0.7418 [0.1552] AU
Ag = 2722.35 [37667.43] [0.07σ]
Teff = 2920 [10100] K [0.2σ]

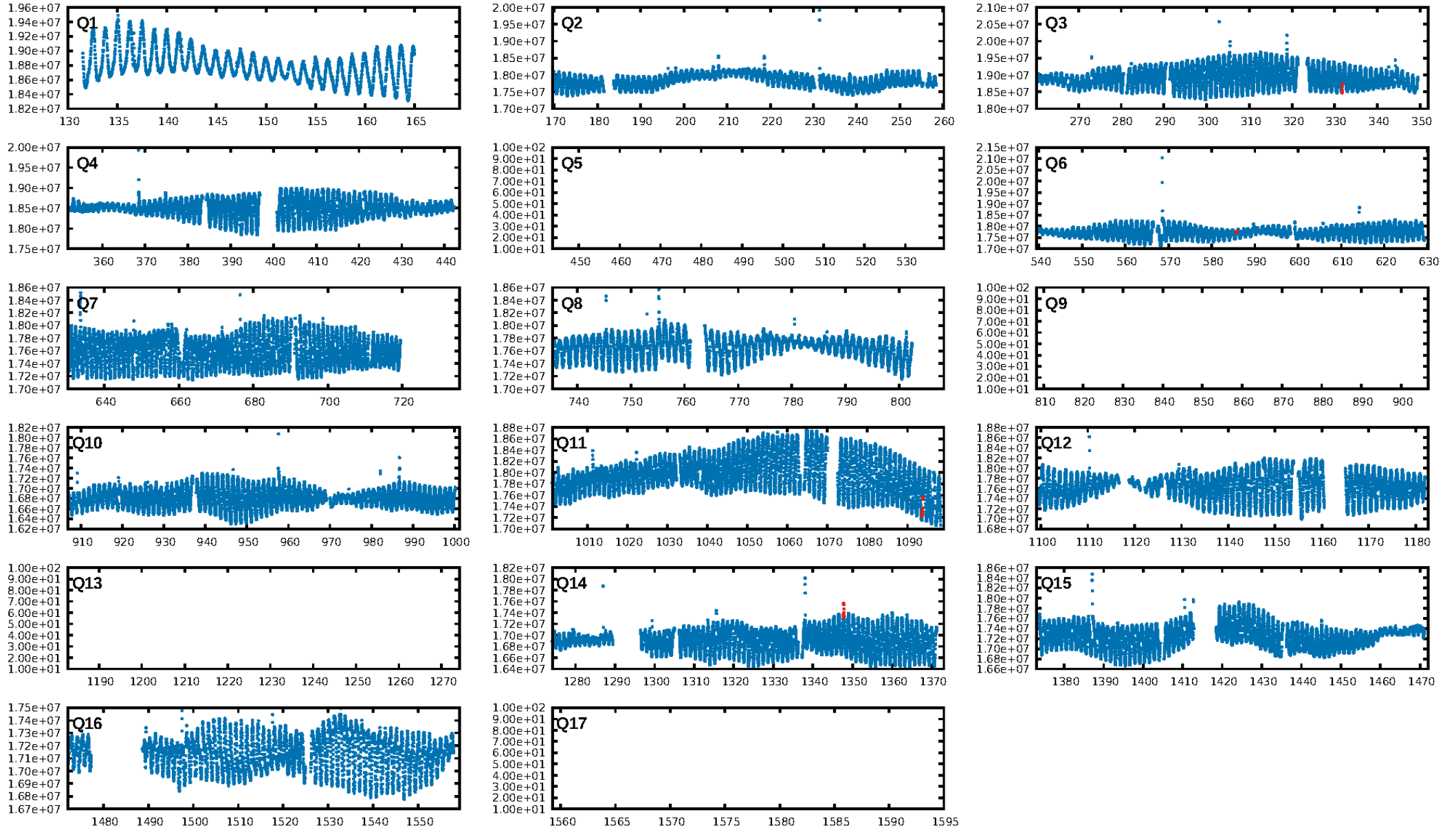
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 3.6%
Bootstrap-pfa: 8.80e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -6.305
Centroid-sig: N/A
Centroid-so: 0.511 arcsec [1.08σ]
OotOffset-rm: 0.199 arcsec [1.37σ]
KicOffset-rm: 0.131 arcsec [1.07σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

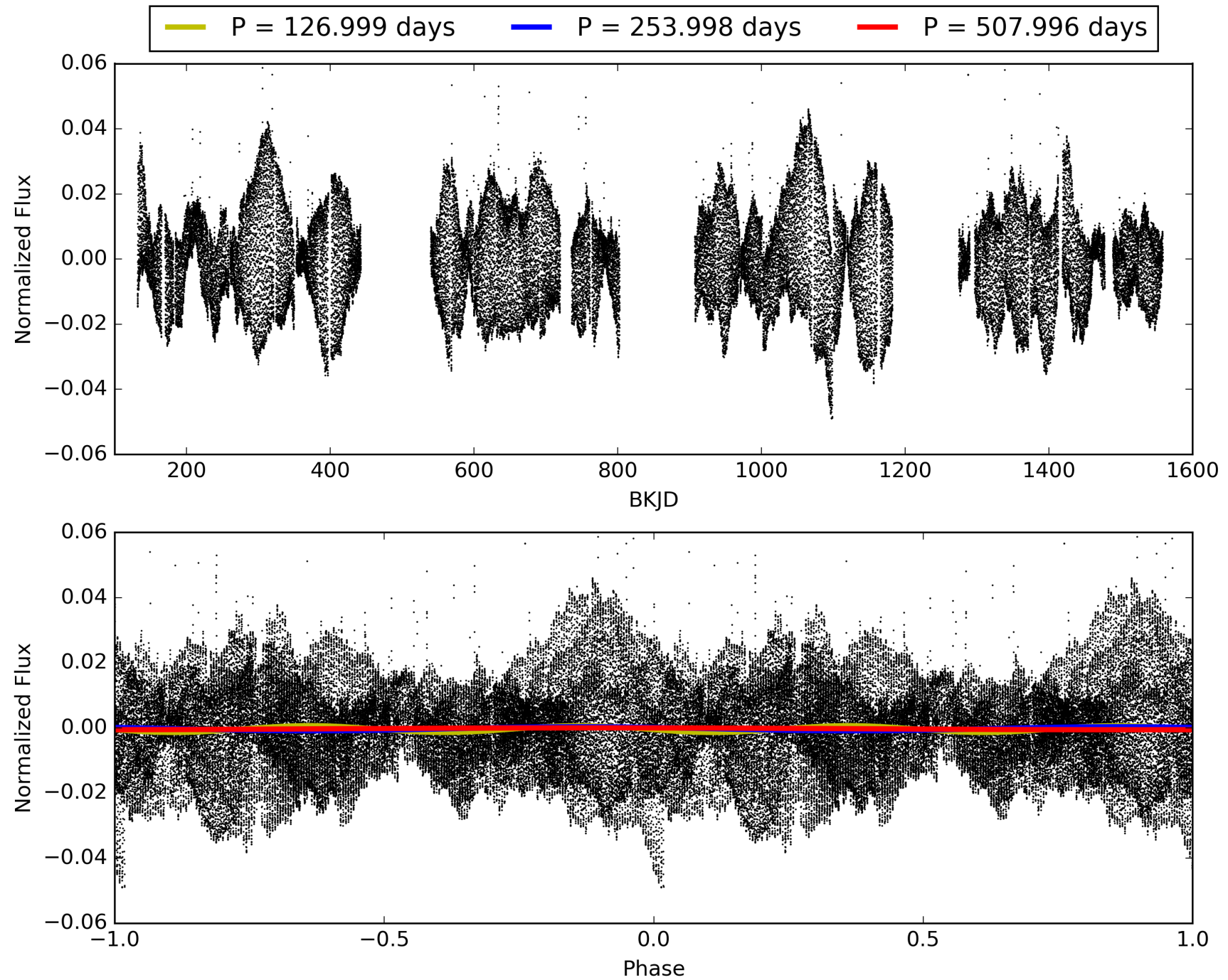
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 02:51:03 Z

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

TCE 006755882-01, PDC Light Curves

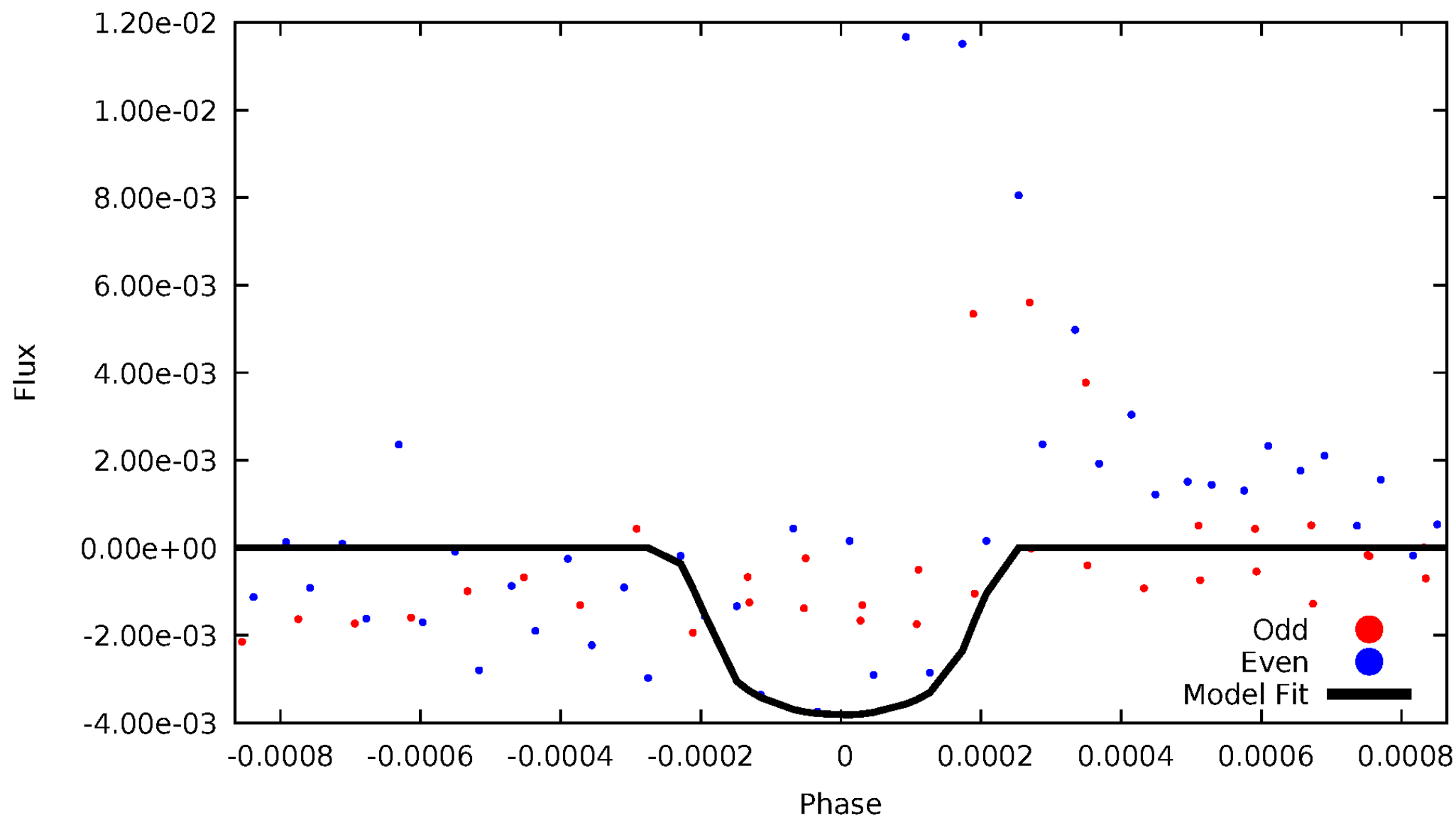


TCE 006755882-01



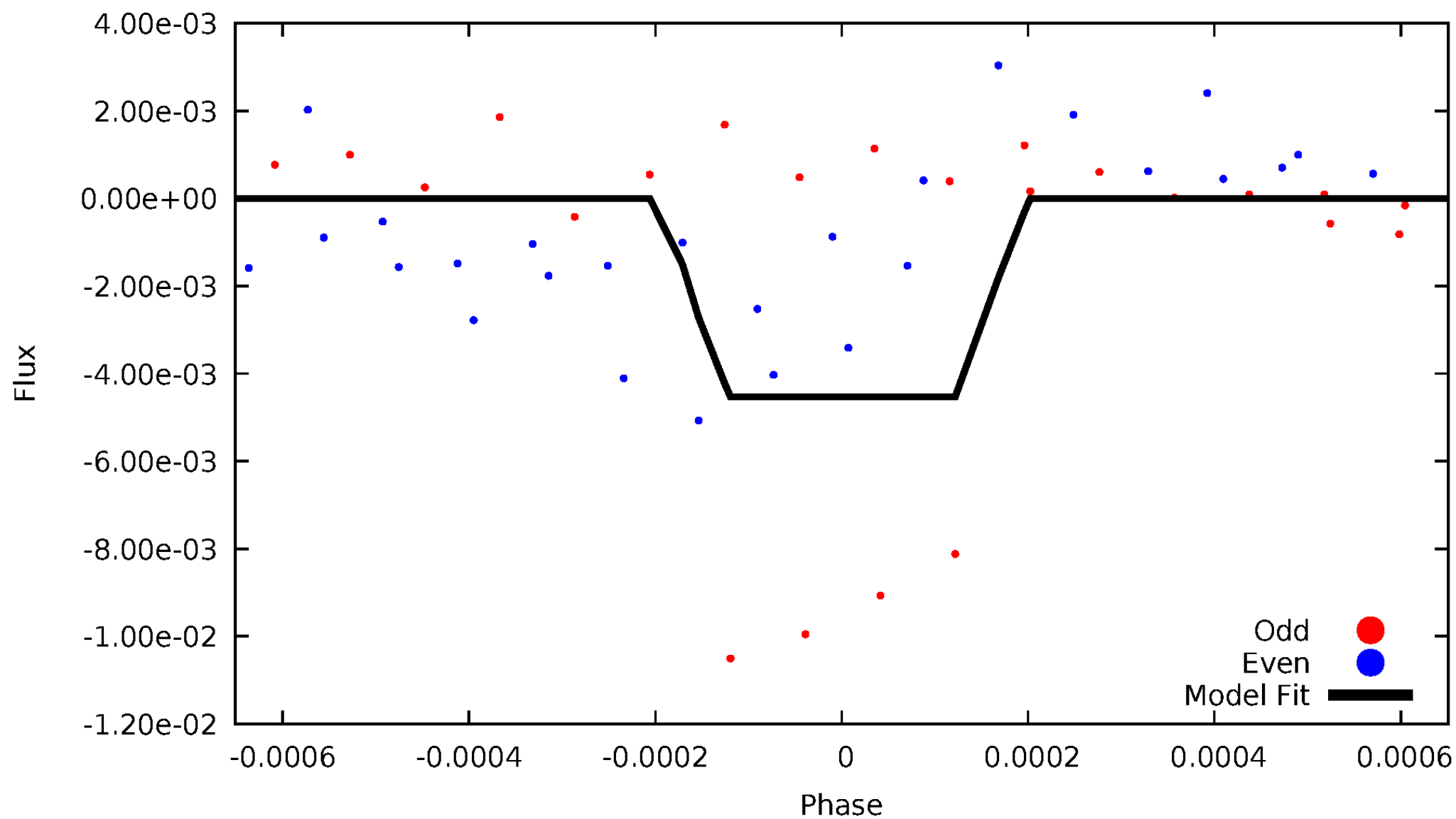
DV Odd/Even

TCE 006755882-01



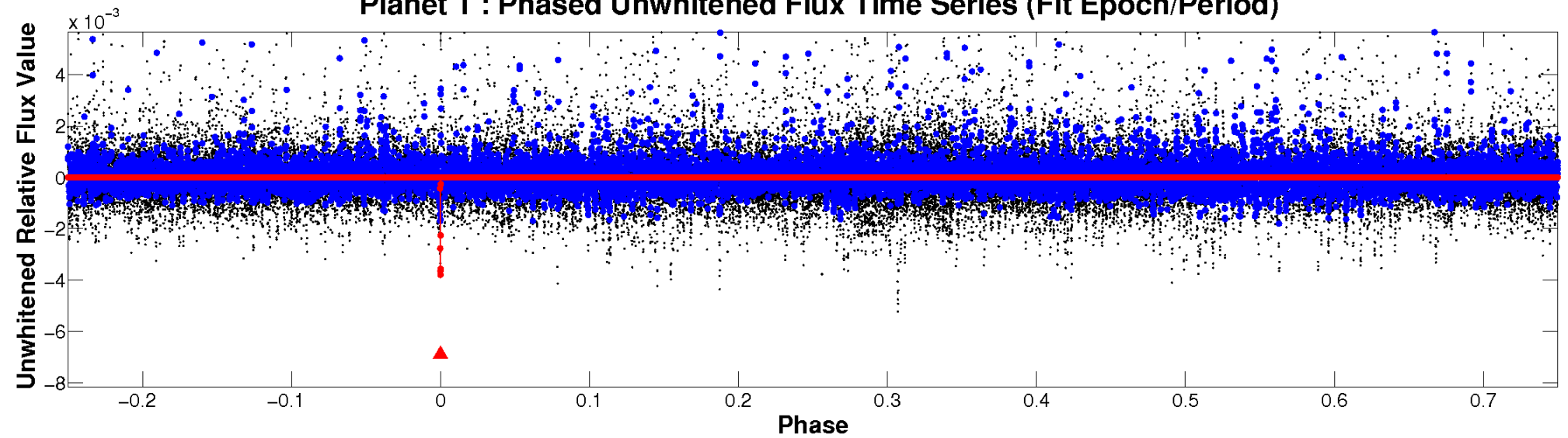
ALT Odd/Even

TCE 006755882-01

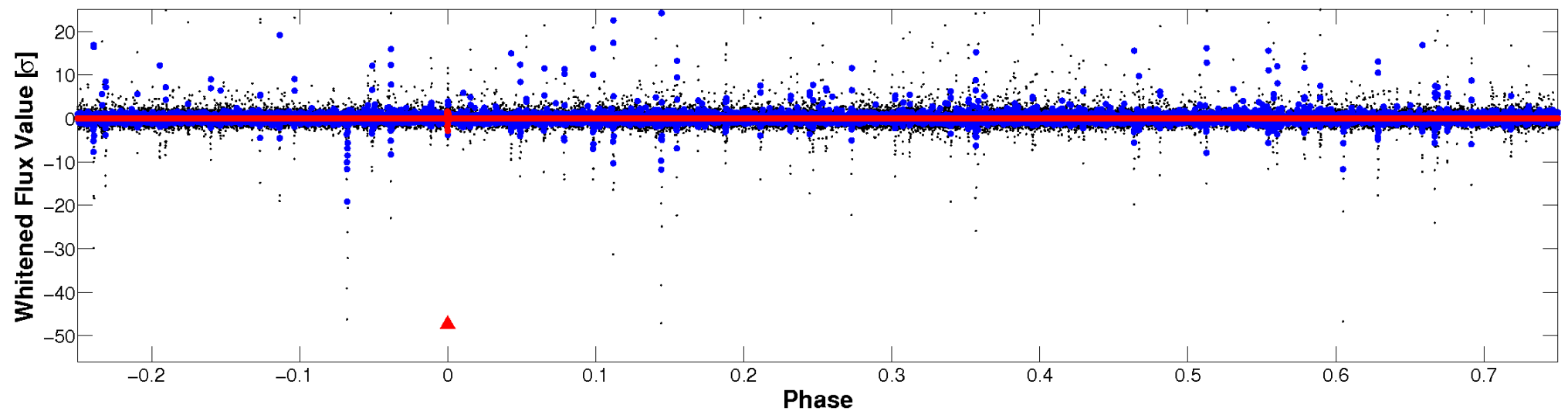


Non-Whitened Vs. Whitened Light Curve

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

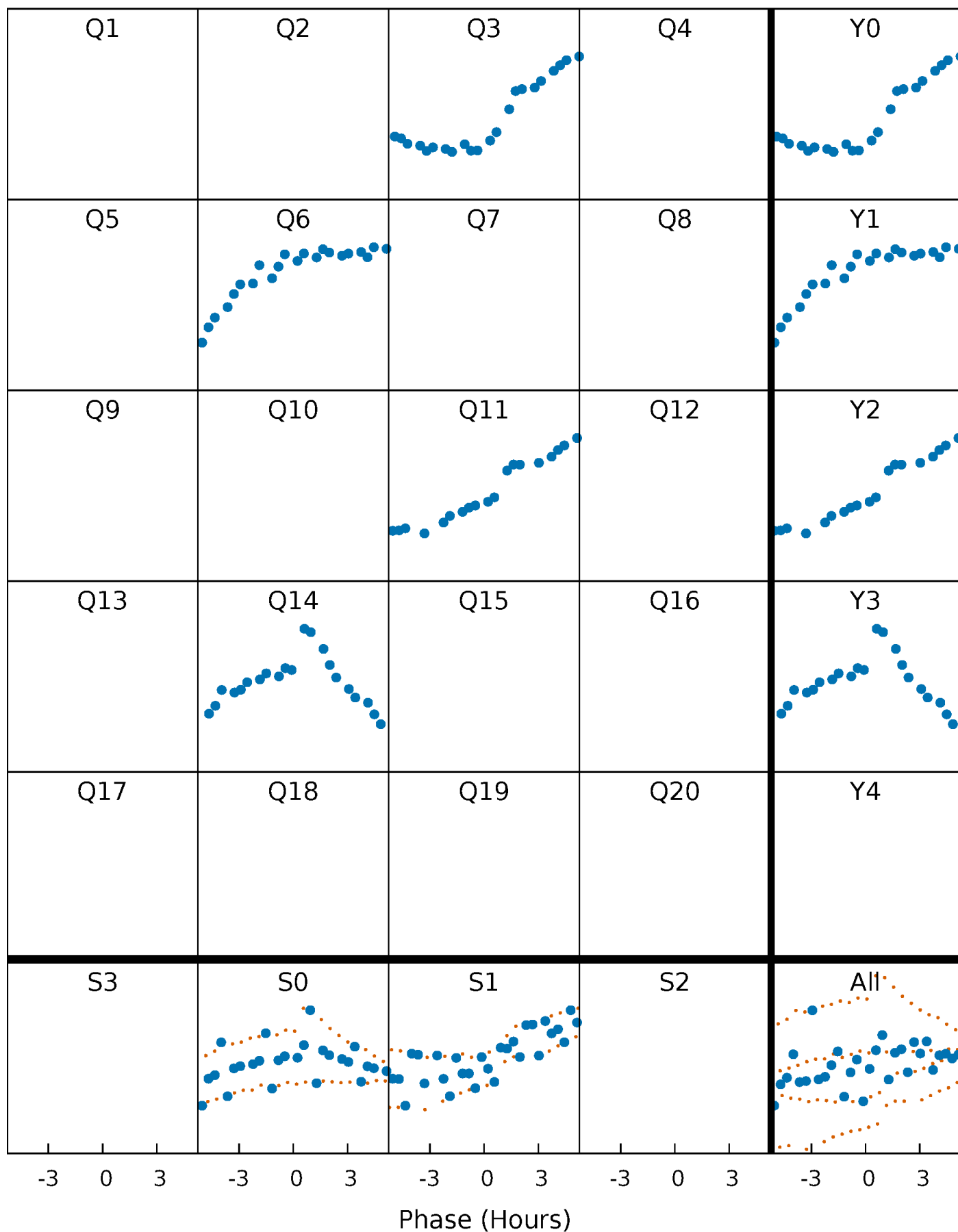


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



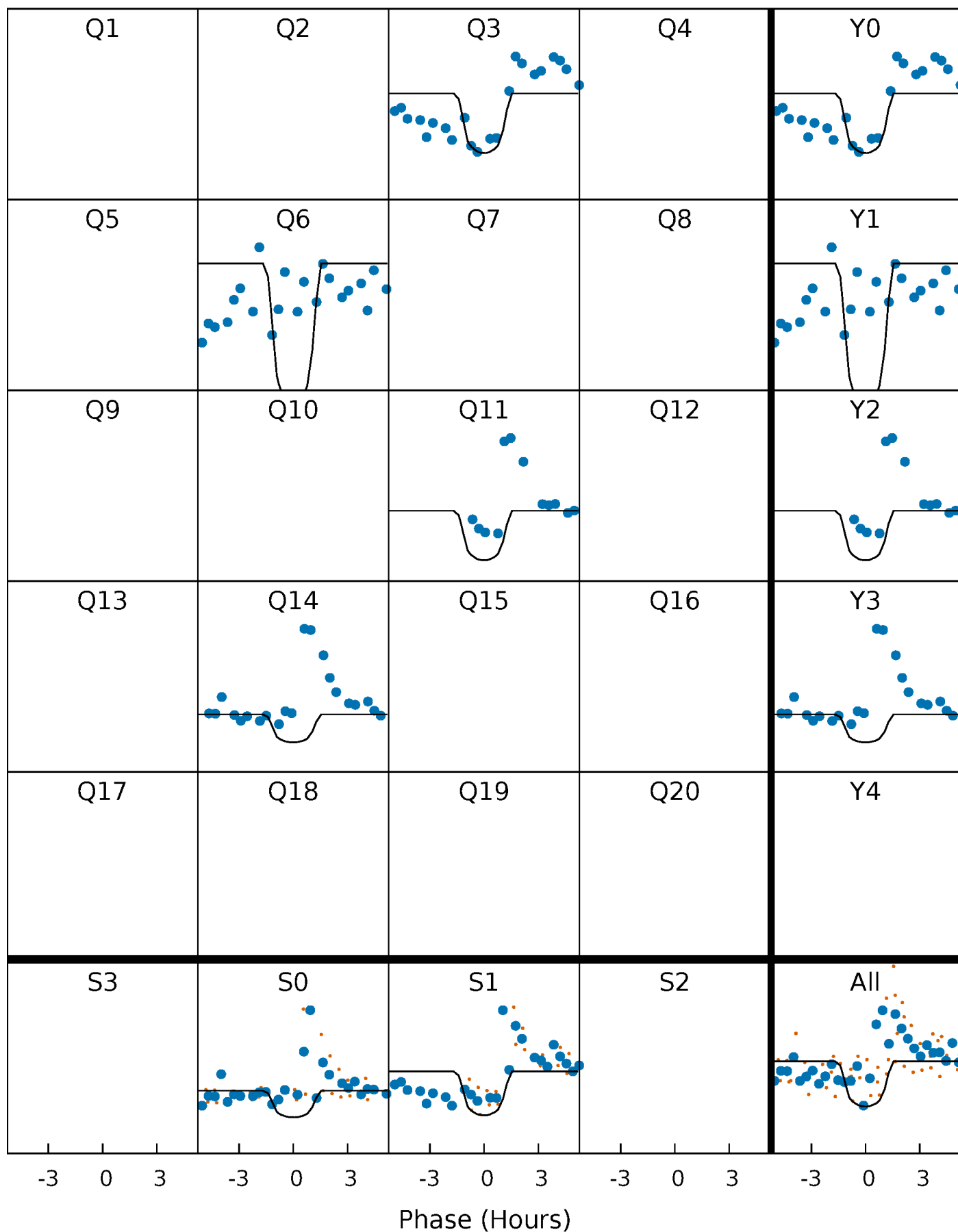
PDC Quarter-Phased Transit Curves

TCE 006755882-01 P=253.997851 Days $T_0=331.768070$ (BKJD)



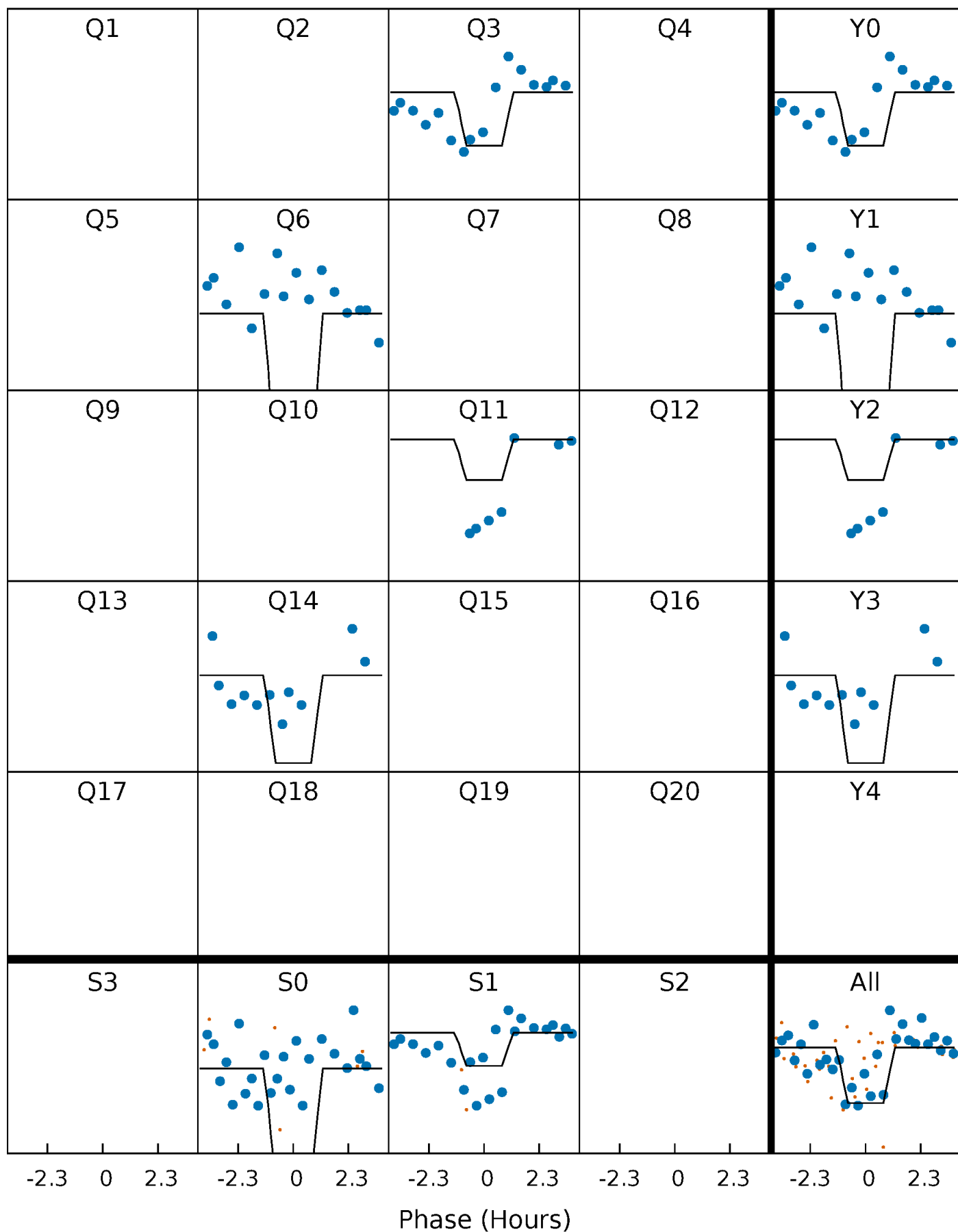
DV Quarter-Phased Transit Curves

TCE 006755882-01 P=253.997851 Days $T_0=331.768070$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

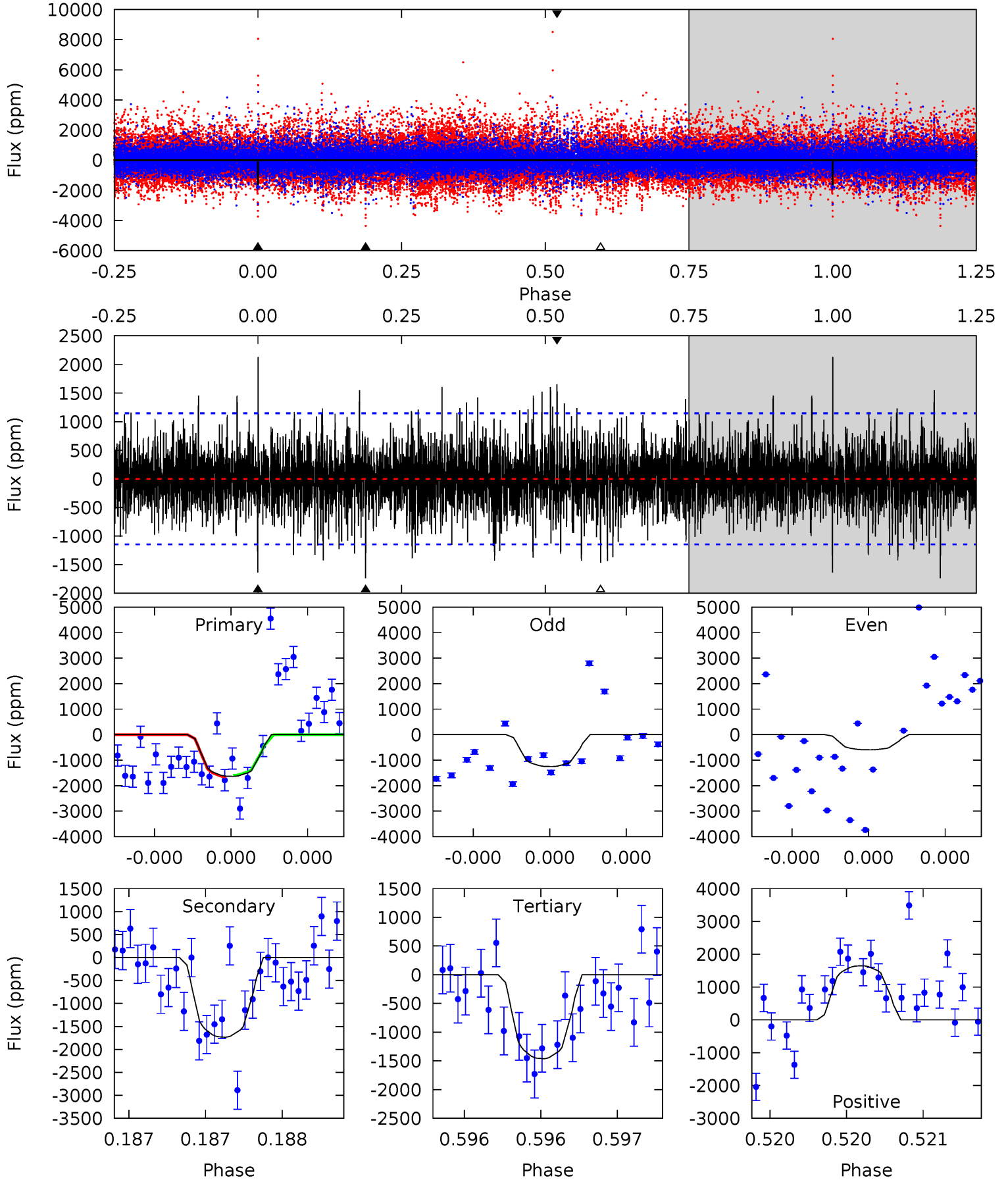
TCE 006755882-01 P=253.986554 Days $T_0=331.798519$ (BKJD)



DV Model-Shift Uniqueness Test

006755882-01, $P = 253.997851$ Days, $E = 77.770219$ Days

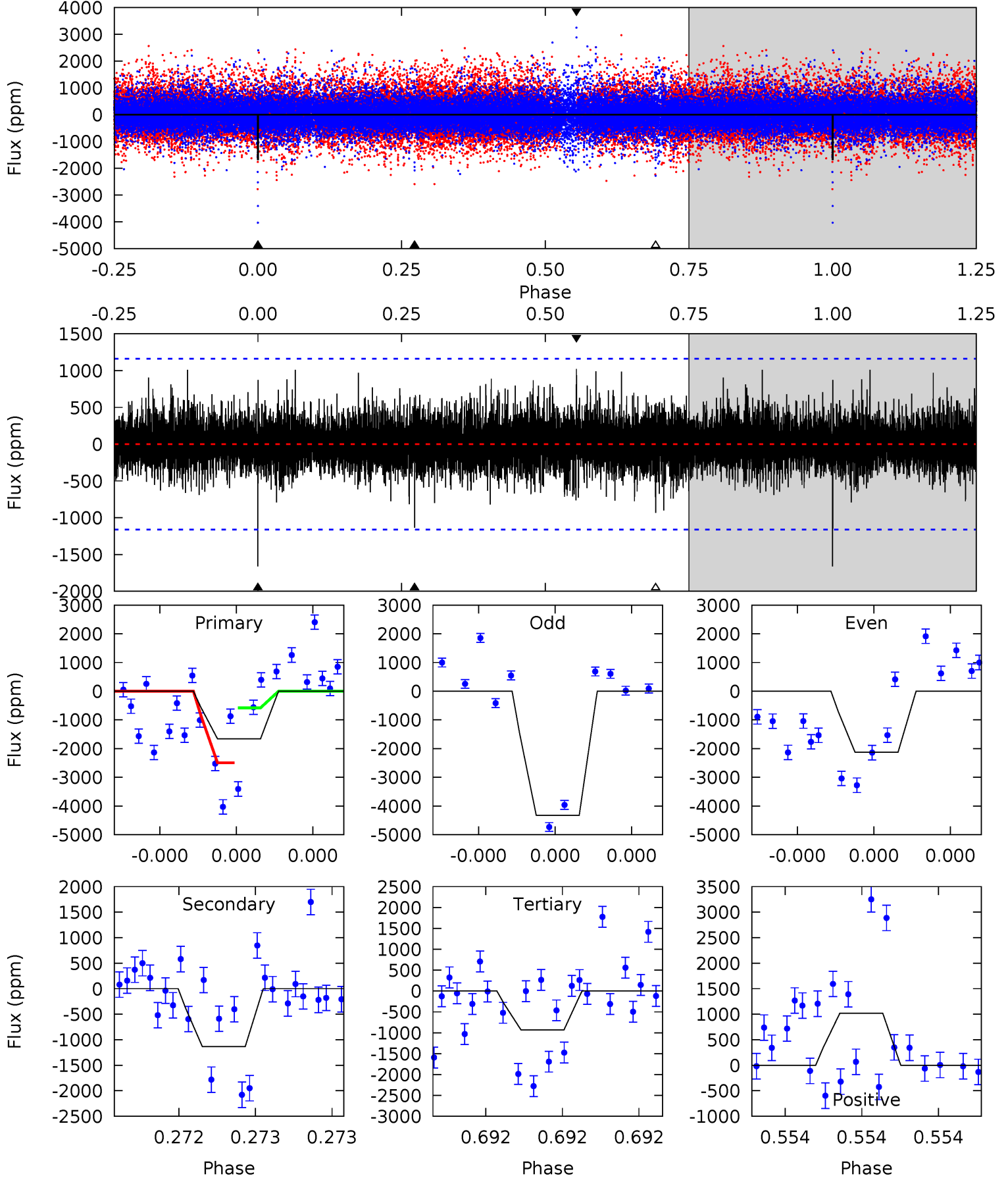
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.97	8.45	7.12	8.03	5.58	3.49	1.94	0.85	-0.06	1.33	0.42	1.37	0.17	0.55	0.15



Alt Model-Shift Uniqueness Test

006755882-01, P = 253.986554 Days, E = 77.811965 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.04	5.50	4.52	4.94	5.63	3.56	1.03	3.52	3.10	0.98	0.56	6.48	1.51	0.38	4.83



Stellar Parameters For KIC 006755882

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5260^{+174}_{-174}	$4.416^{+0.136}_{-0.187}$	$0.140^{+0.250}_{-0.300}$	$0.942^{+0.215}_{-0.137}$	$0.842^{+0.098}_{-0.066}$	$1.421^{+0.891}_{-0.700}$
	+3%/-3%	+3%/-4%	+179%/-214%	+23%/-15%	+12%/-8%	+63%/-49%
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 006755882-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1736 ± 205	$30.42^{+30.71}_{-20.74}$	366^{+27}_{-22}	2717^{+1074}_{-414}	568^{+4832}_{-430}
Alt.	-1135 ± 206	$30.14^{+33.44}_{-19.80}$	368^{+25}_{-21}	2597^{+960}_{-413}	384^{+2852}_{-301}

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

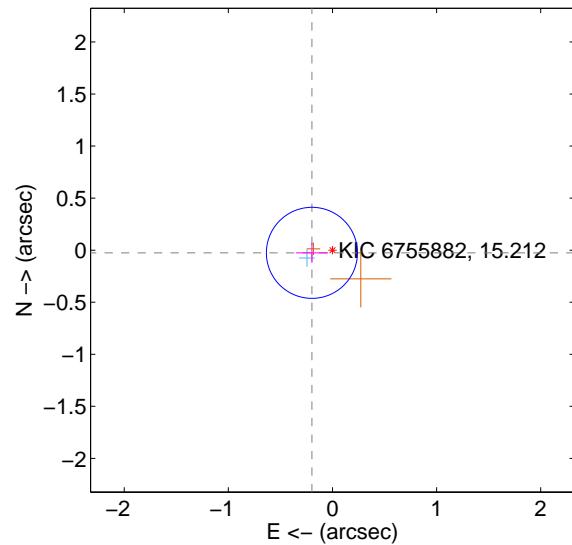
Supplemental centroid analysis for 006755882-01. Kepler magnitude: 15.21. Transit SNR 11.67

There are 1 quarters with good PRF difference image offsets

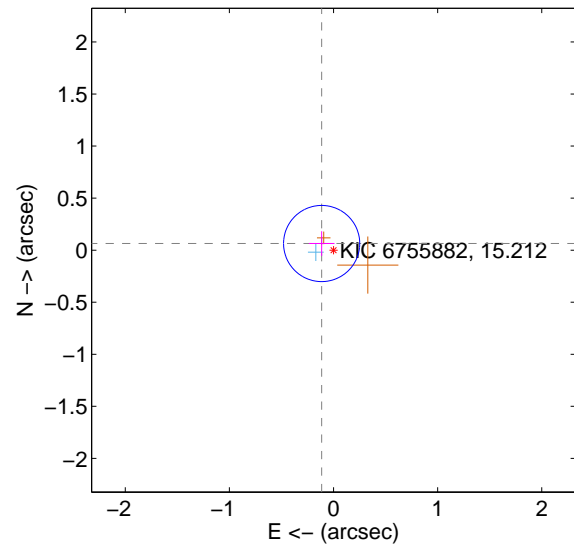
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.199 ± 0.146	1.37	0.197 ± 0.154	-0.026 ± 0.096
PRF-fit source offset from KIC position	0.131 ± 0.122	1.07	0.114 ± 0.123	0.064 ± 0.118
photometric centroid source offset	0.51 ± 0.48	1.08	-0.49 ± 0.48	0.14 ± 0.41

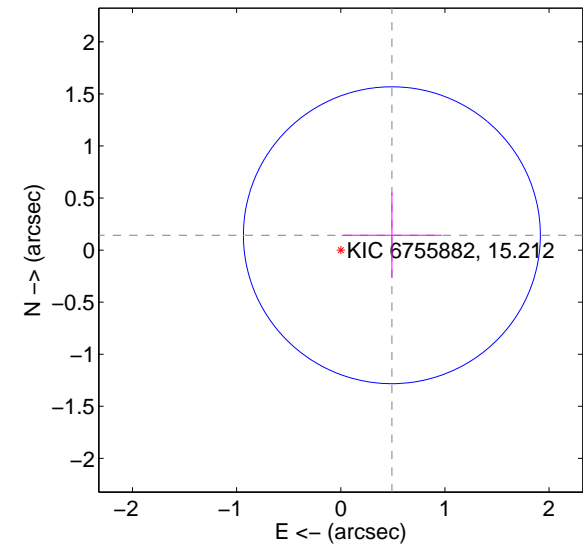
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

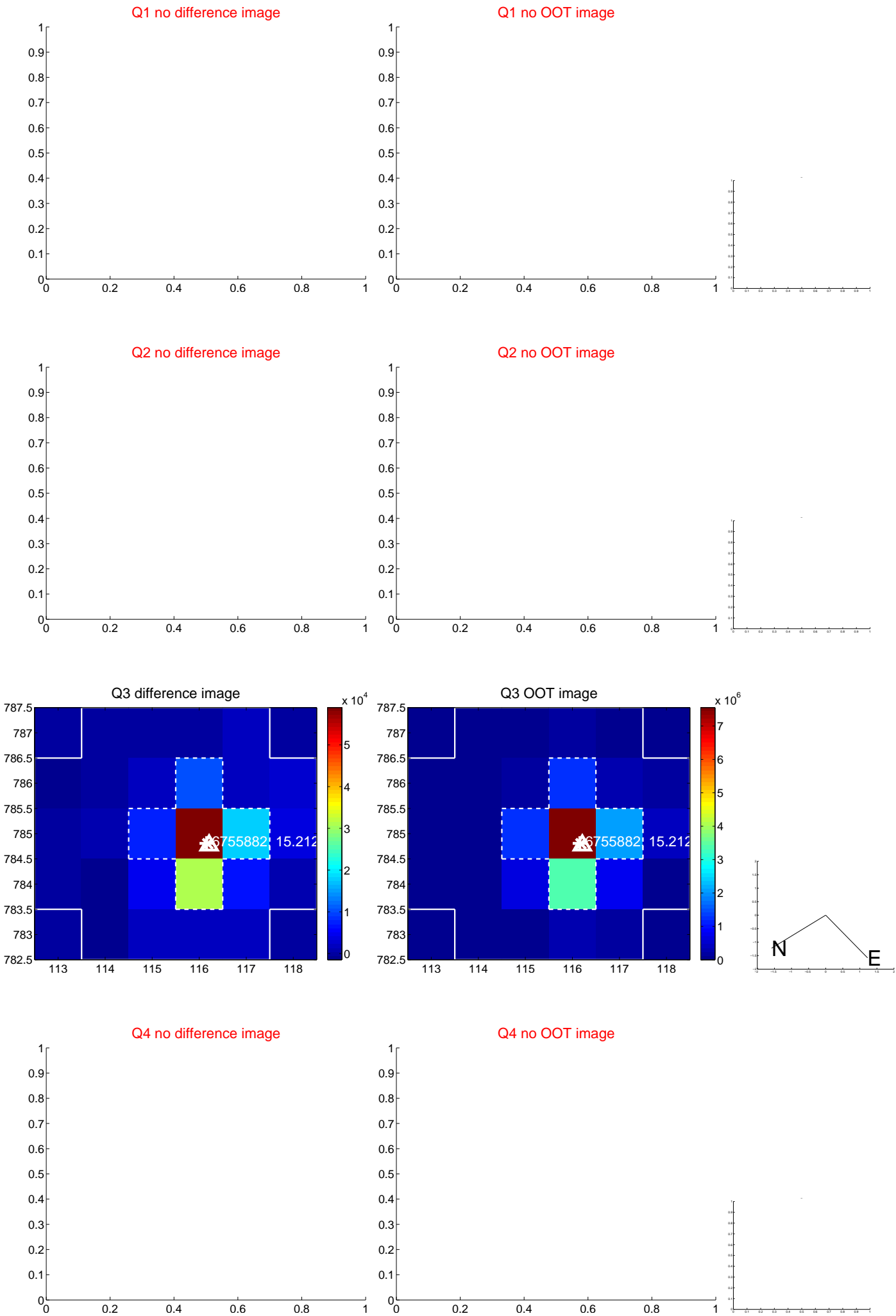


offset from photometric centroids

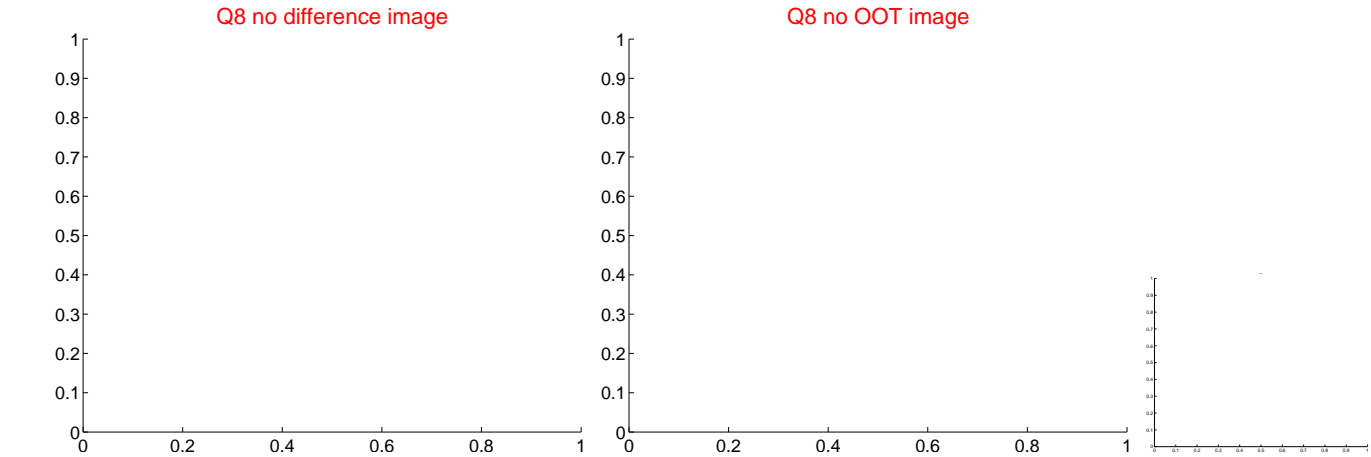
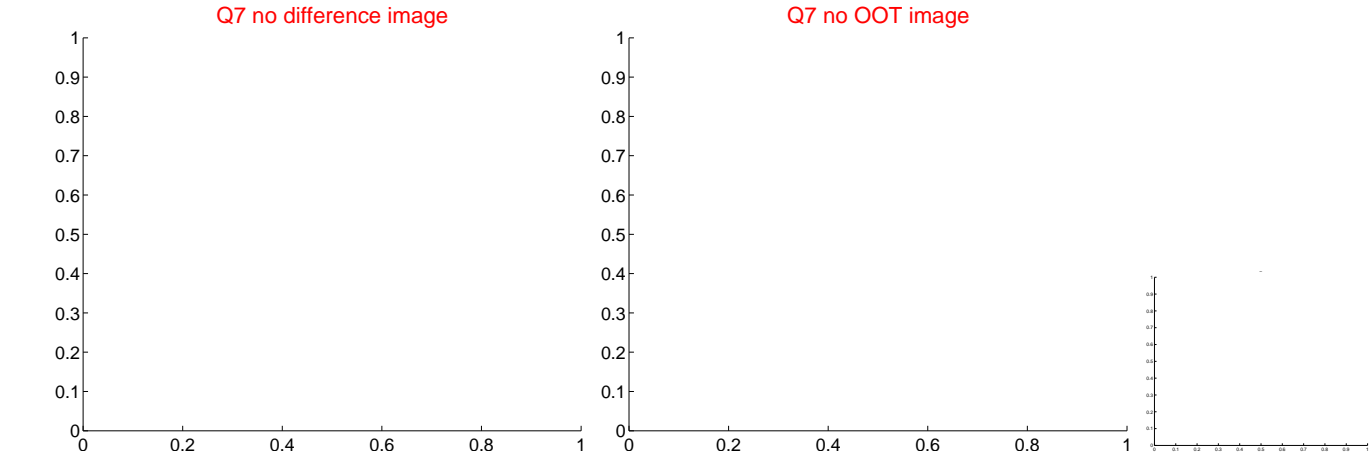
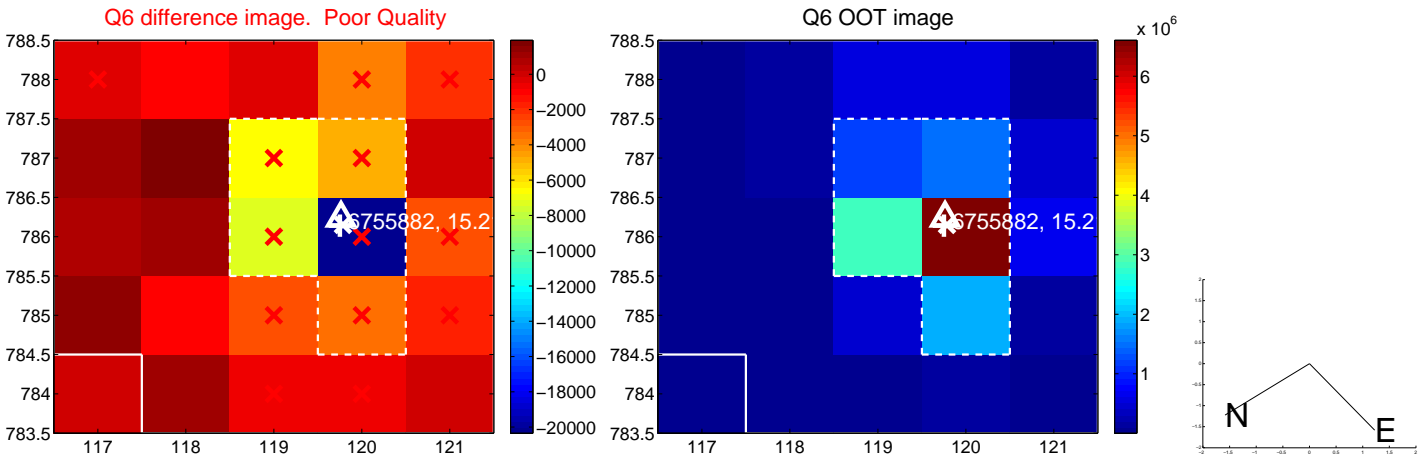
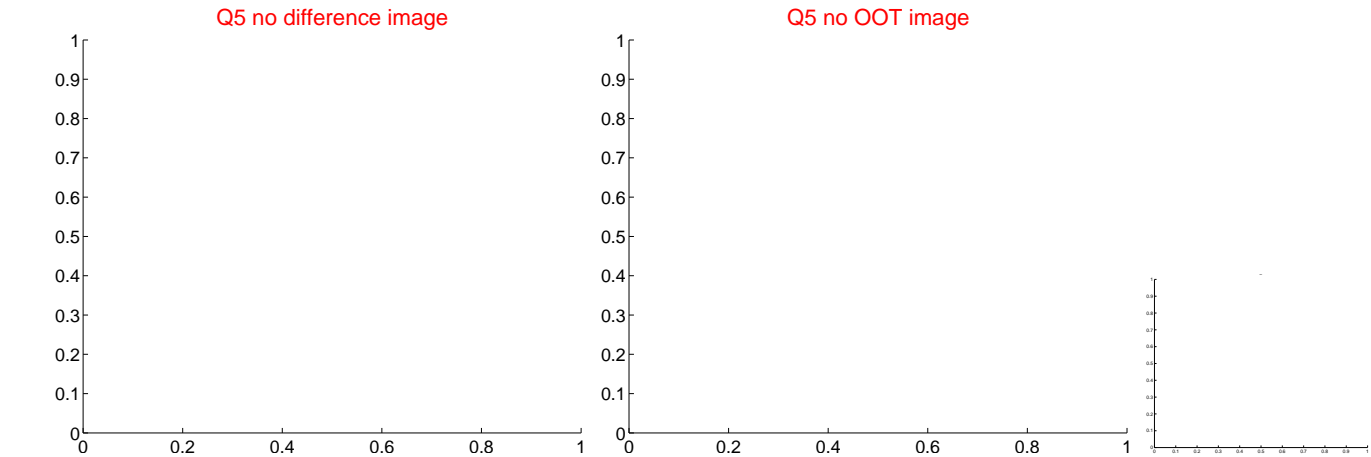


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



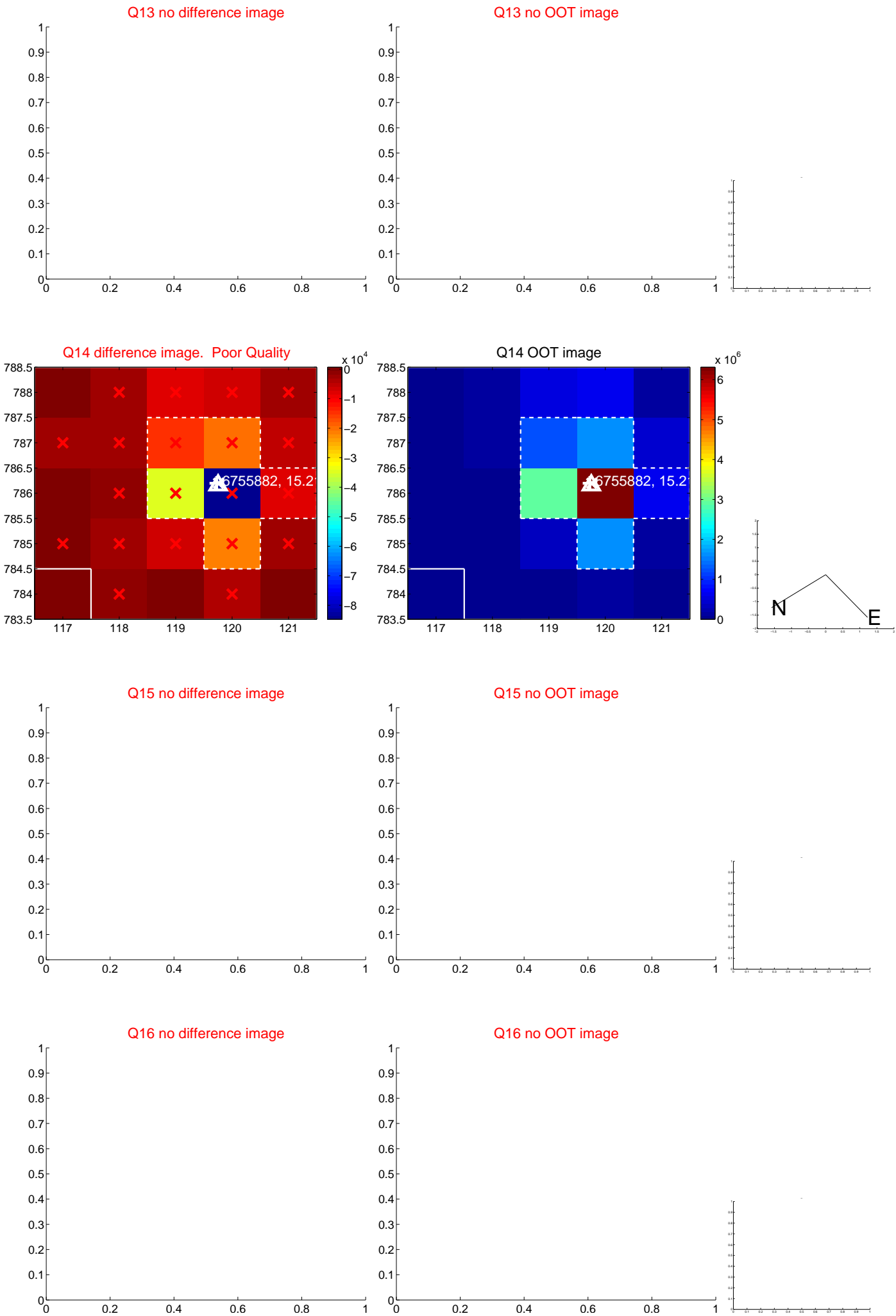
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



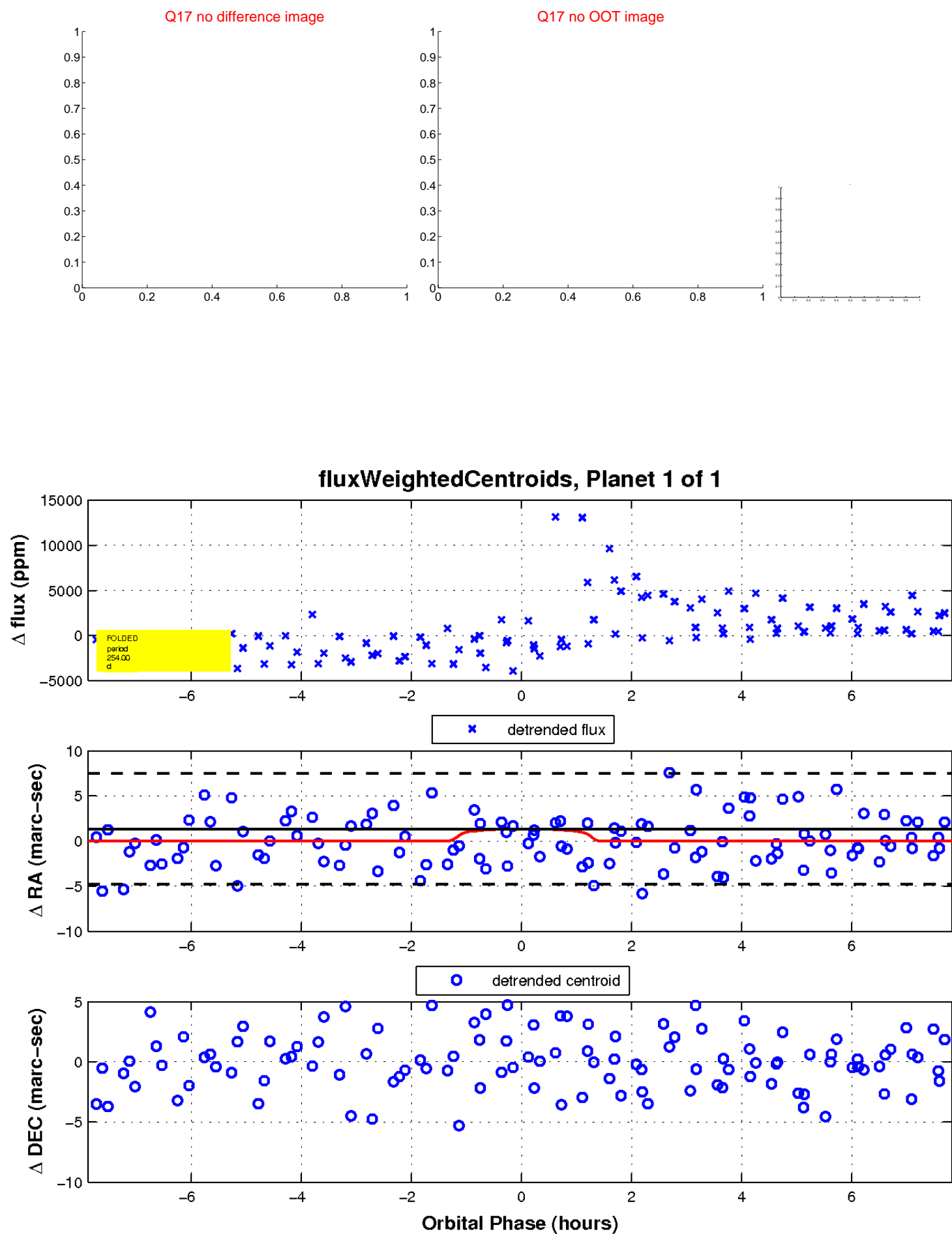
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

