

KIC 006127565

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})
006127565-01	OBS	No	616.116024	269.341769	483.0	6.213	12.6	6.7	1.78	5524	4.20	1.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006127565-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—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.

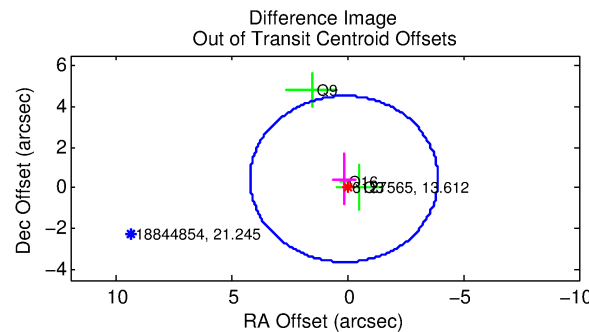
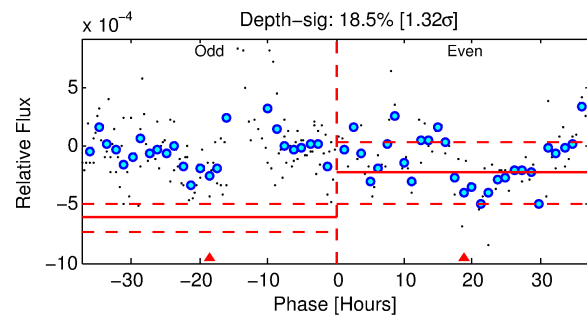
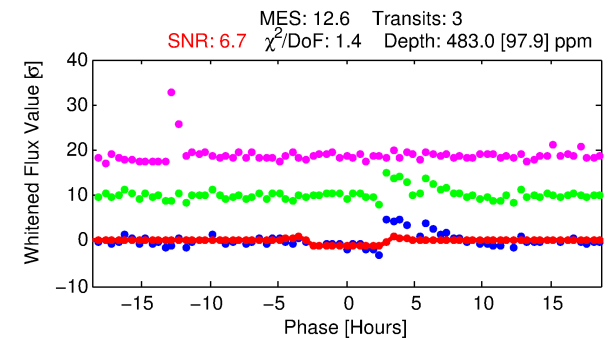
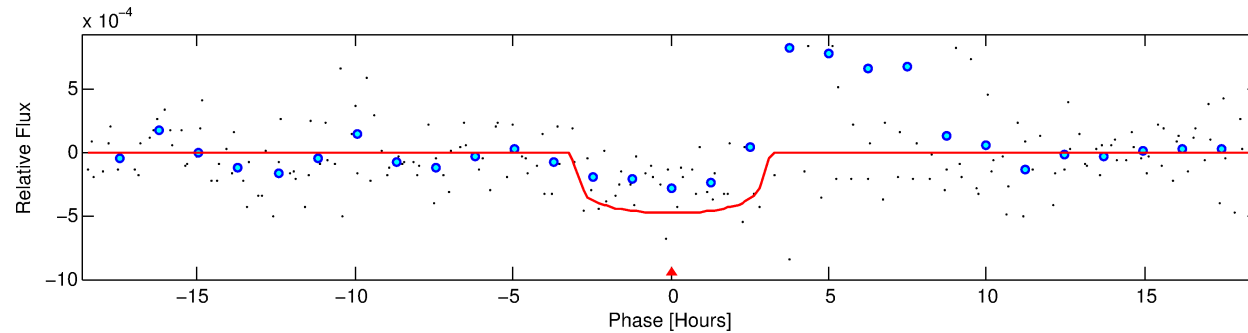
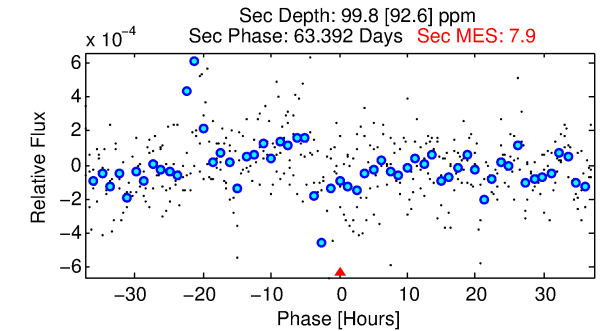
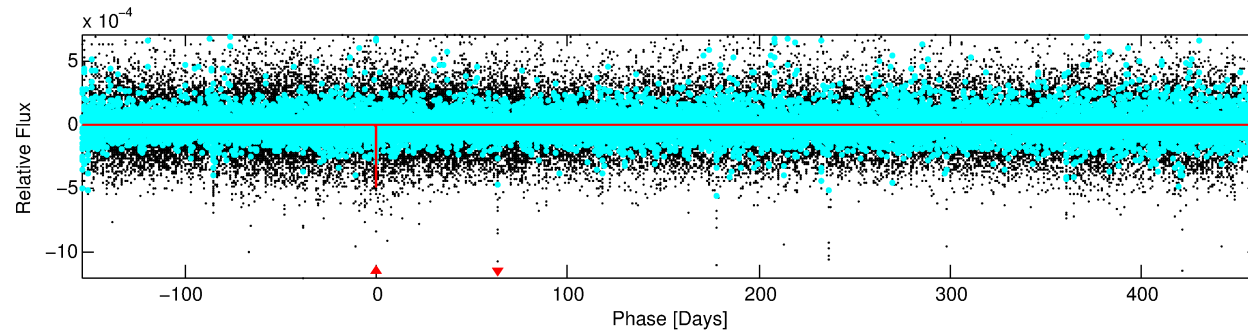
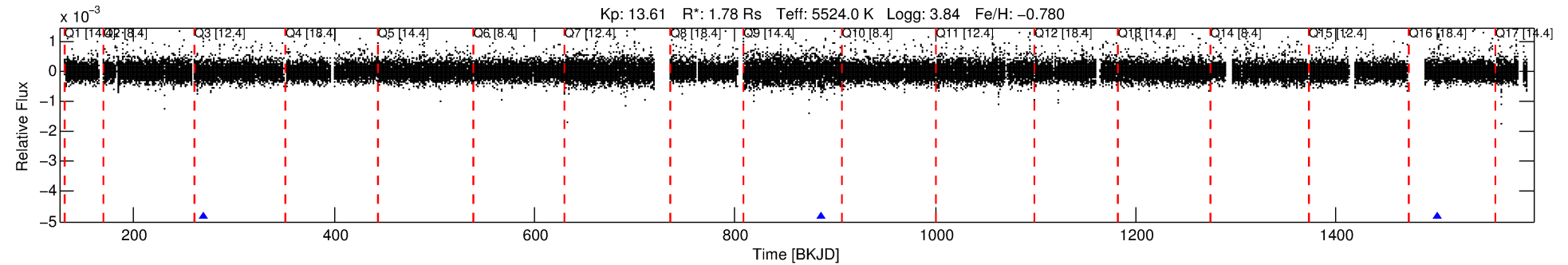
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006127565-01

No Significant Match Found

DV One-Page Summary

KIC: 6127565 Candidate: 1 of 1 Period: 616.116 d



DV Fit Results:

Period = 616.11602 [0.00969] d
Epoch = 269.3418 [0.0103] BKJD
Rp/R* = 0.0216 [0.0167]
a/R* = 558.18 [1991.60]
b = 0.71 [2.53]
Seff = 1.53 [2.04]
Teq = 284 [95] K
Rp = 4.20 [4.13] Re
a = 1.3164 [0.9875] AU
Ag = 5398.96 [12115.26] [0.45 σ]
Teffp = 3760 [1703] K [2.04 σ]

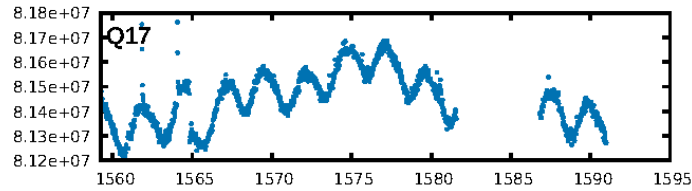
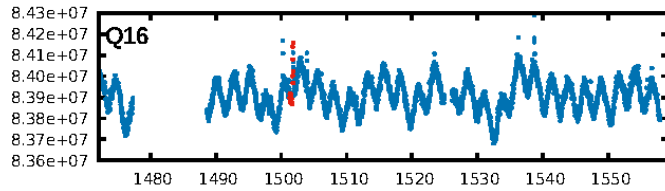
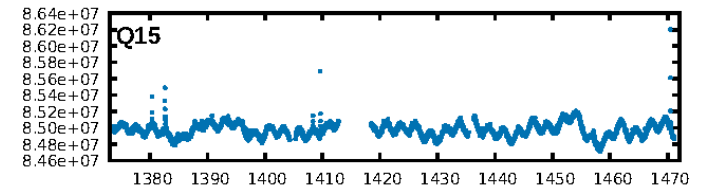
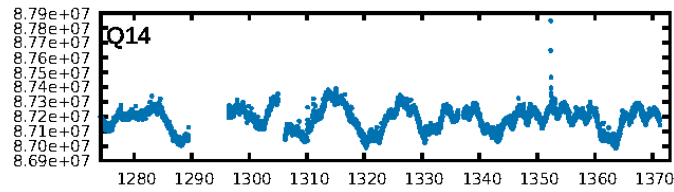
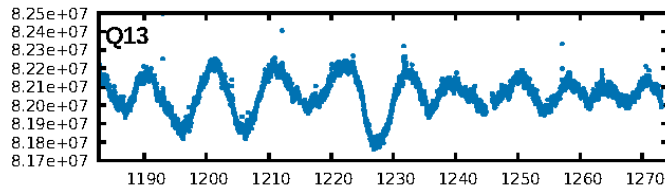
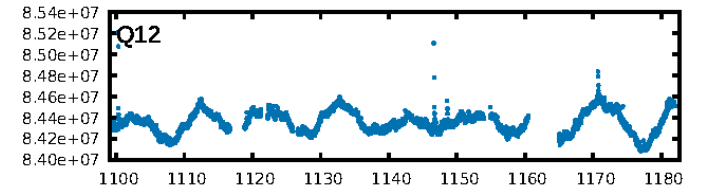
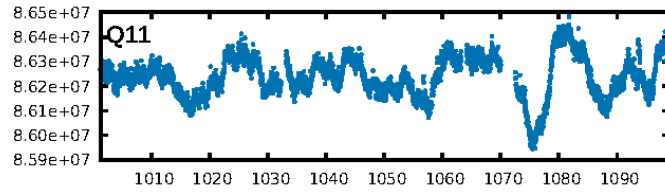
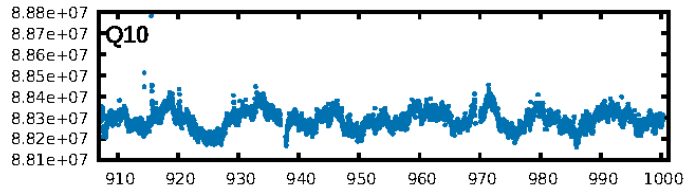
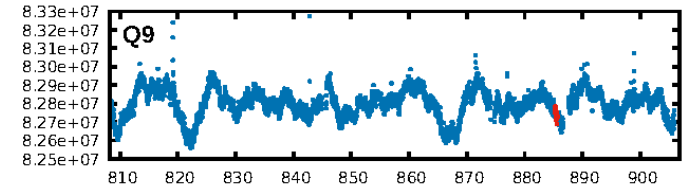
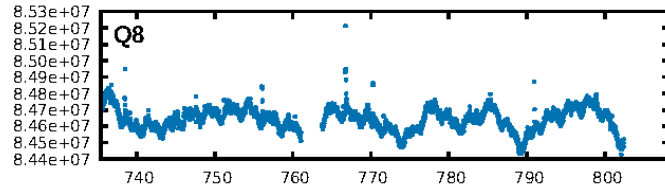
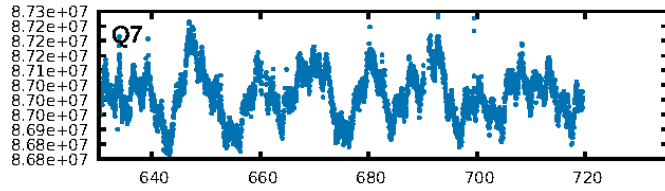
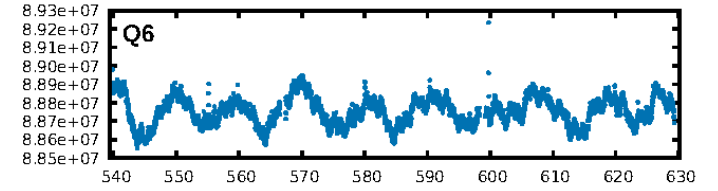
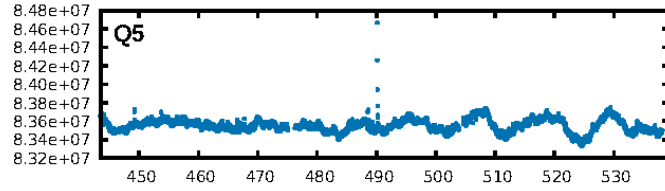
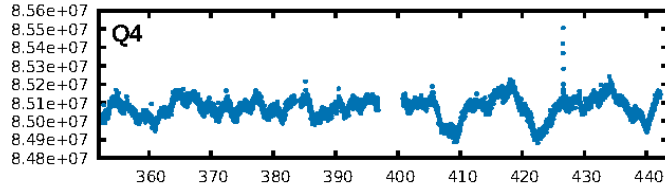
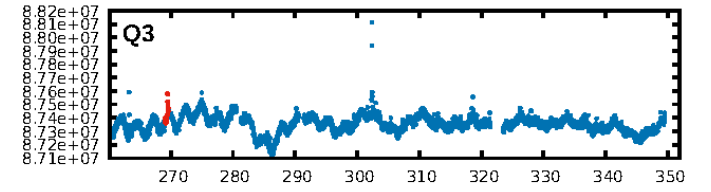
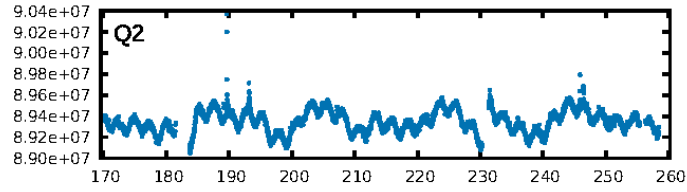
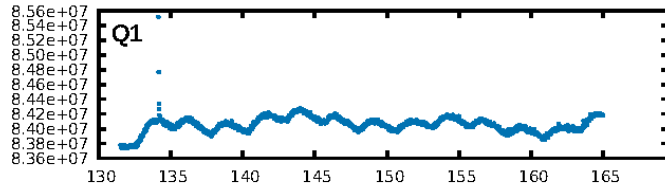
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 36.6%
ModelChiSquareGof-sig: 98.2%
Bootstrap-pfa: 4.54e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 5.007
Centroid-sig: 3.3%
Centroid-so: 1.010 arcsec [1.20 σ]
OotOffset-rm: 0.472 arcsec [0.35 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 0.441 arcsec [0.31 σ]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

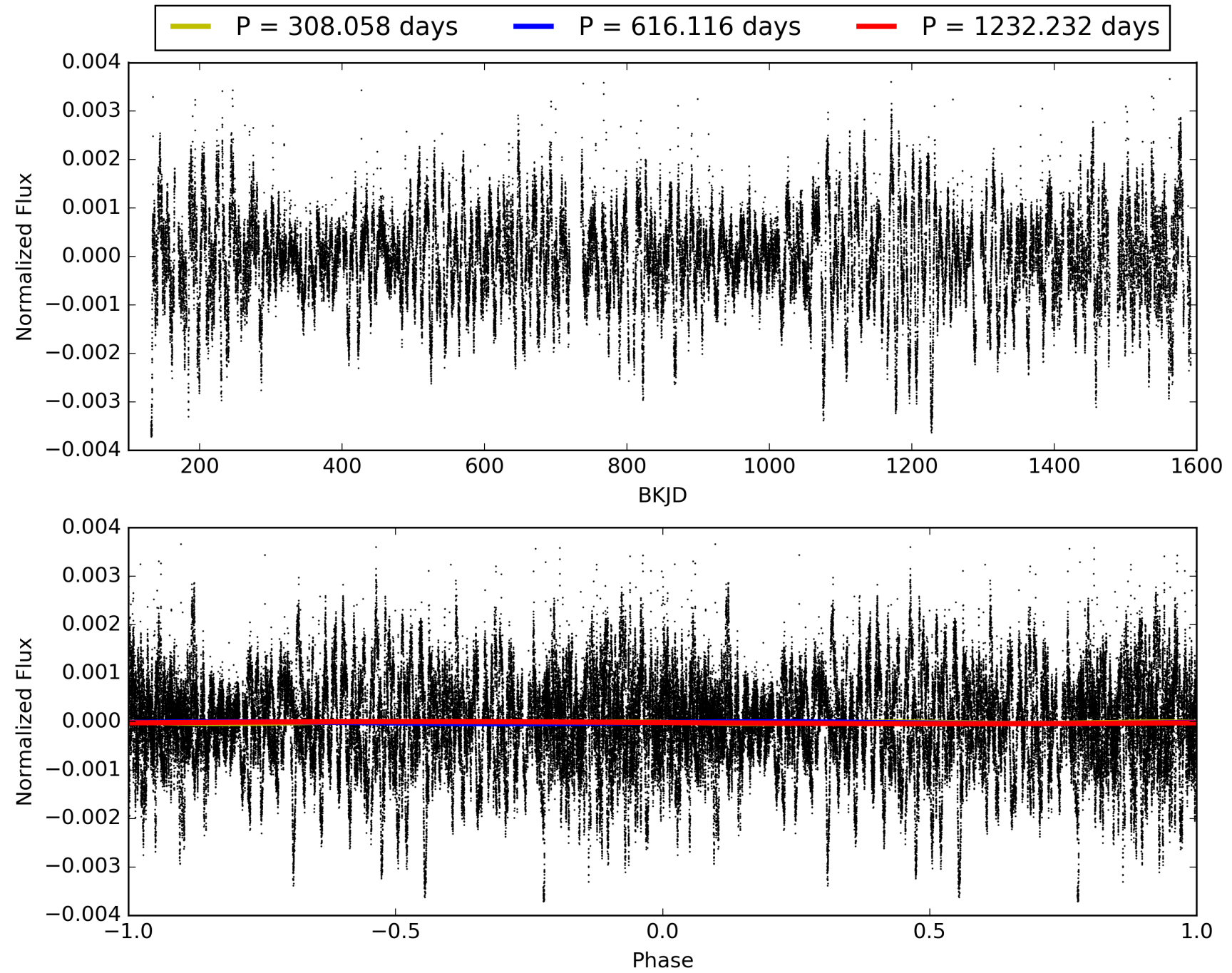
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:03:56 Z

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

TCE 006127565-01, PDC Light Curves

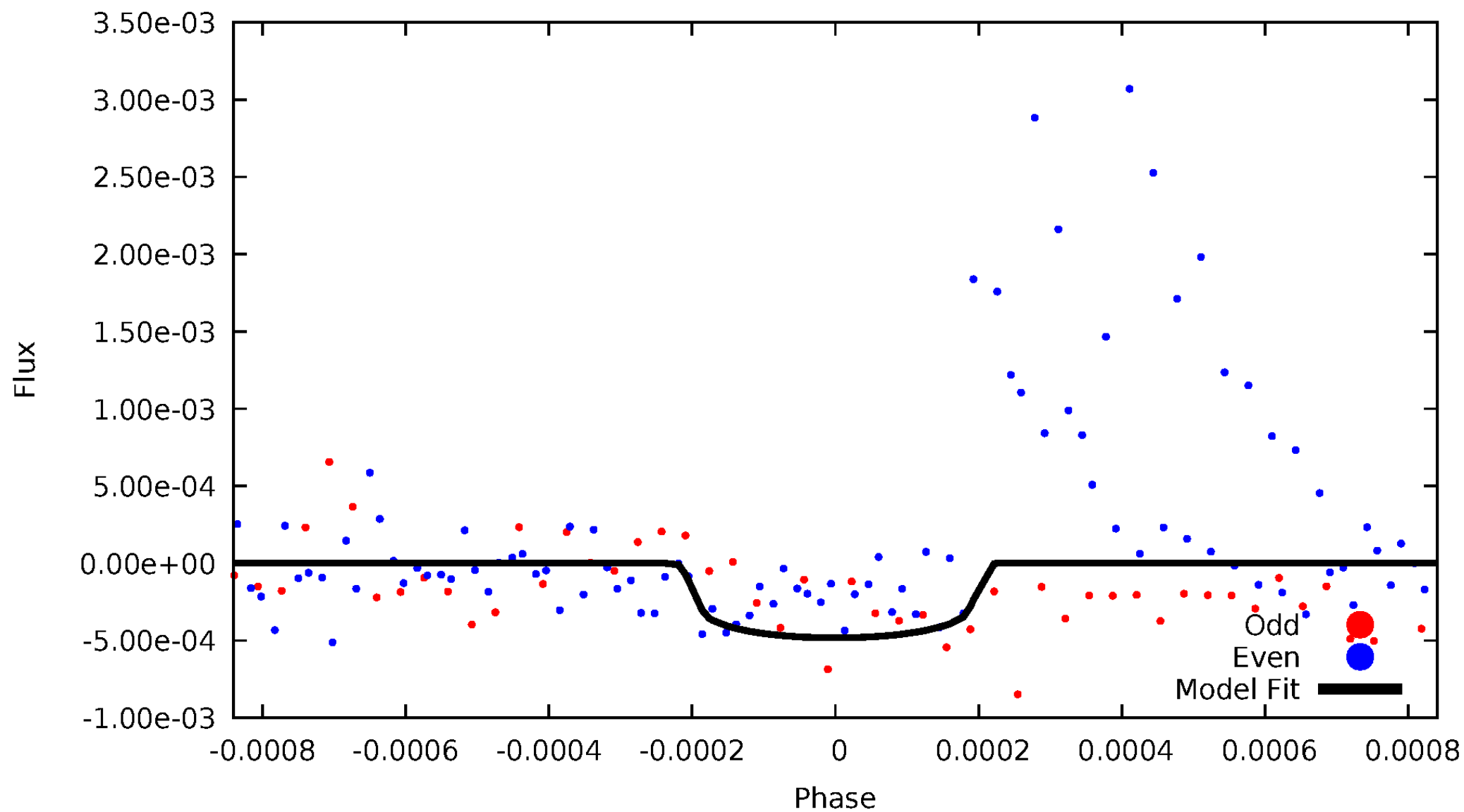


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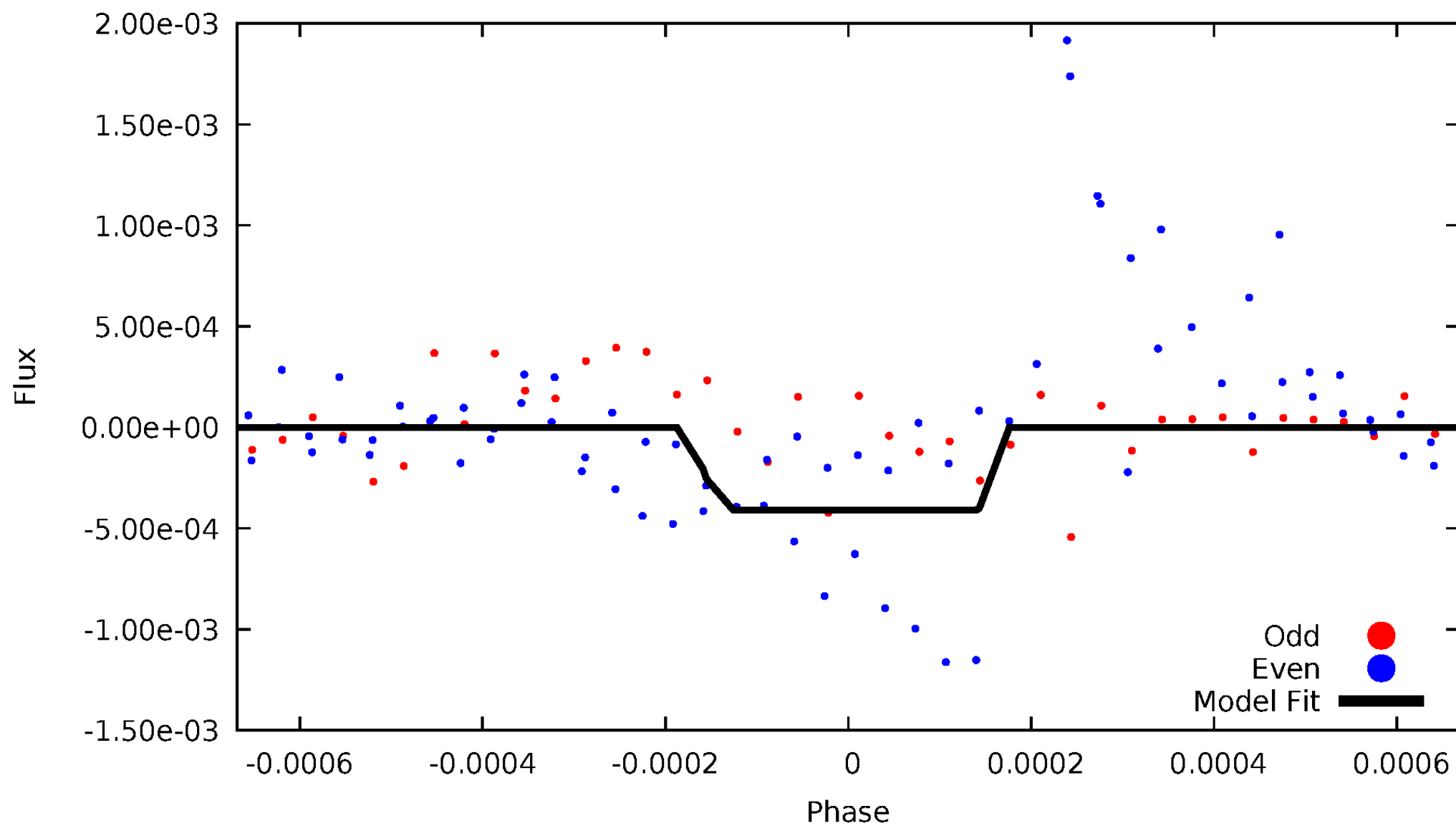
DV Odd/Even

TCE 006127565-01

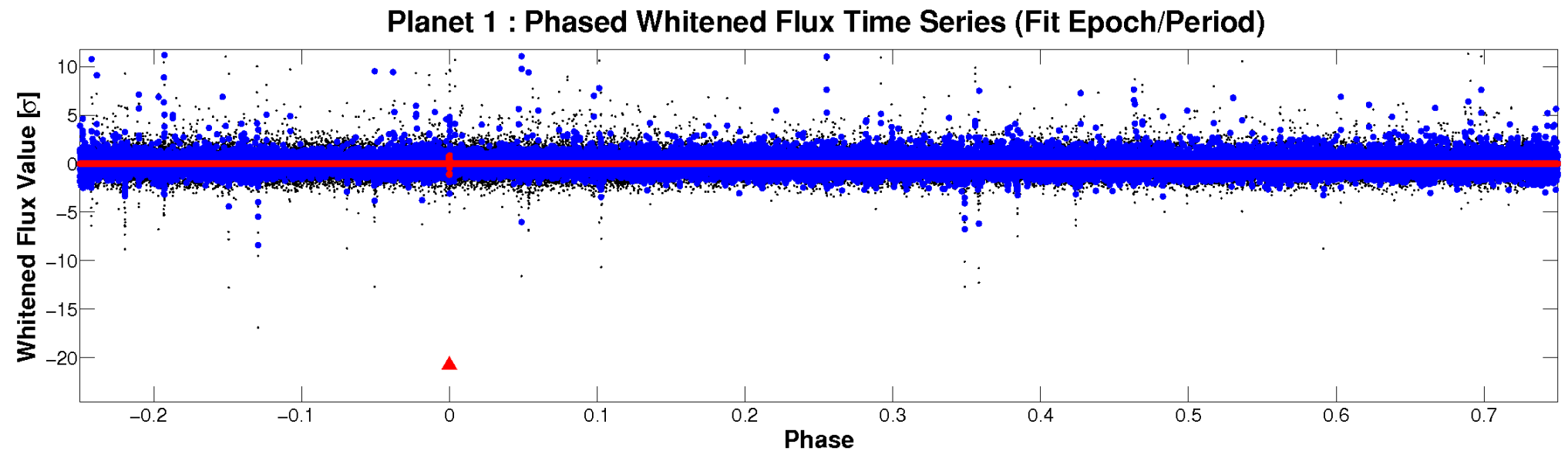
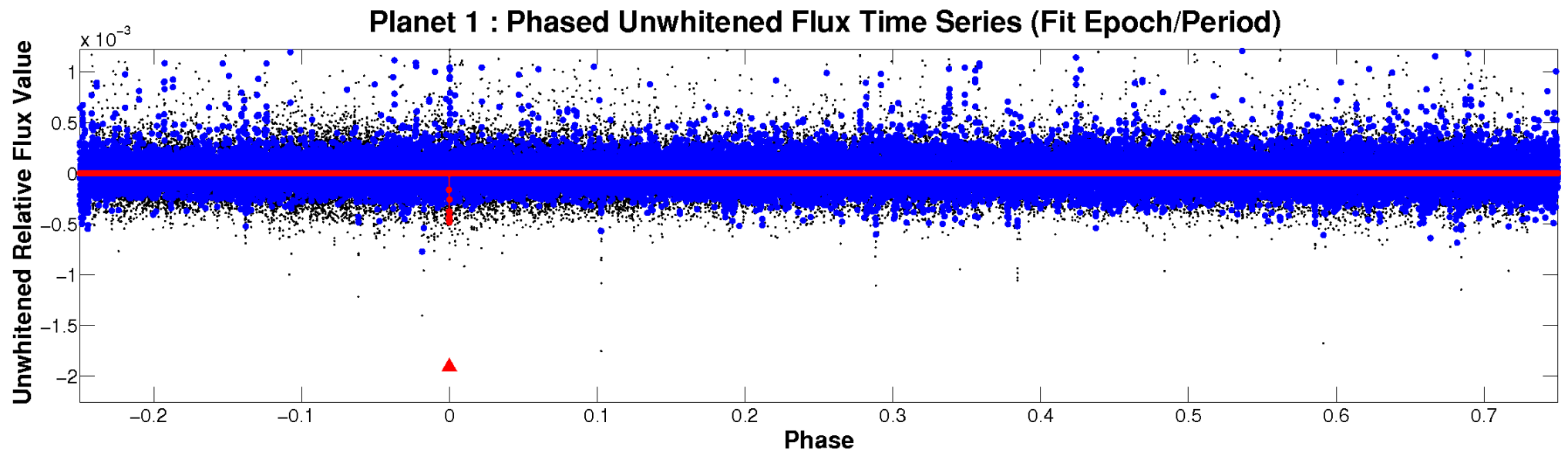


ALT Odd/Even

TCE 006127565-01

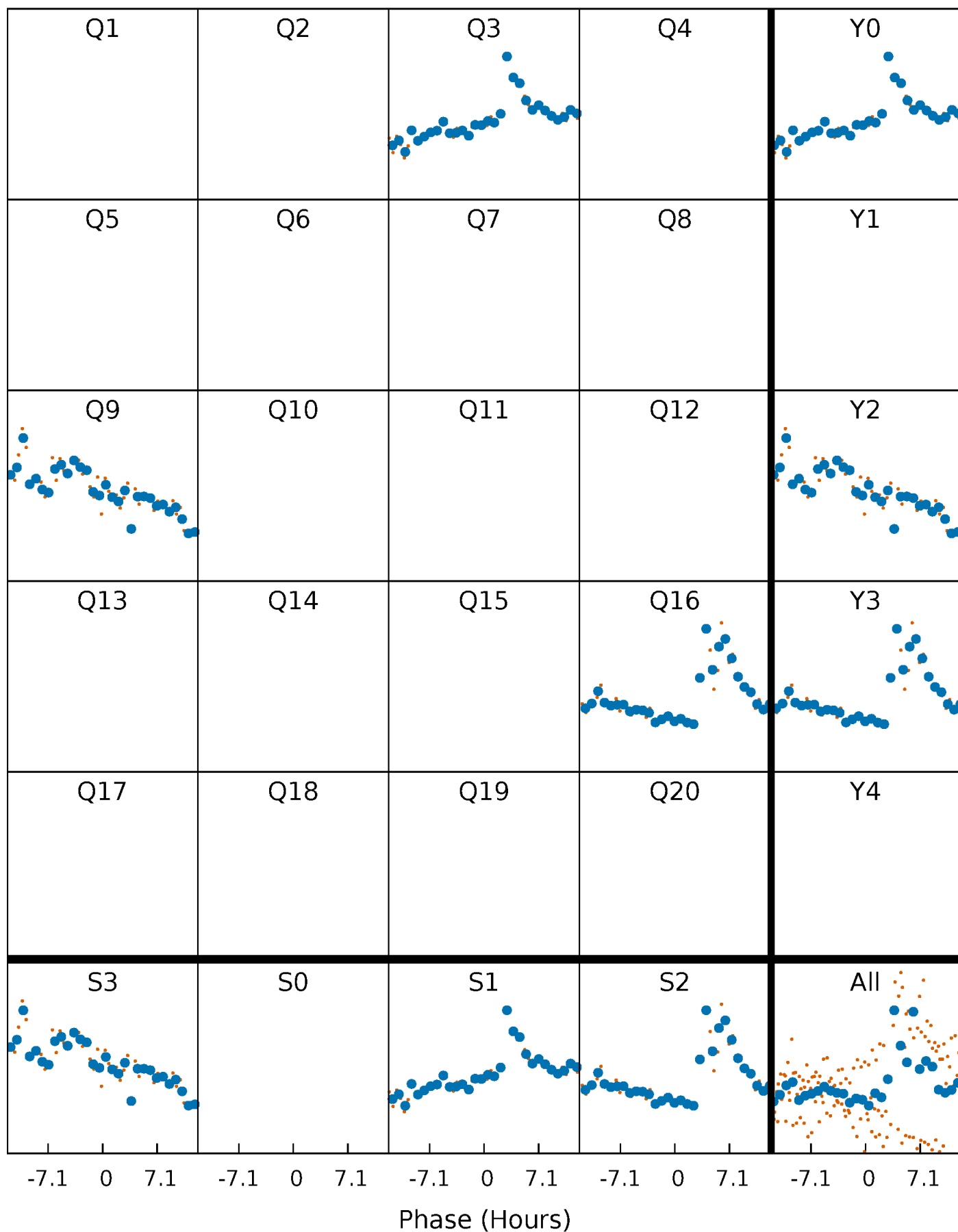


Non-Whitened Vs. Whitened Light Curve



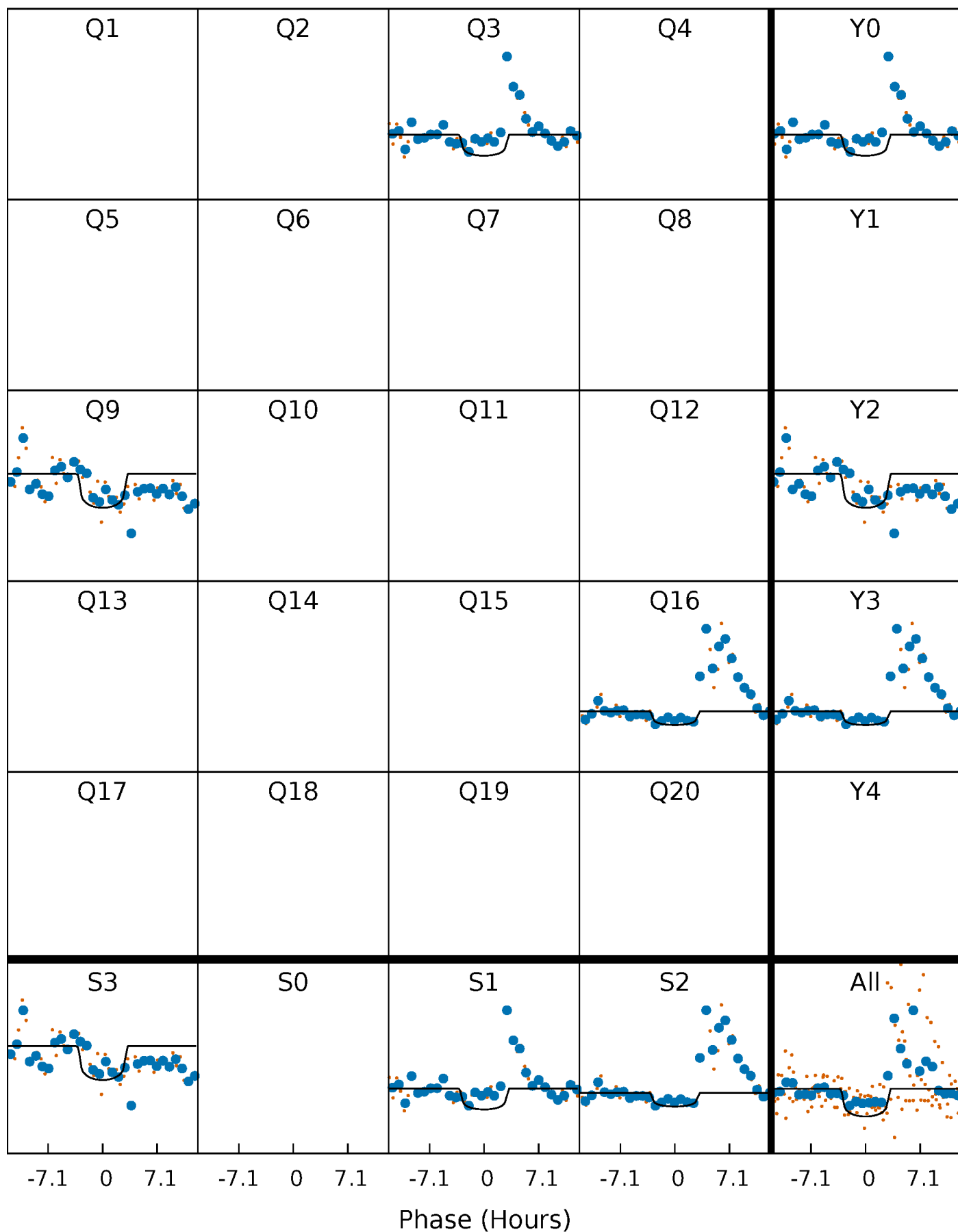
PDC Quarter-Phased Transit Curves

TCE 006127565-01 P=616.116024 Days $T_0=269.341769$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006127565-01 P=616.116024 Days $T_0=269.341769$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

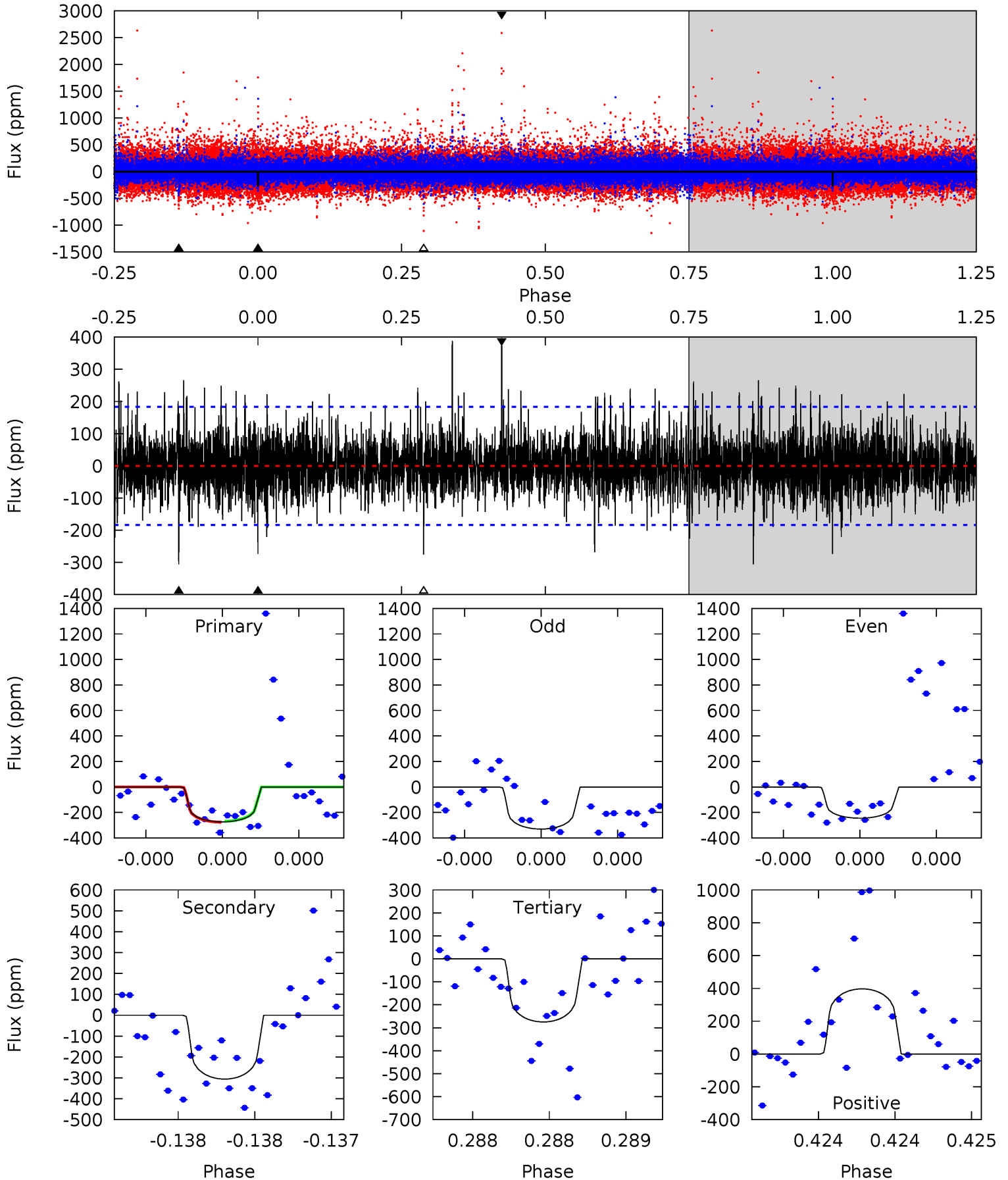
TCE 006127565-01 P=616.133135 Days $T_0=269.331645$ (BKJD)



DV Model-Shift Uniqueness Test

006127565-01, P = 616.116024 Days, E = 269.341769 Days

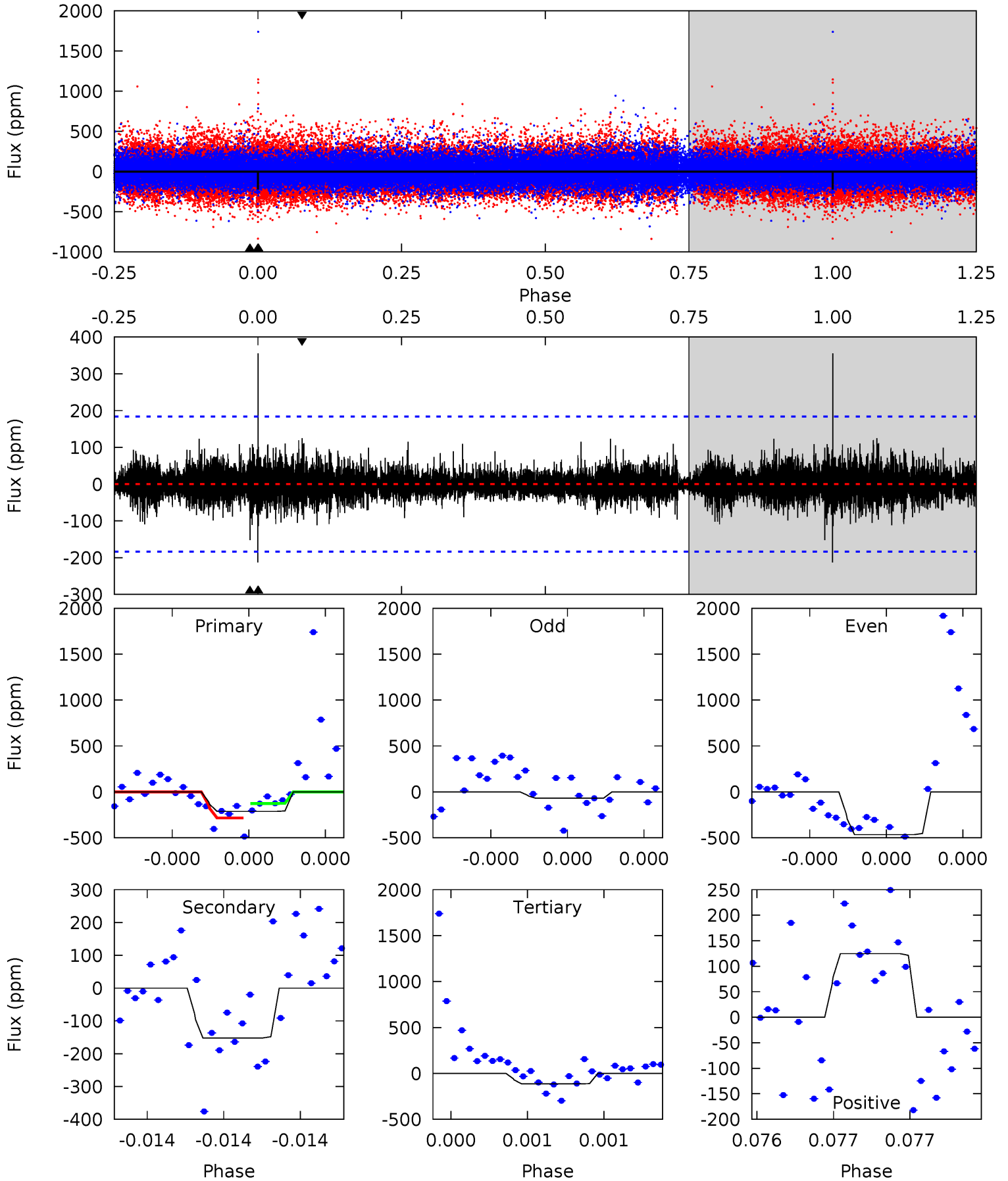
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.32	9.31	8.37	12.1	5.60	3.52	1.90	-0.05	-3.77	0.94	-2.77	1.07	0.73	0.56	0.10



Alt Model-Shift Uniqueness Test

006127565-01, P = 616.133135 Days, E = 269.331645 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.56	4.69	3.51	3.84	5.66	3.61	0.83	3.05	2.72	1.18	0.85	5.96	2.21	0.63	2.38



Stellar Parameters For KIC 006127565

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5524^{+164}_{-164}	$3.839^{+0.825}_{-0.275}$	$-0.780^{+0.300}_{-0.300}$	$1.784^{+1.076}_{-1.076}$	$0.800^{+0.106}_{-0.117}$	$0.199^{+3.056}_{-0.140}$
	+3%/-3%	+21%/-7%	+38%/-38%	+60%/-60%	+13%/-15%	+1539%/-70%
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 006127565-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-306 ± 33	$3.87^{+3.43}_{-2.50}$	381^{+56}_{-70}	4936^{+2609}_{-952}	$19835^{+127785}_{-14679}$
Alt.	-152 ± 32	$3.92^{+3.41}_{-2.57}$	384^{+58}_{-69}	4197^{+2328}_{-665}	9421^{+62402}_{-6843}

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 $A_{obs} \gg 1.0$

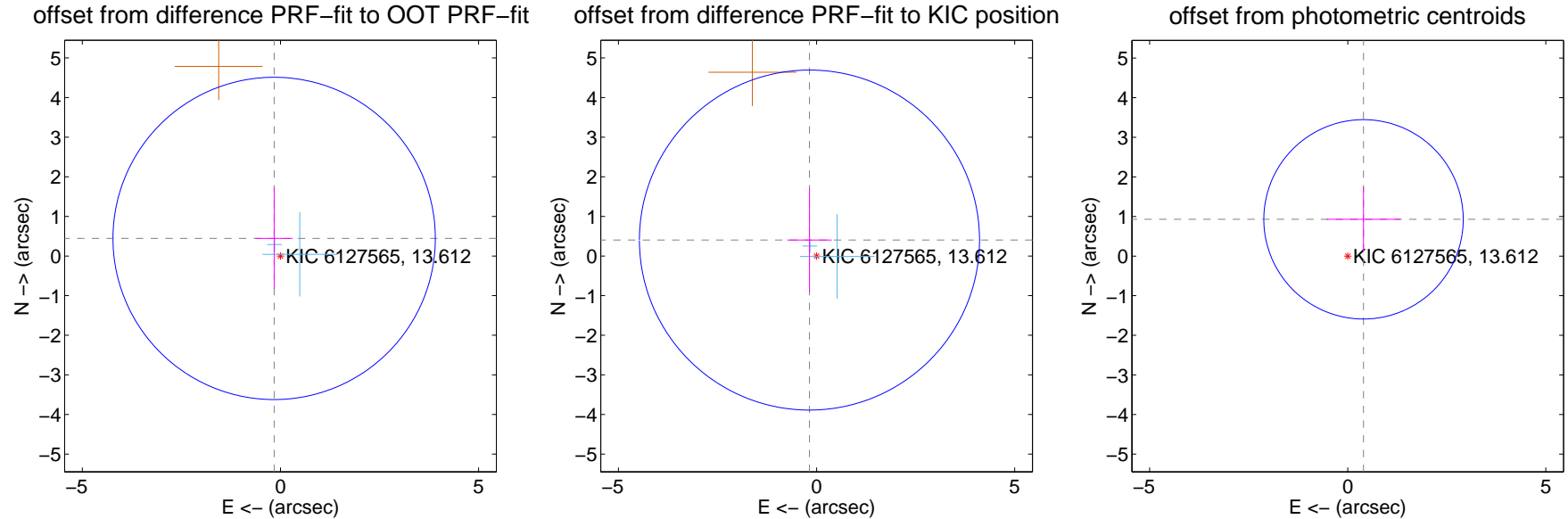
DV Centroid Data

Supplemental centroid analysis for 006127565-01. Kepler magnitude: 13.61. Transit SNR 6.74

There are 2 quarters with good PRF difference image offsets

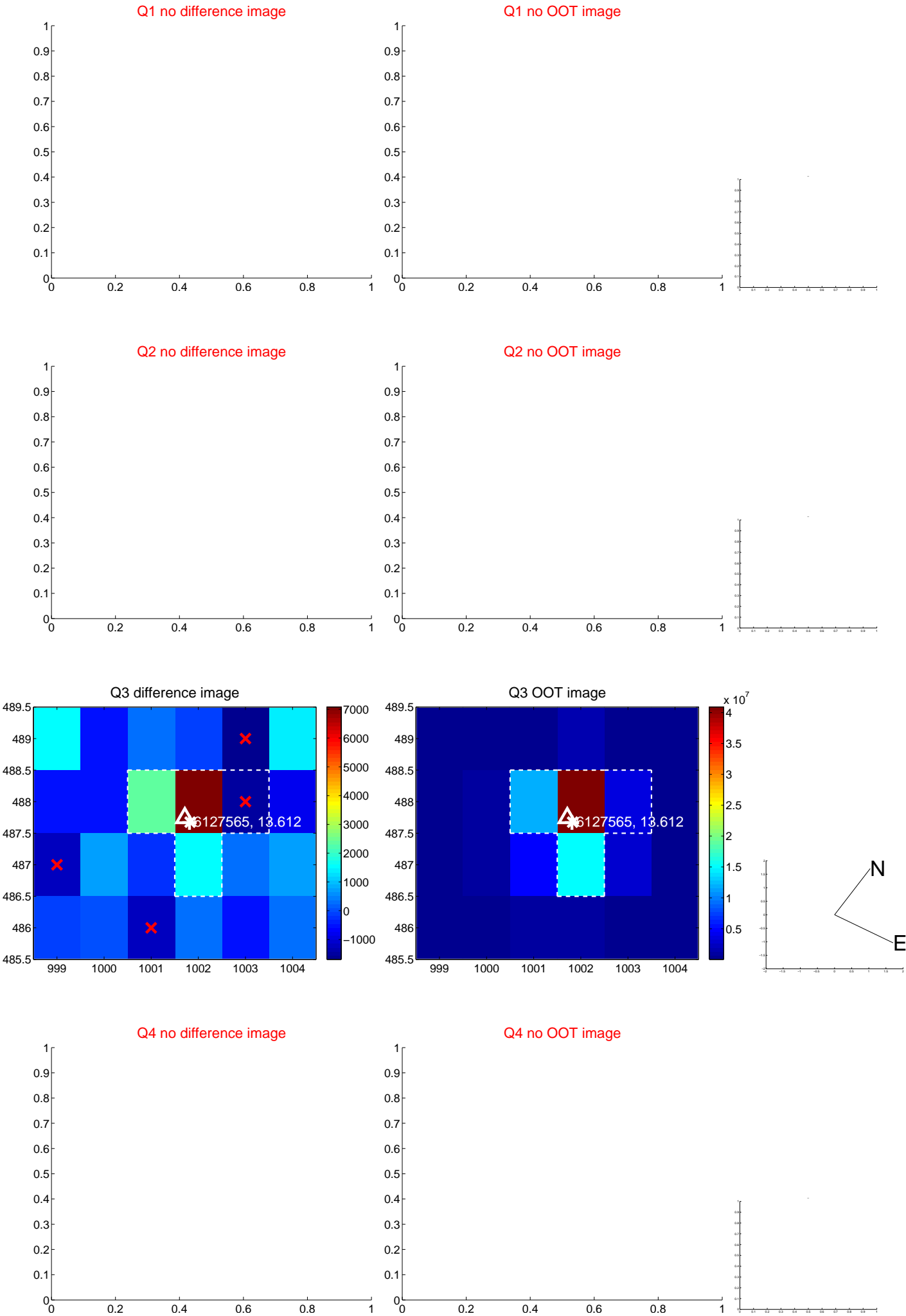
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.472 ± 1.356	0.35	0.159 ± 0.468	0.444 ± 1.276
PRF-fit source offset from KIC position	0.441 ± 1.430	0.31	0.179 ± 0.563	0.403 ± 1.319
photometric centroid source offset	1.01 ± 0.84	1.20	-0.40 ± 0.93	0.93 ± 0.82



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.

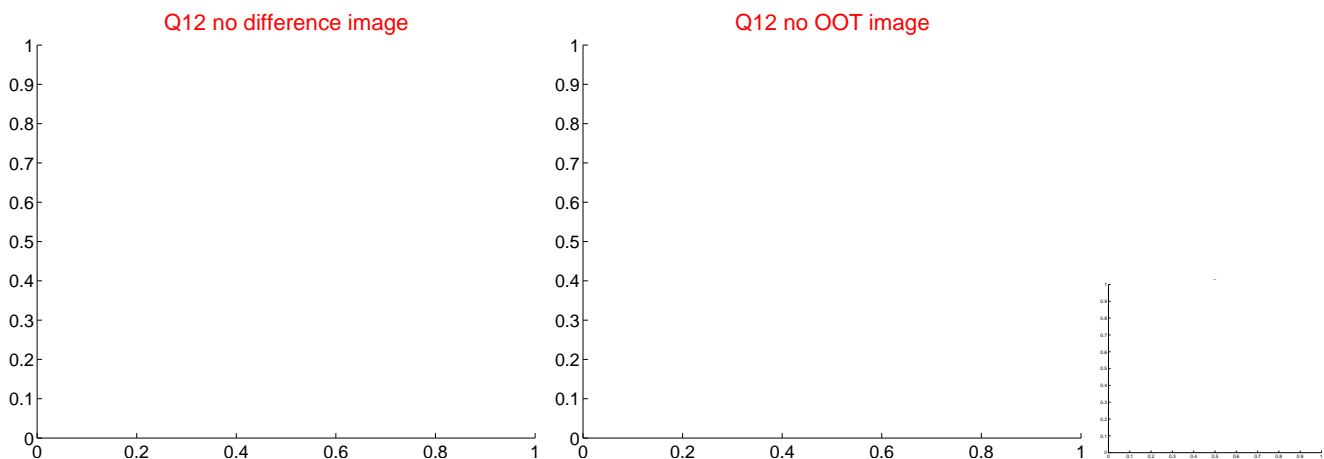
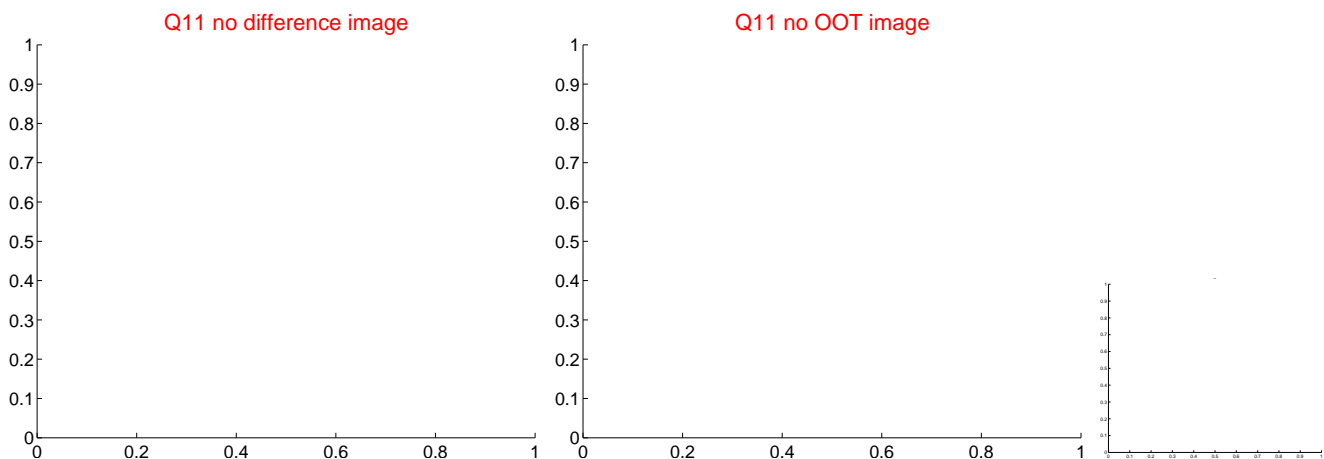
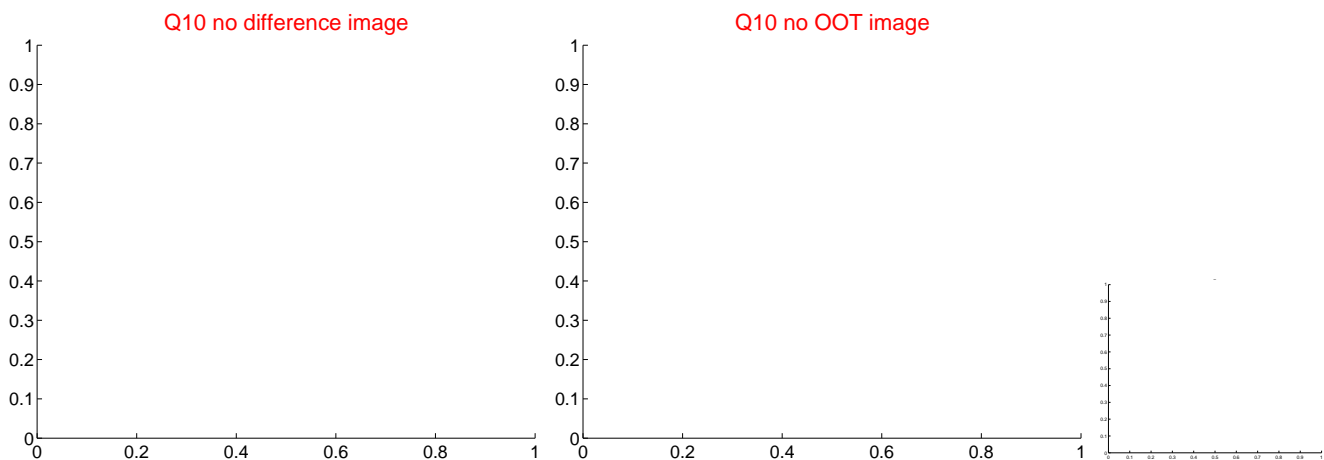
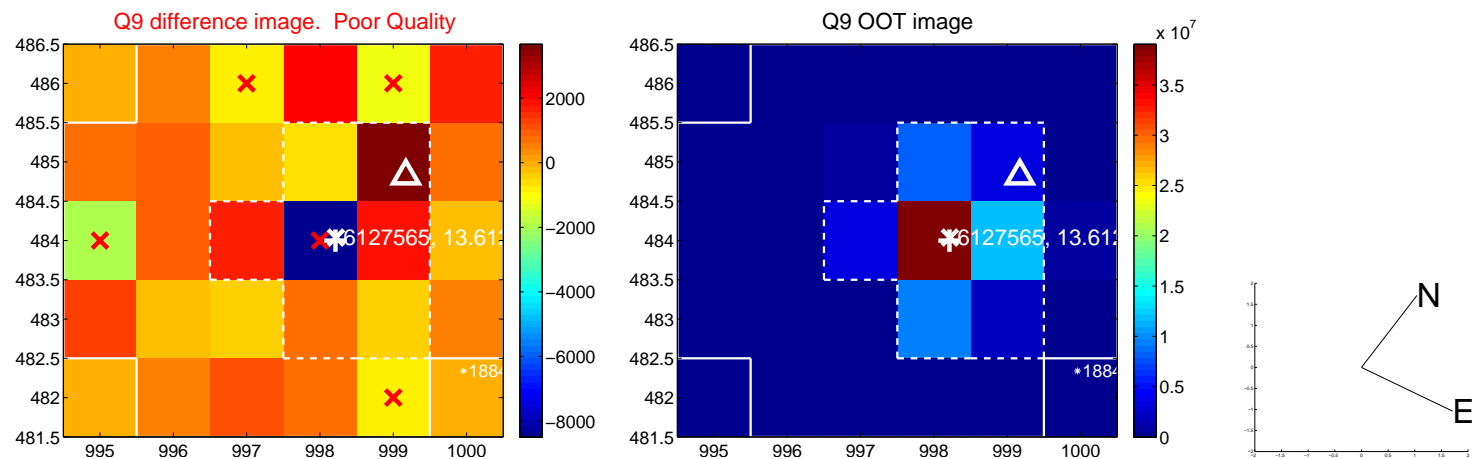
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



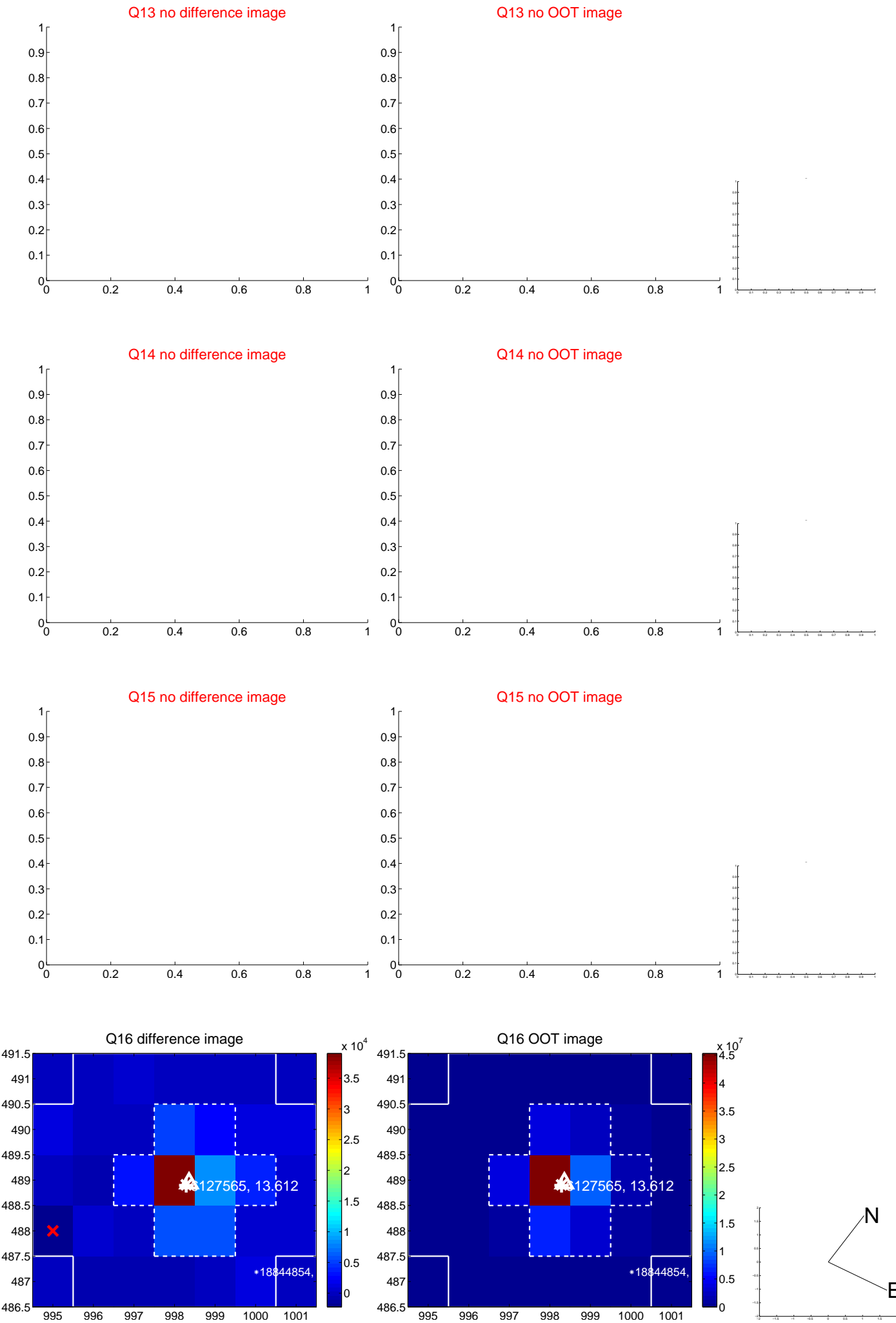
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



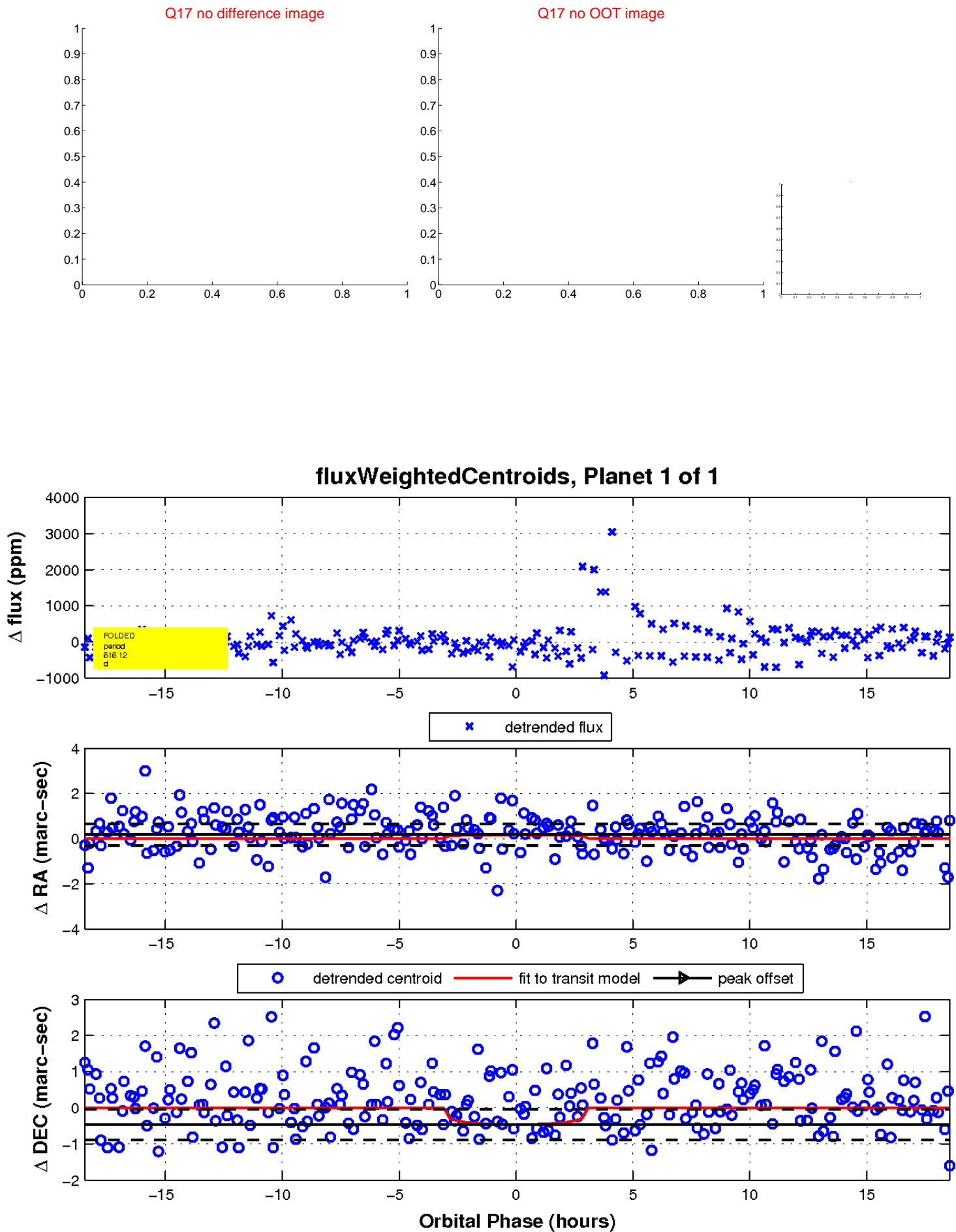
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



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



UKIRT Image

Declination

