

KIC 004861194

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})
004861194-01	OBS	No	558.125537	237.185423	148.8	18.113	8.5	8.3	1.68	7495	2.25	3.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004861194-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—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.

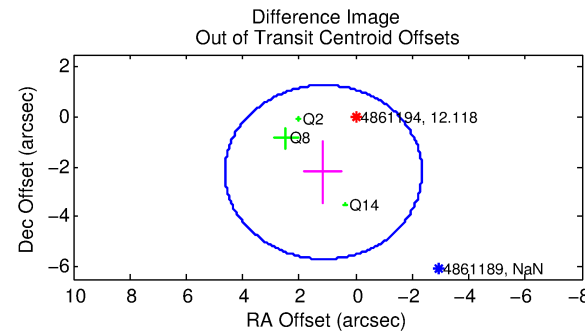
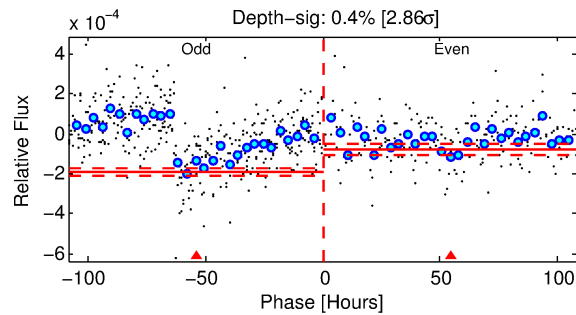
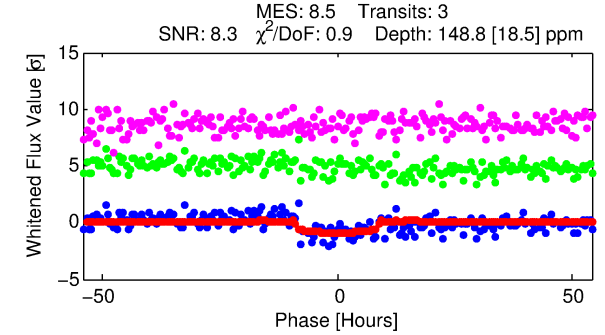
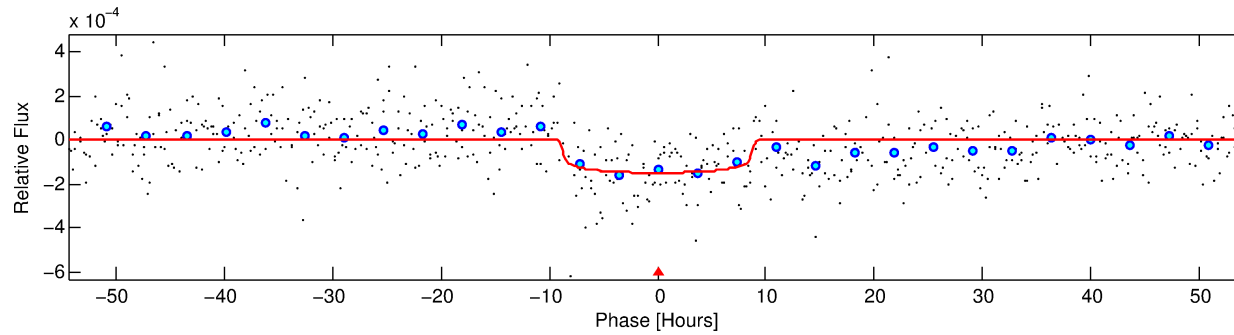
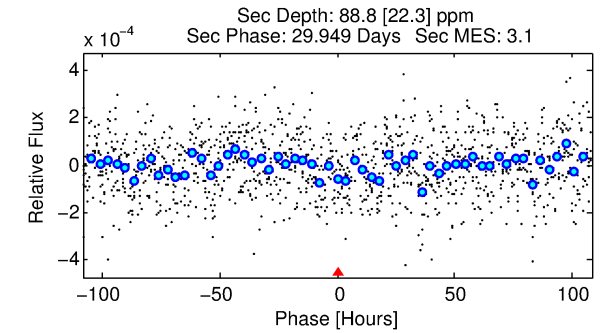
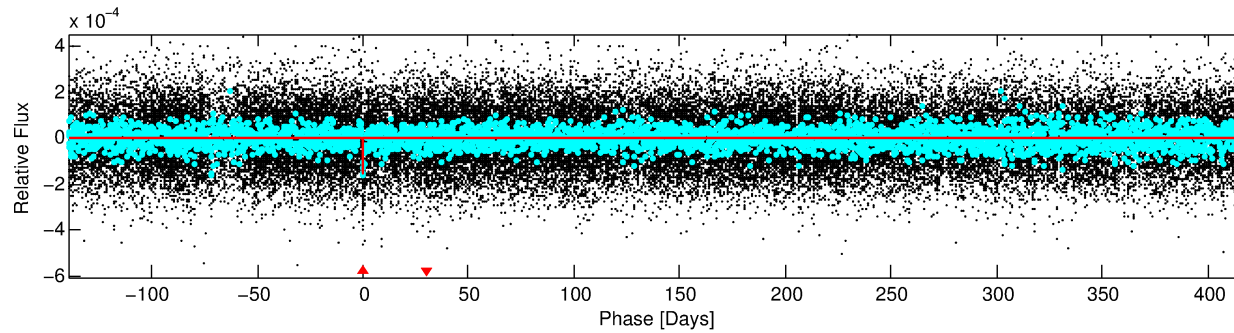
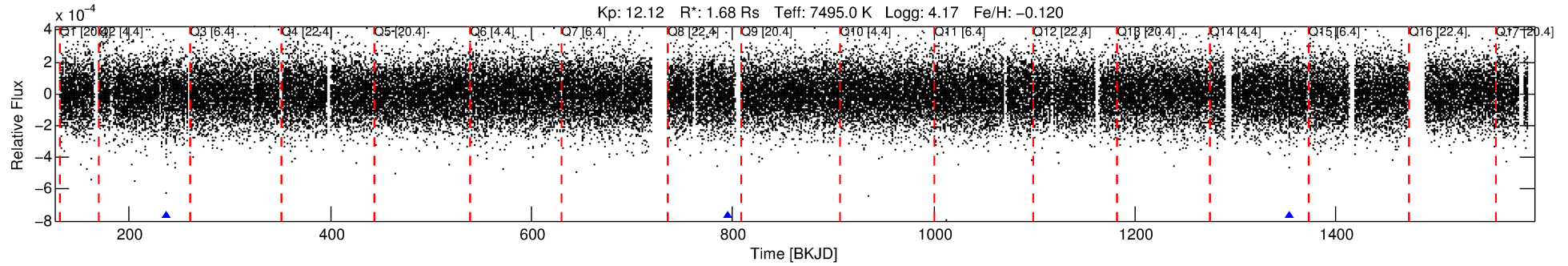
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004861194-01

No Significant Match Found

DV One-Page Summary

KIC: 4861194 Candidate: 1 of 1 Period: 558.126 d



DV Fit Results:

Period = 558.12554 [0.01620] d
Epoch = 237.1854 [0.0212] BKJD
Rp/R* = 0.0123 [0.0018]
a/R* = 148.06 [118.35]
b = 0.79 [0.37]
Seff = 3.40 [1.40]
Teq = 346 [36] K
Rp = 2.25 [0.80] Re
a = 1.5271 [0.4050] AU
Ag = 22575.66 [12154.09] [1.86σ]
Teffp = 6563 [689] K [9.01σ]

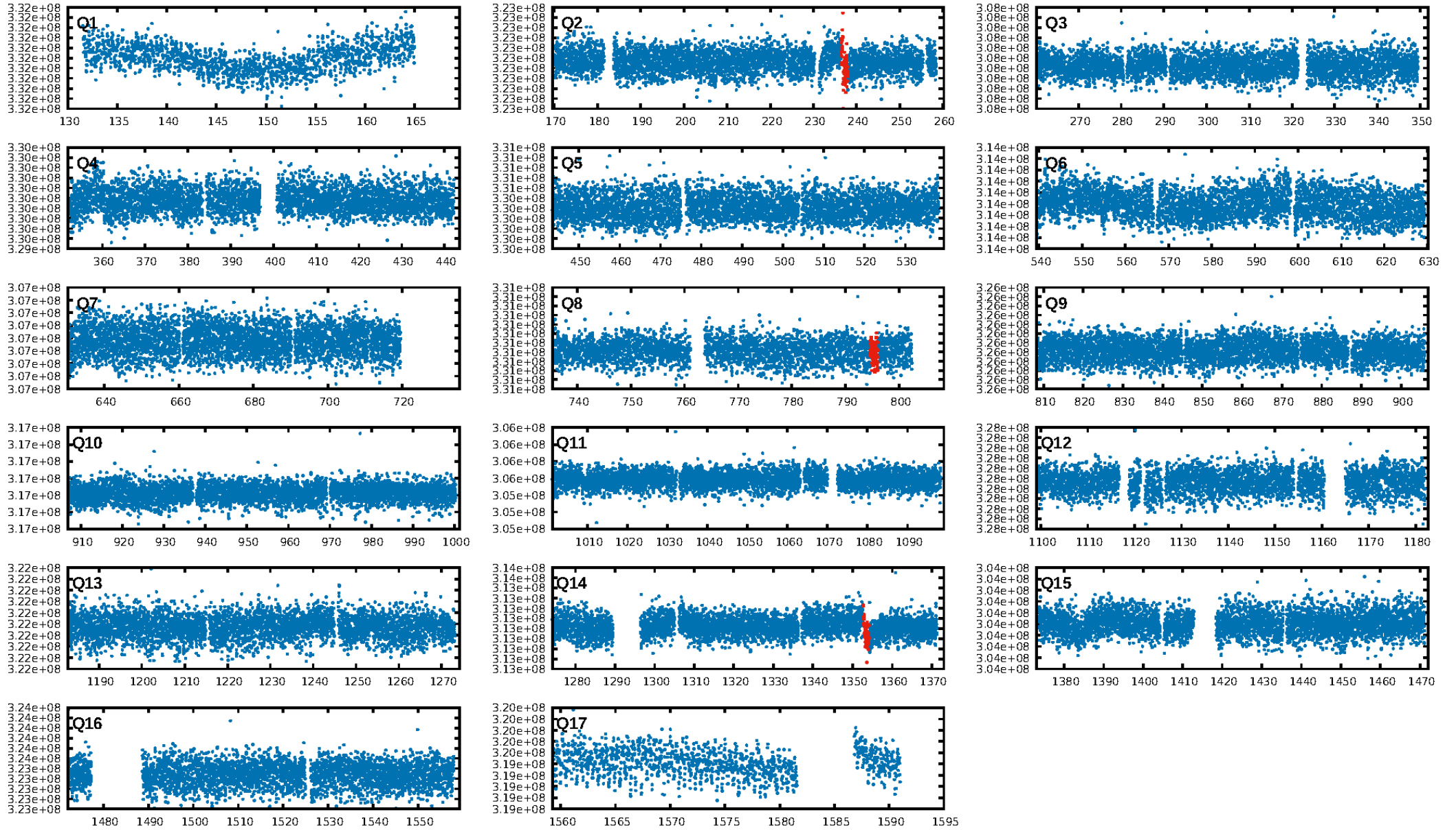
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.24e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.7782
Centroid-sig: 72.9%
Centroid-so: 0.802 arcsec [0.54σ]
OotOffset-rm: 2.497 arcsec [2.15σ]
KicOffset-rm: 2.436 arcsec [2.10σ]
OotOffset-st: 2/0/1/0 [3]
KicOffset-st: 2/0/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

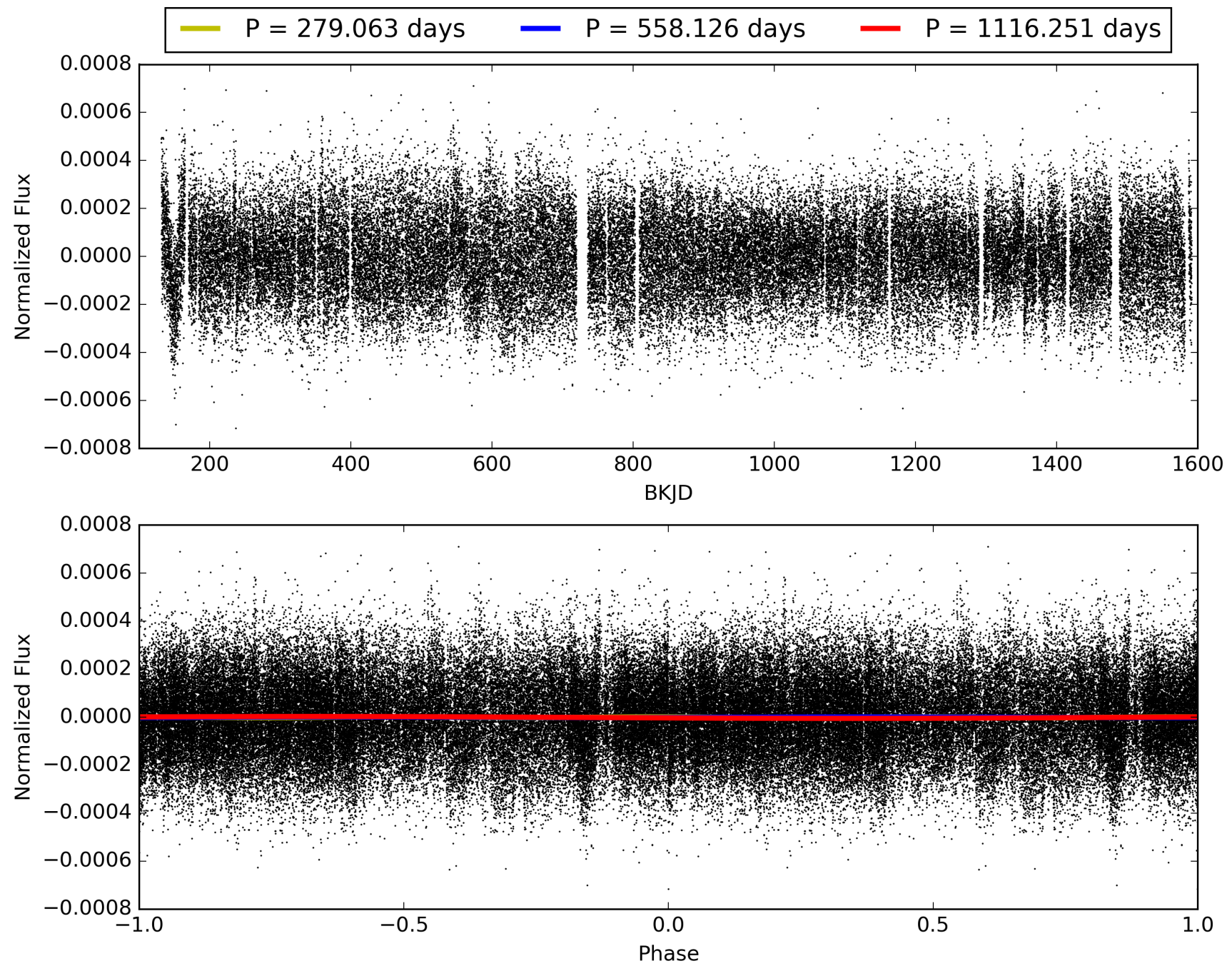
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:19:49 Z

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

TCE 004861194-01, PDC Light Curves

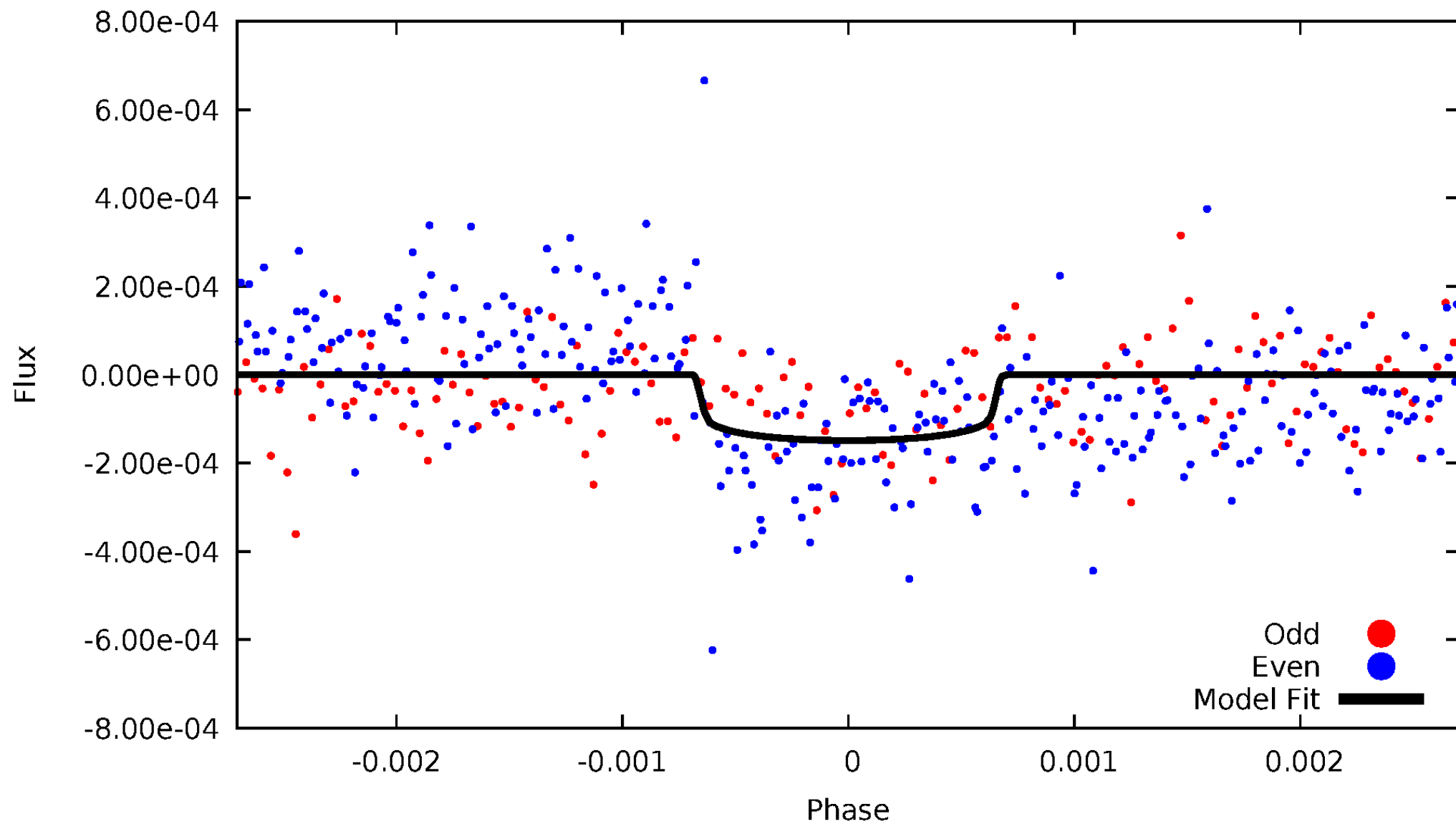


TCE 004861194-01



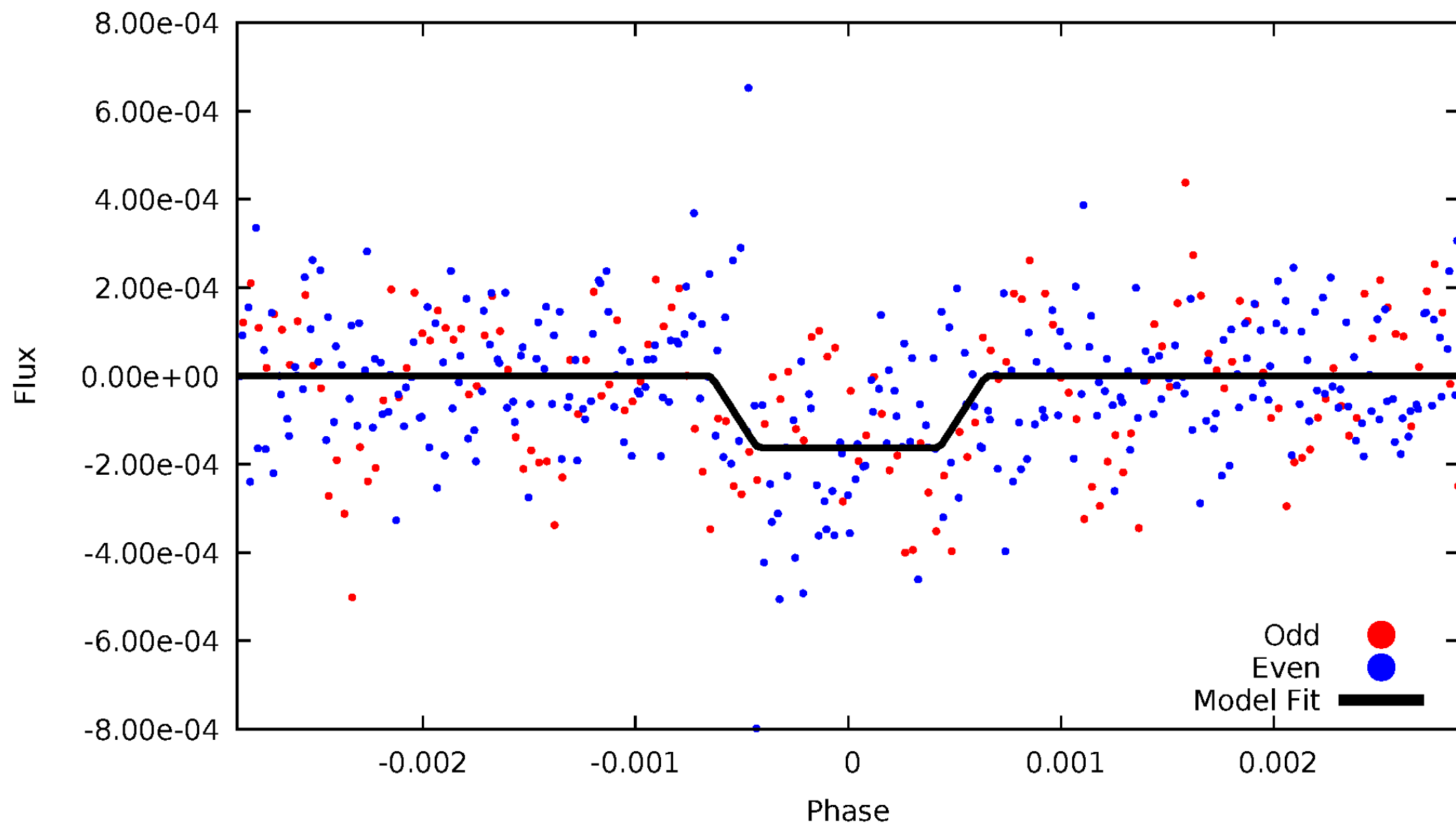
DV Odd/Even

TCE 004861194-01

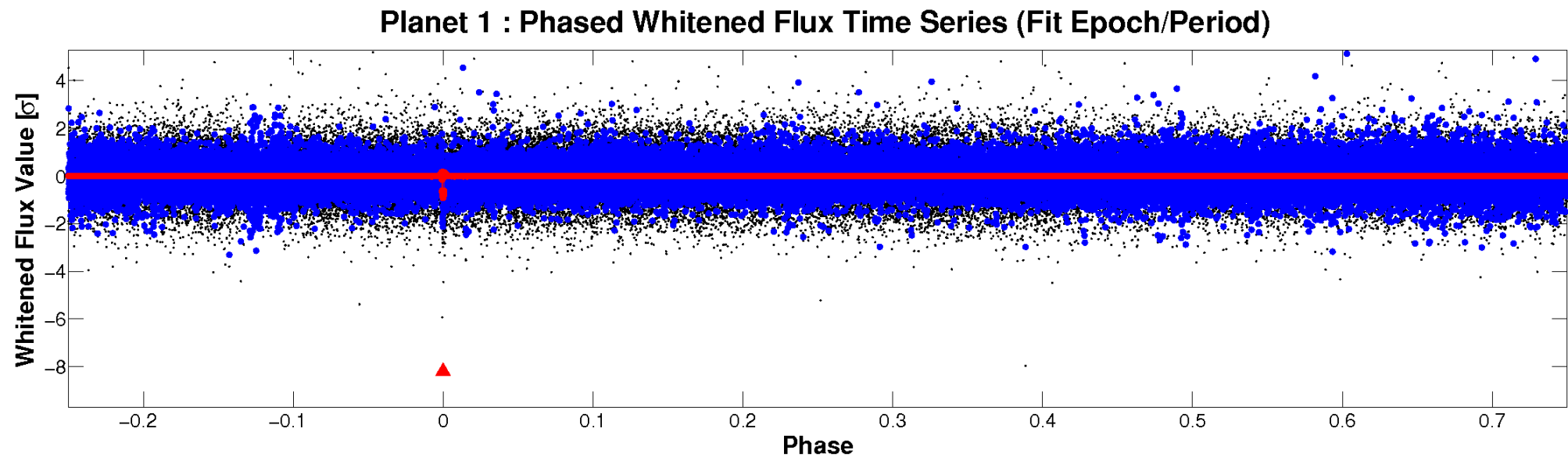
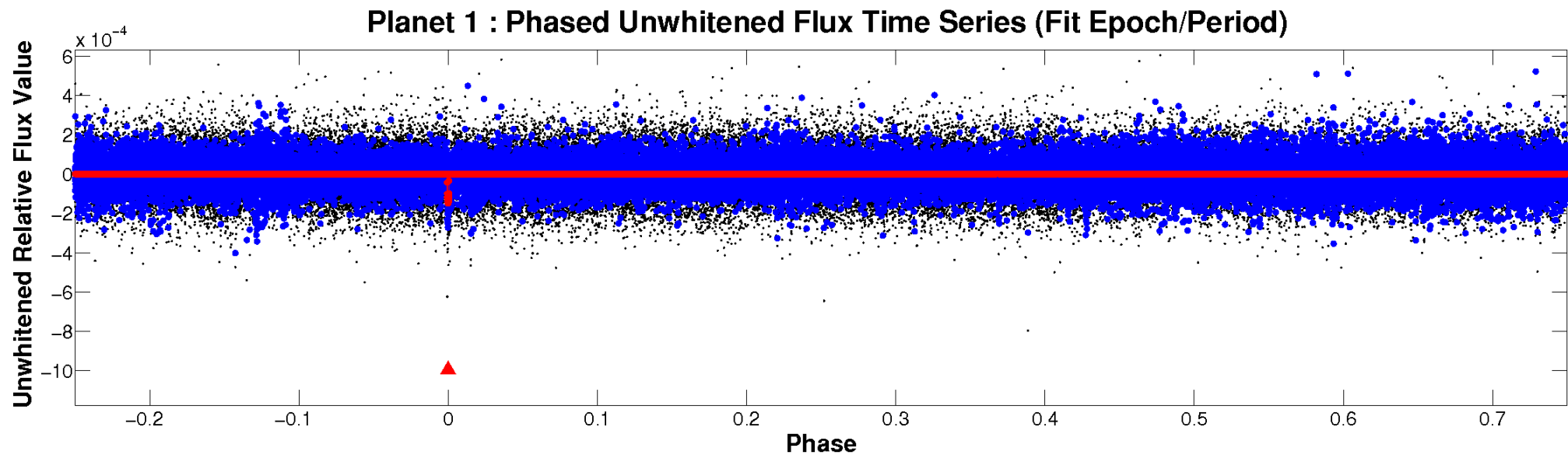


ALT Odd/Even

TCE 004861194-01

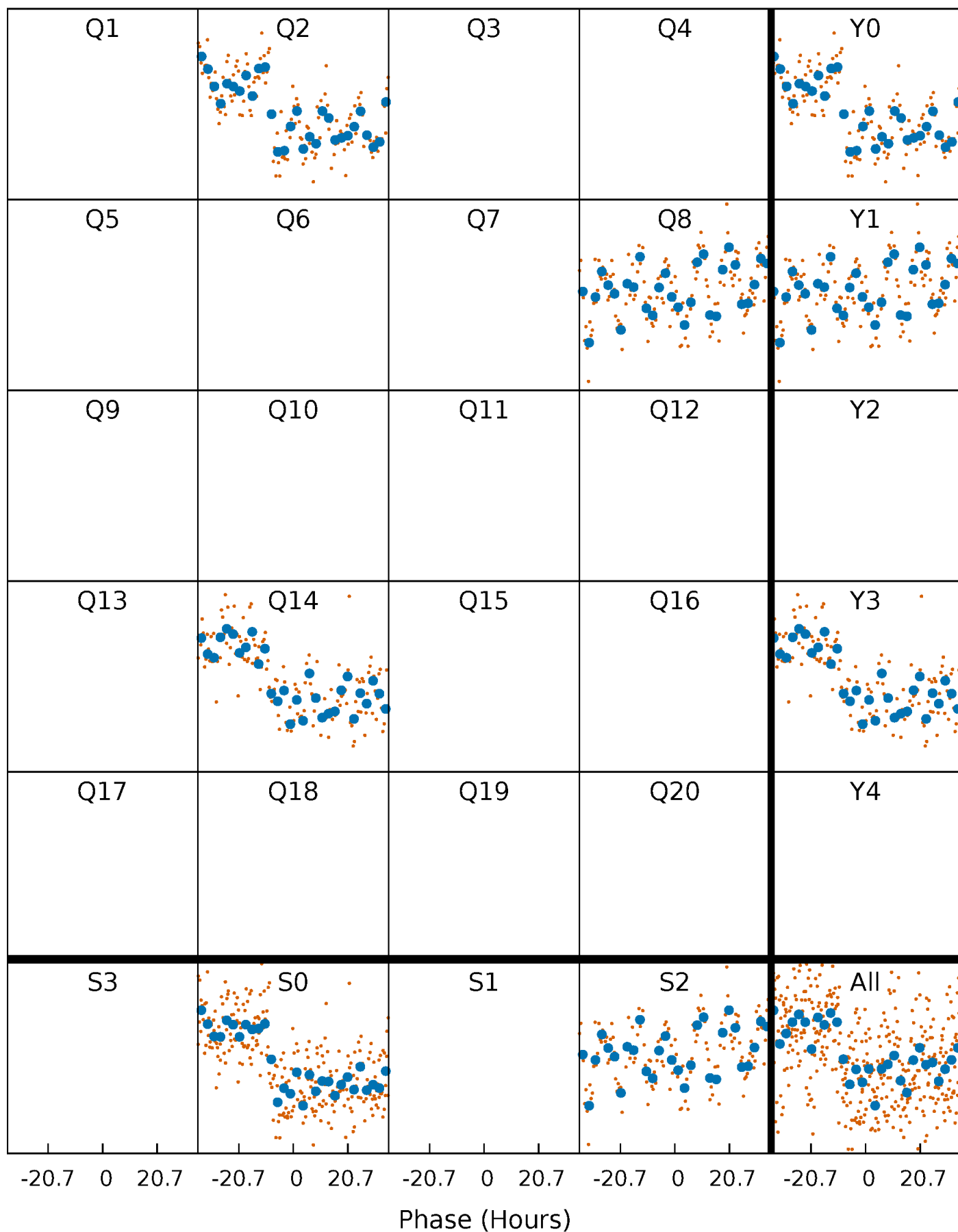


Non-Whitened Vs. Whitened Light Curve



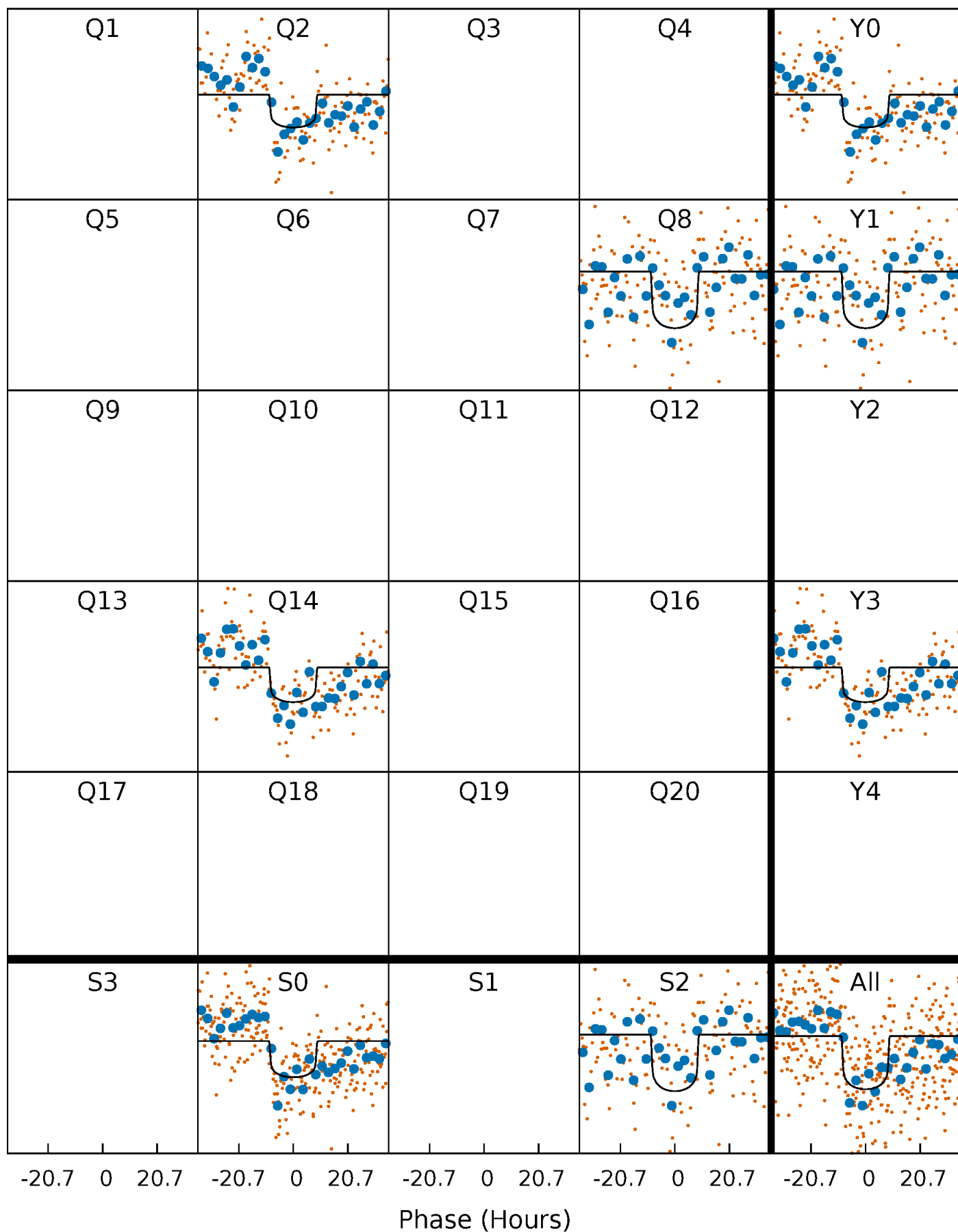
PDC Quarter-Phased Transit Curves

TCE 004861194-01 P=558.125537 Days $T_0=237.185422$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 004861194-01 P=558.125537 Days $T_0=237.185422$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

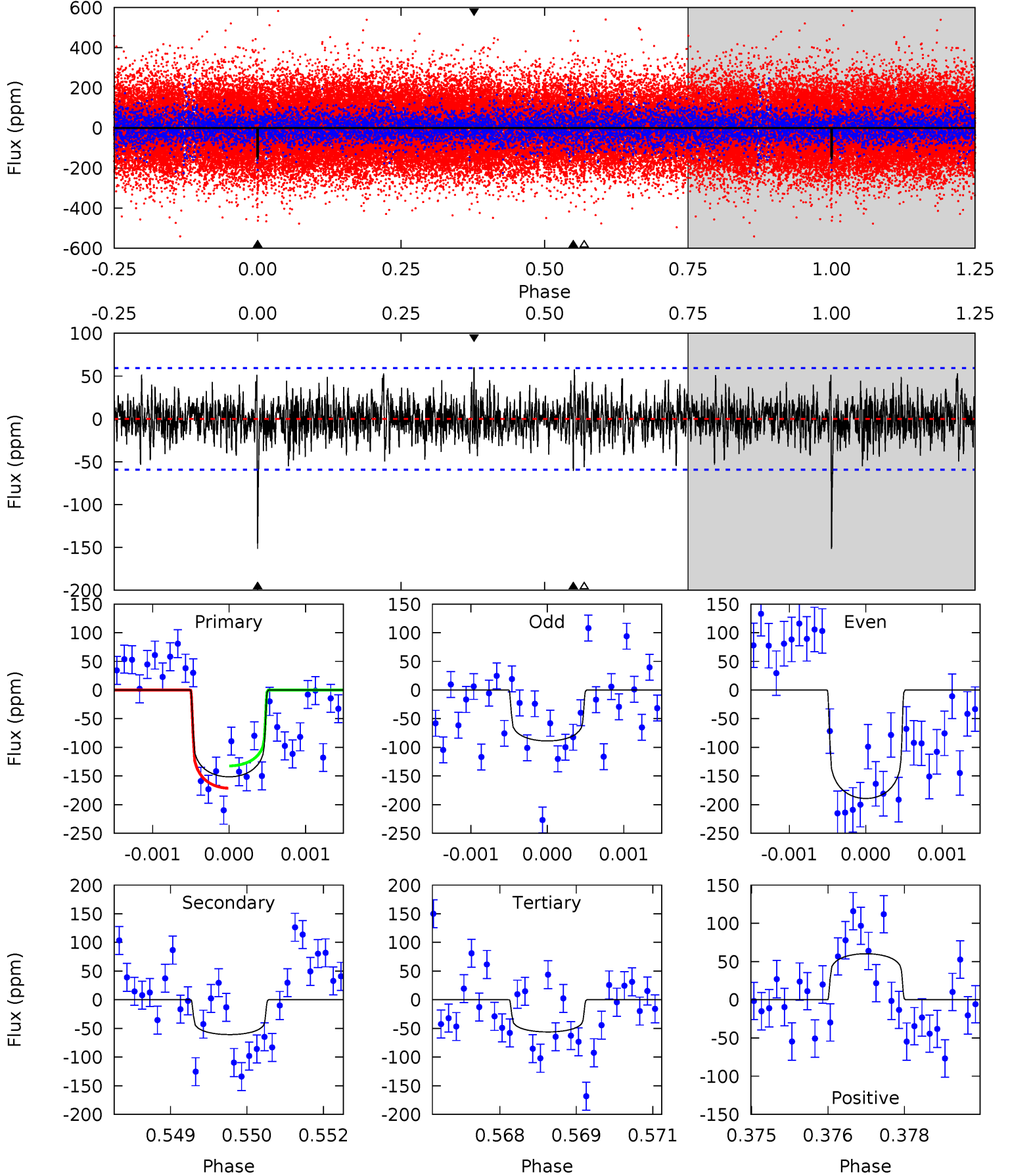
TCE 004861194-01 P=558.156314 Days $T_0=237.091377$ (BKJD)



DV Model-Shift Uniqueness Test

004861194-01, $P = 558.125537$ Days, $E = 237.185422$ Days

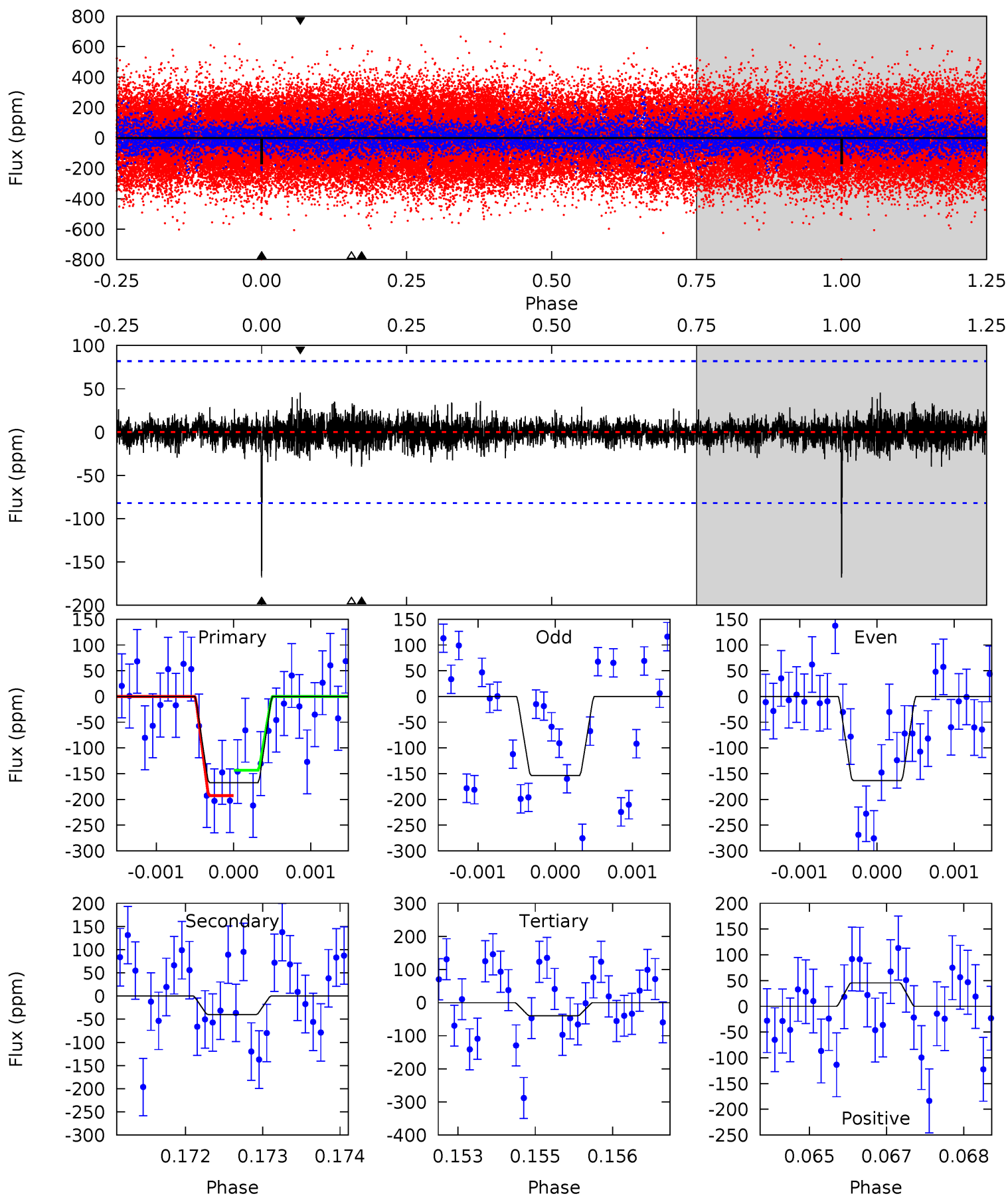
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	5.52	5.10	5.47	5.40	3.20	1.46	8.67	8.30	0.42	0.05	4.33	0.87	0.28	1.77



Alt Model-Shift Uniqueness Test

004861194-01, P = 558.156314 Days, E = 237.091377 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	2.63	2.61	2.99	5.40	3.21	0.63	8.43	8.05	0.02	-0.36	0.30	1.04	0.21	1.63



Stellar Parameters For KIC 004861194

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7495^{+235}_{-314}	$4.173^{+0.108}_{-0.201}$	$-0.120^{+0.200}_{-0.350}$	$1.675^{+0.542}_{-0.333}$	$1.521^{+0.235}_{-0.235}$	$0.456^{+0.283}_{-0.236}$
	+3%/-4%	+3%/-5%	+167%/-292%	+32%/-20%	+15%/-15%	+62%/-52%
Source	KIC0	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 004861194-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-61 ± 11	$2.33^{+0.50}_{-0.40}$	491^{+40}_{-30}	5858^{+534}_{-477}	14307^{+6893}_{-5393}
Alt.	-40 ± 15	$2.37^{+0.50}_{-0.40}$	489^{+37}_{-32}	5199^{+579}_{-572}	8739^{+5784}_{-4185}

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

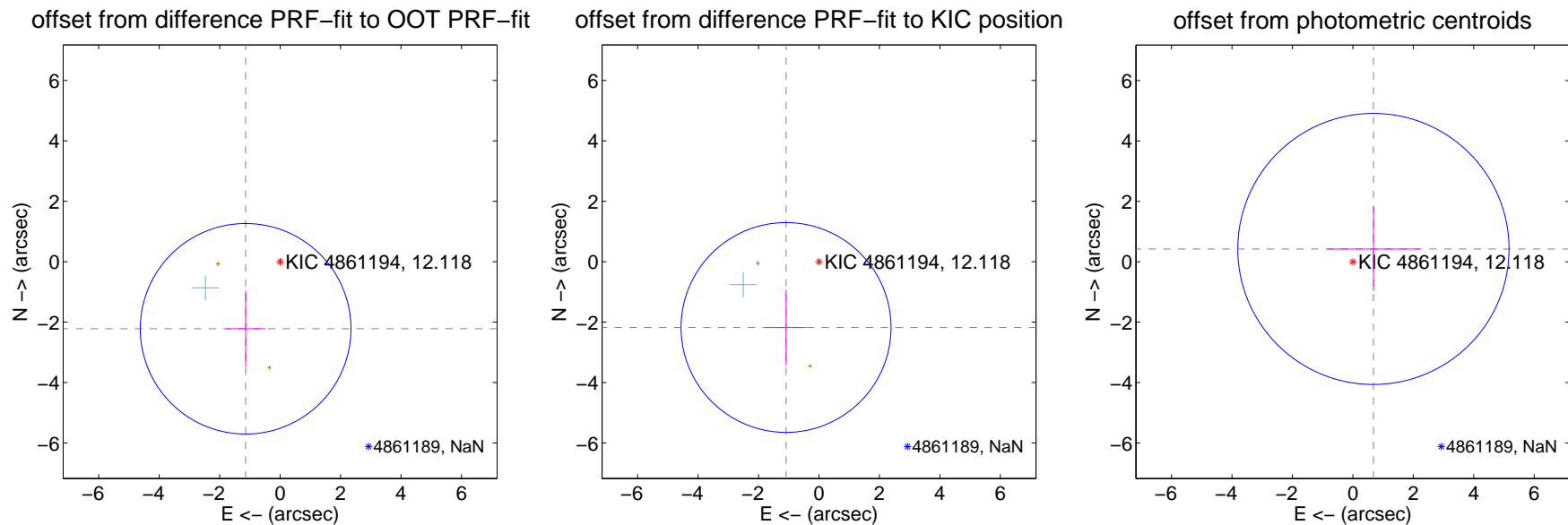
DV Centroid Data

Supplemental centroid analysis for 004861194-01. Kepler magnitude: 12.12. Transit SNR 8.30

There are 1 quarters with good PRF difference image offsets

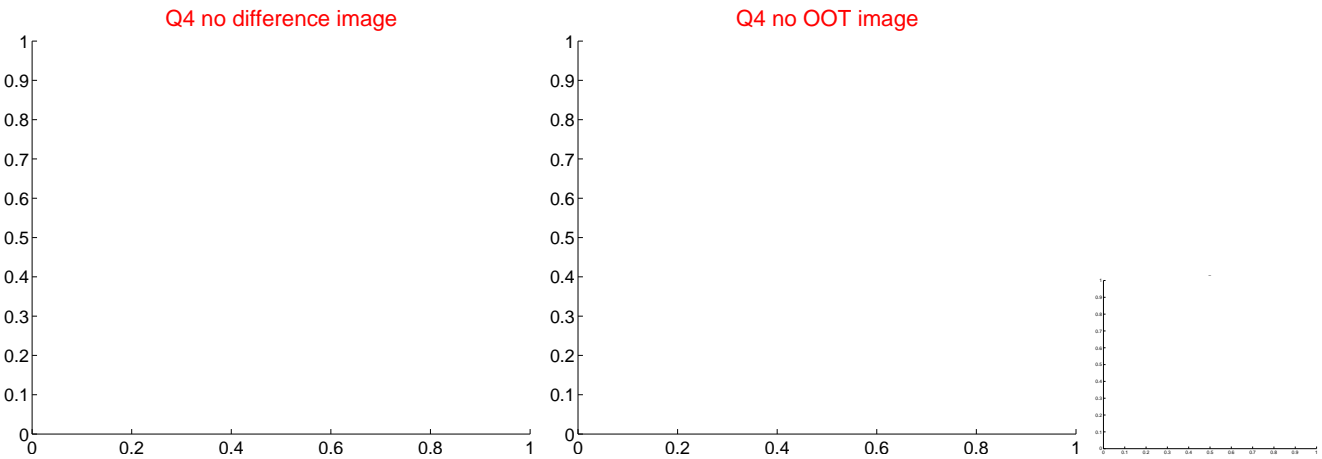
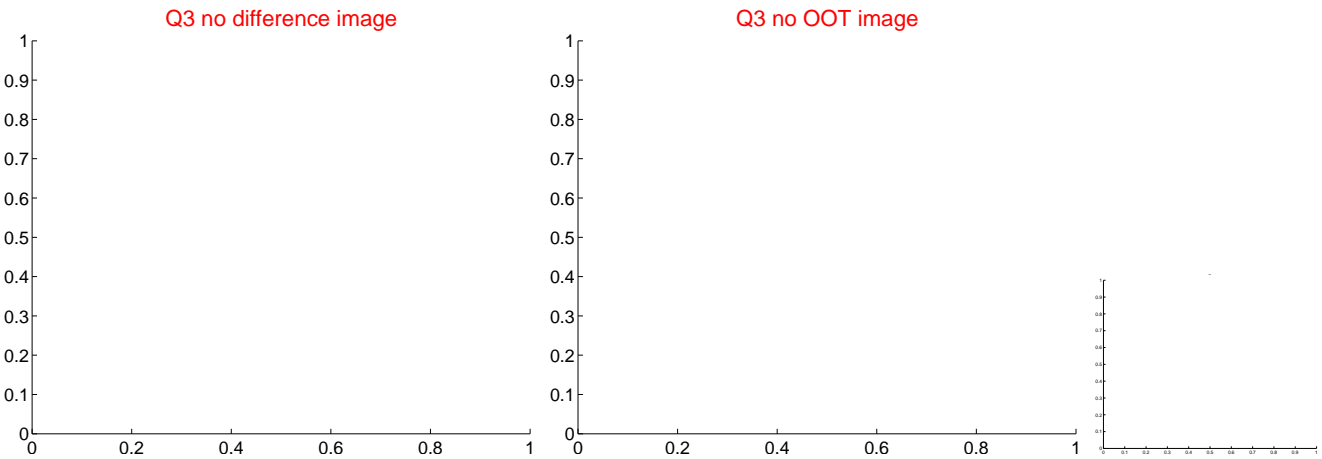
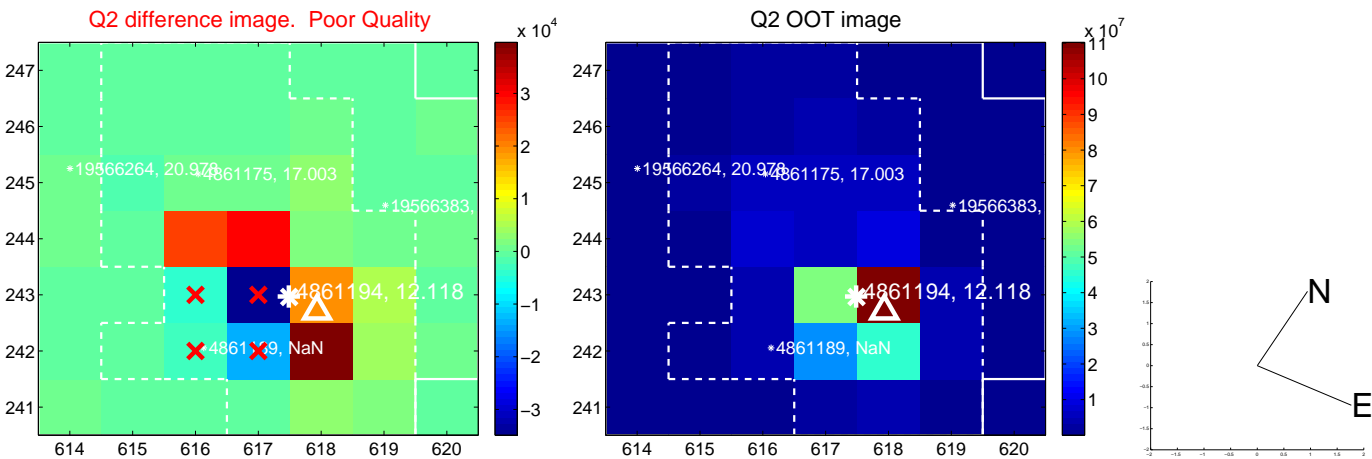
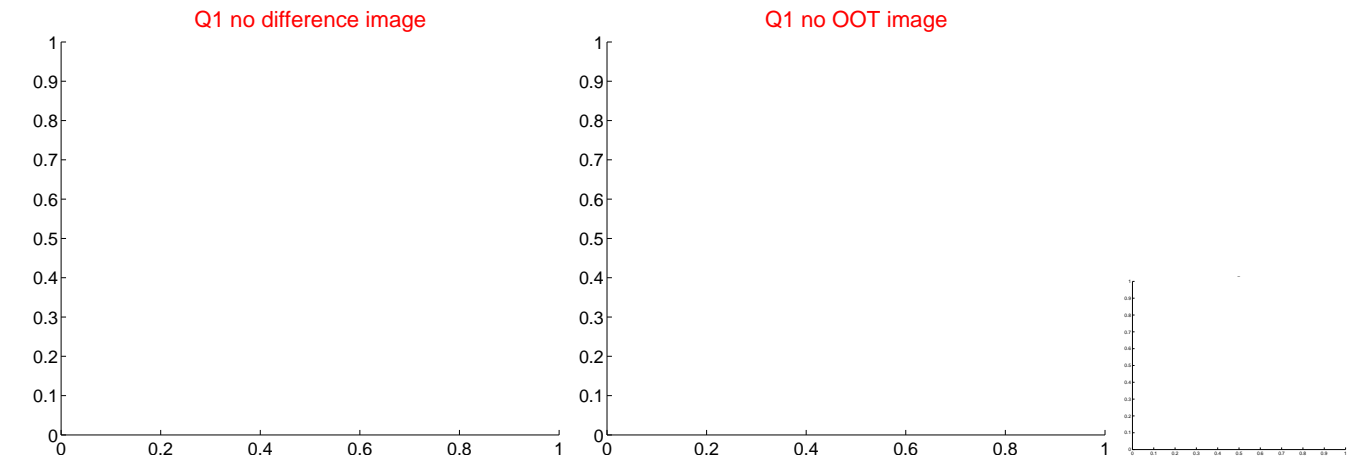
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.497 ± 1.162	2.15	1.141 ± 0.655	-2.221 ± 1.262
PRF-fit source offset from KIC position	2.436 ± 1.158	2.10	1.090 ± 0.666	-2.178 ± 1.251
photometric centroid source offset	0.80 ± 1.50	0.54	-0.68 ± 1.54	0.42 ± 1.39



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.

Q5 no difference image



Q5 no OOT image



Q6 no difference image



Q6 no OOT image



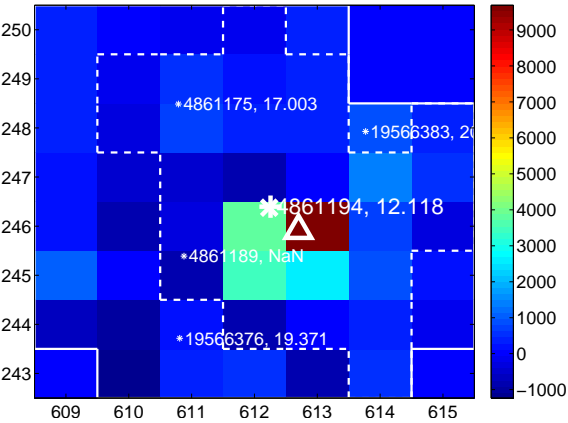
Q7 no difference image



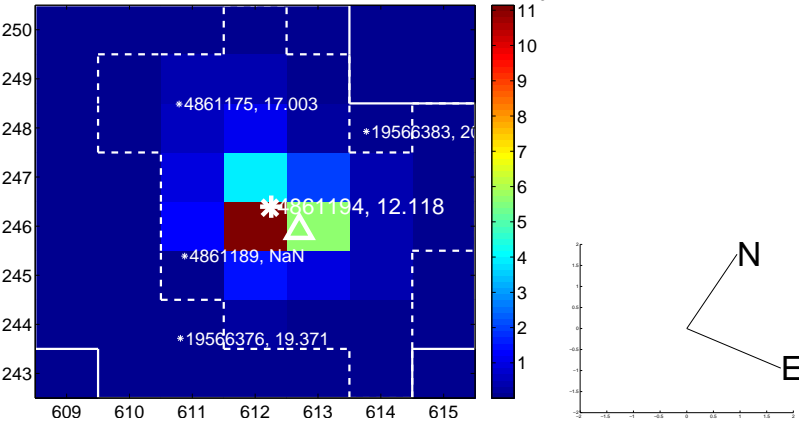
Q7 no OOT image



Q8 difference image



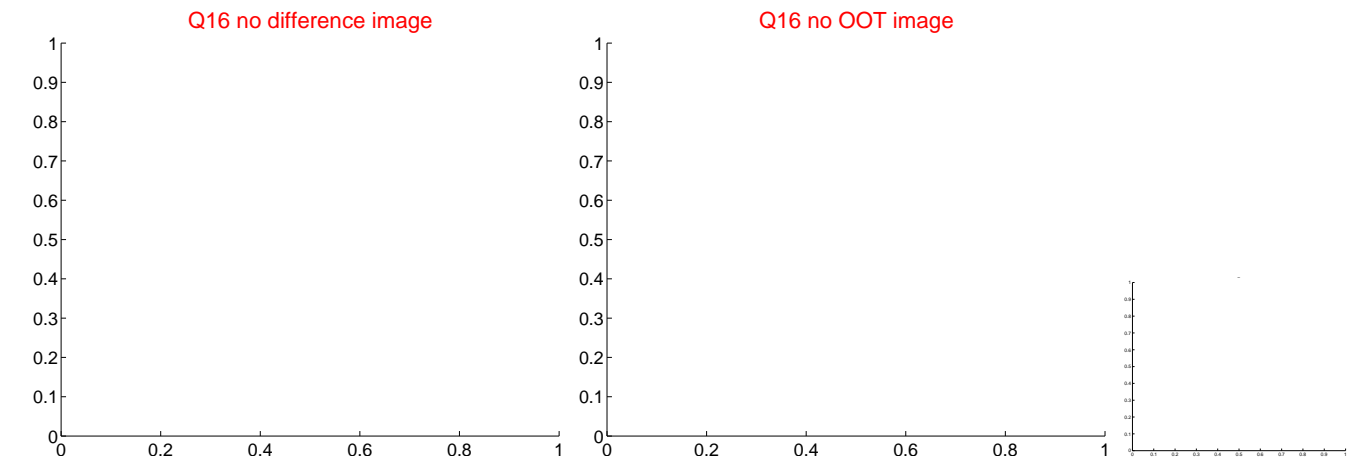
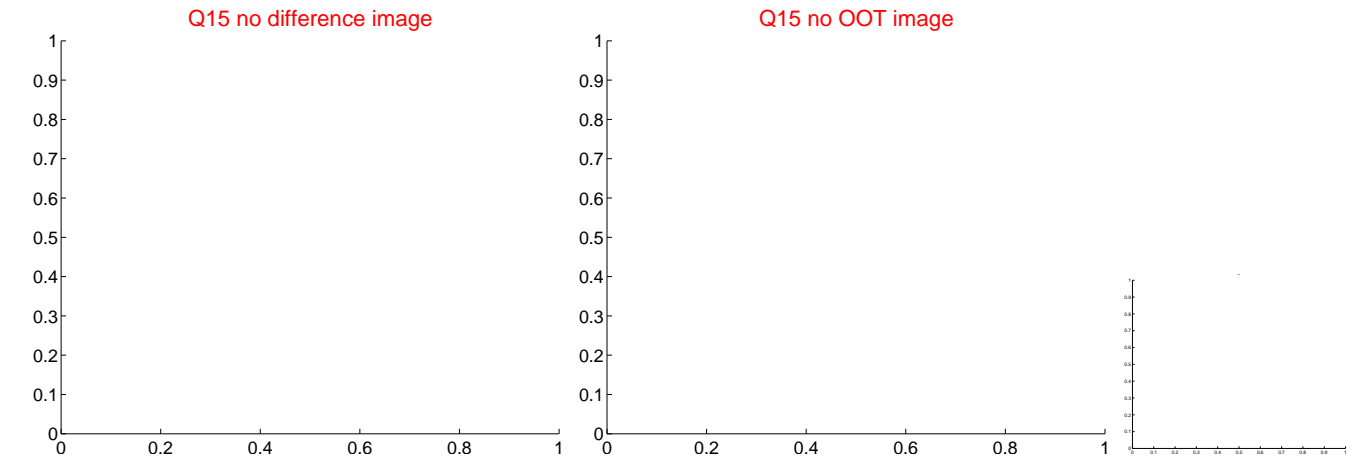
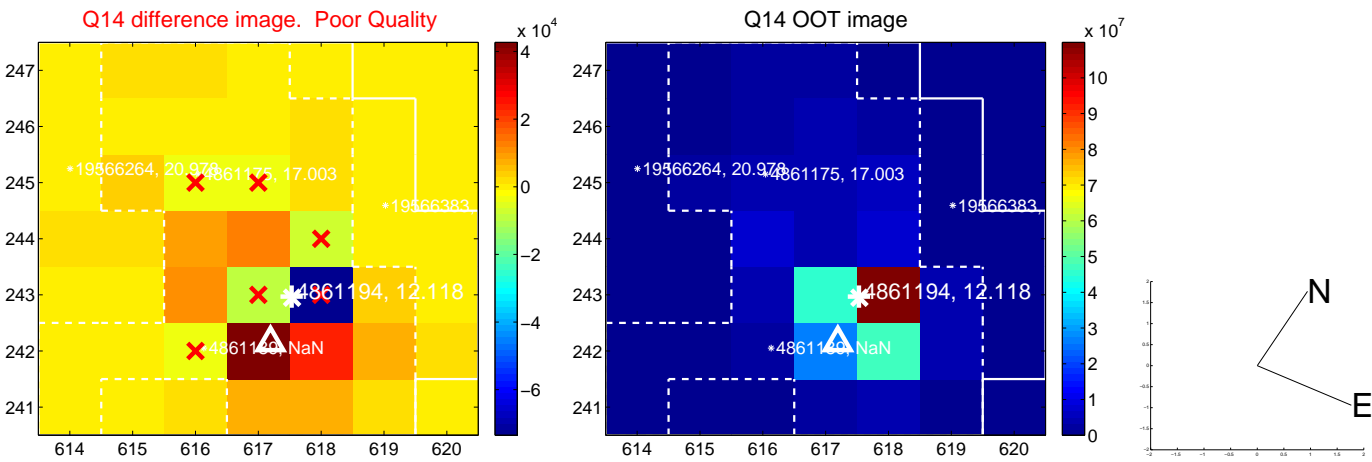
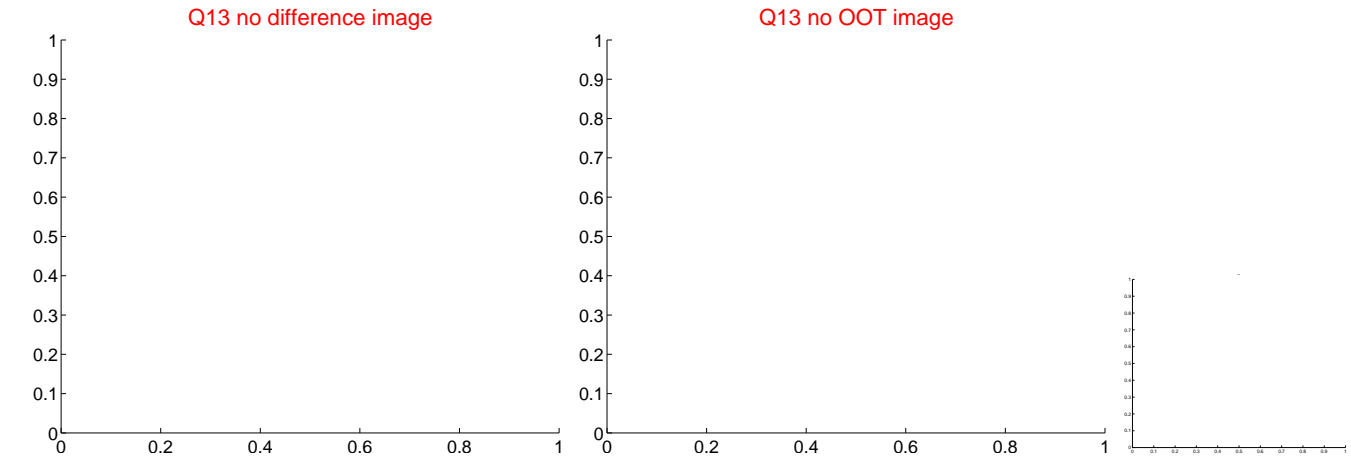
Q8 OOT image



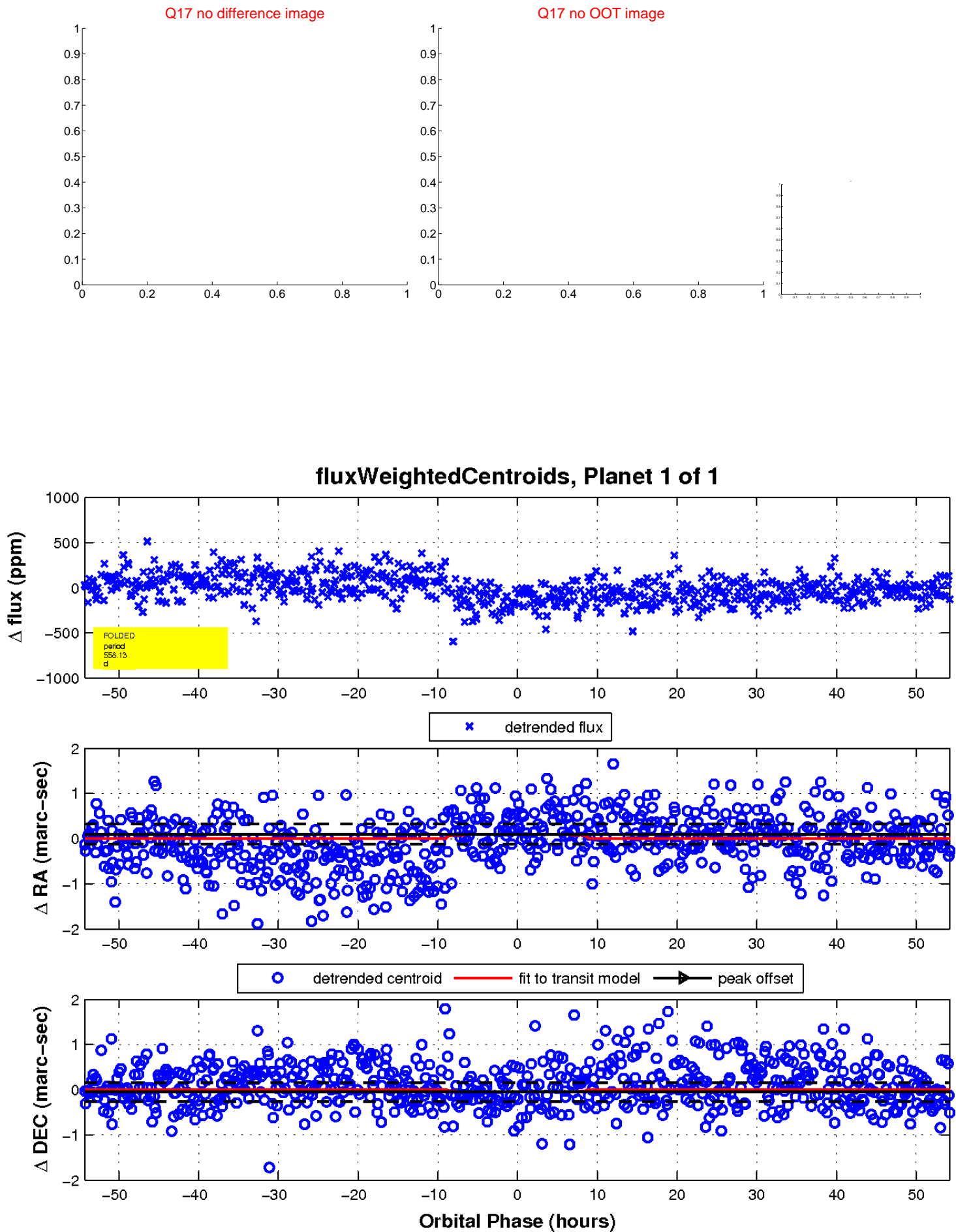
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UKIRT Image

